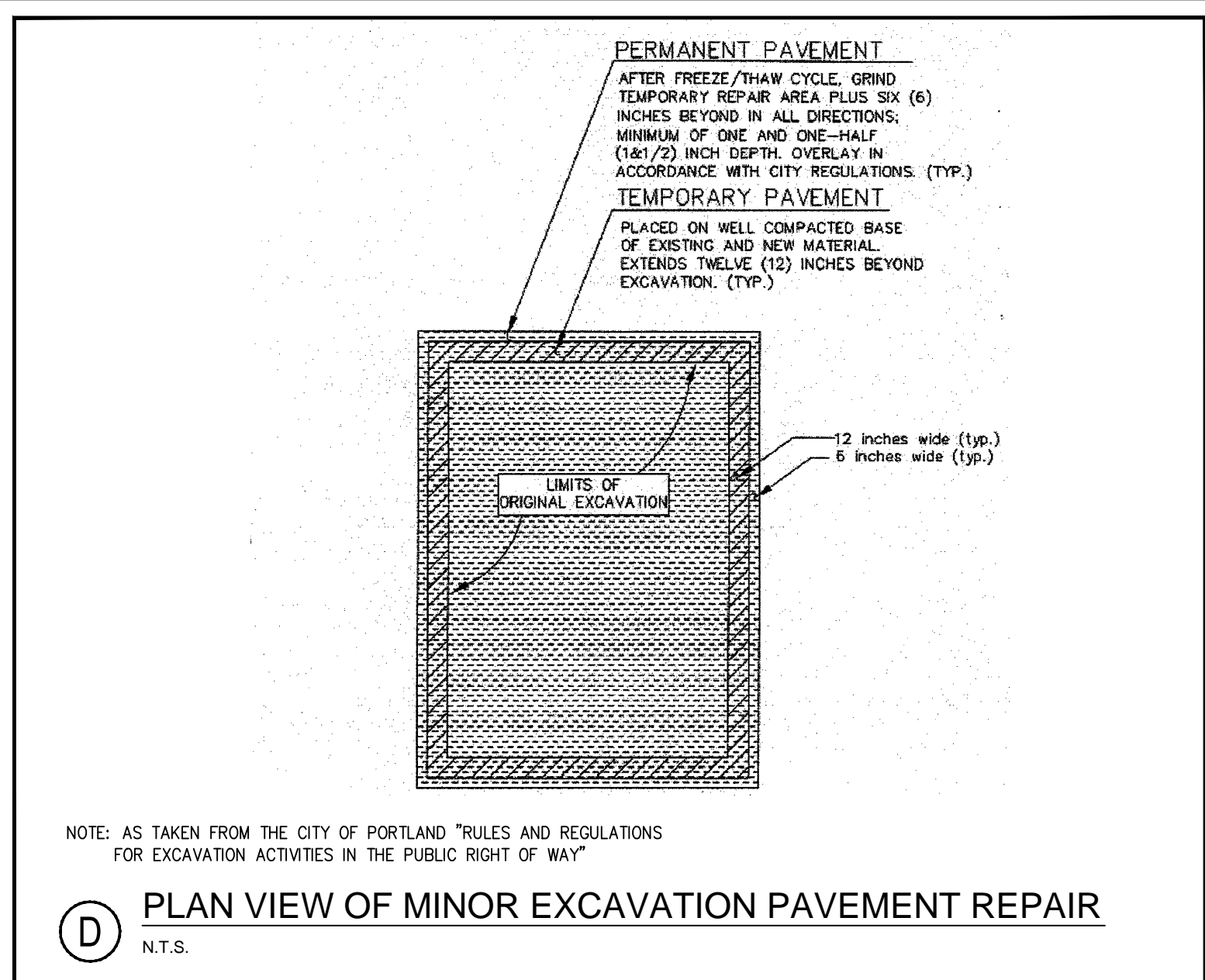
