# THE MEDICAL CENTER OF AURORA

## TRIAGE WAITING ROOM METAL DETECTOR INSTALLATION

### 1501 S. POTOMAC ST., AURORA, CO 80012

## PROJECT TEAM

### OWNER:

MEDICAL CENTER OF AURORA
1501 S. POTOMAC STREET
AURORA, CO 80012
303.873.4895

### ARCHITECT:

TOM THOMPSON
ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

### DESIGNER / DRAFTSMAN:

THE DESIGN PLOT
PARKER, CO 80138
303-565-7282 CELL
303-338-7869
CONTACT:
TOM HECKER
thomas.hecker@healthonecares.com

### ENGINEER:

CCRD PARTNERS
8301 E. PRENTICE AVENUE, SUITE 200
GREENWOOD VILLAGE, CO 80111
(303) 694-4755 OFFICE
(303) 694-5125 FAX
CONTACT: JON GRANT
jongr@ccrd.com

### CONTRACTOR:

BFC CONSTRUCTION
ARVADA, CO
303.210.3851

CONTACT:
BRENT FLEETWOOD
BFC.BRENT@COMCAST.NET

## VENDOR LIST

NURSE CALL

BECK'S COMMUNICATION SYSTEMS
7165 IVY ST
COMMERCE CITY, CO 80022
CONTACT: DANIEL (303) 916-9069

LOW VOLTAGE & DATA

GUARANTEE ELECTRIC

BPA

CARD READERS

1. ALL WORK SHALL BE PERFORMED IN STRICT CONFORMANCE WITH ALL LOCAL LAWS, ORDINANCES, RULES, REGULATIONS AND CODES OF THE GOVERNMENT AUTHORITIES HAVING JURISDICTION.
2. DIMENSIONS ARE TO FINISHED FACE OF GYPSUM WALL BOARD OR FACE OF EXISTING BASE BUILDING CONSTRUCTION, UNLESS NOTED OTHERWISE.
3. VERIFY ALL ROUGH-IN DIMENSIONS AND ELECTRICAL REQUIREMENTS FOR EQUIPMENT. COORDINATE OUTLET PLACEMENT WITH CASEWORK.
4. CONTRACTOR SHALL NOTIFY OWNER BEFORE COMMENCING WORK ON ANY ITEMS NOT CLEARLY DEFINED.
5. CHANGES OR DEVIATIONS FROM THE PLANS MADE WITHOUT THE CONSENT OF OWNER ARE UNAUTHORIZED.
6. G.C. TO PROVIDE SEALANT AROUND ALL PLUMBING FIXTURES, PIPING AND EQUIPMENT ABUTTING OR PENETRATING A WALL OR PARTITION. COLOR TO MATCH.
7. INSTALL FIRE-SAFING INSULATION, PUTTY OR FIRE-RATED INTUMESCENT-TYPE SEALANT (INCLUDING PIPE-SLEEVES, DAMMING BOARDS AND ACCESSORIES) AROUND ALL PENETRATIONS THROUGH FIRE-RATED PARTITIONS, FLOORS AND WALLS PER MANUFACTURER'S TESTED INSTALLATION FOR APPLICATION AND REQUIRED RATING.
8. ALL ELECTRICAL AND MECHANICAL DEVICES OR APPLIANCES INSTALLED ON THIS PROJECT SHALL BE UL LISTED.
9. WHERE REMODELING IS TO OCCUR, THE CONTRACTOR SHALL PRESENT A WORKABLE PHASING PLAN TO THE OWNER PRIOR TO COMMENCEMENT OF WORK WITHIN THE AFFECTED AREA. CONTRACTOR SHALL ALSO KEEP THE OWNER APPRISED OF ANY VARIATIONS IN PHASING PLAN THAT WILL AFFECT THE OPERATION OF THE OWNER'S BUSINESS.
10. CONTRACTOR SHALL PRESENT A WORKABLE PLAN TO MAINTAIN SECURITY AND SAFETY OF THE OWNER'S BUSINESS FOR AREAS AFFECTED BY CONSTRUCTION DURING THE ENTIRE PHASE OF CONSTRUCTION.
11. CONTRACTOR SHALL MINIMIZE DISRUPTION BY CONSTRUCTION WORK TO THE ONGOING BUSINESSES AND TRAFFIC IN THE VICINITY. CONSTRUCTION AREA SHALL BE ENCLOSED TO KEEP OTHER AREAS FREE OF DUST, DEBRIS & NOISE.
12. EMPLOYEES OR SUBCONTRACTORS OF THE GENERAL CONTRACTOR SHALL REFRAIN FROM PROFANE OR OFFENSIVE LANGUAGE WHILE ON THE PROJECT SITE AND SHALL REFRAIN FROM USING LOUD RADIOS OR OTHER MUSIC PLAYERS WHILE OWNERS AND/OR DESIGN TEAM IS ONSITE.
13. GENERAL CONTRACTOR SHALL COORDINATE APPROPRIATE PARKING ACCOMMODATIONS FOR EMPLOYEE AND SUBCONTRACTOR VEHICLES WITH OWNER PRIOR TO COMMENCEMENT OF WORK.
14. G.C. SHALL COORDINATE APPROPRIATE CONSTRUCTION STAGING AREAS AND TRASH REMOVAL. G.C. WILL BE RESPONSIBLE FOR OBTAINING A DUMPSTER AND TRASH PICKUP FROM JOB SITE ON A REGULAR BASIS.
15. SUBSTITUTIONS OF SPECIFIED PRODUCTS MAY NOT OCCUR UNLESS SPECIFICALLY NOTED ON DRAWINGS THAT "OR EQUAL" IS ACCEPTABLE. OWNER APPROVAL IS REQUIRED FOR ALL SUBSTITUTIONS CONSIDERED BY G.C. TO MEET "OR EQUAL" REQUIREMENTS PRIOR TO BID SUBMISSION/INSTALLATION.
16. APPROVAL OF SHOP DRAWINGS DOES NOT IMPLY APPROVAL OF A SUBSTITUTED COLOR, SIZE OR FUNCTION OF AN ITEM SPECIFIED ON THESE CONTRACT DOCUMENTS UNLESS ATTENTION IS SPECIFICALLY CALLED TO THE REVISION AND APPROVAL IS GIVEN.
17. G.C. SHALL KEEP TOILET FACILITIES ON SITE CLEAN AND USABLE.
18. NO PLUMBING CLEAN-OUTS SHALL EXTEND INTO ROOM MORE THAN IS MINIMALLY REQUIRED. NO PIPE SHALL BE EXPOSED AND THERE SHALL BE ESCUTCHEON PLATES AT ALL GYPSUM WALL BOARD PENETRATIONS.
19. MULTIPLE SWITCHES SHALL BE GANGED IN SINGLE BOXES WITH COVER PLATE COLORS/ DEVICES TO BE WHITE, SWITCH PLATES SHALL ALIGN.
20. GENERAL CONTRACTOR SHALL PROVIDE FIRE SPRINKLER DESIGN/BUILD AS PART OF SCOPE OF WORK. ALL SPRINKLER HEADS SHALL BE FLUSH MOUNTED CONCEALED STYLE TO MATCH HOSPITAL STANDARDS. SPRINKLER HEADS SHALL BE PLACED IN CENTER OF AFFECTED CEILING TILE.

## DRAWING INDEX

### ARCHITECTURAL

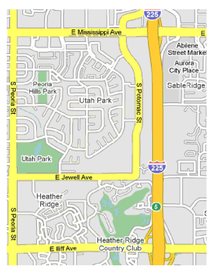

| | |
|---|---|
| A0.0 | COVER |
| A1.0 | DEMOLITION PLAN |
| A1.1 | CEILING DEMOLITION PLAN |
| A1.2 | FLOOR/FINISHES/SCHEDULES |
| A1.3 | DIMENSION/TAG PLAN |
| A.14 | REFLECTED CEILING PLAN |
| A4.0 | ELEVATIONS |
| A4.1 | ELEVATIONS |
| A5.0 | CROSS SECTIONS |
| A6.0 | CODE COMPLIANCE/LIFE SAFETY |


### MECHANICAL, PLUMBING, ELECTRICAL

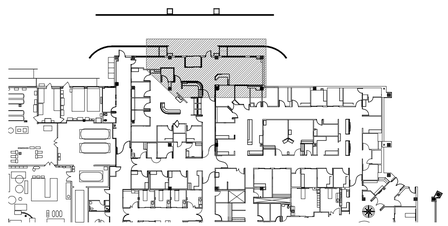

| | |
|---|---|
| M-0.0 | MECHANICAL LEGEND, GENERAL NOTES |
| M-1.0 | HVAC DEMOLITION PLAN |
| M-2.0 | HVAC PLAN |
| MP-0.0 | MECHANICAL & PLUMBING SPECIFICATIONS |
| P-0.0 | PLUMBING LEGEND, GENERAL NOTES |
| P-1.1 | PLUMBING DEMOLITION PLAN |
| P-1.2 | MED GAS DEMOLITION PLAN |
| P-2.0 | UNDERFLOOR PLUMBING PLAN |
| P-2.1 | PLUMBING PLAN |
| P-3.0 | PLUMBING DETAILS |
| E-0.0 | ELECTRICAL LEGEND & GENERAL NOTES |
| E1.0 | ELECTRICAL POWER DEMOLITION PLAN |
| E-1.1 | LIGHTING DEMOLITION PLAN |
| E-2.0 | ELECTRICAL POWER PLAN |
| E-2.1 | LIGHTING PLAN |
| E-3.0 | ELECTRICAL SCHEDULES |
| E-4.0 | ELECTRICAL SCHEDULES |


## VICINITY MAP

MEDICAL CENTER OF
AURORA, SOUTH CAMPUS




POTOMAC ST.



KEY PLAN
NTS

NORTH

Field inspection consultation is available upon request. Call 303-739-7420 to request a consultation.

Structural plan review is limited to a general survey for code compliance. No review is implied nor was undertaken to verify structural adequacy.

Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation. **2009 IBC 105.4**

**SEPARATE FIRE SPRINKLER PERMIT REQUIRED**
**Due to the proposed work the general contractor is required to obtain the services of a fire sprinkler contractor to determine if a separate sprinkler permit is required. If it is determined that the spacing of the fire sprinkler heads is not in compliance, then a separate fire sprinkler permit is required. Approval of the documents is required prior to system installation or any request for inspection. A certificate of occupancy or final approval cannot be issued by the Building Division without this fire protection system. 2009 IFC, Section 105.7.1.**

**SEPARATE FIRE ALARM PERMIT REQUIRED**
**Due to the proposed work the general contractor is required to obtain the services of a fire alarm contractor to determine if a separate alarm permit is required. If it is determined that the spacing of the fire alarm devices is not in compliance, then a separate fire alarm permit is required. Approval of the documents is required prior to system installation or any request for inspection. A certificate of occupancy or final approval cannot be issued by the Building Division without this fire protection system. 2009 IFC, Section 105.7.5.**

**City of Aurora Building Division**
**Project:** *AURORA MEDICAL CENTER REMODL*
**Address:** *1501 S POTOMAC ST*
**Occupancy Group:** *I-2*
**Construction Type:** *IBC TYPE IA-SPK*
**RSN:** *1046142*
**Permit:** *15-999276*

**City of Aurora Building Division**
**Reviewed for Code Compliance**
**Approved as Noted:** *Yamileth Munoz*
**Date:** *Sep 11, 2015*
**2009 INTERNATIONAL CODES & 2014 NEC**

**RSN:** *1046142*
**Permit #:** *15-999276*

## CODE INFORMATION SUMMARY

PROJECT NAME: TRIAGE WAITING ROOM METAL DETECTOR INSTALLATION

PROJECT ADDRESS: 1501 S. POTOMAC ST.
AURORA, CO 80012

CONSTRUCTION TYPE: I-A

OCCUPANCY CLASSIFICATION: GROUP I-2 HOSPITAL

AFFECTED SQUARE FOOTAGE: 1,732 SF

OCCUPANT LOAD FACTOR: 240 SF/OCC (INPATIENT)

OCCUPANT LOAD: 1,732 SF/240 =7 OCCUPANTS (EXISTING)

SPRINKLER SYSTEM: EXISTING TO REMAIN

APPLICABLE CODES:
2009 INTERNATIONAL BUILDING CODE (IBC)
2009 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
2009 INTERNATIONAL MECHANICAL CODE (IMC)
~~2009~~ 2012 IPC → 2009 INTERNATIONAL PLUMBING CODE (IPC)
2009 INTERNATIONAL FIRE CODE (IFC)
~~2011~~ 2014 NEC → NATIONAL ELECTRICAL CODE (NEC)
2009 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
CHAPTER 22 BUILDINGS & REGULATIONS: THE AURORA BUILDING & ZONING CODES
CHAPTER 66 FIRE PREVENTION & PROTECTIONS REGULATIONS: THE AURORA BUILDING & ZONING CODES

EXITS: 2 EXITS ON GROUND LEVEL

FIRE PROTECTION: EXISTING BUILDING IS FULLY SPRINKLERED. AREAS AFFECTED BY WORK UNDER THIS CONTRACT SHALL MAINTAIN FIRE PROTECTION SYSTEM AND BE FULLY SPRINKLERED ON COMPLETION

## CODE NOTES

A. EXISTING SHAFTS, STAIRS, AND ELEVATORS ARE TO REMAIN WITHOUT MODIFICATION.

B. FIRE ALARM AND SPRINKLER SYSTEMS WILL BE MODIFIED TO ACCOMMODATE NEW PLAN.

DWG SHEET SIZE: 36" x 24"

The Medical Center of Aurora
Health ONE

TRIAGE WAITING METAL DETECTOR

MEDICAL CENTER OF AURORA

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(303) 565-7282



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STATE OF COLORADO
TOM THOMPSON
305692
LICENSED ARCHITECT
8.19.15

PROJECT NO.: 15-01

DRAWN BY: TH BM
CHECKED BY: TT
SCALE:
DATE: 8/19/2015
ISSUED FOR: CONSTRUCTION
REVISIONS:

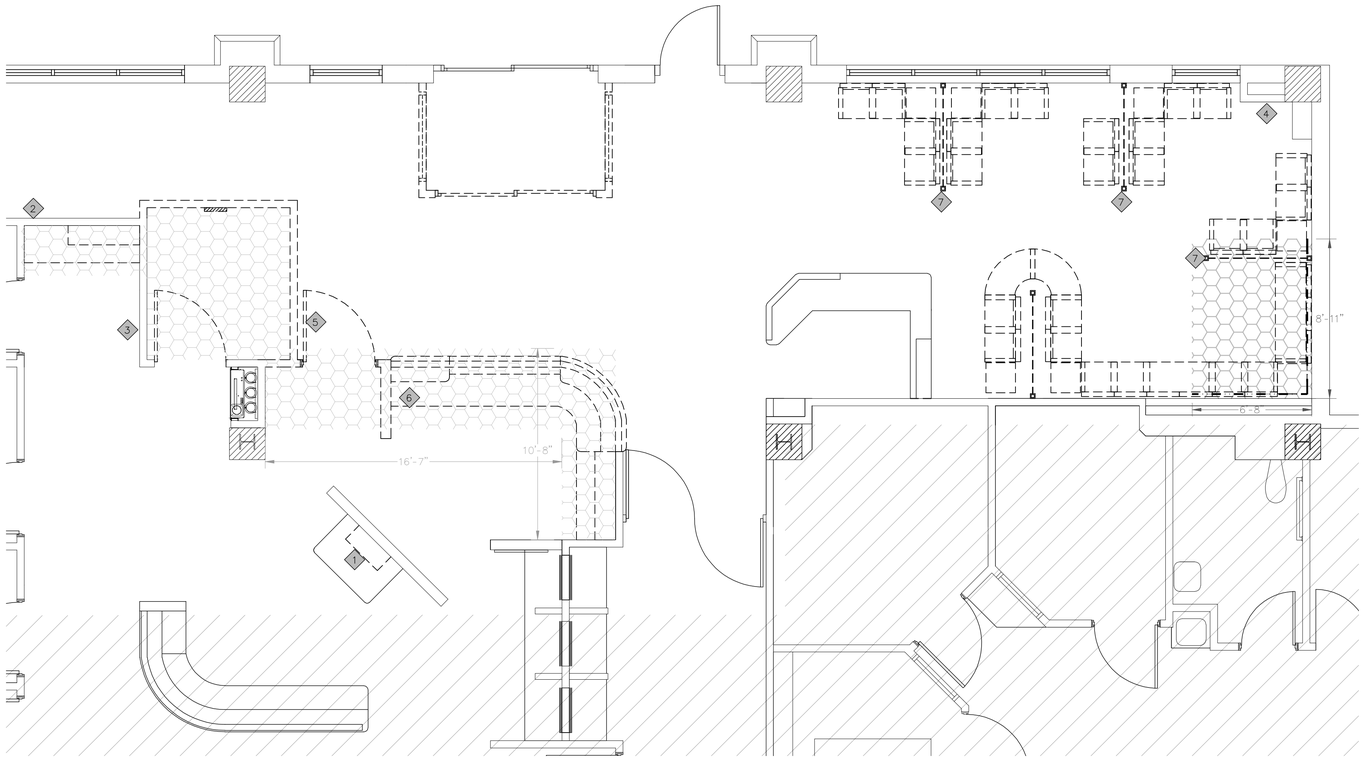
SHEET TITLE:

COVER SHEET

SHEET NO.:

A-0

OF




| DEMOLITION LEGEND: | |
|---|---|
| | REMOVE WALL, CASEWORK, EQUIPMENT & FIXTURES AS INDICATED BY DASHED LINE |
| | EXISTING ELEMENT TO REMAIN |
| | REMOVE & DISPOSE OF EXISTING CASEWORK |
| | REMOVE EXISTING FLOORING AS INDICATED BY HATCH PATTERN, PREP SURFACE FOR NEW FLOORING |
| | REMOVE & SALVAGE EXISTING DOOR, FRAME & HARDWARE FOR OWNER AS INDICATED BY DASHED LINE |
| | REMOVE & DISPOSE OF EXISTING WALL PROTECTION AS INDICATED |
| | OUT OF SCOPE |

| DEMOLITION GENERAL NOTES | |
|---|---|
| A. | CONTRACTOR TO PLAN ON 3 SEPARATE PHASES W/ HARDWALL CONTAINMENT W/ ANTE ROOM & NEGATIVE AIR. |
| B. | REMOVE EXISTING CONSTRUCTION AS INDICATED. TYPICAL WALL REMOVAL INCLUDES FINISHES, MECHANICAL, PLUMBING AND ELECTRICAL SYSTEMS CONTAINED THEREIN. REMOVE DOORS, CASEWORK, FRAMES, AND OTHER FIXTURES AS REQUIRED. |
| C. | WHERE OUTLETS, MOUNTING BRACKETS, EQUIPMENT, ETC., HAVE BEEN REMOVED, PATCH WALL & SKIM AS REQUIRED FOR NEW LEVEL AND FINISH. |
| D. | COORDINATE WITH THE OWNER ANY ITEMS TO BE STORED AND/OR RELOCATED. |
| E. | DEMOLITION WORK SHALL BE EXECUTED IN CONFORMANCE WITH ALL CODES AND AS SET FORTH BY ALL GOVERNING AUTHORITIES. |
| F. | NOTIFY PROJECT MANAGER IMMEDIATELY IF THE REMOVAL OF MECHANICAL, ELECTRICAL, PLUMBING SYSTEMS OR COMPONENTS WILL ADVERSELY AFFECT THE OPERATION OF MEP SYSTEMS OUTSIDE THE LIMIT OF DEMOLITION. |
| G. | EXIT EGRESS MUST BE MAINTAINED FOR ALL OCCUPIED AREAS OF THE BUILDING THROUGHOUT CONSTRUCTION. |
| H. | PATCH / REPAIR / REPLACE FLOORING AT ALL LOCATIONS THAT HAVE BEEN AFFECTED BY DEMOLITION. |
| I. | PRESERVE ALL WALL PROTECTION THROUGHOUT WHERE NOT AFFECTED BY CONSTRUCTION. REPLACE DAMAGED SECTIONS AS NEEDED TO MATCH EXISTING. |

| KEY NOTES | |
|---|---|
| 1 | REMOVE & DISPOSE OF UPPER OPEN CABINET, PATCH & PAINT WALL TO MATCH EXISTING FINISH |
| 2 | REMOVE EXISTING WATER BOX OUTLET. CAP CONNECTION, PATCH & PAINT WALL. RUN LINE TO NEW ICE MAKER LOCATION, RE: FLOOR PLAN |
| 3 | REMOVE & SALVAGE WALL MOUNTED CHART FILE RACK FOR OWNER, PATCH & PAINT. |
| 4 | REMOVE & SALVAGE CEILING HUNG TV & MOUNTING BRACKET FOR RELOCATION, REPLACE CEILING TILE |
| 5 | REMOVE & SALVAGE DOOR, FRAME & HARDWARE FOR OWNER, SALVAGE CARD READER FOR RELOCATION, RE: FLOOR PLAN |
| 6 | REMOVE PUSH BUTTON DOOR RELEASE & PRESERVE CONNECTION FOR RELOCATED DEVICE, RE: FLOOR PLAN |
| 7 | REMOVE GLASS PARTITION & FRAME & SALVAGE FOR OWNER; PATCH/REPLACE FLOORING. SALVAGE FOR RELOCATION, RE: A2.12 & A3.12 |

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Yamileth Munoz*
Date: *Sep 11, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1046142*
Permit #: *15-999276*

NORTH

DEMOLITION PLAN
1/4" = 1'

DWG SHEET SIZE: 36" x 24"

The Medical Center of Aurora
Health ONE

ED RENOVATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
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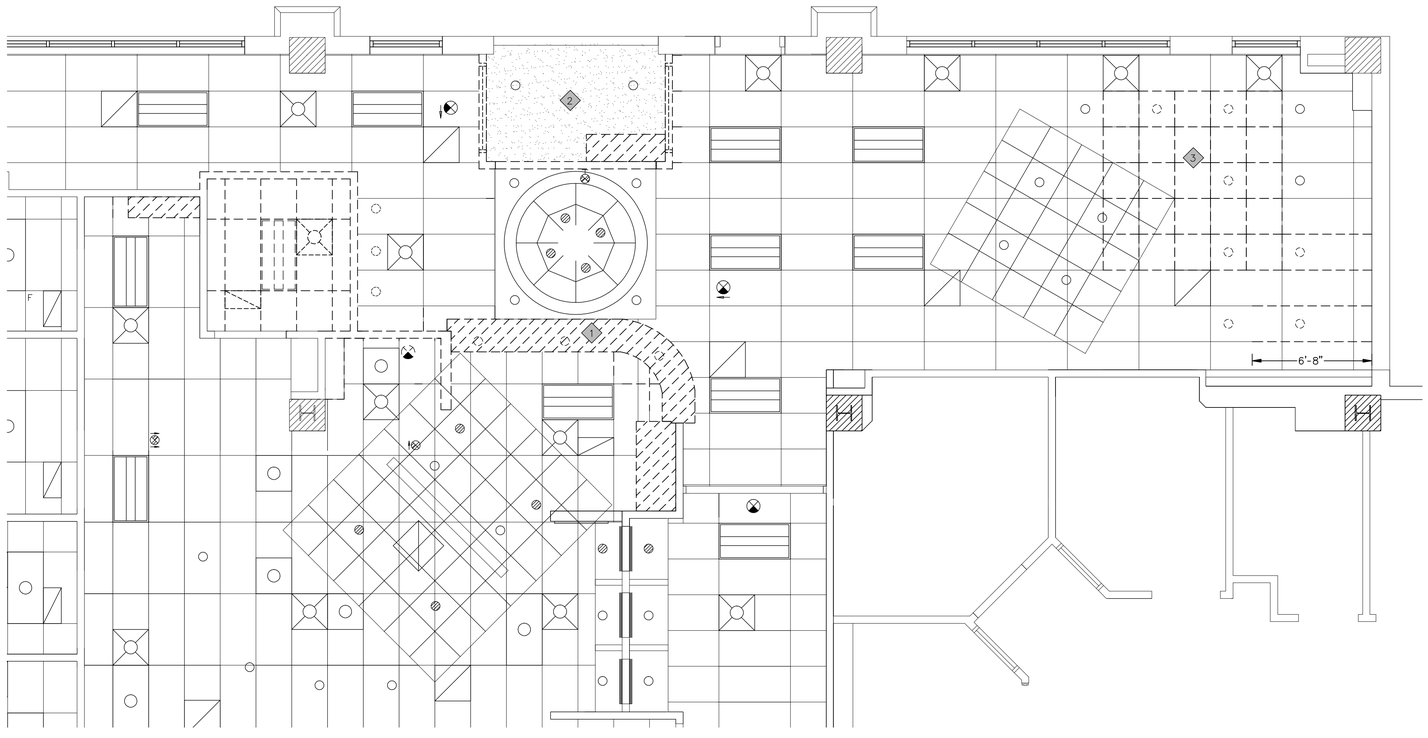
STATE OF COLORADO
TOM THOMPSON
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LICENSED ARCHITECT
08.19.15

PROJECT NO.: 15-01

DRAWN BY: TH BM
CHECKED BY: TT
SCALE:
DATE: 8/19/2015
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:
DEMOLITION PLAN

SHEET NO.:
A1.0




| CEILING DEMOLITION LEGEND: | |
|---|---|
| | REMOVE GYPSUM WALL BOARD CEILING OR SOFFIT |
| | EXISTING CEILING ELEMENT TO REMAIN IDENTIFIED BY SOLID LINES |
| | REMOVE & SALVAGE EXISTING FLUORESCENT LIGHT FIXTURES FOR OWNER OR RELOCATION |
| | REMOVE & SALVAGE EXISTING AIR SUPPLY REGISTER FOR RELOCATION |
| | REMOVE & SALVAGE EXISTING AIR RETURN REGISTER FOR RELOCATION |
| | EXISTING RETURN REGISTER TO REMAIN |
| | EXISTING AIR SUPPLY REGISTER TO REMAIN |
| | EXISTING GYPSUM BOARD CEILINGS TO REMAIN |
| | REMOVE & SALVAGE EXISITING CAN LIGHTS FOR OWNER OR FOR RELOCATION |

| DEMOLITION KEY NOTES | |
|---|---|
| 1 | REMOVE & SALVAGE EXISTING SOFFIT HUNG SIGN FOR RELOCATION IN NEW SOFFIT CONSTRUCTION. |
| 2 | EXISTING CEILING TO REMAIN. EXTEND HARD LID GYP. BRD. CEILING TO LIMITS OF NEW WALL CONSTRUCTION, RE: RCP |
| 3 | REMOVE AXIOM CEILING PANELS, SUPPORT & LIGHTS AS INDICATED BY DASHED LINES. SAFE OFF ELECTRICAL OR RESERVE FOR NEW LIGHTS, RE: RCP |

| DEMOLITION GENERAL NOTES | |
|---|---|
| A. | DEMOLISH CEILING GYPSUM WALL BOARD ASSEMBLIES AS IDENTIFIED BY THE LEGEND. |
| B. | WHERE POSSIBLE, PRESERVE EXISTING SMOKE DETECTORS & STROBE UNITS AND REINSTALL AT NEAREST CONVENIENT LOCATION. |
| C. | REPLACE OR REPAIR ANY EXISTING TO REMAIN FINISHES WHICH ARE DAMAGED DURING DEMOLITION (I.E. - CEILING GRID, CEILING TILE, WALL COVERING, FLOOR COVERINGS, ETC.) |

NORTH

CEILING DEMOLITION PLAN
1/4" = 1'

DWG SHEET SIZE: 36" x 24"

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8.19.15

PROJECT NO.: 15-01

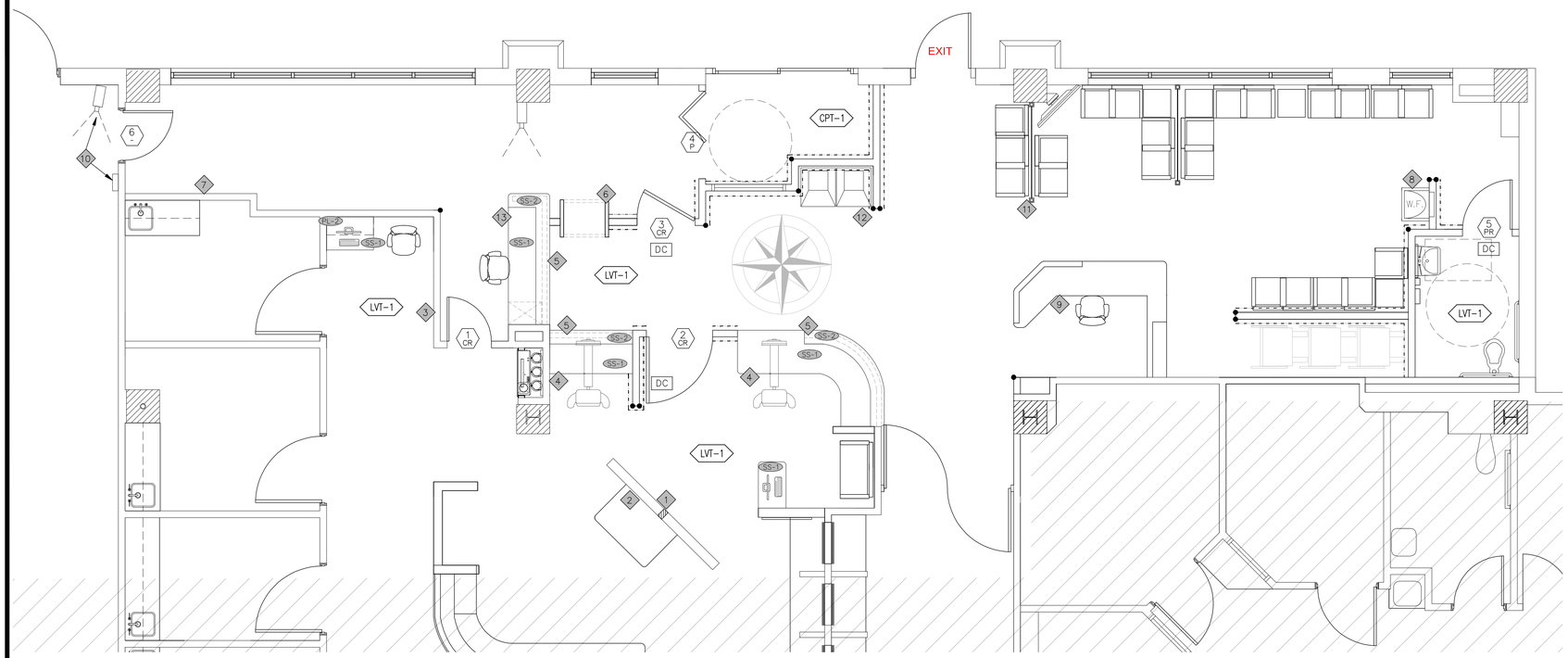
DRAWN BY: TH BM
CHECKED BY: TT
SCALE:
DATE: 8/19/2015
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:

CEILING DEMO PLAN

SHEET NO.:

A1.2




| LEGEND: | |
|---|---|
| XX-1 | FLOORING TYPE |
| | NEW WALL PROTECTION TO MATCH EXISTING. |
| | 48" ACROVYN CORNER GUARD |
| XX-1 | CASEWORK FINISHES SELECTIONS |
| | MONITOR LOCATION / MOUNT @ 7'-0" A.F.F. |
| | OUT OF SCOPE |
| | UNDER COUNTER LOCKING FILE CABINET |
| | SECURITY CAMERA, CONTRACTOR TO PROVIDE ELECTRICAL ROUGH-IN, HOSPITAL VENDOR TO INSTALL |
| | RELOCATED SALVAGED TV AND MOUNTING BRACKET |

SCHEDULED DOOR NUMBER

LOCK TYPE

| LOCK TYPES |
|---|
| MS - AUTO-OPEN MOTION SENSOR |
| CR - CARD READER |
| DC - DOOR CLOSER HARDWARE |
| PR - PRIVACY SET |

## DOOR SCHEDULE

| DOOR NO. | DOOR SIZE | | | TYPE/LABEL | LOCK TYPE | HARDWARE | FRAME | JAMB DEPTH | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | WIDTH | HEIGHT | DEPTH | | | | | | |
| 1 | 2'-8" | 7'-0" | 1-3/4" | C/NON RATED | CR | LEVER SET | R.H.R.-H.M. | 4-7/8"" | NEW SHAKER CHERRY ACROVYN DOOR, FRAME & HARDWARE. REUSE RELOCATED CARD READER. |
| 2 | 4'-0" | 7'-0" | 1-3/4" | A/NON RATED | CR | AUTOMATIC OPENER/LEVER | L.H.-H.M. | 4-7/8"" | NEW SHAKER CHERRY ACROVYN DOOR, FRAME & HARDWARE |
| 3 | 3'-6" | 4'-4" | TBD | D/NON RATED | CR | ELECTRONIC RELEASE | L.H.R. | N/A | >1" THICK LAMINATE DOOR - SHAKER CHERRY, WITH STAINLESS STEEL EDGE & KICK PLATE. RETURN SPRING HINGES. MANUAL PUSH BUTTON LATCH RELEASE ON SECURED SIDE OF DOOR OPERATION. OUTFIT PONY WALL W/ DOOR STOP, LATCH PLATE & CARD READER COMPONENTS. CUSTOM BUILT FROM CONTRACTOR MILLWORKER. SUBMIT SHOP DRAWINGS. |
| 4 | 5'-4" | 7'-0" | MANUF. | B/NON RATED | MS | AUTOMATIC OPENER | BI-FOLD | 4-7/8" | STANLEY BI-FOLD ELECTRONIC AUTO-OPEN/MOTION SENSOR OR TUCKER AUTO-MATION EQUIVALENT. SEE DETAILS ON SHEET A5.0 |
| 5 | 3'-0" | 7'-0" | 1-3/4" | A/NON RATED | PR | LEVER SET | L.H.R.-H.M. | 4-7/8"" | NEW SHAKER CHERRY ACROVYN DOOR, FRAME & HARDWARE |

## KEY NOTES

| | |
|---|---|
| 1 | INSTALL POWDER COATED PRE-FINISHED METAL CHASE TO HOUSE NEW WATER LINE FOR ICE MAKER. INSTALL CENTER OF EXISTING PARTITION |
| 2 | NEW 1/4" WATER LINE FOR ICE MAKER, ROUTE ABOVE CEILING, DROP DOWN FAUX COLUMN TO T.O. EXISTING PONY WALL. INSTALL BIB ABOVE EXISTING COUNTER |
| 3 | REMOVE & RELOCATE WALL-HUNG FILE BINS. MODIFY LARGE BIN IF POSSIBLE OR CREATE NEW BIN TO SPECIFICATION SHOWN ON ELEVATION |
| 4 | NEW LOCATION FOR PUSH BUTTON AUTOMATIC DOOR RELEASE/OPENER (INCLUDE BUTTON RELEASE FOR TRIAGE SIDE ENTRY DOOR AS DESCRIBED ON SHEET A2.12) |
| 5 | INSTALL 1/2" KEVLAR (BULLET-PROOF) PANELS TO UNDERSIDE OF FRONT VERTICAL FACE OF NEW CASEWORK |
| 6 | NEW METAL DETECTOR. OWNER SUPPLIED/CONTRACTOR INSTALLED, RE: SPEC SHEET |
| 7 | INSTALL AUTO DOOR OPEN, HAND WAVE MOTION SENSOR |
| 8 | REFER TO INSTALLATION MANUEL FOR PROPER ADA MOUNTING HEIGHTS & CLEARANCES |
| 9 | ELECTRONIC BUTTON RELEASE FOR TRIAGE NORTH SIDE ENTRY DOOR SHOWN AS DOOR #6. |
| 10 | SECURITY CAMERA / AI PHONE. HOSPITAL VENDOR TO SUPPLY & INSTALL EQUIPMENT. CONTRACTOR TO PROVIDE ROUGH-INS. |
| 11 | INSTALL SALVAGED, RELOCATED FLOOR MOUNTED GLASS DIVIDER |
| 12 | HOSPITAL SUPPLIED PATIENT CHECK-IN KIOSKS |

NORTH

FLOOR/SCHEDULE/FINISHES PLAN

1/4" = 1'

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Yamileth Munoz*
Date: *Sep 11, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1046142*
Permit #: *15-999276*

## GENERAL NOTES

| | |
|---|---|
| A. | REFER TO SHEET A2.13 FOR DOOR TYPES. |
| B. | SUPPLY NEW CABINET LOCKS AT LOCATIONS WHERE SHOWN ON ELEVATIONS. |
| C. | EXTEND MATCHING CARPET THROUGHOUT LIMITS OF NEW VESTIBULE. |
| D. | REPAIR/REPLACE LVT FLOORING AS NEEDED IN AREAS OF NEW CONSTRUCTION. |
| E. | INSTALL 4" BACKSPLASH @ ALL LOCATIONS WHERE COUNTERTOPS MEET WALLS. |

## FINISH SPECIFICATIONS

FLOORING

LVT1 - ARMSTRONG, NATURAL CREATIONS, EARTHCUTS, 12"x24", COLOR: TP515 ROMA STONE CREME

CPT-1: MATCH EXISTING VESTIBULE CARPET

SV-1: SHEET VINYL TARKETT OPTIMA COLOR: 862 RAW IVORY W/6" COVED BASE W/ MATCHING WELDING ROD

B-1: 6" COVED BASE FINISHED WITH J-TRIM JOHNSONITE OPTIMA RAW IVORY

BASE

RB-1 - JOHNSONITE RUBBER WALL BASE, 4" COVE, COLOR: 129-SILK

RB-2 - JOHNSONITE MILLWORK REVEAL PROFILE RUBBER WALL BASE, 6 INCH, COLOR: 129-SILK

RB-3 - JOHNSONITE MILLWORK DIPLOMAT, CLAY

WALLS

P-1: (FIELD COLOR ROOM AREA) BENJAMIN MOORE ULTRASPEC, SEMI-GLOSS INTERIOR PAINT, 2 COATS ON WALLS. COLOR: 958 (OCEAN BEACH)

P-2: (DOOR FRAMES) BENJAMIN MOORE ULTRASPEC, SEMI-GLOSS INTERIOR PAINT, 2 COATS. COLOR: HC-45 (SHAKER BEIGE).

