

# TOWN OF GLASTONBURY

## REPLACEMENT OF BRIDGE NO. 04121 ADDISON ROAD OVER SALMON BROOK

STATE PROJECT NO. 9053-4121  
TOWN PROJECT NO. PW-0205

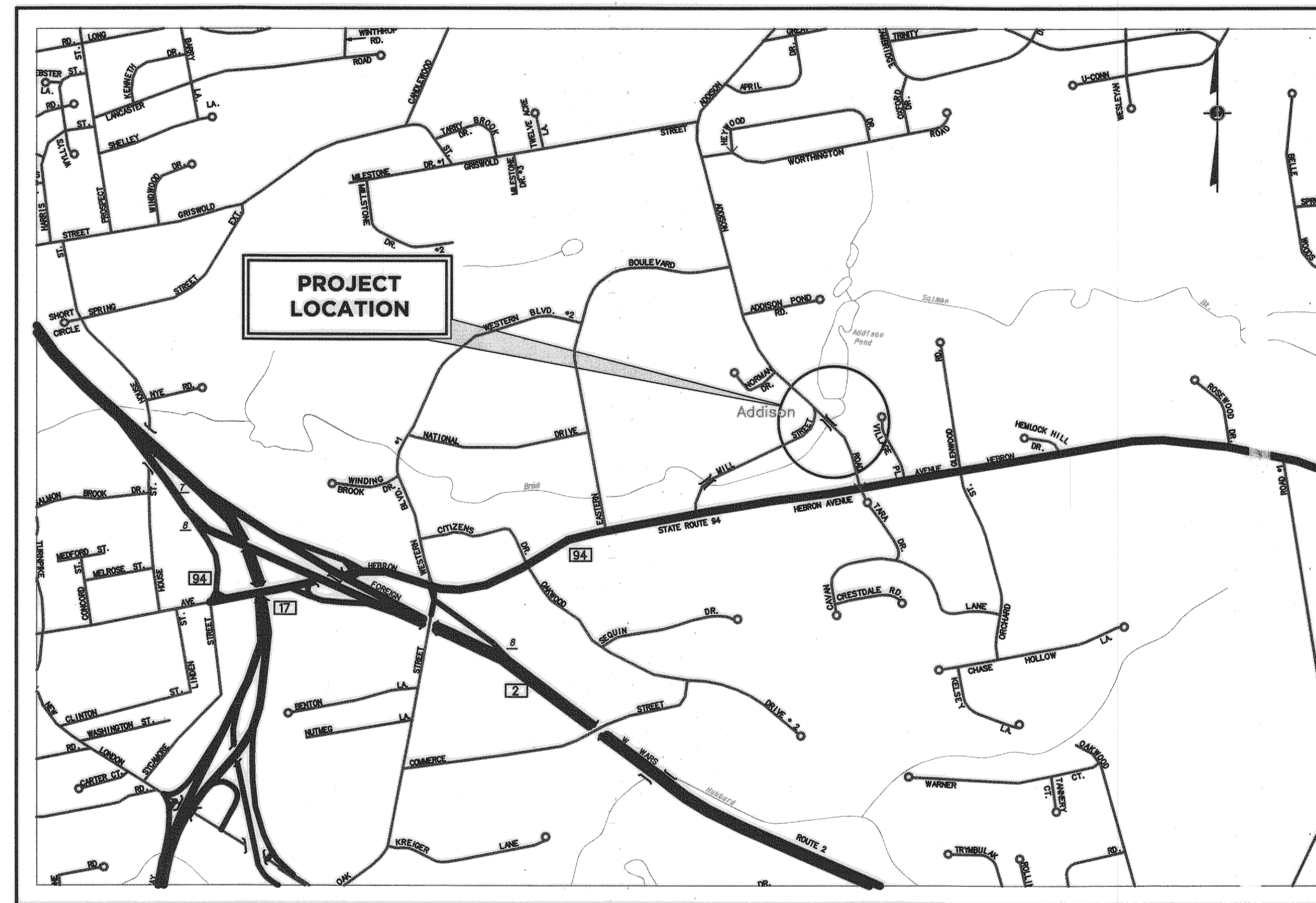
FEBRUARY 1, 2012



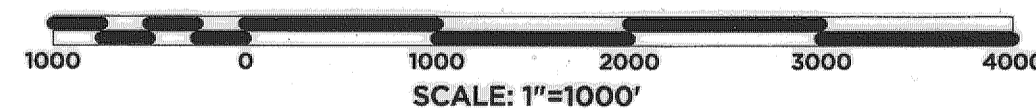
TOWN OF GLASTONBURY

RICHARD JOHNSON  
TOWN MANAGER

DANIEL PENNINGTON, P.E.  
TOWN ENGINEER



LOCATION MAP



### LIST OF SHEETS

TYPICAL SECTIONS AND DETAILS	1
MISCELLANEOUS DETAILS	2 - 8
WATER HANDLING PLAN	9
GEOTECHNICAL BORINGS	10
ROADWAY PLAN	11
ROADWAY PROFILE	12
INTERSECTION GRADING PLAN	13
GENERAL BRIDGE PLAN	14
STRUCTURE DETAILS	15 - 25
ROADWAY CROSS SECTIONS	26 - 28
SIGNING AND DETOUR PLAN	29
WATER MAIN RELOCATION PLAN	30
WATER MAIN RELOCATION DETAILS	31
EXISTING CONDITIONS	32

### CTDOT STANDARD SHEETS

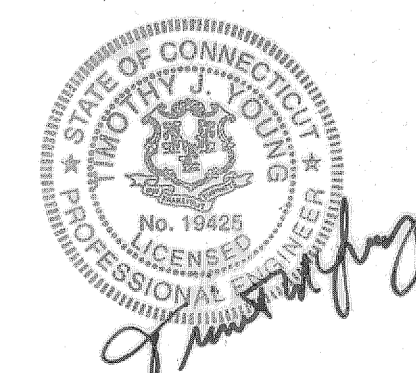
SHEET NO.	TITLE	APPROVAL DATE
HW-507_08	CATCH BASIN FRAMES AND GRATES	9-18-09
HW-601_01	FIGURES FOR DATES ON BRIDGE PARAPETS	6-09-11

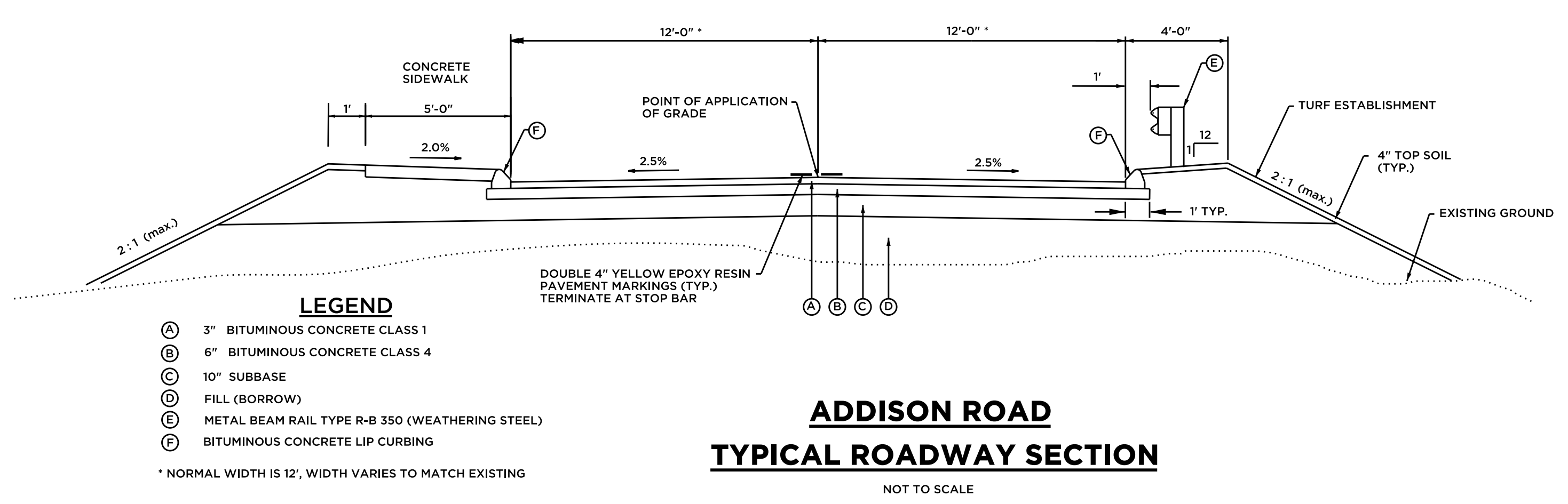
PREPARED BY:

**ANCHOR**  
ENGINEERING SERVICES, INC.

41 Sequin Drive  
Glastonbury, CT 06033  
Phone: (860) 633-8770  
Fax: (860) 633-5971  
www.anchorengr.com

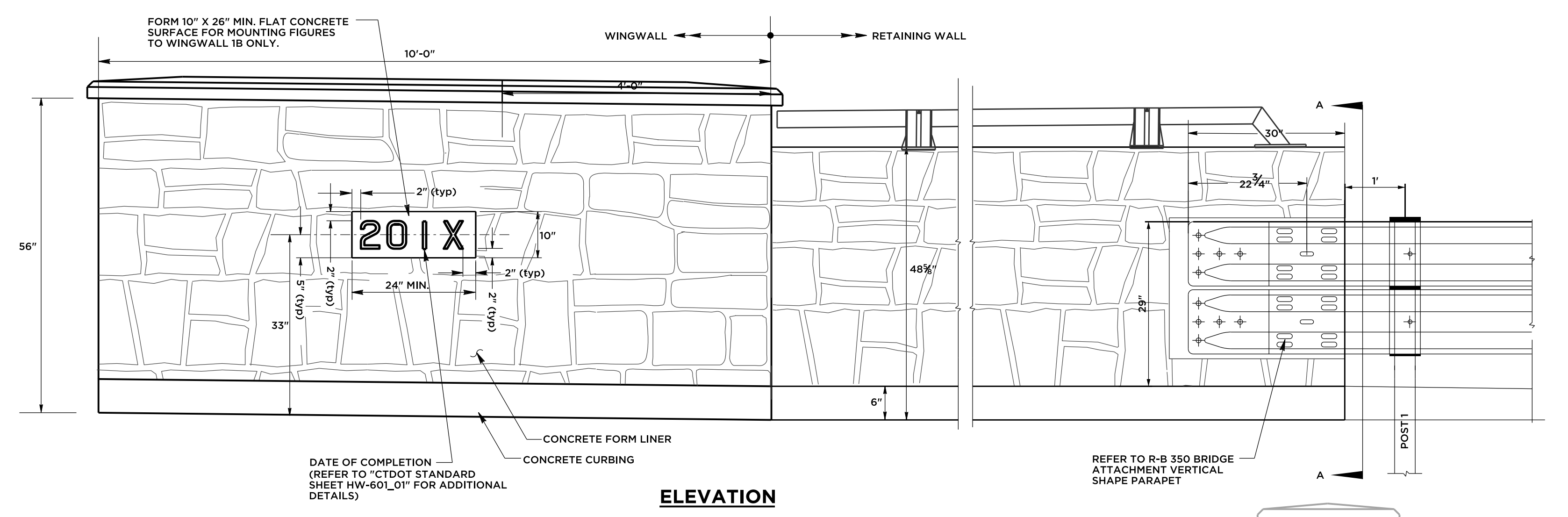
Civil Engineering • Environmental Consulting • Land Surveying • Construction Management



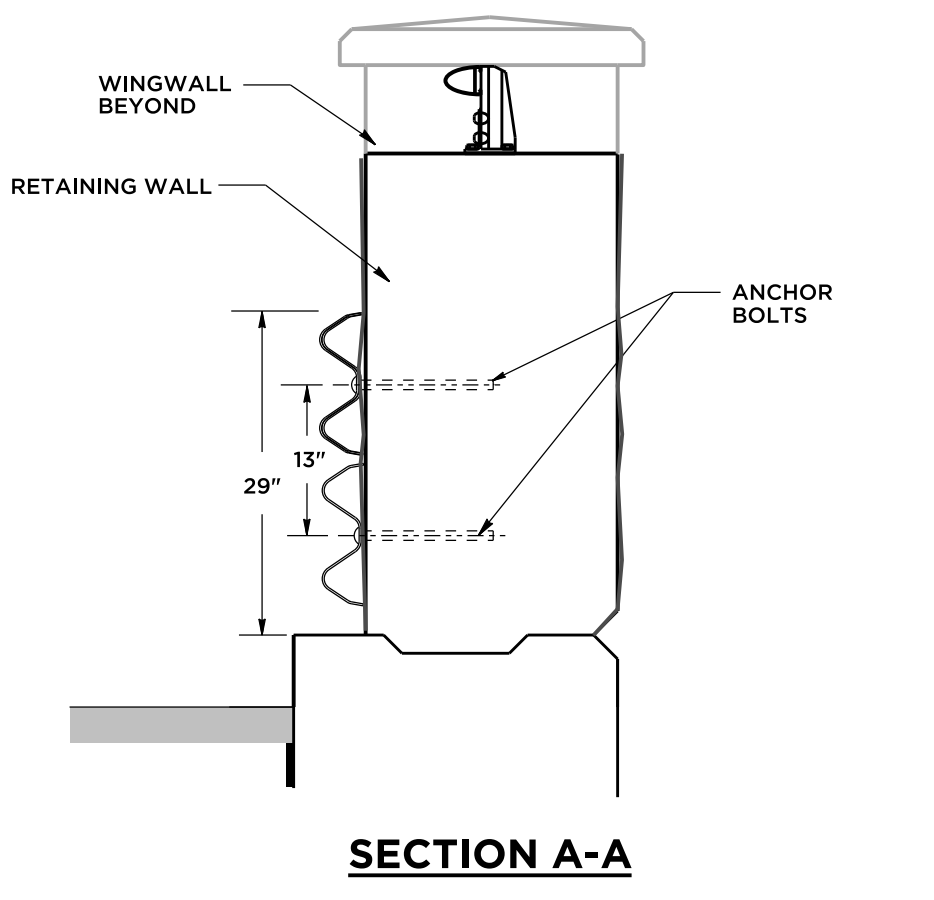


**ADDISON ROAD  
TYPICAL ROADWAY SECTION**

NOT TO SCALE

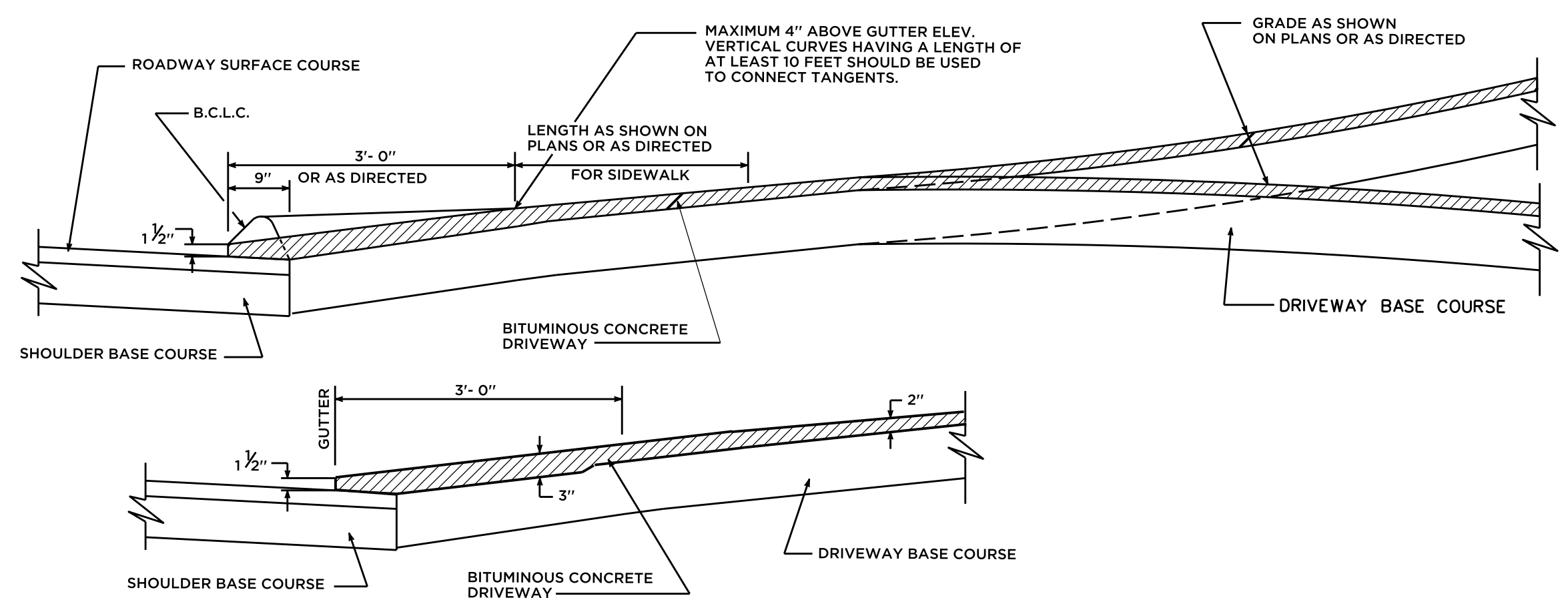


**ELEVATION**

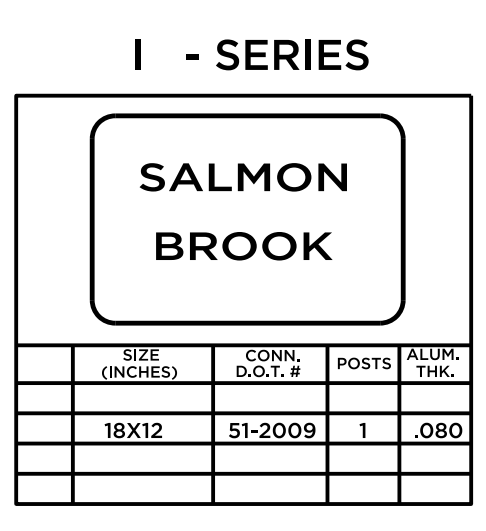


**RAILING ATTACHMENT DETAIL TO RETAINING WALL**

NOT TO SCALE

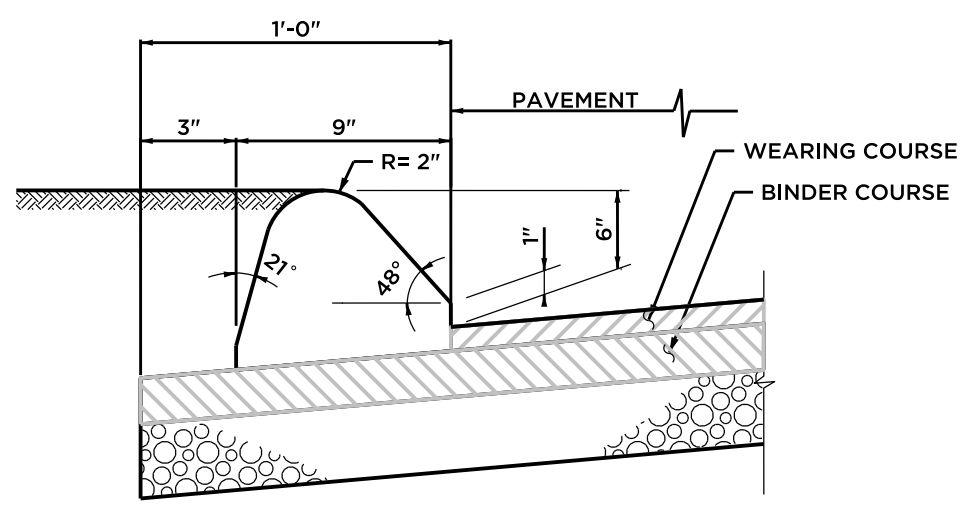


NOT TO SCALE



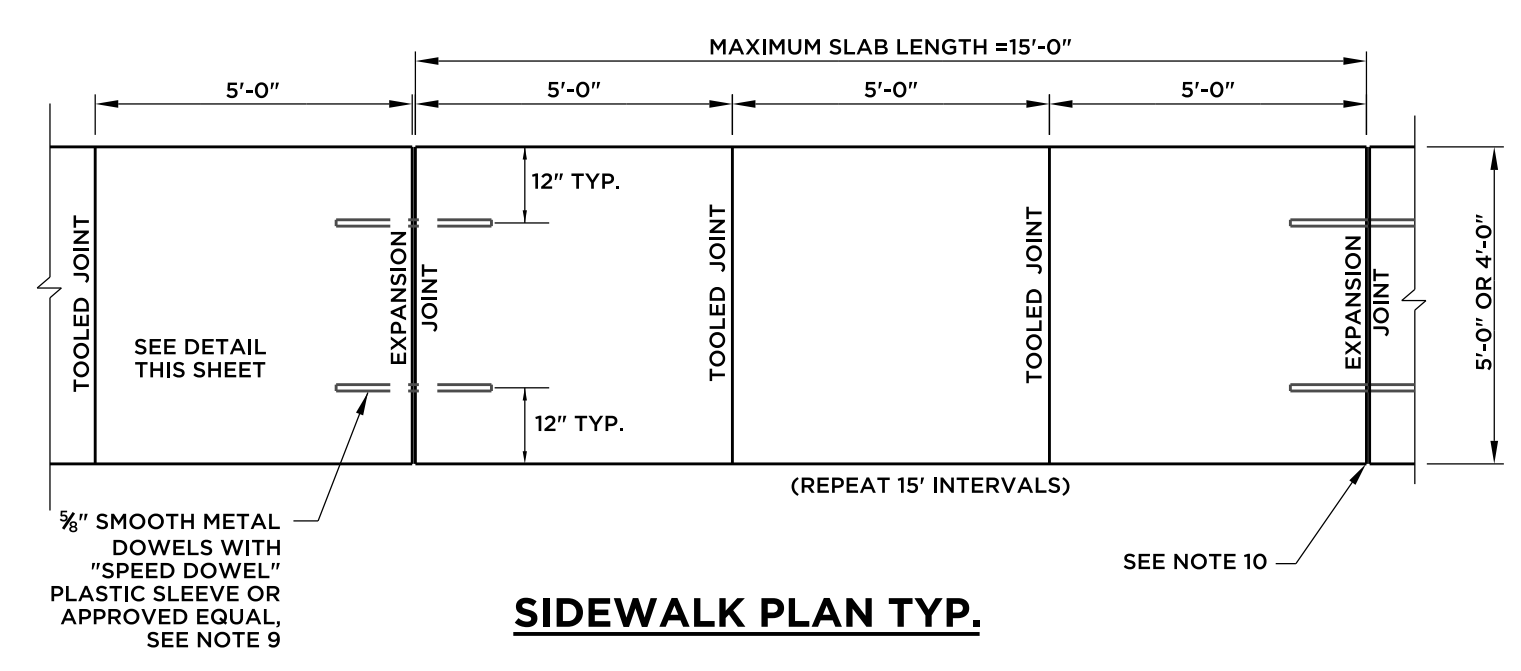
**TRIBUTARY SIGN DETAILS**

NOT TO SCALE



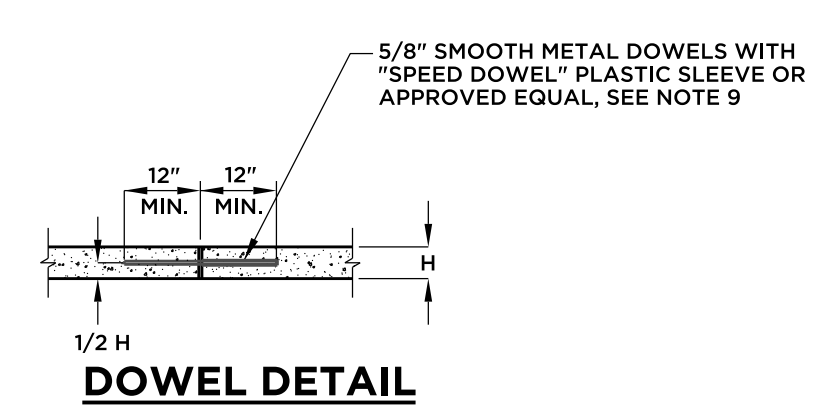
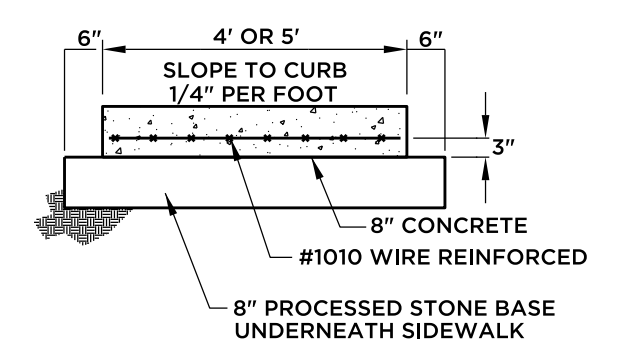
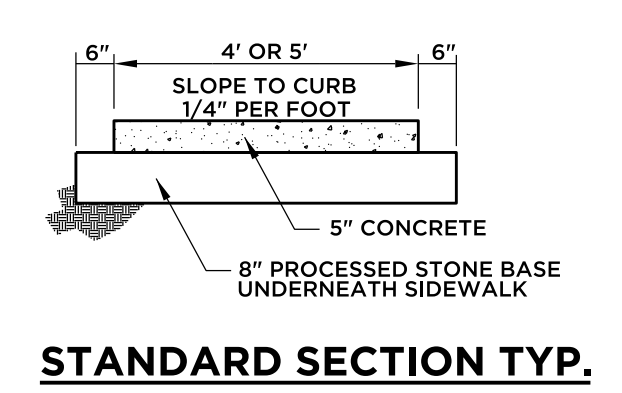
**BITUMINOUS CONCRETE LIP CURBING**

NOT TO SCALE



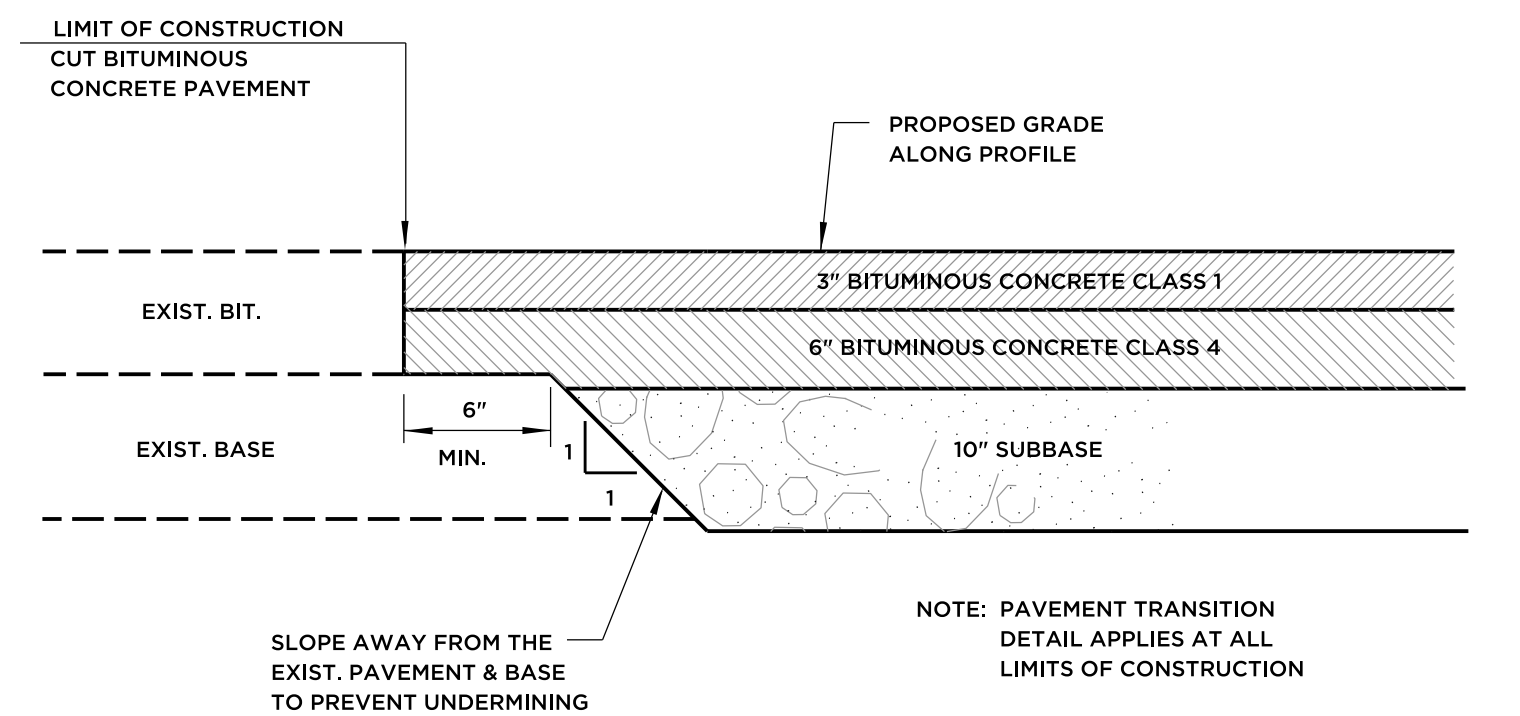
**SIDEWALK NOTES:**

1. CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF CONDOT CLASS F, (4,000 PSI, 28 DAY STRENGTH).
2. FORMS ARE TO BE SET TRUE TO LINE AND GRADE ON WELL COMPACTED BASE. FORMS SHALL BE 5" STEEL OR 2"x6" LUMBER.
3. PROPER FINISHING PROCEDURES SHALL BE FOLLOWED INCLUDING JOINTING, EDGING, AND BROOMING. A FINE BRISTLE BROOM SHALL BE USED. ALL EDGING TOOL IMPRINTS SHALL BE STEEL TROWELED PRIOR TO BROOMING.
4. CURING COMPOUND MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
5. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT SURFACE FROM DAMAGE.
6. WALKS SHALL BE BACK FILLED AS SOON AS FORMS ARE REMOVED.
7. ALL CONCRETE SIDEWALK SLABS SHALL BE RECTANGULAR IN SHAPE. NO FIGURE L SLABS ARE TO BE CONSTRUCTED.
8. SIDEWALK SLABS SHALL NOT EXCEED 5' IN WIDTH WITHOUT PRIOR APPROVAL. IF SIDEWALK SLABS GREATER THAN 5' IN WIDTH ARE TO BE CONSTRUCTED, A LONGITUDINAL EXPANSION JOINT SHALL BE CONSTRUCTED TO FORM ACCEPTABLE SLABS.
9. INSERT METAL DOWELS AT ALL EXPANSION JOINTS, AT SIDEWALK RAMPS, AND AT THE LAST SLAB POURED AT THE END OF THE WORKING DAY. DOWELS SHALL ALSO BE INSTALLED BETWEEN NEW AND EXISTING CONCRETE SLABS.
10. EXPANSION JOINT TO BE 3/8" ASPHALT IMPREGNATED CELLULAR FIBER AND OF A DIMENSION EQUAL TO THE FULL SLAB DEPTH.



