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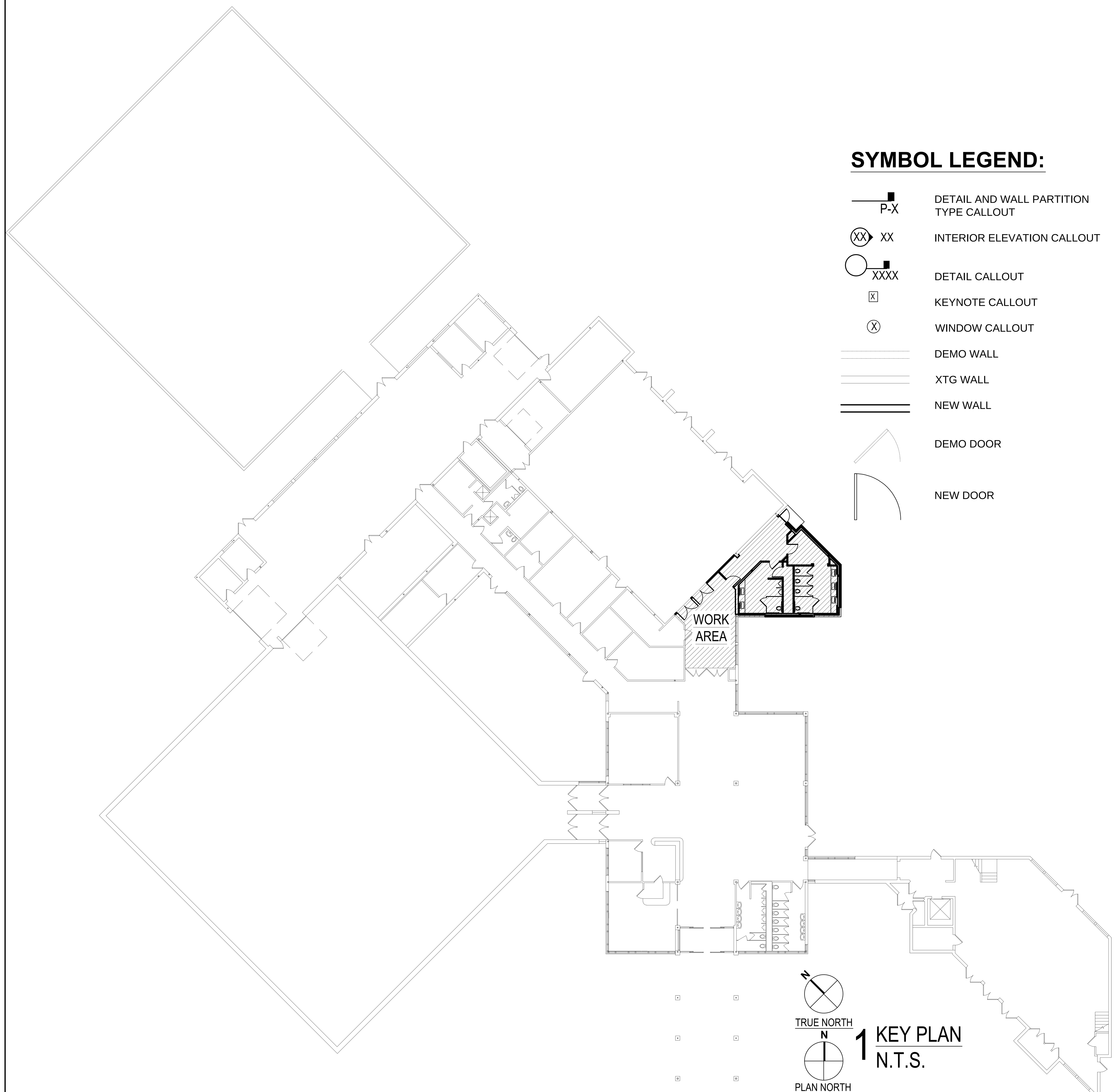
OLBRICH GARDENS

RESTROOM ADDITION

DECEMBER 12, 2012

3330 ATWOOD AVENUE

MADISON, WI



1 KEY PLAN
N.T.S.

SYMBOL LEGEND:

Symbol	Description
P-X	DETAIL AND WALL PARTITION TYPE CALLOUT
XX XX	INTERIOR ELEVATION CALLOUT
XXXX	DETAIL CALLOUT
X	KEYNOTE CALLOUT
X	WINDOW CALLOUT
	DEMO WALL
	XTG WALL
	NEW WALL
	DEMO DOOR
	NEW DOOR

DEFINITIONS:

AFF - ABOVE FINISHED FLOOR
ACT - ACOUSTICAL CEILING TILE
BLDG - BUILDING
CAB - CABINET
CLG - CEILING
COOR - COORDINATE
CPT - CARPET
CSWK - CASEWORK
DEMO - DEMOLITION
ELEV - ELEVATION
EW - EACH WAY
FD - FLOOR DRAIN
FEC - FIRE EXTINGUISHER CABINET
FLUOR - FLUORESCENT
FCIC - FURNISHIED BY CONTRACTOR INSTALLED BY CONTRACTOR
FOIC - FURNISHIED BY OWNER INSTALLED BY CONTRACTOR
FOIO - FURNISHIED BY OWNER INSTALLED BY OWNER
GC - GENERAL CONTRACTOR
GWB - GYPSUM WALL BOARD
HGT - HEIGHT
HM - HOLLOW METAL
MEP - MECHANICAL, ELECTRICAL, PLUMBING
MTL - METAL
NTS - NOT TO SCALE
PLAM - PLASTIC LAMINATE
PT - PAINT
REQ - REQUIRED
TYP - TYPICAL
WD - WOOD
XTG - EXISTING

GENERAL NOTES:

1. FIELD VERIFY ALL DIMENSIONS, CONSULT ARCHITECT W/ INCONSISTENCIES.
2. CONTRACTOR TO COMPLY WITH ALL APPLICABLE BUILDING CODES.
3. DIMENSIONS ARE FROM EDGE OF STUD TO EDGE OF STUD, EXISTING PARTITION DIMENSIONS ARE FROM GWB WALL FINISH TO EDGE OF NEW STUD.
4. CONTRACTOR TO PREP AND LEVEL ALL FLOORS FOR 1/8" TOLERANCE.

ELECTRICAL/DATA NOTES:

1. SCHEDULE PRELIMINARY WALK-THRU W/ OWNER & ARCHITECT PRIOR TO INSTALL.
2. CONTRACTOR TO COORDINATE SUBMITTAL OF ALL NECESSARY DRAWINGS AND CALCULATIONS FOR APPROVAL.
3. SEE REFLECTED CEILING PLAN FOR LAYOUT PURPOSES. ENGINEERING OF LIGHTING, SWITCHING AND CIRCUITS BY ELECTRICIAN.
4. ELECTRICIAN TO PROVIDE, LOCATE AND INSTALL EMERGENCY EGRESS LIGHTING AND EXIT SIGNS AS REQUIRED BY FIRE MARSHALL, VERIFY LOCATIONS W/ ARCHITECT PRIOR TO INSTALL.
5. COORDINATE POWER REQUIREMENTS WITH OWNER & ARCHITECT.
6. LIGHTING FIXTURES TO BE BUILDING STANDARDS, OR AS NOTED ON LIGHT FIXTURE SCHEDULE.

HVAC NOTES:

1. CONTRACTOR TO COORDINATE SUBMITTAL OF ALL NECESSARY DRAWINGS AND CALCULATIONS FOR APPROVAL.
2. HVAC CONTRACTOR TO MODIFY EXISTING CONDITIONS AS REQUIRED PER DRAWINGS AND BUILDING STANDARDS.

FIRE ALARM NOTES:

1. CONTRACTOR TO COORDINATE SUBMITTAL OF ALL NECESSARY DRAWINGS AND CALCULATIONS FOR APPROVAL.
2. VERIFY WALL LOCATIONS OF ALL STROBE AND HORN LOCATIONS W/ ARCHITECT PRIOR TO INSTALLATION.

PLUMBING NOTES:

1. CONTRACTOR TO COORDINATE SUBMITTAL OF ALL NECESSARY DRAWINGS AND CALCULATIONS FOR APPROVAL.
2. CONTRACTOR TO MODIFY EXISTING CONDITIONS AS REQUIRED PER DRAWINGS AND BUILDING STANDARDS.

CODE SUMMARY:

PROJECT DESCRIPTION: LEVEL-2 ALTERATION OF XTG CORRIDOR, & ADA TOILET ROOM ADDITION.

OCCUPANCY: A-3

CONSTRUCTION TYPE: IIB- UNSPRINKLERED

HEIGHT:
STORIES:1 FLOORS: 1

SQUARE FOOTAGES

BUILDING FOOTPRINT = 40,514 SF
ALTERATION AREA = 401 SF
ADDITION FOOTPRINT = 585 SF

SHEET INDEX:

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HEIN Engineering Group

OLBRICH GARDENS
RESTROOM ADDITION
3330 ATWOOD AVENUE
MADISON, WI

ISSUANCES:

CD'S	12.21.12
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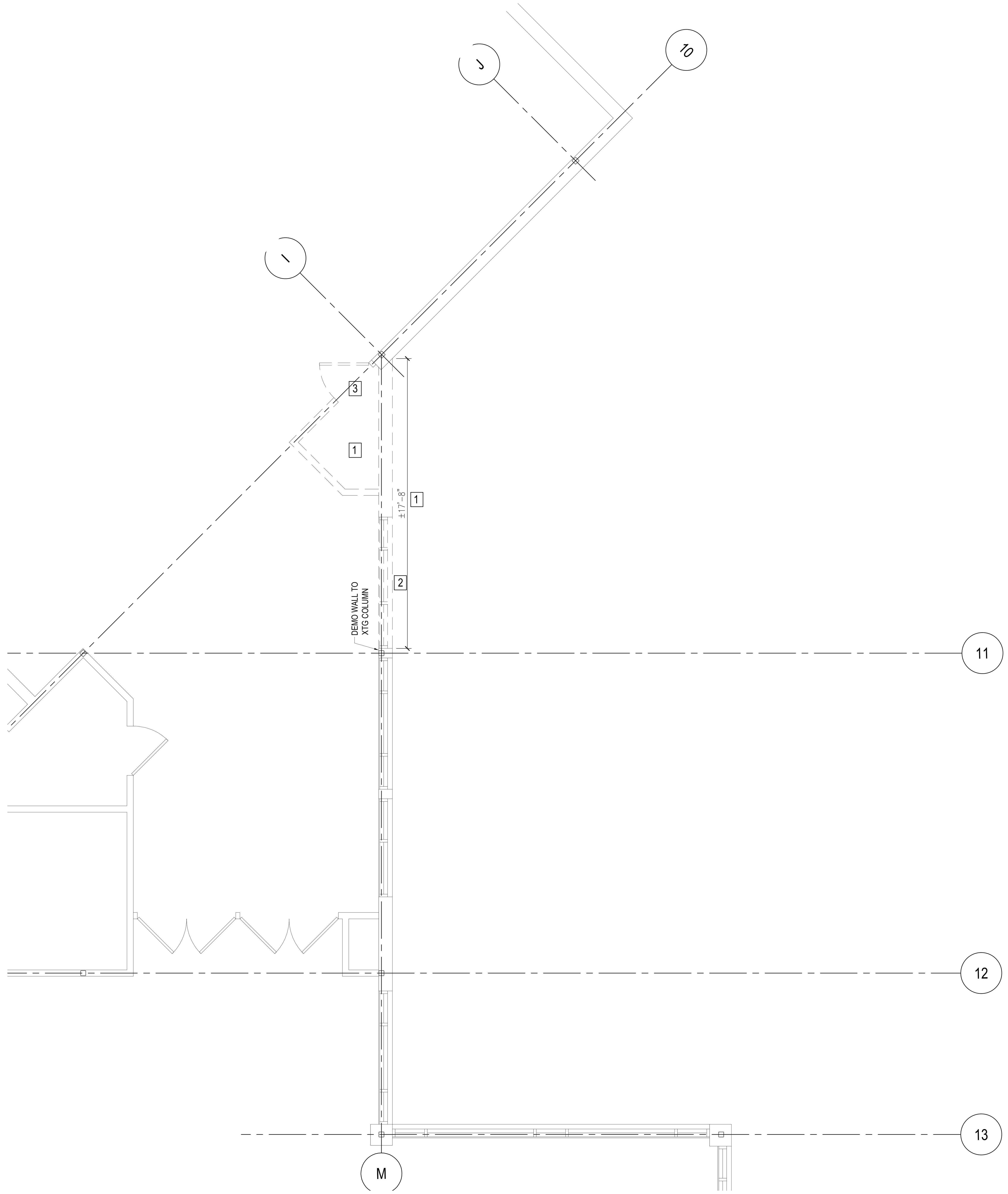
PROJECT:

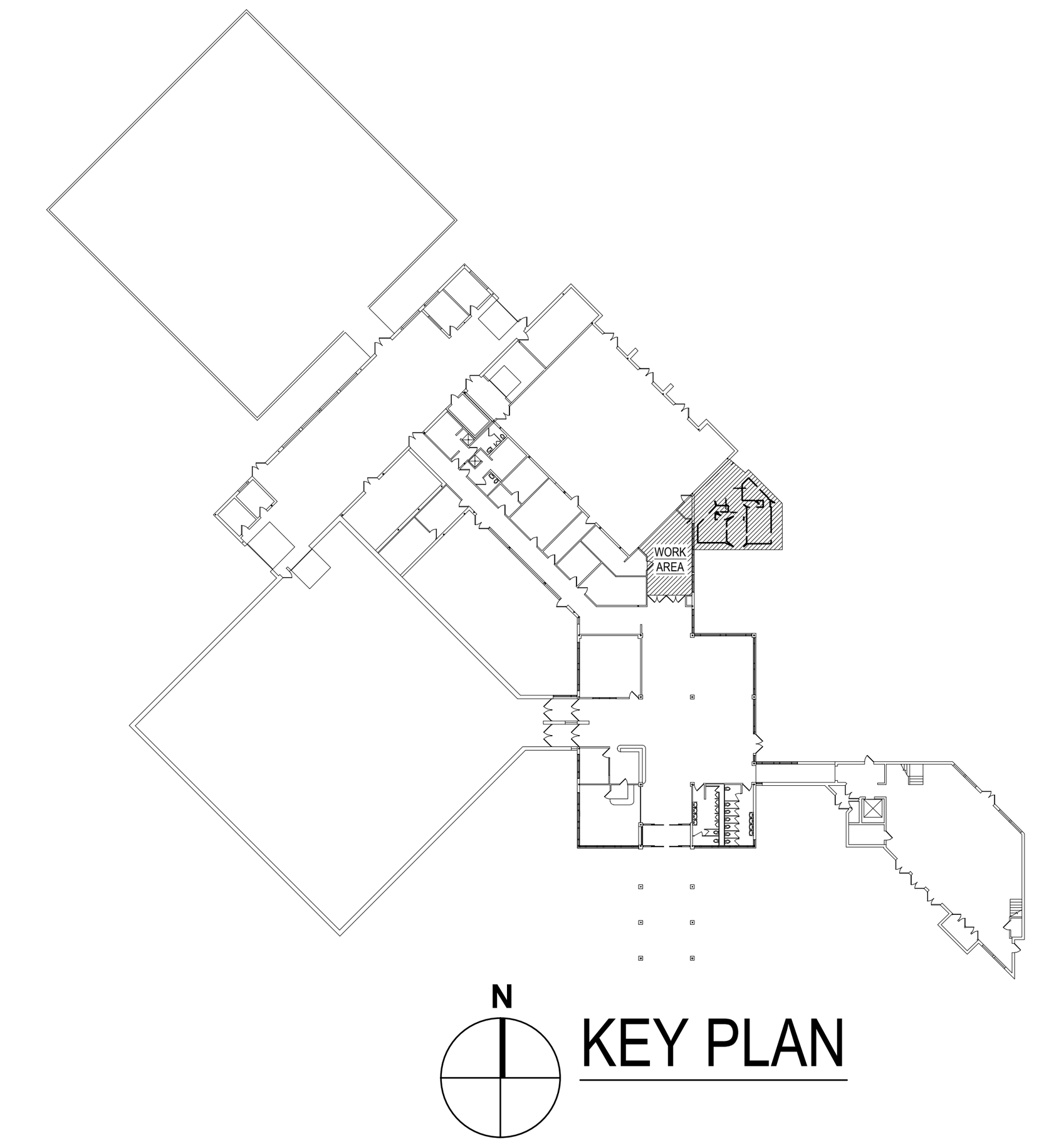
NUMBER:	120410.00
DATE:	12.21.12
REV:	----

SHEET:

T000



1 DEMO PLAN
1/4" = 1'-0"



KEY PLAN

GENERAL NOTES

1. DASHED LINES DENOTE DEMOLITION
2. COORDINATE SALVAGE OF ALL DEMO'D MATERIALS WITH OWNER.
3. SEE H101 FOR HVAC DEMO.
4. SEE E101 FOR ELECTRICAL DEMO.

KEYNOTES

1 DEMO WALL

2 REMOVE WINDOW TO BE RELOCATED.

3 DEMO DOOR

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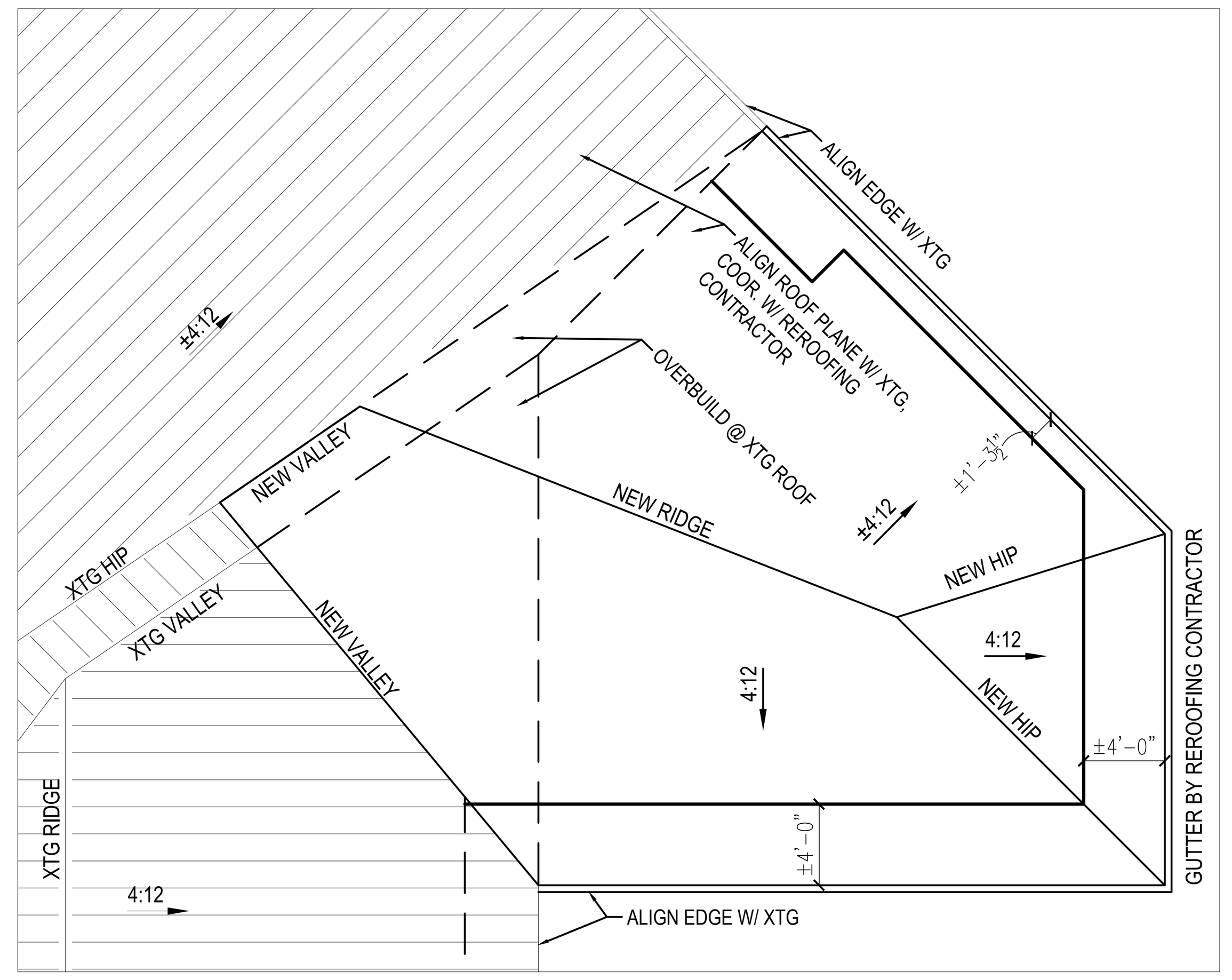
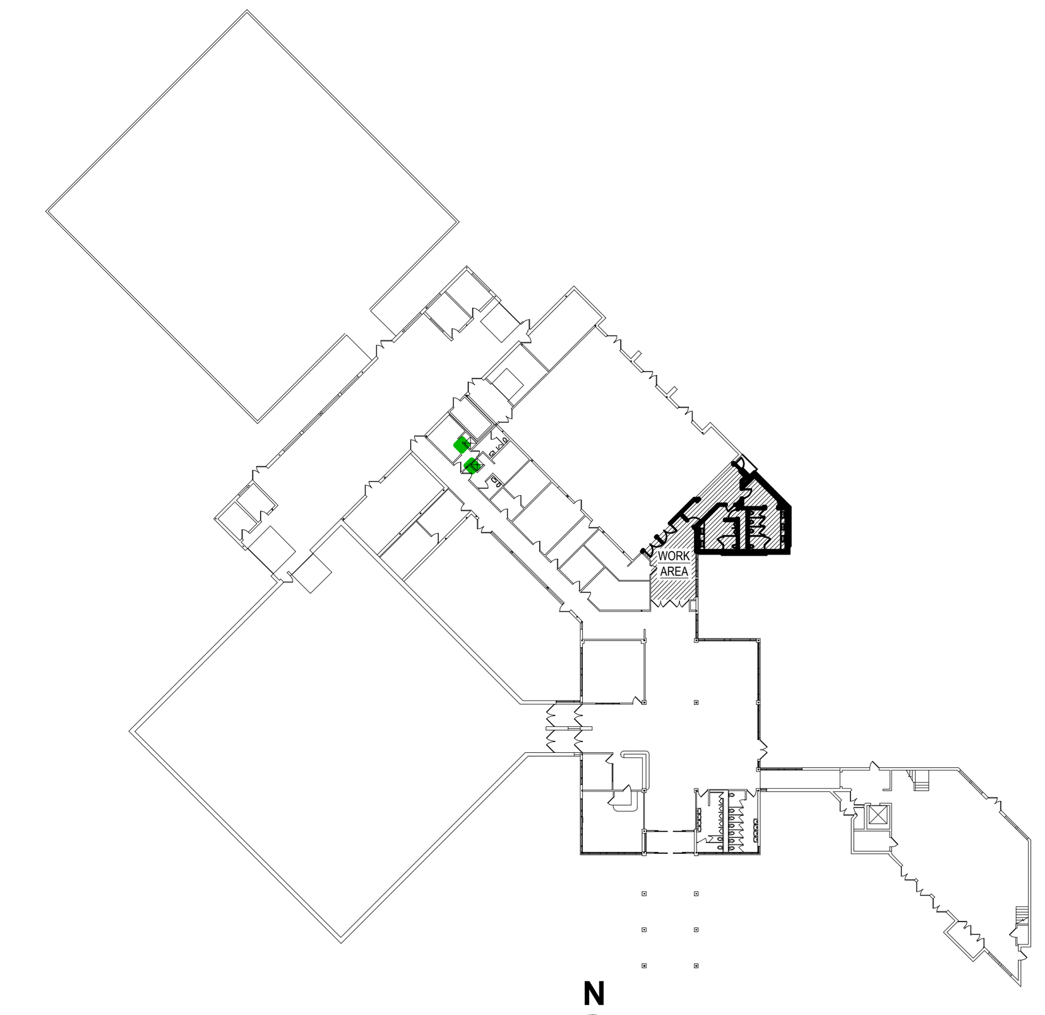
A000

GENERAL NOTES

1. ALL INTERIOR PARTITIONS TO BE TYPE P-1 UNLESS OTHERWISE NOTED.



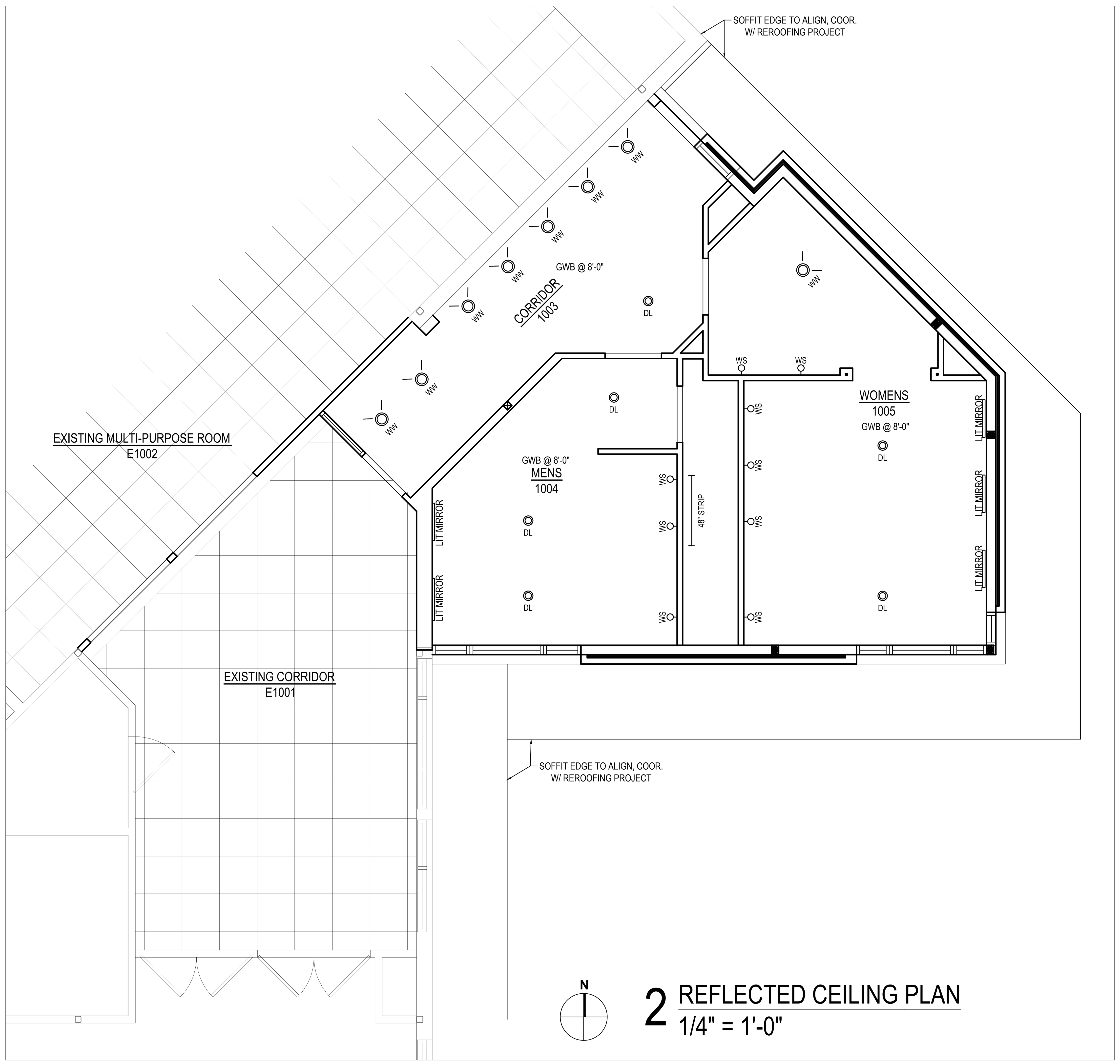
3 ROOF PLAN
1/8" = 1'-0"



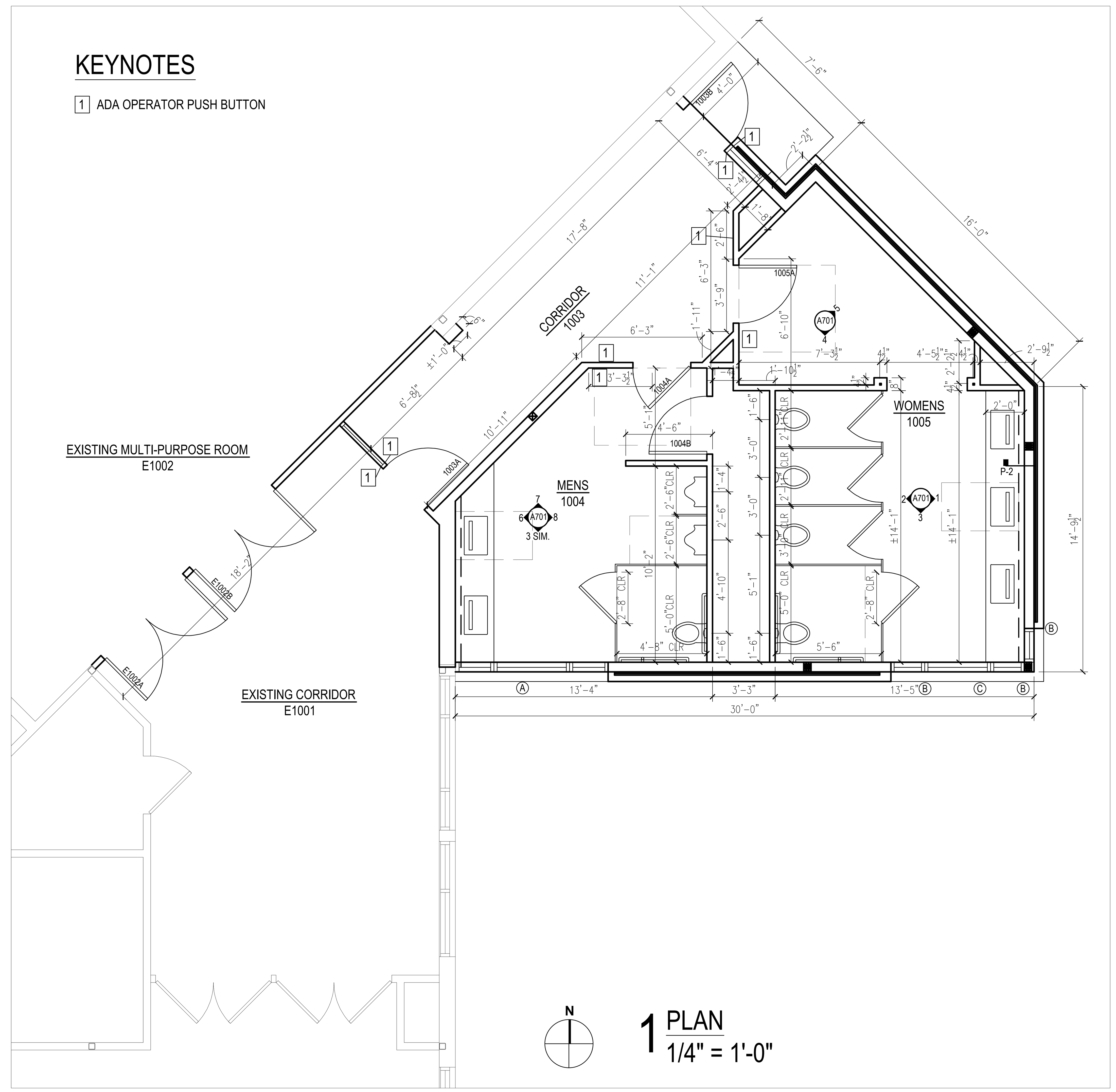
KEY PLAN

KEYNOTES

1 ADA OPERATOR PUSH BUTTON



2 REFLECTED CEILING PLAN
1/4" = 1'-0"



1 PLAN
1/4" = 1'-0"

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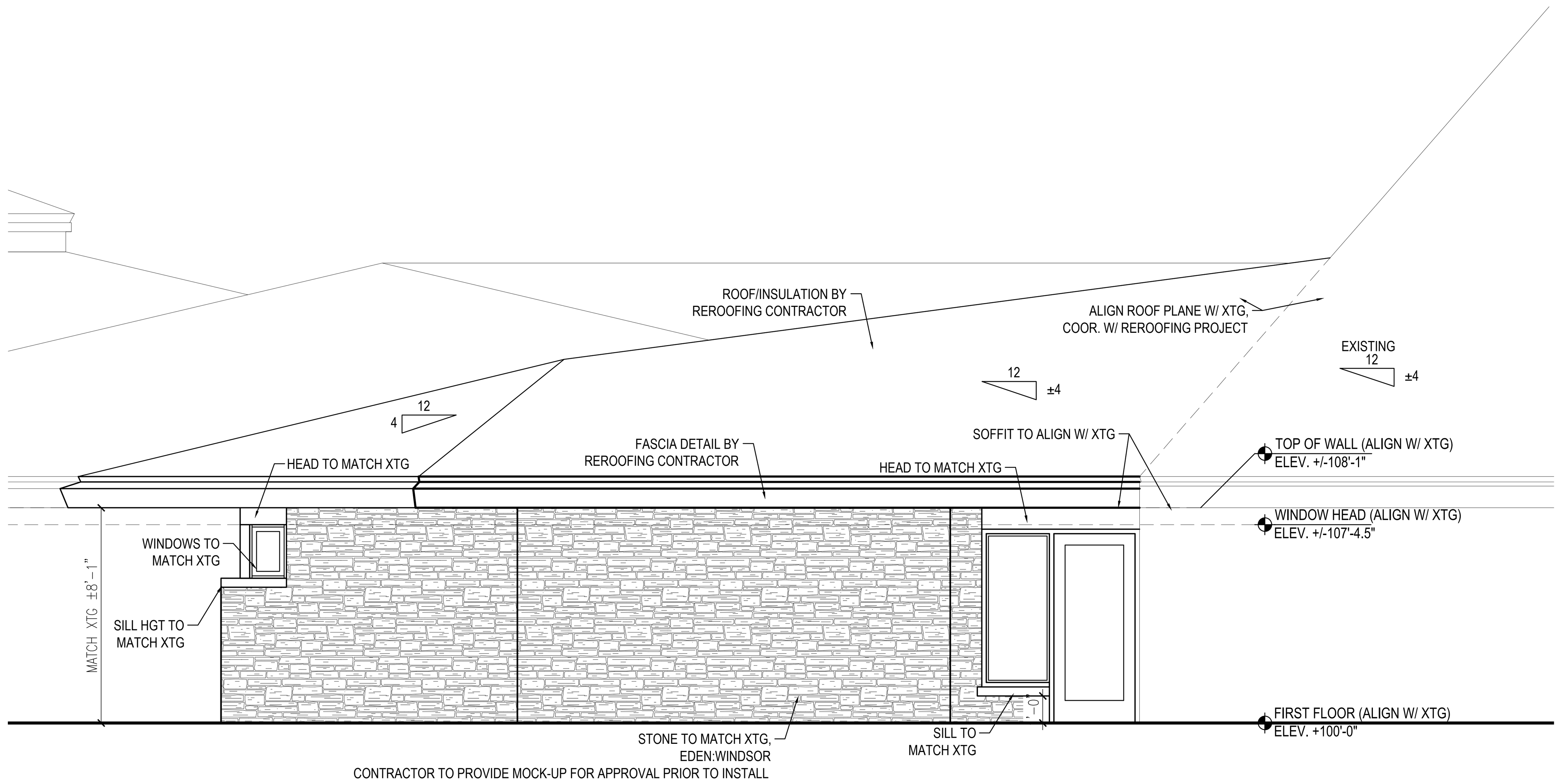
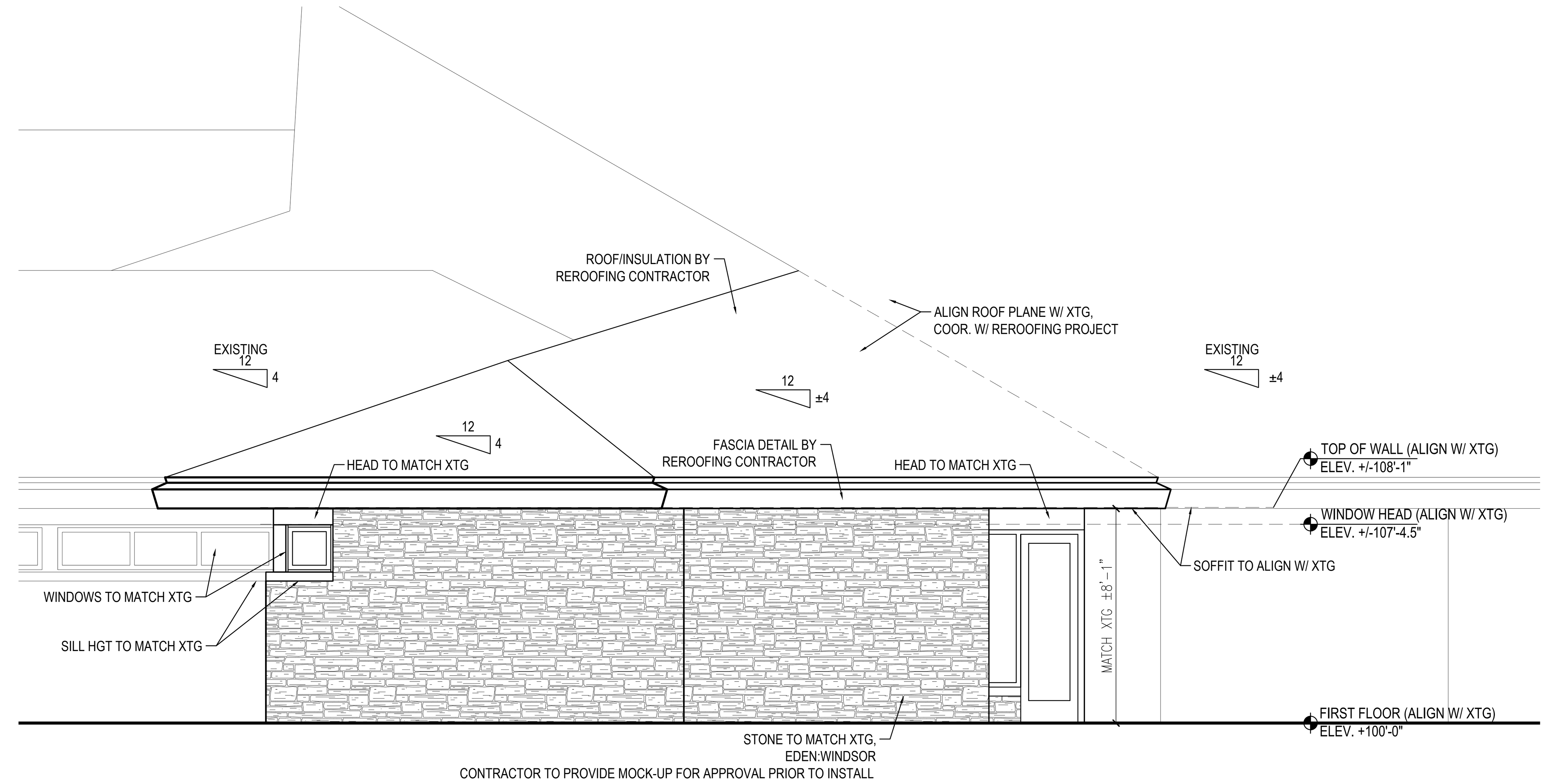
A100

GENERAL NOTES

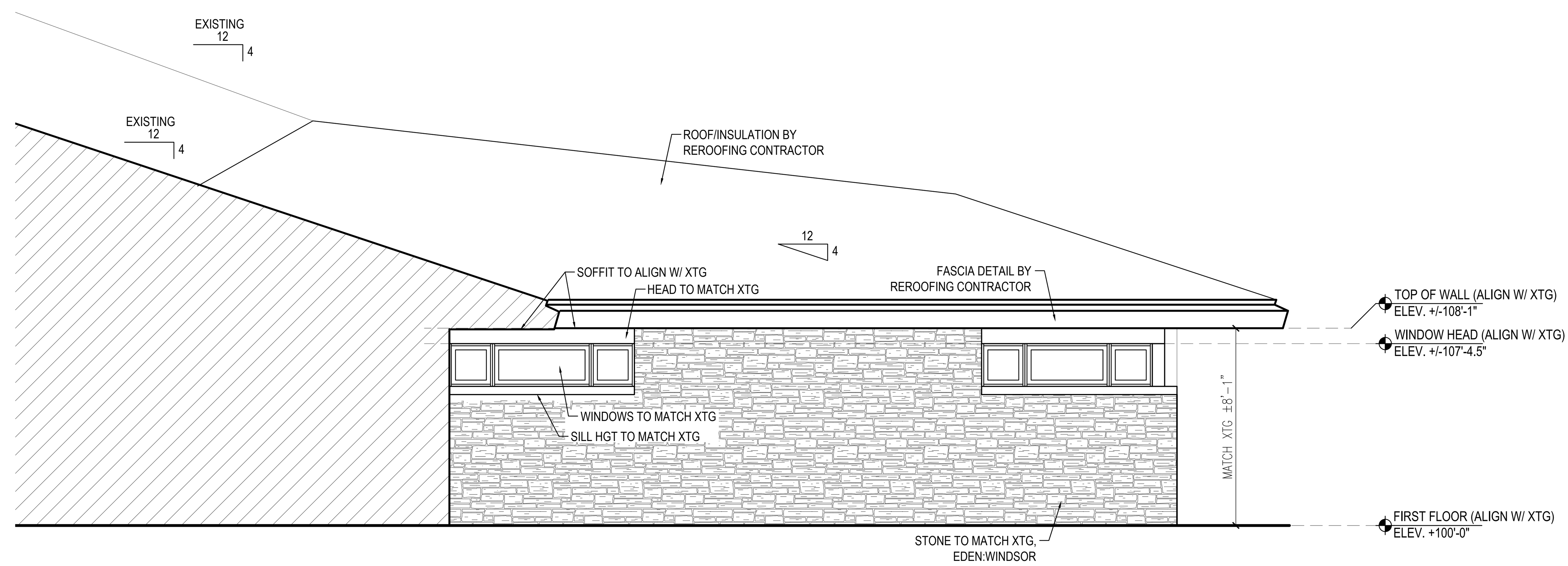
1. PATCH XTG MASONRY AS REQUIRED.
2. CONTRACTOR TO VERIFY ALL MASONRY EXPANSION JOINT LOCATIONS WITH ARCHITECT.
3. MATERIALS:
3.1. STONE: EDEN STONE INC. WINDSOR BLEND
4. ROOFING/ROOF INSULATION TO BE BY OWNER PROVIDED CONTRACTOR.
5. SEE SPECIFICATION MANUAL FOR ADDITIONAL INFORMATION.



