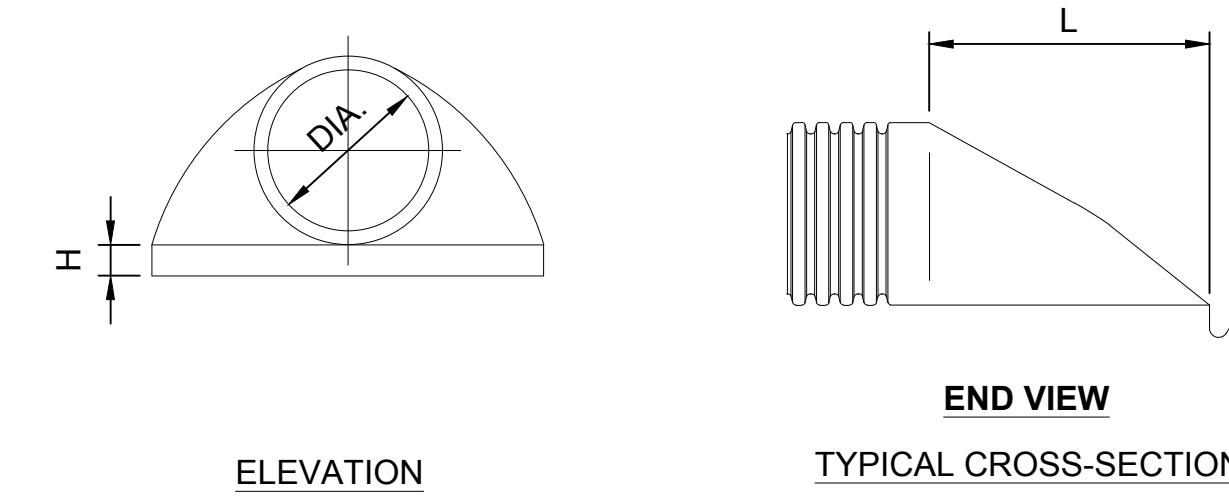


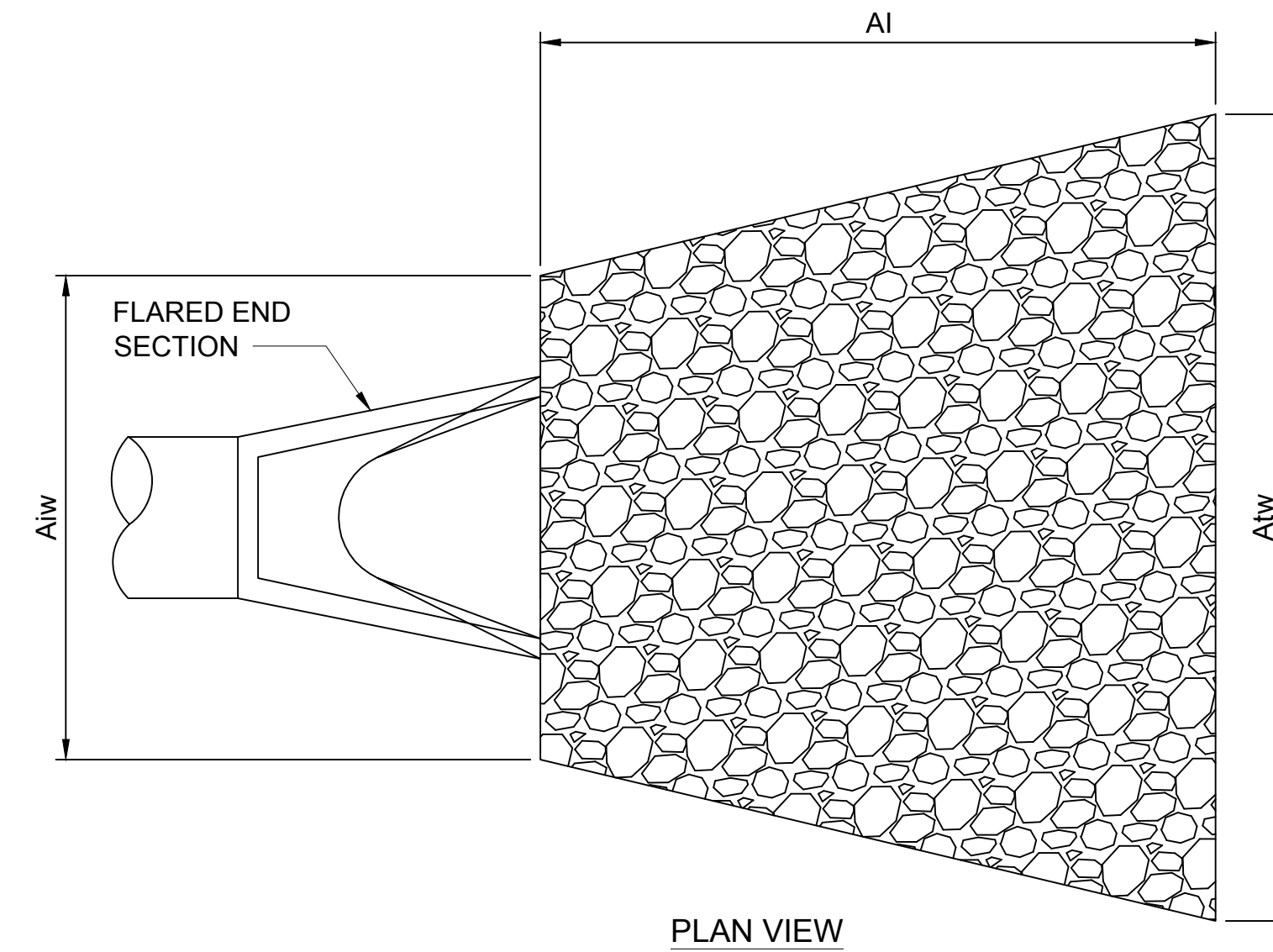
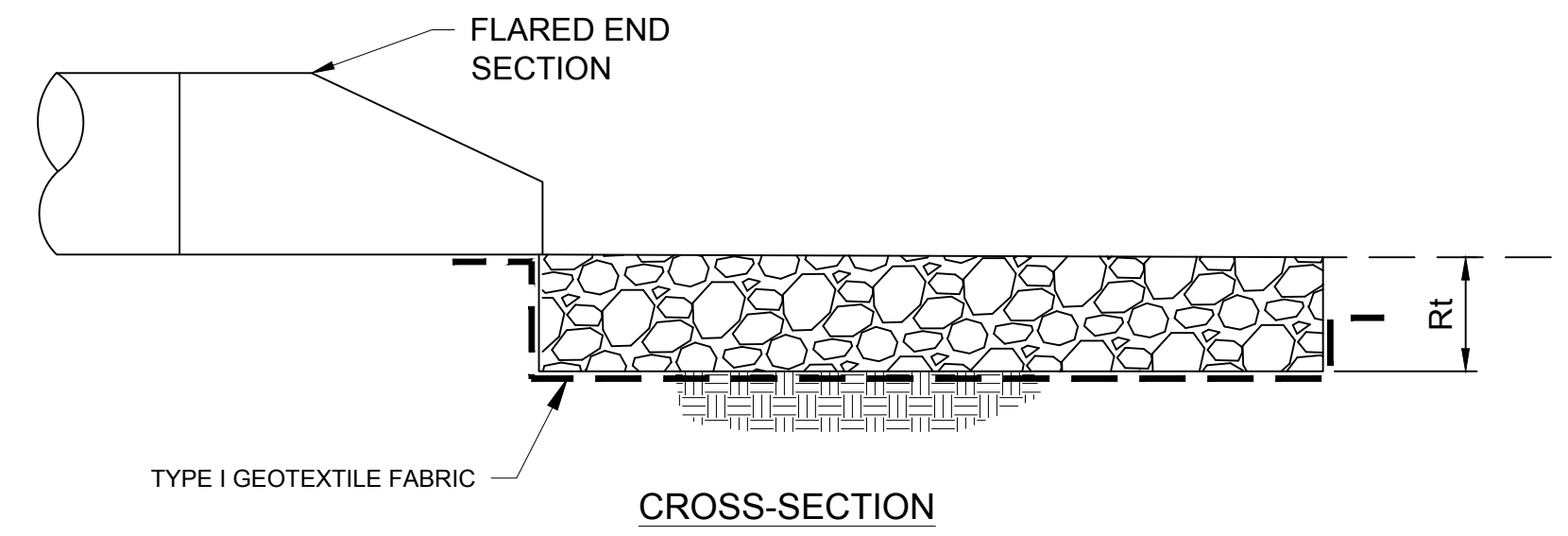
| PIPE DIA. | A    | B     | H    | L   | W   |
|-----------|------|-------|------|-----|-----|
| 12"       | 6.5" | 10.0" | 6.5" | 25" | 29" |
| 15"       | 6.5" | 10.0" | 6.5" | 25" | 29" |
| 18"       | 7.5" | 15.0" | 6.5" | 32" | 35" |
| 24"       | 7.5" | 18.0" | 6.5" | 36" | 45" |
| 30"       | 7.5" | 22.0" | 8.6" | 58" | 63" |
| 36"       | 7.5" | 25.0" | 8.6" | 58" | 63" |



