



State of Rhode Island
Coastal Resources Management Council
Oliver H. Stedman Government Center
4808 Tower Hill Road, Suite 3
Wakefield, RI 02879-1900

(401) 783-3370
Fax (401) 783-2069

PUBLIC NOTICE

File Number: 2023-01-037 Date: May 16, 2023

This office has under consideration the application of:

**Town of North Kingstown
Planning and Development
100 Fairway Drive
North Kingstown, RI 02852**

for a State of Rhode Island Assent to construct and maintain improvements to the Wickford Municipal Parking Lot to include: replacing 178ft of deteriorated riprap wall with a granite block seawall, stormwater management and water quality treatment, installation of tide gates on outfalls, limited fill to raise grades, and reconfiguring parking area.

Project Location:	Brown Street
City/Town:	North Kingstown
Plat/Lot:	Plat 117, lots 208, 212, 213, 214, 288
Waterway:	Wickford Cove

Plans of the proposed work can be requested at Cstaff1@crmc.ri.gov.

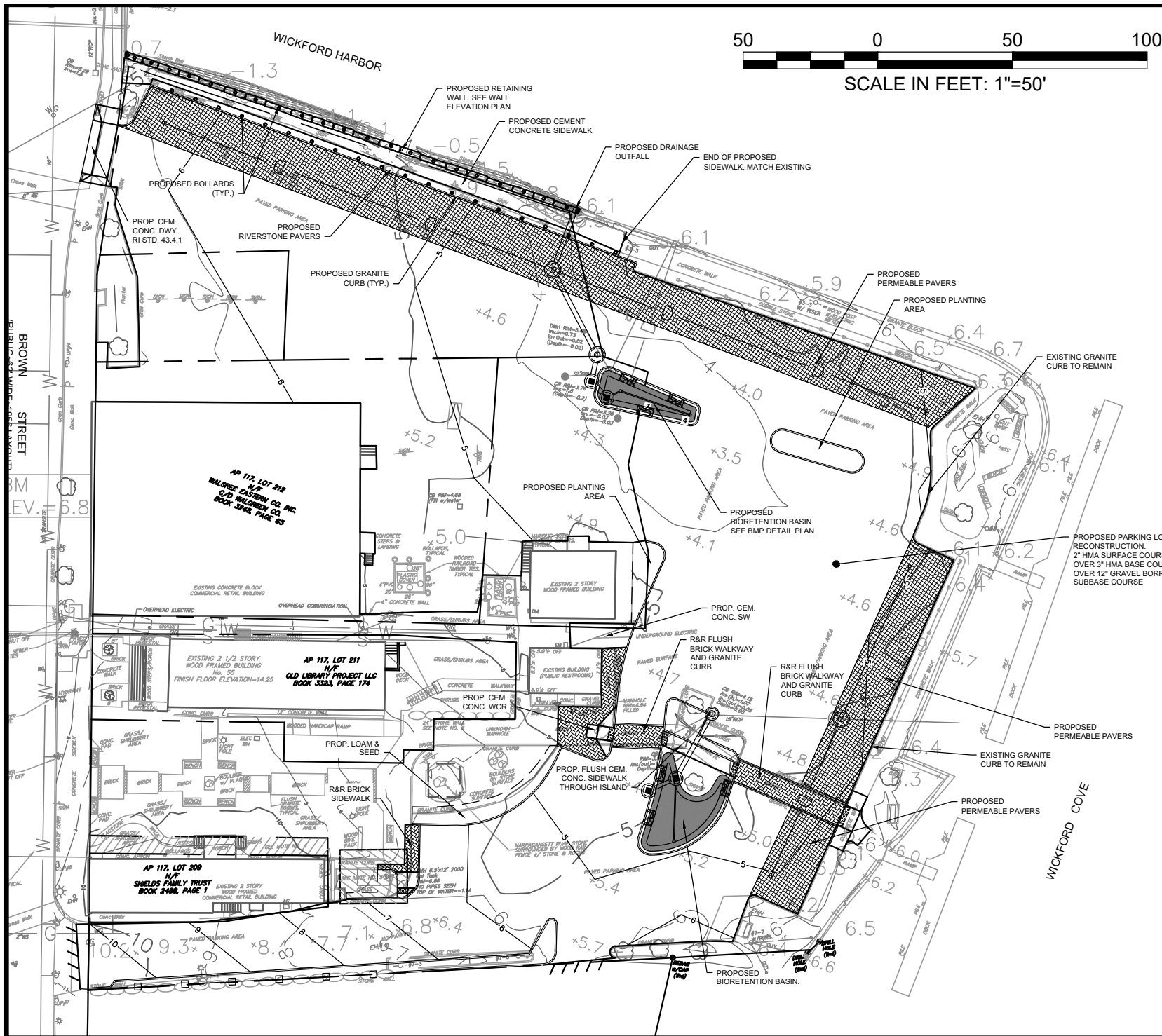
In accordance with the Administrative Procedures Act (Chapter 42-35 of the Rhode Island General Laws) you may request a hearing on this matter.

You are advised that if you have good reason to enter protests against the proposed work it is your privilege to do so. It is expected that objectors will review the application and plans thoroughly, visit site of proposed work if necessary, to familiarize themselves with the conditions and cite what law or laws, if any, would in their opinion be violated by the work proposed.

If you desire to protest, you must attend the scheduled hearing and give sworn testimony. A notice of the time and place of such hearing will be furnished you as soon as possible after receipt of your request for hearing. If you desire to request a hearing, to receive consideration, it should be in writing (**with your correct mailing address, e-mail address and valid contact number**) and be received at this office on or before June 16, 2023.

Please email your comments/hearing requests to: cstaff1@crmc.ri.gov; or mail via USPS to: Coastal Resources Management Council; O. S. Government Center, 4808 Tower Hill Road, Rm 116; Wakefield, RI 02879.

/lat



PREPARED BY



PROJECT

Wickford Waterfront Improvements

Wickford, RI

TITLE

SITE PLAN



TOWN OF NORTH KINGSTOWN, RHODE ISLAND WICKFORD WATERFRONT IMPROVEMENTS

PERMITTING SUBMISSION

DECEMBER 2022

TOWN OF NORTH KINGSTOWN, RI
100 FAIRWAY DRIVE, NORTH KINGSTOWN, RI 02852

TOWN MANAGER
RALPH MOLLIS



PLAN INDEX	
SHEET NO.	DESCRIPTION
1	COVER
2	LEGEND & ABBREVIATIONS
3	GENERAL NOTES
4	EXISTING CONDITIONS PLAN
5	SITE PREPARATION PLAN
6	MATERIALS PLAN
7	SITE PLAN
8	DRAINAGE PLAN
9	STRIPING PLAN
10-11	BMP DETAILS
12	PLANTING PLAN
13-17	CONSTRUCTION DETAILS
18-23	STRUCTURAL PLANS

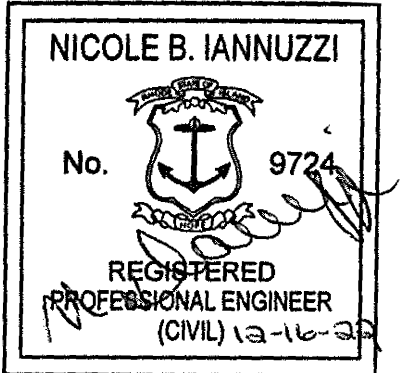


LOCATION MAP
1" = 250'-0"

THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2004 EDITION, AMENDED MARCH 2018; THE JUNE 21, 2019 RHODE ISLAND STANDARD DETAILS; AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK WILL GOVERN.



PREPARED BY:



REGISTERED PROFESSIONAL

12/16/2022
DATE

GENERAL SYMBOLS

EXISTING

PROPOSED

		CURB (TYPE AS NOTED)
		BERM
		EDGE OF PAVEMENT / LIMIT OF PAVEMENT
		CATCH BASIN (OR GUTTER INLET, DROP INLET, CATCH BASIN CURB INLET)
		ELECTRIC HANDHOLE (NUMBER AS NOTED)
		ELECTRIC MANHOLE
		TELEPHONE MANHOLE (TYPE NOTED)
		WATER MANHOLE (TYPE NOTED)
		SEWER MANHOLE (TYPE NOTED)
		DRAINAGE MANHOLE (TYPE NOTED)
		GAS GATE / GAS SHUT OFF
		WATER GATE / WATER SHUT OFF
		HYDRANT
		FIRE ALARM BOX
		STREET LIGHT POLE
		UTILITY POLE
		SIGN
		GUY POLE
		ABANDONED UTILITY LINE (TYPE AS NOTED)
		DRAIN PIPE (SIZE AND SLOPE AS NOTED)
		SEWER MAIN (SIZE AS NOTED)
		SEWER SERVICE LINE
		ELECTRIC DUCT
		GAS MAIN (SIZE AS NOTED)
		GAS SERVICE LINE
		WATER MAIN (SIZE AS NOTED)
		WATER SERVICE LINE
		TELEPHONE DUCT (SIZE AS NOTED)
		MAIL BOX
		WOOD GUARD RAIL STEEL BEAM GUARD, WOOD OR STEEL POSTS (TYPE AS NOTED)
		STEEL GUARD RAIL, STEEL POSTS (TYPE NOTED)
		STONE WALL
		RETAINING WALL (TYPE NOTED)
		HIGHWAY/PROPERTY BOUND (TYPE AS NOTED)
		STATE HIGHWAY LAYOUT LINE (S.H.L.)
		CITY, TOWN, COUNTY OR STATE BOUNDARY LINE
		PROPERTY LINE
		TEMPORARY EASEMENT LINE
		PERMANENT EASEMENT LINE
		CONSTRUCTION BASELINE
		SURVEY LINE
		RAILROAD OR STREET RAILWAY TRACKS WITH SIDELINES
		WHEELCHAIR RAMP
		TREE (SIZE AND TYPE AS NOTED)
		HEDGE
		FENCE (SIZE AND TYPE AS NOTED)
		EDGE OF WETLAND W/ FLAGGED NUMBER
		EDGE OF RIVER/STREAM LINE
		50 FT. WETLAND BUFFER LIMIT
		100 FT. WETLAND BUFFER LIMIT
		100 FT. RIVER FRONT LIMIT
		200 FT. RIVER FRONT LIMIT
		WOODED AREA / LIMIT OF CLEARING
		SPOT GRADE
		SAW CUT LINE
		COMPOST FILTER SOCK

EXISTING

PROPOSED

		BUILDING
		CONTOUR MAJOR
		CONTOUR MINOR
		DRIVEWAY DIRT
		DRIVEWAY PAVED
		TEST PIT "QUALITY LEVEL A" DATA POINT
		BORING
		PROBE
		MONITORING WELL
		CAP / PLUG PIPE

ABBREVIATIONS

GENERAL

ABAN.	ABANDON	RT.	RIGHT
ADJ.	ADJUST	ROW	RIGHT-OF-WAY
AADT	ANNUAL AVERAGE DAILY TRAFFIC	RD.	ROAD
APPROX.	APPROXIMATE	SHT.	SHEET
B	BASELINE	SHLD.	SHOULDER
BM	BENCH MARK	SDWK.	SIDEWALK
BIT.	BITUMINOUS	SB	SOUTH BOUND OR STONE BOUND
BB	BITUMINOUS BERM	SHLL	STATE HIGHWAY LAYOUT LINE
BC	BITUMINOUS CURB	STA.	STATION
BOC	BOTTOM OF CURB	ST.	STREET
BOS	BOTTOM OF STEP	TAN	TANGENT
BOW	BOTTOM OF WALL	T	TANGENT DISTANCE OF CURVE/TRUCK PERCENTAGE
BD OR BND	BOUND	TEB	TEMPORARY EASEMENT BOUNDARY
BLDG.	BUILDING	TEMP.	TEMPORARY
CEM.	CEMENT	TOC	TOP OF CURB
C	CENTER LINE	TOS	TOP OF STEP
CLF	CHAIN LINK FENCE	TOW	TOP OF WALL
CONC.	CONCRETE	TP	TURNING POINT
CC	CONCRETE CURB	TYP.	TYPICAL
CONT.	CONTINUOUS	VAR.	VARIABLE
CONST.	CONSTRUCTION	VERT.	VERTICAL
CO.	COUNTY	VC	VERTICAL CURVE
CS	COMBINED SEWER PIPE	VGC	VERTICAL GRANITE CURB
D	DELTA ANGLE (CENTRAL ANGLE OF HORIZ. CURVE)	WB	WEST BOUND
DWY.	DRIVEWAY	WCR	WHEELCHAIR RAMP
EB	EAST BOUND		
EP, EOP	EDGE OF PAVEMENT		
EL.	ELEVATION		
ETW	EDGE OF TRAVEL WAY	CB	CATCH BASIN
EXIST.	EXISTING	CBCI	CATCH BASIN WITH CURB INLET
FLDSTN	FIELDSTONE	CIP	CAST IRON PIPE
FDN.	FOUNDATION	CIT	CHANGE IN TYPE
GAR.	GARAGE	CL.	CLASS (PIPE, CONCRETE, EXCAVATION, ETC.)
GRAN.	GRANITE	COND.	CONDUIT
GC	GRANITE CURB	CAP	CORRUGATED ALUMINUM PIPE
GE	GRANITE EDGING	CMP	CORRUGATED METAL PIPE
GRAV.	GRAVEL	CPP	CORRUGATED PLASTIC PIPE
GD	GROUND	CSP	CORRUGATED STEEL PIPE
HOR.	HORIZONTAL	CULV.	CULVERT
HMA	HOT MIX ASPHALT	CI	CURB INLET
HO	HOUSE	DI	DROP INLET
IP	IRON PIPE	DIP	DUCTILE IRON PIPE
JCT	JUNCTION	DMH	DRAIN MANHOLE
LT.	LEFT	EL. (OR ELEV.)	ELEVATION
LP	LOW POINT	FM	FORCE MAIN
MB	MAIL BOX	F&C	FRAME AND COVER
MAX.	MAXIMUM	F&G	FRAME AND GRATE
MIN.	MINIMUM	GIP	GALVANIZED IRON PIPE
NB	NORTH BOUND	GG	GAS GATE
NTS	NOT TO SCALE	GI	GUTTER INLET
OC	ON CENTER	HDW	HEADWALL
PVMT.	PAVEMENT	HYD.	HYDRANT
PGL	PROFILE GRADE LINE	INV.	INVERT ELEVATION
PROJ.	PROJECT	LP	LIGHT POLE
OR PROP. LINE	PROPERTY LINE	MH	MANHOLE
PROP.	PROPOSED	PVC	POLY-VINYL-CHLORIDE PIPE
R	RADIUS OF CURVATURE	PWW	PAVED WATER WAY
RR	RAILROAD	R&D	REMOVE & DISPOSE
R&D	REMOVE & DISPOSE	RCP	REINFORCED CONCRETE PIPE (CLASS III UNLESS NOTED)
REM.	REMOVE	SMH	SEWER MANHOLE
REMOD.	REMODEL	SD	SUBDRAIN
RET.	RETAINING	TSV&B	TAPPING SLEEVE, VALVE AND BOX
R&R	REMOVE AND RESET	TS	TRAFFIC SIGNAL
R&S	REMOVE AND STACK	TSC	TRAFFIC SIGNAL CONDUIT

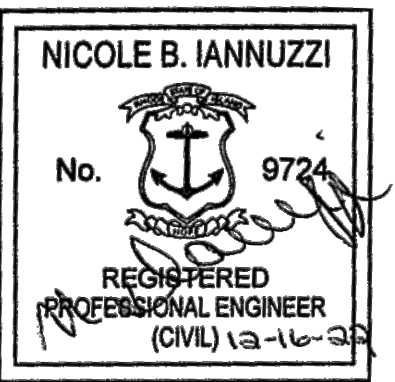
UTILITIES

CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CIP	CAST IRON PIPE
CIT	CHANGE IN TYPE
CL	CLASS (PIPE, CONCRETE, EXCAVATION, ETC.)
COND.	CONDUIT
CAP	CORRUGATED ALUMINUM PIPE
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED PLASTIC PIPE
CSP	CORRUGATED STEEL PIPE
CULV.	CULVERT
CI	CURB INLET
DI	DROP INLET
DIP	DUCTILE IRON PIPE
DMH	DRAIN MANHOLE
EL. (OR ELEV.)	ELEVATION
FM	FORCE MAIN
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
GIP	GALVANIZED IRON PIPE
GG	GAS GATE
GI	GUTTER INLET
HDW	HEADWALL
HYD.	HYDRANT
INV.	INVERT ELEVATION
LP	LIGHT POLE
MH	MANHOLE
PVC	POLY-VINYL-CHLORIDE PIPE
PWW	PAVED WATER WAY
R&D	REMOVE & DISPOSE
RCP	REINFORCED CONCRETE PIPE (CLASS III UNLESS NOTED)
SMH	SEWER MANHOLE
SD	SUBDRAIN
TSV&B	TAPPING SLEEVE, VALVE AND BOX
TS	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CONDUIT
UP	UTILITY POLE
VCP	VITRIFIED CLAY PIPE
WG	WATER GATE
WM	WATER METER/WATER MAIN
WIP	WROUGHT IRON PIPE

PREPARED BY



REGISTERED PROFESSIONAL



SUBCONSULTANT

PROJECT

Wickford Waterfront Improvements

Wickford, RI

TITLE

LEGEND & ABBREVIATIONS

[illegible]

DRAWN BY: CC

DESIGNED BY: TD

CHECKED BY: NBI

ISSUE DATE: 12/14/2022

BETA JOB NO.: 7038

SCALE

NONE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

SHEET NO.

2

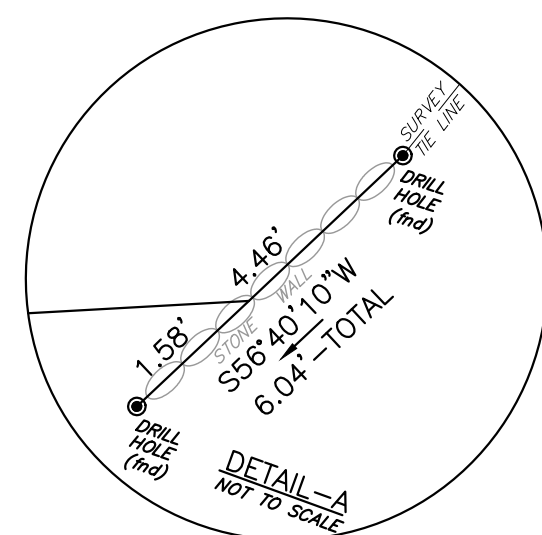


FRANKLIN STREET
(PUBLIC~30' WIDE)

BROWN STREET
(PUBLIC~62' WIDE~1956 LAYOUT)

TOTAL EXISTING PARKING = 137 SPACES

GRANITE BOUND
w/ DRILL HOLE
(Ind)(buried)



121.82'
S22°32'27\"/>

AP 117, LOT 207
N/F
WICKFORD LANDINGS LLC
BOOK 2624, PAGE 13

AP 117, LOT 204
N/F
JF BROWN, LLC
BOOK 2694, PAGE 23

AP 117, LOT 209
N/F
SHIELDS FAMILY TRUST
BOOK 2488, PAGE 1

AP 117, LOT 211
N/F
OLD LIBRARY PROJECT LLC
BOOK 3323, PAGE 174

AP 117, LOT 212
N/F
WALGREE EASTERN CO. INC.
C/O WALGREEN CO.
BOOK 3248, PAGE 65

AP 117, LOT 213
N/F
WALGREE EASTERN CO. INC.
C/O WALGREEN CO.
BOOK 3248, PAGE 65

AP 117, LOT 214
N/F
OSI OF WICKFORD LLC
BOOK 2482, PAGE 94

AP 117, LOT 288
N/F
C/O RANDI THOMPSON
BOOK 3224, PAGE 144

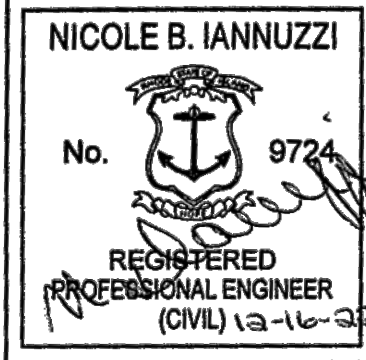
AP 117, LOT 208
N/F
TOWN OF NORTH KINGSTOWN
BOOK 3323, PAGE 128

WICKFORD COVE

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SUBCONSULTANT

PROJECT

Wickford Waterfront
Improvements

Wickford, RI

TITLE

EXISTING
CONDITIONS
PLAN

NO.	REVISIONS	DATE
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ISSUE DATE:	12/14/2022
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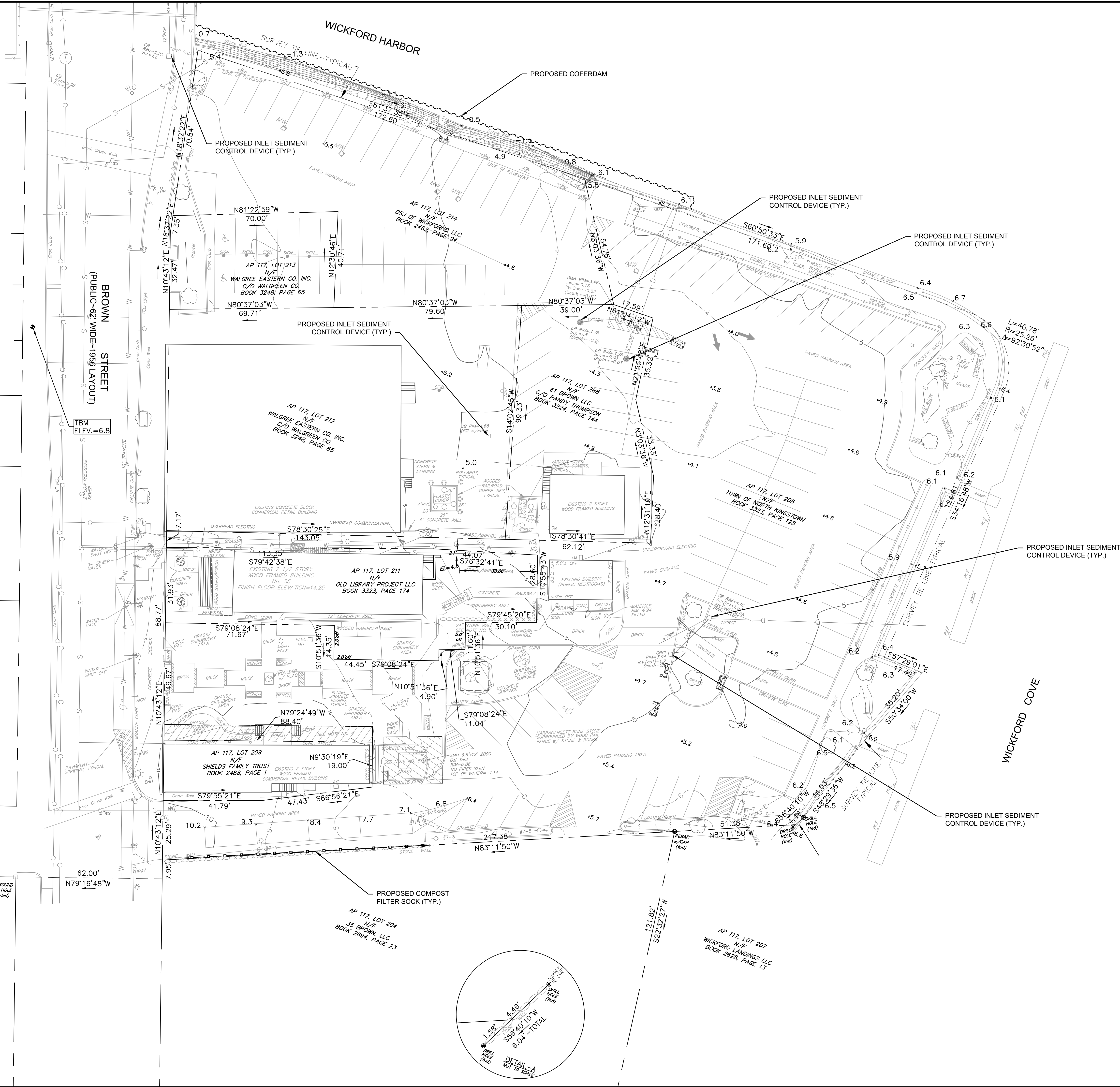
SCALE



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REGISTERED PROFESSIONAL

NICOLE B. IANNUZZI

No. 9724

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 13-16-23

SUBCONSULTANT

PROJECT

Wickford Waterfront Improvements

Wickford, RI

TITLE

SITE PREPARATION PLAN

NO.	REVISIONS	DATE
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ISSUE DATE:	12/14/2022
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SCALE



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SHEET NO.

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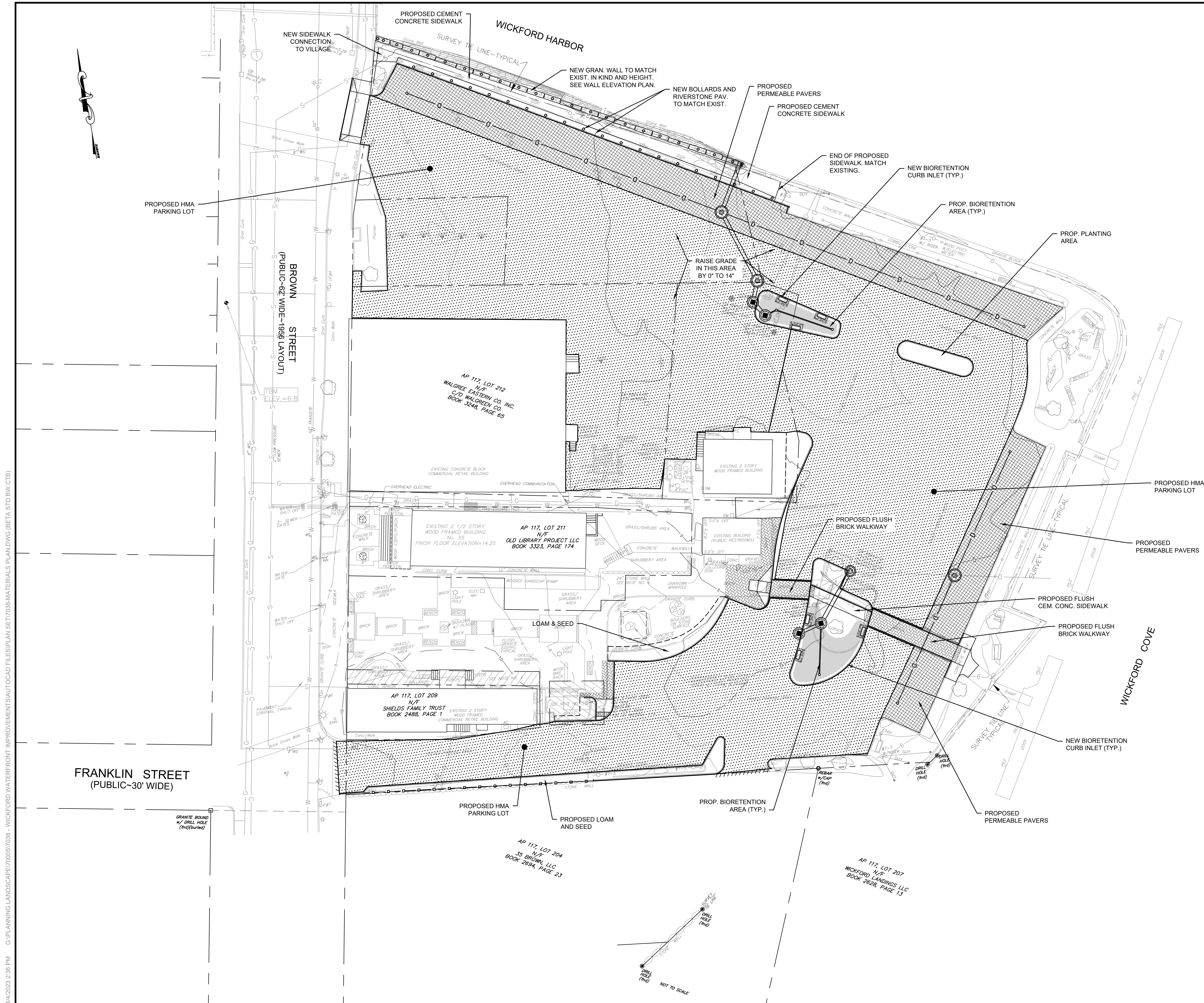
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BETA JOB NO.:	7038

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SCALE IN FEET: 1"=20'

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6



4/4/2023 2:35 PM G:\PLANNING LANDSCAPE\70057038 - WICKFORD WATERFRONT IMPROVEMENTS\AUTOCAD FILES\PLAN SET\7038 LAYOUT PLAN.DWG (BETA STB BW STB)



PROP. CEM.
CONC. DWY.
RI STD. 43.4.1

BROWN STREET
(PUBLIC~62' WIDE~1956 LAYOUT)

FRANKLIN STREET
(PUBLIC~30' WIDE)

GRANITE BOUND
w/ DRILL HOLE
(Ind) (burned)