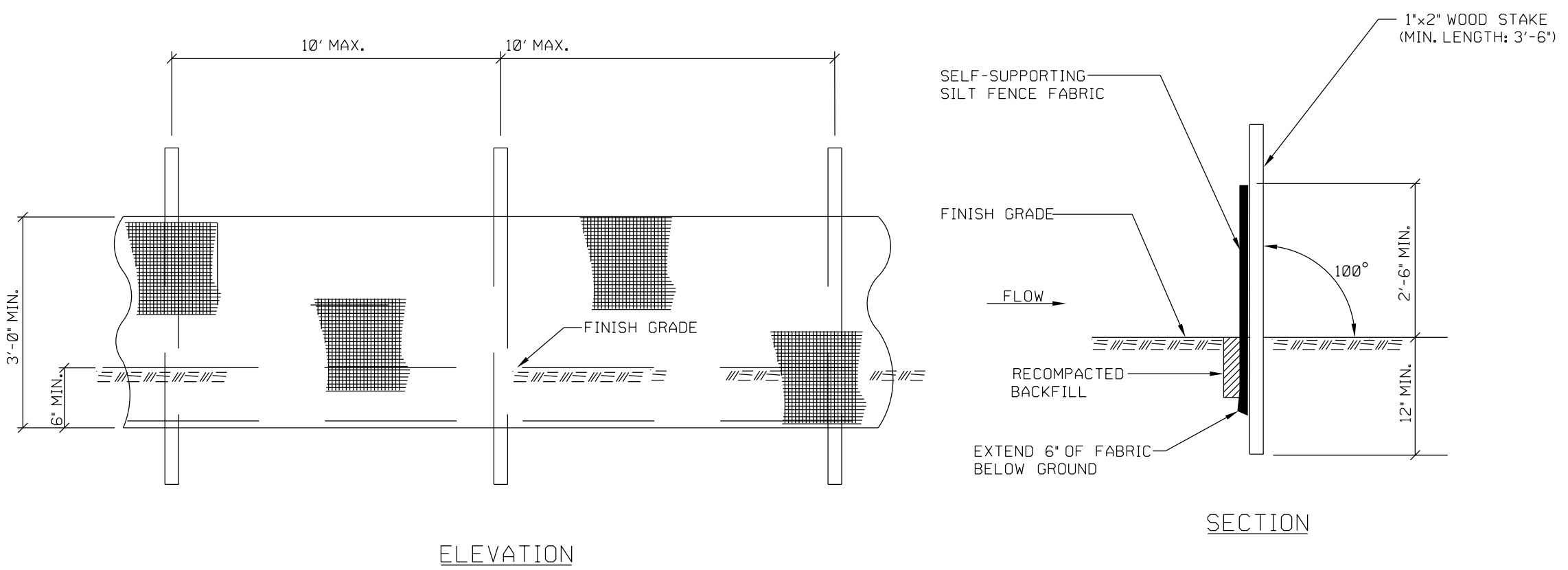
**CONCRETE SIDEWALK**

NOT TO SCALE



NOT TO SCALE

		41 Sequin Drive Glastonbury, CT 06033 Phone: (860) 633-9370 Fax: (860) 633-5971 www.anchorengr.com	
		Civil Engineering • Environmental Consulting • Land Surveying • Construction Management	
PROJ. ENGINEER DPL/PL PROJ. MANAGER TJY OFFICE REVIEW TJY	<b>TOWN OF GLASTONBURY</b> REPLACEMENT OF ADDISON ROAD BRIDGE OVER SALMON BROOK <b>TYPICAL SECTIONS &amp; DETAILS</b>		
REVISIONS	GLASTONBURY CONNECTICUT	PROJECT DATE 075-22 2/01/12	SHEET NO. 1 OF 32
SCALE: NOT TO SCALE	SCALE: NOT TO SCALE		

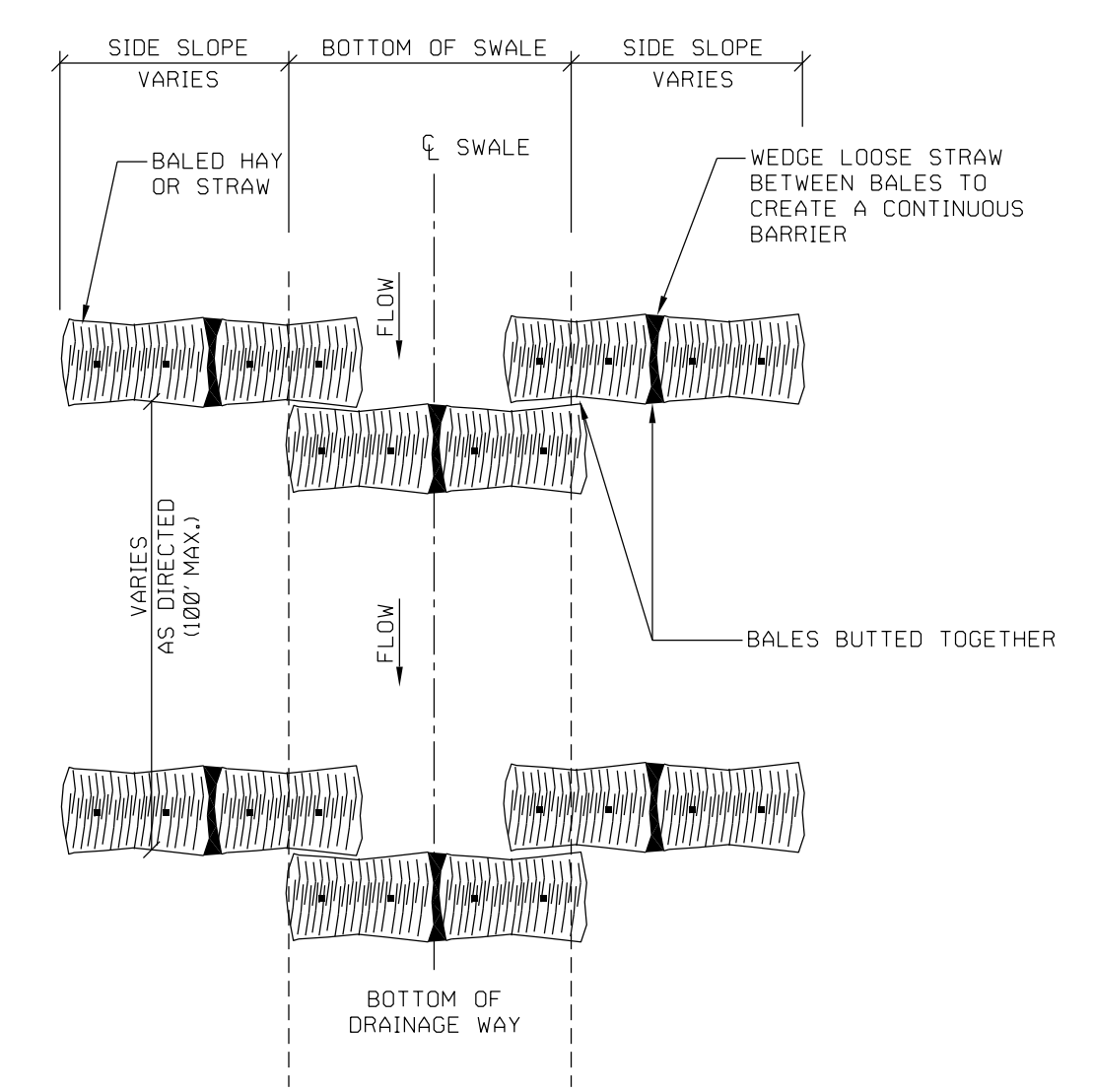
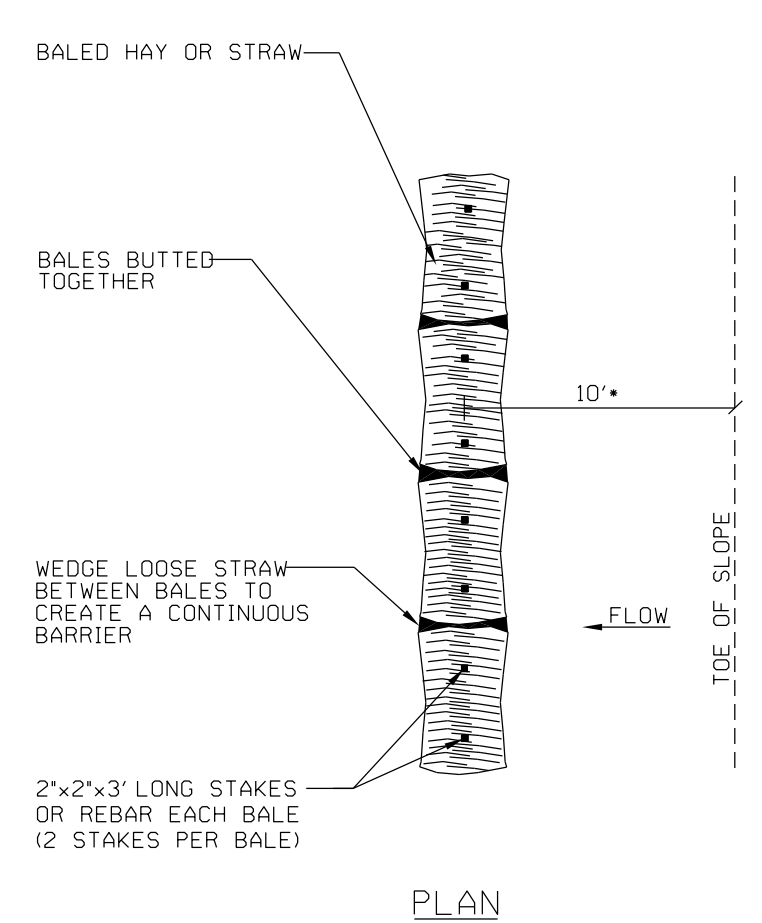


**NOTES:**

- 1.) INSTALL SILT FENCE & WOOD STAKES AS RECOMMENDED BY MANUFACTURER.
- 2.) SILT FENCE FABRIC SHALL BE A PERVIOUS SHEET OF WOVEN PROPYLENE, NYLON, POLYESTER OR POLYETHYLENE FILAMENTS AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE FOLLOWING REQUIREMENTS:
- 3.) CONTRACTOR TO SUBMIT PROPOSED FILTER FABRIC FOR APPROVAL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS BASED ON EXISTING SOIL CONDITIONS.

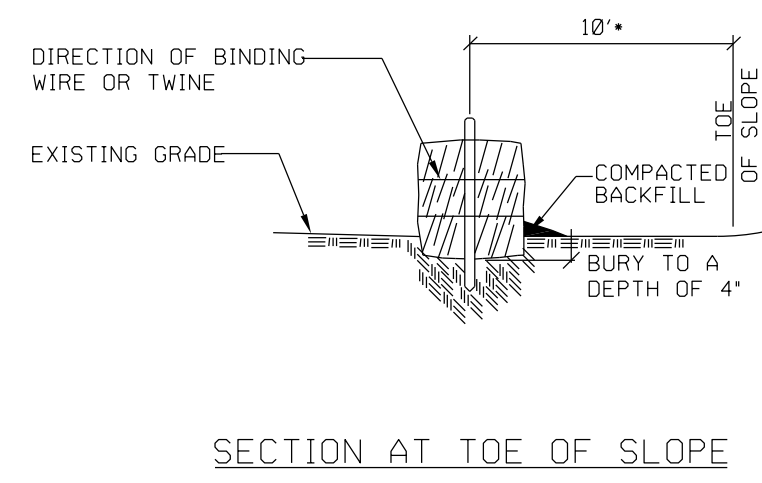
PHYSICAL PROPERTY	TEST METHOD	MINIMUM REQUIREMENTS
GRAB TENSILE STRENGTH (lbs.)	ASTM D 4632-86	110
ELONGATION (%)	ASTM D 4633-86	20
SILT RETENTION EFFICIENCY (%)	VTM-51-79	75
PERMEABILITY COEFFICIENT (cm/s)	ASTM D 4491-85	0.02

**SILT FENCE**  
NOT TO SCALE

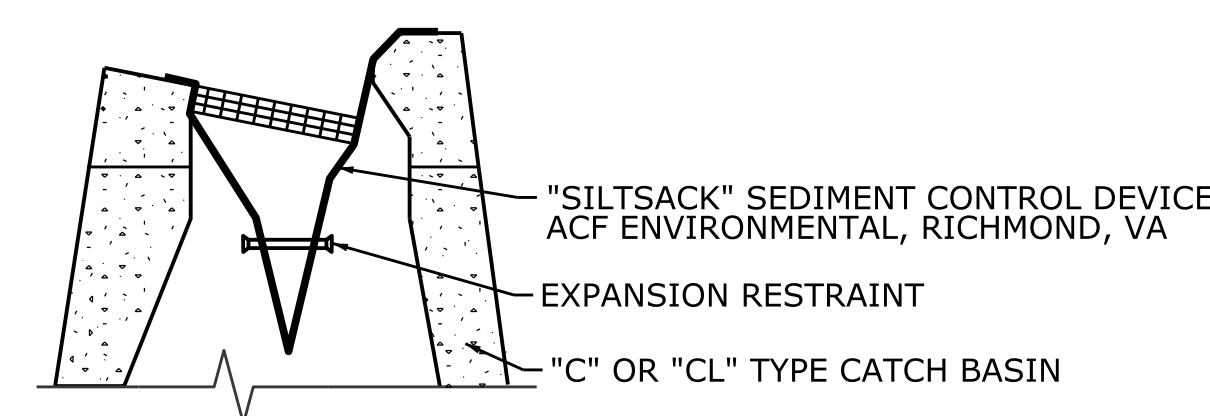


**SECTION A-A**  
**TEMPORARY DEWATERING BASIN**  
NOT TO SCALE

DIMENSIONS OF DEWATERING BASIN(S) SHALL BE SIZED BY THE CONTRACTOR IN ACCORDANCE WITH ITEM #0204151A AND APPROVED BY THE ENGINEER.

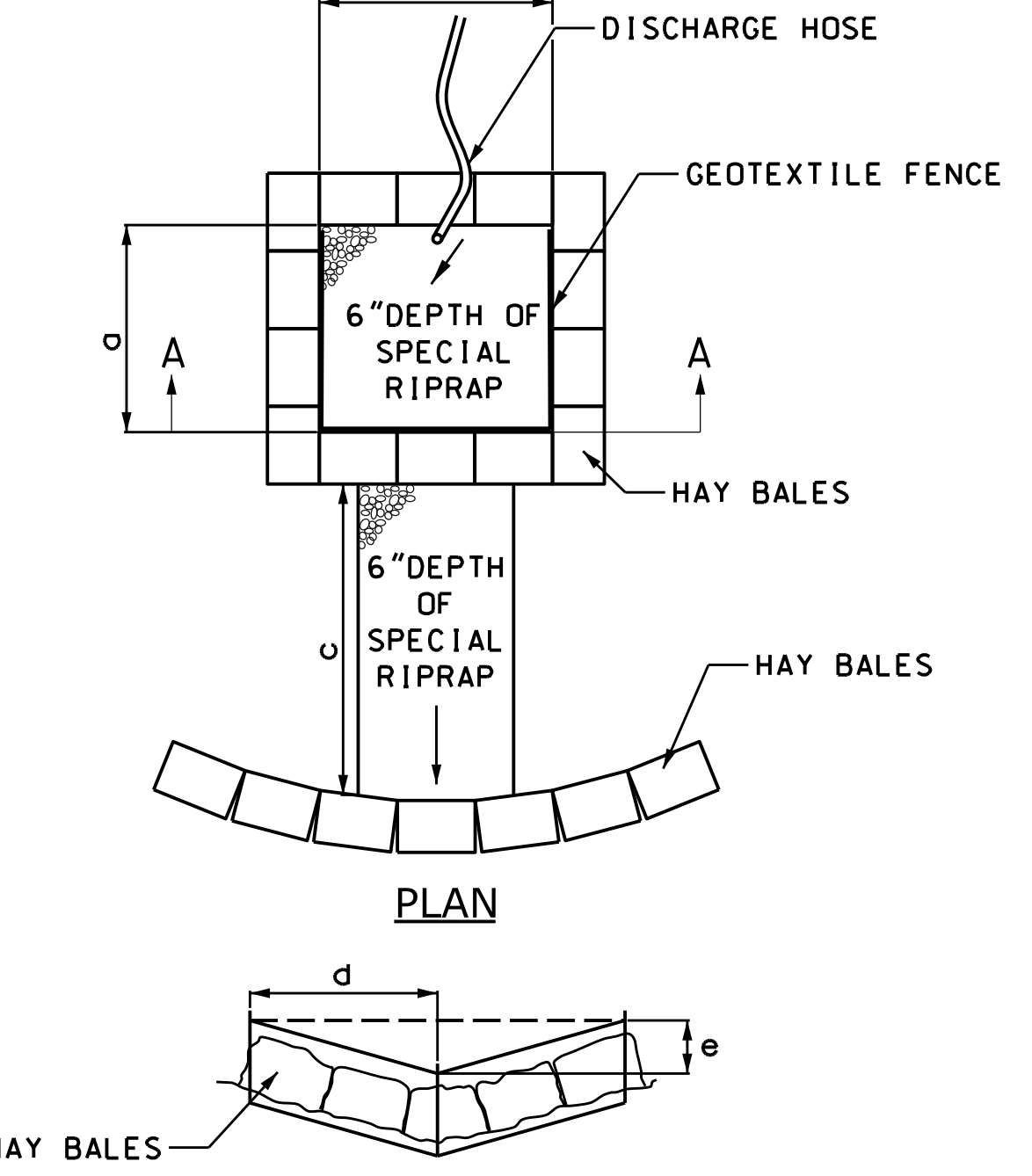


**HAY BALES**  
NOT TO SCALE



NOTE: SILTSACK TO REMAIN IN CB UNTIL AREA IS COMPLETELY STABILIZED.  
SILTSACK SHOULD BE INSPECTED EVERY 2-3 WEEKS AND AFTER EVERY MAJOR RAIN EVENT

**SILTSACK SEDIMENT CONTROL AT STRUCTURES**  
NOT TO SCALE

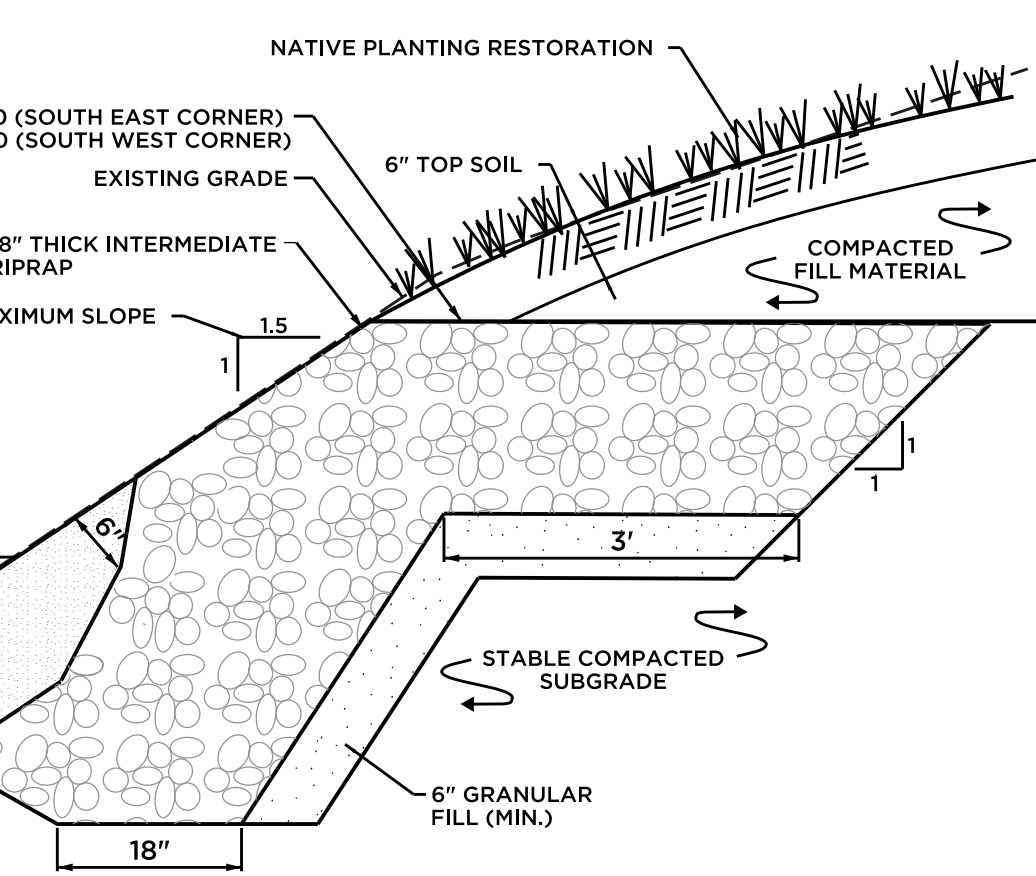


**SECTION A-A**  
**TEMPORARY DEWATERING BASIN**  
NOT TO SCALE

DIMENSIONS OF DEWATERING BASIN(S) SHALL BE SIZED BY THE CONTRACTOR IN ACCORDANCE WITH ITEM #0204151A AND APPROVED BY THE ENGINEER.

**RIP RAP SLOPE STABILIZATION 2**  
NOT TO SCALE

NOTE: THIS DETAIL IS ONLY FOR AREAS WHERE THE EXISTING CHANNEL BOTTOM IS DISTURBED DURING CONSTRUCTION FOR INSTALLATION OF THE SANITARY SEWER AND AT THE BRIDGE ABUTMENTS. THIS WORK SHALL BE COMPLETED PRIOR TO REMOVAL OF THE COFFERDAMS.



**RIP RAP SLOPE STABILIZATION 1**  
NOT TO SCALE

**EROSION & SEDIMENT CONTROL PLAN:**

1. ALL EROSION AND CONTROL MEASURES SHALL BE INSTALLED AT THE PROJECT SITE PRIOR TO CONSTRUCTION WHEREVER POSSIBLE.
2. CATCH BASINS WITHIN THE PROJECT AREA WILL BE PROTECTED WITH SILT SACKS AS SHOWN ON THE DETAIL. EACH SILT SACK SHOULD BE INSPECTED EVERY 2-3 WEEKS AND AFTER EVERY MAJOR RAIN EVENT.
3. AN EROSION CONTROL SYSTEM SHALL BE INSTALLED AROUND ALL ON-SITE STOCKPILES OF SOIL.
4. DUST CONTROL MEASURES SHALL BE APPLIED THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED.
5. TEMPORARY DEWATERING BASINS SHALL BE INSTALLED AS NECESSARY FOR USE DURING CONSTRUCTION OF SANITARY SEWER, BRIDGE FOUNDATION AND BRIDGE INSTALLATION. ALL DEWATERING DISCHARGE SHALL BE DIRECTED TO THE BASINS.

**EROSION & SEDIMENT CONTROL NOTES:**

1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS OF THE STATE OF CONNECTICUT 2002 "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL"
2. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE TOWN, PRIOR TO CONSTRUCTION.
3. RUNOFF SHALL BE CONTROLLED BY THE INTERCEPTION, DIVERSION AND SAFE DISPOSAL OF PRECIPITATION. SURROUNDING SOIL STOCKPILES WITH SILT FENCE. THE BINDING OF SOIL PARTICLES TO MAKE THEM LESS SUSCEPTIBLE TO REMOVAL BY RAIN SPLASH, RUNOFF OR WIND IS SUGGESTED BY THE USE OF NATURAL AND PHYSICAL "BINDERS" SUCH AS MULCH AND FABRICS.
4. AFTER EACH STORM EVENT OR ONCE A WEEK, ALL SEDIMENT AND EROSION CONTROL'S WILL BE INSPECTED BY THE ENGINEER. ANY CORRECTIVE ACTION TO MITIGATE ENVIRONMENTAL CONCERNS WILL BE ORDERED AT THAT TIME. SEDIMENT FROM THE EROSION CONTROL DEVICES SHALL BE REMOVED, WHEN IT REACHES ONE-HALF ITS HEIGHT. REMOVED SEDIMENT SHALL BE PROPERLY DISPOSED OF IN A MANNER WHICH IS CONSISTENT WITH THE INTENT OF THIS PLAN.
5. ALL EROSION CONTROL DEVICES SHALL BE MAINTAINED OR REPLACED BY THE CONTRACTOR DURING THE CONSTRUCTION PERIOD AS NECESSARY OR AS REQUIRED BY THE ENGINEER OR THE TOWN.
6. ADDITIONAL EROSION CONTROL MEASURES WILL BE INSTALLED DURING THE CONSTRUCTION PERIOD IF DEEMED NECESSARY OR BY THE ENGINEER OR THE TOWN.
7. FINAL GRADING, SEEDING AND MULCHING SHALL BE DONE WITHIN THE SPECIFIED TIME FRAMES. INSPECTIONS SHALL BE PERFORMED AS SOON AS POSSIBLE FOLLOWING A HEAVY RAIN TO CHECK THE INTEGRITY OF THE BARRIERS, SWALES, SEEDING AND MULCH. ANY REPAIRS OR ADDITIONAL SEED OR MULCH SHALL BE DONE AS SOON AS POSSIBLE.
8. TO PREVENT SEDIMENT FROM LEAVING THE SITE, ALL SILT FENCE MUST BE INSTALLED PRIOR TO CONSTRUCTION. SEDIMENTATION CONTROL DEVICES SHALL FOLLOW THE EXISTING CONTOURS WITH THE ENDS TURNED UPHILL TO PREVENT END CUTTING. THERE WILL BE 100 FEET OF SILT FENCE ON HAND FOR EMERGENCIES.
9. CLEARED MATERIALS, SUCH AS BRUSH AND ROAD SPOILS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF. AREAS TO BE CLEARED (LIMITS OF CLEARING) SHALL BE CONSIDERED THE AREAS ADJACENT TO ADDISON ROAD SHOWN WITHIN THE PROPOSED SLOPE LIMITS.
11. ALL DISTURBED AREAS ARE TO BE RAKED, SEEDING AND FERTILIZED PER "TURF ESTABLISHMENT" SPECIFICATION SECTION 205 IN THE "TOWN OF GLASTONBURY CONNECTICUT, STANDARDS FOR PUBLIC IMPROVEMENTS AND WITHIN THE SPECIFIED TIME FRAMES.
12. INSPECTIONS SHALL BE PERFORMED WEEKLY AND AS SOON AS POSSIBLE AFTER A HEAVY RAIN TO CHECK THE INTEGRITY OF THE BARRIER'S SWALES, SEEDING, AND MULCH. ANY REPAIRS OR ADDITIONAL SEED OR MULCH SHALL BE DONE AS SOON AS POSSIBLE.
13. THE FOLLOWING DATES FOR SEEDING SHALL BE USED:  
SPRING: APRIL 15 TO JUNE 15  
FALL: AUGUST 15 TO SEPTEMBER 15
14. THE FOLLOWING GRASS SEED MIXTURES SHALL BE APPLIED AT A RATE NO LESS THAN 100 LBS PER ACRE:

SPECIES	PROPORTION BY WEIGHT (POUNDS)	MINIMUM PURITY (PERCENT)	MINIMUM GERMINATION (PERCENT)
CREeping RED FESCUE (FESTUCA REBRA)	50	98	85
K-31 TALL FESCUE (FESTUCA ARUNDINACEA VAR. KENTUCKY 31)	20	98	85
ANNUAL RYEGRASS (LOLIUM MULTIFLORUM)	25	98	90
ALSIKE CLOVER (TRIFOLIUM HYBRIDUM)	5	96	85
15. TEMPORARY GRASS SEEDING, IF NECESSARY, SHALL BE ANNUAL RYEGRASS (LOLIUM MULTIFLORUM) APPLIED AT A RATE OF 100 LBS. PER ACRE.
16. IF VEGETATION IS NOT ESTABLISHED BY THE END OF THE GROWING SEASON (OCT. 15TH), THEN ALL EXPOSED SOIL SHALL RECEIVE HAY MULCH COVER. VEGETATION SHALL BE ESTABLISHED AS SOON AS FEASIBLE IN THE NEXT GROWING SEASON.

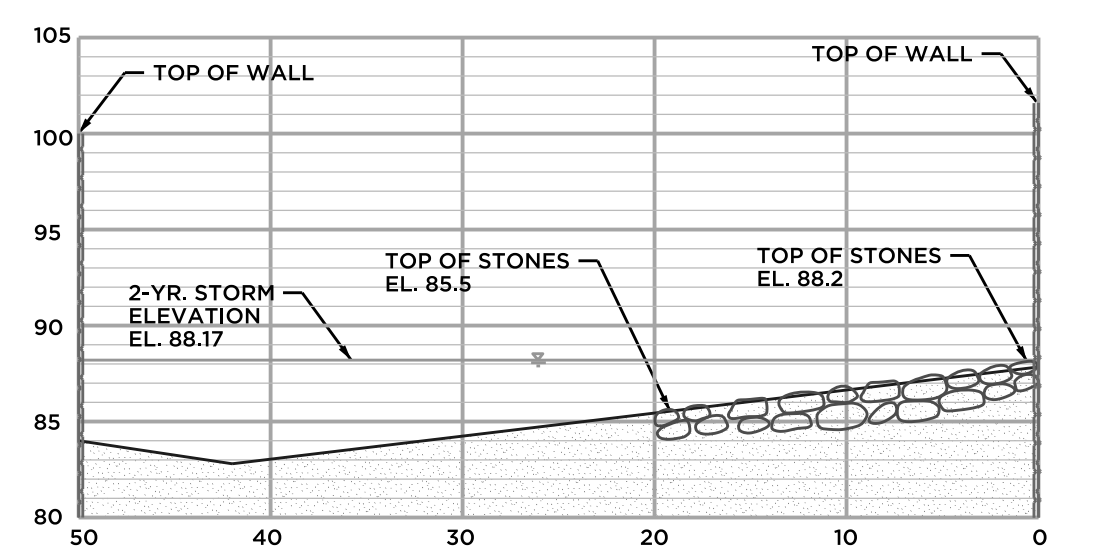
**GENERAL CONSTRUCTION NOTES:**

1. THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS FOR THE WORK TO BE PERFORMED.
2. THE CONTRACTOR SHALL CONFORM TO ALL REQUIREMENTS OF ALL LOCAL AGENCIES OF THE TOWN.
3. UNCONFINED IN WATER WORK WILL ONLY BE ALLOWED DURING THE PERIOD OF JUNE 1 TO SEPTEMBER 30, INCLUSIVE.

