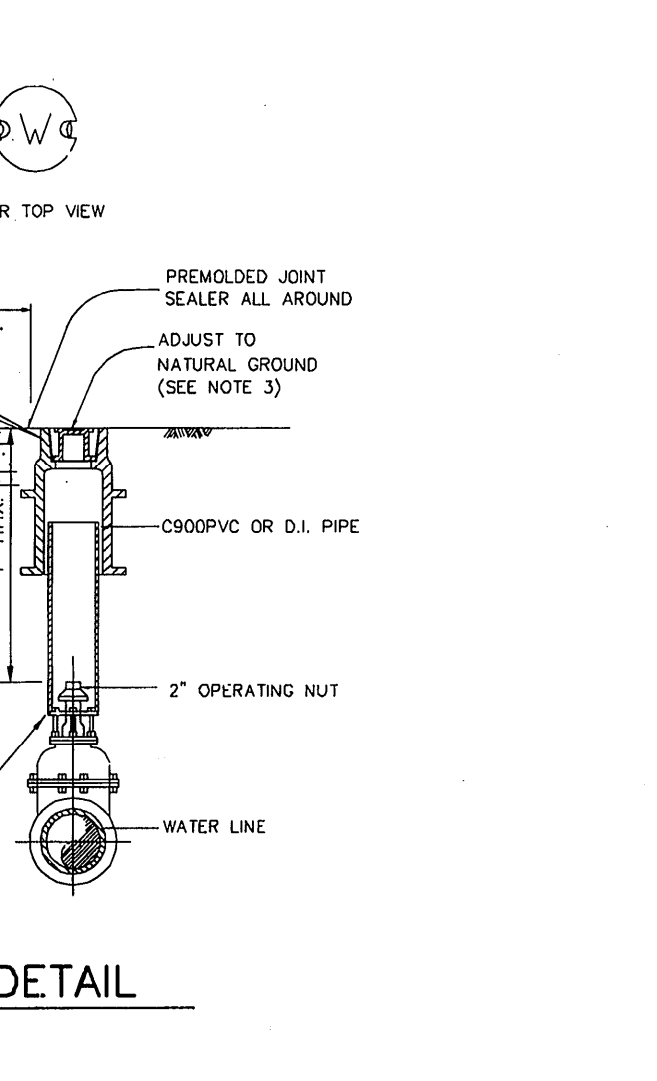
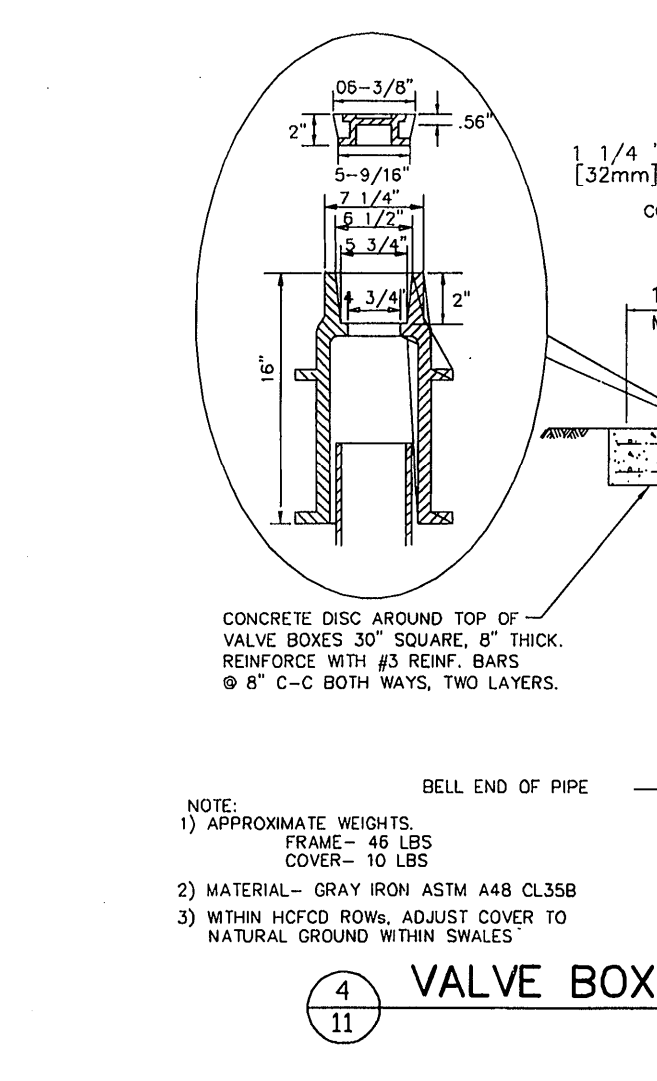
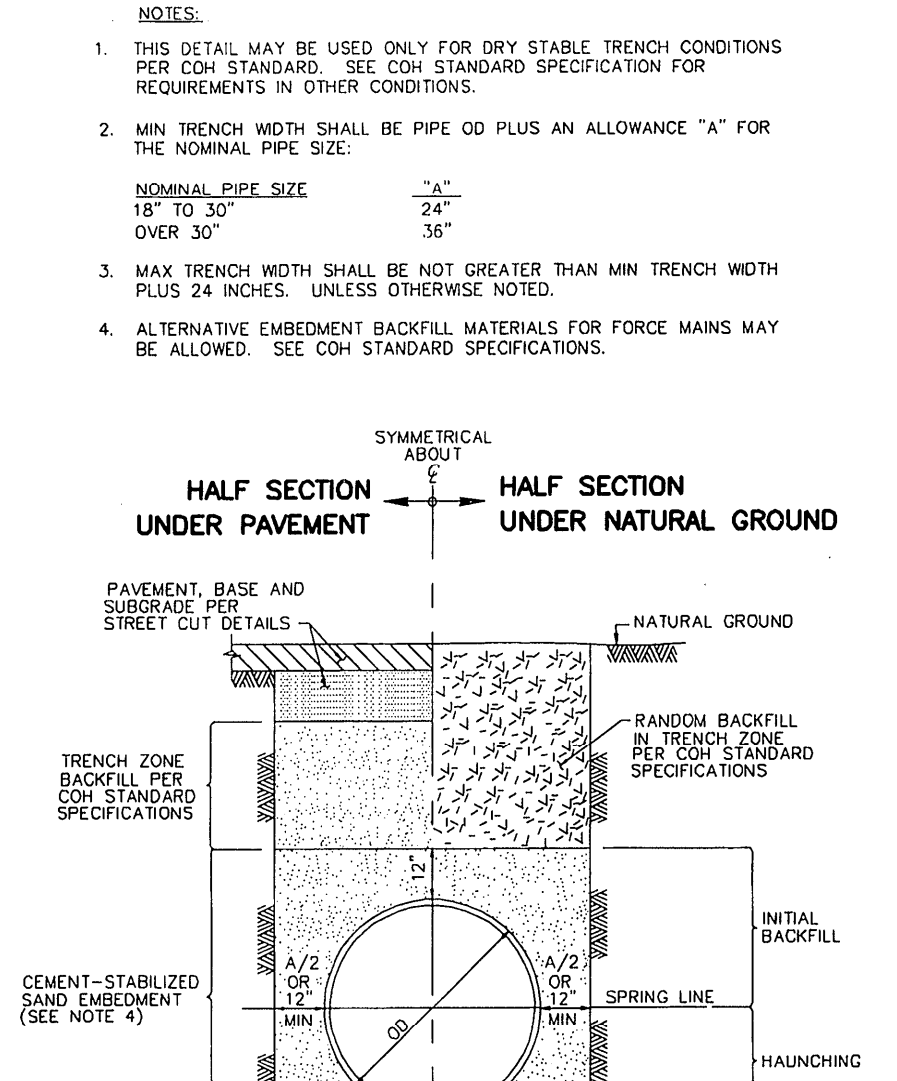


