CERTIFICATE OF OCCUPANCY

City of Aurora, Colorado

THIS IS TO CERTIFY
That on **9/21/2009**

251428

City of Aurora
15151 E. Alameda Parkway
Aurora, CO 80012
www.auroragov.org
Phone: 303-739-7420

The **Commercial Building Permit**

At: 1501 S POTOMAC ST
Permit No.: 2007-172604-000-00 CM
In Use Zone: PD Lot No.: 001 Block No.: 001
Subdivision: 2005-3056
Construction Type: IBC TYPE IA-SPK
Maximum Occupancy of: 1593 Occupancy Group(s): IBC I-2
Contractor: JE DUNN CONSTRUCTION COMPANY
Owner: HEALTH ONE LLC
Owner Address: 1501 S POTOMAC ST AURORA CO 80012

Has been inspected for compliance with the requirements of this code for the occupancy, division of occupancy and the use for the proposed occupancy as stated below.

This structure has been inspected for compliance using the 2003 I-codes

Partial Building: No

Final C.O.: Yes

With the following Special Conditions:
MEDICAL CENTER OF AURORA BUILDING ADDITION

TAKE NOTICE:

NO CHANGE SHALL BE MADE IN THE USE OF THIS BUILDING WITHOUT PRIOR NOTICE, REINSPECTION AND ISSUANCE OF A NEW CERTIFICATE OF OCCUPANCY BY THE BUILDING OFFICIAL

John T Buchite

BUILDING OFFICIAL

TEMPORARY
CERTIFICATE OF OCCUPANCY

City of Aurora, Colorado

251428

City of Aurora
15151 E. Alameda Parkway
Aurora, CO 80012
www.auroragov.org
Phone: 303-739-7420

THIS IS TO CERTIFY
That on **9/10/2009**

The **Commercial Building Permit**

At: 1501 S POTOMAC ST
Permit No.: 2007-172604-000-00 CM
In Use Zone: PD Lot No.: 001 Block No.: 001
Subdivision: 2005-3056
Construction Type: IBC TYPE IA-SPK
Maximum Occupancy of: 1593 Occupancy Group(s): IBC I-2
Contractor: JE DUNN CONSTRUCTION COMPANY
Owner: HEALTH ONE LLC
Owner Address:1501 S POTOMAC ST AURORA CO 80012

Has been inspected for compliance with the requirements of this code for the occupancy, division of occupancy and the use for the proposed occupancy as stated below.
This structure has been inspected for compliance using the 2003 I-codes

Complete Building: YES

Partial Building: NO

Pending: - Zoning

With the following Special Conditions:

MEDICAL CENTER OF AURORA BUILDING ADDITION - PENDING ZONING INSPECTION

TAKE NOTICE:

NO CHANGE SHALL BE MADE IN THE USE OF THIS BUILDING WITHOUT PRIOR NOTICE, REINSPECTION AND ISSUANCE OF A NEW CERTIFICATE OF OCCUPANCY BY THE BUILDING OFFICIAL

Valid only until: **9/25/2009**

BUILDING OFFICIAL

TEMPORARY
CERTIFICATE OF OCCUPANCY

City of Aurora, Colorado

251428

City of Aurora
15151 E. Alameda Parkway
Aurora, CO 80012
www.auroragov.org
Phone: 303-739-7420

THIS IS TO CERTIFY
That on **7/31/2009**

The **Commercial Building Permit**

At: 1501 S POTOMAC ST
Permit No.: 2007-172604-000-00 CM
In Use Zone: PD Lot No.: 001 Block No.: 001
Subdivision: 2005-3056
Construction Type: IBC TYPE IA-SPK
Maximum Occupancy of: 1593 Occupancy Group(s): IBC I-2
Contractor: JE DUNN CONSTRUCTION COMPANY
Owner: HEALTH ONE LLC
Owner Address:1501 S POTOMAC ST AURORA CO 80012

Has been inspected for compliance with the requirements of this code for the occupancy, division of occupancy and the use for the proposed occupancy as stated below.
This structure has been inspected for compliance using the 2003 I-codes

Complete Building: YES

Partial Building: NO

Pending: - Engineering - Grading - Zoning - Electrical

With the following Special Conditions:

MEDICAL BUILDING ADDITION - PENDING ALARM, ENGINEERING, GRADE AND ZONING INSPECTIONS

TAKE NOTICE:

NO CHANGE SHALL BE MADE IN THE USE OF THIS BUILDING WITHOUT PRIOR NOTICE, REINSPECTION AND ISSUANCE OF A NEW CERTIFICATE OF OCCUPANCY BY THE BUILDING OFFICIAL

Valid only until: **8/14/2009**

David Edgar

BUILDING OFFICIAL

TEMPORARY
CERTIFICATE OF OCCUPANCY

City of Aurora, Colorado

251428

City of Aurora
15151 E. Alameda Parkway
Aurora, CO 80012
www.auroragov.org
Phone: 303-739-7420

THIS IS TO CERTIFY
That on **6/8/2009**

The **Commercial Building Permit**

At: 1501 S POTOMAC ST
Permit No.: 2007-172604-000-00 CM
In Use Zone: PD Lot No.: 001 Block No.: 001
Subdivision: 2005-3056
Construction Type: IBC TYPE IA-SPK
Maximum Occupancy of: 1593 Occupancy Group(s): IBC I-2
Contractor: JE DUNN CONSTRUCTION COMPANY
Owner: HEALTH ONE LLC
Owner Address:1501 S POTOMAC ST AURORA CO 80012

Has been inspected for compliance with the requirements of this code for the occupancy, division of occupancy and the use for the proposed occupancy as stated below.
This structure has been inspected for compliance using the 2003 I-codes

Complete Building: YES

Partial Building: NO

Pending: - Engineering - Grading - Zoning - Electrical

With the following Special Conditions:

MEDICAL BUILDING ADDITION - PENDING ELECTRICAL, FRAMING, LIFE SAFETY, ENGINEERING, GRADE AND ZONING INSPECTIONS

TAKE NOTICE:

NO CHANGE SHALL BE MADE IN THE USE OF THIS BUILDING WITHOUT PRIOR NOTICE, REINSPECTION AND ISSUANCE OF A NEW CERTIFICATE OF OCCUPANCY BY THE BUILDING OFFICIAL

Valid only until: **7/31/2009**

John T/ Brakets

BUILDING OFFICIAL

TEMPORARY
CERTIFICATE OF OCCUPANCY

City of Aurora, Colorado

251428

City of Aurora
15151 E. Alameda Parkway
Aurora, CO 80012
www.auroragov.org
Phone: 303-739-7420

THIS IS TO CERTIFY
That on **4/9/2009**

The **Commercial Building Permit**

At: 1501 S POTOMAC ST
Permit No.: 2007-172604-000-00 CM
In Use Zone: PD Lot No.: 001 Block No.: 001
Subdivision: 2005-3056
Construction Type: IBC TYPE IA-SPK
Maximum Occupancy of: 1593 Occupancy Group(s): IBC I-2
Contractor: JE DUNN CONSTRUCTION COMPANY
Owner: HEALTH ONE LLC
Owner Address:1501 S POTOMAC ST AURORA CO 80012

Has been inspected for compliance with the requirements of this code for the occupancy, division of occupancy and the use for the proposed occupancy as stated below.
This structure has been inspected for compliance using the 2003 I-codes

Complete Building: YES

Partial Building: NO

Pending: - Engineering - Grading - Zoning - Electrical

With the following Special Conditions:

MEDICAL BUILDING ADDITION - PENDING ELECTRICAL, FRAMING, LIFE SAFETY, ENGINEERING, GRADE AND ZONING INSPECTIONS

TAKE NOTICE:

NO CHANGE SHALL BE MADE IN THE USE OF THIS BUILDING WITHOUT PRIOR NOTICE, REINSPECTION AND ISSUANCE OF A NEW CERTIFICATE OF OCCUPANCY BY THE BUILDING OFFICIAL

Valid only until: **6/1/2009**

John T Brotzler

BUILDING OFFICIAL

TEMPORARY
CERTIFICATE OF OCCUPANCY

City of Aurora, Colorado

251428
251428

City of Aurora
15151 E. Alameda Parkway
Aurora, CO 80012
www.auroragov.org
Phone: 303-739-7420

THIS IS TO CERTIFY
That on **3/31/2009**

The **Commercial Building Permit**

At: 1501 S POTOMAC ST
Permit No.: 2007-172604-000-00 CM
In Use Zone: PD Lot No.: 001 Block No.: 001
Subdivision: 2005-3056
Construction Type: IBC TYPE IA-SPK
Maximum Occupancy of: 1593 Occupancy Group(s): IBC I-2
Contractor: JE DUNN CONSTRUCTION COMPANY
Owner: HEALTH ONE LLC
Owner Address:1501 S POTOMAC ST AURORA CO 80012

Has been inspected for compliance with the requirements of this code for the occupancy, division of occupancy and the use for the proposed occupancy as stated below.
This structure has been inspected for compliance using the 2003 I-codes

Complete Building: YES

Partial Building: NO

Pending: - Engineering - Grading - Zoning - Electrical

With the following Special Conditions:

MEDICAL BUILDING ADDITION - PENDING ELECTRICAL, FRAMING, LIFE SAFETY, ENGINEERING, GRADE, ZONING AND RADIO FREQUENCY INSPECTIONS AND STATE ELEVATOR CERTIFICATES

TAKE NOTICE:

NO CHANGE SHALL BE MADE IN THE USE OF THIS BUILDING WITHOUT PRIOR NOTICE, REINSPECTION AND ISSUANCE OF A NEW CERTIFICATE OF OCCUPANCY BY THE BUILDING OFFICIAL

Valid only until: **4/7/2009**

John N Brahits

BUILDING OFFICIAL

BUILDING PERMIT

City of Aurora, Colorado

251428

No.: 2007-172604-000-00 CM

Date: April 30, 2007

Commercial Building Permit

Address of Job: 1501 S POTOMAC ST

Contractor: JE DUNN CONSTRUCTION COMPANY

License No.:

Work: CONSTRUCT 5 STORY MEDICAL BLDG ADDITION, REVISE SOME AREAS OF EXISTING BLDG.

Conditions: MEDICAL CENTER OF AURORA (A&B)

Inspections: Mechanical Electrical Plumbing Structural [redacted] [redacted]

[redacted] First Floor - Ext.

This permit has been issued for compliance using the

Other inspections may be required. Additional inspections for Zoning, Grading, and Engineering may be required before a Certificate of Occupancy can be issued. Record passed inspections on the reverse of this card.

Construction Type:	**IBC TYPE IA-SPK**	Occupancy Group:	**IBC I-2**
Plan Location:	**CAB 86**	C of O Required	
Contract Amount:	**$17,240,106.00**	Taxable Amount:	**$8,620,053.00**

FEES PAID:

Permit Fee	$56,767.90
Bldg. Use Tax	$323,251.99
Arap. County Open Space Bld Us	$20,472.62
Transactional Fee	$1,077.51
Public Improvement Fee	$104.00
TOTAL FEES:	***$401,674.02***

CITY OF AURORA COLORADO
07 APR 30 AM 9:31
PAID

Other fees may be due before a Certificate of Occupancy or Compliance can be issued. Utility fees are billed separately.

Notes to Applicant:

1. For information, call (303) 739-7420. For For inspections, call (303) 739-7416 one day in advance. All Inspection Requests must be called by 4:00 p.m. of the prior day. The PERMITTEE accepts FULL responsibility for all work done under this permit. All work must be done in accordance with all applicable building codes.

2. Permit is not valid unless signed by Permittee and Permit Fee and Use Taxes are paid in full.

3. Building Permits expire automatically after 180 days unless inspections are requested, or if the time between inspections exceeds 180 days. Requests to extend a permit must be made to the Chief Building Official in writing.

Validation:

_____

Permittee

City of Aurora, Colorado

ADDRESS: _____ **PERMIT NUMBER:** _____

ALL GENERAL AND SUB CONTRACTORS ARE REQUIRED TO BE LICENSED

TYPE OF CONTRACTOR	NAME	LICENSE NO.
General		
Concrete		
Waterproofing		
Mason		
Roofing		
Lathing/Gypsum Board		
HVAC		
Electrical (State number)		
Plumbing		
Insulation		
Fire Protection		

NOTE: ✓ **ROUGH INSPECTIONS MUST SHOW ON PLUMBING, ELECTRICAL & HVAC BEFORE ROUGH FRAME INSPECTION**

Comments	Date	Initials
Under Ground Plumbing		
✓ Rough Plumbing		
Final Plumbing	3-30-09	
Concrete Encased Ground		
✓ Rough Electrical		
Electrical Service		
Final Electrical	8/10/09	UCD
Gas Pipe		
✓ Rough HVAC		
Final HVAC	3/30/09	BT
Footing ____ Caisson ____ Engineer's Letter ____		
Concrete Reinforcing ____ Engineer's Letter ____		
Foundation Waterproofing ____ Survey ____		
Structural Floor		
Roof/Pre-Roof		
✓ Rough Frame		
Insulation		
Gypboard		
Final Frame	8-21-09	EB

Life Safety: Sprinkler System ____ Fire Alarm ____
Fire Extinguisher ~~Posted 4/1/09 AW~~ FINAL 8/6/09 Exit Lights Posted 4/1/09 AW FINAL 8/27/09 AW
Fire Lanes Posted 4/1/09 AW Misc Knox Box Posted 4/1/09 AW
Engineering ____ Grade FINAL 8/24/09 AW Zoning ____ FINAL 8/24/09 AW

Public Improvement Inspections (303) 739-7350 **Zoning Inspections (303) 739-7449**

FOR BUILDING INSPECTIONS CALL BEFORE 4:00 PM FOR NEXT DAY INSPECTION
(303) 739-7416 OR FAX TO (303) 739-7412

F: dept\development services\Building Division\Shared\Building Forms\Reverse of permit card.doc

Backed Service Elev 9/15/08 as work of E6002

04 16 00 B.T. N. WALL 1ST & 18-1 & 1ST & 18-16 GN A1

07-172604

STRUCTURAL INSPECTIONS

05 23 08 BT 5TH T.O.E.W. WINDOWS

06 03 08 BRICK TIES SOUTH (WALL 5' OK GLENN

05 20 08 GYP. W. ELEV. SHAFT (PROTECT I BEAMS) OK - GYP. TOP OUT 4TH FLR OK

04 25 08 BRICK TIES E-S WALLS GROUND to EIGHT FEET + N/E WALL UP TO 16' GLENN

04 22 08 GLENN DENSGLASS SOUTHEAST EAST HALF + REMAINDER N. EXT. DENS. 1ST LAYER SHAFT 5TH

ELECTRICAL INSPECTIONS

6/14/07 ~~Feed to temp~~ chiller OK LOOER ABELA RM 5 W-S WALL

6/15/07 temp chillers - Final - EB

7-26-07 - Main service entrance conductors + UG for Central plant duct bank - OK - EB / 7-11-08 Remainder of wall rough for 2nd floor patient rooms and bed lid for room 2041 - OK EB

8-31-07 - UG stub ups for service entrance conductors + central plant duct bank - OK EB - (ug quick connect conduits from MSBA)

MECHANICAL INSPECTIONS

PART UG FOR Chillers & Coolers OK as noted on MEP-1001 OK 10-26-07 BT

part UG Gas pipe OK 11/28/07 page MEP1001

UG for CHILLER/COOLER Lines OK PER mep 1001 11/30/07 BT

12-6-07 - HR GP Partial = OK for south section 3" gas line

12/21/07 - Complete UG PIPING - Steam, Condensate, chilled water supply & Return & 3" Natural gas - OK SA

PLUMBING INSPECTIONS

8/9/07 TIE UG main & grease line under old structure to tie in OK PDT (Plbg)

8/23/07 UPLBG PARTIAL P-1001A BATH GROUP, DAVE F

9/24/07 UG Area A as marked plans — P1001A

9/25/07 UG Area B as marked plans - P1001B

9/27/07 UG Area A for stacks O/C marked P1001A

10/3/07 UG Area A as noted on P1001A UG-OK WCD

08 26 08 GLENN POSTED

LIFE SAFETY INSPECTIONS

2/15/08 UNDERGROUND Flush (SPRINKLER LINE 8 INCH). OK AW

3/31/09 EMERGENCY GENERATOR (FOR ELEVATORS) - OK AW

[redacted] - Electrical Inspections

8-20-08 - Partial Electrical Rough for room #3027-B - OK EB

ER UG 2nd Lift 30' west & 10' south of Elec closet OK
ER UG For Site from Elec Room next 30' or so to Foundation wall ~~for~~ OK

MECHANICAL
3/13/08 Square Duct Aboveceiling - OK AW (OK to Insulate)
AREA's A+B 1ST Floor

Plumbing -
3/14/08 - PR UG Partial OK for floor drains - Central Plant - need as builts
- PR Partial OK for storm and overflow 1st floor as per - P 2001 a >J
3/25/09 Grease Interceptor (1500 gal) OK Steve Dekoskie

ROW ID: 251428

CITY OF AURORA BUILDING PERMIT & PLOT PLAN APPROVAL

Address of Job	Zip Code	Date
1501 S. Potomac St.	80012	3/22/07

Legal Description

Lot	Block	Subdivision	Filing

PROPOSED USE OF STRUCTURE: 3 STORY MEDICAL BLDG

CLASS OF WORK:

If Residential, Model # & Elevation:

AREA AT GRADE (SF)	GARAGE SINGLE ☐ THREE ☐ DOUBLE ☐	NO. OF STORIES	TOTAL UNITS	OCCUPANCY GROUP & DIV	SITE PLAN # & NAME
128,351		5		I-2	
TOT. BLDG. (SF):	**BASEMENT FIN. ☐ UNFIN. ☐**	**HEIGHT (FEET)**	**USE ZONE**	**TYPE CONSTR.**	
				IA SPK	

OWNER/DEVELOPER: HCA HEALTH ONE LLC — PHONE NUMBER: 3/873-5744

REPRESENTATIVE: KEN GIBSON — PHONE NUMBER: 3/300-7570

CONTRACTOR: J.E. DUNN — PHONE NUMBER: 816-474-8500

DEPT./DIV.	AUTHORIZED BY (initials)	DATE
Zoning X	✓	4/18
Remarks LDN ☐ yes ☐ no ____ E-470 Corridor ☐ yes ☐ no ____ Township/Range/Section/Qtr, Section:		
Engineering ✓	✓	4-18-07
Remarks		
Traffic ✓	✓	4-18-07
Remarks		
Life Safety	✓	4-23-07
Remarks plans 4/18		

DEPT./DIV.	AUTHORIZED BY (initials)	DATE
Right of Way X	✓	4-18-07
Remarks		
Water X	✓	4-17
Remarks [illegible]		
Wastewater X	✓	4/18
Remarks Blackplains Water		
Forestry		
Remarks		
Plans Exam X		4-17-07
Remarks 2007-17260		

I/We certify that no use will be operated on the land or in the structure(s) identified above except the use(s) set forth above unless anew certificate of occupancy is obtained, the uses will be operated in compliance with the regulations contained in the Aurora City Code.

X

Name(s) of Owner(s) of Site & Structure(s) (print)

Signature of Owner(s) or Authorized Representative

CITY OF AURORA BUILDING PERMIT INFORMATION

Project Address: 1501 S. Potomac St.
Zip Code:
Project Name: Medical Center of Aurora
Contact Name: Ken Gibson
Email Address:
Owner: Health One LLC
Address:
Email Address:
Contractor: O.E. Dunn Const
Email Address:

Unit #:
Contract Price: [redacted]
(includes sprinkler and alarm?) ☐Y ☐N
Phone: 3/300-7870
Fax: 3/753-8964
Homeowner verification:
Phone:
Fax:
Contractor License:
Phone: 816-474-5600

DESCRIBE THE WORK YOU WILL BE DOING

5 Story Medical Bldg
2003 IBC

Please check boxes by the items that apply to this job. Please complete all applicable spaces.
INDICATE BY (N) FOR NEW AND (E) FOR EXISTING, FOR ALL ITEMS CHECKED BELOW

MECHANICAL

☐ Gas Log BTU's_____# _____ (_____)
☐ Hood type/CFM _____ (_____)
☐ Hot Tub (_____)
☐ Gas Range/Oven/Cooktop BTU _____ (_____)
☐ Gas Fireplace BTU's _____# _____ (_____)
☐ Heating Type _____BTU's _____# __ (_____)
☐ A/C/Cooler CFM/Ton _____ (_____)
☐ Misc. _____ (_____)

PLUMBING

☐ Shower # _____ (_____)
☐ Kitchen Sink # _____ (_____)
☐ Water Heater BTU's _____ # _____ (_____)
☐ Floor Drain # ____ ☐ Urinals' ____ (_____)
☐ Lavatory # _____ (_____)
☐ Bathtub # _____ (_____)
☐ Water Closet # _____ (_____)
☐ Misc. _____ (_____)

ELECTRICAL

☐ A/C or Cooler Elec. Amp. _____ (_____)
☐ Elec. Service Chg. Amp. _____ (_____)
☐ Hot Tub (_____)
☐ Electrical Circuit #/AMP _____ (_____)
☐ Construction Meter (_____)
☐ Misc. _____ (_____)

LIFE SAFETY

☐ Fire Alarm System (_____)
☐ Fire Alarm Points (_____)
☐ Storage (Fuel) Tank(s) Sizes _____ (_____)
☐ Medical Gas_____ (_____)
☐ Fire Sprinkler Type _____ (_____)
☐ Hood Suppression Type _____ (_____)
☐ Fire Extinguishers (_____)
☐ Misc. (circle)(Fire Lane, Knox Box) (_____)

THIS SPACE FOR OFFICE USE ONLY

REVIEWS	INSPECTIONS
☑ Structural	☐ Structural
☐ Mechanical	☑ Mechanical
☑ Plumbing	☐ Plumbing
☑ Electrical	☑ Electrical
☑ Life Safety	☑ Life Safety (per above)

Parent Permit #:
Parent RSN:
Parent Location:
Permit Type: CM
Sub Type:
Plans Examiner: AH

Permit Number: 2007-172604
In Date: 3/22/07

Permit Total $_____ Plan Location: CAB 86
RSN: 251428

BOARD OF APPEALS - The City of Aurora has created a Building Code and Contractor's Appeals and Standards Board. Applicants have the right to have the board hear appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of the building code. Any application for appeal to the board shall be based on a claim that the true intent of the code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of the building code do not fully apply or an equally good or better form of construction is proposed.

ccrd partners

March 7, 2007

Dimitri Englert
Perkins+Will
10100 N. Central Expressway, Suite 300
Dallas, TX 75231

Re: Medical Center of Aurora – Patient Tower expansion
City of Aurora Building Code Division Electrical comments/responses
ccrd Project No. 205555.000

Below are responses to the memo dated 3-6-07:

Item No. E-1: Sheet E-1001A: Provide description for legend note #15.

ccrd Response: Legend note #15 should read: "Junction box for electrical connection to monument sign in this area. Verify exact location and requirements with architect and manufacturer prior to rough-in." Please refer to updated drawing E-1001A.

Item No. E-3: Sheet E-6000: Revise the demand factor table; the lighting load is considered continuous, a demand factor of 125% applies and the NEC references shall match the 2005 edition of the NEC. Correct the load calculations as applicable.

ccrd Response: The 125% design load for continuous equipment is accounted for in the panel schedule calculations in the row named "Continuous (Design) Factor" in the panel load summaries on the E6 and E8 series sheets. Load calculations as indicated on the drawings are correct. Please refer to the updated Demand Factor Table on E-6000 for the 2005 NEC references.

Item No. E-4: Sheet E-6001: Provide wire sizes and fault current calculations for all affected feeders (especially where new breakers will be installed) and available fault current values at the terminals of all affected panels, in order to verify compliance with NEC 110.9 and 240.4. For example: Legend note number 5 indicates to replace an existing 600A circuit breaker with a 1000A circuit breaker, but the wire was not modified.

ccrd Response: Please refer to revised one-line diagrams for wire sizes and fault current calculations.

Item No. E-5: Sheet E-6002: Provide fault current values at the terminals of all panels, and the impedance values of all transformers in order to verify the fault current calculations and compliance with NEC 110.9. According to the information shown in the drawings, the available fault current at some panels may exceed the rating of the panels. Like: 2CRH, 3CRH, etc. Typical for all one-line diagrams.

ccrd Response: Please refer to revised one-line diagrams for fault current values at each panel and impedance values of all transformers. The A.I.C. rating for all of the panels is greater than the available fault current.

Item No. E-6: Sheet E-6002: Clarify the rating of transfer switches; it seems like two values are noted one from the normal power and another one from the emergency power, but what is the rating of the switches?

ccrd Response: The transfer switch will be rated for the largest minimum A.I.C. value noted on the drawings as indicated in legend note #3 on E-6002.

Item No. E-7: Sheet E-6002: Provide a selectivity study that shows time current curves and setting for the circuit breakers equipped with ground fault protection in order to verify compliance with NEC 517.17(C) and to provide a guide line for the inspector so that he can verify proper setting at the time of inspections.

ccrd Response: Please refer to attached time current curves and settings for the circuit breakers with ground fault protection as required by NEC 517.17(C).

If you have questions or require further information, please do not hesitate to contact us.

Sincerely,

Abigail Lipperman
Electrical Designer

City of Aurora
Building Division
15151 E Alameda Pkwy, 2nd Floor
Aurora, CO 80013
Phone: 303-739-7420
Fax: 303-739-7551

PLAN REVIEW RESPONSE

Date:
Reference Number (RSN): 2007172604
Project:
Job Address:

The following is a list of the areas of the submitted plans that contained violations of the codes adopted by the City of Aurora and enforced by the Building Division. **The violations noted must be addressed before the plans can be approved.** Changes must be submitted on the original submitted format. Changes to construction documents that require an Architect or Engineer's stamp must be submitted with the appropriate stamp.

ARCHITECTURAL

A-1 *Re: Sheet A-2001A, room 1133A, two walls are designated as smoke partitions. Sheet A-2001A,* shows these walls as a D-12. Sheet A8100, the partition schedule, the D-12 is6" above ceiling. I believe this wall should extend to the structure above.

A-2 Sheet A0111, Room 1130A, stair #2, partition wall at the break room appears as a 2 hour fire barrier. Sheet A-2001A, does not show a designation from the partition schedule.

A-3 Sheet A2001B, door 1096B, vestibule door should be a 90 minute smoke tight, sheet A8200 does not list it that way.

A-4 Sheet A2001B, room 1092 staff toilet, the sink/vanity encroaches on the water closet space required by ANSI 117.1, 2003, sect 604.3.2. This would apply to rooms 2046, 2067, 2025, 4025, 4045, 4068, 5025, 5046, and 5068.

A-5 Door 1107E, listed in specs, No. 2.06 not listed on door schedule sheet A8200.

A-6 Door 4043B, specs call for smoke gasket, No. 2.04, door schedule does not.

A-7 Door 1130A-A listed in specs No.2.04, not located on plan.

A-8 Door 1129C listed in specs No.2.01, not on door schedule.

A-9 Door 6004, door schedule has an ST fire rating, spec does not indicate a smoke gasket No. 2.07

A-10 Door 1083, door schedule has an ST fire rating, spec does not indicate a smoke gasket No. 4.02.

A-11 Door 2042A, 6003, 6005, door schedule indicates ST fire rating, spec does not specify a smoke gasket No 9.02

A-12 Provide panic hardware on each door from room 1134.

A-13 IBC 2003, section 911 requires a fire command center, if one does exist let us know its location, if not, one will be required.

A-14 Sheet A0111 The Smoke Compartment Data boxes have a line that gives calculations for Area of Refuge. If you could elaborate a little and help me understand where were going with this I would

10100 N. Central Expressway
Suite 300
Dallas, TX 75231

t: 214.283.8700
f: 214.283.8701
www.perkinswill.com

PERKINS
+WILL

Memo

To:	City of Aurora Building Division Attn: Allen Hueseman 15151 E. Alameda Pkwy, 2nd Floor Aurora, CO 80013
From:	Tracy Kimbal
Date:	March 12, 2007
Subject:	Answers to Architectural Plan Review Response for Private Room Expansion

Architectural Response

A-1 The hatched wall behind the D-12 partitions in question is a 6" CMU that extends to the bottom of the deck above to cover smoke passage. See detail C4 on sheet A-0101. See corrected sheet A-2001A.

A-2 See corrected sheet A-2001A.

A-3 See corrected 1st floor door schedule on sheet A-8200.

A-4 See corrected sheets A-2001B, A-2002, A-2003, A-2004, A-2005, and A-5000 for enlarged plan of corrected HC patient toilet layouts.

A-5 Door does not exist.

A-6 4th floor door schedule on A-8201 is correct.

A-7 Door does not exist.

A-8 Door does not exist.

A-9 See corrected 6th floor door schedule on sheet A-8202.

A-10 See corrected 1st floor door schedule on sheet A-8200.

A-11 2nd floor door schedule on A-8201 is correct. 6th floor door schedule on A-8202 is correct. All doors to receive hardware set 2.12.

A-12 Door 1034A to receive hardware set 7.01. Door 1034B to receive hardware set 7.08.

A-13 Building does not currently fall under "high rise" criteria. As new floors are added above 5th floor a fire command center will be provided as indicated on A-2001A. See room tag 1146B.

A-14 The area of refuge required in a particular zone + the area required for the adjacent smoke compartment give you the total area of refuge required.

cc: Project File
Allen Hueseman

City of Aurora
Building Code Division
15151 East Alameda Parkway, 2nd floor
Aurora, CO 80012
Phone: 303-739-7420
Fax: 303-739-7551

5 L 5 L 6002 # 3008

PLAN REVIEW RESPONSE

Project Address: 1501 South Potomac Street		
Project Title: Medical Center of Aurora		
Staff person reviewing submittal: Alberto Barrios Marquez		
Contractor:	Phone: 303-	Fax: 303-
Owner: HCA Health One, LLC	Phone: 303-	Fax: 303-
Contact person: Ken Gibson	Phone: 303.300.7870	Fax: 303.753.8964
Site Plan Number		
Date: Tuesday March 6, 2007	RSN (Amanda Row Sequence Number): 251428	
Comments:		

The following is a list of the areas of the submitted plans that contained violations of the codes adopted by the City of Aurora and enforced by the Building Code Division. The violations noted must be addressed before the plans can be approved. **Changes must be clouded and submitted on the original submittal format (two copies). Changes to construction documents that require an Architect or Engineer's stamp must be submitted with the appropriate stamp.**

E2001A

ELECTRICAL:

E-1 Sheet E-1001A: Provide description for legend note #15.

E-2 Sheet E-5001: Panic hardware is required for the doors in the electrical room 1134. 2005 NEC 110.26.

E-3 Sheet E-6000: Revise the demand factor table; the lighting load is considered continuous, a demand factor of 125% applies and the NEC references shall match the 2005 edition of the NEC. Correct the load calculations as applicable.

E-4 Sheet E-6001: Provide wire sizes and fault current calculations for all affected feeders (especially where new breakers will be installed) and available fault current values at the terminals of all affected panels, in order to verify compliance with NEC 110.9 and 240.4. For example: Legend note number 5 indicates to replace an existing 600A circuit with a 1000A circuit, but the wire was not modified.

E-5 Sheet E-6002: Provide fault current values at the terminals of all panels, and the impedance values of all transformers in order to verify the fault current calculations and compliance with NEC 110.9. According to the information shown in the drawings the available fault current at some panels may exceed the rating of the panels. Like: 2CRH, 3CRH, etc. Typical for all one line diagrams.

E-6 Sheet E-6002: Clarify the rating of transfer switches; it seems like two values are noted one from the normal power and another one from the emergency power, but what is the rating of the switches?

E-7 Sheet E-6002: Provide a selectivity study that shows time curves and setting for the circuit breakers equipped with ground fault protection, in order to verify compliance with NEC 517.17(C) and to provide a guide line for the inspector so that he can verify proper setting at the time of inspections.

Any error or omission in this plan review shall not be construed to grant approval of any violation of any of the adopted codes or municipal ordinances of this jurisdiction. Please direct any questions you may have to Alberto Barrios Marquez at (303) 739-7544 or fax to (303) 739-7551. E-mail: amarquez@auroragov.org

PR#21

Date 6.30.08

PLAN REVIEW REVISION SUBMITTAL

This form should be completed and submitted with all building plan revisions. All changes from the previously approved drawings must be clearly shown by clouding, circling, etc.

Project address 1501 S. Potomac St Unit #

Project name Medical Center of Aurora Valuation $ 213,500

Contractor JE Dunn Contractor License

Contact Name Paul Zubeck Phone # 303-873-4694

Fax 303-873-4838 Email paul.zubeck@jedunn.com

Owner HCA / Health One - DBA Med Center of Aurora Phone # 303-695-2600

Address 1501 S Potomac St Fax 303-337-9773

Have there been any permits issued for this job? Yes X No

If yes, what is the permit number? 2007-172604-000-00CM

What type of work is being proposed in the attached plans being submitted?
REVISE DOMESTIC WATER PUMPS to POWER EQ.

THIS SPACE FOR OFFICE USE ONLY

REVIEWS	Review Time (Hrs)
Mechanical	
Plumbing	
X Electrical	6 Hrs JMK JC
Structural	
Life Safety	

Plan Review Fee $ 416.00

Plan Location CAB 115 (25040)
Parent RSN 251428
Permit Number
Permit Type Limited (LT)
Sub Type Plan Revisions
Intake by JIM C (P.E.)

RSN 383129

08-309286

BOARD OF APPEALS
The City of Aurora has created a Building Code and Contractor's Appeals and *Standards Board. Applicants have the right to have the board hear appeals of orders,* decisions or determinations made by the building official relative to the application and interpretation of the building code.
Any application for appeal to the board shall be based on a claim that the true intent of *the code or the rules legally adopted thereunder have been incorrectly interpreted, the* provisions of the building code do not fully apply or an equally good or better form of construction is proposed.

PR#16

Date 8/19/08

PLAN REVIEW REVISION SUBMITTAL

This form should be completed and submitted with all building plan revisions. All changes from the previously approved drawings must be clearly shown by clouding, circling, etc.

Project address 1501 S. Potomac St Unit # _____

Project name Medical Center of Aurora Valuation $ 24,000

Contractor JE Dunn Contractor License _____

Contact Name Paul Zubeck Phone # 303-873-4694

Fax 303-873-4838 Email paul.zubeck@jedunn.com

Owner HCA/Health One - DBA Med Center of Aurora Phone # 303-695-2600

Address 1501 S Potomac St Fax 303-337-9773

Have there been any permits issued for this job? Yes X No _____

If yes, what is the permit number? 2007-172604-000-00CM

What type of work is being proposed in the attached plans being submitted?

Rerouting O2 & H2O & Delete First Floor Engineering Offices

THIS SPACE FOR OFFICE USE ONLY

REVIEWS	Review Time (Hrs)
Mechanical	
✓ Plumbing	8 hrs JMP Total
Electrical	
Structural	
Life Safety	

Plan Review Fee $ 1248 Balance Due

Plan Location CAB 115
Parent RSN 251428
Permit Number 07-172604
Permit Type Limited (LT)
Sub Type Plan Revisions
Intake by AH (P.E.)

RSN 392,512
08 39317

BOARD OF APPEALS

The City of Aurora has created a Building Code and Contractor's Appeals and Standards Board. Applicants have the right to have the board hear appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of the building code.

Any application for appeal to the board shall be based on a claim that the true intent of the code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of the building code do not fully apply or an equally good or better form of construction is proposed.

07-172604-CM

Date 8/19/08

PLAN REVIEW REVISION SUBMITTAL

This form should be completed and submitted with all building plan revisions. All changes from the previously approved drawings must be clearly shown by clouding, circling, etc.

Project address 1501 S. Potomac St Unit # _____

Project name Medical Center of Aurora Valuation $ 2,559

Contractor JE Dunn Contractor License _____

Contact Name Paul Zubeck Phone # 303-873-4694

Fax 303-873-4838 Email paul.zubeck@jedunn.com

Owner HCA / Health One - DBA Med Center of Aurora Phone # 303-695-2600

Address 1501 S. Potomac St Fax 303-337-9773

Have there been any permits issued for this job? Yes X No _____

If yes, what is the permit number? 2007-172604-000-00CM

What type of work is being proposed in the attached plans being submitted?

ELECTRICAL

THIS SPACE FOR OFFICE USE ONLY

REVIEWS	Review Time (Hrs)
Mechanical	
Plumbing	
✓ Electrical	DLH 8.0 hrs 1-30-09
Structural	
Life Safety	

Our Copy Installed

Plan Location CAB 115
Parent RSN 264428
Permit Number 07-172604
Permit Type Limited (LT)
Sub Type Plan Revisions
Intake by AA (P.E.)

Plan Review Fee $ 1248.00 Due

RSN 392491

BOARD OF APPEALS

The City of Aurora has created a Building Code and Contractor's Appeals and Standards Board. Applicants have the right to have the board hear appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of the building code.

Any application for appeal to the board shall be based on a claim that the true intent of the code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of the building code do not fully apply or an equally good or better form of construction is proposed.

08-319296

ASI #18 6001 6003

Date 8/19/08

PLAN REVIEW REVISION SUBMITTAL

This form should be completed and submitted with all building plan revisions. All changes from the previously approved drawings must be clearly shown by clouding, circling, etc.

Project address 1501 S. Potomac St Unit #

Project name Medical Center of Aurora Valuation $ Ø

Contractor JE Dunn Contractor License

Contact Name Paul Zubeck Phone # 303-873-4694

Fax 303-873-4838 Email paul.zubeck@jedunn.com

Owner HCA / Health One - DBA Med Center of Aurora Phone # 303-695-2600

Address 1501 S Potomac St Fax 303-337-9773

Have there been any permits issued for this job? Yes X No

If yes, what is the permit number? 2007-172604-000-00CAI

What type of work is being proposed in the attached plans being submitted?

Fault Current (05 NEC)

THIS SPACE FOR OFFICE USE ONLY

REVIEWS	Review Time (Hrs)
Mechanical	
Plumbing	
✓ Electrical	6 Total SWC
Structural	
Life Safety	

-2 hr Min (200)

Plan Review Fee $ 416.00

8/19/08

Plan Location @ CAB 115
Parent RSN 251428
Permit Number 07-172604
Permit Type Limited (LT)
Sub Type Plan Revisions
Intake by AH (P.E.)

RSN 392490

08-319295

BOARD OF APPEALS

The City of Aurora has created a Building Code and Contractor's Appeals and Standards Board. Applicants have the right to have the board hear appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of the building code.

Any application for appeal to the board shall be based on a claim that the true intent of the code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of the building code do not fully apply or an equally good or better form of construction is proposed.

#44-02 Correction Date 2/13/09

PLAN REVIEW REVISION SUBMITTAL

This form should be completed and submitted with all building plan revisions. All changes from the previously approved drawings must be clearly shown by clouding, circling, etc.

Project address 1501 S. Potomac St Unit #

Project name Medical Center of Aurora Valuation $

Contractor JE Dunn Contractor License

Contact Name Paul Zubeck Phone # 303-755-1420

Fax 303-750-5070 Email paul.zubeck@jedunn.com

Owner HCA / Health One - DBA Med Center of Aurora Phone # 303-695-2600

Address 1501 S Potomac St Fax 303-337-9773

Have there been any permits issued for this job? Yes X No

If yes, what is the permit number? 2007-172604-002-00CAI

What type of work is being proposed in the attached plans being submitted?

Extending a 2"Ø Oxygen line to a new emergency connect station. Entails minimal med gas work.

THIS SPACE FOR OFFICE USE ONLY

REVIEWS	Review Time (Hrs)
Mechanical	
X Plumbing	JE 2hrs, - minimum
Electrical	
Structural	
Life Safety	

Plan Location Case 25040
Parent RSN 251428
Permit Number
Permit Type Limited (LT)
Sub Type Plan Revisions
Intake by M (P.E.)

Plan Review Fee $

RSN 453245

BOARD OF APPEALS

The City of Aurora has created a Building Code and Contractor's Appeals and Standards Board. Applicants have the right to have the board hear appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of the building code.

Any application for appeal to the board shall be based on a claim that the true intent of the code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of the building code do not fully apply or an equally good or better form of construction is proposed.

03/26/04

09 381877

#4 Fire CWP Line 07-172604-CM Date 2/13/09

PLAN REVIEW REVISION SUBMITTAL

This form should be completed and submitted with all building plan revisions. All changes from the previously approved drawings must be clearly shown by clouding, circling, etc.

Project address 1501 S. Potomac St Unit # _____

Project name Medical Center of Aurora Valuation $ _____

Contractor JE Dunn Contractor License _____

Contact Name Paul Zubeck Phone # 303-755-1420

Fax 303-750-5070 Email paul.zubeck@jedunn.com

Owner HCA/Health One-DBA Med Center of Aurora Phone # 303-695-2600

Address 1501 S Potomac St Fax 303-337-9773

Have there been any permits issued for this job? Yes X No _____

If yes, what is the permit number? 2007-172604-000-00CM

What type of work is being proposed in the attached plans being submitted?
Rework of sanitary sewer lines in areas C & D of 1st floor. Re-routing of some 1/2 CW lines & additional floor drains.

THIS SPACE FOR OFFICE USE ONLY

REVIEWS	Review Time (Hrs)
__Mechanical	
X Plumbing	2.00 PM (MIN.)
__Electrical	
__Structural	
__Life Safety	

1A-SPK

Plan Review Fee $ _____ 1-2

SF-128351

Plan Location Case 25040
Parent RSN 251420
Permit Number _____
Permit Type Limited (LT)
Sub Type Plan Revisions
Intake by JC (P.E.)

RSN 4153246

09-38 PDP LT

BOARD OF APPEALS
The City of Aurora has created a Building Code and Contractor's Appeals and Standards Board. Applicants have the right to have the board hear appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of the building code.
Any application for appeal to the board shall be based on a claim that the true intent of the code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of the building code do not fully apply or an equally good or better form of construction is proposed.

Date 2/23/09

PLAN REVIEW REVISION SUBMITTAL

This form should be completed and submitted with all building plan revisions. All changes from the previously approved drawings must be clearly shown by clouding, circling, etc.

Project address 1501 S. Potomac St Unit #

Project name Medical Center of Aurora Valuation $ Henkly

Contractor JE Dunn Contractor License

Contact Name Paul Zubeck Phone # 303-755-1420

Fax 303-750-5070 Email paul.zubeck@jedunn.com

Owner HCA/Health One - DBA Med Center of Aurora Phone # 303-695-2600

Address 1501 S. Potomac St Fax 303-337-9773

Have there been any permits issued for this job? Yes X No

If yes, what is the permit number? 2007-172604-000-00CA1

What type of work is being proposed in the attached plans being submitted?

Remove finish out of lab and convert space to shell.
Remove MOB Entry Canopies (RENTSTON)

THIS SPACE FOR OFFICE USE ONLY

REVIEWS	Review Time (Hrs)
X Mechanical	2
X Plumbing	2
X Electrical	2 HRS
X Structural	3
X Life Safety	0
	9 hrs

Plan Review Fee $ 2

7 hrs

Plan Location Temp Cube 25040
Parent RSN 25142e
Permit Number 07-172604
Permit Type Limited (LT)
Sub Type Plan Revisions
Intake by [redacted] (P.E.)

RSN 454095

BOARD OF APPEALS

The City of Aurora has created a Building Code and Contractor's Appeals and Standards Board. Applicants have the right to have the board hear appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of the building code.

Any application for appeal to the board shall be based on a claim that the true intent of the code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of the building code do not fully apply or an equally good or better form of construction is proposed.

143 - Telemetry

Date _____

PLAN REVIEW REVISION SUBMITTAL

This form should be completed and submitted with all building plan revisions. All changes from the previously approved drawings must be clearly shown by clouding, circling, etc.

Project address 1501 S. Potomac St Unit # _____

Project name Medical Center of Aurora Valuation $ _____

Contractor JE Dunn Contractor License _____

Contact Name Paul Zubeck Phone # 303-755-1420

Fax 303-750-5070 Email paul.zubeck@jedunn.com

Owner HCA / Health One - DBA Med Center of Aurora Phone # 303-695-2600

Address 1501 S Potomac St Fax 303-337-9773

Have there been any permits issued for this job? Yes X No _____

If yes, what is the permit number? 2007-172604-000-00CAI

What type of work is being proposed in the attached plans being submitted?

Proposed Conversion from 3rd floor telemetry into a unit clerk station. And change 4th floor consultation into telemetry room. Change involves case work, minor duct work, communication + low voltage cabling.

THIS SPACE FOR OFFICE USE ONLY

REVIEWS	Review Time (Hrs)
X Mechanical	1
__ Plumbing	
X Electrical → Les DLR 3-31-09 our copy Installed	
X Structural	3
X Life Safety	—

Plan Location CAB 115 Temp Cube 25040
Parent RSN 251420
Permit Number _____
Permit Type Limited (LT)
Sub Type Plan Revisions
Intake by JL (P.E.)

Plan Review Fee $ _____ RSN 453251

BOARD OF APPEALS

The City of Aurora has created a Building Code and Contractor's Appeals and Standards Board. Applicants have the right to have the board hear appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of the building code.

Any application for appeal to the board shall be based on a claim that the true intent of the code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of the building code do not fully apply or an equally good or better form of construction is proposed.

PR#26

Date 6.30.08

PLAN REVIEW REVISION SUBMITTAL

This form should be completed and submitted with all building plan revisions. All changes from the previously approved drawings must be clearly shown by clouding, circling, etc.

Project address 1501 S. Potomac St Unit # _____

Project name Medical Center of Aurora Valuation $ 73,000 ✓

Contractor JE Dunn Contractor License _____

Contact Name Paul Zubeck Phone # 303-873-4694

Fax 303-873-4838 Email paul.zubeck@jedunn.com

Owner HCA / Health One - DBA Med Center of Aurora Phone # 303-695-2600

Address 1501 S Potomac St Fax 303-337-9773

Have there been any permits issued for this job? Yes X No _____

If yes, what is the permit number? 2007-172604-000-00CM

What type of work is being proposed in the attached plans being submitted?

Revisions to the Administration Area, Relocating walls + Lights, Relocate restroom, Relocate diffusers, etc. Using existing light fixtures.

THIS SPACE FOR OFFICE USE ONLY

REVIEWS	Review Time (Hrs)
X Mechanical	3
X Plumbing	1
X Electrical	+ 1 = 3 Total
X Structural	2
X Life Safety	1

Plan Review Fee $ 832.00

Plan Location CAB 115
Parent RSN 251428
Permit Number 07-172604-CM
Permit Type Limited (LT)
Sub Type Plan Revisions
Intake by K. Devlin (P.E.)

RSN 383133

BOARD OF APPEALS

The City of Aurora has created a Building Code and Contractor's Appeals and Standards Board. Applicants have the right to have the board hear appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of the building code.

Any application for appeal to the board shall be based on a claim that the true intent of the code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of the building code do not fully apply or an equally good or better form of construction is proposed.

09 -309290

TRC Worldwide Engineering, Inc.
217 Ward Circle
Brentwood, TN 37027-2314
(615) 661-7979 Fax: (615) 661-0644
www.trcww.com

JE Dunn Construction
FEB 24 '09
Received by:

WORLDWIDE ENGINEERING

February 18, 2009

City of Aurora Building Department
15151 E. Alameda Parkway
2nd Floor, Permit Center
Aurora, CO 80012

RE: Certificate of Occupancy Letter from Structural EOR
Medical Center of Aurora, South Campus
1501 S. Potomac St., Aurora, CO
Permit No. 2007-172604-000-00 CM
TRC Project No. 05BRW099

To Whom It May Concern:

TRC Worldwide Engineering, Inc. (TRC) was the Structural Engineer of Record (EOR) on the above-referenced project. The construction of this facility was, from the start, field observed by Terracon Consulting Engineers & Scientists, an independent testing laboratory, out of their Wheat Ridge, CO office. All structurally related construction field reports produced by the testing agency were reviewed by this office. Periodic field observations were made by TRC during the construction of the project.

To the best of our knowledge, the 5-story bed tower with the "bridge" connecting the new construction with the existing facility was constructed in a manner consistent with the structural contract documents based on the periodic visual field observations, shop drawing reviews and the review of the test reports produced by Terracon. TRC does not express an opinion on any other issues which are not considered structural.

TRC Worldwide Engineering, Inc. is appreciative of the opportunity to be of service to the City of Aurora, HCA Health Care and Perkins+Will Architects regarding this project. Please inform TRC of any questions or comments you may have regarding the structural considerations for this facility.

Sincerely,
TRC Worldwide Engineering, Inc.

Surendra Ramanna, P.E., S.E.
President & CEO

COLORADO REGISTERED
SURENDRA RAMANNA
30354
PROFESSIONAL ENGINEER

CONSTRUCTION MATERIALS TESTING RESULTS
FOR
AURORA MEDICAL CENTER EXPANSION
AURORA, COLORADO

BUILDING/STRUCTURAL REPORTS

TERRACON PROJECT NO. 25061446

January 15, 2009

Prepared for:

HCA Health Care
One Park Plaza
Building 2, 3 East
Nashville, Tennessee 37203

Attn: Mr. Keith Allen

Prepared by:

Terracon
10625 West I-70 Frontage Road North, Suite 3
Wheat Ridge, Colorado 80033
Phone: (303) 423-3300
Fax: (303) 423-3353

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0025
Service Date: April 17, 2007
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: April 24, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Terracon arrived on-site, as scheduled. Upon arrival, Terracon representatives introduced themselves to Ken Moody with J&E Dunn. Terracon reviewed spec books and plans that referenced the jobsite. Ken Moody informed Terracon that J&E Dunn was waiting for permits to start the main projects, and also in a couple of weeks canopy additions in two areas will be started. Terracon discussed future inspections and storage of steel. Terracon requested welder certifications when erectors arrived on-site. Terracon walked the jobsite and logged notes for future reference. Terracon was informed by Ken Moody that J&E Dunn will schedule on-site observation when steel starts to arrive.

Terracon Rep: Adam M. Stokes

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co

Reviewed by: _____
Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0053
Service Date: May 23, 2007
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 05, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon arrived on-site, as requested, to perform a shop walk-through inspection on random 963 pre-fabricated steel. Terracon observed random I-columns from W8's to W24's, knife plates, stiffener plates, bent plates and frames. Terracon observed welded and bolted A325 connections. Terracon observed pre-drilled holes into base plates and webs. No signs of stress factors or deficiencies appeared to be present. Holes that were drilled were consistent with no signs of over cutting or beveled edges. All bolted connections had washers present with nuts properly achieving full nut engagement. Welded connections consisted flux core were fed welded connections. Proper storage and stacking of steel was present throughout.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Larry w/Zimmerman Steel

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: _____
Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0019
Service Date: March 28, 2007
Task: **Gradebeam Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 30, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Bed storage north and south gradebeams

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: N/A Measured in field: N/A
Bar Supports: Ties/Chairs
Clearance: 3" Cover: 3"

In-place Compliance
1. Met project requirements when initially examined. No
2. Met project requirements when re-examined. Yes

Comments: 19 #4 bar at 12" O.C., 18 #4H at 18" O.C., 3#5 at bottom, #5 at 12" O.C.- 1'-6" long. Failed first inspection because bars were missing throughout. Gradebeams were re-inspected and appeared to be in place as planned. John with J.E. Dunn was informed of our test results.

Terracon Rep: Adam M. Stokes
Field Results Reported To: John w/ J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0019
Service Date: March 28, 2007
Task: **Gradebeam Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: March 30, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Bed storage north and south gradebeams

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: N/A Measured in field: N/A
Bar Supports: Ties/Chairs
Clearance: 3" Cover: 3"

In-place Compliance
1. Met project requirements when initially examined. No
2. Met project requirements when re-examined. Yes

Comments: 19 #4 bar at 12" O.C., 18 #4H at 18" O.C., 3#5 at bottom, #5 at 12" O.C.- 1'-6" long. Failed first inspection because bars were missing throughout. Gradebeams were re-inspected and appeared to be in place as planned. John with J.E. Dunn was informed of our test results.

Terracon Rep: Adam M. Stokes
Field Results Reported To: John w/ J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
Daniel E. Redman
APR 0 3 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0103
Service Date: July 9, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: July 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Pier Cages 9 - P-6's

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 60" Measured in field: 62"
Bar Supports: Wires
Clearance & Cover: 3"

In-place Compliance
1. Met project requirements when initially examined. Yes

Terracon Rep: Jack D. Redman
Field Results Reported To: Ian with JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0103
Service Date: July 9, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: July 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Pier Cages 9 - P-6's

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 60" Measured in field: 62"
Bar Supports: Wires
Clearance & Cover: 3"

In-place Compliance
1. Met project requirements when initially examined. Yes

Terracon Rep: Jack D. Redman
Field Results Reported To: Ian with JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REPORT OF DRILLED PIER OBSERVATION

Report Number: 25061446.0104
Service Date: July 11, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: July 19, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Drilled Pier Observation

Terracon was present at the referenced project to observe the installation of drilled piers. For each pier observed, Terracon evaluated if piers were constructed with proper penetration and length into the bearing strata.

The reinforcing steel cage was visually examined and the quantity, size and length of the vertical bars was recorded. Additionally, samples of the fresh concrete were obtained and the required field tests performed. One (1) set of four (4) compressive strength test cylinders was cast. Compressive strength results will be transmitted under separate cover (see Report Number 25061446.0105 and 25061446.0106).

Terracon Rep: James T.McNamara
Field Results Reported To: Ian

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JAA/R99-Future Key

RECORD OF DRILLED PIER INSTALLATION

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0104 Date: 7/11/07 Technician: J. McNamara

PIER LOCATION		1B x A11	-A.3 x A13.2				
PIER TYPE		P6	P6				
DATE OF CONCRETE		7/11/07	7/11/07				
PIER DIAMETER (inches)		36	36				
ELEVATION (feet)	GROUND SURFACE	--	--				
	TOP OF PIER	-3'-8"	-3'-8"				
	BOTTOM OF PIER	--	--				
PLANNED ELEVATION OF BEDROCK (ft.)		--	--				
ACTUAL ELEVATION OF BEDROCK (ft.)		-52	-51				
DEPTH OF OVERBURDEN (ft.)		48'-4"	47'-4"				
PENETRATION (feet)	REQUIRED	19'-0"	19'-0"				
	ACTUAL	20'-6"	21'-0"				
TOTAL DEPTH DRILLED (ft.)		72'-6"	72'-0"				
HEIGHT OF CONCRETE ABOVE GRADE (ft.)		-3'-8"	-3'-8"				
LENGTH (feet)	PLANNED PIER	--	--				
	ACTUAL PIER	68'-10"	68'-4"				
REQUIRED MINIMUM LENGTH (ft.)		--	--				
REINFORCEMENT	NUMBER & SIZE	7 #8's	7 #8's				
	BAR LENGTH	72'-0"	72'-0"				
	TIES	#4 @ 16" O.C.	#4 @ 16" O.C.				
PLUMBNESS		<1%	<1%				
SHEAR RINGS		Yes	Yes				
WATER		No	No				
SUPPORTING STRATUM		Claystone	Claystone				
COMMENTS:							

REVIEWED BY: S Lewis Fenton

Terracon

REPORT OF DRILLED PIER OBSERVATION

Report Number: 25061446.0108
Service Date: July 10, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: July 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Drilled Pier Observation

Terracon was present at the referenced project to observe the installation of drilled piers. For each pier observed, Terracon evaluated if piers were constructed with proper penetration and length into the bearing strata.

The reinforcing steel cage was visually examined and the quantity, size and length of the vertical bars was recorded. Additionally, samples of the fresh concrete were obtained and the required field tests performed. One (1) set of four (4) compressive strength test cylinders was cast. Compressive strength results will be transmitted under separate cover (see Report Number 25061446.0109).

Terracon Rep: Jack D. Redman

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JAA/R99-Future Key

RECORD OF DRILLED PIER INSTALLATION

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0108 Date: 7/10/07 Technician: J. Redman

PIER LOCATION		A.11 x 1A.4					
PIER TYPE		P-6					
DATE OF CONCRETE		7/10/07					
PIER DIAMETER (inches)		36					
ELEVATION (feet)	GROUND SURFACE	0					
	TOP OF PIER	-3'-8"					
	BOTTOM OF PIER	-72'-0"					
PLANNED ELEVATION OF BEDROCK (ft.)		--					
ACTUAL ELEVATION OF BEDROCK (ft.)		-53'-0"					
DEPTH OF OVERBURDEN (ft.)		-49'-4"					
PENETRATION (feet)	REQUIRED	19'-0"					
	ACTUAL	19'-0"					
TOTAL DEPTH DRILLED (ft.)		72'-0"					
HEIGHT OF CONCRETE ABOVE GRADE (ft.)		-3'-8"					
LENGTH (feet)	PLANNED PIER	--					
	ACTUAL PIER	72'-0"					
REQUIRED MINIMUM LENGTH (ft.)		--					
REINFORCEMENT	NUMBER & SIZE	7 #8's					
	BAR LENGTH	72'-0"					
	TIES	#4 @ 16" O.C.					
PLUMBNESS		<1%					
SHEAR RINGS		Yes					
WATER		No					
SUPPORTING STRATUM		Claystone					
COMMENTS:							

REVIEWED BY: G Lucas Fenton

Terracon

REPORT OF DRILLED PIER OBSERVATION

Report Number: 25061446.0112
Service Date: July 12, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: July 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Drilled Pier Observation

Terracon was present at the referenced project to observe the installation of drilled piers. For each pier observed, Terracon evaluated if piers were constructed with proper penetration and length into the bearing strata.

The reinforcing steel cage was visually examined and the quantity, size and length of the vertical bars was recorded. Additionally, samples of the fresh concrete were obtained and the required field tests performed. One (1) set of four (4) compressive strength test cylinders was cast. Compressive strength results will be transmitted under separate cover (see Report Number 25061446.0112).

After the first two trucks dumped their concrete, the third truck had a slump of 10" so it was sent back. The next truck arrived an hour and 15 minutes later, but during that time the casing was slowly raised to prevent the concrete from setting in it, so the trucks chute could not reach the top. A pump had to be called in which took another 45 minutes, after the pump arrived the new concrete was pumped in. Once they were done they tried to remove the casing, however the concrete had already set and could not be removed. When Terracon left the site the casing was about 12' above grade.

Please refer to Report #0130 for results of sonic echo testing of this caisson.

Terracon Rep: James T.McNamara
Field Results Reported To: Ian with JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JAA/R99-Future Key

RECORD OF DRILLED PIER INSTALLATION

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0112 Date: 7/12/07 Technician: J. McNamara

PIER LOCATION		1A x A11					
PIER TYPE		P6					
DATE OF CONCRETE		7/12/07					
PIER DIAMETER (inches)		36					
ELEVATION (feet)	GROUND SURFACE	--					
	TOP OF PIER	*N/A					
	BOTTOM OF PIER	--					
PLANNED ELEVATION OF BEDROCK (ft.)		--					
ACTUAL ELEVATION OF BEDROCK (ft.)		-52					
DEPTH OF OVERBURDEN (ft.)		--					
PENETRATION (feet)	REQUIRED	19					
	ACTUAL	20'-6"					
TOTAL DEPTH DRILLED (ft.)		72'-6"					
HEIGHT OF CONCRETE ABOVE GRADE (ft.)		*N/A					
LENGTH (feet)	PLANNED PIER	N/A					
	ACTUAL PIER	*N/A					
REQUIRED MINIMUM LENGTH (ft.)		--					
REINFORCEMENT	NUMBER & SIZE	7 #8's					
	BAR LENGTH	72					
	TIES	#4 @ 16" O.C.					
PLUMBNESS		<1%					
SHEAR RINGS		Yes					
WATER		No					
SUPPORTING STRATUM		Claystone					
COMMENTS: *Please see notes regarding concrete placement on cover sheet.							

REVIEWED BY: _____

Terracon

REPORT OF SONIC ECHO/IMPACT RESPONCE TESTING

Report Number: 25061446.0130
Service Date: July 17, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: July 17, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services:

Olson Engineering was retained to perform Sonic Echo/Impulse Response testing of the pier located at gridline 1AxA11, placed on July 12, 2007.

During pier construction a delay of concrete placement occurred. Due to this delay and consequences related to it the pier casing remained lodged in the pier hole after concrete set had taken place. It was reported by the drilling crew that approximately 45' to 50' of casing remained below existing grade. The casing and excess concrete was reportedly removed to planned T.O.P. elevation. After removal of concrete had completed, mobilization to site for Sonic Echo/Impulse Response testing occurred. This testing was performed on July 16, 2007.

Results of the Sonic Echo/Impulse Responce are attached for your review. If you have any questions regarding this report please contact me at 303-423-3300.

Field Results Reported To: J. Hunt / JEDunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

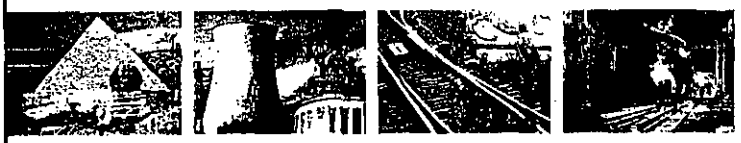
Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-GLF/R99-Future Key

OLSON ENGINEERING, Inc.

SPECIALIZING IN CONDITION EVALUATION OF THE CIVIL STRUCTURE & INFRASTRUCTURE



www.olsonengineering.com

July 17, 2007

Terracon
10625 W. I-70 Frontage Rd. North Suite 3
Wheat Ridge, CO 80033

Attn: W. Lucas Fenton
Tel: (303) 423-3300
Fax: (303) 423-3353
email: glfenton@terracon.com

Re: Nondestructive Testing Investigation Report
SE/IR Testing of 1 Concrete Shaft
Aurora Medical Center
Aurora, CO
Olson Job No. 2302

Dear Mr. Fenton,

This report presents the results of a nondestructive testing (NDT) investigation of 1 drilled shaft, Shaft 1AA11, at the above referenced site in Aurora, Colorado. The testing was requested to evaluate the integrity and as-built depths of the shaft at the site. The field work was performed by Mr. Dennis Sack, Associate Engineer and Mr. Matt Hergert of our firm on July 16, 2007, using the Sonic Echo/Impulse Response (SE/IR) test methods. The SE/IR results are presented in Table I and discussed below followed by a discussion of the SE/IR methods.

SONIC ECHO/IMPULSE RESPONSE (SE/IR) SAMPLE TEST RECORDS AND RESULTS

For the shaft tested in this investigation, a compression wave velocity of 12,500 feet per second (fps) was used to compute the reflector depths. This velocity is typical of average strength mix designs for drilled shafts. It is estimated that predicted depths are accurate to within about 10% of actual values. The tested shaft had a bare top with no pile cap or other structures on top. The Sonic Echo/Impulse Response (SE/IR) results are summarized in Table I.

Examination of the results table shows that the tested shaft is sound, with a significant bulb (diameter increase) at about 53.4 feet and a clear bottom echo.

TABLE I: SE/IR TEST RESULTS

Shaft Location	As-Built Length (ft)	SE/IR Tip Depth (ft)	Presence of Neck	Presence of Bulb	Shaft Condition	Additional Notes
1AA11	70	70.4	None	53.4	Sound	

Example SE Results. SE test records for the tested shaft are shown below in Fig. 1. In the figures, the top trace is the time domain SE data from the accelerometer. The second trace represents the velocity record, obtained by numerically integrating the acceleration data. The third trace shows the average velocity record from multiple tests. The IR records are not presented herein, as they agreed well with the SE records. The IR results were used in the analysis process to provide additional support to the conclusions reached in the SE results. As seen in Fig. 1, the echo from the bulb is the predominant feature, but the bottom echo is also clear.

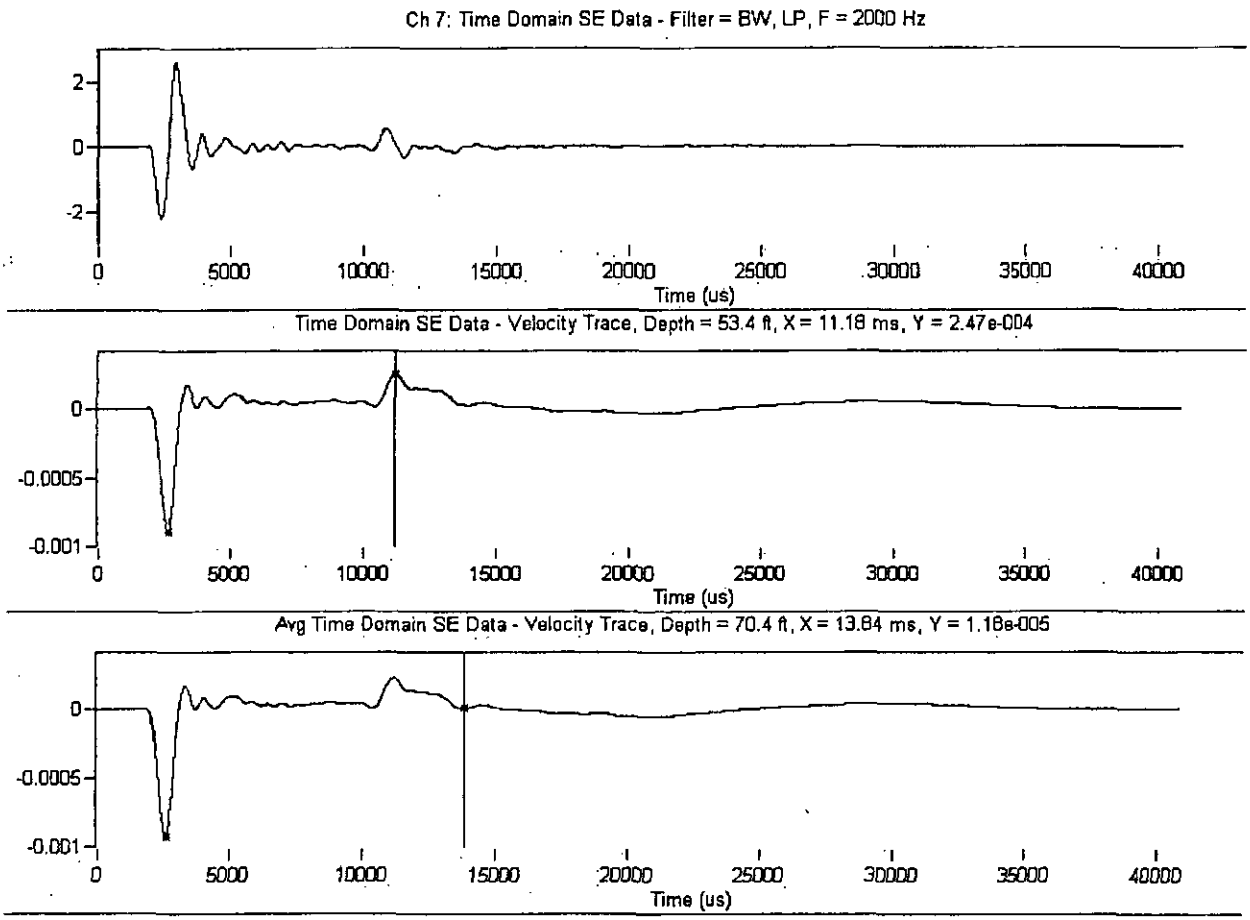


Fig. 1 SE Test Record, Shaft 1AA11 , Neck at 53.4 feet, Bottom Echo at 70.4 feet

SONIC ECHO (SE) AND IMPULSE RESPONSE (IR) METHODS

Sonic Echo (SE) Test Method. The SE method is a low strain integrity test conducted from the top of the shaft as shown in Figure 2. Test equipment included a 3-lb impulse hammer, receivers (accelerometer and geophones) mounted on the exposed top of the shaft, and a PC-based data acquisition/analysis system. The impulse hammer has a built-in load cell that can measure the force and duration of the impact. The test involves hitting the foundation top with the hammer to generate wave energy that travels to the bottom of the foundation. The wave reflects off irregularities (cracks, necks, bulbs, soil intrusions, voids, etc.) and/or the bottom of the foundation and travels back along the foundation to the top. The receiver measures the vibration response of the foundation to each impact. The signal analyzer processes and displays the hammer and receiver outputs. Foundation length and integrity of concrete are evaluated by identifying and analyzing the arrival times, direction, and amplitude of reflections measured by the receivers in time. The echo depth (D) is calculated by multiplying the reflection time (t) by the compression wave velocity (V) and dividing this quantity by 2 to account for the fact that the wave has gone down and reflected back, i.e., $D = V*t/2$.

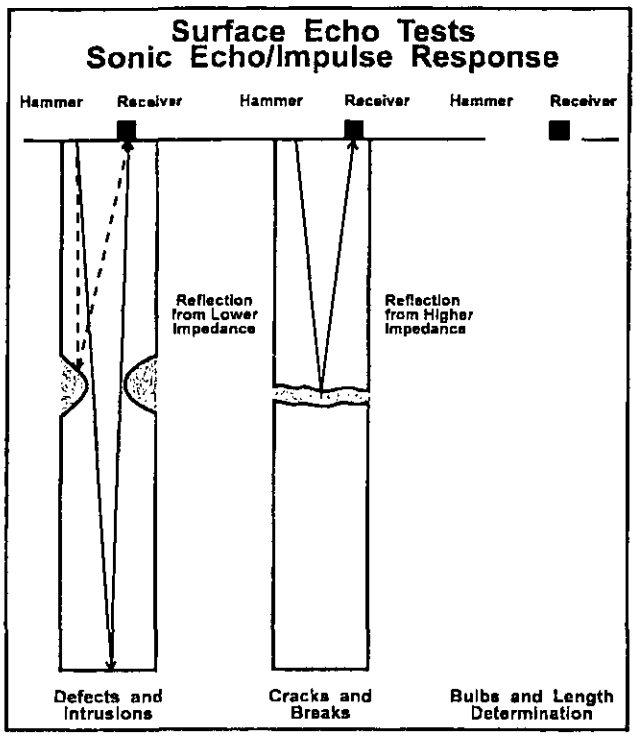


Figure 2: Sonic Echo and Impulse Response Test Methods

Impulse Response (IR) Test Method. The IR method is also an echo test and uses the same test equipment as the SE method. The test procedures are similar to the SE test procedures, but the data processing is different. The IR method involves frequency domain data processing, i.e., the vibrations of the foundation measured by the receivers are processed with Fast Fourier Transform (FFT) algorithms to generate transfer functions for analyses. The coherence of the impulse hammer impact and accelerometer receiver response data versus frequency is calculated to indicate the data quality. A coherence near 1.0 indicates good quality data. For shafts in air or in relatively soft soils, the coherence will typically only be near 1.0 at frequencies for which the mobility is non-zero. In the IR records the linear transfer function amplitude is in inches/second/pound force on the vertical axis (mobility) and frequency in Hz on the horizontal axis. Because of the rod-like shape of a deep foundation, reflections are indicated by equally spaced resonant peaks that correspond to modes of vibration associated with the depth of the reflector. The inverse of the SE reflection time, t, is equal to the change in frequency, Δf, between the resonant peaks in the IR mobility plot. The reflector

depth is then calculated as: $D = V/(2*\Delta f)$.

SE/IR Analyses, Analysis of the length determination and the integrity evaluation of a foundation for both the SE and IR methods is based on the identification and evaluation of reflections. However, test results are analyzed in the time domain for the SE and in the frequency domain for the IR method. The reflections are shown as resonant frequency peaks in the frequency domain for IR test data. The two methods complement each other because the identifications of reflections are sometimes clearer in either the time or the frequency domain.

The SE and IR test methods are sensitive to changes in the shaft impedance (shaft concrete area * velocity * mass density where mass density equals unit weight divided by gravity), which cause the reflections of the compression wave energy. Compression wave energy (hammer impact energy) reflects differently from increased shaft impedance than from decreased shaft impedance. This phenomenon allows the type of reflector to be identified as follows. Soil intrusions, honeycomb, breaks, cracks, cold joints, poor quality concrete and similar defects (referred to herein as a neck) are identified as reflections that correspond to a decrease in the shaft impedance. Increases in the shaft cross-section or the competency of surrounding materials such as bedrock and stiffer soil strata (referred to herein as a bulb) are identified as reflections corresponding to increases in the shaft impedance. A decrease in impedance is indicated by a downward initial break of a reflection event in an SE record and frequency peaks positioned in a record such that a peak could be extrapolated to be near 0 Hz in the mobility plot. Conversely, an increase in shaft impedance is identified by an upward initial break for an SE reflector and frequency peaks positioned in an IR record such that a trough could be extrapolated to be near 0 Hz in the mobility plot. When length to diameter ratios exceed 20:1 to 30:1 for shafts in stiffer soils/bedrock, the attenuation of compression wave energy is high and bottom echoes are weak or unidentifiable in SE/IR test results. The term "weak bottom echo" is used to indicate that a bottom echo is seen, but that it is barely visible above the normal background noise. Note that it is possible for a perfectly sound shaft to have a weak bottom echo, as a weak echo can be caused by either a shallow reflector blocking energy from the shaft bottom, or from wave energy coupling into the bedrock at the shaft bottom rather than reflecting back up. Thus, the strength of the bottom echo is used as a secondary, minor consideration as to shaft condition.

CLOSURE

The field portion of this NDT investigation was performed in accordance with generally accepted testing procedures. If we can provide additional information or services on this project, or additional information becomes available that would impact the findings of this investigation, please call.

Respectfully submitted,

Olson Engineering, Inc.

Dennis A. Sack
Associate Engineer

Larry D. Olson, P.E.
Principal Engineer

COLORADO REGISTERED
LARRY D. OLSON
22752
PROFESSIONAL ENGINEER

(1 copy faxed and 2 copies mailed)

REPORT OF DRILLED PIER OBSERVATION

Report Number: 25061446.0131
Service Date: July 18, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: July 24, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services:

Terracon was present at the referenced project to observe the installation of drilled piers. For each pier observed, Terracon evaluated if piers were constructed with proper penetration and length into the bearing strata.

The reinforcing steel cage was visually examined and the quantity, size and length of the vertical bars was recorded. Additionally, samples of the fresh concrete were obtained and the required field tests performed. One (1) set of four (4) compressive strength test cylinders was cast for each pier. Compressive strength results will be transmitted under separate cover (see Report Numbers 25061446.0132, .0133 and .0134).

Terracon Rep: James T.McNamara
Field Results Reported To: Ian

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JAA/R99-Future Rev

RECORD OF DRILLED PIER INSTALLATION

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0131 Date: 7/18/07 Technician: J. McNamara

PIER LOCATION		1C x A2	1B.6 x A2.1	1B x A9			
PIER TYPE		P2	P1	P1			
DATE OF CONCRETE		7/18/07	7/18/07	7/18/07			
PIER DIAMETER (inches)		30	30	30			
ELEVATION (feet)	GROUND SURFACE						
	TOP OF PIER						
	BOTTOM OF PIER						
PLANNED ELEVATION OF BEDROCK (ft.)		--	--	--			
ACTUAL ELEVATION OF BEDROCK (ft.)		-53'	-53'	-53'			
DEPTH OF OVERBURDEN (ft.)							
PENETRATION (feet)	REQUIRED	14'	6'	6'			
	ACTUAL	14'-6"	7'	8'			
TOTAL DEPTH DRILLED (ft.)		67'-6"	60'	61'			
HEIGHT OF CONCRETE ABOVE GRADE (ft.)							
LENGTH (feet)	PLANNED PIER						
	ACTUAL PIER						
REQUIRED MINIMUM LENGTH (ft.)		--	--	--			
REINFORCEMENT	NUMBER & SIZE	6 #7's	6 #7's	6 #7's			
	BAR LENGTH	67'	60'	60'			
	TIES	#4 @ 16" O.C.	#4 @ 16" O.C.	#4 @ 16" O.C.			
PLUMBNESS		<1%	<1%	<1%			
SHEAR RINGS		Yes	Yes	Yes			
WATER		No	No	No			
SUPPORTING STRATUM		Claystone	Claystone	Claystone			
COMMENTS:							

REVIEWED BY: _____

Terracon

LABORATORY COMPACTION CHARACTERISTICS OF SOIL

Report Number: 25061446.0140
Service Date: July 19, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client: HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: July 25, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project Number: 25061446

Material Information

Contractor:
Source of Material:
Proposed Use:
USCS: SW-SM

Sample Information

Sampled By:
Sample Location:

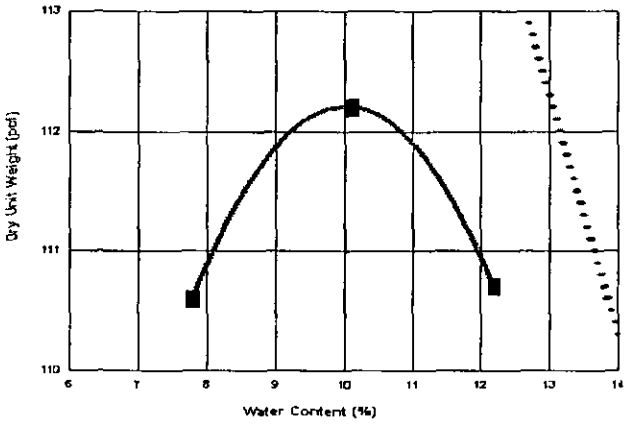
Sample Description: Well Graded Sand w/Silt (SW-SM)
A-1-b (0)

Laboratory Test Data

Test Procedure:	ASTM D698-91
Test Method:	Method A
Sample Preparation:	Dry Preparation
Rammer Type:	Manual Rammer
Maximum Dry Unit Weight, pcf:	112.0
Optimum Water Content, %:	10.0

	Result	Specifications
Liquid Limit:	Non-plastic	
Plastic Limit:	Non-plastic	
Plasticity Index:	Non-plastic	
% Passing #40:	31.9	
% Passing #200:	8.8	

Moisture Density Relations
Zero Air Voids Curve for assumed specific gravity 2.35



Services-D698, Sieve, PI

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TESTING

Report Number: 25061446.0166
Service Date: July 24, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: July 27, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

	Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
1	614460027	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-2-4	12.0	116.0	±2	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
1	1BB.1 x A1	Grade	1	10"	11.5	110.2	95
2	1BB.4 x A1	Grade	1	10"	10.9	111.9	96
3	1BB.1 x A6.5	Grade	1	10"	11.8	111.5	96
4	1BB.4 x A6.5	Grade	1	10"	11.1	110.6	95

Comments:

Test results on this report meet project specification.

Services - Field Density Testing

Field Test Method: ASTM D2922, ASTM D3017

Gauge ID: 4524

Terracon Rep: James T.McNamara

Field Results Reported To: Ian with JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REPORT OF DRILLED PIER OBSERVATION

Report Number: 25061446.0178
Service Date: July 27, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 07, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Drilled Pier Observation

Terracon was present at the referenced project to observe the installation of drilled piers. For each pier observed, Terracon evaluated if piers were constructed with proper penetration and length into the bearing strata.

The reinforcing steel cage was visually examined and the quantity, size and length of the vertical bars was recorded. Additionally, samples of the fresh concrete were obtained and the required field tests performed. One (1) set of four (4) compressive strength test cylinders was cast for each pier. Compressive strength results will be transmitted under separate cover (see Report Numbers 25061446.0180 and .0181).

Terracon Rep: James T.McNamara
Field Results Reported To: Ian

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: G. L. Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JAA/R99-Future Key

RECORD OF DRILLED PIER INSTALLATION

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0178 Date: 7/27/07 Technician: J. McNamara

PIER LOCATION		1H x A14	1X x A19				
PIER TYPE		P1	P1				
DATE OF CONCRETE		7/27/07	7/27/07				
PIER DIAMETER (inches)		30	30				
ELEVATION (feet)	GROUND SURFACE	0	0				
	TOP OF PIER	0	0				
	BOTTOM OF PIER	-60'-6"	-60'				
PLANNED ELEVATION OF BEDROCK (ft.)		--	--				
ACTUAL ELEVATION OF BEDROCK (ft.)		-53'	-53'				
DEPTH OF OVERBURDEN (ft.)							
PENETRATION (feet)	REQUIRED	6'	6'				
	ACTUAL	7'-6"	7'				
TOTAL DEPTH DRILLED (ft.)		60'-6"	60'				
HEIGHT OF CONCRETE ABOVE GRADE (ft.)							
LENGTH (feet)	PLANNED PIER						
	ACTUAL PIER	60'-6"	60'				
REQUIRED MINIMUM LENGTH (ft.)		--	--				
REINFORCEMENT	NUMBER & SIZE	6 #7's	6 #7's				
	BAR LENGTH	60'	60'				
	TIES	#4 @ 16" O.C.	#4 @ 16" O.C.				
PLUMBNESS		<1%	<1%				
SHEAR RINGS		Yes	Yes				
WATER		No	No				
SUPPORTING STRATUM		Claystone	Claystone				
COMMENTS:							

REVIEWED BY: G Lacroix for

Terracon

IELD DENSITY TESTING

Report Number: 25061446.0183
ervice Date: July 27, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
ttn: Clint Russell
One Park Plaza
ldg 2, 3 East
lashville TN 37203

Report Date: August 07, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460027	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-2-4	12.0	116.0		

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
1	Gridlines 1A.5 x A13.2		1	10"	14.1	107.8	93
2	Gridlines 1A.3 x A13.1		1	10"	15.3	107.6	93

Comments:
est results on this report meet project specification.
Material appeared over-saturated. The reported plan of action is to disturb the soil and allow to dry over the weekend. The material reported above was removed at this time, for this purpose.

ervices - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
auge ID: 4524

erracon Rep: James T.McNamara
Field Results Reported To: Ian

eport Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: G Lance Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client dicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REPORT OF DRILLED PIER OBSERVATION

Report Number: 25061446.0185
Service Date: July 30, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 08, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Drilled Pier Observation

Terracon was present at the referenced project to observe the installation of drilled piers. For each pier observed, Terracon evaluated if piers were constructed with proper penetration and length into the bearing strata.

The reinforcing steel cage was visually examined and the quantity, size and length of the vertical bars was recorded. Additionally, samples of the fresh concrete were obtained and the required field tests performed. One (1) set of four (4) compressive strength test cylinders was cast for each pier. Compressive strength results will be transmitted under separate cover (see Report *Numbers 25061446.0186, .0187 and .0188).*

Terracon Rep: James T.McNamara
Field Results Reported To: Ian

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JAA/R99-Future Key

RECORD OF DRILLED PIER INSTALLATION

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0185 Date: 7/30/07 Technician: J. McNamara

PIER LOCATION		1AA x A13	1X x A15	1N x A15			
PIER TYPE		P4	P1	P3			
DATE OF CONCRETE		7/30/07	7/30/07	7/30/07			
PIER DIAMETER (inches)		30	30	30			
ELEVATION (feet)	GROUND SURFACE	0	0	0			
	TOP OF PIER	2'-6"	2'-6"	2'-6"			
	BOTTOM OF PIER	-61'	-60'	-76'			
PLANNED ELEVATION OF BEDROCK (ft.)		--	--	--			
ACTUAL ELEVATION OF BEDROCK (ft.)		-53'	-53'	-53'			
DEPTH OF OVERBURDEN (ft.)		50'-6"	50'-6"	50'-6"			
PENETRATION (feet)	REQUIRED	8'	6'	22'			
	ACTUAL	8'	7'	23'			
TOTAL DEPTH DRILLED (ft.)		61'	60'	76'			
HEIGHT OF CONCRETE ABOVE GRADE (ft.)		-2'-6"	-2'-6"	-2'-6"			
LENGTH (feet)	PLANNED PIER	--	--	--			
	ACTUAL PIER	58'-6"	57'-6"	73'-6"			
REQUIRED MINIMUM LENGTH (ft.)		--	--	--			
REINFORCEMENT	NUMBER & SIZE	6 #7's	6 #7's	6 #7's			
	BAR LENGTH	--	--	--			
	TIES	#4 @ 16" O.C.	#4 @ 16" O.C.	#4 @ 16" O.C.			
PLUMBNESS		<1%	<1%	<1%			
SHEAR RINGS		Yes	Yes	Yes			
WATER		No	No	No			
SUPPORTING STRATUM		Claystone	Claystone	Claystone			
COMMENTS:							

REVIEWED BY: G Louis Terracon

Terracon

REPORT OF DRILLED PIER OBSERVATION

Report Number: 25061446.0191
Service Date: July 31, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 08, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Drilled Pier Observation

Terracon was present at the referenced project to observe the installation of drilled piers. For each pier observed, Terracon evaluated if piers were constructed with proper penetration and length into the bearing strata.

The reinforcing steel cage was visually examined and the quantity, size and length of the vertical bars was recorded. Additionally, samples of the fresh concrete were obtained and the required field tests performed. One (1) set of four (4) compressive strength test cylinders was cast for each pier. Compressive strength results will be transmitted under separate cover (see Report Numbers 25061446.0192, .0193 and .0194).

Terracon Rep: James T.McNamara
Field Results Reported To: Ian

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JAA/R99-Future Key

RECORD OF DRILLED PIER INSTALLATION

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0191 Date: 7/31/07 Technician: J. McNamara

PIER LOCATION		1U x A15	1AA x A11	1AA x A8			
PIER TYPE		P3	P2	P1			
DATE OF CONCRETE		7/31/07	7/31/07	7/31/07			
PIER DIAMETER (inches)		30	30	30			
ELEVATION (feet)	GROUND SURFACE	0	0	0			
	TOP OF PIER	-2'-6"	-2'-6"	-2'-6"			
	BOTTOM OF PIER	76'	67'-6"	60'			
PLANNED ELEVATION OF BEDROCK (ft.)		--	--	--			
ACTUAL ELEVATION OF BEDROCK (ft.)		-53'	-53'	-53'			
DEPTH OF OVERBURDEN (ft.)		50'-6"	50'-6"	50'-6"			
PENETRATION (feet)	REQUIRED	22'	14'	6'			
	ACTUAL	23'	14'-6"	7'			
TOTAL DEPTH DRILLED (ft.)		76'	67'-6"	60'			
HEIGHT OF CONCRETE ABOVE GRADE (ft.)		-2'-6"	-2'-6"	-2'-6"			
LENGTH (feet)	PLANNED PIER	--	--	--			
	ACTUAL PIER	73'-6"	65'	57'-6"			
REQUIRED MINIMUM LENGTH (ft.)		--	--	--			
REINFORCEMENT	NUMBER & SIZE	6 #7's	6 #7's	6 #7's			
	BAR LENGTH	--	--	--			
	TIES	#4 @ 16" O.C.	#4 @ 16" O.C.	#4 @ 16" O.C.			
PLUMBNESS		<1%	<1%	<1%			
SHEAR RINGS		Yes	Yes	Yes			
WATER		No	No	No			
SUPPORTING STRATUM		Claystone	Claystone	Claystone			
COMMENTS:							

REVIEWED BY: _____

Terracon

REPORT OF DRILLED PIER OBSERVATION

Report Number: 25061446.0197
Service Date: August 1, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 09, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Drilled Pier Observation

Terracon was present at the referenced project to observe the installation of drilled piers. For each pier observed, Terracon evaluated if piers were constructed with proper penetration and length into the bearing strata.

The reinforcing steel cage was visually examined and the quantity, size and length of the vertical bars was recorded. Additionally, samples of the fresh concrete were obtained and the required field tests performed. One (1) set of four (4) compressive strength test cylinders was cast for each pier. Compressive strength results will be transmitted under separate cover (see Report Numbers 25061446.0198, .0199 and .0200).

Comments:
During the drilling of pier 1AA.7 x A5 they struck an abandoned waterline with standing water. The line was inactive, so once they were able to drill through it no other problems were encountered.