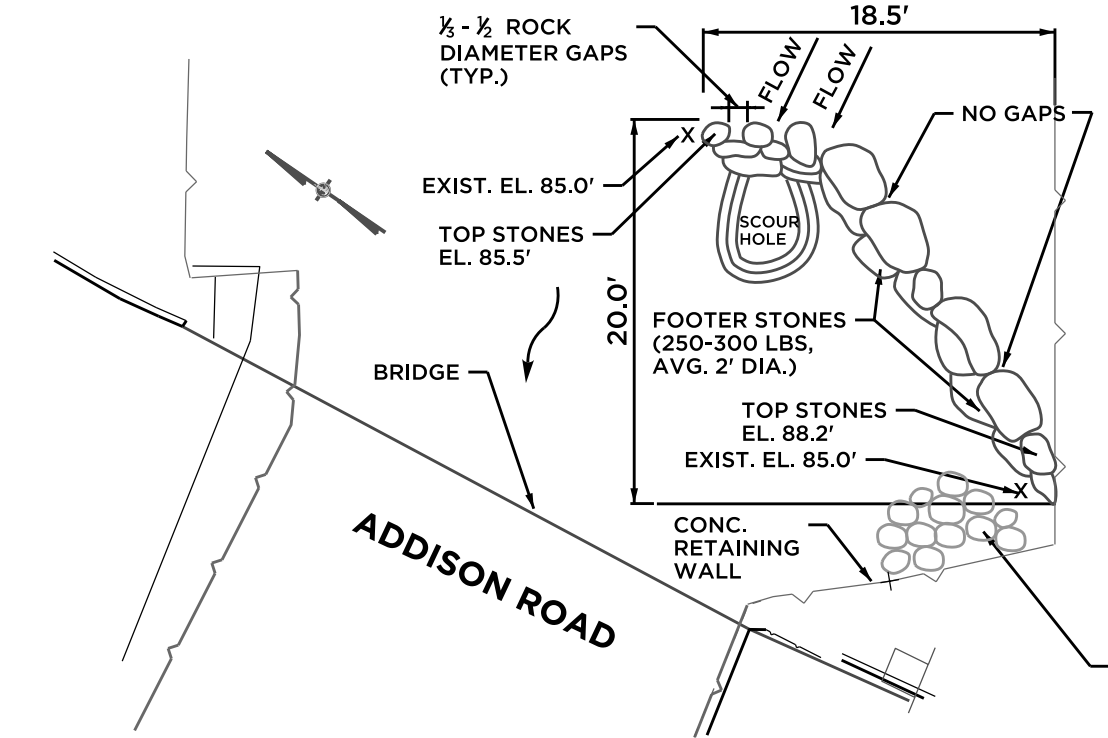
**SEQUENCE OF CONSTRUCTION:**

1. COORDINATE AND COMPLETE A PRE-CONSTRUCTION MEETING WITH THE TOWN ENGINEER AND CONTRACTOR. RESPONSIBLE PARTIES TO BE IDENTIFIED AND EMERGENCY PHONE NUMBERS PROVIDED.
2. CONTACT CALL BEFORE YOU DIG PRIOR TO ANY CONSTRUCTION ACTIVITIES.
3. INSTALL DETOUR SIGNS AND CLOSE ADDISON ROAD TO TRAFFIC IN ACCORDANCE WITH THE PLANS AND SPECIAL PROVISIONS.
4. FIELD STAKE THE LIMIT OF CLEARING AND EROSION CONTROL LINE FOR INSPECTION BY THE TOWN.
5. INSTALL EROSION CONTROL MEASURES AND AT THE LOCATIONS INDICATED ON THE PLANS OR AS REQUIRED BY FIELD CONDITIONS.
6. TEMPORARILY CUT AND CAP EXISTING GAS AND WATER MAINS.
7. INSTALL TEMPORARY COFFERDAMS AND DEWATERING BASIN FOR STAGE 1 SANITARY SEWER CONSTRUCTION IN ACCORDANCE WITH WATER HANDLING PLAN (APPROVED BY THE ENGINEER AND TOWN ENVIRONMENTAL PLANNER)
8. INSTALL STAGE 1 SANITARY SEWER. IF ROCK IS ENCOUNTERED, CONTRACTOR SHALL SUBMIT PROPOSED METHOD OF ROCK REMOVAL AND SEWER INSTALLATION FOR APPROVAL BY THE ENGINEER AND THE TOWN.
9. INSTALL TEMPORARY COFFERDAMS FOR STAGE 2 SANITARY SEWER CONSTRUCTION AND EXISTING SANITARY REMOVAL IN ACCORDANCE WITH WATER HANDLING PLAN (APPROVED BY THE ENGINEER AND TOWN ENVIRONMENTAL PLANNER).
10. INSTALL STAGE 2 SANITARY SEWER.
11. REMOVE EXISTING MANHOLE AND PORTION OF SANITARY SEWER AS SHOWN ON THE PLANS.
12. INSTALL DEBRIS SHIELD PER APPROVED PLAN AND REMOVE EXISTING BRIDGE SUPERSTRUCTURE.
13. REMOVE EXISTING RIP RAP AND CONSTRUCT J HOOK. THIS WORK SHALL BE COMPLETED DURING THE ALLOWABLE TIME PERIOD FOR "UNCONFINED INSTREAM WORK" WITH EQUIPMENT STAGED FROM ABOVE THE ORDINARY HIGH WATER ELEVATION SHOWN.
14. INSTALL TEMPORARY COFFERDAMS, BRIDGE FOUNDATION AND ASSOCIATED DEWATERING BASIN(S).
15. REMOVE EXISTING BRIDGE SUBSTRUCTURES.
16. INSTALL UNDERWATER CONCRETE AND OTHER FOUNDATIONS.
17. CONSTRUCT NEW CONCRETE ABUTMENTS AND WINGWALLS.
18. AFTER COMPLETE, INSTALL TEMPORARY COFFERDAM - BRIDGE.
19. CUT COFFERDAM - FOUNDATION AND REMOVE PORTIONS NOT TO REMAIN IN PLACE.
20. INSTALL STORM DRAINAGE.
21. INSTALL PRECAST ARCH SUPERSTRUCTURE AND BACKFILL CHANNEL.
22. REMOVE TEMPORARY COFFERDAM - BRIDGE.
23. INSTALL UTILITIES.
24. CONSTRUCT CONCRETE ENDWALLS, INSTALL BRIDGE RAIL.
25. INSTALL FILL OVER BRIDGE, RECONSTRUCT ROADWAYS, INSTALL CURBING, SIDEWALK AND METAL BEAM RAILING.
26. GRADE, LOAM AND SEED DISTURBED AREAS.
27. INSTALL RIPRAP.
28. REMOVE SEDIMENT BARRIERS WHEN PERMANENT VEGETATIVE COVER IS ESTABLISHED AND THE SITE IS SUFFICIENTLY STABILIZED.

\* CRITICAL COMPONENTS OF THE CONSTRUCTION REQUIRING APPROVALS FROM THE ENGINEER AND TOWN ENVIRONMENTAL PLANNER TO ENSURE ADEQUATE PROTECTION OF SALMON BROOK AND ASSOCIATED WETLANDS AND COMPLIANCE WITH THE LOCAL WETLANDS PERMIT.



**PROFILE J-HOOK LAYOUT**  
**LOOKING UPSTREAM**  
NOT TO SCALE



**PLAN J-HOOK LAYOUT**  
NOT TO SCALE

**NOTE:**  
A REPRESENTATIVE FROM CT DEEP INLAND FISHERIES DIVISION WILL BE PRESENT DURING THE PLACEMENT OF THE J-HOOK VANE. SEE "NOTICE TO CONTRACTOR - J-HOOK INSTALLATION".

**ANCHOR**  
ENGINEERING SERVICES, INC.

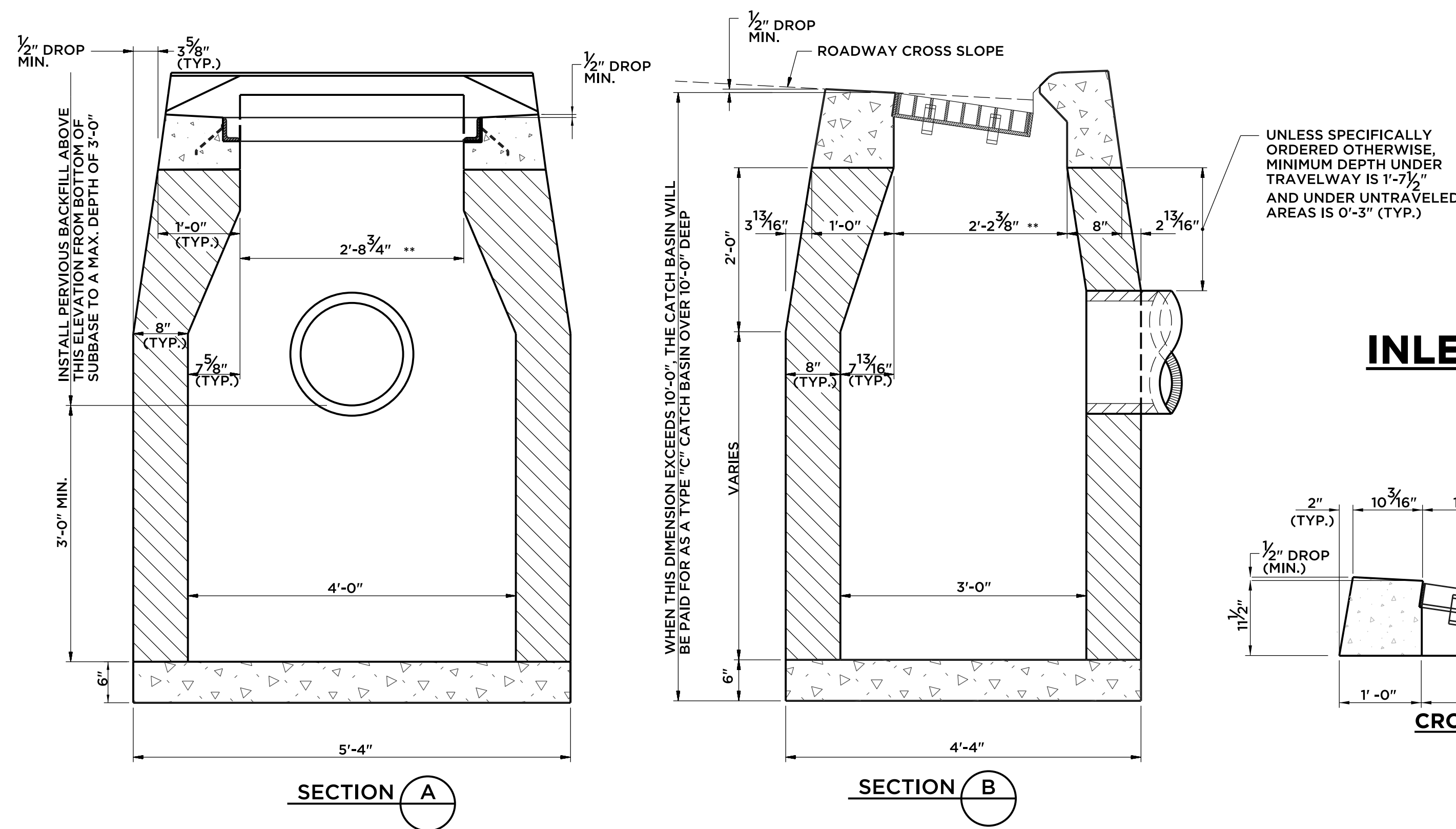
41 Sequin Drive  
Glastonbury, CT 06033  
Phone: (860) 633-9370  
Fax: (860) 633-5971  
www.anchorengr.com

Civil Engineering • Environmental Consulting • Land Surveying • Construction Management

PROJ. ENGINEER: DPL/PL  
PROJ. MANAGER: TJY  
OFFICE REVIEW: TJY

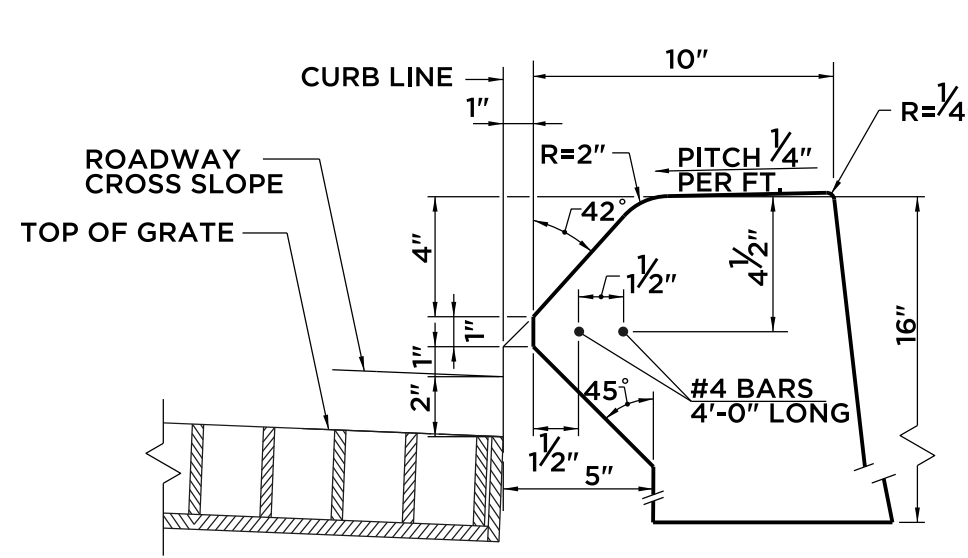
**TOWN OF GLASTONBURY**  
REPLACEMENT OF ADDISON ROAD BRIDGE  
OVER SALMON BROOK  
**MISCELLANEOUS DETAILS**  
EROSION & SEDIMENTATION CONTROL  
GLASTONBURY CONNECTICUT

PROJECT: 075-22  
DATE: 2/01/12  
SHEET NO. 2 OF 32



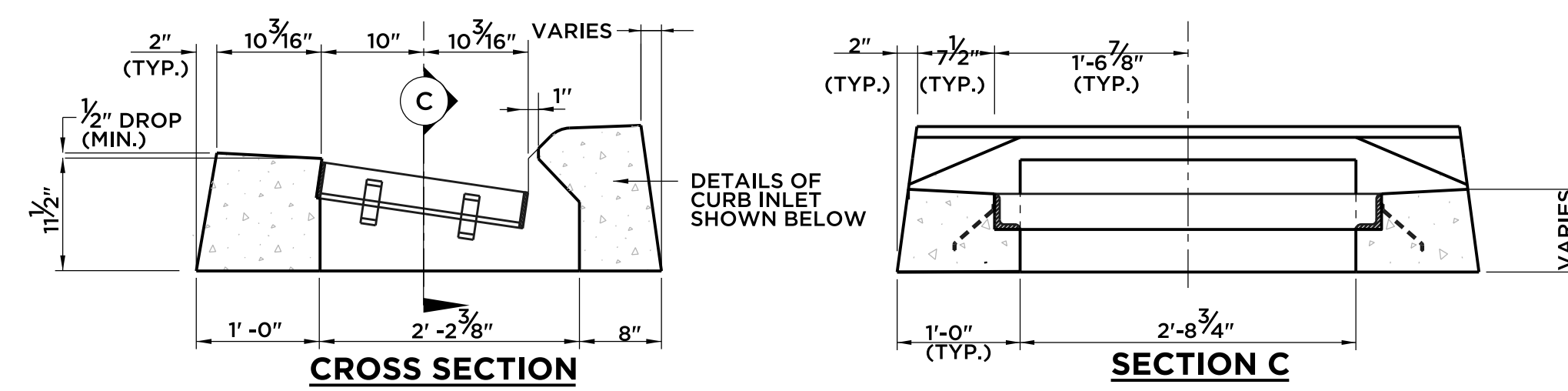
**TYPE "C" CATCH BASIN**

NOT TO SCALE



**INLET WITH 6" BITUMINOUS CONCRETE LIP CURBING FOR TYPE "C" CB**

NOT TO SCALE

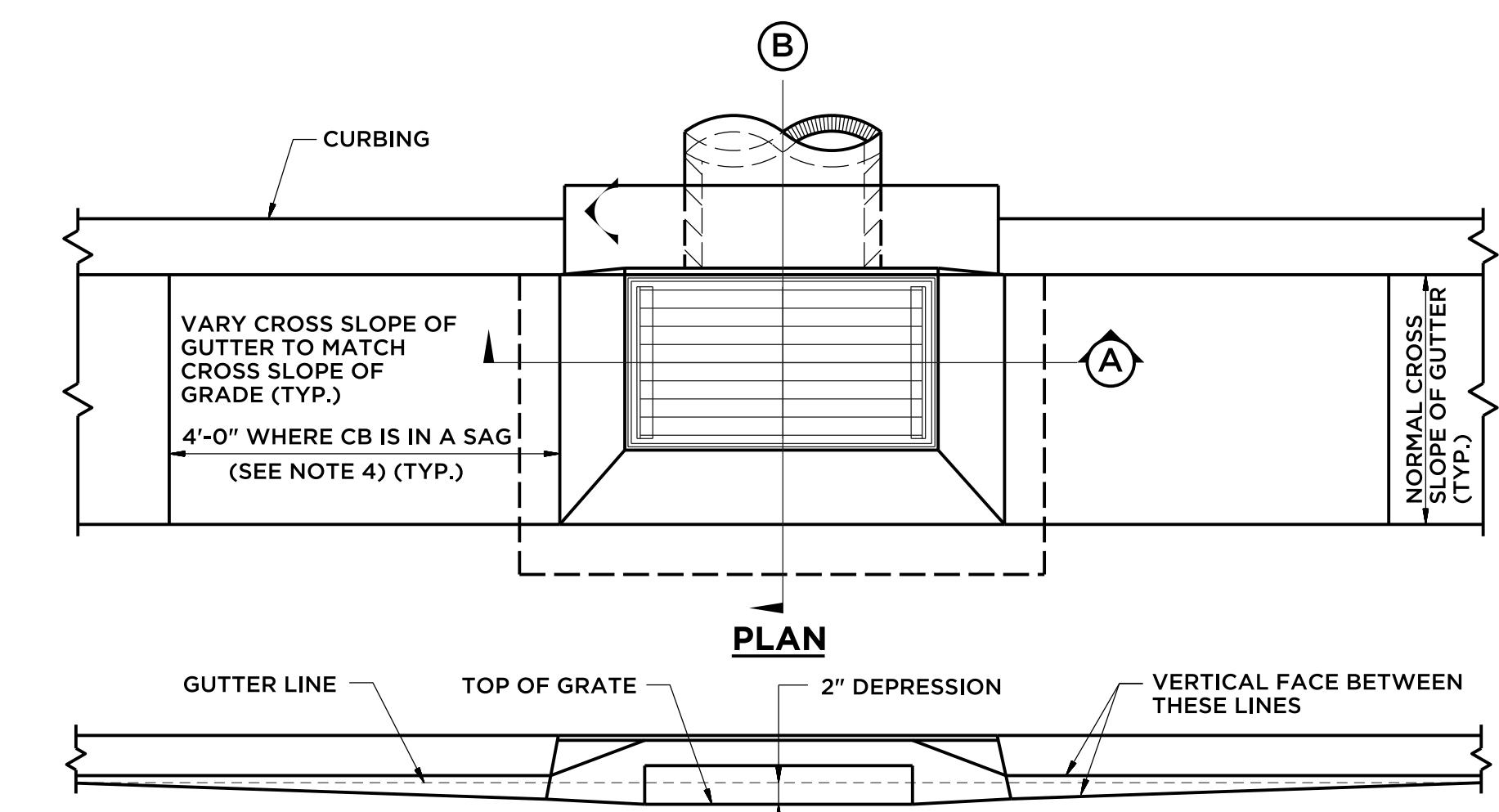


**TYPE "C" CATCH BASIN TOP**

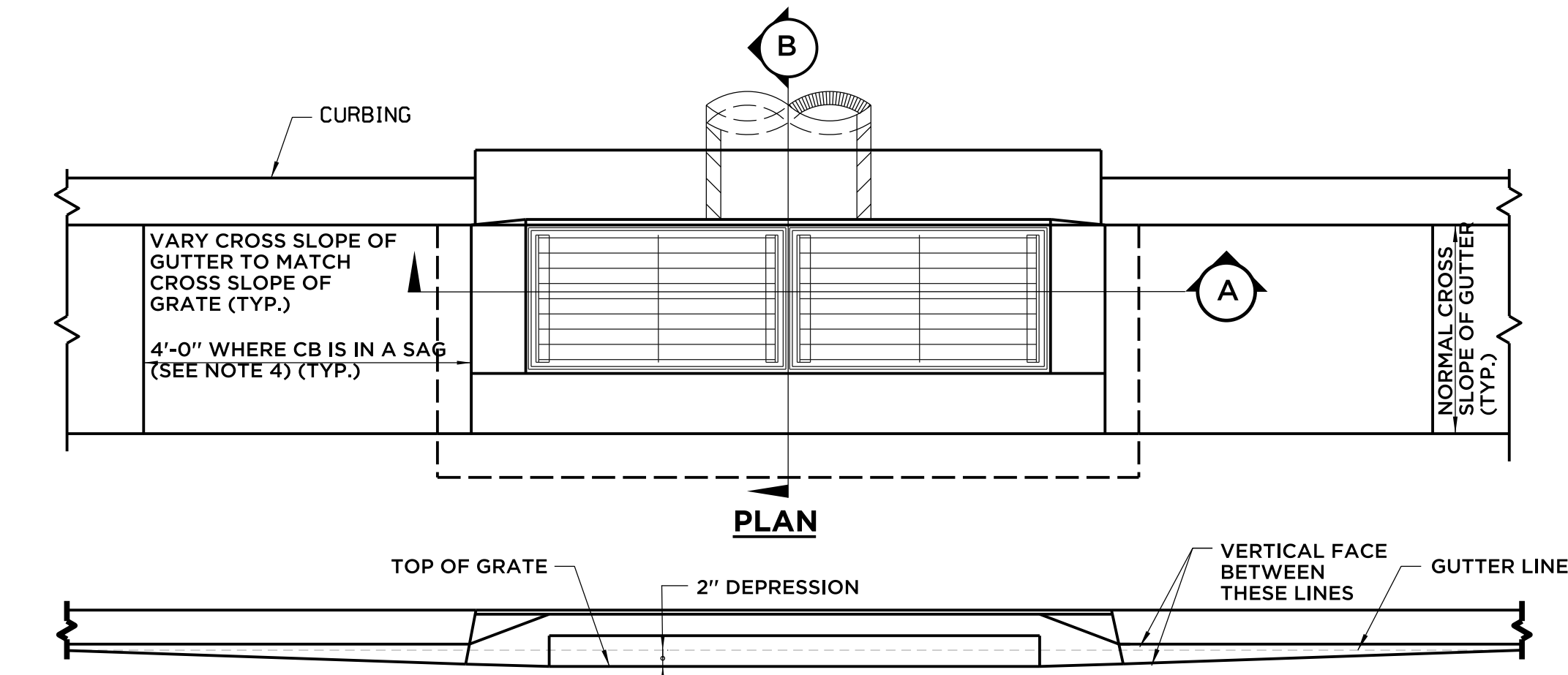
NOT TO SCALE

**GENERAL NOTES:**

- FOR DETAILS OF FRAME AND GRATE SEE STANDARD DRAWING HW-507\_08.
- USE APPROPRIATE CONCRETE TOP FOR CURBING SHOWN ON PLANS. IF CURBING IS NOT SPECIFIED ON THE PLANS, IT SHALL BE CONSTRUCTED AS DIRECTED BY THE ENGINEER.
- ALL FACES OF STRUCTURES IN CONTACT WITH CONCRETE PAVEMENT SHALL BE COVERED WITH A LAYER OF TAR PAPER OR APPROVED EQUAL. THE COST FOR THE PAPER SHALL BE INCLUDED IN THE BID PRICE FOR THE TYPE OF CATCH BASIN INSTALLED.
- USE 6'-0" ON UPGRADE SIDE OF CONTINUOUS GRADE AND 1'-0" ON DOWNGRADE SIDE OF CONTINUOUS GRADE OR AS DIRECTED.
- IF MASONRY UNITS ARE REQUIRED, THE BASIN SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE OVER ALL DIMENSIONS SHOWN HERE AND SECTION 5.07 OF THE STATE OF CONNECTICUT'S STANDARD SPECIFICATIONS. CORBELLING SHALL BE PERMITTED TO A MAXIMUM OF 3". NO PROJECTION SHALL EXTEND INSIDE THE LIMITS NOTED BY \*\*.
- WALL THICKNESS OF ALL CB'S OVER 10' DEEP SHALL BE INCREASED TO 12" THICK. INSIDE DIMENSION SHALL REMAIN THE SAME. (12" THICKNESS WILL START AFTER THE FIRST 10').
- TO CONVEY SUBSURFACE DRAINAGE, OPENINGS SHALL BE FORMED IN THE FOUR WALLS AT OR IMMEDIATELY ABOVE THE BOTTOM OF THE PERVIOUS BACKFILL.
- MINIMUM CONCRETE COMPRESSIVE STRENGTH OF F'c = 4000 PSI SHALL BE OBTAINED PRIOR TO SHIPPING.
- LATEST STATE OF CONNECTICUT'S STANDARD SPECIFICATIONS AND SUPPLEMENTALS SHALL GOVERN.
- SPACER MAY BE CMU OR PRECAST WITH REQUIRED REINFORCING (RECOMMENDED BY MANUFACTURER) AS NEEDED TO PROVIDE PROPER GRADE SHOWN ON PLANS.
- ALL STEEL EXCEPT REINFORCING BARS, SHALL BE GALVANIZED IN CONFORMANCE WITH SECTION M06.03 OF THE STATE OF CONNECTICUT'S STANDARD SPECIFICATIONS.
- ALL BARS SHALL HAVE A MINIMUM 2" COVER.



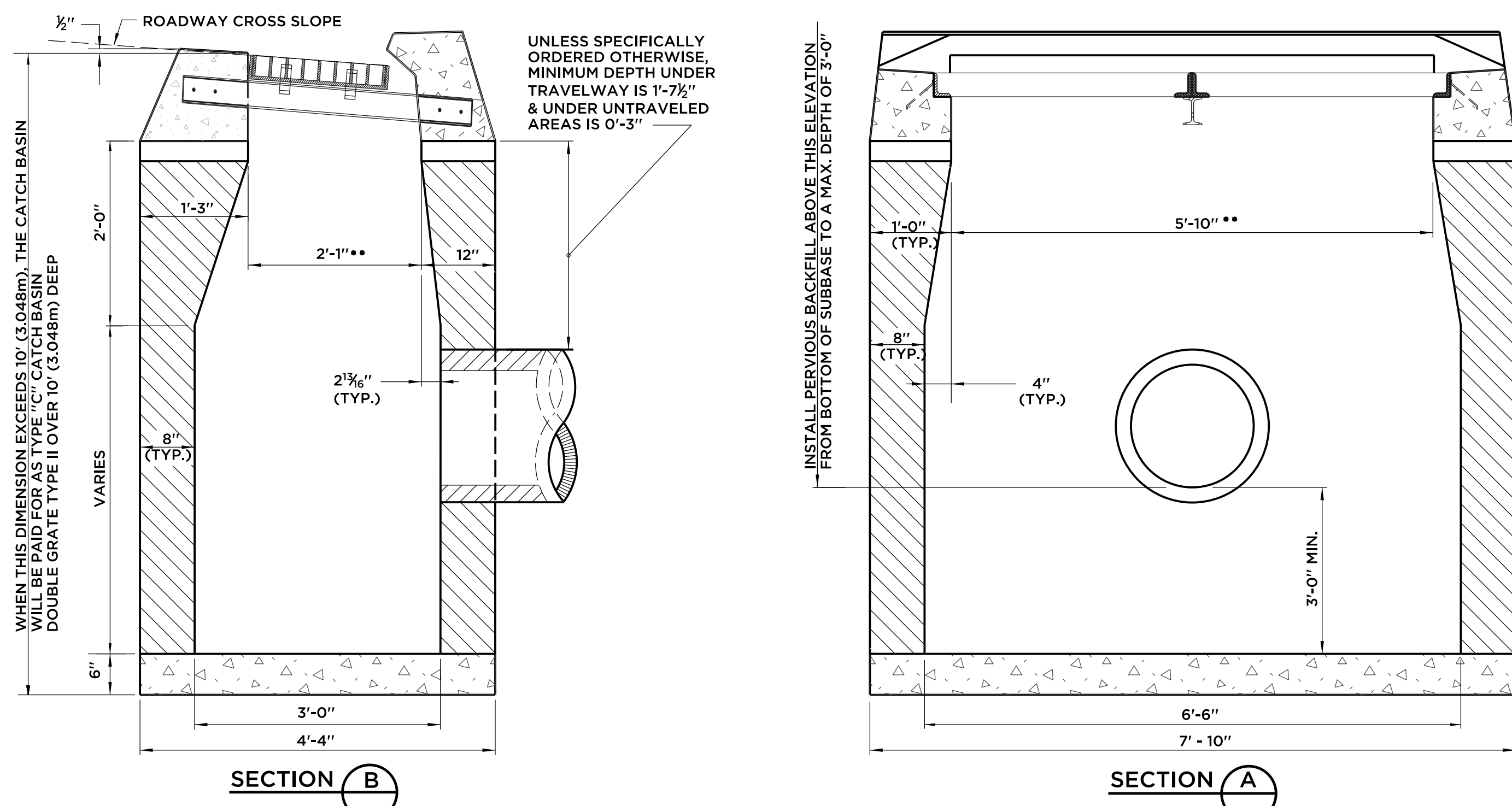
**FOR CATCH BASINS IN A LINE OF 6" BITUMINOUS CONCRETE LIP CURBING (MACHINE FORMED)**



**FOR DOUBLE GRATE CATCH BASINS IN A LINE OF 6" (152) BITUMINOUS CONCRETE LIP CURBING (MACHINE FORMED)**

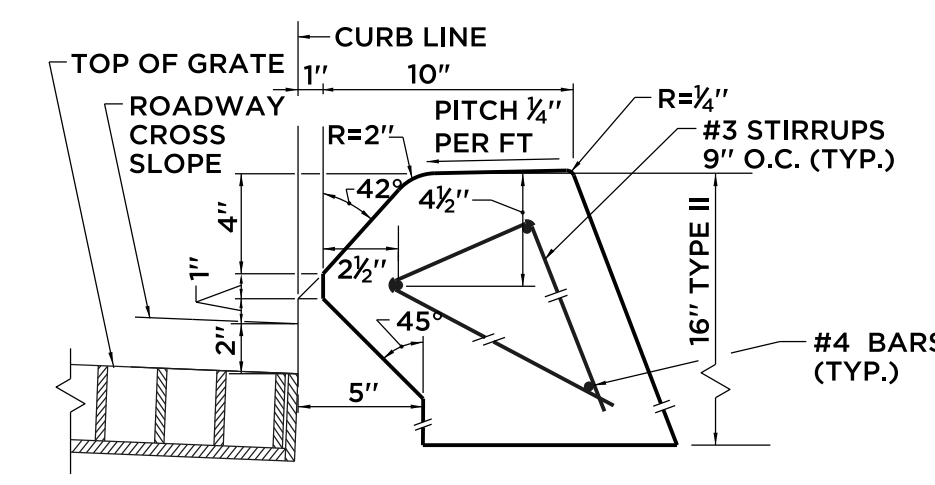
**DETAILS OF DEPRESSED GUTTER STRIP**

NOT TO SCALE



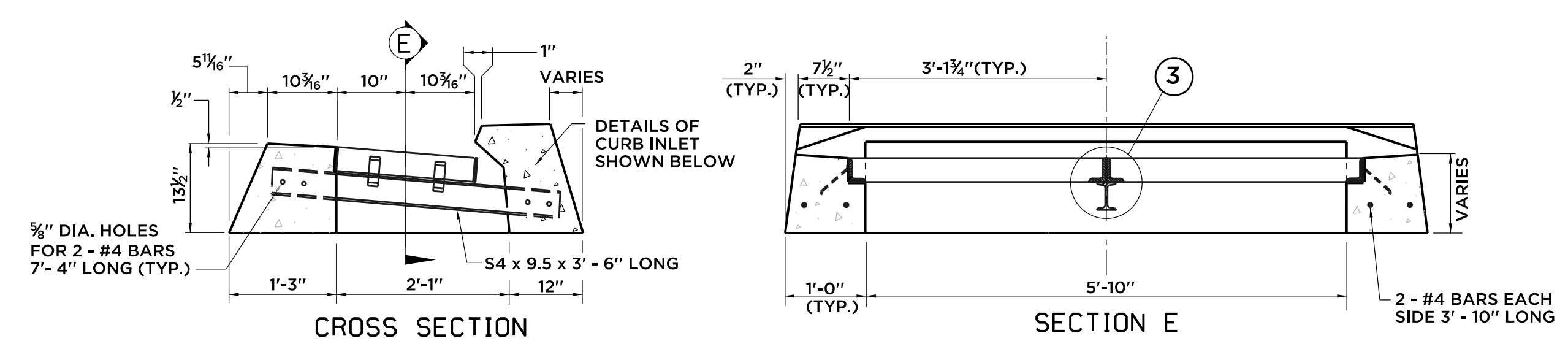
**TYPE "C" CATCH BASIN DOUBLE GRATE - TYPE II**