**NOTES:**

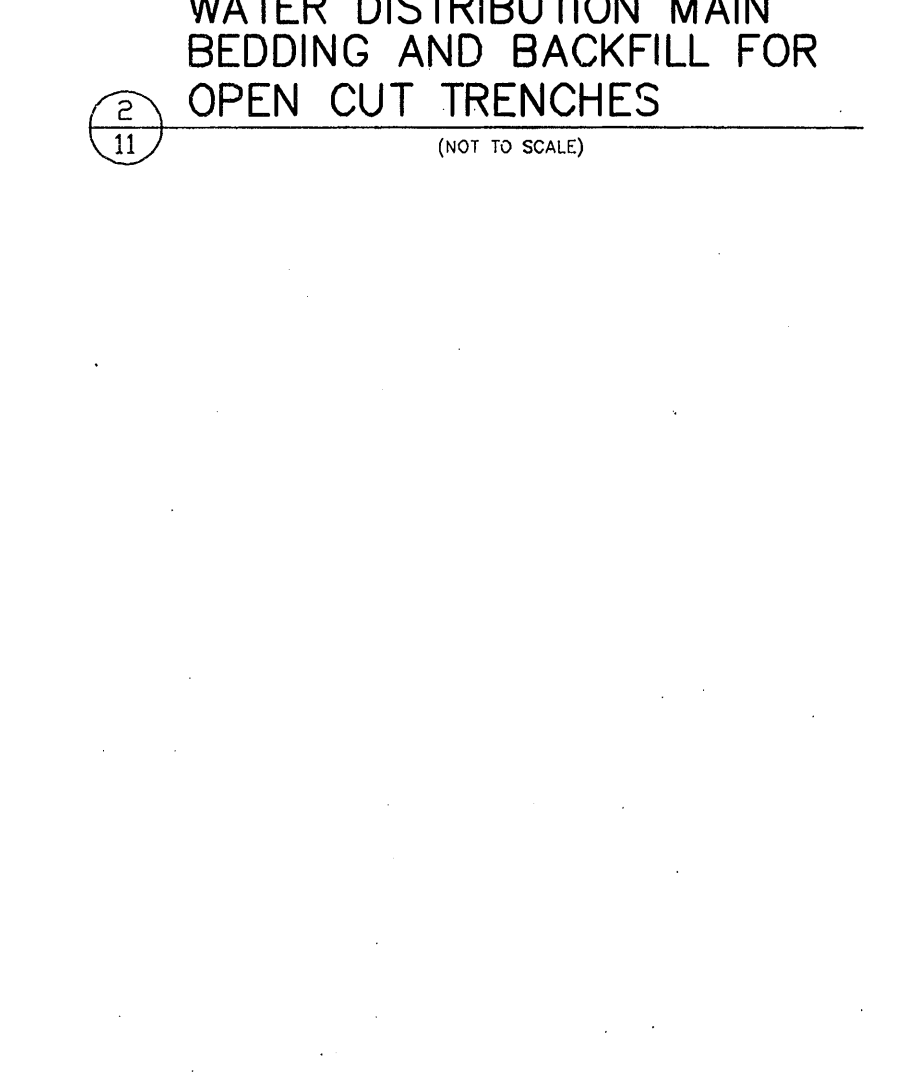
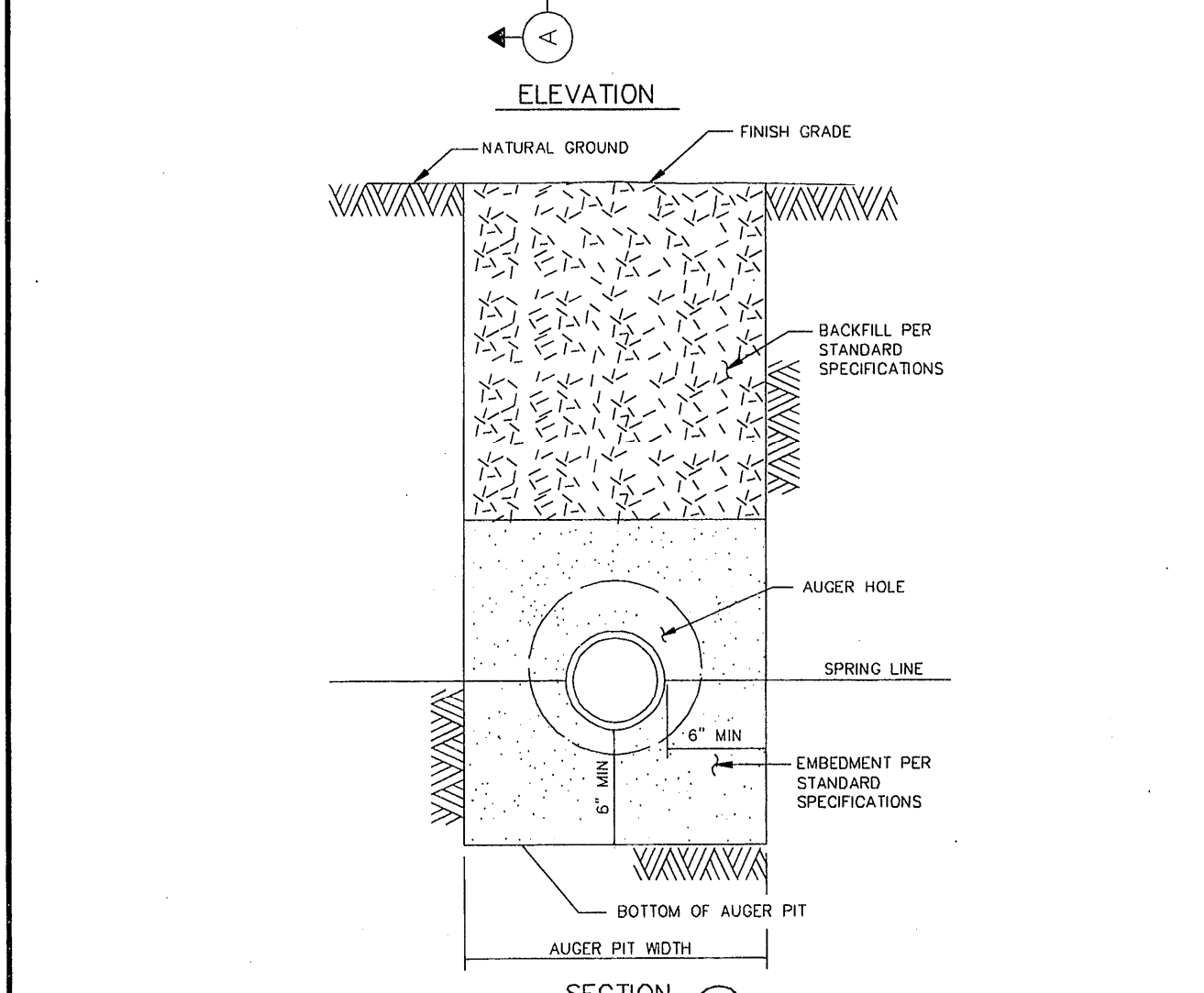
- SEE TRENCH SAFETY SYSTEM SPECIFICATIONS FOR MAXIMUM SLOPES.
- FOR WET BOTTOM EXCAVATION LIMITS OF CRUSHED STONE, EXTEND AS SHOWN.
- KEY CONCRETE TRINCH DAM MINIMUM OF 6 - INCHES INTO TRENCH BOTTOM AND WALLS.
- TRENCH DAM MAY BE FORMED OR UNFORMED. ACTUAL SHAPE OF CONCRETE TRENCH DAM CROSS SECTION MAY BE DETERMINED BY CONTRACTOR IN FIELD, MEETING 6-INCH MINIMUM THICKNESS AND 6-INCH KEY DEPTH REQUIREMENTS.
- TRENCH DAM SHALL BE PLACED AT LEAST 5 FT. AWAY FROM ANY PIPELINE STRUCTURE (EACH SIDE). SEE SECTION 0217 FOR OTHER REQUIREMENTS.
- USE POLYETHYLENE WRAP AS A BOND BREAKER BETWEEN CEMENT STABILIZED SAND AND PIPE.
- WHEN CROSSING UNDER AN EXISTING STORM SEWER USING OPEN CUT METHODS, THE WATER LINE TRENCH ZONE SHALL BE BACK FILLED FOR 3 TO 5 FEET EITHER SIDE OF THE STORM SEWER WITH CEMENT STABILIZED SAND TO THE SPRING STORM SEWER.
- USE FILTER FABRIC AS A BOND BREAKER BETWEEN CEMENT STABILIZED SAND AND THE PIPE.