**END SECTION FOR HDPE PIPE**  
NOT TO SCALE

1  
C104

- NOTES:**
- FLARED END SECTION SHALL BE HIGH DENSITY POLYETHYLENE MEETING ASTM D3350 MINIMUM CELL CLASSIFICATION 213320C.
  - METAL THREADED FASTENING ROD SHALL BE STAINLESS STEEL.
  - INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS

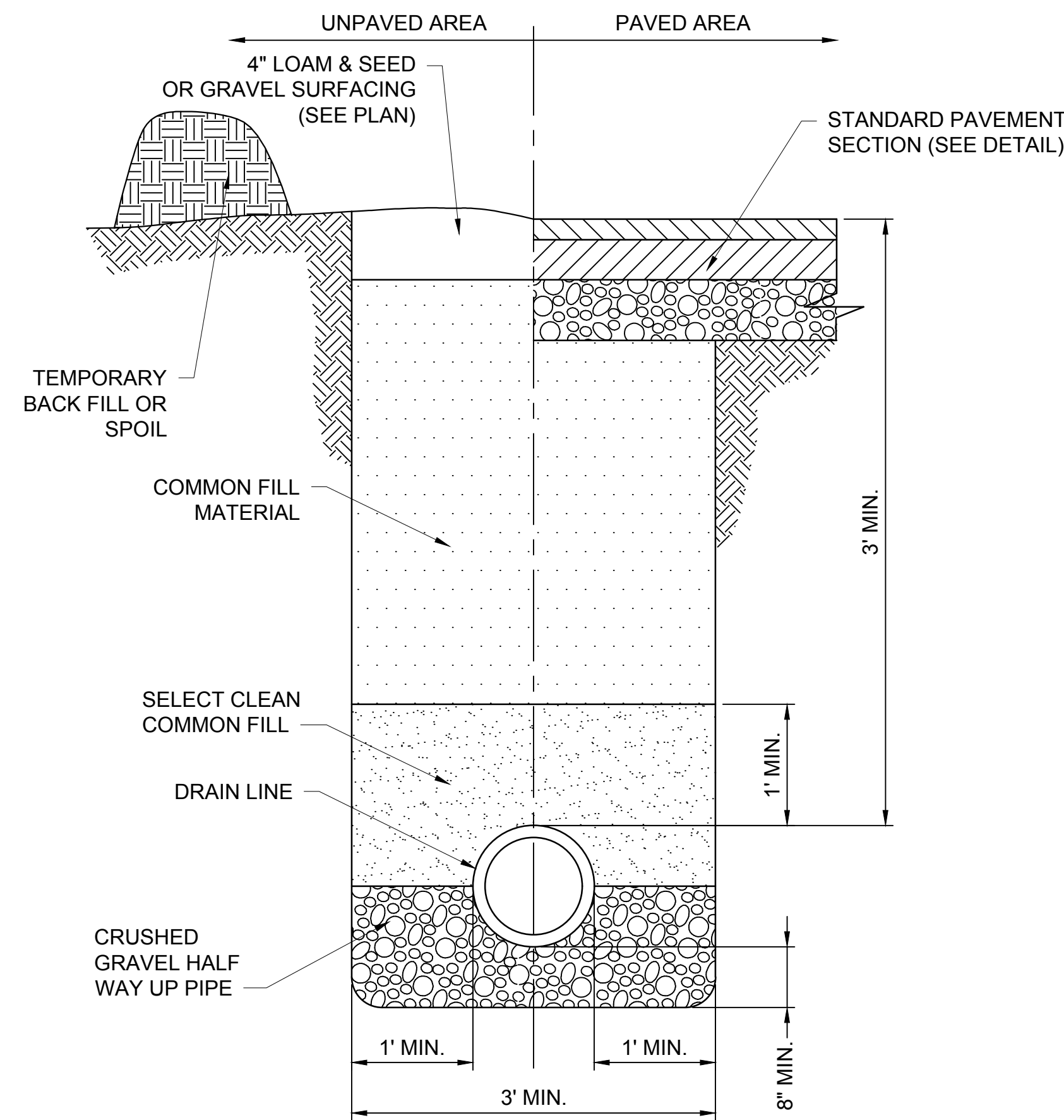


**OUTLET PROTECTION**  
NOT TO SCALE

2  
C104

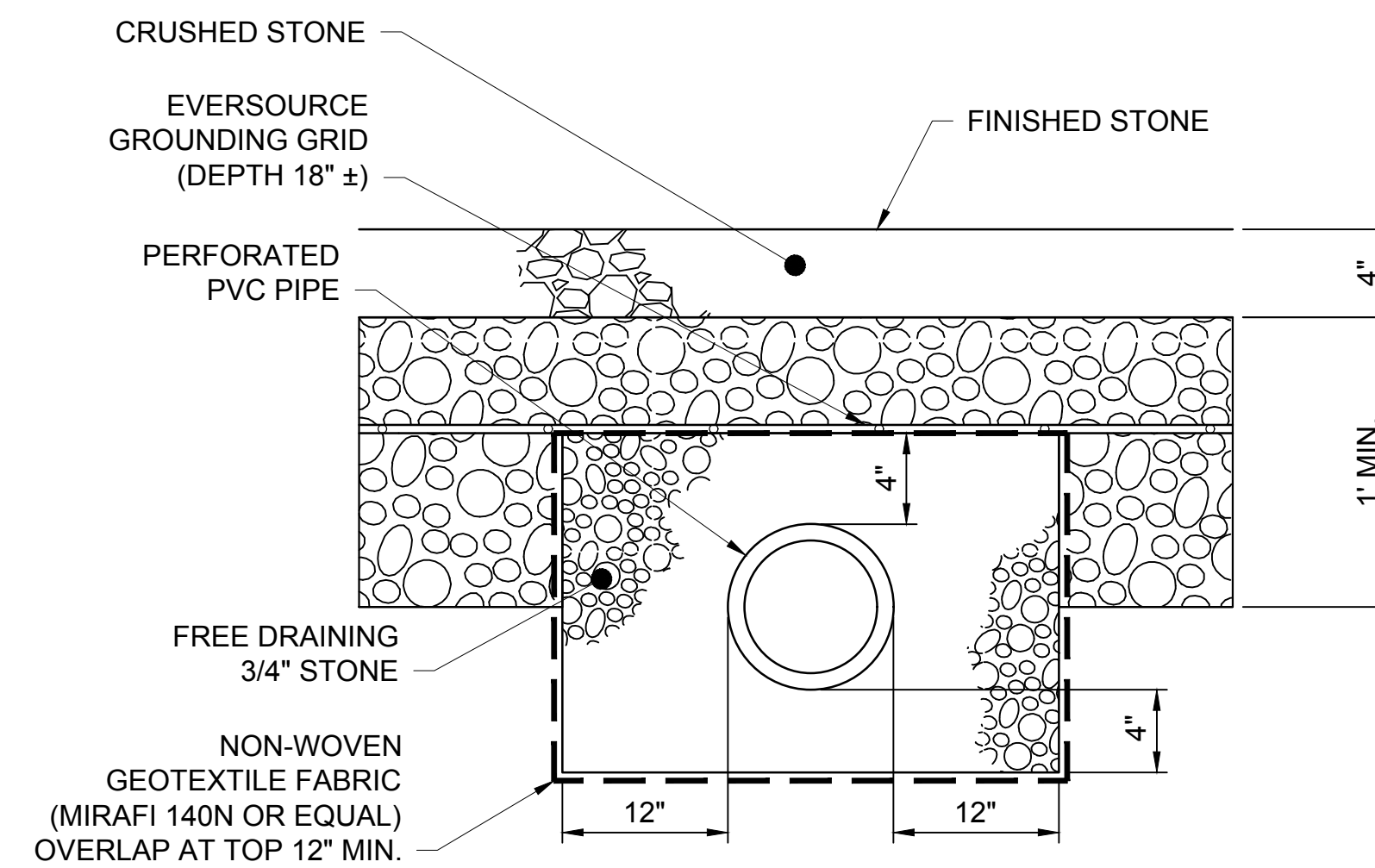
- NOTES:**
- THE SUBGRADE FOR GEOTEXTILE FABRIC AND RIP-RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN.
  - THE ROCK USED FOR RIP-RAP SHALL CONFORM TO NHDOT CLASS C STONE.
  - GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP-RAP. DAMAGED AREAS IN THE FABRIC SHALL BE PREPARED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
  - STONE FOR THE RIP-RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

| OUTLET NO. | PIPE DIA Pd (IN) | RIP RAP    |                |                 | APRON                  |                         |
|------------|------------------|------------|----------------|-----------------|------------------------|-------------------------|
|            |                  | SIZE (D50) | THICK. Rt (IN) | LENGTH A1 (FT)  | INITIAL WIDTH A1w (FT) | TERMINAL WIDTH A1w (FT) |
| A          | 15               | 6          | 18             | 13 <sup>2</sup> | 3.5                    | 17 <sup>2</sup>         |
