





STATION: 12+80.60 ±  
OFFSET: 14.08' LEFT  
GROUND ELEVATION: 545.78

STATION: 12+28.56 ±  
OFFSET: 18.77' LEFT  
GROUND ELEVATION: 546.23

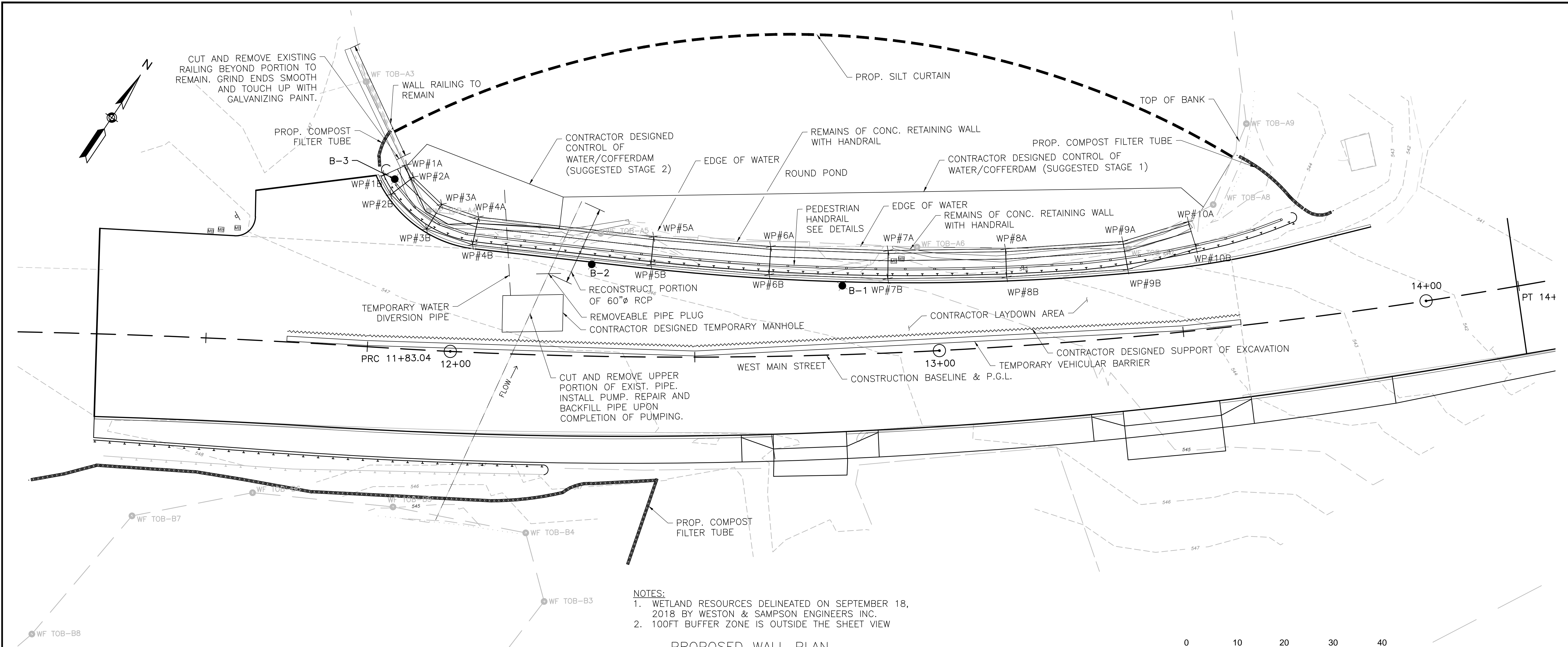
STATION: 11+86.52 ±  
OFFSET: 34.51' LEFT  
GROUND ELEVATION: 546.56

1. LOCATION OF BORING SHOWN ON PLAN THUS  B-#

2. BORINGS ARE TAKEN FOR THE PURPOSE OF DESIGN AND SHOW CONDITIONS AT THE BORING POINTS ONLY, BUT NOT NECESSARILY SHOW THE NATURE OF THE MATERIALS TO BE ENCOUNTERED DURING CONSTRUCTION.
3. WATER LEVELS SHOWN ON THE BORING LOGS WERE OBSERVED AT THE TIME OF TAKING BORINGS AND DO NOT NECESSARILY SHOW THE TRUE GROUND WATER LEVEL.
4. FIGURES IN COLUMNS INDICATE NUMBER OF BLOWS REQUIRED TO DRIVE A 1-3/8" I.D. SPLIT SPOON SAMPLER 6" USING A 140 POUND WEIGHT FALLING 30".
5. ALL BORINGS WERE MADE SEPTEMBER 25, 2018.
6. BORINGS WERE MADE BY TECHNICAL DRILLING SERVICES.
7. THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 IS USED THROUGHOUT.

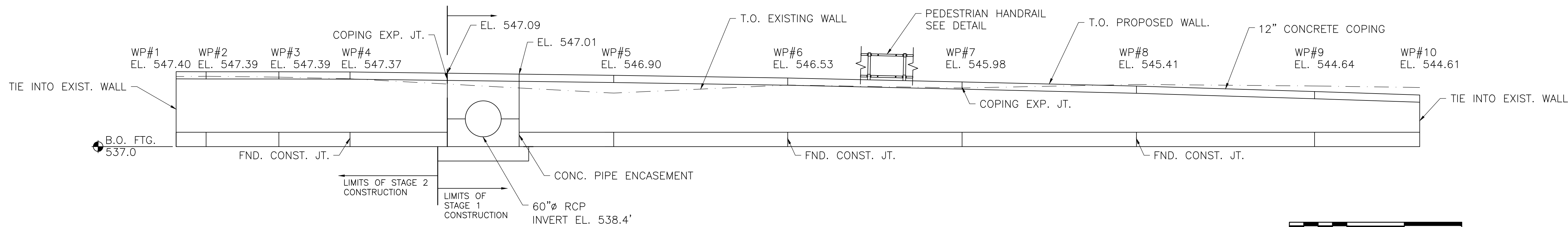
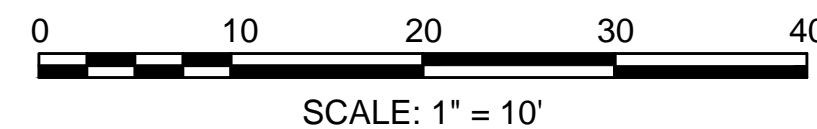