PIPE SIZE	Plugs & Tees	30\"/>			
4"	1'-0"	7'-0"	1'-0"	1'-0"	1'-0"
6"	1'-0"	7'-0"	1'-0"	1'-0"	1'-0"
8"	1'-3"	1'-6"	1'-6"	1'-6"	1'-3"
12"	2'-0"	3'-0"	2'-3"	2'-3"	2'-3"
16"	3'-0"	4'-3"	3'-0"	2'-6"	2'-6"

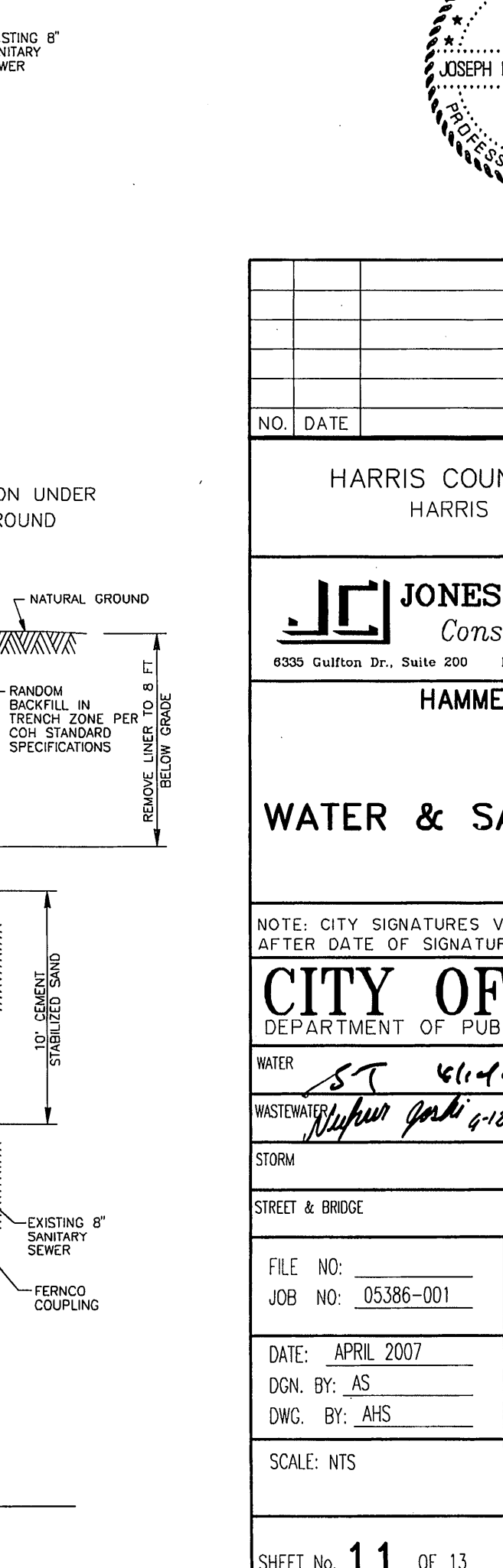