| C          | 15               | 6          | 18             | 9               | 3.5                    | 13                      |



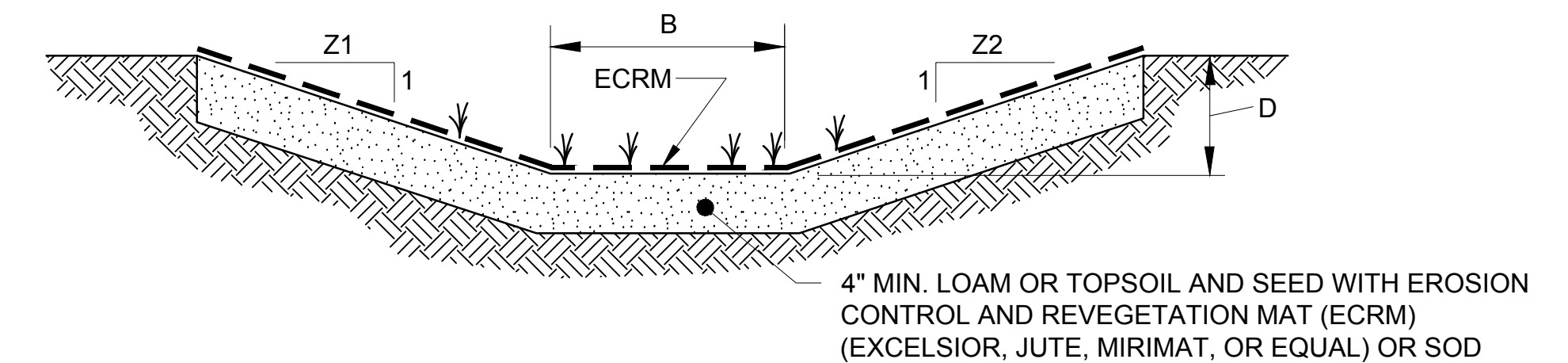
**PIPE TRENCH**  
NOT TO SCALE

3  
C506



**UNDERDRAIN**  
NOT TO SCALE

4  
C104



- NOTES**
- CHANNEL DIMENSIONS ARE FOR THE COMPLETED CHANNEL FINISH SURFACE GRADE.
  - INSTALL EROSION CONTROL BLANKET LINING TO TOP OF CHANNEL.
  - INSTALL LINING PER MANUFACTURES SPECIFICATIONS AND RECOMMENDATIONS. SEED SLOPES PRIOR TO INSTALLATION PER MANUFACTURER RECOMMENDATIONS.
  - VEGETATED CHANNELS SHALL BE CONSTRUCTED FREE OF ROCKS, TREE ROOTS, STUMPS OR OTHER PROJECTIONS THAT WILL IMPEDE NORMAL CHANNEL FLOW AND/OR PREVENT GOOD LINING TO SOIL CONTACT. THE CHANNEL SHALL BE INITIALLY OVER-EXCAVATED TO ALLOW FOR THE PLACEMENT OF TOPSOIL.
  - ALL CHANNELS MUST BE KEPT FREE OF OBSTRUCTIONS SUCH AS FILL GROUND, FALLEN LEAVES AND WOODY DEBRIS, ACCUMULATED SEDIMENT, AND CONSTRUCTION MATERIALS/WASTES. CHANNELS SHOULD BE KEPT MOWED AND/OR FREE OF ALL WEEDY, BRUSHY OR WOODY GROWTH. ANY UNDERGROUND UTILITIES RUNNING ACROSS/THROUGH THE CHANNEL(S) SHALL BE IMMEDIATELY BACKFILLED AND THE CHANNEL(S) REPAIRED AND STABILIZED PER THE CHANNEL CROSS-SECTION DETAIL. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.

