

ARCHITECT:
DESTREE DESIGN ARCHITECTS, INC.
 222 WEST WASHINGTON AVE. SUITE 310
 MADISON, WI 53703
 PH: 608.268.1499
 FAX: 608.268.1498
 WWW.DESTREEARCHITECTS.COM
 PROJECT ARCHITECT: MELISSA DESTREE AIA
 MELISSA@DESTREEARCHITECTS.COM
 DESIGNER/PROJECT MANAGER:
 JASON EKSTROM-DESIGNER/ASSOC AIA
 JASON@DESTREEARCHITECTS.COM

STRUCTURAL ENGINEER:
ECHOLON STRUCTURES
 THOMAS R. BOEHNNEN JR, P.E., S.E.
 CELL: 608-206-0521
 ESCHOLONSTRUCTURES@CHARTER.NET

MECHANICAL ENGINEER:
HEIN ENGINEERING GROUP
 17 APPLGATE CT. SUITE #200
 MADISON WI
 PH: 608.288.9260
 CONTACT: MIKE HEIN HEIN@CHORUS.NET

OWNER:
**CITY OF MADISON
 PARKS DIVISION**

CITY COUNTY BUILDING SUITE:104
 210 MARTIN LUTHER KING JR BLVD
 MADISON WI 53703
 608.266.4711
 CONTACT: JEANINE ZWART JZWART@CITYOFMADISON.COM

LAKE EDGE PARK SHELTER

511 PARK CT MADISON WI 53713

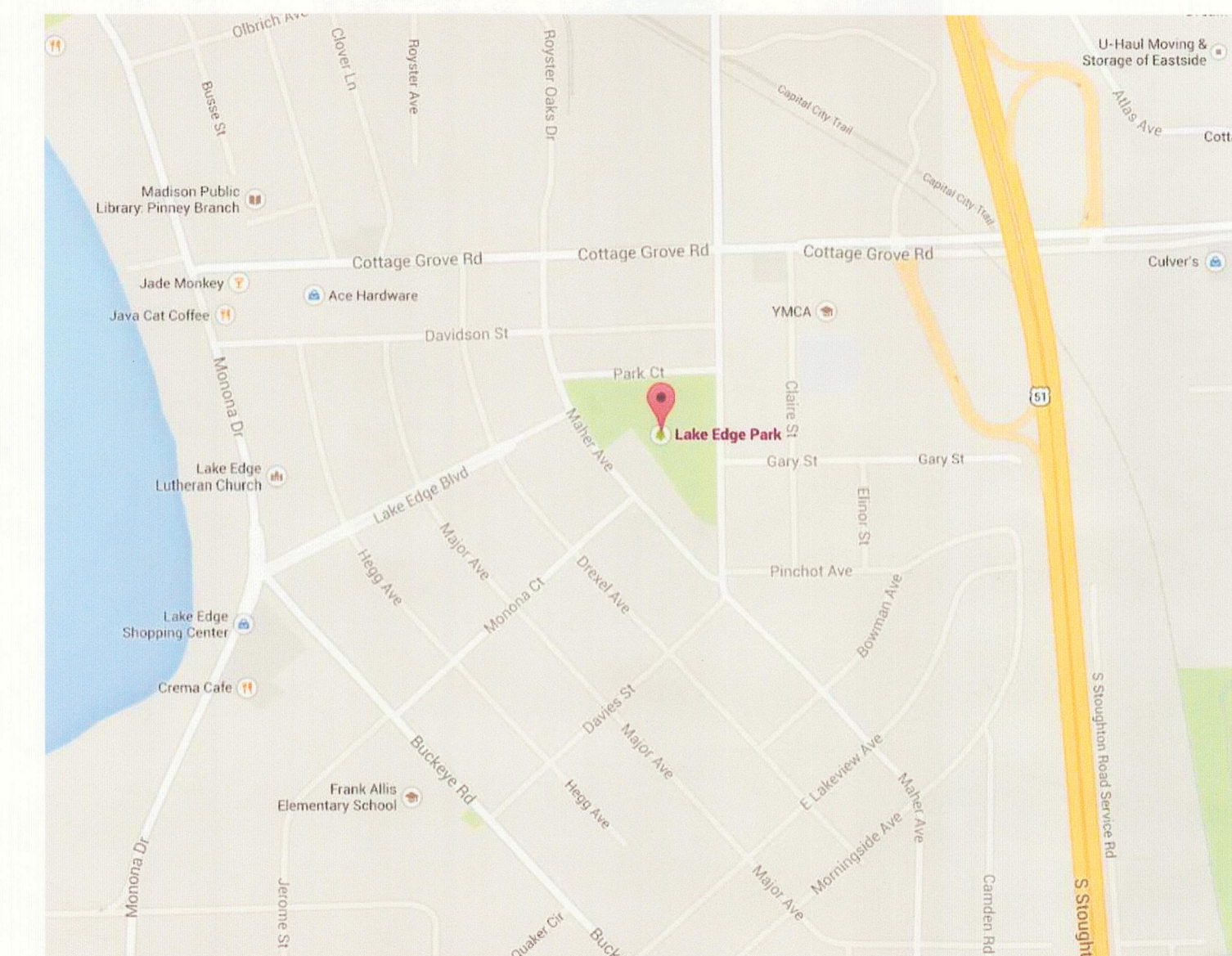
CITY OF MADISON PARKS DIVISION

05.23.15

CONTRACT#7531/MUNIS #10120



RENDERING



SITE LOCATION MAP

LAKE EDGE PARK SHELTER
 511 PARK CT MADISON WI
 CITY OF MADISON PARKS DIVISION
 CONTRACT#7531/MUNIS #10120

DESTREE
 architecture & design
 222 West Washington Ave. Suite 310, Madison, WI 53703
 ph: 608.268.1499 fax: 608.268.1498 www.destreearchitects.com

DEFINITIONS:

- F.E.C - FIRE EXTINGUISHER CABINET
- GWB - GYPSUM WALL BOARD
- O.F.C.I. - OWNER FURNISHED CONTRACTOR INSTALLED
- C.F.C.I. - CONTRACTOR FURNISHED CONTRACTOR INSTALLED
- TYP - TYPICAL
- XTG - EXISTING

PAINT COLOR SELECTIONS:

- P-1 COUNTRY LANE RED- JAMES HARDIE
 - P-2 BLACK- MATCH ALUM STOREFRONT
 - P-3 LIGHT MIST- JAMES HARDIE
 - P-4 CLASSIC FRENCH GRAY SW0077
- *****ALL COLORS TO BE APPROVED BY ARCHITECT

GENERAL NOTES:

1. FIELD VERIFY ALL DIMENSIONS, CONSULT ARCHITECT W/ INCONSISTENCIES.
2. CONTRACTOR TO COMPLY WITH ALL APPLICABLE BUILDING CODES.
3. ALL SHOP DRAWING TO BE APPROVED BY ARCHITECT

DESIGN LOADS

1. DESIGN CODE DATA
 IBC 2009 (WI Commercial Building Code, Chapter 62)
 ASCE 7-05: MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES
 ACI 318-08: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY
 ACI 530-08/ASCE 5-08/TMS 402-08: BUILDING CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES
 AF & PA NDS-01: NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION WITH 2005 SUPPLEMENT
 AISC 335-89S1: SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS
 AISC 341-02: SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS
 BUILDING OCCUPANCY CATEGORY II (PER ASCE 7-05 TABLE 1-1)
4. ROOF LIVE LOADS (ASCE 7-05) 20 PSF (REDUCIBLE)
- DEFLECTION LIMITS
 ROOF MEMBERS
 LIVE LOAD L/240
 SNOW LOAD L/240
 WIND LOAD L/240
 DEAD LOAD + LIVE LOAD L/180
 EXTERIOR WALLS WITH SIDING WIND LOAD L/180
 EXTERIOR WALLS WITH MASONRY VENEER WIND LOAD L/600
5. SNOW LOAD (ASCE 7-05)
 GROUND SNOW LOAD (Pg) 30 PSF
 EXPOSURE FACTOR (Ce) 1.0
 THERMAL FACTOR (Ct) 1.1

- SNOW LOAD IMPORTANCE FACTOR (Is) 1.0
 FLAT ROOF SNOW LOAD (Pf) 30.2 PSF
7. WIND LOADS (ASCE 7-05)
 BASIC WIND SPEED (3-SEC GUST) 90 MPH
 DIRECTIONALITY (Kd) 0.85
 WIND IMPORTANCE FACTOR (Iw) 1.00
 WIND EXPOSURE CATEGORY D
 TOPOGRAPHIC FACTOR (Kzt) 1.0
 ENCLOSURE CLASSIFICATION ENCLOSED
 INTERNAL PRESSURE COEFFICIENT (Gcpi) +/- 0.18
 BASE VELOCITY PRESSURE (Qh) 18.2 PSF

CODE SUMMARY:

PROJECT DESCRIPTION: PARK SHELTER W/ TOILET ROOMS
 CONSTRUCTION TYPE: 5B
 HEIGHT: ONE STORY

SQUARE FOOTAGES

BUILDING FOOTPRINT = 435SF
 CONCRETE APRON AREA = 2239SF
 ROOF AREA = 1387SF

PUBLIC IMPROVEMENT PROJECT APPROVED RES-RES-15-00291, FILE ID 37625 DATE: 3.31.15 BY THE COMMON COUNCIL OF MADISON, WISCONSIN	PUBLIC IMPROVEMENT DESIGN APPROVED BY: City Engineer 5/20/15 Date
--	---

SHEET INDEX:

TITLE	COVER
T000	COVER
ARCHITECTURAL	
C000	DEMO SITE/EROSION CONTROL PLAN SITE DETAILS
C100	SITE/ GRADING PLAN
S100	FOUNDATION & FRAMING PLANS
S101	STRUCTURAL DETAILS
A101	FLOOR PLAN& ROOF PLAN
A300	EXTERIOR ELEVATIONS
A500	BUILDING SECTIONS
A501	BUILDING SECTIONS
MEP	
C1	SITE UTILITIES
H101	HVAC PLAN
E101	ELECTRICAL PLAN
E102	ELECTRICAL SCHEDULES
P101	PLUMBING PLAN



ISSUANCES:

05.23.2015	----
----	----

PROJECT:

NUMBER:	141216
DATE:	05.23.2015
REV:	----

SHEET:
T000

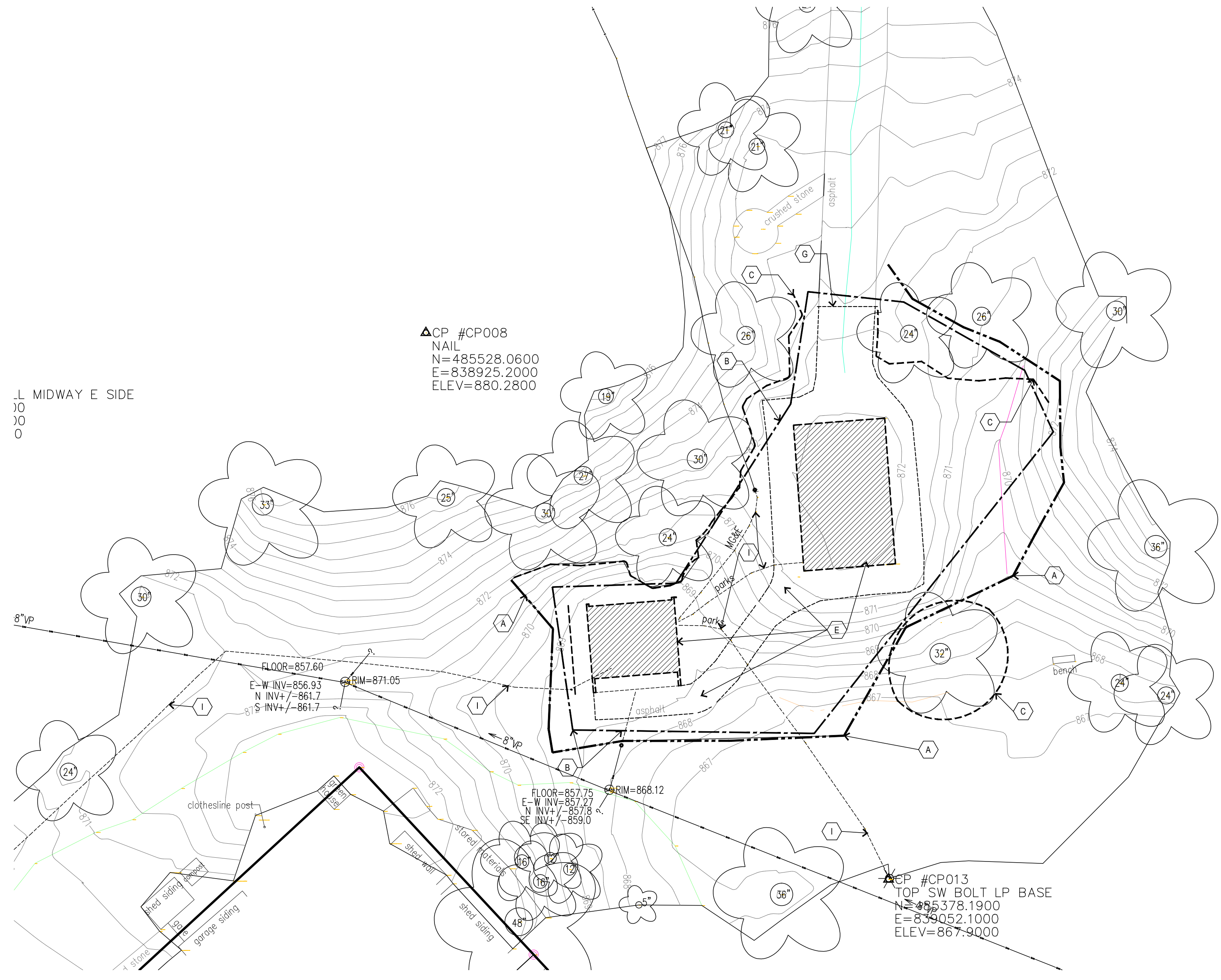
LAKE EDGE PARK SHELTER
511 PARK CT MADISON WI
CITY OF MADISON PARKS DIVISION
CONTRACT#7531/MUNIS #10120

ISSUANCES:

05.23.2015	---
----	----
PROJECT:	
NUMBER:	141216
DATE:	05.23.2015
REV:	----
----	----

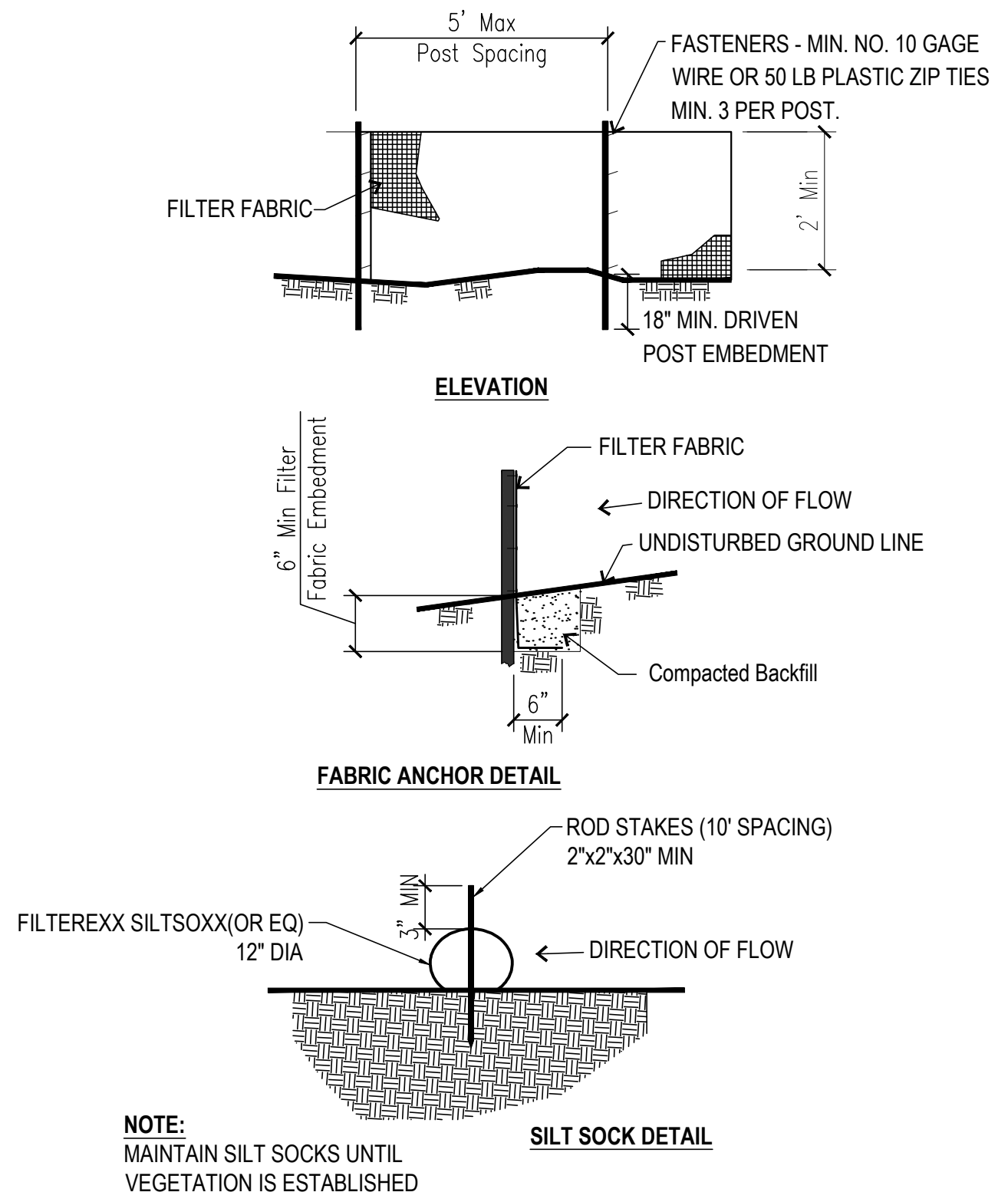
SHEET:

C000

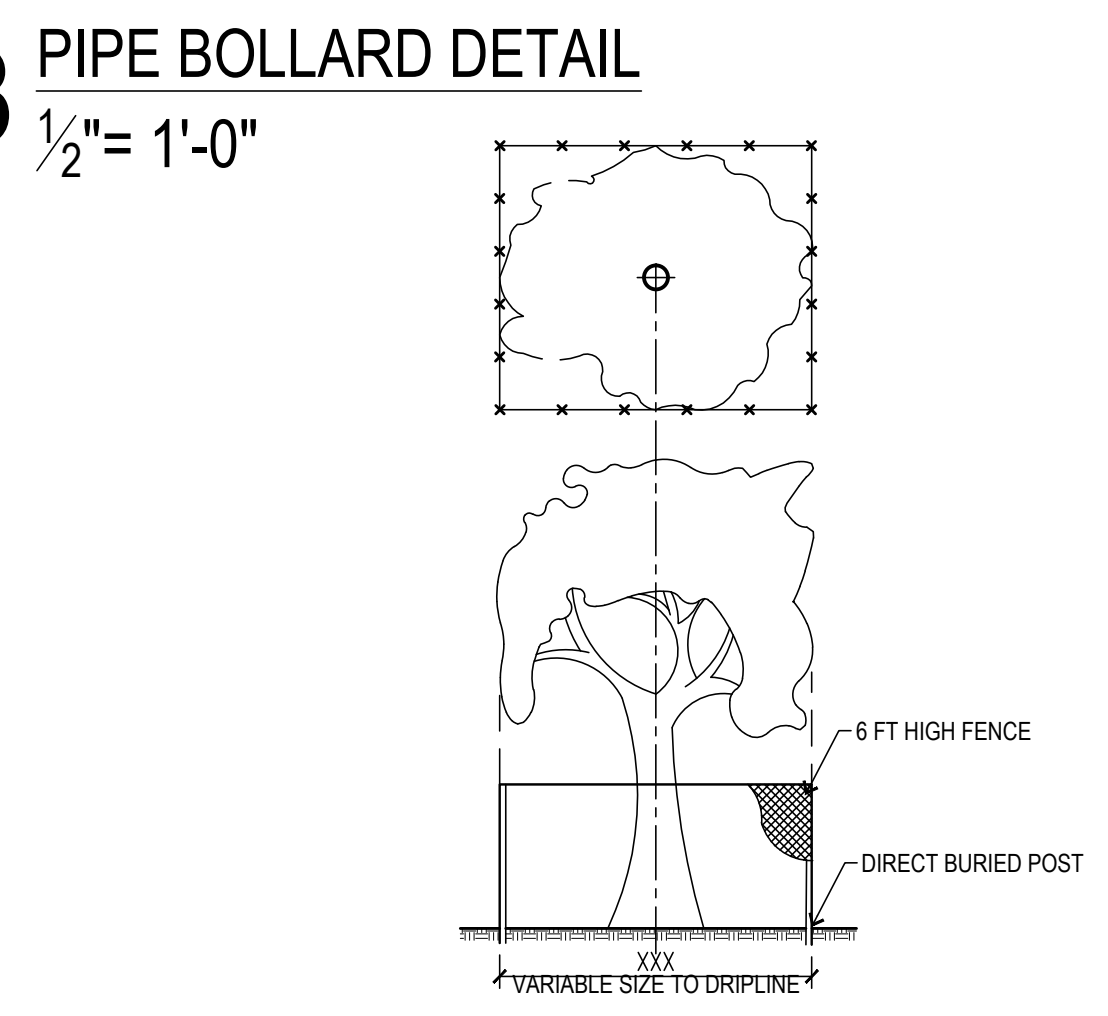
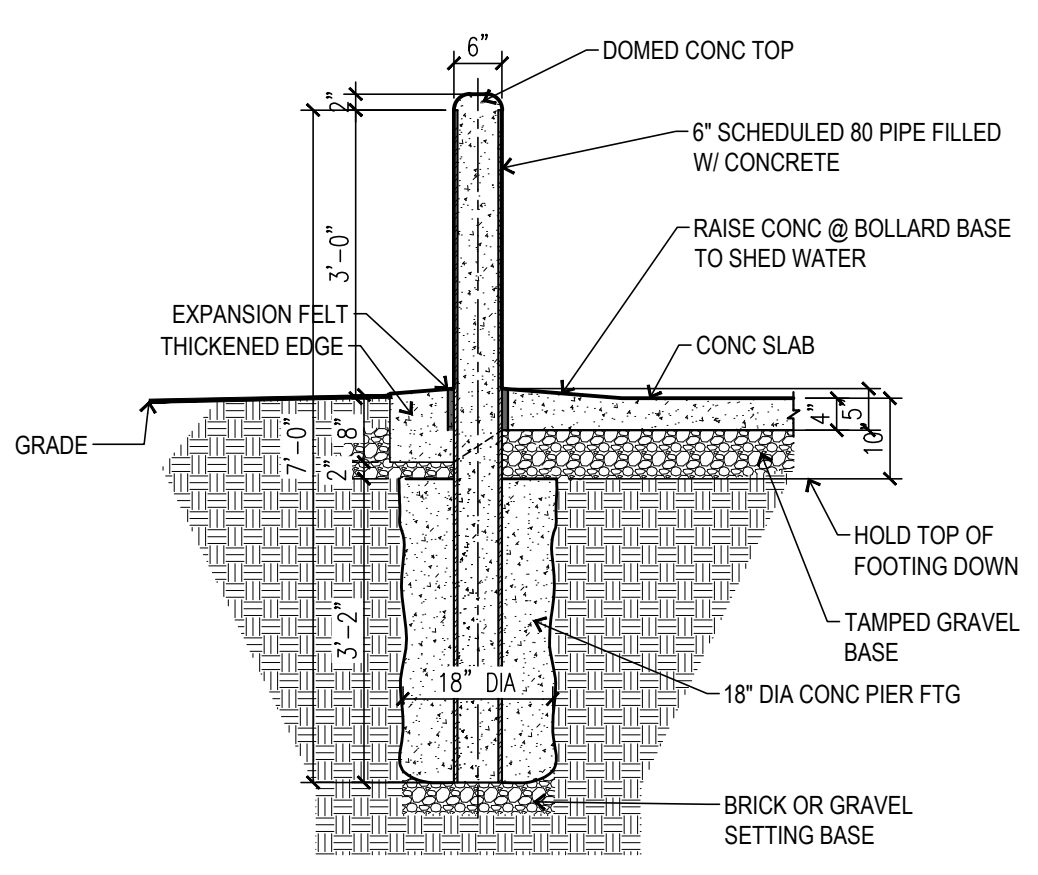


1 DEMO SITE & EROSION CONTROL PLAN
1"=20'

- KEY NOTES:**
- (A) EROSION CONTROL SILT FENCE
 - (B) AREA OF DISTURBANCE
 - (C) TREE PROTECTION FENCE
 - (D) GRADE/ TOP SOIL / RESEED & MAT AT ALL DISTURBED AREAS (PROTECT AREAS DURING CONST)
 - (E) DEMO EXIST STRUCTURE
 - (F) REMOVE EXISTING PAVING
 - (G) SAW CUT EXIST. DRIVEWAY
 - (H) NEW 3" ASPHALT DRIVE
 - (I) DISCONNECT EXISTING UTILITIES

