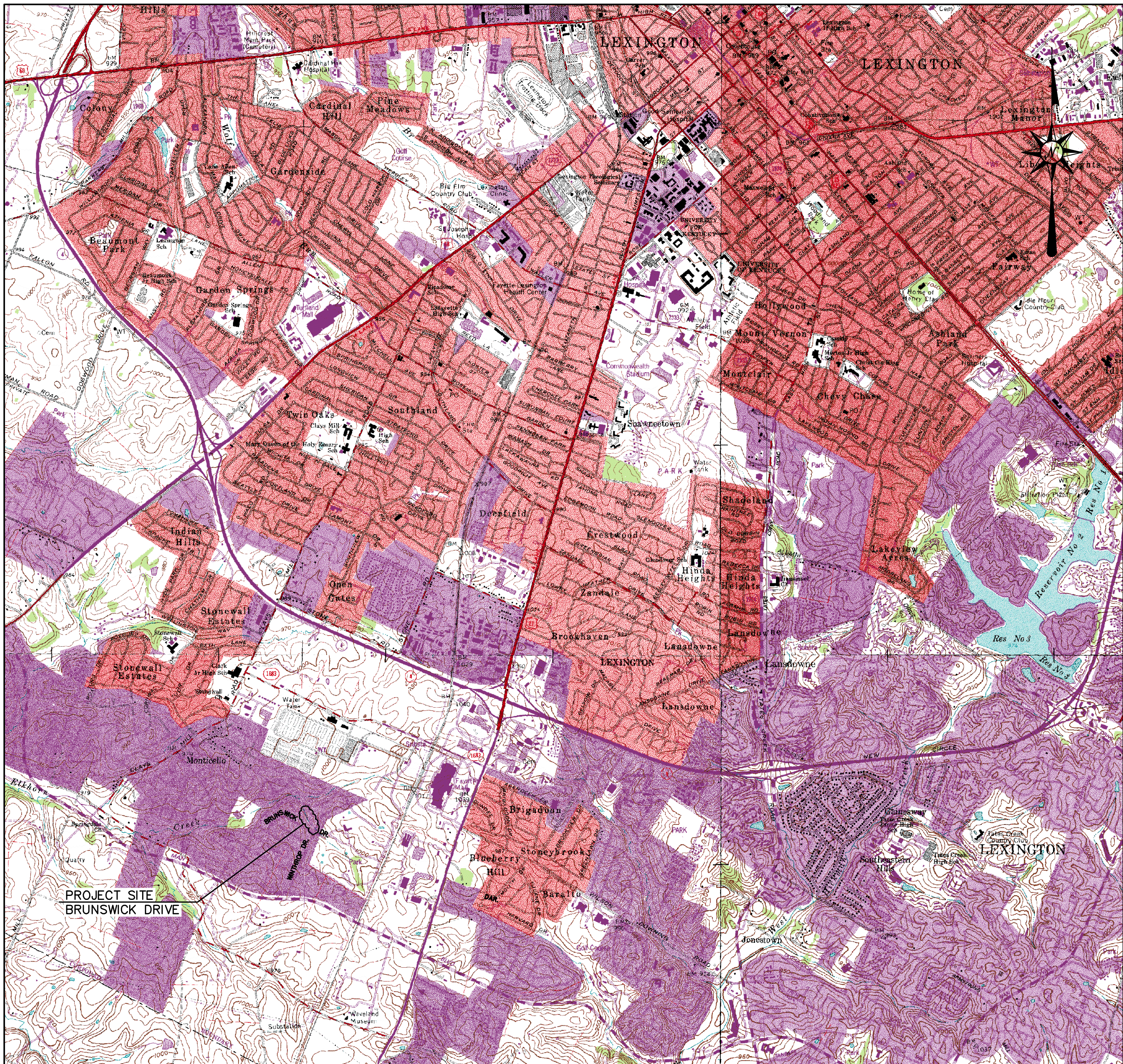


BRUNSWICK DRIVE SANITARY SEWER REPLACEMENT

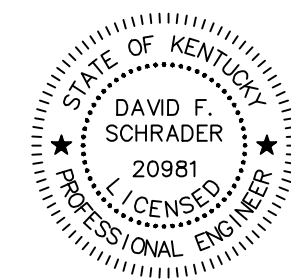
LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT
LEXINGTON, KENTUCKY
APRIL 2018



VICINITY MAP
SCALE 1" = 2000'

COMPLETE DRAWING SET INCLUDES	
DESCRIPTION	SHEET NO.
GENERAL NOTES, PLAN & PROFILE	1
SEWER MANHOLE DETAILS	2
SEWER PIPE TRENCHING AND BEDDING DETAILS	3

CONTRACT NO.
557-18-
2018



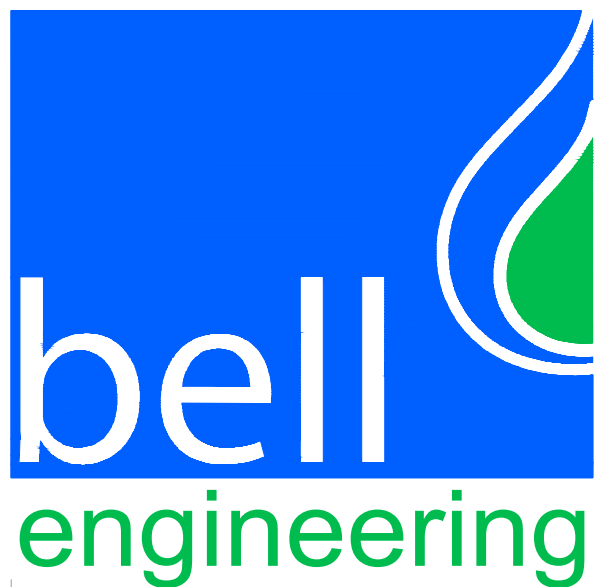
60% REVIEW

BRUNSWICK DRIVE SANITARY
SEWER REPLACEMENT
LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT
LEXINGTON, KENTUCKY

FACSIMILES OF LICENSED PROFESSIONAL ENGINEER AND/OR LAND SURVEYOR SEALS, IF AFFIXED TO THIS DOCUMENT, SHALL BE CONSIDERED LEGITIMATE ONLY IF SIGNED AND DATED BY THE REGISTRANT.

BUD NOTE:
KENTUCKY STATUTES (KRS 367.4901 THROUGH 367.4917) REQUIRE THAT ALL EXCAVATORS PLANNING EXCAVATION OR DEMOLITION WORK SHALL NOTIFY ALL UTILITY COMPANIES IN THE AREA AND/OR AN UNDERGROUND PROTECTION SERVICE SUCH AS BUD (1-800-752-6007 OR 811) AT LEAST TWO (2) WORKING DAYS BEFORE COMMENCING WORK TO ALERT UTILITY COMPANIES IN THE AREA WITH UNDERGROUND FACILITIES OF THE PLANNED EXCAVATION OR DEMOLITION ACTIVITIES.

