CAUTION: IF THIS SHEET IS NOT 30"x42" IT IS A REDUCED PRINT

ABBREVIATIONS

&	And	I.D.	Inside Diameter (Dim.)
∠	Angle	INSUL.	Insulation
@	At	INT.	Interior
℄	Centerline		
~	Diameter or Round	Jan.	Janitor
#	Pound or Number	JT.	Joint
(E)	Existing	KIT.	Kitchen
		K.O.	Knock Out
ACOUS.	Acoustical	LAB.	Laboratory
ACT.	Acoustical Tile	LAM.	Laminate
AD.	Area Drain	LAV.	Lavatory
ADJ.	Adjustable	LKR.	Locker
AFF.	Above Finish Floor	LT.	Light
AGGR.	Aggregate		
AL.	Aluminum	MAX.	Maximum
APPROX.	Approximate	M.C.	Medicine
ARCH.	Architectural	MECH.	Mechanical
ASB.	Asbestos	MEMB.	Membrane
ASPH.	Asphalt	MET.	Metal
		MFR.	Manufacturer
BD.	Board	MH.	Manhole
BITUM.	Bituminous	MIN.	Minimum
BLDG.	Building	MIR.	Mirror
BLK.	Block	MISC.	Miscellaneous
BLKG.	Blocking	M.O.	Masonry Opening
BM.	Beam	MTD.	Mounted
B.O.C.	Bottom of Concrete	MUL.	Mullion
B.O.M.	Bottom of Mullion		
B.O.P.	Bottom of Panel	N.	North
B.O.R.	Bottom of Reveal	N.I.C.	Not In Contract
BOT.	Bottom	NO.	Number
B/S.	Building Standard	NOM.	Nominal
		N.T.S.	Not To Scale
CAB.	Cabinet	O.A.	Overall
C.B.	Catch Basin	OBS.	Obscure
CEM.	Cement	O.C.	On Center
CER.	Ceramic	O.D.	Outside Diameter (Dim.)
CFCI.	CONT. Furnished/CONT. Installed	OFCI.	Owner Furnished/CONT. Installed
CFOI.	CONT. Furnished/Oner Installed	OFOI.	Owner Furnished/Owner Installed
C.I.	Cast Iron	OFF.	Office
C.G.	Corner Guard	OPNG.	Opening
CLG.	Ceiling	OPP.	Opposite
CLKG.	Caulking		
CLO.	Closet	PRCST.	Pre-cast
CLR.	Clear	PL.	Plate
C.O.	Cased Opening	P.LAM.	Plastic Laminate
COL.	Column	PLAS.	Plaster
C.O.M.	Center of Mullion	PLYWD.	Plywood
CONC.	Concrete	PR.	Pair
CONN.	Connection	PT.	Point
CONST.	Construction	P.T.D	Paper Towel Dispenser
CONT.	Continuous	P.T.D/R	Combination Paper Towel
CONTR.	Contractor	PTN.	Partition
C.O.R.	Center of Reveal	P.T.R.	Paper Towel Receptacle
CORR.	Corridor	P.J.	Panel Joint
CPT.	Carpet		
CTSK.	Countersunk	Q.T.	Quarry Tile
CNTR.	Counter		
CTR.	Center	R.	Riser
C.W.	Cold Water	RAD.	Radius
		R.D.	Roof Drain
D.	Deep	REF.	Reference
DBL.	Double	REFR.	Refrigerator
DEPT.	Department	REGTR.	Register
D.F.	Drinking Fountain	REINF.	Reinforced
DET.	Detail	REQ.	Required
DIA.	Diameter	RESIL.	Resilient
DIAG.	Diagonal	RM.	Room
DIFF.	Diffuser	R.O.	Rough Opening
DIM.	Dimension	RWD.	Redwood
DISP.	Dispenser	R.W.L.	Rain Water Leader
DN.	Down		
D.O.	Door Opening	S.	South
DR.	Door	S.C.	Solid Core
DWR.	Drawer	S.C.D.	Seat Cover Dispenser
DS.	Downspout	SCHED.	Schedule
D.S.P.	Dry Standpipe	S.D.	Soap Dispenser
DWG	Drawing	SECT.	Section
		SH.	Shelf
E.	East	SHR.	Shower
EA.	Each	SHT.	Sheet
E.J.	Expansion Joint	SIM.	Similar
EL.	Elevation	S.N.D.	Sanitary Napkin Disp.
ELEC.	Electrical	S.N.R.	Sanitary Napkin Recept.
ELEV.	Elevator	SPEC.	Specification
EMER.	Emergency	SQ.	Square
ENCL.	Enclosure	S.ST.	Stainless Steel
E.P.	Electrical Panelboard	S.SK.	Service Sink
EQ.	Equal	STA.	Station
EQPT.	Equipment	STD.	Standard
E.W.C.	Electric Water Cooler	STL.	Steel
EXST.	Existing	STOR.	Storage
EXPO.	Exposed	STRL.	Structural
EXP.	Expansion	SUSP.	Suspended
EXT.	Exterior	SYS.	Symmetrical
F.A.	Fire Alarm	TRD.	Tread
F.B.	Flat Bar	T.B.	Towel Bar
F.D.	Floor Drain	T.C.	Top of Curb
FDN.	Foundation	TEL.	Telephone
F.E.	Fire Extinguisher	TER.	Terrazzo
F.E.C.	Fire Extinguisher Cab	T. & G.	Tongue and Groove
F.H.C.	Fire Hose Cabinet	THK.	Thick
FIN.	Finish	T.O.C.	Top of Concrete
FL.	Floor	T.O.P.	Top of Panel
FLASH.	Flashing	T.O.R.	Top of Reveal
FLUOR.	Fluorescent	T.O.RC.	Top of Deep Recess
F.O.C.	Face of Concrete	T.O.M.	Top of Mullion
F.O.F.	Face of Finish	T.O.W.	Top of Wall
F.O.M.	Face of Mullion	T.P.	Top of Pavement
F.O.S.	Face of Stud	T.P.D.	Toilet Paper Dispenser
FPRF.	Fireproof	T.V.	Television
F.S.	Full Size	T.W.	Top of Wall
FT.	Foot or Feet	TYP.	Typical
FTG.	Footing		
FURR.	Furring	UNF.	Unfinished
FUT.	Future	U.O.N.	Unless Otherwise Noted
		UR.	Urinal
GA.	Gauge		
GALV.	Galvanized	VERT.	Vertical
G.B.	Grab Bar	VEST.	Vestibule
GL.	Glass		
GND.	Ground	W.	West
GR.	Grade	W/	With
GYP.	Gypsum	W.C.	Water Closet
		WD.	Wood
H.B.	Hose Bibb	W/O	Without
H.C.	Hollow Core	WP	Waterproof
HDWD.	Hardwood	WSCT.	Wainscot
HDWE.	Hardware	WT.	Weight
H.M.	Hollow Metal		
HORIZ.	Horizontal		
HR.	Hour		
HGT.	Height		

GENERAL PROJECT NOTES

GENERAL NOTES:

1. THIS PROJECT AND ALL WORK ASSOCIATED WITH PROJECT SHALL CONFORM TO STATE AND LOCAL CODES AND ORDINANCES HAVING JURISDICTION OVER THIS PROJECT.
2. THE TERM "ARCHITECT" OR "DESIGNER" AS USED IN THESE DOCUMENTS REFERS TO WARE MALCOMB.
3. THE ARCHITECT SHALL NOT HAVE CONTROL OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCE OF PROCEDURE, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, ALL OF WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
4. THE DESIGN ADEQUACY, AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. DURING DEMOLITION AND/OR CONSTRUCTION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND HAS NOT BEEN CONSIDERED BY THE STRUCTURAL ENGINEER OR ARCHITECT.
5. THE ARCHITECT ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS OF PLANS FOR BID PURPOSES PRIOR TO THE ISSUANCE OF THE BUILDING PERMIT.
6. ALL WORK NOTED "N.I.C." OR "NOT IN CONTRACT" IS TO BE ACCOMPLISHED BY A CONTRACTOR OTHER THAN THE GENERAL CONTRACTOR AND IS NOT TO BE PART OF THE CONSTRUCTION AGREEMENT. THE GENERAL CONTRACTOR SHALL COORDINATE WITH "OTHER" CONTRACTORS PER REQUIREMENTS ESTABLISHED BY OWNER AND TENANT.
7. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS ARE RESPONSIBLE FOR EXAMINING CONTRACT DOCUMENTS, FIELD CONDITIONS, AND CONFIRMING THAT WORK IS BUILDABLE AS SHOWN BEFORE PROCEEDING WITH CONSTRUCTION. IF THERE ARE ANY QUESTIONS REGARDING THESE OR OTHER COORDINATION ITEMS, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT BEFORE PROCEEDING WITH WORK IN QUESTION OR RELATED WORK.
8. CONTRACTOR SHALL MAINTAIN RECORD DOCUMENTS OF CONSTRUCTION CHANGES ("AS-BUILT DRAWINGS") AND SHALL PROVIDE SAID DOCUMENTATION TO THE ARCHITECT UPON COMPLETION OF CONSTRUCTION – NO EXCEPTION ALLOWED.
9. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE TO COORDINATE WITH ALL SUBCONTRACTORS PER REQUIREMENTS ESTABLISHED BY OWNER, TENANT, OR BOTH, WHICH ARE UNDER SEPARATE CONTRACT WITH THE OWNER, OR TENANT, OR BOTH.
10. THE STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, OTHER DRAWINGS, AND JOB SPECIFICATIONS ARE SUPPLEMENTARY TO ARCHITECTURAL CONSTRUCTION DRAWINGS. ANY DISCREPANCY BETWEEN THESE DOCUMENTS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION.
11. THE INTENT OF DRAWINGS AND SPECIFICATIONS IS TO INCLUDE ALL LABOR, MATERIALS AND SERVICES NECESSARY FOR THE COMPLETION OF ALL WORK SHOWN, DESCRIBED, OR REASONABLY IMPLIED, BUT NOT LIMITED TO THAT EXPLICITLY INDICATED IN THE CONTRACT DOCUMENTS.
12. INSTALL ALL MANUFACTURED ITEMS, MATERIALS, AND EQUIPMENT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, U.O.N.
13. ANY WORK INSTALLED IN CONFLICT WITH THE CONSTRUCTION DRAWINGS, WITHOUT THE PRIOR APPROVAL OF THE OWNER AND THE ARCHITECT SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
14. THE GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY OF ANY SPECIFIED MATERIALS OR EQUIPMENT WHICH ARE EITHER UNAVAILABLE OR THAT WILL CAUSE A DELAY IN THE CONSTRUCTION COMPLETION SCHEDULE. THE CONTRACTOR SHALL SUBMIT CONFIRMATIONS OF DELIVERY DATES FOR ORDERS OF MATERIALS AND EQUIPMENT HAVING LONG LEAD TIMES.
15. ALL REQUESTS FOR SUBSTITUTIONS OF ITEMS SPECIFIED SHALL BE SUBMITTED IN WRITING AND WILL BE CONSIDERED ONLY IF BETTER SERVICE FACILITIES, A MORE ADVANTAGEOUS DELIVERY DATE, OR A LOWER PRICE WITH CREDIT TO THE OWNER / TENANT WILL BE PROVIDED WITHOUT SACRIFICING QUALITY, APPEARANCE, AND FUNCTION. UNDER NO CIRCUMSTANCES WILL THE ARCHITECT BE REQUIRED TO PROVE THAT A PRODUCT PROPOSED FOR SUBSTITUTION IS OR IS NOT OF EQUAL QUALITY TO THE PRODUCT SPECIFIED.
16. PROJECT SPECIFICATIONS ARE AN INTEGRAL PART OF THESE PLANS – SUBSTITUTIONS FOR SPECIFIED MATERIALS REQUIRE THE WRITTEN APPROVAL FROM THE ARCHITECT.
17. UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SUBMIT ONE (1) SET OF SHOP DRAWINGS. SHOP DRAWINGS SHOULD INCLUDE DETAILED, FABRICATION AND ERECTION DRAWINGS, SETTING DRAWINGS, DIAGRAMMATIC DRAWINGS, AND MATERIAL SCHEDULES. LOCATION AND ORIENTATION OF ALL ITEMS SHOULD BE CLEARLY INDICATED. BEGIN FABRICATION OF SHOP ITEMS AFTER RECEIVING ARCHITECT'S OR DESIGNER'S APPROVAL OF SHOP DRAWINGS.
18. THE ARCHITECT'S REVIEW OF SHOP DRAWINGS SHALL NOT RELIEVE THE GENERAL CONTRACTOR OR SUBCONTRACTOR FROM RESPONSIBILITY FOR DEVIATIONS FROM THE DRAWINGS OR SPECIFICATIONS UNLESS HE HAS, IN WRITING, AND BROUGHT TO THE ATTENTION OF THE ARCHITECT SUCH DEVIATIONS AT THE TIME OF THE SUBMISSION, NOR SHALL IT RELIEVE HIM (GENERAL CONTRACTOR) FROM RESPONSIBILITY FOR ERRORS OF ANY SORT IN THE SHOP DRAWINGS.
19. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED BUILDING PERMITS PRIOR TO STARTING CONSTRUCTION.
20. PRIOR TO THE ISSUANCE OF A BUILDING PERMIT, THE APPLICANT SHALL HAVE EVIDENCE OF CURRENT WORKMAN'S COMPENSATION INSURANCE COVERAGE ON FILE WITH THE STATE LABOR DEPARTMENT IN COMPLIANCE WITH CURRENT LABOR CODES.
21. PROVIDE CONTINUOUS INSPECTIONS AS SET FORTH IN STATE AND LOCAL CODES AND PER CONTRACT DOCUMENTS AS NEEDED.
22. PRIOR TO THE ISSUANCE OF FINAL CERTIFICATE OF OCCUPANCY FOR THIS PROJECT, THE GENERAL CONTRACTOR SHALL SUBMIT A SIGNED CERTIFICATE TO THE DEPARTMENT OF BUILDING AND SAFETY STATING THAT ALL WORK HAS BEEN PERFORMED AND MATERIALS INSTALLED ACCORDING TO THE PLANS AND SPECIFICATIONS AFFECTING NON-RESIDENTIAL ENERGY.
23. CONTRACTOR SHALL VERIFY ALL BUILDING STANDARDS WITH BUILDING LANDLORD PRIOR TO BEGINNING ANY WORK. HOWEVER, THERE SHALL BE NO DEVIATIONS WHATSOEVER FROM THE CONTRACTOR DOCUMENTS WITHOUT THE ARCHITECT'S WRITTEN APPROVAL THEREOF. THE CONTRACTOR AGREES TO DEFEND, INDEMNIFY AND HOLD THE ARCHITECT HARMLESS FROM ANY CLAIMS ARISING AS A RESULT OF UNAPPROVED CHANGES.

DRAWING NOTES:

1. UNLESS OTHERWISE NOTED OR INDICATED, ALL DIMENSIONS ON THESE DOCUMENTS SHALL BE TO FACE OF CURB, FACE OF CONCRETE OR MASONRY, FACE OF FINISH OR CENTERLINE OF GRIDS.
2. ALL VERTICAL DIMENSIONS SHOWN ARE FROM FLOOR SLAB, U.O.N.
3. DIMENSIONS SHOWN IN FIGURES TAKE PRECEDENCE OVER DIMENSIONS SCALED FROM DRAWINGS. LARGE SCALE DRAWINGS AND DETAILS TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS.
4. THE TERM "ALIGN", AS USED IN THESE DOCUMENTS, SHALL MEAN TO ACCURATELY LOCATE FINISHES IN THE SAME PLANE.
5. "TYPICAL" AS USED IN THESE DOCUMENTS SHALL MEAN THAT THE CONDITION IS THE SAME OR REPRESENTATIVE FOR ALL SIMILAR CONDITIONS THROUGHOUT, U.O.N.
6. DETAILS ARE USUALLY KEYED AND NOTED "TYPICAL" ONLY ONCE, WHEN THEY FIRST OCCUR AND ARE REPRESENTATIVE OF ALL SIMILAR CONDITIONS THROUGHOUT, U.O.N.
7. COLUMN CENTERLINES (GRID LINES) ARE SHOWN FOR DIMENSIONING PURPOSES.
8. WHERE CONSTRUCTION DETAILS ARE NOT SHOWN OR NOTED FOR ANY PART OF THE WORK, THE DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK IN THE SAME BUILDING.

INTERIOR / EXTERIOR NOTES:

1. WHERE ELECTRICAL, MECHANICAL AND/OR PLUMBING ITEMS, SUCH AS LIGHTS, DUCTS, PIPING, DOWNSPOUTS, ETC. ARE TO PENETRATE ANY BUILDING FOOTINGS, SLABS, FLOORS, STRUCTURAL FRAMING, WALL PARTITIONS, CEILINGS, ETC., IT IS REQUIRED THAT AN APPROPRIATELY SIZED OPENING OR CLEARANCE BE FURNISHED. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL ITEMS WITH THE CONSTRUCTION DOCUMENTS PRIOR TO THE INSTALLATION OF STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL WORK. ANY CONFLICT OR DISCREPANCY WITHIN CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION FOR CLARIFICATION.
2. CONTRACTOR, ALONG WITH MECHANICAL CONTRACTOR, SHALL PROVIDE AND LOCATE ACCESS DOORS/PANELS IN WALL & CEILING CONSTRUCTION AS REQUIRED TO PROVIDE ACCESS TO MECHANICAL, FIRE SPRINKLER, PLUMBING & ELECTRICAL WORK. CONTRACTOR SHALL SUBMIT A PLAN OF ALL PROPOSED ACCESS PANEL LOCATIONS TO ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION.
3. ALL PENETRATIONS AT RATED CONSTRUCTION SHALL BE PROTECTED TO MAINTAIN RATING.
4. WHERE OCCURS, CONTRACTOR SHALL PATCH ANY EXISTING WALLS AND/OR CEILINGS AS NEEDED TO REFURBISH THE LEASE SPACE AND REPAIR ALL DAMAGES CAUSED BY CONTRACTOR.
5. INTERIOR WALLS AND CEILINGS SHALL BE INSTALLED IN ACCORDANCE TO STATE & LOCAL CODES, INCLUDING REQUIREMENTS FOR FLAME SPREAD AND SMOKE DENSITY RATINGS FOR FINISH MATERIALS.
6. WHEN USED, ALL NOISE BARRIER BATTS (SOUND INSULATION) AND INSULATION BATTS SHALL BE NON-COMBUSTIBLE AND SHALL NOT CONTAIN OR UTILIZE OZONE DEPLETING COMPOUNDS.
7. ALL NEW CONSTRUCTION MATERIALS SHALL BE 100% ASBESTOS-FREE.

JOB SITE NOTES:

1. WHERE EXISTING TENANTS/BUSINESSES ARE ADJACENT TO THE JOB SITE/TENANT, THE CONTRACTOR SHALL MINIMIZE CONSTRUCTION NOISE – EXTREME NOISE CONSTRUCTION SHALL OCCUR AT NON-TYPICAL BUSINESS HOURS. CONTRACTOR SHOULD NOTIFY BUILDING REPRESENTATIVE OF SPECIAL CIRCUMSTANCES IN ADVANCE PRIOR TO WORK.
2. THE CONTRACTOR AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AND SURROUNDING AREA FREE FROM DUST AND DEBRIS. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR AND WATER POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH.
3. CONSTRUCTION DEBRIS AND WASTES SHALL BE DEPOSITED AT AN APPROPRIATE SITE. THE CONTRACTOR SHALL INFORM THE BUILDING REPRESENTATIVE OF THE LOCATION OF DISPOSAL SITES.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE GENERAL CLEANING OF THE JOB AFTER ITS COMPLETION. WHERE APPLICABLE, CLEANING SHALL INCLUDE, BUT NOT BE LIMITED TO, THE EXTERIOR AND THE INTERIOR OF THE BUILDING, THE PATH OF TRAVEL TO THE JOB SITE, PARKING LOTS, ELEVATORS, LOBBIES, AND CORRIDOR CARPETS.
5. THE CONTRACTOR SHALL PROVIDE PEDESTRIAN PROTECTION, WHERE REQUIRED PER STATE AND LOCAL CODES.
6. IF TRENCHES OR EXCAVATIONS 5'-0" OR MORE IN DEPTH ARE REQUIRED, OBTAIN ISSUANCE OF A BUILDING OR GRADING PERMIT.
7. NO HAZARDOUS MATERIALS SHALL BE USED OR STORED WITHIN THE BUILDING WHICH DOES NOT COMPLY WITH THE LOCAL FIRE AUTHORITY AND STATE & COUNTY REQUIREMENTS.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR BLOCKING OFF SUPPLY AND RETURN AIR GRILLES, DIFFUSERS & DUCTS TO KEEP DUST FROM ENTERING INTO BUILDING AIR DISTRIBUTION SYSTEMS.
9. BUILDINGS UNDERGOING CONSTRUCTION, ALTERATION OR DEMOLITION SHALL BE DONE SO IN ACCORDANCE WITH STATE & LOCAL CODES.
10. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE OCCUPANTS AND WORKERS AT ALL TIMES.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE BUILDING AND SITE WHILE JOB IS IN PROGRESS AND UNTIL THE JOB IS COMPLETED.

CARDIOTHORACIC SURGERY ASSOCIATES

1444 S. POTOMAC ST. SUITE 360 AURORA, CO 80012

(For Tenant Improvement Permit Only)

PROJECT DATA

BUILDING DEPARTMENT: CITY OF AURORA

BUILDING CODES: 2009 INTERNATIONAL BUILDING CODE
2011 NATIONAL ELECTRIC CODE
2009 INTERNATIONAL MECHANICAL CODES
2009 INTERNATIONAL PLUMBING CODE
2009 INTERNATIONAL FIRE CODE
2009 EXISTING BUILDING CODE
2009 INTERNATIONAL ENERGY CONSERVATION CODE

OCCUPANCY CLASSIFICATION: PER IBC CHAPTER 3 (SECTION 302) – B

FIRE PARTITION: PER IBC CHAPTER 7 – N/A

TYPE OF CONSTRUCTION: PER IBC CHAPTER 6 (SECTION 602) – II B

SPRINKLERED: YES

NUMBER OF STORIES: 3

PROJECT SCOPE: THE SCOPE OF THIS PROJECT IS A FIRST GENERATION MEDICAL TENANT IMPROVEMENT.

TENANT OCCUPANCY:

OFFICE (B)	3,824	S.F.
TOTAL	3,824	S.F.

DEFERRED SUBMITTAL:

DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING. THE DEFERRED AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

SHEET INDEX

ARCHITECTURAL (11 SHEETS)

A0.1	TITLE SHEET
A0.2	GENERAL NOTES
A0.3	ACCESSIBILITY NOTES & DETAILS
A1.1	OCCUPANCY & EXIT PLAN
A2.1	PARTITION, POWER & SIGNAL PLANS
A3.1	REFLECTED CEILING AND FINISH PLANS
A4.1	ENLARGED RESTROOM PLAN, ELEVATIONS & MILLWORK ELEVATIONS
A4.2	MILLWORK ELEVATIONS & DETAILS
A5.1	DOOR SCHEDULE & DETAILS
A6.1	WALL DETAILS
A6.2	CEILING & MISC. DETAILS

ELECTRICAL

E0.0	ELECTRICAL ONE LINE, NOTES AND SCHEDULES
E1.0	POWER AND LIGHTING PLAN

MECHANICAL

M0.0	MECHANICAL SPECIFICATION, GENERAL NOTES AND SCHEDULES
M1.0	MECHANICAL FLOOR PLAN

PLUMBING

P0.0	PLUMBING SPECIFICATION, GENERAL NOTES AND SCHEDULES
P1.0	PLUMBING FLOOR PLAN

SYMBOLS LEGEND

ALIGN

OFFICE ← ROOM NAME
101 ← ROOM NUMBER

NEW DOOR

← DOOR NUMBER (REFER TO DOOR SCHEDULE)

EXISTING DOOR

FIRE EXTINGUISHER CABINET W/ FIRE EXTINGUISHER

FE WALL-MOUNTED FIRE EXTINGUISHER

X KEYNOTE INDICATOR

X EQUIPMENT TAG

X REVISION CLOUD & DELTA NUMBER

XX / XXX ← DETAIL REFERENCE / SHEET NUMBER

XX / XXX ← DETAIL SECTION REFERENCE / SHEET NUMBER

XX / XXX ← SECTION REFERENCE / SHEET NUMBER

X / XXX ← ELEVATION REFERENCE / SHEET NUMBER

1 / 4 X XXX 2 / 3 ← ELEVATION VIEW / ELEVATION REFERENCE / SHEET NUMBER

P / 1 ← WALL MATERIAL TYPE / TYPE NUMBER

C / 1 ← FLOOR MATERIAL TYPE / TYPE NUMBER

PL / 1 ← MISC. MATERIAL TYPE / TYPE NUMBER

PROJECT MANAGER

8390 E. CRESCENT PARKWAY
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GREENWOOD VILLAGE, CO 80111

JESSICA FRIESEN
PH: (303) 495-4171
EMAIL: JESSICA.FRIESEN@CBRE.COM

ARCHITECT

WARE MALCOMB

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EMILY ZABEL
PH: (720) 488-2626
EM: ezabel@waremalcomb.com

CONSULTANTS

ELECTRICAL ENGINEER

FRONT RANGE ELECTRICAL ENGINEEERING
3484 SOUTH OTIS COURT
LAKEWOOD, CO 80227

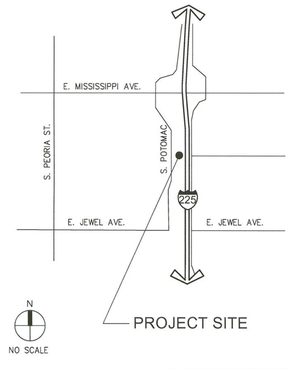
CARL FRETWELL
PH: (303) 408-5988
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MECHANICAL & PLUMBING ENGINEER

MOEN ENGINEERING CONSULTANTS INC.
4191 W 98 WAY
WESTIMINSTER, CO 80031

BRYAN MOEN
PH: (303) 907-4285
bmoen@mecengr.com

VICINITY MAP



NO SCALE

TENANT SIGN-OFF

CONTRACT DOCUMENTS

THE ARCHITECT ASSUMES NO RESPONSIBILITY FOR GOVERNING AUTHORITY REVIEW COMMENTS AND INTERPRETATIONS NOT INCLUDED IN THESE REVIEW DOCUMENTS.

TENANT APPROVAL IS FOR THE CONFORMANCE WITH THE LAYOUT REQUIREMENTS AND COMPLIANCE WITH INFORMATION GIVEN TO WARE MALCOMB.

THESE DOCUMENTS INTENDED FOR TENANT'S REVIEW AND APPROVAL. DRAWINGS SHALL BE SUBJECT TO ADJUSTMENTS AND CHANGES DUE TO UNKNOWN FIELD CONDITIONS. THIS PLAN IS SUBJECT TO THE BUILDING DEPARTMENT REVIEW AND APPROVAL.

☐ Approved

☐ Approved As Noted

Signature: _____ Date: _____

Signature: _____ Date: _____

Signature: _____ Date: _____

THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY AND COPYRIGHT OF WARE MALCOMB AND SHALL NOT BE USED ON ANY OTHER WORK EXCEPT BY AGREEMENT WITH WARE MALCOMB. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS AND SHALL BE VERIFIED ON THE JOB SITE. ANY DISCREPANCY SHALL BE BROUGHT TO THE NOTICE OF WARE MALCOMB PRIOR TO THE COMMENCEMENT OF ANY WORK.

WARE MALCOMB
Leading Design for Commercial Real Estate

architecture
planning
interiors
graphics
civil engineering

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greenwood village, colorado 80111
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STATE OF COLORADO
MATTHEW NATHAN CARLSEN
306199
LICENSED ARCHITECT

SEP 11 2014

CARDIOTHORACIC SURGERY ASSOCIATES
1444 S. POTOMAC ST, SUITE 360
AURORA, COLORADO 80012

TITLE SHEET

DATE	REMARKS
09/05/14	ISSUED FOR BID
09/11/14	ISSUED FOR CONSTRUCTION

PA / PM:	E. ZABEL
DRAWN BY:	GK
JOB NO.:	DEN14-6053-00

SHEET
A0.1

T:\Jobs14\CB Richard Ellis – AuroraSouth Potomac\DEN14-6053-00_HCAPS\Architectural\Cad\CD\6053_A01.dwg

CAUTION: IF THIS SHEET IS NOT 30"x42" IT IS A REDUCED PRINT

FINISH NOTES

1. NO FINISH SUBSTITUTIONS MAY BE MADE UNLESS APPROVED BY ARCHITECT.
2. CONTRACTOR MUST NOTIFY THE ARCHITECT OF ANY DISCREPANCY IN PLANS. FINISH ITEMS CLEARLY SHOWN IN PLANS, BUT OMITTED FROM SCHEDULES OR LEGENDS MUST STILL BE PROVIDED AND INSTALLED BY CONTRACTOR. CONTRACTOR TO VERIFY OMITTED FINISHED WITH ARCHITECT PRIOR TO ORDERING PRODUCTS.
3. INSTALL MATERIALS ACCORDING TO MANUFACTURER'S SUGGESTED INSTALLATION AND PREPARATION/MAINTENANCE SPECIFICATIONS OR BETTER, UNLESS OTHERWISE APPROVED OR NOTED.
4. APPLICATION OF CONTROLLED INTERIOR FINISHES SHALL BE IN CONFORMANCE WITH STATE & LOCAL CODES.
5. DECORATIVE MATERIALS SHALL BE MAINTAINED IN A FLAME-RETARDANT CONDITION.
6. SUBMIT THE FOLLOWING SAMPLES FOR ARCHITECT'S APPROVAL:
   A. THREE (3) 12" X 12" SAMPLES FOR ALL PAINT AND STAIN BRUSHOUTS, VINYL AND FABRIC FINISHES AND COLORS APPLIED TO A SUBSTRATE WHICH IS REPRESENTATIVE OF THE SURFACE TO BE FINISHED. SUBMIT PAINT SAMPLES FROM THE PAINT LOT OR LOTS INTENDED FOR APPLICATION.
   B. ONE (1) 24" X 24" MOCK-UP WITH SAMPLE SEAM (CENTERED) OF ALL FABRIC AND VINYL FINISHES AND COLOR.
   C. THREE (3) 12" X 12" SAMPLES OF ALL FLOOR COVERING.
   D. SUBMIT ACTUAL CUTTINGS OF EACH PRODUCT FOR COLOR/QUALITY CONTROL.
6. WHERE MATERIALS ARE NOT RETURNABLE, SUBMIT SAMPLES TO ARCHITECT BEFORE PLACING FULL ORDERS.
7. SUBMIT SEAMING PLAN FOR CARPET TO ARCHITECT FOR APPROVAL PRIOR TO CARPET ORDER.
8. NOTIFY ARCHITECT IMMEDIATELY OF ITEMS WITH LONG LEAD TIMES.
9. ALL PAINT FINISH OF METAL PARTS OF DOORS, HANDRAILS, PERIMETER ENCLOSURES, ETC., SHALL BE SEMI-GLOSS, U.O.N.
10. WHERE PAINT COLORS CHANGE, CORNERS ARE TO BE CUT-IN FREE OF OVERLAPPING.
11. PRIOR TO THE INSTALLATION OF WALL COVERINGS, SURFACES SHALL BE PROPERLY PREPARED WITH SEALER PER MANUFACTURER'S RECOMMENDATIONS.
12. CONTRACTOR TO VERIFY CONDITION AND LEVEL OF FLOOR SO AS TO RECEIVE NEW FINISHES WITHOUT BOWING AT FLOOR OR WALL BASE. CONTRACTOR IS RESPONSIBLE FOR ALL FLOOR PREPARATION.
13. ALL CARPETING SHALL BE INSTALLED WITH GLUE DOWN METHOD, U.O.N.
14. WHERE FLOOR-MOUNTED OUTLETS ARE REQUIRED ON CARPETED AREA, CUT CARPET IN AN "X" OVER FLOOR HOLE AND INSTALL CARPET OVER TOP. DO NOT TRIM CARPET.
15. ALL V.C.T. TO BE INSTALLED WITH FULL TILE FROM VINYL THRESHOLD STRIP AND FULL TILE FROM WALL ADJACENT TO DOOR SWING, U.O.N.
16. PROVIDE AND INSTALL SPECIFIED BASE FOR ALL AREAS TO RECEIVE FLOORING.
17. CONTRACTOR SHALL PROVIDE PRE-FORMED RUBBER BASE CORNERS. DO NOT CUT OR BEND STRAIGHT BASE TO MAKE CORNERS.
18. MILLWORK LOWER CABINETS ARE NOT TO RECEIVE WALL BASE UNLESS INDICATED ON FINISH PLANS.
19. FLOOR FINISHES TO CONTINUE UNDERNEATH "OPEN FLOOR" AREAS OF MILLWORK, INCLUDING SINK AREA AND AT ALL UNDER-COUNTER EQUIPMENT AREAS WHICH ARE OPEN TO THE FLOOR.
20. FLOORS SHALL BE SLOPED TO FLOOR DRAINS. COORDINATE WITH PLUMBING AND STRUCTURAL DRAWINGS. IN RATED FLOOR CONDITIONS, CONFIRM REMAINING FLOOR THICKNESS STILL CONFORMS TO MINIMUM RATING REQUIREMENT.
21. CONTRACTOR TO RUN CALCIUM CHLORIDE TEST ON ALL EXISTING OR NEW CONCRETE SLABS PRIOR TO INSTALLING ANY FLOORING AND COMPARE RESULTS WITH FLOORING MANUFACTURE'S RECOMMENDED MAXIMUM CONTENT FOR WARRANTIES AND ADHESIVE PRODUCTS.
22. PRIOR TO NEW FLOORING INSTALLATION REMOVE EXISTING FLOOR FINISHES. PATCH AND REPAIR SUB-FLOOR AS REQUIRED. PREPARE FLOORS AND TRANSITIONS AS REQUIRED FOR SMOOTH AND LEVEL FINISH PER APPLICABLE BUILDING CODES.
23. ALL FLOORING TRANSITIONS AMONG ALL THE DIFFERING FLOORING MATERIAL SPECIFICATION TYPES ARE TO BE A FLUSH TRANSITION.
24. FEATHER SUB-FLOOR UP FOR A) TILE FLOORING TO CARPET AND B) VINYL FLOORING TO CARPET, FOR FLUSH INSTALLATION.
25. INSTALL METAL TRANSITION STRIPS WHERE TILE MEETS ALL OTHER FLOORING TYPES. PROVIDE LOW PROFILE TRANSITION STRIP WHERE ALL OTHER DIFFERENT FLOOR TYPES MEET, VERIFY COLOR.
26. CONTRACTOR TO HEAT/CHEMICAL SEAM VINYL FLOORING AS PER MANUFACTURER'S SPECIFICATIONS AND SEAL ALL VINYL FLOORS PER MANUFACTURER'S MAINTENANCE SPECIFICATIONS.
27. FLOOR COVERING INSTALLER TO FOLLOW MANUFACTURER'S SPECIFIED CARPET INSTALLATION INSTRUCTIONS. USING ADHESIVES AND INSTALLATION METHODS REQUIRED INSTRUCTIONS TO MAINTAIN PRODUCT'S WARRANTY. CONTACT CARPET SALES REPRESENTATIVE WITH QUESTIONS PRIOR TO PROCEEDING.
28. FLOOR COVERING INSTALLER TO FOLLOW MANUFACTURER'S SPECIFIED CONTOURED RUBBER BASE INSTALLATION INSTRUCTIONS USING ADHESIVES AND INSTALLATION METHODS REQUIRED TO MAINTAIN PRODUCT'S WARRANTY.
29. FLOOR COVERING INSTALLER REQUIRED TO PROVIDE MINIMAL SEAMS/JOINTS AT ALL LOCATIONS FOR FLOOR AND WALL BASE MATERIAL INSTALLATION. PROVIDE LOW VOC, BUT HEAVY DUTY ADHESIVES TO ENDURE HEAVY FOOT TRAFFIC, CARTS AND TO MAINTAIN PRODUCT'S WARRANTY.
30. PRIOR TO PAINTING, WALLS MUST BE PATCHED AND REPAIRED, CLEAN AND DRY AND PROPERLY MEMBERED AND ALIGNED SO, AS TO LEAVE NO EVIDENCE OF PATCHING OR REPAIRS. ALL SCREW AND NAIL HEADS MUST BE SET AND SPACKLED. ALL JOINTS MUST BE TAPED AND COVERED WITH JOINT COMPOUND. JOINTS THAT ARE FILLED TO BE SANDED SMOOTH AND DUST REMOVED PRIOR TO RECEIVING NEW PAINT FINISH APPLICATION.
31. PRIOR TO PAINTING OVER WALL COVERING, SECURELY GLUE DOWN ANY LIFTING OR BUCKLING AND HIDE ALL SEAMING OR BUMPS.
32. WALLS TO HAVE AT LEAST ONE COAT OF COLORED PRIMER AND TWO COATS OF SPECIFIED PAINT FINISH TYPE. PAINT TO BE A LOW VOC UNLESS U.O.N. HIGH TRAFFIC/WEAR ABILITY WITH GOOD SCRUB AND CLEANING ABILITY. VERIFY ALL WITH TENANT OR OWNER PRIOR TO PURCHASING PAINT.
33. PAINT ALL SPEAKER COVERS AND HVAC GRILLS IN GYPSUM BOARD WALLS AND CEILINGS TO MATCH ADJACENT PAINT COLOR AS SPECIFIED.
34. PRIOR TO INSTALLING WALL TILES AND WALL BASE TILE, WALLS MUST BE PATCHED AND REPAIRED, CLEAN AND DRY AND BE PROPERLY MEMBERED AND ALIGNED, SO, AS TO LEAVE NO EVIDENCE OF PATCHING OR REPAIRS. ALL SCREW AND NAIL HEADS MUST BE SET AND SPACKLED. ALL JOINTS MUST BE TAPED AND COVERED WITH JOINT COMPOUND. JOINTS THAT ARE FILLED ARE TO BE SANDED SMOOTH AND BUMP FREE WITH DUST REMOVED PRIOR TO RECEIVING MORTAR BED/BOND COAT AND WALL TILES.
35. ALL WALL TILES ARE TO HAVE A MORTAR BED/BOND COAT THICKNESS TO ACCOMMODATE THE VARYING THICKNESSES OF ALL MATERIAL TYPES OF TILE SPECIFIED FOR WALL INSTALLATION WITH A FLUSH FRONT FACE.
36. ALL TRANSLUCENT GLASS TILE SPECIFIED ARE TO RECEIVE UNIFORM COVERAGE BY BACK BUTTERING TILES AND TROWEL RIDGES FLATTENED PRIOR TO SETTING TRANSLUCENT GLASS TILES.