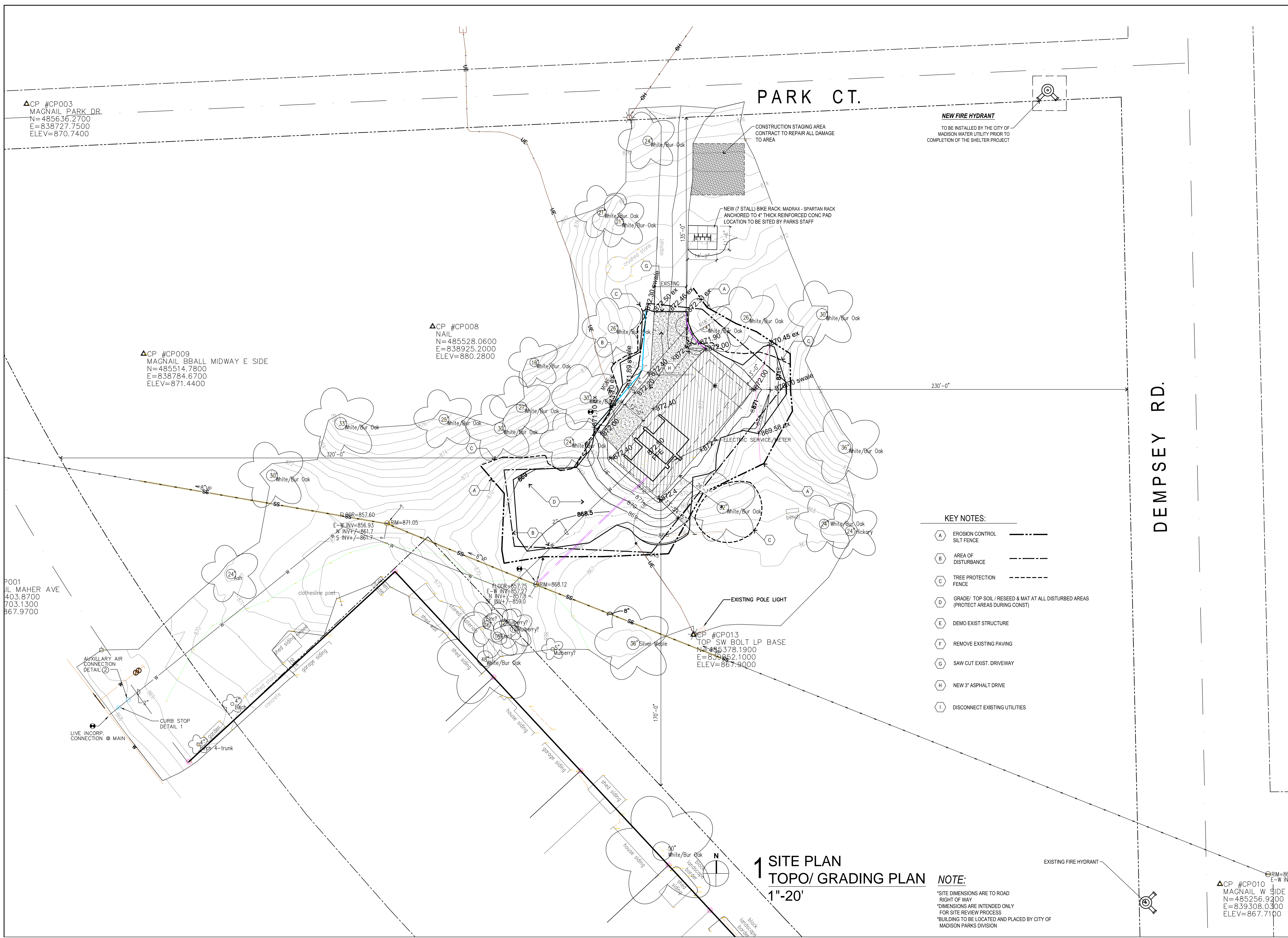


4 EROSION CONTROL DETAILS



2 TREE PROTECTION DETAILS

PLOT DATE: 05/19/2015



▲CP #CP003
MAGNAIL PARK DR
N=485636.2700
E=838727.7500
ELEV=870.7400

▲CP #CP009
MAGNAIL BBALL MIDWAY E SIDE
N=485514.7800
E=838784.6700
ELEV=871.4400

▲CP #CP008
NAIL
N=485528.0600
E=838925.2000
ELEV=880.2800

▲CP #CP013
TOP SW BOLT LP BASE
N=485378.1900
E=839652.1000
ELEV=867.9000

▲CP #CP010
MAGNAIL W SIDE
N=485256.9200
E=839308.0300
ELEV=867.7100

- KEY NOTES:**
- A EROSION CONTROL SILT FENCE
 - B AREA OF DISTURBANCE
 - C TREE PROTECTION FENCE
 - D GRADE/ TOP SOIL / RESEED & MAT AT ALL DISTURBED AREAS (PROTECT AREAS DURING CONST)
 - E DEMO EXIST STRUCTURE
 - F REMOVE EXISTING PAVING
 - G SAW CUT EXIST. DRIVEWAY
 - H NEW 3" ASPHALT DRIVE
 - I DISCONNECT EXISTING UTILITIES

**1 SITE PLAN
TOPO/ GRADING PLAN
1"=20'**

NOTE:
*SITE DIMENSIONS ARE TO ROAD RIGHT OF WAY
*DIMENSIONS ARE INTENDED ONLY FOR SITE REVIEW PROCESS
*BUILDING TO BE LOCATED AND PLACED BY CITY OF MADISON PARKS DIVISION

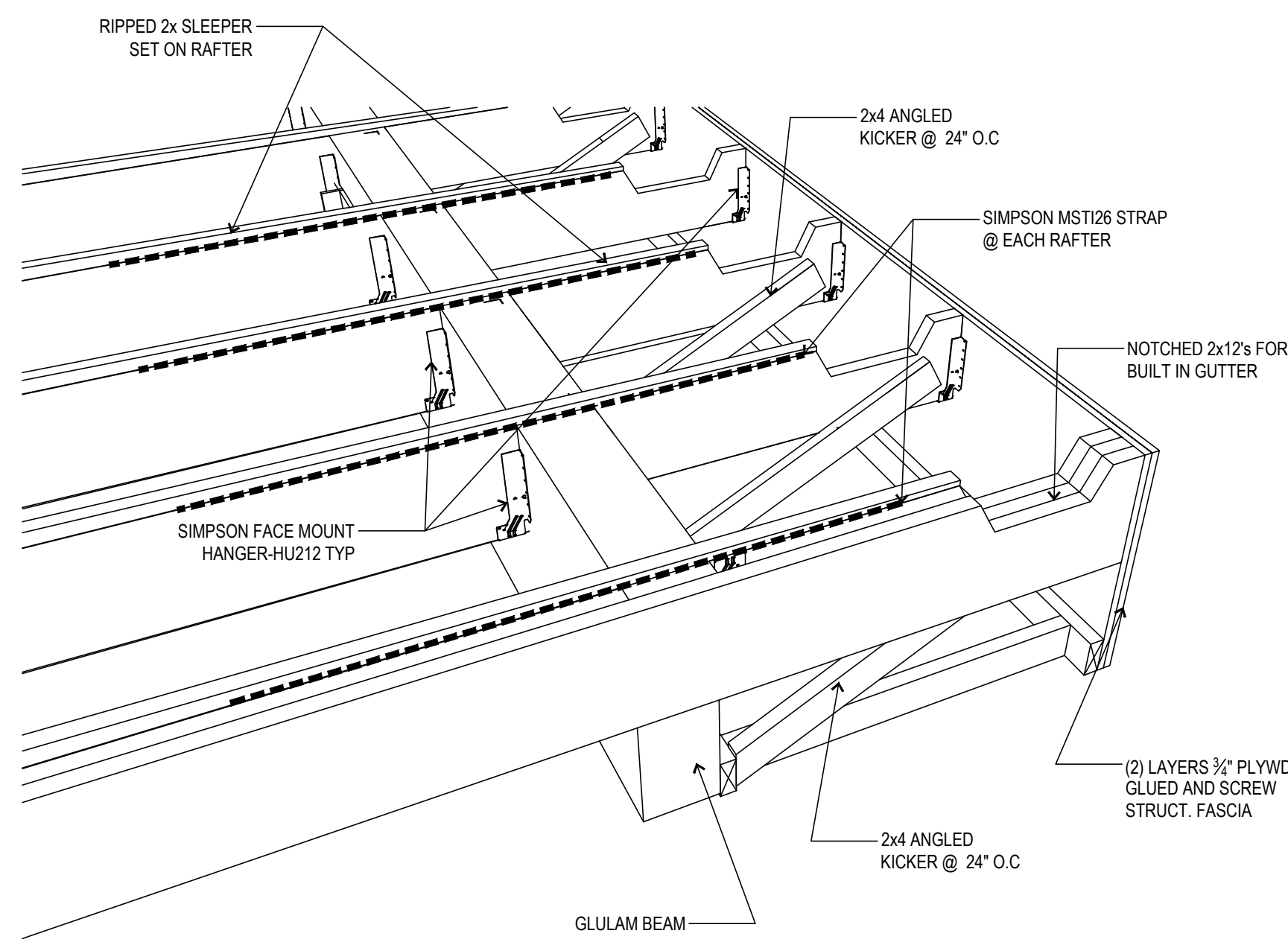
DESTREE
architecture & design

222 West Washington Ave. Suite 310. Madison, WI 53703
ph: 608.268.1499 fax: 608.268.1498 www.destreearchitects.com

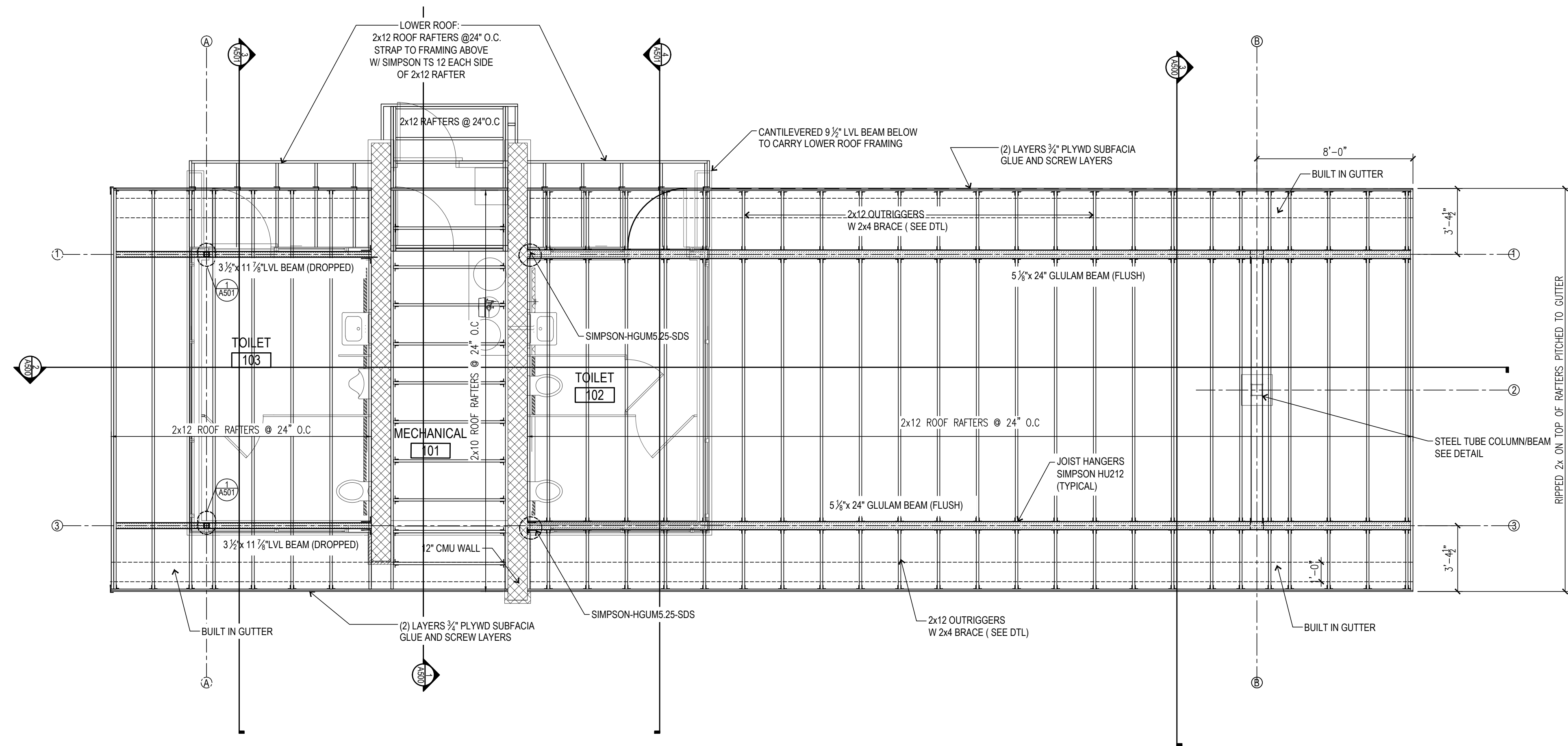
DESTREE ARCHITECTS HOLDS ALL RIGHTS INCLUDING THE COPYRIGHT OF THIS DOCUMENT. AS WELL AS THE DESIGN AND CONSTRUCTION OF THE PROJECT. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. ARCHITECTS IT IS NOT TO BE COPIED, DISTRIBUTED, OR USED IN WHOLE OR PART WITHOUT THE EXPRESS WRITTEN CONSENT OF DESTREE ARCHITECTS.

**LAKE EDGE PARK SHELTER
511 PARK CT MADISON WI
CITY OF MADISON PARKS DIVISION
CONTRACT#7531/MUNIS #10120**

ISSUANCES:	
05.23.2015	---
---	---
PROJECT:	
NUMBER:	141216
DATE:	05.23.2015
REV:	---
---	---
SHEET:	
C100	



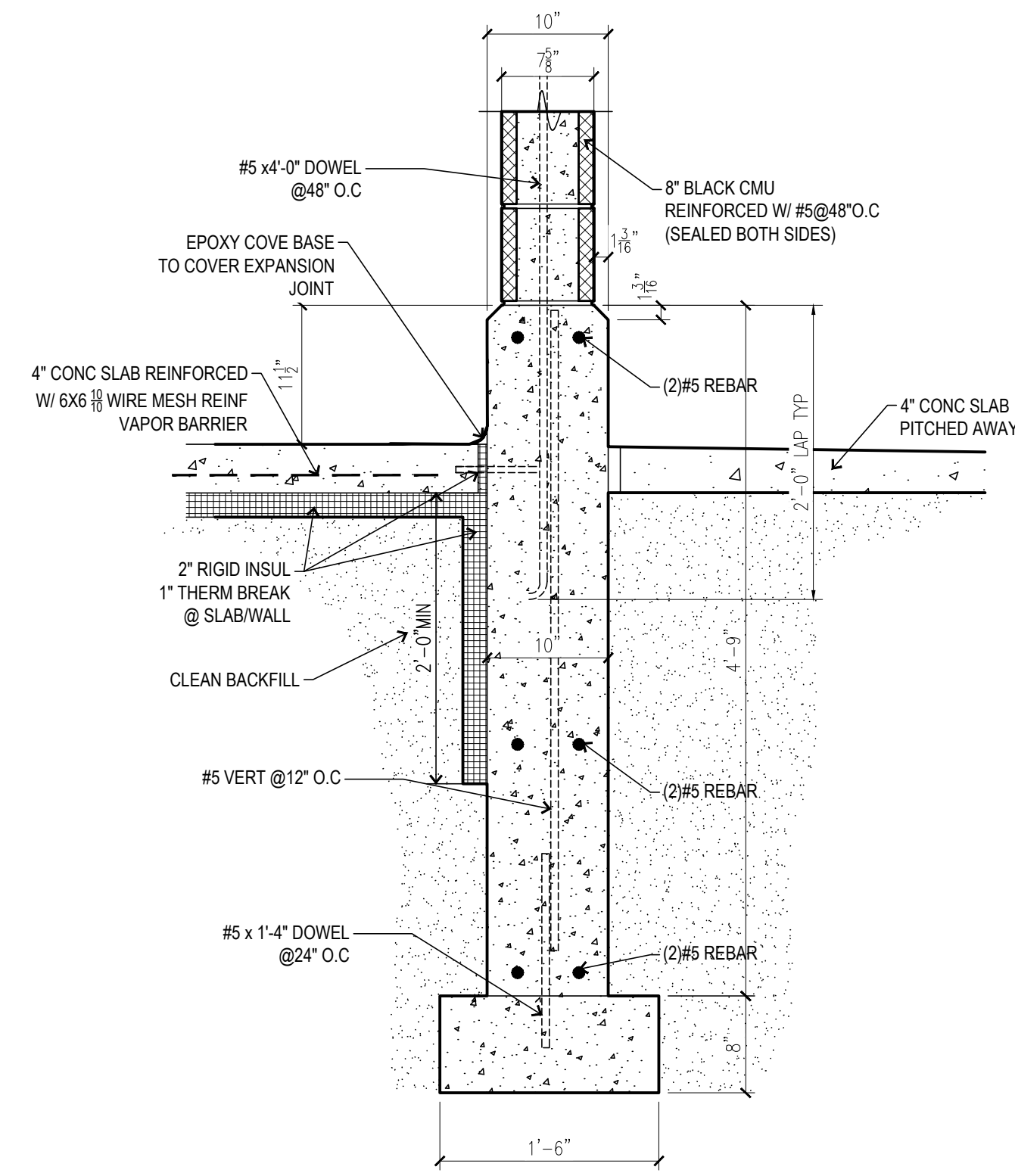
4 CANOPY OUTRIGGER DETAIL
NTS



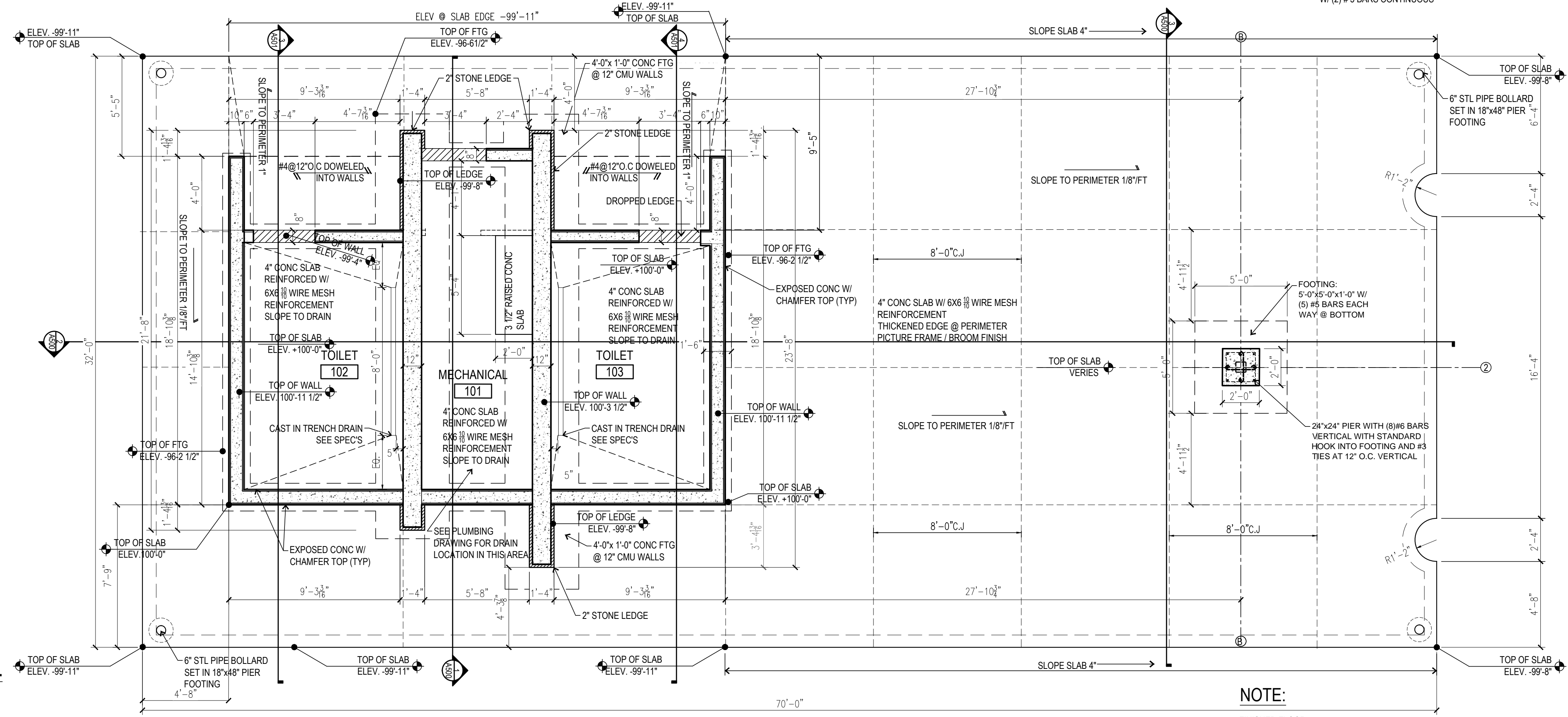
2 ROOF FRAMING PLAN
1/4" = 1'-0"

NOTE:

1. 8" CMU TO BE REINFORCED W/ #5 @ 48" O.C. VERTICAL GROUDED @ REINFORCED CELLS
2. 12" CMU TO BE REINFORCED W/ #5 @ 24" O.C. VERTICAL GROUDED @ REINFORCED CELLS
3. INSTALL BOND BEAM @ TOP COURSE OF ALL CMU WALLS W/ (2) #5 BARS CONTINUOUS



3 FOUNDATION DETAIL
1" = 1'-0"



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

NOTE:

FINISHED FLOOR
ELEVATION : 100'-0" = 872.5'

ISSUANCES:

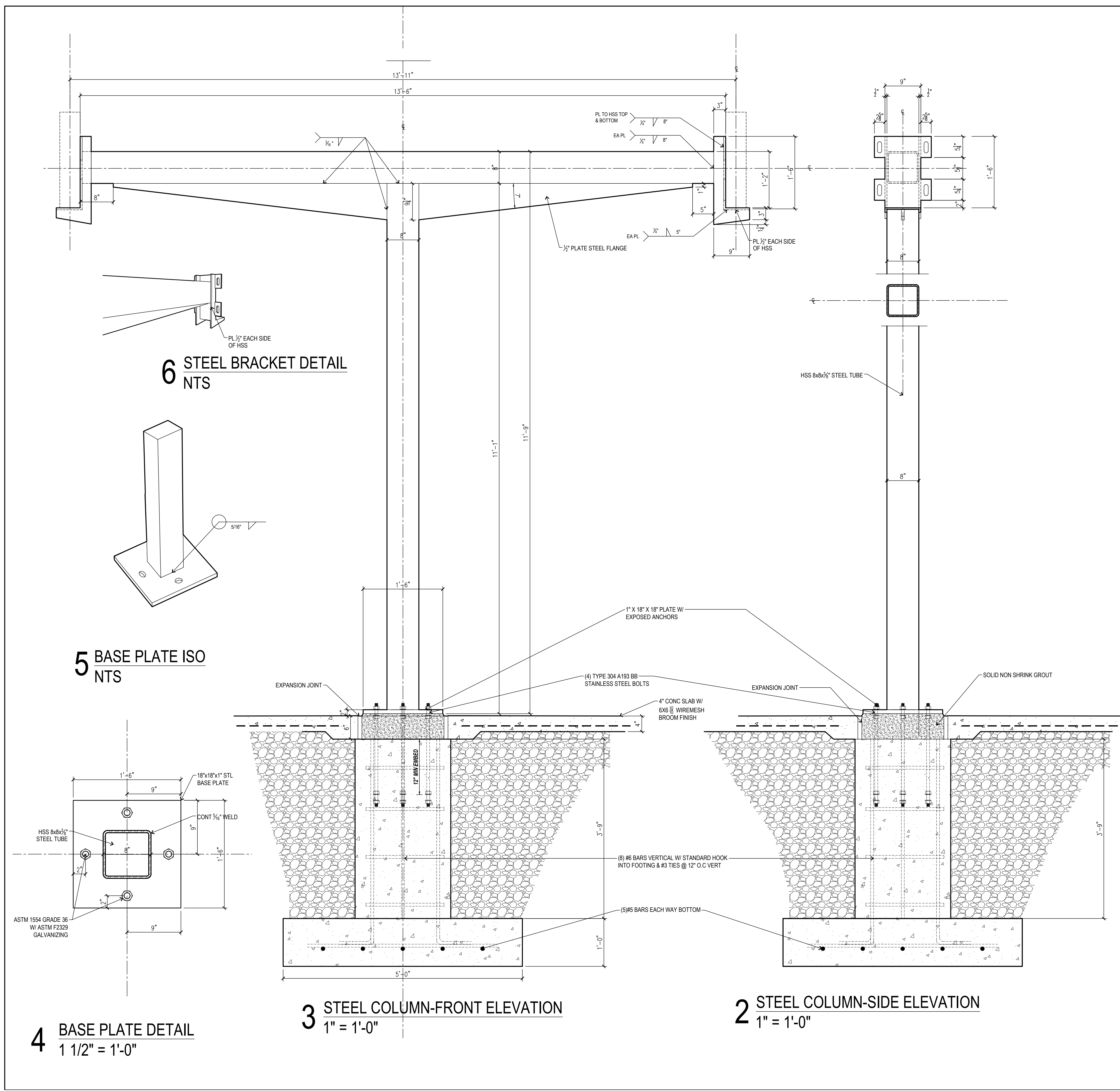
05.23.2015	---
---	---

PROJECT:

NUMBER:	141216
DATE:	05.23.2015
REV:	---
---	---

SHEET:

PLOT DATE: 05/19/2015



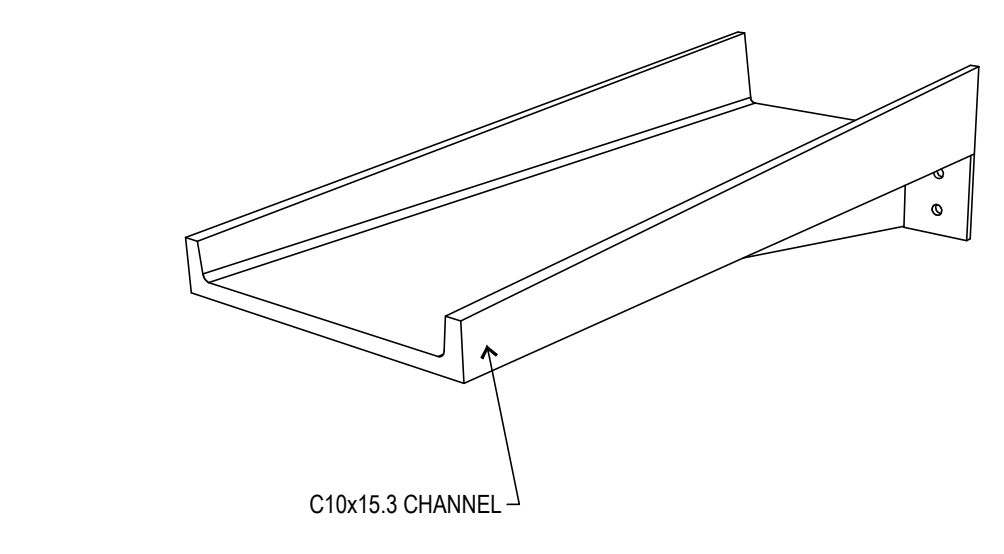
6 STEEL BRACKET DETAIL
NTS

5 BASE PLATE ISO
NTS

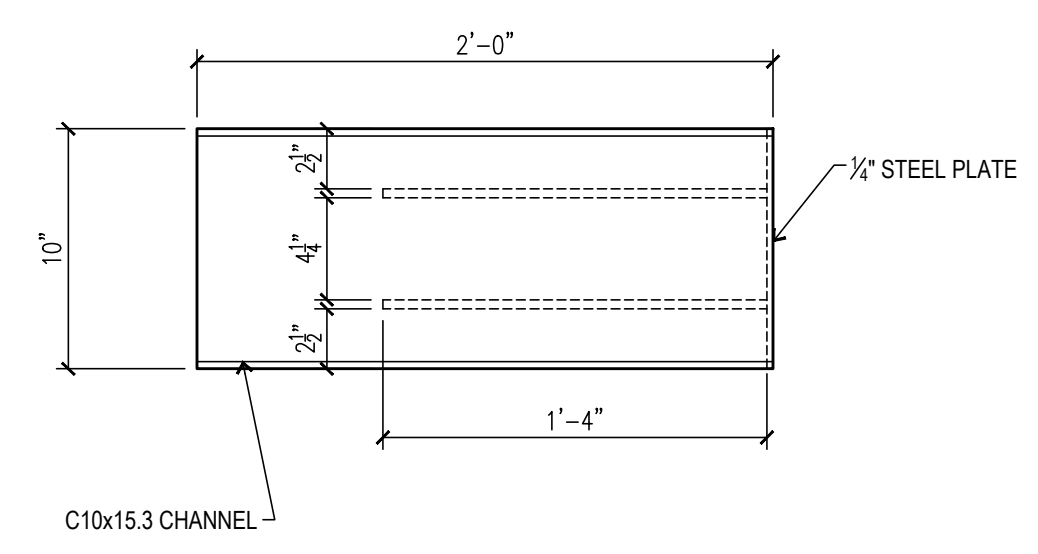
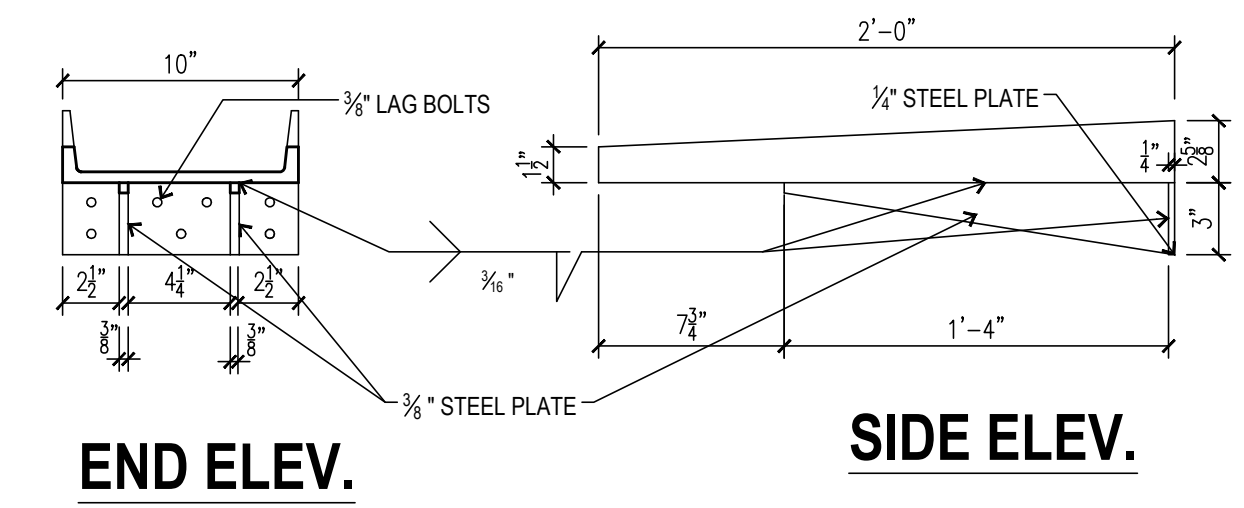
4 BASE PLATE DETAIL
1 1/2" = 1'-0"

3 STEEL COLUMN-FRONT ELEVATION
1" = 1'-0"

2 STEEL COLUMN-SIDE ELEVATION
1" = 1'-0"



PERSPECTIVE VIEW



1 STEEL SCUPPER DETAIL
1 1/2" = 1'-0"

LAKE EDGE PARK SHELTER
511 PARK CT MADISON WI
CITY OF MADISON PARKS DIVISION
CONTRACT#7531/MUNIS #10120

ISSUANCES:	
05.23.2015	---
----	----
PROJECT:	
NUMBER:	141216
DATE:	05.23.2015
REV:	----
REV:	----
SHEET:	
S101	

LAKE EDGE PARK SHELTER
LAKE EDGE PARK SHELTER
CITY OF MADISON PARKS DIVISION
CONTRACT#7531/MUNIS #10120

ISSUANCES:

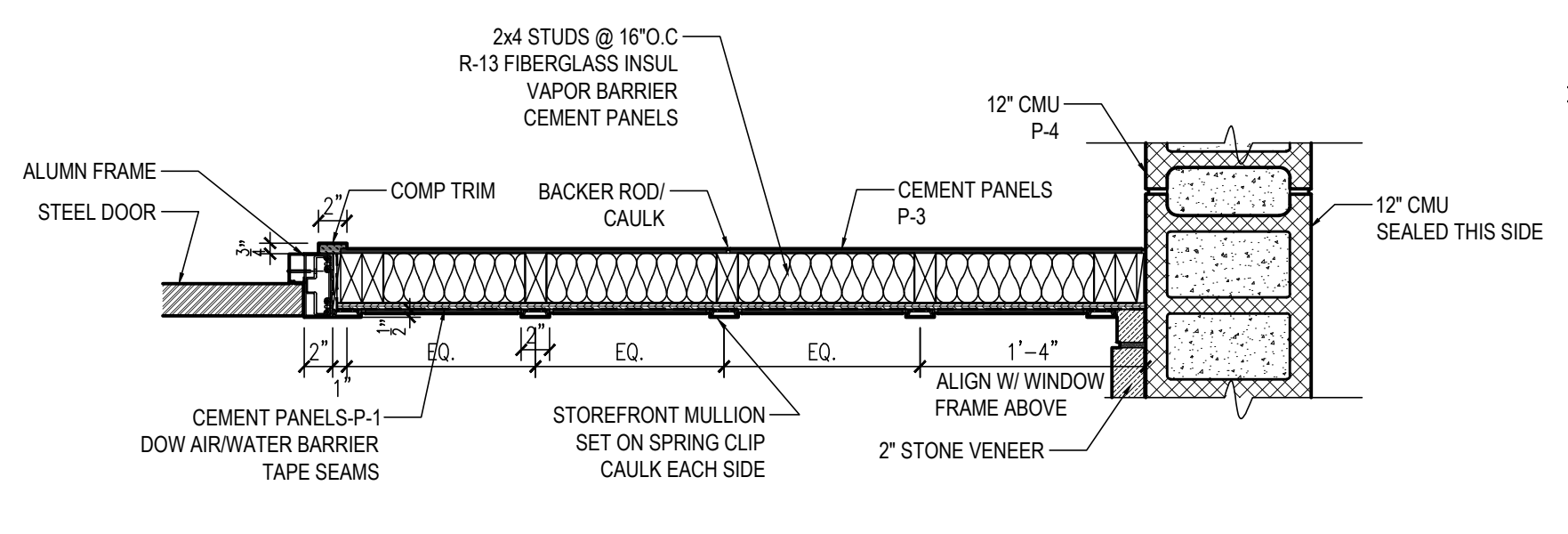
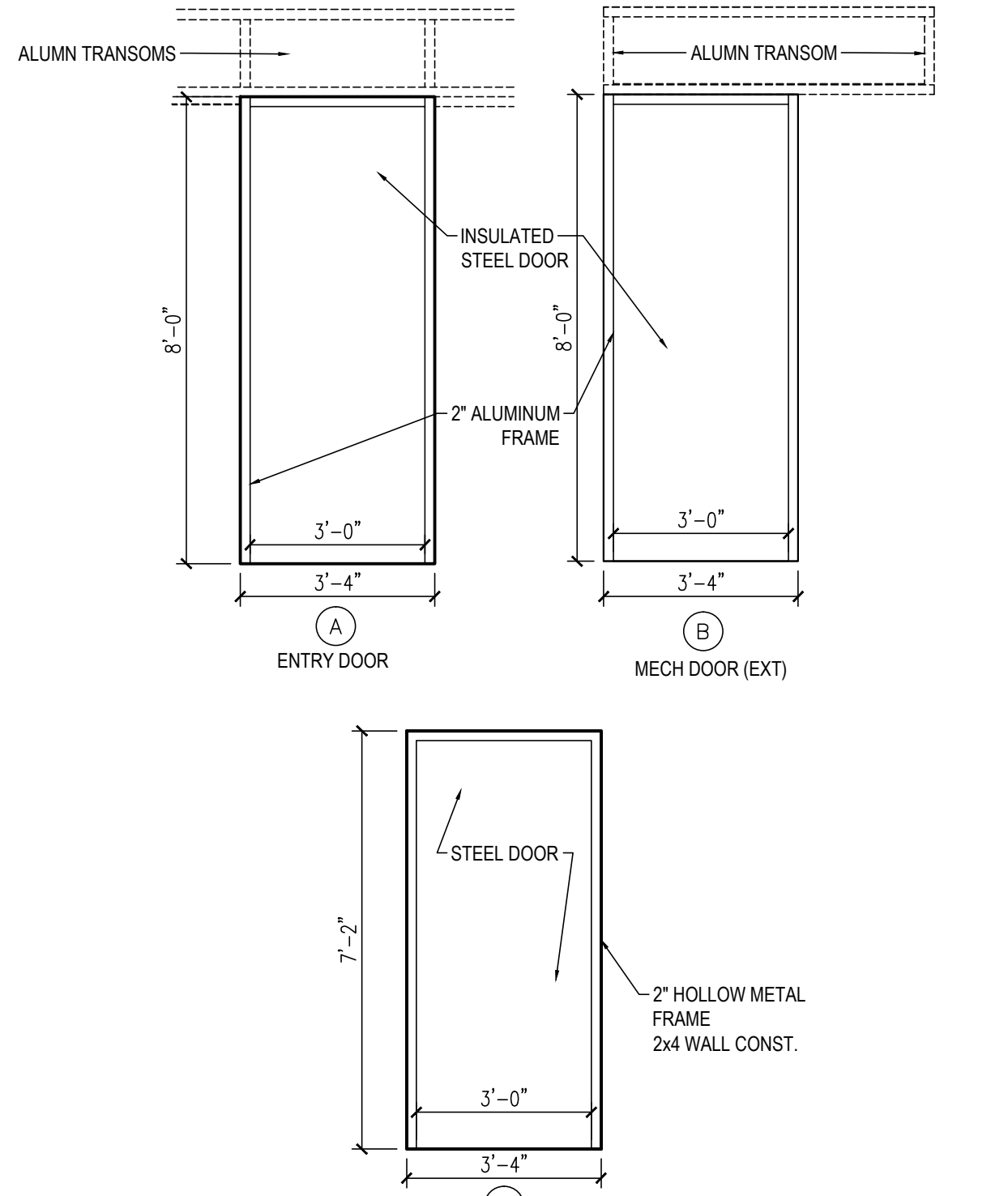
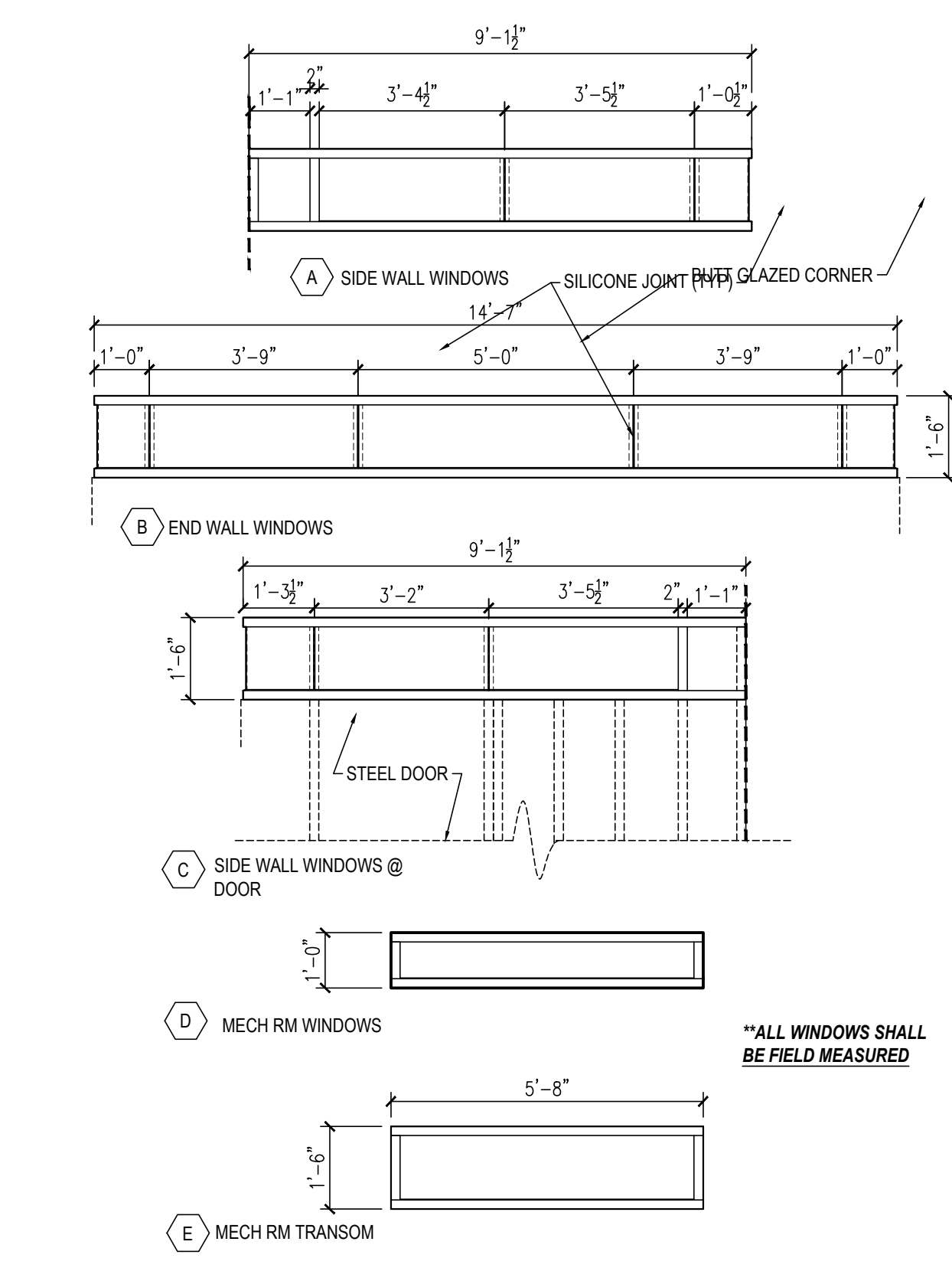
05.23.2015	---
---	---

PROJECT:

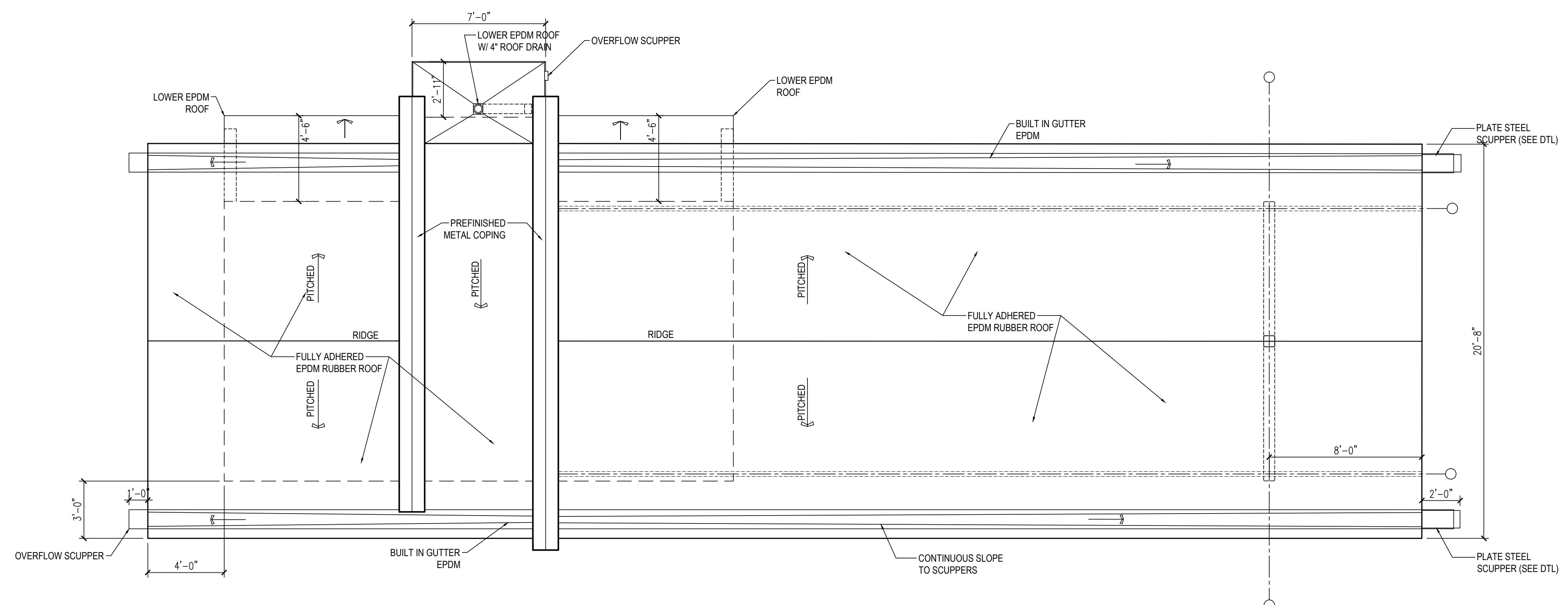
NUMBER:	141216
DATE:	05.23.2015
REV:	---
---	---

SHEET:

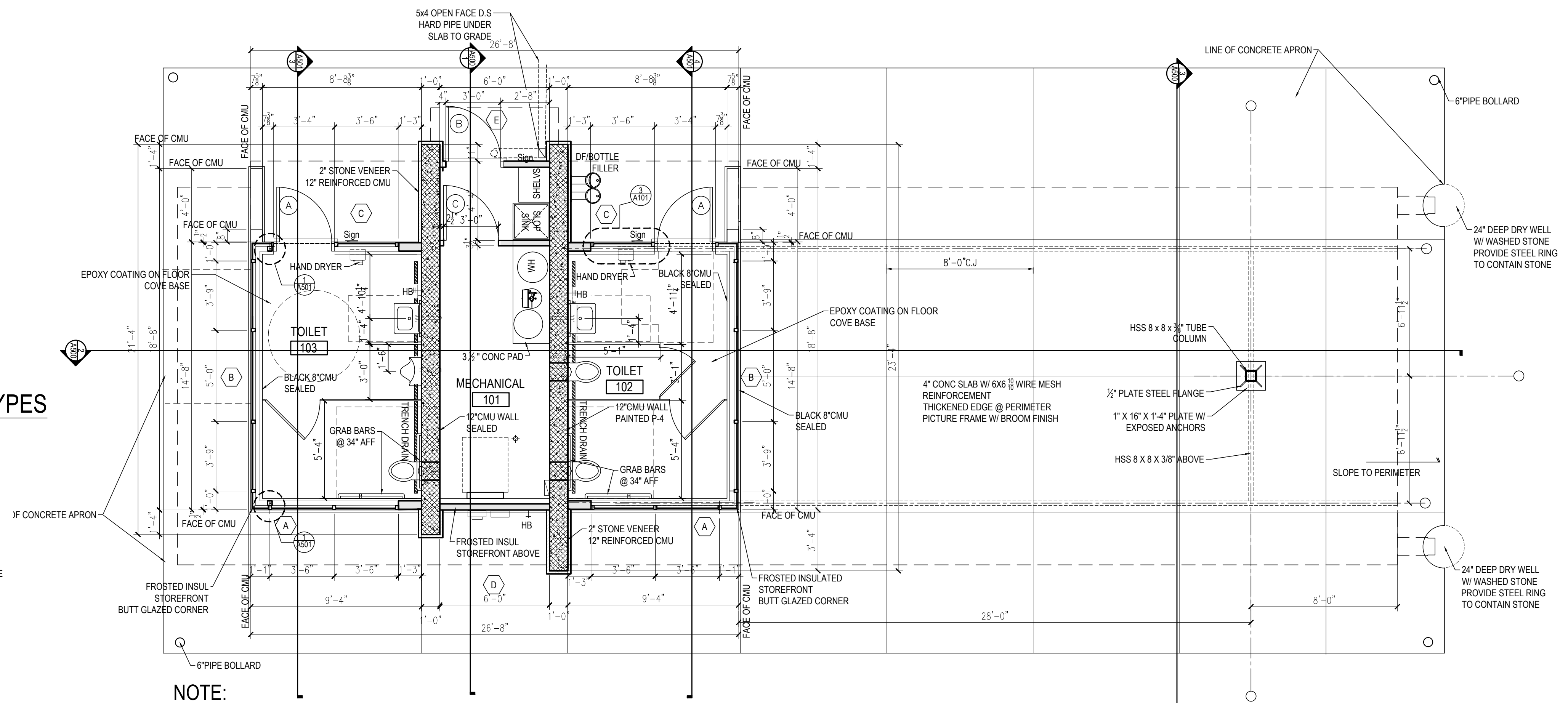
A101



3 WALL DETAIL @ DOOR
1"=1'-0"

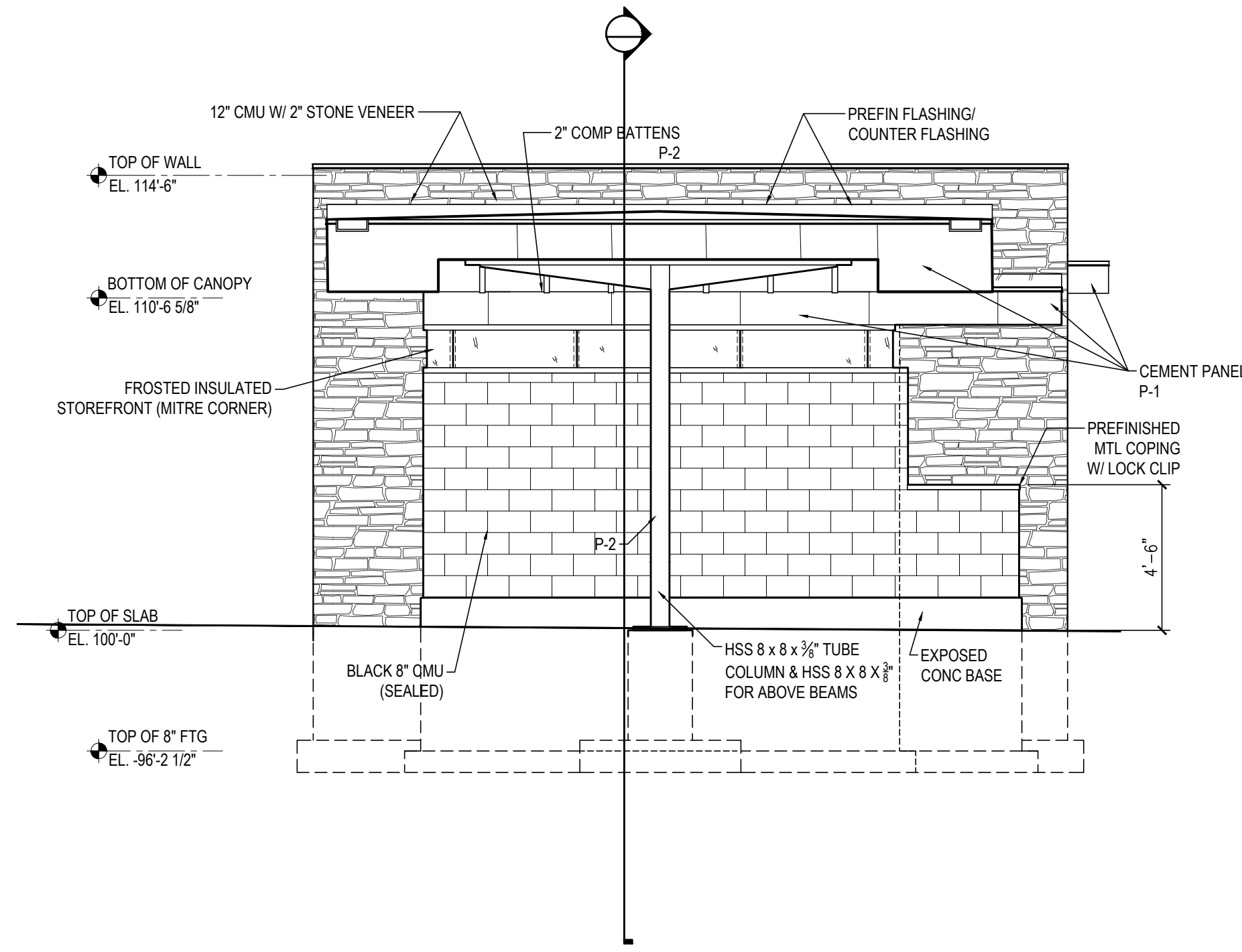


2 ROOF PLAN
1/4"=1'-0"

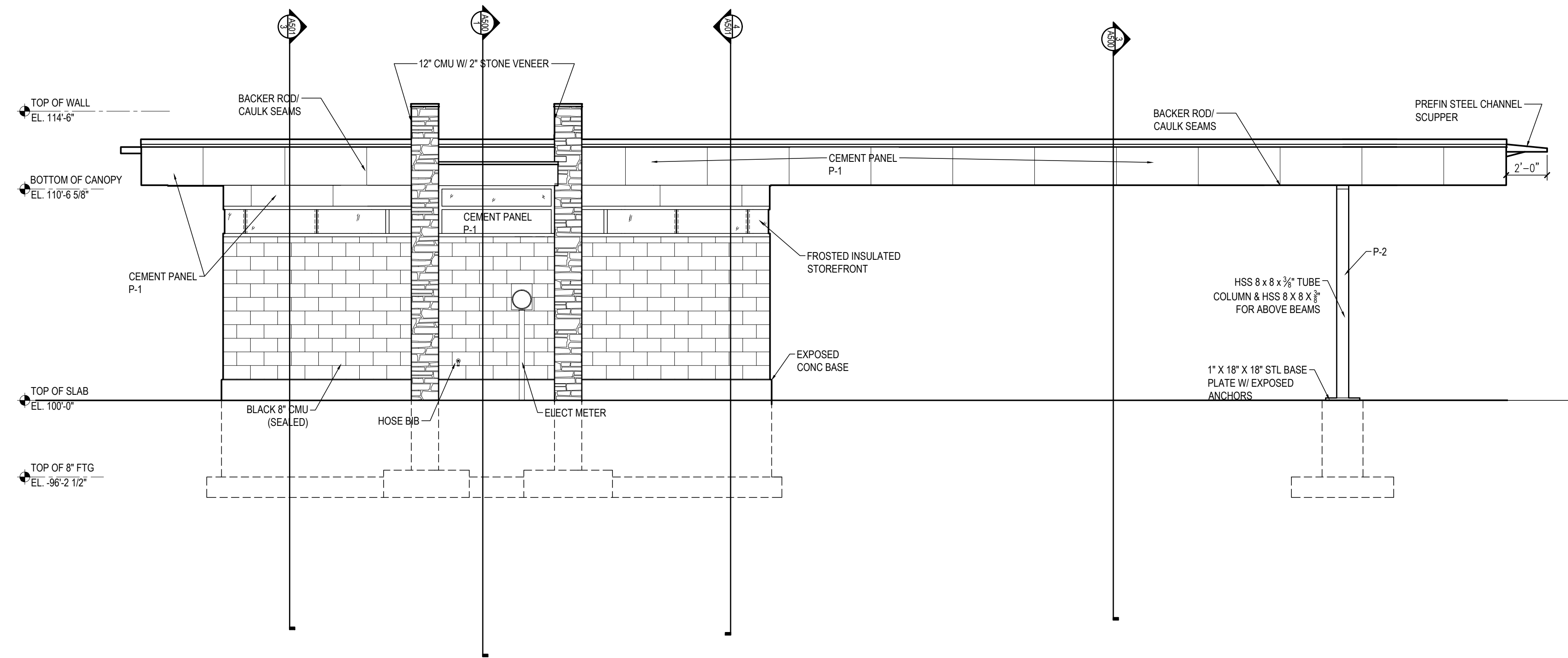


1 FLOOR PLAN
1/4"=1'-0"

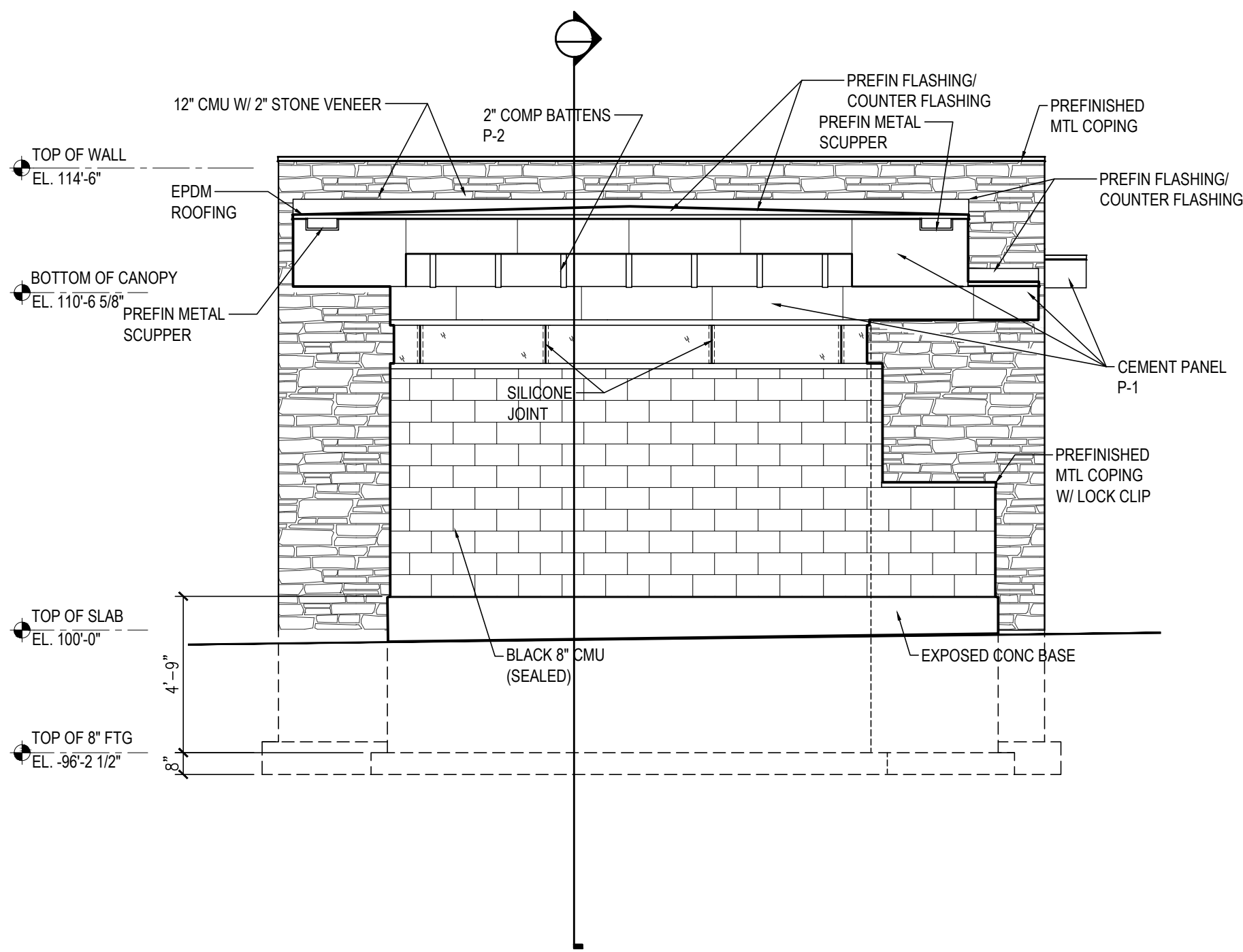
- NOTE:**
- 8" CMU TO BE REINFORCED W/ #5 @ 48" O.C. VERTICAL GROUTED @ REINFORCED CELLS
 - 12" CMU TO BE REINFORCED W/ #5 @ 24" O.C. VERTICAL GROUTED @ REINFORCED CELLS
 - INSTALL BOND BEAM @ TOP COURSE OF ALL CMU WALLS W/ (2) #5 BARS CONTINUOUS



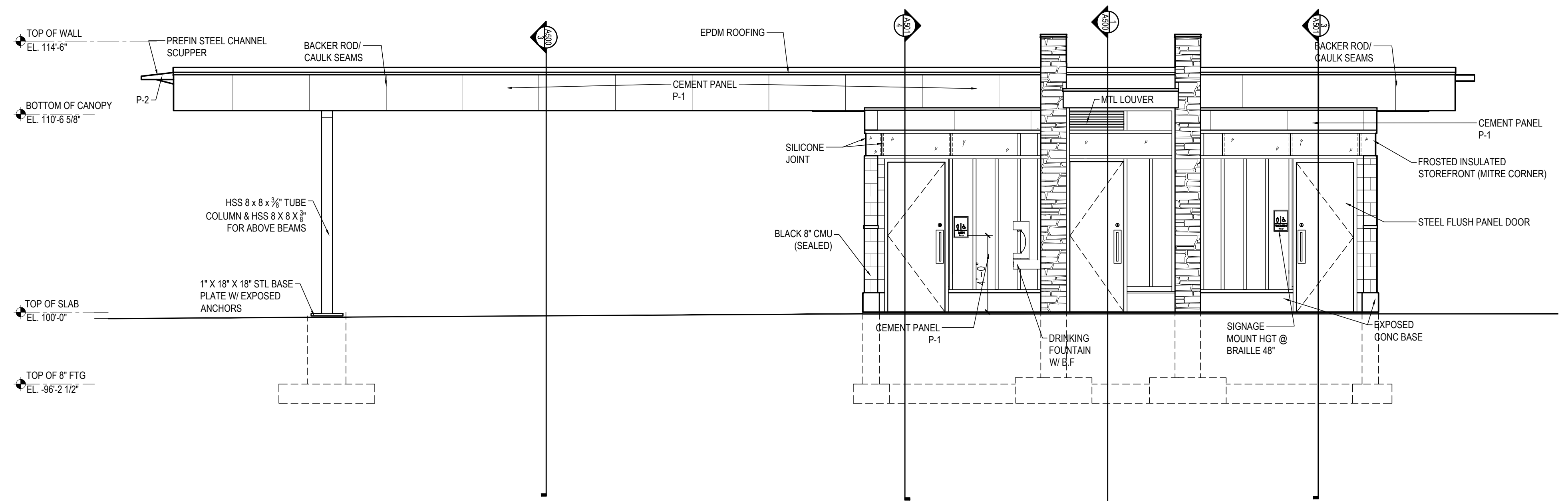
4 ELEVATION
1/4" = 1'-0"



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



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



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

NOTE:
*ALL MORTAR TO BE COLORED TO MATCH CMU
*ALL CMU AND STONE SURFACES TO HAVE :
SHERWIN-WILLIAMS: 2K WB URETHANE-
ANIT-GRAFFITI COATING (TYP)

ISSUANCES:

05.23.2015

PROJECT:

NUMBER: 141216

DATE: 05.23.2015

REV: ----

SHEET:

A300

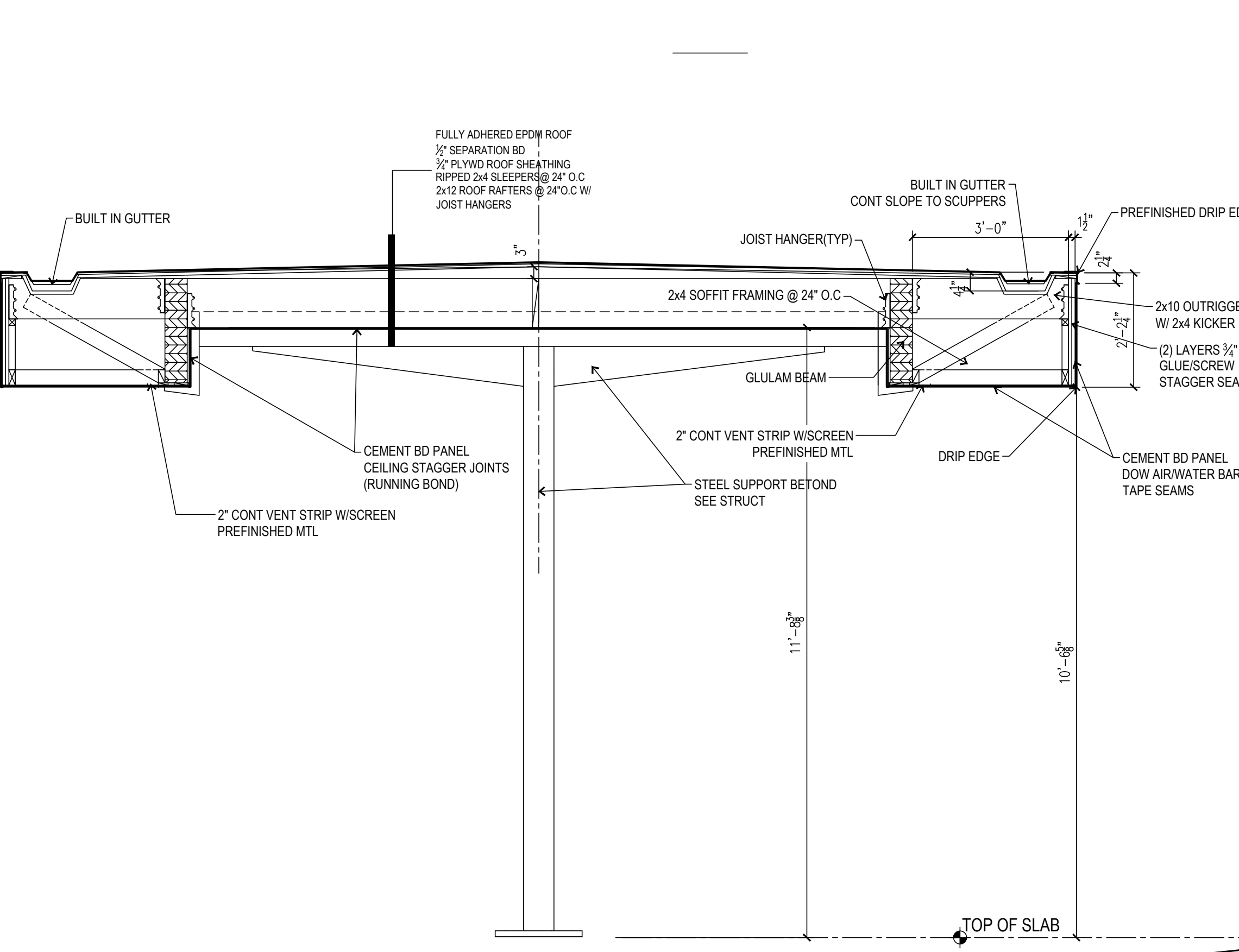
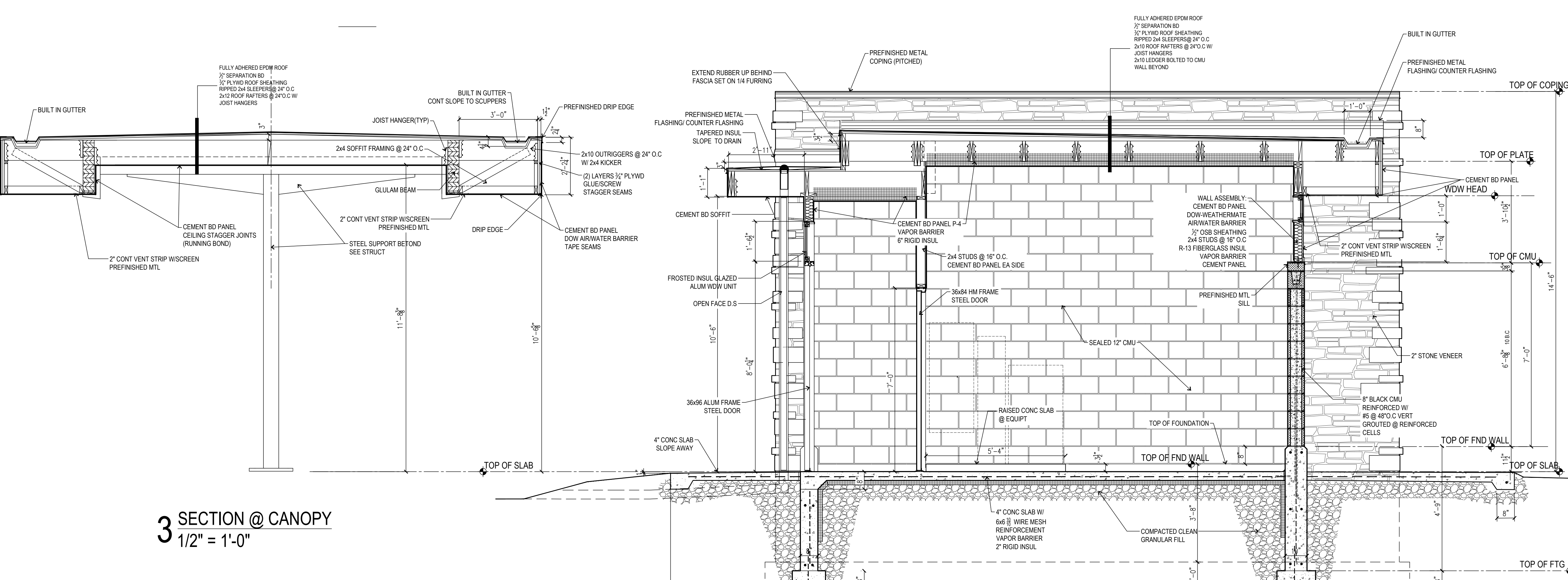
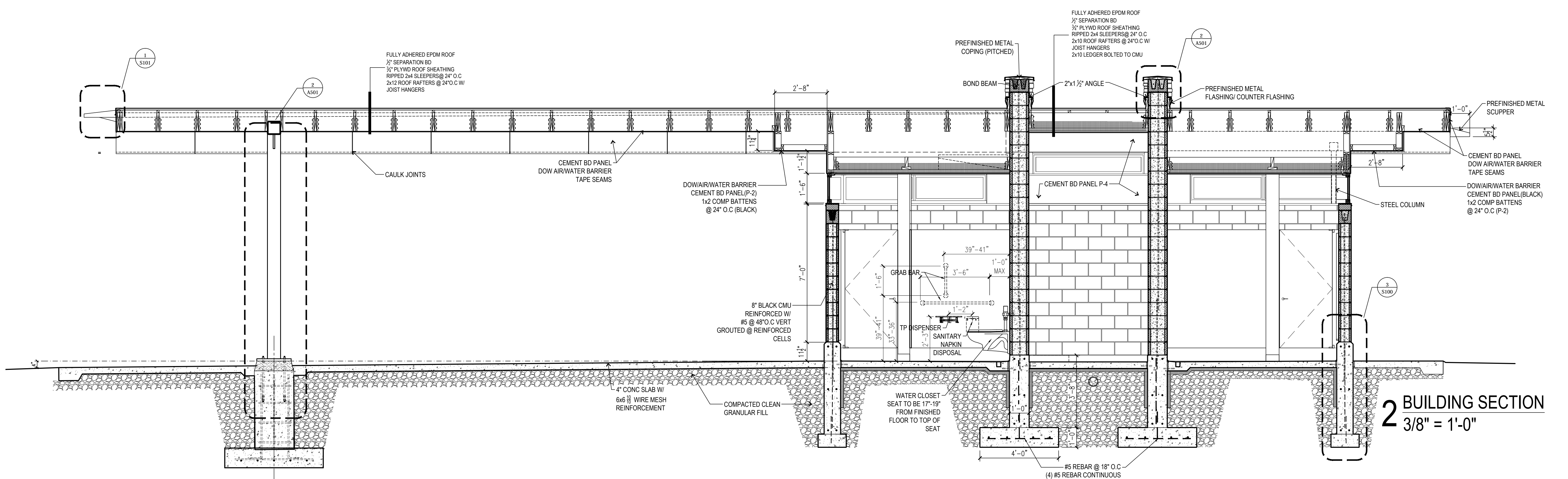
LAKE EDGE PARK SHELTER
511 PARK CT MADISON WI
CITY OF MADISON PARKS DIVISION
CONTRACT#7531/MUNIS #10120

ISSUANCES:

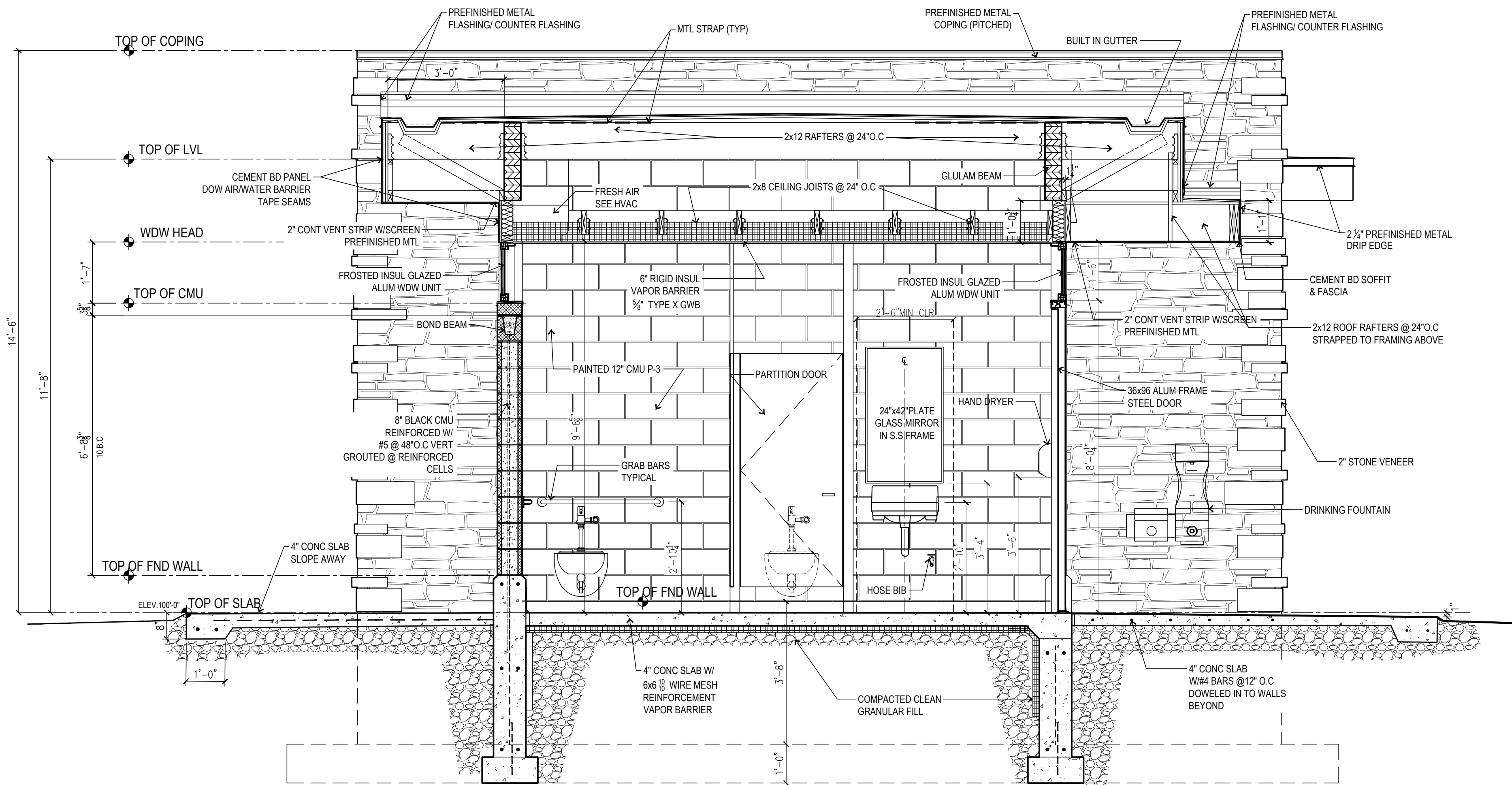
05.23.2015	---
---	---
PROJECT:	
NUMBER:	141216
DATE:	05.23.2015
REV:	---
---	---

SHEET:

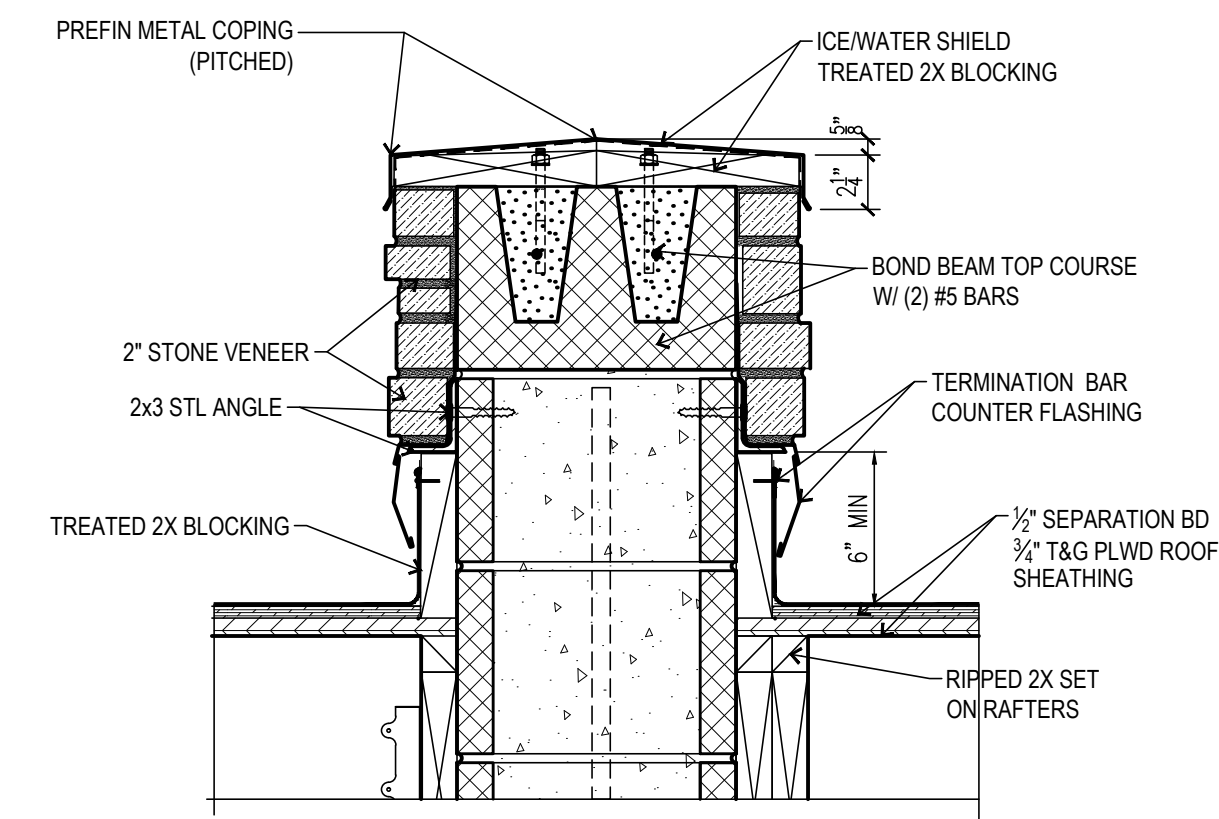
A500



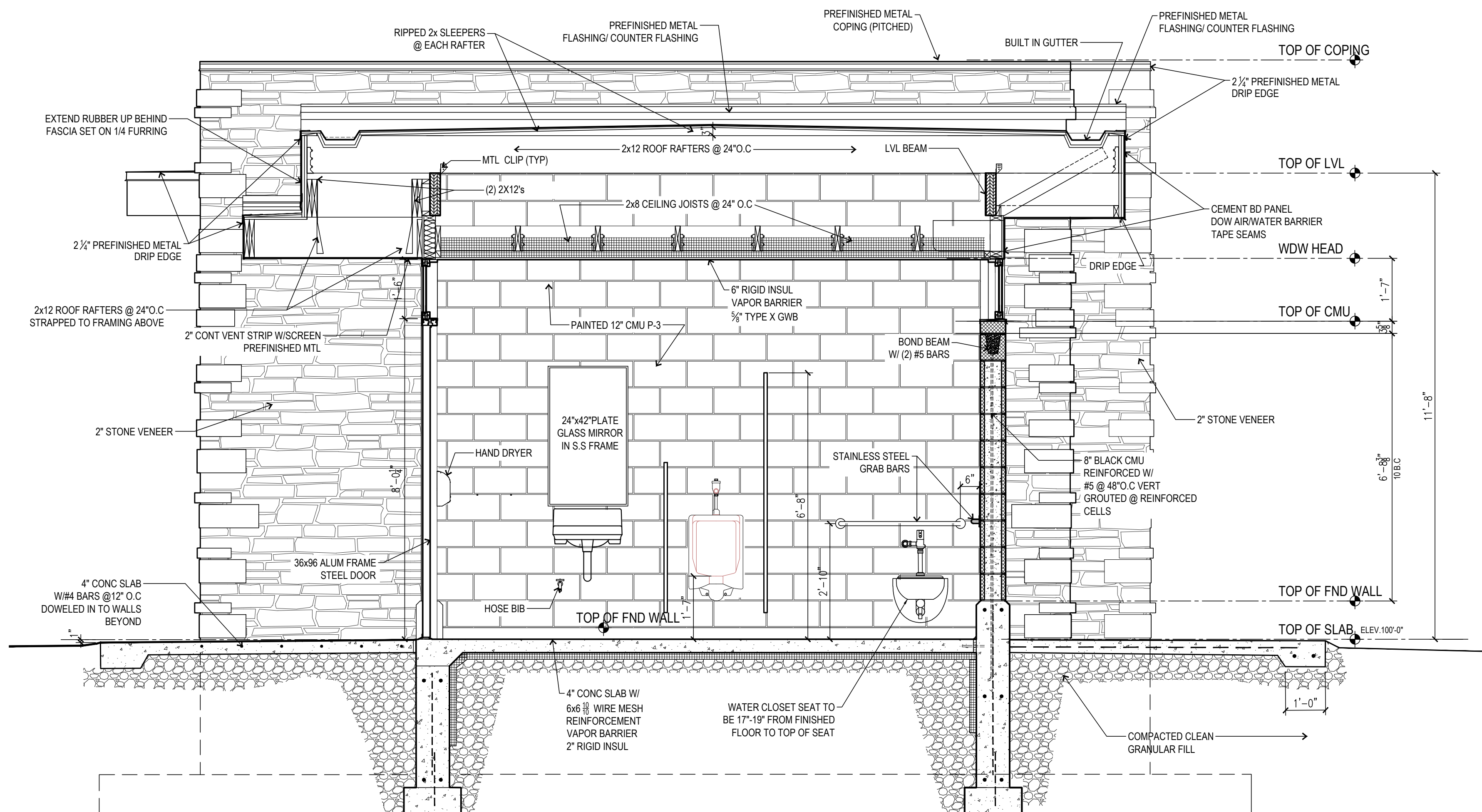
DESTREE ARCHITECTS HOLDS ALL RIGHTS INCLUDING THE COPYRIGHT OF THIS DOCUMENT. AS WELL AS THE DESIGN AND CONSTRUCTION OF THE PROJECT. NO PART OF THIS DOCUMENT IS TO BE COPIED, REPRODUCED, OR USED IN WHOLE OR PART WITHOUT THE EXPRESS WRITTEN CONSENT OF DESTREE ARCHITECTS.