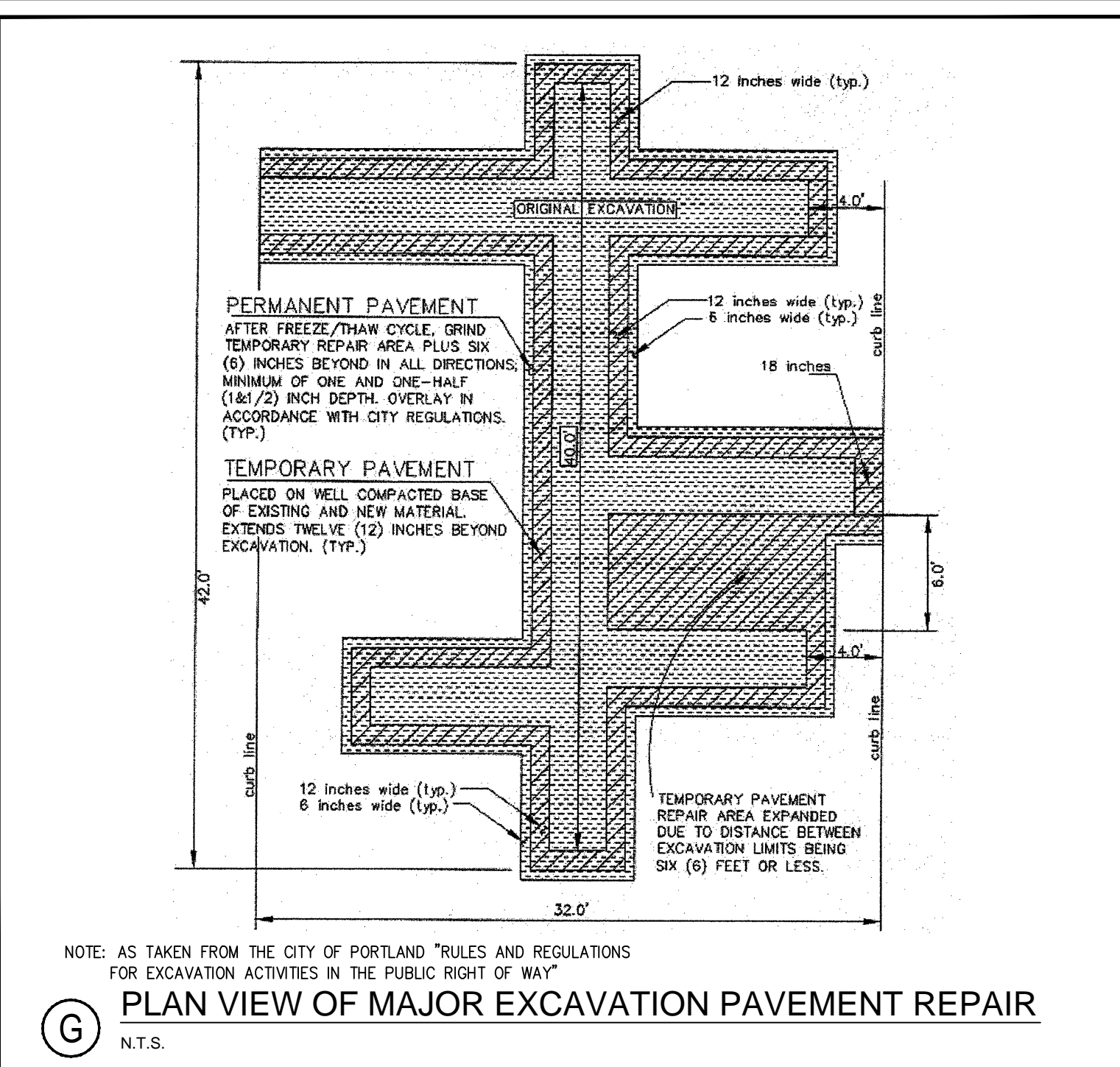