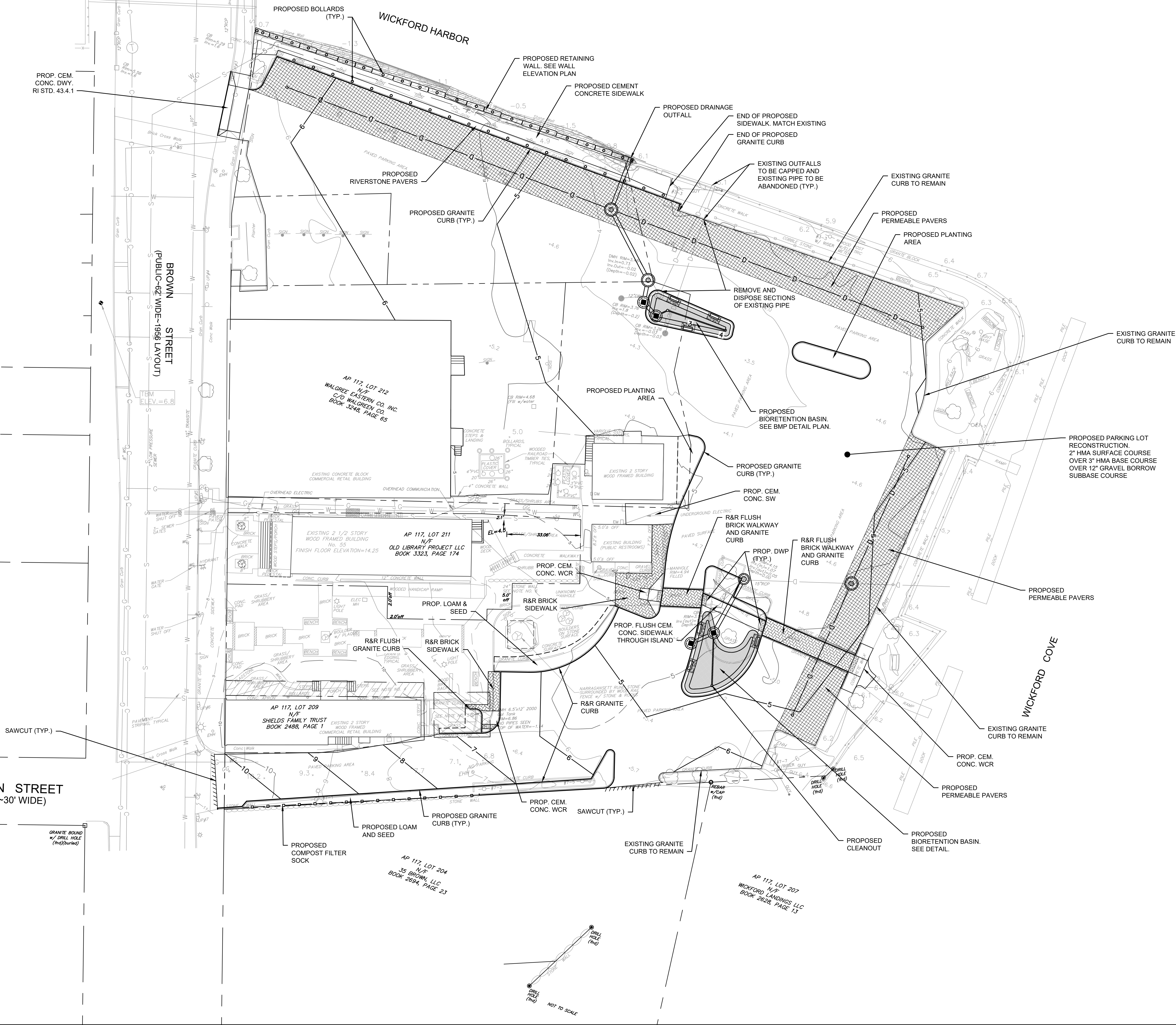
WICKFORD HARBOR

PROPOSED LOAM
AND SEED

AP 117, LOT 204
N/F
35 BROWN, LLC
BOOK 2694, PAGE 23

AP 117, LOT 207
WICKFORD LANDINGS LLC
BOOK 2624, PAGE 13

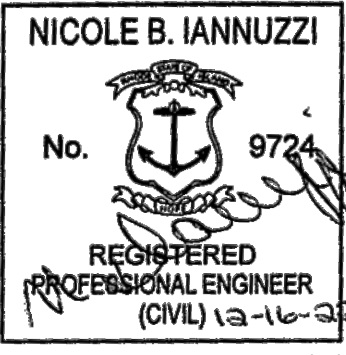
NOT TO SCALE



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REGISTERED PROFESSIONAL



SUBCONSULTANT

PROJECT

Wickford Waterfront
Improvements

Wickford, RI

TITLE

SITE PLAN

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SCALE



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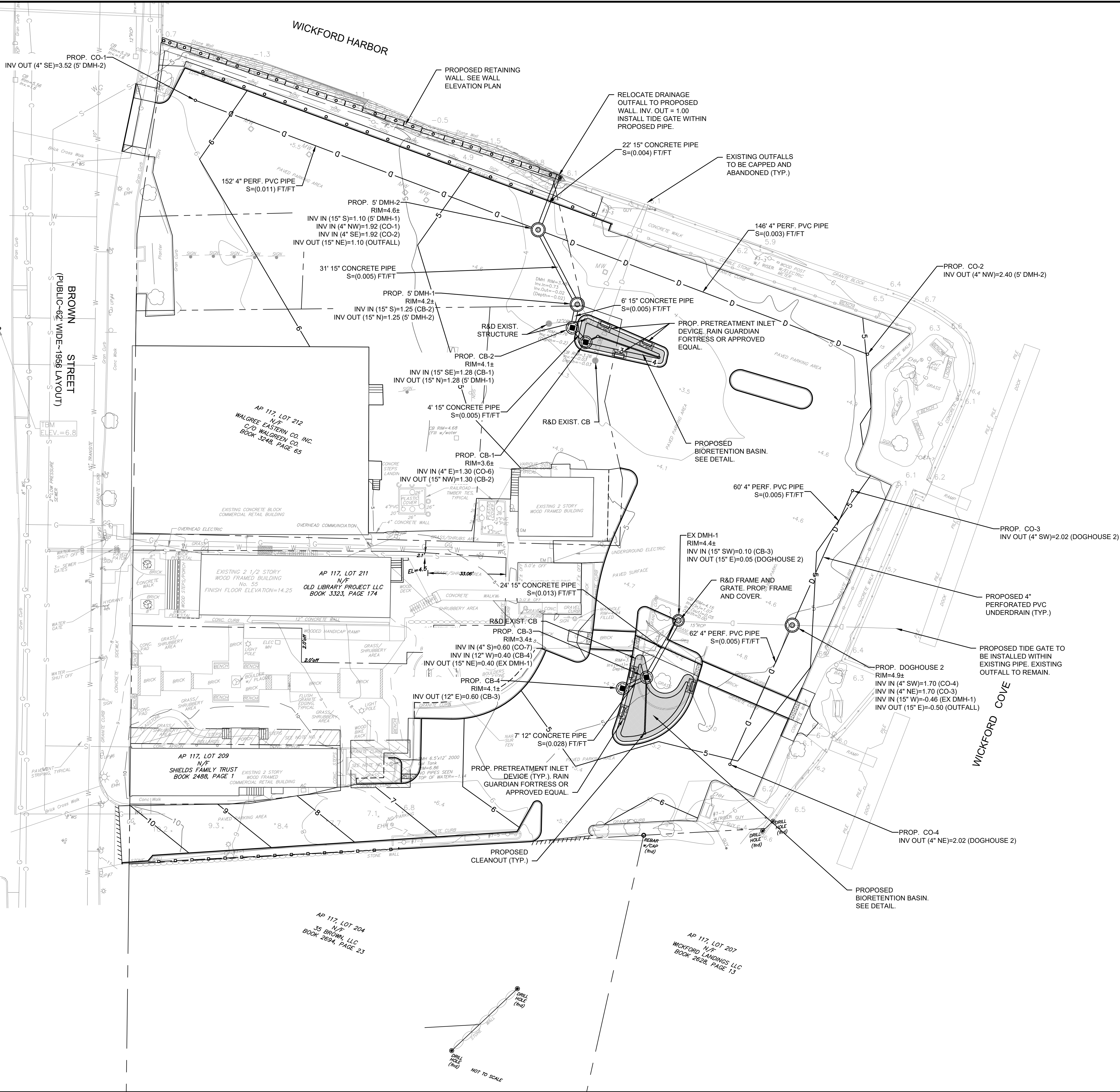
SHEET NO.

7



FRANKLIN STREET
(PUBLIC~30' WIDE)

GRANITE BOUND
w/ DRILL HOLE
(Ind) (buried)



PREPARED BY

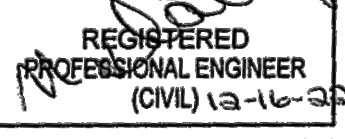


REGISTERED PROFESSIONAL

NICOLE B. IANNUZZI

No.

9724



SUBCONSULTANT

PROJECT

Wickford Waterfront
Improvements

Wickford, RI

TITLE

DRAINAGE
PLAN

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BETA JOB NO.: 7038

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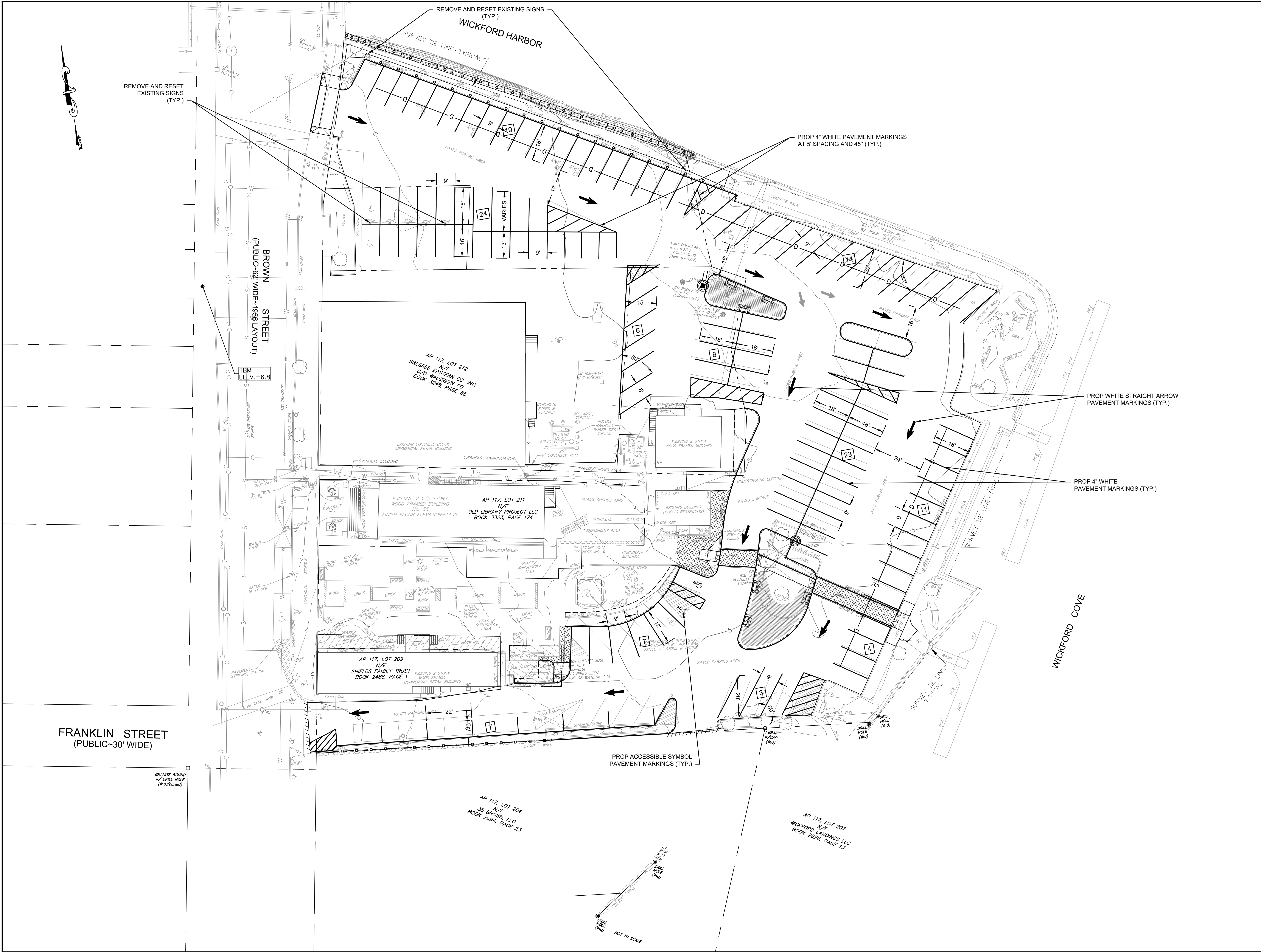
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SHEET NO.

8

4/4/2023 2:37 PM G:\PLANNING LANDSCAPE\7005\7038 - WICKFORD WATERFRONT IMPROVEMENTS\AUTOCAD FILES\PLAN SET\7038-STRIPING PLAN.DWG (BETA STB BW.STB)



PREPARED BY



REGISTERED PROFESSIONAL

NICOLE B. IANNUZZI

No. 9724

REGISTERED
PROFESSIONAL ENGINEER
(CIVIL) 13-16-23

SUBCONSULTANT

PROJECT

Wickford Waterfront
Improvements

Wickford, RI

TITLE

STRIPING PLAN

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BETA JOB NO.: 7038

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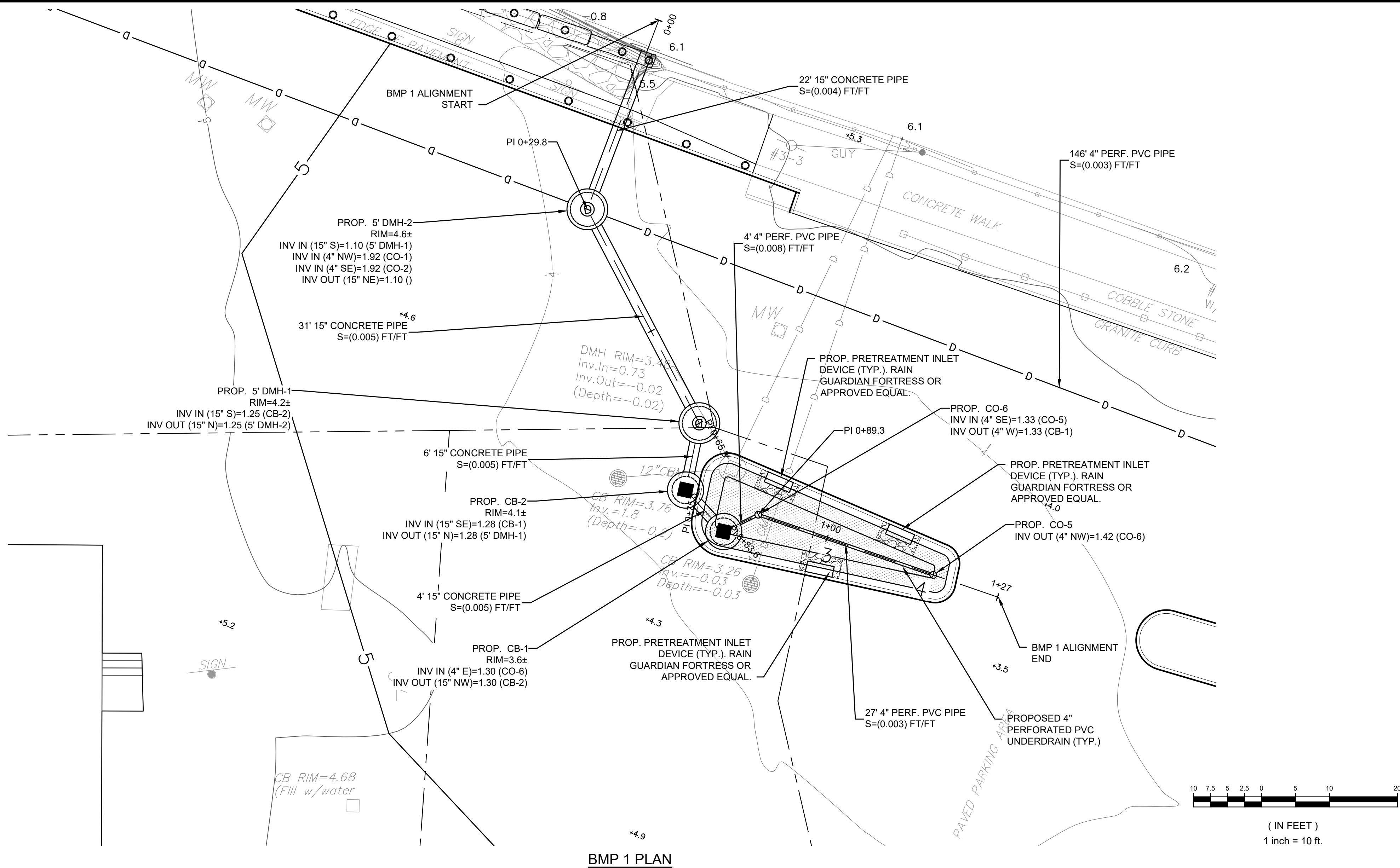
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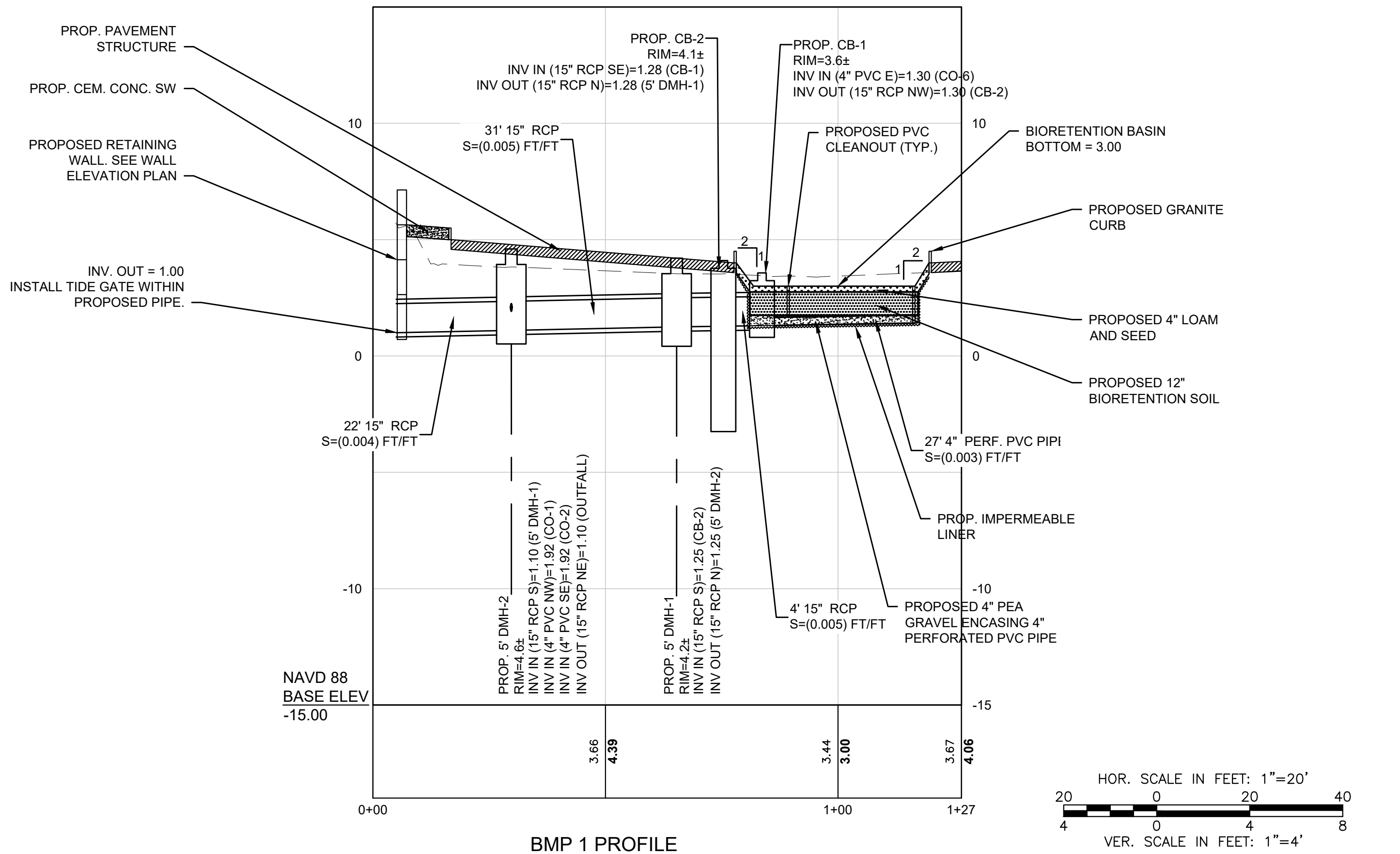
SHEET NO.

NOTES:

- BIORETENTION SOIL SHALL BE FREE OF STONES, ROCKS, COBBLES, BRUSH, STUMPS, ROOTS, AND OTHER MATERIALS LARGER THAN TWO INCHES. THE SOIL SHALL CONSIST OF USDA LOAMY SAND TO SANDY LOAM CLASSIFICATION AND MEET THE FOLLOWING GRADATION:
 - ASTM C-33 SAND = 68-72%
 - SILT = 6-10%
 - CLAY = 0-2%
 - ORGANIC MATTER (IN THE FORM OF WELL AERATED LEAF COMPOST) = 20%
- CONTRACTOR SHALL AVOID OVER COMPACTION OF SOILS WITH CONSTRUCTION VEHICLES WITHIN INFILTRATION AREAS.
- PEA GRAVEL SHALL MEET THE GRADATION REQUIREMENTS SET FORTH IN SECTION M.01.09 TABLE 1 COLUMN III OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
- IMPERMEABLE LINER SHALL BE A NONWOVEN, HIGH-DENSITY POLYETHYLENE (HDPE) LINER SPECIFICALLY DESIGNED FOR USE IN SUBSURFACE LINING/CONTAINMENT.



BMP 1 PLAN

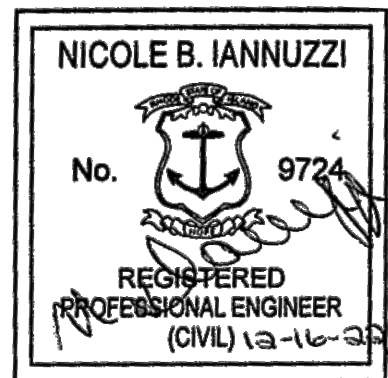


BMP 1 PROFILE

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REGISTERED PROFESSIONAL



SUBCONSULTANT

PROJECT

Wickford Waterfront
Improvements

Wickford, RI

TITLE

BMP 1 DETAILS

NO.	REVISIONS	DATE
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BETA JOB NO.: 7038

SCALE

AS SHOWN

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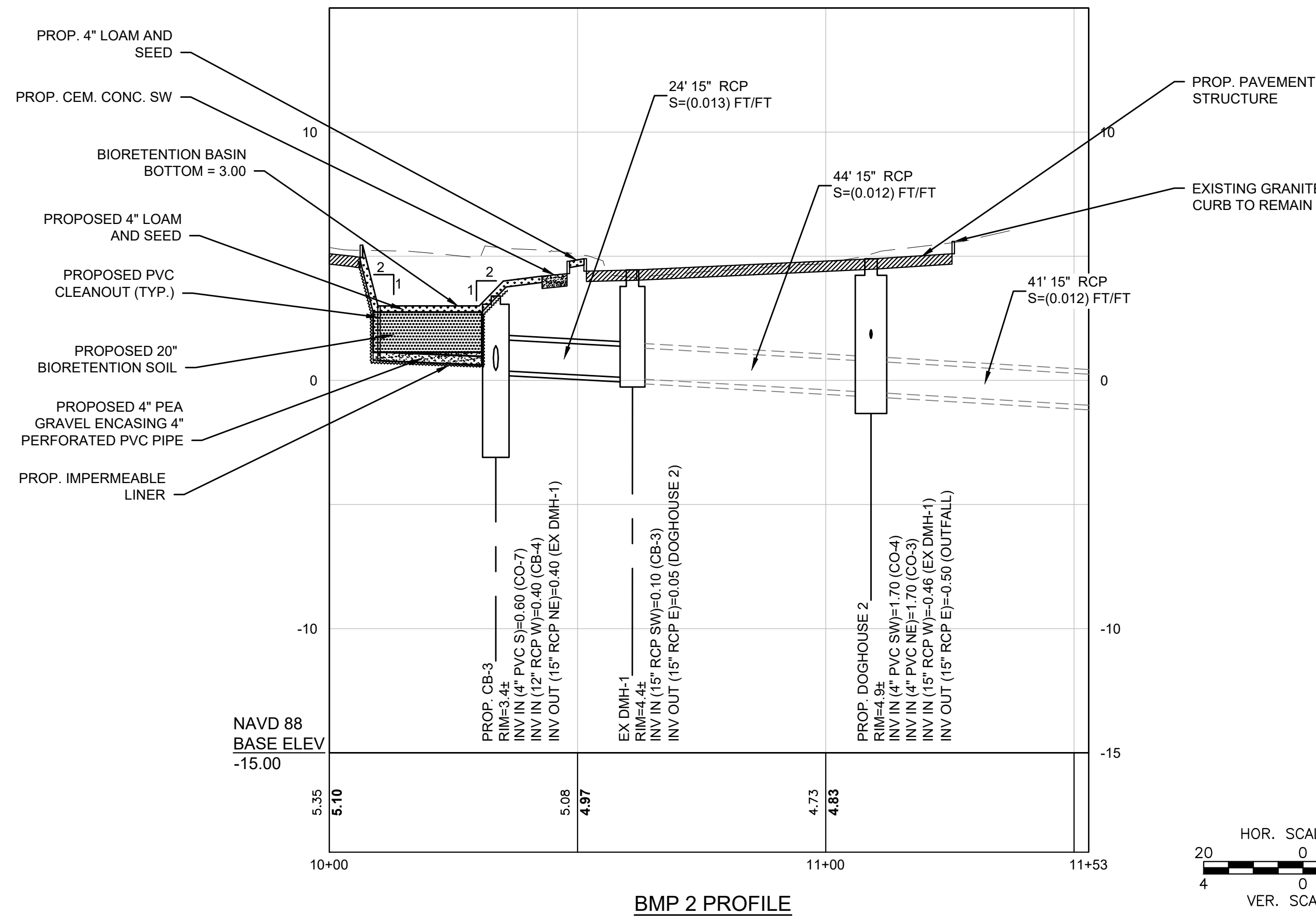
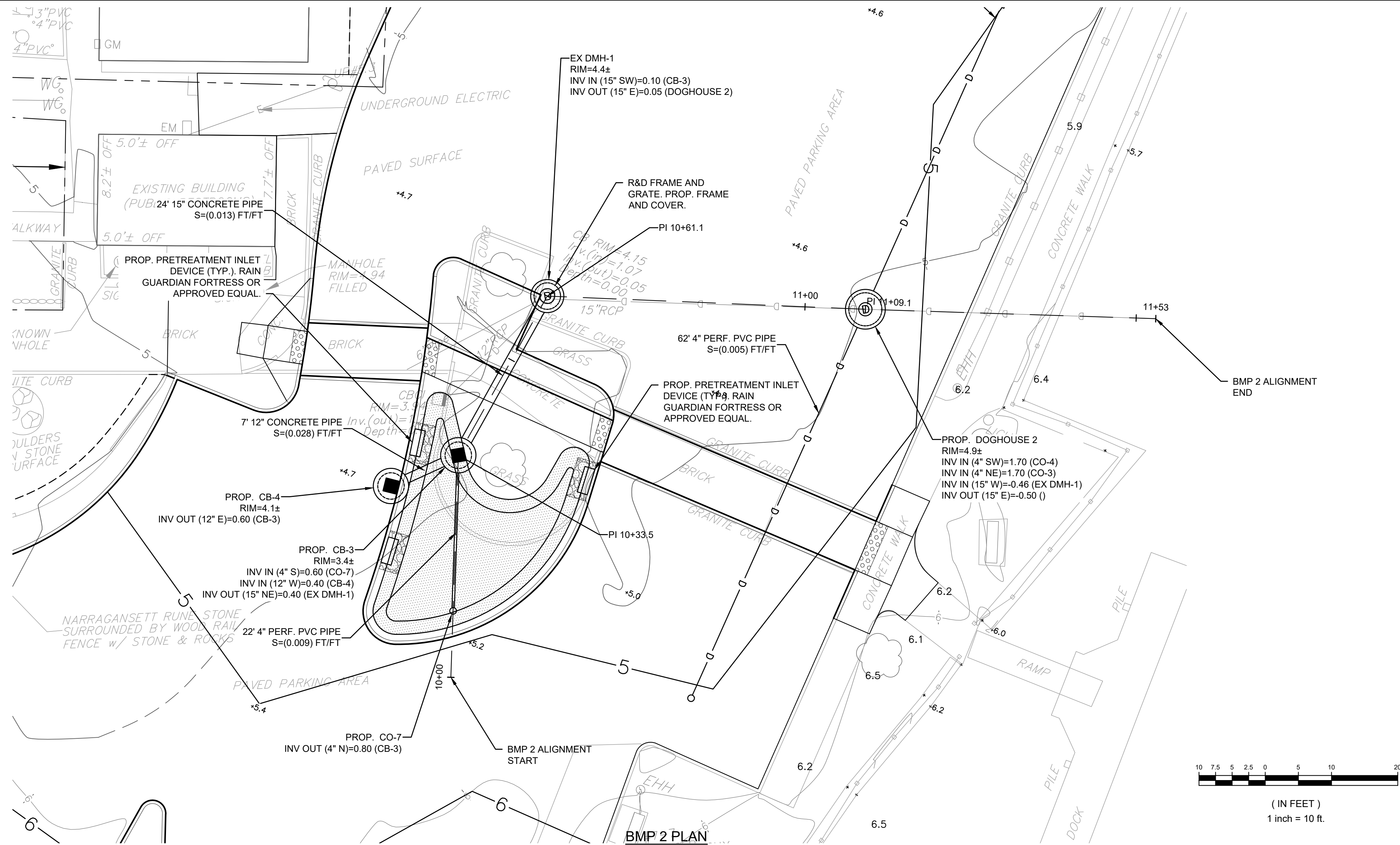
For Review Only

SHEET NO.