WP-1: MATCH EXISTING KOROSEAL WALL TREATMENT & TOP RAIL

CASEWORK

PL-1: APPLY TO ALL COUNTER TOP LOCATIONS. FORMICA LAMINATE CARRARA ENVISION MATTE, 7994-58, USE BLACK 3MM EDGING.

PL-2: APPLY TO ALL VERTICAL PANEL SURFACES. WILSONART LAMINATE COLOR: SHAKER CHERRY, 7935-07. USE 3MM EDGING TO MATCH.

PL-3: APPLY TO ALL STAFF SIDE (INSIDE) VERTICAL PANELS, BLACK MATTE LAMINATE

* USE WHITE MELAMINE FOR ALL INTERIOR CABINETS AND DRAWER SURFACES.

SS-1: CORIAN, PRIVATE COLLECTION COLOR: CLAM SHELL

SS-2: SAMSUNG, STARON TEMPEST: #FC158 COFFEE BEAN

LP-1: LUMIOR ACRYLIC PANEL, COLOR/STYLE: MATCH ED TRAUMA NURSE STATION

CERAMIC TILE: AT NEW PUBLIC RESTROOM

4-1/4" x 4-1/4" CERAMIC WALL TILE W/ BULLNOSE AT TOP. HOLD 6" OFF FLOOR TO CLEAR SHEET VINYL COVED BASE.

CWT1: CERAMIC TILE, AMERICAN OLEAN, BRIGHTS, 4"x4" COLOR 90 WHITE

CWT2: CERAMIC TILE, AMERICAN OLEAN, BRIGHTS, 4"x4", COLOR 78 CAPPUCCINO

CWT3: CERAMIC TILE, AMERICAN OLEAN, BRIGHTS, 4"x4" COLOR 0012 GLOSS ALOMOND

GROUT COLOR: MAPEI #06 HARVEST

DWG SHEET SIZE: 36" x 24"

The Medical Center of Aurora
HealthONE

ED RENOVATION

# MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012


TOM THOMPSON ARCHITECT
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STATE OF COLORADO
TOM THOMPSON
305892
LICENSED ARCHITECT
8.19.15

PROJECT NO.: 15-01

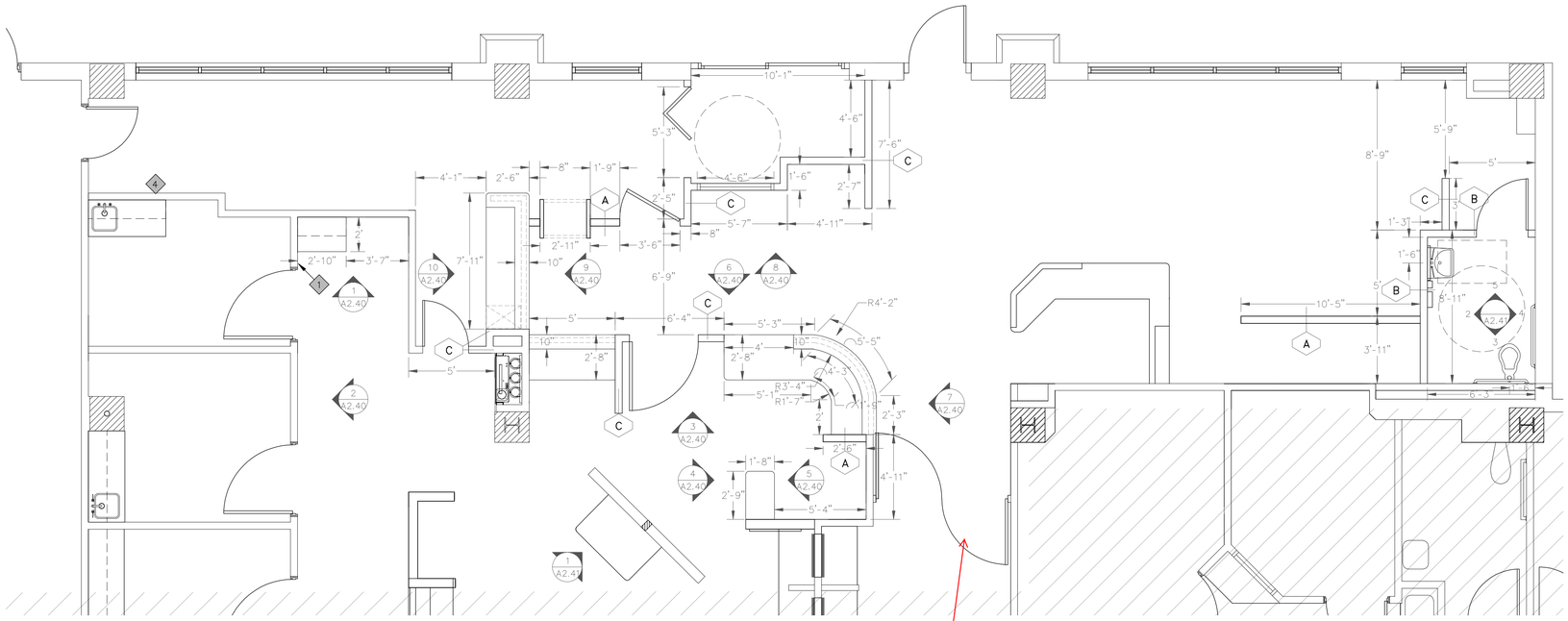
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CHECKED BY: TT
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DATE: 8/19/2015
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:

FLOOR SCHEDULE FINISHES

SHEET NO.:

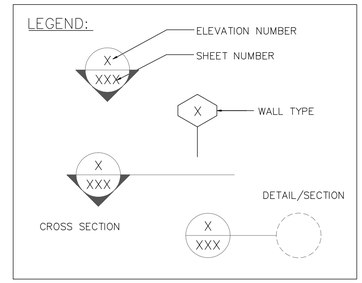
A1.3




DIM / TAG PLAN
1/4" = 1'

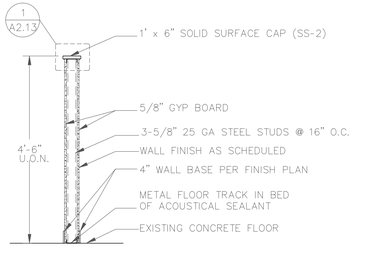
EGRESS DOORS WITH ACCESS CONTROLS MUST CRITERIA PER 09IBC 1008.1.4

LEGEND:

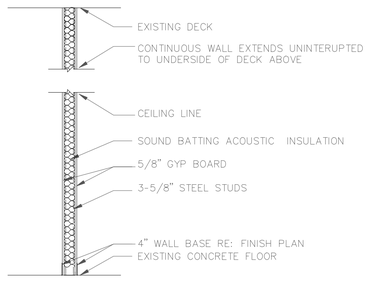



| KEY NOTES | |
|---|---|
| 1 | CONFIRM MINIMUM 12" ADA CLEARANCE FROM DOOR OPENING TO EDGE OF COUNTER TOP |

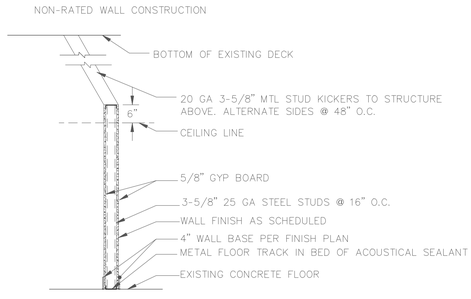
| GENERAL NOTES | |
|---|---|
| A. | RADIUS COUNTERTOP EDGES APPROX. 2" AT EXPOSED CORNERS. TRANSACTION TOPS @ 1" RADIUS. |



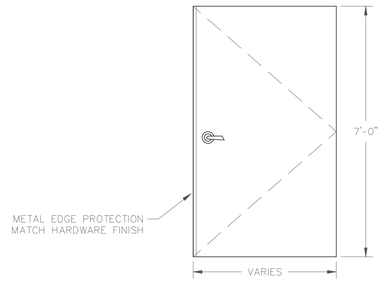

A HALF WALL PARTITION
1/2" = 1'-0"



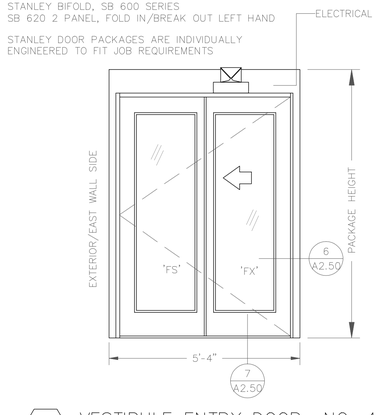

B NON-RATED PARTITION
1/2" = 1'-0"



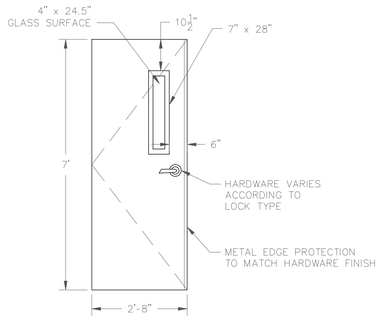

C NON-RATED PARTITION
1/2" = 1'-0"



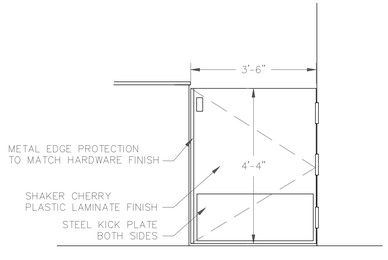

A FLUSH DOOR
1/2" = 1'-0"




B VESTIBULE ENTRY DOOR NO. 4
1/2" = 1'-0"



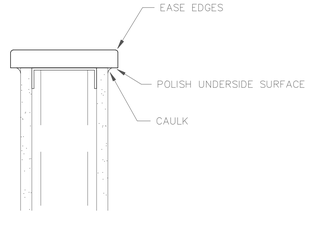

C SECURITY DOOR NO. 1
1/2" = 1'-0"




D HALF WALL DOOR NO. 3
1/2" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Yamileth Munoz*
Date: *Sep 11, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1046142*
Permit #: *15-999276*




1 A2.13 SECTION DETAIL
SCALE: 3" = 1'

DWG SHEET SIZE: 36" x 24"

The Medical Center of Aurora
Health ONE

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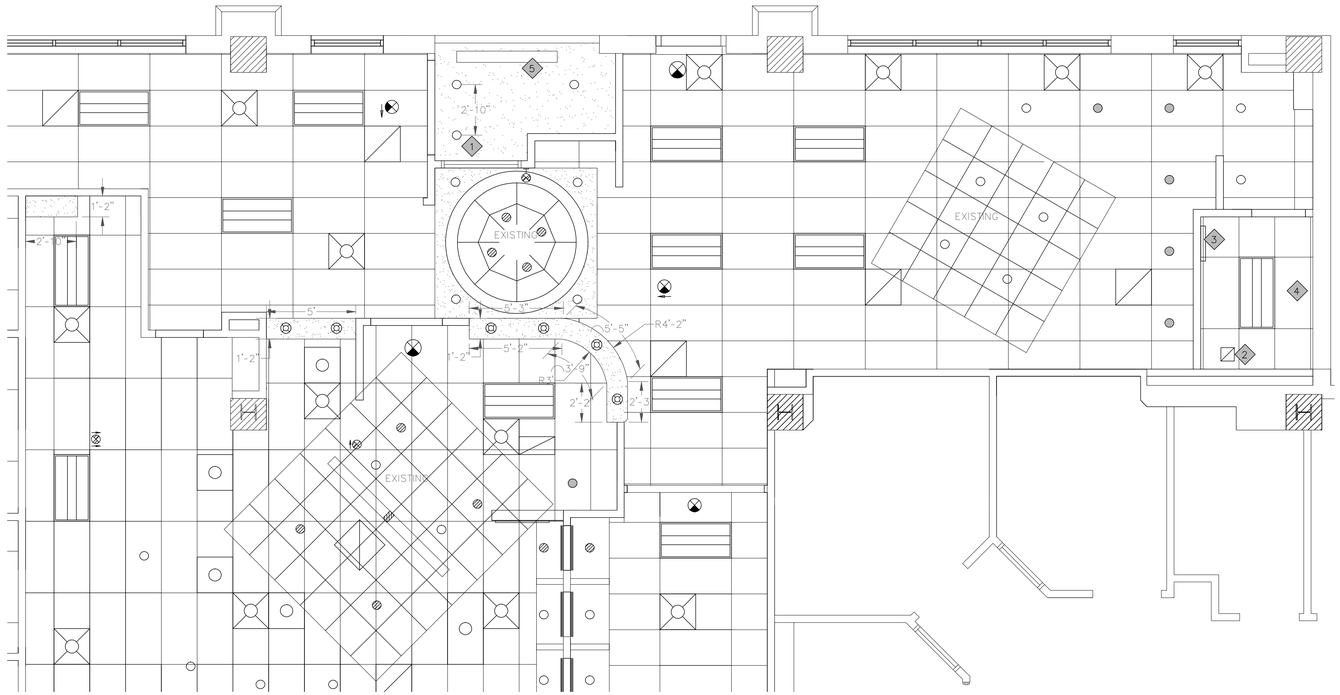
STATE OF COLORADO
TOM THOMPSON
305692
LICENSED ARCHITECT
8.19.15

PROJECT NO.: 15-01

DRAWN BY: TH BM
CHECKED BY: TT
SCALE:
DATE: 8/19/2015
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:
DIMENSION / TAG PLAN

SHEET NO.:
A1.4




| CEILING LEGEND: | |
|---|---|
| | EXISTING OR RELOCATED FLUORESCENT LIGHT FIXTURE |
| | NEW 4" RECESSED DIMMABLE, LED DOWNLIGHT, RE: ELECTRICAL |
| | RELOCATED CAN LIGHT FROM AXIOM CLOUD PANELS TO BE INSTALLED FLUSH WITH EXISTING SUSPENDED CEILING TILE |
| | NEW OR RELOCATED CEILING MOUNTED EXIT SIGN. SPECIFY RED, LED EDGE-LIT. |
| | SUSPENDED ACOUSTICAL CEILING SYSTEM. MATCH EXISTING CEILING TILE WHERE NEEDED. |
| | GYPSUM BOARD CEILING OR SOFFIT TO TOP OF CABINET (OR AS NOTED) RE: ELEVATIONS. |
| | AIR SUPPLY REGISTER LOCATION |
| | RETURN AIR REGISTER LOCATION |

| GENERAL NOTES | |
|---|---|
| A. | MATCH EXISTING CEILING TILES FOR NEW LOCATIONS. |
| B. | CONTRACTOR SHALL COMPARE THIS REFLECTED CEILING PLAN WITH ELECTRICAL LIGHTING PLANS, MECHANICAL SUPPLY, AND EXHAUST PLANS. THE CONTRACTOR SHALL REPORT ANY OMISSIONS OR INCONSISTENCIES WITH THE PROJECT MANAGER. |
| C. | INSTALL NEW CEILING GRID ACCORDING TO RCP. FIRE SPRINKLERS SHALL BE SECURED IN ORIGINAL LOCATION DURING CEILING REPLACEMENT, UNLESS CONSTRAINED BY NEW CONSTRUCTION, THEN FIELD ADJUST HEADS AS NECESSARY. CONTRACTOR TO PROVIDE LICENSED FIRE ALARM/SUPPRESSION VENDOR DRAWINGS FOR CITY REVIEW. |
| D. | REFERENCE ELECTRICAL LIGHTING FIXTURE SCHEDULE PLAN FOR SPECIFICATIONS. |
| E. | REFER TO ELECTRICAL LIGHTING PLAN FOR EMERGENCY POWERED/CRITICAL CIRCUIT LIGHTING LOCATIONS. |
| F. | EXTEND EXISTING VESTIBULE GYP. BOARD CEILING AS SHOWN |

| KEY NOTES | |
|---|---|
| 1 | INSTALL MATCHING FLUORESCENT CAN LIGHT FIXTURE |
| 2 | INSTALL NEW EXHAUST FAN & RETURN REGISTER |
| 3 | NEW VANITY LIGHT INSTALLED CENTERED ABOVE MIRROR. SWITCHED TOGETHER WITH CEILING MOUNTED FIXTURE. |
| 4 | INSTALL CLEANABLE, VINYL COATED CEILING TILE IN NEW RESTROOM CEILING GRID SYSTEM |
| 5 | EXISTING AIR CURTAIN TO REMAIN. |

NORTH

REFLECTED CEILING PLAN
1/4" = 1'

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DWG SHEET SIZE: 36" x 24"

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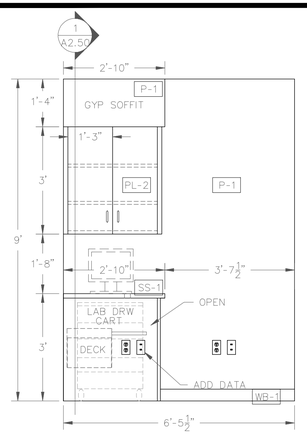
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ISSUED FOR: CONSTRUCTION
REVISIONS:

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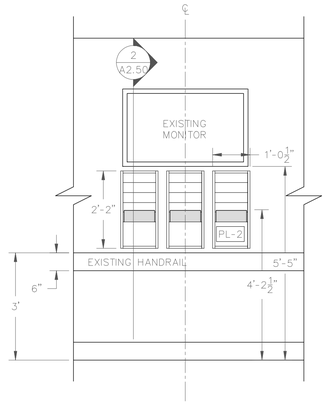
REFLECTED CEILING PLAN

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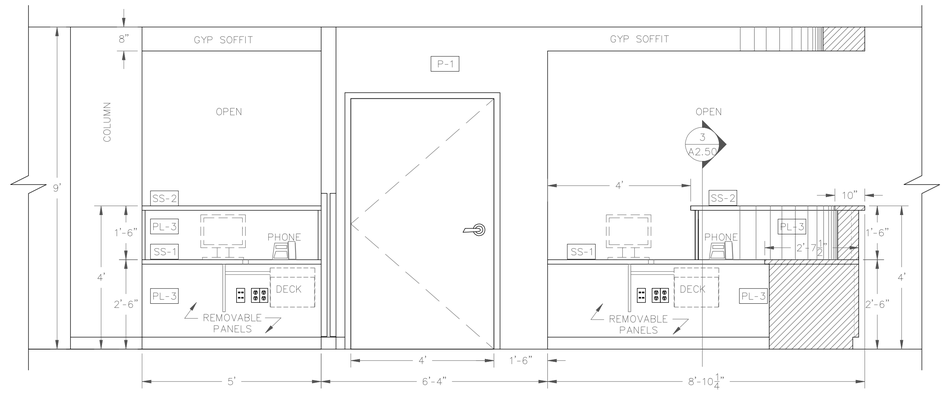
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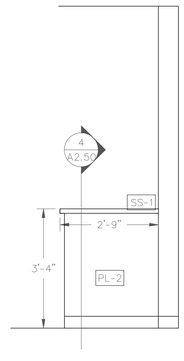

1 A2.40 BLOOD DRAW
SCALE: 1/2" = 1'



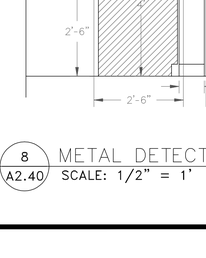

2 A2.40 CHART RACK
SCALE: 1/2" = 1'



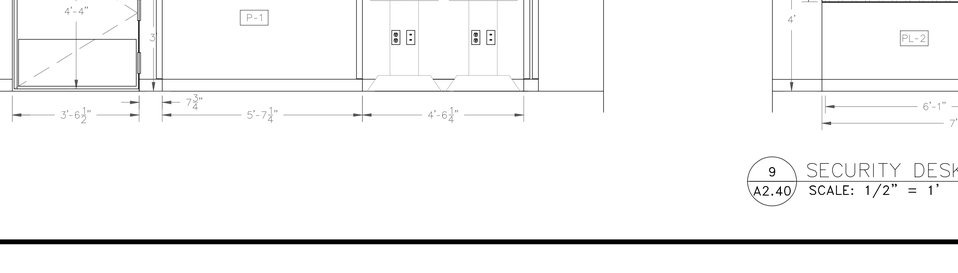

3 A2.40 RECEPT/REG
SCALE: 1/2" = 1'



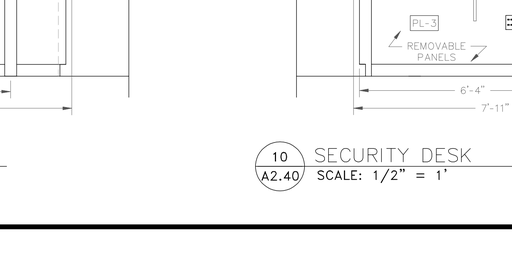

4 A2.40 VITALS STATION
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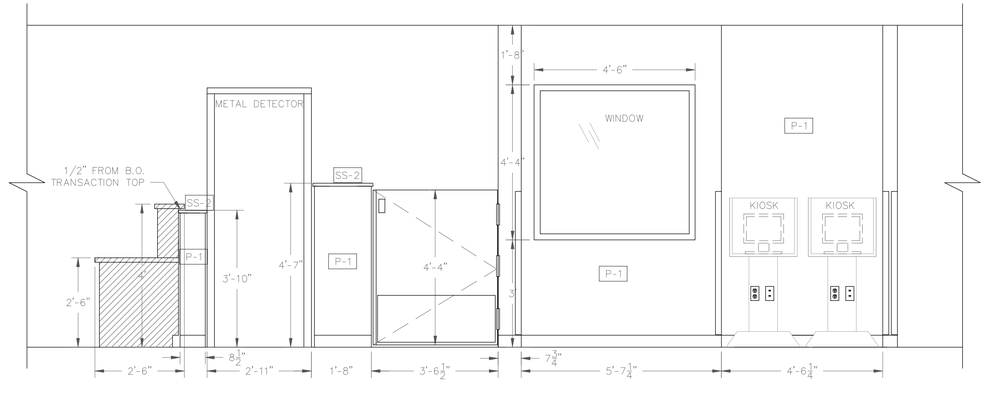

5 A2.40 VITALS STATION
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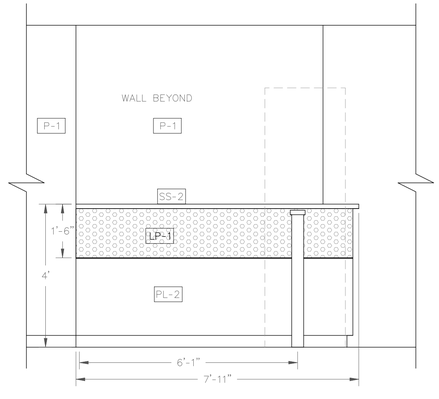

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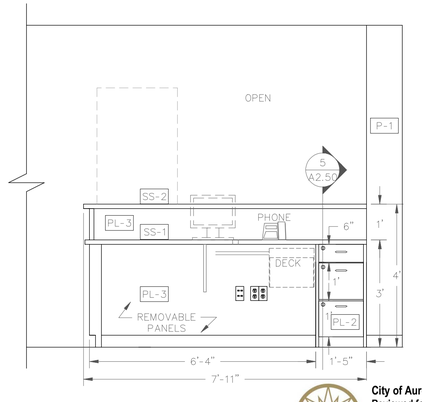

7 A2.40 RECEPT/REG
SCALE: 1/2" = 1'




8 A2.40 METAL DETECTOR
SCALE: 1/2" = 1'




9 A2.40 SECURITY DESK
SCALE: 1/2" = 1'




10 A2.40 SECURITY DESK
SCALE: 1/2" = 1'

City of Aurora Building Division
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Approved as Noted: *Yamileth Munoz*
Date: *Sep 11, 2015*
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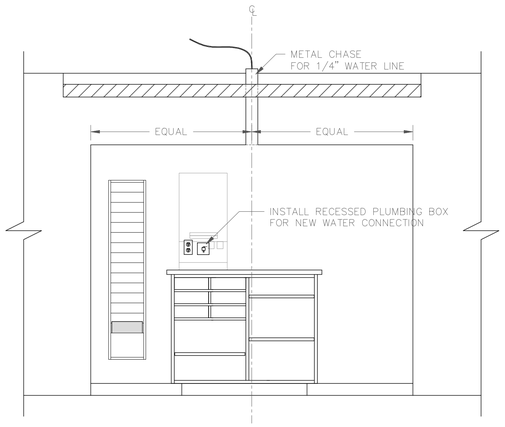
STATE OF COLORADO
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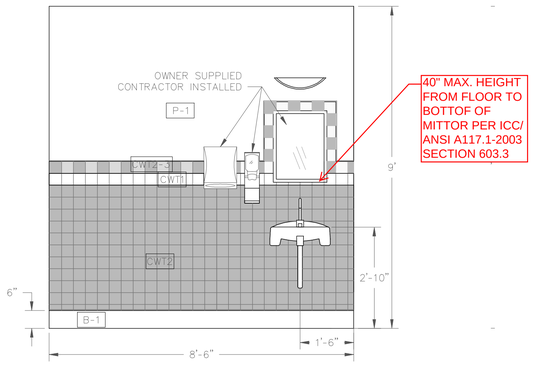
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ISSUED FOR: CONSTRUCTION
REVISIONS:

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ELEVATIONS

SHEET NO.:
A4.0

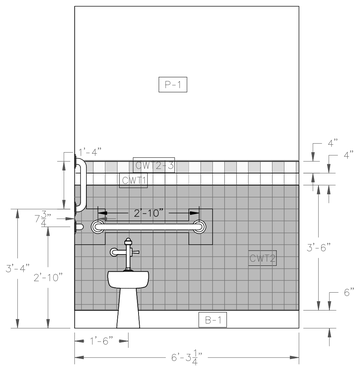



1 A2.41 ICE MACHINE ISLAND
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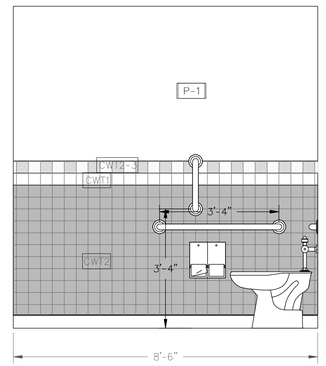



40" MAX. HEIGHT FROM FLOOR TO BOTTOF OF MITTOR PER ICC/ ANSI A117.1-2003 SECTION 603.3

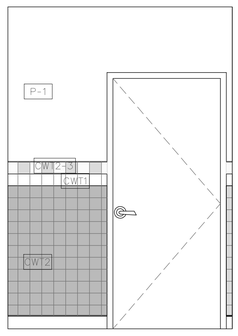
2 A2.41 RESTROOM
SCALE: 1/2" = 1'




3 A2.41 RESTROOM
SCALE: 1/2" = 1'




4 A2.41 RESTROOM
SCALE: 1/2" = 1'




5 A2.41 RESTROOM
SCALE: 1/2" = 1'

INSTALL ALL TOILET ACCESSORIES AND FIXTURES PER ICC/ANSI A117.1-2003

THIS PLAN WAS REVIEWED FOR ADOPTED CODES AND NOT REVIEWED FOR COMPLIANCE WITH ADA OR FHA ACCESSIBILITY. CONTACT 800-949-4232 (ADA) AND 303-894-7822 EXT 325 (FHA) FOR FEDERAL ACCESSIBILTY EQUIREMENTS THAT APPLY TO YOUR PROJECT

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Yamileth Munoz*
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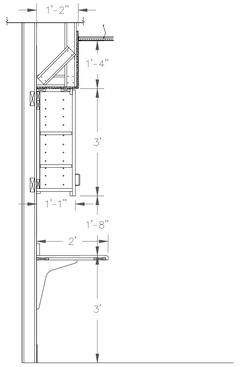
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| | |
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| SCALE: | 1/2" = 1' |
| DATE: | 8/19/2015 |
| ISSUED FOR: | CONSTRUCTION |

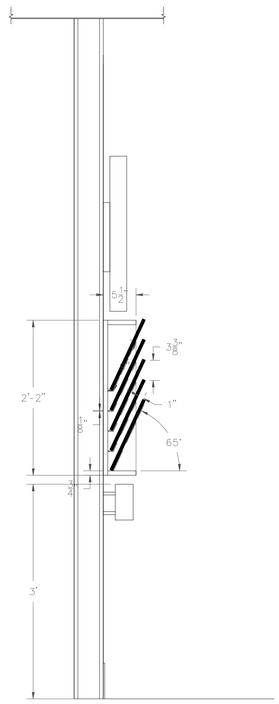
REVISIONS:
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SHEET TITLE:
ELEVATIONS

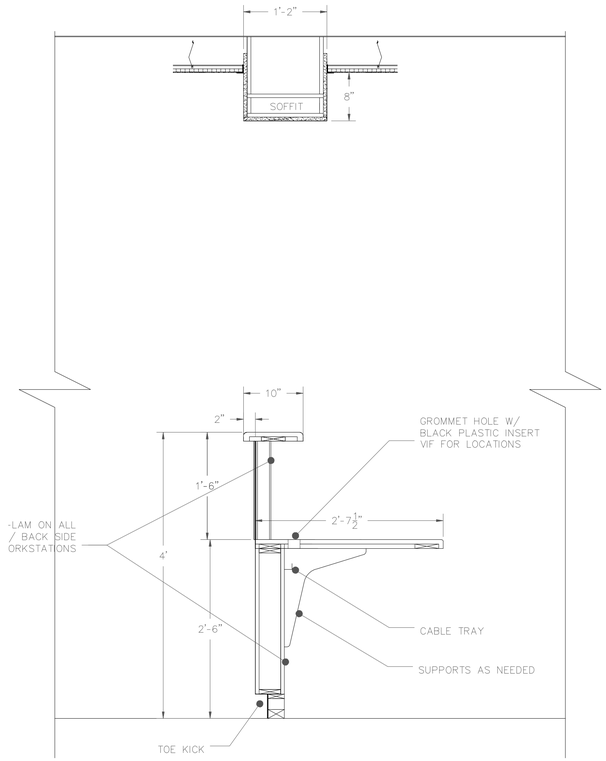
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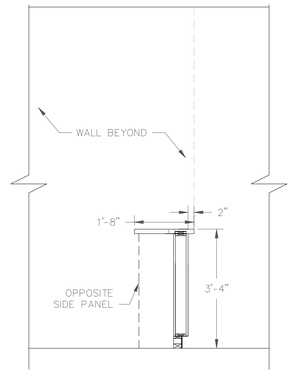

1 A2.50 BLOOD DRAW STATION
SCALE: 1/2" = 1'



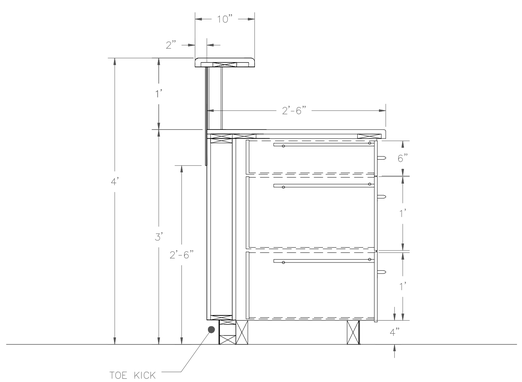

2 A2.50 FILE CHART RACKS
SCALE: 1" = 1'



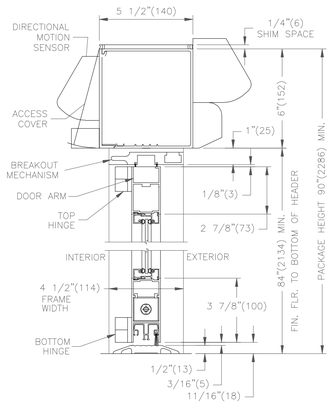

3 A2.50 RECEPT/REG STATION
SCALE: 1" = 1'



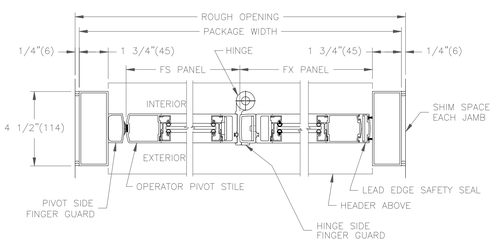

4 A2.50 VITALS STATION
SCALE: 1/2" = 1'




5 A2.50 SECURITY DESK
SCALE: 1" = 1'




6 A2.50 VERTICAL DOOR SECTION
NTS




7 A2.50 HORIZONTAL DOOR SECTION
NTS

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Yamileth Munoz*
Date: *Sep 11, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1046142*
Permit #: *15-999276*

DWG SHEET SIZE: 36" x 24"

The Medical Center of Aurora
Health ONE

ED RENOVATION

MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012

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STATE OF COLORADO
TOM THOMPSON
305692
8.19.15
LICENSED ARCHITECT

PROJECT NO.: 15-01

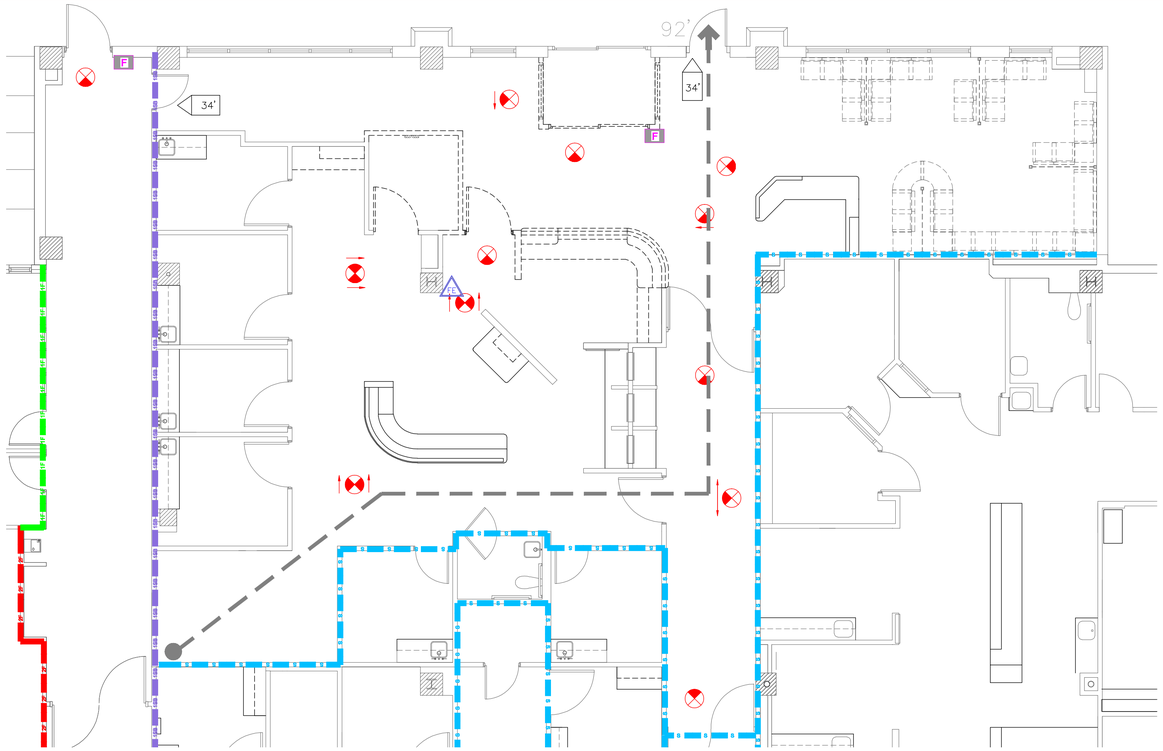
DRAWN BY: TH BM
CHECKED BY: TT
SCALE: AS NOTED
DATE: 8/19/2015
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:

SECTIONS

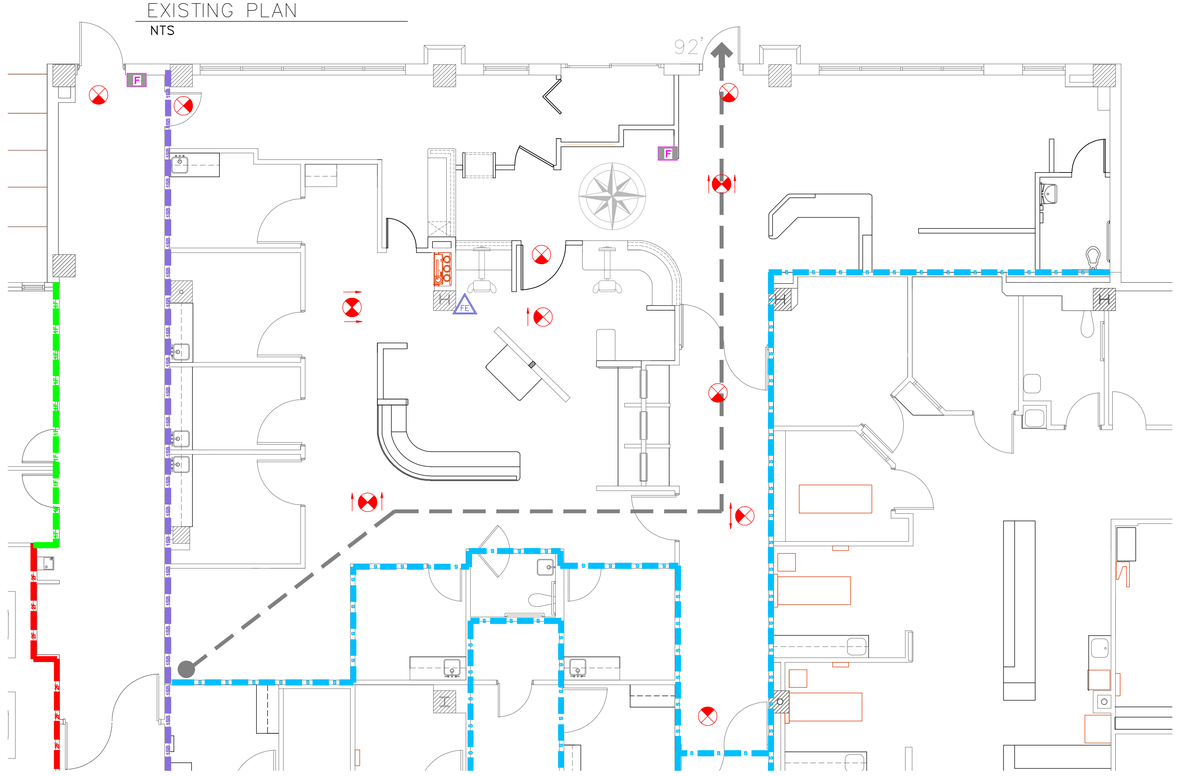
SHEET NO.:

A5.0




EXISTING PLAN

NTS




NEW PLAN

NTS

DWG SHEET SIZE: 36" x 24"

## LEGEND

- SMOKE PARTITION
- SMOKE BARRIER FOR COMPARTMENTATION
- 1 HOUR FIRE BARRIER
- 1 HOUR FIRE/SMOKE BARRIER
- 2 HOUR FIRE BARRIER
- 2 HOUR FIRE/SMOKE BARRIER
- F – PULL STATION
- EXIT SIGNS
- FE – FIRE EXTINGUISHER
- XX – EXIT LOCATION AND CLEAR WIDTH (IN INCHES)
- UNOBSTRUCTED COURSE & DISTANCE TRAVEL OF THE MOST REMOTE LOCATION TO THE NEAREST EXIT - 92'.