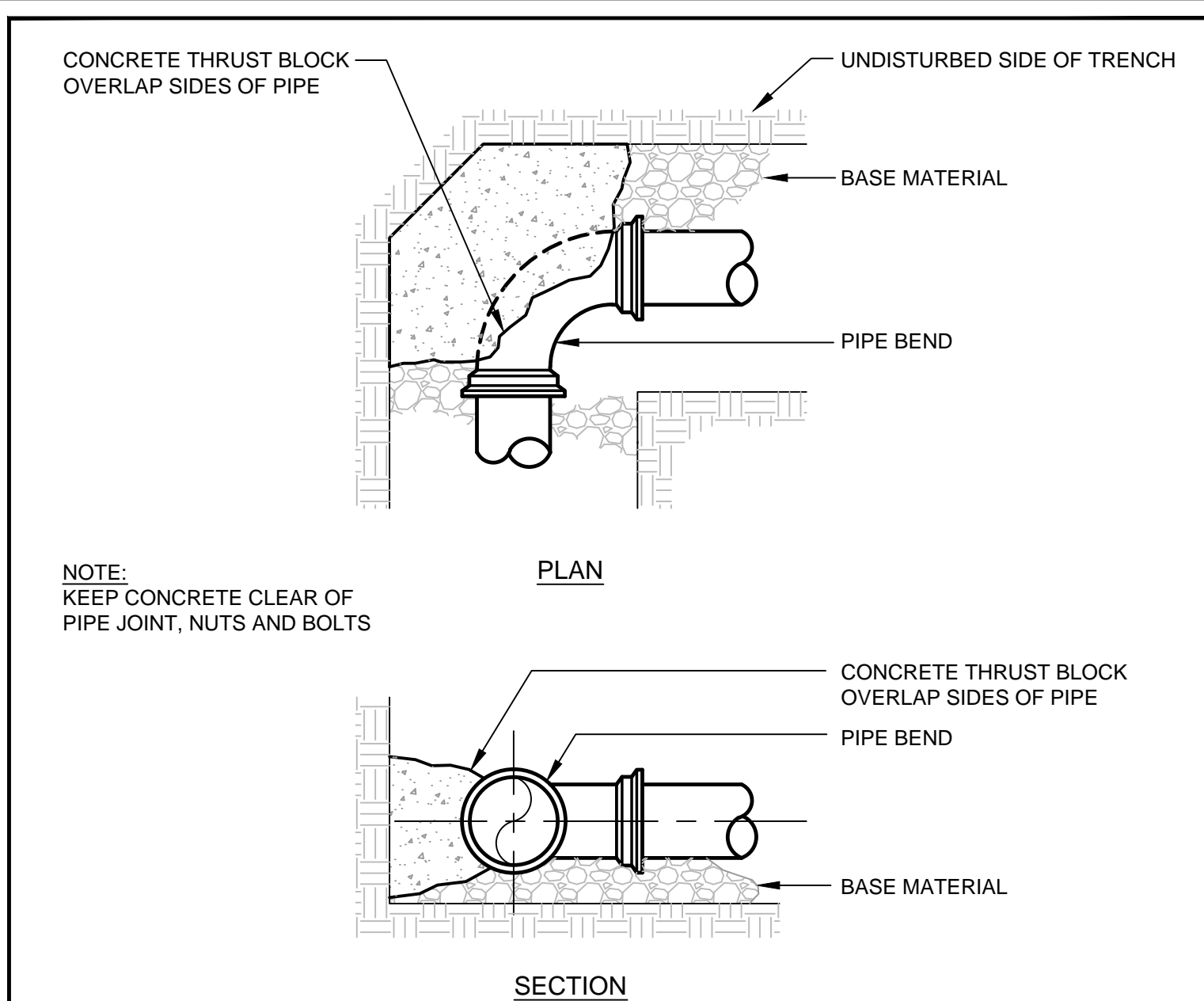
**(A) RIPRAP OUTLET APRON DETAIL**  
N.T.S.