Terracon Rep: James T.McNamara
Field Results Reported To: Ian

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

RECORD OF DRILLED PIER INSTALLATION

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0197 Date: 8/1/07 Technician: J. McNamara

PIER LOCATION		1AA.7 x A5	1V x A1	1Z x A3			
PIER TYPE		P1	P1	P1			
DATE OF CONCRETE		8/1/07	8/1/07	8/1/07			
PIER DIAMETER (inches)		30	30	30			
ELEVATION (feet)	GROUND SURFACE	--	--	--			
	TOP OF PIER	-2'-6"	-2'-6"	-2'-6"			
	BOTTOM OF PIER	-60'	-60'	-60'			
PLANNED ELEVATION OF BEDROCK (ft.)		--	--	--			
ACTUAL ELEVATION OF BEDROCK (ft.)		53'	53'	53'			
DEPTH OF OVERBURDEN (ft.)		51'-6"	51'-6"	51'-6"			
PENETRATION (feet)	REQUIRED	6'	6'	6'			
	ACTUAL	7'	7'	7'			
TOTAL DEPTH DRILLED (ft.)		60'	60'	60'			
HEIGHT OF CONCRETE ABOVE GRADE (ft.)		-2'-6"	-2'-6"	-2'-6"			
LENGTH (feet)	PLANNED PIER	--	--	--			
	ACTUAL PIER	57'-6"	57'-6"	57'-6"			
REQUIRED MINIMUM LENGTH (ft.)		--	--	--			
REINFORCEMENT	NUMBER & SIZE	6 #7's	6 #7's	6 #7's			
	BAR LENGTH	--	--	--			
	TIES	#4 @ 16" O.C.	#4 @ 16" O.C.	#4 @ 16" O.C.			
PLUMBNESS		<1%	<1%	<1%			
SHEAR RINGS		Yes	Yes	Yes			
WATER		No	No	No			
SUPPORTING STRATUM		Claystone	Claystone	Claystone			
COMMENTS:							

REVIEWED BY: [signature]

Terracon

FIELD DENSITY TESTING

Report Number: 25061446.0201
Service Date: August 1, 2007
Task: **Utility Trench Backfill**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 09, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

	Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
1	614460027	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-2-4	12.0	116.0	±2	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
1	1C.5 x A13	Top	1	12"	12.9	110.2	95
2	1D.5 x A13	Top	1	12"	12.2	110.4	95
3	1B x A10	Top	1	12"	11.9	116.2	100
4	1B x A10.7	Top	1	12"	12.4	115.6	100

Comments:

Test results on this report meet project specification.

Top - Top of Pier

During the drilling of pier 1AA.7 x A5 they struck an abandoned waterline with standing water. The line was inactive, so once they were able to drill through it no other problems were encountered.

Services - Field Density Testing

Field Test Method: ASTM D2922, ASTM D3017

Gauge ID: 4524

Terracon Rep: James T.McNamara

Field Results Reported To: Ian

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REPORT OF DRILLED PIER OBSERVATION

Report Number: 25061446.0209
Service Date: August 2, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 09, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services:

Terracon was present at the referenced project to observe the installation of drilled piers. For each pier observed, Terracon evaluated if piers were constructed with proper penetration and length into the bearing strata.

The reinforcing steel cage was visually examined and the quantity, size and length of the vertical bars was recorded. Additionally, samples of the fresh concrete were obtained and the required field tests performed. One (1) set of four (4) compressive strength test cylinders was cast. Compressive strength results will be transmitted under separate cover (see Report Number 25061446.0207).

Terracon Rep: Kathryn A. Leibold
Field Results Reported To: Ray with Ludwig Drilling

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JAA/R99-Future Key

RECORD OF DRILLED PIER INSTALLATION

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0209 Date: 8/2/07 Technician: K. Leibold

PIER LOCATION		1J.1 x A13.1					
PIER TYPE		P-1					
DATE OF CONCRETE		8/2/07					
PIER DIAMETER (inches)		30"					
ELEVATION (feet)	GROUND SURFACE	1					
	TOP OF PIER	-2.5					
	BOTTOM OF PIER	-59					
PLANNED ELEVATION OF BEDROCK (ft.)		--					
ACTUAL ELEVATION OF BEDROCK (ft.)		-53					
DEPTH OF OVERBURDEN (ft.)							
PENETRATION (feet)	REQUIRED	6					
	ACTUAL	6					
TOTAL DEPTH DRILLED (ft.)		60					
HEIGHT OF CONCRETE ABOVE GRADE (ft.)		--					
LENGTH (feet)	PLANNED PIER	--					
	ACTUAL PIER	56.5					
REQUIRED MINIMUM LENGTH (ft.)		--					
REINFORCEMENT	NUMBER & SIZE	6 #7's					
	BAR LENGTH	--					
	TIES	#4 @ 16" O.C.					
PLUMBNESS		Yes					
SHEAR RINGS		Yes					
WATER		No					
SUPPORTING STRATUM		Sandstone					

COMMENTS:

REVIEWED BY: C. Louis Turton

Terracon

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0223
Service Date: August 6, 2007
Task: **Gradebeam Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 09, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S0.01, S0.04A and S4.00 of *plans dated 4/13/07 were used as the reference documents during our inspection.*

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Grade Beam Foundation for Stair #2

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 99" #9 Measured in field: 78" #9
Bar Supports: Dowels & Dobies
Clearance: 3" Cover: 2"

In-place Compliance
1. Met project requirements when initially examined. No
2. Met project requirements when re-examined. Yes

EXCEPTIONS NOTED BELOW:
#9 shear wall dowels project 78" design lap for #9 bar in 4000 psi cover, Class B splice is 99", contractor proposes RFI offering to mechanical splice.

Terracon Rep: John R. Poole

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

13-JAA/R13-Future Key

EINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0223
rvice Date: August 6, 2007
sk: **Gradebeam Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
CA Healthcare
ttn: Clint Russell
One Park Plaza
dg 2, 3 East
ashville TN 37203

Report Date: August 09, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S0.01, S0.04A and S4.00 of plans dated 4/13/07 were used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Grade Beam Foundation for Stair #2

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 99" #9 Measured in field: 78" #9
Bar Supports: Dowels & Dobies
Clearance: 3" Cover: 2"

In-place Compliance
1. Met project requirements when initially examined. No
2. Met project requirements when re-examined. Yes

EXCEPTIONS NOTED BELOW:
#9 shear wall dowels project 78" design lap for #9 bar in 4000 psi cover, Class B splice is 99", contractor proposes RFI offering to mechanical splice.

erracon Rep: John R. Poole

eport Distribution:
(1) HCA Healthcare
(1) Perkins & Will
) JE Dunn Construction Co
) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client dicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0248
Service Date: August 9, 2007
Task: **Gradebeam Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 15, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S100, S004A, S400 of plans dated 4/6/07 were used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Grade Beams at gridlines A.13 x 1B.0 to 1E.8

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: Table at S001 Measured in field: Greater than specified
Bar Supports: Brick & Dowel
Clearance: 1½" & 3" Cover: 3"

In-place Compliance
1. Met project requirements when initially examined. No - Pending RFI

Comments:
Dowel protrusion from horizontals above grade beam at brick ledge on gridlines A13 at 1B.1 was only 27", not sufficient to achieve required lap splice. RFI pending for change to pilaster reinforcement, 3 ties with 3" spacing at top of pilaster in place of 90° bend per phone conversation with H. Doyle of TRC.

Terracon Rep: Michael D. Gessert
Field Results Reported To: Jesse Hunt w/J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0248
Service Date: August 9, 2007
Task: **Gradebeam Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 15, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S100, S004A, S400 of plans dated 4/6/07 were used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Grade Beams at gridlines A.13 x 1B.0 to 1E.8

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: Table at S001 Measured in field: Greater than specified
Bar Supports: Brick & Dowel
Clearance: 1½" & 3" Cover: 3"

In-place Compliance
1. Met project requirements when initially examined. No - Pending RFI

Comments:
Dowel protrusion from horizontals above grade beam at brick ledge on gridlines A13 at 1B.1 was only 27", not sufficient to achieve required lap splice. RFI pending for change to pilaster reinforcement, 3 ties with 3" spacing at top of pilaster in place of 90° bend per phone conversation with H. Doyle of TRC.

Terracon Rep: Michael D. Gessert
Field Results Reported To: Jesse Hunt w/J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: G. L. Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0248
Service Date: August 9, 2007
Task: **Gradebeam Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 23, 2007 **REVISED
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S100, S004A, S400 of plans dated 4/6/07 were used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Grade Beams at gridlines A.13 x 1B.0 to 1E.8

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: Table at S001 Measured in field: Greater than specified
Bar Supports: Brick & Dowel
Clearance: 1½" & 3" Cover: 3"

In-place Compliance
1. Met project requirements when initially examined. No - Pending RFI
2. Accepted per RFI 10090-0303 YES

Comments:
Dowel protrusion from horizontals above grade beam at brick ledge on gridlines A13 at 1B.1 was only 27", not sufficient to achieve required lap splice. RFI pending for change to pilaster reinforcement, 3 ties with 3" spacing at top of pilaster in place of 90° bend per phone conversation with H. Doyle of TRC.

Terracon Rep: Michael D. Gessert
Field Results Reported To: Jesse Hunt w/J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REPORT OF DRILLED PIER OBSERVATION

Report Number: 25061446.0272
Service Date: August 14, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 22, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Drilled Pier Observation

Terracon was present at the referenced project to observe the installation of drilled piers. For each pier observed, Terracon evaluated if piers were constructed with proper penetration and length into the bearing strata.

The reinforcing steel cage was visually examined and the quantity, size and length of the vertical bars was recorded. Additionally, samples of the fresh concrete were obtained and the required field tests performed. One (1) set of four (4) compressive strength test cylinders was cast. Compressive strength results will be transmitted under separate cover (see Report Number 25061446.0269).

Terracon Rep: Matthew P. Wales
Field Results Reported To: Ian with JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: G Lindsay Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

RECORD OF DRILLED PIER INSTALLATION

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0272 Date: 8/14/07 Technician: M. Wales

PIER LOCATION		1J x A11					
PIER TYPE		P-2					
DATE OF CONCRETE		8/14/07					
PIER DIAMETER (inches)		30					
ELEVATION (feet)	GROUND SURFACE	0'-0" (100)					
	TOP OF PIER	97'-6" (97½)					
	BOTTOM OF PIER	67					
PLANNED ELEVATION OF BEDROCK (ft.)		-53					
ACTUAL ELEVATION OF BEDROCK (ft.)		53					
DEPTH OF OVERBURDEN (ft.)		53					
PENETRATION (feet)	REQUIRED	14					
	ACTUAL	14					
TOTAL DEPTH DRILLED (ft.)		67					
HEIGHT OF CONCRETE ABOVE GRADE (ft.)		--					
LENGTH (feet)	PLANNED PIER	--					
	ACTUAL PIER	67					
REQUIRED MINIMUM LENGTH (ft.)		<62'-6"					
REINFORCEMENT	NUMBER & SIZE	6 #7's					
	BAR LENGTH	66'-6"					
	TIES	#4's @ 16" O.C.					
PLUMBNESS		<1%					
SHEAR RINGS		Yes					
WATER		No					
SUPPORTING STRATUM		Claystone					
COMMENTS:							

REVIEWED BY: G Lucas Fontana

Terracon

EINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0282
rvice Date: August 15, 2007
sk: **Gradebeam Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
CA Healthcare
ttn: Clint Russell
One Park Plaza
dg 2, 3 East
ashville TN 37203

Report Date: August 22, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S100, S400, S004A, Chart GB-6 and 3/S400 of plans dated 4/13/07 were used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Gridlines 1A.5 to A10.2 x 1C to A7

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 40 bar diameter / 45.12 Measured in field: Where used on #6's
Bar Supports: Chairs
Clearance: 1" Cover: 3"

In-place Compliance
1. Met project requirements when initially examined. Yes

Field Results Reported To: Ian with JE Dunn

eport Distribution:
(1) HCA Healthcare
(1) Perkins & Will
) JE Dunn Construction Co
) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client dicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

EINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0290
rvice Date: August 16, 2007
sk: **Shear Wall Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
CA Healthcare
ttn: Clint Russell
One Park Plaza
dg 2, 3 East
ashville TN 37203

Report Date: August 22, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S001, S004 and S501 of plans dated 4/13/07 were used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Strip 'A' (S/E) 1st floor shear wall reinforcing (stairwell)

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 88" Measured in field: 90"
Bar Supports: Wires
Clearance: 2" Cover: 2"

In-place Compliance
1. Met project requirements when initially examined. Yes

Comments: A deviation in plans pertaining to 10 #9's on each face was approved by the Engineer.

erracon Rep: Jack D. Redman

eport Distribution:
(1) HCA Healthcare
(1) Perkins & Will
) JE Dunn Construction Co
) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client ndicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable o the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0290
Service Date: August 16, 2007
Task: **Shear Wall Reinforcing steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 22, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S001, S004 and S501 of plans dated 4/13/07 were used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Strip 'A' (S/E) 1st floor shear wall reinforcing (stairwell)

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 88" Measured in field: 90"
Bar Supports: Wires
Clearance: 2" Cover: 2"

In-place Compliance
1. Met project requirements when initially examined. Yes

Comments: A deviation in plans pertaining to 10 #9's on each face was approved by the Engineer.

Terracon Rep: Jack D. Redman

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

These tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REPORT OF DRILLED PIER OBSERVATION

Report Number: 25061446.0296
Service Date: *August 17, 2007*
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 29, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Drilled Pier Observation

Terracon was present at the referenced project to observe the installation of drilled piers. For each pier observed, Terracon evaluated if piers were constructed with proper penetration and length into the bearing strata.

The reinforcing steel cage was visually examined and the quantity, size and length of the vertical bars was recorded. Additionally, samples of the fresh concrete were obtained and the required field tests performed. One (1) set of four (4) compressive strength test cylinders was cast. Compressive strength results will be transmitted under separate cover (see Report Numbers 25061446.0297 and .0298).

Terracon Rep: Robert R. Carlson
Field Results Reported To: Ray Graham with Ludwig

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: S. Lynn Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JAA/R99-Future Key

RECORD OF DRILLED PIER INSTALLATION

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0296 Date: 8/17/07 Technician: R. Carlson

PIER LOCATION		1H x A10.2	A9.5 x 1K.5				
PIER TYPE		P-1	P-1				
DATE OF CONCRETE		8/18/07	8/18/07				
PIER DIAMETER (inches)		30	30				
ELEVATION (feet)	GROUND SURFACE	100	100				
	TOP OF PIER	100	100				
	BOTTOM OF PIER	-66	-66				
PLANNED ELEVATION OF BEDROCK (ft.)		N/A	N/A				
ACTUAL ELEVATION OF BEDROCK (ft.)		-60	-60				
DEPTH OF OVERBURDEN (ft.)		-60	-60				
PENETRATION (feet)	REQUIRED	6	6				
	ACTUAL	6	6				
TOTAL DEPTH DRILLED (ft.)		66	65				
HEIGHT OF CONCRETE ABOVE GRADE (ft.)		0	0				
LENGTH (feet)	PLANNED PIER	N/A	N/A				
	ACTUAL PIER	66	66				
REQUIRED MINIMUM LENGTH (ft.)		60	60				
REINFORCEMENT	NUMBER & SIZE	6 #7's	6 #7's				
	BAR LENGTH	60	60				
	TIES	#4's @ 18" O.C.	#4's @ 18" O.C.				
PLUMBNESS		<1%	<1%				
SHEAR RINGS		No	No				
WATER		Yes	Yes				
SUPPORTING STRATUM		Claystone	Claystone				

COMMENTS:

REVIEWED BY: S Lucas Fenton

Terracon

REPORT OF DRILLED PIER OBSERVATION

Report Number: 25061446.0312
Service Date: August 20, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 31, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Drilled Pier Observation

Terracon was present at the referenced project to observe the installation of drilled piers. For each pier observed, Terracon evaluated if piers were constructed with proper penetration and length into the bearing strata.

The reinforcing steel cage was visually examined and the quantity, size and length of the vertical bars was recorded. Additionally, samples of the fresh concrete were obtained and the required field tests performed. Two (2) sets of four (4) compressive strength test cylinders was cast. Compressive strength results will be transmitted under separate cover (see Report Numbers 25061446.0313, .0314, and .0315).

Field Results Reported To: Chris & Ian w/JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: S Lance Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

RECORD OF DRILLED PIER INSTALLATION

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0312 Date: 8/20/07 Technician: J. Allen

PIER LOCATION		A2 x 16	1E x A1				
PIER TYPE		Caisson	Caisson				
DATE OF CONCRETE		8/20/07	8/20/07				
PIER DIAMETER (inches)		30	30				
ELEVATION (feet)	GROUND SURFACE	N/A	N/A				
	TOP OF PIER	N/A	N/A				
	BOTTOM OF PIER	N/A	N/A				
PLANNED ELEVATION OF BEDROCK (ft.)		N/A	N/A				
ACTUAL ELEVATION OF BEDROCK (ft.)		53	53				
DEPTH OF OVERBURDEN (ft.)		14	14				
PENETRATION (feet)	REQUIRED	14	14				
	ACTUAL	14	14				
TOTAL DEPTH DRILLED (ft.)		67	67				
HEIGHT OF CONCRETE ABOVE GRADE (ft.)		N/A	N/A				
LENGTH (feet)	PLANNED PIER	N/A	N/A				
	ACTUAL PIER	67	67				
REQUIRED MINIMUM LENGTH (ft.)		14' into rock	14' into rock				
REINFORCEMENT	NUMBER & SIZE	7 #6's	7 #6's				
	BAR LENGTH						
	TIES	#4 @ 16" O.C.	#4 @ 16" O.C.				
PLUMBNESS							
SHEAR RINGS		3	3				
WATER		No	No				
SUPPORTING STRATUM		#6's	#6's				
COMMENTS: No vibrated b/c of slurry on top of concrete							

REVIEWED BY: G Lucas Ferguson

Terracon

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0328
Service Date: August 22, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 30, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S001 of plans dated 4/6/07 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Pier Caps, A10 x 1T to A12 x 1X and 1AA x A8 to A11

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: N/A Measured in field: Continuous
Bar Supports: Ties
Clearance: 3" Cover: 3"/2"

In-place Compliance
1. Met project requirements when initially examined. No
2. Met project requirements when re-examined. Yes

Comments:
Initial inspection backing sufficient ties, reinforcing spacing too large in places.

Terracon Rep: James T.McNamara
Field Results Reported To: Ian with JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0328
Service Date: August 22, 2007
Task: **Pier Cap Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 30, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S001 of plans dated 4/6/07 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Pier Caps, A10 x 1T to A12 x 1X and 1AA x A8 to A11

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: N/A Measured in field: Continuous
Bar Supports: Ties
Clearance: 3" Cover: 3"/2"

In-place Compliance
1. Met project requirements when initially examined, No
2. Met project requirements when re-examined. Yes

Comments:
Initial inspection backing sufficient ties, reinforcing spacing too large in places.

Terracon Rep: James T.McNamara
Field Results Reported To: Ian with JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0330
Service Date: August 22, 2007
Task: **Micro-Piles**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 30, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet SO22A of plans dated 4/6/07 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Micro-piles 1U x A20, 1U x A21 and 1R x A21.8

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: N/A Measured in field: N/A
Bar Supports: Ties
Clearance: N/A Cover: N/A

In-place Compliance
1. Met project requirements when initially examined. No
2. Met project requirements when re-examined. Yes

Comments:
Initial inspection lacking sufficient ties, reinforcing spacing too large in places.

Terracon Rep: James T.McNamara
Field Results Reported To: Ian with JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: G. Lance Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TESTING

Report Number: 25061446.0339
Service Date: August 27, 2007
Task: **Utility Trench Backfill**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 05, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460069	ASTM D1557-91	Poorly Graded Sand w/Silt (SP-SM) A-1-b (0)	11.0	118.5	±2	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Elevator Pit Backfill						
1	3' S & 25' E from the NW pier of the elevator pit	S.G.	1	8"	9.9	118.4	100
2	30' S & 3' W from the NW pier of the elevator pit	S.G.	1	8"	9.1	115.0	97
3	11' S & 10' E from the NW pier of the elevator pit	S.G.	1	8"	9.5	114.1	96
4	15' N & 20' W from the NW pier of the elevator pit	S.G.	1	8"	9.6	114.6	97
5	7' S & 17' W from the NW pier of the elevator pit	S.G.	1	8"	9.4	114.4	97

Comments:
Test results on this report meet project specification.
Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 4463

Terracon Rep: Travis O. Whalen
Field Results Reported To: Ian with JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

IELD DENSITY TESTING

Report Number: 25061446.0354
ervice Date: August 30, 2007
ask: **Foundation Wall Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
ICA Healthcare
ttn: Clint Russell
One Park Plaza
ldg 2, 3 East
Nashville TN 37203

Report Date: September 10, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460027	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-2-4	12.0	116.0	±2	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
1	Gridlines 1AA x A13		1	12"	13.2	111.2	96
2	Gridlines 1M x A13		1	12"	11.9	115.4	99
3	Gridlines 1J.2 x A13.9		1	12"	10.7	114.7	99
4	Gridlines 1H x A14		1	12"	11.2	116.2	100

Comments:
est results on this report meet project specification.
ervices - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017

erracon Rep: James T.McNamara
Field Results Reported To: Ian with J.E. Dunn

eport Distribution:
(1) HCA Healthcare
(1) Perkins & Will
) JE Dunn Construction Co
) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client dicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TESTING

Report Number: 25061446.0355
Service Date: August 31, 2007
Task: **Foundation Wall Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 10, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460027	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-2-4	12.0	116.0	±2	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
1	Gridlines 1V x A6.4		1	12"	10.1	110.2	95
2	Gridlines 1J x A11		1	12"	13.8	114.1	98
3	Gridlines 1V x A10.5		1	12"	12.2	114.8	99

Comments:
Test results on this report meet project specification.
Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017

Terracon Rep: James T.McNamara
Field Results Reported To: Ian with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

IELD DENSITY TESTING

Report Number: 25061446.0367
ervice Date: September 6, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
ttn: Clint Russell
One Park Plaza
Bldg 2, 3 East
lashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460027	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-2-4	12.0	116.0	±3	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Foundation Backfill						
1	Gridlines 1E.5 x A13		1	12"	11.1	115.1	99
2	Gridlines 1B.8 x A10		1	12"	12.2	114.3	99

omments:
Test results on this report meet project specification.
Services - Field Density Testing
eld Test Method: ASTM D2922, ASTM D3017
Gauge ID: 4035

erracon Rep: James T.McNamara
Field Results Reported To: Ian Warner

eport Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical terials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0368
Service Date: September 6, 2007
Task: **Gradebeam Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S100 of plans dated 8/24/06 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Grade Beam at gridlines 1E.8 x A13 to 1F x A14

Specifications - Steel Grade: 50
Reinforcing Cleanliness: Acceptable
Splicing - Measured in field: Continuous
Bar Supports: Ties & Tables
Clearance: 3" bottom & sides Cover: 2" top

In-place Compliance
1. Met project requirements when initially examined. Yes

Terracon Rep: James T.McNamara
Field Results Reported To: Ian Warner

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

EINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0368
Service Date: September 6, 2007
Task: **Gradebeam Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
CA Healthcare
ttn: Clint Russell
One Park Plaza
Bldg 2, 3 East
ashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S100 of plans dated 8/24/06 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Grade Beam at gridlines 1E.8 x A13 to 1F x A14

Specifications - Steel Grade: 50
Reinforcing Cleanliness: Acceptable
Splicing - Measured in field: Continuous
Bar Supports: Ties & Tables
Clearance: 3" bottom & sides Cover: 2" top

In-place Compliance
1. Met project requirements when initially examined. Yes

rracon Rep: James T.McNamara
Field Results Reported To: Ian Warner

eport Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0372
Service Date: September 7, 2007
Task: **Gradebeam Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S1.01 of plans dated 8/24/06 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: 1T x A5 to 1V x A7.2, Shear Wall

Specifications - Steel Grade: 50
Reinforcing Cleanliness: Acceptable
Splicing - Measured in field: Continuous
Bar Supports: Tables & Ties
Clearance: 1.5" Cover: 1.5"

In-place Compliance
1. Met project requirements when initially examined. Yes

Terracon Rep: James T.McNamara
Field Results Reported To: Casey

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0372
Service Date: September 7, 2007
Task: **Gradebeam Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S1.01 of plans dated 8/24/06 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: 1T x A5 to 1V x A7.2, Shear Wall

Specifications - Steel Grade: 50
Reinforcing Cleanliness: Acceptable
Splicing - Measured in field: Continuous
Bar Supports: Tables & Ties
Clearance: 1.5" Cover: 1.5"

In-place Compliance
1. Met project requirements when initially examined. Yes

Terracon Rep: James T.McNamara
Field Results Reported To: Casey

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TESTING

Report Number: 25061446.0376
Service Date: September 8, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460027	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-2-4	12.0	116.0	±3	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Grade Beam Backfill						
1	Gridlines 1D.5 x A13.2		1	12"	11.2	112.1	97
2	Gridlines 1E.5 x A13.2		1	12"	12.3	114.1	98
3	Gridlines 1E x A12.8		1	12"	11.7	115.3	99

Comments:

Test results on this report meet project specification.

Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 4035

Terracon Rep: James T.McNamara
Field Results Reported To: Ian Warner

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TESTING

Report Number: 25061446.0377
Service Date: September 11, 2007
Task: **Foundation Wall Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460027	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-2-4	12.0	116.0	±2	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Grade Beam Backfill						
1	Gridlines 1C.4 x A9		1	12"	14.1 *	112.4	97
2	Gridlines 1D.5 x A10.2		1	12"	13.4	114.1	98
3	Gridlines 1D.2 x A11		1	12"	12.2	115.2	99
4	Gridlines 1D.9 x A11		1	12"	13.0	113.7	98

Comments:
An asterisk (*) appears next to test results which do NOT meet the project specifications.
Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 4035

Terracon Rep: James T.McNamara
Field Results Reported To: Ian Warner

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0378
Service Date: September 11, 2007
Task: **Shear Wall Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S004 of plans dated 8/24/06 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Shear Wall, gridlines 1A x A11 to 1B x A13.3, 3rd Floor

Specifications - Steel Grade: 50
Reinforcing Cleanliness: Acceptable
Splicing - Per specifications and schedule, S100
Bar Supports: Ties

In-place Compliance
1. Met project requirements when initially examined. No
2. Met project requirements when re-examined. Yes

Comments: Missing horizontal bar, bars crooked, problems fixed.

Terracon Rep: James T.McNamara
Field Results Reported To: Casey

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

IELD DENSITY TESTING

Report Number: 25061446.0386
ervice Date: September 13, 2007
ask: **Foundation Wall Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
ICA Healthcare
ttn: Clint Russell
One Park Plaza
ldg 2, 3 East
lashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460027	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-2-4	12.0	116.0	±2	95

ield Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
1	Gridlines 1D.5 x A11		1		12.2	114.1	98
2	Gridlines 1L.5 x A6		1		12.7	113.8	98
3	Gridlines 1R x A6.4		1		12.5	114.3	99

omments:
Test results on this report meet project specification.
ervices - Field Density Testing
ield Test Method: ASTM D2922, ASTM D3017
Gauge ID: 4035

erracon Rep: James T.McNamara
Field Results Reported To: Ian Warner

eport Distribution:
(1) HCA Healthcare
(1) Perkins & Will
) JE Dunn Construction Co
) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client dicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical aterials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0388
Service Date: September 13, 2007
Task: **Gradebeam Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Grade Beam, gridlines 1E.2 x A10 to 1T x A8

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Measured in field: Continuous
Bar Supports: Ties
Clearance: 2"

In-place Compliance
1. Met project requirements when initially examined. Yes

Terracon Rep: James T.McNamara
Field Results Reported To: Ian Warner

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0388
Service Date: September 13, 2007
Task: **Gradebeam Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Grade Beam, gridlines 1E.2 x A10 to 1T x A8

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Measured in field: Continuous
Bar Supports: Ties
Clearance: 2"

In-place Compliance
1. Met project requirements when initially examined. Yes

Terracon Rep: James T.McNamara
Field Results Reported To: Ian Warner

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0390
Service Date: September 12, 2007
Task: **Shear Wall Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S101 of plans was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Elevator Wall, 1st Level

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 24" Measured in field: 24"
Bar Supports: Ties
Clearance: 2" Cover: 1½"

In-place Compliance
1. Met project requirements when initially examined. Yes

Terracon Rep: Dale E. Griest

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0391
Service Date: September 14, 2007
Task: **Gradebeam Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Pier Caps, gridlines 1K x A23 and 1U x A22

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Measured in field: Continuous
Bar Supports: Ties
Clearance: Cover:

In-place Compliance
1. *Met project requirements when initially examined.* Yes

Terracon Rep: James T.McNamara
Field Results Reported To: Ian Warner

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TESTING

Report Number: 25061446.0393
Service Date: September 14, 2007
Task: **Foundation Wall Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
1 614460027	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-2-4	12.0	116.0	±2	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
1	Gridlines 1B.5 x A9		1	12"	11.3	113.7	98
2	Gridlines 1C x A10		1	12"	10.9	112.9	97

Comments:
Test results on this report meet project specification.
Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 4035

Terracon Rep: James T.McNamara
Field Results Reported To: Ian Warner

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

IELD DENSITY TESTING

Report Number: 25061446.0396
ervice Date: September 17, 2007
ask: **Foundation Wall Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
ICA Healthcare
ttn: Clint Russell
One Park Plaza
ldg 2, 3 East
lashville TN 37203

Report Date: September 20, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460027	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-2-4	12.0	116.0	±3	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Foundation Wall Backfill						
1	Gridlines 1D x A13		1	12"	14.2	111.2	96
2	Gridlines 1C x A13		1	12"	13.7	112.4	97
3	Gridlines 1D.0 x A10		1	12"	14.4	111.7	96
4	Gridlines 1J.4 x A13.7		1	12"	13.4	115.1	99

omments:
est results on this report meet project specification.
Services - Field Density Testing
eld Test Method: ASTM D2922, ASTM D3017
auge ID: 4035

erracon Rep: James T.McNamara
Field Results Reported To: Ian Warner

eport Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TESTING

Report Number: 25061446.0399
Service Date: September 18, 2007
Task:

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 20, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
1 614460027	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-2-4	12.0	116.0	±3	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Foundation Wall Backfill						
1	Gridlines IV x A9		1	12"	13.2	114.5	99
2	Gridlines 1X x A9.2		1	12"	13.5	113.7	98

Comments:
Test results on this report meet project specification.
Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 4035

Terracon Rep: James T.McNamara
Field Results Reported To: Ian Warner

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0400
Service Date: September 18, 2007
Task: **Gradebeam Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 20, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Grade Beam, gridlines 1E.8 x A13 to 1E.8 x A14

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Measured in field: Continuous
Bar Supports: Ties
Clearance: 1½" Cover: 3"

In-place Compliance
1. Met project requirements when initially examined. Yes

Terracon Rep: James T.McNamara
Field Results Reported To: Ian Warner

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0400
Service Date: September 18, 2007
Task: **Gradebeam Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 20, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Grade Beam, gridlines 1E.8 x A13 to 1E.8 x A14

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Measured in field: Continuous
Bar Supports: Ties
Clearance: 1½" Cover: 3"

In-place Compliance
1. Met project requirements when initially examined. Yes

Terracon Rep: James T.McNamara
Field Results Reported To: Ian Warner

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TESTING

Report Number: 25061446.0410
Service Date: September 24, 2007
Task: **Foundation Wall Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 04, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460140	ASTM D698-91	Well Graded Sand w/Silt (SW-SM) A-1-b (0)	10.0	112.0	±2	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Foundation Wall Backfill						
1	10' S & 20' W of the SW corner of the foundation wall	S.G.	1	8"	11.9	111.8	100
2	15' W & 10' S of the SW corner of the foundation wall	S.G.	1	8"	11.6	110.5	99
3	30' E & 5' S of the SE corner of the foundation wall	S.G.	1	8"	11.5	112.7	100+
4	15' E & 10' S of the SE corner of the foundation wall	S.G.	1	8"	12.0	109.9	98

Comments:

Test results on this report meet project specification.

Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 4524

Terracon Rep: Lawrence A. Boyer
Field Results Reported To: John with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0413
Service Date: September 25, 2007
Task: **Shear Wall Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 24, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S-001, 004 & 004A of plans dated 4/13/07 were used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Shear Wall, Stair 1, 4th Floor

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: See below Measured in field: See below
Bar Supports: #4 ties
Clearance: 2" Cover: 2"

In-place Compliance
1. Met project requirements when initially examined. Yes

	Specified	Actual
Splicing #4	18	20+
Splicing #5	27	30+
Splicing #6	39	40+
Splicing #9	88	88+

Terracon Rep: Douglas S. Fletcher
Field Results Reported To: Casey with J.E. Dunn Const.

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0418
Service Date: September 26, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 08, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S001, S004, S004A & S501 of *plans dated 4/16/07 were used as the reference documents during our inspection.*

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Fourth Lift, Stairway 2

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 53"/18" Measured in field: 53"/24"
Bar Supports: Chairs & Ties
Clearance: 2" Cover: 1½"

In-place Compliance
1. Met project requirements when initially examined. Yes

Terracon Rep: Dale E. Griest
Field Results Reported To: Ian with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REPORT OF ON-SITE CANCELLATION

Report Number: 25061446.0421
Service Date: *September 29, 2007*

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 08, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services:

A Terracon representative arrived at the above referenced project at 2:00 p.m. to perform a reinforcing steel observation as scheduled. Upon arrival, the technician was notified that the work had been cancelled.

Terracon Rep: Jason J. Andersen
Field Results Reported To: Casey with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JAA/R99-Future Key

FIELD DENSITY TESTING

Report Number: 25061446.0423
Service Date: September 29, 2007
Task: **Utility Trench Backfill**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 08, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460379	ASTM D698-91	Well Graded Sand w/Gravel (SW) A-1-b (0)	8.0	122.5	±3	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Plumbing Trench Backfill						
1	Plumbing Trench, 10' N & 5' E of the SW corner	S.G.	1	8"	9.6	121.7	99
2	Plumbing Trench, 15' E & 15' N of the SW corner	S.G.	1	8"	8.4	120.7	99
3	Plumbing Trench, 5' N & 5' E of the SW corner	S.G.	1	8"	7.9	120.6	98

Comments:
Test results on this report meet project specification.
Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 25051 Std Cnt M: 919 Std Cnt D: 4281

Terracon Rep: Jason J. Andersen
Field Results Reported To: Casey with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TESTING

Report Number: 25061446.0424
Service Date: September 29, 2007
Task: **Slab Subgrade**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 08, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
1 614460379	ASTM D698-91	Well Graded Sand w/Gravel (SW) A-1-b (0)	8.0	122.5	±3	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Slab Subgrade						
1	Slab-on-grade, 20' E & 10' S of the NW corner	S.G.	1	8"	9.1	118.7	97
2	Slab-on-grade, 20' N & 30' W of the SE corner	S.G.	1	8"	8.6	119.6	98
3	Slab-on-grade, 10' W & 5' S of the NE corner	S.G.	1	8"	7.2	117.2	96

Comments:
Test results on this report meet project specification.
Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 25051 Std Cnt M: 919 Std Cnt D: 4281

Terracon Rep: Jason J. Andersen
Field Results Reported To: Casey with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0425
Service Date: October 1, 2007
Task: **Shear Wall Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 09, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S005 of plans dated 8/24/06 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Level 5 shear walls stairwell core #2

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications:_____Measured in field:_____
Bar Supports:
Clearance: Cover:

In-place Compliance
1. Met project requirements when initially examined. Yes

Terracon Rep: Jack D. Redman
Field Results Reported To: Chris Gallegos w/J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REPORT OF ON-SITE CANCELLATION

Report Number: 25061446.0428
Service Date: October 4, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 11, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services:

Terracon arrived on-site, as requested, and was informed by Casey with J.E. Dunn that concrete placement had been cancelled.

Terracon Rep: Jack D. Redman

Samples made by Terracon

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JAA/R99-Future Rev

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0431
Service Date: October 5, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 10, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S004 & S004A of plans dated 8/24/06 were used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Level 5, Stair Core #2

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 24" Measured in field: 26"
Bar Supports: Ties
Clearance: 2" Cover: 1½" to 2"

In-place Compliance
1. Met project requirements when initially examined. Yes

Terracon Rep: Jack D. Redman
Field Results Reported To: Casey Wolf w/J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REPORT OF SOILS OBSERVATION

Report Number: 25061446.0433
Service Date: October 5, 2007
Task: **Slab Subgrade**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 10, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services:

J.E. Dunn had placed 3/4" recycled concrete on subgrade for the proposed slab-on-grade from the exterior of the building (hospital) north approximately 200' (20' north of stairwell tower #1), and from exterior building (office) approximately 150' east. Material was being compacted with a drum roller.

Terracon Rep: Jack D. Redman
Field Results Reported To: Casey Wolf with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JAA/R99-Future Key

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0455
Service Date: October 22, 2007
Task: **Shear Wall Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 24, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S004A of plans dated 8/24/06 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Stair Tower 2, parapet wall 5th Floor, east, south and 8' of west wall (1A x A11 to A13.5, A13.5 x 1B to 1A, 1B x A13.5 to A13)

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 36" Measured in field: 40" minimum
Bar Supports: Forms / Wire Ties
Clearance: 2" Cover: 2"

In-place Compliance
1. Met project requirements when initially examined. Yes

Comments:
#5 at 12" each face horizontal and vertical
#4 'U' ties each way at corners
#5 DSL & 12" O.C. vertical and horizontal

Terracon Rep: Warren D.Naranjo
Field Results Reported To: Casey Wolf

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REPORT OF FERROSCAN

Report Number: 25061446.0461
Service Date: October 26, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 29, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services:

SUMMARY OF FERROSCAN OPERATION OBSERVATION

Location: Gridlines A23 to A24 x 1J.5

Structure: In filling slab epoxy embed (S5.05-14)

Observation: Perform ferroscan to identify locations of reinforcing steel in existing wall

COMMENTS: Unable to perform complete tests due to clearance (insufficient brick removal), Jesse Hunt with J.E. Dunn was informed quickscan performed and marks were placed at test location.

Terracon Rep: Michael D. Gessert
Field Results Reported To: Jesse Hunt with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

MASONRY OBSERVATIONS

Report Number: 25061446.0462
Service Date: October 29, 2007
Task: **Masonry Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: *October 30, 2007*
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Masonry Observation

CMU PLACEMENT OBSERVATIONS:
These observations were performed at the following locations: Wall 2 on line A17 connecting to 1BB, courses 13 to 18 and 19 to 24

Masonry materials are stored so that at the time of use the materials are clean and structurally suitable for the intended use. CMU is dry during placement or use. The method of measuring constituents for the batching of mortar or grout is controlled. The mortar or grout mixed at the jobsite was initially mixed for more than 3 minutes and less than 10 minutes. After initial water was added to the ingredients at the jobsite, the mortar used was less than 2½ hours old and the grout was less than 1½ hours old.

REINFORCING STEEL PLACEMENT OBSERVATIONS:
These observations were performed at the following locations: Wall 2 on line A17 connecting to 1BB, courses 13 to 18 and 19 to 24

Reinforcement was secured against displacement prior to grouting by wire positioners or other suitable devices at intervals not exceeding 200 bar diameters. Reinforcing steel was free of loose rust and other coatings that would inhibit reinforcing bond.

#5 vertical, 32 inches O.C.;
9-Gauge Bond wire, continuous, 16 inches O.C.
Splicing Specifications: 39" Measured in Field: 60"

Sheets S001 & S025 of plans dated 4/6/07 were used as the reference documents during our inspection.

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

Comments (cont'd):

GROUT PLACEMENT OBSERVATIONS:

These observations were performed at the following locations: Wall 2 on line A17 connecting to 1BB, courses 13 to 18 and 19 to 24

LOW LIFT (Grout placement less than 5' in height)

Grout space is clean, does not contain mortar projections greater than ½", and is free of mortar droppings and other deleterious material. Reinforcing steel was in-place, centered, and undisturbed in the cells during grouting operations. Grout appeared to have adequate fluidity, was mixed thoroughly, and was not segregated. Grout was mechanically vibrated. Grouting of any one section was completed within one day without interruptions greater than one hour. A horizontal construction joint was formed between grout placements by stopping all wythes at the same elevation and by stopping the grout placement a minimum of 1½" below a mortar joint, except at the top of the wall.

Terracon Rep: Chauncy D. Ursini
Field Results Reported To: Casey with J.E. Dunn

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

LABORATORY COMPACTION CHARACTERISTICS OF SOIL

Report Number: 25061446.0481
Service Date: November 9, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client: HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: November 15, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project Number: 25061446

Material Information

Contractor:
Source of Material: Import
Proposed Use: Foundation Wall
USCS: SC

Sample Information

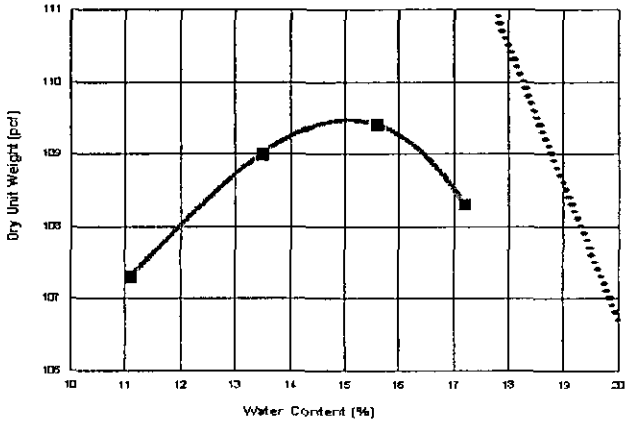
Sampled By:
Sample Location: Talyns Reach F-8, Lots 9 & 15 of Block 1, 3' B.G.
Sample Description: Brown, Clayey Sand (SC) A-2-4 (0)

Laboratory Test Data

Test Procedure:	ASTM D698-91
Test Method:	Method A
Sample Preparation:	Dry Preparation
Rammer Type:	Manual Rammer
Maximum Dry Unit Weight, pcf:	109.5
Optimum Water Content, %:	15.0

	Result	Specifications
Liquid Limit:	31 *	
Plastic Limit:	22	
Plasticity Index:	9	
% Passing #40:	79.8	
% Passing #200:	16.1	

Moisture Density Relations
Zero Air Voids Curve for assumed specific gravity 2.60



ervices-D698, Sieve, PI
* Out of Specification

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
) JE Dunn Construction Co
) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client dicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

08-JAA/RDS-Future Key

LABORATORY COMPACTION CHARACTERISTICS OF SOIL

Report Number: 25061446.0482
Service Date: November 9, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client: HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: November 15, 2007
Project: *Aurora Medical Center Expansion*
South Potomac Street & East Arkansas
Aurora, CO

Project Number: 25061446

Material Information

Contractor:
Source of Material: Import
Proposed Use: Foundation Wall
USCS: SM

Sample Information

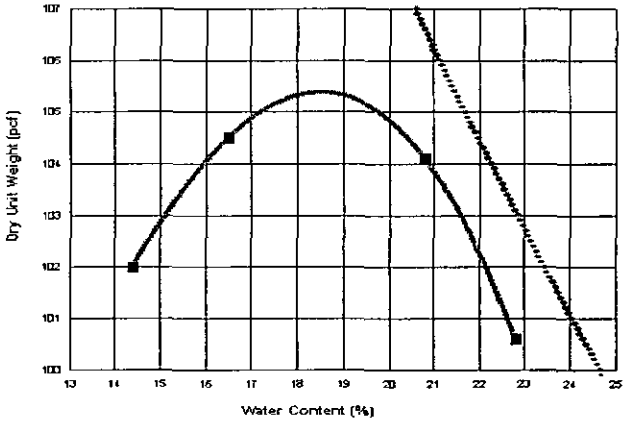
Sampled By:
Sample Location: Stockpile East of South Eaton Ct.; Talyns Reach F-8
Sample Description: Brown, Silty Sand (SM) A-2-4 (0)

Laboratory Test Data

Test Procedure:	ASTM D698-91
Test Method:	Method A
Sample Preparation:	Dry Preparation
Rammer Type:	Manual Rammer
Maximum Dry Unit Weight, pcf:	*105.5*
Optimum Water Content, %:	18.5

	Result	Specifications
Liquid Limit:	35 #	
Plastic Limit:	25	
Plasticity Index:	10	
% Passing #40:	77.0	
% Passing #200:	22.9	

Moisture Density Relations
Zero Air Voids Curve for assumed specific gravity 2.65



ervices-D698, Sieve, PI

Out of Specification

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
) JE Dunn Construction Co
) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client dicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0540
Service Date: November 14, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: November 26, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 2, bridge A15 to A22 x 1R to 1U

Structure: Column and beam connections
Type of Connections: Bolted
Type of Observation: VT
Observation: Observed column to beam and beam to beam A325 bolted connections

In-place Compliance
1. Met project requirements when initially examined. Yes

COMMENTS: Bolts observed today were present, at proper locations, and per on-site specifications. Terracon informed Ken, superintendent, with JE Dunn of our results.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Ken w/ JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0542
Service Date: November 10, 2007
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: November 26, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 2, A8 to A13 x 1E to 1T

Structure: Column and beam connections
Type of Connections: Welded, Bolted
Type of Observation: VT
Observation: Observed column to beam and beam to beam A325 bolted connections. Observed perimeter angle to beam 1/4" x 2" or > field fillet welded connections.

In-place Compliance
1. Met project requirements when initially examined. Yes

COMMENTS: Welds observed today were present, at proper locations, and per on-site specifications. Bolts observed today had washers present with nuts properly achieving full nut engagement onto bolts. Terracon informed Ken, superintendent, with JE Dunn Construction of our results.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Ken w/ JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0552
Service Date: November 19, 2007
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: November 28, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 3, 1R to 1U x A15 to A22

Structure: Column and beam connections
Type of Connections: Bolted
Type of Observation: VT
Observation: Observed column to beam and beam to beam A325 bolted connections

In-place Compliance
1. Met project requirements when initially examined. Yes

COMMENTS: Bolts observed today were present, at proper locations, and per on-site specifications. Bolts observed today had washers present with nuts properly achieving full nut engagement onto bolts. Terracon informed Ken Moody, superintendent, with JE Dunn Construction of our results.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Ken w/ JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0553
Service Date: November 20, 2007
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: November 28, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 2 and 3 bridge, 1R to 1U x A15 to A22

Structure: Perimeter angle
Type of Connections: Welded
Type of Observation: VT
Observation: Observed 6" x 12" and 6" x 18" perimeter angle to beam 1/4" x 3" every 12" O.C. field fillet welded connections. Observed perimeter angle full splice 1/4" or > full vertical and flat field fillet welded connections.

In-place Compliance
1. *Met project requirements when initially examined.* Yes

COMMENTS: Welds observed today were present, at proper locations, and per on-site specifications. Terracon informed superintendent with JE Dunn Construction of our results.

Terracon Rep: Adam M. Stokes

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0629
Service Date: December 3, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: December 14, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: A22 to A24 x 1K to 1U, level 2

Structure: Perimeter angle
Type of Connections: Welded
Type of Observation: VT
Observation: Observed 4" x 12" perimeter angle iron to beam top of beam 1/4" x 3" every 12" O.C. field fillet welded connections. Observed perimeter angle iron splice connections 1/4" x full vertical and flat field fillet welded connections.

In-place Compliance
1. Met project requirements when initially examined. Yes

COMMENTS: Welds observed today were present, at proper locations, and per on-site specifications. Terracon informed Ken, superintendent with JE Dunn Construction of our results.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Ken w/ JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) *Perkins & Will*
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) *Bestway Concrete Co*

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0630
Service Date: December 5, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: December 14, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 3, A8 to A13 x 1T and A13 x 1T to 1E

Structure: Perimeter angle iron 4 x 12
Type of Connections: Welded
Type of Observation: VT
Observation: Observed 4" x 12" perimeter angle iron to beam 1/4" x 3" every 12" O.C. field fillet welded connections.

In-place Compliance
1. Met project requirements when initially examined. Yes

COMMENTS: Welds observed today were present, at proper locations, and per on-site specifications. Terracon informed Ken, superintendent, with JE Dunn Construction of our results.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Ken w/ JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

TRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0631
Service Date: December 6, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
CA Healthcare
ttn: Clint Russell
One Park Plaza
ldg 2, 3 East
ashville TN 37203

Report Date: December 14, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 3, 1E to 1T x A2 to A13

Structure: Column and beam connections
Type of Connections: Bolted
Type of Observation: VT
Observation: Observed A325 column to beam and beam to beam bolted connections

In-place Compliance
1. Met project requirements when initially examined. Yes

COMMENTS: Bolts observed today had washers present with nuts properly achieving full nut engagement onto bolts. Bolts observed today were present, at proper locations, and per on-site specifications. Terracon informed Ken, superintendent, with JE Dunn of our results.

erracon Rep: Adam M. Stokes
Field Results Reported To: Ken w/ JE Dunn

eport Distribution:
(1) HCA Healthcare
(1) Perkins & Will
) JE Dunn Construction Co
) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client dicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical aterials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0640
Service Date: December 10, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: December 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 3, A21.8 to A.24 x 1K to 14

Structure: Perimeter angle
Type of Connections: Welded
Type of Observation: VT
Observation: Observed 4" x 12" perimeter angle iron to beam 1/4" x 2" every 12" O.C. field fillet welded connections. Observed perimeter angle iron splice connections 1/4" x full vertical and flat field fillet welded connections.

In-place Compliance
1. Met project requirements when initially examined. Yes

COMMENTS: Welds observed today were present, at proper locations, and per on-site specifications. Terracon informed Ken Moody, superintendent with JE Dunn Construction of our results.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Ken w/ JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0642
Service Date: December 12, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: December 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Stair No. 1, level 2

Structure: Perimeter angle around stair core for deck support
Type of Connections: Bolted
Type of Observation: VT
Observation: Observed perimeter angle iron anchor bolted connections at every 24" O.C.

In-place Compliance
1. Met project requirements when initially examined. Yes

COMMENTS: Bolts observed today were present, at proper locations, and per on-site specifications. Bolts observed today had washers present with nuts properly achieving full nut engagement onto bolts. Terracon informed Ken Moody, superintendent, with JE Dunn Construction of our results.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Ken w/ JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0647
Service Date: December 14, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: December 19, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 2, A7 to A13 x 1T to 1J

Structure: Floor deck
Type of Connections: Welded, Screw
Type of Observation: VT
Observation: Observed 5/8" deck puddle welded connections at every hat. Observed 5/8" deck puddle welded connections at every 12" O.C. around perimeter. Observed #10 TEK screw side lap connections 3 per span. Observed Nelson stud shot welded connections at each stud connection.

In-place Compliance
1. Met project requirements when initially examined. Yes

COMMENTS: Welds and screw observed today were present, at proper locations, and per on-site specifications. Terracon informed Ken Moody, superintendent, with JE Dunn Construction of our results. Acoustic testing on Nelson studs will be performed on later day after better weather conditions.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Ken w/ JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0650
Service Date: December 18, 2007
Task: **Gradebeam Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: December 31, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S1.0 of plans dated 4/13/07 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Second Level slab-on-deck at gridlines A.1 to A.13 x 1AA to 16

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: N/A Measured in field: N/A
Bar Supports: Chairs
Clearance: 3/4" Cover: 1"

In-place Compliance
1. Met project requirements when initially examined. Yes

Terracon Rep: Dale E. Griest
Field Results Reported To: Luke with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0652
Service Date: December 31, 2007
Task: **Slab on Grade Reinforcing Steel Obs.**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 04, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S203, S500 & S502 of plans dated 4/6/07 were used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: 3rd Floor Deck, Part B

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 22 Measured in field: 22
Bar Supports: Wire Chairs
Clearance: 3" Cover: 3"

In-place Compliance
Met project requirements when initially examined. Yes

Terracon Rep: Bela Pattiasina
Field Results Reported To: John with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0653
Service Date: January 3, 2008
Task: **Slab On Deck/ Roof Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 04, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S203, S500 & S502 of plans dated 4/6/07 were used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: 3rd Floor Deck, Part B

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 22 Measured in field: 22
Bar Supports: Wire Chairs
Clearance: 3" Cover: 3"

In-place Compliance
Met project requirements when initially examined. Yes

Terracon Rep: Bela Pattiasina
Field Results Reported To: John with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0673
Service Date: January 10, 2008

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 15, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S1.0 of plans dated 11/13/07 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Level 4 slab-on-deck, gridlines 1AA to 1G x A2 to A13

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: N/A Measured in field: N/A
Bar Supports: Chairs
Clearance: 2" Cover: 2"

In-place Compliance
Met project requirements when initially examined. Yes

Terracon Rep: Dale E. Griest
Field Results Reported To: Chris with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0682
Service Date: December 31, 2007
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 14, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Gridlines A1 to A13 x 12 to 13, Level 3

Structure: Floor Deck (Nelson Studs)
Type of Connections: Welded
Type of Observation: VT
Observation: Observed field shot welded connections for nelson studs throughout floor deck; performed acoustic testing on random nelson studs throughout

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Shots welds observed today were present, at proper locations, and per on-site specifications. Proper fusion was achieved from nelson studs through deck to support beams. Terracon informed Jesse, superintendent with J.E. Dunn, of all results.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Jesse with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0683
Service Date: January 2, 2008
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 15, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: A1 to A13
Structure: Floor Deck
Type of Connections: Welded & Screw
Type of Observation: VT
Observation: Observed 5/8" deck puddle welds at every 12" O.C. around perimeter edge; observed 5/8" deck puddle welds at every 12" O.C. throughout intermediate passes; observed 5 per span #10 tek screw side lap connections

In-place Compliance
1. Met project requirements when initially examined. Yes

COMMENTS: Welds observed today were present, at proper locations, and per on-site specifications. Screws were per RFI. Terracon informed Jesse, superintendent with J.E. Dunn Construction, of all results. Two areas around stair core were fixed due to lack of puddle welds present, east and south sides of stair core.

Terracon Rep: Adam M. Stokes

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0685
Service Date: January 4, 2008

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 15, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - *Structural Steel Observation*

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Gridlines 1M to 1R x A1 to A13, Level 3

Structure: Column Splices
Type of Connections: Welded
Type of Observation: VT
Observation: Observed column to column outer flange partial penetration splice FFW connections on both sides, full bearing was achieved to best of erectors abilities, some areas were flush on one side with other having 1/16" to 1/8" lip on other

In-place Compliance
1. Met project requirements when initially examined. Yes

COMMENTS: Welds observed today were present, at proper locations, and per on-site specifications. Terracon informed Jesse, superintendent with J.E. Dunn, of all results.

Terracon Rep: Adam M. Stokes

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0687
Service Date: January 8, 2008
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 16, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 4, gridlines 1G to 12 x A1 to A13 and A13 to A15 x 1M to 1T

Structure: Column & Beam Connections
Type of Connections: Bolted
Type of Observation: VT
Observation: Observed column to beam and beam to beam A325 bolted connections; observed 3/4" all threaded anchor bolts for perimeter angle iron around stair core for deck support at every 36" O.C.

In-place Compliance
1. Met project requirements when initially examined. Yes

COMMENTS: Bolts observed today were present, at proper locations, and per on-site specifications. Bolts observed today had washers present with nuts present with nuts properly achieving full nut engagement onto bolts. Anchor bolts around stair core were drilled and epoxied, they were not observed per Terracon. Terracon informed Jesse, superintendent with J.E. Dunn, of all results.

Terracon Rep: Adam M. Stokes

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0688
Service Date: January 10, 2008
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 16, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 4, gridlines 1J to 12X x A1 to A13

Structure: Floor Deck
Type of Connections: Welded & Screw
Type of Observation: VT
Observation: Observed 3/4" nelson studs to deck and support beams shot welded connections; performed acoustic non-destructive testing on nelson studs; randomly bent 5 nelson studs to 15° angle which nelson studs maintained proper welded connections; observed 5/8" deck puddle welded connections at every flute around perimeter and at every 12" O.C. throughout intermediate connections; observed 3 *per span #10 tek screw side lap connections*

In-place Compliance
1. Met project requirements when initially examined. Yes

COMMENTS: Welds and screws observed today were present, at proper locations, and per on-site specifications. Terracon informed Jesse, superintendent with J.E. Dunn, of all results. Terracon was rescheduled for January 11, 2008, for welded column splices on Level 3.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Jesse with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0689
Service Date: January 17, 2008

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 21, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S207 of plans dated 8/24/06 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Level 5 at gridlines 1AA to 1H.5 x A.1 to A.12; 6x6 galvanized steel mat #4 - 4'x0"; 24" O.C., 180° turn on outside; #4 - 4'-0", 12" O.C. on beams

Specifications - Steel Grade: 50
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: N/A Measured in field: N/A
Bar Supports: Metal chairs, 3" clearance on all
Clearance: 3" on all Cover: 1½" cover

In-place Compliance
1. Met project requirements when initially examined. Yes

Terracon Rep: Christopher J. Bonino
Field Results Reported To: Chris with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: S Loren Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0696
Service Date: January 14, 2008
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 22, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 3, gridlines 1J to 1Y x A1 to A13

Structure: Column & Beam Connections
Type of Connections: Welded & Bolted
Type of Observation: VT
Observation: Observed column splice beveled field fillet welded connections at gridlines 1T x A2 to A8 and 12X x A8 to A13 on both side of columns exterior flange; observed column to beam and beam to beam A325 bolted connections 4, 6, 8 and 12 bolted patterns were observed with beam webs and knife plate in an overlap position.

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Welds and bolts observed today were present, at proper locations, and per on-site specifications. Bolts observed today had washers present with nuts present and with nuts properly achieving full nut engagement onto bolts. Terracon informed Jesse, superintendent with J.E. Dunn, of all results.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Jesse with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0697
Service Date: January 15, 2008
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 22, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 4, gridlines 1J to 1Y x A1 to A13

Structure: Column & Beam Connections
Type of Connections: Bolted
Type of Observation: VT
Observation: Observed column to beam and beam to beam A325 bolted connections, 2, 4, 6 and 8 bolted patterns were observed, type of connections appeared to mainly consist of overlap position through end of beam web or knife plates

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Bolts observed today were present, at proper locations, and per on-site specifications. Bolts observed today had washers present with nuts present and with nuts properly achieving full nut engagement onto bolts. Terracon informed Jesse, superintendent with J.E. Dunn, of all results.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Jesse with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0698
Service Date: January 17, 2008
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: *January 22, 2008*
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: *25061446*

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 5, gridlines 1J to 12 x A1 to A13

Structure: Column & Beam Connections
Type of Connections: Bolted
Type of Observation: VT
Observation: Observed column to beam and beam to beam A325 bolted connections. W12, W14, W16 and W22 beams were observed, no major deficiencies were present

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Bolts observed today were present, at proper locations, and per on-site specifications. Bolts observed today had washers present with nuts present and with nuts properly achieving full nut engagement onto bolts. Terracon informed Jesse, superintendent with J.E. Dunn, of all results.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Jesse with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0699
Service Date: January 23, 2008

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 25, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S504 of plans dated 4/13/07 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Slab-on-deck, 2nd floor slab (east side), walkway 2nd floor, gridlines A2.0 to A.13 x 1A.0 to 1H.0 and A13.1 to A14.0 x 1H.0 to 1E.9

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing -
Specifications: #4 - N/A Lap
Measured in field: #4 - N/A Lap (single bars), 6" welded wire fabric
Bar Supports: Chairs
Clearance: 1½" Cover: 1½"

In-place Compliance
1. Met project requirements when initially examined. Yes

Terracon Rep: Jason J. Andersen
Field Results Reported To: Chris with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. *This report is exclusively for the use of the client* indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0700
Service Date: January 23, 2008
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 23, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Gridlines 1J to 1D x A1 to A13

Structure: Level 2 Floor Deck
Type of Connections: Welded & Screw
Type of Observation: VT
Observation: Observed 5/8" deck puddle welded connections at every 12" O.C. throughout intermediate flutes and around perimeter; observe shot welded nelson studs throughout; observed 3 per span #10 tek screw side lap connections per RFI; performed AET on random nelson studs

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Welds and screws observed today were present, at proper locations, and per on-site specifications. Informed Jesse, superintendent with J.E. Dunn, of all results. Terracon was rescheduled for January 23, 2008 for Level 2 column and beam connections.

Terracon Rep: Adam M. Stokes

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

12-JAA-R12-Future Key

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0719
Service Date: January 30, 2008
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 31, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: 3rd Floor, gridlines A2 to A13 x 1B to 1G.5

Structure: Decking, Tower elevated deck
Type of Connections: Welded Screw
Type of Observation: VT
Observation: Observed the 5/8" puddle welded connection for the deck to beams; observed the welded connection for the shear studs to the deck/beam; observed the deck edge angle iron weld connections; observed the angle iron welded connections at opening through the deck; observed the screw connector on the side lap deck

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Referenced Sheets S001 and S202, dated 8/24/2006; Referenced Details 1/S500, 2/S500, 3/S500, 4/S500, 6/S502, 8/S502, 14/S502, 16/S502, 13/S508, 7/S504 and 4/S505. Waiting on RFI reply of using screw connection in lap of a stick weld at deck side laps. Four #10 deck screws per span instead of 3-1" long stick welds.

Terracon Rep: Thomas M. Mestas
Field Results Reported To: Jesse with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0738
Service Date: February 8, 2008
Task: **Slab On Grade Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 13, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S100 & S001 of plans dated 8/24/06 were used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Steel Mesh 1B to 1F

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 6" Measured in field: 8.5"
Bar Supports: Plastic Chairs
Clearance: 1.5" Cover: 1"

In-place Compliance
1. Met project requirements when initially examined. No
2. Met project requirements when re-examined. Yes

Terracon Rep: Scott D. Lee

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0743
Service Date: February 4, 2008
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 12, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 1, gridlines A1 to A13 x AK to AA

Structure: Column & Beam Connections
Type of Connections: Bolted
Type of Observation: VT
Observation: Observed column base and anchor bolted connections; observed column to beam and beam to beam A325 bolted connections 4, 6, 8 and 12 bolted patterns from column to beam and beam to beam were observed, no signs of hole slotting appeared to be present

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Bolts observed today were present, at proper locations, and per on-site specifications. Bolts observed today had washers present with nuts present with nuts properly achieving full nut engagement onto bolts. Terracon informed Jesse, superintendent with J.E. Dunn Construction, of all results. Terracon was scheduled for February 5, 2008 for the Level 4 deck.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Jesse with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0744
Service Date: February 5, 2008
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 12, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 4, gridlines A1 to A13 x AK to AA

Structure: Floor Deck
Type of Connections: Welded Screw
Type of Observation: VT
Observation: Observed 5/8" deck puddle welded connections at every 12" around perimeter and at every 12" throughout intermediate flutes; observed shot welded nelson stud connections throughout *perimeter and intermediate locations to beam supports; observed 4 per span #10 tek screw side lap* connections per RFI

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Welds and screws observed today were present, at proper locations, and per on-site specifications. Terracon informed Jesse, superintendent with J.E. Dunn Construction, of all results. Terracon was scheduled for February 7, 2008. Acoustic testing was performed on random nelson studs throughout. Terracon had a half hour of stand-by time waiting for the erectors to finish the deck at the southeast corner.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Jesse with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

12-JAA/R12-Future Key

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0746
Service Date: February 13, 2008

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 15, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S504 of plans dated 4/13/07 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Slab-on-deck, 5th floor slab (east side) at gridlines A2.0 to A13.0 x 1A.0 to 1H.0

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing -
Specifications: #4 - N/A Lap
Measured in field: #4 - N/A Lap (single bar); 6" welded wire fabric
Bar Supports: Chairs
Clearance: 4" Cover: 4"

In-place Compliance
Met project requirements when initially examined. Yes

Terracon Rep: Jason J. Andersen
Field Results Reported To: Chris with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0749
Service Date: February 8, 2008
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 18, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Gridlines 1D x A2 to A9

Structure: Stiffener plates for center cut holes in beam web
Type of Connections: Welded
Type of Observation: VT
Observation: Observed 3/8"x11"x11" added stiffener plates to web of W12 beam for support around cut center 4" hole. Stiffener plates were welded 5/16" all the way around field fillet welded connections.

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Welds observed today were present, at proper locations, and per on-site specifications. Terracon informed Jesse, superintendent with J.E. Dunn Construction, of all results.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Jesse w/J.E. Dunn Const.

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: S Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0750
Service Date: February 11, 2008
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 18, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 2 at gridlines A2 to A13 x 1G to 1B

Structure: Column and Beam Connections
Type of Connections: Bolted
Type of Observation: VT
Observation: Observed column to beam and beam to beam A325 bolted connections, bolts were snapped to achieve proper applied torque

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Bolts observed today were present, at proper locations, and per on-site specifications. Bolts had washers present with nuts present with nuts properly achieving full nut engagement onto bolts. Terracon informed Jesse, superintendent with J.E. Dunn Construction, of all results. No signs of slotted holes appeared to be present.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Jesse w/J.E. Dunn Const.

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0751
Service Date: February 12, 2008
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 18, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 5 at gridlines 1G to 1B x A2 to A13

Structure: Floor Deck & Perimeter Angle Iron
Type of Connections: Welded & Screw
Type of Observation: VT
Observation: Observed 5/8" deck puddle welded connections at every 12" throughout intermediate passes and around perimeter edge; observed 3 per span #10 tek screw side lap connections; observed nelson stud shot welded connections throughout; observed perimeter bent plate angle iron to beams 1/4"x3" every 12" O.C. field fillet welded connections; observed perimeter bent plate angle iron full splice welded connections 1/4" full vertical and horizontal connections.

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Welds and screws observed today were present, at proper locations, and per on-site specifications. Terracon informed Jesse, superintendent with J.E. Dunn Construction, of all results.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Jesse w/J.E. Dunn Const.

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0752
ervice Date: February 13, 2008
ask: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 18, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

ervices - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 5 at gridlines 1M to 1U x A2 to A13

Structure: Column Splices
Type of Connections: Welded
Type of Observation: VT
Observation: Observed I-column stacked PJP welded connections, columns were welded on exterior outer flange face side only with proper bearing within tolerance limits from column to column

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Column at A9 x 1U needs to be cut free, cleaned, ground and re-welded per structural engineers requirements. Remaining columns on Level 5 appeared to be per on-site specifications. Terracon informed Jesse, superintendent with J.E. Dunn Construction, of all results. Welds observed today were present, at proper locations, and per on-site specifications.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Jesse with J.E. Dunn Const.

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0753
Service Date: February 7, 2008
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 18, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 4, gridlines A1 to A13 x AM to AB

Structure: Perimeter edge angle - 12"x6"
Type of Connections: Welded
Type of Observation: VT
Observation: observed perimeter edge angle to beam 1/4"x3" every 12" o.c. field fillet welded *connections; observed perimeter edge angle splice connections 1/4" full vertical and horizontal* field fillet welded connections

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Welds observed today were present, at proper locations, and per on-site specifications. Terracon informed Jesse, superintendent with J.E. Dunn Construction, of all results.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Jesse with J.E. Dunn Const.

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0759
Service Date: February 15, 2008
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 21, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. *These services were performed on a part-time basis. Terracon's observations were performed* using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 3, gridlines A2 to A13 x 1B to 1M

Structure: Column & Beam Connections
Type of Connections: Bolted
Type of Observation: VT
Observation: observed column to beam and beam to beam A325 bolted connections; observed 4, 6, 8, and 12 bolted patterns, no signs of hole slotting appeared to be present, bolts appeared to be snapped at connections observed to achieve proper torque to be applied

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Bolts observed today were present, at proper locations, and per on-site specifications. Bolts had washers present with nuts present with nuts properly achieving full nut engagement onto bolts. Terracon could not observe or test fireproofing spray material due to still obtaining to heavy of moisture not allowing it to fully cure. Terracon informed Jesse, superintendent with J.E. Dunn, of all results.

Terracon Rep: *Adam M. Stokes*
Field Results Reported To: Jesse with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0762
Service Date: February 21, 2008
Task: **Slab On Deck/ Roof Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 25, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S504 of plans dated 4/13/07 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Slab-on-deck, 6th floor slab (west half)

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: #4 - N/A Lap Measured in field: #4 - N/A Lap (Single Bar)
Bar Supports: Chairs
Clearance: 4" Cover: 4"

In-place Compliance
Met project requirements when initially examined. Yes

Comments: 6" welded wire fabric

G Lucas Fenton

Terracon Rep: Jason J. Andersen
Field Results Reported To: Chris with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0766
Service Date: February 27, 2008

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 05, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S101 of plans dated 4/16/07 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Slab-on-Deck, 6th Level East half and Penthouse Level

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: #4 - N/A Lap Measured in field: #4 - N/A Lap (single bar)
Bar Supports: Chairs
Clearance: 2" Cover: 2"

In-place Compliance
Met project requirements when initially examined. Yes

Comments:
6" welded wire fabric (WWF)

Terracon Rep: Jason J. Andersen
Field Results Reported To: Chris Gallegos with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

G Lucas Fenton
Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0770
Service Date: February 29, 2008
Task: **Slab On Grade Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 10, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. *Sheets S001, S100, & S400* of plans dated 8/24/06 & 10/10/07 were used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Slab-on-Grade at gridlines 1B.2 to 1C.9 x 4' South of A14.0 to 25' South of A14.0

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 44" Measured in field: 44"+
Bar Supports: Plastic Chairs
Clearance: 2" Cover: 3"

In-place Compliance
Met project requirements when initially examined. Yes

Terracon Rep: Travis O. Whalen
Field Results Reported To: Chris with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: S Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0773
Service Date: February 29, 2008

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 10, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Column Pads and Pier Caps at gridlines A25 x 1AA, A25 x 1B2, A25 x 1B8, A26 x 1AA, A26 x 1B2, and A26 x 1B8

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 36" Measured in field: N/A
Bar Supports: 3" to 4"
Clearance & Cover: 2" & 3"

In-place Compliance
Met project requirements when initially examined. Yes

Comments: Plan Pages S403 - 8/24/06 and M-1 - 2/15/08, #5 bar 12" each way.

Terracon Rep: *Travis O. Whalen*
Field Results Reported To: Chris with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0774
Service Date: March 4, 2008
Task: **Footing Pad Excavation and Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 11, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Three footing pads reinforcing steel; #5 12" O.C. each way mat - pattern horizontal/vertical

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: N/A Measured in field: N/A
Bar Supports: Broken Block 3"
Clearance: 3" from earth

In-place Compliance
Met project requirements when initially examined. Yes

Terracon Rep: Christopher J. Bonino
Field Results Reported To: Chris with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0778
Service Date: February 18, 2008
Task: *Structral Steel Observation*

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 11, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Gridlines 1B to 1M x A1 to A13, Level 4

Structure: Column & Beam Connections
Type of Connections: Bolted
Type of Observation: VT
Observation: Observed column to beam and beam to beam A325 bolted connections

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Bolts observed today were present, at proper locations, and per on-site specifications. Bolts had washers present with nuts present with nuts properly achieving full nut engagement onto bolts. Terracon informed Jesse, superintendent with J.E. Dunn Construction, of all results. No signs of slotted holes appeared to be present.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Jesse with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0779
Service Date: February 19, 2008
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 11, 2008
Project: *Aurora Medical Center Expansion*
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - *Structural Steel Observation*

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 5, gridlines A1 to A13 x 1B to 1M

Structure: Column & Beam Bolted Connections
Type of Connections: Bolted
Type of Observation: VT
Observation: Observed I-columns to beams and beam to beam A325 bolted connections, bolts were snapped to achieve proper torque.

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Bolts observed today were present, at proper locations, and per on-site specifications. Bolts had washers present with nuts present with nuts properly achieving full nut engagement onto bolts. Terracon informed Jesse, superintendent with J.E. Dunn Construction, of all results. No signs of hole slotting appeared to be present.

Terracon Rep: Adam M. Stokes
Field Results Reported To: Jesse with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0780
Service Date: 02/21/08
Report Date: 04/17/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project
Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 6 at gridlines 1G to 1R x A2 to A13

Structure: Floor Deck
Type of Connections: Welded & Screw
Type of Observation: VT
Observation: Observed 5/8" deck puddle welded connections at every 12" O.C. around perimeter and at every 12" throughout intermediate passes; observed 3 per span #10 tek screw side lap connections; observed nelson stud slot welded connections at proper locations

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Welds and screws observed today were present, at proper locations, and per on-site specifications. Terracon informed Jesse, superintendent with J.E. Dunn Construction, of all results.

Services: Structural Steel Observation

Terracon Rep.: Adam M. Stokes
Reported To: Jesse with J.E. Dunn
Contractor:

Report Distribution:
(1) Perkins & Will
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0781
Service Date: February 26, 2008
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 11, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Levels 5 & 6

Structure: Column & Beam Bolted Connections
Type of Connections: Bolted
Type of Observation: VT
Observation: Observed column to beam and beam to beam A325 bolted connections, beams ranged from W8 to W18 in size, 4, 6, 8, and 12 bolted patterns were observed.

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Bolts observed today were present, at proper locations, and per on-site specifications. Bolts had washers present with nuts present with nuts properly achieving full nut engagement onto bolts. Terracon informed Jesse, superintendent with J.E. Dunn Construction, of all results. No signs of slotted holes appeared to be present.

Terracon Rep: Adam M. Stokes

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Loreta Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

12-R12-Future Key

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0782
Service Date: March 11, 2008

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 18, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Aurora Medical Center Office Building level 3 walkway connecting the new building to the old building

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: N/A Measured in field: N/A
Bar Supports: Metal Chairs
Clearance: 3" off deck

In-place Compliance
Met project requirements when initially examined. Yes

Terracon Rep: Christopher J. Bonino
Field Results Reported To: Chris & John with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS

Report Number: 25061446.0787
Service Date: March 12, 2008
Task: **Structral Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 24, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Structural Steel Observation

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 3 bridge

Structure: Floor Decking
Type of Connections: Welded Bolted Screw
Type of Observation: VT
Observation: Observed floor decking of Level 3 bridge area with 5/8" diameter puddle welds to deck support members in 36/7 pattern and observed #10 tek screws four per span. Nelson studs shot welded in place were present with correct quantity and without major deficiencies.

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Observations of structures and locations referenced were present and per plans provided. *Terracon informed J.E. Dunn superintendent, Jesse, of observations.*

Terracon Rep: James A. Rock
Field Results Reported To: Jesse with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REPORT OF ON-SITE CANCELLATION

Report Number: 25061446.0788
Service Date: March 19, 2008
Task: **Slab on Grade Reinforcing Steel Obs.**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 25, 2008
Project: *Aurora Medical Center Expansion*
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services:

Terracon arrived on-site to perform a reinforcing inspection on the bridge of Level 4. While on-site Terracon met with Chris Gallegos. The rebar was not in place therefore the inspection was rescheduled for the next day, March 20, 2008.

Terracon Rep: Dale E. Griest
Field Results Reported To: Chris Gallegos with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JAA/R99-Future Key

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0790
Service Date: March 20, 2008

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 25, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S001 & S203 of plans dated 4/13/07 were used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Third Floor connector, A131 to A24 x 1K to 1U

Specifications - Steel Grade: *60*
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: N/A Measured in field: N/A
Bar Supports: Metal Chairs
Clearance: 3/4"

In-place Compliance
Met project requirements when initially examined. Yes

Terracon Rep: Christopher J. Bonino
Field Results Reported To: Chris with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0792
Service Date: *March 22, 2008*
Task: **Footing Pad Excavation and Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 31, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S100 of plans dated 4/6/07 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Footing / North Planter (all inclusive)

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: #4/24" Lap Measured in field: #4/28" Lap
Bar Supports: Chairs
Clearance: 4" Cover: 4"

In-place Compliance
Met project requirements when initially examined. Yes

Terracon Rep: Jason J. Andersen
Field Results Reported To: Chris Gallegos with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS

Report Number: 25061446.0798
Service Date: March 25, 2008
Task: **Footing Pad Excavation and Reinforcing Steel Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 31, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services - Reinforcing Steel Observation

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S304 & S403 of plans dated 5/8/07 were used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Footings outside of the Boiler Room on the east most end of the expansion project, gridlines A25 to A26 x 1AA, 4' outside of building

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: N/A
Bar Supports: Broken Block
Clearance: 3" from earth all sides

In-place Compliance
Met project requirements when initially examined. Yes

Terracon Rep: Christopher J. Bonino
Field Results Reported To: Chris with J.E. Dunn

Report Distribution:
(1) *HCA Healthcare*
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) *HCA Healthcare*
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS REPORT

Report Number: 25061446.0803
Service Date: 04/09/08
Report Date: 04/22/08
~~TaskLabel~~

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S1.0, S404, and S403 of plans dated 5/8/07 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: North and South side cooler tower walls at the East side of the existing bldg 1501

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 36 bar Measured in field: 36 bar+
Bar Supports: #5 vertical dowels
Clearance: 3"

In-place Compliance
1. Met project requirements when initially examined. Yes

Services: Reinforcing Steel Observation

Terracon Rep.: Randy L. Cotton
Reported To: Chris w/JE Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0806
Service Date: 04/10/08
Report Date: 04/23/08
Task:

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 4 concrete cylinders cast on April 9, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained:

25061446.0804

Services: Concrete Cylinder Pick Up

Terracon Rep.: Jack L. White
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0807
Service Date: 03/18/08
Report Date: 04/17/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Rooftop north wall, gridlines 1.0 x M.0 to D.0

Structure: Brick ledger to perimeter angle iron
Type of Connections: Welded
Type of Observation: VT
Observation: Observed 8"x10" galvanized brick ledger to perimeter bent plate ¼"x3" every 12" O.C. field fillet welded connections

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Welds observed today were present, at proper locations, and per on-site specifications. Terracon informed Jesse, superintendent with J.E. Dunn, of all results.

Services: Structural Steel Observation

Terracon Rep.: Adam M. Stokes
Reported To: Jesse with J.E. Dunn
Contractor:

Report Distribution:

(1) Perkins & Will
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0808
Service Date: 03/19/08
Report Date: 04/17/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Parking Garage and Roof Lid

Structure: Roof Lid panel to beams (pre-cast), elevator shaft wall panels
Type of Connections: Welded
Type of Observation: VT
Observation: Observed elevator shaft wall panels with 3/16"x2½" field fillet welds from V-groove pocket embeds to plates on all sides, all levels of elevator shaft were observed. Also observed vertical endo plate for wall to wall connection with 5/16" across full on all sides field fillet welds. The roof lid pre-cast panel was observed in place with 3/16"x3" field welds (vertical) from beam panel embed to lid plate.

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Observations of referenced structures and locations were present and per plans as provided by Gibbons Erection (contractor). Terracon informed J.E. Dunn superintendent, Casey, and superintendent, Jesse Hunt, of observations today.

Services: Structural Steel Observation

Terracon Rep.: James A. Rock
Reported To: Jesse Hunt & Casey w/J.E. Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0809
Service Date: 03/19/08
Report Date: 04/17/08
Task: *Structural Steel Observation*

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. *Terracon's observations were performed using the project on-site documents and specifications available to Terracon on* this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Roof Level

Structure: Brick Ledge
Type of Connections: Welded
Type of Observation: VT
Observation: Observed galvanized angle iron brick ledge at roof deck with beveled groove field weld connections 5/16"x2" on 12" on center to embed angle iron around perimeter of roof deck

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Observations of referenced structures and locations were present and per plans/recommendations. Terracon informed Top *Flight foremen, Dave and Jesse Hunt, with J.E. Dunn of observations today. Terracon was on-site with 30 minutes stand-by time while* work was being completed.

Services: Structural Steel Observation

Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0810
Service Date: 03/20/08
Report Date: 04/17/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Rooftop East & South sides

Structure: Brick Ledger
Type of Connections: Welded
Type of Observation: VT
Observation: Observed 8"x10" galvanized brick ledger to perimeter angle iron edge joint fit-up welded ¼"x2" at every 12" O.C. throughout

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: *Welds observed today were present, at proper locations, and per on-site specifications. Terracon informed Jesse,* superintendent with J.E. Dunn, of all results.

Services: Structural Steel Observation

Terracon Rep.: Adam M. Stokes
Reported To: Jesse with J.E. Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0811
Service Date: 03/25/08
Report Date: 04/17/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project
Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Parking Garage, gridlines 1.0 to 6.0 x C.0 to D.0, Levels 2, 3 and 4

Structure: V-pockets, wall to beam, column to wall, side bar, hair pins, wall to T-panel
Type of Connections: Welded
Type of Observation: VT
Observation: Observed field welds of pre-cast concrete panels (embeds, plates): V-pockets (wall to foundation wall to beam, etc…) with 3/16"x2½" on top and bottom fillet welds, wall to beam bent plates with 3/16"x3" overhead and 3/16"x4" vertical on both sides fillet welds, column to wall with 5/16"x3" on both sides of bent plate, side bars with ¼"x4" bevel groove weld, hairpins with ¼" across full to wall embed fillet welds, T-panel to beam endo plates with 3/16" across full on front and 1" return fillets on 3"x8" plates

In-place Compliance
Met project requirements when initially examined. No

COMMENTS: It was observed at 8.0 x C.0 shear wall to T-panel connections, the endo plates used were 3"x3" instead of 3"x8" as detailed. Terracon informed Casey Wolf, with J.E. Dunn, of observations in compliance and area where endo plates were not per plans. Terracon was to re-inspect structure at 8.0 x C.0 upon completion.

Services: Structural Steel Observation

Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0812
Service Date: 03/28/08
Report Date: 04/17/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Parking Garage Level 4, gridlines 8.0 x C.0

Structure: Shear Wall to T-Panel endo plate connection
Type of Connections: Welded
Type of Observation: VT
Observation: Observed 3"x 8" with 3/16"x3" with 1" returns to T-panel and 3/16"x3" to shear wall field fillet welds

In-place Compliance
Met project requirements when re-examined. Yes (3/25/08)

COMMENTS: Observations of referenced structures and locations were present and per plans provided on-site. Terracon informed Casey Wolf, with J.E. Dunn, of observations.

Services: Structural Steel Observation

Terracon Rep.: James A. Rock
Reported To: Casey Wolf with J.E. Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIREPROOFING TEST REPORT

Report Number: 25061446.0814
Service Date: 02/27/08
Report Date: 04/21/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Field Test Data (ASTM E - 605)

Area Checked: Level 2, Part A

Test Location		Measurement Locations (see drawings below) 1	2	3	4	5	6	7	8	9	10	11	12	Average	Required Average	Allowable Measure	Pass / Fail
1C to 1D x A2.4 Beam	Loc. 1	12/16	12/16	12/16	10/16	12/16	12/16	9/16	8/16	12/16				11/16	10/16	8/16 to 14/16	Passed
	Loc. 2	12/16	11/16	12/16	9/16	12/16	12/16	10/16	8/16	12/16							
A9 to A11 x 1C Beam	Loc. 1	1 8/16	1 8/16	1 8/16	1 6/16	1 7/16	1 8/16	1 6/16	1 8/16	1 8/16				1 7/16	1 3/16	15/16 to 1 7/16	Passed
	Loc. 2	1 8/16	1 8/16	1 8/16	1 6/16	1 8/16	1 8/16	1 8/16	1 7/16	1 8/16							
A9 to A11 x 1D Beam	Loc. 1	1 8/16	1 7/16	1 7/16	1 6/16	1 7/16	1 5/16	1 8/16	1 8/16	1 8/16				1 7/16	1 3/16	15/16 to 1 7/16	Passed
	Loc. 2	1 8/16	1 7/16	1 8/16	1 6/16	1 8/16	1 6/16	1 8/16	1 8/16	1 8/16							
1G x A9 to A11	Loc. 1	1 8/16	1 8/16	1 8/16	1 6/16	1 7/16	1 7/16	1 8/16	1 8/16	1 8/16				1 7/16	1 3/16	15/16 to 1 7/16	Passed
	Loc. 2	1 8/16	1 8/16	1 8/16	1 5/16	1 8/16	1 5/16	1 8/16	1 8/16	1 8/16							
1C x A9 Column	Loc. 1	2	2 2/16	2 2/16	1 11/16	2	1 15/16	2	1 14/16	1 13/16	1 11/16	2	2	1 14/16	1 11/16	1 7/16 to 1 15/16	Passed
	Loc. 2	2	2 2/16	1 15/16	1 13/16	2	1 14/16	1 14/16	2	1 12/16	1 10/16	2 2/16	1 13/16				
1D x A11 Column	Loc. 1	2 2/16	2 2/16	1 15/16	1 14/16	2 2/16	2	2 1/16	2	1 14/16	1 14/16	2	1 15/16	1 15/16	1 11/16	1 7/16 to 1 15/16	Passed
	Loc. 2	2	1 13/16	1 13/16	1 15/16	2 2/16	2	1 15/16	1 14/16	2	1 13/16	2 2/16	2				
1G x A2 Column	Loc. 1	2	2	2 2/16	1 13/16	2 2/16	2	2 2/16	2	2 2/16	1 12/16	2 2/16	1 12/16	1 15/16	1 11/16	1 7/16 to 1 15/16	Passed
	Loc. 2	2 2/16	2	2	1 14/16	2 2/16	1 12/16	1 15/16	1 15/16	2 2/16	1 15/16	2	2				

*Location 1 is approximately 12 inches from Location 2.

*Shaded areas indicate results that are not in compliance with the project specifications.

Comments:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIREPROOFING TEST REPORT

Report Number: 25061446.0814
Service Date: 02/27/08
Report Date: 04/21/08
Task: *Structural Steel Observation*

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

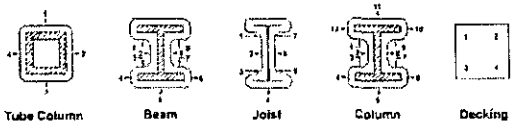
Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Services: Fireproofing Thickness
Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:

(1) Perkins & Will
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) Perkins & Will



Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIREPROOFING TEST REPORT

Report Number: 25061446.0815
Service Date: 02/29/08
Report Date: 04/21/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Field Test Data (ASTM E - 605)

Area Checked: Level 2, Part B

Test Location		Measurement Locations (see drawings below) 1	2	3	4	5	6	7	8	9	10	11	12	Average	Required Average	Allowable Measure	Pass / Fail
1J x A11 Column	Loc. 1	2	1 15/16	2 1/16	1 13/16	2 2/16	1 11/16	2	2	2 2/16	1 14/16	2 2/16	2	1 14/16	1 11/16	1 7/16 to 1 15/16	Passed
	Loc. 2	2 1/16	2 2/16	2 2/16	1 12/16	2	1 10/16	1 15/16	1 13/16	1 15/16	1 15/16	1 15/16	1 13/16				
1J x A9 Column	Loc. 1	2 1/16	2 2/16	2	1 14/16	2 1/16	1 13/16	2 2/16	2 2/16	2 2/16	2	2 1/16	1 12/16	1 14/16	1 11/16	1 7/16 to 1 15/16	Passed
	Loc. 2	2 2/16	2 2/16	2 2/16	1 15/16	2 2/16	1 15/16	2 2/16	2 2/16	2 2/16	1 13/16	2	1 10/16				
1X x A8 Column	Loc. 1	2 2/16	2 2/16	2 2/16	1 13/16	2	2	2	1 15/16	1 15/16	1 14/16	2 1/16	1 11/16	1 15/16	1 11/16	1 7/16 to 1 15/16	Passed
	Loc. 2	2 2/16	2	2	1 14/16	2 2/16	1 14/16	2	2	1 15/16	1 15/16	2	1 13/16				
A9 to A11 x 1M Beam	Loc. 1	1 8/16	1 8/16	1 8/16	1 6/16	1 7/16	1 4/16	1 8/16	1 6/16	1 7/16				1 6/16	1 3/16	15/16 to 1 7/16	Passed
	Loc. 2	1 7/16	1 7/16	1 8/16	1 6/16	1 5/16	1 6/16	1 8/16	1 7/16	1 5/16							
A2 to A9 x 1J Beam	Loc. 1	1 8/16	1 7/16	1 8/16	1 8/16	1 5/16	1 6/16	1 7/16	1 8/16	1 8/16				1 6/16	1 3/16	15/16 to 1 7/16	Passed
	Loc. 2	1 8/16	1 8/16	1 6/16	1 6/16	1 8/16	1 5/16	1 6/16	1 5/16	1 8/16							
A9.4 x 1J.2 to 1M Beam	Loc. 1	9/16	11/16	10/16	10/16	10/16	11/16	12/16	12/16	12/16				11/16	10/16	8/16 to 14/16	Passed
	Loc. 2	12/16	10/16	11/16	12/16	11/16	12/16	12/16	12/16	12/16							
1G to 1J x A7 Beam	Loc. 1	11/16	12/16	12/16	8/16	10/16	12/16	12/16	10/16	12/16				11/16	10/16	8/16 to 14/16	Passed
	Loc. 2	12/16	11/16	12/16	10/16	9/16	11/16	11/16	12/16	11/16							

*Location 1 is approximately 12 inches from Location 2.

*Shaded areas indicate results that are not in compliance with the project specifications.

Comments:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIREPROOFING TEST REPORT

Report Number: 25061446.0815
Service Date: 02/29/08
Report Date: 04/21/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

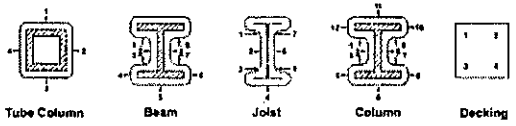
Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Services: Fireproofing Thickness
Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:

(1) Perkins & Will
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) Perkins & Will



Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

MISCELLANEOUS CME SERVICES REPORT

Report Number: 25061446.0821
Service Date: 04/18/08
Report Date: 04/29/08
Task: Slab On Deck/ Roof Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed coring of a sample cast in a bucket, by the contractor, for the 4th floor. Two 4x8 cores were taken to be used for 28 day strength results.