## LIFE SAFETY GENERAL NOTES:

A. FIRE ALARM VENDOR TO PROVIDE SMOKE DETECTION WITH TOTAL COVERAGE (COMPLETE) AUTOMATIC SMOKE DETECTION SYSTEM.

B. HVAC SYSTEM WILL BE ISOLATED TO PREVENT CONTAMINATION OF DUCT SYSTEM DURING CONSTRUCTION.

C. NO EGRESS PATHWAY WILL BE OBSTRUCTED DURING CONSTRUCTION.

D. CONTRACTOR TO PERFORM FIRE WATCH THROUGHOUT THE COURSE OF CONSTRUCTION.

E. A CONTRACTOR PROVIDED, CERTIFIED FIRE EXTINGUISHER WILL BE REQUIRED ON SITE, INSIDE CONTAINMENT.

F. EXISTING SHAFTS, STAIRS, AND ELEVATORS ARE TO REMAIN WITHOUT MODIFICATION.

G. FIRE ALARM SYSTEMS WILL INCLUDE NEW PLAN & INSTALLATION FROM LICENSED FIRE ALARM VENDOR.

H. FIRE RATED WALL ASSEMBLIES TO BE UPGRADED AS NEEDED TO MEET CURRENT CODES.

## CODE INFORMATION SUMMARY

CONSTRUCTION TYPE: I-A TYPE IBC / I(332) NFPA
FULLY SPRINKLED
STEEL STRUCTURE WITH SPRAY FIRE-PROOFING
AND CONCRETE STRUCTURE

OCCUPANCY CLASSIFICATION:
FULLY SPRINKLED BUILDING

EXITS: 2 EXITS ON GROUND LEVEL GROUP I-2 HOSPITAL

TOTAL BUILDING SQUARE FOOTAGE: 438,679 SF

AFFECTED SQUARE FOOTAGE: 1,732 SF

APPLICABLE CODES:
2009 INTERNATIONAL BUILDING CODE (IBC)
2009 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
2009 INTERNATIONAL MECHANICAL CODE (IMC)
2009 INTERNATIONAL PLUMBING CODE (IPC)
2009 INTERNATIONAL FIRE CODE (IFC)
2011 NATIONAL ELECTRICAL CODE (NEC)
2009 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
CHAPTER 22 BUILDINGS & REGULATIONS: THE AURORA BUILDING & ZONING CODES
CHAPTER 66 FIRE PREVENTION & PROTECTION REGULATIONS: THE AURORA BUILDING & ZONING CODES

CALCULATIONS FOR OCCUPANT LOADS & EXIT EGRESS

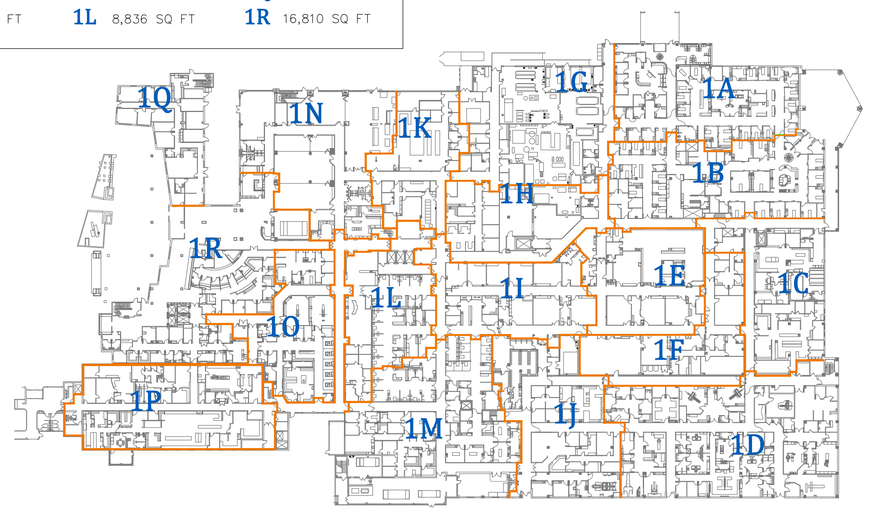
| COMPARTMENT | WALL SEPARATION | GROSS AREA | LOAD FACTOR | OCC. LOAD | EGRESS CAPACITY |
|---|---|---|---|---|---|
| 1A | 1 HOUR | 11,964 SF | 240 SF | 49.85 | 9.97" PER PERSON |

RSN: *1046142*
Permit #: *15-999276*

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Yamileth Munoz*
Date: *Sep 11, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

## 1ST FLOOR SMOKE DEPARTMENT - KEY PLAN AREAS

| | | | | | |
|---|---|---|---|---|---|
| 1A | 11,964 SQ FT | 1G | 13,464 SQ FT | 1M | 17,640 SQ FT |
| 1B | 13,178 SQ FT | 1H | 8,719 SQ FT | 1N | 13,572 SQ FT |
| 1C | 10,250 SQ FT | 1I | 9,678 SQ FT | 1O | 8,457 SQ FT |
| 1D | 19,537 SQ FT | 1J | 12,003 SQ FT | 1P | 12,476 SQ FT |
| 1E | 9,423 SQ FT | 1K | 7,434 SQ FT | 1Q | 3,933 SQ FT |
| 1F | 8,732 SQ FT | 1L | 8,836 SQ FT | 1R | 16,810 SQ FT |




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STATE OF COLORADO
TOM THOMPSON
305692
LICENSED ARCHITECT
8.19.15

PROJECT NO.: 15-01

DRAWN BY: TH BM
CHECKED BY: TT
SCALE: NTS
DATE: 8/19/2015
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:

CODE COMPLIANCE
LIFE SAFETY

SHEET NO.:

A6.0

# GENERAL NOTES - ALL HVAC SHEETS:

A. ANY DISCREPANCY THAT PREVENTS THE CONTRACTOR FROM MEETING THE DESIGN INTENT OF THE DRAWINGS SHALL BE DOCUMENTED ON THE PROJECT RECORD DOCUMENTS AND BE REPORTED TO THE ARCHITECT/ENGINEER IMMEDIATELY.

B. ALL DEVIATIONS FROM SCHEDULED EQUIPMENT THAT RESULTS IN ADDITIONAL COST DUE TO LACK OF COORDINATION WITH DIMENSIONS, WEIGHTS, AND CONNECTION POINTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

C. CONTRACTOR SHALL VISIT JOBSITE AND VERIFY SIZE AND LOCATION OF ALL EXISTING ITEMS AND CONDITIONS. CONTRACTOR SHALL COORDINATE ALL WORK CLOSELY WITH EXISTING CONDITIONS AND WITH ALL OTHER TRADES.

D. ALL MECHANICAL, ELECTRICAL, AND PLUMBING WORK SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL BUILDING CODES. REFER TO SPECIFICATIONS FOR MATERIALS AND METHODS FOR MECHANICAL AND PLUMBING CONSTRUCTION.

E. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, PAY ALL FEES, AND COMPLY WITH ALL NATIONAL, STATE, AND MUNICIPAL LAWS, CODES, AND ORDINANCES RELATING TO BUILDING AND PUBLIC SAFETY.

F. THE CONTRACTOR SHALL PREPARE A FULL SET OF COORDINATION DRAWINGS, SHOWING THE RELATIONSHIP OF ALL SYSTEMS TO BE INSTALLED. THESE DRAWINGS SHALL INDICATE SIZES, ELEVATIONS, AND EXACT LOCATIONS OF ALL STRUCTURAL, ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS. THESE DRAWINGS SHALL BE COMPLETED PRIOR TO BEGINNING ANY WORK AND SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW. CONTRACTOR SHALL NOTE ANY ITEMS THAT PREVENT HIM FROM MEETING THE DESIGN INTENT OF THE CONSTRUCTION DOCUMENTS ON THESE DRAWINGS.

G. CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR REQUIRED FOR A COMPLETE WORKING AND COORDINATED SYSTEM.

H. COORDINATE THE EXACT LOCATION OF MECHANICAL AND PLUMBING EQUIPMENT AND DEVICES WITH THE LOCATIONS OF LIGHT FIXTURES, PIPING, CONDUIT, AND OTHER CONSTRUCTION, TO ALLOW FOR PROPER ACCESS TO SERVICE EQUIPMENT.

I. COORDINATE THE LOCATION OF DUCTWORK AND PIPING WITH ALL OTHER TRADES AND PROVIDE OFFSETS IN DUCTWORK AND PIPING AS REQUIRED.

J. IT IS THE INTENT OF THESE DOCUMENTS TO ALLOW ALL CEILING CONSTRUCTION AND HEIGHTS TO BE AS SHOWN ON THE ARCHITECTURAL DRAWINGS. COORDINATE THE LOCATION OF DUCTWORK AND PIPING AND PROVIDE OFFSETS IN DUCTWORK AND PIPING AS REQUIRED TO MEET THIS INTENT.

K. CONDUIT, PIPING, AND DUCTWORK SHALL BE INDEPENDENTLY SUPPORTED, AND EACH SUPPORT SHALL BE INDEPENDENT OF PARTITION AND CEILING SYSTEM SUPPORTS. WHERE INDEPENDENT SUPPORT IS NOT POSSIBLE AN ENGINEERED SUPPORT SYSTEM SHALL BE UTILIZED.

L. INSTALL ALL FLOOR MOUNTED EQUIPMENT ON PADS AS SPECIFIED. PAD BY GENERAL CONTRACTOR. COORDINATE REQUIREMENTS WITH GENERAL CONTRACTOR.

M. ALL WORK SHALL BE SCHEDULED AND PERFORMED IN STRICT COORDINATION WITH ARCHITECTURAL PHASING PLANS AND WITH BUILDING SCHEDULES, OCCUPANCIES, AND WORK.

N. PROTECT EQUIPMENT AND WORK FROM DAMAGE DURING HANDLING AND INSTALLATION UNTIL COMPLETION OF CONSTRUCTION.

O. REMOVE ALL EXCESS MATERIAL AND DEBRIS AND CLEAN ALL EQUIPMENT UPON COMPLETION OF WORK. TOUCH UP WITH PAINT WHERE REQUIRED.

P. CONTRACTOR SHALL COORDINATE ALL WORK CLOSELY WITH ALL OTHER TRADES.

Q. CLIENT/ARCHITECT SHALL HAVE FINAL APPROVAL OF ALL GRILLE, DIFFUSER, AND THERMOSTAT LOCATIONS.

R. COORDINATE ALL AIR DEVICE LOCATIONS AND MOUNTING FRAME STYLES WITH LIGHTING PLANS AND ARCHITECTURAL REFLECTED CEILING PLANS.

S. COORDINATE ALL WALL MOUNTED DEVICE LOCATIONS WITH ARCHITECTURAL INTERIOR ELEVATIONS.

T. PROVIDE ADDITIONAL VALVES, TAPS, TEMPORARY DUCTWORK, ETC. AS NECESSARY TO PROVIDE UNINTERRUPTED SERVICE TO AREAS OUTSIDE OF THE PHASE IN WHICH WORK IS BEING PERFORMED.

U. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF WALLS THAT EXTEND TO STRUCTURE. EACH HVAC DUCT OR PIPE PENETRATION THROUGH THESE WALLS SHALL BE INSTALLED AS SPECIFIED OR DETAILED. WHERE FLEXIBLE DUCT WOULD PENETRATE A WALL WHICH EXTENDS TO STRUCTURE, PROVIDE INSULATED RIGID DUCT EXTENDING 12" ON EITHER SIDE OF THE PARTITION.

V. ALL DEVIATIONS FROM SCHEDULED EQUIPMENT THAT RESULTS IN ADDITIONAL COST DUE TO LACK OF COORDINATION WITH DIMENSIONS, WEIGHTS, AND CONNECTION POINTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

W. DUCT SIZES ARE NET FREE AREA.

X. PROVIDE ROUND DUCTS TO ALL AIR DEVICES UNLESS NOTED OTHERWISE. DUCT SIZE SHALL MATCH AIR DEVICE NECK SIZE OR THE TABLE IN AIR DEVICE SCHEDULE, WHICHEVER IS LARGER. FLEXIBLE DUCTS SHALL BE SIZED SIMILARLY. DO NOT USE FLEXIBLE DUCTS ABOVE NON-LAYIN CEILINGS.

Y. PROVIDE FRAMED O.5" BY 0.5" BIRD SCREEN (GALVANIZED STEEL ASSEMBLY) AT ALL DUCTS TERMINATING WITHOUT AN AIR DEVICE, AT INDOOR FACE OF LOUVERS, AND AT UNDUCTED AIR FLOW OPENINGS AT EQUIPMENT.

Z. PROVIDE MANUAL VOLUME DAMPER IN EACH AIR DEVICE RUNOUT DUCT AS FAR FROM AIR DEVICE AS POSSIBLE.

AA. INSTALL TURNING VANES IN ALL 90 DEGREE SQUARE ELLS IN SUPPLY, RETURN, AND EXHAUST DUCTS. (NONE ALLOWED IN COMBUSTION AIR DUCTS).

AB. MULTI-BLADE DAMPERS OF ANY TYPE INSTALLED WITHIN 36" OF AN ELL OR OTHER FITTING SHALL BE INSTALLED WITH THE DAMPER BLADE SHAFTS PARALLEL TO THE AIRSTREAM FLOW DIRECTION UPSTREAM OF THE FITTING.

AC. ALL FIRE AND COMBINATION FIRE/SMOKE DAMPERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION DETAILS AND BE U.L. TESTED AND LISTED.

AD. SLOPE & ARRANGE CONDENSATE PIPING TO ESTABLISH HIGH POINTS FOR AIR ELIMINATION AND LOW POINTS TO PERMIT PROPER DRAINING OF EACH LINE. PROVIDE MANUAL AIR VENTS AT HIGH POINTS AND DRAIN VALVES AT LOW POINTS.

AE. COORDINATE LOCATION OF ALL DUCT AND PIPING FLOOR SLEVE/CORE PENETRATIONS WITH STRUCTURAL DRAWINGS.

AB. INSTALL SPACE THERMOSTAT ADJACENT TO LATCH SIDE OF DOOR IN SPACE INDICATED. INDICATED LOCATIONS ARE APPROXIMATE. AVOID HEAT PRODUCING EQUIPMENT. FINAL SPACE THERMOSTAT/SENSOR LOCATIONS SHALL BE AS DIRECTED BY THE ARCHITECT.

AE. COORDINATE LOCATION OF ALL DISCONNECTS, CONTROL PANELS AND ELECTRICAL CONNECTIONS FOR MECHANICAL AND PLUMBING EQUIPMENT TO MAINTAIN NEC REQUIRED CLEARANCES OF 42" DEEP AND 30" WIDE IN FRONT OF EQUIPMENT.

# GENERAL PIPING NOTES:

A. REFER TO THE ARCHITECTURAL PHASING PLAN FOR THE AREAS SHOWN ON THIS SET OF PLANS. WORK SHALL BE SCHEDULED AND PERFORMED IN SEQUENCE WITH THE PHASING PLAN.

B. ARCHITECT SHALL HAVE FINAL APPROVAL OF ALL THERMOSTAT LOCATIONS. COORDINATE ALL WALL MOUNTED DEVICE LOCATIONS WITH ARCHITECTURAL INTERIOR ELEVATIONS.

C. ALL CONNECTION BETWEEN PIPES OF DISSIMILAR MATERIALS SHALL BE MADE WITH DIELECTRIC UNIONS.

D. G.C. TO PROVIDE ACCESS DOORS IF REQUIRED FOR ACCESS TO VAV'S AND ANY VALVES THAT ARE NOT ACCESSIBLE. VERIFY SIZE AND LOCATIONS WITH MECHANICAL CONTRACTOR.

E. PROVIDE DRAIN PAN UNDER PIPES INSIDE ELECTRICAL AND COMMUNICATION ROOMS.

F. PROVIDE CONDENSATE DRAIN PIPING FROM ALL COOLING COILS TO DRAIN.

G. LOCATE ISOLATION VALVES FOR EQUIPMENT AS CLOSE TO THE MAIN AS POSSIBLE.

# GENERAL DEMOLITION NOTES:

A. ALL CAPPED DUCT TAPS AND CONNECTING DUCTS THAT ARE NOT BEING USED ARE TO BE REMOVED BACK TO THE MAIN DUCT AND PATCHED AS PER ITEM B BELOW.

B. PATCH OPENINGS IN EXISTING DUCTWORK THAT IS TO REMAIN INCLUDING OPENINGS. WHERE TAPS OR DUCTWORK ARE TO BE REMOVED, THE FOLLOWING SHALL OCCUR:

- OPENINGS IN THE MAIN DUCTS ARE TO BE COVERED WITH A SHEET METAL PATCH. THE PATCH IS TO BE LARGER THAN THE EXISTING OPENING AND IS TO BE SECURED WITH SHEET METAL SCREWS FOUR INCHES ON CENTERS.
- A LIBERAL QUANTITY OF FIRE RESISTANT ADHESIVE IS TO BE APPLIED TO THE EDGES OF THE METAL PATCH AND THE ASSEMBLY SCREWED IN PLACE.

C. REFER TO THE ARCHITECTURAL PHASING PLAN FOR THE AREAS SHOWN ON THIS PLAN. WORK SHALL BE SCHEDULED AND PERFORMED IN SEQUENCE WITH THE PHASING PLAN.

D. DEMOLITION OF EACH PHASE SHALL OCCUR AS PART OF THE WORK FOR THAT PHASE. REMOVE ONLY THE WORK THAT SERVES THE AREA OF DEMOLITION.

E. PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO PREVENT DISRUPTING ADJACENT AREAS OF THE PHASE IN WHICH WORK IS BEING PERFORMED.

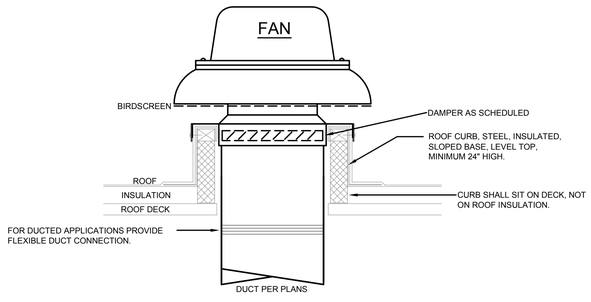
F. PROVIDE ADDITIONAL VALVES, TAPS, TEMPORARY DUCTWORK AND/OR PIPING AS NECESSARY TO PROVIDE UNINTERRUPTED SERVICE TO AREAS OUTSIDE OF THE PHASE IN WHICH WORK IS BEING PERFORMED.

G. ALL WORK SHALL BE PERFORMED IN STRICT COORDINATION WITH HOSPITAL SCHEDULES, OCCUPANCIES AND WORK. CONTRACTOR SHALL COORDINATE WITH HOSPITAL REPRESENTATIVE.

H. ALL NECESSARY SHUTDOWNS OR OUT OF PHASE WORK SHALL BE SCHEDULED WITH THE HOSPITAL REPRESENTATIVE.

# MECHANICAL ABBREVIATIONS

| | | | |
|---|---|---|---|
| AC | ABOVE CEILING | FCU | FAN COIL UNIT |
| AFF | ABOVE FINISHED FLOOR | FPB | FAN POWERED BOX |
| AI | ANALOG INPUT | FPI | FINS PER INCH |
| AO | ANALOG OUTPUT | GC | GENERAL CONTRACTOR |
| BFC | BELOW FINISHED CEILING | GEF | GENERAL EXHAUST FAN |
| BF | BELOW FLOOR, BLIND FLANGE | GSF | GENERAL SUPPLY FAN |
| BG | BELOW GRADE | MVD | MANUAL VOLUME DAMPER |
| BV | BUTTERFLY VALVE | N | NEW |
| CD | CONDENSATE LINE | OBD | OPPOSED BLADE DAMPER |
| CRU | COMPUTER ROOM UNIT | R | RELOCATED |
| CU | CONDENSING UNIT | RA | RETURN AIR |
| DI | DIGITAL INPUT | SA | SUPPLY AIR |
| DO | DIGITAL OUTPUT | UH | UNIT HEATER |
| DS | DISCONNECT SWITCH | VAV | VARIABLE AIR VOLUME |
| E | EXISTING | WH | WATER HEATER |
| ECD | EMERGENCY CONDENSATE LINE | WHP | WATER-SOURCE HEAT PUMP |
| EDH | ELECTRIC DUCT HEATER | FMB | FILTER MIXING BOX |
| EUH | ELECTRIC UNIT HEATER | IN HG | INCHES MERCURY (PRESSURE) |
| EF | EXHAUST FAN | IN WC | INCHES WATER COLUMN (PRESSURE) |
| SF | SUPPLY FAN | IBT | INVERTED BUCKET TRAP |
| EA | EXHAUST AIR | TAV | THERMOSTATIC AIR VENT (STEAM SYSTEM) |
| OA | OUTSIDE AIR | MA | MIXED AIR |
| RLA | RELIEF AIR | RCA | RECIRCULATED AIR (RETURN) |
| CHW | CHILLED WATER | SCD | SECONDARY CONDENSATE LINE |
| UNO | UNLESS NOTED OTHERWISE | | |
| PRV | PRESSURE RELIEF VALVE | | |
| SV | SAFETY VALVE | | |




## 01 TYPICAL DOME TYPE ROOF-MOUNTED FAN
NO SCALE

# MECHANICAL SYMBOLS

ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

| SYMBOL | DESCRIPTION |
|---|---|
| | DIRECTION OF SLOPE |
| | DIRECTION OF FLOW |
| | EXPANSION LOOP |
| | GATE VALVE |
| | BUTTERFLY VALVE |
| | BALL VALVE |
| | CALIBRATED BALANCING VALVE |
| | GLOBE VALVE |
| | TEMPERATURE AND PRESSURE RELIEF VALVE |
| | AUTOMATIC 2-WAY CONTROL VALVE |
| | AUTOMATIC 3-WAY CONTROL VALVE |
| | PLUG VALVE/BALANCING COCK |
| | SOLENOID VALVE |
| | CHECK VALVE |
| | VALVE IN VERTICAL |
| | UNION OR FLANGE |
| | PETE'S PLUG |
| | GAUGE COCK |
| | THERMOMETER |
| | THERMOMETER WELL |
| | CALIBRATED BALANCING VALVE |
| | STRAINER WITH BLOW-OFF VALVE |
| | F & T STEAM TRAP |
| | STEAM BUCKET TRAP |
| | CONNECT TO EXISTING |
| EP | ELECTRIC PNEUMATIC SWITCH |
| | ECCENTRIC REDUCER (TOP SIDE) |
| | ECCENTRIC REDUCER (BOTTOM SIDE) |
| | CONCENTRIC REDUCER |
| V | VENT (FROM STEAM SYSTEM) |
| BD | BLOWDOWN (STEAM SYSTEM) |
| // | CONTROL SIGNAL |
| D | DRAIN LINE (FROM EQUIPMENT) |
| | DUCT FLEXIBLE CONNECTION |
| 30# | STEAM LINE (30 PSIG SHOWN) |
| OF | OVERFLOW LINE (FROM EQUIPMENT) |
| S | DIESEL FUME EXHAUST SYSTEM SWITCH |
| T ID | TEMPERATURE INDICATING DEVICE |
| H ID | HUMIDITY INDICATING DEVICE |

ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

| SYMBOL | DESCRIPTION |
|---|---|
| A / E | NEW EQUIPMENT DESIGNATION (TOP - EQUIP. ABBREV., BOTTOM - MARK) |
| A / # | NEW DIFFUSER DESIGNATION (TOP - SCHEDULE DESIG., BOTTOM - CFM) |
| | NEW EQUIPMENT |
| | EXISTING EQUIPMENT |
| | EXISTING EQUIPMENT TO BE REMOVED OR RELOCATED |
| | NEW PIPING |
| | EXISTING PIPING |
| | EXISTING PIPING TO BE REMOVED OR RELOCATED |
| | NEW DUCT |
| | EXISTING DUCT |
| | EXISTING DUCT TO BE REMOVED OR RELOCATED |
| | NEW DUCT PROVIDED AS NOTED |
| | NEW SUPPLY DIFFUSER |
| | EXISTING SUPPLY DIFFUSER |
| | EXISTING SUPPLY DIFFUSER TO BE REMOVED OR RELOCATED |
| | NEW R/A OR EXHAUST GRILLE |
| | EXISTING R/A OR EXHAUST GRILLE |
| | EXISTING R/A OR EXHAUST GRILLE TO BE REMOVED OR RELOCATED |
| | FLEXIBLE DUCT |
| T | THERMOSTAT |
| T | EXISTING THERMOSTAT TO BE REMOVED OR RELOCATED |
| | 45° PRESSURE TAP W/ VOLUME DAMPER |
| | CONICAL TAP WITH VOLUME DAMPER |
| | CONICAL TAP W/O VOLUME DAMPER |
| | MANUAL VOLUME DAMPER |
| | SLEEVE/RETAINING ANGLE ASSEMBLY PER 2004 FBC |
| | FIRE DAMPER |
| | SMOKE DAMPER |
| | FIRE/SMOKE DAMPER |
| M | MOTORIZED DAMPER |
| B | BAROMETRIC DAMPER |
| CHS | CHILLED WATER SUPPLY PIPE |
| CHR | CHILLED WATER RETURN PIPE |
| CS | CONDENSER WATER SUPPLY PIPE |
| CR | CONDENSER WATER RETURN PIPE |
| HS | HEATING WATER SUPPLY |
| HR | HEATING WATER RETURN |
| HPS | HIGH PRESSURE STEAM |
| HPR | HIGH PRESSURE CONDENSATE RETURN |
| LPS | LOW PRESSURE STEAM |
| LPR | LOW PRESSURE CONDENSATE RETURN |
| PCR | PUMPED CONDENSATE RETURN |
| PCHS | PRIMARY CHILLED WATER SUPPLY |
| PCHR | PRIMARY CHILLED WATER RETURN |
| RHP | REFRIGERATED HIGH PRESSURE PIPE |
| RLP | REFRIGERATED LOW PRESSURE PIPE |
| SCHS | SECONDARY CHILLED WATER SUPPLY |
| SCHR | SECONDARY CHILLED WATER RETURN |
| MW | MAKE-UP WATER |
| CD | CONDENSATE DRAIN |

# PROJECT DESIGN CRITERIA

| | |
|---|---|
| LOCATION: | |
| CITY/STATE | AURORA, COLORADO |
| APPLICABLE CODES: | |
| BUILDING | 2009 IBC |
| MECHANICAL | 2009 IMC |
| PLUMBING | 2012 ~~2009~~ IPC |
| ENERGY | 2009 IECC |
| ELECTRICAL | 2014 ~~2011~~ NEC |
| LATITUDE: | |
| DEG. N. LAT. | 39.75 |
| ELEVATION: | |
| FT. ABOVE SEA LEVEL | 5331 |

# FAN SCHEDULE

| DESIG. | LOCATION / SERVES | CFM | MAX. SONES | EXT. S.P. | FAN DATA | | | | ELECTRICAL MOTOR DATA | | | | MANUFACTURER/MODEL NO. | REMARKS/NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | TYPE | RPM | DRIVE | TS (FPM) | H.P. | RPM | VOLT/PH | STARTER | | |
| EF-1 | ROOF / RESTROOM 13 | 80 | 5 | 0.25 | CENT. | 1537 | DIRECT | 3270 | 1/6 | 1725 | 120/1 | HOA | GREENHECK / G-060-VG | ALL |

NOTES:
1. CURB AND DISCONNECT BY FAN MANUFACTURER.
2. INTEGRAL DISCONNECT.
3. BACK DRAFT DAMPER.
4. BIRD SCREEN.
5. FLEXIBLE DUCT CONNECTOR.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *pmckown*
Date: *Sep 17, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1046142*
Permit #: *2015-999276*

The Medical Center of Aurora
HealthONE

TRIAGE WAITING METAL DETECTOR

MEDICAL CENTER OF AURORA
1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012


TOM THOMPSON ARCHITECT
2510 SOUTH OSCEOLA STREET
DENVER, COLORADO 80219
720.989.6084
TomThompsonArchitect@gmail.com

Project #:
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DESIGN dp LOT
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(303) 565-7282



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COLORADO LICENSED WILLIAM SCHMIDT 47964 8/10/15 PROFESSIONAL ENGINEER

PROJECT NO.: 14-04
DRAWN BY: DG/SM
CHECKED BY: WS
SCALE:
DATE: 08.10.15
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:
MEHCANICAL LEGENDS, GENERAL NOTES, AND ABBREVIATIONS

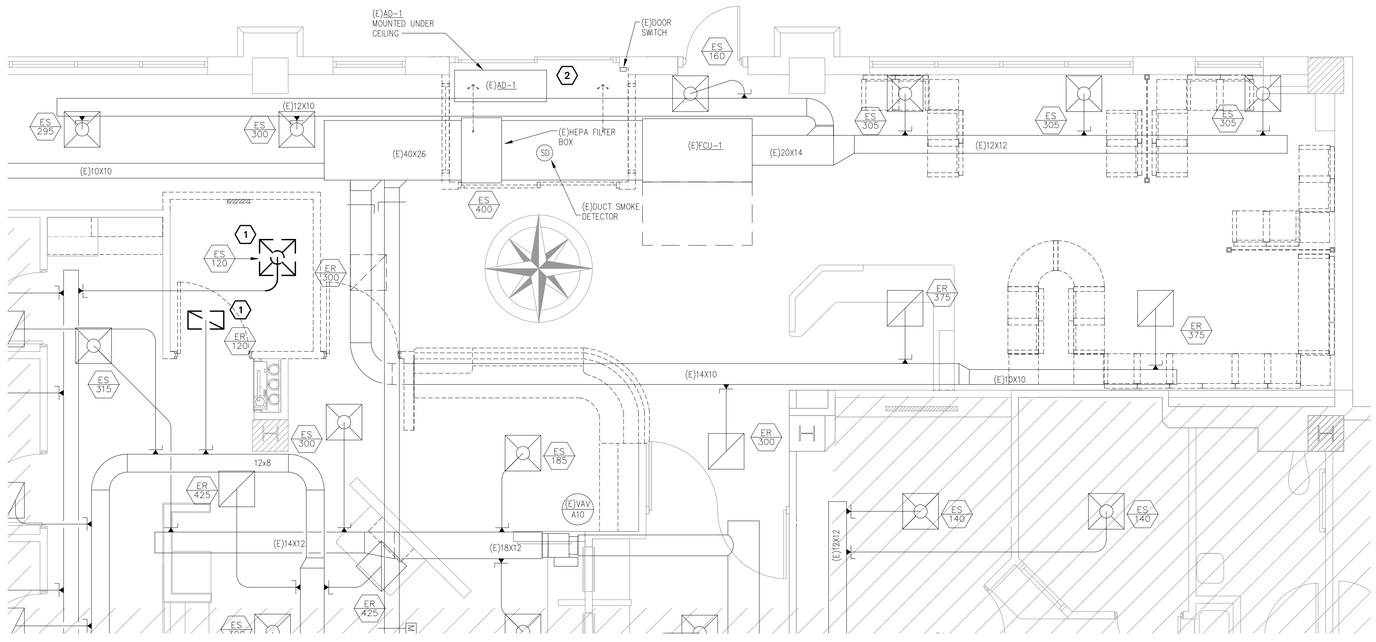
SHEET NO.:
M-0.0
OF

## GENERAL NOTES

A. REFER TO SHEET M-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.

## LEGEND NOTES

1. EXISTING AIR DEVICE TO BE RELOCATED. SEE NEW WORK PLAN.
2. EXISTING AIR DOOR TO BE RELOCATED TO NEW DOOR LOCATION.




NORTH

## 01 HVAC DEMOLITION PLAN

SCALE: 1/4" = 1'-0"

RSN: *1046142*
Permit #: *2015-999276*

The Medical Center of Aurora
HealthONE

TRIAGE WAITING METAL DETECTOR

# MEDICAL CENTER OF AURORA

1501 SOUTH POTOMAC STREET
AURORA, COLORADO 80012


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COLORADO LICENSED
MICHAEL SMITH
47964
8/10/15
PROFESSIONAL ENGINEER

| | |
|---|---|
| PROJECT NO.: | 14-04 |
| DRAWN BY: | DG/SM |
| CHECKED BY: | WS |
| SCALE: | |
| DATE: | 08.10.15 |
| ISSUED FOR: | CONSTRUCTION |
| REVISIONS: | |

SHEET TITLE:

HVAC DEMOLITION PLAN

SHEET NO.:

M-1.0

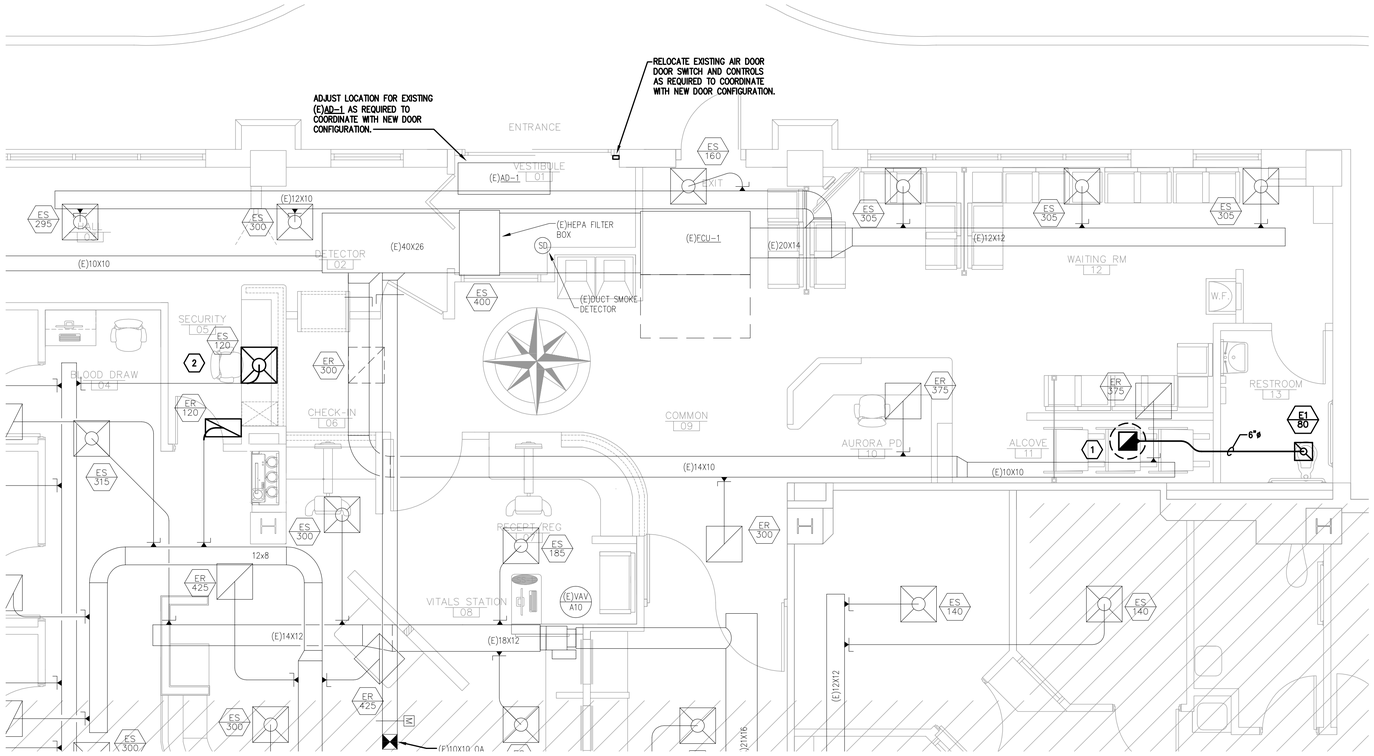
OF

## GENERAL NOTES

A. REFER TO SHEET M-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.

## LEGEND NOTES

1. 8x8 EXHAUST AIR DUCT UP TO NEW FAN ON ROOF. INSTALL FAN AT LEAST 10'-0" FROM BUILDING PARAPET. COORDINATE FAN DESIGNATION WITH BUILDING AUTOMATION SYSTEM.
2. COORDINATE LOCATION OF EXISTING SUPPLY AND RETURN WITH NEW CEILING GRID.
3. NOT USED
4. NOT USED




NORTH

## 01 HVAC PLAN
SCALE: 1/4" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: pmckown
Date: Sep 17, 2015
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COLORADO LICENSED WILLIAM SMITH 47964 8/10/15 PROFESSIONAL ENGINEER

| | |
|---|---|
| PROJECT NO.: | 14-04 |
| DRAWN BY: | DG/SM |
| CHECKED BY: | WS |
| SCALE: | |
| DATE: | 08.10.15 |
| ISSUED FOR: | CONSTRUCTION |
| REVISIONS: | |

SHEET TITLE:

HVAC PLAN

SHEET NO.:

M-2.0

OF

MASTER MECHANICAL DRAWING TYPE SPECIFICATIONS

I GENERAL CONDITIONS:

A. THE SCOPE OF THE WORK SHALL INCLUDE THE FURNISHING AND INSTALLATION OF THE NECESSARY MATERIAL AND LABOR TO ACCOMPLISH THE WORK INDICATED BY THE DRAWINGS AND HEREIN SPECIFIED. ALL WORK BY THIS CONTRACTOR SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL BUILDING CODES.

B. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE EXISTING CONDITIONS AT THE JOB SITE BEFORE SUBMITTING PROPOSALS. SUBMISSION OF PROPOSALS SHALL BE TAKEN AS EVIDENCE THAT SUCH INSPECTION HAS TAKEN PLACE. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE COMPLETE SET OF CONSTRUCTION DOCUMENTS, AND THE LACK OF SPECIFIC INFORMATION ON THE DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY.

C. MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE NEW AND SHALL BEAR THE UL. LABEL WHERE APPLICABLE, UNLESS NOTED OTHERWISE. ALL WORK SHALL BE GUARANTEED AGAINST DEFECTIVE MATERIALS AND WORKMANSHIP FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR AFTER COMPLETION AND ACCEPTANCE BY THE OWNER.

D. CONTRACTOR SHALL INSTALL MECHANICAL SYSTEMS WITHOUT INTERFERENCE AND IN STRICT COORDINATION WITH OTHER TRADES.

E. MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE CONTRACT DOCUMENTS AND APPLICABLE CODES AND STANDARDS. IN CASE OF DIFFERENCE BETWEEN APPLICABLE CODES AND STANDARDS AND THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ARCHITECT/ENGINEER AND THE OWNER IN WRITING OF SUCH DIFFERENCE. SHOULD THE CONTRACTOR PERFORM ANY WORK THAT DOES NOT COMPLY WITH THE REQUIREMENTS OF APPLICABLE CODES AND STANDARDS, HE SHALL BEAR ALL COSTS ARISING IN CORRECTING SUCH DEFECTS. APPLICABLE CODES AND STANDARDS SHALL INCLUDE ALL ORDINANCES, UTILITY COMPANY REGULATIONS, AND APPLICABLE REQUIREMENTS OF NATIONALLY ACCEPTED CODES AND STANDARDS. SHOULD THE CONTRACTOR SUPPLY EQUIPMENT DIFFERING FROM THE SPECIFIED ITEMS IN THE CONTRACT DOCUMENTS WITHOUT NOTIFICATION TO THE ENGINEER, HE SHALL BEAR ALL COSTS TO UPGRADE DEFICIENCIES ARISING FROM SUCH.

F. WHERE ONLY ONE MANUFACTURER'S NAME IS LISTED IN THE EQUIPMENT SPECIFICATION, OTHER MANUFACTURERS OF SIMILAR CHARACTERISTICS AND OF EQUAL OR BETTER PERFORMANCE CAPACITIES MAY BE CONSIDERED FOR "OR EQUAL" APPROVAL BY THE ENGINEER. WHERE MORE THAN ONE MANUFACTURER IS LISTED IN THE NOTES AND EQUIPMENT SPECIFICATIONS, ONLY THOSE NAMED MANUFACTURERS WILL BE CONSIDERED FOR APPROVAL.

G. SHOULD A SUBSTITUTION BE ACCEPTED, AND SHOULD THE SUBSTITUTE MATERIAL PROVE DEFECTIVE, OR OTHERWISE UNSATISFACTORY FOR THE SERVICE INTENDED WITHIN THE GUARANTEE PERIOD, THIS MATERIAL OR EQUIPMENT SHALL BE REPLACED WITH THE MATERIAL OR EQUIPMENT SPECIFIED AT NO COST TO THE OWNER.

H. PROVIDE ACCESS, INCLUDING NECESSARY ACCESS DOORS, FOR NEW AND EXISTING EQUIPMENT REQUIRING OPERATION AND/OR MAINTENANCE. RELOCATE EXISTING AND LOCATE ALL NEW EQUIPMENT SUCH THAT OPERATION OR MAINTENANCE IS NOT RESTRICTED.

I. DO NOT RUN PIPING OR DUCTWORK, OR LOCATE EQUIPMENT, WITH RESPECT TO SWITCHBOARDS, PANELBOARDS, POWER PANELS, MOTOR CONTROL CENTERS OR DRY TYPE TRANSFORMERS, WITHIN 42 INCHES IN FRONT OF EQUIPMENT, OVER EQUIPMENT, OR WITHIN 36 INCHES HORIZONTALLY OF SAME SPACE.

J. PROVIDE SNAP-ON OR ADHESIVES LABELS INDICATING CHILLED OR HOT WATER SUPPLY AND RETURN, CONDENSATE DRAINAGE, DOMESTIC HOT AND COLD WATER, MEDICAL GASES, ETC.

II MECHANICAL DEMOLITION

A. UNLESS NOTED OTHERWISE, THE MECHANICAL DEMOLITION SHALL BE CARRIED OUT TO THE EXTENT THAT THE FLOORS ARE RETURNED TO THE ORIGINAL BASE BUILDING CONDITIONS. CONTRACTOR SHALL VERIFY ALL EXISTING FIELD CONDITIONS IN ORDER TO ACCURATELY DETERMINE THE EXTENT OF THE WORK UNDER THIS SECTION.

B. UNLESS NOTED OTHERWISE, REMOVE EXISTING INTERIOR DIFFUSERS, GRILLES, AND DUCTWORK AS INDICATED PLANS. EXISTING DIFFUSERS AND GRILLES MAY BE REUSED IF THEY MEET THE SCHEDULED SPECIFICATIONS.

C. EXISTING THERMOSTATS AND/OR TEMPERATURE SENSORS ARE TO BE RELOCATED AND REUSED IF IN GOOD WORKING CONDITION.

D. WASTE, DOMESTIC WATER, AND VENT PIPING SHALL BE REMOVED BACK TO RISER STACK CONNECTIONS AND CAPPED, UNLESS NOTED OTHERWISE.

E. EXISTING DUCTWORK SHOWN ON PLANS MAY NOT EXACTLY MATCH THE ACTUAL FIELD CONDITIONS. IT IS NOT NECESSARY TO REWORK THE DUCTWORK IN ORDER TO MATCH WHAT IS DEPICTED ON THE PLANS. CONTRACTOR SHALL VERIFY EXISTING DUCTWORK ROUTING AND LOCATIONS AND MAKE ADJUSTMENTS AS REQUIRED TO AVOID CONFLICTS WITH NEW DUCTWORK, EQUIPMENT, LIGHT FIXTURES, ETC.

III PRODUCTS, EQUIPMENT AND EXECUTION:

A. SANITARY DRAIN LINES (SOIL, WASTE AND VENT) SHALL BE AMERICAN MANUFACTURED SERVICE WEIGHT CAST IRON OR DWV COPPER PIPE. JOINTS SHALL BE FABRICATED BY THE USE OF COMPRESSION JOINTS SIMILAR TO TYLER PIPE AND FOUNDRY'S "TY-SEAL" FOR CAST IRON PIPE OR 95/5 SOLDER FOR DWV COPPER PIPE. NO-HUB CAST IRON PIPE ASSEMBLED WITH STAINLESS STEEL/NEOPRENE HUBLESS COUPLINGS SHALL BE LIMITED TO ABOVE GROUND INSTALLATIONS.

B. DOMESTIC WATER PIPING INSTALLED ABOVE GROUND SHALL BE AMERICAN MANUFACTURED TYPE "L" HARD DRAWN COPPER ASSEMBLED WITH 95/5 SOLDER AND WROUGHT COPPER JOINT FITTINGS.

C. RELIEF AND DRAIN PIPING SHALL BE AMERICAN MANUFACTURED TYPE "M" COPPER WITH 95/5 SOLDER JOINT FITTINGS OR SCHEDULE 40 BLACK STEEL PIPES WITH SCREWED FITTINGS.

D. HOT WATER PIPING SHALL BE AMERICAN MANUFACTURED SCHEDULE 40 BLACK STEEL OR TYPE "L" COPPER PIPE IN ACCORDANCE WITH THE FOLLOWING:

1. 2-1/2" AND SMALLER: STANDARD WEIGHT, BLACK STEEL (AMERICAN MANUFACTURED) PIPE WITH BLACK MALLEABLE IRON SCREWED FITTINGS OR TYPE "L" COPPER WITH WROUGHT COPPER FITTINGS ASSEMBLED WITH 95/5 SOLDER.

2. 3" AND LARGER: STANDARD WEIGHT, BLACK STEEL (AMERICAN MANUFACTURED) PIPE ASSEMBLED WITH FLANGED COUPLINGS/FITTINGS OR FACTORY FABRICATED WELDED FITTINGS.

E. REFRIGERANT PIPING SHALL BE AMERICAN MANUFACTURED TYPE "ACR" COPPER PIPE MANUFACTURED IN ACCORDANCE WITH ASTM B88 AND ANSI BP.1 REFRIGERATION INDUSTRY STANDARDS. FITTINGS SHALL BE WROUGHT COPPER PRESSURE TYPE AND ELBOWS SHALL BE LONG RADIUS TYPE. PIPE AND FITTINGS SHALL BE ASSEMBLED WITH SILVER BRAZING AND PURGED WITH NITROGEN DURING BRAZING. PIPING SHALL BE INSTALLED TO ALLOW FOR EXPANSION AND CONTRACTION; USING OFFSETS, SWING JOINTS, ETC. AS SHOWN AND/OR REQUIRED TO PREVENT UNDUE STRAIN ON THE PIPING.

1. SOLENOID AND HOT GAS BYPASS VALVES SHALL BE R/S FLO-CON SPORLAN.

2. FILTER-DRIERS SHALL BE SPORLAN REPLACEABLE CORE "CATCH-ALLS".

3. SIGHT GLASS SHALL BE SPORLAN "SEE-ALL".

4. AUXILIARY SIDE CONNECTIONS SHALL BE REQUIRED FOR HOT GAS BY-PASS AND SHALL BE SPORLAN, AND INSTALLED BETWEEN THE ORIFICE AND THE DISTRIBUTOR.

5. THERMOSTATIC EXPANSION VALVES WITH 10 DEGREES SUPERHEAT SHALL BE SPORLAN AND SIZED AND SELECTED FOR USE WITH THE EVAPORATOR SERVED AT THE DESIGN OPERATING PRESSURE.

6. SUCTION LINE ACCUMULATORS SHALL BE EQUAL TO MODEL S-7400 AS MANUFACTURED BY AC&R COMPONENTS, INC.

7. SHUT-OFF, CHECK, SOLENOID AND RELIEF VALVES SHALL BE AS MANUFACTURED BY THE HENRY VALVE COMPANY.

F. MEDICAL GAS PIPING SHALL BE INSTALLED IN STRICT ACCORDANCE WITH CURRENT NFPA-99 AND HOSPITAL LICENSING CODE REQUIREMENTS, GCA P-2.1 RECOMMENDATIONS FOR MEDICAL-SURGICAL VACUUM SYSTEMS IN HEALTH CARE FACILITIES.

1. PIPING SHALL BE AMERICAN MANUFACTURED SEAMLESS TYPE 'K' HARD-DRAWN COPPER TUBING CLEANED AND SEALED FOR MEDICAL GAS USE. FITTINGS SHALL BE WROUGHT, BRASS OR BRONZE, MADE ONLY FOR BRAZED CONNECTIONS. ALL JOINTS IN THE PIPING, EXCEPT AT VALVES AND EQUIPMENT REQUIRING SCREW CONNECTIONS, SHALL BE ASSEMBLED WITH A SILVER BRAZING ALLOY. SCREWED JOINTS SHALL BE MADE-UP WITH GLYCERIN.

2. MEDICAL GAS WALL OUTLETS SHALL MATCH EXISTING MANUFACTURER, MODEL NUMBER AND FINISH OR MAY BE BEACON MEDICAL PRODUCTS TO MATCH EXISTING.

3. PROVIDE NECESSARY PIPING, FITTINGS, VALVES, ALARMS, SENSORS, WIRING, OUTLETS, ETC. AND LABOR FOR COMPLETE OPERATING SYSTEMS.

4. COLOR-CODED ADHESIVE PIPE MARKERS SHALL BE INSTALLED AT NO MORE THAN 20 FEET APART, OR ONE IN EACH ROOM, OR EACH FLOOR OF THE BUILDING. LABELS SHALL INCLUDE GAS CONTENTS, OPERATING PRESSURE AND THE DIRECTION OF FLOW ON ALL MEDICAL GASES, COMPRESSED AIR AND VACUUM PIPING.

5. THE MEDICAL AIR VACUUM PIPING SHALL ORIGINATE FROM THE EXISTING AIR AND VACUUM PIPING SYSTEMS LOCATED ABOVE THE CORRIDOR CEILING.

6. THE OXYGEN PIPING SHALL ORIGINATE FROM THE EXISTING OXYGEN DISTRIBUTION LINE ABOVE THE CORRIDOR CEILING.

7. THE MANUFACTURER OF MEDICAL GAS EQUIPMENT SHALL TEST ALL MEDICAL GAS PIPING SYSTEMS AFTER INSTALLATION TO INSURE THAT NO CROSSED LINES EXIST AND THAT THE PROPER SERVICE IS BROUGHT TO EACH OUTLET. THE TEST SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 99 4-5 GAS SYSTEM PERFORMANCE CRITERIA AND TESTING. FURNISH THE OWNER, THROUGH THE ARCHITECT, A WRITTEN CERTIFICATION, SIGNED BY AN OFFICER OF THE COMPANY, THAT THE SYSTEM HAS BEEN CHECKED AND IS CONSTRUCTED AND TESTED IN ACCORDANCE WITH NFPA 99 AND IS SAFE FOR PATIENT USE. MANUFACTURER MUST SUBMIT A LETTER SIGNED BY AN OFFICER OF THE COMPANY TO THE ARCHITECT 10 DAYS PRIOR TO BID OPENING THAT THIS SERVICE WILL BE PERFORMED.

8. VALVES NOT IN BOXES SHALL BE BEACON BRONZE-BODY, DOUBLE-SEAL, FULL-FLOW UNION BALL TYPE, WITH TEFLON SEATS AND SEALS, DESIGNED FOR A WORKING PRESSURE OF 27" Hg VACUUM TO 400 PSI WITH CHROME-PLATED BRASS BALLS WHICH SEAL IN BOTH DIRECTIONS. EACH VALVE SHALL BE SO DESIGNED THAT ONLY A QUARTER TURN OF THE LEVER TYPE HANDLE IS NECESSARY BETWEEN THE OPEN AND CLOSED POSITIONS. VALVE DESIGN SHALL ELIMINATE THE NEED FOR UNIONS BY PERMITTING REMOVAL OR SWING-AWAY OF THE CENTER VALVE SECTION OUT-OF-LINE. VALVES SHALL CONFORM TO NFPA STANDARDS. VALVES SHALL BE SUPPLIED PROPERLY WASHED FOR OXYGEN SERVICE. GAS SERVICE LABELS SHALL BE PROVIDED FOR EACH SERVICE AS REQUIRED.

9. PROVIDE GAUGES ON SYSTEMS AS REQUIRED BY NFPA 99, CURRENT EDITION, AND WHERE INDICATED ON THE DRAWINGS.

10. GAUGES FOR PIPELINE INSTALLATION SHALL BE EQUAL TO OHMEDA MAIN LINE GAUGES AS FOLLOWS:

| | SERVICE | CALIBRATION | STOCK NO. |
|---|---|---|---|
| a. | OXYGEN, N20, AIR | 0-100 PSI | 841-0014-300 |
| b. | VACUUM | 0-30" Hg. | 395-7558-300 |
| c. | NITROGEN | 0-400 PSI | 841-0007-300 |

11. WALL SERVICE OUTLETS SHALL BE INSTALLED WHERE INDICATED ON THE DRAWINGS AND SHOWN ON ARCHITECTURAL ELEVATIONS.

12. OUTLETS TO MATCH EXISTING.

13. BEFORE ERECTION, ALL PIPE, TUBING, VALVES AND FITTINGS (EXCEPT THOSE SUPPLIED EXPRESSLY CLEANED FOR OXYGEN SERVICES BY MANUFACTURER) SHALL BE THOROUGHLY CLEANSED OF ALL GREASE, OIL OR OTHER READILY OXIDIZABLE MATERIALS BY WASHING IN A HOT SOLUTION OF SODIUM CARBONATE OR TRISODIUM PHOSPHATE MIXED IN EQUAL PROPORTIONS OF ONE POUND TO THREE GALLONS OF WATER. SCRUBBING AND CONTINUOUS AGITATION OF THE PARTS SHALL BE EMPLOYED WHERE NECESSARY TO REMOVE ALL DEPOSITS AND INSURE COMPLETE CLEANSING. AFTER WASHING, ALL MATERIALS SHALL BE RINSED THOROUGHLY IN CLEAN, HOT WATER. AFTER CLEANSING, GREAT CARE MUST BE EXERCISED IN THE STORAGE AND HANDLING OF ALL MATERIALS AND IN THE CONDITION OF TOOLS USED IN CUTTING AND REAMING TO PREVENT OIL OR GREASE BEING INTRODUCED INTO THE TUBING. WHERE SUCH CONTAMINATION IS KNOWN TO HAVE OCCURRED, THE MATERIALS AFFECTED MUST BE REWASHED AND THEN RINSED.

14. AFTER INSTALLATION OF THE PIPING, BUT BEFORE INSTALLATION OF THE STATION OUTLETS AND OTHER MEDICAL GAS SYSTEM COMPONENTS (e.g., PRESSURE-ACTUATING SWITCHES FOR ALARMS, MANIFOLDS, PRESSURE GAUGES OR PRESSURE RELIEF VALVES), THE LINE SHALL BE BLOWN CLEAR BY MEANS OF OIL-FREE, DRY AIR OR NITROGEN. THE SYSTEM SHALL BE TESTED IN ACCORDANCE WITH NFPA 99 4-5.1.3 "MEDICAL GAS SYSTEM TEST".

15. ALL PIPING SHALL BE SUPPORTED WITH COPPER-CLAD HANGERS WITH POLYSTYRENE OR NEOPRENE INSERTS OR PADS AT APPROPRIATE INTERVALS AND NOT SUPPORTED BY OTHER PIPING.

G. FITTINGS AND PIPING CONNECTED WITH PLUMBING FIXTURES SHALL BE BRASS AND, WHEREVER EXPOSED, SHALL BE POLISHED CHROME-PLATED.

H. FURNISH AND INSTALL ALL REQUIRED WATER, WASTE, SOIL, AND VENT CONNECTIONS TO ALL PLUMBING FIXTURES AND EQUIPMENT, TOGETHER WITH ALL FITTINGS, SUPPORTS, FASTENING DEVICES, COCKS, VALVES, TRAPS, ETC., LEAVING ALL IN COMPLETE WORKING ORDER.

I. PLUMBING FIXTURES SHALL BE PROVIDED AS SCHEDULED ON THE DRAWINGS. PLUMBING FIXTURES SHALL BE NEW, EXCEPT WHERE NOTED, AND SHALL BE APPROVED BY THE APPLICABLE WATER CONSERVATION AUTHORITY. THE PLUMBING CONTRACTOR SHALL PROVIDE NECESSARY CHROME PLATED P-TRAPS, SUPPLIES WITH STOPS, RISERS, INLET DRAINS, ETC.

J. SHOCK ARRESTORS SHALL BE SIMILAR TO JOSAM 75000 OR AS MANUFACTURED BY PPP AND SIOUX CHIEF SIZED AS PER THE PDI.

K. FIXTURE CARRIERS SHALL BE PROVIDED FOR WATER CLOSETS, URINALS AND LAVATORIES AS REQUIRED AND SHALL BE FLOOR SUPPORTED AS MANUFACTURED BY JOSAM.

L. TRAP PRIMERS SHALL BE AS REQUIRED BY LOCAL CODES AND SIMILAR TO J.R. SMITH FIR 2698 WATER SAVER TRAP PRIMER.

M. FLOOR DRAINS SHALL BE SIMILAR TO JOSAM SERIES 30000 CAST IRON FLOOR DRAIN WITH NICKALOY STRAINER.

N. CLEANOUTS SHALL BE PROVIDED IN SANITARY WASTE LINES AS SHOWN AND AT EACH CHANGE OF DIRECTION GREATER THAN 45 DEGREES. WALL CLEANOUTS SHALL BE SIMILAR TO JOSAM 5879 WITH BRONZE PLUG AND STAINLESS STEEL COVER. FLOOR CLEANOUTS SHALL BE SIMILAR TO JOSAM 56020 WITH CARPET MARKER FOR CARPETED FLOORS.

O. PIPE, EQUIPMENT, ETC., SHALL BE PROPERLY SUPPORTED FROM STRUCTURE WITH THE USE OF APPROVED TYPE CLEVIS, TRAPEZE HANGERS OR FLOOR STANDS WITH SPACING AS FOLLOWS:

1. STEEL PIPE OR COPPER TUBING - 1-1/2" OR LESS, 6 FOOT INTERVALS.

2. CAST IRON - ONE (1) HANGER PER LENGTH OF PIPE AND NOT EXCEEDING 10'-0" O.C.

3. FITTINGS - WITHIN 2'-0" OF EACH CHANGE OF DIRECTION.

P. INSULATION SHALL BE PROTECTED AT HANGERS BY A SECTION OF CALCIUM SILICATE PIPE INSULATION AND A 12" LONG HALF-ROUND SHEET METAL SHIELD ON THE OUTSIDE OF THE INSULATION. EXTEND PIPING INSULATION FULL THICKNESS WITHOUT INTERRUPTION THROUGH WALLS, FLOORS AND SIMILAR PENETRATIONS.

Q. PROVIDE AND INSTALL UNIONS AT PROPER POINTS TO PERMIT REMOVAL OF A PIPE, EQUIPMENT, ETC., WITHOUT INJURY TO OTHER PARTS OF THE SYSTEM AND TO PREVENT CORROSION DUE TO ELECTROLYSIS. ALL EQUIPMENT SHALL BE INSTALLED IN A MANNER TO PERMIT ACCESS FOR SERVICE WITHOUT DISASSEMBLY. UNIONS SHALL BE DIELECTRIC WHERE DISSIMILAR MATERIALS OCCUR. PRESSURE RATINGS SAME AS FITTINGS.

R. ALL DOMESTIC COLD WATER AND HOT WATER PIPE AND FITTINGS SHALL BE INSULATED WITH ½" THICK OWENS-CORNING FIBERGLASS 25 ASJ/SSL OR APPROVED EQUAL.

S. ROOF DRAIN BODIES AND HORIZONTAL STORM DRAIN PIPING OR DOWNSPOUTS, AND ANY DRAINS RECEIVING CONDENSATE SHALL BE INSULATED WITH 1 ½ " THICK OWENS-CORNING FIBERGLASS FOIL-BACKED ALL SERVICE BLANKET WRAP INSULATION.

T. CHILLED WATER AND HOT WATER HEATING PIPES SHALL BE INSULATED WITH OWENS-CORNING ASJ-SSL-II OR APPROVED EQUAL 1" THICK FOR HOT WATER, 1 ½ " THICK FOR CHILLED WATER PIPE INSULATION. FITTINGS AND VALVES SHALL BE FINISHED WITH WHITE 25/50 PVC COVERS OVER MOLDED INSULATION FITTINGS. ALL JOINTS AND LAPS SHALL BE VAPOR SEALED.

U. CONDENSATE DRAIN PIPING, AUXILIARY DRAIN PIPING AND ALL REFRIGERANT PIPING SHALL BE INSULATED WITH 1/2" THICK OWENS-CORNING FIBERGLASS 25 ASJ/SSL OR EQUAL. AUXILIARY DRAIN PAN SHALL BE INSULATED WITH 3/8" THICK ARMAFLEX SHEET INSULATION.

V. PROVIDE INSULATION PRODUCTS MANUFACTURED BY JOHNS-MANVILLE, OWENS-CORNING, ARMSTRONG AND CERTAINTEED. FIBERGLASS PIPE INSULATION SHALL BE ASTM C547-77, CLASS I. PROVIDE BANDS, WIRES, AND CEMENT AS RECOMMENDED BY INSULATION MANUFACTURER FOR THE APPLICATIONS INDICATED. FLEXIBLE FIBERGLASS DUCTWORK INSULATION SHALL BE ASTM C553-70, TYPE I, CLASS B3.

1. PROVIDE COMPOSITE INSULATION (INSULATION JACKETS, COVERINGS, SEALERS, MASTICS AND ADHESIVE) WITH FLAME-SPREAD RATINGS OF 25 OR LESS AND A SMOKE-DEVELOPED RATING OF 50 OR LESS, AS TESTED BY ASTM K04 (HFFA 255) METHOD.

2. MAINTAIN INTEGRITY OF VAPOR BARRIER JACKETS ON PIPE AND DUCTWORK INSULATION, AND PROTECT TO PREVENT PUNCTURE OR OTHER DAMAGE. SEAL OPEN ENDS OF INSULATION WITH MASTIC. SECTIONALLY SEAL ALL BUTT ENDS OF CHILLED WATER INSULATION OF FITTINGS WITH WHITE VAPOR BARRIER COATING. EXTEND PIPING INSULATION WITHOUT INTERRUPTION THROUGH WALLS, FLOORS AND SIMILAR PIPING PENETRATIONS, EXCEPT WHERE OTHERWISE INDICATED. INSTALL PROTECTIVE METAL SHIELDS AND FOAM GLASS INSERTS WHERE PIPE HANGERS BEAR ON OUTSIDE OF INSULATION.

W. ISOLATION VALVES FOR HOT OR CHILLED WATER SYSTEM SHALL BE EQUAL TO MILWAUKEE "BUTTERBALL" OR NIBCO BALL VALVES AND PROVIDED AT EACH PIECE OF EQUIPMENT. PROVIDE AUTO AIR VENTS IN HEATING WATER PIPING WHERE HIGH POINTS OCCUR.

X. RECTANGULAR "LOW PRESSURE" SHEET METAL DUCT SHALL BE FABRICATED OF CONTINUOUS HOT DIP MILL GALVANIZED MINIMUM 26 GAUGE STEEL SHEETS AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS FOR 1.0" W.C.

Y. ROUND "LOW PRESSURE" DUCT FITTINGS SHALL BE FABRICATED OF CONTINUOUS HOT DIP MILL GALVANIZED MINIMUM 26 GAUGE STEEL SHEETS AND INSTALLED IN ACCORDANCE WITH SMACNA RECOMMENDATIONS FOR 0.5" W.C.

Z. RECTANGULAR AND ROUND "PRIMARY AIR" SHEET METAL DUCT AND FITTINGS SHALL BE FABRICATED OF CONTINUOUS HOT DIP MILL GALVANIZED MINIMUM 26 GAUGE STEEL SHEETS AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS FOR 3.0" W.C., AND RECTANGULAR DUCT SHALL HAVE AN INTERNAL DUCT LINING EQUAL TO JOHNS-MANVILLE PERMACOTE LINACOUSTIC, 1" THICK, 1.5 LB. DENSITY DUCT LINER (DUCTS FOR MEDICAL WORK SHALL NOT BE LINED, BUT WILL BE WRAPPED). CONSTRUCTION METHODS:

1. RECTANGULAR - DUCTMATE SYSTEM

2. ROUND - SPIRAL DUCT SYSTEM

A. AA. ROUND DUCTS AND UNLINED RECTANGULAR DUCTS SHALL BE INSULATED WITH 3/4 POUND PER CUBIC FOOT MINIMUM DENSITY, 2" THICK, COMMERCIAL GRADE, OWENS-CORNING FIBERGLASS FOIL BACKED ALL SERVICE DUCT WRAP, OR EQUAL.

BB. FLEXIBLE DUCTS SHALL BE FLEXMASTER TYPE 8M, THERMAFLEX MKE OR WIREMOLD WK. FLEXIBLE DUCTS SHALL BE LISTED AS U.L. 181 CLASS (1) AIR DUCT AND SHALL COMPLY WITH NFPA STANDARDS 90A AND 90B.

CC. CONTRACTOR SHALL BALANCE THE HVAC SYSTEMS FOR DESIGNATED AIR AND WATER QUANTITIES AND SHALL BE N.E.B.B. OR A.A.B.C. APPROVED. SUBMIT REPORT ON NEBB, AABC, OR SMACNA FORMS FOR APPROVAL BY THE ENGINEER. EXTENT OF BALANCING WORK TO INCLUDE REBALANCING OF EXISTING SUPPLY AND EXHAUST SYSTEMS AS REQUIRED TO ACHIEVE DESIGN CFM ON SUBJECT PROJECT.

DD. DUCT ACCESS DOORS: PROVIDE RIGID AND CLOSE FITTING DOORS OF GALVANIZED STEEL WITH SEALING GASKETS AND QUICK FASTENING LOCKING DEVICES. FOR INTERNALLY LINED OR INSTALLED DUCTWORK, INSTALL MINIMUM ONE INCH THICK INSULATION WITH SHEET METAL COVER. INSTALL AT EACH FIRE DAMPER. DOORS TO BE EQUAL TO FLEXMASTER "THE INSPECTOR SERIES."

EE. FURNISH AND INSTALL SMOKE, FIRE AND/OR FIRE/SMOKE DAMPERS WHERE SHOWN ON THE DRAWINGS, AND REQUIRED BY THE GOVERNING AUTHORITY. DAMPERS SHALL BE INSTALLED AS RECOMMENDED BY SMACNA AND COMPLY WITH U.L. AND LOCAL ORDINANCES AS REQUIRED BY THE GOVERNING AUTHORITY.

FF. TEST AND BALANCE:

1. THE GENERAL CONTRACTOR SHALL RETAIN THE SERVICES OF AN INDEPENDENT CERTIFIED AIR BALANCE FIRM TO PERFORM THE TESTING AND BALANCING AND PREPARE REPORTS TO THE GENERAL CONTRACTOR. IF THE MECHANICAL CONTRACTOR IS NEBB CERTIFIED, THEY CAN BALANCE THE SYSTEM.

2. TESTING AND BALANCING SHALL BE PERFORMED IN ACCORDANCE WITH THESE SPECIFICATIONS AND IN ACCORDANCE WITH THE ASSOCIATED AIR BALANCE COUNCIL NATIONAL STANDARDS FOR FIELD MEASUREMENT AND INSTRUMENTATION, SECOND EDITION, 1974, OR NATIONAL ENVIRONMENTAL BALANCING BUREAU STANDARDS.

3. THE CONTRACTOR SHALL CORRECT ALL DEFICIENCIES IN THE OPERATION OF FACTORY SET VAV UNITS.

4. READINGS AND TEST OF DIFFUSERS, GRILLES AND REGISTERS SHALL INCLUDE DESIGN, INITIAL TEST, AND FINAL ADJUSTED FPM VELOCITY AND CFM. ALL DIFFUSERS, GRILLES AND REGISTERS SHALL BE BALANCED BY A HOOD THAT HAS BEEN CALIBRATED, INCLUDING A MANOMETER, AND PILOT TUBE READINGS SHALL BE TAKEN TO ESTABLISH TOTAL CFM FLOW IN ALL MAIN DUCTS. DIRECT READING INSTRUMENTS SUCH AS VELOMETERS AND ANEMOMETERS MAY BE USED AT TERMINAL UNITS.

IV RECORDS FOR OWNER:

A. CONTRACTOR SHALL KEEP A CLEAN SET OF DRAWINGS ON THE JOB, NOTING DAILY ALL CHANGES MADE IN THESE DRAWINGS IN CONNECTION WITH THE FINAL INSTALLATION INCLUDING EXACT DIMENSIONED LOCATIONS OF ALL NEW AND UNCOVERED EXISTING UTILITIES AND SHALL, WITH HIS REQUEST FOR FINAL PAYMENT, TURN OVER A CLEAN, NEATLY MARKED SET OF 2 MIL REPRODUCIBLE MYLARS SHOWING "AS INSTALLED" WORK TO THE ARCHITECT FOR SUBSEQUENT REVIEW AND TRANSMITTAL TO THE OWNER. CONTRACTOR SHALL NOTE ALL CONSTRUCTION CHANGES, DATE EACH SHEET AND LABEL "AS-BUILTS" IN THE REVISION BLOCK ON THE DRAWINGS. CONTRACTOR SHALL ALSO FURNISH ONE (1) SET OF BLUELINE PRINTS FROM THE "AS-BUILTS" MYLARS.

B. IN ADDITION TO THE ABOVE, CONTRACTOR SHALL ACCUMULATE DURING THE JOB'S PROGRESS, THE FOLLOWING DATA, IN TRIPLICATE, PREPARED IN A NEAT BROCHURE OR PACKET FOLDER AND TURNED OVER TO THE ARCHITECT FOR REVIEW AND SUBSEQUENT DELIVERY TO THE OWNER.

1. ALL WARRANTIES AND GUARANTEES AND MANUFACTURER'S DIRECTIONS ON EQUIPMENT AND MATERIAL COVERED BY THE CONTRACT INCLUDING THE NAMES, ADDRESSES AND TELEPHONE NUMBERS OF THE MANUFACTURER'S REPRESENTATIVE.

2. APPROVED FIXTURE BROCHURES, WIRING DIAGRAMS AND CONTROL DIAGRAMS (ORIGINAL DATA, NO COPIES).

3. COPIES OF APPROVED SHOP DRAWINGS.

4. OPERATING INSTRUCTIONS FOR HEATING AND COOLING AND OTHER MECHANICAL SYSTEM. OPERATING INSTRUCTIONS SHALL ALSO INCLUDE RECOMMENDED MAINTENANCE AND SEASONAL CHANGEOVER PROCEDURES.

5. TEST AND BALANCE REPORTS REQUIRED BY THESE SPECIFICATIONS.

6. ANY AND ALL OTHER DATA AND/OR DRAWINGS REQUIRED DURING CONSTRUCTION.

7. REPAIR PARTS LISTS OF ALL MAJOR ITEMS AND EQUIPMENT INCLUDING NAME, ADDRESS AND TELEPHONE NUMBERS OF LOCAL SUPPLIER OR AGENT.