**(D) PLAN VIEW OF MINOR EXCAVATION PAVEMENT REPAIR**  
N.T.S.



**(G) PLAN VIEW OF MAJOR EXCAVATION PAVEMENT REPAIR**  
N.T.S.



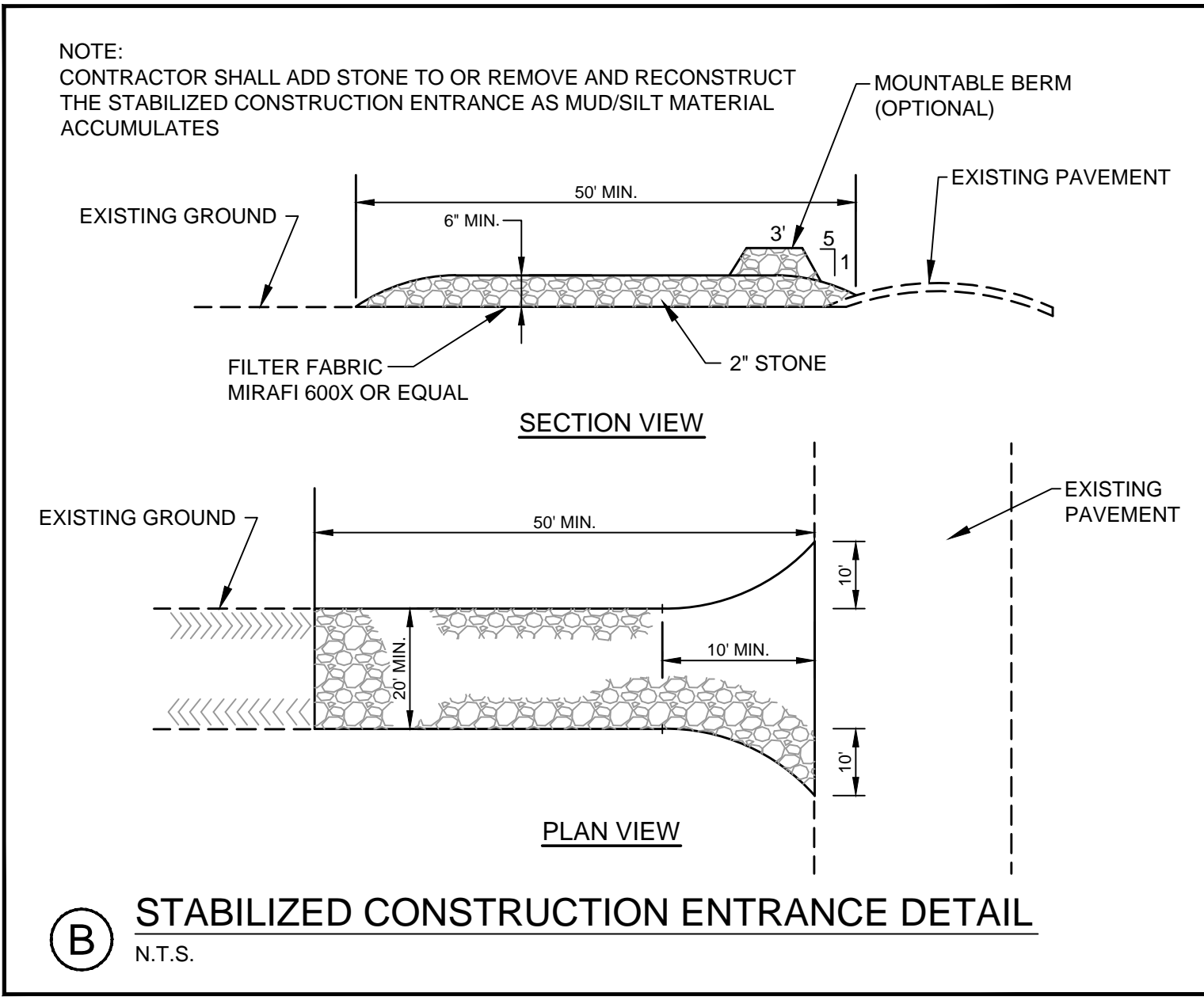
NOTE: KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS

THRUST/RETAINER GLAND SCHEDULE		
1/2 BEND	(90°)	USE POURED-IN-PLACE THRUST BLOCK WITH GRIPRING™ MECHANICAL JOINT RESTRAINT
3/8 BEND	(45°)	THRUST BLOCK W/ GRIPRING™
1/4 BEND	(22 1/2°)	THRUST BLOCK W/ GRIPRING™
1/8 BEND	(11 1/4°)	THRUST BLOCK W/ GRIPRING™