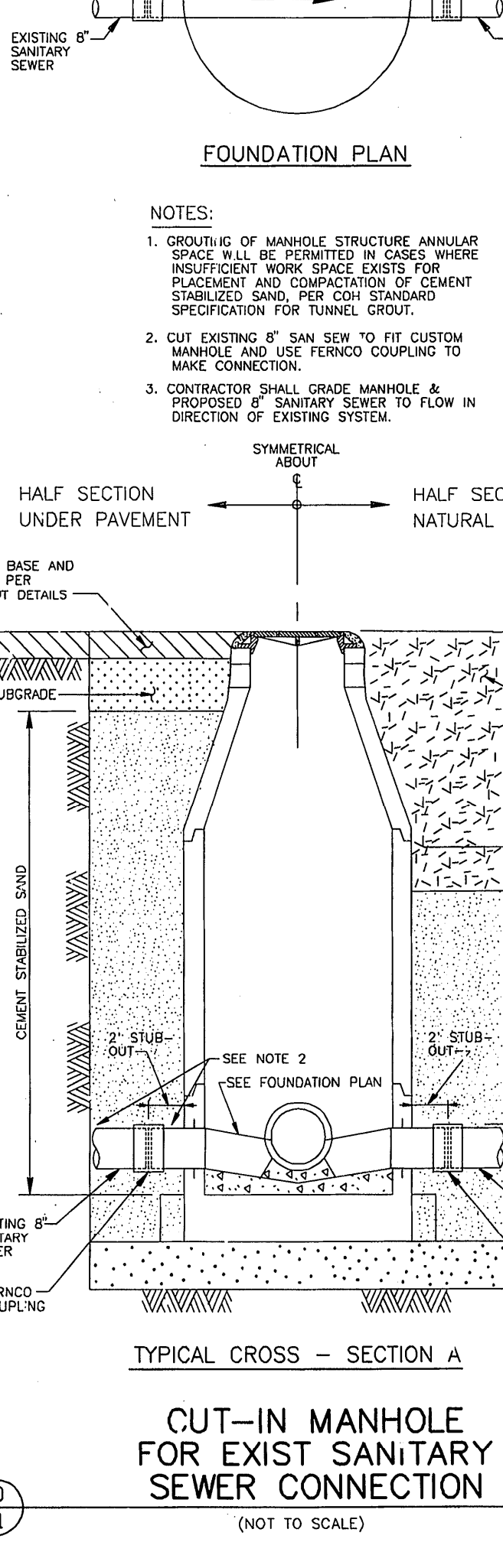
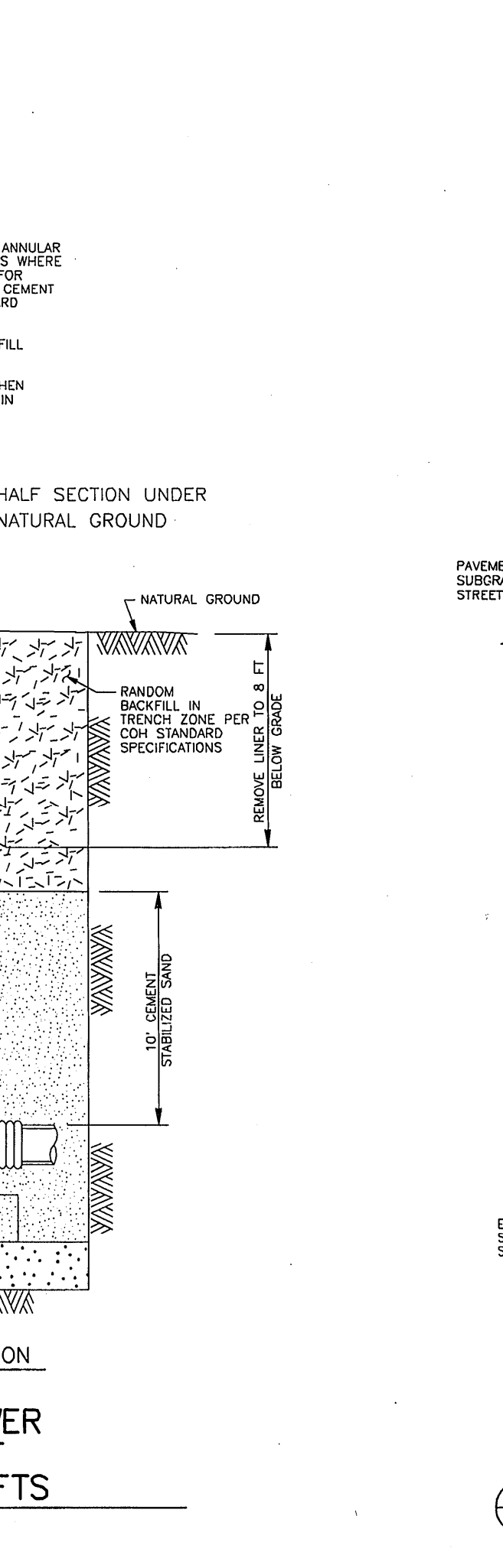
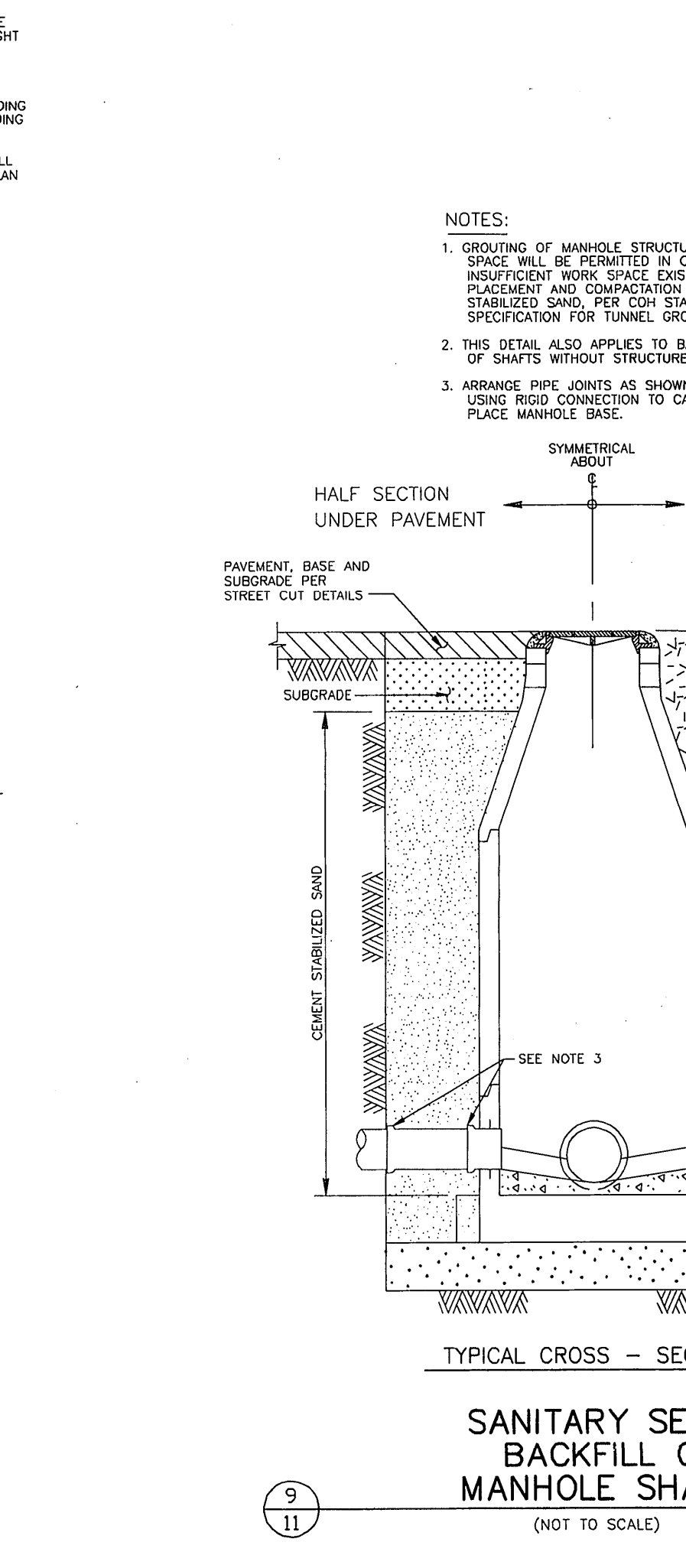
