



ABBREVIATIONS

BOC	BACK OF CURB
BOW	BACK OF WALK
CONC.	CONCRETE
C.R.C.P.	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT
E.T.	ELECTRICAL TRANSFORMER
FF	FINISHED FLOOR
FL	FLOW LINE
H.E.	HIGHWAY EASEMENT
I.E.	INLET ELEVATION
I.P.	IRON PIPE
I.T.S.	INTELLIGENT TRANSPORTATION SYSTEMS
NOR.	NORMAL
O.E.	OUTLET ELEVATION
P.E.	PRIVATE ENTRANCE
P.L.	PROPERTY LINE
RCPSS	REINFORCED CONCRETE PIPE STORM SEWER
℞	REFERENCE LINE
R/W	RIGHT OF WAY
S.D.D.	STANDARD DETAIL DRAWINGS
TOC	TOP OF CURB
T.P.	TELEPHONE PEDESTAL
T.S.	TRAFFIC SIGNAL

GENERAL NOTES

MISCELLANEOUS

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS A SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT THAT ARE NOT SHOWN. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

ALL SIGN LOCATIONS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO INSTALLATION.

A SAWED JOINT SHALL BE REQUIRED WHERE NEW PAVEMENT MEETS AN EXISTING PAVED SURFACE. 3.5-INCH ASPHALTIC SURFACE PAVEMENT SHALL BE CONSTRUCTED WITH A 1.75-INCH UPPER LAYER AND 1.75-INCH LOWER LAYER.

CONSTRUCT CONCRETE SIDEWALK WITH A MAXIMUM CROSS SLOPE OF 2%. CONCRETE SIDEWALK WITH A CROSS SLOPE EXCEEDING 2% WILL BE REMOVED AND REPLACED, AS DIRECTED BY THE ENGINEER, AT NO COST TO THE DEPARTMENT.

REMOVALS

NO TREES OR SHRUBS ARE TO BE REMOVED. ALL SHALL BE PROTECTED DURING CONSTRUCTION.

MISCELLANEOUS REMOVAL ITEMS REQUIRING RESTORATION OF CONCRETE OR ASPHALTIC CONCRETE DRIVEWAYS, SIDEWALKS, OR STREETS SHALL BE REMOVED TO AN EXISTING JOINT OR SAWED AS DETERMINED BY THE FIELD ENGINEERS.

GRADING / EROSION CONTROL

SILT FENCE SHALL BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER AND IN PLACE PRIOR TO CONSTRUCTION.

EROSION CONTROL DETAILS ARE SHOWN ON SEPARATE DETAIL SHEETS.

DNR LIAISON

DEPARTMENT OF NATURAL RESOURCES  
ATTN.: ERIC HEGGELUND  
3911 FISH HATCHERY ROAD  
FITCHBURG, WI 53711  
PHONE: 608-275-3301  
EMAIL: ERIC.HEGGELUND@WISCONSIN.GOV

UTILITIES

TELEPHONE:  
FRONTIER ENGINEERING  
ATTN: JERRY MOORE  
2222 WEST WISCONSIN STREET  
PORTAGE, WI 53901  
608-742-9507  
EMAIL: JERALD.R.MOORE@FTR.COM

ELECTRIC:  
ALLIANT ENERGY  
ATTN: JASON HOGAN  
4902 BILTMORE LANE  
MADISON, WI 53718  
608-458-4871 OR 608-395-7395  
EMAIL: JASONHOGAN@ALLIANTENERGY.COM

CHARTER COMMUNICIATIONS  
ATTN: TOM PAYNE  
2701 DANIELS ST  
MADISON, WI 53718  
608-274-3822 EXT 6652  
EMAIL: TOM.PAYNE@CHARTER.COM

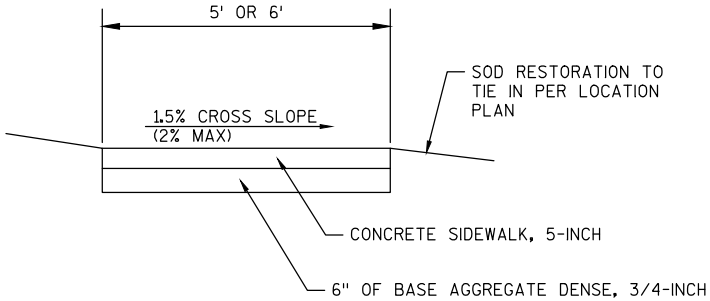
GAS:  
MG&E  
ATTN: MIKE SAVAGE  
PO BOX 1231  
MADISON, WI 53701-1231  
608-252-7069 OR 608-235-2345  
EMAIL: MSAVAGE@MGE.COM

LIGHTING:  
WISCONSIN DEPARTMENT OF TRANSPORTATION  
ATTN: DALE ROTH  
3601 PIERSTORFF STREET  
MADISON, WI 53704  
608-245-5355  
EMAIL: DALE.ROTH@DOT.WI.GOV

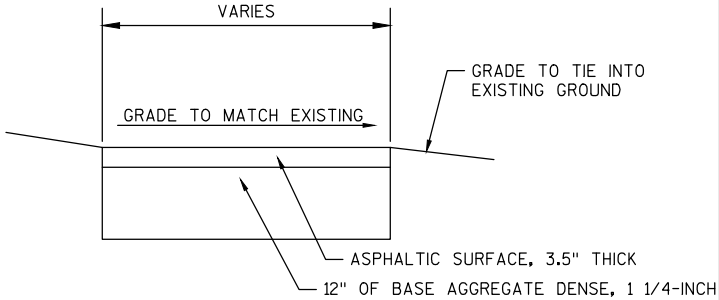


DESIGN CONTACT

MSA PROFESSIONAL SERVICES, INC.  
ATTN.: RAINE GARDNER  
1230 SOUTH BOULEVARD  
BARABOO, WI 53913  
PHONE: 608-355-8913  
EMAIL: RGARDNER@MSA-PS.COM

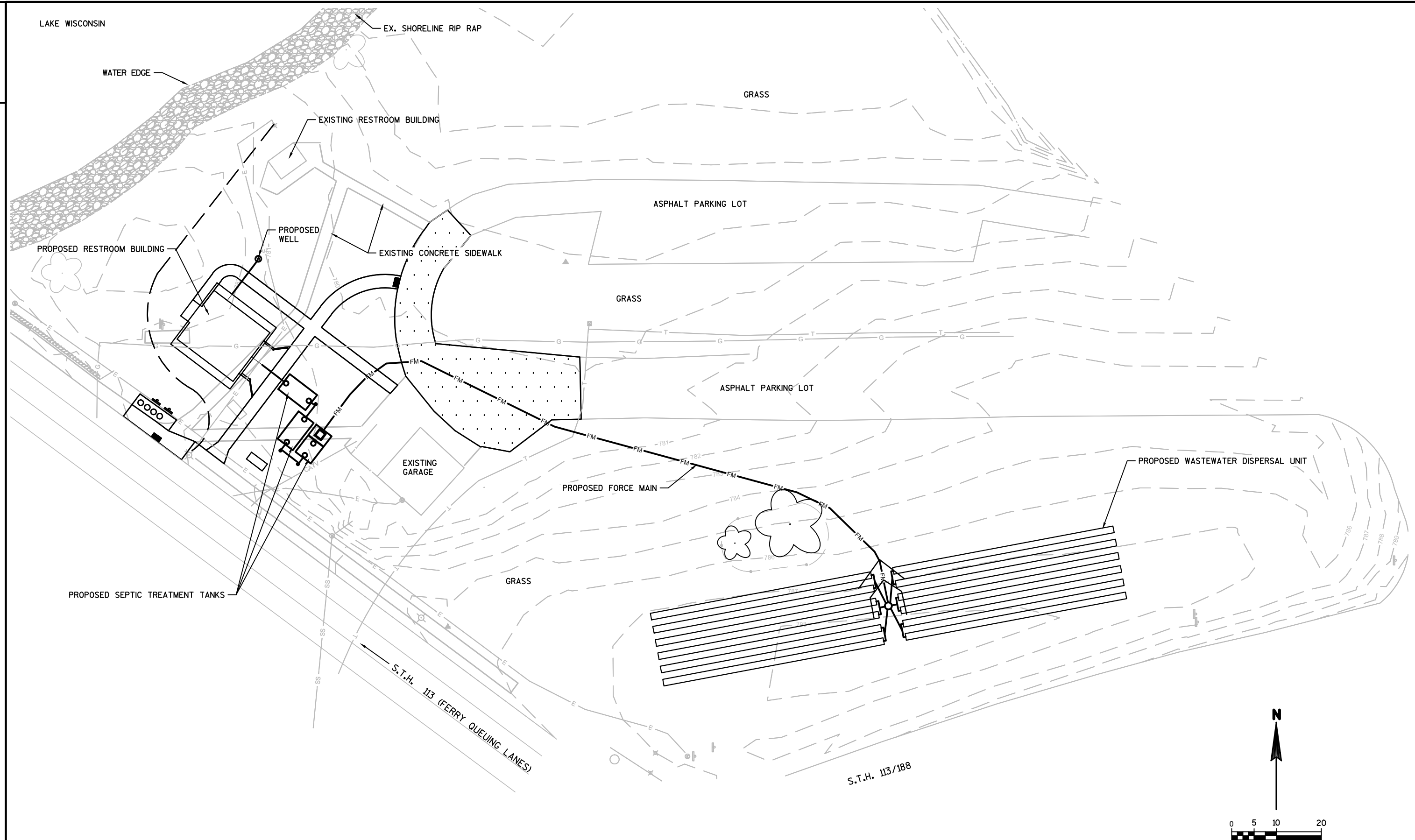


FINISHED CONCRETE SIDEWALK TYPICAL SECTION  
NOT TO SCALE

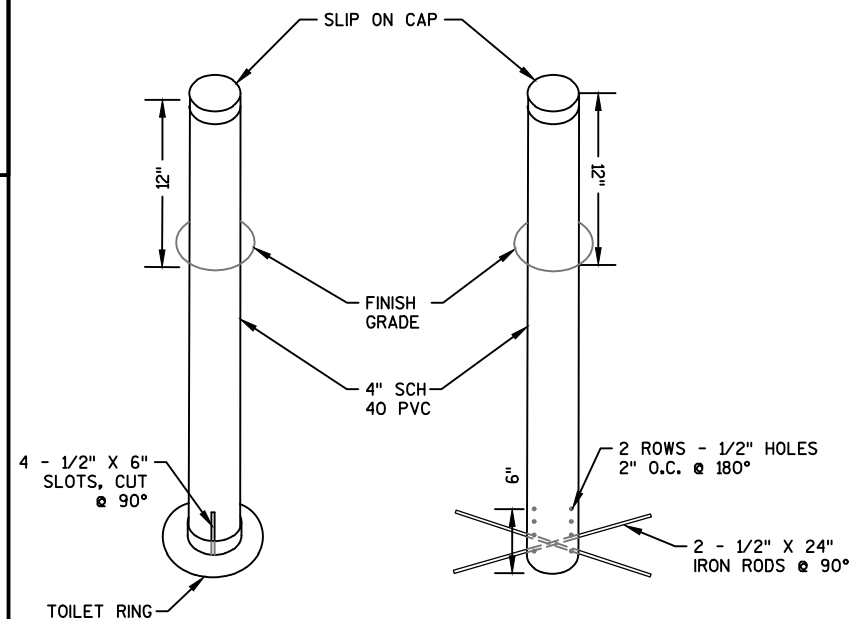


FINISHED ASPHALTIC SURFACE TYPICAL SECTION  
NOT TO SCALE



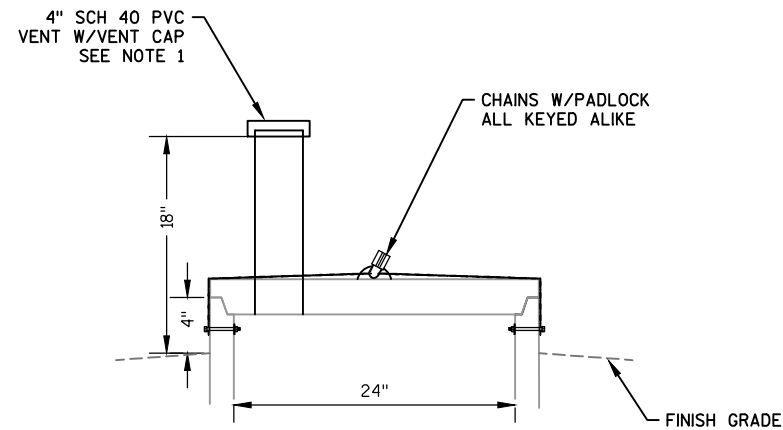


2



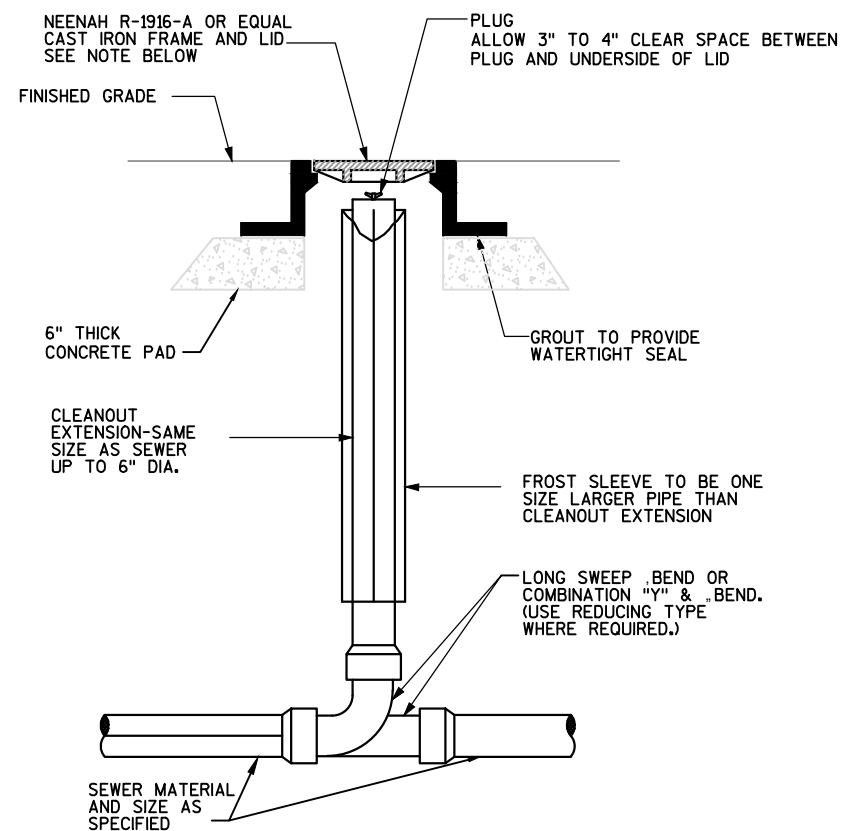
NOTE: CONTRACTOR MAY INSTALL EITHER OPTION SHOWN.

4 OBSERVATION PORT DETAIL  
N.T.S.

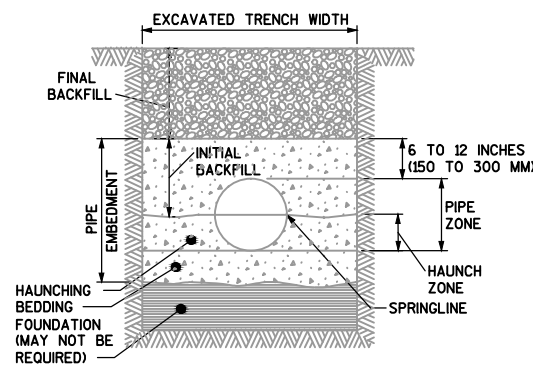


- NOTES:
1. VENT REQUIRED ON ALL DOSE TANKS/CHAMBERS
  2. LOCATE ALL VENTS MIN. OF 3.0' FROM JUNCTION BOX & 10' FROM DOOR OR WINDOW.
  3. ALL RISER LIDS TERMINATED ABOVE GRADE MUST HAVE A LOCKING DEVICE.
  4. ALL LIDS ON RISERS >8" IN DIA. MUST HAVE A WARNING LABEL ABOUT HAZARDS OF ENTERING THE TANK.

3 ACCESS RISER & VENT DETAIL  
N.T.S.



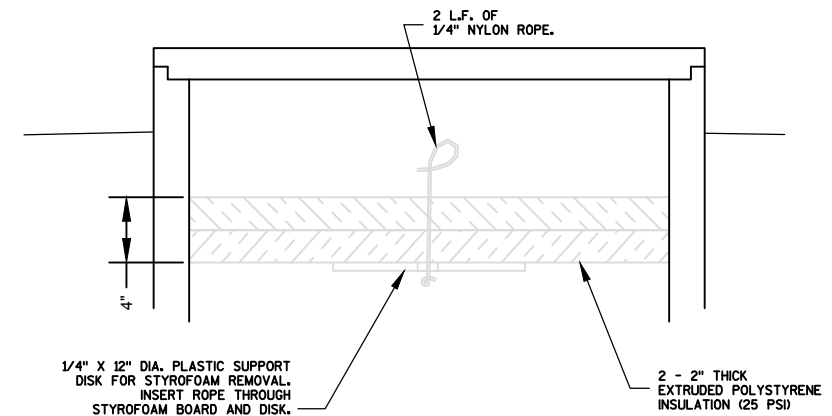
5 CLEANOUT DETAIL  
N.T.S.



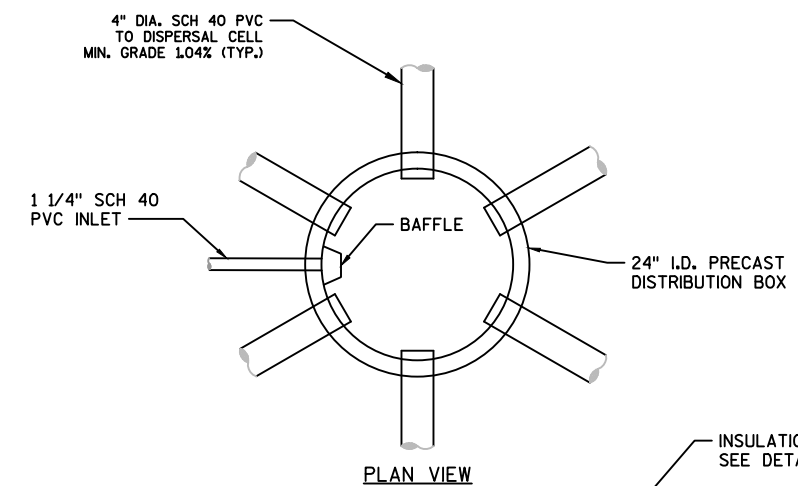
- GENERAL NOTES:
1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO ASTM D2321.
  2. CLASS II EMBEDMENT MATERIAL SHALL BE CLEAN, COARSE-GRAINED SOILS WITH LITTLE TO NO FINES. NO PARTICLES LARGER THAN 1 1/2 -INCHES SHALL BE USED IN THE PIPE EMBEDMENT.
  3. WHERE HYDRAULIC GRADIENT EXISTS USE A WELL-GRADED MIXTURE TO MINIMIZE MIGRATION OF FINES FROM ADJACENT SOIL.
  4. CLASS II MATERIAL IS SUITABLE AS A FOUNDATION AND FOR REPLACING OVER-EXCAVATED AND UNSTABLE TRENCH BOTTOM. INSTALL AND COMPACT IN 6-INCH MAXIMUM LAYERS.
  5. INSTALL AND COMPACT BEDDING IN 6-INCH MAXIMUM LAYERS. LEVEL FINAL GRADE BY HAND. MINIMUM DEPTH 4 INCH (6 INCH IN ROCK CUTS.)
  6. INSTALL AND COMPACT HAUNCHING IN 6-INCH MAXIMUM LAYERS. WORK IN AROUND PIPE BY HAND TO PROVIDE UNIFORM SUPPORT.
  7. INSTALL AND COMPACT INITIAL BACKFILL TO A MINIMUM OF 6 INCH ABOVE PIPE CROWN.
  8. EMBEDMENT COMPACTION: MINIMUM DENSITY 85% STANDARD PROCTOR. USE HAND TAMPERS OR VIBRATORY COMPACTORS.

2 CLASS II - FLEXIBLE PIPE EMBEDMENT DETAIL  
SCALE: NONE

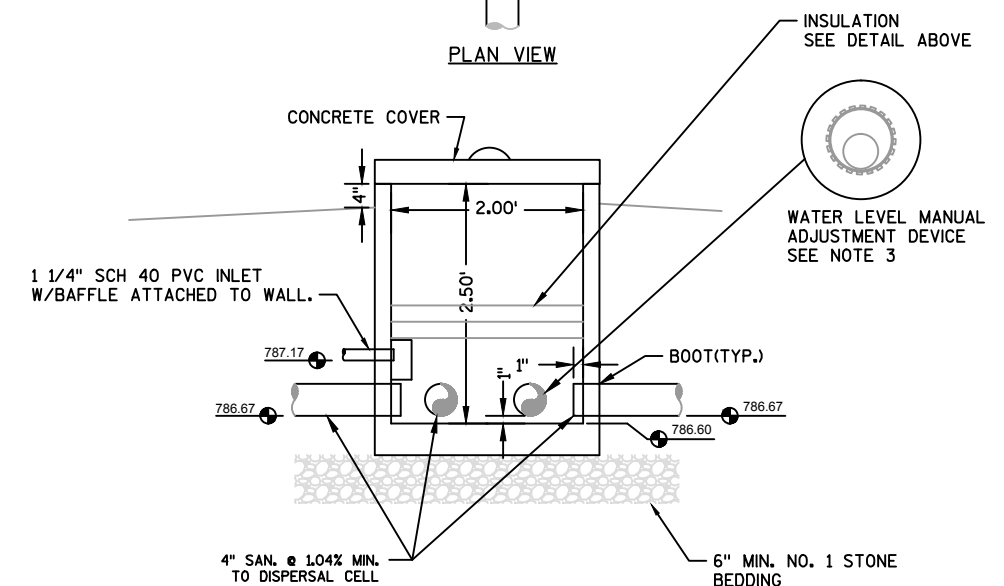
2



DISTRIBUTION BOX INSULATION DETAIL



PLAN VIEW

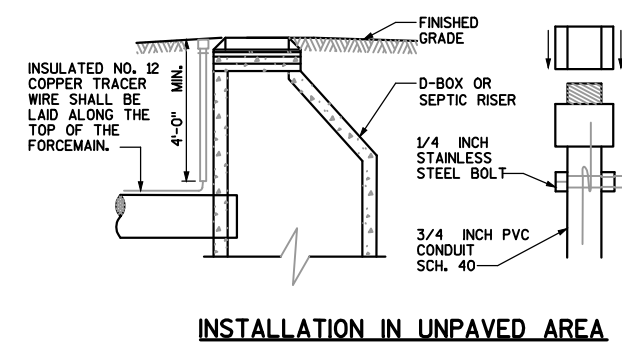
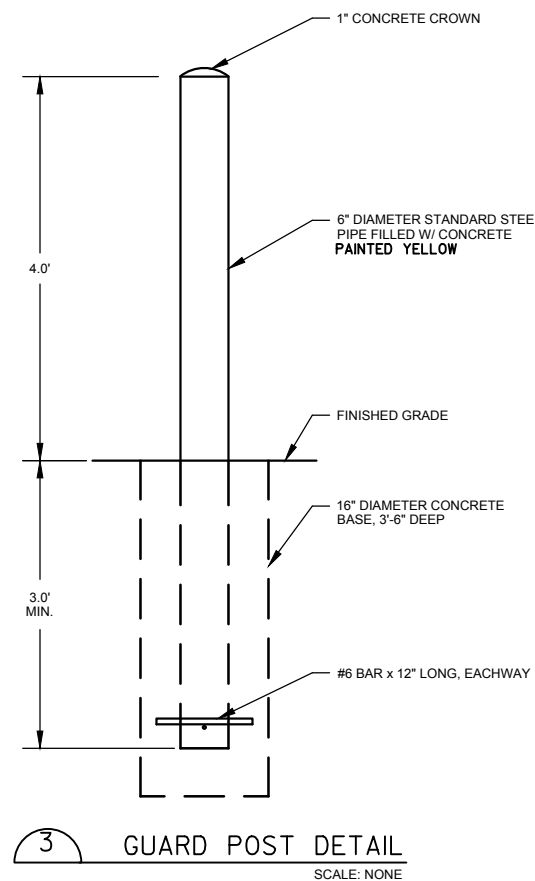
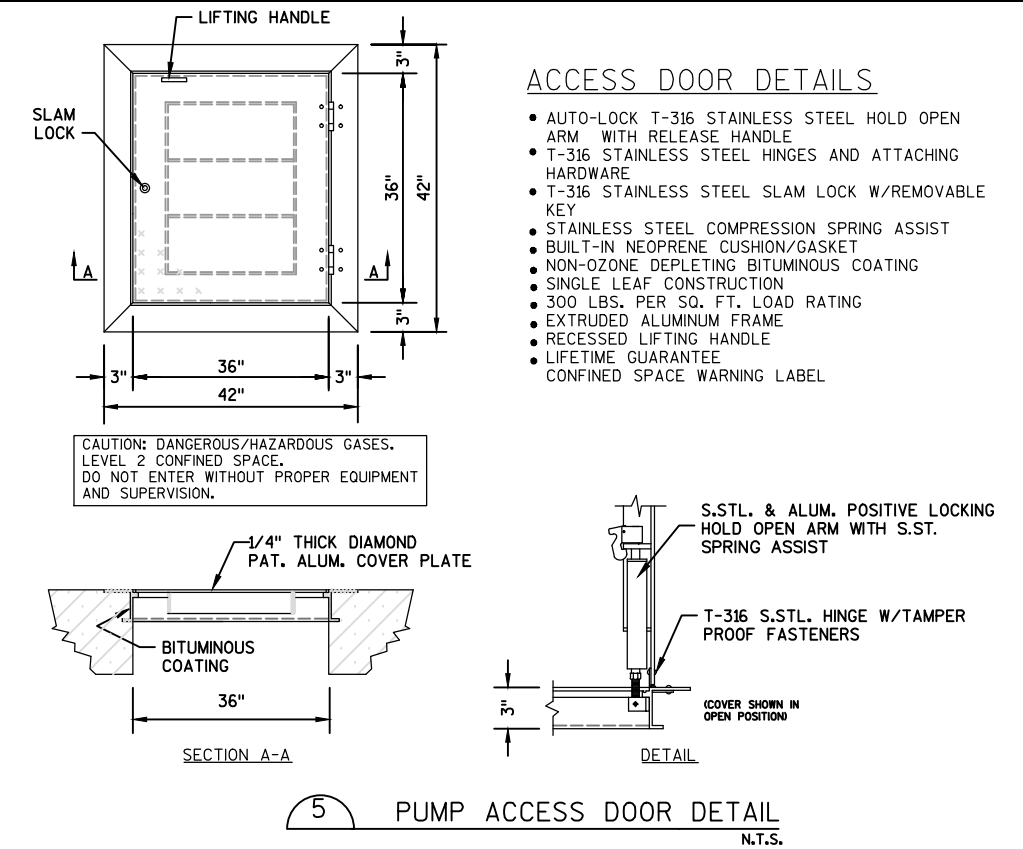
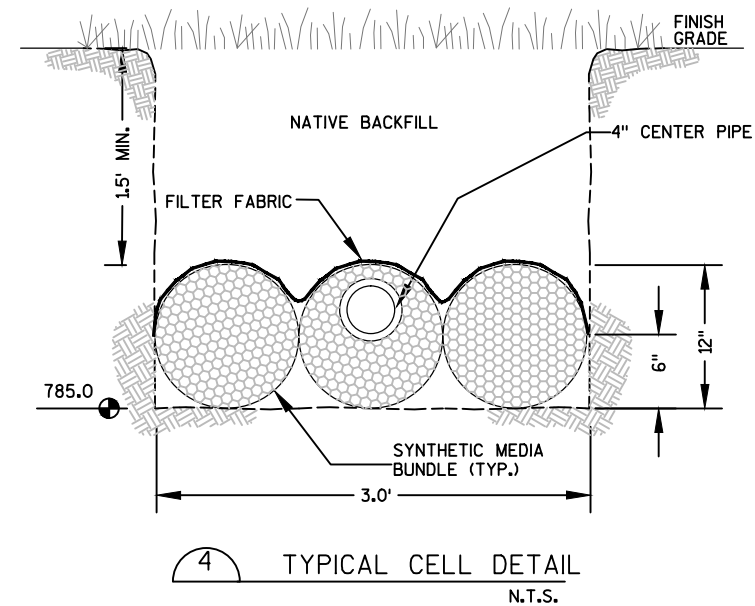


SECTION VIEW

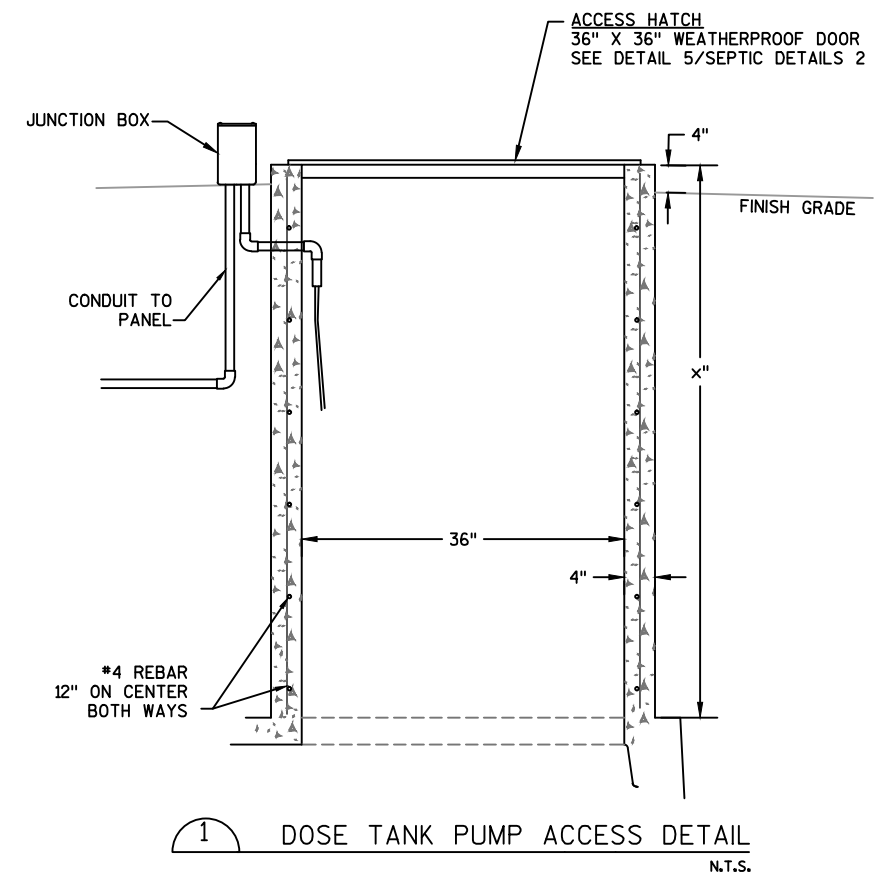
- NOTES:
1. DISTRIBUTION BOX TO BE WATERTIGHT.
  2. SEAL EACH JOINT WITH MASTIC SEALANT
  3. INSERT ADJUSTABLE WATER LEVELER IN EACH OUTLET PIPE, TUF-TITE SPEED LEVELER OR APPROVED EQUAL.

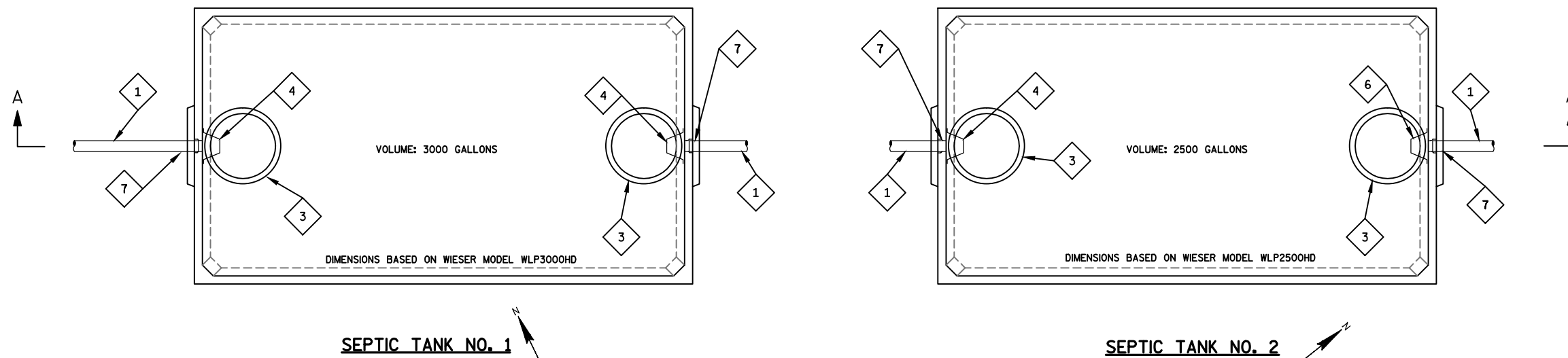
1 DISTRIBUTION BOX DETAIL  
N.T.S.



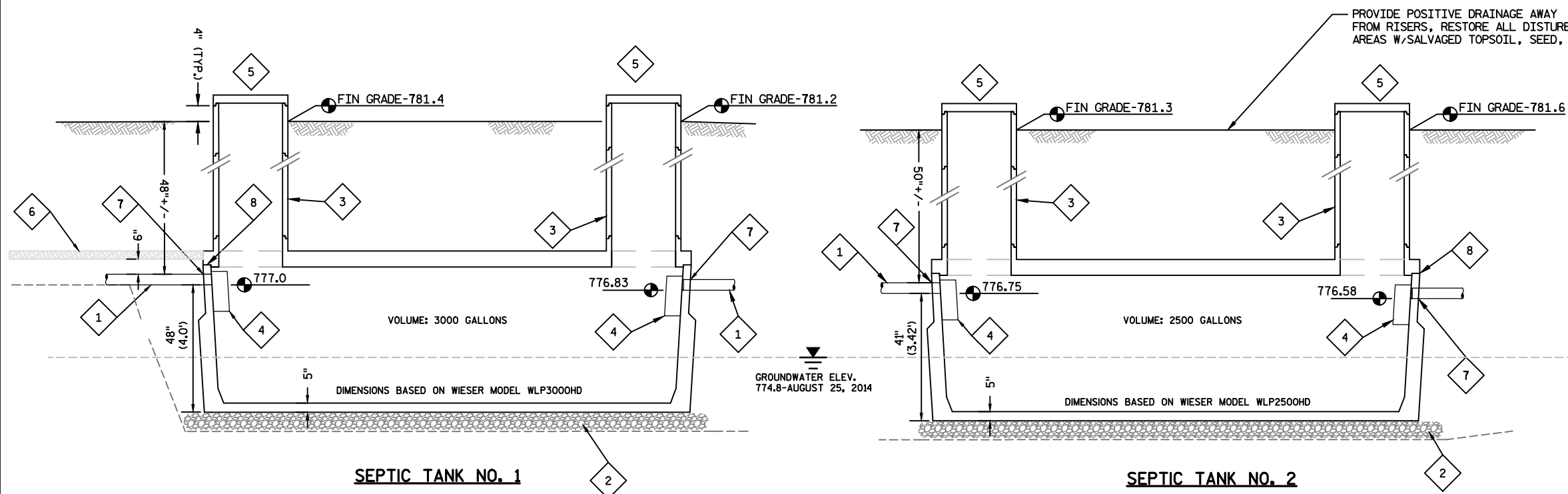


- GENERAL NOTES:**
1. THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE.
  2. A THREADED, FEMALE PVC SCHEDULE 40 PLUG AND MALE COUPLING GLUED TO 3/4 INCH SCHEDULE 40 SHALL BE INSTALLED IN OR ADJACENT TO THE VALVE VAULT AND MANHOLE.
  3. WIRE PIGTAIL SHALL BE WRAPPED AROUND BOLT AND READILY ACCESSIBLE, WITH SUFFICIENT LENGTH FOR EASY CONNECTION.





SEPTIC TANK - PLAN VIEW

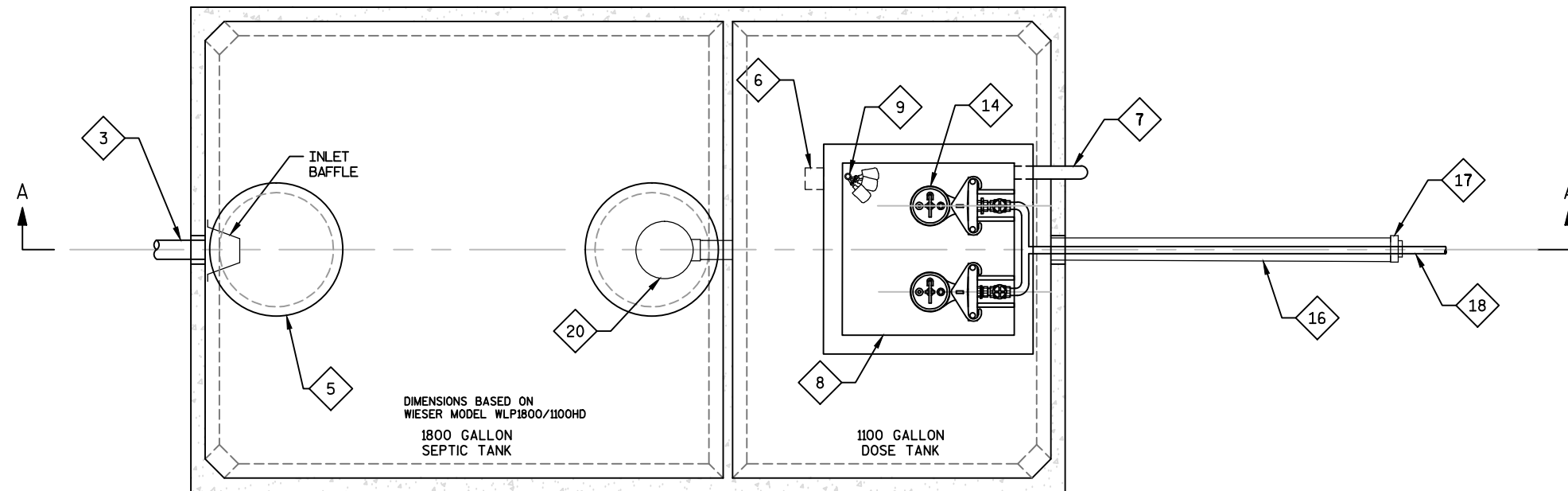
SEPTIC TANK SECTION  
N.T.S.