RESTROOM NOTES

1. PROVIDE DRAIN WITH TRAP PRIMER FOR EACH RESTROOM IF THERE ARE TWO OR MORE FIXTURES. SLOPE FLOOR TO DRAIN AT MIN. 1/8" PER FOOT.
2. PROVIDE SINGLE LEVER HANDLE FAUCET SET AT 17" MAX. FROM THE FRONT EDGE OF THE SINK COUNTER.
3. VERIFY BUILDING STANDARD FOR WALL-HUNG/DROP-IN COUNTER SINK WHERE APPLICABLE.
4. TOILET PAPER DISPENSERS SHALL BE OF TYPE THAT CONTROLS DELIVERY, OR THAT DO NOT ALLOW CONTINUOUS PAPER FLOW. OPERABLE PARTS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5 POUNDS MAX.
5. OPERABLE PARTS OF ALL ACCESSORIES SHALL COMPLY WITH ALL APPLICABLE ACCESSIBILITY CODES AND STANDARDS.

CEILING NOTES

1. SEE ELECTRICAL ENGINEERING DRAWINGS FOR SPECIFICATIONS OF NEW BUILDING STANDARD LIGHT FIXTURES, SWITCHES, EXIT SIGNS, ETC.
2. ALL REPLACEMENT FLUORESCENT LAMPS TO MATCH BUILDING STANDARD – SAME COLOR AND MANUFACTURER.
3. FIELD VERIFY EXISTING CEILING GRID LOCATION AND NOTIFY ARCHITECT OF ANY DISCREPANCIES ON PLANS.
4. WHERE DISCREPANCIES IN LOCATION OF LIGHT FIXTURES, AIR DIFFUSERS, GRILLES, ETC. OCCUR ON THE ELECTRICAL ENGINEERING PLANS, THE ARCHITECTURAL PLANS SHALL GOVERN. NOTIFY ARCHITECT OF ANY DISCREPANCIES FOR CLARIFICATIONS.
5. FIELD VERIFY ALL CLEARANCES OF DUCTS, PIPES, SPRINKLERS, ETC., AND NOTIFY ARCHITECT OF ANY CONFLICTS PRIOR TO INSTALLATION OF LIGHTS, ETC.
6. PLACEMENT OF LIGHT FIXTURES IN AREAS WHERE MAIN DUCTS MAY CAUSE INTERFERENCE MUST BE APPROVED BY ARCHITECT PRIOR TO INSTALLATION.
7. CONDUITS ABOVE CEILING MUST BE A MINIMUM OF 12" ABOVE THE CEILING GRID.
8. NO COMBUSTIBLE MATERIALS SHALL BE USED IN THE PLENUM SPACE, INCLUDING ALUMINUM FLEX, ALUMINUM CONDUIT, AND POT METAL CONNECTORS.
9. ALL JUNCTION BOXES AND MECHANICAL EQUIPMENT REQUIRING ACCESS FOR SERVICE SHALL BE LOCATED OVER ACOUSTICAL CEILINGS. NO ACCESS HATCHES SHALL BE INSTALLED IN GYPSUM BOARD CEILINGS WITHOUT PRIOR APPROVAL BY ARCHITECT. (NO EXCEPTION)
10. ALL SPRINKLER HEADS AT HARD-LID CEILINGS ARE TO BE FULLY RECESSED AND CONCEALED. HEADS ARE TO BE CENTERED BETWEEN LIGHTS IN A UNIFORM ARCHITECTURAL PATTERN. G.C. TO PROVIDE A SUBMITTAL WITH SPRINKLER HEAD LOCATIONS FOR ARCHITECT'S APPROVAL PRIOR TO INSTALLATION.
11. ALL GYPSUM BOARD CEILINGS ARE TO BE INSTALLED WITH LINEAR DIFFUSERS. G.C. TO PROVIDE A SUBMITTAL WITH ALL LINEAR DIFFUSER LOCATIONS PRIOR TO INSTALLATION.
12. LOCATE RECESSED DOWN LIGHTS, WALL WASHERS, SMOKE DETECTORS, EXIT SIGNS, SPEAKERS, FIRE SPRINKLERS, ETC. IN CENTER OF 24"x24" CEILING TILES OR IN CENTER OF 24"x24" PORTION OF 24"x48" CEILING TILES, UNLESS OTHERWISE NOTED.
13. PROVIDE SWITCHES AND LIGHT SENSORS FOR OPEN AREAS AND PRIVATE OFFICES. ACTUAL LOCATION OF ALL SWITCHES TO BE DETERMINED BY ELECTRICAL ENGINEER.
14. WHERE EXIT SIGNS ARE REQUIRED PER STATE & LOCAL CODES, THEY SHALL BE ILLUMINATED PER SAID CODES AND THE NEC. LOCATIONS SHALL BE COORDINATED WITH THE ARCHITECT.
15. PROVIDE BACK-UP POWER FOR EXIT SIGNS PER STATE & LOCAL CODES.
16. THE MEANS OF EGRESS TRAVEL SHALL BE ILLUMINATED AT ANY TIME THE BUILDING IS OCCUPIED WITH A LIGHT INTENSITY OF NOT LESS THAN 1 FOOT-CANDLE AT THE FLOOR LEVEL.
17. EMERGENCY LIGHTING SHALL BE (2) SEPARATE SOURCES OF POWER AND SHALL COMPLY WITH THE NEC.
18. PROVIDE FIRE DAMPERS AT ALL SUPPLY AND RETURN AIR OUTLETS, INLETS OR DUCTS PENETRATING FIRE RATED ASSEMBLIES, ENCLOSURES, WALLS, FLOORS OR SURFACES, AND AS REQUIRED BY THE FIRE DEPARTMENT.
19. CONTRACTOR SHALL PROVIDE EMERGENCY LIGHTING, STROBE LIGHTS, AUDIO-VISUAL ALARMS AND OCCUPANCY SENSORS TO MEET ALL APPLICABLE CODES.
20. CONTRACTOR SHALL PROVIDE LAMPS WITH TYPE IC RATED HOUSING WHERE FIXTURES COME IN DIRECT CONTACT WITH INSULATION.

MILLWORK NOTES

1. CONTRACTOR MUST NOTIFY ARCHITECT / DESIGNER OF ANY DISCREPANCY IN PLANS. FINISH ITEMS CLEARLY SHOWN IN PLANS, BUT OMITTED FROM SCHEDULES OR LEGENDS MUST STILL BE PROVIDED AND INSTALLED BY CONTRACTOR. CONTRACTOR TO VERIFY OMITTED FINISHES WITH ARCHITECT OR DESIGNER PRIOR TO ORDERING PRODUCTS.
2. SHOP DRAWINGS MUST BE PROVIDED FOR APPROVAL PRIOR TO FABRICATION TO THE ARCHITECT. CABINETMAKER SHALL USE ON SITE FIELD FRAMING DIMENSIONS FOR ALL SHOP DRAWINGS AND FABRICATIONS. ANY SUBSTITUTIONS TO THE FOLLOWING SPECIFICATIONS MUST BE APPROVED BY THE ARCHITECT PRIOR TO FABRICATION.
3. CABINET MAKER TO COORDINATE & VERIFY WITH CONTRACTOR FINAL LOCATION FOR CANTILEVERED COUNTERS FOR IN-WALL SUPPORT BRACKETS, PRIOR TO GYPSUM BOARD FINISHING OF WALLS. ALL FINAL INSTALLATION HEIGHTS FOR IN-WALL SUPPORT BRACKETS MUST MEET ALL APPLICABLE ACCESSIBILITY CODES AND STANDARDS WITH COUNTER TOP MATERIAL THICKNESS INCLUDED.
4. MATERIAL COLORS NOT LISTED SHALL BE REQUESTED FROM ARCHITECT/INTERIOR DESIGNER ON SHOP DRAWING SUBMITTALS OR BY LETTER.
5. ALL UPPERS TO BE LAMINATED TO MATCH BASE CABINETS. BOTH UPPERS & LOWER CABINETS IN WET AREAS TO HAVE MATCHING PVC EDGE, ALL OTHERS TO HAVE PLASTIC LAMINATE EDGE BANDING U.O.N.
6. ALL CABINETS AND DOORS SHALL BE CONSTRUCTED FROM 3/4" THICK MATERIAL, UNLESS APPROVED PRIOR TO EACH JOB.
7. ALL BASE CABINET ARE NOT TO RECEIVE WALL BASE UNLESS INDICATED ON FINISH PLANS OR ELEVATIONS.
8. ALL INTERIORS OF CLOSED CABINETS TO BE WHITE MELAMINE/POLYESTER OR APPROVED EQUAL, UNLESS OTHERWISE SPECIFIED.
9. ALL OPEN CABINETS OR SHELVES TO HAVE PLASTIC LAMINATE TO MATCH EXTERIORS.
10. NO 3/4" THICK SHELF SHALL SPAN LONGER THAN 32" WITHOUT SUPPORT.
11. ALL SHELVING TO BE ADJUSTABLE UNLESS OTHERWISE SPECIFIED.
12. ALL PULLS TO BE 4" WIRE WITH A BRUSHED CHROME FINISH, UNLESS OTHERWISE SPECIFIED.
13. ALL DRAWERS TO HAVE ACCURRIDE (OR APPROVED EQUAL) – FULL EXTENSION GLIDES.
14. ALL FILE PEDESTALS ARE TO BE CONFIGURED FOR "FRONT TO BACK" FILING AND BE ABLE TO ACCEPT METAL HANGERS TO ACCEPT PENDAFLEX TYPE FILE FOLDERS, UNLESS NOTED AS LATERAL.
15. ALL COUNTER TOPS TO BE 24" DEEP, UNLESS OTHERWISE SPECIFIED. WHERE NO BACKSPLASH IS SPECIFIED, COUNTER TOPS TO BE SCRIBED TIGHTLY TO BACK & SIDE WALLS.
16. ALL BACKSPLASHES TO BE SCRIBED TO WALLS, AND MUST BE FLUSH TO EDGE OF BASE, UNLESS OTHERWISE SPECIFIED. ALL COUNTER TRANSITION SEAMS MUST BE CAULKED SEALED, VERIFY EITHER MATCHING COLOR CAULK OR CLEAR SILICONE.
17. PROVIDE SIDE SPLASHES AT LOCATIONS ADJACENT TO WALLS OR WINDOWS, ESPECIALLY FOR SINKS U.O.N.
18. FACES OF PIGEONHOLES TO MATCH WORK SURFACE LAMINATE. COLOR OF EDGE BANDING ON ALL DOORS TO MATCH FACE MATERIAL.

PARTITION PLAN NOTES

1. CONTRACTOR AND ARCHITECT TO REVIEW & APPROVE CHALK LINES OF PARTITION LAYOUT PRIOR TO COMMENCEMENT OF PARTITION CONSTRUCTION.
2. CONTRACTOR TO VERIFY DIMENSIONS FOR ALL PLUMBING PARTITION.
3. EXTEND ALL STUDS AND WALL MATERIALS TO CONSTRUCTION ABOVE, U.O.N.
4. ALL CONDUIT PIPING IN ELECTRICAL ROOM TO BE CONCEALED WITHIN THE WALL CONSTRUCTION.
5. DOOR OPENINGS IN PARTITIONS NOT DIMENSIONED ARE TO BE LOCATED WITHIN 0"-4" OF ADJACENT PERPENDICULAR PARTITION.
6. CONTRACTOR SHALL USE 3-5/8" METAL STUDS MINIMUM AT ALL PLUMBING WALLS. CONTRACTOR TO VERIFY ACTUAL DEPTH REQUIRED, ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT.
7. USE WATER RESISTANT GYPSUM BOARD/FIBER BOARD AT ALL AREAS SUBJECT TO MOISTURE OR WHERE TILE IS USED.
8. ALL PLUMBING WORK SHALL BE IN ACCORDANCE WITH LOCAL AND NATIONAL CODES.
9. ALL HOT WATER LINES SHALL BE PROPERLY INSULATED. SEE PLUMBING DRAWINGS.
10. ALL PLUMBING CLEAN-OUTS SHALL BE INSTALLED WHERE READILY ACCESSIBLE. CONTRACTOR SHALL COORDINATE ALL CLEAN-OUT LOCATIONS WITH EQUIPMENT, AND CABINETS. SUBMIT A PLAN OF ALL PROPOSED LOCATIONS TO ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION.
11. ALL MILLWORK SHALL CONFORM TO STATE & LOCAL WOODWORKING STANDARDS.
12. FIELD MEASURE AS REQUIRED FOR ALL MILLWORK CONDITIONS PRIOR TO FABRICATION.
13. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ARCHITECT AND TENANT APPROVAL PRIOR TO MANUFACTURE OF ANY CABINET WORK, MILLWORK AND ANY OTHER SPECIAL ITEMS REQUIRING CUSTOM SHOP FABRICATED WORK.
14. CONTRACTOR TO VERIFY FINAL LOCATION FOR CANTILEVERED COUNTERS AND IN-WALL SUPPORT BRACKETS PRIOR TO GYPSUM BOARD FINISHING OF WALLS. ALL FINAL INSTALLATION HEIGHTS FOR IN-WALL SUPPORT BRACKETS MUST MEET ALL ACCESSIBILITY CODES REQUIREMENTS WITH COUNTERTOP MATERIAL THICKNESS INCLUDED.
15. PROVIDE AND INSTALL ALL NECESSARY WALL BACKING, STIFFENERS, BRACING, BACK-UP PLATES AND/ OR SUPPORTING BRACKETS AS REQUIRED FOR THE INSTALLATION OF WALL-MOUNTED OR SUSPENDED EQUIPMENT OR BUILT-IN ITEMS. VERIFY REQUIREMENTS WITH MANUFACTURERS PRIOR TO INSTALLATION. SUPPLY CATALOG CUT SHEETS FOR ARCHITECT'S APPROVAL.
16. PROVIDE AND INSTALL ALL NECESSARY ELECTRICAL CONNECTIONS AND PLUMBING SUPPLY, FITTINGS & CONNECTORS TO COMPLETE INSTALLATION OF APPLIANCES & EQUIPMENT INDICATED ON PLAN. VERIFY REQUIREMENTS WITH MANUFACTURERS PRIOR TO INSTALLATION. SUPPLY CATALOG CUT SHEETS FOR ARCHITECT'S APPROVAL.
17. EXACT LOCATION OF FIRE EXTINGUISHER CABINETS TO BE CONFIRMED WITH ARCHITECT BEFORE INSTALLATION. PROVIDE ADDITIONAL FIRE EXTINGUISHERS & CABINETS AS REQUIRED BY THE FIRE DEPARTMENT FIELD INSPECTORS.
18. CONTRACTOR TO VERIFY LOCATION OF ALL THERMOSTATS WITH ARCHITECT PRIOR TO INSTALLATION.
19. ALL EXITS SHALL HAVE EXIT SIGNS AND ALL BLIND CORRIDOR TURNS SHALL HAVE DIRECTIONAL EXIT SIGNS.
20. PREPARE ALL FLOOR SURFACES AS REQUIRED TO RECEIVE FINISHES AS NOTED ON FINISH PLAN, ENLARGED FINISH PLANS & FINISH LEGEND.
21. UNLESS OTHERWISE NOTED, ALL GYPSUM BOARD SURFACES, WALLS, AND CEILINGS SHALL BE TAPED, SANDED SMOOTH TO A "LEVEL 4" FINISH, SO AS TO RECEIVE PAINT OR WALL COVERING MATERIAL.
22. PROVIDE SOUND INSULATION AT PERIMETER WALLS OF RESTROOMS, LOBBY, STAIRS, AND ACROSS CEILING OF RESTROOMS TO CREATE AN ACOUSTIC ENVELOPE, U.O.N.
23. PATCH AND FILL VARIOUS OPENINGS AT EXISTING GYPSUM BOARD PARTITIONS AND SOFFITS FOLLOWING REMOVAL OR INSTALLATION OF ANY SURFACE MOUNTED OR RECESSED FURNISHINGS, RECEPTACLES, UTILITY PIPING, SHELF STANDARDS & ALL OTHER SIMILAR ELEMENTS INDICATED TO BE REMOVED DURING THE DEMOLITION PHASE OR INSTALLED DURING THE CONSTRUCTION PHASE: TAPE AND SEAL ALL SEAMS WITH JOINT COMPOUND. APPLY NEW FINISH TO MATCH EXISTING FINISH AT ADJACENT GYPSUM BOARD SURFACES AND FEATHER NEW FINISH WITH EXISTING FINISH TO PROVIDE CONSISTENT & CONTINUOUS FINISH.

POWER & SIGNAL NOTES

1. COORDINATE TELEPHONE/DATA INSTALLATION WITH APPROPRIATE SUB-CONTRACTOR.
2. ALL EXISTING ELECTRICAL DEVICES ARE TO REMAIN, UNLESS NOTED OTHERWISE.
3. ALL OUTLETS TO BE INSTALLED AT LOCATIONS SHOWN BY DIMENSIONS ON THE POWER & SIGNAL PLAN. DIMENSION ALL OUTLETS FROM THE CENTERLINE OF THE OUTLET BOX. NON-DIMENSIONED OUTLETS ARE TO LOCATED AT THE NEAREST WALL STUD.
4. WHEN OUTLETS ARE GROUPED TOGETHER (2 OR MORE), THEY ARE TO BE SPACED NO MORE THAN 2" APART.
5. ALL ELECTRICAL OUTLETS OF 30 AMPERES OR LESS SHALL BE MOUNTED BETWEEN +15" TO BOTTOM RECEPTACLE AND +48" TO TOP OF RECEPTACLE FROM FINISH FLOOR. SEE NOTE 6, BELOW, FOR GENERAL MOUNTING HEIGHT
6. ALL NEW WALL MOUNTED 15, 20, AND 30 AMP OUTLETS/RECEPTACLES TO BE CENTERED AT +18" A.F.F., U.O.N.
7. ALL TELEPHONE AND DATA CABLE TO BE TEFLON COATED PLENUM RATED CABLE, SUPPORTED INDEPENDENTLY FROM SUSPENDED CEILING SYSTEM. CABLING TO BE SUPPLIED BY TENANT; ALL PULLS AND TERMINATIONS BY GENERAL CONTRACTOR.
8. LOCATIONS OF FURNITURE POWER FEEDS SHALL ACCOMMODATE CIRCUITS AND WIRE PER ELECTRICAL DRAWINGS. TENANT SHALL BE RESPONSIBLE FOR PROVIDING FURNITURE POWER FEED, GENERAL CONTRACTOR SHALL INSTALL THE POWER FEED.
9. WHERE DEDICATED ELECTRICAL OUTLETS ARE NOTED WITHIN THE FURNITURE PANEL SYSTEM, THE PANEL SYSTEM SHALL ACCOMMODATE THIS REQUIREMENT.
10. FLOOR OUTLETS ARE ACCEPTABLE NEXT TO SLIDING PANELS/WALLS AND OTHER SPECIAL CONVENIENT LOCATIONS.
11. WHERE ELECTRICAL WORK IS SPECIFIED IN CONJUNCTION WITH CABINET WORK, LAMPS AND FIXTURES ARE TO BE PROVIDED BY THE GENERAL CONTRACTOR.
12. CUT-OUTS FOR SWITCHES, OUTLETS, ETC. AS REQUIRED BY THE CABINET CONTRACTOR ARE TO BE COORDINATED WITH THE ELECTRICAL CONTRACTOR, U.N.O. ALL RECEPTACLES WHERE MILLWORK OCCURS SHALL BE LOCATED PER ELEVATIONS OF THE MILLWORK ITEM IN QUESTION.
13. ALL WALL COVER PLATES SHALL BE WHITE, UNLESS BUILDING STANDARD IS DIFFERENT, MATCH BUILDING STANDARD.
14. ALL SEPARATE CIRCUIT RECEPTACLES TO BE ORANGE COLOR WITH BUILDING STANDARD COLOR COVER PLATE.
15. POWER/SIGNAL AND REFLECTED CEILING PLANS ARE FOR THE GENERAL INFORMATION OF THE CONTRACTOR. EXACT LOCATIONS SHOULD BE VERIFIED.
16. TENANT TO PROVIDE AND INSTALL THE TELEPHONE AND DATA COMMUNICATION CABLING. CONTRACTOR TO COORDINATE SCHEDULING AND OTHER REQUIREMENTS WITH TENANT.
17. ALL/ANY CORE DRILL LOCATIONS SHALL BE VERIFIED WITH DESIGNER PRIOR TO DRILLING. ALL UNUSED CORE DRILLS SHALL BE PLUGGED AND CAPPED AS REQUIRED TO MAINTAIN FLOOR FIRE RATING.
18. ALL TELEPHONE AND COMPUTER WIRES SHALL BE PULLED BY TENANT CONTRACTOR U.O.N. ELECTRICAL CONTRACTOR SHALL PROVIDE PULL WIRES AND BOXES AT EACH LOCATION.
19. CONTRACTOR SHALL OBTAIN APPROVAL FROM ARCHITECT FOR ALL THERMOSTAT LOCATIONS.

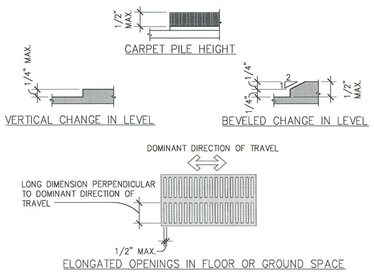
FIRE AUTHORITY NOTES

1. FINAL INSPECTION BY FIRE DEPARTMENT IS REQUIRED – SCHEDULE 72 HOURS IN ADVANCE.
2. THE PROJECT ADDRESS SHALL BE PROVIDED FOR ALL NEW AND EXISTING BUILDINGS IN A POSITION AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY PER LOCAL FIRE DEPARTMENT STANDARDS.
3. AN UNOBSTRUCTED ALL-WEATHER FIRE APPARATUS ACCESS ROAD SHALL BE IN PLACE PRIOR TO DELIVERY OF COMBUSTIBLE BUILDING MATERIALS TO THE SITE.
4. FIRE PREVENTION WATER SERVICE SHALL BE IN SERVICE PRIOR TO DELIVERY OF COMBUSTIBLE BUILDING MATERIALS TO THE SITE.
5. ACCESS GATES SHALL BE APPROVED PRIOR TO INSTALLATION AND SHALL BE IN COMPLIANCE WITH LOCAL FIRE AUTHORITY.
6. FIRE SPRINKLER SYSTEM(S) SHALL MEET STATE & LOCAL FIRE CODES AND BE PROVIDED TO PROTECT ENTIRE BUILDING INCLUDING PROJECTIONS OVER 4'-0" AND SPRAY BOOTH.
7. FIRE SPRINKLER SYSTEM(S) AND ALL CONTROL VALVES, INCLUDING EXTERIOR SHALL BE SUPERVISED BY A U.L. LISTED CENTRAL ALARM STATION OR PER STATE & LOCAL FIRE CODES.
8. ALL VALVES CONTROLLING THE WATER SUPPLY FOR AUTOMATIC SPRINKLER SYSTEMS AND WATER-FLOW SWITCHES ON ALL SPRINKLER SYSTEMS SHALL BE ELECTRICALLY MONITORED WHERE THE NUMBER OF SPRINKLERS IS (100) OR MORE.
9. ELECTRICAL SUBCONTRACTORS TO INSTALL WIRING FOR FIRE SPRINKLER, ALARM BELL AND TELEPHONE WARNING AS REQUIRED BY FIRE DEPARTMENT.
10. INSTALLATION OF FIRE ALARM SYSTEMS SHALL BE IN ACCORDANCE WITH STATE & LOCAL FIRE CODES.
11. COMPLETE PLANS AND SPECIFICATIONS FOR ALL FIXED FIRE PROTECTION EQUIPMENT INCLUDING AUTOMATIC SPRINKLERS AND OTHER FIRE-PROTECTION SYSTEMS, SHALL BE SUBMITTED BY INSTALLING CONTRACTOR. SUCH PLANS SHALL BE APPROVED BY LOCAL FIRE AUTHORITY PRIOR TO INSTALLATION.
12. LOCATIONS AND CLASSIFICATIONS OF FIRE EXTINGUISHERS SHALL BE IN ACCORDANCE WITH STATE & LOCAL FIRE CODES AND PLACEMENT IS SUBJECT TO THE APPROVAL OF THE FIRE INSPECTOR. VERIFY QUANTITY & EXACT LOCATION FROM FIRE DEPARTMENT PRIOR TO ORDERING.
13. AT LEAST ONE (1) FIRE EXTINGUISHER WITH A MINIMUM RATING OF: 2-A-10B:C (FOR OFFICE), OR 10-A-80B:C (FOR WAREHOUSE), SHALL BE PROVIDED WITHIN 75'-0" MAXIMUM TRAVEL DISTANCE FOR EACH 3,000 SQUARE FEET OR PORTION THEREOF ON EACH FLOOR.
14. STORAGE, DISPENSING OR USE OF ANY FLAMMABLE AND COMBUSTIBLE LIQUIDS, FLAMMABLE AND COMPRESSED GASES, AND OTHER HAZARDOUS MATERIALS SHALL COMPLY WITH STATE & LOCAL FIRE CODES. THE STORAGE AND USE OF HAZARDOUS MATERIALS SHALL BE APPROVED BY THE FIRE AUTHORITY PRIOR TO ANY MATERIALS BEING STORED OR USED ON SITE. A SEPARATE PLAN SUBMITTAL IS REQUIRED PRIOR TO THE STORAGE AND USE OF HAZARDOUS MATERIALS.
15. BUILDING(S) NOT APPROVED FOR HIGH-PILED STOCK (MATERIALS IN CLOSELY PACKED PILES OR ON PALETS, OR IN RACKS WHERE THE TOP OF STORAGE EXCEEDS 12'-0" IN HEIGHT, AND 6'-0" FOR GROUP "A" PLASTICS AND CERTAIN OTHER HIGH-HAZARD COMMODITIES). HIGH-PILED STOCK SHALL BE APPROVED BY THE FIRE AUTHORITY PRIOR TO MATERIALS BEING STORED ON SITE. A SEPARATE PLAN SUBMITTAL IS REQUIRED FOR HIGH-PILED STORAGE IN ACCORDANCE WITH STATE & LOCAL FIRE CODES.
16. A LETTER OF INTENDED USE MAY BE REQUIRED BY THE FIRE INSPECTOR.
17. ALL REQUIRED FIRE DOORS SHALL BEAR A LABEL FROM A RECOGNIZED AGENCY SHOWING THE SPECIFIC RATING.
18. EXIT SIGNS AND ILLUMINATION SHALL CONFORM TO ALL APPLICABLE BUILDING AND FIRE CODES.
19. EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
20. PROVIDE OR MODIFY AS NEEDED SPRINKLER ALARM AND SMOKE DETECTION SYSTEM PER APPLICABLE CODES INCLUDING IF NECESSARY FIR HORNS, STROBE LIGHTS, CONTROL PANEL CONNECTIONS, SMOKE DETECTORS, AUDIO VISUAL ALARMS. SUBMIT SHOP DRAWINGS TO THE FIRE MARSHAL FOR APPROVAL.

DOOR NOTES

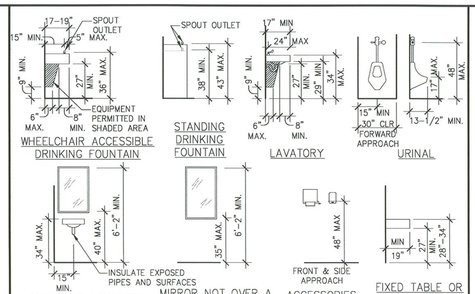
1. VERIFY THAT ALL DOORS AND DOOR HARDWARE MEET THE REQUIREMENTS OF ALL GOVERNING CODES & STANDARDS. NOTIFY THE ARCHITECT IMMEDIATELY IN CASE OF DISCREPANCY.
2. FIELD MEASURE, AS REQUIRED, ALL DOORS PRIOR TO FABRICATION.
3. PROVIDE A SIGN ON OR NEAR THE MAIN EXIT DOOR READING: "THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED".
4. LATCHING AND LOCKING DOORS THAT ARE HAND OPERATED SHALL BE OPERABLE WITH A SINGLE EFFORT WITHOUT REQUIRING THE ABILITY TO GRASP THE HARDWARE (LEVER OR PUSH TYPE

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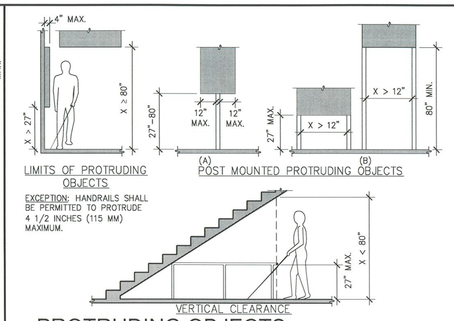
FLOOR OR GROUND SURFACES & CHANGES IN LEVEL

SCALE: N.T.S. IACMI-AC_Floor_surface_level_301_ADA 21



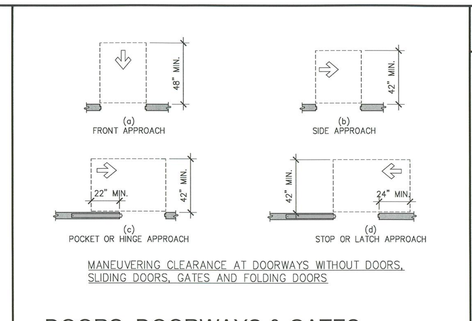
MOUNTING HEIGHTS

SCALE: 1/4"=1'-0" IACMI-AC_Mounting_height_ADA 16



PROTRUDING OBJECTS

SCALE: 1/4"=1'-0" IACMI-AC_Protruding_objects_307_ADA 11



MANEUVERING CLEARANCE AT DOORWAYS WITHOUT DOORS, SLIDING DOORS, GATES AND FOLDING DOORS

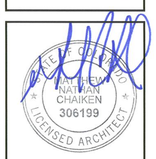
DOORS, DOORWAYS & GATES

SCALE: 1/4"=1'-0" IACDR-AC_Doors2_404_ADA 6

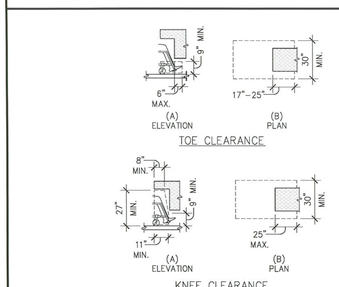
ACCESSIBILITY NOTES

1. ALL ITEMS ARE FOR REFERENCE ONLY, ANY ITEM NOT SHOW SHALL BE REFERENCED IN THE 2012 INTERNATIONAL BUILDING CODE AND ICC-A117.1-2009.
2. ANY DISCREPANCIES CONTAINED HEREIN DO NOT RELIEVE THE CONTRACTOR OR OWNER FROM COMPLYING WITH CURRENT STATE AND FEDERAL ACCESSIBILITY STANDARDS.
3. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE CURRENT STATE AND FEDERAL ACCESSIBILITY STANDARDS.
4. REFER TO 2012 INTERNATIONAL BUILDING CODE, CHAPTER 11 AND ICC-A117.1-2009 FOR CURRENT AND UP TO DATE INFORMATION.

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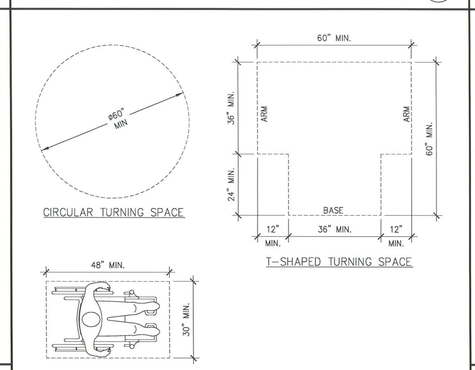


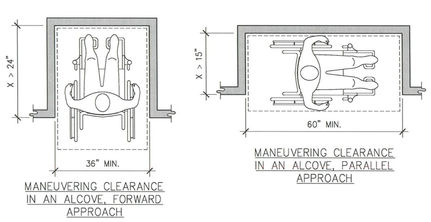
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KNEE AND TOE CLEARANCE

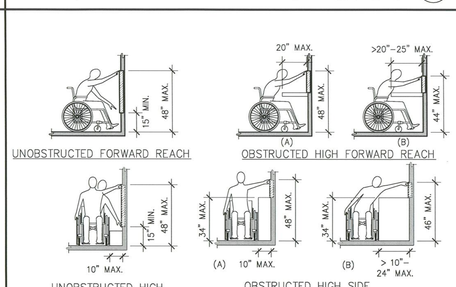
SCALE: 1/4"=1'-0" IACMI-AC_Knee_toe_clear_ADA 22





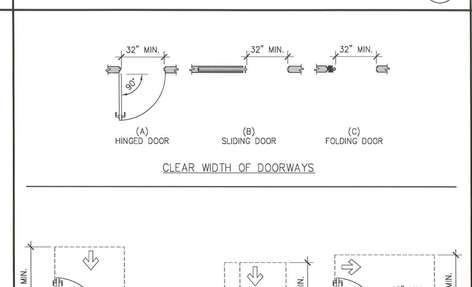
CLEAR FLOOR OR GROUND SPACE

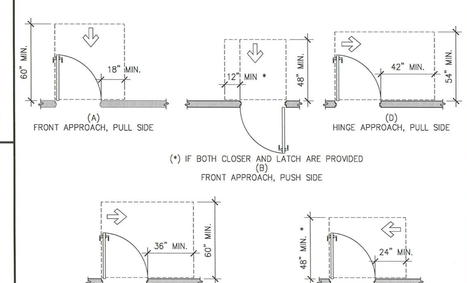
SCALE: 1/2"=1'-0" IACMI-AC_Floor_space_304_ADA 18



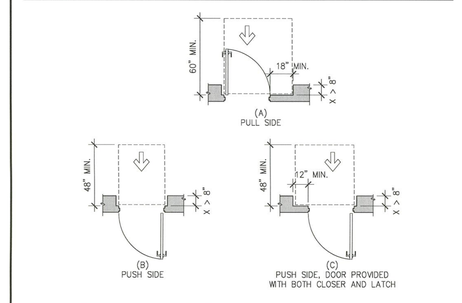
REACH RANGES

SCALE: 1/4"=1'-0" IACMI-AC_Reach_range_308_ADA 12

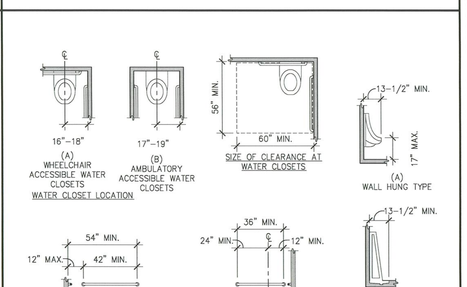


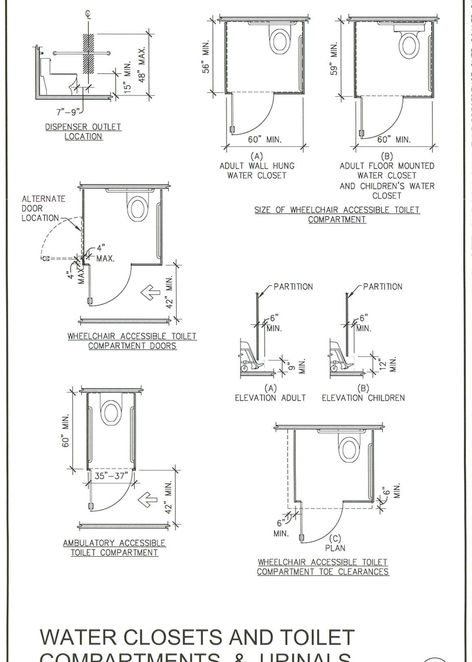


MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS AND GATES



MANEUVERING CLEARANCE AT RECESSED DOORS AND GATES

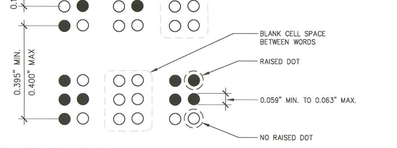




WATER CLOSETS AND TOILET COMPARTMENTS & URINALS

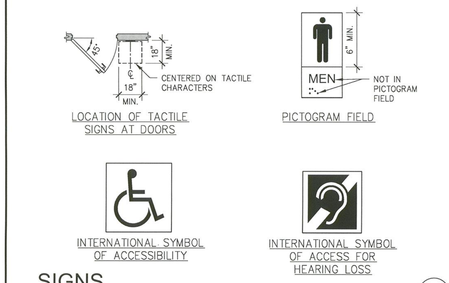
SCALE: 1/4"=1'-0" IACTO-AC_Water_closet_urinal_604-605_ADA 4

23



BRAILLE MEASUREMENT

SCALE: N.T.S. IACSI-Braille-ADA 19



SIGNS

SCALE: N.T.S. IACSI-AC_Signs_ADA 14

DOORS, DOORWAYS & GATES

SCALE: 1/4"=1'-0" IACDR-AC_Doors_404_ADA 10

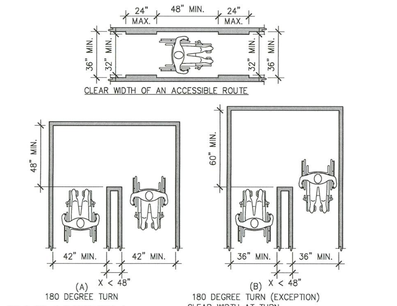
CIRCULAR CROSS SECTION. GRAB BARS WITH CIRCULAR CROSS SECTIONS SHALL HAVE AN OUTSIDE DIAMETER OF 1-1/4 INCHES MINIMUM AND 2 INCHES MAXIMUM.