- NOTES:
1. WETLAND RESOURCES DELINEATED ON SEPTEMBER 18, 2018 BY WESTON & SAMPSON ENGINEERS INC.
  2. 100FT BUFFER ZONE IS OUTSIDE THE SHEET VIEW

PROPOSED WALL PLAN  
SCALE: 1"=10'



| WORKING POINT | STATION   | OFFSET      | WORKING POINT | STATION   | OFFSET      |
|---------------|-----------|-------------|---------------|-----------|-------------|
| WP#1A         | 11+88.85' | 37.56' (LT) | WP#1B         | 11+83.56' | 34.79' (LT) |
| WP#2A         | 11+90.44' | 35.15' (LT) | WP#2B         | 11+85.90' | 31.34' (LT) |
| WP#3A         | 11+96.69' | 29.92' (LT) | WP#3B         | 11+93.81' | 24.74' (LT) |
| WP#4A         | 12+04.60' | 27.69' (LT) | WP#4B         | 12+03.56' | 22.00' (LT) |
| WP#5A         | 12+41.43' | 24.56' (LT) | WP#5B         | 12+40.90' | 18.83' (LT) |
| WP#6A         | 12+65.91' | 22.44' (LT) | WP#6B         | 12+65.47' | 16.71' (LT) |
| WP#7A         | 12+90.40' | 20.91' (LT) | WP#7B         | 12+90.09' | 15.16' (LT) |
| WP#8A         | 13+14.86' | 19.95' (LT) | WP#8B         | 13+14.71' | 14.20' (LT) |
| WP#9A         | 13+39.36' | 19.57' (LT) | WP#9B         | 13+39.87' | 13.80' (LT) |
| WP#10A        | 13+53.36' | 21.29' (LT) | WP#10B        | 13+54.45' | 16.64' (LT) |

PROPOSED WALL STATIONS AND OFFSETS

DESIGN  
IN ACCORDANCE WITH THE 2018 AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS LRFD BRIDGE DESIGN SPECIFICATIONS.

THE FACTORED BEARING PRESSURE = 3.29 KSF PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS STRENGTH I LOAD COMBINATION.

THE FACTORED BEARING RESISTANCE = 6 KSF. FACTORED BEARING RESISTANCE IS THE PRODUCT OF THE NOMINAL BEARING RESISTANCE AND A RESISTANCE FACTOR OF 0.45.

NOTES

1. WALL FOOTING, COPING AND OUTLET STRUCTURE CONCRETE SHALL BE 4000 PSI, 1 1/2 IN, 565 CEMENT CONCRETE.
2. ALL REINFORCING SHALL CONFORM TO AASHTO M 31 GRADE 60.
3. LIVE LOAD CONSTRUCTION SURCHARGE SHALL BE LIMITED TO AN APPLIED SERVICE LOAD OF 240 PSF.
4. CONTRACTOR MAY ELECT TO USE C.I.P. OR PRECAST CONCRETE COPING.
5. THE 100-FOOT BUFFER ZONE FROM POND BANK IS OUTSIDE THE EXTENT OF THIS VIEW.
6. WETLAND DELINEATION CONDUCTED BY WESTON & SAMPSON ON SEPTEMBER 18TH, 2018.

PROPOSED WALL PROJECTED ELEVATION  
SCALE: 1/8" = 1'-0"

- SUGGESTED WALL/OUTLET CONSTRUCTION SEQUENCE
- A. INSTALL TEMPORARY MANHOLE. INSTALL TEMPORARY PIPE PLUG. PUMP WATER AS REQUIRED TO CONTINUALLY MAINTAIN POND ELEVATION OF 543.0.
  - B. INSTALL SILT CURTAIN AND EROSION CONTROLS.
  - C. INSTALL CONTRACTOR DESIGNED CONTROL OF WATER/COFFERDAM IN VICINITY OF STAGE 1 (AS SHOWN ON PLAN).
  - D. DEWATER COFFERDAM AS REQUIRED TO DEMOLISH AND REMOVE REMNANTS OF EXISTING DEFICIENT RETAINING WALL AND COMPONENTS WITHIN THE COFFERDAM CONFINES.
  - E. EXCAVATE AND DEWATER AS REQUIRED TO INSTALL FOUNDATION SUBGRADE AND FOOTINGS.
  - F. CONSTRUCT STAGE 1 WALL STEMS AND PROPOSED PIPE OUTLET.
  - G. CONSTRUCT OUTLET AT NORTH END AND PROPOSED PIPE ACROSS ROAD (A MINIMUM SINGLE ALTERNATING TRAFFIC LANE MUST BE MAINTAINED AT ALL TIMES).
  - H. PARTIALLY REMOVE CONTROL OF WATER, PIPE PLUG AND ALLOW FLOW THROUGH REBUILT PIPE AND OUTLET STRUCTURE.
  - I. REPEAT THE ABOVE SEQUENCE FOR STAGE 2 WITH THE EXCEPTION OF WATER PUMPING TO MAINTAIN POND WATER ELEVATION.

Weston & Sampson

100 Foxborough Boulevard,  
Suite 250, Foxborough, MA 02035  
508.698.3034  
800.SAMPSON  
www.westonandsampson.com

|     |      |        |        |         |             |
|-----|------|--------|--------|---------|-------------|
| No. | Date | Dr. By | Ck. By | App. By | Description |
|     |      |        |        |         |             |