Services: Soils Observation

Terracon Rep.: Michael D. Gessert
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS REPORT

Report Number: 25061446.0822
Service Date: 04/25/08
Report Date: 05/05/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project
Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S401 of plans dated 10/27/07 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Foundation grade beam

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 26" Measured in field: 30+
Bar Supports: Ties
Clearance: 1½ Cover: 1½

In-place Compliance
Met project requirements when initially examined. Yes

Services: Reinforcing Steel Observation

Terracon Rep.: *Jonathan D. Venerable*
Reported To: Chris with J.E. Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0824
Service Date: 04/23/08
Report Date: 05/09/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Levels 3 & 4 on the north and south sides

Structure: Window Ledgers
Type of Connections: Welded
Type of Observation: VT
Observation: observed ledger to C-channel ¼"x2" every 24" on bottom side field fillet welded connections; observed ledger to metal studs 3/16" across full field fillet welded connections; welded connections were in an overlap joint fit-up

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Welds observed today were present, at proper locations, and per RFI. Terracon informed Jesse, superintendent with J.E. Dunn, of all results.

Services: Structural Steel Observation

Terracon Rep.: Adam M. Stokes
Reported To: Jesse with J.E. Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0826
Service Date: 04/25/08
Report Date: 05/09/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 2 bridge tie-in to existing building

Structure: Joist brackets & joist to brackets
Type of Connections: Welded
Type of Observation: VT
Observation: observed bent plate joist seat bracket supports to beam ¼" full verticals on both sides field fillet welded connections in an overlap joint fit-up in a 3G position; observed joist to support bracket ¼"x3" on both sides field fillet welded connections in an overlap joint fit-up in a 2G position

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Welds observed today were present, at proper locations, and per on-site specifications. Terracon informed Jesse, superintendent with J.E. Dunn, of all results.

Services:

Terracon Rep.: Adam M. Stokes
Reported To: Jesse with J.E. Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0827
Service Date: 04/30/08
Report Date: 05/09/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 2 bridge tie-in to existing building

Structure: Column & Beam Connections
Type of Connections: Welded & Bolted
Type of Observation: VT
Observation: observed column base anchor bolted connections; observed column to beam and beam to beam A325 bolted connections; observed knife plate to column 5/16" full verticals on both sides field fillet welded connections in a T-joint fit-up welded in a 3G position

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Welds and bolts observed today were present, at proper locations, and per on-site specifications. Bolts observed had washers present with nuts present with nuts properly achieving full nut engagement onto bolts. Terracon informed Jesse, superintendent with J.E. Dunn Construction, of all results.

Services:

Terracon Rep.: Adam M. Stokes
Reported To: Jesse w/J.E. Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0828
Service Date: 04/11/08
Report Date: 06/09/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Garage, gridlines 5.0 to 10.0 x B.0 to C.0, Levels 2, 3, and 4

Structure: T-panels/Shear Walls, Spandrels, Walls
Type of Connections: Welded
Type of Observation: VT
Observation: observed field welds for T-panels to T-panels (1/4"x4" groove) side bar connections, T-panels to shear wall (1/4"x3" fillet) via plate weld connection, spandrels to beams with 5/16" all around fillet weld connections and wall V-pockets with 3/16"x2½" at top and bottom fillet weld connections

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Observation of referenced structures were present as plans and documents provided on-site. Terracon informed J.E. Dunn superintendent, Casey Wolfe, of observations.

Services: Structural Steel Observation

Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS REPORT

Report Number: 25061446.0831
Service Date: 05/07/08
Report Date: 05/14/08
Task: Footing Pad Excavation and Reinforcing Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S001 of plans dated April 13, 2007 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Foundation on the north side of building.

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 24" Measured in field: 24"
Bar Supports: Dowels
Clearance: 3" Cover: 5"

In-place Compliance
Met project requirements when initially examined. Yes

Services: *Reinforcing Steel Observation*

Terracon Rep.: Jason A. Marquiss
Reported To: Jim Peterson with JE Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FERROSCAN OPERATIONS REPORT

Report Number: 25061446.0834
Service Date: 05/07/08
Report Date: 05/19/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon arrived on-site, as requested by J.E. Dunn to perform ferroscan operations on existing elevator walls at Level 2. The ferroscan was utilized to provide locations of existing reinforcing steel within the wall. Observations were reported to J.E. Dunn superintendent, John Weber. Ferroscan operations were to resume on May 8, 2008.

Services: Structural Steel Observation

Terracon Rep.: James A. Rock
Reported To: John Weber with J.E. Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to *the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.*

ON-SITE CANCELLATION REPORT

Report Number: 25061446.0836
Service Date: 05/12/08
Report Date: 05/20/08
Task: Slab On Deck/ Roof Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

A Terracon representative arrived at the above referenced project at 7:30 a.m. to perform reinforcing steel observation as scheduled. Upon arrival, the technician was notified that the work had been cancelled because Chris with JD Dunn was not ready.

Services:

Terracon Rep.: Christopher J. Jellison
Reported To: Chris with JD Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS REPORT

Report Number: 25061446.0837
Service Date: 05/13/08
Report Date: 05/20/08
Task: Slab On Deck/ Roof Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project
Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S100 of plans dated April 6, 2007 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: 2nd Floor bridge, Slab-on-Deck

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: #5 30" Measured in field: #5 42" (single bar)
Bar Supports: Tees & Chairs
Clearance: 2" Cover: 2"

In-place Compliance
Met project requirements when initially examined. Yes

Comments:

Services: Reinforcing Steel Observation

Terracon Rep.: Jason J. Andersen
Reported To: Chris Gallegos w/JE Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0840
Service Date: 05/14/08
Report Date: 05/19/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 3 at gridlines A13.0 x 1B.0 to 1E.0; South Building at gridlines A25.0 x -1AA.0

Structure: Window area, brick lintels, dock door frame
Type of Connections: Welded
Type of Observation: VT
Observation: Observed brick lintels (angle iron) in place with field fillet weld connections to C-channel 3/16"x3" at 12" on center as detailed in RFI #569. Dock door structure at south building was observed with HSS column to beam field fillet weld connections 3/16" all around and anchor bolts at HSS column base plate with washers and full nut engagement.

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Observations were present as detailed in plans/RFI provided on-site. Terracon informed superintendents, John Weber with J.E. Dunn and Mike with Top Flight Steel, of observations.

Services: Structural Steel Observation

Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

MISCELLANEOUS CME SERVICES REPORT

Report Number: 25061446.0841
Service Date: 05/15/08
Report Date: 05/20/08
Task: Slab On Grade Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project
Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 4 concrete cylinders cast on May 14, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0838 & .0839

Services: Concrete Cylinder Pick Up

Terracon Rep.: Jason J. Andersen
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0842
Service Date: 05/08/08
Report Date: 05/19/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon arrived on-site, as requested by J.E. Dunn superintendent John Weber, to resume ferroscan observations on Level 2 west wall of elevator core at bridge tie-in area (existing). Reinforcing steel observed via ferroscan was marked for reference. Observations were reported to Mr. Weber with J.E. Dunn.

Services: Structural Steel Observation

Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIREPROOFING TEST REPORT

Report Number: 25061446.0847
Service Date: 05/12/08
Report Date: 05/19/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Field Test Data (ASTM E - 605)

Area Checked: Level 5 floor beams bridge, gridlines A13.1 to A24.0 x 1N.0

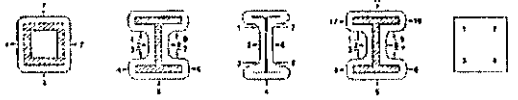
Test Location		Measurement Locations (see drawings below) 1	2	3	4	5	6	7	8	9	10	11	12	Average	Required Average	Allowable Measure	Pass / Fail
A13.5 x 1N.0 to 1S.0	Loc. 1	1 11/16	1 9/16	1 5/16	1 6/16	1 11/16	1 7/16	1 5/16	1 11/16	1 11/16				1 8/16	1 7/16	1 3/16 to 1 11/16	Passed
	Loc. 2	1 10/16	1 7/16	1 4/16	1 7/16	1 10/16	1 8/16	1 6/16	1 7/16	1 9/16							
A15.2 x 1N.0 to 1U.0	Loc. 1	1 11/16	1 8/16	1 6/16	1 8/16	1 11/16	1 6/16	1 9/16	1 10/16	1 8/16				1 9/16	1 7/16	1 3/16 to 1 11/16	Passed
	Loc. 2	1 11/16	1 11/16	1 6/16	1 9/16	1 11/16	1 4/16	1 8/16	1 11/16	1 8/16							
A20.1 x 1R.0 x 1U.0	Loc. 1	1 9/16	1 11/16	1 7/16	1 9/16	1 9/16	1 4/16	1 5/16	1 6/16	1 9/16				1 8/16	1 7/16	1 3/16 to 1 11/16	Passed
	Loc. 2	1 11/16	1 9/16	1 5/16	1 8/16	1 10/16	1 7/16	1 8/16	1 7/16	1 11/16							
A23.5 x 1K.0 to 1R.0	Loc. 1	1 8/16	1 10/16	1 8/16	1 7/16	1 10/16	1 4/16	1 7/16	1 8/16	1 11/16				1 8/16	1 7/16	1 3/16 to 1 11/16	Passed
	Loc. 2	1 10/16	1 11/16	1 9/16	1 8/16	1 11/16	1 3/16	1 5/16	1 9/16	1 11/16							

*Location 1 is approximately 12 inches from Location 2.

*Shaded areas indicate results that are not in compliance with the project specifications.

Comments:

Services:
Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co



Reviewed By: Thomas M. Mestas

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0846
Service Date: 05/12/08
Report Date: 05/19/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project
Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 2 bridge tie-in to existing

Structure: Knife plates
Type of Connections: Welded
Type of Observation: VT
Observation: Observed 6"x12", 6"x18", 8"x12" and 8"x16" knife plates to columns 5/16" full verticals on both sides field fillet welded connections in a t-joint fit-up

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Welds observed today were present, at proper locations, and per on-site specifications. Terracon informed Jesse, superintendent with J.E. Dunn Construction, of all results.

Services:

Terracon Rep.: Adam M. Stokes
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0848
Service Date: 04/28/08
Report Date: 05/20/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project
Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 2 bridge deck and floor beams and joists, gridlines A19 to A24 x 1U

Structure: Level 2 bridge deck and floor beams and joists, gridlines A19 to A24 x 1U
Type of Connections: Welded, Bolted, Screw
Type of Observation: VT
Observation: Observed joists to seating plates added with 3/16"x2" field fillet welds on both sides of flange; observed floor beams added with connection to existing beams, added beams were at a different elevation than planned

In-place Compliance
Met project requirements when initially examined. No

COMMENTS: Terracon informed Mike the Top Flight foreman, and John Weber the J.E. Dunn superintendent, that while joist connections were acceptable an RFI should be submitted regarding floor beam elevations.

Services: Structural Steel Observation

Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0849
Service Date: 05/15/08
Report Date: 05/21/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 3, gridlines A2.0 x 1B to 1D

Structure: Brick Ledges & Window Lintel
Type of Connections: Welded
Type of Observation: VT
Observation:
Observed brick lintels on Level 3 in place with angle iron to C-channel filed fillet weld connections 3/16"x3" at 12" on center as detailed in RFI #569

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Observations of referenced structure was in place and per plans/RFI provided by Top Flight Steel Erection foreman, Mike. Terracon informed J.E. Dunn Superintendent, John Weber, of observations.

Services: Structural Steel Observation

Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

ON-SITE CANCELLATION REPORT

Report Number: 25061446.0850
Service Date: 05/21/08
Report Date: 05/27/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

A Terracon representative arrived at the above referenced project at 12:30 p.m. to perform reinforcing steel observation as scheduled. Upon arrival, the technician was notified that the work had been cancelled.

Services:

Terracon Rep.: Jack L. White
Reported To: *John with Dunn Construction*
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS REPORT

Report Number: 25061446.0851
Service Date: 05/22/08
Report Date: 05/27/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S501 & S504 of plans dated April 16, 2007 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: 2nd Floor Bridge Curb

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 47 *Measured in field: 47*
Bar Supports: N/A
Clearance: 2 Cover: 3

In-place Compliance
Met project requirements when initially examined. Yes

Services: Reinforcing Steel Observation

Terracon Rep.: Jack L. White
Reported To: John Webber w/Dunn Const.
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

MASONRY OBSERVATIONS REPORT

Report Number: 25061446.0855
Service Date: 05/28/08
Report Date: 06/02/08
Task: Masonry Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project
Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

CMU PLACEMENT OBSERVATIONS:
These observations were performed at the following locations: Course 7-12, 1.E entry way
Masonry materials are stored so that at the time of use the materials are clean and structurally suitable for the intended use. CMU is dry during placement or use. The method of measuring constituents for the batching of mortar or grout is controlled. The mortar or grout mixed at the jobsite was initially mixed for more than 3 minutes and less than 10 minutes. After initial water was added to the ingredients at the jobsite, the mortar used was less than 2½ hours old and the grout was less than 1½ hours old. Cold weather precautions were adhered to during placement and curing of masonry materials.

REINFORCING STEEL PLACEMENT OBSERVATIONS:
These observations were performed at the following locations: Course 7-12, 1.E
Reinforcement was secured against displacement prior to grouting by wire positioners or other suitable devices at intervals not exceeding 200 bar diameters. Reinforcing steel was free of loose rust and other coatings that would inhibit reinforcing bond. Embedments were properly secured in place prior to grouting.

#6 horizontal, continuous at bond beam, 4 feet O.C.;
#6 vertical, 6 inches O.C.;
9-Gauge Bond wire, continuous, 16 inches O.C.
Splicing Specifications: 36" Measured in Field: 36"

Sheet A 2001 A of plans dated August 24, 2006 was used as the reference documents during our inspection.

GROUT PLACEMENT OBSERVATIONS:
These observations were performed at the following locations: Course 7-12, 1.E
LOW LIFT (Grout placement less than 5' in height) Grout space is clean, does not contain mortar projections greater than ½", and is free of mortar droppings and other deleterious material. Reinforcing steel was in-place, centered, and undisturbed in the cells during grouting operations. Grout appeared to have adequate fluidity, was mixed thoroughly, and was not segregated. Grout was mechanically vibrated. Grouting of any one section was completed within one day without interruptions greater than one hour. A horizontal construction joint was formed between grout placements by stopping all wythes at the same elevation and by stopping the grout placement a minimum of 1½" below a mortar joint, except at the top of the wall.

Services: Masonry Observation

Terracon Rep.: Robert L. Maupin
Reported To: Craig Holbrook w/AP Eberein
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

MASONRY OBSERVATIONS REPORT

Report Number: 25061446.0856
Service Date: 05/29/08
Report Date: 06/03/08
Task: Masonry Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

CMU PLACEMENT OBSERVATIONS:
These observations were performed at the following locations: Medical Center at stations 1E.0+1E.3 at A.2 line, EL-114.6, 1F.3+16.1 at line A.2, elevation 100.0
Masonry materials are stored so that at the time of use the materials are clean and structurally suitable for the intended use. CMU is dry during placement or use. The mortar or grout mixed at the jobsite was initially mixed for more than 3 minutes and less than 10 minutes. After initial water was added to the ingredients at the jobsite, the mortar used was less than 2½ hours old and the grout was less than 1½ hours old.

REINFORCING STEEL PLACEMENT OBSERVATIONS:
These observations were performed at the following locations: Medical Center at stations 1E.0+1E.3 at A.2 line, EL-114.6, 1F.3+16.1 at line A.2, elevation 100.0

Reinforcement was secured against displacement prior to grouting by wire positioners or other suitable devices at intervals not exceeding 200 bar diameters. Reinforcing steel was free of loose rust and other coatings that would inhibit reinforcing bond.

1#6 vertical, 8 inches O.C.; (to match foundation reinforcement)
9-Gauge Bond wire, continuous, 16 inches O.C.
Splicing Specifications: 53" Measured in Field: 53"

Sheets S-100-1.5.401, S-005-1.5 of plans dated April 13, 2007 was used as the reference documents during our observation.

COMMENTS/DISCREPANCIES/CORRECTIONS: No grouting was performed at this time of observation, Terracon informed Manson's that they need to measure constituents.

WEATHER: Sunny

Services: Masonry Observation

Terracon Rep.: Christopher J. Jellison
Reported To: Hector Morales
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

MASONRY OBSERVATIONS REPORT

Report Number: 25061446.0861
Service Date: 05/31/08
Report Date: 06/04/08
Task: Masonry Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project
Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

CMU PLACEMENT OBSERVATIONS:
These observations were performed at the following locations: CMU columns at gridlines 1E.0xA2, 2nd lift
Masonry materials are stored so that at the time of use the materials are clean and structurally suitable for the intended use. CMU is dry during placement or use. The method of measuring constituents for the batching of mortar or grout is controlled. The mortar or grout mixed at the jobsite was initially mixed for more than 3 minutes and less than 10 minutes. After initial water was added to the ingredients at the jobsite, the mortar used was less than 2½ hours old and the grout was less than 1½ hours old.

NO. OF MORTAR CUBES/CYLINDERS MADE: 4
NO. OF GROUT PRISMS MADE: 4

REINFORCING STEEL PLACEMENT OBSERVATIONS:
These observations were performed at the following locations: CMU columns at gridlines 1E.0xA2, 2nd lift
Reinforcement was secured against displacement prior to grouting by wire positioners or other suitable devices at intervals not exceeding 200 bar diameters. Reinforcing steel was free of loose rust and other coatings that would inhibit reinforcing bond.

#6 vertical, 8 inches O.C.;
9-Gauge Bond wire, continuous, 16 inches O.C.
Splicing Specifications: #6 @ 53" lap Measured in Field: #6 @ 58" lap

Sheet S001 of plans dated April 16, 2007 was used as the reference documents during our inspection.

GROUT PLACEMENT OBSERVATIONS:
These observations were performed at the following locations: CMU columns at gridlines 1E.0xA2, 2nd lift
LOW LIFT (Grout placement less than 5' in height). Grout space is clean, does not contain mortar projections greater than ½", and is free of mortar droppings and other deleterious material. Reinforcing steel was in-place, centered, and undisturbed in the cells during grouting operations. Grout appeared to have adequate fluidity, was mixed thoroughly, and was not segregated. Grout was mechanically vibrated. Grouting of any one section was completed within one day without interruptions greater than one hour. A horizontal construction joint was formed between grout placements by stopping all wythes at the same elevation and by stopping the grout placement a minimum of 1½" below a mortar joint, except at the top of the wall.

Weather: Sunny

Services: Masonry Observation

Terracon Rep.: Jason J. Andersen
Reported To: Craig with AP Eberlein
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

MASONRY OBSERVATIONS REPORT

Report Number: 25061446.0868
Service Date: 05/30/08
Report Date: 06/04/08
Task: Masonry Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

CMU PLACEMENT OBSERVATIONS:
These observations were performed at the following locations: Courses 7-12, main entry way, backing at 1G
Masonry materials are stored so that at the time of use the materials are clean and structurally suitable for the intended use. CMU is dry during placement or use. The method of measuring constituents for the batching of mortar or grout is controlled. The mortar or grout mixed at the jobsite was initially mixed for more than 3 minutes and less than 10 minutes. After initial water was added to the ingredients at the jobsite, the mortar used was less than 2½ hours old and the grout was less than 1½ hours old. Cold weather precautions were adhered to during placement and curing of masonry materials.

NO. OF MORTAR CUBES/CYLINDERS MADE: 4
NO. OF GROUT PRISMS MADE: 4

REINFORCING STEEL PLACEMENT OBSERVATIONS:
These observations were performed at the following locations: Courses 1-12, main entry way, backing at 1G
Reinforcement was secured against displacement prior to grouting by wire positioners or other suitable devices at intervals not exceeding 200 bar diameters. Reinforcing steel was free of loose rust and other coatings that would inhibit reinforcing bond. Embedments were properly secured in place prior to grouting.

2#5 horizontal, see notes on plans
#6 vertical, every cell
9-Gauge Bond wire, continuous, 16 inches O.C.
Splicing Specifications: 53" Measured in Field: 53"+

Sheet S001 of plans dated 4.16.07 was used as the reference documents during our observation.

GROUT PLACEMENT OBSERVATIONS:
These observations were performed at the following locations: Courses 1-6 & 7-12
LOW LIFT (Grout placement less than 5' in height) Grout space is clean, does not contain mortar projections greater than ½", and is free of mortar droppings and other deleterious material. Reinforcing steel was in-place, centered, and undisturbed in the cells during grouting operations. Grout appeared to have adequate fluidity, was mixed thoroughly, and was not segregated. Grout was mechanically vibrated. Grouting of any one section was completed within one day without interruptions greater than one hour. A horizontal construction joint was formed between grout placements by stopping all wythes at the same elevation and by stopping the grout placement a minimum of 1½" below a mortar joint, except at the top of the wall.

Services: Masonry Observation

Terracon Rep.: Robert L. Maupin
Reported To: Craig Holbrook w/AP Eberlein
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS REPORT

Report Number: 25061446.0869
Service Date: *06/06/08*
Report Date: 06/11/08
Task: Micro-Piles

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project
Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Medical offices on the south end of building. (6) total micro-piles with #4 rebar

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: N/A Measured in field: N/A
Bar Supports: N/A
Clearance: 3" on all sides

Met project requirements when initially examined. Yes

Services: Reinforcing Steel Observation

Terracon Rep.: Christopher J. Bonino
Reported To: John with JE Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0872
Service Date: 06/02/08
Report Date: 06/16/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon arrived on-site to perform cohesion/adhesion test on spray applied fire resistive materials at level 2. Bond strength tests were performed in conformance with ASTM E 736. Three tests were performed: 1C x A9 I-column (achieved 156 pounds per square feet) 1C to 1D x A11 I-beam (achieved 161 pounds per square foot) 1E to 1G x A9.5 (achieved 167 pounds per square foot). Minimum bond strength is 150 pounds per square foot. Terracon informed JE Dunn superintendent John Weber of observation results.

Services: Structural Steel Observation

Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) *JE Dunn Construction Co*
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) *Bestway Concrete Co*
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS REPORT

Report Number: 25061446.0874
Service Date: 06/10/08
Report Date: 06/12/08
Task: Micro-Piles

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheets S.001 & S.101 of plans dated April 13, 2007 were used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Slab reinforcement on ground level at columns 1K @ A.23, 1L @ A.24, 1R @ A.20, 1U @ A.20, 1R @ A.21, 1U @ A.21, 1R @ A.21.8, and 1U @ A.22

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 24 minimum Measured in field: 24 minimum
Bar Supports: Epoxy
Clearance: 2 ½" Cover: ¾"

In-place Compliance
Met project requirements when initially examined. Yes

Comments: Terracon also observed the placement of #4 bars being epoxy into existing slab.

Services: Reinforcing Steel Observation

Terracon Rep.: Christopher J. Jellison
Reported To: Eric Johnston
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0876
Service Date: 05/05/08
Report Date: 06/20/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 2 bridge connection to existing building

Structure: Joist reinforcement
Type of Connections: Welded
Type of Observation: VT
Observation: observed C-channel to bottom cord of existing joist 3/16"x2" every 12" O.C. on both sides field fillet welded connections; observed 2"x2" angle iron for horizontal tail support welded 3/16" across full at each end field fillet welded connections

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Welds observed today were present, at proper locations, and per on-site specifications. Terracon informed Jesse, superintendent with J.E. Dunn Construction, of all results.

Services: Structural Steel Observation

Terracon Rep.: Adam M. Stokes
Reported To:
Contractor:
Report Distribution:

(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0877
Service Date: 05/07/08
Report Date: 06/20/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: 10 x A19, A20 and A20.6

Structure: Existing beam connections
Type of Observation: VT
Observation: observed three with four existing beam cut back for Level 2 bridge with no connection to new steel present, beams were torch cut back and supported, no detail was present on-site

In-place Compliance
Met project requirements when initially examined. No

COMMENTS: Terracon requested RFI for new fix attachment form existing beams to new Level 1 bridge. Terracon informed Jesse, superintendent with J.E. Dunn Construction, of all results.

Services: Structural Steel Observation

Terracon Rep.: Adam M. Stokes
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS REPORT

Report Number: 25061446.0880
Service Date: 06/12/08
Report Date: 06/16/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S.101 of plans dated April 6, 2007 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Slab-on-Deck, pour strip next to existing building, 2nd floor bridge

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: N/A Measured in field: N/A
Bar Supports: Ties
Clearance: N/A Cover: N/A

In-place Compliance
Met project requirements when initially examined. Yes

Services: Reinforcing Steel Observation

Terracon Rep.: Jason J. Andersen
Reported To: Tom with JE Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0883
Service Date: 06/09/08
Report Date: 06/17/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Cooling Tower

Structure: Beam to Beam A325 bolt connections
Type of Connections: Bolted
Type of Observation: VT
Observation: Observed A325 bolt assembly connections in place for beam to beam structures of cooling tower. Bolt assemblies were in place with washers and full nut engagement. Tension control bolt assemblies were observed in place with nuts snug tightened.

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Observations of noted structures were present and per plans and documents provided. Terracon informed J.E. Dunn superintendent, John Weber, of observations.

Services: Structural Steel Observation

Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0884
Service Date: 06/10/08
Report Date: 06/17/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 2 floor bridge elevator tie-in

Structure: Floor beams, floor decking, nelson studs
Type of Connections: Welded & Screw
Type of Observation: VT
Observation: Observed floor beams (W12) with weld connections from bent plate to beam web ¼"x10" and 3" return field fillet welds and bent plate to embed with 10" vertical and 4" returns x ¼" field fillet welds. Floor decking was in place with nelson stud fillet weld connections to floor beams and #10 tek screw connections at side and end lap connections.

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Observations of referenced structures were present and per plans and documents provided on-site. Terracon informed J.E. Dunn superintendent, John Weber, of observations.

Services: Structural Steel Observation

Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0885
Service Date: 06/11/08
Report Date: 06/17/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Cooling Tower (south end)

Structure: Angle iron to perimeter beam
Type of Connections: Welded
Type of Observation: VT
Observation: Observed shop welds of angle iron to perimeter beam weld connections on bottom side of beam flange. Welds observed were fillet welds with ¼"x2" on 12" on center.

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: While shop welds observed in the field were painted over it appeared that no cracks were present at top of weld, but instead a fine line of slag remained present.

Services: Structural Steel Observation

Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: *Thomas M. Mestas*

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

NON-DESTRUCTIVE TESTING SERVICES REPORT

Report Number: 25061446.0887
Service Date: 06/19/08
Report Date: 06/25/08
Task: Ferroscan

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon arrived on-site, as requested, to perform pack-o-meter observations at five locations at existing elevator core, Level 2. Metal inside concrete walls was marked at location. Observations were reported to J.E. Dunn superintendent, John Weber.

Services:

Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:

(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0890
Service Date: 06/18/08
Report Date: 06/25/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 2 bridge floor beams and joists, gridlines A19.0 to A24.0 x 1U.0

Structure: Level 2 bridge floor beams and joists, gridlines A19.0 x A24.0 x 1U.0
Type of Connections: Welded
Type of Observation: VT
Observation: observed floor beam and bar joists in place per RFI #560 ¼" all around field fillet welds from W16 beam to W18 beam web

In-place Compliance
Met project requirements when re-examined. Yes (4/28/08)

COMMENTS: Observations of referenced structures was present and per RFI details provided. Terracon informed J.E. Dunn superintendent, John Weber, of observations.

Services: Structural Steel Observation

Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0891
Service Date: 06/23/08
Report Date: 06/25/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 3 elevator tie-in

Structure: Floor Beams & Floor Deck
Type of Connections: Welded
Type of Observation: VT
Observation: Observed clips to embed with ¼" across full on 3 sides field fillet welded connection and clip to beam web ¼" across full on 3 sides field fillet welded connections. Floor deck was observed in place with nelson studs 3/16" field fillet from deck to support beams and 5/8" diameter puddle welds from deck to beams.

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Observations of noted structures was present and per plans provided on-site. Terracon informed J.E. Dunn superintendent, John Weber, of observations.

Services: *Structural Steel Observation*

Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0896
Service Date: 06/26/08
Report Date: 12/30/08
Task: Structural Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project
Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: A2.0 exterior framing

Structure: Exterior framing window frame support
Type of Connections: Welded
Type of Observation: VT
Observation: observed 3"x3" tube steel column to bottom plate with 3/16" all around field fillet welds and ½" diameter bolts from steel plate to 6" embedment to concrete slab

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Observations in field were in place per RFI 0575 as provided by Top Flight Steel Erectors. Observations were reported to J.E. Dunn superintendent, John Weber.

Services: Structural Steel Observation

Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FERROSCAN INSPECTION REPORT

Report Number: 25061446.0897
Service Date: 06/26/08
Report Date: 07/01/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project
Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon arrived on-site, as requested, for ferroscan operations of elevator tie-in floor slab Level 4. Concrete walls were ferroscanned and reinforcing steel identified at four locations and was marked for reference. Terracon informed J.E. Dunn superintendent, John Weber, of observations.

Services:

Terracon Rep.: *James A. Rock*
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0898
Service Date: 06/30/08
Report Date: 07/02/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project
Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 2 A13.0, Rooms 2053 and 2056

Structure: Curtain Wall
Type of Connections: Welded & Bolted
Type of Observation: VT
Observation: Observed 5/8" diameter anchor bolts were installed via drill and epoxy into concrete slab and 8"x7" base plate installed. Observed field fillet welds form channel to embeds at other areas (3/16"x2"x12").

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Observations were in place per plans and RFI #0568 provided by J.E. Dunn. Observations were reported to superintendent, John Weber.

Services: Structural Steel Observation

Terracon Rep.: James A. Rock
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

ON-SITE CANCELLATION REPORT

Report Number: 25061446.0900
Service Date: 07/21/08
Report Date: 07/23/08
Task: Ferroscan

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

A Terracon representative arrived at the above referenced project at 7:00 a.m. to perform Ferroscan testing as scheduled. Upon arrival, the technician was notified that the work had been cancelled.

Services: *On-site Cancellation*

Terracon Rep.: Warren D.Naranjo
Reported To: John with JE Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

STRUCTURAL STEEL OBSERVATIONS REPORT

Report Number: 25061446.0907
Service Date: 07/22/08
Report Date: 07/28/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the structural steel installation at the referenced project. These services were performed on a part-time basis. Terracon's observations were performed using the project on-site documents and specifications available to Terracon on this date.

SUMMARY OF STRUCTURAL FIELD OBSERVATION

Location: Level 4

Structure: Bridge tie-in addition
Type of Connections: Welded & Bolted
Type of Observation: VT
Observation: observed column to beam and beam to beam A325 bolted connections; observed knife plate to beam ¼" all three sides field fillet welded connections; observed floor deck to beam 5/8" deck puddle welded connections; observed 3 per span #10 tek screw side lap connections; observed perimeter angle iron to beam 3/16"x2" every 12" O.C. field fillet welded connections

In-place Compliance
Met project requirements when initially examined. Yes

COMMENTS: Welds, screws and bolts observed today were present, at proper locations, and per on-site specifications. Bolts had washers present with nuts present with nuts properly achieving full nut engagement onto bolts. Terracon informed John Webber, superintendent with J.E. Dunn Construction, of all results.

Services:

Terracon Rep.: Adam M. Stokes
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Thomas M. Mestas

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FERROMAGNETIC SCANNING OBSERVATION REPORT

Report Number: 25061446.0908
Service Date: 08/14/08
Report Date: 08/18/08
Task: Ferroscan

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon arrived on-site as requested to perform Ferromagnetic scanning of the 2nd floor slab-on-deck at gridlines A.2 x 1.C to 1.D. JE Dunn requested Terracon to verify the placement location of a 1" x 1" x 1/8" angle. Ten scans were performed at the above location with each grid location labeled on the slab. Quick scan mode was then utilized to verify the sloped concrete coverage at angle placement locations. 5 angle locations were found and labeled. Paul Zubeck with JE Dunn was notified of results.

Terracon printed out images and were emailed to the contractor. Pictures are attached.

Services: Concrete Cylinder Pick Up

Terracon Rep.: Warren D.Naranjo
Reported To: Paul Zubeck with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS REPORT

Report Number: 25061446.0910
Service Date: 09/16/08
Report Date: 09/22/08
Task: Slab-On-Deck Reinforcing Steel Obs.

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project
Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S-001 of plans dated June 1, 2006 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Interior slab-on-grade for central utility plant

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: N/A Measured in field: N/A
Bar Supports: 3" Chairs
Clearance: ¾" Cover: ¾"

In-place Compliance
Met project requirements when initially examined. Yes

Comments: 4" screen with #3's at 1' O.C. into existing slab

Services: Reinforcing Steel Observation

Terracon Rep.: Matthew P. Wales
Reported To: John Webber with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TEST REPORT

Report Number: 25061446.0913
Service Date: 09/22/08
Report Date: 09/25/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Mat. No.	Proctor Ref. No.	Classification and Description	Laboratory Test Method	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Compaction (%)
1	25061446.0002	Poorly Graded Sand w/ Silt (SP-SM) A-1-b (0)	ASTM D698	4.5	116.0	±2	95

Field Test Data

Test No.	Test Location	Lift / Elev.	Mat. No.	Probe Depth (in)	Wet Density (pcf)	Water Content (pcf)	Water Content (%)		Dry Unit Weight (pcf)	Percent Compaction (%)
	Footings West of Planter									
1	East Footing	S.G.	1	8"	120.3	7.3	6.5		113.0	97
2	West Footing	S.G.	1	8"	120.6	7.7	6.8	*	112.9	97

Datum: **Gauge ID:** 35333 **Std. Cnt. M:** 598 **Std. Cnt. D:** 2403

Comments: **An asterisk (*) appears next to the test results which do not meet the project requirements as noted above.**

Services: *Field Density Testing*
Terracon Rep.: Charles Schott
Reported To: Casey with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client *indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the* actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

ON-SITE CANCELLATION REPORT

Report Number: 25061446.0915
Service Date: *09/23/08*
Report Date: 09/25/08
Task: Footing Pad Excavation and Reinforcing Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

A Terracon representative arrived at the above referenced project at 1:00 p.m. to perform reinforcing steel observation as scheduled. Upon arrival, the technician was notified that the work had been cancelled.

Services: On-site Cancellation

Terracon Rep.: Charles Schott
Reported To:
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS REPORT

Report Number: 25061446.0918
Service Date: 09/25/08
Report Date: 09/29/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet SK 5 of plans dated February 15, 2007 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Footings for canopy columns at the northwest corner of building

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: Continuous Measured in field: Continuous
Bar Supports: #7
Clearance: 12" Cover: 5"

In-place Compliance
Met project requirements when initially examined. Yes

Services: Reinforcing Steel Observation

Terracon Rep.: Nse E. Ndu
Reported To: Casey with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS REPORT

Report Number: 25061446.0921
Service Date: 10/06/08
Report Date: 10/13/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet S00.01 of plans dated April 13, 2008 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: North of gridlines A2 and 1J to 1J.2 and 1M to 1.5

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Splicing - Specifications: 53" Measured in field: 53"
Bar Supports: Metal Chairs
Clearance: N/A Cover: 1 ½"

In-place Compliance
Met project requirements when initially examined. Yes

Services: Reinforcing Steel Observation

Terracon Rep.: Cherie A. Jemberie
Reported To: Casey Wolf
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

MOISTURE KIT PLACEMENT REPORT

Report Number: 25061446.0977
Service Date: 12/03/08
Report Date: 12/08/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon arrived on-site as requested and met with Paul with JE Dunn and received a map of locations for placement. Terracon placed 12 moisture kits.

Services: Drilled Pier Observation

Terracon Rep.: Charles Schott
Reported To:
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

GENERAL OBSERVATION REPORT

Report Number: 25061446.0981
Service Date: 12/09/08
Report Date: 12/15/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon arrived on-site as requested to install 9 moisture kits at:

1. 3043
2. 3054
3. 3055
4. 3033
5. 3030
6. 3044 Bridge north end
7. 3044 Bridge south end
8. 3076
9. 3072

Services: On-site Cancellation

Terracon Rep.: *Charles Schott*
Reported To:
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client *indicated above and shall not be reproduced except in full without the written consent of our company.* Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REINFORCING STEEL OBSERVATIONS REPORT

Report Number: 25061446.0990
Service Date: 12/29/08
Report Date: 12/30/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon performed an observation during the reinforcing steel installation at the referenced project. These services were performed on an as-requested basis. The reinforcing steel was checked for proper size, length and spacing. Terracon's observations were performed using the project documents and specifications available to Terracon on this date. Sheet E-1001 A of plans dated August 24, 2006 was used as the reference documents during our inspection.

SUMMARY OF REINFORCING STEEL OBSERVATION

Structure/Location Observed: Light Poles Footing, Northeast of Building next to Parking Lot

Specifications - Steel Grade: 60
Reinforcing Cleanliness: Acceptable
Bar Supports: #6
Clearance: 12" Cover: 3"

In-place Compliance
Met project requirements when initially examined. Yes

Services: Reinforcing Steel Observation

Terracon Rep.: Nse E. Ndu
Reported To: Randy T. w/Concrete Foundation
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONSTRUCTION MATERIALS TESTING RESULTS
FOR
AURORA MEDICAL CENTER EXPANSION
AURORA, COLORADO

BUILDING/STRUCTURAL REPORTS
(Concrete, Mortar & Grout Testing Only)

TERRACON PROJECT NO. 25061446

January 15, 2009

Prepared for:

HCA Health Care
One Park Plaza
Building 2, 3 East
Nashville, Tennessee 37203

Attn: Mr. Keith Allen

Prepared by:

Terracon
10625 West I-70 Frontage Road North, Suite 3
Wheat Ridge, Colorado 80033
Phone: (303) 423-3300
Fax: (303) 423-3353

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0022
Service Date: March 30, 2007
Task: **Grade Beam Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: April 30, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1234 Plant: 15
Supplier: Bestway Concrete
Truck No: 318-E Ticket No: 551877
Mix I.D. No.: 402119

Sample Information

Date Cast: March 30, 2007 Time: 1345
Sampled by: Randy L. Cotton
Weather Conditions: Partly Cloudy
Accumulative Yards: 11/11
Placement Method: Pump Truck
Sample Locations: Same as placement location
Placement Location: Existing building west side bed storage grade beam

Field Test Data

Test	Result	Specification
Slump, inches:	3.75	3-5
Air Content, %:	6.3	5-8
Concrete Temperature, °F:	62	50-90
Ambient Temperature, °F:	58	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
1C		4.00	12.57	04/06/2007	7	53,420	4,250
1C		4.00	12.57	04/27/2007	28	83,870	6,670
1C		4.00	12.57	04/27/2007	28	84,970	6,760
					Average (28 Days)		**6,720**
1C					Hold		
1C					Hold		

Services - Concrete Testing
Field Results Reported To: John Weber with Dunn
Samples made by: Terracon

Terracon Rep: Randy L. Cotton

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-JAA/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0105
Service Date: July 11, 2007
Task: Caisson Observation

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: July 19, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0921 Plant: 15
Supplier: Bestway Concrete
Truck No: 0047 Ticket No: 586558
Mix I.D. No.: 452029
Water Added Onsite Before Test: 15 Gallons

Sample Information

Date Cast: July 11, 2007 Time: 1030
Sampled by: James T.McNamara
Weather Conditions: Sunny
Accumulative Yards: 10/20 Batch Size (cy): 10.00
Placement Method: Direct Discharge
Sample Locations: 50' below grade
Placement Location: Pier 1BxA11

Field Test Data

Test	Result	Specification
Slump, inches:	5.38	5-7
Air Content, %:	2.0	N/A
Concrete Temperature, °F:	80	50-90
Ambient Temperature, °F:	82	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
17C		4.00	12.57	07/18/2007	7	56,370	4,490
17C				08/08/2007	28		
17C				08/08/2007	28		
17C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: G Lawrence Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-RMK/R01-Future Key

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center

Project No.: 25061446.0105 Date: 7/12/07 Technician: James McNamara

Supplier			Mix I.D.		Specifications				Ambient Temperature Range, °F		
Bestway Concrete			452029		Slump: 5-7		Air Content: 0-3		75-85		
Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	10	586687	9:12	9:45	10:30	4.75			83	7/21	5
2	133	586710	11:10	11:45	12:50	7.0			83	7/21	30

Test No.	Test Location
1	Pier 1AxA11, 40' below grade
2	Pier 1AxA11, 20' below grade

Area of Placement: _____ Reviewed By: G Lewis Engineer

Comments: _____

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0106
Service Date: 07/11/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway Concrete
Batch Time: 1349 **Plant:** 15
Truck No.: 144 **Ticket No.:** 586599

Sample Information

Sample Date: 07/11/07 **Sample Time:** 1420
Sampled By: James T.McNamara
Weather Conditions: Partly Cloudy
Accumulative Yards: 10.5/21 **Batch Size (cy):** 10.5
Placement Method: Direct Discharge
Water Added Before (gal): 20
Water Added After (gal):
Sample Location: 50' below grade
Placement Location: Pier 1A.3xA13.2

Field Test Data

Test	Result	Specification
Slump (in):	5 1/2	5-7
Air Content (%):	3.0	0-3
Concrete Temp. (F):	83	50-90
Ambient Temp. (F):	80	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
16C	3	4.00	12.57			07/18/07	7	51,050	4,060	
16C	1	4.00	12.57			08/08/07	28	67,350	5,360	
16C	4	4.00	12.57			08/08/07	28	67,840	5,400	
							Average (28 days)		**5,380**	
16C	2						Hold			

Comments: Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To:
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center

Project No.: 25061446.0106 Date: 7/11/07 Technician: James McNamara

Supplier			Mix I.D.		Specifications				Ambient Temperature Range, °F		
Bestway Concrete			452029		Slump: 5-7		Air Content: 0-3		77-85		
Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	59	586564	9:47	10:40	11:00	7.0			82	10/20	10
2	100	586606	14:19	15:03	15:13	6.25			83	10.5/21	10

Test No.	Test Location
1	Pier 1BxA11, 20' below grade
2	Pier 1A.3xA13.2, 20' below grade

Area of Placement: _____ Reviewed By: _____

Comments: _____

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0109
Service Date: July 10, 2007
Task: Caisson Observation

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 08, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1323 Plant: 15
Supplier: Bestway Concrete
Truck No: 13 Ticket No: 586497
Mix I.D. No.: 452029
Water Added Onsite Before Test: 5 Gallons

Sample Information

Date Cast: July 10, 2007 Time: 1505
Sampled by: James T.McNamara
Weather Conditions: Partly Cloudy
Accumulative Yards: 8/24 Batch Size (cy): 8.00
Placement Method: Pump
Sample Locations: 50' below grade
Placement Location: Pier at gridline A.11x1A.4

Field Test Data

Test	Result	Specification
Slump, inches:	5.5	5-7
Air Content, %:	3.2	
Concrete Temperature, °F:	83	50-90
Ambient Temperature, °F:	89	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
14C		4.00	12.57	07/17/2007	7	53,320	4,240
14C		4.00	12.57	08/07/2007	28	65,850	5,240
14C		4.00	12.57	08/07/2007	28	64,860	5,160
					Average (28 Days)		**5,200**
14C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-RMK/R01-Future Key

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0109 Date: 7/10/07 Technician: J. McNamara and J. Redman

Supplier			Mix I.D.		Specifications				Ambient Temperature Range, °F		
Bestway Concrete			452029		Slump: 5-7		Air Content:		80-90		
Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	0145	586500	13:37	14:16	15:20	5.0			83	8/16	30
2	0119	586506	14:06	14:35	15:35	5.0			84	8/24	30

Test No.	Test Location
1	Pier at gridline A.11x1A.4, 30' below grade
2	Pier at gridline A.11x1a.4, 10' below grade

Area of Placement: Pier at gridline A.11x1a.4 Reviewed By: S Lewis E

Comments:

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0113
Service Date: 07/12/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway Concrete
Batch Time: 0851 **Plant:** 15
Truck No.: 22 **Ticket No.:** 586683

Sample Information

Sample Date: 07/12/07 **Sample Time:** 1000
Sampled By: James T.McNamara
Weather Conditions: Partly Cloudy
Accumulative Yards: 7/21 **Batch Size (cy):** 7
Placement Method: Direct Discharge
Water Added Before (gal): 5
Water Added After (gal):
Sample Location: *60' below grade*
Placement Location: Pier 1AxA11

Field Test Data

Test	Result	Specification
Slump (in):	5	5-7
Air Content (%):	2.0	N/A
Concrete Temp. (F):	83	50-90
Ambient Temp. (F):	79	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
15C	4	4.00	12.57			07/19/07	7	52,310	4,160	
15C	1	4.00	12.57			08/09/07	28	66,400	5,280	
15C	2	4.00	12.57			08/09/07	28	62,910	5,010	
							Average (28 days)		**5,150**	
15C	3						Hold			

Comments: ***Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.***

Samples Made By: Terracon
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0113 Date: 7/12/07 Technician: J. McNamara

Supplier			Mix I.D.		Specifications				Ambient Temperature Range, °F		
Bestway Concrete			452029		Slump: 5-7		Air Content: 0-3		75-85		
Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	10	586687	9:12	9:45	10:30	4.75	--	--	83	7/21	5
2	133	586710	11:10	11:45	12:50	7.0	--	--	83	7/21	30

Test No.	Test Location
1	Pier 1A x A11, 40' b.g.
2	Pier 1A x A11, 20' b.g.

Area of Placement: _____ Reviewed By: _____

Comments: _____

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0117
Service Date: July 13, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 13, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1009 Plant: 15
Supplier: Bestway Concrete
Truck No: 118 Ticket No: 586804
Mix I.D. No.: 452029
Water Added Onsite Before Test: 14 Gallons

Sample Information

Date Cast: July 13, 2007 Time: 1100
Sampled by: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 7/13 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: Pier 1B x A10.2

Field Test Data

Test	Result	Specification
Slump, inches:	5.5	5-7
Air Content, %:	1.5	0-3
Concrete Temperature, °F:	82	50-90
Ambient Temperature, °F:	78	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
18C		4.00	12.57	07/20/2007	7	45,440	3,620
18C		4.00	12.57	08/10/2007	28	62,120	4,940
18C		4.00	12.57	08/10/2007	28	59,330	4,720
					Average (28 Days)		**4,830**
18C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0117 Date: 13 July 2007 Technician: James McNamara

Supplier			Mix I.D.		Specifications				Ambient Temperature Range, °F		
Bestway Concrete			452029		Slump: 5-7"		Air Content: 0-3		70-85		
Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	100	586806	10:23	10:58	11:10	6.5	N/A	N/A	82	6/13	0
2	133	586835	1:22	1:58	2:45	5.5	N/A	N/A	87	6/13	12

Test No.	Test Location
1	Pier 1B x A10.2, 25' below grade
2	Pier 1C x A13, 20' below grade

Area of Placement: Reviewed By: G Linda Fontana

Comments:

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0118
Service Date: July 13, 2007
Task: Caisson Observation

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 13, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1301 Plant: 15
Supplier: Bestway Concrete
Truck No: 136 Ticket No: 586833
Mix I.D. No.: 452029
Water Added Onsite Before Test: 10 Gallons

Sample Information

Date Cast: July 13, 2007 Time: 430
Sampled by: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 6/13 Batch Size (cy): 6.00
Placement Method: Pump
Sample Locations: 50' Below grade
Placement Location: Pier 1C x A13

Field Test Data

Test	Result	Specification
Slump, inches:	6	5-7
Air Content, %:	2	0-3
Concrete Temperature, °F:	87	50-90
Ambient Temperature, °F:	82	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
19C		4.00	12.57	07/20/2007	7	40,610	3,230
19C		4.00	12.57	08/10/2007	28	60,190	4,790
19C		4.00	12.57	08/10/2007	28	56,930	4,530
					Average (28 Days)		**4,660**
19C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

REPORT OF CONCRETE CYLINDER PICK UP

Report Number: 25061446.0120
Service Date: July 14, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: July 20, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Concrete Cylinder Pick Up

Terracon obtained 2 sets of 4 concrete cylinders cast on July 13, 2007. The samples were returned to the laboratory for processing and proper curing as specified.

Terracon Rep: Robert R. Carlson

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton
JUL 23 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0122
Service Date: July 16, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 14, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0825 Plant: 15
Supplier: Bestway Concrete
Truck No: 136 Ticket No: 586946
Mix I.D. No.: 452029
Water Added Onsite Before Test: 20 Gallons

Sample Information

Date Cast: July 16, 2007 Time: 0945
Sampled by: James T.McNamara
Weather Conditions: Partly Cloudy & Calm
Accumulative Yards: 7/13 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 50' below grade
Placement Location: Pier 1D x A13

Field Test Data

Test	Result	Specification
Slump, inches:	6.0	5-7
Air Content, %:	2.0	0-3
Concrete Temperature, °F:	82	50-90
Ambient Temperature, °F:	88	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
20C		4.00	12.57	07/23/2007	7	50,750	4,040
20C		4.00	12.57	08/13/2007	28	65,500	5,210
20C		4.00	12.57	08/13/2007	28	67,700	5,390
					Average (28 Days)		**5,300**
20C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0122 Date: 7/16/07 Technician: J. McNamara

Supplier			Mix I.D.		Specifications				Ambient Temperature Range, °F		
Bestway Concrete			452029		Slump: 5-7		Air Content: 0-3		85-95		
Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	13	586949	8:42	9:10	10:00	5.0	--	--	83	6/13	12
2	123	586977	12:06	12:30	12:45	5.5	--	--	86	7/14	5
3	122	587012	2:58	3:20	3:45	6.0	--	--	88	7/14	25

Test No.	Test Location
1	Pier 1D x A13, 20' below grade
2	Pier 1E x A13, 20' below grade
3	Pier 1E.8 x A13, 20' below grade

Area of Placement: _____ Reviewed By: _____

Comments: _____

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0123
Service Date: July 16, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 14, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1107 Plant: 15
Supplier: Bestway Concrete
Truck No: 138 Ticket No: 586971
Mix I.D. No.: 452029
Water Added Onsite Before Test: 10 Gallons

Sample Information

Date Cast: July 16, 2007 Time: 1230
Sampled by: James T.McNamara
Weather Conditions: Partly Cloudy & Calm
Accumulative Yards: 7/13 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 50' below grade
Placement Location: Pier 1E x A13

Field Test Data

Test	Result	Specification
Slump, inches:	7.0	5-7
Air Content, %:	1.5	0-3
Concrete Temperature, °F:	87	50-90
Ambient Temperature, °F:	92	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
21C		4.00	12.57	07/23/2007	7	47,710	3,800
21C		4.00	12.57	08/13/2007	28	62,610	4,980
21C		4.00	12.57	08/13/2007	28	60,270	4,800
					Average (28 Days)		**4,890**
21C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0124
Service Date: July 16, 2007
Task: Caisson Observation

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 14, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1442 Plant: 15
Supplier: Bestway Concrete
Truck No: 87 Ticket No: 587008
Mix I.D. No.: 452029
Water Added Onsite Before Test: 20 Gallons

Sample Information

Date Cast: July 16, 2007 Time: 1525
Sampled by: James T.McNamara
Weather Conditions: Partly Cloudy & Calm
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 50' below grade
Placement Location: Pier 1E.8 x A13

Field Test Data

Test	Result	Specification
Slump, inches:	6.0	5-7
Air Content, %:	1.5	0-3
Concrete Temperature, °F:	89	50-90
Ambient Temperature, °F:	95	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
22C		4.00	12.57	07/23/2007	7	54,270	4,320
22C		4.00	12.57	08/13/2007	28	72,490	5,770
22C		4.00	12.57	08/13/2007	28	70,060	5,570
					Average (28 Days)		**5,670**
22C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0126
Service Date: 07/17/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway Concrete
Batch Time: 0836 **Plant:** 15
Truck No.: 145 **Ticket No.:** 587057

Sample Information

Sample Date: 07/17/07 **Sample Time:** 0945
Sampled By: James T.McNamara
Weather Conditions: Clear & Calm
Accumulative Yards: 7/14 **Batch Size (cy):** 7
Placement Method: Pump
Water Added Before (gal): 20
Water Added After (gal):
Sample Location: 50' Below Grade
Placement Location: Pier 1E.8 x A13.8

Field Test Data

Test	Result	Specification
Slump (in):	5 3/4	5-7
Air Content (%):	1.5	0-3
Concrete Temp. (F):	79	50-90
Ambient Temp. (F):	85	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
23C	3	4.00	12.57			07/24/07	7	43,330	3,450	
23C	1	4.00	12.57			08/14/07	28	55,120	4,390	
23C	4	4.00	12.57			08/14/07	28	55,070	4,380	
							Average (28 days)		**4,390**	
23C	2						Hold			

Comments: Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To:
Contractor:
Report Distribution:

(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0127
Service Date: 07/17/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway Concrete
Batch Time: 1219 **Plant:** 15
Truck No.: 143 **Ticket No.:** 587104

Sample Information

Sample Date: 07/17/07 **Sample Time:** 1315
Sampled By: James T.McNamara
Weather Conditions: Clear & Calm
Accumulative Yards: 7/14 **Batch Size (cy):** 7
Placement Method: Pump
Water Added Before (gal): 20
Water Added After (gal):
Sample Location: 50' Below Grade
Placement Location: Pier 1B.4 x A2

Field Test Data

Test	Result	Specification
Slump (in):	5	5-7
Air Content (%):	2.0	0-3
Concrete Temp. (F):	88	50-90
Ambient Temp. (F):	94	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
24C	1	4.00	12.57			07/24/07	7	44,580	3,550	
24C	2	4.00	12.57			08/14/07	28	62,530	4,980	
24C	3	4.00	12.57			08/14/07	28	63,870	5,080	
							Average (28 days)		5,030	
24C	4						Hold			

Comments: Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0128
Service Date: 07/17/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway Concrete
Batch Time: 1504 **Plant:** 15
Truck No.: 144 **Ticket No.:** 587134

Sample Information

Sample Date: 07/17/07 **Sample Time:** 1504
Sampled By: James T.McNamara
Weather Conditions: Calm & Clear
Accumulative Yards: 7/14 **Batch Size (cy):** 7
Placement Method:
Water Added Before (gal): 7
Water Added After (gal):
Sample Location: 50' Below Grade
Placement Location: Pier 1B x A2

Field Test Data

Test	Result	Specification
Slump (in):	5 3/4	5-7
Air Content (%):	2.5	0-3
Concrete Temp. (F):	82	50-90
Ambient Temp. (F):	*102*	*Min 40*
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
25C	1	4.00	12.57			07/24/07	7	51,980	4,140	
25C	2	4.00	12.57			08/14/07	28	69,240	5,510	
25C	3	4.00	12.57			08/14/07	28	71,810	5,710	
							Average (28 days)		5,610	
25C	4						Hold			

Comments: Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:

(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0128 Date: 7/17/07 Technician: J. McNamara

Supplier			Mix I.D.		Specifications				Ambient Temperature Range, °F		
Bestway Concrete			452029		Slump: 5-7		Air Content: 0-3		85-102		
Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	151	587060	8:48	9:25	10:05	6.0	--	--	80	7/14	0
2	127	587107	12:32	1:03	1:30	6.0	--	--	88	7/14	14
3	123	587137	3:19	3:50	4:00	6.75	--	--	82	7/14	0

Test No.	Test Location
1	Pier 1E.8 x A13.8, 25' B.G.
2	Pier 1B.4 x A2, 25' B.G.
3	Pier 1B x A2, 25' B.G.

Area of Placement: _____ Reviewed By: _____

Comments: _____

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0132
Service Date: 07/18/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway
Batch Time: 0839 **Plant:** 15
Truck No.: 133 **Ticket No.:** 585797

Sample Information

Sample Date: 07/18/07 **Sample Time:** 0945
Sampled By: James T.McNamara
Weather Conditions: Partly cloudy, calm
Accumulative Yards: 7/16 **Batch Size (cy):** 7
Placement Method: Pump
Water Added Before (gal):
Water Added After (gal):
Sample Location: 60' below grade
Placement Location: Pier 1C x A2

Field Test Data

Test	Result	Specification
Slump (in):	7	5-7
Air Content (%):	2.5	0-3
Concrete Temp. (F):	78	50-90
Ambient Temp. (F):	85	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
29C	4	4.00	12.57			07/25/07	7	45,060	3,590	
29C	1	4.00	12.57			08/15/07	28	59,760	4,760	
29C	2	4.00	12.57			08/15/07	28	56,720	4,510	
								Average (28 days)	**4,640**	
29C	3						Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center

Project No.: 25061446.0132 Date: 18 July 2007 Technician: James McNamara

Supplier	Mix I.D.	Specifications		Ambient Temperature Range, °F
Bestway	452029	Slump: 5-7	Air Content: 0-3	40+

Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	140	585805/08	0937	1015	1045	5.5	N/A	N/A	80	9*16	40
2	142	585843	1219	1250	1315	6	N/A	N/A	89	7/14	15
3	139	585888	1520	1605	1615	5.25	N/A	N/A	89	7/14	7
4	47	585793	0823	0855	0910	8	N/A	N/A	80	7/14	0

Test No.	Test Location
1	Pier 1C x A2, 30' below grade
2	Pier 1B.6 x A2.1, 25' below grade
3	Pier 1B x A9, 25' below grade
4	Pier 1C x A2, truck was returned to plant due to slump

Area of Placement: _____ Reviewed By: _____

Comments: _____

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0133
Service Date: 07/18/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway Concrete
Batch Time: 1126 **Plant:** 15
Truck No.: 113 **Ticket No.:** 585831

Sample Information

Sample Date: 07/18/07 **Sample Time:** 1255
Sampled By: James T.McNamara
Weather Conditions: Partly cloudy, calm
Accumulative Yards: 7/14 **Batch Size (cy):** 7
Placement Method: Pump
Water Added Before (gal): 19
Water Added After (gal):
Sample Location: 50' below grade
Placement Location: Pier 1B.6 x A2.1

Field Test Data

Test	Result	Specification
Slump (in):	5 1/2	5-7
Air Content (%):	1.5	0-3
Concrete Temp. (F):	90	50-90
Ambient Temp. (F):	101	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
30C	1	4.00	12.57			07/25/07	7	44,850	3,570	
30C	2	4.00	12.57			08/15/07	28	62,570	4,980	
30C	3	4.00	12.57			08/15/07	28	61,290	4,880	
							Average (28 days)		**4,930**	
30C	4						Hold			

Comments: Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0134
Service Date: 07/18/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway
Batch Time: 1445 **Plant:** 15
Truck No.: 12 **Ticket No.:** 585873

Sample Information

Sample Date: 07/18/07 **Sample Time:** 1545
Sampled By: James T.McNamara
Weather Conditions: Partly cloudy, calm
Accumulative Yards: 7/14 **Batch Size (cy):** 7
Placement Method: Pump
Water Added Before (gal): 10
Water Added After (gal):
Sample Location: 50' below grade
Placement Location: Pier 1B x A9

Field Test Data

Test	Result	Specification
Slump (in):	6 1/2	5-7
Air Content (%):	2.0	0-3
Concrete Temp. (F):	89	50-90
Ambient Temp. (F):	98	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
31C	4	4.00	12.57			07/25/07	7	40,220	3,200	
31C	1	4.00	12.57			08/15/07	28	67,200	5,350	
31C	2	4.00	12.57			08/15/07	28	68,390	5,440	
							Average (28 days)		**5,400**	
31C	3						Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0137
Service Date: July 19, 2007
Task: Caisson Observation

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 17, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0830 Plant: 15
Supplier: Bestway Concrete
Truck No: 118 Ticket No: 585931
Mix I.D. No.: 452029
Water Added Onsite Before Test: 20 Gallons

Sample Information

Date Cast: July 19, 2007 Time: 0920
Sampled by: James T.McNamara
Weather Conditions: Cloudy, calm
Accumulative Yards: 8/16 Batch Size (cy): 8.00
Placement Method: Pump
Sample Locations: 60' below grade
Placement Location: Pier 1C x All

Field Test Data

Test	Result	Specification
Slump, inches:	5.5	5-7
Air Content, %:	1.5	0-3
Concrete Temperature, °F:	78	50-90
Ambient Temperature, °F:	80	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
27C		4.00	12.57	07/26/2007	7	60,520	4,820
27C		4.00	12.57	08/16/2007	28	80,480	6,400
27C		4.00	12.57	08/16/2007	28	78,900	6,280
					Average (28 Days)		**6,340**
27C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0138
Service Date: July 19, 2007
Task: Caisson Observation

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 17, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1112 Plant: 15
Supplier: Bestway
Truck No: 13 Ticket No: 585957
Mix I.D. No.: 15

Sample Information

Date Cast: July 19, 2007 Time: 1220
Sampled by: James T.McNamara
Weather Conditions: Cloudy, calm
Accumulative Yards: 8/16 Batch Size (cy): 8.00
Placement Method: Pump
Sample Locations: 60' below grade
Placement Location: Pier at 1C x A9

Field Test Data

Test	Result	Specification
Slump, inches:	5.25	5-7
Air Content, %:	2	0-3
Concrete Temperature, °F:	80	50-90
Ambient Temperature, °F:	85	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
26C		4.00	12.57	07/26/2007	7	55,230	4,390
26C		4.00	12.57	08/16/2007	28	76,010	6,050
26C		4.00	12.57	08/16/2007	28	74,790	5,950
					Average (28 Days)		**6,000**
26C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0138 Date: 19 July 2007 Technician: James McNamara

Supplier			Mix I.D.		Specifications				Ambient Temperature Range, °F		
Bestway			452029		Slump: 5-7		Air Content: 0-3		40+		
Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	59	585933	0847	0915	0935	5.5	N/A	N/A	78	8/16	
2	123	585961	1129	1210	1235	7	N/A	N/A	80	8/16	15
3	139	585978	1428	1506	1506	5	N/A	N/A	82	7/14	25

Test No.	Test Location
1	Pier 1C x A11, 30' below grade
2	Pier 1C x A9, 30' below grade
3	Pier 1C x A9.2, 25' below graee

Area of Placement: _____ Reviewed By: _____

Comments: _____

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0139
Service Date: July 19, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 17, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1415 Plant: 15
Supplier: Bestway Concrete
Truck No: 122 Ticket No: 585977
Mix I.D. No.: 452029

Sample Information

Date Cast: July 19, 2007 Time: 1510
Sampled by: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 50' below grade
Placement Location: Pier 1C.6 x A9.2

Field Test Data

Test	Result	Specification
Slump, inches:	5.5	5-7
Air Content, %:	2.5	0-3
Concrete Temperature, °F:	82	50-90
Ambient Temperature, °F:	90	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
28C		4.00	12.57	07/26/2007	7	50,310	4,000
28C		4.00	12.57	08/16/2007	28	68,500	5,450
28C		4.00	12.57	08/16/2007	28	71,320	5,670
					Average (28 Days)		**5,560**
28C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0143
Service Date: 07/20/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway Concrete
Batch Time: 0808 **Plant:** 15
Truck No.: 144 **Ticket No.:** 586016

Sample Information

Sample Date: 07/20/07 **Sample Time:** 0930
Sampled By: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 8/16 **Batch Size (cy):** 8
Placement Method: Pump
Water Added Before (gal): 5
Water Added After (gal):
Sample Location: 60' below grade
Placement Location: Pier 1D x A9

Field Test Data

Test	Result	Specification
Slump (in):	6	5-7
Air Content (%):	2.0	0-3
Concrete Temp. (F):	82	50-90
Ambient Temp. (F):	85	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
32C	1	4.00	12.57			07/27/07	7	48,970	3,900	
32C	2	4.00	12.57			08/17/07	28	66,360	5,280	
32C	3	4.00	12.57			08/17/07	28	65,140	5,180	
							Average (28 days)		**5,230**	
32C	4						Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0143 Date: 20 July 2007 Technician: James McNamara

Supplier	Mix I.D.	Specifications		Ambient Temperature Range, °F
Bestway	452029	Slump: 5-7	Air Content: 0-3	40+

Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	142	586019	0826	0900	0955	6	N/A	N/A	84	8/16	47
2	118	586058	1149	1220	1230	6	N/A	N/A	82	7/14	30
3	122	586085	1505	1540	1620	7	N/A	N/A	80	8/21	
4	69	586089	1528	1600	1640	6.5	N/A	N/A	81	5/21	15

Test No.	Test Location
1	Pier 1D x A9, 30' below grade
2	Pier 1C.8 x A9.5, 25' below grade
3	Pier 1B x A13.3, 35' below grade
4	Pier 1B x A13.3, 15' below grade

Area of Placement: _____ Reviewed By: _____

Comments: _____

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0144
Service Date: 07/20/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway Concrete
Batch Time: 1134 **Plant:** 15
Truck No.: 452029 **Ticket No.:** 586055

Sample Information

Sample Date: 07/20/07 **Sample Time:** 1215
Sampled By: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 7/14 **Batch Size (cy):** 7
Placement Method: Pump
Water Added Before (gal): 15
Water Added After (gal):
Sample Location: 50' below grade
Placement Location: Pier 1C.8 x A9.5

Field Test Data

Test	Result	Specification
Slump (in):	6 1/4	5-7
Air Content (%):	1.5	0-3
Concrete Temp. (F):	82	50-90
Ambient Temp. (F):	92	*Min 40*
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
33C	1	4.00	12.57			07/27/07	7	51,650	4,110	
33C	2	4.00	12.57			08/17/07	28	70,850	5,640	
33C	3	4.00	12.57			08/17/07	28	69,270	5,510	
							Average (28 days)		**5,580**	
33C	4						Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0145
Service Date: 07/20/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway Concrete
Batch Time: 1418 **Plant:** 15
Truck No.: 138 **Ticket No.:** 586082

Sample Information

Sample Date: 07/20/07 **Sample Time:** 1545
Sampled By: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 8/21 **Batch Size (cy):** 8
Placement Method: Pump
Water Added Before (gal):
Water Added After (gal):
Sample Location: 65' below grade
Placement Location: Pier 1B x A13.3

Field Test Data

Test	Result	Specification
Slump (in):	7	5-7
Air Content (%):	2.0	0-3
Concrete Temp. (F):	80	50-90
Ambient Temp. (F):	95	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
34C	1	4.00	12.57			07/27/07	7	47,730	3,800	
34C	2	4.00	12.57			08/17/07	28	51,720	4,120	
34C	3	4.00	12.57			08/17/07	28	52,740	4,200	
							Average (28 days)		4,160	
34C	4						Hold			

Comments: Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0150
Service Date: 07/21/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway
Batch Time: 0858 **Plant:** 15
Truck No.: 119 **Ticket No.:** 586126

Sample Information

Sample Date: 07/21/07 **Sample Time:** 0950
Sampled By: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 10.5/21 **Batch Size (cy):** 10.5
Placement Method: Pump
Water Added Before (gal): 40
Water Added After (gal):
Sample Location: 65' below grade
Placement Location: Pier 1B.3 x A11

Field Test Data

Test	Result	Specification
Slump (in):	6	5-7
Air Content (%):	2.0	0-3
Concrete Temp. (F):	82	50-90
Ambient Temp. (F):	88	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
35C	1	4.00	12.57			07/28/07	7	49,980	3,980	
35C	2	4.00	12.57			08/18/07	28	65,610	5,220	
35C	3	4.00	12.57			08/18/07	28	66,020	5,250	
							Average (28 days)		**5,240**	
35C	4						Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: Terracon
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0150 Date: 21 July 2007 Technician: James McNamara

Supplier	Mix I.D.	Specifications		Ambient Temperature Range, °F
Bestway	452029	Slump: 5-7	Air Content: 0-3	40+

Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	113	586128	9:13	0947	1010	5.5	N/A	N/A	83	10.5/21	
2	59	586141	1305	1335	1410	5.25	N/A	N/A	85	10.5/21	

Test No.	Test Location
1	Pier 1B.3 x A11, 30' below grade
2	Pier 1B.3 x A13.3, 30' below grade

Area of Placement: _____ Reviewed By: _____

Comments: _____

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0151
Service Date: 07/21/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway
Batch Time: 1252 **Plant:** 15
Truck No.: 141 **Ticket No.:** 586140

Sample Information

Sample Date: 07/21/07 **Sample Time:** 1350
Sampled By: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 10.5/21 **Batch Size (cy):** 10.5
Placement Method: Pump
Water Added Before (gal): 10
Water Added After (gal):
Sample Location: 65' below grade
Placement Location: Pier 1B.3 x A13.3

Field Test Data

Test	Result	Specification
Slump (in):	5 1/2	5-7
Air Content (%):	1.5	0-3
Concrete Temp. (F):	85	50-90
Ambient Temp. (F):	95	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
36C	1	4.00	12.57			07/28/07	7	59,250	4,710	
36C	2	4.00	12.57			08/18/07	28	76,200	6,060	
36C	3	4.00	12.57			08/18/07	28	73,840	5,880	
							Average (28 days)		**5,970**	
36C	4						Hold			

Comments: Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0156
Service Date: 07/23/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway
Batch Time: 0830 **Plant:** 15
Truck No.: 35 **Ticket No.:** 586174

Sample Information

Sample Date: 07/23/07 **Sample Time:** 0940
Sampled By: James T.McNamara
Weather Conditions: Calm, clear
Accumulative Yards: 7/21 **Batch Size (cy):** 7
Placement Method: Pump
Water Added Before (gal):
Water Added After (gal):
Sample Location: 65' below grade
Placement Location: Pier 1A x A10.2

Field Test Data

Test	Result	Specification
Slump (in):	5	5-7
Air Content (%):	2.0	0-3
Concrete Temp. (F):	85	50-90
Ambient Temp. (F):	88	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
37C	1	4.00	12.57			07/30/07	7	60,680	4,830	
37C	2	4.00	12.57			08/20/07	28	72,810	5,790	
37C	3	4.00	12.57			08/20/07	28	75,430	6,000	
								Average (28 days)	**5,900**	
37C	4						Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: Terracon
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0156 Date: 23 July 2007 Technician: James McNamara

Supplier	Mix I.D.	Specifications		Ambient Temperature Range, °F
Bestway	452029	Slump: 5-7	Air Content: 0-3	40+

Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	13	586176	0843	0920	0950	6	N/A	N/A	85	7/21	15
2	87	586177	0855	0930	1005	5.25	N/A	N/A	86	7/21	
3	13	586202	1128	1205	1250	6	N/A	N/A	88	7/21	14
4	122	586205	1150	1220	1305	5.5	N/A	N/A	89	7/21	20
5	112	586233	1446	1505	1540	5.75	N/A	N/A	83	8/16	10

Test No.	Test Location
1	Pier 1A x A10.2, 45' below grade
2	Pier 1A x A10.2, 20' below grade
3	Pier 1A x A13.3, 45' below grade
4	Pier 1A x A13.3, 20' below grade
5	Pier 1D x A11, 30' below grade

Area of Placement: Reviewed By:

Comments:

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0157
Service Date: 07/23/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway
Batch Time: 1112 **Plant:** 15
Truck No.: 151 **Ticket No.:** 586199

Sample Information

Sample Date: 07/23/07 **Sample Time:** 1235
Sampled By: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 7/21 **Batch Size (cy):** 7
Placement Method: Pump
Water Added Before (gal): 30
Water Added After (gal):
Sample Location: 65' below grade
Placement Location: Pier 1A x A13.3

Field Test Data

Test	Result	Specification
Slump (in):	5	5-7
Air Content (%):	2.5	0-3
Concrete Temp. (F):	88	50-90
Ambient Temp. (F):	92	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
38C	1	4.00	12.57			07/30/07	7	45,420	3,610	
38C	2	4.00	12.57			08/20/07	28	60,240	4,790	
38C	3	4.00	12.57			08/20/07	28	59,920	4,770	
							Average (28 days)		4,780	
38C	4						Hold			

Comments: Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: *Concrete Testing*

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:

(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0158
Service Date: 07/23/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway
Batch Time: 1409 **Plant:** 15
Truck No.: 13 **Ticket No.:** 586229

Sample Information

Sample Date: 07/23/07 **Sample Time:** 1520
Sampled By: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 8/16 **Batch Size (cy):** 8
Placement Method: Pump
Water Added Before (gal): 15
Water Added After (gal):
Sample Location: 60' below grade
Placement Location: Pier 1D x A11

Field Test Data

Test	Result	Specification
Slump (in):	6 1/2	5-7
Air Content (%):	1.0	0-3
Concrete Temp. (F):	84	50-90
Ambient Temp. (F):	95	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
39C	1	4.00	12.57			07/30/07	7	54,070	4,300	
39C	2	4.00	12.57			08/20/07	28	73,580	5,850	
39C	3	4.00	12.57			08/20/07	28	70,540	5,610	
							Average (28 days)		**5,730**	
39C	4						Hold			

Comments: ***Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.***

Samples Made By: Terracon
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0163
Service Date: 07/24/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway Concrete
Batch Time: 1017 **Plant:** 15
Truck No.: 137 **Ticket No.:** 586310

Sample Information

Sample Date: 07/24/07 **Sample Time:** 1118
Sampled By: James T.McNamara
Weather Conditions: Clear & Calm
Accumulative Yards: 9/18 **Batch Size (cy):** 9
Placement Method: Pump
Water Added Before (gal): 19
Water Added After (gal):
Sample Location: 70' B.G.
Placement Location: Pier 1E x A9

Field Test Data

Test	Result	Specification
Slump (in):	5 1/4	5-7
Air Content (%):	2.5	0-3
Concrete Temp. (F):	87	50-90
Ambient Temp. (F):	90	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
43C	3	4.00	12.57			07/31/07	7	54,970	4,370	
43C	1	4.00	12.57			08/21/07	28	68,360	5,440	
43C	4	4.00	12.57			08/21/07	28	69,400	5,520	
								Average (28 days)	**5,480**	
43C	2						Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the *actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.*

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0164
Service Date: 07/24/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway Concrete
Batch Time: 1255 **Plant:** 15
Truck No.: 119 **Ticket No.:** 586336

Sample Information

Sample Date: 07/24/07 **Sample Time:** 1410
Sampled By: James T.McNamara
Weather Conditions: Clear & Calm
Accumulative Yards: 8/16 **Batch Size (cy):** 8
Placement Method: Pump
Water Added Before (gal): 15
Water Added After (gal):
Sample Location: 65' B.G.
Placement Location: Pier 1E x A11

Field Test Data

Test	Result	Specification
Slump (in):	5 3/4	5-7
Air Content (%):	1.5	0-3
Concrete Temp. (F):	89	50-90
Ambient Temp. (F):	96	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
44C	4	4.00	12.57			07/31/07	7	48,120	3,830	
44C	1	4.00	12.57			08/21/07	28	59,610	4,740	
44C	2	4.00	12.57			08/21/07	28	61,670	4,910	
							Average (28 days)		4,830	
44C	3						Hold			

Comments: Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0165
Service Date: 07/24/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway Concrete
Batch Time: 1537 **Plant:** 15
Truck No.: 123 **Ticket No.:** 586351

Sample Information

Sample Date: 07/24/07 **Sample Time:** 1635
Sampled By: James T.McNamara
Weather Conditions: Clear & Calm
Accumulative Yards: 7.5/15 **Batch Size (cy):** 7.5
Placement Method: Pump
Water Added Before (gal): 25
Water Added After (gal):
Sample Location: 55' B.G.
Placement Location: Pier 1E.9 x A10.2

Field Test Data

Test	Result	Specification
Slump (in):	6 1/4	5-7
Air Content (%):	2.0	0-3
Concrete Temp. (F):	82	50-90
Ambient Temp. (F):	94	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
45C	4	4.00	12.57			07/31/07	7	48,390	3,850	
45C	1	4.00	12.57			08/21/07	28	70,700	5,630	
45C	2	4.00	12.57			08/21/07	28	67,570	5,380	
							Average (28 days)		**5,510**	
45C	3						Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0165 Date: 7/24/07 Technician: J. McNamara

Supplier	Mix I.D.	Specifications		Ambient Temperature Range, °F
Bestway Concrete	452029	Slump: 5-7	Air Content: 0-3	40+

Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	123	586285	8:01	8:45	9:15	6.5	--	--	82	7/14	0
2	123	586315	10:38	11:10	11:35	5.0	--	--	87	9/18	0
3	123	586338	1:07	1:50	2:25	6.5	--	--	88	8/16	0
4	112	586353	3:49	4:30	4:55	5.0	--	--	84	7.5/15	15

Test No.	Test Location
1	Pier 1D.7 x A9.6, 25' B.G.
2	Pier 1E x A9, 35' B.G.
3	Pier 1E x A11, 30' B.G.
4	Pier 1E.9 x A10.2, 25' B.G.