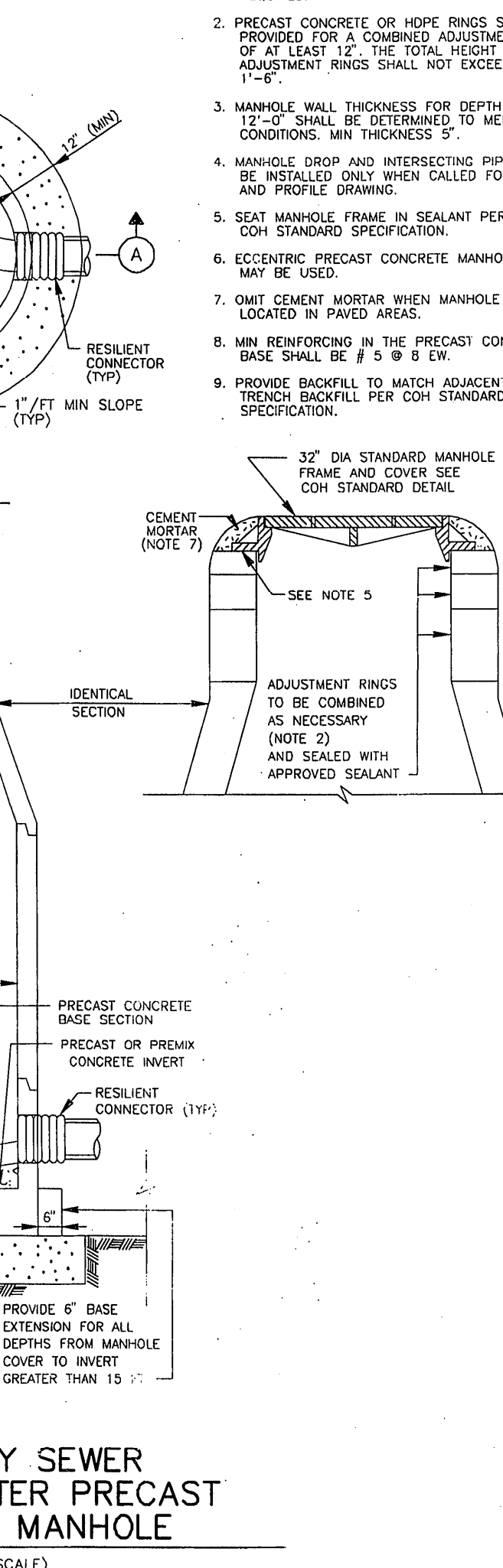
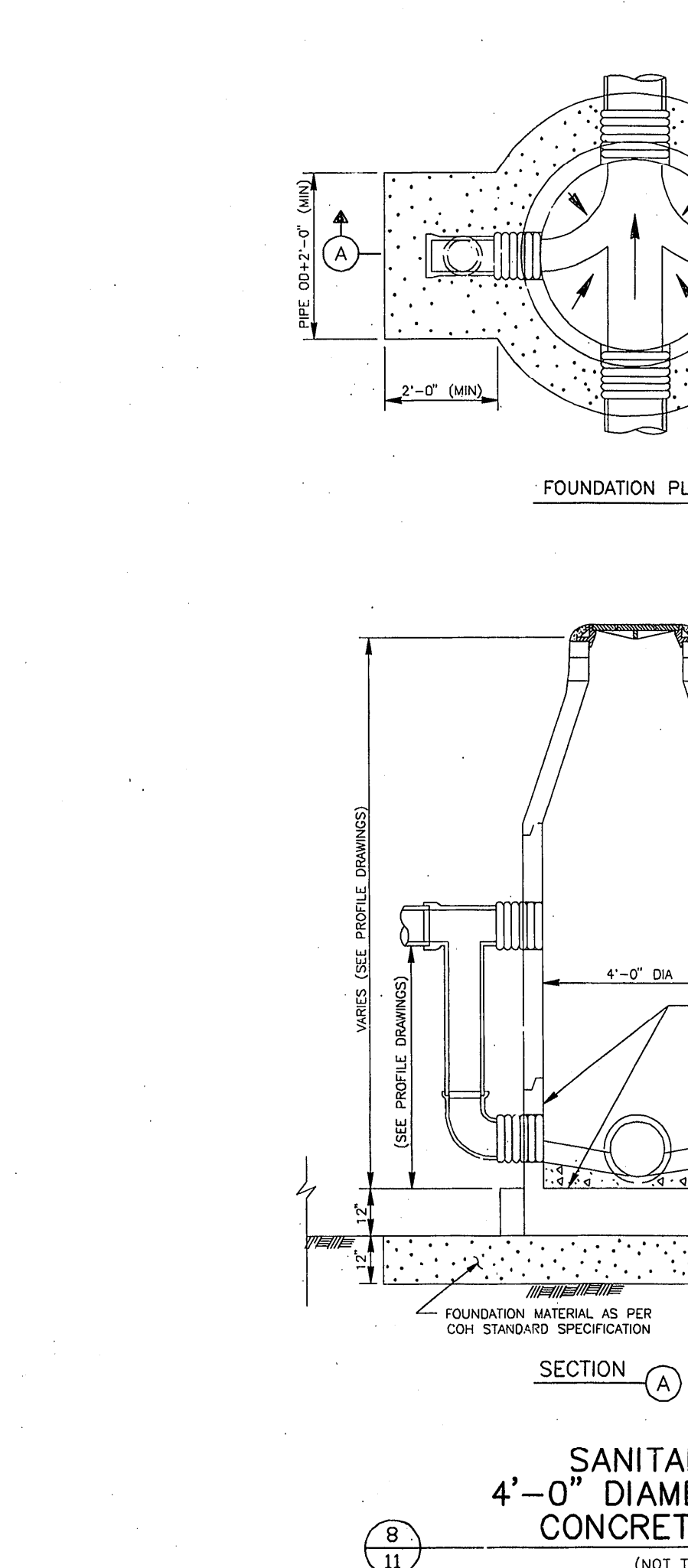
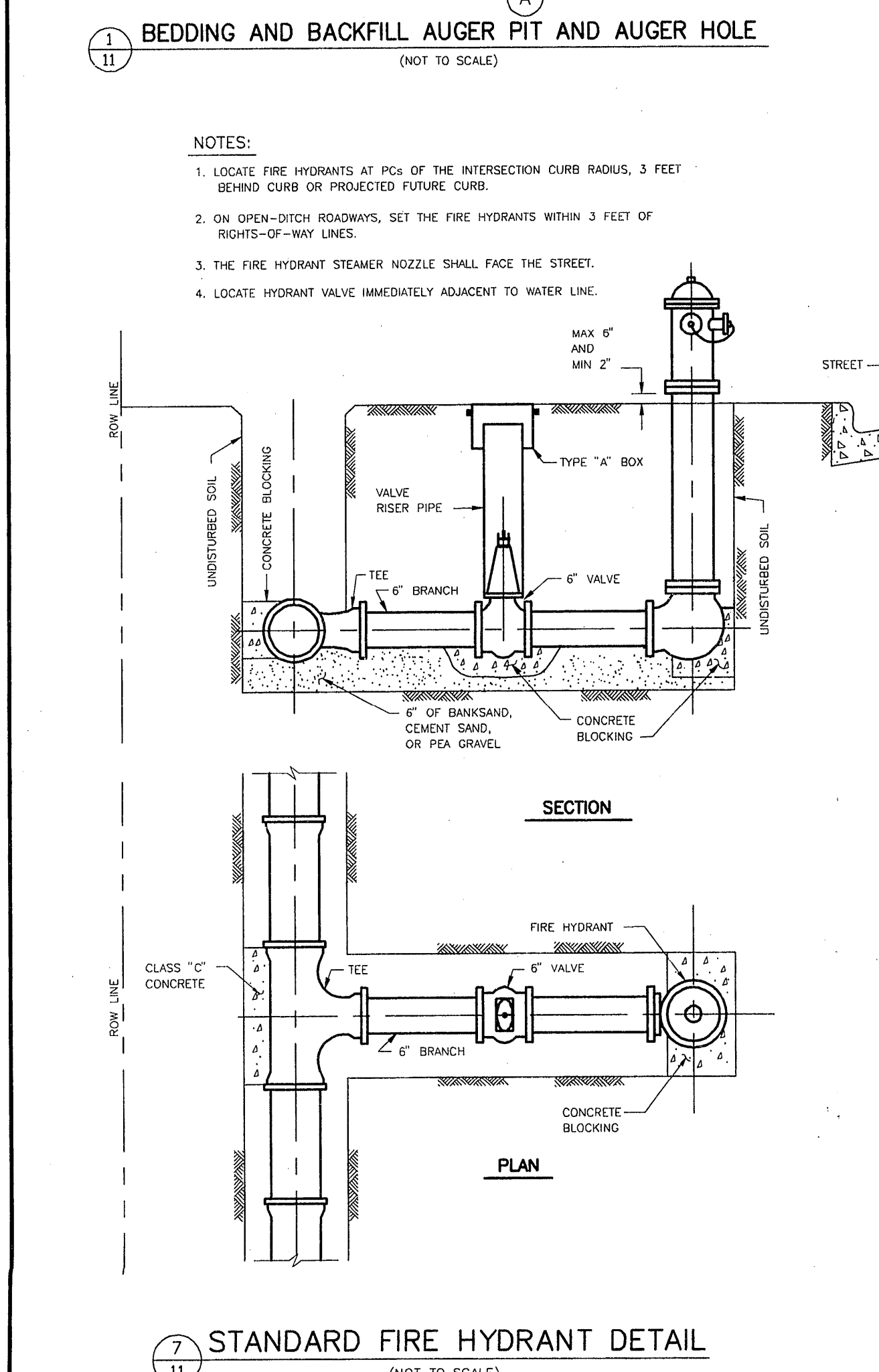
