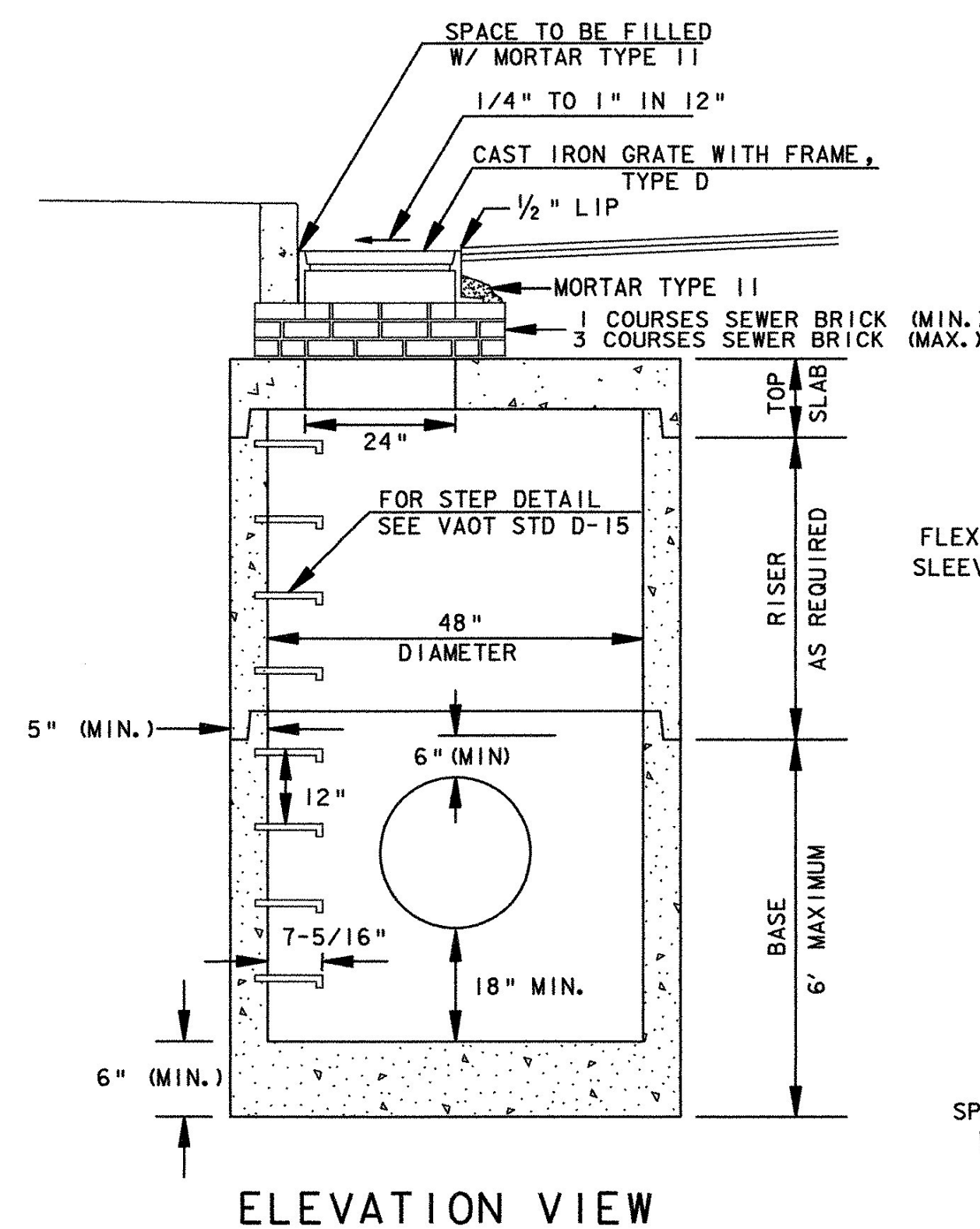
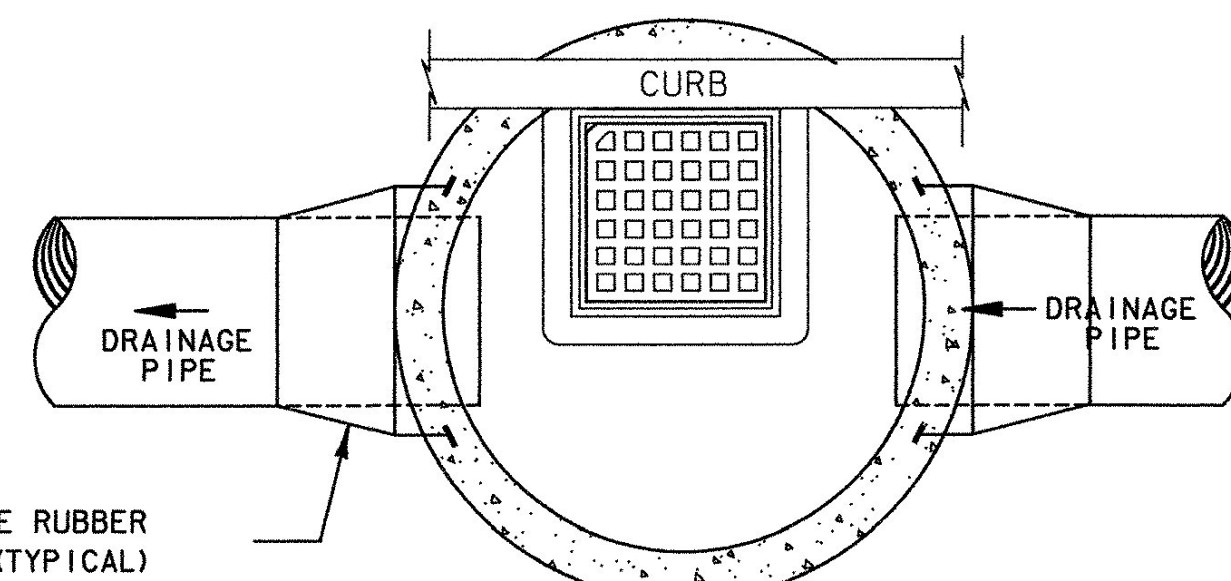