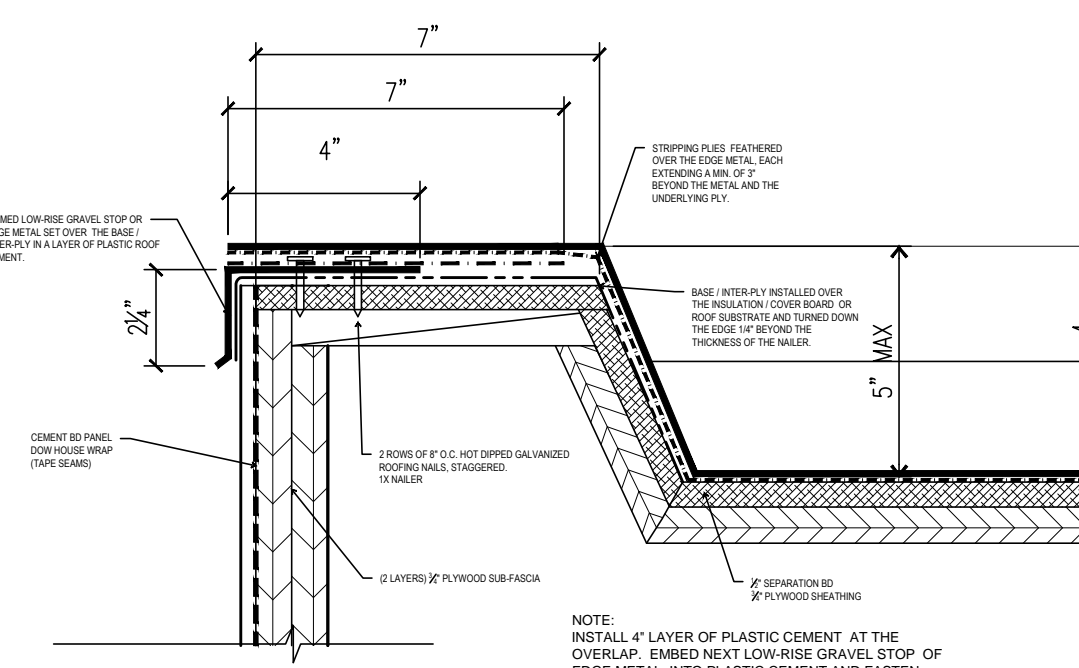
4 BUILDING SECTION @ WOMENS
1/2" = 1'-0"



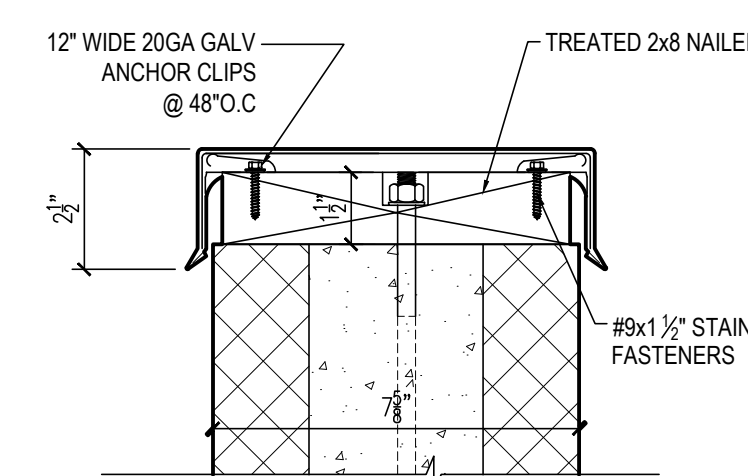
2A COPING DETAIL @ STONE WALL
1 1/2" = 1'-0"



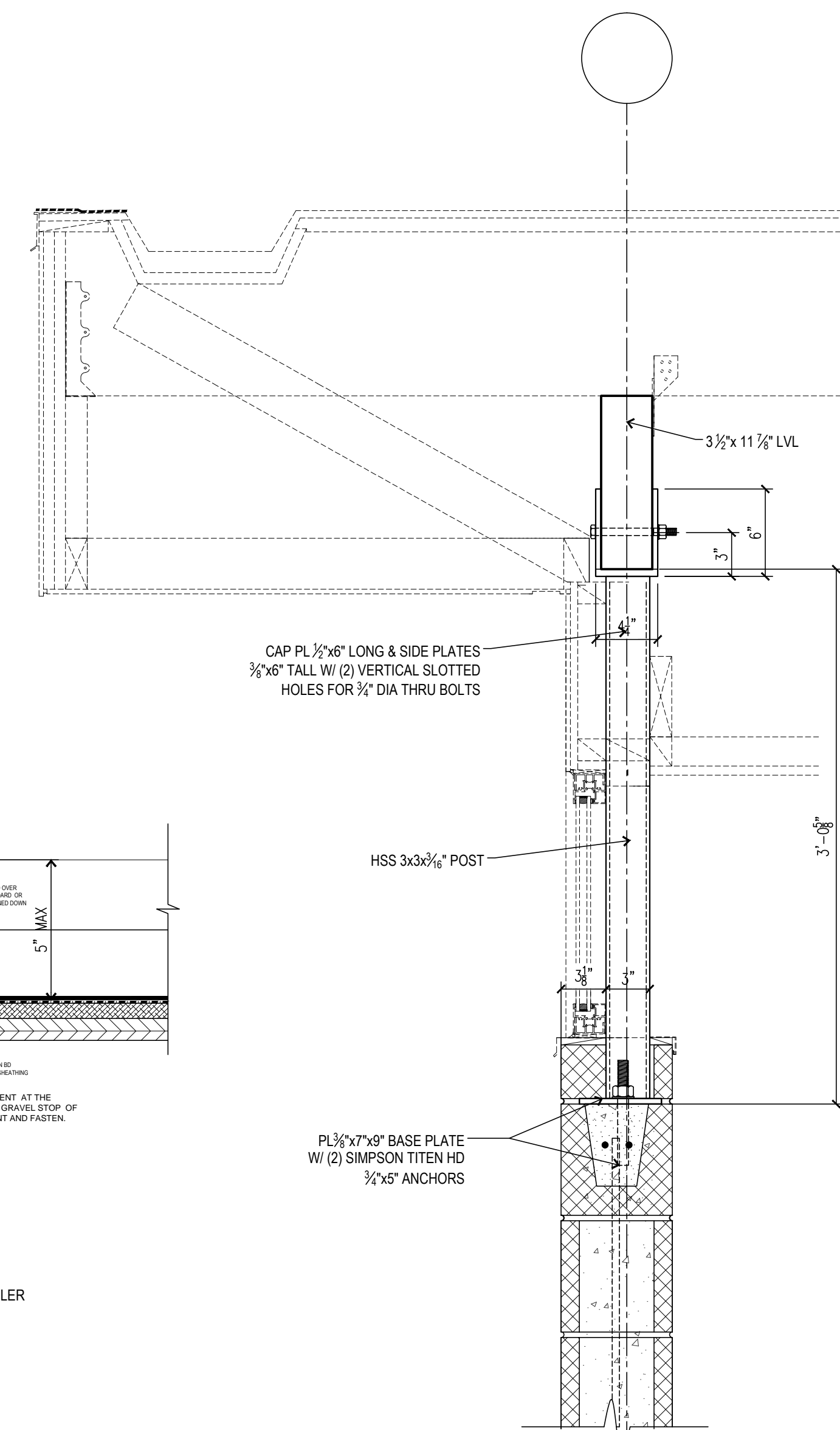
3 BUILDING SECTION @ MENS
1/2" = 1'-0"



C ROOF EDGE DETAIL
3" = 1'-0"



B COPING DETAIL @ WING WALL
3" = 1'-0"



1 STEEL COLUMN DTL @ EXT WALL
1 1/2" = 1'-0"

ISSUANCES:

05.23.2015	---
---	---
---	---

PROJECT:

NUMBER:	141216
DATE:	05.23.2015
REV:	---
---	---

SHEET:

SRK DR
2700
1500
1400

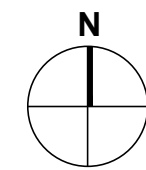
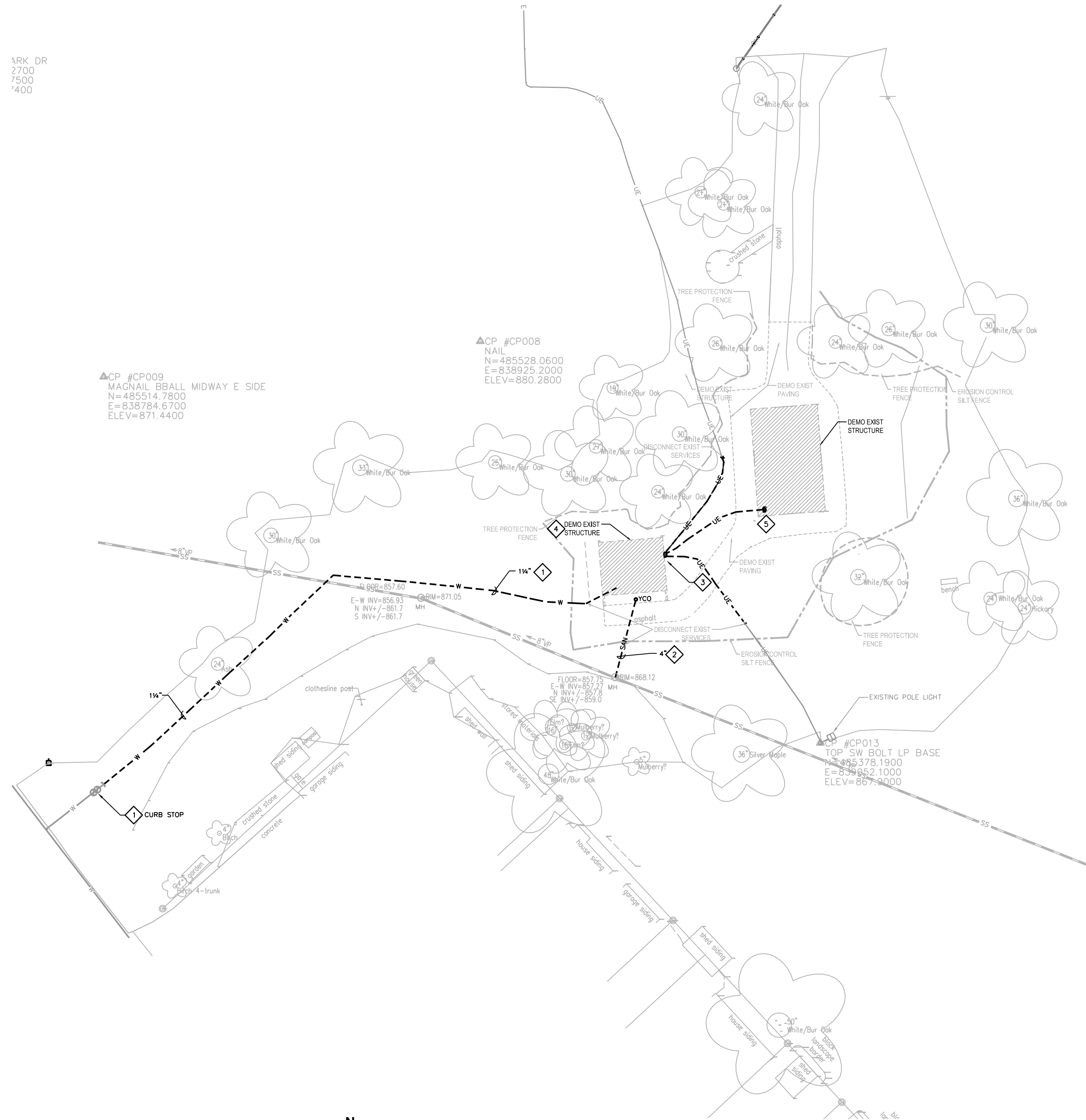
ACP #CP009
MAGNAIL BBALL MIDWAY E SIDE
N=485514.7800
E=838784.6700
ELEV=871.4400

ACP #CP008
NAIL
N=485528.0600
E=838925.2000
ELEV=880.2800

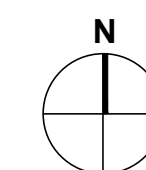
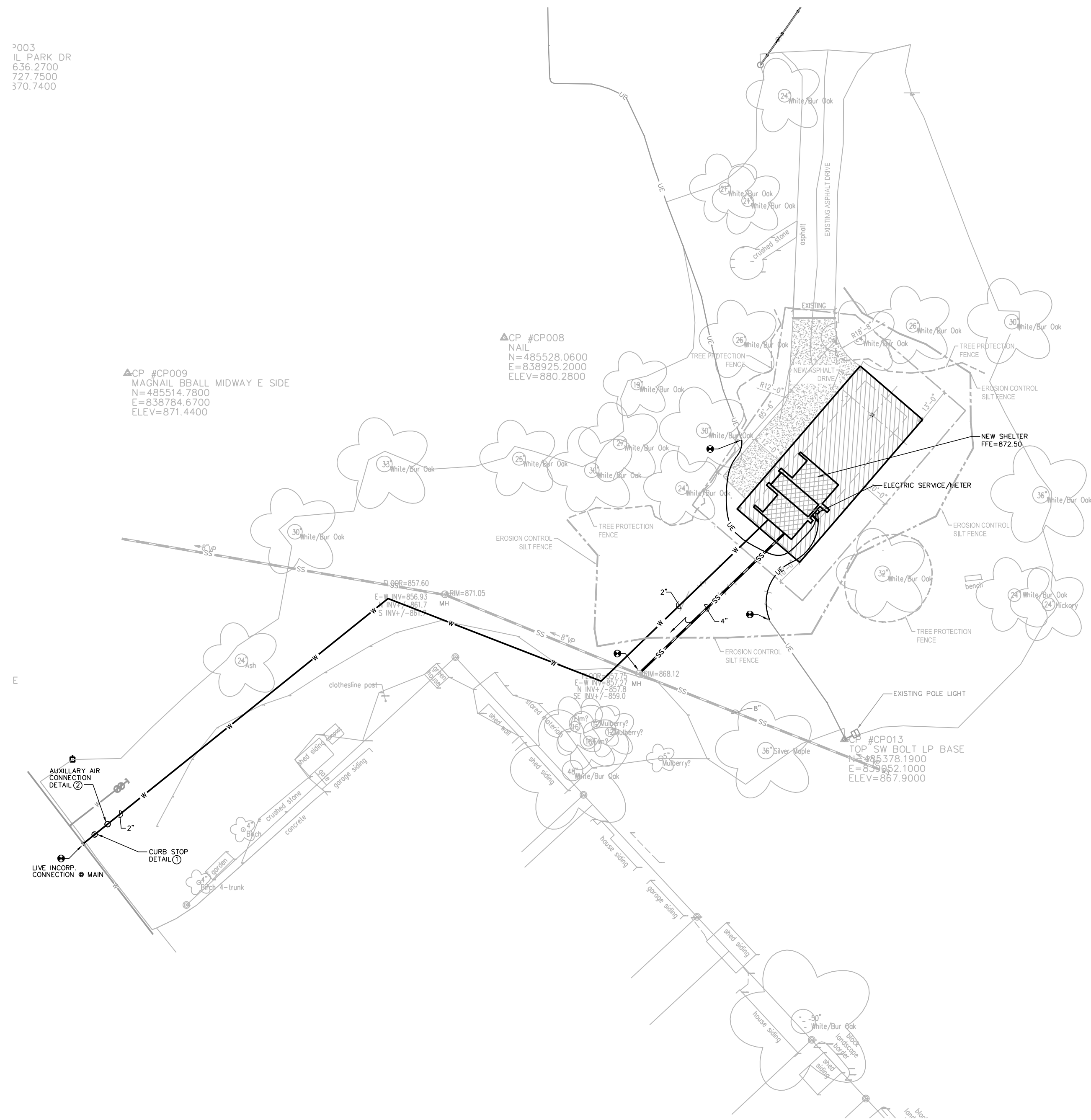
PO03
IL PARK DR
636.2700
727.7500
370.7400

ACP #CP009
MAGNAIL BBALL MIDWAY E SIDE
N=485514.7800
E=838784.6700
ELEV=871.4400

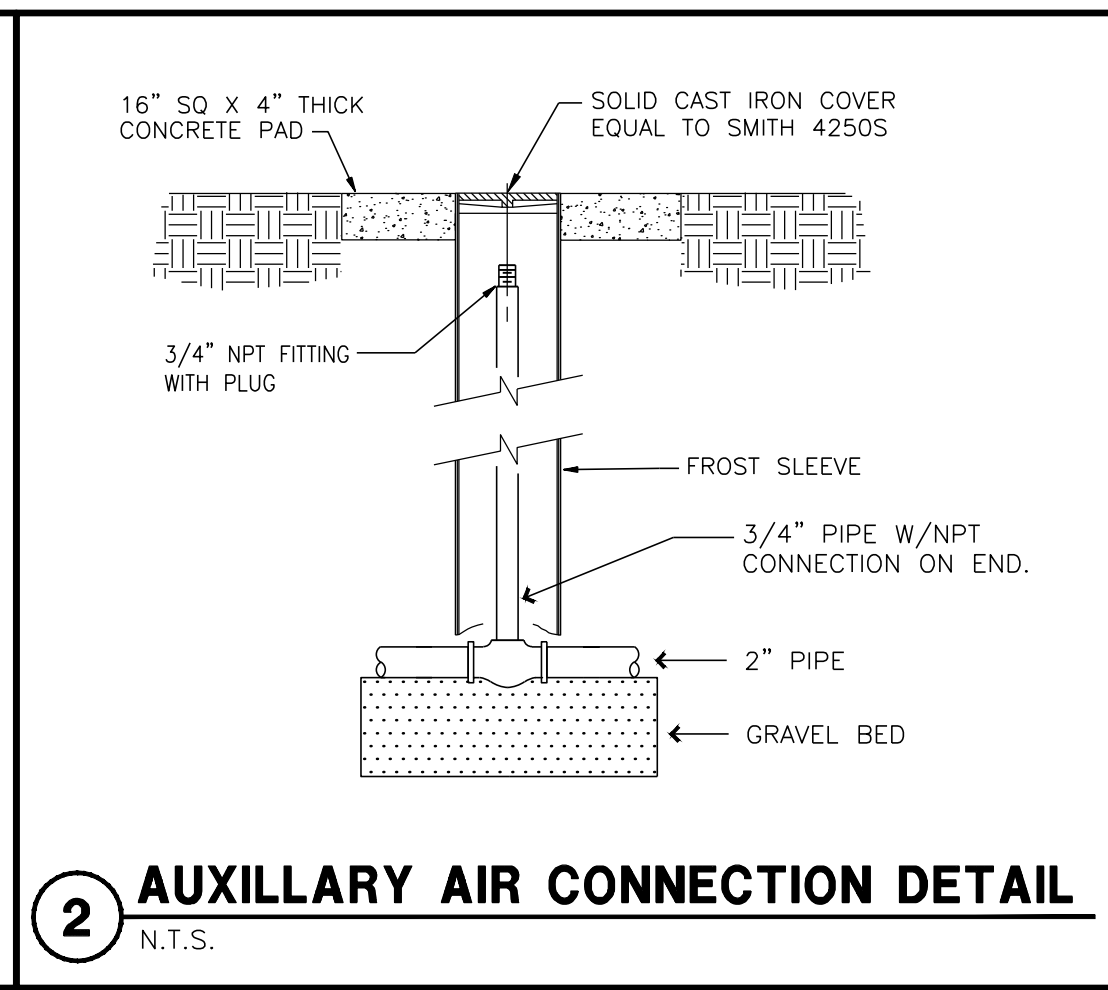
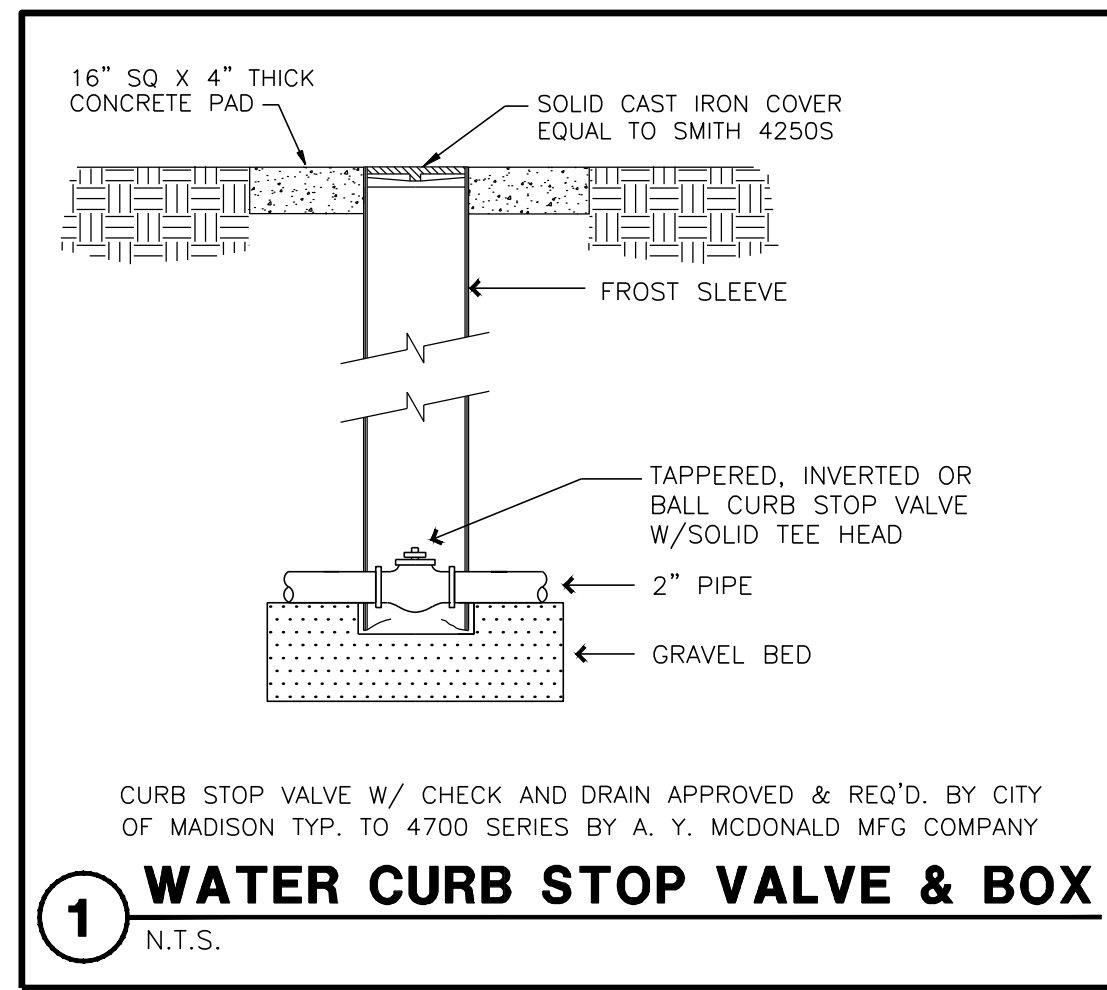
ACP #CP008
NAIL
N=485528.0600
E=838925.2000
ELEV=880.2800