3 NORTH ELEVATION
1/4" = 1'-0"



2 EAST ELEVATION
1/4" = 1'-0"



1 SOUTH ELEVATION
1/4" = 1'-0"

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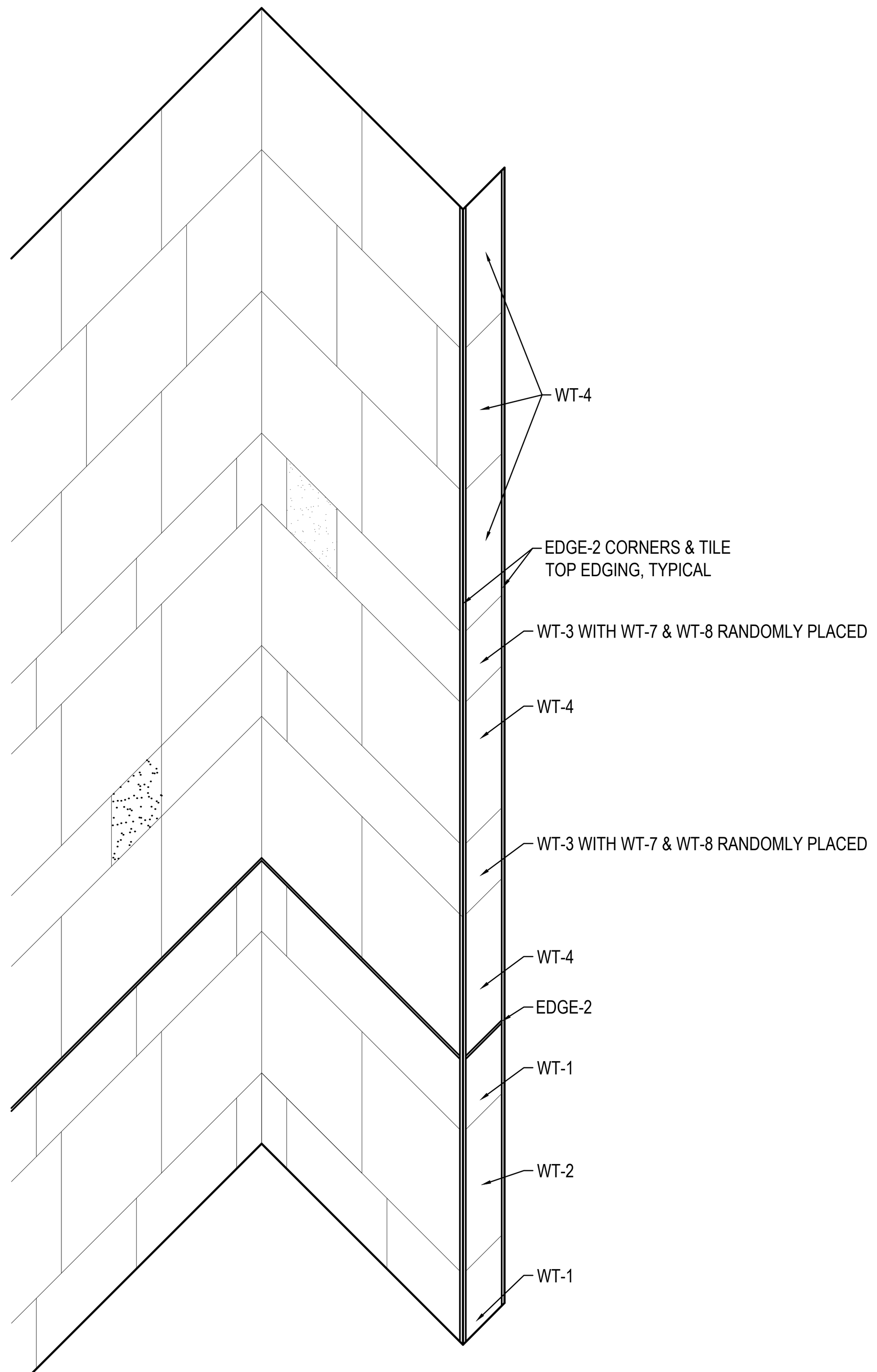
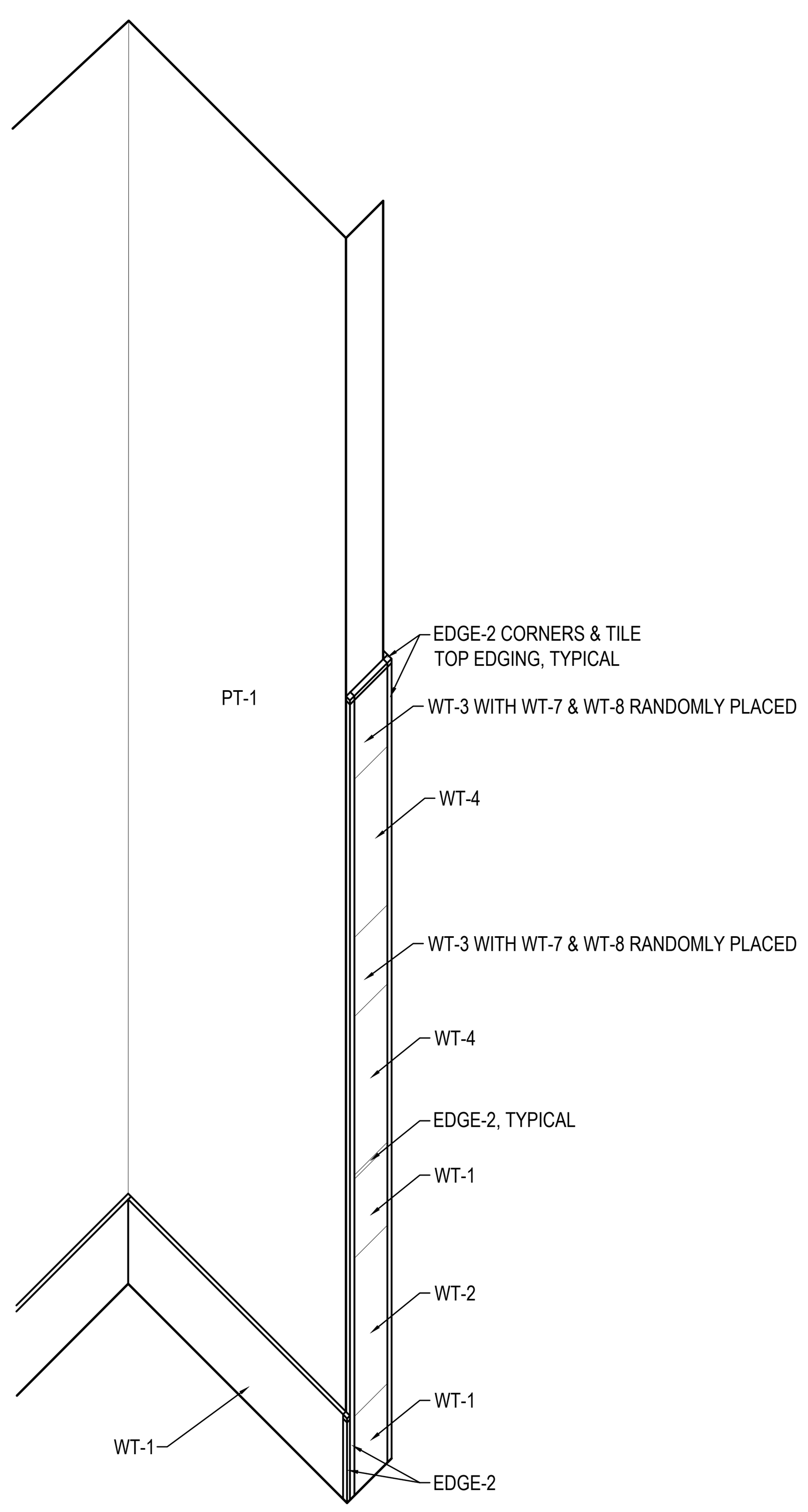
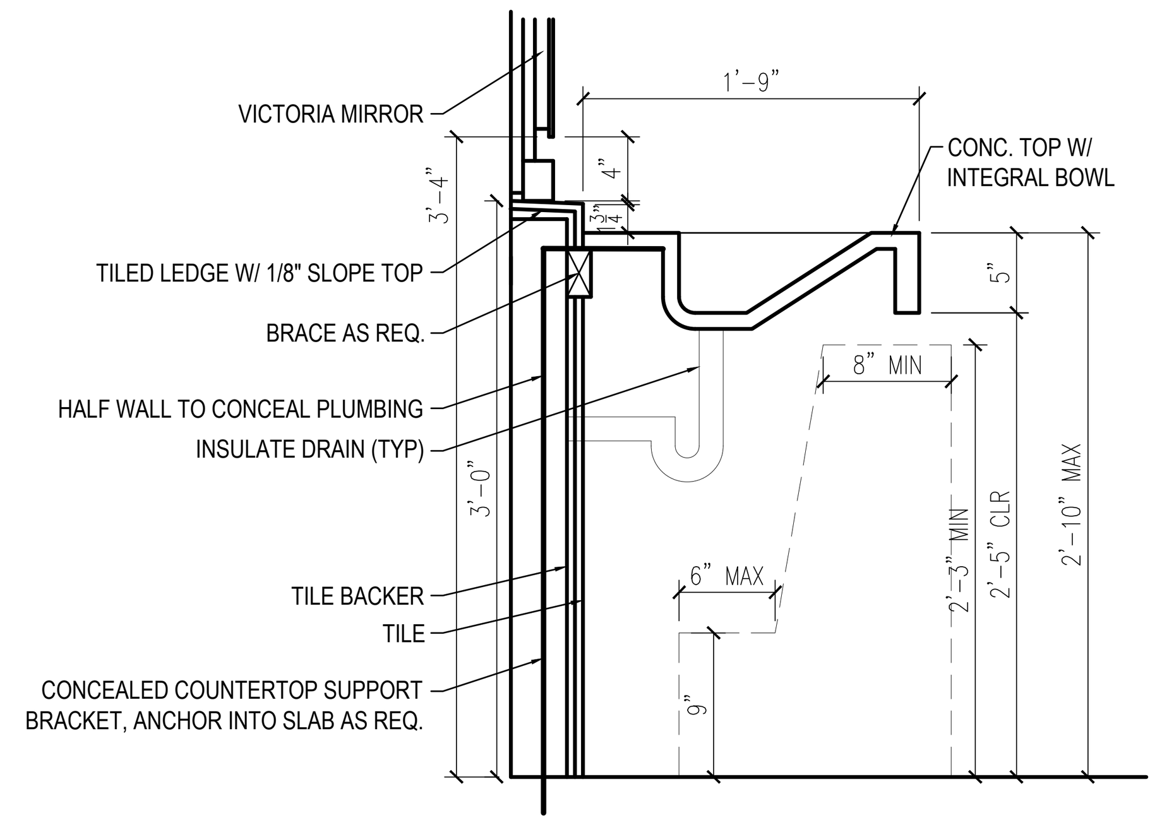


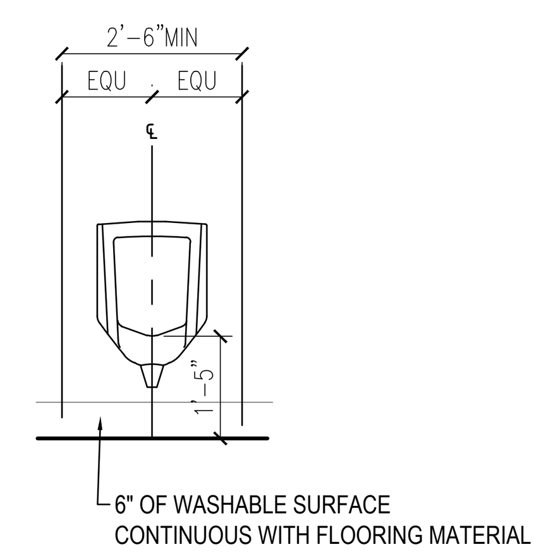
15 FULL HEIGHT TILE BANDING
1" = 1'-0"



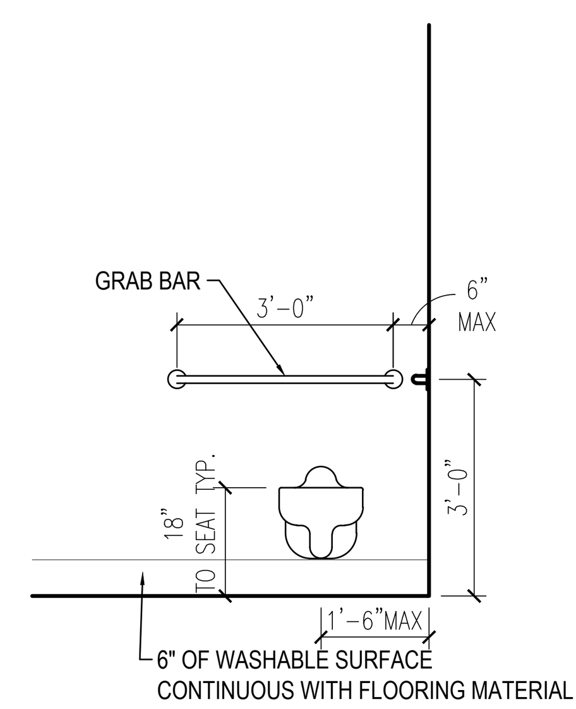
13 HALF HEIGHT TILE BANDING
1" = 1'-0"



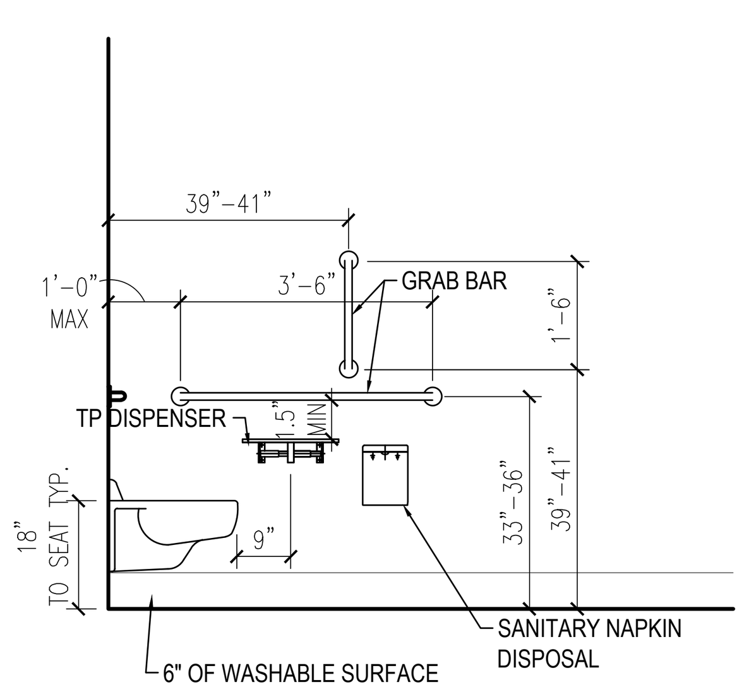
12 SECTION @ VANITY
1" = 1'-0"



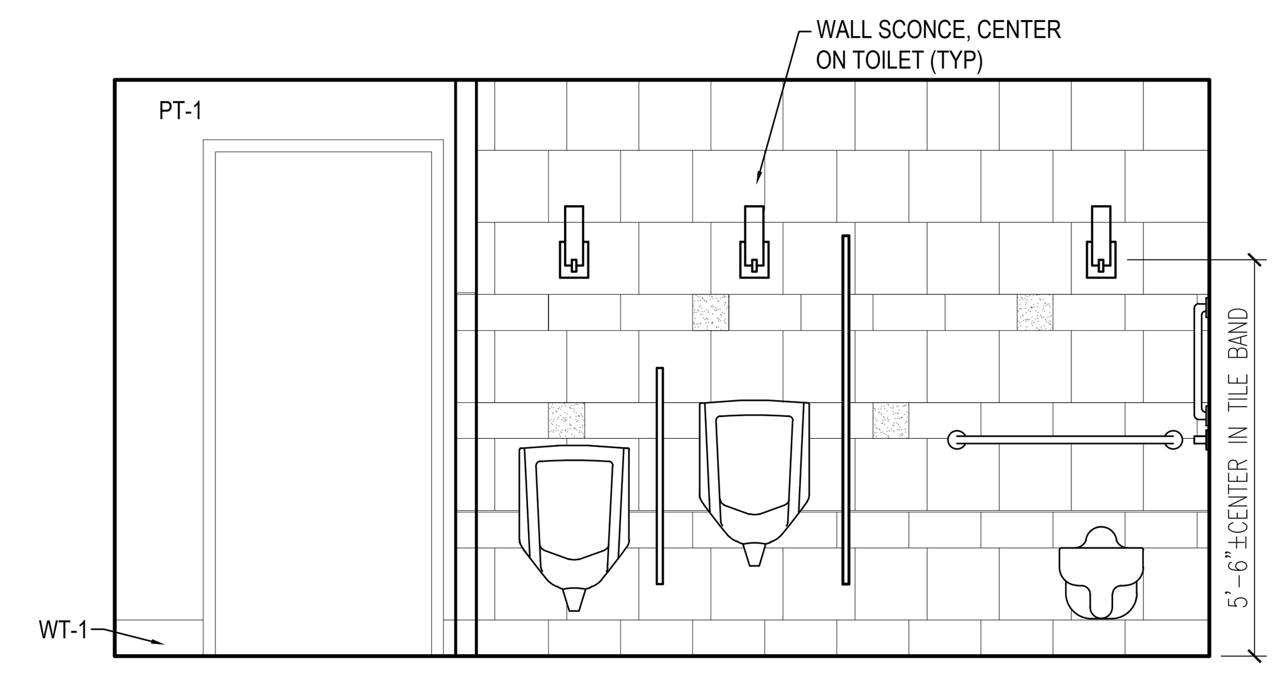
11 TYPICAL ADA ELEVATION
3/8" = 1'-0"



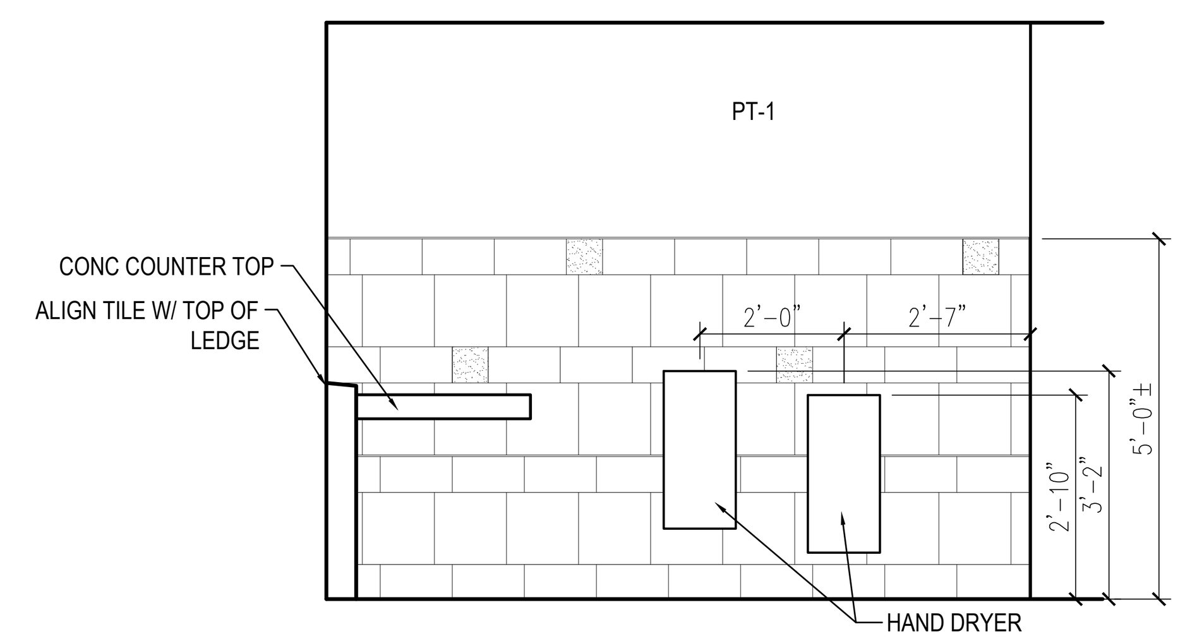
10 TYPICAL ADA ELEVATION
3/8" = 1'-0"



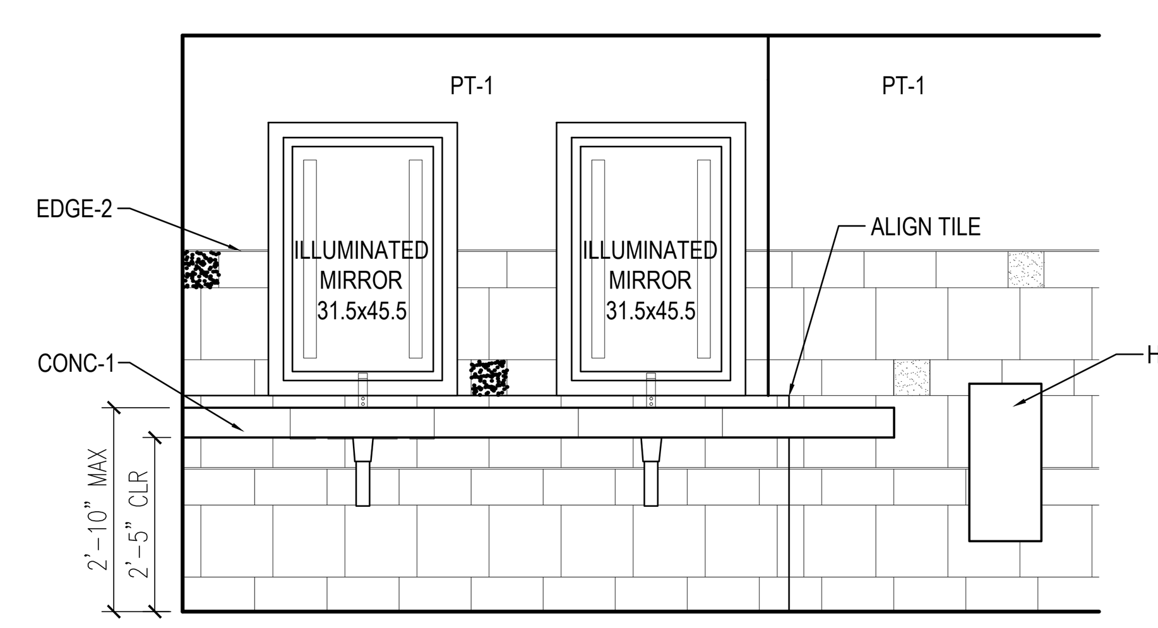
9 TYPICAL ADA ELEVATION
3/8" = 1'-0"



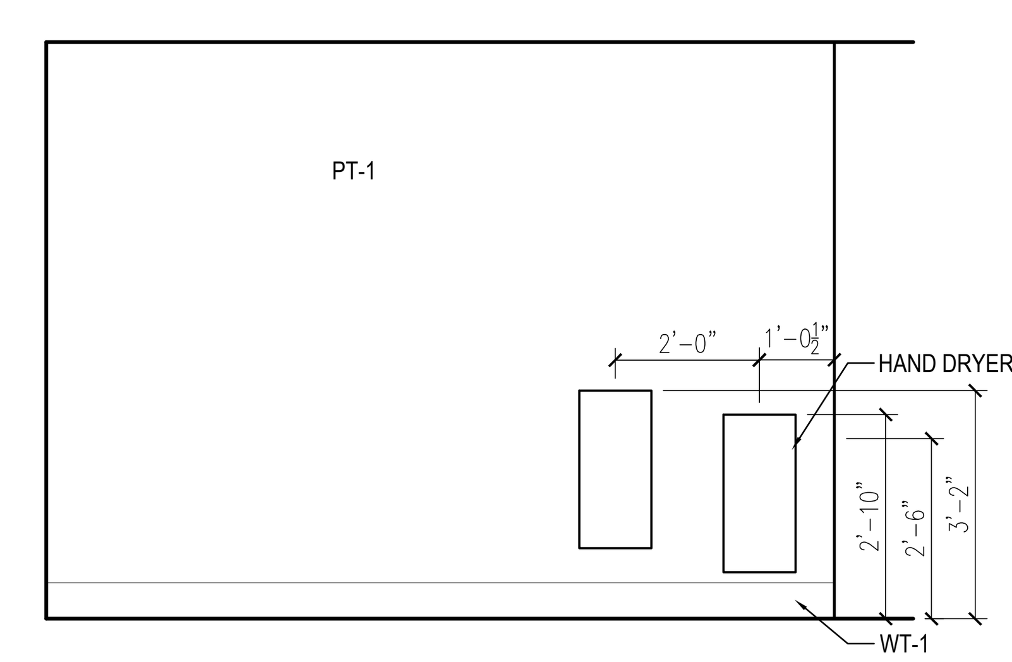
8 ELEVATION @ MEN'S TOILET ROOM
3/8" = 1'-0"



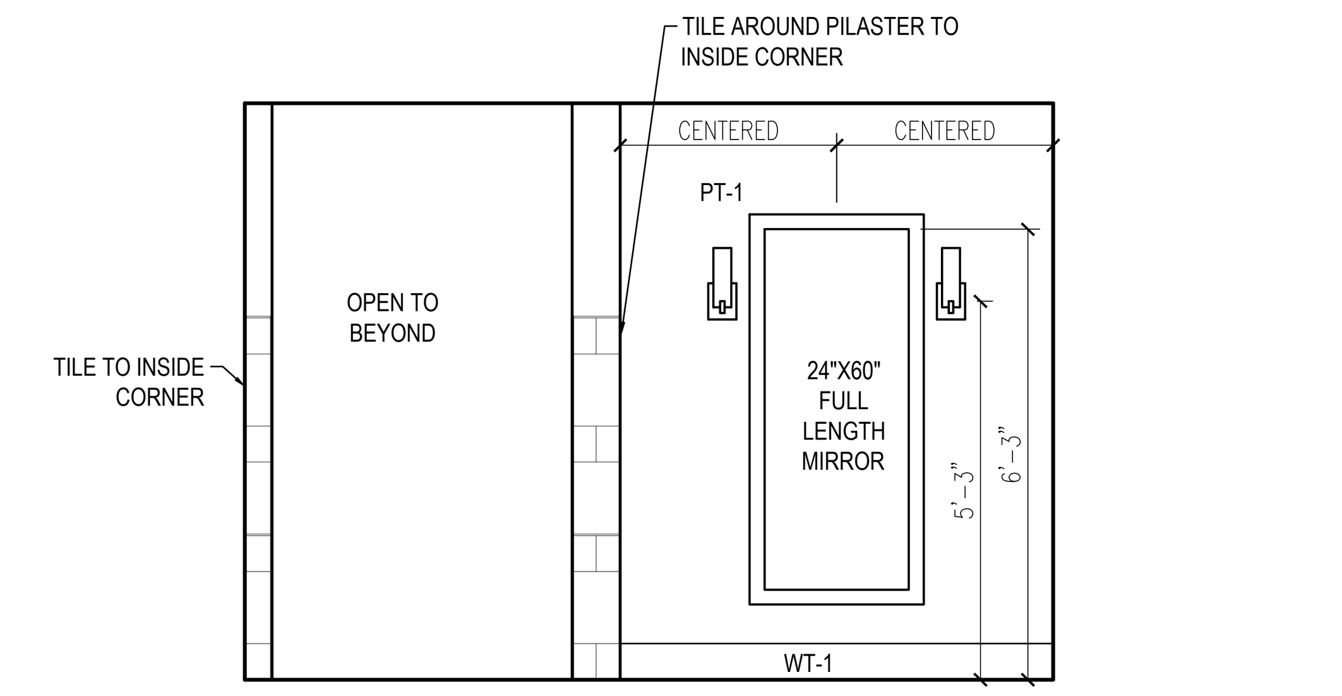
7 ELEVATION @ MEN'S TOILET ROOM
3/8" = 1'-0"



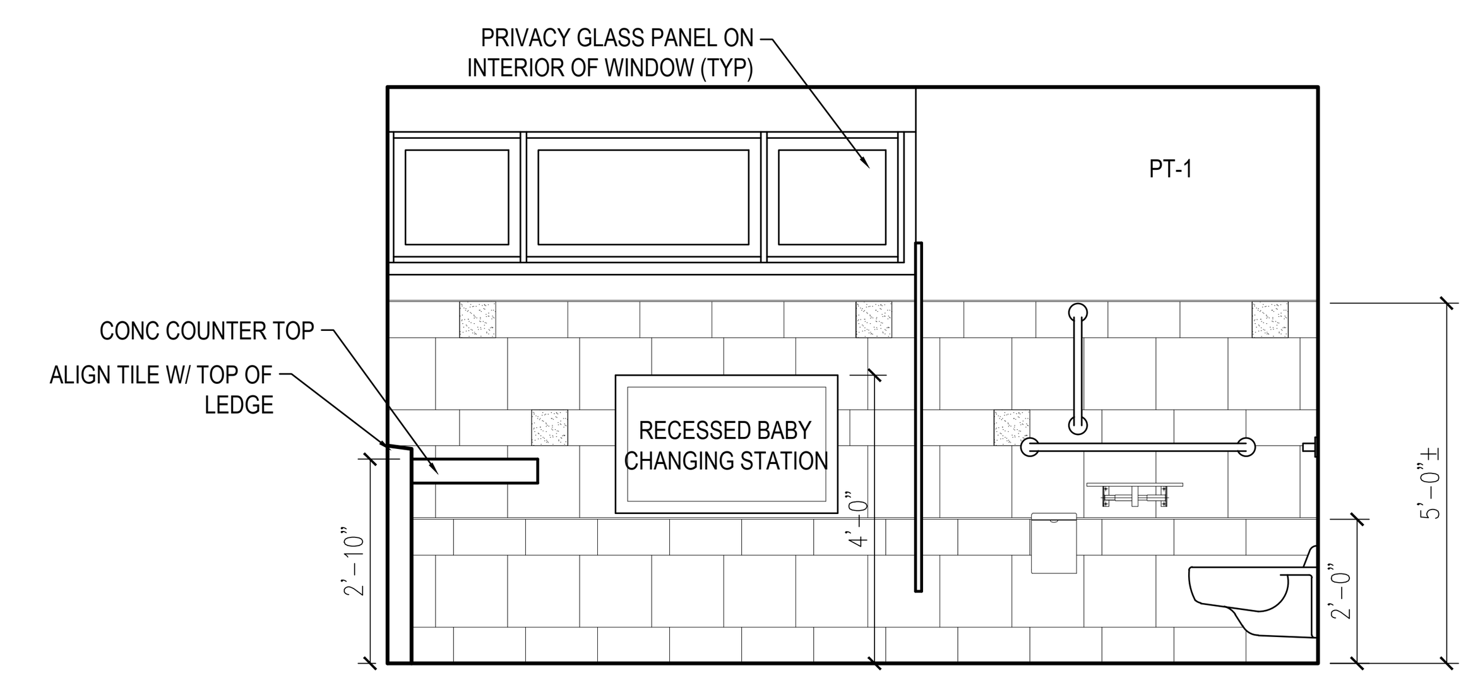
6 ELEVATION @ MEN'S TOILET ROOM
3/8" = 1'-0"



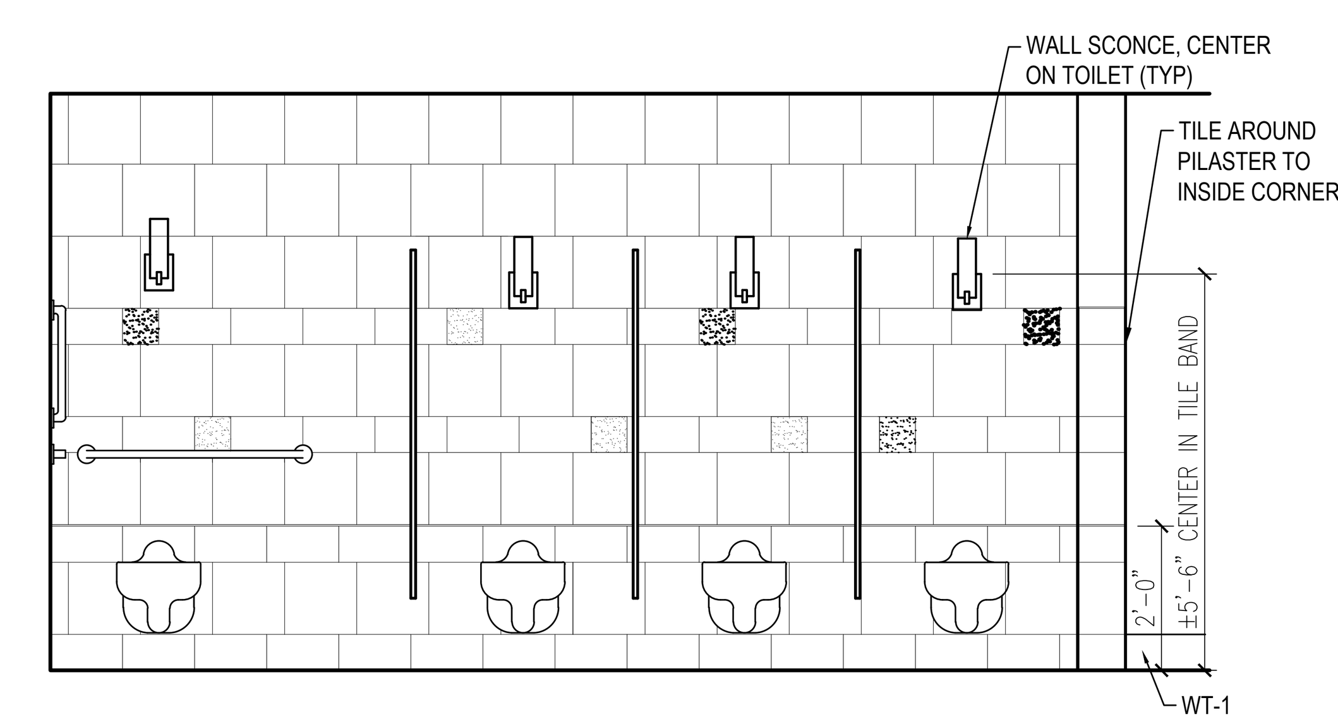
5 ELEVATION @ WOMEN'S TOILET ROOM
3/8" = 1'-0"



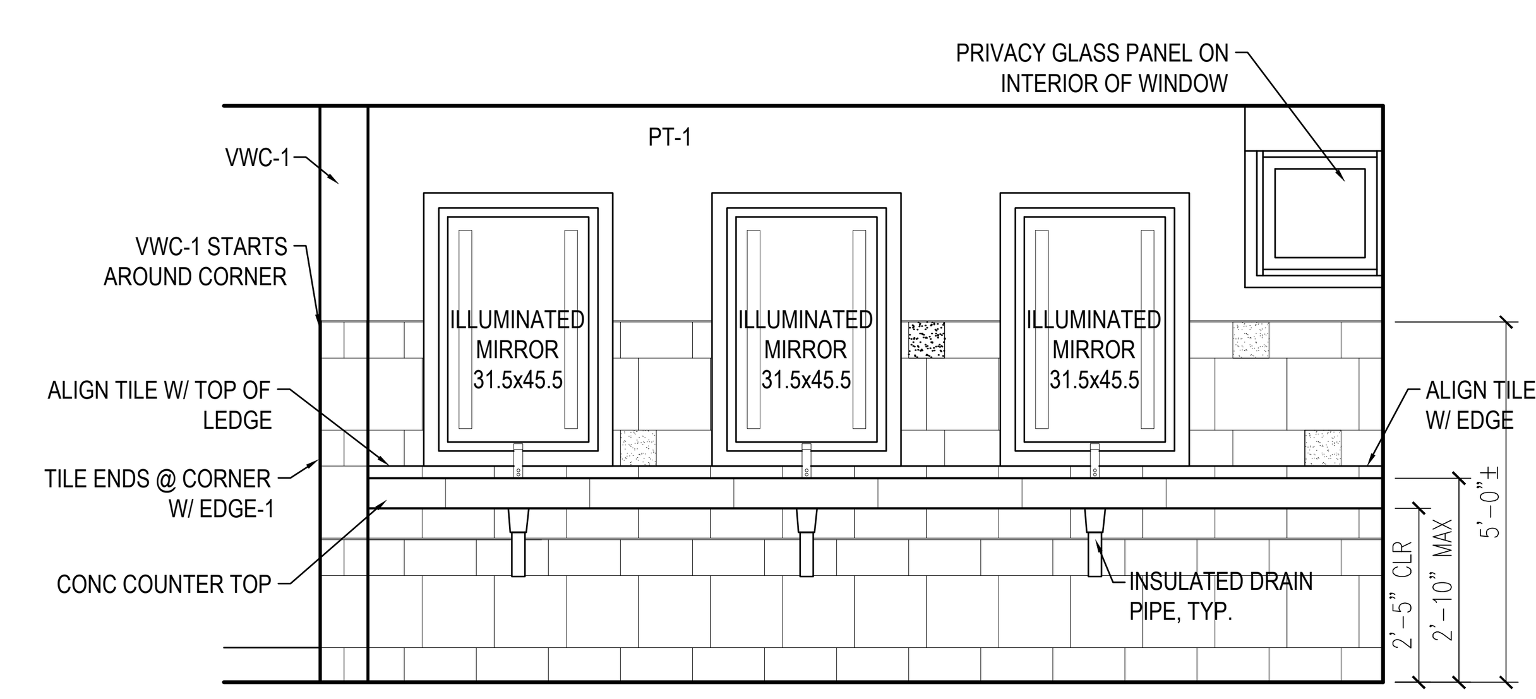
4 ELEVATION @ WOMEN'S TOILET ROOM
3/8" = 1'-0"