10

NOTES:

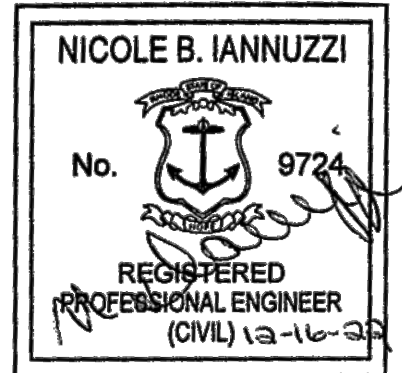
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REGISTERED PROFESSIONAL



SUBCONSULTANT

PROJECT

Wickford Waterfront
Improvements

Wickford, RI

TITLE

BMP 2 DETAILS

NO.	REVISIONS	DATE
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SCALE

AS SHOWN

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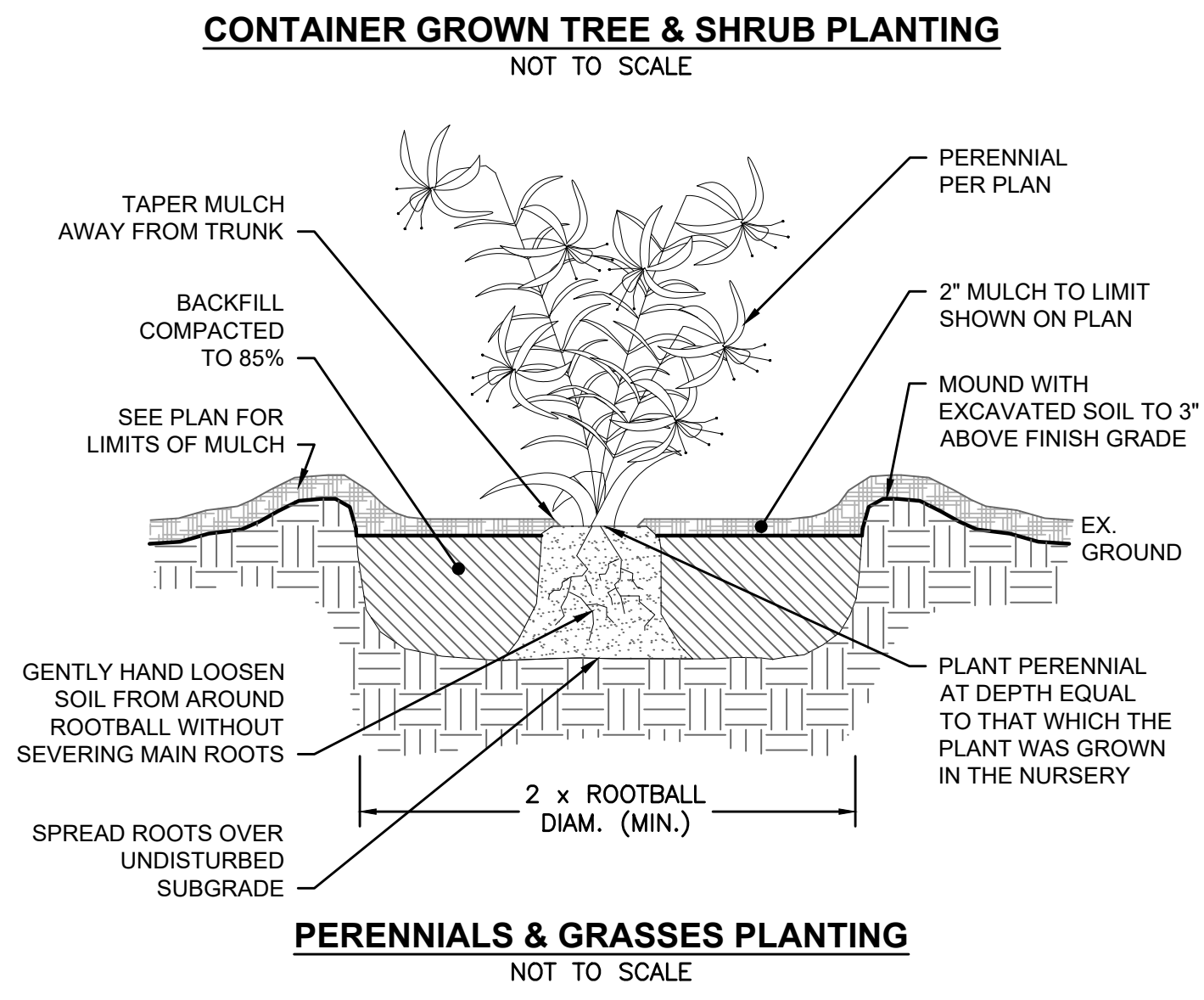
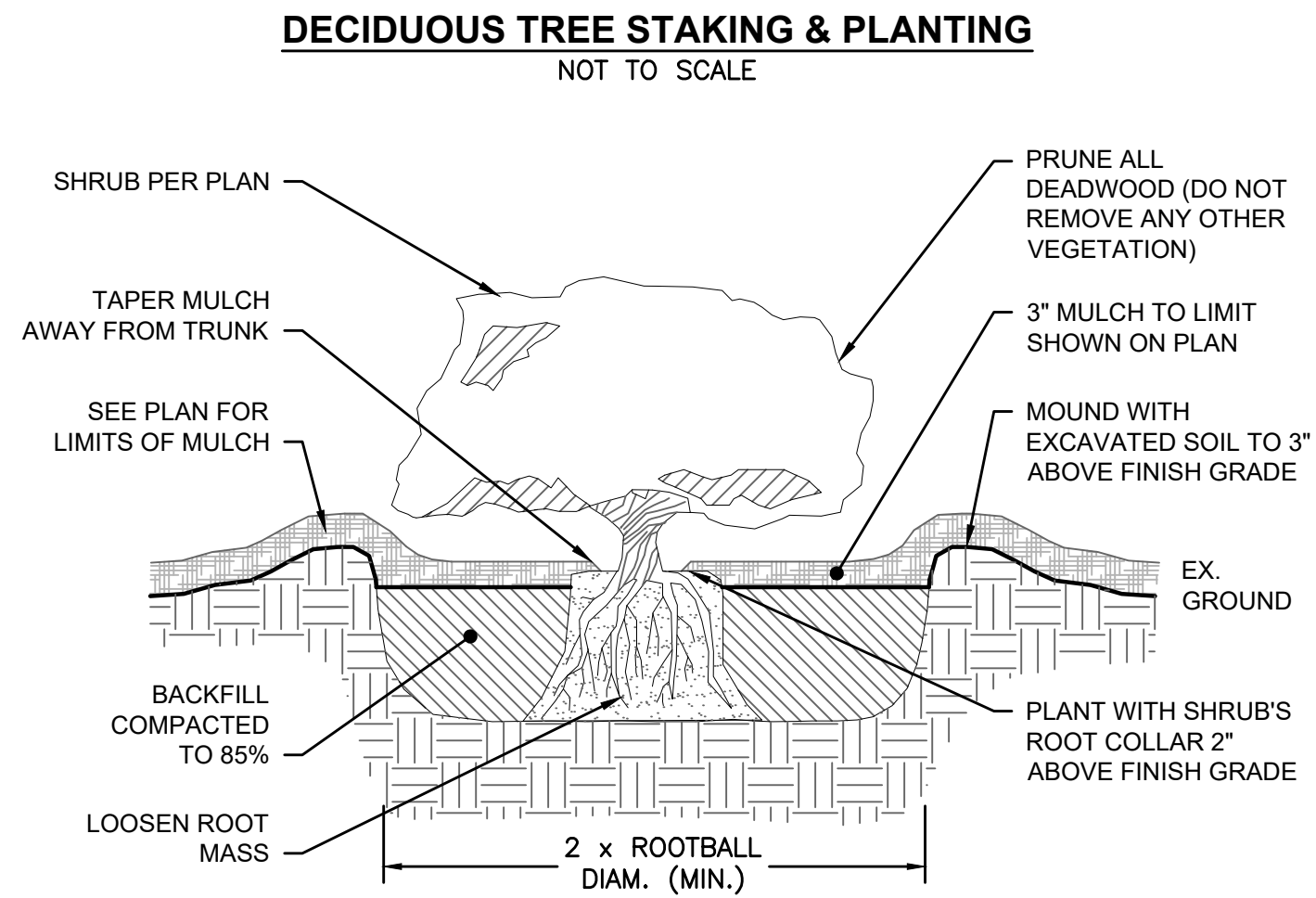
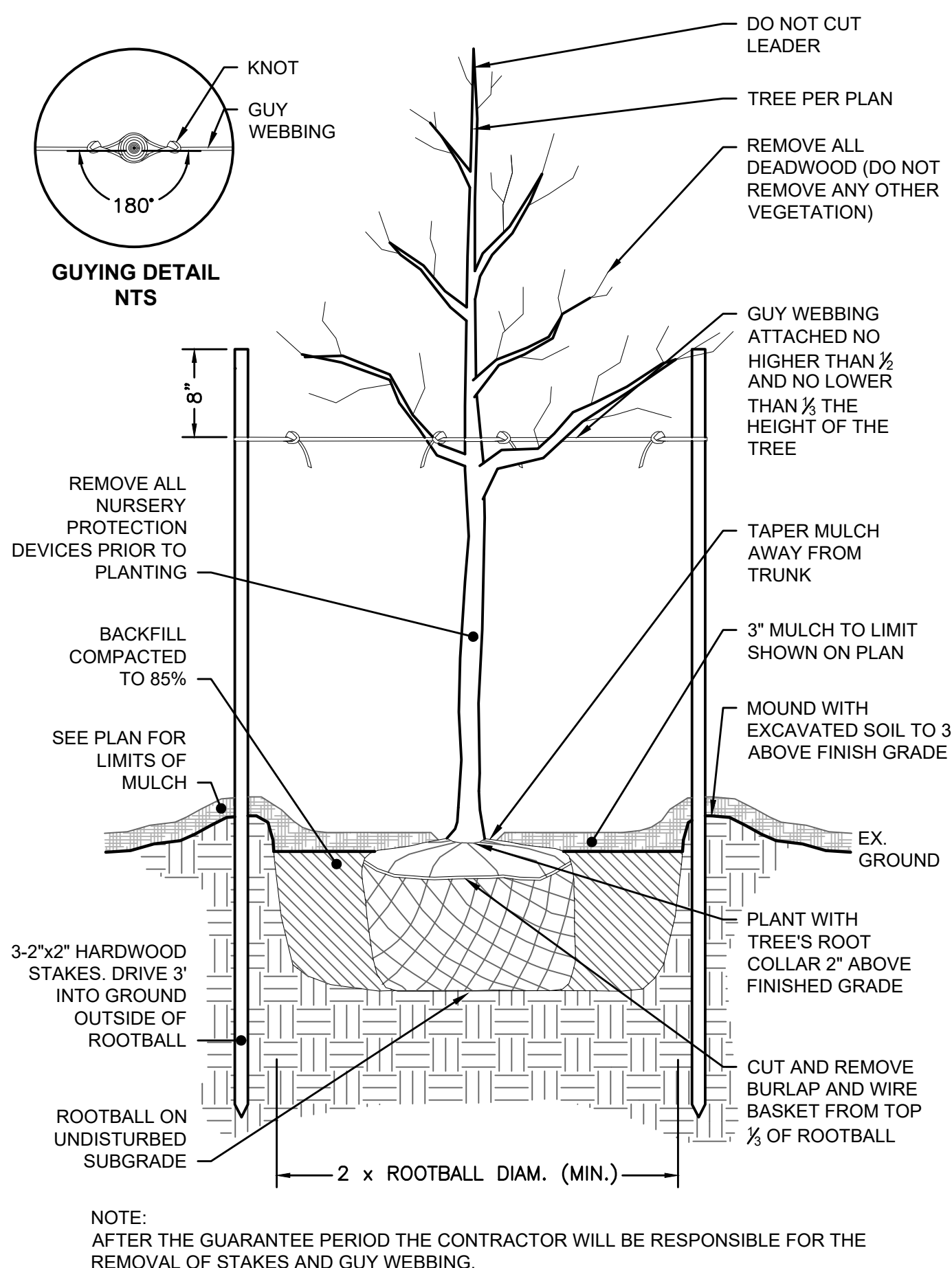
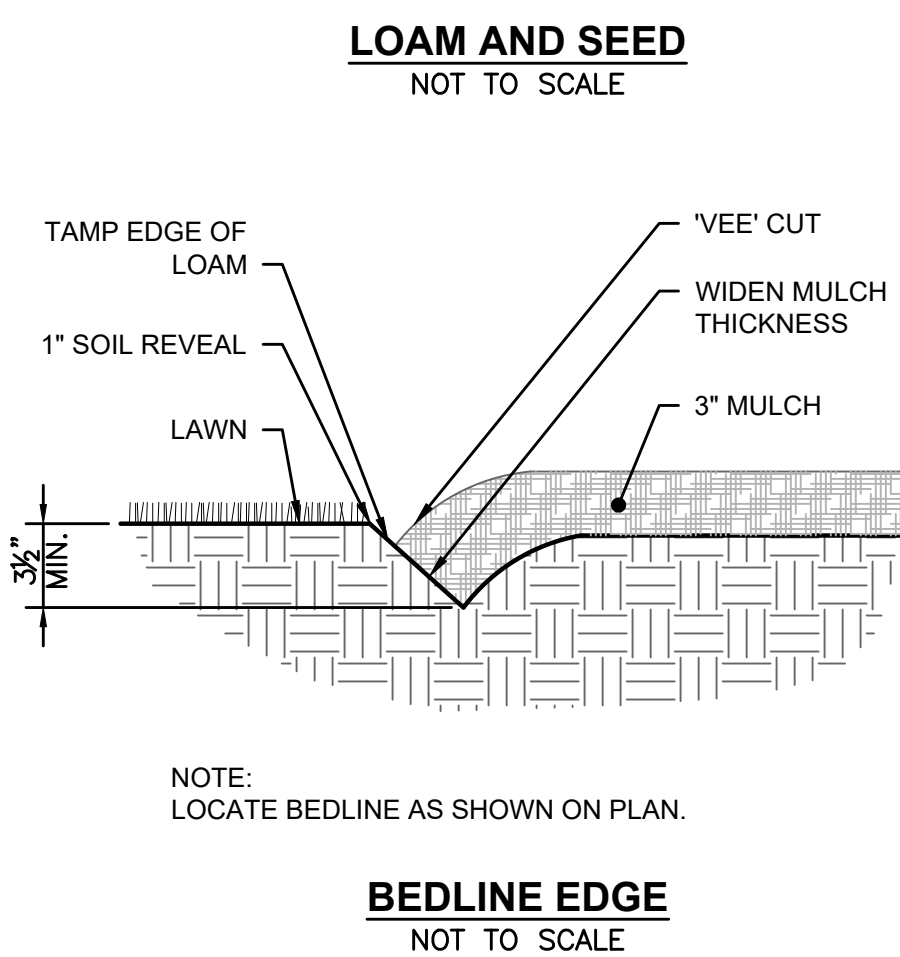
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GRASS SEED - SEE NOTES AND/OR SPECS FOR SEED MIX OR SOD TYPE

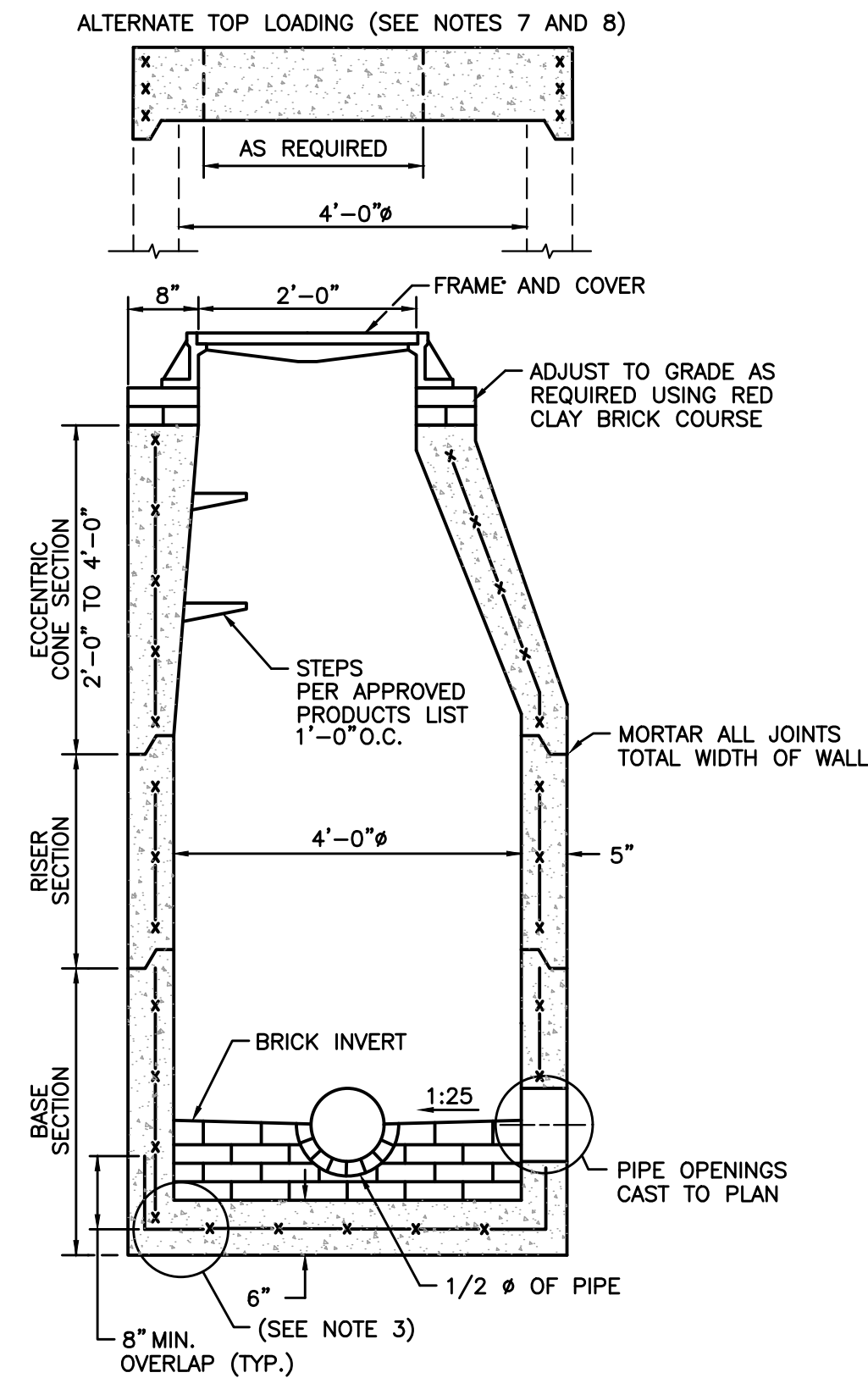
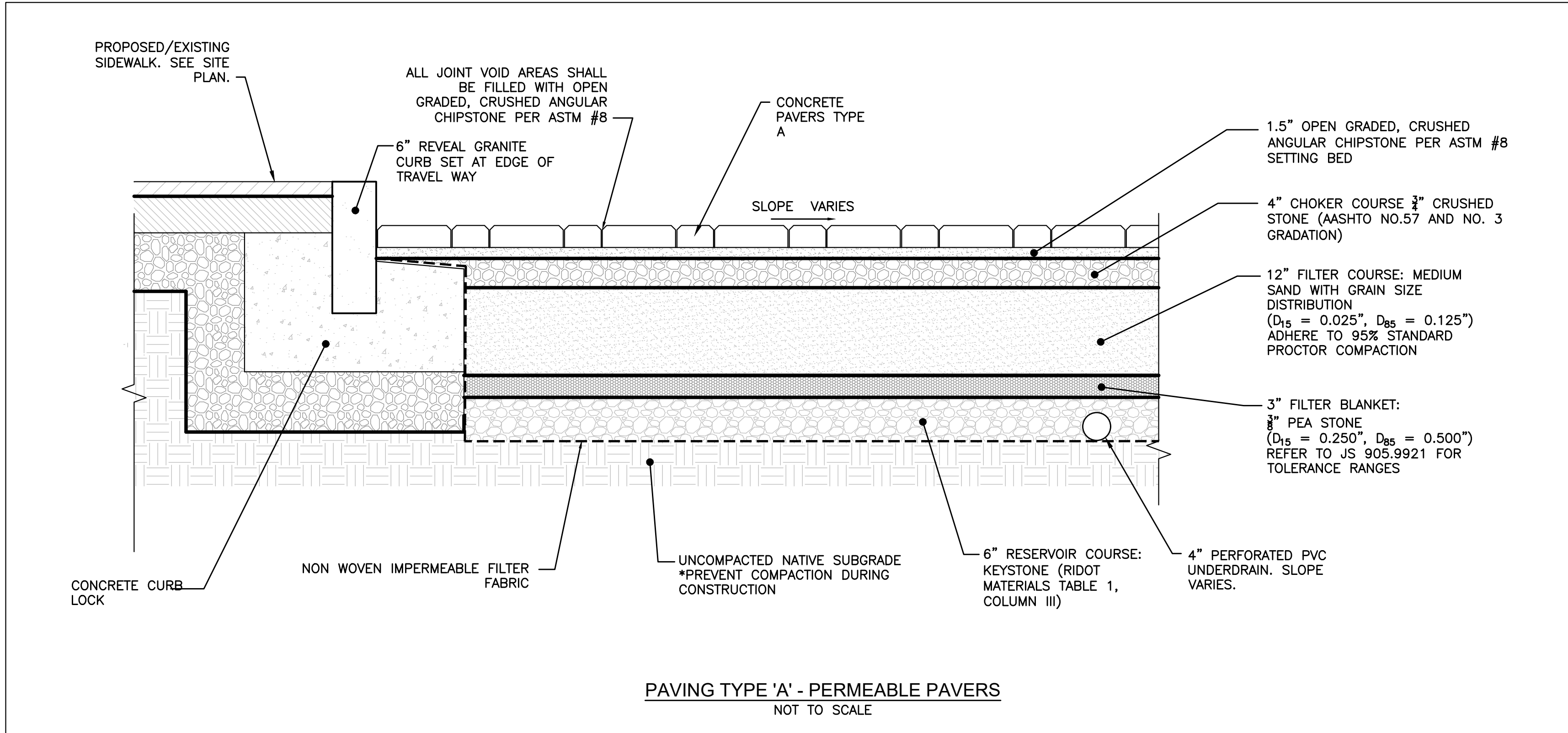
PROVIDE 6" MIN. GOOD QUALITY FERTILE LOAM OR REUSE EX. AND PROVIDE ADDITIONAL LOAM AS REQUIRED FOR MIN. 6" DEPTH

COMMON BORROW AS REQUIRED TO RAISE GRADE OR EX. SUBSOIL COMPACTED

The diagram shows a cross-section of a road construction layer. The top layer is labeled 'GRASS SEED - SEE NOTES AND/OR SPECS FOR SEED MIX OR SOD TYPE' and is represented by a layer of grass. Below this is a layer of 'FERTILE LOAM OR REUSE EX. AND PROVIDE ADDITIONAL LOAM AS REQUIRED FOR MIN. 6" DEPTH', shown with diagonal hatching. The bottom layer is labeled 'COMMON BORROW AS REQUIRED TO RAISE GRADE OR EX. SUBSOIL COMPACTED' and is shown with a brick-like pattern. Arrows indicate the direction of traffic flow on either side of the road.

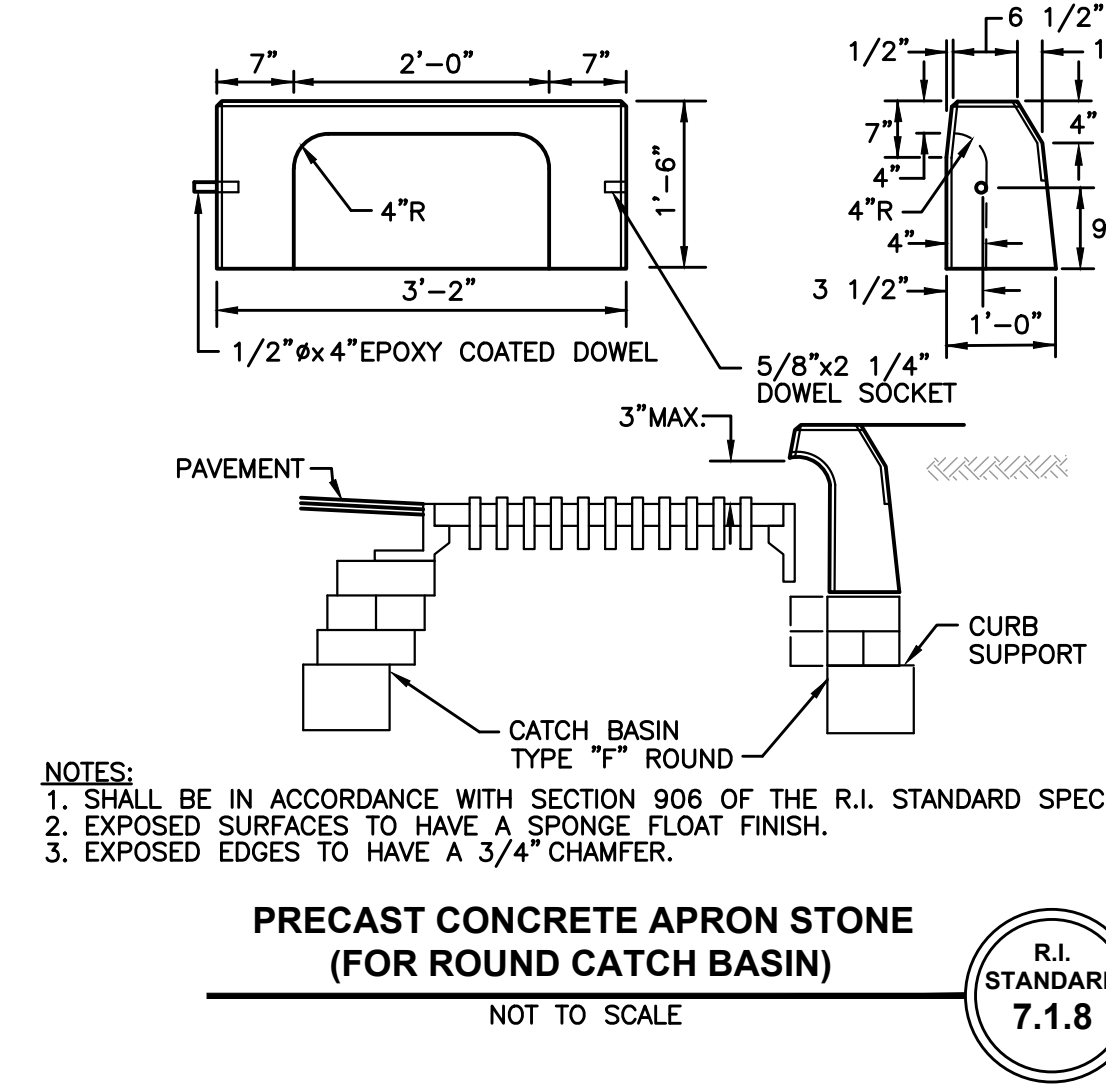
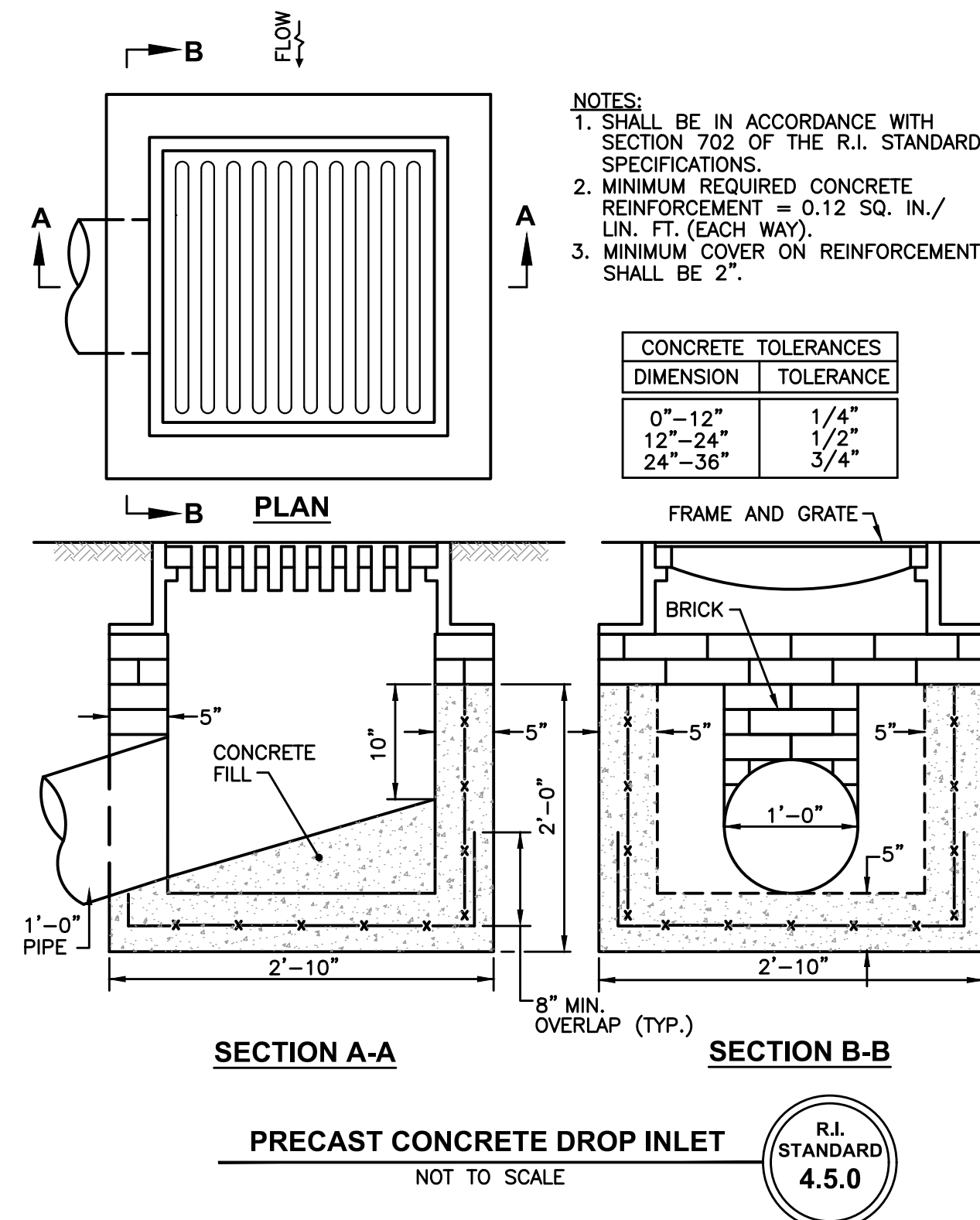
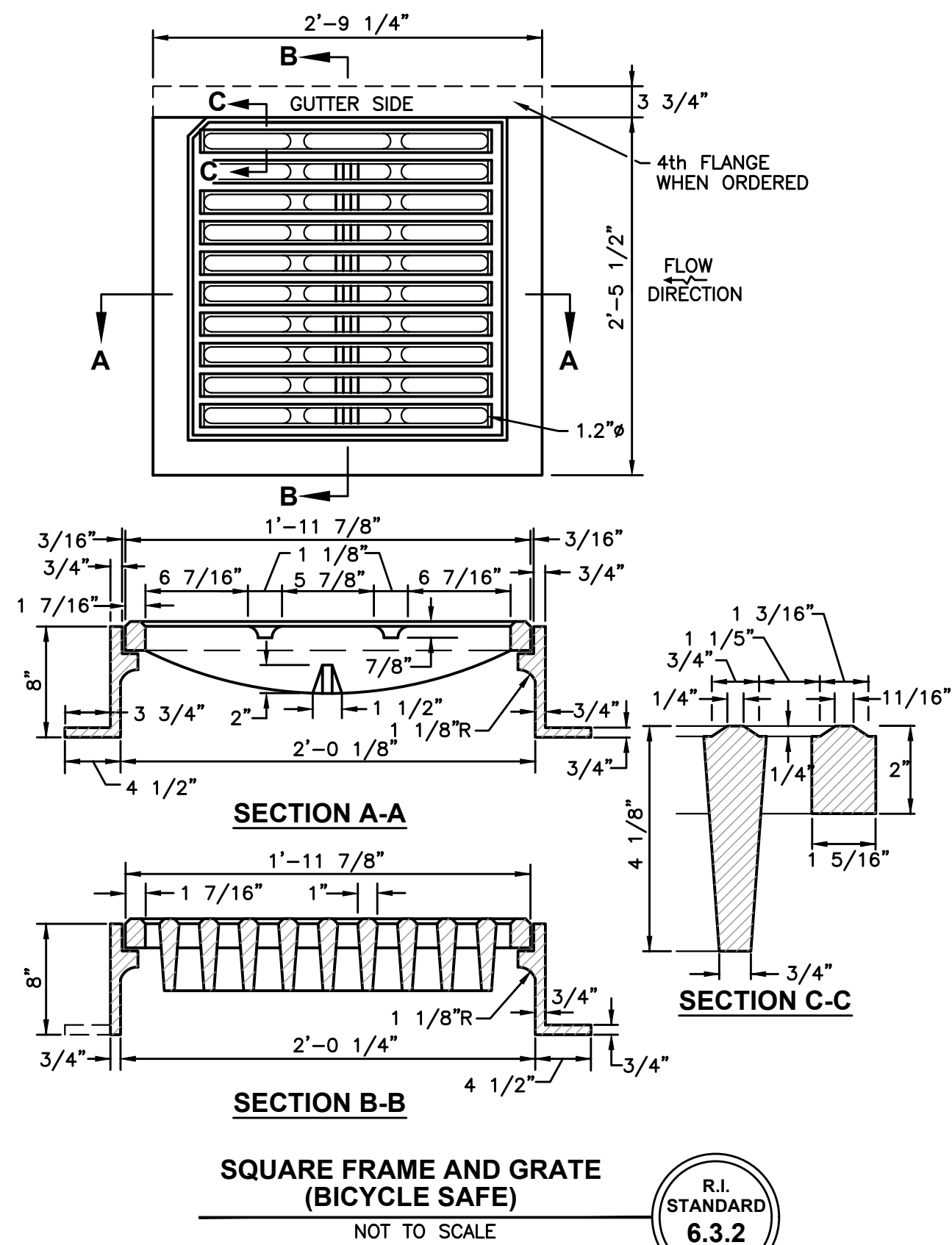
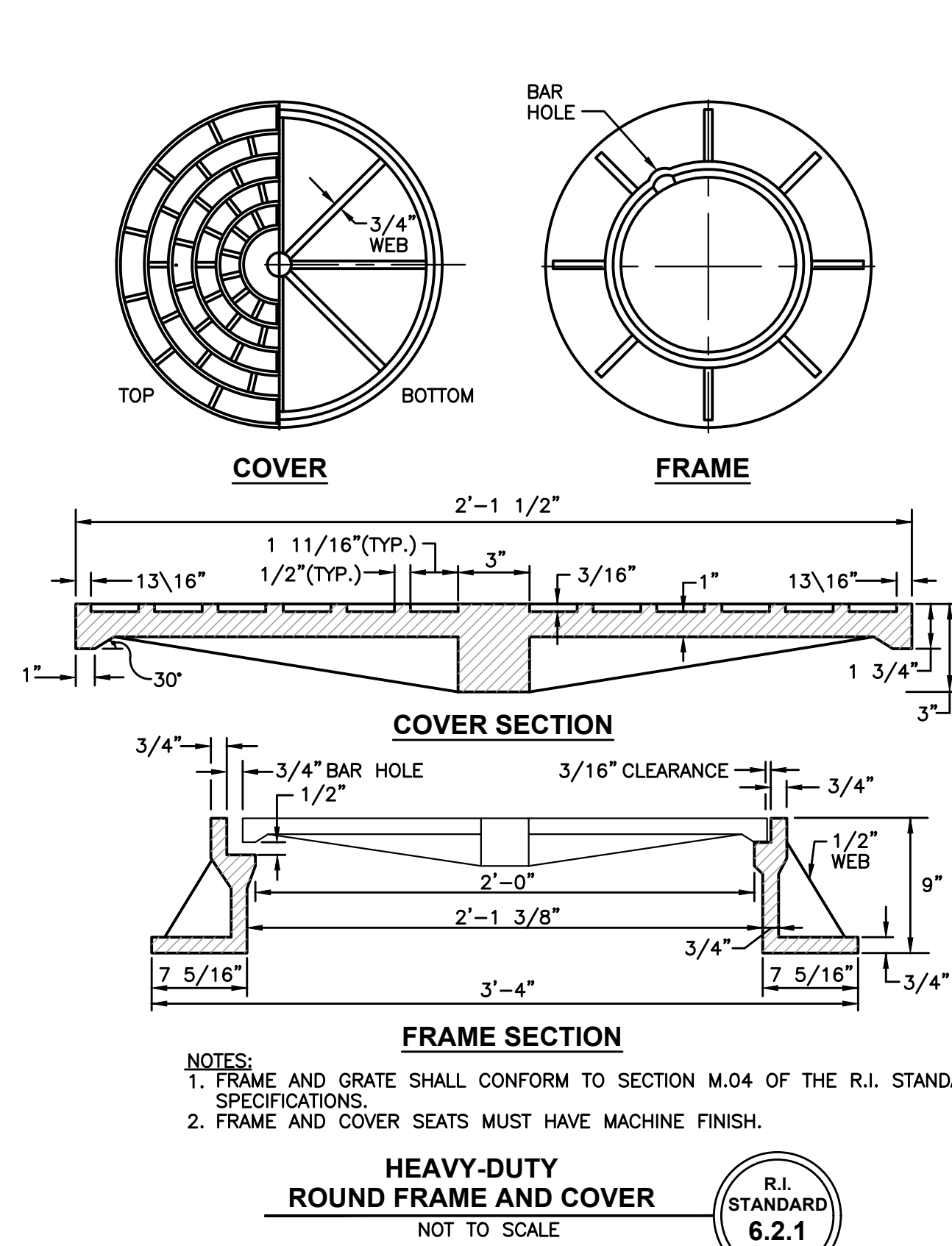


4/4/2023 2:37 PM G:\PLANNING LANDSCAPE\7000SI\7038 - WICKFORD WATERFRONT IMPROVEMENTS\AUTOCAD FILES\PLAN SET\7038-PLANTPLAN.DWG (BETA STD BW.CTB)



- NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
 2. CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED = 0.12 SQ. IN. / LIN. FT. MINIMUM.
 3. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
 4. ONE POUR MONOLITHIC BASE SECTION.
 5. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
 6. STEPS SHALL CONFORM TO STD. 5.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.
 7. ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 LOADING (SEE STD. 4.7.2).
 8. ALTERNATE TOP SLAB IS ONLY FOR USE WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
 9. REFER TO STD. 5.2.0 FOR MAXIMUM PIPE SIZES.