Area of Placement: _____ Reviewed By: _____

Comments: _____

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0168
Service Date: 07/25/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway Concrete
Batch Time: 1121 **Plant:** 15
Truck No.: 144 **Ticket No.:** 589417

Field Test Data

Test	Result	Specification
Slump (in):	5 1/4	5-7
Air Content (%):	1.5	0-3
Concrete Temp. (F):	87	50-90
Ambient Temp. (F):	92	Min 40
Plastic Unit Wt. (pcf):		

Sample Information

Sample Date: 07/25/07 **Sample Time:** 1230
Sampled By: James T.McNamara
Weather Conditions: Cleary & Calm
Accumulative Yards: 8/15 **Batch Size (cy):** 8
Placement Method: Pump
Water Added Before (gal): 7
Water Added After (gal):
Sample Location: 50' BG
Placement Location: Pier 1BB x A19

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
40C	1	4.00	12.57			08/01/07	7	52,040	4,140	
40C	2	4.00	12.57			08/22/07	28	71,800	5,710	
40C	3	4.00	12.57			08/22/07	28	70,410	5,600	
							Average (28 days)		**5,660**	
40C	4						Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0174
Service Date: 07/26/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway Concrete
Batch Time: 0820 **Plant:** 15
Truck No.: 118 **Ticket No.:** 589490

Sample Information

Sample Date: 07/26/07 **Sample Time:** 0930
Sampled By: James T.McNamara
Weather Conditions: Partly Cloudy & Calm
Accumulative Yards: 8/16 **Batch Size (cy):** 8
Placement Method: Pump
Water Added Before (gal):
Water Added After (gal):
Sample Location: 55' B.G.
Placement Location: Pier 1J.2 x A13.9

Field Test Data

Test	Result	Specification
Slump (in):	5 1/4	5-7
Air Content (%):	2.0	0-3
Concrete Temp. (F):	78	50-90
Ambient Temp. (F):	80	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
46C	1	4.00	12.57			08/02/07	7	55,490	4,420	
46C	2	4.00	12.57			08/23/07	28	78,880	6,280	
46C	3	4.00	12.57			08/23/07	28	77,310	6,150	
								Average (28 days)	**6,220**	
46C	4						Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0175
Service Date: 07/26/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway Concrete
Batch Time: 1153 **Plant:** 15
Truck No.: 151 **Ticket No.:** 589521

Sample Information

Sample Date: 07/26/07 **Sample Time:** 1320
Sampled By: James T.McNamara
Weather Conditions: Partly Cloudy & Calm
Accumulative Yards: 8/16 **Batch Size (cy):** 8
Placement Method: Pump
Water Added Before (gal): 5
Water Added After (gal):
Sample Location: 65' B.G.
Placement Location: Pier IV x A18

Field Test Data

Test	Result	Specification
Slump (in):	6 3/4	5-7
Air Content (%):	1.5	0-3
Concrete Temp. (F):	81	50-90
Ambient Temp. (F):	89	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
47C	1	4.00	12.57			08/02/07	7	55,600	4,420	
47C	2	4.00	12.57			08/23/07	28	74,870	5,960	
47C	3	4.00	12.57			08/23/07	28	76,830	6,110	
							Average (28 days)		**6,040**	
47C	4						Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25071446.0175 Date: 26 July 2007 Technician: James McNamara

Supplier	Mix I.D.	Specifications		Ambient Temperature Range, °F
Bestway	452029	Slump: 5-7	Air Content: 0-3	40+

Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	119	589492	0842	0920	0955	5.75	N/A	N/A	79	8/16	10
2	27	589528	1228	1300	1335	5	N/A	N/A	80	8/16	15
3	47	589556	1510	15477	1615	5.25	N/A	N/A	77	8/16	

Test No.	Test Location
1	Pier 1J.2 x A13.9, 25' below grade
2	Pier JU x A18, 30' below grade
3	Pier 1AA x A16, 20' below grade

Area of Placement: Reviewed By:

Comments:

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0176
Service Date: 07/26/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway Concrete
Batch Time: 1453 **Plant:** 15
Truck No.: 39 **Ticket No.:** 589553

Sample Information

Sample Date: 07/26/07 **Sample Time:** 1555
Sampled By: James T.McNamara
Weather Conditions: Partly Cloudy & Calm
Accumulative Yards: 8/16 **Batch Size (cy):** 8
Placement Method: Pump
Water Added Before (gal): 5
Water Added After (gal):
Sample Location: 55' B.G.
Placement Location: Pier 1AA x A16

Field Test Data

Test	Result	Specification
Slump (in):	5 3/4	5-7
Air Content (%):	1.0	0-3
Concrete Temp. (F):	77	50-90
Ambient Temp. (F):	88	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
48C	1	4.00	12.57			08/02/07	7	51,320	4,080	
48C	2	4.00	12.57			08/23/07	28	77,740	6,190	
48C	3	4.00	12.57			08/23/07	28	75,430	6,000	
							Average (28 days)		**6,100**	
48C	4						Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0180
Service Date: July 27, 2007
Task: Caisson Observation

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 27, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0140 Plant: 15
Supplier: Bestway Concrete
Truck No: 87 Ticket No: 589657
Mix I.D. No.: 452029
Water Added Onsite Before Test: 10 Gallons

Sample Information

Date Cast: July 27, 2007 Time: 0300
Sampled by: James T.McNamara
Weather Conditions: Cloudy
Accumulative Yards: 8/16 Batch Size (cy): 8.00
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: 1XxA19

Field Test Data

Test	Result	Specification
Slump, inches:	5.5	5-7
Air Content, %:	1.0	0-3
Concrete Temperature, °F:	87	50-90
Ambient Temperature, °F:	87	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
49C		4.00	12.57	08/03/2007	7	63,710	5,070
49C		4.00	12.57	08/24/2007	28	75,010	5,970
49C		4.00	12.57	08/24/2007	28	73,780	5,870
					Average (28 Days)		**5,920**
49C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-RMK/RD1 Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0181
Service Date: July 27, 2007
Task: Caisson Observation

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 27, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0945 Plant: 15
Supplier: Bestway Concrete
Truck No: 121 Ticket No: 589610
Mix I.D. No.: 452029
Water Added Onsite Before Test: 15 Gallons

Sample Information

Date Cast: July 27, 2007 Time: 1100
Sampled by: James T.McNamara
Weather Conditions: Cloudy
Accumulative Yards: 8/16 Batch Size (cy): 8.00
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: Pier 1HxA14

Field Test Data

Test	Result	Specification
Slump, inches:	6.25	5-7
Air Content, %:	2.0	0-3
Concrete Temperature, °F:	81	50-90
Ambient Temperature, °F:	80	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
50C		4.00	12.57	08/03/2007	7	71,580	5,700
50C		4.00	12.57	08/24/2007	28	70,870	5,640
50C		4.00	12.57	08/24/2007	28	68,700	5,470
					Average (28 Days)		**5,560**
50C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-RMK/R01-Future Key

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0181 Date: 7/27/07 Technician: James McNamara

Supplier			Mix I.D.		Specifications				Ambient Temperature Range, °F		
					Slump:		Air Content:				
Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	12	589613	10:02	10:36	11:30	7.0			89	8/16	5
2	77	589661	2:02	2:40	3:20	5.5			88	8/16	10

Test No.	Test Location
1	Pier 1HxA14, 20' below grade
2	Pier 1XxA19, 20' below grade

Area of Placement: _____ Reviewed By: _____

Comments: _____

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0186
Service Date: July 30, 2007
Task: Caisson Observation

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 28, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0811 Plant: 15
Supplier: Bestway Concrete
Truck No: 140 Ticket No: 589732
Mix I.D. No.: 452029
Water Added Onsite Before Test: 20 Gallons

Sample Information

Date Cast: July 30, 2007 Time: 0920
Sampled by: James T.McNamara
Weather Conditions: Sunny
Accumulative Yards: 8/16 Batch Size (cy): 8.00
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: Pier 1AAxA13

Field Test Data

Test	Result	Specification
Slump, inches:	5.25	5-7
Air Content, %:	1.0	0-3
Concrete Temperature, °F:	82	50-90
Ambient Temperature, °F:	86	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
51C		4.00	12.57	08/06/2007	7	47,660	3,790
51C		4.00	12.57	08/27/2007	28	60,860	4,840
51C		4.00	12.57	08/27/2007	28	63,160	5,030
					Average (28 Days)		**4,940**
51C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0187
Service Date: July 30, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 28, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1140 Plant: 15
Supplier: Bestway Concrete
Truck No: 130 Ticket No: 589759
Mix I.D. No.: 452029

Sample Information

Date Cast: July 30, 2007 Time: 1240
Sampled by: James T.McNamara
Weather Conditions: Sunny
Accumulative Yards: 8/16 Batch Size (cy): 8.00
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: Pier 1XxA15

Field Test Data

Test	Result	Specification
Slump, inches:	6.0	5-7
Air Content, %:	2.0	0-3
Concrete Temperature, °F:	87	50-90
Ambient Temperature, °F:	92	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
52C		4.00	12.57	08/06/2007	7	51,540	4,100
52C		4.00	12.57	08/27/2007	28	60,850	4,840
52C		4.00	12.57	08/27/2007	28	68,063	5,420
52C		4.00	12.57	08/27/2007	28	65,640	5,220
					Average (28 Days)		**5,160**

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-RMK/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0188
Service Date: July 30, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 28, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1414 Plant: 15
Supplier: Bestway Concrete
Truck No: 87 Ticket No: 589775
Mix I.D. No.: 452029
Water Added Onsite Before Test: 15 Gallons

Sample Information

Date Cast: July 30, 2007 Time: 1535
Sampled by: James T.McNamara
Weather Conditions: Sunny
Accumulative Yards: 9..5/19 Batch Size (cy): 9.50
Placement Method: Pump
Sample Locations: 70' below grade
Placement Location: Pier 1NxA15

Field Test Data

Test	Result	Specification
Slump, inches:	5.5	5-7
Air Content, %:	1.5	0-3
Concrete Temperature, °F:	85	50-90
Ambient Temperature, °F:	93	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
53C		4.00	12.57	08/06/2007	7	67,330	5,360
53C		4.00	12.57	08/27/2007	28	88,740	7,060
53C		4.00	12.57	08/27/2007	28	85,110	6,770
					Average (28 Days)		**6,920**
53C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-RMK/R01-Future Key

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0188 Date: 7/30/07 Technician: James McNamara

Supplier	Mix I.D.	Specifications		Ambient Temperature Range, °F
Bestway	452029	Slump: 5-7	Air Content: 0-3	40+

Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	141	589733	8:30	9:10	9:35	5.5	--	--	83	8/16	5
2	87	589762	11:56	12:30	1:00	5.75	--	--	88	8/16	0
3	144	589778	3:02	3:39	3:50	5.5	--	--	84	9.5/19	15

Test No.	Test Location
1	Pier 1AAxA13, 25' below grade
2	Pier 1XxA15, 25' below grade
3	Pier 1NxA15, 35' below grade

Area of Placement: Reviewed By:

Comments:

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0192
Service Date: July 31, 2007
Task: Caisson Observation

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 29, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0813 Plant: 15
Supplier: Bestway
Truck No: 143 Ticket No: 589809
Mix I.D. No.: 452029
Water Added Onsite Before Test: 15 Gallons

Sample Information

Date Cast: July 31, 2007 Time: 0915
Sampled by: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 9/18 Batch Size (cy): 9.00
Placement Method: Pump
Sample Locations: 70' Below grade
Placement Location: Pier 1V x A15

Field Test Data

Test	Result	Specification
Slump, inches:	5.25	5-7
Air Content, %:	2	0-3
Concrete Temperature, °F:	78	50-90
Ambient Temperature, °F:	79	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
57C		4.00	12.57	08/07/2007	7	55,820	4,440
57C		4.00	12.57	08/28/2007	28	70,350	5,600
57C		4.00	12.57	08/28/2007	28	68,660	5,460
					Average (28 Days)		**5,530**
57C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0192 Date: 31 July 2007 Technician: James McNamara

Supplier			Mix I.D.		Specifications				Ambient Temperature Range, °F		
Bestway			452029		Slump: 5-7		Air Content: 0-3		40+		
Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	121	589813	0831	0905	0935	7	N/A	N/A	77	9/18	5
2	112	589839	1129	1200	1240	5.75	N/A	N/A	84	9/18	5
3	87	589864	1424	1504	1545	5.25	N/A	N/A	81	8.5/17	5

Test No.	Test Location
1	Pier 1U x A15, 35' below grade
2	Pier 1AA x A11, 30' below grade
3	Pier 1AA x A8, 25' below grade

Area of Placement: _____ Reviewed By: _____

Comments: _____

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0193
Service Date: July 31, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 29, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1111 Plant: 15
Supplier: Bestway Concrete
Truck No: 139 Ticket No: 589835
Mix I.D. No.: 452029
Water Added Onsite Before Test: 5 Gallons

Sample Information

Date Cast: July 31, 2007 Time: 1225
Sampled by: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 9/18 Batch Size (cy): 9.00
Placement Method: Pump
Sample Locations: 60' Below grade
Placement Location: Pier 1AA x A11

Field Test Data

Test	Result	Specification
Slump, inches:	6.25	5-7
Air Content, %:	1.5	0-3
Concrete Temperature, °F:	86	50-90
Ambient Temperature, °F:	92	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
58C		4.00	12.57	08/07/2007	7	65,450	5,210
58C		4.00	12.57	08/28/2007	28	75,720	6,030
58C		4.00	12.57	08/28/2007	28	78,680	6,260
					Average (28 Days)		**6,150**
58C					*Hold*		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: S. Lance Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0194
Service Date: July 31, 2007
Task: Caisson Observation

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 29, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1412 Plant: 15
Supplier: Bestway
Truck No: 112 Ticket No: 589863
Mix I.D. No.: 452029

Sample Information

Date Cast: July 31, 2007 Time: 1530
Sampled by: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 8.5/17 Batch Size (cy): 8.50
Placement Method: Pump
Sample Locations: 55' Below grade
Placement Location: Pier 1AA x A8

Field Test Data

Test	Result	Specification
Slump, inches:	7	5-7
Air Content, %:	1.5	0-3
Concrete Temperature, °F:	83	50-90
Ambient Temperature, °F:	93	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
59C		4.00	12.57	08/07/2007	7	55,610	4,420
59C		4.00	12.57	08/28/2007	28	63,960	5,090
59C		4.00	12.57	08/28/2007	28	73,230	5,830
59C		4.00	12.57	08/28/2007	28	76,820	6,110
					Average (28 Days)		**5,680**

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0198
Service Date: August 1, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 30, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0844 Plant: 15
Supplier: Bestway
Truck No: 133 Ticket No: 589910
Mix I.D. No.: 452029
Water Added Onsite Before Test: 10 Gallons

Sample Information

Date Cast: August 1, 2007 Time: 1010
Sampled by: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: Pier 1AA.7 x A.5

Field Test Data

Test	Result	Specification
Slump, inches:	6	5-7
Air Content, %:	2	0-3
Concrete Temperature, °F:	80	50-90
Ambient Temperature, °F:	84	40 Min
Plastic Unit Weight, pcf:	N?A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
54C		4.00	12.57	08/08/2007	7	50,600	4,030
54C		4.00	12.57	08/29/2007	28	60,130	4,780
54C		4.00	12.57	08/29/2007	28	61,400	4,890
					Average (28 Days)		**4,840**
54C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0198 Date: 1 August 2007 Technician: James McNamara

Supplier			Mix I.D.		Specifications				Ambient Temperature Range, °F		
Bestway			452029		Slump: 5-7		Air Content: 0-3		40+		
Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	141	589913	0859	0930	1025	6.25	N/A	N?A	79	7/14	5
2	139	589952	1255	1338	1350	6.25	N/A	N/A	86	7/14	10
3	151	589975	1456	1535	1600	6	N/A	N/A	88	7/14	

Test No.	Test Location
1	Pier 1AA.7 x A5, 25' below grade
2	Pier 1V x A1, 25' below grade
3	Pier 1Z x A3, 25' below grade

Area of Placement: _____ Reviewed By: _____

Comments: _____

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0199
Service Date: August 1, 2007
Task: Caisson Observation

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 30, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 123 Plant: 15
Supplier: Bestway
Truck No: 151 Ticket No: 589951
Mix I.D. No.: 452029
Water Added Onsite Before Test: 10 Gallons

Sample Information

Date Cast: August 1, 2007 Time: 1335
Sampled by: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: Pier 1V x A1

Field Test Data

Test	Result	Specification
Slump, inches:	6.75	5-7
Air Content, %:	2	0-3
Concrete Temperature, °F:	85	50-90
Ambient Temperature, °F:	93	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
55C		4.00	12.57	08/08/2007	7	51,930	4,130
55C		4.00	12.57	08/29/2007	28	65,920	5,250
55C		4.00	12.57	08/29/2007	28	66,530	5,290
					Average (28 Days)		**5,270**
55C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0200
Service Date: August 1, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 30, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1449 Plant: 15
Supplier: Bestway
Truck No: 136 Ticket No: 589974
Mix I.D. No.: 452029

Sample Information

Date Cast: August 1, 2007 Time: 1550
Sampled by: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: *55' below grade*
Placement Location: Pier 1Z x A3

Field Test Data

Test	Result	Specification
Slump, inches:	6	5-7
Air Content, %:	2.5	0-3
Concrete Temperature, °F:	88	50-90
Ambient Temperature, °F:	95	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
56C		4.00	12.57	08/08/2007	7	56,340	4,480
56C		4.00	12.57	08/29/2007	28	72,410	5,760
56C		4.00	12.57	08/29/2007	28	68,550	5,450
					Average (28 Days)		**5,610**
56C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0205
Service Date: August 2, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 31, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0756 Plant: 15
Supplier: Bestway Concrete
Truck No: 87 Ticket No: 590005
Mix I.D. No.: 452029

Sample Information

Date Cast: August 2, 2007 Time: 0900
Sampled by: James T.McNamara
Weather Conditions: Partly cloudy, warm
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: Pier 1Y x A1

Field Test Data

Test	Result	Specification
Slump, inches:	5.5	5-7
Air Content, %:	2	0-3
Concrete Temperature, °F:	82	50-90
Ambient Temperature, °F:	86	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
61C		4.00	12.57	08/09/2007	7	66,830	5,320
61C		4.00	12.57	08/30/2007	28	77,380	6,160
61C		4.00	12.57	08/30/2007	28	80,670	6,420
					Average (28 Days)		**6,290**
61C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center

Project No.: 25061446.0205 Date: 2 August 2007 Technician: James McNamara

Supplier	Mix I.D.	Specifications		Ambient Temperature Range, °F
Bestway	452029	Slump: 5-7	Air Content: 0-3	40+

Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1					0915	6	N/A	N/A	84	7/14	13
2	12	590037	1101	1156	1215	5	N/A	N/A	86	7/14	

Test No.	Test Location
1	Pier 3Y x A1, 25' below grade
2	Pier 1Z x A5, 25' below grade

Area of Placement: _____ Reviewed By: G Lucas Fenimore

Comments: _____

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0206
Service Date: August 2, 2007
Task: Caisson Observation

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 31, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1050 Plant: 15
Supplier: Bestway Concrete
Truck No: 137 Ticket No: 590035
Mix I.D. No.: 452029

Sample Information

Date Cast: August 2, 2007 Time: 1200
Sampled by: James T.McNamara
Weather Conditions: Partly cloudy, calm
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: Pier 1Z x A5

Field Test Data

Test	Result	Specification
Slump, inches:	6	5-7
Air Content, %:	1	0-3
Concrete Temperature, °F:	85	50-90
Ambient Temperature, °F:	90	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
62C		4.00	12.57	08/09/2007	7	60,080	4,780
62C		4.00	12.57	08/30/2007	28	73,690	5,860
62C		4.00	12.57	08/30/2007	28	76,250	6,070
					Average (28 Days)		**5,970**
62C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: G Lawrence Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0207
Service Date: August 2, 2007
Task: Caisson Observation

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: August 31, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1334 Plant: 15
Supplier: Bestway
Truck No: 0137 Ticket No: 590061
Mix I.D. No.: 452029

Sample Information

Date Cast: August 2, 2007 Time: 1415
Sampled by: Kathryn A. Leibold
Weather Conditions: Clear
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 0' to 30' from bottom of pier
Placement Location: Pier at gridlines 1J.1 x A13.1

Field Test Data

Test	Result	Specification
Slump, inches:	6.5	5-7
Air Content, %:	2	0-3
Concrete Temperature, °F:	82	50-90
Ambient Temperature, °F:	85	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
60C		4.00	12.57	08/09/2007	7	55,920	4,450
60C		4.00	12.57	08/30/2007	28	77,420	6,160
60C		4.00	12.57	08/30/2007	28	74,760	5,950
					Average (28 Days)		**6,060**
60C					Hold		

Services - Concrete Testing
Field Results Reported To: Ray with Ludwig Drilling

Samples made by: Terracon

Terracon Rep: Kathryn A. Leibold

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name:

Project Name: Aurora Medical Center

Project No.: 25061446.0207 Date: 2 August 2007 Technician: Kathy Leibold

Supplier	Mix I.D.	Specifications		Ambient Temperature Range, °F
Bestway	452029	Slump: 5-7	Air Content: 0-3	40+

Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
2	0151	590063/4	1355	1405	1435	6.5	2	N/A	80	16/16	

Test No.	Test Location
2	30' to 60' of pier at gridline 1J.1 x A13.1 and two pier caps at 1J x A13.1 and 1J x A11

Area of Placement: Reviewed By:

Comments:

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0211
Service Date: August 3, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 04, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1351 Plant: 15
Supplier: Bestway
Truck No: 47 Ticket No: 590166
Mix I.D. No.: 452029
Water Added Onsite Before Test: 20 Gallons

Sample Information

Date Cast: August 3, 2007 Time: 1510
Sampled by: James T.McNamara
Weather Conditions: Cloudy, calm
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: Pier 1X x A13

Field Test Data

Test	Result	Specification
Slump, inches:	6	5-7
Air Content, %:	1.5	0-3
Concrete Temperature, °F:	85	50-90
Ambient Temperature, °F:	86	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
63C		4.00	12.57	08/10/2007	7	60,670	4,830
63C		4.00	12.57	08/31/2007	28	74,560	5,930
63C		4.00	12.57	08/31/2007	28	77,230	6,150
					Average (28 Days)		**6,040**
63C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061443.0211 Date: 3 August 2007 Technician: James McNamara

Supplier	Mix I.D.	Specifications		Ambient Temperature Range, °F
Bestway	452029	Slump: 5-7	Air Content: 0-3	40+

Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	47	590143	1112	1145	1215	6.5	N/A	N/A	83	7/14	
2	12	590169	1408	1442	1525	5	N/A	N/A	84	7/14	10

Test No.	Test Location
1	Pier 1U x A13, 25' below grade
2	Pier 1X x A13, 25' below grade

Area of Placement: _____ Reviewed By: _____

Comments: _____

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0215
Service Date: August 3, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 04, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: Plant: 15
Supplier: Bestway
Truck No: Ticket No:
Mix I.D. No.: 452029

Sample Information

Date Cast: August 3, 2007 Time: 0930
Sampled by: Timothy M. Zieschang
Weather Conditions: Hot
Accumulative Yards: 7.5/15 Batch Size (cy): 15.00
Placement Method: Pump
Sample Locations: Truck

Field Test Data

Test	Result	Specification
Slump, inches:	6	5-7
Air Content, %:	3	1-3
Concrete Temperature, °F:	80	50-90
Ambient Temperature, °F:	87	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
65C		4.00	12.57	08/10/2007	7	46,100	3,670
65C		4.00	12.57	08/10/2007	7	50,770	4,040
					Average (7 Days)		**3,860**
65C		4.00	12.57	08/31/2007	28	64,820	5,160
65C		4.00	12.57	08/31/2007	28	65,610	5,220
					Average (28 Days)		**5,190**
65C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: Timothy M. Zieschang

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0216
Service Date: August 3, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 04, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1058 Plant: 15
Supplier: Bestway
Truck No: 133 Ticket No: 590141
Mix I.D. No.: 452029

Sample Information

Date Cast: August 3, 2007 Time: 1205
Sampled by: *James T.McNamara*
Weather Conditions: Partly cloudy, calm
Accumulative Yards: 7 Batch Size (cy): 5.00
Placement Method: 7/14
Sample Locations: 55' below grade
Placement Location: Pier 1U x A13

Field Test Data

Test	Result	Specification
Slump, inches:	6	5-7
Air Content, %:	1	0-3
Concrete Temperature, °F:	82	50-90
Ambient Temperature, °F:	88	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
64C		4.00	12.57	08/10/2007	7	59,970	4,770
64C		4.00	12.57	08/31/2007	28	75,310	5,990
64C		4.00	12.57	08/31/2007	28	77,230	6,150
					Average (28 Days)		**6,070**
64C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: *Terracon*

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0219
Service Date: August 6, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 04, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0753 Plant: 15
Supplier: Bestway
Truck No: Ticket No: 590208
Mix I.D. No.: 452029
Water Added Onsite Before Test: 10 Gallons

Sample Information

Date Cast: August 6, 2007 Time: 0850
Sampled by: James T.McNamara
Weather Conditions: Cloudy, calm
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: Pier 1T x A10

Field Test Data

Test	Result	Specification
Slump, inches:	5.5	5-7
Air Content, %:	1	0-3
Concrete Temperature, °F:	82	50-90
Ambient Temperature, °F:	80	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
70C		4.00	12.57	08/13/2007	7	67,770	5,390
70C		4.00	12.57	09/03/2007	28	90,210	7,180
70C		4.00	12.57	09/03/2007	28	84,490	6,720
70C		4.00	12.57	09/03/2007	28	89,260	7,100
					Average (28 Days)		**7,000**

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0220
Service Date: August 6, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 04, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1018 Plant: 15
Supplier: Bestway Concrete
Truck No: 100 Ticket No: 590214
Mix I.D. No.: 452029
Water Added Onsite Before Test: 15 Gallons

Sample Information

Date Cast: *August 6, 2007* *Time: 1110*
Sampled by: James T.McNamara
Weather Conditions: Cloudy, calm
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: Pier 1T x A12

Field Test Data

Test	Result	Specification
Slump, inches:	5.75	5-7
Air Content, %:	1.5	0-3
Concrete Temperature, °F:	84	50-90
Ambient Temperature, °F:	85	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
69C		4.00	12.57	08/13/2007	7	66,130	5,260
69C		4.00	12.57	09/03/2007	28	88,260	7,020
69C		4.00	12.57	09/03/2007	28	91,140	7,250
					Average (28 Days)		**7,140**
69C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0221
Service Date: August 6, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 04, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1254 Plant: 15
Supplier: Bestway
Truck No: 139 Ticket No: 590229
Mix I.D. No.: 452029
Water Added Onsite Before Test: 9 Gallons

Sample Information

Date Cast: August 6, 2007 Time: 1400
Sampled by: *James T.McNamara*
Weather Conditions: Cloudy, calm
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: Pier 1X x A12

Field Test Data

Test	Result	Specification
Slump, inches:	5.75	5-7
Air Content, %:	2.5	0-3
Concrete Temperature, °F:	81	50-90
Ambient Temperature, °F:	88	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
68C		4.00	12.57	08/13/2007	7	63,270	5,030
68C		4.00	12.57	09/03/2007	28	76,710	6,100
68C		4.00	12.57	09/03/2007	28	79,870	6,360
					Average (28 Days)		**6,230**
68C					Hold		

Services - Concrete Testing
Field Results Reported To: *Ian*

Samples made by: *Terracon*

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0224
Service Date: August 6, 2007
Task: **Grade Beam Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 04, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1559 Plant: 15
Supplier: Bestway
Truck No: 47 Ticket No: 590252
Mix I.D. No.: 402119
Water Added Onsite Before Test: 15 Gallons

Sample Information

Date Cast: August 6, 2007 Time: 1715
Sampled by: James T.McNamara
Weather Conditions: Rain, calm
Accumulative Yards: 10/60 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations:
Placement Location: Gradebeam

Field Test Data

Test	Result	Specification
Slump, inches:	3.5	0-4
Air Content, %:	4.5	
Concrete Temperature, °F:	80	50-90
Ambient Temperature, °F:	80	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
66C		4.00	12.57	08/13/2007	7	52,510	4,180
66C		4.00	12.57	09/03/2007	28	66,040	5,250
66C		4.00	12.57	09/03/2007	28	67,510	5,370
					Average (28 Days)		**5,310**
66C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Health Center

Project No.: 25061446.0224 Date: 6 August 2007 Technician: James McNamara

Supplier	Mix I.D.	Specifications		Ambient Temperature Range, °F
Bestway	452029	Slump: 5-7	Air Content: 0-3	40+

Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	121	590210	0814	0850	0910	5.5	N/A	N/A	83	7/14	10
2	113	590216	1029	1107	1125	5.25	N/A	N/A	83	7/14	5
3	113	590232	1312	1347	1410	6	N/A	N/A	80	7/14	
4	143	590248	1525	1600	1625	5.25	N/A	N/A	77	7/14	14

Test No.	Test Location
1	Pier 1T x A10, 25' below grade
2	Pier 1T x A12, 25' below grade
3	Pier 1X x A12, 25' below grade
4	Pier 1X x A10, 25' below grade

Area of Placement: Reviewed By: G Linda Fenton

Comments:

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0225
Service Date: August 6, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 04, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1512 Plant: 15
Supplier: Bestway Concrete
Truck No: 139 Ticket No: 590246
Mix I.D. No.: 452029
Water Added Onsite Before Test: 5 Gallons

Sample Information

Date Cast: August 6, 2007 Time: 1610
Sampled by: James T.McNamara
Weather Conditions: Rain, calm
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: Pier 1X x A10

Field Test Data

Test	Result	Specification
Slump, inches:	5.5	5-7
Air Content, %:	2	0-3
Concrete Temperature, °F:	78	50-90
Ambient Temperature, °F:	80	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
67C		4.00	12.57	08/13/2007	7	61,750	4,910
67C		4.00	12.57	09/03/2007	28	80,620	6,420
67C		4.00	12.57	09/03/2007	28	76,930	6,120
					Average (28 Days)		**6,270**
67C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0229
Service Date: August 7, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 05, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0812 Plant: 4
Supplier: Bestway
Truck No: 126 Ticket No: 611006
Mix I.D. No.: 452029
Water Added Onsite Before Test: 14 Gallons

Sample Information

Date Cast: August 7, 2007 Time: 0915
Sampled by: James T.McNamara
Weather Conditions: Cloudy, calm
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: Pier 1M x A9

Field Test Data

Test	Result	Specification
Slump, inches:	5.5	5-7
Air Content, %:	1.5	0-3
Concrete Temperature, °F:	81	50-90
Ambient Temperature, °F:	78	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
74C		4.00	12.57	08/14/2007	7	66,360	5,280
74C		4.00	12.57	09/04/2007	28	92,650	7,370
74C		4.00	12.57	09/04/2007	28	89,950	7,160
					Average (28 Days)		**7,270**
74C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0230
Service Date: August 7, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 05, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1010 Plant: 15
Supplier: Bestway Concrete
Truck No: 47 Ticket No: 590291
Mix I.D. No.: 452029

Sample Information

Date Cast: August 7, 2007 Time: 1105
Sampled by: James T.McNamara
Weather Conditions: Cloudy, calm
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 55' Below grade
Placement Location: Pier 1M x A7

Field Test Data

Test	Result	Specification
Slump, inches:	6.25	5-7
Air Content, %:	2	0-3
Concrete Temperature, °F:	84	50-90
Ambient Temperature, °F:	86	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
73C		4.00	12.57	08/14/2007	7	57,230	4,550
73C		4.00	12.57	09/04/2007	28	81,580	6,490
73C		4.00	12.57	09/04/2007	28	83,470	6,640
					Average (28 Days)		**6,570**
73C					*Hold*		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0231
Service Date: August 7, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 05, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1238 Plant: 15
Supplier: Bestway
Truck No: 123 Ticket No: 590307
Mix I.D. No.: 452029
Water Added Onsite Before Test: 5 Gallons

Sample Information

Date Cast: August 7, 2007 Time: 1350
Sampled by: James T.McNamara
Weather Conditions: Cloudy, calm
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: Pier 1T x A9

Field Test Data

Test	Result	Specification
Slump, inches:	5.25	5-7
Air Content, %:	1	0-3
Concrete Temperature, °F:	80	50-90
Ambient Temperature, °F:	88	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
72C		4.00	12.57	08/14/2007	7	62,100	4,940
72C		4.00	12.57	09/04/2007	28	83,880	6,670
72C		4.00	12.57	09/04/2007	28	80,450	6,400
					Average (28 Days)		**6,540**
72C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0242
Service Date: 08/09/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway
Batch Time: 0747 **Plant:** 15
Truck No.: 137 **Ticket No.:** 590422

Sample Information

Sample Date: 08/09/07 **Sample Time:** 0845
Sampled By: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 9/18 **Batch Size (cy):** 9
Placement Method: Pump
Water Added Before (gal): 9
Water Added After (gal):
Sample Location: 70' below grade
Placement Location: Pier 1J x A13

Field Test Data

Test	Result	Specification
Slump (in):	5 1/2	5-7
Air Content (%):	2.0	0-3
Concrete Temp. (F):	80	50-90
Ambient Temp. (F):	82	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
79C	1	4.00	12.57			08/16/07	7	56,400	4,490	
79C	2	4.00	12.57			09/06/07	28	73,920	5,880	
79C	3	4.00	12.57			09/06/07	28	69,390	5,520	
								Average (28 days)	5,700	
79C	4						Hold			

Comments: Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:

(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0242 Date: 9 August 2007 Technician: James McNamara

Supplier			Mix I.D.		Specifications				Ambient Temperature Range, °F		
Bestway			452029		Slump: 5-7		Air Content: 0-3		40+		
Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	87	890423	0757	0832	0910	5.5	N/A	N/A	78	9/18	14
2	122	590435	1024	1110	1135	5.5	N/A	N/A	85	7/14	14
3	119	590487	1629	1710	1740	6	N/A	N/A	84	10/39	30
4	143	590490	1647	1725	1805	5.75	N/A	N/A	80	9/39	27
5	144	590494	1820	1900	1905	6.25	N/A	N/A	77	10/39	15

Test No.	Test Location
1	Pier 1J x A13, 35' below grade
2	Pier 1M x A11, 25' below grade
3	Pier 1N x A5, 45' below grade
4	Pier 1N x A5, 30' below grade
5	Pier 1N x A5, 15' below grade

Area of Placement: Reviewed By:

Comments:

Terracon

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0242 Date: 9 August 2007 Technician: James McNamara

Supplier			Mix I.D.		Specifications				Ambient Temperature Range, °F		
Bestway			452029		Slump: 5-7		Air Content: 0-3		40+		
Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	138	590461	1327	1410	1440	6	N/A	N/A	85	10/29	20
2	139	590464	1348	1430	1455	6	N/A	N/A	88	9/29	27

Test No.	Test Location
1	Pier 1N x A7, 45' below grade
2	Pier 1N x A7, 20' below grade

Area of Placement: Reviewed By:

Comments:

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0243
Service Date: 08/09/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway
Batch Time: 1015 **Plant:** 15
Truck No.: 120 **Ticket No.:** 590433

Sample Information

Sample Date: 08/09/07 **Sample Time:** 1115
Sampled By: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 7/14 **Batch Size (cy):** 7
Placement Method: Pump
Water Added Before (gal): 14
Water Added After (gal):
Sample Location: 55' below grade
Placement Location: Pier 1M x A11

Field Test Data

Test	Result	Specification
Slump (in):	5 3/4	5-7
Air Content (%):	1.5	0-3
Concrete Temp. (F):	86	50-90
Ambient Temp. (F):	92	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
80C	1	4.00	12.57			08/16/07	7	57,770	4,600	
80C	2	4.00	12.57			09/06/07	28	70,160	5,580	
80C	3	4.00	12.57			09/06/07	28	73,290	5,830	
								Average (28 days)	**5,710**	
80C	4						Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Concrete Testing

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0244
Service Date: 08/09/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway
Batch Time: 1316 **Plant:** 15
Truck No.: 136 **Ticket No.:** 590459

Sample Information

Sample Date: 08/09/07 **Sample Time:** 1415
Sampled By: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 10/29 **Batch Size (cy):** 10
Placement Method: Pump
Water Added Before (gal): 10
Water Added After (gal):
Sample Location: 65' below grade
Placement Location: Pier 1N x A7

Field Test Data

Test	Result	Specification
Slump (in):	5 1/2	5-7
Air Content (%):	2.0	0-3
Concrete Temp. (F):	87	50-90
Ambient Temp. (F):	95	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
81C	1	4.00	12.57			08/16/07	7	56,380	4,490	
81C	2	4.00	12.57			09/06/07	28	72,290	5,750	
81C	3	4.00	12.57			09/06/07	28	71,470	5,690	
							Average (28 days)		**5,720**	
81C	4						Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: *Concrete Testing*

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0245
Service Date: 08/09/07
Report Date: 01/15/09
Task: Caisson Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 452029
Supplier: Bestway
Batch Time: 1609 **Plant:** 15
Truck No.: 138 **Ticket No.:** 590483

Sample Information

Sample Date: 08/09/07 **Sample Time:** 1720
Sampled By: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 10/39 **Batch Size (cy):** 10
Placement Method: Pump
Water Added Before (gal): 25
Water Added After (gal):
Sample Location: 65' below grade
Placement Location: Pier 1N x A5

Field Test Data

Test	Result	Specification
Slump (in):	7	5-7
***Air Content* (%):**	2.5	0-3
Concrete Temp. (F):	82	50-90
Ambient Temp. (F):	96	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
82C	1	4.00	12.57			08/16/07	7	54,810	4,360	
82C	2	4.00	12.57			09/06/07	28	62,480	4,970	
82C	3	4.00	12.57			09/06/07	28	65,080	5,180	
							Average (28 days)		**5,080**	
82C	4						Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: *Concrete Testing*

Terracon Rep.: James T.McNamara
Reported To: Ian
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0251
Service Date: August 10, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 10, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0916 Plant: 15
Supplier: Bestway
Truck No: 140 Ticket No: 590521
Mix I.D. No.: 452029
Water Added Onsite Before Test: 10 Gallons

Sample Information

Date Cast: August 10, 2007 Time: 1010
Sampled by: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 10/29 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: 65' below grade
Placement Location: Pier 1T x A5

Field Test Data

Test	Result	Specification
Slump, inches:	6	5-7
Air Content, %:	2	0-3
Concrete Temperature, °F:	81	50-90
Ambient Temperature, °F:	85	*40 Min*
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
84C		4.00	12.57	08/17/2007	7	57,540	4,580
84C		4.00	12.57	09/07/2007	28	66,700	5,310
84C		4.00	12.57	09/07/2007	28	68,130	5,420
					Average (28 Days)		**5,370**
84C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRC/R01-Future Key

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0251 Date: 10 August 2007 Technician: James McNamara

Supplier	Mix I.D.	Specifications		Ambient Temperature Range, °F
Bestway	452029	Slump: 5-7	Air Content: 0-3	76-92

Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	12	590534	1045	1118	1205	6	N/A	N/A	N/A	5.5/11	15
2	143	590536	1108	1145	1225	5.75	N/A	N/A	N/A	5.5/11	15
3	121	590577	1530	1610	1625	5.75	N/A	N/A	N/A	10/34	10
4	118	590581	1552	1625	1645	5.5	N/A	N/A	N/A	10/34	15
5	141	590583	1605	1645	1700	5	N/A	N/A	N/A	6/34	

Test No.	Test Location
1	Pier caps 1N x A15, 1R x A18, 1V x A15, 1V x A18
2	Pier caps 1X x A15, 1W x A19, 1AA x A16
3	Pier 1W x A7, 45' below grade
4	Pier 1W x A7, 30' below grade
5	Pier 1W x A7, 15' below grade

Area of Placement: _____ Reviewed By: _____

Comments: _____

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0252
Service Date: August 10, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 10, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1217 Plant: 15
Supplier: Bestway
Truck No: 123 Ticket No: 590549
Mix I.D. No.: 452029
Water Added Onsite Before Test: 10 Gallons

Sample Information

Date Cast: August 10, 2007 Time: 1315
Sampled by: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 10/29 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: 65' below grade
Placement Location: Pier 1W x A5

Field Test Data

Test	Result	Specification
Slump, inches:	5.5	5-7
Air Content, %:	1	0-3
Concrete Temperature, °F:	87	50-90
Ambient Temperature, °F:	92	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
85C		4.00	12.57	08/17/2007	7	58,200	4,630
85C		4.00	12.57	09/07/2007	28	77,370	6,160
85C		4.00	12.57	09/07/2007	28	80,450	6,400
					Average (28 Days)		**6,280**
85C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0253
Service Date: August 10, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 10, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1511 Plant: 15
Supplier: Bestway
Truck No: 13 Ticket No: 590575
Mix I.D. No.: 452029
Water Added Onsite Before Test: 8 Gallons

Sample Information

Date Cast: August 10, 2007 Time: 1600
Sampled by: James T.McNamara
Weather Conditions: Cloudy, rainy
Accumulative Yards: 8/34 Batch Size (cy): 8.00
Placement Method: Pump
Sample Locations: 65' below grade
Placement Location: Pier 1W x A7

Field Test Data

Test	Result	Specification
Slump, inches:	5.5	5-7
Air Content, %:	1.5	0-3
Concrete Temperature, °F:	77	50-90
Ambient Temperature, °F:	78	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
86C		4.00	12.57	08/17/2007	7	65,890	5,240
86C		4.00	12.57	09/07/2007	28	86,880	6,910
86C		4.00	12.57	09/07/2007	28	88,320	7,030
					Average (28 Days)		**6,970**
86C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0264
Service Date: August 13, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 11, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1522 Plant: 15
Supplier: Bestway
Truck No: 0139 Ticket No: 590698
Mix I.D. No.: 452029
Water Added Onsite Before Test: 20 Gallons

Sample Information

Date Cast: August 13, 2007 Time: 1615
Sampled by: Matthew P. Wales
Weather Conditions: Sunny
Accumulative Yards: 7/7 Batch Size (cy): 14.00
Placement Method: Pump
Sample Locations: P-1 type pier at 1L.7 x A9.5
Placement Location: P-1 type pier at 1L.7 x A9.5

Field Test Data

Test	Result		Specification
Slump, inches:	6		5-7
Air Content, %:	N/A	*	1-3
Concrete Temperature, °F:	86		50-90
Ambient Temperature, °F:	95		40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
88C		4.00	12.57	08/20/2007	7	70,470	5,610
88C		4.00	12.57	09/10/2007	28	87,600	6,970
88C		4.00	12.57	09/10/2007	28	83,660	6,660
					Average (28 Days)		**6,820**
88C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian with Je Dunn

Samples made by: Terracon

Terracon Rep: Matthew P. Wales

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0265
Service Date: August 13, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 11, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1345 Plant: 15
Supplier: Bestway
Truck No: 0113 Ticket No: 590686
Mix I.D. No.: 452029
Water Added Onsite Before Test: 15 Gallons

Sample Information

Date Cast: August 13, 2007 Time: 1435
Sampled by: Matthew P. Wales
Weather Conditions: Sunny
Accumulative Yards: 10/10 Batch Size (cy): 29.00
Placement Method: Pump
Sample Locations: P-5 type pier at 1V x A.7
Placement Location: P5 type pier at 1V x A7

Field Test Data

Test	Result	Specification
Slump, inches:	5	5-7
Air Content, %:	N/A	0-3
Concrete Temperature, °F:	84	50-90
Ambient Temperature, °F:	98	40 Min
Plastic Unit Weight, pcf:	N/A	

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
87C		4.00	12.57	08/20/2007	7	69,230	5,510
87C		4.00	12.57	09/10/2007	28	84,610	6,730
87C		4.00	12.57	09/10/2007	28	81,690	6,500
					Average (28 Days)		**6,620**
87C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian with Je Dunn

Samples made by: Terracon

Terracon Rep: Matthew P. Wales

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0284
Service Date: August 16, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 12, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1246 Plant: 15
Supplier: Bestway
Truck No: 120 Ticket No: 591024
Mix I.D. No.: 402119
Water Added Onsite Before Test: 15 Gallons

Sample Information

Date Cast: August 16, 2007 Time: 1340
Sampled by: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 10/20 Batch Size (cy): 10.00
Placement Method: Direct discharge
Sample Locations: Gridlines 1B x A10.5
Placement Location: Gradebeam at gridlines 1B x A2 to 1B x A11

Field Test Data

Test	Result	Specification
Slump, inches:	4	4" max
Air Content, %:	4	3-6
Concrete Temperature, °F:	82	50-90
Ambient Temperature, °F:	94	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
93C		4.00	12.57	08/23/2007	7	36,640	2,920
93C		4.00	12.57	09/13/2007	28	46,040	3,660*
93C		4.00	12.57	09/13/2007	28	47,450	3,780*
					Average (28 Days)		**3,720**
93C		4.00	12.57	10/11/2007	56	54,110	4,310

Comments: * **Does not comply with specified strength.**
Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: for
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0292
Service Date: August 17, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 17, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0738 Plant: 15
Supplier: Bestway
Truck No: 120 Ticket No: 591078
Mix I.D. No.: 452029
Water Added Onsite Before Test: 10 Gallons

Sample Information

Date Cast: August 17, 2007 Time: 0840
Sampled by: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 10/15 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: Pier at gridline 1G x A13
Placement Location: Pier at gridline 1G x A13

Field Test Data

Test	Result	Specification
Slump, inches:	6	5-7
Air Content, %:	2	0-3
Concrete Temperature, °F:	82	50-90
Ambient Temperature, °F:	86	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
102C		4.00	12.57	08/24/2007	7	66,870	5,320
102C		4.00	12.57	09/14/2007	28	62,870	5,000
102C		4.00	12.57	09/14/2007	28	66,880	5,320
					Average (28 Days)		**5,160**
102C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0292 Date: 17 August 2007 Technician: James McNamara

Supplier			Mix I.D.		Specifications				Ambient Temperature Range, °F		
Bestway			452029		Slump: 5-7		Air Content: 0-3		80-94		
Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	122	591079	0744	0820	0855	5.5	N/A	N/A	80	5/15	15
2	100	591112	1040	1113	1140	5.75	N/A	N/A	84	8/16	8

Test No.	Test Location
1	Pier at gridline 1G x A13, 20' below grade
2	Pier at gridline 1G x A9, 30' below grade

Area of Placement: _____ Reviewed By: _____

Comments: _____

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0293
Service Date: August 17, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 17, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1024 Plant: 15
Supplier: Bestway
Truck No: 142 Ticket No: 591109
Mix I.D. No.: 452029
Water Added Onsite Before Test: 15 Gallons

Sample Information

Date Cast: August 17, 2007 Time: 1125
Sampled by: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 8/16 Batch Size (cy): 8.00
Placement Method: Pump
Sample Locations: Pier at gridline 1G x A9
Placement Location: Pier at gridline 1G x A9

Field Test Data

Test	Result	Specification
Slump, inches:	6.25	5-7
Air Content, %:	2	0-3
Concrete Temperature, °F:	85	50-90
Ambient Temperature, °F:	93	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
103C		4.00	12.57	08/24/2007	7	56,770	4,520
103C		4.00	12.57	09/14/2007	28	79,150	6,300
103C		4.00	12.57	09/14/2007	28	64,840	5,160
103C		4.00	12.57	09/14/2007	28	59,090	4,700
					Average (28 Days)		**5,390**

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0297
Service Date: August 17, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 17, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1320 Plant: 15
Supplier: Bestway Concrete
Truck No: 0100 Ticket No: 591145
Mix I.D. No.: 452029

Sample Information

Date Cast: August 17, 2007 Time: 1405
Sampled by: Robert R. Carlson
Weather Conditions: Cloudy
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump Truck
Sample Locations: 1HxA10.2
Placement Location: Piers

Field Test Data

Test	Result	Specification
Slump, inches:	5.0	5-7
Air Content, %:	2.0	1-3
Concrete Temperature, °F:	84	50-90
Ambient Temperature, °F:	85	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
97C		4.00	12.57	08/24/2007	7	52,730	4,200
97C		4.00	12.57	09/14/2007	28	77,720	6,180
97C		4.00	12.57	09/14/2007	28	74,060	5,890
					Average (28 Days)		**6,040**
97C					Hold		

Services - Concrete Testing
Field Results Reported To: Ray w.Ludwig Caisson **Samples made by:** Terracon

Terracon Rep: Robert R. Carlson

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0298
Service Date: August 17, 2007
Task: Caisson Observation

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 17, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1445 Plant: 15
Supplier: Bestway Concrete
Truck No: 122 Ticket No: 591164
Mix I.D. No.: 452029

Sample Information

Date Cast: August 17, 2007 Time: 1545
Sampled by: Robert R. Carlson
Weather Conditions: Cloudy
Accumulative Yards: 14/14 Batch Size (cy): 7.00
Placement Method: Pump Truck
Sample Locations: A9.5x1K.5
Placement Location: Piers

Field Test Data

Test	Result	Specification
Slump, inches:	5.75	5-7
Air Content, %:	1.0	1-3
Concrete Temperature, °F:	85	50-90
Ambient Temperature, °F:	85	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
98C		4.00	12.57	08/24/2007	7	71,800	5,710
98C		4.00	12.57	09/14/2007	28	80,280	6,390
98C		4.00	12.57	09/14/2007	28	85,610	6,810
98C		4.00	12.57	09/14/2007	28	84,720	6,740
					Average (28 Days)		**6,650**

Services - Concrete Testing
Field Results Reported To: Ray w/Ludwig

Samples made by: Terracon

Terracon Rep: Robert R. Carlson

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0301
Service Date: August 20, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0751 Plant: 15
Supplier: Bestway Concrete
Truck No: 113 Ticket No: 591231
Mix I.D. No.: 452029
Water Added Onsite Before Test: 20 Gallons

Sample Information

Date Cast: August 20, 2007 Time: 0905
Sampled by: James T.McNamara
Weather Conditions: Sunny
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: Pier 1D.9xA1

Field Test Data

Test	Result	Specification
Slump, inches:	6.25	5-7
Air Content, %:	2.5	0-3
Concrete Temperature, °F:	84	50 - 90
Ambient Temperature, °F:	85	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
108C		4.00	12.57	08/27/2007	7	59,360	4,720
108C		4.00	12.57	09/17/2007	28	71,550	5,690
108C		4.00	12.57	09/17/2007	28	70,970	5,650
					Average (28 Days)		**5,670**
108C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0302
Service Date: August 20, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1021 Plant: 15
Supplier: Bestway Concrete
Truck No: 142 Ticket No: 591254
Mix I.D. No.: 452029
Water Added Onsite Before Test: 7 Gallons

Sample Information

Date Cast: August 20, 2007 Time: 1115
Sampled by: James T.McNamara
Weather Conditions: Sunny
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: Pier 1E.5xA2

Field Test Data

Test	Result	Specification
Slump, inches:	5.0	5-7
Air Content, %:	1.0	0-3
Concrete Temperature, °F:	87	50 - 90
Ambient Temperature, °F:	90	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
105C		4.00	12.57	08/27/2007	7	60,620	4,820
105C		4.00	12.57	09/17/2007	28	80,050	6,370
105C		4.00	12.57	09/17/2007	28	83,570	6,650
					Average (28 Days)		**6,510**
105C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0302 Date: 8/20/07 Technician: J. McNamara

Supplier			Mix I.D.		Specifications				Ambient Temperature Range, °F		
Bestway Concrete			452029		Slump: 5-7		Air Content: 0-3		84-95		
Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	142	591232	7:59	8:33	9:20	6.5			82	7/14	20
2	151	591256	10:44	11:15	11:30	5.25			88	7/14	10

Test No.	Test Location
1	Pier 1D.9xA1, 25' below grade
2	Pier 1E.5xA2, 25' below grade

Area of Placement: _____ Reviewed By: _____

Comments: _____

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0306
Service Date: August 18, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 17, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0742 Plant: 15
Supplier: Bestway Concrete
Truck No: 113 Ticket No: 591192
Mix I.D. No.: 452029
Water Added Onsite Before Test: 14 Gallons

Sample Information

Date Cast: August 18, 2007 Time: 0840
Sampled by:
Weather Conditions: Sunny
Accumulative Yards: 7/14 Batch Size (cy): 14.00
Placement Method: Pump
Sample Locations: Bottom of pier G-A1
Placement Location: Pier 1G-A1

Field Test Data

Test	Result	Specification
Slump, inches:	6.5	5-7
Air Content, %:	2.5	N/A
Concrete Temperature, °F:	81	50-90
Ambient Temperature, °F:	80	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
101C		4.00	12.57	08/25/2007	7	53,290	4,240
101C		4.00	12.57	09/15/2007	28	74,770	5,950
101C		4.00	12.57	09/15/2007	28	75,170	5,980
					Average (28 Days)		**5,970**
101C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: Terry F. Lipp

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-RMK/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0307
Service Date: August 18, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 17, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 288 Days

Batch Time: 1227 Plant: 15
Supplier: Bestway Concrete
Truck No: 151 Ticket No: 591211
Mix I.D. No.: 452029

Sample Information

Date Cast: August 18, 2007 Time: 1320
Sampled by:
Weather Conditions: Partly Cloudy
Accumulative Yards: 6/16 Batch Size (cy): 16.00
Placement Method: Pump
Sample Locations: Pier 1F-A2, 1st lift
Placement Location: Pier 1F-A2

Field Test Data

Test	Result	Specification
Slump, inches:	6.0	5-7
Air Content, %:	2.5	N/A
Concrete Temperature, °F:	87	50-90
Ambient Temperature, °F:	86	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
99C		4.00	12.57	08/25/2007	7	57,180	4,550
99C		4.00	12.57	09/15/2007	28	73,850	5,880
99C		4.00	12.57	09/15/2007	28	74,400	5,920
					Average (28 Days)		**5,900**
99C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: Terry F. Lipp

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0308
Service Date: August 18, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 17, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1417 Plant: 15
Supplier: Bestway Concrete
Truck No: 141 Ticket No: 591213
Mix I.D. No.: 452029

Sample Information

Date Cast: August 18, 2007 Time: 1520
Sampled by:
Weather Conditions: Overcast
Accumulative Yards: 8/16 Batch Size (cy): 16.00
Placement Method: Pump
Sample Locations: Pier 1E-A2, 1st lift
Placement Location: Pier 1E-A2

Field Test Data

Test	Result	Specification
Slump, inches:	5.0	5-7
Air Content, %:	2.6	N/A
Concrete Temperature, °F:	88	50-90
Ambient Temperature, °F:	87	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
100C		4.00	12.57	08/25/2007	7	69,330	5,520
100C		4.00	12.57	09/15/2007	28	78,750	6,270
100C		4.00	12.57	09/15/2007	28	81,130	6,460
					Average (28 Days)		**6,370**
100C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: Terry F. Lipp

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0313
Service Date: August 20, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1303 Plant: 15
Supplier: Bestway
Truck No: 142 Ticket No: 591275
Mix I.D. No.: 452029

Water Added Onsite After Test: 10 Gallons

Sample Information

Date Cast: August 20, 2007 Time: 1345
Sampled by:
Weather Conditions:

Placement Method: Pump
Sample Locations: 1E x A1 Caisson
Placement Location: 1E x A1 Caisson

Field Test Data

Test	Result	Specification
Slump, inches:	5.0	5-7
Air Content, %:	2.4	3
Concrete Temperature, °F:	83	50-90
Ambient Temperature, °F:	92	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
109C		4.00	12.57	08/27/2007	7	63,770	5,070
109C		4.00	12.57	09/17/2007	28	88,410	7,030
109C		4.00	12.57	09/17/2007	28	89,570	7,130
					Average (28 Days)		**7,080**
109C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0314
Service Date: August 20, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1430 Plant: 15
Supplier: Bestway Concrete
Truck No: 100 Ticket No: 591287
Mix I.D. No.: 452029

Sample Information

Date Cast: August 20, 2007 Time: 1500
Sampled by:
Weather Conditions: Sunny

Placement Method: Pump
Sample Locations: Same as placement location
Placement Location: 1G/A2

Field Test Data

Test	Result	Specification
Slump, inches:	6.5	5-7
Air Content, %:	2.4	<3%
Concrete Temperature, °F:	83	50 - 90
Ambient Temperature, °F:	92	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
14C		4.00	12.57	09/17/2007	28	76,460	6,080
14C		4.00	12.57	09/17/2007	28	74,950	5,960
					Average (28 Days)		**6,020**
14C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0315
Service Date: August 20, 2007
Task: **Pier Cap Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1515 Plant: 15
Supplier: Bestway
Truck No: 141 Ticket No: 591293
Mix I.D. No.: 452029

Sample Information

Date Cast: August 20, 2007 Time: 1600
Sampled by:
Weather Conditions: Sunny
Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: Gridlines A.5 x 12
Placement Location: Caisson Caps, A.5 x 12 and 12 x A.3

Field Test Data

Test	Result		Specification
Slump, inches:	6.0		5-7
Air Content, %:	3.0		3
Concrete Temperature, °F:	88		50-90
Ambient Temperature, °F:		*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
115C		4.00	12.57	08/27/2007	7	49,940	3,970
115C		4.00	12.57	09/17/2007	28	81,930	6,520
115C		4.00	12.57	09/17/2007	28	80,140	6,380
					Average (28 Days)		**6,450**
115C					Hold		

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0316
Service Date: August 21, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 19, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0746 Plant: 15
Supplier: Bestway Concrete
Truck No: 123 Ticket No: 591326
Mix I.D. No.: 452029
Water Added Onsite Before Test: 14 Gallons

Sample Information

Date Cast: August 21, 2007 Time: 0855
Sampled by: James T.McNamara
Weather Conditions: Clear & Calm
Accumulative Yards: 7/14 Batch Size (cy): 7.00
Placement Method: Pump
Sample Locations: 65' below grade
Placement Location: Pier 1J x A2

Field Test Data

Test	Result	Specification
Slump, inches:	5.75	5-7
Air Content, %:	2.0	0-3
Concrete Temperature, °F:	82	50-90
Ambient Temperature, °F:	85	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
110C		4.00	12.57	08/28/2007	7	69,290	5,510
110C		4.00	12.57	09/18/2007	28	80,430	6,400
110C		4.00	12.57	09/18/2007	28	77,560	6,170
					Average (28 Days)		**6,290**
110C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0317
Service Date: August 21, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 19, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1040 Plant: 15
Supplier: Bestway Concrete
Truck No: 141 Ticket No: 591354
Mix I.D. No.: 452029

Sample Information

Date Cast: August 21, 2007 Time: 1130
Sampled by: James T.McNamara
Weather Conditions:
Accumulative Yards: 7/14
Placement Method: Pump
Sample Locations: 55' below grade
Placement Location: Pier 1D.9 x A3

Field Test Data

Test	Result		Specification
Slump, inches:	5.25		5-7
Air Content, %:	1.5		0-3
Concrete Temperature, °F:	86		50-90
Ambient Temperature, °F:		*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
111C		4.00	12.57	08/28/2007	7	73,250	5,830
111C		4.00	12.57	09/18/2007	28	84,190	6,700
111C		4.00	12.57	09/18/2007	28	81,470	6,480
					Average (28 Days)		**6,590**
111C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0318
Service Date: August 21, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 19, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1246 Plant: 15
Supplier: Bestway Concrete
Truck No: 12 Ticket No: 591374
Mix I.D. No.: 452029

Sample Information

Date Cast: August 21, 2007 Time: 1355
Sampled by: James T.McNamara
Weather Conditions:
Accumulative Yards: 8/16 Batch Size (cy): 8.00
Placement Method: Pump
Sample Locations: 65' below grade
Placement Location: Pier 1D x A2

Field Test Data

Test	Result		Specification
Slump, inches:	5.5		5-7
Air Content, %:	1.2		0-3
Concrete Temperature, °F:	87		50-90
Ambient Temperature, °F:		*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
107C		4.00	12.57	08/28/2007	7	62,650	4,990
107C		4.00	12.57	09/18/2007	28	66,600	5,300
107C		4.00	12.57	09/18/2007	28	70,040	5,570
					Average (28 Days)		**5,440**
107C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0319
Service Date: August 21, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 19, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 5000 psi @ 28 Days

Batch Time: 1342 Plant: 15
Supplier: Bestway Concrete
Truck No: 145 Ticket No: 591380
Mix I.D. No.: 500129
Water Added Onsite Before Test: 15 Gallons

Sample Information

Date Cast: August 21, 2007 Time: 1515
Sampled by: James T.McNamara
Weather Conditions:
Accumulative Yards: 10/55 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: 1A x A10.5
Placement Location: Shear Wall, gridlines 1A x A10.3 to 1A x A13.4

Field Test Data

Test	Result		Specification
Slump, inches:	3.5		0-4
Air Content, %:	4.5		4-6
Concrete Temperature, °F:	94	*	50-90
Ambient Temperature, °F:		*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
106C		4.00	12.57	08/27/2007	6	50,550	4,020
106C		4.00	12.57	08/28/2007	7	57,940	4,610
106C		4.00	12.57	09/18/2007	28	61,670	4,910*
106C		4.00	12.57	09/18/2007	28	65,340	5,200
					Average (28 Days)		**5,060**
106C				10/16/2007	56		

Comments: *** Does not comply with specified strength.**
Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0319
Service Date: August 21, 2007
Task: **Caisson Observation**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 17, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 5000 psi @ 28 Days

Batch Time: 1342 Plant: 15
Supplier: Bestway Concrete
Truck No: 145 Ticket No: 591380
Mix I.D. No.: 500129
Water Added Onsite Before Test: 15 Gallons

Sample Information

Date Cast: August 21, 2007 Time: 1515
Sampled by: James T.McNamara
Weather Conditions:
Accumulative Yards: 10/55 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: 1A x A10.5
Placement Location: Shear Wall, gridlines 1A x A10.3 to 1A x A13.4

Field Test Data

Test	Result		Specification
Slump, inches:	3.5		0-4
Air Content, %:	4.5		4-6
Concrete Temperature, °F:	94	*	50-90
Ambient Temperature, °F:		*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
106C		4.00	12.57	08/27/2007	6	50,550	4,020
106C		4.00	12.57	08/28/2007	7	57,940	4,610
106C		4.00	12.57	09/18/2007	28	61,670	4,910*
106C		4.00	12.57	09/18/2007	28	65,340	5,200
					Average (28 Days)		**5,060**
106C		4.00	12.57	10/16/2007	56	67,790	5,390

Comments: *** Does not comply with specified strength.**
Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0329
Service Date: August 22, 2007
Task: Pier Cap Concrete

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 20, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1053 Plant: 15
Supplier: Bestway Concrete
Truck No: 139 Ticket No: 591462
Mix I.D. No.: 402119
Water Added Onsite Before Test: 30 Gallons

Sample Information

Date Cast: August 22, 2007 Time: 1223
Sampled by: James T.McNamara
Weather Conditions: Partly Cloudy & Rain
Accumulative Yards: 9/25 Batch Size (cy): 9.00
Placement Method: Pump
Sample Locations: 5' below grade
Placement Location: Micropile 1U x A20

Field Test Data

Test	Result		Specification
Slump, inches:	3.75		0-4
Air Content, %:	6.1		5-7
Concrete Temperature, °F:	88		50-90
Ambient Temperature, °F:		*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
112C		4.00	12.57	08/29/2007	7	50,960	4,050
112C		4.00	12.57	09/19/2007	28	65,000	5,170
112C		4.00	12.57	09/19/2007	28	63,870	5,080
					Average (28 Days)		**5,130**
112C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0335
Service Date: August 23, 2007
Task: Pier Cap Concrete

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 21, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1350 Plant: 15
Supplier: Bestway Concrete
Truck No: 139 Ticket No: 591607-08
Mix I.D. No.: 402119
Water Added Onsite Before Test: 20 Gallons

Sample Information

Date Cast: August 23, 2007 Time: 1510
Sampled by: James T.McNamara
Weather Conditions:
Accumulative Yards: 6/6
Placement Method: Pump
Sample Locations: 2' below grade
Placement Location: Pier Cap 1T x A13

Field Test Data

Test	Result	Specification
Slump, inches:	3.75	1-4
Air Content, %:	5.8	4-6
Concrete Temperature, °F:	82	50-90
Ambient Temperature, °F:	*	40 Min
Plastic Unit Weight, pcf:	N/A	

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
113C		4.00	12.57	08/30/2007	7	57,290	4,560
113C		4.00	12.57	09/21/2007	29	71,630	5,700
113C		4.00	12.57	09/21/2007	29	69,890	5,560
					Average (29 Days)		**5,630**
113C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0337
Service Date: August 24, 2007
Task: **Pier Cap Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 24, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1357 Plant: 15
Supplier: Bestway
Truck No: 0100 Ticket No: 591684
Mix I.D. No.: 402119

Sample Information

Date Cast: August 24, 2007 Time: 1500
Sampled by: James P. Wasinger
Weather Conditions: Hot, clear
Accumulative Yards: 6/12 Batch Size (cy): 6.00
Placement Method: Chute
Sample Locations: Gridline 1M.0 x A9.0
Placement Location: Pier caps at gridlines 1C.7 x A9.2, 1C.8 x A9.4, 1M.0 x A9.0, 1J.0 x A9.0, 1J.5 x A9.7, and 1X.0 x A13.0

Field Test Data

Test	Result		Specification
Slump, inches:	5	*	4" max
Air Content, %:	5.8		4-6
Concrete Temperature, °F:	80		50-90
Ambient Temperature, °F:	87		40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
104C		4.00	12.57	09/05/2007	12	51,360	4,090
104C		4.00	12.57	09/21/2007	28	63,760	5,070
104C		4.00	12.57	09/21/2007	28	63,160	5,030
					Average (28 Days)		**5,050**
104C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian with JE Dunn
Samples made by: Terracon

Terracon Rep: James P. Wasinger

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0340
Service Date: August 27, 2007
Task: **Pier Cap Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 25, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1406 Plant: 15
Supplier: Bestway
Truck No: 119 Ticket No: 591800
Mix I.D. No.: 402119
Water Added Onsite Before Test: 20 Gallons

Sample Information

Date Cast: August 27, 2007 Time: 1450
Sampled by: Travis O. Whalen
Weather Conditions: Partly cloudy
Accumulative Yards: 8/8
Placement Method: Direct discharge
Sample Locations: Gridlines 1J.3 x A10.1, 1L.7 x A9.4, 1E.0 x A11.0, and 1D.0 x A9.0
Placement Location: Pier caps

Field Test Data

Test	Result		Specification
Slump, inches:	4.5	*	4" max
Air Content, %:	4.9		3-5
Concrete Temperature, °F:	61		50-90
Ambient Temperature, °F:	80		40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
116C		4.00	12.57	09/03/2007	7	37,520	2,990
116C		4.00	12.57	09/24/2007	28	54,690	4,350
116C		4.00	12.57	09/24/2007	28	54,330	4,320
					Average (28 Days)		**4,340**
116C					Hold		

Comments:
High (failing) slump. Jesse Hunt with JE Dunn was informed of test result.
Services - Concrete Testing
Field Results Reported To: Jesse Hunt with JE Dunn **Samples made by:** Terracon

Terracon Rep: Travis O. Whalen

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0340 Date: 21 August 2007 Technician: James McNamara

Supplier	Mix I.D.	Specifications		Ambient Temperature Range, °F
Bestway	452029	Slump: 5-7	Air Content: 0-3	40+

Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1	141	591329	0811	0846	0910	6	N/A	N/A	N/A	7/14	10
2	118	591357	1105	1200	1205	6	N/A	N/A	N/A	7/14	14
3	139	591375	1252	1335	1405	6.25	N/A	N/A	N/A	8/16	

Test No.	Test Location
1	Pier at gridlines 1J.0 x A2.0, 30' below grade
2	Pier 1D.9 x A3.0, 25' below grade
3	Pier 1D.0 x A2.0, 30' below grade

Area of Placement: Reviewed By:

Comments:

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0343
Service Date: August 28, 2007
Task: Pier Cap Concrete

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 26, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0952 Plant: 15
Supplier: Bestway
Truck No: 100 Ticket No: 591912
Mix I.D. No.: 402119

Sample Information

Date Cast: August 28, 2007 Time: 1115
Sampled by: James T.McNamara
Weather Conditions: Partly cloudy, calm
Accumulative Yards: 1/4 Batch Size (cy): 1.00
Placement Method: Direct discharge
Sample Locations:
Placement Location: Pier cap at gridline 1M x A13

Field Test Data

Test	Result		Specification
Slump, inches:	3.25		0-4
Air Content, %:	5.8		5-7
Concrete Temperature, °F:	86		50-90
Ambient Temperature, °F:		*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
118C		4.00	12.57	09/04/2007	7	48,440	3,850
118C		4.00	12.57	09/25/2007	28	53,830	4,280
118C		4.00	12.57	09/25/2007	28	56,890	4,530
					Average (28 Days)		**4,410**
118C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/RD1-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0345
Service Date: August 29, 2007
Task: **Grade Beam Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 27, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength:

Batch Time: 1043 Plant: 15
Supplier: Bestway
Truck No: 133 Ticket No: 591977
Mix I.D. No.: 402119

Sample Information

Date Cast: August 29, 2007 Time: 1200
Sampled by: James T.McNamara
Weather Conditions: Clear, calm
Accumulative Yards: 10/65 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: Gridlines 1T x A6.5
Placement Location: Gradebeam at gridlines 1T x A5 to 1V x A7

Field Test Data

Test	Result		Specification
Slump, inches:	4		
Air Content, %:	5.2		
Concrete Temperature, °F:	79		50-90
Ambient Temperature, °F:		*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
117C		4.00	12.57	09/05/2007	7	41,940	3,340
117C		4.00	12.57	09/26/2007	28	49,690	3,950
117C		4.00	12.57	09/26/2007	28	54,980	4,370
					Average (28 Days)		**4,160**
117C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0353
Service Date: August 30, 2007
Task: **Shear Wall Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 28, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 5000 psi @ 28 Days

Batch Time: 1242 Plant: 15
Supplier: Bestway
Truck No: 100 Ticket No: 592109
Mix I.D. No.: 502129JE
Water Added Onsite Before Test: 30 Gallons

Sample Information

Date Cast: August 30, 2007 Time: 1330
Sampled by: James T.McNamara
Weather Conditions: Sunny
Accumulative Yards: 10/55 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: Gridline 1A x A12
Placement Location: Shear wall 1A x A10.2 to 1B x A13.4, Second floor

Field Test Data

Test	Result	Specification
Slump, inches:	6	5-7
Air Content, %:	6	3.5-6.5
Concrete Temperature, °F:	82	50-90
Ambient Temperature, °F:	90	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
119C		4.00	12.57	09/06/2007	7	54,510	4,340
119C		4.00	12.57	09/27/2007	28	81,130	6,460
119C		4.00	12.57	09/27/2007	28	78,970	6,280
					Average (28 Days)		**6,370**
119C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO-R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0362
Service Date: September 4, 2007
Task: **Grade Beam Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 03, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000psi @ 28 Days

Batch Time: 1329 Plant: 15
Supplier: Bestway
Truck No: 112 Ticket No: 592324
Mix I.D. No.: 402119
Water Added Onsite Before Test: 10 Gallons

Sample Information

Date Cast: September 4, 2007 Time: 1445
Sampled by: James T.McNamara
Weather Conditions:
Accumulative Yards: 9/45 Batch Size (cy): 9.00
Placement Method: Pump
Sample Locations: Gridline 1W x A1
Placement Location: Gradebeam at gridline 1V x A1 to 1Z x A5

Field Test Data

Test	Result		Specification
Slump, inches:	4		
Air Content, %:	5		
Concrete Temperature, °F:	86		50-90
Ambient Temperature, °F:		*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
120C		4.00	12.57	09/12/2007	8	50,230	4,000
120C		4.00	12.57	10/02/2007	28	52,700	4,190
120C		4.00	12.57	10/02/2007	28	54,710	4,350
					Average (28 Days)		**4,270**
120C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian
Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0373
Service Date: September 7, 2007
Task: **Grade Beam Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 08, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0956
Supplier: Bestway Concrete
Truck No: 138 Ticket No: 592584
Mix I.D. No.: 402119
Water Added Onsite Before Test: 15 Gallons

Sample Information

Date Cast: September 7, 2007 Time: 1100
Sampled by: James T.McNamara
Weather Conditions:
Accumulative Yards: 10/30 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: Gridlines 1D x A9.8
Placement Location: Grade Beams, gridlines 1C.2 x A.9 to 1E.5 x A10

Field Test Data

Test	Result		Specification
Slump, inches:	4.0		4" Max
Air Content, %:	5.5	*	4% Max
Concrete Temperature, °F:	76		50 - 90
Ambient Temperature, °F:		*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
122C		4.00	12.57	09/14/2007	7	47,740	3,800
122C		4.00	12.57	10/05/2007	28	53,440	4,250
122C		4.00	12.57	10/05/2007	28	51,640	4,110
					Average (28 Days)		**4,180**
122C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-RMK/R01-Future Rev

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0374
Service Date: September 8, 2007
Task: **Shear Wall Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: November 05, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 5000 psi @ 28 Days

Batch Time: 1047 Plant: 15
Supplier: Bestway Concrete
Truck No: 111 Ticket No: 592695
Mix I.D. No.: 502129JE

Sample Information

Date Cast: September 8, 2007 Time: 1135
Sampled by: James T.McNamara
Weather Conditions: Sunny
Accumulative Yards: 10/50 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: 1VxA6.5
Placement Location: 1TxA5-1VxA.72, Shear Wall

Field Test Data

Test	Result		Specification
Slump, inches:	6.5	*	4" Max
Air Content, %:	5.0	*	4% Max
Concrete Temperature, °F:	81		50 - 90
Ambient Temperature, °F:		*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
121C		4.00	12.57	09/15/2007	7	43,720	3,480
121C		4.00	12.57	10/06/2007	28	56,860	4,520*
121C		4.00	12.57	10/06/2007	28	53,640	4,270*
					Average (28 Days)		**4,400**
121C		4.00	12.57	11/03/2007	56	63,910	5,090

Comments: *** Does not comply with specified strength.**
Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0383
Service Date: September 12, 2007
Task: **Shear Wall Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 11, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 5000 psi @ 28 Days

Batch Time: Bestway Plant: 15
Supplier: Bestway
Truck No: 100 Ticket No: 592955
Mix I.D. No.: 502129JE
Water Added Onsite Before Test: 20 Gallons

Sample Information

Date Cast: September 12, 2007 Time: 1340
Sampled by: Dale E. Griest
Weather Conditions:
Accumulative Yards: 10/10 Batch Size (cy): 50.00
Placement Method: Pump
Sample Locations: First lift
Placement Location: Shear wall stairway 2

Field Test Data

Test	Result		Specification
Slump, inches:	6.75		5-7
Air Content, %:	7.5	*	3.5-6.5
Concrete Temperature, °F:	75		50-90
Ambient Temperature, °F:	80		40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
124C		4.00	12.57	09/19/2007	7	58,140	4,630
124C		4.00	12.57	10/10/2007	28	66,090	5,260
124C		4.00	12.57	10/10/2007	28	62,740	4,990*
					Average (28 Days)		**5,130**
124C					Hold		

Comments: *** Does not comply with specified strength.**
Services - Concrete Testing
Field Results Reported To: Ian with JE Dunn

Samples made by: Terracon

Terracon Rep: Dale E. Griest

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0385
Service Date: September 12, 2007
Task: **Elevator Pit Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 22, 2007 **REVISED
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1525
Supplier: Bestway
Truck No: 113 Ticket No: 592982
Mix I.D. No.: 402119
Water Added Onsite Before Test: 15 Gallons

Sample Information

Date Cast: September 12, 2007 Time: 1645
Sampled by: Chauncy D. Ursini
Weather Conditions: Clear, hot
Accumulative Yards: 10/20 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: North half
Placement Location: Foundation walls for elevator pit, First level

Field Test Data

Test	Result	Specification
Slump, inches:	5	5-7
Air Content, %:	6.4	3.5-6.5
Concrete Temperature, °F:	82	50-90
Ambient Temperature, °F:	86	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
123C		4.00	12.57	09/19/2007	7	43,570	3,470
123C		4.00	12.57	10/10/2007	28	56,360	4,480
123C		4.00	12.57	10/10/2007	28	57,960	4,610
					Average (28 Days)		**4,550**
123C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian with JE Dunn **Samples made by:** Terracon

Terracon Rep: Chauncy D. Ursini

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0392
Service Date: September 14, 2007
Task: **Grade Beam Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 13, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength:

Batch Time: 1208 Plant: 15
Supplier: Bestway Concrete
Truck No: 122 Ticket No: 593154
Mix I.D. No.: 402119
Water Added Onsite Before Test: 5 Gallons

Sample Information

Date Cast: September 14, 2007 Time: 1315
Sampled by: James T.McNamara
Weather Conditions: Clear & Calm
Accumulative Yards: 10/48 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: Gridlines 1J.2 x A10
Placement Location: Grade Beams, gridlines 1E.2 x A10 to 1T x A8

Field Test Data

Test	Result	Specification
Slump, inches:	4.0	0-4
Air Content, %:	5.0	4-6
Concrete Temperature, °F:	82	50-90
Ambient Temperature, °F:	80	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
125C		4.00	12.57	09/21/2007	7	50,630	4,030
125C		4.00	12.57	10/12/2007	28	57,990	4,610
125C		4.00	12.57	10/12/2007	28	61,890	4,920
					Average (28 Days)		**4,770**
125C					Hold		

Services - Concrete Testing
Field Results Reported To: Ian Warner with J.E. Dunn **Samples made by:** Terracon

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0395
Service Date: September 15, 2007
Task: **Shear Wall Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 15, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 5000 psi @ 28 Days

Batch Time: 1037 Plant: 15
Supplier: Bestway
Truck No: Ticket No: 593223
Mix I.D. No.: 502129JE

Sample Information

Date Cast: September 15, 2007 Time: 1107
Sampled by: Justin A. McCormack
Weather Conditions: Sunny
Accumulative Yards: 1050 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: Stair tower II
Placement Location: Stair tower II

Field Test Data

Test	Result	Specification
Slump, inches:	6.75	5-7
Air Content, %:	6.6	5-8
Concrete Temperature, °F:	76	50-90
Ambient Temperature, °F:	84	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
126C		4.00	12.57	09/20/2007	5	64,450	5,130
126C		4.00	12.57	09/22/2007	7	71,120	5,660
126C		4.00	12.57	10/13/2007	28	74,080	5,890
126C		4.00	12.57	10/13/2007	28	78,250	6,230
					Average (28 Days)		**6,060**
126C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: Justin A. McCormack

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0401
Service Date: September 19, 2007
Task: **Grade Beam Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0914
Supplier: Bestway Concrete
Truck No: Ticket No:
Mix I.D. No.:

Sample Information

Date Cast: September 19, 2007 Time: 1001
Sampled by: James P. Wasinger
Weather Conditions: Sunny
Accumulative Yards: 8/15 Batch Size (cy): 8.00
Placement Method: Pump Truck
Sample Locations:
Placement Location: Gradebeam pier caps

Field Test Data

Test	Result	Specification
Slump, inches:	4.5	4" Max
Air Content, %:	5.0	4-6
Concrete Temperature, °F:	70	50 - 90
Ambient Temperature, °F:	69	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
127C		4.00	12.57	09/26/2007	7	46,280	3,680
127C		4.00	12.57	10/17/2007	28	51,070	4,060
127C		4.00	12.57	10/17/2007	28	52,960	4,210
					Average (28 Days)		**4,140**
127C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: James P. Wasinger

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0404
Service Date: September 20, 2007
Task: **Shear Wall Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 19, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 5000 psi @ 28 Days

Batch Time: 1209 Plant: 15
Supplier: Bestway
Truck No: 137 Ticket No: 593569
Mix I.D. No.: 502129JE

Sample Information

Date Cast: September 20, 2007 Time: 1300
Sampled by: Lawrence A. Boyer
Weather Conditions: Sunny
Accumulative Yards: 20/50 Batch Size (cy): 10.00
Placement Method: Direct discharge
Sample Locations: 3' x 30' middle section of wall
Placement Location: Shear wall on the West of job site

Field Test Data

Test	Result	Specification
Slump, inches:	7	5-7
Air Content, %:	6.5	3.5-6.5
Concrete Temperature, °F:	75	50-90
Ambient Temperature, °F:	80	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
28C		4.00	12.57	09/27/2007	7	83,140	6,620
28C		4.00	12.57	09/27/2007	7	73,720	5,870
					Average (7 Days)		**6,250**
28C		4.00	12.57	10/18/2007	28	81,420	6,480
28C		4.00	12.57	10/18/2007	28	84,020	6,690
					Average (28 Days)		**6,590**
28C					Hold		
128C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: Lawrence A. Boyer

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRQ/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0416
Service Date: September 26, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 25, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 5000 psi @ 28 Days

Batch Time: 1203 Plant: 15
Supplier: Bestway
Truck No: 113 Ticket No: 593969
Mix I.D. No.: 502129JE
Water Added Onsite Before Test: 5 Gallons

Sample Information

Date Cast: September 26, 2007 Time: 1250
Sampled by: James P. Wasinger
Weather Conditions: Clear
Accumulative Yards: 10/50 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: NE corner
Placement Location: Stair tower 1, Fourth floor walls

Field Test Data

Test	Result	Specification
Slump, inches:	5	5-7
Air Content, %:	5.5	3.5-6.5
Concrete Temperature, °F:	75	50-90
Ambient Temperature, °F:	79	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
131C		4.00	12.57	10/03/2007	7	62,480	4,970
131C		4.00	12.57	10/24/2007	28	74,880	5,960
131C		4.00	12.57	10/24/2007	28	78,130	6,220
					Average (28 Days)		**6,090**
131C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: James P. Wasinger

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0419
Service Date: September 27, 2007
Task: **Shear Wall Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 26, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 5000 psi @ 28 Days

Batch Time: 1143
Supplier: Bestway
Truck No: 145 Ticket No: 594071
Mix I.D. No.: 502129JE
Water Added Onsite Before Test: 10 Gallons

Sample Information

Date Cast: September 27, 2007 Time: 1230
Sampled by: James P. Wasinger
Weather Conditions: Clear
Accumulative Yards: 10/55 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: East side wall
Placement Location: Stair tower 2, Level 4

Field Test Data

Test	Result	Specification
Slump, inches:	7	5-7
Air Content, %:	4.8	3.5-6.5
Concrete Temperature, °F:	71	50-90
Ambient Temperature, °F:	78	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
130C		4.00	12.57	10/04/2007	7	59,870	4,760
130C		4.00	12.57	10/25/2007	28	74,920	5,960
130C		4.00	12.57	10/25/2007	28	74,180	5,900
					Average (28 Days)		**5,930**
130C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: James P. Wasinger

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Teresa Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0438
Service Date: October 9, 2007
Task: **Slab On Grade Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: November 07, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0733 Plant: 15
Supplier: Bestway
Truck No: 143 Ticket No: 594946
Mix I.D. No.: 402119
Water Added Onsite Before Test: 10 Gallons

Sample Information

Date Cast: October 9, 2007 Time: 0815
Sampled by: Scott D. Lee
Weather Conditions: Clear
Accumulative Yards: 50/100
Placement Method: Pump
Sample Locations: From gridlines A11 x 1BB, 6' South x 30' East
Placement Location: South of columns at gridlines A15 x 1U

Field Test Data

Test	Result		Specification
Slump, inches:	3.75		4" max
Air Content, %:	6.1	*	4-6
Concrete Temperature, °F:	69		50-90
Ambient Temperature, °F:	55		40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
133C		4.00	12.57	10/16/2007	7	42,830	3,410
133C		4.00	12.57	11/06/2007	28	56,470	4,490
133C		4.00	12.57	11/06/2007	28	55,180	4,390
					Average (28 Days)		**4,440**
133C					Hold		

Services - Concrete Testing
Field Results Reported To: Will

Samples made by: Terracon

Terracon Rep: Scott D. Lee

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO-R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0439
Service Date: October 9, 2007
Task: Slab On Grade Concrete

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: November 07, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0830 Plant: 15
Supplier: Bestway
Truck No: 98 Ticket No: 594960
Mix I.D. No.: 402119

Sample Information

Date Cast: October 9, 2007 Time: 0845
Sampled by: Scott D. Lee
Weather Conditions: Sunny
Accumulative Yards: 10/100
Placement Method: Pump
Sample Locations: Gridlines A11 x 1R
Placement Location: South of columns at gridlines A15 x 1U

Field Test Data

Test	Result	Specification
Slump, inches:	2.5	4" max
Air Content, %:	5.5	4-6
Concrete Temperature, °F:	55	50-90
Ambient Temperature, °F:	45	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
134C		4.00	12.57	10/16/2007	7	45,540	3,620
134C		4.00	12.57	11/06/2007	28	54,060	4,300
134C		4.00	12.57	11/06/2007	28	47,990	3,820*
					Average (28 Days)		**4,060**
134C				12/04/2007	56		

Comments: * **Does not comply with specified strength.**
Services - Concrete Testing
Field Results Reported To: Will

Samples made by: Terracon

Terracon Rep: Scott D. Lee

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0439
Service Date: October 9, 2007
Task: **Slab On Grade Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: December 05, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0830 Plant: 15
Supplier: Bestway
Truck No: 98 Ticket No: 594960
Mix I.D. No.: 402119

Sample Information

Date Cast: October 9, 2007 Time: 0845
Sampled by: Scott D. Lee
Weather Conditions: Sunny
Accumulative Yards: 10/100
Placement Method: Pump
Sample Locations: Gridlines A11 x 1R
Placement Location: South of columns at gridlines A15 x 1U

Field Test Data

Test	Result	Specification
Slump, inches:	2.5	4" max
Air Content, %:	5.5	4-6
Concrete Temperature, °F:	55	50-90
Ambient Temperature, °F:	45	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Maximum Compressive Strength (psi)
134C		4.00	12.57	10/16/2007	7	45,540	3,620
134C		4.00	12.57	11/06/2007	28	54,060	4,300
134C		4.00	12.57	11/06/2007	28	47,990	3,820*
					Average (28 Days)		**4,060**
134C		4.00	12.57	12/04/2007	56	57,930	4,610

Comments: * **Does not comply with specified strength.**
Services - Concrete Testing
Field Results Reported To: Will

Samples made by: Terracon

Terracon Rep: Scott D. Lee

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0442
Service Date: October 10, 2007
Task: Shear Wall Concrete

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: December 06, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 5000 psi @ 28 Days

Batch Time: 0917 Plant: 15
Supplier: Bestway
Truck No: 130 Ticket No: 616080
Mix I.D. No.: 502129JE
Water Added Onsite Before Test: 20 Gallons

Sample Information

Date Cast: October 10, 2007 Time: 1015
Sampled by: Scott D. Lee
Weather Conditions: Clear
Accumulative Yards: 10/50
Placement Method: Pump
Sample Locations: East wall
Placement Location: Top floor of stair tower

Field Test Data

Test	Result		Specification
Slump, inches:	7.5	*	5-7
Air Content, %:	10	*	3.5-6.5
Concrete Temperature, °F:	64		50-90
Ambient Temperature, °F:	68		40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
136C		4.00	12.57	10/17/2007	7	47,060	3,740
136C		4.00	12.57	11/07/2007	28	62,410	4,970*
136C		4.00	12.57	11/07/2007	28	54,590	4,340*
					Average (28 Days)		**4,660**
136C		4.00	12.57	12/05/2007	56	64,270	5,110

Comments: *** Does not comply with specified strength.**
Services - Concrete Testing
Field Results Reported To: Casey

Samples made by: Terracon

Terracon Rep: Scott D. Lee

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRD/RD1-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0444
Service Date: October 10, 2007
Task: **Shear Wall Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: November 08, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 5000 psi @ 28 Days

Batch Time: 1259 Plant: 15
Supplier: Aggregate Industries
Truck No: 133 Ticket No: 516116
Mix I.D. No.: 502129JE
Water Added Onsite Before Test: 20 Gallons

Sample Information

Date Cast: October 10, 2007 Time: 1405
Sampled by: Jack D. Redman
Weather Conditions: Sunny
Accumulative Yards: 10/50 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: East wall, 5' South x 8' below T.O.W from NE corner
Placement Location: Stair tower 1 Level 6

Field Test Data

Test	Result	Specification
Slump, inches:	6.5	5-7
Air Content, %:	6.5	3.5-6.5
Concrete Temperature, °F:	72	50-90
Ambient Temperature, °F:	75	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
135C		4.00	12.57	10/17/2007	7	60,730	4,830
135C		4.00	12.57	11/07/2007	28	76,700	6,100
135C		4.00	12.57	11/07/2007	28	77,720	6,180
					Average (28 Days)		**6,140**
135C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: Jack D. Redman

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PHYSICAL PROPERTIES OF FRESH CONCRETE - RANDOM SAMPLING

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 25061446.0444 Date: 10 October 2007 Technician: Jack Redman

Supplier: Aggregate Industries			Mix I.D.: 502129JE		Specifications: Slump: 5-7		Air Content: 3.5-6.5		Ambient Temperature Range, °F: 40+		
Test No.	Truck No.	Ticket No.	Time Batched	Time Arrived	Time Sampled	Slump (in.)	Air Content (%)	Wet Unit Weight (pcf)	Concrete Temperature (°F)	Yards Load/ Cumulative Yards	Gallons of Water Added
1		None					9.1				20
2		None					8.4				10
3		None					8				20
4		None					8.1				20
5		None					8.9				20
Test No.	Test Location										
	Concrete Rejection – No placement										

Area of Placement: N/A Reviewed By: Lucas Fenton

Comments: Air test conducted prior to any placement of above. No tickets left on site.