1 DEMO SITE PLAN
1"=30'-0"



1 SITE PLAN
1"=30'-0"



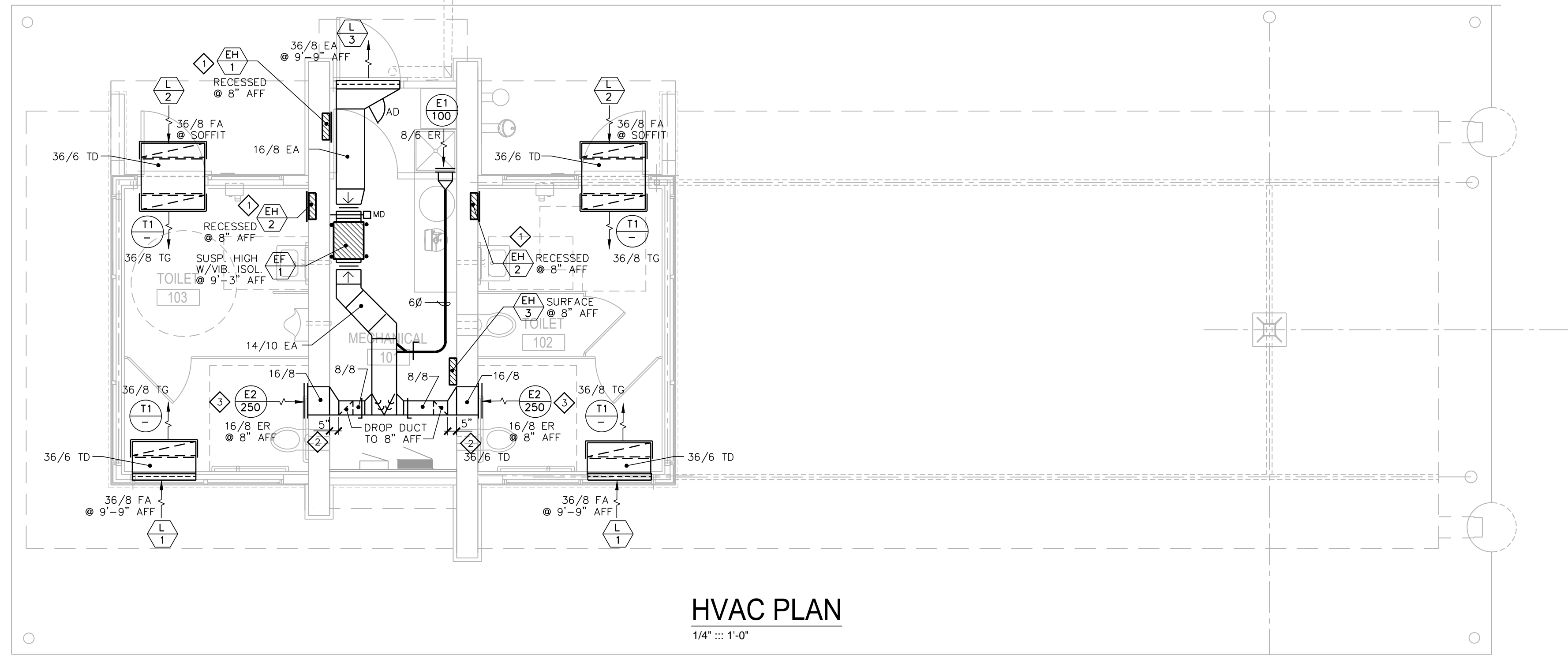
SYMBOL SCHEDULE	
SS	EXISTING SANITARY SEWER
W	EXISTING WATER SERVICE
UE	EXISTING UNDERGROUND ELECTRICAL SERVICE
-SAN-	EXISTING SANITARY SEWER - REMOVED
-W-	EXISTING WATER SERVICE - REMOVED
-T-	EXISTING UNDERGROUND TELEPHONE - REMOVED
-UE-	EXISTING UNDERGROUND ELECTRICAL SERVICE - REMOVED
W	WATER SERVICE
SS	UNDERGROUND SANITARY
UE	UNDERGROUND ELECTRICAL SERVICE
⊙	CONNECT TO EXISTING
⊗	ELECTRICAL TRANSFORMER
⊠	TELEPHONE PEDESTAL
⊡	ELECTRIC METER
⊞	POLE-MTD LIGHT FIXTURE
pc/c	PHOTOCELL ON / TIMECLOCK OFF

SITE UTILITY PLAN NOTES:

- ALL SANITARY SEWER AND WATER MAIN CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE CITY OF MADISON AND WISCONSIN DSPS STANDARDS.
- WATER SERVICE SHALL BE BURIED TO A DEPTH OF SIX FEET. THE DEPTH IS DEFINED AS THE DISTANCE BETWEEN THE FINISHED GRADE ELEVATION AND THE TOP OF WATER MAIN OR SERVICE.
- MAINTAIN AN 8 FOOT MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN PUBLIC SANITARY SEWER, WATER MAIN AND STORM SEWER. PROVIDE 18" MINIMUM VERTICAL SEPARATION WHERE SEWER CROSSES OVER WATER MAIN AND PROVIDE 12" MINIMUM VERTICAL SEPARATION WHERE WATER MAIN CROSSES OVER SEWER.
- ANY UTILITIES WHICH ARE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.
- ALL UNDERGROUND EXTERIOR NON-METALLIC SEWERS/MAINS AND WATER SERVICES/MAINS MUST BE PROVIDED WITH TRACER WIRE OR OTHER METHODS IN ORDER TO BE LOCATED IN ACCORDANCE WITH 182.0715(2r) OF STATE STATUTES.
- CONTRACTOR SHALL VERIFY MATERIAL, SIZE, AND INVERT OF SANITARY SEWER, WATER MAIN, AND STORM SEWER PRIOR TO CONSTRUCTION.
- COORDINATE NEW ELECTRIC SERVICE INSTALLATION WITH MG&E. OWNER TO PAY ALL NEW SERVICE FEES.

SITE UTILITY PLAN NOTES:

- DISCONNECT, CAP AND ABANDON EXIST 1-1/4" WATER SERVICE AT CURB STOP PER CITY OF MADISON WATER UTILITY REQUIREMENTS.
- DISCONNECT AND REMOVE SANITARY LINE FROM EXISTING TOILET FACILITY TO MANHOLE. PROTECT OPENING AT MANHOLE FOR CONTINUATION WITH NEW PLAN.
- DISCONNECT EXISTING ELECTRIC SERVICE AT TOILET BUILDING PER MG&E REQUIREMENTS. DISCONNECT AND REMOVE UNDERGROUND FEEDERS AS SHOWN. PROTECT CONDUCTORS FOR CONTINUATION WITH NEW PLAN. COORDINATE ELECTRIC SERVICE RELOCATION WITH MG&E.
- DISCONNECT POWER, WATER AND WASTE PIPING TO EXISTING BUILDING TO PREPARE FOR DEMOLITION.
- DISCONNECT POWER TO EXISTING SHELTER AND PREPARE FOR DEMOLITION.



HVAC 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, IF REQUIRED.
4. COORDINATE FINAL CEILING REGISTER AND GRILLE LOCATIONS WITH OTHER TRADES.
5. COORDINATE PIPING AND DUCTWORK 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 TO SERVICE EQUIPMENT, WHERE REQUIRED.

HVAC PLAN NOTES:

- ① COORDINATE RECESS OPENINGS IN BLOCK WALLS FOR ELECTRIC WALL HEATERS WITH GENERAL CONTRACTOR & MASONRY CONTRACTOR.
- ② DROP DUCT 5" AWAY FROM WALL TO ALLOW CLEARANCE FOR PLUMBING PIPING.
- ③ COORDINATE DUCT OPENING IN BLOCK WALLS WITH GENERAL CONTRACTOR & MASONRY CONTRACTOR.

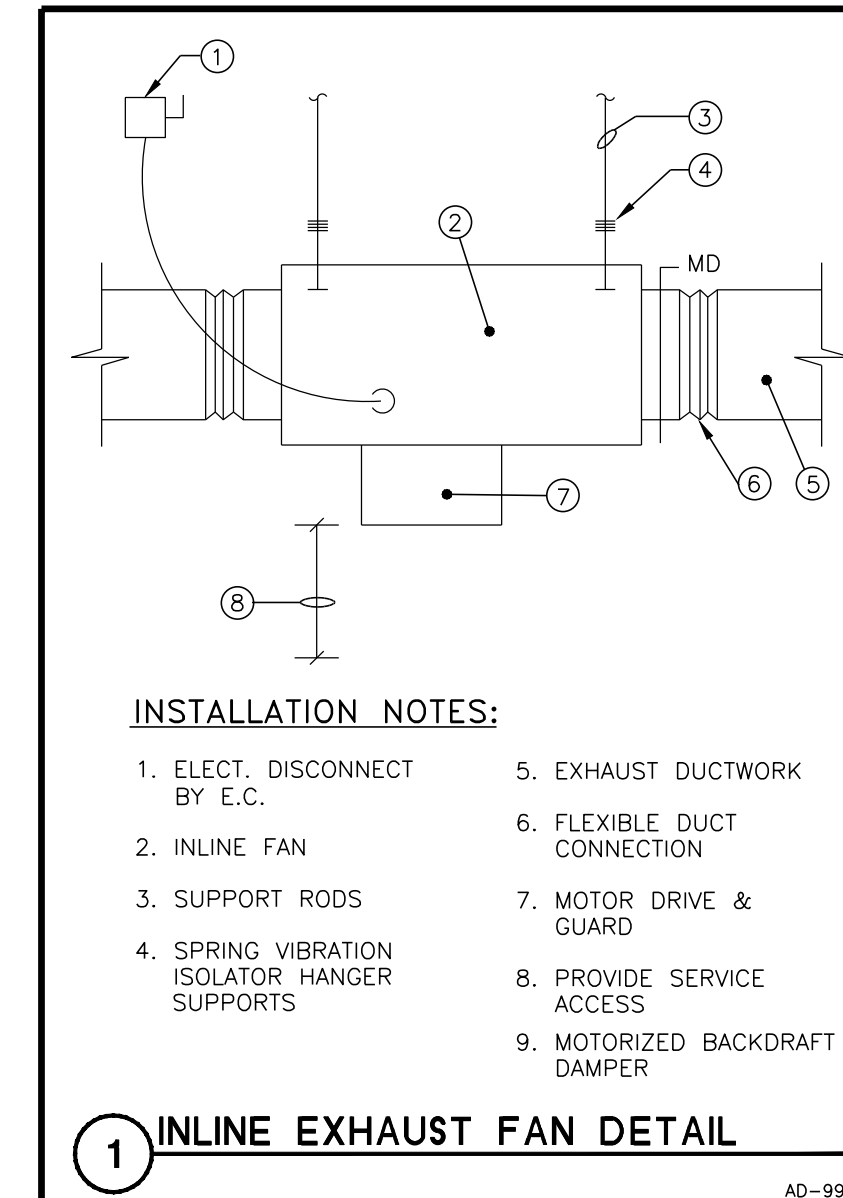
EXHAUST FANS SCHEDULE	
TAG	EF-1
MANUFACTURER	GREENHECK
MODEL NO.	SQ-100-YG
AREA SERVED	TOILETS & MECH.
CFM	600
ESP *WG	1/2"
RPM	1241
MOUNTING	SPRING VIB HANGERS
DRIVE	DIRECT
SONES (INLET/RADIATED)	6.3/3.0
ELECTRICAL:	
MOTOR HP (BHP)	1/4
FAN F.L.A.	3.7
VOLTAGE/PHASE	115/1
CONTROL	OCCUPIED BLDG MODE
REMARKS:	① INLINE EF ② ③ ④ ⑤ ⑥ ⑦
NOTE: ALL EF LINE VOLTAGE CONTROLS WIRED BY E.C.	
① INTERLOCK EF-1 WITH LCP 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 INSULATED HOUSING.	

DIFFUSERS, REGISTERS AND GRILLES SCHEDULE										
TAG	MFR	MODEL	NECK (WxH)	FACE (L)	MOUNTING	SERVICE	CFM	REMARKS		
E1	KEES	GHD40	8"x6"	-	SURFACE/WALL	EXHAUST	100	①②③	HD ER 40 deg BL	
E2	KEES	GHD40	16"x8"	-	SURFACE/WALL	EXHAUST	250	①②③	HD ER 40 deg BL	
T1	KEES	GHD40	36"x8"	-	SURFACE/CLG	TRANSFER	-	①③	HD TG 40 deg BL	
REMARKS:										
① WHITE FINISH.					ER = EXHAUST REGISTER					
② OPPOSED BLADE DAMPER.					HD = HEAVY DUTY					
③ SUB-FRAME 24 GA.					TG = TRANSFER GRILLE					

ELECTRIC HEAT SCHEDULE										
TAG	MFR	MODEL	TYPE	SIZE HTxWXDEPTH	WATTS	CAP. BTU/HR	ELECTRICAL VOLTS/PHASE	AMPS	REMARKS	
EH-1	Q-MARK	AWH-4404	RECESSED WALL HTR	18 1/4" x 15 1/4" x 3 3/8"	2000	6,825	240/1	8.3	①②	
EH-2	Q-MARK	AWH-4404	RECESSED WALL HTR	18 1/4" x 15 1/4" x 3 3/8"	4000	13,650	240/1	16.7	①②③	
EH-3	Q-MARK	AWH-4404	SURFACE WALL HTR	18 1/4" x 15 1/4" x 3 3/8"	2000	6,825	240/1	8.3	①②④	
REMARKS:										
① INTEGRAL TAMPER PROOF THERMOSTAT.										
② BUILT-IN DISCONNECT SWITCH.										
③ LFKSFC: 14 GA SECURITY FRONT COVER.										
④ AWHSM: SURFACE MOUNTING FRAME.										

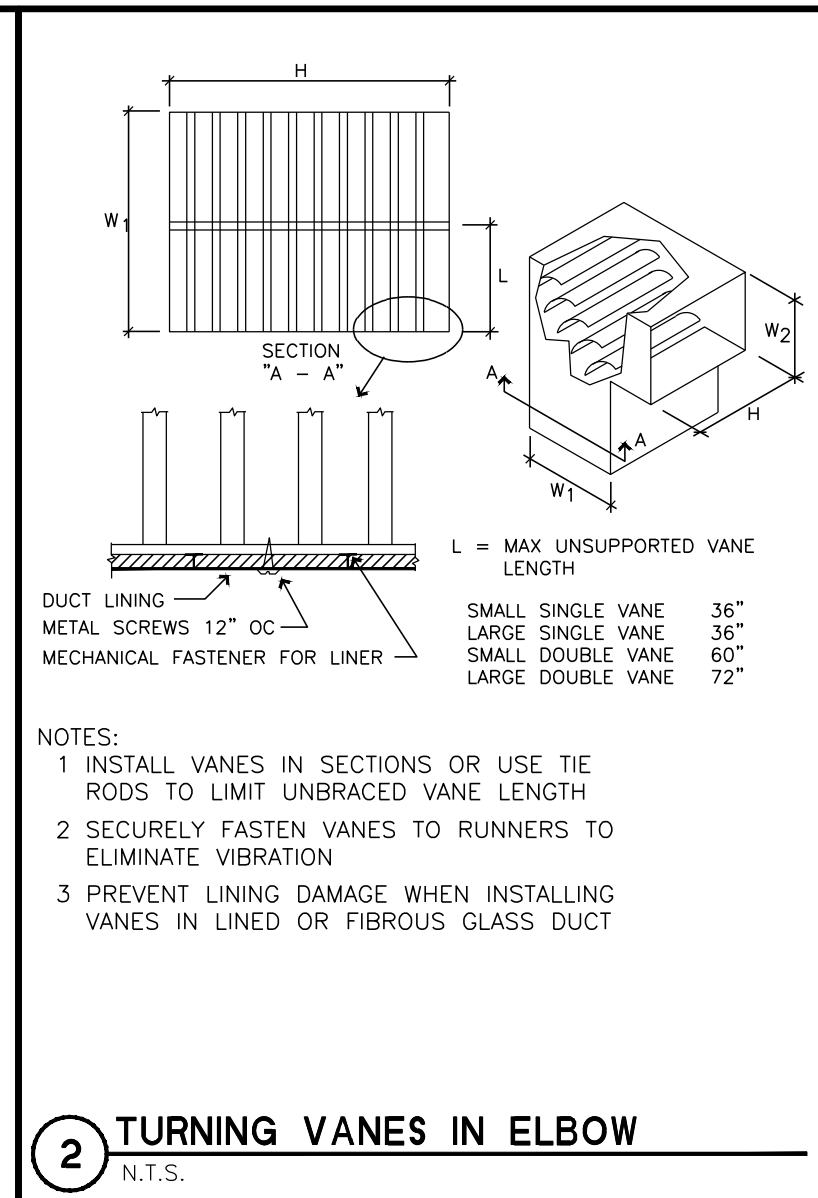
LOUVER SCHEDULE										
TAG	MANUFACTURER	MODEL	TYPE	METAL	LOUVER DEPTH x W x HT.	FREE AREA S.E.	SERVICE	REMARKS		
L-1	VENT PRODUCTS	2730-31-34	STAT.	EXT. ALUM.	4" x 36" x 8"	0.67	TRANSFER AIR	②③ FLANGED FRAME W/SUB-FRAME		
L-2	VENT PRODUCTS	2600-31-34	STAT.	EXT. ALUM.	2" x 36" x 8"	0.69	TRANSFER AIR	②③ FLANGED FRAME W/SUB-FRAME		
L-3	VENT PRODUCTS	2730-31-34	STAT.	EXT. ALUM.	4" x 36" x 8"	0.67	EXHAUST AIR	②③ FLANGED FRAME W/SUB-FRAME		
REMARKS:										
① BIRD SCREEN - ALUM.										
② 18x16 MESH ALUM INSECT SCREEN.										
③ ALUM SUB-FRAME (BUCK FRAME).										
④ POWDER COAT BAKED ENAMEL FINISH; FINAL COLOR SELECTION BY ARCHITECT.										

HVAC SYMBOL SCHEDULE	
SYMBOL	DESCRIPTION
	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
	MOTORIZED DAMPER
	FLEXIBLE CONNECTION
	DIFFUSER/REGISTER/GRILLE TYPE CFM
	EXHAUST CFM
	EQUIPMENT SYMBOL NO.
EQUIPMENT SYMBOLS	
EF	EXHAUST FAN
EH	ELECTRIC HEATER
EWH	ELECTRIC WATER HEATER
L	LOUVER
ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR
EA	EXHAUST AIR
FA	FRESH AIR
MD	MOTORIZED DAMPER



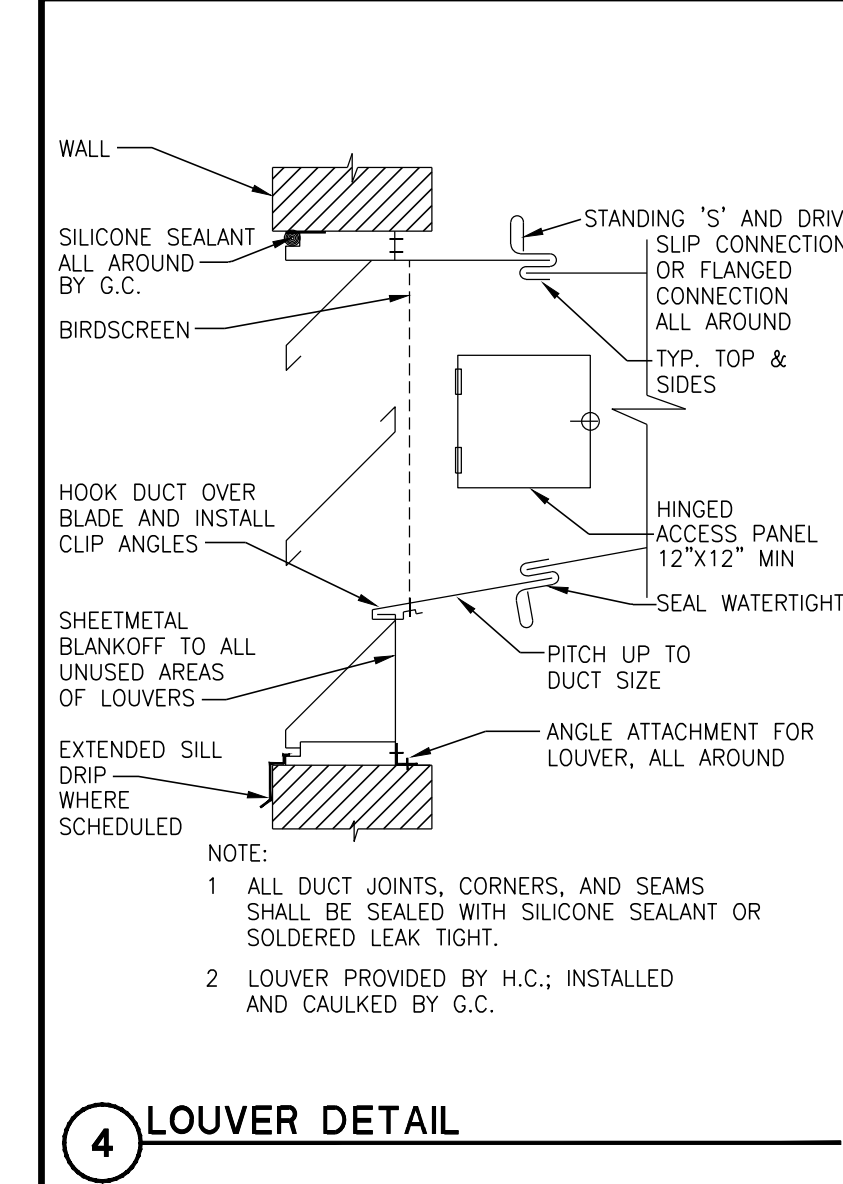
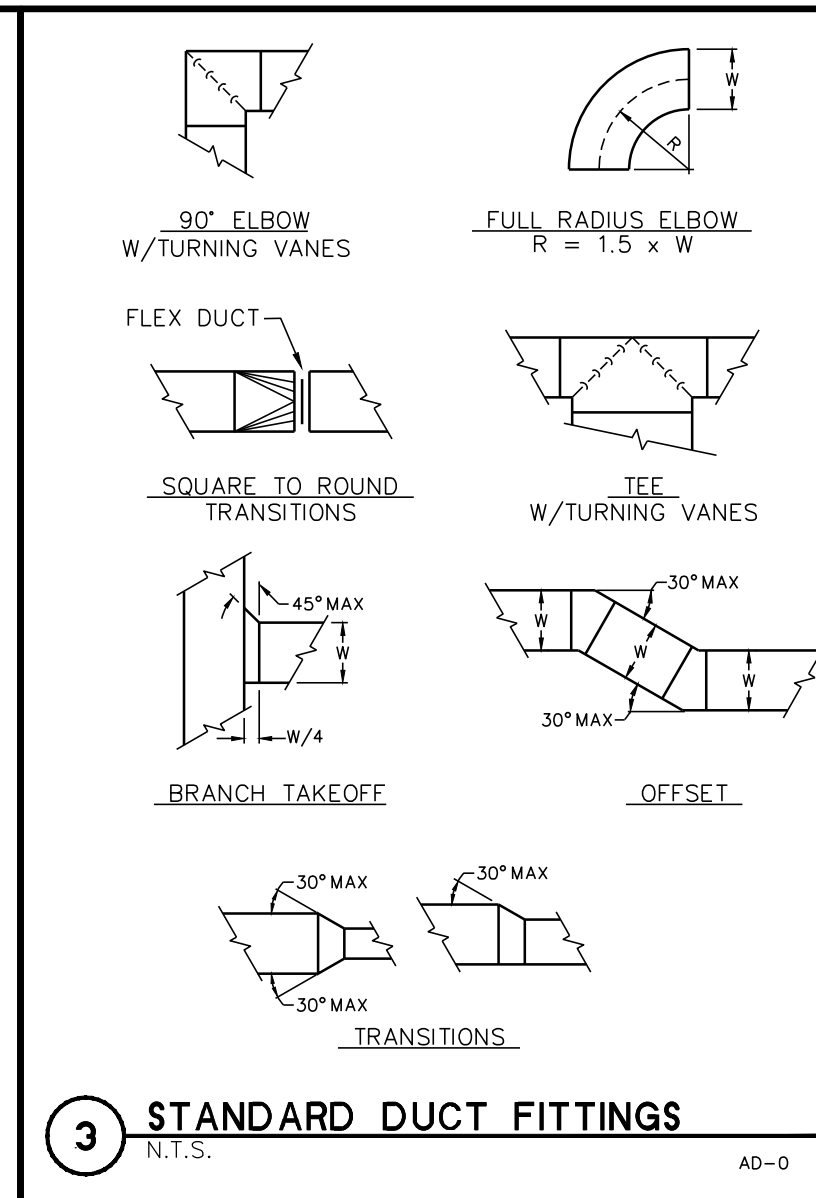
INSTALLATION NOTES:

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



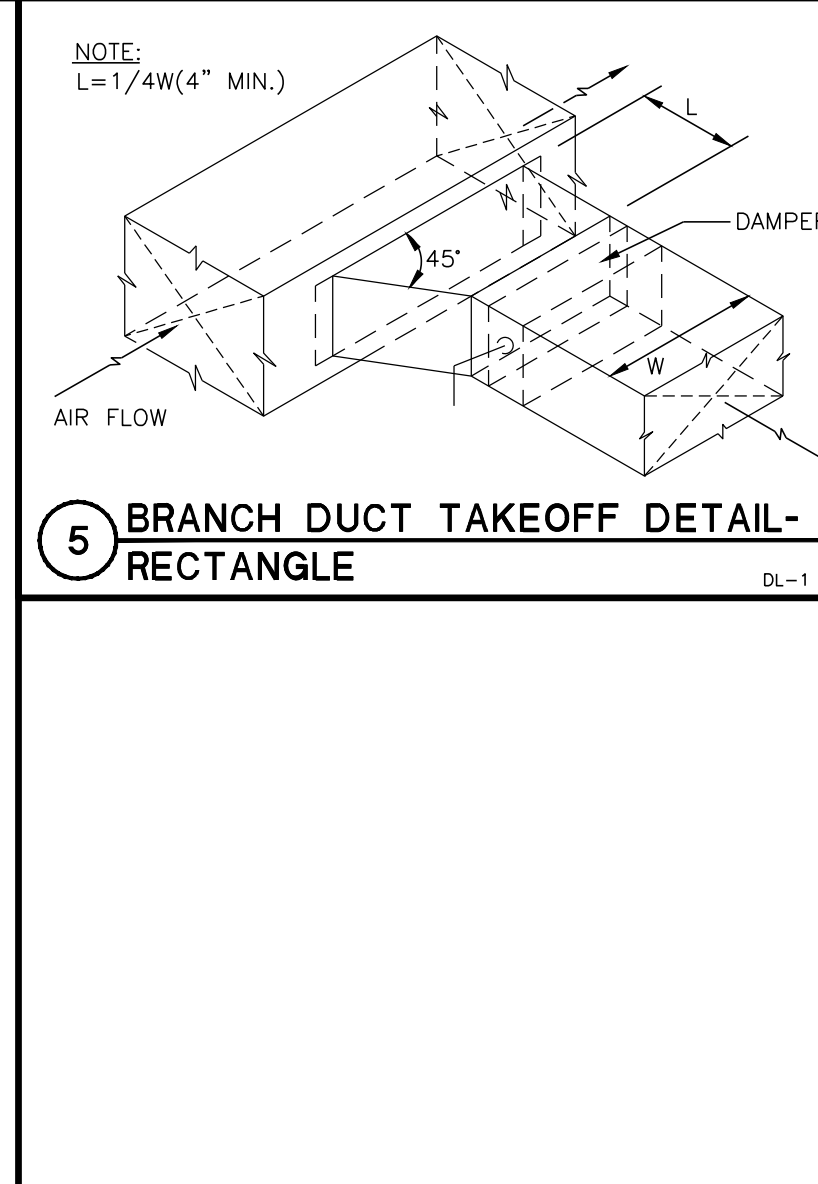
INSTALLATION NOTES:

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



INSTALLATION NOTES:

1. ALL DUCT JOINTS, CORNERS, AND SEAMS SHALL BE SEALED WITH SILICONE SEALANT OR SOLDERED LEAK TIGHT.
2. LOUVER PROVIDED BY H.C.; INSTALLED AND CAULKED BY G.C.