8. VALVE TAG CHARTS AND DIAGRAMS.

C. ALL OF THE ABOVE DATA SHALL BE SUBMITTED TO THE ENGINEER FOR HIS REVIEW AT SUCH TIME AS THE CONTRACTOR SUBMITS HIS LAST ESTIMATE PRIOR TO HIS FINAL PAYMENT, BUT IN NO CASE, LESS THAN TWO WEEKS BEFORE FINAL INSPECTION.

GENERAL MECHANICAL NOTES

V RETURN AIR WILL BE TAKEN THROUGH RETURN AIR GRILLES.

VI LOCATIONS AND SIZES OF EXISTING SYSTEMS ARE APPROXIMATE. EXACT SIZES AND LOCATIONS OF ALL EXISTING PIPING, DUCTS, ETC. SHALL BE VERIFIED ON THE JOB BY THE CONTRACTOR.

VII CONTRACTOR SHALL INSTALL MECHANICAL SYSTEMS WITHOUT INTERFERENCE AND IN STRICT COORDINATION WITH ALL OTHER TRADES. HOLD DUCTWORK TIGHT AGAINST UNDERSIDE OF STRUCTURE ABOVE.

VIII ALL DUCT SIZES ARE "AIR SIZE". SHEET METAL TO BE INCREASED TO ACCOMMODATE DUCT LINER, IF APPLICABLE.

IX TAPE AND SEAL ALL ROUND DUCT CONNECTIONS TO BE PERMANENTLY AIR TIGHT.

X SPIN-IN COLLARS "ONLY" SHALL BE SUITABLE FOR CONNECTION TO RECTANGULAR DUCTWORK AND SHALL HAVE VOLUME DAMPERS. "DOVE-TAIL" TAPS WILL NOT BE ALLOWED.

XI RIGID SHEET METAL DUCT SHALL BE RUN WITHIN SIX FEET OF DIFFUSERS. FLEX DUCT SHALL BE SUPPORTED AS OFTEN AS NECESSARY TO PREVENT KINKS, FOLDS OR OTHER OBSTRUCTIONS TO AIR FLOW. CEILING GRID AND ASSOCIATED SUPPORTS MAY NOT BE USED TO SUPPORT DUCTWORK. PROVIDE RIGID 90 DEGREE ELBOWS ON DIFFUSER NECKS.

XII EQUIPMENT CAPACITIES AND CHARACTERISTICS SHALL BE AS SCHEDULED ON THE DRAWINGS.

XIII EXISTING CEILING DIFFUSERS MAY BE REUSED AND RELOCATED AS NECESSARY UNLESS NOTED OTHERWISE OR SIZE PROHIBITS USE.

XIV NEW CEILING DIFFUSERS TO BE TITUS, METALAIRE OR KRUEGER AND SUIT THE SPECIFIED SERVICE AND CEILING TYPE UNLESS NOTED OTHERWISE ON PLANS. COORDINATE WITH ARCHITECTURAL PLANS.

XV CEILING RETURN AIR GRILLES SHALL BE TITUS, NAILOR, METALAIRE OR KRUEGER.

XVI EXHAUST REGISTERS SHALL BE TITUS, NAILOR, METALAIRE OR KRUEGER AND EQUAL TO TITUS MODEL 3FL.

XVII ALL NEW FLOOR PENETRATIONS AND PENETRATIONS THROUGH RATED WALLS SHALL BE FIRE SAFED.

XVIII RE-POUR ALL ABANDONED FLOOR PENETRATIONS.

XIX ALL DIFFUSERS SHALL BE FURNISHED WITH SPIN-IN COLLAR. VOLUME DAMPER AND 6' OF FLEXIBLE DUCT.

XX CONTRACTOR SHALL PREPARE AND SUBMIT FOR APPROVAL BY THE ENGINEER ALL MAJOR ITEMS OF MATERIALS AND EQUIPMENT.

GENERAL FIRE PROTECTION NOTES

XXI IT IS THE INTENT TH

# GENERAL NOTES - PLUMBING

A. ALL MECHANICAL, ELECTRICAL, AND PLUMBING WORK SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL BUILDING CODES. REFER TO SPECIFICATIONS FOR MATERIALS AND METHODS FOR MECHANICAL AND PLUMBING CONSTRUCTION.

B. INDICATED LOCATIONS ARE APPROXIMATE.

C. COORDINATE WITH OWNER AND PERSONNEL THE SHUT-DOWN OF THE EXISTING SITE UTILITIES.

D. ROUTE ALL PLUMBING PIPING AS TIGHT AS POSSIBLE TO STRUCTURE. PIPING SHALL BE INSTALLED PARALLEL/PERPENDICULAR TO WALLS AND COLUMN LINES.

E. CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR REQUIRED FOR A COMPLETE WORKING AND COORDINATED SYSTEM.

F. COORDINATE THE EXACT LOCATION OF MECHANICAL, PLUMBING, AND FIRE PROTECTION EQUIPMENT WITH THE LOCATIONS OF LIGHT FIXTURES, PIPING, CONDUIT, AND OTHER CONSTRUCTION, TO ALLOW FOR PROPER ACCESS TO SERVICE EQUIPMENT.

G. COORDINATE ALL NEW WORK WITH ALL TRADES. WORK SHOWN ON THESE DRAWINGS ARE INTENDED TO PROVIDE THE OVERALL ENGINEERING DESIGN CONCEPT AND DOES NOT PROVIDE FOR RELOCATIONS, OFFSETS, ETC., THAT ARE REQUIRED BY THE COORDINATION OF TRADES. THIS ADDITIONAL WORK SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

H. IT IS THE REQUIREMENT OF THESE DOCUMENTS TO ALLOW ALL CEILING CONSTRUCTION AND HEIGHTS TO BE AS SHOWN ON THE ARCHITECTURAL DRAWINGS. COORDINATE THE LOCATION OF PIPING AND PROVIDE OFFSETS IN PIPING AS REQUIRED TO MEET THIS REQUIREMENT.

I. CONDUIT, PIPING, AND DUCTWORK SHALL BE INDEPENDENTLY SUPPORTED, AND EACH SUPPORT SHALL BE INDEPENDENT OF PARTITION AND CEILING SYSTEM SUPPORTS. WHERE INDEPENDENT SUPPORT IS NOT POSSIBLE AN ENGINEERED SUPPORT SYSTEM SHALL BE UTILIZED.

J. INSTALL ALL FLOOR MOUNTED EQUIPMENT ON CONCRETE HOUSEKEEPING PADS. GENERAL CONTRACTOR SHALL PROVIDE HOUSEKEEPING PADS, COORDINATE REQUIREMENTS WITH GENERAL CONTRACTOR.

K. ALL WORK SHALL BE SCHEDULED AND PERFORMED IN STRICT COORDINATION WITH ARCHITECTURAL PHASING PLANS. CONTRACTOR SHALL SCHEDULE AND PERFORM WORK IN SEQUENCE WITH THE PHASING PLAN.

L. PROTECT EQUIPMENT AND WORK FROM DAMAGE DURING HANDLING AND INSTALLATION UNTIL COMPLETION OF CONSTRUCTION.

M. REMOVE ALL EXCESS MATERIAL AND DEBRIS AND CLEAN ALL EQUIPMENT UPON COMPLETION OF WORK. TOUCH UP WITH PAINT WHERE REQUIRED.

N. ALL CONNECTIONS BETWEEN PIPES OF DISSIMILAR MATERIALS SHALL BE MADE WITH DIELECTRIC UNIONS.

O. LOCATE ISOLATION VALVES FOR EQUIPMENT AS CLOSE TO THE MAIN AS POSSIBLE.

P. PROVIDE CLEANOUTS AT THE BASE OF ALL STORM AND SANITARY STACKS.

Q. ALL SANITARY SEWER AND STORM DRAIN SYSTEM WALL CLEANOUTS SHALL BE PLACED AT 18" AFF UNLESS OTHERWISE NOTED.

R. COORDINATE ALL FIRE PROTECTION SPRINKLER LOCATIONS AND MOUNTING STYLES WITH LIGHTING PLANS AND ARCHITECTURAL REFLECTED CEILING PLANS.

S. DO NOT ROUTE PIPING INSIDE ELECTRICAL AND COMMUNICATION ROOMS, IN UNAVOIDABLE INSTANCES, ALL EQUIPMENT SHALL BE PROTECTED FROM OVERHEAD PIPING WITH DRAIN PANS. ROUTE DRAIN FROM DRAIN PANS TO NEAREST FLOOR DRAIN IN MECHANICAL AREAS. WHERE NO FLOOR DRAIN IS ACCESSIBLE ROUTE AS INDIRECT WASTE TO PLUMBING FIXTURE AS INDICATED ON CONTRACT DRAWINGS, OR NEAREST LAVATORY TAILPIECE. PROVIDE SENSOR IN DRAIN PAN TO SEND ALARM TO BAS IN CASE OF LEAKAGE INTO PAN.

T. EACH SUBCONTRACTOR SHALL PROVIDE ADEQUATELY SIZED ACCESS DOORS TO PROVIDE REQUIRED ACCESS THROUGH HARD SURFACES TO THEIR WORK REQUIRING ACCESS (ANY FLOW DEVICES, VALVES, ETC.). SUBCONTRACTOR IS ALSO REQUIRED TO PROVIDE ADEQUATE LOCATION INFORMATION SO ACCESS CAN BE INSTALLED BY INTERIORS SUBCONTRACTOR.

U. REFER TO ARCHITECTURAL DRAWINGS FOR RATED WALL TYPES.

V. ALL PLUMBING PIPING SHALL BE IDENTIFIED IN ACCORDANCE WITH THE SPECIFICATIONS.

W. SLOPE AND ARRANGE WATER PIPING SYSTEMS TO ESTABLISH HIGH POINTS FOR AIR ELIMINATION AND LOW POINTS TO PERMIT PROPER DRAINING OF EACH LINE.

X. COORDINATE ALL PIPING FLOOR PENETRATIONS WITH STRUCTURAL.

Y. SPACE LOCATIONS FOR MATERIALS, EQUIPMENT AND FIXTURES HAVE BEEN MADE ON THE BASIS OF PRESENT AND KNOWN FUTURE REQUIREMENTS AND THE DIMENSIONS OF ITEMS OF EQUIPMENT OR FIXTURES OF A PARTICULAR MANUFACTURER WHETHER INDICATED OR NOT. THE CONTRACTOR SHALL VERIFY THAT ALL MATERIALS, EQUIPMENT AND FIXTURES PROPOSED FOR USE ON THIS PROJECT ARE WITHIN THE CONSTRAINTS OF THE ALLOCATED SPACE.

Z. PIPE PENETRATIONS THROUGH WALLS SHALL MAINTAIN THE CONSTRUCTION/FIRE RATING OF THE WALL.

AA. REFER TO STRUCTURAL ENGINEER FOR METHOD OF PIPE PENETRATIONS THROUGH STRUCTURAL MEMBERS (BEAMS, JOISTS, ...).

## DEMOLITION

A. ALL CAPPED SANITARY WASTE, VENTS AND DOMESTIC WATER PIPING THAT ARE NOT BEING USED, NEED TO BE REMOVED BACK TO THE MAINS AND CAPPED.

B. PROVIDE ADDITIONAL VALVES, FITTINGS AND/OR PIPING AS NECESSARY TO PROVIDE UNINTERRUPTED SERVICE TO AREAS OUTSIDE AND INSIDE OF THE AREA WORK.

C. ALL WORK SHALL BE PERFORMED IN STRICT COORDINATION WITH HOSPITAL SCHEDULES, OCCUPANCIES AND WORK. CONTRACTOR SHALL COORDINATE WITH HOSPITAL REPRESENTATIVE.

D. ALL NECESSARY SHUTDOWNS OR OUT OF PHASE WORK SHALL BE SCHEDULED WITH THE HOSPITAL REPRESENTATIVE.

E. INFORMATION PROVIDED ON THESE DRAWINGS HAVE BEEN TAKEN FROM DESIGN DRAWING AND FIELD OBSERVATIONS. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO PRICING AND COMMENCEMENT OF WORK.

F. WHERE EXISTING WALLS ARE DEMOLISHED, REMOVE ALL EXISTING PLUMBING FIXTURES AND THEIR ASSOCIATED PIPING BACK TO THE POINT OF ORIGINATION. ALL EXISTING PIPING THAT WAS SHUT DOWN DURING DEMOLITION SHALL BE TURNED ON AND CHECKED FOR LEAKS.

G. PROVIDE FOR ANY AND ALL DEMOLITION WORK NECESSARY TO ACCOMMODATE ALL NEW CONSTRUCTION, INCLUDING ARCHITECTURAL, MECHANICAL, PLUMBING OR ELECTRICAL WORK.

H. IF DEMOLITION IS REQUIRED TO INSTALL AN ITEM, THE CONTRACTOR SHALL RESTORE THE AREA TO PREVIOUS CONDITION, OR REPLACE DAMAGED ITEMS WITH NEW ITEMS TO MATCH EXISTING.

I. A DEVICE OR PIPING WITH AN 'X' INDICATES EXISTING TO BE REMOVED INCLUDING ALL ASSOCIATED VALVES AND FIXTURES. PIPING TO BE VALVED AND CAPPED AT POINT OF ORIGIN.

J. CONTRACTOR SHALL REMOVE ALL FIXTURES, ASSOCIATED PIPING AND EQUIPMENT INDICATED TO BE REMOVED AND/OR RELOCATED UNLESS NOTED OTHERWISE. PROVIDE AND INSTALL ALL NECESSARY FIXTURES, EQUIPMENT AND ACCESSORIES REQUIRED TO MAINTAIN SERVICE TO ALL "EXISTING TO REMAIN" FIXTURES AND EQUIPMENT THAT MAY BE INTERRUPTED DURING DEMOLITION.

K. WHERE EXISTING MECHANICAL EQUIPMENT IS DEMOLISHED, REMOVE ALL RELATED PLUMBING TO THE EQUIPMENT AND THEIR ASSOCIATED PIPING BACK TO THE POINT OF ORIGINATION AND VALVE & CAP.

L. ITEMS REMOVED AND NOT REINSTALLED OR RETURNED TO OWNER SHALL BE DISPOSED OF LEGALLY (COORDINATE WITH OWNER FOR THE DISPOSAL).

M. ALL EXISTING PLUMBING RISER(S) LOCATED IN THE DEMOLISHED WALLS/CHASES MUST BE RELOCATED TO AN APPROVED LOCATION BY THE ARCHITECT THEN RECONNECTED ON ADJACENT FLOORS.

N. ANY FLOOR DRAINS OR FLOOR SINKS NOT REQUIRED SHALL BE REMOVED COMPLETELY. DRAINS ON THE GROUND FLOOR SHALL BE PERMANENTLY PLUGGED WITH GROUT AND CUT BACK TO ACCEPT NEW FLOORING MATERIAL.

## RENOVATION

A. COORDINATE ALL PIPING ROUTING WITH OTHER TRADES BEFORE INSTALLING PIPING. OFFSET PIPING WHERE POSSIBLE, TO COORDINATE WITH OTHER TRADES.

B. CONNECT VENT AND WATER FOR NEW FIXTURES TO NEAREST PIPING IN CEILING SPACE ON THIS FLOOR. CONNECT WASTE FOR NEW FIXTURES TO NEAREST PIPING IN CEILING SPACE OF FLOOR BELOW

C. WHERE POSSIBLE, REUSE EXISTING FLOOR PENETRATIONS AFTER REVIEW AND APPROVAL BY ARCHITECT. LOCATIONS SHOWN ON THESE DRAWINGS REFLECT DESIGN INTENT AND ARE BASED ON AS-BUILT DRAWINGS MADE AVAILABLE TO THE ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL LOCATIONS OF NEW FLOOR PENETRATIONS BASED ON FIELD INVESTIGATION AND VERIFICATION, PRIOR TO STARTING NEW WORK.

D. WHERE UNAVOIDABLE, PIPE ROUTING MAY REQUIRE BORING THROUGH STRUCTURAL GIRDERS. CONTRACTOR SHALL X-RAY GIRDER AND PREPARE A DRAWING AND SUPPORTING DOCUMENTS SHOWING THE PROPOSED BORE LOCATIONS FOR PIPING. SUBMIT THIS PROPOSED PIPING LAYOUT FOR ENGINEER/ARCHITECT/OWNER REVIEW AND APPROVAL PRIOR TO COMMENCING WORK. PROCEED WITH NEW WORK ONLY WITH WRITTEN STATEMENT TO PROCEED FROM ARCHITECT OR STRUCTURAL ENGINEER.

E. FOR ALL EXISTING FLOOR PENETRATIONS NOT USED, CUT PIPING JUST BELOW FLOOR LEVEL, PLUG PIPING WATER-TIGHT AND FILL WITH GROUT. REPAIR AND PATCH FLOOR TO MATCH EXISTING.

F. CONFIRM WITH ARCHITECTURAL DRAWINGS THE REQUIRED MOUNTING HEIGHTS PRIOR TO INSTALLATION/RE-INSTALLATION OF FIXTURES.

G. ALL CONNECTIONS TO EXISTING PIPING SHALL BE MADE TO SAME SIZE OR LARGER EXISTING PIPING. IF IT IS DETERMINED BY FIELD INVESTIGATION THAT THE EXISTING PIPE SIZE TO BE CONNECTED TO IS SMALLER THAN THE NEW PIPE SIZE, NOTIFY ARCH/ENGR BEFORE PROCEEDING WITH WORK.

H. CONNECTIONS TO EXISTING SANITARY PIPING IS BASED ON EXISTING DRAWINGS AND LIMITED FIELD INVESTIGATION DUE TO INACCESSIBLE AREAS. PIPING LESS THAN 4" SHALL HAVE A 1/4" SLOPE PER FOOT, PIPING 4" AND LARGER A 1/8" SLOPE PER FOOT. IF IT IS DETERMINED DURING CONSTRUCTION/FIELD SURVEY THAT THE PIPE ROUTING CAN NOT TIE-IN TO EXISTING SANITARY PIPING AS SHOWN ON THESE DRAWINGS BECAUSE OF ELEVATION DIFFERENCES, CONTRACTOR SHALL PREPARE AN ADJUSTED PIPING ROUTING AND CONNECTION TO EXISTING PIPING BASED ON ACTUAL FIELD CONDITIONS. SUBMIT THIS PROPOSED PIPING LAYOUT FOR ENGINEER/ARCHITECT/OWNER REVIEW PRIOR TO CONTINUING WITH CONSTRUCTION.

# FIRE PROTECTION NOTES

A. FIRE PROTECTION CONTRACTOR SHALL REFER TO THE PLUMBING DRAWINGS FOR SCOPE OF WORK INCLUDING THE GENERAL NOTES ON THIS SHEET.

B. THE BUILDING'S FIRE PROTECTION SYSTEM MUST REMAIN IN SERVICE DURING CONSTRUCTION. FIRE PROTECTION ENGINEER IS RESPONSIBLE FOR EXTENT OF DEMOLITION, RELOCATION, AND RENOVATION OF THE FIRE PROTECTION SYSTEM.

C. RENOVATION AND DEMOLITION SCOPE OF WORK FOR FIRE PROTECTION SYSTEM IS THE RESPONSIBILITY OF THE FIRE PROTECTION ENGINEER.

D. DESIGN OF THE SPRINKLER SYSTEM SHALL BE UNDER DIRECT SUPERVISION OF AN RME (RESPONSIBLE MANAGING EMPLOYEE) EXPERIENCED IN DESIGN OF THIS WORK AND LICENSED IN THE STATE OF COLORADO. ALL DESIGN SUBMITTAL DOCUMENTS SHALL BEAR THE RME'S SIGNED AND DATED REGISTRATION NUMBER. THE SYSTEM SHALL BE INSTALLED BY A FIRM HAVING MINIMUM THREE YEARS EXPERIENCE REGULARLY ENGAGED IN THE DESIGN AND INSTALLATION OF AUTOMATIC FIRE PROTECTION SYSTEMS IN ACCORDANCE WITH REQUIREMENTS OF THE NATIONAL FIRE PROTECTION ASSOCIATION AND THE STATE OF COLORADO FIRE MARSHALL'S OFFICE. EVIDENCE TO SUPPORT THE ABOVE REQUIREMENTS SHALL BE SUBMITTED WITH SHOP DRAWINGS. WORKING PLANS SHALL BE SEALED BY AN ENGINEER REGISTERED BY THE COLORADO STATE BOARD FOR PROFESSIONAL ENGINEERS IN THE FIRE PROTECTION SPECIALTY.

E. DEMOLISH/RELOCATE/PROVIDE NEW SPRINKLER HEADS AS REQUIRED BY THE RENOVATION/EXPANSION SPACE FLOOR PLANS. FIRE PROTECTION SYSTEM FOR THE BUILDING MUST REMAIN IN SERVICE DURING CONSTRUCTION.

F. PROVIDE STANDARD QUICK RESPONSE SPRINKLER HEADS FOR ALL AREAS, UNLESS OTHERWISE NOTED.

G. COORDINATE SPRINKLER AND FIRE MAIN LOCATIONS WITH ALL TRADES.

H. COORDINATE ALL FIRE PROTECTION SPRINKLER LOCATIONS AND MOUNTING STYLES WITH LIGHTING PLANS AND ARCHITECTURAL REFLECTED CEILING PLANS.

## PROJECT DESIGN CRITERIA

| | |
|---|---|
| LOCATION: | |
| CITY/STATE | AURORA, COLORADO |
| APPLICABLE CODES: | |
| BUILDING | 2009 IBC |
| MECHANICAL | 2009 IMC |
| PLUMBING | 2012 2009 IPC |
| ENERGY | 2009 IECC |
| ELECTRICAL | 2014 ~~2011~~ NEC |
| LATITUDE: | |
| DEG. N. LAT. | 39.69 |
| ELEVATION: | |
| FT. ABOVE SEA LEVEL | 5514 |

**MECHANICAL/ELECTRICAL SYSTEM COORDINATION SCHEDULE**

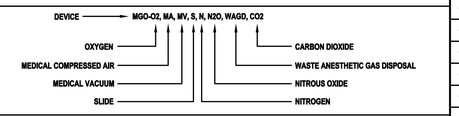
| SYSTEM | FURNISHED BY | INSTALLED BY | POWER WIRING BY | CONTROL OR SUPERVISION WIRING BY |
|---|---|---|---|---|
| ELECTRIC WATER COOLER | DIVISION 23 | DIVISION 23 | DIVISION 26 | -- |
| THIS TABLE IS PROVIDED AS A GUIDE TO THE DOCUMENT PREPARATION AND IN NO WAY INDICATES CONTRACTOR MEANS AND METHODS | | | | |

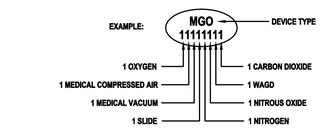
# MEDICAL GAS SYMBOLS

| SYMBOL | DESCRIPTION |
|---|---|
| O2 | MEDICAL OXYGEN PIPING |
| MA | MEDICAL AIR PIPING |
| MV | MEDICAL VACUUM PIPING |
| WAGD | WASTE ANESTHETIC GAS DISPOSAL PIPING |
| N | MEDICAL NITROGEN PIPING |
| N2O | MEDICAL NITROUS OXIDE PIPING |
| CO2 | CARBON DIOXIDE PIPING |
| | MEDICAL GAS PIPING DROPS IN WALL FULL SIZE |
| MGO | MEDICAL GAS OUTLETS |
| AA | AREA ALARM |
| MA | MASTER ALARM |
| ZVB | ZONE VALVE BOX |
| | MASTER ALARM SENSOR |
| | AREA ALARM SENSOR |
| L | LOCKABLE TYPE BALL VALVE |

# MEDICAL GAS LEGEND

| | | | |
|---|---|---|---|
| MAP | = MASTER ALARM PANEL | MED AIR | = MEDICAL COMPRESSED AIR |
| MGB | = MEDICAL GAS CEILING BOOM | MV | = MEDICAL VACUUM |
| MGC | = MEDICAL GAS CEILING COLUMN | 02 | = OXYGEN |
| MGD | = MEDICAL GAS DROP | S | = SLIDE |
| MGH | = MEDICAL GAS HEADWALL | AAP | = AREA ALARM PANEL |
| MGO | = MEDICAL GAS WALL OUTLET | ZVB | = ZONE VALVE BOX |
| MGP | = MEDICAL GAS PEDESTAL | NCP | = NITROGEN CONTROL PANEL |
| MVE | = MEDICAL GAS VACUUM EXHAUST | N | = NITROGEN |
| ME | = MEDICAL EQUIPMENT COMPRESSED AIR (FOR BRAKES ON MEDICAL BOOMS) | N2O | = NITROUS DIOXIDE GAS |
| | | CO2 | = CARBON DIOXIDE GAS |
| | | WAGD | = WASTE ANESTHETIC GAS DISPOSAL |




MEDICAL GAS NOTES:

A. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF MEDICAL GAS OUTLETS, ZONE VALVE BOXES AND ALARM PANELS.

B. NOT ALL GASES ARE TO BE USED AT EACH LOCATION. THE GAS ORDER SHOWN IN THE EXAMPLE IS TYPICAL FOR ALL OUTLETS.

C. COORDINATE MEDICAL GAS PIPE ROUTINGS WITH ALL OTHER TRADES BEFORE INSTALLATION.

**TYPICAL MOUNTING HEIGHTS FOR MEDICAL GAS DEVICES*:**

| | |
|---|---|
| WALL OUTLETS: | 5' (60 INCHES) TO THE CENTER OF THE OUTLET |
| ZONE VALVE BOX: | 5'-4" (66 INCHES) TO THE TOP OF THE ZONE VALVE BOX |
| AREA ALARM: | 5'-6" (66 INCHES) TO THE TOP OF THE ALARM |
| MASTER ALARM: | 5'-6" (66 INCHES) TO THE TOP OF THE ALARM |
| NITROGEN CONTROL CABINET: | 5'-2" (62 INCHES) TO THE BOTTOM OF THE PANEL |
| FIXED CEILING COLUMN: | 5'-3" (63 INCHES) TO THE BOTTOM OF THE COLUMN |
| RETRACTABLE CEILING COLUMN: | 5'-10" (70 INCHES) TO THE BOTTOM OF THE COLUMN |
| CEILING HOSE DROP: | 6'-4" (76 INCHES) TO THE BOTTOM OF THE HOSE |
| ASSEMBLY CEILING ARMS/BOOMS: | CONSULT MANUFACTURERS RECOMMENDATIONS |

* ALL DIMENSION HEIGHTS SHALL BE COORDINATED WITH ARCHITECTURAL ELEVATION.

# PLUMBING SYMBOLS

ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATICALLY AND MAY NOT BE TO SCALE.

| SYMBOL | DESCRIPTION |
|---|---|
| | DOMESTIC COLD WATER |
| | DOMESTIC HOT WATER (TEMP. AS NOTED) |
| | DOMESTIC HOT WATER RETURN (TEMP. AS NOTED) |
| HP | HIGH PRESSURE COLD WATER |
| | COLD OR HOT REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER (RPZ) |
| | EXISTING PIPING TO BE REMOVED |
| | PIPING TO BE ELECTRICALLY HEAT TRACED |
| SS | SANITARY SEWER PIPING (SOIL OR WASTE) |
| GW | GREASY WASTE SEWER PIPING |
| | SANITARY VENT PIPING |
| SSD | SUB-SOIL DRAIN PIPING, FOOTING DRAIN PIPING |
| AW | ACID WASTE PIPING |
| AV | ACID VENT PIPING |
| IW | INDIRECT WASTE |
| SED | SEWAGE EJECTOR DISCHARGE PIPING (PUMPED SANITARY) |
| CD | CONDENSATE DRAIN PIPING |
| D | DRAIN PIPING |
| | CONNECT NEW TO EXISTING |
| SD | STORM DRAIN PIPING |
| OD | STORM OVERFLOW DRAIN PIPING |
| CA | COMPRESSED AIR PIPING |
| SPD | SUMP PUMP DISCHARGE PIPING (PUMPED STORM WATER) |
| F | FIRE PROTECTION (STANDPIPE, SPRINKLER, SERVICE) |
| LPG/MPG | NATURAL GAS PIPING (LOW PRESSURE GAS/MEDIUM PRESSURE GAS) |
| SP | SPRINKLER PIPING (SPRK.) |
| DSP | DRY SPRINKLER PIPING |
| PASP | PRE-ACTION SPRINKLER PIPING |
| | GATE VALVE |
| | BUTTERFLY VALVE |
| | BALL VALVE |
| | GLOBE VALVE |
| | TEMPERATURE AND PRESSURE RELIEF VALVE |
| | GAS COCK / PLUG VALVE |
| | SOLENOID VALVE |
| | PRESSURE REGULATION VALVE (PRV) |
| AQ | AQUASTAT |
| | CHECK VALVE |
| | CHECK VALVE WITH AUTOMATIC BALL DRIP |
| | VALVE IN VERTICAL |
| R | GAS PRESSURE REGULATOR VALVE |
| | BALANCING VALVE |
| | STRAINER WITH BLOW-OFF VALVE |
| | STRAINER |
| SA-A | SHOCK ARRESTOR SA-(A) |
| V | VACCUUM BREAKER |
| HD | HUB DRAIN |
| FD | FLOOR DRAIN |
| FS | FLOOR SINK |
| | 2-WAY CLEANOUT (GRADE) (GCO) |
| | PRESSURE GAUGE WITH GAUGE COCK |
| | THERMOMETER WITH SHUT-OFF COCK |
| | HOSE BIBB (HB) OR WALL HYDRANT (WH) |
| | YARD HYDRANT |
| | SLEEVE THRU WALL |
| | EXPANSION LOOP |
| FCO GCO | FLOOR CLEANOUT OR GRADE CLEANOUT |
| RD | ROOF DRAIN |
| OD | OVERFLOW ROOF DRAIN |

| SYMBOL | DESCRIPTION |
|---|---|
| | DOWNSPOUT NOZZLE (18"A.F.F.) |
| WCO | WALL CLEANOUT |
| CO CO | CLEANOUT PLUG |
| OS Y | OS & Y VALVE SUPERVISED (HORIZ. POSITION/VERT. POSITION) |
| FCA | SPRINKLER SYSTEM FLOOR CONTROL VALVE ASSEMBLY (FCVA) |
| | DOUBLE CHECK VALVE ASSEMBLY (DCVA) WITH OS & Y VALVES SUPERVISED |
| FS | FLOW SWITCH |
| | FIRE HOSE VALVE |
| | SIAMESE FIRE DEPARTMENT CONNECTION |
| | DIRECTION OF SLOPE |
| | DIRECTION OF FLOW |
| | CAP OUTLET OR PLUGGED OUTLET |
| | UNION |
| | CAP SANITARY SEWER OR STORM PIPING |

# FIRE PROTECTION SYMBOLS

ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATICALLY AND MAY NOT BE TO SCALE.

| | |
|---|---|
| F | FIRE PROTECTION (STANDPIPE, SPRINKLER, SERVICE) |
| SP | SPRINKLER PIPING (SPRK.) |
| DSP | DRY SPRINKLER PIPING |
| PASP | PRE-ACTION SPRINKLER PIPING |
| FCA | SPRINKLER SYSTEM FLOOR CONTROL VALVE ASSEMBLY (FCVA) |
| | HOSE VALVE IN CABINET |
| FS | FLOW SWITCH |
| TS | TAMPER SWITCH VALVE |
| | FIRE HOSE VALVE |
| | SIAMESE FIRE DEPARTMENT CONNECTION (FLUSH MOUNTED) |
| | SIAMESE FIRE DEPARTMENT CONNECTION (EXPOSED) |
| | ROOF MANIFOLD |
| | WET SPRINKLER ALARM VALVE |
| | DRY SPRINKLER ALARM VALVE |
| AR | AUTOMATIC SPRINKLER RISER |

## PLUMBING ABBREVIATIONS

| | | | |
|---|---|---|---|
| ABV | ABOVE | NC | NORMALLY CLOSED |
| AFF | ABOVE FINISH FLOOR | OD | OVERFLOW DRAIN |
| AFG | ABOVE FINISH GRADE | P-COND | PUMPED CONDENSATE |
| A/C | ABOVE CEILING | PD | PLANTER DRAIN |
| AP | ACCESS PANEL OR DOOR | PRV | PRESSURE REDUCING VALVE |
| AC | AIR CHAMBER | PW | PURIFIED WATER |
| AD | AREA DRAIN | PWC | PURIFIED WATER RECIRC |
| AW | ACID WASTE | R\| & C | ROUGH-IN AND CONNECT |
| BT | BATHTUB | ROR | REVERSE OSMOSIS RETURN WATER |
| BFF | BELOW FINISH FLOOR | ROS | REVERSE OSMOSIS SUPPLY WATER |
| BF | BELOW FLOOR | RPPBP | REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER. |
| BG | BELOW GRADE | SH | SHOWER |
| BV | AUTOMATIC BALANCING VALVE | SK | SINK |
| CCP | COIL CONDENSATE PUMP | SMR | SNOW MELT RETURN |
| CS | CLINICAL SINK | SMS | SNOW MELT SUPPLY |
| CW | DOMESTIC COLD WATER | S.O. | STORM OVERFLOW |
| HW | DOMESTIC HOT WATER | SS | SANITARY SEWER |
| HWRC | DOMESTIC HOT WATER RETURN | SS-x | SERVICE SINK DESIGNATOR WITH NUMBER |
| DS | DOWNSPOUT | SV | SANITARY VENT |
| DF | DRINKING FOUNTAIN | TP | TRAP PRIMER |
| E | EXISTING | TW | TEMPERED WATER |
| EOSC | EMERGENCY OXYGEN SUPPLY CONNECTION | V | VENT |
| EWC | ELECTRIC WATER COOLER | VTR | VENT THROUGH ROOF |
| EWH | ELECTRIC WATER HEATER | W | SANITARY WASTE |
| FCA | FIRE SPRINKLER CONTROL VALVE ASSEMBLY | WC | WATERCLOSET |
| FCO | FLOOR CLEANOUT | WCO | WALL CLEANOUT |
| FD | FLOOR DRAIN | YCO | YARD CLEANOUT |
| FDC | FIRE DEPARTMENT CONNECTION | COND | CONDENSATE |
| FDV | FIRE DEPARTMENT VALVE | FOO | FUEL OIL ? |
| FF | FINISH FLOOR | FOR | FOEL OIL RETURN |
| FFD | FUNNEL FLOOR DRAIN | FOS | FUEL OIL SUPPLY |
| FFE | FINISH FLOOR ELEVATION | | |
| FHC | FIRE HOSE CABINET | | |
| FLR | FLOOR | | |
| FRS | FLUSHING RIM SINK | | |
| FS | FIRE SPRINKLER | | |
| GC | GENERAL CONTRACTOR | | |
| GCO | GRADE CLEANOUT | | |
| IE | INVERT ELEVATION | | |
| INV | INVERT | | |
| IW | INDIRECT WASTE PIPING | | |
| LCW | LAB COLD WATER | | |
| LHW/SOLAR | LAB HOT WATER | | |
| LV | LAVATORY | | |
| MH | MANHOLE | | |
| MS | MOPSINK | | |
| NPW | NON-POTABLE/DOWNSTREAM OF A BACKFLOW PREVENTER | | |

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *omckown*
Date: *Sep 17, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1046142*
Permit #: *2015-999276*


The Medical Center of Aurora
HealthONE

TRIAGE WAITING METAL DETECTOR

MEDICAL CENTER OF AURORA
1501 SOUTH POTOMAC STREET
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WILLIAM J. SIMON
47964
8/10/15
PROFESSIONAL ENGINEER

| | |
|---|---|
| PROJECT NO.: | 14-04 |
| DRAWN BY: | DG/SM |
| CHECKED BY: | WS |
| SCALE: | |
| DATE: | 08.10.15 |
| ISSUED FOR: | CONSTRUCTION |
| REVISIONS: | |