REGISTERED PROFESSIONAL ENGINEER

DATE

COMMONWEALTH OF MASSACHUSETTS

SCOTT R. BRUSO

STRUCTURAL

No. 48061

REGISTERED PROFESSIONAL ENGINEER

TOWN OF MILLBURY, MASSACHUSETTS

MILLBURY HIGHWAY DEPARTMENT

WEST MAIN STREET ROUND POND WALL

GENERAL NOTES, PLAN, AND ELEVATION

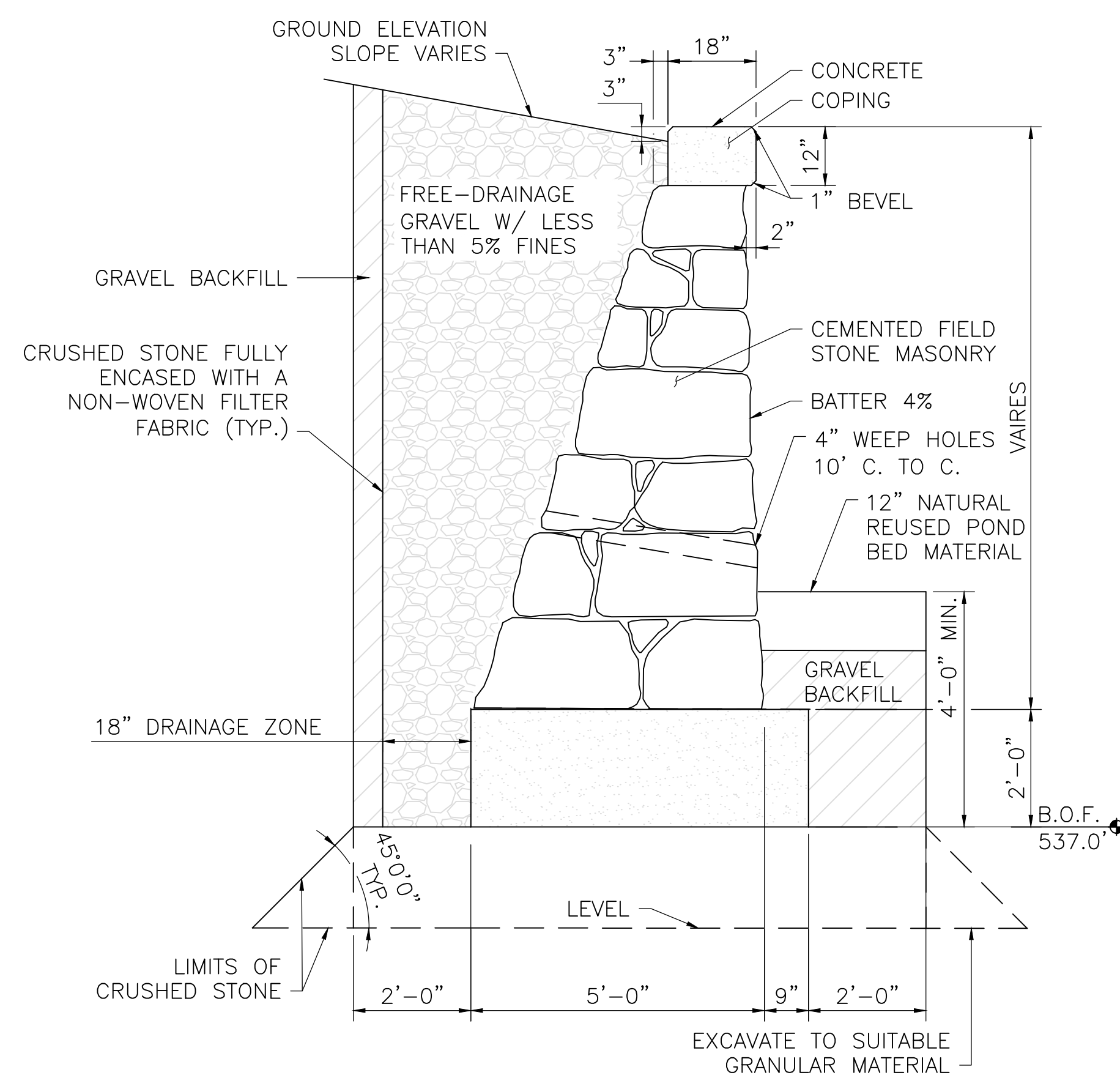
|           |          |
|-----------|----------|
| SCALE:    | AS NOTED |
| CONTRACT: |          |
| JOB NO.   | 2180463  |
| DR. BY    | AAC      |
| DSN. BY   | CM       |
| CHK. BY   | CM       |
| APP. BY   | RAC      |

S-3

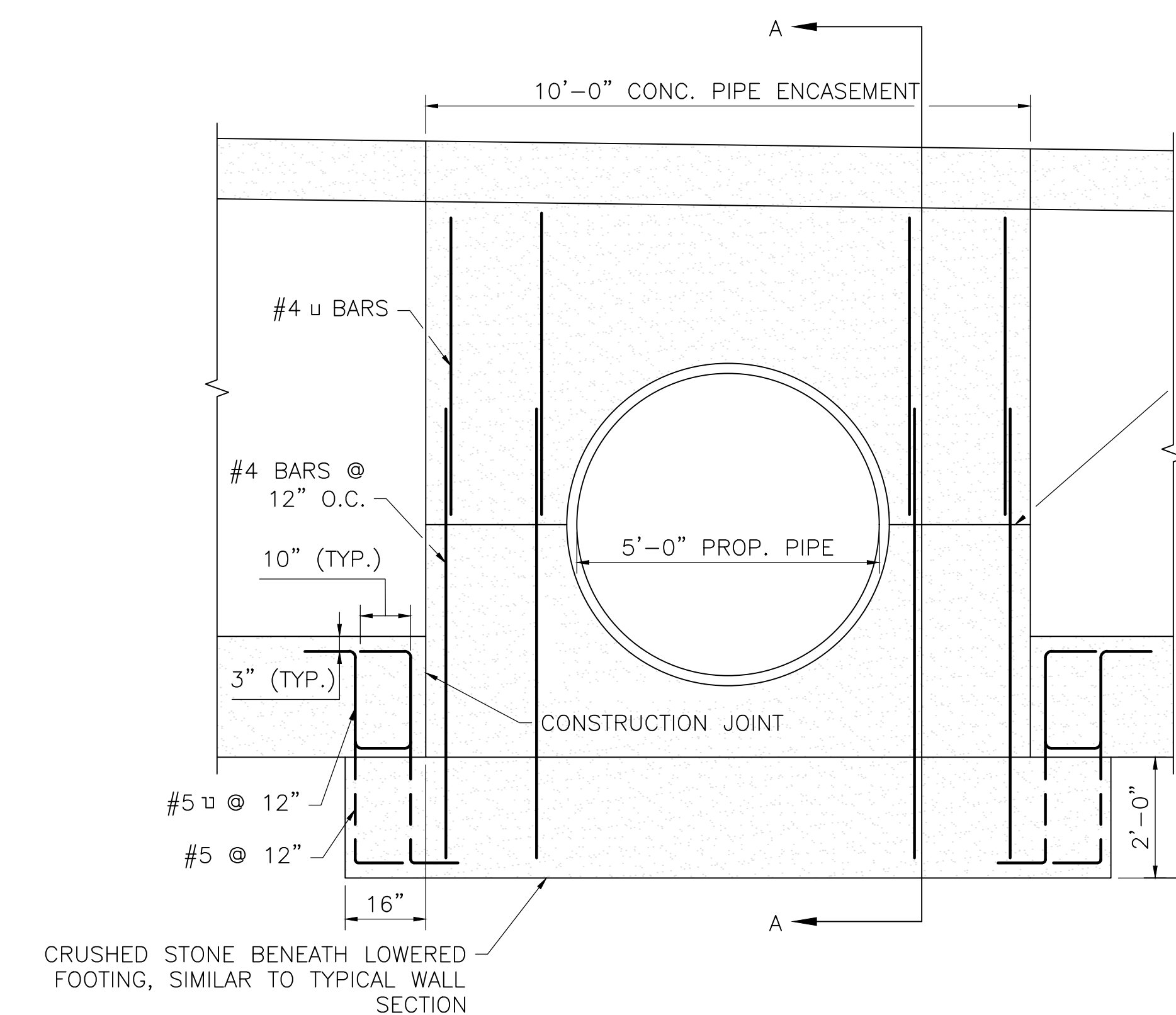
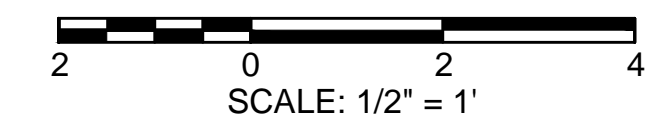
FILE NO.