3 ELEVATION @ WOMEN'S TOILET ROOM
3/8" = 1'-0"



2 ELEVATION @ WOMEN'S TOILET ROOM
3/8" = 1'-0"



1 ELEVATION @ WOMEN'S TOILET ROOM
3/8" = 1'-0"

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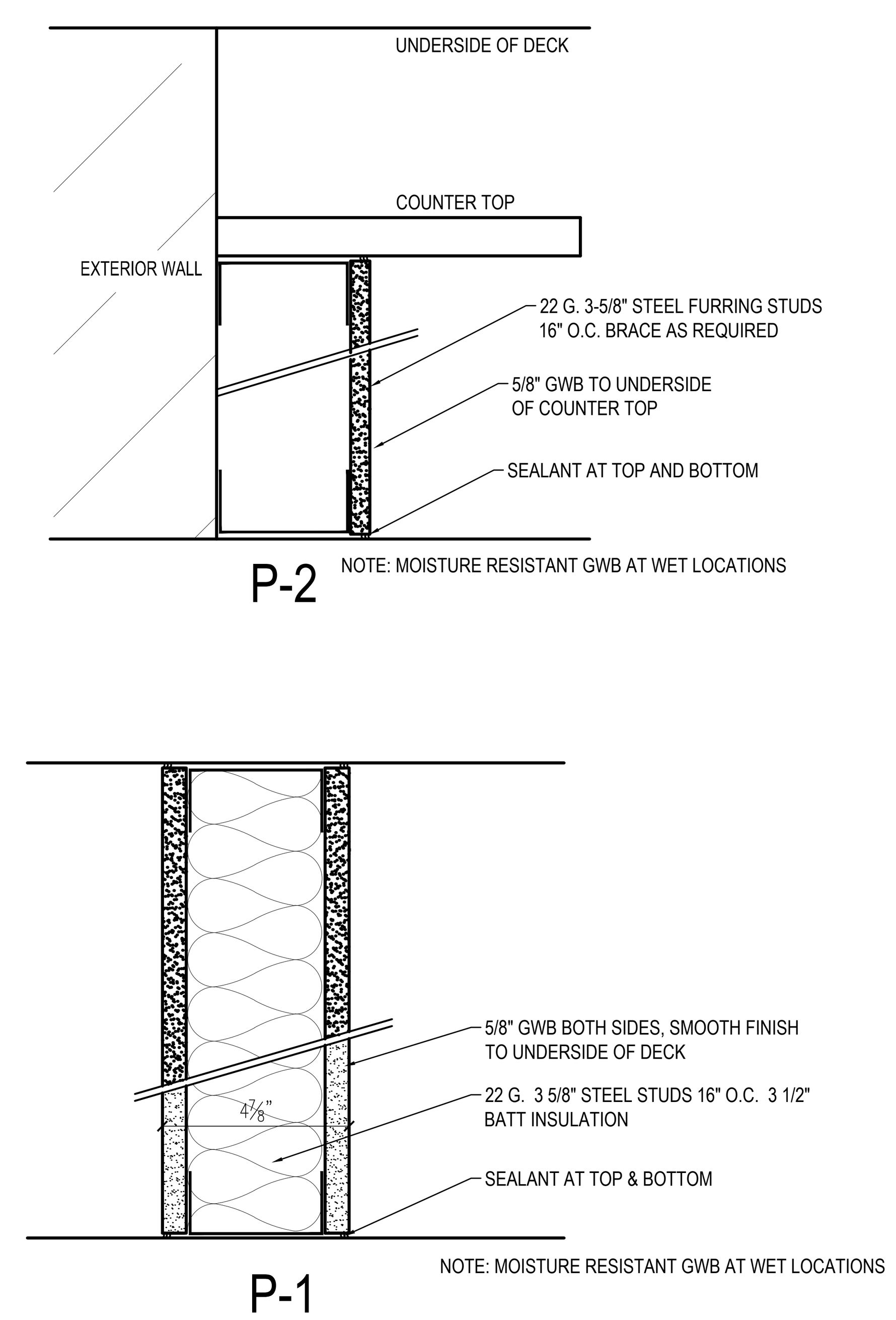
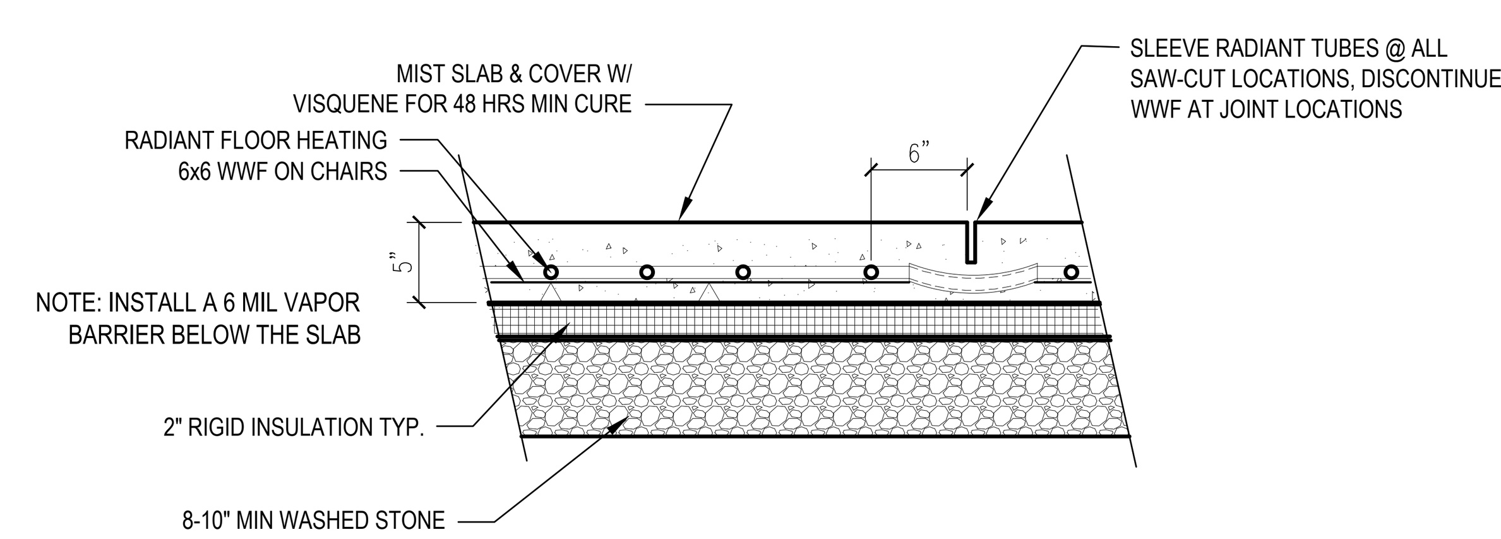
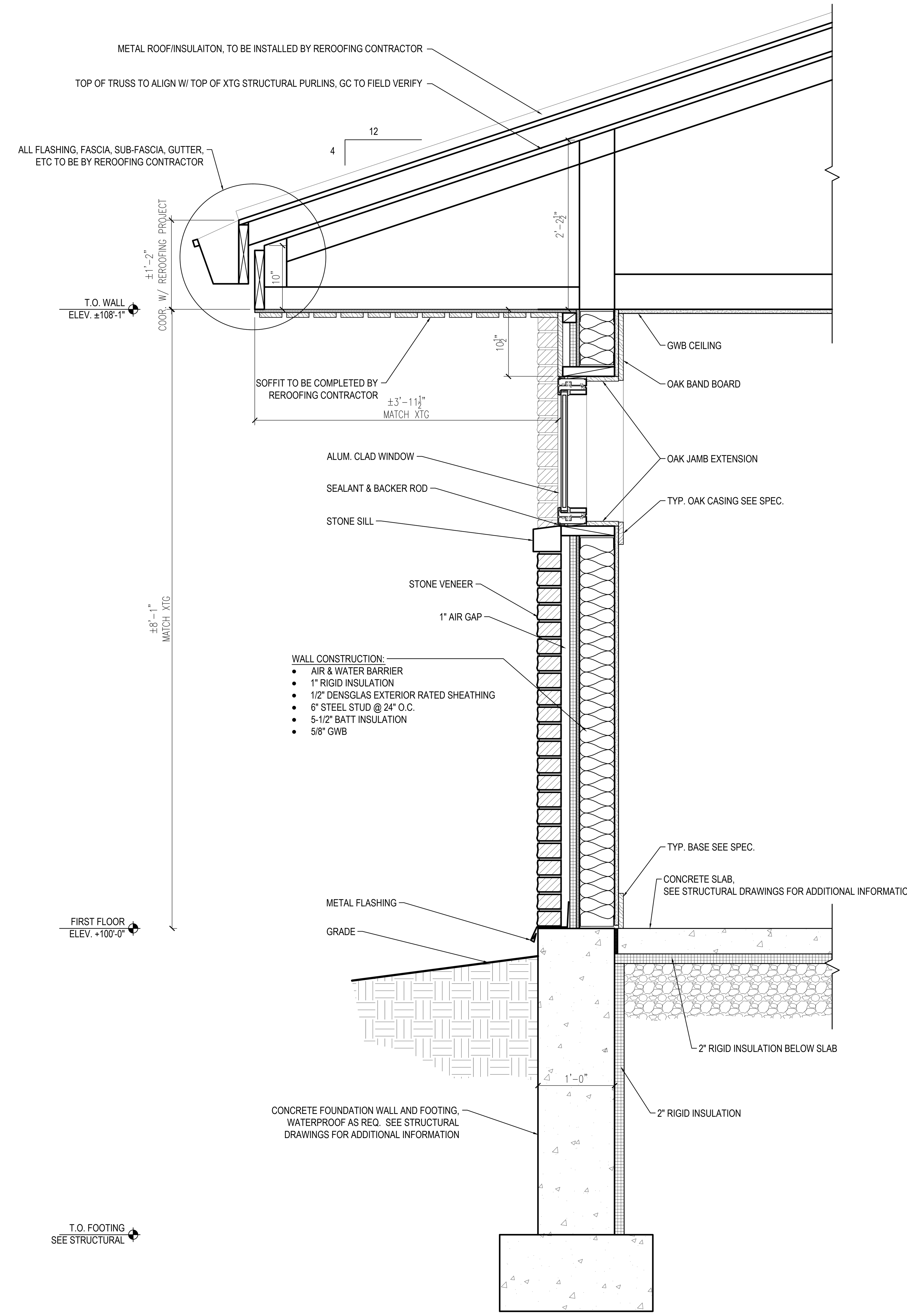
A700



10 WALL PARTITION DETAILS
3" = 1'-0"



9 SLAB DETAIL
1" = 1'-0"



1 WALL SECTION
1" = 1'-0"

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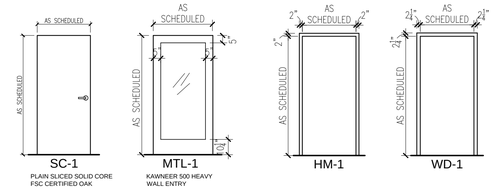
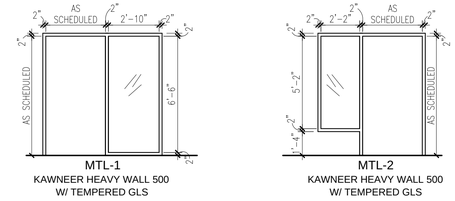
A800

DOOR SCHEDULE

#	SIZE	THK	MATERIAL	DR TYPE	FRAME TYPE	SIDELIGHT	GLASS	LOCK SET	RATING	CLOSER	REMARKS
E1002A	(2)3'-0"x7'-0"	1 3/4"	OAK	SC-1	WD-1	---	---	YES	---	YES W/ HOLDOPEN	KICKPLATE, KICK-DOWN HOLD OPEN
E1002B	(2)3'-0"x7'-0"	1 3/4"	OAK	SC-1	WD-1	---	---	YES	---	YES W/ HOLDOPEN	KICKPLATE, KICK-DOWN HOLD OPEN
1003A	3'-0"x7'-0"	2"	ALUMINUM	MTL-1	MTL-1	YES	YES	YES	---	YES	ADA THRESHOLD, KICKPLATE, ADA OPERATOR, ALARM ROUGH-IN, EGRESS HARDWARE, KICK-DOWN HOLD OPEN
1003B	3'-0"x7'-0"	2"	ALUMINUM	MTL-1	MTL-2	YES	YES	YES	---	YES	ADA THRESHOLD, SWEEP, KICKPLATE, ADA OPERATOR, ALARM ROUGH-IN, EGRESS HARDWARE
1004A	3'-0"x7'-0"	1 3/4"	OAK	SC-1	WD-1	---	---	PUSH/PULL	---	YES	KICKPLATE, ADA OPERATOR
1004B	3'-0"x7'-0"	1 3/4"	OAK	SC-1	WD-1	---	---	STOREROOM	---	YES	
1005A	3'-0"x7'-0"	1 3/4"	OAK	SC-1	WD-1	---	---	PUSH/PULL	---	YES	KICKPLATE, ADA OPERATOR

NOTES:
1. ALL DOORS TO HAVE 4" RETURN ON HINGE SIDE UNLESS OTHERWISE NOTED.
2. VERIFY LOCKING W/ OWNER, CONTRACTOR TO COOR. KEYING TO MATCH XTG.
3. NEW WOOD DOORS TO BE PLAIN SLICED SOLID CORE CERTIFIED OAK, FACTORY FINISHED W/ STAIN TO MATCH XTG
4. NEW LEVERS TO BE SCHLAGE AL SERIES, JUPITER LEVER IN US10B FINISH (OIL RUBBED BRONZE)
5. DOOR STOPS,HINGES AND CLOSERS TO MATCH HARDWARE SELECTION UNLESS OTHERWISE NOTED.
6. CONTRACTOR TO FIELD VERIFY ALL DOOR OPENINGS PRIOR TO ORDERING.
7. HOLLOW METAL FRAMES TO BE PAINTED PT-2, SEE FINISH SCHEDULE FOR ADDITIONAL INFORMATION.
8. ARCHITECT TO APPROVE DOOR AND HARDWARE SHOPS PRIOR TO ORDERING.
9. CONTRACTOR TO COORDINATE FOIC DOOR SIGNAGE WITH OWNER.

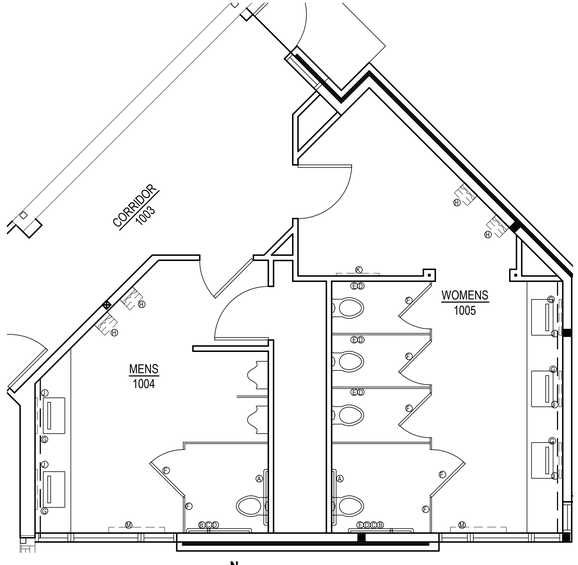




WINDOW SCHEDULE

CALLOUT	FRAME SIZE	ROUGH OPENING	TYPE	MODEL NUMBER	REMARKS
Ⓐ	XTG	8'-0" x 1'-9-3/4"	XTG	XTG	RELOCATED WINDOW, PRIVACY GLASS PANEL ON INTERIOR
Ⓑ	1'-9" x 1'-9"	1'-9-3/4" x 1'-9-3/4"	TRANSOM	2121	FROSTED PRIVACY GLASS PANEL ON INTERIOR
Ⓑ	3'-5" x 1'-9"	3'-5-3/4" x 1'-9-3/4"	AWNING	4121	FROSTED PRIVACY GLASS PANEL ON INTERIOR

NOTES:
1. CONTRACTOR TO FIELD VERIFY ALL OPENINGS PRIOR TO ORDERING.
2. WINDOWS ARE SPECIFIED AS PELLA TO MATCH EXISTING.
3. ARCHITECT TO APPROVE WINDOW AND HARDWARE SHOPS PRIOR TO ORDERING.
4. EXTERIOR CLAD AND INTERIOR WOOD TO MATCH XTG WINDOWS.
5. CONTRACTOR TO VERIFY ALL SILLS, RAILS, STYLES, ETC. SIZES MATCH XTG WINDOWS.
6. HARDWARE FINISH TO MATCH XTG WINDOWS.
7. DOOR STOPS,HINGES AND CLOSERS TO MATCH HARDWARE SELECTION UNLESS OTHERWISE NOTED.
8. CONTRACTOR TO COORDINATE FOIC DOOR SIGNAGE WITH OWNER.
9. PRIVACY GLASS TO BE INSTALLED ON INSIDE OF WINDOW FRAME, STOPS TO BE STAINED TO MATCH WINDOW FRAME.



1 ACCESSORY KEY PLAN
1/4" = 1'-0"

TOILET ROOM ACCESSORY SCHEDULE

KEY	ITEM	MANUF.	MODEL #	REMARKS
A	36" GRAB BAR	BOBRICK	B-6806	OR EQUAL
B	42" GRAB BAR	BOBRICK	B-6806	OR EQUAL
C	18" VERTICAL GRAB BAR	BOBRICK	B-6806	OR EQUAL
D	TOILET PAPER DISPENSER	BOBRICK	B-2840	OR EQUAL, WITH THEFT RESISTANT SPINDLE
E	SANITARY DISPOSAL	BOBRICK	B-270	OR EQUAL
F	COAT HOOK	BOBRICK	B-6727	OR EQUAL
G	SOAP DISPENSER	BOBRICK	B-826	HARD WIRED
H	HAND DRYER	DYSON		
J	VANITY MIRROR	MAJESTIC	VICTORIA	BACK-LIT MIRROR, VERIFY LEAD TIME
K	FULL LENGTH MIRROR	MAJESTIC	CUSTOM	24"X60" MIRROR W/ FRAME TO MATCH THE VICTORIA, VERIFY LEAD TIME
M	BABY CHANGING STATION	KOALA	KB110-SSRE	USE 3.5" BATT INSULATION IN BEHIND, DO NOT COMPRESS 5.5" INSULATION

NOTES:
1. ALL ACCESSORIES TO BE INSTALLED PER ADA REQUIREMENTS.

DESTREE
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HEIN Engineering Group

OLBRICH GARDENS RESTROOM ADDITION
3330 ATWOOD AVENUE
MADISON, WI

ISSUANCES:

CD'S	12.21.12
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PROJECT:

NUMBER:	120410.00
DATE:	12.21.12
REV:	---

SHEET:
A900

ROOM FINISH SCHEDULE

		FLOORING		CASEWORK	WALLS				CEILING		
#	ROOM	MATERIAL	BASE	COUNTERS	NORTH	EAST	SOUTH	WEST	MATERIAL	HGT	REMARKS
E1001	EXISTING CORRIDOR	XTG	XTG	---	---	---	---	---	XTG	XTG	PATCH ALL FINISHES AS REQ. TO MATCH ADJACENT XTG, WOOD CROWN BAND TO MATCH XTG
E1002	EXISTING MULTI-PURPOSE ROOM	XTG	XTG	---	---	---	---	---	XTG	XTG	
1003	CORRIDOR	TILE-1/TILE-2	TB-1	---	STONE-1/PT-2	PT-2	PT-2	PT-2	PT-4	8'-0"	
1004	MENS TOILET ROOM	TILE-1/TILE-2	WT-1	CONC-1	TILE/PT-1	TILE/PT-1	TILE/PT-1	TILE/PT-1	PT-4	8'-0"	
1005	WOMENS TOILET ROOM	TILE-1/TILE-2	WT-1	CONC-1	PT-1	TILE/PT-1	TILE/PT-1	TILE/PT-1	PT-4	8'-0"	

NOTES:

1. CONTRACTOR TO SUBMIT ALL MATERIAL SAMPLES TO ARCHITECT FOR APPROVAL PRIOR TO INSTALL.
2. SEE SPECIFICATION BOOK FOR ADDITIONAL MATERIAL SELECTION INFORMATION.
2. PAINT ON ALL METAL SURFACES (DOORS, DOOR FRAMES, FINNED TUBE COVERS, IN WALL SUPPLY/RETURN GRILLES, ETC.) TO BE SPRAY APPLIED.
3. WALL TEXTURE TO MATCH ADJACENT WALLS AT PATCH/INFILL LOCATIONS.
4. WALL TEXTURE AT NEW WALLS TO BE LIGHT ORANGE PEEL.
5. PAINT ENTIRE WALL AT PATCH/INFILL LOCATIONS.
6. ALL WALL PANELS/GRILLES/VENTS TO BE PAINTED WALL COLOR.
7. TILE BASE TO BE INSTALLED AT ALL NEW TILE FLOOR LOCATIONS.
8. ALL GROUT TO BE EPOXY TYPE.
9. GROUT AT TILE-1 TO MATCH XTG, CONTRACTOR TO PROVIDE GROUT MIXED MOCK-UP FOR ARCHITECT TO APPROVE, PRIOR TO INSTALL.

ROOM FINISH SELECTIONS:

FLOOR:

TILE-1: UNICOM STARKER, NATURAL SLATE COLLECTION, COLOR: AUTUMN, SIZE: 16"X 24", CONTACT: MARK KUEPPER, INSULATION & SUPPLY, 920.757.1516
GROUT: LATICRETE, 00% EPOXY, COLOR: 67 AUTUMN GREEN

TILE-2: CROSSVILLE, COLLECTION: COLOR BLOX, COLOR: TREE HOUSE A1114, SIZE: 6"X12"
GROUT: LATICRETE, 100% EPOXY, COLOR: 67 AUTUMN GREEN

BASE:

TB-1: UNICOM STARKER, NATURAL SLATE COLLECTION, COLOR: AUTUMN, SIZE: 4"X16", CONTACT: MARK KUEPPER, INSULATION & SUPPLY, 920.757.1516
GROUT: LATICRETE, 100% EPOXY, COLOR: 67 AUTUMN GREEN

WB-1: PATCH AS REQ. MATCH XTG 3-1/2"x3/4" SQUARE STOCK, FILL, SEAL, STAIN W/ 2-COATS SATIN "NATURAL"

TRIM:

CEILING BAND BOARD: PATCH AS REQ. MATCH XTG 11-1/4"x3/4", FILL, SEAL, STAIN W/ 2-COATS SATIN "NATURAL"

WALL:

PT-1: SHERWIN WILLIAMS, STUCCO 7569, EGGSHELL (MAIN)

PT-2: SHERWIN WILLIAMS, PEARLY WHITE 7009, EGGSHELL (MAIN)

PT-3: MATCH EXISTING, SEMI-GLOSS (METAL DOOR FRAMES)

PT-4: MATCH EXISTING (CEILING)

WT-1: CROSSVILLE, COLLECTION: COLOR BLOX, COLOR: TREE HOUSE A1114, SIZE: 6"x12"
GROUT: LATICRETE, 100% EPOXY, COLOR: 67 AUTUMN GREEN

WT-2: CROSSVILLE, COLLECTION: COLOR BLOX, COLOR: TREE HOUSE A1114, SIZE: 12"x18"
GROUT: LATICRETE, 100% EPOXY, COLOR: 67 AUTUMN GREEN

WT-3: CROSSVILLE, COLLECTION: COLOR BLOX, COLOR: SAND BOX A1101, SIZE: 6"x12"
GROUT: LATICRETE, 100% EPOXY, COLOR: 39 MUSHROOM

WT-4: CROSSVILLE, COLLECTION: COLOR BLOX, COLOR: SAND BOX A1001, SIZE: 12"x18"
GROUT: LATICRETE, 100% EPOXY, COLOR: 39 MUSHROOM

WT-5: CROSSVILLE, MIXOLOGY BRONZE COLLECTION, FLORAL MEDALLION, 6"x6" DECO, MX101.10606FM
(18 TILES RANDOMLY PLACED PER DETAIL 15/A700)
GROUT: LATICRETE, 100% EPOXY, COLOR: 39 MUSHROOM

WT-6: CROSSVILLE, MIXOLOGY BRONZE COLLECTION, VINE, 6"x6" DECO, MX101.10606V
(18 TILES RANDOMLY PLACED PER DETAIL 15/A700)
GROUT: LATICRETE, 100% EPOXY, COLOR: 39 MUSHROOM

STONE-1: XTG STONE

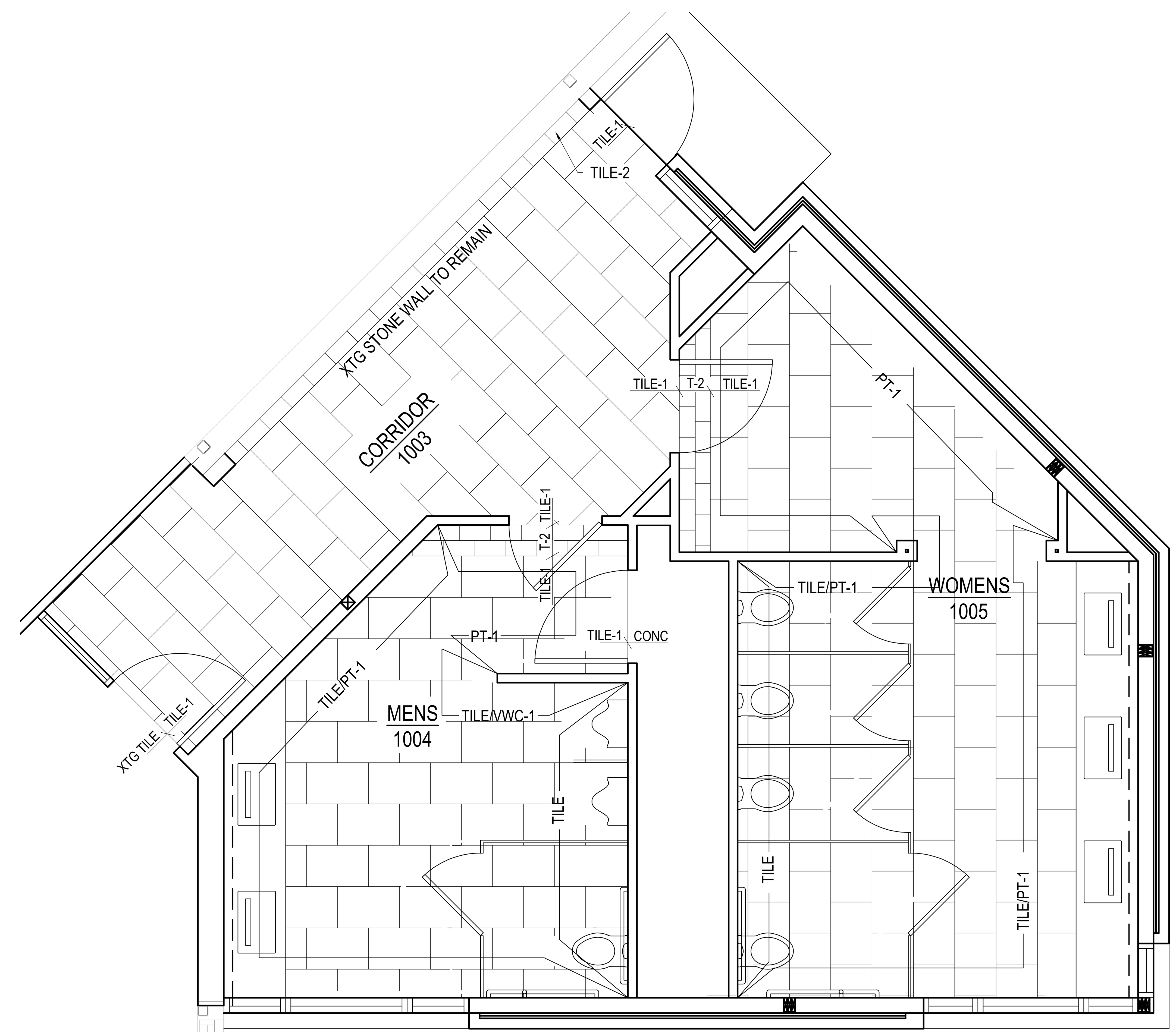
EDGE-1: SCHLUTER SYSTEMS, QUADEC(Q-80-ABGB), BRUSHED ANTIQUE BRONZE ANODIZED ALUMINUM

COUNTER TOPS:

CONC-1: CUSTOM CRETEWERKS INTEGRAL CONCRETE COUNTERTOPS & SINK, N-EARTHED COLOR COLLECTION, COLOR: ASH, SINK: GATES 24"

TOILET PARTITIONS:

HADRIAN TOILET PARTITIONS, FLOOR TO CEILING MOUNTED AND WALL HUNG URINAL SCREEN, 815 BRONZE METALLIC POWDER COATED



1 SCHEDULES
3/8" = 1'-0"

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A901

LOADING:

1. DESIGNED IN ACCORDANCE WITH THE CURRENT WISCONSIN COMMERICAL BUILDING CODE BASED ON IBC 2009.

2. DESIGN LOADS:

   2.1. ROOF DEAD LOAD:
   15 PSF

   2.2. ROOF LIVE LOAD:
   20 PSF (REDUCIBLE)

   2.3. DESIGN SNOW LOAD:
   Pg = 30.0 PSF
   Pf = 0.7(Ce)(Ct)(Cs)(I)(Pg)
   Ce = 1.0
   Ct = 1.10
   Cs = 1.0
   I = 1.0
   UNIFORM ROOF DESIGN SNOW LOAD = 23.1 PSF
   NOTE: UNBALANCED SNOW & DRIFTING SNOW CONSIDERED FOR DESIGN. SEE ROOF FRAMING PLAN FOR ADDITIONAL LOADING.

   2.4. WIND DESIGN CRITERIA
   WIND SPEED = 90 MPH
   EXPOSURE = B
   I = 1.0
   Kzt = 1.0
   GCpi = +/- .018
   WIND PRESSURE = 20 PSF

   2.5. SEISMIC DESIGN CRITERIA:
   SEISMIC USE GROUP = I
   SDS = 0.104
   SD1 = 0.044
   SITE CLASS = D
   SEISMIC DESIGN CATEGORY = B
   SEISMIC RESISTING SYSTEM = LIGHT FRAME WALLS WITH SHEAR PANELS
   TOTAL BASE SHEAR = 0.055*W

GENERAL:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL CONDITIONS PRIOR TO BIDDING. THIS INCLUDES INSURING ERECTION CAN BE PERFORMED AS DETAILED ON THE PLANS. IF MODIFICATIONS ARE NEEDED TO FACILITATE ERECTABILITY THE BIDDING CONTRACTOR SHALL NOTIFY THE OWNER, ARCHITECT AND ENGINEER AND CLEARLY COMMUNICATE ASSUMPTIONS IN BID DOCUMENTS. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ADDITIONAL COSTS DUE TO REQUIRED MODIFICATIONS OF THESE PLANS TO FACILITATE ERECTION SEQUENCING ETC.

2. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON NEW OR EXISTING STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.

3. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR HAVING AN INDEPENDENT ENGINEER DESIGN AND FURNISHING ALL TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES. THE STRUCTURAL ENGINEER SEAL ON THESE DRAWINGS ASSUMES NO LIABILITY FOR THE STRUCTURE DURING CONSTRUCTION.

4. THE CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION AND ALL JOB SITE SAFETY.

5. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL BUILDING MATERIALS AND COMPONENTS. COMPONENT LOCATIONS ARE SHOWN FOR DESIGN INTENT, NOT EXACT LOCATION, UNLESS NOTED SPECIFICALLY. INDEPENDENTLY PREPARED SHOP DRAWINGS ARE REQUIRED OF ALL TRADES FOR COORDINATION AND BEST PRACTICE. ERRORS OR OMISSIONS IN INSTALLATION DUE TO THE CONTRACTOR'S FAILURE TO COORDINATE THE WORK WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR

6. THE CONTRACTOR SHALL FIELD VERIFY ALL SIZES, DIMENSIONS, ELEVATIONS AND LOCATIONS, ETC. OF ELEMENTS OF THE EXISTING CONSTRUCTION WHICH ARE RELATIVE TO THE NEW CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY OF ANY DESCREPANCIES BETWEEN CONSTRUCTION DOCUMENTS AND ACTUAL FIELD CONDITIONS.

7. THE ENGINEER HAS MADE ASSUMPTIONS CONCERNING THE SOUNDNESS OF THE EXISTING BUILDING, INCLUDING THAT THE EXISTING BUILDING WAS DESIGNED AND CONSTRUCTED IN CONFORMITY WITH GOOD DESIGN AND CONSTRUCTION PRACTICES. THE CONTRACTOR SHALL TAKE EXTRAORDINARY PRECAUTIONS CONCERNING PRESERVATION OF THE BUILDING DURING DEMOLITION AND NEW CONSTRUCTION WORK. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR THE PRESERVATION OF THE EXISTING STRUCTURE.

FOUNDATION:

1. NET ALLOWABLE SOIL BEARING CAPACITY: 2,000 PSF (ASSUMED – CONTRACTOR TO FIELD VERIFY).

2. PROJECT GEOTECHNICAL REPORT SUPERSEDES GEOTECHNICAL INFORMATION PROVIDED ON STRUCTURAL PLANS.

3. WHEN IT IS POSSIBLE FOR GROUND WATER TO SEEP TOWARD SUBGRADE FOUNDATIONS AND RETAINING WALLS, THESE WALLS SHALL HAVE A POSITIVE DRAINAGE SYSTEM AT THE BASE OF THE WALL CONSISTING OF A PERFORATED DRAIN PIPE PROTECTED BY A GEOTEXTILE FABRIC SURROUNDED BY CONCRETE SAND (TORPEDO SAND). NEAR THE BASE OF THE WALL. OTHER BACK FILL MATERIAL SHALL BE SAND WITH LESS THAN 12% PASSING THE #200 SIEVE.

4. DO NOT USE EXCESSIVE COMPACTION EFFORTS ADJACENT TO BASEMENT OR RETAINING WALLS. SUCCESSIVE PASSES OF A COMPACTOR CAN RESULT IN WALL PRESSURE BUILD UP BEYOND THE DESIGN INTENT.

5. REFER TO THE GEOTECHNICAL INVESTIGATION FOR INFORMATION REGARDING EXCAVATION, SIDE SLOPES, SUB-GRADE PREPARATION, AND FILL RECOMMENDATIONS.

6. PROVIDE SUB-GRADE PREPARATION AS PER THE PLANS OR PROJECT GEOTECHNICAL REPORT.

7. WHEN UNDERPINNING IS REQUIRED EXISTING FOOTINGS SHALL BE SEQUENTIALLY UNDERPINNED WITH UNDERMINED FOOTING SEGMENTS NOT TO EXCEED 4'-0" AT ANY TIME WITHOUT PRIOR AUTHORIZATION. THE GENERAL CONTRACTOR SHALL SUBMIT FOR REVIEW TO THE PROJECT STRUCTURAL ENGINEER A DETAILED CONSTRUCTION SEQUENCE PLAN. THE PLAN SHALL INCLUDED INTENDED METHODS, MATERIALS AND A PRECONSTRUCTION SURVEY OF THE EXISTING BUILDING AND HAVE PROVISIONS FOR MONITORING THE EXISTING CRACKS.

8. REMOVE TOPSOIL FROM BENEATH ALL PROPOSED CONSTRUCTION AREAS. SALVAGE AND STOCK PILE TOPSOIL, CUT/FILL MATERIAL AS NECESSARY TO MATCH GRADES SHOWN ON DRAWINGS.

9. GRADE AREAS IN ACCORDANCE WITH ELEVATIONS AND GRADES SHOWN ON THE SITE DRAWINGS AND AS REQUIRED FOR DRAINAGE.

10. SLAB ON GROUND TO BE CONSTRUCTED ON A MINIMUM OF 6" OF CRUSHED STONE OR GRANULAR FILL COMPACTED TO 95% MODIFIED PROCTOR OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

11. ALL FILL MATERIAL USED IN GRADING OPERATIONS SHALL CONSIST OF EARTH, WHICH IS FREE OF DEBRIS, BOULDERS OR ORGANIC MATERIAL. FILL SHALL BE PLACED IN MAXIMUM OF 12" LIFTS AND COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

12. THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 4'-0" BELOW FINISHED GRADE.

13. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR COMPACTED FILL HAVING A MINIMUM ALLOWABLE BEARING CAPACITY EQUAL TO THE PRESUMPTIVE CAPACITY ABOVE.

14. THE ENGINEER SHALL BE NOTIFIED IF ACTUAL FIELD CONDITIONS DO NOT MEET BEARING REQUIREMENTS, OR IF QUESTIONABLE SOIL CONDITIONS ARE DISCOVERED INCLUDING BUT NOT LIMITED TO PEAT AND OTHER HIGH ORGANIC SOILS.

15. ALL BEARING SOIL OR FILL MUST BE PROTECTED FROM FREEZING. THE CONTRACTOR SHALL PROVIDE PROTECTION TO PREVENT FROST PENETRATION BELOW THE CONCRETE BEARING ELEVATIONS. ANY FROZEN SOIL BELOW THE FOUNDATION BEARING LEVEL MUST BE REMOVED PRIOR TO PLACING CONCRETE.

16. ALL SLABS ON GRADE AREAS SHALL BE PROOF ROLLED. ALL SOFT SPOTS SHALL BE REMOVED AND REPLACED WITH COMPACTABLE FILL.

CONCRETE CONSTRUCTION:

1. ALL CONCRETE DESIGN AND CONSTRUCTION SHALL CONFORM TO THE LOCAL BUILDING CODE REQUIREMENTS AND THOSE OF THE LATEST EDITION OF THE FOLLOWING STANDARDS: ACI 318, ACI 315, ACI 301, AND ACI 305 & 306.

2. ALL CONCRETE UNLESS SPECIFICALLY NOTED SHALL BE NORMAL WEIGHT (145 PCF) AND SHALL ACHIEVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (fc') AS FOLLOWS:

FOOTINGS BELOW FROST LINE:	f'c = 3,000 PSI
EXTERIOR FOUNDATION WALLS AND GRADE BEAMS THAT ARE EXPOSED TO FREEZING:	f'c = 4,000 PSI
INTERIOR AND EXTERIOR SLAB ON GROUND:	f'c = 4,000 PSI
SLAB ON GROUND WITH FORK TRUCK TRAFFIC	f'c = 4,500 PSI
ALL OTHER CONCRETE	f'c = 3,000 PSI

3. ALL CONCRETE SUBJECT TO EXTERIOR EXPOSURE SHALL BE AIR ENTRAINED TO 6% (+/- 1.5%) AND HAVE A MAXIMUM 1" AGGREGATE. ALL CONCRETE WITHOUT SUPERPLASTICIZERS SHALL HAVE A MAXIMUM SLUMP OF 4".

4. ALL SLABS ON GROUND SHALL BE A MINIMUM 6-BAG MIX.

5. UNLESS THE MIX DESIGN INCLUDES THE USE OF SUPERPLASTICIZERS, CONCRETE WITH A SLUMP GREATER THAN 5" SHALL BE REFUSED.

6. ALL CONCRETE REINFORCING STEEL TO BE ASTM A615 GRADE 60. ALL WELDED WIRE FABRIC (WWF) TO BE ASTM A-185. ALL REINFORCING SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 315 AND 315R.

7. ALL REINFORCING BARS AND WWF SHALL BE SET ON CHAIRS AND TIED IN PLACE.

8. CONCRETE SLABS ON GROUND CONTAINING WELDED WIRE REINFORCEMENT FABRIC (WWF) SHAL HAVE THE WWF LOCATED IN THE MIDDLE TO THE UPPER ONE-THIRD OF THE SLAB. WELDED WIRE REINFORCEMENT FABRIC SHALL BE SUPPORTED WITH APPROVED MATERIALS OR SUPPORTS AT SPACINGS NOT TO EXCEED 3 FEET (914 MM) OR IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. WELDED PLAIN WIRE REINFORCEMENT FABRIC FOR CONCRETE SHALL CONFORM TO ASTM A 185.

9. AFTER CONCRETING HAS STARTED, IT SHALL BE CARRIED ON AS A CONTINUOUS OPERATION UNTIL PLACING OF A PANEL OR SECTION, AS DEFINED BY ITS BOUNDARIES OR PREDETERMINED JOINTS, IS COMPLETED. CONCRETE SHALL BE DEPOSITED AS NEARLY AS PRACTICABLE TO ITS FINAL POSITION TO AVOID SEGREGATION DUE TO REHANDLING OR FLOWING.

10. CONCRETING OPERATIONS SHALL BE CARRIED ON AT SUCH A RATE THAT THE CONCRETE IS AT ALL TIMES PLASTIC AND FLOWS READILY INTO SPACES BETWEEN REINFORCEMENT.

11. CONCRETE SHALL BE THOROUGHLY CONSOLIDATED BY SUITABLE MEANS DURING PLACEMENT AND SHALL BE THOROUGHLY WORKED AROUND REINFORCEMENT AND EMBEDDED FIXTURES AND INTO CORNERS OF THE FORMS. THE TOP SURFACES OF VERTICALLY FORMED LIFTS SHALL BE GENERALLY LEVEL.

12. CONCRETE SHALL BE CURED ABOVE 50°F (10°C) AND IN A MOIST CONDITION FOR AT LEAST THE FIRST SEVEN DAYS AFTER PLACEMENT.