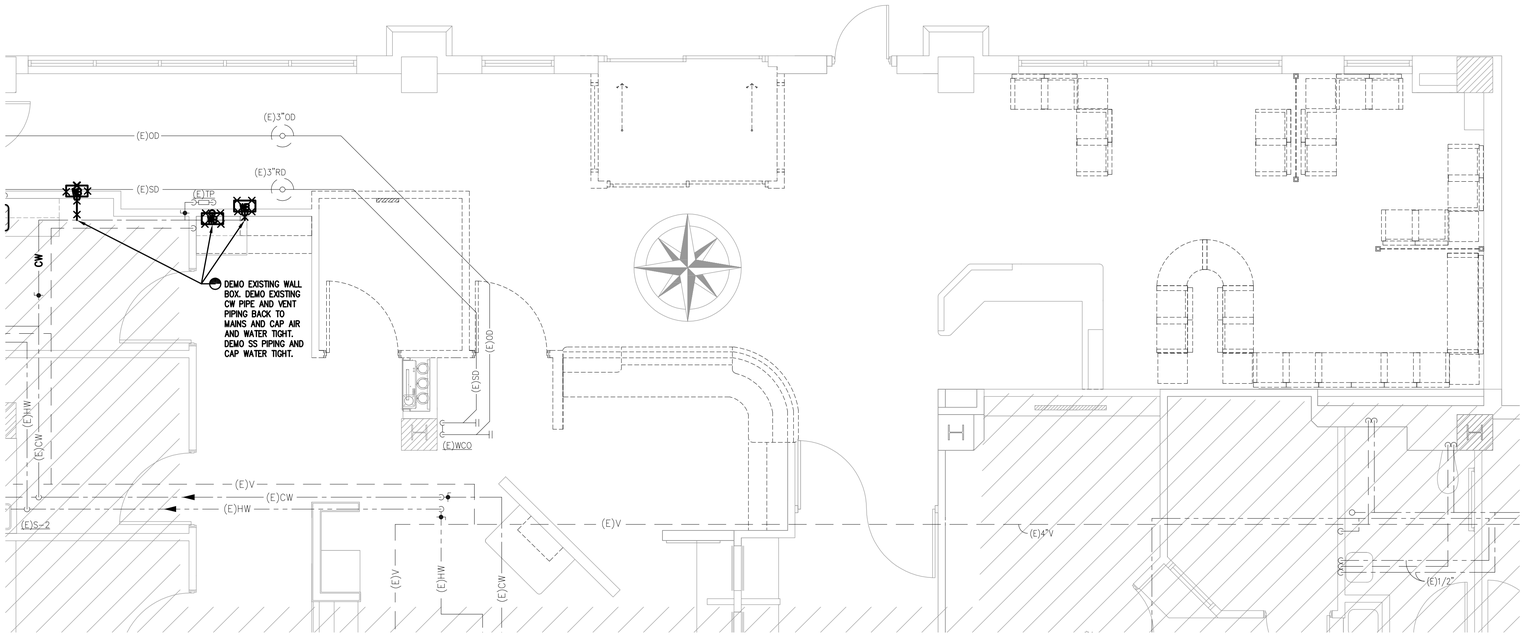
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PLUMBING LEGENDS, GENERAL NOTES, AND ABBREVIATIONS

SHEET NO.:
P-0.0

OF

## GENERAL NOTES

A. REFER TO SHEET M-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.




NORTH

## 01 PLUMBING DEMOLITION PLAN

SCALE: 1/4" = 1'-0"

RSN: *1046142*
Permit #: *2015-999276*

The Medical Center of Aurora
Health ONE

**TRIAGE WAITING METAL DETECTOR**

# MEDICAL CENTER OF AURORA

**1501 SOUTH POTOMAC STREET**
**AURORA, COLORADO 80012**


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COLORADO LICENSED
MICHAEL SMITH
47964
8/10/15
PROFESSIONAL ENGINEER

| | |
|---|---|
| **PROJECT NO.:** | **14-04** |
| **DRAWN BY:** | **DG/SM** |
| **CHECKED BY:** | **WS** |
| **SCALE:** | |
| **DATE:** | **08.10.15** |
| **ISSUED FOR:** | **CONSTRUCTION** |
| **REVISIONS:** | |

**SHEET TITLE:**

**PLUMBING DEMOLITION PLAN**

**SHEET NO.:**

P-1.1

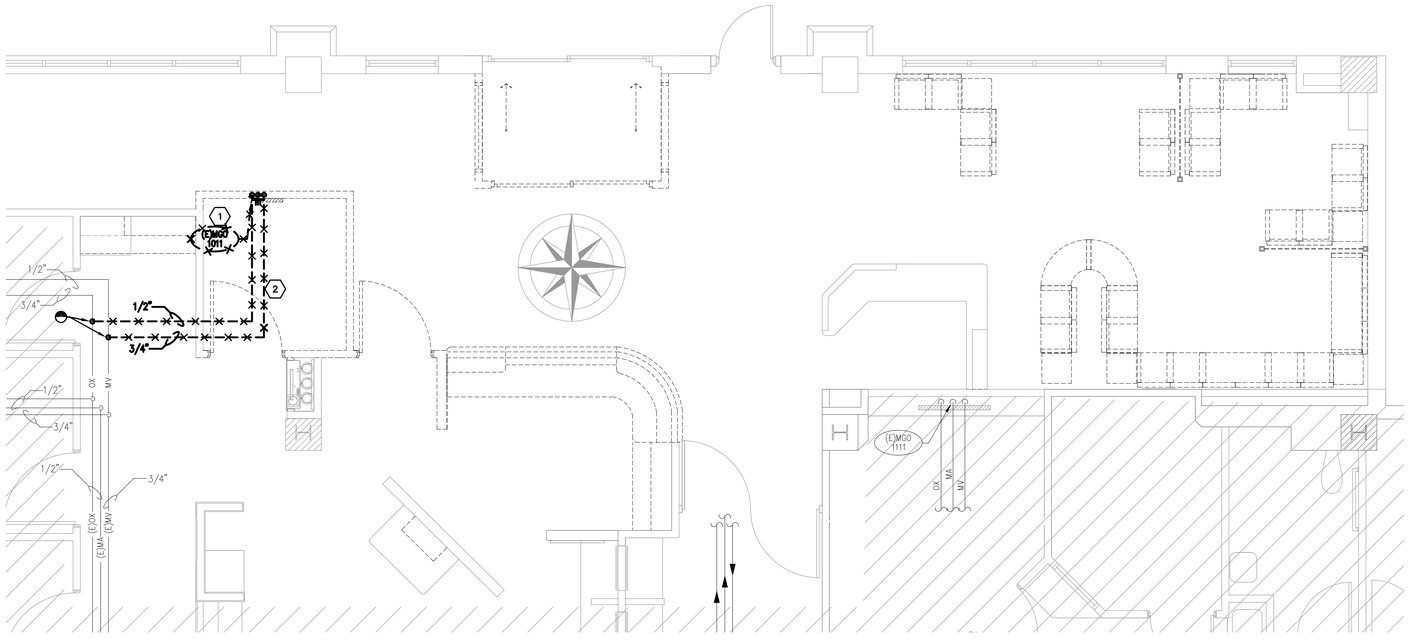
OF

## GENERAL NOTES

A. REFER TO SHEET M-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.

## LEGEND NOTES

1. DEMO EXISTING MED GAS OUTLETS.
2. DEMO EXISTING MED GAS PIPING BACK TO MAINS AND CAP AIR AND WATER TIGHT.




NORTH

## 01 PLUMBING DEMOLITION PLAN

SCALE: 1/4" = 1'-0"

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COLORADO LICENSED
WILLIAM SMITH
47964
8/10/15
PROFESSIONAL ENGINEER

| | |
|---|---|
| PROJECT NO.: | 14-04 |
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| CHECKED BY: | WS |
| SCALE: | |
| DATE: | 08.10.15 |
| ISSUED FOR: | CONSTRUCTION |
| REVISIONS: | |

**SHEET TITLE:**

MED GAS DEMOLITION PLAN

**SHEET NO.:**

P-1.2

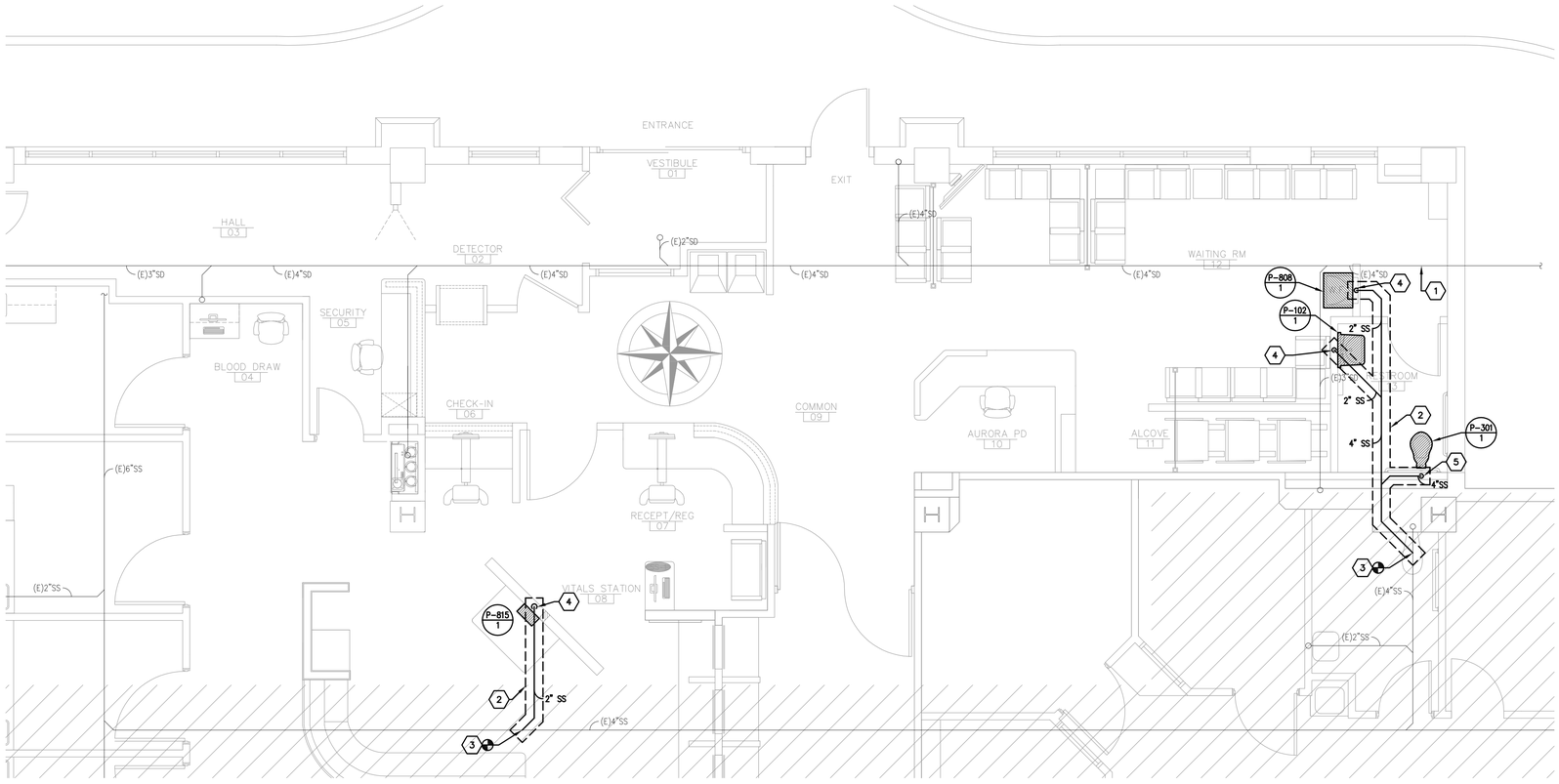
OF

## GENERAL NOTES

A. REFER TO SHEET M-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.

## LEGEND NOTES

1. COORDINATE NEW SANITARY LINE USING X-RAY OR OTHER MEANS TO DETERMINE ACTUAL STORM DRAIN LOCATION.
2. PROVIDE TRENCHING AS REQUIRED TO CONNECT NEW SANITARY SEWER TO EXISTING.
3. CONNECT NEW PIPING TO EXISTING.
4. 2"SS UP.
5. 4"SS UP.




NORTH

## 01 UNDERFLOOR PLUMBING PLAN

SCALE: 1/4" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *pmckown*
Date: *Sep 17, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1046142*
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COLORADO LICENSED WILLIAM SMITH 47964 8/10/15 PROFESSIONAL ENGINEER

PROJECT NO.: 14-04
DRAWN BY: DG/SM
CHECKED BY: WS
SCALE:
DATE: 08.10.15
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:

UNDERFLOOR PLUMBING PLAN

SHEET NO.:

P-2.0

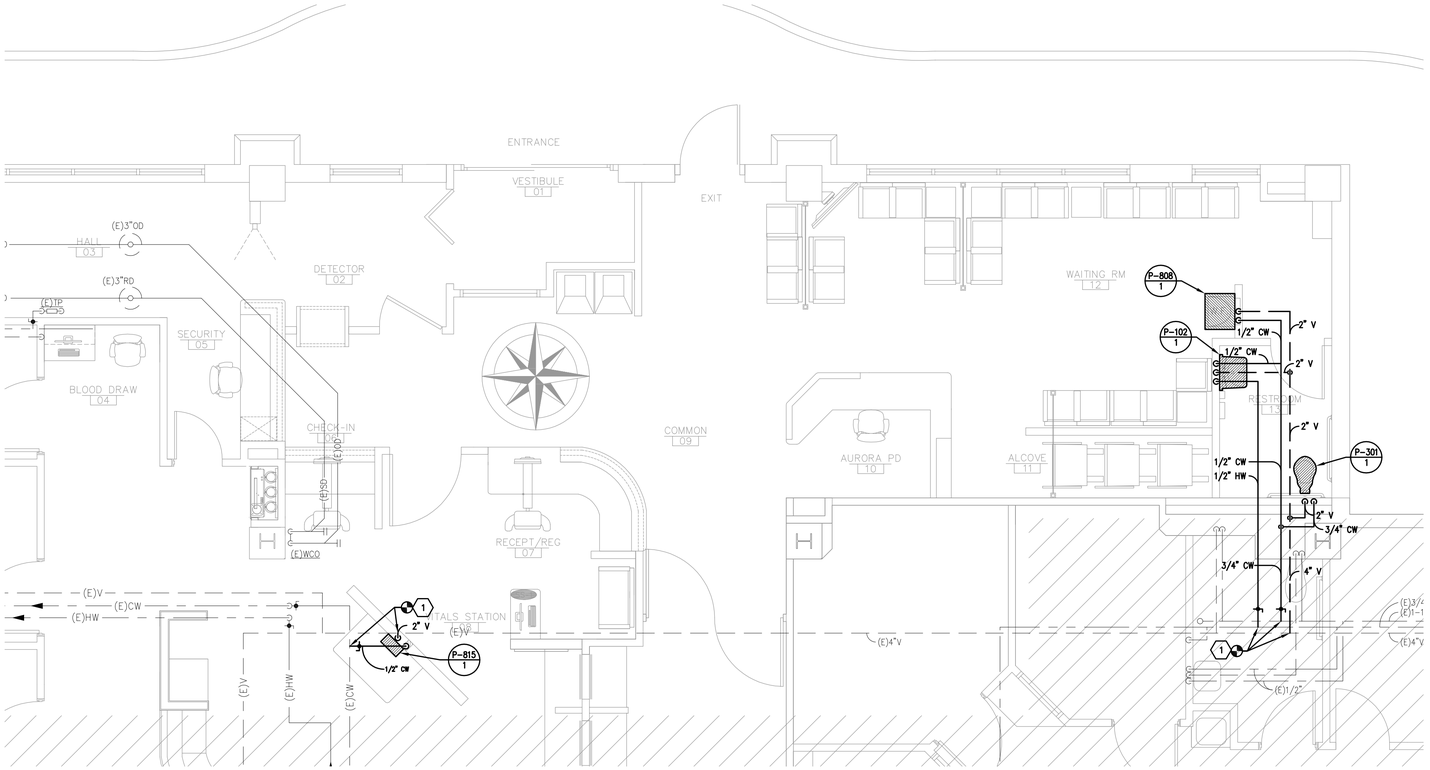
OF

## GENERAL NOTES

A. REFER TO SHEET M-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.

## LEGEND NOTES

(1) CONNECT NEW PIPE TO EXISTING.




NORTH

## 01 PLUMBING PLAN

SCALE: 1/4" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: pmckown
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PROJECT NO.: 14-04

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SCALE:
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ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:

PLUMBING PLAN

SHEET NO.:

P-2.1

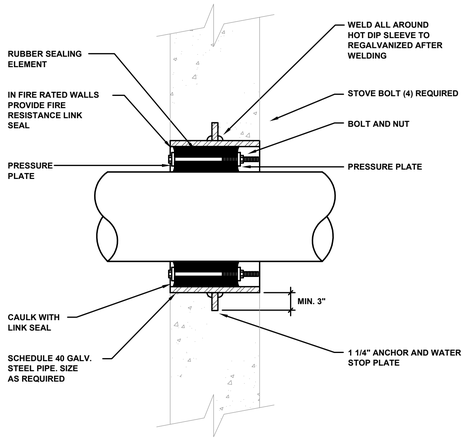
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PROVIDE (2) FOUNTAINS OR (1) HI/LO TYPE PER 09 IBC 1109.5.1

# FIXTURE SCHEDULE

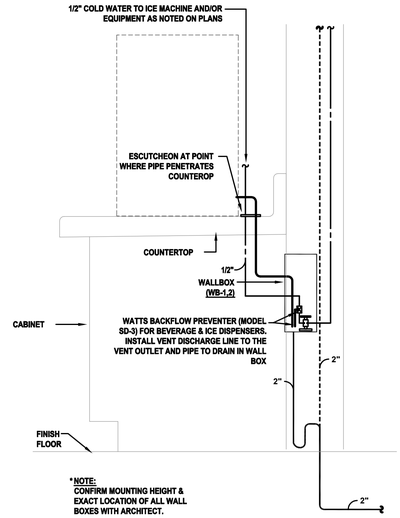
| DESIG. | HCA DESIG. | FIXTURE TYPE | CONNECTION SIZE | | | | DESCRIPTION |
|---|---|---|---|---|---|---|---|
| | | | San. Sewer | Vent | Cold Water | Hot Water | |
| | P-808 | ELECTRIC WATER COOLER ADA COMPLIANT | 2" | 2" | ½" | - | ELECTRIC WATER COOLER: ELKAY MODEL EZS8SW, WALL MOUNT STAINLESS STEEL FINISH WATER COOLER, STAINLESS STEEL BASIN WITH INTEGRAL DRAIN STRAINER. STREAM BUBBLER WITH VALVE AND AUTOMATIC STREAM REGULATOR MOUNTED WITHIN CABINET. COMPLETE WITH PUSH BAR ACTUATION. PROVIDE COOLER HIGH EFFICIENCY REFRIGERATION R134A, CAPACITY OF 8 GPH. LEAD FREE. P-TRAP: ZURN MODEL No. Z8700-PC CAST BODY ADJUSTABLE P-TRAP WITH 1-1/2" TUBULAR WALL BEND AND FLANGE. STOPS AND RISERS: ZH8824-XL LEAD FREE CHROME PLATED SOLID BRASS HEAVY DUTY ANGLE STOP WITH ROUND WHEEL HANDLES OR LOOSE KEY, FLEXIBLE CHROME PLATED COPPER LAVATORY RISER. REFER TO ARCHITECT FOR DETAIL OF SIDE BY SIDE MOUNTING OF UNITS. |
| | P-815 | ICE MAKER/VENDING BOX | 2" | - | 1/2" | - | GUY GRAY MODEL 88436 POWDER COATED STEEL BOX WITH 1/4 TURN BALL VALVE AND WATER HAMMER ARRESTOR, LOW LEAD COMPLIANT, AND 2" DRAIN CONNECTION. |
| | P-102 | WATER CLOSET ADA COMPLIANT PUBLIC, WALL HUNG | 4" | 2" | 1" | - | WATER CLOSET: ZURN MODEL No. Z5615-BWL (WHITE) FLUSH VALVE WATER CLOSET, VITREOUS CHINA, WALL HUNG, LOW CONSUMPTION 1.28 GALLONS PER FLUSH, ELONGATED BOWL, DIRECT FED SIPHON JET ACTION, FULLY GLAZED TRAPWAY, 1½" TOP SPUD. FLUSH VALVE: ZURN MODEL No. Z-6000-AV-HET, HIGH EFFICIENCY (HET) 1.28 GPF, VACUUM BREAKER FLUSH CONNECTION, 1" I.P.S. BACK-CHECK ANGLE STOP, DIAPHRAGM TYPE MANUAL FLUSH VALVE, CHROME PLATED, VANDAL RESISTANT STOP CAP. SEAT: ZURN MODEL No. Z5955SS-EL, WHITE OPEN SEAT FRONT LESS COVER, WITH SELF SUSTAINING CHECK HINGE. CARRIER: ZURN FLOOR MOUNTED CARRIER |
| | P-301 | LAVATORY - WALL HUNG PUBLIC ADA COMPLIANT | 2" | 2" | ½" | ½" | LAVATORY: ZURN MODEL No. Z5344 WALL HUNG LAVATORY, VITREOUS CHINA. FAUCET: ZURN MODEL No. Z812AA-XL-FC.5 4" FIXED CENTERS RIGID OR SWING GOOSENECK SPOUT, WITH 0.5 GPM FLOW CONTROL IN BASE OF SPOUT, WITH 4" WRISTBLADE HANDLES. MIXING VALVE: WILKINS MODEL No. ZW3870XLT-4PC POINT OF USE THERMOSTATIC MIXING VALVE, ASSE 1070 LISTED. STRAINER AND TAILPIECE: ZURN MODEL No. Z8743 STRAINER AND TAILPIECE P-TRAP: ZURN MODEL No. Z8700 CHROME PLATED CAST BRASS BODY P-TRAP WITH CLEANOUT, TUBULAR BRASS WALL BEND AND No. Z8946-1-NT TRAP WRAP KIT. STOPS AND RISERS: ZH8824-XL-LR LEAD FREE CHROME PLATED SOLID BRASS HEAVY DUTY ANGLE STOPS WITH ROUND WHEEL HANDLES OR LOOSE KEY, TWO FLEXIBLE CHROME PLATED COPPER LAVATORY RISERS COMPLETE WITH TWO CHROME PLATED STEEL FLANGES. CARRIER: ZURN FLOOR MOUNTED CARRIER |

Provide self closing or metering type of faucets in restrooms **2009 COA 22-326**



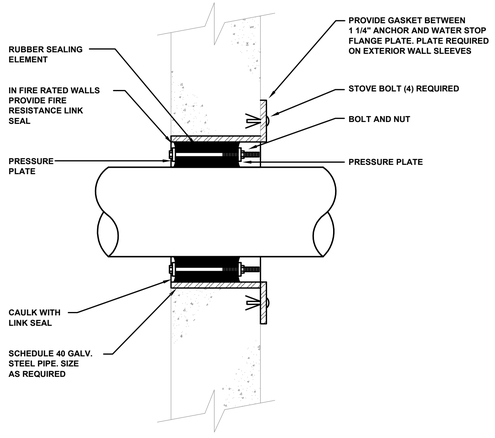

( NON-INSULATED PIPE OR CONDUIT )

## 04 PIPE SLEEVE THRU NEW WALL
NO SCALE



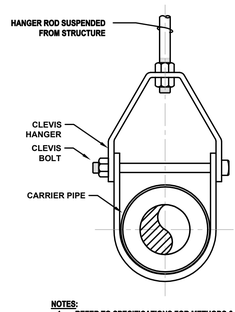

*NOTE:
CONFIRM MOUNTING HEIGHT & EXACT LOCATION OF ALL WALL BOXES WITH ARCHITECT.

## 02 WALL BOX DETAIL
NO SCALE




( NON-INSULATED PIPE OR CONDUIT )

## 03 PIPE SLEEVE THRU EXISTING WALL
NO SCALE




NOTES:
1. REFER TO SPECIFICATIONS FOR METHODS & MATERIALS.
2. REFER TO SPECIFICATION SECTION 018703 FOR SEISMIC REQUIREMENTS.

## 01 PIPE HANGER DETAILS
NO SCALE

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *pmckown*
Date: *Sep 17, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1046142*
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The Medical Center of Aurora
HealthONE

TRIAGE WAITING METAL DETECTOR

MEDICAL CENTER OF AURORA

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COLORADO LICENSED WILLIAM SMITH 47964 8/10/15 PROFESSIONAL ENGINEER

| | |
|---|---|
| PROJECT NO.: | 14-04 |
| DRAWN BY: | DG/SM |
| CHECKED BY: | WS |
| SCALE: | |
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SHEET TITLE:

PLUMBING DETAILS

SHEET NO.:

P-3.0

OF

# ELECTRICAL ABBREVIATIONS

| | |
|---|---|
| AAP | AREA ALARM PANEL |
| AC | ABOVE FINISHED COUNTER |
| AFF | ABOVE FINISHED FLOOR |
| ATS | AUTOMATIC TRANSFER SWITCH |
| BFC | BELOW FINISHED CEILING |
| BOF | BOTTOM OF FIXTURE |
| C | CONDUIT |
| CB,C/B OR CKT BKR | CIRCUIT BREAKER |
| CKT | CIRCUIT |
| CCTV | CLOSED CIRCUIT T.V. |
| CLG | CEILING |
| CUH | CABINET HEATER |
| EC | EMPTY CONDUIT |
| ELEC | ELECTRIC |
| E | EMERGENCY |
| EMS | ENERGY MANAGEMENT SYSTEM |
| EGC | EQUIPMENT GROUNDING CONDUCTOR |
| EWC | ELECTRIC WATER COOLER |
| EX | EXISTING |
| F | FUSE |
| FA | FAN COIL UNIT |
| FIXT | FIXTURE |
| FLR | FLOOR |
| FLUOR | FLUORESCENT |
| FTP, FTS | FAN TERMINAL UNIT |
| FTU | FAN TERMINAL UNIT |
| FUT | FUTURE |
| G, GND | GROUND (EQUIPMENT) |
| GEF | GENERAL EXHAUST FAN |
| GEN | GENERATOR |
| GFCI, GFI | GROUND FAULT CIRCUIT INTERRUPTER |
| HP | HORSE POWER |
| HPF | HIGH POWER FACTOR |
| HWAT | HEAT TRACE |
| IC | INTERRUPTING CAPACITY |
| ICAND | INCANDESCENT |
| IG | ISOLATED GROUND |
| IR | INFRARED SENSOR |
| JB | JUNCTION BOX |
| KEF | KITCHEN EXHAUST FAN |
| LTG | LIGHTING |
| LTS | LIGHTS |
| LV | LOW VOLTAGE |
| MATV | MASTER ANTENNA |
| MCB | MAIN CIRCUIT BREAKER |
| MFR | MANUFACTURER |
| MDP | MAIN DISTRIBUTION PANEL |
| MH | MANHOLE |
| MLO | MAIN LUGS ONLY |
| MTD | MOUNT OR MOUNTED |
| N | NEW DEVICE |
| NC (N.C.) | NORMALLY CLOSED |
| NEC | NATIONAL ELECTRIC CODE |
| NF | NONFUSED |
| NIC | NOT IN CONTRACT |
| NL | NIGHT LIGHT |
| NO (N.O.) | NORMALLY OPEN |
| PB | PULL BOX |
| PNL | PANEL |
| PWR | POWER |
| R | REMOVE DEVICES |
| RL | RELOCATED DEVICE |
| RCPT(S) OR RECEPT | RECEPTACLE(S) |
| RF | RETURN AIR FAN |
| SEF | SMOKE EXHAUST FAN |
| SF | SUPPLY AIR FAN |
| SO (S.O.) | SPACE ONLY |
| SP | SPARE |
| ST (S.T.) | SHUNT TRIP |
| SW | SWITCH |
| TEL | TELEPHONE |
| TF | TRANSFER FAN |
| TP | TAMPER PROOF |
| TV | TELEVISION |
| TVSS | TRANSIENT VOLTAGE SURGE SUPPRESSION |
| UF | UNDERFLOOR |
| UG | UNDERGROUND |
| UH | UNIT HEATER |
| UNO (U.N.O.) | UNLESS NOTED OR INDICATED OTHERWISE |
| V | VOLTAGE |
| VFD | VARIABLE FREQUENCY DRIVE |
| VP | VAPOR PROOF |
| VV | VARIABLE VOLUME UNIT |
| W | WIRE |
| W | WITH |
| WG | WIRE GUARD |
| WP | WEATHER PROOF |
| WT | WATER TIGHT |
| XFMR | TRANSFORMER |
| **xx | MOUNTING HEIGHT IN INCHES. AFF UNO. |

# GENERAL NOTATIONS AND MOUNTING HEIGHTS

NOTE 1: ALL MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE, UNLESS OTHERWISE INDICATED.
- A) 48" AFF INDICATES TO TOP OF DEVICE;
- B) 15" AFF INDICATES TO BOTTOM OF DEVICE;
- C) 60" AFF INDICATES TO BOTTOM OF DEVICE;
- D) 80" AFF INDICATES TO BOTTOM OF DEVICE;

NOTE 2: CONFIRM ALL BACKBOX SIZE WITH VENDOR SHOP DRAWINGS PRIOR TO ELECTRICAL ROUGH-IN.

NOTE 3: NOT ALL SYMBOLS SHOWN ON THIS SHEET ARE USED IN THIS PROJECT SCOPE.

(2) - LEGEND NOTES: DENOTES "SEE LEGEND NOTE NO. 2"

02/E7.01 - DENOTES: REFERENCE DETAIL 02 ON DRAWING (SHEET) E7.01

E5.01/02 - DENOTES: REFERENCE ENLARGED DETAIL PLAN 02 ON DRAWING (SHEET) E5.01

$F_X$ - CONTROLS ONLY LIGHT FIXTURE WITH MATCHING LOWERCASE LETTER

- EQUIPMENT (ID) NUMBER FOR FOOD SERVICE EQUIPMENT. REFER TO FOOD SERVICE DOCUMENTS FOR DEFINITION AND REQUIREMENTS.

(1742-ID) OR (1742-2) - EQUIPMENT (ID) NUMBER FOR OWNER PROVIDED EQUIPMENT. REFER TO OWNER'S EQUIPMENT BOOK / FF&E DOCUMENTS FOR DEFINITION AND REQUIREMENTS.

# WIRING DEVICE SYMBOLS LEGEND

| SYMBOL | DESCRIPTION | MTG. HT. UNO (SEE NOTE 1) |
|---|---|---|
| | SINGLE RECEPTACLE - 20A/125V/2P/3W/G NEMA 5-20R | 18" AFF |
| | DUPLEX RECEPTACLE - 20A/125V/2P/3W/G NEMA 5-20R | 18" AFF |
| | DUPLEX RCPT. SPLIT-WIRED - 20A/125V/2P/3W/G NEMA 5-20R | 18" AFF |
| GFI | DUPLEX RCPT. GFCI - 20A/125V/2P/3W/G NEMA 5-20R | 18" AFF |
| | QUADRAPLEX RECEPTACLE (TWO DUPLEX RCPTS. UNDER ONE COVERPLATE) | 18" AFF |
| | | |
| E | DUPLEX RECEPTACLE ON EMERGENCY CIRCUIT | 18" AFF |
| U | DUPLEX RECEPTACLE ON UPS SYSTEM CIRCUIT | 18" AFF |
| TP | DUPLEX RCPT, TAMPER PROOF-20A/125V/2P/3W/G NEMA 5-20R | 18" AFF |
| | SPECIAL PURPOSE RECEPTACLE (NEMA NO. AS INDICATED) | 18" AFF |
| | DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER | 8" AFC OR 42" AFF |
| | QUADRAPLEX RECEPTACLE (TWO DUPLEX RCPTS. UNDER ONE COVERPLATE) MOUNTED ABOVE COUNTER | 8" AFC OR 42" AFF |
| E | DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER ON EMERGENCY CIRCUIT | 8" AFC OR 42" AFF |
| E | QUADRAPLEX RECEPTACLE (TWO DUPLEX RCPTS. UNDER ONE COVERPLATE) MOUNTED ABOVE COUNTER ON EMERG. CIRC. | 8" AFC OR 42" AFF |
| (J) (2) | JUNCTION BOX - SIZE & MOUNTING AS REQUIRED | AS REQUIRED |
| | MULTIOUTLET ASSEMBLY - LENGTH AND OUTLET SPACING AS INDICATED | AS REQUIRED |
| 30/3D/3 | DISCONNECT SWITCH - 30/3D/3 INDICATES 30A, 30AMP FUSED, 3-POLE. | AS REQUIRED |
| 30/-/3 | DISCONNECT SWITCH - 30/-/3 INDICATES 30A, NONFUSED, 3-POLE. | AS REQUIRED |
| 30/3 | CIRCUIT BREAKER DISCONNECT SWITCH - THERMAL MAGNETIC CB IN NEMA 1 ENCLOSURE; AMPS/POLES AS INDICATED | AS REQUIRED |
| CB 2 | MOTOR STARTER FVNR UNO; NUMBER INDICATES NEMA SIZE | AS REQUIRED |
| | MOTOR | - |
| | | - |
| | CIRCUIT HOMERUN TO PANELBOARD (2 #12, 1#12G, 3/4"C. 20A/1P CB UNO) | - |
| | CONDUIT INSTALLED IN CEILING SPACE OF FLOOR BELOW. | - |
| X,X,X | THREE SINGLE POLE DEVICE CIRCUIT NUMBERS | - |
| X/X/X | MULTI-POLE DEVICE CIRCUIT NUMBERS | - |
| EPO | EMERGENCY POWER OFF BUTTON. WALL MOUNTED - REFER TO VENDOR DRAWINGS FOR ADDITIONAL REQUIREMENTS | AS REQUIRED |

# LIGHTING SYMBOLS LEGEND

| SYMBOL | DESCRIPTION | MTG. HT. UNO (SEE NOTE 1) |
|---|---|---|
| | 2'x4' FLUORESCENT LIGHT FIXTURE ON NORMAL CIRCUIT. | SEE FIXTURE SCHEDULE |
| | 2'x4' FLUORESCENT LIGHT FIXTURE WITH BATTERY BACK-UP BALLAST. | SEE FIXTURE SCHEDULE |
| | 2'x4' FLUORESCENT LIGHT FIXTURE W/INBOARD LAMPS ON NORMAL CIRCUIT AND OUTBOARD LAMPS ON NORMAL CIRCUIT. | SEE FIXTURE SCHEDULE |
| | 2'x4' FLUORESCENT LIGHT FIXTURE W/INBOARD LAMPS ON BATTERY BACK-UP BALLAST. | SEE FIXTURE SCHEDULE |
| | 2'x2' FLUORESCENT LIGHT FIXTURE ON NORMAL CIRCUIT. | SEE FIXTURE SCHEDULE |
| | 2'x2' FLUORESCENT LIGHT FIXTURE WITH BATTERY BACK-UP BALLAST. | SEE FIXTURE SCHEDULE |
| | 2'x2' FLUORESCENT LIGHT FIXTURE W/INBOARD LAMPS ON NORMAL CIRCUIT AND OUTBOARD LAMPS ON NORMAL CIRCUIT. | SEE FIXTURE SCHEDULE |
| | 2'x2' FLUORESCENT LIGHT FIXTURE W/INBOARD LAMPS ON BATTERY BACK-UP BALLAST. | SEE FIXTURE SCHEDULE |
| | SURFACE MOUNT / CHAIN HUNG INDUSTRIAL STRIP FIXTURE. | SEE FIXTURE SCHEDULE |
| | RECESSED/SUSPENDED DOWNLIGHT FIXTURE ON NORMAL CIRCUIT. | SEE FIXTURE SCHEDULE |
| | RECESSED/SUSPENDED DOWNLIGHT FIXTURE WITH BATTERY BACK-UP BALLAST. | SEE FIXTURE SCHEDULE |
| | RECESSED DOWNLIGHT FIXTURE WITH WALL WASH TRIM ON NORMAL CIRCUIT. | SEE FIXTURE SCHEDULE |
| | RECESSED DOWNLIGHT FIXTURE WITH WALL WASH TRIM AND BATTERY BACK-UP BALLAST. | SEE FIXTURE SCHEDULE |
| | INCANDESCENT, FLUORESCENT, OR HID PENDANT FIXTURE. | SEE FIXTURE SCHEDULE |
| | CEILING MOUNTED EXIT SIGN. SHADING INDICATES DOUBLE OR SINGAL FACE. ARROW INDICATE CHEVRON DIRECTIONS. | SEE FIXTURE SCHEDULE |
| | END MOUNTED EXIT SIGN. SHADING INDICATES DOUBLE OR SINGAL FACE. ARROW INDICATE CHEVRON DIRECTIONS. | SEE FIXTURE SCHEDULE |
| | WALL MOUNTED EXIT SIGN. SHADING INDICATES DOUBLE OR SINGAL FACE. ARROW INDICATE CHEVRON DIRECTIONS. | SEE FIXTURE SCHEDULE |
| $ | WALL SWITCH SPST, 20A, 120/277V | 48" AFF |
| $3 | 3-WAY WALL SWITCH, 20A, 120/277V | 48" AFF |
| $D | WALL DIMMER SWITCH, 20A, 120/277V | 48" AFF |
| $LV | LOW VOLTAGE WALL SWITCH | 48" AFF |

# COMMUNICATIONS SYMBOLS LEGEND

| SYMBOL | DESCRIPTION | MTG. HT. UNO (SEE NOTE 1) |
|---|---|---|
| T | TELEPHONE OUTLET. WALL MOUNTED - STUB 3/4" C. ABOVE ACCESSIBLE CEILING FROM OUTLET BOX | 15" AFF |
| T W | TELEPHONE OUTLET. WALL MOUNTED - STUB 3/4" C. ABOVE ACCESSIBLE CEILING FROM OUTLET BOX | 48" AFF |
| T P | PAY TELEPHONE OUTLET. WALL MOUNTED - STUB 3/4" C. ABOVE ACCESSIBLE CEILING FROM OUTLET BOX | 48" AFF |
| | FLOOR MOUNTED TELEPHONE OUTLET - FLUSH MOUNTED UNO | - |
| T | TELEPHONE AND DATA OUTLET - STUB 3/4" C. ABOVE ACCESSIBLE CEILING FROM OUTLET BOX | 15" AFF |
| D | DATA OUTLET. WALL MOUNTED - STUB 3/4" C. ABOVE CEILING FROM OUTLET BOX | 15" AFF |
| D AC | DATA OUTLET. WALL MOUNTED ABOVE COUNTER- STUB 3/4" C. ABOVE CEILING FROM OUTLET BOX | 8" AFC OR 42" AFF |
| | FLOOR MOUNTED DATA OUTLET - FLUSH MOUNTED UNO | - |
| CR | CARD READER. WALL MOUNTED - STUB 1/2" C. ABOVE ACCESSIBLE CEILING FROM OUTLET BOX. REFER TO ELECTRONIC HARDWARE SCHEDULE, BY DIVISION 8, FOR EXACT EQUIPMENT SPECIFICATIONS. | 48" AFF |
| PB | PUSH BUTTON FOR ACCESS CONTROL. WALL MOUNTED - STUB 1/2" C. ABOVE ACCESSIBLE CEILING FROM OUTLET BOX. REFER TO ELECTRONIC HARDWARE SCHEDULE, BY DIVISION 8, FOR EXACT EQUIPMENT SPECIFICATIONS. | 48" AFF |
| C | CCTV SECURITY CAMERA. CEILING MOUNTED. PROVIDE SINGLE GANG OULET BOX U.N.O. | - |
| CM | CCTV SECURITY CAMERA - PAN/TILT/ZOOM. CEILING MOUNTED. PROVIDE SINGLE GANG OULET BOX U.N.O. | - |
| TV | TELEVISION SYSTEM OUTLET. WALL MOUNTED - STUB 1/2" C. ABOVE ACCESSIBLE CEILING FROM OUTLET BOX. | - |
| F | FIRE ALARM PULL STATION | 48" AFF |
| F | FIRE ALARM AUDIBLE VISUAL SIGNAL | 80" AFF |
| F | FIRE ALARM AUDIBLE SIGNAL | 80" AFF |
| F | FIRE ALARM VISUAL SIGNAL | 80" AFF |
| FP | TELEPHONE JACK FOR FIREMAN'S PHONE (BY FIRE ALARM CONTRACTOR) | 48" AFF |
| D | SMOKE DETECTOR CEILING OR WALL MOUNTED | - |
| MHO | SMOKE DOOR MAGNETIC HOLD OPEN. CONNECT TO FIRE ALARM SYSTEM - STUB 3/4" C. ABOVE ACCESSIBLE CEILING FROM OUTLET | - |
| TV | TELEVISION OUTLET | - |

## PROJECT DESIGN CRITERIA

**LOCATION:**

CITY/STATE — AURORA, CO

**APPLICABLE CODES:**

| | |
|---|---|
| BUILDING | 2009 IBC |
| MECHANICAL | 2009 IMC |
| PLUMBING | 2012 ~~2009~~ IPC |
| ENERGY | 2009 IECC |
| ELECTRICAL | 2014 ~~2011~~ NEC |

**LATITUDE:**

DEG. N. LAT. — 39°41' N

**ELEVATION:**

FT. ABOVE SEA LEVEL — 5471

# ELECTRICAL SPECIFICATIONS

I GENERAL CONDITIONS

A. THE SCOPE OF THE WORK SHALL INCLUDE THE FURNISHING AND INSTALLATION OF THE NECESSARY MATERIAL AND LABOR TO ACCOMPLISH THE WORK INDICATED BY THE DRAWINGS AND HEREIN SPECIFIED. ALL WORK BY THIS CONTRACTOR SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL BUILDING CODES.