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0449
Service Date: October 12, 2007
Task: **Slab On Grade Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: November 12, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0637 Plant: 15
Supplier: Bestway
Truck No: 111 Ticket No: 616290
Mix I.D. No.: 402129

Sample Information

Date Cast: October 12, 2007 Time: 0730
Sampled by: Nse E. Ndu
Weather Conditions: Partly cloudy
Accumulative Yards: 10/80
Placement Method: Pump
Sample Locations: Gridlines 1A.0 to 1B.0 x A2.0
Placement Location: Gridlines 1H.0 to 1A.0 x A14.0

Field Test Data

Test	Result	Specification
Slump, inches:	3.25	4" max
Air Content, %:	4.5	4-6
Concrete Temperature, °F:	62	50-90
Ambient Temperature, °F:	50	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
138C		4.00	12.57	10/19/2007	7	42,350	3,370
138C		4.00	12.57	11/09/2007	28	54,120	4,310
138C		4.00	12.57	11/09/2007	28	55,890	4,450
					Average (28 Days)		**4,380**
138C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: Nse E. Ndu

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0450
Service Date: October 12, 2007
Task: *Slab On Grade Concrete*

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: November 12, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0804 Plant: 15
Supplier: Bestway
Truck No: 90 Ticket No: 616307
Mix I.D. No.: 402119

Sample Information

Date Cast: October 12, 2007 Time: 0915
Sampled by: Nse E. Ndu
Weather Conditions: Partly cloudy
Accumulative Yards: 70/80
Placement Method: Pump
Sample Locations: Gridlines 1E.0 to 1F.0 x A11.0
Placement Location: Gridlines 1A.0 to 1B.0 x A2.0

Field Test Data

Test	Result	Specification
Slump, inches:	4	4" max
Air Content, %:	5	4-6
Concrete Temperature, °F:	60	50-90
Ambient Temperature, °F:	55	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
137C		4.00	12.57	10/19/2007	7	51,950	4,130
137C		4.00	12.57	11/09/2007	28	64,030	5,090
137C		4.00	12.57	11/09/2007	28	67,690	5,390
					Average (28 Days)		**5,240**
137C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: Nse E. Ndu

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0470
Service Date: November 3, 2007
Task: **Slab On Grade Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: December 04, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0645 Plant: 15
Supplier: Bestway
Truck No: Ticket No: 617921
Mix I.D. No.: 402119
Water Added Onsite Before Test: 5 Gallons

Sample Information

Date Cast: November 3, 2007 Time: 0745
Sampled by: Kurt E.Eye
Weather Conditions: Clear, calm
Accumulative Yards: 10/10 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: 6' North x 20' West of SE corner
Placement Location: South end of slab-on-grade 9' North x N/S Building 1501

Field Test Data

Test	Result		Specification
Slump, inches:	3.5		4" max
Air Content, %:	6.2	*	4-6
Concrete Temperature, °F:	70		50-90
Ambient Temperature, °F:	44		40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
141C		4.00	12.57	11/10/2007	7	48,730	3,880
141C		4.00	12.57	12/01/2007	28	56,410	4,490
141C		4.00	12.57	12/01/2007	28	57,560	4,580
					Average (28 Days)		**4,540**
141C					Hold		

Services - Concrete Testing
Field Results Reported To: Casey

Samples made by: Terracon

Terracon Rep: Kurt E.Eye

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0453
Service Date: October 16, 2007
Task: **Shear Wall Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: November 14, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 5000 psi @ 28 Days

Batch Time: 1219 Plant: 15
Supplier: Bestway
Truck No: 2145 Ticket No: 616532
Mix I.D. No.: 502129JE

Sample Information

Date Cast: October 16, 2007 Time: 1310
Sampled by: William O. Pankey
Weather Conditions: Clear
Accumulative Yards: 10/55 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: Top fifth level
Placement Location: Stairway 2

Field Test Data

Test	Result	Specification
Slump, inches:	5	5-7
Air Content, %:	5.7	3.5-6.5
Concrete Temperature, °F:	70	50-90
Ambient Temperature, °F:	50	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
139C		4.00	12.57	10/23/2007	7	63,360	5,040
139C		4.00	12.57	11/13/2007	28	83,780	6,670
139C		4.00	12.57	11/13/2007	28	79,920	6,360
					Average (28 Days)		**6,520**
139C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: William O. Pankey

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0456
Service Date: October 24, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: November 22, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1231 Plant: Central
Supplier: Bestway
Truck No: 113 Ticket No: 617112
Mix I.D. No.: 2129JE
Water Added Onsite Before Test: 10 Gallons

Sample Information

Date Cast: October 24, 2007 Time: 1320
Sampled by: Christopher J. Bonino
Weather Conditions: Sunny
Accumulative Yards: 10/25 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: Stair tower fourth lift
Placement Location: Stair tower fourth lift

Field Test Data

Test	Result	Specification
Slump, inches:	6	7" max
Air Content, %:	4	6.5% max
Concrete Temperature, °F:	72	50-90
Ambient Temperature, °F:	65	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
140C		4.00	12.57	10/31/2007	7	73,140	5,820
140C		4.00	12.57	11/21/2007	28	83,840	6,670
140C		4.00	12.57	11/21/2007	28	82,260	6,550
					Average (28 Days)		**6,610**
140C					Hold		

Services - Concrete Testing
Field Results Reported To: Casey with JE Dunn **Samples made by:** Terracon

Terracon Rep: Christopher J. Bonino

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0628
Service Date: December 14, 2007
Task: **Grade Beam Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 14, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1344
Supplier: Bestway
Truck No: 136 Ticket No: 620260
Mix I.D. No.: 402119

Sample Information

Date Cast: December 14, 2007 Time: 1405
Sampled by: Christopher J. Bonino
Weather Conditions: Snow, cold
Accumulative Yards: 6.5/13 Batch Size (cy): 6.50
Placement Method: Pump
Sample Locations: Private office addition footing and part of gradebeam SW corner
Placement Location: Private office addition footing and part of gradebeam SW corner

Field Test Data

Test	Result		Specification
Slump, inches:	4		4" max
Air Content, %:	5.8		4-6
Concrete Temperature, °F:	74		50-90
Ambient Temperature, °F:	21	*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
202C	1	4.00	12.57	12/21/2007	7	38,790	3,090
202C	2	4.00	12.57	12/21/2007	7	42,080	3,350
					Average (7 Days)		**3,220**
202C	3	4.00	12.57	01/11/2008	28	53,420	4,250
202C	4	4.00	12.57	01/11/2008	28	54,160	4,310
					Average (28 Days)		**4,280**
202C	5				Hold		

Services - Concrete Testing
Field Results Reported To: Chris with JE Dunn

Samples made by: Terracon

Terracon Rep: Christopher J. Bonino

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0636
Service Date: December 18, 2007
Task: Slab On Deck/ Roof Concrete

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 16, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0622 Plant: 15
Supplier: Bestway
Truck No: 122 Ticket No: 620343
Mix I.D. No.: 402105LW
Water Added Onsite Before Test: 22 Gallons

Sample Information

Date Cast: December 18, 2007 Time: 0730
Sampled by: Scott D. Lee
Weather Conditions: Clear
Accumulative Yards: 10/128
Placement Method: Pump
Sample Locations: Gridline A.3 to A.6 x 1BB.0 to 1Z.5
Placement Location: Slab-on-deck level 2

Field Test Data

Test	Result		Specification
Slump, inches:	6.25	*	5" max
Air Content, %:	5.75		5-8
Concrete Temperature, °F:	64		50-90
Ambient Temperature, °F:	29	*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Maximum Compressive Strength (psi)
204C	1	4.00	12.57	7.00	12/21/2007	3	31,780	2,530
204C	2	4.00	12.57		12/21/2007	3	31,990	2,550
						Average (3 Days)		**2,540**
204C	3	4.00	12.57		12/25/2007	7	43,480	3,460
204C	4	4.00	12.57		01/15/2008	28	61,380	4,880
204C	5	4.00	12.57		01/15/2008	28	60,790	4,840
						Average (28 Days)		**4,860**

Services - Concrete Testing
Field Results Reported To: Casey with JE Dunn
Samples made by: Terracon

Terracon Rep: Scott D. Lee

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0637
Service Date: December 18, 2007
Task: **Slab On Deck/ Roof Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 16, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0734 Plant: 15
Supplier: Bestway
Truck No: 100 Ticket No: 620353
Mix I.D. No.: 402105LW
Water Added Onsite Before Test: 10 Gallons

Sample Information

Date Cast: December 18, 2007 Time: 0915
Sampled by: Scott D. Lee
Weather Conditions: Clear
Accumulative Yards: 60/128
Placement Method: Pump
Sample Locations: Gridlines 1J.2 to 1H.5 x A9.0 to A11.0
Placement Location: Slab-on-deck level 2

Field Test Data

Test	Result		Specification
Slump, inches:	5.25	*	5" max
Air Content, %:	6		5-8
Concrete Temperature, °F:	65		50-90
Ambient Temperature, °F:	40		40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
205C	1	4.00	12.57	6.96	12/21/2007	3	34,559	2,750
205C	2	4.00	12.57		12/21/2007	3	47,340	3,770
						Average (3 Days)		**3,260**
205C	3	4.00	12.57		12/25/2007	7	47,340	3,770
205C	4	4.00	12.57		01/15/2008	28	62,680	4,990
205C	5	4.00	12.57		01/15/2008	28	64,440	5,130
						Average (28 Days)		**5,060**

Services - Concrete Testing
Field Results Reported To: Casey with JE Dunn
Samples made by: Terracon

Terracon Rep: Scott D. Lee

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0641
Service Date: December 18, 2007
Task: Slab On Deck/ Roof Concrete

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 16, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0948 Plant: 15
Supplier: Bestway
Truck No: 100 Ticket No: 620378
Mix I.D. No.: 402105LW
Water Added Onsite Before Test: 20 Gallons

Sample Information

Date Cast: December 18, 2007 Time: 1045
Sampled by: Scott D. Lee
Weather Conditions: Clear
Accumulative Yards: 120/130
Placement Method: Pump
Sample Locations: Gridlines 1J.2 to 1H.2 x A6.2 to A9.0
Placement Location: Slab-on-deck level 2

Field Test Data

Test	Result		Specification
Slump, inches:	6.25	*	5" max
Air Content, %:	6.25		5-8
Concrete Temperature, °F:	67		50-90
Ambient Temperature, °F:	50		40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
C203C	1	4.00	12.57	7.00	12/21/2007	3	33,201	2,640
C203C	2	4.00	12.57		12/21/2007	3	32,670	2,600
						Average (3 Days)		**2,620**
C203C	3	4.00	12.57		12/25/2007	7	41,480	3,300
C203C	4	4.00	12.57		01/15/2008	28	58,960	4,690
C203C	5	4.00	12.57		01/15/2008	28	60,290	4,800
						Average (28 Days)		**4,750**

Services - Concrete Testing
Field Results Reported To: Casey with JE Dunn
Samples made by: Terracon

Terracon Rep: Scott D. Lee

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0648
Service Date: December 20, 2007
Task: **Grade Beam Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 18, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1331 Plant: 15
Supplier: Bestway
Truck No: 120 Ticket No: 620560
Mix I.D. No.: 402119

Sample Information

Date Cast: December 20, 2007 Time: 1420
Sampled by: Jason J. Andersen
Weather Conditions: Cloudy
Accumulative Yards: 8/15 Batch Size (cy): 8.00
Placement Method: Direct discharge
Sample Locations: Gridline A14.1 x 1E.8
Placement Location: Gradebeams at gridlines A14.1 x 1B.1 to 1E.9

Field Test Data

Test	Result		Specification
Slump, inches:	2.25		4" max
Air Content, %:	6.6		5-7
Concrete Temperature, °F:	57		50-90
Ambient Temperature, °F:	35	*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
206C	1	4.00	12.57	12/27/2007	7	48,510	3,860
206C	2	4.00	12.57	01/17/2008	28	61,090	4,860
206C	3	4.00	12.57	01/17/2008	28	63,950	5,090
					Average (28 Days)		**4,980**
206C	4				Hold		

Services - Concrete Testing
Field Results Reported To: Chris with JE Dunn

Samples made by: Terracon

Terracon Rep: Jason J. Andersen

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0654
Service Date: January 3, 2008
Task: **Slab On Deck/ Roof Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 01, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0621 Plant: 15
Supplier: Bestway Concrete
Truck No: 318 Ticket No: 620716
Mix I.D. No.: 402105LW
Water Added Onsite Before Test: 0 Gallons
Water Added Onsite After Test: 0 Gallons

Sample Information

Date Cast: January 3, 2008 Time: 0730
Sampled by: Randy L. Cotton
Weather Conditions: Cloudy/Sunny
Accumulative Yards: 11/135 Batch Size (cy): 10.00
Placement Method: Pump Truck
Sample Locations: A6.5 - A7 to 1X - 1X.7
Placement Location: 3rd Floor Deck

Field Test Data

Test	Result		Specification
Slump, inches:	5.25		5" Max
Air Content, %:	7.5		5-8
Concrete Temperature, °F:	64		50 - 90
Ambient Temperature, °F:	37	*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
207C	1	4.00	12.57	7.10	01/07/2008	4	48,294	3,840
207C	2	4.00	12.57		01/10/2008	7	54,790	4,360
207C	3	4.00	12.57		01/10/2008	7	54,040	4,300
						Average (7 Days)		**4,330**
207C	4	4.00	12.57		01/31/2008	28	75,940	6,040
207C	5	4.00	12.57		01/31/2008	28	73,110	5,820
						Average (28 Days)		**5,930**
207C	6					Hold		

Services - Concrete Testing
Field Results Reported To: Luke w/Joe Dunn
Samples made by: Terracon

Terracon Rep: Randy L. Cotton

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0655
Service Date: January 3, 2008
Task: **Slab On Deck/ Roof Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 01, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1042 Plant: 15
Supplier: Bestway Concrete
Truck No: 318E Ticket No: 620755
Mix I.D. No.: 402105LW
Water Added Onsite Before Test: 20 Gallons
Water Added Onsite After Test: 0 Gallons

Sample Information

Date Cast: January 3, 2008 Time: 1125
Sampled by: Randy L. Cotton
Weather Conditions: Overcast/Sunny
Accumulative Yards: 111/135 Batch Size (cy): 10.00
Placement Method: Pump Truck
Sample Locations: Line E6 - E9 to A10 - A12
Placement Location: Level 3 Deck

Field Test Data

Test	Result	Specification
Slump, inches:	4.5	5" Max
Air Content, %:	6.0	5-8
Concrete Temperature, °F:	56	50 - 90
Ambient Temperature, °F:	41	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
208C	1	4.00	12.57	7.17	01/07/2008	4	49,254	3,920
208C	2	4.00	12.57		01/10/2008	7	51,000	4,060
208C	3	4.00	12.57		01/10/2008	7	60,810	4,840
						Average (7 Days)		**4,450**
208C	4	4.00	12.57		01/31/2008	28	69,360	5,520
208C	5	4.00	12.57		01/31/2008	28	71,140	5,660
						Average (28 Days)		**5,590**
208C	6					Hold		

Services - Concrete Testing
Field Results Reported To: Luke w/Joe Dunn
Samples made by: Terracon

Terracon Rep: Randy L. Cotton

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0663
Service Date: January 7, 2008
Task: **Grade Beam Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 05, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1410 Plant: 15
Supplier: Bestway Concrete
Truck No: 0141 Ticket No: 620900
Mix I.D. No.: 502129JE
Water Added Onsite Before Test: 8 Gallons

Sample Information

Date Cast: January 7, 2008 Time: 1505
Sampled by: Jason J. Andersen
Weather Conditions: Cloudy
Accumulative Yards: 8/8 Batch Size (cy): 8.00
Placement Method: Pump
Sample Locations: Same as placement location
Placement Location: Grade Beams at gridlines A.2 x 1D.0 to 1E.0

Field Test Data

Test	Result		Specification
Slump, inches:	5.5		5-7
Air Content, %:	6.0		3.5-6.5
Concrete Temperature, °F:	57		50-90
Ambient Temperature, °F:	30	*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
209C	1	4.00	12.57	01/09/2008	2	23,080	1,840
209C	2	4.00	12.57	01/10/2008	3	35,260	2,810
209C	3	4.00	12.57	01/10/2008	3	37,450	2,980
					Average (3 Days)		**2,900**
209C	4	4.00	12.57	02/04/2008	28	69,040	5,490
209C	5	4.00	12.57	02/04/2008	28	64,580	5,140
					Average (28 Days)		**5,320**

Services - Concrete Testing
Field Results Reported To: Chris with J.E. Dunn
Samples made by: Terracon

Terracon Rep: Jason J. Andersen

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0674
Service Date: January 11, 2008
Task: *Slab On Deck/ Roof Concrete*

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 11, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0606 Plant: 15
Supplier: Bestway
Truck No: Ticket No: 621063
Mix I.D. No.: 402105LW

Sample Information

Date Cast: January 11, 2008 Time: 0730
Sampled by: Ryan J. Kelly
Weather Conditions: Sunny
Accumulative Yards: 10/160 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: Gridlines 1Y to 1V x A1 to A6
Placement Location: Fourth floor slab-on-grade at gridlines 1AA to 1G x A2 to A13

Field Test Data

Test	Result	Specification
Slump, inches:	3	5" max
Air Content, %:	5.5	5-8
Concrete Temperature, °F:	65	50-90
Ambient Temperature, °F:	60	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
211C	1	4.00	12.57	01/14/2008	3	38,710	3,080
211C	2	4.00	12.57	01/18/2008	7	45,460	3,620
211C	3	4.00	12.57	02/08/2008	28	64,210	5,110
211C	4	4.00	12.57	02/08/2008	28	61,220	4,870
					Average (28 Days)		**4,990**
211C	5				Hold		
211C	6				Hold		
211C	7				Hold		

Services - Concrete Testing
Field Results Reported To: Casey with JE Dunn
Samples made by: Terracon

Terracon Rep: Ryan J. Kelly

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRQ/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0675
Service Date: January 11, 2008
Task: Slab On Deck/ Roof Concrete

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 11, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0836 Plant: 15
Supplier: Bestway
Truck No: Ticket No: 621093
Mix I.D. No.: 402105LW

Sample Information

Date Cast: January 11, 2008 Time: 1000
Sampled by: Ryan J. Kelly
Weather Conditions: Sunny
Accumulative Yards: 80/160 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: Gridlines 1S to 1MX x A9 to A12
Placement Location: Fourth floor slab-on-grade at gridlines 1AA to 1G x A2 to A13

Field Test Data

Test	Result		Specification
Slump, inches:	5.5	*	5" max
Air Content, %:	5		5-8
Concrete Temperature, °F:	65		50-90
Ambient Temperature, °F:	60		40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
212C	1	4.00	12.57	01/14/2008	3	33,920	2,700
212C	2	4.00	12.57	01/18/2008	7	44,520	3,540
212C	3	4.00	12.57	02/08/2008	28	67,150	5,340
212C	4	4.00	12.57	02/08/2008	28	64,850	5,160
					Average (28 Days)		**5,250**
212C	5				Hold		
212C	6				Hold		
212C	7				Hold		

Services - Concrete Testing
Field Results Reported To: Casey with JE Dunn
Samples made by: Terracon

Terracon Rep: Ryan J. Kelly

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/RD1-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0701
Service Date: January 24, 2008
Task: **Slab On Deck/ Roof Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 22, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0612 Plant: 15
Supplier: Bestway
Truck No: Ticket No: 621486
Mix I.D. No.: 402105LW

Sample Information

Date Cast: January 24, 2008 Time: 0715
Sampled by: James P. Wasinger
Weather Conditions: Clear, cold
Accumulative Yards: 10/200 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: Gridlines 1F to 1G x A13 to A10
Placement Location: Level 2 slab-on-deck at gridlines A2 to A13 x 1B to 1G

Field Test Data

Test	Result	Specification
Slump, inches:	3.5	5" max
Air Content, %:	5.2	5-8
Concrete Temperature, °F:	65	50-90
Ambient Temperature, °F:	43	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
213C	1	4.00	12.57	7.09	01/28/2008	4	48,980	3,900
213C	2	4.00	12.57		01/31/2008	7	55,090	4,380
213C	3	4.00	12.57		02/21/2008	28	71,530	5,690
213C	4	4.00	12.57		02/21/2008	28	71,960	5,730
						Average (28 Days)		**5,710**
213C	5					Hold		

Services - Concrete Testing
Field Results Reported To: Chris with JE Dunn
Samples made by: Terracon

Terracon Rep: James P. Wasinger

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0702
Service Date: *January 24, 2008*
Task: **Slab On Deck/ Roof Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 22, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0904 Plant: 15
Supplier: Bestway
Truck No: Ticket No: 621513
Mix I.D. No.: 402105LW

Sample Information

Date Cast: January 24, 2008 Time: 0958
Sampled by: James P. Wasinger
Weather Conditions: Clear, cool
Accumulative Yards: 110/200 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: Gridline 1C.5 to 1D x A9 to A11
Placement Location: Level 2 slab-on-deck at gridlines A2 to A13 x 1B to 1G

Field Test Data

Test	Result		Specification
Slump, inches:	5.25	*	5" max
Air Content, %:	5.8		5-8
Concrete Temperature, °F:	63		50-90
Ambient Temperature, °F:	46		40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
214C	1	4.00	12.57	7.07	01/28/2008	4	40,280	3,200
214C	2	4.00	12.57		01/31/2008	7	45,760	3,640
214C	3	4.00	12.57		02/21/2008	28	60,120	4,780
214C	4	4.00	12.57		02/21/2008	28	62,810	5,000
						Average (28 Days)		**4,890**
214C	5					Hold		

Services - Concrete Testing
Field Results Reported To: Chris with JE Dunn
Samples made by: Terracon

Terracon Rep: James P. Wasinger

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0703
Service Date: January 24, 2008
Task: **Slab On Deck/ Roof Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 22, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0959 Plant: 15
Supplier: Bestway
Truck No: Ticket No: 621523
Mix I.D. No.: 402105LW

Sample Information

Date Cast: January 24, 2008 Time: 1058
Sampled by: James P. Wasinger
Weather Conditions: Clear, cold
Accumulative Yards: 146/200
Placement Method: Pump
Sample Locations: Gridlines 1B.5 to 1C x A2 to A4
Placement Location: Level 2 slab-on-deck at gridlines A2 to A13 x 1B to 1G

Field Test Data

Test	Result		Specification
Slump, inches:	5.75	*	5" max
Air Content, %:	6		5-8
Concrete Temperature, °F:	67		50-90
Ambient Temperature, °F:	47		40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
215C	1	4.00	12.57	6.90	01/28/2008	4	38,170	3,040
215C	2	4.00	12.57		01/31/2008	7	44,540	3,540
215C	3	4.00	12.57		02/21/2008	28	57,740	4,590
215C	4	4.00	12.57		02/21/2008	28	56,580	4,500
						Average (28 Days)		**4,550**
215C	5					Hold		

Services - Concrete Testing
Field Results Reported To: Chris with JE Dunn
Samples made by: Terracon

Terracon Rep: James P. Wasinger

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

G Lucas Fenton

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0707
Service Date: January 26, 2008
Task: Slab On Deck/ Roof Concrete

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 24, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0637 Plant: 15
Supplier: Bestway
Truck No: 318E Ticket No:
Mix I.D. No.: 402105LW

Sample Information

Date Cast: January 26, 2008 Time: 0720
Sampled by: Robert L. Maupin
Weather Conditions: Clear, windy
Accumulative Yards: 30/145 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: *Gridlines 1G to 1H x A10 to A13*
Placement Location: Fifth floor slab-on-deck A2 to A13 x 1X to 1G

Field Test Data

Test	Result		Specification
Slump, inches:	4.8		5" max
Air Content, %:	4	*	5-8
Concrete Temperature, °F:	72		50-90
Ambient Temperature, °F:		*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
216C	1	4.00	12.57	01/29/2008	3	30,980	2,460
216C	2	4.00	12.57	02/02/2008	7	37,870	3,010
216C	3	4.00	12.57	02/23/2008	28	49,790	3,960*
216C	4	4.00	12.57	02/23/2008	28	50,270	4,000
					Average (28 Days)		**3,980**
216C	5	4.00	12.57	03/22/2008	56	51,140	4,070

Comments: *** Does not comply with specified strength.**
Services - Concrete Testing
Field Results Reported To: Bernie with JE Dunn **Samples made by:** Terracon

Terracon Rep: Robert L. Maupin

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRC/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0720
Service Date: January 31, 2008
Task: **Slab On Deck/ Roof Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 29, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0645 Plant: 301
Supplier: Bestway
Truck No: 144 Ticket No: 621883
Mix I.D. No.: 402135LW

Sample Information

Date Cast: January 31, 2008 Time: 0745
Sampled by: Jason A. Marquiss
Weather Conditions: Mostly clear
Accumulative Yards: 10/200
Placement Method: Pump
Sample Locations: Same as Placement Location
Placement Location: Third floor, 15' SW of mechanical opening

Field Test Data

Test	Result		Specification
Slump, inches:	9	*	5-8
Air Content, %:	3.5	*	1-3
Concrete Temperature, °F:	68		50-90
Ambient Temperature, °F:	10	*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
219C	1	4.00	12.57	6.89	02/04/2008	4	48,010	3,820
219C	2	4.00	12.57		02/28/2008	28	73,190	5,820
219C	3	4.00	12.57		02/28/2008	28	70,040	5,570
						Average (28 Days)		**5,700**
219C	4					Hold		

Services - Concrete Testing
Field Results Reported To: Chris Gallegos with JE Dunn **Samples made by:** Terracon

Terracon Rep: Jason A. Marquiss

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0721
Service Date: January 31, 2008
Task: **Slab On Deck/ Roof Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: February 29, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0932 Plant: 301
Supplier: Bestway
Truck No: 87 Ticket No: 621900
Mix I.D. No.: 402135LW

Sample Information

Date Cast: January 31, 2008 Time: 1015
Sampled by: Jason A. Marquiss
Weather Conditions: Mostly sunny
Accumulative Yards: 110/200
Placement Method: Pump
Sample Locations: Same as Placement Location
Placement Location: 50' West of stairway entrance third floor

Field Test Data

Test	Result		Specification
Slump, inches:	7.25		5-8
Air Content, %:	6.2	*	1-3
Concrete Temperature, °F:	68		50-90
Ambient Temperature, °F:	15	*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
218C	1	4.00	12.57	7.19	02/04/2008	4	39,330	3,130
218C	2	4.00	12.57		02/28/2008	28	55,290	4,400
218C	3	4.00	12.57		02/28/2008	28	57,140	4,550
						Average (28 Days)		**4,480**
218C	4					Hold		

Services - Concrete Testing
Field Results Reported To: Chris Gallegos with JE Dunn **Samples made by:** Terracon

Terracon Rep: Jason A. Marquiss

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

G Lucas Fenton

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0733
Service Date: February 7, 2008
Task: **Slab On Deck/ Roof Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 07, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days
Batch Time:
Supplier:
Truck No: Ticket No:
Mix I.D. No.:
Water Added Onsite Before Test: 10 Gallons

Sample Information

Date Cast: February 7, 2008 Time: 800
Sampled by: Scott D. Lee
Weather Conditions:
Accumulative Yards: 10/200
Placement Method: Pump
Sample Locations:
Placement Location: 2.0 @ G.0 - 13.0 @ A.0

Field Test Data

Test	Result		Specification
Slump, inches:	7.25		5" Max
Air Content, %:	9	*	6-8
Concrete Temperature, °F:	6.5	*	50 - 90
Ambient Temperature, °F:	58		40 Min
Plastic Unit Weight, pcf:			

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
221C	1	4.00	12.57	6.70	02/11/2008	4	29,090	2,310
221C	2	4.00	12.57		02/14/2008	7	36,710	2,920
221C	3	4.00	12.57		03/06/2008	28	47,950	3,820*
221C	4	4.00	12.57		03/06/2008	28	51,760	4,120
						Average (28 Days)		**3,970**
221C	5				04/03/2008	56		

Comments: *** Does not comply with specified strength. Not tested for plastic unit weight.**
The results reported above are acceptable per ACI guidelines regardless of the average failing to meet the design strength.
Services - Concrete Testing
Field Results Reported To: Chris w/JE Dunn **Samples made by:** Terracon

Terracon Rep: Scott D. Lee

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-VLV:R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0734
Service Date: February 7, 2008
Task: **Slab On Deck/ Roof Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 07, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time:
Supplier:
Truck No: Ticket No:
Mix I.D. No.:

Sample Information

Date Cast: February 7, 2008 Time: 1230
Sampled by: Scott D. Lee
Weather Conditions: Clear
Accumulative Yards: 120/200
Placement Method: Pump
Sample Locations: C.0 @ 13.0 - B.8 @ 7.4
Placement Location: 1.0 @ G.0 - B.0 @ A.0

Field Test Data

Test	Result		Specification
Slump, inches:	5		5" Max
Air Content, %:	4.8	*	6-8
Concrete Temperature, °F:	60		50 - 90
Ambient Temperature, °F:	55		40 Min
Plastic Unit Weight, pcf:			

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
222C	1	4.00	12.57	7.00	02/11/2008	4	40,270	3,200
222C	2	4.00	12.57		02/14/2008	7	45,610	3,630
222C	3	4.00	12.57		03/06/2008	28	63,030	5,020
222C	4	4.00	12.57		03/06/2008	28	62,110	4,940
						Average (28 Days)		**4,980**
222C	5					Hold		

Comments: **Not tested for plastic unit weight.**
Services - Concrete Testing
Field Results Reported To: Chris w/JE Dunn

Samples made by: Terracon

Terracon Rep: Scott D. Lee

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

G Lucas Fenton

Reviewed by: _____
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0739
Service Date: February 8, 2008
Task: Slab On Grade Concrete

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 10, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0736 Plant: 15
Supplier: Bestway
Truck No: 151 Ticket No: 622271
Mix I.D. No.: 402119

Sample Information

Date Cast: February 8, 2008 Time: 0835
Sampled by: Scott D. Lee
Weather Conditions:
Accumulative Yards: 20/70
Placement Method: Pump
Sample Locations: Gridlines 1.0 x B.0 to 1.5 x B.8
Placement Location: Level 1 slab-on-grade, emergency room at gridlines 1.0 x B.0 to F.0

Field Test Data

Test	Result	Specification
Slump, inches:	2.25	5" max
Air Content, %:	5.5	5-8
Concrete Temperature, °F:	65	50-90
Ambient Temperature, °F:	40	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
223C	1	4.00	12.57	02/11/2008	3	38,090	3,030
223C	2	4.00	12.57	02/15/2008	7	48,110	3,830
223C	3	4.00	12.57	03/07/2008	28	64,670	5,150
223C	4	4.00	12.57	03/07/2008	28	62,190	4,950
					Average (28 Days)		**5,050**
223C	5				Hold		

Services - Concrete Testing
Field Results Reported To: Chris

Samples made by: Terracon

Terracon Rep: Scott D. Lee

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0754
Service Date: *February 16, 2008*
Task: **Slab On Deck/ Roof Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 17, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0641 Plant: 15
Supplier: Bestway
Truck No: 120 Ticket No: 422747
Mix I.D. No.: 402135LW

Sample Information

Date Cast: February 16, 2008 Time: 0720
Sampled by: Michael P.MacRavey
Weather Conditions: Sunny, calm
Accumulative Yards: 10/20 Batch Size (cy):200.00
Placement Method: Chute
Sample Locations: Fifth floor, slab-on-deck
Placement Location: Fifth floor, gridlines A2.3 to A2.5 x 1A.0 to 1B.0, slab-on-deck, lightweight concrete

Field Test Data

Test	Result		Specification
Slump, inches:	5		5" max
Air Content, %:	4.5	*	6-8
Concrete Temperature, °F:	75		50-90
Ambient Temperature, °F:	26	*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
225C	1	4.00	12.57	02/19/2008	3	40,120	3,190
225C	2	4.00	12.57	02/23/2008	7	47,970	3,820
225C	3	4.00	12.57	03/15/2008	28	60,540	4,820
225C	4	4.00	12.57	03/15/2008	28	59,960	4,770
					Average (28 Days)		**4,800**
225C	5				Hold		

Services - Concrete Testing
Field Results Reported To: Chris with JE Dunn
Samples made by: Terracon

Terracon Rep: Michael P.MacRavey

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-DRO/RD1-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0755
Service Date: February 16, 2008
Task: **Slab On Deck/ Roof Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 17, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0811 Plant: 15
Supplier: Bestway
Truck No: 134 Ticket No: 622759
Mix I.D. No.: 402135LW

Sample Information

Date Cast: February 16, 2008 Time: 0945
Sampled by: Michael P.MacRavey
Weather Conditions: Sunny, calm
Accumulative Yards: 100/120 Batch Size (cy): 200.00
Placement Method: Chute
Sample Locations: Fifth floor, slab-on-deck
Placement Location: Fifth floor, Gridlines A2.7 to A2.9 x 1.E0 to 1G.0, slab-on-deck, lightweight concrete

Field Test Data

Test	Result		Specification
Slump, inches:	4.75		5" max
Air Content, %:	6		6-8
Concrete Temperature, °F:	75		50-90
Ambient Temperature, °F:	33	*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
226C	1	4.00	12.57	02/19/2008	3	47,140	3,750
226C	2	4.00	12.57	02/23/2008	7	51,510	4,100
226C	3	4.00	12.57	03/15/2008	28	70,770	5,630
226C	4	4.00	12.57	03/15/2008	28	68,910	5,480
					Average (28 Days)		**5,560**
226C	5				Hold		

Services - Concrete Testing
Field Results Reported To: Chris with JE Dunn
Samples made by: Terracon

Terracon Rep: Michael P.MacRavey

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0763
Service Date: February 22, 2008
Task: **Slab On Deck/ Roof Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 24, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0608 Plant: 15
Supplier: Bestway Concrete
Truck No: 140 Ticket No: 623140
Mix I.D. No.: 402135LW
Water Added Onsite Before Test: 10 Gallons

Sample Information

Date Cast: February 22, 2008 Time: 0715
Sampled by: Jack L. White
Weather Conditions: Sunny
Accumulative Yards: 10/150 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: Northwest corner, gridlines 1J to 1H, 20' South x 12' Wide
Placement Location: 6th Level, gridlines 1J to 1D x A2 to A13

Field Test Data

Test	Result		Specification
Slump, inches:	7.0	*	5" Max
Air Content, %:	7.0		6-8
Concrete Temperature, °F:	67		50-90
Ambient Temperature, °F:	50		40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
227C	1	4.00	12.57	02/25/2008	3	34,790	2,770
227C	2	4.00	12.57	02/29/2008	7	35,650	2,840
227C	3	4.00	12.57	03/21/2008	28	55,830	4,440
227C	4	4.00	12.57	03/21/2008	28	53,970	4,290
					Average (28 Days)		**4,370**
227C	5				Hold		

Services - Concrete Testing
Field Results Reported To: Bernie Wine w/Dunn Const.
Samples made by: Terracon

Terracon Rep: Jack L. White

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-JAA/R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0764
Service Date: February 22, 2008
Task: **Slab On Deck/ Roof Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 24, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0813 Plant: 15
Supplier: Bestway Concrete
Truck No: 179 Ticket No: 623169
Mix I.D. No.: 402
Water Added Onsite Before Test: 10 Gallons

Sample Information

Date Cast: February 22, 2008 Time: 0920
Sampled by: Jack L. White
Weather Conditions: Sunny
Accumulative Yards: 100/150 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: Gridlines 1E.5 x A11.5
Placement Location: 6th Floor, gridlines 1J to 1D x A2 to A13

Field Test Data

Test	Result	Specification
Slump, inches:	3.5	5" Max
Air Content, %:	6.8	6-8
Concrete Temperature, °F:	67	50-90
Ambient Temperature, °F:	60	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
228C	1	4.00	12.57	02/25/2008	3	45,110	3,590
228C	2	4.00	12.57	02/29/2008	7	52,640	4,190
228C	3	4.00	12.57	03/21/2008	28	67,240	5,350
228C	4	4.00	12.57	03/21/2008	28	64,710	5,150
					Average (28 Days)		**5,250**
228C	5				Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: Jack L. White

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0767
Service Date: February 28, 2008
Task: **Slab On Deck/ Roof Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 28, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0645 Plant: 15
Supplier: Bestway Concrete
Truck No: 0113 Ticket No: 623511
Mix I.D. No.: 402135LW

Sample Information

Date Cast: February 28, 2008 Time: 0740
Sampled by: Jonathan D. Venerable
Weather Conditions: Sunny
Accumulative Yards: 40/200 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: 20' W x 20' N x 20' E x 20' S of the SE corner
Placement Location: Level 6 slab-on-deck

Field Test Data

Test	Result	Specification
Slump, inches:	3.0	4" Max
Air Content, %:	5.5	5-8
Concrete Temperature, °F:	65	50-90
Ambient Temperature, °F:	44	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
229C	1	4.00	12.57	03/06/2008	7	61,910	4,930
229C	2	4.00	12.57	03/27/2008	28	71,620	5,700
229C	3	4.00	12.57	03/27/2008	28	78,460	6,240
					Average (28 Days)		**5,970**
229C	4				Hold		

Services - Concrete Testing
Field Results Reported To: Chris with J.E. Dunn

Samples made by: Terracon

Terracon Rep: Jonathan D. Venerable

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0768
Service Date: February 28, 2008
Task: **Slab On Deck/ Roof Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 28, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0840 Plant: 15
Supplier: Bestway Concrete
Truck No: 0140 Ticket No: 623538
Mix I.D. No.: 402135

Sample Information

Date Cast: February 28, 2008 Time: 0935
Sampled by: Jonathan D. Venerable
Weather Conditions: Sunny
Accumulative Yards: 151/200 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: 70' W to 40' N (starting point) go 20' NE & South of location
Placement Location: Level 6 slab-on-deck

Field Test Data

Test	Result	Specification
Slump, inches:	4.0	1-4
Air Content, %:	6.0	5-8
Concrete Temperature, °F:	65	50-90
Ambient Temperature, °F:	48	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
230C	1	4.00	12.57	03/06/2008	7	51,780	4,120
230C	2	4.00	12.57	03/27/2008	28	65,670	5,230
230C	3	4.00	12.57	03/27/2008	28	69,190	5,510
					Average (28 Days)		**5,370**
230C	4				Hold		

Services - Concrete Testing
Field Results Reported To: Chris with J.E. Dunn

Samples made by: Terracon

Terracon Rep: Jonathan D. Venerable

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0771
Service Date: February 29, 2008
Task: **Slab On Grade Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: March 31, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 0701 Plant: 15
Supplier: Bestway Concrete
Truck No: 133 Ticket No: 623630
Mix I.D. No.: 402119
Water Added Onsite Before Test: 9 Gallons

Sample Information

Date Cast: February 29, 2008 Time: 0805
Sampled by: Travis O. Whalen
Weather Conditions: Clear
Accumulative Yards: 9/9
Placement Method: Pump
Sample Locations: Gridlines 1C.5 to 1C.9 x 4' South of A14.0 to 35' South of A14.0
Placement Location: Slab-on-Grade

Field Test Data

Test	Result	Specification
Slump, inches:	4.0	4" Max
Air Content, %:	5.1	4-6
Concrete Temperature, °F:	73	50-90
Ambient Temperature, °F:	50	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
231C	1	4.00	12.57	03/07/2008	7	42,300	3,370
231C	2	4.00	12.57	03/28/2008	28	50,330	4,000
231C	3	4.00	12.57	03/28/2008	28	50,800	4,040
					Average (28 Days)		**4,020**
231C	4				Hold		

Services - Concrete Testing
Field Results Reported To: Chris with J.E. Dunn

Samples made by: Terracon

Terracon Rep: Travis O. Whalen

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-JAA R01-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0784
Service Date: March 13, 2008

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: April 11, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 3000 psi @ 28 Days

Batch Time: 0656 Plant: Off-site
Supplier: Bestway
Truck No: 138 Ticket No: 665895
Mix I.D. No.: 4021351

Sample Information

Date Cast: March 13, 2008 Time: 0735
Sampled by: Christopher J. Bonino
Weather Conditions: Sunny
Accumulative Yards: 10/56 Batch Size (cy): 10.00
Placement Method: Pump
Sample Locations: Same as Placement Location
Placement Location: Third floor bridge between expansion and old building

Field Test Data

Test	Result		Specification
Slump, inches:	5.5		
Air Content, %:	3		0-3
Concrete Temperature, °F:	60		50-90
Ambient Temperature, °F:	32	*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Maximum Compressive Strength (psi)
234C	1	4.00	12.57	03/20/2008	7	54,610	4,350
234C	2	4.00	12.57	04/10/2008	28	70,800	5,630
234C	3	4.00	12.57	04/10/2008	28	72,710	5,790
					Average (28 Days)		**5,710**
234C	4				Hold		

Services - Concrete Testing
Field Results Reported To: Chris with JE Dunn

Samples made by: Terracon

Terracon Rep: Christopher J. Bonino

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) Perkins & Will

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0791
Service Date: 03/21/08
Report Date: 03/31/08
Task: Slab On Deck/ Roof Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 3000 psi @ 28 days

Mix ID: 402119
Supplier: Bestway
Batch Time: 0719 **Plant:** Off-site
Truck No.: 113 **Ticket No.:** 666461

Sample Information

Sample Date: 03/21/08 **Sample Time:** 0000
Sampled By: Christopher J. Bonino
Weather Conditions: Sunny
Accumulative Yards: 8.5/25 **Batch Size (cy):** 8.5
Placement Method: Pump
Water Added Before (gal):
Water Added After (gal): **Slump After:**
Sample Location: Same as Placement Location
Placement Location: Boiler room on South end of hospital

Field Test Data

Test	Result	Specification
Slump (in):	3 1/4	2-4
Air Content (%):	6.4	4.5-7.5
Concrete Temp. (F):	62	50-90
Ambient Temp. (F):	43	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
236C	1	4.00	12.57			03/28/08	7	48,120	3,830	
236C	2	4.00	12.57			04/18/08	28	58,630	4,670	
236C	3	4.00	12.57			04/18/08	28	56,220	4,470	
							Average (28 days)		**4,570**	
236C	4					04/18/08	Hold			

Comments: **Compressive strength of 28 day cylinders does comply with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Concrete Testing

Terracon Rep.: Christopher J. Bonino
Reported To: Chris with JE Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0793
Service Date: 03/22/08
Report Date: 03/31/08
Task: Footing Pad Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 402119
Supplier: Bestway
Batch Time: 0713 **Plant:** 15
Truck No.: 123 **Ticket No.:** 666529

Field Test Data

Test	Result		Specification
Slump (in):	3 3/4		4" max
Air Content (%):	5		4.5-7.5
Concrete Temp. (F):	61		50-90
Ambient Temp. (F):	35	*	Min 40
Plastic Unit Wt. (pcf):			

*** = Field Test Results do not meet project specifications.**

Sample Information

Sample Date: 03/22/08 **Sample Time:** 0820
Sampled By: Jason J. Andersen
Weather Conditions: Sunny
Accumulative Yards: 10/20 **Batch Size (cy):** 10
Placement Method: Pump
Water Added Before (gal):
Water Added After (gal): **Slump After:**
Sample Location: North planter, all inclusive
Placement Location: Footing

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)		Fracture Type
235C	1	4.00	12.57			03/29/08	7	42,620	3,390		
235C	2	4.00	12.57			04/19/08	28	45,580	3,630	*	
235C	3	4.00	12.57			04/19/08	28	53,760	4,280		
								Average (28 days)	**3,960**		
235C	4	4.00	12.57			05/17/08	56				

Comments: *** Compressive strength of 28 day cylinders does not comply with the specified strength. Not tested for plastic unit weight.**
Although the 28-day compressive strength result failed to meet the required strength, the requirements for acceptance of ACI 318-5.6.3.3 have been met.

Samples Made By: Terracon
Services: Concrete Testing

Terracon Rep.: Jason J. Andersen
Reported To: Chris Gallegos with JE Dunn
Contractor:

Report Distribution:
(1) Perkins & Will
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0795
Service Date: 03/24/08
Report Date: 04/23/08
Task: Slab On Deck/ Roof Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength:

Mix ID:
Supplier:
Batch Time: 0000 **Plant:**
Truck No.: **Ticket No.:**

Sample Information

Sample Date: 03/24/08 **Sample Time:** 0000
Sampled By: Contractor
Weather Conditions:
Accumulative Yards: **Batch Size (cy):**
Placement Method:
Water Added Before (gal):
Water Added After (gal): **Slump After:**
Sample Location:
Placement Location:

Field Test Data

Test	Result	Specification
Slump (in):		
Air Content (%):		
Concrete Temp. (F):		
Ambient Temp. (F):		
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
240C	1	4.00	12.57			04/21/08	28	66,750	5,310	
240C	2	4.00	12.57			04/21/08	28	65,970	5,250	
								Average (28 days)	5,280	

Comments: **Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Concrete Testing

Terracon Rep.: Contractor
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0799
Service Date: 03/25/08
Report Date: 06/04/08
Task: Footing Pad Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength:

Mix ID:
Supplier:
Batch Time: 0000 **Plant:**
Truck No.: **Ticket No.:**

Sample Information

Sample Date: 03/25/08 **Sample Time:** 0000
Sampled By: Contractor
Weather Conditions:
Accumulative Yards: **Batch Size (cy):**
Placement Method:
Water Added Before (gal):
Water Added After (gal): **Slump After:**
Sample Location:
Placement Location:

Field Test Data

Test	Result	Specification
Slump (in):		
Air Content (%):		
Concrete Temp. (F):		
Ambient Temp. (F):		
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
237C	1	4.00	12.57			04/01/08	7	58,500	4,660	
237C	2	4.00	12.57			04/22/08	28	62,200	4,950	
237C	3	4.00	12.57			04/22/08	28	63,190	5,030	
								Average (28 days)	**4,990**	
237C	4					04/22/08	Hold			

Comments: **Not tested for plastic unit weight.**

Concrete was delayed one hour by the concrete company. Terracon was unable to remain on-site due to scheduling conflict. Chris with J.E. Dunn was asked to cast four cylinders and store them on-site.

Samples Made By: **Terracon**
Services: Concrete Testing

Terracon Rep.: Contractor
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0801
Service Date: 04/07/08
Report Date: 06/03/08
Task: Shear Wall Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 402119
Supplier: Bestway
Batch Time: 0716 **Plant:** 15
Truck No.: 144 **Ticket No.:** 667557

Sample Information

Sample Date: 04/07/08 **Sample Time:** 0800
Sampled By: Christopher J. Jellison
Weather Conditions: Rain & Snow
Accumulative Yards: 10.0 **Batch Size (cy):** 10
Placement Method: Pump
Water Added Before (gal):
Water Added After (gal): **Slump After:**
Sample Location: 4th Level stair pans, NE stairwell
Placement Location: 4th Level stair pans, NE stairwell

Field Test Data

Test	Result		Specification
Slump (in):	5	*	2-4
Air Content (%):	7.6	*	4-7
Concrete Temp. (F):	64		50-90
Ambient Temp. (F):	35	*	Min 40
Plastic Unit Wt. (pcf):			

* = Field Test Results do not meet project specifications.

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)		Fracture Type
238C	1	4.00	12.57			04/14/08	7	33,850	2,690		
238C	2	4.00	12.57		8.02	05/05/08	28	45,940	3,660	*	1
238C	3	4.00	12.57		8.04	05/05/08	28	44,620	3,550	*	1
							Average (28 days)		3,610		
238C	4	4.00	12.57		8.07	06/02/08	56	49,550	3,940		4

Comments: * Compressive strength of 28 day cylinders does not comply with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Concrete Testing

Terracon Rep.: Christopher J. Jellison
Reported To: Jesse Vetra
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0804
Service Date: 04/09/08
Report Date: 04/17/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 *psi @* 28 days

Mix ID: 402119
Supplier: Bestway
Batch Time: 1244 **Plant:** 15
Truck No.: 12 **Ticket No.:** 667752

Sample Information

Sample Date: 04/09/08 **Sample Time:** 1330
Sampled By: Randy L. Cotton
Weather Conditions: Cloudy
Accumulative Yards: 5.5 **Batch Size (cy):**
Placement Method: Direct discharge
Water Added Before (gal):
Water Added After (gal): **Slump After:**
Sample Location: Same as Placement Location
Placement Location: Cooling tower walls North and South side walls for existing building

Field Test Data

Test	Result		Specification
Slump (in):	1 3/4		4" max
Air Content (%):	6.8	*	4-6
Concrete Temp. (F):	62		50-90
Ambient Temp. (F):	50		Min 40
Plastic Unit Wt. (pcf):			

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
239C	1	4.00	12.57			04/16/08	7	50,800	4,040	
239C	2	4.00	12.57		8.30	05/07/08	28	89,320	7,110	1
239C	3	4.00	12.57		8.25	05/07/08	28	55,820	4,440	1
239C	4	4.00	12.57		8.29	05/07/08	28	59,260	4,720	1
								Average (28 days)	**5,420**	

Comments: **Compressive strength of 28 day cylinders does comply with the specified strength. Not tested for plastic unit weight.**

Services: Concrete Testing

Terracon Rep.: *Randy L. Cotton*
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Gordon L. Fenton

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the *actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.*

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0823
Service Date: 04/25/08
Report Date: 06/04/08
Task: Grade Beam Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 402119
Supplier: Bestway
Batch Time: 0913 **Plant:** 15
Truck No.: 87 **Ticket No.:** 668948

Sample Information

Sample Date: 04/25/08 **Sample Time:** 1005
Sampled By: Jonathan D. Venerable
Weather Conditions: Sunny
Accumulative Yards: 6/12 **Batch Size (cy):** 6
Placement Method: Pump
Water Added Before (gal):
Water Added After (gal): **Slump After:**
Sample Location: Same as Placement Location
Placement Location: Foundation gradebeams at gridlines AZ x 1D to gridines AZ x 1E

Field Test Data

Test	Result	Specification
Slump (in):	5	3-5
Air Content (%):	5.2	5-8
Concrete Temp. (F):	64	50-90
Ambient Temp. (F):	50	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
241C	1	4.00	12.57		8.30	05/02/08	7	48,170	3,830	2
241C	2	4.00	12.57		8.25	05/23/08	28	62,270	4,960	3
241C	3	4.00	12.57		8.25	05/23/08	28	62,540	4,980	3
241C	4	4.00	12.57		8.25	05/23/08	28	56,270	4,480	3
								Average (28 days)	4,810	

Comments: Compressive strength of 28 day cylinders does comply with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Concrete Testing

Terracon Rep.: Jonathan D. Venerable
Reported To: Chris with JE Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK UP REPORT

Report Number: 25061446.0825
Service Date: 04/26/08
Report Date: 05/05/08
Task: Grade Beam Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 4 concrete cylinders cast on April 25, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained:

25061446.0823

Services: *Concrete Cylinder Pick Up*

Terracon Rep.: Kurt E.Eye
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0832
Service Date: 05/07/08
Report Date: 06/05/08
Task: Footing Pad Excavation and Reinforcing Steel Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID:
Supplier: Bestway
Batch Time: 0823 **Plant:** 301 Centennial
Truck No.: 35 **Ticket No.:** 669812

Sample Information

Sample Date: 05/07/08 **Sample Time:** 0900
Sampled By: Jason A. Marquiss
Weather Conditions: Rain
Accumulative Yards: 4 **Batch Size (cy):** 4
Placement Method: Chute
Water Added Before (gal): 0
Water Added After (gal): 0 **Slump After:**
Sample Location: West Fountain at North Side of Building
Placement Location: West Fountain at North Side of Building

Field Test Data

Test	Result	Specification
Slump (in):	1 3/4	Max 4.00
Air Content (%):	6.9	4.5-7.5
Concrete Temp. (F):	58	50 - 90
Ambient Temp. (F):	48	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
242C	1	4.00	12.57	05/08/08	8.21	05/14/08	7	54,060	4,300	2
242C	2	4.00	12.57	05/08/08	8.24	05/14/08	7	57,330	4,560	2
							Average (7 days)		**4,430**	
242C	3	4.00	12.57	05/08/08	8.19	06/04/08	28	74,950	5,960	1
242C	4	4.00	12.57	05/08/08	8.23	06/04/08	28	71,230	5,670	1
							Average (28 days)		**5,820**	
242C	5			05/08/08		07/02/08	Hold			
242C	6			05/08/08		07/02/08	Hold			

Comments: **Compressive strength of 28 day cylinders does comply with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Cast Concrete Cylinders

Terracon Rep.: Jason A. Marquiss
Reported To: Jim Peterson w/JE Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0838
Service Date: 05/14/08
Report Date: 06/12/08
Task: Slab On Deck/ Roof Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 402135LN
Supplier: Bestway
Batch Time: 0610 **Plant:** 4
Truck No.: 129 **Ticket No.:** 630514

Sample Information

Sample Date: 05/14/08 **Sample Time:** 0730
Sampled By: Jason J. Andersen
Weather Conditions: Sunny
Accumulative Yards: 10/43 **Batch Size (cy):** 10
Placement Method: Pump
Water Added Before (gal): 0
Water Added After (gal): 0 ***Slump After:***
Sample Location: Slab-on-deck, second floor bridge
Placement Location: South bulkhead

Field Test Data

Test	Result	Specification
Slump (in):	5	5" max
Air Content (%):	6.0	5-8
Concrete Temp. (F):	67	50-90
Ambient Temp. (F):	45	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
244C	1	4.00	12.57	05/15/08	7.34	05/21/08	7	47,800	3,800	1
244C	2	4.00	12.57	05/15/08	7.32	06/11/08	28	68,960	5,490	4
244C	3	4.00	12.57	05/15/08	7.36	06/11/08	28	64,590	5,140	2
244C	4	4.00	12.57	05/15/08	7.33	06/11/08	28	65,280	5,200	2
								Average (28 days)	**5,280**	

Comments: ***Compressive strength of 28 day cylinders does comply with the specified strength. Not tested for plastic unit weight.***

John with JE Dunn and Martine with All Phase were notified of test results.

Samples Made By: Terracon
Services: Cast Concrete Cylinders

Terracon Rep.: Jason J. Andersen
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0839
Service Date: 05/14/08
Report Date: 06/12/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 402119
Supplier: Bestway
Batch Time: 1034 **Plant:** 15
Truck No.: 87 **Ticket No.:** 670183

Sample Information

Sample Date: 05/14/08 **Sample Time:** 1105
Sampled By: Jason J. Andersen
Weather Conditions: Sunny
Accumulative Yards: 7/7 **Batch Size (cy):** 7
Placement Method: Direct discharge
Water Added Before (gal): 0
Water Added After (gal): 0 **Slump After:**
Sample Location: Slab-on-grade
Placement Location: Gridlines A14 x 1F

Field Test Data

Test	Result	Specification
Slump (in):	3 1/2	4" max
Air Content (%):	7.0	5-8
Concrete Temp. (F):	71	50-90
Ambient Temp. (F):	65	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
243C	1	4.00	12.57	05/15/08	8.31	05/21/08	7	53,800	4,280	2
243C	2	4.00	12.57	05/15/08	8.30	06/11/08	28	68,520	5,450	2
243C	3	4.00	12.57	05/15/08	8.37	06/11/08	28	59,960	4,770	5
243C	4	4.00	12.57	05/15/08	8.30	06/11/08	28	68,560	5,460	1
								Average (28 days)	**5,230**	

Comments: **Compressive strength of 28 day cylinders does comply with the specified strength. Not tested for plastic unit weight.**

John with JE Dunn and Martinez with All Phase were notified of test results.

Samples Made By: **Terracon**
Services: Cast Concrete Cylinders

Terracon Rep.: Jason J. Andersen
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0843
Service Date: 05/16/08
Report Date: 06/16/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 3500 psi @ 28 days

Mix ID: 402119
Supplier: Bestway Concrete
Batch Time: 0000 **Plant:** 15
Truck No.: 136 **Ticket No.:** 630328

Sample Information

Sample Date: 05/16/08 **Sample Time:** 1020
Sampled By: James P. Wasinger
Weather Conditions: Cloudy
Accumulative Yards: 8/8 **Batch Size (cy):** 8
Placement Method: Wheel Barrow
Water Added Before (gal): 0
Water Added After (gal): 0 **Slump After:**
Sample Location: Column fill in (base of columns) located in the mechanical room north of the emergency room
Placement Location: Column fill in (base of columns) located in the mechanical room north of the emergency room

Field Test Data

Test	Result	Specification
Slump (in):	4	0.00 - 5.00
Air Content (%):	6.5	4.00 - 7.00
Concrete Temp. (F):	66	50 - 90
Ambient Temp. (F):	63	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
245C	1	4.00	12.57	05/17/08	8.19	05/23/08	7	54,420	4,330	3
245C	2	4.00	12.57	05/17/08	8.21	06/13/08	28	67,710	5,390	1
245C	3	4.00	12.57	05/17/08	8.17	06/13/08	28	65,030	5,180	2
245C	4	4.00	12.57	05/17/08	8.24	06/13/08	28	66,220	5,270	2
								Average (28 days)	5,280	

Comments: **Compressive strength of 28 day cylinders does comply with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Cast Concrete Cylinders

Terracon Rep.: James P. Wasinger
Reported To: John with JE Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0844
Service Date: 05/17/08
Report Date: 05/21/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 4 concrete cylinders cast on May 16, 2008. The samples were returned to the laboratory for processing and *proper curing as specified.*

Cylinders labeled with the following dispatch numbers were obtained: .0843

Services: Concrete Cylinder Pick Up

Terracon Rep.: Kurt E.Eye
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0852
Service Date: 05/22/08
Report Date: 06/20/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 402135LW
Supplier: Bestway
Batch Time: 0923 **Plant:** 4
Truck No.: 85 **Ticket No.:** 651348

Sample Information

Sample Date: 05/22/08 **Sample Time:** 1030
Sampled By: Jack L. White
Weather Conditions: Overcast
Accumulative Yards: 4 **Batch Size (cy):** 4
Placement Method: Wheelbarrow
Water Added Before (gal): 0
Water Added After (gal): 0 **Slump After:**
Sample Location: Curb on bridge South end East side 40'
Placement Location: *Curb on bridge at gridlines A.21 to* A24.5 x 1K.5 to 1U

Field Test Data

Test	*Result*	*Specification*
Slump (in):	4	4-5
Air Content (%):	5.0	5-6
Concrete Temp. (F):	62	50-90
Ambient Temp. (F):	60	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
246C	1	4.00	12.57	05/23/08	7.49	05/29/08	7	80,250	6,390	4
246C	2	4.00	12.57	05/23/08	7.46	05/29/08	7	80,690	6,420	4
							Average (7 days)		**6,410**	
246C	3	4.00	12.57	05/23/08	7.48	06/19/08	28	95,090	7,570	2
246C	4	4.00	12.57	05/23/08	7.46	06/19/08	28	95,290	7,580	2
246C	5	4.00	12.57	05/23/08	7.45	06/19/08	28	99,640	7,930	2
							Average (28 days)		**7,690**	
246C	6			05/23/08		06/19/08	Hold			

Comments: **Compressive strength of 28 day cylinders does comply with the specified strength. Not tested for plastic unit weight.**

Samples Made By: Terracon
Services: Cast Concrete Cylinders

Terracon Rep.: Jack L. White
Reported To: John with Dunn Construction
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0853
Service Date: 05/23/08
Report Date: 05/28/08
Task: Slab On Deck/ Roof Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 6 concrete cylinders cast on May 22, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0852

Services: Concrete Cylinder Pick Up

Terracon Rep.: Jack L. White
Reported To: John with Dunn Const.
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

MORTAR COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0857
Service Date: 05/30/08
Report Date: 06/30/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 1500 psi @ 28 days

Mix ID:
Supplier: AP Eberlein
Batch Time: 0000 **Plant:**

Sample Information

Sample Date: 05/30/08 **Sample Time:** 0000
Sampled By: Robert L. Maupin
Weather Conditions: Clear
Sample Size: 2x4
Sample Location: Courses 6-7 west & north sides of entryway backing at 1G
Placement Location: Courses 6-12 at entryway of 1G
Test Mold Material: Plastic
Curing Procedure: ASTM C 780

Field Test Data

Test	Result	Specification
Mortar Temp. (F):	72	Min 40
Ambient Temp. (F):		Min 40

Laboratory Test Data

Set No.	Specimen ID	Date Received	Date Tested	Age (days)	Area (sq in)	Maximum Load (lbs)	Compressive Strength (psi)
1M	1	05/31/08	06/09/08	10	3.14	8210	2,620
1M	2	05/31/08	06/27/08	28	3.14	6480	2,060
1M	3	05/31/08	06/27/08	28	3.14	6630	2,110
						Average (28 days)	**2090**
1M	4	05/31/08		Hold	3.14		

Note: The values resulting from field-sampled mortars are not required nor expected to meet the compressive strength requirements of the property specifications ASTM C 270, nor do they represent the compressive strength of the mortar in the wall.

Comments: **Compressive strength of 28 day cylinder does comply with the specified strength.**

Services: Mortar Compressive Strength Test

Terracon Rep.: Robert L. Maupin
Reported To: Craig Holbrook w/AP Eberlein
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

GROUT COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0858
Service Date: 05/30/08
Report Date: 06/30/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 3000 psi @ 28 days

Mix ID:
Supplier: AP Eberlein
Batch Time: 1330 **Plant:**
Truck No.: **Ticket No.:**

Sample Information

Sample Date: 05/30/08 **Sample Time:** 1340
Sampled By: Robert L. Maupin
Weather Conditions: Clear
Accumulative Yards: **Batch Size:** 1
Sample Size: 1 Box
Sample Location: Courses 7-12, south wall of entryway backing of 1G
Placement Location: Courses 1-12 entryway backing at 1G
Form Material: Cardboard Form **No. Units:** 4
Samples Plumb: Yes
Temperature Range:

Field Test Data

Test	Result	Specification
Slump (in):	11	8 - 11
Grout Temp. (F):	72	40 - 80
Ambient Temp. (F):	84	Min 40

Laboratory Test Data

Set No.	Specimen ID	Measured Slump (in)	Measured Flow (sec)	Date Received	Date Tested	Age (days)	Area (sq in)	Maximum Load (lbs)	Compressive Strength (psi)
8G	1	11		05/31/08	06/06/08	7	10.89	59,130	5,430
8G	2	11		05/31/08	06/27/08	28	10.89	56,460	5,190
8G	3	11		05/31/08	06/27/08	28	10.89	59,220	5,440
								Average (28 days)	**5,320**
8G	4	11		05/31/08		Hold			

Comments: **Compressive strength of 28 day prism complies with the specified strength.**

Services: Obtained Grout specimens from the referenced site and transported them back to Terracon's laboratory for moist curing and compressive strength testing.
Terracon Rep.: Robert L. Maupin
Reported To: Craig Holbrook w/AP Eberlein
Contractor:

Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:
The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

GROUT COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0863
Service Date: 05/31/08
Report Date: 06/30/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength:

Mix ID: On-Site
Supplier: On-Site
Batch Time: 0950 **Plant:** On-Site
Truck No.: **Ticket No.:**

Sample Information

Sample Date: *05/31/08* ***Sample Time:*** *0955*
Sampled By: Jason J. Andersen
Weather Conditions: Sunny
Accumulative Yards: **Batch Size:**
Sample Size:
Sample Location: CMU Columns
Placement Location: At gridlines 1E.0xA2.0, 2nd lift
Form Material: Cardboard Form ***No. Units:*** 4
Samples Plumb: Yes
Temperature Range: 60 - 80

Field Test Data

Test	Result	Specification
Slump (in):	9	8.00 - 11.00
Grout Temp. (F):	62	50 - 90
Ambient Temp. (F):	60	

Laboratory Test Data

Set No.	Specimen ID	Measured Slump (in)	Measured Flow (sec)	Date Received	Date Tested	Age (days)	Area (sq in)	Maximum Load (lbs)	Compressive Strength (psi)
9G	1	9		06/02/08	06/07/08	7	10.89	55830	5,130
9G	2	9		06/02/08	06/28/08	28	10.89	56460	5,180
9G	3	9		*06/02/08*	*06/28/08*	28	*10.89*	*59220*	*5,440*
								Average (28 days)	**5310**
9G	4	9		06/02/08		Hold			

Comments:

Samples Made By: Terracon
Services:

Terracon Rep.: Jason J. Andersen
Reported To: Craig with AP Eberlein
Contractor:

Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

Test Methods:
The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

MORTAR COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0864
Service Date: 05/31/08
Report Date: 06/30/08
Task: Masonry Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength:

Mix ID: On-Site
Supplier: On-Site
Batch Time: 1000 **Plant:** On-Site

Sample Information

Sample Date: 05/31/08 **Sample Time:** 1010
Sampled By: Jason J. Andersen
Weather Conditions: Sunny
Sample Size:
Sample Location: CMU columns
Placement Location: At gridlines 1E.0 x A2.0, 2nd lift
Test Mold Material: Plastic
Curing Procedure: ASTM C 780

Field Test Data

Test	Result	Specification
Mortar Temp. (F):	64	50 - 90
Ambient Temp. (F):	60	

Laboratory Test Data

Set No.	Specimen ID	Date Received	Date Tested	Age (days)	Area (sq in)	Maximum Load (lbs)	Compressive Strength (psi)
2M	1	06/02/08	06/07/08	7	3.14	4745	1,510
2M	2	06/02/08	06/28/08	28	3.14	6380	2,030
2M	3	06/02/08	06/28/08	28	3.14	6470	2,060
2M	4	06/02/08	06/28/08	28	3.14	6170	1,960
						Average (28 days)	**2020**

Note: The values resulting from field-sampled mortars are not required nor expected to meet the compressive strength requirements of the property specifications *ASTM C 270, nor do they represent the compressive strength of the mortar in the wall.*

Comments:

Samples Made By: Terracon
Services: Mortar Compressive Strength Test

Terracon Rep.: *Jason J. Andersen*
Reported To: Craig with AP Eberlein
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

MORTAR CYLINDER PICK-UP REPORT

Report Number: 25061446.0866
Service Date: 06/03/08
Report Date: 06/05/08
Task: Masonry Observation

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 2 sets of 4 mortar cylinders cast on May 30, 2008. Cylinders labeled with the following dispatch numbers were obtained: .0857 & .0863.

Also obtained 2 sets of 4 mortar cylinders cast on May 31, 2008. Cylinders labeled with the following dispatch numbers were obtained: .0858 & 0864.

The samples were returned to the laboratory for processing and proper curing as specified.

Services: Grout Pick-up

Terracon Rep.: Jason J. Andersen
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0870
Service Date: 06/06/08
Report Date: 07/07/08
Task: Micro-Piles

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 402129
Supplier: Bestway
Batch Time: 1328 **Plant:** Denver
Truck No.: 121 **Ticket No.:** 615861

Sample Information

Sample Date: 06/06/08 **Sample Time:** 1445
Sampled By: Christopher J. Bonino
Weather Conditions: Sunny, warm
Accumulative Yards: 4 **Batch Size (cy):** 4
Placement Method: Pump
Water Added Before (gal): 0
Water Added After (gal): 0 **Slump After:**
Sample Location: Same as Placement Location
Placement Location: Micro-piles on South side of building

Field Test Data

Test	Result	Specification
Slump (in):	3	3-5
Air Content (%):	6.0	4.5-7.5
Concrete Temp. (F):	68	50-90
Ambient Temp. (F):	78	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
25	1	4.00	12.57	06/07/08	8.40	06/13/08	7	50,380	4,010	1
25	2	4.00	12.57	06/07/08	8.29	07/04/08	28	67,490	5,370	1
25	3	4.00	12.57	06/07/08	8.33	07/04/08	28	63,060	5,020	1
25	4	4.00	12.57	06/07/08	8.39	07/04/08	28	65,240	5,190	2
								Average (28 days)	**5,190**	
25	5			06/07/08			Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Cast Concrete Cylinders

Terracon Rep.: Christopher J. Bonino
Reported To: Jim with JE Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0871
Service Date: 06/09/08
Report Date: 06/11/08
Task: Micro-Piles

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 5 concrete cylinders cast on June 6, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0870

Services: Concrete Cylinder Pick Up

Terracon Rep.: Charles Schott
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0875
Service Date: 06/10/08
Report Date: 07/09/08
Task: Micro-Piles

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 500129
Supplier: Bestway Concrete
Batch Time: 1352 **Plant:** 15
Truck No.: 77 **Ticket No.:** 377270

Sample Information

Sample Date: 06/10/08 **Sample Time:** 1400
Sampled By: Portman, Richard
Weather Conditions: Sunny
Accumulative Yards: 6/6 **Batch Size (cy):** 6
Placement Method: Wheel barrow
Water Added Before (gal): 0
Water Added After (gal): 0 **Slump After:**
Sample Location: At gridlines 1K @ A23, 1L @ A24, 1R @ A20,1U @ A20, 1U @ S20, 1R @ A21, 1U @ A21, 1K @ 21.8, 1U @ A2
Placement Location: Columns, Slab-on-Grade

Field Test Data

Test	Result	Specification
Slump (in):	3	0.00 - 4.00
Air Content (%):	5.8	5.00 - 8.00
Concrete Temp. (F):	86	50 - 90
Ambient Temp. (F):	80	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57	06/11/08	8.21	06/13/08	3	53,180	4,230	4
1	2	4.00	12.57	06/11/08	8.23	06/17/08	7	68,710	5,470	1
1	3	4.00	12.57	06/11/08		07/08/08	28	80,890	6,440	2
1	4	4.00	12.57	06/11/08		07/08/08	28	77,670	6,180	3
1	5	4.00	12.57	06/11/08		07/08/08	28	71,100	5,660	5
							Average (28 days)		6,090	
1	6			06/11/08			Hold			

Comments: Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: *Cast Concrete Cylinders*

Terracon Rep.: Portman, Richard
Reported To: John with JE Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0879
Service Date: 06/11/08
Report Date: 06/16/08
Task: Micro-Piles

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 6 concrete cylinders cast on June 10, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0875

Services: Concrete Cylinder Pick Up

Terracon Rep.: Robert L. Maupin
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0881
Service Date: 06/12/08
Report Date: 07/11/08
Task: Slab On Deck/ Roof Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 402135LW
Supplier: Bestway
Batch Time: 1305 **Plant:** 4
Truck No.: 1 **Ticket No.:** 652377

Sample Information

Sample Date: 06/12/08 **Sample Time:** 1420
Sampled By: Jason J. Andersen
Weather Conditions: Sunny
Accumulative Yards: 4/4 **Batch Size (cy):** 4
Placement Method: Direct discharge
Water Added Before (gal): 0
Water Added After (gal): 0 **Slump After:**
Sample Location: Same as Placement Location
Placement Location: Slab-on-deck, pour strip next to existing building, level 2

Field Test Data

Test	Result	Specification
Slump (in):	4 1/4	5" max
Air Content (%):	5.0	4.5-7.5
Concrete Temp. (F):	76	50-90
Ambient Temp. (F):	70	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
25	1	4.00	12.57	06/13/08	7.39	06/19/08	7	83,110	6,610	2
25	2	4.00	12.57	06/13/08	7.42	07/10/08	28	97,310	7,740	1
25	3	4.00	12.57	06/13/08	7.40	07/10/08	28	96,760	7,700	1
25	4	4.00	12.57	06/13/08	7.40	07/10/08	28	100,790	8,020	1
								Average (28 days)	7,820	
25	5			06/13/08			Hold			

Comments: Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Cast Concrete Cylinders

Terracon Rep.: *Jason J. Andersen*
Reported To: Tom with JE Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0882
Service Date: 06/13/08
Report Date: 06/19/08
Task: Elevator Pit Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 5 concrete cylinders cast on June 12, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0881

Services: Concrete Cylinder Pick Up

Terracon Rep.: Kenneth G. Dalmadge
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0892
Service Date: 06/25/08
Report Date: 07/24/08
Task: Slab On Grade Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID:
Supplier: Bestway
Batch Time: 0000 **Plant:**
Truck No.: **Ticket No.:**

Sample Information

Sample Date: 06/25/08 **Sample Time:** 0815
Sampled By: Dale E. Griest
Weather Conditions: Sunny
Accumulative Yards: 6/6 **Batch Size (cy):** 6
Placement Method: Direct discharge
Water Added Before (gal): 0
Water Added After (gal): 0 **Slump After:**
Sample Location: Bridge tie-in Level 3 slab-on-deck
Placement Location: Tie-in slab-on-deck Level 3

Field Test Data

Test	Result	Specification
Slump (in):	4 1/4	5" max
Air Content (%):	5.5	5-8
Concrete Temp. (F):	71	50-90
Ambient Temp. (F):	67	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57	06/26/08	7.34	07/02/08	7	54,020	4,300	2
1	2	4.00	12.57	06/26/08	7.43	07/23/08	28	73,670	5,860	4
1	3	4.00	12.57	06/26/08	7.29	07/23/08	28	76,580	6,090	4
1	4	4.00	12.57	06/26/08	7.32	07/23/08	28	76,690	6,100	4
								Average (28 days)	**6,020**	
1	5			06/26/08			Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Cast Concrete Cylinders

Terracon Rep.: Dale E. Griest
Reported To: Casey with JE Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0893
Service Date: 06/26/08
Report Date: 07/02/08
Task: Slab On Deck/ Roof Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 5 concrete cylinders cast on June 25, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0892

Services: Concrete Cylinder Pick Up

Terracon Rep.: Portman, Richard
Reported To: John with JE Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0894
Service Date: 06/30/08
Report Date: 07/29/08
Task: Slab On Grade Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 402129
Supplier: Bestway
Batch Time: 0716 **Plant:** 15
Truck No.: 130 **Ticket No.:** 678861

Sample Information

Sample Date: 06/30/08 **Sample Time:** 0830
Sampled By: Charles Schott
Weather Conditions: Clear
Accumulative Yards: 5 **Batch Size (cy):** 5
Placement Method: Tailgate
Water Added Before (gal): 0
Water Added After (gal): 0 **Slump After:**
Sample Location: Pourback at North, South, and West entrances
Placement Location: South entrance

Field Test Data

Test	Result	Specification
Slump (in):	4	Max 4.00
Air Content (%):	5.5	5.00 - 8.00
Concrete Temp. (F):	76	50-90
Ambient Temp. (F):	72	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57	07/01/08		07/07/08	7	55,090	4,380	3
1	2	4.00	12.57	07/01/08	8.40	07/28/08	28	69,750	5,550	4
1	3	4.00	12.57	07/01/08	8.39	07/28/08	28	69,620	5,540	3
1	4	4.00	12.57	07/01/08	8.39	07/28/08	28	68,640	5,460	5
								Average (28 days)	5,520	
1	5			07/01/08			Hold			

Comments: ***Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.***

Samples Made By: Terracon
Services: Cast Concrete Cylinders

Terracon Rep.: Charles Schott
Reported To: Chad with JE Dunn
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0895
Service Date: 07/01/08
Report Date: 07/09/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 5 concrete cylinders cast on June 30, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0894

Services: Concrete Cylinder Pick Up

Terracon Rep.: Foley, Wyatt
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0901
Service Date: 07/22/08
Report Date: 08/20/08
Task: Slab On Deck/ Roof Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 28 days

Mix ID: 402135-LW
Supplier: Bestway
Batch Time: 0720 **Plant:** 4
Truck No.: 148 **Ticket No.:** 654320

Sample Information

Sample Date: 07/22/08 **Sample Time:** 0830
Sampled By: Matthew P. Wales
Weather Conditions: Sunny
Accumulative Yards: 4/4 **Batch Size (cy):** 4
Placement Method: Wheelbarrow
Water Added Before (gal): 0
Water Added After (gal): 10
Sample Location: Same as Placement Location
Placement Location: Interior slab-on-grade at fourth floor bridge at elevator core in existing old building, topping slab-on-grade

Field Test Data

Test	Result	Specification
Slump (in):	1	
Air Content (%):	4.5	
Concrete Temp. (F):	70	50-90
Ambient Temp. (F):	72	Min 40
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57	07/23/08	7.45	07/29/08	7	81,580	6,490	4
1	2	4.00	12.57	07/23/08	7.51	08/19/08	28	94,830	7,550	5
1	3	4.00	12.57	07/23/08	7.47	08/19/08	28	88,480	7,040	5
1	4	4.00	12.57	07/23/08	7.49	08/19/08	28	95,770	7,620	2
							Average (28 days)		**7,400**	
1	5			07/23/08			Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Cast Concrete Cylinders

Terracon Rep.: Matthew P. Wales
Reported To: John with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0902
Service Date: 07/23/08
Report Date: 07/28/08
Task: Slab On Deck/ Roof Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 5 concrete cylinders cast on July12, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained:
901

Services: Concrete Cylinder Pick Up

Terracon Rep.: Warren D.Naranjo
Reported To:
Contractor:
Report Distribution:
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) Perkins & Will
(1) HCA Healthcare
(1) HCA Healthcare
(1) Bestway Concrete Co
(1) JE Dunn Construction Co

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0909
Service Date: 09/16/08
Report Date: 10/15/08
Task: Slab On Grade Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 402119
Supplier: Bestway Concrete
Batch Time: 0728 **Plant:** 15
Truck No.: 0059 **Ticket No.:** 682760

Sample Information

Sample Date: 09/16/08 **Sample Time:** 0825
Sampled By: Matthew P. Wales
Weather Conditions: Sunny
Accumulative Yards: 7/13 **Batch Size (cy):** 13
Placement Method: Pump Truck
Water Added Before (gal): 0
Water Added After (gal): 0
Sample Location: Central utility plant, interior slab repair work
Placement Location: Central utility plant, interior slab repair work

Field Test Data

Test	Result	Specification
Slump (in):	4	4-5.5
Air Content (%):	6.5	5-8
Concrete Temp. (F):	64	50-90
Ambient Temp. (F):	55	40+
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57	09/17/08	8.50	09/23/08	7	56,290	4,480	1
1	2	4.00	12.57	09/17/08	8.56	10/14/08	28	67,460	5,370	5
1	3	4.00	12.57	09/17/08	8.50	10/14/08	28	61,230	4,870	5
1	4	4.00	12.57	09/17/08	8.51	10/14/08	28	70,670	5,620	5
								Average (28 days)	5,290	
1	5			09/17/08			Hold			

Comments: Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Cast Concrete Cylinders

Terracon Rep.: Matthew P. Wales
Reported To: John Webber with JE Dunn
Contractor:

Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0911
Service Date: 09/17/08
Report Date: 09/22/08
Task: Slab On Grade Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 5 concrete cylinders cast on September 16, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0909

Services: Concrete Cylinder Pick Up

Terracon Rep.: Charles Schott
Reported To:
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0912
Service Date: 09/22/08
Report Date: 10/21/08
Task: Footing Pad Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 402119
Supplier: Bestway Concrete
Batch Time: 1257 **Plant:** 15
Truck No.: 140 **Ticket No.:** 583144

Sample Information

Sample Date: 09/22/08 **Sample Time:** 1315
Sampled By: Charles Schott
Weather Conditions: Clear
Accumulative Yards: 10 **Batch Size (cy):** 10
Placement Method: Pump
Water Added Before (gal): 3
Water Added After (gal): 0
Sample Location: Planter on the north side of building east & west of entrance, stem walls
Placement Location: East plant

Field Test Data

Test	Result	Specification
Slump (in):	4	4
Air Content (%):	6.0	5-7
Concrete Temp. (F):	75	50-90
Ambient Temp. (F):	78	40+
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57	09/23/08	8.39	09/29/08	7	50,020	3,980	1
1	2	4.00	12.57	09/23/08	8.43	10/20/08	28	52,630	4,190	2
1	3	4.00	12.57	09/23/08	8.44	10/20/08	28	54,070	4,300	5
1	4	4.00	12.57	09/23/08	8.43	10/20/08	28	56,300	4,480	5
							Average (28 days)		**4,320**	
1	5			09/23/08			Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: Terracon
Services: Cast Concrete Cylinders

Terracon Rep.: Charles Schott
Reported To: Casey with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0914
Service Date: 09/23/08
Report Date: 09/25/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 5 concrete cylinders cast on September 22, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0913

Services: Concrete Cylinder Pick Up

Terracon Rep.: Charles Schott
Reported To:
Contractor:
Report Distribution:

(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0919
Service Date: 09/25/08
Report Date: 10/24/08
Task: Footing Pad Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 402119
Supplier: Bestway Concrete
Batch Time: 1329 **Plant:** 15
Truck No.: 0121 **Ticket No.:** 603149

Field Test Data

Test	Result	Specification
Slump (in):	4	4" Max
Air Content (%):	6.0	5-8
Concrete Temp. (F):	78	50-90
Ambient Temp. (F):	75	40+
Plastic Unit Wt. (pcf):		

Sample Information

Sample Date: 09/25/08 **Sample Time:** 1425
Sampled By: Nse E. Ndu
Weather Conditions: Clear
Accumulative Yards: 10 **Batch Size (cy):**
Placement Method: Hand Pour
Water Added Before (gal): 0
Water Added After (gal): 0
Sample Location: 25' east & 10' north of the northwest corner of building
Placement Location: Footing- canopy column at the northwest corner of building

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)		Fracture Type
1	1	4.00	12.57	09/26/08	8.22	10/02/08	7	44,580	3,550		1
1	2	4.00	12.57	09/26/08	8.30	10/23/08	28	50,160	3,990	*	5
1	3	4.00	12.57	09/26/08	8.17	10/23/08	28	48,840	3,890	*	2
1	4	4.00	12.57	09/26/08	8.33	10/23/08	28	52,380	4,170		2
								Average (28 days)	**4,020**		
1	5			09/26/08			Hold				

Comments: * **Compressive strength of 28 day cylinders does not comply with the specified strength. Not tested for plastic unit weight.**

Samples Made By: Terracon
Services: Cast Concrete Cylinders

Terracon Rep.: Nse E. Ndu
Reported To: Casey with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0920
Service Date: 09/26/08
Report Date: 09/30/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 5 concrete cylinders cast on September 25, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0919

Services: Concrete Cylinder Pick Up

Terracon Rep.: Nse E. Ndu
Reported To: Casey with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0923
Service Date: 10/08/08
Report Date: 11/06/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 502129JE
Supplier: Bestway
Batch Time: 0834 **Plant:** 15
Truck No.: 151 **Ticket No.:** 684960

Sample Information

Sample Date: 10/08/08 **Sample Time:** 0920
Sampled By: Warren D.Naranjo
Weather Conditions: Sunny
Accumulative Yards: 8.5/25 **Batch Size (cy):** 8.5
Placement Method: Pump
Water Added Before (gal): 8
Water Added After (gal): 0
Sample Location: GL 1R x A1
Placement Location: Exterior Columns GL 1R, 1J x A1

Field Test Data

Test	Result	Specification
Slump (in):	5 1/2	7" Max
Air Content (%):	2.5	0-3
Concrete Temp. (F):	63	50-90
Ambient Temp. (F):	60	40+
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57	10/09/08	8.64	10/11/08	3	52,940	4,210	2
1	2	4.00	12.57	10/09/08	8.65	10/15/08	7	63,800	5,080	5
1	3	4.00	12.57	10/09/08	8.70	11/05/08	28	84,180	6,700	5
1	4	4.00	12.57	10/09/08	8.70	11/05/08	28	83,340	6,630	1
1	5	4.00	12.57	10/09/08	8.70	11/05/08	28	79,270	6,310	5
							Average (28 days)		**6,550**	
1	6			10/09/08			Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Cast Concrete Cylinders

Terracon Rep.: Warren D.Naranjo
Reported To: John Weber w/JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0924
Service Date: 10/09/08
Report Date: 10/14/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 6 concrete cylinders cast on October 8, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0923

Services: Concrete Cylinder Pick Up

Terracon Rep.: Warren D.Naranjo
Reported To:
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONSTRUCTION MATERIALS TESTING RESULTS
FOR
AURORA MEDICAL CENTER EXPANSION
AURORA, COLORADO

SITEWORK REPORTS

TERRACON PROJECT NO. 25061446

January 15, 2009

Prepared for:

HCA Health Care
One Park Plaza
Building 2, 3 East
Nashville, Tennessee 37203

Attn: Mr. Keith Allen

Prepared by:

Terracon
10625 West I-70 Frontage Road North, Suite 3
Wheat Ridge, Colorado 80033
Phone: (303) 423-3300
Fax: (303) 423-3353

LABORATORY COMPACTION CHARACTERISTICS OF SOIL

Report Number: 25061446.0002
Service Date: February 23, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client: HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: March 05, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project Number: 25061446

Material Information

Contractor:
Source of Material: On-Site Material
Proposed Use: Backfill Material
USCS: SP-SM

Sample Information

Sampled By: - -
Sample Location: SE side of site

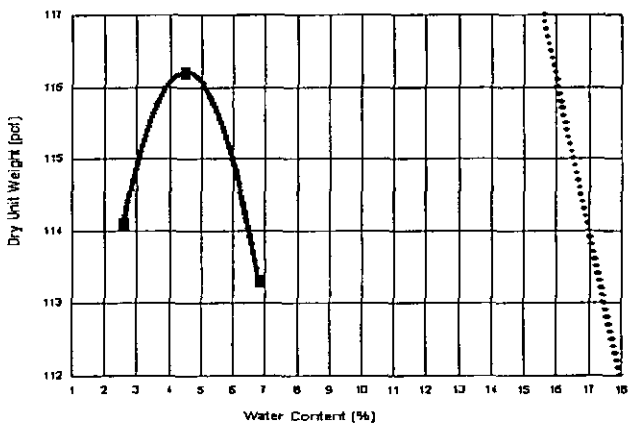
Sample Description: Poorly Graded Sand w/ Silt (SP-SM)
A-1-b (0)

Laboratory Test Data

Test Procedure:	ASTM D698-91
Test Method:	Method A
Sample Preparation:	Dry Preparation
Rammer Type:	Mech. Rammer
Maximum Dry Unit Weight, pcf:	116.0
Optimum Water Content, %:	4.5

	Result	Specifications
Liquid Limit:	Non-plastic	
Plastic Limit:	Non-plastic	
Plasticity Index:	Non-plastic	
% Passing #40:	39.5	
% Passing #200:	6.5	

Moisture Density Relations
Zero Air Voids Curve for assumed specific gravity 2.65



Services-D698, Sieve, PI

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co

Reviewed by: _____
MAR 2007 Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

08-VNB/R06-Future Key

FIELD DENSITY TESTING

Report Number: 25061446.0003
Service Date: February 26, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: March 09, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
1 614460002	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-1-b (0)	4.5	116.0	±2	100

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Sanitary Sewer Trench Backfill						
1	10'W of SSMH #3	2'AP	1	8"	6.0	108.8	94 *
2	25'W of SSMH #3	3'AP	1	8"	6.0	109.9	95 *
3	30'W of SSMH #3	4'AP	1	8"	5.3	111.8	96 *
4	80'W of SSMH #3	5'AP	1	8"	4.0	108.5	94 *
5	190'W of SSMH #3	6'AP	1	8"	4.0	111.9	96 *
6	15'W of SSMH #3	7'AP	1	8"	4.0	112.6	97 *
7	18'W of SSMH #3	8'AP	1	8"	3.0	115.0	99 *
	Water Line Trench Backfill						
8	30'W of FH #1	18"AP	1	8"	2.1 *	117.0	100+
9	25'W of FH #1	2'AP	1	8"	3.1	117.0	100+
10	20'W of FH #1	3'AP	1	8"	3.2	119.0	100+ *

Comments:
An asterisk (*) appears next to test results which do NOT meet the project specifications.
Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017

Terracon Rep: Randy L. Cotton
Field Results Reported To: Rich w/JBS

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co

Reviewed by: Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

07-VLV/R07-Future Key

FIELD DENSITY TESTING

Report Number: 25061446.0004
Service Date: March 5, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: March 07, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460002	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-1-b (0)	4.5	116.0	±2	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Sanitary Sewer Trench Backfill						
1	5' S of MH No. 1	2' B.G.	1	8"	4.2	113.6	98
2	10' S of Mh No. 1	S.G.	1	8"	5.5	112.7	97
3	20' E and 25' S of MH No. 1	3' B.G.	1	8"	4.9	114.5	99

Comments:
Test results on this report meet project specification.
Rich with Pipeline Contractors was informed of our test results.

Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 35339

Terracon Rep: Marc W. Stevens
Field Results Reported To: Rich w/ Pipeline Cont.

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
Daniel E. Redman
MAR 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TESTING

Report Number: *25061446.0005*
Service Date: March 6, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: March 08, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460002	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-1-b (0)	4.5	116.0	±2	100

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Waterline Trench Backfill						
1	75'W of Fire Hydrant #1	3.5'BG	1	8"	6.3	116.4	100
2	80'W of Fire Hydrant #1	2.5'BG	1	8"	6.1	116.0	100
3	85'W of Fire Hydrant #1	1.5'BG	1	8"	5.9	116.8	100+

Comments:
Test results on this report meet project specification.
Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 32191 Std Cnt M: 704 Std Cnt D: 2732

Terracon Rep: Kathryn A. Leibold

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
MAR 2007 Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TESTING

Report Number: 25061446.0007
Service Date: March 7, 2007
Task:

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: March 09, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460002	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-1-b (0)	4.5	116.0	±2	100

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Sanitary Sewer Trench Backfill						
1	Retest #1 (2/26/07) 10'W of SSMH 3	2'AP	1	8"	4.3	116.3	100
2	Retest #2 (2/26/07) 25'W of SSMH 3	3'AP	1	8"	4.5	116.5	100
3	Retest #3 (2/26/07) 30'W of SSMH 3	4'AP	1	8"	5.1	117.0	100+
4	Retest #4 (2/26/07) 80W of SSMH 3	5'AP	1	8"	4.7	116.2	100
5	Retest #5 (2/26/07) 100'W of SSMH 3	6'AP	1	8"	4.3	116.8	100+
6	Retest #6 (2/26/07) 15'W of SSMH 3	7'AP	1	8"	5.0	116.0	100
7	Retest #7 (2/26/07) 18'W of SSMH 3	8'AP	1	8"	5.2	116.2	100
	Waterline Backfill						
8	Retest #8 (2/26/07) 30'W of FH 1	18"AP	1	8"	4.8	117.0	100+
	Water Tie-In						
9	Potomac & Main Entrance	1.5'BG	1	8"	4.2	116.9	100+
10	Potomac & Main Entrance	.5'BG	1	8"	4.1	117.5	100+

Comments:
Test results on this report meet project specification.

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

07-VLV/R07-Future Key

FIELD DENSITY TESTING

Terracon

Client: HCA Healthcare

Project Number: 25061446
Report Number: 25061446.0007

Comments (cont'd):
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 32191 Std Cnt M: 2724 Std Cnt D: 32191

Terracon Rep: Kathryn A. Leibold
Field Results Reported To: Rich w/JSB

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
Daniel E. Redman
MAR 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

HMAC FIELD DENSITY TESTING

Report Number: 25061446.0011
Service Date: March 9, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: March 15, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

	Material No.	Laboratory Test Method	Description	Lab Test Data: Reference Density (pcf)	Project Requirements: Minimum Thickness (inches)	Minimum Compaction (%)	Maximum Compaction (%)
1	614460012		5-75 ¾" #7	156.3		92.0	96.0
2	6144600		5X-75 ½" #4	155.0		92.0	96.0

Field Test Data

Test No.	Location	Pavement Lift	Mat. No.	Nuclear Density (pcf)	Comp. (%)
	Asphalt Patchwork - Northbound Lanes				
1	Water Service Patch (South)	BOTTOM	1	144.9	93
2	Manhole #4 Patch	BOTTOM	1	143.5	92
3	Water Service Patch (North)	BOTTOM	1	144.2	92
4	North Patch	BOTTOM	1	144.9	93
5	Water Service Patch (South)	MID	1	144.3	92
6	Water Service Patch (North)	MID	1	144.5	92
7	North Patch	MID	1	144.1	92
8	Manhole #4 Patch	MID	1	144.6	93
9	Water Service Patch (South)	TOP	2	142.7	92
10	Water Service Patch (North)	TOP	2	144.6	93
	Asphalt Patchwork - Southbound Lanes				
11	Manhole #4	BOTTOM	1	144.5	92

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

HMAC FIELD DENSITY TESTING

Terracon

Client: HCA Healthcare

Project Number: 25061446
Report Number: 25061446.0011

Field Test Data

Test No.	Location	Pavement Lift	Mat. No.	Nuclear Density (pcf)	Comp. (%)
12	Manhole #4	MID	1	144.9	93

Comments:

Test results on this report meet project specification.

Services - Field Density Testing

Field Test Method: ASTM D2922, ASTM D3017

Gauge ID: 4460

Terracon Rep: Matthew P. Wales

Field Results Reported To: Rich w/JBS

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co

Reviewed by: _____

Daniel E. Redman

MAR 19 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REPORT OF ASPHALT SAMPLING

Report Number: 25061446.0012
Service Date: March 9, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: March 15, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Asphalt Sampling

Terracon obtained 1 sample of asphalt concrete for laboratory analysis to determine compliance with project requirements. The sampling was performed on site in accordance with applicable AASHTO and ASTM procedures.

See attached sheet for results.

Terracon Rep: Matthew P. Wales

Report Distribution:
(1) HCA Healthcare
(1) *Perkins & Will*
(1) JE Dunn Construction Co

Reviewed by: Daniel E. Redman
MAR 15 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JLH/R90-Future Key

Bituminous Mixture Test Results

Terracon
10625 W. I-70 Frontage Road North, Suite 3
Wheat Ridge, Colorado 80033
Phone: (303) 423-3300 / Fax: (303) 423-3353

Client Name: HCA Healthcare
Address: One Park Plaza, I-4W
Nashville, TN 37203

Project No.: 25061446 Date of Report: 3/9/2007
Mix Source: Colorado Asphalt Services Inc.

Project Name: Aurora Medical Center Expansion
Location: S. Potomac St. & E. Arkansas
Aurora, CO
Sample Location: Water Meter Patch (North), Bottom Lift, Northbound Side of Potomac at 1501 Potomac St.

Mix Type: #7 Sample I.D. No.: 1446.0012
Sampled By: M. Wales Date: 3/9/2007
Submitted By: M. Wales Date: 3/9/2007
Reviewed By:

MAR 15 2007

Test Procedures:

X NCAT Asphalt Content Tester, ASTM D6307 / CPL5120
(Current Calibration Data Available Upon Request)

Time sampled: 9:20 Batch Ticket No.: 216163 Load Tonnage: 14.09

Temperature,°F: 250 Truck No.: 292 Cumulative Tonnage: 29.13

Bituminous Content, %
4.96 Total Mix 95.04 Total Aggregate
Specification limits: 4.9-5.5
Sieve Analysis of: X Ignited Mineral Agg.
Wt. of Sample Before Ignition: 2315.1
Wt. of Sample After Ignition: 2200.3

Sieve Size	% Accumulative Passing	Aurora Min.	Aurora Max.
1-1/2"			
1"	100	100	---
3/4"	95	93	100
1/2"	81	79	91
3/8"	75	72	84
1/4"	---	---	---
#4	61	60	70
#8	46	44	54
#10	---	---	---
#16	34	---	---
#30	24	18	26
#40	19	---	---
#50	15	10	18
#80	---	---	---
#100	9	---	---
#200	5.9	3.5	7.5
PAN			

Physical Properties of Bituminous Mixtures:
___ ASTM D 1559
___ 50 Blows per Side ___ 75 Blows per side
X ASTM D2041 X AASHTO T312

Property	Standard	Results: Avg. of 3 Specimens	Specification
Bulk Density (pcf)		149.3	
Bulk Specific Gravity		2.392	
Theoretical Max. Specific Gravity	2.505		
Air Voids (%)		4.51	3.0-5.0
Stability (pounds)			
Flow (1/100 inch)			
Theoretical Max. Density	156.3		
VMA (%)		13.7	13.0-15.4
Avg. Diameter of Mold (mm)	100		
Relative Density		95.5	
Weight (gm)		1173.0	
Ht. of Specimen After Each Gyration (see attached)			

Comments:

FIELD DENSITY TESTING

Report Number: 25061446.0015
Service Date: March 9, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: March 15, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
1 614460002	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-1-b (0)	4.5	116.0	±2	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Asphalt Patchwork Subgrade						
1	Northbound Lanes - Manhole #4	GRADE	1	8"	5.7	111.6	96
2	Northbound Lanes - Manhole #4	GRADE	1	8"	5.3	112.9	97
3	Northbound Lanes - Manhole #4	GRADE	1	8"	6.1	115.7	100
4	Northbound Lanes - Water Service	GRADE	1	8"	5.9	115.8	100

Comments:

Test results on this report meet project specification.

Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 4460

Terracon Rep: Matthew P. Wales
Field Results Reported To: Rich w/JBS

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
Daniel E. Redman
MAR 15 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

07-VLV/R07-Future Key

MISCELLANEOUS CME SERVICES

Report Number: 25061446.0016
Service Date: March 9, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: March 15, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Asphalt Sampling

Terracon obtained 1 sample of asphalt concrete for laboratory analysis to determine compliance with project requirements. The sampling was performed on site in accordance with applicable AASHTO and ASTM procedures.

See attached sheet for results.

Terracon Rep: Matthew P. Wales

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co

Reviewed by: Daniel E. Redman
MAR - 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JLN/R99-Future Key

Bituminous Mixture Test Results

Terracon
10625 W. I-70 Frontage Road North, Suite 3
Wheat Ridge, Colorado 80033
Phone: (303) 423-3300 / Fax: (303) 423-3353

Client Name: HCA Healthcare
Address: One Park Plaza, I-4W
Nashville, TN 37203

Project Name: Aurora Medical Center Expansion
Location: S. Potomac St. & E. Arkansas
Aurora, CO
Sample Location: Top Lift at Manhole #4

Project No.: 25061446 Date of Report: 3/9/2007
Mix Source: Colorado Asphalt Services Inc.