NOT TO SCALE



**INLET WITH 6" BITUMINOUS CONCRETE LIP CURBING FOR TYPE "C" CB DOUBLE GRATE TYPE II**

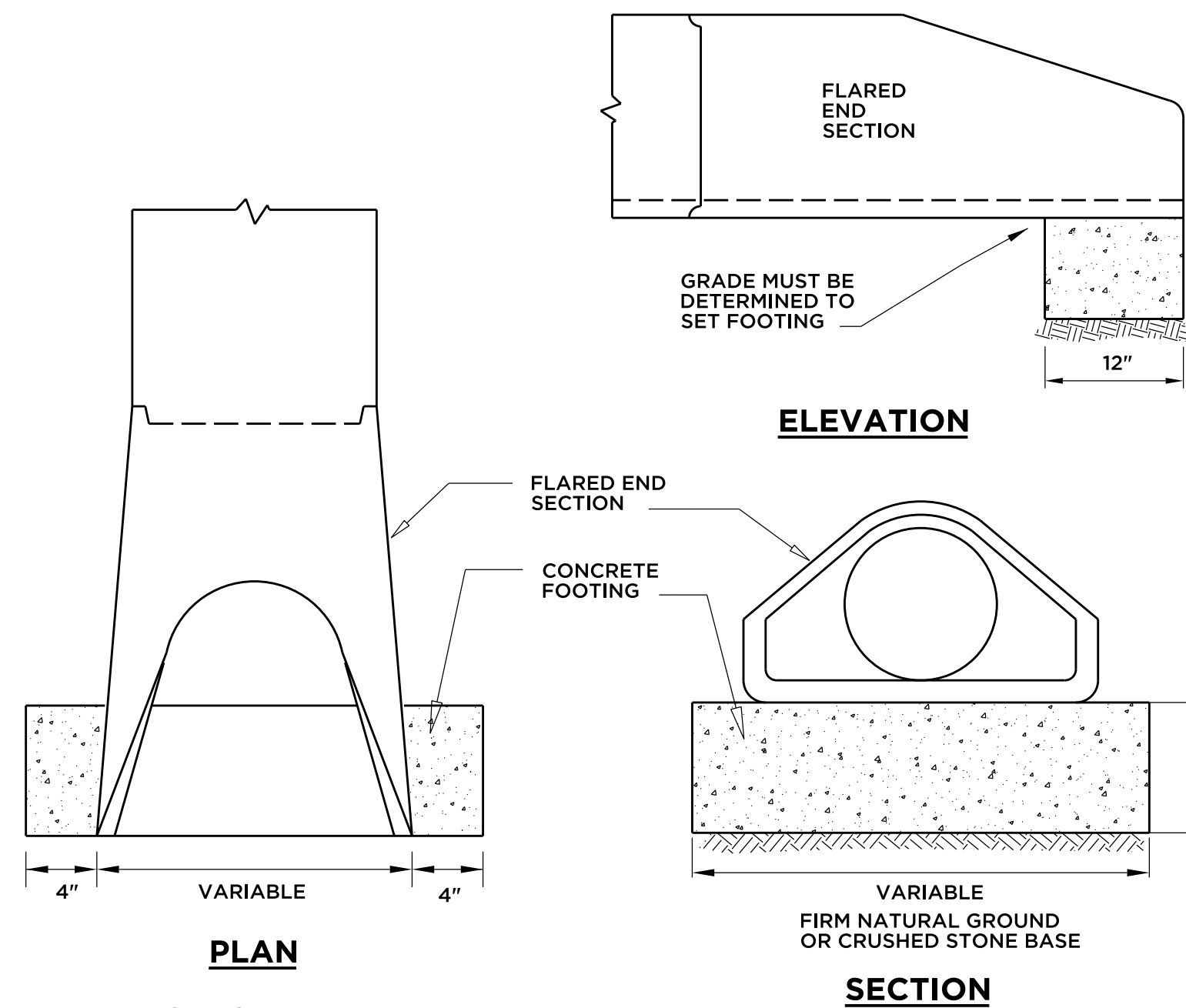
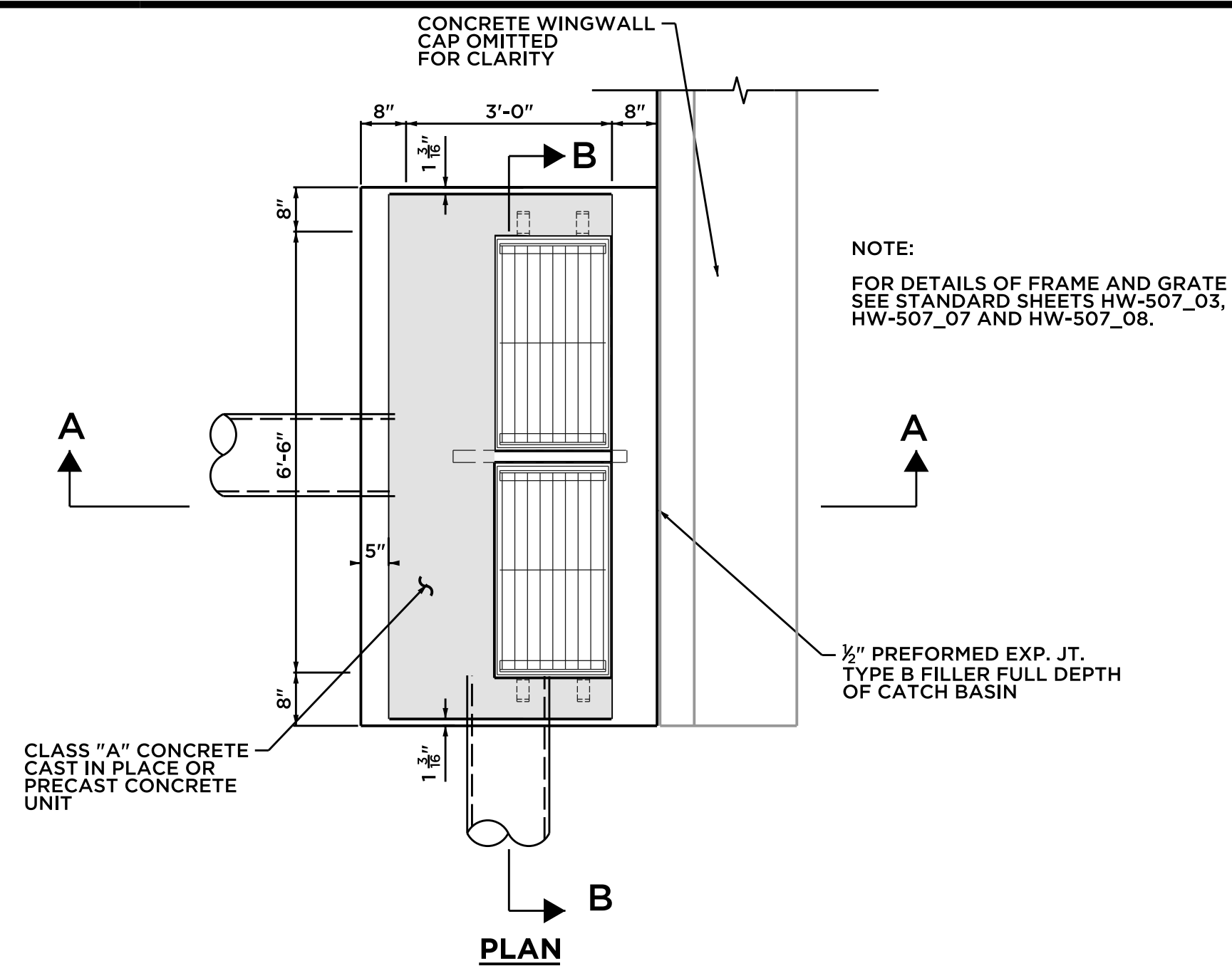
NOT TO SCALE



**TYPE "C" CATCH BASIN DOUBLE GRATE - TYPE II TOP**

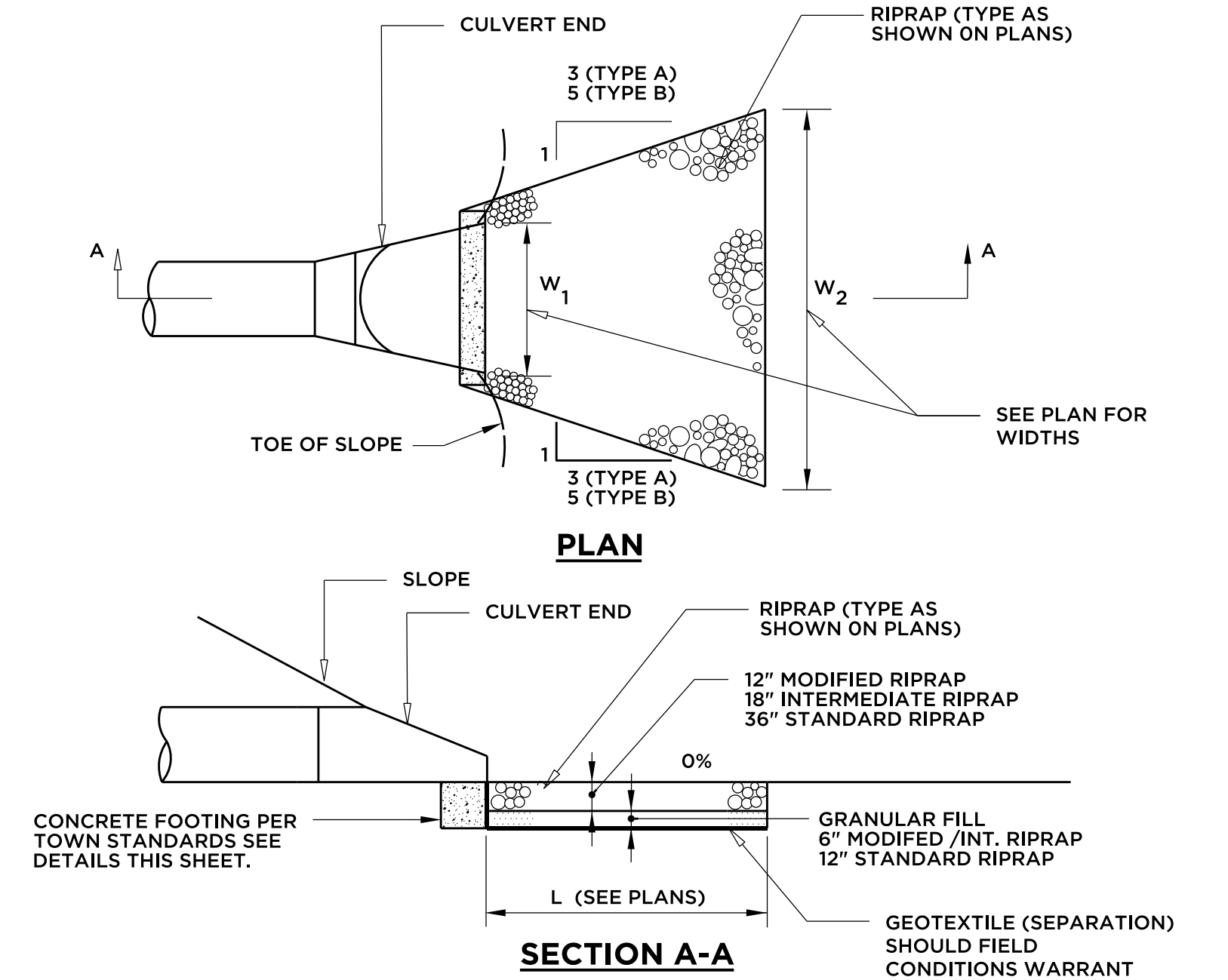
NOT TO SCALE

<p><b>ANCHOR</b> ENGINEERING SERVICES, INC.</p> <p>41 Sequin Drive Glastonbury, CT 06033 Phone: (860) 633-5970 Fax: (860) 633-5971 www.anchorengr.com</p>		<p>PROJ. ENGINEER DPL/PL</p> <p>PROJ. MANAGER TJY</p> <p>OFFICE REVIEW TJY</p>	
		<p>TOWN OF GLASTONBURY</p> <p>REPLACEMENT OF ADDISON ROAD BRIDGE OVER SALMON BROOK</p> <p>STORM SEWER DETAILS</p>	
<p>REVISIONS</p>		<p>GLASTONBURY CONNECTICUT</p>	<p>PROJECT DATE SHEET NO. OF</p> <p>075-22 2/01/12 3 OF 32</p>
<p>SCALE: NOT TO SCALE</p>		<p>SCALE: NOT TO SCALE</p>	



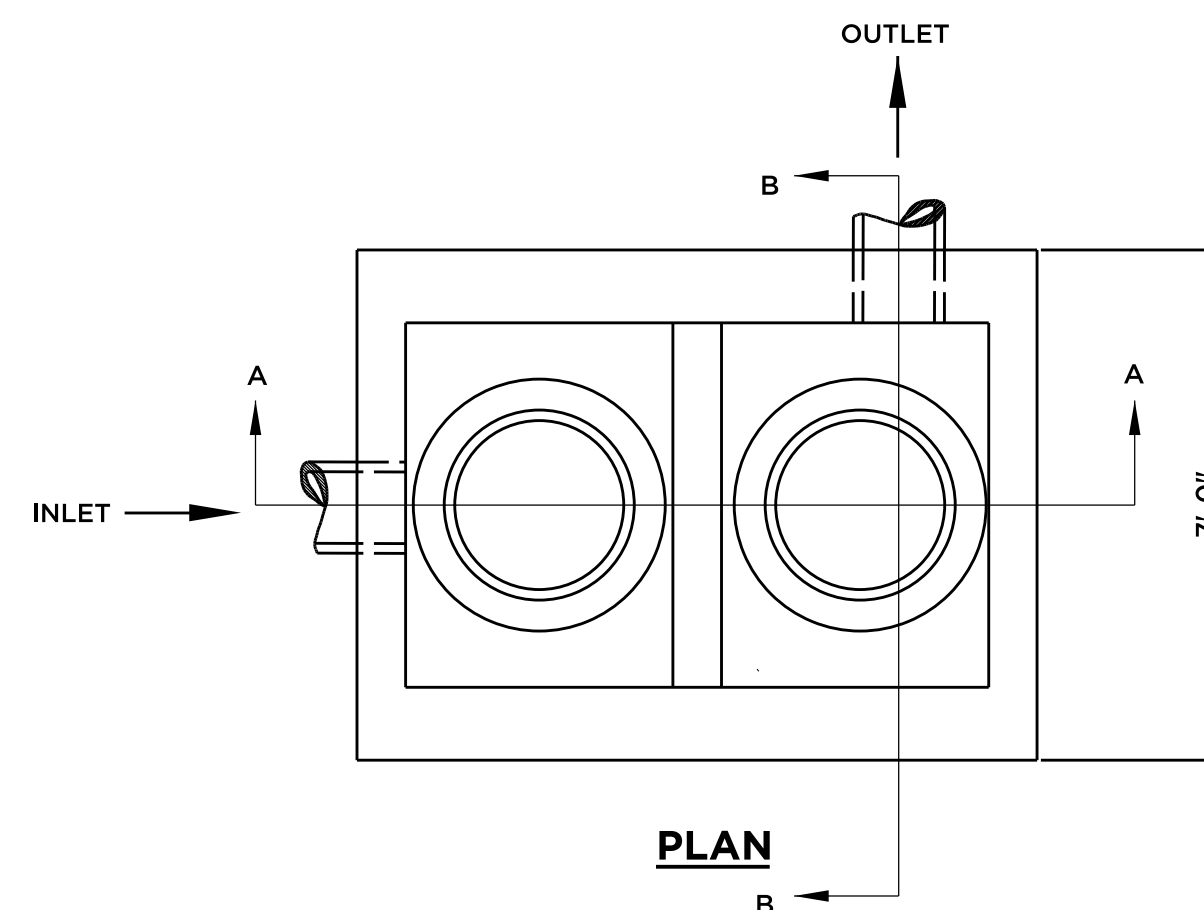
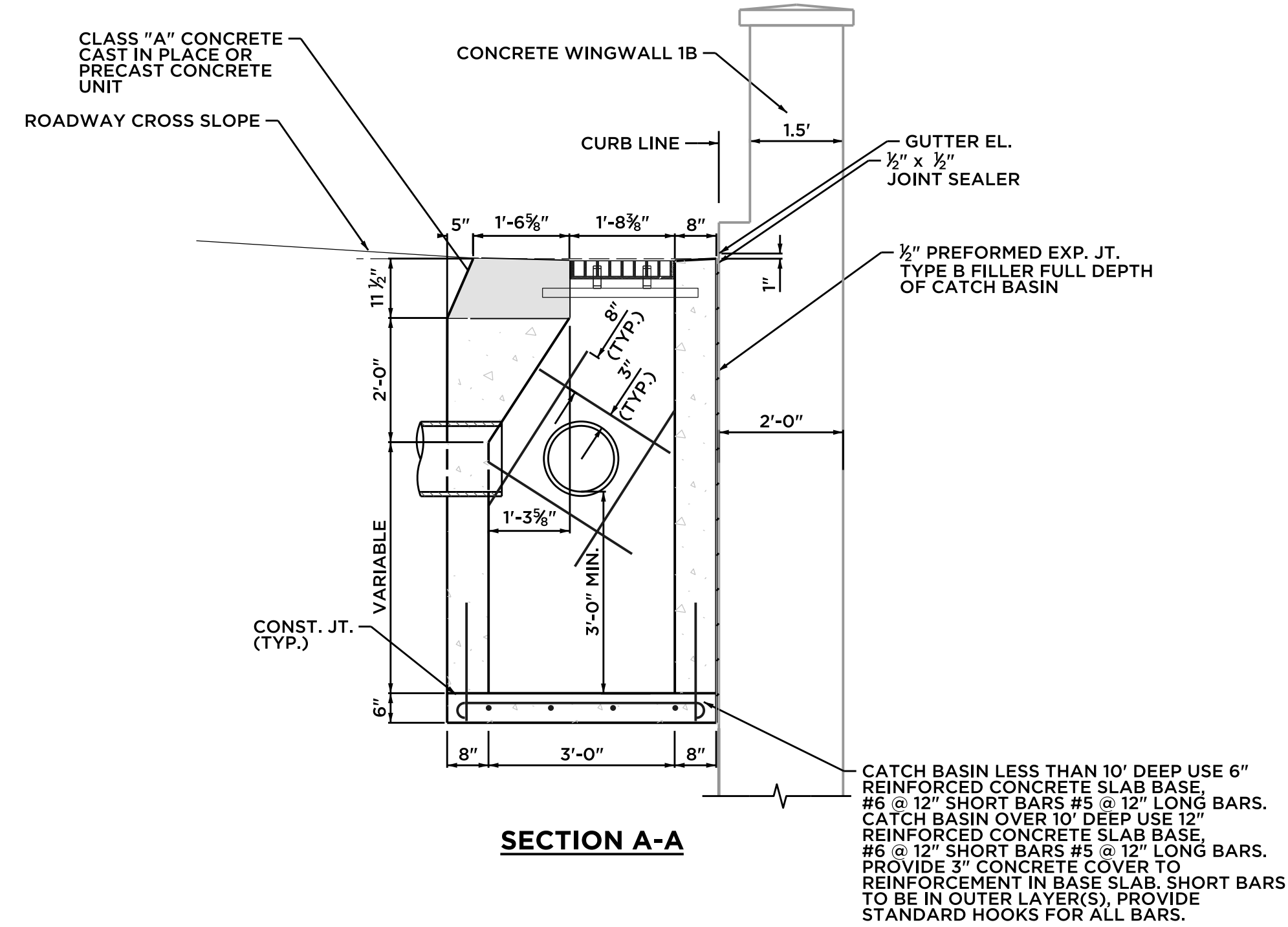
- NOTES:**
1. FOOTING BASE MAY BE CONSTRUCTED OF CAST IN PLACE CONCRETE OR PRECAST C.B. BLOCKS SET LEVEL WITH FULL MORTARED JOINT.
  2. THE FOOTING SHALL BE USED ON BOTH INLET AND OUTLET SECTIONS, THE PRIME FUNCTION IS TO PREVENT EROSION AND SETTLEMENT.
  3. THE COST OF CONCRETE FOOTING SHALL BE INCLUDED IN THE CONTRACT UNIT COST OF FLARED END SECTION.

**CONCRETE FOOTING FOR FLARED END SECTION**  
NOT TO SCALE

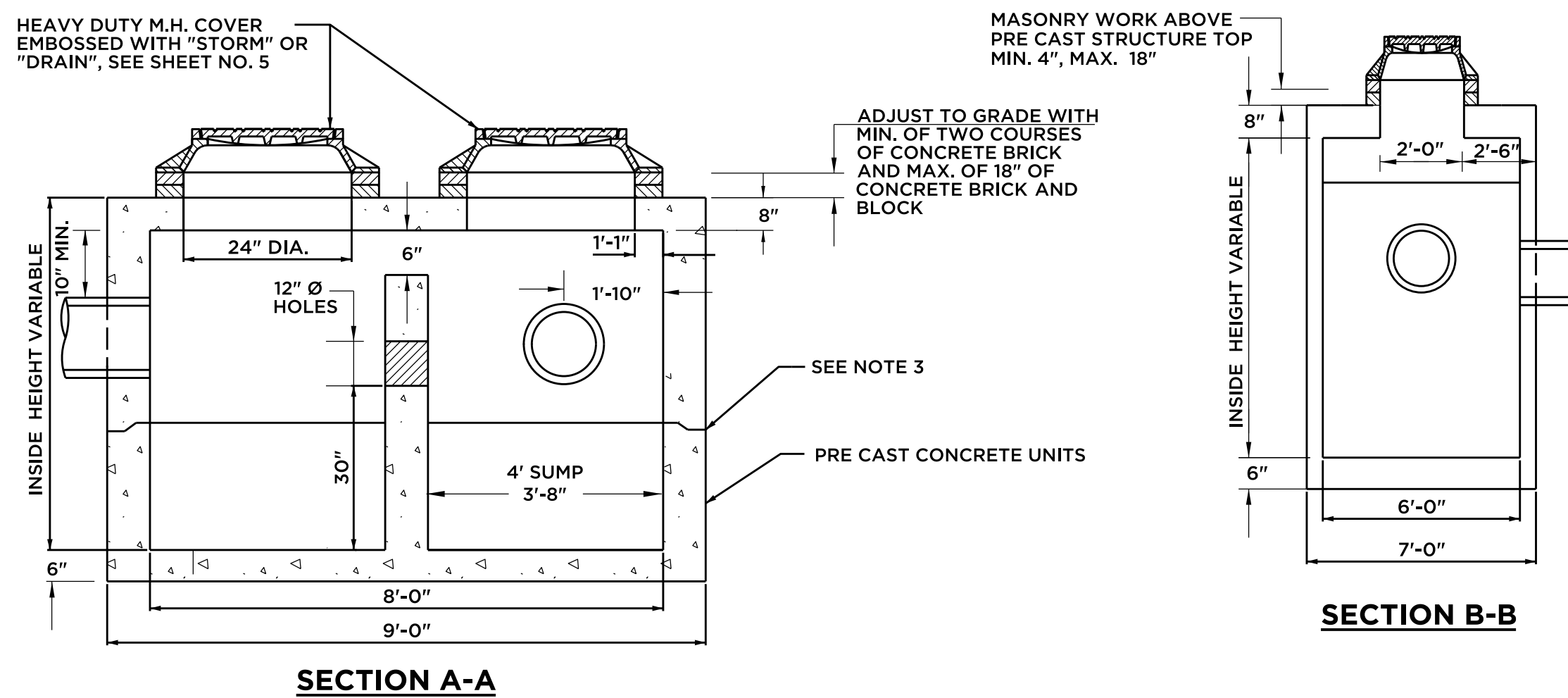


- NOTES:**
1. DETAIL TO BE USED FOR OUTFALLS WHERE NO WELL DEFINED CHANNEL EXISTS.
  2. APRON DIMENSIONS TO BE COMPUTED PER SECTION 11.13 OF CONDOT DRAINAGE MANUAL.
  3. TYPE B SHALL BE USED FOR LOCATIONS WHERE TAILWATER > 1/2 PIPE DIAMETER.

**RIPRAP APRON TYPE A & B**  
NOT TO SCALE

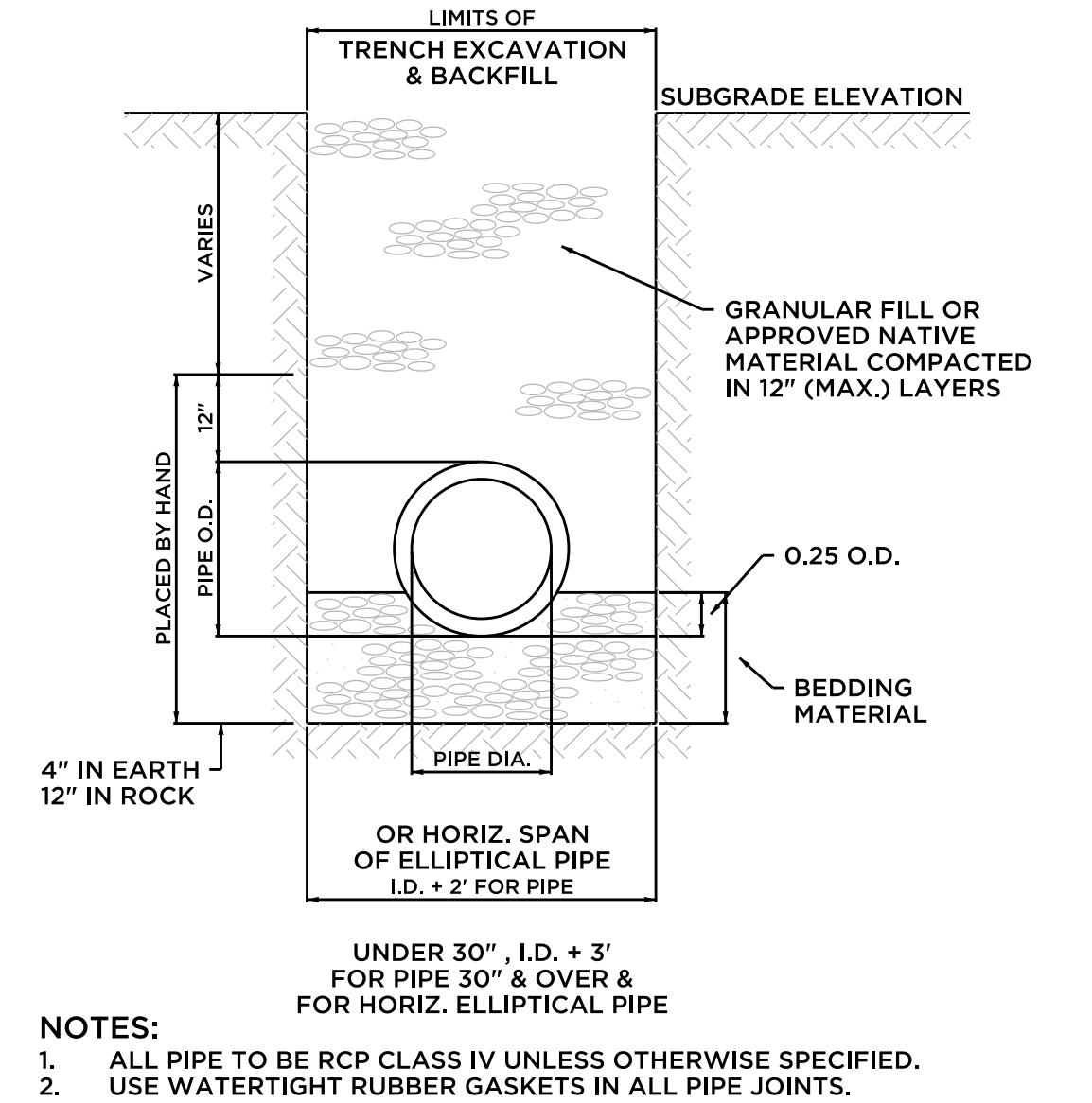


- NOTES:**
1. BAFFLE CONSTRUCTION TO BE CAST MATERIAL WITH THRU HOLES ABOVE OUTLET FLOW LINE OR MORTARED CEMENT BLOCKS WITH WEEP HOLES OUTLET FLOW LINE.
  2. ADJUST M.H. FRAME TO SUIT REQUIRED FIELD HEIGHT.
  3. CONSTRUCTION JOINT - SEALED WITH 1" DIA. BUTYL RUBBER OR ACCEPTABLE EQUIVALENT.
  4. DESIGN LOADING - AASHTO HS20-44.
  5. STEEL REINFORCEMENT - ASTM A-615, GRADE 60, 2" MIN. COVER.
  6. CONCRETE MINIMUM STRENGTH - 5,000 P.S.I. @ 28 DAYS.
  7. MAXIMUM HEIGHT OF EACH ADDITIONAL PIECE 4'-0".
  8. MAXIMUM INSIDE HEIGHT FOR 2 PIECE CHAMBER 8'-0".
  9. ROOF AND SIDE WALL OPENINGS AS SPECIFIED.



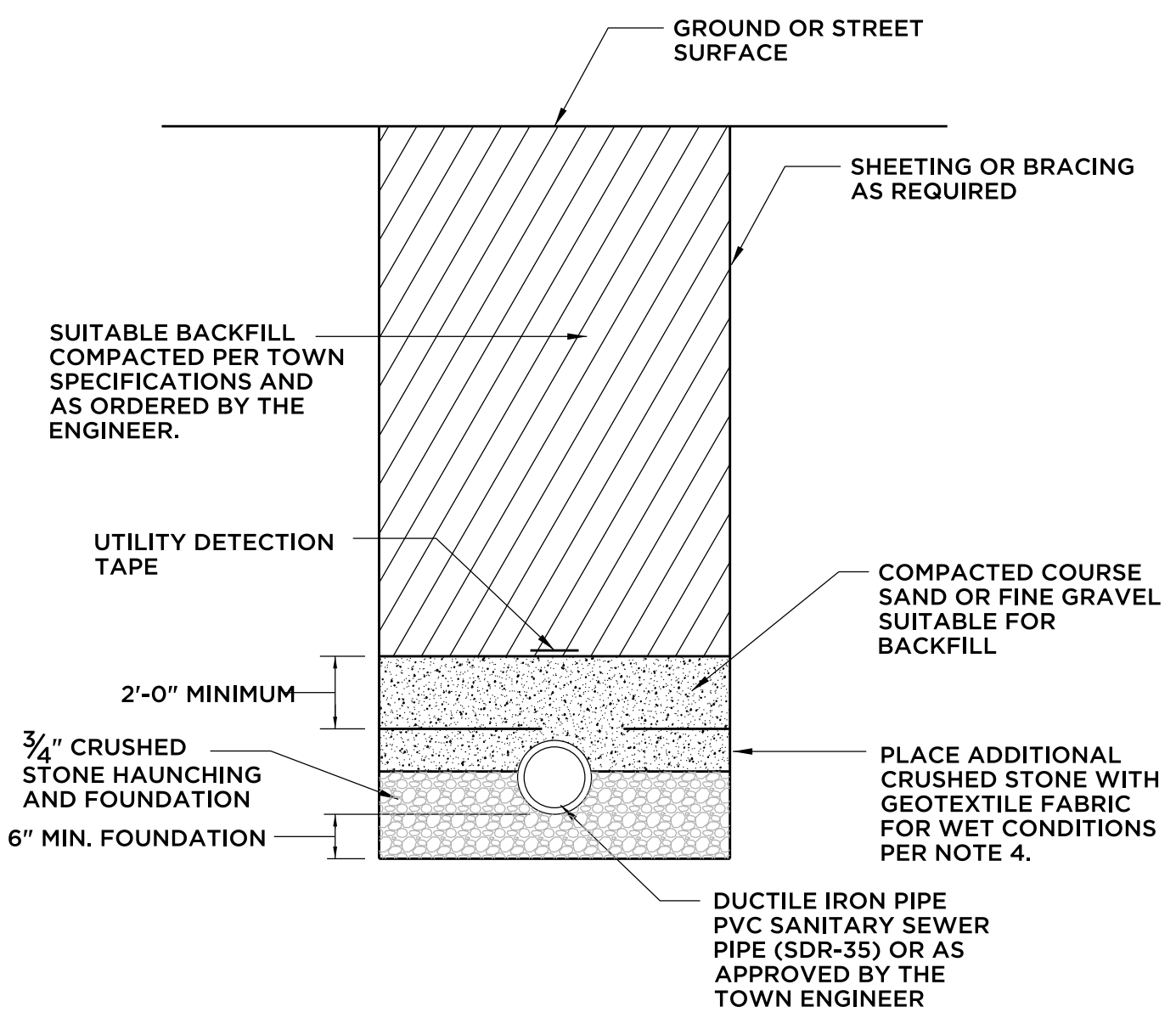
**SEDIMENTATION STRUCTURE**  
NOT TO SCALE

**TYPE "C-M" CATCH BASIN DOUBLE GRATE TYPE II  
ADJACENT TO WINGWALL 1B**  
NOT TO SCALE



**TRENCHING AND BACKFILLING**  
NOT TO SCALE

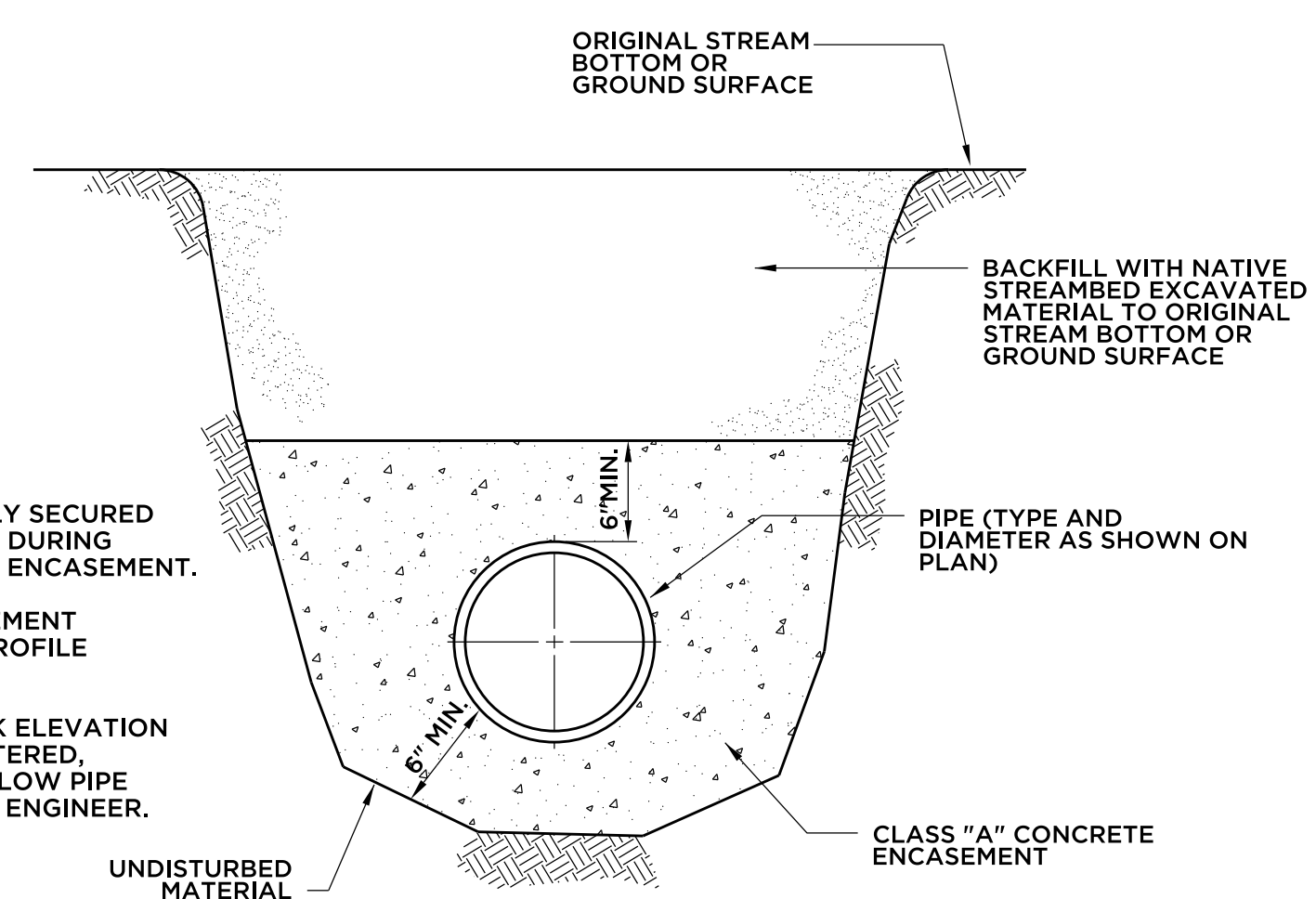
<p><b>ANCHOR</b> ENGINEERING SERVICES, INC.</p> <p>41 Sequin Drive Glastonbury, CT 06033 Phone: (860) 633-9370 Fax: (860) 633-5971 www.anchorengr.com</p>		<p>PROJ. ENGINEER DPL/PL</p> <p>PROJ. MANAGER TJY</p> <p>OFFICE REVIEW TJY</p>	
		<p>REVISIONS</p>	
<p>PROJECT 075-22</p> <p>DATE 2/01/12</p> <p>SCALE: NOT TO SCALE</p>		<p>TOWN OF GLASTONBURY</p> <p>REPLACEMENT OF ADDISON ROAD BRIDGE OVER SALMON BROOK</p> <p><b>STORM SEWER DETAILS</b></p> <p>GLASTONBURY CONNECTICUT</p> <p>SHEET NO. 4 OF 32</p>	



- NOTES:**
1. CRUSHED STONE FOUNDATION  $\frac{3}{4}$ " MAXIMUM SIZE, SHALL BE PLACED 6" UNDER PIPE AND UP TO THE PIPE GRADE, THE PIPE LAID THEREON, AND THE CRUSHED STONE PULLED AGAINST THE PIPE SIDES TO FIRMLY HOLD THE PIPE IN PLACE.
  2. CRUSHED STONE HAUNCHING,  $\frac{3}{4}$ " MAXIMUM SIZE, SHALL BE BROUGHT TO A MINIMUM OF HALF WAY UP THE PIPE AND OUT TO THE TRENCH WALL AT THIS ELEVATION FOR ALL PIPE.
  3. ALL COSTS FOR THIS CRUSHED STONE SHALL BE INCLUDED IN THE PRICE BID FOR SANITARY SEWER OR SANITARY SEWER LATERAL.
  4. WHEN PIPE IS LAID IN A WET OR SILTY CONDITIONS, THE CONTRACTOR SHALL EXTEND CRUSH STONE TO THE TOP OF SEWER PIPE AND WRAP ALL OF THE CRUSHED STONE WITH AN ACCEPTABLE GEOTEXTILE FABRIC.