SHEET 10 OF 12

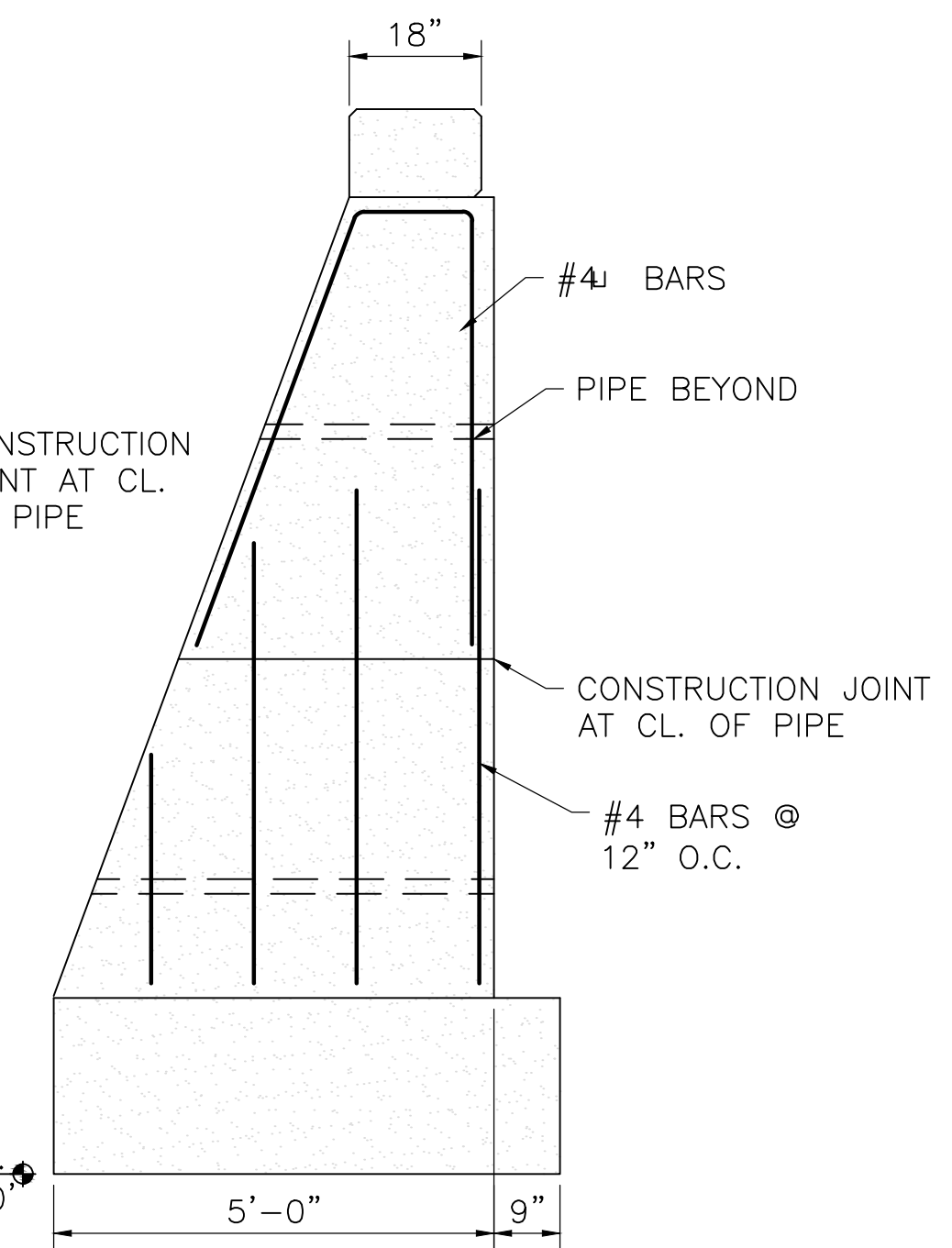




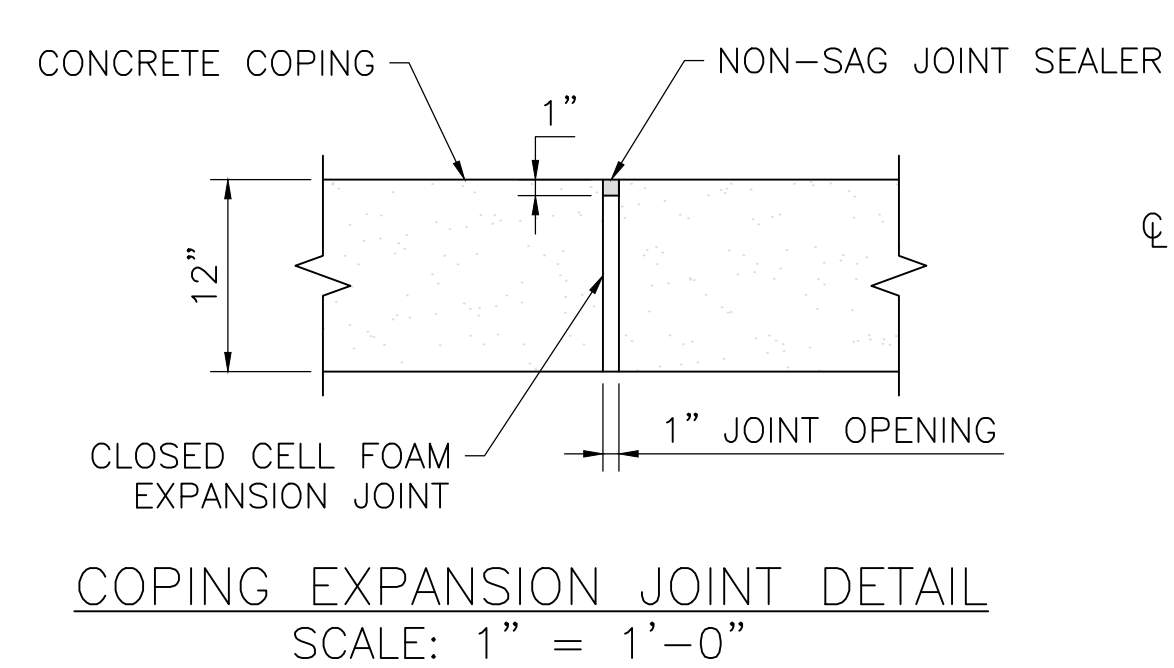
PROPOSED WALL SECTION (TYP.)  
SCALE:  $\frac{1}{2}" = 1'-0"$



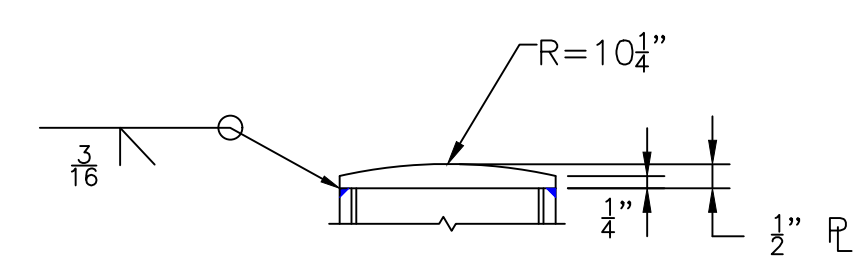