13. ALL FLAT WORK CONCRETE SHALL BE COVERED IMMEDIATELY FOLLOWING SAW CUTTING AND MAINTAINED CONTINUOUSLY WET FOR A MINIMUM OF 7-DAYS AFTER PLACING. CURING SHEETS ARE TO BE USED AND REMAIN IN PLACE. CURING COMPOUNDS MAY BE USED APPLIED MUST BE APPLIED PER THE MANUFACTURES RECOMMENDATIONS. SUBMIT PRODUCT DATA TO A/E FOR APPROVAL.

14. RETEMPERED CONCRETE, CONCRETE THAT HAS BEEN REMIXED AFTER INITIAL SET OR PARTIALLY HARDENED SHALL NOT BE USED IN THE STRUCTURE.

15. SLAB REINFORCING, BARS OR WWF, SHALL BE PLACED WITHIN 1-1/2" OF THE TOP OF THE SLAB UNLESS NOTED OTHERWISE. PLACING REINFORCING ON CHAIRS OR BOLSTERS AT 3' TO 4' ON CENTER IS REQUIRED. LIFTING REINFORCING AFTER CONCRETE IS PLACED IS NOT CONSIDERED TO BE AN EFFECTIVE MEANS OF PLACEMENT AND SHALL NOT BE ALLOWED WITHOUT PRIOR WRITTEN CONSENT OF THE ENGINEER.

16. ALL LAPS SHALL BE "B" SPLICES UNLESS NOTED OTHERWISE ON THE DRAWINGS OR UNLESS SPECIAL CARE IS TAKEN FOR THE REINFORCING TO BE DETAILED AND PLACED TO PROVIDE STAGGERED LAPS.

17. ALL CONCRETE SHALL BE CURED FOR A MINIMUM OF SEVEN DAYS.

18. UNLESS OTHERWISE APPROVED, ALL EXPOSED CONCRETE WALLS SHALL BE CURED WITH FORMS LEFT IN PLACE FOR SEVEN DAYS. IF FORMS CAN NOT BE LEFT IN PLACE THE CONTRACTOR SHALL SUBMIT IN WRITING TO THE ENGINEER ALL PROPOSED CURING METHODS.

19. WALL CRACKS DUE TO IMPROPER CURING METHODS, OR WEATHER PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

20. MINIMUM EMBEDMENT UNLESS NOTED OTHERWISE. THREADED RODS SHALL HAVE A NUT AND WASHER SECURED TO THE EMBEDDED END EITHER BY WELD OR DOUBLE NUT.

21. GROUT USED TO PROVIDE LEVEL BEARING OF COLUMN BASE PLATES SHALL BE NON-SHRINK, NON-METALLIC GROUT WITH A COMPRESSIVE STRENGTH 500 PSI OR MORE GREATER THAN THE COMPRESSIVE STRENGTH OF THE SUPPORTING CONCRETE MEMBER.

22. UNLESS NOTED OTHERWISE ON THE DRAWINGS ALL REINFORCING SHALL BE LAPPED TO DEVELOP ITS CAPACITY AS FOLLOWS:

BAR SIZE	STANDARD	TOP BAR	"B" SPLICE	HOOK
#3	13"	16"	16"	6"
#4	17"	22"	22"	8"
#5	21"	27"	27"	10"
#6	25"	32"	32"	12"
#7	33"	43"	43"	14"

23. MULTIPLY B-SPLICE LENGTHS BY 1.3 FOR TOP BAR CONDITIONS. TOP BARS ARE HORIZONTAL BARS WITH 12 INCHES OR MORE OF CONCRETE BELOW.

24. SLAB-ON-GRADE SHALL HAVE CLASS "A" TOLERANCE.

25. A 6-MIL. (MIN.) POLYETHYLENE VAPOR BARRIER WITH JOINTS LAPPED NOT LESS THAN 6" SHALL BE PLACED BETWEEN THE BASE COURSE OR SUBGRADE AND THE CONCRETE FLOOR.

26. CALCIUM CHLORIDE AND OR ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED.

27. PLACING OF CONCRETE SHALL BE DONE IN CONFORMANCE WITH ACI-306 FOR COLD WEATHER AND ACI-305 FOR HOT WEATHER.

28. EXPOSED FOUNDATION WALLS SHALL HAVE VERTICAL CONTROL JOINTS SPACED NOT MORE THAN 25'-0" ON CENTER. EACH JOINT SHALL BE 3/4" WIDE BY 1/4 WALL DEPTH DEEP AND V-CHAMFERED ON BOTH SIDES. HORIZONTAL WALL REINFORCING SHALL BE DISCONTINUOUS AT THE CONTROL JOINT LOCATION. THE LOCATION OF WALL CONTROL JOINTS SHALL BE MID BAY BETWEEN COLUMNS.

29. EXPOSED FOUNDATIONS WALLS SHALL HAVE EXPANSION JOINTS LOCATED AT EVERY FOURTH CONTROL/CONTRACTION JOINT. SEE CONCRETE DETAILS FOR SPECIFIC CONSTRUCTION REQUIREMENTS.

30. CONSTRUCTION JOINTS SHALL BE LOCATED AT CONTROL JOINTS OR CONTRACTION JOINTS.

31. FLOOR SLAB CONTROL JOINTS SHALL FOLLOW THE INTENT SHOWN ON THE PLAN BUT SHALL NOT EXCEED AN ASPECT RATIO OF 1.5 TO 1.0. ALL REENTRANT CORNERS SHALL HAVE CONTROL JOINTS EXTENDING OUT FROM THE INSIDE CORNER. DEAD-END "T" CONTROL JOINTS INTO CONTINUOUS JOINTS SHALL BE AVOIDED.

32. PIPE SLEEVES OVER 1-½"ø WHICH PASS THROUGH CONCRETE WALLS OR SLABS SHALL BE SCHEDULE 40 GALVANIZED STEEL PIPE. ALL OTHER SLEEVES SHALL BE 18 GAUGE SHEET METAL. SLEEVES SHALL BE ONE SIZE LARGER THAN OUTSIDE DIAMETER OF PIPE PASSING THROUGH SLEEVE. VERIFY SIZE AND NUMBER WITH MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS.

33. ALUMINUM CONDUIT SHALL NOT BE EMBEDDED IN CONCRETE.

STEEL CONSTRUCTION:

1. STRUCTURAL STEEL DESIGN AND FABRICATION SHALL BE IN ACCORDANCE WITH THE AISC ASD 13TH EDITION STEEL MANUAL.

2. W-SHAPES SHALL CONFORM TO ASTM A992 (Fy = 50 ksi).

3. PLATE STEEL SHALL CONFORM TO ASTM A36 (Fy = 36 KSI).

4. ALL SQUARE AND RECTANGULAR HSS SHALL CONFORM TO ASTM A500, GRADE B (Fy = 46 KSI).

5. ALL ROUND HSS WITH A WALL THICKNESS LESS THAN OR EQUAL TO 5/8" SHALL CONFORM TO ASTM A500, GRADE B (Fy = 46 KSI).

6. ALL SQUARE AND ROUND BARS SHALL CONFORM TO ASTM A36 (Fy = 36 KSI).

7. THE STRUCTURAL STEEL FABRICATOR SHALL BE RESPONSIBLE FOR THE SELECTION, DESIGN AND DETAILING OF ALL CONNECTIONS NOT FULLY DETAILED ON THE CONTRACT DRAWINGS.

8. CONNECTION DETAILS ARE INDICATED ON THE DRAWINGS FOR DESIGN INTENT ONLY. WHEN BOLTS ARE SHOWN ON SPECIFIC DETAILS, UNLESS THE NUMBER OF BOLTS IS SHOWN NUMERICALLY, USE GRAPHICAL REPRESENTATION FOR DESIGN CONCEPT ONLY.

9. WHERE MOMENT CONNECTIONS ARE INDICATED, PROVIDE CONNECTION TO DEVELOP FULL MOMENT CAPACITY OF WEAKER SECTION TO BE CONNECTED, UNLESS A SPECIFIC VALUE IS SHOWN.

10. ALL SHEAR CONNECTIONS NOT SPECIFICALLY DETAILED ON THE DRAWING SHALL BE SELECTED AND DETAILED BY THE FABRICATOR. ALL CONNECTIONS SHALL BE SELECTED FROM AISC ASD LOAD TABLES TO SUPPORT MAXIMUM LOADS SHOWN ON DRAWINGS OR FOR THE FULL UNIFORM LOAD CAPACITY OF THE MEMBER PER AISC. DOUBLE ANGLE CONNECTIONS ARE PREFERRED WHEN POSSIBLE.

11. ALL GALVANIZED MEMBERS SHALL BE GALVANIZED BY THE "DRY GALVANIZING PROCESS" AS DEFINED BY AGA (FLUX AND GALVANIZING APPLIED IN SEPARATE STEPS). PROVIDE ALTERNATE COST TO GALVANIZE PER THE "WET" METHOD (FLUX AND GALVANIZING IN ONE STEP). GALVANIZED MEMBERS SHALL NOT BE QUENCH COOLED.

12. ALL HOLLOW ENCLOSED STEEL MEMBERS SHALL HAVE WEEP HOLES AS REQUIRED. HOLES SHALL BE LOCATED IN THE CENTER OF THE LONGER WALLS OF RECTANGULAR TUBES AND PLACED TO FACE THE INSIDE OR AWAY FROM PUBLIC VIEW WHEN POSSIBLE. INDICATE WEEP HOLE LOCATIONS ON SHOP DRAWINGS.

13. ALL CONNECTION BOLTING IS TO BE WITH ¾"ø A-325N BOLTS UNLESS NOTED OTHERWISE. BOLTS NEED ONLY BE TIGHTENED TO THE SNUG-TIGHT CONDITION. SNUG-TIGHT IS DEFINED AS THE TIGHTNESS OBTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A PERSON USING AN ORDINARY SPUD WRENCH.

14. ALL CONNECTIONS BOLTING DENOTED AS SLIP CRITICAL "SC" SHALL BE FULLY TIGHTENED BOLTS WITH HARDENED WASHERS. SECTIONS CONNECTED WITH SLIP CRITICAL CONNECTIONS SHALL NOT BE PRIMED OR PAINTED PRIOR TO INSTALLATION. LOAD INDICATOR BOLTS ARE REQUIRED FOR ALL SC CONNECTIONS.

15. STUD ANCHORS ARE TO BE NELSON STUDS OR EQUIVALENT.

16. ALL WELDING OF NEW STEEL TO BE WITH E70XX ELECTRODES.

17. ALL WELDING SHALL COMPLY WITH THE AWS STRUCTURAL WELDING CODES. ALL WELDING TO BE PERFORMED BY AWS PRE-QUALIFIED WELDERS CERTIFIED FOR THE GIVEN APPLICATION.

18. ALL WELDING OF GALVANIZED MATERIAL SHALL BE PERFORMED IN SUCH A MANOR AS TO SATISFY ALL OSHA AND AWS REQUIREMENTS. ALL FIELD WELDED LOCATIONS SHALL BE PREPARED AND PRIMED WITH A ZINC RICH PRIMER PRIOR TO PAINTING PER THE MANUFACTURER'S RECOMMENDATIONS. THE SPECIFIC PRIMER TO BE USED SHALL BE TNEMEC SERIES 90-97 Tneme-Zinc @ 3.0-4.0 mils DFT OR APPROVED EQUAL.

19. ALL EXTERIOR EXPOSED STEEL SHALL BE PRIMED WITH A ZINC RICH PRIMER AND PAINTED WITH AN APPROPRIATE EXTERIOR PAINT. ALL PAINTING AND STEEL PREP SHALL BE IN CONFORMANCE WITH THE MANUFACTURES SPECIFICATIONS.

20. SUBMIT PRODUCT DATA FOR EACH TYPE OF PRODUCT SPECIFIED. SUBMIT MIL TEST REPORTS SIGNED BY MANUFACTURES CERTIFYING THAT THEIR PRODUCTS COMPLY WITH REQUIREMENTS.

21. SUBMIT SHOP DRAWINGS DETAILING FABRICATION OF STRUCTURAL STEEL COMPONENTS.

COLD-FORMED STEEL:

1. STUDS LISTED ARE MINIMUM SIZES AND ARE TO BE USED ONLY AS AN AID IN BIDDING. EXACT SIZES AND SPACINGS OF ALL COLD-FORMED METAL FRAMING SHALL BE DETERMINED BY THE COLD-FORMED FRAMING DESIGNER. SHOP DRAWINGS AND SUPPORTING CALCULATIONS SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER IN THE STATE OF WISCONSIN. SEE COLD-FORMED METAL FRAMING NOTES FOR ADDITIONAL INFORMATION

2. THE COLD-FORMED METAL FRAMING SHALL BE COMPLETELY DESIGNED AND SUPPLIED BY THE CONTRACTOR FOR ALL GRAVITY, LATERAL, AND OTHER LOADS INDUCED BY THE BUILDING MATERIALS SHOWN ON THE PROJECT DRAWINGS, AND THE DESIGN LOADS APPLIED IN ACCORDANCE WITH THE BUILDING CODE LISTED IN THE DESIGN DATA.

3. MEMBER SECTION PROPERTIES AND ALLOWABLE STRESSES SHALL BE CALCULATED IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF THE A.I.S.I. "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS."

4. SHOP DRAWINGS AND SUPPORTING CALCULATIONS FOR THE COLD-FORMED METAL FRAMING SYSTEM, INCLUDING ALL STUDS, JOISTS, HEADERS, JAMBS, SILLS, AND ASSOCIATED CONNECTION DETAILS, SHALL BE SEALED & SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF WISCONSIN.

5. HEADERS AND JAMBS AT OPENINGS MAY CONSIST OF BUILT-UP COLD-FORMED METAL SECTIONS OR HOT ROLLED STEEL SECTIONS (TUBES, ANGLES, ETC.) SOME CONDITIONS MAY NECESSITATE HOT-ROLLED STEEL SECTIONS, AND ARE TO BE SUPPLIED AND INSTALLED BY THE COLD-FORMED METAL CONTRACTOR.

6. MECHANICAL BRIDGING SHALL BE INSTALLED PRIOR TO THE ATTACHMENT OF FACING MATERIALS AND SHALL BE SECURED IN A MANNER TO PREVENT STUD ROTATION AND BE SPACED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. MAXIMUM SPACING SHALL BE 6'-0" ON CENTER FOR LATERALLY LOADED WALLS AND 4'-0" ON CENTER FOR AXIALLY LOADED WALLS.

7. PROVIDE WEB STIFFENERS AT HORIZONTAL AND VERTICAL REACTION POINTS.

8. PROVIDE ALL HORIZONTAL AND VERTICAL ATTACHMENT MECHANISMS WHERE REQUIRED.

9. PROVIDE JACK STUDS OR CRIPPLES BELOW WINDOW SILLS, AND ABOVE WINDOW AND DOOR HEADS. THESE SHALL BE SECURELY ATTACHED TO SUPPORTING MEMBERS.

10. ALL WELDING SHALL BE PERFORMED BY AWS D1.3 CERTIFIED WELDERS IN ACCORDANCE WITH THE PROVISIONS OF THE LATEST EDITION OF AWS D1.3, "SPECIFICATIONS FOR WELDING SHEET STEEL IN STRUCTURES."

11. TEMPORARY BRACING SHALL BE PROVIDED AND REMAIN IN PLACE UNTIL THE STRUCTURE IS COMPLETELY STABILIZED. PRIOR TO ATTACHMENT OF WALL SHEATHING, PROVIDE TEMPORARY BRACING TO RESIST BUCKLING OF LOAD-BEARING STUDS, TEMPORARY X-BRACING TO RESIST LATERAL WIND AND SEISMIC LOADS AND ANY OTHER TEMPORARY BRACING DEEMED NECESSARY DURING CONSTRUCTION. TEMPORARY BRACING IS THE RESPONSIBILITY OF THE COLD-FORMED METAL INSTALLER.

12. ALL FIELD CUTTING OF STUDS MUST BE DONE BY SAWING OR SHEARING. TORCH CUTTING OF COLD-FORMED MEMBERS IS UNACCEPTABLE.

13. STUDS SHALL NOT DEVIATE FROM PLUMB, LEVEL AND TRUE TO LINE OF 1/8" IN 10'-0" OR IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

14. MAXIMUM DEFLECTIONS FOR STUDS BACKING UP EXTERIOR BUILDING SKIN MATERIALS SHALL BE LIMITED TO THE FOLLOWING:

BRICK / STONE	L/600
EIFS / STUCCO	L/360
METAL PANELS / WOOD SIDING	L/240

15. ALL COLD-FORMED METAL FRAMING SHALL CONFORM TO:

PAINTED SECTIONS: 10, 12, 14 & 16 GA – A570	Fy=50,000 PSI
PAINTED SECTIONS: 18 & 20 GA – A611 GD C	Fy=33,000 PSI
GALVANIZED SECTIONS: 10, 12, 14 & 16 GA – A446 GD D	Fy=50,000 PSI
GALVANIZED SECTIONS: 18 & 20 GA – A446 GD A	Fy=33,000 PSI

16. REFER TO PLANS AND DETAILS FOR GAUGE AND SIZE REQUIREMENTS OF COLD-FORMED METAL FRAMING MEMBERS.

17. ALL FRAMING PRODUCTS SHALL BE FORMED FROM STEEL POSSESSING A COATING CORRESPONDING TO THE MINIMUM REQUIREMENTS OF ASTM C955.

18. ALL SIDE CLIPS, SUPPORT CLIPS, AND CLIP ANGLES ARE 50 ksi, UNLESS NOTED OTHERWISE.

19. NOMENCLATURE: CONFORMS TO SSMA STANDARDS, PRODUCT TECHNICAL INFORMATION, PAGE 5 (www.SSMA.com), FOR "GENERIC" FRAMING MANUFACTURER.

20. GALVANIZING: ALL FRAMING TO BE GALVANIZED, G60 COATING MINIMUM, UNLESS NOTED OTHERWISE.

21. SUGGESTED WELD METAL AND PROCESS FOR SHOP WELDING ARE: 60 ksi WELD MATERIAL STRENGTH (MINIMUM). SUGGESTED METHODS FOR FIELD WELDING: 1/8" UNLESS NOTED OTHERWISE, E60XX (MINIMUM) ELECTRODE- SMAW – OR "GASLESS" MIG. MINIMUM WELD THROAT THICKNESS (t) MUST MATCH OR EXCEED THE BASE STEEL THICKNESS OF THE THINNEST CONNECTED PART UNLESS NOTED OTHERWISE.

22. ZINC RICH PAINT: FOR WELD TOUCH-UP USE PAINT 20 TYPE II ORGANIC ZINC RICH.

23. FASTENERS: SHALL BE CORROSION-RESISTANT CADMIUM OR ZINC PLATED SCREWS, NUTS, BOLTS, WASHERS AND OTHER FASTENERS.

24. UNLESS NOTED OTHERWISE, REFER TO LITERATURE PUBLISHED BY HILTI FASTENING SYSTEMS, INC. FOR EXPANSION BOLT, OR POWDER ACTUATED FASTENER (P.A.F.) INFORMATION, AND ITW BUILDEX, INC. FOR TEKS SCREW DATA. ALTERNATE MANUFACTURER'S FASTENERS OF COMPARABLE SPECIFICATIONS AND LOAD CAPACITIES ARE ACCEPTABLE WITH APPROVAL. ALL FASTENER'S SUBJECT TO TENSION SHALL HAVE 15MM (MINIMUM) DIAMETER STEEL WASHERS.

25. ALL CONCRETE SCREW FASTENERS SHALL BE THOSE AS MANUFACTURED AND TESTED BY TAPCON CONCRETE ANCHORS OR APPROVED EQUAL, OR AS INDICATED ON THE DRAWINGS.

PRE-ENGINEERED, PRE-FABRICATED COLD-FORMED STEEL ROOF TRUSSES:

1. ALL LIGHT GAGE STEEL SHALL BE PERFORMANCE DESIGNED PER THE SPECIFICATIONS OF THE LATEST EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE (AISI) NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, INCLUDING SUPPLEMENTS.

2. PROPORTION LOADS PER THE LATEST EDITION OF THE WISCONSIN ENROLLED COMMERCIAL BUILDING CODE BASED ON THE INTERNATIONAL BUILDING CODE.

3. PROVIDE METAL STUDS, ROOF TRUSSES, AND JOISTS AS INDICATED ON THE STRUCTURAL AND ARCHITECTURAL DRAIWNGS, AS SPECIFIED HEREIN, AND AS NEEDED FOR A COMPLETE AND PROPER INSTALLATION.

   3.1. STRUCTURAL PERFORMANCE: DESIGN, FABRICATE, AND ERECT COLD-FORMED STEEL TRUSSES TO WITHSTAND SPECIFIED DESIGN LOADS WITHIN LIMITS AND UNDER CONDITIONS REQUIRED.

DESIGN LOADS:	AS SPECIFIED.
DEFLECTIONS:	AS SPECIFIED.

   3.2. DESIGN FRAMING SYSTEMS TO PROVIDE FOR MOVEMENT OF FRAMING MEMBERS WITHOUT DAMAGE OR OVERSTRESSING, SHEATHING FAILURE, CONNECTION FAILURE, UNDUE STRAIN ON FASTENERS AND ANCHORS, OR OTHER DETRIMENTAL EFFECTS WHEN SUBJECT TO A MAXIMUM AMBIENT TEMPERATURE CHANGE (RANGE) OF 120 DEG F (67 DEG C).

   3.3. SUBMIT DETAILED ROOF TRUSS LAYOUTS INDICATING PLACEMENT OF TRUSSES.

   3.4. SUBMIT INDIVIDUAL TRUSS DRAWINGS, SEALED AND SIGNED BY A QUALIFIED REGISTERED PROFESSIONAL ENGINEER, VERIFYING ACCORDANCE WITH LOCAL BUILDING CODE AND DESIGN REQUIREMENTS. INCLUDE:
   DESCRIPTION OF DESIGN CRITERIA.
   ENGINEERING ANALYSIS DEPICTING MEMBER STRESSES AND TRUSS DEFLECTION.
   TRUSS MEMBER SIZES AND THICKNESS AND CONNECTIONS AT TRUSS JOINTS.
   TRUSS SUPPORT REACTIONS.
   TOP CHORD, BOTTOM CHORD AND WEB BRACING REQUIREMENTS.

   3.5. SUBMIT FINAL ROOF AND FLOOR PLAN DRAWINGS SEALED AND SIGNED BY A QUALIFIED REGISTERED PROFESSIONAL ENGINEER DEPICTING FINAL INSTALLED TRUSS ASSEMBLY. INCLUDE:
   ALL TRUSS TO TRUSS CONNECTIONS
   ALL TRUSS TO STRUCTURE (BEARING) CONNECTIONS
   PLAN AND DETAILS FOR THE LOCATION OF ALL PERMANENT LATERAL AND DIAGONAL BRACING AND/OR BLOCKING REQUIRED IN THE TOP CHORD, WEB, AND BOTTOM CHORD PLANES.

4. MATERIALS:

   4.1. FOR ALL CHORD AND WEB MEMBERS : FABRICATE COMPONENTS OF STRUCTURAL QUALITY STEEL SHEET PER ASTM A653 WITH A MINIMUM YIELD STRENGTH OF 50,000 PSI.

   4.2. BRACING, BRIDGING AND BLOCKING MEMBERS: FABRICATE COMPONENTS OF COMMERCIAL QUALITY STEEL SHEET PER ASTM A653 WITH A MINIMUM YIELD STRENGTH OF 33,000 PSI.

5. FINISH: PROVIDE COMPONENTS WITH PROTECTIVE ZINC COATING COMPLYING WITH ASTM A653, MINIMUM G60 COATING.

6. PROVIDE MANUFACTURER'S STANDARD STEEL TRUSS MEMBERS, BRACING, BRIDGING, BLOCKING, REINFORCEMENTS, FASTENERS AND ACCESSORIES WITH EACH TYPE OF STEEL FRAMING REQUIRED, AS RECOMMENDED BY THE MANUFACTURER FOR THE APPLICATIONS INDICATED AND AS NEEDED TO PROVIDE A COMPLETE COLD-FORMED STEEL TRUSS ROOF OR FLOOR ASSEMBLY.

7. FASTENINGS:

   7.1. MANUFACTURER RECOMMENDED SELF-DRILLING SCREWS WITH CORROSION-RESISTANT PLATED FINISH. FASTENERS SHALL BE OF SUFFICIENT SIZE AND NUMBER TO ENSURE THE STRENGTH OF THE CONNECTION.

   7.2. WELDING: COMPLY WITH AWS D1.1 WHEN APPLICABLE AND AWS D1.3 FOR WELDING BASE METALS LESS THAN ⅛" THICK.

MISCELLANEOUS:

1. ALL WINDOW FRAMES SHALL BE INSTALLED TO ALLOW FOR A MINIMUM OF L/600 OR 1/2 INCH VERTICAL DEFLECTION OF THE HEADER WHICHEVER IS LESS.

2. ALL DRAWINGS ARE OF EQUAL IMPORTANCE IN DEFINING THE WORK OF THE CONTRACT DOCUMENTS. CONTRACTOR SHALL CAREFULLY REVIEW AND COMPARE ALL DRAWINGS DURING THE BIDDING PERIOD AND BEFORE INSTALLATION OF THEIR WORK. ANY INCONSISTENCIES IN THE DRAWINGS SHALL BE REPORTED PROMPTLY TO THE ENGINEER AND ARCHITECT FOR CLARIFICATION.

3. EVERY EFFORT HAS BEEN MADE TO PROVIDE TO SCALE DRAWINGS, HOWEVER THE DRAWINGS ARE NOT NECESSARILY TO SCALE – USE GIVEN DIMENSIONS.

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OLBRICH GARDENS
RESTROOM ADDITION
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MADISON, WI

ISSUANCES:

CD'S	12.21.2012
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PROJECT:

NUMBER:	120410.00
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REV:	-
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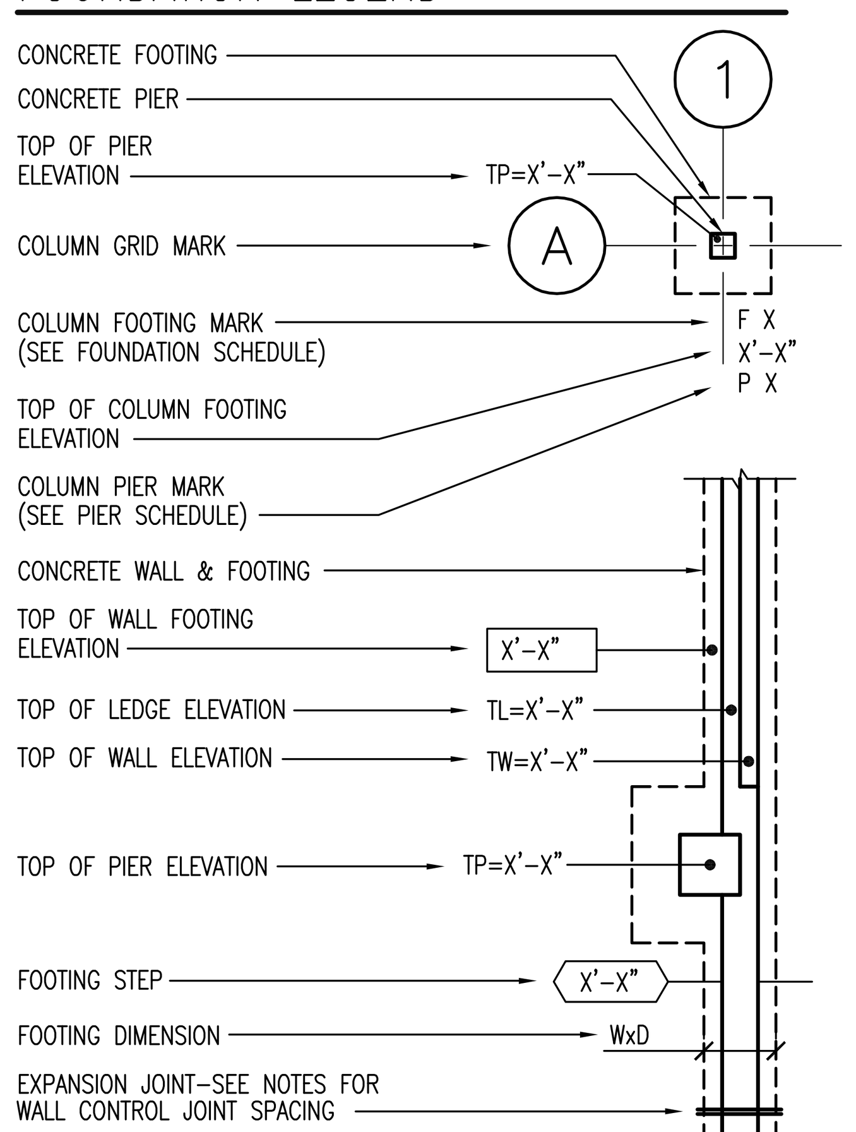
SHEET:
S001

PLAN NOTES

1. SEE SHEET S001 FOR ADDITIONAL NOTES.
2. CONTROL JOINTS: ALL CONCRETE SLABS SHALL BE SAW CUT AS SOON AS THE CONCRETE WILL SUPPORT THE SAWING EQUIPMENT AND DOES NOT RAVEL DURING THE SAWING OPERATION. ALL SAW CUTTING SHALL BE PERFORMED THE SAME DAY THE CONCRETE IS PLACED. SAW CUTS SHALL BE ⅛" WIDE WITH DEPTHS OF AT LEAST 25% OF THE SLAB THICKNESS. JOINTING PATTERN SHALL BE IN A SQUARE PATTERN, WITH MAXIMUM SPACINGS OF 10'-0"OC. SEE DETAIL 6/S601.
3. CURING: ALL CONCRETE FLAT WORK SHALL BE COVERED IMMEDIATELY FOLLOWING SAW CUTTING AND MAINTAINED CONTINUOUSLY WET FOR A MINIMUM OF 7 DAYS AFTER PLACING. CURING SHEETS SHALL BE USED, AND ARE TO REMAIN IN PLACE, DURING THIS PERIOD. CURING COMPOUND MAY BE USED AND MUST BE APPLIED PER MANUFACTURER'S RECOMMENDATIONS.
4. SEE SHEET S601 DETAIL 1 FOR ANCHOR BOLT REQUIREMENTS.
5. SEE SHEET S601 DETAILS 2 & 3 FOR FOOTING & WALL CORNER REINFORCING.
6. SEE SHEET S601 DETAILS 4 & 5 FOR ADDED REINFORCING AT ROUND & RECTANGULAR OPENINGS.
7. SEE SHEET S601 DETAILS 6 & 7 FOR SLAB & WALL JOINT REQUIREMENTS.
8. SEE SHEET S601 DETAIL 8 FOR ADDED REINFORCING AT RE-ENTRANT CORNERS WITHOUT CONTROL JOINTS.
9. SEE SHEET S601 DETAIL 9 FOR FOOTING STEP REQUIREMENTS.
10. TOP OF FOOTING ELEVATION = 96'-0" UNO.
11. (1) – PROVIDE SIMPSON S/HDU9 HOLDOWN @ BASE w/ ⅞"ø PAB7 ANCHOR BOLT.

FOUNDATION LEGEND



FOOTING SCHEDULE

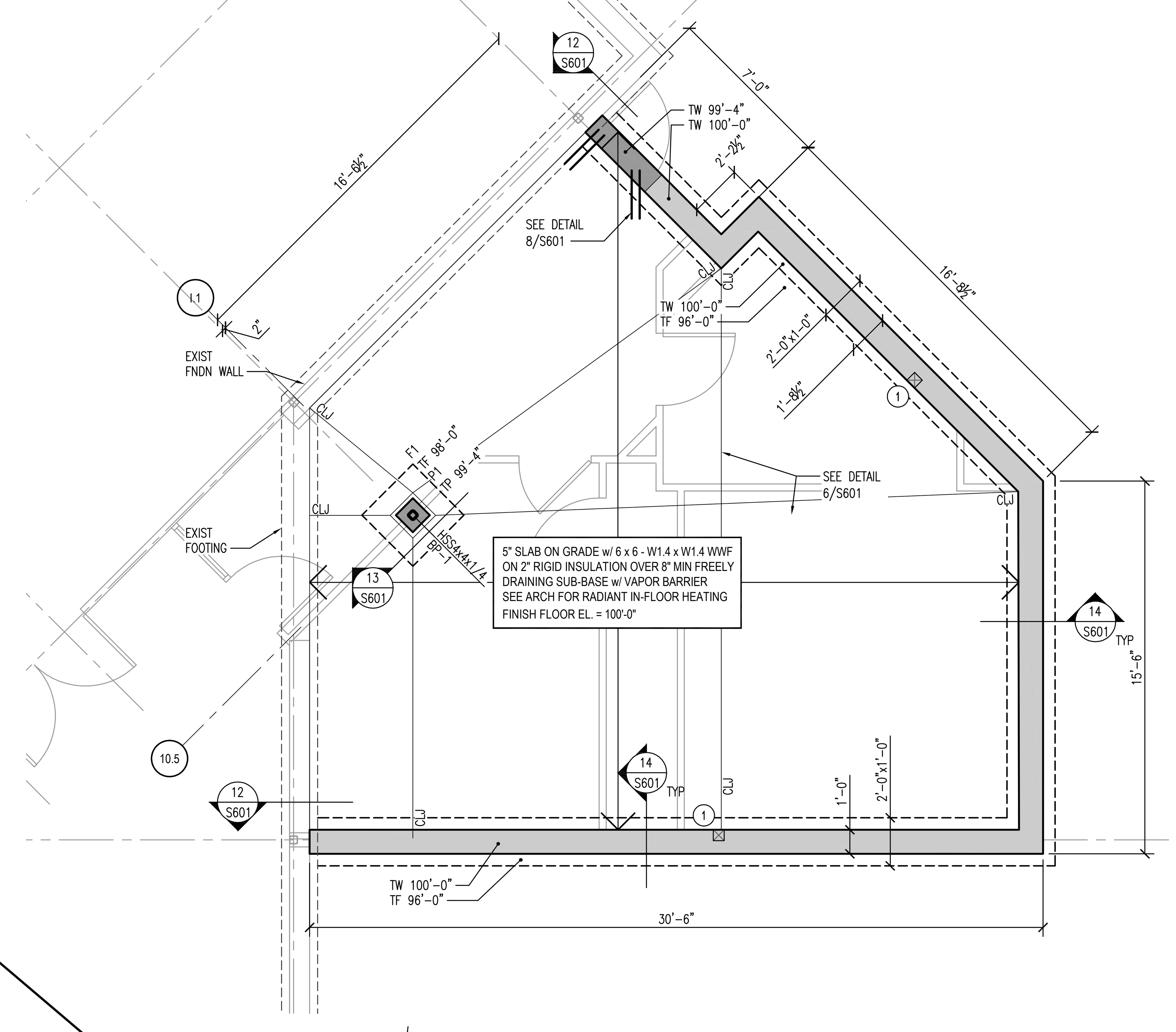
FOOTING MARK	FOOTING DIMENSION (W x L x D)	FOOTING REINFORCING EACH WAY, BOTTOM
F1	3'-0" x 3'-0" x 1'-0"	(3) #5's EW

1. CENTER FOOTING UNDER COLUMN AND/OR PIER.

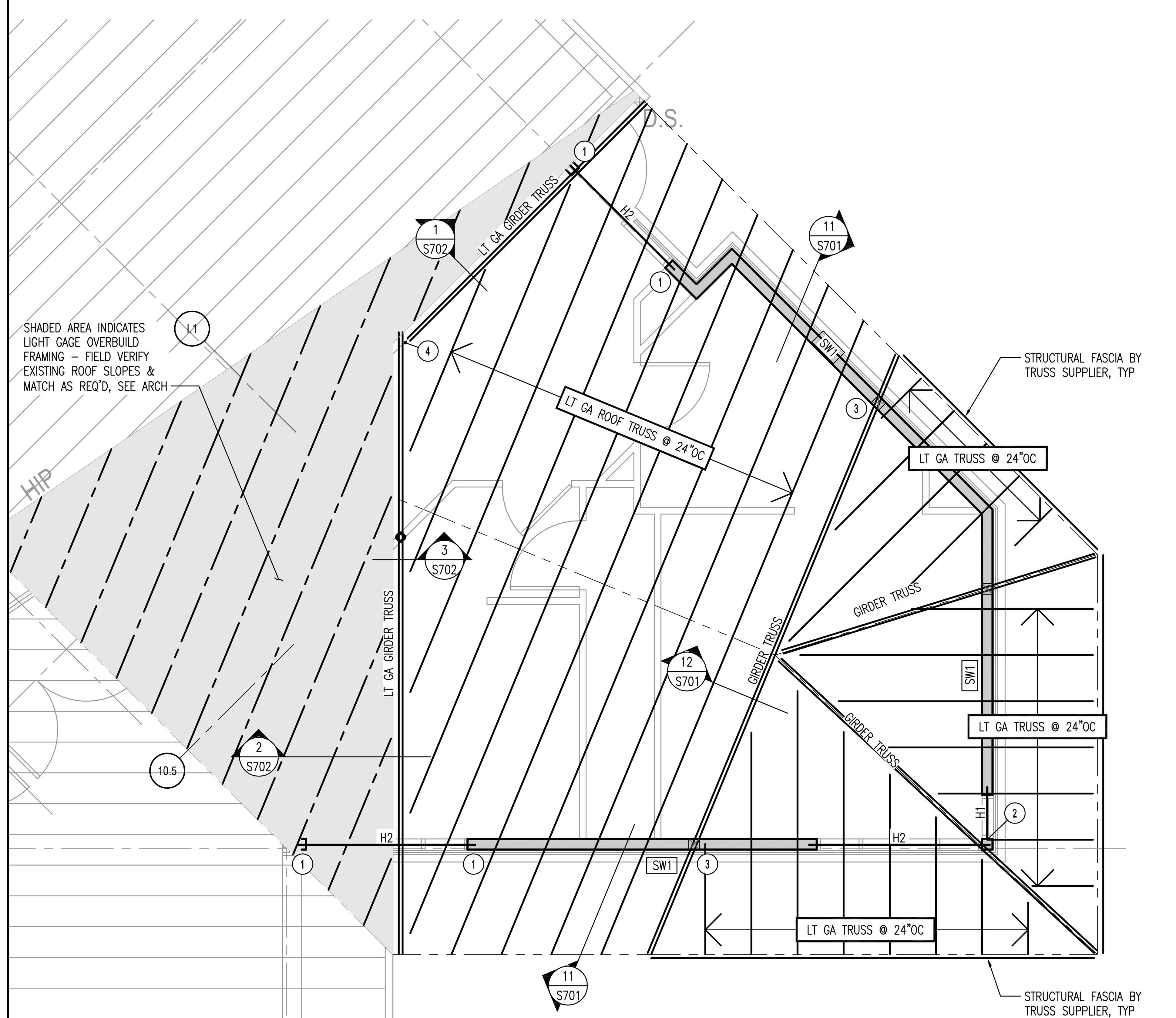
PIER SCHEDULE

PIER MARK	PIER DIMENSION (W x L)	PIER REINFORCING	TYPE	REMARKS
	A	B	C	D
P1	1'-0" x 1'-0"	4-#6 VERT W/ #3 TIES @ 10"OC	A	TP 99'-4" UNO

1. CENTER PIER UNDER COLUMN OR UNDER BEAM BEARING UNLESS NOTED OTHERWISE.
2. SEE DETAIL 11/S6.1 FOR TYPICAL PIER / COLUMN BASEPLATE.