- ☒ CLIENT REVIEW
- ☒ BELL (QA) REVIEW
- ☐ DIVISION OF WATER REVIEW
- ☐ BID DOCUMENTS
- ☐ RECORD DRAWINGS



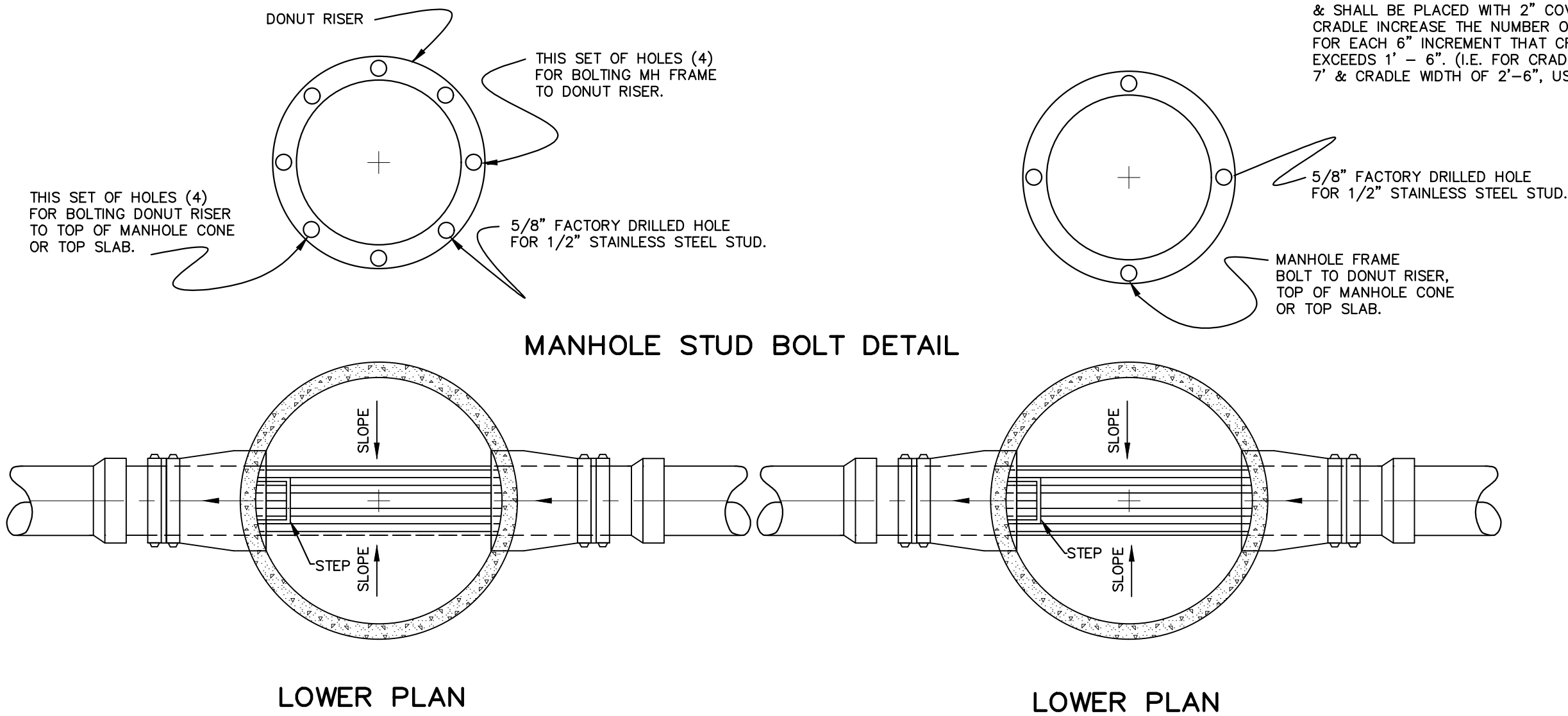
2480 fortune drive, suite 350
lexington, kentucky 40509
P: 859-278-5412 | F: 859-278-2911
www.hkbell.com

GENERAL NOTES FOR PRECAST MANHOLES

- STANDARD PRECAST CORBELS SHALL BE USED ON 4'-0" I.D. MANHOLES OVER 5'-0" DEEP AND ON 5'-0" I.D. MANHOLES OVER 7'-0" DEEP, UNLESS OTHERWISE NOTED ON THE PLANS.
- SLABS ARE DETAILED FOR USE IN TRAFFIC AND NON-TRAFFIC AREAS. ALL SLABS SHALL BE CLEARLY MARKED "TRAFFIC" OR "NON-TRAFFIC".
- PRECAST CONCRETE MANHOLE DEVELOPED BASE WITH FORMED CHANNELS REQUIRED.

PIPE SUPPORT TABLE				
SPAN	"1"	STEEL	SEAT "B"	
0' - 4'	7"	3 - #5	1' - 0"	
4' - 6'	9"	3 - #6	1' - 0"	
6' - 8'	11"	3 - #7	1' - 6"	
8' - 10'	13"	3 - #8	1' - 9"	
10' - 12'	15"	3 - #9	2' - 0"	