**TYPICAL TRENCHING FOR SANITARY SEWERS**

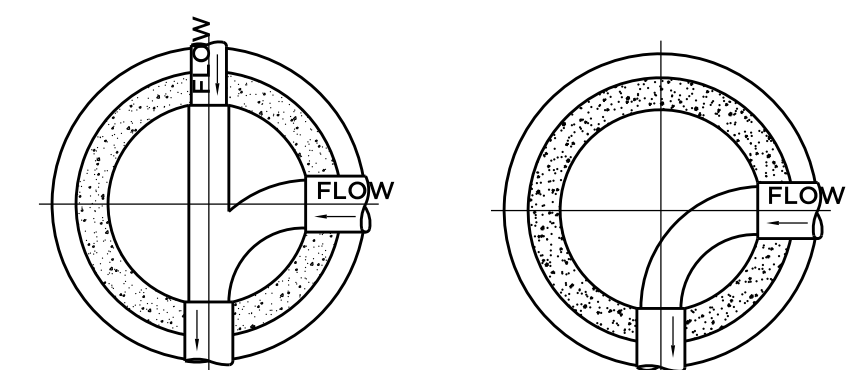
NOT TO SCALE



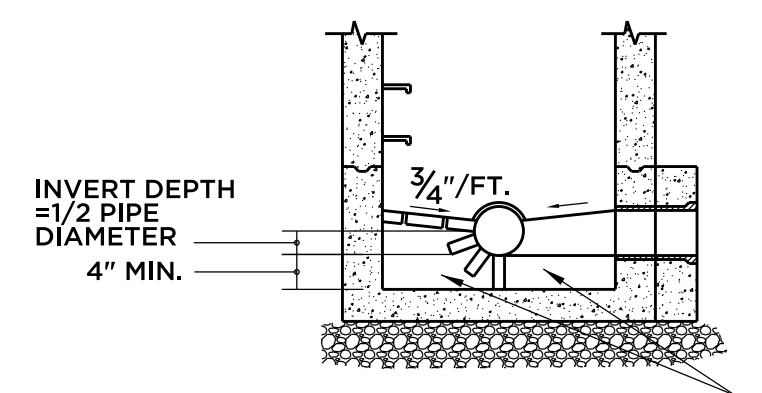
- NOTES:**
1. THE PIPE SHALL BE PROPERLY SECURED TO PREVENT DISPLACEMENT DURING THE POURING OF CONCRETE ENCASEMENT.
  2. LIMIT OF CONCRETE ENCASEMENT SHALL BE SHOWN ON THE PROFILE OR AS DIRECTED.
  3. APPROXIMATE TOP OF ROCK ELEVATION IS 82.0. IF ROCK IS ENCOUNTERED, CONCRETE ENCASEMENT BELOW PIPE MAY BE ELIMINATED BY THE ENGINEER.

**CONCRETE ENCASEMENT FOR SANITARY SEWER**

NOT TO SCALE



**HORIZONTAL SECTIONS OF MANHOLE BASE**

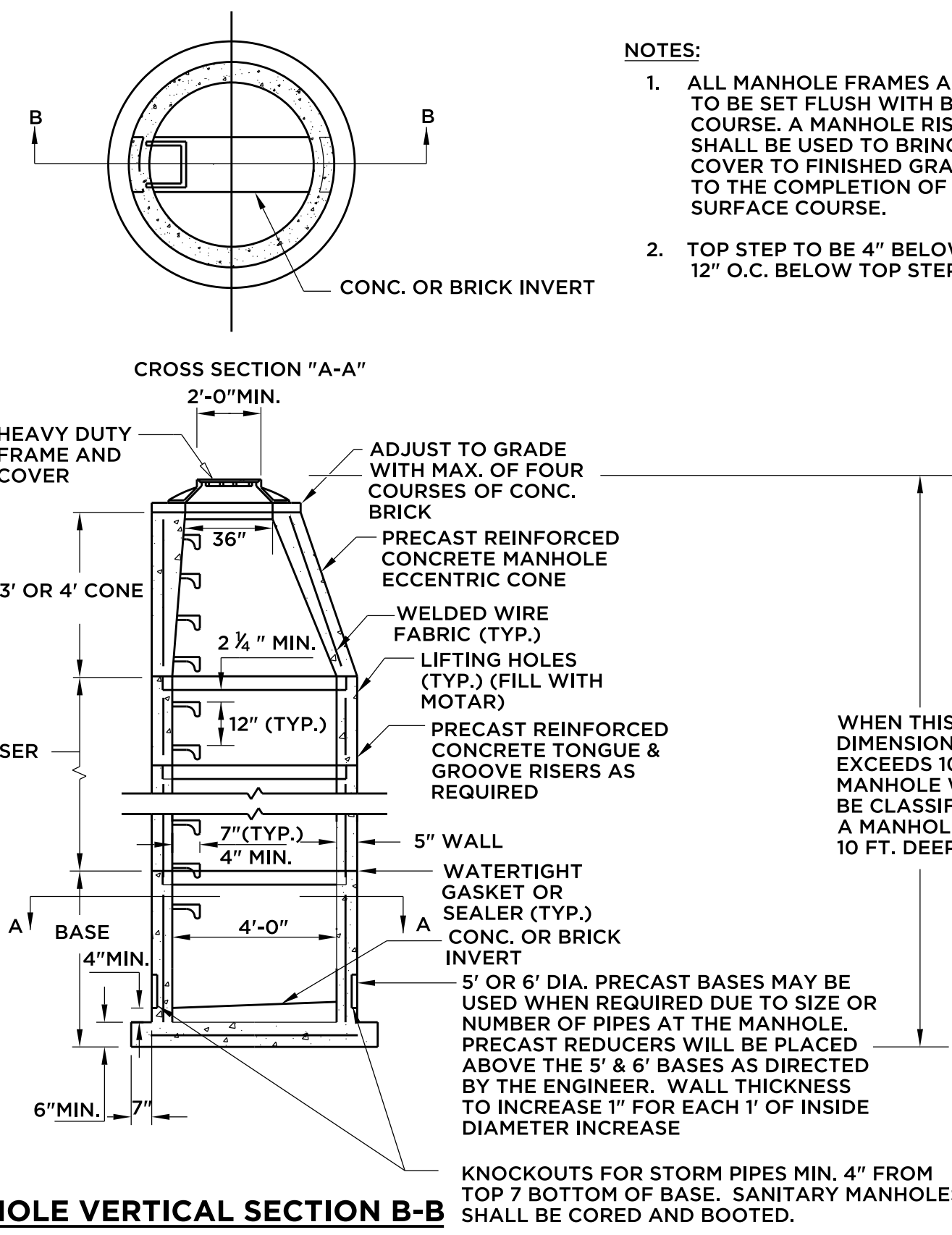


**VERTICAL - SECTION THRU MANHOLE**

**MANHOLE INVERTS**

NOT TO SCALE

- NOTES:**
1. THE SURFACE OF THE WATER TABLE SHALL BE SEWER BRICKS LAID FLAT AND RUNNING PARALLEL TO THE CHANNEL - WITH A MINIMUM CROSS SLOPE OF  $\frac{3}{4}$ "/FT.
  2. THE BRICKS THAT FORM THE CHANNEL SHALL BE LAID WITH THE SIDE OF THE BRICKS EXPOSED IN THE CHANNEL.
  3. THE TOP COURSE OF BRICKS FORMING THE CHANNEL SHALL BE LAID PERPENDICULAR TO THE CHANNEL.
  4. THERE SHALL BE A SMOOTH TRANSITION FROM INLET TO OUTLET.

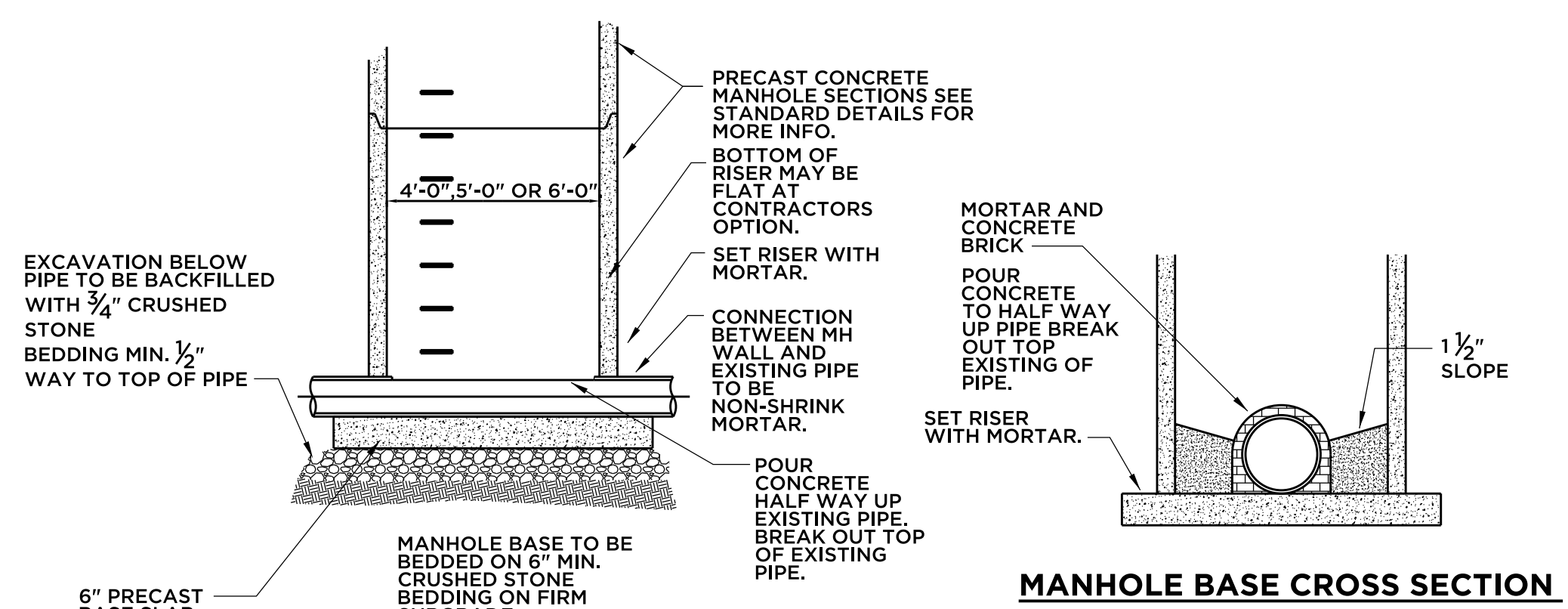


- NOTES:**
1. ALL MANHOLE FRAMES AND COVERS TO BE SET FLUSH WITH BINDER COURSE. A MANHOLE RISER RING SHALL BE USED TO BRING MANHOLE COVER TO FINISHED GRADE PRIOR TO THE COMPLETION OF THE FINAL SURFACE COURSE.
  2. TOP STEP TO BE 4" BELOW FRAME, 12" O.C. BELOW TOP STEP.

**MANHOLE VERTICAL SECTION B-B**

**PRECAST CONCRETE MANHOLE**

NOT TO SCALE

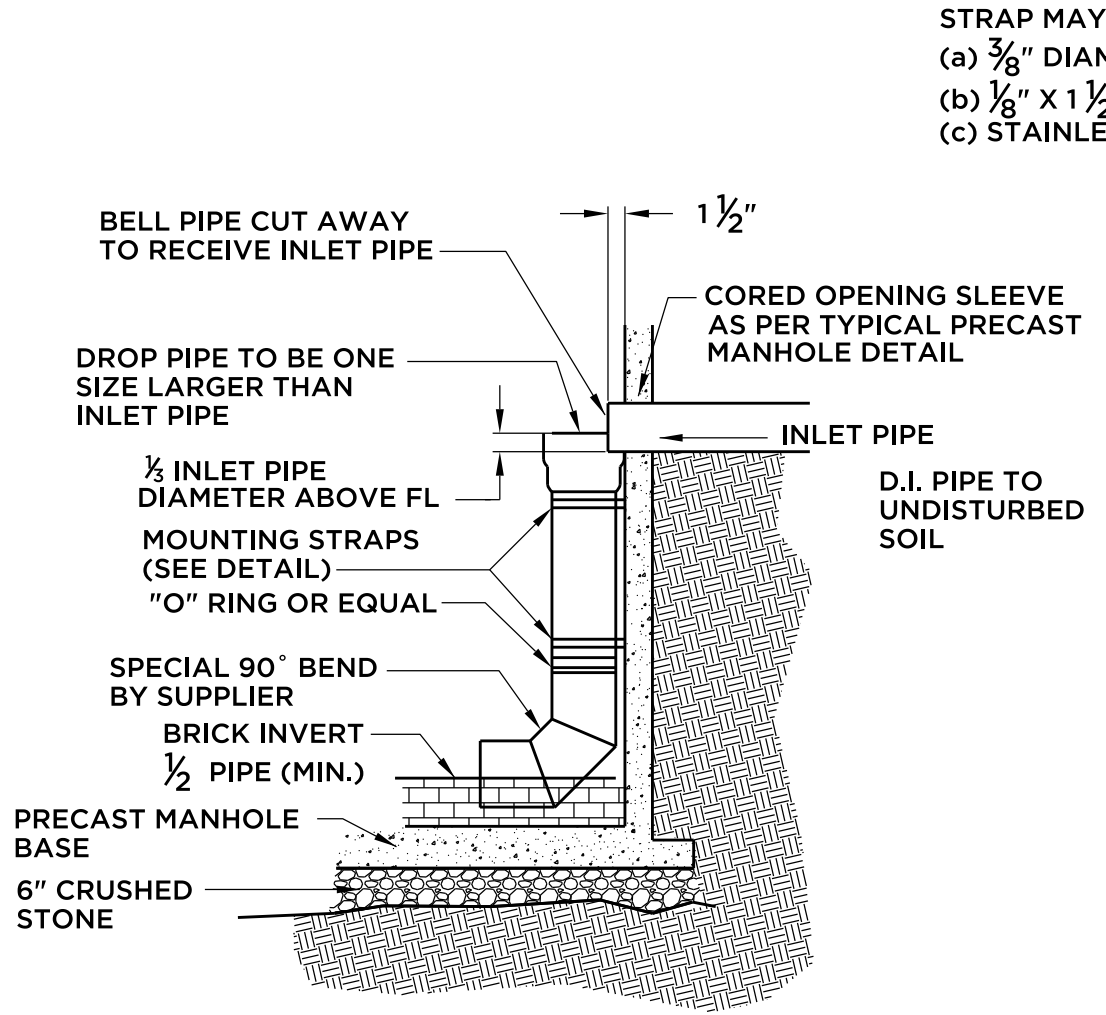


**MANHOLE BASE LONGITUDINAL SECTION**

**MANHOLE BASE CROSS SECTION**

**PRECAST MANHOLE ON EXISTING PIPE**

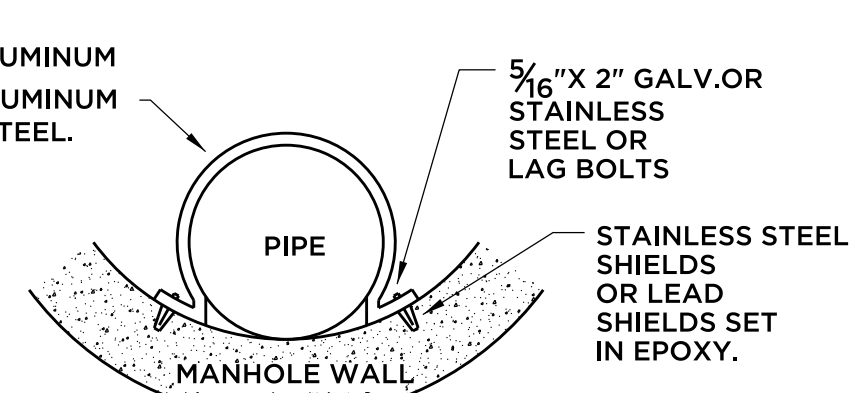
NOT TO SCALE



- NOTES:**
1. DROPS OVER 18" IN HEIGHT SHALL USE INSIDE DROP.

**INSIDE DROP FOR SANITARY MANHOLE**

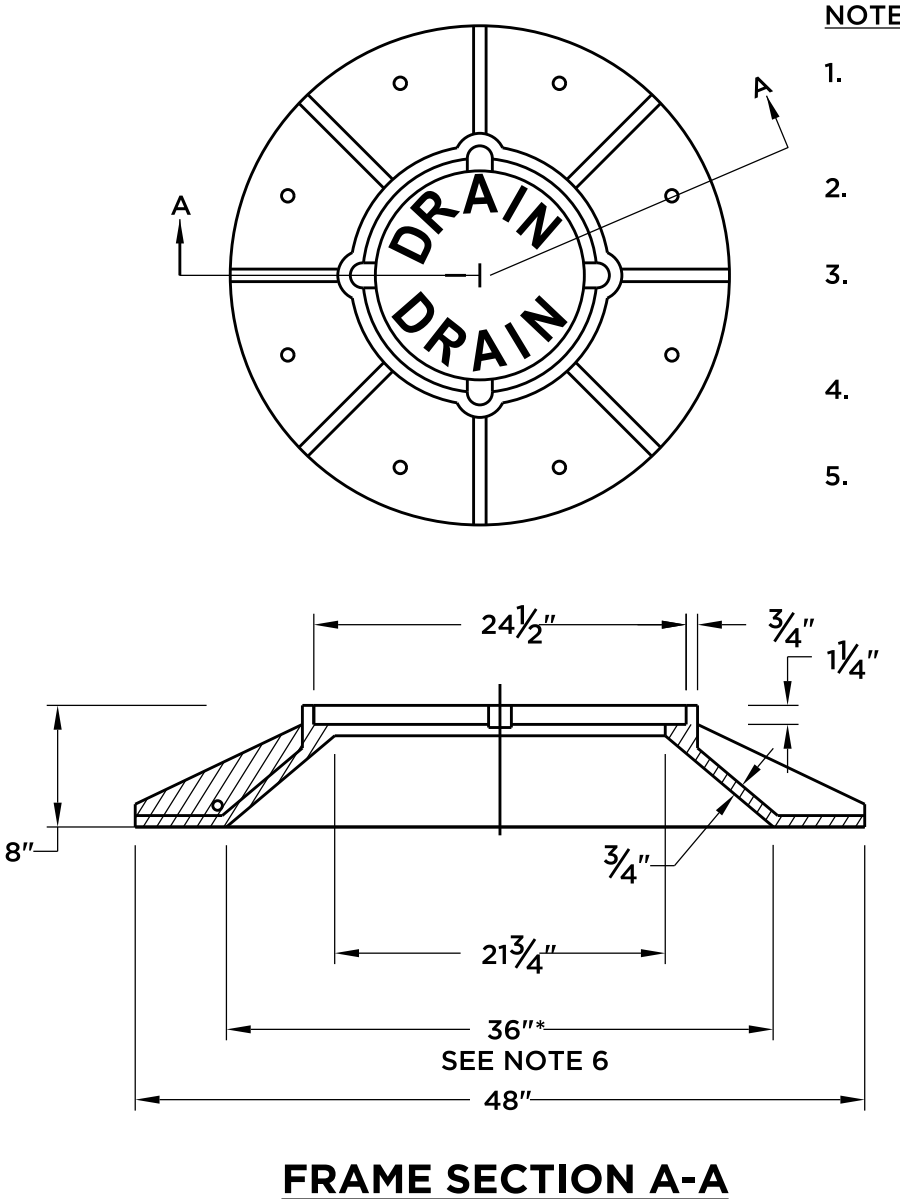
NOT TO SCALE



**STRAP DETAIL**

**NUMBER OF STRAPS REQUIRED**

HEIGHT OF DROP	STRAPS
UP TO 6'	2
6' TO 9'	3
9' TO 12'	4
12' TO 15'	5
15' TO 18'	6
18' TO 21'	7

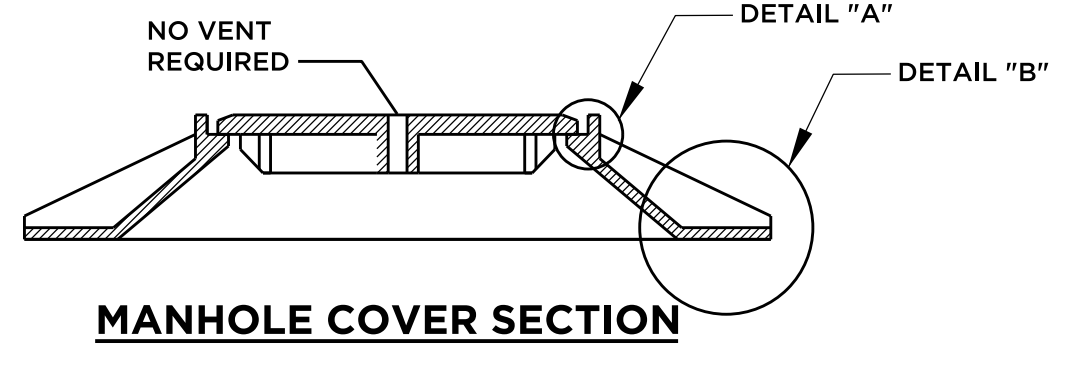


**FRAME SECTION A-A**

**COVER SECTION A-A**

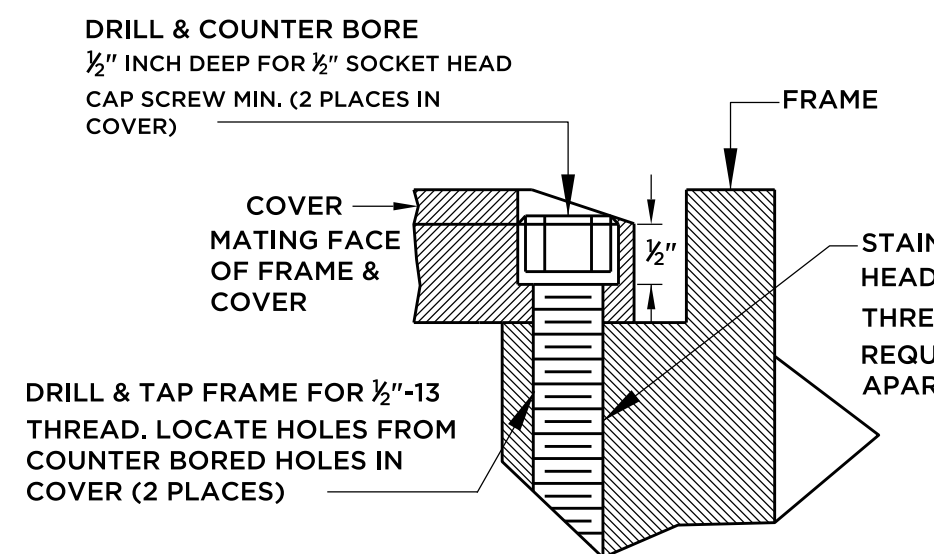
NOT TO SCALE

**MANHOLE FRAME AND COVER**



**MANHOLE COVER SECTION**

**DETAIL "B" ANCHORING FRAME TO MANHOLE**



**DETAIL "A" BOLTED COVER**

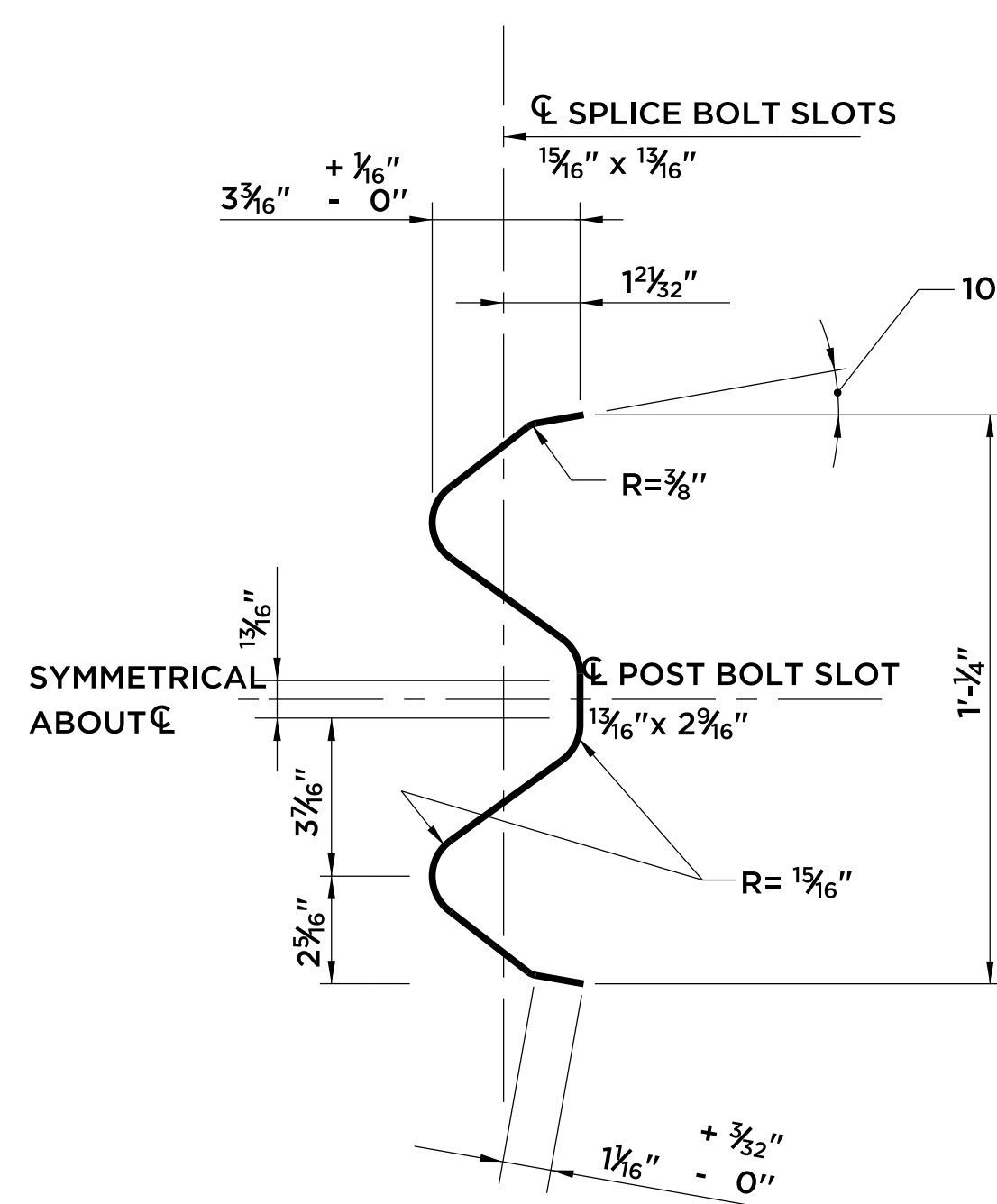
**BOLTED MANHOLE FRAME AND COVER**

NOT TO SCALE

- NOTES:**
1. BOLTED FRAME & COVER SHALL BE INSTALLED IN OFF-ROAD AREAS
  2. EACH FRAME & COVER SET WILL BE MARKED FOR IDENTIFICATION TO INSURE THAT THE PROPER COVER IS INSTALLED WITH ITS DRILLED AND TAPPED FRAME THE COVER IS NOT TO BE TAPPED.
  3. BOLTED FRAME AND COVER SHALL BE FURNISHED WITH AN APPROVED RUBBER GASKET.
  4. WHEN MANHOLES ARE TO BE LOCATED OUTSIDE OF TRAVEL WAYS AND THE TOP OF THE FRAMES ARE TO BE ABOVE TOP OF GROUND, THE MANHOLE IS TO BE BUILT WITHOUT BRICKS AND THE FRAME SHALL BE ANCHORED TO THE PRECAST MANHOLE CONE OR FLATTOP AS SHOWN.
  5. THE SEAL BETWEEN THE BASE OF THE FRAME AND THE MANHOLE WALL SHALL BE MADE WITH MORTAR.
  6. THE WORK BETWEEN THE MANHOLE FRAME AND THE PRECAST SECTION SHALL BE WATERPROOFED WITH PARING AND TWO (2) COATS OF ACCEPTABLE ASPHALT BASE COATING.