## CONSTRUCTION NOTES:

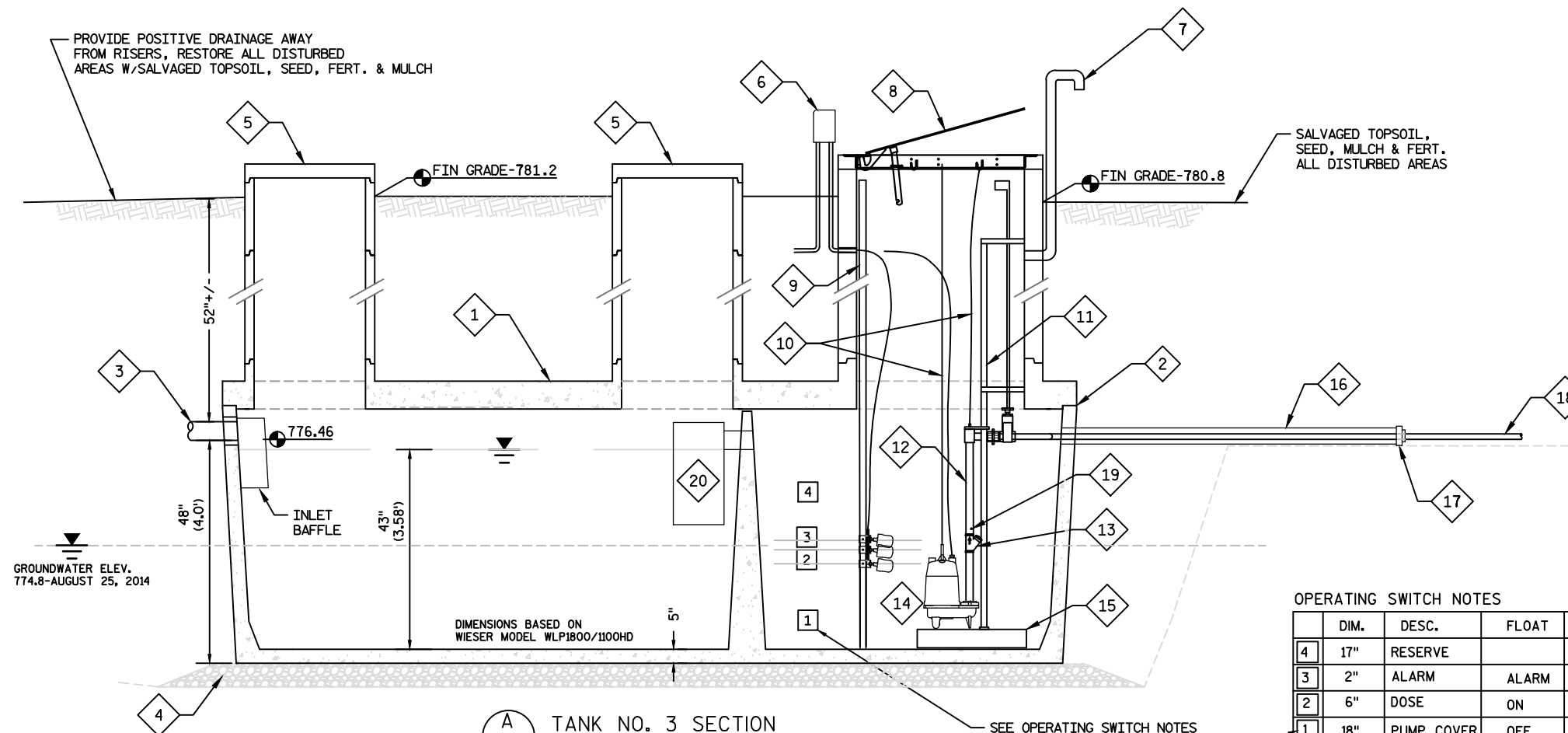
- 1 4" SCH 40 PVC @ MIN. SLOPE OF 1/8" PER FOOT.
- 2 MIN. 4" COMPACTED, GRANULAR BEDDING, 100% PASSING A 1/2" SCREEN. INSTALL AS PER TANK MANF. INSTRUCTIONS
- 3 24" DIA. ACCESS RISER. SEE DETAIL 3/SEPTIC DETAILS 1.
- 4 POLYETHYLENE BAFFLE SECURELY ANCHORED TO SIDEWALL. W/CORROSION RESISTANT FASTENERS.
- 5 EXPOSED RISER LIDS REQUIRE LOCKING DEVICE AND WARNING LABELS, SEE DETAIL 3/SEPTIC DETAILS 1.
- 6 2" x 4' x 8' INSULATION BOARD ENTIRE LENGTH OF PIPE FROM SEPTIC TANK INLET TO BUILDING.
- 7 WATERTIGHT BOOT, PSX GASKET OR EQUAL.
- 8 PROVIDE 2 COURSES OF SEALANT AT JOINT

## SEPTIC TANK NOTES:

1. ALL TREATMENT TANKS USED IN THE CONSTRUCTION OF THIS SYSTEM SHALL BE APPROVED PRODUCTS BY DSPS. INSTALLER ASSUMES ALL LIABILITY FOR USE OF TANKS OTHER THAN THOSE SPECIFIED. ADJUSTMENTS AND CHANGES IN DIMENSIONS ARE THE RESPONSIBILITY OF THE INSTALLER AND ALL COSTS INCURRED FOR REDESIGN AND/OR RESUBMITTAL TO DSPS SHALL BE THE RESPONSIBILITY OF THE PARTY REQUESTING THE CHANGE.
2. TREATMENT TANKS SHALL BE PRECAST REINFORCED CONCRETE MEETING THE REQUIREMENTS OF ASTM C-1227 AND SPS 384.
3. TONGUE AND GROOVE OR SHIPLAP JOINTS ARE REQUIRED ON TANK TOP AND ALL RISER SECTIONS. CONTRACTOR SHALL VERIFY ALL DEPTHS AND ORDER RISER SECTIONS ACCORDINGLY.
4. ALL PIPE AND CONDUIT PENETRATIONS SHALL BE WATERTIGHT.
5. ALL TANKS SHALL BE LOCATED 5' MINIMUM FROM ANY BUILDING FOUNDATION AND 25' MINIMUM FROM ANY WELL.
6. ALL TANK ACCESS RISERS & OPENINGS >8" IN DIAMETER, EXTENDING ABOVE FINISHED GRADE, SHALL BE FURNISHED WITH A WARNING LABEL AS SPECIFIED IN SPS 384.25(8).
7. ALL RISER COVERS EXTENDING ABOVE GRADE SHALL TERMINATE 4" MINIMUM ABOVE FINISH GRADE AND BE FURNISHED WITH A LOCKING MECHANISM.
8. ALL SEWER LINES ENTERING AND LEAVING THE SEPTIC TANK SHALL BE SCH 40 PVC UNLESS OTHERWISE NOTED.
9. ALL TANKS TO BE COATED ON THE EXTERIOR SURFACE WITH A WATERPROOF MATERIAL SUCH AS WASSER MC TAR OR EQUAL PRIOR TO SHIPMENT TO THE SITE.



TANK #3 PLAN VIEW  
N.T.S.



TANK NO. 3 SECTION

#### BOX NOTES

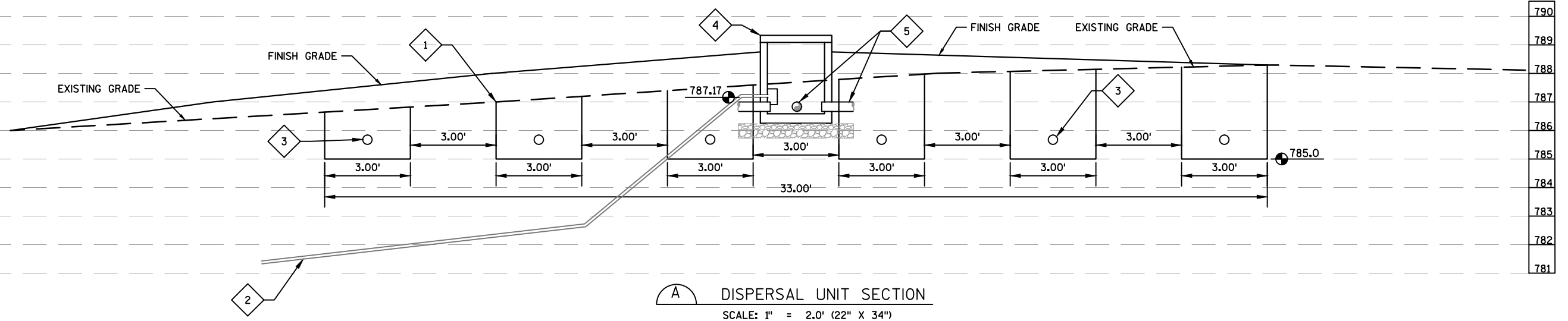
- 1 PRECAST CONCRETE STATE APPROVED TANK
- 2 PROVIDE 2 COURSES OF SEALANT AT JOINT.
- 3 4" SCH 40 PVC SAN. @ MIN. 1/8" / FT. SLOPE. EXTEND MIN. 3.0' ONTO UNDISTURBED SOIL OR CONNECT TO ADJACENT TANK.
- 4 MIN. 4" COMPACTED, GRANULAR BEDDING, 100% PASSING A 1/2" SCREEN. INSTALL AS PER TANK MANUF. INSTRUCTIONS
- 5 24" ID. ACCESS RISER WITH LOCKING LID SEE DETAIL 3/SEPTIC DETAILS 1
- 6 NEMA 3R JUNCTION BOX & SPECIFICATIONS
- 7 4" VENT, SEE DETAIL 3/SEPTIC DETAILS 1
- 8 36" X 36" HATCHWAY, SEE DETAIL 6/SEPTIC DETAILS 2
- 9 1" DIA. SCH 40 PVC FLOAT SUPPORT PIPE, FASTEN TO WALL W/REMOVABLE S.S. BRACKET
- 10 3/16" S.S. PUMP LIFT CABLE
- 11 PUMP REMOVAL SYSTEM W/THREADED COUPLING, GATE VALVE AND 1" STAINLESS STEEL SLIDE RAILS (1 PER PUMP REQ'D) CENTRIPRO A10-12 OR EQUAL, SEE SPECIFICATIONS
- 12 1 1/4" S.S. DISCHARGE PIPE
- 13 1 1/4" FULL FLOW CHECK VALVE (1 PER PUMP)
- 14 EFFLUENT PUMP - (2 REQ'D), PUMP CONDITIONS: 15 GPM @ 30' TDH PUMP SHALL BE GOULDS WE051H OR EQUAL.
- 15 4" PUMP SUPPORT BLOCK
- 16 4" SCH 40 PVC DISCHARGE SUPPORT PIPE EXTEND 3.0' ON TO UNDISTURBED SOIL
- 17 REDUCING FERNCO WATERTIGHT SEAL
- 18 310LF - 1 1/4" SCH 40 PVC DISCHARGE TO DISTRIBUTION BOX
- 19 3/16" WEEP HOLE
- 20 EFFLUENT FILTER CAPABLE OF PASSING >3500 GAL/DAY. ACCEPTABLE MANUF. & MODELS: ZABEL MODEL A100 12 X 28 RATED FOR 4500 GAL/DAY BIOMICROBICS MODEL SNT 818 RATED FOR 6000 GAL/DAY OR EQUAL. SEE SPECIFICATIONS FOR ADDITIONAL DETAIL

#### OPERATING SWITCH NOTES

	DIM.	DESC.	FLOAT	VOLUME	FLOAT ELEV.
4	17"	RESERVE		433 GALS.	
3	2"	ALARM	ALARM	51 GALS.	775.05
2	6"	DOSE	ON	153 GALS.	774.88
1	18"	PUMP COVER	OFF	458 GALS.	774.38



2

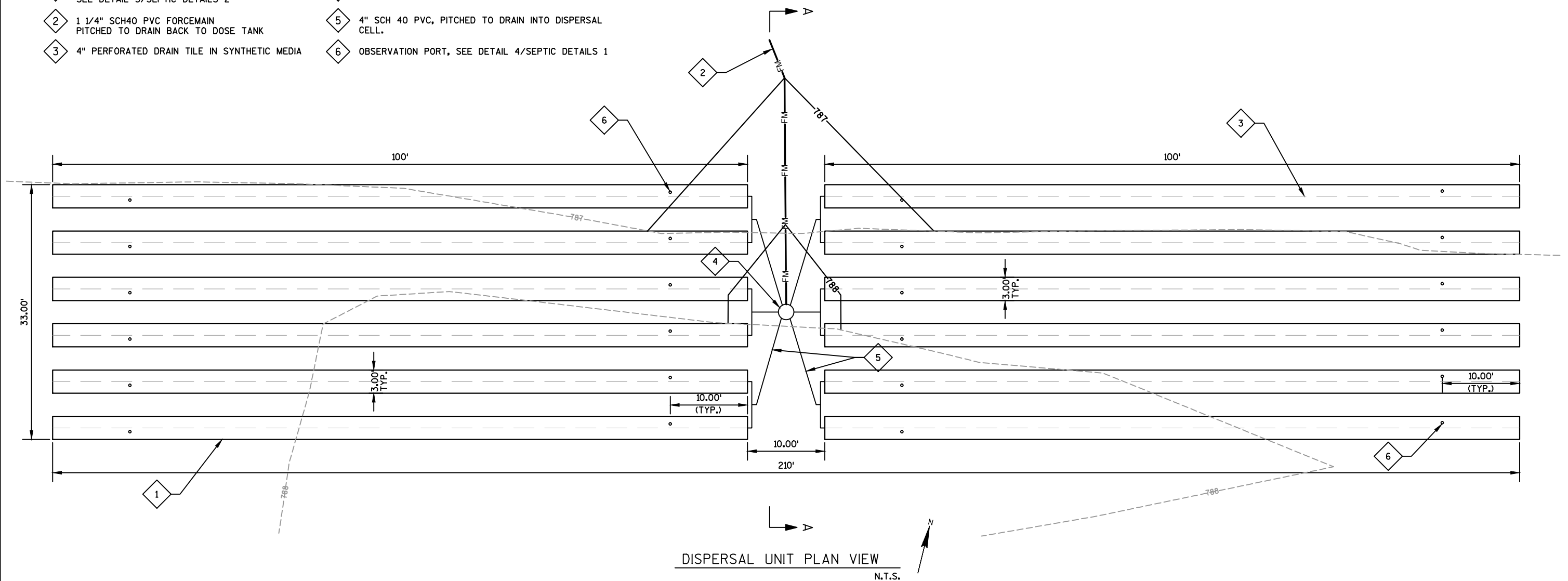
790  
789  
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2

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781

## CONSTRUCTION BOX NOTES

- |   |   |   |   |
|---|---|---|---|
| 1 | 3' X 100' DISPERSAL CELL, (TYP. OF 12)<br>SEE DETAIL 5/SEPTIC DETAILS 2 | 4 | DISTRIBUTION BOX, SEE DETAIL 1/SEPTIC DETAILS 1         |
| 2 | 1 1/4" SCH40 PVC FORCEMAIN<br>PITCHED TO DRAIN BACK TO DOSE TANK        | 5 | 4" SCH 40 PVC, PITCHED TO DRAIN INTO DISPERSAL<br>CELL. |
| 3 | 4" PERFORATED DRAIN TILE IN SYNTHETIC MEDIA                             | 6 | OBSERVATION PORT, SEE DETAIL 4/SEPTIC DETAILS 1         |



PROJECT NO:5640-02-01

HWY: STH 113

COUNTY: COLUMBIA

DISPERSAL UNIT

SHEET

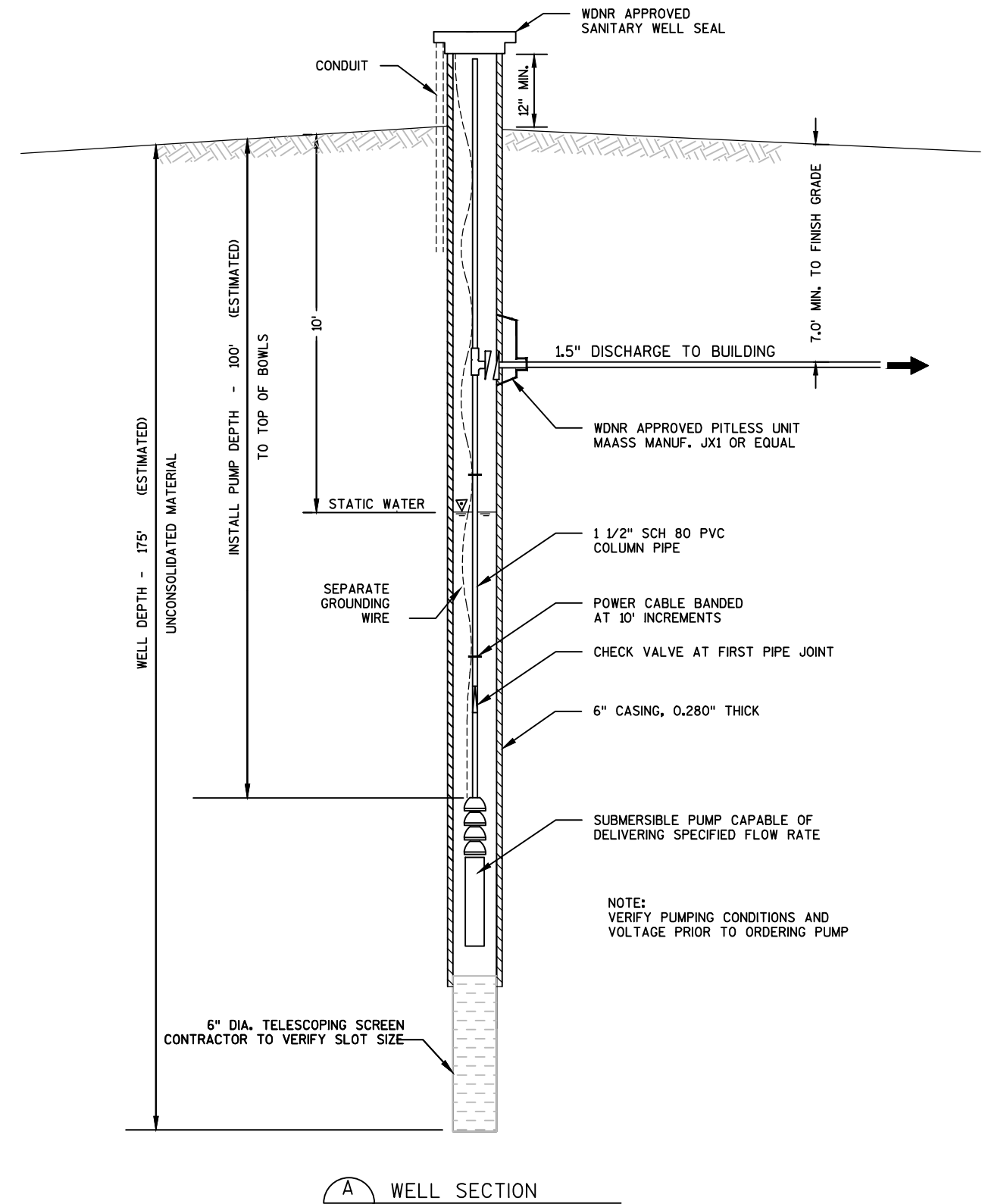
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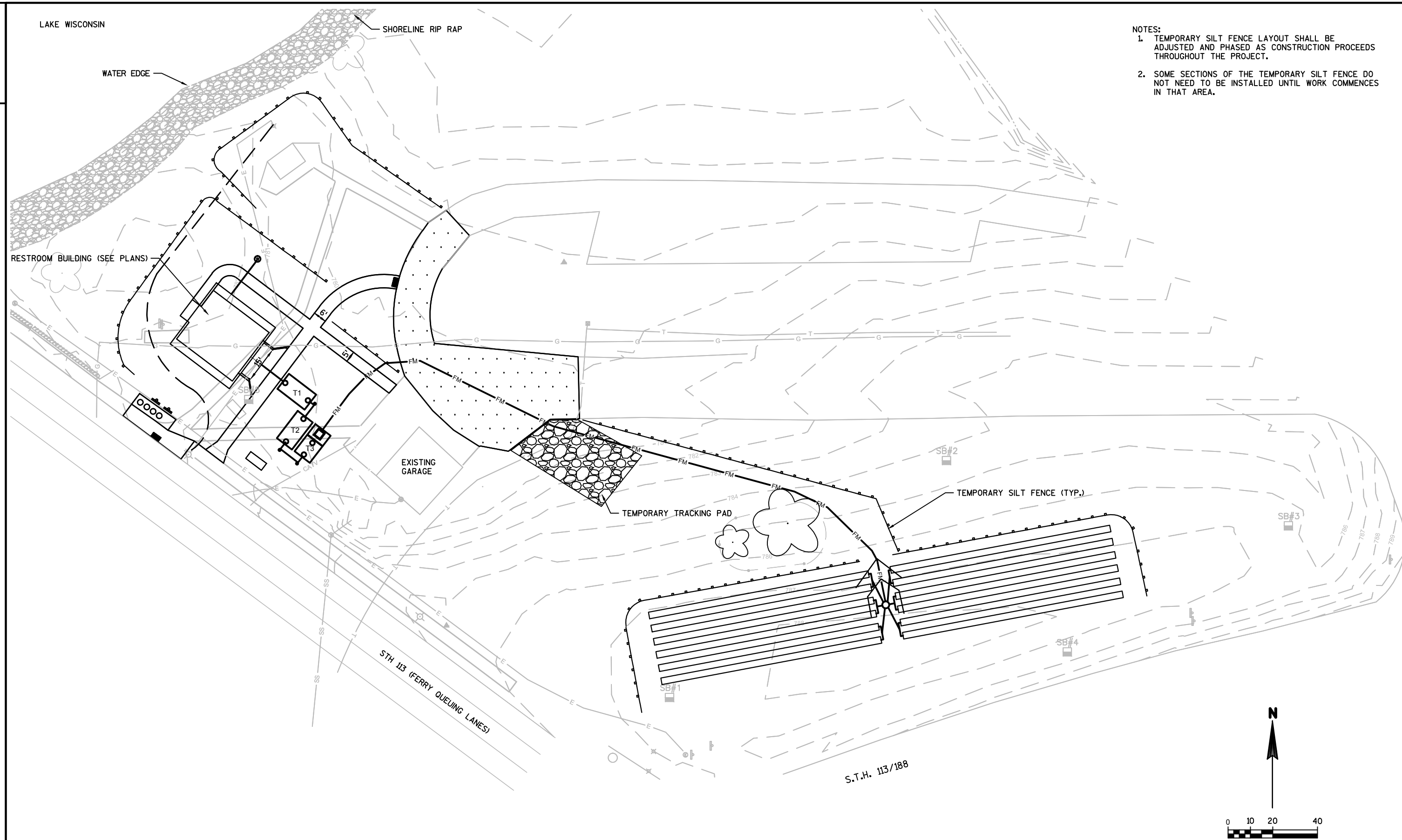
FILE NAME : P:\905\93\00093258\CADD\SHEET\OTHER\00093258 DISPERSAL UNIT.DWG

PLOT DATE : 10/23/2014 12:48 PM

PLOT BY : JEREMY HELLENBRAND PLOT NAME : -----

WISDOT/CADDs SHEET 42

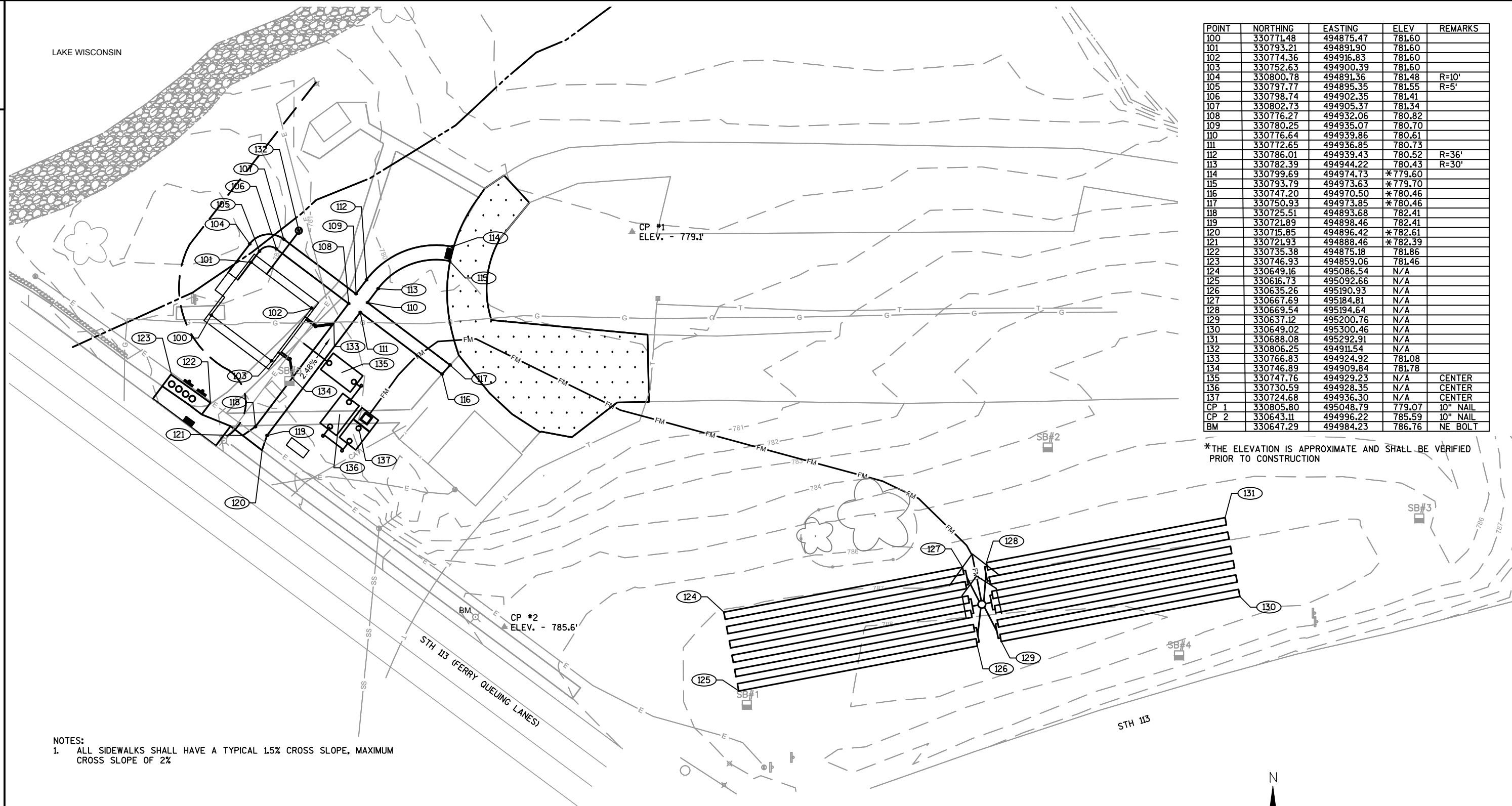




- NOTES:
1. TEMPORARY SILT FENCE LAYOUT SHALL BE ADJUSTED AND PHASED AS CONSTRUCTION PROCEEDS THROUGHOUT THE PROJECT.
  2. SOME SECTIONS OF THE TEMPORARY SILT FENCE DO NOT NEED TO BE INSTALLED UNTIL WORK COMMENCES IN THAT AREA.

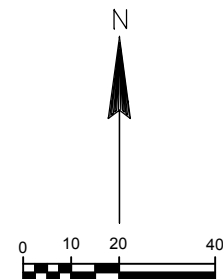


LAKE WISCONSIN



POINT	NORTHING	EASTING	ELEV	REMARKS
100	330771.48	494875.47	781.60	
101	330793.21	494891.90	781.60	
102	330774.36	494916.83	781.60	
103	330752.63	494900.39	781.60	
104	330800.78	494891.36	781.48	R=10'
105	330797.77	494895.35	781.55	R=5'
106	330798.74	494902.35	781.41	
107	330802.73	494905.37	781.34	
108	330776.27	494932.06	780.82	
109	330780.25	494935.07	780.70	
110	330776.64	494939.86	780.61	
111	330772.65	494936.85	780.73	
112	330786.01	494939.43	780.52	R=36'
113	330782.39	494944.22	780.43	R=30'
114	330799.69	494974.73	*779.60	
115	330793.79	494973.63	*779.70	
116	330747.20	494970.50	*780.46	
117	330750.93	494973.85	*780.46	
118	330725.51	494893.68	782.41	
119	330721.89	494898.46	782.41	
120	330715.85	494896.42	*782.61	
121	330721.93	494888.46	*782.39	
122	330735.38	494875.18	781.86	
123	330746.93	494859.06	781.46	
124	330649.16	495086.54	N/A	
125	330616.73	495092.66	N/A	
126	330635.26	495190.93	N/A	
127	330667.69	495184.81	N/A	
128	330669.54	495194.64	N/A	
129	330637.12	495200.76	N/A	
130	330649.02	495300.46	N/A	
131	330688.08	495292.91	N/A	
132	330806.25	494911.54	N/A	
133	330766.83	494924.92	781.08	
134	330746.89	494909.84	781.78	
135	330747.76	494929.23	N/A	CENTER
136	330730.59	494928.35	N/A	CENTER
137	330724.68	494936.30	N/A	CENTER
CP 1	330805.80	495048.79	779.07	10" NAIL
CP 2	330643.11	494996.22	785.59	10" NAIL
BM	330647.29	494984.23	786.76	NE BOLT

\*THE ELEVATION IS APPROXIMATE AND SHALL BE VERIFIED PRIOR TO CONSTRUCTION





SOIL BORING LOG

Boring By: Nummelin Testing Services, Inc.

Project: Restroom and Septic Field Project - Merrimac Ferry Landing  
Location: See Map  
STH 113, Town of West Point, Columbia County, WI

Boring: 1  
Auger: SSA  
Page: 1 of 1  
Drillers: NH / SK  
Date: 8/25/14  
Elevation:

Depth (ft.)	Classification/Description	#	Sample Depth (ft.)	N <sub>60</sub>	Rec (in.)	M	Qp (tsf)	Notes
1	Dark Brown Fine SAND, Some Silt (Topsoil) ----- 10.0' ----- Light Brown Fine SAND, Little Gravel (Probable Fill) (USCS: SP) ----- 1.5' ----- Reddish Brown Fine SAND Little Silt (USCS: SP-SM) ----- 3.5' -----	1	1 - 2.5	15	24	M		
2								
3		2	3.5 - 5	4	18	M		
4								
5								
6	Tan Fine SAND (USCS: SP)	3	6 - 7.5	2	18	S		
7	(Water @ 7.0')							
8		4	8.5 - 10	2	18	S		
9								
10	----- E.O.B. 10.0' ----- ----- Backfilled with Bentonite Chips -----							
11								
12								
13								
14								
15								
16								

Nummelin Testing Services, Inc. NTS # 772.44

SOIL BORING LOG

Boring By: Nummelin Testing Services, Inc.

Project: Restroom and Septic Field Project - Merrimac Ferry Landing  
Location: See Map  
STH 113, Town of West Point, Columbia County, WI

Boring: 2  
Auger: Spoon  
Page: 1 of 1  
Drillers: NH / SK  
Date: 8/25/14  
Elevation:

Depth (ft.)	Classification/Description	#	Sample Depth (ft.)	N <sub>60</sub>	Rec (in.)	M	Qp (tsf)	Notes
1	Dark Brown Fine SAND, Some Silt (Topsoil) ----- 8.0' ----- Light Brown Fine SAND, Little Gravel (Probable Fill) (USCS: SP) ----- 2.0' -----	1	0 - 2		24	M		
2		2	2 - 4		24	M		
3								
4		3	4 - 6		18	M		
5								
6	Tan Fine SAND (USCS: SP)	4	6 - 8		18	M		
7								
8		5	8 - 10		18	M		
9								
10	----- 9.0' ----- Reddish Brown Sandy CLAY (USCS: CL) ----- E.O.B. 10.0' ----- ----- Dry @ Completion ----- ----- Backfilled with Bentonite Chips -----							
11								
12								
13								
14								
15								
16								

Nummelin Testing Services, Inc. NTS # 772.44

SOIL BORING LOG

Boring By: Nummelin Testing Services, Inc.

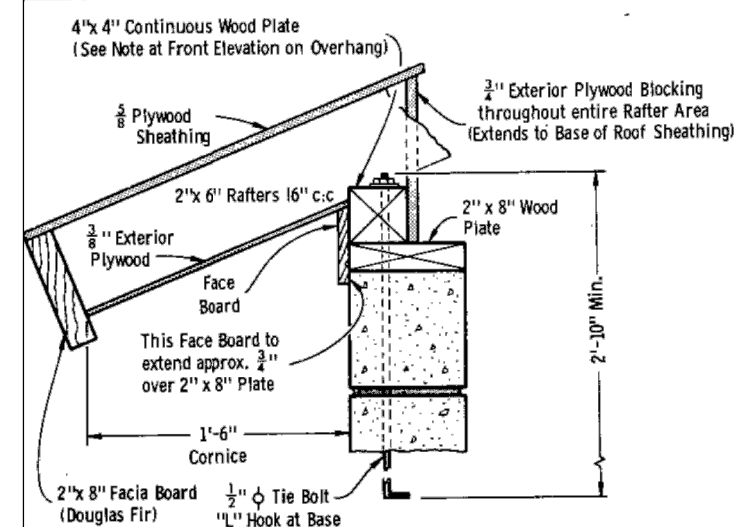
Project: Restroom and Septic Field Project - Merrimac Ferry Landing  
Location: See Map  
STH 113, Town of West Point, Columbia County, WI

Boring: 3  
Auger: Spoon  
Page: 1 of 1  
Drillers: NH / SK  
Date: 8/25/14  
Elevation:

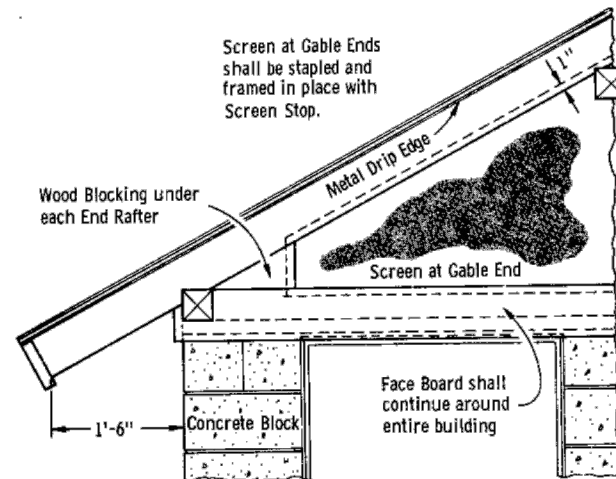
Depth (ft.)	Classification/Description	#	Sample Depth (ft.)	N <sub>60</sub>	Rec (in.)	M	Qp (tsf)	Notes
1	Dark Brown Fine SAND, Some Silt (Topsoil) ----- 10.0' -----	1	0 - 2		24	M		
2		2	2 - 4		24	M		
3								
4		3	4 - 6		18	M		
5								
6	Tan Fine SAND (USCS: SP)	4	6 - 8		18	M		
7								
8		5	8 - 10		24	M		
9								
10	----- 9.5' ----- Reddish Brown Sandy CLAY (USCS: CL) ----- E.O.B. 10.0' ----- ----- Dry @ Completion ----- ----- Backfilled with Bentonite Chips -----							
11								
12								
13								
14								
15								
16								

Nummelin Testing Services, Inc. NTS # 772.44

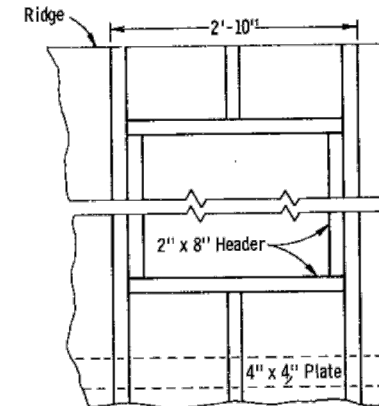
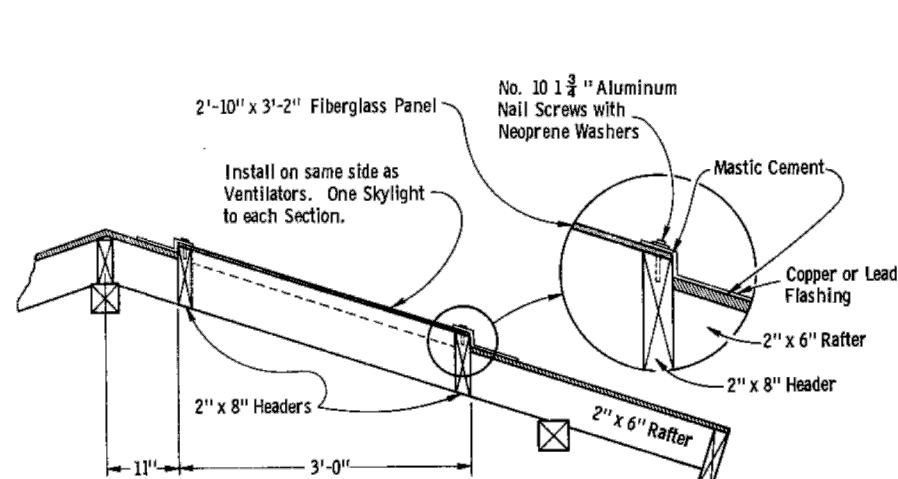




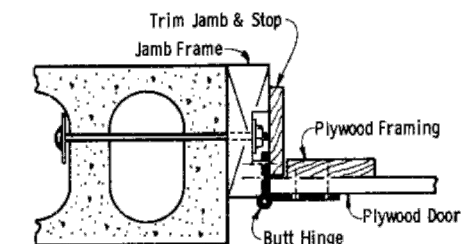
DETAIL OF TIE ROD AT WALLS



HALF SECTION AT GABLE END



PLAN VIEW



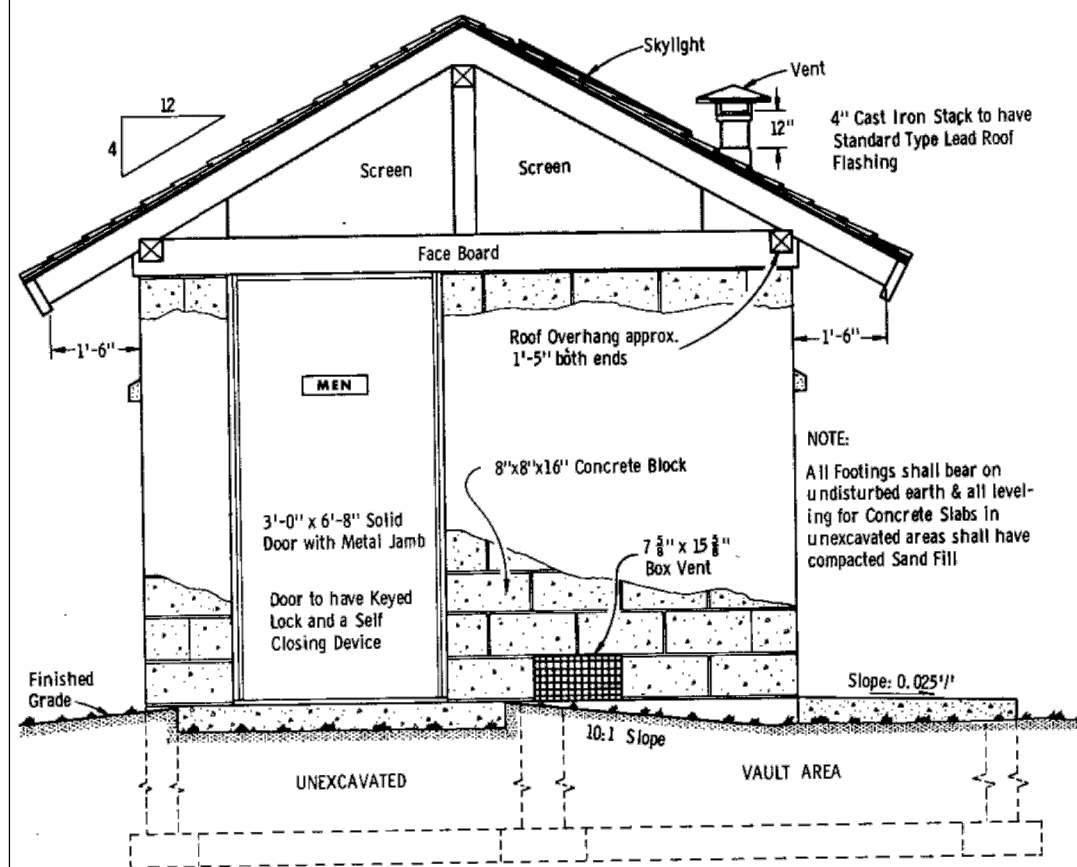
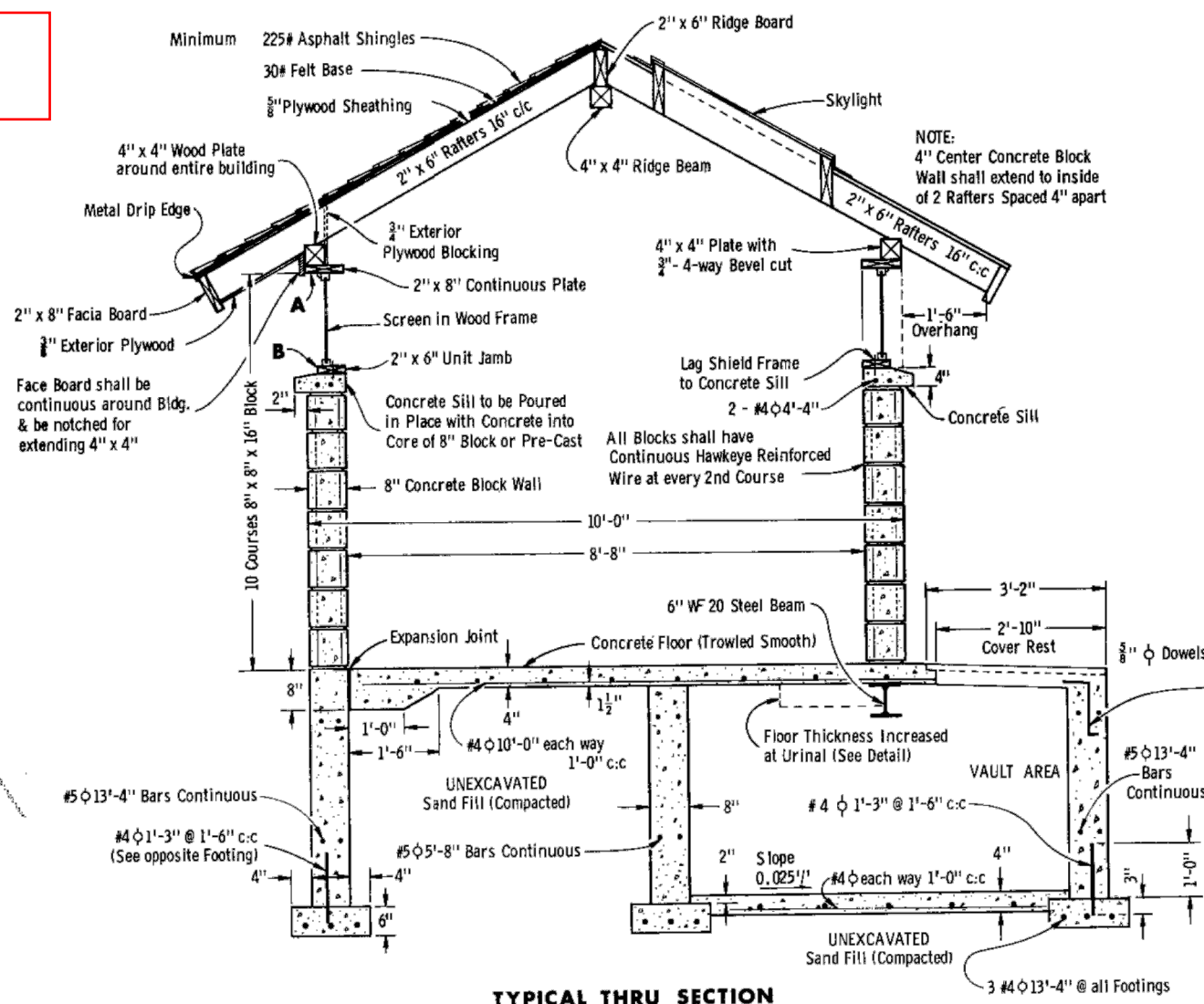
ENTRANCE JAMB DETAIL

This as an Alternate Unit shall consist of 3/4" Exterior Plywood Door Cross Braced & Framed with 3/4" x 4" Plywood. 2" x 6" Jamb Frame with 1" x 5" Trim Jamb & Stop. (Use only if specified).