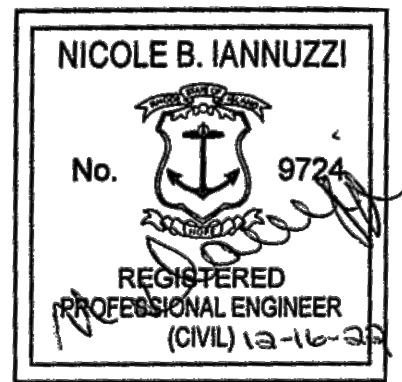
PRECAST 4'-0" ROUND MANHOLE
NOT TO SCALE



PREPARED BY



REGISTERED PROFESSIONAL



SUBCONSULTANT

PROJECT

Wickford Waterfront
Improvements

Wickford, RI

TITLE

CONSTRUCTION
DETAILS 1

NO. REVISIONS DATE

DRAWN BY: CC

DESIGNED BY: TD

CHECKED BY: NBI

ISSUE DATE: 12/14/2022

BETA JOB NO.: 7038

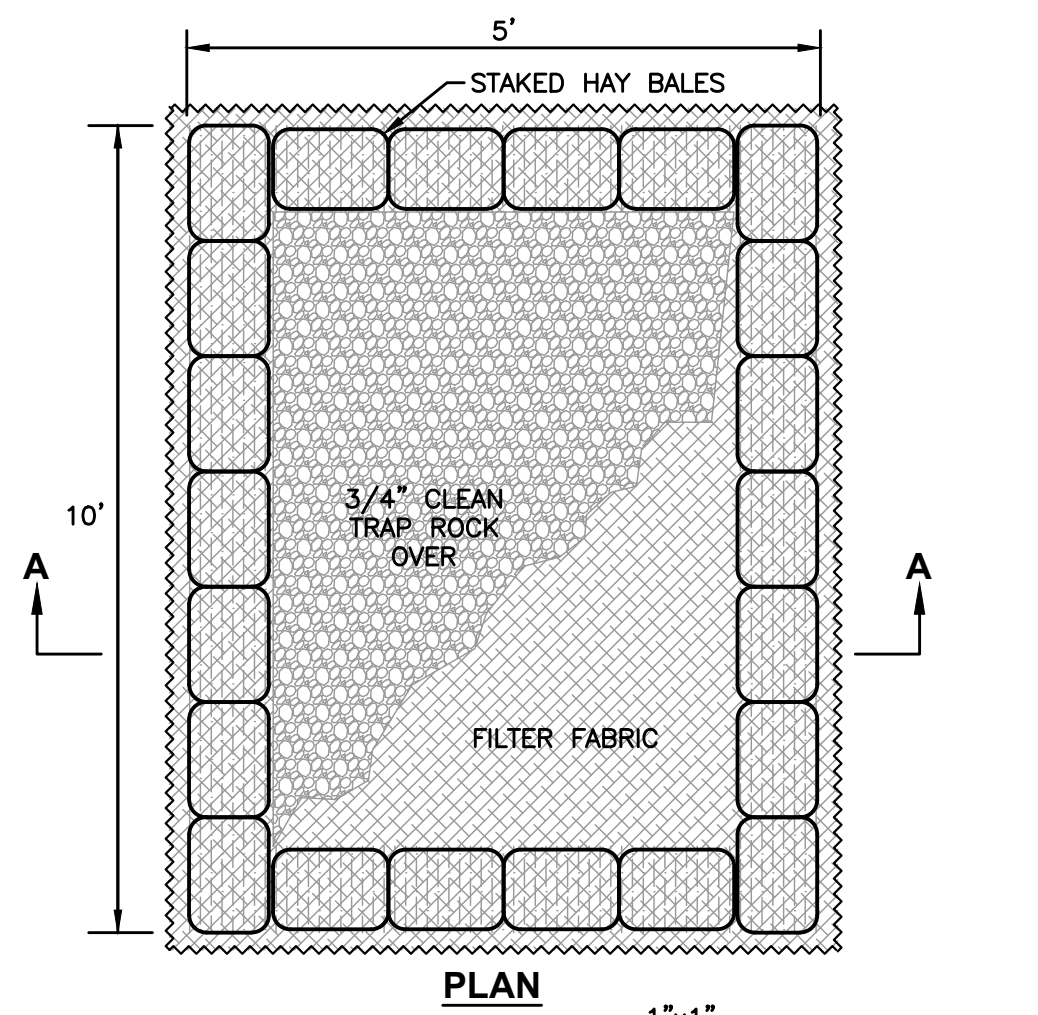
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AS SHOWN

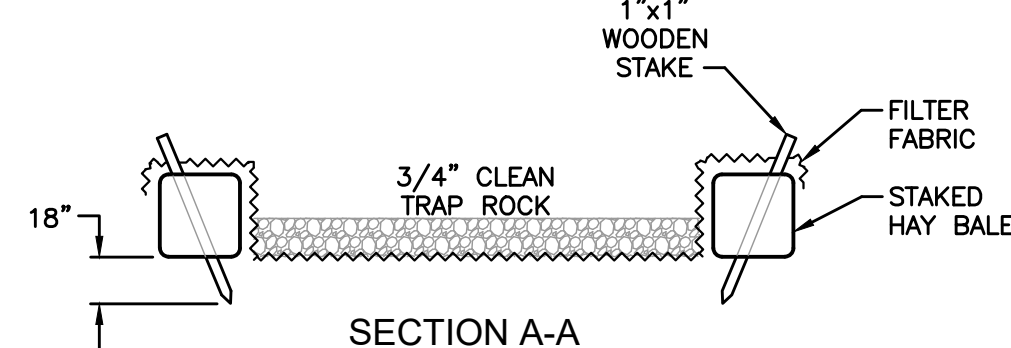
For Review Only

SHEET NO.

13



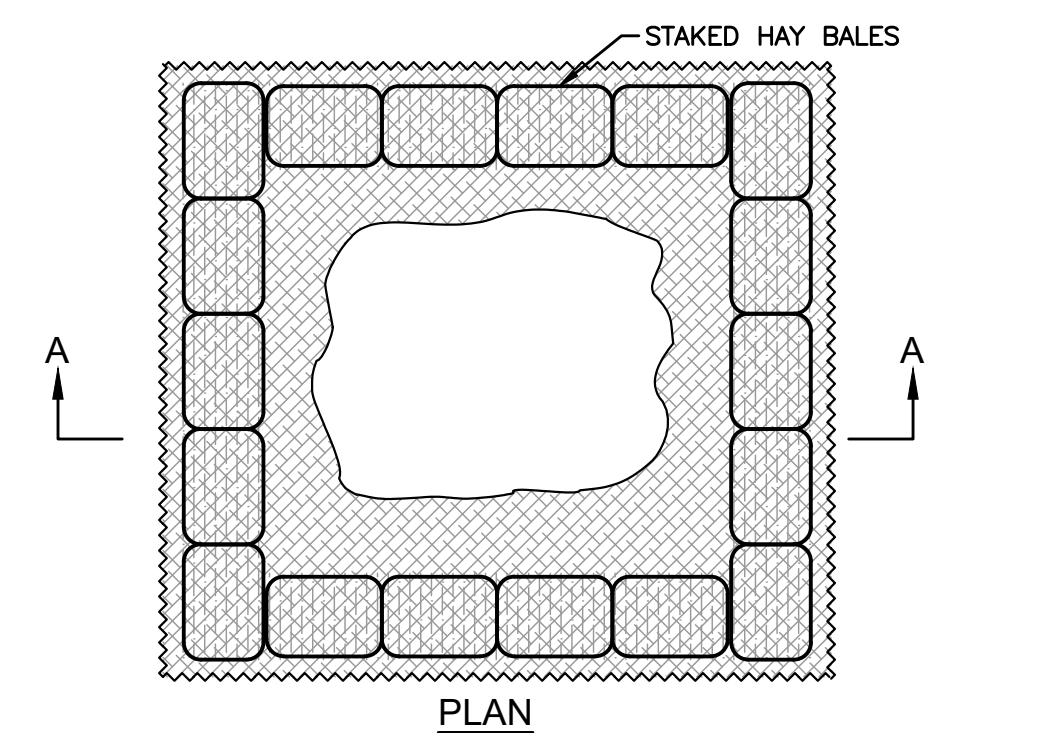
PLAN



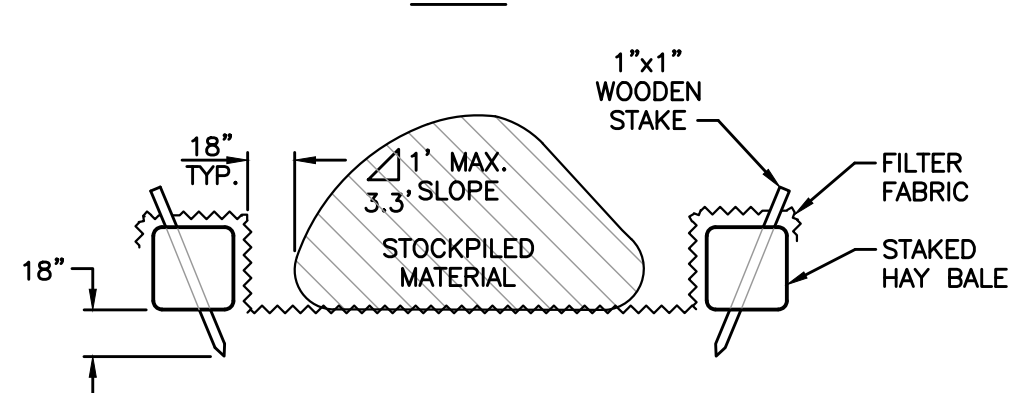
SECTION A-A

CONCRETE WASHOUT AREA DETAIL

NOT TO SCALE



PLAN

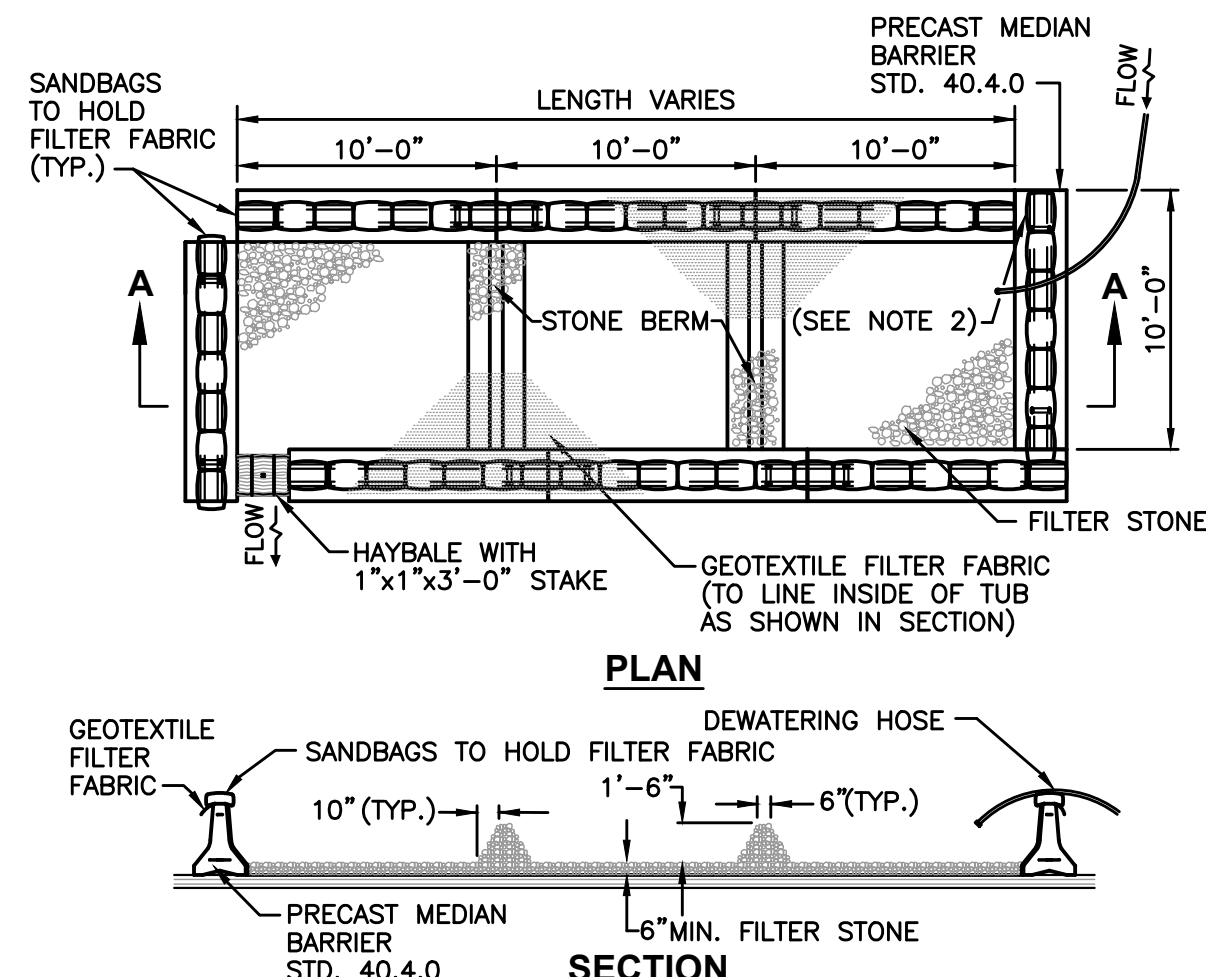


SECTION A-A

NOTE: DIMENSIONS OF STOCKPILE AREA MAY VARY DEPENDING ON QUANTITY OF EXCAVATED MATERIAL. AVOID OVERTOPPING OR SLOPES IN EXCESS OF 1:3.3.

PLAN OF TEMPORARY STOCKPILED AREA

NOT TO SCALE



PLAN

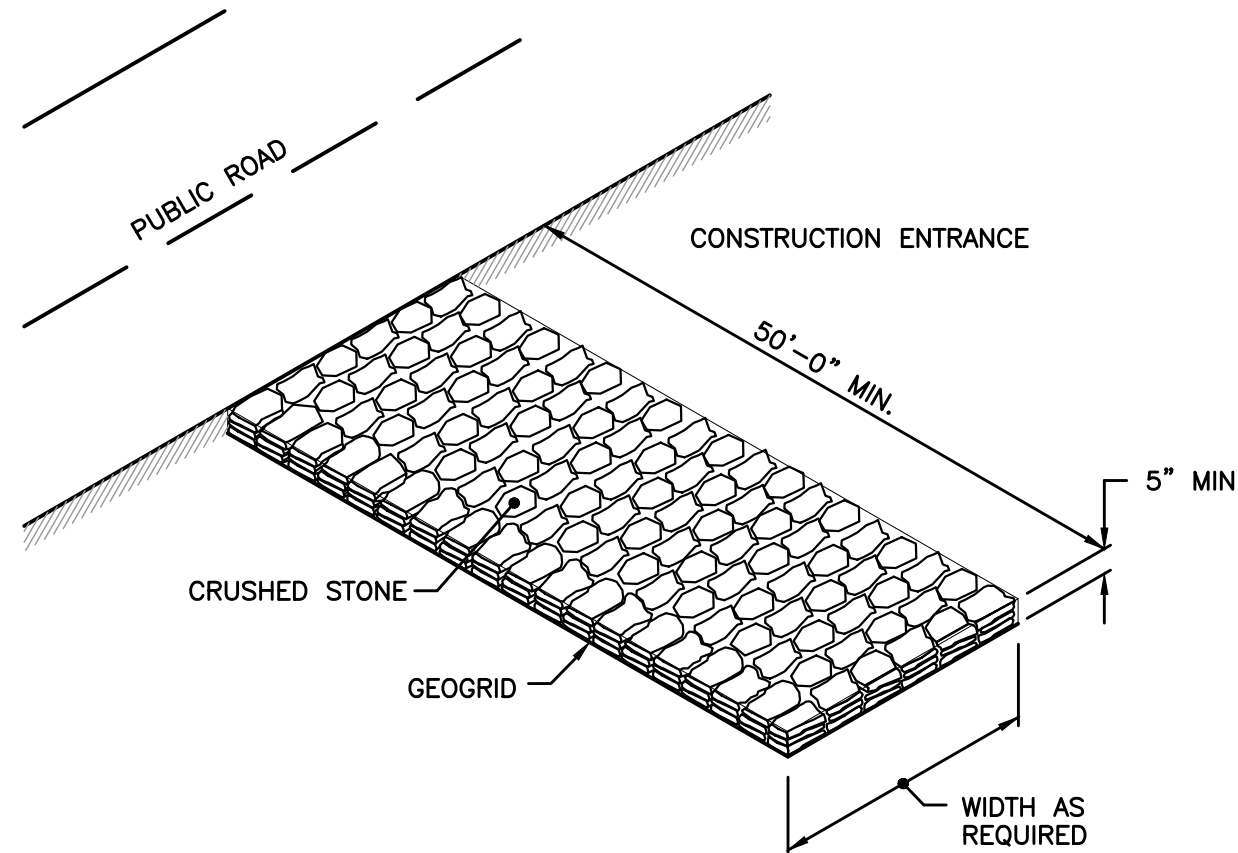
SECTION

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 208 OF THE R.I. STANDARD SPECIFICATIONS.
2. PROVIDE ADDITIONAL SAND BAGS AS REQUIRED TO FILL SPACE BETWEEN ADJACENT BARRIERS.

DEWATERING BASIN

NOT TO SCALE

R.I. STANDARD 9.7.0

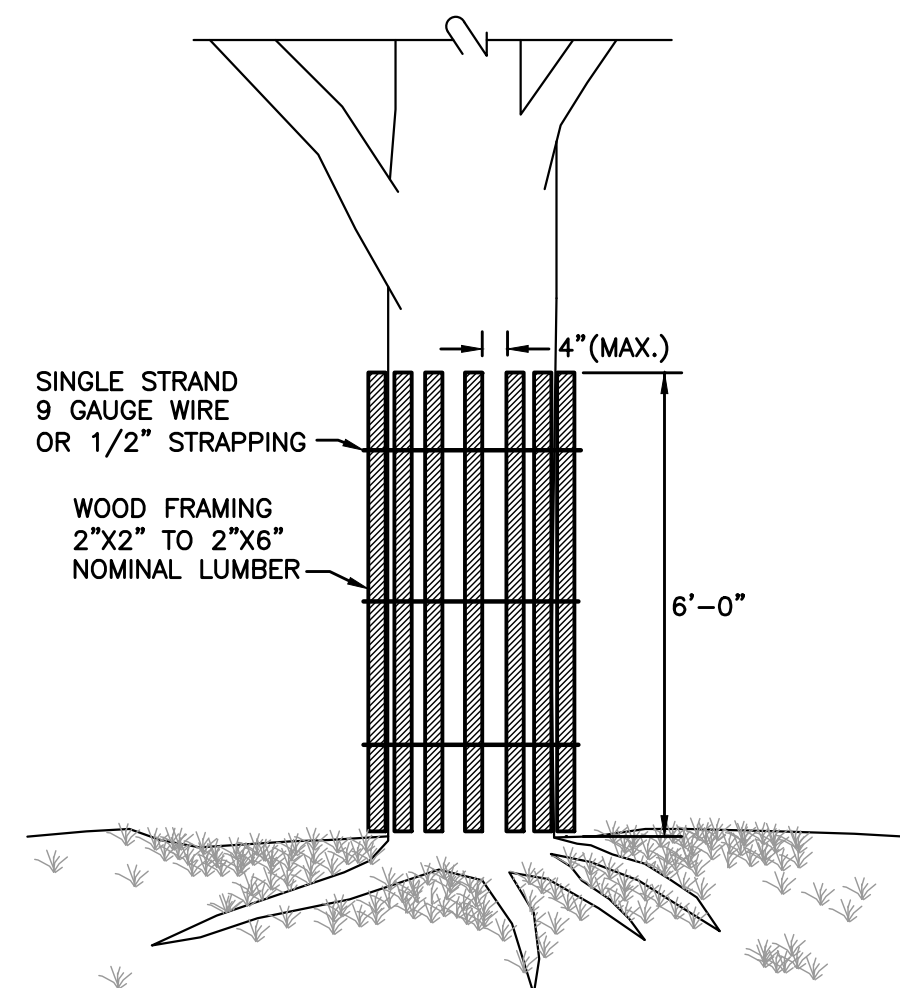


CONSTRUCTION ACCESS

NOT TO SCALE

R.I. STANDARD 9.9.0

NOTE: SHALL BE IN ACCORDANCE WITH SECTION 211 OF THE R.I. STANDARD SPECIFICATIONS.

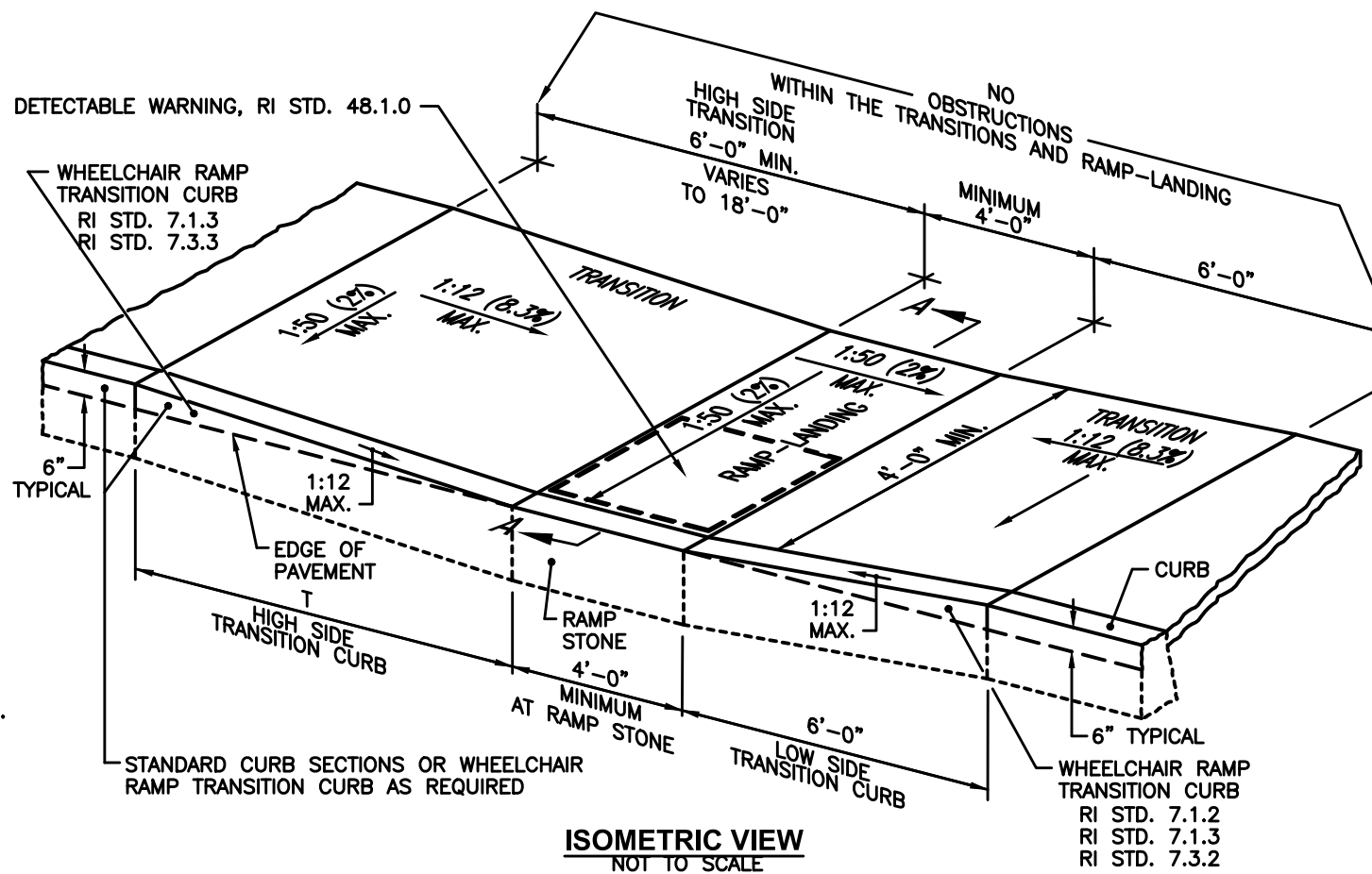


TREE PROTECTION DEVICE

NOT TO SCALE

R.I. STANDARD 51.1.0

NOTE: SHALL BE IN ACCORDANCE WITH SECTION L.11 OF THE STANDARD SPECIFICATIONS.



ISOMETRIC VIEW

NOT TO SCALE

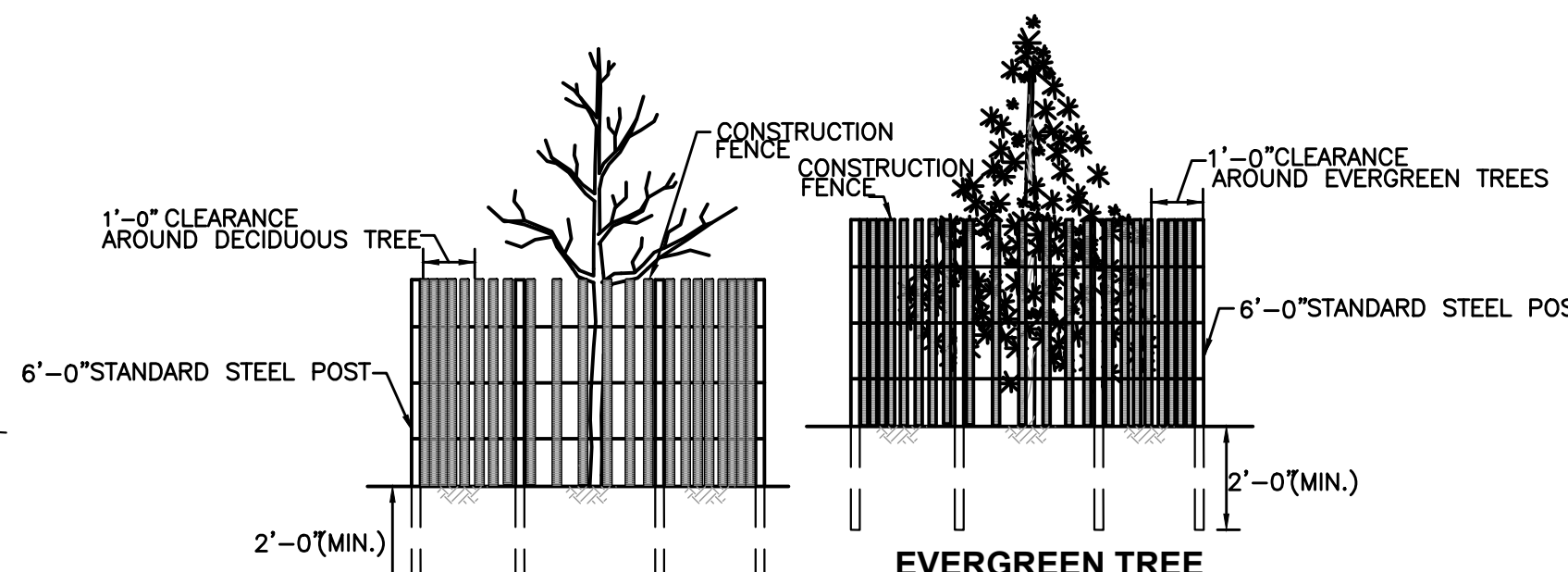
ROADWAY PROFILE GRADE	T (FT.)
0.00	6.0
0.01	7.0
0.02	8.0
0.03	9.5
0.04	11.5
0.05	15.0
> 0.05	18.0

NOTES:
1. THIS DETAIL MAY BE USED WHEN A PHYSICAL BARRIER IS PRESENT AND THERE IS INSUFFICIENT ROOM TO PROPERLY CONSTRUCT AN ADA ACCESSIBLE RAMP AND LANDING; A TECHNICAL FEASIBILITY FINDING IS REQUIRED.
2. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
3. THE RAMP-LANDING AND TRANSITIONS SHALL BE FREE OF OBSTRUCTIONS.
4. LOCATION OF THE RAMP-LANDING IS AS SHOWN ON THE CONTRACT DRAWINGS.
5. AN UNOBSTRUCTED PEDESTRIAN ACCESS ROUTE (PATH OF TRAVEL) WITH A MINIMUM WIDTH OF 4'-0" SHALL BE MAINTAINED.
6. THE ENTRANCE OF THE RAMP-LANDING SHALL BE FLUSH WITH THE PAVEMENT.
7. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILTER PIECES TO BE 3'-0" (GREATER LENGTHS PREFERRED).
8. ALL REQUIRED CUTTING OF CURB PIECES TO BE PAID FOR UNDER COST OF CURB.
9. DETECTABLE WARNINGS TO BE PAID FOR UNDER SECTION 942 OF THE R.I. STANDARD SPECIFICATIONS.