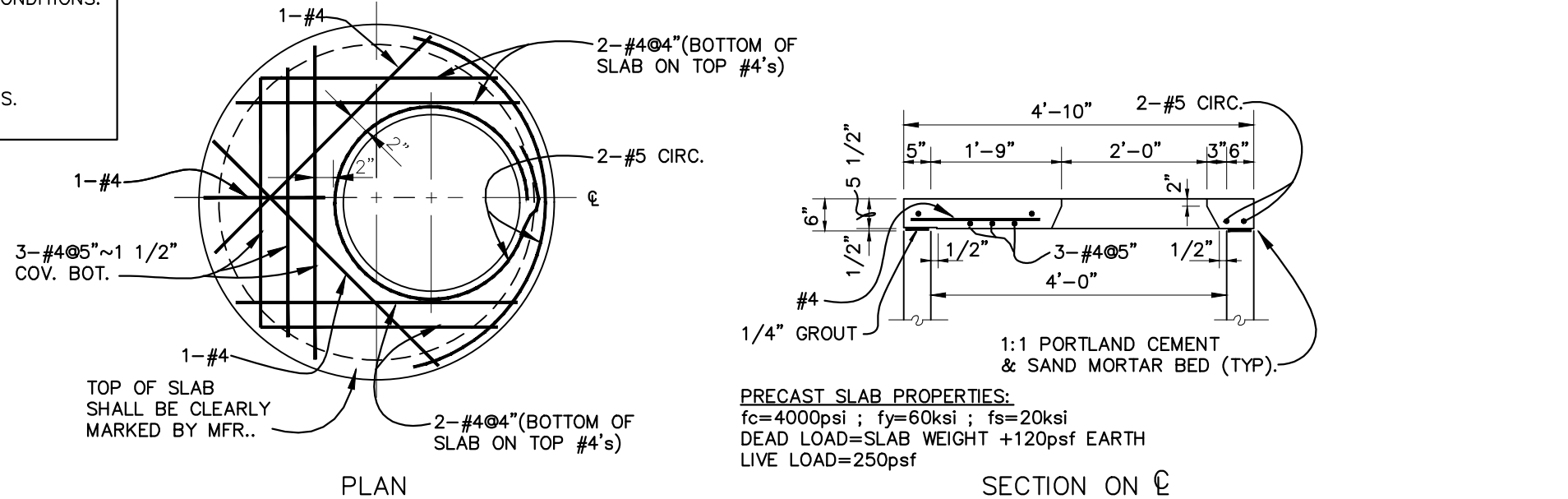
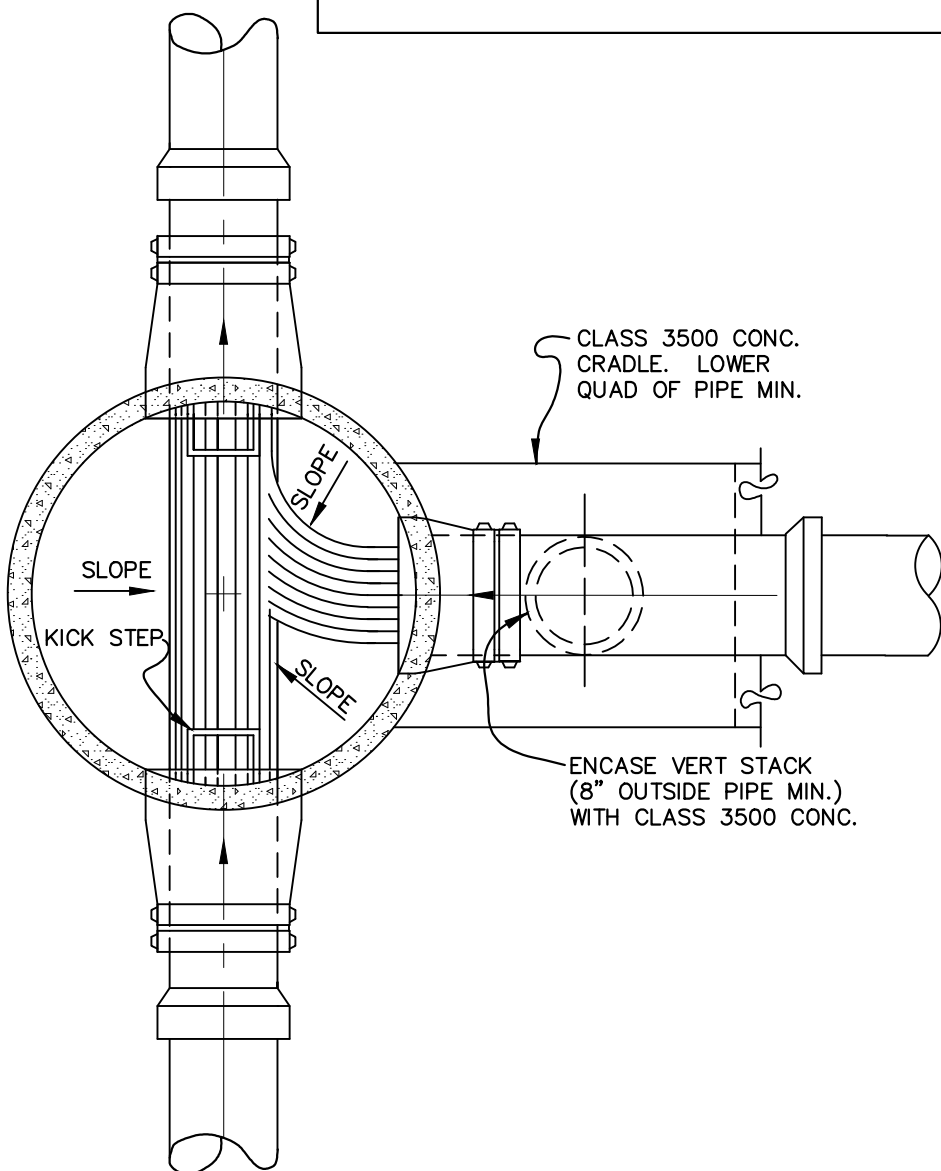
* REINFORCING SHOWN IS THE MINIMUM ALLOWED & SHALL BE PLACED WITH 2" COVER IN BOTTOM OF CRADLE INCREASE THE NUMBER OF RODS BY ONE FOR EACH 6" INCREMENT THAT CRADLE WIDTH EXCEEDS 1' - 6". (I.E. FOR CRADLE SPAN OF 7' & CRADLE WIDTH OF 2'-6", USE 5-#7)



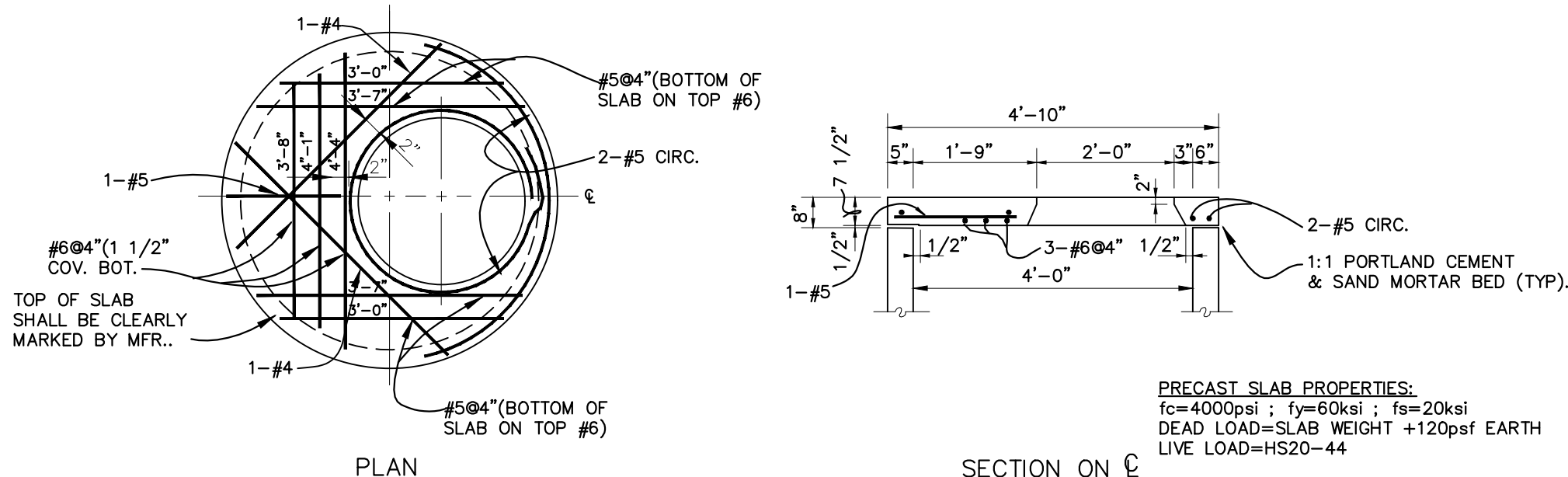
SKewed OPENINGS FOR PIPES ENTERING MANHOLES

SKewed OPENINGS WILL BE REQUIRED FOR PIPES ENTERING MANHOLES UNDER THE FOLLOWING CONDITIONS:

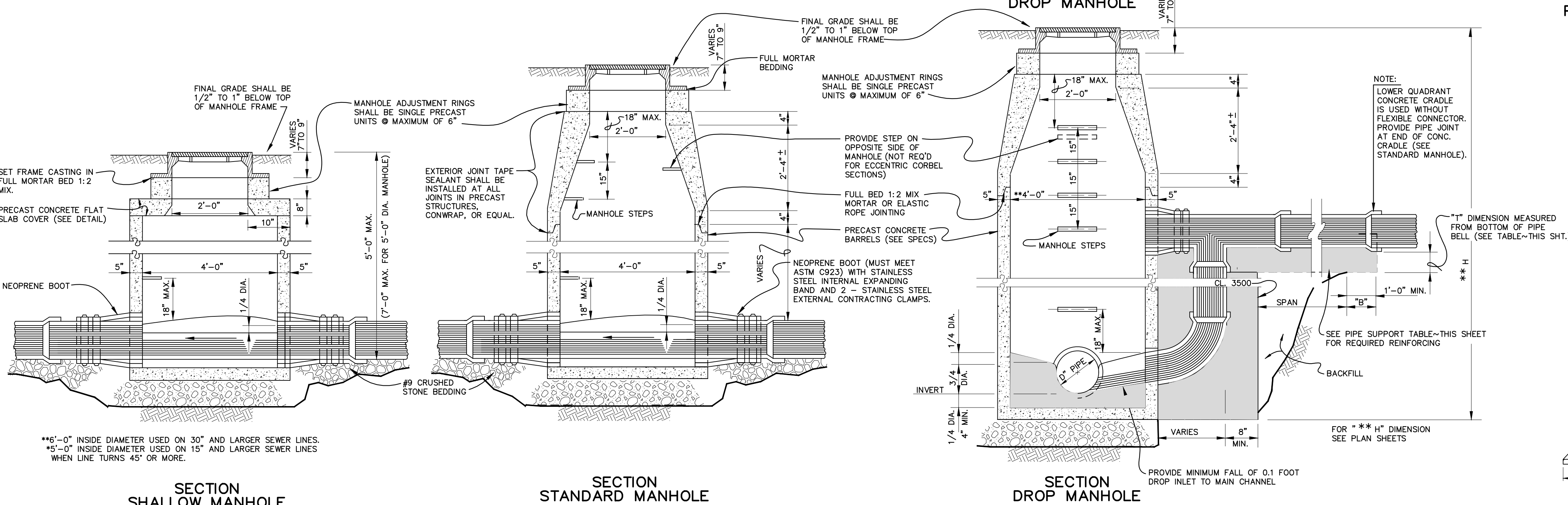
- HORIZONTAL ALIGNMENT OVER 7% FROM PERPENDICULAR TO OPENING.
- VERTICAL ALIGNMENT FOR GRADES OVER 28%.
- RUBBER BOOT CLAMPS SYSTEMS SHALL SEAL PROPERLY UNDER EITHER OF THESE CONDITIONS.