## GENERAL NOTES

Details of construction not shown on this drawing shall conform to the Pertinent Requirements of the Standard Specifications Section 501 for Concrete Work, Section 505 for Steel Reinforcement, Section 518.23 for Cement Mortar, Section 507 for Lumber, Section 517 for Interior & Exterior Paint and the applicable Special Provisions and/or in accordance with General Construction Practices approved by the Wisconsin Administrative Code of the Wisconsin Industrial Commission.

**NOTE:** This Standard Detail Drawing consists of two plates, and both plates are required when this Standard is called for in the plans.

RIGHT ELEVATION  
Note: Left Side Elevation Identical

TYPICAL THRU SECTION

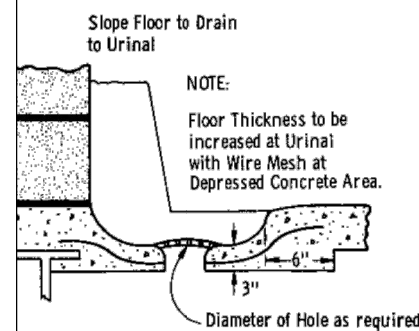
## TOILET BUILDING (WAYSIDES)

State of Wisconsin  
Department of Transportation  
Division of Highways

RECOMMENDED FOR APPROVAL  
5/13/71  
DATE  
APPROVED  
5/13/71  
DATE

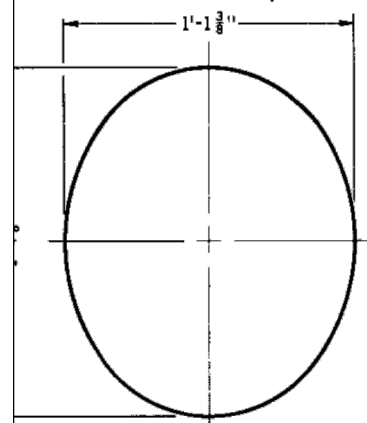
S.D.D. 14C4-1b





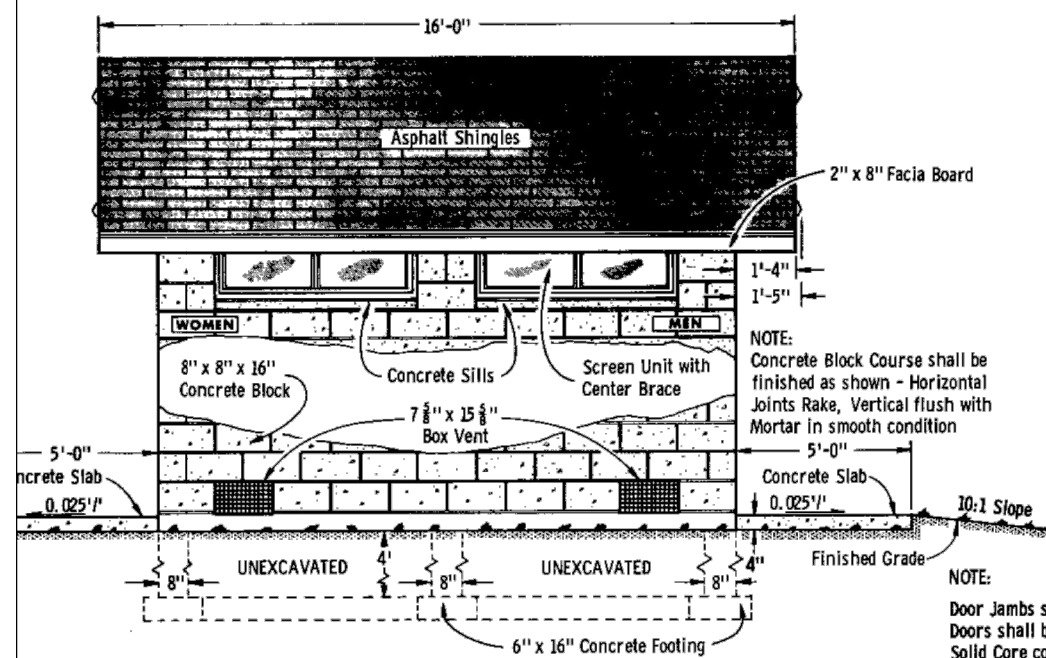
SECTION B-B

NOTE: Stool shall be installed so that the Distance between Stool and Side Walls is equal

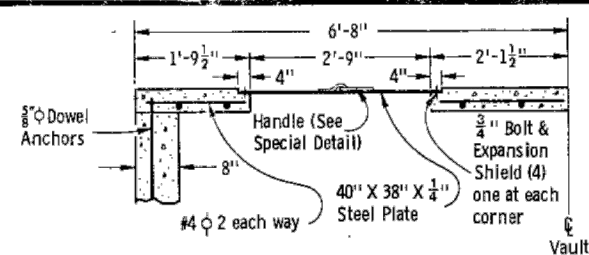
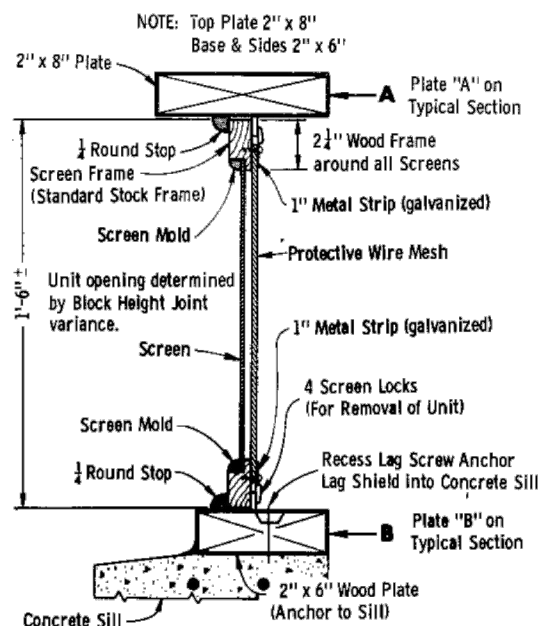


LAYOUT OF HOLE IN CONCRETE FLOOR FOR STOOL

(Verify Dimension on Toilet Template Layout)



FRONT ELEVATION

VAULT OPENING & COVER  
(SECTION Y-Y)

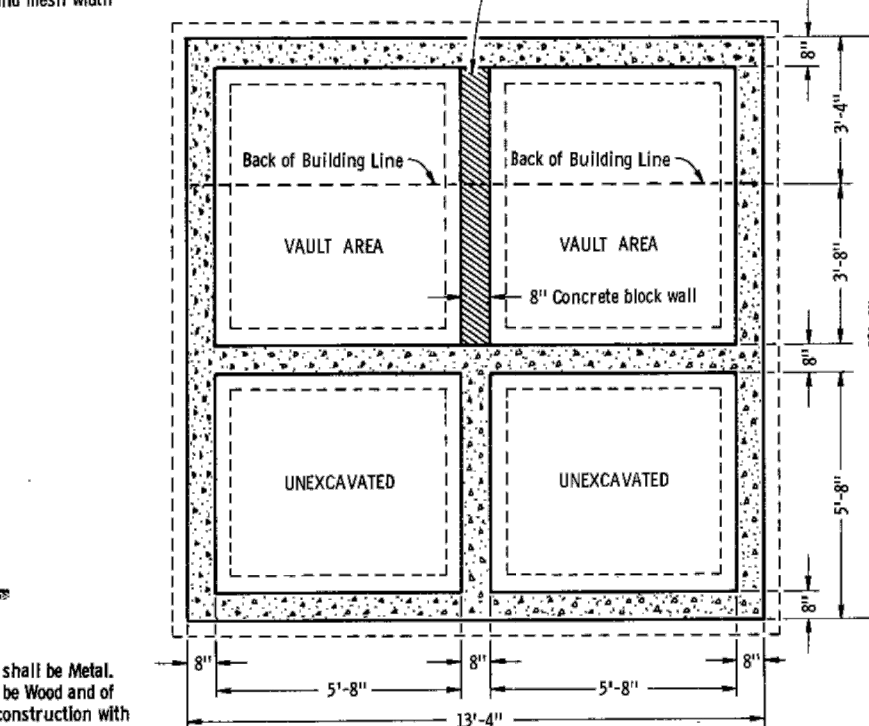
(SECTION C-C) AT SILL

Note: Protective Wire Mesh (galvanized) shall be made of double crimped, full diameter wire. Wire diameter shall be 0.080 inches and mesh width not less than 0.545 inches.

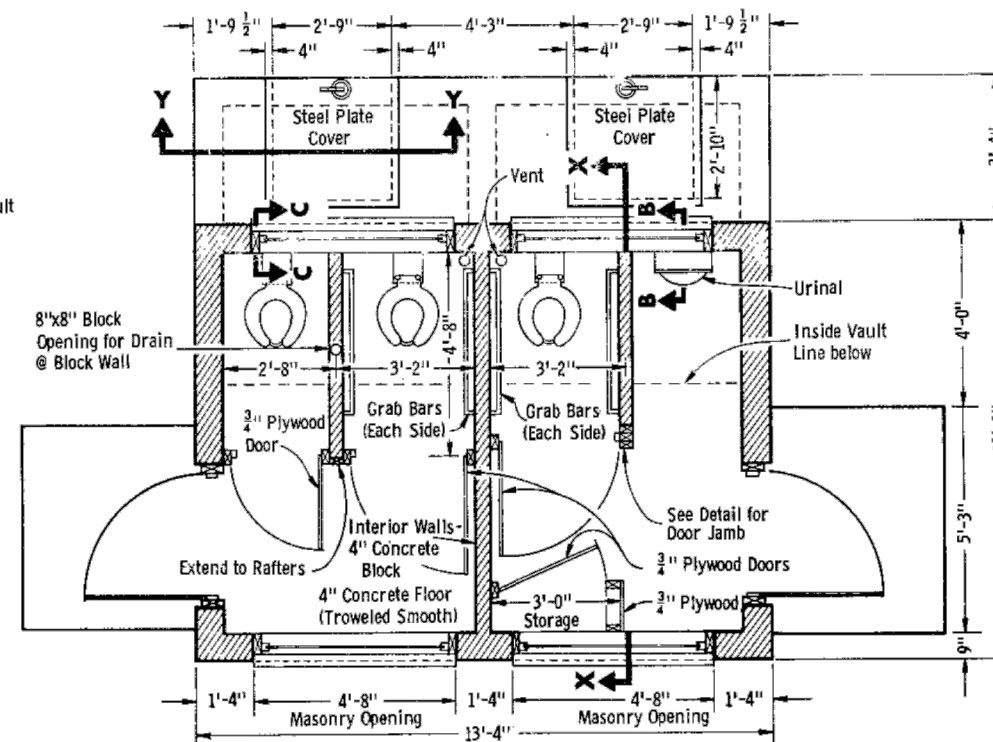
EXISTING PLANS  
FOR INFORMATIONAL  
PURPOSES ONLY

NOTE: All Concrete Footing to be 6\"/>

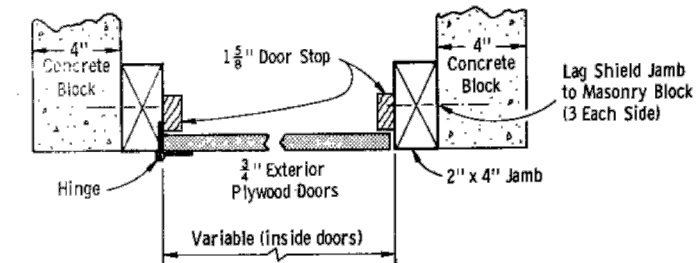
NOTE: 8\"/>



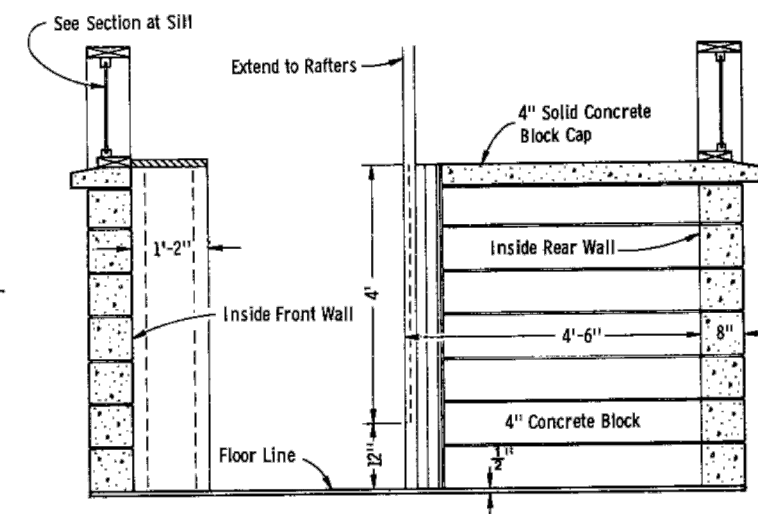
FOUNDATION &amp; FOOTING PLAN



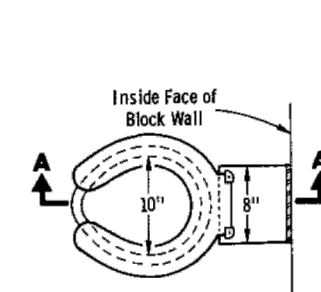
FLOOR PLAN



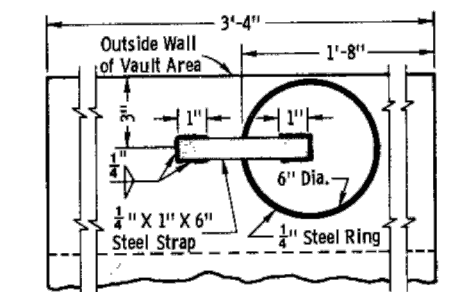
DETAIL AT TOILET &amp; STORAGE ROOM



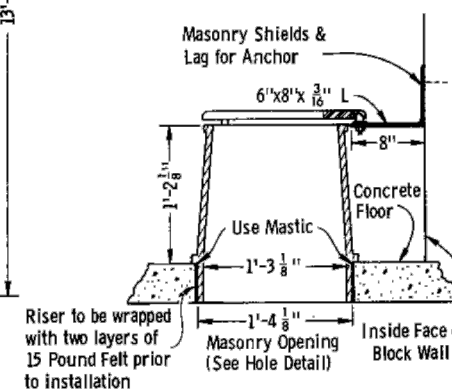
(SECTION X-X) AT FLOOR PLAN



PLAN



DETAIL OF VAULT COVER HANDLE



SECTION A-A

























NOTE: This Standard Detail Drawing consists of two plates, and both plates are required when this Standard is called for in the plans.

TOILET BUILDING (WAYSIDES)

State of Wisconsin  
Department of Transportation  
Division of Highways

S. D. D. 14C4-1a

## ARCHITECTURAL MATERIAL SYMBOLS:

EARTHWORK			
	EARTH	ROCK	FILL
CONCRETE			
	CAST-IN-PLACE	GROUT	
MASONRY			
	BRICK	CMU	STONE
METAL			
	STEEL	ALUM.	
WOOD			
	FINISH	ROUGH	BLOCKING
INSULATION			
	BATT	RIGID	LOOSE
GLASS			
	LARGE SCALE	SMALL SCALE	
FINISHES			
	GYPSUM BOARD	TERRAZZO	ACOUST. TILE
			
	CARPET	PLASTIC LAMINATE	TILE

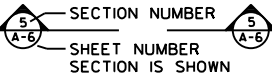
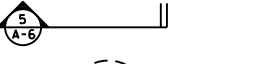
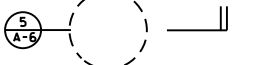




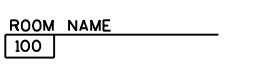

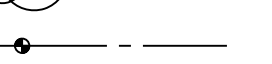
## BUILDING INFORMATION:

CLASS OF CONSTRUCTION .....	TYPE VB
FIRE SPRINKLER SYSTEM .....	NONE
OCCUPANCY CLASSIFICATION .....	BUSINESS GROUP B
OCCUPANT LOAD .....	9 PERSONS
NUMBER OF STORIES .....	ONE
EXIT DISTANCE .....	75 FEET
PROPOSED SIZE	
FIRST FLOOR .....	856 SQ. FT.
VOLUME .....	12,680 CU. FT.

LODI-MERRIMAC SOUTH FERRY LANDING WAYSIDE  
RESTROOM BUILDING  
COLUMBIA COUNTY, WISCONSIN

## INDEX OF DRAWINGS

## ARCHITECTURAL SYMBOLS:

CROSS SECTION CUT	
WALL SECTION	
DETAIL OR SECTION CUT	
INTERIOR ELEVATION	
DOOR IDENTIFICATION	
WINDOW IDENTIFICATION	
NOTE IDENTIFICATION	
ROOM IDENTIFICATION	
REVISION IDENTIFICATION	
ELEVATION CONTROL POINT	

## ARCHITECTURAL ABBREVIATIONS:

AB	ANCHOR BOLT	JT	JOINT
A/C	AIR CONDITIONER	LAV	LAVATORY
ADJ	ADJACENT	MAT'L	MATERIAL
AFF	ABOVE FINISH FLOOR	MECH	MECHANICAL
ALT	ALTERNATE	MH	MANHOLE
ALUM	ALUMINUM	MIN	MINIMUM
APPROX	APPROXIMATE (LY)	MO	MASONRY OPENING
BD	BOARD	MR	MOISTURE RESISTANT
BIT	BITUMINOUS	MTL	METAL
BLDG	BUILDING	NIC	NOT IN CONTRACT
BLK	BLOCK	NTS	NOT TO SCALE
BLKG	BLOCKING	OC	ON CENTER
BM	BEAM	OPP HD	OPPOSITE HAND
BRG	BEARING	PC	PRECAST CONCRETE
BUR	BUILT UP ROOF	PDF	POWER DRIVEN FASTENER
CONC	CONCRETE	PLAM	PLASTIC LAMINATE
CJ	CONTROL JOINT / CONSTRUCTION JOINT	PLBG	PLUMBING
CLG	CEILING	PT	PRESSURE TREATED
CMU	CONCRETE MASONRY UNIT	PLYWD	PLYWOOD
COL	COLUMN	PSF	POUNDS PER SQUARE FOOT
CONTR	CONTRACTOR	PSI	POUNDS PER SQUARE INCH
CONT	CONTINUOUS	P/L	PROPERTY LINE
CPT	CARPET	OT	QUARRY TILE
CT	CERAMIC TILE	RCP	REFLECTED CEILING PLAN
DBL	DOUBLE	RD	ROOF DRAIN
DF	DRINKING FOUNTAIN	REINF	REINFORCING OR REINFORCED
DIA	DIAMETER	REQ'D	REQUIRED
DIM	DIMENSION	ROW	RIGHT OF WAY
DS	DOWN SPOUT	RO	ROUGH OPENING
DT	DRAIN TILE	SIM	SIMILAR
EL	ELEVATION	SPECS	SPECIFICATIONS
EO	EQUAL	SS	STAINLESS STEEL
EWC	ELECTRIC WATER COOLER	SQ	SQUARE
EXP	EXPANSION	SF	SQUARE FOOT
EXT	EXTERIOR	S&V	STAIN AND VARNISH
FE	FIRE EXTINGUISHER	STD	STANDARD
FD	FLOOR DRAIN	STL	STEEL
FDN	FOUNDATION	T&B	TOP AND BOTTOM
FIN	FINISHED	T&G	TONGUE & GROOVE
FLR	FLOOR	TB	TOP OF BEAM
FRP	FIBERGLASS REINFORCED PANEL	TF	TOP OF FOOTING
FT	FOOT OR FEET	TW	TOP OF WALL
FTG	FOOTING	THRU	THROUGH
GALV	GALVANIZED	TYP	TYPICAL
GC	GENERAL CONTRACTOR	UNEX	UNEXCAVATED
GYP	GYPSUM	UNO	UNLESS NOTED OTHERWISE
HB	HOSE BIBB	UV	UNIT VENTILATOR
HDR	HEADER	VCT	VINYL COMPOSITION TILE
HGT	HEIGHT	VERT	VERTICAL
HM	HOLLOW METAL	VWC	VINYL WALL COVERING
HORIZ	HORIZONTAL	WD	WOOD
HTG	HEATING	WH	WATER HEATER
HVAC	HEATING/VENTILATING/ AIR CONDITIONING	W/O	WITH OUT
INSUL	INSULATION	WT	WEIGHT
INV	INVERT	WWM	WIRE WELDED MESH

## ARCHITECTURAL / STRUCTURAL

A-1	BUILDING DRAWING INDEX
A-2	FOUNDATION PLAN AND DETAILS
A-3	FLOOR PLAN AND SCHEDULES
A-4	EXTERIOR ELEVATIONS
A-5	BUILDING CROSS-SECTIONS AND WALL SECTIONS
A-6	DETAILS
A-7	DETAILS

## PLUMBING

PL-1	PLUMBING SITE PLAN
PL-2	PLUMBING PLAN AND SCHEDULES

## HEATING AND VENTILATING

HV-1	HVAC FLOOR PLAN AND SCHEDULES
------	-------------------------------

## ELECTRICAL

E-1	ELECTRICAL FLOOR PLAN AND SYMBOLS LIST
E-2	ELECTRICAL SCHEDULES



## LINTEL SCHEDULE

MARK	SYMBOL	DESCRIPTION
L-1		8" BOND BEAM w/ (2) #5 BARS, L 3x3x1/4" AND L 4x3x1/4" LLH
L-2		8" WIDE x 16" TALL BOND BEAM w/ (2) #5 BARS TOP AND BOTTOM AND L 4x3x1/4" x 5/16" LLV AND BACK TO BACK
L-3		8" CMU BOND BEAM w/ (2) #5 BARS CONT.
L-4		8" CAST IN PLACE CONCRETE BEAM w/ (2) #5 BARS CONT. - SEE DETAIL 10/A-7

## NOTES

1. PROVIDE 8" MIN. BEARING (BACK-UP WALL), UNO. GROUT SOLID LINTEL BEARING AREA.
2. CENTER LINTELS WHERE SHOWN IN BEARING WALL.
3. MISC. OPENINGS IN EXTERIOR CAVITY WALL: LESS THAN 24" WIDE - L-1; IN SINGLE WYTHE WALL: LESS THAN 40" WIDE - L-3.
5. ALL STEEL LINTELS FOR EXTERIOR WALLS SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION. THE EXPOSED LINTEL SHALL BE PAINTED AFTER INSTALLATION.

## DESIGN LOADINGS

BUILDING CATEGORY	II
ROOF SNOW LOAD	
GROUND SNOW LOAD, P <sub>g</sub>	30 psf
FLAT-ROOF SNOW LOAD, P <sub>g</sub>	24 psf
SLOPED ROOF SNOW LOAD, P <sub>s</sub>	24 psf
SNOW EXPOSURE FACTOR, C <sub>e</sub>	1.0
SNOW IMPORTANCE FACTOR, I	1.0
THERMAL FACTOR, C <sub>t</sub>	1.1
ROOF SLOPE FACTOR, C <sub>s</sub>	1.0
UNBALANCED LEEWIND LOAD	36 psf
UNBALANCED WINDWARD LOAD	0 psf

WIND LOAD	
BASIC WIND SPEED	90 mph
WIND IMPORTANCE FACTOR, I	1.0
WIND EXPOSURE	C
HEIGHT AND EXPOSURE ADJUSTMENT COEFFICIENT	1.21

EARTHQUAKE DESIGN DATA	
SEISMIC FACTOR, I <sub>e</sub>	1.0
SEISMIC DESIGN CATEGORY	A
SEISMIC USE GROUP	I
SPECTRAL RESPONSE COEFFICIENTS	
S <sub>ds</sub>	0.1027
S <sub>d1</sub>	0.065
SITE CLASS	D
ANALYSIS PROCEDURE - SECTION 1604.4	

ROOF LOADS	
PONDING REQUIRED LOAD	NONE
RAIN REQUIRED LOAD	NONE
DEAD LOAD	15 psf
LIVE LOAD	18 psf

## DESIGN STRESSES

CAST-IN-PLACE CONCRETE	
FOOTINGS	f'c = 3500 psi
WALLS	f'c = 3500 psi
SLAB ON GRADE	f'c = 4000 psi
OTHER	f'c = 3500 psi

STEEL	
REINFORCING	f <sub>y</sub> = 60 ksi
STRUCTURAL	f <sub>y</sub> = 36 ksi

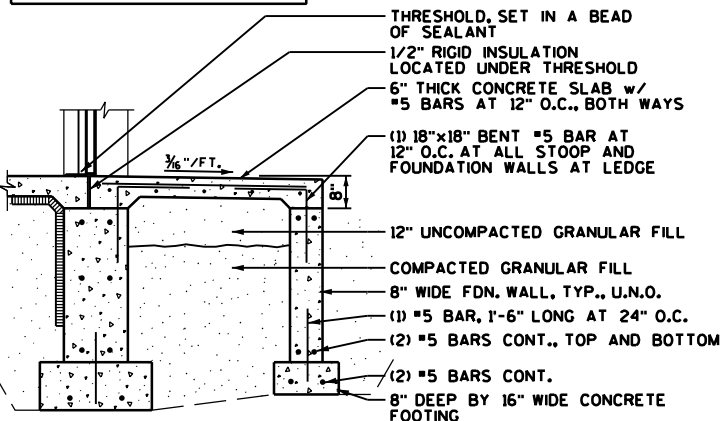
BOLTS	
ANCHOR	A36
HIGH STRENGTH	A325N
EXPANSION	WEDGE TYPE

WELDING ELECTRODES	ET0XX
--------------------	-------

SOIL BEARING PRESSURE CAPACITY	
PRESUMED	q = 2000 psf

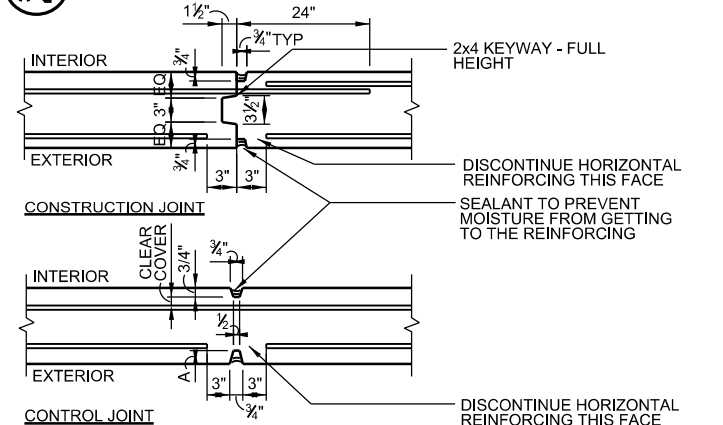
LUMBER	
2x4's- SPF STANDARD GRADE, F <sub>b</sub>	= 550 psi
2x6's- SPF NO. 2 OR BETTER, F <sub>b</sub>	= 875 psi
2x8's- HF NO. 2 AND BETTER, F <sub>b</sub>	= 850 psi
2x10's- HF NO. 2 AND BETTER, F <sub>b</sub>	= 850 psi
2x12's- DF NO. 2 AND BETTER, F <sub>b</sub>	= 850 psi
P.T.- SYP NO. 2 AND BETTER, F <sub>b</sub>	= 1050 psi
SHEATHING	APA RATED SHEATHING

NOTE:  
STOOP IS A STRUCTURAL SLAB;  
THEREFORE, REINFORCEMENT AND  
SLAB THICKNESS ARE CRITICAL



1 TYPICAL STOOP DETAIL

A-2 NOT TO SCALE



2 TYP. SLAB ON GRADE JOINT (C.J.) DETAIL

A-2 NOT TO SCALE

CONTROL JOINT DIMENSIONS	
FOUNDATION WALL THICKNESS	
	8" 10" 12" 16"
A	1 1/4" 1 3/4" 2 1/4" 3 1/4"

PROVIDE JOINTS FULL HEIGHT OF WALL BOTH SIDES OF WALL, UNO

3 TYP. FOUNDATION WALL JOINT (C.J.) DETAIL

A-2 NOT TO SCALE

## ROOF TRUSS DESIGN LOADS

1. ALL TRUSSES SHALL BE DESIGNED FOR 15 PSF DEAD LOAD (7 PSF TOP CHORD, 8 PSF BOTTOM CHORD), LIVE LOAD IS ON HORIZONTAL PROJECTION.
2. ALL TRUSSES SHALL BE DESIGNED FOR UPLIFT PER IBC.
3. LIMIT LIVE LOAD DEFLECTION TO L/360, UNLESS NOTED OTHERWISE.

## REINFORCING NOTES

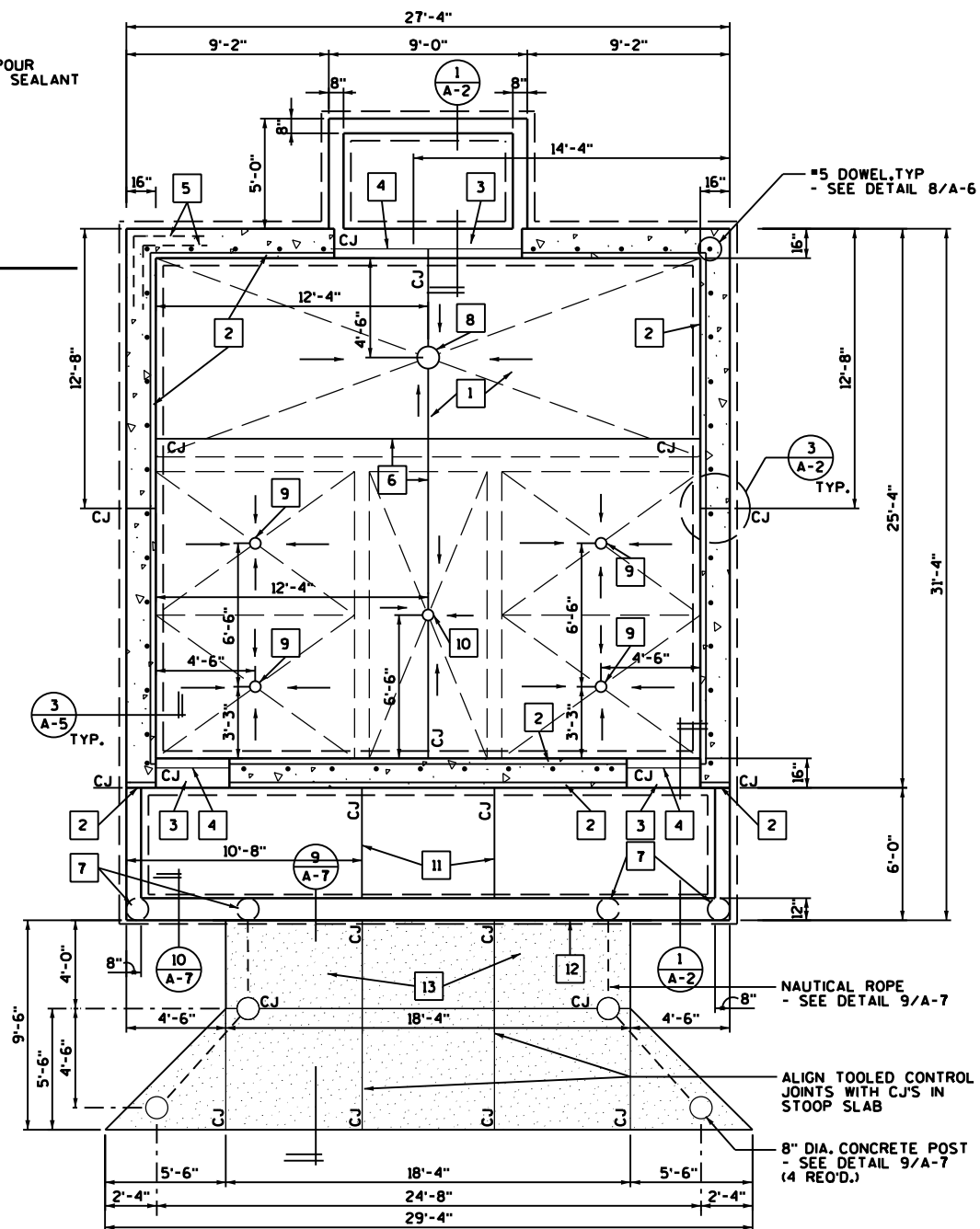
1. REINFORCING SHALL BE DETAILED IN ACCORDANCE WITH ACI SP-66
2. ALL LAPS SHALL BE CLASS 'B' - PER ACI 318-02, UNLESS NOTED OTHERWISE ON THE DESIGN DRAWINGS OR UNLESS THE DETAILER TAKES SPECIAL CARE TO PROVIDE STAGGERED LAPS. USE TOP BAR LAP LENGTHS FOR ALL HORIZONTAL WALL BARS AND FOR TOP BARS IN SLABS.
3. LAP LENGTH SHALL BE SPECIFICALLY NOTED ON PLACING DRAWINGS WHERE MORE THAN ONE BAR MAKES UP A CONTINUOUS STRING.
4. BAR PLACEMENT TOLERANCES SHALL BE AS SPECIFIED IN THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI) MANUAL OF STANDARD PRACTICE, CURRENT EDITION.

## STEEL REINFORCING PROTECTION

FOOTINGS - BOTTOM & SIDES	3"
FOOTINGS - TOP	2"
PERIMETER WALLS - #5 BARS & SMALLER	1 1/2"
PERIMETER WALLS - #6 BARS & LARGER	2"
INTERIOR WALLS	3/4"
SLABS - BOTTOM & SIDES, TYP. UNO	1 1/2"
SLABS - TOP, TYP. UNO	3/4"
COLUMNS	2 1/2"
BEAMS	1 1/4"

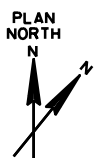
## BOX NOTES

- 1 4" THICK CONCRETE SLAB w/ 6x6-W2.9xW2.9 WWM OVER VAPOR BARRIER & MIN. 6" COMPACTED GRAVEL BASE
- 2 1 1/2" WIDE x 4" DEEP LEDGE - SEE SECTION 3/A-5
- 3 HOLD TOP OF FOUNDATION WALL DOWN 8" AT DOOR (OPENING), TYP.
- 4 LOCATE SLAB CONSTRUCTION JOINT BELOW DOOR THRESHOLD, TYP.
- 5 CORNER REINFORCING, TYP. - 36"x36" CORNER BAR OF THE SAME SIZE AND NUMBER AS THE HORIZONTAL WALL AND FOOTING REINFORCING
- 6 SLAB CONTROL/ CONSTRUCTION JOINT (C.J.) LOCATION - SEE DETAIL 2/A-2
- 7 12" DIA. CONCRETE COLUMN LOCATION w/ (4) #5 DOWELS INTO FOUNDATION - SEE FLOOR PLAN FOR EXACT LOCATION AND DETAIL 10/A-7
- 8 FLOOR DRAIN - TOP OF FLOOR DRAIN 1" BELOW TOP OF FOUNDATION WALL ELEVATION
- 9 FLOOR DRAIN - TOP OF FLOOR DRAIN 3/4" BELOW TOP OF FOUNDATION WALL ELEVATION
- 10 FLOOR DRAIN - TOP OF FLOOR DRAIN 1" BELOW TOP OF FOUNDATION WALL ELEVATION
- 11 TOOLED CONTROL JOINT LOCATIONS (DO NOT SAWCUT THESE JOINTS)
- 12 1/2" EXPANSION JOINT MATERIAL
- 13 CONCRETE SIDEWALK, 4 INCH, w/ TOOLED JOINTS AS SHOWN



FOUNDATION/ FOOTING PLAN

1/8" = 1'-0" (11x17)



## ROOM FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS				CEILING		ROOM NO.
				NORTH	EAST	SOUTH	WEST	MAT'L	HEIGHT	
101	STORAGE	F2	B1	W1	W1	W1	W1	C2	VARIES	101
102	WOMEN	F1	B2	W1	W1	W1	W1	C1	VARIES	102
103	MECHANICAL	F2	B1	W1	W1	W1	W1	C2	VARIES	103
104	MEN	F1	B2	W1	W1	W1	W1	C1	VARIES	104

FLOOR:  
F1. CONCRETE (WET CURED) - EPOXY FINISH  
F2. CONCRETE - SEALED

WALLS:  
W1. CMU - EPOXY PAINT

BASE:  
B1. NONE  
B2. 6" HIGH EPOXY FLOOR FINISH

CEILING:  
C1. T&G WOOD - STAIN & VARNISH  
C2. 5/8" PLYWOOD - PAINT

## GENERAL NOTES:

- DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT BEFORE CONTINUING WITH CONSTRUCTION.
- ALL DIMENSIONING IS TO FACE OF CMU OR CONCRETE.
- OPENINGS FOR VENTILATING AND PLUMBING WORK IN WALLS, FLOORS, ROOF, CEILING, ETC., SHALL BE PROVIDED BY G.C., LOCATION AND SIZE OF THESE OPENINGS SHALL BE THE RESPONSIBILITY OF THE HVAC AND PLUMBING CONTRACTOR.
- EXTERIOR WALL AND RELATED EXTERIOR OPENINGS BY ALL TRADES SHALL BE FLASHED AND CAULKED BY THE G.C. ALL ROOFING PENETRATIONS SHALL BE FLASHED BY THE ROOFING CONTRACTOR.
- PERFORM ALL MASONRY WORK REQUIRED IN CONJUNCTION WITH INSTALLATION OF WORK BY ALL TRADES.

## DOOR AND FRAME SCHEDULE

OPENING NO.	DOOR					FRAME					FIRE LABEL	HARDWARE SET	REMARKS	OPENING NO.
	TYPE	MAT'L	NOMINAL SIZE			TYPE	MAT'L	SECTIONS						
			WIDTH	HEIGHT	THICK			HEAD	JAMB	SILL				
1	A	HM	PAIR 4'-0"	7'-0"	1¾"	F-2	HM	1/4-7	3/4-7	1/4-2	2	1.	1	
2	A	HM	3'-0"	7'-0"	1¾"	F-1	HM	1/4-7	3/4-7	1/4-2	1	1. 2.	2	
3	A	HM	3'-0"	7'-0"	1¾"	F-1	HM	6/8-6	6/8-6		3		3	
4	A	HM	3'-0"	7'-0"	1¾"	F-1	HM	1/4-7	3/4-7	1/4-2	1	1. 3.	4	

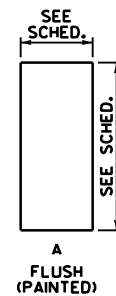
## REMARKS:

- INSULATED DOOR
- PAINTED "WOMEN" IN 3" HIGH LETTERS ON EXTERIOR OF DOOR.
- PAINTED "MEN" IN 3" HIGH LETTERS ON EXTERIOR OF DOOR.