Mix Type: #4 Sample I.D. No.: 1446.0016
Sampled By: M. Wales Date: 3/9/2007
Submitted By: M. Wales Date: 3/9/2007
Reviewed By:

Test Procedures:

X NCAT Asphalt Content Tester, ASTM D6307 / CPL5120
(Current Calibration Data Available Upon Request)

MAR 15 2007

Time sampled: 11:30 a.m. Batch Ticket No.: 216164 Load Tonnage: 8.65

Temperature,°F: 275 *Truck No.: 286* *Cumulative Tonnage: 8.65*

Bituminous Content, %
5.57 Total Mix 94.43 Total Aggregate
Specification limits: 5.3-5.9
Sieve Analysis of: X Ignited Mineral Agg.
Wt. of Sample Before Ignition: 2303.3
Wt. of Sample After Ignition: 2175.0

Sieve Size	% Accumulative Passing	Aurora Min.	Aurora Max.
1-1/2"			
1"			
3/4"	100	100	—
1/2"	95	88	100
3/8"	88	79	91
1/4"	—	—	—
#4	73	67	77
#8	56	51	61
#10	—	—	—
#16	35	—	—
#30	22	22	30
#40	18	—	—
#50	14	11	19
#80	—	—	—
#100	7	—	—
#200	5.6	3.5	7.5
PAN			

Physical Properties of Bituminous Mixtures:
___ ASTM D 1559
___ 50 Blows per Side ___ 75 Blows per side
X ASTM D2041 X AASHTO T312

Property	Standard	Results: Avg. of 3 Specimens	Specification
Bulk Density (pcf)		147.5	
Bulk Specific Gravity		2.363	
Theoretical Max. Specific Gravity	2.483		
Air Voids (%)		4.84	3.0-5.0
Stability (pounds)			
Flow (1/100 inch)			
Theoretical Max. Density	155.0		
VMA (%)		14.6	14.5-16.9
Avg. Diameter of Mold (mm)	100		
Relative Density		95.3	
Weight (gm)		1150.5	
Ht. of Specimen After Each Gyration (see attached)			

Comments:

FIELD DENSITY TESTING

Report Number: 25061446.0018
Service Date: March 15, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: March 21, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
1 614460002	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-1-b (0)	4.5	116.0	±2	100

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Waterline Trench Backfill						
1	27' S and 60' E of the NE corner of bldg 1421	Grade	1	8"	6.0	116.0	100
2	23' S and 60' E of the NE corner of bldg 1421	3' B.G.	1	8"	5.7	116.1	100

Comments:
Test results on this report meet project specification.
Rich with JBS was informed of our test results.
Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 4043

Terracon Rep: Eric L. Pearson
Field Results Reported To: Rich w/ JBS

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
Daniel E. Redman
MAR 22 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TESTING

Report Number: 25061446.0026
Service Date: May 9, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: May 21, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460027	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-2-4	12.0	116.0	+-2	100

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Parking Lot Subgrade						
1	25' E X 15' S of NW Corner of the parking lot	S.G.	1	8"	10.0	116.8	100+
2	25' E X 50' S of NW Corner of the parking lot	S.G.	1	8"	10.2	115.9	100
3	25' E X 150' S of NW Corner of the parking lot	S.G.	1	8"	11.2	116.0	100

Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 4043

Terracon Rep: Jonathan D. Venerable
Field Results Reported To: Wayne W/ Belair

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Daniel E. Redman
MAY 22 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

LABORATORY COMPACTION CHARACTERISTICS OF SOIL

Report Number: 25061446.0027
Service Date: May 9, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client: HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: May 18, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project Number: 25061446

Material Information

Contractor:
Source of Material: On-site
Proposed Use: Fill
USCS: SP-SM

Sample Information

Sampled By: Jonathan D. Venerable
Sample Location: North side of parking lot

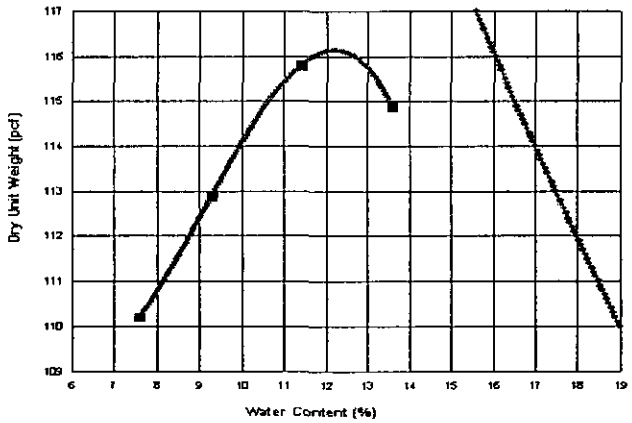
Sample Description: Poorly Graded Sand w/ Silt (SP-SM)
A-2-4

Laboratory Test Data

Test Procedure:	ASTM D698-91
Test Method:	Method A
Sample Preparation:	Dry Preparation
Rammer Type:	Manual Rammer
Maximum Dry Unit Weight, pcf:	116.0
Optimum Water Content, %:	12.0

	Result	Specifications
Liquid Limit:	Non-plastic	
Plastic Limit:	Non-plastic	
Plasticity Index:	Non-plastic	
% Passing #40:	50.9	
% Passing #200:	11.2	

Moisture Density Relations
Zero Air Voids Curve for assumed specific gravity 2.65



Services-D698, Sieve, PI

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

Terracon Rep: Jonathan D. Venerable

Reviewed by: Dan Redman
MAY 18 2007
Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

06-VNB/RD6-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0029
Service Date: May 14, 2007
Task: Curb and Gutter Concrete

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 12, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 3000 psi @ 28 Days

Batch Time: 0750 Plant: 15
Supplier: Bestway
Truck No: 47 Ticket No: 568307
Mix I.D. No.: 402119

Sample Information

Date Cast: May 14, 2007 Time: 0817
Sampled by: Travis O. Whalen
Weather Conditions: Partly Cloudy

Placement Method: Direct Discharge
Sample Locations: South and middle parking lot islands
Placement Location: Curb and gutter for parking lot islands

Field Test Data

Test	Result	Specification
Slump, inches:	3.0	1-4"
Air Content, %:	3.9	4.5-7.5%
Concrete Temperature, °F:	69	50 - 90
Ambient Temperature, °F:	60	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
2C		4.00	12.57	05/21/2007	7	51,940	4,130
2C		4.00	12.57	05/21/2007	7	51,700	4,110
					Average (7 Days)		**4,120**
2C		4.00	12.57	06/11/2007	28	70,840	5,640
2C		4.00	12.57	06/11/2007	28	66,450	5,290
2C		4.00	12.57	06/11/2007	28	71,570	5,690
					Average (28 Days)		**5,540**
2C					Hold		

Comments:
Subgrade for 2 southernmost parking lot islands had low moisture content, however, a proctor is not yet available. Concrete for curb and gutter tested low on air. Dan Redman was informed of these results.

Jesse Hunt with JE Dunn was informed of our test results.

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Terracon

Client: HCA Healthcare

Project Number: 25061446
Report Number: 25061446.0029

Comments (cont'd):

Services - Concrete Testing

Field Results Reported To: Jesse Hunt w/ JE Dunn

Samples made by: Terracon

Terracon Rep: Travis O. Whalen

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Dan Redman

Daniel E. Redman

JUN 13 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TESTING

Report Number: 25061446.0030
Service Date: May 15, 2007
Task: **Curb and Gutter Subgrade**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: May 31, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460027	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-2-4	12.0	116.0	±2	100

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Curb & Gutter/Sidewalk Subgrade						
1	Line No. 56, 10'N of curve No. 49	S.G.	1	8"	14.5 *	117.7	100+
2	Line No. 58, 10'N of curve No. 48	S.G.	1	8"	11.6	116.9	100+
3	Line No. 58, 60'N of curve No. 48	S.G.	1	8"	10.1	115.5	100
4	Line No. 54, 130'N of curve No. 48	S.G.	1	8"	10.3	116.3	100
5	Line No. 59, 10'E of curve No. 48	S.G.	1	8"	13.0	117.9	100+
6	2'N of line No. 57, 16'W of line No. 56	S.G.	1	8"	10.0	118.4	100+
7	2'N of line No. 57, 9'W of line No. 56	S.G.	1	8"	12.3	117.9	100+
8	SW corner of curve No. 17	S.G.	1	8"	13.9	117.9	100+

Comments:

An asterisk (*) appears next to test results which do NOT meet the project specifications.

Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 4524

Terracon Rep: Travis O. Whalen
Field Results Reported To: John w/JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: *Dan Redman*
Daniel E. Redman
JUN 0 4 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

07-RMK/R07-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0031
Service Date: May 15, 2007
Task: **Curb and Gutter Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 13, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 3000 psi @ 28 Days

Batch Time: 0934 Plant: 15
Supplier: Bestway Concrete
Truck No: 141 Ticket No: 568402
Mix I.D. No.: 402119

Sample Information

Date Cast: May 15, 2007 Time: 1028
Sampled by: Travis O. Whalen
Weather Conditions: Partly Cloudy
Accumulative Yards: 5/5
Placement Method: Direct Discharge
Sample Locations: See comments
Placement Location: Curb and gutter and sidewalk

Field Test Data

Test	Result	Specification
Slump, inches:	2.0	1-4"
Air Content, %:	4.5	4.5-7.5%
Concrete Temperature, °F:	68	50 - 90
Ambient Temperature, °F:	60	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
4C		4.00	12.57	05/22/2007	7	50,930	4,050
4C		4.00	12.57	05/22/2007	7	49,750	3,960
					Average (7 Days)		**4,010**
4C		4.00	12.57	06/12/2007	28	66,520	5,290
4C		4.00	12.57	06/12/2007	28	67,970	5,410
					Average (28 Days)		**5,350**
4C					Hold		
4C					Hold		

Comments:
Sidewalk west and along complete length of line 58
John with JE Dunn was informed of our test results.
Services - Concrete Testing
Field Results Reported To: John w/ JE Dunn

Samples made by: Terracon

Terracon Rep: Travis O. Whalen

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

Reviewed by: Daniel E. Redman

JUN 14 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0032
Service Date: May 15, 2007
Task: Curb and Gutter Concrete

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 13, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 3000 psi @ 28 Days

Batch Time: 1333 Plant: 3
Supplier: Rocky Mtn. Ready Mix
Truck No: M-58 Ticket No: 110437
Mix I.D. No.: 6712

Sample Information

Date Cast: May 15, 2007 Time: 1420
Sampled by: Travis O. Whalen
Weather Conditions: Cloudy
Accumulative Yards: 4.5/4.5
Placement Method: Direct Discharge
Sample Locations: St inlet 1-3 and 1-2
Placement Location: Storm sewer inlets

Field Test Data

Test	Result	Specification
Slump, inches:	2.0	1-4"
Air Content, %:	4.6	4.5-7.5%
Concrete Temperature, °F:	71	50 - 90
Ambient Temperature, °F:	70	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
3C		4.00	12.57	05/22/2007	7	66,690	5,310
3C		4.00	12.57	05/22/2007	7	64,630	5,140
					Average (7 Days)		**5,230**
3C		4.00	12.57	06/12/2007	28	77,450	6,160
3C		4.00	12.57	06/12/2007	28	75,570	6,010
					Average (28 Days)		**6,090**
3C					Hold		
3C					Hold		

Comments:
John with JE Dunn was informed of our test results.
Services - Concrete Testing
Field Results Reported To: John w/ JE Dunn

Samples made by: Terracon

Terracon Rep: Travis O. Whalen

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
Daniel E. Redman

JUN 14 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-VNB/R01-Future Key

REPORT OF CONCRETE CYLINDER PICK UP

Report Number: 25061446.0033
Service Date: May 15, 2007
Task:

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: May 21, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Concrete Cylinder Pick Up

Terracon obtained 1 set of 6 concrete cylinders cast on May 14, 2007. The samples were returned to the laboratory for processing and proper curing as specified.

Terracon Rep: Travis O. Whalen

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
MAY 2007 Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

98-ERK/R99-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0036
Service Date: May 16, 2007
Task: Curb and Gutter Concrete

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 14, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 3000 psi @ 28 Days

Batch Time: 1439 Plant: 3
Supplier: Rocky Mnt Ready Mix
Truck No: M-66 Ticket No: 110471
Mix I.D. No.: 6712
Water Added Onsite Before Test: 5 Gallons

Sample Information

Date Cast: May 16, 2007 Time: 1542
Sampled by: Travis O. Whalen
Weather Conditions: Sunny
Accumulative Yards: 7.5/7.5
Placement Method: Direct Discharge
Sample Locations: Vertical walls of St inlets 1-2 and 1-3
Placement Location: 2 storm sewe inlets

Field Test Data

Test	Result	Specification
Slump, inches:	2.0	1-4"
Air Content, %:	4.5	4.5-7.5%
Concrete Temperature, °F:	79	50 - 90
Ambient Temperature, °F:	75	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
7C		4.00	12.57	05/23/2007	7	61,140	4,860
7C		4.00	12.57	05/23/2007	7	54,000	4,300
					Average (7 Days)		**4,580**
7C		4.00	12.57	06/13/2007	28	65,080	5,180
7C		4.00	12.57	06/13/2007	28	69,130	5,500
					Average (28 Days)		**5,340**
7C					Hold		
7C					Hold		

Comments:
John with JE Dunn was informed of our test results.
Services - Concrete Testing
Field Results Reported To: John w/ JE Dunn

Samples made by: Terracon

Terracon Rep: Travis O. Whalen

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Daniel E. Redman
JUN 14 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0038
Service Date: May 16, 2007
Task: **Curb and Gutter Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 14, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 3000 psi @ 28 Days

Batch Time: 0621 Plant: 15
Supplier: Bestway Concrete
Truck No: 69 Ticket No: 568446
Mix I.D. No.: 402119
Water Added Onsite Before Test: 5 Gallons

Sample Information

Date Cast: May 16, 2007 Time: 0724
Sampled by: Travis O. Whalen
Weather Conditions: Sunny
Accumulative Yards: 5/10
Placement Method: Direct Discharge
Sample Locations: See comments
Placement Location: Parking lot curb and gutter

Field Test Data

Test	Result	Specification
Slump, inches:	2.0	1-4"
Air Content, %:	5.6	4.5-7.5%
Concrete Temperature, °F:	68	50 - 90
Ambient Temperature, °F:	60	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
6C		4.00	12.57	05/23/2007	7	53,180	4,230
6C		4.00	12.57	05/23/2007	7	49,260	3,920
					Average (7 Days)		**4,080**
6C		4.00	12.57	06/13/2007	28	69,110	5,500
6C		4.00	12.57	06/13/2007	28	61,190	4,870
6C		4.00	12.57	06/13/2007	28	65,810	5,240
					Average (28 Days)		**5,200**
6C					Hold		

Comments:
Curb and gutter of L55, L57, and L56 (from 2' N of C46 to 35' S of C 47
John with JE Dunn was informed of our test results.
Services - Concrete Testing
Field Results Reported To: John w/ JE Dunn **Samples made by:** Terracon

Terracon Rep: Travis O. Whalen

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
JUN 14 2007 Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0041
Service Date: May 17, 2007
Task: Curb and Gutter Concrete

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 15, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 3000 psi @ 28 Days

Batch Time: 0755 Plant: 15
Supplier: Bestway
Truck No: 136 Ticket No: 568585
Mix I.D. No.: 402119

Sample Information

Date Cast: May 17, 2007 Time: 0845
Sampled by: Randy L. Cotton
Weather Conditions: Sunny
Accumulative Yards: 10/10 Batch Size (cy): 10.00
Placement Method: Direct Discharge
Sample Locations: Same as placement location
Placement Location: Curb and gutter from 1605 to 25' W from 160' S to 177' S to 20' W of STM Inlet No. 1

Field Test Data

Test	Result	Specification
Slump, inches:	3.75	1-4"
Air Content, %:	5.0	4.5-7.5%
Concrete Temperature, °F:	70	50 - 90
Ambient Temperature, °F:	65	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)
5C		4.00	12.57	05/24/2007	7	45,540	3,620
5C		4.00	12.57	05/24/2007	7	45,510	3,620
					Average (7 Days)		**3,620**
5C		4.00	12.57	06/14/2007	28	56,940	4,530
5C		4.00	12.57	06/14/2007	28	59,530	4,740
					Average (28 Days)		**4,640**
5C				07/01/2007	45		
5C				07/01/2007	45		

Comments:
John with JE Dunn was informed of our test results.
Services - Concrete Testing
Field Results Reported To: John w/ JE Dunn

Samples made by: Terracon

Terracon Rep: Randy L. Cotton

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
Daniel E. Redman
JUN 15 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-VNB/R01-Future Key

REPORT OF CONCRETE CYLINDER PICK UP

Report Number: 25061446.0043
Service Date: May 18, 2007
Task: **Curb and Gutter Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: May 29, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Concrete Cylinder Pick Up

Terracon obtained 1 set of 6 concrete cylinders cast on May 18, 2007. The samples were returned to the laboratory for processing and proper curing as specified.

Terracon Rep: Jesse D. Barak

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-CTW/R99-Future Key

MISCELLANEOUS CME SERVICES

Report Number: 25061446.0044
Service Date: *May 18, 2007*
Task: **Curb and Gutter Subgrade**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: May 31, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: On-site Cancellation

Terracon arrived on site at the desired time to perform moisture/density tests on the Curb and Gutter, but was informed of a cancellation today from John with MCL.

Terracon Rep: Jesse D. Barak

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Daniel E. Redman

JUN 01 2007 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-/R99-Future Key

REPORT OF CONCRETE CYLINDER PICK UP

Report Number: 25061446.0046
Service Date: May 19, 2007
Task: **Curb and Gutter Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: May 29, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Concrete Cylinder Pick Up

Terracon obtained 0 sets of 0 concrete cylinders cast on May 19, 2007. The samples were returned to the laboratory for processing and proper curing as specified.

Terracon Rep: Jesse D. Barak

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
MAY 29 2007 Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REPORT OF ON-SITE CANCELLATION

Report Number: 25061446.0047
Service Date: May 21, 2007
Task: **Curb and Gutter Subgrade**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 04, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: On-Site Cancellation

Terracon arrived on-site, as requested, to perform field dnesity testing and to test concrete for a different location. The subgrade was not eady for testing. Terracon tested the concrete for the other area.

Terracon Rep: Jesse D. Barak
Field Results Reported To: John w/JE Dunn Construction

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
Daniel E. Redman
JUN 0 6 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-VLV/R89-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0049
Service Date: May 21, 2007
Task: Curb and Gutter Concrete

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 19, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 3000 psi @ 28 Days

Batch Time: 1344 Plant: 3
Supplier: Rocky Mnt Ready Mix
Truck No: M-58 Ticket No: 110649
Mix I.D. No.: 6712

Sample Information

Date Cast: May 21, 2007 Time: 1432
Sampled by: Jesse D. Barak
Weather Conditions: Cloudy/Rain
Accumulative Yards: 5/5 Batch Size (cy): 5.00
Placement Method: Direct Discharge
Sample Locations: Same as placement location
Placement Location: Inlet box at northwest corner of site

Field Test Data

Test	Result	Specification
Slump, inches:	3.0	1-4"
Air Content, %:	4.5	4.5-7.5%
Concrete Temperature, °F:	71	50 - 90
Ambient Temperature, °F:	70	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
8C		4.00	12.57	05/28/2007	7	58,050	4,620
8C		4.00	12.57	05/28/2007	7	57,570	4,580
					Average (7 Days)		**4,600**
8C		4.00	12.57	06/18/2007	28	72,230	5,750
8C		4.00	12.57	06/18/2007	28	72,530	5,770
					Average (28 Days)		**5,760**
8C					Hold		
8C					Hold		

Comments:
John with JE Dunn Construction was informed of our test results.
Services - Cast Concrete Cylinders
Field Results Reported To: John w/ JE Dunn **Samples made by:** Terracon

Terracon Rep: Jesse D. Barak

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Daniel E. Redman
JUN 19 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-VNB/R01-Future Key

REPORT OF CONCRETE CYLINDER PICK UP

Report Number: 25061446.0050
Service Date: May 22, 2007
Task:

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: May 29, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Concrete Cylinder Pick Up

Terracon obtained 1 set of 6 concrete cylinders cast on May 21, 2007. The samples were returned to the laboratory for processing and proper curing as specified.

Terracon Rep: Randy L. Cotton
Field Results Reported To: Don w/ JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Daniel E. Redman

MAY 2 2 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JAS/R99-Future Key

REPORT OF ON-SITE CANCELLATION

Report Number: 25061446.0051
Service Date: May 24, 2007
Task: **Curb and Gutter Subgrade**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 08, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: On-site Cancellation

Terracon arrived on site as scheduled to perform Moisture/Density Tests on the sidewalk but was *informed by John with JeDunn with an on site cancellation due to the wet conditions.*

Terracon Rep: Jesse D. Barak
Field Results Reported To: John with JeDunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
JUN 0 8 2007 Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-/R99-Future Key

REPORT OF ON-SITE CANCELLATION

Report Number: 25061446.0052
Service Date: May 24, 2007
Task: **Curb and Gutter Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 08, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: On-site Cancellation

Terracon arrived on site as scheduled to perform Moisture/Density Tests on the sidewalk but was informed by John with JeDunn with an on site cancellation due to the wet conditions.

Field Results Reported To: John with JeDunn
Samples made by Terracon
Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: JUN 0 8 2007 Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-/R99-Future Key

FIELD DENSITY TESTING

Report Number: 25061446.0054
Service Date: May 28, 2007
Task: **Curb and Gutter Subgrade**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 06, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460002	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-1-b (0)	4.5	116.0	±2	95
614460027	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-2-4	12.0	116.0	±2	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Sidewalk Subgrade						
1	18' E and 210' N of the SW corner of site	S.G.	2	8"	10.5	114.5	99
2	25' E and 195' N of the SW corner of site	S.G.	2	8"	10.2	115.1	99
3	30' E and 170' N of the SW corner of site	S.G.	2	8"	11.1	113.6	98
4	48' E and 140' N of the SW corner of site	S.G.	1	8"	5.5	116.2	100

Comments:

Test results on this report meet project specification.
Jesse with Jedunn was informed of our test results.

Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 4523

Terracon Rep: Jesse D. Barak
Field Results Reported To: Jesse w/ Jedunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
JE Dunn Construction Co

Reviewed by: Daniel E. Redman
JUN 0 6 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0055
Service Date: May 29, 2007
Task: Curb and Gutter Concrete

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: June 27, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 3000 psi @ 28 Days

Batch Time: 0930 Plant: 15
Supplier: Bestway Concrete
Truck No: 318-E Ticket No: 569358
Mix I.D. No.: 402119
Water Added Onsite Before Test: 5 Gallons

Sample Information

Date Cast: May 29, 2007 Time: 0955
Sampled by: Jesse D. Barak
Weather Conditions: Sunny
Accumulative Yards: 5/10 Batch Size (cy): 10.00
Placement Method: Tailgating
Sample Locations: 25'Ex195'N of the SW Corner of Site
Placement Location: Curb and Gutter SW Side of Site

Field Test Data

Test	Result	Specification
Slump, inches:	3.5	1-4
Air Content, %:	4.8	4.5-7.5
Concrete Temperature, °F:	68	50-90
Ambient Temperature, °F:	65	40 Min
Plastic Unit Weight, pcf:		

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
9C		4.00	12.57	06/04/2007	6	46,880	3,730
9C		4.00	12.57	06/04/2007	6	50,590	4,030
					Average (6 Days)		**3,880**
9C		4.00	12.57	06/25/2007	27	66,070	5,260
9C		4.00	12.57	06/25/2007	27	71,520	5,690
					Average (27 Days)		**5,480**
9C		4.00	12.57	06/26/2007	28	66,070	5,260
9C		4.00	12.57	06/26/2007	28	71,520	5,690
					Average (28 Days)		**5,480**

Comments: **Not tested for plastic unit weight.**
Services - Concrete Testing
Field Results Reported To: Jesse with JeDunn
Samples made by: Terracon

Terracon Rep: Jesse D. Barak

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Daniel E Redman
Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-rR01-Future Key

IELD DENSITY TESTING

Report Number: 25061446.0056
ervice Date: May 30, 2007
ask: **Curb and Gutter Subgrade**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
ttn: Rodney Allen
One Park Plaza I-4W
lashville TN 37203

Report Date: June 06, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460002	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-1-b (0)	4.5	116.0	±2	100
614460027	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-2-4	12.0	116.0	±2	100

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Sidewalk Subgrade						
1	60' E and 138' N of the SW corner	S.G.	2	8"	10.1	117.2	100+
2	59' E and 150' N of the SW corner	S.G.	2	8"	11.0	115.8	100
3	30' E and 185' N of the SW corner	S.G.	2	8"	10.0	118.4	100+
4	35' E and 210' N of the SW corner	S.G.	2	8"	10.0	116.3	100
5	78' S and 10' E of the NW corner	S.G.	1	8"	6.4	116.2	100
6	58' S and 10' E of the NW corner	S.G.	2	8"	10.0	116.2	100
7	50' S and 14' E of the NW corner	S.G.	2	8"	10.4	116.8	100+
8	55' S and 15' E of the NW corner	S.G.	2	8"	10.5	117.1	100+
9	45' S and 24' E of the NW corner	S.G.	2	8"	10.3	115.8	100
10	12' S and 30' E of the NW corner	S.G.	2	8"	11.8	115.9	100
11	12' S and 105' E of the NW corner	S.G.	2	8"	10.7	117.0	100+
12	12' S and 120' E of the NW corner	S.G.	2	8"	10.3	116.2	100
13	90' W and 24' S of the NE corner	S.G.	2	8"	10.0	115.9	100
14	84' W and 12' S of the NE corner	S.G.	2	8"	10.1	116.1	100
15	18' S and 139' E of the NW corner	S.G.	2	8"	10.2	116.3	100

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical terials.

FIELD DENSITY TESTING

Terracon

Client: HCA Healthcare

Project Number: 25061446
Report Number: 25061446.0056

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
16	27' S and 135' E of the NW corner	S.G.	2	8"	11.1	116.4	100

Comments:

Test results on this report meet project specification.

John with Jedunn was informed of our test results.

Services - Field Density Testing

Field Test Method: ASTM D2922, ASTM D3017

Gauge ID: 4523

Terracon Rep: Jesse D. Barak

Field Results Reported To: John w/ Jedunn

Report Distribution:

(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Dan Redman

Daniel E. Redman

JUN 08 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

07-VNB/R07-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0057
Service Date: May 30, 2007
Task: **Curb and Gutter Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: June 28, 2007
Project: *Aurora Medical Center Expansion*
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 3000 psi @ 28 Days

Batch Time: 0924 Plant: 15
Supplier: Bestway Concrete
Truck No: 318-E Ticket No: 569455
Mix I.D. No.: 402119

Sample Information

Date Cast: May 30, 2007 Time: 1010
Sampled by: Jesse D. Barak
Weather Conditions: Cloudy
Accumulative Yards: 5/10 Batch Size (cy): 10.00
Placement Method: Tailgating
Sample Locations: 30' Ex 150' N of the SW Corner of Site
Placement Location: Curb and Gutter West side of Site

Field Test Data

Test	Result	Specification
Slump, inches:	3.5	1-4
Air Content, %:	4.5	4.5-7.5
Concrete Temperature, °F:	68	50-90
Ambient Temperature, °F:	65	40 Min
Plastic Unit Weight, pcf:		

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
10C		4.00	12.57	06/06/2007	7	61,760	4,910
10C		4.00	12.57	06/06/2007	7	51,120	4,070
					Average (7 Days)		**4,490**
10C		4.00	12.57	06/27/2007	28	67,810	5,400
10C		4.00	12.57	06/27/2007	28	66,540	5,290
					Average (28 Days)		**5,350**
10C					Hold		
10C					Hold		

Comments: **Not tested for plastic unit weight.**
Services - Concrete Testing
Field Results Reported To: John with JeDunn
Samples made by: Terracon

Terracon Rep: Jesse D. Barak

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Daniel E Redman/DMO
Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-/R01-Future Key

REPORT OF CONCRETE CYLINDER PICK UP

Report Number: 25061446.0058
Service Date: May 30, 2007
Task: **Curb and Gutter Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 06, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Concrete Cylinder Pick Up

Terracon obtained 1 set of 6 concrete cylinders cast on May 29, 2007. The samples were returned to the laboratory for processing and proper curing as specified.

Terracon Rep: Jesse D. Barak

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
1) JE Dunn Construction Co
1) JE Dunn Construction Co

Reviewed by: JUN 0 6 2007
Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

[redacted]ELD DENSITY TESTING

Report Number: 25061446.0059
[redacted]rvice Date: May 31, 2007
[redacted]sk: **Curb and Gutter Subgrade**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
[redacted]CA Healthcare
[redacted]ttn: Rodney Allen
One Park Plaza I-4W
[redacted]ashville TN 37203

Report Date: June 06, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
1 614460002	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-1-b (0)	4.5	116.0	±2	95

[redacted]ield Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Patch Work						
1	244' W and 12' E of the SW Corner of the Site	S.G.	1	8"	6.4	115.9	100
2	288' N and 12' E of the SW Corner of the Site	S.G.	1	8"	6.5	115.9	100
3	70' S and 12' E of the NW Corner of the Site	S.G.	1	8"	6.3	117.2	100+

[redacted]omments:
Test results on this report meet project specification.
[redacted]ervices - Field Density Testing
[redacted]eld Test Method: ASTM D2922, ASTM D3017
Gauge ID: 4523

[redacted]erracon Rep: Jesse D. Barak
Field Results Reported To: John w/JE Dunn

[redacted]eport Distribution:
(1) HCA Healthcare
(1) Perkins & Will
[redacted]) JE Dunn Construction Co
[redacted]) JE Dunn Construction Co

Reviewed by: Dan Redman
Daniel E. Redman

JUN 0 6 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client [redacted]dicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable [redacted] the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical [redacted]aterials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0060
Service Date: May 31, 2007
Task: **Curb and Gutter Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: June 29, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 3000 psi @ 28 Days

Batch Time: 1109 Plant: 15
Supplier: Bestway Concrete
Truck No: 0020 Ticket No: 569575
Mix I.D. No.: 402119
Water Added Onsite Before Test: 5 Gallons

Sample Information

Date Cast: May 31, 2007 Time: 1145
Sampled by: Jesse D. Barak
Weather Conditions: Sunny
Accumulative Yards: 5/20 Batch Size (cy): 20.00
Placement Method: Tailgating
Sample Locations: Northren Curb and Gutter and Northern Entry Way
Placement Location: Northren Curb and Gutter and Northern Entry Way

Field Test Data

Test	Result	Specification
Slump, inches:	3	1-4
Air Content, %:	4.5	4.5-7.5
Concrete Temperature, °F:	68	50-90
Ambient Temperature, °F:	75	40 Min
Plastic Unit Weight, pcf:		

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Strength (psi)
11C		4.00	12.57	06/07/2007	7	56,350	4,480
11C		4.00	12.57	06/07/2007	7	58,730	4,670
					Average (7 Days)		**4,580**
11C		4.00	12.57	06/28/2007	28	68,700	5,470
11C		4.00	12.57	06/28/2007	28	63,900	5,080
11C		4.00	12.57	06/28/2007	28	75,540	6,010
					Average (28 Days)		**5,520**
11C					Hold		

Comments: **Not tested for plastic unit weight.**
Services - Concrete Testing
Field Results Reported To: John with JeDunn

Samples made by: Terracon

Terracon Rep: Jesse D. Barak

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Daniel E Redman
Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-/R01-Future Key

REPORT OF CONCRETE CYLINDER PICK UP

Report Number: 25061446.0061
Service Date: May 31, 2007
Task: **Curb and Gutter Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 06, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Concrete Cylinder Pick Up

Terracon obtained 1 set of 6 concrete cylinders cast on May 30, 2007. The samples were returned to the laboratory for processing and proper curing as specified.

Terracon Rep: Jesse D. Barak

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
Daniel E. Redman
JUN 0 6 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JLN/R99-Future Key

REPORT OF ON-SITE CANCELLATION

Report Number: 25061446.0062
Service Date: June 1, 2007
Task: **Pavement Subgrade**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 06, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: On-site Cancellation

Terracon arrived on-site, as scheduled, to perform moisture/density tests on the pavement subgrade, but was informed of an on-site cancellation from Jesse with JE Dunn.

Terracon Rep: Jesse D. Barak

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: _____
Daniel E. Redman

JUN 0 6 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JAA/R99-Future Key

REPORT OF CONCRETE CYLINDER PICK UP

Report Number: 25061446.0066
Service Date: June 1, 2007
Task: **Curb and Gutter Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 06, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Concrete Cylinder Pick Up

Terracon obtained 1 set of 6 concrete cylinders cast on May 31, 2007. The samples were returned to the laboratory for processing and proper curing as specified.

Terracon Rep: Jesse D. Barak

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
Daniel E. Redman
JUN 06 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JAA/R99-Future Key

FIELD DENSITY TESTING

Report Number: 25061446.0067
Service Date: June 4, 2007
Task: **Pavement Subgrade**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 08, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

	Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
1	614460027	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-2-4	12.0	116.0	±2	100

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
1	90'Ex228'S of the NW Corner of Site	SG	1	8"	10.0	116.1	100
2	90'Ex100'S of the NW Corner of Site	SG	1	8"	10.0	117.8	100+
3	95'Ex10'S of the NW Corner of Site	SG	1	8"	10.5	116.3	100
4	20'Ex100'S of the NW Corner of Site	SG	1	8"	11.1	117.1	100+
5	40'Ex250'S of the NW Corner of Site	SG	1	8"	10.0	116.9	100+
6	50'Ex230'S of the NW Corner of Site	SG	1	8"	10.5	116.2	100

Comments:

Test results on this report meet project specification.

Had deflection at 200'Sx30'E of the NW Corner and deflection at 240'Sx25'E of the NW Corner of site.

These areas will be fixed later today.

Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 4523

Terracon Rep: Jesse D. Barak
Field Results Reported To: Gilbert Renean w/Concrete Spec

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
Daniel E. Redman
JUN 08 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

MISCELLANEOUS CME SERVICES

Report Number: 25061446.0068
Service Date: June 4, 2007
Task: **Pavement Subgrade**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 08, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Witness proofrolling operations

On June 4, 2007, a representative of Terracon was present at the above referenced project site to observe proofrolling operations. The area that was proofrolled was identified as the(2)(3)(5) South Parking Lot Subgrade. The site contractor provided a loaded water tank to perform the proofrolling operations. The operator was instructed to make slow overlapping passes across the subgrade in a longitudinal direction.

The exposed subgrade soils consisted of Poorly graded sand with silt. The Terracon technician observed the equipment during the entire proofrolling operation and some deflection or "pumping" of the soils was observed. Deflection and movement was observed in the following areas: (7)

The contractors superintendent, Mr. Gilbert Reneon of Concrete Specialties was notified of the results.

The proofrolled area was not approved to receive paving materials.

Terracon Rep: Jesse D. Barak

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
Daniel E. Redman
JUN 0 8 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-ARK/R99-Future Key

LABORATORY COMPACTION CHARACTERISTICS OF SOIL

Report Number: 25061446.0069
Service Date: June 4, 2007
Task: **Pavement Subgrade**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client: HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 08, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project Number: 25061446

Material Information

Contractor:
Source of Material: Native
Proposed Use: Parking Lot Subgrade
USCS: SP-SM

Sample Information

Sampled By: Daniel E. Redman
Sample Location: Parking Lot

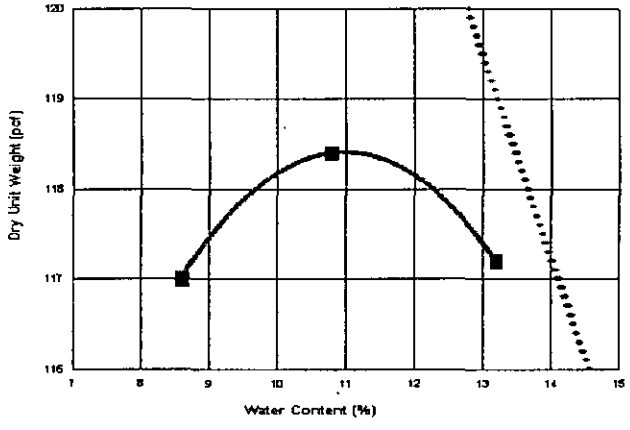
Sample Description: Poorly Graded Sand w/Silt (SP-SM)
A-1-b (0)

Laboratory Test Data

Test Procedure:	ASTM D1557-91
Test Method:	Method A
Sample Preparation:	Dry Preparation
Rammer Type:	Manual Rammer
Maximum Dry Unit Weight, pcf:	118.5
Optimum Water Content, %:	11.0

	Result	Specifications
Liquid Limit:	Non-plastic	
Plastic Limit:	Non-plastic	
Plasticity Index:	Non-plastic	
% Passing #40:	49.3	
% Passing #200:	9.1	

Moisture Density Relations
Zero Air Voids Curve for assumed specific gravity 2.55



Services-D1557, Sieve, PI

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

Terracon Rep: Daniel E. Redman

Reviewed by: _____
Daniel E. Redman

JUN 08 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

HMAC FIELD DENSITY TESTING

Report Number: 25061446.0070
Service Date: June 5, 2007
Task: **Pavement Subgrade**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 12, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description	Lab Test Data: Reference Density (pcf)	Project Requirements: Minimum Thickness (inches)	Minimum Compaction (%)	Maximum Compaction (%)
614460072	ASTM D-2041	Asphalt Specialties Mix #10	157.9		92.0	96.0

Field Test Data

Test No.	Location	Pavement Lift	Mat. No.	Nuclear Density (pcf)	Comp. (%)
	Asphalt				
1	120'E&60'N of the SW Corner of Site	BOTTOM	1	147.0	93
2	22'E&60'N of the SW Corner of Site	BOTTOM	1	144.7	92
3	30'E&90'N of the SW Corner of Site	BOTTOM	1	145.5	92
4	25'E&110'N of the SE Corner of Site	BOTTOM	1	144.7	92
5	35'E&120'N of the SW Corner of Site	BOTTOM	1	147.4	93
6	29'E&120'S of the NW Corner of Site	BOTTOM	1	144.9	92
7	20'E&85'S of the NW Corner of Site	BOTTOM	1	152.0	96
8	40'E&85'S of the NW Corner of Site	BOTTOM	1	145.9	92
9	42'E&140'S of the NW Corner of Site	BOTTOM	1	145.6	92
10	120'E&96'N of the SE Corner of Site	BOTTOM	1	145.0	92

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

HMAC FIELD DENSITY TESTING

Terracon

Client: HCA Healthcare

Project Number: 25061446
Report Number: 25061446.0070

Comments (cont'd):

Comments:

Test results on this report meet project specification.

Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 35566

Terracon Rep: Jesse D. Barak
Field Results Reported To: John w/JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
Daniel E. Redman

JUN 18 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REPORT OF ASPHALT SAMPLING

Report Number: 25061446.0072
Service Date: June 5, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 11, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Asphalt Sampling

Terracon obtained 1 sample of asphalt concrete for laboratory analysis to determine compliance with project requirements. The sampling was performed on site in accordance with applicable AASHTO and ASTM procedures.

See attached sheet for results.

Terracon Rep: Jesse D. Barak

Report Distribution:
(1) HCA Healthcare
(1) *Perkins & Will*
JE Dunn Construction Co
JE Dunn Construction Co

Reviewed by: Dan Redman
Daniel E. Redman

JUN 18 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JLN/R99-Future Key

Bituminous Mixture Test Results

Terracon
10625 W. I-70 Frontage Road North, Suite 3
Wheat Ridge, Colorado 80033
Phone: (303) 423-3300 / Fax: (303) 423-3353

Client Name: HCA Healthcare
Address: One Park Plaza, I-4W
Nashville, TN 37203

Project No.: 25061446 Date of Report: 6/5/2007
Mix Source: Asphalt Specialties

Project Name: Aurora Medical Center Expansion
Location: S. Potomac St. & E. Arkansas
Aurora, CO
Sample Location: 90' E and 140' N of the SW Corner of the Site

Mix Type: #10 Sample I.D. No.: 1446.0072
Sampled By: J. Barak Date: 6/5/2007
Submitted By: J. Barak Date: 6/5/2007
Reviewed By:

Test Procedures:

X NCAT Asphalt Content Tester, ASTM D6307 / CPL5120
(Current Calibration Data Available Upon Request)

Time sampled: 8:30 Batch Ticket No.: 130910 Load Tonnage: 14.71

Temperature,°F: 252 Truck No.: P20 EAGLE Cumulative Tonnage: 59.16

Bituminous Content, %
5.18 Total Mix 94.82 Total Aggregate
Specification limits: 4.8-5.4
Sieve Analysis of: X Ignited Mineral Agg.
Wt. of Sample Before Ignition: 2407.8
Wt. of Sample After Ignition: 2283.1

Sieve Size	% Accumulative Passing	Aurora Min.	Aurora Max.
1-1/2"			
1"	100	100	---
3/4"	99	93	100
1/2"	90	80	92
3/8"	82	70	82
1/4"	---	---	---
#4	62	55	65
#8	51	43	53
#10	---	---	---
#16	37	---	---
#30	25	20	28
#40	20	---	---
#50	15	11	19
#80	---	---	---
#100	9	---	---
#200	6.1	4.3	8.3
PAN			

Physical Properties of Bituminous Mixtures:
___ ASTM D 1559
___ 50 Blows per Side ___ 75 Blows per side
X ASTM D2041 X AASHTO T312

Property	Standard	Results: Avg. of 3 Specimens	Specification
Bulk Density (pcf)		151.9	
Bulk Specific Gravity		2.434	
Theoretical Max. Specific Gravity	2.531		
Air Voids (%)		3.84	2.9-5.3
Stability (pounds)			
Flow (1/100 inch)			
Theoretical Max. Density	157.9		
VMA (%)		13.7	13.2-15.6
Avg. Diameter of Mold (mm)	100		
Relative Density		96.2	
Weight (gm)		1191.1	
Ht. of Specimen After Each Gyration (see attached)			

Comments: *Did not meet specifications.

JUN 18 2007

REPORT OF ASPHALT SAMPLING

Report Number: 25061446.0072
Service Date: June 5, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 11, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Asphalt Sampling

Terracon obtained 1 sample of asphalt concrete for laboratory analysis to determine compliance with project requirements. The sampling was performed on site in accordance with applicable AASHTO and ASTM procedures.

See attached sheet for results.

Terracon Rep: Jesse D. Barak

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Daniel E. Redman
JUN 18 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-JLN/R99-Future Key

HMAC FIELD DENSITY TESTING

Terracon

Client: HCA Healthcare

Project Number: 25061446
Report Number: 25061446.0076

Field Test Data

Test No.	Location	Pavement Lift	Mat. No.	Nuclear Density (pcf)	Comp. (%)
9	70' E and 300' N from SW corner of W parking lot	Top	1	144.2	92
10	50' E and 350' N from SW corner of W parking lot	Top	1	144.4	92
11	15' S and 100' E from NW corner of W parking lot	Top	1	147.3	94
12	25' S and 120' E from NW corner of W parking lot	Top	1	148.1	94
13	80' S and 90' E from NW corner of W parking lot	Top	1	143.6	92
14	150' S and 100' E from NW corner of W parking lot	Top	1	143.9	92
15	200' S from NW corner of W parking lot	Top	1	146.1	93

Comments:

An asterisk (*) appears next to test results which do NOT meet the project specifications.

John Weber with JE Dunn was informed of our test results.

Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 4463

Terracon Rep: Neil T. Ogden
Field Results Reported To: John Weber w/ JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Dan Redman
Daniel E. Redman
JUL 03 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0075
Service Date: June 8, 2007
Task: Patterned Concrete

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: July 09, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 3000 psi @ 28 Days

Batch Time: 0623 Plant: 15
Supplier: Bestway Concrete
Truck No: 47 Ticket No: 570265
Mix I.D. No.: 402119

Sample Information

Date Cast: June 8, 2007 Time: 0720
Sampled by: Neil T. Ogden
Weather Conditions: Sunny
Accumulative Yards: 6/36
Placement Method: Direct Discharge
Sample Locations: Siedwalk/ C& G from NW Corner of Site 5-15'Ex20-25'S
Placement Location: Sidewalk/C & G-West side of Site-from NW Corner of Site 10-220'S x 5-15'E

Field Test Data

Test	Result	Specification
Slump, inches:	5.0	5" Max
Air Content, %:	6.5	4.5-7.5
Concrete Temperature, °F:	61	50-90
Ambient Temperature, °F:	60	40 Min
Plastic Unit Weight, pcf:		

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
12C		4.00	12.57	06/15/2007	7	54,760	4,360
12C		4.00	12.57	06/15/2007	7	49,520	3,940
					Average (7 Days)		**4,150**
12C		4.00	12.57	07/06/2007	28	69,030	5,490
12C		4.00	12.57	07/06/2007	28	59,360	4,720
12C		4.00	12.57	07/06/2007	28	74,610	5,940
					Average (28 Days)		**5,380**
12C					Hold		

Comments: **Not tested for plastic unit weight.**
Services - Concrete Testing
Field Results Reported To: John Weber with JE Dunn

Samples made by: Terracon

Terracon Rep: Neil T. Ogden

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Dan Redman
JUL 10 2007
Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

MAC FIELD DENSITY TESTING

Report Number: 25061446.0076
Service Date: June 8, 2007
Task: **Asphalt Paving**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: June 13, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description	Lab Test Data: Reference Density (pcf)	Project Requirements: Minimum Thickness (inches)	Minimum Compaction (%)	Maximum Compaction (%)
614460077	ASTM D-2041	Mix #13	156.8	2.0	92.0	96.0

Field Test Data

Test No.	Location	Pavement Lift	Mat. No.	Nuclear Density (pcf)	Comp. (%)
	Asphalt Paving				
1	60' E and 90' N from SW corner of W parking lot	Top	1	143.4	91 *
2	80' E and 100' N from SW corner of W parking lot	Top	1	144.6	92
3	30' E and 300' N from SW corner of W parking lot	Top	1	145.0	92
4	25' E and 200' N from SW corner of W parking lot	Top	1	147.7	94
5	40' E and 200' N from SW corner of W parking lot	Top	1	145.3	93
6	100' E and 100' N from SW corner of W parking lot	Top	1	147.1	94
7	65' E and 150' N from SW corner of W parking lot	Top	1	143.3	91 *
8	60' E and 200' N from SW corner of W parking lot	Top	1	144.8	92

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REPORT OF ASPHALT SAMPLING

Report Number: 25061446.0077
Service Date: June 8, 2007
Task: **Asphalt Paving**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 14, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Asphalt Sampling

Terracon obtained 1 sample of asphalt concrete for laboratory analysis to determine compliance with project requirements. The sampling was performed on site in accordance with applicable AASHTO and ASTM procedures.

See attached sheet for results.

Terracon Rep: Neil T. Ogden

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

Reviewed by: Daniel E. Redman /bac
Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

Bituminous Mixture Test Results

Terracon
10625 W. I-70 Frontage Road North, Suite 3
Wheat Ridge, Colorado 80033
Phone: (303) 423-3300 / Fax: (303) 423-3353

Client Name: HCA Healthcare
Address: One Park Plaza, I-4W
Nashville, TN 37203

Project No.: 25061446 Date of Report: 6/8/2007
Mix Source: Asphalt Specialties

Project Name: Aurora Medical Center Expansion
Location: S. Potomac St. & E. Arkansas
Aurora, CO
Sample Location: West Parking Lot, Top Lift, 240' S and 40' E / 45' E / 50' E From NW Corner of Site

Mix Type: #13 Sample I.D. No.: 1446.0077
Sampled By: N. Ogden Date: 6/8/2007
Submitted By: N. Ogden Date: 6/8/2007
Reviewed By:

Test Procedures:

X NCAT Asphalt Content Tester, ASTM D6307 / CPL5120
(Current Calibration Data Available Upon Request)

Time sampled: 8:35 a.m. Batch Ticket No.: 131419 Load Tonnage: 14.23

Temperature,°F: 325 Truck No.: 1741/502 EAGLE Cumulative Tonnage: 14.23

Bituminous Content, %
*4.96 Total Mix 95.04 Total Aggregate
Specification limits: 5.0-5.6
Sieve Analysis of: X Ignited Mineral Agg.
Wt. of Sample Before Ignition: 2239.3
Wt. of Sample After Ignition: 2128.2

Sieve Size	% Accumulative Passing	Aurora Min.	Aurora Max.
1-1/2"			
1"			
3/4"	100	100	---
1/2"	97	92	100
3/8"	91	82	94
1/4"	---	---	---
#4	*65	52	62
#8	*51	39	49
#10	---	---	---
#16	37	---	---
#30	25	18	26
#40	20	---	---
#50	16	10	18
#80	---	---	---
#100	9	---	---
#200	6.2	4.1	8.1
PAN			

Physical Properties of Bituminous Mixtures:
___ ASTM D 1559
___ 50 Blows per Side ___ 75 Blows per side

X ASTM D2041 X AASHTO T312

Property	Standard	Results: Avg. of 3 Specimens	Specification
Bulk Density (pcf)		147.8	
Bulk Specific Gravity		2.368	
Theoretical Max. Specific Gravity	2.513		
Air Voids (%)		*5.75	3.0-5.0
Stability (pounds)			
Flow (1/100 inch)			
Theoretical Max. Density	156.8		
VMA (%)		15.6	13.6-16.0
Avg. Diameter of Mold (mm)	100		
Relative Density		94.3	
Weight (gm)		1180.8	
Ht. of Specimen After Each Gyration (see attached)			

Comments: *Did not meet specifications.

REPORT OF CONCRETE CYLINDER PICK UP

Report Number: 25061446.0078
Service Date: June 9, 2007
Task: **Patterned Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 13, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Concrete Cylinder Pick Up

Terracon obtained 1 set of 6 concrete cylinders cast on June 8, 2007. The samples were returned to the laboratory for processing and proper curing as specified.

Terracon Rep: Neil T. Ogden

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co

Reviewed by: Dan Redman
JUN 14 2007 Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

99-VNB/R99-Future Key

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0080
Service Date: June 13, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: July 12, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 3000 psi @ 28 Days

Batch Time: 0646 Plant: 15
Supplier: Bestway Concrete
Truck No: 318-E Ticket No: 570581
Mix I.D. No.: 402119

Sample Information

Date Cast: June 13, 2007 Time:
Sampled by: Jesse D. Barak
Weather Conditions: Partly Cloudy
Accumulative Yards: 9/15 Batch Size (cy): 9.00
Placement Method: Tailgating
Sample Locations: 7'S x 5'E of the NW Corner of the Site
Placement Location: Sidewalk at the NW Corner of the Site

Field Test Data

Test	Result	Specification
Slump, inches:	4.0	1-5
Air Content, %:	5.1	4.5-7.5
Concrete Temperature, °F:	66	50-90
Ambient Temperature, °F:	50	40 Min
Plastic Unit Weight, pcf:		

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
13C		4.00	12.57	06/20/2007	7	55,750	4,440
13C		4.00	12.57	06/20/2007	7	48,460	3,860
					Average (7 Days)		**4,150**
13C		4.00	12.57	07/11/2007	28	78,490	6,250
13C		4.00	12.57	07/11/2007	28	78,140	6,220
					Average (28 Days)		**6,240**
13C					Hold		
13C					Hold		

Comments: **Not tested for plastic unit weight.**
Services - Concrete Testing
Field Results Reported To: *John with JeDunn* ***Samples made by:*** *Terracon*

Terracon Rep: Jesse D. Barak

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Dan Redman
JUL 12 2007 Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REPORT OF CONCRETE CYLINDER PICK UP

Report Number: 25061446.0081
Service Date: June 14, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Rodney Allen
One Park Plaza I-4W
Nashville TN 37203

Report Date: June 19, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Concrete Cylinder Pick Up

Terracon obtained 1 set of 6 concrete cylinders cast on June 13, 2007. The samples were returned to the laboratory for processing and proper curing as specified.

Terracon Rep: Jesse D. Barak

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Reviewed by: Dan Redman
Daniel E. Redman

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

IELD DENSITY TESTING

Report Number: 25061446.0083
ervice Date: June 16, 2007
ask: **Utility Trench Backfill**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
ttn: Clint Russell
One Park Plaza
Bldg 2, 3 East
ashville TN 37203

Report Date: June 22, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460002	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-1-b (0)	4.5	116.0	±2	100

ield Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Fireline/Sewer Backfill						
1	30' E & 40' N of the NE corner of 1501 Potomac	4' B.G.	1	8"	8.6 *	106.8	92 *
2	30' E & 55' N of the NE corner of 1501 Potomac	5' B.G.	1	8"	7.9 *	109.9	95 *

omments:
An asterisk (*) appears next to test results which do NOT meet the project specifications.
ervices - Field Density Testing
eld Test Method: ASTM D2922, ASTM D3017
Gauge ID: 24871 Std Cnt M: 609 Std Cnt D: 2448

erracon Rep: Brian E. Louderback
Field Results Reported To: John Weber w/JE Dunn

eport Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

07-JAA/R07-Future Key

FIELD DENSITY TESTING

Report Number: 25061446.0084
Service Date: June 18, 2007
Task: **Utility Trench Backfill**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: June 22, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460002	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-1-b (0)	4.5	116.0	±2	100

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Fireline/Sewer Backfill						
1	Retest No. 1, Dated 6/16/07, from the NE corner of 1501 Potomac, 30' E & 40' N	4' B.G.	1	8"	6.5	116.2	100
2	Retest No. 2, Dated 6/16/07, from the NE corner of 1501 Potomac, 30' E & 55' N	5' B.G.	1	8"	7.5 *	109.9	95 *
3	Retest No. 2, Dated 6/18/07, from the NE corner of 1501 Potomac, 30' E & 5' N	2' B.G.	1	8"	5.9	116.5	100

Comments:
An asterisk (*) appears next to test results which do NOT meet the project specifications.
The area of the trench, 30' east x 55' north of the northeast corner of 1501 Potomac still contained excessive moisture when potholed. Material being excavated also contained excessive moisture. The contractors were advised to spread excavated material to dry out before backfilling the sewer trench.

Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 4463

Terracon Rep: Neil T. Ogden
Field Results Reported To: John Weber with JE Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TESTING

Report Number: 25061446.0085
Service Date: June 19, 2007
Task: **Utility Trench Backfill**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: June 23, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460002	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-1-b (0)	4.5	116.0	0/+2	100

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Utility Trench Backfill						
1	25' N and 50' E of the NE corner of bldg	3' B.G.	1	8"	5.7	116.2	100
2	Retest, dated 6/18/07, 40' N of MH 2	6' B.G.	1	8"	4.8	113.5	98 *
3	25' N and 30' E of the NE corner of bldg	2' B.G.	1	8"	5.2	116.3	100
4	25' N and 10' E of the NE corner of bldg	1' B.G.	1	8"	4.9	116.5	100
5	Retest #2 dated 6/19/07	6' B.G.	1	8"	4.7	116.1	100

Comments:
An asterisk (*) appears next to test results which do NOT meet the project specifications.
Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 35333

Terracon Rep: Charles Schott
Field Results Reported To: Jeremy w/ JBS

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

(1) HCA Healthcare

Reviewed by: Dan Redman
Daniel E. Redman
JUL 03 2007

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

REPORT OF ASPHALT SAMPLING

Report Number: 25061446.0370
Service Date: September 7, 2007
Task: **Asphalt Paving**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: September 20, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Services: Asphalt Sampling

Terracon obtained 1 sample of asphalt concrete for laboratory analysis to determine compliance with project requirements. The sampling was performed on site in accordance with applicable AASHTO and ASTM procedures.

See attached sheet for results.

Terracon Rep: James T.McNamara

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

BITUMINOUS MIXTURE TEST RESULTS

Client Name: HCA Healthcare
Address: One Park Plaza, I-4W
Nashville, TN 37203

Project No.: 25061446 Date of Report: 9/7/2007
Mix Source: Colorado Asphalt Services

Project Name: Aurora Medical Center Expansion
Location: S. Potomac St. & E. Arkansas
Aurora, CO
Sample Location: Northbound side of Potomac, right lane, in front of J.E. Dunn Entrance

Mix Type: SX-100 Sample I.D. No.: 0.0370
Sampled By: J. McNamara Date: 9/7/2007
Submitted By: J. McNamara Date: 9/7/2007
Reviewed By:

Test Procedures:
X NCAT Asphalt Content Tester, ASTM D6307 / CPL5120

Time sampled: 11:15 Batch Ticket No.: 2062 Load Tonnage: 8.53

Temperature,°F: 250 Truck No.: 278 Cumulative Tonnage: 39.65

Bituminous Content, %
*5.79 Total Mix 94.21 Total Aggregate
Specification limits: 5.1-5.7
Sieve Analysis of: X Ignited Mineral Agg.
Wt. of Sample Before Ignition: 2084.7
Wt. of Sample After Ignition: 1964.1

Physical Properties of Bituminous Mixtures:
___ ASTM D 1559
___ 50 Blows per Side ___ 75 Blows per side
X ASTM D2041 X AASHTO T312

Sieve Size	% Accumulative Passing	Min.	Max.
		Aurora	
1-1/2"			
1"			
3/4"	100	100	--
1/2"	93	88	99
3/8"	88	79	91
1/4"	--	--	--
#4	76	67	77
#8	61	51	61
#10	--	--	--
#16	43	--	--
#30	27	22	30
#40	21	--	--
#50	15	--	--
#80	--	--	--
#100	8	--	--
#200	4.6	3.5	7.5
PAN			

Property	Standard	Results: Avg. of 3 Specimens	Specification
Bulk Density (pcf)		145.3	
Bulk Specific Gravity		2.329	
Theoretical Max. Specific Gravity	2.480		
Air Voids (%)		*6.11	3.0-5.0
Stability (pounds)			
Flow (1/100 inch)			
Theoretical Max. Density	154.8		
VMA (%)		16.0	14.1-16.5
Avg. Diameter of Mold (mm)	100		
Relative Density		93.9	
Weight (gm)		1165.2	
Ht. of Specimen After Each Gyration (see attached)			

Comments: *Did not meet specifications

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0408
Service Date: September 22, 2007
Task: **Curb and Gutter Concrete**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 22, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 3000 psi @ 28 Days

Batch Time: 0614 Plant: 15
Supplier: Bestway Concrete
Truck No: 141 Ticket No: 593731
Mix I.D. No.: 602119

Sample Information

Date Cast: September 22, 2007 Time: 0800
Sampled by:
Weather Conditions:
Accumulative Yards: 6/11.5 Batch Size (cy): 6.00
Placement Method: Direct Discharge
Sample Locations: 5'E & 10'S, curb and gutter
Placement Location: Curb and gutter slab-on-grade

Field Test Data

Test	Result	Specification
Slump, inches:	3.5	4" Max
Air Content, %:	6.0	3.5-6.5
Concrete Temperature, °F:	80	50 - 90
Ambient Temperature, °F:	65	40 Min
Plastic Unit Weight, pcf:	N/A	

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
129C		4.00	12.57	09/29/2007	7	55,550	4,420
129C		4.00	12.57	10/20/2007	28	68,350	5,440
129C		4.00	12.57	10/20/2007	28	65,160	5,180
					Average (28 Days)		**5,310**
129C					Hold		

Services - Concrete Testing

Samples made by: Terracon

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

01-RMK/R01-Future Rev

FIELD DENSITY TESTING

Report Number: 25061446.0412
Service Date: September 25, 2007
Task: **Pavement Subgrade**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: October 04, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460002	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-1-b (0)	4.5	116.0	±2	95
614460027	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-2-4	12.0	116.0	±2	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Pavement Subgrade						
1	65' N & 25' E of the NE corner of the Emergency Entrance for Building 1501	S.G.	2	8"	13.8	110.8	96
2	80' N & 20' E of the NE corner of the Emergency Entrance for Building 1501	S.G.	1	8"	3.9	111.8	96
3	110' N & 35' E of the NE corner of the Emergency Entrance for Building 1501	S.G.	1	8"	4.3	116.0	100

Comments:
Test results on this report meet project specification.
Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 4523

Terracon Rep: Jesse D. Barak
Field Results Reported To: John with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TESTING

Report Number: 25061446.0464
Service Date: October 31, 2007
Task: *Utility Trench Backfill*

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: November 02, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460002	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-1-b (0)	4.5	116.0	±2	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
1	21' South of the vault paralled to Potomac Street	3' B.G.	1	8"	5.2	117.2	100+
2	32' South of the vault paralled to Potomac Street	4' B.G.	1	8"	5.4	116.4	100

Comments:
Test results on this report meet project specification.
Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 36139 Std Cnt M: 720 Std Cnt D: 2386

Terracon Rep: Kristal M.Howe
Field Results Reported To: Jesse with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

LABORATORY COMPACTION CHARACTERISTICS OF SOIL

Report Number: 25061446.0467
Service Date: November 1, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client: HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: November 07, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project Number: 25061446

Material Information

Contractor:
Source of Material: Aurora Medical Center
Proposed Use: Utility Trench Backfill
USCS: SM

Sample Information

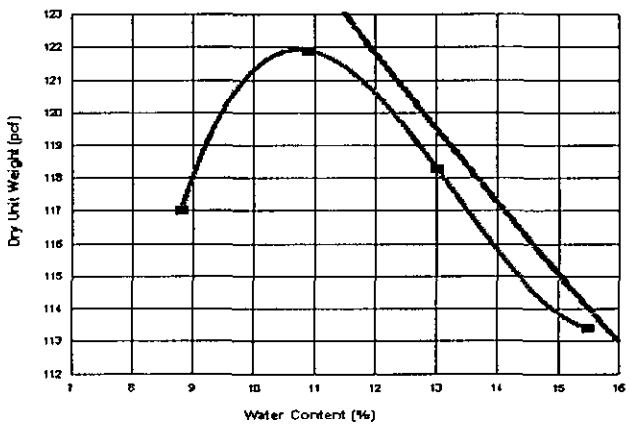
Sampled By: Christopher J. Bonino
Sample Location: Import, sampled by Casey with J.E. Dunn
Sample Description: Dark Brown, Silty Sand w/Gravel (SM) A-1-b (0)

Laboratory Test Data

Test Procedure:	ASTM D698-91
Test Method:	Method B
Sample Preparation:	Dry Preparation
Rammer Type:	Manual Rammer
Maximum Dry Unit Weight, pcf:	122.0
Optimum Water Content, %:	11.0

	Result	Specifications
Liquid Limit:	Non-plastic	
Plastic Limit:	Non-plastic	
Plasticity Index:	Non-plastic	
% Passing #40:	45.8	
% Passing #200:	25.0	

Moisture Density Relations
Zero Air Voids Curve for assumed specific gravity 2.55



Services-D698, Sieve, PI

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co

Terracon Rep: Christopher J. Bonino
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TESTING

Report Number: 25061446.0474
Service Date: November 6, 2007
Task: **Utility Trench Backfill**

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: November 07, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460002	ASTM D698-91	Poorly Graded Sand w/ Silt (SP-SM) A-1-b (0)	4.5	116.0	±2	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Plumbing Trench Backfill						
1	East side of site, 150' from centerline of Potomac Drive	Grade	1	8"	4.7	111.4	96
2	East side of site, 180' from centerline of Potomac Drive	Grade	1	8"	5.7	114.6	99
3	East side of site, 100' from centerline of Potomac Drive	Grade	1	8"	4.8	115.8	100

Comments:
Test results on this report meet project specification.
Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 22050

Terracon Rep: Christopher J. Bonino
Field Results Reported To: Casey with J.E. Dunn

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

IELD DENSITY TESTING

Report Number: 25061446.0584
ervice Date: November 29, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
ICA Healthcare
ttn: Clint Russell
One Park Plaza
ldg 2, 3 East
ashville TN 37203

Report Date: November 30, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460379	ASTM D698-91	Well Graded Sand w/Gravel (SW) A-1-b (0)	8.0	122.5	±2	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Utility Trench Backfill						
1	Utility Trench on the SE corner	At Grade	1	8"	7.5	116.7	95
2	Utility Trench on the SE corner	At Grade	1	8"	8.5	117.1	96

omments:
Test results on this report meet project specification.
Services - Field Density Testing
eld Test Method: ASTM D2922, ASTM D3017
Gauge ID: 22050 Std Cnt M: 624 Std Cnt D: 2340

erracon Rep: Christopher J. Bonino
Field Results Reported To: Kevin with HPE

eport Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lewis Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical terials.

IELD DENSITY TESTING

Report Number: 25061446.0612
ervice Date: December 7, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
CA Healthcare
ttn: Clint Russell
One Park Plaza
ldg 2, 3 East
ashville TN 37203

Report Date: December 12, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460494	ASTM D698-91	Brown to Dark Brown, Silty Sand (SM) A-2-4 (0)	11.5	116.5	±2	95

ield Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Trench Backfill						
1	10' N & 15' W of the NE corner of Building 1501	6" B.G.	1	8"	6.2 *	117.0	100
2	35' E & 80' S of the NE corner of Building 1501	6" B.G.	1	8"	6.1 *	116.2	100

omments:
An asterisk (*) appears next to test results which do NOT meet the project specifications.
Note the tests on this dispatch are not accurate. This is possibly due to high ambient moisture.
will be necessary to retest the same locations on 12/10/07, with different meter.

Services - Field Density Testing
eld Test Method: ASTM D2922, ASTM D3017
auge ID: 5232

erracon Rep: Kurt E.Eye
Field Results Reported To: Chris with J.E. Dunn

eport Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client dicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical aterials.

07-JAA/RGT-Future Key

FIELD DENSITY TESTING

Report Number: 25061446.0617
Service Date: December 12, 2007

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: December 17, 2007
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Material No.	Laboratory Test Method	Description and Classification	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Dry Unit Weight (% compaction)
614460379	ASTM D698-91	Well Graded Sand w/Gravel (SW) A-1-b (0)	8.0	122.5	±2	95

Field Test Data

Test No.	Test Location	Lift/ Elev.	Mat. No.	Probe Depth (inches)	Water Content (%)	Dry Unit Weight (pcf)	Dry Unit Weight (% compaction)
	Electrical Trench Backfill						
1	160' South of sanitary manhole at the NW corner of the tower	S.G.	1	8"	6.6	118.1	96
2	205' South of sanitary manhole at the NW corner of the tower	S.G.	1	8"	7.3	117.1	96

Comments:
Test results on this report meet project specification.
Services - Field Density Testing
Field Test Method: ASTM D2922, ASTM D3017
Gauge ID: 39010 Std Cnt M: 675 Std Cnt D: 2767

Terracon Rep: Jim M. Abraitis
Field Results Reported To: Lou w/Mile High Excavating

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
JE Dunn Construction Co
JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST

Report Number: 25061446.0678
Service Date: January 11, 2008

Terracon
10625 West I-70 Frontage Road North
Wheat Ridge, Colorado 80033
(303) 423-3300

Client:
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville TN 37203

Report Date: January 21, 2008
Project: Aurora Medical Center Expansion
South Potomac Street & East Arkansas
Aurora, CO

Project No.: 25061446

Material Information

Specified Strength: 4000 psi @ 28 Days

Batch Time: 1039
Supplier: Lafarge
Truck No: 112 Ticket No: 45610570
Mix I.D. No.: RMXMM40DCBI

Sample Information

Date Cast: January 11, 2008 Time: 1110
Sampled by: Jason A. Marquiss
Weather Conditions: Mostly sunny, breezy
Accumulative Yards: 2/2 Batch Size (cy): 2.00
Placement Method: Chute
Sample Locations: Same as Placement Location
Placement Location: Sidewalk across from I-225 Business Park at 1360 Potomic southbound land on Potomic, 35' South of RTD stop

Field Test Data

Test	Result		Specification
Slump, inches:	6.5	*	4" max
Air Content, %:	10.5	*	4.5-7.5
Concrete Temperature, °F:	69		50-90
Ambient Temperature, °F:	35	*	40 Min
Plastic Unit Weight, pcf:	N/A		

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (inches)	Area (sq. inches)	Date Tested	Age at Test (days)	Maximum Compressive Load (lbs)	Compressive Strength (psi)
210C	1	4.00	12.57	01/18/2008	7	23,940	1,900
210C	2			02/08/2008	28		
210C	3			02/08/2008	28		
210C	4				Hold		

Services - Concrete Testing

Samples made by: Terracon

Terracon Rep: Jason A. Marquiss

Report Distribution:
(1) HCA Healthcare
(1) Perkins & Will
(1) JE Dunn Construction Co
(1) JE Dunn Construction Co
(1) HCA Healthcare
(1) Bestway Concrete Co

Reviewed by: G Lucas Fenton
Gordon L. Fenton

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0925
Service Date: 10/10/08
Report Date: 10/20/08
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 402119
Supplier: Bestway Concrete
Batch Time: 0747 **Plant:** 15
Truck No.: 0151 **Ticket No.:** 685201

Sample Information

Sample Date: 10/10/08 **Sample Time:** 0850
Sampled By: Nse E. Ndu
Weather Conditions:
Accumulative Yards: 10 **Batch Size (cy):**
Placement Method: Hand Pour
Water Added Before (gal): 0
Water Added After (gal): 0
Sample Location: 25' north & 5' east of the southeast corner of building
Placement Location: Sidewalk at the southeast corner of building

Field Test Data

Test	Result	Specification
Slump (in):	3 1/2	1-4
Air Content (%):	6.0	5-8
Concrete Temp. (F):	62	50-90
Ambient Temp. (F):	50	40+
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57	10/13/08	8.31	10/17/08	7	47,910	3,810	1
1	2	4.00	12.57	10/13/08	8.30	11/07/08	28	58,580	4,660	1
1	3	4.00	12.57	10/13/08	8.40	11/07/08	28	63,330	5,040	2
1	4	4.00	12.57	10/13/08	8.30	11/07/08	28	60,110	4,780	1
								Average (28 days)	4,830	
1	5			10/13/08			Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Cast Concrete Cylinders

Terracon Rep.: Nse E. Ndu
Reported To: Casey w/JE Dunn Const.
Contractor:

Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0926
Service Date: 10/11/08
Report Date: 10/16/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 5 concrete cylinders cast on October 10, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0925

Services: Concrete Cylinder Pick Up

Terracon Rep.: Nse E. Ndu
Reported To: Casey with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co. Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TEST REPORT

Report Number: 25061446.0929
Service Date: 10/23/08
Report Date: 10/30/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Mat. No.	Proctor Ref. No.	Classification and Description	Laboratory Test Method	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Compaction (%)
1	25061446.0069	Poorly Graded Sand w/Silt (SP-SM) A-1-b (0)	ASTM D1557	11.0	118.5	±2	95

Field Test Data

Test No.	Test Location	Lift / Elev.	Mat. No.	Probe Depth (in)	Wet Density (pcf)	Water Content (pcf)	Water Content (%)	Dry Unit Weight (pcf)	Percent Compaction (%)
	Oxygen Line Trench Backfill								
1	20' north on the south tie-in at tank	1' B.G.	1	8"	126.5	10.9	9.4	115.6	98
2	10' north on the south tie-in at tank	S.G.	1	8"	126.7	11.5	10.0	115.2	97

Datum: **Gauge ID:** 35333 **Std. Cnt. M:** 597 **Std. Cnt. D:** 2422

Comments: **Test results on this report meet project requirements as noted above.**

Services: Field Density Testing
Terracon Rep.: Charles Schott
Reported To: Cassy Wolf with JE Dunn
Contractor:

Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TEST REPORT

Report Number: 25061446.0930
Service Date: 10/24/08
Report Date: 10/30/08
Task: Utility Trench Backfill

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Mat. No.	Proctor Ref. No.	Classification and Description	Laboratory Test Method	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Compaction (%)
1	25061446.0671	Brown, Poorly Graded Sand w/Silt (SP-SM) A-1-b (0)	ASTM D1557	6.5	118.5	±2	95

Field Test Data

Test No.	Test Location	Lift / Elev.	Mat. No.	Probe Depth (in)	Wet Density (pcf)	Water Content (pcf)	Water Content (%)	Dry Unit Weight (pcf)	Percent Compaction (%)
	Sanitary Sewer Trench Backfill (Priviate)								
1	5' south of main at station 20+22	3' B.G.	1	12"	123.1	7.7	6.7	115.4	97
2	10' south of main at station 20+22	2' B.G.	1	12"	126.0	9.4	8.1	116.6	98
3	15' south of main at station 20+22	1' B.G.	1	12"	124.4	7.3	6.2	117.1	99
4	20' south of main at station 20+22	S.G.	1	12"	122.5	6.7	5.8	115.8	98

Datum: **Gauge ID:** G-1317

Comments: **Test results on this report meet project requirements as noted above.**

Services: Field Density Testing
Terracon Rep.: Lee T. Champe
Reported To: Paul Zubeck w/JE Dunn
Contractor:

Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0931
Service Date: 10/25/08
Report Date: 11/24/08
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 402119
Supplier: Bestway Concrete
Batch Time: 1336 **Plant:** 4
Truck No.: 125 **Ticket No.:** 673143

Sample Information

Sample Date: 10/25/08 **Sample Time:** 1445
Sampled By: Nse E. Ndu
Weather Conditions: Clear
Accumulative Yards: 10 **Batch Size (cy):**
Placement Method: Hand Pour
Water Added Before (gal): 0
Water Added After (gal): 0
Sample Location: 15' south & 10' east of the northeast corner of Building #1501
Placement Location: Curb and Gutter, northeast corner of Building #1501

Field Test Data

Test	Result	Specification
Slump (in):	3	3" Max
Air Content (%):	8.0	5-8
Concrete Temp. (F):	70	50-90
Ambient Temp. (F):	65	40+
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57	10/27/08	8.11	11/01/08	7	48,200	3,840	1
1	2	4.00	12.57	10/27/08	8.20	11/22/08	28	64,130	5,100	2
1	3	4.00	12.57	10/27/08	8.20	11/22/08	28	59,100	4,700	1
1	4	4.00	12.57	10/27/08	8.20	11/22/08	28	63,210	5,030	4
								Average (28 days)	**4,940**	
1	5			10/27/08			Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Cast Concrete Cylinders

Terracon Rep.: Nse E. Ndu
Reported To: Casey w/JE Dunn Construction
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0933
Service Date: 10/27/08
Report Date: 10/30/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 5 concrete cylinders cast on October 25, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0931

Services: Sample Pick-up

Terracon Rep.: Nse E. Ndu
Reported To: Casey with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TEST REPORT

Report Number: 25061446.0936
Service Date: 10/29/08
Report Date: 11/03/08
Task: Pavement Subgrade

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Mat. No.	Proctor Ref. No.	Classification and Description	Laboratory Test Method	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Compaction (%)
1	25061446.0671	Brown, Poorly Graded Sand w/Silt (SP-SM) A-1-b (0)	ASTM D1557	6.5	118.5	±2	95

Field Test Data

Test No.	Test Location	Lift / Elev.	Mat. No.	Probe Depth (in)	Wet Density (pcf)	Water Content (pcf)	Water Content (%)	Dry Unit Weight (pcf)	Percent Compaction (%)
	Driveway, Emergency Drive on East Side of Building								
1	10' south & 10' west of the northeast corner of east curb	S.G.	1	8"	119.8	7.8	7.0	112.0	95
2	50' south & 30' west of the northeast corner of east curb	S.G.	1	8"	124.3	7.5	6.4	116.8	99
3	125' south & 30' west of the northeast corner of east curb	S.G.	1	8"	125.1	7.9	6.7	117.2	99
4	200' south & 25' west of the northeast corner of east curb	S.G.	1	8"	125.4	8.1	6.9	117.3	99

Datum: **Gauge ID:** 35333 **Std. Cnt. M:** 590 **Std. Cnt. D:** 2409

Comments: **Test results on this report meet project requirements as noted above.**

Services: Field Density Testing
Terracon Rep.: Charles Schott
Reported To: Casey Wolf w/JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TEST REPORT

Report Number: 25061446.0938
Service Date: 10/28/08
Report Date: 10/30/08
Task: Pavement Subgrade

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Mat. No.	Proctor Ref. No.	Classification and Description	Laboratory Test Method	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Compaction (%)
1	25061446.0671	Brown, Poorly Graded Sand w/Silt (SP-SM) A-1-b (0)	ASTM D1557	6.5	118.5	±2	95

Field Test Data

Test No.	Test Location	Lift / Elev.	Mat. No.	Probe Depth (in)	Wet Density (pcf)	Water Content (pcf)	Water Content (%)	Dry Unit Weight (pcf)	Percent Compaction (%)
	Driveway Paving Subgrade, East Side of Building								
1	200' north & 25' west of the northeast corner of Emergency entrance	S.G.	1	8"	123.4	5.5	4.7	117.9	99
2	130' north & 20' west of the northeast corner of Emergency entrance	S.G.	1	8"	123.4	5.9	5.0	117.5	99
3	30' north & 25' west of the northeast corner of Emergency entrance	S.G.	1	8"	122.7	5.7	4.9	117.0	99
4	30' south & 10' west of the northeast corner of Emergency entrance	S.G.	1	8"	123.1	6.0	5.1	117.1	99

Datum: **Gauge ID:** 35333 **Std. Cnt. M:** 597 **Std. Cnt. D:** 2585

Comments: **Test results on this report meet project requirements as noted above.**

Services: Field Density Testing
Terracon Rep.: Charles Schott
Reported To: Casey with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PROOF ROLLING OBSERVATION REPORT

Report Number: 25061446.0939
Service Date: 10/29/08
Report Date: 11/03/08
Task: Pavement Subgrade

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

On October 29, 2008, a representative of Terracon was present at the above referenced project site to observe proofrolling operations. The area that was proofrolled was identified as the driveway east of buildings emergency driveway. The site contractor provided a loader water truck to perform the proofrolling operations. The operator was instructed to make slow overlapping passes across the subgrade in a longitudinal direction.

The exposed subgrade soils consisted of sandy material. The Terracon technician observed the equipment during the entire proofrolling operation and no deflection or "pumping" of the soils was observed.

The contractor superintendent, Mr. Casey Wolf of JE Dunn was notified of the results.

The proofrolled area was approved to receive paving materials.

Services:

Terracon Rep.: Charles Schott
Reported To: Casey Wolf with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

HMAC FIELD DENSITY TEST REPORT

Report Number: 25061446.0941
Service Date: 10/30/08
Report Date: 11/19/08
Task: Asphalt Paving

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Mat. No.	Reference Number	Classification and Description	Laboratory Test Method	Lab Test Data: Reference Density (pcf)	Project Requirements: Min. Thickness (in)	Min. Comp. (%)	Max. Comp. (%)
1	25061446.0945	Aggregate S 75 0%		154.4		92	96

Field Test Data

Test No.	Test Location	Pave. Lift	Mat. No.	Nuclear Density (pcf)	Core Data: Core Length (in)	Core Density (pcf)	Correction Factor (pcf)	Corrected Density (pcf)	Comp. (%)
	Emergency Driveway East of Building								
1	5' south & 5' east of the northwest corner of drive	1st	1	143.2					93
2	50' south & 8' east of the northwest corner of drive	1st	1	142.8					92
3	100' south & 5' east of the northwest corner of drive	1st	1	143.3					93
4	20' south & 12' east of the northwest corner of drive	1st	1	143.7					93
5	75' south & 15' east of the northwest corner of drive	1st	1	144.7					94
6	10' south & 20' east of the northwest corner of drive	1st	1	144.9					94
7	75' south & 25' east of the northwest corner of drive	1st	1	144.0					93
8	125' south & 20' east of the northwest corner of drive	1st	1	143.8					93
9	10' south & 30' east of the northwest corner of drive	1st	1	144.1					93
10	100' south & 35' east of the northwest corner of drive	1st	1	144.5					94
11	25' south & 40' east of the northwest corner of drive	1st	1	146.0					95
12	125' south & 10' east of the northwest corner of drive	1st	1	145.5					94
13	300' south & 5' east of the northwest corner of drive	1st	1	145.8					94
14	200' south & 5' east of the northwest corner of drive	1st	1	146.1					95
15	150' south & 8' east of the northwest corner of drive	1st	1	145.3					94
16	275' south & 12' east of the northwest corner of drive	1st	1	144.5					94
17	175' south & 105' east of the northwest corner of drive	1st	1	144.8					94

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

HMAC FIELD DENSITY TEST REPORT

Report Number: 25061446.0941
Service Date: 10/30/08
Report Date: 11/19/08
Task: Asphalt Paving

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Field Test Data

Test No.	Test Location	Pave. Lift	Mat. No.	Nuclear Density (pcf)	Core Data: Core Length (in)	Core Data: Core Density (pcf)	Correction Factor (pcf)	Corrected Density (pcf)	Comp. (%)
18	300' south & 20' east of the northwest corner of drive	1st	1	144.1					93
19	250' south & 18' east of the northwest corner of drive	1st	1	142.9					93
20	275' south & 25' east of the northwest corner of drive	1st	1	143.2					93
21	200' south 25' east of the northwest corner of drive	1st	1	143.0					93

Datum: **Gauge ID:** 35333 **Std. Cnt. M:** 601 **Std. Cnt. D:** 2414

Comments: **Test results on this report meet project specification as noted above.**

Services:
Terracon Rep.: Charles Schott
Reported To: *Casey Wolf with JE Dunn*
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

ASPHALT LABORATORY TEST REPORT

Report Number: 25061446.0942
Service Date: 10/30/08
Report Date: 11/11/08
Task: Asphalt Paving

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 sample of asphalt concrete for laboratory analysis to determine compliance with project requirements. The sampling was performed on site in accordance with applicable AASHTO and ASTM procedures.

See attached sheet for results.

Services: n/a

Terracon Rep.: Kathryn A. Leibold
Reported To:
Contractor:
Report Distribution:

(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

BITUMINOUS MIXTURE TEST RESULTS

Client Name: HCA Healthcare
Address: One Park Plaza
Building 2, 3 East
Nashville, TN 37203
Project Name: Aurora Medical Center Expansion
Location: S. Potomac St. & E. Arkansas Ave.
Aurora, CO
Sample Location: Driveway East of the building, Emergency Driveway, 1st Lift

Project No.: 25061446 Date of Report: 10/30/2008
Mix Source: Aggregate Industries
Mix Type: #7 Sample I.D. No.: .0942
Sampled By: C. Schott Date: 10/30/2008
Submitted By: C. Schott Date: 10/30/2008
Reviewed By:

Test Procedures:
X NCAT Asphalt Content Tester, ASTM D6307 / CPL5120

Time sampled: 9:00 Batch Ticket No.: 51331 Load Tonnage: 14.32
Temperature,°F: 295 Truck No.: M-23 Cumulative Tonnage: 28.93

Bituminous Content, %
5.29 Total Mix 94.71 Total Aggregate
Specification limits: 4.8-5.4
Sieve Analysis of: X Ignited Mineral Agg.
Wt. of Sample Before Ignition: 2098.3
Wt. of Sample After Ignition: 1987.2

Physical Properties of Bituminous Mixtures:
___ ASTM D 1559
___ 50 Blows per Side ___ 75 Blows per side
X CP51 X CPL5115

Note: For Terracon to perform the calibration & determine the correction factor for the mix; it is requested that the supplier provide aggregate produced in the current construction season & designated for use on the project along with the asphalt cement & mix design to perform the calibration process.

Sieve Size	% Accumulative Passing	Min.	Max.
1-1/2"			
1"	100	100	--
3/4"	96	91	100
1/2"	84	76	88
3/8"	77	68	80
1/4"	--	--	--
#4	66	58	68
#8	51	44	54
#10	--	--	--
#16	37	--	--
#30	25	19	27
#40	20	--	--
#50	16	10	18
#80	--	--	--
#100	10	--	--
#200	6.5	3.2	7.2
PAN			

Property	Standard	Results: Avg. of 3 Specimens	Specification
Bulk Density (pcf)		149.3	
Bulk Specific Gravity		2.393	
Theoretical Max. Specific Gravity	2.474		
Air Voids (%)		3.29	3.0-5.0
Stability (pounds)			
Flow (1/100 inch)			
Theoretical Max. Density	154.4		
VMA (%)		14.0	13.5-15.9
Avg. Diameter of Mold (mm)		100mm	
Relative Density		96.7	
Weight (gm)		1170.6	
Ht. of Specimen After Each Gyration (see attached)			

Comments: *Did not meet specifications

Terracon

CORING/THICKNESS REPORT

Report Number: 25061446.0943
Service Date: 10/31/08
Report Date: 11/04/08
Task: Asphalt Coring

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon arrived on-site as requested to extract 2 cores and patch from the Emergency Drive east of Building

Services: Asphalt Coring

Terracon Rep.: Charles Schott
Reported To:
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

ASPHALT CONCRETE CORE TEST RESULTS

Client Name: HCA Healthcare

Project Name: Aurora Medical Center Expansion

Project No.: 250061446 Date: 10/31/2008 Technician: C. Schott

Sample I.D. No: .0943 Source: Material/Specimen:

Test Procedure: ASTM D2726 and D3549 Reviewed By:

Core No.	Sample Location	Thickness (inches)	Required Thickness (inches)	Unit Weight (pcf)	Laboratory Unit Weight (pcf)	Percent Compaction
1a	Emergency Drive East of Building, 50' S & 25' E of the NW corner of drive, Top Lift	2 3/8	2	142.0	151.4	93.8
2a	Emergency Drive East of Building, 200' S & 35' E of the NW corner of drive, Top Lift	1 3/4	2	143.6	151.4	94.9
1b	Emergency Drive East of Building, 50' S & 25' E of the NW corner of drive, Bottom Lift	4 1/2	4	137.7	154.4	89.2
2b	Emergency Drive East of Building, 200' S & 35' E of the NW corner of drive, Bottom Lift	4 1/8	4	146.1	154.4	94.6

Terracon

HMAC FIELD DENSITY TEST REPORT

Report Number: 25061446.0944
Service Date: 10/31/08
Report Date: 11/19/08
Task: Asphalt Paving

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Mat. No.	Reference Number	Classification and Description	Laboratory Test Method	Lab Test Data: Reference Density (pcf)	Project Requirements: Min. Thickness (in)	Project Requirements: Min. Comp. (%)	Project Requirements: Max. Comp. (%)
1	25061446.0945	AGG #4 SX N-75		151.4		92	96

Field Test Data

Test No.	Test Location	Pave. Lift	Mat. No.	Nuclear Density (pcf)	Core Data: Core Length (in)	Core Data: Core Density (pcf)	Correction Factor (pcf)	Corrected Density (pcf)	Comp. (%)
	Asphalt Paving								
1	100' southwest of the Emergency Entrance, 5' north of Centerline	Top	1	144.6					96
2	100' southwest of thef Emergency Entrance, 5' south of Centerline	Top	1	143.8					95
3	150' southwest of the Emergency Entrance, 5' north of Cetnerline	Top	1	143.9					95
4	150' southwest of the Emergency Entrance, 5' south of Cetnerline	Top	1	144.9					96
5	200' southwest of the Emergency Entrance, 25' north of Cetnerline	Top	1	141.3					93
6	200' southwest of the Emergency Entrance, 5' south of Cetnerline	Top	1	145.6					96
7	200' southwest of the Emergency Entrance, 5' north of Cetnerline	Top	1	144.3					95
8	200' southwest of the Emergency Entrance, 5' south of Cetnerline	Top	1	143.8					95
9	115' southwest of the Emergency Entrance, 30' south of Cetnerline	Top	1	141.3					93

Datum: **Gauge ID:** 36140 **Std. Cnt. M:** 20139 **Std. Cnt. D:** 709

Comments: **Test results on this report meet project specification as noted above.**

Services: n/a
Terracon Rep.: Michael D. Gessert
Reported To: Greg Garcia w/Black Gold Aspha
Contractor:

Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

ASPHALT LABORATORY TEST REPORT

Report Number: 25061446.0945
Service Date: 10/31/08
Report Date: 11/04/08
Task: Asphalt Paving

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 sample of asphalt concrete for laboratory analysis to determine compliance with project requirements. The sampling was performed on site in accordance with applicable AASHTO and ASTM procedures.

See attached sheet for results.

Services: n/a

Terracon Rep.: Kathryn A. Leibold
Reported To:
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

BITUMINOUS MIXTURE TEST RESULTS

Client Name: HCA Healthcare
Address: One Park Plaza
Building 2, 3 East
Nashville, TN 37203
Project Name: Aurora Medical Center Expansion
Location: S. Potomac St. & E. Arkansas Ave.
Aurora, CO
Sample Location:

Project No.: 25061446 Date of Report: 10/31/2008
Mix Source: Aggregate Industries - Dahlia
Mix Type: #4 SX N-75 Sample I.D. No.: .0945
Sampled By: M. Gessert Date: 10/31/2008
Submitted By: K. Leibold Date: 10/31/2008
Reviewed By:

Test Procedures:
X NCAT Asphalt Content Tester, ASTM D6307 / CPL5120

Time sampled: 9:40 Batch Ticket No.: 51493 Load Tonnage: 14.57

Temperature,°F: 267 Truck No.: M22 Cumulative Tonnage: 14.57

Bituminous Content, %
*6.01 Total Mix 93.99 Total Aggregate
Specification limits: 5.3-5.9
Sieve Analysis of: X Ignited Mineral Agg.
Wt. of Sample Before Ignition: 1547.3
Wt. of Sample After Ignition: 1454.3

Physical Properties of Bituminous Mixtures:
___ ASTM D 1559
___ 50 Blows per Side ___ 75 Blows per side
X CP51 X CPL5115

Note: For Terracon to perform the calibration & determine the correction factor for the mix; it is requested that the supplier provide aggregate produced in the current construction season & designated for use on the project along with the asphalt cement & mix design to perform the calibration process.