N
1
S100
FOUNDATION PLAN
SCALE: 1/4" = 1'-0"



N
2
S100
ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"

PLAN NOTES

1. SEE SHEET S001 FOR ADDITIONAL NOTES.
2. METAL ROOF SHEATHING NOT IN CONTRACT. GENERAL CONTRACTOR TO COORDINATE FASTENING SCHEDULE IN FIELD w/ SEPARATE RE-ROOFING PROJECT CONTRACTOR OF EXISTING BUILDING. MIN. REQUIREMENTS: FASTEN TO LIGHT GA w/ #12 TEKS IN 30/4 PATTERN (3-#10 TEKS @ SIDELAP)
3. LIGHT GAGE METAL ROOF TRUSSES SHALL BE PERFORMANCE DESIGNED PER STRUCTURAL NOTES ON SHEET S001.
4. EXTERIOR WALL SHEATHING SHALL CONSIST OF DENSGLASS, SEE ARCH. FASTEN TO STUDS PER 10/S701.
5. SEE SHEET S701 DETAIL 8 FOR TRUSS BRACING REQUIREMENTS.
6. TRUSS-TO-TRUSS CONNECTIONS SHALL BE DESIGNED AND SUPPLIED BY TRUSS SUPPLIER.
7. [SWx] DENOTES SHEAR WALL LOCATION, SEE 10/701.
8. EXTERIOR WALLS TO BE [SW1] SHEAR WALLS UNO.
9. (1) – PROVIDE SIMPSON MSTA24 STRAP TIES @ EA END OF HEADER
10. (2) – PROVIDE HEADER HANGER TO FACE OF STUD BY SUPPLIER, SEE DETAIL 8/S701
11. (3) – PROVIDE SIMPSON GIRDER TIEDOWN – SIZE BY TRUSS SUPPLIER
12. (4) – GIRDER TO GIRDER CONNECTION BY SUPPLIER
13. SEE SHEET S701 FOR TYPICAL DETAILS NOT CUT ON PLAN.
14. H1 – (2)-600S162-43 (BOXED) w/ 600T125-43 (MIN)
15. H2 – (2)-600S162-54 (BACK TO BACK) w/ 600T125-54 (MIN)

ROOF TRUSS LOADING

DEAD LOAD:	TOP CHORD DL = 10 PSF BOTTOM CHORD DL = 5 PSF
LIVE LOAD:	20 PSF REDUCIBLE
SNOW LOAD:	BALANCED SNOW = 23.1 PSF UNBALANCED SNOW = 30/0 ACROSS RIDGE
WIND LOAD:	4.3 PSF GROSS UPLIFT FIELD 4.9 PSF GROSS UPLIFT CORNERS 13.3 PSF GROSS UPLIFT OVERHANGS
DEFLECTION:	L/240 LIVE/SNOW L/180 TOTAL

COLD-FORMED METAL PRODUCT IDENTIFICATION

PRODUCT GEOMETRIES MUST MEET OR EXCEED THE MINIMUM PROPOSED BY THE STEEL STUD MANUFACTURERS ASSOCIATION FOR INDUSTRY STANDARDIZATION. FOR SSMA DESIGNATIONS SEE TABLES BELOW.

MEMBER SECTION TABLE

SECTION	SSMA IDENTIFICATION	FLANGE WIDTH
STUDS	S137	1 ⅜"
	S162	1 ⅝"
	S200	2"
	S250	2 ½"
TRACKS	T125	1 ¼"
	T200	2"

MEMBER THICKNESS TABLE

MILS	GAUGE	MINIMUM DELIVERED THICKNESS	DESIGN THICKNESS
33	20	0.0329"	0.0346"
43	18	0.0428"	0.0451"
54	16	0.0538"	0.0566"
68	14	0.0677"	0.0713"
97	12	0.0966"	0.1017"
118	10	0.1180"	0.1242"

MEMBER DEPTH (WEB SIZE) TABLE

SSMA IDENTIFICATION	MEMBER DEPTH
600	6"
362	3 ⅝"
800	8"
1000	10"

SSMA PRODUCT IDENTIFICATION

800S162-43 (50ksi)

- 800 – MEMBER DEPTH
- S – SHAPE
- 162 – FLANGE WIDTH
- 43 – MIL THICKNESS
- (50ksi) – YIELD STRENGTH (IF GREATER THAN 33ksi)

COLD FORMED METAL STUD FRAMING SCHEDULE

WALL TYPE	STUD SIZE	TRACK
EXTERIOR WALLS	600S162-43 @ 16"oc	600T125-43
INTERIOR NON-LOAD BEARING WALLS	362S162-33 @ 24"oc MAX (SEE ARCH)	362T162-33

BEARING WALL SCHEDULE NOTES:

1. STUD SIZES, GAGES, AND SPACINGS SHOWN ARE MINIMUM VALUES. CONDITIONS AT HEADERS, JAMBS, ETC. WILL REQUIRE ADDITIONAL FRAMING AND IS TO BE ACCOUNTED FOR DURING BIDDING. COLD-FORMED METAL STEEL SUPPLIER TO VERIFY STUD SIZE, GAUGE & SPACING.
2. FOR CONDITIONS WHERE STUD SPACING DOES NOT MATCH ROOF TRUSS FRAMING SPACING, STRUCTURAL COLD-FORMED TOP TRACKS OR HOT-ROLLED STEEL SECTIONS SHALL BE USED TO TRANSFER OFFSET POINT LOADS, AND ARE TO BE DESIGNED, SUPPLIED, AND INSTALLED BY THE COLD-FORMED CONTRACTOR.
3. PROVIDE HORIZONTAL STRAP BLOCKING AT ALL SHEATHING EDGES. PROVIDE SOLID BLOCKING BETWEEN THE FIRST TWO END STUDS AND AT 10'-0" O.C. SEE DETAIL 10/S701 – SHEARWALL NOTES FOR ADDITIONAL REQUIREMENTS.

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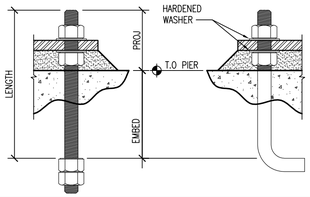
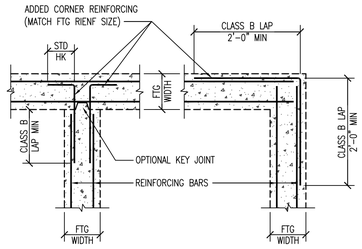


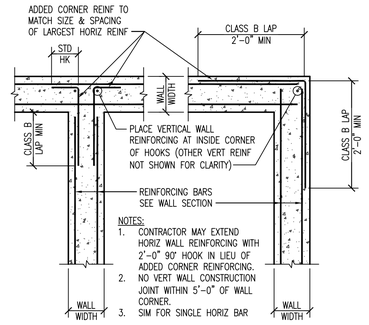
DIMENSION CHART				
DIAMETER	LENGTH	HOOK	PROJECTION	NOTES
1/2	10	2	4	1,2
5/8	13	2 1/2	4	1,2
3/4	16	3	4	1,2
7/8	19	3 1/2	4	1,2
1	19	4	4	1,2

NOTES:
1. ALL ANCHORS F1554, GRADE 36.
2. LENGTH = 1'-0" AT INTERIOR COLUMN FOOTINGS WITH 12" DEPTH.

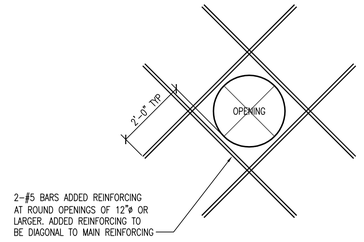
1 S601 ANCHOR BOLT DIMENSION CHART
SCALE: NTS



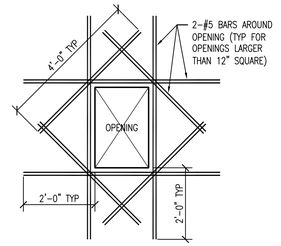
2 S601 FOOTING CORNER REINFORCING
SCALE: 3/4"=1'-0"



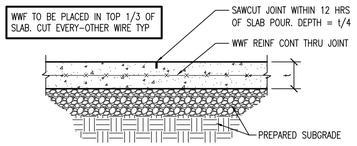
3 S601 WALL CORNER REINFORCING
SCALE: 3/4"=1'-0"



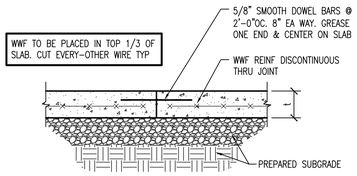
4 S601 ADDED REINFORCING AT ROUND OPENINGS
SCALE: 1/2"=1'-0"



5 S601 ADDED REINFORCING AT RECTANGULAR OPENINGS
SCALE: 1/2"=1'-0"



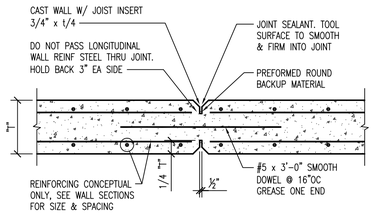
CONTROL JOINT



CONSTRUCTION JOINT

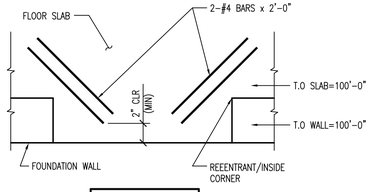
CONTRACTOR OPTION: SUBSTITUTE FIBERMESH 350 IN PLACE OF WWF

6 S601 SLAB JOINTS
SCALE: 3/4"=1'-0"



SEE PLAN & CONCRETE CONSTRUCTION NOTES FOR LOCATION REQUIREMENTS.

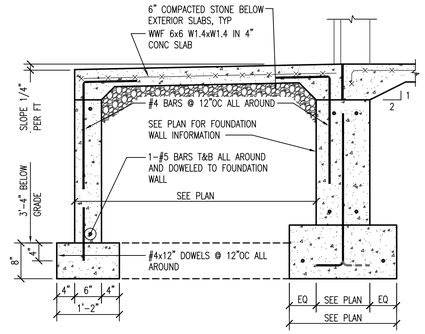
7 S601 WALL CONTROL JOINT
SCALE: 3/4"=1'-0"



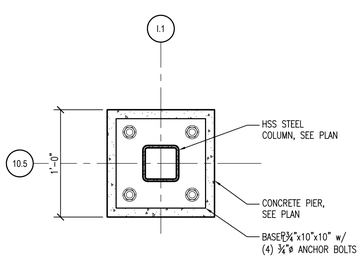
TYPICAL FOR EXTERIOR DOOR LOCATIONS.

8 S601 SLAB REINF AT REENTRANT CORNERS W/O CONTROL JTS
SCALE: 3/4"=1'-0"

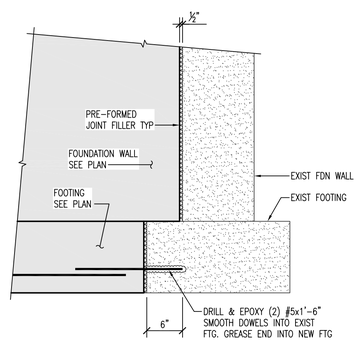
9 S601 NOT USED
SCALE: 3/4"=1'-0"



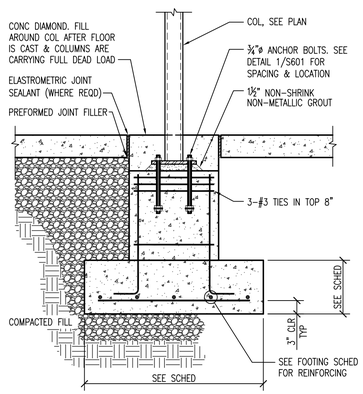
10 S601 STOOP AT DOOR/WINDOW
SCALE: 3/4"=1'-0"



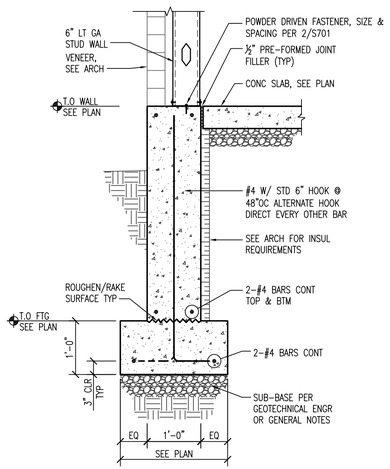
11 S601 BP-1 BASEPLATE & PIER
SCALE: 1 1/2"=1'-0"



12 S601 SECTION AT NEW TO EXISTING FOOTING
SCALE: 1"=1'-0"



13 S601 INTERIOR COLUMN FOOTING
SCALE: 3/4"=1'-0"



14 S601 FOUNDATION WALL SECTION
SCALE: 3/4"=1'-0"

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OLBRICH GARDENS RESTROOM ADDITION
3330 ATWOOD AVENUE
MADISON, WI

ISSUANCES:	
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	-

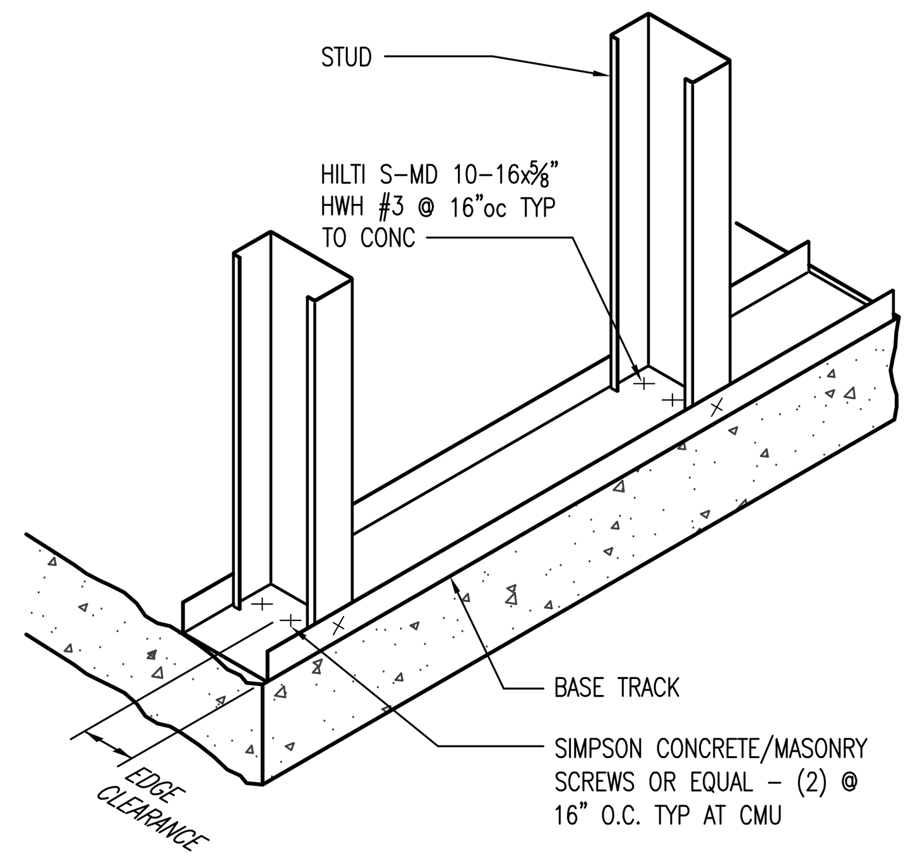
SHEET:
S601

STEEL STUD SCHEDULE

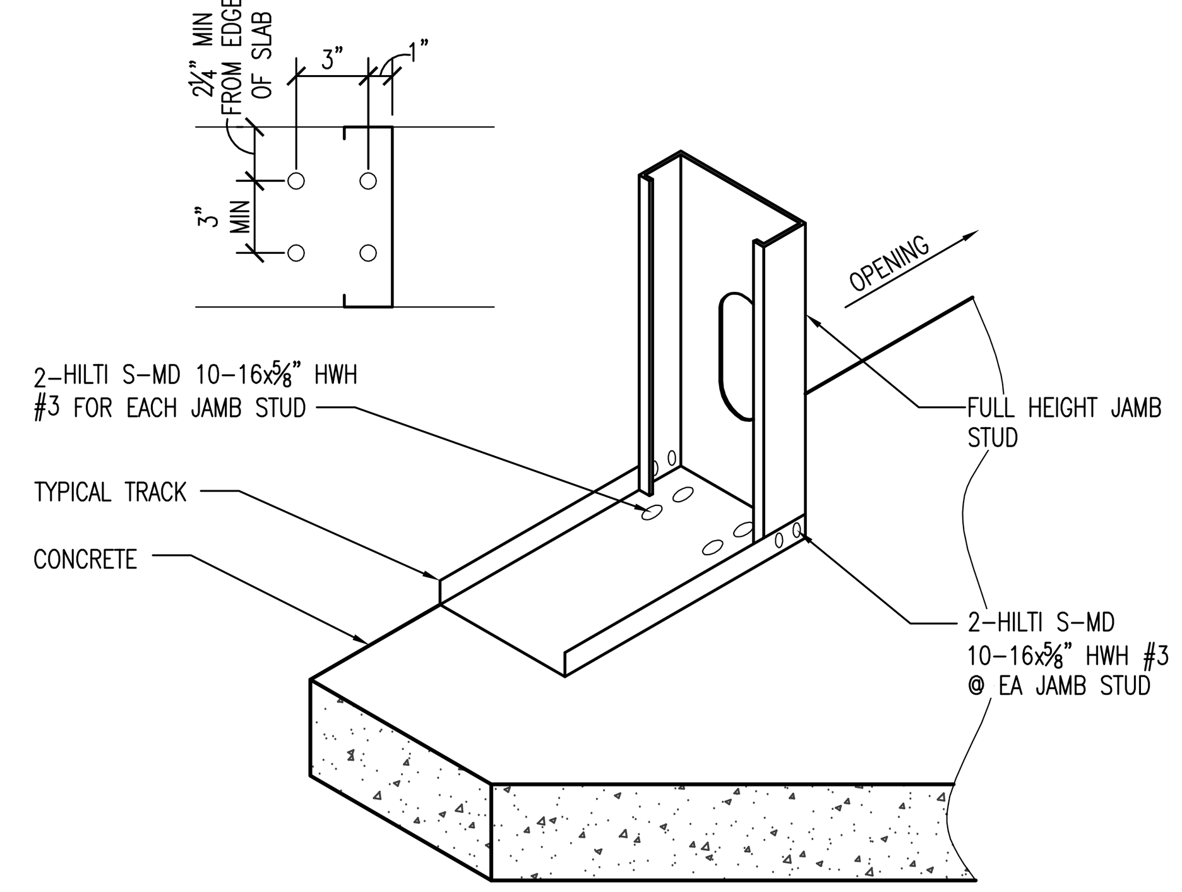
550 S 162-43
- MEMBER THICKNESS (1/1000 in)
- FLANGE WIDTH (in)
- S=STUD, T=TRACK
- WEB DEPTH (in)

MEMBER THICKNESS (mils)	DESIGN THICKNESS (in)	REFERANCE ONLY GAGE No.
18	0.0188	25
27	0.0283	22
30	0.0312	20 - DRYWALL
33	0.0346	20 - STRUCTURAL
43	0.0451	18
54	0.0566	16
68	0.0713	14
97	0.1017	12

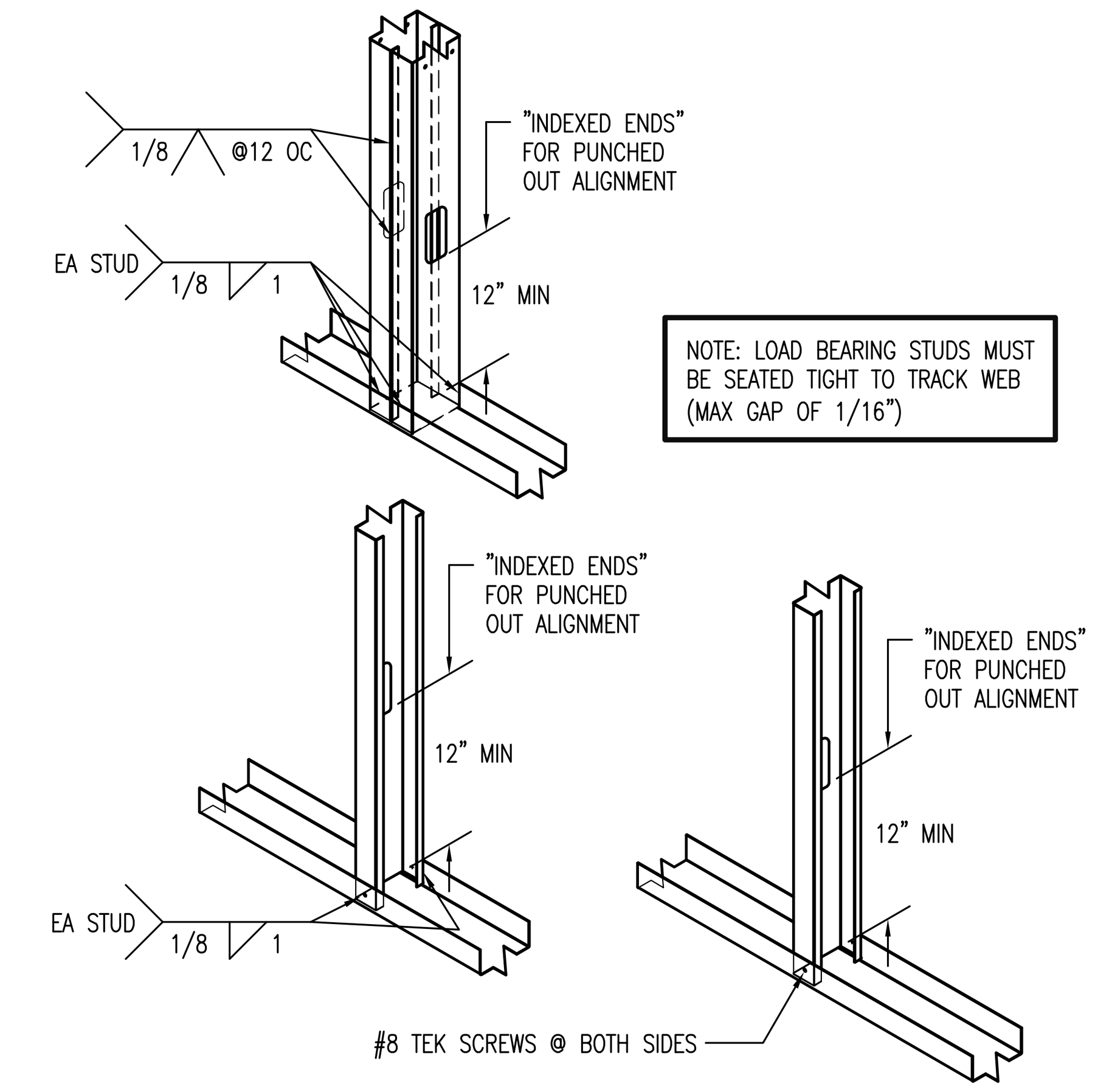
1/S701 STEEL STUD SCHEDULE
SCALE: NTS



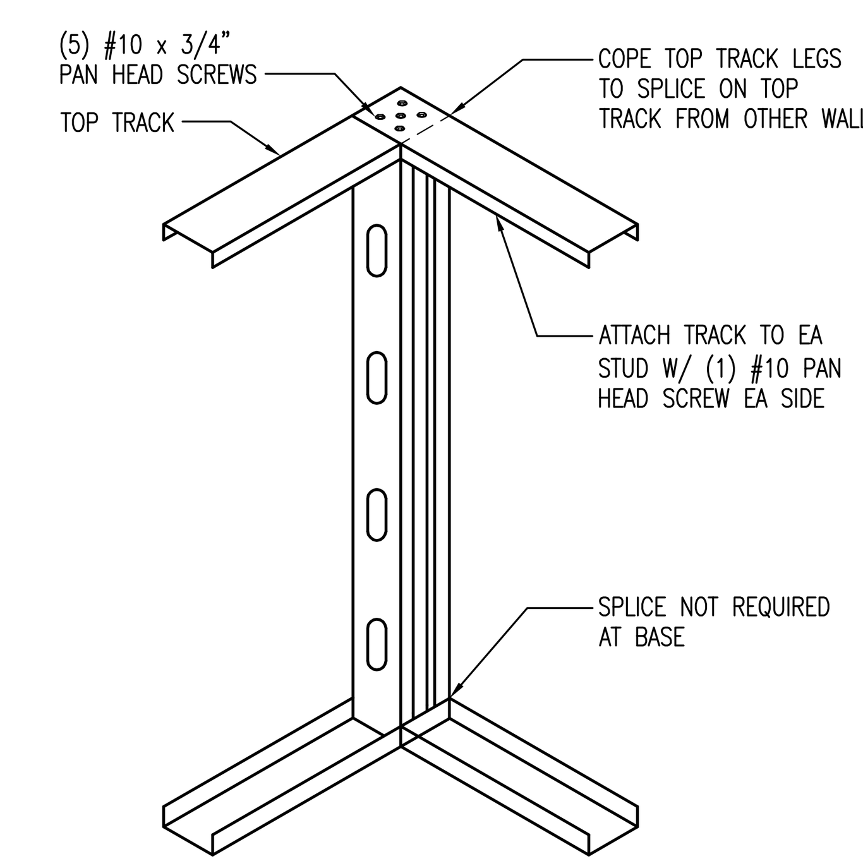
2/S701 BOTTOM TRACK ANCHORAGE
SCALE: 1"=1'-0"



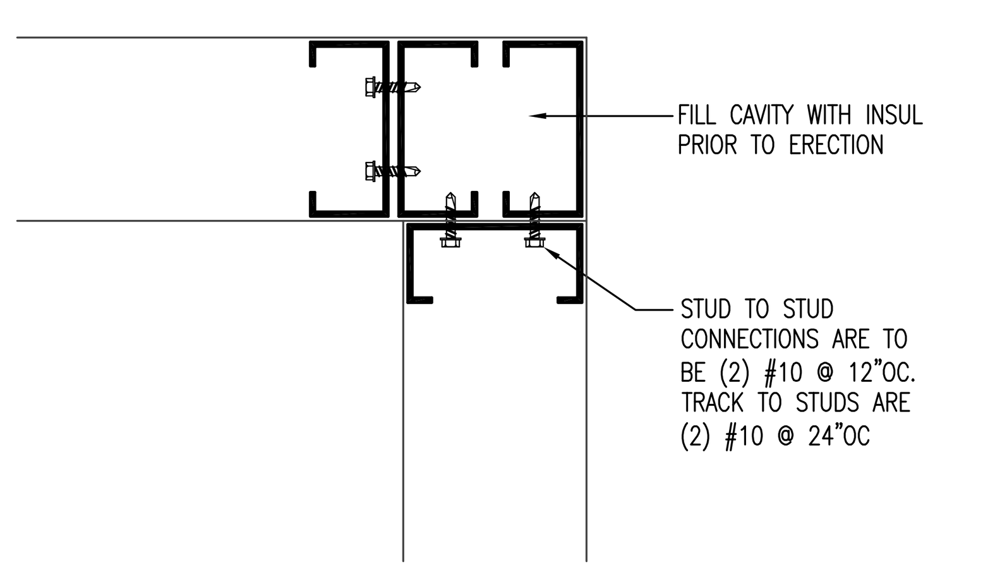
3/S701 JAMB ANCHORAGE
SCALE: NTS



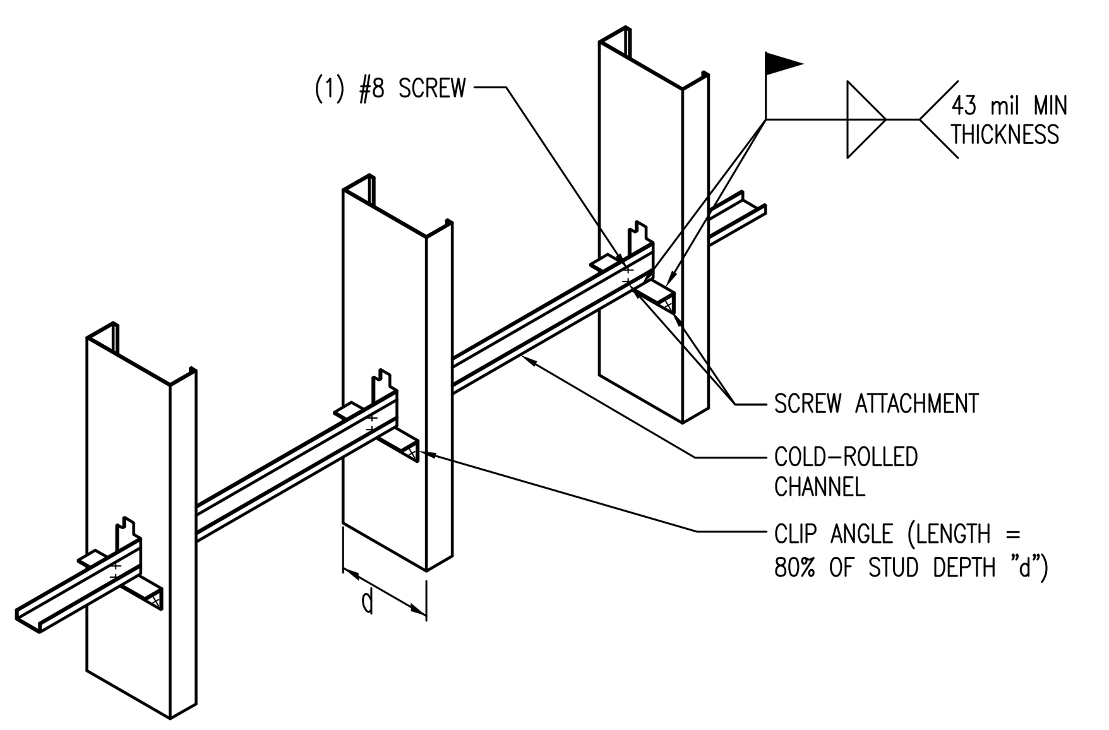
3/S701 TYP STUD TO TRACK CONN
SCALE: 1"=1'-0"



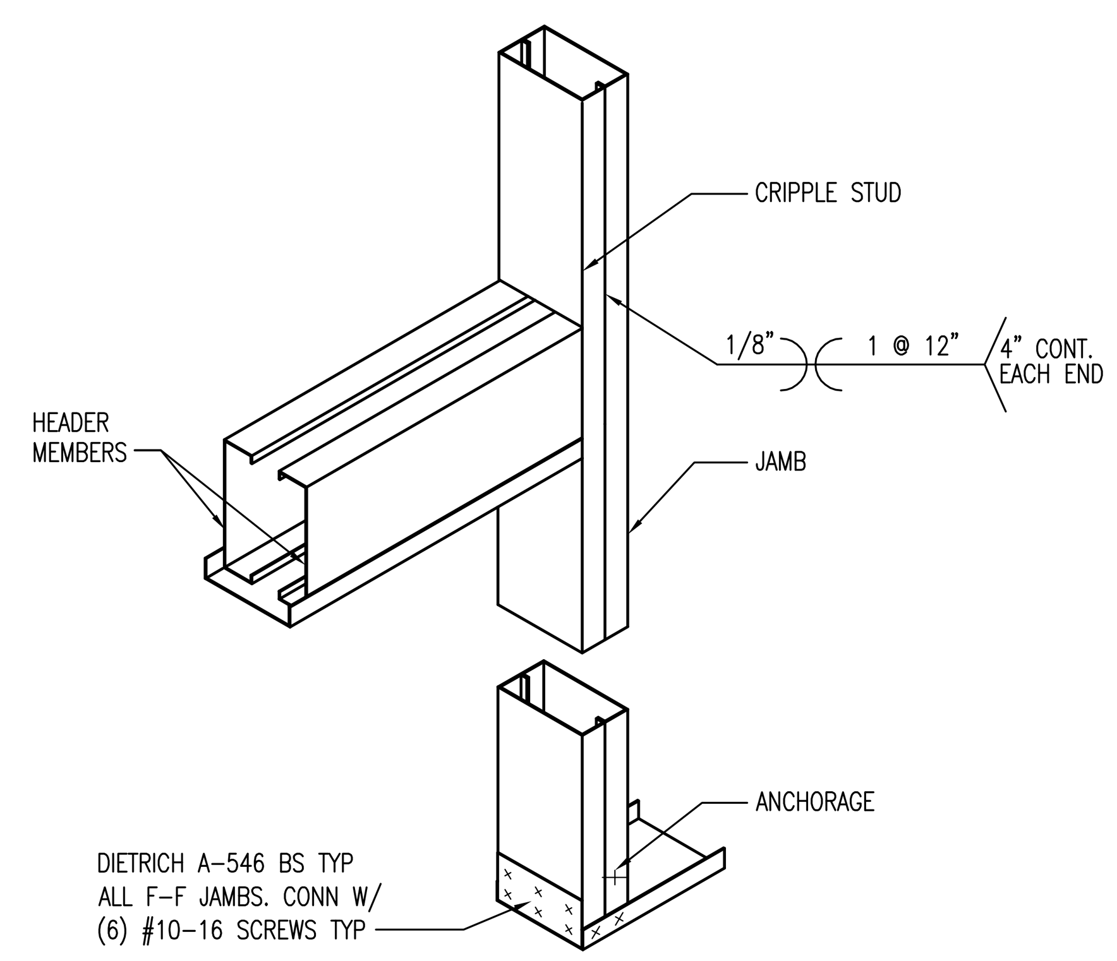
4/S701 WALL CORNER FRAMING
SCALE: NTS



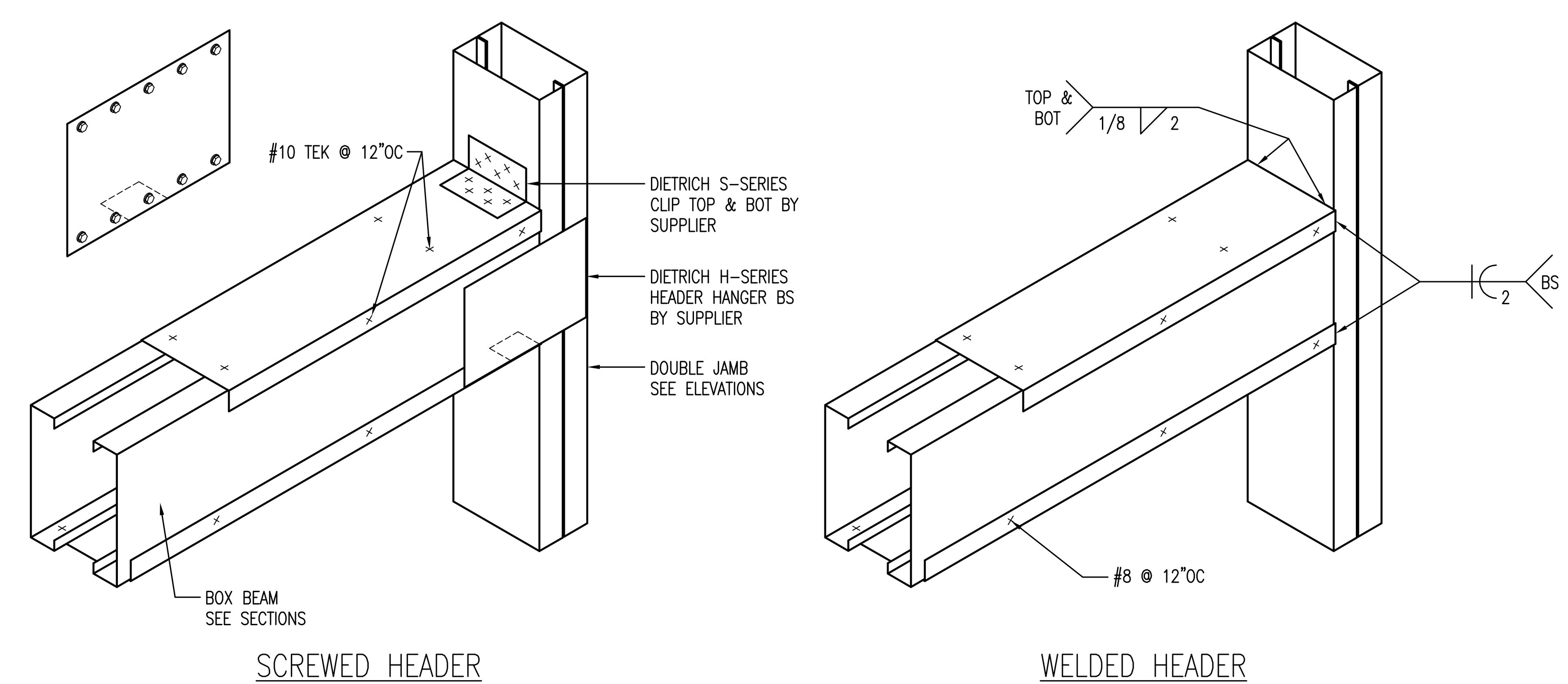
5/S701 TYPICAL CORNER FRAMING
SCALE: NTS



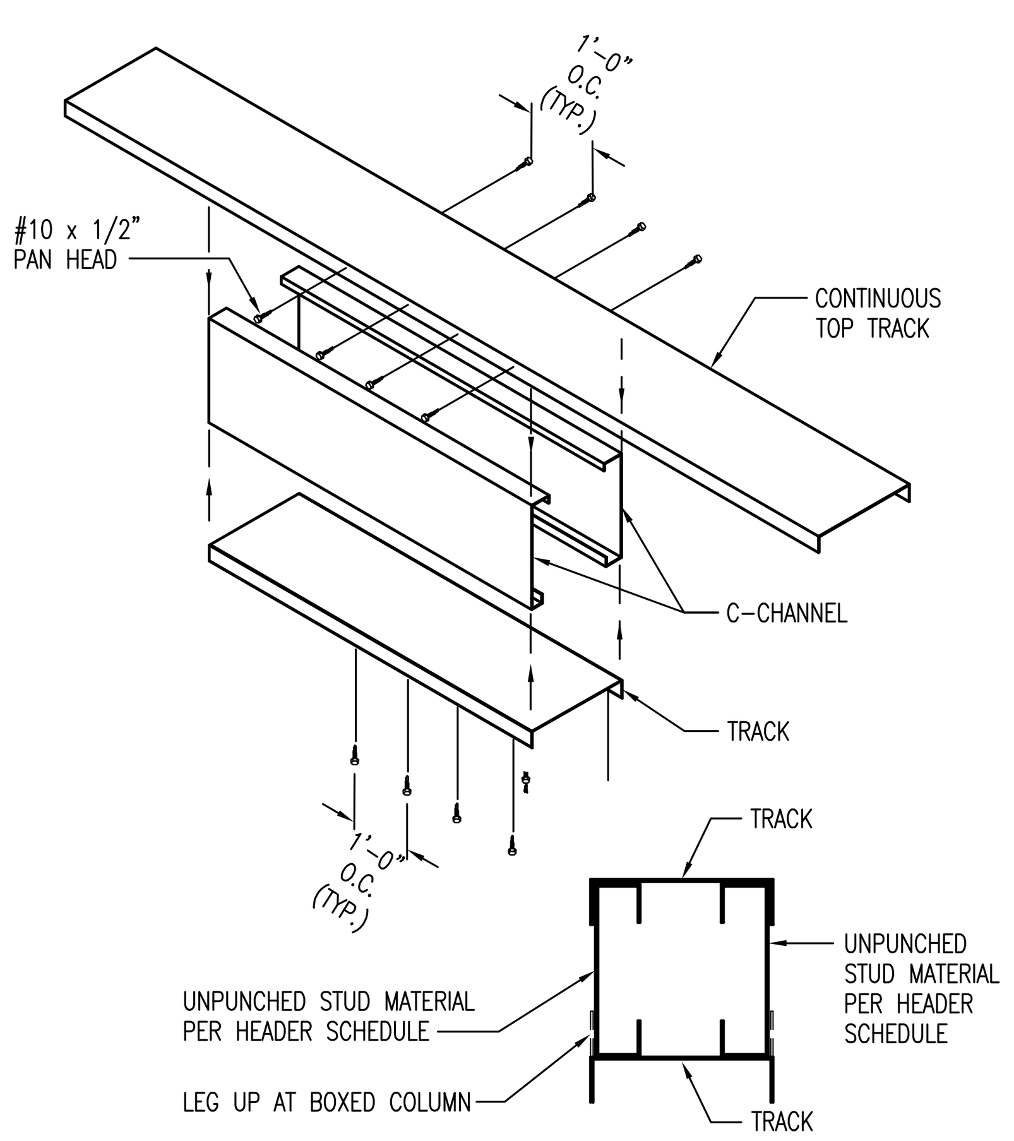
6/S701 BRIDGING COLD-ROLLED CHANNEL WITH CLIP ANGLE
SCALE: 1"=1'-0"



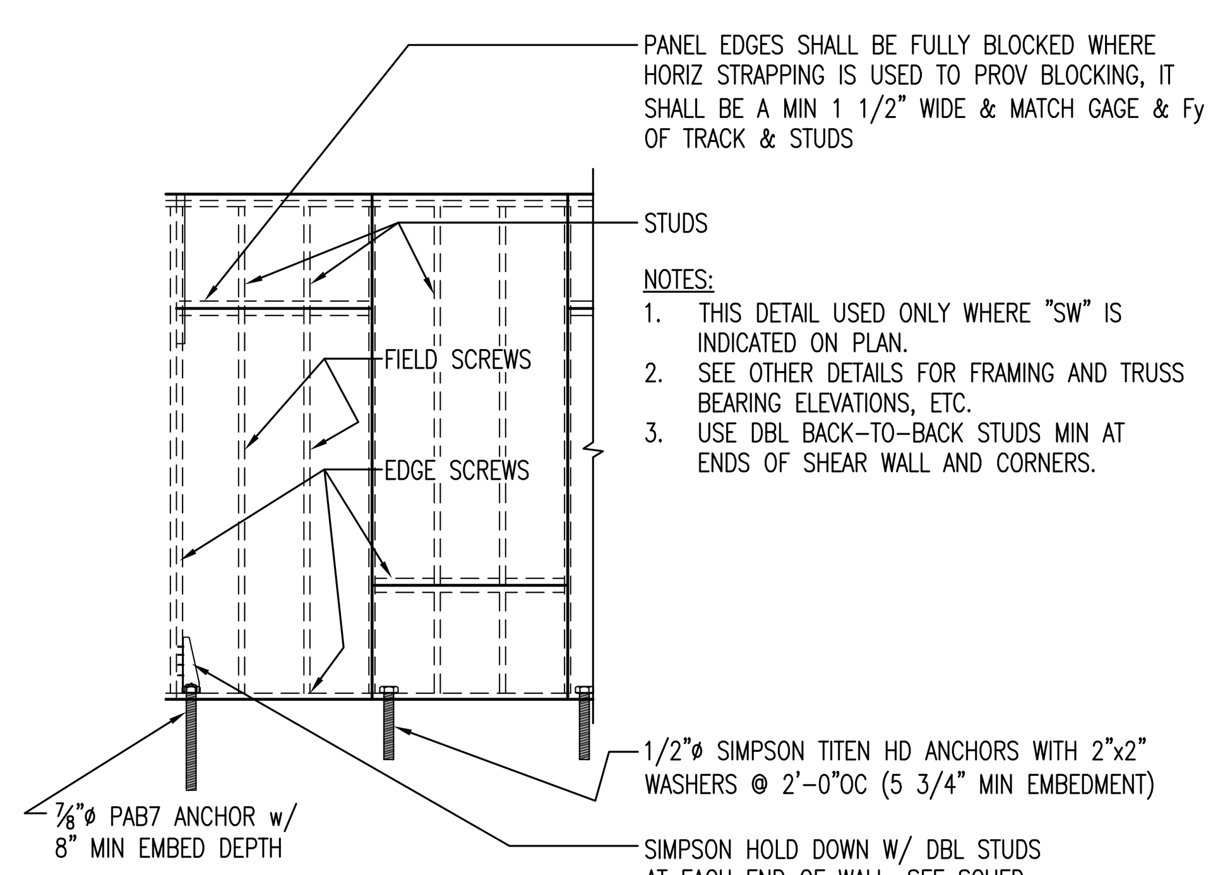
7/S701 FACE TO FACE JAMB
SCALE: 1"=1'-0"



8/S701 BOXED HEADER CONNECTION
SCALE: 1"=1'-0"



9/S701 BOX HEADER ASSEMBLY
SCALE: NTS



NOTES:
1. THIS DETAIL USED ONLY WHERE "SW" IS INDICATED ON PLAN.
2. SEE OTHER DETAILS FOR FRAMING AND TRUSS BEARING ELEVATIONS, ETC.
3. USE DBL BACK-TO-BACK STUDS MIN AT ENDS OF SHEAR WALL AND CORNERS.