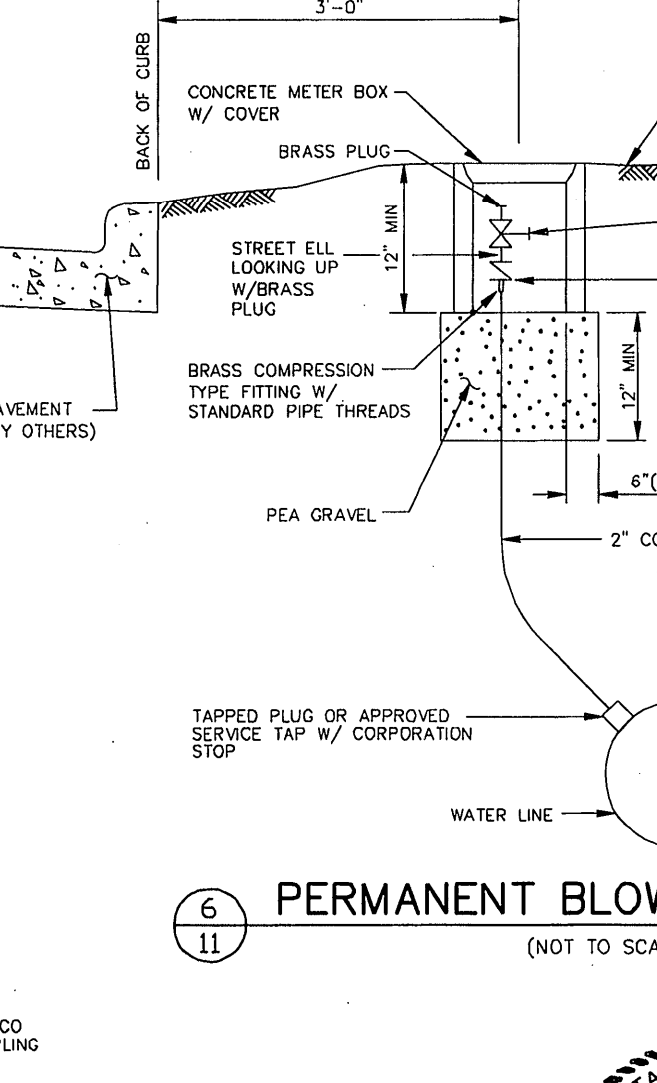
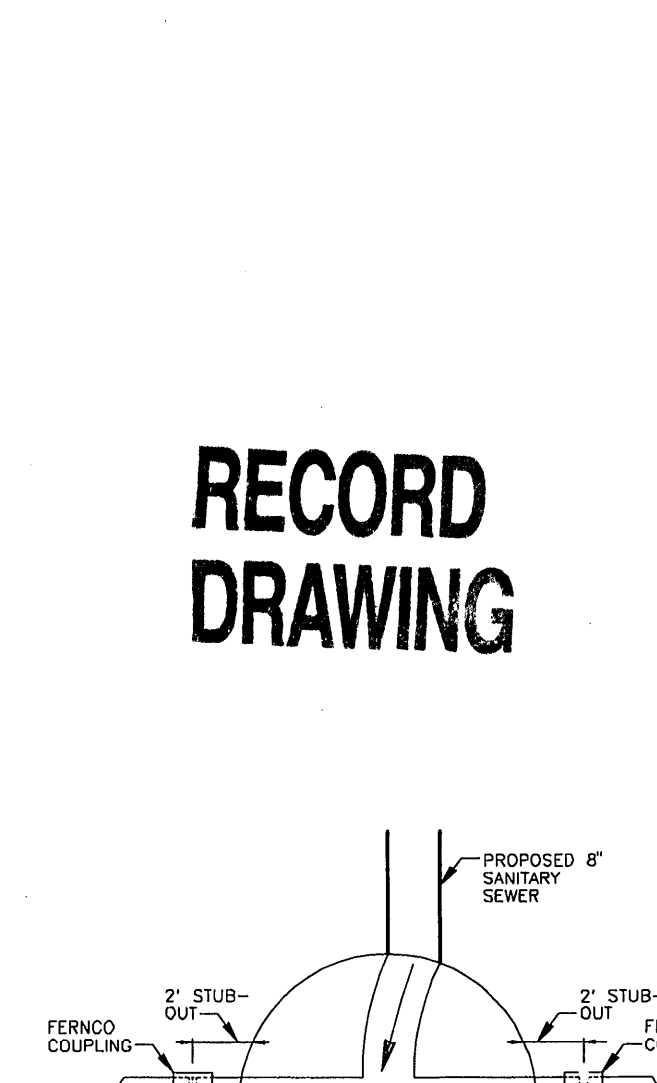
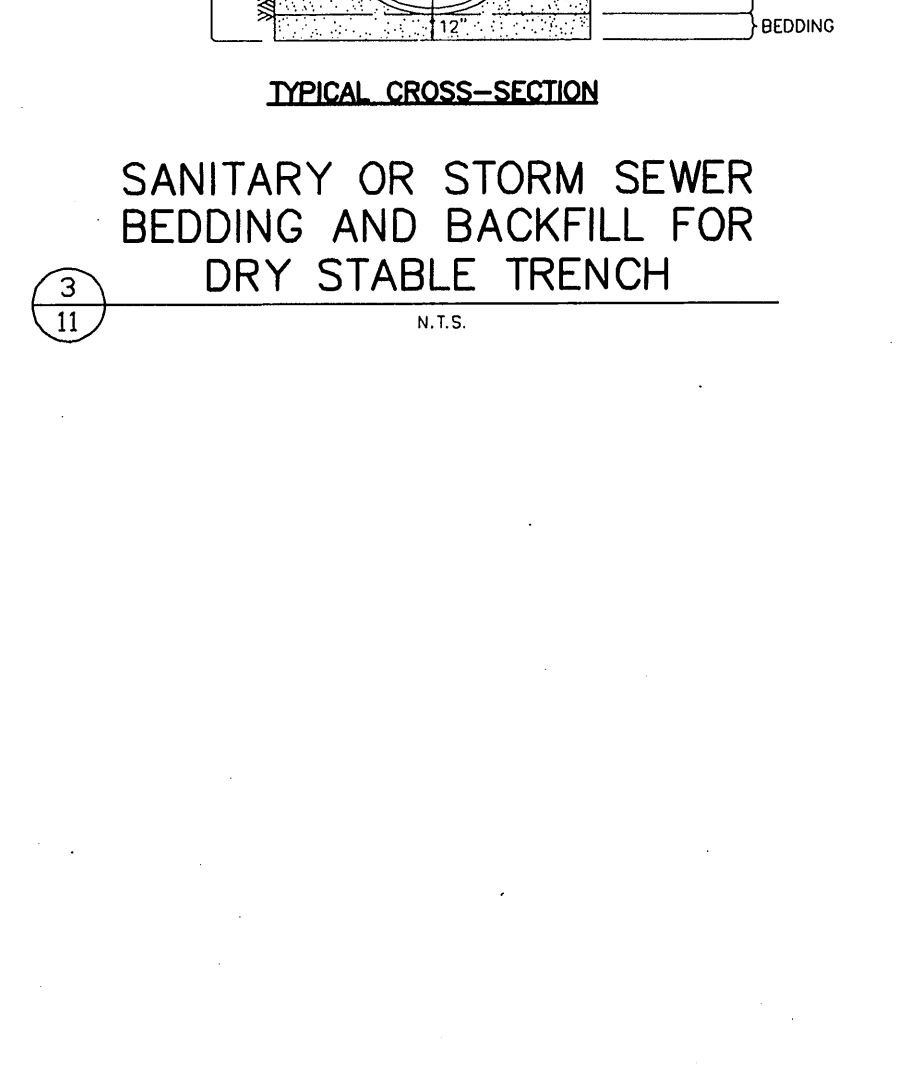
**NOTES:**