SPACING. THE SPACE BETWEEN THE WALL AND THE GRAB BAR SHALL BE 1-1/2 INCHES. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS BELOW AND AT THE ENDS SHALL BE 1-1/2 INCHES MINIMUM. THE SPACE BETWEEN THE GRAB BAR AND PROJECTING OBJECTS ABOVE SHALL BE 12 INCHES MINIMUM.

POSITION OF GRAB BARS. GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION, 33 INCHES MINIMUM AND 36 INCHES MAXIMUM ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE GRIPPING SURFACE, EXCEPT THAT AT WATER CLOSETS FOR CHILDREN'S USE, GRAB BARS SHALL BE INSTALLED IN A HORIZONTAL POSITION 18 INCHES MINIMUM AND 27 INCHES MAXIMUM ABOVE THE FINISH FLOOR MEASURED TO THE TOP OF THE GRIPPING SURFACE.

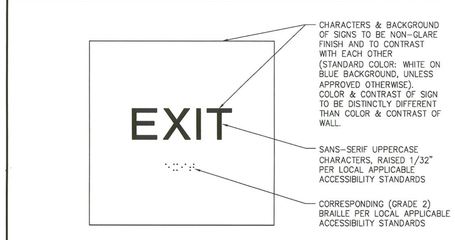
GRAB BARS

SCALE: N.T.S. IACMI-AC_Grab_bars_609_ADA 5



CLEAR WIDTH

SCALE: 1/4"=1'-0" IACMI-AC_Clear_width_403_ADA 20



TACTILE "EXIT" SIGN

SCALE: 3"= 1'-0" IACSI-Exit-ALL 15

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ACCESIBILITY DETAILS

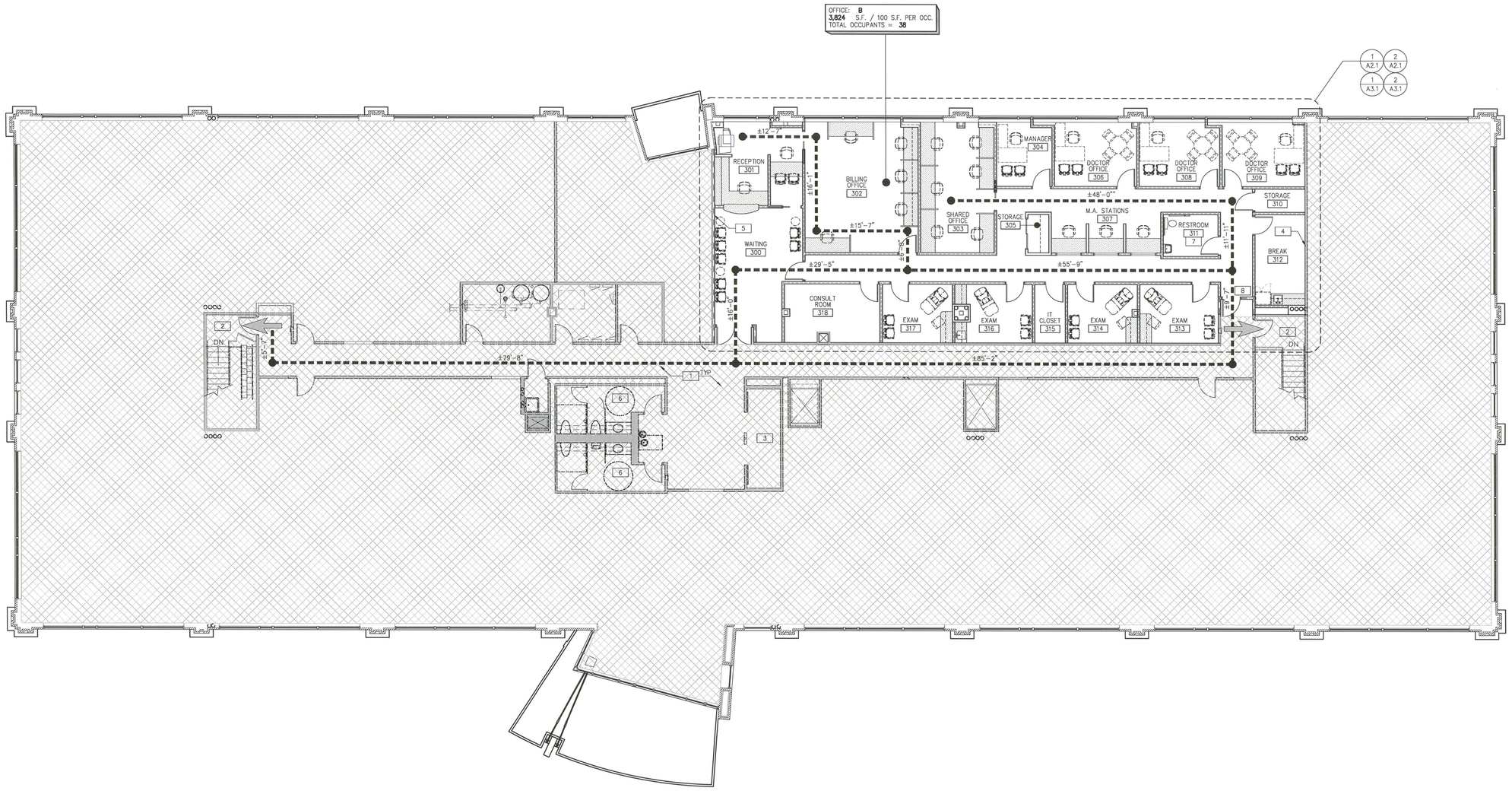
DATE	REMARKS
09/09/14	ISSUED FOR BID
09/11/14	ISSUED FOR CONSTRUCTION

PA / PM:	E. ZABEL
DRAWN BY:	GK
JOB NO.:	DEN14-6053-00

SHEET
A0.3

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OCCUPANCY AND EXIT PLAN

SCALE: 1/8"=1'-0"

SEE SHEET A0.1 & A0.2 FOR GENERAL NOTES

PLAN SPECIFIC NOTES

1. EXISTING CORRIDOR TO REMAIN.
2. EXISTING STAIR TO REMAIN.
3. EXISTING ELEVATOR TO REMAIN.
4. EXISTING TENANT SEPARATION WALL TO REMAIN.
5. NEW TENANT SEPARATION WALL.
6. EXISTING FULLY ACCESSIBLE RESTROOM FACILITY.
7. NEW FULLY ACCESSIBLE RESTROOM FACILITY.
8. GENERAL CONTRACTOR TO PROVIDE AND INSTALL WALL-MOUNTED TACTILE "EXIT" SIGN AT LOCATIONS INDICATED. SEE DETAILS 14 & 15 ON SHEET A0.3.

LEGEND

- INDICATES AREA NOT IN CONTRACT (N.I.C.)
- INDICATES EXISTING EXIT
- UNOBSTRUCTED PATH OF TRAVEL

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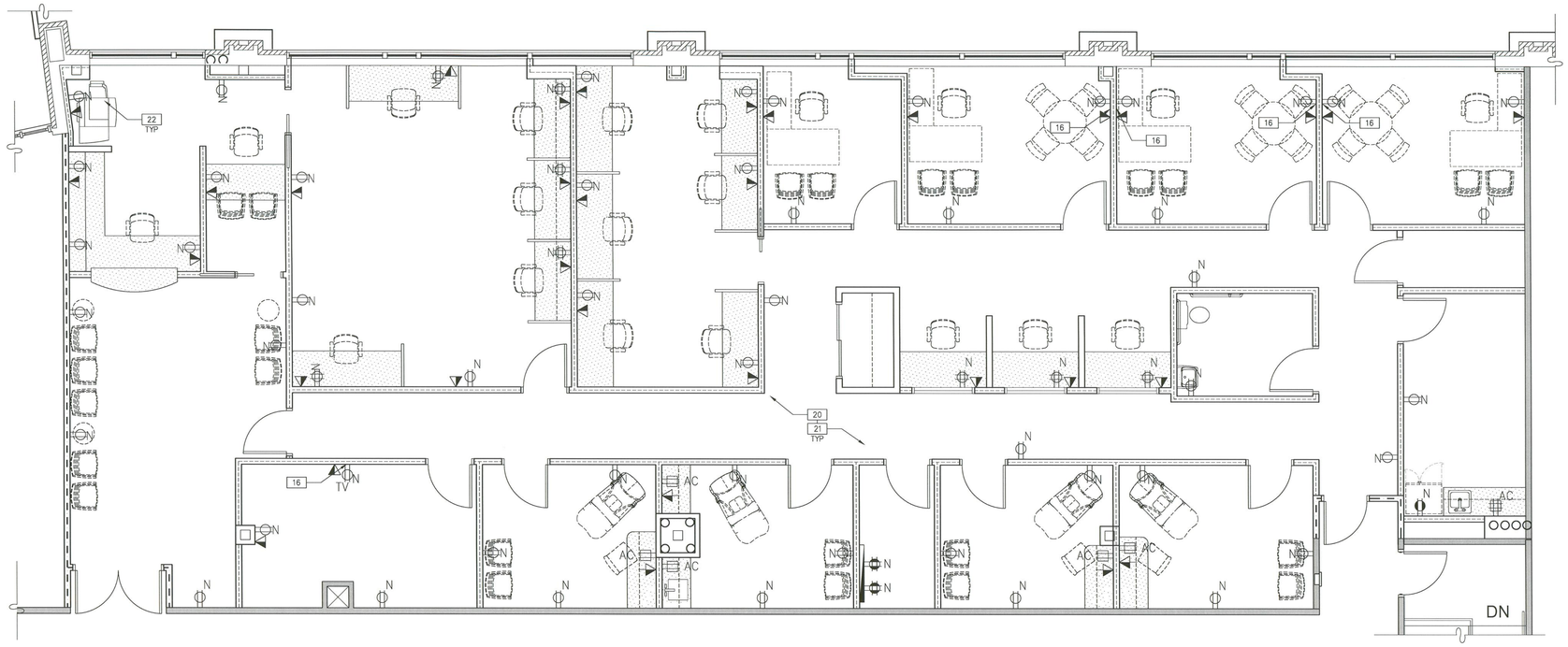
OCCUPANCY AND EXIT PLAN

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JOB NO.:	DEN14-6053-00

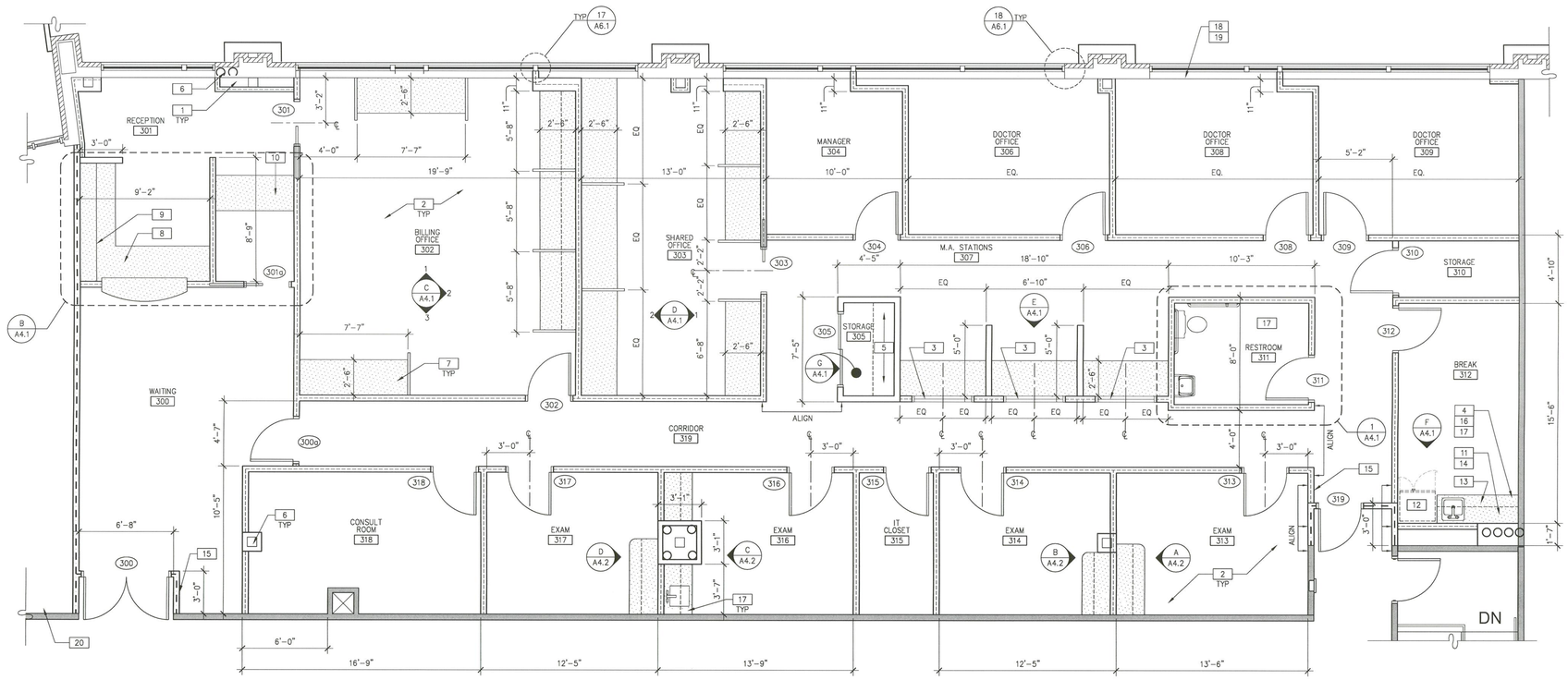
SHEET
A1.1

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POWER AND SIGNAL PLAN
SCALE: 1/4"=1'-0" (2)



PARTITION PLAN
SCALE: 1/4"=1'-0" (1)

1/4"=1'-0"
0 2' 4' 8' 16'

SEE SHEET A0.1 & A0.2 FOR GENERAL NOTES

PLAN SPECIFIC NOTES

1. EXTERIOR WALLS TO BE FURRED WITH 2-1/2" METAL STUDS, FIBERGLASS INSULATION AND (1) LAYER 5/8" GYP. BOARD TO 6" ABOVE CEILING AND CONTINUE WITH INSULATION (ONLY) TO DECK ABOVE. FURRING TO CONTINUE ABOVE & BELOW WINDOWS WHICH ARE NOT FULL HEIGHT. GYP. BOARD TO WRAP WINDOW FRAME AT SILL, JAMB AND HEAD.
2. WALLS OF OFFICES, EXAM ROOMS AND RESTROOM AREAS TO BE INSULATED WITH R-11 UNFACED FIBERGLASS INSULATION TO 6" ABOVE CEILING, TYP. U.O.N.
3. 3'W x 4'H TEMPERED GLASS PANEL IN "U" CHANNEL FRAME AT TOP AND BOTTOM AND CAULKED AT SIDES. PROVIDE 6" DRYWALL WRAPPED SILL AT 42" A.F.F.
4. PROVIDE UPPER & LOWER CABINETRY WITH DRAWERS, BACK SPLASH AND SINGLE-BASIN STAINLESS STEEL SINK.
5. PROVIDE 18" DEEP ADJUSTABLE SHELVES ON HEAVY-DUTY BRACKETS AND STANDARDS.
6. FURR-OUT ROOF DRAINS, COLUMNS, ETC AS REQUIRED. MINIMIZE SIZE OF FURRING.
7. PROVIDE WORK COUNTER AT 2'-6" A.F.F. WITH BUILT-IN WALL BRACKETS, TYP., U.O.N..
8. PROVIDE CUSTOM RECEPTION DESK.
9. PROVIDE UPPER CABINETRY WITH UNDER CABINET LIGHTING AT RECEPTION AREA ONLY.
10. PROVIDE WORK COUNTER AT 2'-6" A.F.F. WITH MODESTY PANEL.
11. COFFEE MAKER TO BE PROVIDED AND INSTALLED BY TENANT. PROVIDE RECESSED WATER LINE.
12. REFRIGERATOR TO BE PROVIDED AND INSTALLED BY TENANT. PROVIDE RECESSED WATER LINE FOR ICE MAKER.
13. DISHWASHER TO BE PROVIDED AND INSTALLED BY GC. DISHWASHER TO BE ADA COMPLIANT.
14. MICROWAVE TO BE PROVIDED AND INSTALLED BY TENANT.
15. PROVIDE SEMI-RECESSED FIRE EXTINGUISHER CABINET AND FIRE EXTINGUISHER BY POTTER-ROEMER. CABINET TO BE ALTA SERIES #7013-DV, STEEL WITH RECOATABLE WHITE FINISH - PAINT (SEMI-GLOSS) TO MATCH ADJACENT WALL. EXTINGUISHER TO BE #3005, 2A:10B:C. SEE DETAIL 9 ON SHEET A6.2
16. PROVIDE BACKING SUPPORT BEHIND WALL-MOUNTED EQUIPMENT LOCATIONS. SEE DETAIL 13 ON SHEET A6.1.
17. SAW-CUT CORE EXISTING FLOOR THIS AREA AS REQUIRED FOR NEW PLUMBING.
18. INSTALL BUILDING STANDARD WOOD WINDOW SILLS
19. INSTALL AND/OR REPAIR BUILDING STANDARD WINDOW BLINDS
20. INSTALL BUILDING STANDARD TEMP DOOR FOR ACCESS TO ADJ. VACANT SUITE
21. SEE ELECTRICAL DRAWINGS FOR ANY ADDITIONAL POWER REQUIREMENTS.
22. VERIFY POWER REQUIREMENTS FOR USER PROVIDE EQUIPMENT PRIOR TO INSTALLATION OF RELATED POWER & SIGNAL CONNECTIONS.

LEGENDS

WALL LEGEND

- EXISTING CONSTRUCTION
- 2A / A6.1 — EXISTING SHELL WALL W/ NEW FURRING
- 2D / A6.1 — FULL HEIGHT NON-RATED PARTITION TO STRUCTURE
- 2G / A6.1 — FULL HEIGHT PARTITION TO 6" ABOVE CEILING
- 2F / A6.1 — FULL HEIGHT PARTITION TO CEILING

NOTE: SEE METAL WALL STUD TABLE ON SHEET A6.1 TO SELECT APPROPRIATE WALL STUD SIZE FOR WALL HEIGHT.

POWER & SIGNAL LEGEND

- 2ⓝ — NEW 110v. DUPLEX RECEPTACLE, MOUNTED VERTICALLY AT +18" A.F.F., U.O.N. "C" DESIGNATES RECESSED TYPE SOCKET.
- 2ⓓ — NEW DEDICATED 110v./20 AMP DUPLEX RECEPTACLE, MOUNTED VERTICALLY AT +18" A.F.F., U.O.N.
- 4ⓐᶜ — NEW 110v. DUPLEX RECEPTACLE, MOUNTED 6" ABOVE COUNTER OR SPLASH.
- 4ⓠⓝ — NEW 110v. FOURPLEX RECEPTACLE, MOUNTED AT +18" A.F.F., U.O.N.
- 4ⓓⓠⓝ — NEW DEDICATED 110v./20 AMP FOURPLEX RECEPTACLE, MOUNTED AT +18" A.F.F., U.O.N.
- 4ⓠᴬᶜ — NEW 110v. FOURPLEX RECEPTACLE, MOUNTED 6" ABOVE COUNTER OR SPLASH.
- 4ᵀ — COMBINATION TELEPHONE/DATA OUTLET MUD RING, WALL-MOUNTED AT 18" A.F.F., U.O.N. PROVIDE PULL ROPE TO ABOVE ACCESSIBLE CEILING SPACE.
- 4ᵀ — COMBINATION TELEPHONE/DATA OUTLET MUD RING, WALL-MOUNTED 6" ABOVE COUNTER OR SPLASH. PROVIDE PULL ROPE TO ABOVE ACCESSIBLE CEILING SPACE.
- NEW WALL-MOUNTED 4'-0"W X 4'-0"H X 3/4" THICK, FIRE-RATED PLYWOOD BACKBOARD PANEL. BOTTOM OF PANEL TO BE INSTALLED AT 3'-0" A.F.F. PAINT TO MATCH WALL. PROVIDE (2) 20 AMP DEDICATED FOURPLEX OUTLETS, (1) FOR TELEPHONE EQUIPMENT & (1) FOR SECURITY.

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PARTITION, POWER/SIGNAL, CEILING & FINISH PLANS

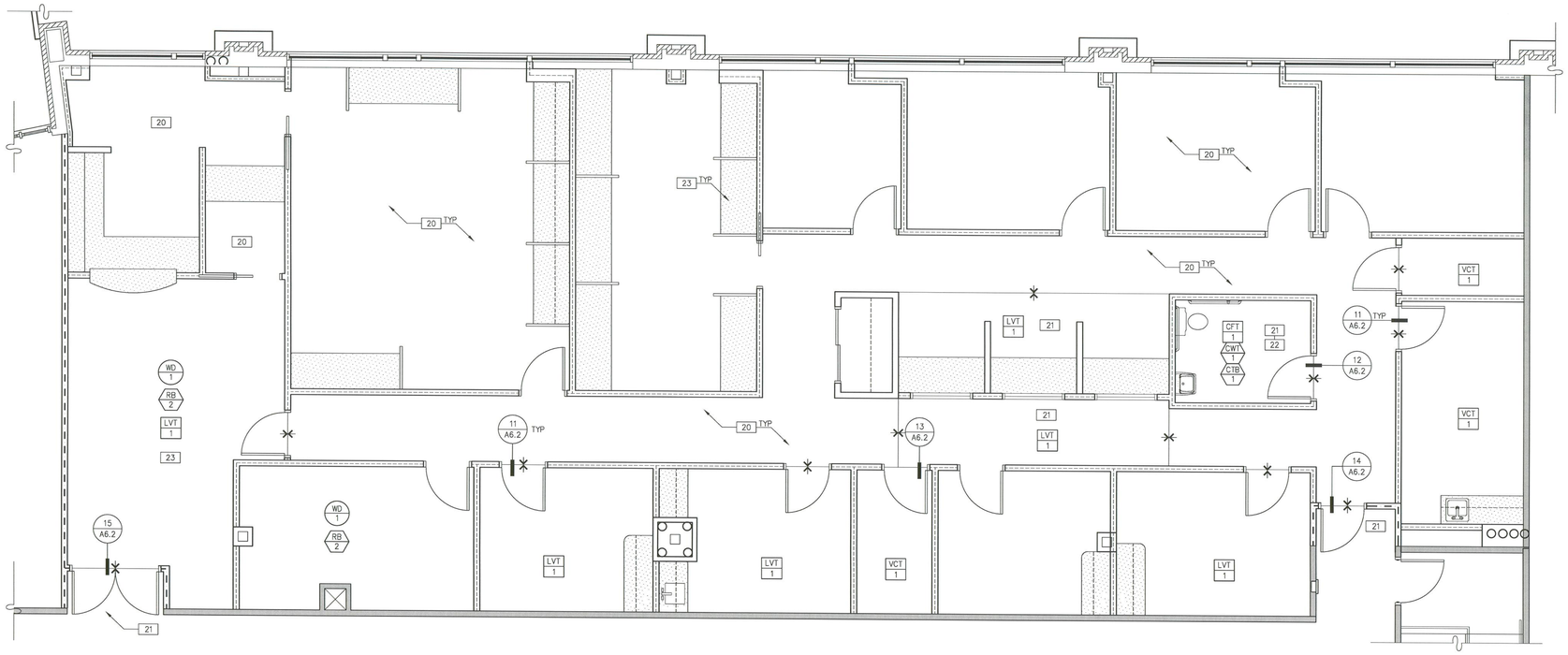
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DRAWN BY:	GK
JOB NO.:	DEN14-6053-00

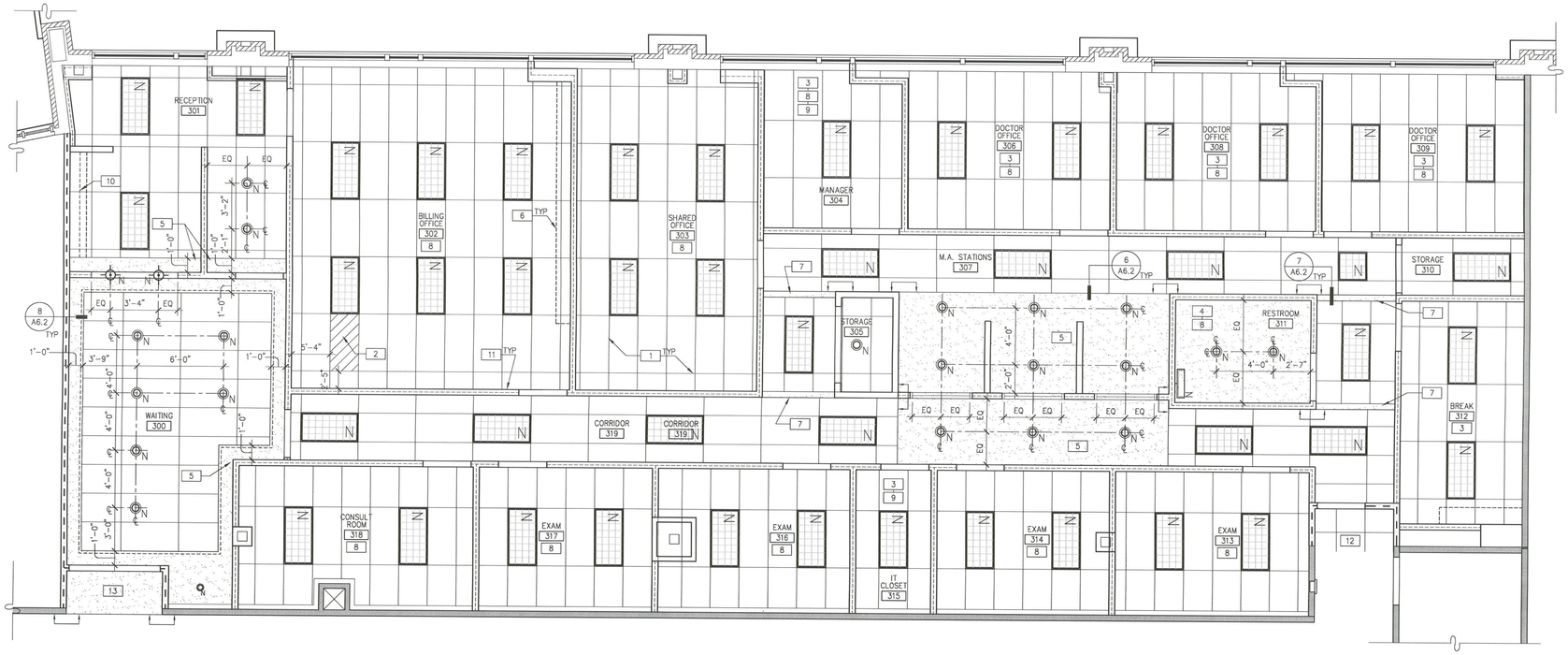
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A2.1

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FINISH PLAN
SCALE: 1/4"=1'-0" (2)



1/4"=1'-0"
0 2' 4' 8' 16'

REFLECTED CEILING PLAN
SCALE: 1/4"=1'-0" (1) N

SEE SHEET A0.1 & A0.2 FOR GENERAL NOTES

PLAN SPECIFIC NOTES

1. SUSPENDED CEILING SYSTEM THROUGHOUT TO BE ARMSTRONG 2'x4 "DUNE 1777" WHITE TILE WITH 15/16" GRID. INSTALL AT 9'-0"A.F.F., U.O.N. SEE DETAILS 3, 4 & 5 ON SHEET A6.2.
2. START CEILING GRID WITH A WHOLE TILE AT THIS LOCATION.
3. CEILING GRID/TILE TO BE CENTERED IN THIS ROOM.
4. PROVIDE GYP. BD. CEILING AT 8'-0" A.F.F.
5. PROVIDE METAL STUDS AND GYP. BD. SOFFIT AT 8'-0" A.F.F.
6. DASHED LINE INDICATES LOCATION OF UPPER CABINETRY.
7. PROVIDE METAL STUDS AND GYP. BD. HEADER AT 8'-0" A.F.F.
8. THE CEILING OF THIS ROOM IS TO BE PROVIDED WITH (1) LAYER OF R-19 UNFACED FIBERGLASS INSULATION.
9. LIGHT FIXTURE TO BE CENTERED IN THIS ROOM.
10. PROVIDE LIGHTING UNDER UPPER CABINETS AT RECEPTION AREA ONLY.
11. SEE DETAIL 10 ON SHEET A6.2 FOR TYPICAL INSTALLATION OF LIGHT SWITCHES AND T-STATS THROUGHOUT, U.O.N.
12. EXTEND EXISTING CEILING TILE AND GRID TO ACCOMMODATE NEW ENTRANCE
13. PROVIDE GYP. BD. CEILING AT 8'-0" A.F.F. COORDINATE AND GAIN APPROVAL FROM PROPERTY MANAGER PRIOR TO INSTALL

20. ALL ROOMS TO RECEIVE PAINT (P-1), RUBBER BASE (RB-1) AND CARPET (C-1), U.O.N.
21. PATCH AND REPAIR EXISTING CORRIDOR FINISHES DUE TO NEW DOOR ENTRANCES. MATCH EXISTING FLOORING AND WALLCOVERING.
22. INSTALL CWT-1 ON 45 DEGREE ANGLE ON WALL.
23. PAINT SOFFIT P-3 IN WAITING ROOM

LEGENDS

REFLECTED CEILING LEGEND

- NEW AREA OF 2'x4' SUSPENDED CEILING GRID & TILES – SEE PLAN SPECIFIC NOTES FOR SPECIFICATIONS.
- NEW 5/8" TYPE "X" GYPSUM BOARD CEILING or SOFFIT – USE RATED MATERIAL & CONSTRUCTION WHERE REQUIRED.
- N — NEW 2'x4' FLUORESCENT LIGHT FIXTURE W/ PARABOLIC LENS & ELECTRIC BALLAST, MATCH BLDG STANDARD, NON-DIMMABLE – SEE ELEC. DWGS.
- N — NEW 2'x2' FLUORESCENT LIGHT FIXTURE W/ PARABOLIC LENS & ELECTRIC BALLAST, MATCH BLDG STANDARD, NON-DIMMABLE – SEE ELEC. DWGS.
- NEW WALL-MOUNTED 4' WRAP-AROUND FLUORESCENT LIGHT FIXTURE – SEE ELEC. DWGS. INSTALL AT +7'-0" A.F.F.
- N — STANDARD 4' STRIP FLUORESCENT FIXTURE MOUNTED UNDER UPPER CABINETRY – SEE ELEC. DRAWINGS.
- N — NEW RECESSED DOWNLIGHT – SEE ELEC. DWGS.

FINISH LEGEND

- X — INDICATES LINE OF FLOOR TRANSITION
- X — INDICATES LOCATION OF NON-TYPICAL WALL FINISH

WALL FINISHES

P-1: ITEM: PAINT – TYPICAL THROUGHOUT, U.O.N.; MFR: TBD; COLOR/NO: TBD; FINISH: TBD

P-2: ITEM: PAINT; MFR: TBD; COLOR/NO: TBD; FINISH: EGGSHELL

P-3: ITEM: PAINT – CEILING; MFR: TBD; COLOR/NO: TBD; FINISH: TBD

RB-1: ITEM: RUBBER BASE; MFR: TBD; COLOR/NO: TBD; SIZE: 4"; STYLE: COVED

RB-2: ITEM: RUBBER BASE; MFR: JOHNSONITE; COLOR/NO: TBD; SIZE: 5.25; STYLE: MILLWORK INFLECTION

CWT-1: ITEM: CERAMIC WALL TILE; MFR: MARAZZI; COLOR/NO: CIMMARON – CANYON; SIZE: 12X12; GROUT: TBD

CTB-1: ITEM: CERAMIC TILE BASE; MFR: MARAZZI; COLOR/NO: CIMMARON – CANYON; SIZE: 6X8; GROUT: TBD

FLOOR FINISHES

C-1: ITEM: CARPET – TYPICAL THROUGHOUT, U.O.N.; MFR: SHAW; STYLE: SWITCH 5A205; COLOR/NO: RANGE 03755; INSTALLATION: GLUE-DOWN

CFT-1: ITEM: CERAMIC FLOOR TILE; MFR: MARAZZI; COLOR/NO: CIMMARON – CANYON; SIZE: 12X12; GROUT: TBD

VCT-1: ITEM: VINYL COMPOSITION TILE – FIELD TILE; MFR: TBD; COLOR/NO: TBD; SIZE: TBD

LVT-1: ITEM: LUXURY VINYL TILE; MFR: JOHNSONITE; COLOR/NO: ID INSPIRATION – INS-P-093 VINTAGE TEAK KONA; SIZE: 6.56"X39.37"

MISCELLANEOUS FINISHES

PL-1: ITEM: PLASTIC LAMINATE – EXAM ROOM COUNTERS; MFR: WILSONART; COLOR/NO: 1842K-45 CANYON PASSAGE

PL-2: ITEM: PLASTIC LAMINATE – COUNTERTOPS; MFR: WILSONART; COLOR/NO: 4845-60 TWILIGHT ZEPHYR

PL-3: ITEM: PLASTIC LAMINATE – CABINETS; MFR: WILSONART; COLOR/NO: 4841-60 DESERT ZEPHYR

WD-1: ITEM: WOOD – CHAIR RAIL; SPECIES: TBD; STAIN: STAINED TO MATCH DOORS

SSM-1: ITEM: SOLID SURFACE COUNTER TOP AT RECEPTION; MFR: CORIAN; COLOR/NO: GRADE E

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PARTITION, POWER/SIGNAL, CEILING & FINISH PLANS

DATE	REMARKS
09/05/14	ISSUED FOR PERMIT
09/11/14	ISSUED FOR CONSTRUCTION

PA / PM:	E. ZABEL
DRAWN BY:	GK
JOB NO.:	DEN14-6053-00

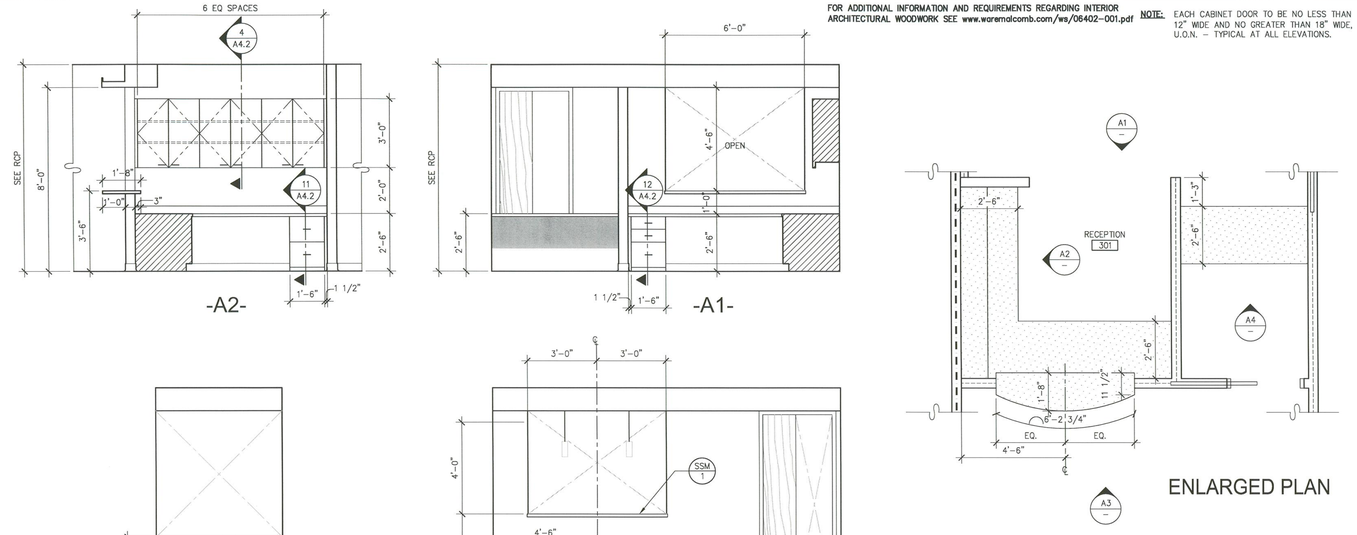
SHEET
A3.1

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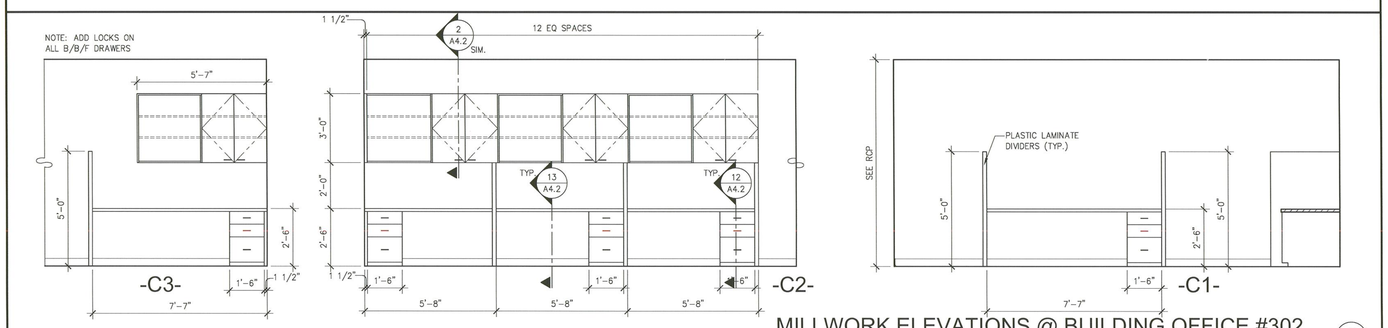
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FOR ADDITIONAL INFORMATION AND REQUIREMENTS REGARDING INTERIOR ARCHITECTURAL WOODWORK SEE www.waremalcomb.com/ws/06402-001.pdf

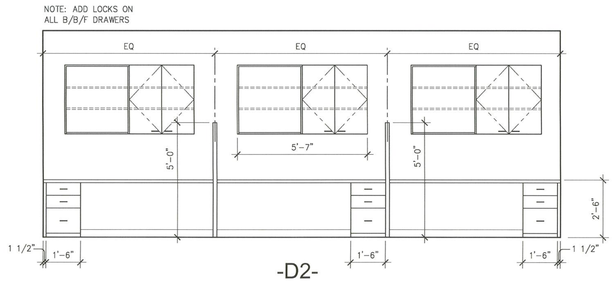
NOTE: EACH CABINET DOOR TO BE NO LESS THAN 12" WIDE AND NO GREATER THAN 18" WIDE, U.O.N. – TYPICAL AT ALL ELEVATIONS.