RAMP-LANDING FOR NARROW SIDEWALK

NOT TO SCALE

R.I. STANDARD 43.3.2



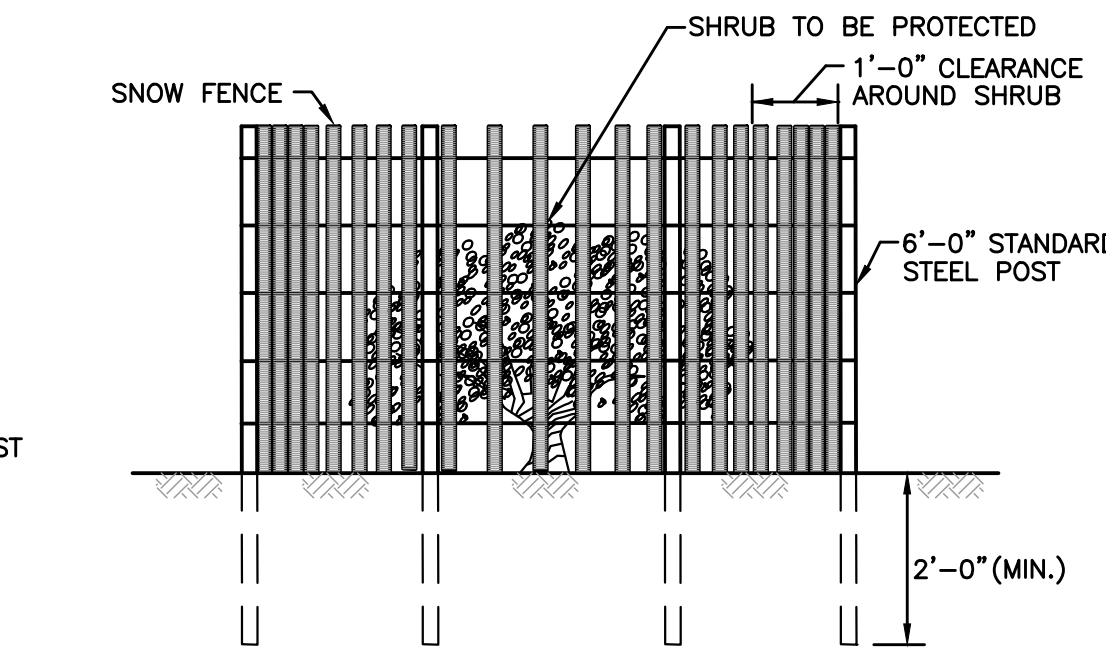
DECIDUOUS TREE

NOTE: SHALL BE IN ACCORDANCE WITH SECTION L.11 OF THE R.I. STANDARD SPECIFICATIONS.

DRIP LINE TREE PROTECTION DEVICE FOR EXISTING TREES

NOT TO SCALE

R.I. STANDARD 51.1.1

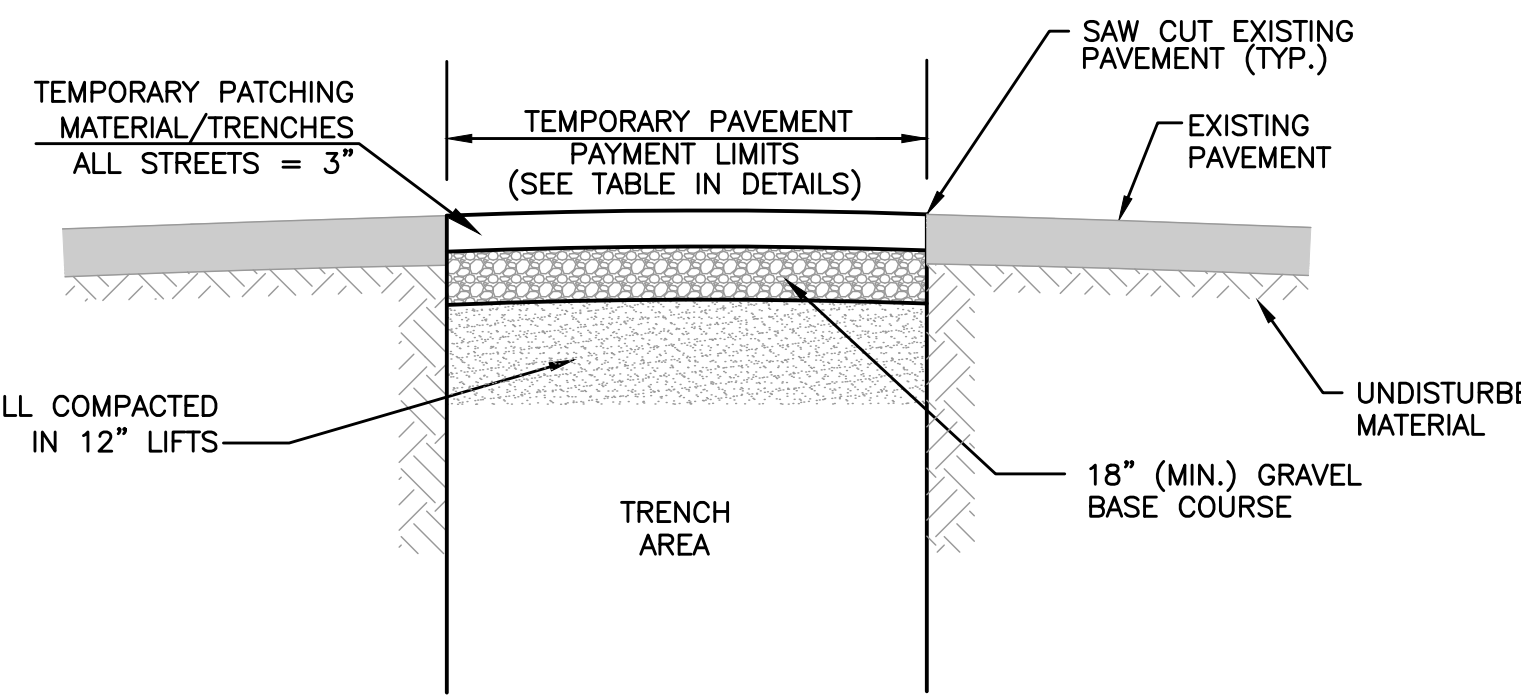


SHRUB PROTECTION DEVICE

NOT TO SCALE

R.I. STANDARD 51.2.0

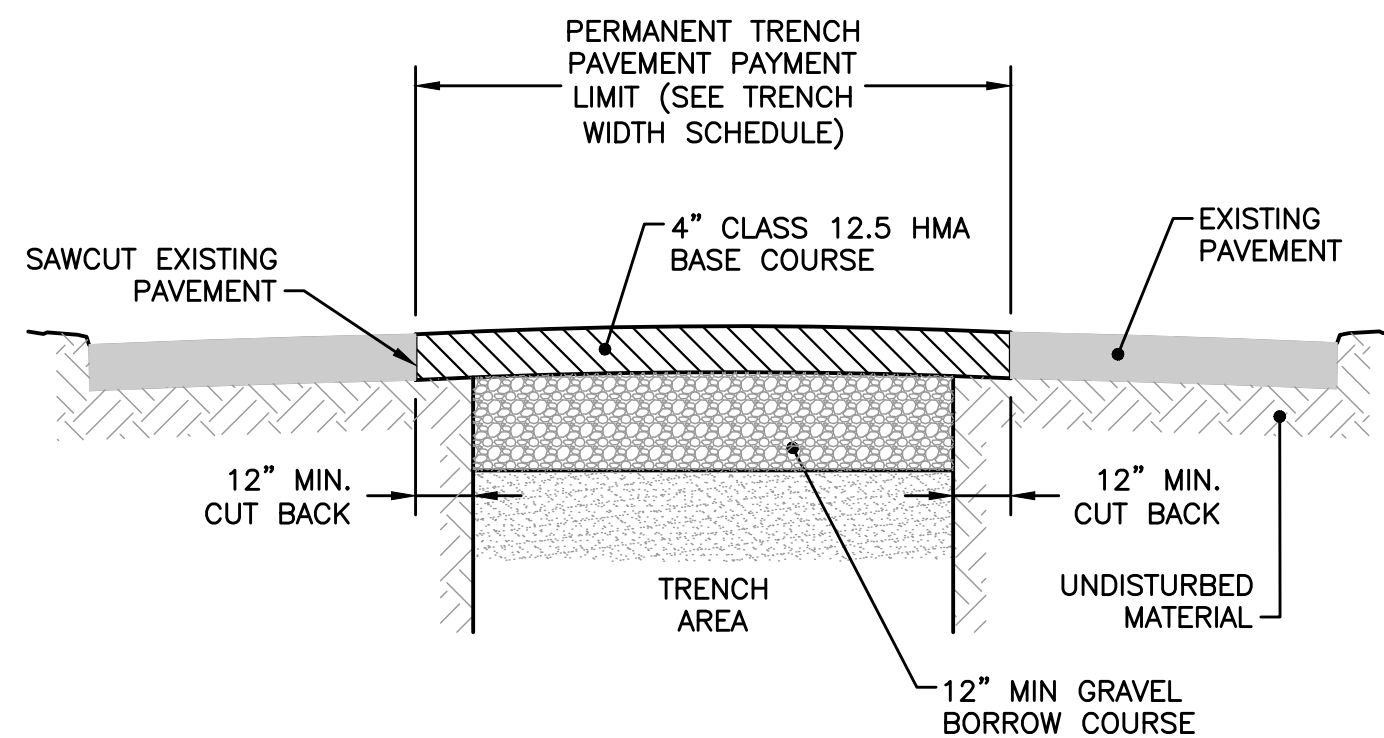
NOTE: SHALL BE IN ACCORDANCE WITH SECTION L.11 OF THE R.I. STANDARD SPECIFICATIONS.



BITUMINOUS CONCRETE TEMPORARY PAVEMENT

NOT TO SCALE

NOTE: CONTRACTOR TO VARY PAVEMENT THICKNESS TO MAINTAIN A MINIMUM CROSS SECTIONAL SLOPE EQUALING 0.02 FT/FT OR %.



PERMANENT TRENCH WIDTH PAVEMENT

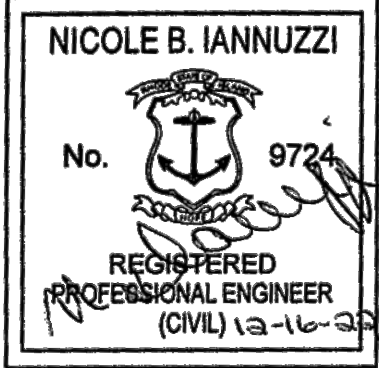
NOT TO SCALE

NOTES:
1. MAXIMUM PAVEMENT THICKNESS PER COURSE NOT TO EXCEED 3 INCHES.
2. CONTRACTOR TO VARY PAVEMENT THICKNESS TO MAINTAIN A MINIMUM CROSS SECTIONAL SLOPE EQUALING 0.02 FT/FT.
3. CUT BACK DISTANCES SHALL BE AS DIRECTED BY THE ENGINEER, HOWEVER UNDER NO CIRCUMSTANCES LESS THAN THE MINIMUM INDICATED.
4. ONCE THE 4" PERMANENT TRENCH PAVEMENT IS COMPLETE AND SET FOR A MINIMUM OF 90 DAYS, THE ENTIRE ROADWAY WILL BE MILLED TO A DEPTH OF 1 1/2" AND PAVED WITH 1 1/2" CLASS 9.5 SURFACE COURSE.

PREPARED BY



REGISTERED PROFESSIONAL



SUBCONSULTANT

PROJECT

Wickford Waterfront Improvements

Wickford, RI

TITLE

CONSTRUCTION DETAILS 2

NO. REVISIONS DATE

DRAWN BY: CC

DESIGNED BY: TD

CHECKED BY: NBI

ISSUE DATE: 12/14/2022

BETA JOB NO.: 7038

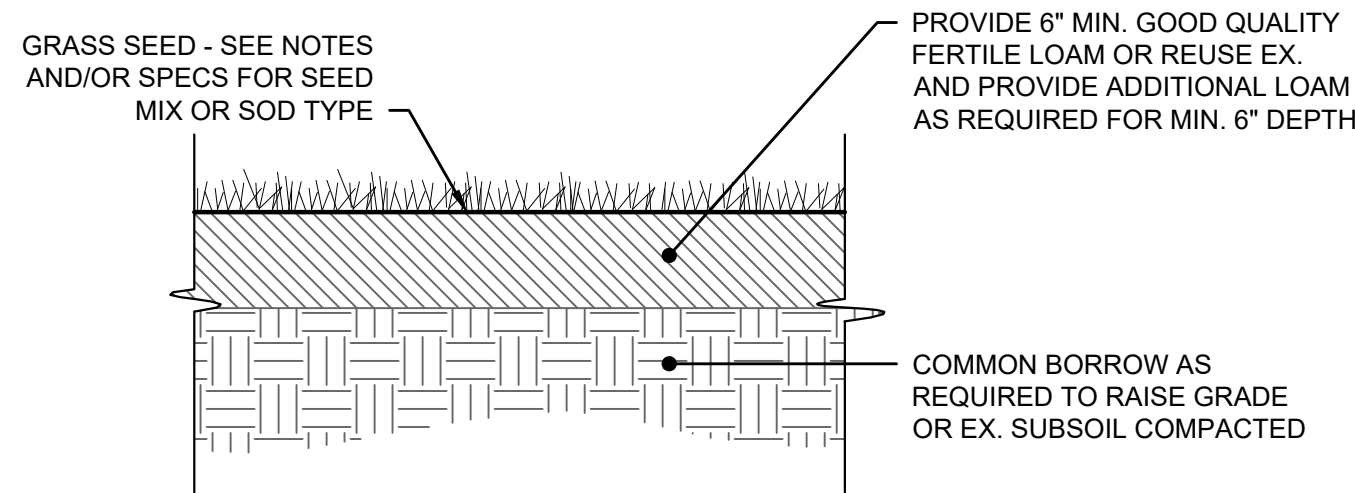
SCALE

AS SHOWN

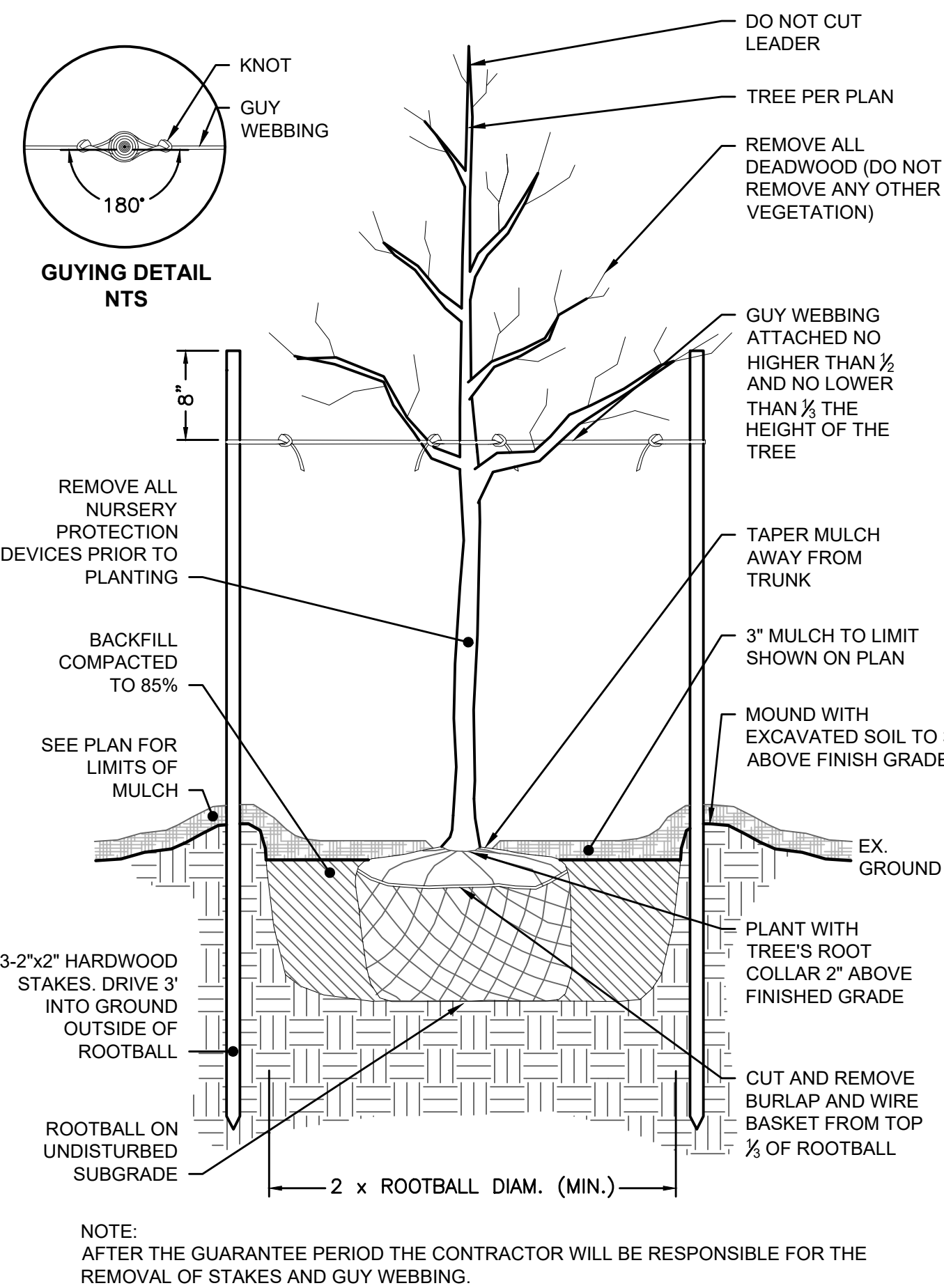
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

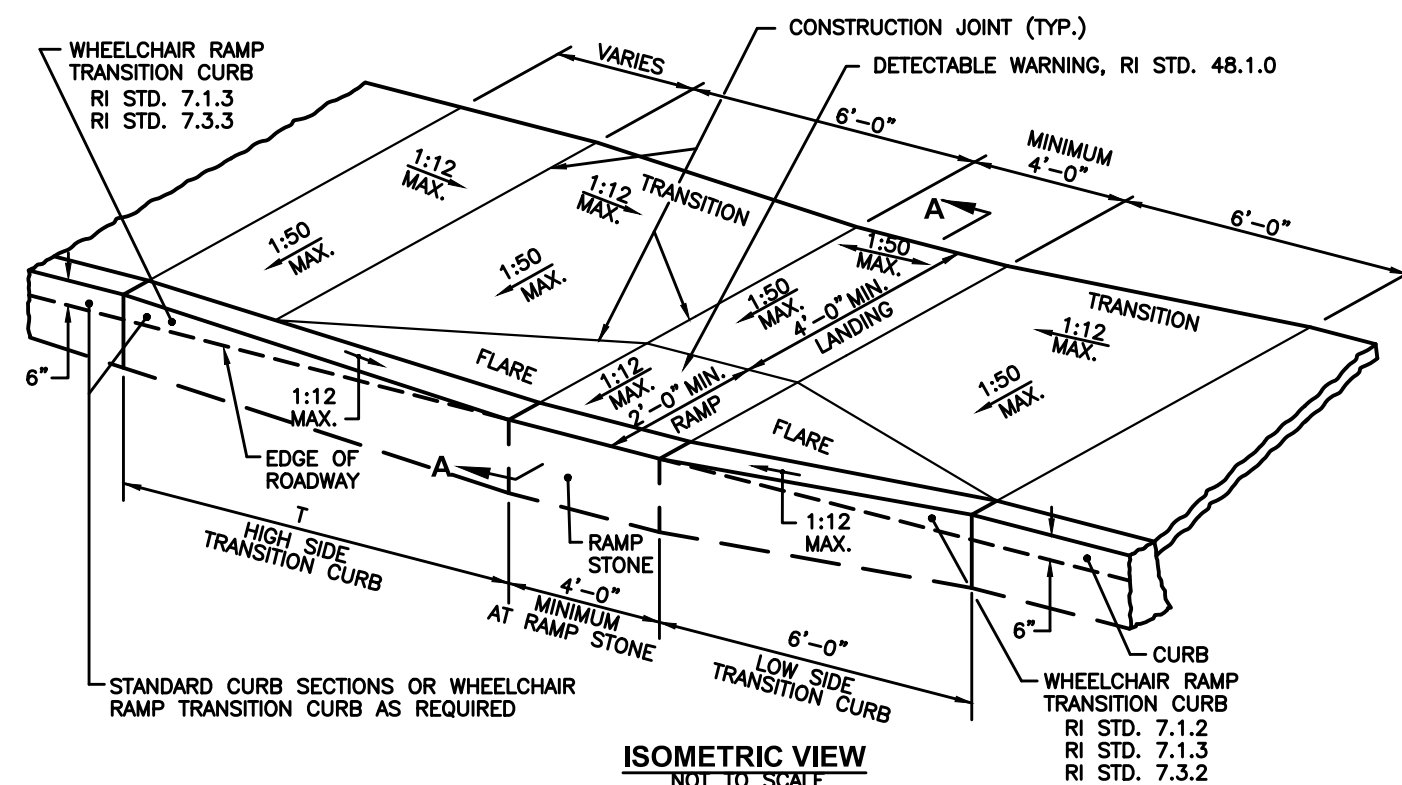
SHEET NO.



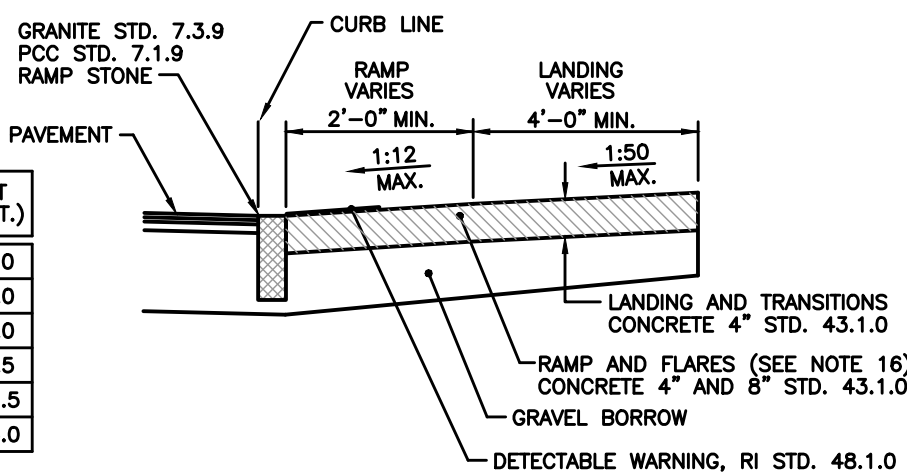
LOAM AND SEED
NOT TO SCALE



DECIDUOUS TREE STAKING & PLANTING
NOT TO SCALE

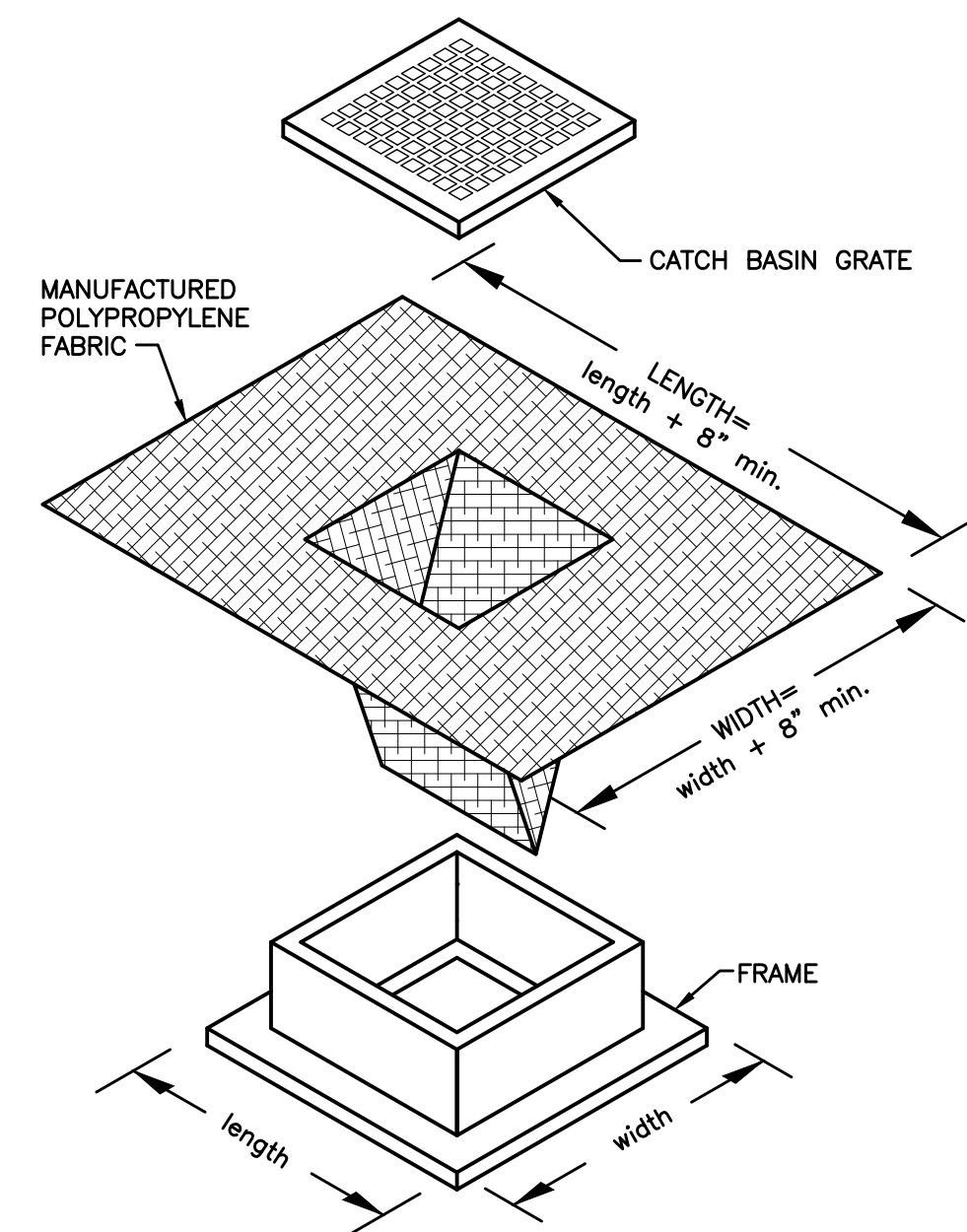


ROADWAY PROFILE GRADE	T (FT.)
0.00	6.0
0.01	7.0
0.02	8.0
0.03	9.5
0.04	11.5
0.05	15.0



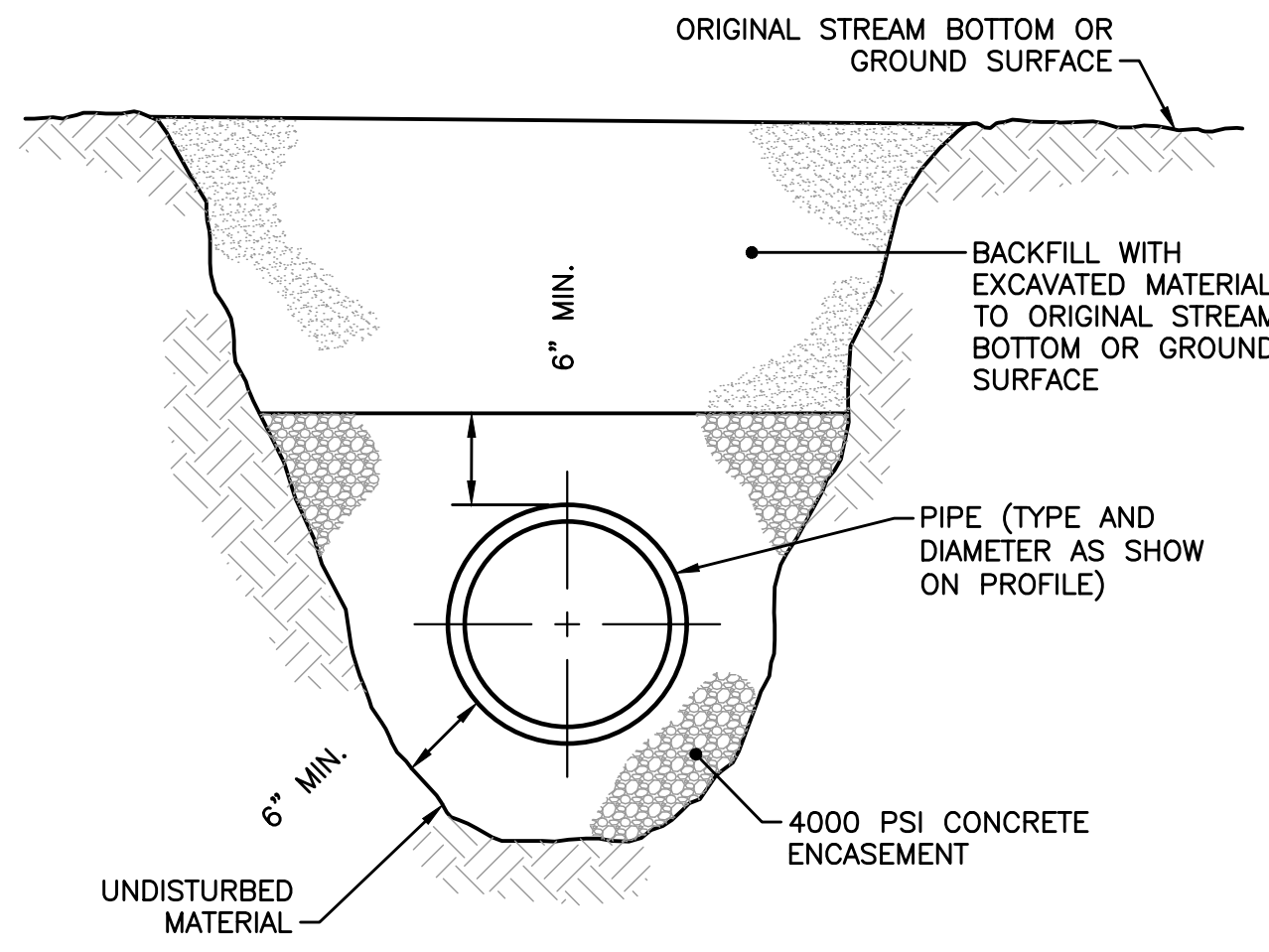
- NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
 2. WHEN ANY OBSTRUCTION LOCATED IN THE SIDEWALK FALLS WITHIN A CROSSWALK AREA, THE WHEELCHAIR RAMP WILL BE PLACED SUCH THAT THE OBSTRUCTION FALLS OUTSIDE OF THE RAMP.
 3. AT NO TIME IS ANY PART OF THE WHEELCHAIR RAMP TO BE LOCATED OUTSIDE OF THE CROSSWALK, AND IT IS TO BE CENTERED WHENEVER POSSIBLE.
 4. DRAINAGE FACILITIES ARE TO BE LOCATED UP-GRADE OF ALL WHEELCHAIR RAMP.
 5. LOCATION OF WHEELCHAIR RAMP IS AS SHOWN ON CONTRACT DRAWINGS.
 6. IN NO INSTANCE SHALL THE SIDEWALK CROSS SLOPE EXCEED 1:50 EXCEPT WITHIN THE RAMP AREA.
 7. AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 4'-0" SHALL BE MAINTAINED.
 8. THE WHEELCHAIR RAMP SLOPE AND SIDE SLOPES (TRANSITIONS), MUST NOT BE STEEPER THAN 1:12. HOWEVER, THESE SLOPES MAY BE FLATTER THAN 1:12 WHEN WARRANTED BY SURROUNDING CONDITIONS.
 9. WHERE THE ROAD PROFILE EXCEEDS SIX THE HIGH SIDE TRANSITION LENGTH (T) SHALL BE EIGHTEEN FEET (18'-0").
 10. IN NO CASE, WHERE A STOP LINE IS WARRANTED, SHALL A RAMP BE PLACED BEHIND THE STOP LINE.
 11. THE ENTRANCE OF THE WHEELCHAIR RAMP SHALL BE FLUSH WITH THE ROADWAY.
 12. THE WHEELCHAIR RAMP SHALL BE CENTERED RADUALLY, OPPOSITE THE RADIUS POINT WHEN POSSIBLE.
 13. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0" (GREATER LENGTHS PREFERRED).
 14. ALL REQUIRED CUTTING OF CURB PIECES TO BE PAID FOR UNDER COST OF CURB.
 15. DETECTABLE WARNINGS TO BE PAID FOR UNDER SECTION 842 OF THE R.I. STANDARD SPECIFICATION.
 16. 6" CONCRETE DEPTH FOR RADIUS WHEELCHAIR RAMP ONLY. USE 4" DEPTH FOR TANGENT (MID-BLOCK) LOCATIONS.