B. THE CONTRACT DOCUMENTS DO NOT PROPOSE TO SHOW ALL EXISTING SYSTEMS, EQUIPMENT OR MATERIAL. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE EXISTING CONDITIONS AT THE JOB SITE BEFORE SUBMITTING PROPOSALS. SUBMISSION OF PROPOSALS SHALL BE TAKEN AS EVIDENCE THAT SUCH INSPECTION HAS TAKEN PLACE. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE COMPLETE SET OF CONSTRUCTION DOCUMENTS, AND THE LACK OF SPECIFIC INFORMATION ON THE DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY.

C. MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE NEW AND SHALL BEAR THE U.L. LABEL WHERE APPLICABLE UNLESS NOTED OTHERWISE. ALL WORK SHALL BE GUARANTEED AGAINST DEFECTIVE MATERIALS AND WORKMANSHIP FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR AFTER COMPLETION AND ACCEPTANCE BY THE OWNER.

D. CONTRACTOR SHALL INSTALL ELECTRICAL SYSTEMS WITHOUT INTERFERENCE AND IN STRICT COORDINATION WITH OTHER TRADES.

E. MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE CONTRACT DOCUMENTS AND APPLICABLE CODES AND STANDARDS. IN CASE OF DIFFERENCE BETWEEN APPLICABLE CODES AND STANDARDS AND THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF SUCH DIFFERENCE. SHOULD THE CONTRACTOR PERFORM ANY WORK THAT DOES NOT COMPLY WITH THE REQUIREMENTS OF APPLICABLE CODES AND STANDARDS, HE SHALL BEAR ALL COSTS ARISING IN CORRECTING SUCH DEFECTS. APPLICABLE CODES AND STANDARDS SHALL INCLUDE ALL ORDINANCES, UTILITY COMPANY REGULATIONS, AND APPLICABLE REQUIREMENTS OF NATIONALLY ACCEPTED CODES AND STANDARDS. SHOULD THE CONTRACTOR SUPPLY EQUIPMENT DIFFERING FROM THE SPECIFIED ITEMS IN THE CONTRACT DOCUMENTS WITHOUT NOTIFICATION TO THE ENGINEER, HE SHALL BEAR ALL COSTS TO UPGRADE DEFICIENCIES ARISING FROM SUCH.

F. WHERE ONLY ONE MANUFACTURER'S NAME IS LISTED IN THE EQUIPMENT SPECIFICATION, OTHER MANUFACTURERS OF SIMILAR CHARACTERISTICS AND OF EQUAL OR BETTER PERFORMANCE CAPACITIES MAY BE CONSIDERED FOR "OR EQUAL" ACCEPTANCE BY THE ENGINEER. SUBSTITUTION REQUESTS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL. WHERE MORE THAN ONE MANUFACTURER IS LISTED IN THE NOTES AND EQUIPMENT SPECIFICATIONS, ONLY THOSE NAMED A PERIOD OF NOT LESS THAN ONE (1) YEAR AFTER COMPLETION AND ACCEPTANCE. SHOULD A SUBSTITUTION BE ACCEPTED, AND SHOULD THE SUBSTITUTE MATERIAL PROVE DEFECTIVE, OR OTHERWISE UNSATISFACTORY FOR THE SERVICE INTENDED WITHIN THE GUARANTEE PERIOD, THIS MATERIAL OR EQUIPMENT SHALL BE REPLACED WITH THE MATERIAL OR EQUIPMENT SPECIFIED AT NO COST TO THE OWNER.

G. PROVIDE ACCESS, INCLUDING NECESSARY ACCESS DOORS, FOR NEW AND EXISTING EQUIPMENT REQUIRING OPERATION AND/OR MAINTENANCE. RELOCATE EXISTING AND LOCATE ALL NEW EQUIPMENT SUCH THAT OPERATION OR MAINTENANCE IS NOT RESTRICTED.

H. INSTALL EQUIPMENT WITH WORKING CLEARANCES COMPLYING WITH NEC 110-16 AND 110-34.

II PRODUCTS

A. CONDUIT
1. ELECTRIC METALLIC TUBING (EMT): OF HIGH GRADE STEEL MANUFACTURED SPECIFICALLY TO STANDARDS ASSURING MAXIMUM WELDING CHARACTERISTICS AND DUCTILITY, AND SHALL CONFORM TO FED. SPEC. WW-T-806b.
2. FLEXIBLE METAL CONDUIT: MANUFACTURED OF MILD STEEL STRIP MATERIAL HAVING A HOT-DIP GALVANIZED COATING AND MEETING REQUIREMENTS OF FED. SPEC. WW-C-566b.
3. LIQUIDTIGHT FLEXIBLE CONDUIT: FLEXIBLE METAL CONDUIT AS SPECIFIED HEREIN WITH A COPPER GROUNDING STRAND AND FACTORY-APPLIED NEOPRENE JACKET. LIQUID TIGHT FLEXIBLE CONDUIT SHALL BE UL LISTED, EQUIVALENT TO ANACONDA "SEALTITE", TYPE UA.

B. COUPLINGS AND TERMINATORS
1. FOR ELECTRIC METALLIC TUBING: STEEL SET SCREW COUPLINGS; STEEL SET SCREW BOX CONNECTORS WITH NYLON INSULATED THROAT AND LOCKNUTS AT ALL BOXES AND CABINET TERMINATIONS OR NON-INSULATED BOX CONNECTOR; LOCKNUT AND NYLON-INSULATED GROUNDING BUSHING ON ALL TUBING WHERE GROUNDING BUSHINGS ARE REQUIRED.
2. FOR FLEXIBLE METAL CONDUIT: COUPLINGS AT CONNECTIONS BETWEEN FLEXIBLE CONDUIT AND EMT, AND NYLON INSULATED THROAT STEEL CONNECTORS AT BOX OR CABINET TERMINATIONS.

C. JUNCTION AND PULL BOXES
1. SIZE BOXES IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEC. BOXES SHALL BE NO SMALLER THAN 4 INCHES SQUARE BY 1-1/2 INCHES DEEP WITH COVERS ACCESSIBLE AT ALL TIMES. SET BOXES ON CONCEALED CONDUITS WITH COVERS FLUSH WITH THE FINISHED WALL OR CEILING LINE. PROVIDE JUNCTION AND PULL BOXES OF APPROPRIATE DIMENSIONS FOR CONDUITS AND CONDUCTORS NOTED, WHERE SHOWN AND WHERE NECESSARY FOR THE INSTALLATION AND PULLING OF CABLES AND WIRES. INSTALL COVERS ON JUNCTION BOXES AND CONDULETS AFTER WIRING AND CONNECTIONS ARE COMPLETED.

D. OUTLET BOXES
1. OUTLET BOXES SHALL BE UL LISTED, AND OF SIZES AND TYPES REQUIRED FOR THE APPLICATION. OUTLET BOXES SHALL BE SHEET STEEL, NO LIGHTER THAN 14 GAUGE, GALVANIZED AFTER FABRICATION. SET BOX SO FACE OF BOX WILL FINISH FLUSH WITH BUILDING SURFACE.
   a. FOR LIGHTING FIXTURE OUTLETS: 4 INCH SQUARE BY 1-1/2 INCHES DEEP WITH RAISED FIXTURE RING.
   b. FOR WALL SWITCHES, RECEPTACLES, AND COMMUNICATION USE: 4 INCH SQUARE, BY 1-1/2 INCHES DEEP. USE BOXES WITH PLASTER RINGS IN ALL PLASTERED WALLS WHERE WALL THICKNESS PERMITS. USE BOXES LESS THAN 1-1/2 INCH DEEP ONLY IN LOCATIONS WHERE DEEP BOXES CANNOT BE ACCOMMODATED BY CONSTRUCTION.

E. PULL CORDS
1. PROVIDE A NYLON POLYETHYLENE CORD, WITH A TENSILE STRENGTH OF NOT LESS THAN 200 POUNDS, IN EACH EMPTY CONDUIT TO FACILITATE THE FUTURE INSTALLATION OF CONDUCTORS. INCORPORATE PLASTIC TAGS FOR IDENTIFICATION.

F. CONDUCTORS
1. CONDUCTORS SHALL BE 98% CONDUCTIVITY SOFT DRAWN ANNEALED COPPER, 600 VOLT, THHN/THWN INSULATION, #10 AND SMALLER - SOLID, #8 AND LARGER - STRANDED.
2. NO CONDUCTORS SHALL BE SMALLER THAN NO. 12, EXCEPT FOR SIGNAL OR CONTROL CIRCUITS AND FOR INDIVIDUAL LIGHTING FIXTURE TAPS AS PERMITTED BY NEC.
3. FOR HOME RUNS ON 120-VOLT, 20-AMPERE BRANCH CIRCUITS, WHERE LENGTH OF RUN FROM PANELBOARD TO FIRST OUTLET EXCEEDS 100 LINEAR FEET, USE NO. 10 CONDUCTORS. WHERE LENGTH OF RUN IS 100 LINEAR FEET OR LESS, USE NO. 12 CONDUCTORS.
4. FOR HOME RUNS ON 277-VOLT, 20-AMPERE BRANCH CIRCUITS, WHERE LENGTH OF RUN FROM PANELBOARD TO FIRST OUTLET EXCEEDS 200 LINEAR FEET, USE NO. 10 CONDUCTORS. WHERE LENGTH OF RUN IS 100 LINEAR FEET OR LESS, USE NO. 12 CONDUCTORS.

G. WIRING DEVICES, COVER PLATES AND ACCESSORIES
1. PROVIDE WIRING DEVICES AND ASSOCIATED ACCESSORIES OF HOSPITAL GRADE. DEVICES OF LEVITON, HUBBELL OR PASS & SEYMORE ARE ACCEPTABLE. SUBMIT FOR REVIEW A COMPLETE LIST OF ANY SUBSTITUTES OFFERED FROM THOSE SPECIFIED.
2. COLOR OF WALL SWITCHES, RECEPTACLES AND FACEPLATES: AS SPECIFIED OR SELECTED BY ARCHITECT.
3. WHERE LIGHTING CIRCUITS ARE SHOWN TO BE LINE VOLTAGE SWITCHED, PROVIDE WITH SPECIFICATION GRADE, HORSEPOWER RATED, UL LISTED, BACK- AND SIDE-WIRED, TOGGLE SWITCHES RATED 20-AMP, 120 VOLTS OR 277 VOLTS. SWITCHES SHALL BE SPST, DPST, 3-WAY OR 4-WAY, WITH OR WITHOUT PILOT LIGHT, AS INDICATED ON THE DRAWINGS.
4. RECEPTACLES
   a. STANDARD WALL RECEPTACLES SHALL BE HOSPITAL GRADE, RATED 20-AMP, 120-VOLT, 2 POLE, 3-WIRE, GROUNDING TYPE, SIDE-WIRED, NEMA 5-20R.
   b. GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLES SHALL BE 20 AMP, 120 VOLT, 2 POLE, 3-WIRE, NEMA 5-20R.
5. MAINTAIN GROUNDING CONTINUITY BETWEEN DEVICES AND METALLIC RACEWAY SYSTEM IN ADDITION TO PROVIDING A GREEN EQUIPMENT GROUNDING CONDUCTOR RUN WITH ALL CIRCUIT CONDUCTORS AS INDICATED ON THE DRAWINGS. EXCEPT CARE SHALL BE TAKEN WHEN INSTALLING RECEPTACLES HAVING ISOLATED GROUND POLE SO AS TO NOT BOND THE EQUIPMENT GROUND CONDUCTOR TO THE CONDUIT SYSTEM.

H. GROUNDING
1. GROUNDING SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
2. GROUNDING CONDUCTORS SHALL BE ANNEALED COPPER CABLES OF THE SIZES INDICATED OR REQUIRED.
3. A "GREEN WIRE" EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITHIN EACH FEEDER AND BRANCH CIRCUIT RACEWAY, WHETHER METALLIC OR NON-METALLIC, TO FORM A COMPLETE AND CONTINUOUS GROUNDING PATH. CONNECT GROUNDING CONDUCTORS TO GROUND TERMINALS AT EACH END OF THE RUN.

I. LIGHTING FIXTURES
1. INSURE EACH LIGHTING FIXTURE HAS AN OPERATING SET OF LAMPS EQUAL TO EXISTING OR OF THE TYPES SHOWN ON THE DRAWINGS AND/OR SPECIFIED HEREIN. LAMPS SHALL BE MANUFACTURED BY GENERAL ELECTRIC, PHILIPS, OR OSRAM/SYLVANIA, EXCEPT WHERE SCHEDULED OTHERWISE.
2. FLUORESCENT LAMPS: IN GENERAL, 48-INCH LENGTH, T-8, RAPID START, ENERGY-SAVING LAMPS; LAMP COLOR AS INDICATED.
3. FLUORESCENT BALLASTS: IN GENERAL, ELECTRONIC TYPE FOR BOTH STANDARD FLUORESCENT AND COMPACT FLUORESCENT; INPUT POWER FACTOR ABOVE 95%, THD LESS THAN 25%; AS MANUFACTURED BY MOTOROLA, ADVANCE OR MAGNETEK.
4. PROVIDE A LIGHTING FIXTURE COMPLETE WITH LAMPS, BALLASTS, AND OTHER REQUIRED APPURTENANCES FOR EACH LIGHTING OUTLET SHOWN ON THE DRAWINGS. LIGHT FIXTURES SHALL BE AS DESCRIBED IN THE "LIGHTING FIXTURE SCHEDULE". EACH UNIT SHALL BE FURNISHED WITH ALL MOUNTING AND TRIM ACCESSORIES TO SUIT THE SPECIFIC SERVICES APPLIED. FINISHES SHALL BE FACTORY-STANDARD, EXCEPT WHERE SCHEDULED OTHERWISE.
5. PROVIDE LIGHTING FIXTURES IN ACCORDANCE WITH THE DESIGNATIONS AND DESCRIPTIONS ON THE DRAWINGS. WHERE A SINGLE MANUFACTURER AND ASSOCIATED CATALOG NUMBER IS SCHEDULED, IT IS TO ESTABLISH A DESIRED TYPE AND STANDARD OF QUALITY.
6. LIGHTING FIXTURES SHALL BE UL LABELED.

J. FIRE ALARM SYSTEM
1. FURNISH AND INSTALL FIRE ALARM AND DETECTION SYSTEM ADDITIONS AND RELOCATIONS AS INDICATED ON THE DRAWINGS, COMPATIBLE AND CONSISTENT WITH THE EXISTING SYSTEM.
2. THE EXISTING SYSTEM OPERATION SHALL REMAIN UNCHANGED PROVIDING CONTINUAL SERVICE DURING ALL PHASES OF THE RENOVATION AND EXPANSION.

K. TELEPHONE/DATA SYSTEM
1. AT ALL WALL DATA/VOICE OUTLET LOCATIONS, PROVIDE BACK BOXES AND 3/4" EMPTY CONDUIT WITH PULL CORD TO ABOVE CEILING.

III EXECUTION

A. INSTALLATION OF BUILDING CONDUIT
1. ALL INTERIOR RACEWAYS SHALL BE EMT.
2. CONDUITS SHALL BE OF SUCH SIZE AND SO INSTALLED THAT THE CONDUCTORS MAY BE DRAWN THROUGH WITHOUT INJURY OR EXCESSIVE STRAIN. SHALL BE SECURED AT CABINETS AND BOXES WITH GALVANIZED LOCKNUTS, BOTH INSIDE AND OUTSIDE, AND SHALL HAVE APPROPRIATE BUSHINGS INSIDE. BUSHINGS SHALL BE INSULATING TYPE WITH BOND GROUND CLAMPS.
3. USE LENGTHS OF FLEXIBLE METAL CONDUIT NOT LESS THAN 12 INCHES LONG AT FINAL CONNECTIONS TO ALL MOTORS, TRANSFORMERS AND SIMILAR DEVICES SUBJECT TO MOVEMENT BECAUSE OF VIBRATION OR MECHANICAL ADJUSTMENT. USE FLEXIBLE METAL CONDUITS TO EFFECT FINAL CONNECTIONS TO RECESSED LIGHTING FIXTURES. USE LIQUID TIGHT FLEXIBLE METAL CONDUIT, WITH APPROPRIATE CONNECTIONS, IN DAMP OR WET LOCATIONS, AT MOTOR OR EQUIPMENT LOCATIONS IN MECHANICAL EQUIPMENT ROOMS, AT OR NEAR PUMPS, AND WHEN INSTALLED OUTDOORS.
4. GROUND METALLIC CONDUITS AS REQUIRED BY NEC.
5. INSTALL RACEWAYS CONTINUOUS FROM OUTLET TO OUTLET BOX, OR CABINET, WITH A MAXIMUM OF 150 FEET BETWEEN PULLS. IN AREAS WHERE THERE ARE NO SUSPENDED CEILINGS, RUN ALL CONDUITS PARALLEL/PERPENDICULAR TO BUILDING SURFACE PLANES.
6. IN SYSTEMS OPERATING AT MORE THAN 300 VOLTS BETWEEN PHASE CONDUCTORS, AND WHERE DIFFERENT PHASE CONDUCTORS ARE TO BE RUN TO A COMMON GANG WALL SWITCH BOX, PROVIDE SUBSTANTIAL BARRIERS BETWEEN ADJACENT SWITCHES IN THE BOX SO THAT TWO DIFFERENT PHASE WIRES WILL NOT BE IN THE SAME COMPARTMENT.
7. WHEREVER RACEWAYS PASS THROUGH FLOORS, WALLS, PENETRATIONS, OR OTHER PARTITIONS, CAREFULLY FILL ANY SPACE BETWEEN THE OUTSIDE OF THE RACEWAY AND THE BUILDING MATERIAL TO PREVENT PASSAGE OF AIR, WATER, SMOKE, AND FUMES. FILLING MATERIAL SHALL BE A UL LISTED, INTUMESCENT SEALING HAVING FIRE/SMOKE RESISTIVE RATING EQUAL TO THE BUILDING MATERIAL PENETRATED.
8. CONDUITS UTILIZED THROUGHOUT THE PROJECT SHALL NOT BE SMALLER THAN 3/4 INCH FOR FEEDERS, MULTIPLE BRANCH CIRCUIT HOMERUNS AND HOMERUNS OF CONDUCTORS LARGER THAN NO. 12. INDIVIDUAL BRANCH CIRCUIT WIRING FOR NO. 12 CONDUCTORS SHALL BE ACCEPTABLE IN 1/2" CONDUIT, I.E. 2#12, 1#12G, 1/2"C.

B. INSTALLATION OF PULL AND JUNCTION BOXES
1. FASTEN ALL BOXES SECURELY TO THE BUILDING CONSTRUCTION, INDEPENDENT OF CONDUIT SYSTEMS.
2. ON CONCEALED CONDUIT SYSTEMS WHERE BOXES ARE NOT OTHERWISE ACCESSIBLE, SET BOXES FLUSH WITH FINISHED SURFACES FOR ACCESS, AND PROVIDE OVERLAPPING COVERS.

C. INSTALLATION OF OUTLET BOXES
1. TERMINATE CONDUITS AT A METAL OUTLET BOX AT EACH OUTLET OR DEVICE. ALL BOXES SHALL CONFORM TO THE NEC.
2. OUTLET BOXES SHALL BE SUPPORTED INDEPENDENT OF THE CONDUIT SYSTEM.

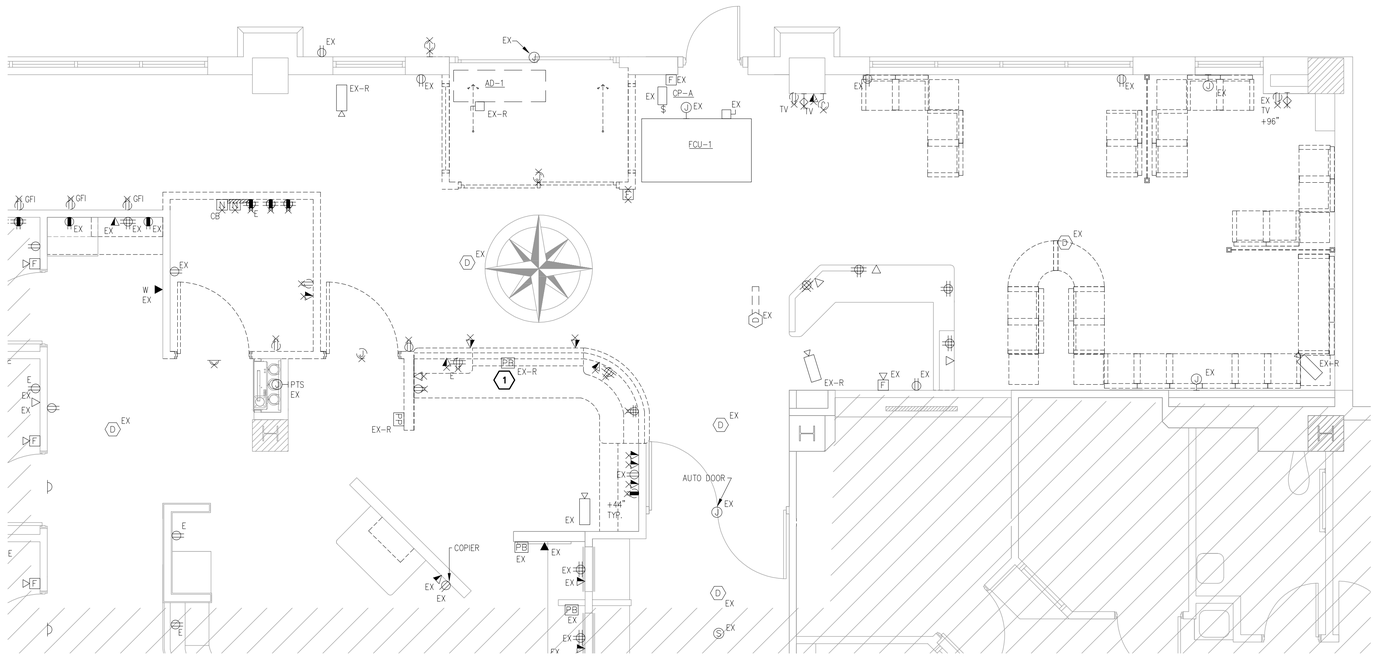
D. INSTALLATION OF CONDUIT HANGERS AND SUPPORTS
1. FURNISH AND INSTALL ALL HANGERS AND SUPPORTS REQUIRED BY RACEWAY SYSTEMS.
2. SUPPORT ALL ABOVE-GROUND ELECTRICAL CONDUITS FROM THE BUILDING STRUCTURE/CONSTRUCTION. SUPPORT CONDUITS RUNNING VERTICALLY OR HORIZONTALLY ALONG WALLS WITH GALVANIZED MALLEABLE IRON ONE-HOLE CLAMPS. CARRY INDIVIDUALLY SUPPORTED HORIZONTAL CONDUITS 1-1/4 INCH AND LARGER ON SUITABLE HANGERS.
3. LOCATE HANGERS AND TRAPEZES TO SUPPORT HORIZONTAL RACEWAYS WITHOUT APPRECIABLE SAGGING. HANGER SPACING SHALL NOT EXCEED NEC REQUIREMENTS, OR RECOMMENDATIONS OF THE NECA "STANDARD OF INSTALLATION".
4. WHERE CONDUITS SMALLER THAN 1-1/4 INCH ARE INSTALLED ABOVE REMOVABLE TYPE DRY CEILINGS, SUPPORT THEM ON SUITABLE HANGER RODS WITH METAL CL

## GENERAL NOTES

A. REFER TO SHEET E-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.
B. EXISTING DEVICES TO BE DEMOLISHED SHALL BE COMPLETELY REMOVED PER DEMOLITION SPECIFICATIONS. EXISTING RACEWAY CONCEALED WITHIN EXISTING PARTITIONS OR INACCESSIBLE CEILINGS SHALL BE REMOVED UNLESS DIRECTED OTHERWISE BY OWNER. CUT AND PATCH EXISTING PARTITIONS/CEILINGS TO REMOVE RACEWAY.

## LEGEND NOTES

(1) REMOVE EXISTING DOOR RELEASE PUSH BUTTON CONDUCTORS BACK TO NEAREST JUNCTION BOX TO REMAIN AND PROTECT DURING CONSTRUCTION FOR INSTALLATION IN NEW CASEWORK.




NORTH

## 01 ELECTRICAL DEMOLITION PLAN
SCALE: 1/4" = 1'-0"


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Health ONE

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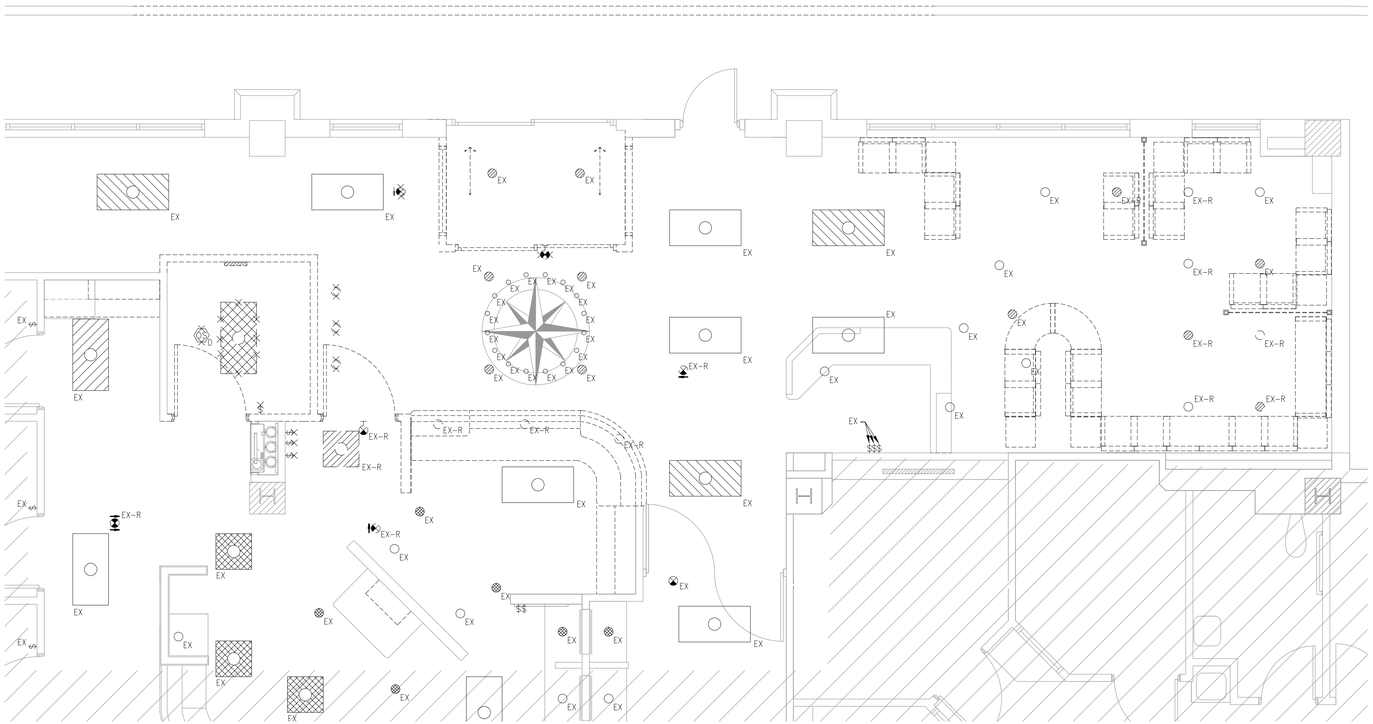
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## GENERAL NOTES

A. REFER TO SHEET E-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.




NORTH

## 01 LIGHTING DEMOLITION PLAN

SCALE: 1/4" = 1'-0"

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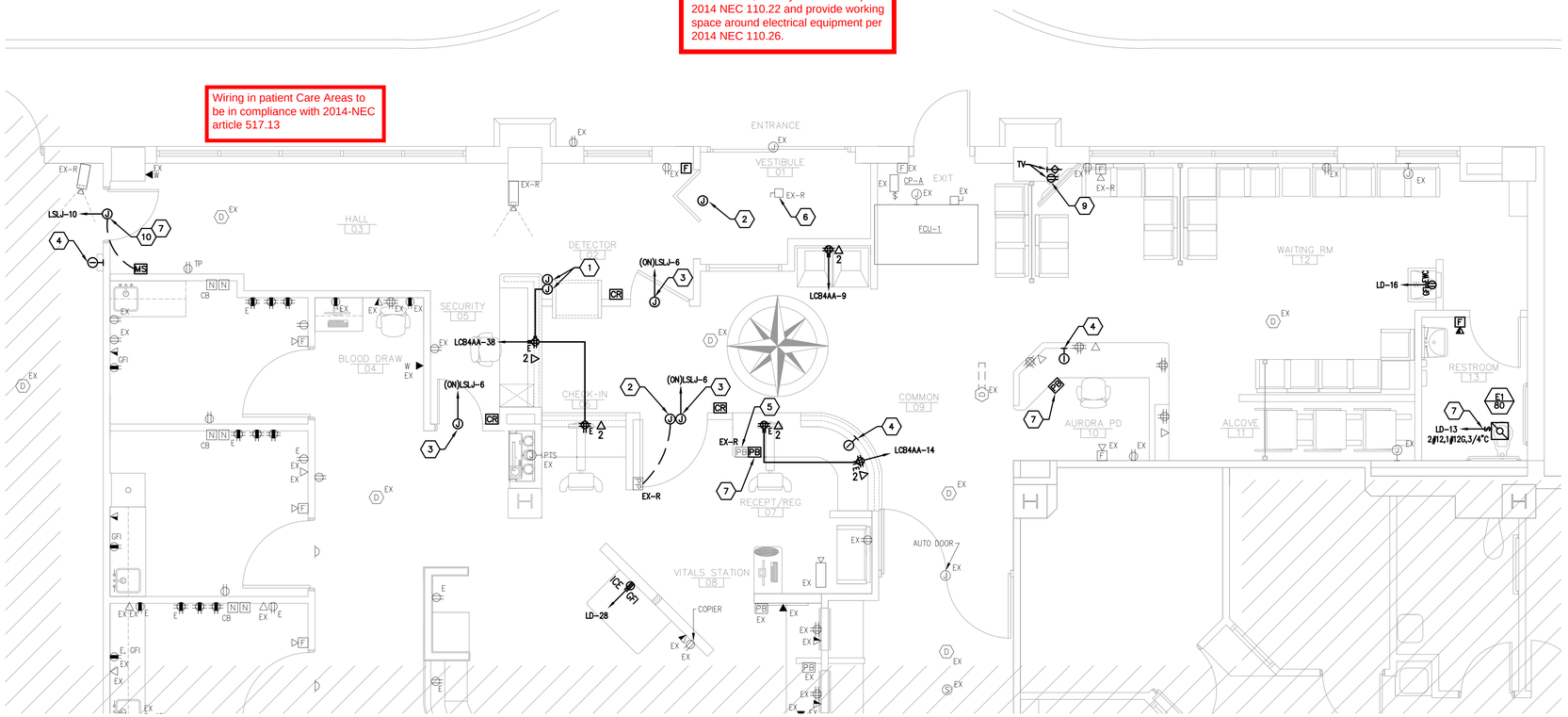
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Wiring in patient Care Areas to be in compliance with 2014-NEC article 517.13

Install electrical connections per 2014 NEC 110.14, identify disconnects per 2014 NEC 110.22 and provide working space around electrical equipment per 2014 NEC 110.26.




## 01 NEW ELECTRICAL PLAN

SCALE: 1/4" = 1'-0"

# GENERAL NOTES

A. REFER TO SHEET E-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.
B. COORDINATE INSTALLATION OF ELECTRICAL DEVICES IN CASEWORK WITH ARCHITECT.
C. CUT AND PATCH EXISTING DRYWALL AS REQUIRED TO INSTALL NEW CONDUITS IN EXISTING PARTITIONS.
D. CIRCUIT NUMBERS REPRESENT DESIGN INTENT ONLY. CONTRACTOR SHALL VERIFY EXISTING CIRCUITS IN FIELD. NOTIFY ENGINEER OF ANY DISCREPANCIES.

# LEGEND NOTES

1. PROVIDE 120V POWER AND TELE/DATA RACEWAY FOR METAL DETECTOR. ROUTE CONDUITS VIA SECURITY DESK. COORDINATE REQUIREMENTS WITH MANUFACTURER.
2. EXTEND EXISTING BRANCH CIRCUIT SERVING POWER OPERATED DOOR TO NEW LOCATION.
3. PROVIDE 120V POWER AND EMPTY RACEWAY FOR ACCESS CONTROLS. COORDINATE WITH SECURITY CONTRACTOR.
4. PROVIDE ROUGH-IN FOR OFCI TWO-WAY INTERCOM SYSTEM CONSISTING OF DOOR STATION, MASTER STATION, INTERCONNECTING CABLE, AND POWER SUPPLY. COORDINATE EXACT LOCATION OF CALL STATIONS WITH ARCHITECT.
5. PROVIDE NEW 1/2"C TO EXTEND EXISTING DOOR RELEASE PUSH BUTTON TO NEW CASEWORK.
6. EXTEND EXISTING BRANCH CIRCUIT SERVING AIR DOOR TO NEW LOCATION. COORDINATE WITH MECHANICAL CONTRACTOR.
7. PROVIDE INTERCONNECTION BETWEEN PUSH BUTTON DOOR RELEASE AND NORTH TRIAGE ENTRY DOOR.
8. LOCAL MECHANICAL EQUIPMENT DISCONNECT SWITCH. SWITCH SHALL BE LOCATED ABOVE ACCESSIBLE CEILING OR READILY ACCESSIBLE FROM ACCESS HATCH.
9. REWIRE NEW RECEPTACLE TO 120V CIRCUIT PREVIOUSLY SERVING DEMOLISHED RECEPTACLE ON THIS COLUMN.
10. PROVIDE 120V POWER TO POWER OPERATED DOORS. COORDINATE RACEWAY REQUIREMENTS WITH VENDOR.