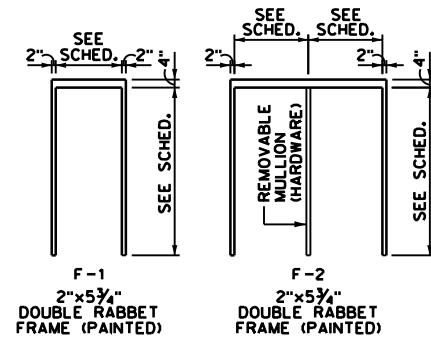
## BOX NOTES

- FIRE EXTINGUISHER w/ BRACKET LOCATION
- LAUNDRY TUB - SEE PLUMBING
- MOP BASIN - SEE PLUMBING
- DOWNSPOUT w/ SPLASHBLOCK LOCATION
- T.R. SIGNAGE - MOUNT 60" A.F.F. TO CENTERLINE OF SIGN AND PROVIDE 8" x 8" DECORATIVE CMU TYPE 'B' - COLOR 1 BEHIND SIGN - SEE DETAIL 5/A-6
- WATER HEATER ON SHELF - SEE PLUMBING
- DRINKING FOUNTAIN w/ SPOUT HEIGHT AT 36" ABOVE FLOOR
- DRINKING FOUNTAIN w/ SPOUT HEIGHT AT 42" ABOVE FLOOR
- HAND DRYER LOCATION - SEE ELECTRICAL
- SOAP DISPENSER LOCATION
- 12" DIAMETER STRUCTURAL CONCRETE COLUMN - SEE DETAIL 10/A-7
- 12" DIAMETER DECORATIVE CONCRETE COLUMN x 6'-10" HIGH w/ LIGHT FIXTURE MOUNTED ON TOP, COLUMN FORMED w/ A SMOOTH INTERIOR SONOTUBE - SEE DETAIL 9/A-7. - SEE DETAIL 10/A-7 FOR REINFORCING
- PRIVACY SCREEN - SEE DETAIL 5/A-7
- FULL HEIGHT (1) #5 BAR CENTERED IN 8" CMU AT 24" O.C. (GABLE WALL)
- GROUT FIRST CORE SOLID EACH SIDE OF DOOR OPENING AND REINFORCE WITH (1) #5 BAR UP TO LINTEL BEARING, TYP
- BABY CHANGING STATION LOCATION
- INTERIOR ELEVATIONS - SEE DETAIL 1/A-3
- ATTIC ACCESS HATCH - SEE DETAIL 7/A-7

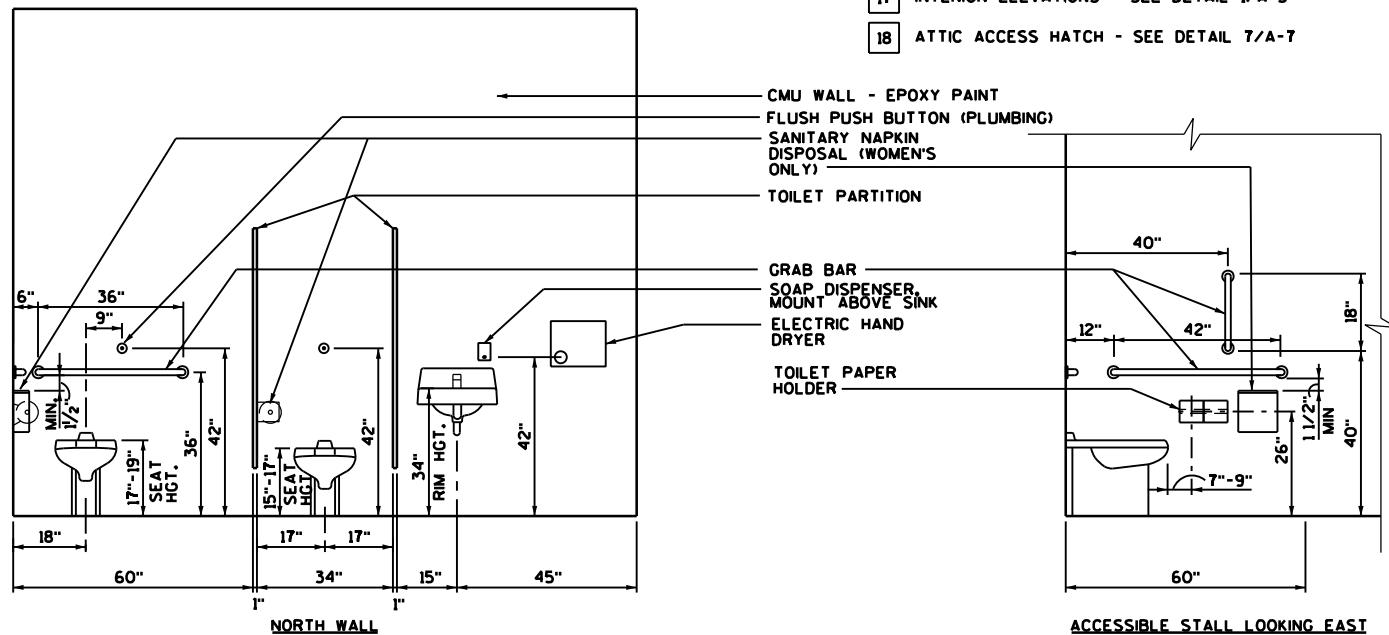
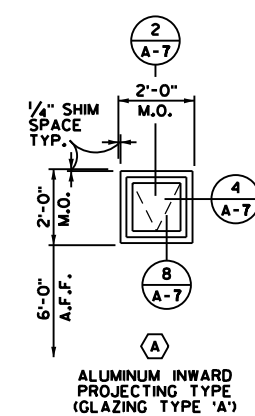
## DOOR TYPE



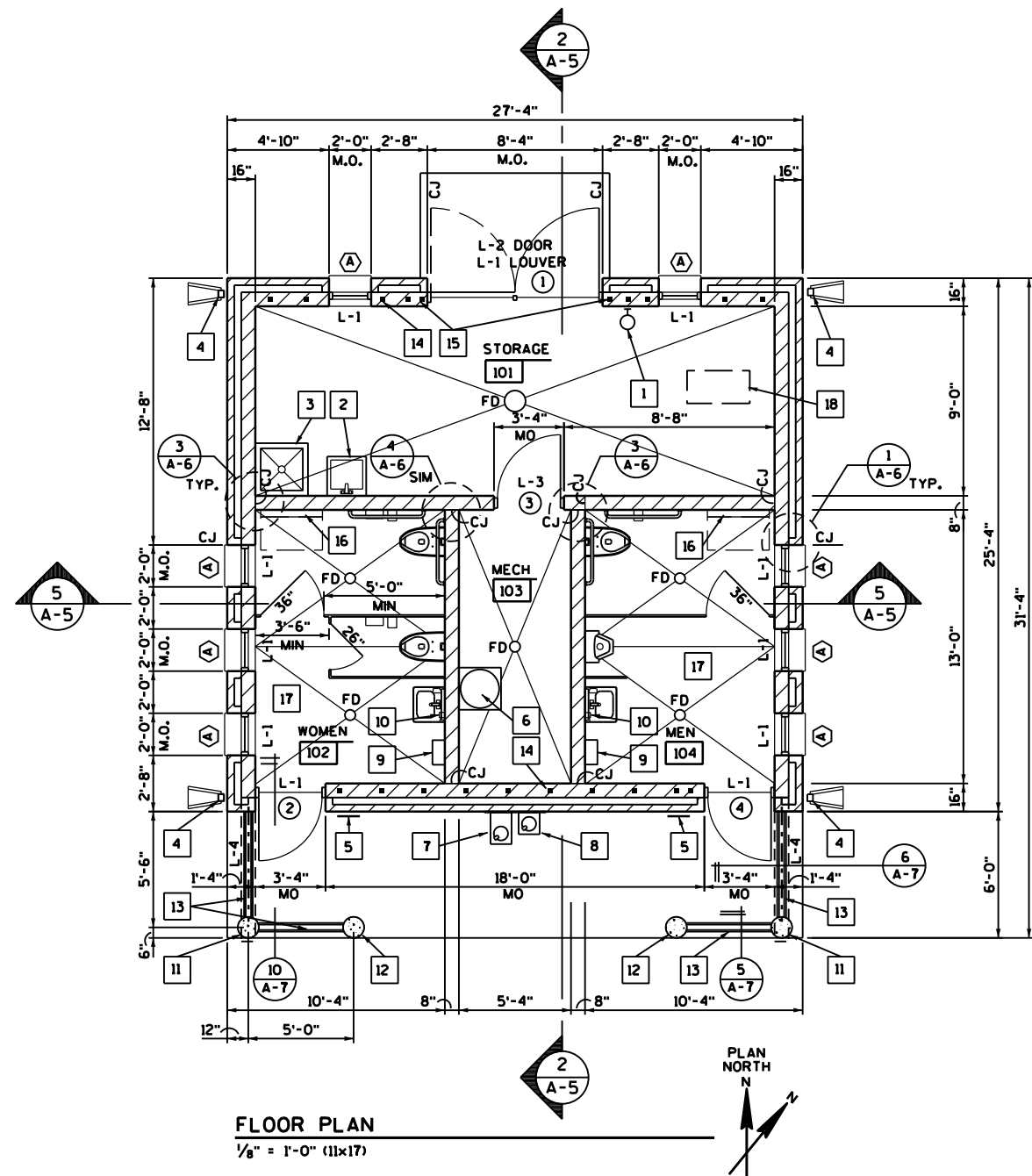
## FRAME TYPES



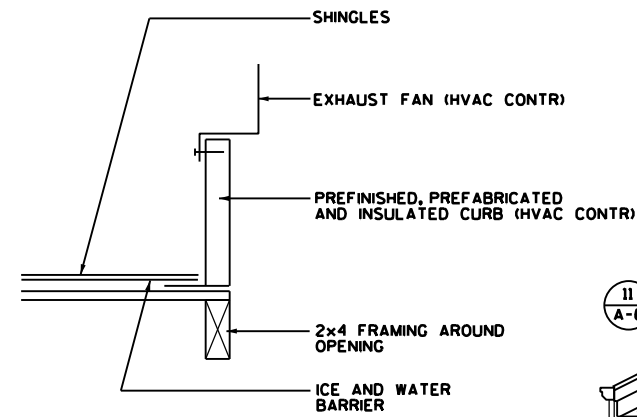
## WINDOW TYPE



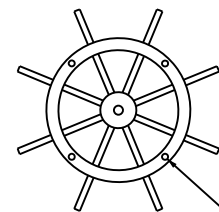
1 WOMEN T.R. 102 INTERIOR ELEVATIONS (MEN T.R. 104 OPPOSITE HAND - SIMILAR)  
A-3 1/8" = 1'-0" (11x17)



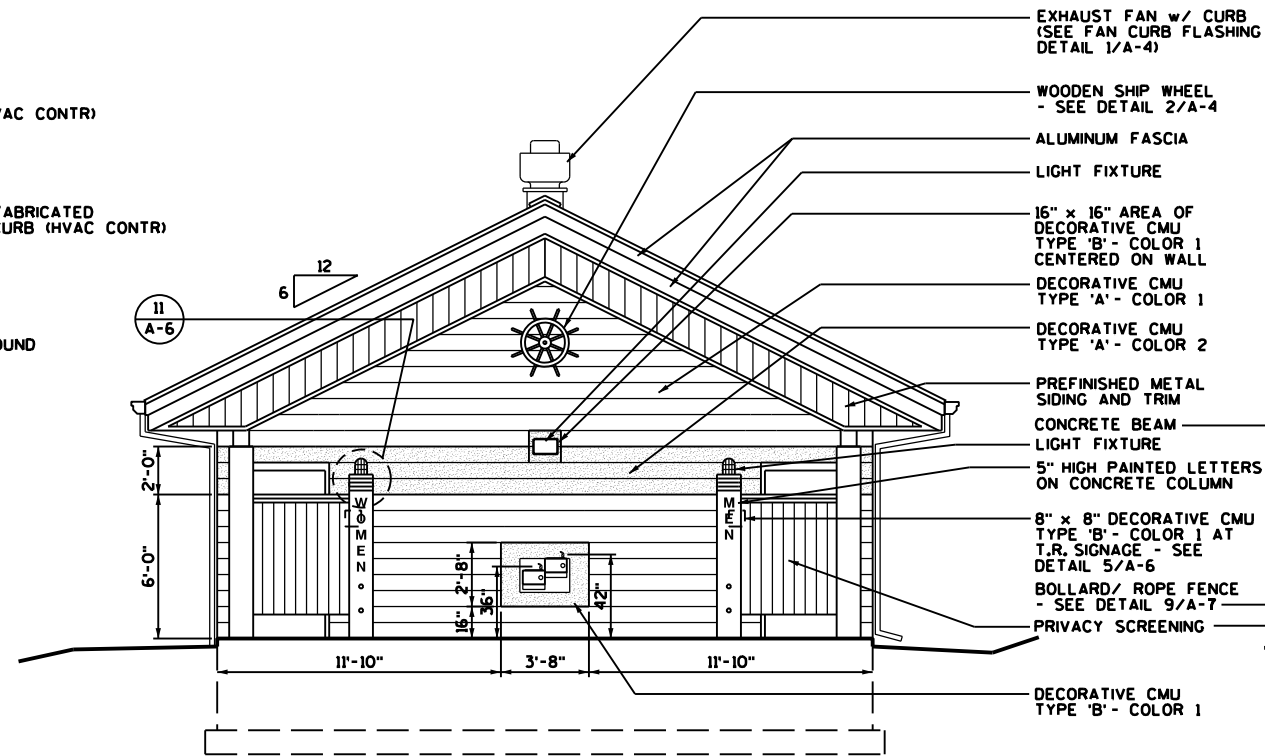
FLOOR PLAN  
1/8" = 1'-0" (11x17)



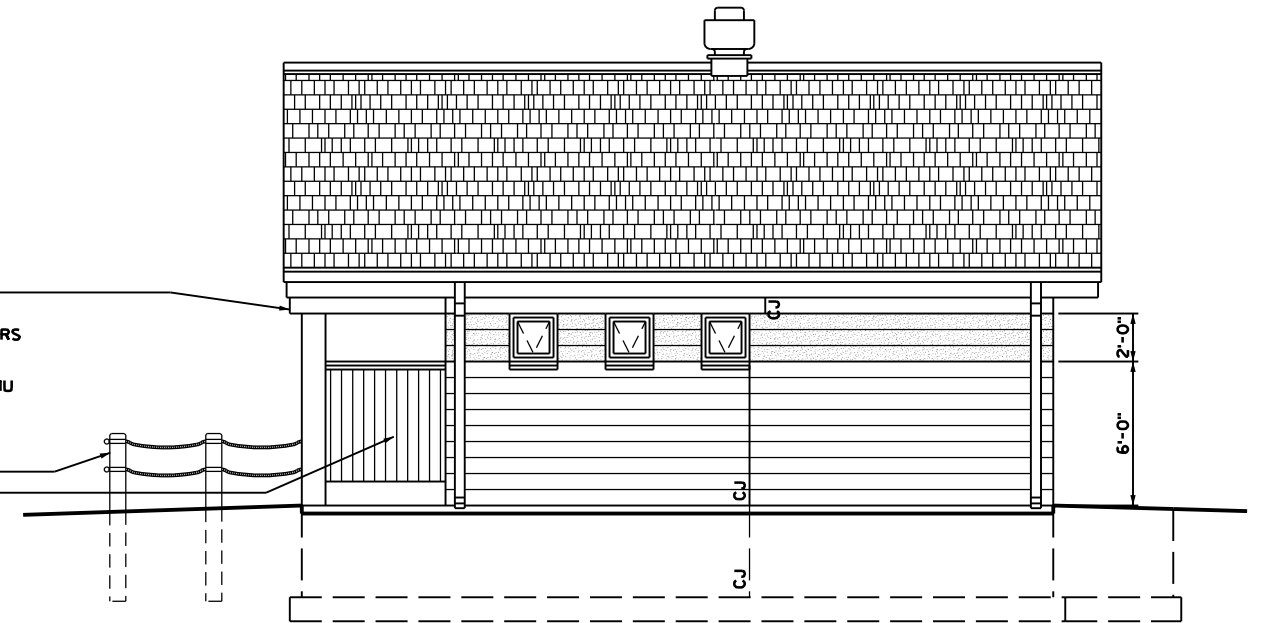
**1**  
A-4  
**ROOF EXHAUST FAN CURB FLASHING DETAIL**  
NOT TO SCALE



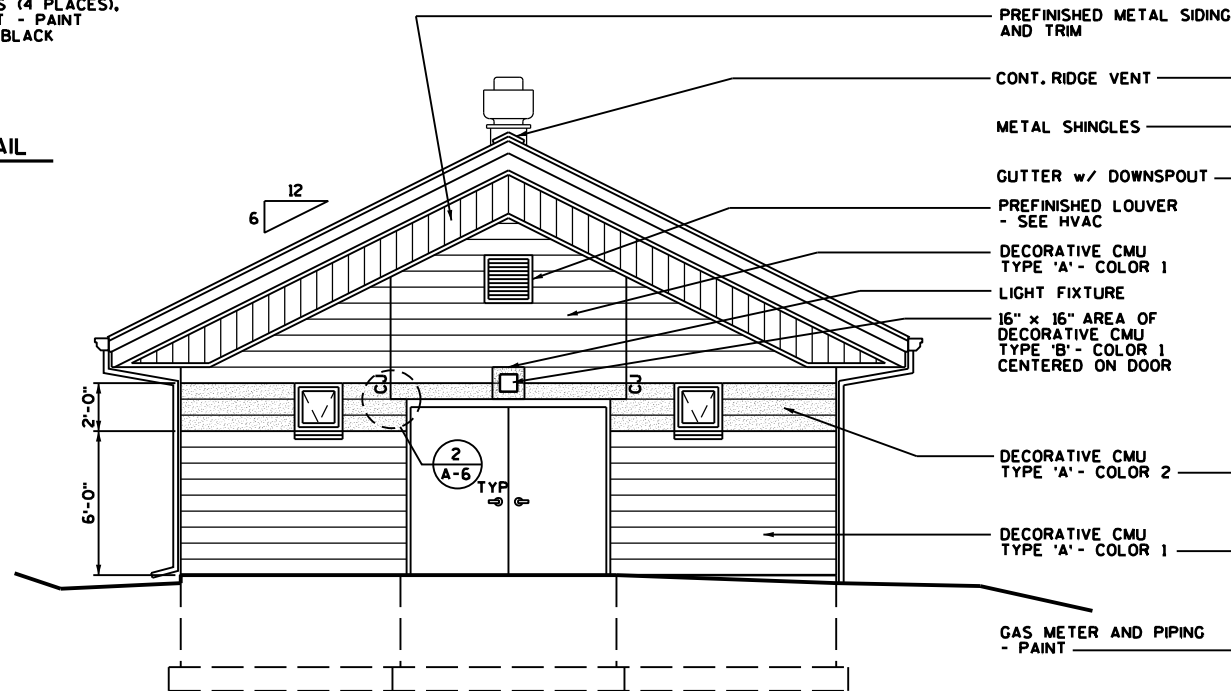
**2**  
A-4  
**WOODEN SHIP WHEEL DETAIL**  
NOT TO SCALE



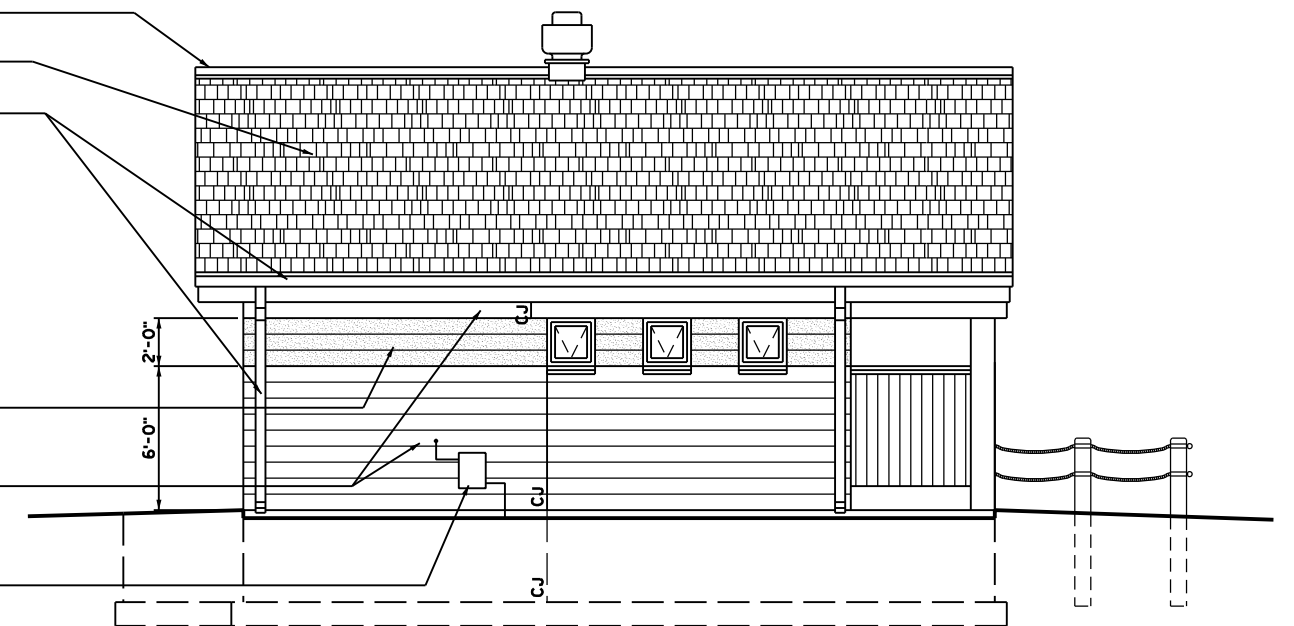
**SOUTH ELEVATION**  
1/8" = 1'-0" (11x17)



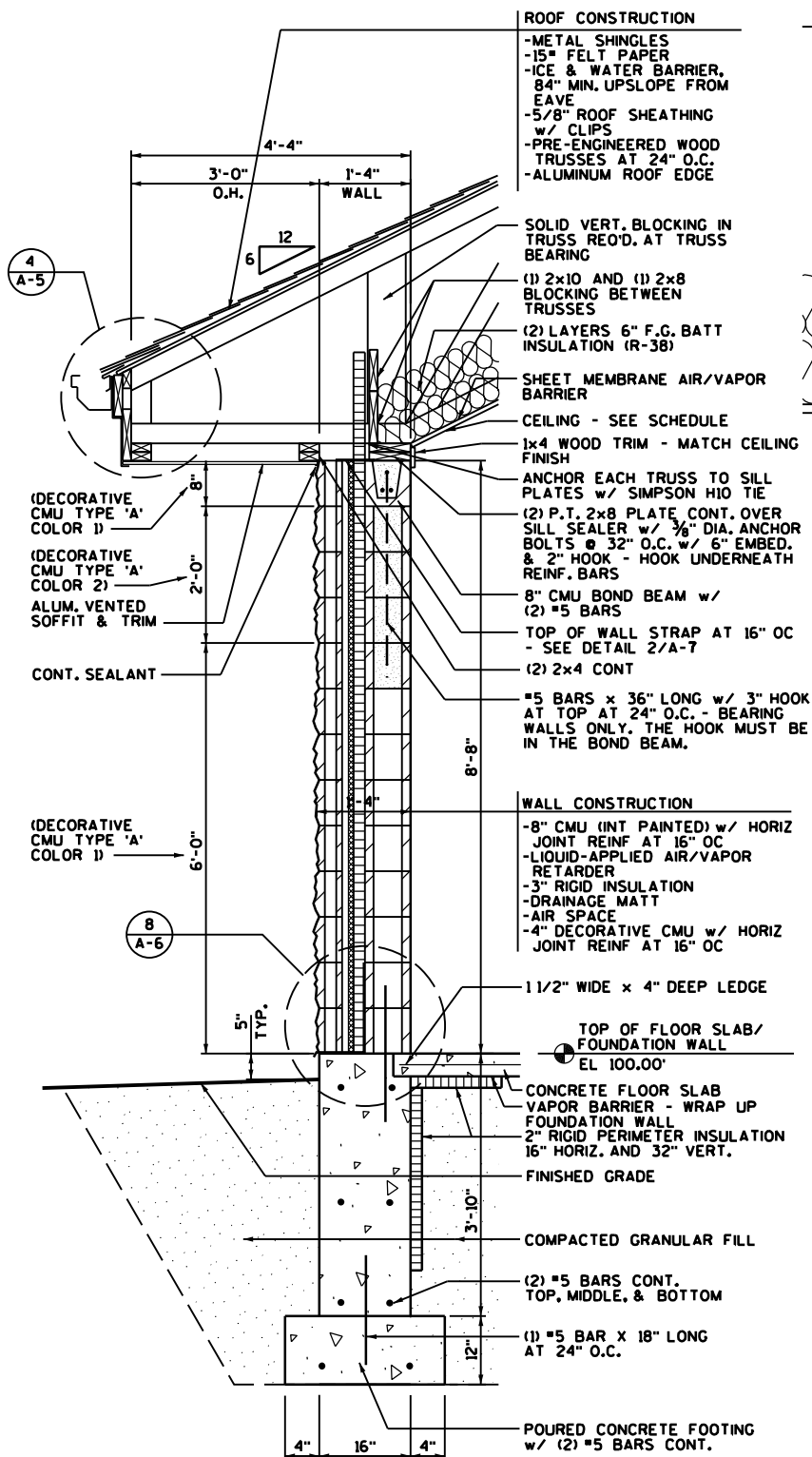
**EAST ELEVATION**  
1/8" = 1'-0" (11x17)



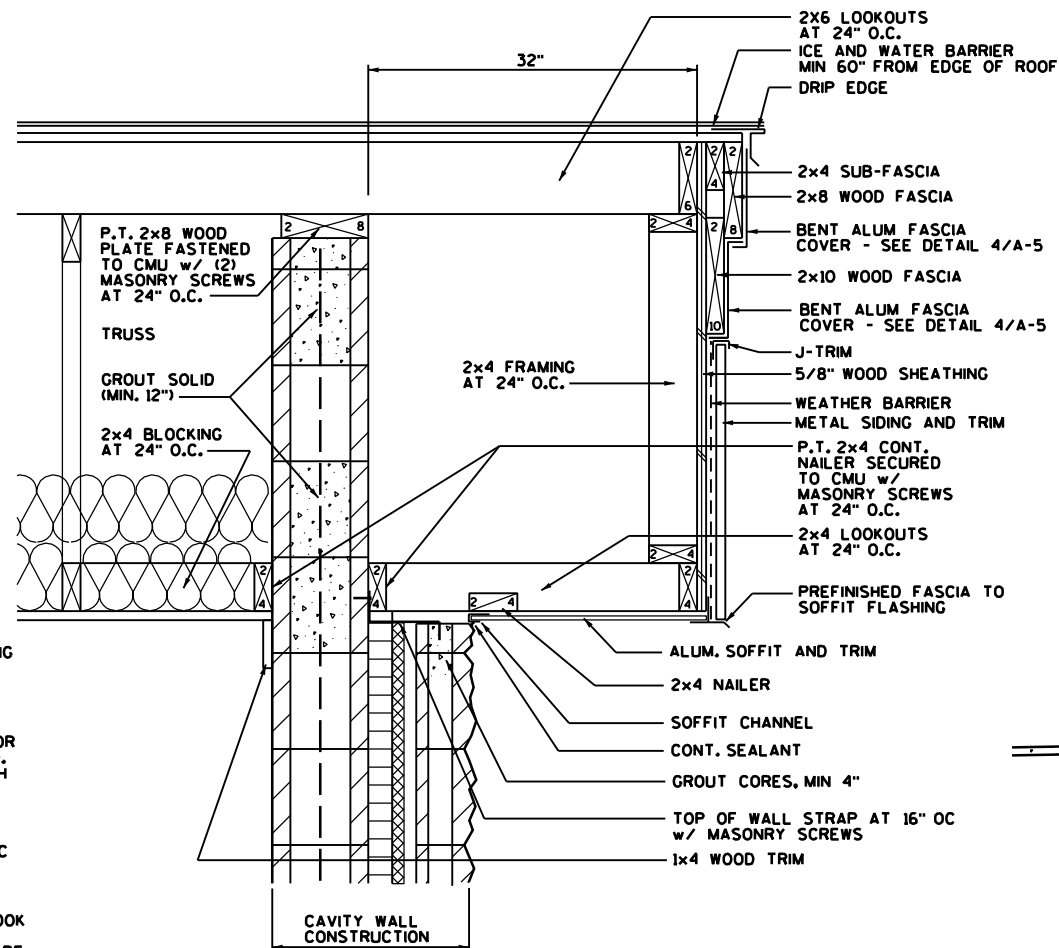
**NORTH ELEVATION**  
1/8" = 1'-0" (11x17)



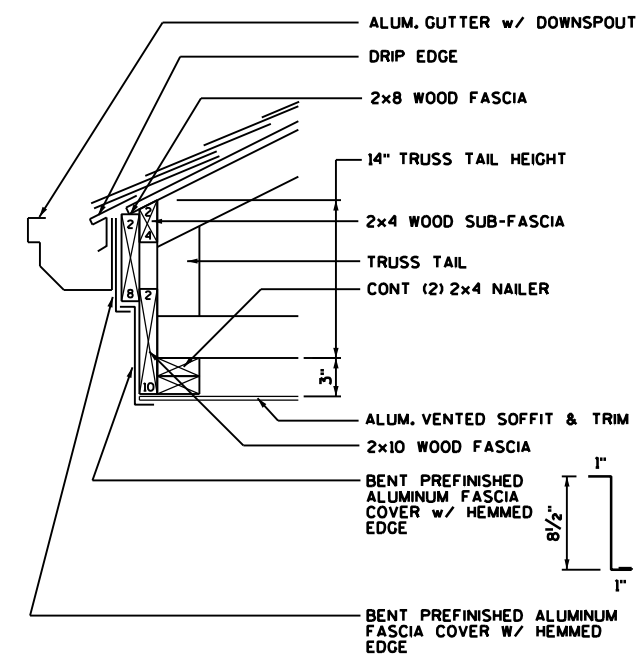
**WEST ELEVATION**  
1/8" = 1'-0" (11x17)



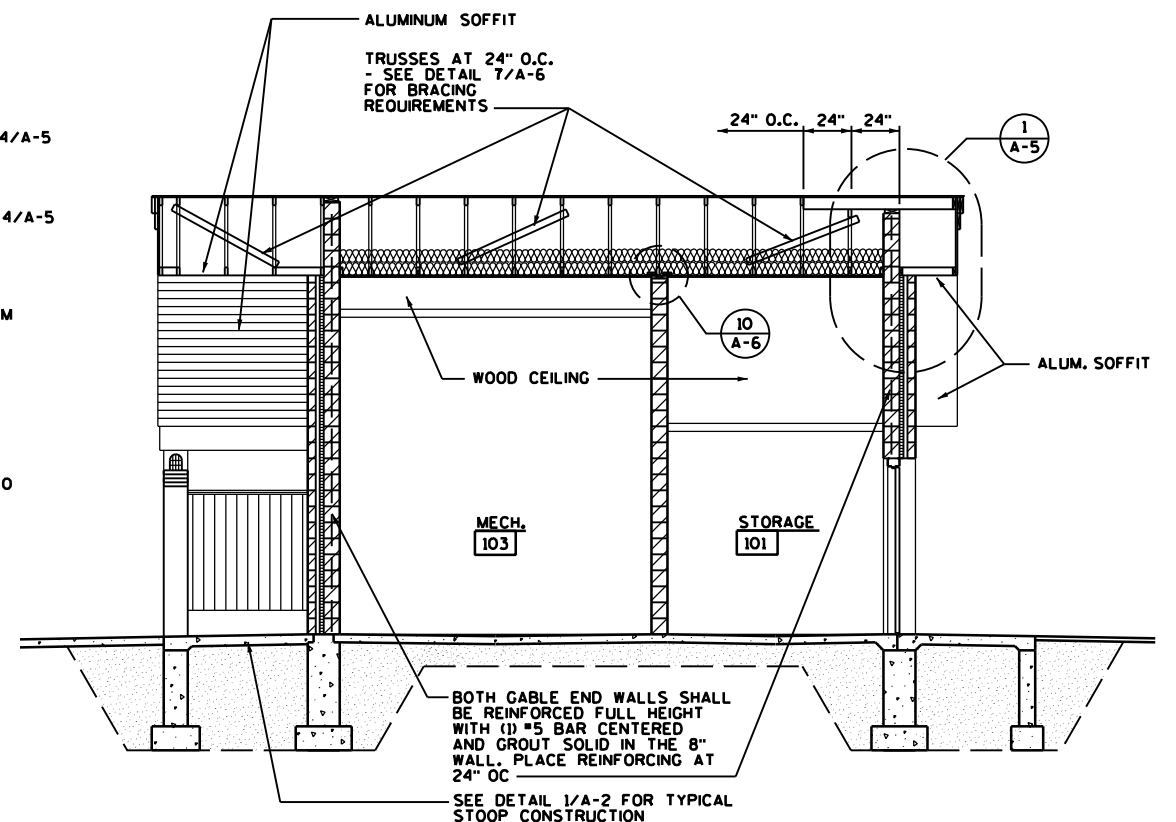
**3 TYPICAL EAVE WALL SECTION**  
A-5 3/8" = 1'-0" (11x17)



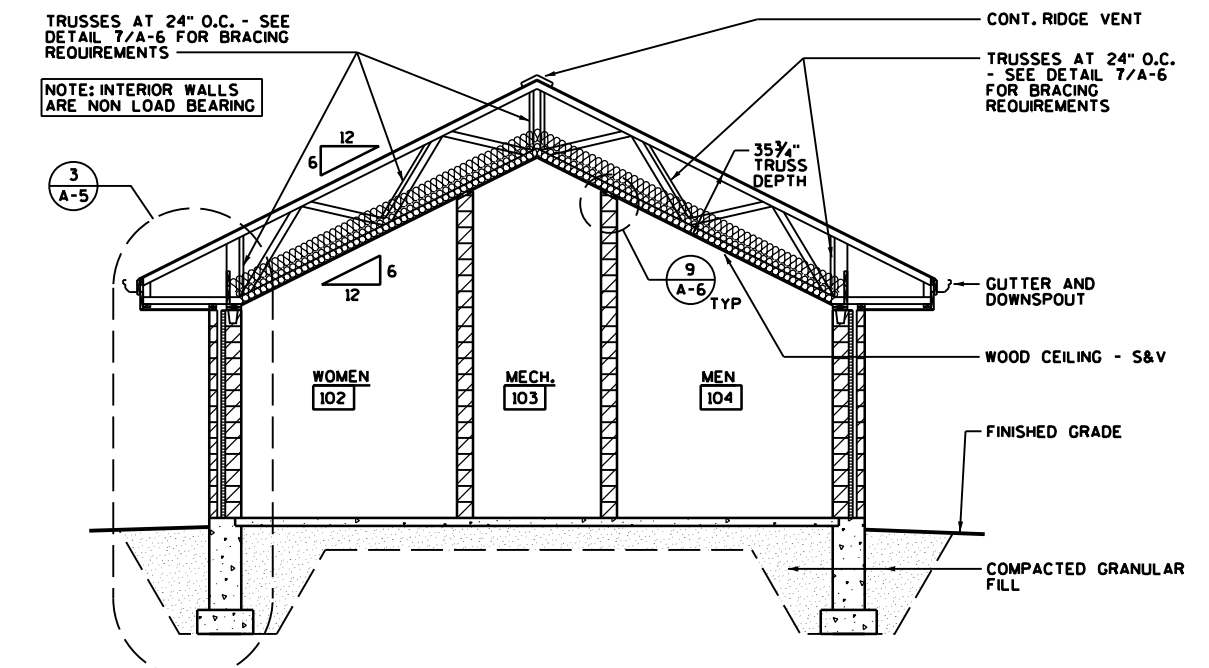
**1 TYPICAL EAVE ROOF EDGE DETAIL**  
A-5 3/4" = 1'-0" (11x17)



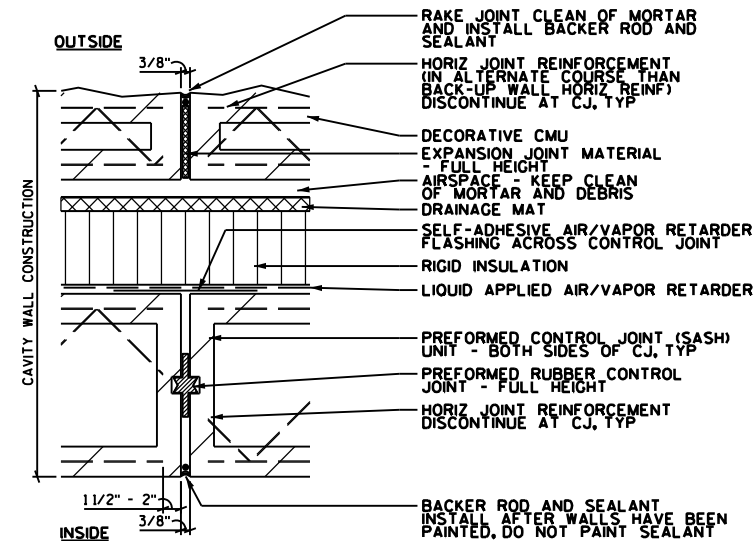
**4 TYPICAL GABLE END DETAIL**  
A-5 3/4" = 1'-0" (11x17)



**2 TYPICAL BUILDING CROSS-SECTION**  
A-5 1/8" = 1'-0" (11x17)

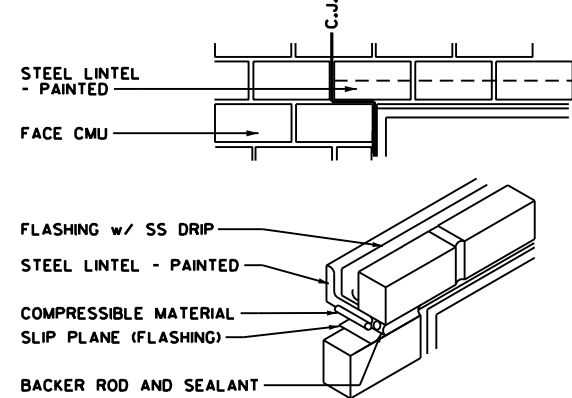


**5 TYPICAL BUILDING CROSS-SECTION**  
A-5 1/8" = 1'-0" (11x17)



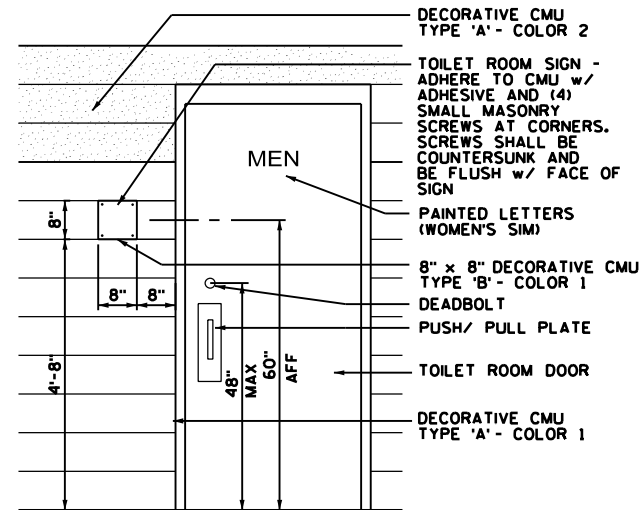
1 TYPICAL EXTERIOR CAVITY WALL CONTROL JOINT DETAIL (CMU)

A-6 0 1 1/2" 3" 6" 9"



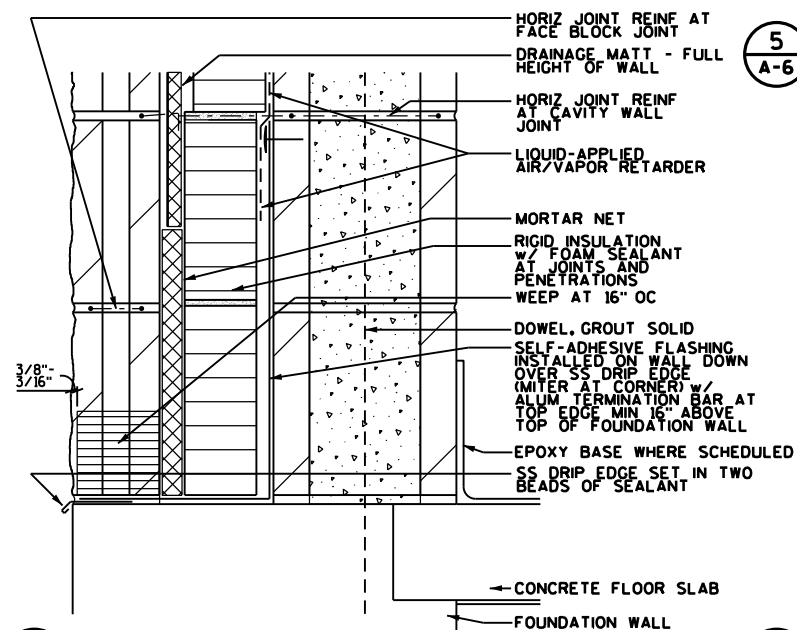
2 TYP. EXTERIOR CAVITY WALL C.J. AT DOOR/LOUVER HEAD (CMU)

A-6 NOT TO SCALE



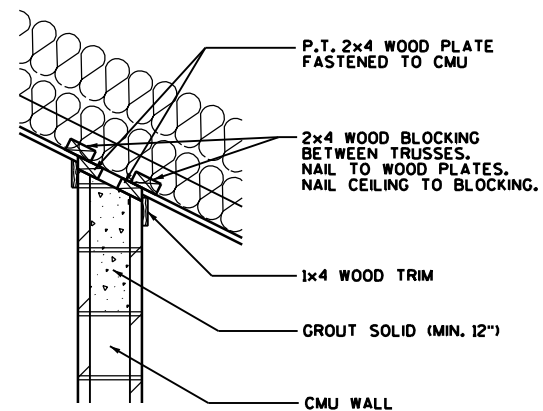
5 EXTERIOR TOILET ROOM SIGNAGE DETAIL, TYP