WHEELCHAIR RAMP
NOT TO SCALE



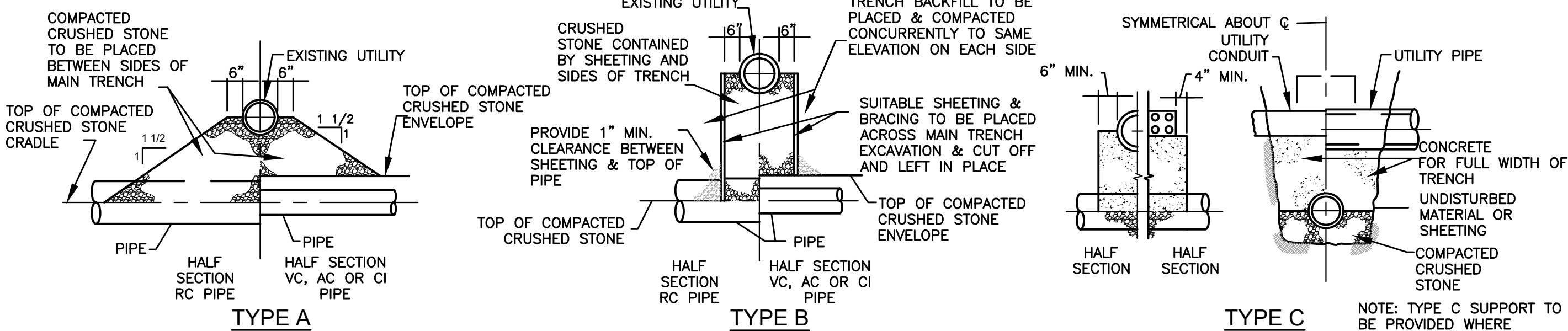
- NOTES:
1. LENGTH AND WIDTH OF POLYPROPYLENE FABRIC MUST EXCEED EXISTING CATCH BASIN FRAME DIMENSIONS BY A MINIMUM OF 8".
 2. REMOVE CATCH BASIN GRATE AND INSTALL POLYPROPYLENE FABRIC OVER CATCH BASIN FRAME. REPLACE CATCH BASIN GRATE TO SECURE POLYPROPYLENE FABRIC IN PLACE.

TYPICAL CATCH BASIN
EROSION CONTROL PROTECTION
NOT TO SCALE

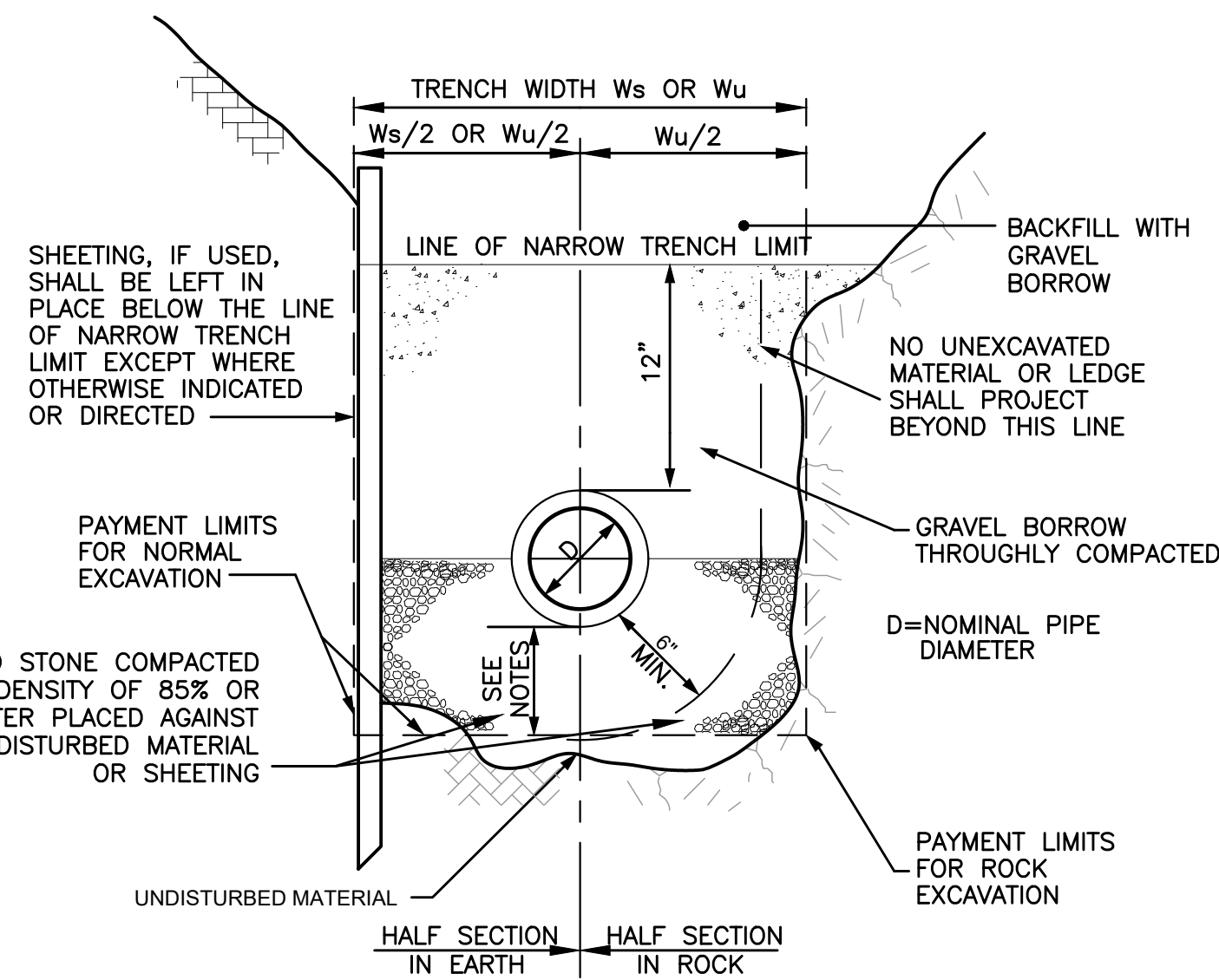


- NOTES:
1. THE PIPE SHALL BE PROPERLY SECURED TO PREVENT DISPLACEMENT DURING THE POURING OF CONCRETE ENCASEMENT.
 2. LIMIT OF CONCRETE ENCASEMENT SHALL BE SHOWN ON THE PROFILE OR AS DIRECTED.

CONCRETE ENCASEMENT DETAIL
NOT TO SCALE



TYPICAL SUPPORTS FOR UTILITIES
SCALE: NONE



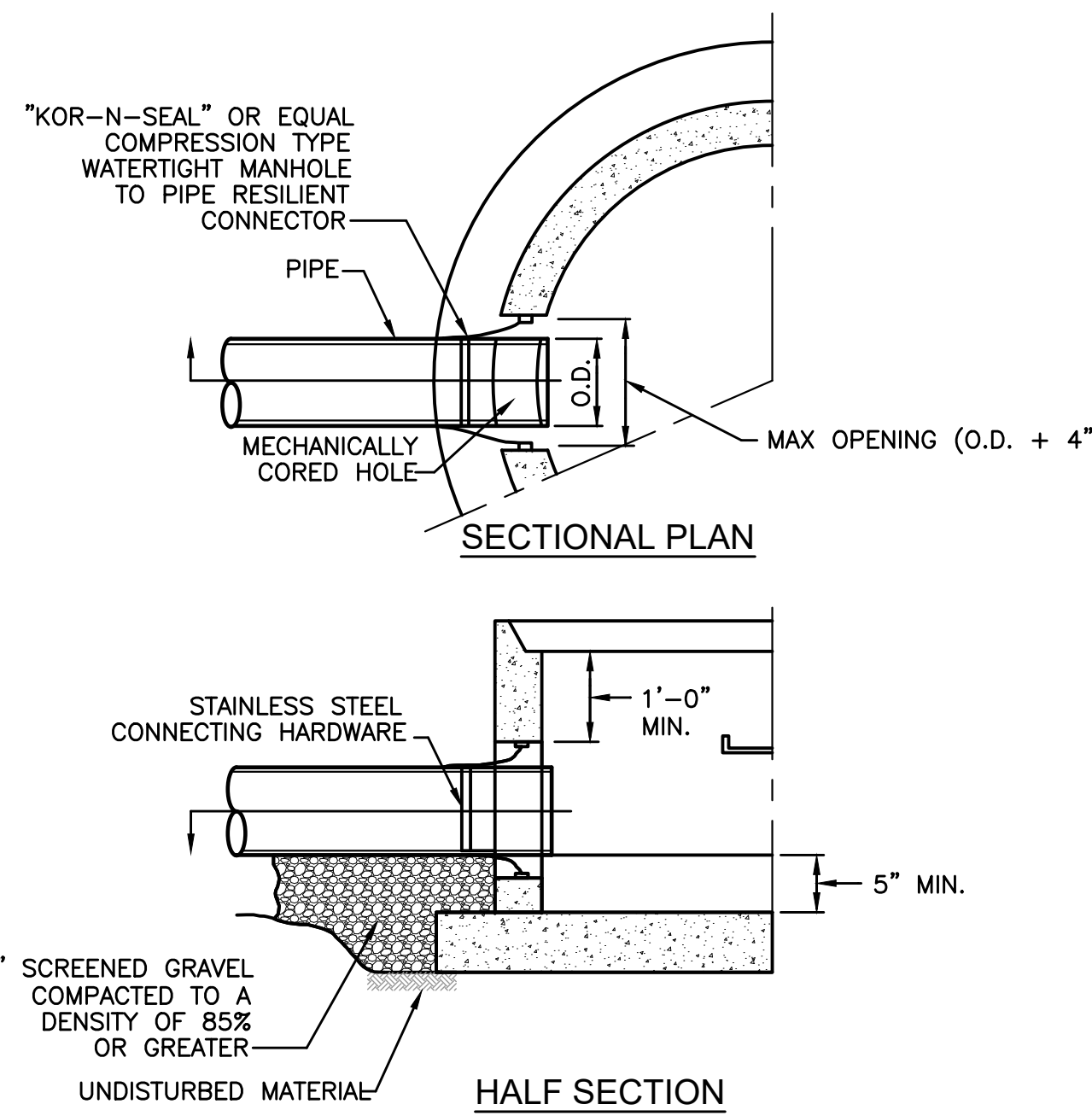
- NOTES:
1. IN STATE ROADS, THE BEDDING LIMIT FOR NORMAL EXCAVATION SHALL BE A MINIMUM DEPTH OF 12" BELOW DESIGN INVERT ELEVATIONS.
 2. IN TOWN ROADS, THE BEDDING LIMIT FOR NORMAL EXCAVATION SHALL BE A MINIMUM DEPTH OF 6" BELOW DESIGN INVERT ELEVATIONS.

DRAIN TRENCH SECTION
NOT TO SCALE

DIAMETER OF PIPE D IN INCHES	MAXIMUM PAYMENT LIMITS					
	TRENCH WIDTH IN FEET		TEMPORARY TRENCH PAVEMENT WIDTH IN FEET		PERMANENT TRENCH PAVEMENT WIDTH IN FEET*	
	TRENCH DEPTH	TRENCH DEPTH	TRENCH DEPTH	TRENCH DEPTH	TRENCH DEPTH	TRENCH DEPTH
12 AND SMALLER	< OR = 10'	> 10' TO 20'	< OR = 10'	> 10' TO 20'	< OR = 10'	> 10' TO 20'
15	5.00	6.00	6.00	7.00	8.00	9.00
18	5.25	6.25	6.25	7.25	8.25	9.25
21	5.50	6.50	6.50	7.50	8.50	9.50
24	5.75	6.75	6.75	7.75	8.75	9.75
27	6.00	7.00	7.00	8.00	9.00	10.00
30	6.25	7.25	7.25	8.25	9.25	10.25
36	6.50	7.50	7.50	8.50	9.50	10.50
42	7.00	8.00	8.00	9.00	10.00	11.00
48	7.50	8.50	8.50	9.50	10.50	11.50
54	8.00	9.00	9.00	10.00	11.00	12.00
60	8.50	9.50	9.50	10.50	11.50	12.50
66	9.00	10.00	10.00	11.00	12.00	13.00
72	9.50	10.50	10.50	11.50	12.50	13.50
72	10.00	11.00	11.00	12.00	13.00	14.00

- NOTES:
1. PERMANENT TRENCH PAVEMENT INCLUDES 1' CUT BACK OF TEMPORARY PAVEMENT ALONG EACH SIDE OF THE TRENCH.
 2. TRENCH DEPTH MEASURED FROM THE EXISTING GROUND SURFACE TO 6" BELOW THE BOTTOM OF THE CONSTRUCTED PIPE.
 3. QUANTITIES FOR PAYMENT SHALL BE IN ACCORDANCE WITH THE ABOVE LIMITS OR THE ACTUAL WIDTHS, WHICHEVER IS LESS.

TRENCH WIDTH SCHEDULE
NOT TO SCALE

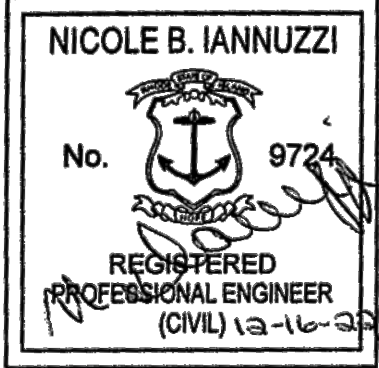


CORED HOLE AND RESILIENT SEAL FOR
CONNECTING PIPES TO EXISTING MANHOLES
NOT TO SCALE

PREPARED BY



REGISTERED PROFESSIONAL



SUBCONSULTANT

PROJECT

Wickford Waterfront
Improvements

Wickford, RI

TITLE

CONSTRUCTION
DETAILS 3

NO. REVISIONS DATE

DRAWN BY: CC

DESIGNED BY: TD

CHECKED BY: NBI

ISSUE DATE: 12/14/2022

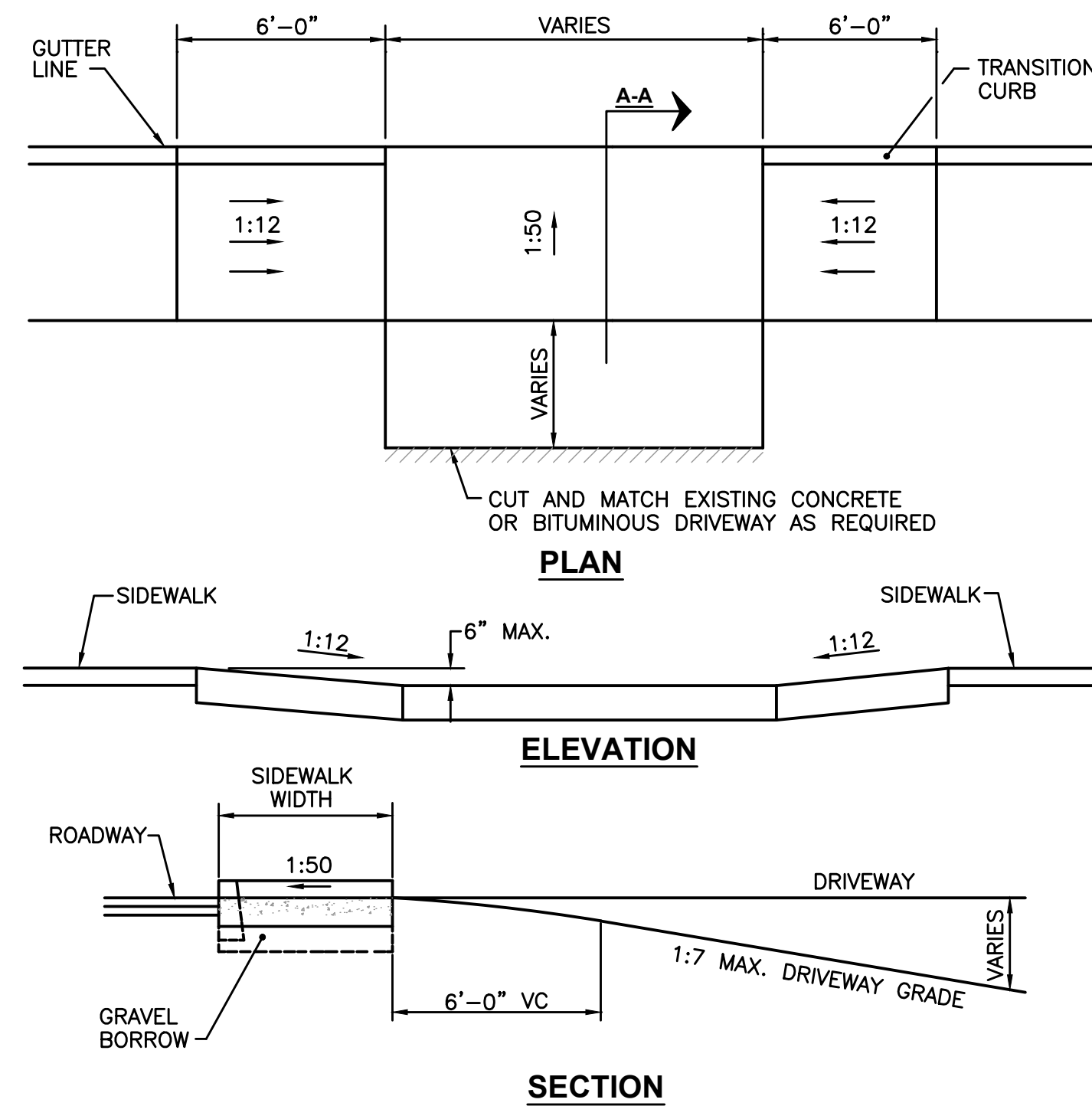
BETA JOB NO.: 7038

SCALE

AS SHOWN

For Review Only

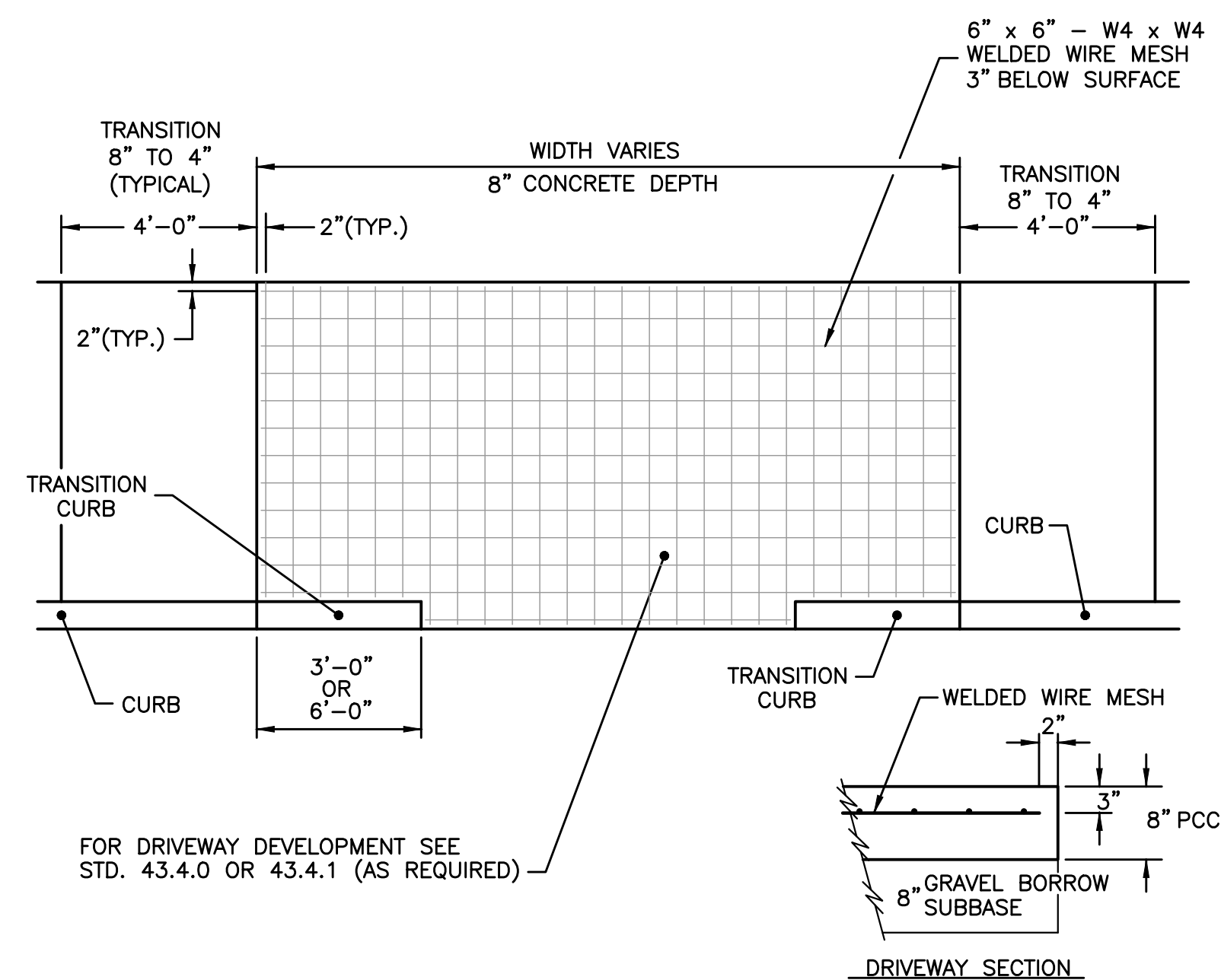
SHEET NO.



NOTE:
SHALL BE IN ACCORDANCE WITH SECTION 904 OF THE R.I. STANDARD SPECIFICATIONS

DRIVEWAY DEVELOPMENT FOR 6'-0" TRANSITION CURB

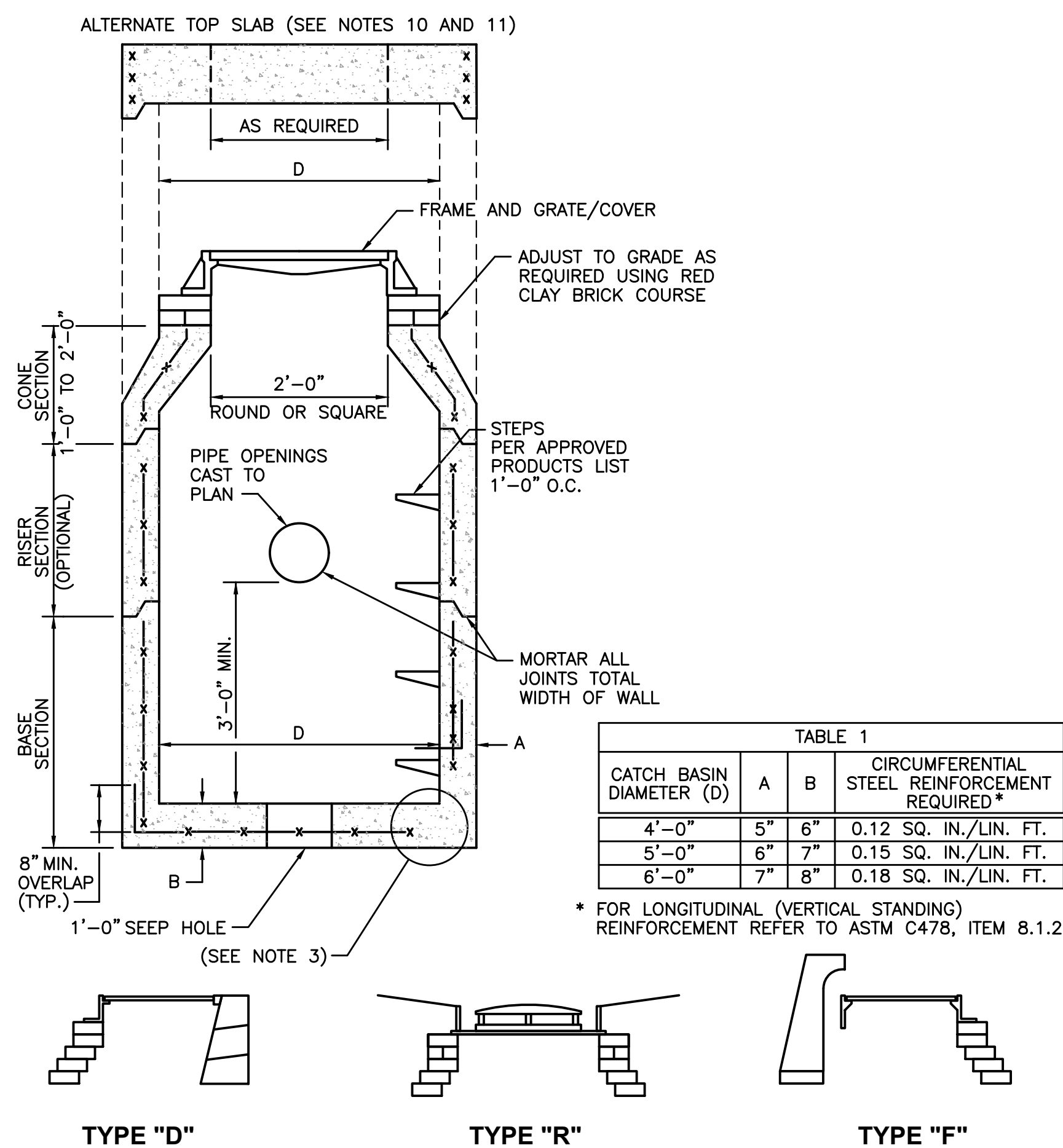
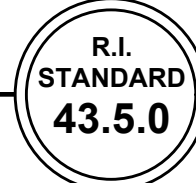
NOT TO SCALE



NOTE:
SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.

CEMENT CONCRETE DRIVEWAYS

NOT TO SCALE

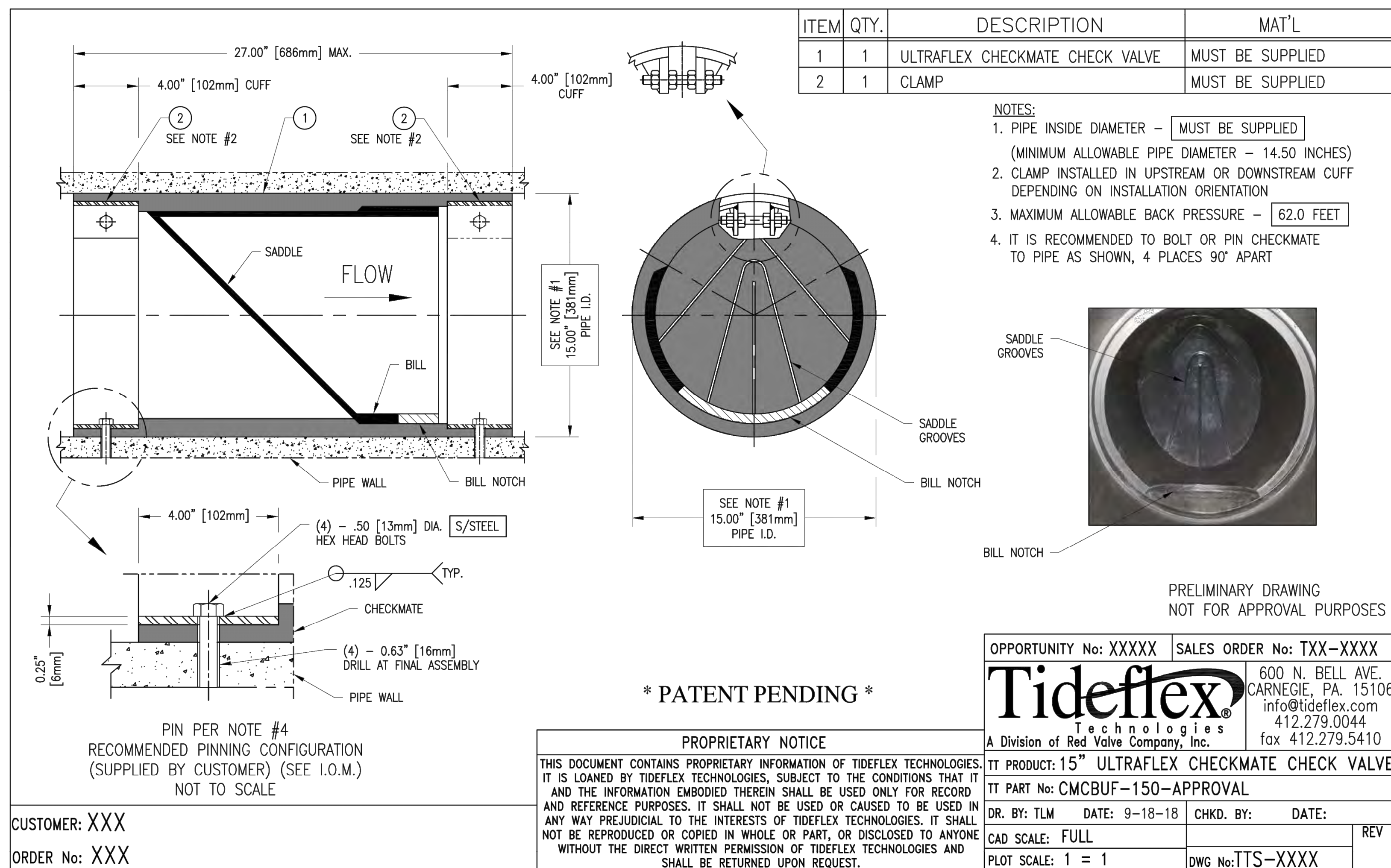
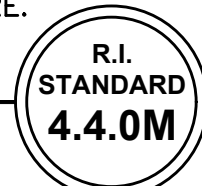


NOTES:

- TYPE CATCH BASIN AS REQUIRED**
- NOTES:**
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
 2. SEE TABLE 1 FOR STEEL REINFORCEMENT REQUIREMENTS.
 3. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
 4. STEPS SHALL CONFORM TO STD. 5.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.
 5. ONE POUR MONOLITHIC BASE SECTION.
 6. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
 7. CORBELS MADE OF RED CLAY BRICK WILL BE PERMITTED FOR THE "COOK SECTION" OF THE 4'-0" CATCH BASIN ONLY.
 8. THE CATCH BASIN TYPE "C" SHALL BE INSTALLED ON THE URB SIDE OF THE STRUCTURE.
 9. THE CENTERLINE OF THE OPENING MUST BE WITHIN 6" FROM THE STEPS.
 10. ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 LOADING (SEE STD. 4.7.2).
 11. ALTERNATE TOP SLAB IS ONLY FOR USE WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
 12. REFER TO STD. 5.2.0 FOR MAXIMUM PIPE SIZES.
 13. PROVIDE A MINIMUM OF 12 INCHES OF COMPACTED GRAVEL BORROW AROUND THE STRUCTURE.