| CHANNEL | LENGTH (FT.) | B  | D    | SIDE SLOPE |     | LINING | STAPLE PATTERN | SLOPE (%) |
|---------|--------------|----|------|------------|-----|--------|----------------|-----------|
|         |              |    |      | Z1         | Z2  |        |                |           |
| A       | 238'         | 2' | 2.0' | 9          | 3   | ECRM   | -              | 0.5       |
| B       | 78'          | 0' | 2.0' | 12         | 100 | ECRM   | -              | 0.5       |
| C       | 140'         | 0' | 2.0' | 10         | 3   | ECRM   | -              | 0.46      |
| D       | 183'         | 0' | 1.7' | 20         | 3   | ECRM   | -              | 0.31      |
| E       | 100'         | 0' | 2.0' | 10         | 3   | ECRM   | -              | 2.12      |

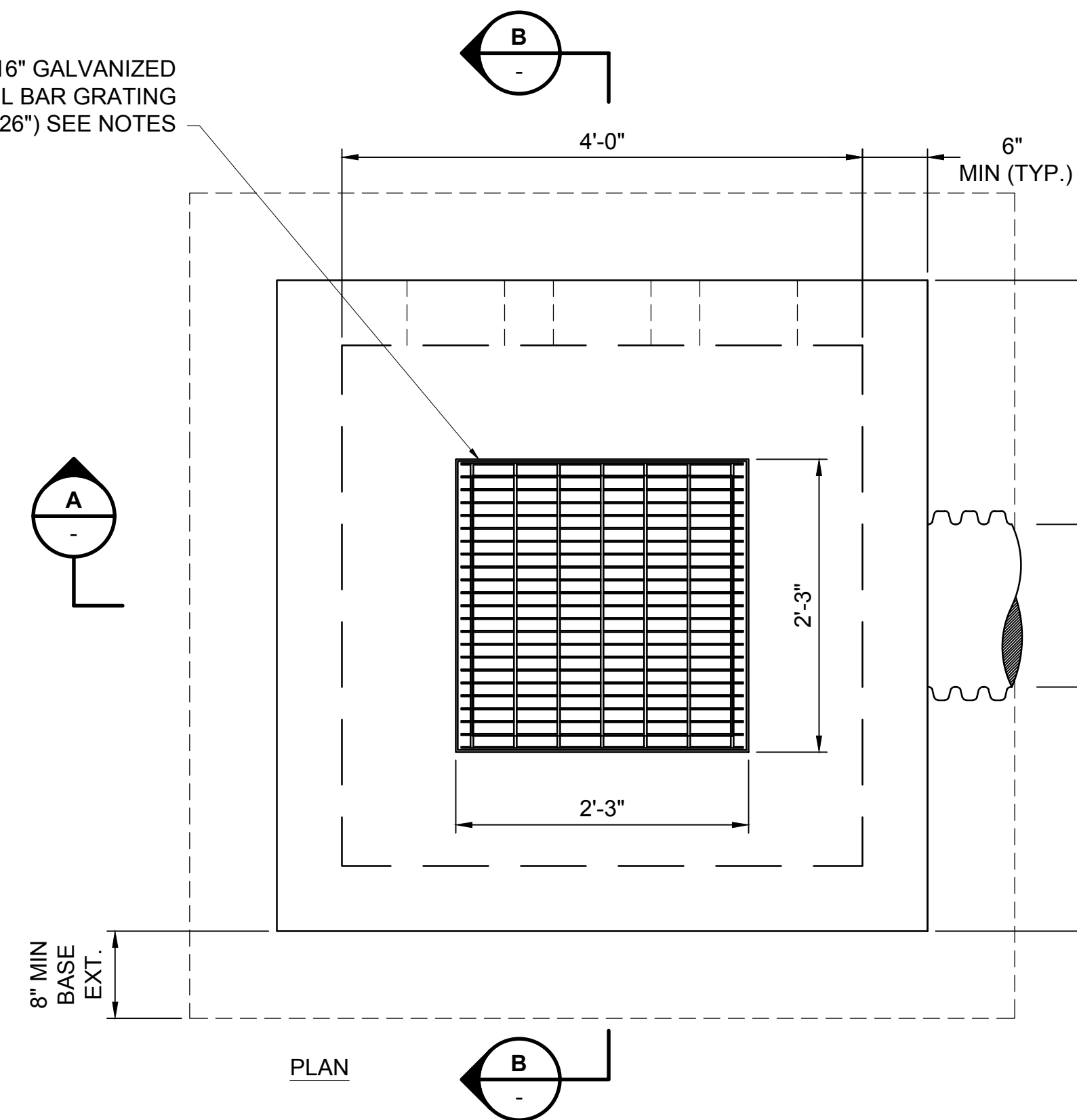
**GRASS SWALE CROSS SECTION**  
NOT TO SCALE

5  
C101  
C104

**FOR PERMITTING PURPOSES ONLY  
NOT FOR CONSTRUCTION**

THE NORTHERN PASS  
Transmission Business  
TRANSITION STATION #6  
CONSTRUCTION DETAILS  
DATE: 10/7/2015  
SCALE: NTS  
DES: JUS CHK: RLR  
DRW: JUS APR: BSS  
TOWN: BRIDGewater, NH  
TRANSMISSION LINE:  
MILE NO:  
SHEET 16 OF 20  
NPTT916-C506  
REVISION: xxx

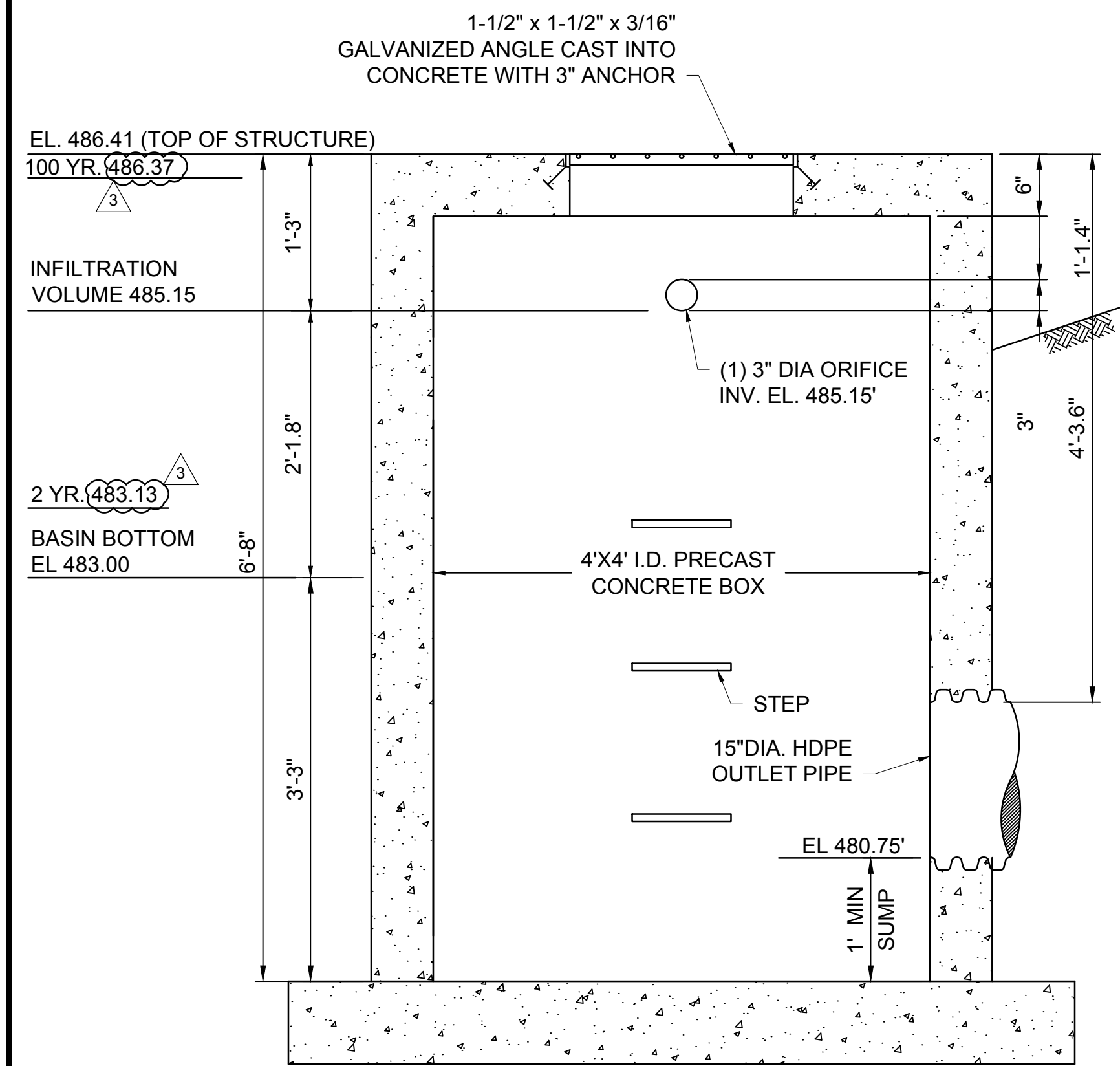
1-1/4" x 1/8" @ 1-3/16" GALVANIZED WELDED STEEL BAR GRATING (1 PANEL @ 26-1/4" x 26") SEE NOTES