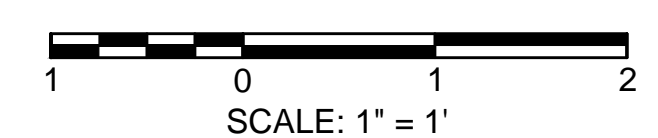
PROPOSED OUTLET STRUCTURE ELEVATION  
SCALE:  $\frac{1}{2}" = 1'-0"$



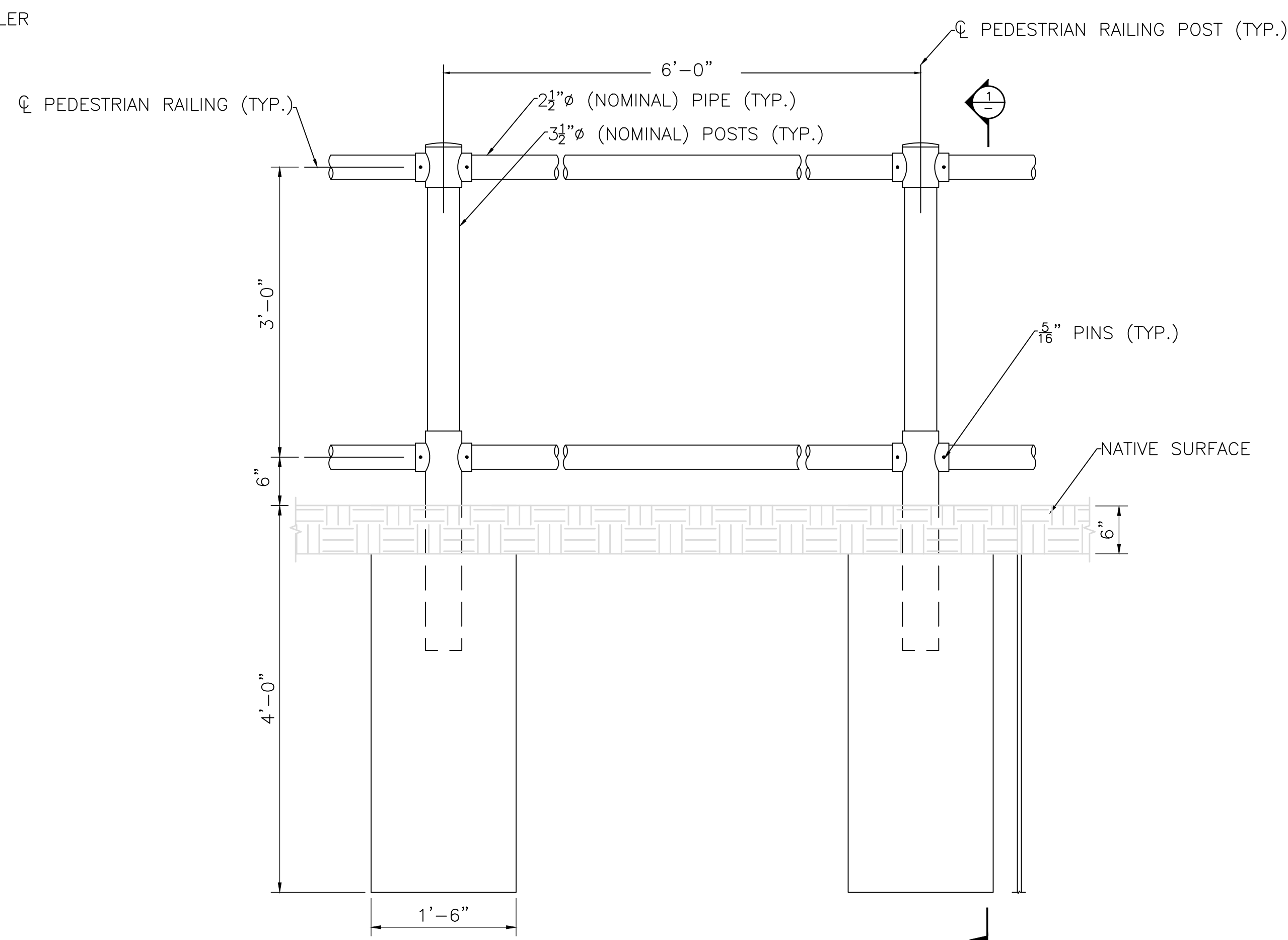
SECTION A-A  
SCALE:  $\frac{1}{2}" = 1'-0"$