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**TRIAGE WAITING METAL DETECTOR**

# MEDICAL CENTER OF AURORA

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| **CHECKED BY:** | **JG** |
| **SCALE:** | |
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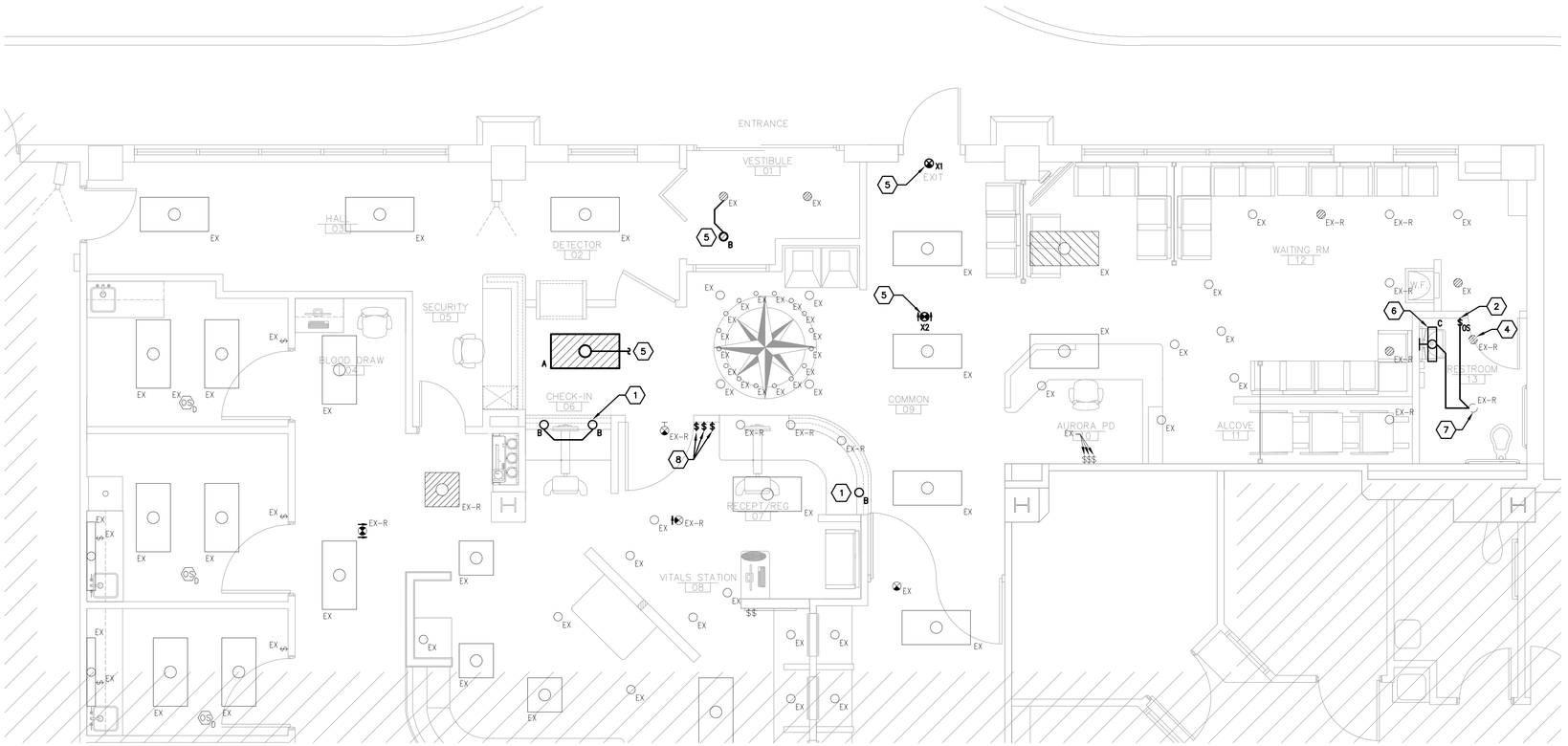
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**ELECTRICAL POWER PLAN**

**SHEET NO.:**

**E-2.0**

OF




01 NEW LIGHTING PLAN
SCALE: 1/4" = 1'-0"

Provide emergency illumination equipment that complies with 2014 NEC 700.12 (F) or 2014 NEC 700.

Wiring in air handling spaces must comply with 2014 NEC 300.22. Firestop penetrations per 2014 NEC 300.21. Secure and support equipment per 2014 NEC 300.11.

## GENERAL NOTES

A. REFER TO SHEET E-0.0 FOR LEGENDS, GENERAL NOTES, AND ABBREVIATIONS.
B. EXTEND EXISTING BRANCH CIRCUIT WIRING FOR RELOCATION OF EXISTING LIGHTING FIXTURES AS INDICATED. MAINTAIN EXISTING LIGHTING CONTROL, UNO.
C. CIRCUIT NUMBERS REPRESENT DESIGN INTENT ONLY. CONTRACTOR SHALL VERIFY EXISTING CIRCUITS IN FIELD. NOTIFY ENGINEER OF ANY DISCREPANCIES.

## LEGEND NOTES

1. CONNECT NEW LIGHT FIXTURE TO EXISTING NORMAL BRANCH CIRCUIT AND CONTROLS CURRENTLY SERVING THIS AREA. CONTRACTOR SHALL CONFIRM CIRCUIT VOLTAGE AND ENSURE ADDED LOAD PLUS EXISTING LOAD DOES NOT EXCEED 80% OF THE CIRCUIT'S RATED CAPACITY.
2. PROVIDE NEW COMBINATION OCCUPANCY SENSOR WITH SWITCH TO CONTROL NEW LIGHTING ZONE IN RESTROOM. EXTEND AND RECONNECT EXISTING CIRCUITING TO PROVIDE POWER TO RELOCATED LIGHT SERVING THIS SPACE.
3. PROVIDE NEW SWITCH TO CONTROL EXISTING LIGHTING ZONES IN WAITING ROOM ON CIRCUIT H1-11. EXTEND CONTROL WIRING AND RACEWAY FROM EXISTING SWITCH LOCATION. MAINTAIN EXISTING SWITCHLEGS.
4. EXTEND AND RECONNECT EXISTING CIRCUITING TO RELOCATED LIFE SAFETY LIGHT FIXTURE.
5. CONNECT NEW LIGHT FIXTURE TO EXISTING LIFE SAFETY BRANCH CIRCUIT AND CONTROLS CURRENTLY SERVING THIS AREA. CONTRACTOR SHALL CONFIRM CIRCUIT VOLTAGE AND ENSURE ADDED LOAD PLUS EXISTING LOAD DOES NOT EXCEED 80% OF THE CIRCUIT'S RATED CAPACITY.
6. CONNECT NEW LIGHT FIXTURE TO EXISTING NORMAL BRANCH CIRCUIT CURRENTLY SERVING 'WAITING ROOM 12'. EXTEND LIGHTING CONTROLS FROM EXISTING FIXTURE IN CEILING.
7. EXTEND AND RECONNECT EXISTING UNSWITCHED NORMAL BRANCH CIRCUITING IN 'WAITING ROOM 12' TO EXISTING LIGHT FIXTURE. CONNECT LIGHT FIXTURE TO NEW LIGHT SWITCH AT TOILET ROOM DOOR.
8. EXTEND AND REWIRE LIGHTING CONTROLS PREVIOUSLY SERVING THIS AREA TO NEW SWITCHBANK LOCATION.

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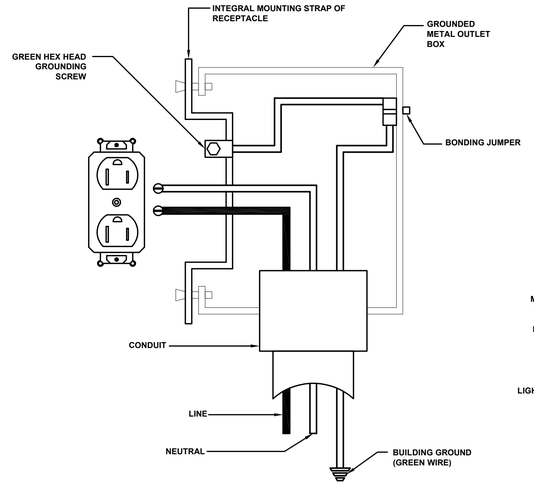
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## LUMINAIRE SCHEDULE

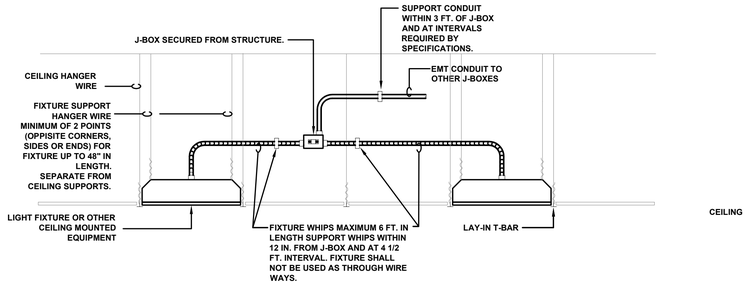
| TYPE | | DESCRIPTION |
|---|---|---|
| A | DESCRIPTION: | 2X4 DIRECT/INDIRECT FLUORESCENT, RECESSED MOUNTED WITH FLUSH BRACKET, STATIC, DIE FORMED 20GA STEEL HOUSING, 20GA STEEL REFLECTOR WITH MATTE WHITE POWDERCOAT FINISH, LAMP COMPARTMENT CONSISTING OF 25GA PERFORATED REFRACTOR "BASKET" WITH .11" THICK WHITE ACRYLIC LENS INSERT, REMOVABLE BALLAST/LAMP MODULE TRAY, DUST COVER. |
| | LAMP(S): | 2- FO32/841/ECO |
| | BALLAST(S): | PROGRAM START ELECTRONIC BALLAST, <10%THD, U.N.O. |
| | VOLTAGE: | UNIVERSAL (277/120) |
| | INSTALLATION: | RECESSED LAY-IN GRID (OR DRYWALL CEILING INSTALL. REF. ARCH. PLANS TO COORDINATE TRIM) |
| | MANF: | FOCAL POINT #FLU-24-B-2-TB-S-XXX-G-PS-DC-WH |
| | ACCEPT. MFR: | LIGHTOLIER<br>COLUMBIA |
| B | DESCRIPTION: | 6" LED DOWNLIGHT, WITH REMOTE PHOSPHOR LENS, CLEAR ALZAK REFLECTOR, WHITE TRIM RING |
| | LAMP(S): | 16.3 W LED ARRAY, 4000K, 80 CRI |
| | DRIVER: | UNIVERSAL VOLTAGE, PHILIPS FORTIMO DIMMING CAPABLE DRIVER |
| | VOLTAGE: | UNIVERSAL (277/120) |
| | INSTALLATION: | RECESSED LAY-IN GRID (OR DRYWALL CEILING INSTALL. REF. ARCH. PLANS TO COORDINATE TRIM) |
| | MANF: | PRESCOLITE #LF6LED-6LFLED5-40K-WT-B6 |
| | ACCEPT. MFR: | CALCULITE |
| C | DESCRIPTION: | 2' 'LUNA BATH' HORIZONTAL FLUORESCENT VANITY FIXTURE. |
| | LAMP(S): | (2) 14 WATT T5 |
| | BALLAST(S): | PROGRAM START ELECTRONIC BALLAST, <10%THD, U.N.O. |
| | VOLTAGE: | 277 |
| | INSTALLATION: | HORIZONTAL WALL SURFACE MOUNT |
| | MANF: | TECH LIGHTING #700BCLUN24-XX-CF277 |
| X1,X2 | DESCRIPTION: | SINGLE FACE OR DOUBLE FACE, RED LED EDGE-LIT EXIT SIGN, EXTRUDED ALUMINUM HOUSING, SATIN ALUMINUM FINISH |
| | LAMP(S): | LED |
| | BALLAST(S): | N/A |
| | VOLTAGE: | UNIVERSAL (277/120) |
| | INSTALLATION: | CEILING MOUNTED |
| | MANF: | DUAL-LITE #LECSRNA<br>INFINITY<br>LIGHTOLIER |

## LIGHTING FIXTURE SCHEDULE NOTES

A. CONTRACTOR SHALL VERIFY ALL CEILING TYPES PRIOR TO ORDERING FIXTURES.
B. NEW LIGHTING FIXTURES SHALL MATCH EXISTING FIXTURES IN SAME ROOM/AREA. MANUFACTURER/MODEL INFORMATION ABOVE REPRESENTS ENGINEER'S UNDERSTANDING OF EXISTING FIXTURES TO PROVIDE BASIS OF DESIGN. CONTRACTOR SHALL VERIFY EXISTING FIXTURES IN FIELD.

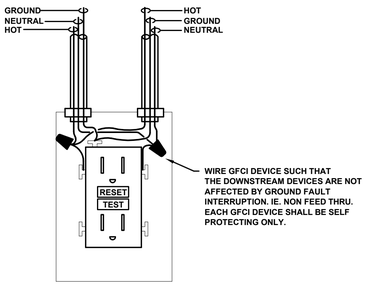



## 04 STANDARD RECEPTACLE GROUNDING DETAIL
NO SCALE

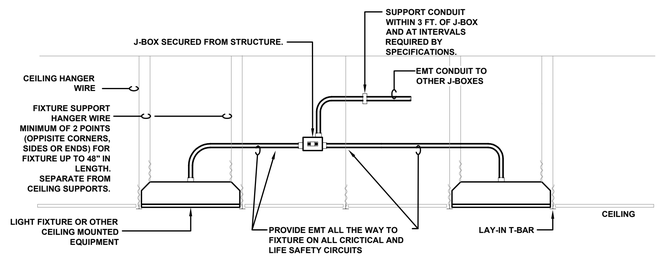



## 03 LAY-IN FIXTURE MOUNTING DETAIL
NO SCALE

Provide a grounded electrode system bonded to the service equipment enclosure, grounded conductors, and grounded electrode conductors per 2014 NEC 250.50 and 250.104.




## 02 GFCI RECEPTACLE - WIRING DIAGRAM
NO SCALE




## 01 LAY-IN FIXTURE MOUNTING DETAIL CRITICAL AND LIFE SAFETY
NO SCALE

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| **REVISIONS:** | |

**SHEET TITLE:**
ELECTRICAL SCHEDULE AND DETAILS

**SHEET NO.:**
E-3.0
OF

## EXISTING PANEL: LSHJ — LIFE SAFETY

LOCATION: ELEC 1-1834 | MAIN BUS: 100A | MCB: N/A | VOLTAGE: 480/277 | AIC: 14,000A
FED FROM: LSDP | WIRES: 4W + G | ENCLOSURE: NEMA 1 | BUS TYPE: Copper | MOUNTING: Surface | PANEL LUGS: Main Lugs Only
NEUTRAL BUS: Yes | GROUND BUS: Yes | ISOLATED GROUND BUS: No | 200% NEUTRAL: No | FEED THROUGH LUGS: Yes

| CKT NO. | DESCRIPTION | TOTAL LOAD (VA) | CIRCUIT BREAKER AMPS | CIRCUIT BREAKER POLES | PHASE | CIRCUIT BREAKER AMPS | CIRCUIT BREAKER POLES | TOTAL LOAD (VA) | DESCRIPTION | CKT NO |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | EXISTING LOAD | - | 20 | 1 | A | 20 | 1 | 91 | EX. LOAD + NEW LTS | 2 |
| 3 | EXISTING LOAD | - | 20 | 1 | B | 20 | 1 | - | EXISTING LOAD | 4 |
| 5 | EXISTING LOAD | - | 20 | 1 | C | 20 | 1 | - | SPARE | 6 |
| 7 | SPARE | - | 20 | 1 | A | 20 | 1 | - | SPARE | 8 |
| 9 | SPACE | - | - | - | B | - | - | - | SPACE | 10 |
| 11 | SPACE | - | - | - | C | - | - | - | SPACE | 12 |
| 13 | SPACE | - | - | - | A | 30 | 3 | - | EXISTING LOAD | 14 |
| 15 | SPACE | - | - | - | B | - | - | - | --- | 16 |
| 17 | SPACE | - | - | - | C | - | - | - | --- | 18 |

NOTES:

'LSHJ' LOAD SUMMARY

| | LTS | RCPTS | MISC | TOTAL (KVA) | TOTAL (AMPS) |
|---|---|---|---|---|---|
| TOTAL CONNECTED LOAD | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 |
| DEMAND FACTOR | SEE DEMAND FACTOR TABLE | | | | |
| TOTAL DEMAND LOAD | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 |
| CONTINUOUS (DESIGN) FACTOR | 1.25 | 1.00 | 1.00 | | |
| TOTAL DESIGN LOAD | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 |

| | |
|---|---|
| REMOVED LOAD | 10 VA |
| ADDED LOAD | 74 VA |
| TOTAL NET LOAD | 64 VA |
| PERCENT LOAD ADDED | 1% |

Service equipment shall be permanently and legibly marked to show the available fault current and date.
2014 NEC 110.24(A)(B).

## EXISTING PANEL: LSLJ — LIFE SAFETY

LOCATION: ELEC 1-1834 | MAIN BUS: 100A | MCB: 60A | VOLTAGE: 208/120 | AIC: 10,000A
FED FROM: LSHJ | WIRES: 4W + G | ENCLOSURE: NEMA 1 | BUS TYPE: Copper | MOUNTING: Surface | PANEL LUGS: Main Circuit Breaker
NEUTRAL BUS: Yes | GROUND BUS: Yes | ISOLATED GROUND BUS: No | 200% NEUTRAL: No | FEED THROUGH LUGS: No

| CKT NO. | DESCRIPTION | TOTAL LOAD (VA) | CIRCUIT BREAKER AMPS | CIRCUIT BREAKER POLES | PHASE | CIRCUIT BREAKER AMPS | CIRCUIT BREAKER POLES | TOTAL LOAD (VA) | DESCRIPTION | CKT NO |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | EXISTING LOAD | - | 20 | 1 | A | 20 | 1 | - | EXISTING LOAD | 2 |
| 3 | EXISTING LOAD | - | 20 | 1 | B | 20 | 1 | 500 | AUTO-DOOR OPERATORS | 4 |
| 5 | EXISTING LOAD | - | 20 | 1 | C | 20 | 1 | 300 | ACCESS CONTROL | 6 |
| 7 | SPARE | - | 20 | 1 | A | 20 | 1 | - | SPARE | 8 |
| 9 | SPACE | - | - | - | B | - | - | - | SPACE | 10 |
| 11 | SPACE | - | - | - | C | - | - | - | SPACE | 12 |
| 13 | SPACE | - | - | - | A | - | - | - | SPACE | 14 |
| 15 | SPACE | - | - | - | B | - | - | - | SPACE | 16 |
| 17 | SPACE | - | - | - | C | - | - | - | SPACE | 18 |
| 19 | SPACE | - | - | - | A | 20 | 1 | - | EXISTING LOAD | 20 |
| 21 | SPACE | - | - | - | B | 20 | 1 | - | EXISTING LOAD | 22 |
| 23 | SPACE | - | - | - | C | 20 | 1 | - | EXISTING LOAD | 24 |

NOTES:

'LSLJ' LOAD SUMMARY

| | LTS | RCPTS | MISC | TOTAL (KVA) | TOTAL (AMPS) |
|---|---|---|---|---|---|
| TOTAL CONNECTED LOAD | 0.0 | 0.0 | 0.8 | 0.8 | 2.2 |
| DEMAND FACTOR | SEE DEMAND FACTOR TABLE | | | | |
| TOTAL DEMAND LOAD | 0.0 | 0.0 | 0.8 | 0.8 | 2.2 |
| CONTINUOUS (DESIGN) FACTOR | 1.25 | 1.00 | 1.00 | | |
| TOTAL DESIGN LOAD | 0.0 | 0.0 | 0.8 | 0.8 | 2.2 |

| | |
|---|---|
| REMOVED LOAD | 0 VA |
| ADDED LOAD | 800 VA |
| TOTAL NET LOAD | 800 VA |
| PERCENT LOAD ADDED | 3.71% |

Legibly identify each breaker or switch for it's use or purpose on the circuit directory in the panel/switchboard per 2014 NEC 408.4.

## EXISTING PANEL: LCB4AA — CRITICAL

LOCATION: ELEC 1-0622 | MAIN BUS: 100A | MCB: N/A | VOLTAGE: 208/120 | AIC: 10,000A
FED FROM: LCB4A | WIRES: 4W + G | ENCLOSURE: NEMA 1 | BUS TYPE: Copper | MOUNTING: Surface | PANEL LUGS: Main Lugs Only
NEUTRAL BUS: Yes | GROUND BUS: Yes | ISOLATED GROUND BUS: No | 200% NEUTRAL: No | FEED THROUGH LUGS: Yes

| CKT NO. | DESCRIPTION | TOTAL LOAD (VA) | CIRCUIT BREAKER AMPS | CIRCUIT BREAKER POLES | PHASE | CIRCUIT BREAKER AMPS | CIRCUIT BREAKER POLES | TOTAL LOAD (VA) | DESCRIPTION | CKT NO |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | EXISTING LOAD | - | 20 | 1 | A | 20 | 1 | - | EXISTING LOAD | 2 |
| 3 | EXISTING LOAD | - | 20 | 1 | B | 20 | 1 | - | EXISTING LOAD | 4 |
| 5 | EXISTING LOAD | - | 20 | 1 | C | 20 | 1 | - | EXISTING LOAD | 6 |
| 7 | EXISTING LOAD | - | 20 | 1 | A | 20 | 1 | - | EXISTING LOAD | 8 |
| 9 | RCPT - CHECK IN KIOSK | 360 | 20 | 1 | B | 20 | 1 | - | EXISTING LOAD | 10 |
| 11 | EXISTING LOAD | - | 20 | 1 | C | 20 | 1 | - | EXISTING LOAD | 12 |
| 13 | EXISTING LOAD | - | 20 | 1 | A | 20 | 1 | 720 | RCPT - NURSE STATION | 14 |
| 15 | EXISTING LOAD | - | 20 | 1 | B | 20 | 1 | - | EXISTING LOAD | 16 |
| 17 | EXISTING LOAD | - | 20 | 1 | C | 20 | 1 | - | EXISTING LOAD | 18 |
| 19 | EXISTING LOAD | - | 20 | 1 | A | 20 | 1 | - | EXISTING LOAD | 20 |
| 21 | EXISTING LOAD | - | 20 | 1 | B | 20 | 1 | - | EXISTING LOAD | 22 |
| 23 | EXISTING LOAD | - | 20 | 1 | C | 20 | 1 | - | EXISTING LOAD | 24 |
| 25 | EXISTING LOAD | - | 20 | 1 | A | 20 | 1 | - | EXISTING LOAD | 26 |
| 27 | EXISTING LOAD | - | 20 | 1 | B | 20 | 1 | - | EXISTING LOAD | 28 |
| 29 | EXISTING LOAD | - | 20 | 1 | C | 20 | 1 | - | EXISTING LOAD | 30 |
| 31 | EXISTING LOAD | - | 20 | 1 | A | 20 | 1 | - | EXISTING LOAD | 32 |
| 33 | EXISTING LOAD | - | 20 | 1 | B | - | - | - | SPACE | 34 |
| 35 | EXISTING LOAD | - | 20 | 1 | C | 20 | 1 | - | EXISTING LOAD | 36 |
| 37 | EXISTING LOAD | - | 20 | 1 | A | 20 | 1 | 775 | RCPT - SECURITY DESK | 38 |
| 39 | EXISTING LOAD | - | 20 | 1 | B | 20 | 1 | - | SPARE | 40 |
| 41 | EXISTING LOAD | - | 20 | 1 | C | 20 | 1 | - | SPARE | 42 |

NOTES:

'LCB4AA' LOAD SUMMARY

| | LTS | RCPTS | MISC | TOTAL (KVA) | TOTAL (AMPS) |
|---|---|---|---|---|---|
| TOTAL CONNECTED LOAD | 0.0 | 1.8 | 0.1 | 1.9 | 5.1 |
| DEMAND FACTOR | SEE DEMAND FACTOR TABLE | | | | |
| TOTAL DEMAND LOAD | 0.0 | 1.8 | 0.1 | 1.9 | 5.1 |
| CONTINUOUS (DESIGN) FACTOR | 1.25 | 1.00 | 1.00 | | |
| TOTAL DESIGN LOAD | 0.0 | 1.8 | 0.1 | 1.9 | 5.1 |

| | |
|---|---|
| REMOVED LOAD | 1620 VA |
| ADDED LOAD | 1855 VA |
| TOTAL NET LOAD | 235 VA |
| PERCENT LOAD ADDED | 1% |

## EXISTING PANEL: H1 — NORMAL

LOCATION: ELEC 1-1834 | MAIN BUS: 100A | MCB: N/A | VOLTAGE: 480/277 | AIC: 14,000A
FED FROM: MSB1 | WIRES: 4W + G | ENCLOSURE: NEMA 1 | BUS TYPE: Copper | MOUNTING: Surface | PANEL LUGS: Main Lugs Only
NEUTRAL BUS: Yes | GROUND BUS: Yes | ISOLATED GROUND BUS: No | 200% NEUTRAL: No | FEED THROUGH LUGS: Yes

| CKT NO. | DESCRIPTION | TOTAL LOAD (VA) | CIRCUIT BREAKER AMPS | CIRCUIT BREAKER POLES | PHASE | CIRCUIT BREAKER AMPS | CIRCUIT BREAKER POLES | TOTAL LOAD (VA) | DESCRIPTION | CKT NO |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | EXISTING LOAD | - | 20 | 1 | A | 20 | 1 | - | EXISTING LOAD | 2 |
| 3 | EXISTING LOAD | - | 20 | 1 | B | 20 | 1 | - | EXISTING LOAD | 4 |
| 5 | EXISTING LOAD | - | 20 | 1 | C | 20 | 1 | - | EXISTING LOAD | 6 |
| 7 | EXISTING LOAD | - | 20 | 1 | A | 20 | 1 | - | EXISTING LOAD | 8 |
| 9 | EXISTING LOAD | - | 20 | 1 | B | 20 | 1 | - | EXISTING LOAD | 10 |
| 11 | EX. LOAD + NEW LTS | 77 | 20 | 1 | C | 20 | 1 | - | EXISTING LOAD | 12 |
| 13 | EXISTING LOAD | - | 20 | 1 | A | 20 | 1 | - | EXISTING LOAD | 14 |
| 15 | EXISTING LOAD | - | 20 | 1 | B | 20 | 1 | - | EXISTING LOAD | 16 |
| 17 | SPARE | - | 30 | 3 | C | 40 | 3 | - | SPARE | 18 |
| 19 | --- | - | - | - | A | - | - | - | --- | 20 |
| 21 | --- | - | - | - | B | - | - | - | --- | 22 |
| 23 | SPACE | - | - | - | C | - | - | - | SPACE | 24 |

NOTES:

'H1' LOAD SUMMARY

| | LTS | RCPTS | MISC | TOTAL (KVA) | TOTAL (AMPS) |
|---|---|---|---|---|---|
| TOTAL CONNECTED LOAD | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 |
| DEMAND FACTOR | SEE DEMAND FACTOR TABLE | | | | |
| TOTAL DEMAND LOAD | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 |
| CONTINUOUS (DESIGN) FACTOR | 1.25 | 1.00 | 1.00 | | |
| TOTAL DESIGN LOAD | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 |

| | |
|---|---|
| REMOVED LOAD | 60 VA |
| ADDED LOAD | 77 VA |
| TOTAL NET LOAD | 17 VA |
| PERCENT LOAD ADDED | 1% |

## EXISTING PANEL: LD — NORMAL

LOCATION: ELEC 1-0622 | MAIN BUS: 225A | MCB: N/A | VOLTAGE: 208/120 | AIC: 10,000A
FED FROM: NLDP | WIRES: 4W + G | ENCLOSURE: NEMA 1 | BUS TYPE: Copper | MOUNTING: Surface | PANEL LUGS: Main Lugs Only
NEUTRAL BUS: Yes | GROUND BUS: Yes | ISOLATED GROUND BUS: No | 200% NEUTRAL: No | FEED THROUGH LUGS: Yes

| CKT NO. | DESCRIPTION | TOTAL LOAD (VA) | CIRCUIT BREAKER AMPS | CIRCUIT BREAKER POLES | PHASE | CIRCUIT BREAKER AMPS | CIRCUIT BREAKER POLES | TOTAL LOAD (VA) | DESCRIPTION | CKT NO |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | EXISTING LOAD | - | 20 | 1 | A | 20 | 1 | - | EXISTING LOAD | 2 |
| 3 | EXISTING LOAD | - | 20 | 1 | B | 20 | 1 | - | EXISTING LOAD | 4 |
| 5 | EXISTING LOAD | - | 20 | 1 | C | 20 | 1 | - | EXISTING LOAD | 6 |
| 7 | MFP | 600 | 20 | 1 | A | 20 | 1 | - | EXISTING LOAD | 8 |
| 9 | EXISTING LOAD | - | 20 | 1 | B | 20 | 1 | - | EXISTING LOAD | 10 |
| 11 | EXISTING LOAD | - | 20 | 1 | C | 20 | 1 | - | EXISTING LOAD | 12 |
| 13 | TLT RM - EXHAUST FAN | 528 | 20 | 1 | A | 20 | 1 | - | SPARE | 14 |
| 15 | SPARE | - | 20 | 1 | B | 20 | 1 | 1200 | EWC | 16 |
| 17 | SPARE | - | 20 | 1 | C | 20 | 1 | - | SPARE | 18 |
| 19 | SPARE | - | 20 | 1 | A | 20 | 1 | - | SPARE | 20 |
| 21 | SPARE | - | 20 | 1 | B | 20 | 1 | - | SPARE | 22 |
| 23 | SPARE | - | 20 | 1 | C | 20 | 1 | - | SPARE | 24 |
| 25 | SPARE | - | 30 | 2 | A | 20 | 1 | - | SPARE | 26 |
| 27 | SPARE | - | - | - | B | 20 | 1 | 1200 | ICE | 28 |
| 29 | SPARE | - | 20 | 2 | C | 20 | 1 | - | SPARE | 30 |
| 31 | SPARE | - | - | - | A | 20 | 1 | - | SPARE | 32 |
| 33 | SPARE | - | 20 | 1 | B | 20 | 1 | - | SPARE | 34 |
| 35 | SPARE | - | 20 | 1 | C | 20 | 1 | - | SPARE | 36 |
| 37 | SPARE | - | 20 | 1 | A | 20 | 1 | - | SPARE | 38 |
| 39 | SPARE | - | 20 | 1 | B | 20 | 1 | - | SPARE | 40 |
| 41 | SPARE | - | 20 | 1 | C | 20 | 1 | - | SPARE | 42 |

NOTES:

## EXISTING PANEL: LD (SECTION 2) — NORMAL

LOCATION: ELEC 1-0622 | MAIN BUS: 225A | MCB: N/A | VOLTAGE: 208/120 | AIC: 10,000A
WIRES: 4W + G | ENCLOSURE: NEMA 1 | BUS TYPE: Copper | MOUNTING: Surface | PANEL LUGS: Main Lugs Only
NEUTRAL BUS: Yes | GROUND BUS: Yes | ISOLATED GROUND BUS: No | 200% NEUTRAL: No | FEED THROUGH LUGS: No

| CKT NO. | DESCRIPTION | TOTAL LOAD (VA) | CIRCUIT BREAKER AMPS | CIRCUIT BREAKER POLES | PHASE | CIRCUIT BREAKER AMPS | CIRCUIT BREAKER POLES | TOTAL LOAD (VA) | DESCRIPTION | CKT NO |
|---|---|---|---|---|---|---|---|---|---|---|
| 43 | SPARE | - | 20 | 1 | A | 20 | 1 | - | SPARE | 44 |
| 45 | EXISTING LOAD | - | 20 | 1 | B | 20 | 1 | - | SPARE | 46 |
| 47 | EXISTING LOAD | - | 20 | 1 | C | 20 | 1 | - | SPARE | 48 |
| 49 | EXISTING LOAD | - | 20 | 1 | A | 20 | 1 | - | SPARE | 50 |
| 51 | SPARE | - | 20 | 1 | B | 20 | 1 | - | SPARE | 52 |
| 53 | SPARE | - | 20 | 1 | C | 20 | 1 | - | EXISTING LOAD | 54 |
| 55 | SPARE | - | 20 | 1 | A | 20 | 1 | - | EXISTING LOAD | 56 |
| 57 | SPARE | - | 20 | 1 | B | 20 | 1 | - | EXISTING LOAD | 58 |
| 59 | SPARE | - | 20 | 1 | C | 20 | 1 | - | EXISTING LOAD | 60 |
| 61 | EXISTING LOAD | - | 20 | 1 | A | 20 | 1 | - | SPARE | 62 |
| 63 | SPARE | - | 20 | 1 | B | 20 | 1 | - | SPARE | 64 |
| 65 | SPARE | - | 20 | 1 | C | 20 | 1 | - | SPARE | 66 |
| 67 | SPARE | - | 20 | 1 | A | 20 | 1 | - | EXISTING LOAD | 68 |
| 69 | EXISTING LOAD | - | 20 | 1 | B | 20 | 1 | - | EXISTING LOAD | 70 |
| 71 | EXISTING LOAD | - | 20 | 1 | C | 20 | 1 | - | SPARE | 72 |
| 73 | SPARE | - | 20 | 1 | A | 20 | 1 | - | EXISTING LOAD | 74 |
| 75 | SPARE | - | 20 | 1 | B | 20 | 1 | - | EXISTING LOAD | 76 |
| 77 | SPACE | - | 20 | 1 | C | 20 | 1 | - | EXISTING LOAD | 78 |
| 79 | SPACE | - | 20 | 1 | A | 20 | 1 | - | SPACE | 80 |
| 81 | SPACE | - | 20 | 1 | B | 20 | 1 | - | SPACE | 82 |
| 83 | SPACE | - | 20 | 1 | C | 20 | 1 | - | SPACE | 84 |

NOTES:

'LD' LOAD SUMMARY

| | LTS | RCPTS | MTRS | MISC | TOTAL (KVA) | TOTAL (AMPS) |
|---|---|---|---|---|---|---|
| TOTAL CONNECTED LOAD | 0.0 | 0.0 | 0.5 | 3.0 | 3.5 | 9.8 |
| DEMAND FACTOR | SEE DEMAND FACTOR TABLE | | | | | |
| TOTAL DEMAND LOAD | 0.0 | 0.0 | 0.7 | 3.0 | 3.7 | 10.2 |
| CONTINUOUS (DESIGN) FACTOR | 1.25 | 1.00 | 1.00 | 1.00 | | |
| TOTAL DESIGN LOAD | 0.0 | 0.0 | 0.7 | 3.0 | 3.7 | 10.2 |

| | |
|---|---|
| REMOVED LOAD | 5.40 KVA |
| ADDED LOAD | 3.53 KVA |
| TOTAL NET LOAD | -1.87 KVA |
| PERCENT LOAD ADDED | 0% |

## GENERAL NOTES

A. LOADS INDICATED IN PANEL SCHEDULES REPRESENT NEW LOAD ADDED TO INDIVIDUAL BRANCH CIRCUITS. REFER TO LOAD SUMMARIES FOR TOTAL LOAD ADDED/REMOVED FROM EACH PANELBOARD.
B. CIRCUITS INDICATED FOR RE-USE ARE BASED ON AS-BUILT DRAWINGS OR COVERPLATE LABELING AND REPRESENT DESIGN INTENT ONLY. THE CONTRACTOR SHALL VERIFY EXISTING CIRCUITS IN FIELD AND UTILIZE BRANCH CIRCUITS RECOVERED FROM DEMOLITION OR EXISTING SPARE CIRCUITS. NOTIFY ENGINEER OF ANY DISCREPANCIES.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: *Jeckert*
Date: *Sep 16, 2015*
2009 INTERNATIONAL CODES & 2014 NEC

RSN: *1046142*
Permit #: *2015-999276*

The Medical Center of Aurora
Health ONE

TRIAGE WAITING METAL DETECTOR

# MEDICAL CENTER OF AURORA

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COLORADO LICENSED
JONATHAN M. GRANT
48502
8/10/15
PROFESSIONAL ENGINEER

PROJECT NO.: 14-04

DRAWN BY: DG/LS
CHECKED BY: JG
SCALE:
DATE: 08.10.15
ISSUED FOR: CONSTRUCTION
REVISIONS:

SHEET TITLE:

ELECTRICAL SCHEDULES

SHEET NO.:

E-4.0

OF