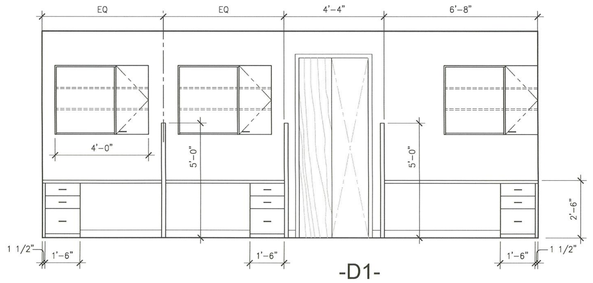


RECEPTION DESK #301 (B)
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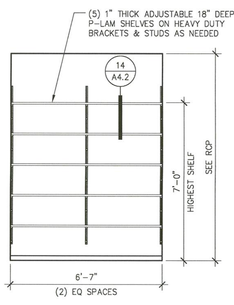


MILLWORK ELEVATIONS @ BUILDING OFFICE #302 (C)
SCALE: 3/8"=1'-0"

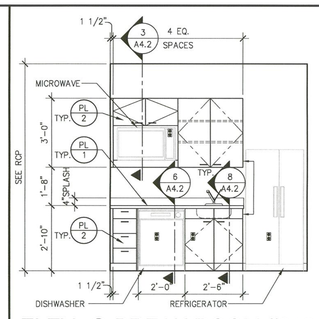




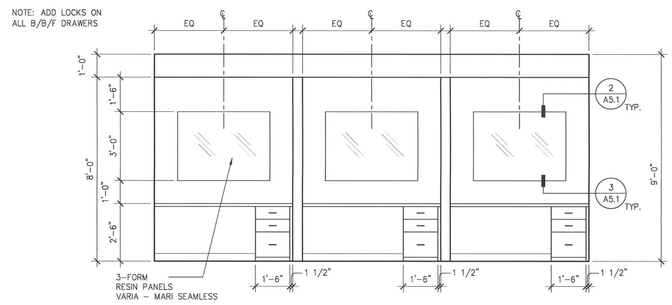
MILLWORK ELEVATIONS @ SHARED OFFICE #303 (D)
SCALE: 3/8"=1'-0"



SHELF @ STORAGE #305 (G)
SCALE: 3/8"=1'-0"

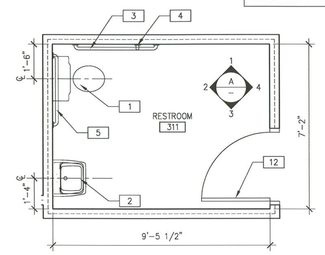


ELEV. @ BREAK ROOM #312 (F)
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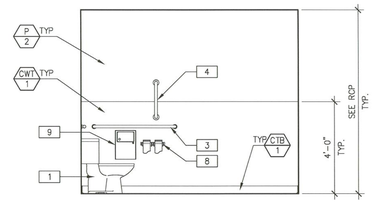


MILLWORK ELEVATION @ M.A. STATION #307 (E)
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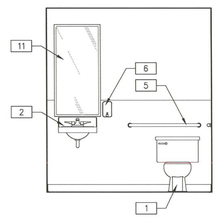
NOTE: ALL DIMENSIONS & CALLOUTS TYPICAL FOR EACH ROOM, U.O.N.



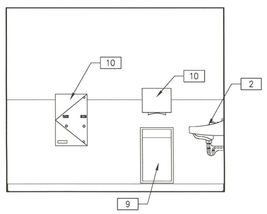
ENLARGED PLAN @ RESTROOM #311 (1)
SCALE: 3/8"=1'-0"



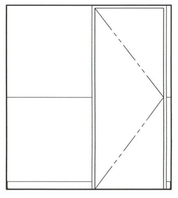
-A1-



-A2-



-A3-



-A4-

INT. ELEVATIONS @ RESTROOM #311 (A)
SCALE: 3/8"=1'-0"

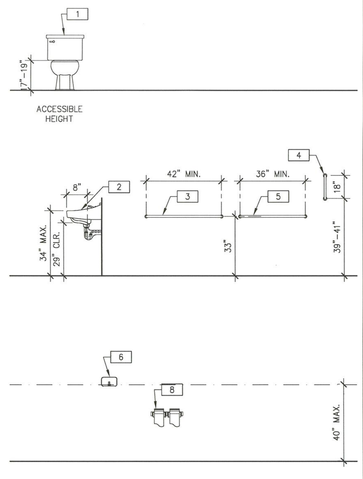
SEE SHEET A0.1 & A0.2 FOR GENERAL NOTES

SEE SHEET A0.3 FOR ADA RESTROOM NOTES & DETAILS

PLAN SPECIFIC NOTES

1. WATER CLOSET – FULLY ACCESSIBLE, FLOOR–MOUNTED FLUSH–TANK. (SEE PLUMBING DRAWINGS FOR SPECIFICATIONS.)
2. LAVATORY – FULLY ACCESSIBLE, WALL–HUNG, SELF–RIMMING, PORCELAIN SINK WITH WRIST BLADE FAUCET CONTROLS. (SEE PLUMBING DRAWINGS FOR SPECIFICATIONS.)
3. 42" GRAB BAR – TOILET COMPARTMENT SIDE GRAB BAR, BOBRICK B–6806x42, 42"L X 1–1/2" DIAMETER GRAB–BAR WITH BOBRICK B–2583 CONCEALED ANCHOR PLATES.
4. 18" GRAB BAR – TOILET COMPARTMENT VERTICAL SIDE GRAB BAR, BOBRICK B–6806x18, 18L" X 1–1/2" DIAMETER GRAB–BAR WITH BOBRICK B–2583 CONCEALED ANCHOR PLATES.
5. 36" GRAB BAR – TOILET COMPARTMENT REAR GRAB BAR, BOBRICK B–6806x36, 36L" X 1–1/2" DIAMETER GRAB–BAR WITH BOBRICK B–2583 CONCEALED ANCHOR PLATES.
6. SOAP DISPENSER – WALL–MOUNTED, BOBRICK B–2112.
7. PAPER TOWEL DISPENSER & WASTE RECEPTACLE – RECESSED, BOBRICK B–3944.
8. DOUBLE–ROLL TOILET TISSUE DISPENSER – SURFACE–MOUNTED, BOBRICK B–2740.
9. WASTE RECEPTACLE – RECESSED, BOBRICK B–43644
10. HAND DRYER SPEC: TBD
11. MIRROR AT SINK – FULL HEIGHT x FULL WIDTH FIRST QUALITY MIRROR.
12. ADA WALL–MOUNTED UNISEX SIGNAGE. SEE DETAIL 14 ON SHEET A0.3.

HEIGHT REQUIREMENT LEGEND



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ENLARGED RESTROOM PLAN & ELEVATIONS

DATE	REMARKS
09/09/14	ISSUED FOR BID
09/11/14	ISSUED FOR CONSTRUCTION

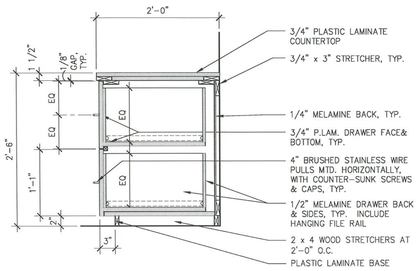
PA / PM:	E. ZABEL
DRAWN BY:	GK
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SHEET
A4.1

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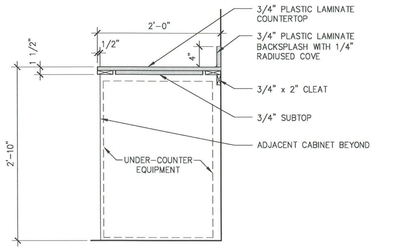
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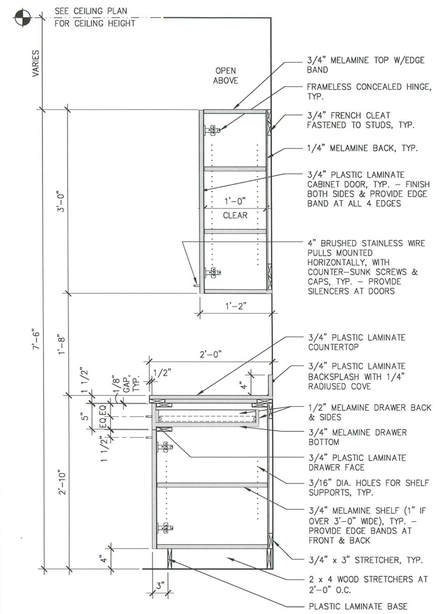
FILE/FILE @ RECEPTION DESK

SCALE: 1"=1'-0" (IMWRD02a) 11



LOWER CAB. AT EQUIP. OPENING

SCALE: 1"=1'-0" IMWCB-Low_equipment_splash-01 6

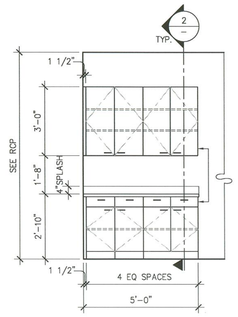


UPPER/LOWER CABINETS

SCALE: 1"=1'-0" IMWCB-Up_low_drws_splash-04 2

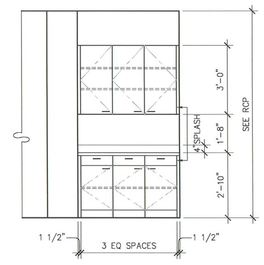
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NOTE: EACH CABINET DOOR TO BE NO LESS THAN 12" WIDE AND NO GREATER THAN 18" WIDE, U.O.N. - TYPICAL AT ALL ELEVATIONS.



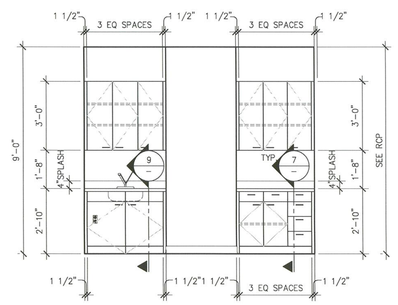
MILLWORK ELEVATION @ EXAM #313

SCALE: 3/8"=1'-0" A



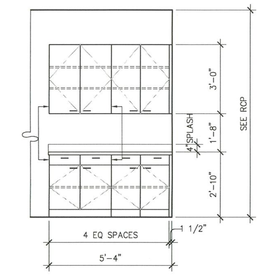
MILLWORK ELEVATION @ EXAM #314

SCALE: 3/8"=1'-0" B



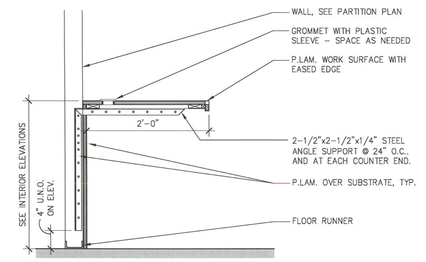
MILLWORK ELEVATION @ EXAM #316

SCALE: 3/8"=1'-0" C



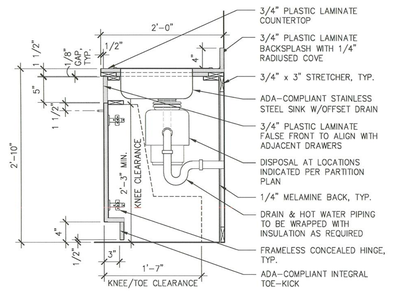
MILLWORK ELEVATION @ EXAM #317

SCALE: 3/8"=1'-0" D



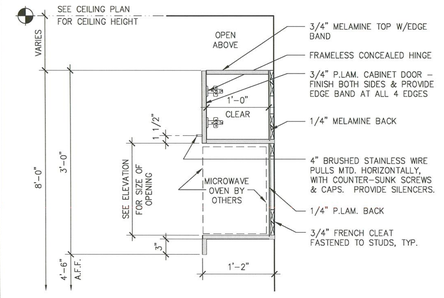
COUNTERTOP SUPPORT

SCALE: 1"=1'-0" IMWMI_Counter-01 13



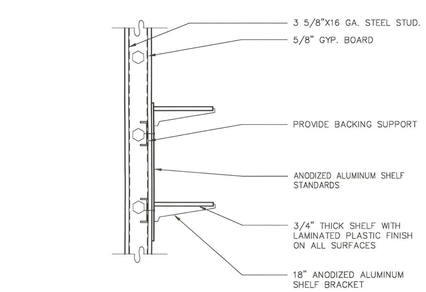
LOWER CABINET AT SINK

SCALE: 1"=1'-0" IMWCB-Low_sink_splash-01 8



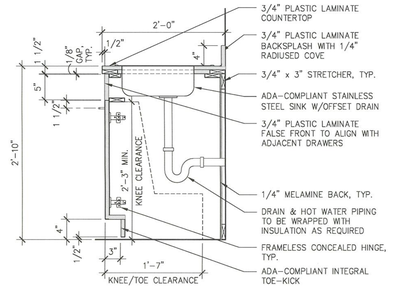
UPPER CABINETS @ MICROWAVE

SCALE: 1"=1'-0" IMWCB-Up_microwave-01 3



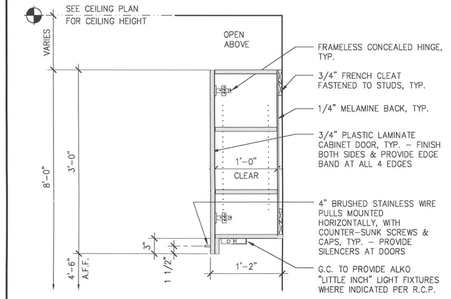
ADJUSTABLE SHELVE

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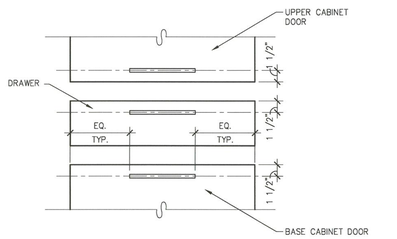
LOWER CABINET AT SINK

SCALE: 1"=1'-0" IMWCB-Low_sink_splash-04 9



UPPER CABINETS @ RECEPTION

SCALE: 1"=1'-0" IMWCB-Up_LIGHT-01 4



TYPICAL CABINET HARDWARE

SCALE: 1-1/2"=1'-0" IMWCB-Hardware-01.dwg 10

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MILLWORK ELEVATIONS & DETAILS

DATE	REMARKS
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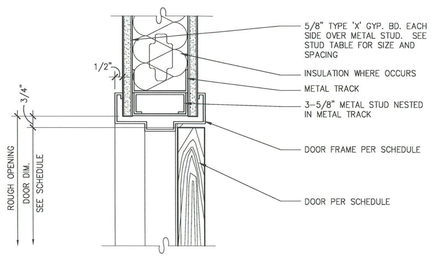
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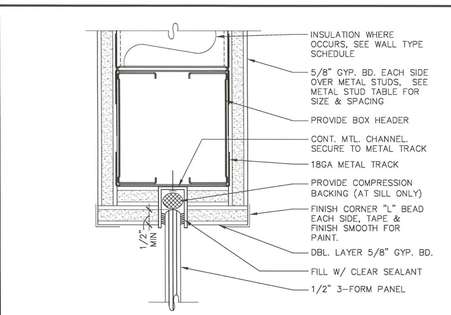
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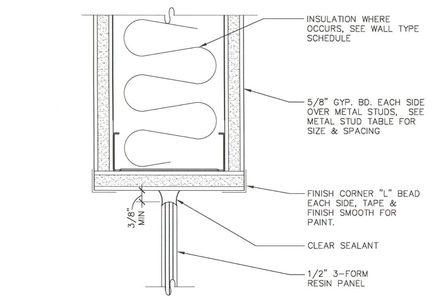
DOOR HEAD (JAMB SIM.)

SCALE: 3" = 1'-0" IDRAL-Head-07 (1)



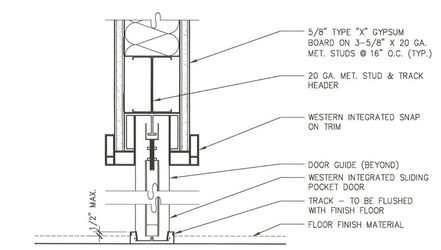
WINDOW HEAD (SILL SIM)

SCALE: 6"=1'-0" IWIAL-Frmless_glass_hd-01 (2)



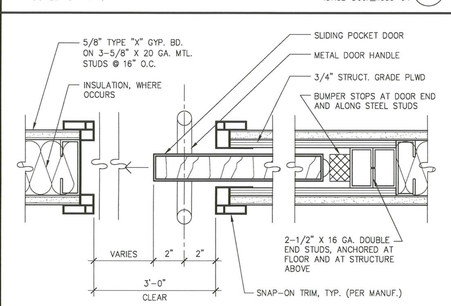
WINDOW JAMB

SCALE: 6"=1'-0" IWIAL-Frmless_glass_jb-01 (3)



SLIDING POCKET DOOR HEAD/SILL

SCALE: 3"= 1'-0" IDRSL-Door_head-04 (4)



SLIDING POCKET DOOR JAMBS

SCALE: 3"= 1'-0" IDRSL-Pocket_door_jamb-01 (5)

DOOR SCHEDULE

DOOR NO.	ROOM NO.	DOOR TYPE	DOOR WIDTH	DOOR HEIGHT	DOOR THICK	DOOR MATERIAL	DOOR FINISH	DOOR RATING	FRAME MATERIAL	FRAME FINISH	FRAME RATING	HDWARE. GROUP	OPERAT. HDWARE.	ELECT.	GASKET.	REMARKS
300	300 WAITING	B	PAIR 3'-0"	7'-0"	1-3/4"	MATCH	MATCH	–	MATCH	MATCH	–	C2	1b	–	–	FROSTED FILM WITH LOGO ON GLASS
300a	300a WAITING	B	3'-0"	7'-0"	1-3/4"	MATCH	MATCH	–	MATCH	MATCH	–	B2	1d	–	–	PROVIDE GLASS PANEL WITH FROSTED FILM. PROVIDE ELECTRONIC CYPHER LOCK
301	301 RECEPTION	D	3'-0"	7'-0"	1-3/4"	PER MANUF.	MATCH	–	MATCH	MATCH	–	B3	–	–	–	SLIDING POCKET DOOR
301a	301a RECEPTION	D	3'-0"	7'-0"	1-3/4"	PER MANUF.	MATCH	–	MATCH	MATCH	–	B3	–	–	–	SLIDING POCKET DOOR
302	302 BILLING OFF.	A	3'-0"	7'-0"	1-3/4"	MATCH	MATCH	–	MATCH	MATCH	–	B1	1b	–	–	
303	303 SHARED OFF.	D	3'-0"	7'-0"	1-3/4"	PER MANUF.	MATCH	–	MATCH	MATCH	–	B3	–	–	–	SLIDING POCKET DOOR
304	304 MANAGER	A	3'-0"	7'-0"	1-3/4"	MATCH	MATCH	–	MATCH	MATCH	–	B1	1b	–	–	
305	305 STORAGE	D	PAIR 2'-6"	7'-0"	1-3/4"	PER MANUF.	MATCH	–	MATCH	MATCH	–	C3	–	–	–	SLIDING CLOSET DOOR
306	306 DR. OFFICE	A	3'-0"	7'-0"	1-3/4"	MATCH	MATCH	–	MATCH	MATCH	–	B1	1b	–	–	
308	308 DR. OFFICE	A	3'-0"	7'-0"	1-3/4"	MATCH	MATCH	–	MATCH	MATCH	–	B1	1b	–	–	
309	309 DR. OFFICE	A	3'-0"	7'-0"	1-3/4"	MATCH	MATCH	–	MATCH	MATCH	–	B1	1b	–	–	
310	310 STORAGE	A	3'-0"	7'-0"	1-3/4"	MATCH	MATCH	–	MATCH	MATCH	–	B1	1b	–	–	
311	311 RESTROOM	A	3'-0"	7'-0"	1-3/4"	MATCH	MATCH	–	MATCH	MATCH	–	B1	1c	–	–	
312	312 BREAK RM.	A	3'-0"	7'-0"	1-3/4"	MATCH	MATCH	–	MATCH	MATCH	–	B1	1d	–	–	
313	313 EXAM	A	3'-0"	7'-0"	1-3/4"	MATCH	MATCH	–	MATCH	MATCH	–	B1	1d	–	–	
314	314 EXAM	A	3'-0"	7'-0"	1-3/4"	MATCH	MATCH	–	MATCH	MATCH	–	B1	1d	–	–	
315	315 IT CLOSET	A	3'-0"	7'-0"	1-3/4"	MATCH	MATCH	–	MATCH	MATCH	–	B1	1a	–	–	
316	316 EXAM	A	3'-0"	7'-0"	1-3/4"	MATCH	MATCH	–	MATCH	MATCH	–	B1	1d	–	–	
317	317 EXAM	A	3'-0"	7'-0"	1-3/4"	MATCH	MATCH	–	MATCH	MATCH	–	B1	1d	–	–	
318	318 EXAM	A	3'-0"	7'-0"	1-3/4"	MATCH	MATCH	–	MATCH	MATCH	–	B1	1d	–	–	
319	319 COORIDOR	A	3'-0"	7'-0"	1-3/4"	MATCH	MATCH	–	MATCH	MATCH	–	B2	1b	–	–	PROVIDE ELECTRONIC CYPHER LOCK

DOOR HARDWARE

HARDWARE SPECIFICATIONS

BUTT HINGES:

1. IVES 3 KNUCKLE 3CB1 SERIES (OR 5 KNUCKLE 5BB1 SERIES) OR APPROVED EQUAL.
2. SIZE:
   a. 3 1/2" X 3 1/2" X 0.123 GA FOR 1 3/8" DOORS
   b. 4 1/2" X 4 1/2" X 0.134 GA FOR 1 3/4" DOORS TO 36" WIDE
   c. 4 1/2" X 4 1/2" X 0.180 GA FOR 1 3/4" FOR DOORS GREATER THAN 36" TO 42" WIDE.
   d. 5" X 4 1/2" X 0.190 GA FOR 1 3/4" FOR DOORS GREATER THAN 42" TO 48" WIDE.
   e. MANUFACTURER'S GUIDELINES FOR ALL OTHER DOOR THICKNESSES.
3. QUANTITY:
   1 1/2 PAIRS FOR DOORS 60" TO 90" IN HEIGHT AND AN ADDITIONAL 1/2 PAIR FOR EVERY 30" OR FRACTION THEREOF.
4. MATERIAL:
   a. ALL EXTERIOR OUTSWING DOOR BUTTS SHALL BE MADE OF NON-FERROUS MATERIAL AND SHALL HAVE STAINLESS STEEL HINGE PINS.
   b. ALL EXTERIOR OUTSWING DOORS SHALL HAVE NON-REMOVEABLE PINS.
   c. ALL FIRE RATED DOORS OR DOORS WITH CLOSING DEVICES SHALL HAVE BALL BEARING STEEL HINGES.

PIVOTS:

1. IVES 7000 SERIES
2. HIGH STRENGTH FORGED BRONZE OR STAINLESS STEEL TILT-ON PRECISION BEARING AND BEARING PIN.
   a. BOTTOM AND INTERMEDIATE PIVOTS: ADJUSTABILITY OF MINUS 1/16 INCH, PLUS 1/8 INCH.

CLOSING DEVICES:

1. CONCEALED – FLOOR: DORMA BTS 80 SERIES
   a. HYDRAULICALLY CONTROLLED, CEMENT CASE, MAXIMUM DEGREE DEAD STOP PERMITTED BY TRIM OR ADJACENT STRUCTURE. PROVIDE SPECIAL PINS, FLOOR PANS, AND LONGER SPINDLES TO ACCOMODATE FLOOR AND JAMB CONDITIONS.
2. CONCEALED – OVERHEAD: LCN 2030 SERIES OR APPROVED EQUAL.
   a. CONCEALED IN TRACK BUMPERS WHERE SCHEDULED.
3. SURFACE: LCN 1461 SERIES OR APPROVED EQUAL.
   a. PROVIDE "DS" DESIGNER SERIES COVERS AT ALL DOORS VISIBLE BY THE PUBLIC. (STANDARD COVERS AT MAINTENANCE ROOMS)
4. MAX. EFFORT TO OPERATE DOORS
   a. EXTERIOR DOORS – 5 LBS.
   b. INTERIOR DOORS – 5 LBS.
   c. FIRE RATED DOORS – 15 LBS.
5. A CLOSING DEVICE MUST BE USED ON ALL FIRE-RATED DOORS.

STOPS:

1. IVES WS407 / FS436 SERIES DOOR STOPS:
   a. WS407 CVX/CCV WALL STOP OR APPROVED EQUAL, TYPICAL.
   b. FS436 / R435 DOME FLOOR STOP (SIZE BASE TO FIT) OR APPROVED EQUAL – WHERE WALL STOP WILL NOT WORK.
   c. WHERE WALL OR FLOOR STOPS WILL NOT WORK PROVIDE AN OVERHEAD STOP OR SPRING "CUSH" ARM ON THE CLOSER.

MAGNETIC HOLDERS:

1. LCN SEM7800 (24 VDC/VAC) MAGNETIC HOLDER OR APPROVED EQUAL AT FIRE-RATED AUTOMATIC RELEASE DOORS.
   a. PROVIDE EXTENDED ARMATURES AS REQUIRED TO SUIT CONDITIONS.

DOOR COORDINATORS (COORDINATORS TO MATCH DOOR FRAME):

1. IVES COR SERIES OR APPROVED EQUAL, SIZED TO FIT FROM STOP TO STOP.
   a. PROVIDE FULL LENGTH BRACKET FOR MOUNTING TO ALUMINUM FRAME.
2. IF JAMB STOP DOES NOT PERMIT USE OF IVES COR SERIES, SUBSTITUTE IVES CORG SERIES, GRAVITY COORDINATORS.

KICK PLATES:

1. IVES 8400 SERIES OR APPROVED EQUAL.
2. SIZE AS FOLLOWS:
   a. 10" X 2" LESS THAN DOOR WIDTH – SINGLE DOOR
   b. 10" X 1" LESS THAN DOOR WIDTH – PAIR OF DOORS

WEATHER STRIPPING:

1. NATIONAL GUARD PRODUCTS (NGP) OR APPROVED EQUAL:
   a. THRESHOLDS – NGP 8139 OR AS SHOWN ON SILL DETAILS AND AS REQUIRED TO SUIT CONDITIONS AT EXTERIOR DOORS.
   b. DOOR BOTTOMS/SHOES – NGP 319 OR AS SHOWN ON SILL DETAILS AND AS REQUIRED TO SUIT CONDITIONS AT EXTERIOR DOORS.
   c. HEAD AND JAMB SEALS – NGP 5020 (OR AS REQUIRED TO MEET FIRE LABEL RATING) AT EXTERIOR DOORS AND FIRE RATED DOORS. (OMIT AT ALUMINUM FRAMES)
   d. ASTRAGALS – NGP 178 OR AS SHOWN ON PLANS AND AS REQUIRED TO SUIT CONDITIONS AT INTERIOR DOORS. (SEE LATCHGUARDS FOR EXTERIOR DOORS)

LATCHGUARDS:

1. IVES LG SERIES OR APPROVED EQUAL FOR SINGLE OUTSWING EXTERIOR DOORS.
2. NGP SP139 SERIES ASTRAGAL OR APPROVED EQUAL FOR PAIRS OF EXTERIOR HOLLOW METAL DOORS WITHOUT PANIC HARDWARE.

KEYING:

MATCH BUILDING STANDARD OR AS DIRECTED BY OWNER AND ARCHITECT.

OPERATING HARDWARE

1. **LATCHING HARDWARE FOR USE ON EXTERIOR OR INTERIOR DOORS – PER BUILDING STANDARDS**
   a. ELECTRICAL/UTILITIES ROOM LOCK
   b. ENTRANCE/OFFICE/JANITOR/STORAGE LOCK
   c. PRIVACY SET
   d. PASSAGE SET
2. **VON DUPRIN 98/99 SERIES PANIC HARDWARE OR APPROVED EQUAL**
   a. 9975L X 575 – SINGLE DOOR
   b. 9947L X – PAIRS OF DOORS (CONCEALED VERTICAL RODS) DELETE: 355CS, COR2, FB8/7 PROVIDE: 297DS, 293DP AT FIRE DOORS
   c. 9927L – PAIRS OF DOORS (SURFACE VERTICAL RODS) DELETE: 355CS, COR2, FB8/7 PROVIDE: 297DS, 293DP AT FIRE DOORS
   d. USE SCHLAGE 20-001 (1 1/4") CYLINDER.
   e. USE FIRE RATED HARDWARE WHERE REQUIRED.
3. **IVES 8000 SERIES PUSH/PULL PLATES OR APPROVED EQUAL**
   a. 8200 4 X 16 PUSH PLATE
   b. 8305-6 4 X 16 PULL PLATE
4. **BLUMCRAFT OF PITTSBURGH ALL GLASS DOORS HARDWARE– 626 SATIN CHROMIUM PLATED OR APPROVED EQUAL**
   a. H-100-A PANIC HANDLE
   b. H-100-A PANIC HANDLE WITH KEY CYLINDER
   c. DB-100-A DEADBOLT LOCK HANDLE WITH KEY CYLINDER
   d. P-751A PUSH/PULL HANDLE

BOLTS:

1. MANUAL FLUSH BOLTS:
   a. IVES FB458 OR APPROVED EQUAL.
   b. LENGTH TO SET AS FOLLOWS:
      1. BOTTOM BOLTS 12"
      2. TOP BOLT 12" FOR DOORS TO 84" IN HEIGHT.
      3. TOP BOLT 12" PLUS ADD 1" FOR EVERY ADDITIONAL INCH OF DOOR HEIGHT OVER 84"
   c. DO NOT USE AT ANY ROOMS NORMALLY OCCUPIED BY PEOPLE.
2. AUTOMATIC FLUSH BOLTS.
   a. IVES FB30 OR APPROVED EQUAL FOR HOLLOW METAL DOORS
   b. IVES FB40 OR APPROVED EQUAL FOR WOOD DOORS.
   c. AUTOMATIC FLUSH BOLTS MUST BE USED AT ALL PAIRS OF FIRE RATED DOORS.

HARDWARE GROUP

SINGLE OR PAIR OF GLASS DOORS

A1 SINGLE STOREFRONT GLASS DOOR

OPERATING HARDWARE	MS 1850S
CYLINDER GUARD	MS 4043
EXIT INDICATOR	4089
THRESHOLD	200D

A2 PAIR OF STOREFRONT GLASS DOOR (3 POINT LOCK)

OPERATING HARDWARE	MS 18050S
THRESHOLD BOLT	4015
HEADER BOLT	4085
CYLINDER GUARD	MS 4043
EXIT INDICATOR	4089
THRESHOLD	200D

A3 SINGLE P-B STYLE TEMPERED GLASS DOOR BY TEMPGLASS WESTERN, INC.

HEADERS	DS-4022
CYLINDER GUARD	MS 4043
TAPERED RAIL	DS-00
CLOSER	R1S-85

A4 SINGLE STOREFRONT GLASS DOOR

OPERATING HARDWARE	MS 1850S
CYLINDER GUARD	MS 4043
EXIT INDICATOR	4089
THRESHOLD	200D

A5 PAIR OF STOREFRONT GLASS DOOR (3 POINT LOCK)

OPERATING HARDWARE	MS 18050S
THRESHOLD BOLT	4015
HEADER BOLT	4085
CYLINDER GUARD	MS 4043
EXIT INDICATOR	4089
THRESHOLD	200D

SINGLE WOOD OR HOLLOW METAL DOOR

B1 STANDARD DOOR:

BUTT HINGES	450 T88
STOP	W1276 CCS

B2 STANDARD DOOR WITH CLOSER:

BUTT HINGES	450 T88
STOP	W1276 CCS
CLOSER	8581 BF

B3 FIRE RATED DOOR:

BUTT HINGES	450 T88
STOP	W1276 CCS
CLOSER	8581 BF
SEALS	S88

B4 EXTERIOR DOOR:

BUTT HINGES	450 T88
STOP	W1276 CCS
CLOSER	8581 BF
SEALS	S88
LATCH GUARD	LP2
THRESHOLD	200D
DOOR SHOE	216DV

PAIR WOOD OR HOLLOW METAL DOORS

C1 STANDARD DOOR:

BUTT HINGES	450 T88
STOP	W1276 CCS
BOLTS	FB8 OR FB7

C2 STANDARD DOOR WITH CLOSER:

BUTT HINGES	450 T88
STOP	W1276 CCS
BOLTS	FB8 OR FB7
CLOSER	8581 BF

C3 FIRE RATED DOOR:

BUTT HINGES	450 T88
STOP	W1276 CCS
CLOSER	8581 BF
SEALS	S88
BOLTS	FB8 OR FB7
ASTRAGAL	357D
COORDINATOR	COR2

C4 EXTERIOR DOOR:

BUTT HINGES	450 T88
STOP	W1276 CCS
CLOSER	8581 BF
SEALS	S88
BOLTS	FB8 OR FB7
ASTRAGAL	357D
DOOR SHOE	216DV
THRESHOLD	200D

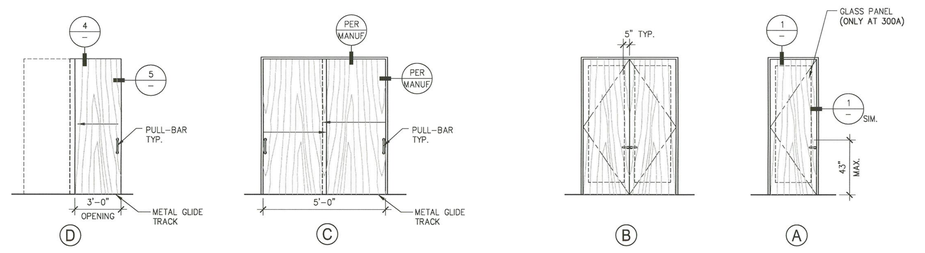
C5 BI-PASS DOORS: BY DOOR
TRACK ASSEMBLY SUPPLIER

NOTES

SEE SHEET A0.2 FOR GENERAL DOOR NOTES

1. REFER TO THE PARTITION PLAN AND SPECIFICATIONS (IF PROVIDED) FOR ADDITIONAL DOOR INFORMATION.
2. ALL DOORS AND FRAMES TO MATCH BUILDING STD.
3. PROVIDE COAT HOOKS ON ALL DOORS

DOOR TYPES



WARE MALCOMB
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MATTHEW NATHAN CHAIKEN
306199
LICENSED ARCHITECT

SEP 11 2014

CARDIOTHORACIC SURGERY ASSOCIATES
1444 S. POTOMAC ST, SUITE 360
AURORA, COLORADO 80012

DOOR SCHEDULE & DETAILS

DATE	REMARKS
09/09/14	ISSUED FOR BID
09/17/14	ISSUED FOR CONSTRUCTION

PA / PM:	E. ZABEL
DRAWN BY:	GK
JOB NO.:	DEN14-6053-00

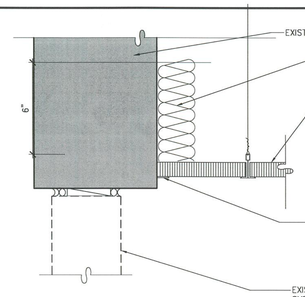
SHEET
A5.1

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T:\Jobs14\CB Richard Ellis - AuroraSouth Potomac\DEN14-6053-00_HCAPS\Architectural\Cad\CD\6053_A51\6053_A51.dwg

CAUTION: IF THIS SHEET IS NOT 30"x42" IT IS A REDUCED PRINT

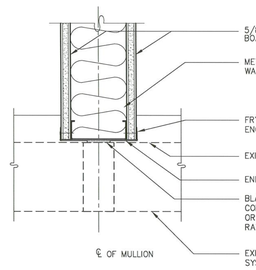
21



PERIMETER WINDOW HEAD

SCALE: 3"=1'-0" IWSF-Wndw_head_perimeter-03 (16)

22



PARTITION AT WINDOW

SCALE: 3"=1'-0" IPISF-Partition_window-01 (17)

MEMBER DEPTH:
(EXAMPLE: 6" = 600 X 1/100 INCHES) ALL MEMEBER DEPTHS ARE TAKEN IN 1/100 INCHES. FOR ALL "I" SECTIONS MEMBER DEPTH IS THE INSIDE DIMENSION.