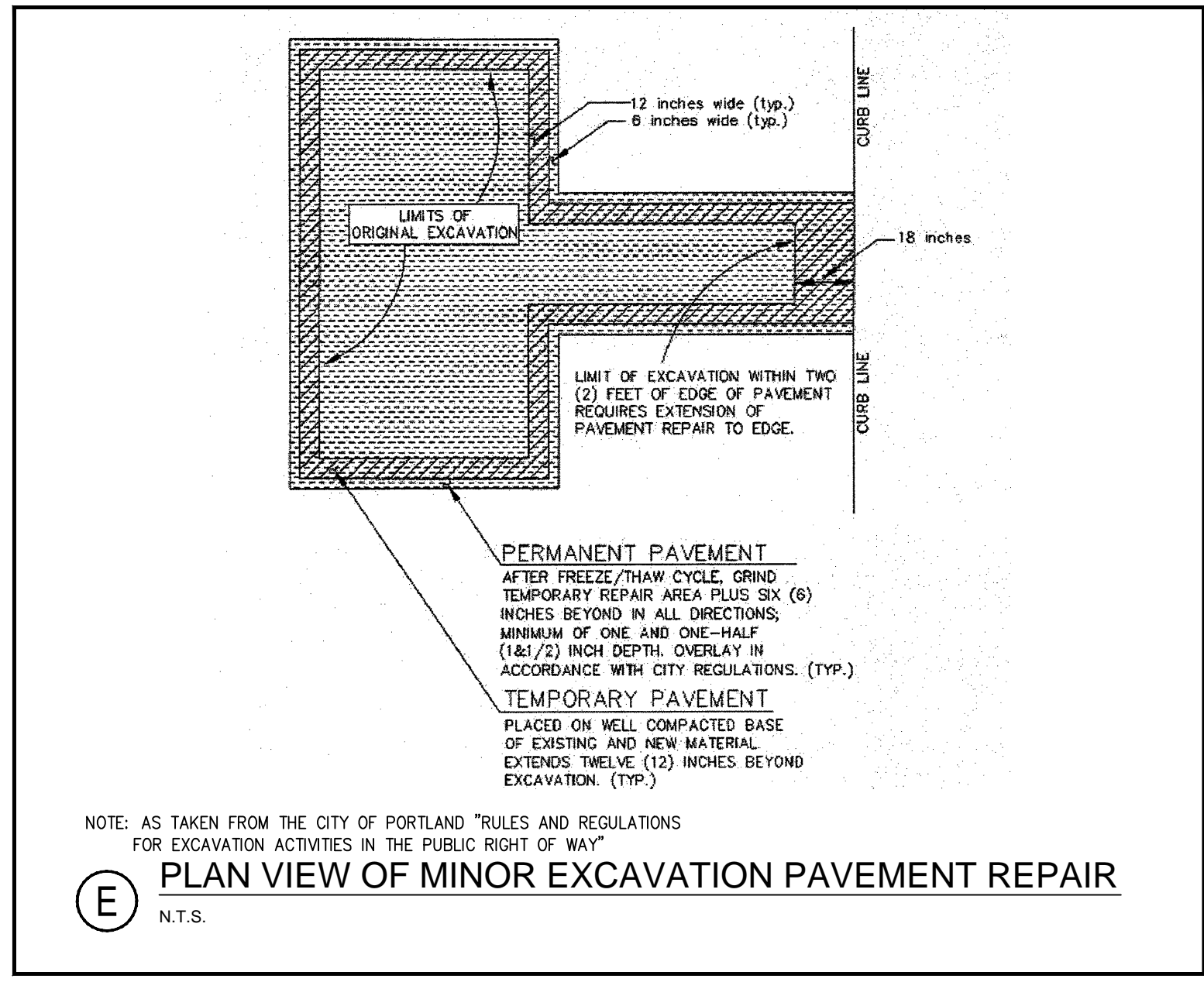
THE ABOVE SCHEDULE IS SUBJECT TO THE APPROVAL OF THE ON-SITE INSPECTOR DUE TO SOILS AND WORKING PRESSURES IN THE AREA.

- NOTES:
- THE PORTLAND WATER DISTRICT MAY HAVE INSPECTION FEES AND REQUIRE OBSERVATION OF ALL PIPING INSTALLATION BEFORE BURIAL. REFER TO SPECIFICATIONS.
  - FOR WATER MAIN LAYOUT SEE DRAWING C-3.00
  - REFER TO SPECIFICATIONS FOR TESTING AND CHLORINATION REQUIREMENTS.
  - ALL HYDRANTS AND VALVES TO BE EPOXY COATED, NUTS & BOLTS TO BE STAINLESS STEEL.
  - SERVICE RODS FOR DOMESTIC SERVICE OR AIR VALVES TO BE STAINLESS STEEL.

**(J) TYPICAL THRUST BLOCK PLACEMENT ON BENDS DETAIL**  
N.T.S.



**(B) STABILIZED CONSTRUCTION ENTRANCE DETAIL**  
N.T.S.



**(E) PLAN VIEW OF MINOR EXCAVATION PAVEMENT REPAIR**  
N.T.S.

1. INSTALL POLY BARRIER BETWEEN PIPE AND ALL THRUST BLOCKS.

2. ANY MODIFICATION TO THRUST BLOCK SIZING OR PIPE RESTRAINT REVISIONS SHALL BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO IMPLEMENTATION IN THE FIELD.