INSTALLATION NOTES:

- NOTE: L=1/4W(4" MIN.)

DESTREE
architecture & design

222 West Washington Ave, Suite 310, Madison, WI 53703
PH: 608.268.1499 FAX: 608.268.1498 WWW.DESTREEARCHITECTS.COM

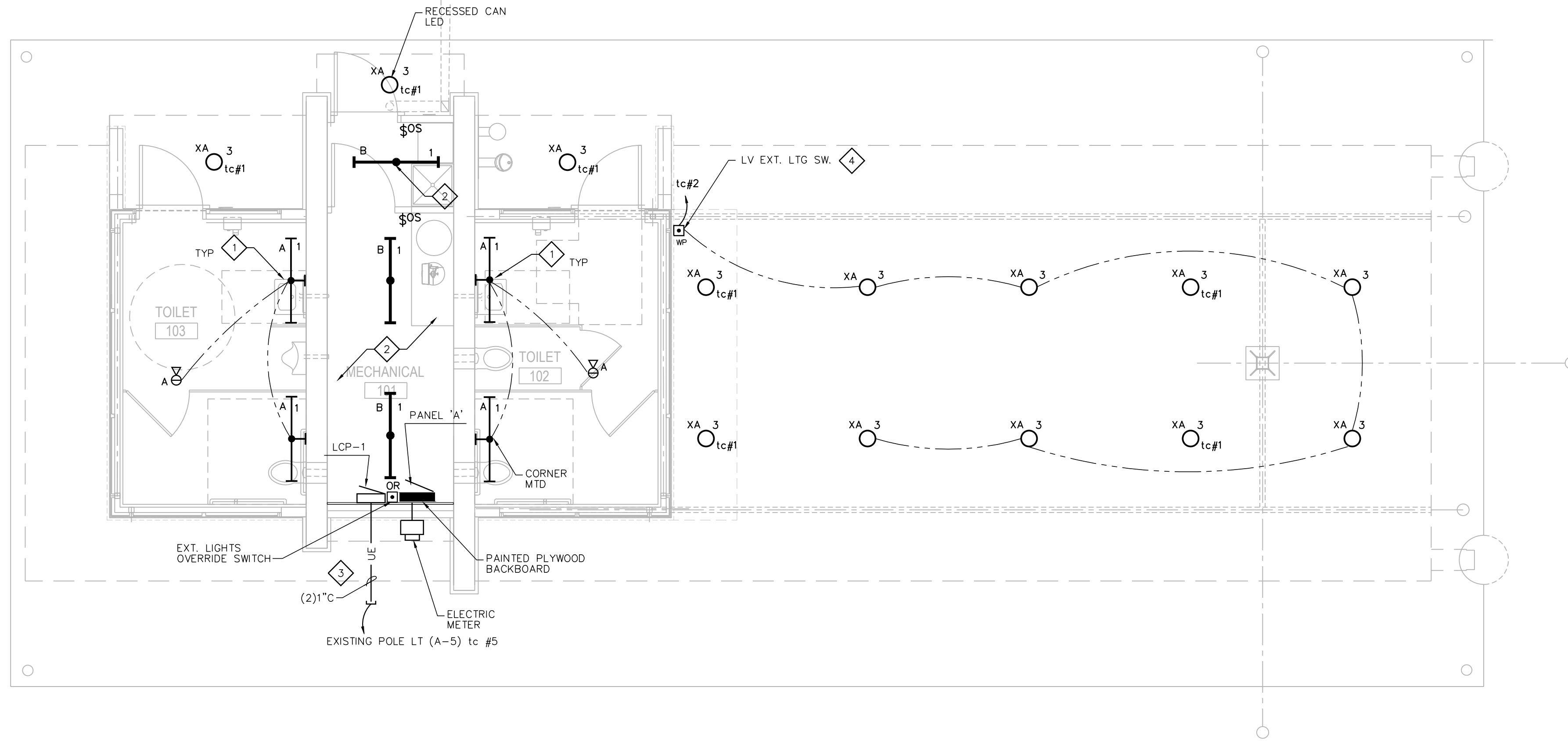
HEG
HEN Engineering Group

17 Applegate Court, Suite 200
Madison, WI 53713
Phone: (608) 288-9280
email: hen@chorus.net
Project No. H1421

**LAKE EDGE PARK
PARK SHELTER
CITY OF MADISON
PARKS DEPT**

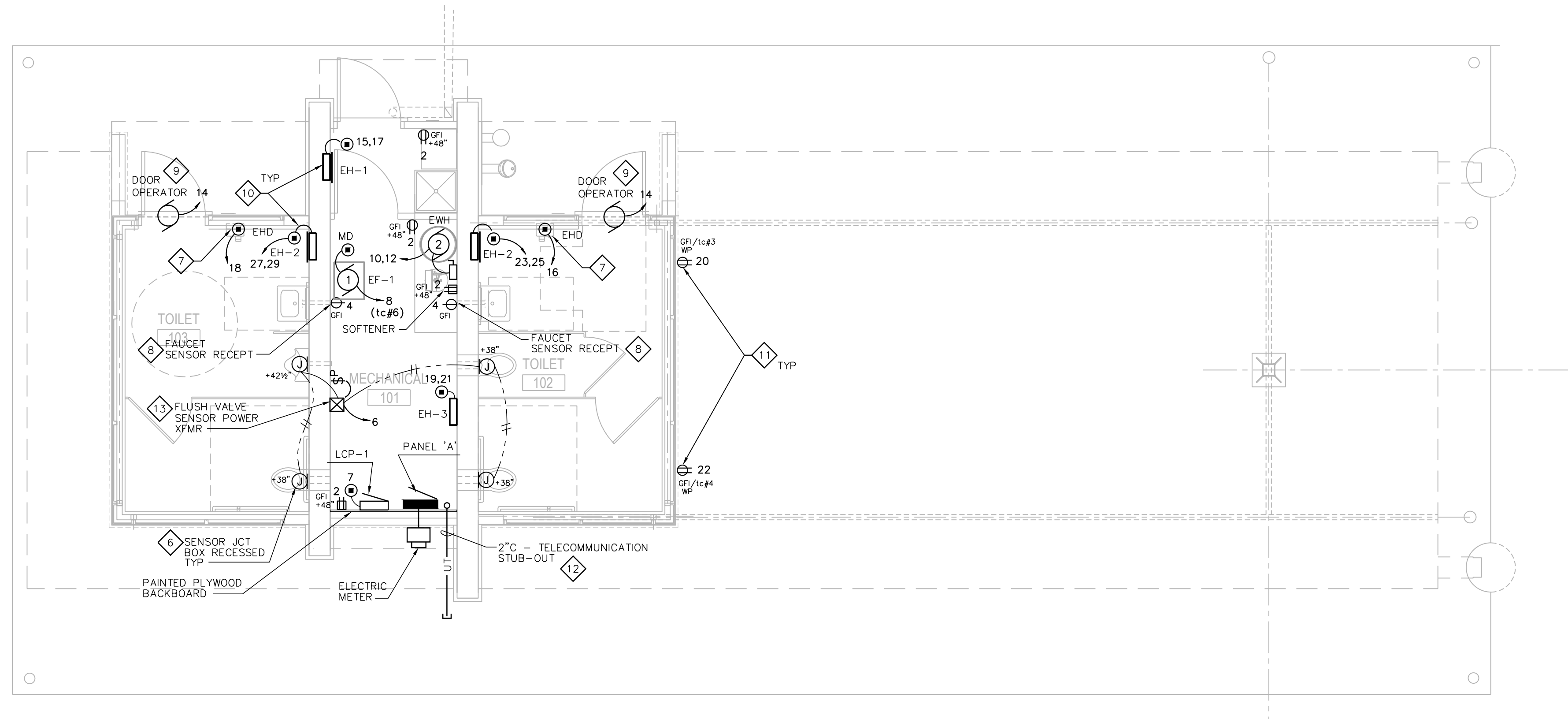
ISSUANCES:	
BD	5.23.2015
PROJECT:	
NUMBER:	141216
DATE:	5.23.2015
REV:	
SHEET:	

H101



ELECTRIAL LIGHTING PLAN

1/4" = 1'-0"



ELECTRIAL POWER/LV PLAN

1/4" = 1'-0"

ELECTRICAL GENERAL NOTES:

1. COORDINATE LIGHTING & DEVICE LAYOUT WITH GENERAL CONTRACTOR.
2. COORDINATE ELECTRICAL RACEWAYS ROUTING WITH GENERAL CONTRACTOR AND OTHER TRADES FOR PROPER EQUIPMENT ACCESS.
3. ALL RACEWAYS ARE TO BE CONCEALED IN FINISHED AREAS. MECHANICAL & UTILITY AREAS MAY USE SURFACE CONDUIT SYSTEMS.
4. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL CONSTRUCTION CONDITIONS.
5. COORDINATE AND SCHEDULE ALL WORK WITH THE GENERAL CONTRACTOR AND LOW-VOLTAGE CABLING PRIOR TO STARTING.
6. ALL LIGHTS CIRCUITED TO PANEL 'A' UNLESS INDICATED OTHERWISE.

ELECTRICAL POWER/LV PLAN NOTES:

- 1 CORNER-MTD LIGHT FIXTURE.
- 2 COORDINATE LIGHT FIXTURE MOUNTING LOCATION WITH DUCTWORK, PIPING & OTHER TRADES.
- 3 STUB OUT 1" (PVC) RACEWAYS 24" BELOW GRADE FOR CONTINUATION PER SITE PLAN LIGHTING + 1 SPARE RACEWAY CAPPED.
- 4 LV LIGHTING CONTROL STA. (WP). REFER TO LCP RISER.
- 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"x2 1/2" 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"x2 1/2" RECESSED BOX WITH PLASTER RING FOR ELECTRIC HAND DRYER CONNECTION. PROVIDE POWER CONNECTION TO HAND DRYERS. COORDINATE FINAL MOUNTING HEIGHT LOCATION WITH GENERAL CONTRACTOR.
- 8 COORDINATE FINAL RECEPTACLE LOCATION WITH PLUMBING TRADE FOR FAUCET SENSOR POWER.
- 9 COORDINATE POWER AND CONTROL WIRING AND RACEWAY REQUIREMENTS FOR DOOR OPERATORS WITH GENERAL CONTRACTOR.
- 10 COORDINATE POWER WIRING AND RACEWAY REQUIREMENTS FOR ELECTRIC HEATERS WITH HVAC CONTRACTOR.
- 11 EXTERIOR RECEPTACLES POWER CONTROLLED BY LCP TIMELOCK. REFER TO LCP RISER.
- 12 STUB OUT 2"(PVC) RACEWAY 24" BELOW GRADE AND CAPPED FOR FUTURE COMMUNICATIONS CABLING.
- 13 EXTEND LOW-VOLTAGE CABLING FROM TRANSFORMER (BY P.C.) TO FLUSH VALVE SENSORS. ROUTE CABLING IN CONDUIT OR RACEWAYS.

ISSUANCES:

BD	5.23.2015
----	-----------

PROJECT:

NUMBER:	141216
DATE:	5.23.2015
REV:	

SHEET:

E101

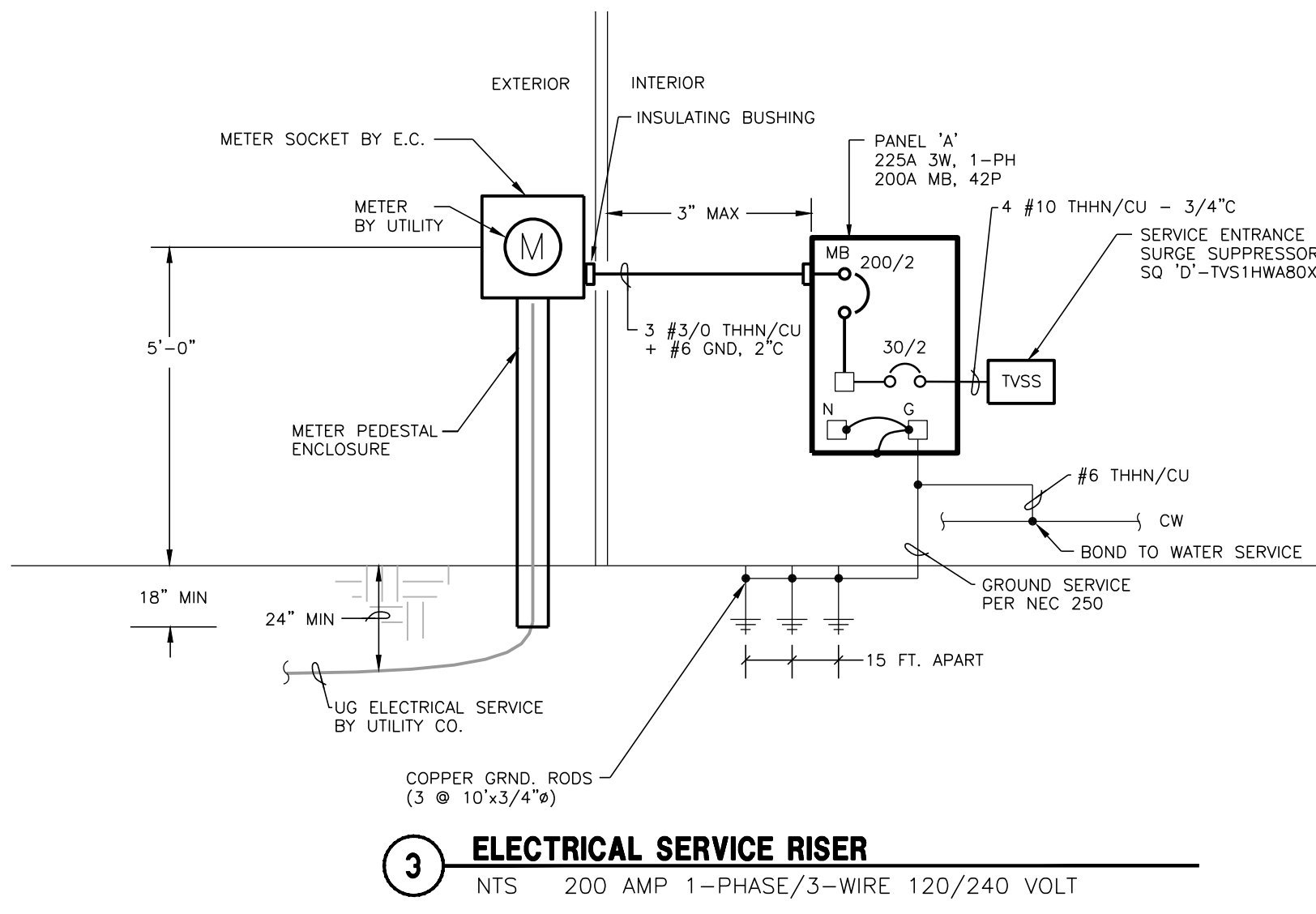
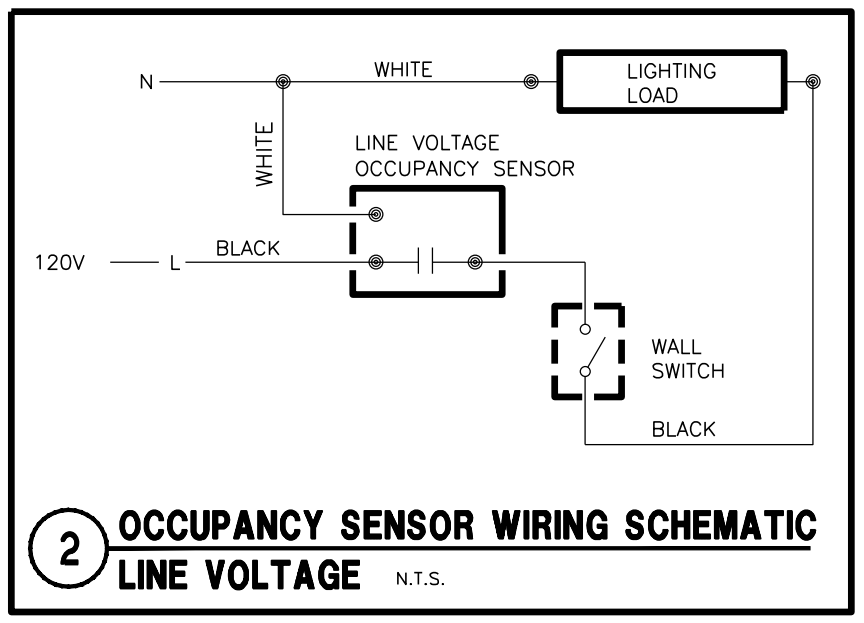
ELECTRICAL MOTOR/EQUIPMENT SCHEDULE

TAG	1	2	3	4	5
PANEL NO.	A	A	A	A	A
CIRCUIT	8	10,12	15,17	SEE PLAN	19,21
BREAKER	15	30	15	25	15
POLE	1	2	2	2	2
WIRING					
NO.	2+G (#12)	2+G (#10)	2+G (#12)	2+G (#10)	2+G (#12)
TYPE	THHN	THHN	THHN	THHN	THHN
SIZE	#12	#10	#12	#10	#12
COND.	1/2"	1/2"	1/2"	1/2"	1/2"
ELECTRICAL					
HP	1/4	(4.5)	(2.0)	(4.0)	(2.0)
VOLT	115	240	240	240	240
PHASE	1	1	1	1	1
FLA (MCA)	3.7 (4.6)	18.8 (23.4)	8.3 (10.4)	16.7 (20.9)	8.3 (10.4)
STARTER					
TYPE	N.R.	w/UNIT	w/UNIT	w/UNIT	w/UNIT
SIZE	-	-	-	-	-
BY	-	P.C.	H.C.	H.C.	H.C.
CONTROL	LCP	AQUASTAT	STAT	STAT	STAT
TYPE	LCP	AQUASTAT	STAT	STAT	STAT
BY	E.C.	P.C.	H.C.	H.C.	H.C.
DISCONNECT					
TYPE	w/UNIT	NEMA 1 H.D.	w/UNIT	w/UNIT	w/UNIT
SIZE	-	30	-	-	-
FUSE	-	-	-	-	-
BY	H.C.	E.C.	H.C.	H.C.	H.C.
REMARKS	EXHAUST FAN EF-1	ELECTRIC WTR. HTR. EWH	ELECTRIC HEATER EH-1	ELECTRIC HEATER EH-2	ELECTRIC HEATER EH-3

E.C. = ELECTRICAL CONTRACTOR
 H.C. = HVAC CONTRACTOR
 P.C. = PLUMBING CONTRACTOR
 G.C. = GENERAL CONTRACTOR

N.R.=NOT REQUIRED
 H.D.=HEAVY DUTY

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



LIGHTING FIXTURE SCHEDULE

TAG	NO.	TYPE	LAMPS	DESCRIPTION	MOUNTING	MFGR. & MODEL	REMARKS
A	-	LED	45	W/FIXTURE	SURFACE/ CORNER MTD	KENALL - MLH4S-48-R-WM-PP-1-45L40K-DCC-1-120-CMB	(1)(2) 4 FT CORNER MTD SURFACE WRAP
B	-	LED	42	W/FIXTURE	SURFACE PENDANT/CLG	LITHONIA - ZL2N-L48-3000LM-MDD-MVOLT-40K-80CRI-WH + HC36	(1)(4) 4 FT SURFACE PENDANT CHAIN HUNG STRIP
XA	-	LED	26	W/FIXTURE	RECESSED/ SOFFIT	KENALL HRDL6L-26L40K-DV-5CC-FW-CSS-G	(1)(3) EXT. RECESSED 6" CAN W/POLYCARBONITE LENSE

LAMP ABBREVIATIONS:
 LED=LIGHT EMITTING DIODE

REMARKS:
 ① LED LAMPING/DRIVER.
 ② CORNER MTG BRACKET (CMB).
 ③ WET LOCATION UL LISTED.
 ④ CHAIN HUNG FIXTURE.

ALL VOLTAGES ARE 120 VOLT UNLESS INDICATED OTHERWISE.

OCCUPANCY SENSOR SCHEDULE

SYMBOL	MOUNTING	VOLTAGE	RATED CURRENT /LOAD	SENSOR		MFGR. & MODEL	REMARKS
				TYPE	COVERAGE		
⊙	SURFACE/ CLG	120 VAC	800 Watt	DT	360° 24'x24'	SENSOR SWITCH RMR-PDT-9	RECESSED CLG MTD DT
\$OS	WALL SWITCH	120 VAC	800 Watt	DT	160° 20'	SENSOR SWITCH WSD-PDT	(1) WALL SWITCH DT

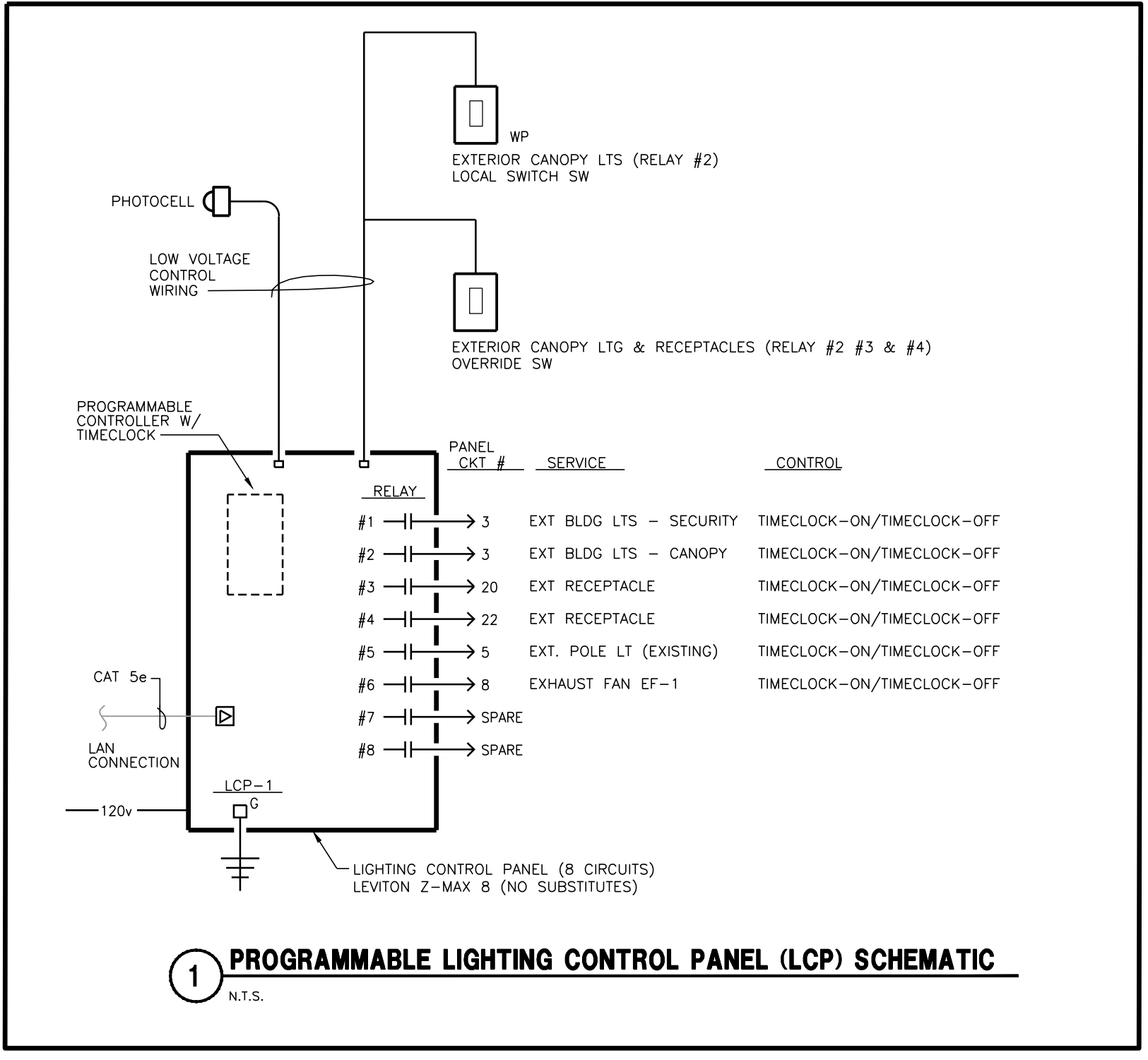
ABBREVIATIONS:
 PIR=PASSIVE INFRARED
 U=ULTRASONIC
 DT=DUAL TECHNOLOGY (PIR+U)

(1) COORDINATE PLATE FINISH COLOR WITH ARCHITECT.