PRECAST TOP SLABS FOR 4'-0" I.D. NON-TRAFFIC MANHOLES



PRECAST TOP SLABS FOR 4'-0" I.D. TRAFFIC MANHOLES

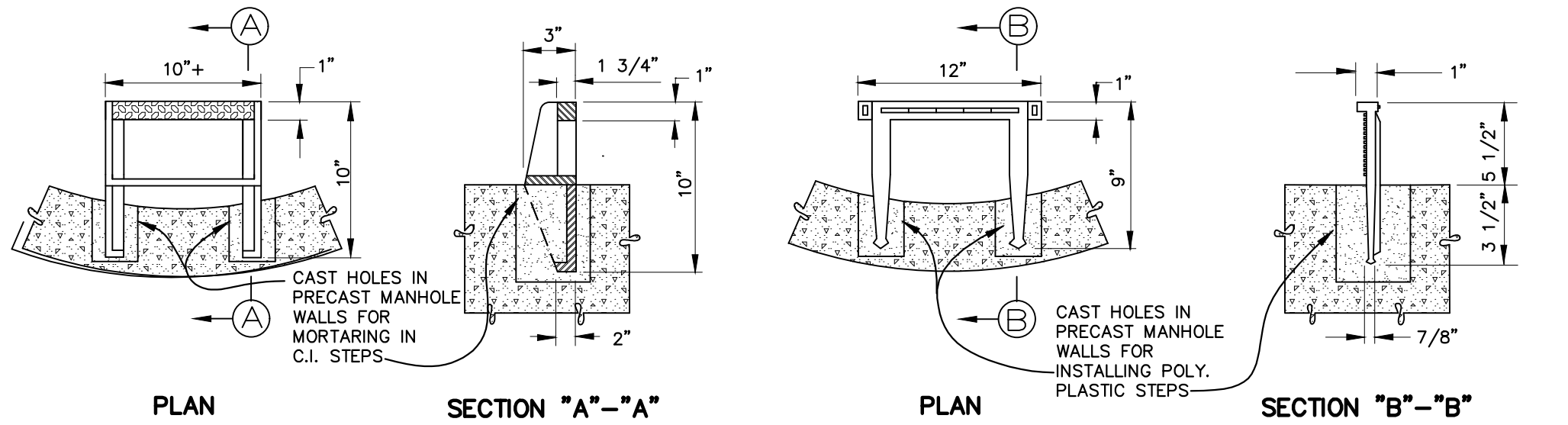


SECTION SHALLOW MANHOLE

SECTION STANDARD MANHOLE

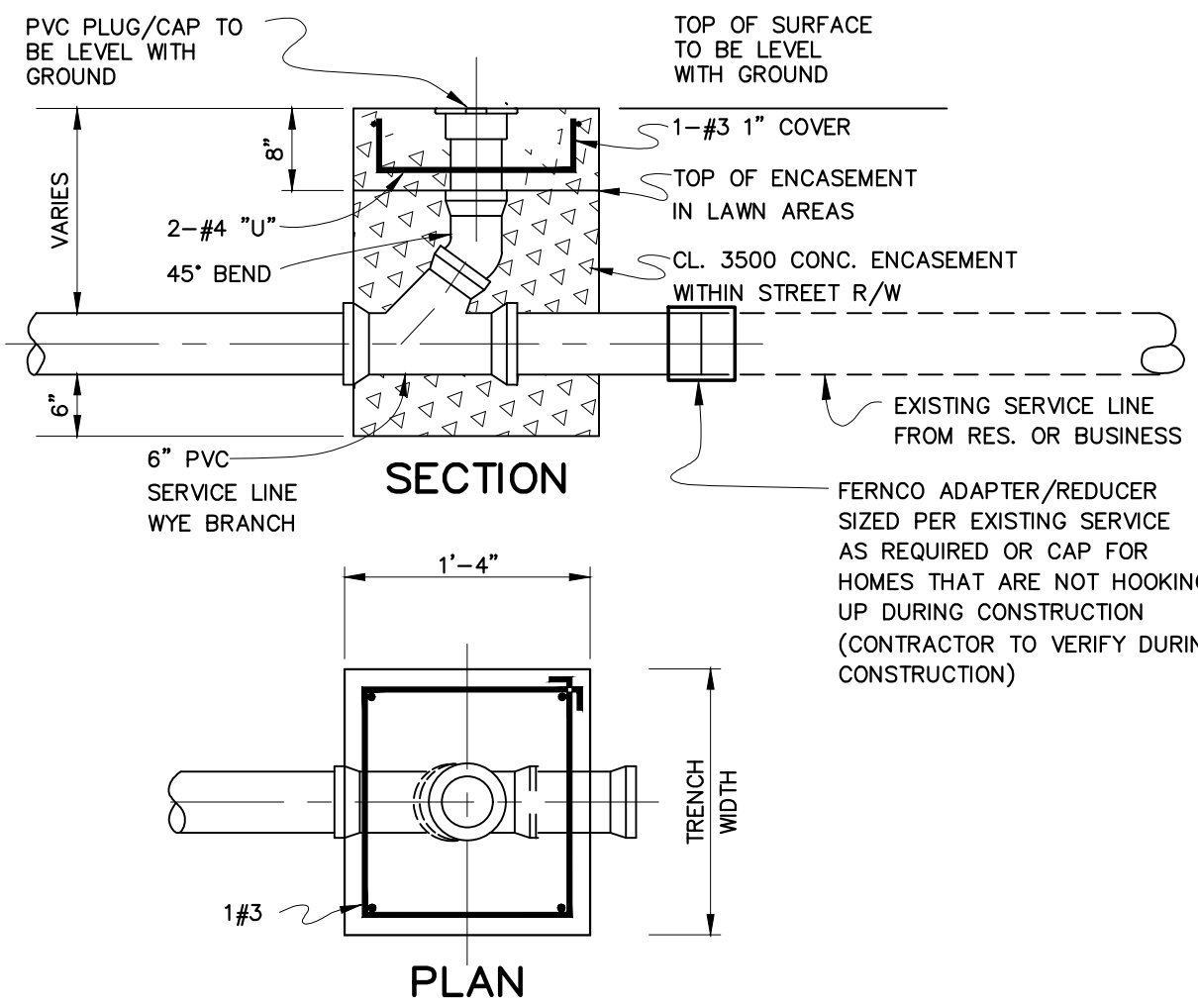
PRECAST CONCRETE MANHOLES - TYPICAL DETAILS

ASTM SPEC. C-478, LATEST REVISION FOR MANHOLE SECTIONS ECCENTRIC CORBEL SECTION IS ACCEPTABLE (LOCATE VERTICAL WALL DOWNSTREAM; WHERE FLAT TOP IS USED, OFFSET ACCESS OPENING OVER DOWNSTREAM SIDE).

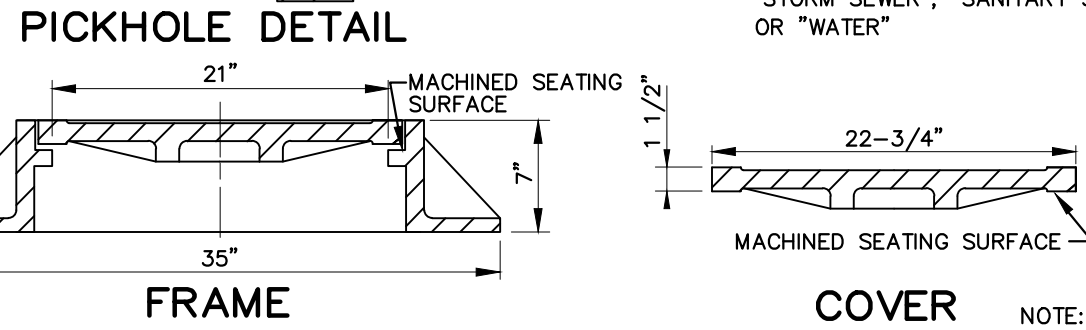
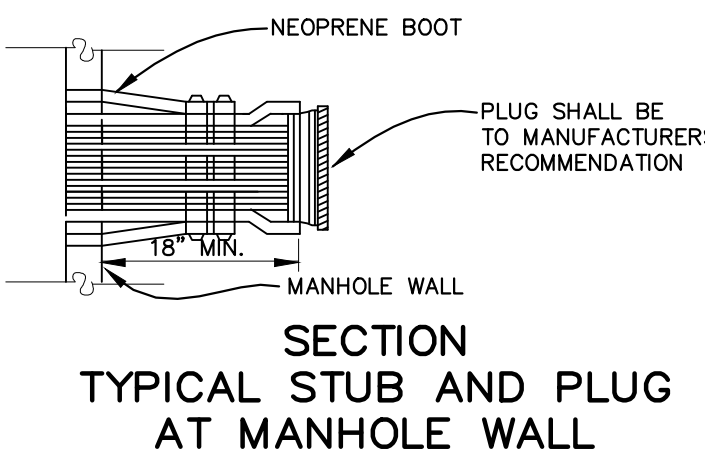


CAST IRON MANHOLE STEPS FOR PRECAST CONCRETE MANHOLES

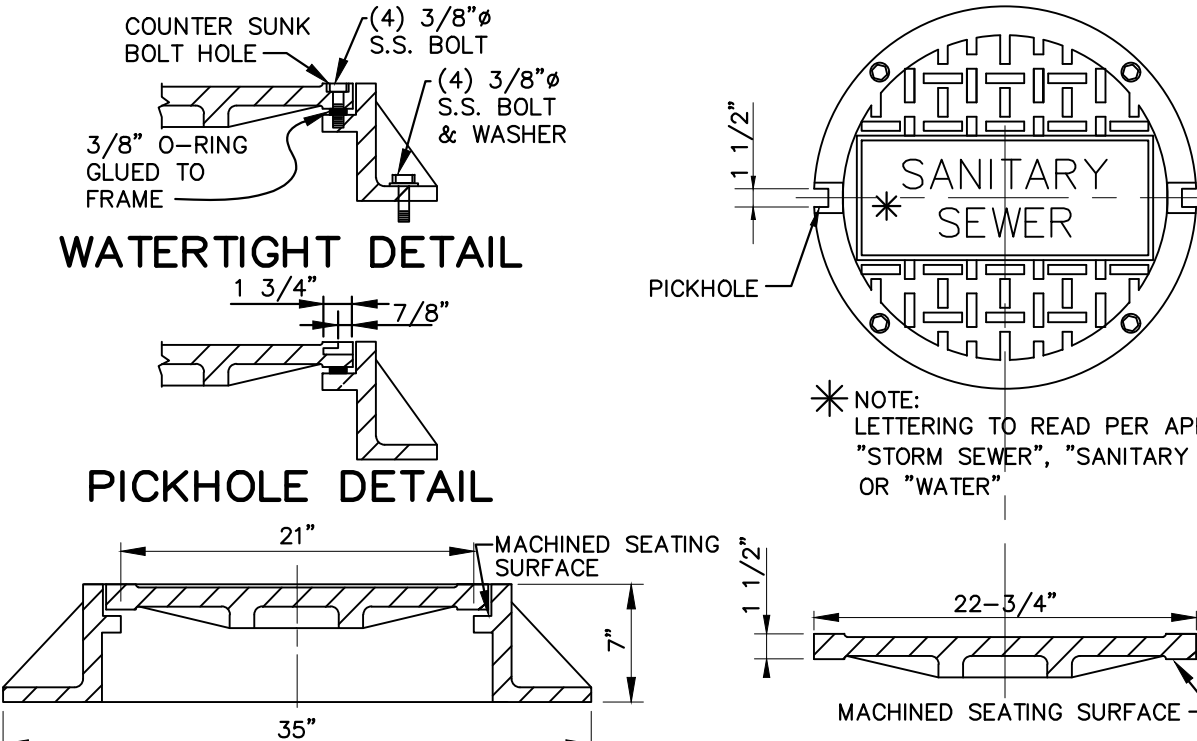
POLYPROPYLENE PLASTIC ENCAPSULATED STEEL MANHOLE STEPS FOR PRECAST CONCRETE MANHOLES