PRECAST 4'-0", 5'-0", OR 6'-0" ROUND CATCH BASIN

NOT TO SCALE

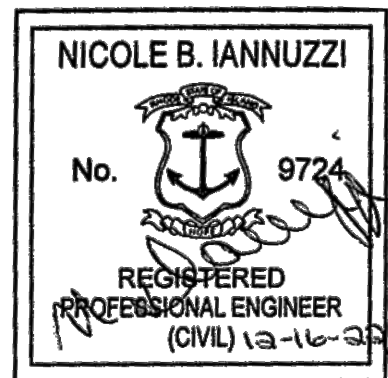


TIDE GATE DETAIL (OR APPROVED EQUAL)

NOT TO SCALE



REGISTERED PROFESSIONAL



SUBCONSULTANT

PROJECT

Wickford Waterfront Improvements

Wickford, RI

TITLE

CONSTRUCTION DETAILS 4

[illegible]

DRAWN BY: CC

DESIGNED BY: TD

CHECKED BY: NBI

ISSUE DATE: 12/14/2022

BETA JOB NO.: 7038

SCALE

AS SHOWN

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

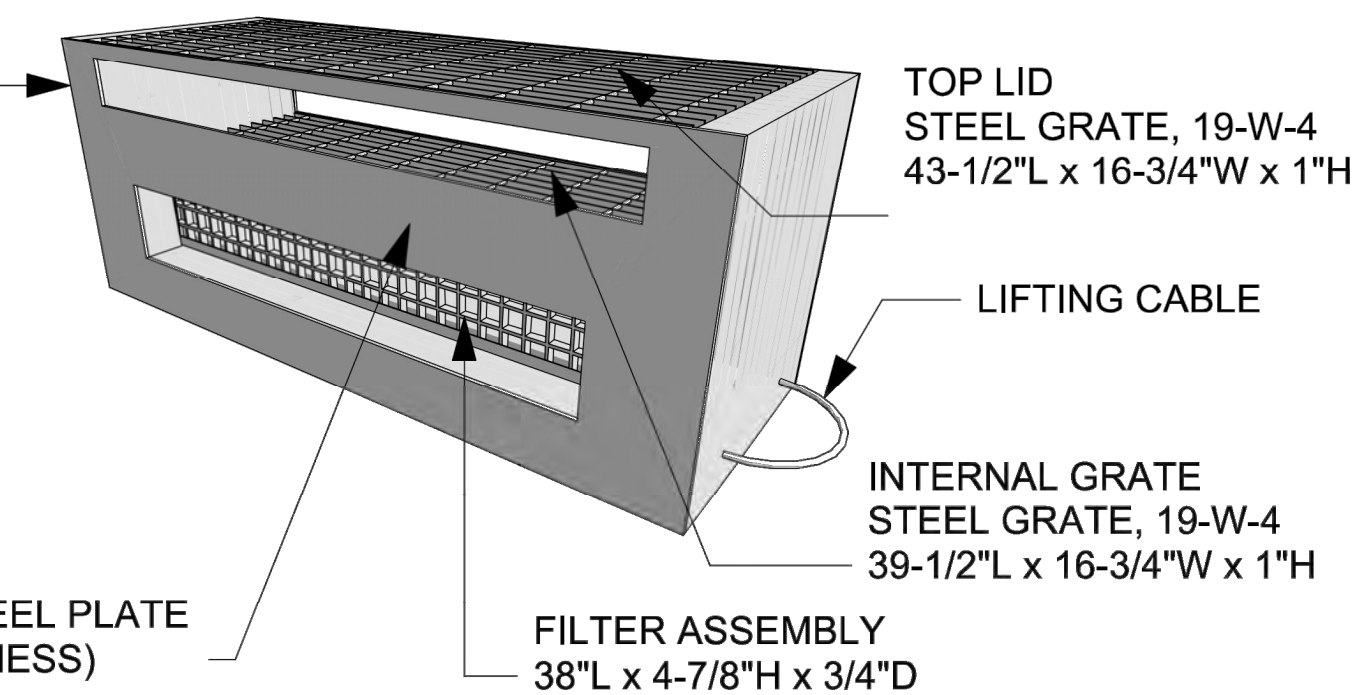
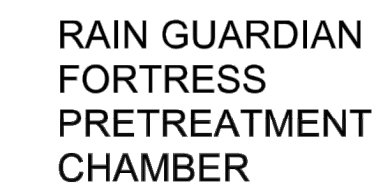
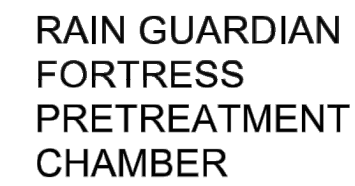
SHEET NO.

NO.	REVISIONS	DATE

SCALE

AS SHOWN

SHEET NO. _____

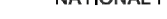


**LIFT ONLY BY CABLES
WITH SPREADER BAR**

HANDLING INSTRUCTIONS

**RAIN GUARDIAN FORTRESS
PRETREATMENT CHAMBER
BIORETENTION PONDING DEPTH: 9"
TYPICAL DETAIL**

REVISION HISTORY			
REV	BY	DATE	DESCRIPTION
A	MDH	11/16/22	FORTRESS
SCALE		VARIABLE	
U.S. PATENT NOS.		8,501,016 AND 8,858,804	



Stoneworks
ARCHITECTURAL PRECAST / CAST STONE

NATIONAL PRECAST CONCRETE ASSOCIATION
CERTIFIED PLANT

3. ALL PLACEMENT INDICATED ON THESE PLANS SHALL BE IN ACCORDANCE WITH:
- THE 2018 EDITION OF AND SUPPLEMENTS TO THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (RI STANDARD SPECIFICATIONS).
- THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, 8th EDITION, NOVEMBER 2017, INCLUDING THE LATEST INTERIM REVISIONS.
2. DIMENSIONS, STATIONS, AND ELEVATIONS ARE SHOWN TO THE NEAREST ONE-HUNDRETH OF A FOOT OR ONE-EIGHTH OF AN INCH, EXCEPT STRUCTURAL STEEL DIMENSIONS WHICH ARE TO THE NEAREST ONE-SIXTEENTH OF AN INCH.
3. ALL ELEVATIONS ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1988 (NGVD 88).
4. COORDINATES USED ON THESE PLANS ARE BASED ON THE STATEWIDE COORDINATE SYSTEM, THE NORTH AMERICAN DATUM OF 1983 (NAD 83).
5. ANGLES ARE SHOWN TO THE NEAREST SECOND.
6. ALL FOOTINGS SHALL BE APPROVED BY THE ENGINEER AS TO DIMENSIONS, ELEVATIONS, AND SUITABILITY OF FOUNDATION MATERIAL BEFORE THE PLACING OF CONCRETE.
7. ALL WALLS ARE DRAWN LOOKING AT THE EXPOSED FACES.
8. THE EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND WERE LOCATED USING THE BEST AVAILABLE INFORMATION. NO BUILDING SERVICE CONNECTIONS (ELECTRIC, TELEPHONE, GAS, WATER, SANITARY AND OTHERS) ARE SHOWN. THE CONTRACTOR IS TO ASSUME THAT SERVICES TO ALL BUILDINGS ARE PRESENT.
9. BOTH FEDERAL AND STATE LAW (RI. GENERAL LAW 39-1.2) REQUIRE NOTIFICATION OF APPROPRIATE UTILITY COMPANIES BEFORE DIGGING, TRENCHING, BLASTING, DEMOLISHING, BORING, BACK FILLING, GRADING, LANDSCAPING, OR OTHER EARTH MOVING OPERATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES (INCLUDING THROUGH THE "DIG SAFE" PROGRAM) TO ENSURE THAT ALL UTILITIES, BOTH UNDERGROUND AND OVERHEAD, HAVE BEEN MARKED BEFORE COMMENCEMENT OF SUCH WORK. THE CONTRACTOR SHOULD UNDERSTAND THAT NOT ALL UTILITIES SUBSCRIBE TO THE "DIG SAFE" PROGRAM. ANY DAMAGE TO EXISTING UTILITIES MARKED IN THE FIELD, OR AS A RESULT OF FAILING TO CONTACT THE APPROPRIATE UTILITY COMPANIES, SHALL BE REPAIRED OR REPLACED (AS DEEMED APPROPRIATE BY THE STATE AND/OR THE IMPACTED UTILITY COMPANY) AT NO ADDITIONAL COST TO THE STATE.
10. ALL ANCHOR BOLTS SHALL BE ASTM DESIGNATION A 307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO DESIGNATION M 232 OR METALIZED IN ACCORDANCE WITH SECTION M.05. SWEDGED RODS SHALL BE AASHTO DESIGNATION M 270 GRADE 36 AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO DESIGNATION M 232.
11. ALL ANCHOR BOLTS SHALL BE SET PRIOR TO PLACEMENT OF CONCRETE UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

1. DESIGN SPECIFICATIONS
 - THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8th EDITION, NOVEMBER 2017, INCLUDING ALL INTERIM REVISIONS TO DATE.
 - THE RHODE ISLAND LRFD BRIDGE DESIGN MANUAL 2007 EDITION INCLUDING ALL REVISIONS TO DATE.
 - THE 2018 REVISION OF AND SUPPLEMENTS TO THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (RI STANDARD SPECIFICATIONS).
 - IN CASE OF CONFLICT, THE RHODE ISLAND LRFD BRIDGE DESIGN MANUAL SHALL GOVERN.
2. LOAD MODIFIERS

THE LOAD MODIFIERS FOR THIS PROJECT ARE AS FOLLOWS:

 - THE LOAD MODIFIER FOR DUCTILITY SHALL BE TAKEN AS 1.0 FOR ALL LIMIT STATES.
 - THE LOAD MODIFIER FOR REDUNDANCY SHALL BE TAKEN AS 1.00.
 - THE LOAD MODIFIER FOR OPERATIONAL IMPORTANCE SHALL BE TAKEN AS 1.05.
3. LIVE LOADS
 - THE DESIGN LIVE LOAD SURCHARGE SHALL CONFORM TO AASHTO SECTION 3.11.6
4. FOUNDATION DESIGN DATA

DEEP FOUNDATIONS

 - THE FACTORED AXIAL AND UPLIFT RESISTANCES FOR THE DEEP FOUNDATION ARE AS FOLLOWS:

FACTORED UPLIFT RESISTANCE (KIPS)	
STRENGTH LIMIT STATE	EXTREME LIMIT STATE
45.75	3.23

1. ALL TIMBER SHALL BE PRESSURE TREATED AS PER AASHTO SPECIFICATION M133.
2. ALL TIMBER SHALL BE SAWN LUMBER, SURFACED FOUR SIDES (242) UNLESS OTHERWISE NOTED, AND SHALL COMPLY WITH THE REQUIREMENTS OF AASHTO M168.
3. SAWN LUMBER SHALL BE PRESSURE TREATED WITH CCA CONFORMING TO AWPFA STANDARD P5 AND AITC-109 TO A MINIMUM NET RETENTION OF 0.40 LB./CF IN ACCORDANCE WITH AWPFA STANDARD. ALL MEMBERS SHALL BE FABRICATED BEFORE TREATMENT AND DRIED TO A MOISTURE CONTENT OF 19 PERCENT OR LESS AFTER TREATMENT.
4. ALL TIMBER SHALL BE PREDRILLED PRIOR TO TREATMENT
5. ALL TIMBER SHALL BE PRECISION END TRIMMED TO LENGTH WITH $\frac{1}{4}$ " UNDER LENGTH AND NO OVER LENGTH TOLERANCE PERMITTED.
6. ALL TREATED TIMBER THAT IS FIELD CUT, BORED THRU, DRILLED INTO OR DAMAGED SHALL BE TREATED AS OUTLINED IN AWPFA STANDARD M4 WHICH REQUIRES THAT ALL CUTS, HOLES, OR INJURIES TO TREATED WOOD BE PROTECTED BY BRUSHING, SPRAYING, DIPPING, OR SOAKING IN AN APPROVED PRESERVATIVE.
7. CONSTRUCTION REQUIREMENTS SHALL CONFORM TO STATE SPECIFICATIONS. ALL TIMBER SHALL BE CUT TO LENGTH AND DRESSED TO SIZE REQUIRED PRIOR TO TREATMENT.
8. TIMBER WHICH AT THE DISCRETION OF THE ENGINEER IS SEVERELY WARPED, BOWED, SPLIT, OR SPLINTERED SHALL NOT BE INCORPORATED IN THE WORK.

- AASHTO DESIGNATION M 31, GRADE 60

- CLASS XX 3/4" f'c=4,000 PS
- * REINFORCED FOOTING

CLASSES OF CONCRETE SHALL BE CLASS XX AS DESCRIBED IN THE RI STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS OF THE SPECIFICATIONS. REFER TO THE "MATERIAL" NOTES FOR CLASSES OF CONCRETE SPECIFIED FOR VARIOUS COMPONENTS.

2. THE CONTRACTOR MAY, AT THE APPROVAL OF THE ENGINEER, PROPOSE THE USE OF SELF-CONSOLIDATING CONCRETE FOR CLASS HP OR XX ON THIS PROJECT. SECTION 608 "SELF CONSOLIDATING CONCRETE (SCC)", CONTAINS THE REQUIREMENTS FOR MODIFYING ALL CLASSES OF CONCRETE MIX DESIGN FOR SELF-CONSOLIDATING APPLICATIONS.

3. ALL PORTLAND CEMENT CONCRETE SHALL BE AIR-ENTRAINED.

4. ALL REINFORCING STEEL SHALL BE GALVANIZED. ALL WIRE TIES AND MISCELLANEOUS HARDWARE USED FOR PLACEMENT OF GALVANIZED REINFORCING SHALL ALSO BE GALVANIZED. GALVANIZED COATING FOR REINFORCING STEEL SHALL CONFORM TO ASTM A767 CLASS 1.

5. ALL CRITICAL LAP SPLICES SHALL BE AS SHOWN ON THE PLANS. ALL SPLICES NOT SHOWN ON THE PLANS SHALL BE LAPPED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR CLASS B LAP SPLICES.

6. UNLESS OTHERWISE NOTED ON THE PLANS, ALL MAIN REINFORCING BARS SHALL HAVE THE FOLLOWING MINIMUM COVER:

CONCRETE CAST AGAINST OR PERMANENTLY EXPOSED TO EARTH (FOOTINGS)	3"
ALL OTHER BARS	2"

COVER TO TIES AND STIRRUPS MAY BE 0.5 INCH LESS THAN THE ABOVE VALUES SPECIFIED FOR MAIN REINFORCING, BUT IN NO CASE LESS THAN 1.5 INCHES.

7. ALL ANCHOR BOLTS SHALL BE ASTM DESIGNATION A 307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO DESIGNATION M 232 OR METALIZED IN ACCORDANCE WITH SECTION M.05. SWAGED RODS SHALL BE AASHTO DESIGNATION M 270 GRADE 36 AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO DESIGNATION M 232.

8. ALL ANCHOR BOLTS SHALL BE SET PRIOR TO PLACEMENT OF CONCRETE UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

9. HORIZONTAL CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON PLANS WILL NOT BE PERMITTED WITHOUT A WRITTEN REQUEST BY THE CONTRACTOR AND PRIOR AUTHORIZATION BY THE ENGINEER.

10. ALL EXPOSED EDGES AND REINFRANT CORNERS NOT OTHERWISE DETAILED ON THE PLANS SHALL HAVE A MINIMUM 3/4" CHAMFER.

11. ALL JOINT SEALANT SHALL BE POLYURETHANE, POLYURETHANE ELASTOMERIC, OR SILICONE SEALANT AS DESIGNATED ON THE PLANS. THE COLOR OF THE JOINT SEALANT, WHERE EXPOSED, SHALL BE NEUTRAL (LIGHT GRAY OR TAN). THE COLOR OF THE SEALANT, WHERE NOT EXPOSED, WILL BE AT THE DISCRETION OF THE CONTRACTOR.

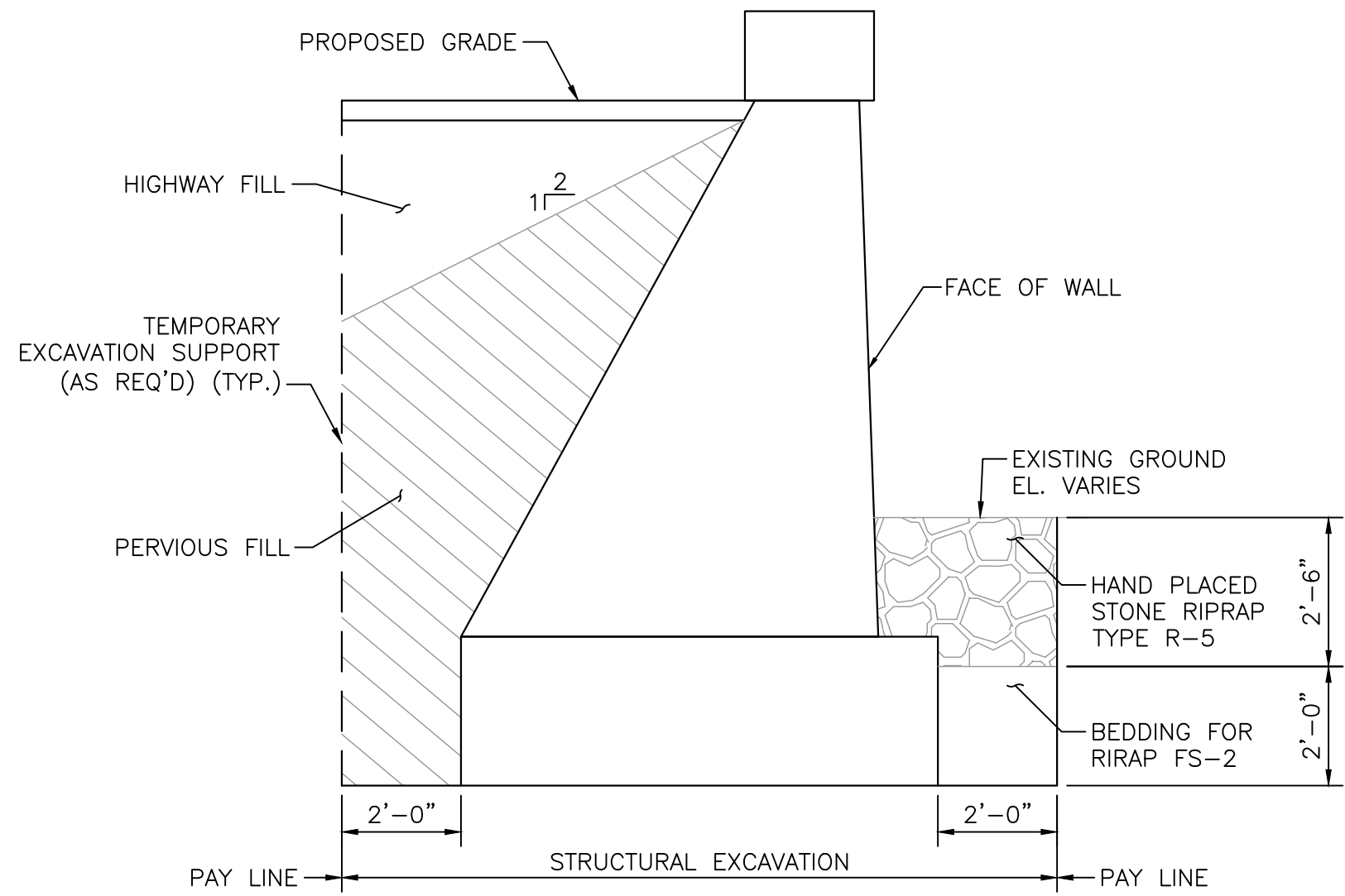
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING CONCRETE STAINS OR DISCOLORATIONS DURING CONSTRUCTION UNTIL SUCH TIME WHEN THE SURFACES ARE APPROVED AND ACCEPTED. ANY CONCRETE STAINS OR DISCOLORATIONS OCCURRING PRIOR TO ACCEPTANCE OF THE SURFACES SHALL BE REMOVED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE.

13. UNLESS OTHERWISE NOTED ON THE PLANS, JOINT FILLER IS TO BE A PREFORMED, NON-EXPANSIVE, NON-EXTRUDING TYPE IN ACCORDANCE WITH SECTION M.02.11.1 OF THE RI STANDARD SPECIFICATIONS.

14. EMBEDMENT LENGTHS FOR DRILLED AND GROUTED DOWELS SHALL BE IN ACCORDANCE WITH SECTION 819 OF THE RI STANDARD SPECIFICATIONS.

15. IN ACCORDANCE WITH THE RI STANDARD SPECIFICATIONS, ALL METAL TIES, NON-METALLIC TIES OR ANCHORAGES WHICH ARE REQUIRED FOR CONCRETE FORMWORK SHALL BE SO CONSTRUCTED THAT THEY CAN BE REMOVED TO AT LEAST ONE INCH BELOW THE EXPOSED SURFACE OF THE CONCRETE WITHOUT CAUSING DAMAGE TO THE CONCRETE SURFACE. SNAP TIES MAY BE USED ONLY IF APPROVED BY THE ENGINEER. IF THE CONTRACTOR PROPOSES TO USE THEM, A CATALOG CUT AND OTHER NECESSARY INFORMATION MUST BE SUBMITTED TO THE ENGINEER TO DEMONSTRATE THAT THE TIES WILL SNAP-OFF FAR ENOUGH INTO THE CONCRETE TO ALLOW FOR PROPER PATCHING. SNAP TIES MUST PROVIDE ADEQUATE STRENGTH TO SUPPORT THE FORMS. ALL CAVITIES SHALL BE FILLED WITH AN APPROVED CEMENT MORTAR MEETING THE REQUIREMENTS OF ASTM C 928.

ACTUAL WATER ELEVATIONS WERE OBSERVED TO BE HIGHER THAN NOAA ELEVATIONS.
THE CONTRACTOR SHALL NOTE THAT HIGHER AND LOWER TIDES ARE POSSIBLE.



RETAINING WALL BACKFILL
NOT TO SCALE

STRUCTURAL GENERAL NOTES

AS SHOWN

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

For Review Only

SHEET NO

18

Geologic - Earth Exploration, Inc.										CLIENT: <u>BETA</u>				BORING #:																																																																																													
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Trace 0 to 10%				0-2 Very Soft			0-15 Stiff			UP = Fixed Piston																																																																																																	
Little 10 to 20%				3-4 Soft			16-30 V-Stiff			UT = Shelby Tube																																																																																																	
Some 20 to 35%				5-8 M-Stiff			31+ Hard			OE = Open End Rod																																																																																																	
And 35 to 50%							50+ V-Dense			* = 300# hammer																																																																																																	
Notes: 1. The stratification lines represent the approximate boundary between soil types. The transition may be gradual. 2. Water level readings were made in the drill hole during or at the completion of drilling. The water level may fluctuate over time.																																																																																																											
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	S-4	14.0-16.0	24	15	WOH		S-4 Moist loose dark gray SILT, trace Clay and Organic																																																																																				
20	S-5	19.0-21.0	24	10	WOH-12-7-9		S-5 Wet medium dense dark gray SILT and fine SAND																																																																																				
	S-6	24.0-25.7	20	8	23-59-44 -100/2		S-6 Wet very dense gray SILT, SAND and coarse GRAVEL Possible top of rock at 26', roller bit to 29'																																																																																				
30							26.0																																																																																				
							29.0	Bottom of exploration at 29.0'																																																																																			
Ground Surface to _____ used _____ then _____																																																																																											
Proportions Used				Cohesive Consistency Blows/ft			Cohesionless Density Blows/ft			Sample Type																																																																																	
Trace 0 to 10%				0-2 Very Soft			0-15 Stiff			UP = Fixed Piston																																																																																	
Little 10 to 20%				3-4 Soft			16-30 V-Stiff			UT = Shelby Tube																																																																																	
Some 20 to 35%				5-8 M-Stiff			31+ Hard			OE = Open End Rod																																																																																	
And 35 to 50%							50+ V-Dense			* = 300# hammer																																																																																	
Notes: 1. The stratification lines represent the approximate boundary between soil types. The transition may be gradual. 2. Water level readings were made in the drill hole during or at the completion of drilling. The water level may fluctuate over time.																																																																																											
Remarks:																																																																																											

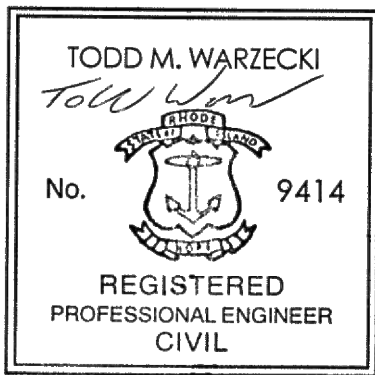
BORING NOTES:

1. LOCATION OF BORINGS SHOWN ON THE PLAN THUS:  WB-1
2. BORINGS ARE TAKEN FOR PURPOSE OF DESIGN AND SHOW CONDITIONS AT BORING POINTS ONLY, BUT DO NOT NECESSARILY SHOW THE NATURE OF THE MATERIALS TO BE ENCOUNTERED DURING CONSTRUCTION.
3. FIGURES IN COLUMNS INDICATE NUMBER OF BLOWS REQUIRED TO DRIVE A 1 $\frac{3}{8}$ " I.D. SPLIT SPOON SAMPLER 6" USING A 140 POUND WEIGHT FALLING 30".
4. BORING SAMPLES ARE STORED AT XXXX. THE CONTRACTOR MAY EXAMINE THE SOIL AND ROCK SAMPLES BY CONTACTING XXX AT XXX-XXX-XXXX.
5. ALL BORINGS WERE MADE IN AUGUST, 2022.
6. BORINGS WERE MADE BY GEOLOGIC – EARTH EXPLORATION, INC., 7 SHERWOOD DRIVE, NORFOLK, MA 02056.
7. THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 IS USED THROUGHOUT.

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SUBCONSULTANT

PROJECT

**Wickford Waterfront
Improvements**

Wickford, RI

TITLE

BORING LOGS

NO.	REVISIONS	DATE
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DRAWN BY: CC

DESIGNED BY: TD

CHECKED BY: NBI

ISSUE DATE: 12/14/2022

BETA JOB NO.: 7038

SCALE

AS SHOWN

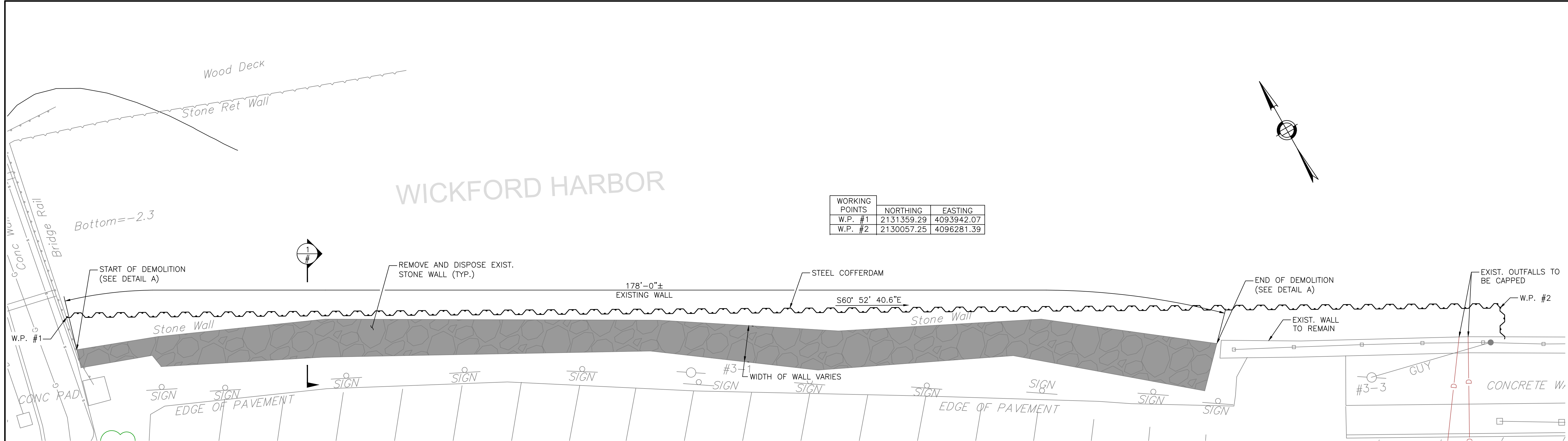
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SHEET NO.