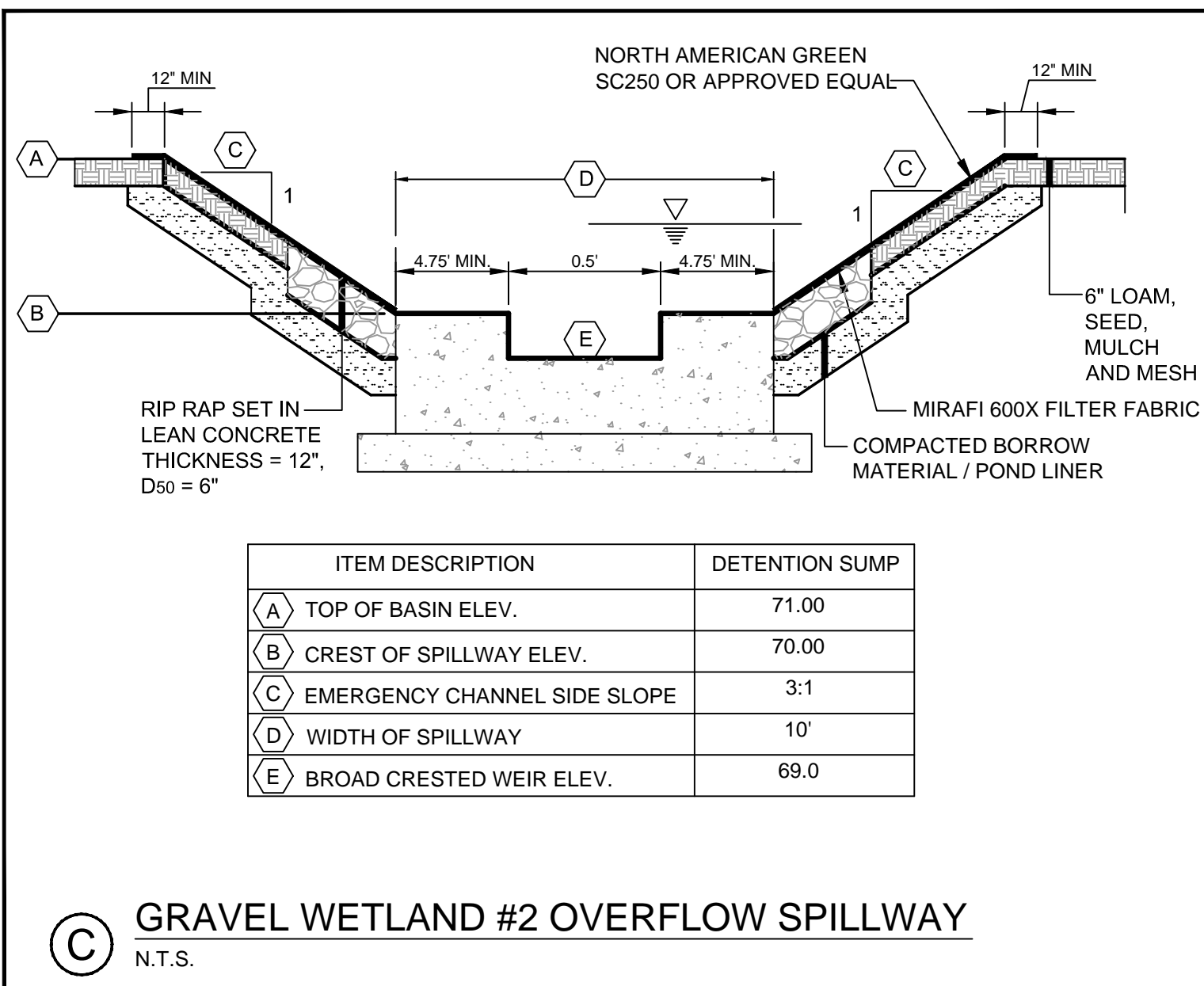
3. ANY WORK RELATING TO WATER PIPING OR DETAILS SHALL BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT SPECIFICATIONS.