BRKR		DESCRIPTION		CIRCUIT		PHASELOADS		CIRCUIT		DESCRIPTION		BRKR	
A	P	WATT	NO.	A	B	NO.	WATT	A	B	NO.	WATT	A	P
20	1		310	1	850	2	540				RECEPT MECH 101	20	1
20	1		340	3		640	4	300			RECEPT FLUSH VALVES-LAV	15	1
20	1		500	5	800	6	300				XFMR - FLUSH VALVES	15	1
20	1		300	7		730	8	430			EXHAUST FAN EF-1	15	1
				9	2250	10	2250				EWB-ELECT. WTR HTR	30	2
				11		12	2250				EWB-ELECT. WTR HTR	-	-
				13	600	14	600				DOOR OPERATORS	20	1
15	2		1000	15		2500	16	1500			EHD-TOILET 102	20	1
-	-		1000	17	2500	18	1500				EHD-TOILET 103	20	1
15	2		1000	19		2500	20	1500			RECEPT-SHELTER	20	1
-	-		1000	21	2500	22	1500				RECEPT-SHELTER	20	1
25	2		2000	23		2000	24						
-	-		2000	25	2000								
25	2		2000	27		2000	28						
-	-		2000	29	2000								
				31			32						
				33			34						
				35			36						
				37			38						
				39			40					30	2
				41			42						
							13,500				12,620		

ESTIMATED DEMAND LOAD: 26,120 WATTS / 108.8 AMPS

TOTAL CONNECTED LOADS: 26,120 WATTS / 108.8 AMPS

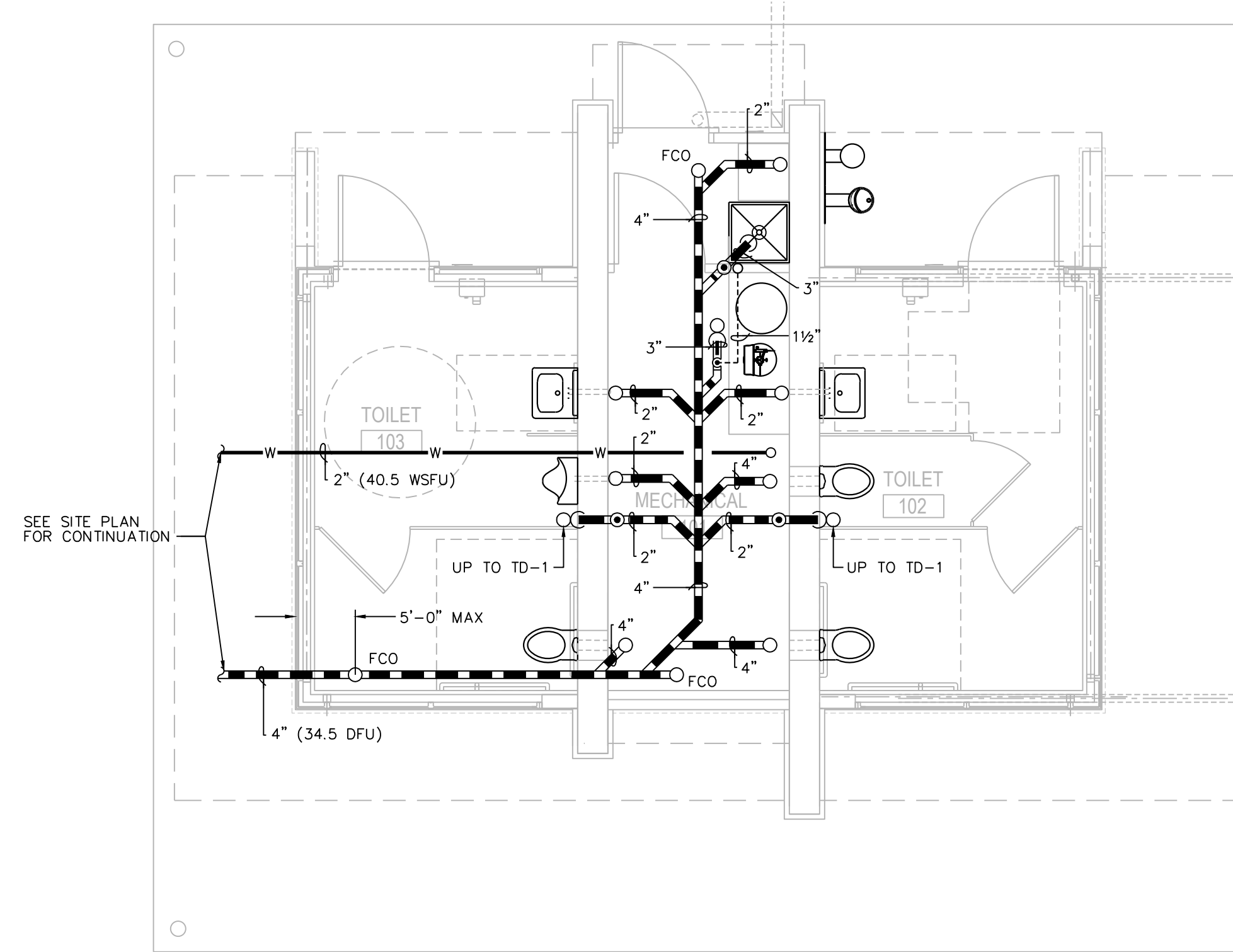


ELECTRICAL SYMBOL SCHEDULE

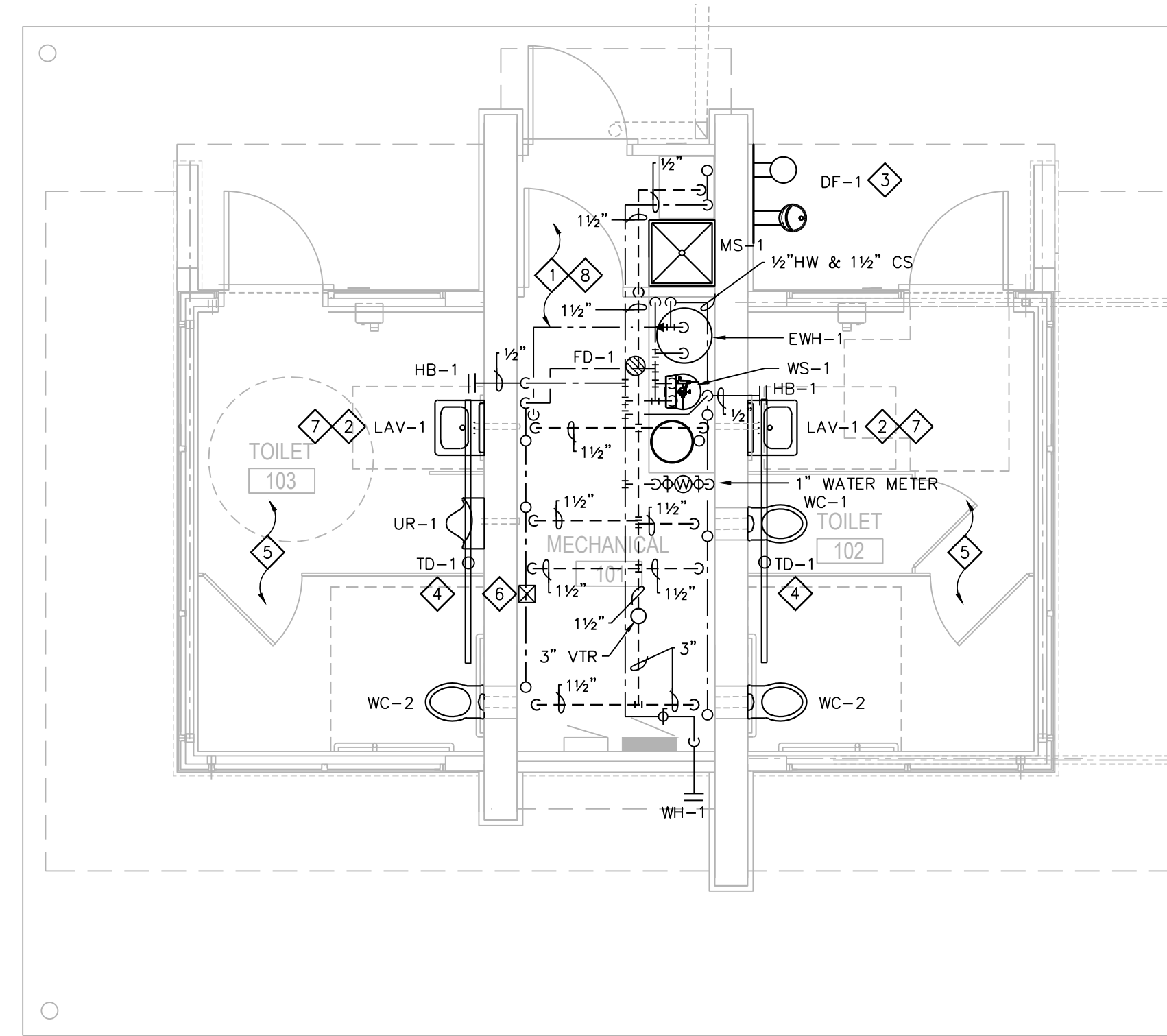
MOUNTING HGT.	SYMBOL	DESCRIPTION
		LIGHTING FIXTURES
	⊙	LED: SURFACE/PENDANT
	⊖	LED: RECESSED
	⊖	LED: SURFACE/WALL MTD
	⊖	LED LINEAR: SURFACE, CEILING MOUNTED
	⊖	LED LINEAR: SURFACE, WALL MOUNTED
		SWITCHES
48"	\$	SINGLE POLE
48"	\$OS	OCCUPANCY SENSOR CONTROLLED WALL SWITCH
48"	\$P	SINGLEPOLE - PILOT ILLUMINATED
	⊙	OCCUPANCY SENSOR
	⊖	CEILING MTD TYPE
		LIGHTING CONTROL SYSTEM
60"	LCP	LIGHTING CONTROL PANEL
48"	OR	LOW-VOLTAGE SWITCH OVERRIDE
		RECEPTACLES
18"	⊖	125V, 2P, 2W SINGLE RECEPTACLE
18"	⊖	DUPLEX: SURFACE MTD
18"	⊖	DUPLEX: RECESSED WP = WATERPROOF
18"	⊖	DUPLEX: SURFACE MTD
18"	⊖	DUPLEX: W/GROUND FAULT INTERRUPTION PROTECTION
		EQUIPMENT AND WIRING
	⊖	DIRECT EQUIPMENT CONNECTION
	⊖	MOTOR CONNECTION-SEE EQUIP. SCHEDULE FOR TYPE, WIRING, ETC.
	⊖	JUNCTION BOX-CONCEALED IN FINISHED AREAS, SURFACE IN UNFINISHED AREAS
	⊖	SAFETY DISCONNECT SWITCH WITH COVER INTERLOCK-W.P. INDICATES WATERPROOF (NON-FUSED UNLESS INDICATED BY 'F'-FUSED)
	⊖	TRANSFORMER
	⊖	MANUAL STARTER
	⊖	ELECTRICAL POWER PANEL
	UE	UNDERGROUND ELECTRICAL CONDUIT
	UT	UNDERGROUND TELECOM CONDUIT

ABBREVIATIONS
 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
 EH = ELECT. HEATER
 EHD = ELECT. HAND DRYER
 EWH = ELECTRIC WATER HEATER



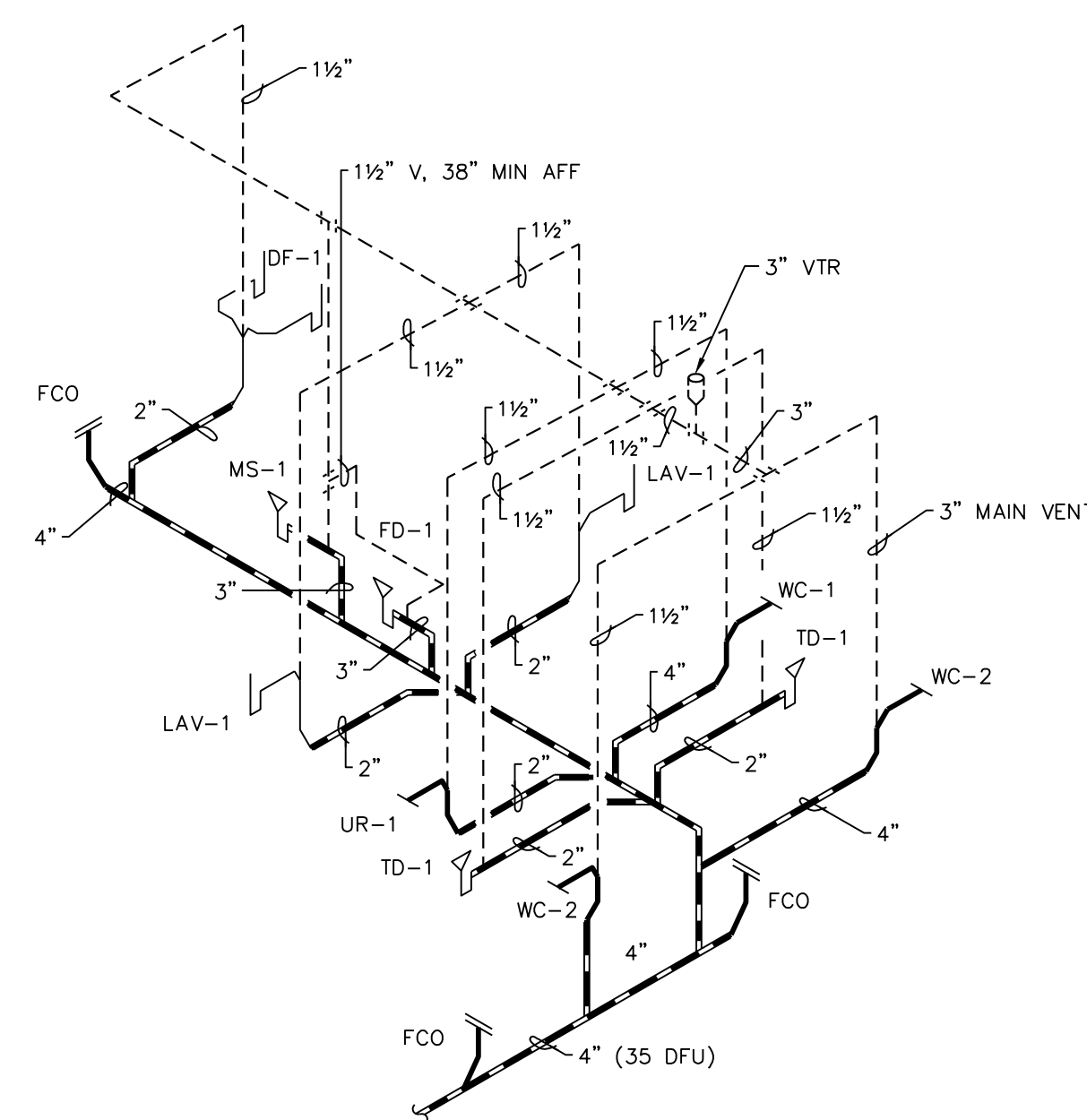
UNDERGROUND PLUMBING PLAN
1/4" = 1'-0"



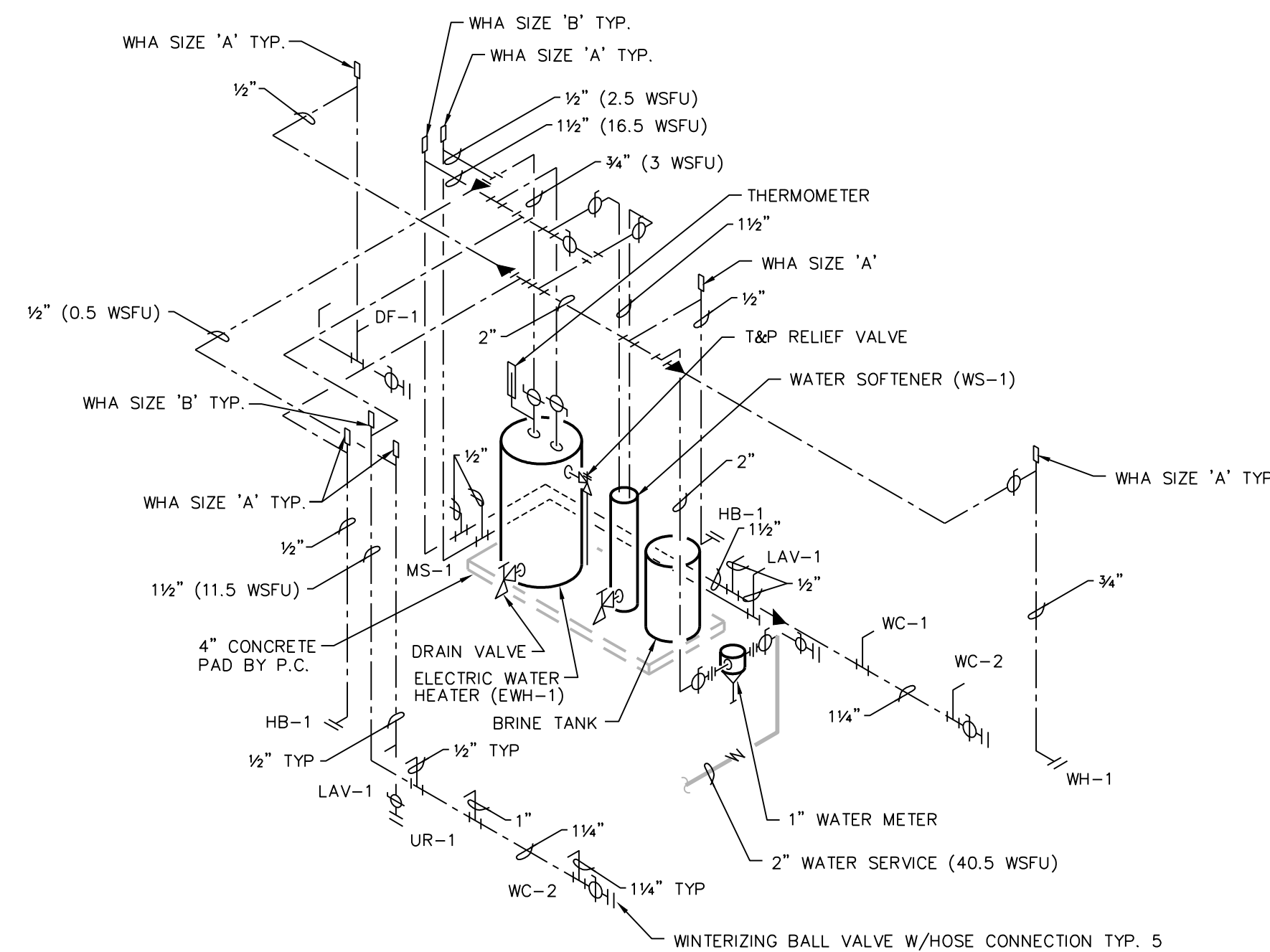
PLUMBING PLAN
1/4" = 1'-0"

PIPE SIZE	COLD WATER @ 19.0 PSI/100'						HOT WATER @ 19.0 PSI/100'					
	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
WSFU (FT)	6.0	14.5	28.5	55.0	103	250	6.0	14.5	28.5	55.0	103	250
WSFU (FM)	-	4.0	6.0	13.5	34.0	128	-	-	-	-	-	-

FT = FLUSH TANK
FM = FLUSHOMETER



WASTE & VENT RISER
N.T.S.



WATER PIPING RISER
N.T.S.

PLUMBING FIXTURE SCHEDULE						
P#	FIXTURE	WASTE	VENT	CW.	HW.	DESCRIPTION
WC-1	WATER CLOSET ADA	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 EXCEPT RIM MTD @ 17" ADA COMPLIANT.
UR-1	URINAL ADA	2"	1-1/2"	3/4"	--	VITREOUS CHINA, WHITE, WALL HUNG, REAR SPUD, RIM MTD. @ 17" 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.
LAV-1	LAVATORY ADA	1-1/4"	1-1/2"	1/2"	1/2"	VITREOUS CHINA, WHITE, WALL HUNG EQUAL TO KOHLER KINGSTON LAV K-1729, (2-HOLE 4" O.C.) W/SLOAN ETF-600-P-BOM ELECTRIC FAUCET, MECH MIXING VALVE, ETF-233 (120V) PLUG-IN TRANSFORMER, MOUNT CONTROL MODULE & TRANSFORMER IN MECH 101 W/GROMMET OPENING IN WALL, PROWRAP 2000 INSULATION GUARDS, CONCEALED ARM CARRIER EQUAL TO SMITH 0700 SERIES & KOHLER 8998 P-TRAP WITH CLEANOUT. ADA COMPLIANT.
MS-1	MOP SINK	3"	1-1/2"	1/2"	1/2"	FLOOR-MOUNTED MOLDED STONE EQUAL TO MUSTEE MODEL #63M WITH #63.700 HOSE & HOSE HOLDER, #65.600 MOP HANGER & #67.2424 WALLGUARDS, CHICAGO 897 FAUCET WITH HOSE CONN. VB (WATTS 8A-ASSE 1011).
HB-1	HOSE BIBB	--	--	3/4"	--	KEY-OPERATED, AUTOMATIC DRAINING WITH ANTI-SIPHON VB & FLUSH TAMPER-PROOF BOX W/HINGED COVER. EQUAL TO WOODFORD MODEL B65. (ASSE 1011)
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)
DF-1	EXTERIOR DRINKING FOUNTAIN, ADA	1-1/4"	1-1/2"	1/2"	--	EXTERIOR, WALL-MOUNTED, DRINKING FOUNTAIN WITH BOTTLE FILLER STATION. COLOR, FINISH SELECTED BY ARCHITECT. STERN-WILLIAMS MODEL 7315.
FD-1	FLOOR DRAIN	3"	1-1/2"	--	--	POLISHED BRONZE ADJ. ROUNDTOP W/PROSET TRAP GUARD EQUAL TO SMITH MODEL 2003Y-A-PB (NO HUB), 2010C-A-PB (CAULKED OUTLET).
TD-1	TRENCH DRAIN	2"	1-1/2"	--	--	HDPE 2-1/2" WIDE x 96" LONG LINEAR TRENCH DRAIN WITH BOTTOM OUTLET & STAINLESS STEEL BAR GRATE, ZURN Z880-U1.5-E1-SWG
EWH-1	ELECTRIC WATER HEATER	--	--	3/4"	3/4"	FLOOR MOUNTED ELECTRIC WATER HEATER 30 GALLON CAPACITY, 23 GPH @ 80° F RISE, EQUAL AO SMITH DEN-30, 4500 WATT, 240V SINGLE PHASE, 18.8 FLA, T&P RELIEF VALVE.
WS-1	WATER SOFTENER	OPEN SITE DRAIN	--	1-1/2"	--	HELLENBRAND MODEL H151-90-BD OR APPROVED EQUAL. CAPACITY = 96,000 GRAIN, 3.0 CF RESIN, 35 GPM @ 15 PSIG MAX WPD, SOFTENER SIZE: 14" W x 65" H. BRINE TANK: 18" W x 40" H (300 LB. SALT CAP.), 1/2" VALVE/MANIFOLD, METERED DEMAND-CONTROLLED REGENERATION. PROVIDE BOTTOM DRAIN FOR WINTERIZING.

PLUMBING GENERAL NOTES:

- PLUMBING CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS.
- COORDINATE PHASING OF WORK WITH GENERAL CONTRACTOR.
- ALL PLUMBING SHALL BE CONCEALED IN MECHANICAL ROOM.

PLUMBING PLAN NOTES:

- COORDINATE ROUTING OF PIPING IN MECH ROOM WITH OTHER TRADES FOR PROPER SERVICE CLEARANCES.
- COORDINATE INSTALLATION OF LAV WALL CARRIER SUPPORTS WITH GENERAL CONTRACTOR & MASONRY TRADE.
- COORDINATE INSTALLATION OF DF WALL CARRIER SUPPORTS WITH GENERAL CONTRACTOR & MASONRY TRADE.
- COORDINATE FINAL LOCATIONS OF TRENCH DRAINS WITH FLOOR SLOPE BY GENERAL CONTRACTOR.
- COORDINATE PLACEMENT OF RECESSED/FLUSH SENSOR BOX (4x4) AT EACH FIXTURE WITH GENERAL CONTRACTOR & MASONRY TRADE.
- COORDINATE SENSOR TRANSFORMER PLACEMENT WITH ELECTRICAL TRADE FOR LINE VOLTAGE POWER. LOW-VOLTAGE POWER BY PLUMBING TRADE IN CONDUIT (EXPOSED) PER DIVISION 16.
- MOUNT CONTROL MODULE & TRANSFORMER IN MECHANICAL 101. CABLE CONTROLS THROUGH WALL GROMMET. PROVIDE ADDITIONAL CABLE LENGTHS AS REQUIRED. COORDINATE WORK WITH E.C.
- SLOPE ALL WATER PIPING TO LOW POINTS WITH DRAIN VALVE FOR WINTERIZING.

WATER SERVICE SIZING (POTABLE):

- 46 DEMAND OF BUILDING IN G.P.M.
- 20 PSI LOW PRESSURE AT MAIN IN STREET
- 6 FT DIFFERENCE IN ELEVATION. MAIN TO METER.
- 1 IN SIZE OF WATER METER.
- 350 FT DEVELOPED LENGTH FROM MAIN TO METER.

AVAILABLE PRESSURE AFTER THE WATER METER:

- 0.9 PSI PRESSURE LOSS DUE TO FRICTION LOSS IN 2" WATER SERVICE.
- 1.0 PSI PRESSURE LOSS DUE TO ELEVATION, MAIN TO METER.
- 7.5 PSI PRESSURE LOSS DUE TO METER.

HOT WATER DISTRIBUTION SIZING:

- PERMISSIBLE UNIFORM PRESSURE LOSS FOR FRICTION (A): (P.S.I./100' OF PIPE)
- WHERE: $A = \frac{B - (C + D + E)}{F} \times 100$
- A. 118.3 PERMISSIBLE PRESSURE LOSS FOR FRICTION. (PSI/100' OF PIPE).
- B. 59.4 PSI AVAILABLE PRESSURE AFTER WATER METER
- C. 8 PSI PRESSURE NEEDED AT CONTROLLING FIXTURE.
- D. 0.9 PSI DIFFERENCE IN ELEVATION BETWEEN WATER METER AND CONTROLLING FIXTURE IN FEET 2 FT x .434 PSI/FT.
- E. 15 PSI PRESSURE LOSS DUE TO WATER HEATER, WATER TREATMENT DEVICES AND BACKFLOW PREVENTERS.
- F. 30 FT DEVELOPED LENGTH FROM WATER METER TO CONTROLLING FIXTURE IN FEET 20 x 1.5.

COLD WATER DISTRIBUTION SIZING:

- PERMISSIBLE UNIFORM PRESSURE LOSS FOR FRICTION (A): (P.S.I./100' OF PIPE)
- WHERE: $A = \frac{B - (C + D + E)}{F} \times 100$
- A. 146.6 PERMISSIBLE PRESSURE LOSS FOR FRICTION. (PSI/100' OF PIPE).
- B. 59.4 PSI AVAILABLE PRESSURE AFTER WATER METER
- C. 15 PSI PRESSURE NEEDED AT CONTROLLING FIXTURE.
- D. 0.9 PSI DIFFERENCE IN ELEVATION BETWEEN WATER METER AND CONTROLLING FIXTURE IN FEET 2 FT x .434 PSI/FT.
- E. 0 PSI PRESSURE LOSS DUE TO WATER HEATER, WATER TREATMENT DEVICES AND BACKFLOW PREVENTERS.
- F. 30 FT DEVELOPED LENGTH FROM WATER METER TO CONTROLLING FIXTURE IN FEET 20 x 1.5.

PLUMBING SYMBOL SCHEDULE

SYMBOL	DESCRIPTION
---	WASTE BELOW SLAB
----	COLD WATER
-----	HOT WATER
- - - - -	VENT
---○---	PIPE UP
---○---	PIPE DOWN
---	CLEAN OUT