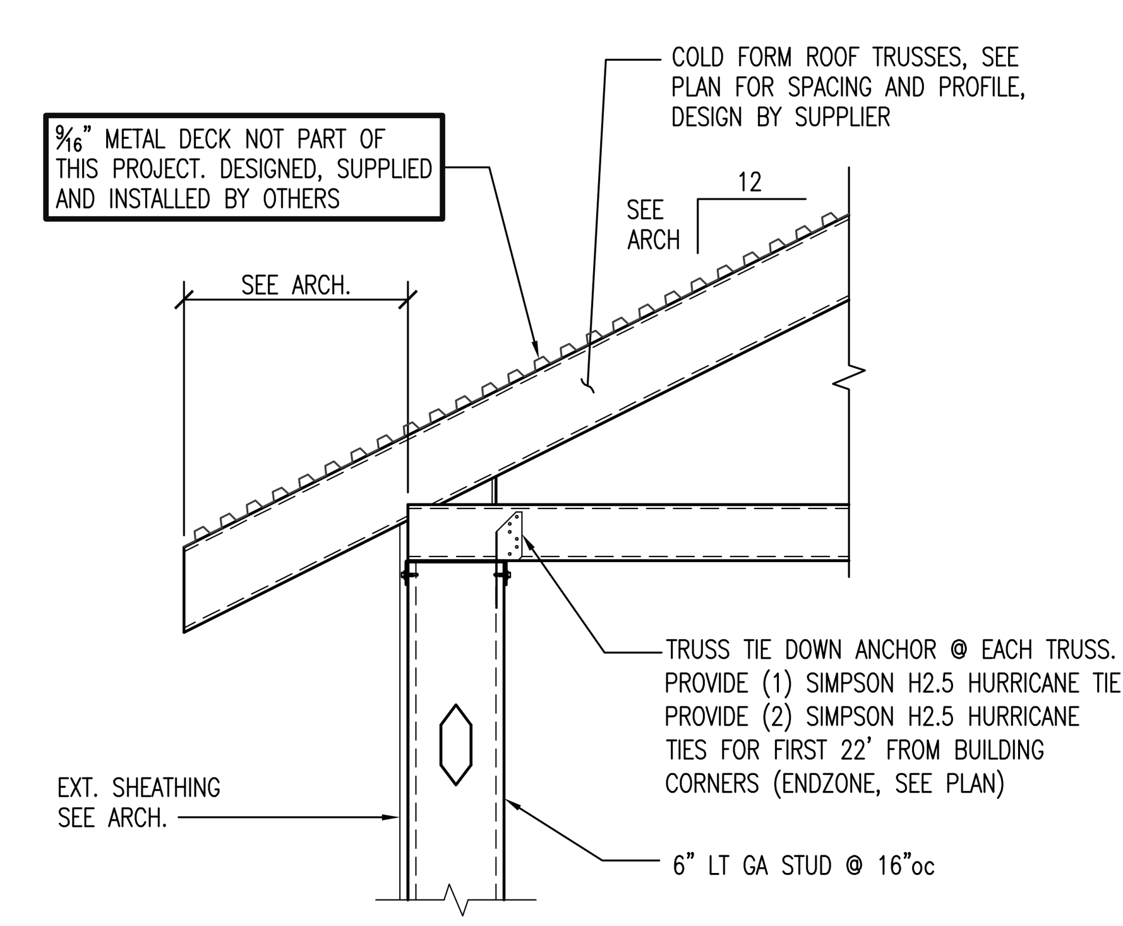
SHEAR WALL SCHEDULE

WALL LOC	SHEATHING	FASTENER SIZE	EDGE SPACING	FIELD SPACING	HOLD DOWN
SW1	½" GYPSUM BOARD, BOTH SIDES OF WALL	#6x1" SELF-TAPPING w/ MIN 0.292"ø HEAD	4"OC	4"OC	SIMPSON S/HDU9

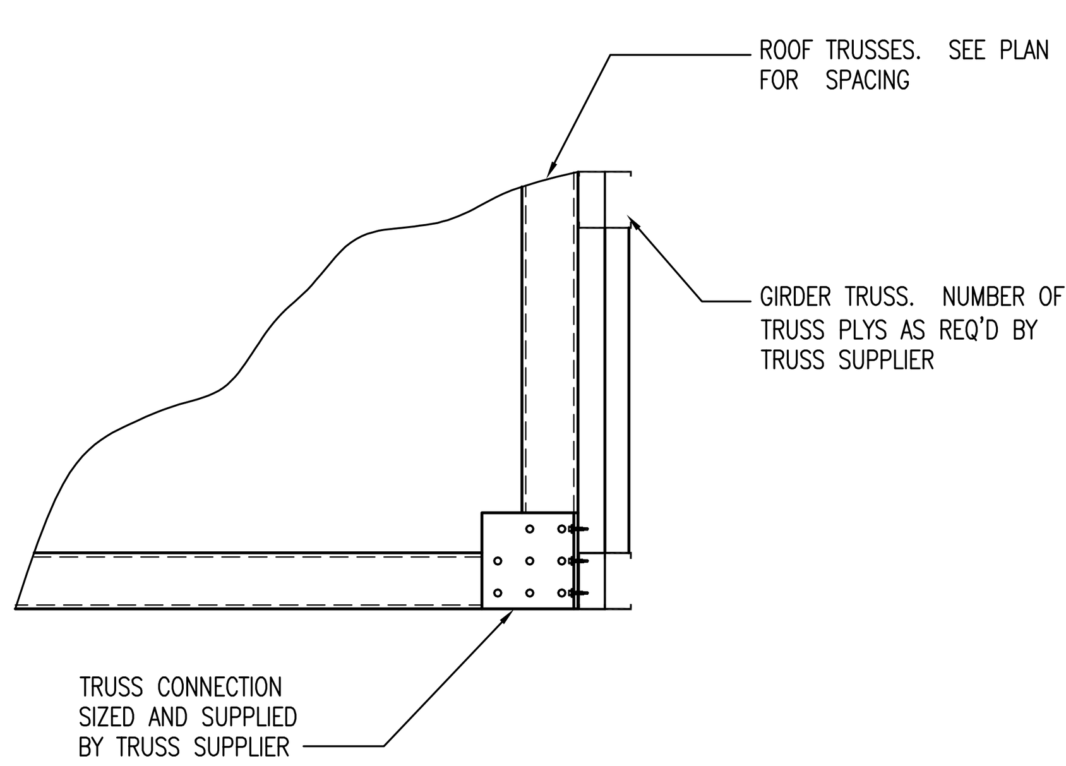
10/S701 SHEAR WALL DETAIL
SCALE: NTS

COLD-FORMED METAL SHEARWALL NOTES

1. ALL WALLS USED AS SHEAR WALLS FOR RESISTING WIND & SEISMIC LATERAL FORCES SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS PER THE WECBC 2002, SECTION 2211.
2. FOR SCREWED CONNECTIONS, SCREWS SHALL BE OF SUFFICIENT LENGTH TO PENETRATE THROUGH THE COLD-FORMED STEEL FRAMING MEMBER BY AT LEAST THREE EXPOSED THREADS.
3. STUDS SHALL BE A MINIMUM 1 ⅝"x3 ½" WITH A ⅜" RETURN LIP. AS A MINIMUM, STUDS SHALL BE DOUBLED (BACK TO BACK) AT SHEAR WALL ENDS.
4. TRACK SHALL BE A MINIMUM 1 ¼"x3 ½", SAME GAUGE AS STUD.
5. BOTH STUDS AND TRACK SHALL HAVE A MINIMUM UNCOATED BASE METAL THICKNESS OF 0.033 INCH (0.84mm) AND SHALL BE OF THE FOLLOWING GRADES OF STRUCTURAL QUALITY STEEL: ASTM A653 SS GRADE 33, ASTM A792 SS GRADE 33, OR ASTM A875 SS GRADE 33.
6. FASTENERS ALONG THE EDGES IN SHEAR PANELS SHALL BE PLACED NOT LESS THAN ⅜" IN FROM PANEL EDGES.
7. ALL PANEL EDGES SHALL BE FULLY BLOCKED. WHERE HORIZONTAL STRAPPING IS USED TO PROVIDE SUCH BLOCKING, IT SHALL BE A MINIMUM 1 ½" WIDE AND OF THE SAME MATERIAL & THICKNESS AS THE TRACK & STUDS. PANELS LESS THAN 12" WIDE SHALL NOT BE USED.
8. GYPSUM BOARD PANEL SHEATHING:
   - 8.1. LIGHT FRAMED COLD FORMED STEEL WALL SYSTEMS SHEATHED WITH GYPSUM BOARD ARE PERMITTED TO RESIST HORIZONTAL FORCES PROVIDED BY WIND.
   - 8.2. WALL IS TO BE SHEATHED BOTH SIDES OF WALL.
   - 8.3. GYPSUM BOARD SHALL BE APPLIED PERPENDICULAR TO STUDS IN ACCORDANCE WITH TABLE 2211.1(2). END JOINTS SHALL NOT OCCUR OVER THE SAME STUD.
   - 8.4. SCREWS USED TO ATTACH GYPSUM BOARD SHALL BE A MINIMUM OF NO. 6 IN ACCORDANCE WITH ASTM C 954, AND SHALL BE OF SUFFICIENT LENGTH TO PENETRATE INTO THE COLD FORMED STEEL FRAMING MEMBERS BY AT LEAST 3 EXPOSED THREADS.



11/S701 ROOF TRUSS BEARING DETAIL
SCALE: 1"=1'-0"



12/S701 TRUSS TO GIRDER TRUSS CONNECTION
SCALE: 1"=1'-0"

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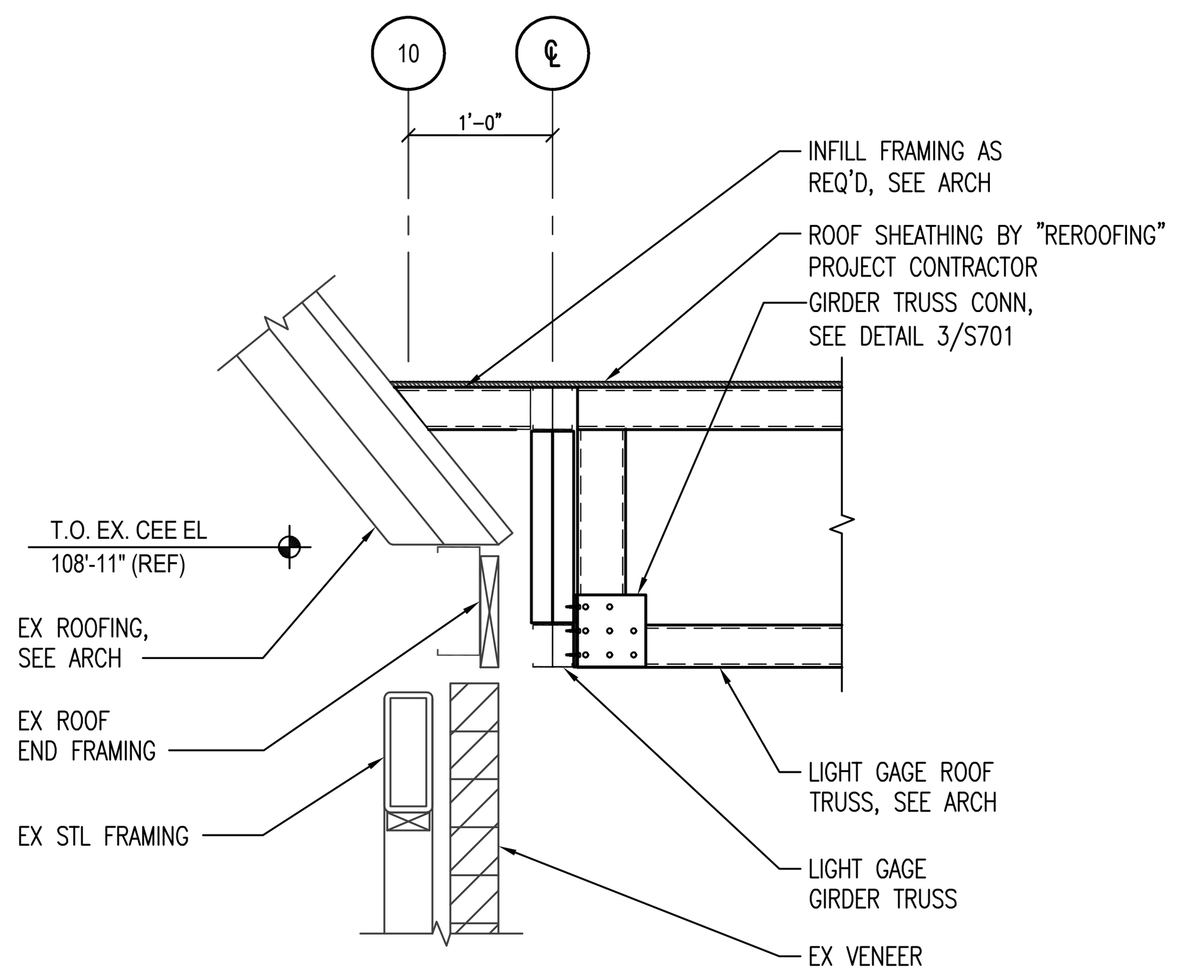
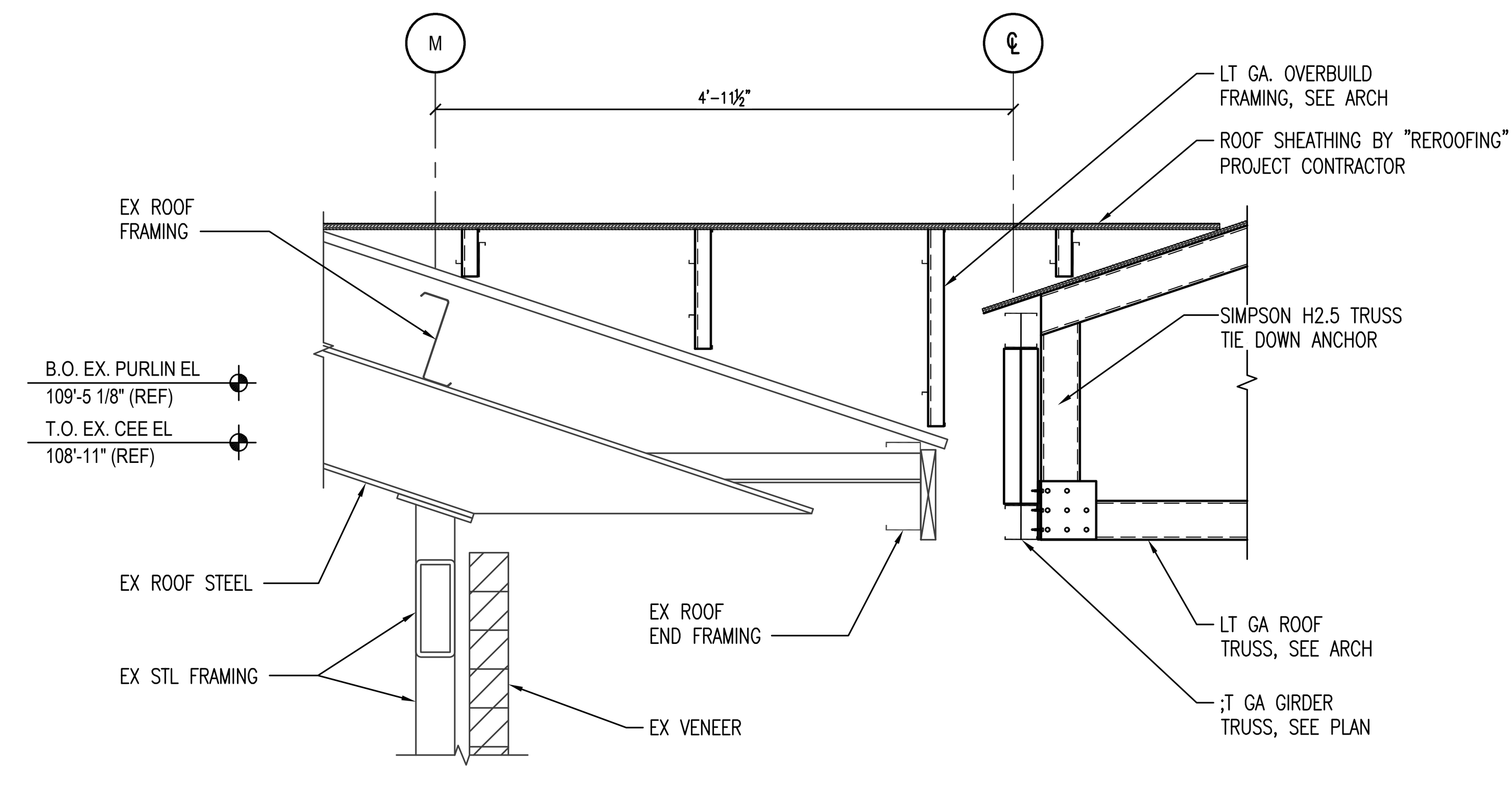
S701



1 S702 SECTION @ EXISTING
SCALE: 3/4"=1'-0"



2 S702 SECTION @ EXISTING
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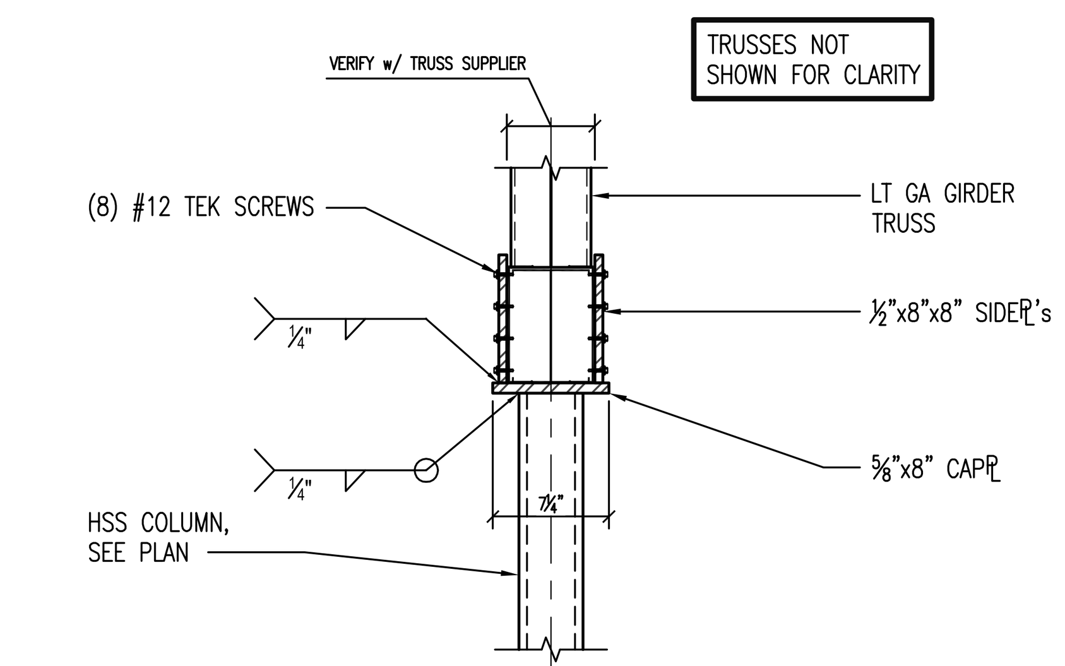

3 S702 COLUMN / GIRDER CONN
SCALE: 1"=1'-0"

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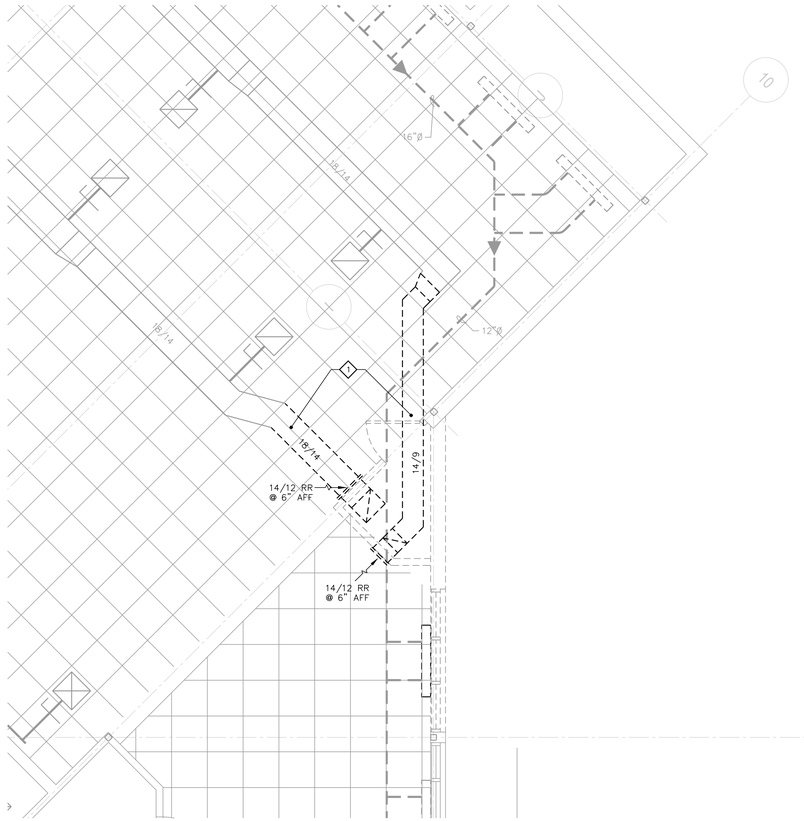
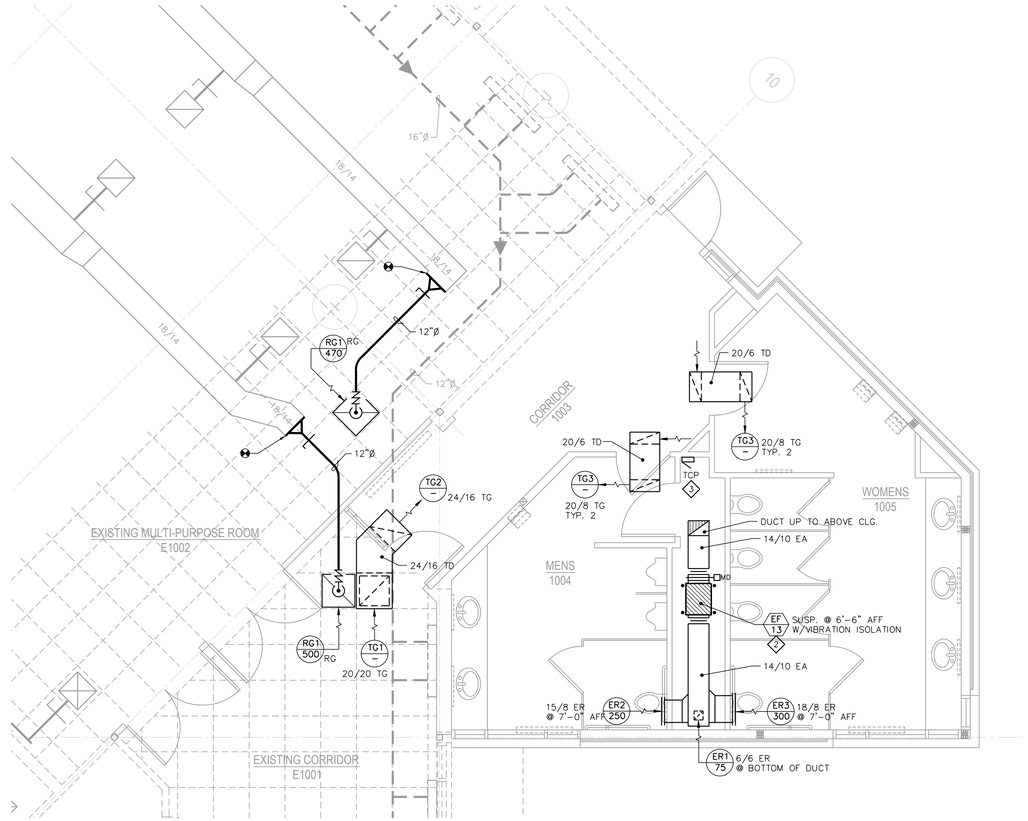


N

1 HVAC DEMOLITION PLAN - DUCTWORK
1/4" = 1'-0"



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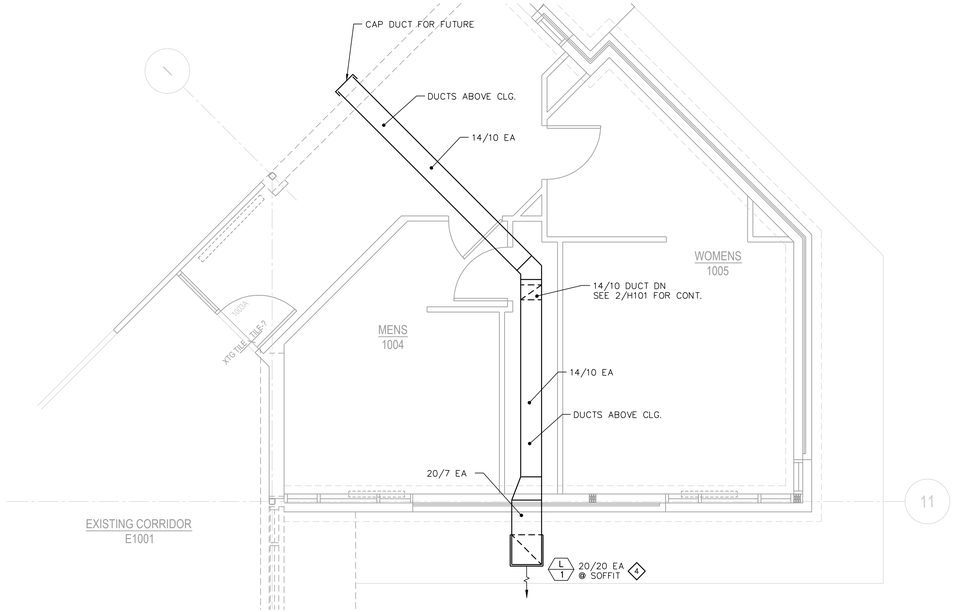
2 HVAC PLAN - DUCTWORK
1/4" = 1'-0"



N

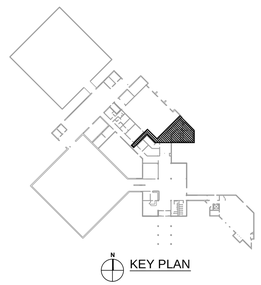
3 HVAC ABOVE CEILING PLAN - DUCTWORK
1/4" = 1'-0"

HVAC GENERAL NOTES:

1. HVAC CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF HVAC WORK WITH OTHER TRADES.
2. COORDINATE PROVISIONS FOR OPENINGS IN NEW CONSTRUCTION WITH THE GENERAL CONTRACTOR FOR APPROVAL PRIOR TO STARTING WORK.
3. HVAC CONTRACTOR IS RESPONSIBLE FOR CUTTING AND PATCHING WALLS, FLOORS & CEILINGS FOR NEW HVAC WORK, IF REQUIRED.
4. COORDINATE FINAL CEILING REGISTER AND GRILLE LOCATIONS WITH OTHER TRADES.
5. CONCEAL ALL CONTROL WIRING IN FINISHED AREAS.
6. COORDINATE DUCTWORK ROUTING WITH OTHER TRADES TO MAINTAIN SCHEDULED CEILING HEIGHTS.
7. PROVIDE PROPER SERVICE CLEARANCES AND ACCESS SPACE FOR ALL NEW EQUIPMENT.
8. PROVIDE ACCESS PANELS AT INACCESSIBLE CEILINGS FOR EQUIPMENT, WHERE REQUIRED.
9. COORDINATE DUCT ROUTING AND WALL PENETRATION LOCATIONS WITH GENERAL CONTRACTOR AND OTHER TRADES.

HVAC PLAN NOTES:

1. DISCONNECT & REMOVE DUCTWORK & RETURN REGISTER BACK TO MAIN DUCT. PROTECT FOR CONTINUATION WITH NEW PLAN.
2. INTERLOCK EF-13 OPERATION WITH OCCUPIED BUILDING SCHEDULE BY TEMPERATURE CONTROL CONTRACTOR.
3. TEMPERATURE CONTROL PANEL.
4. COORDINATE LOUVER OPENING WITH GENERAL CONTRACTOR.



N KEY PLAN

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OLBRICH GARDENS RESTROOM ADDITION
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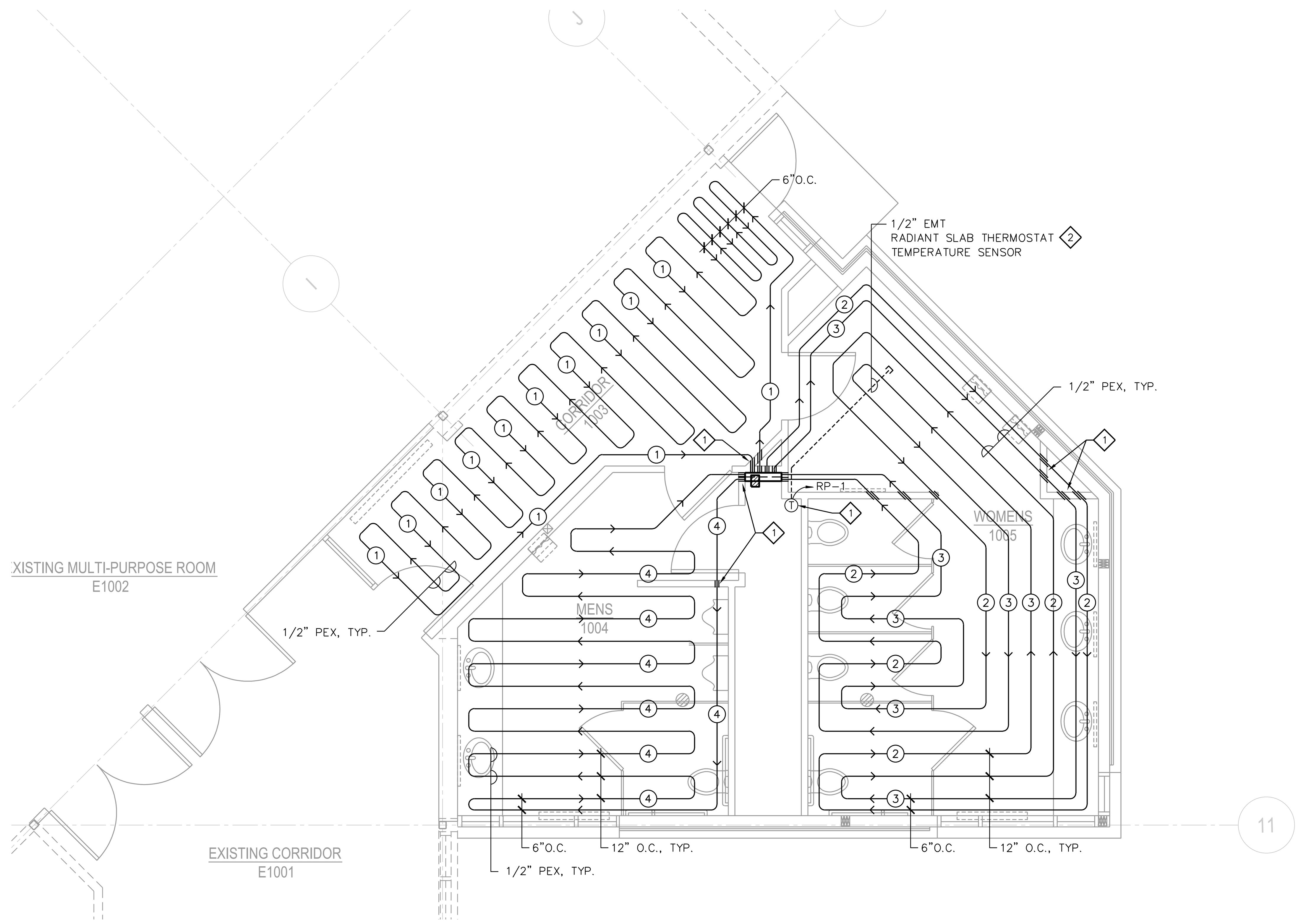


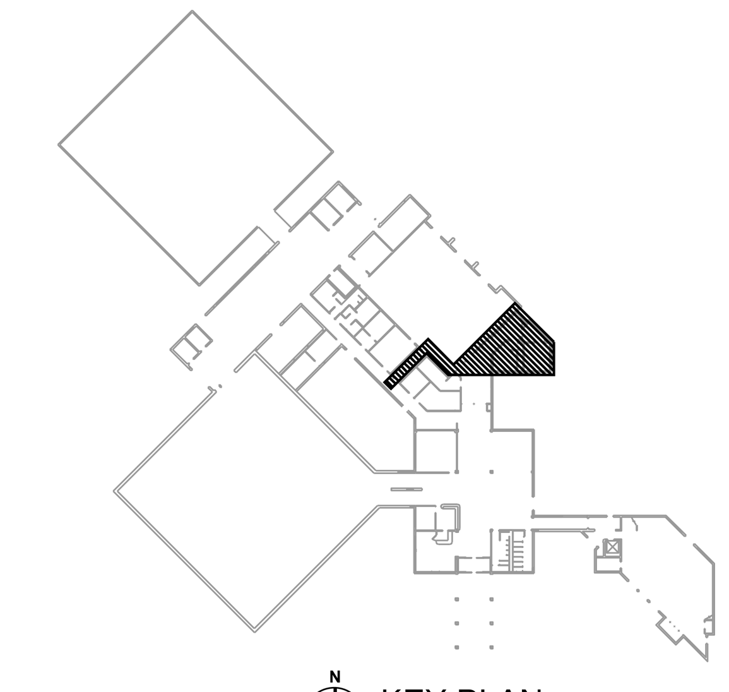
1 RADIANT FLOOR PLAN
1/4" = 1'-0"

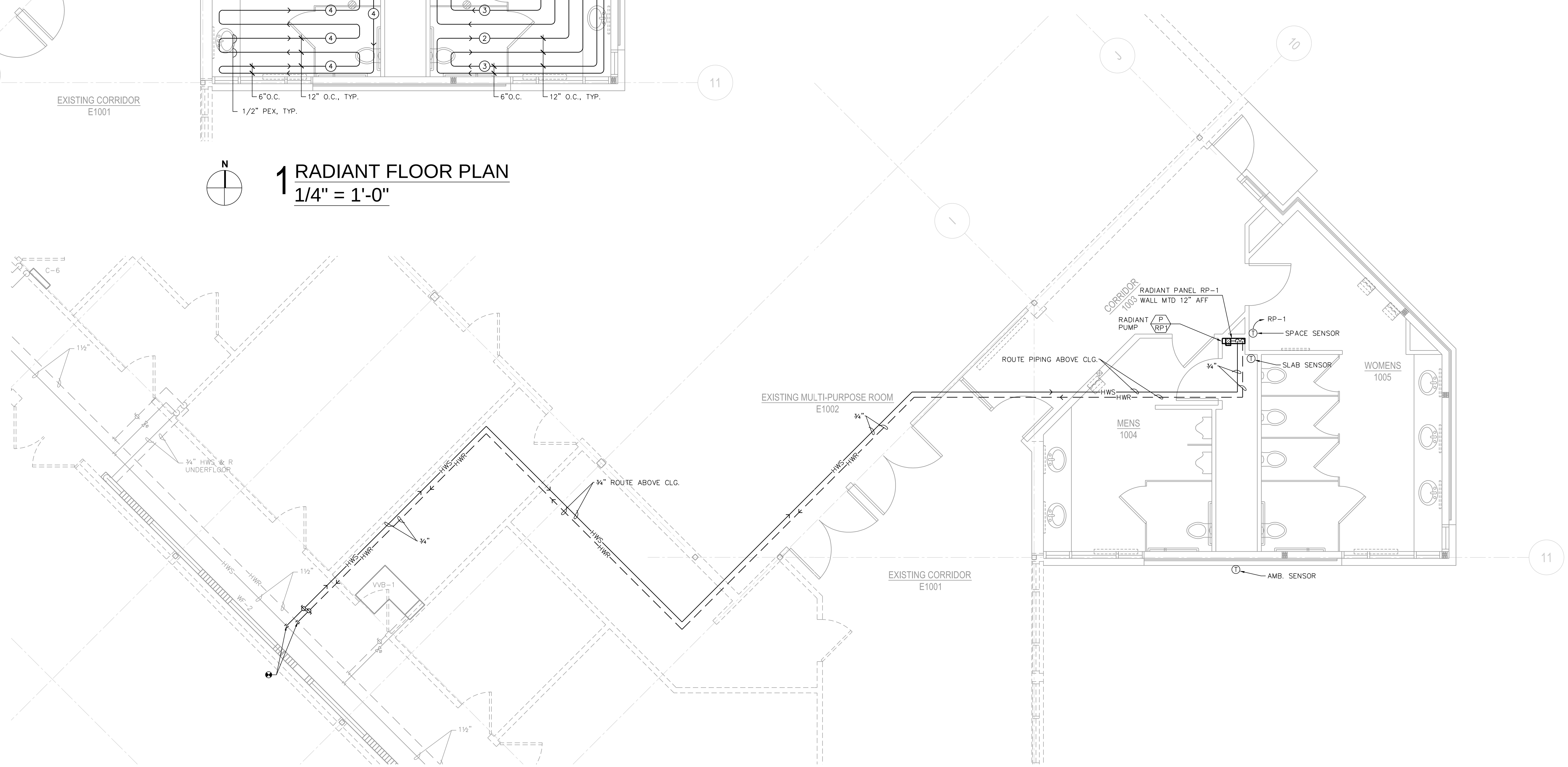
HVAC GENERAL NOTES:

1. HVAC CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF HVAC WORK WITH OTHER TRADES.
2. COORDINATE PROVISIONS FOR OPENINGS IN NEW CONSTRUCTION WITH THE GENERAL CONTRACTOR FOR APPROVAL PRIOR TO STARTING WORK.
3. HVAC CONTRACTOR IS RESPONSIBLE FOR CUTTING AND PATCHING WALLS, FLOORS & CEILINGS FOR NEW HVAC WORK, WHERE REQUIRED.
4. CONCEAL ALL CONTROL WIRING IN FINISHED AREAS.
5. COORDINATE PIPING ROUTING WITH OTHER TRADES TO MAINTAIN SCHEDULED CEILING HEIGHTS.
6. PROVIDE PROPER SERVICE CLEARANCES AND ACCESS SPACE FOR ALL NEW EQUIPMENT.
7. PROVIDE ACCESS PANELS AT INACCESSIBLE CEILINGS FOR EQUIPMENT, WHERE REQUIRED.
8. COORDINATE RADIANT FLOOR PIPE ROUTING LOCATIONS WITH GENERAL CONTRACTOR AND OTHER TRADES.