PLAN

**OUTLET CONTROL STRUCTURE NOTES:**

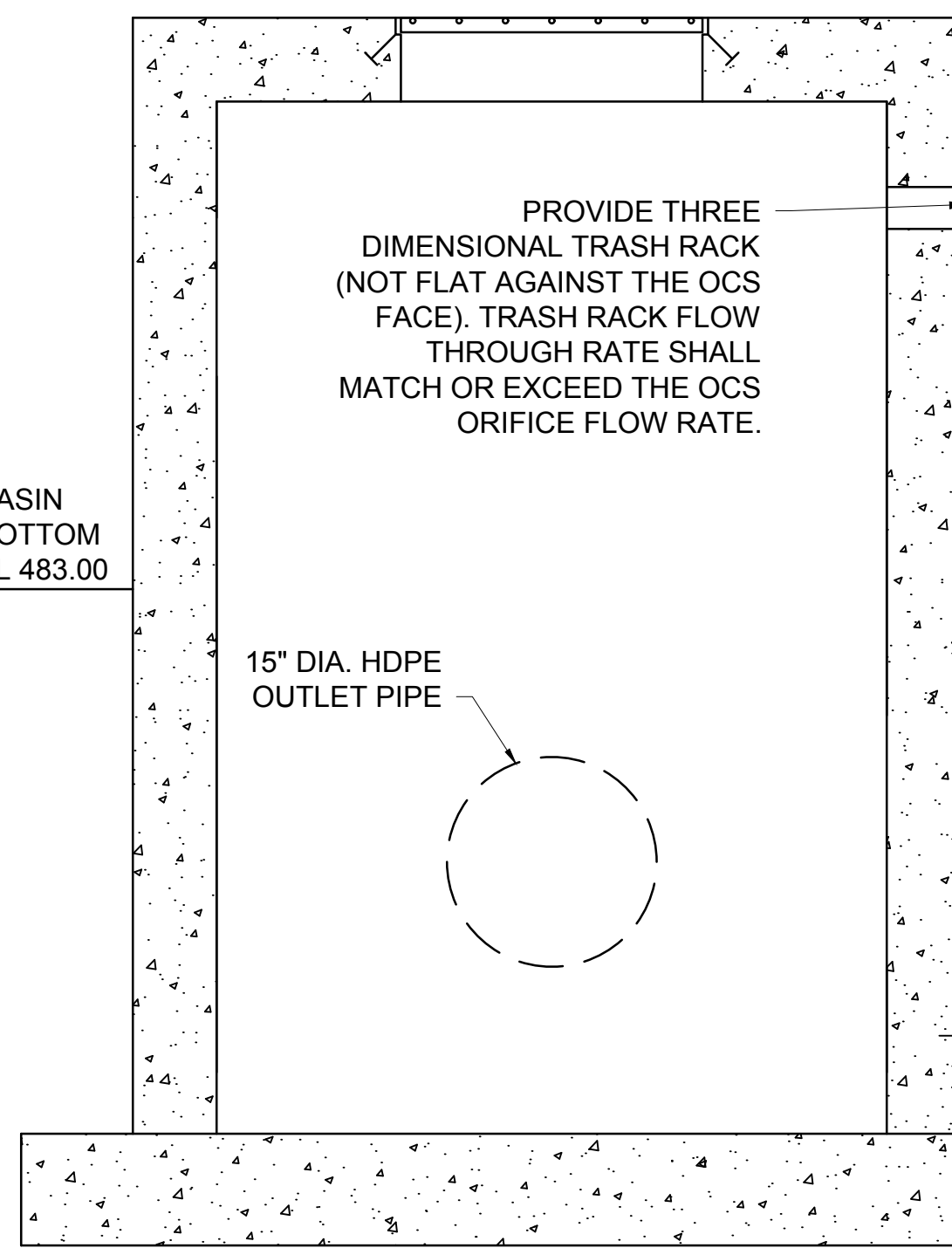
- CATCH BASIN STRUCTURE IS TO BE PRECAST CONCRETE.
- THE LOCATION AND ELEVATION INDICATED ON NPTT907-C104 ARE AT THE TOP CENTER OF THE GRATE. THE ORIFICE HOLES SHOULD BE PLACED AT THE ELEVATIONS AS SHOWN ON THE PLANS AND DETAILS.
- GRATING SHALL BE AMICO STANDARD WELDED TYPE "W" 19W4 RESISTANCE WELDED GRATING AS MANUFACTURED BY ALABAMA METAL INDUSTRIES CORP. OR ENGINEERING APPROVED EQUAL.