4. ALL RESTRAINED JOINTS MUST HAVE GRIPRING™.

**BEARING SURFACE REQUIRED IN SQUARE FEET**

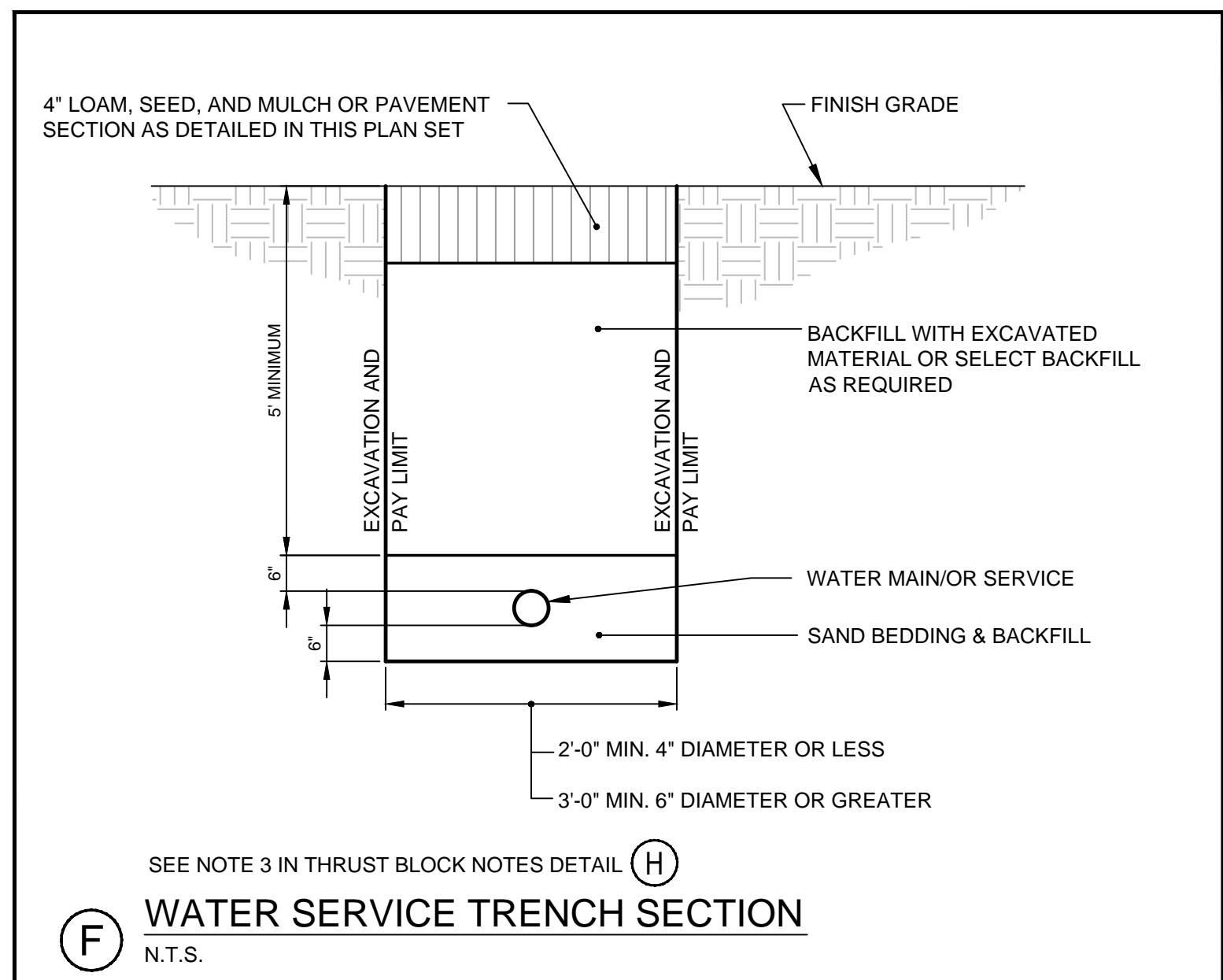
PIPE SIZE	1/2 BEND	3/8 BEND	1/4 BEND	TEES/CAPS
6" / 8"	5.0	5.0	5.0	6.5
12"	11.5	11.5	11.5	20.0