A-6 NOT TO SCALE



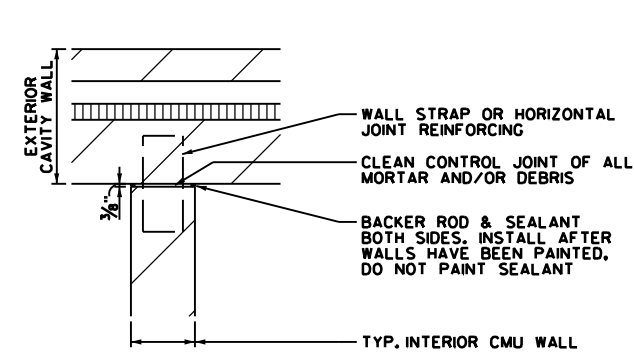
8 BASE OF WALL DETAIL

A-6 0 1 1/2" 3" 6" 9"



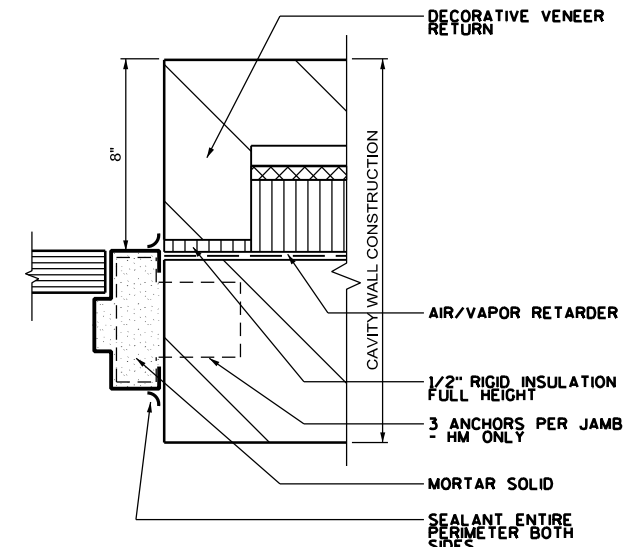
9 WALL/ ROOF CONNECTION DETAIL

A-6 NOT TO SCALE



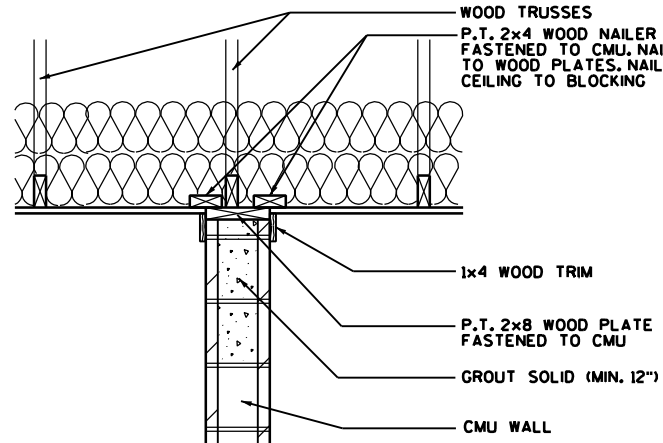
3 CONTROL JOINT DETAIL INTERIOR WALL / EXTERIOR WALL

A-6 NOT TO SCALE



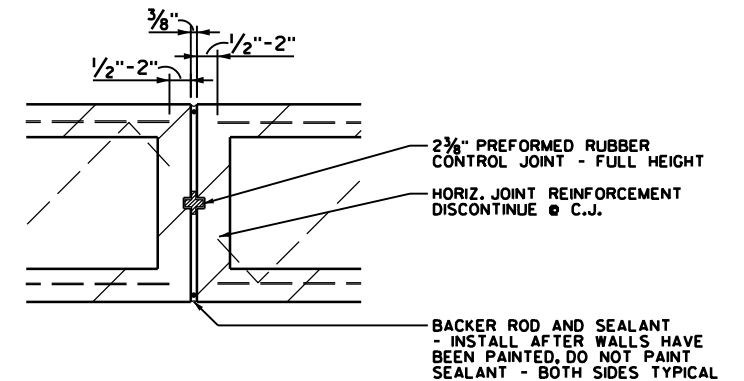
6 EXTERIOR DOOR JAMB DETAIL (HEAD SIM)

A-6 0 1 1/2" 3" 6" 9"



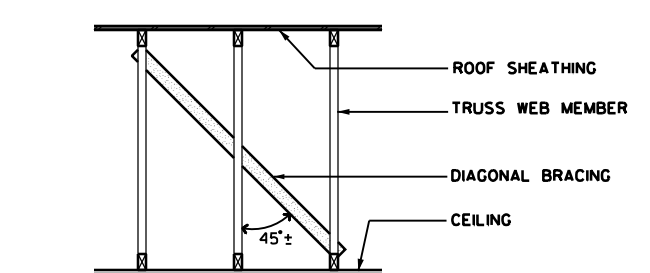
10 WALL/ ROOF CONNECTION DETAIL

A-6 NOT TO SCALE



4 CMU CONTROL JOINT (CJ) DETAIL AT INTERIOR WALLS, TYP.

A-6 NOT TO SCALE



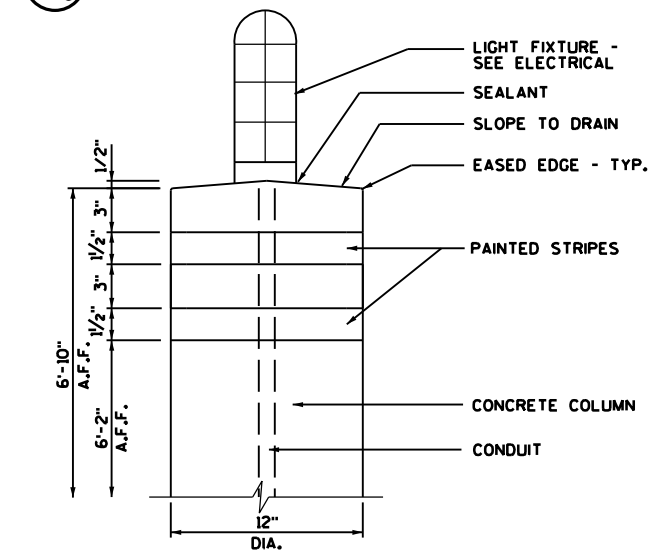
SECTION A-A

2x4 DIAGONAL BRACE - INSTALL THE DIAGONAL BRACE AT A 45 DEGREE ANGLE. ATTACH THE DIAGONAL BRACE TO THE WEB MEMBER. FASTEN THE DIAGONAL BRACE WITH (2) 16d NAILS AT EVERY TRUSS WEB MEMBER IT CROSSES.

ELEVATION

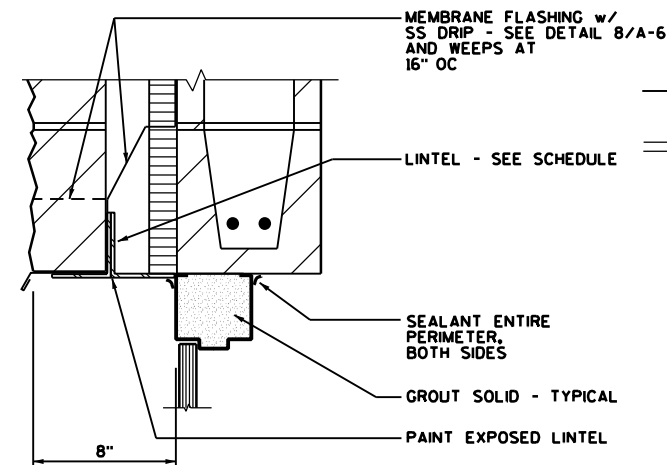
7 TYPICAL PERMANENT TRUSS BRACING

A-6 NOT TO SCALE

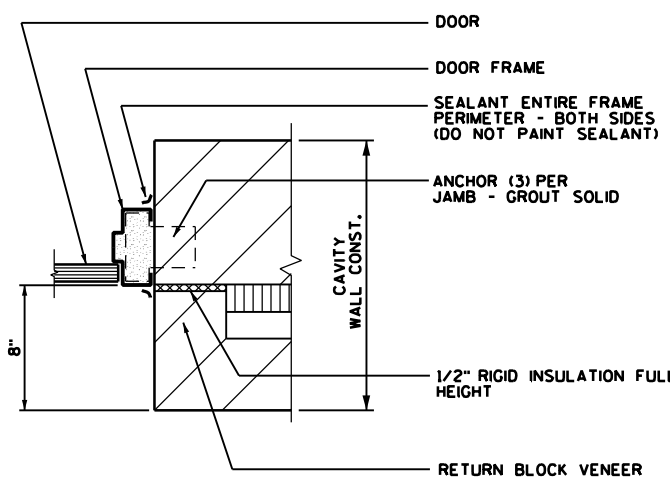


11 DECORATIVE CONCRETE COLUMN DETAIL

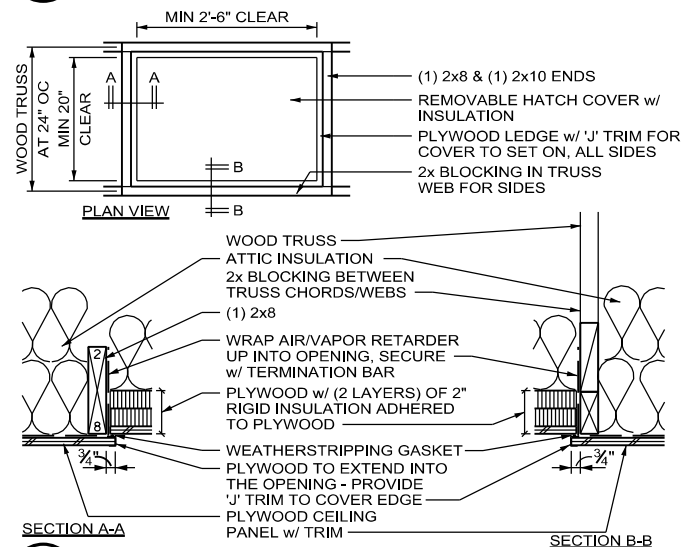
A-6 NOT TO SCALE



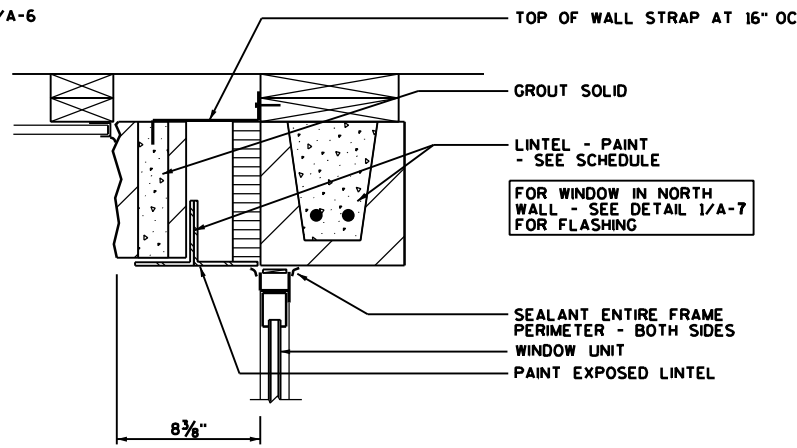
**1 DOOR HEAD DETAIL**  
A-7 NOT TO SCALE



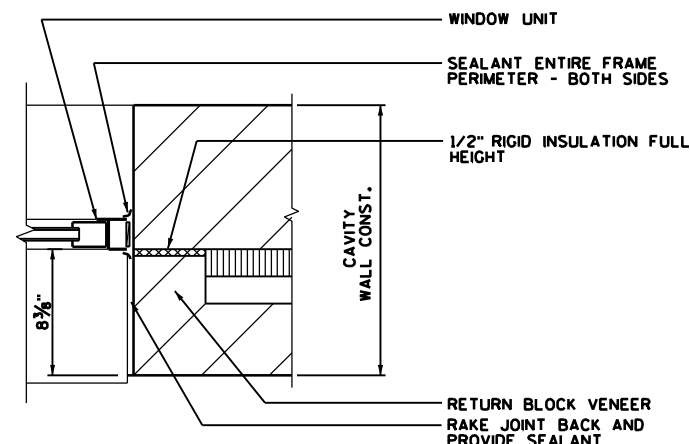
**3 DOOR JAMB DETAIL**  
A-7 NOT TO SCALE



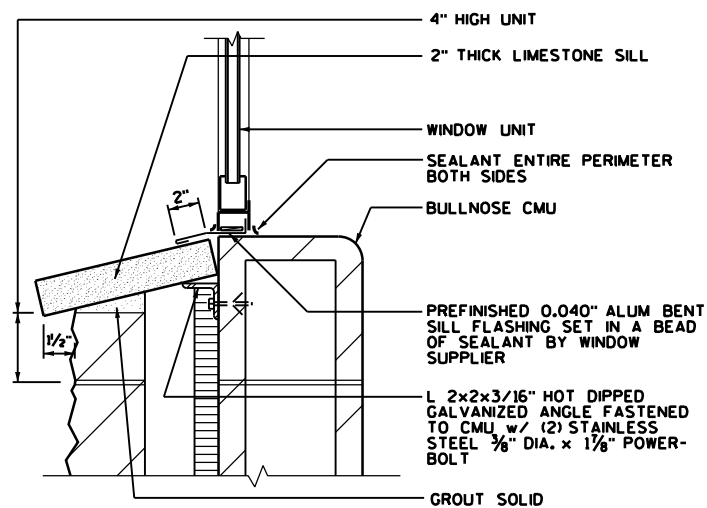
**7 FRP CEILING ATTIC ACCESS DETAIL**  
A-7 NOT TO SCALE



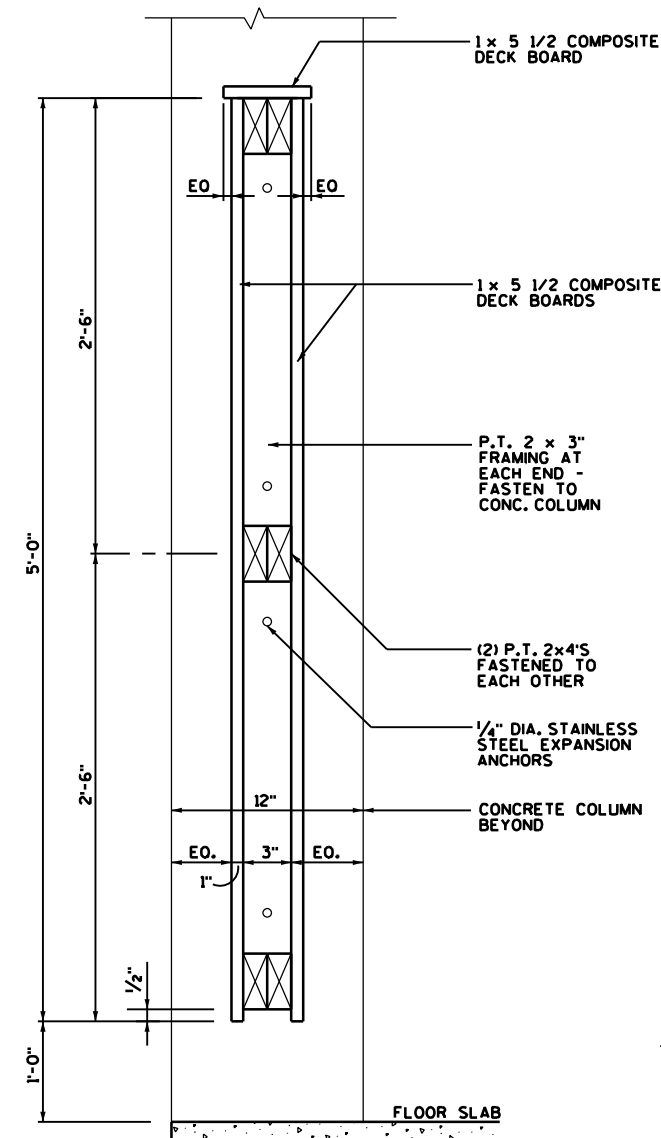
**2 WINDOW HEAD DETAIL**  
A-7 NOT TO SCALE



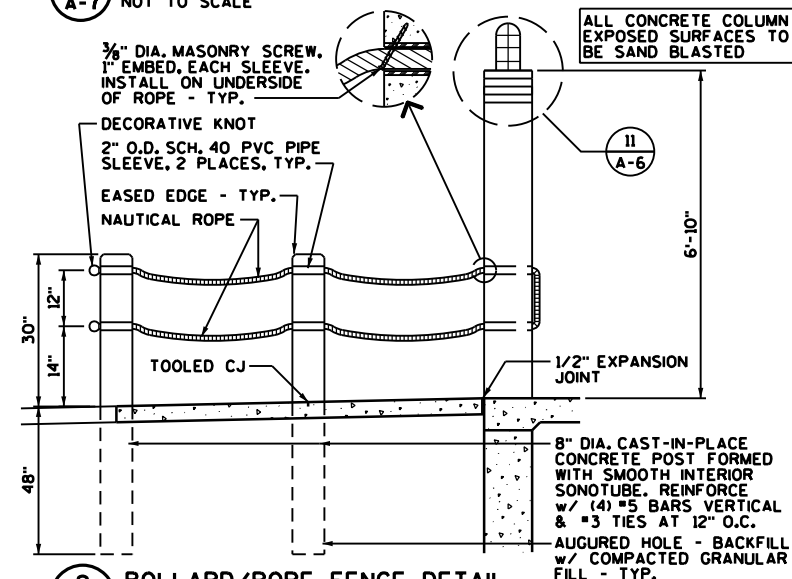
**4 WINDOW JAMB DETAIL**  
A-7 NOT TO SCALE



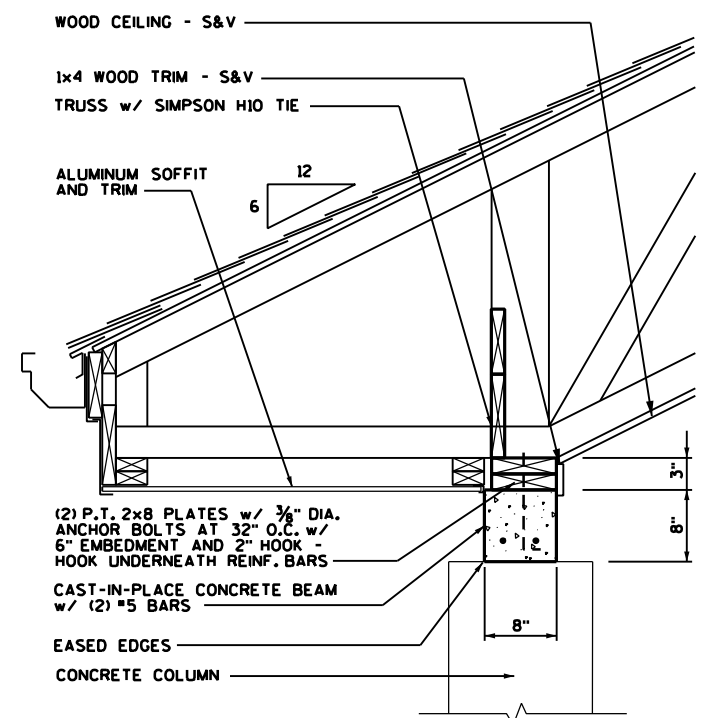
**8 WINDOW SILL DETAIL**  
A-7 NOT TO SCALE



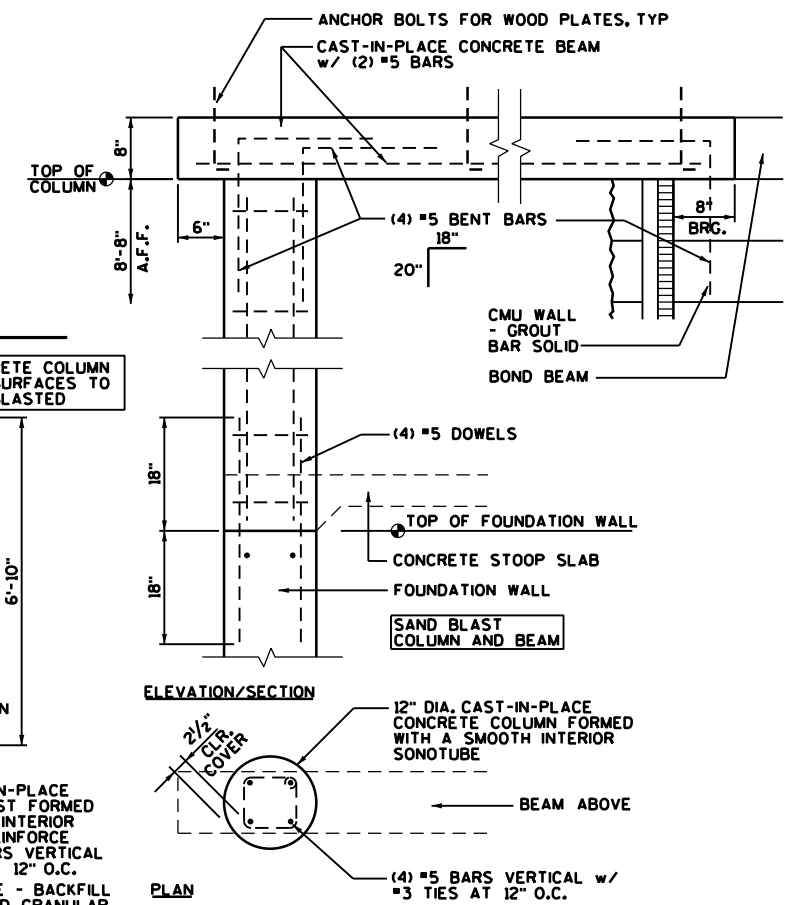
**5 PRIVACY SCREEN DETAIL**  
A-7 NOT TO SCALE



**9 BOLLARD/ROPE FENCE DETAIL**  
A-7 NOT TO SCALE



**6 TRUSS BEARING/ BEAM DETAIL (SOUTH END)**  
A-7 NOT TO SCALE



**10 CONCRETE COLUMN AT BEAM CANOPY SUPPORT**  
A-7 NOT TO SCALE



## 2

- # 2

CO	CLEAN OUT
_____ G _____	GAS LINE
_____	SANITARY DRAIN
3"(4.0)	PIPE SIZE (FIXTURE UNITS)
- - - - -	WATER, COLD

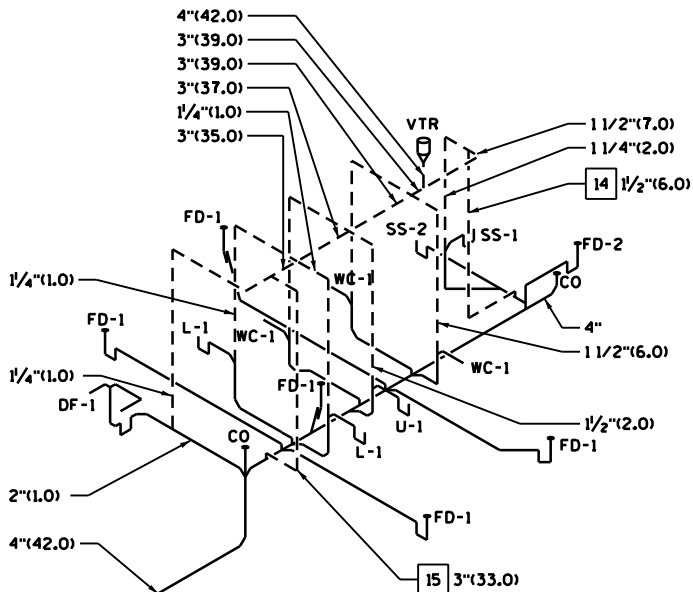


WISDOT/CADDS SHEET 42

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE												
	FIXTURE	SANITARY		WATER				MOUNT HEIGHT	REMARKS	MANUFACTURER	MODEL	DESCRIPTION
ID	NAME	DFU	TRAP SIZE	WSFU		SIZE						
				HOT	COLD		TOTAL					
DF-1	DRINKING FOUNTAIN	0.5	1/4"		0.25	0.25	1/2"	MFG	1. 4. 5.	STERN WILLIAMS	BF-5000	DUAL LEVEL EXTERIOR DRINKING FOUNTAIN (2)
FD-1	FLOOR DRAIN	3.0	3"					-	-	JR SMITH	2005/2010	ROUND ADJUSTABLE NICKEL BRONZE STRAINER w/ VANDAL PROOF SCREWS
FD-2	FLOOR DRAIN	3.0	3"					-	-	JR SMITH	2142/2147	HEAVY DUTY w/ NICKEL BRONZE STRAINER
HB-1	HOSE BIBB, INTERIOR				4.0	4.0	3/4"	24"	-	PRIER	C-258ST	SILLCOCK w/ 3/4" CONNECTION, LOOSE KEY HANDLE AND VACUUM BREAKER BACKFLOW CHECK VALVE
L-1	LAVATORY	1.0	1/4"	0.5	0.5	1.0	1/2"	RIM 34" MAX	2. 3. 4.	ACORN	1652LRB	WALL HUNG SS LAVATORY w/ BOTTOM COVER
										CHICAGO	116.211.AB.1	BATTERY-OPERATED, SENSOR-ACTIVATED SINGLE HOLE MOUNTED FAUCET w/ 0.5 GPM VANDAL RESISTANT FLOW RESTRICTOR AND GRID OUTLET (CHROME).
PT-1	PRESSURE TANK							-	7.	WELLXTROL	WX302	PRESSURE TANK FOR WELL
SS-1	SINK, SERVICE	2.0	2"	2.0	2.0	3.0	1/2"	-	2.	EL MUSTEE	18F	UTILITY SINK w/ LEGS AND GRID OUTLET
										CHICAGO	527	DECK-MOUNT FAUCET (CHROME)
SS-2	SINK, SERVICE	3.0	3"	2.0	2.0	3.0	1/2"	-	-	EL MUSTEE	63M	FLOOR MOUNTED SERVICE SINK w/ GRID OUTLET
											-	HOSE AND HOSE HOLDER
										CHICAGO	897	WALL-MOUNT FAUCET w/ HOSE THREAD OUTLET AND VACUUM BREAKER (E27) (CHROME)
U-1	URINAL	2.0	3"		2.0	2.0	3/4"	RIM 24"	1.	ACORN	1702-W-1	WALL MOUNT SS WASHOUT FIXTURE w/ REAR SPUD
										SLOAN	995-1.0	CONCEALED LOW CONSUMPTION FLUSHOMETER w/ METAL BUTTON WALL ACTUATOR (HY-100-A)
WC-1	WATER CLOSET	6.0	3"		6.5	6.5	3/4"	TOP OF SEAT 18"	1.	ACORN	1685	FLOOR MOUNT BLOWOUT SS FIXTURE w/ REAR SPUD
											-	INTEGRAL ELONGATED OPEN SEAT
										SLOAN	952-1.6	CONCEALED HYDRAULIC FLUSH FLUSH VALVE w/ METAL BUTTON WALL ACTUATOR (HY-100-A)
WH-1	WATER HEATER						-	-	1. 6.	STATE	PCE 30 20MSA	COMMERCIAL WATER HEATER, 30 GALLONS, 9 KW, ELECTRICAL: 480,240,208/60/3 OR 277,240,208/1
REMARKS												
1. SEE MANUFACTURER'S DATA FOR CONNECTION SIZE.												
2. SEE FAUCET MANUFACTURER'S REQUIREMENTS FOR SINK OPENING SIZES AND LOCATIONS.												
3. FLOOR MOUNTED FIXTURE CARRIER INSTALLED IN MECHANICAL ROOM.												
4. SEE ARCHITECTURAL FOR MOUNTING HEIGHTS.												
5. PROVIDE MANUFACTURER'S CANE TOUCH APRON (STERN WILLIAMS BFCA-1).												
6. MOUNT ON WALL SHELF (BY PLUMBING CONTRACTOR).												
7. PRESSURE TANKS AND WELL CONTROLS BY WELL CONTRACTOR.												

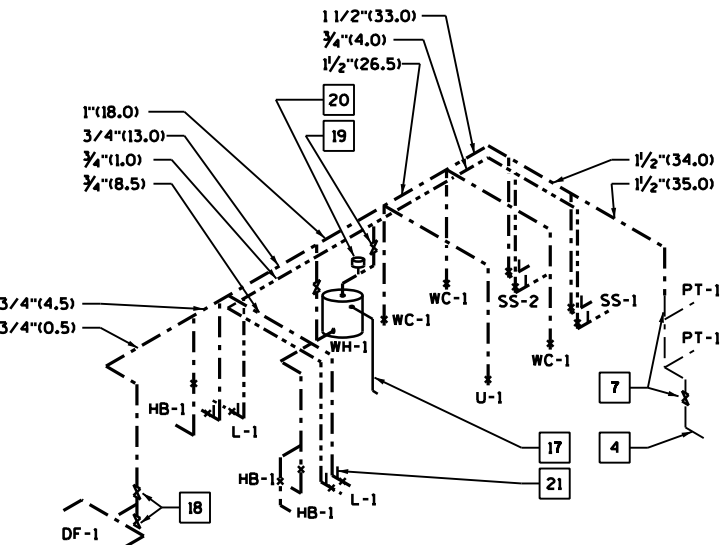
## GENERAL NOTES

- DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT BEFORE CONTINUING WITH CONSTRUCTION.
- OPENINGS FOR MECHANICAL WORK IN WALLS, FLOORS, ROOF, CEILING, ETC., SHALL BE PROVIDED BY G.C.. LOCATION AND SIZE OF THESE OPENINGS SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTORS.
- EXTERIOR WALL AND RELATED EXTERIOR OPENINGS BY ALL TRADES SHALL BE FLASHED AND CAULKED BY THE G.C.. ALL ROOFING PENETRATIONS SHALL BE FLASHED AND COUNTER-FLASHED BY ROOFER. COUNTER-FLASHINGS SHALL BE PROVIDED BY CONTRACTOR.
- CONTRACTOR TO COORDINATE INSTALLATION OF ALL PIPING, FIXTURES & EQUIPMENT WITH OTHER CONTRACTORS TO AVOID CONFLICTS. DO NOT INSTALL ANY PIPING ABOVE ELECTRICAL PANELS. INSTALL ALL WORK TO PROVIDE MAXIMUM CLEARANCES.
- ALL PIPING, INSIDE BUILDING, SHALL BE SURFACE MOUNTED TIGHT TO WALLS AND CEILING, ALLOWING FOR SLOPE, OR BE RUN INSIDE WALLS. DO NOT RUN IN ATTIC SPACE OR IN EXTERIOR WALLS, UNLESS NOTED OTHERWISE, TYPICAL.
- SEE FOUNDATION PLAN FOR TOP OF FLOOR DRAIN ELEVATIONS.
- SANITARY SEWER: MIN. INVERTS: SEE SITE PLAN FOR CONNECTION INVERT. ALL PIPING SHALL BE INSTALLED TO MEET THIS INVERT.
- BUILDING PLUMBING CONTRACTOR TO PROVIDE WATER, SANITARY SEWER, AND NATURAL GAS SERVICES TO/FROM SITE UTILITIES.
- INSTALL PLUMBING PER STATE OF WISCONSIN PLUMBING CODE, INCLUDING DEPTH, VENTING, ETC..
- ALL NATURAL GAS PIPING AND APPURTENANCES SHALL BE INSTALLED BY PLUMBING CONTRACTOR. VERIFY NATURAL GAS LINE PRESSURE WITH UTILITY CO. COORDINATE INSTALLATION WITH LOCAL UTILITY.
- APPLIANCE CONNECTIONS: FINAL GAS CONNECTIONS SHALL BE MADE BY PLUMBING CONTRACTOR. FINAL ELECTRICAL CONNECTIONS SHALL BE MADE BY ELECTRICAL CONTRACTOR.
- ALL EXPOSED PIPING SHALL BE PAINTED - SEE PROJECT MANUAL.
- SEE HVAC PLANS FOR GAS FIRED HEATING EQUIPMENT REQUIREMENTS.
- ALL PIPING TO BE RUN EXPOSED IN MECHANICAL ROOM IN A NEAT AND ORDERLY (ORGANIZED) MANNER.



SANITARY SEWER AND VENT ISOMETRIC

NONE



WATER DISTRIBUTION ISOMETRIC

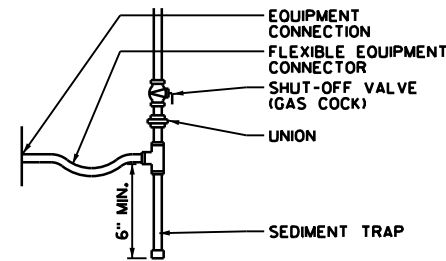
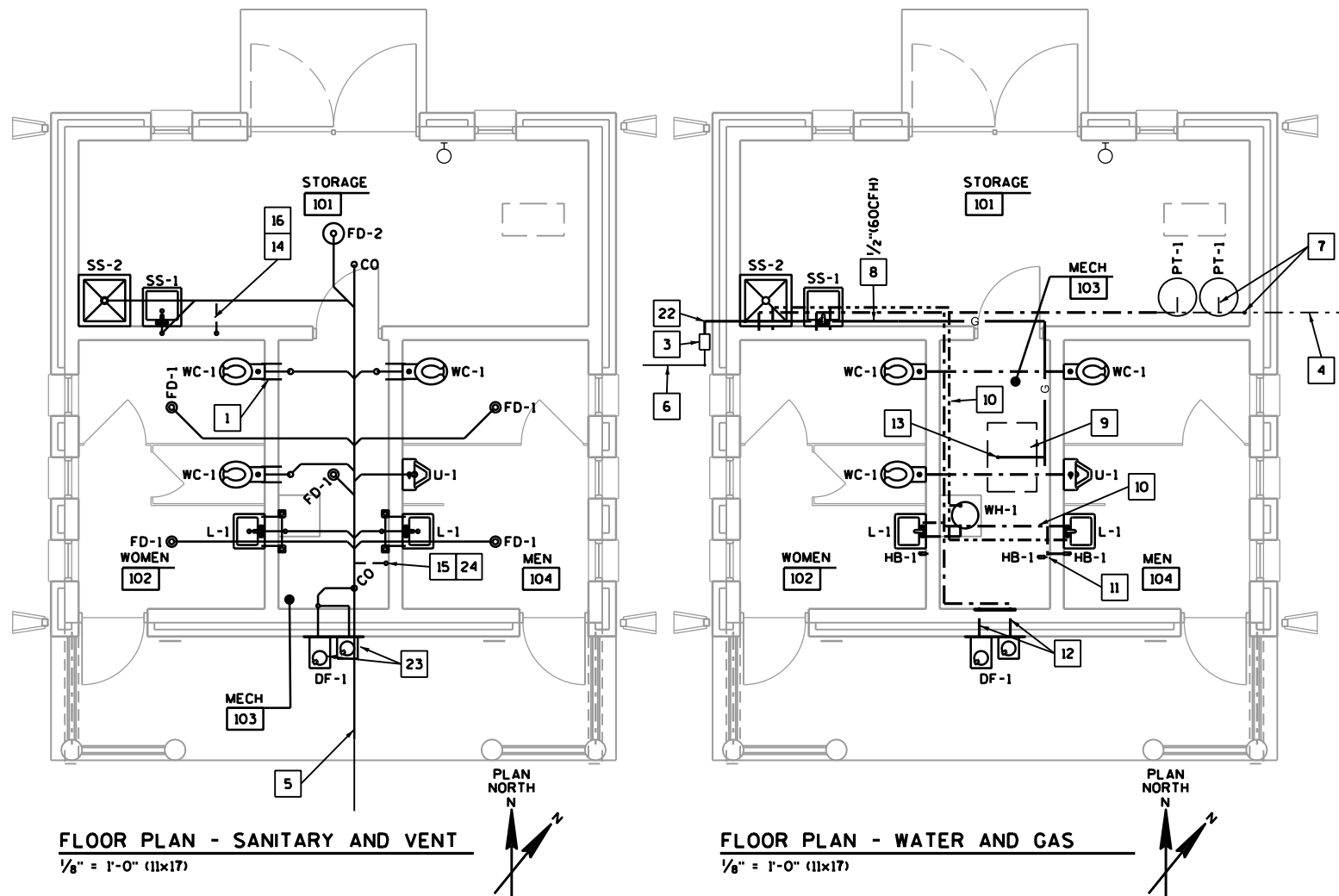
NONE

## BOX NOTES

- FIXTURE MOUNTS TO WALL w/ THROUGH-BOLTS, TYP.
- not used
- GAS METER AND PRESSURE REDUCING VALVE LOCATION (UTILITY CO.)
- WATER LATERAL LOCATION - SEE SHEET PL-1
- SANITARY LATERAL LOCATION - SEE SHEET PL-1
- GAS SERVICE LOCATION (UTILITY CO.) - SEE SHEET PL-1
- WATER SERVICE UP THROUGH FLOOR BY WELL CONTRACTOR, INCLUDING WELL CONTROLS AND PRESSURE TANKS
- RUN LINE NEAR CEILING, TIGHT TO WALL
- NATURAL GAS FIRED APPLIANCE LOCATION - SEE HVAC
- FIXTURE SHUT-OFF VALVES (STOPS) TO BE INSTALLED IN MECHANICAL ROOM, TYP.
- SURFACE MOUNT FIXTURE. PROVIDE BRACKET AT ELBOW.
- RUN LINE THROUGH WALL TO FIXTURE CONNECTION
- EQUIPMENT CONNECTION. VERIFY CONNECTION SIZE AND LOCATION w/ MANUFACTURER. - SEE DETAIL 1/PL-2
- CIRCUIT VENT
- RELIEF VENT. CONNECT TO TOP OF DRAIN.
- RUN LINE UNDER SLAB. RUN UP INSIDE WALL INTO ATTIC. TIE INTO VENT HEADER
- RUN LINE FROM RELIEF VALVE TO 3" ABOVE FLOOR. INSTALL ELBOW AT BOTTOM - DIRECT TOWARD DRAIN.
- SHUT-OFF VALVE w/ DRAIN VALVE AT LOW POINT, TYP. - FOR WINTERIZATION OF DRINKING FOUNTAIN BY OWNER
- SHUT-OFF VALVE LOCATION, TYP.
- EXPANSION TANK LOCATION - STATE THERM-O-FLEX IN LINE ETC 2X
- WATER HAMMER ARRESTOR, TYPICAL ALL HOT AND COLD LAVATORY AND SINK CONNECTIONS
- RUN LINE IN THROUGH EXTERIOR WALL - PROVIDE SLEEVE
- RUN LINE THROUGH WALL. INSTALL TRAP IN MECH RUN. RUN DOWN WALL SURFACE TO BELOW SLAB, TYP
- RUN LINE UNDER SLAB. RUN LINE UP TIGHT TO WALL. TIE INTO HEADER IN ATTIC.

## LEGEND

CO	CLEAN OUT
— G —	GAS LINE
—	SANITARY DRAIN
---	SANITARY VENT
3"(4.0)	PIPE SIZE (FIXTURE UNITS)
---	WATER, COLD
---	WATER, HOT
VTR	ROOF VENT TERMINAL

1 FIXTURE GAS CONNECTION  
PL-2 NOT TO SCALE

FLOOR PLAN - SANITARY AND VENT

1/8" = 1'-0" (11x17)

FLOOR PLAN - WATER AND GAS

1/8" = 1'-0" (11x17)

GRILLE SCHEDULE								
TAG	G-1	G-2	G-3	G-4	G-5	G-6	G-7	G-8
SERVICE	SUPPLY	SUPPLY	SUPPLY	SUPPLY	RETURN	RETURN	RETURN	RETURN
LOCATION	102 - WALL	104 - DUCT	101 - DUCT	103 - DUCT	102 - WALL	104 - WALL	101 - DUCT	103 - DUCT
VOLUME (CFM)	250	250	555	145	250	250	555	145
MANUFACTURER	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE
MODEL	620	620	620	620	635	635	635	635
MATERIAL	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM
SIZE (WIDE×HIGH)	16"×8"	16"×8"	16"×16"	8"×8"	16"×8"	16"×8"	16"×16"	8"×8"
DUCT SIZE (WIDE×HIGH)								
S.P.	0.018"	0.018"	0.030"	0.028"	0.007"	0.007"	0.008"	0.009"
THROW (FT)	22°:6-11-22	22°:6-11-22	22°:14-21-37	22°:7-10-18				
MOUNTING HEIGHT, TOP	10'-8" AFF	10'-8" AFF	8'-6" AFF	8'-10"+/- AFF	10'-8" AFF	10'-8" AFF	8'-6" AFF	8'-10"+/- AFF
SEE REMARKS	8.	8.	-	-	8.	8.	-	-

HEATER SCHEDULE		H-1
ROOM - LOCATION	103-CEILING	
TYPE	FURNACE	
MANUFACTURER	CARRIER	
MODEL, HEATER	58MCA 060-12	
REQ'D CAP (BTU/H)	51,525	
UNIT CAP. (BTU/H)	INPUT	60,000
	OUTPUT	56,000
CFM	TOTAL	1200
	OUTSIDE	450
TEMPERATURE RISE	30-60° F	
FUEL TYPE	NAT. GAS	
SIZE WIDE×DEEP×HIGH	28.5"×17.5"×40"	
CONNECTION SIZE	1/2" NPT	
INLET PRES. (MIN.-MAX.)	4.5-13.6"	
VENT SIZE	2" IN/OUT	
EXTERNAL STATIC	0.5"	
ELECTRICAL	120/60/1	
	FAN MOTOR, HP	1/3
	MOTOR AMPS	5.8 FLA
	MISC.	
EFFICIENCY (%)	91.0	
CONFIG. HORIZONTAL	RETURN	BOTTOM
	SUPPLY	TOP
MOUNTING HEIGHT, BOT.	9'-4" AFF	
SHIPPING WEIGHT (LBS)	163	
SEE REMARKS	1. 4. 7.	