Sieve Size	% Accumulative Passing	Min.	Max.
1-1/2"			
1"			
3/4"	100	100	--
1/2"	92	87	99
3/8"	88	79	91
1/4"	--	--	--
#4	*79	67	77
#8	*62	51	61
#10	--	--	--
#16	44	--	--
#30	29	22	30
#40	23	--	--
#50	17	12	20
#80	--	--	--
#100	10	--	--
#200	6.4	4.1	8.1
PAN			

Property	Standard	Results: Avg. of 3 Specimens	Specification
Bulk Density (pcf)		146.9	
Bulk Specific Gravity		2.354	
Theoretical Max. Specific Gravity	2.426		
Air Voids (%)		*2.96	3.0-5.0
Stability (pounds)			
Flow (1/100 inch)			
Theoretical Max. Density	151.4		
VMA (%)		15.9	14.5-16.9
Avg. Diameter of Mold (mm)		100mm	
Relative Density		97.0	
Weight (gm)		1161.2	
Ht. of Specimen After Each Gyration (see attached)			

Comments: *Did not meet specifications

Terracon

FIELD DENSITY TEST REPORT

Report Number: 25061446.0946
Service Date: 10/30/08
Report Date: 12/30/08
Task: *Pavement Subgrade*

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Mat. No.	Proctor Ref. No.	Classification and Description	Laboratory Test Method	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Compaction (%)
1	25061446.0069	Poorly Graded Sand w/Silt (SP-SM) A-1-b (0)	ASTM D1557	11.0	118.5	±2	95

Field Test Data

Test No.	Test Location	Lift / Elev.	Mat. No.	Probe Depth (in)	Wet Density (pcf)	Water Content (pcf)	Water Content (%)		Dry Unit Weight (pcf)	Percent Compaction (%)
	Parking Area North of Building									
1	10' south & 20' west of the northeast corner of lot	1' B.G.	1	8"	122.2	9.5	8.4	*	112.7	95
2	15' south & 10' east of the norwest corner of lot	1' B.G.	1	8"	122.1	10.1	9.0		112.0	95
3	30' north & 10' east of the southwest corner of lot	1' B.G.	1	8"	122.0	9.8	8.7	*	112.2	95
4	15' north & 20' west of the southeast corner of lot	1' B.G.	1	8"	123.3	10.3	9.1		113.0	95

Datum: **Gauge ID:** 35333 **Std. Cnt. M:** 601 **Std. Cnt. D:** 2414

Comments: **An asterisk (*) appears next to the test results which do not meet the project requirements as noted above.**

Services:
Terracon Rep.: Charles Schott
Reported To: Casey Wolf with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co. Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TEST REPORT

Report Number: 25061446.0947
Service Date: 10/31/08
Report Date: 11/04/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Mat. No.	Proctor Ref. No.	Classification and Description	Laboratory Test Method	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Compaction (%)
1	25061446.0671	Brown, Poorly Graded Sand w/Silt (SP-SM) A-1-b (0)	ASTM D1557	6.5	118.5	±2	95

Field Test Data

Test No.	Test Location	Lift / Elev.	Mat. No.	Probe Depth (in)	Wet Density (pcf)	Water Content (pcf)	Water Content (%)	Dry Unit Weight (pcf)	Percent Compaction (%)
	Oxygen Line Backfill								
1	South side of Employee Entrance	S.G.	1	8"	121.3	7.7	6.8	113.6	96

Datum: **Gauge ID:** 36140 **Std. Cnt. M:** 20139 **Std. Cnt. D:** 709

Comments: **Test results on this report meet project requirements as noted above.**

Services: Field Density Testing
Terracon Rep.: Michael D. Gessert
Reported To: Casey Wolf with JE Dunn
Contractor:

Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0948
Service Date: 11/04/08
Report Date: 12/03/08
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 3000 psi @ 28 days

Mix ID: 402119
Supplier: Bestway Concrete
Batch Time: 0924 **Plant:** 15
Truck No.: 19 **Ticket No.:** 700027

Field Test Data

Test	Result	Specification
Slump (in):	2 1/4	1-4
Air Content (%):	6.0	5-8
Concrete Temp. (F):	70	50-90
Ambient Temp. (F):	60	40+
Plastic Unit Wt. (pcf):		

Sample Information

Sample Date: 11/04/08 **Sample Time:** 1000
Sampled By: Cherie A. Jemberie
Weather Conditions: Sunny
Accumulative Yards: 8 **Batch Size (cy):** 8
Placement Method: Direct Discharge
Water Added Before (gal): 4
Water Added After (gal): 0
Sample Location: West side curb and gutter for walkway at the center of parking, south end
Placement Location: West side curb and gutter for walkway at the center of the park

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57	11/05/08	8.30	11/11/08	7	45,570	3,630	1
1	2	4.00	12.57	11/05/08	8.30	11/11/08	7	50,990	4,060	2
							Average (7 days)		**3,850**	
1	3	4.00	12.57	11/05/08	8.30	12/02/08	28	60,070	4,780	2
1	4	4.00	12.57	11/05/08	8.30	12/02/08	28	61,320	4,880	4
1	5	4.00	12.57	11/05/08	8.30	12/02/08	28	57,740	4,600	5
							Average (28 days)		**4,750**	
1	6			11/05/08			Hold			
1	7			11/05/08			Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Cast Concrete Cylinders

Terracon Rep.: Cherie A. Jemberie
Reported To: Doug Furrer
Contractor:
Report Distribution:

(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the *actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.*

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0949
Service Date: 11/05/08
Report Date: 11/10/08
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 7 concrete cylinders cast on November 4, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: 25061446.0948

Services: Concrete Pick-Up

Terracon Rep.: Cherie A. Jemberie
Reported To:
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0951
Service Date: 11/06/08
Report Date: 12/05/08
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 402119
Supplier: Bestway Concrete
Batch Time: 0725 **Plant:** 15
Truck No.: 0111 **Ticket No.:** 700182

Sample Information

Sample Date: 11/06/08 **Sample Time:** 0830
Sampled By: Cherie A. Jemberie
Weather Conditions: Sunny
Accumulative Yards: 10 **Batch Size (cy):** 10
Placement Method: Direct Discharge
Water Added Before (gal): 4
Water Added After (gal): 0
Sample Location: East Side Curb & Gutter for Parking Walkway - Center
Placement Location: East Side Curb & Gutter for Parking - Center

Field Test Data

Test	Result	Specification
Slump (in):	3	1-4
Air Content (%):	5.8	4.5-8.5
Concrete Temp. (F):	60	50-90
Ambient Temp. (F):	55	
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57		8.32	11/13/08	7	51,500	4,100	1
1	2	4.00	12.57		8.24	11/13/08	7	54,800	4,360	2
							Average (7 days)		**4,230**	
1	3	4.00	12.57		8.40	12/04/08	28	58,440	4,650	1
1	4	4.00	12.57		8.40	12/04/08	28	65,250	5,190	2
1	5	4.00	12.57		8.40	12/04/08	28	59,140	4,710	4
							Average (28 days)		**4,850**	
1	6						Hold			
1	7						Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Cast Concrete Cylinders

Terracon Rep.: Cherie A. Jemberie
Reported To: Doug Furrer (Concrete Foreman)
Contractor:
Report Distribution:

(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK UP REPORT

Report Number: 25061446.0952
Service Date: 11/07/08
Report Date: 11/11/08
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 7 concrete cylinders cast on November 6, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained:

25061446.0951

Services: Concrete Cylinder Pick Up

Terracon Rep.: Cherie A. Jemberie
Reported To:
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) *HCA Healthcare*
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) *JE Dunn Construction Co*
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0953
Service Date: 11/10/08
Report Date: 12/09/08
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 3000 psi @ 28 days

Mix ID: 402119
Supplier: BestWay Concrete
Batch Time: 0817 **Plant:** 15
Truck No.: 137 **Ticket No.:** 700415

Sample Information

Sample Date: 11/10/08 **Sample Time:** 0920
Sampled By: James P. Wasinger
Weather Conditions: Cloudy
Accumulative Yards: 10 **Batch Size (cy):** 10
Placement Method: Chute
Water Added Before (gal): 16
Water Added After (gal): 0
Sample Location: Curb & Gutter, SE Corner of South Parking Lot
Placement Location: Curb & Gutter, North Parking Lot

Field Test Data

Test	Result		Specification
Slump (in):	3		1-4
Air Content (%):	6.9		4.5-7.5
Concrete Temp. (F):	60		50-90
Ambient Temp. (F):	37	*	40+
Plastic Unit Wt. (pcf):			

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57		8.30	11/17/08	7	52,170	4,150	2
1	2	4.00	12.57		8.30	11/17/08	7	53,510	4,260	1
							Average (7 days)		**4,210**	
1	3	4.00	12.57		8.30	12/08/08	28	59,590	4,740	2
1	4	4.00	12.57		8.30	12/08/08	28	67,470	5,370	1
1	5	4.00	12.57		8.30	12/08/08	28	61,610	4,900	4
							Average (28 days)		**5,000**	
1	6						Hold			
1	7						Hold			

Comments: Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Cast Concrete Cylinders

Terracon Rep.: James P. Wasinger
Reported To: Casey w/JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the *actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.*

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0954
Service Date: 11/11/08
Report Date: 11/17/08
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 7 concrete cylinders cast on November 10, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0953

Services: Concrete Pick-Up

Terracon Rep.: Cherie A. Jemberie
Reported To:
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0955
Service Date: 11/12/08
Report Date: 12/11/08
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 3000 psi @ 28 days

Mix ID: 402119
Supplier: Bestway Concrete
Batch Time: 0648 **Plant:** 15
Truck No.: 0119 **Ticket No.:** 700547

Sample Information

Sample Date: 11/12/08 **Sample Time:** 0708
Sampled By: Bela Pattiasina
Weather Conditions: Clear
Accumulative Yards: 10 **Batch Size (cy):** 10
Placement Method: Chute
Water Added Before (gal): 0
Water Added After (gal): 0
Sample Location: Curb and Gutter, north end of new building
Placement Location: Curb and Gutter

Field Test Data

Test	Result		Specification
Slump (in):	2		1-4
Air Content (%):	6.0		4.5-7.5
Concrete Temp. (F):	60		50-90
Ambient Temp. (F):	38	*	40+
Plastic Unit Wt. (pcf):			

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57	11/13/08	8.30	11/19/08	7	47,780	3,800	2
1	2	4.00	12.57	11/13/08	8.30	11/19/08	7	52,760	4,200	2
							Average (7 days)		**4,000**	
1	3	4.00	12.57	11/13/08	8.40	12/10/08	28	60,380	4,810	4
1	4	4.00	12.57	11/13/08	8.40	12/10/08	28	66,840	5,320	1
1	5	4.00	12.57	11/13/08	8.40	12/10/08	28	60,990	4,850	5
							Average (28 days)		**4,990**	
1	6			11/13/08			Hold			
1	7			11/13/08			Hold			

Comments: Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Cast Concrete Cylinders

Terracon Rep.: Bela Pattiasina
Reported To: *Casey with JE Dunn*
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0956
Service Date: 11/13/08
Report Date: 11/17/08
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 7 concrete cylinders cast on November 12, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0955

Services: Concrete Pick-Up

Terracon Rep.: Bela Pattiasina
Reported To: Casey with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0957
Service Date: 11/13/08
Report Date: 12/12/08
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 402119
Supplier: Bestway Concrete
Batch Time: 1116 **Plant:** 15
Truck No.: 134 **Ticket No.:** 700687

Sample Information

Sample Date: 11/13/08 **Sample Time:** 1210
Sampled By: Cherie A. Jemberie
Weather Conditions: Sunny
Accumulative Yards: 10 **Batch Size (cy):** 10
Placement Method: Direct Discharge
Water Added Before (gal): 3
Water Added After (gal): 0
Sample Location:
Placement Location: Curb and Gutter, east side, main entrance

Field Test Data

Test	Result	Specification
Slump (in):	2 3/4	1-4
Air Content (%):	5.8	4.5-7.5
Concrete Temp. (F):	60	50-90
Ambient Temp. (F):	52	40+
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57	11/14/08	8.20	11/20/08	7	40,510	3,220	5
1	2	4.00	12.57	11/14/08	8.30	11/20/08	7	44,810	3,570	5
							Average (7 days)		**3,400**	
1	3	4.00	12.57	11/14/08	8.40	12/11/08	28	54,300	4,320	4
1	4	4.00	12.57	11/14/08	8.40	12/11/08	28	59,770	4,760	1
1	5	4.00	12.57	11/14/08	8.40	12/11/08	28	61,190	4,870	1
							Average (28 days)		**4,650**	
1	6			11/14/08			Hold			
1	7			11/14/08			Hold			

Comments: Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Cast Concrete Cylinders

Terracon Rep.: *Cherie A. Jemberie*
Reported To: Trent Furrer
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0959
Service Date: 11/14/08
Report Date: 11/18/08
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 6 concrete cylinders cast on November 13, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0957

Services: Concrete Pick-Up

Terracon Rep.: Bela Pattiasina
Reported To: Casey with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TEST REPORT

Report Number: 25061446.0961
Service Date: 11/15/08
Report Date: 11/18/08
Task: Curb and Gutter Subgrade

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Mat. No.	Proctor Ref. No.	Classification and Description	Laboratory Test Method	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Compaction (%)
1	25061446.0069	Poorly Graded Sand w/Silt (SP-SM) A-1-b (0)	ASTM D1557	11.0	118.5	±2	95

Field Test Data

Test No.	Test Location	Lift / Elev.	Mat. No.	Probe Depth (in)	Wet Density (pcf)	Water Content (pcf)	Water Content (%)	Dry Unit Weight (pcf)	Percent Compaction (%)
	Sidewalk and Crosspan Subgrade								
1	Potomac Street entrance east side of site, south half	S.G.	1	8"	127.9	13.0	11.3	114.9	97
2	Potomas Street entrance east side of site, north half	S.G.	1	8"	128.9	13.3	11.5	115.6	98

Datum: **Gauge ID:** 4524

Comments: ***Test results on this report meet project requirements as noted above.***

Services: Field Density Testing
Terracon Rep.: Antonio C. Chavez
Reported To: Casey with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0962
Service Date: 11/17/08
Report Date: 11/19/08
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 7 concrete cylinders cast on November 14, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0960

Services: Concrete Pick-Up

Terracon Rep.: Robert R. Carlson
Reported To:
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co. Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0963
Service Date: 11/17/08
Report Date: 12/16/08
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 3000 psi @ 28 days

Mix ID: 602119
Supplier: Bestway Concrete
Batch Time: 0713 **Plant:** 15
Truck No.: 0013 **Ticket No.:** 700794

Sample Information

Sample Date: 11/17/08 **Sample Time:** 0900
Sampled By: Robert R. Carlson
Weather Conditions: Partly Cloudy & Cool
Accumulative Yards: 8/8 **Batch Size (cy):** 8
Placement Method: Chute
Water Added Before (gal): 0
Water Added After (gal): 0
Sample Location: Curb and Gutter for the east parking lot
Placement Location: Curb and Gutter for the east parking lot

Field Test Data

Test	Result		Specification
Slump (in):	5 1/2	*	1-4
Air Content (%):	6.6		4.5-7.5
Concrete Temp. (F):	70		50-90
Ambient Temp. (F):	54		40+
Plastic Unit Wt. (pcf):			

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57	11/18/08	7.90	11/24/08	7	30,850	2,460	1
1	2	4.00	12.57	11/18/08	8.00	11/24/08	7	30,160	2,400	5
							Average (7 days)		**2,430**	
1	3	4.00	12.57	11/18/08	8.00	12/15/08	28	38,910	3,100	2
1	4	4.00	12.57	11/18/08	8.00	12/15/08	28	37,840	3,010	2
1	5	4.00	12.57	11/18/08	8.00	12/15/08	28	41,520	3,300	4
							Average (28 days)		**3,140**	
1	6			11/18/08			Hold			
1	7			11/18/08			Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: **Terracon**
Services: Concrete Testing

Terracon Rep.: Robert R. Carlson
Reported To: Casey Wolf with JE Dunn
Contractor:
Report Distribution:

(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TEST REPORT

Report Number: 25061446.0964
Service Date: 11/17/08
Report Date: 11/19/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Mat. No.	Proctor Ref. No.	Classification and Description	Laboratory Test Method	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Compaction (%)
1	25061446.0379	Well Graded Sand w/Gravel (SW) A-1-b (0)	ASTM D698	8.0	122.5	±2	95
2	25061446.0671	Brown, Poorly Graded Sand w/Silt (SP-SM) A-1-b (0)	ASTM D1557	6.5	118.5	±2	95

Field Test Data

Test No.	Test Location	Lift / Elev.	Mat. No.	Probe Depth (in)	Wet Density (pcf)	Water Content (pcf)	Water Content (%)	Dry Unit Weight (pcf)	Percent Compaction (%)
	Curb and Gutter Subgrade								
1	6' south & 30' west of the southeast corner of main entrance off of S. Potomac St.	S.G.	2	8"	125.4	7.0	5.9	118.4	100
2	26' south & 60' west of the southeast corner of main entrance off of S. Potomac St.	S.G.	2	8"	124.4	6.3	5.3	118.1	100

Datum: **Gauge ID:** 35332 **Std. Cnt. M:** 605 **Std. Cnt. D:** 2809

Comments: **Test results on this report meet project requirements as noted above.**

Services: Field Density Testing
Terracon Rep.: Robert R. Carlson
Reported To: Casey Wolf w/JE Dunn
Contractor:

Report Distribution:

(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0965
Service Date: 11/18/08
Report Date: 11/19/08
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 7 concrete cylinders cast on November 17, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0963

Services: Concrete Pick-Up

Terracon Rep.: Robert R. Carlson
Reported To:
Contractor:
Report Distribution:

(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

PROOF ROLLING OBSERVATION REPORT

Report Number: 25061446.0966
Service Date: 11/19/08
Report Date: 11/21/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

On November 19, 2008, a representative of Terracon was present at the above referenced project site to observe proofrolling operations. The area that was proofrolled was identified as the 1/2' below subgrade. The site contractor provided a water truck, to perform the proofrolling operations. The operator was instructed to make slow overlapping passes across the subgrade in a longitudinal direction.

The exposed subgrade soils consisted of poorly graded sand. The Terracon technician observed the equipment during the entire proofrolling operation and no deflection or "pumping" of the soils was observed.

The contractors superintendent, Mr. Casey Wolf of JE Dunn was notified of the results.

The proofrolled area was approved to receive paving materials.

Services:

Terracon Rep.: Cherie A. Jemberie
Reported To: Casey Wolf w/JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TEST REPORT

Report Number: 25061446.0967
Service Date: 11/19/08
Report Date: 11/21/08
Task: Pavement Subgrade

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Mat. No.	Proctor Ref. No.	Classification and Description	Laboratory Test Method	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Compaction (%)
1	25061446.0671	Brown, Poorly Graded Sand w/Silt (SP-SM) A-1-b (0)	ASTM D1557	6.5	118.5	±2	95

Field Test Data

Test No.	Test Location	Lift / Elev.	Mat. No.	Probe Depth (in)	Wet Density (pcf)	Water Content (pcf)	Water Content (%)	Dry Unit Weight (pcf)	Percent Compaction (%)
	Pavement Subgrade-East Side Central Park								
1	South side	S.G.	1	8"	125.9	6.9	5.8	119.0	100
2	Middle section	S.G.	1	8"	126.1	8.5	7.2	117.6	99
3	North side	S.G.	1	8"	126.4	8.2	6.9	118.2	100
	Pavement Subgrade-West Side Central Park								
4	South side	S.G.	1	8"	124.4	5.9	5.0	118.5	100
5	Middle section	S.G.	1	8"	127.2	8.4	7.1	118.8	100
6	North side	S.G.	1	8"	123.8	7.2	6.2	116.6	98

Datum: **Gauge ID:** 4043

Comments: **Test results on this report meet project requirements as noted above.**

Services: Field Density Testing
Terracon Rep.: Cherie A. Jemberie
Reported To: Casey Wolf with JE Dunn
Contractor:

Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

HMAC FIELD DENSITY TEST REPORT

Report Number: 25061446.0971
Service Date: 11/21/08
Report Date: 12/30/08
Task: Asphalt Paving

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Mat. No.	Reference Number	Classification and Description	Laboratory Test Method	Lab Test Data: Reference Density (pcf)	Project Requirements: Min. Thickness (in)	Min. Comp. (%)	Max. Comp. (%)
1	25061446.0972	S-3/4		157.5		92	96
2	25061446.0975	SX-1/2		156.9		92	96

Field Test Data

Test No.	Test Location	Pave. Lift	Mat. No.	Nuclear Density (pcf)	Core Data: Core Length (in)	Core Data: Core Density (pcf)	Correction Factor (pcf)	Corrected Density (pcf)	Comp. (%)
	Asphalt Paving-Driveway								
1	60' east & 10' north from the northeast corner of building	Bottom	1	147.2					93
2	75' east & 30' north from the northeast corner of building	Bottom	1	145.8					93
3	60' west & 20' north from the northeast corner of building	Bottom	1	148.0					94
4	150' west & 120' north from the northeast corner of building	Bottom	1	147.5					94
5	50' west & 120' north from the northeast corner of building	Bottom	1	145.1					92
	Asphalt Paving-Parking Lot								
6	Southeast part	Bottom	2	146.8					94
7	Northeast part	Bottom	2	146.7					93
8	Southwest part	Bottom	2	147.3					94
9	Northwest part	Bottom	2	147.8					94
10	Middle section, south side	Bottom	2	146.3					93
11	Middle section, middle part	Bottom	2	148.1					94
12	Middle section, north side	Bottom	2	147.4					94

Datum: **Gauge ID:** 22050 **Std. Cnt. M:** 579 **Std. Cnt. D:** 2323

Comments: **Test results on this report meet project specification as noted above.**

Services: n/a
Terracon Rep.: Cherie A. Jemberie
Reported To: Casey Wolf with JE Dunn
Contractor:

Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

ASPHALT LABORATORY TEST REPORT

Report Number: 25061446.0972
Service Date: 11/21/08
Report Date: 12/02/08
Task: Asphalt Paving

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 sample of asphalt concrete for laboratory analysis to determine compliance with project requirements. The sampling was performed on site in accordance with applicable AASHTO and ASTM procedures.

See attached sheet for results.

Services: n/a

Terracon Rep.: Cherie A. Jemberie
Reported To: Casey Wolf with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

BITUMINOUS MIXTURE TEST RESULTS

Client Name: HCA Healthcare
Address: One Park Plaza
Bldg. 2 3 East
Nashville, TN 37203
Project Name: Aurora Medical Center Expansion
Location: South Potomac St. & East Arkansas Ave
Aurora , CO
Sample Location: SW corner of the central parking lot

Project No.: 25061446 Date of Report: 11/21/2008
Mix Source: Asphalt Specialties Inc
Mix Type: S - 3/4 Sample I.D. No.:
Sampled By: C. Jemberie Date: 11/21/2008
Submitted By: C. Jemberie Date: 11/21/2008
Reviewed By:

Test Procedures:
X NCAT Asphalt Content Tester, ASTM D6307 / CPL5120

Time sampled: 10:50 am
Batch Ticket No.: 289407
Load Tonnage: 15.19
Temperature,°F: 267
Truck No.: 11
Cumulative Tonnage: 165.73

Bituminous Content, %
4.92 Total Mix 95.08 Total Aggregate
Specification limits: 4.6-5.4
Sieve Analysis of: X Ignited Mineral Agg.
Wt. of Sample Before Ignition: 2063
Wt. of Sample After Ignition: 1961.5

Physical Properties of Bituminous Mixtures:
___ ASTM D 1559
___ 50 Blows per Side ___ 75 Blows per side
X ASTM D2041 X AASHTO T312

Note: For Terracon to perform the calibration & determine the correction factor for the mix; it is requested that the supplier provide aggregate produced in the current construction season & designated for use on the project along with the asphalt cement & mix design to perform the calibration process.

Sieve Size	% Accumulative Passing	Min.	Max.
1-1/2"			
1"	100	100	
3/4"	99	93	100
1/2"	84	81	93
3/8"	74	71	83
1/4"	---	---	---
#4	57	52	62
#8	46	42	52
#10	---	---	---
#16	33	---	---
#30	23	21	29
#40	18	---	---
#50	13	11	19
#80	---	---	---
#100	8	---	---
#200	5.3	4.2	8.2
PAN			

Property	Standard	Results: Avg. of 3 Specimens	Specification
Bulk Density (pcf)		152.5	
Bulk Specific Gravity		2.444	
Theoretical Max. Specific Gravity	2.525		
Air Voids (%)		3.19	3.0-5.0
Stability (pounds)			
Flow (1/100 inch)			
Theoretical Max. Density	157.5		
VMA (%)		15.6	13.9-16.3
Avg. Diameter of Mold (mm)		100mm	
Relative Density		9638	
Weight (gm)		1219.8	
Ht. of Specimen After Each Gyration (see attached)			

Comments:

Terracon

PROOF ROLLING OBSERVATION REPORT

Report Number: 25061446.0973
Service Date: 11/21/08
Report Date: 11/25/08
Task: Asphalt Paving

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

On November 21, 2008, a representative of Terracon was present at the above referenced project site to observe proofrolling operations. The area that was proofrolled was identified as the subgrade for parking lot-central parking. The site contractor provided a watertank-32 tons to perform the proofrolling operations. The operator was instructed to make slow overlapping passes across the subgrade in a longitudinal direction.

The exposed subgrade soils consisted of sand with silt. The Terracon technician observed the equipment during the entire proofrolling operation and no deflection or "pumping" of the soils were observed.

The contractors superintendent, Mr. Casey Wolf of JE Dunn was notified of the results.

The proofrolled area was approved to receive paving materials.

Services:

Terracon Rep.: Cherie A. Jemberie
Reported To: *Casey Wolf with JE Dunn*
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

HMAC FIELD DENSITY TEST REPORT

Report Number: 25061446.0974
Service Date: 11/22/08
Report Date: 12/30/08
Task: Asphalt Paving

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Mat. No.	Reference Number	Classification and Description	Laboratory Test Method	Lab Test Data: Reference Density (pcf)	Project Requirements: Min. Thickness (in)	Min. Comp. (%)	Max. Comp. (%)
1	25061446.0975	SX-1/2		156.9		92	96

Field Test Data

Test No.	Test Location	Pave. Lift	Mat. No.	Nuclear Density (pcf)	Core Data: Core Length (in)	Core Data: Core Density (pcf)	Correction Factor (pcf)	Corrected Density (pcf)	Comp. (%)
	Asphalt Paving								
1	South side of the east side of parking lot	Top	1	147.6					94
2	Middle part of the east side of parking lot	Top	1	148.3					95
3	North side of the east side of parking lot	Top	1	147.1					94
4	South side of the middle parking lot	Top	1	149.3					95
5	Middle part of the middle parking lot	Top	1	146.2					93
6	North side of the middle parking lot	Top	1	146.8					94
7	South side of the middle parking lot	Top	1	148.6					95
8	Middle part of the west side of parking lot	Top	1	149.5					95
9	South side of the west side of parking lot	Top	1	149.7					95

Datum: **Gauge ID:** **Std. Cnt. M:** **Std. Cnt. D:**

Comments: **Test results on this report meet project specification as noted above.**

Services: n/a
Terracon Rep.: Cherie A. Jemberie
Reported To: Casey Wolf with JE Dunn
Contractor:

Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

ASPHALT LABORATORY TEST REPORT

Report Number: 25061446.0975
Service Date: 11/22/08
Report Date: 12/08/08
Task: Asphalt Paving

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 sample of asphalt concrete for laboratory analysis to determine compliance with project requirements. The sampling was performed on site in accordance with applicable AASHTO and ASTM procedures.

See attached sheet for results.

Services:

Terracon Rep.: Cherie A. Jemberie
Reported To: Casey Wolf with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

BITUMINOUS MIXTURE TEST RESULTS

Client Name: HCA Healthcare
Address: One Park Plaza, Bldg. 2, 3 East
Nashville, TN 37203

Project Name: Aurora Medical Center Expansion
Location: S. Potomas St. & E. Arkansas Ave.
Aurora, CO
Sample Location: West side of parking lot at the SW corner

Project No.: 25061446 Date of Report: 11/22/2008
Mix Source: Aspahlt Specialities Inc.

Mix Type: SX 1/2" Sample I.D. No.: .0975
Sampled By: C. Jemberie Date: 11/22/2008
Submitted By: C. Jemberie Date: 11/22/2008
Reviewed By:

Test Procedures:
X NCAT Asphalt Content Tester, ASTM D6307 / CPL5120

Time sampled: 12:15 pm
Temperature,°F: 267
Batch Ticket No.: 289611
Truck No.: 15
Load Tonnage: 15.16
Cumulative Tonnage: 228.53

Bituminous Content, %
5.06 Total Mix 94.94 Total Aggregate
Specification limits: 4.9-5.5
Sieve Analysis of: X Ignited Mineral Agg.
Wt. of Sample Before Ignition: 1532.8
Wt. of Sample After Ignition: 1455.3

Physical Properties of Bituminous Mixtures:
___ ASTM D 1559
___ 50 Blows per Side ___ 75 Blows per side
X ASTM D2041 X AASHTO T312

Note: For Terracon to perform the calibration & determine the correction factor for the mix; it is requested that the supplier provide aggregate produced in the current construction season & designated for use on the project along with the asphalt cement & mix design to perform the calibration process.

Sieve Size	% Accumulative Passing	Min.	Max.
1-1/2"			
1"			
3/4"	100	100	
1/2"	97	92	100
3/8"	87	83	95
1/4"	---	---	---
#4	*66	55	65
#8	53	43	53
#10	---	---	---
#16	39	---	---
#30	26	19	27
#40	20	---	---
#50	14	10	18
#80	---	---	---
#100	8	---	---
#200	5.3	3.2	7.2
PAN			

Property	Standard	Results: Avg. of 3 Specimens	Specification
Bulk Density (pcf)		150.5	
Bulk Specific Gravity		2.412	
Theoretical Max. Specific Gravity	2.515		
Air Voids (%)		4.08	3.0-5.0
Stability (pounds)			
Flow (1/100 inch)			
Theoretical Max. Density	156.9		
VMA (%)		15	13.7-16.1
Avg. Diameter of Mold (mm)		100mm	
Relative Density		95.9	
Weight (gm)		1196.9	
Ht. of Specimen After Each Gyration (see attached)			

Comments: ***An asterisk (*) appears next to the test results which do not meet the project specification as noted above.***

Terracon

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0976
Service Date: 12/03/08
Report Date: 01/02/09
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 402117
Supplier: Bestway Concrete
Batch Time: 0925 **Plant:** 15
Truck No.: 59 **Ticket No.:** 701806

Sample Information

Sample Date: 12/03/08 **Sample Time:** 1100
Sampled By: Charles Schott
Weather Conditions: Cloudy
Accumulative Yards: 8 **Batch Size (cy):** 8
Placement Method: Tailgate
Water Added Before (gal): 0
Water Added After (gal): 0
Sample Location: Sidewalk, north & south of the east entrance of Hospital
Placement Location: Sidewalk at the east entrance to Hospital, north side of entrance

Field Test Data

Test	Result		Specification
Slump (in):	3		1-4
Air Content (%):	5.0		4.5-7.5
Concrete Temp. (F):	74		50-90
Ambient Temp. (F):	28	*	40+
Plastic Unit Wt. (pcf):			

*** = Field Test Results do not meet project specifications.**

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57	12/03/08	8.40	12/10/08	7	47,250	3,760	1
1	2	4.00	12.57	12/03/08	8.40	12/10/08	7	45,050	3,590	2
							Average (7 days)		**3,680**	
1	3	4.00	12.57	12/03/08	8.30	12/31/08	28	61,110	4,860	1
1	4	4.00	12.57	12/03/08	8.30	12/31/08	28	59,960	4,770	4
1	5	4.00	12.57	12/03/08	8.30	12/31/08	28	61,830	4,920	4
							Average (28 days)		**4,850**	
1	6			12/03/08			Hold			
1	7			12/03/08			Hold			

Comments: Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Cast Concrete Cylinders

Terracon Rep.: Charles Schott
Reported To: Casey Wolf w/J.E. Dunn
Contractor:

Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0978
Service Date: 12/04/08
Report Date: 12/08/08
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 7 concrete cylinders cast on December 3, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0976

Services: Concrete Pick-Up

Terracon Rep.: Charles Schott
Reported To:
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

ON-SITE CANCELLATION REPORT

Report Number: 25061446.0980
Service Date: 12/08/08
Report Date: 12/15/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project
Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

A Terracon representative arrived at the above referenced project at 10:00 a.m. to perform concrete compressive strength testing as scheduled. Upon arrival, the technician was notified that the work had been cancelled.

Services: On-site Cancellation

Terracon Rep.: Ryan J. Kelly
Reported To: Casey with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co. Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0982
Service Date: 12/11/08
Report Date: 01/09/09
Task: Sidewalk Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 3000 psi @ 28 days

Mix ID: 402117
Supplier: Bestway Concrete
Batch Time: 0915 **Plant:** 15
Truck No.: 133 **Ticket No.:** 702150

Sample Information

Sample Date: 12/11/08 **Sample Time:** 1100
Sampled By: Charles Schott
Weather Conditions: Clear
Accumulative Yards: 30 **Batch Size (cy):** 10
Placement Method: Tailgate
Water Added Before (gal): 0
Water Added After (gal): 0
Sample Location: *City Sidewalk west side of Potomac Street*
Placement Location: 50' to 100' S from the SE corner of Arkansas Avenue

Field Test Data

Test	Result	Specification
Slump (in):	3 1/2	1-4
Air Content (%):	6.0	4.5-75
Concrete Temp. (F):	62	50-90
Ambient Temp. (F):	40	40+
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57	12/12/08	8.30	12/18/08	7	34,310	2,730	3
1	2	4.00	12.57	12/12/08	8.30	12/18/08	7	34,950	2,780	2
							Average (7 days)		**2,760**	
1	3	4.00	12.57	12/12/08	8.30	01/08/09	28	46,540	3,700	2
1	4	4.00	12.57	12/12/08	8.30	01/08/09	28	43,690	3,480	4
1	5	4.00	12.57	12/12/08	8.30	01/08/09	28	45,250	3,600	2
							Average (28 days)		**3,590**	
1	6			12/12/08			Hold			
1	7			12/12/08			Hold			

Comments: **Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.**

Samples Made By: Terracon
Services: Cast Concrete Cylinders

Terracon Rep.: Charles Schott
Reported To: Casey with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the *actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.*

FIELD DENSITY TEST REPORT

Report Number: 25061446.0983
Service Date: 12/11/08
Report Date: 12/16/08
Task: Sidewalk Subgrade

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Mat. No.	Proctor Ref. No.	Classification and Description	Laboratory Test Method	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Compaction (%)
1	25081700.0022A	Light Brown, Silty, Clayey Sand (SC-SM) A-2-4 (0)	ASTM D1557	9.0	130.5	±2	95

Field Test Data

Test No.	Test Location	Lift / Elev.	Mat. No.	Probe Depth (in)	Wet Density (pcf)	Water Content (pcf)	Water Content (%)	Dry Unit Weight (pcf)	Percent Compaction (%)
	City Sidewalk, West Side of Potomac Street								
1	75' S of the SE corner of Arkansas Avenue	S.G.	1	8"	133.6	9.2	7.4	124.4	95
2	50' N of the NE corner of the east entrance	S.G.	1	8"	135.1	10.0	8.0	125.1	96

Datum: **Gauge ID:** 35333 **Std. Cnt. M:** 591 **Std. Cnt. D:** 2549

Comments: **Test results on this report meet project requirements as noted above.**

Services: Field Density Testing
Terracon Rep.: Charles Schott
Reported To: Casey Wolf with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0984
Service Date: 12/12/08
Report Date: 12/17/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client
HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project
Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 7 concrete cylinders cast on December 11, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0982

Services: Concrete Pick-Up

Terracon Rep.: Jack D. Redman
Reported To:
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0986
Service Date: 12/13/08
Report Date: 01/14/09
Task: Sidewalk Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 3000 psi @ 28 days

Mix ID: 402117
Supplier: Bestway Concrete
Batch Time: 0831 **Plant:** 15
Truck No.: 139 **Ticket No.:** 702311

Field Test Data

Test	Result	Specification
Slump (in):	2 1/4	1.5-3
Air Content (%):	6.0	5-7
Concrete Temp. (F):	60	50-90
Ambient Temp. (F):	45	40+
Plastic Unit Wt. (pcf):		

Sample Information

Sample Date: 12/13/08 **Sample Time:** 0930
Sampled By: Cherie A. Jemberie
Weather Conditions: Sunny
Accumulative Yards: 10 **Batch Size (cy):** 10
Placement Method: Direct Discharge
Water Added Before (gal): 5
Water Added After (gal): 0
Sample Location: 80' W & 5' S from the SW corner of S. Potomac St. and E. Arkansas Avenue
Placement Location: Side walkway, 90' W by E. Arkansas Ave west bound and 80' S by S. Patomac St., south bound

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57	12/15/08	8.20	12/20/08	7	33,580	2,670	5
1	2	4.00	12.57	12/15/08	8.20	12/20/08	7	35,540	2,830	2
							Average (7 days)		**2,750**	
1	3	4.00	12.57	12/15/08	8.30	01/10/09	28	49,410	3,930	2
1	4	4.00	12.57	12/15/08	8.20	01/10/09	28	49,610	3,950	4
1	5	4.00	12.57	12/15/08	8.20	01/10/09	28	47,940	3,820	5
							Average (28 days)		**3,900**	
1	6	4.00	12.57	12/15/08		02/07/09	56			
1	7			12/15/08			Hold			

Comments: Compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit weight.

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0986
Service Date: 12/13/08
Report Date: 01/14/09
Task: Sidewalk Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Samples Made By: Terracon
Services: Cast Concrete Cylinders

Terracon Rep.: Cherie A. Jemberie
Reported To: Casey Wolf with JE Dunn
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TEST REPORT

Report Number: 25061446.0987
Service Date: 12/13/08
Report Date: 12/17/08
Task: Curb and Gutter Subgrade

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Mat. No.	Proctor Ref. No.	Classification and Description	Laboratory Test Method	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Compaction (%)
1	25061446.0069	Poorly Graded Sand w/Silt (SP-SM) A-1-b (0)	ASTM D1557	11.0	118.5	±2	95

Field Test Data

Test No.	Test Location	Lift / Elev.	Mat. No.	Probe Depth (in)	Wet Density (pcf)	Water Content (pcf)	Water Content (%)	Dry Unit Weight (pcf)	Percent Compaction (%)
	Walkway's Subgrade								
1	75' W & 5' S from the SW corner of E. Arkansas Ave. & S. Potomac St.	S.G.	1	8"	130.4	12.4	10.5	118.0	100
2	30' S & 10' W from the SW corner of E. Arkansas Ave. & S. Potomac St.	S.G.	1	8"	131.6	14.1	12.0	117.5	99

Datum: **Gauge ID:** 4043 **Std. Cnt. M:** 724 **Std. Cnt. D:** 2563

Comments: **Test results on this report meet project requirements as noted above.**

Services: Field Density Testing
Terracon Rep.: Cherie A. Jemberie
Reported To: Casey Wolf w/JE Dunn
Contractor:

Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0988
Service Date: 12/15/08
Report Date: 12/17/08

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 7 concrete cylinders cast on December 13, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0986

Services: Concrete Pick-Up

Terracon Rep.: Jim M. Abraitis
Reported To:
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0989
Service Date: 12/29/08
Report Date: 01/06/09

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 4000 psi @ 28 days

Mix ID: 402119
Supplier: Bestway Concrete
Batch Time: 0856 **Plant:** 15
Truck No.: 0142 **Ticket No.:** 702666

Sample Information

Sample Date: 12/29/08 **Sample Time:** 0955
Sampled By: Nse E. Ndu
Weather Conditions: Partly Sunny
Accumulative Yards: 19.5 **Batch Size (cy):**
Placement Method: Hand Pour
Water Added Before (gal): 0
Water Added After (gal): 0
Sample Location: 50' North & 50' East of Building
Placement Location: Pole Footing for Light Poles, Northeast of Building by Parking Lot

Field Test Data

Test	Result	Specification
Slump (in):	2 1/2	1-4
Air Content (%):	6.0	5-8
Concrete Temp. (F):	55	50-90
Ambient Temp. (F):	45	40+
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57	12/30/08	8.30	01/05/09	7	43,390	3,450	2
1	2	4.00	12.57	12/30/08		01/26/09	28			
1	3	4.00	12.57	12/30/08		01/26/09	28			
1	4	4.00	12.57	12/30/08		01/26/09	28			
1	5			12/30/08			Hold			

Comments: Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Cast Concrete Cylinders

Terracon Rep.: Nse E. Ndu
Reported To: Randy T. w/Concrete Foundation
Contractor:
Report Distribution:

(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0991
Service Date: 12/30/08
Report Date: 01/07/09

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 5 concrete cylinders cast on December 29, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0989

Services: Concrete Pick-Up

Terracon Rep.: Nse E. Ndu
Reported To: Randy T. w/Concrete Foundation
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TEST REPORT

Report Number: 25061446.0992
Service Date: 12/30/08
Report Date: 01/14/09
Task: Curb and Gutter Subgrade

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Mat. No.	Proctor Ref. No.	Classification and Description	Laboratory Test Method	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Compaction (%)
1	25081700.0155	Brown, Silty Sand (SM) A-2-4 (0)	ASTM D1557	9.8	123.0	±2	95

Field Test Data

Test No.	Test Location	Lift / Elev.	Mat. No.	Probe Depth (in)	Wet Density (pcf)	Water Content (pcf)	Water Content (%)	Dry Unit Weight (pcf)	Percent Compaction (%)
	Curb and Gutter Subgrade by Building #1501								
1	100' E & 18' N from the NE corner of Building	S.G.	1	8"	136.0	11.5	9.2	124.5	100+
2	100' E & 50' N from the NE corner of Building	S.G.	1	8"	134.2	11.6	9.5	122.6	100

Datum: **Gauge ID:** 37518 **Std. Cnt. M:** 729 **Std. Cnt. D:** 2631

Comments: **Test results on this report meet project requirements as noted above.**

Services: Field Density Testing
Terracon Rep.: Nse E. Ndu
Reported To: Randy T. w/Concrete Foundation
Contractor:

Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE COMPRESSIVE STRENGTH TEST REPORT

Report Number: 25061446.0993
Service Date: 12/30/08
Report Date: 01/14/09
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Specified Strength: 3000 psi @ 28 days

Mix ID: 402119
Supplier: Bestway Concrete
Batch Time: 1000 **Plant:** 15
Truck No.: 0112 **Ticket No.:** 702735

Sample Information

Sample Date: 12/30/08 **Sample Time:** 1115
Sampled By: Nse E. Ndu
Weather Conditions: Partly Sunny
Accumulative Yards: 5 **Batch Size (cy):**
Placement Method: Hand Pour
Water Added Before (gal): 0
Water Added After (gal): 0
Sample Location: 100' E & 10' N of the NE corner of Building #1501
Placement Location: Curb and Gutter by Building #1501

Field Test Data

Test	Result	Specification
Slump (in):	4	1-4
Air Content (%):	7.0	4.5-7.5
Concrete Temp. (F):	60	50-90
Ambient Temp. (F):	46	40+
Plastic Unit Wt. (pcf):		

Laboratory Test Data

Set No.	Specimen ID	Diameter (in)	Area (sq in)	Date Received	Specimen Weight (lbs)	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type
1	1	4.00	12.57	01/02/09	8.20	01/06/09	7	30,590	2,430	5
1	2	4.00	12.57	01/02/09		01/27/09	28			
1	3	4.00	12.57	01/02/09		01/27/09	28			
1	4	4.00	12.57	01/02/09		01/27/09	28			
1	5			01/02/09			Hold			

Comments: Not tested for plastic unit weight.

Samples Made By: Terracon
Services: Cast Concrete Cylinders

Terracon Rep.: Nse E. Ndu
Reported To: Randy T. w/Concrete Foundation
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0994
Service Date: 12/31/08
Report Date: 01/07/09
Task: Curb and Gutter Concrete

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 5 concrete cylinders cast on December 30, 2008. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0993

Services: Concrete Pick-Up

Terracon Rep.: Charles Schott
Reported To:
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

FIELD DENSITY TEST REPORT

Report Number: 25061446.0995
Service Date: 01/02/09
Report Date: 01/07/09
Task: Sidewalk Subgrade

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Material Information

Mat. No.	Proctor Ref. No.	Classification and Description	Laboratory Test Method	Lab Test Data: Optimum Water Content (%)	Lab Test Data: Max. Lab Dry Unit Weight (pcf)	Project Requirements: Water Content (%)	Project Requirements: Minimum Compaction (%)
1	25061446.0671	Brown, Poorly Graded Sand w/Silt (SP-SM) A-1-b (0)	ASTM D1557	6.5	118.5	±2	95

Field Test Data

Test No.	Test Location	Lift / Elev.	Mat. No.	Probe Depth (in)	Wet Density (pcf)	Water Content (pcf)	Water Content (%)	Dry Unit Weight (pcf)	Percent Compaction (%)
	Sidewalk @ the SE Corner of East Entrance								
1	25' S and Centerline and 10' to 50' S of entrance	S.G.	1	8"	126.7	8.0	6.7	118.7	100

Datum: **Gauge ID:** 35333 **Std. Cnt. M:** 599 **Std. Cnt. D:** 2483

Comments: **Test results on this report meet project requirements as noted above.**

Services: Field Density Testing
Terracon Rep.: Charles Schott
Reported To: Jesse with JE Dunn
Contractor:

Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co, Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

Test Methods:

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

CONCRETE CYLINDER PICK-UP REPORT

Report Number: 25061446.0997
Service Date: 01/03/09
Report Date: 01/07/09

Terracon
10625 W I-70 Frontage Rd N, Ste 3
Wheat Ridge, CO 80033
303-423-3300

Client

HCA Healthcare
Attn: Clint Russell
One Park Plaza
Bldg 2, 3 East
Nashville, TN 37203

Project

Aurora Medical Center Expansion
South Potomac Street & East Arkansas Avenue
Aurora, CO

Project Number: 25061446

Terracon obtained 1 set of 7 concrete cylinders cast on January 1, 2009. The samples were returned to the laboratory for processing and proper curing as specified.

Cylinders labeled with the following dispatch numbers were obtained: .0996

Services: Concrete Pick-Up

Terracon Rep.: Kurt E.Eye
Reported To:
Contractor:
Report Distribution:
(1) HCA Healthcare
(1) HCA Healthcare
(1) JE Dunn Construction Co. Emailed
(1) Perkins & Will
(1) Bestway Concrete Co
(1) JE Dunn Construction Co
(1) Perkins & Will

Reviewed By: Mark A. Weritz

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

Compliance Plus Inc.
Piped Medical Gas Evaluations/Certifications / Employee Exposure Monitoring / Medical Gas Installer Training

Date of Verification: 3/12/09

Test Report Date:3/19/09

Piped Medical Gas System Verification

Project
Tower Expansion

Facility
The Medical Center of Aurora
1501 S. Potomac Street
Aurora, CO 80012

Installer
Heating & Plumbing Engineers, Inc.
715 Vallejo Street
Denver, CO 80204

The following information is the detailed report on the verification of the piped medical gas systems. This document certifies that the following medical gas systems and components have been evaluated based upon NFPA 99 Standard for Health Care Facilities 2002 Edition. Verification is given only if the tests set forth by NFPA 99, 2002 are met satisfactorily. This report should be included in the permanent records of the facility. Portions of the medical gas system have been certified in the following locations.

	Gas System	Location
1.	Oxygen	New Tower
2.	Medical Air	New Tower
3.	Nitrous Oxide	Not Applicable
4.	Nitrogen	Not Applicable
5.	Carbon Dioxide	Not Applicable
6.	Vacuum	New Tower
7.	WAGD System	Not Applicable

This verification consists of the appropriate tests identified in Chapter 5 Section 5.1.12.3 of NFPA 99, 2002. This page and the following report serve as a certificate that the above mentioned piped medical gas systems, with the exceptions listed in the comments section below, are in compliance with NFPA 99, 1999 requirements.

Signature

Karl Erlandson
Compliance Plus, Inc.

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
1065 Echo #2	Oxygen	OK	Pass	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
1066 Echo	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
1067 Pulm Stress	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
1089 Nuc Med	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
1091 Stress	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
2023/233	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
2022/234	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
2021/235	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
2018/236	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
2017/237	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
2014/238	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
2013/239	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
2010/240	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
2009/241	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
2006/242	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
2005/243	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
2002/244	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
2068/245	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
2065/246	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
2064/247	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
2061/248	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
2060/249	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
2057/250	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
2056/251	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
2053/252	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
2052/253	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
2049/254	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
2048/255	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
2046/256	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Parti-culate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
3013/ICU 35	Med Air	OK	Pass	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	Pass	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
3012/ICU 36	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
3011/ICU 37	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
3011/ICU 37	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
3010/ICU 38	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
3009/ICU 39	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
3009/ICU 39	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
3008/ICU 40	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
3034/ICU 53	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
3033/ICU 54	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Parti-culate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
3033/ICU 54	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
3032/ICU 55	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
3031/ICU 56	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
3031/ICU 56	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
3030/ICU 57	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
3029/ICU 58	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Oxygen	OK	-	-	-	-	+10	55 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	16" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
4002/472	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	Pass	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	Pass	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
4005/471	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
4006/470	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
4009/469	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
4010/468	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
4013/467	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
4014/466	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
4017/465	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
4018/464	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
4021/463	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
4022/462	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
4025/461	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
4046/484	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
4048/483	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
4049/482	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
4052/481	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
4053/480	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
4056/479	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
4057/478	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
4060/477	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
4061/476	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests		Source Gas Tests				% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
4064/475	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
4065/474	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
4068/473	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests		Source Gas Tests				% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
5025/531	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
5022/532	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
5021/533	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
5018/534	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
5017/535	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
5014/536	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Parti-culate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
5013/537	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
5010/538	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
5009/539	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
5006/540	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
5005/541	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
5002/542	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
5068/543	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
5065/544	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
5064/545	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
5062/546	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
5060/547	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
5057/548	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
5056/549	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
5053/550	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
5052/551	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

I. Patient Terminal Test Results - 4-3.4.1.3(a), (c), (f), (h), (i)

A.	Are all outlets/inlets free of leaks?	Yes
B.	Do the outlets/inlets hold the quick connect correctly?	Yes
C.	Are all ceiling outlets/inlets DISS?	N/A
D.	Are all outlets/inlets properly labeled?	Yes
E.	Are all outlets/inlets controlled by a valve on the same floor as the outlet/inlet?	Yes

Exact Inlet/outlet location	Gas	Cross Connect	Particulate Levels	Nitrogen Tests			Source Gas Tests			% Source Gas	Certified
				Flow	Pressure	Trans. Flow	Flow	Pressure	Pressure Drop		
N2 Source Readings →											
5049/552	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
5048/553	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
5046/554	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Med Air	OK	-	-	-	-	+10	55 psig	1 psig	20.9	Yes
	Oxygen	OK	-	-	-	-	+10	54 psig	0	99	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes
	Vacuum	OK	-	-	-	-	4.6	15" hg	OK	-	Yes

II. Valve Test Results - 4-3.4.1.3(b)

A.	Are valves outside of the room where outlets are located?	Yes
B.	Are valves visible and accessible at all times?	Yes
C.	Are valves on the same floor as the outlets controlled?	Yes
D.	Can valves be reached from a standing position?	Yes

Exact Location of Valve	Valve No.	Valve in Ceiling or Valve Box	Gas Controlled	Valve Labeled Correctly	Controls only intended terminals	Valve Operate Properly	Is valve protected	Certified
Opposite 1064 Waiting Room	1	Valve Box	Oxygen	Yes	Yes	Yes	Yes	Yes
	2	Valve Box	Vacuum	Yes	Yes	Yes	Yes	Yes
Opposite Room 2014/238	3	Valve Box	Oxygen	Yes	Yes	Yes	Yes	Yes
	4	Valve Box	Med Air	Yes	Yes	Yes	Yes	Yes
	5	Valve Box	Vacuum	Yes	Yes	Yes	Yes	Yes
Opposite Room 2056/251	6	Valve Box	Oxygen	Yes	Yes	Yes	Yes	Yes
	7	Valve Box	Med Air	Yes	Yes	Yes	Yes	Yes
	8	Valve Box	Vacuum	Yes	Yes	Yes	Yes	Yes
Opposite 3008 ICU Room 40	9	Valve Box	Oxygen	Yes	Yes	Yes	Yes	Yes
	10	Valve Box	Med Air	Yes	Yes	Yes	Yes	Yes
	11	Valve Box	Vacuum	Yes	Yes	Yes	Yes	Yes
Opposite 3034 ICU Room 53	12	Valve Box	Oxygen	Yes	Yes	Yes	Yes	Yes
	13	Valve Box	Med Air	Yes	Yes	Yes	Yes	Yes
	14	Valve Box	Vacuum	Yes	Yes	Yes	Yes	Yes
Opposite Room 4014/466	15	Valve Box	Oxygen	Yes	Yes	Yes	Yes	Yes
	16	Valve Box	Med Air	Yes	Yes	Yes	Yes	Yes
	17	Valve Box	Vacuum	Yes	Yes	Yes	Yes	Yes

II. Valve Test Results - 4-3.4.1.3(b)

A.	Are valves outside of the room where outlets are located?	Yes
B.	Are valves visible and accessible at all times?	Yes
C.	Are valves on the same floor as the outlets controlled?	Yes
D.	Can valves be reached from a standing position?	Yes

Exact Location of Valve	Valve No.	Valve in Ceiling or Valve Box	Gas Controlled	Valve Labeled Correctly	Controls only intended terminals	Valve Operate Properly	Is valve protected	Certified
Opposite Room 4053/480	18	Valve Box	Oxygen	Yes	Yes	Yes	Yes	Yes
	19	Valve Box	Med Air	Yes	Yes	Yes	Yes	Yes
	20	Valve Box	Vacuum	Yes	Yes	Yes	Yes	Yes
Opposite Room 5014/536	21	Valve Box	Oxygen	Yes	Yes	Yes	Yes	Yes
	22	Valve Box	Med Air	Yes	Yes	Yes	Yes	Yes
	23	Valve Box	Vacuum	Yes	Yes	Yes	Yes	Yes
Opposite Room 5056/549	24	Valve Box	Oxygen	Yes	Yes	Yes	Yes	Yes
	25	Valve Box	Med Air	Yes	Yes	Yes	Yes	Yes
	26	Valve Box	Vacuum	Yes	Yes	Yes	Yes	Yes

Valve Number	Gas Controlled	Controls terminals in Rooms
1	Oxygen	1065 Echo #2, 1066 Echo, 1067 Pulm Stress, 1089, Nuc Med, 1091 Stress
2	Vacuum	1065 Echo #2, 1066 Echo, 1067 Pulm Stress, 1089, Nuc Med, 1091 Stress
3	Oxygen	2023/233, 2022/234, 2021/235, 2018/236, 2017/237, 2014/2378, 2013/239, 2010/240, 2009/241, 2006/242, 2005/243, 2002/244
4	Med Air	2023/233, 2022/234, 2021/235, 2018/236, 2017/237, 2014/2378, 2013/239, 2010/240, 2009/241, 2006/242, 2005/243, 2002/244
5	Vacuum	2023/233, 2022/234, 2021/235, 2018/236, 2017/237, 2014/2378, 2013/239, 2010/240, 2009/241, 2006/242, 2005/243, 2002/244
6	Oxygen	2068/245, 2065/246, 2064/247, 2061/248, 2060/249, 2059/250, 2056/251, 2053/252, 2052/253, 2049/254, 2048/255, 2046/256

7	Med Air	2068/245, 2065/246, 2064/247, 2061/248, 2060/249, 2059/250, 2056/251, 2053/252, 2052/253, 2049/254, 2048/255, 2046/256
8	Vacuum	2068/245, 2065/246, 2064/247, 2061/248, 2060/249, 2059/250, 2056/251, 2053/252, 2052/253, 2049/254, 2048/255, 2046/256
9	Oxygen	3013/ICU 35, 3012/ICU 36, 3011/ICU 37, 3010/ICU 38, 3009/ICU 39, 3008 ICU 40
10	Med Air	3013/ICU 35, 3012/ICU 36, 3011/ICU 37, 3010/ICU 38, 3009/ICU 39, 3008 ICU 40
11	Vacuum	3013/ICU 35, 3012/ICU 36, 3011/ICU 37, 3010/ICU 38, 3009/ICU 39, 3008 ICU 40
12	Oxygen	3034/ICU 53, 3033/ICU 54, 3032/ICU 55, 3031/ICU 56, 3030/ICU 57, 3029/ICU 58
13	Med Air	3034/ICU 53, 3033/ICU 54, 3032/ICU 55, 3031/ICU 56, 3030/ICU 57, 3029/ICU 58
14	Vacuum	3034/ICU 53, 3033/ICU 54, 3032/ICU 55, 3031/ICU 56, 3030/ICU 57, 3029/ICU 58
15	Oxygen	4025/461, 4022/462, 4021/463, 4018/464, 4017, 465, 4014/466, 4013/467, 4010/468, 4009/469, 4006/470, 4005/471, 4002/472
16	Med Air	4025/461, 4022/462, 4021/463, 4018/464, 4017, 465, 4014/466, 4013/467, 4010/468, 4009/469, 4006/470, 4005/471, 4002/472
17	Vacuum	4025/461, 4022/462, 4021/463, 4018/464, 4017, 465, 4014/466, 4013/467, 4010/468, 4009/469, 4006/470, 4005/471, 4002/472
18	Oxygen	4068/473, 4065/474, 4064/475, 4061/476, 4060/477, 4057/478, 4056,479, 4053/480, 4052/481, 4049/482, 4048/483, 4046/484
19	Med Air	4068/473, 4065/474, 4064/475, 4061/476, 4060/477, 4057/478, 4056,479, 4053/480, 4052/481, 4049/482, 4048/483, 4046/484
20	Vacuum	4068/473, 4065/474, 4064/475, 4061/476, 4060/477, 4057/478, 4056,479, 4053/480, 4052/481, 4049/482, 4048/483, 4046/484
21	Oxygen	5025/531, 5022/532, 5021/533, 5018/534, 5017/535, 5014/536, 5013/537, 5010/538, 5009/539, 5006/540, 5005/541, 5002/542
22	Med Air	5025/531, 5022/532, 5021/533, 5018/534, 5017/535, 5014/536, 5013/537, 5010/538, 5009/539, 5006/540, 5005/541, 5002/542
23	Vacuum	5025/531, 5022/532, 5021/533, 5018/534, 5017/535, 5014/536, 5013/537, 5010/538, 5009/539, 5006/540, 5005/541, 5002/542
24	Oxygen	5068/543, 5065/544, 5064/545, 5062/546, 5060/547, 5057/548, 5056/549, 5053/550, 5052/551, 5049/552, 5048/553, 5046/554
25	Med Air	5068/543, 5065/544, 5064/545, 5062/546, 5060/547, 5057/548, 5056/549, 5053/550, 5052/551, 5049/552, 5048/553, 5046/554
26	Vacuum	5068/543, 5065/544, 5064/545, 5062/546, 5060/547, 5057/548, 5056/549, 5053/550, 5052/551, 5049/552, 5048/553, 5046/554

III. Medical Air Purity Test Results - 4-3.4.1.3(j)

Test Location	Pressure Dew Point	Carbon Monoxide	Carbon Dioxide	Methane	Halogen. Hydro-carbons	Certified
Maximum Allowable	39°F (4°C) @ 50psig	10 ppm	500 ppm	25 ppm	2 ppm	
3029/ICU Room 58	-36	0	0	0	0	Yes

III. Area Alarm Test Results - 4-3.4.1.3(d)

List the name and company of a person verifying the correct branch of electrical system.

Exact Location of Alarm	Gas Monitored	Pressure	Activation information		Warning Signal		Certified
			High	Low	Cancelable Audible	Non-Cancelable Visual	
Opposite 1064 Waiting Room	Oxygen	53 psig	60 psig	40 psig	Yes	Yes	Yes
	Vacuum	16" hg	-	12" hg	Yes	Yes	Yes
Opposite Room 2021/235	Oxygen	53 psig	60 psig	40 psig	Yes	Yes	Yes
	Med Air	55 psig	60 psig	40 psig	Yes	Yes	Yes
	Vacuum	16" hg	-	12" hg	Yes	Yes	Yes
Outside Room 2061/248	Oxygen	53 psig	60 psig	40 psig	Yes	Yes	Yes
	Med Air	55 psig	60 psig	40 psig	Yes	Yes	Yes
	Vacuum	16" hg	-	12" hg	Yes	Yes	Yes
Opposite 3010/ ICU Room 38	Oxygen	53 psig	60 psig	40 psig	Yes	Yes	Yes
	Med Air	55 psig	60 psig	40 psig	Yes	Yes	Yes
	Vacuum	16" hg	-	12" hg	Yes	Yes	Yes
Opposite 3032/ ICU Room 55	Oxygen	53 psig	60 psig	40 psig	Yes	Yes	Yes

Exact Location of Alarm	Gas Monitored	Pressure	Activation information		Warning Signal		Certified
			High	Low	Cancelable Audible	Non-Cancelable Visual	
Opposite 3032/ ICU Room 55	Med Air	55 psig	60 psig	40 psig	Yes	Yes	Yes
	Vacuum	16" hg	-	12" hg	Yes	Yes	Yes
Opposite Room 4021/463	Oxygen	53 psig	60 psig	40 psig	Yes	Yes	Yes
	Med Air	55 psig	60 psig	40 psig	Yes	Yes	Yes
	Vacuum	16" hg	-	12" hg	Yes	Yes	Yes
Opposite Room 5021/533	Oxygen	53 psig	60 psig	40 psig	Yes	Yes	Yes
	Med Air	55 psig	60 psig	40 psig	Yes	Yes	Yes
	Vacuum	16" hg	-	12" hg	Yes	Yes	Yes
Outside Room 5060/547	Oxygen	53 psig	60 psig	40 psig	Yes	Yes	Yes
	Med Air	55 psig	60 psig	40 psig	Yes	Yes	Yes
	Vacuum	16" hg	-	12" hg	Yes	Yes	Yes

IV. Source Testing Results - 4-3.4.1.4(b)

Medical Air System

Location of compressor systems.	New Tower Penthouse
Areas of the facility served by compressor system?	Tower
Is compressor system dedicated to patient use?	Yes
Number of compressors in system.	3
List the manufacturer of the system.	BeaconMedaes
List model and serial numbers of system.	LPS-10T-SD-200QCY/180772-3

Compressors Information	Manufacturer	Model	Serial No.	Type	Horsepower
Compressor One	Hitachi	On File	On File	Scroll	10
Compressor Two	Hitachi	On File	On File	Scroll	10
Compressor Three	Hitachi	On File	On File	Scroll	10
Compressor Four	-	-	-	-	-

	Inlet	Outlet
Are flexible connectors installed on compressor inlet and outlet pipes?	Yes	Yes

IV. Source Testing Results - 4-3.4.1.4(b)

Medical Air System

Are pressure relief valves installed after each compressor?	Yes
Are isolation valves installed to permit servicing each compressor (intake piping)?	Yes
Are check valves installed after each compressor?	Yes
Are aftercoolers installed on compressor system?	Yes
List number of aftercoolers that are installed?	3
Are aftercoolers water or air cooled?	Yes

	Cut-in	Cut-out
Lead pressure switch settings	90 psig	110 psig
Lag pressure switch settings	85 psig	105 psig

Is lag alarm installed?	Yes
Does lag alarm function properly?	Yes
Do compressors alternate automatically?	Yes
Are manual electrical disconnect switches installed?	Yes
Name and company of person verifying correct branch of electrical system.	Chris Piechowski, Ludvik Electric

Receiver	Auto. Drain	Pressure Gauge	Sight Glass	Three Valve Bypass	High Water Level Sensor	Pressure Relief Valve	ASME Label	Corrosion Resistant
Items Present?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Is an auto drain installed on pre-filters?	Yes
Number of dryers that are installed.	2

Dryer Information	Manufacturer	Model	Serial No.	Desiccant/ Refrigerant	Can be isolated for service	Auto drain installed
Dryer One	BeaconMedaes	On File	On File	Desiccant	Yes	Yes
Dryer Two	BeaconMedaes	On File	On File	Desiccant	Yes	Yes

Is a high temperature switch installed at each cylinder?	Yes
Are coalescing filter with element change indicator present?	Yes
Is a charcoal filter with colormetric hydrocarbon indicator present?	Yes
Is appropriate final filtering installed?	Yes

For each filter set list the following;	Manufacturer	Model	Continuous Visual Efficiency Indicator?	Can be Isolated?
Filter Set A	Hankison	On File	Yes	Yes
Filter Set B	Hankison	On File	Yes	Yes

Are dual line pressure regulators installed in an appropriate location?

For each regulator list	Pressure Setting	Can Be isolated	Regulator Gauge Present
Regulator A	55 psig	Yes	Yes
Regulator B	55 psig	Yes	Yes

IV. Source Testing Results - 4-3.4.1.4(b)

Medical Air System

Is a line pressure relief valve installed and functioning properly?	Yes
Is a sample port installed?	Yes
Is the correct piping and materials used to connect all components?	Yes
Is a Dew Point monitor installed?	Yes

Dew Point monitor.	Manufacturer	Model	Serial No.	Wired to Master Alarm	Accuracy Verified
	Vaisalia	On File	On File	Yes	Yes

Is a Carbon Monoxide monitor installed?

Carbon Monoxide monitor.	Manufacturer	Model	Serial No.	Wired to Master Alarm	Accuracy Verified
	Dynamation	ABL4021	On File	Yes	Yes

Is a source valve installed in the correct location in the system?	Yes
Is the source valve properly labeled?	Yes
Is a High/Low Pressure alarm switch installed in the correct location and connected to the master alarms?	Yes
Is alarm switch installed with a demand check valve?	Yes
Is a line pressure gauge installed and visible from a standing position?	Yes
List the line pressure gauge reading?	55 psig
Is line pressure gauge installed with a demand check valve?	Yes
Is there a high discharge temperature alarm installed and connected to local alarm?	Yes
Is a liquid ring separator flooded sensor installed and connected to a local alarm?	N/A
List the location of the air intake.	Roof
Is intake piping appropriate material?	Yes
Is the intake 10 feet from doors, windows, other openings or any exhaust?	Yes
Is the intake above roof level and a minimum of 20 feet above ground?	Yes
Is the intake appropriate protected from vermin, water?	Yes
Is an intake filter installed?	Yes
Is the compressor system located separate from gas cylinder storage?	Yes

V. Source Testing Results, continued. - 4-3.4.2.2(c)5

Vacuum System

List location(s) of vacuum system.	Tower Penthous
List the manufacturer of vacuum system.	BeaconMedaes
List the Model and Serial number of the system.	LPV-10DH-200DC

Vacuum Pump Information	Manufacturer	Model	Serial No.	Horsepower
Pump One	Reitschle	On File	On File	10
Pump Two	Reitschle	On File	On File	10
Pump Three	-	-	-	-
Pump Four	-	-	-	-

Is vacuum system dedicated to Medical Vacuum?	Yes

Are flexible connectors installed on compressor inlet and outlet pipes?	Inlet	Outlet
	Yes	Yes

Are isolation valves installed to allow independent servicing of each pump?	Yes
Are check valves installed between pumps and receiver?	Yes

	Cut In	Cut Out
Lead pressure switch settings	15" hg	17" hg
Lag pressure switch settings	14" hg	16" hg

Is a lag unit running alarm installed and functioning properly?	Yes
Do the pumps alternate correctly?	Yes
Are manual electrical disconnect switches installed?	Yes
List the name and company of a person verifying the correct branch of electrical system.	Chris Piechowski, Ludvik Electric

Receiver	Type of Drain	Vacuum Gauge Present	Can be Isolated from system
	Manual	Yes	Yes

Is a source valve installed in the proper location?	No
Is the source valve properly labeled?	No
Is the correct piping used to connect all components?	Yes
Are vacuum lines properly labeled?	Yes
Is vacuum gauge installed in the correct location?	Yes
Is a Low vacuum alarm switch installed in the correct location and connected to the master alarms?	Yes
List the location of the air exhaust.	Roof
Is the exhaust remote from door, window, air intake, or other openings?	Yes
Is the discharge properly protected?	Yes
Is vacuum system located separate from gas cylinder storage?	Yes

XII Comments

1. The vacuum system does not contain a source valve. *NFPA 99C 5.1.4.4*

2. The vacuum zone valve gauge located opposite Room 2014/238 is not displaying the proper pressure.

3. As requested, the report indicates two sets of room numbers: the first is the architectural number, the second is the hospital assigned room number.

4. All testing performed by PIPE / NITC Certified Medical Gas Inspectors & Verifiers.

5. Testing conducted in accordance with NFPA, JCAHO, ASSE, CGA, and USP guidelines and Federal, State, and Local recommendations.

6. All outlets, valves alarm panels and source equipment has been certified in accordance with NFPA 99.

Thank you for choosing Compliance Plus, Inc. for your piped medical gas needs. Please contact us at 1-800-266-7542 if you have any questions or comments. If you have feed back regarding this report or your experience, please contact us, your ideas will make Compliance Plus, Inc. a company better able to serve your needs.

Sincerely
Compliance Plus, Inc.

07-172604

RED SHIELD WARRANTY

RED SHIELD ROOFING SYSTEM LIMITED WARRANTY

Warranty No: RD086951 **FBPCO #DA8579** **Square Footage: 33000 s.f.**
Building Owner: MEDICAL CENTER OF AURORA
Building Identification: AURORA MEDICAL CENTER- PR EXPANSION
Building Address: 1501 POTOMAC STREET, AURORA, CO, 80012
Warranty Period Of: FIFTEEN (15) Years Beginning on: 03/31/09
Roofing Contractor: CEI ROOFING-COLORADO (02149)

For the warranty period indicated above, Firestone Building Products Company, LLC ("Firestone"), an Indiana limited liability company, warrants to the Building Owner ("Owner") named above that Firestone will, subject to the Terms, Conditions and Limitations set forth below, repair any leak in the Firestone Roofing System ("System").

TERMS, CONDITIONS AND LIMITATIONS

1. **Products Covered.** The System shall mean only the Firestone brand roofing membranes, Firestone brand roofing insulations, Firestone brand roofing metal, and other Firestone brand roofing accessories when installed in accordance with Firestone technical specifications by a Firestone-licensed applicator.
2. **Notice.** In the event any leak should occur in the System, the Owner must give notice in writing or by telephone to Firestone within thirty (30) days of any occurrence of a leak. Written notice may be sent to Firestone at the street address or fax number shown on the reverse side of this Limited Warranty. Evidence of this notice shall be the receipt by Owner of a Firestone Leak Notification Acknowledgement. By so notifying Firestone, the Owner authorizes Firestone or its designee to investigate the cause of the leak.
3. **Investigation.** If upon investigation, Firestone determines that the leak is not excluded under the Terms, Conditions and Limitations set forth in this Red Shield Roofing System Limited Warranty (the "Limited Warranty"), the Owner's sole and exclusive remedy and Firestone's total liability shall be limited to the repair of the leak. Should the investigation reveal that the leak is excluded under the Terms, Conditions and Limitations, the Owner shall be responsible for payment of the investigation costs. Failure by Owner to pay for these costs shall render this Limited Warranty null and void. Firestone will advise the Owner of the type and/or extent of repairs required to be made at the Owner's expense that will permit this Limited Warranty to remain in effect for the unexpired portion of its term. Failure by the Owner to properly make these repairs in a reasonable manner using a Firestone-licensed applicator and within 60 days shall render this Limited Warranty null and void.
4. **Disputes.** Any dispute, controversy or claim between the Owner and Firestone concerning this Limited Warranty shall be settled by mediation. In the event that the Owner and Firestone do not resolve the dispute, controversy or claim in mediation, the Owner and Firestone agree that neither party will commence or prosecute any suit, proceeding, or claim other than in the courts of Hamilton County in the state of Indiana or the United States District Court, Southern District of Indiana, Indianapolis Division. Each party irrevocably consents to the jurisdiction and venue of the above-identified courts.
5. **Payment Required.** Firestone shall have no obligation under this Limited Warranty unless and until Firestone and the licensed applicator have been paid in full for all materials, supplies, services, approved written change orders, warranty costs and other costs which are included in, or incidental to, the System. In the event that repairs not covered by this Limited Warranty are necessary in the future, Firestone reserves the right to suspend this Limited Warranty until such repairs have been completed and the licensed applicator and/or Firestone has been paid in full for such repairs.
   Exclusions. Firestone shall have no obligation under this Limited Warranty, or any other liability, now or in the future if a leak or damage is caused by: (a) Natural forces, disasters, or acts of God including, but not limited to winds in excess of 55 MPH, fires, hurricanes, tornadoes, hail, wind-blown debris, lightning, earthquakes, volcanic activity, atomic radiation, insects or animals; (b) Any act(s), conduct or omission(s) by any person, or act(s) of war, terrorism or vandalism, which damage the System or which impair the System's ability to resist leaks; (c) Failure by the Owner to use reasonable care in maintaining the System, said maintenance to include, but not limited to those items listed on the reverse side of this Limited Warranty titled "Building Envelope Care and Maintenance Guide"; (d) Deterioration or failure of building components, including, but not limited to, the roof substrate, walls, mortar, HVAC units, etc.; (e) Condensation or infiltration in, through, or around the walls, copings, rooftop, hardware or equipment, building structure or underlying or surrounding materials; (f) Any acid, oil, harmful chemical, chemical or physical reaction and the like which comes in contact with the System, which damages the System, or which impairs the System's ability to resist leaks; (g) Alterations or repairs to the System that are not completed in accordance with our published specifications, not completed by licensed contractor, and/or where current notification procedures were not followed; (h) The architecture, engineering, construction, or design of the roof, roofing system, or building. Firestone does not undertake any analysis of the architecture or engineering required to evaluate what type of roof system is appropriate; (i) A change in building use or purpose; (j) Deterioration to metal roofing materials and accessories caused by marine salt water atmosphere or by regular spray of either salt or fresh water; or (k) Failure to give proper notice as set forth in paragraph 2(a) above.
6. **Transfer.** This Limited Warranty shall be transferable subject to Owner's payment of the current transfer fee set by Firestone.
7. **Term.** The term of this Limited Warranty shall be for the period set forth above and such term shall not be extended under any circumstances.
8. **Roof Access.** During the term of this Limited Warranty, Firestone's designated representative or employees shall have free access to the roof during regular business hours. In the event that roof access is limited due to security or other restrictions, Owner shall reimburse Firestone for all reasonable cost incurred during inspection and/or repair of the System that are due to delays associated with said restrictions. Owner shall be responsible for the damage caused by, removal and replacement of any overburdens, superstrata or overlays, either permanent or temporary, excluding accepted stone ballast or pavers, as necessary to expose the system for inspection and/or repair.
9. **Waiver.** Firestone's failure to enforce any of the terms or conditions stated herein shall not be construed as a waiver of such provision or of any other terms and conditions of this Limited Warranty.
10. **Governing Law.** This Limited Warranty shall be governed by and construed in accordance with the laws of the State of Indiana without regard to that State's rules on conflict of laws.
11. **Severability.** If any portion of this Limited Warranty is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions shall nevertheless continue in full force.

FIRESTONE DOES NOT WARRANT PRODUCTS INCORPORATED OR UTILIZED IN THIS INSTALLATION THAT WERE NOT FURNISHED BY FIRESTONE. FIRESTONE SPECIFICALLY DISCLAIMS LIABILITY UNDER ANY THEORY OF LAW ARISING OUT OF THE INSTALLATION OF, PERFORMANCE OF, OR DAMAGES SUSTAINED BY OR CAUSED BY, PRODUCTS NOT FURNISHED BY FIRESTONE.

THIS LIMITED WARRANTY SUPERSEDES AND IS IN LIEU OF ALL OTHER WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND FIRESTONE HEREBY DISCLAIMS ALL SUCH WARRANTIES. THIS LIMITED WARRANTY SHALL BE THE OWNER'S SOLE AND EXCLUSIVE REMEDY AGAINST FIRESTONE, AND FIRESTONE SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL, INCIDENTAL OR OTHER DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR DAMAGES TO THE BUILDING OR ITS CONTENTS OR THE ROOF DECK. THIS LIMITED WARRANTY CANNOT BE AMENDED, ALTERED OR MODIFIED IN ANY WAY EXCEPT IN WRITING SIGNED BY AN AUTHORIZED OFFICER OF FIRESTONE. NO OTHER PERSON HAS ANY AUTHORITY TO BIND FIRESTONE WITH ANY REPRESENTATION OR WARRANTY WHETHER ORAL OR WRITTEN.

FIRESTONE BUILDING PRODUCTS COMPANY, LLC
By: **John R. Geary**

Authorized Signature:

Title: **VP of Quality, Technology & Product Development**

040907

Firestone

BUILDING ENVELOPE CARE AND MAINTENANCE GUIDE
(For Red Shield Warranted Roofing Systems)

Congratulations on your purchase of a Firestone Roofing System! Your roof is a valuable asset that should be properly maintained. **All roofs and roofing systems require periodic inspection and maintenance to perform as designed and to keep your Limited Warranty in full force and effect.**

1. The roof should be inspected at least twice yearly and after any severe storms. A record of all inspection and maintenance activities should be maintained, including a listing of the date and time of each activity as well as the identification of the parties performing the activity.
2. Proper maintenance and good roofing practice require that ponded water (defined as water standing on the roof forty-eight hours after it stops raining) not be allowed on the roof. Roofs should have slope to drain, and all drain areas must remain clean. Bag and remove all debris from the roof since such debris can be quickly swept into drains by rain. This will allow for proper water run-off and avoid overloading the roof.
3. The Firestone Roofing System should not be exposed to acids, solvents, greases, oil, fats, chemicals and the like. If the Firestone Roofing System is in contact with any such materials, these contaminants should be removed immediately and any damaged areas should be inspected by a Firestone Licensed Applicator and repaired if necessary.
4. The Firestone Roofing System is designed to be a waterproofing membrane and not a traffic surface. Roof traffic other than periodic traffic to maintain rooftop equipment and conduct periodic inspections should be prohibited. In any areas where periodic roof traffic may be required to service rooftop equipment or to facilitate inspection of the roof, protective walkways should be installed by a Firestone Licensed Applicator as needed to protect the roof surface from damage.
5. Some Firestone roofing membranes require maintenance of the surface of the membrane:
   a. **Smooth-surfaced Firestone APP membranes** should be coated with an approved liquid coating, such as Firestone Aluminum Roof Coating or Firestone AcrylITop applied in accordance with Firestone specifications, in order to maximize the service life of the membrane. If this coating is not applied as part of the initial roofing installation, it should be applied within the first five years after the roof is installed to help protect the membrane from surface crazing and cracking. In addition, this coating should be maintained as needed to re-coat any areas that have blistered, peeled or worn through.
   b. **Granule-surfaced Firestone APP and SBS membranes** do not normally require surface maintenance other than periodic inspection for contaminants, cuts or punctures. If areas of granular loss are discovered during inspection, these areas should be coated with Firestone AcrylITop or other Firestone-approved coating applied in accordance with Firestone specifications.
   c. **Gravel-surfaced Firestone BUR membranes** do not normally require surface maintenance other than periodic inspection for contaminants or damage. If areas of gravel loss are discovered during inspection, gravel must be reinstalled into hot asphalt to protect the surface of the membrane. Coatings on smooth surface BUR membranes must be maintained as needed to re-coat any areas that have blistered, peeled or worn through.
   d. **Firestone EPDM and TPO roofing membranes** do not normally require surface maintenance other than periodic inspection for contaminants, cuts or punctures. Occasionally, approved liquid roof coatings, such as Firestone AcrylITop, are applied to the surface of EPDM membranes in order to provide a lighter surface color. Such coatings do not need to be maintained to assure the performance of the underlying EPDM roof membrane, but some maintenance and re-coating may be necessary in order to maintain a uniform surface appearance.
   e. **Firestone Una-Clad metal roofing panels and trim** do not normally require surface maintenance other than periodic inspection for contaminants or damage. In addition, periodic cleaning of the surface may be required to remove dirt and maintain the aesthetic appearance of the coated metal. Simple washing with plain water using hoses or pressure spray equipment is usually adequate. If cleaning with agents other than water is contemplated, several precautions should be observed: (1) do not use wire brushes, abrasives, or similar cleaning tools which will mechanically abrade the coating surface, and (2) cleaning agents should be tested in an inconspicuous area before use on a large scale.
6. All metal work, including counter-flashings, drains, skylights, equipment curbs and supports, and other Firestone brand rooftop accessories must be properly maintained at all times. Particular attention should be paid to sealants at joints in metal work and flashings. If cracking or shrinkage is observed, the joint sealant should be removed and replaced with new sealant.

7. Any alterations to the roof, including but not limited to roof curbs, pipe penetrations, roof-mounted accessories, and tie-ins to building additions must be performed by a licensed Firestone Licensed Applicator and reported to Firestone. Additional information and reporting forms for roof alterations are available at www.firestonebpco.com.

9. Should you experience a leak:

   (a) Check for the obvious: clogged roof drains, loose counterflashings, broken skylights, open grills or vents, broken water pipes.

   (b) Note conditions resulting in leakage. Heavy or light rain, wind direction, temperature and time of day that the leak occurs are all-important clues to tracing roof leaks. Note whether the leak stops shortly after each rain or continues to drip until the roof is dry. If you are prepared with the facts, the diagnosis and repair of the leak can proceed more rapidly.

   (c) Contact Firestone Warranty Claims at 1-800-830-5612 as soon as possible...but please don't call until you are reasonably sure that the Firestone Roofing System is the cause of the leak.

Firestone feels that the preceding requirements will assist you, the building owner, in maintaining a watertight roof for many years. Your roof is an investment, and maintenance is essential to maximize your return on this important investment.

Firestone
BUILDING PRODUCTS
NOBODY COVERS YOU BETTER.®
250 West 96th Street – Indianapolis, IN 46260
1-800-428-4442 * 1-317-575-7000 * FAX 1-317-575-7100
www.firestonebp.com

INTERFACE
COMMUNICATIONS CO.

To: Danny Willcox
Deputy Chief
Aurora Fire Department

From: Stephen Olsen

Re: Medical Center of Aurora - 800 MHz Coverage Report

Date: April 1, 2009

Please find below the results of the RF Survey conducted by Interface Communications at Aurora Medical Center on April 1, 2009. With a DAS (distributed antenna system) installed, the coverage meets the Aurora Fire Department's code requirements.

Background
In late February of 2009, Interface Communications conducted coverage testing at the new patient room tower at the Medical Center of Aurora. The purpose of this survey was to determine if the Aurora Fire Department's 800 MHz signal level was sufficient as mandated by code. It was found that coverage did not meet code on floors four and below.

Interface Communications was contracted to design and build a DAS to ensure that the building would meet code from wireless coverage perspective.

Design
The design is included as an appendix to this document. The donor site that was used is the closest site, approximately 2 miles south of the structure, at 14201 East Hampden. Backup power is provided by the building's emergency generator.

Testing Method to Commission Design
For the purpose of the RF Survey, we used an Anritsu 2711D Spectrum analyzer programmed to receive the City of Aurora EDACS control channel frequencies which are used by the Aurora Fire Department. The measurements were taken in dBm values using the control channel from the donor site.

Each floor of the building (except the 6th) was divided into approximately 40 equal grids, and a measurement was recorded in these grids. At each test point measurements were done to record the highest RSSI reading, as well as a typical reading. Pass/fail is based on the maximum readings. All the readings have been tabulated and are attached to this report as well as locations on the floor-plans for cross-referencing the location of the readings.

INTERFACE
COMMUNICATIONS CO.

Results and Conclusion

Based on the testing the RSSI at the Medical Center of Aurora, the coverage is adequate and meets the requirement set forth by the City of Aurora for Emergency In-Building Radio coverage.

Floor	# of Readings	# of Fails	Pass/Fail
6	1	0	Pass
5	45	0	Pass
4	45	0	Pass
3	43	0	Pass
2	45	0	Pass
1	50	0	Pass

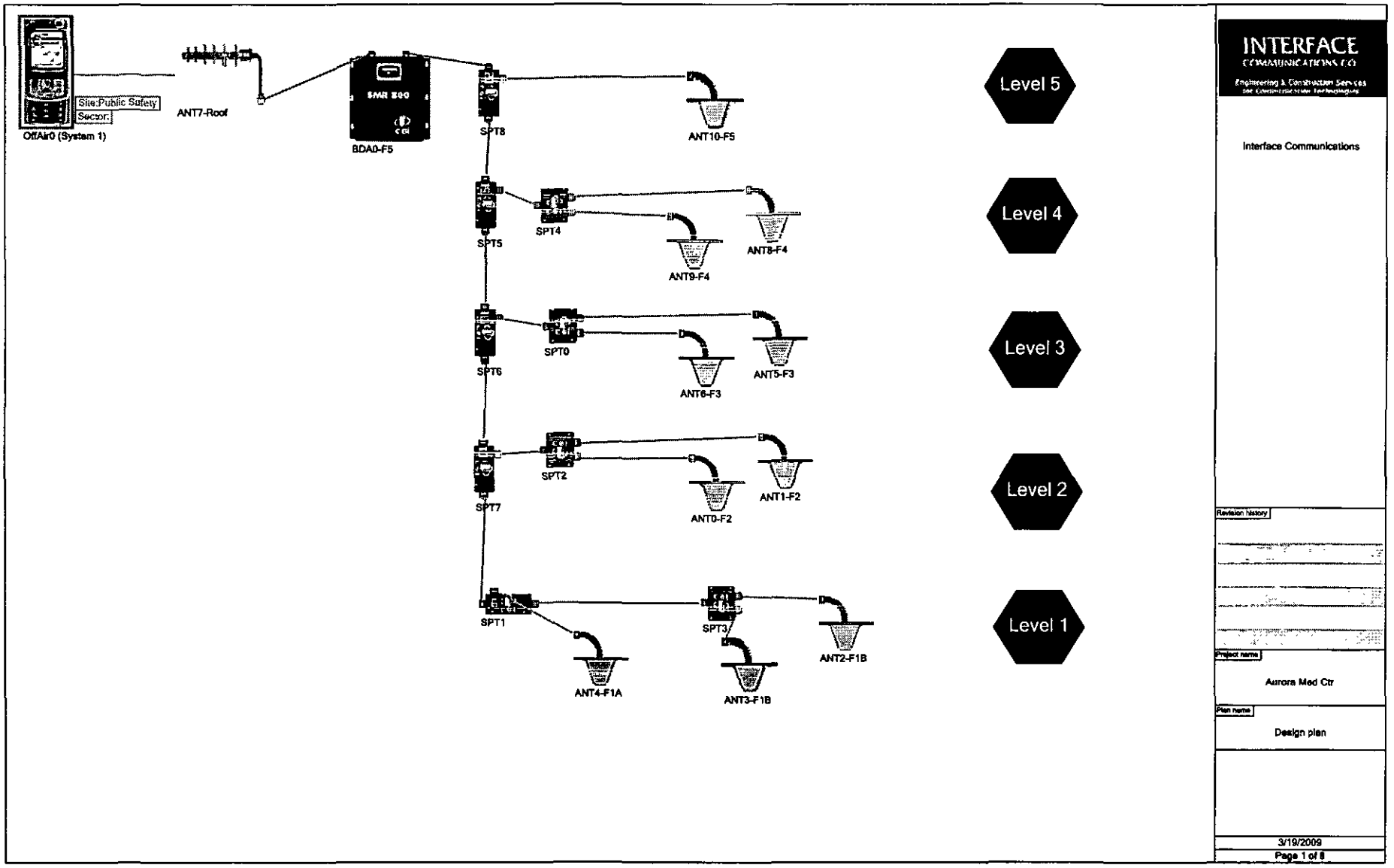
6309 Monarch Park Place, Suite 200, Longmont, CO 80503 * 303-530-4212 * 303-530-1625 fax

INTERFACE
COMMUNICATIONS CO.