HVAC PLAN NOTES:

1. ROUTE RADIANT FLOOR PEX PIPING THROUGH PROTECTIVE METAL SLEEVE (SCH 40 PIPE) UNDER INTERIOR WALLS. REFER TO DETAILS.
2. EXTEND REMOTE TEMPERATURE SENSOR INTO SLAB INSIDE 1/2" EMT ELECTRICAL CONDUIT WITH END PLUGGED.
3. ALL RADIANT FLOOR PIPING AT TYPICALLY 12" O.C. UNLESS NOTED OTHERWISE ON PLAN.





2 HVAC PLAN - PIPING
1/4" = 1'-0"

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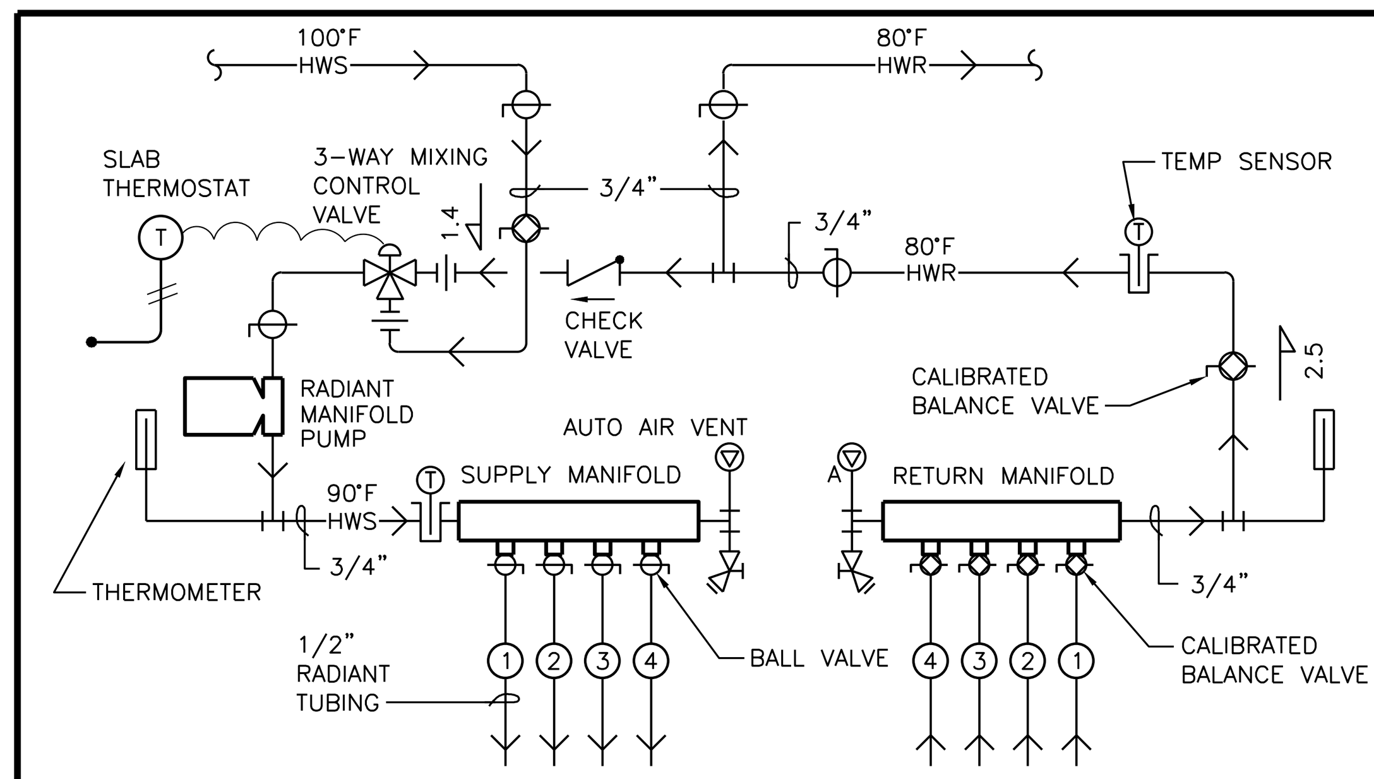
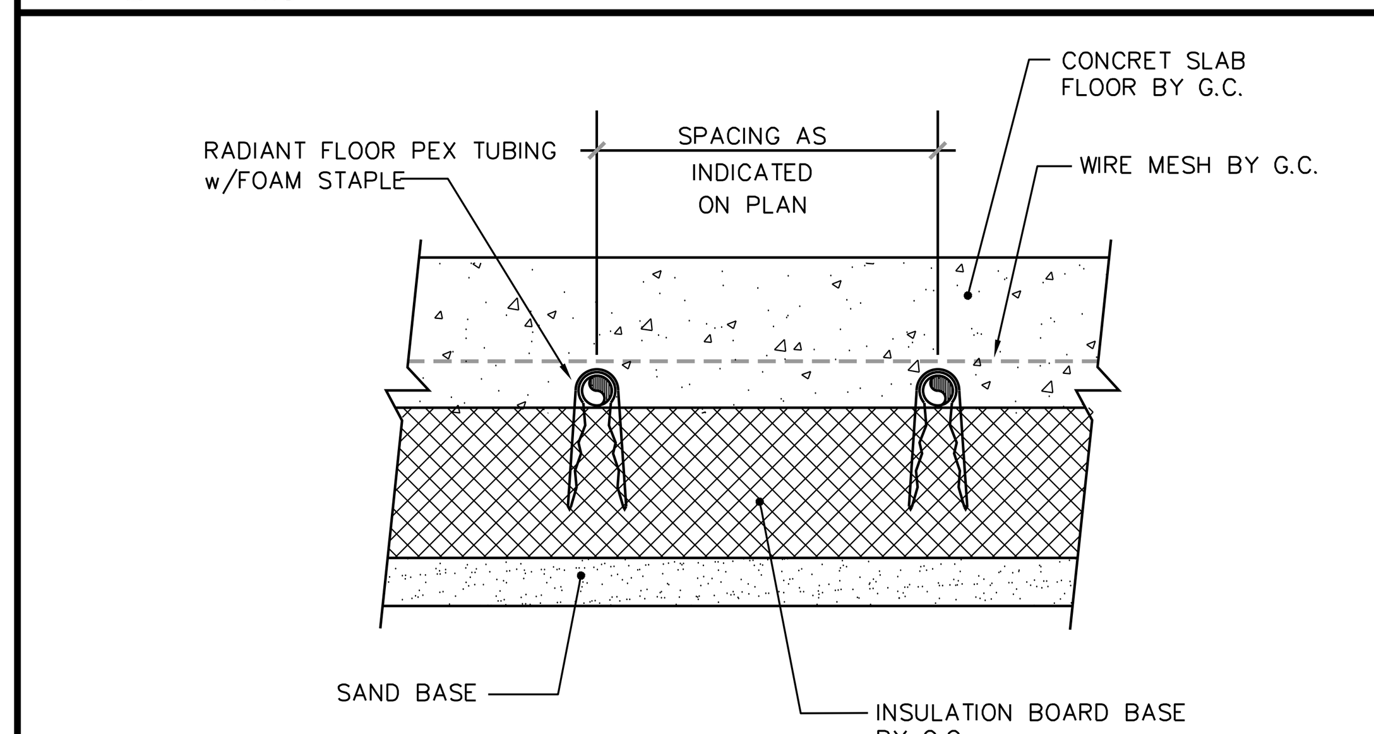


1 RADIANT FLOOR MANIFOLD PIPING SCHEMATIC
NTS



2 TYPICAL RADIANT SLAB SECTION
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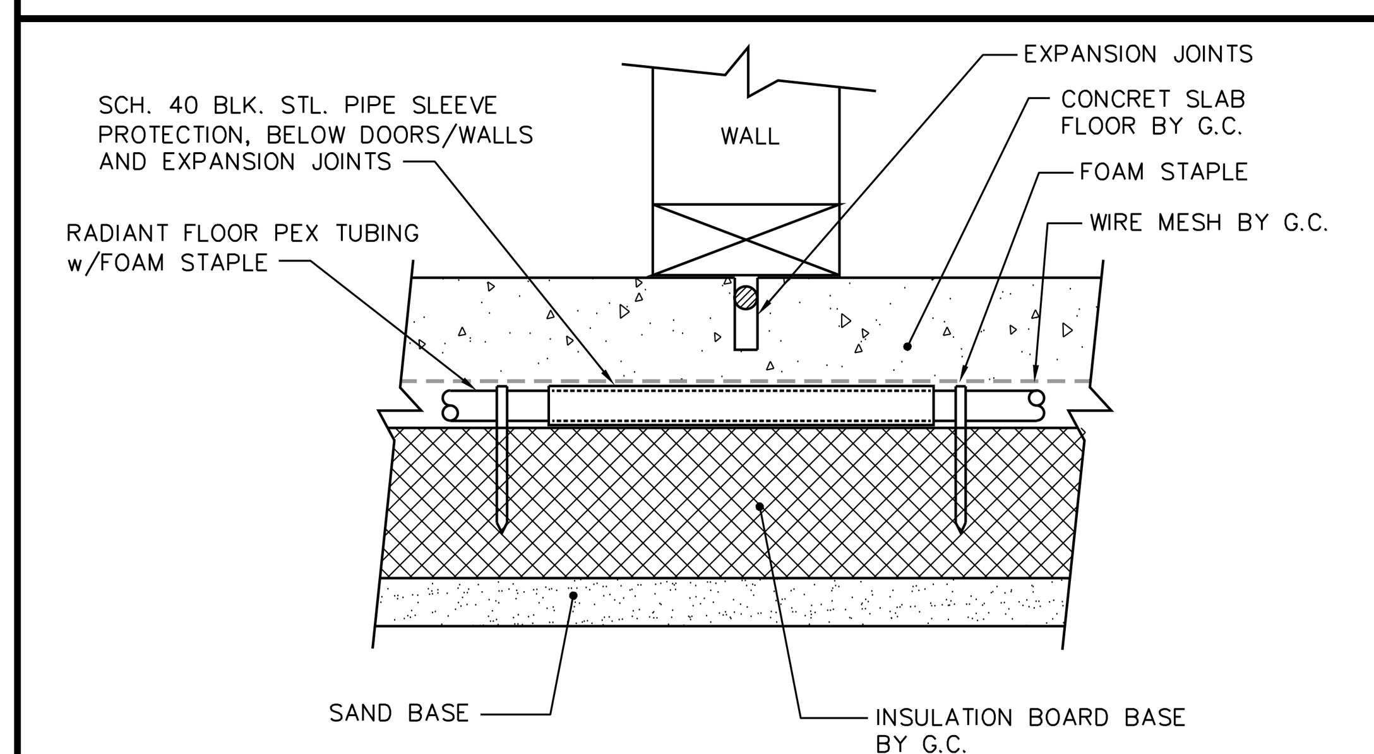
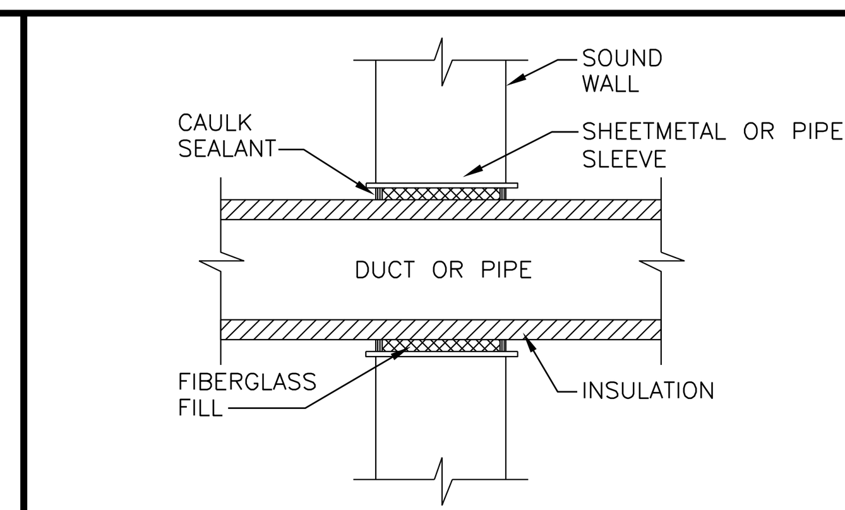
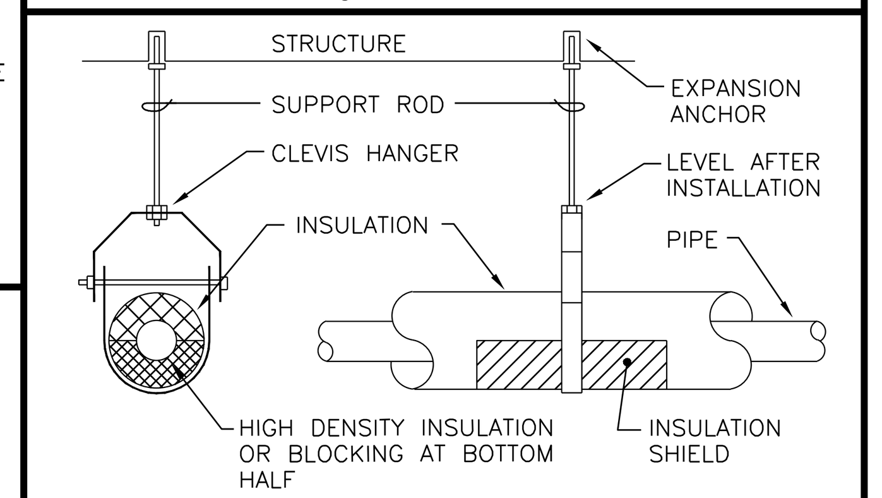


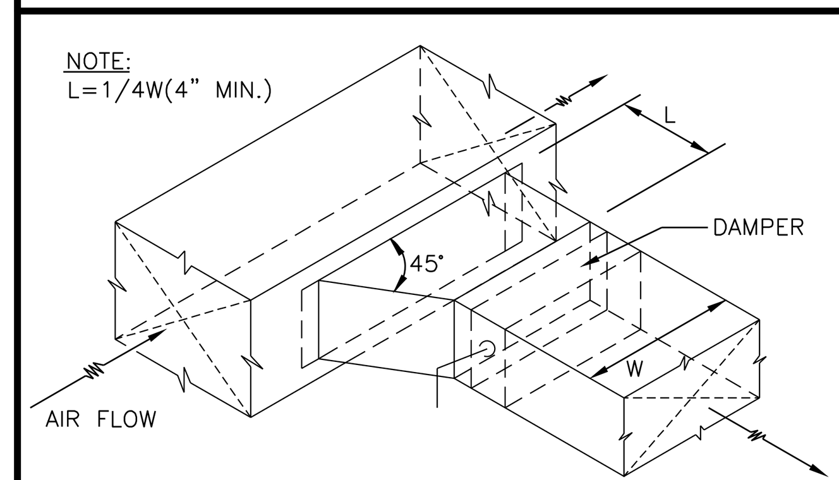
3 TYPICAL RADIANT TUBE PROTECTION SLEEVE
N.T.S.



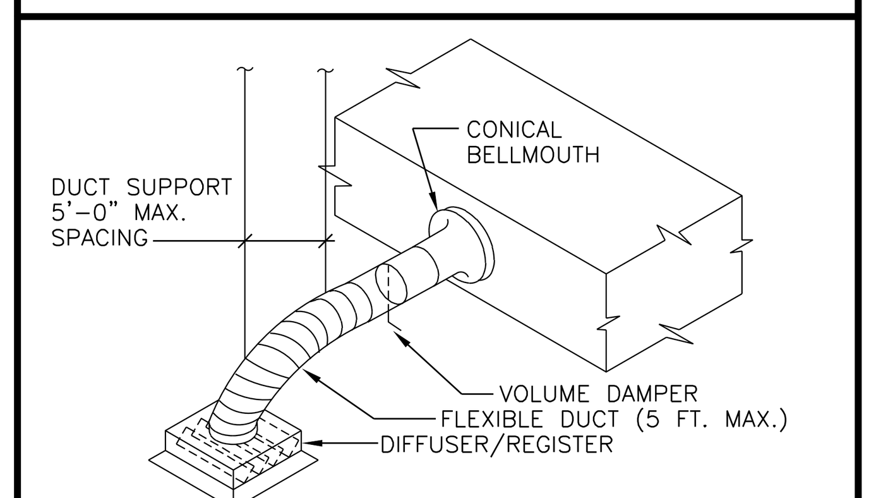
4 PIPE/DUCT SOUND WALL PENETRATION DETAIL



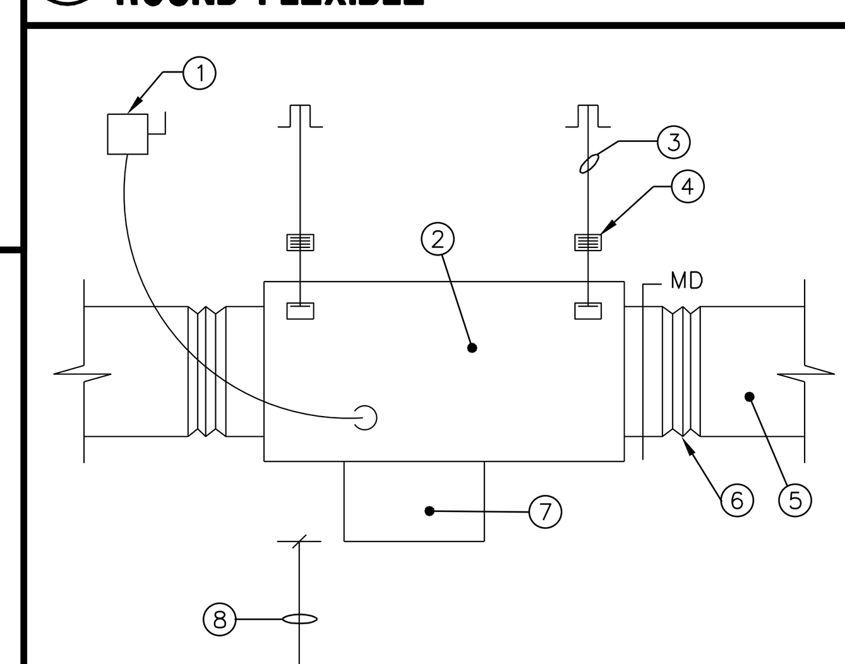
5 PIPE HANGER DETAIL



6 BRANCH DUCT TAKEOFF DETAIL-RECTANGLE



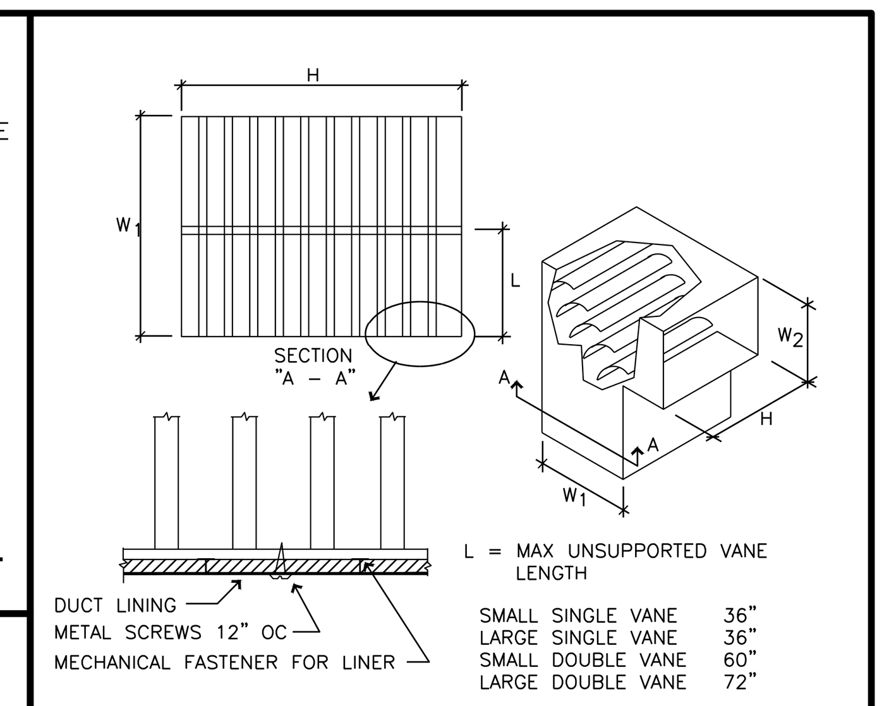
7 BRANCH DUCT TAKEOFF DETAIL-ROUND FLEXIBLE



INSTALLATION NOTES:

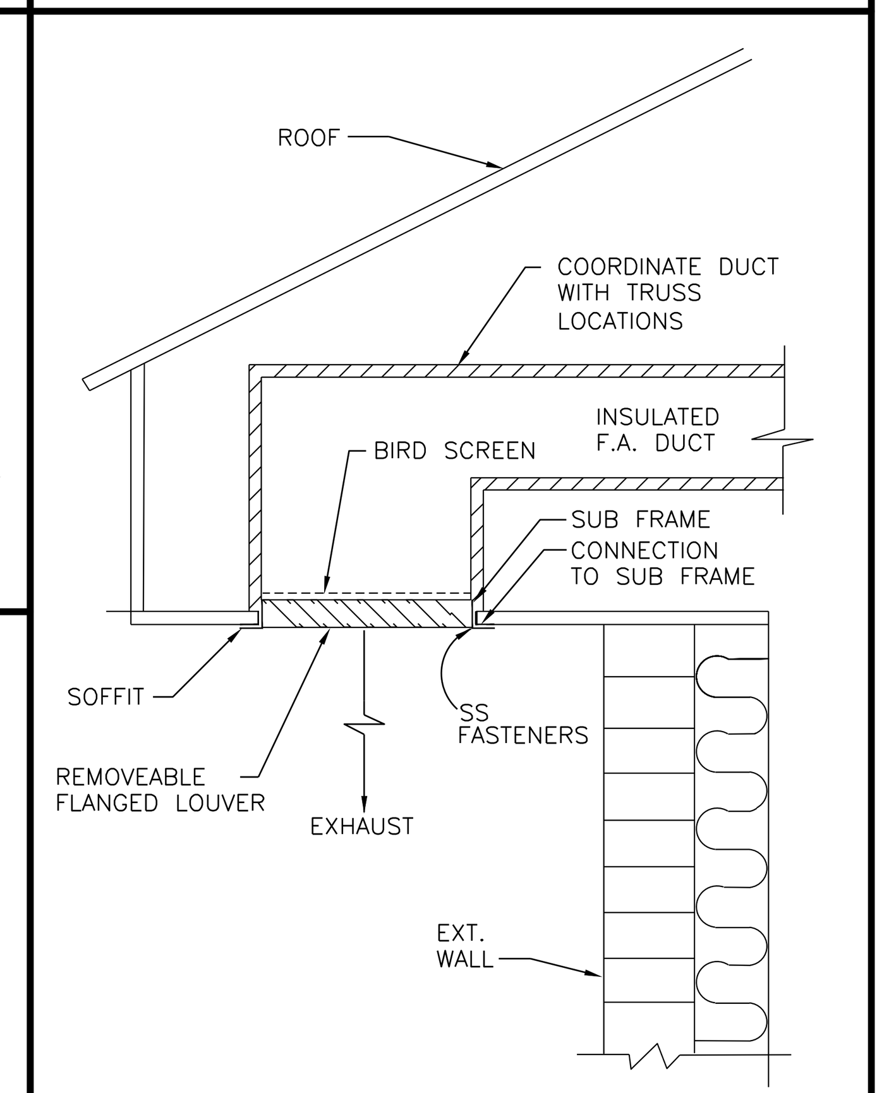
1. ELECT. DISCONNECT BY E.C.
2. INLINE FAN
3. SUPPORT RODS
4. SPRING VIBRATION ISOLATOR HANGER SUPPORTS
5. EXHAUST DUCTWORK
6. FLEXIBLE DUCT CONNECTION
7. MOTOR DRIVE & GUARD
8. PROVIDE SERVICE ACCESS
9. MOTORIZED BACKDRAFT DAMPER

8 INLINE EXHAUST FAN DETAIL

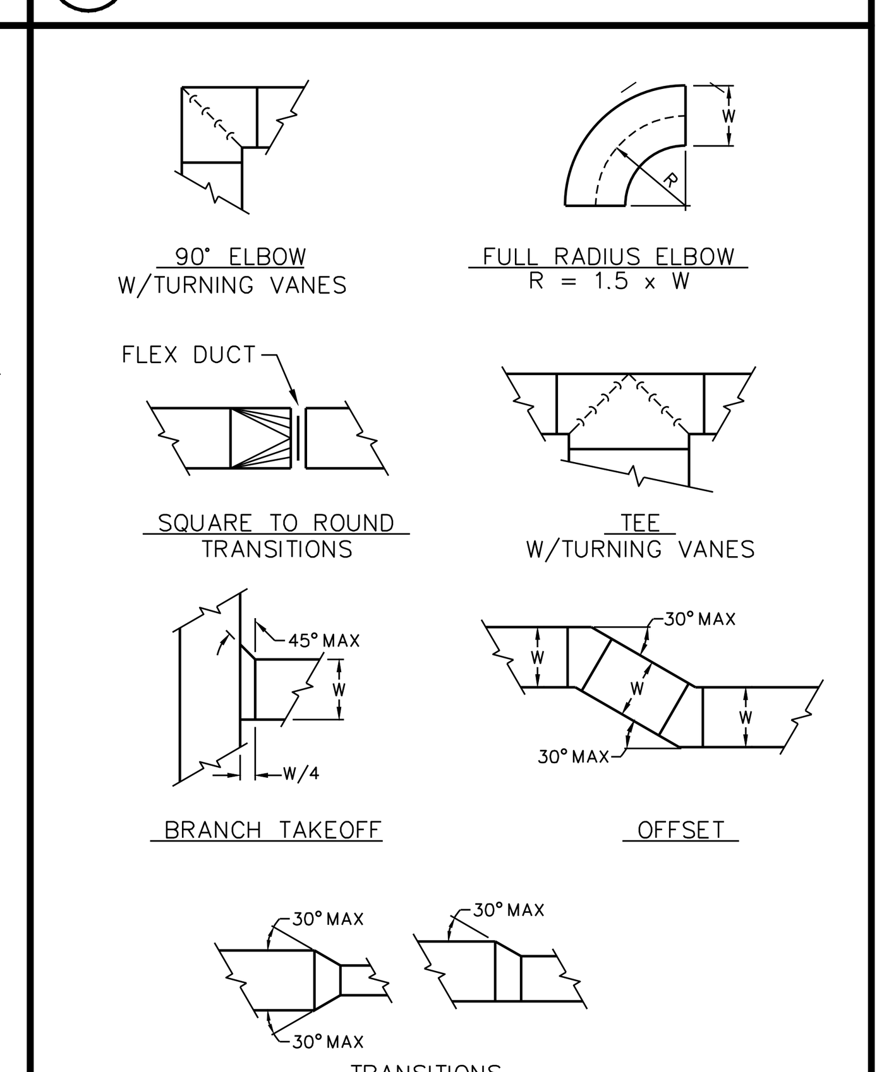


NOTES:
1 INSTALL VANES IN SECTIONS OR USE TIE RODS TO LIMIT UNBRACED VANE LENGTH
2 SECURELY FASTEN VANES TO RUNNERS TO ELIMINATE VIBRATION
3 PREVENT LINING DAMAGE WHEN INSTALLING VANES IN LINED OR FIBROUS GLASS DUCT

9 TURNING VANES IN ELBOW
N.T.S.



10 SOFFIT EXHAUST AIR LOUVER DETAIL



11 STANDARD DUCT FITTINGS

DIFFUSERS, REGISTERS AND GRILLES SCHEDULE

TAG	MFGR	MODEL	SIZE NECK (WxH)	SIZE FACE (L)	MOUNTING	SERVICE	CFM	REMARKS
RG1	CARNES	RALMH-T	12"ø (20"x20")	24"x24"	T-BAR/CLG	RETURN	470-500	①③④ ALUM. RETURN GRILLE
TG1	CARNES	RALMH-T	20"x20"	24"x24"	T-BAR/CLG	TRANSFER	–	①③ ALUM. TRANSFER GRILLE
TG2	CARNES	RALMH-C	24"x16"	–	SURFACE/CLG	TRANSFER	–	①⑤ ALUM. TRANSFER GRILLE
TG3	CARNES	RALMH-C	20"x8"	–	SURFACE/CLG	TRANSFER	–	①⑤ ALUM. TRANSFER GRILLE
ER1	CARNES	RNJMH	6"x6"	–	DUCT	EXHAUST	75	①② ALUM. EXHAUST REGISTER
ER2	CARNES	RNJMH	15"x8"	–	SURFACE/WALL	EXHAUST	250	①②⑤ ALUM. EXHAUST REGISTER
ER3	CARNES	RNJMH	18"x8"	–	SURFACE/WALL	EXHAUST	300	①②⑤ ALUM. EXHAUST REGISTER

REMARKS:
① WHITE FINISH.
② OPPOSED BLADE DAMPER.
③ T-BAR PANEL.
④ SQUARE TO ROUND TRANSITION.
⑤ CONCEALED HANGER.

ER = EXHAUST REGISTER
TG = TRANSFER GRILLE
RG = RETURN GRILLE
RR = RETURN REGISTER

LOUVER SCHEDULE

TAG	MANUFACTURER	MODEL	TYPE	METAL	LOUVER DEPTH x W x HT	FREE AREA S.F.	SERVICE	REMARKS
L-1	VENT PRODUCTS	2730-31-34	STAT.	EXT. ALUM.	2" x 20" x 20"	1.01	EXHAUST AIR	①②③

① BIRD SCREEN – ALUM.
② FLANGED FRAME WITH BUCK FRAME.
③ POWDER COAT BAKED ENAMEL FINISH; FINAL COLOR SELECTION BY ARCHITECT.

PUMP SCHEDULE

TAG	P-RP1
MANUFACTURER	GRUNDFOS
MODEL NO.	UP15-42F
TYPE	INLINE
LOCATION	BASEMENT MECH.
SERVICE	HW RADIANT PANEL-RP-1
GPM	3
TDH (FT)	10
BHP (WATTS)	(85)
EFFICIENCY (%)	N.A.
SUCTION I.D.	3/4"ø
OUTLET I.D.	3/4"ø
MOTOR: HORSEPOWER	1/25
VOLTAGE/PHASE	115/1
FLA	0.74
REMARKS:	RADIANT FLR RP-1

RP-1 RADIANT FLOOR SCHEDULE

LOOP #	①	②	③	④
SERVICE	CORRIDOR 1003	WOMEN'S 1005	WOMEN'S 1005	MEN'S 1004
UPWARD LOAD(BTUH/FT²)	16	16	16	16
TOTAL LOAD(BTUH/FT²)	20	20	20	20
TOTAL LOAD(BTU/HR)	2900	3200	3200	2600
FLR COVERING R-VALUE	0.25	0.25	0.25	0.25
PNL SURFACE TEMP(°F)	80	80	80	80
AREA (FT)	144	162	130	130
TUBE SIZE (IN)	1/2"	1/2"	1/2"	1/2"
ROOM LOOP LENGTH(FT)	177	128	125	146
LEADER LENGTH (FT)	10	10	10	10
TOTAL LOOP LENGTH(FT)	187	138	135	156
EWT (°F)	90	90	90	90
FLOW (GPM)	0.6	0.7	0.7	0.5
LOOP WPD (FT)	2.7	2.8	2.8	1.7

MANIFOLD TOTALS:
SUPPLY WATER TEMP (°F) = 100
RETURN WATER TEMP (°F) = 80
MANIFOLD FLOW (GPM) = 1.2
MANIFOLD SUPPLY FLOW (GPM) = 2.5
ROOM SPACE TEMP (°F) = 70
MANIFOLD SIZE = 1"Ø
MANIFOLD HEATING CAP (MBH) = 11.9

EXHAUST FAN SCHEDULE

TAG	EF-13
MANUFACTURER	GREENHECK
MODEL NO.	SQ-100-VG
AREA SERVED	TOILETS & MECH.
CFM	625
ESP *WG	1/2"
RPM	1249
MOUNTING	SPRING VIB. HANGERS
DRIVE	DIRECT
SONES (INLET/RADIATED)	6.3/3.0
ELECTRICAL: MOTOR HP (BHP)	1/4 (0.06)
FAN F.L.A.	5.8
VOLTAGE/PHASE	115/1
CONTROL	OCCUPIED BLDG MODE
REMARKS:	INLINE EF ①②③④⑤⑥⑦

NOTE: ALL EF LINE VOLTAGE CONTROLS WIRED BY E.C.
① INTERLOCK EF-13 WITH TEMPERATURE CONTROL BUILDING OCCUPIED MODE SCHEDULE.
② ECM MOTOR WITH UNIT-MOUNTED POTENTIOMETER FOR BALANCING.
③ SPRING/NEOPRENE VIBRATION ISOLATION HANGERS.
④ MOTORIZED (115V) OPPOSED BLADE, LOW-LEAKAGE DAMPER.
⑤ DIRECT-COUPLED EXTERNAL ACTUATOR (BELIMO).
⑥ NEMA 1 DISCONNECT SWITCH UNIT-MOUNTED.
⑦ CLOSED-CELL INSULATED HOUSING.

HVAC SYMBOL SCHEDULE

SYMBOL — DESCRIPTION

PIPING
- HWS — HOT WATER SUPPLY PIPING
- HWR — HOT WATER RETURN PIPING
- C — CONDENSATE PIPING
- PIPE UP
- PIPE DOWN
- BALL VALVE
- DRAIN VALVE
- TWO WAY TEMP CONTROL VALVE
- THREE WAY TEMP CONTROL VALVE
- CALIBRATED BALANCING VALVE
- INLINE STRAINER
- UNION
- THERMOMETER
- FLEXIBLE CONNECTION
- ANCHOR
- T & P TEST WELL
- AIR VENT A = AUTOMATIC M = MANUAL
- REDUCER, CONCENTRIC
- IMMERSION WELL
- SQUARE/RECTANGULAR SUPPLY DIFFUSER, GRILLE OR REGISTER-HORIZONTAL MOUNT
- SQUARE/RECTANGULAR RETURN/EXHAUST REGISTER OR GRILLE-HORIZONTAL MOUNT
- SUPPLY REGISTER OR GRILLE VERT. MOUNT
- RETURN/EXHAUST REGISTER OR GRILLE VERT. MOUNT
- VERTICAL SUPPLY DUCT DOWN
- VERTICAL RETURN/EXHAUST DUCT DOWN
- VOLUME DAMPER
- MD — MOTORIZED DAMPER
- FLEXIBLE CONNECTION
- SQUARE ELBOW W/TURNING VANES
- RADIUS ELBOW,R/D = 1.5
- RADIUS TAKEOFF R/D = 1.5 "X"=TAKE-OFF WIDTH
- DUCT RISE(R) OR DROP(D)
- A / 100 — DIFFUSER/REGISTER/GRILLE TYPE CFM
- 100 — EXHAUST CFM
- EQUIPMENT SYMBOL NO.
- T — THERMOSTAT

EQUIPMENT SYMBOLS
- AP — ACCESS PANEL
- EF — EXHAUST FAN
- L — LOUVER
- P — PUMP

ABBREVIATIONS
- ACD — AUTOMATIC CONTROL DAMPER
- EA — EXHAUST AIR
- FA — FRESH AIR
- RA — RETURN AIR
- SA — SUPPLY AIR
- AFF — ABOVE FINISHED FLOOR
- BOD — BOTTOM OF DUCT
- Ø — DIAMETER
- TG — TRANSFER GRILLE
- TD — TRANSFER DUCT

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OLBRICH GARDENS RESTROOM ADDITION
3330 ATWOOD AVENUE
MADISON, WI

ISSUANCES:

CD'S	12.21.12
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PROJECT:

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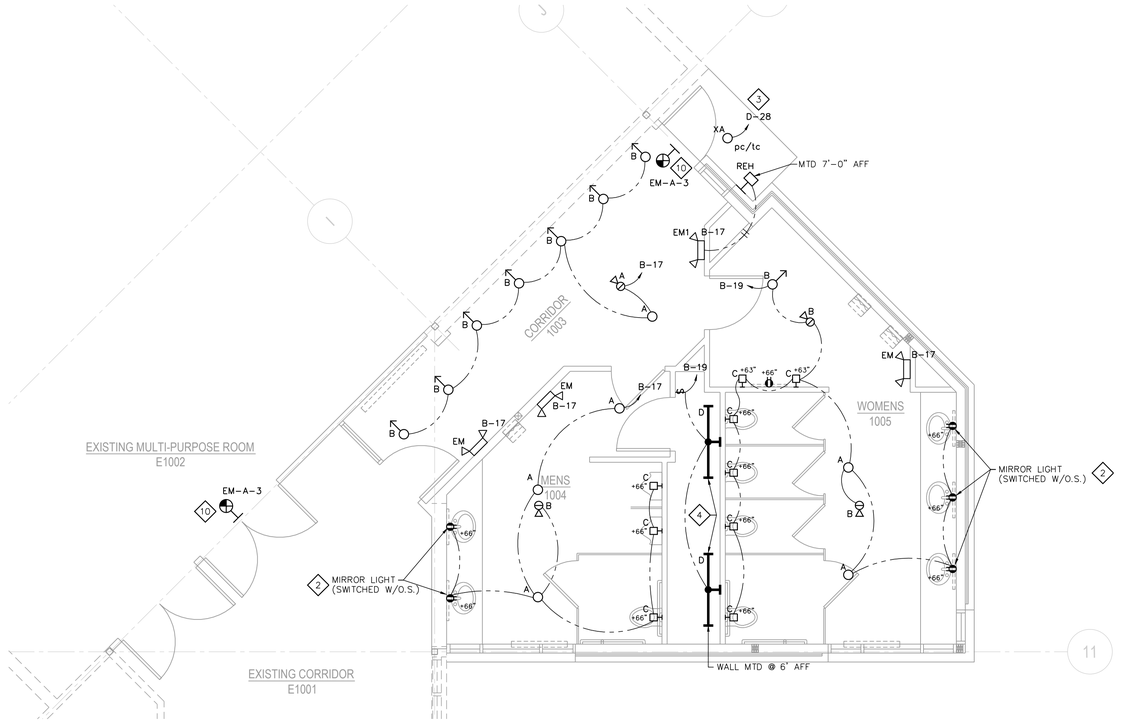
SHEET:
H103



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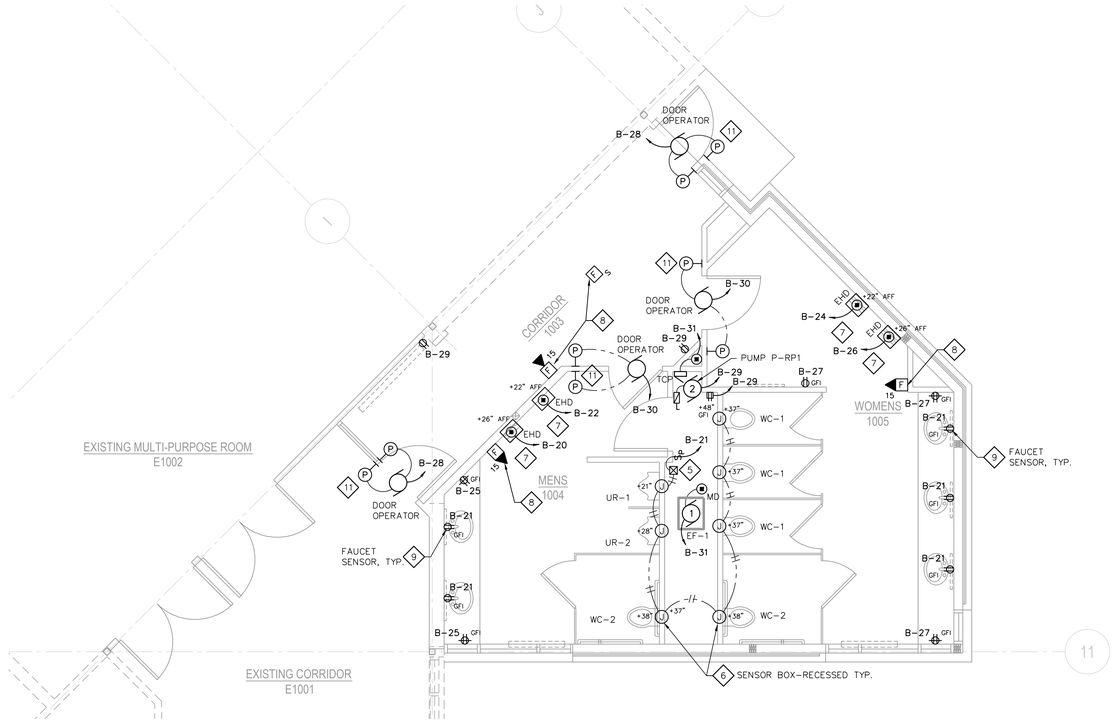
1 ELECTRICAL LIGHTING PLAN
1/4" = 1'-0"



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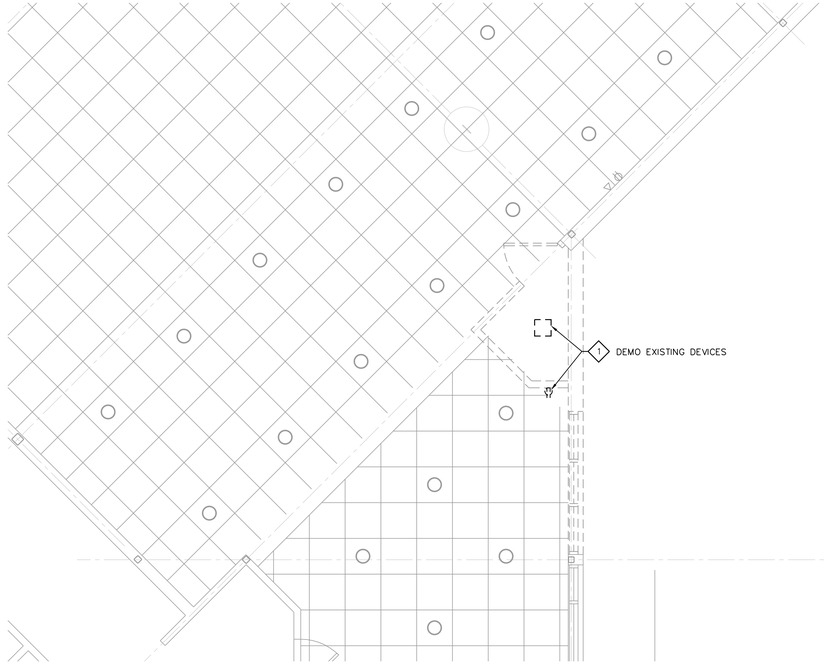
2 ELECTRICAL POWER/LV PLAN
1/4" = 1'-0"



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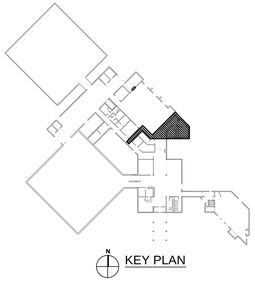
3 ELECTRICAL DEMOLITION PLAN
1/4" = 1'-0"

ELECTRICAL GENERAL NOTES:

1. COORDINATE LIGHTING LAYOUT WITH GENERAL CONTRACTOR AND OTHER TRADES FOR CEILING-MOUNTED EQUIPMENT.
2. ALL RACEWAYS ARE TO BE CONCEALED IN FINISHED AREAS. MECHANICAL & UTILITY AREAS (121) MAY USE SURFACE CONDUIT SYSTEMS.
3. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS.
4. COORDINATE AND SCHEDULE ALL WORK WITH THE GENERAL CONTRACTOR AND LOW-VOLTAGE CABLING PRIOR TO STARTING.
5. EXTEND LIGHTING AND POWER CIRCUITS AS INDICATED FROM PANEL 'B (SQUARE 'D' – NQ) IN STORAGE 33 AS LOCATED BY BUILDING PLAN ON SHEET E102. PROVIDE NEW 20A/1P CIRCUIT BREAKERS (SQUARE 'D' QOB120) FOR NEW CURCUITS.
6. EXTEND EXIT LIGHT TO NEAREST EXIST CIRCUIT FROM EMERGENCY PANEL 'EMA' CIRCUIT #3.