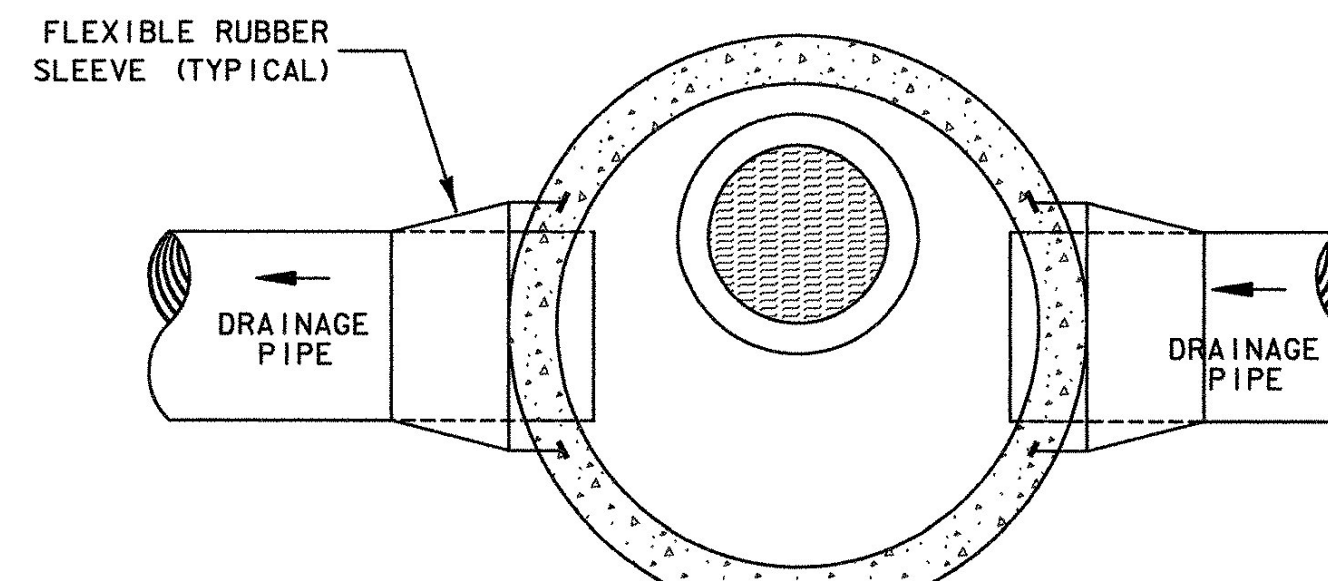
TYPICAL DRAINAGE DETAILS



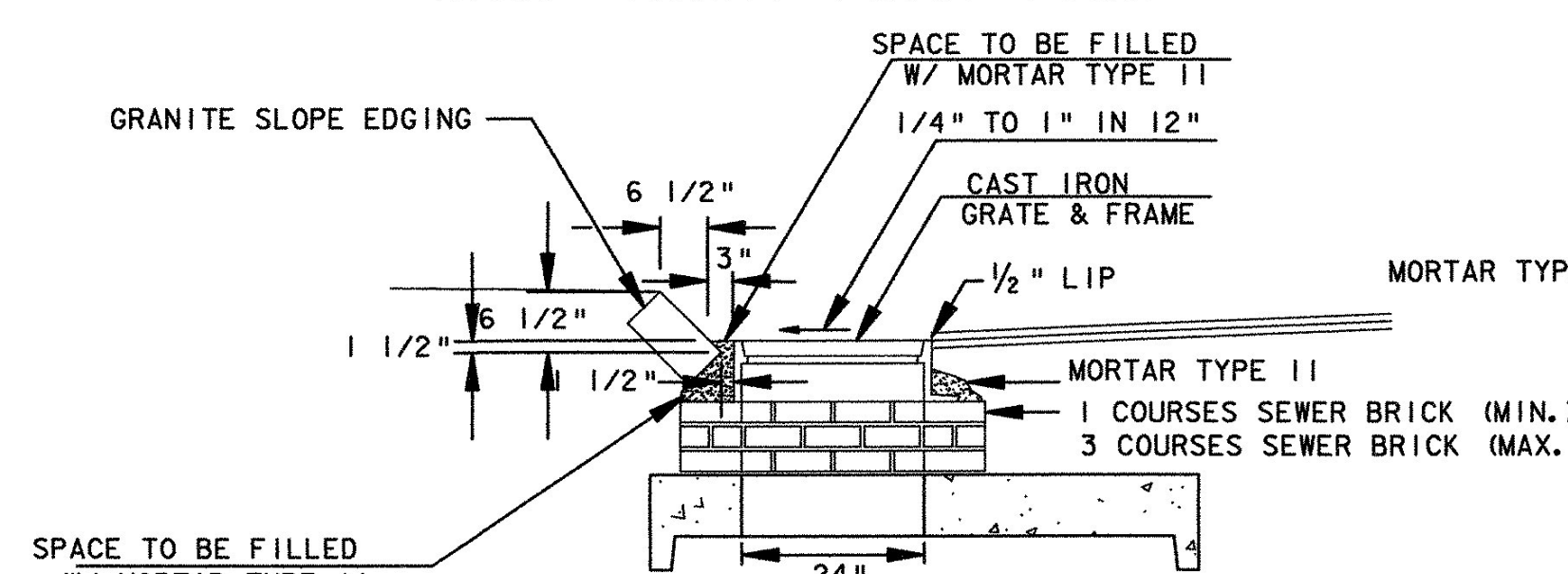