Appendices

- DAS Design Including Spec Sheets (13 pages)
- Coverage Signal Data (6 pages)
- Cross Reference Map (6 pages)

6309 Monarch Park Place, Suite 200, Longmont, CO 80503 * 303-530-4212 * 303-530-1625 fax



INTERFACE COMMUNICATIONS CO

Engineering & Construction Services

Interface Communications

Revision history

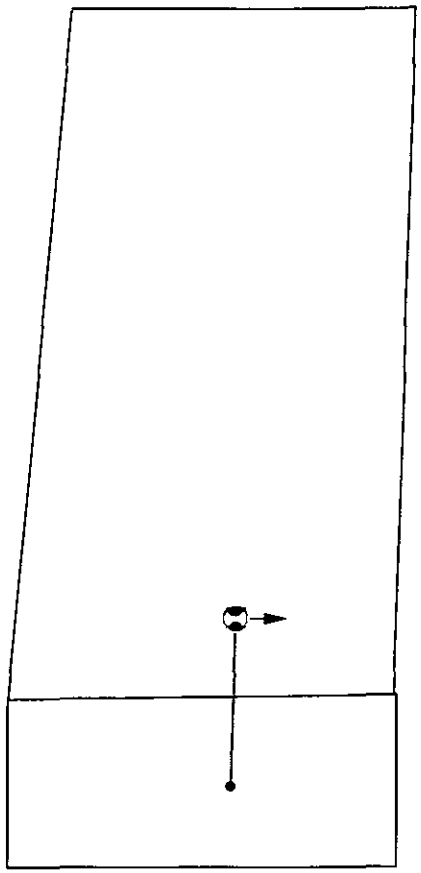
Project name

Aurora Med Ctr

Plan name

Design plan

3/19/2009



INTERFACE
COMMUNICATIONS CO
Engineering & Construction Services

Interface Communications

Revision history

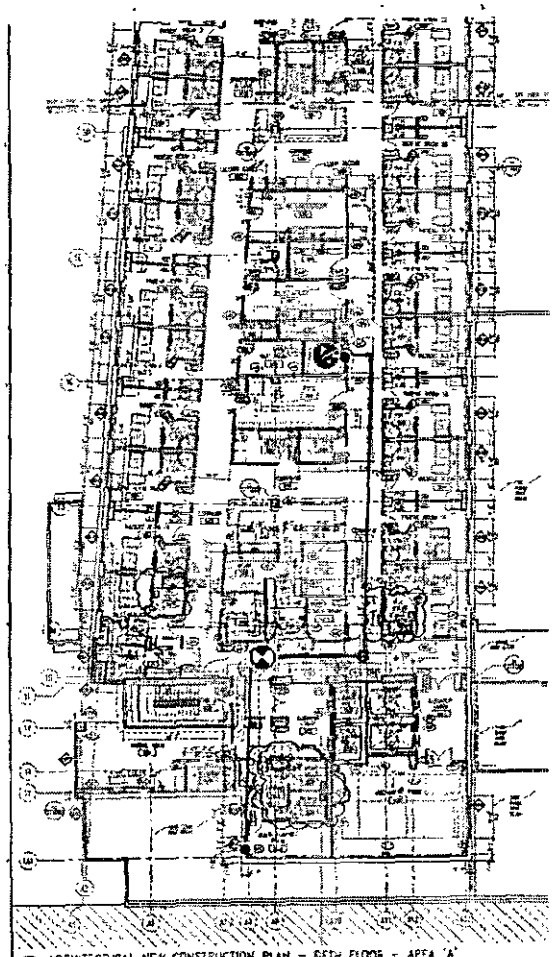
Project name

Aurora Med Ctr

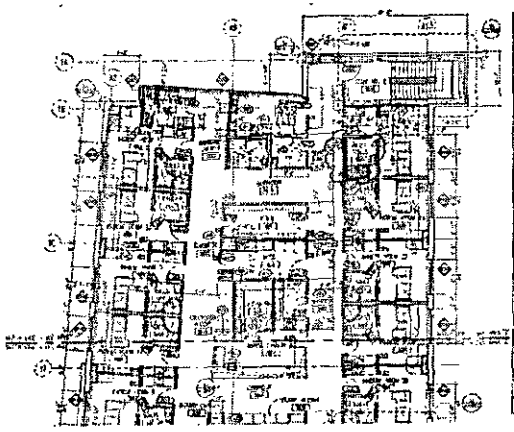
Plan name

Roof

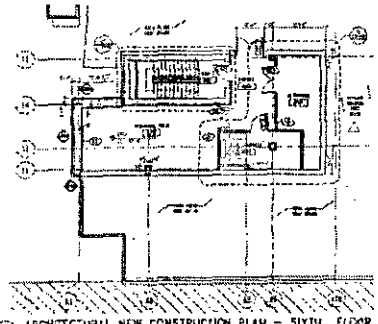
3/19/2009



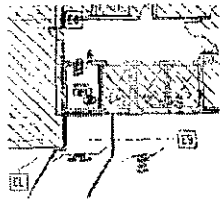
01 ARCHITECTURAL NEW CONSTRUCTION PLAN – FIFTH FLOOR – AREA 'A'



02 ARCHITECTURAL NEW CONSTRUCTION PLAN – FIFTH FLOOR – AREA 'B'



03 ARCHITECTURAL NEW CONSTRUCTION PLAN – SIXTH FLOOR – AREA 'A'



04 ARCHITECTURAL NEW CONSTRUCTION PLAN – FIFTH FLOOR – AREA 'C'

FLOOR PLAN GENERAL NOTES

FLOOR PLAN LEGEND

FLOOR PLAN KEYNOTES

Medical Center of Aurora

South Campus

Aurora, Colorado

HCA

KEY PLAN

ARCHITECTURAL NEW CONSTRUCTION PLAN FIFTH & SIXTH FLOORS

A-2005

INTERFACE COMMUNICATIONS CO

Engineering & Construction Services for Communication Technologies

Interface Communications

Revision history

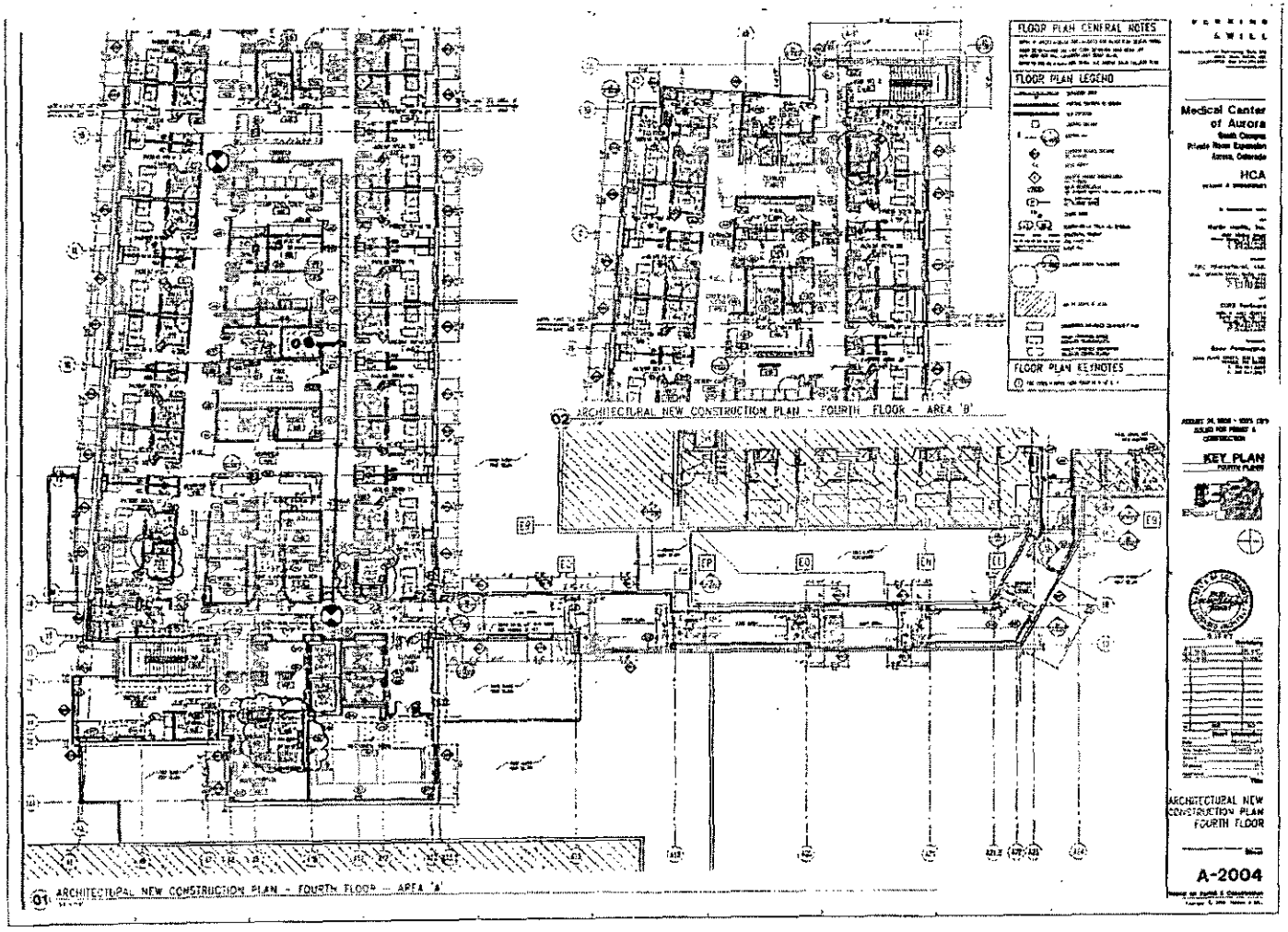
Project name

Aurora Med Ctr

Plan name

5th Floor

3/19/2009



INTERFACE COMMUNICATIONS CO

Engineering & Construction Services

Interface Communications

Revision history

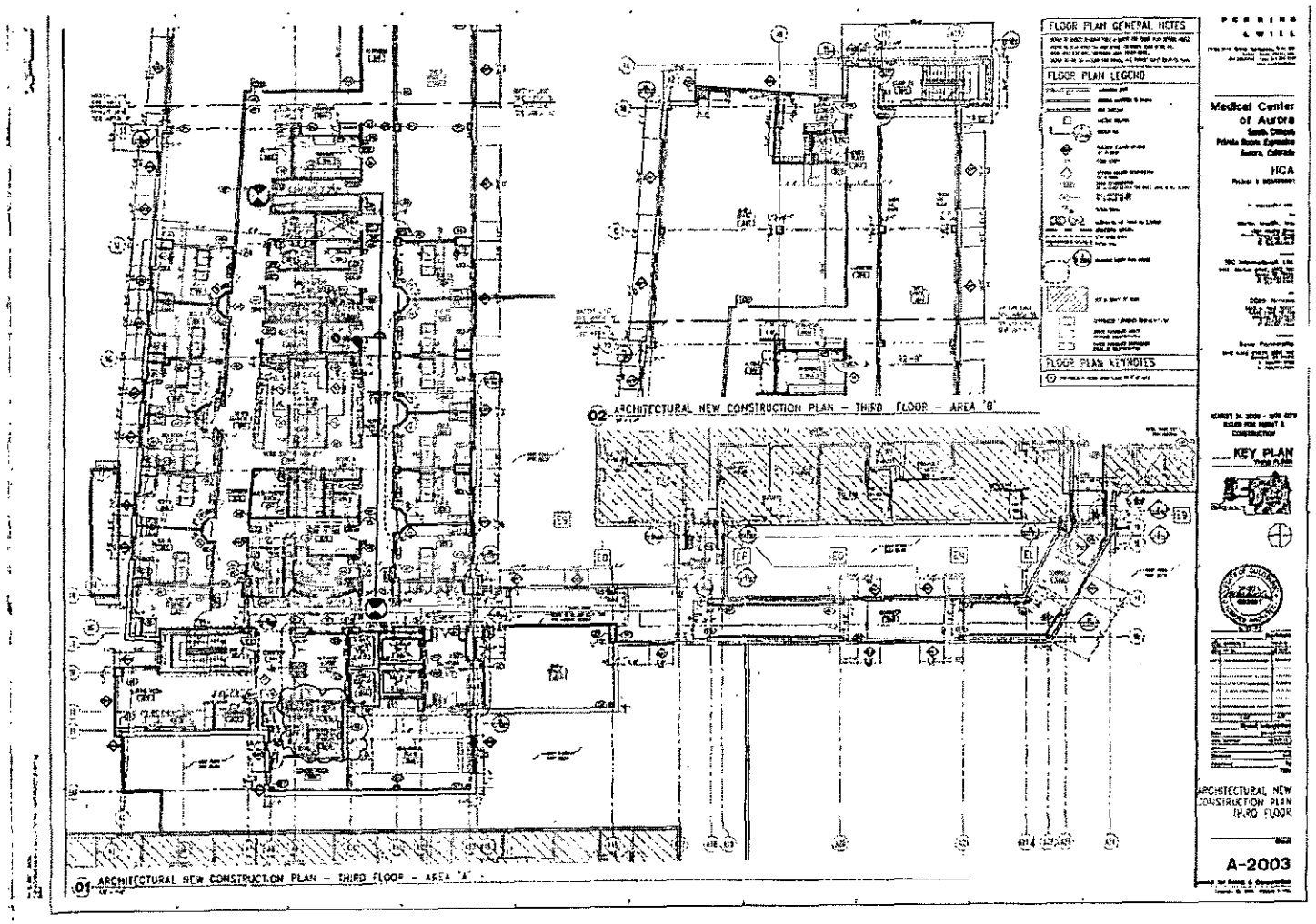
Project name

Aurora Med Ctr

Plan name

4th Floor

3/19/2009



INTERFACE COMMUNICATIONS CO.

Engineering & Construction Services

Interface Communications

Revision history

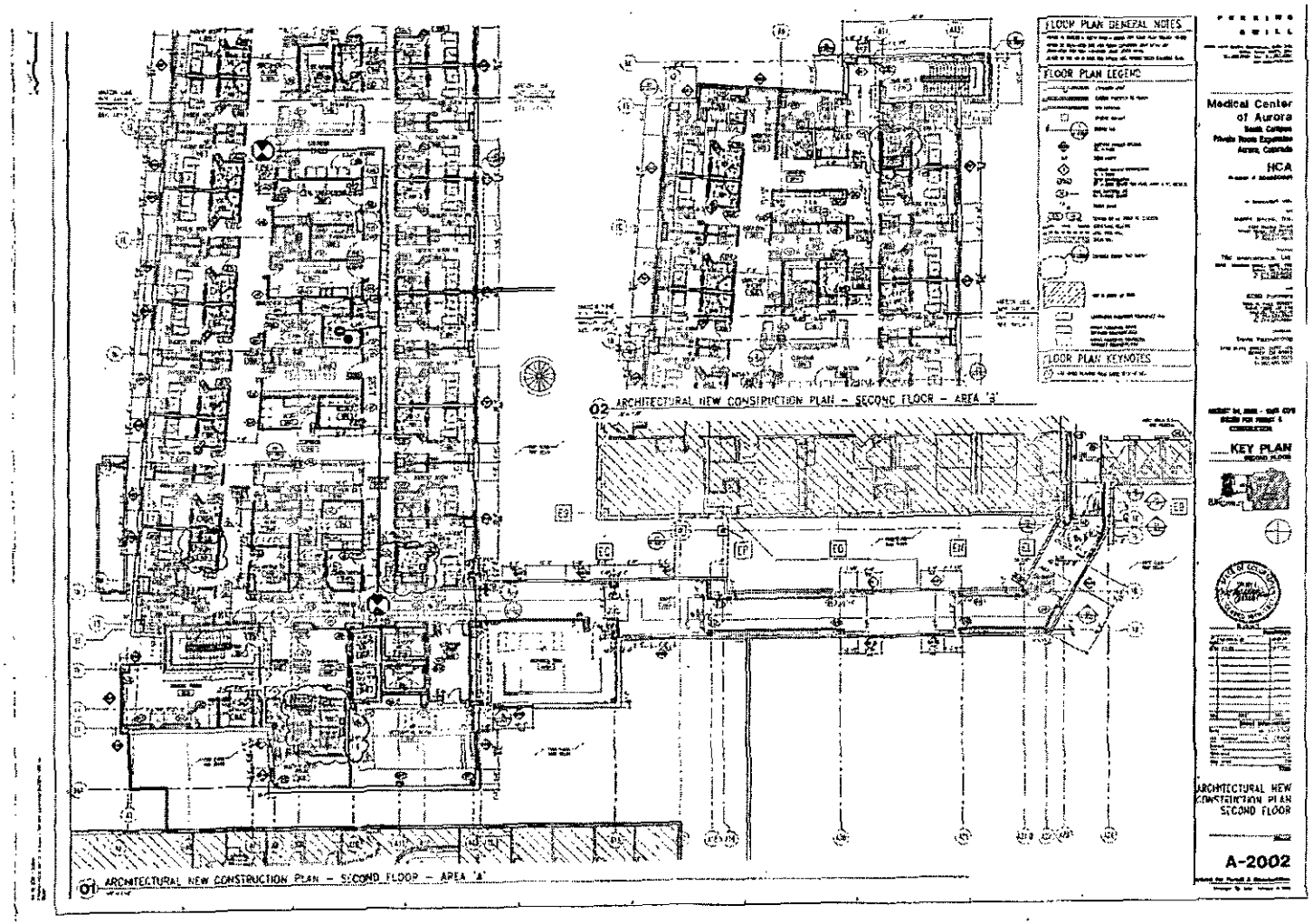
Project name

Aurora Med Ctr

Plan name

3rd Floor

3/19/2009



INTERFACE COMMUNICATIONS CO.

Engineering & Construction Services for Communication Technologies

Interface Communications

Revision History

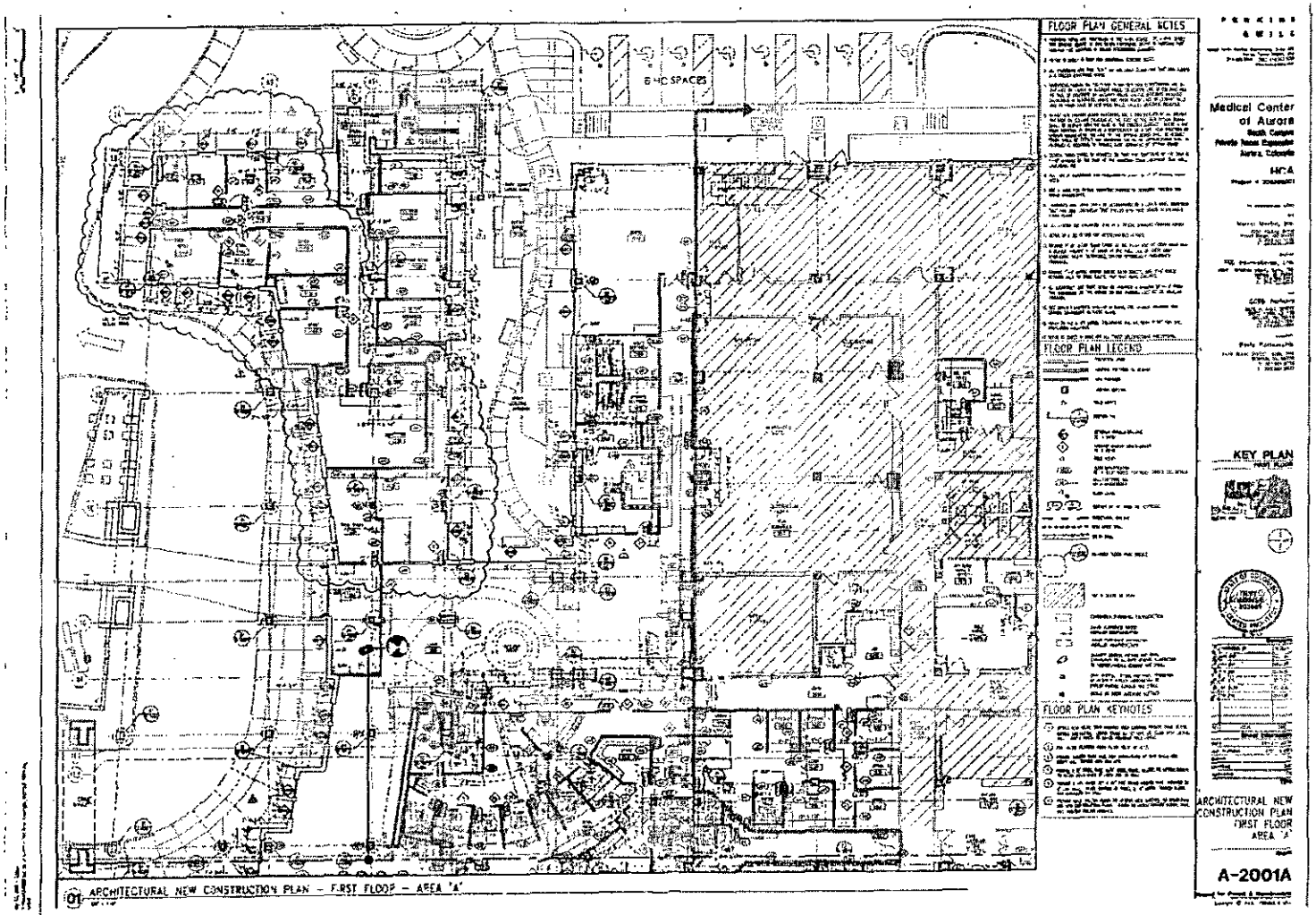
Project name

Aurora Med Ctr

Plan name

2nd Floor

3/19/2009



INTERFACE COMMUNICATIONS CO

Engineering & Construction Services for Communication Technologies

Interface Communications

Revision history

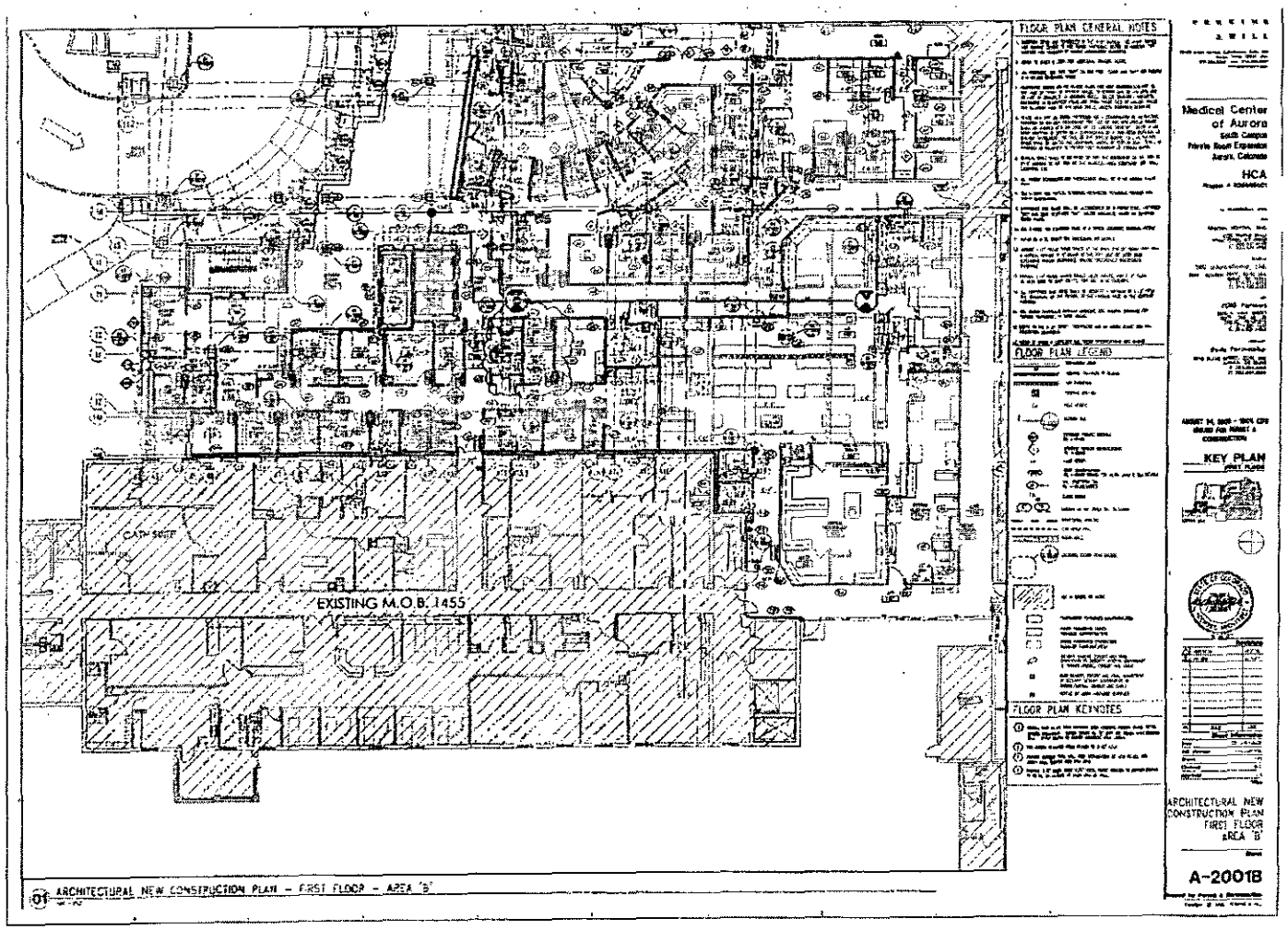
Project name

Aurora Med Ctr

Plan name

1st Floor - A

3/19/2009



INTERFACE COMMUNICATIONS CO

Engineering & Construction Services for Communication Technologies

Interface Communications

Revision history

Project name

Aurora Med Ctr

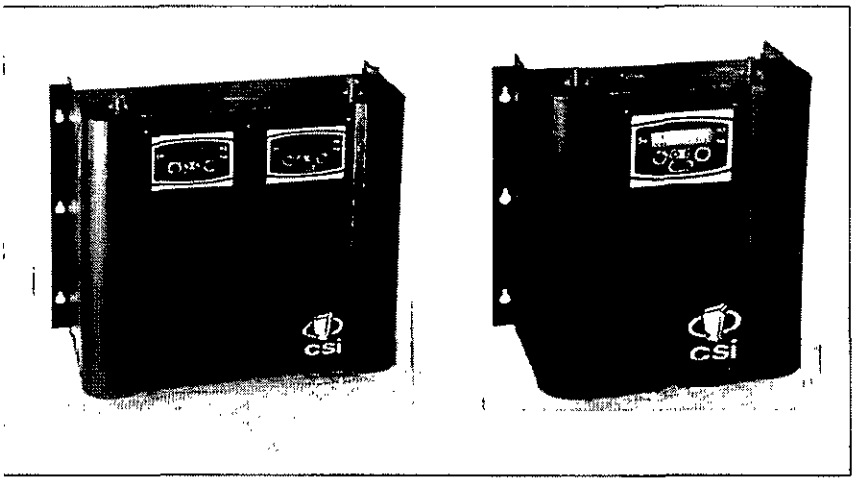
Plan name

1st Floor - B

3/19/2009



Building Wireless Solutions™



>> IN-BUILDING AMPLIFIER

Extends Coverage

The Model 510 & 610 series of in-building amplifiers provide amplification of both uplink and downlink wireless signals in facilities located within reasonable proximity of cell sites and where wireless coverage is otherwise non- existent.

Typical Applications

Among facilities that can benefit from an in- building amplifier installation are parking garages, warehouses, basements, shielded structures, metal buildings, office complexes, campus environments, hospitals, and convention centers.

Specifications

	51062, 51065 & 51075	51080	61080
Linear Output Power (dual/single typical)			
Cellular	25/27 dBm	-	28/30 dBm
SMR 700 MHz[1]	27 dBm	26 dBm	-
SMR 800-900 MHz	25/27 dBm	-	28/29 dBm
PCS	21/22 dBm	-	25/26 dBm
Power Requirements			
Single/Full Band	120 Vac @ 500 mA	120 Vac @ 1.3 A	120 Vac @ 1.3 A
Dual Passband/Dual Band	120 Vac @ 1.3 A	-	120 Vac @ 2.0 A

	510 & 610 Series
Noise Figure (typical)	5.5 dB
AGC Dynamic Range	25 dB
Propagation Delay	<250 nsec
Gain Adjustment Range	0-30 dB, 1 dB Steps
Connectors	N-Female
Dimensions / Weight	
Single Band	12.38" x 12.6" x 6.21" / 18 lbs (314.4 x 320.0 x 157.7 mm / 8.16 kg)
Dual Passband/Dual Band	16.6" x 17.88" x 7.68" / 19.8 lbs (421.6 x 454.1 x 195.0 mm / 8.98 kg)
Dual Passband Notch[2]	Special Configuration

[1]SMR 700 units are not available in dual band combinations.
[2]Separate mounting for notch filters required. Contact CSI for configuration information.

MODEL NUMBER & BAND

>> Please see reverse side

GAIN

>> **Model 51062:** 65 dB of Gain

>> **Model 51065:** 65 dB of Gain

>> **Model 51075:** 75 dB of Gain

>> **Model 51080:** 80 dB of Gain

>> **Model 61080:** 80 dB of Gain

PRODUCT FEATURES

- **>> Alphanumeric user interface**
  - >> Integrated digital power/AGC meter allows for precise set up without test equipment
  - >> User friendly techinical language interface
- **>> Oscillation detection and suppression control feature to prevent network interference**
- **>> Dual Band BDAs include two controllers which allow users to operate all functional capabilities independently**
- **>> Remote access of BDA via wireless or wireline modem (optional)**
  - >> Remote query of output, AGC status, gain control, and amplifier shutdown/restart
- **>> Local alarm contact closure points and interface for remote shutdown**

csi
cellular specialties, inc.

670 North Commercial Street
Manchester, NH 03101
603.626.6677
Toll Free (USA): 1.877.844.4274
International: +1.603.626.6677
Fax: 603.626.6042

www.cellularspecialties.com



Model Numbers / Frequency Ranges

Many single and dual banded options are available.
A representative sample of available models are listed below. Please contact CSI for product details.

	LINEAR GAIN	65 dB	75 dB	80dB
	LINEAR OUTPUT POWER	0.5 Watt	0.5 Watt	1 Watt
SINGLE BAND				
CONTIGUOUS	800 or 900 MHz			
Cellular A Band	824-835 & 869-880	CSI-BDA51062-CA	CSI-BDA51075-CA	CSI-BDA61080-CA
Cellular B Band	835-849 & 880-894	CSI-BDA51062-CB	CSI-BDA51075-CB	CSI-BDA61080-CB
Cellular Full Band*	824-849 & 869-894	CSI-BDA51062-C	CSI-BDA51075-C	CSI-BDA61080-C
SMR 700	794-806 & 764-776	CSI- BDA 51065- P7	CSI-BDA51080-P7[2]	-
SMR 800 IDEN	806-821 & 851-866	CSI-BDA51062-S8i	CSI-BDA51075-S8i	CSI-BDA61080-S8i
SMR 800 Full Band	806-824 & 851-869	CSI-BDA51062-S8	CSI-BDA51075-S8	CSI-BDA61080-S8
SMR 900 Band	896-901 & 935-940	CSI-BDA51062-S9	CSI-BDA51075-S9	CSI-BDA61080-S9
SINGLE BAND				
CONTIGUOUS	PCS 1900 or DCS 1800			
PCS A Block	1850-1865 & 1930-1945	CSI-BDA51062-PA	CSI-BDA51075-PA	CSI-BDA61080-PA
PCS B Block	1870-1885 & 1950-1965	CSI-BDA51062-PB	CSI-BDA51075-PB	CSI-BDA61080-PB
PCS C Block	1895-1910 & 1975-1990	CSI-BDA51062-PC	CSI-BDA51075-PC	CSI-BDA61080-PC
PCS D Block	1865-1870 & 1945-1950	CSI-BDA51062-PD	CSI-BDA51075-PD	CSI-BDA61080-PD
PCS E Block	1885-1890 & 1965-1970	CSI-BDA51062-PE	CSI-BDA51075-PE	CSI-BDA61080-PE
PCS F Block	1890-1895 & 1970-1975	CSI-BDA51062-PF	CSI-BDA51075-PF	CSI-BDA61080-PF
PCS A & D Block	1850-1870 & 1930-1950	CSI-BDA51062-PAD	CSI-BDA51075-PAD	CSI-BDA61080-PAD
PCS B & E Block	1870-1890 & 1950-1970	CSI-BDA51062-PBE	CSI-BDA51075-PBE	CSI-BDA61080-PBE
PCS F & C Block	1890-1910 & 1970-1990	CSI-BDA51062-PFC	CSI-BDA51075-PFC	CSI-BDA61080-PFC
PCS E & F Block	1885-1895 & 1965-1975	CSI-BDA51062-PEF	CSI-BDA51075-PEF	CSI-BDA61080-PEF
PCS B, E, & F Block	1870-1895 & 1950-1975	CSI-BDA51062-PBEF	CSI-BDA51075-PBEF	CSI-BDA61080-PBEF
PCS D, B, & E Block	1865-1890 & 1945-1970	CSI-BDA51062-PDBE	CSI-BDA51075-PDBE	CSI-BDA61080-PDBE
PCS E, F, & C Block	1885-1910 & 1965-1990	CSI-BDA51062-PEFC	CSI-BDA51075-PEFC	CSI-BDA61080-PEFC
PCS D, B, E, & F Block	1865-1895 & 1945-1975	CSI-BDA51062-PDBEF	CSI-BDA51075-PDBEF	CSI-BDA61080-PDBEF
PCS Full Band[1]	1850-1910 & 1930-1990	CSI-BDA51062-P	CSI-BDA51075-P	CSI-BDA61080-P
DUAL PASSBAND				
NON-CONTIGUOUS	800 or 900 MHz			
Cellular A Notched	824-835/845-846.5 & 869-880/890-891.5	CSI-BDA51062-CAN	CSI-BDA51075-CAN	CSI-BDA61080-CAN
Cellular B Notched	835-845/846.5-849 & 880-890/891.5-894	CSI-BDA51062-CBN	CSI-BDA51075-CBN	CSI-BDA61080-CBN
PCS A & C Block	1850-1865/1930-1945 & 1895-1910/1975-1990	CSI-BDA51062-PAC	CSI-BDA51075-PAC	CSI-BDA61080-PAC
PCS D & E Block	1865-1870/1945-1950 & 1885-1890/1965-1970	CSI-BDA51062-PDE	CSI-BDA51075-PDE	CSI-BDA61080-PDE
DUAL BAND*	800 or 900 MHz and PCS 1900 or DCS 1800			
Cellular Full Band/PCS Full Band	824-849/869-894 & 1850-1910/1930-1990	CSI-BDA51062-C/P	CSI-BDA51075-C/P	CSI-BDA61080-C/P
Cellular A Band/PCS A Block	824-835/869-880 & 1850-1865/1930-1945	CSI-BDA51062-CA/PA	CSI-BDA51075-C/A/PA	CSI-BDA61080-CA/PA
Cellular B Band/PCS C5 Block	835-849/880-894 & 1905-1910/1985-1990	CSI-BDA51062-CB/PC5	CSI-BDA51075-CB/PC5	CSI-BDA61080-CB/PC5
SMR 800/SMR 900	806-824/851-869 & 851 & 896-901/935-940	CSI-BDA51062-58/59	CSI-BDA51075-58/59	CSI-BDA61080-58/59

[1] Dimensions/weight is equivalent to a Dual Band/Dual Passband BDA.
[2] 0.5 Watt 80dB gain BDA
* 75 dB of gain for Dual Passband 61080 PCS/PCS units.

Specifications subject to change without notice. Copyright © Cellular Specialties, Inc. - 021-0000-001 REV F ECO 1936

csi
cellular specialties, inc.
670 North Commercial Street
Manchester, NH 03101
www.cellularspecialties.com
603.626.6677
Toll Free (USA): 1.877.844.4274
International: +1.603.626.6677
Fax: 603.626.6042



>> IN-BUILDING AMPLIFIER *APPLICATION NOTES*

Application Notes Overview

All CSI BDA model 510 and 610 series are equipped with three automatic fault and protection features designed to protect both the BDA and the Carrier's network. The protection features also attempt automatic recovery, thus reducing potential service calls.

AGC (Automatic Gain Control) Shutdown Notes

***"AGC"* will limit total composite power output by reducing the gain of the BDA in 1 dB steps. There is 30 dB of AGC range available. If the 30dB range is exceeded, the BDA will go into *SHUTDOWN* mode. The amount of AGC is displayed on the BDA's main menu. It is normal and not objectionable to see some amount of AGC in many cases, however the user may chose to attenuate the BDA accordingly to avoid AGC operation.**

Shutdown

The *"SHUTDOWN"* feature is intended to shut the BDA down in cases of severe signal overload. Typically, there are three instances in which the BDA may shutdown.

- **>> AGC Overdrive (excessive signal input level to either port)**
- **>> Oscillation that is not correctable by "Oscillation Control"**
- **>> Selecting "Shutdown" in the BDA Operation Menu**

Once in shutdown, the BDA will attempt to recover within 15 seconds. If it cannot recover it will try again in another 15 seconds. If the second recovery attempt is unsuccessful, the BDA will wait another 5 minutes before the next attempt, and will stay in the 5-minute retry cycle until the condition is corrected.

Oscillation Control

In the event of a system oscillation, typically caused by insufficient RF isolation (physical separation) between the donor and server antenna, the BDA will go into *"OSCILLATION CONTROL"* and limit gain to stop the oscillation. Gain is reduced in 3dB steps until the BDA can operate without oscillating. If it cannot correct the oscillation within the operational range of the AGC, the unit will shutdown. The BDA is constantly monitoring power to evaluate oscillation conditions and attempts to recover to the previously defined user gain setting. Recovery attempts are in 1dB steps and occur about every 5-10 seconds.

PRODUCT SUPPORT CONTACTS

If you have any additional questions feel free to contact us!

Product Support: 1.866.670.2211

Tech Support: 1.866.360.7297 or support@cellularspecialties.com

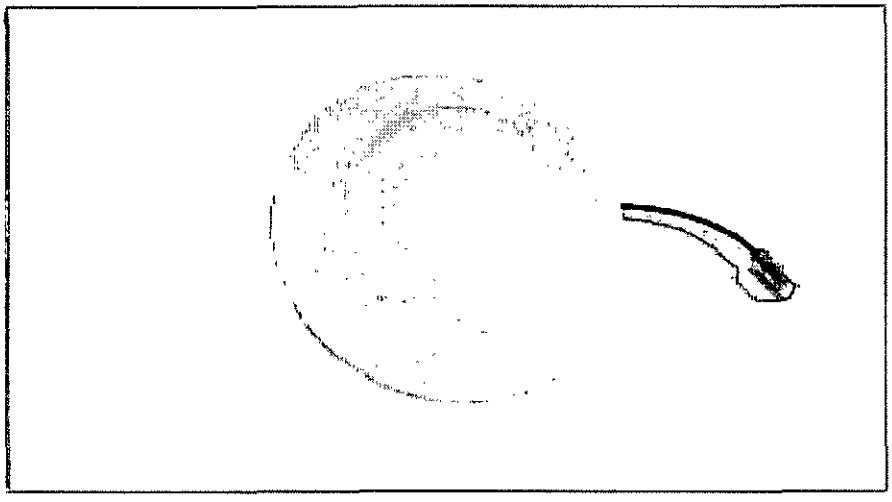
Specifications subject to change without notice. Copyright © Cellular Specialties, Inc. - 021-0000-001 REV F ECO 1936

csi cellular specialties, inc.

670 North Commercial Street
Manchester, NH 03101
www.cellularspecialties.com

603.626.6677
Toll Free (USA): 1.877.844.4274
International: +1.603.626.6677
Fax: 603.626.6042





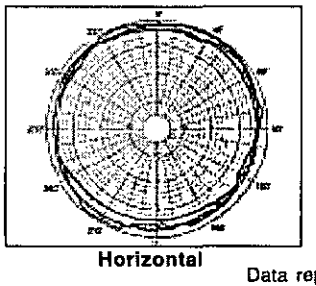
>> OMNIDIRECTIONAL ANTENNA / Quad-Band

Specifications

Gain	3 dBi
VSWR (700-960MHz)	<2.0 : 1
VSWR (1710-2500MHz)	<1.5 : 1
E-Plane (3 dB beamwidth)	30°
H-Plane (3 dB beamwidth)	Omnidirectional
Polarization	Vertical
Power	50 Watts
Dimensions	8.13"D x 5.34"H / (206.38mm x 135.62mm)
Weight	.33 lb. / (0.15 Kg)
Connector	N-Female
Standard Mounting Style	Ceiling
Enclosure	ABS
IM 3RD Order(2X43dBm)	< -150 dBc
Lighting Protection	Direct Ground

Universal L-bracket included for additional mounting options (U-bolt compatible)

Radiation Patterns

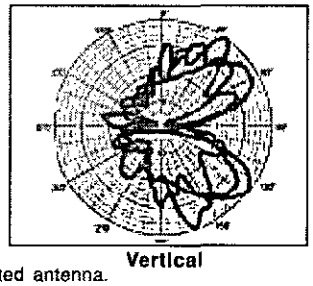


Horizontal

700 MHz

824 MHz

1900 MHz



Vertical

Data represents a ceiling mounted antenna.

Specifications subject to change without notice. Copyright © Cellular Specialties, Inc. - 021-0037-001 REV A ECO 1921

MODEL NUMBER

>> CSI-AO/700/2.5K/3

FREQUENCY RANGES

>> 700-960 MHz

>> 1710-2500 MHz

FEATURES & BENEFITS

>> 3 dBi Gain

>> Clean Pattern

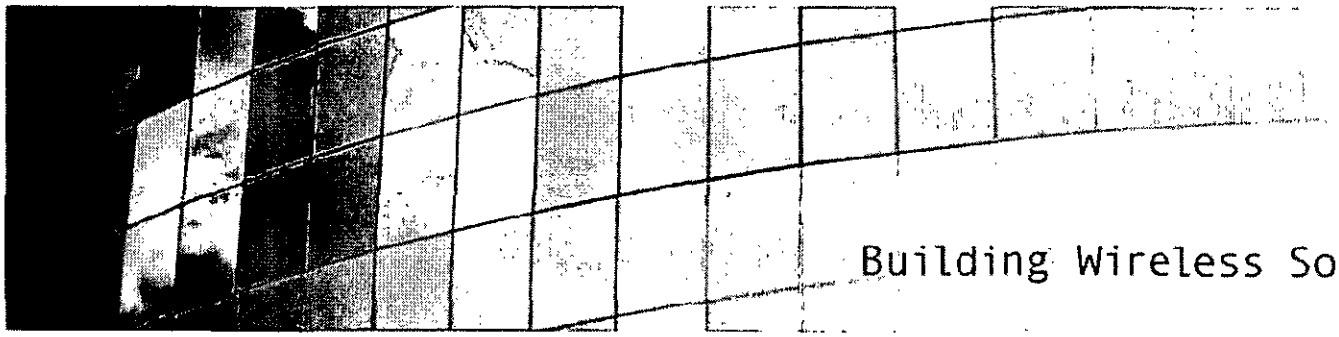
>> Ceiling or Wall Mountable

>> Paintable Housing

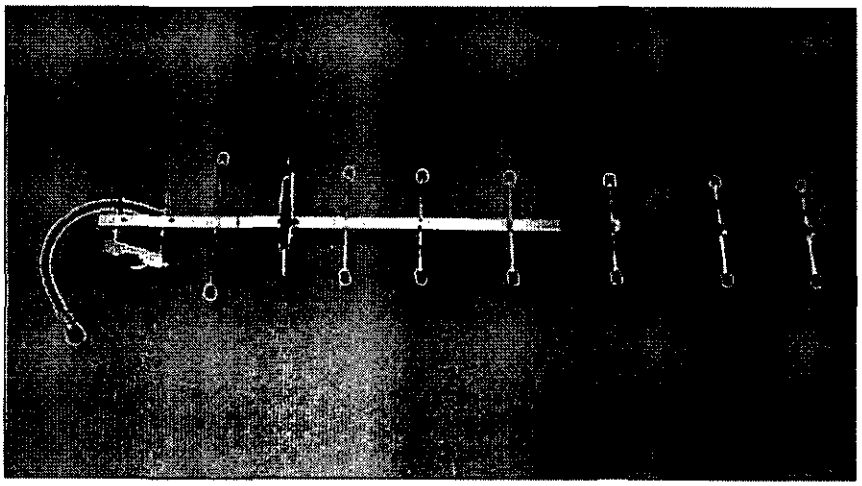
csi
cellular specialties, inc.

270 North Commercial Street
Manchester, NH 03101
603.626.4677
Toll Free (USA): 1-877-844-4274
International: +1.603.626.4677
Fax: 603.626.6042

www.cellularspecialties.com



Building Wireless Solutions™

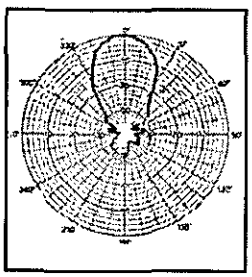


>> YAGI ANTENNA / 746-896MHz / 11 dBi

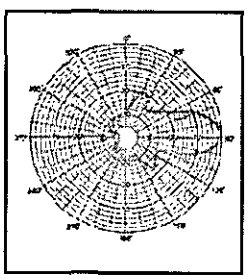
Specifications

Gain	11 dBi
VSWR	<1.7 : 1
Horizontal Beamwidth	48°
Vertical Beamwidth	42°
Polarization	Vertical
Maximum Input Power	100 Watts
Electrical Downtilt	0°
Front-back Ratio	>16 dB
Connector	N-Female
Lightning Protection	Direct Ground
Rated Wind Speed	134 mph / (216 Kph)
Max. Dimensions of Antenna	2.2" x 8" x 33.1" / (55.8 x 203.20 x 840 mm)
Weight of Antenna	1.76 lb. / (0.8 Kg)
Mounting Hardware	U-Bolt
Included Mounting Hardware fits	1 7/8" OD Pipe

Typical Radiation Patterns



Horizontal



Vertical

MODEL NUMBER

>> **CSI-AY/746-896/11**

FREQUENCY RANGE

>> 746-896 MHz

FEATURES & BENEFITS

>> 11 dBi Gain

>> 8 Elements

>> Hermetically Sealed Driven Design

>> Rugged Lightweight Design

>> Stainless Steel Hardware

>> Broad Bandwidth

csi
cellular specialties, inc.

670 North Commercial Street
Manchester, NH 03101
603.626.6677
Toll Free (USA): 1.877.844.4274
International: +1.603.626.6677
Fax: 603.626.6042

www.cellularspecialties.com

Specifications subject to change without notice. Copyright © Cellular Specialties, Inc. - 021-0047-001 REV A ECO 2063

MCOA Coverage Data - 4/1/2009

Sixth Floor

Location #	Max	Typical
1	-55	-55

Fifth Floor

Location #	Max	Typical
1	-66	-69
2	-81	-83
3	-78	-79
4	-83	-88
5	-78	-78
6	-83	-87
7	-74	-76
8	-84	-86
9	-68	-71
10	-86	-88
11	-79	-83
12	-83	-86
13	-73	-73
14	-77	-86
15	-72	-72
16	-83	-83
17	-65	-77
18	-76	-79
19	-76	-76
20	-76	-76
21	-64	-79
22	-76	-76
23	-61	-64
24	-64	-69
25	-72	-72
26	-61	-67
27	-64	-64
28	-55	-57
29	-54	-56
30	-59	-61
31	-50	-51
32	-53	-57
33	-55	-57
34	-63	-65
35	-43	-44
36	-40	-40
37	-52	-53
38	-52	-52
39	-60	-64
40	-49	-53
41	-60	-69
42	-56	-63

MCOA Coverage Data - 4/1/2009

5th Total Readings	**42**
5th Failed Readings	**0**

Fourth Floor

Location #	Max	Typical
1	-85	-87
2	-67	-67
3	-65	-72
4	-60	-60
5	-78	-82
6	-67	-70
7	-55	-58
8	-65	-79
9	-75	-76
10	-69	-69
11	-65	-67
12	-54	-55
13	-67	-73
14	-60	-60
15	-60	-63
16	-50	-51
17	-62	-68
18	-60	-60
19	-49	-49
20	-48	-48
21	-62	-63
22	-75	-80
23	-63	-63
24	-49	-54
25	-63	-64
26	-78	-78
27	-70	-74
28	-73	-75
29	-73	-76
30	-71	-72
31	-56	-67
32	-68	-69
33	-71	-71
34	-55	-55
35	-47	-48
36	-51	-53
37	-76	-76
38	-64	-72
39	-79	-92
40	-59	-71
41	-45	-45
42	-65	-67

43	-59	-59
44	-77	-84
45	-85	-86
4th Total Readings	**45**	
4th Failed Readings	**0**	

Third Floor

Location #	Max	Typical
1	-75	-76
2	-69	-70
3	-65	-65
4	-56	-56
5	-66	-69
6	-66	-67
7	-53	-65
8	-69	-72
9	-60	-60
10	-47	-47
11	-60	-60
12	-76	-77
13	-74	-74
14	-70	-70
15	-62	-63
16	-75	-75
17	-73	-74
18	-65	-65
19	-68	-73
20	-66	-66
21	-68	-73
22	-69	-71
23	-72	-72
24	-69	-69
25	-70	-73
26	-61	-63
27	-62	-65
28	-69	-71
29	-66	-67
30	-53	-55
31	-56	-61
32	-59	-61
33	-52	-52
34	-45	-46
35	-60	-64
36	-69	-70
37	-51	-56
38	-62	-67
39	-69	-70

40	-56	-56
41	-52	-54
42	-68	-72
43	-76	-78
4th Total Readings	**43**	
4th Failed Readings	**0**	

Second Floor

Location #	Max	Typical
1	-81	-81
2	-70	-70
3	-67	-71
4	-73	-74
5	-74	-74
6	-67	-69
7	-64	-66
8	-67	-75
9	-80	-83
10	-57	-59
11	-44	-45
12	-63	-70
13	-71	-76
14	-60	-62
15	-55	-55
16	-59	-61
17	-70	-74
18	-67	-68
19	-50	-54
20	-58	-83
21	-71	-77
22	-60	-65
23	-59	-61
24	-62	-66
25	-79	-88
26	-66	-68
27	-75	-78
28	-70	-72
29	-76	-76
30	-75	-76
31	-74	-78
32	-64	-70
33	-65	-67
34	-74	-74
35	-68	-76
36	-52	-54
37	-61	-65
38	-73	-73

39	-53	-58
40	-53	-53
41	-67	-70
42	-60	-61
43	-56	-61
44	-68	-72
45	-87	-91
2nd Total Readings	**45**	
2nd Failed Readings	**0**	

First Floor A

Location #	Max	Typical
1	-85	-88
2	-80	-91
3	-84	-86
4	-81	-89
5	-66	-66
6	-82	-83
7	-69	-72
8	-56	-58
9	-59	-60
10	-57	-59
11	-54	-59
12	-45	-47
13	-70	-72
14	-78	-83
15	-75	-76
16	-62	-62
17	-38	-38
18	-43	-47
19	-53	-53
20	-43	-47
21	-47	-56
22	-49	-54
23	-52	-55
24	-55	-55
25	-63	-71
26	-65	-68
27	-53	-69
28	-51	-52
29	-61	-61
30	-51	-52
31	-46	-52
32	-69	-69
1A Total Readings	**32**	
1A Failed Readings	**0**	

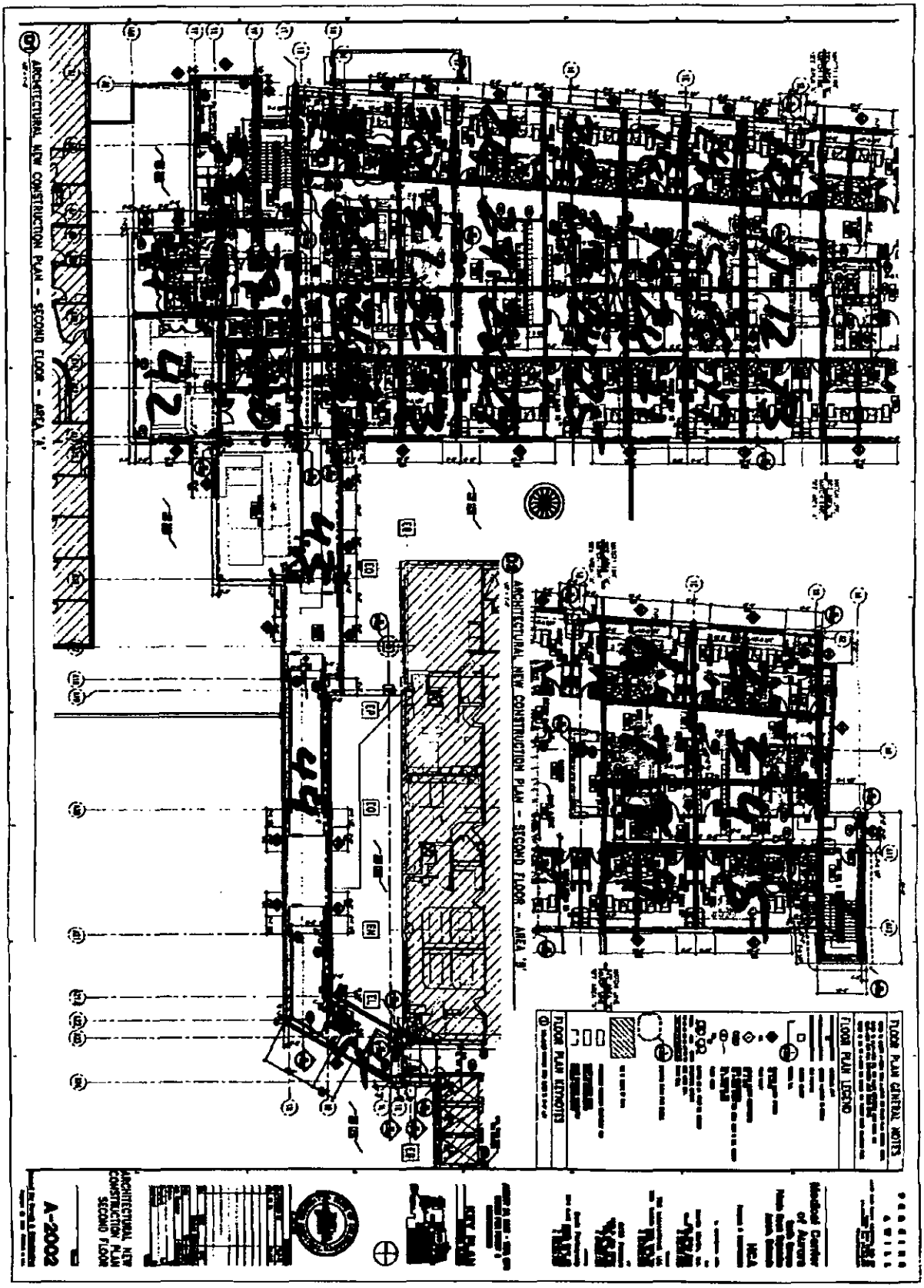
MCOA Coverage Data - 4/1/2009

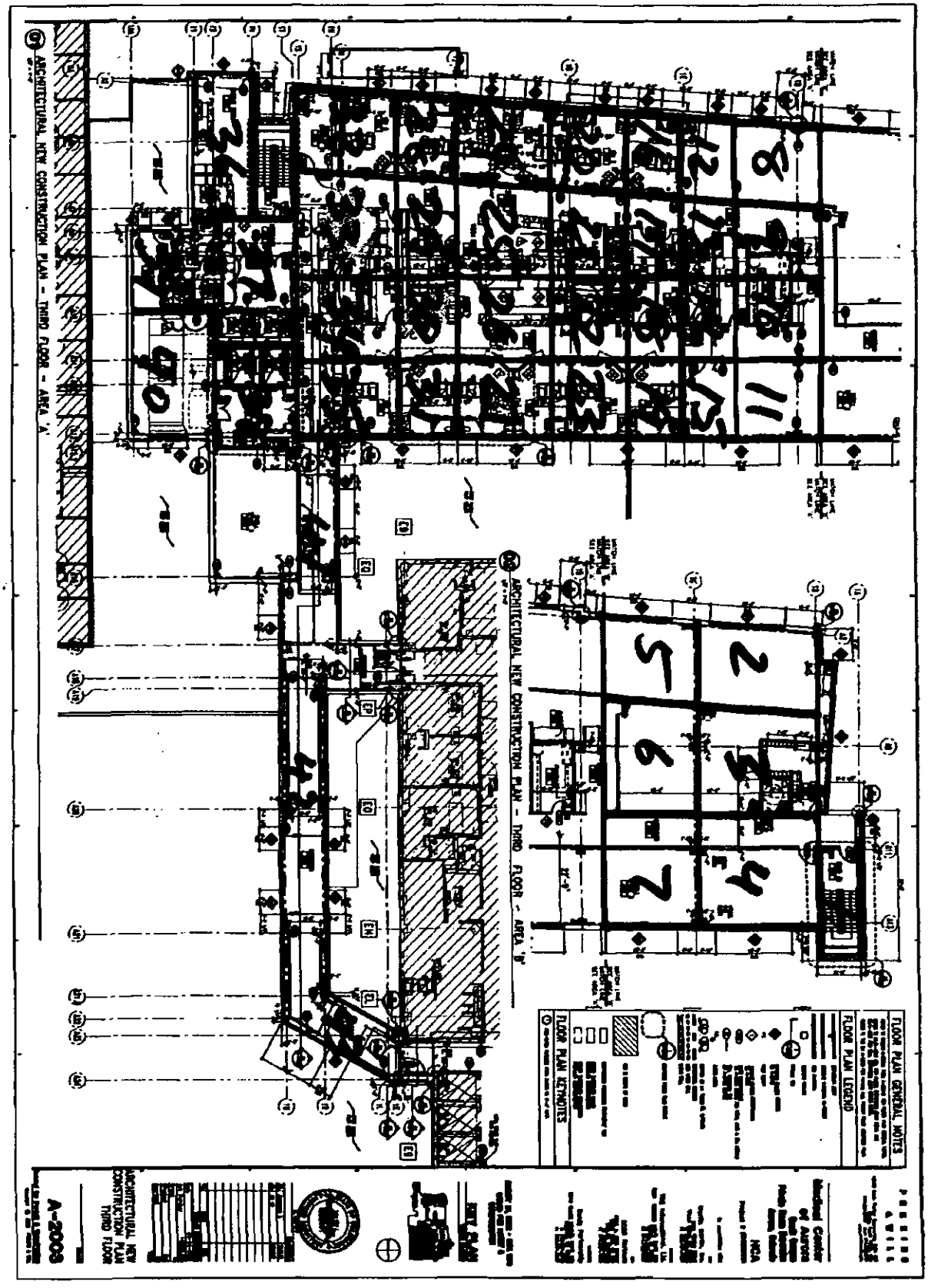
First Floor B

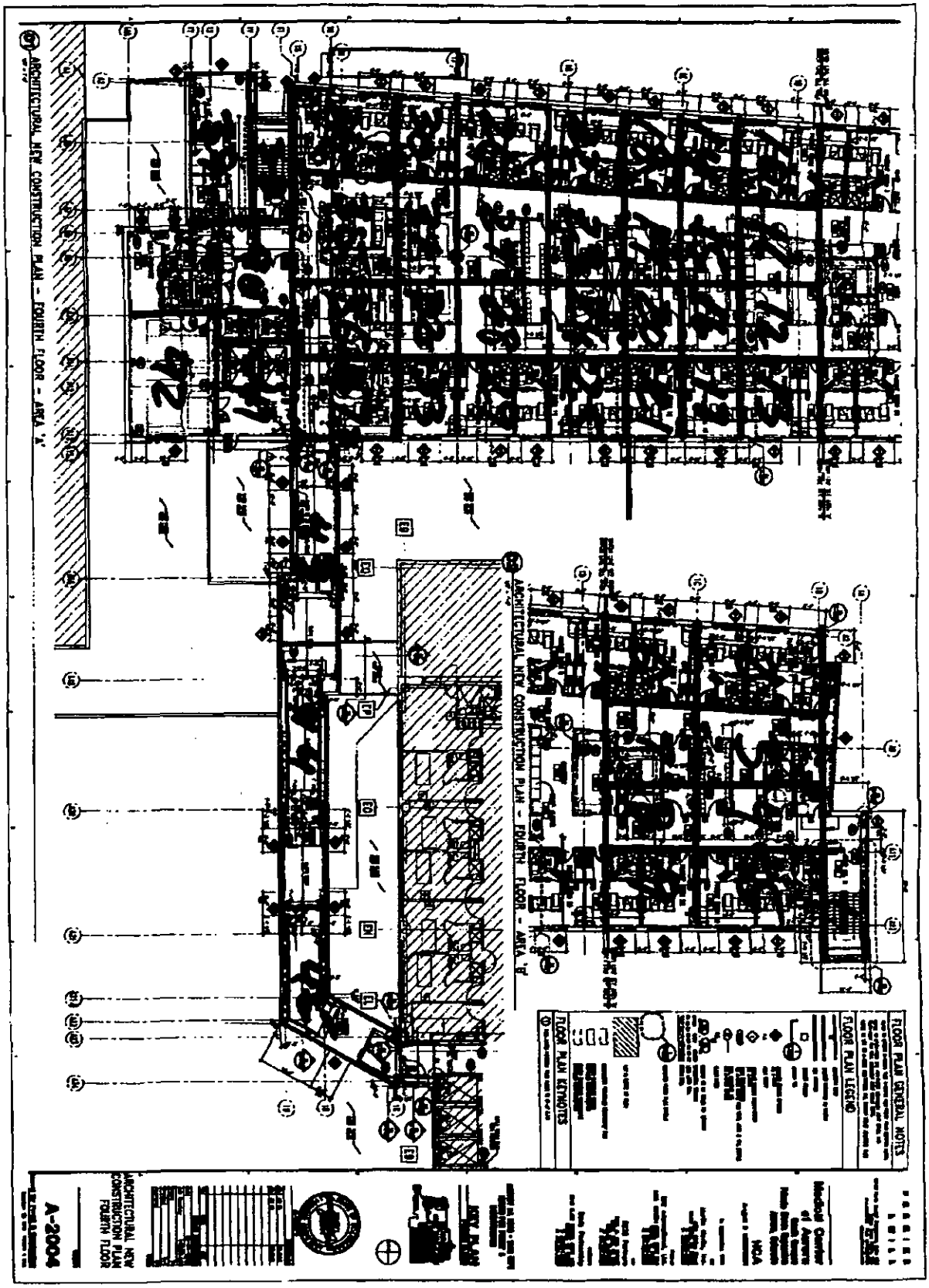
Location #	Max	Typical
1	-64	-68
2	-59	-63
3	-62	-67
4	-48	-52
5	-48	-52
6	-45	-46
7	-61	-64
8	-80	-82
9	-68	-71
10	-60	-71
11	-62	-64
12	-56	-61
13	-49	-49
14	-56	-58
15	-48	-50
16	-67	-71
17	-57	-61
18	-66	-74
1A Total Readings	**18**	
1A Failed Readings	**0**	

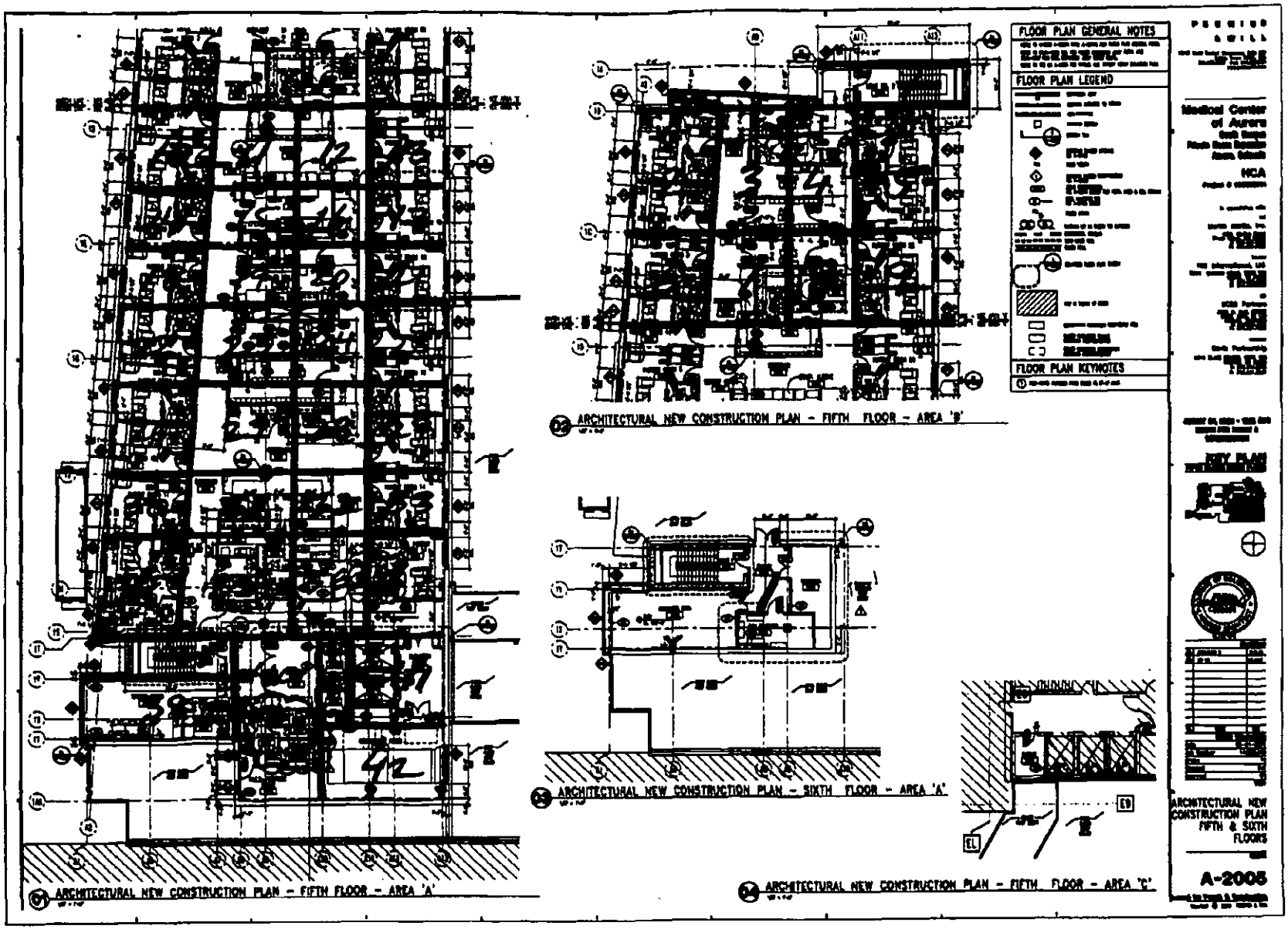
ARCHITECTURAL NEW CONSTRUCTION PLAN - FIRST FLOOR - AREA 'A'
FLOOR PLAN KEYNOTES
FLOOR PLAN LEGEND
FLOOR PLAN GENERAL NOTES
A-200.1
ARCHITECTURAL NEW CONSTRUCTION PLAN FIRST FLOOR AREA 'A'
KEY PLAN
Medical Center of Aurora
MOA

ARCHITECTURAL NEW CONSTRUCTION PLAN - FIRST FLOOR - AREA 'B'
EXISTING MOB 145
FLOOR PLAN KEYNOTES
FLOOR PLAN LEGEND
FLOOR PLAN GENERAL NOTES
ARCHITECTURAL NEW CONSTRUCTION PLAN FIRST FLOOR AREA 'B'
A-200B


ARCHITECTURAL NEW CONSTRUCTION PLAN - SECOND FLOOR - AREA 'A'
ARCHITECTURAL NEW CONSTRUCTION PLAN - SECOND FLOOR - AREA 'B'
FLOOR PLAN GENERAL NOTES
FLOOR PLAN LEGEND
FLOOR PLAN KEYNOTES
A-2002
ARCHITECTURAL NEW CONSTRUCTION PLAN SECOND FLOOR


ARCHITECTURAL NEW CONSTRUCTION PLAN - THIRD FLOOR - AREA 'A'
ARCHITECTURAL NEW CONSTRUCTION PLAN - THIRD FLOOR - AREA 'B'
FLOOR PLAN GENERAL NOTES
FLOOR PLAN LEGEND
FLOOR PLAN KEYNOTES
A-200B
ARCHITECTURAL NEW CONSTRUCTION PLAN THIRD FLOOR


ARCHITECTURAL NEW CONSTRUCTION PLAN - FOURTH FLOOR - AREA 'A'
ARCHITECTURAL NEW CONSTRUCTION PLAN - FOURTH FLOOR - AREA 'B'
FLOOR PLAN GENERAL NOTES
FLOOR PLAN LEGEND
FLOOR PLAN KEYNOTES
ARCHITECTURAL NEW CONSTRUCTION PLAN FOURTH FLOOR
A-2004


FLOOR PLAN GENERAL NOTES
FLOOR PLAN LEGEND
FLOOR PLAN KEYNOTES
ARCHITECTURAL NEW CONSTRUCTION PLAN - FIFTH FLOOR - AREA 'A'
ARCHITECTURAL NEW CONSTRUCTION PLAN - FIFTH FLOOR - AREA 'B'
ARCHITECTURAL NEW CONSTRUCTION PLAN - SIXTH FLOOR - AREA 'A'
ARCHITECTURAL NEW CONSTRUCTION PLAN - FIFTH FLOOR - AREA 'C'
Medical Center of Aurora
HCA
ARCHITECTURAL NEW CONSTRUCTION PLAN FIFTH & SIXTH FLOORS
A-2005

1501 Potomac St

JE Dunn Rocky Mountain, Inc.
2000 S. Colorado Blvd STE 12000
Denver CO 80222

Request For Information
10090-0714

Printed On: 12/03/2008

Wences - P2

Subject: Sound & Smoke Walls
Project: Medical Center of Aurora Private Patient Tower
Address: 1501 South Potomac Street
Aurora CO 80012
Phone: 303-873-4684 **Fax:** 303-873-4838
To: John Menno Nap
PERKINS + WILL
From: JE Dunn Rocky Mountain, Inc. Paul Zubeck

Date: 12/03/2008
Job: 10090
Required: 12/12/2008
Est. Cost Impact: $
Est. Days Impact:

Co-Author:	*Contact:*	*Co-Author RFI Number:*

Reference:

Spec Section: # 07-172 6.4-CM **Drawings:**
Spec Section: **Drawings:**
Spec Section: **Drawings:**

Request

It was discussed that the sound walls need to be sealed on both sides and that smoke walls only need to be sealed consistantly on one side. If smoke walls only need to be sealed on one side, please reference source (IBC/NFPA). Is it prefered to have smoke walls sealed on both sides or just one?

Suggestion

Answer ☐ Accept Suggestion

BASED ON STC REQUIREMENTS, SOUND WALL BETWEEN PATIENT AREAS SHOULD BE SEALED ON BOTH SIDES TO ENHANCE THE STC RATING. SMOKE WALLS MAY ONLY BE SEALED ON ONE SIDE PROVIDED THAT ALL THROUGH PENETRATIONS ARE SEALED ON THE SAME SIDE. THE IBC NOR NFPA JUDICATES ONE OR BOTH SIDES. HOWEVER, SECTION 710.6 OF THE IBC 2006 INDICATES, "SPACE AROUND PENETRATING ITEMS AND IN JOINTS SHALL BE FILLED WITH AN APPROVED MATERIAL TO LIMIT THE FREE PASSAGE OF SMOKE." SEALANT OR FIRE SAFING OR COMBINATION OF BOTH IS ACCEPTABLE. AS A SINGLE LAYER OF GYPSUM WILL LIMIT PASSAGE OF SMOKE, ONLY ON SIDE'S SEALANT IS REQUIRED... ... PROVIDED IT IS THE SAME SIDE CONSISTENTLY.

Answered By: JOHN MENNO NAP **Signed:**

Date: 2/20/09

tribution:

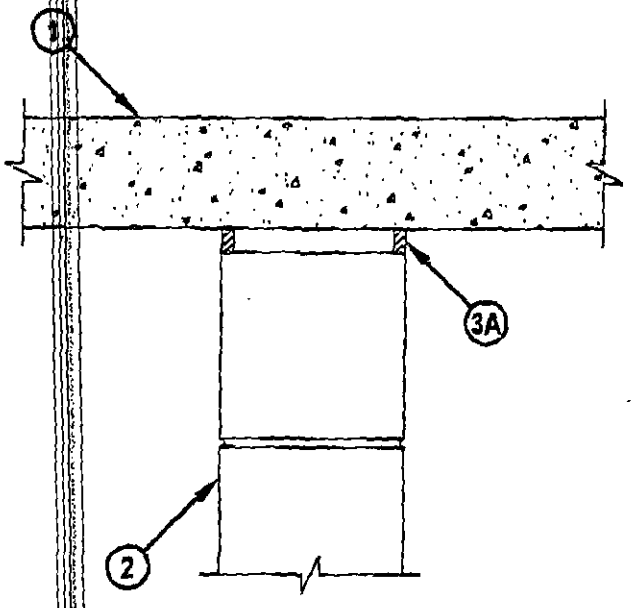
 1501 S Potomac St

HWD 0268

System No. HW-D-0268

Assembly Rating - 3 Hr
Nominal Joint Width - 1 In.
Class II Movement Capabilities - 12.5% Compression and Extension

07 172604



1. Floor Assembly - Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete. Floor may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*.

See Precast Concrete Units (CFTV) category in the Fire Resistance Directory for names of manufacturers.

2. Wall Assembly - Min 8 in. (203 mm) thick steel reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

3. Joint System - Max separation between bottom of floor assembly and top of concrete wall at time of installation is 1 in. (25 mm). The joint system is designed to accommodate a max 12.5 percent compression or extension from its installed width. The joint system shall consists of the following:

A. Fill, Void or Cavity Material* - Sealant - A 1/2 in. (13 mm) thickness of fill material installed within the joint, flush with each surface of the wall.

HILTI CONSTRUCTION CHEMICALS DIV OF
HILTI INC - CP606 Flexible Firestop Sealant

*Bearing the UL Classification Mark

HILTI® FIRESTOP SYSTEMS

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc.
date
November 10, 2004

CLASSIFIED C UL US

A 200 1B

2007 172604 CM 1501 S Potomac

HEATING & PLUMBING ENGINEERS, INC.

MECHANICAL CONTRACTORS SINCE 1947

Inspection Test Report

Job Name: Aurora South Med. Date: 11/5/07

Job #: 0667

System: C.W./DHW. S/R Lines Area/Location: _____

Spec. Section: _____

Type Test: Pneumatic _____

Static _____

Hydrostatic 100 P.S.I.

Drawing Number Attached: M4.00, 2, 3

Test Description: Hydro. 100. P.S.I 1. hr.

Operating Pressure:		Test Pressure:	100 P.S.I.
Time Start:	7:00 AM.	Time Finish:	
Leak Rate:		Temp Start:	45°
Final Test Pressure:		Temp Finish:	

Comments/Results: _____

Test Performed By: R.J. Falbush Start-Up Engineer: _____

Witnessed by RBD/Owner Rep.: C.O.A 12:43 P.M 52° Date: 11-5-2007

COLORADO SPRINGS OFFICE (Corporate)
407 W. Fillmore Place
Colorado Springs, CO 80907
P.O. Box 7285
Colorado Springs, CO 80933

DENVER OFFICE
715 Vallejo Street
Denver, CO 80204

TOLL FREE (800) 530-8592
Corporate Phone (719) 633-5414
FAX (719) 633-4031
Denver Phone (720) 274-0073
FAX (720) 274-0419
Service Phone (719) 633-5571
FAX (719) 636-2533

2007 172604 CM

HEATING & PLUMBING
ENGINEERS, INC.

MECHANICAL
CONTRACTORS
SINCE 1947

Inspection Test Report

Job Name: Aurora South Med. Date: 11/5/07

Job #: 0662

System: Natural Gas. Area/Location: _____

Spec. Section: _____

Type Test: Pneumatic _____
Static Air
Hydrostatic _____

Drawing Number Attached: M4.00 23.

Test Description: Air Test 80 P.S.I. 1. hr.

Operating Pressure:		Test Pressure:	80 P.S.I
Time Start:	7:00 A.M.	Time Finish:	
Leak Rate:		Temp Start:	45°
Final Test Pressure:		Temp Finish:	

Comments/Results: _____

Test Performed By: R.J. Folbush. Start-Up Engineer: _____

Witnessed by RBD/Owner Rep.: C.O.A. 1246 PM 30° Date: 11/5/07

COLORADO SPRINGS OFFICE
(Corporate)
407 W. Fillmore Place
Colorado Springs, CO 80907
P.O. Box 7285
Colorado Springs, CO 80933

DENVER OFFICE
715 Vallejo Street
Denver, CO 80204

TOLL FREE (800) 530-8592
Corporate Phone (719) 633-5414
FAX (719) 633-4031
Denver Phone (720) 274-0073
FAX (720) 274-0419
Service Phone (719) 633-5571
FAX (719) 636-2533

(1501 S. Potomac St A&B)

2007-1726604 CM

HEATING & PLUMBING ENGINEERS, INC.

MECHANICAL CONTRACTORS SINCE 1947

Inspection Test Report

Job Name: Aurora Medical Date: 11-16-07

Job #: 0667

System: Chilled, Cond, Steam Area/Location: Vault to bldg

Spec. Section:

Type Test: Pneumatic

Static

Hydrostatic 150 PSI

Drawing Number Attached:

Test Description: 150 # hydro

Operating Pressure	30 chilled, 60 Stm		150 PSI
Test Start Time	11:00 AM		12:00 PM
Test Start Temp	0		60°F
Final Test Pressure	150 PSI		60°F

Comments/Results: From S South of vault 100' to Risers in New bldg

Test Performed By: Kevin Gaugh Start-Up Engineer:

Witnessed by RBD/Owner Rep.: City of AURORA, John Barnes

Date: 11/16/07

COLORADO SPRINGS OFFICE (Corporate)
407 W. Fillmore Place
Colorado Springs, CO 80907
P.O. Box 7285
Colorado Springs, CO 80933

DENVER OFFICE
715 Vallejo Street
Denver, CO 80204

TOLL FREE (800) 530-8592
Corporate Phone (719) 633-5414
FAX (719) 633-4031
Denver Phone (720) 274-0073
FAX (720) 274-0419
Service Phone (719) 633-5571
FAX (719) 636-2533

BILL RITTER, JR
Governor

DONALD J. MARES
Executive Director

MAHESH ALBUQUERQUE
Division Director

DEPARTMENT OF LABOR AND EMPLOYMENT
Division of Oil and Public Safety
Conveyance Section
633 17th Street,Suite 500
Denver,Colorado 80202-3660
(303) 318-8519 Fax (303) 318-8488
Website: http://oil.cdle.state.co.us

PAUL ZUBECK
JE DUNN
,

Attached is your Certificate of Operation for your Conveyance. At a minimum you must keep the Certificate of Operation on file as evidence of compliance. It is recommended you post a copy in the conveyance equipment room along with a copy of the last inspection report to facilitate communication and coordination between inspector and maintenance personnel. Report inaccuracies to the Conveyance Section at (303) 318-3819.

Note: All deficiencies noted on the inspection report must be corrected within 30 days from inspection date.

Conveyance Annual Certificate of Operation

This certificate is issued pursuant to compliance with the current codes adopted by the Colorado Department of Labor and Employment, Division of Oil and Public Safety (OPS) certifying that at the time of issuance this conveyance was in compliance with statutory authority of The Elevator and Escalator Certification Act, Title 9, Article 5.5 Colorado Revised Statutes.

Facility Number:	08-004459	**Inspection Date:**	03/27/2009
Conveyance Number:	CP09-000921	**Certificate Issue Date:**	03/31/2009
Conveyance Local ID:		**Certificate Expiration Date:**	03/31/2010
Contract / Job Number:	732838	**Inspected by:**	08-000016

Owner/Management Company:
JE DUNN

Facility Information:
THE MEDICAL CENTER OF AURORA - SOUTH
1501 S POTOMAC ST
AURORA, CO 80012

This Certificate of Operation issued by:
Colorado Department of Labor and Employment
Division of Oil and Public Safety
Conveyance Section
633 17th Street, Suite 500
Denver, CO 80202

Phone: (303) 318-8519
Fax: (303) 318-8488
Website: http://oil.state.co.us

Attached is your Certificate of Operation for your Conveyance. At a minimum you must keep the Certificate of Operation on file as evidence of compliance. It is recommended you post a copy in the conveyance equipment room along with a copy of the last inspection report to facilitate communication and coordination between inspector and maintenance personnel. Report inaccuracies to the Conveyance Section at (303) 318-3819.

Note: All deficiencies noted on the inspection report must be corrected within 30 days from inspection date.

Conveyance Annual Certificate of Operation

This certificate is issued pursuant to compliance with the current codes adopted by the Colorado Department of Labor and Employment, Division of Oil and Public Safety (OPS) certifying that at the time of issuance this conveyance was in compliance with statutory authority of The Elevator and Escalator Certification Act, Title 9, Article 5.5 Colorado Revised Statutes.

Facility Number:	08-004459	**Inspection Date:**	03/27/2009
Conveyance Number:	CP09-000920	**Certificate Issue Date:**	03/31/2009
Conveyance Local ID:		**Certificate Expiration Date:**	03/31/2010
Contract / Job Number:	732837	**Inspected by:**	08-000016

Owner/Management Company:
JE DUNN

Facility Information:
THE MEDICAL CENTER OF AURORA - SOUTH
1501 S POTOMAC ST
AURORA, CO 80012

This Certificate of Operation issued by:
Colorado Department of Labor and Employment
Division of Oil and Public Safety
Conveyance Section
633 17th Street, Suite 500
Denver, CO 80202

Phone: (303) 318-8519
Fax: (303) 318-8488
Website: http://oil.state.co.us

Attached is your Certificate of Operation for your Conveyance. At a minimum you must keep the Certificate of Operation on file as evidence of compliance. It is recommended you post a copy in the conveyance equipment room along with a copy of the last inspection report to facilitate communication and coordination between inspector and maintenance personnel. Report inaccuracies to the Conveyance Section at (303) 318-3819.

Note: All deficiencies noted on the inspection report must be corrected within 30 days from inspection date.

Conveyance Annual Certificate of Operation

This certificate is issued pursuant to compliance with the current codes adopted by the Colorado Department of Labor and Employment, Division of Oil and Public Safety (OPS) certifying that at the time of issuance this conveyance was in compliance with statutory authority of The Elevator and Escalator Certification Act, Title 9, Article 5.5 Colorado Revised Statutes.

Facility Number:	08-004459	**Inspection Date:**	03/27/2009
Conveyance Number:	CP09-000919	**Certificate Issue Date:**	03/31/2009
Conveyance Local ID:		**Certificate Expiration Date:**	03/31/2010
Contract / Job Number:	732836	**Inspected by:**	08-000016

Owner/Management Company:
JE DUNN

Facility Information:
THE MEDICAL CENTER OF AURORA - SOUTH
1501 S POTOMAC ST
AURORA, CO 80012

This Certificate of Operation issued by:
Colorado Department of Labor and Employment
Division of Oil and Public Safety
Conveyance Section
633 17th Street, Suite 500
Denver, CO 80202

Phone: (303) 318-8519
Fax: (303) 318-8488
Website: http://oil.state.co.us

Attached is your Certificate of Operation for your Conveyance. At a minimum you must keep the Certificate of Operation on file as evidence of compliance. It is recommended you post a copy in the conveyance equipment room along with a copy of the last inspection report to facilitate communication and coordination between inspector and maintenance personnel. Report inaccuracies to the Conveyance Section at (303) 318-3819.

Note: All deficiencies noted on the inspection report must be corrected within 30 days from inspection date.

Conveyance Annual Certificate of Operation

This certificate is issued pursuant to compliance with the current codes adopted by the Colorado Department of Labor and Employment, Division of Oil and Public Safety (OPS) certifying that at the time of issuance this conveyance was in compliance with statutory authority of The Elevator and Escalator Certification Act, Title 9, Article 5.5 Colorado Revised Statutes.

Facility Number:	08-004459	**Inspection Date:**	03/27/2009
Conveyance Number:	CP09-000918	**Certificate Issue Date:**	03/31/2009
Conveyance Local ID:		**Certificate Expiration Date:**	03/31/2010
Contract / Job Number:	732835	**Inspected by:**	08-000016

Owner/Management Company:
JE DUNN

Facility Information:
THE MEDICAL CENTER OF AURORA - SOUTH
1501 S POTOMAC ST
AURORA, CO 80012

This Certificate of Operation issued by:
Colorado Department of Labor and Employment
Division of Oil and Public Safety
Conveyance Section
633 17th Street, Suite 500
Denver, CO 80202

Phone: (303) 318-8519
Fax: (303) 318-8488
Website: http://oil.state.co.us

City of Aurora Building Codes Division

Checklist for CO or TCO

Main (303) 739-7420
Fax: (303) 739-7412
Inspection line: (303) 739-7416

The following request must be completed, submitted and accepted prior to issuance of a CO/TCO.

Contact: Paul Zubeck ☐CO ☒TCO

CO's or TCO's must be requested and issued to the contractor listed on the permit.

Contractor Representative: JE Dunn Construction

Requesting CO/TCO for address: 1501 S Potomac St

Phone: 303-968-4694 Fax: 303-750-5070

A 24 hour notice is required to obtain Certificate of Occupancy or (Temporary Certificate of Occupancy).

The Certificate of Occupancy (CO), either temporary or final, must be issued prior to occupancy of **any** structure. No CO may be issued until the requirements of all inspection agencies involved are satisfied. If a Construction Supervisor allows occupancy for any reason without a CO the Certificate of Qualification of the Construction Supervisor and the Contractor's License of his employer may be suspended or revoked. Questions concerning issuance of a CO or TCO contact Darcy Dodd directly at (303) 739-7683.

A fee of $776.00 is charged for a TCO. If the TCO is converted to a CO prior its expiration a refund of $650.00 (for residential) $500.00 (for commercial) will be returned to the contractor listed on the permit. For the extension of a TCO there is a non refundable fee of $518.00.

Contractor must submit all permit card(s) with contractor's name and license number on back of the permit.

INSPECTIONS:

- ☐ Engineering and Grade: Public Improvement Inspections. Call (303) 739-7350
- ☐ Zoning: 303-739-7449
- ☐ Water Meter: 303-326-8080
- ☐ All Building finals (PLUMBING, HVAC, ELECTRICAL, FRAME, LIFE SAFETY)
- ☐ Provide all outstanding correction notices (Building Codes Division)
- ☐ Grease Interceptor (COMMERICAL) 303-739-7490
- ☐ Backflow Test reports (COMMERCIAL) 303-326-8114or 303-326-8111
- ☐ Elevator Certificate of Completion from State of Colorado (COMMERCIAL)
- ☐ Radio frequency check 303 326-8970 (COMMERCIAL)

LETTERS/ REPORTS/ MISC

- ☐ Engineer letters (Foundation, Piers/Footing/Caissons, Deck Pier, Drain, and Waterproofing
- ☐ ILC (Improvement Land Certificate)
- ☐ For Kitchen Hoods Air Balance Report is Required (COMMERCIAL)
- ☐ MED GAS Report (for Medical offices)
- ☐ Special Inspections (for Commercial)

FEES - - ALL UNPAID FEES MUST BE PAID PRIOR TO CO OR TCO

Time Stamp

City of Aurora Building Codes Division

Checklist for CO or TCO

Main (303) 739-7420
Fax: (303) 739-7412
Inspection line: (303) 739-7416

The following request must be completed, submitted and accepted prior to issuance of a CO/TCO.

Contact: JESSE HUNT ☒CO ☐TCO

CO's or TCO's must be requested and issued to the contractor listed on the permit.

Contractor Representative: JESSE HUNT

Requesting CO/TCO for address: 1501 S. POTOMAC

Phone: 303-917-8181 Fax: 303-750-5070

A 24 hour notice is required to obtain Certificate of Occupancy or (Temporary Certificate of Occupancy).

The Certificate of Occupancy (CO), either temporary or final, must be issued prior to occupancy of **any** structure. No CO may be issued until the requirements of all inspection agencies involved are satisfied. If a Construction Supervisor allows occupancy for any reason without a CO the Certificate of Qualification of the Construction Supervisor and the Contractor's License of his employer may be suspended or revoked. Questions concerning issuance of a CO or TCO contact Darcy Dodd directly at (303) 739-7683.

A fee of $776.00 is charged for a TCO. If the TCO is converted to a CO prior its expiration a refund of $650.00 (for residential) $500.00 (for commercial) will be returned to the contractor listed on the permit. For the extension of a TCO there is a non refundable fee of $518.00.

Contractor must submit all permit card(s) with contractor's name and license number on back of the permit.

INSPECTIONS:

- ☑ Engineering and Grade: Public Improvement Inspections. Call (303) 739-7350
- ☑ Zoning: 303-739-7449
- ☑ Water Meter: 303-326-8080
- ☑ All Building finals (PLUMBING, HVAC, ELECTRICAL, FRAME, LIFE SAFETY)
- ☑ Provide all outstanding correction notices (Building Codes Division)
- ☑ Grease Interceptor (COMMERICAL) 303-739-7490
- ☑ Backflow Test reports (COMMERCIAL) 303-326-8114or 303-326-8111
- ☑ Elevator Certificate of Completion from State of Colorado (COMMERCIAL)
- ☑ Radio frequency check 303 326-8970 (COMMERCIAL)

LETTERS/ REPORTS/ MISC

- ☑ Engineer letters (Foundation, Piers/Footing/Caissons, Deck Pier, Drain, and Waterproofing
- ☑ ILC (Improvement Land Certificate)
- ☐ N/A For Kitchen Hoods Air Balance Report is Required (COMMERCIAL)
- ☑ MED GAS Report (for Medical offices)
- ☑ Special Inspections (for Commercial)

FEES - - ALL UNPAID FEES MUST BE PAID PRIOR TO CO OR TCO

Time Stamp: CITY OF AURORA VALIDATED 2004 SEP