STYLE:
(EXAMPLE: STUD OR JOIST SECTION = S) THE FOUR ALPHA CHARACTERS UTILIZED BY THE DESIGNATOR SYSTEM ARE:

S = STUD OR JOIST, T = TRACK, U = CHANNEL, F = FURRING

FLANGE WIDTH:
(EXAMPLE: 1 5/8" = 1.625" ~ 162 X 1/100 INCHES) ALL FLANGE WIDTHS ARE TAKEN IN 1/100 INCHES.

MATERIAL THICKNESS:
(EXAMPLE: 0.054 IN. = 54 MILS; 1 MIL =1/1000 IN.) MATERIAL THICKNESS IS THE MINIMUM BASE METAL THICKNESS IN MILS. MINIMUM BASE METAL THICKNESS REPRESENTS 95% OF THE DESIGN THICKNESS.

600 S 162 54

INTERIOR NON-STRUCTURAL NON-COMPOSITE:

USE FOR FURRING PURPOSES ONLY, U.O.N.

(S) STUD MEMBER	SPACING (IN.) O.C.	5 PSF L/240
250S137-33	12"	13'-10"
250S137-33	16"	12'-2"
250S137-33	24"	11'-0"
250S137-43	12"	15'-0"
250S137-43	16"	13'-8"
250S137-43	24"	11'-11"
250S137-54 (50 KSI)	12"	16'-1"
250S137-54 (50 KSI)	16"	14'-7"
250S137-54 (50 KSI)	24"	12'-9"
362S137-33	12"	18'-5"
362S137-33	16"	16'-9"
362S137-33	24"	14'-7"
362S137-43	12"	20'-0"
362S137-43	16"	18'-2"
362S137-43	24"	15'-11"
362S137-54 (50 KSI)	12"	21'-5"
362S137-54 (50 KSI)	16"	19'-6"
362S137-54 (50 KSI)	24"	17'-0"
362S137-68 (50 KSI)	12"	22'-11"
362S137-68 (50 KSI)	16"	20'-10"
362S137-68 (50 KSI)	24"	18'-2"
362S137-97 (50 KSI)	12"	25'-3"
362S137-97 (50 KSI)	16"	22'-11"
362S137-97 (50 KSI)	24"	20'-0"
400S137-33	12"	19'-11"
400S137-33	16"	18'-1"
400S137-33	24"	15'-9"
400S137-43	12"	21'-8"
400S137-43	16"	19'-8"
400S137-43	24"	17'-2"

(S) STUD MEMBER	SPACING (IN.) O.C.	5 PSF L/240
400S137-54 (50 KSI)	12"	23'-2"
400S137-54 (50 KSI)	16"	21'-1"
400S137-54 (50 KSI)	24"	18'-5"
400S137-68 (50 KSI)	12"	24'-9"
400S137-68 (50 KSI)	16"	22'-6"
400S137-68 (50 KSI)	24"	19'-8"
400S137-97 (50 KSI)	12"	27'-3"
400S137-97 (50 KSI)	16"	24'-9"
400S137-97 (50 KSI)	24"	21'-8"
600S137-33	12"	27'-3"
600S137-33	16"	24'-9"
600S137-33	24"	21'-8"
600S137-43	12"	29'-10"
600S137-43	16"	27'-2"
600S137-43	24"	23'-8"
600S137-54 (50 KSI)	12"	32'-0"
600S137-54 (50 KSI)	16"	29'-1"
600S137-54 (50 KSI)	24"	25'-5"
600S137-68 (50 KSI)	12"	34'-4"
600S137-68 (50 KSI)	16"	31'-2"
600S137-68 (50 KSI)	24"	27'-3"
600S137-97 (50 KSI)	12"	38'-0"
600S137-97 (50 KSI)	16"	34'-6"
600S137-97 (50 KSI)	24"	30'-2"
800S137-43	12"	37'-6"
800S137-43	16"	34'-1"
800S137-43	24"	29'-9"
800S137-54 (50 KSI)	12"	40'-4"
800S137-54 (50 KSI)	16"	36'-8"
800S137-54 (50 KSI)	24"	32'-0"
800S137-68 (50 KSI)	12"	43'-6"
800S137-68 (50 KSI)	16"	39'-6"
800S137-68 (50 KSI)	24"	34'-6"

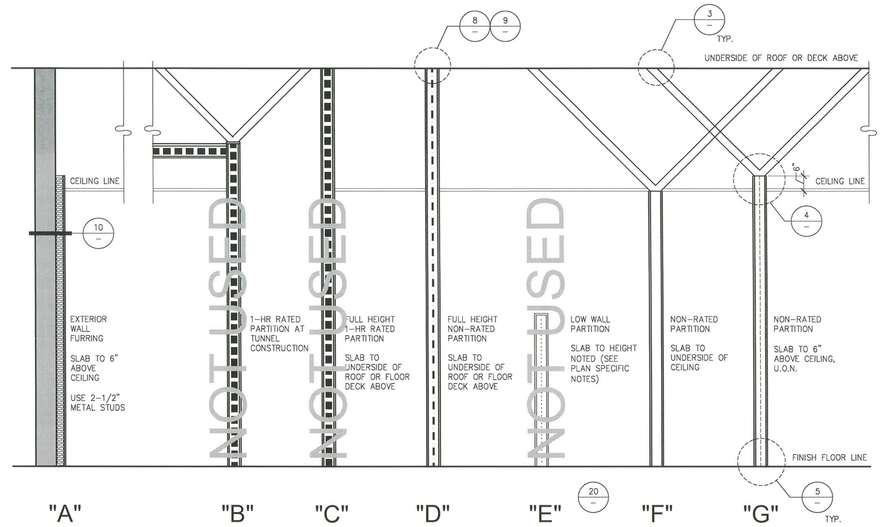
NOTE: ALL STUD INFORMATION IS BASED ON: CEMCO ICC ES ESR-3016

LIMITING WALL HEIGHT TABLE-L/240

SCALE: NONE IWAMT-Height_table-L_240-CEMCO (12)

INTERIOR GYP. BD. WALLS SHALL CONFORM TO ICC REPORT ESR-1338:
- MAX. METAL STUD SPACING SHALL BE 24" O.C.
- MIN. FASTENER SIZE SHALL BE No. 6, 1-1/4" SCREWS
- MAX. FASTENER SPACING SHALL BE 12" FIELD & 8" AT EDGES.

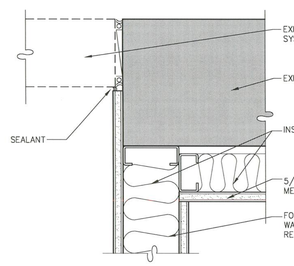
NOTES FOR ALL WALLS:
- SEE METAL STUD CHART FOR GAUGE.
- SEE FLOOR/PARTITION PLAN AND/OR GENERAL NOTES SHEET FOR ANY REQUIRED INSULATION.
- ALL WALL STUDS TO BE 3-5/8", U.O.N.
- ALL RESTROOM WALL STUDS TO BE 6" AND FULLY INSULATED, U.O.N.



WALL TYPE SCHEDULE

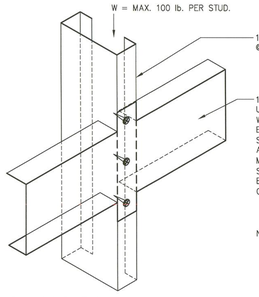
SCALE: 1/2"=1'-0" IWAMT-Wall_type_schedule-02 (2)

23



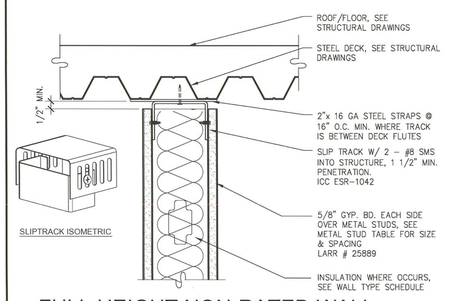
WALL @ EXT. WINDOW SYSTEM

SCALE: 3"=1'-0" IWACO-Joint_panel_end-01 (18)



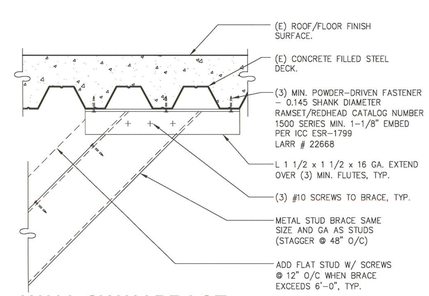
BACKING DETAIL FOR MISC. EQUIP.

SCALE: N.T.S. IWAMI-Wall_equip_backing-01 (13)



FULL HEIGHT NON-RATED WALL

SCALE: 3"= 1'-0" IWAMT-Fht_hd_md_pll-01 (8)

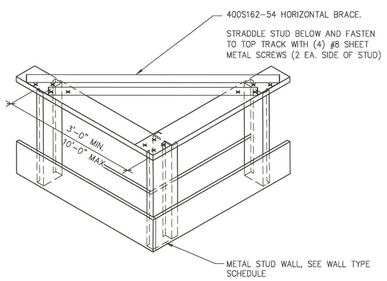


WALL SWAY BRACE

SCALE: 3"=1'-0" IWAMT-Dia_brc_hd_md-01 (3)

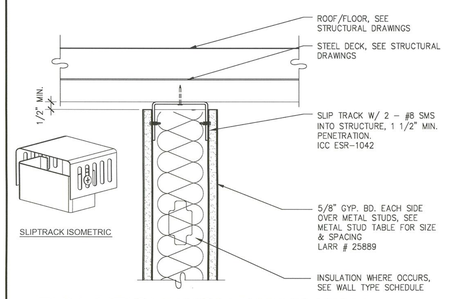
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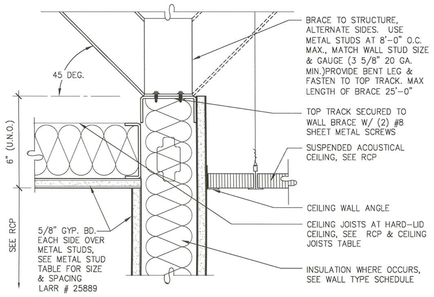
HORIZONTAL WALL BRACE

SCALE: NONE IWAMT-Ac_lso_hor_brc-01 (14)



FULL HEIGHT NON-RATED WALL

SCALE: 3"= 1'-0" IWAMT-Fht_hd_md_per-01 (9)



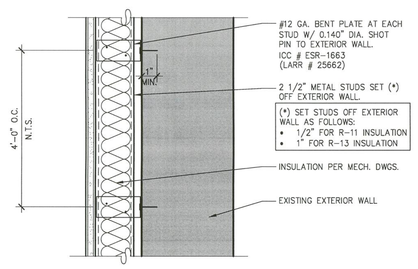
PARTITION TO 6" ABOVE CEILING

SCALE: 3"= 1'-0" IWAMT-6ac_hd_dia_brc_ct_hl-01 (4)

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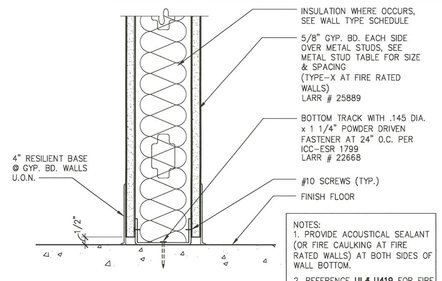
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EXTERIOR WALL FURRING

SCALE: 3"=1'-0" IWACO-Furring-02 (10)



WALL BASE

SCALE: 3"=1'-0" IWAMT-Base_typ-01 (5)

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WALL DETAILS	DATE	REMARKS
	09/09/14	ISSUED FOR BID
	09/11/14	ISSUED FOR CONSTRUCTION

PA / PM:	E. ZABEL
DRAWN BY:	GK
JOB NO.:	DEN14-6053-00

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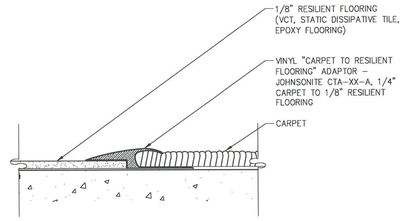
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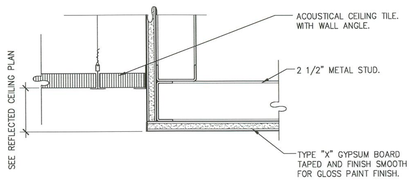
CARPET TO RESILIENT FLOORING (11)

SCALE: FULL — IFLTR-Carpet_resilient_floor_01



CEILING TRANSITION (6)

SCALE: 3"= 1'-0" — 6053_A62



MEMBER DEPTH:
(EXAMPLE: 6" = 600 X 1/100 INCHES) ALL MEMEBER DEPTHS ARE TAKEN IN 1/100 INCHES. FOR ALL "T" SECTIONS MEMBER DEPTH IS THE INSIDE DIMENSION.

FLANGE WIDTH:
(EXAMPLE: 1 5/8" = 1.625" = 162 X 1/100 INCHES) ALL FLANGE WIDTHS ARE TAKEN IN 1/100 INCHES.

600 S 162-54

STYLE:
(EXAMPLE: STUD OR JOIST SECTION = S) THE FOUR ALPHA CHARACTERS UTILIZED BY THE DESIGNATOR SYSTEM ARE:
S = STUD OR JOIST, T = TRACK, U = CHANNEL, F = FURRING

MATERIAL THICKNESS:
(EXAMPLE: 0.054 IN. = 54 MILS; 1 MIL =1/1000 IN.) MATERIAL THICKNESS IS THE MINIMUM BASE METAL THICKNESS IN MILS. MINIMUM BASE METAL THICKNESS REPRESENTS 95% OF THE DESIGN THICKNESS.

CEILING SPAN TABLE NOTES:

1. VALUES ARE FOR SINGLE SPANS.
2. ALLOWABLE CEILING SPAN CALCULATIONS BASED ON 33KSI YIELD STRENGTH STEEL.
3. FOR FULLY BRACED CEILINGS, USE MID-SPAN BRACED VALUES.
4. END BEARING LENGTH = 1" MINIMUM.

		4 PSF LATERAL SUPPORT OF COMPRESSION FLANGE					
		UNSUPPORTED JOIST SPACING (IN.) O.C.			MID-SPAN JOIST SPACING (IN.) O.C.		
SECTION:	(MIL)	12"	16"	24"	12"	16"	24"
250S137	33	11'-9"	10'-10"	9'-9"	14'-11"	13'-6"	11'-10"
250S137	43	13'-2"	12'-1"	10'-9"	16'-2"	14'-8"	12'-10"
250S162	33	13'-5"	12'-5"	11'-1"	15'-8"	14'-2"	12'-5"
250S162	43	14'-11"	13'-9"	12'-3"	17'-0"	15'-5"	13'-6"
350S137	33	12'-9"	11'-9"	10'-6"	18'-1"	16'-9"	15'-0"
350S137	43	14'-1"	13'-0"	11'-7"	19'-10"	18'-4"	16'-4"
350S162	33	14'-6"	13'-5"	12'-0"	20'-3"	18'-5"	16'-1"
350S162	43	16'-0"	14'-9"	13'-2"	22'-0"	20'-0"	17'-6"
362S137	33	12'-10"	11'-11"	10'-7"	18'-3"	16'-11"	15'-2"
362S137	43	14'-3"	13'-1"	11'-8"	20'-0"	18'-6"	16'-6"
362S162	33	14'-8"	13'-6"	12'-1"	20'-9"	18'-11"	16'-6"
362S162	43	16'-1"	14'-10"	13'-3"	22'-7"	20'-7"	17'-11"
400S137	33	13'-2"	12'-2"	10'-11"	18'-9"	17'-4"	15'-6"
400S137	43	14'-7"	13'-5"	12'-0"	20'-6"	18'-11"	16'-11"
400S162	33	15'-0"	13'-10"	12'-5"	21'-4"	19'-10"	17'-9"
400S162	43	16'-6"	15'-3"	13'-7"	23'-4"	21'-7"	19'-4"
550S137	33	14'-6"	13'-5"	12'-0"	20'-10"	19'-4"	17'-5"
550S137	43	15'-10"	14'-7"	13'-1"	22'-6"	20'-10"	18'-9"
550S162	33	16'-6"	15'-3"	13'-8"	23'-9"	22'-0"	19'-10"
550S162	43	17'-11"	16'-7"	14'-10"	25'-7"	23'-9"	21'-4"
600S137	33	14'-10"	13'-9"	12'-4"	21'-4"	19'-10"	17'-10"
600S137	43	16'-2"	14'-11"	13'-5"	23'-1"	21'-4"	19'-2"
600S162	33	16'-10"	15'-8"	14'-1"	24'-4"	22'-7"	20'-4"
600S162	43	18'-4"	17'-0"	15'-3"	26'-3"	24'-4"	21'-10"

NOTE: ALL STUD INFORMATION IS BASED ON: CEMCO ICC ES ESR-3016

ALLOWABLE CEILING SPANS - L/240 (2)

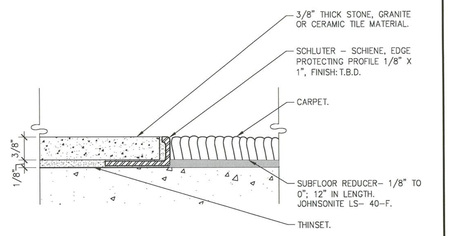
SCALE: NONE — ICEMT-Allowable_span-L240-CEMCO

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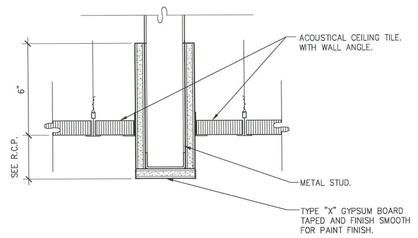
CARPET TO TILE FLOORING (12)

SCALE: FULL — IFLTR-Carpet_tile_flooring-01



CEILING HEADER TRANSITION (7)

SCALE: 3"= 1'-0" — ICEGB-Clng_trnstn_header-09

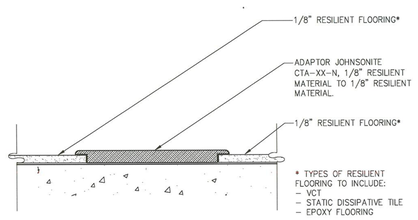


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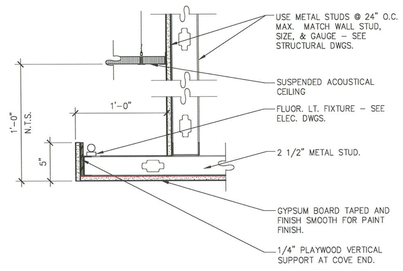
RESILIENT TO RESILIENT FLOORING (13)

SCALE: FULL — IFLTR-Resilient_resilient-01



COVE-LIT SOFFIT (8)

SCALE: 1-1/2"=1'-0" — ICEGB-Soffit_cove_lit-04

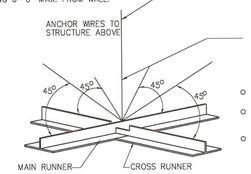


LATERAL BRACING: 4–12 GA. WIRES SECURED TO MAIN RUNNER WITHIN 2" OF CROSS RUNNER INTERSECTION AND SPLAYED 90° FROM EACH OTHER AT ANGLE NOT TO EXCEED 45° FROM THE PLANE OF THE CEILING TYP. @ 12'-0" EA. WAY BEGINNING 6'-0" MAX. FROM WALL.

ANCHOR WIRES TO STRUCTURE ABOVE

AT SUSPENDED CEILING: VERTICAL HANGER WIRE AT 4'-0" O.C. W/ (2) 1 1/2" x 9" GA. STAPLES @ LOOP & (1) ACROSS LAP. 3 FULL TURNS MINIMUM WITHIN 3" LENGTH

AT OPEN GRID: VERTICAL SUSPENSION WITH THREADED ROD PER OTHER DETAILS.



NOTE:
- ALL WIRES 12 GA.
- PROVIDE 6" CLEARANCE AT ALL PIPES & DUCTS, ETC.
- BRACING WIRES MUST BE ATTACHED TO THE GRID AND TO THE STRUCTURE IN SUCH A MANNER THAT THEY CAN SUPPORT A DESIGN LOAD OF NOT LESS THAN 200 POUNDS OR THE ACTUAL LOADS, WHICHEVER IS GREATER, WITH A SAFETY FACTOR OF 2.

SUSPENDED ACOUSTICAL CEILING (3)

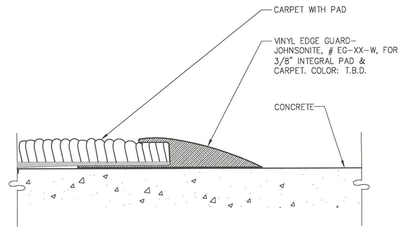
SCALE: N.T.S. — ICEAC-Acoustical_susp-02

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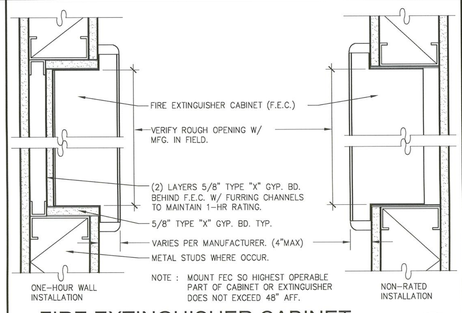
CARPET (w/ PAD) TO CONCRETE (14)

SCALE: FULL — IFLTR-Carpet_concrete-02



FIRE EXTINGUISHER CABINET (9)

SCALE: 3"= 1'-0" — IFPMI-FEC-01



TWO (2) NO. 12 GAUGE WIRES MUST BE SECURED FROM LIGHT & MECHANICAL FIXTURES AT OPPOSING CORNERS ALONG THE FIXTURE'S DIAGONAL. WIRES MAY BE SLACK.

LATERAL FORCE BRACING MEMBERS MUST BE SPACED A MINIMUM OF 6" FROM ALL HORIZONTAL PIPING OR DUCT WORK THAT IS NOT PROVIDED WITH BRACING RESTRAINTS FOR HORIZ. FORCES. BRACING WIRES MUST BE ATTACHED TO THE GRID AND TO THE STRUCTURE IN SUCH A MANNER THAT THEY CAN SUPPORT A DESIGN LOAD OF NOT LESS THAN 200 POUNDS OR THE ACTUAL LOADS, WHICHEVER IS GREATER, WITH A SAFETY FACTOR OF 2.

FOUR (4) NO. 12 GAUGE WIRES MUST BE ATTACHED TO THE GRID MEMBERS WITHIN 3" OF EA. CORNER OF EA. FIXTURE WHEN INTERMEDIATE CEILING SYSTEMS ARE USED.

LIGHT FIXTURE (LESS THAN 56 LBS.)

SUSPENDED CEILING GRID

PROVIDE MINIMUM OF 2 SCREWS AT OPPOST CORNERS OF SUPPORT WIRES, OR SCREW ON T–BAR SAFETY CLIPS AT SIDES OR ENDS.

LIGHT FIXTURE @SUSPENDED CLNG (4)

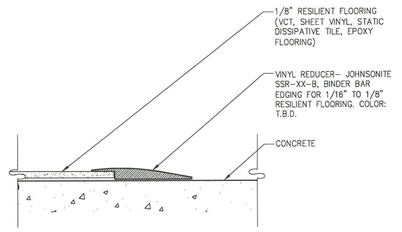
SCALE: N.T.S. — ICEAC-Susp_light_intermediate-01

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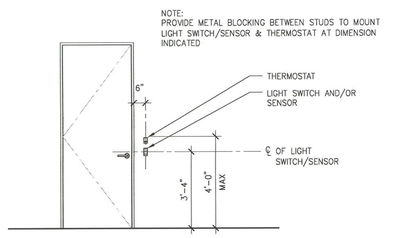
RESILIENT FLOORING TO CONC. (15)

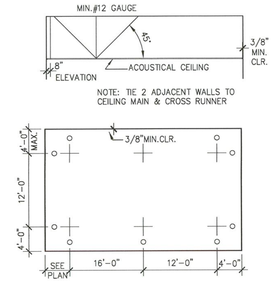
SCALE: FULL — IFLTR-Resilient_flooring_conc-01



LT. SWITCH / T-STAT INSTALLATION (10)

SCALE: 3/8"=1'-0" — IMIMI-Light_switch_T_stat-02





CEILING GRID USES #12 GUAGE SPLAY WIRE HANGERS AT 45 DEG. AND 90 DEG. TO EACH OTHER (4 WIRES) BEGINNING 48" FROM STARTING POINT OF GRID AND TILE LAYOUT AND IN BOTH DIRECTIONS AT 12'-0" THEREAFTER ALL CLEARANCES. TIES TO WALL, ETC.TO CONFORM TO STATE & LOCAL CODES.

SUSPENDED CEILING GRID (5)

SCALE: N.T.S. — ICEAC-Susp_grid-01

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SEP 11 2014

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CEILING & MISC. DETAILS

DATE	REMARKS
09/09/14	ISSUED FOR BID
09/11/14	ISSUED FOR CONSTRUCTION

PA / PM:	E. ZABEL
DRAWN BY:	GK
JOB NO.:	DEN14-6053-00

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GENERAL PROJECT NOTES

NOTE: SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL CONSTRUCTION REQUIREMENTS

1. THE CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIAL NECESSARY FOR A COMPLETE, OPERATIONAL AND PROPERLY FUNCTIONING ELECTRICAL SYSTEM
2. MATERIALS AND INSTALLATION SHALL COMPLY WITH CODES, LAWS AND ORDINANCES OF FEDERAL, STATE AND LOCAL GOVERNING BODIES HAVING JURISDICTION.
3. MATERIALS AND EQUIPMENT SHALL BE LISTED AND/OR LABELED BY U.L., ETL, CSA OR ANOTHER RECOGNIZED TESTING LAB. ALL MATERIAL, EQUIPMENT, WIRING DEVICES, ETC. SHALL BE NEW, UNLESS SPECIFICALLY INDICATED AS EXISTING TO BE REUSED.
4. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO GOVERNMENTAL AGENCIES AND UTILITY COMPANIES SHOP DRAWINGS REQUIRED BY THESE AGENCIES FOR APPROVAL. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, GOVERNMENTAL FEES, TAXES AND LICENSES NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE ELECTRICAL WORK. THIS CONTRACTOR SHALL SECURE AND PAY ALL FEES AND PERMITS PERTAINING TO THIS CONTRACT, SHALL BE RESPONSIBLE FOR WORKER'S IDENTIFICATION AND BADGING, SAFETY, AND LIABILITY INSURANCE, PROVIDE BARRICADES, WARNING SIGNS, AND TRASH REMOVAL FOR THE SAFETY OF THE WORKERS UNDER THIS CONTRACTOR'S EMPLOY.
5. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER/OWNER OF ANY MATERIALS OR APPARATUS BELIEVED TO BE INADEQUATE, UNSUITABLE, IN VIOLATION OF LAWS, ORDINANCES, RULES OR REGULATIONS OF AUTHORITIES HAVING JURISDICTION.
6. THE CONTRACTOR SHALL PREPARE THE DOCUMENTS, INCLUDING DRAWINGS, REQUIRED TO OBTAIN APPROVAL OF THE EQUIPMENT AND LOCATIONS OF THE DEVICES THAT COMPRISE THE BUILDING FIRE ALARM LIFE SAFETY SYSTEM. THE DRAWINGS AND CUT SHEETS SHALL BE PROVIDED TO A PROFESSIONAL ENGINEER FOR REVIEW AND APPROVAL. THE APPROVED DRAWINGS WILL BE STAMPED, SIGNED AND RETURNED TO E.C. TO SUBMIT TO THE BUILDING DEPARTMENT.
7. THE CONTRACTOR SHALL CAREFULLY EXAMINE THE CONTRACT DOCUMENTS, VISIT THE SITE, AND THOROUGHLY BECOME FAMILIAR WITH THE BUILDING STANDARDS, LOCAL JURISDICTIONAL CODES AND REQUIREMENTS, AND LOCAL CONDITIONS RELATING TO THE WORK. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF THE OBLIGATIONS OF THE CONTRACT. SUBMISSION OF PROPOSAL IN CONNECTION WITH THIS WORK SHALL IMPLY THAT THE BIDDER HAS EXAMINED THE JOB SITE. NO EXTRA CHARGE WILL BE ALLOWED FOR CHANGES AS A RESULT FROM FAILURE TO EXAMINE THE JOB SITE.
8. THE CONTRACTOR SHALL PROVIDE TEMPORARY POWER AND WIRING FOR THE PERFORMANCE OF ALL TRADES, FOR THE ENTIRE PERIOD OF CONSTRUCTION AND SHALL REMOVE ALL TEMPORARY WIRING AT THE COMPLETION OF CONSTRUCTION.
9. THE EXISTING POWER, SIGNAL AND COMMUNICATION SYSTEMS ARE TO REMAIN IN SERVICE TO PROVIDE FOR THE OWNER'S FUNCTION. SHOULD IT BECOME NECESSARY TO SHUT-DOWN ANY SYSTEM OR PORTION OF A SYSTEM, APPROVAL IN WRITING MUST BE OBTAINED FROM THE OWNER AND SHALL ONLY APPLY FOR THE PERIOD AND TIME AGREED UPON. THE BID IS TO INCLUDE THE COST OF ANY TEMPORARY WIRING AND PREMIUM TIME REQUIRED FOR THE SHUTDOWN.
10. ALL MATERIALS AND EQUIPMENT SHALL BE ERECTED, INSTALLED, CONNECTED, CLEANED, ADJUSTED, TESTED, CONDITIONED, AND PLACED IN SERVICE IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS AND RECOMMENDATIONS.
11. ALL CUTTING, DRILLING AND PATCHING OF MASONRY, STEEL OR IRON WORK BELONGING TO THE BUILDING MUST BE DONE BY THIS CONTRACTOR IN ORDER THAT HIS WORK MAY BE PROPERLY INSTALLED, BUT UNDER NO CONDITIONS MAY STRUCTURAL WORK BE CUT, EXCEPT AT THE DIRECTION OF THE ARCHITECT-DESIGNER OR THEIR REPRESENTATIVE.
12. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ELECTRICAL FIXTURES AND ELECTRICAL DEVICES. MOUNTING HEIGHTS SHALL CONFORM TO ADA/ICC/ANSI STANDARDS.
13. ALL WORK REQUIRED FOR THE INSTALLATION AS SHOWN ON DRAWINGS INCLUDING LABOR, EQUIPMENT AND MATERIALS SHALL BE IN STRICT COMPLIANCE WITH THE BUILDING STANDARDS.
14. PROVIDE COMPLETE METAL RACEWAY SYSTEMS AND ENCLOSURES FOR ALL WIRING THROUGHOUT THE EXTENT OF THE REQUIRED SYSTEM.
15. ALL TELE/ DATA BOXES SHALL BE PROVIDED WITH A 1/2" CONDUIT AND BUSHING WITH PULL STRING RUN 6" ABOVE FINISHED CEILING OR CEILING GRID. ELECTRICAL METALLIC TUBING (EMT) SHALL BE USED FOR ALL WALL OUTLETS & TELEPHONE WIRING WIRING RUNNING BELOW RAISED FLOOR OR ABOVE HARD CEILINGS.
16. ALL RECEPTACLES NOTED AS ISOLATED GROUND (IG) OR DEDICATED OR CIRCUITED AS DEDICATED SHALL BE PROVIDED WITH A DEDICATED GROUND AND NEUTRAL.
17. MINIMUM CONDUIT SIZE SHALL BE 3/4" UNLESS OTHERWISE INDICATED. CONDUITS LARGER THAN 2" DIAMETER OR CONDUITS OF ANY SIZE ROUTED OUTDOORS SHALL BE INTERMEDIATE METAL CONDUIT (IMC).
18. FLEXIBLE CONDUIT CONNECTIONS TO RECESSED LIGHTING FIXTURES SHALL BE MADE WITH FLEXIBLE STEEL CONDUIT, 3/8 INCH MINIMUM.
19. FINAL CONNECTIONS TO MOTORS SHALL BE MADE WITH LIQUID TIGHT FLEXIBLE STEEL CONDUIT, 1/2 INCH MINIMUM.
20. WIRE NO. 8 AND SMALLER INSTALLED IN DRY LOCATIONS SHALL BE TYPE THWN OR THHN THERMOPLASTIC 600V INSULATED COPPER CONDUCTORS, NO WIRE SMALLER THAN NO.12 SHALL BE USED FOR LIGHTING OR POWER WIRING. WIRE NO. 8 AND LARGER SHALL BE STRANDED. ALL CONDUCTORS INSTALLED IN EXTERIOR OR WET LOCATIONS SHALL BE TYPE THWN 600V INSULATED COPPER CONDUCTORS.
21. ALL NEW CIRCUIT BREAKERS FOR NEW OR EXISTING PANELBOARDS SHALL MATCH EXISTING OR NEW BUILDING STANDARD PANELBOARD MANUFACTURER AND BREAKER TYPE. THE CONTRACTOR SHALL PROVIDE NEW ACCURATE AND DETAILED TYPE WRITTEN PANEL DIRECTORIES PER NEC 408.4 FOR ALL NEW OR MODIFIED PANELS. NUMBERED CIRCUITS ARE FOR CONVENIENCE OF DESIGN ONLY, E.C. TO FIELD VERIFY ACTUAL CIRCUIT NUMBERS USED AND CORRECTLY INDICATE ON "AS-BUILT" DRAWINGS. THE E.C. SHALL REMOVE ALL ABANDONED CIRCUITS.
22. PROVIDE #10 FOR BRANCH CIRCUITS OVER 75' AT 120V AND OVER 150' AT 277V. E.C. TO FIELD VERIFY BRANCH CIRCUIT LENGTHS AND SIZE CONDUCTORS FOR VOLTAGE DROP.
23. EACH SWITCH, LIGHT, RECEPTACLE AND ALL OTHER DEVICES SHALL BE PROVIDED AND INSTALLED WITH A GALVANIZED OR SHERARDIZED PRESSED STEEL JUNCTION BOX OF NOT LESS THAN NO. 14 U.S. GAUGE STEEL. CONDUITS SHALL BE FASTENED WITH LOCKNUTS AND BUSHINGS AND ALL UNUSED KNOCKOUTS MUST BE LEFT SEALED. THERE MUST BE SUFFICIENT ROOM FOR WIRES AND BUSHINGS AND DEEP BOXES SHALL BE INSTALLED WHERE REQUIRED. BOXES SHALL BE SECURELY AND ADEQUATELY SUPPORTED.
24. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL SPECIAL OUTLET BOXES THAT MAY BE REQUIRED TO ENCLOSE RECEPTACLES.
25. IN SUSPENDED CEILINGS SUPPORT CONDUIT AND JUNCTION BOXES DIRECT FROM THE STRUCTURAL SLAB, DECK, OR FRAMING PROVIDED FOR THAT PURPOSE. LIGHTING BRANCH CIRCUIT CONDUITS SHALL NOT BE CLIPPED TO THE CEILING SUPPORT WIRES OR SPLINE UNLESS THE CEILING SYSTEM HAS BEEN SPECIFICALLY DESIGNED FOR THAT PURPOSE.
26. PROVIDE LOCAL DISCONNECT SWITCHES FOR ALL MOTORS (PLENUM APPROVED WHERE REQUIRED).
27. THE E.C. SHALL INCLUDE IN HIS COST THE REMOVAL OF ALL EXISTING ELECTRICAL DEVICES, CONDUITS, FIXTURES AND EQUIPMENT THAT IS NOT TO BE REUSED. DISCARD ALL EQUIPMENT AS REQUIRED. E.C. SHALL BE RESPONSIBLE FOR DISCONNECTING PRIMARY SERVICE AND TEMPORARY POWER.
28. PROVIDE WARRANTY GUARANTEED FOR A PERIOD OF ONE YEAR AFTER COMPLETION AND ACCEPTANCE. REPLACE ALL DEFECTIVE WORKMANSHIP, EQUIPMENT AND MATERIALS WITHOUT ADDITIONAL CHARGES.
29. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF HIS/HER OWN PROPERTY ON THE JOB SITE. THE OWNER OR TENANT ASSUMES NO RESPONSIBILITY FOR PROTECTION OF THIS CONTRACTOR'S PROPERTY AGAINST FIRE, THEFT, OR ENVIRONMENTAL CONDITIONS.
30. WHERE CONDUIT, CABLES, DUCTWORK OR PIPING PASSES THROUGH FIRE RATED FLOORS, WALLS, OR PARTITIONS, THE SLEEVES SHALL BE COMPLETELY SEALED WITH A FIRE STOP MATERIAL THAT IS U.L. LISTED (EQUAL TO DOW CORNING) AND ACCEPTED BY THE BUILDING DEPARTMENT AND FIRE DEPARTMENT AS BEING SUITABLE FOR THE SERVICE. THIS MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTRUCTIONS IN ORDER TO MAINTAIN THE FIRE RATING OF THE PENETRATED WALL, FLOOR, OR PARTITION. INSTALLATION SHALL BE A THROUGH-PENETRATION FIRESTOP SYSTEM INSTALLED AS TESTED IN ACCORDANCE WITH ASTM AND UL. THE FIRE RATING SHALL MATCH THE RATING OF THE BARRIER BEING PENETRATED.
31. SUBMIT SIX (6) SETS OF SHOP DRAWINGS, CONTROL DIAGRAMS, AND EQUIPMENT CUTS TO THE ENGINEER FOR APPROVAL PRIOR TO STARTING RELATED WORK. SHOP DRAWINGS SHALL INCLUDE MANUFACTURER'S NAMES, CATALOG NUMBERS, CUTS, DIAGRAMS AND OTHER SUCH DESCRIPTIVE DATA AS MAY BE REQUIRED TO IDENTIFY AND REVIEW THE EQUIPMENT. SUBMITTALS SHALL BE IN LOGICAL GROUPS, PARTIAL SUBMITTALS WILL NOT BE REVIEWED.
32. UPON COMPLETION OF CONSTRUCTION, SUPPLY THE ENGINEER WITH ONE COMPLETE SET OF FULL SIZE AS-BUILT DRAWINGS. PROVIDE THE OWNER WITH THREE (3) SETS OF OPERATION AND MAINTENANCE MANUALS FOR EACH TYPE OF EQUIPMENT INSTALLED.
33. THIS CONTRACTOR SHALL ASSUME ALL ADDED EXPENSES TO ALL TRADES ASSOCIATED WITH THE INSTALLATION OF SUBMITTED AND APPROVED ALTERNATE EQUIPMENT.
34. THE CONTRACTOR SHALL COORDINATE THE LAYOUT OF THE FIRE ROOM WITH ALL OTHER DISCIPLINES, ESPECIALLY THE FIRE ALARM AND FIRE PROTECTION DESIGN-BUILD CONTRACTORS PRIOR TO ANY WORK.
35. IF ANY CHANGES ARE MADE TO ACCOMMODATE FIELD CONDITIONS NOTIFY THE ENGINEER IMMEDIATELY OF WHAT THE CHANGES WERE, THE REASON FOR THE CHANGES, AND THE COST IMPACTS.
36. LOCATE ALL ELECTRICAL SWITCHBOARDS, PANELBOARDS AND ELECTRICAL DISTRIBUTION EQUIPMENT IN DEDICATED SPACES AND PROTECTED FROM DAMAGE WITH ADEQUATE WORKING CLEARANCE ACCORDANCE WITH NEC 110 REQUIREMENTS. PROVIDE PROTECTION FROM ANY FOREIGN SYSTEM INSTALLED ABOVE THE DEDICATED EQUIPMENT SPACE PER NEC 110.26(E).
37. ELECTRICAL ROOM DOORS SHALL BE EQUIPPED WITH PANIC BARS, PRESSURE PLATES, OR OTHER DEVICES THAT ARE NORMALLY LATCHED BUT OPEN UNDER SIMPLE PRESSURE IN ACCORDANCE WITH NEC 110.26(C)(3)
38. FOR ANY PATIENT CARE AREAS, AS DETERMINED BY THE GOVERNING BODY OF THE FACILITY OR AUTHORITY HAVING JURISDICTION, THE E.C. SHALL PROVIDE HEALTHCARE FACILITY CABLE (HCF) TYPE MC OR AC WIRING METHODS AS REQUIRED IN ORDER TO COMPLY WITH NEC 517.13 (A) AND (B) AND NEC 517.80 FOR LOW VOLTAGE SYSTEMS. IN ADDITION PROVIDE TAMPER-RESISTANT COVERS FOR RECEPTACLES IN PEDIATRIC LOCATIONS PER NEC 517.8

FIRE ALARM SYSTEM NOTES

FIRE ALARM SYSTEM IS TO BE DESIGN/BUILD BY THE CONTRACTOR.