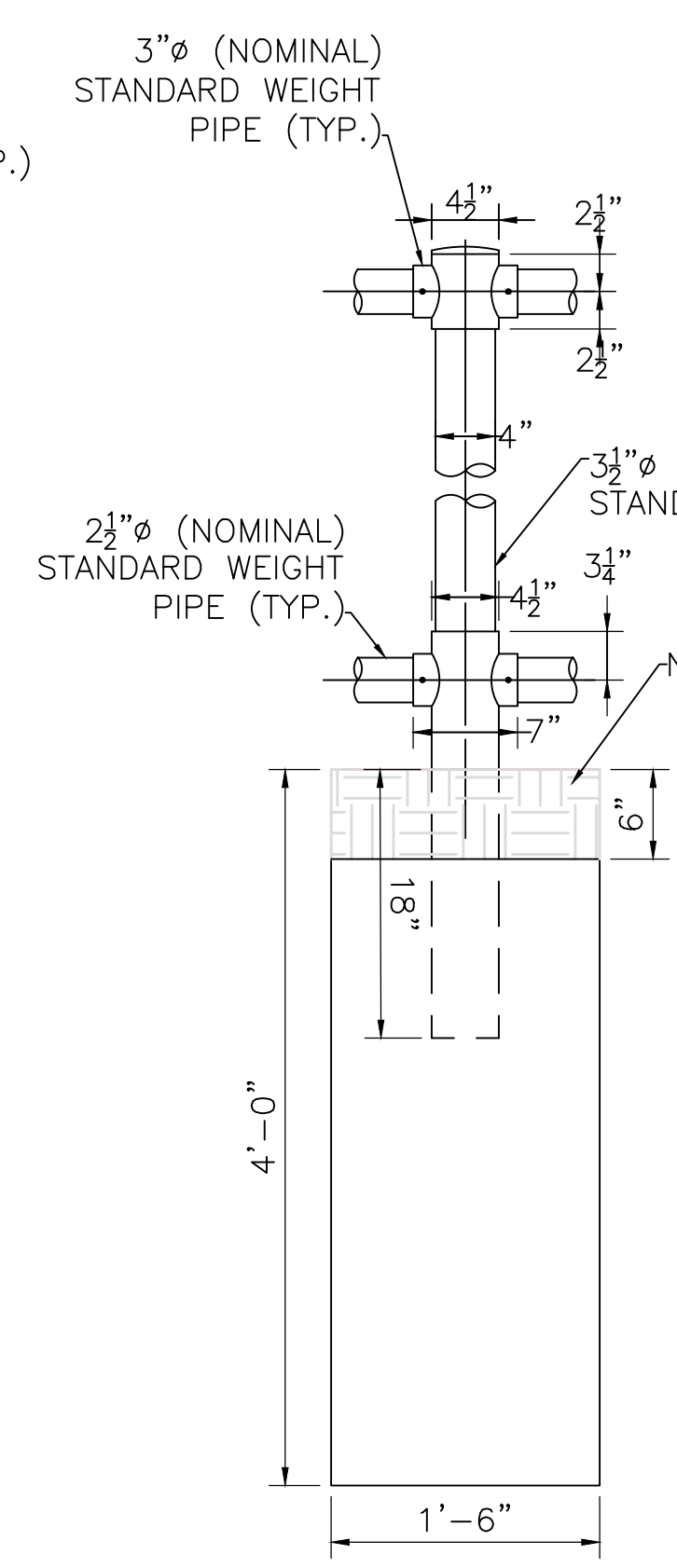
COPING EXPANSION JOINT DETAIL  
SCALE: 1" = 1'-0"