TYPICAL DETAIL - CLEANOUT ASSEMBLY



MANHOLE FRAME AND COVER



MANHOLE FRAME AND COVER

DESIGNER	JSR	DATE	BY	REVISION
DRAWN	DRH			
CHECKED	DFS			
APPROVED	DFS			

GRAPHIC SCALE
SCALE: AS NOTED

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DAVID F. SCHRADER
20981
PROFESSIONAL ENGINEER

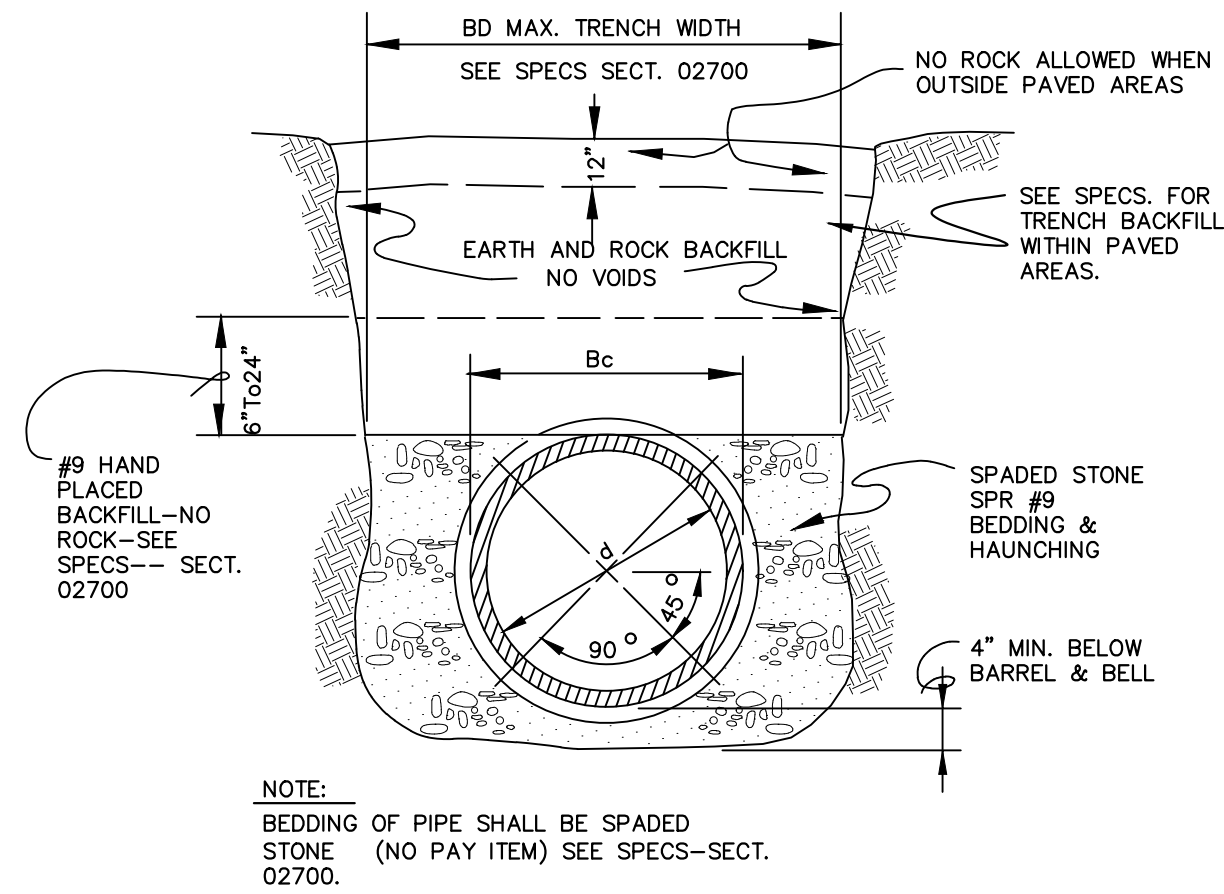
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engineering

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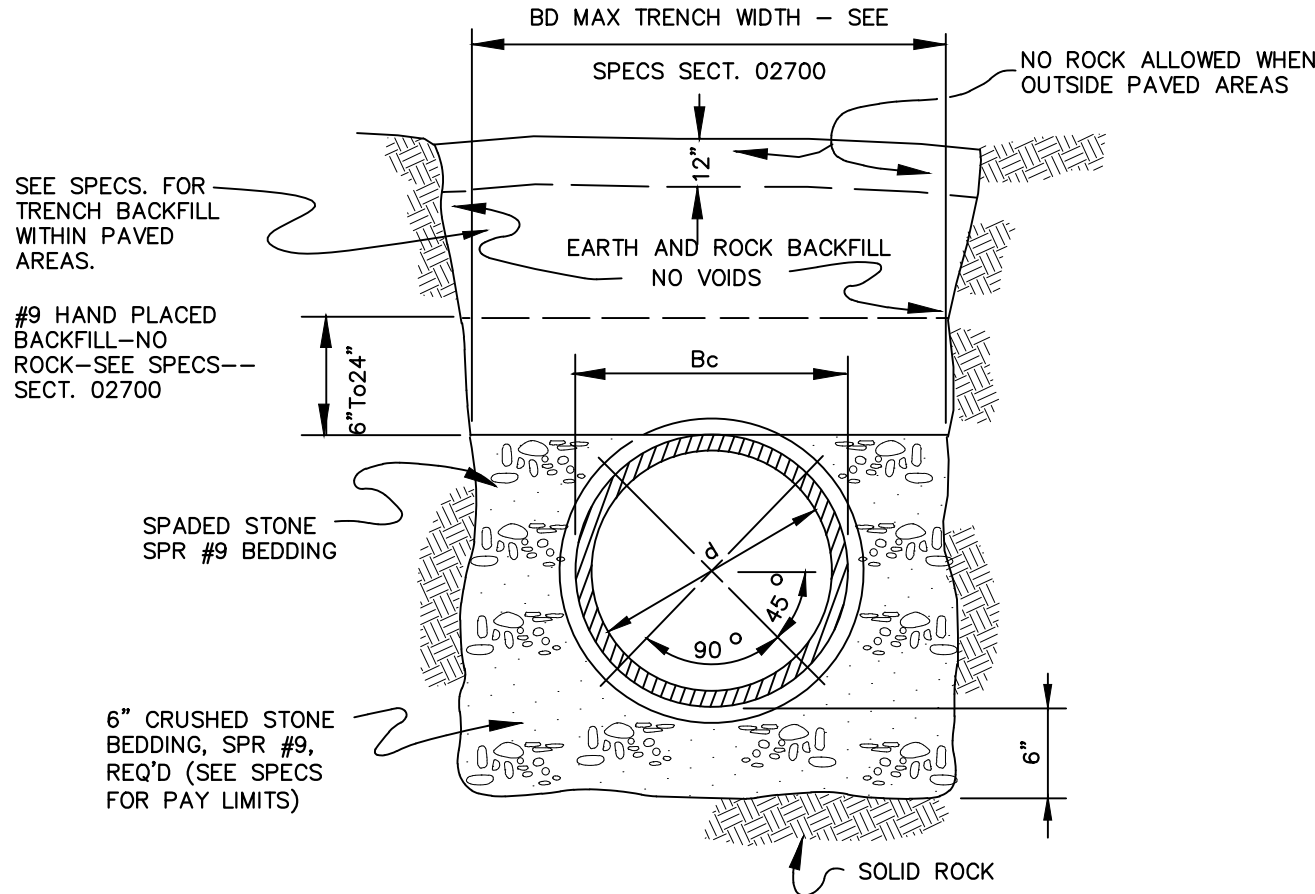
BRUNSWICK DRIVE SANITARY SEWER REPLACEMENT
LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT
LEXINGTON, KENTUCKY