ELECTRICAL LEGEND

NOTE: NOT ALL ITEMS APPEAR ON DRAWINGS. SYMBOLS MAY DIFFER FROM EXISTING AND DEMO WORK OR DEVICES REFERENCED OR SYMBOLS USED FROM DRAWINGS BY OTHERS.

POWER AND LIGHTING

- GROUNDED SWITCHED DUPLEX RECEPTACLE
- GROUNDED SPLIT-WIRED RECEPTACLE
- GROUNDED DUPLEX RECEPTACLE
- GROUNDED QUADRAPLEX RECEPTACLE
- SPECIAL PURPOSE RECEPTACLE
- FLOOR/CEILING MOUNTED RECEPTACLE
- JUNCTION BOX
- WALL MOUNTED JUNCTION BOX
- DISCONNECT SWITCH
- FUSED DISCONNECT SWITCH
- THERMAL OVERLOAD SWITCH
- ELECTRICAL PANEL BOARD
- TRANSFORMER
- CIRCUIT '#' HOMERUN TO PANEL 'X' (ARROWS NOT USED IF CIRCUIT NUMBERS APPEAR NEXT TO DEVICES)
- PORCELAIN LAMP HOLDER
- RECESSED FLUORESCENT LIGHT FIXTURE
- SURFACE MOUNTED FLUORESCENT FIXTURE
- CEILING FIXTURE
- WALL/WASHER or ADJUSTABLE DOWNLIGHT
- SINGLE POLE SWITCH, OR 4-POLE
- DIMMER SWITCH
- EXIT SIGN - SHADED INDICATES FACE
- EMERGENCY FIXTURE - SHADED
- BATTERY PACK EMERGENCY LIGHT or COMBO EXIT - SEE SCHEDULE

LOW VOLTAGE SYSTEMS

- TELEPHONE TERMINAL BOARD
- FLOOR/CEILING MOUNTED DATA OUTLET
- FLOOR/CEILING MOUNTED TELEPHONE OUTLET
- DATA OUTLET
- TELEPHONE/DATA OUTLET PROJECT STANDARD
- TELEPHONE OUTLET
- CATV/MONITOR A/V OUTLET
- SPEAKER
- FIRE ALARM PANEL
- FIRE ALARM REMOTE ANNUNICATOR PANEL
- S-SMOKE, T-HEAT DETECTOR
- DUCT FIRE DETECTOR

ABBREVIATIONS

EWC	ELECTRIC WATER COOLER
EF	EXHAUST FAN
GFI	GROUND FAULT INTERRUPTING
AFI	ARC FAULT INTERRUPTING
CCT	CIRCUIT
E.C.	ELECTRICAL CONTRACTOR
AG	ABOVE COUNTER GFI - VERIFY HEIGHT
AC	ABOVE COUNTER - VERIFY HEIGHT
WP	WEATHER PROOF
TTB	TELEPHONE TERMINAL BOARD
AFF	ABOVE FINISH FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
(E)	EXISTING TO REMAIN
(EX)	EXISTING TO BE REMOVED
(ER)	EXISTING TO BE RELOCATED
(R) (RL)	RELOCATED/RELOCATED LOCATION

REFERENCE SYMBOLS

- KEYED NOTE
- EQUIPMENT - SEE SCHEDULE
- FEEDER - SEE SCHEDULE
- TRANSFORMER WITH GROUNDING AND OVERCURRENT DEVICES SEE TRANSFORMER SCHEDULE

REMODEL WORK TYPICAL SYMBOLS, LINEWEIGHTS, LINETYPES AND ABBREVIATIONS

- (DEM) DEMOLITION, TO BE REMOVED
- (ER) EXISTING TO BE REMOVED FOR RELOCATION AND REUSE
- (E) EXISTING TO REMAIN
- (RL) RELOCATED LOCATION
- (N) NEW WORK

PROJECT SPECIFIC SYMBOLS

- ABOVE COUNTER OUTLET

Feeder Schedule

3000/W	8(W-500kcmil, 400kcmil, 3-1/2"C)
2000/W	6(W-500kcmil, 250kcmil, 3-1/2"C)
1600/W	5(W-400kcmil, 4/0G, 3"C)
1200/W	4(W-350kcmil, 3/0G, 3"C)
1000/W	3(W-400kcmil, 2/0G, 3"C)
800/W	3(W-300kcmil, 1/0G, 3"C)
750/W	3(W-250kcmil, 1/0G, 3"C)
600/W	2(W-350kcmil, #1G, 3"C)
500/W	2(W-250kcmil, #2G, 3"C)
400/W	W-500kcmil, #3G, 3-1/2"C)
350/W	2(W-2/0, #3G, 2"C)
300/W	W-350kcmil, #4G, 3"C
250/W	W-250kcmil, #4G, 3"C
225/W	W-4/0, #4G, 2"C
200/W	W-3/0, #6G, 2"C
175/W	W-2/0, #6G, 2"C
150/W	W-1/0, #6G, 2"C
125/W	W#1, #6G, 1-1/2"C
110/W	W#2, #6G, 1-1/4"C
100/W	W#1, #8G, 1-1/2"C
90/W	W#2, #8G, 1-1/4"C
80/W	W#3, #8G, 1-1/4"C
70/W	W#4, #8G, 1-1/4"C
60/W	W#4, #8G, 1-1/4"C
50/W	W#6, #10G, 1"C
40/W	W#8, #10G, 1"C
30/W	W#10, #10G, 3/4"C
20/W	W#12, #12G, 3/4"C

This table indicates minimum conductor size for feeders of the ampacity indicated where #/W indicates the #-Ampacity and W-numbers of wire, #S/W indicates no ground. All conductors shall be Copper unless noted as Aluminum 'Al'

*Conductor Ampacities shall be based on table 310.15(B)(16) 60 degree column up to 100 Amps and 75 degree column above 100 Amps unless otherwise permitted by NEC. Ampacity rating shall be selected in accordance NEC 110.14 (C).

The master electrician shall be responsible for ensuring that no feeders or branch circuits are installed in a manner or sized in such a way as to violate the NEC.

Service Ground Table		Equipment Ground Table	
150G	#6	20EG	#12
200G	#4	60EG	#10
300G	#2	100EG	#8
500G	1/0	200-1200A per Above	
800G	2/0	1600EG	4/0
>800G	3/0	2000EG	250kcmil

Service Ground Conductors sized Per NEC Table 250.66
Equipment Ground Conductors sized Per NEC Table 250.122
All conductors shall be Copper unless noted as Aluminum 'Al'

The service ground chart indicates the minimum Service Ground Conductor based on #G where # is the ampacity from the chart above, and the equipment ground chart indicates the minimum equipment grounding conductor size #EG where # is the rating/ setting of the overcurrent device protecting the conductors and equipment.

Where discrepancies occur between the Feeder Schedule Schedule and the Grounding Tables, the larger conductor shall be used unless otherwise permitted by the NEC.

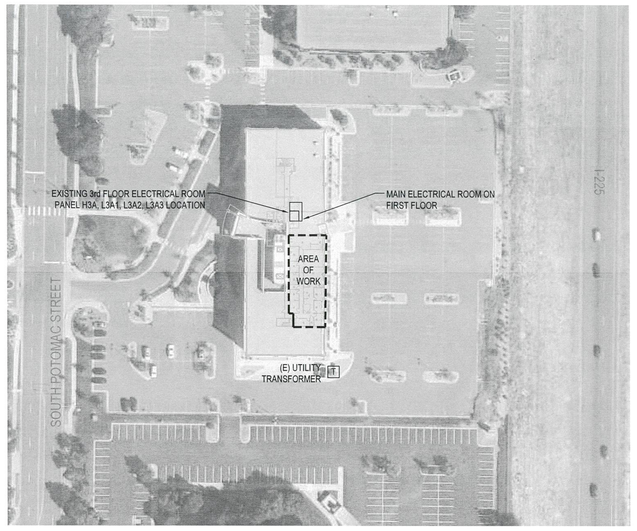
The installation shall meet all NEC 250 grounding and bonding requirements including 250.4 Path for Fault Current. Provide complete raceway systems metallically joined, connected, and fittings as required for electrical continuity per NEC 300.10

Transformer Schedule

Primary OCP 480V, 3Ø	Size kVA	Ground Cu	Secondary OCP 208V, 3Ø
20A	15	#8	50A
50A	30	#6	100A
70A	45	#6	150A
125A	75	#2	250A
175A	112.5	#2	400A
225A	150	1/0	500A
350A	225	2/0	800A

Primary shall be 3-Wire and Secondary shall be 4-Wire unless noted otherwise. All transformers 45kVA and smaller shall be suspended and all transformers larger than 45kVA shall be floor mounted unless noted otherwise. Primary and Secondary Feeders shall be sized based on the Overcurrent Protection Device Ampere Rating.

The installation shall meet all NEC 250 grounding and bonding requirements. Provide Equipment Ground on Primary Feeder and Seperately Derived Grounded System at the Transformer Secondary in accordance with NEC 250.30(A). Provide Grounding Electrode connection to Structural Metal or Metal Water Pipe in accordance with 250.30(A)(4) and sized in accordance with NEC Table 250.66



2 E0.0 PROXIMITY PLAN
SCALE: NTS

Project North

GENERAL NOTES:
1. PLAN SHOWN FOR REFERENCE ONLY. E.C. SHALL FIELD VERIFY EXISTING CONDITIONS.

EQUIPMENT SCHEDULE — September 9, 2014

Key	Equipment	Equipment Load kW	HP	Amps	Volt	Ø	Branch Circuit Conductors	Conduit	Disconnect Switch	Fuse	Panel-Circuit	Comment
TERMINAL UNITS												
FPB-1	Fan Powered Box	6	1/4	24.1 A	277	1	2#8,#10G	1"	60A/1P	--	H3A - 21	
FPB-2	Fan Powered Box	6	1/4	24.1 A	277	1	2#8,#10G	1"	60A/1P	--	H3A - 23	
EXHAUST FANS												
EF-1	Exhaust Fan	0.073		0.6 A	115	1	2#12,#12G	3/4"	Sto	NA	L3A3 - 66 (PART)	1

Notes: (Apply to all equipment where applicable)
1. Field verify final location and electrical requirements of all equipment with provider prior to any work.
2. Provide line voltage controls and wiring as required for proper operation. Field verify control requirements with equipment provider.
3. Provide HACR breakers for all dedicated circuits serving equipment and provide local disconnecting means in accordance with NEC 430 Part IX.
4. Verify integral thermal/overload protection for fractional horsepower motors. Provide separate overload device where required in accordance with NEC 430 Part III.

Comments:
1. Provide reverse-acting thermostat and line voltage wiring for fan to operate above setpoint.

PANEL SCHEDULE: H3A — September 9, 2014

BUS RATING: 400A 3Ø, 4-WIRE — VOLTAGE L-L: 480
MAIN C.B.: or M.L.O: 400A — VOLTAGE L-G: 277
MOUNTING: Surface — S.C.RMS RATING (AIC): 42,000
COMMENTS: Existing Panelboard

NO.	AMPS	POLE	LOAD (VA)	NEC Demand	LOAD DESCRIPTION	Phase	LOAD DESCRIPTION	NEC Demand	LOAD (VA)	POLE	AMPS	NO.
	175	3	**41002**	1.00	*Panel L3A1 Main*	A						
	175	3	**39384**	1.00	*Panel L3A1 Main*	B						
	175	3	**39841**	1.00	*Panel L3A1 Main*	C						
1	30	1	3324	1.00	FTU#5	A	Lighting - Reception	1.25	2216	1	20	2
3	30	1	3324	1.00	FTU#2	B	Lighting - SW Bathrooms	1.25	2216	1	20	4
5	30	1	3324	1.00	FTU#3	C	Lighting - Records	1.25	2216	1	20	6
7	30	1	3324	1.00	FTU#6	A	Lighting - NW	1.25	2216	1	20	8
9	30	1	3324	1.00	FTU#4	B	Lighting - North	1.25	2216	1	20	10
11	30	1	3324	1.00	FTU#7	C	Lighting - North	1.25	2216	1	20	12
13	15	3	1662	1.00	EFR1	A	Spare			3	40	14
15	15	3	1662	1.00	EFR1	B	Spare			3	40	16
17	15	3	1662	1.00	EFR1	C	Spare			3	40	18
19	30	1	3324	1.00	FTU#1	A	Lighting - Corridor W. (310)	1.25	2216	1	20	20
21	**40**	1	**6676**	**1.00**	**FPB-1 - 360**	B	Lighting - East	1.25	2216	1	20	22
23	**40**	1	**6676**	**1.00**	**FPB-2 - 360**	C	Lighting - Corridor E.	1.25	2216	1	20	24
25	20	1			Spare	A	Lighting - East	1.25	2216	1	20	26
27	20	1			Spare	B	Lighting - East	1.25	2216	1	20	28
29	20	1			Spare	C	**360 - Lighting**	**1.25**	**1671**	1	20	30
31	20	1			Spare	A	**360 - Lighting**	**1.25**	**1638**	1	20	32
33	20	1			Spare	B	**360 - Lighting**	**1.25**	**1649**	1	20	34
35	20	1			Spare	C	*Bussed Space*					36
37	40	3	4432	1.00	FTU#18	A	FTU#13	1.00	4432	3	40	38
39	40	3	4432	1.00	FTU#18	B	FTU#15	1.00	4432	3	40	40
41	40	3	4432	1.00	FTU#18	C	FTU#15	1.00	4432	3	40	42
43	40	3	4432	1.00	FTU#10	A	FTU#13	1.00	4432	3	40	44
45	40	3	4432	1.00	FTU#10	B	FTU#13	1.00	4432	3	40	46
47	40	3	4432	1.00	FTU#10	C	FTU#13	1.00	4432	3	40	48
49	40	3	4432	1.00	FTU#12	A	*Existing Load*	1.00	4432	3	40	50
51	40	3	4432	1.00	FTU#12	B	*Existing Load*	1.00	4432	3	40	52
53	40	3	4432	1.00	FTU#12	C	*Existing Load*	1.00	4432	3	40	54

CONNECTED LOAD: — CALCULATED DEMAND LOAD:
PHASE A (VA): 48,728 — PHASE A (VA): 51,354
PHASE B (VA): 52,091 — PHASE B (VA): 54,719
PHASE C (VA): 49,897 — PHASE C (VA): 51,976
TOTAL LOAD (VA): 150,715 — CALCULATED DEMAND LOAD (VA): 158,049 — **190.11 A**

NOTES:
1. Not Used.

PANEL SCHEDULE: L3A1 — September 9, 2014

BUS RATING: 400A 3Ø, 4-WIRE — VOLTAGE L-L: 208
MAIN C.B.: 400A/3P or M.L.O: — VOLTAGE L-G: 120
MOUNTING: Surface — S.C.RMS RATING (AIC): 42,000
COMMENTS: Existing Panelboard

NO.	AMPS	POLE	LOAD (VA)	NEC Demand	LOAD DESCRIPTION	Phase	LOAD DESCRIPTION	NEC Demand	LOAD (VA)	POLE	AMPS	NO.
1	225	3	**15720**	1.00	*Panel L3A2*	A	*Spare*			3	225	2
3	225	3	**15912**	1.00	*Panel L3A2*	B	*Spare*			3	225	4
5	225	3	**17460**	1.00	*Panel L3A2*	C	*Spare*			3	225	6
7	225	3	**18722**	1.00	*Panel L3A3*	A	*Spare*			3	225	8
9	225	3	**17412**	1.00	*Panel L3A3*	B	*Spare*			3	225	10
11	225	3	**17361**	1.00	*Panel L3A3*	C	*Spare*			3	225	12
13					*Bussed Space*	A	*Spare*			3	225	14
15					*Bussed Space*	B	*Spare*			3	225	16
17					*Bussed Space*	C	*Spare*			3	225	18
19	20	1			*Spare*	A	*North Recept*	1.00	720	1	20	20
21	20	1			*Spare*	B	*IT Room, Erg Off Recept*	1.00	900	1	20	22
23	20	1	360	1.00	*Recept - Bathrooms*	C	*Central Recept*	1.00	540	1	20	24
25	30	3	1440	1.00	*Unit Heater #2 - Boiler Rm*	A	*S Recept*	1.00	720	1	20	26
27	30	3	1440	1.00	*Unit Heater #2 - Boiler Rm*	B	*S Recept*	1.00	720	1	20	28
29	30	3	1440	1.00	*Unit Heater #2 - Boiler Rm*	C	*EPR2, Elev Mech Rm*	1.00	680	1	20	30
31	20	1	1200	1.25	*Lighting - Ext. Sign*	A	*EPR5*	1.00	980	1	20	32
33	20	1	1200	1.25	*Lighting - Ext. Sign*	B	*Elevator Lobby*	1.00	500	1	20	34
35	20	1	1200	1.25	*Lighting - Ext. Sign*	C	*Existing Load*	1.00	500	1	20	36
37	20	1	720	1.00	*Roof GFCI & BAS*	A	*F/S Dampers*	1.00	500	1	20	38
39	20	1			*Spare*	B	*PR1 & Water Heaters*	1.00	1000	1	20	40
41	20	1			*Spare*	C	*Spare*					42
43	20	1			*Spare*	A	*Bussed Space*					44
45	20	1			*Spare*	B	*Bussed Space*					46
47					*Bussed Space*	C	*Bussed Space*					48

CONNECTED LOAD: — CALCULATED DEMAND LOAD:
PHASE A (VA): 40,702 — PHASE A (VA): 41,002
PHASE B (VA): 39,084 — PHASE B (VA): 39,384
PHASE C (VA): 39,541 — PHASE C (VA): 39,841
TOTAL LOAD (VA): 119,327 — CALCULATED DEMAND LOAD (VA): 120,227 — **333.73 A**

NOTES:
1. Not Used.

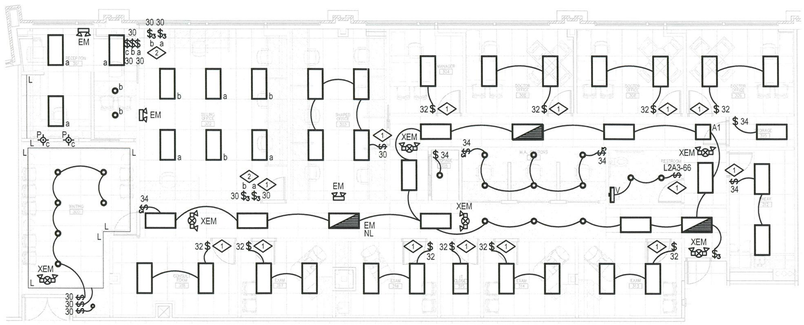
FAULT CURRENT CALCULATION TABLE — September 9, 2014

UTILITY TRANSFORMER kVA: 1000 — VOLTAGE: 480 — AVAILABLE FAULT CURRENT: 22,600

LOCATION (in)	# of RUNS	CONDUCTOR	VOLTAGE	L(ft)	C	Total C	f	M	F
2000A Main	6	500	480	175	22,185	133,110	0.11	0.90	20,414
Panel H3A	1	500	480	25	22,185	22,185	0.08	0.92	18,851
Panel L3A1, L3A2, L3A3			Secondary of a 112.5kVA Transformer with Minimum %Z=3.75%						8,333

NOTES:
1. All Calculations use Bussman "Point-To-Point" Method.
2. Variables: L=Feeder Length (LF); C=Conductor "C" Value; f(n) = (1.73 x L x F(n-1))/(C x # of runs x Voltage) in Amperes; M(n) =1 ÷ (1+f(n)); F(n)=F(n-1) x M(n)
3. The E.C. shall report any discrepancies to the Engineer.
4. Conductor lengths shall not be less than the values listed. The E.C. shall field verify conductor lengths

CAUTION: IF THIS SHEET IS NOT 30 x42 IT IS A REDUCED PRINT



2 E1.0 **LIGHTING PLAN**

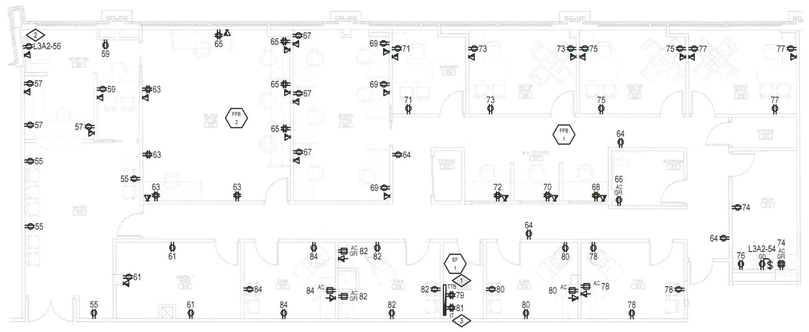
SCALE: 1/8" = 1'-0"

LIGHTING PLAN GENERAL NOTES:

1. CONNECT EGRESS LIGHTING FIXTURES AND EXIT SIGNS TO AREA LIGHTING CIRCUIT AHEAD OF ANY SWITCH PER NEC 700-12(F) INCLUDING ANY NIGHT LIGHTS. FIXTURES SHOWN SHADED OR LABELED ARE EMERGENCY EGRESS (EM) WITH BATTERY PACK, NIGHT LIGHT (NL) OR BOTH (EM/NL).
2. NUMBERS NEXT TO DEVICES REFER TO CIRCUIT DESIGNATION IN PANEL 'H3A' UNLESS NOTED.
3. 2x4 LIGHT FIXTURES ARE TYPE 'A' AND DOWNLIGHTS ARE TYPE 'D' UNLESS NOTED.
4. EXIT SIGNS TYPE 'X' AND/OR 'XEM' AND EGRESS LIGHTS TYPE 'EM' SHALL BE NEW WITH EMERGENCY BATTERY PACK, MATCH EXISTING BUILDING STANDARD FIXTURES.
5. HEALTHCARE CABLE - PROVIDE APPROVED HEALTHCARE FACILITY HCF CABLE OR EQUAL INSULATED GROUND AND METAL RACEWAY WIRING SYSTEM FOR ALL PATIENT CARE AREAS IN ACCORDANCE WITH NEC 517 AND BUILDING STANDARD WIRING REQUIREMENTS.
6. BUILDING STANDARDS - PROVIDE ALL WORK IN ACCORDANCE WITH THE BUILDING STANDARDS INCLUDING BUT NOT LIMITED TO LIGHT FIXTURES, EGRESS LIGHTING, EXIT SIGNS, FIRE ALARM DEVICES, SWITCHES, RECEPTACLES, HOSPITAL GRADE RECEPTACLES, COVERPLATES, RACEWAYS AND BRANCH CIRCUIT WIRING. FIELD VERIFY REQUIREMENTS WITH BUILDING OWNER.

◇ LIGHTING PLAN KEYED NOTES:

1. WALLBOX OCCUPANCY SENSOR - PROVIDE DUAL TECHNOLOGY LEVITON OSSMT-MD OR EQUAL.
2. DUAL LEVEL SWITCHING - PROVIDE IN ACCORDANCE WITH IECC REQUIREMENTS. PROVIDE ALL LIGHTING WITH DUAL BALLASTS FOR SEPARATE CONTROL OF INBOARD AND OUTBOARD LAMPS OR CONNECT ALTERNATE FIXTURES TO SEPARATE SWITCH AS INDICATED FOR LIGHT REDUCTION CONTROL BY AT LEAST 50% IN A REASONABLY UNIFORM ILLUMINATION PATTERN.



1 E1.0 **POWER PLAN**

SCALE: 1/8" = 1'-0"

BUILDING MANAGEMENT ELECTRICAL WORK NOTES:

1. PLEASE PROVIDE AN ALTERNATE PRICE TO RECYCLE CONSTRUCTION WASTE.
2. ON EACH OUTLET AND SWITCH PROVIDE A LABEL INDICATING THE CORRESPONDING PANEL AND CIRCUIT NUMBER.
3. FOR ALL NEW WORK REVIEW THE EXISTING CONDITIONS THOROUGHLY AND IDENTIFY ANY DEFICIENT WIRING OR POOR WORKMANSHIP AND ANY CIRCUITS THAT FEED MULTIPLE TENANT SPACES. INFORM THE OWNER OF ANY SUCH CONDITIONS AND PROVIDE AN ESTIMATE TO CORRECT OR MAKE ADDITIONAL IMPROVEMENTS.

POWER PLAN GENERAL NOTES:

1. PROVIDE OUTLET WITHIN 25' OF EQUIPMENT IN ACCORDANCE WITH NEC 210-63. PROVIDE WEATHERPROOF GFI OUTLET ON ROOFTOPS WITHIN 25' OF ROOFTOP EQUIPMENT.
2. FIELD VERIFY FINAL LOCATION OF ALL EQUIPMENT WITH PROVIDER PRIOR TO ROUGH-IN.
3. ALL RECEPTACLES IN BATHROOMS, KITCHENS, ROOFTOPS, OUTDOORS, AND WITHIN 6FT. OF A SINK SHALL BE GFCI (OR SERVED BY A GFI CIRCUIT BREAKER) PER NEC 210.8(B). THE E.C. SHALL PROVIDE GFCI OUTLETS (OR CIRCUIT BREAKERS) IN ALL LOCATIONS REQUIRED BY THE NEC.
4. NUMBERS NEXT TO DEVICES REFER TO CIRCUIT DESIGNATION IN PANEL 'L3A3' UNLESS NOTED.
5. ALL TELE/DATA LOCATIONS SHALL INCLUDE 4" SQUARE J-BOX AND 3/4" CONDUIT TO CEILING SPACE. ALL TELEPHONE/DATA CABLE IS TO BE PLENUM RATED WIRE OR SHALL BE INSTALLED IN CONDUIT ABOVE CEILING OR IN WALLS.
6. PROVIDE ALL DEMOLITION WORK AS REQUIRED TO ACCOMMODATE THE NEW WORK AS INDICATED ON THE ELECTRICAL PLANS. FIELD VERIFY EXISTING CONDITIONS. PROVIDE ANY ADDITIONAL WORK NECESSARY AS REQUIRED TO PRESERVE EXISTING DEVICES AND BRANCH CIRCUIT COMPONENTS TO REMAIN. REFER TO THE ARCHITECTURAL PLANS FOR DEMOLITION SCOPE OF WORK AND VISIT THE SITE PRIOR TO BID TO DETERMINE THE ELECTRICAL SCOPE OF WORK REQUIRED.
7. FIRE ALARM DEVICES - PROVIDE NEW DEVICES WHERE REQUIRED AND PROVIDE ALL WORK REQUIRED TO RELOCATE EXISTING DEVICES TO BE RE-USED. COORDINATE REQUIREMENTS WITH BUILDING OWNER FOR ANY SYSTEM DISRUPTION, REMOVAL, SALVAGE AND RE-USE OF EXISTING DEVICES. WORK SHOWN IS FOR GENERAL INFORMATION ONLY - FIRE ALARM WORK SHALL BE DESIGN-BUILD - PROVIDE ALL WORK REQUIRED FOR A COMPLETE INSTALLATION.
8. HEALTHCARE CABLE - PROVIDE APPROVED HEALTHCARE FACILITY HCF CABLE OR EQUAL INSULATED GROUND AND METAL RACEWAY WIRING SYSTEM FOR ALL PATIENT CARE AREAS IN ACCORDANCE WITH NEC 517 AND BUILDING STANDARD WIRING REQUIREMENTS.
9. HOSPITAL GRADE RECEPTACLES - ALL OUTLETS SHALL BE HOSPITAL GRADE TO MATCH THE BUILDING STANDARDS UNLESS OTHERWISE ACCEPTED IN WRITING BY THE BUILDING OWNER AND TENANT.
10. BUILDING STANDARDS - PROVIDE ALL WORK IN ACCORDANCE WITH THE BUILDING STANDARDS INCLUDING BUT NOT LIMITED TO LIGHT FIXTURES, EGRESS LIGHTING, EXIT SIGNS, FIRE ALARM DEVICES, SWITCHES, RECEPTACLES, HOSPITAL GRADE RECEPTACLES, COVERPLATES, RACEWAYS AND BRANCH CIRCUIT WIRING. FIELD VERIFY REQUIREMENTS WITH BUILDING OWNER.

◇ POWER PLAN KEYED NOTES:

1. TELEPHONE BOARD LOCATION (TTB) - THE E.C. SHALL PROVIDE AND INSTALL ¾"x48"x48" PLYWOOD BACKBOARD, INSTALL TIGHT TO CEILING AND PAINT TO MATCH WALL. PROVIDE A 2"C WITH PULL STRING BACK TO THE BUILDING TELEPHONE/ DATA SERVICE ENTRANCE. PROVIDE DEDICATED NEMA 5-20R RECEPTACLE +84"AFF ON TTB AND CIRCUIT AS SHOWN. FIELD VERIFY LOCATION, MOUNTING HEIGHT AND REQUIREMENTS WITH TENANT PRIOR TO BID OR ANY WORK.
2. OFFICE EQUIPMENT - PROVIDE DEDICATED CIRCUIT WITH DEDICATED GROUND AND NEUTRAL CONDUCTOR. FIELD VERIFY FINAL LOCATION, MOUNTING HEIGHT, ELECTRICAL REQUIREMENTS, NUMBER OF WIRES, OUTLET TYPE AND CONFIGURATION WITH PROVIDER PRIOR TO ROUGH-IN.
3. IT EQUIPMENT - PROVIDE DEDICATED CIRCUIT WITH DEDICATED GROUND AND NEUTRAL CONDUCTOR. FIELD VERIFY FINAL LOCATION, MOUNTING HEIGHT, ELECTRICAL REQUIREMENTS WITH EQUIPMENT PROVIDER PRIOR TO ROUGH-IN.

COMcheck Software Version 3.9.4
Interior Lighting Compliance Certificate

2009 IECC

Section 1: Project Information

Project Type: **New Construction**
Project Title : Cardiotoracic Surgery Associates

Construction Site:
1444 S. Potomac St.
Suite 360
Aurora, CO 80012

Owner/Agent:

Designer/Contractor:
Carl Fretwell
Front Range Electrical Engineering
3333 S. Wadsworth Blvd.
D210
Lakewood, CO 80227
303.985.0548
Carl@FREEngineer.com

Section 2: Interior Lighting and Power Calculation

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B x C)
Medical Office (Healthcare-Clinic)	3700	1	3700
		Total Allowed Watts =	3700

Section 3: Interior Lighting Fixture Schedule

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Medical Office (Healthcare-Clinic 3700 sq.ft.)				
Linear Fluorescent 1: A: 2'x4' Troffer: 48" T8 32W: Electronic:	2	45	55	2475
Linear Fluorescent 2: A1: 2'x2' Troffer: 24" T8 17W: Electronic:	2	1	28	28
Compact Fluorescent 1: D: 6" Downlight: Triple 4-pin 32W: Electronic:	1	20	32	640
Compact Fluorescent 2: D1: Wall Wash Downlight: Triple 4-pin 32W: Electronic:	1	1	32	32
LED 1: L: LED Tape Light: Other:	1	75	2.2	165
Incandescent 1: P: Pendant Light: Incandescent 100W:	2	2	100	200
Linear Fluorescent 3: V: Vanity Light: 24" T8 17W: Electronic:	2	1	28	28
		Total Proposed Watts =		3568

Section 4: Requirements Checklist

Interior Lighting PASSES: Design 4% better than code.

Lighting Wattage:

☒ 1. Total proposed watts must be less than or equal to total allowed watts.

Allowed Watts	Proposed Watts	Complies
3700	3568	YES

Controls, Switching, and Wiring:

☒ 2. Daylight zones under skylights more than 15 feet from the perimeter have lighting controls separate from daylight zones adjacent to vertical fenestration.

☒ 3. Daylight zones have individual lighting controls independent from that of the general area lighting.

Exceptions:

☒ Contiguous daylight zones spanning no more than two orientations are allowed to be controlled by a single controlling device.

☒ Daylight spaces enclosed by walls or ceiling height partitions and containing two or fewer light fixtures are not required to have a separate switch for general area lighting.

☒ 4. Independent controls for each space (switch/occupancy sensor).

Exceptions:

☐ Areas designated as security or emergency areas that must be continuously illuminated.

☐ Lighting in stairways or corridors that are elements of the means of egress.

NA ☐ 5. Master switch at entry to hotel/motel guest room.

NA ☐ 6. Individual dwelling units separately metered.

NA ☐ 7. Medical task lighting or art/history display lighting claimed to be exempt from compliance has a control device independent of the control of the nonexempt lighting.