ELECTRICAL POWER/LV PLAN NOTES:

1. DISCONNECT AND REMOVE EXISTING RECEPTACLE AND LIGHT FIXTURE . REMOVE CONDUCTORS AND RACEWAY SYSTEM BACK TO FIRST JUNCTION BOX OR DEVICE BOX.
2. COORDINATE SWITCH RECEPTACLE FINAL LOCATION WITH ILLUMINATED MIRROR REPLACEMENT BY THE GENERAL CONTRACTOR.
3. EXTEND EXTERIOR SOFFIT LIGHT TO NEAREST EXTERIOR LIGHTING CIRCUIT (D-28) OUTSIDE MULTIPURPOSE RM12.
4. COORDINATE MOUNTING SURFACE OF LIGHT FIXTURES WITH PIPING, DUCTWORK AND OTHER EQUIPMENT FOR CONFLICTS.
5. COORDINATE POWER TO LOW-VOLTAGE TRANSFORMER FOR FLUSH VALVES BY PLUMBING TRADE. PROVIDE MASTER PILOT LIGHT SWITCH FOR POWER TO FLUSH VALVES AND LABEL. ROUTE ALL LV CABLING IN RACEWAY.
6. PROVIDE 4"x4"x2⅛" RECESSED BOX WITH PLASTER RING FOR SENSOR MOUNTING HEIGHT TO CENTER OF BOX. COORDINATE INSTALLATION WITH PLUMBING TRADE. COORDINATE FINAL MOUNTING HEIGHT LOCATION WITH GENERAL CONTRACTOR.
7. PROVIDE 4"x4"x2⅛" RECESSED BOX WITH PLASTER RING FOR SENSOR MOUNTING. NOTE – MOUNTING HEIGHT TO CENTER OF BOX. COORDINATE INSTALLATION WITH PLUMBING TRADE. PROVIDE POWER CONNECTION TO HAND DRYERS (1400W, 120V/1Ø). COORDINATE FINAL MOUNTING HEIGHT LOCATION WITH GENERAL CONTRACTOR.
8. EXTEND EXISTING FIRE ALARM SYSTEM INITIATION AND ANNUCIATION CIRCUITS TO NEW FA DEVICES. REFER TO BUILDING PLAN ON SHEET E102 FOR FA EQUIPMENT LOCATIONS.
9. COORDINATE FINAL RECEPTACLE LOCATION WITH PLUMBING TRADE FOR FAUCET SENSOR POWER.
10. EXTEND EXIT LIGHT POWER TO NEAREST EXISTING EXIT LIGHT CIRCUIT (PANEL 'EMA' CKT#3).
11. COORDINATE POWER AND CONTROL WIRING AND RACEWAY REQUIREMENTS FOR DOOR OPERATORS WITH GENERAL CONTRACTOR. DOOR OPERATOR IN DOOR FRAME, WHERE INDICATED.



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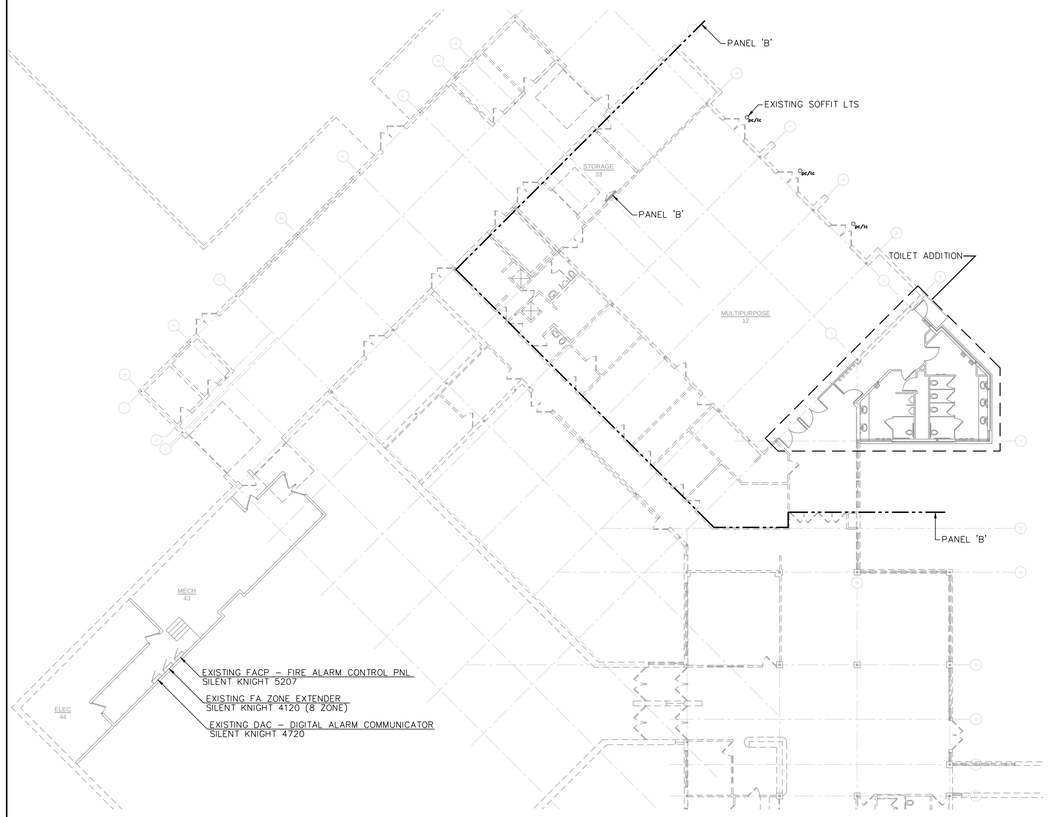


N

1 ELECTRICAL BUILDING PLAN
1/16" = 1'-0"

OCCUPANCY SENSOR SCHEDULE

SYMBOL	MOUNTING	VOLTAGE	RATED CURRENT /LOAD	SENSOR TYPE	SENSOR COVERAGE	MFGR. & MODEL	REMARKS
⊖ A	RECESSED/ CLG	120 VAC	800 Watt	PIR	360° 48'x48'	SENSOR SWITCH RMR-10	(1) RECESSED CLG PIR LINE VOLTAGE - EXTENDED RANGE
⊖ B	RECESSED/ CLG	120 VAC	800 Watt	PIR	360° 24'x24'	SENSOR SWITCH RMR-PDT-9	RECESSED CLG DT LINE VOLTAGE
$OS	WALL SWITCH	120 VAC	800 Watt	PIR	160° 20'	SENSOR SWITCH WSD	WALL SWITCH

ABBREVIATIONS:
PIR=PASSIVE INFRARED
U=ULTRASONIC
DT=DUAL TECHNOLOGY (PIR+U)

REMARKS:
(1) EXTENDED RANGE COVERAGE.

LIGHTING FIXTURE SCHEDULE

TAG	NO.	TYPE	WATTS	DESCRIPTION	MOUNTING	MFGR. & MODEL	REMARKS
A	1	LED	21	W/FIXTURE	RECESSED/ CLG.	MAXILUME - HV6-LED-21W-DIM10-120-FL-41K(HOUSING)+LED-6114-SHZ-WH(TRIM)	(2) 6"ø DOWNLIGHT FLOOD FROSTED LENS
B	-	LED	21	W/FIXTURE	RECESSED/ CLG.	MAXILUME - HV6-LED-21W-DIM10-120-FL-FL-41K(HOUSING)+LED-6107-WH(TRIM)	(2) 6"ø WALL WASHER FLOOD
C	-	LED	10	W/FIXTURE	SURFACE/ WALL	TECH LIGHTING - 700WSCOS-Y-Z-LED	(2) WALL SCONCE ACRYLIC LENS - ANTIQUE BRONZE
D	2	F	28	F28T5/841	SURFACE	LITHONIA - WC-22815-A12-MVOLT-GEB10PS	(1) 2L 4FT LENSED UTILITY
XA	1	LED	14	W/FIXTURE	RECESSED/ SOFFIT	ELITE LED LIGHTING - B6IC-LED-14W-120V-FL-40K-AT(HOUSING)+L659CL-WH (TRIM)	(2)(4) EXT. 6"ø RECESSED CAN W/PRISMATIC LENS
EM	2	TH	5.4	6V	SURFACE/ WALL	LITHONIA - ELM2	EMERGENCY EGRESS LIGHT w/ BATTERY BACK-UP
EM1	2	TH	9	6V	SURFACE/ WALL	LITHONIA - ELM654 (54 WATTS, 6V)	(6) EMERGENCY EGRESS LIGHT w/BATTERY BACK-UP & ADD'L REMOTE HEAD
REH	2	TH	6	6V	SURFACE/ WALL	LITHONIA - ELA-AFNR-DB	(6) WALL-MTD @ 7'-0" REMOTE EXT. EM HEAD-DUAL LAMPS
	-	LED	-	w/FIXTURE	SURFACE	LITHONIA - TLE-W-1-G-ELN	(5) EXIT LIGHT w/BATTERY BACK-UP

LAMP ABBREVIATIONS:
LED=LIGHT EMITTING DIODE
CF=COMPACT FLUORESCENT
F=FLUORESCENT
IN=INCANDESCENT
TH=TUNGSTEN HALOGEN
HPS=HIGH PRESSURE SODIUM
MH=METAL HALIDE

REMARKS:
(1) ELECTRONIC PROGRAM START BALLAST - REFER TO SPECIFICATIONS.
(2) LED LIGHTING.
(3) GWB CEILING FLANGE KIT.
(4) WET LOCATION UL LISTED.
(5) CONTRACTOR TO PROVIDE EXIT FIXTURE MOUNTING AS INDICATED ON DRAWING.
(6) EXTEND REMOTE HEADS TO BATTERY PACK.
(7) FINAL FINISH COLOR TO BE SELECTED BY OWNER/ARCHITECT.

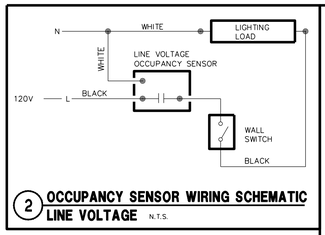
ALL FIXTURE VOLTAGES ARE 120 VOLT UNLESS INDICATED OTHERWISE.

ELECTRICAL MOTOR/EQUIPMENT SCHEDULE

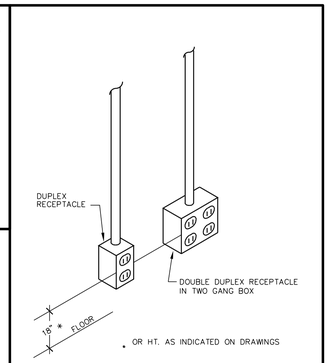
TAG	1	2	3	4	5
PANEL NO.	B(b)	B(a)			
CIRCUIT	31	29			
BREAKER	15	20			
POLE	1	1			
WIRING NO. ①	2+G (#12)	2+G (#12)			
TYPE	THHN	THHN			
SIZE	#12	#12			
COND.	1/2"	1/2"			
ELECTRICAL HP	1/4	1/25			
VOLT	115	115			
PHASE	1	1			
FLA (MCA)	5.8 (7.3)	0.74 (0.0)			
STARTER TYPE	N.R.	N.R.			
SIZE	-	-			
BY	-	-			
CONTROL TYPE	T.C.C. OCCUPIED MODE	T.C.C. HTG MODE			
BY	T.C.C.	T.C.C.			
DISCONNECT TYPE	w/UNIT	NEMA 1 M.S.			
SIZE	-	15			
FUSE	-	T.U.			
BY	H.C.	E.C.			
REMARKS	EXHAUST FAN EF-1	RADIANT FLOOR PUMP			

E.C. = ELECTRICAL CONTRACTOR
H.C. = HVAC CONTRACTOR
T.C.C. = TEMPERATURE CONTROL CONTRACTOR
P.C. = PLUMBING CONTRACTOR
G.C.=GENERAL CONTRACTOR
N.R.= NOT REQUIRED
G.D.= GENERAL DUTY
H.D.= HEAVY DUTY
M.S.= MANUAL STARTER (FRAC & HP)
T.U.= THERMAL UNIT

① PROVIDE GREEN WIRE GROUND TO ALL MOTORS AND EQUIPMENT PER NEC 250-95.



2 OCCUPANCY SENSOR WIRING SCHEMATIC LINE VOLTAGE N.T.S.



3 BACKBOX INSTALLATION DETAIL RECEPTACLE N.T.S.

Rev'd 5-09

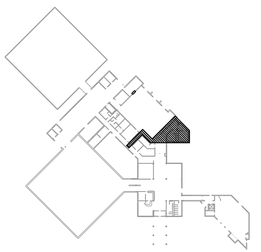
ELECTRICAL SYMBOL SCHEDULE

MOUNTING HGT.	SYMBOL	DESCRIPTION
	PANEL/CIRC.# TYPE SWITCHING	LIGHTING FIXTURES
		LED: SURFACE/ PENDANT
		LED: RECESSED
		LED: SURFACE/WALL MTD
		FLUORESCENT: SURFACE, CEILING MOUNTED
		FLUORESCENT: SURFACE, WALL MOUNTED
		EXIT LIGHT: ARROWS, FACES & MOUNTING AS SHOWN ON DRAWINGS
		EMERGENCY LIGHT W/ BATTERY PACK: WALL MOUNTED
		REMOTE EMERGENCY HEAD
		SWITCHES
48"	$	SINGLE POLE
48"	$OS	OCCUPANCY SENSOR CONTROLLED WALL SWITCH
		RECEPTACLES
	GFI	DUPLEX: RECESS MOUNTED W/GROUND FAULT INTERRUPTION PROTECTION
18"		DUPLEX: SURFACE MTD
		DUPLEX RECEPT. MOUNTED ABOVE CASEWORK BACKSPLASH
18"		DUPLEX: RECESS SWITCHED
		EQUIPMENT AND WIRING
		DIRECT EQUIPMENT CONNECTION
		MOTOR CONNECTION-SEE EQUIP. SCHEDULE FOR TYPE, WIRING, ETC.
	J	JUNCTION BOX-CONCEALED IN FINISHED AREAS, SURFACE IN UNFINISHED AREAS
	P	PUSH PLATE - DOOR OPERATOR CONTROL
		SAFETY DISCONNECT SWITCH WITH COVER INTERLOCK-W.P. INDICATES WATERPROOF (NON-FUSED UNLESS INDICATED BY 'F'-FUSED)
		ELECTRICAL POWER PANEL
	#	OCCUPANCY SENSOR
		CEILING MTD TYPE
		FIRE ALARM SYSTEMS
90"	F	FIRE ALARM HORN/VISUAL STROBE CANDELA-ILLUMINATION LEVEL
90"	F	FIRE ALARM STROBE CANDELA-ILLUMINATION LEVEL
90"	F S	FIRE ALARM SMOKE DETECTOR- CLG. MTD.
	FACP	FIRE ALARM CONTROL PANEL
	DAC	FIRE ALARM DIGITAL ALARM COMMUNICATOR

ABBREVIATIONS

SUBSCRIPTS
AFF=ABOVE FINISH FLOOR
GFI=GROUND FAULT INTERRUPTER
NL=NIGHT LIGHT-24 HOURS
PC=PHOTOCELL CONTROLLED
PC/TC=PHOTOCELL ON/ TIMECLOCK OFF
TC=TIMECLOCK CONTROLLED
WP=WEATHERPROOF

EQUIPMENT
EF=EXHAUST FAN
WH= WATER HEATER
EWH=ELECT. WALL HEATER



N KEY PLAN

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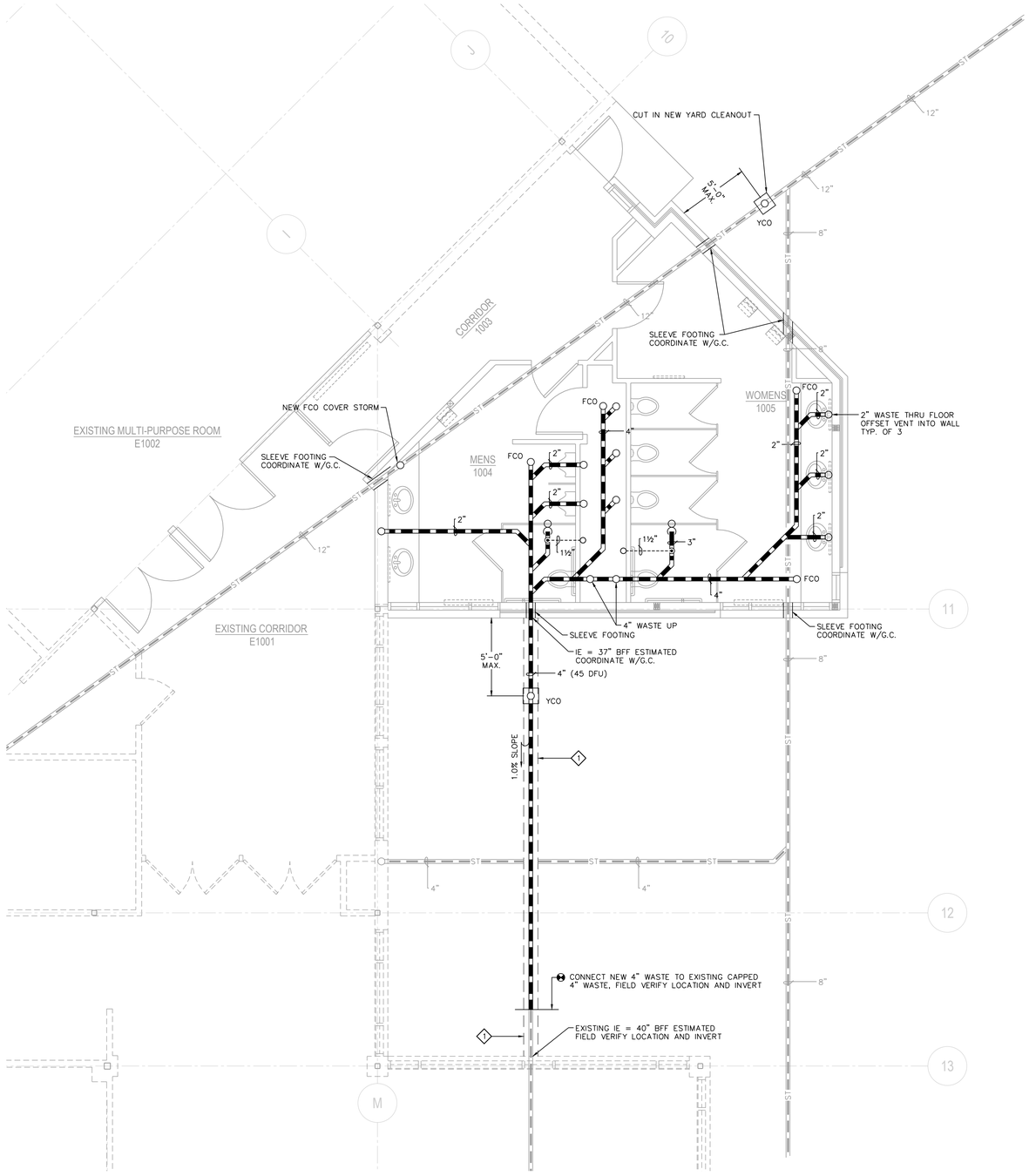

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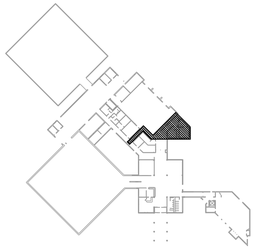
1 UNDERGROUND PLUMBING PLAN
1/4" = 1'-0"



KEY PLAN

PLUMBING GENERAL NOTES:

1. PLUMBING CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS.
2. COORDINATE CUTTING AND PATCHING OF EXISTING SURFACES WITH GENERAL CONTRACTOR FOR APPROVAL PRIOR TO STARTING WORK.
3. PLUMBING CONTRACTOR IS RESPONSIBLE FOR CUTTING AND PATCHING EXISTING WALLS, FLOORS & CEILINGS FOR NEW PLUMBING WORK.
4. PATCH ALL EXISTING SURFACES TO ORIGINAL CONDITION.
5. FIRE PROOF AND CAULK ALL FIRE RATED PENETRATION AND ASSEMBLIES.
6. OWNER SHALL ABATE AND REMOVE ALL ASBESTOS MATERIALS, IF PRESENT.
7. COORDINATE PIPING ROUTING WITH OTHER TRADES TO MAINTAIN SCHEDULED CEILING HEIGHTS.

PLUMBING PLAN NOTES:

1. INSULATE EXTERIOR WASTE PIPING PER DETAIL 3/P102 & SPS 382.30(11)c(3).

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Project No. H1222

OLBRICH GARDENS RESTROOM ADDITION
3330 ATWOOD AVENUE
MADISON, WI

ISSUANCES:	
CD'S	12.21.12
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PROJECT:	
NUMBER:	120410.00
DATE:	12.21.12
REV:	----

SHEET: P100

PLUMBING GENERAL NOTES:

1. PLUMBING CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS.
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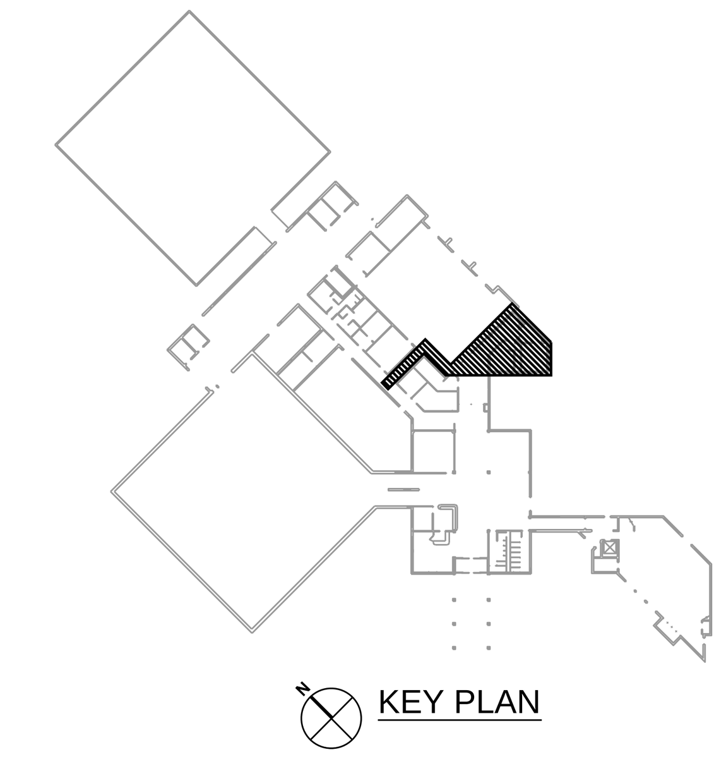
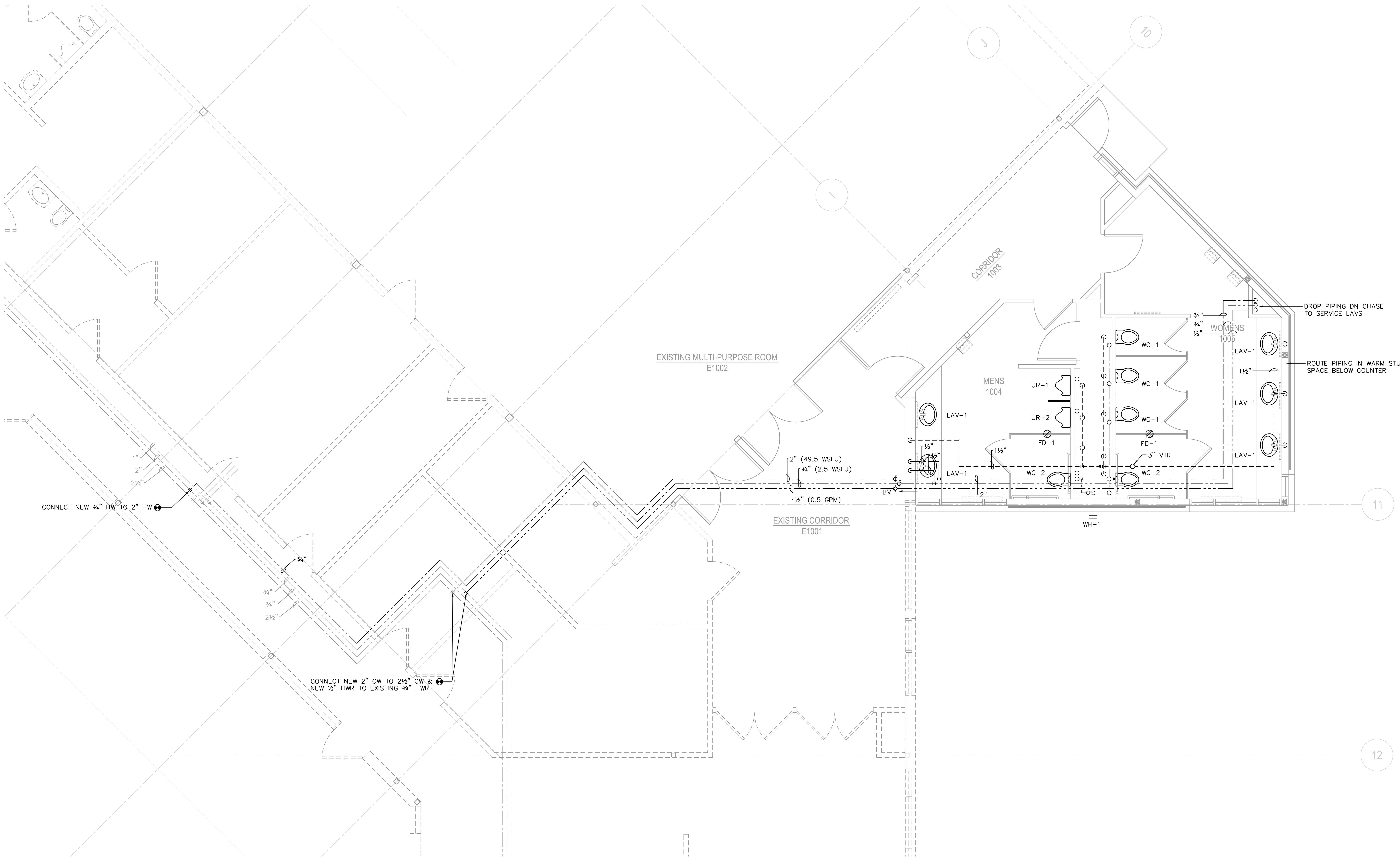


KEY PLAN



1 PLUMBING PLAN
1/4" = 1'-0"

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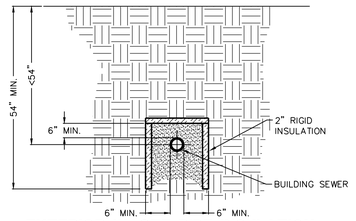
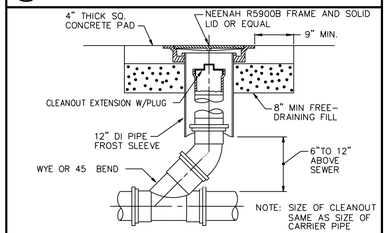
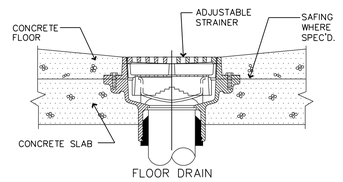


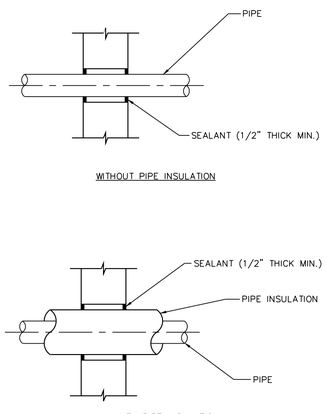
3 EXTERIOR WASTE PIPE INSULATION
N.T.S.



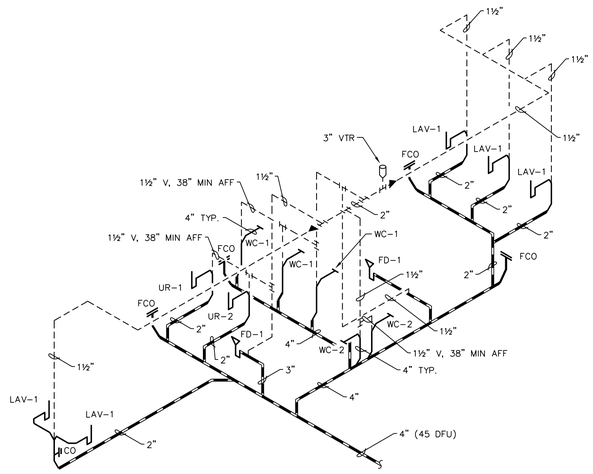
4 CLEANOUT W/FROST SLEEVE DETAIL
N.T.S.



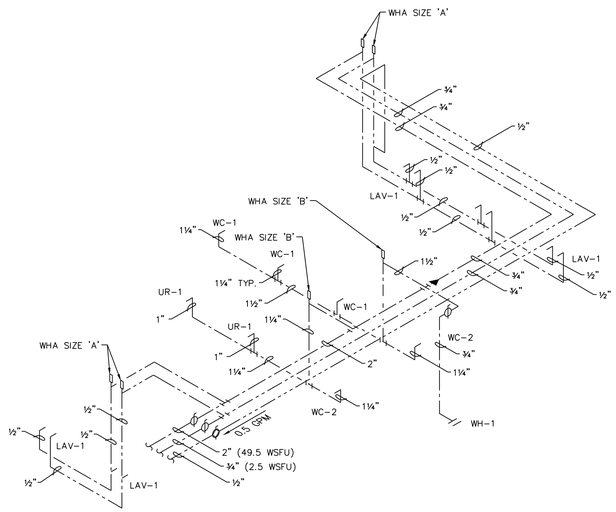
5 FLOOR DRAIN (FD-1)
N.T.S.



6 PIPE THRU NON-RATED INTERIOR WALL
N.T.S.



1 WASTE & VENT RISER
N.T.S.



2 WATER PIPING RISER
N.T.S.

PLUMBING FIXTURE SCHEDULE

P#	FIXTURE	WASTE	VENT	CW.	HW.	DESCRIPTION
WC-1	WATER CLOSET	4"	1-1/2"	1"	--	VITREOUS CHINA, WHITE, WALL-MTD. ELONGATED BOWL, REAR SPUD, RIM @ 16" AFF FIXTURE EQUAL TO KOHLER KINGSTON K-4323, SLOAN OPTIMA 152-1.6 ES-S SENSOR OPERATED FLUSH VALVE (1.6 GPF) & BEMIS 1955-SSC OPEN FRONT SEAT. PROVIDE EL-154 (120v) TRANSFORMER & VERTICAL ADJ. WALL CARRIERS EQUAL TO SMITH 0230 SERIES.
WC-2	WATER CLOSET ADA	4"	1-1/2"	1"	--	SAME AS WC-1 EXCEPT RIM MTD @ 17" ADA COMPLIANT.
UR-1	URINAL	2"	1-1/2"	3/4"	--	VITREOUS CHINA, WHITE, WALL HUNG, REAR SPUD, RIM MTD. @ 24" AFF. KOHLER BARDON MODEL K-4904-ER WITH SLOAN 195-1.0 ES-S SENSOR-CONTROLLED FLUSH VALVE (1.0 GPF), S.S. BEEHIVE STRAINER. PROVIDE EL-154 (102V) TRANSFORMER & VERTICAL ADJ. WALL CARRIER EQUAL TO SMITH 0630 SERIES.
UR-2	URINAL ADA	2"	1-1/2"	3/4"	--	SAME AS UR-1 EXCEPT RIM MTD @ 17" ADA COMPLIANT.
LAV-1	LAVATORY ADA	1-1/4"	1-1/2"	1/2"	1/2"	INTEGRAL BOWL, (2-HOLE 4" O.C.) W/BRADLEY AERADA 1200 SERIES CS FAUCET, 553-315, w/BRADLEY PLUG-IN ADAPTER 153-443 & 559-4004XS MIXING VALVE, PROWRAP 2000 INSULATION GUARDS, KOHLER 8998 P-TRAP WITH CLEANOUT. ADA COMPLIANT.
WH-1	WALL HYDRANT	--	--	3/4"	--	KEY-OPERATED, FREEZELESS, AUTOMATIC DRAINING WITH ANTI-SIPHON VB & FLUSH TAMPER-PROOF BOX W/HINGED COVER. EQUAL TO WOODFORD MODEL B65-PB. (ASSE 1011)
FD-1	FLOOR DRAIN	3"	1-1/2"	--	--	POLISHED BRONZE ADJ. SQUARETOP W/PROSET TRAP GUARD EQUAL TO SMITH MODEL 2005Y-B-PB (NO HUB), 2010C-B-PB (CAULKED OUTLET).
FCO	FLOOR CLEANOUT	SEE PLAN	--	--	--	POLISHED BRONZE FLOOR ACCESS COVER w/SQUARE FRAME & SECURED COVER EQUAL TO SMITH MODEL 4930-PB.

PLUMBING SYMBOL SCHEDULE

SYMBOL	DESCRIPTION
	EXISTING WASTE UNDERGROUND
ST	EXISTING WASTE UNDERGROUND
	EXISTING COLD WATER
	EXISTING HOT WATER
	EXISTING HOT WATER RETURN
	EXISTING VENT
	UNDERGROUND WASTE PIPING
	COLD WATER
	HOT WATER
	HOT WATER RETURN
	VENT
	PIPE UP
	PIPE DOWN
CO	CLEAN OUT
WCO	WALL CLEAN OUT

WATER SERVICE SIZING:

1) 110 DEMAND OF BUILDING IN G.P.M.

2) 80 PSI AFTER PRESSURE REDUCING VALVE

3) -4 FT DIFFERENCE IN ELEVATION. MAIN TO METER.

4) 2 IN SIZE OF WATER METER.

HOT WATER DISTRIBUTION SIZING:

PERMISSABLE UNIFORM PRESSURE LOSS FOR FRICTION (A); (P.S.I./100' OF PIPE)

WHERE: $A = \frac{B - (C + D + E)}{F} \times 100$

A. 19.0 PERMISSIBLE PRESSURE LOSS FOR FRICTION. (PSI/100' OF PIPE).

B. 80.0 PSI AVAILABLE PRESSURE AFTER WATER METER (AT PRESSURE REDUCING VALVE)

C. 8 PSI PRESSURE NEEDED AT CONTROLLING FIXTURE.

D. 0 PSI DIFFERENCE IN ELEVATION BETWEEN WATER METER (PRESSURE REDUCING VALVE) AND CONTROLLING FIXTURE IN FEET 0 x .434 PSI/FT.

E. 15 PSI PRESSURE LOSS DUE TO WATER HEATER, FUTURE WATER TREATMENT DEVICES AND BACKFLOW PREVENTERS.

F. 300 FT DEVELOPED LENGTH FROM WATER METER (PRESSURE REDUCING VALVE) TO CONTROLLING FIXTURE IN FEET 200 x 1.25.

COLD WATER DISTRIBUTION SIZING:

PERMISSABLE UNIFORM PRESSURE LOSS FOR FRICTION (A); (P.S.I./100' OF PIPE)

WHERE: $A = \frac{B - (C + D + E)}{F} \times 100$

A. 20.0 PERMISSIBLE PRESSURE LOSS FOR FRICTION. (PSI/100' OF PIPE).

B. 80.0 PSI AVAILABLE PRESSURE AFTER WATER METER (AT PRESSURE REDUCING VALVE)

C. 20 PSI PRESSURE NEEDED AT CONTROLLING FIXTURE.

D. 0 PSI DIFFERENCE IN ELEVATION BETWEEN WATER METER (PRESSURE REDUCING VALVE) AND CONTROLLING FIXTURE IN FEET 0 x .434 PSI/FT.

E. 0 PSI PRESSURE LOSS DUE TO WATER HEATER, WATER TREATMENT DEVICES AND BACKFLOW PREVENTERS.

F. 300 FT DEVELOPED LENGTH FROM WATER METER (PRESSURE REDUCING VALVE) TO CONTROLLING FIXTURE IN FEET 200 x 1.25.

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