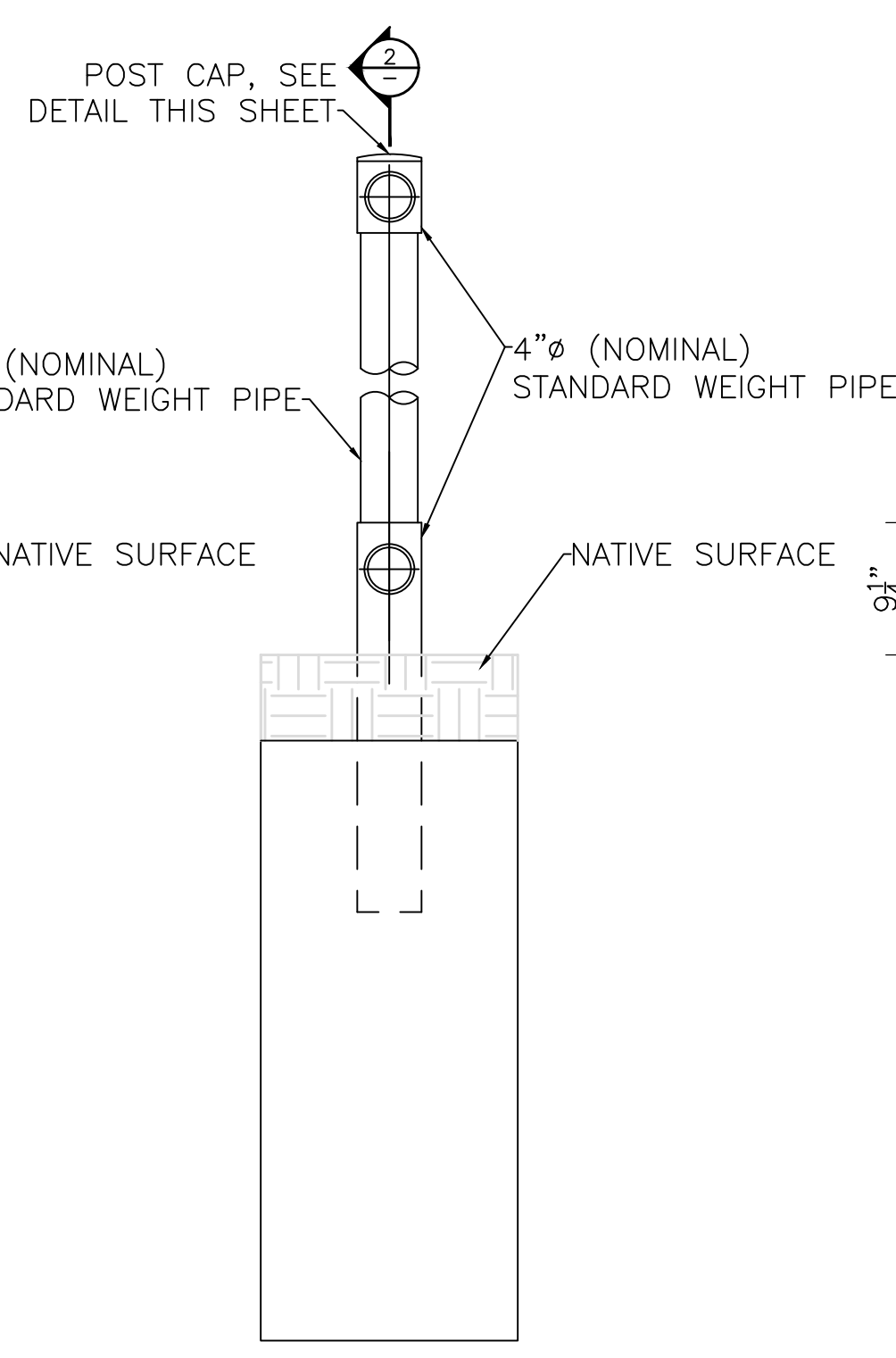
POST CAP DETAIL  
SCALE: 3" = 1'-0"



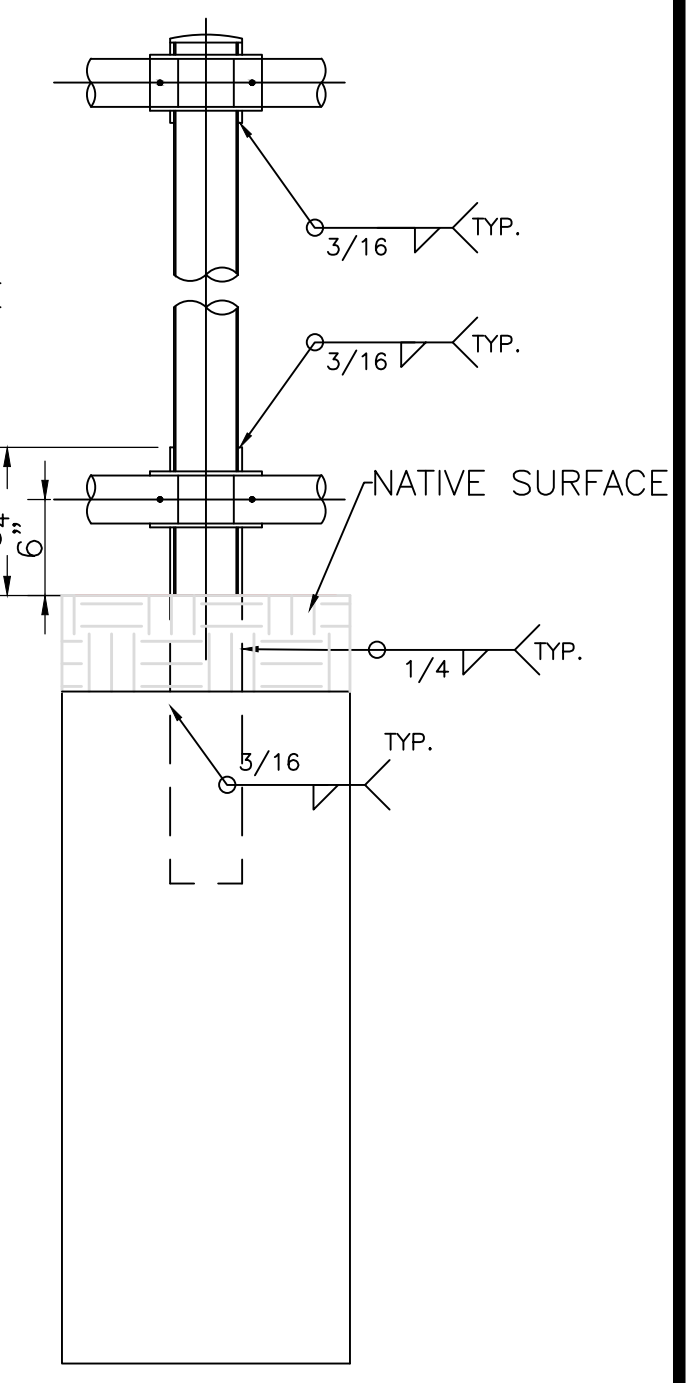
PROPOSED RAILING ELEVATION  
SCALE: 1" = 1'-0"



POST ELEVATION  
SCALE: 1" = 1'-0"

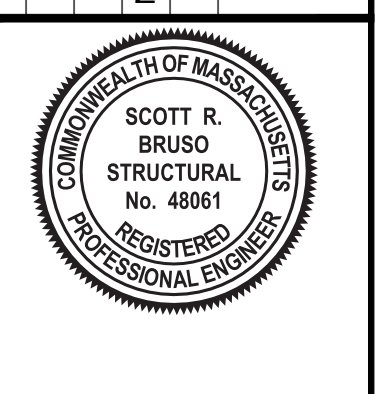


SECTION 1  
SCALE: 1" = 1'-0"