☒ 8. Each space required to have a manual control also allows for reducing the connected lighting load by at least 50 percent by either controlling all luminaires, dual switching of alternate rows of luminaires, alternate luminaires, or alternate lamps, switching the middle lamp luminaires independently of other lamps, or switching each luminaire or each lamp.

Exceptions:

☒ Only one luminaire in space.

☒ An occupant-sensing device controls the area.

☒ The area is a corridor, storeroom, restroom, public lobby or sleeping unit.

☐ Areas that use less than 0.6 Watts/sq.ft.

☒ 9. Automatic lighting shutoff control in buildings larger than 5,000 sq.ft.

Exceptions:

☐ Sleeping units, patient care areas; and spaces where automatic shutoff would endanger safety or security.

NA ☐ 10. Photocell/astronomical time switch on exterior lights.

Exceptions:

☐ Lighting intended for 24 hour use.

☒ 11. Tandem wired one-lamp and three-lamp ballasted luminaires (No single-lamp ballasts).

Exceptions:

☒ Electronic high-frequency ballasts; Luminaires on emergency circuits or with no available pair.

Section 5: Compliance Statement

Compliance Statement: The proposed lighting design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting system has been designed to meet the 2009 IECC requirements in COMcheck Version 3.9.4 and to comply with the mandatory requirements in the Requirements Checklist.

Carl Fretwell, P.E. — Name - Title
Carl Fretwell — Signature
09-08-14 — Date

LUMINAIRE SCHEDULE

September 9, 2014

Label	Light Fixture Description	Specification	Lamping	Voltage	Mounting	Comment
Interior Lighting						
A	2'x4' Recessed Troffer Parabolic Reflector, 2-Lamp	Cooper Metalux 2EP3GX-232S35I-UNV-EB81	(2) 32W T8 3500K/82CRI	120/277	Suspended	
A1	2'x2' Recessed Troffer Parabolic Reflector, 2-Lamp	Cooper Metalux 2EP3GX-217S23I-UNV-EB81	(2) 17W T8 3500K/82CRI	120/277	Suspended	
D	6" Recessed Compact Fluorescent Downlight White Trim, Vertical Lamp	Cooper Portfolio or Equal CD6042-E-6CLI/42WXI-LI	32W TTT 4 pin GX24q-3	120/277	Recessed	
D1	6" Recessed Compact Fluorescent Downlight White Trim, Vertical Lamp, Wall-Wash Reflector	Cooper Portfolio or Equal CD6042-E-6CWWV1421-LI	32W TTT 4 pin GX24q-3	120/277	Recessed	
L	LED Tape Light Cool White	American Lighting or Equal TL-30-WH	2.2W LED per foot	120	Surface	
P	Pendant Light Decorative	Selected by Tenant	100W Max	120/277	Suspended	
V	Vanity Light Fluorescent	Cooper Metalux BAU-232-UNV-EB81	(2) 32W T8 3500K/82CRI	120/277	Surface Verify Mounting	
Emergency Lighting						
EM	Emergency Light Fixture, Dual Head LED with 90-Minute Battery Pack	Cooper Sure-Lites APEL	(2) 3.6V...78W LED	120/277	Surface	
XEM	Combination Exit Sign/Emergency Egress Light Twin Head LED with 90-Minute Battery Pack	Cooper Surelites APC7	(2) 3.6V...78W LED Included	120/277	Surface	

NOTES: Apply to all fixtures where applicable

1. EMERGENCY FIXTURES - All Fixtures Indicated as Emergency shall be provided with a 90-Minute Battery Pack and all Fluorescent Fixtures indicated as Emergency shall be provided with a 1300 Lumen, 90-Minute Battery Pack.
2. VERIFY VOLTAGES - The E.C. shall verify voltages on drawings prior to ordering or any work, the engineer shall be notified of any discrepancies in the voltage of the circuiting on the drawings and the luminaire schedule prior to any purchase or work.
3. VERIFY LAMPING - The E.C. shall verify lamping with the manufacturer prior to ordering and notify the engineer of any lamping discrepancies.
4. PROVIDE A COMPLETE INSTALLATION - The E.C. shall provide all labor and material to provide a complete and functional system per the design intent as dictated by the switching type and location (including dimmer switches and compatible ballasts or transformers), ceiling type and location, circuiting, voltages, and lamping types.
5. BALLAST DISCONNECT - All electric discharge luminaires shall comply with NEC 410.130 and shall have a means of disconnect for the ballast.
6. DUAL LEVEL SWITCHING - For fixtures with more than one switch designation shown on plans provide fixtures with additional ballasts for dual level light control by separate switching of inboard and outboard lamps as required to conform to IECC Requirements.
7. OWNER APPROVAL - Approve all light fixture types with tenant/owner before ordering any materials or any work.

PANEL SCHEDULE: L3A2

September 9, 2014

BUS RATING: 225A 3Ø, 4-WIRE — VOLTAGE L-L: 208
MAIN C.B.: or M.L.O: 225A — VOLTAGE L-G: 120
MOUNTING: Surface — S.C.R.MS RATING (AIC): 10,000
COMMENTS: Existing Panelboard

NO.	AMPS	POLE	LOAD (VA)	NEC Demand	LOAD DESCRIPTION	Phase	LOAD DESCRIPTION	NEC Demand	LOAD (VA)	POLE	AMPS	NO.
1	30	2	1248	1.00	Nuc. Camera Rm 1	A	Receipt	1.00	720	1	20	2
3	30	2	832	1.00	Nuc. Camera Rm 1	B	Receipt	1.00	720	1	20	4
5	20	1	720	1.00	Receipt - Nuc. Camera	C	Small Echo Equip.	1.00	500	1	15	6
7	20	1	720	1.00	Receipt - Nuc. Camera	A	Existing Load	1.00	500	1	15	8
9	30	2	1248	1.00	Nuc. Camera Rm 2	B	Receipt - Suite 310	1.00	720	1	20	10
11	30	2	832	1.00	Nuc. Camera Rm 2	C	Corridor Receipts	1.00	540	1	20	12
13	20	1	720	1.00	Rec - Nuc. Camera (310)	A	Receipt - Mail-Copier	1.00	500	1	20	14
15	20	1	360	1.00	Receipt - Toilet	B	Receipt - Med Rec	1.00	360	1	20	16
17	20	2	832	1.00	Nuc - Tread 3 Equip.	C	Receipt - Med Rec	1.00	360	1	20	18
19	20	2	832	1.00	Nuc - Tread 3 Equip.	A	Receipt - Med Rec	1.00	360	1	20	20
21	20	1	720	1.00	Receipt - Exam Prep.	B	Bussed Space					22
23	20	1	860	1.00	Receipt - Echo Read. SWC	C	Bussed Space					24
25	20	1	720	1.00	Receipt - Med Assist (310)	A	Bussed Space					26
27	20	1	500	1.00	Smoke Dampers (310)	B	Receipt - EKG Staging	1.00	540	1	20	28
29	20	1	540	1.00	Receipt - Break Room	C	Receipt - Waiting	1.00	360	1	20	30
31	20	1	500	1.00	Receipt - Break Vend.	A	Receipt - Waiting	1.00	360	1	20	32
33	20	1	540	1.00	Receipt - Break Room	B	Receipt - Pre-Time	1.00	500	1	20	34
35	20	1	1176	1.00	Receipt - Garb Disposal	C	Receipt - Admin/Bill	1.00	540	1	20	36
37	20	1	540	1.00	Receipt - Break Room	A	Receipt - Biller	1.00	500	1	20	38
39	20	1	540	1.00	Receipt - Break Room	B	Receipt - Date/Precert	1.00	540	1	20	40
41	20	1	360	1.00	Receipt - IT Room	C	Receipt - Rea Work (310)	1.00	720	1	20	42
43	20	1	540	1.00	Receipt - Nuc Wait (310)	A	Receipt - Rea Work	1.00	720	1	20	44
45	20	1	540	1.00	Recept. - Corridor	B	Receipt - Research Mgr	1.00	540	1	20	46
47	20	1	640	1.25	Lighting - Conference	C	Receipt - Rea Work	1.00	720	1	20	48
49	20	1	640	1.25	Lighting - Nuc 1/2	A	Receipt - Nuc/Echo Mgr	1.00	500	1	20	50
51	20	1	640	1.25	Lighting - Echo	B	Receipt - Bone Bank	1.00	500	1	20	52
53	20	1	640	1.25	Lighting - General	C	**360 - Garbage Disposal**	**1.00**	**972**	**1**	**20**	54
55	20	1			Spare	A	**360 - Copier/Printer**	**1.00**	**500**	**1**	**20**	56
57	20	1			Spare	B	Nuc Tread 2 Equip.	1.00	500	2	15	58
59	20	1			Spare	C	Nuc Tread 2 Equip.	1.00	500	2	15	60
61	20	1			Spare	A	Nuc Tread 1 Equip.	1.00	500	2	20	62
63	20	1			Spare	B	Nuc Tread 1 Equip.	1.00	500	2	20	64
65	20	1			Spare	C	Receipt - Nuc Tread 2	1.00	500	1	20	66
67	20	1	360	1.00	Recept - Roof	A	Receipt - Nuc Tread 1	1.00	500	1	20	68
69	20	2	832	1.00	ACCU-1	B	Receipt - Tread 1 Monitor	1.00	500	1	20	70
71	20	2	832	1.00	ACCU-1	C	Receipt - Tread 2 Monitor	1.00	500	1	20	72
73	20	2	832	1.00	ACCU-3	A	Receipt - Tread 3 Monitor	1.00	500	1	20	74
75	20	2	832	1.00	ACCU-2	B	Receipt - Stress Monitor	1.00	500	1	20	76
77	30	2	1248	1.00	AC-1	C	Receipt - Echo Monitor	1.00	500	1	20	78
79	30	2	1248	1.00	AC-1	A	Existing Load	1.00	500	1	20	80
81	30	2	1248	1.00	AC-2	B	Existing Load	1.00	500	1	20	82
83	30	2	1248	1.00	AC-2	C	Existing Load	1.00	500	1	20	84

CONNECTED LOAD:
PHASE A (VA): 15,560
PHASE B (VA): 15,752
PHASE C (VA): 17,140
TOTAL LOAD (VA): 48,452

CALCULATED DEMAND LOAD:
PHASE A (VA): 15,720
PHASE B (VA): 15,912
PHASE C (VA): 17,460
CALCULATED DEMAND LOAD (VA): 49,092 — **136.27 A**

NOTES:
1. Not Used.

PANEL SCHEDULE: L3A3

September 9, 2014

BUS RATING: 225A 3Ø, 4-WIRE — VOLTAGE L-L: 208
MAIN C.B.: or M.L.O: 225A — VOLTAGE L-G: 120
MOUNTING: Surface — S.C.R.MS RATING (AIC): 10,000
COMMENTS: Existing Panelboard

NO.	AMPS	POLE	LOAD (VA)	NEC Demand	LOAD DESCRIPTION	Phase	LOAD DESCRIPTION	NEC Demand	LOAD (VA)	POLE	AMPS	NO.
1	20	1	540	1.00	Receipt - Reception	A	Recept - Exam	1.00	720	1	20	2
3	20	1	500	1.00	Receipt - Recep Copier	B	Recept - Copy Alcove	1.00	500	1	20	4
5	20	1	360	1.00	Receipt - Nurse	C	Recept - Copier	1.00	500	1	20	6
7	20	1	540	1.00	Receipt - Office	A	Recept - Storage	1.00	180	1	20	8
9	20	1	720	1.00	Receipt - Exam	B	Recept - Exam	1.00	720	1	20	10
11	20	1	540	1.00	Receipt - Office	C	Recept - Exam	1.00	720	1	20	12
13	20	1	360	1.00	Receipt - Nurse	A	Recept - Office	1.00	540	1	20	14
15	20	1	360	1.00	Receipt - Nurse	B	Recept - Office	1.00	540	1	20	16
17	20	1	720	1.00	Receipt - Exam	C	Recept - Med Asst	1.00	540	1	20	18
19	20	1	540	1.00	Recept - Nurse Station	A	Recept - Office	1.00	720	1	20	20
21	20	1	540	1.00	Recept - Nurse Station	B	Recept - Office	1.00	720	1	20	22
23	20	1	720	1.00	Recept - Corridor	C	Recept - Nurse	1.00	540	1	20	24
25	20	1	720	1.00	Receipt - Exam	A	Recept	1.00	720	1	20	26
27	20	1	540	1.00	Receipt - Manager	B	Recept - Corridor	1.00	540	1	20	28
29	20	1	360	1.00	Recept - Toilet	C	Recept - Office	1.00	720	1	20	30
31	20	1	540	1.00	Receipt - Check-Out	A	Recept - Nurse	1.00	360	1	20	32
33	20	1	540	1.00	Receipt - Check-Out	B	Recept - Exam	1.00	720	1	20	34
35	20	1	640	1.25	Lighting - Reception	C	Recept - Office	1.00	540	1	20	36
37	20	1	640	1.25	Lighting - Reception	A	Recept	1.00	720	1	20	38
39	20	1	640	1.25	Lighting - Reception	B	Recept - Office	1.00	540	1	20	40
41	20	1	640	1.25	Lighting - Reception	C	Recept - Office	1.00	540	1	20	42
43	20	1	1200	1.00	Microwave - Break Rm.	A	Recept - Exam	1.00	540	1	20	44
45	20	1	360	1.00	IG Recept Nath Phone Rm.	B	Lighting - Echo Read	1.25	640	1	20	46
47	20	1	360	1.00	IG Recept Nath Phone Rm.	C	Lighting - General	1.25	640	1	20	48
49	20	2	832	1.00	Server Room AC	A	Server Room AC	1.00	500	1	20	50
51	20	2	832	1.00	Server Room AC	B	FTU#9	1.00	960	1	20	52
53	20	1	360	1.00	Rooftop Recept.	C	FTU#8	1.00	960	1	20	54
55	20	1	**720**	**1.00**	**Waiting Recept- 360**	A	FTU#12	1.00	960	1	20	56
57	20	1	**540**	**1.00**	**Reception Rec - 360**	B	FTU#15	1.00	960	1	20	58
59	20	1	**540**	**1.00**	**Reception Rec - 360**	C	FTU#16	1.00	960	1	20	60
61	20	1	**540**	**1.00**	**Consult Rm Rec - 360**	A	FTU#17	1.00	960	1	20	62
63	20	1	**720**	**1.00**	**Billing Office Rec - 360**	B	**360 - Hallway Recept**	**1.00**	**720**	**1**	**20**	64
65	20	1	**1440**	**1.00**	**Billing Office Rec - 360**	C	**360 - Restroom**	**1.00**	**341**	**1**	**20**	66
67	20	1	**1440**	**1.00**	**Shared Offic Rec - 360**	A	**360 - M.A. Station**	**1.00**	**360**	**1**	**20**	68
69	20	1	**540**	**1.00**	**Shared Offic Rec - 360**	B	**360 - M.A. Station**	**1.00**	**360**	**1**	**20**	70
71	20	1	**360**	**1.00**	**Manager Rec - 360**	C	**360 - M.A. Station**	**1.00**	**360**	**1**	**20**	72
73	20	1	**540**	**1.00**	**Doctor Office Rec - 360**	A	**360 - Break Rm Recept**	**1.00**	**750**	**1**	**20**	74
75	20	1	**540**	**1.00**	**Doctor Office Rec - 360**	B	**360 - Refrigerator**	**1.00**	**540**	**1**	**20**	76
77	20	1	**540**	**1.00**	**Doctor Office Rec - 360**	C	**360 - Exam Recept**	**1.00**	**720**	**1**	**20**	78
79	20	1	**360**	**1.00**	**Telephone Board - 360**	A	**360 - Exam Recept**	**1.00**	**720**	**1**	**20**	80
81	20	1	**360**	**1.00**	**IT Equipment - 360**	B	**360 - Exam Recept**	**1.00**	**900**	**1**	**20**	82
83	20	1	500	1.00	Existing Load	C	**360 - Exam Recept**	**1.00**	**720**	**1**	**20**	84

CONNECTED LOAD:
PHASE A (VA): 18,402
PHASE B (VA): 17,092
PHASE C (VA): 16,881
TOTAL LOAD (VA): 52,375

CALCULATED DEMAND LOAD:
PHASE A (VA): 18,722
PHASE B (VA): 17,412
PHASE C (VA): 17,361
CALCULATED DEMAND LOAD (VA): 53,495 — **148.49 A**

NOTES:
1. Not Used.

WARE MALCOMB
Leading Design for Commercial Real Estate
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SEP 09 2014

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CARDIOTHORACIC SURGERY ASSOCIATES
1444 S. POTOMAC ST, SUITE 360
AURORA, COLORADO 80012

POWER PLAN AND LIGHTING PLAN

	DATE	REMARKS
1	09/09/14	CONSTRUCTION

PA / PM:	CLF
DRAWN BY:	DMK
JOB NO.:	DEN14-6053-00 14-159

SHEET
E1.0

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D:\Dropbox\4Projects\2014\2014-159 1444 S Potomac Aurora\E Sheet Set 2014-159 - 1444 S Potomac Aurora.dwg

CAUTION: IF THIS SHEET IS NOT 30"x42" IT IS A REDUCED PRINT

MECHANICAL SPECIFICATIONS

SUPPLY AND RETURN AIR DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED STEEL PER SMACNA DUCT CONSTRUCTION STANDARDS. RETURN AIR DUCTWORK AND SUPPLY AIR DUCTWORK SHALL BE CONSTRUCTED FOR 1" W.C. STATIC PRESSURE DOWNSTREAM OF VAV BOXES AND 3" W.C. UPSTREAM OF VAV BOXES. SPIRAL LOCK-FORMED ROUND DUCT MAY BE UTILIZED WHERE SPACE ALLOWS. TRANSVERSE JOINTS AND LONGITUDINAL SEAMS SHALL BE SEALED AIR-TIGHT WITH MASTIC. RADIUSED ELBOWS (R/D=1.5) OR MITERED ELBOWS WITH SINGLE THICKNESS TURNING VANES SHALL BE UTILIZED. TURNING VANES SHALL BE SUPPORTED AT INTERVALS OF 36" MAXIMUM. TURNING VANE RUNNERS SHALL HAVE A VANE IN EVERY SLOT AND SHALL CONFORM TO SMACNA DUCT CONSTRUCTION STANDARDS FOR STANDARD SPACING.

INSULATED, FACTORY FABRICATED, FLEXIBLE DUCTWORK MAY BE UTILIZED AT RUNOUTS TO AIR DIFFUSERS. FLEXIBLE DUCTWORK SHALL CONSIST OF AN EXTERIOR REINFORCED LAMINATED VAPOR BARRIER, 1.5" FIBERGLASS INSULATION AND INTERIOR VINYL LINER WITH SPRING STEEL WIRE HELIX. FIBERGLASS INSULATION SHALL HAVE A MAXIMUM CONDUCTIVITY, K-VALUE, OF 0.25 AT 75°F. VINYL LINER SHALL NOT BE PERFORATED. FLEXIBLE DUCT ASSEMBLY SHALL HAVE A FLAME SPREAD/SMOKE DEVELOPED RATING OF 25/50 OR LESS. FLEXIBLE DUCT TO FLEXIBLE DUCT CONNECTIONS SHALL BE MADE WITH FACTORY FABRICATED STEEL COLLARS. FLEXIBLE DUCT SHALL BE SECURED TO RIGID DUCTWORK AND AIR DEVICES WITH SCREWS AND DRAWBANDS. LENGTH OF FLEXIBLE DUCTWORK SHALL BE LIMITED TO 5' AND SHALL NOT BE COMPRESSED. FLEXIBLE DUCTWORK SHALL NOT BE USED FOR ELBOWS. FLEXIBLE DUCT SHALL NOT BE USED ABOVE INACCESSIBLE CEILINGS. FLEXIBLE DUCT SHALL NOT PASS THROUGH WALLS.

ALL SUPPLY AND RETURN RECTANGULAR DUCTWORK SHALL BE PROVIDED WITH DUCT LINER (INSIDE THE DUCT): ONE INCH THICK, RESIN BONDED GLASS FIBER, BLACK COATING ON AIR STREAM SURFACE, RATED BY MANUFACTURER FOR AT LEAST 4000 FPM AND MEETING THE REQUIREMENTS OF ASTM C1071 TYPE I. FIRE RESISTANCE SHALL MEET REQUIREMENTS OF NFPA 90A. FLAME SPREAD RATING NOT TO EXCEED 25. FUEL CONTRIBUTION AND SMOKE DEVELOPMENT NOT TO EXCEED 50. NOISE REDUCTION COEFFICIENT (NRC) OF NOT LESS THAN 0.60 WHEN TESTED IN ACCORDANCE WITH ASTM C423 USING AN "A" MOUNTING OR A MINIMUM OF 0.70 USING AN "F" MOUNTING. K VALUE NOT MORE THAN 0.26 BTUH PER SQUARE FOOT PER DEG. F AT 75 DEG. F OR AN "R" VALUE OF 4. MAXIMUM ABSOLUTE ROUGHNESS FACTOR PER FOOT OF .004

HEAVY FLEXIBLE CONNECTIONS SHALL BE FURNISHED AND INSTALLED AT DUCT CONNECTIONS TO FANCOILS, FAN POWERED BOXES AND WHERE INDICATED. FLEXIBLE CONNECTIONS SHALL BE 6" MINIMUM AND 10" MAXIMUM IN LENGTH. MATERIAL SHALL BE VENTFAB MANUFACTURED BY VENTFABRICS, METAL-FAB MANUFACTURED BY DURO-DYNE OR APPROVED EQUAL.

DUCT HANGERS SHALL BE CONSTRUCTED OF GALVANIZED STEEL. DUCTS SHALL BE SUPPORTED AND CONNECTED TO THE STRUCTURE PER SMACNA DUCT CONSTRUCTION STANDARDS. HANGERS AND SUPPORTS FOR GREASE DUCT SHALL BE OF NONCOMBUSTIBLE MATERIALS. FLEXIBLE DUCTS SHALL BE SUPPORTED WITH GALVANIZED STRAPS.

MANUAL VOLUME DAMPERS SHALL BE FURNISHED AND INSTALLED WHERE INDICATED AT SUPPLY AIR DUCT RUNOUTS TO AIR DIFFUSERS AND GRILLES AS NEAR AS POSSIBLE TO THE TRUNK DUCT. MANUAL VOLUME DAMPERS FOR RECTANGULAR DUCT SHALL BE CONSTRUCTED OF 16 GAUGE GALVANIZED STEEL AND BE THE OPPOSED BLADE TYPE. MANUAL VOLUME DAMPERS FOR ROUND DUCT SHALL BE CONSTRUCTED OF 16 GAUGE GALVANIZED STEEL AND BE THE SINGLE BLADE TYPE. DAMPER BEARINGS SHALL BE NYLON. STAND-OFFS TO OUTSIDE OF INSULATION SHALL BE PROVIDED FOR MANUAL VOLUME DAMPERS IN INSULATED DUCT. LOCKING AND INDICATING QUADRANTS SHALL BE PROVIDED WHERE DAMPER IS ACCESSIBLE.

AIR DEVICES SHALL BE AS SCHEDULED. EXPOSED SCREWS SHALL BE THE FINISHING TYPE AND PAINTED TO MATCH THE AIR DEVICE. SQUARE TO ROUND ADAPTORS SHALL BE PROVIDED WHERE REQUIRED FOR AIR DEVICES IN CEILINGS. AIR DEVICES SHALL BE FINISHED WITH WHITE BAKED ENAMEL UNLESS NOTED OTHERWISE. AIR DEVICES SHALL BE SECURED TO T-BAR CEILINGS WHERE APPLICABLE.

AUTOMATIC TEMPERATURE CONTROLS SHALL BE BY TRANE AND BE DESIGNED, FURNISHED AND INSTALLED BY A QUALIFIED TEMPERATURE CONTROL FIRM. NEW CONTROLLERS SHALL BE FULLY COMPATIBLE WITH EXISTING BUILDING CONTROL SYSTEM. NEW CONTROLLERS SHALL CONNECT TO EXISTING TO ALLOW FULL CONTROL & MONITORING OF NEW EQUIPMENT FROM EXISTING HEAD END WORK STATION. EXISTING HEAD END WORKSTATION SHALL BE PROGRAMMED TO ALLOW INTERFACE WITH NEW EQUIPMENT. NEW PROGRAMMING SHALL MATCH EXISTING ALGORITHMS, SEQUENCES OF OPERATION AND GRAPHICS.

MECHANICAL LEGEND

ABBR	SYMBOL	DESCRIPTION
SA		EXISTING SUPPLY AIR
RA		EXISTING RETURN AIR
EA		EXISTING EXHAUST AIR
OA		EXISTING OUTSIDE AIR
SA		SUPPLY AIR
RA		RETURN AIR
EA		EXHAUST AIR
OA		OUTSIDE AIR
S		SPACE TEMP SENSOR CONNECTED TO BUILDING CONTROLS
T-STAT	T	THERMOSTAT
MVD		MANUAL VOLUME DAMPER
UNO		UNLESS NOTED OTHERWISE
AFF		ABOVE FINISHED FLOOR
E		EXISTING
D		DEMO
		POINT OF CONNECTION NEW TO EXISTING
		ITEMS TO BE DEMOLISHED

DIFFUSER & REGISTER SCHEDULE

SUPPLY AIR				RETURN/EXHAUST AIR			
ITEM	NECK SIZE	CFM RANGE	TYPE	ITEM	NECK SIZE	CFM RANGE	TYPE
1	6"ø	0 – 230	S1	1	6/6	0 – 150	R1
2	8"ø	230 – 410		2	12/24	0 – 600	R2
3	10"ø	410 – 600		3	24/24	0 – 1200	
4	(2) 1" SLOT 6"ø, 2' LONG	0 – 115	S2				
5	(2) 1" SLOT 8"ø, 4' LONG	100 – 250					
6	(2) 1" SLOT 10"ø, 4' LONG	250 – 450					

DIFFUSER & REGISTER SPECIFICATIONS

SUPPLY AIR

TYPE S1: TITUS MODEL OMNI 24"X24" STEEL PLAQUE FACE DIFFUSER, 4-WAY HORIZONTAL THROW, WHITE FINISH. FRAME 3 FOR LAY-IN CEILINGS. FRAME 1 FOR GYP. BOARD CEILINGS.

TYPE S2: TITUS MODEL TBDI-10 LINEAR SLOT DIFFUSER WITH INSULATED PLENUM, PROVIDE 2-WAY THROW DIFFUSER PATTERN, LENGTH & SLOT WIDTH AS SCHEDULED.

RETURN/EXHAUST AIR

TYPE R1: TITUS MODEL 350RL, STEEL GRILLE, 3/4" BLADE SPACING, 35° BLADE ANGLE, WHITE FINISH. CONCEALED MOUNTING. PROVIDE OBD IN GRILL WHERE INDICATED ON DRAWINGS.

TYPE R2: TITUS MODEL PAR STEEL PERFORATED FACE RETURN, FRAME 3 FOR LAY-IN CEILINGS, FRAME 1 FOR GYP. BOARD CEILINGS, WHITE FINISH. PROVIDE DUCT BOARD SOUND BOOT (HERCULES INDUSTRIES #SB OR EQUAL).

MECHANICAL SHEET INDEX

ISSUE	SHEET NO.	SHEET DESCRIPTION
09-09-14 CD	M0.0	MECHANICAL SPECIFICATIONS, NOTES, LEGEND AND SCHEDULES
	M1.0	MECHANICAL FLOORPLAN

GENERAL NOTES

1. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE STATE CODES, LOCAL CODES, AND OWNER'S STANDARDS INDICATED BY THE CONSTRUCTION DOCUMENTS.
2. MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS. TAKE ALL DIMENSIONS FROM ARCHITECTURAL DRAWINGS, CERTIFIED EQUIPMENT DRAWINGS AND FROM THE STRUCTURE ITSELF BEFORE FABRICATING ANY WORK. VERIFY ALL SPACE REQUIREMENTS COORDINATING WITH OTHER TRADES, AND INSTALL THE SYSTEMS IN THE SPACE PROVIDED WITHOUT EXTRA CHARGES TO THE OWNER.
3. CONTRACTOR SHALL COORDINATE WORK INDICATED WITH PLUMBING, ELECTRICAL, STRUCTURAL, AND ARCHITECTURAL DIVISIONS. VERIFY FIT OF MECHANICAL SYSTEMS PRIOR TO FABRICATION. COORDINATE ALL CHASE, SLEEVE, AND SLAB SAWCUT/COREDRILL REQUIREMENTS BEFORE CONSTRUCTION.
4. PROVIDE ALL EQUIPMENT SCHEDULED OR INDICATED ON THE DRAWINGS BUT NOT INCLUDED WITHIN THE SPECIFICATIONS INCLUDING ANY REQUIRED BUT NOT LISTED MISC ITEMS NEEDED TO PROVIDE COMPLETELY OPERATIONAL SYSTEMS AS INDICATED WHETHER SPECIFICALLY CALLED FOR OR NOT. INSTALLATION SHALL CONFORM TO MANUFACTURERS RECOMMENDATIONS AND APPLICABLE CODES. PROVIDE SUBMITTALS FOR ALL PROPOSED EQUIPMENT AND MATERIALS TO BE UTILIZED. PROVIDE OPERATION AND MAINTENANCE MANUAL FOR ALL SYSTEMS AND EQUIPMENT AT END OF PROJECT.
5. ELECTRICAL CHARACTERISTICS OF MECHANICAL EQUIPMENT SHALL BE VERIFIED WITH ELECTRICAL DRAWINGS AND ELECTRICAL CONTRACTOR PRIOR TO EQUIPMENT ORDER RELEASE. ADDITIONAL ELECTRICAL WORK RESULTING FROM EQUIPMENT SUBSTITUTION IS THE RESPONSIBILITY OF THIS CONTRACTOR.
6. ITEM DESIGNATIONS INDICATED HEREON ARE FOR PURPOSES OF THESE DOCUMENTS ONLY. CONTRACTOR SHALL VERIFY WITH OWNERS REPRESENTATIVE ACTUAL "TAGGING" INFORMATION TO BE PROVIDED FOR EACH ITEM OF MECHANICAL EQUIPMENT PRIOR TO NAMEPLATE ORDER RELEASE.
7. PROVIDE VALVE TAGS AND PIPE IDENTIFICATION BANDS. TAGS SHALL BE BRASS WITH CHAIN. IDENTIFICATION BANDS SHALL BE LOCATED EVERY 25 FEET AND ON EITHER SIDE OF INTERMEDIATE BARRIER.
8. PROVIDE 18" X 18" MINIMUM ACCESS DOOR IN INACCESSIBLE CEILINGS AND WALLS FOR EQUIPMENT AND VALVES REQUIRING ACCESS OR ADJUSTMENT. COORDINATE LOCATIONS AND SUBMIT TO ARCHITECT FOR APPROVAL PRIOR TO BEGINNING WORK.
7. DUCT SIZES INDICATED ARE OUTSIDE DIMENSIONS, BRANCH RUN-OUT DUCTS TO DIFFUSERS AND GRILLES TO BE SAME SIZE AS DIFFUSER OR GRILLE CONNECTION SIZE UNLESS OTHERWISE NOTED.
8. LENGTH OF FLEXIBLE DUCTWORK SHALL BE LIMITED TO 5'-0" MAX. HORIZONTAL RUN WITH ONLY ONE 90° ELBOW PERMITTED. SECURE FLEXIBLE DUCTWORK WITH SCREWS & DRAWBANDS PER SMACNA STANDARDS.
9. PROVIDE CEILING OPERATORS FOR INACCESSIBLE MVD'S WHERE INDICATED, EQUAL TO YOUNG REGULATOR, REMOTE GEAR OPERATED, WITH CEILING ESCUTCHEON.
10. DUCT MOUNTED SMOKE DETECTORS SHALL BE ZERO VELOCITY TYPE WHERE INDICATED ON DRAWINGS.
11. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR ACTUAL LOCATION OF GRILLES, DIFFUSERS, AND ACCESS DOORS IN CEILING. SECURE DIFFUSERS & GRILLES TO T-BAR CEILINGS WHERE APPLICABLE. SUBMIT SHOP DWG. FOR APPROVAL PRIOR TO BEGINNING WORK.
12. AT THE COMPLETION OF WORK, PROVIDE TESTING AND BALANCING SERVICES FOR MECHANICAL SYSTEM. SUBMIT WRITTEN REPORT TO ARCHITECT LISTING SYSTEM AIRFLOWS, ELECTRIC DATA, TEMPERATURES, AND PRESSURE DROPS.
13. WHERE PIPES PASS THROUGH FIRE-RATED FLOOR OR WALLS, SEAL WITH MATERIALS EQUAL TO 3M FIRE BARRIER, MEETING TESTING PER ASTM-E-814 (UL 1479). USE CAULK OR PUTTY TYPE. ALL EXTERIOR WALL AND ROOF PENETRATIONS SHALL BE SEALED WATERPROOF.
14. AT THE COMPLETION OF THE WORK AND PRIOR TO FINAL ACCEPTANCE, ALL PARTS OF THE WORK INSTALLED UNDER THIS SPECIFICATION SHALL BE THOROUGHLY CLEANED.
15. ALL EQUIPMENT, MATERIALS, AND INSTALLATION IS TO BE WARRANTEED FOR ONE YEAR TO BE FREE FROM DEFECT. PROVIDE WRITTEN WARRANTY TO OWNER.
16. THE OWNER AND ENGINEER ARE NOT RESPONSIBLE FOR THE CONTRACTOR'S SAFETY PRECAUTIONS OR TO MEANS, METHODS, TECHNIQUES, CONSTRUCTION SEQUENCES, OR PROCEDURES REQUIRED TO PERFORM HIS WORK.
17. THIS CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND SIZES OF ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, ELECTRICAL CONDUIT, STRUCTURAL MEMBERS, ETC., PRIOR TO STARTING OF CONSTRUCTION. COORDINATE CONFLICTS WITH THE GENERAL CONTRACTOR.
18. THIS CONTRACTOR SHALL COORDINATE ALL REQUIRED EXISTING BUILDING SERVICE SYSTEM OUTAGES WITH BUILDING MANAGEMENT.
19. ALL MECHANICAL SYSTEMS ARE REQUIRED TO BE INSTALLED PER BASE BUILDING REQUIREMENTS, LOCAL AND STATE JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
20. PATCH AND REPAIR TO MATCH EXISTING, ANY WALL/CEILINGS TO BE ACCESSED TO ROUTE PIPING AND DUCTWORK.
21. EXISTING DUCTWORK, PIPING, AND EQUIPMENT TO REMAIN IS SHOWN LIGHT. NEW DUCTWORK, PIPING, AND EQUIPMENT IS SHOWN HEAVY. EXISTING DUCTWORK, PIPING, AND EQUIPMENT TO BE REMOVED IS SHOWN WITH X OVER ITEM.

TERMINAL UNIT SCHEDULE

ITEM	MANF/ MODEL	LOCATION/ SERVICE	COOLING				HEATING COIL					FAN						UNIT ELECTRICAL				NOTES
			PRIMARY VALVE (INCHES)	MAX. ALLOW FLOW (CFM)	MIN. ALLOW FLOW (CFM)	MAX. ALLOW PRESS DROP ("W.C.)	MAX. HEAT CFM	HEAT CAP. (KW)	MIN. EAT (° F DB)	LAT (° F DB)	VOLTAGE / PH	FAN MODEL #	FAN SETPOINT CFM	ESP (" WC)	MOTOR HP	VOLTS/ PHASE	VOLTAGE / PH	FLA	MCA	MOP	
FPB 1	ENVIROTEC/ VFR-EH	BUILDING/ HTG/CLG	10	1,160	260	.5	740	6.0	64.7	95.8	277/1	–	480	.5	1/4	277/1	277/1	–	–	–	1 2 3 4 5 7 8 9
FPB 2	ENVIROTEC/ VFR-EH	BUILDING/ HTG/CLG	10	1,340	315	.5	795	6.0	64.0	92.9	277/1	–	480	.5	1/4	277/1	277/1	–	–	–	1 2 3 4 5 7 8
VAV 1	ENVIROTEC/ SDR	BUILDING/ CLG	8	510	115	.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 6
VAV 2	ENVIROTEC/ SDR	BUILDING/ CLG	6	325	60	.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 6
VAV 3	ENVIROTEC/ SDR	BUILDING/ CLG	6	300	60	.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 6
VAV 4	ENVIROTEC/ SDR	BUILDING/ CLG	8	760	115	.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4 6

NOTES:

1. PARALLEL FAN POWERED BOX WITH SCR ELECTRIC HEAT.
2. FURNISH WITH FACTORY INSTALLED AND WIRED FUSED DISCONNECT.
3. FURNISH WITH VARIABLE SPEED FAN MOTOR.
4. FURNISH 22 GAGE MAXIMUM GALVANIZED STEEL CASING LINED WITH 3/4" THICK 1LB MATTE FACED INSULATION.
5. FURNISH WITH INTAKE FILTER.
6. COOLING ONLY VAV BOX.
7. PROVIDE LEFT OR RIGHT HAND ELECTRICAL CONNECTIONS AS INDICATED ON PLANS.
8. COORDINATE CONTROLS REQUIREMENTS WITH EXISTING BUILDING CONTROLS SYSTEM.
9. EXISTING FAN POWERED BOX, CONTROLS TRANSFORMER HAS BEEN REMOVED, CONTRACTOR TO PROVIDE NEW TRANSFORMER AND ALL OTHER REQUIRED PARTS TO RESTORE BOX TO FULLY OPERATIONAL CONDITION.