SEWER
MANHOLE DETAILS

DIVISION	CIVIL
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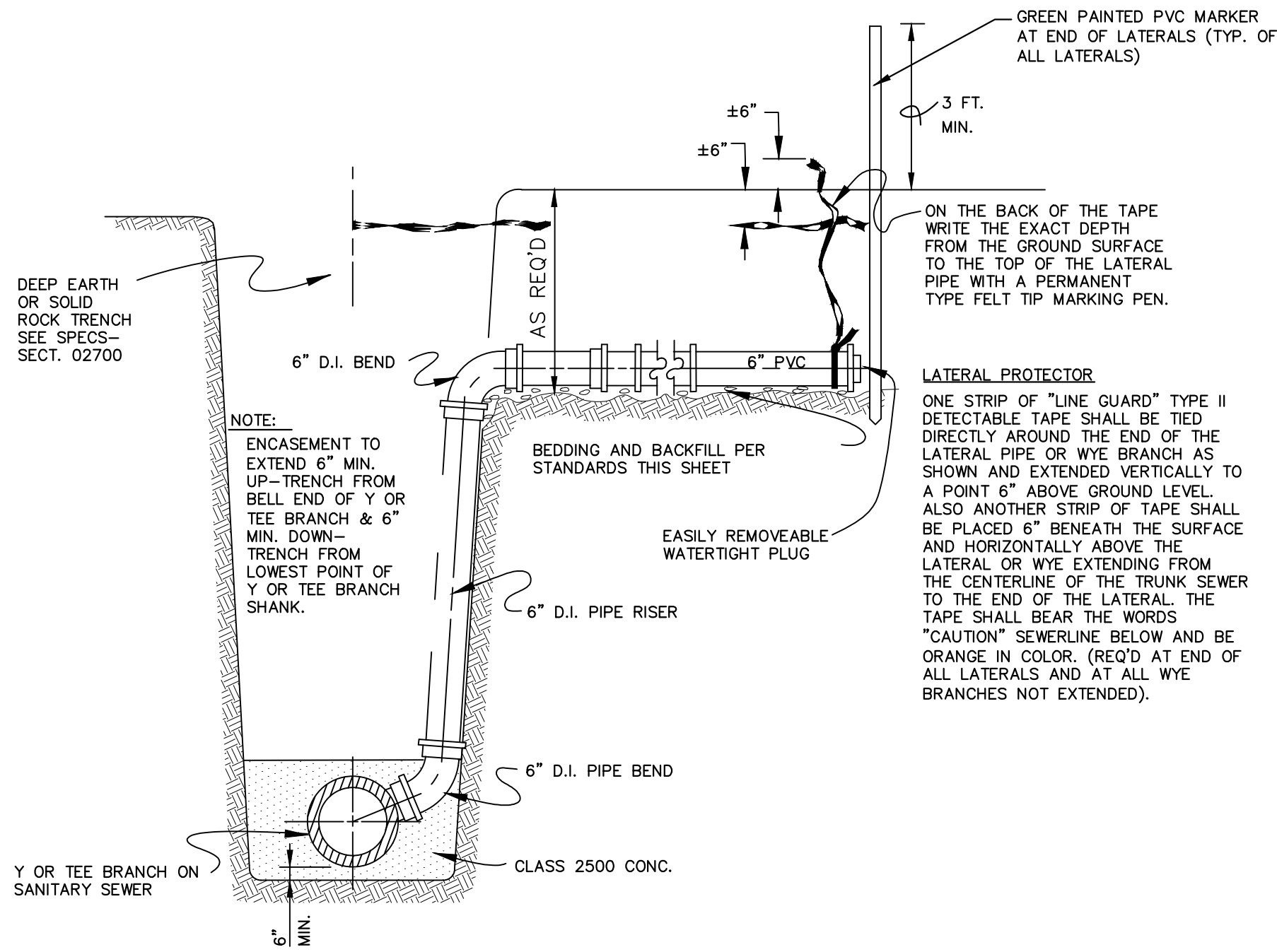


CLASS "B" BEDDING
ON EARTH
d = 6" THRU 16" PIPE
N T S



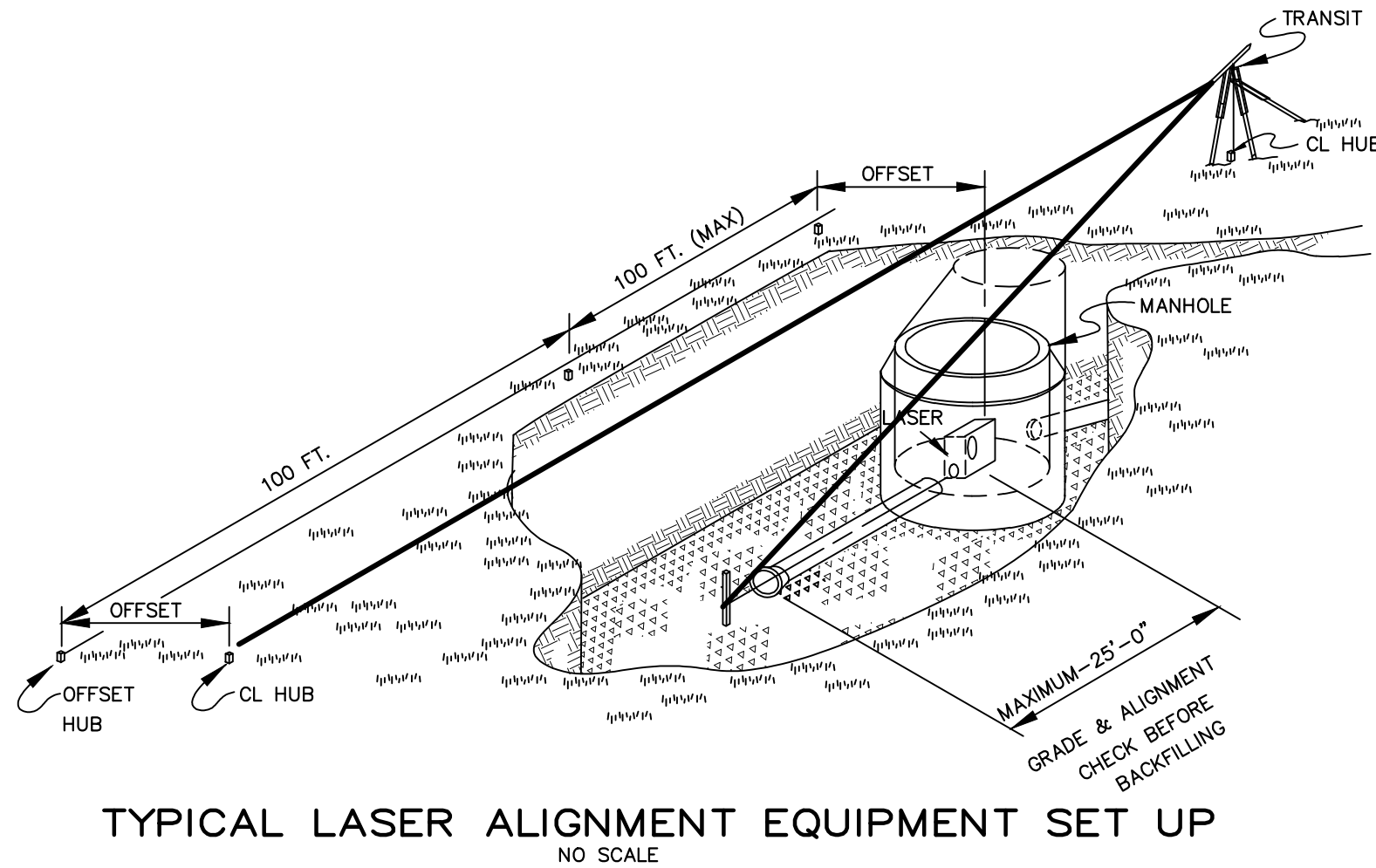
CLASS "B" BEDDING
ON OR IN SOLID ROCK
d = 6" THRU 16" PIPE
N T S