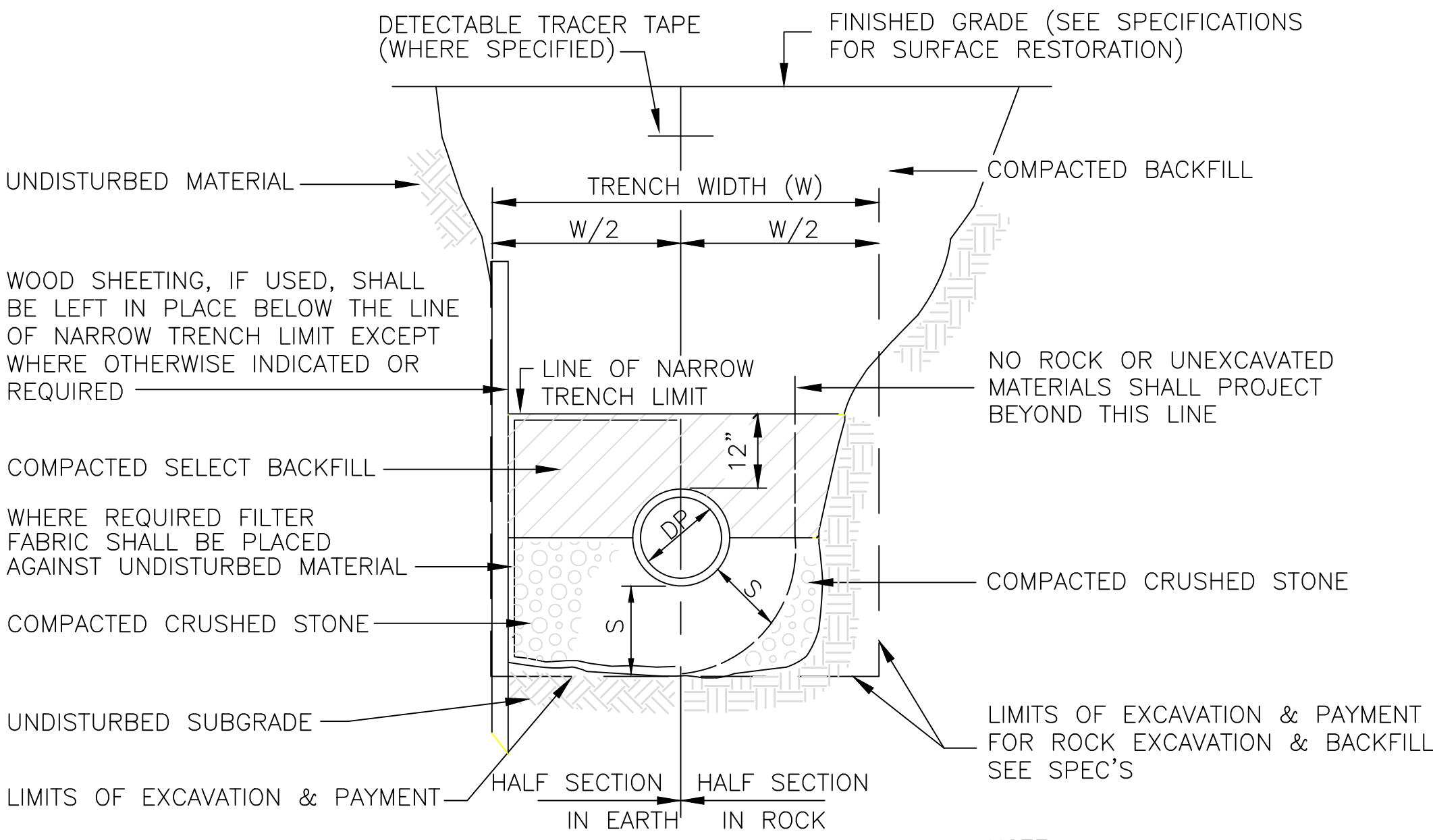
SECTION 2  
SCALE: 1" = 1'-0"

| No. | Date | Dr. By | Ck. By | App. By | Description |
|-----|------|--------|--------|---------|-------------|
|     |      | A      | P      | R       | O           |
|     |      |        |        |         | V           |
|     |      |        |        |         | E           |
|     |      |        |        |         | D           |



|  |                 |             |                 |            |            |            |             |
|--|-----------------|-------------|-----------------|------------|------------|------------|-------------|
| TOWN OF MILLBURY, MASSACHUSETTS<br>MILLBURY HIGHWAY DEPARTMENT<br>WEST MAIN STREET ROUND POND WALL | SCALE: AS NOTED | CONTRACT: - | JOB NO. 2180463 | DR. BY AAC | DSN. BY CM | CHK. BY CM | APP. BY RAC |
|--|-----------------|-------------|-----------------|------------|------------|------------|-------------|





TRENCH DETAIL  
(SEWER, FORCE MAIN, STORM DRAIN)  
N.T.S.

NOTE:  
FOR W, DP, & S, SEE TABLE A

| DIAMETER OF PIPE (DP) | MAXIMUM TRENCH WIDTH BELOW LINE OF NARROW TRENCH LIMIT (SHEETED OR UNSHEETED) (W) | MINIMUM CLEARANCE (S) |
|-----------------------|---|-----------------------|
| 60"                   | 8'  | 8"                    |

TABLE A

FILE NO.

S-5

CADD NO.

-

SCALE:

AS NOTED

CONTRACT:

-

JOB NO.

2180463

DR BY

AAC

DSN BY

CM

CHK BY

CM

APP BY

RAC

SECTION

SECTIONS AND DETAILS II

TOWN OF MILLBURY, MASSACHUSETTS

MILLBURY HIGHWAY DEPARTMENT

WEST MAIN STREET ROUND POND WALL

REGISTERED PROFESSIONAL ENGINEER

SCOTT R. BRUSO

STRUCTURAL

No. 46861

COMMONWEALTH OF MASSACHUSETTS

REGISTERED PROFESSIONAL ENGINEER

DATE

Weston & Sampson

100 Foxborough Boulevard,  
Suite 250, Foxborough, MA 02035  
508.698.3034 800.SAMPSON  
www.westonandsampson.com