- HEIGHTS OF ALL BLOCKS SHALL BE EQUAL TO "A".
- "C", "D", OR "E" DIMENSIONS CALLED FOR.
- ALL CONCRETE TO BE POURED AGAINST FIRM, UNDISTURBED SOIL.

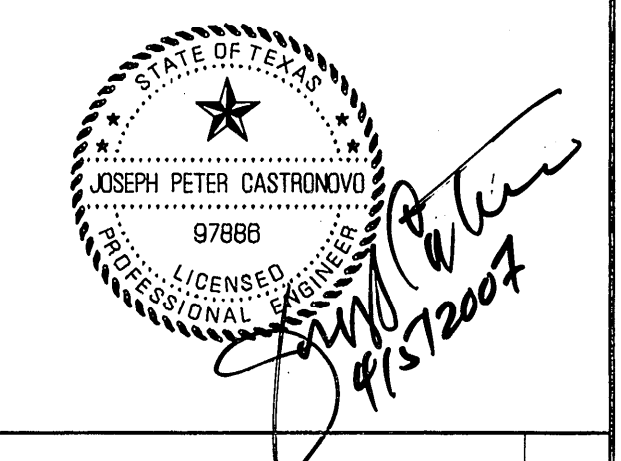


**NOTES:**

- DEPTH OF MANHOLE DETERMINES SECTIONS REQUIRED.
- PRECAST CONCRETE OR HOPE RINGS SHALL BE PROVIDED FOR A COMBINED ADJUSTMENT HEIGHT OF AT LEAST 12". THE TOTAL HEIGHT OF THE ADJUSTMENT RINGS SHALL NOT EXCEED 14".
- MANHOLE WALL THICKNESS FOR DEPTH EXCEEDING 12" SHALL BE DETERMINED TO MEET LOADING CONDITIONS. MIN THICKNESS 5".
- MANHOLE DROP AND INTERSECTING PIPES SHALL BE INSTALLED ONLY WHEN CALLED FOR IN PLAN AND PROFILE DRAWING.
- SEAT MANHOLE FRAME IN SEALANT PER COH STANDARD SPECIFICATION.
- ECCENTRIC PRECAST CONCRETE MANHOLE MAY BE USED.
- OMIT CEMENT MORTAR WHEN MANHOLE IS LOCATED IN PAVED AREAS.
- MIN REINFORCING IN THE PRECAST CONCRETE BASE SHALL BE # 5 @ 12" C/C.
- PROVIDE BACKFILL TO MATCH ADJACENT PIPE TRENCH BACKFILL PER COH STANDARD SPECIFICATION.



**RECORD DRAWING**



NO.	DATE	REVISIONS	APP.

HARRIS COUNTY M.U.D. No. 191  
HARRIS COUNTY, TEXAS

**JONES & CARTER, INC.**  
Consulting Engineers  
6333 Gulton Dr., Suite 200 Houston, Texas 77001 (713) 777-5337

**HAMMETT PROPERTY**

**WATER & SANITARY DETAILS**

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

**CITY OF HOUSTON**  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

WATER	ST 461-107	TRAFFIC & TRANSPORTATION
WASTEWATER	Wagner 4-18-07	STORM WATER QUALITY
STORM		FACILITIES

FILE NO: \_\_\_\_\_  
JOB NO: 05386-001

DATE: APRIL 2007  
DGN. BY: AS  
DWG. BY: AHS

SCALE: NTS

SHEET No. 11 OF 13

FOR CITY OF HOUSTON USE ONLY  
CITY OF HOUSTON  
ACCEPTED AND FILED  
48241  
CITY DRAWING NUMBER  
HOUSTON, TEXAS