FAN SCHEDULE		F-1
ROOM - LOCATION	103-CEILING	
TYPE	EXHAUST	
MANUFACTURER	GREENHECK	
MODEL	CUBE-98-4	
VOLUME (CFM)	450	
EXTERNAL S.P.	0.375"	
OPENING SIZE (WALL/ROOF)	14 1/2"×14 1/2"	
ELECTRICAL	120/60/1	
	HP	1/4
	OPER. POWER	0.03
	DRIVE	BELT
	RPM	1725
MOUNTING HEIGHT, BOT.	CURB	
SHIPPING WEIGHT (LBS)	52	
SEE REMARKS	1. 3. 6. 7.	
	TAG	DF-1
	TYPE	ACTUATED
	MANUFACTURER	TAMCO
	MODEL SERIES	9000SC
	SIZE	12"×12"
	S.P.	
SEE REMARKS	2. 7.	

LOUVER SCHEDULE		L-1
ROOM - LOCATION	100 - WALL	
TYPE	INTAKE	
MANUFACTURER	GREENHECK	
MODEL	ESD-403	
MATERIAL	EXT. AL.	
VOLUME (CFM)	450	
SIZE (WIDE×HIGH)	24"×24"	
DATA	FREE AREA, SF	1.78
	VELOCITY, FPM	253
	S.P.	0"
MOUNTING HEIGHT, TOP	13'-4" AFF	
SEE REMARKS	3. 5.	
	TAG	DL-1
	TYPE	ACTUATED
	MANUFACTURER	TAMCO
	MODEL SERIES	9000
	SIZE	24"×24"
	S.P.	
SEE REMARKS	2. 7.	

## HVAC GENERAL NOTES

- DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT BEFORE CONTINUING WITH CONSTRUCTION.
- OPENINGS FOR MECHANICAL WORK IN WALLS, ROOF, CEILING, ETC., SHALL BE PROVIDED BY G.C.. LOCATION AND SIZE OF THESE OPENINGS SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTORS.
- EXTERIOR WALL AND RELATED EXTERIOR OPENINGS BY ALL TRADES SHALL BE FLASHED AND CAULKED BY THE G.C.
- ALL ROOFING PENETRATIONS SHALL BE FLASHED AND COUNTER-FLASHED BY ROOFER. FLASHINGS TO BE PROVIDED BY MECHANICAL CONTRACTORS.
- CONTRACTOR TO COORDINATE INSTALLATION OF ALL CONDUIT, CONTROLS, DUCTWORK & EQUIPMENT WITH OTHER CONTRACTORS TO AVOID CONFLICTS. INSTALL ALL WORK TO PROVIDE MAX. OVERHEAD CLEARANCES, UNO.
- ALL DUCTWORK TO BE GALVANIZED SHEET METAL, UNO.
- INSTALL TURNING VANES IN ALL DUCTWORK ELBOWS.
- INSTALL MANUAL BALANCING DAMPERS IN ALL BRANCHES. LOCATE IN MECHANICAL ROOM.
- EXPOSED DUCT IN STORAGE ROOM TO BE PAINTED - SEE PROJECT MANUAL.
- SEE PLUMBING FOR GAS PIPING.
- DO NOT RUN DUCTWORK OR CONDUIT ABOVE ELECTRICAL PANELS.

## BOX NOTES

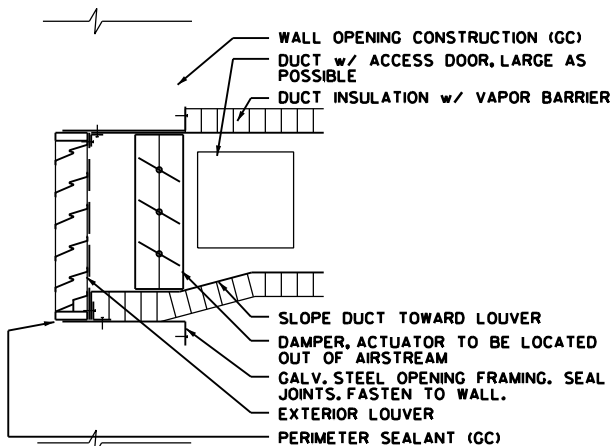
- DUCT TO BE SAME SIZE AS UNIT INLET SIZE
- DUCT TO BE SAME SIZE AS UNIT OUTLET SIZE
- DUCT TRANSITION
- DUCT TO BE SAME SIZE AS LOUVER SIZE
- DUCT TO BE SAME SIZE AS GRILLE SIZE, TYP
- COMBUSTION AIR AND VENT CONNECTION LOCATION. VERIFY SIZE AND LOCATION w/ MANUFACTURER. PROVIDE CONCENTRIC VENT KIT AND ROUTE UP THROUGH ROOF.
- RUN DUCT TIGHT TO WALL, SLOPE w/ CEILING
- DROP DUCT DOWN INTO TOP OF DUCT
- BRANCH DUCT ON BOTTOM OF DUCT w/ MANUAL BALANCING DAMPER INSTALLED OUT OF THE AIRSTREAM
- TURNING VANES, TYP, ALL ELBOWS
- ELECTRICAL PANEL LOCATION, ROUTE DUCT TO AVOID RUNNING ABOVE PANEL

## LEGEND

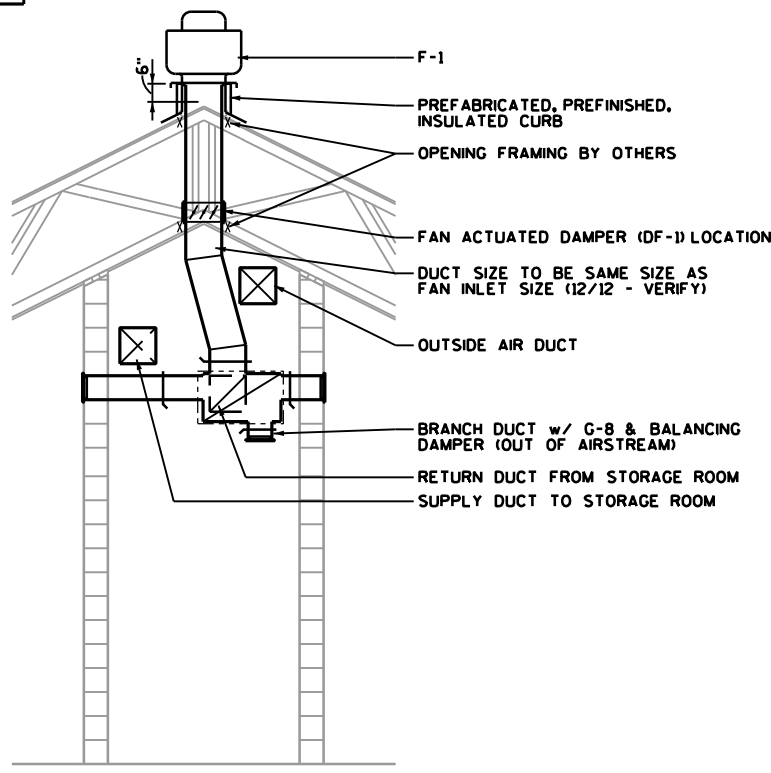
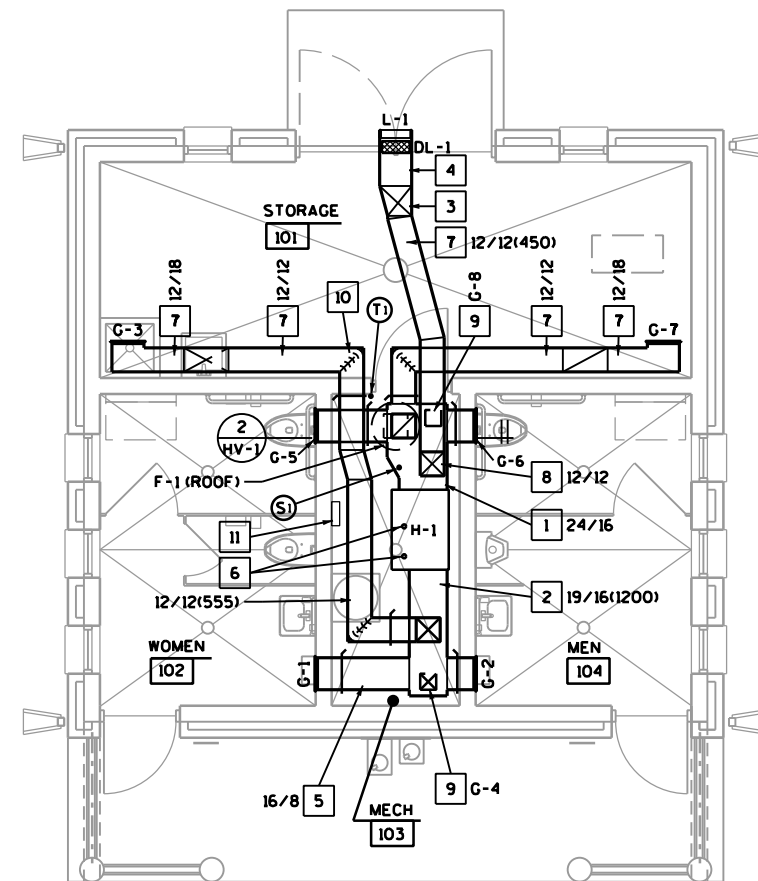
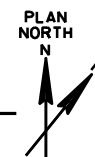
	DAMPER, ACTUATED
	DAMPER, BALANCING
	RETURN DUCT (UPWARD FLOW)
	RETURN DUCT (DOWNWARD FLOW)
	SUPPLY DUCT (UPWARD FLOW)
	SUPPLY DUCT (DOWNWARD FLOW)
20/20	DUCT SIZE - WIDTH/HEIGHT OR WIDTH/DEPTH
20/20(1500)	DUCT SIZE AND FLOW (CFM)
(S)	SENSOR AND ID NUMBER
(T)	THERMOSTAT AND ID NUMBER

## SCHEDULE REMARKS

- SEE MANUFACTURER'S DATA FOR MOUNTING INSTRUCTIONS, OPENING INFORMATION, AND CONNECTION SIZES.
- INSULATED TYPE.
- KYNAR 500 FINISH, ARCHITECT TO SELECT COLOR.
- TWO-STAGE GAS VALVE (40%-100%).
- OPENING FLASHING AROUND ENTIRE OPENING - SEE DETAIL 1/HV-1.
- ROOF CURB - DOUBLE PITCH, INSULATED TYPE FOR RIDGE MOUNTING. PREFINISHED TO MATCH FAN.
- SEE SPECIFICATIONS FOR SEQUENCE OF OPERATION.
- TAMPER-RESISTANT FASTENING SCREWS.



ALL WORK BY HVAC CONTRACTOR, UNLESS NOTED OTHERWISE

**1 EXTERIOR LOUVER DETAIL**  
HV-1 NOT TO SCALE**2 MECHANICAL ROOM SECTION**  
HV-1 3/16" = 1'-0" (11x17)**FLOOR PLAN - HVAC**  
1/8" = 1'-0" (11x17)

ELECTRICAL SYMBOLS LIST

WALL MOUNT		
SYMBOL	HEIGHT	DESCRIPTION
	A / B	DUPLEX RECEPTACLE (SEE MODIFIER TEXT LEGEND BELOW)
	A / B	DUPLEX RECEPTACLE WITH WEATHERPROOF (IN-USE) COVER (SEE MODIFIER TEXT LEGEND BELOW)
	N	SPECIAL PURPOSE CONNECTION (SEE SCHEDULE FOR DESCRIPTION)
	C	PANELBOARD, SURFACE, NEW (SEE SCHEDULE FOR DESCRIPTION)
	R	DISCONNECT SWITCH, FUSED / NON-FUSED
	N	INCANDESCENT, HID, OR SIMILAR LIGHT FIXTURE (SEE LIGHT FIXTURE SCHEDULE FOR DESCRIPTION)
	CEILING	FLUORESCENT LIGHT FIXTURE, SIZE SCALED (SEE LIGHT FIXTURE SCHEDULE FOR DESCRIPTION)
	B	WALL SWITCH
	R	PROGRAMMABLE TIMECLOCK
		CEILING MOUNTED OCCUPANCY SENSOR 360 DEG. COVERAGE (SEE SCHEDULE FOR DESCRIPTION)
	CEILING	EMERGENCY LIGHT FIXTURE (SEE LIGHT FIXTURE SCHEDULE FOR DESCRIPTION)

MOUNTING HEIGHT LEGEND

A = 22" CENTERED AFF  
B = 46" CENTERED AFF OR 8" CENTERED ABOVE COUNTERTOP  
C = 72" TO TOP OF BOX  
N = AS NOTED ON PLANS OR SCHEDULE  
R = AS REQUIRED

- THE ABOVE MOUNTING HEIGHTS SHALL BE USED FOR INSTALLATION OF DEVICES UNLESS NOTED OTHERWISE ON DRAWINGS.
- EXACT MOUNTING HEIGHTS OF DEVICES MAY BE SLIGHTLY ADJUSTED IN THE FIELD TO ACCOMMODATE BLOCK COURSES.

RECEPTACLE MODIFIER TEXT LEGEND

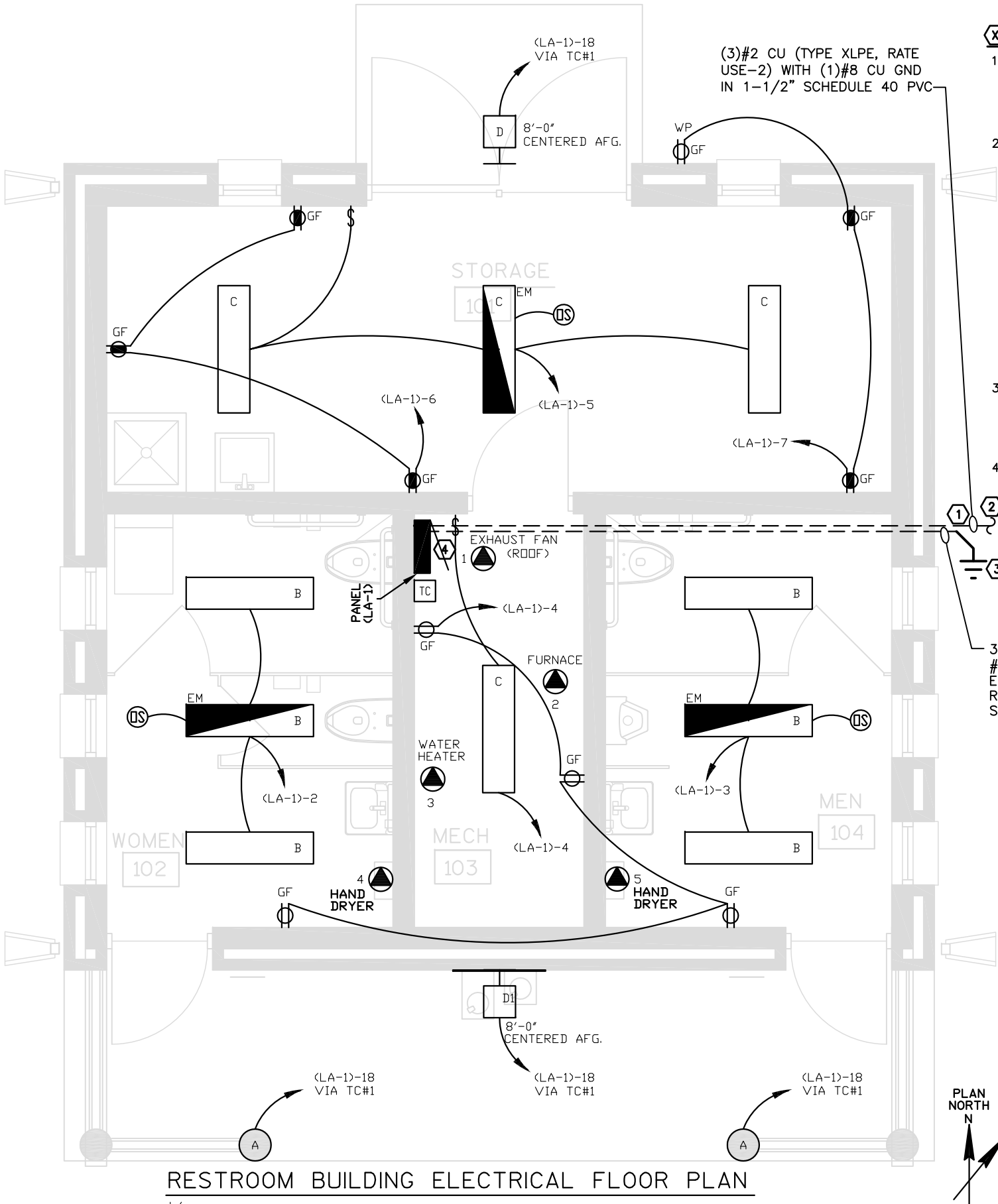
GF = WITH GROUND FAULT INTERRUPTION PROTECTION

ABBREVIATIONS FOR ELECTRICAL DRAWINGS

AFF	= ABOVE FINISHED FLOOR	GRD, GND	= GROUND
AFG	= ABOVE FINISHED GRADE	HID	= HIGH INTENSITY DISCHARGE
BFG	= BELOW FINISHED GRADE	HPS	= HIGH PRESSURE SODIUM
BRKR, BKR	= BREAKER	HWR	= HEAVY WALL RIGID GALVANIZED STEEL CONDUIT
C	= CONDUIT	NTS	= NOT TO SCALE
CKT, CRCT	= CIRCUIT	REC, RECPT	= RECEPTACLE
CLG	= CEILING	TC	= TIME CLOCK
CT	= CURRENT TRANSFORMER	TYP	= TYPICAL
EC	= ELECTRICAL CONTRACTOR	UG	= UNDERGROUND
GFCI, GF	= GROUND FAULT CIRCUIT INTERRUPTER	W/	= WITH

KEYNOTES

1. CONVERT FEEDER CONDUIT TO RIGID GALVANIZED STEEL (RGS) CONDUIT FROM 10' AWAY FROM BUILDING ALL THE WAY TO PANEL LA-1.
  2. ROUTE FEEDER CONDUIT TO ELECTRICAL PANEL OF ADJACENT GARAGE (USE 100' AS THE BID LENGTH END TO END). CONVERT BACK TO RGS CONDUIT 90 DEGREE ELBOW AND REMAINDER OF RUN. ROUTE VERTICAL ALONG OUTSIDE WALL USING A "LB" CONDULET FITTING AND PENETRATE EXISTING GARAGE BUILDING AND PANEL. PROVIDE A NEW 100/2 BREAKER COMPATIBLE WITH EXISTING SQUARE D HOMELINE LOAD CENTER. PROVIDE CONDUCTORS SHOWN ON PLAN AND TERMINATE BOTH ENDS. LABEL PANEL INDEX ACCORDINGLY.
  3. PROVIDE GROUND ROD AND BARE COPPER GROUNDING ELECTRODE CONDUCTOR SIZED PER CODE. PROVIDE EXOTHERMIC WELDING OF CONDUCTOR TO GROUND ROD.
  4. CONNECT PANEL END OF GROUNDING ELECTRODE CONDUCTOR TO PANEL GROUND BAR. DO NOT BOND NEUTRAL BAR AND GROUND BAR AT THE PANEL. REFERENCE CURRENT CODE REGARDING GROUNDING OF THIS SEPARATE BUILDING.
- 3/4" SCHEDULE 80 PVC WITH #8 BARE COPPER GROUNDING ELECTRODE CONDUCTOR. REFERENCE CODE REGARDING SIZING.



**Clark Dietz**  
ENGINEERS  
510 N. 17<sup>TH</sup> AVE.  
WAUSAU, WI 54401  
PHONE: 715.845.1333  
FAX: 715.848.9156

LIGHT FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS		DRIVER			MOUNT	DESCRIPTION	NOTES
			TYPE	WATTS	TYPE	NO.	VOLT			
A	COOPER-LUMARK	IC VC 1 G	LED	-	-	-	120	POST	PROVIDE A19-LED LAMP (2700K) EQUIVALENT TO A 40 WATT INCANDESCENT LAMP. FIXTURE MOUNTED DIE-CAST ALUMINUM VAPOR TIGHT LIGHT WITH GLASS GLOBE AND VANDAL GUARD CAGE WITH MOUNTING J-BOX MOUNTED ON CONCRETE COLUMN.	3,4,6
	HUBBELL	VBGL-1								
B	COOPER-METALUX	VT-LD2-58-DR100-W-120V-L820-CD2-WL-SSL-TEH-VT2SSMBK	LED	71	-	1	120	SURFACE	4' INDUSTRIAL, WET LOCATION, TAMPERPROOF LATCHES.	1
	HUBBELL-COLUMBIA	LXEM-4-40-HL-RFA-E-U-SSL								
C	COOPER-METALUX	SNLED-LD1-52-UNV-LW-L840-CD-1	LED	53	-	1	120	CHAIN MOUNT	4' INDUSTRIAL STRIP WITH CHAIN SET.	1,5
	HUBBELL-COLUMBIA	LCL-4-40-ML-E-U-CSHC								
D	COOPER-INVUE	ENC-B01-LED-E1-GZW-TP-LCF-VA6173	LED	-	-	1	120	WALL	CUT-OFF WALL PACK.	2,6
	HUBBELL-SECURITY LIGHTING	RWSC-30LED-WD-120								
D1	COOPER-INVUE	ENC-B02-LED-E1-GZW-ULG-TP-LCF-CWB-VA6173	LED	-	-	1	120	WALL	DECORATIVE UP/DOWN WALL LIGHT WITH COLD WEATHER BATTERY.	6
	HUBBELL-SECURITY LIGHTING	RWSC-30LED-UD-120								

SCHEDULE NOTES

1. PROVIDE EL400 (OR ELL14) BATTERY PACK OPTION FOR FIXTURES LABELED AS "EM" FOR TYPE "B" AND PROVIDE EL10W (OR ELL14) BATTERY PACK OPTION FOR FIXTURE LABELED AS "EM" FOR TYPE "C".
2. MOUNT UNIT CENTERED OVER DOORS.
3. MOUNTING FOR THIS FIXTURE IS THE HEAD ONLY MOUNTED ON TOP OF A COLUMN. INSTALL 1/2-INCH PVC CONDUIT IN THE COLUMN. PROVIDE A19-LED (2700k EQUIVALENT TO A 40 WATT INCANDESCENT LAMP.
4. EQUAL FIXTURE BY OTHER MANUFACTURER IS ACCEPTABLE WITH A/E APPROVAL ONLY.
5. CHAIN MOUNT FIXTURE FROM CEILING AT ABOUT 8-FOOT AFF. ADJUST FIXTURE LOCATIONS TO AVOID MECHANICAL OBSTRUCTIONS. ALL FIXTURES SHALL BE MOUNTED AT THE SAME HEIGHT.
6. ARCHITECT TO SELECT FIXTURE FINISH.

PANEL SCHEDULE

PANEL	LOCATION	TYPE	BUS	MCB	MLO	VOLT	PHASE WIRE	TUBS			MOUNT	RATING (AIC)	CIRCUIT BREAKERS						NOTES
								NO.	CKT	EA.			QTY	POLE	AMP	QTY	POLE	AMP	
(LA-1)	MECHANICAL ROOM	PANELBOARD	100A	100A	-	120/240V	1 PH 3-WIRE	1	30		SURFACE	10K	16	1	20				1
													2	2	20	1	2	50	
													2	1	30				

OCCUPANCY SENSOR SCHEDULE

LABEL	MANUFACTURER	MODEL NO.	CONTROL VOLTAGE	MAXIMUM WATTS	NOTES
OS	WATTSTOPPER	WT-605	24V	-	2
	SENSOR SWITCH	NOTE 1			
<u>OCCUPANCY SENSOR SCHEDULE NOTES</u>					
1. EQUAL BY SENSOR SWITCH.					
2. PROVIDE WITH 120VOLT POWER PACK.					

SPECIAL PURPOSE CONNECTION SCHEDULE

NO.	SERVING	HP	VOLT	PH	KW	FLA	LOC.	PNL-CKT	BRKR	WIRE				DISCONNECT					NOTES
										NO.	SIZE	GND	C	SIZE	FUSE SIZE	ENCLS. (NEMA)	MOUNT	BY	
1	EXHAUST FAN	1/4	120	1	-	5.8	MECHANICAL RM	LA-12	20/1	2	12	12	3/4	NOTE	-	1	NU	EC	1,2
2	FURNACE	-	120	1	-	5.8	MECHANICAL RM	LA-14	20/1	2	12	12	3/4	TS	-	1	OU	EC	
3	WATER HEATER	-	240	1	9.0	37.5	MECHANICAL RM	LA-13,15	50/2	2	6	10	1	-	-	-	-		3
4	HAND DRYER	-	120	1	2.3	19.2	WOMEN	LA-16	30/1	2	10	10	3/4	-	-	-	-		4
5	HAND DRYER	-	120	1	2.3	19.2	MEN	LA-17	30/1	2	10	10	3/4	-	-	-	-		4
ABBREVIATIONS:																			
EC - ELECTRICAL CONTRACTOR							NU - NEAR UNIT				TS - TOGGLE SWITCH								
ES - EQUIPMENT SUPPLIER							OU - ON UNIT				VFD - VARIABLE FREQUENCY DRIVE								
HVAC - HEATING/VENTILATING CONTRACTOR							PLGC - PLUMBING CONTRACTOR				WU - WITH UNIT								
SCHEDULE NOTES																			
1. INTERCONNECT EXHAUST FAN WITH TWO 120V POWER OPERATED DAMPERS. ONE DAMPER IS ON BUILDING WEST GABLE AND ONE DAMPER IS NEAR THE FAN. PROVIDE POWER TO DAMPERS AS REQUIRED.																			
2. PROVIDE 120 VOLT MOTOR CONTACTOR FOR CONTROL OF VENT FAN FROM A THERMOSTAT. PROVIDE DISCONNECT NEAR VENT FAN.																			
3. PROVIDE HARDWIRED CONNECTION TO WATER HEATER USING MINIMUM 12-INCH LENGTH OF LIQUIDTIGHT METAL CONDUIT.																			
4. FURNISH BRUSHED STAINLESS STEEL HAND DRYER - WORLD DRYER MODEL *DA5-973, 115 VOLT, 20 AMP OR EXCEL DRYER MODEL XL-SB, 120 VOLT, 20 AMP. BREAKER FOR DRYERS SHALL BE GFCI TYPE.																			



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ENGINEERS

510 N. 17<sup>TH</sup> AVE.  
WAUSAU, WI 54401  
PHONE: 715.845.1333  
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DATE 10MAR15		E S T I M A T E O F Q U A N T I T I E S			
LINE					5640-02-81
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	204.0110	Removing Asphaltic Surface	SY	417.000	417.000
0020	204.0155	Removing Concrete Sidewalk	SY	200.000	200.000
0030	204.0225	Removing Septic Tanks	EACH	2.000	2.000
0040	204.0235	Removing Buildings (parcel) 01.	LS	1.000	1.000
		Restroom Facility			
0050	205.0100	Excavation Common	CY	305.000	305.000
0060	213.0100	Finishing Roadway (project) 01.	EACH	1.000	1.000
		5640-02-81			
0070	305.0110	Base Aggregate Dense 3/4-Inch	TON	67.000	67.000
0080	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	285.000	285.000
0090	465.0105	Asphaltic Surface	TON	88.000	88.000
0100	602.0410	Concrete Sidewalk 5-Inch	SF	1,790.000	1,790.000
0110	602.0505	Curb Ramp Detectable Warning Field	SF	16.000	16.000
		Yellow			
0120	618.0100	Maintenance And Repair of Haul Roads	EACH	1.000	1.000
		(project) 01. 5640-02-81			
0130	619.1000	Mobilization	EACH	1.000	1.000
0140	625.0500	Salvaged Topsoil	SY	2,800.000	2,800.000
0150	627.0200	Mulching	SY	1,710.000	1,710.000
0160	628.1504	Silt Fence	LF	790.000	790.000
0170	628.1520	Silt Fence Maintenance	LF	790.000	790.000
0180	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0190	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0200	628.7560	Tracking Pads	EACH	1.000	1.000
0210	629.0210	Fertilizer Type B	CWT	1.100	1.100
0220	630.0130	Seeding Mixture No. 30	LB	31.000	31.000
0230	631.0300	Sod Water	MGAL	38.000	38.000
0240	631.1000	Sod Lawn	SY	1,700.000	1,700.000
0250	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	2.000	2.000
0260	637.2210	Signs Type II Reflective H	SF	2.000	2.000
0270	638.2602	Removing Signs Type II	EACH	2.000	2.000
0280	639.0110	Drill Hole in Earth 10-Inch	LF	175.000	175.000
0290	639.1006	Well Casing Pipe 6-Inch	LF	175.000	175.000
0300	639.1700	Well Screen	LF	3.000	3.000
0310	639.2100	Grout for Sealing Well Casing	CF	62.000	62.000
0320	639.4000	Test Pumping	EACH	2.000	2.000
0330	642.5001	Field Office Type B	EACH	1.000	1.000
0340	643.0100	Traffic Control (project) 01. 5640-02-81	EACH	1.000	1.000
0350	650.4500	Construction Staking Subgrade	LF	400.000	400.000
0360	650.5000	Construction Staking Base	LF	400.000	400.000
0370	652.0220	Conduit Rigid Nonmetallic Schedule 40 1	LF	180.000	180.000
		1/2-Inch			
0380	655.0615	Electrical Wire Lighting 10 AWG	LF	720.000	720.000
0390	690.0150	Sawing Asphalt	LF	44.000	44.000
0400	SPV.0090	Special 01. Temporary Fence	LF	555.000	555.000
0410	SPV.0090	Special 02. Remove Curb Head	LF	17.000	17.000
0420	SPV.0105	Special 01. Restroom Facility Building	LS	1.000	1.000
0430	SPV.0105	Special 02. Restroom Facility Plumbing	LS	1.000	1.000
0440	SPV.0105	Special 03. Restroom Facility (HVAC)	LS	1.000	1.000
		Ventilation			
0450	SPV.0105	Special 04. Restroom Facility Electrical	LS	1.000	1.000
0460	SPV.0105	Special 05. Septic System	LS	1.000	1.000
0470	SPV.0105	Special 06. Miscellaneous Well Items	LS	1.000	1.000
0480	SPV.0105	Special 07. Salvage and Reinstall	LS	1.000	1.000
		Existing Kiosk			



DATE 10MAR15		E S T I M A T E O F Q U A N T I T I E S				
LINE		5640-02-81				
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY	
0490	SPV. 0105	Special 08. Construction Staking Site Layout	LS	1.000	1.000	

REMOVING ASPHALTIC SURFACE

ITEM NUMBER	204.0110
UNIT	SY
	417
PROJECT TOTAL	417

BASE AGGREGATE DENSE 3/4-INCH

ITEM NUMBER	305.0110
UNIT	TON
	67
PROJECT TOTAL	67

CURB RAMP DETECTABLE WARNING FIELD YELLOW

ITEM NUMBER	602.0505
UNIT	SF
	16
PROJECT TOTAL	16

SILT FENCE MAINTENANCE

ITEM NUMBER	628.1520
UNIT	LF
	790
PROJECT TOTAL	790

REMOVING CONCRETE SIDEWALK

ITEM NUMBER	204.0155
UNIT	SY
	200
PROJECT TOTAL	200

BASE AGGREGATE DENSE 1 1/4-INCH

ITEM NUMBER	305.0120
UNIT	TON
	285
PROJECT TOTAL	285

SALVAGED TOPSOIL

ITEM NUMBER	625.0500
UNIT	SY
	2,800
PROJECT TOTAL	2,800

TRACKING PADS

ITEM NUMBER	628.7560
UNIT	EA
	1
PROJECT TOTAL	1

REMOVING SEPTIC TANKS

ITEM NUMBER	204.0225
UNIT	EACH
	2
PROJECT TOTAL	2

ASPHALTIC SURFACE

ITEM NUMBER	465.0105
UNIT	TON
	88
PROJECT TOTAL	88

MULCHING

ITEM NUMBER	627.0200
UNIT	SY
	1,710
PROJECT TOTAL	1,710

FERTILIZER TYPE B

ITEM NUMBER	629.0210
UNIT	CWT
	1.1
PROJECT TOTAL	1.1

EXCAVATION COMMON

ITEM NUMBER	205.0100
UNIT	CY
	305
PROJECT TOTAL	305

CONCRETE SIDEWALK 5-INCH

ITEM NUMBER	602.0410
UNIT	SF
	1,790
PROJECT TOTAL	1,790

SILT FENCE

ITEM NUMBER	628.1504
UNIT	LF
	790
PROJECT TOTAL	790

SEEDING MIXTURE NO. 30

ITEM NUMBER	630.0130
UNIT	LB
	31
PROJECT TOTAL	31

SOD WATER	
ITEM NUMBER	631.0300
UNIT	MGAL
38	
PROJECT TOTAL	38

SOD LAWN	
ITEM NUMBER	631.1000
UNIT	SY
1,700	
PROJECT TOTAL	1,700

POSTS WOOD 4X6-INCH X 12-FT	
ITEM NUMBER	634.0612
UNIT	EA
2	
PROJECT TOTAL	2

SIGNS TYPE II RELFECTIVE H		
SIGN CODE	SIGN SIZE	637.2210 SF
R55-63	24" X 12"	2
PROJECT TOTAL	2	

REMOVING SIGNS TYPE II	
ITEM NUMBER	638.2602
UNIT	EA
2	
PROJECT TOTAL	2

DRILL HOLE IN EARTH 10-INCH	
ITEM NUMBER	639.0110
UNIT	LF
175	
PROJECT TOTAL	175

WELL CASING PIPE 6-INCH	
ITEM NUMBER	639.1006
UNIT	LF
175	
PROJECT TOTAL	175

WELL SCREEN	
ITEM NUMBER	639.1700
UNIT	LF
3	
PROJECT TOTAL	3

GROUT FOR SEALING WELL CASING	
ITEM NUMBER	639.2100
UNIT	CF
62	
PROJECT TOTAL	62

TEST PUMPING	
ITEM NUMBER	639.4000
UNIT	EA
2	
PROJECT TOTAL	2

CONSTRUCTION STAKING SUBGRADE	
ITEM NUMBER	650.4500
UNIT	LF
400	
PROJECT TOTAL	400

CONSTRUCTION STAKING BASE	
ITEM NUMBER	650.5000
UNIT	LF
400	
PROJECT TOTAL	400

CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/2 INCH	
ITEM NUMBER	652.0220
UNIT	LF
180	
PROJECT TOTAL	180

ELECTRICAL WIRE LIGHTING 10 AWG	
ITEM NUMBER	655.0615
UNIT	LF
720	
PROJECT TOTAL	720

SAWING ASPHALT	
ITEM NUMBER	690.0150
UNIT	LF
44	
PROJECT TOTAL	44

TEMPORARY FENCE	
ITEM NUMBER	SPV.0090.01
UNIT	LF
555	
PROJECT TOTAL	555

REMOVE CURB HEAD	
ITEM NUMBER	SPV.0090.02
UNIT	LF
17	
PROJECT TOTAL	17

INSTALL (3) ELECTRICAL WIRE  
LIGHTING 10 AWG ((3) #10 & #10G IN 1 1/2" C)  
IN 1 - CONDUIT SHALL BE RIGID NONMETALIC  
SCHEDULE 40, 1 1/2" INCH

LAKE WISCONSIN

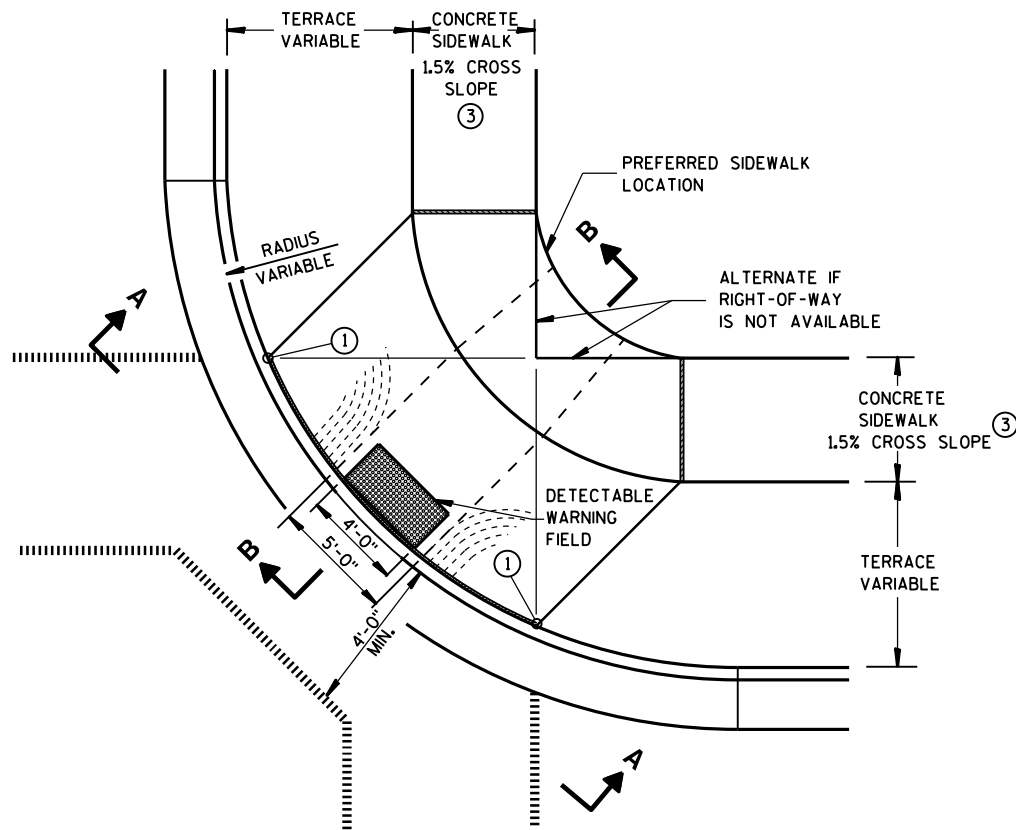
WATER EDGE

PROTECT LIGHT POLE TO REMAIN  
ABANDON EXISTING UNDERGROUND  
ELECTRICAL (FROM LIGHT POLE TO LIGHT POLE)  
EXISTING RESTROOM BUILDING  
TO BE DEMOLISHED AND REMOVED  
(SEE DETAILS)

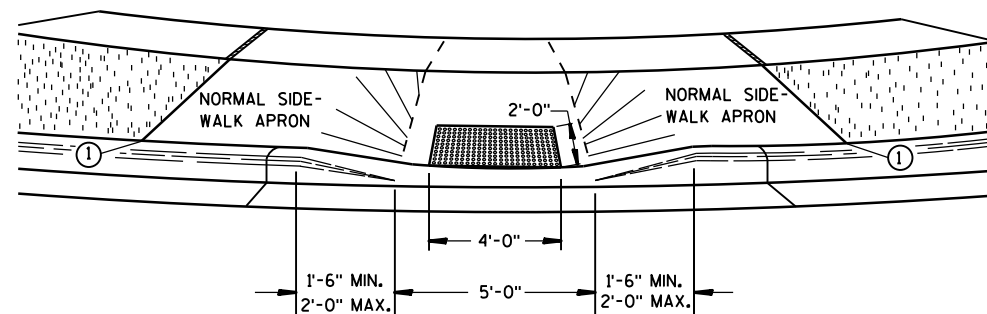
Standard Detail Drawing List

08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E09-06	SILT FENCE
08E14-01	TRACKING PAD
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15D20-02	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