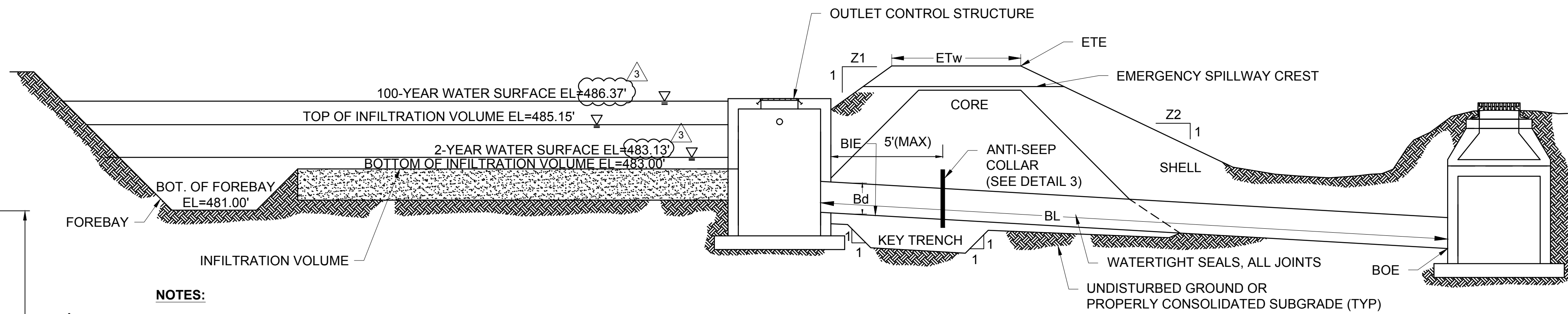
SECTION A-A

**NORTH OUTLET CONTROL STRUCTURE**  
NOT TO SCALE

2  
C104



SECTION B-B



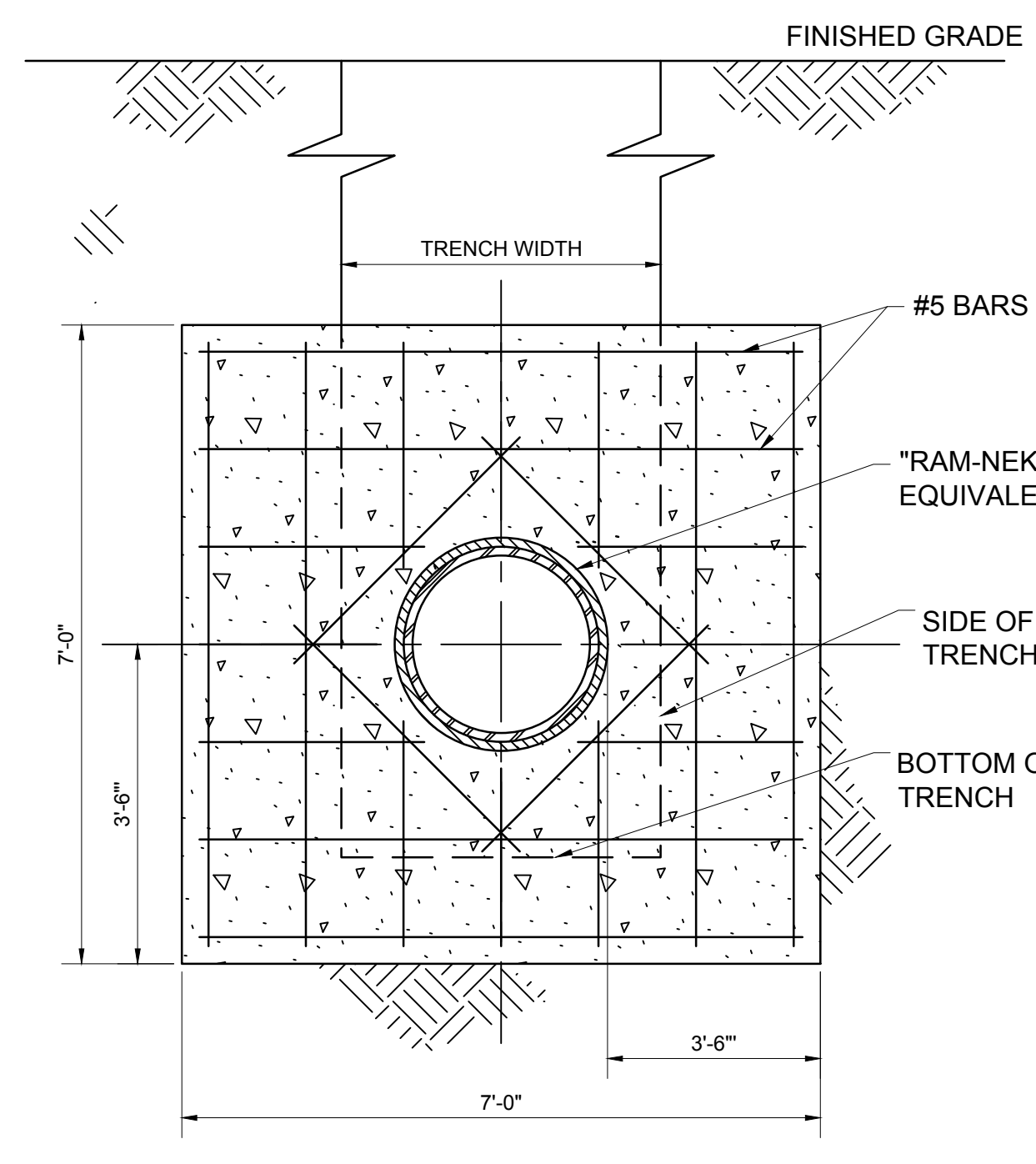
| BASIN | BARREL  |         |             |                     | EMBANKMENT |                |                      |                   |                    |            |
|-------|---------|---------|-------------|---------------------|------------|----------------|----------------------|-------------------|--------------------|------------|
|       | Z1 (FT) | Z2 (FT) | DIA Bd (IN) | INLET ELEV BIE (FT) | MAT'L      | LENGTH BL (FT) | OUTLET ELEV BOE (FT) | TOP ELEV ETE (FT) | TOP WIDTH ETW (FT) | CREST (FT) |
| NORTH | 3       | 3       | 15          | 480.75              | HDPE       | 210'           | 479.70               | 488.00            | 6                  | 487.00     |