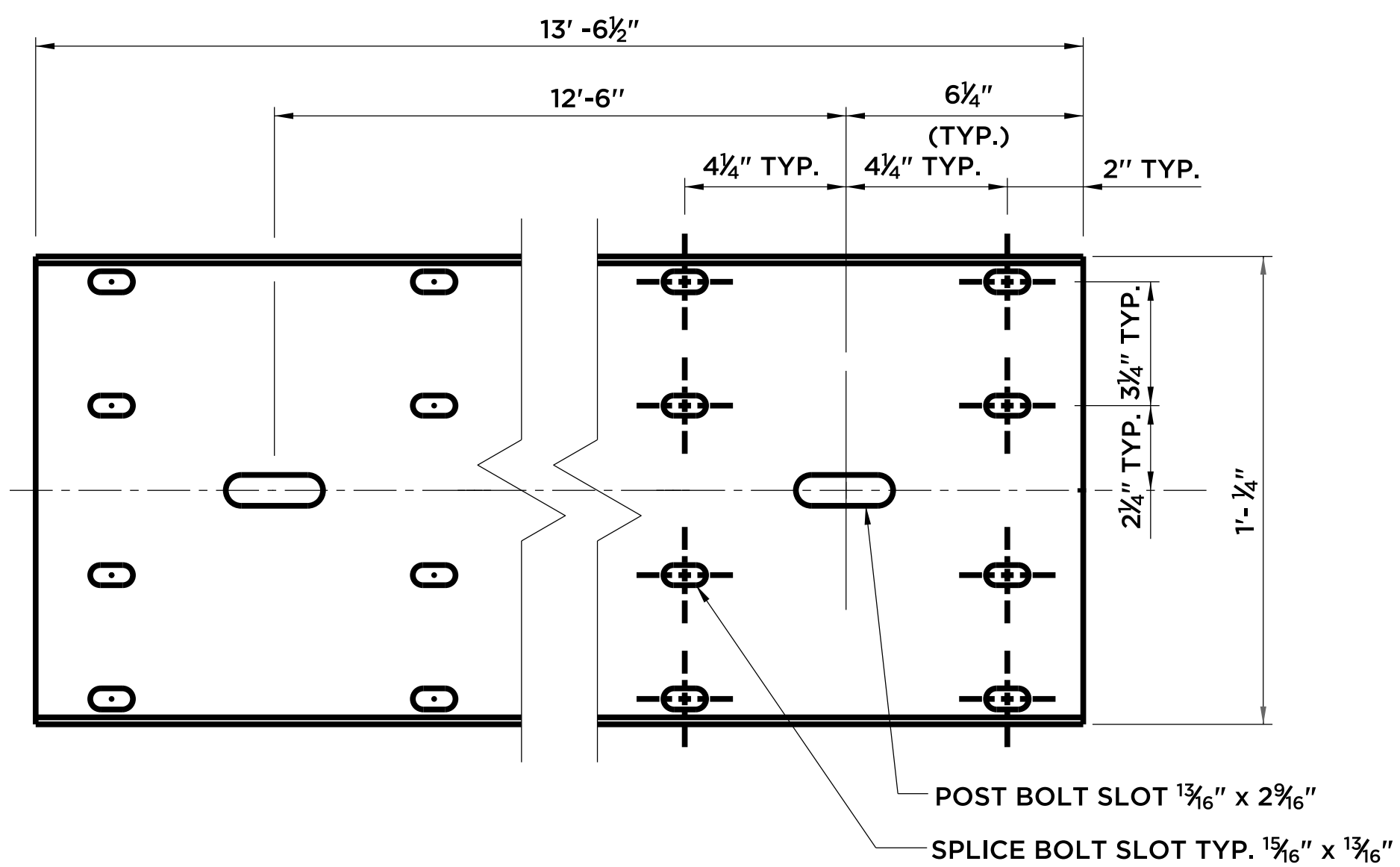
<p><b>ANCHOR</b> ENGINEERING SERVICES, INC.</p> <p>41 Sequin Drive Glastonbury, CT 06033 Phone: (860) 633-9370 Fax: (860) 633-5971 www.anchorengr.com</p>		<p>PROJ. ENGINEER DPL/PL</p> <p>PROJ. MANAGER TJY</p> <p>OFFICE REVIEW TJY</p>	
		<p>REVISIONS</p>	
<p>PROJECT 075-22</p>		<p>DATE 2/01/12</p>	
<p>SCALE: NOT TO SCALE</p>		<p>SHEET NO. 5 OF 32</p>	

**TOWN OF GLASTONBURY**  
REPLACEMENT OF ADDISON ROAD BRIDGE OVER SALMON BROOK  
**SANITARY SEWER DETAILS**  
GLASTONBURY CONNECTICUT

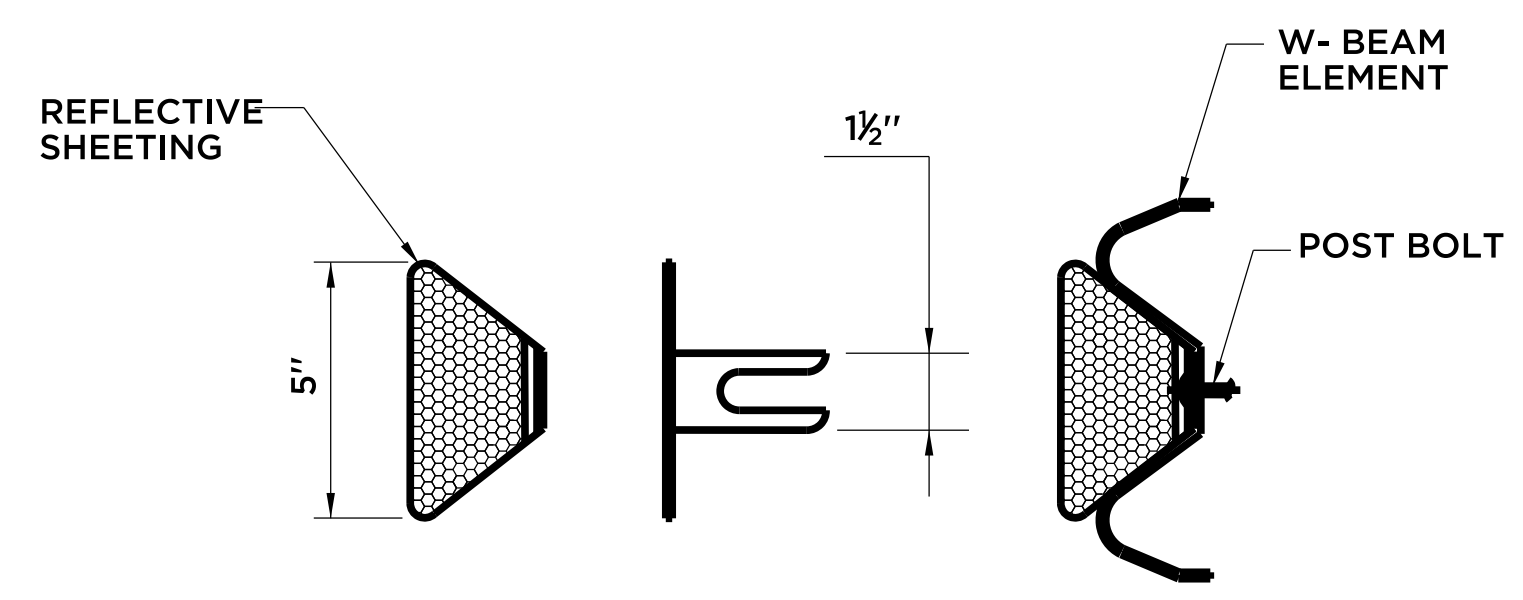


**SELECTION THRU RAIL ELEMENT  
END VIEW**

NOTE: ALL DIMENSIONS SUBJECT TO  
MANUFACTURING TOLERANCES



**TYPICAL W-BEAM RAIL ELEMENT  
CLASS A, TYPE II**



**DELINEATOR DETAIL**

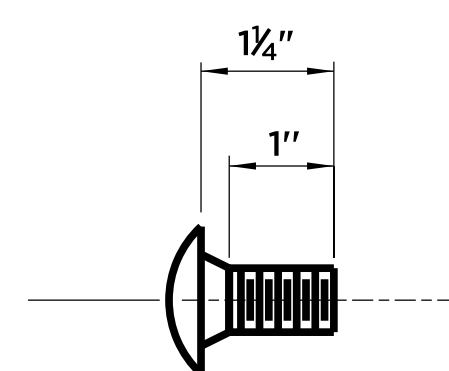
**GENERAL NOTES:**

1. NEW R-B 350 GUIDERAIL INCLUDING SYSTEMS, ANCHORS AND TRANSITIONS INSTALLED ON EXPRESSWAYS AND RAMP SHALL USE CLASS B TYPE II (10 GAUGE) W-BEAM RAIL ELEMENTS.
2. THE BOTTOM OF WEATHERING STEEL POSTS, WHEN SPECIFIED, SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A-123 TO PROVIDE A 2" EXPOSED GALVANIZED COATING ABOVE THE GROUND.
3. WHEN WEATHERING STEEL ELEMENTS AND POSTS ARE SPECIFIED ALL HARDWARE SHALL BE GALVANIZED.
4. W6x9 POSTS MAY BE USED IN PLACE OF W6 x 8.5 POSTS.
5. W8x13 POSTS, 7'-6" LONG, ARE USED WITH TRANSITIONS TO VERTICAL OR SAFETY SHAPE PARAPETS (POSTS 1 AND 2) AND SYSTEM 6.
6. W6x8.5 POSTS, 6'-0" LONG, ARE USED WITH TRANSITIONS TO VERTICAL OR SAFETY SHAPE PARAPETS (POSTS 3 THROUGH 6), MD-B 350, SYSTEM 5 & 5A, AND STANDARD R-B 350 GUIDERAIL.

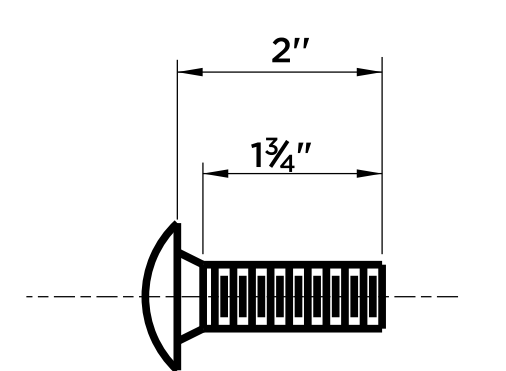
**DELINEATOR NOTES:**

1. DELINEATORS SHALL BE FORMED OF .080 POLY-CARBONATE OR .080 SHEET ALUMINUM IN ACCORDANCE WITH M.18.13.
2. REFLECTIVE SHEETING SHALL CONFORM TO M.18.09.2.
3. DELINEATORS SHALL BE INSTALLED ON THE POST CLOSEST TO THE DESIGNATED SPACING.
4. REFLECTIVE SHEETING SHALL BE WHITE EXCEPT ON THE LEFT SIDE OF DIVIDED STREETS, HIGHWAYS, RAMP, AND ONE WAY ROADS IN THE DIRECTION OF TRAVEL WHERE IT SHALL BE YELLOW.
5. INSTALL DELINEATORS ON RAIL THAT IS PARALLEL TO AND NOT GREATER THAN 6'(1829) FROM THE EDGE OF THE ROADWAY. A MINIMUM OF THREE DELINEATORS MUST BE INSTALLED ON ANY RUN OF RAIL.

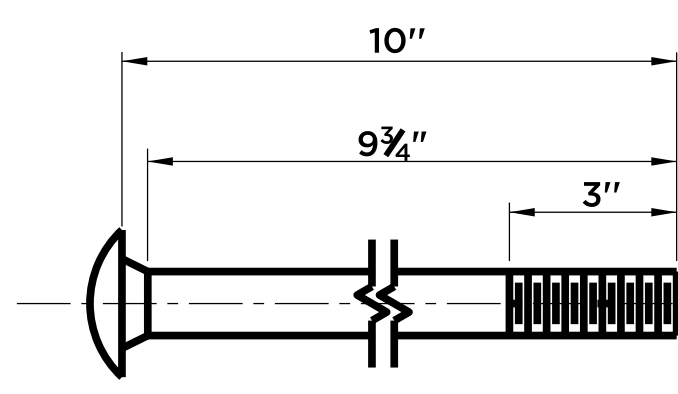
DELINEATOR SPACING:  
RADIUS > 300' - SPACE EVERY 50'  
RADIUS < 300' - SPACE EVERY 25'



**W-BEAM SPLICE  
BOLT DETAIL**

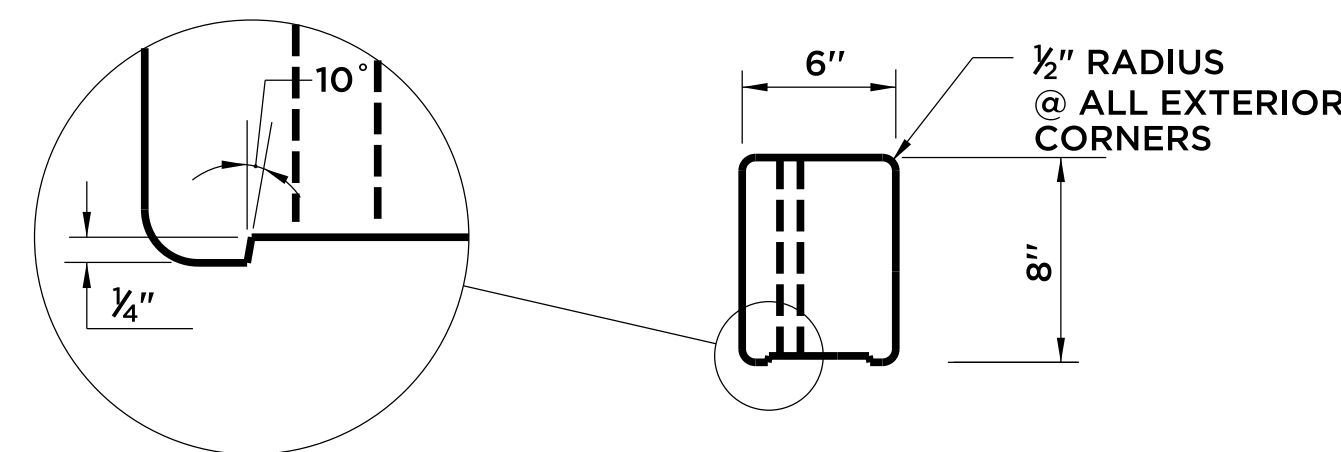


**POST BOLT DETAIL  
FOR R-B 350  
SYSTEM 6 RUBRAIL**

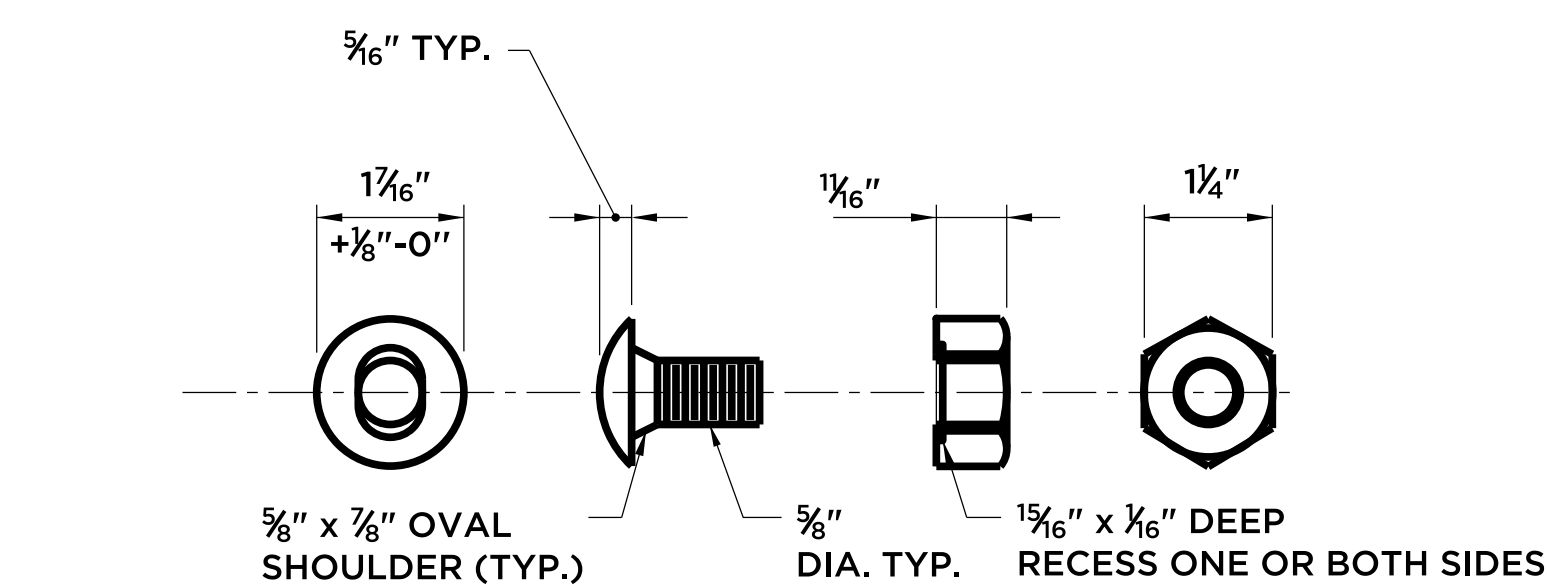
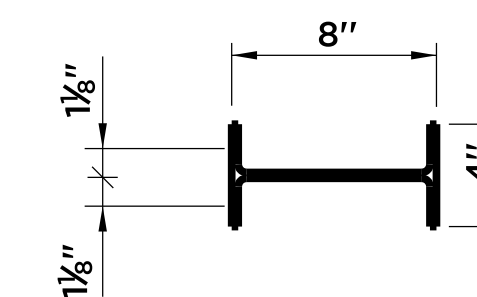
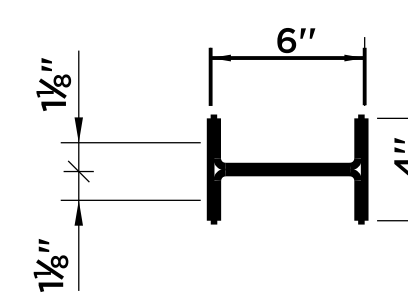


**POST BOLT DETAIL FOR R-B 350  
AND MD-B 350 GUIDERAIL**

(UNTHREADED PORTION NOT TO EXCEED 6 3/4")



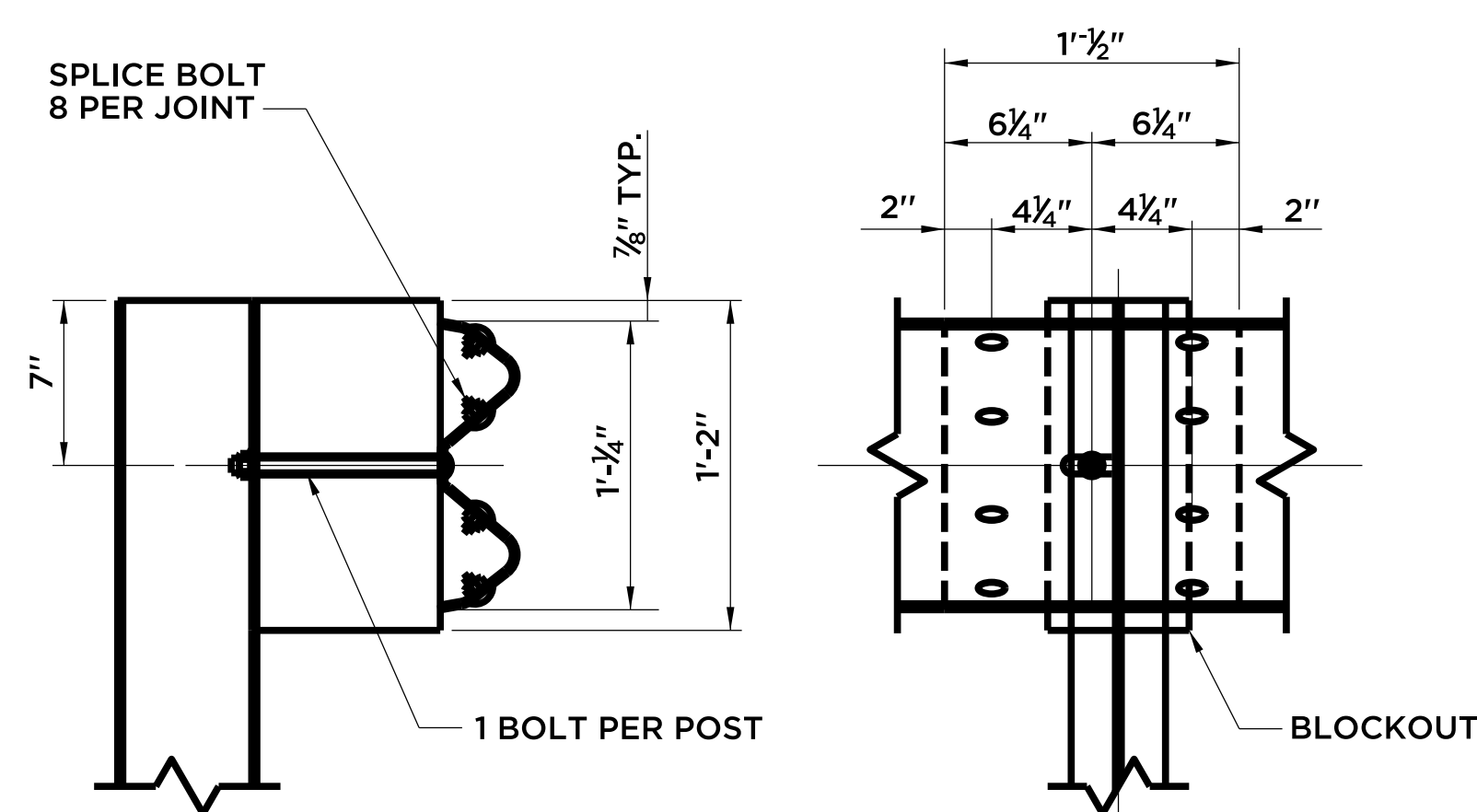
**PLAN**



**BUTTONHEAD BOLT**

**HEX NUT**

NOTE: AFTER GALVANIZING, THE NUT SHALL BE FREE RUNNING ON THE BOLT. DIAMETER SHOWN IS TYPICAL FOR ALL GUIDERAIL BOLTS. SEE DETAILS ABOVE FOR SPECIFIC LENGTHS.

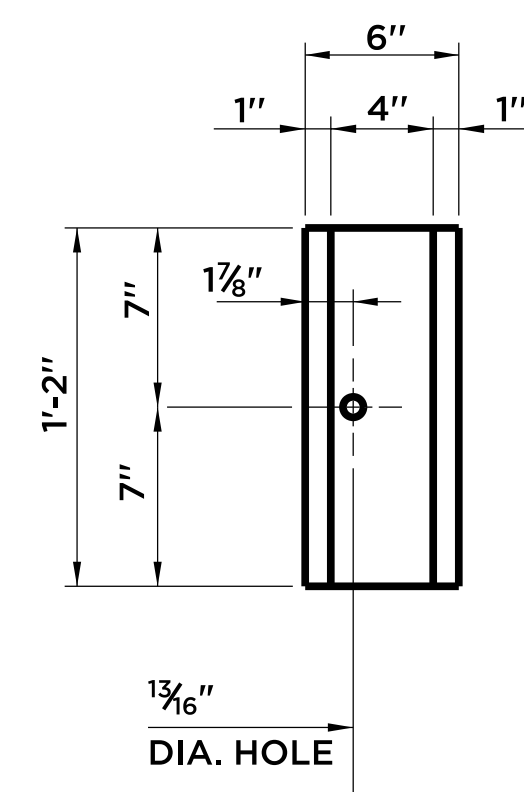


**SECTION**

**ELEVATION**

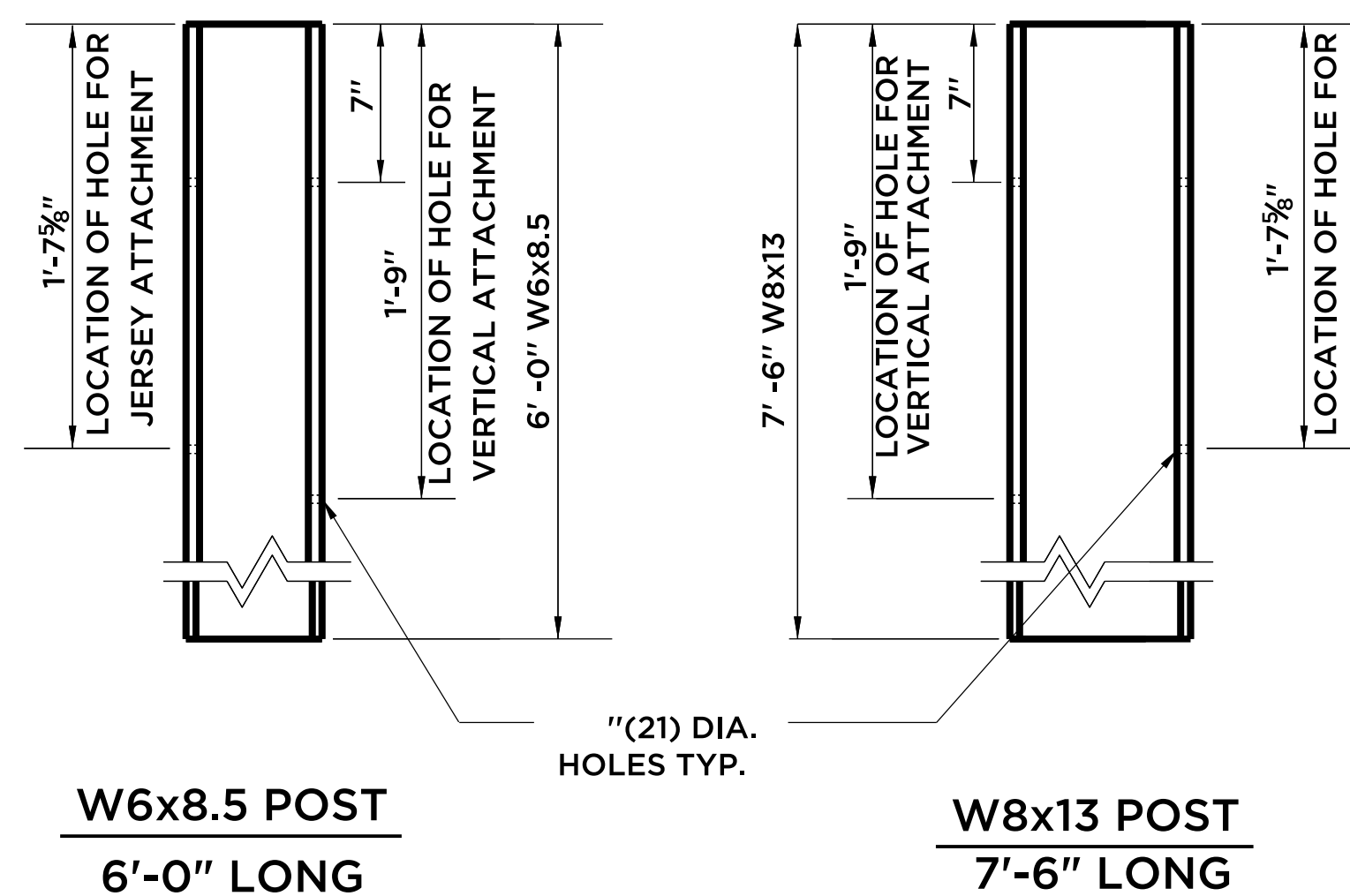
**LAP DETAIL**

NOTE:  
LAP RAIL SECTION IN DIRECTION OF TRAFFIC



**ELEVATION**

**R-B 350 PLASTIC  
BLOCKOUT DETAIL**



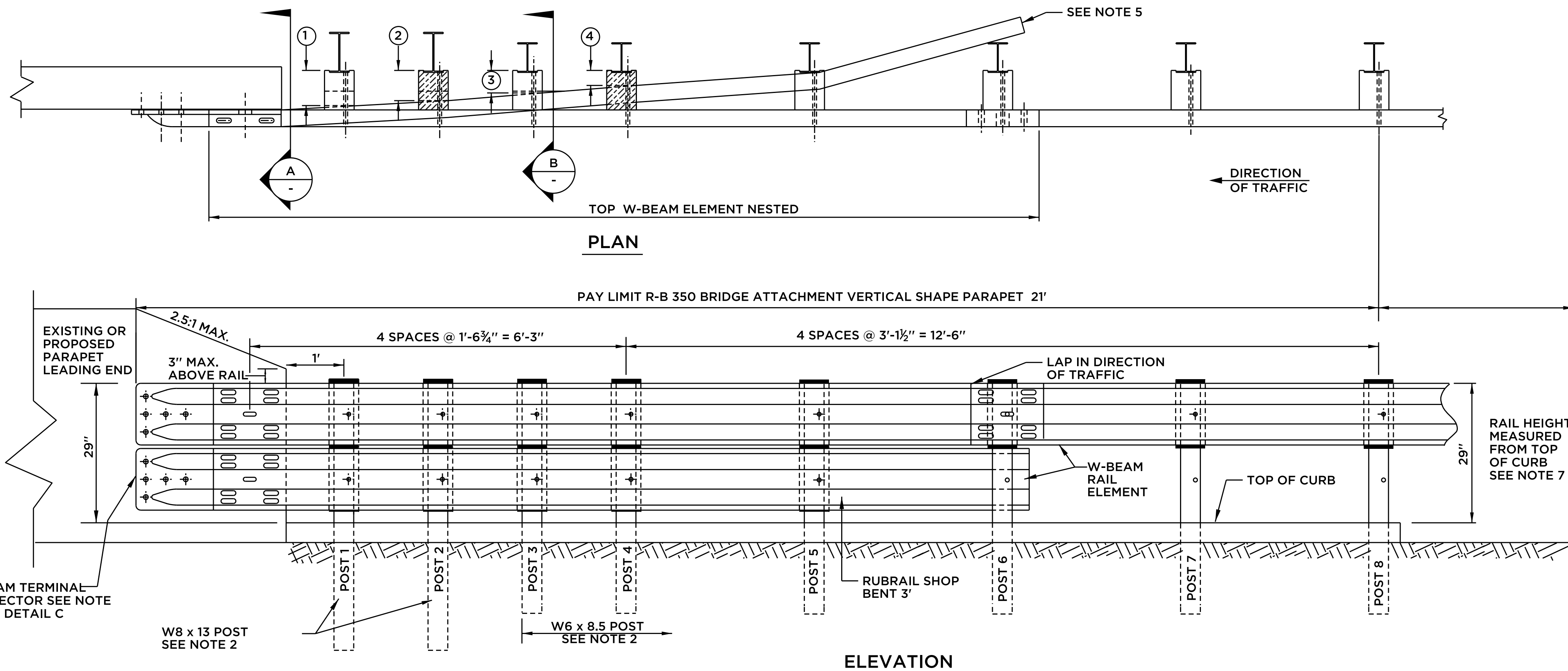
**W6x8.5 POST  
6'-0" LONG**

**W8x13 POST  
7'-6" LONG**

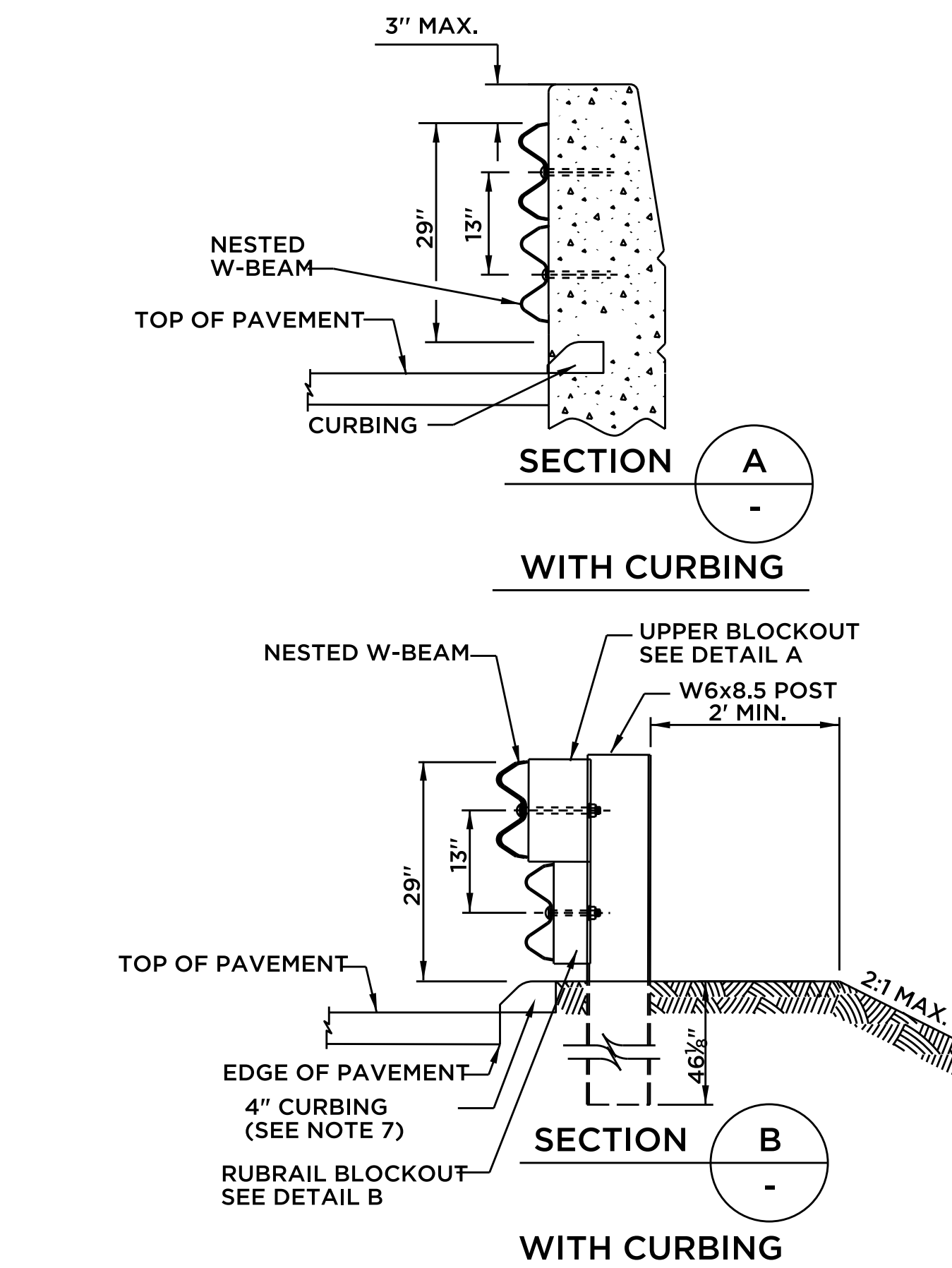
**BOLT HOLE LAYOUT FOR W8x13  
AND W6x8.5 UNIFORM POST**