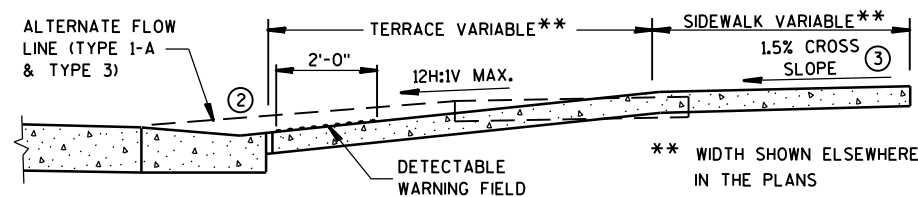




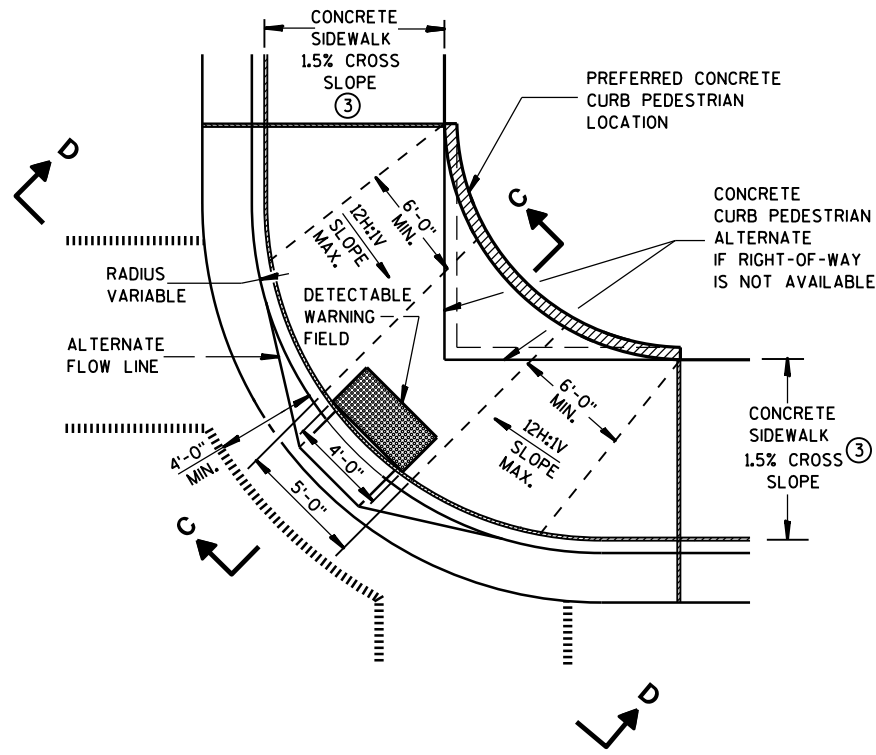
**PLAN VIEW  
TYPE 1 RAMP**  
(CENTER OF CORNER RADIUS)



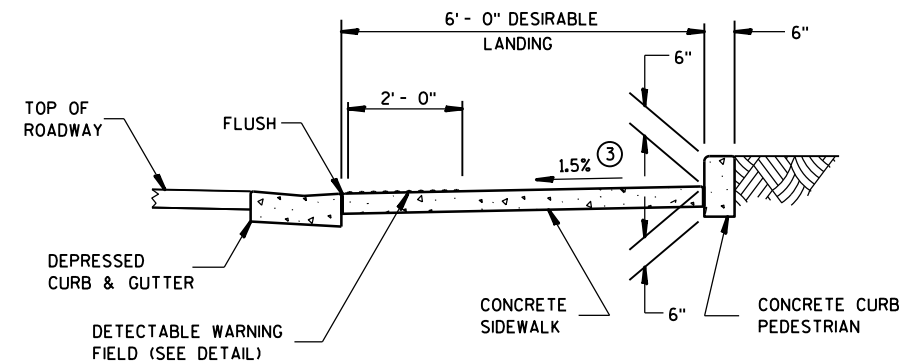
**VIEW A-A**



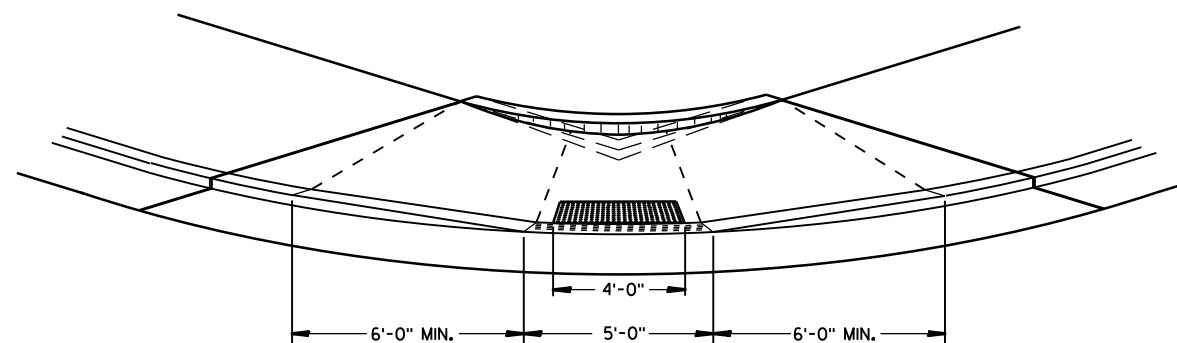
**SECTION B-B**



**PLAN VIEW  
TYPE 1-A RAMP**  
(NO TERRACE)



**SECTION C-C**



**VIEW D-D**

## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

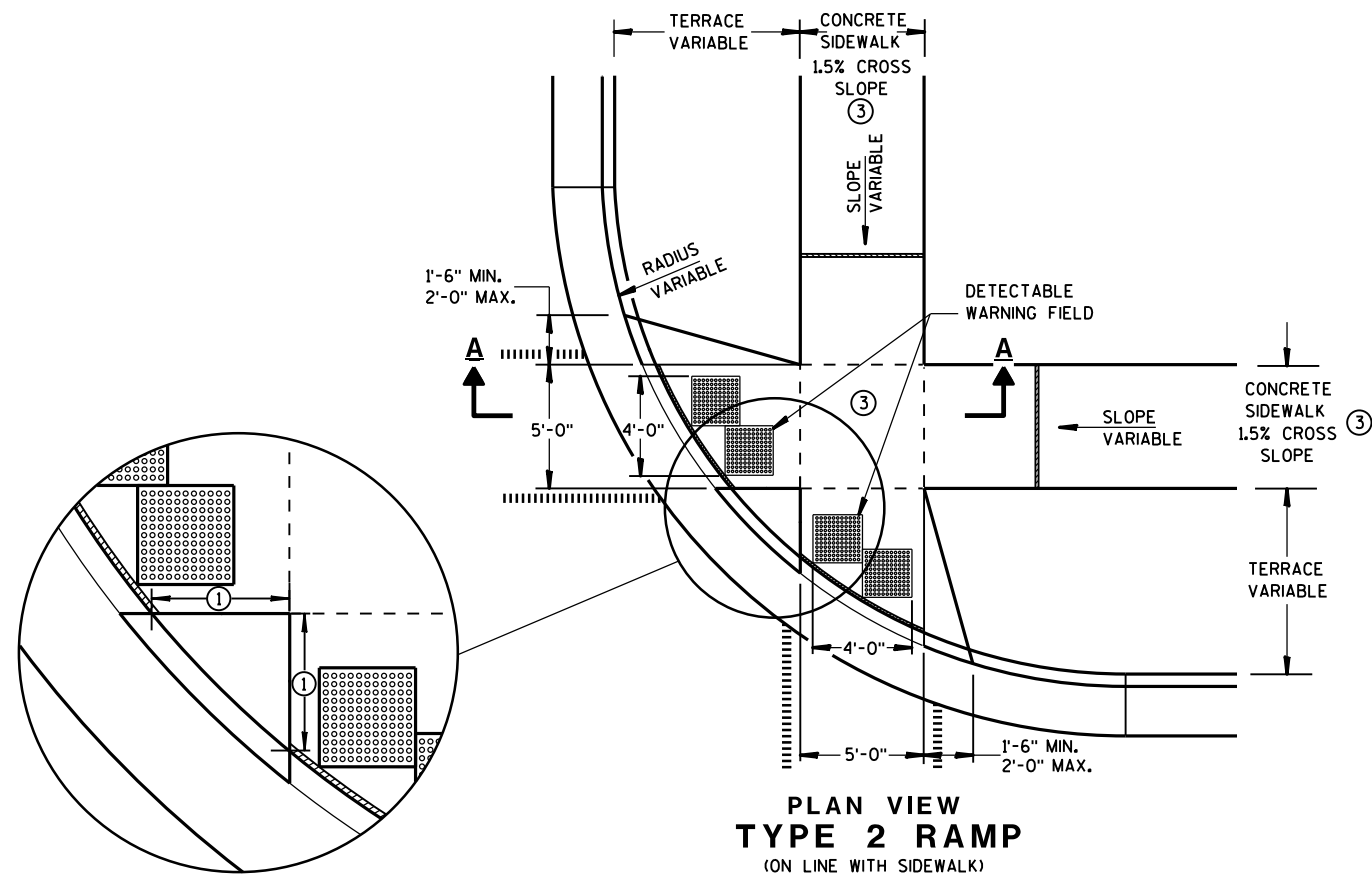
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③  $\pm 0.5\%$  CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

## LEGEND

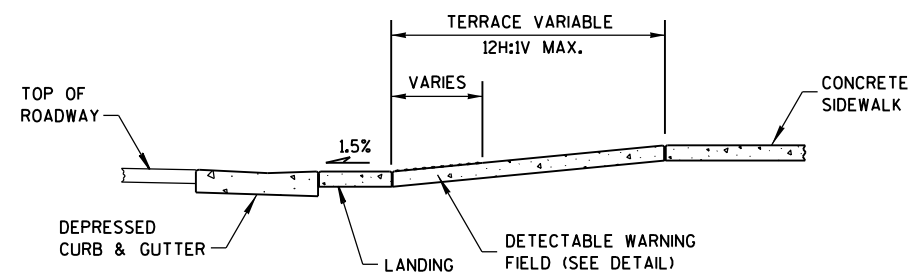
- 1/2" EXPANSION JOINT-SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

**CURB RAMPS  
TYPES 1 AND 1-A**

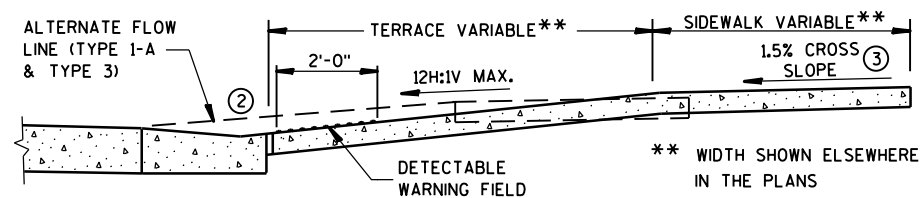
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**PLAN VIEW  
TYPE 2 RAMP**  
(ON LINE WITH SIDEWALK)



**SECTION A-A**



**SECTION B-B**

## GENERAL NOTES

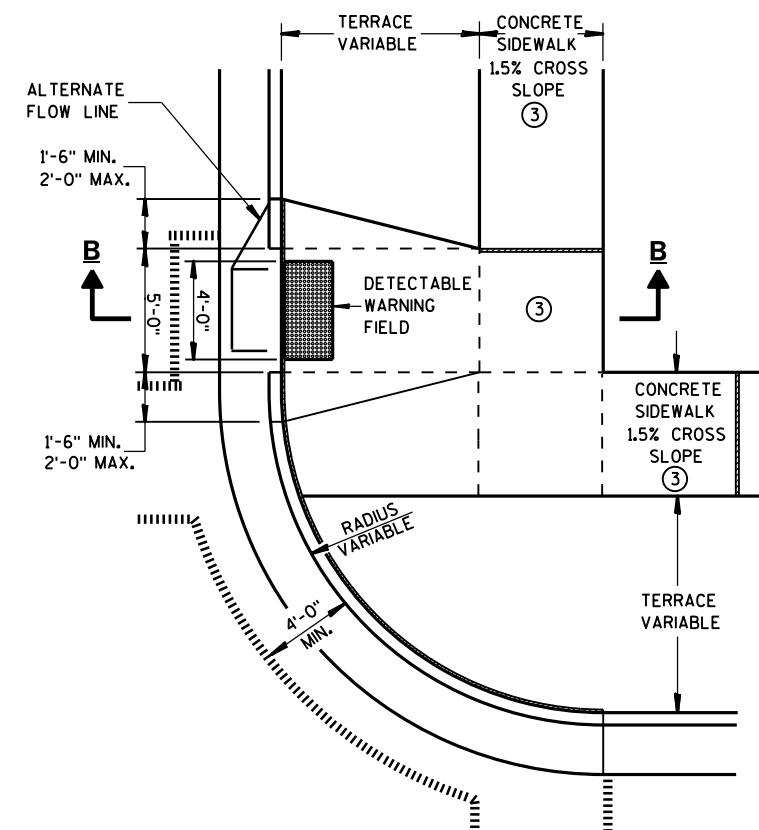
USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- ① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③  $\pm 0.5\%$  CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

## LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



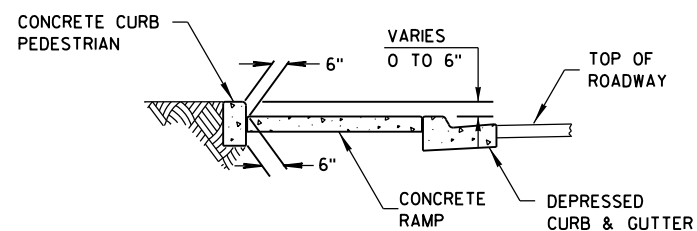
**PLAN VIEW  
TYPE 3 RAMP**  
(OUTSIDE OF CROSSWALK AREA)

**CURB RAMPS  
TYPES 2 AND 3**

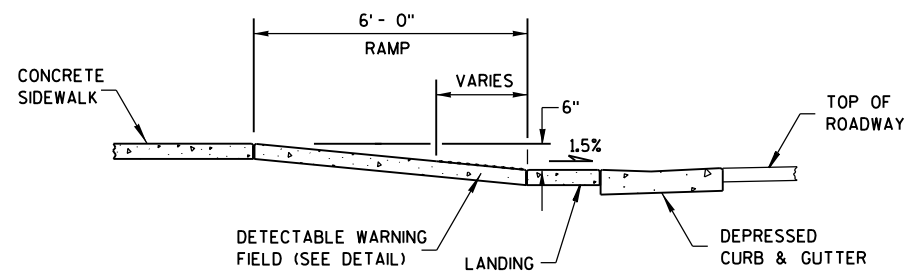
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**CURB RAMP TYPE 4A**  
**PLAN VIEW**



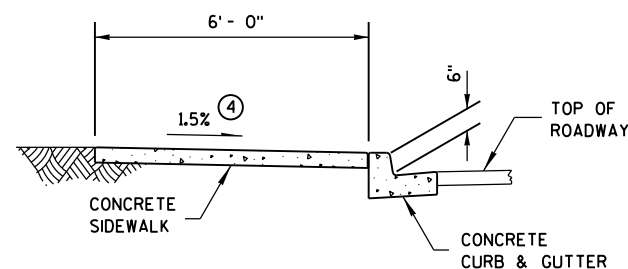
**SECTION C-C FOR TYPE 4A**



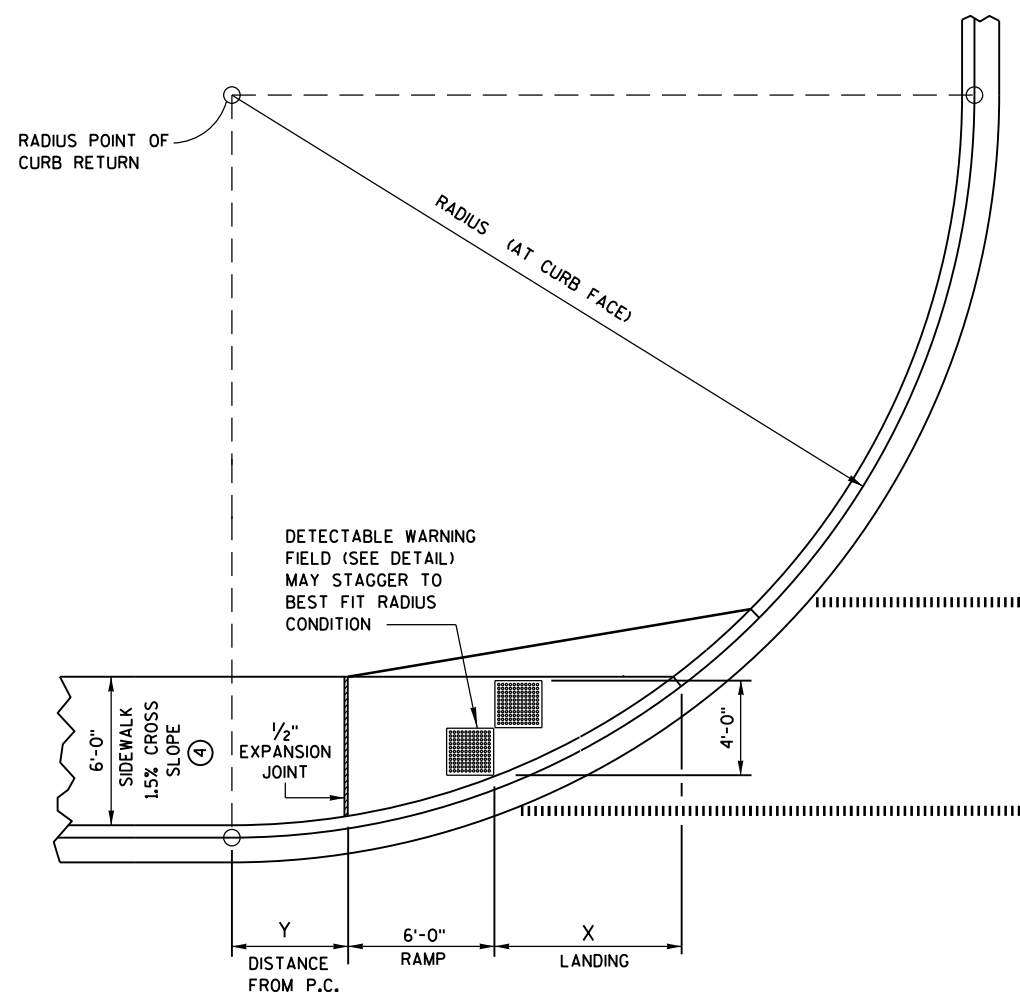
**SECTION B-B FOR TYPE 4A**

<b>RADIUS (AT CURB FACE)</b>	<b>X</b>	<b>Y</b>
<b>20 FEET</b>	6'-1¾"	2'-7¼"
<b>30 FEET</b>	7'-11¾"	4'-8¼"
<b>40 FEET</b>	9'-5¼"	6'-5"
<b>50 FEET</b>	10'-8¾"	7'-11¼"
<b>60 FEET</b>	11'-10¼"	9'-3½"

### INTERMEDIATE RADII CAN BE INTERPOLATED



**SECTION A-A FOR TYPE 4A**



**CURB RAMP TYPE 4A1**  
**PLAN VIEW**

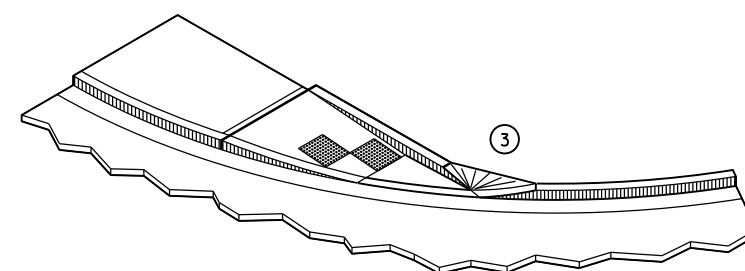
## GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

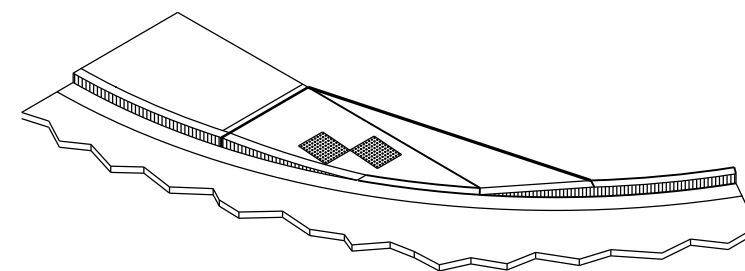
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.)  
DO NOT MARK TRANSITION NOSE.
- ④  $\pm 0.5\%$  CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.





ISOMETRIC VIEW FOR TYPE 4A



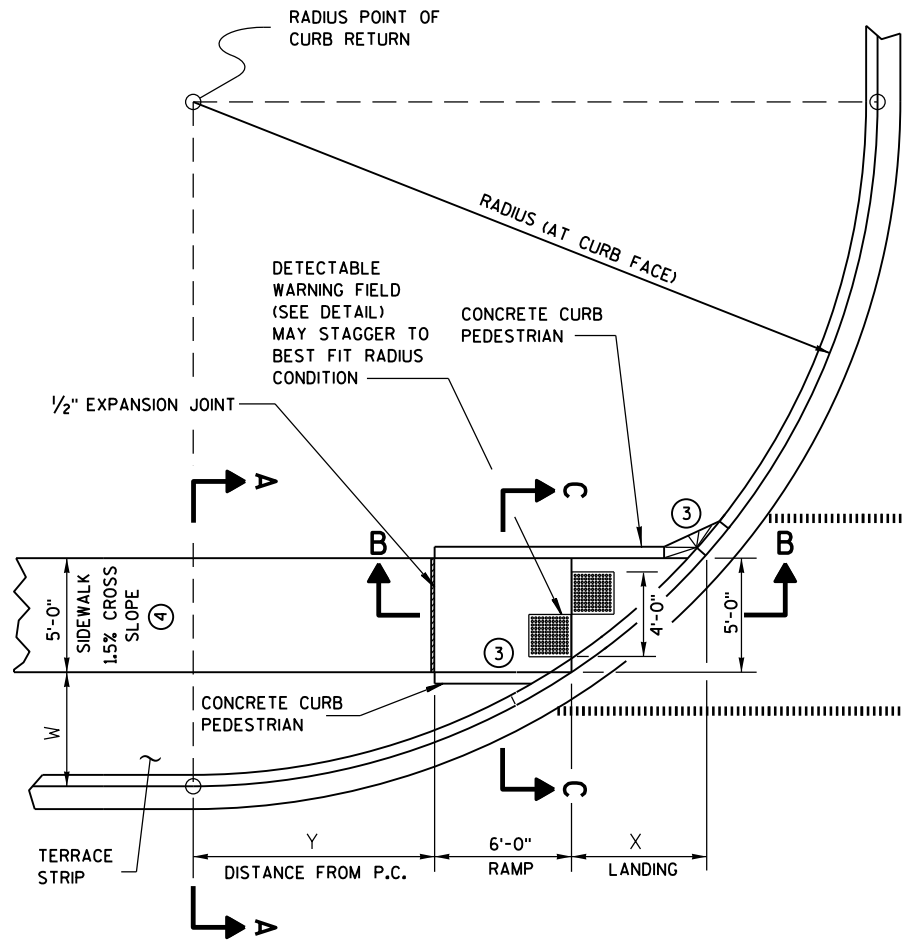
**ISOMETRIC VIEW FOR TYPE 4A1**

## LEGEND

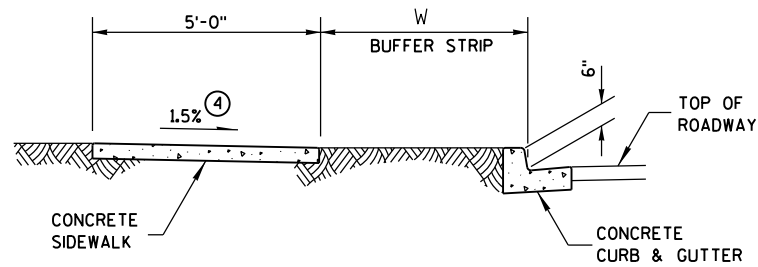
- |   |                                    |
|---|------------------------------------|
|  | 1/2" EXPANSION JOINT-SIDEWALK      |
|  | CONTRACTION JOINT FIELD LOCATED    |
|  | PAVEMENT MARKING CROSSWALK (WHITE) |

## CURB RAMPS TYPES 4A AND 4A1

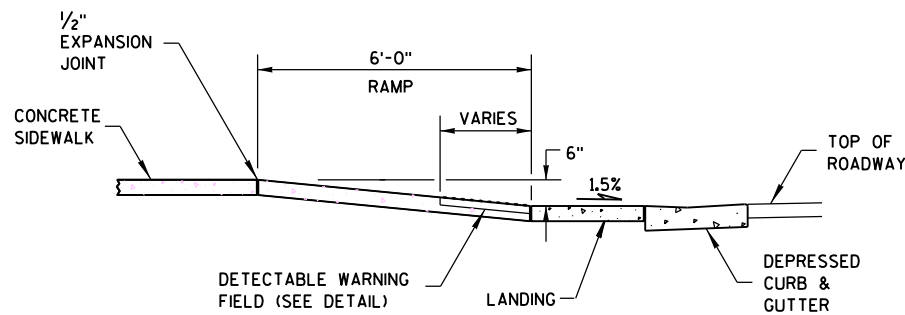
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 4B  
PLAN VIEW



SECTION A-A FOR TYPE 4B

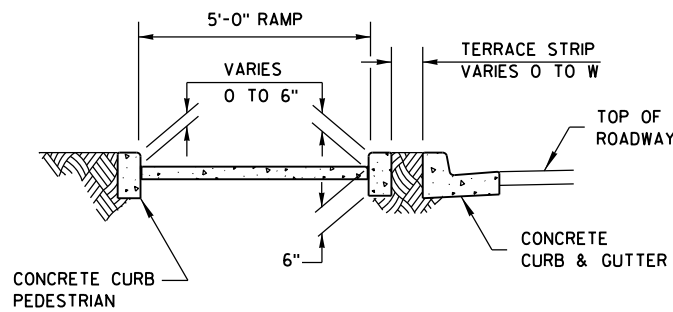


SECTION B-B FOR TYPE 4B

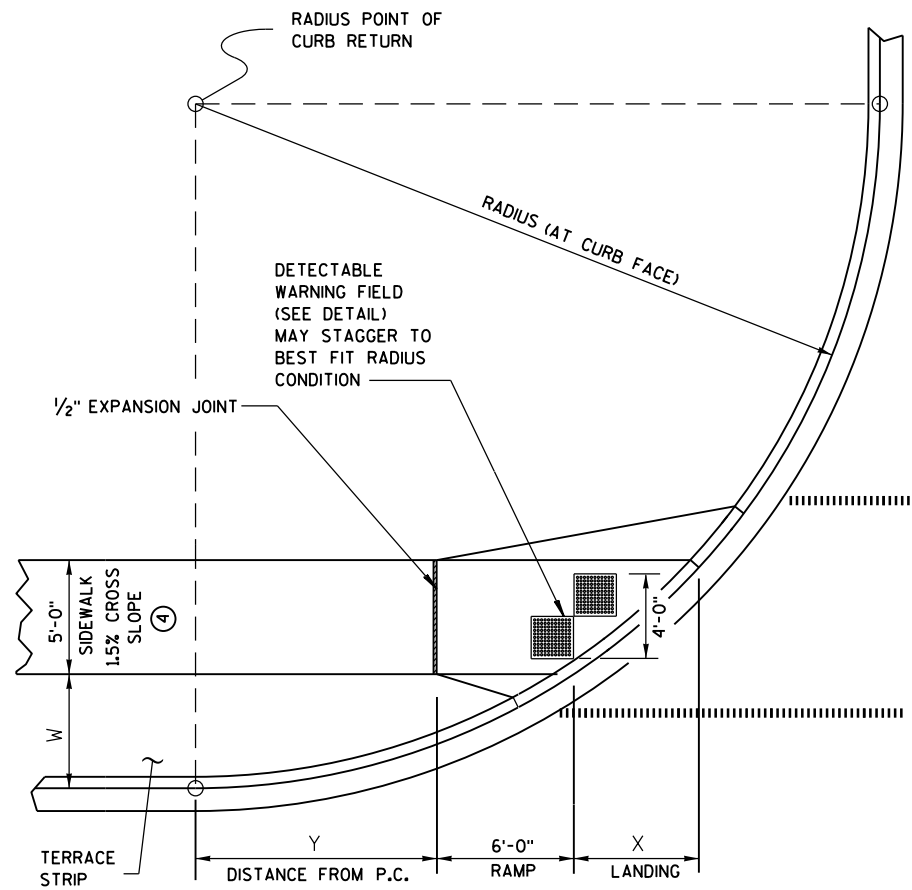
- LEGEND**
- 1/2" EXPANSION JOINT-SIDEWALK
  - CONTRACTION JOINT FIELD LOCATED
  - PAVEMENT MARKING CROSSWALK (WHITE)

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5 1/2"	4'-6 1/2"	4'-8 1/2"	6'-0"	4'-1"	7'-2 3/4"	3'-7"	8'-3 1/2"	3'-1 1/2"	9'-2 1/2"
30 FEET	7'-3 3/4"	7'-1"	6'-5 1/2"	8'-11 1/2"	5'-9 1/4"	10'-7"	5'-2 1/2"	12'-0"	4'-8 3/4"	13'-3 1/4"
40 FEET	8'-9 1/2"	9'-2 1/2"	7'-10"	11'-5 1/4"	7'-1"	13'-4 1/2"	6'-5 3/4"	15'-3/4"	5'-11 1/2"	16'-7 1/4"
50 FEET	10'-3/4"	11'-3/4"	9'-1/4"	13'-7 1/4"	8'-2 1/2"	15'-9 1/2"	7'-6 1/2"	17'-9"	6'-11 3/4"	19'-6 1/4"
60 FEET	11'-2 1/2"	12'-8 3/4"	10'-3/4"	15'-6 1/2"	9'-2 1/4"	17'-11 3/4"	8'-5 3/4"	20'-1 3/4"	7'-10 1/2"	22'-1 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION C-C FOR TYPE 4B



CURB RAMP TYPE 4B1  
PLAN VIEW

**GENERAL NOTES**

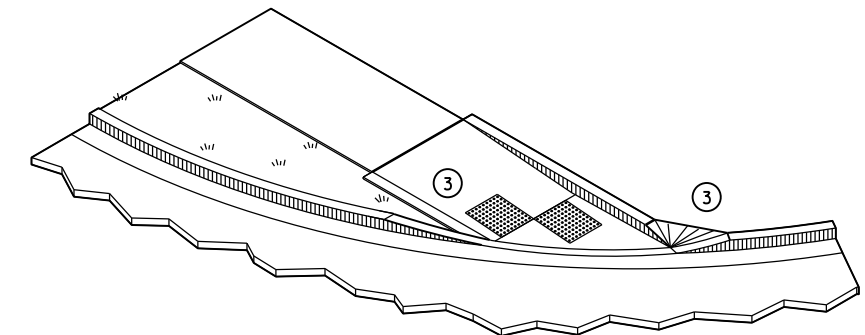
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

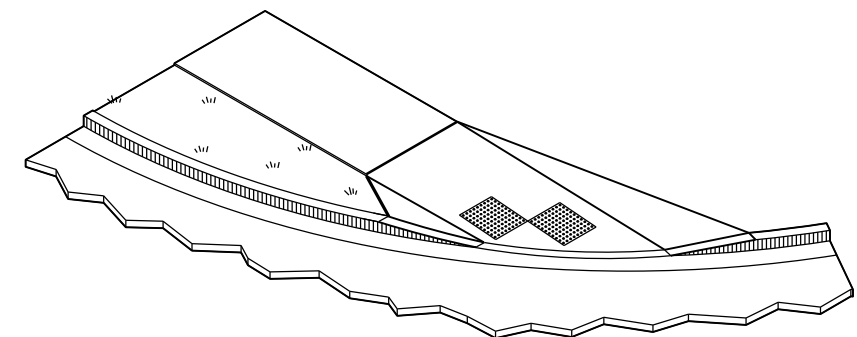
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4B

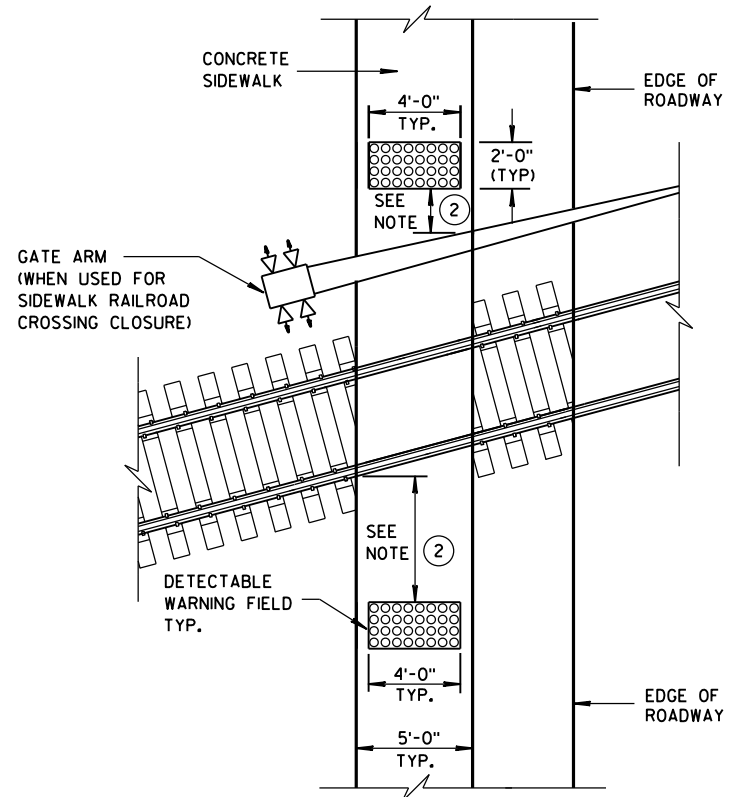


ISOMETRIC VIEW FOR TYPE 4B1

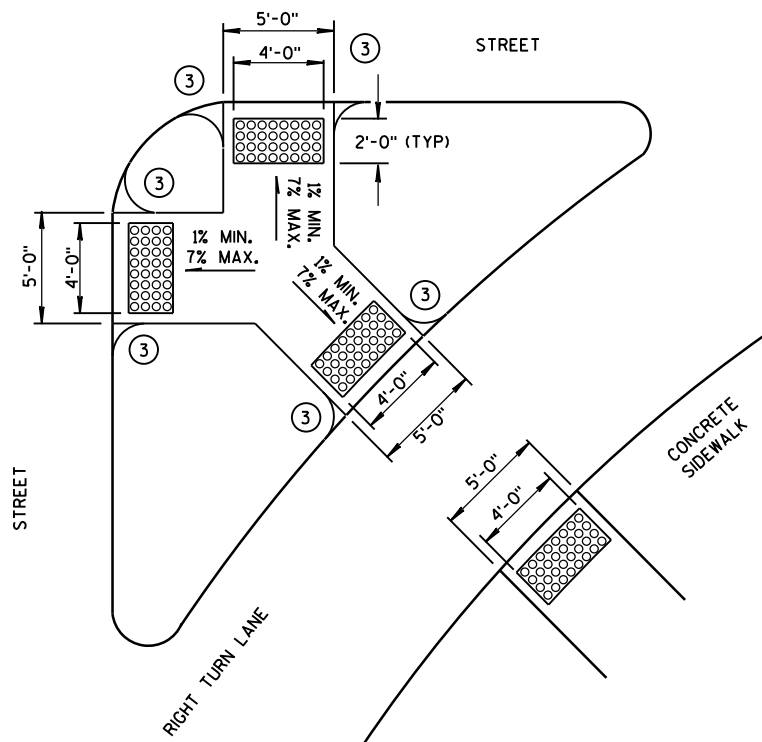
CURB RAMPS  
TYPE 4B AND 4B1

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

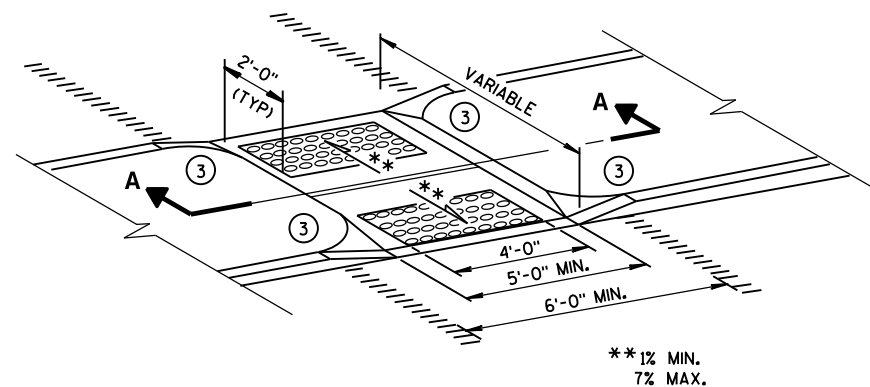




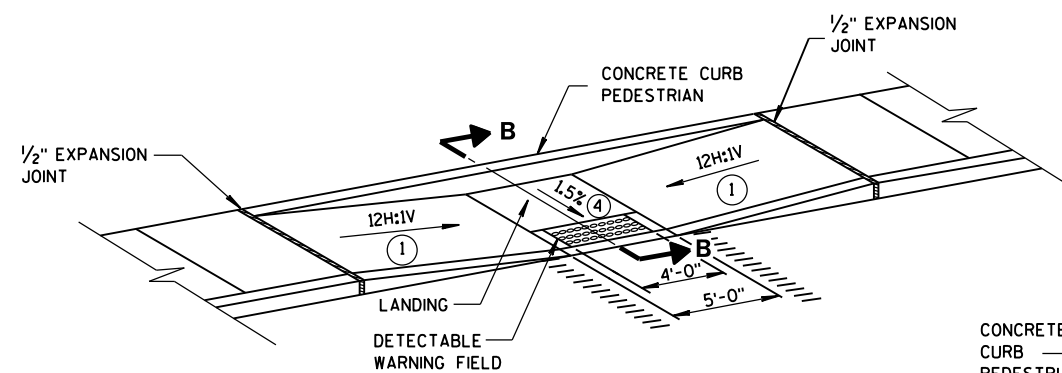
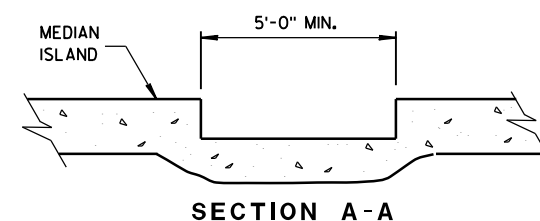
**TYPE 8**  
**DETECTABLE WARNINGS**  
**AT RAILROAD CROSSING**



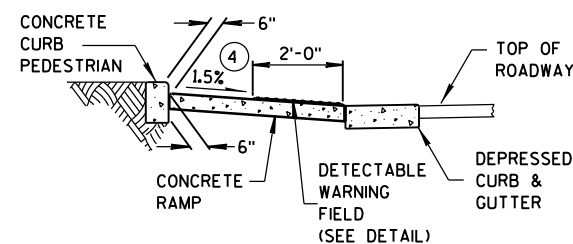
**TYPE 6**  
**DETECTABLE WARNING AT ISLANDS**



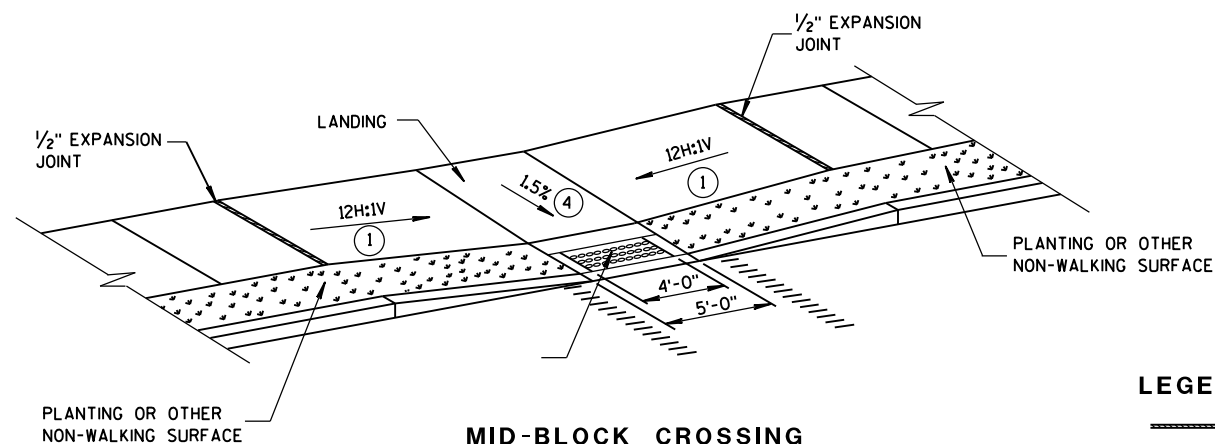
**MEDIAN ISLAND**  
**NON-ELEVATED CROSSING**  
**TYPE 5**



**MID-BLOCK CROSSING**  
**TYPE 7A**



**SECTION B-B**



**MID-BLOCK CROSSING**  
**TYPE 7B**

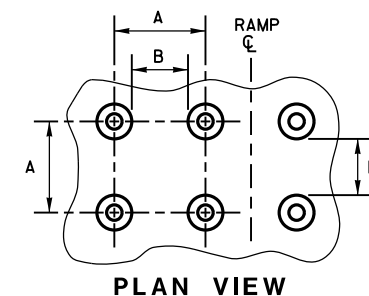
NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

## GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

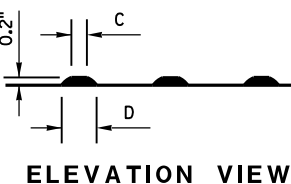
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- ① SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ② THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET  $\pm$  0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.
- ④  $\pm$ 0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



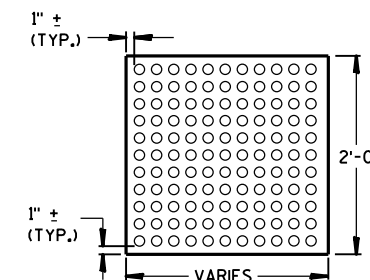
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

\* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



## TRUNCATED DOMES

### DETECTABLE WARNING PATTERN DETAIL



**PLAN VIEW**  
**DETECTABLE WARNING**  
**FIELD (TYPICAL)**

## LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

**CURB RAMPS**  
**TYPES 5, 6, 7A, 7B & 8**

**STATE OF WISCONSIN**  
**DEPARTMENT OF TRANSPORTATION**

**APPROVED**  
2-6-2013  
DATE  
FHWA

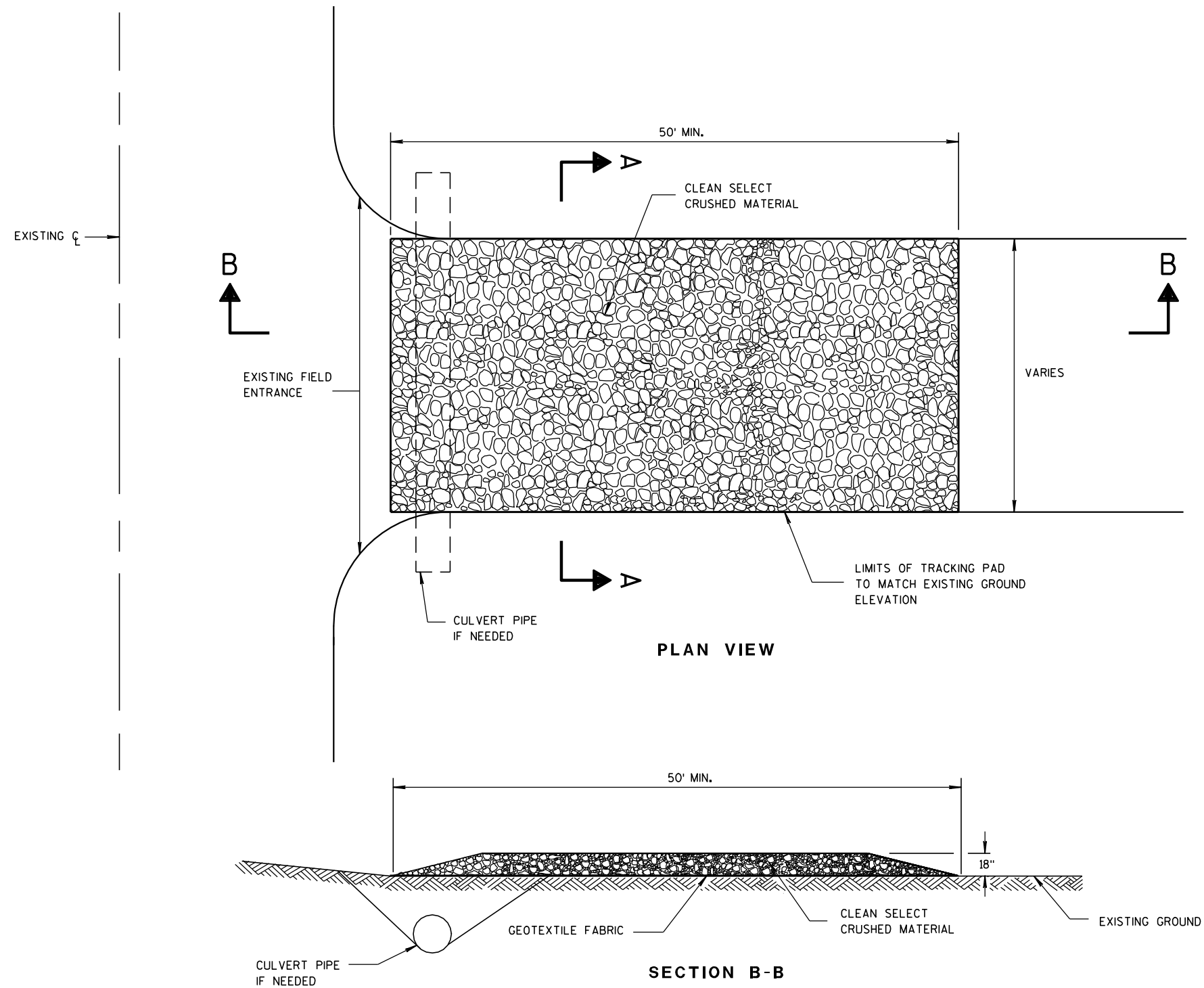
/S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER



- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



<p>SILT FENCE</p>	
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>	
<p>APPROVED 4-29-05 DATE</p>	<p>/s/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER</p>



TRACKING PAD

## GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

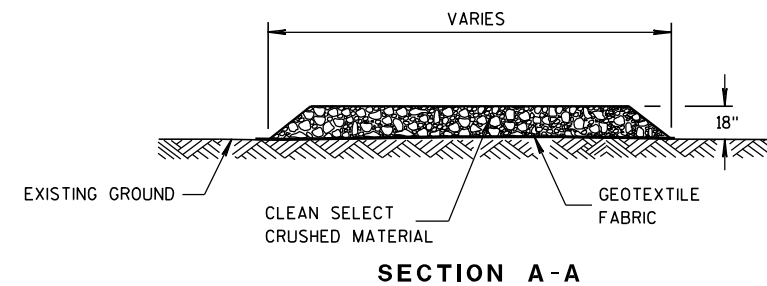
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



## TRACKING PAD

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011

DATE





FHWA

/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

ENGINEER

LEGEND

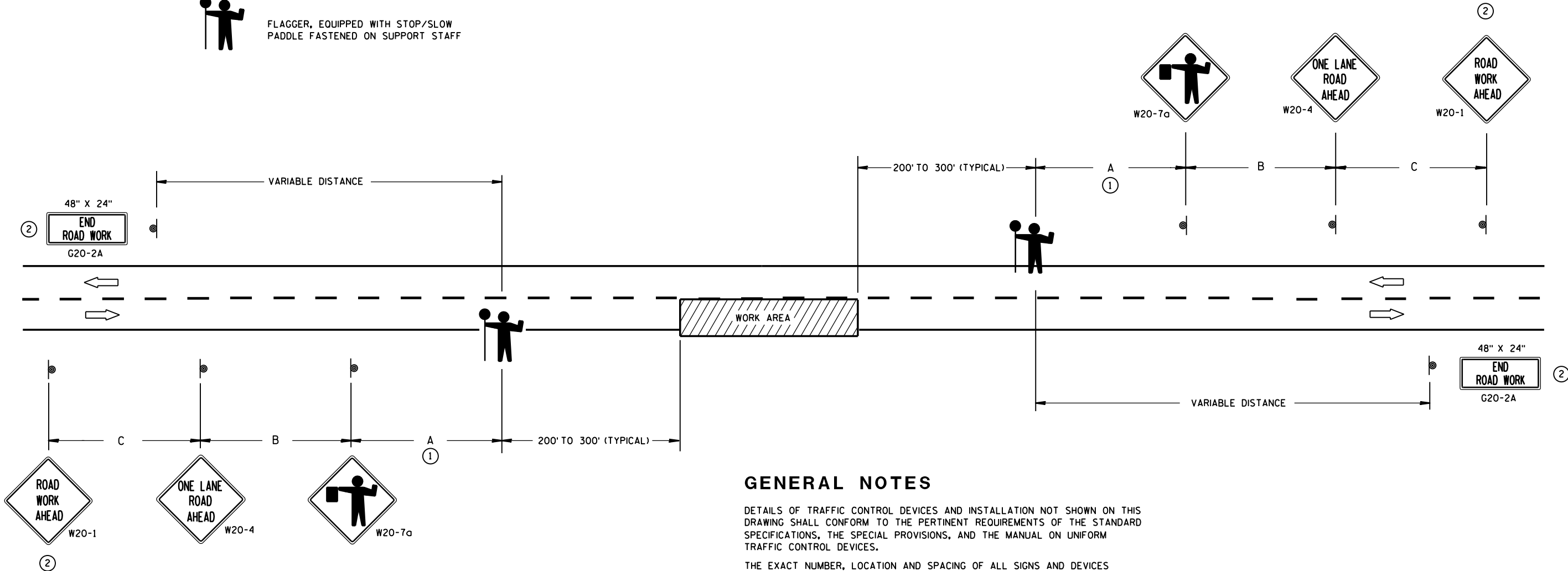
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE LOCATION OF ALL FLAGGERS) SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

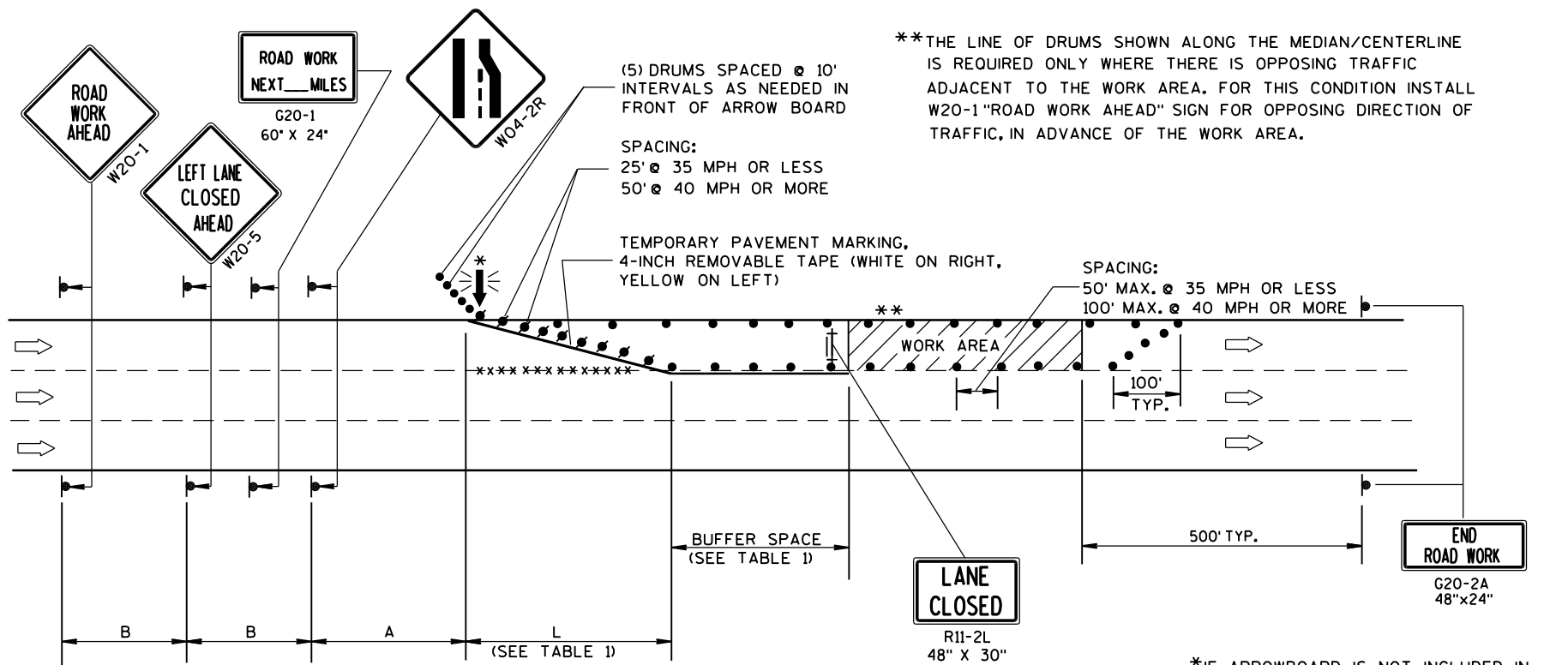
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL FOR LANE  
CLOSURE (SUITABLE FOR  
MOVING OPERATIONS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
8/2013 /S/ Travis Feltes  
DATE STATE TRAFFIC ENGINEER OF DESIGN  
FHWA



B=400' AT 25-30 MPH  
700' AT 35-40 MPH  
1000' AT 45-55 MPH

A=200' AT 25-30 MPH  
350' AT 35-40 MPH  
500' AT 45-55 MPH

TABLE 1  
TAPER AND BUFFER SPACE  
FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER  
L =  $\frac{WS^2}{60}$  AT 40 MPH OR LESS  
L = TAPER LENGTH IN FEET  
S = NON-CONSTRUCTION SPEED LIMIT (MPH)  
W = WIDTH OF LANE CLOSURE

### LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

### GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

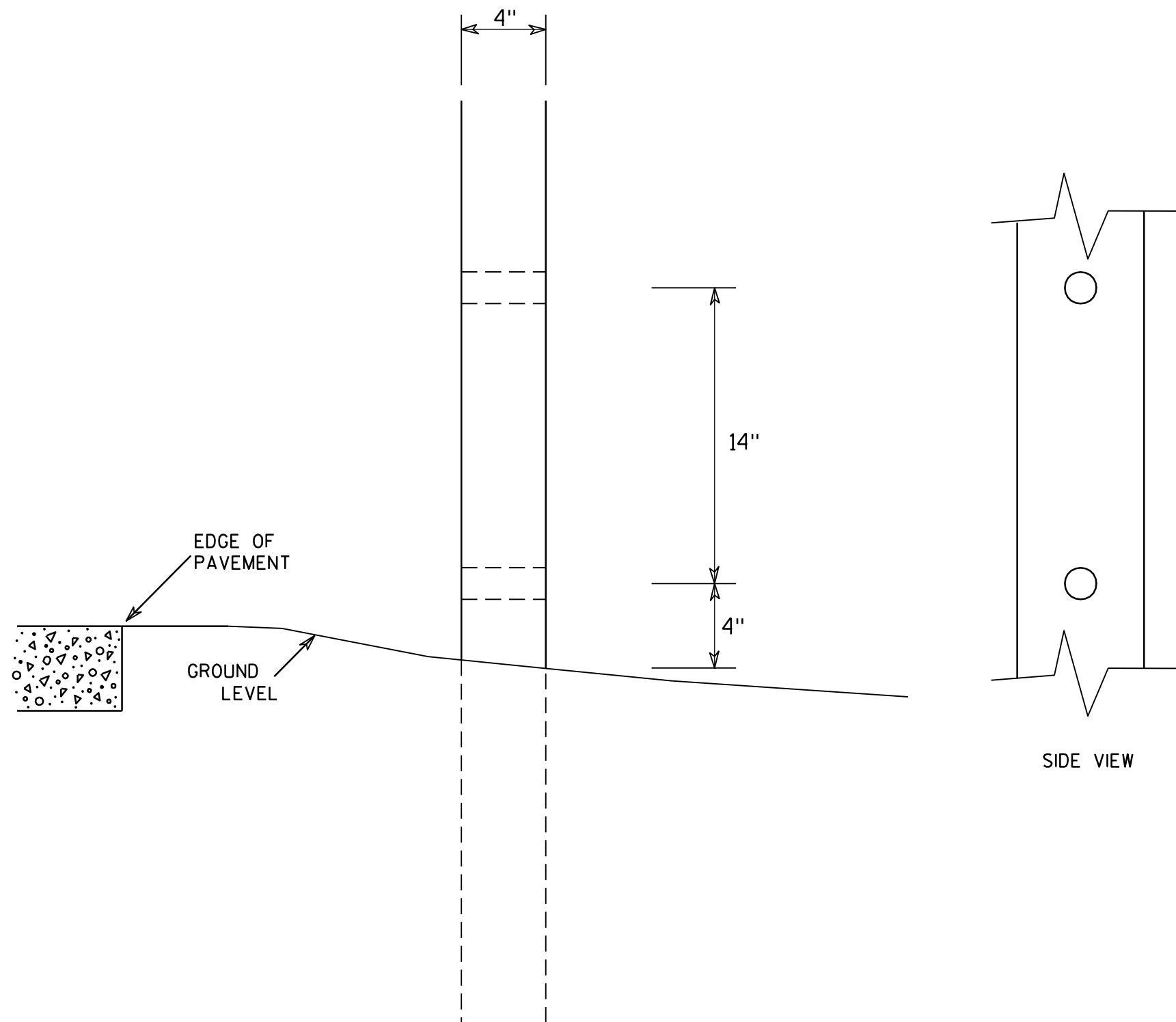
TRAFFIC CONTROL,  
SINGLE LANE CLOSURE,  
NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
8/2013 /S/ Travis Feltes  
DATE STATE TRAFFIC ENGINEER OF DESIGN  
FHWA



7



### GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

### 4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Chester J. Spang*  
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

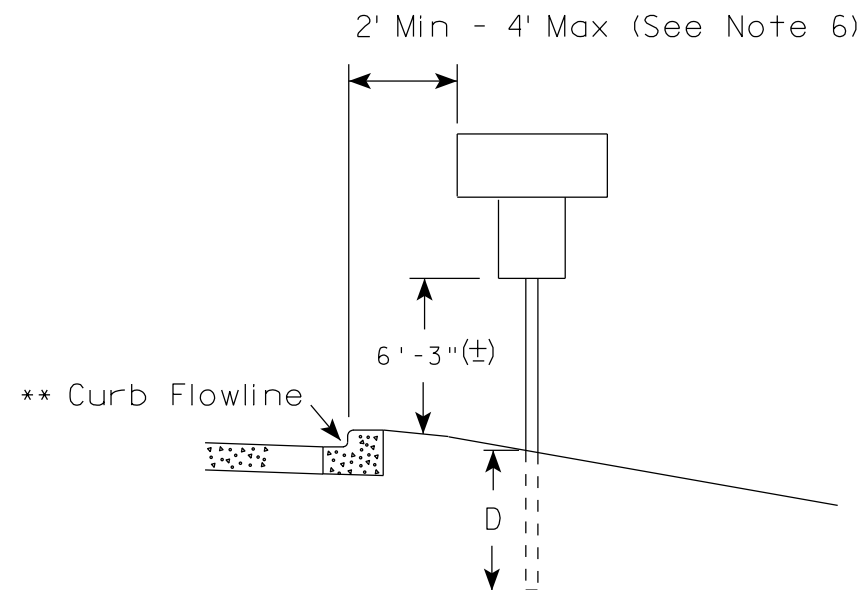
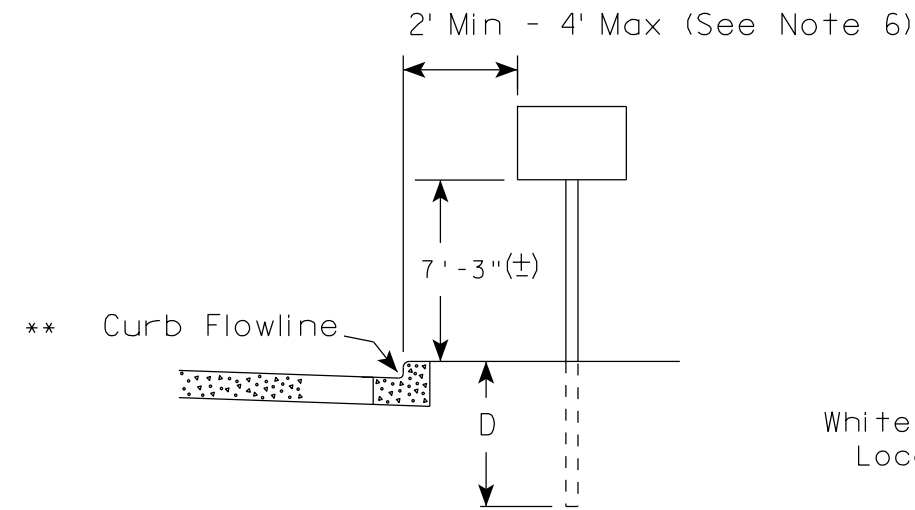
HWY:

COUNTY:

SHEET NO:

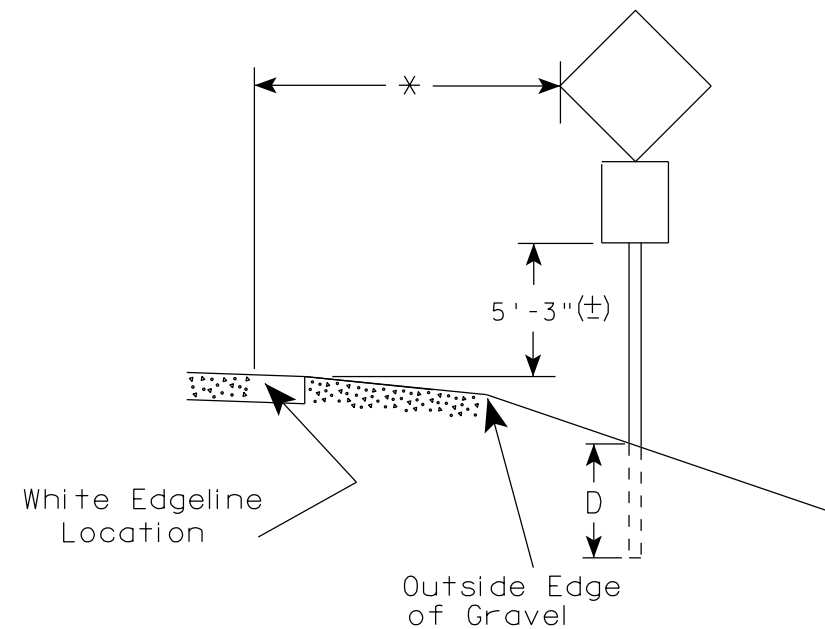
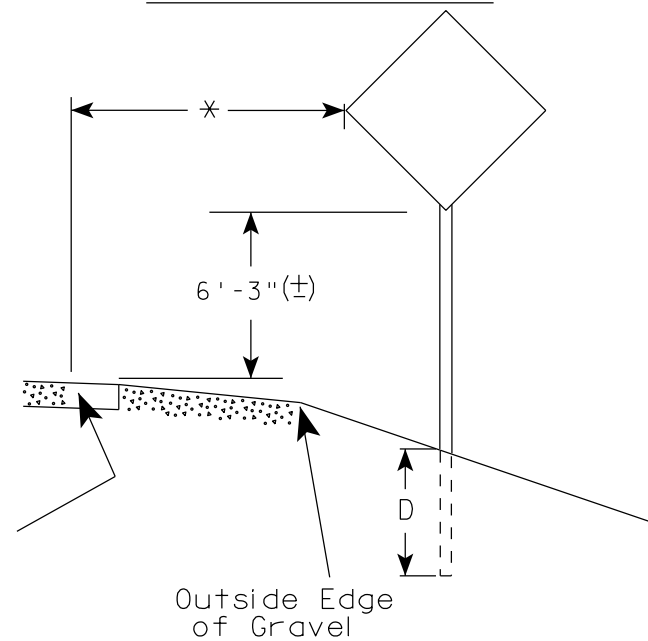
E

## URBAN AREA



White Edgeline Location

## RURAL AREA (See Note 2)



### POST EMBEDMENT DEPTH

Area of Sign Installation ( Sq. Ft. )	D ( Min )
20 or Less	4'
Greater than 20	5'

### GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

\* \* The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

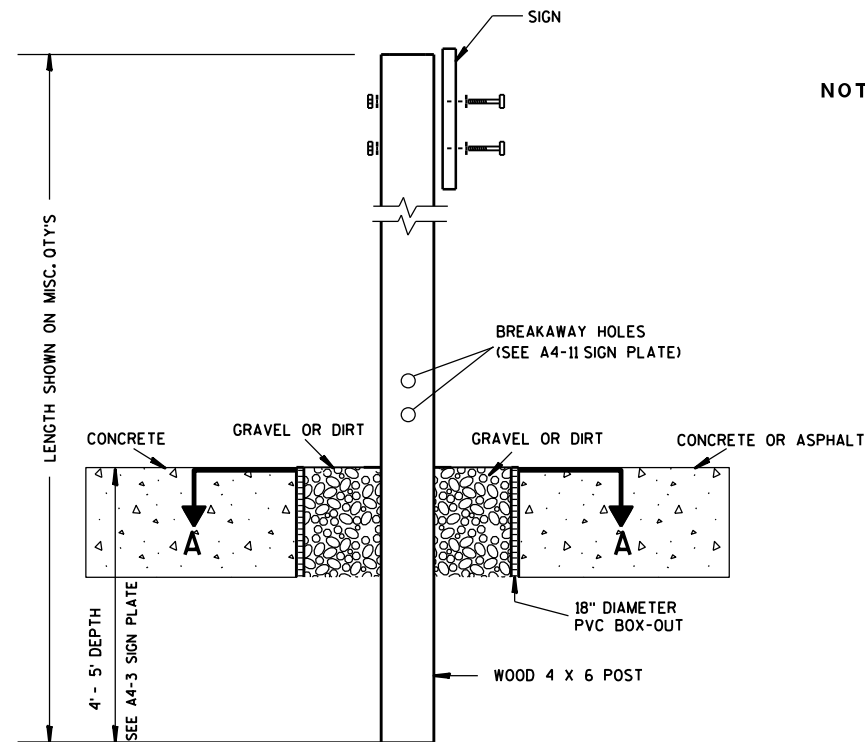
\* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION  
OF PERMANENT TYPE II  
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

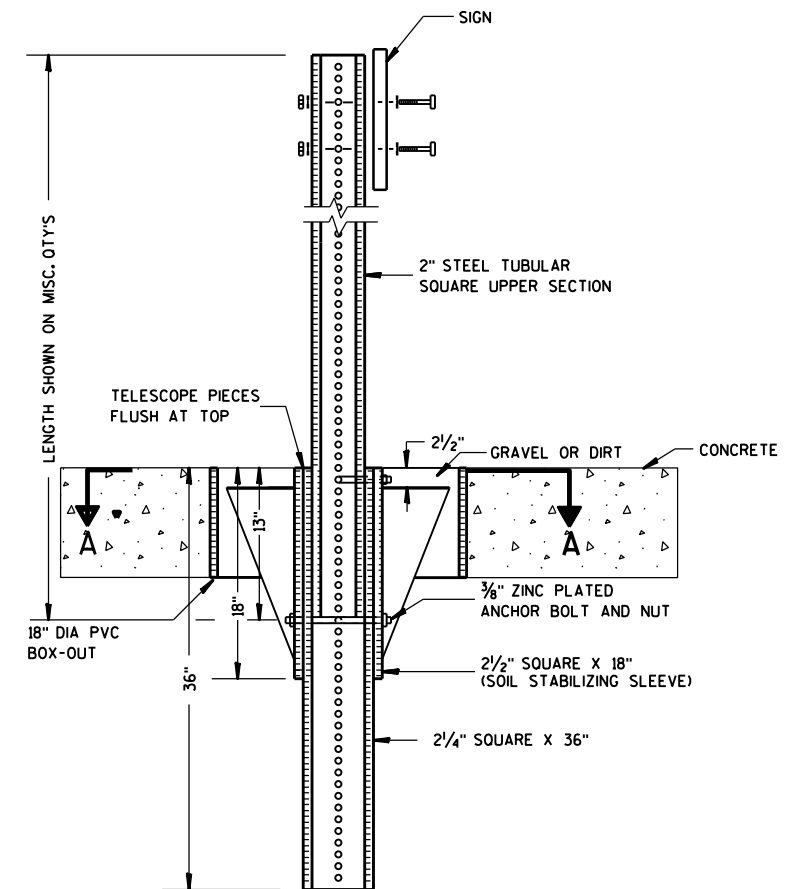
DATE 11/12/14 PLATE NO. A4-3.19



### ELEVATION VIEW

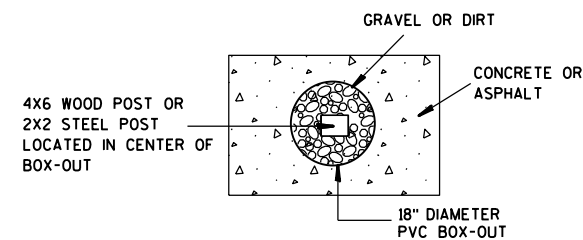
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



### ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



### PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST  
BOX-OUTS  
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

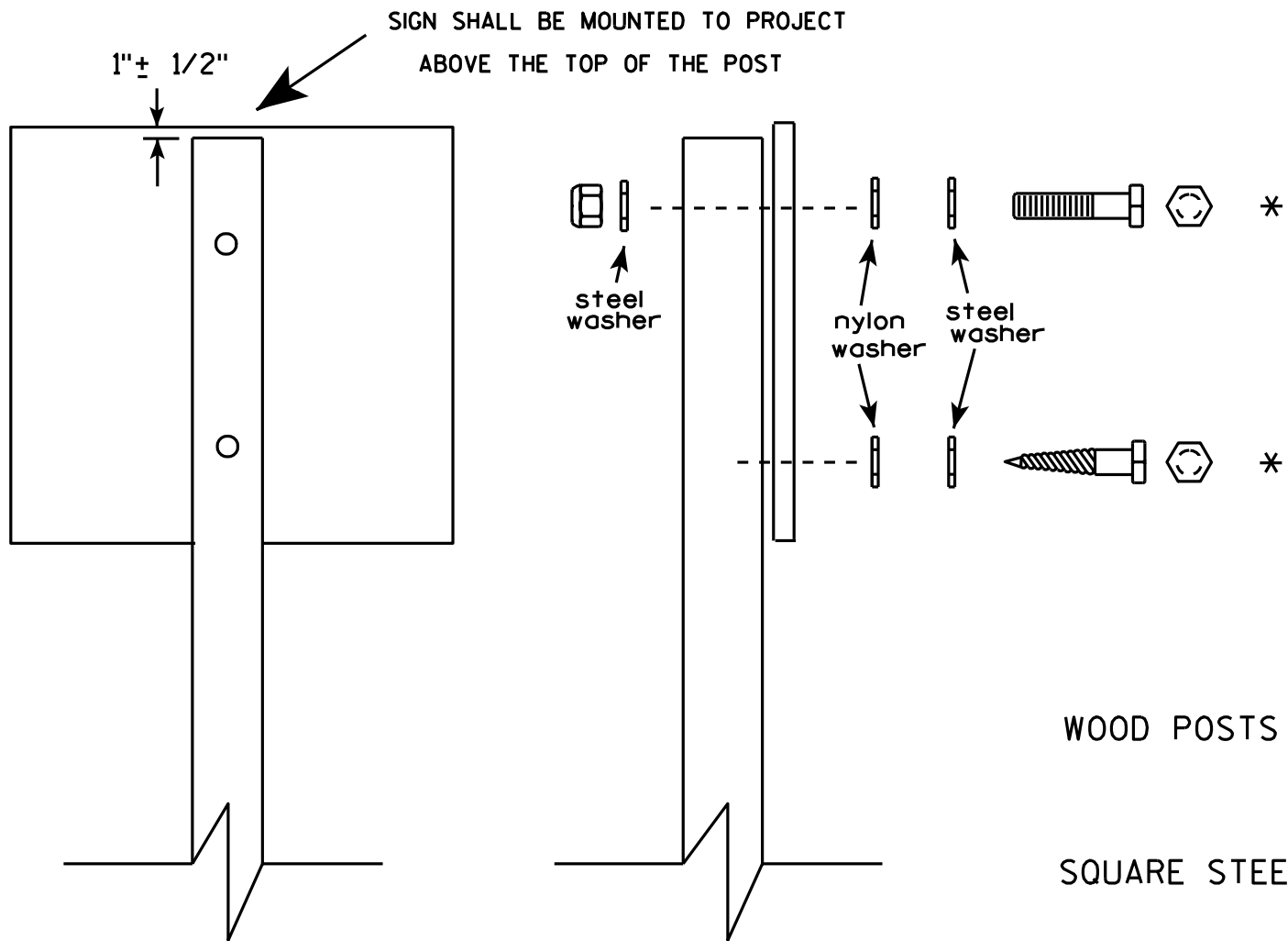
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

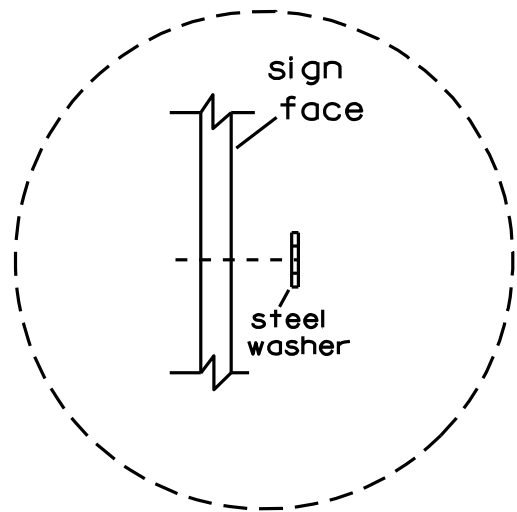


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- WOOD POSTS (4" x 4" or 4" x 6")  
LAG SCREWS - 3/8" X 3"  
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")  
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts  
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL  
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -  
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL  
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.

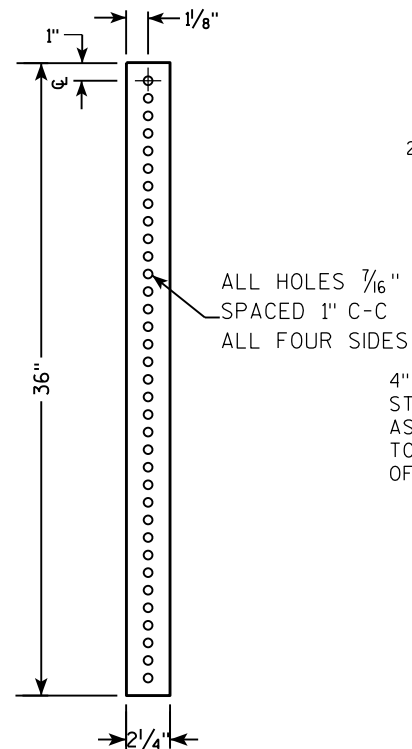


Washer Placement when Sign Has Other Than Type H or Type F Face

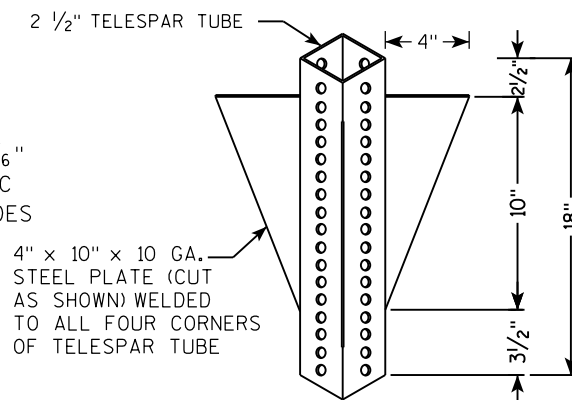
\* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/23/10	PLATE NO. A4-8.7

**2 1/4 " SQUARE  
12 GAUGE  
PERFORATED  
GALVANIZED FINISH**



**2 1/2" SQUARE  
12 GAUGE  
OMNI-DIRECTIONAL  
PERFORATED  
SOIL STABILIZING SLEEVE  
GALVANIZED FINISH**



LENGTH SHOWN ON MISC. QTY'S  
 18" DIA SCHEDULE 40 PVC BOX-OUT  
 TELESCOPE PIECES FLUSH AT TOP  
 36"  
 18"  
 13"  
 2 1/2"  
 2 1/4" SQUARE X 36"  
 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)  
 3/8" ZINC PLATED ANCHOR BOLT AND NUT  
 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT  
 ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES  
 2" STEEL TUBULAR SQUARE UPPER SECTION  
 SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL  
 SIGN  
 2 1/2" GRAVEL OR DIRT

LENGTH SHOWN ON MISC. QTY'S

SIGN

SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES  $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES

$\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT

TELESCOPE PIECES FLUSH AT TOP

1"

$\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT

2 $\frac{1}{2}$ " SQUARE X 18" (SOIL STABILIZING SLEEVE)

2 $\frac{1}{4}$ " SQUARE X 36"

36"

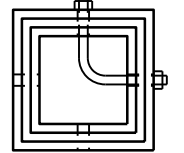
18"

12"

A

B

3/8" ZINC PLATED CORNER  
ANCHOR BOLT AND NUT



DIRECTION  
OF TRAFFIC

SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

TUBULAR STEEL  
SIGN POST  
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthieu R. Rauch

for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

PROJECT NO:

HWY:

COUNTY:

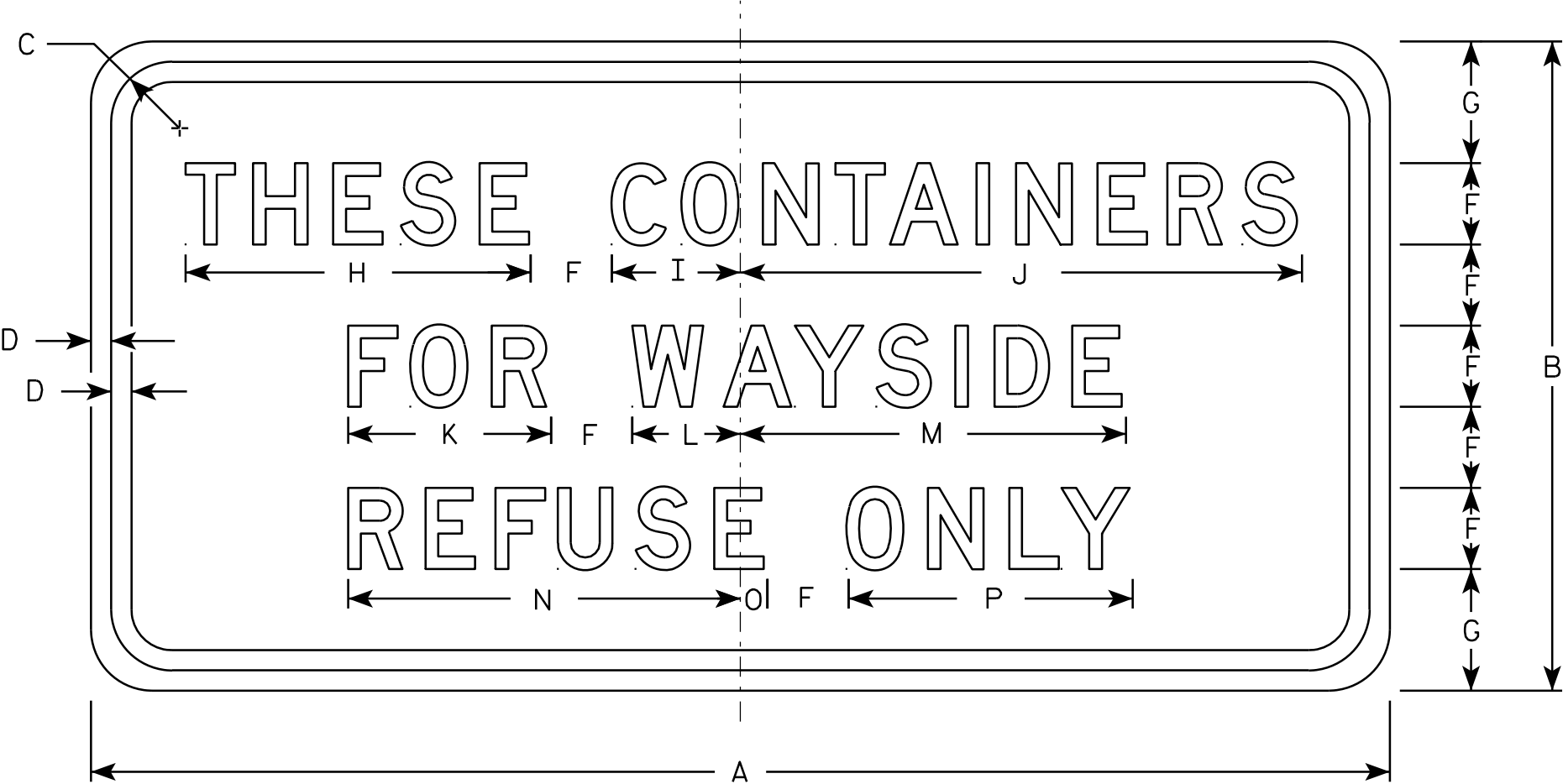
SHEET NO:

11



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - White  
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R55-63

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8		1 1/2	2 1/4	6 3/8	2 3/8	10 3/8	3 3/4	2	7 1/8	7 1/4	1/2	5 1/4											2.0
2M	24	12	1 1/8	3/8		1 1/2	2 1/4	6 3/8	2 3/8	10 3/8	3 3/4	2	7 1/8	7 1/4	1/2	5 1/4											2.0
3																											
4																											
5																											

STANDARD SIGN  
R55-63

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer  
DATE 3/30/11 PLATE NO. R55-63.5

## Notes



## *Wisconsin Department of Transportation*

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