**NORTH INFILTRATION BASIN CROSS SECTION**  
NOT TO SCALE

1  
C104

**NOTES:**

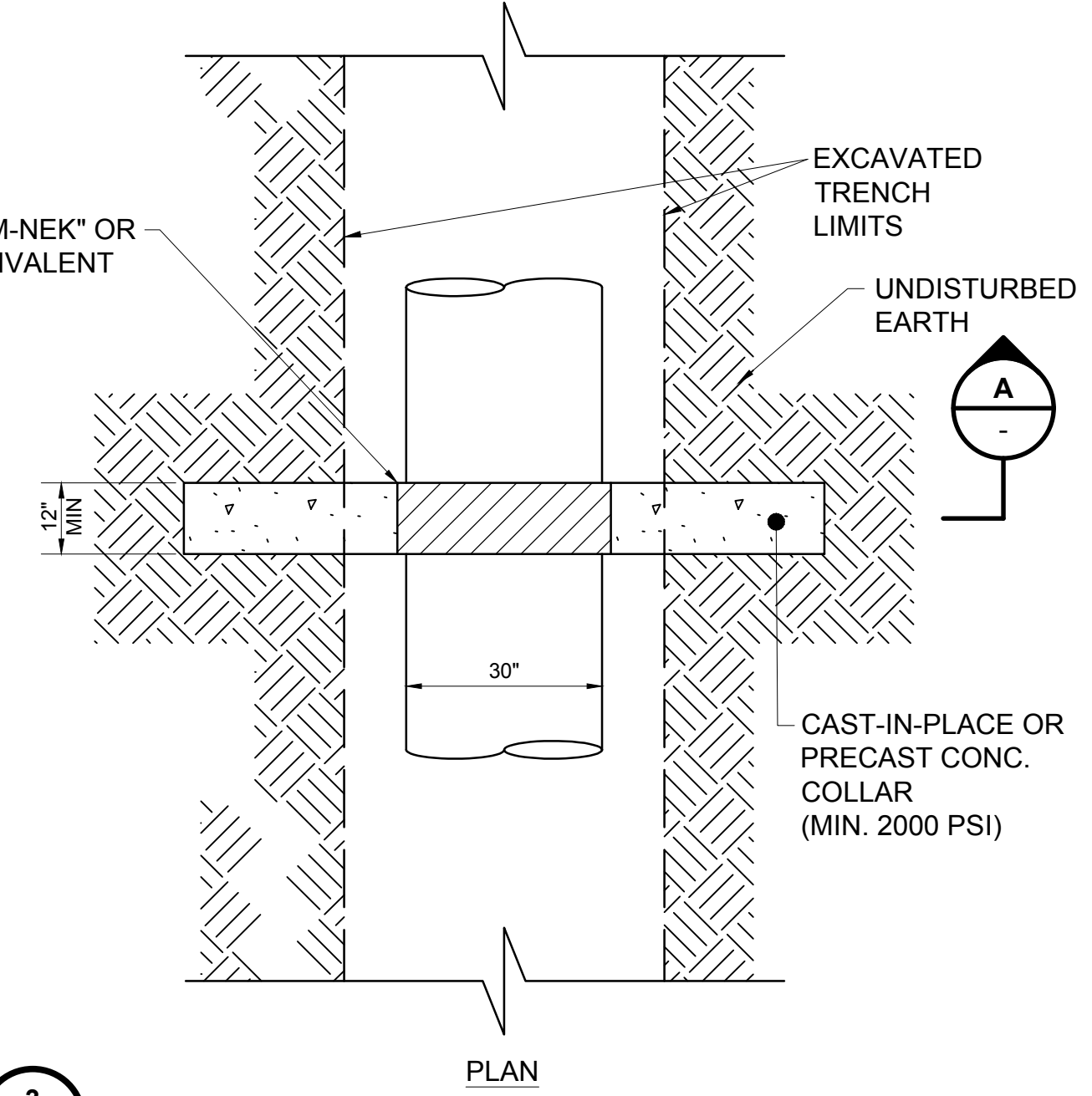
- WRAP PIPE WITH "RAM-NEK" OR EQUIVALENT WHERE PIPE IS EXPOSED TO CONCRETE PRIOR TO POURING.
- EXCAVATION & BACKFILL SHALL BE AS SPECIFIED.
- DO NOT PLACE WITHIN 2 FEET OF A PIPE JOINT.
- REFER TO DETAIL 1 FOR LOCATION.



SECTION A-A

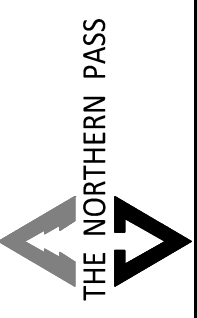
**ANTI SEEP COLLAR**  
NOT TO SCALE

3  
C508  
C509



PLAN

| NO. | REVISION                           | DATE    | BY  | CHKD | APPRV. |
|-----|------------------------------------|---------|-----|------|--------|
| 1   | ISSUED FOR PERMITTING              | 10/7/15 | JUS | RJR  | BSS    |
| 2   | REVISED PER PERMIT REVIEW COMMENTS | 12/2/16 | JUS | RJR  | BSS    |
| 3   | REVISED PER PERMIT REVIEW COMMENTS | 12/2/16 | JUS | RJR  | BSS    |

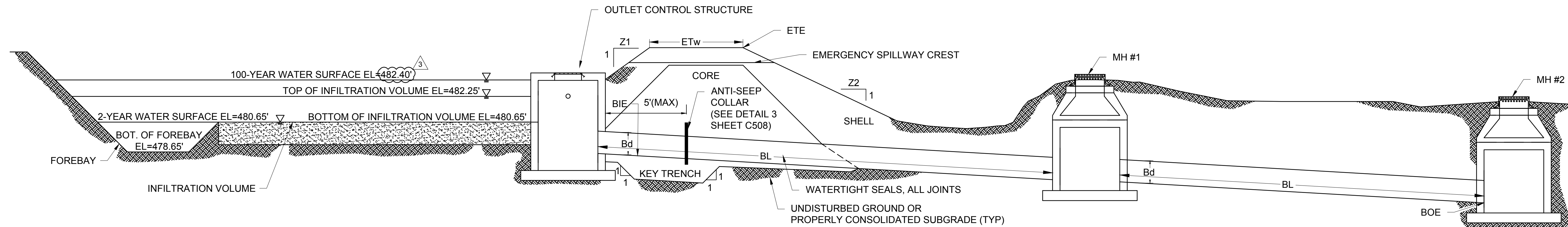


Transmission Business

TRANSITION STATION #6  
CONSTRUCTION DETAILS  
DATE: 10/7/2015  
SCALE: NTS

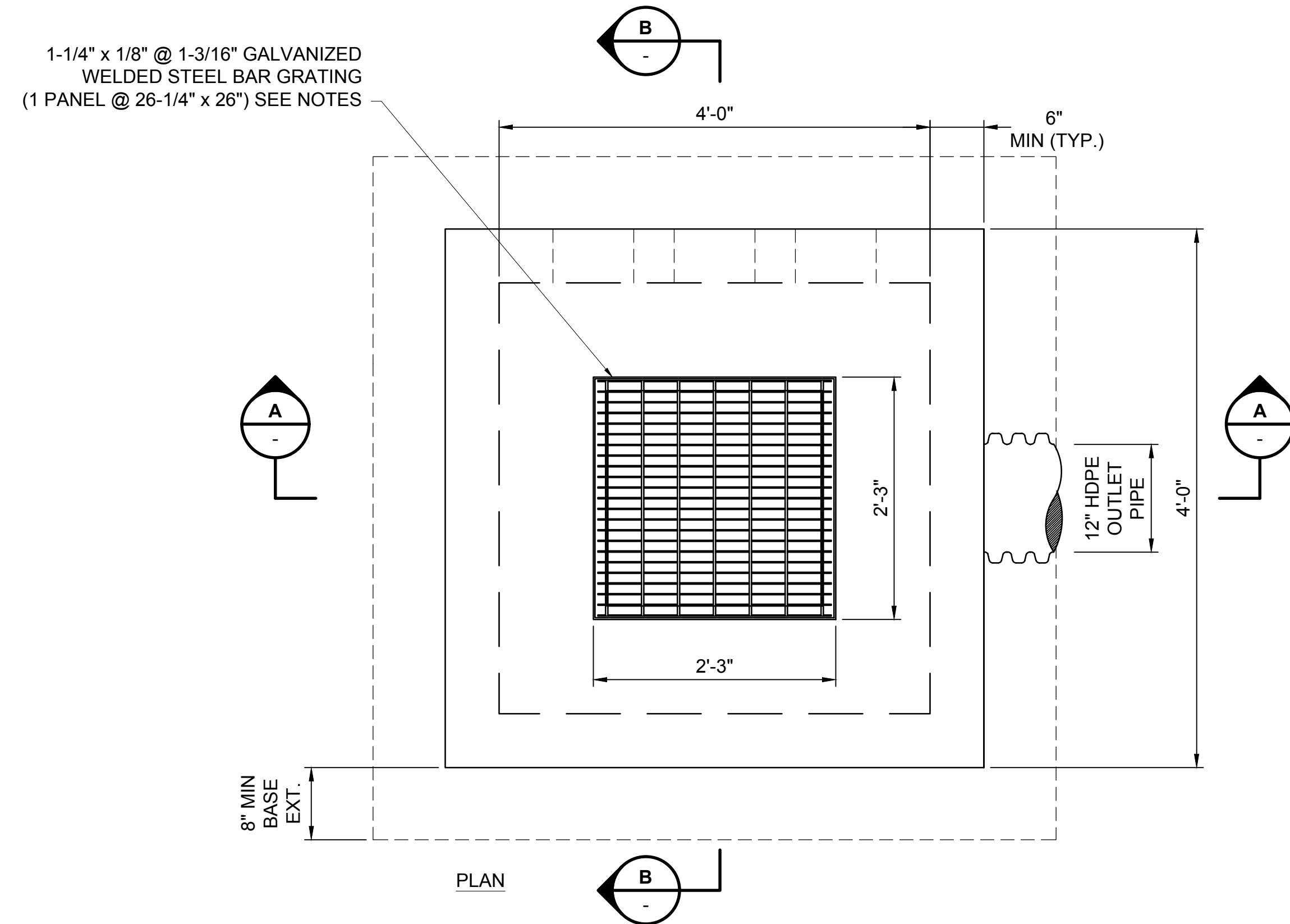
DES: JUS  
CHK: RJR  
DRW: JUS  
APR: BSS  
TOWN: BRIDGEWATER, NH  
TRANSMISSION LINE:  
MILE NO:  
SHEET 18 OF 20  
REVISION: xxx