19

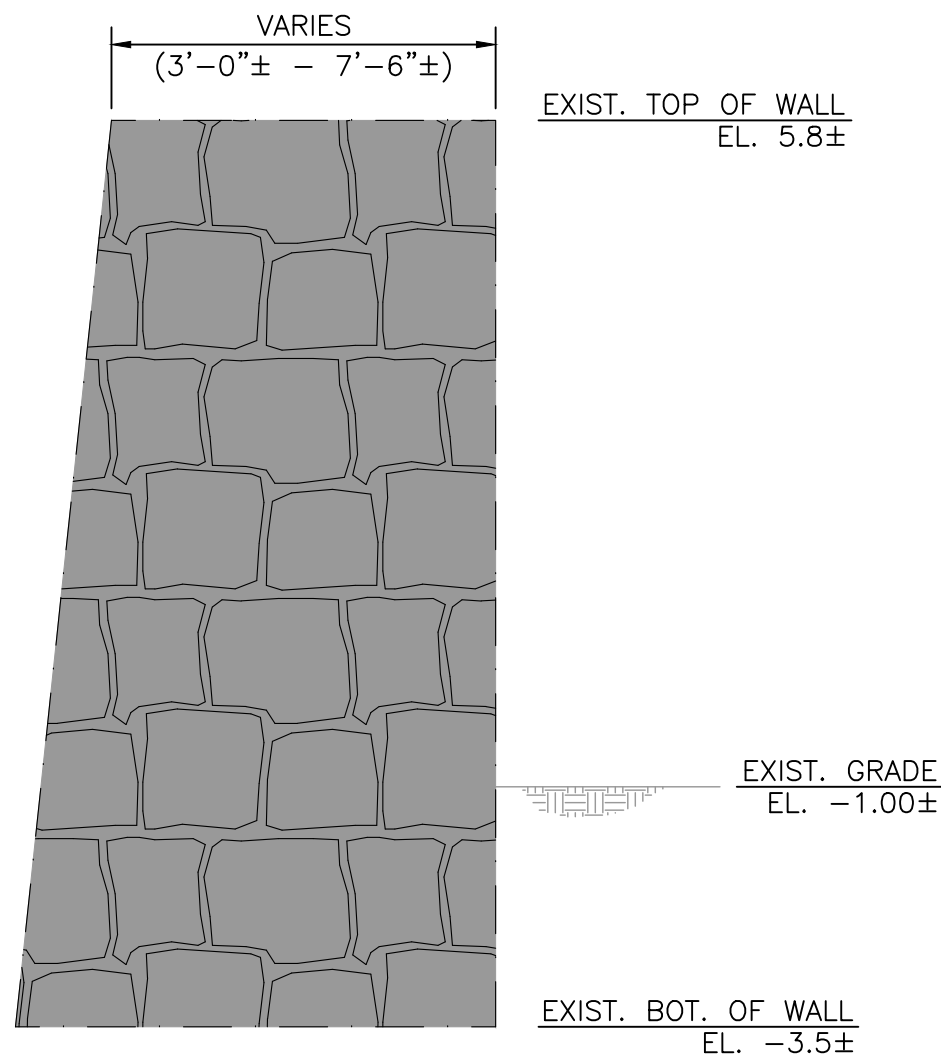
4/4/2023 2:28 PM G:\PLANNING LANDSCAPE\7000S7038 - WICKFORD WATERFRONT IMPROVEMENTS\STRUCTURAL\DRAWING FILES\PLANSET\7038_SR(3).DWG (BETA STD BW.CTB)



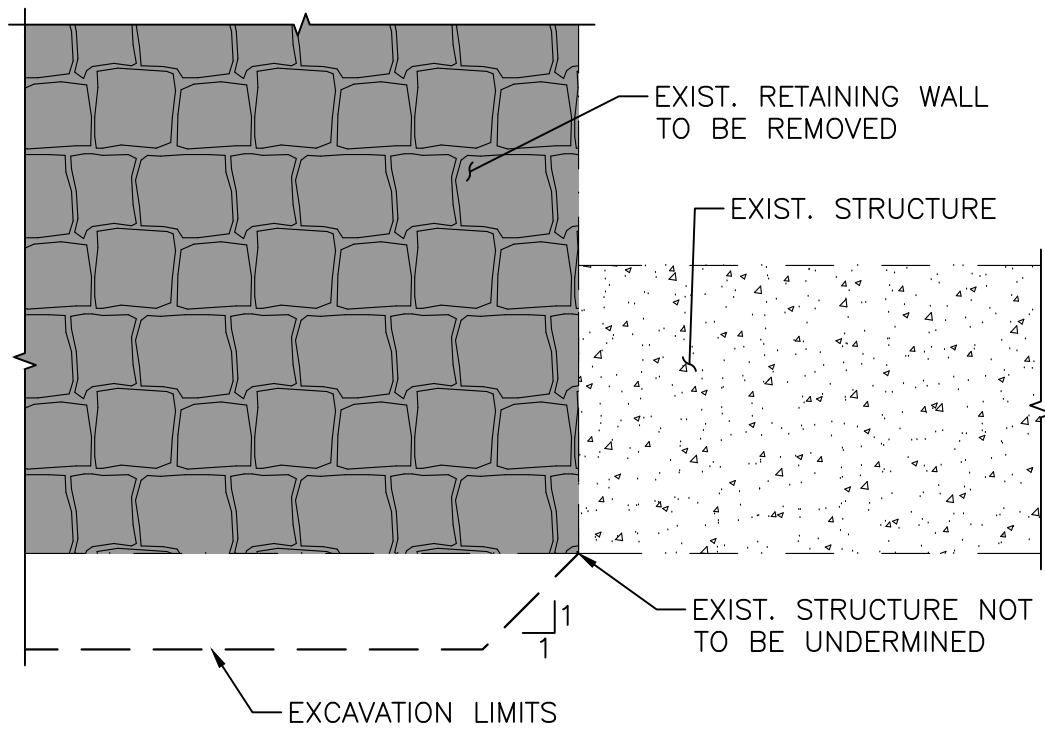
DEMOLITION PLAN
SCALE: $\frac{1}{8}" = 1'-0"$

DEMOLITION NOTES:

- INDICATES AREA TO BE DEMOLISHED.
- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES ONLY. ACTUAL CONFIGURATION OF EXISTING WALL MAY VARY.



SECTION 1
SCALE: $\frac{1}{2}" = 1'-0"$

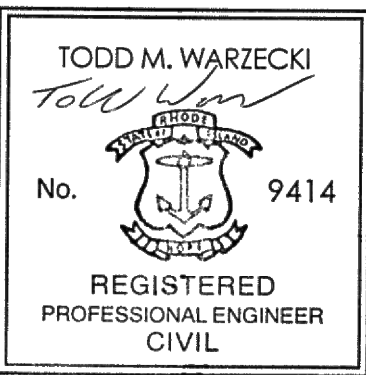


DETAIL A
SCALE: $\frac{1}{2}" = 1'-0"$

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PROJECT

Wickford Waterfront
Improvements

Wickford, RI

TITLE

DEMOLITION
PLAN & SECTION

NO.	REVISIONS	DATE
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DRAWN BY:	CC
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DESIGNED BY:	TD
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CHECKED BY:	NBI
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ISSUE DATE:	12/14/2022
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BETA JOB NO.:	7038
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SCALE

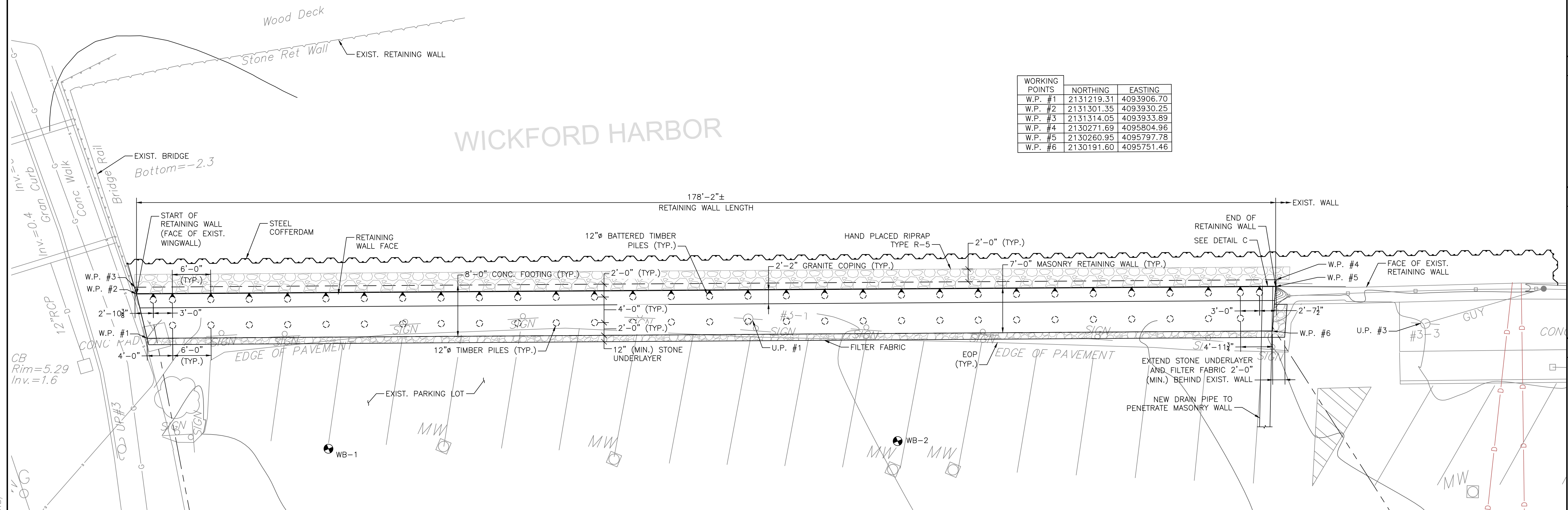
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20

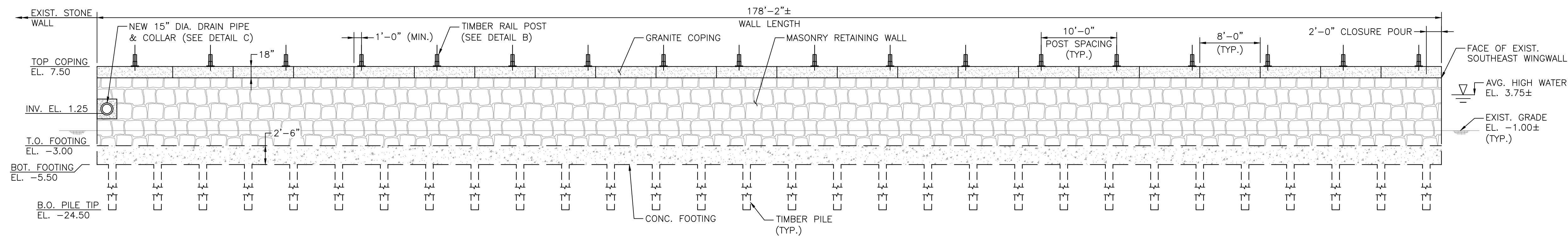


GENERAL PLAN
SCALE: $\frac{1}{8}" = 1'-0"$

WORKING POINTS	NORTHING	EASTING
W.P. #1	2131219.31	4093906.70
W.P. #2	2131301.35	4093930.25
W.P. #3	2131314.05	4093933.89
W.P. #4	2130271.69	4095804.96
W.P. #5	2130260.95	4095797.78
W.P. #6	2130191.60	4095751.46

- NOTES:

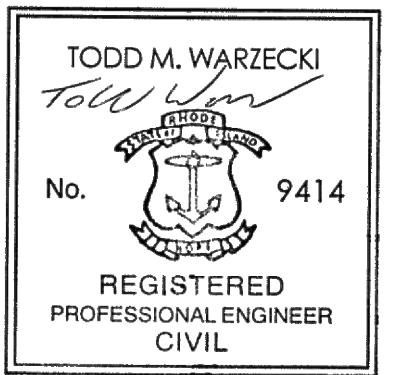
1. THE CONTRACTOR MUST NOTIFY DIG SAFE PRIOR TO ANY EXCAVATION OR DEMOLITION WORK IN PUBLIC OR PRIVATE WAYS OR UTILITY COMPANY RIGHT-OF-WAY EASEMENT.
2. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
3. JOINTS BETWEEN NEW HOT MIX ASPHALT PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH BITUMEN AND BACKSEALED.



[LOOKING SOUTH]
GENERAL ELEVATION
SCALE: $\frac{1''}{8} = 1'-0''$



REGISTERED PROFESSIONAL



SUBCONSULTANT 4

PROJECT 1

Wickford Waterfront Improvements

Wickford, RI

TITLE 1

WALL PLAN & ELEVATION

[illegible]

NO.	REVISIONS	DATE
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CHECKED BY: NBI

ISSUE DATE: 12/14/2022

BETA JOB NO.: 7038

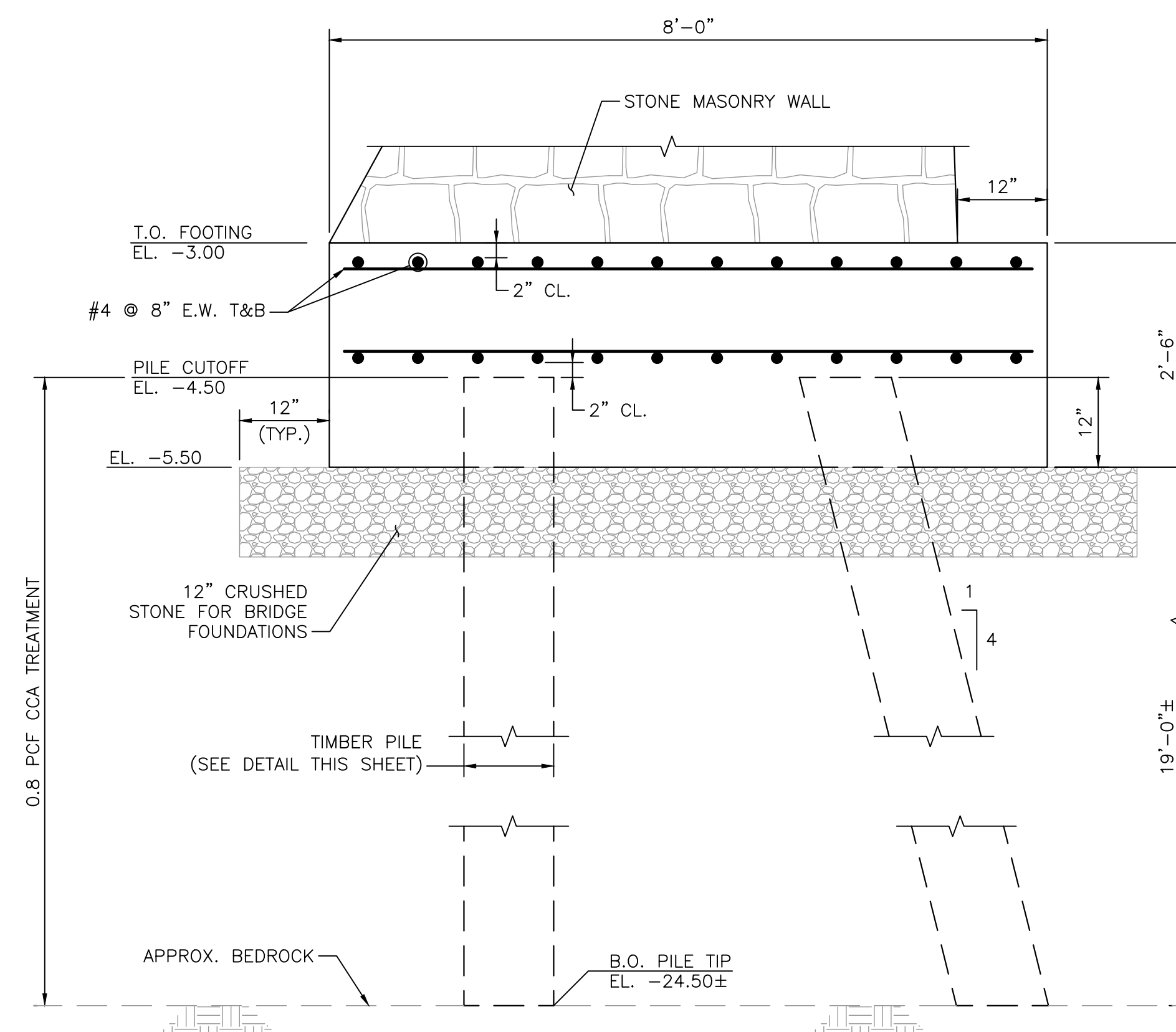
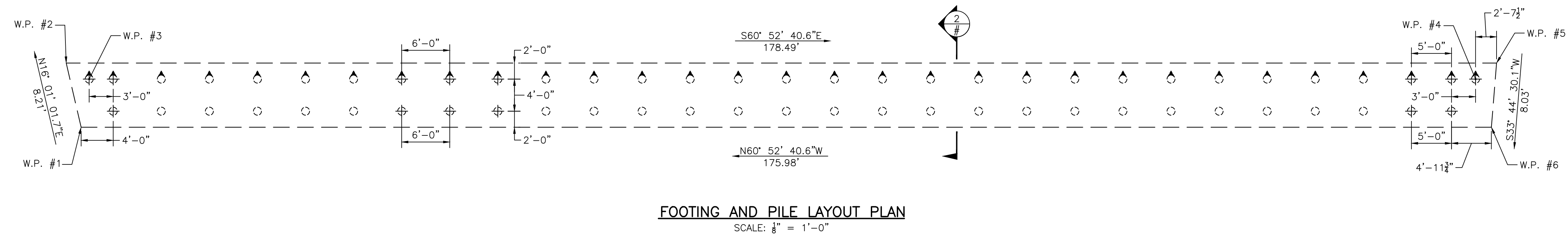
SCALE

AS SHOWN

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SHEET NO.

21



SECTION 2
SCALE: $\frac{3}{4}" = 1'-0"$

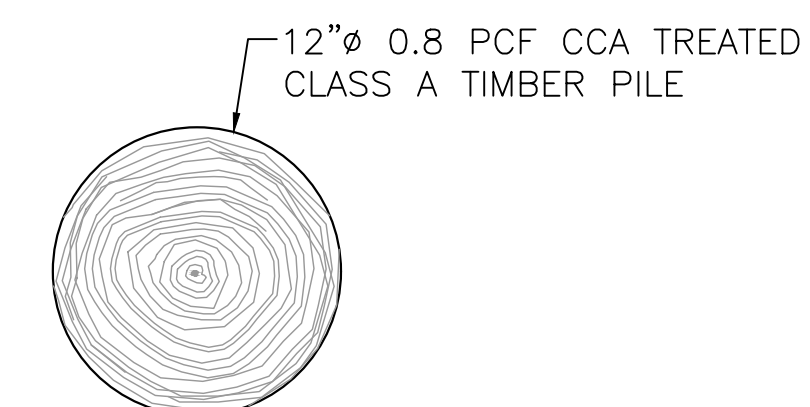
WORKING POINTS		
	NORTHING	EASTING
W.P. #1	2131219.31	4093906.70
W.P. #2	2131314.05	4093933.88
W.P. #3	2131276.37	4093952.22
W.P. #4	2130266.04	4095765.78
W.P. #5	2130271.69	4095804.96
W.P. #6	2130191.60	4095751.46

FOOTING NOTES:

1. ALL FOOTING CONCRETE SHALL BE CLASS XX, $\frac{3}{4}$ ", 4000 PSI.

PILE NOTES:

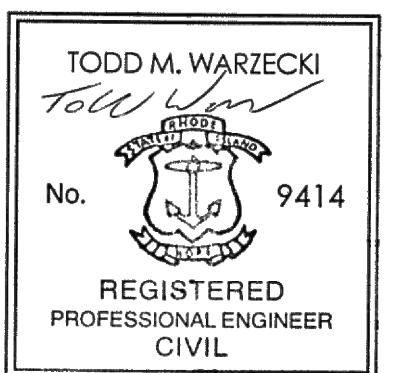
2. THE CONTRACTOR SHALL SUBMIT A PILE SCHEDULE, PILE INSTALLATION, AND PILE DRIVING/TESTING PLAN FOR REVIEW AND APPROVAL OF THE ENGINEER.
3. TIMBER PILES TO BE CLASS A 12" AVERAGE DIAMETER TREATED WITH 0.8 PCF CCA.
4. THE FACTORED AXIAL DESIGN LOAD PER PILE ALONG THE WALL IS 141.06 KIPS AS PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS STRENGTH I LOAD COMBINATION.
5. THE FACTORED GEOTECHNICAL PILE RESISTANCE IS 45.75 KIPS. THE ESTIMATED PILE TIP ELEVATION IS -24.50 FEET.
6. ALL PILES SHALL BE DRIVEN TO BEDROCK.
7. DETERMINATION OF THE DRIVEN PILE RESISTANCE, PILE DRIVING CRITERIA, AND PILE INTEGRITY SHALL BE PERFORMED USING THE WAVE EQUATION TESTING METHOD WITH A RESISTANCE FACTOR OF 0.65, WHICH SHALL BE CONSIDERED AS PROVISIONAL SUBJECT TO VERIFICATION USING DYNAMIC PILE TESTING AT THOSE PILE LOCATIONS INDICATED ON THE FOOTING PLAN. PILES SHALL BE INSTALLED TO ACHIEVE A FACTORED DRIVEN RESISTANCE EQUAL TO OR GREATER THAN THE FACTORED AXIAL DESIGN LOAD.



TIMBER PILE DETAIL
SCALE: $1\frac{1}{2}" = 1'-0"$



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SUBCONSULTANT 1

PROJECT 4

Wickford Waterfront Improvements

Wickford, RI

TITLE 1

FOOTING PLAN &
SECTION[illegible]

NO.	REVISIONS	DATE
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ISSUE DATE: 12/14/2022

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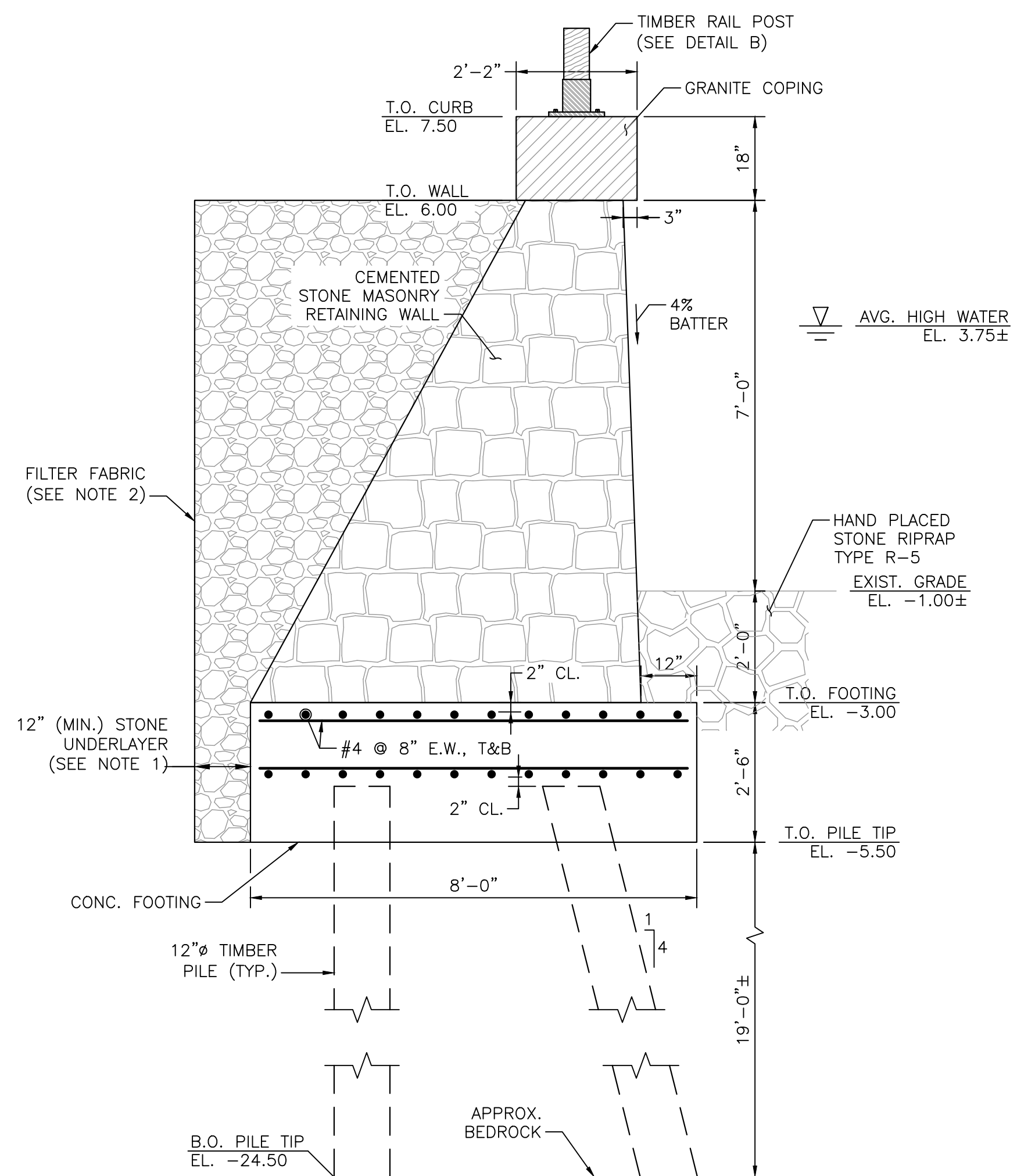
SCALE

AS SHOWN

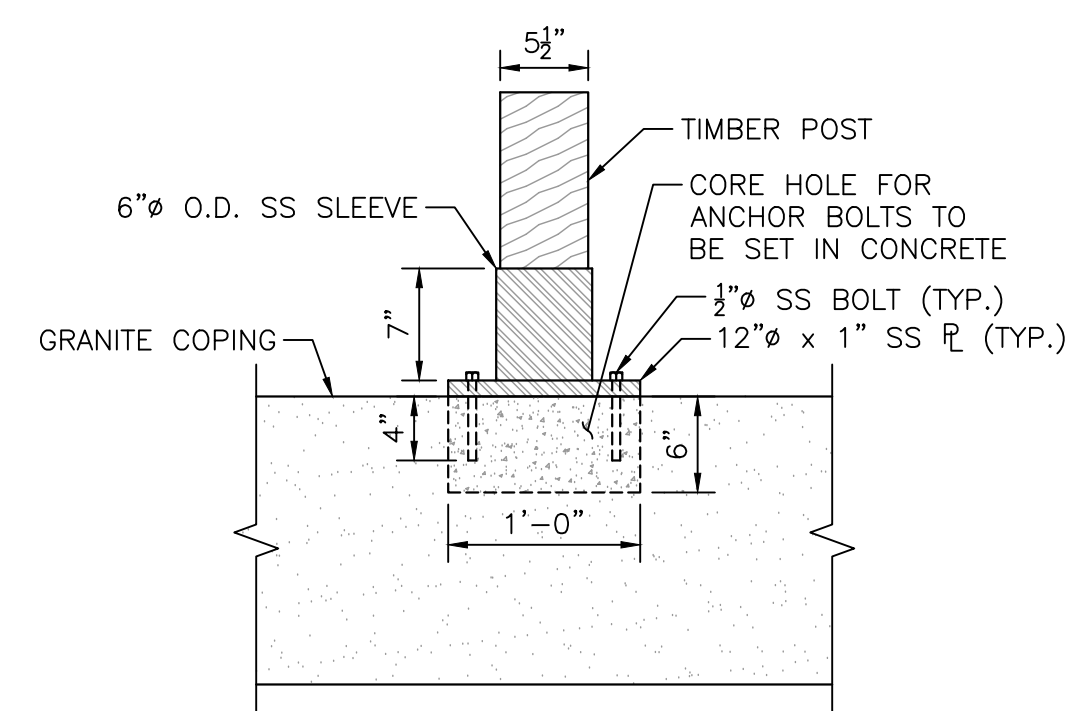
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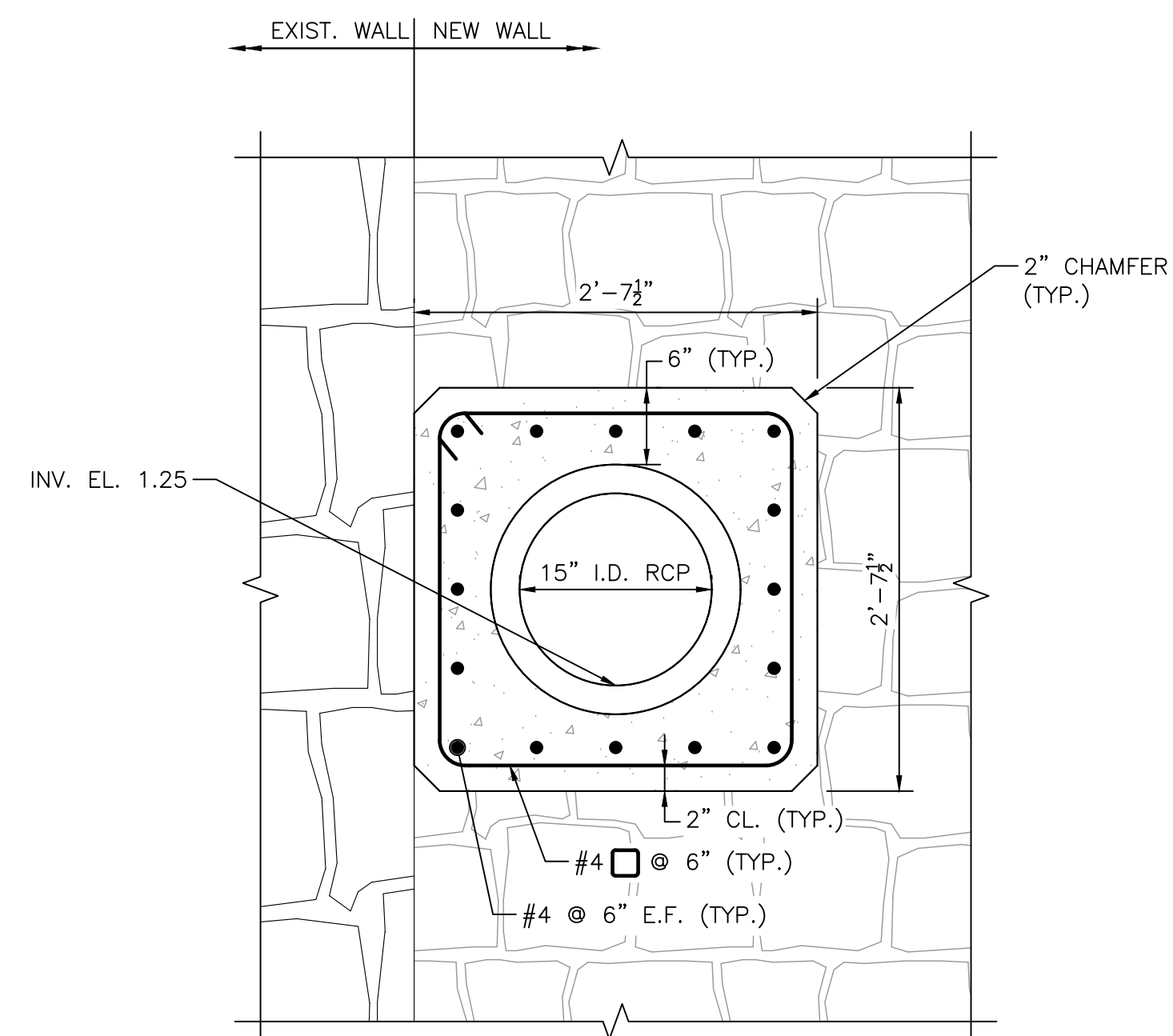
22



TYPICAL SECTION THROUGH WALL
SCALE: $\frac{1}{2}" = 1'-0"$



DETAIL B
SCALE: 1" = 1'-0"



NOTE:
CONCRETE ENCASEMENT TO EXTEND FROM FACE
OF WALL TO FILTER FABRIC LAYER.

DETAIL C
SCALE: 1" = 1'-0"

GENERAL NOTES:

1. UNDER-LAYER OF STONE MASONRY WALL TO CONSIST OF CRUSHED STONE AGGREGATE. SEE TABLE 1 FOR CRUSHED STONE GRADATION. CONSTRUCTION OF CRUSHED STONE AND STONE MASONRY MAY BE COMPLETED IN LIFTS TO MAINTAIN SLOPE IF REQUIRED.

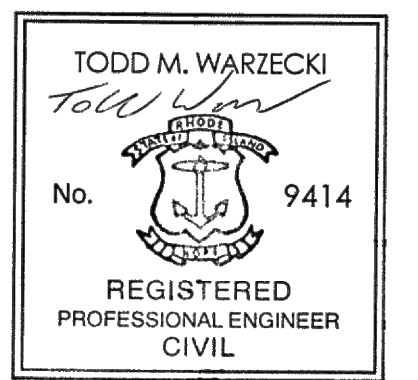
SIEVE SIZE	CRUSHED STONE
2"	100%
1½"	90-100%
1"	30-55%
¾"	0-25%
½"	0-10%
#100	0-1%

FILTER FABRIC NOTES:

2. FILTER FABRIC TO BE ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:
- APPARENT OPENING SIZE, AOS = #70 AND CONFORM TO ASTM D4751
 - GRAB TENSILE LOAD = 150 LB AND CONFORM TO ASTM D4632.
 - GRAB ELONGATION = 50 LB AND CONFORM TO ASTM D4632.
 - CBR PUNCTURE = 340 LB AND CONFORM TO ASTM D6241.
 - BURST STRENGTH = 240 PSI AND CONFORM TO ASTM D3786.



REGISTERED PROFESSIONAL



SUBCONSULTANT

PROJECT 1

Wickford Waterfront Improvements

Wickford, RI

TITLE 1

SECTIONS & DETAILS

NO.	REVISIONS	DATE

NO.	REVISIONS	DATE
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SCALE 1

AS SHOWN

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