TRENCH DETAILS GRAVITY SEWER CONSTRUCTION

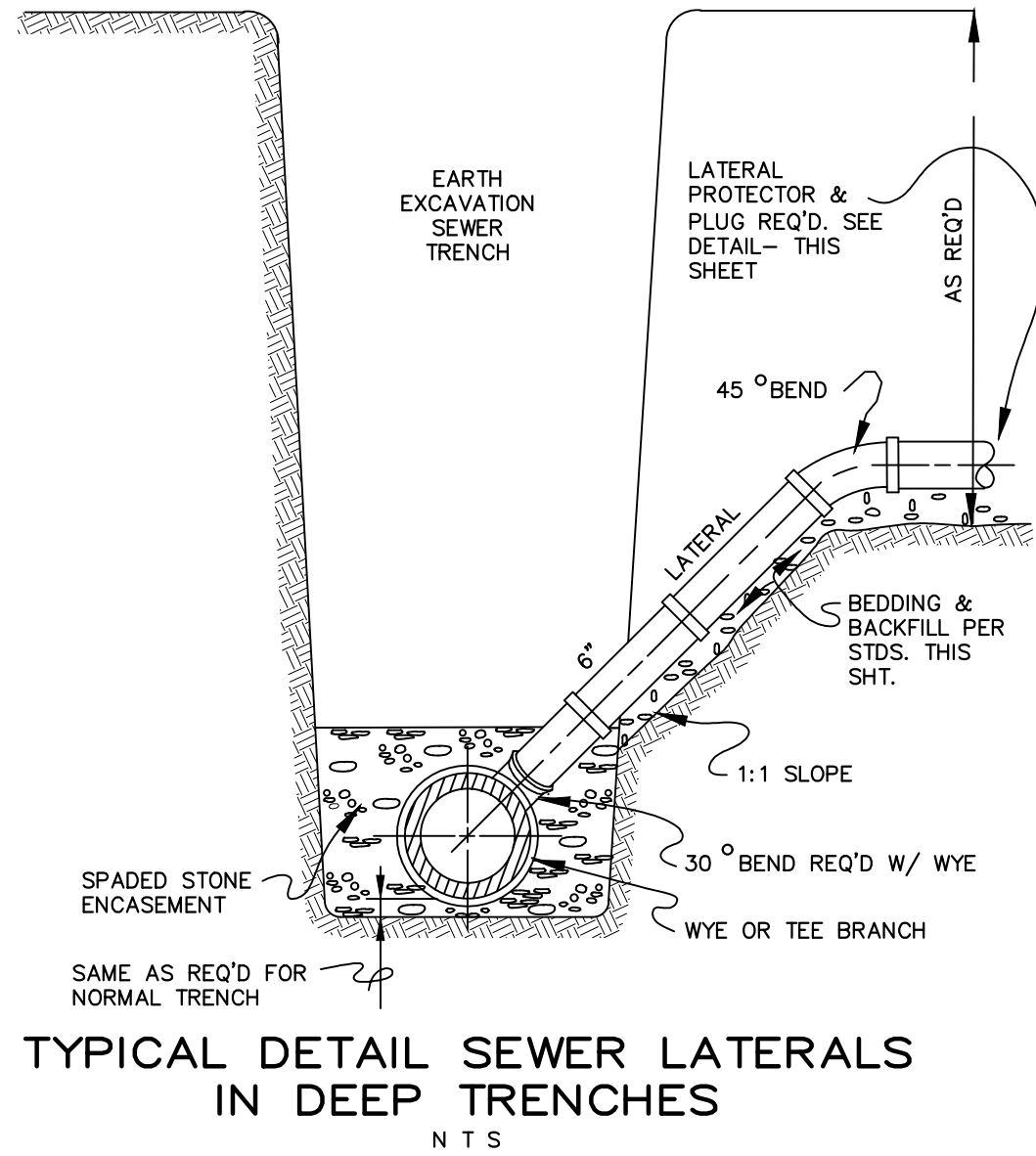


TYPICAL DETAIL SEWER LATERALS
IN DEEP TRENCHES
(NARROW R OF W &/OR SOLID ROCK)

NOTE: TYPICAL JOINT BETWEEN
DIFFERENT PIPE TYPES
A FLEXIBLE NEOPRENE BOOT
COUPLING WITH STAINLESS STEEL
CONTRACTING CLAMPS IS REQUIRED TO
CONNECT DIFFERENT TYPES OF PIPE.
NO EXTRA PAY ALLOWED FOR JOINT
BETWEEN DIFFERENT PIPE TYPES.
COST TO BE INCLUDED IN PAYMENT
FOR PIPE.



TYPICAL LASER ALIGNMENT EQUIPMENT SET UP
NO SCALE

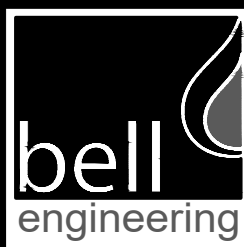
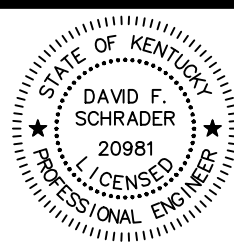


TYPICAL DETAIL SEWER LATERALS
IN DEEP TRENCHES
N T S

DESIGNER	SRD	DATE	BY	REVISION
DRAWN	DRH			
CHECKED	DFS			
APPROVED	DFS			

GRAPHIC SCALE
SCALE: AS NOTED

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BRUNSWICK DRIVE SANITARY SEWER
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LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT
LEXINGTON, KENTUCKY

SEWER
PIPE TRENCHING AND BEDDING DETAILS

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