**FOR PERMITTING PURPOSES ONLY  
NOT FOR CONSTRUCTION**

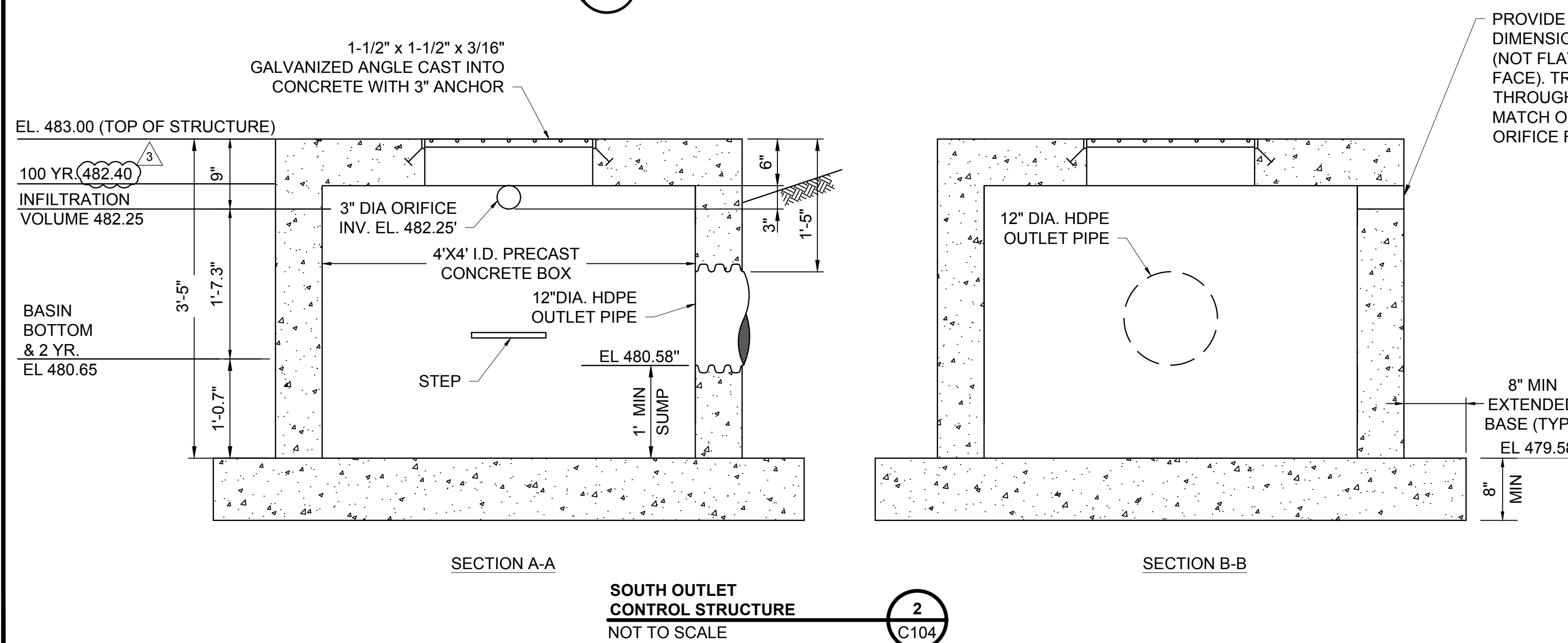


| BASIN | Z1 (FT) | Z2 (FT) | BARREL      |                     |       | EMBANKMENT     |                      |                   |                    |            |
|-------|---------|---------|-------------|---------------------|-------|----------------|----------------------|-------------------|--------------------|------------|
|       |         |         | DIA Bd (IN) | INLET ELEV BIE (FT) | MAT'L | LENGTH BL (FT) | OUTLET ELEV BOE (FT) | TOP ELEV ETE (FT) | TOP WIDTH ETw (FT) | CREST (FT) |
| SOUTH | 3       | 3       | 12          | 480.58              | HDPE  | 82' + 224'     | 479.70               | 484.15            | 6                  | 483.15     |

- NOTES:**
- INFILTRATION BASIN BASE MATERIAL SHALL BE A 6" LAYER CONSISTING OF COARSE SAND OR 3/8" PEA GRAVEL.
  - AFTER THE BASIN IS EXCAVATED TO THE FINAL DESIGN ELEVATION, THE FLOOR SHALL BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS WITH A LEVELING DRAG.
  - ABSOLUTELY NO RUNOFF IS TO ENTER INFILTRATION BASIN UNTIL ALL CONTRIBUTING DRAINAGE AREAS HAVE BEEN STABILIZED. SURFACE OF BASIN SHALL BE LEVEL.



**SOUTH INFILTRATION BASIN CROSS SECTION**  
NOT TO SCALE



- OUTLET CONTROL STRUCTURE NOTES:**
- CATCH BASIN STRUCTURE IS TO BE PRECAST CONCRETE.
  - THE LOCATION AND ELEVATION INDICATED ON NPTT907-C104 ARE AT THE TOP CENTER OF THE GRATE. THE ORIFICE HOLES SHOULD BE PLACED AT THE ELEVATIONS AS SHOWN ON THE PLANS AND DETAILS.
  - GRATING SHALL BE AMICO STANDARD WELDED TYPE "W" 19W4 RESISTANCE WELDED GRATING AS MANUFACTURED BY ALABAMA METAL INDUSTRIES CORP. OR ENGINEERING APPROVED EQUAL.

**FOR PERMITTING PURPOSES ONLY  
NOT FOR CONSTRUCTION**

THE NORTHERN PASS  
Transmission Business

TRANSITION STATION #6  
CONSTRUCTION DETAILS

DATE: 10/17/2015  
SCALE: NTS

DES: JUS CHK: RLR  
DRW: JUS APR: BSS  
TOWN: BRIDGEWATER, NH  
TRANSMISSION LINE:

MILE NO:  
SHEET 19 OF 20  
NPTT919-C509

REVISION: xxx