(REFER TO GENERAL NOTES)

<p><b>ANCHOR</b> ENGINEERING SERVICES, INC.</p> <p>41 Sequin Drive Glastonbury, CT 06033 Phone: (860) 633-5970 Fax: (860) 633-5971 www.anchorengr.com</p>		<p>PROJ. ENGINEER DPL/PL PROJ. MANAGER TJY OFFICE REVIEW TJY</p>	
		<p>TOWN OF GLASTONBURY REPLACEMENT OF ADDISON ROAD BRIDGE OVER SALMON BROOK MISCELLANEOUS DETAILS METAL BEAM RAIL HARDWARE GLASTONBURY CONNECTICUT</p>	
<p>REVISIONS</p>		<p>PROJECT 075-22 DATE 2/01/12</p>	<p>SHEET NO. 6 OF 32</p>



**ELEVATION**

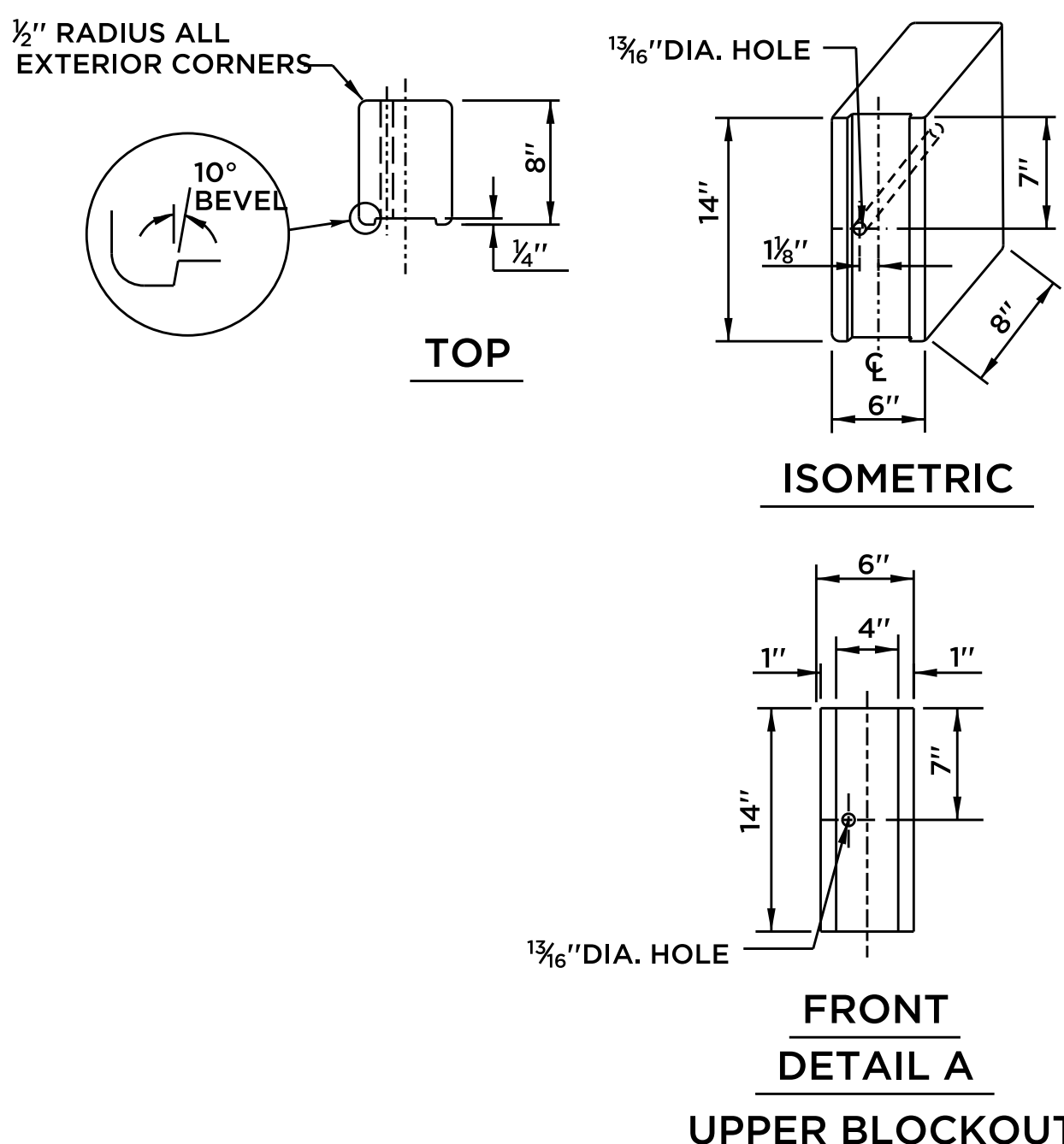


**SECTION A**

**WITH CURBING**

**SECTION B**

**WITH CURBING**



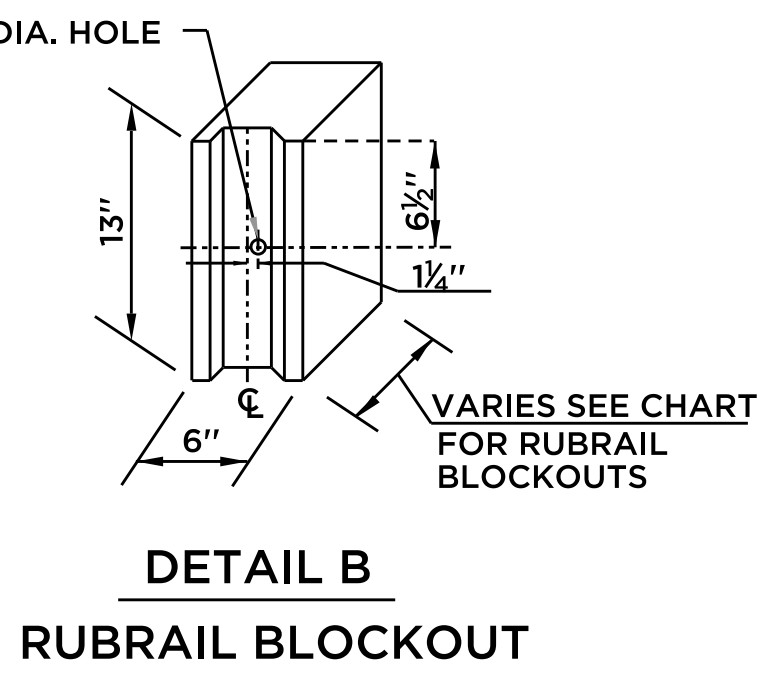
**TOP**

**ISOMETRIC**

**FRONT**

**DETAIL A**

**UPPER BLOCKOUT**



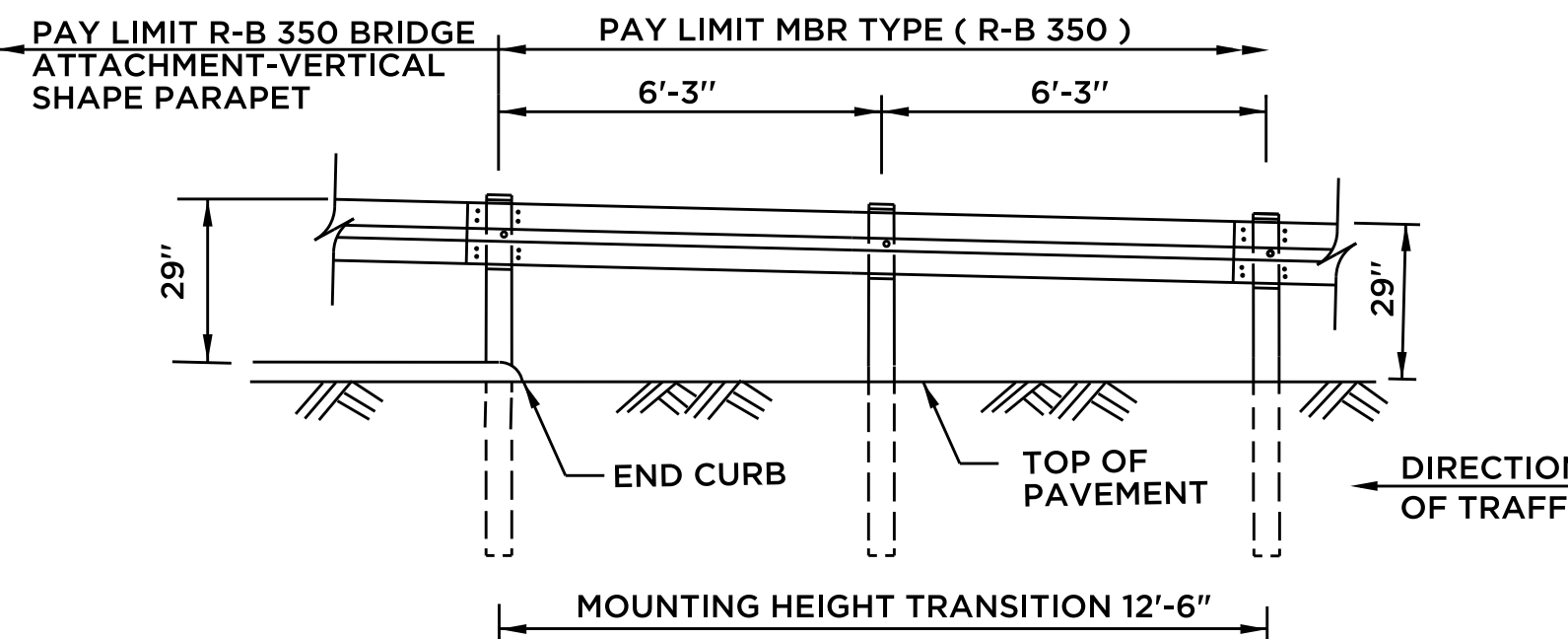
**DETAIL B**

**RUBRAIL BLOCKOUT**

RUBRAIL BLOCKOUTS 13" HIGH x 6" WIDE		
POST	THICKNESS	BOLT LENGTH
①	7"	9"
②	6"	8"
③	4 1/2"	6"
④	3"	5"

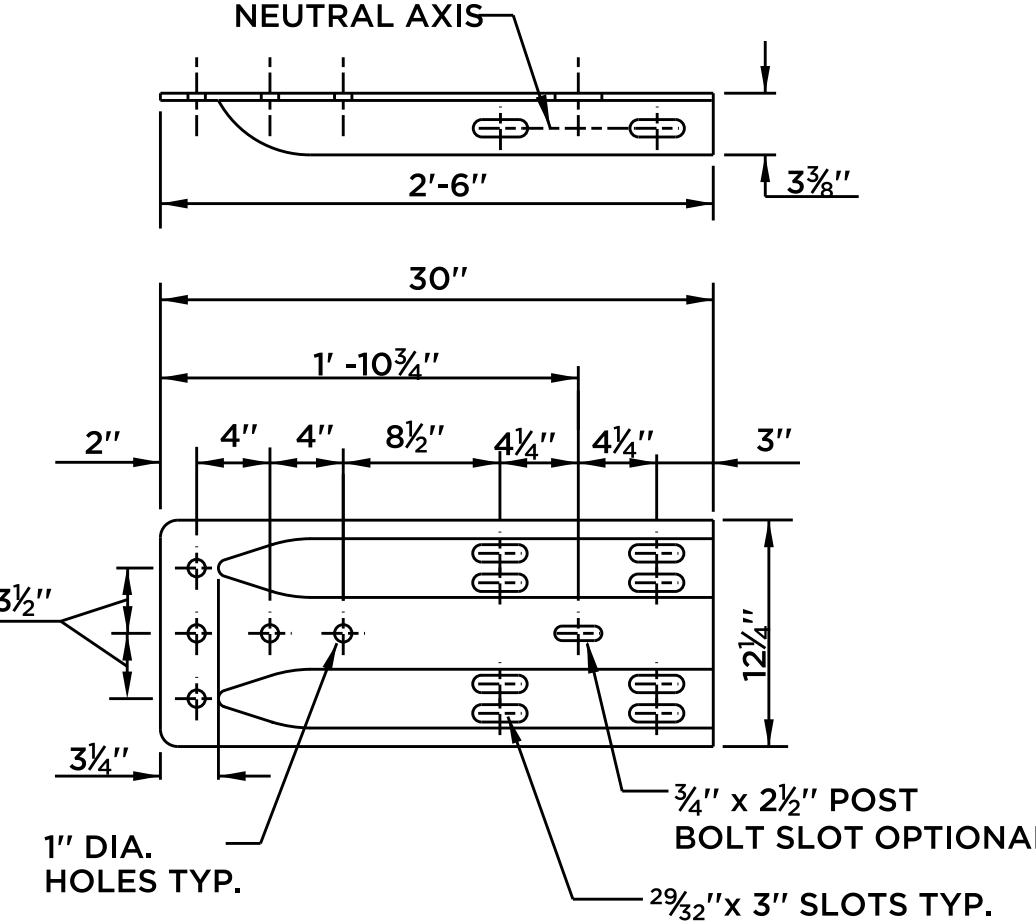
**GENERAL NOTES:**

- THIS R-B 350 GUIDERAIL TRANSITION IS APPROPRIATE FOR CONNECTION AT THE FOLLOWING LOCATIONS:  
 (A) WHEN ANY SAFETY SHAPE (F-SHAPED OR JERSEY SHAPE) PARAPET HAS AN ELECTRICAL JUNCTION BOX WITHIN 8' OF THE END OF THE PARAPET, THE END OF THE PARAPET SHALL BE MODIFIED OR TRANSFORMED TO A VERTICAL SHAPE PRIOR TO GUIDERAIL ATTACHMENT.  
 (B) VERTICAL WALL OR ABUTMENT FACE.  
 (C) VERTICAL CONCRETE PARAPET WITH SIDEWALK.  
 (D) VERTICAL FACE FOR LEADING AND TRAILING ENDS ON DUAL DIRECTION ROADWAYS.
- POSTS 1 AND 2 ARE W8 x 13, 7'-6" LONG. ALL OTHER POSTS IN TRANSITION ARE W6 x 8.5, 6' LONG.
- POSTS 1 THROUGH 5 REQUIRE AN ADDITIONAL HOLE TO ATTACH LOWER BLOCKOUTS AND/OR LOWER RUBRAIL.
- RUBRAIL BLOCKOUTS FOR POSTS 1 THROUGH 4 ARE ATTACHED TO POST AND RAIL WITH A 3/8" BUTTONHEAD BOLTS (SEE CHART FOR BOLT LENGTH). RUBRAIL ONLY IS ATTACHED TO POST 5 WITH A 3/8" x 1 1/4" BUTTONHEAD BOLT.
- THE RUBRAIL MAY BE SHOP BENT IN THE LAST 3' TO FACILITATE INSTALLATION. DO NOT ATTACH RUBRAIL TO BACK OF POST 6.
- USE CLASS B (10 GAUGE) TYPE II W-BEAM RAIL ELEMENTS FOR INSTALLATIONS ON EXPRESSWAYS AND RAMP.
- FOR THIS APPLICATION WHEN CURBING IS USED, R-B 350 RAIL HEIGHT MUST BE MEASURED FROM THE TOP OF CURBING TO THE TOP OF RAIL. SEE DETAIL D FOR HEIGHT TRANSITION.
- FOR NEW CONSTRUCTION WHERE CURBING IS NEEDED, USE EITHER 4" BITUMINOUS CONCRETE PARK CURBING OR PRECAST CONCRETE TRANSITION CURBING SET WITH A 4" REVEAL. THE PREFERRED CURBING FOR HIGH SPEED ROADWAYS (>45 MPH) IS 4". HOWEVER, ON LOW SPEED ROADWAYS (<45 MPH) A 6" CURBING MAY BE USED. ADJUST RAIL HEIGHT AS REQUIRED.
- ANCHORAGE:  
 (A) AT EXISTING PARAPETS EACH W-BEAM TERMINAL CONNECTOR SHALL BE ANCHORED USING FOUR 3/8" x 12" CHEMICALLY ANCHORED BOLTS WITH WASHERS OR AS DETAILED ON STRUCTURE SHEETS. MAXIMUM BOLT PROJECTION BEYOND THE NUT SHALL BE 1/2". THE 12" MINIMUM LENGTH OF CHEMICALLY ANCHORED BOLTS SHALL INCLUDE A MINIMUM EMBEDMENT DEPTH OF 10" INTO SUITABLY REINFORCED CONCRETE OR AS RECOMMENDED BY THE MANUFACTURER OF BONDING MATERIAL.  
 (B) FOR NEW PARAPETS OR BARRIERS, THE W-BEAM TERMINAL CONNECTORS SHALL BE ANCHORED AS DETAILED ON THE STRUCTURE SHEETS.
- ADDITIONAL BLOCKOUTS WITH POSTS 1 THROUGH 6 SHOULD BE AVOIDED.
- FOR SINGLE DIRECTION ROADWAY:  
 INSTALL W-BEAM TERMINAL CONNECTOR BETWEEN NESTED GUIDERAIL ELEMENTS.  
 FOR DUAL DIRECTION ROADWAY FOR APPROACHING TRAFFIC:  
 INSTALL W-BEAM TERMINAL CONNECTOR BETWEEN NESTED GUIDERAIL ELEMENTS.  
 FOR TRAILING END:  
 INSTALL W-BEAM TERMINAL CONNECTOR OUTSIDE OF THE NESTED GUIDERAIL ELEMENTS.
- MINIMUM RAIL HEIGHT FOR NEW CONSTRUCTION SHALL BE 29" ± 1".



**DETAIL D**

**HEIGHT TRANSITION**



**DETAIL C**

**W-BEAM TERMINAL CONNECTOR**

**CLASS B TYPE II**

SEE NOTE 11

**ANCHOR**  
ENGINEERING SERVICES, INC.

41 Sequin Drive  
Glastonbury, CT 06033  
Phone: (860) 633-9370  
Fax: (860) 633-5971  
www.anchorengr.com

---

Civil Engineering • Environmental Consulting • Land Surveying • Construction Management

PROJ. ENGINEER DPL/PL  
PROJ. MANAGER TJY  
OFFICE REVIEW TJY

**TOWN OF GLASTONBURY**  
REPLACEMENT OF ADDISON ROAD BRIDGE  
OVER SALMON BROOK  
**MISCELLANEOUS DETAILS**  
**R-B 350 BRIDGE ATTACHMENT**  
GLASTONBURY CONNECTICUT

---

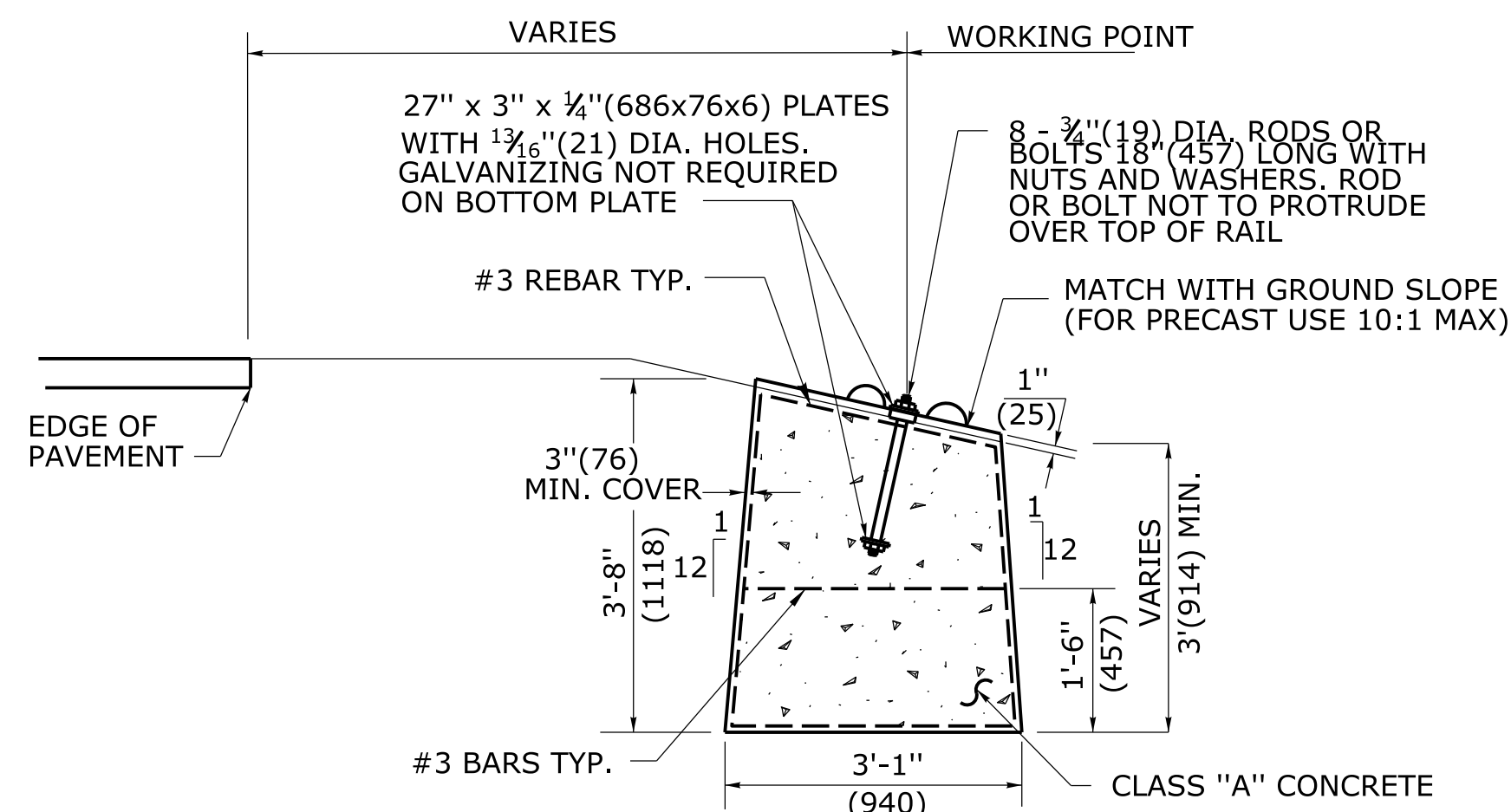
REVISIONS	

---

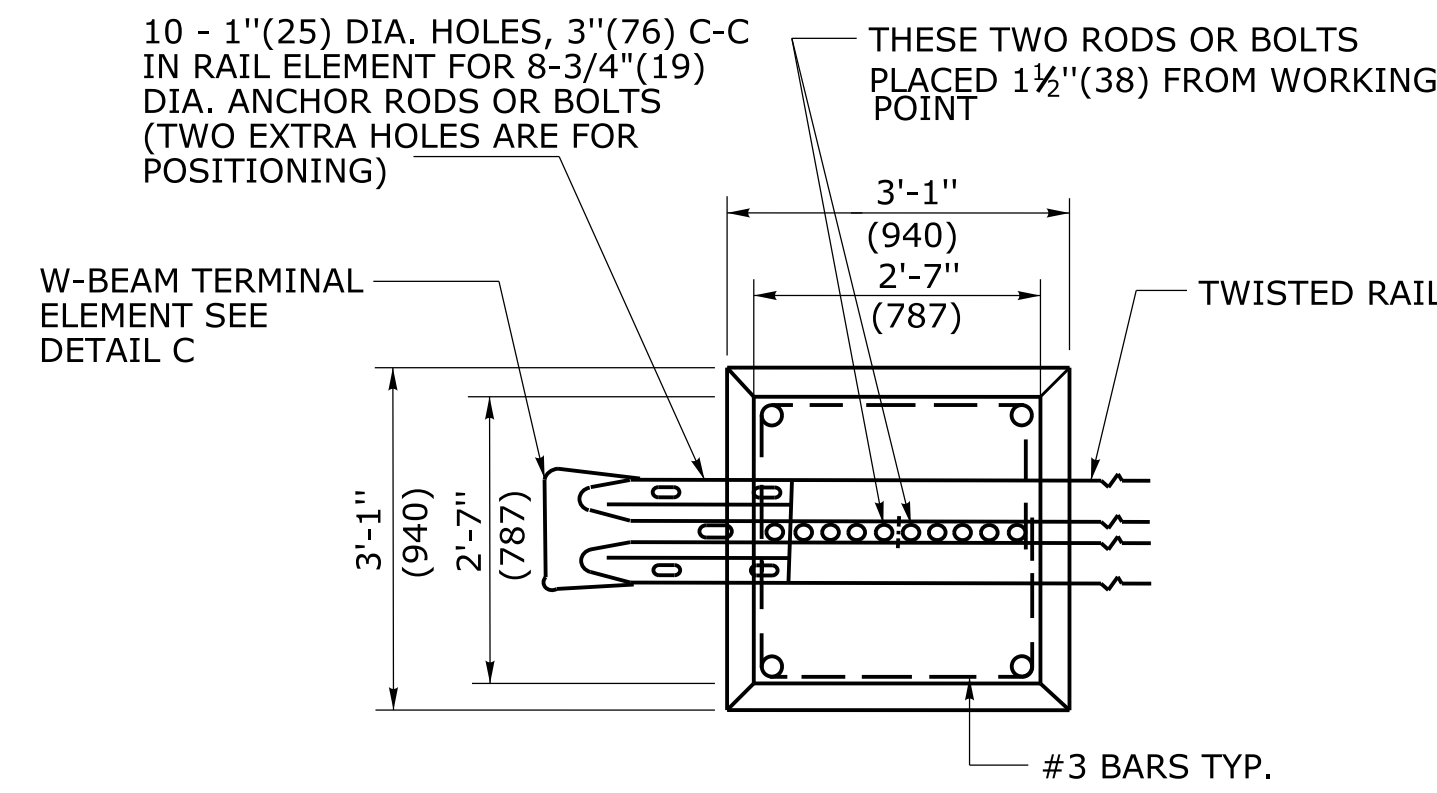
PROJECT	DATE	SHEET NO.	OF
075-22	2/01/12	7	32