**(H) THRUST BLOCK NOTES**  
N.T.S.

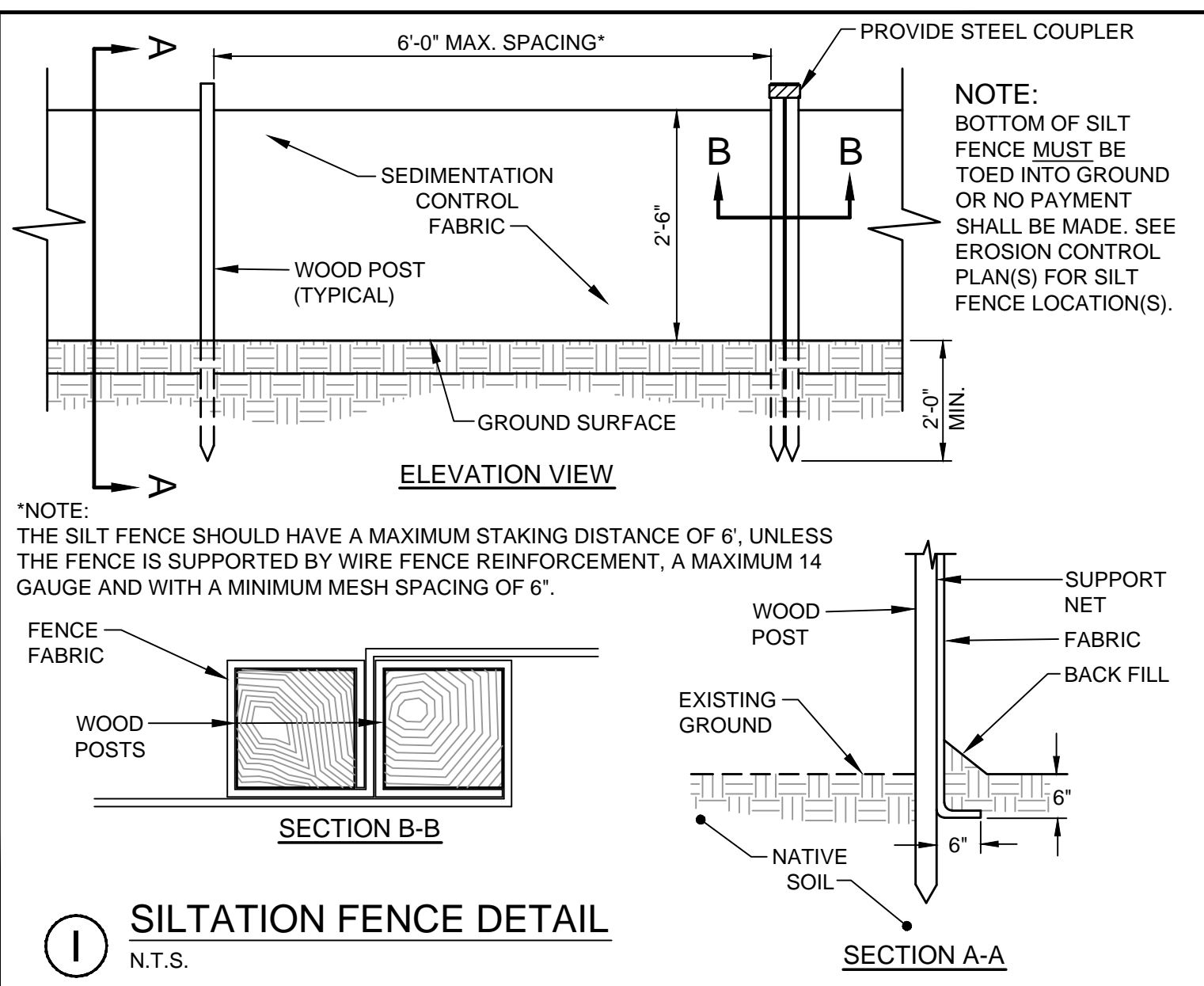


ITEM DESCRIPTION	DETENTION SUMP
(A) TOP OF BASIN ELEV.	71.00
(B) CREST OF SPILLWAY ELEV.	70.00
(C) EMERGENCY CHANNEL SIDE SLOPE	3:1
(D) WIDTH OF SPILLWAY	10'
(E) BROAD CRESTED WEIR ELEV.	69.0

**(C) GRAVEL WETLAND #2 OVERFLOW SPILLWAY**  
N.T.S.



**(F) WATER SERVICE TRENCH SECTION**  
N.T.S.

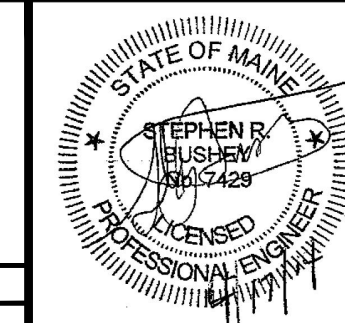


**(I) SILTATION FENCE DETAIL**  
N.T.S.

SEE SHEET 6.3 FOR OIL/WATER SEPARATOR

PRELIMINARY - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
2	04.17.14	FINAL PLAN SUBMISSION TO CITY
1	02.10.14	SUBMITTED TO CITY OF PORTLAND



PROJECT: PH WARREN AVENUE, LLC  
COMMERCIAL SITE  
421 WARREN AVENUE

SHEET TITLE: DETAILS

CUSTOMER: PH WARREN AVENUE, LLC  
C/O PETER HOLMES  
12 WILDWOOD LANE  
SCARBOROUGH, ME 04074

ENGINEERS: **FST** **FAY, SPOFFORD & THORNDIKE, INC.**  
ENGINEERS • PLANNERS • SCIENTISTS  
778 MAIN ST, SUITE 8, SOUTH PORTLAND, ME 04106

DRAWN: CMW DATE: NOVEMBER 2013  
DESIGNED: SRB SCALE: AS NOTED  
CHECKED: SRB JOB NO. SP-M104  
FILE NAME: SP-M104-DET  
SHEET: C-6.2