EXHAUST FAN SCHEDULE

ITEM	MANUFACTURER/ MODEL	LOCATION/ SERVICE	CFM	ESP	FAN SONES	ELEC. DATA			OVERALL DIMENSIONS	NOTES
						WATTS	VOLT	PH		
EF 1	AIR KING/ AK280LS	EQUIPMENT ROOM/ HEAT EXHAUST	280	.1	2.5	73.0	115	1	12-7/8" DEEP X 12-3/4" WIDE X9-7/8" TALL	1

NOTES:

1. FURNISH WITH REVERSE ACTING THERMOSTAT SET TO TURN FAN ON AT 80 DEGREES F AND OFF AT 75 DEGREES F (ADJUSTABLE)

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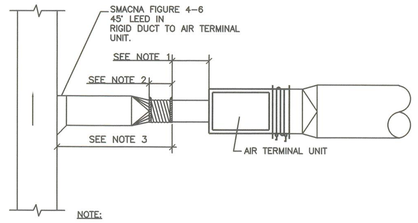
CARDIOTHORACIC SURGERY ASSOCIATES
1444 S. POTOMAC ST, SUITE 360
AURORA, COLORADO 80012

REMARKS	DATE
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PA / PM:	BEM
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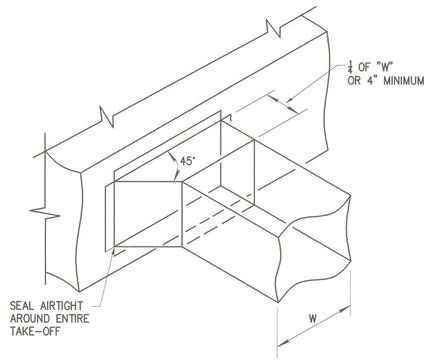
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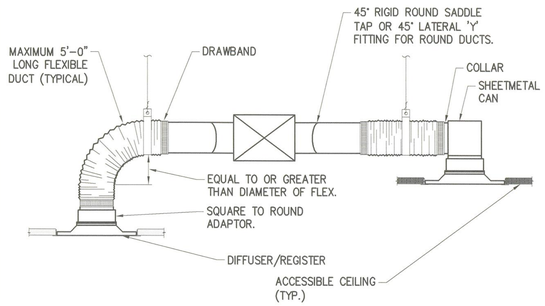
NOTE:

1. RIGID STRAIGHT TERMINAL UNIT INLET LENGTH SHALL BE A MINIMUM OF 3 TIMES THE DIAMETER OF INLET
2. A FLEXIBLE AIR DUCT CONNECTOR IS NOT MANDATORY FOR INLET TO THIS BOX, BUT ALLOWED TO ACCOMMODATE MINOR OFFSETS. MAXIMUM LENGTH 3'-0".
3. A BRANCH DUCT SERVING AN INDIVIDUAL BOX MAY BE THE SAME SIZE AS THE BOX INLET, PROVIDED THE EQUIVALENT LENGTH OF THE BRANCH DUCT, AS SHOWN, DOES NOT EXCEED 10 FEET (3 METERS). FOR LONGER LENGTHS, INCREASE THE DUCT SIZE AND PROVIDE A DUCT TRANSITION TO MAINTAIN THE DUCT STATIC PRESSURE DROP AT OR BELOW 0.2"/100'.

VAV AIR TERMINAL DUCT CONNECTIONS
NO SCALE



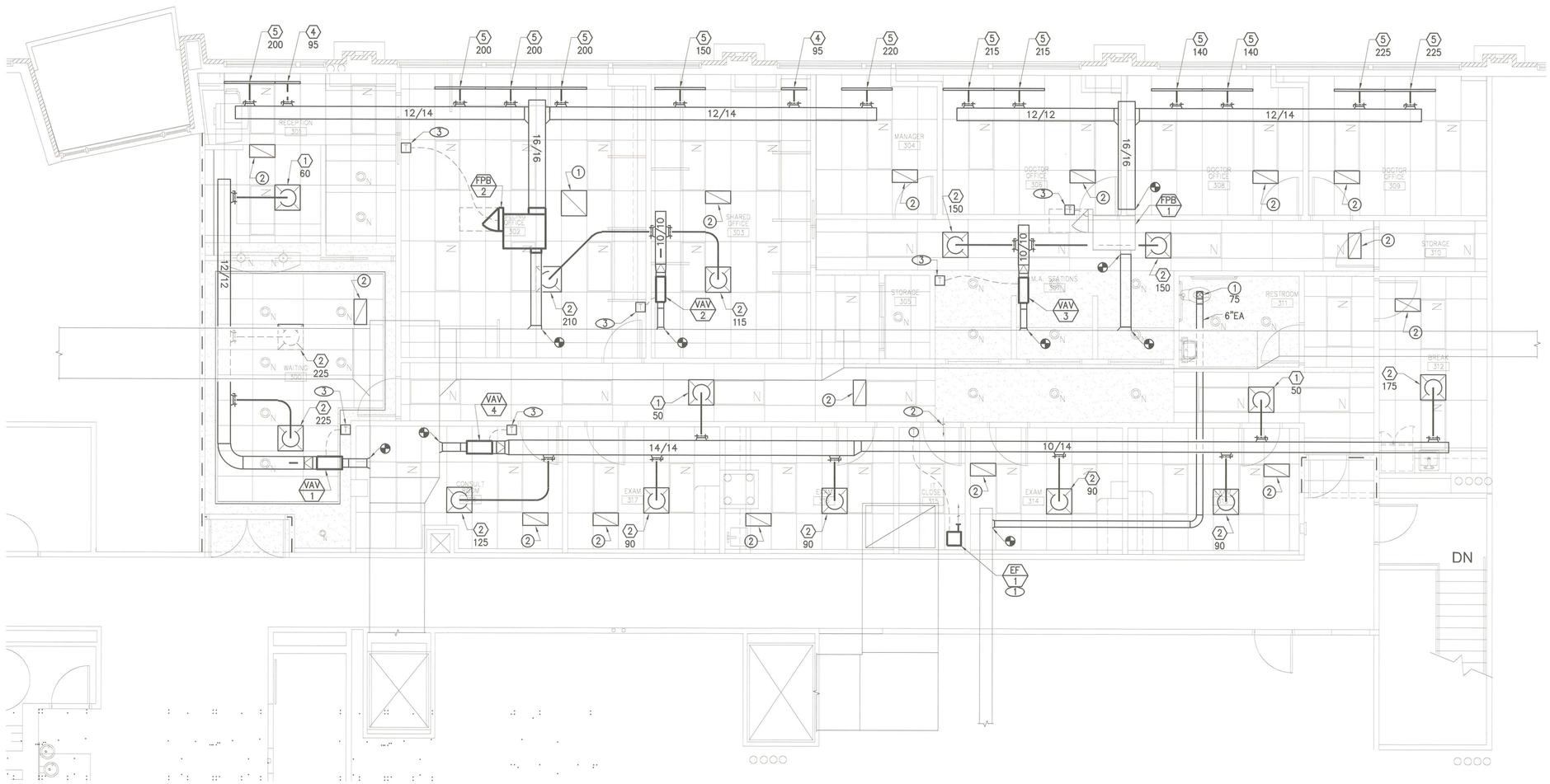
45 DEGREE TAKE-OFF DETAIL
NO SCALE



DIFFUSER MOUNTING DETAIL
NO SCALE

NOTES

1. EXHAUST FAN MOUNTED IN CEILING SPACE, DISCHARGE TO OPEN RETURN AIR PLENUM.
2. PROVIDE 2" DOOR UNDERCUT FOR EXHAUST FAN MAKE-UP AIR, COORDINATE UNDERCUT WITH GENERAL CONTRACTOR.
3. NEW TEMPERATURE SENSOR INSTALLED ON WALL AT 60" AFF.



MECHANICAL FLOORPLAN
1/4"=1'-0"

1 / M1.0

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PLUMBING SPECIFICATIONS

WATER PIPING ABOVE GRADE SHALL BE TYPE L, HARD DRAWN COPPER WITH WROUGHT COPPER FITTINGS. WATER PIPING BELOW GRADE SHALL BE TYPE K, SOFT DRAWN COPPER WITH WROUGHT COPPER FITTINGS. FITTINGS SHALL BE SOLDERED WITH 95–5 TIN–ANTIMONY SOLDER OR BRAZED WITH SILVER BASED FILLER METAL. WATER PIPING SHALL BE TESTED WITH TEST PRESSURE MAINTAINED FOR A MINIMUM OF 30 MINUTES WITH NO LOSS. DOMESTIC WATER PIPING SHALL BE DISINFECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE JURISDICTIONAL HEALTH AND PLUMBING CODES.

DOMESTIC WATER PIPING SHALL BE INSULATED WITH NONCOMBUSTIBLE, PREFORMED, FIBERGLASS, PIPE INSULATION WITH A CONDUCTIVITY, K–VALUE, OF 0.24 AT 75F AND A FLAME SPREAD/ SMOKE DEVELOPED RATING OF 25/50 OR LESS. INSULATION SHALL HAVE A KRAFT REINFORCED FOIL VAPOR BARRIER WITH SELF–SEALING ADHESIVE JOINTS. INSULATION AT HANGERS AND CLAMPS SHALL BE OF HIGH DENSITY INSULATING MATERIAL. INSULATED PIPING EXPOSED TO VIEW SHALL BE COVERED AND FINISHED WITH A 30 MIL. THICK PVC JACKET.

PIPE INSULATION SCHEDULE

DOMESTIC HOT WATER SUPPLY COPPER PIPING = 1" THICK INSULATION

EQUIPMENT AND CONDENSATE DRAINS SHALL BE TYPE M HARD DRAWN COPPER TUBING WITH WROUGHT COPPER FITTINGS. COPPER TUBING SHALL BE SOLDERED WITH 95–5 TIN–ANTIMONY SOLDER OR BRAZED WITH SILVER BASED FILLER MATERIAL.

SOIL, WASTE, AND VENT PIPING INSTALLED ABOVE GRADE SHALL BE NO–HUB, CAST IRON. INSTALLATION SHALL BE IN ACCORDANCE WITH THE JURISDICTIONAL PLUMBING CODE AND MANUFACTURER'S RECOMMENDATIONS. SOIL, WASTE AND STORM DRAIN PIPING 2–1/2" AND SMALLER SHALL BE SLOPED 1/4" PER FOOT UNLESS NOTED OTHERWISE ON DRAWINGS. SOIL, WASTE AND STORM DRAIN PIPING 3" AND LARGER SHALL BE SLOPED 1/8" PER FOOT UNLESS NOTED OTHERWISE ON DRAWINGS.

PIPE HANGERS FOR INSULATED PIPE SIZES 1/2" TO 1–1/2" SHALL BE ADJUSTABLE, STEEL, BAND TYPE. PIPE HANGERS FOR INSULATED PIPE SIZES 2" AND OVER SHALL BE ADJUSTABLE, STEEL CLEVIS TYPE. SHIELDS SHALL BE USED WHERE HANGER SUPPORTS INSULATED PIPE. SHIELDS SHALL BE 18 GAGE GALVANIZED STEEL OVER INSULATION 180 DEGREES AND A MINIMUM OF 12 INCHES LONG. PIPE HANGERS FOR BARE PIPE SHALL BE ADJUSTABLE, MALLEABLE STEEL, SPLIT RING TYPE. BARE COPPER PIPE SHALL BE PROTECTED FROM CORROSION BY TRISOLATOR OR SIMILAR PRODUCT. HANGERS SHALL BE PROVIDED AT INTERVALS IN ACCORDANCE WITH THE JURISDICTIONAL PLUMBING CODE. PIPING SHALL BE PROVIDED WITH SEISMIC RESTRAINTS IN ACCORDANCE WITH THE SMACNA SEISMIC RESTRAINT MANUAL – GUIDELINES FOR MECHANICAL SYSTEMS.

PENETRATIONS OF FIRE RATED WALLS OR FLOORS BY PIPE SHALL BE SEALED BY A FIRESTOPPING SYSTEM UL LISTED FOR THE APPLICATION. PENETRATION SEAL MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH PRINTED INSTRUCTIONS OF THE UL FIRE RESISTANCE DIRECTORY AND MANUFACTURERS INSTRUCTIONS. FIRESTOPPING SYSTEM SHALL BE EQUAL TO 3M FIRE BARRIER. FIRESTOPPING MATERIAL SHALL BE CAULK OR PUTTY TYPE.

CHROME PLATED ESCUTCHEONS SHALL BE PROVIDED AT PIPE SLEEVES FOR EXPOSED BARE PIPE.

FIRE PROTECTION SPECIFICATIONS

WORK SHALL COMPLY WITH LOCAL CODES AND ORDINANCES AND NATIONAL FIRE PROTECTION ASSOCIATION (HEREAFTER NFPA) STANDARD 13 – STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS. MATERIALS AND EQUIPMENT SHALL BE NEW AND GUARANTEED FOR ONE YEAR FROM THE DATE OF ACCEPTANCE. MATERIALS AND EQUIPMENT SHALL BE MEET THE REQUIREMENTS OF THE SPECIFICATION. THE FIRE PROTECTION CONTRACTOR SHALL MODIFY THE EXISTING SYSTEM TO PROVIDE A COMPLETE FIRE PROTECTION SYSTEM OF TYPE, PRESSURE,

FIRE SPRINKLER PIPING ABOVE GRADE SHALL BE SCHEDULE 40 BLACK STEEL WITH APPROVED MALLEABLE IRON THREADED FITTINGS. WHERE APPROVED BY AUTHORITIES HAVING JURISDICTION THIN–WALLED STEEL PIPE MEETING THE REQUIREMENTS SET FORTH IN NFPA 13 MAY BE USED. WHERE APPROVED BY AUTHORITIES HAVING JURISDICTION WELDED FITTINGS OF THE SAME CLASS AS THE PIPE OR GROOVE JOINT COUPLINGS AND FITTINGS MAY BE USED AS DIRECTED BY THE MANUFACTURER FOR FIRE SPRINKLER SERVICE. PIPE HANGERS SHALL CONFORM TO NFPA 13.

SPRINKLERS IN EXPOSED AREAS SHALL BE STANDARD UPRIGHT TYPE WITH GUARD. SPRINKLERS IN AREAS WITH SUSPENDED CEILING SHALL BE FULLY–RECESSED PENDANT TYPE WITH MATCHING COVER PLATE (WHITE FINISH) MATCHING EXISTING BUILDING STANDARD. FUSIBLE LINKS SHALL BE FUSIBLE–SOLDER LINK TYPE TEMPERATURE RATED FOR SPECIFIC AREA HAZARD.

ENGINEERING DRAWINGS AND HYDRAULIC CALCULATIONS, APPROVED BY AUTHORITIES HAVING JURISDICTION SHALL BE PREPARED AND SUBMITTED TO THE ARCHITECT. REVIEW AND APPROVAL BY AUTHORITIES HAVING JURISDICTION SHALL BE COMPLETED PRIOR TO SUBMITTING TO THE ARCHITECT. DESIGN SHALL BE BASED ON OCCUPANCY HAZARD CLASSIFICATION VERIFIED AND CONFIRMED WITH AUTHORITIES HAVING JURISDICTION AND THE OWNERS INSURANCE CARRIER.

WORK SHALL BE COORDINATED WITH THE WORK OF OTHER TRADES. MAINS AND BRANCHES SHALL BE ROUTED TO AVOID INTERFERENCES WITH DUCTWORK, PLUMBING, ELECTRICAL CONDUITS AND STRUCTURAL MEMBERS. THE INSTALLED WORK OF OTHER TRADES SHALL BE INSPECTED PRIOR TO THE WORK OF THIS SECTION. CONDITIONS SHALL BE VERIFIED WHICH WILL ALLOW A FIRE SPRINKLER SYSTEM INSTALLATION TO BE MADE COMPLYING WITH THE REFERENCED STANDARDS AND REGULATIONS AND AUTHORITIES HAVING JURISDICTION. THE ARCHITECT SHALL BE NOTIFIED IN THE EVENT OF A DISCREPANCY. THE INSTALLATION SHALL NOT PROCEED IN THE AREAS OF DISCREPANCY UNTIL SUCH DISCREPANCIES HAVE BEEN FULLY RESOLVED.

CUTTING OF EXISTING OR COMPLETED CONSTRUCTION SHALL BE APPROVED BY THE ARCHITECT PRIOR TO SUCH CUTTING. STRUCTURAL MEMBERS SHALL NOT BE CUT EXCEPT UNDER THE SPECIFIC INSTRUCTION AND SUPERVISION OF THE ARCHITECT. SLEEVES, CAPS, PLATES, ESCUTCHEONS, FLASHING, ETC. SHALL BE PROVIDED TO CLOSE OPENINGS MADE FOR THE SPRINKLER SYSTEM.

SPRINKLER SYSTEMS SHALL BE TESTED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF NFPA 13 AND ANY ADDITIONAL REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION. ALL TESTS AND INSPECTIONS REQUIRED BY THE REFERENCED STANDARDS AND REGULATIONS AND AUTHORITIES HAVING JURISDICTION SHALL BE PERFORMED AND SHALL BE WITNESSED AND APPROVED BY THE AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL BEAR THE COST OF ALL REQUIRED TESTING OF WORK, FURNISHING ALL LABOR, POWER AND EQUIPMENT.

PLUMBING LEGEND

ABBR	SYMBOL	DESCRIPTION
S OR W		EXISTING SOIL, WASTE OR SEWER BELOW GRADE OR FLOOR
S OR W		EXISTING SOIL, WASTE OR SEWER ABOVE GRADE OR FLOOR
V		VENT
CW		EXISTING COLD WATER
HW		EXISTING HOT WATER
S OR W		SOIL, WASTE OR SEWER BELOW GRADE OR FLOOR
S OR W		SOIL, WASTE OR SEWER ABOVE GRADE OR FLOOR
FCO/GCO		FLOOR OR GRADE CLEANOUT
CO		CLEANOUT
V		VENT
CW		COLD WATER
HW		HOT WATER
A	A	COMPRESSED AIR
V	V	DENTAL VACUUM
UNO		UNLESS NOTED OTHERWISE
AFF		ABOVE FINISHED FLOOR
E		EXISTING
D		DEMO
R		RELOCATED
		POINT OF CONNECTION NEW TO EXISTING
		ITEMS TO BE DEMOLISHED

PLUMBING SHEET INDEX

ISSUE	SHEET NO.	SHEET DESCRIPTION
	P0.0	PLUMBING SPECIFICATIONS, NOTES, LEGEND AND SCHEDULES
	P1.0	PLUMBING FLOORPLANS
09-09-14 CD		

PLUMBING GENERAL NOTES

1. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE STATE CODES, LOCAL CODES, AND OWNER'S STANDARDS INDICATED BY THE CONSTRUCTION DOCUMENTS.
2. PLUMBING DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS. TAKE ALL DIMENSIONS FROM ARCHITECTURAL DRAWINGS, CERTIFIED EQUIPMENT DRAWINGS AND FROM THE STRUCTURE ITSELF BEFORE FABRICATING ANY WORK, VERIFY ALL SPACE REQUIREMENTS COORDINATING WITH OTHER TRADES, AND INSTALL THE SYSTEMS IN THE SPACE PROVIDED WITHOUT EXTRA CHARGES TO THE OWNER.
3. CONTRACTOR SHALL COORDINATE WORK INDICATED WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION, STRUCTURAL, CIVIL, AND ARCHITECTURAL DIVISIONS. CONTRACTOR SHALL VERIFY SIZE & LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK, COORDINATE WITH OTHER TRADES AND MAKE FINAL CONNECTION. VERIFY FIT OF PLUMBING SYSTEMS PRIOR TO FABRICATION. COORDINATE ALL CHASE, SLEEVE, AND SLAB SAWCUT/COREDRILL REQUIREMENTS.
4. PROVIDE ALL EQUIPMENT SCHEDULED OR INDICATED ON THE DRAWINGS BUT NOT INCLUDED WITHIN THE SPECIFICATIONS INCLUDING ANY REQUIRED BUT NOT LISTED MISC ITEMS REQUIRED TO PROVIDE COMPLETE OPERATIONAL SYSTEMS AS INDICATED WHETHER SPECIFICALLY CALLED FOR OR NOT. INSTALLATION SHALL CONFORM TO MANUFACTURERS RECOMMENDATIONS AND APPLICABLE CODES. PROVIDE SUBMITTALS FOR ALL PROPOSED FIXTURES, EQUIPMENT AND MATERIALS TO BE UTILIZED. PROVIDE OPERATION AND MAINTENANCE MANUAL FOR ALL SYSTEMS AND EQUIPMENT AT END OF PROJECT.
5. ELECTRICAL CHARACTERISTICS OF PLUMBING EQUIPMENT SHALL BE VERIFIED WITH ELECTRICAL DRAWINGS AND ELECTRICAL CONTRACTOR PRIOR TO EQUIPMENT ORDER RELEASE. ADDITIONAL ELECTRICAL WORK RESULTING FROM EQUIPMENT SUBSTITUTION IS THE RESPONSIBILITY OF THIS CONTRACTOR.
6. ITEM DESIGNATIONS INDICATED HEREON ARE FOR PURPOSES OF THESE DOCUMENTS ONLY. CONTRACTOR SHALL VERIFY WITH OWNERS REPRESENTATIVE ACTUAL "TAGGING" INFORMATION TO BE PROVIDED FOR EACH ITEM OF MECHANICAL EQUIPMENT PRIOR TO NAMEPLATE ORDER RELEASE.
7. PROVIDE 18" X 18" MINIMUM ACCESS DOOR IN INACCESSIBLE CEILINGS AND WALLS FOR EQUIPMENT AND VALVES REQUIRING ACCESS OR ADJUSTMENT. COORDINATE LOCATIONS AND SUBMIT TO ARCHITECT FOR APPROVAL PRIOR TO BEGINNING WORK.
8. PROVIDE CLEANOUTS WHERE INDICATED ON DRAWINGS OR AS REQUIRED BY JURISDICTIONAL PLUMBING CODE.
9. CLEAN, TEST, AND SANITIZE ALL PLUMBING IN ACCORDANCE WITH REQUIREMENTS OF JURISDICTIONAL PLUMBING AND HEALTH CODES.
10. WHERE PIPES PASS THROUGH FIRE–RATED FLOOR OR WALLS, SEAL WITH MATERIALS EQUAL TO 3M FIRE BARRIER, MEETING TESTING PER ASTM–E–814 (UL 1479). USE CAULK OR PUTTY TYPE. ALL EXTERIOR WALL AND ROOF PENETRATIONS SHALL BE SEALED WATERPROOF.
11. AT THE COMPLETION OF THE WORK AND PRIOR TO FINAL ACCEPTANCE, ALL PARTS OF THE WORK INSTALLED UNDER THIS SPECIFICATION SHALL BE THOROUGHLY CLEANED.
12. ALL EQUIPMENT, MATERIALS, AND INSTALLATION IS TO BE WARRANTEED FOR ONE YEAR TO BE FREE FROM DEFECT. PROVIDE WRITTEN WARRANTY TO OWNER.
13. THE OWNER AND ENGINEER ARE NOT RESPONSIBLE FOR THE CONTRACTOR'S SAFETY PRECAUTIONS OR TO MEANS, METHODS, TECHNIQUES, CONSTRUCTION SEQUENCES, OR PROCEDURES REQUIRED TO PERFORM HIS WORK.
14. THIS CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND SIZES OF ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, ELECTRICAL CONDUIT, STRUCTURAL MEMBERS, ETC., PRIOR TO STARTING OF CONSTRUCTION. COORDINATE CONFLICTS WITH THE GENERAL CONTRACTOR.
15. THIS CONTRACTOR SHALL COORDINATE ALL REQUIRED EXISTING BUILDING SERVICE SYSTEM OUTAGES WITH BUILDING MANAGEMENT.
16. ALL PLUMBING SYSTEMS ARE REQUIRED TO BE INSTALLED PER BASE BUILDING REQUIREMENTS, LOCAL AND STATE JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
17. PATCH AND REPAIR TO MATCH EXISTING, ANY WALL/CEILINGS TO BE ACCESSED TO ROUTE PIPING.
18. EXISTING PLUMBING AND EQUIPMENT TO REMAIN IS SHOWN LIGHT. NEW PLUMBING AND EQUIPMENT IS SHOWN HEAVY. EXISTING PLUMBING AND EQUIPMENT TO BE REMOVED IS SHOWN WITH X OVER ITEM.
19. PROVIDE ADD ALTERNATE PRICE TO RECYCLE ALL CONSTRUCTION WASTE.

COLORADO REGISTERED BRIAN E. MALM 38163 PROFESSIONAL ENGINEER

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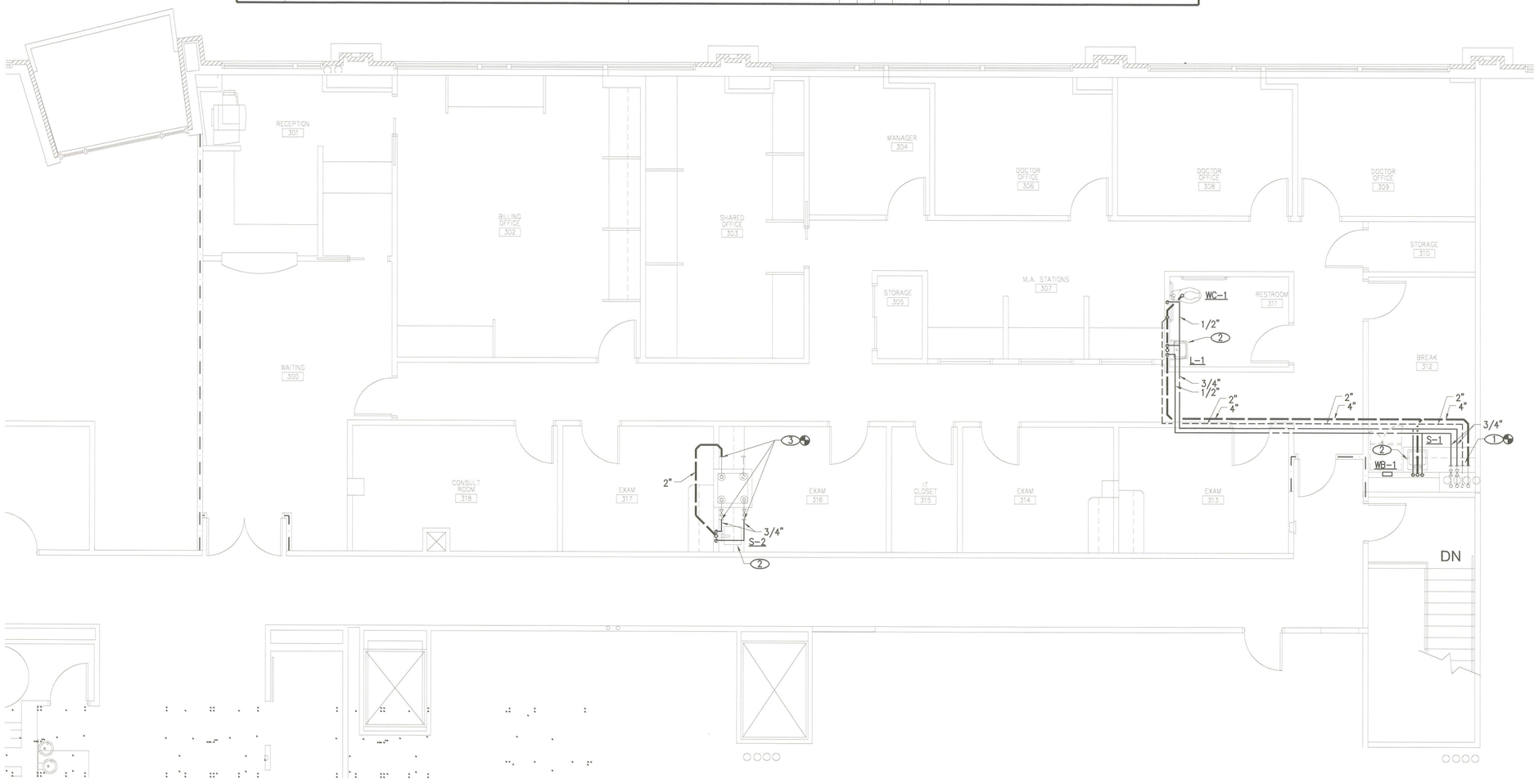
CAUTION: IF THIS SHEET IS NOT 30"x42" IT IS A REDUCED PRINT

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	MFR/MODEL	ROUGH-IN (INCHES)					NOTES
			HW	CW	V	TRAP	S/W	
WC-1	ADA FLOOR SET FLUSH TANK TYPE CLOSE COUPLED TOILET WITH LOW CONSUMPTION 1.6 GPF SIPHON JET FLUSHING ACTION, ELONGATED BOWL, BOLT DOWN LOCKING TANK LID, GLAZED TRAPWAY. PROVIDE CHROME PLATED 1/2" NOM. COMP. X 3/8" NOM. COMP. ANGLE STOP AND SEAMLESS CHROME PLATED COPPER TUBE WATER SUPPLY WITH CHROME PLATED (1) PIECE SET SCREW TYPE CHROME PLATED BRASS ESCUTCHEON AT WALL PENETRATION. PROVIDE OPEN FRONT WHITE SEAT LESS COVER WITH CHECK HINGE AND SOFT CLOSE MECHANISM. ALL TRIM TO BE CHROME PLATED COPPER OR BRASS.	TOILET = TOTO #CST744SLB OR EQUAL BY AMER. STD., KOHLER, CRANE SEAT = BEMIS #1955C OR EQUAL BY OLSONITE, BENEKE, CHURCH, CENTOCO	--	1/2	2	--	4	FLOOR MOUNTED WITH WAX OR NEOPRENE CLOSET RING. SET WITH PLASTER OF PARIS AND WHITE NON-HARDENING ADHESIVE SEALANT BETWEEN THE FLOOR AND THE FIXTURE BASE WITH "COVED" FINISHING. ADA WATER CLOSET TANKS ARE TO BE PROVIDED WITH LEFT OR RIGHT HAND TRIP LEVERS AS REQUIRED TO ALLOW FOR TRIP LEVERS ARE TO BE INSTALLED TO WIDE SIDE OF ADA TOILET STALL.
L-1	20"X18" VITREOUS CHINA WALL HUNG LAVATORY SINK WITH HOLE DRILLINGS TO MEET FAUCET SPECIFICATIONS. PROVIDE CHROME PLATED BRASS PERFORATED GRID DRAIN WITH ADA WHEELCHAIR OFFSET DRAIN, CHROME PLATED BRASS P-TRAP AND WASTE ARM, 1/2" NOM. COMP. X 3/8" NOM. COMP. CHROME PLATED ANGLE STOPS WITH WHEEL HANDLES, CHROME PLATED FLEXIBLE SEAMLESS COPPER TUBE SUPPLIES, (1) PIECE SET SCREW TYPE CHROME PLATED CAST BRASS ESCUTCHEONS AT WALL PENETRATIONS, AND WALL SUPPORT SYSTEM WITH CONCEALED ARM SUPPORTS, WELDED FEET, RECTANGULAR STEEL UPRIGHTS, AND MOUNTING FASTENERS. FAUCET TO BE OF CHROME PLATED CAST BRASS CONSTRUCTION WITH .5 GPM VANDAL RESISTANT AERATOR AND CERAMIC DISK CARTRIDGE TYPE VALVE. PROVIDE ASSE 1070 MIXING VALVE BELOW LAVATORY SET AT 105 DEG F DISCHARGE TEMP. ALL TRIM TO BE CHROME PLATED COPPER OR BRASS.	LAVATORY = ZURN #Z5341 OR EQUAL BY TOTO, KOHLER, CRANE , AMER STD FAUCET = ZURN #Z81000-3M OR EQUAL BY AMERICAN STANDARD, KOHLER, DELTA, SYMMONS, CHICAGO MIXING VALVE = LEONARD #170-LF OR EQUAL BY WATTS, SYMMONS, POWERS, WILKINS, ZURN DRAIN = DEARBORN BRASS #760W-1 OR EQUAL BY BRASSCRAFT, KOHLER, AMER. STD., DELTA, CHICAGO, T&S BRASS, PROFLO TRAP AND SUPPLY INSULATION = TRUEBRO #103 E-Z OR EQUAL BY BROCAR, PROFLO CARRIER = ZURN #Z1231 OR EQUAL BY JOSAM, J.R. SMITH, WADE, MIFAB	1/2	1/2	1 1/2	1 1/4	1 1/2	INSTALL MIXING VALVE ON WALL BELOW LAVATORY. CONNECT 3/8"HW AND 3/8"CW TO MIXING VALVE, EXTEND 3/8" TEMPERED WATER FROM MIXING VALVE TO FAUCET HOT WATER INLET.
S-1	ADA APPROVED 22" WIDE X 19" LONG X 6-1/2" DEEP SINGLE COMPARTMENT SELF RIMMING SINK CONSTRUCTED OF 18 GAUGE SOUND DAMPENED STAINLESS STEEL WITH HOLE DRILLINGS TO MEET FAUCET SPECIFICATIONS. PROVIDE CHROME PLATED BRASS P-TRAP AND WASTE ARM, 1/2" NOM. COMP. X 3/8" NOM. COMP. CHROME PLATED ANGLE STOPS WITH WHEEL HANDLES, CHROME PLATED FLEXIBLE SEAMLESS COPPER TUBE SUPPLIES, AND (1) PIECE SET SCREW TYPE CHROME PLATED CAST BRASS ESCUTCHEONS AT WALL PENETRATIONS. FAUCET TO BE OF CHROME PLATED CAST BRASS CONSTRUCTION WITH 2.2 GPM VANDAL RESISTANT AERATOR AND CERAMIC DISK CARTRIDGE TYPE VALVE. ALL TRIM TO BE CHROME PLATED COPPER OR BRASS. PROVIDE CONTINUOUS FEED RUBBER CUSHION MTD. DISPOSER, MOTOR WITH MANUAL RESET OVERLOAD PROTECTION, STAINLESS STEEL STOPPER AND IMPELLERS (SWIVEL TYPE).	SINK = ELKAY #LRAD-2219R OR EQUAL BY JUST, MOEN FAUCET = AMER. STD. #4101.301 OR EQUAL BY KOHLER, DELTA, SYMMONS, CHICAGO TRAP AND SUPPLY INSULATION = TRUEBRO #102-E-Z & #402W & #106 E-Z OR EQUAL BY BROCAR, PROFLO DISPOSAL = ISE BADGER 5 OR EQUAL BY WHIRLAWAY, WASTE KING, SINKGUARD	1/2	1/2	1 1/2	1 1/2	1 1/2	DISPOSAL ELECTRICAL LOAD = 115VAC, 60 HZ, 8.1 FLA, CONTROL FROM WALL SWITCH.
S-2	ADA APPROVED 15" WIDE X 15" LONG X 6" DEEP SINGLE COMPARTMENT SELF RIMMING SINK CONSTRUCTED OF 20 GAUGE SOUND DAMPENED STAINLESS STEEL WITH HOLE DRILLINGS TO MEET FAUCET SPECIFICATIONS. PROVIDE CHROME PLATED BRASS STRAINER, CHROME PLATED BRASS P-TRAP AND WASTE ARM, 1/2" NOM. COMP. X 3/8" NOM. COMP. CHROME PLATED ANGLE STOPS WITH WHEEL HANDLES, CHROME PLATED FLEXIBLE SEAMLESS COPPER TUBE SUPPLIES, AND (1) PIECE SET SCREW TYPE CHROME PLATED CAST BRASS ESCUTCHEONS AT WALL PENETRATIONS. FAUCET TO BE OF CHROME PLATED CAST BRASS CONSTRUCTION WITH 1.5 GPM AERATOR AND CERAMIC DISK CARTRIDGE TYPE VALVE. ALL TRIM TO BE CHROME PLATED COPPER OR BRASS.	SINK = JUST #SBL-1515-B-GR OR EQUAL BY ELKAY, MOEN, KINDRED, KOHLER FAUCET = AMER. STD. #2475F OR EQUAL BY KOHLER, DELTA, SYMMONS, CHICAGO STRAINER = JUST #J-15-FS OR EQUAL BY BRASSCRAFT, DEARBORN BRASS, KOHLER, AMER. STD., DELTA, CHICAGO, T&S BRASS, PROFLO TRAP AND SUPPLY INSULATION = TRUEBRO #102-E-Z & #402W OR EQUAL BY BROCAR, PROFLO	1/2	1/2	1 1/2	1 1/2	1 1/2	
WB-1	COLD ROLLED STEEL RECESSED WALL BOX WITH WHITE POWDER COAT FINISH, DOMESTIC WATER SUPPLY AND SHUT-OFF VALVE FOR COLD WATER SUPPLY.	WATER SUPPLY WALL BOX = GUY GRAY #T-200 OR EQUAL BY SPECIALTY PRODUCTS, SIOUX CHIEF	--	1/2	--	--	--	

NOTES

1. CONNECT NEW 3/4"HW, 3/4"CW, 2"V AND 4"W TO EXISTING SERVICES.
2. ROUGH-IN AND CONNECT 1/2"HW, 1/2"CW, AND 2"W TO SINK. PROVIDE 1-1/2" AAV ON TRAP ARM.
3. CONNECT NEW 3/4"HW, 3/4"CW AND 2"W TO EXISTING SERVICES.



N

PLUMBING FLOORPLAN

1/4"=1'-0"

1 / P1.0

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