SCALE: NO TO SCALE





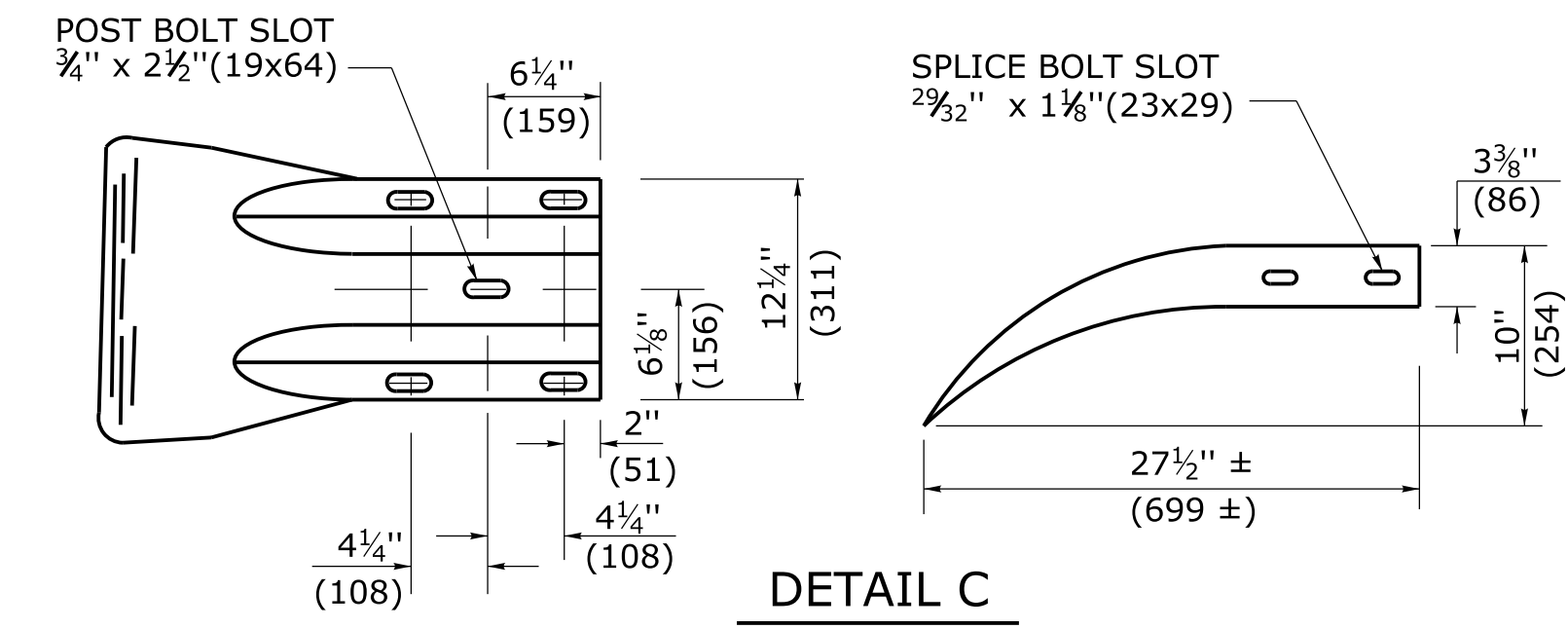
**ELEVATION  
DETAIL A  
CONCRETE END ANCHOR  
FOR ROADSIDE**



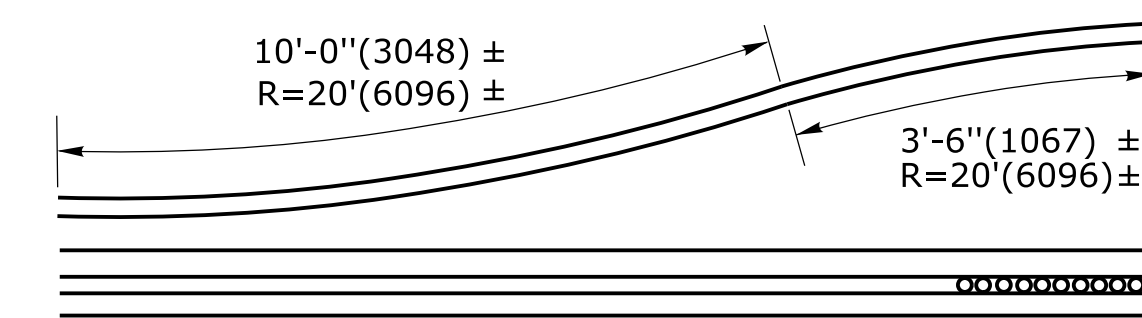
**PLAN**

**NOTES**

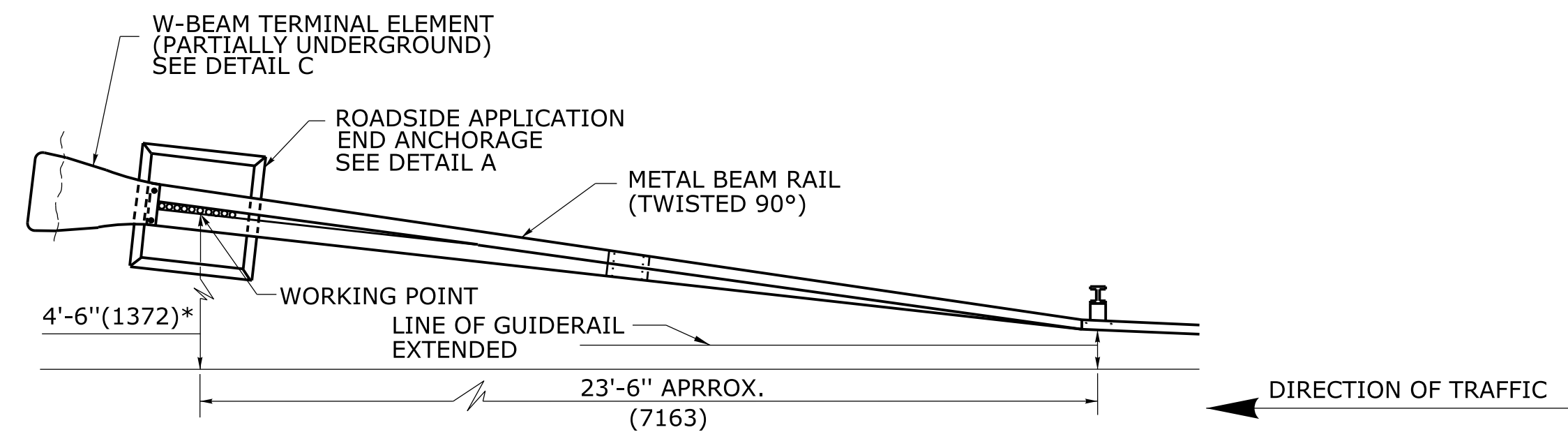
1. R-B END ANCHORAGE TYPE I INSTALLED ON FREEWAYS AND RAMPS SHALL USE CLASS B (10 GAUGE) TERMINAL AND W-BEAM RAIL ELEMENTS. ALL OTHER R-B END ANCHORAGE TYPE I SHALL USE 12 GAUGE TERMINAL AND W-BEAM RAIL ELEMENTS.
2. R-B END ANCHORAGE TYPE II MAY ONLY BE USED WHEN THE RAIL IS TURNED AND EXTENDED INTO A DRIVEWAY BEYOND CLEAR ZONE, ON ROADS WITH DESIGN SPEEDS < 45mph (72kph) TYPE II END ANCHORS SHALL USE CLASS A (12 GAUGE) TERMINAL ELEMENTS.
3. OTHER RADII WHICH CAN BE DEMONSTRATED TO PROVIDE THE INSTALLATIONS SHOWN FOR END ANCHORAGE TYPE II MAY BE APPROVED.
4. J-HOOK BOLTS MAY BE SUBSTITUTED FOR BOTTOM PLATE ANCHORAGE IN CONCRETE END ANCHORS USING THE SAME SIZE, STRENGTH, AND LENGTH AS NOTED ON THE PLANS.



**W-BEAM TERMINAL ELEMENT**

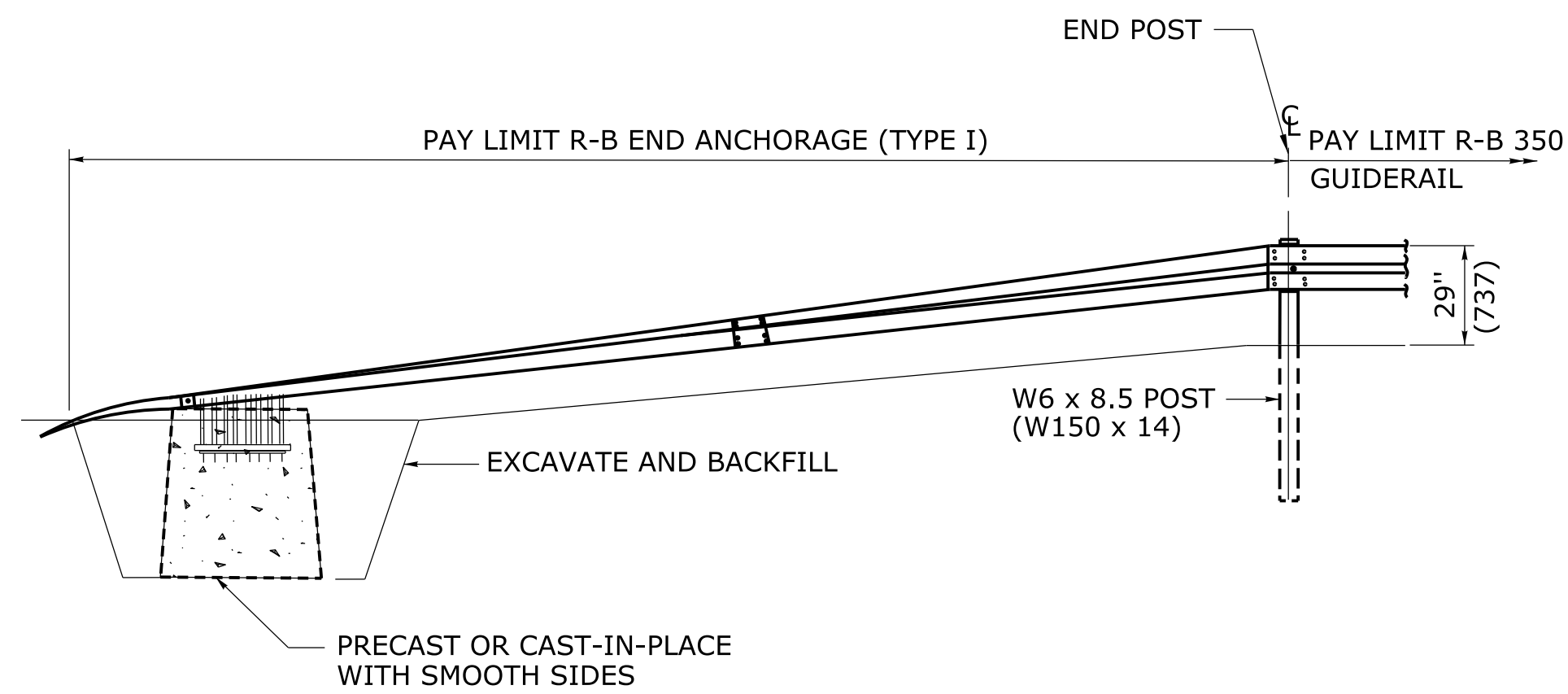


**DETAIL D  
SHOP CURVED RAIL  
SEE NOTE 3**

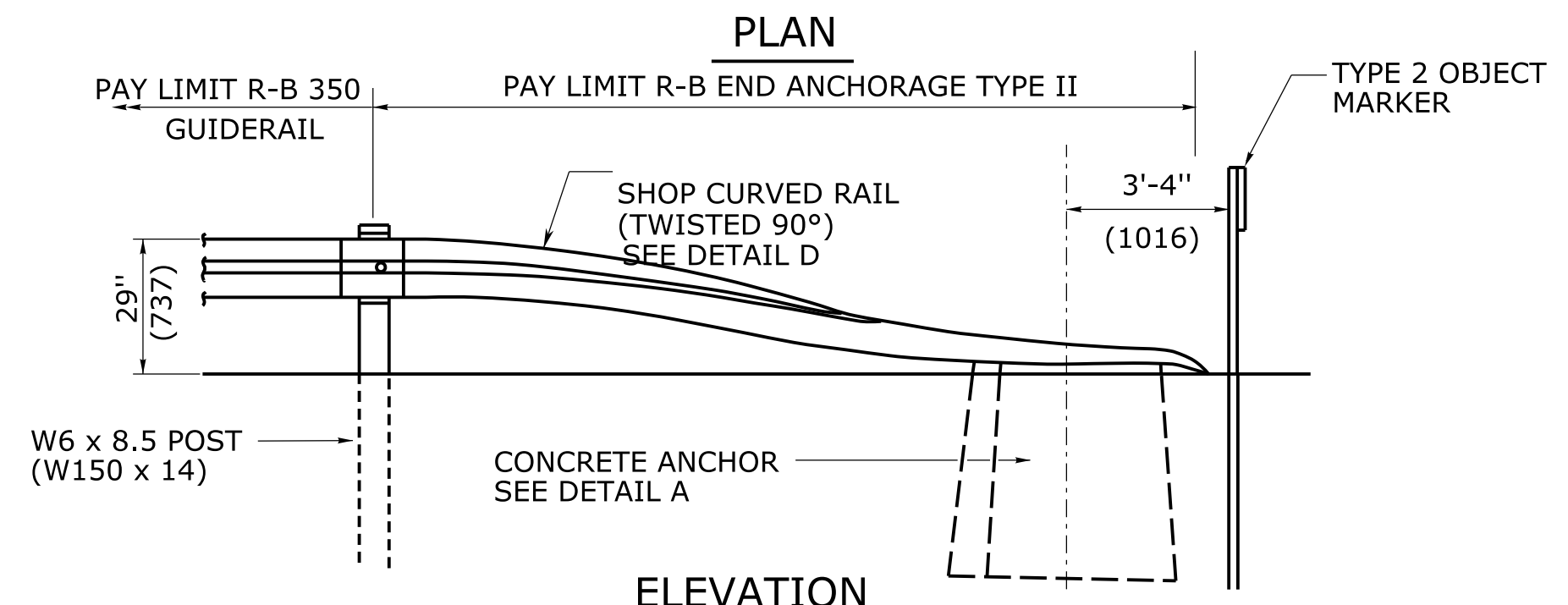
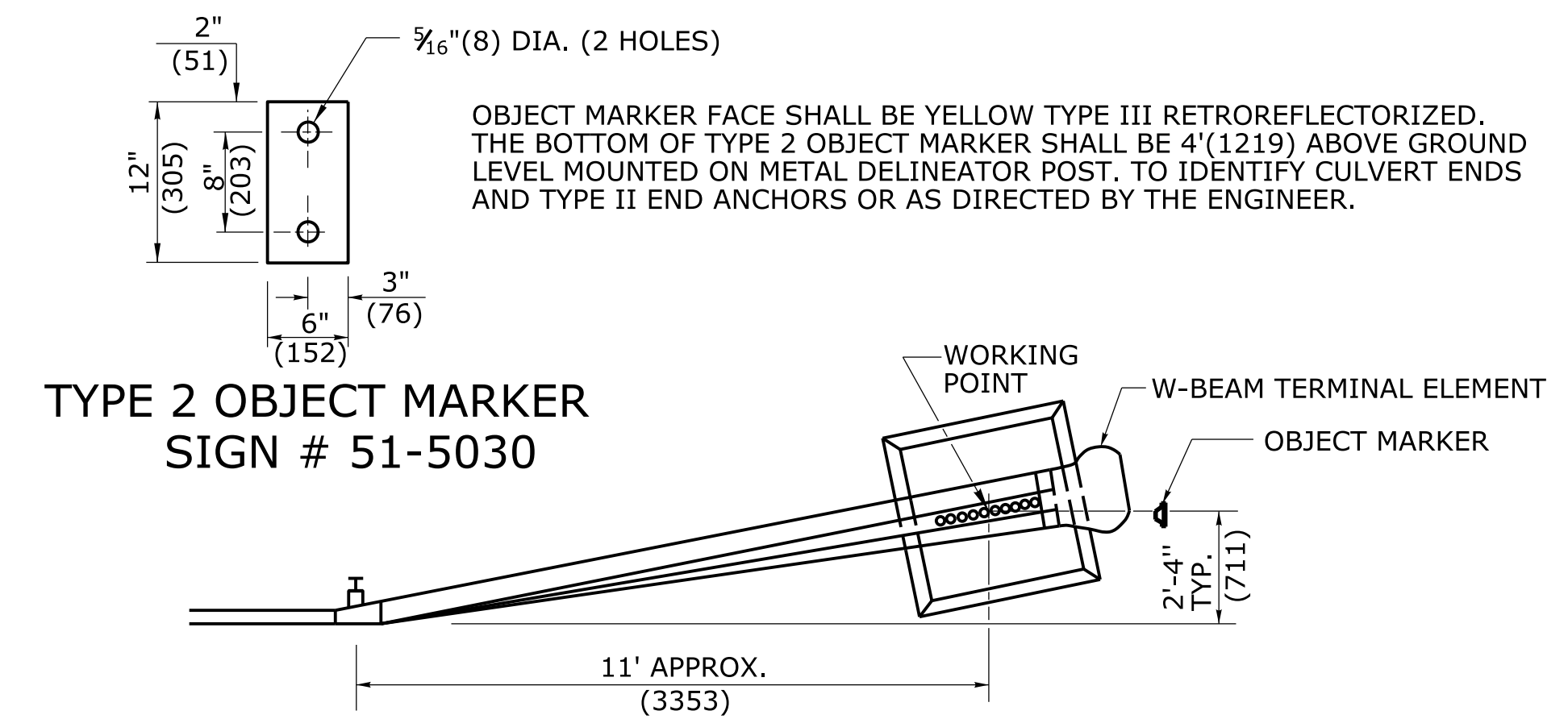


• OFFSET DIMENSIONS FROM FACE OF RAIL FOR TRAILING END ANCHORAGE SHOWN. FOR LEADING END ANCHORS, THE END POST SHALL BE PLACED AT THE CLEAR ZONE AND THEN THE ANCHOR PLACED 4'-6\"/>

**PLAN**



**ELEVATION  
R-B END ANCHORAGE TYPE I  
(ROADSIDE APPLICATION)**



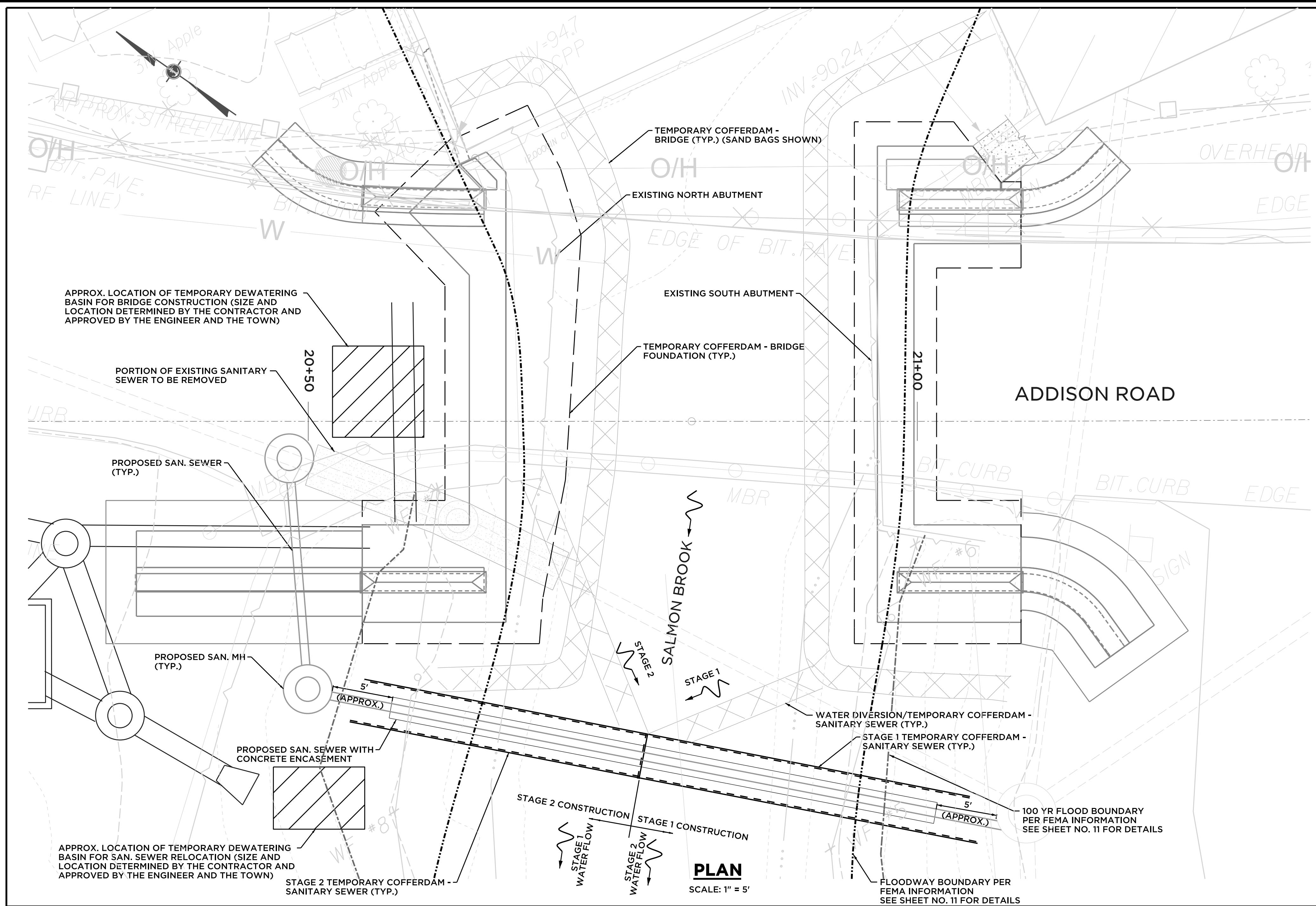
**ELEVATION  
R-B END ANCHORAGE TYPE II  
SEE NOTE 2**

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

<p><b>ANCHOR</b> ENGINEERING SERVICES, INC.</p> <p>41 Sequin Drive Glastonbury, CT 06033 Phone: (860) 633-9370 Fax: (860) 633-5971 www.anchorengr.com</p>		<p>PROJ. ENGINEER DPL/PL</p>	
		<p>PROJ. MANAGER TJY</p>	
<p>OFFICE REVIEW TJY</p>		<p><b>TOWN OF GLASTONBURY</b></p>	
<p>REVISIONS</p>		<p>REPLACEMENT OF ADDISON ROAD BRIDGE OVER SALMON BROOK</p>	
<p>NO TO SCALE</p>		<p><b>MISCELLANEOUS DETAILS</b></p>	
<p>SCALE:</p>		<p><b>METAL BEAM RAIL END ANCHORAGE</b></p>	
<p>PROJECT 075-22</p>	<p>DATE 2/01/12</p>	<p>SHEET NO. 8</p>	<p>OF 32</p>

**GENERAL NOTES:**

1. EROSION CONTROL SYSTEMS SHALL BE INSTALLED ON SITE PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. SEE ROADWAY PLAN FOR LOCATION OF EROSION CONTROL SYSTEM. ALL EROSION CONTROL SYSTEMS SHALL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT AND UNTIL ALL DISTURBED AREAS HAVE BEEN PROPERLY STABILIZED.
2. UNCONFINED INSTREAM WORK WITHIN SALMON BROOK SHALL BE RESTRICTED TO THE PERIOD FROM JUNE 1ST TO SEPTEMBER 30TH.
3. RELOCATION OF EXISTING SANITARY SEWER SHALL BE COMPLETED PRIOR TO THE CONSTRUCTION OF THE NEW BRIDGE.
4. DURING THE REMOVAL OF THE EXISTING SUPERSTRUCTURE, DEBRIS FROM SAWCUTTING, JACKHAMMERING, ETC. SHALL BE APPROPRIATELY CONTAINED THROUGH THE USE OF A DEBRIS SHIELD TO PREVENT DEBRIS FROM FALLING INTO AN UNCONFINED AREA OF THE SALMON BROOK. THE CONTRACTOR SHALL SUBMIT PLANS AND DETAILS DESCRIBING HIS PROPOSED METHOD FOR SUPERSTRUCTURE REMOVAL AND SHIELDING FOR APPROVAL BY THE ENGINEER AND THE TOWN.
5. THE WATER HANDLING PLAN DEPICTED ON THIS SHEET ARE SHOWN AS A POSSIBLE METHOD TO BE USED. AT LEAST 30 DAYS PRIOR TO THE START OF CONSTRUCTING ANY COFFERDAMS OR WATER HANDLING DEVICES, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER DETAILED PLANS AND COMPUTATIONS OF HIS PROPOSAL PREPARED BY AN ENGINEER LICENSED IN THE STATE OF CT. THESE PLANS AND COMPUTATIONS WILL BE DISTRIBUTED TO THE ENGINEER, THE TOWN OF GLASTONBURY ENVIRONMENTAL PLANNER AND THE CTDOT OFFICE OF ENVIRONMENTAL PLANNING (OEP) FOR THEIR REVIEW AND APPROVAL.



**WATER HANDLING SANITARY SEWER RELOCATION:**

**STAGE 1:**

1. INSTALL TEMPORARY COFFERDAM - SANITARY SEWER AT THE SOUTHERN HALF OF THE BROOK.
2. INSTALL TEMPORARY DEWATERING BASIN AND DEWATER.
3. EXCAVATE TO DESIGN ELEVATION.
4. INSTALL SANITARY SEWER WITH CONCRETE ENCASEMENT WHERE REQUIRED.
5. BACKFILL AND REMOVE TEMPORARY COFFERDAM - SANITARY SEWER.

**STAGE 2:**

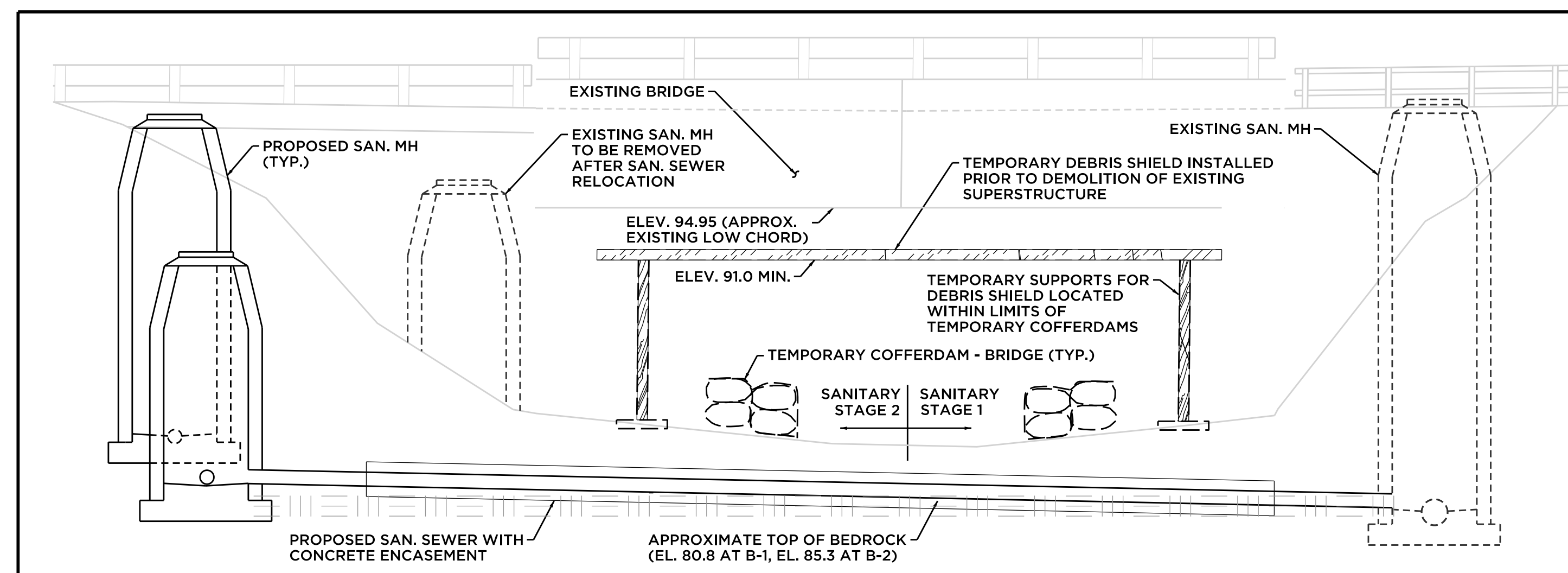
1. INSTALL TEMPORARY COFFERDAMS - SANITARY SEWER AT THE NORTHERN HALF OF THE BROOK.
2. DEWATER.
3. EXCAVATE TO DESIGN ELEVATION.
4. INSTALL SANITARY SEWER WITH CONCRETE ENCASEMENT WHERE REQUIRED, BACKFILL.
5. REMOVE PORTION OF EXISTING SANITARY SEWER.
6. REMOVE TEMPORARY COFFERDAM - SANITARY SEWER.
7. REMOVE TEMPORARY DEWATERING BASIN.

**WATER HANDLING FOR BRIDGE CONSTRUCTION:**

1. INSTALL TEMPORARY COFFERDAM - BRIDGE (SAND BAGS SHOWN).
2. INSTALL TEMPORARY DEBRIS SHIELD AS SHOWN SCHEMATICALLY ON THESE PLANS AND AS SUBMITTED AND APPROVED BY THE ENGINEER.
3. REMOVE EXISTING SUPERSTRUCTURE.
4. REMOVE EXISTING DEBRIS SHIELD AND SUPPORTS.
5. REMOVE EXISTING ABUTMENTS.
6. INSTALL TEMPORARY COFFERDAM - BRIDGE FOUNDATION.
7. EXCAVATE TO BEDROCK.
8. PLACE UNDERWATER CONCRETE.
9. INSTALL TEMPORARY DEWATERING BASIN AND DEWATER.
10. CONSTRUCT FOUNDATIONS.
11. CUT TEMPORARY COFFERDAM - BRIDGE FOUNDATION AT TOP OF UNDERWATER CONCRETE.
12. INSTALL PRECAST CONCRETE ARCH.
13. BACKFILL.
14. REMOVE TEMPORARY COFFERDAM - BRIDGE.

**PLAN**

SCALE: 1" = 5'

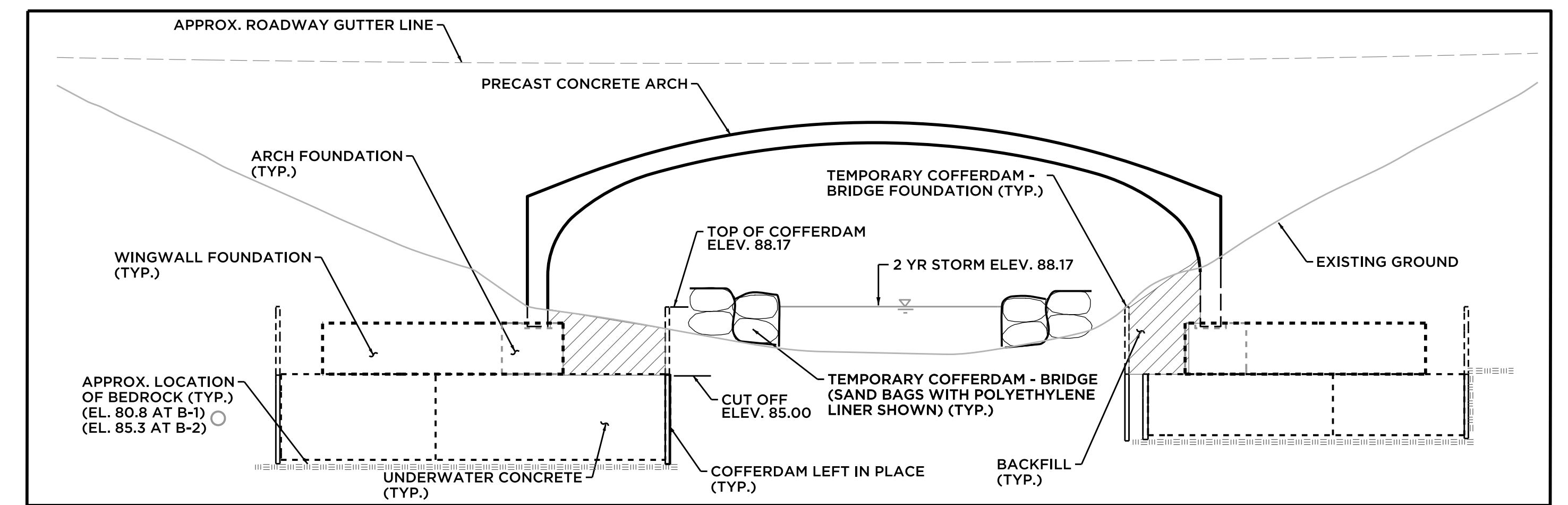


**WATER HANDLING PLAN FOR STAGE 1 & STAGE 2 FOR SANITARY SEWER RELOCATION**

**ELEVATION**

SCALE: 1" = 5'

**NOTE:**  
TEMPORARY DEBRIS SHIELD SHOWN IS SCHEMATIC ONLY AND MEANT TO DEPICT THE GENERAL PROPERTIES OF A DEBRIS SHIELD FOR PERMITTING PURPOSES ONLY. IT IS NOT MEANT TO REPRESENT THE QUANTITIES, SIZES OR PROPERTIES OF THE MEMBERS REQUIRED TO CONSTRUCT A SUITABLE DEBRIS SHIELD.



**WATER HANDLING PLAN FOR BRIDGE CONSTRUCTION**

**ELEVATION**

SCALE: 1" = 5'

<p><b>ANCHOR</b> ENGINEERING SERVICES, INC.</p> <p>41 Sequin Drive Glastonbury, CT 06033 Phone: (860) 633-9370 Fax: (860) 633-5971 www.anchorengr.com</p>		<p>PROJ. ENGINEER T.J.Y.</p> <p>PROJ. MANAGER T.J.Y.</p> <p>OFFICE REVIEW T.J.Y.</p>															
		<p><b>TOWN OF GLASTONBURY</b> REPLACEMENT OF ADDISON ROAD BRIDGE OVER SALMON BROOK <b>WATER HANDLING PLAN</b></p>															
<p>REVISIONS</p> <table border="1"> <tr> <td>NO. 1</td> <td>DATE</td> <td>DESCRIPTION</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>		NO. 1	DATE	DESCRIPTION				<p>GLASTONBURY CONNECTICUT</p> <table border="1"> <tr> <td>PROJECT</td> <td>DATE</td> <td>SHEET NO.</td> <td>OF</td> </tr> <tr> <td>075-22</td> <td>2/01/12</td> <td>9</td> <td>32</td> </tr> </table>		PROJECT	DATE	SHEET NO.	OF	075-22	2/01/12	9	32
NO. 1	DATE	DESCRIPTION															
PROJECT	DATE	SHEET NO.	OF														
075-22	2/01/12	9	32														
<p>SCALE: 1" = 5'</p>		<p>SCALE: 1" = 5'</p>															