ELEVATION VIEW



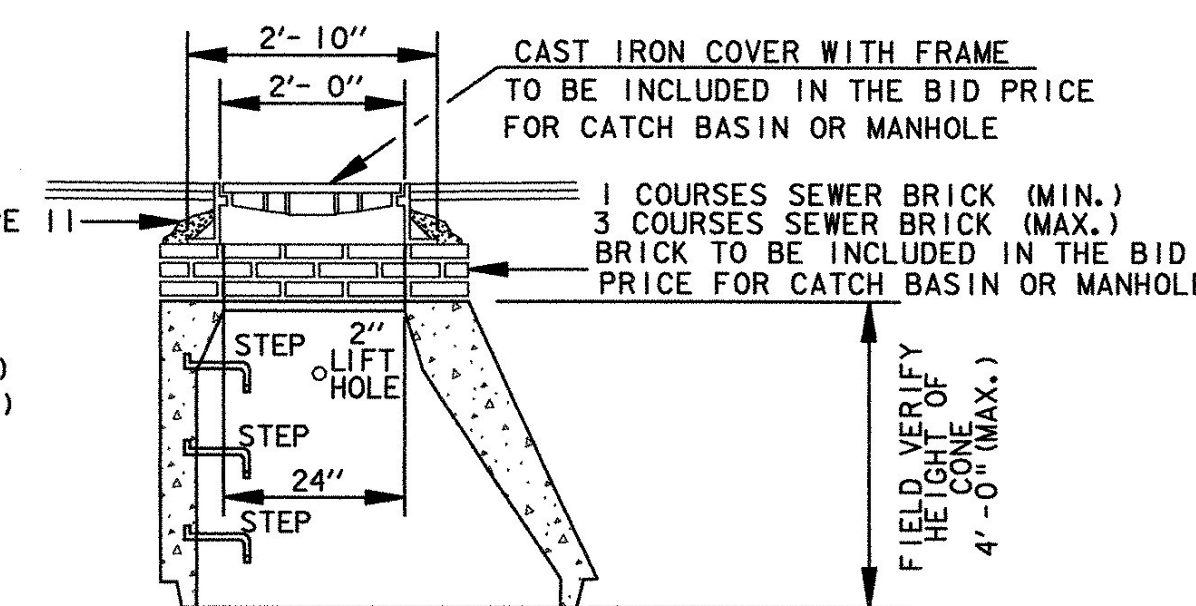
DROP INLET PLAN VIEW



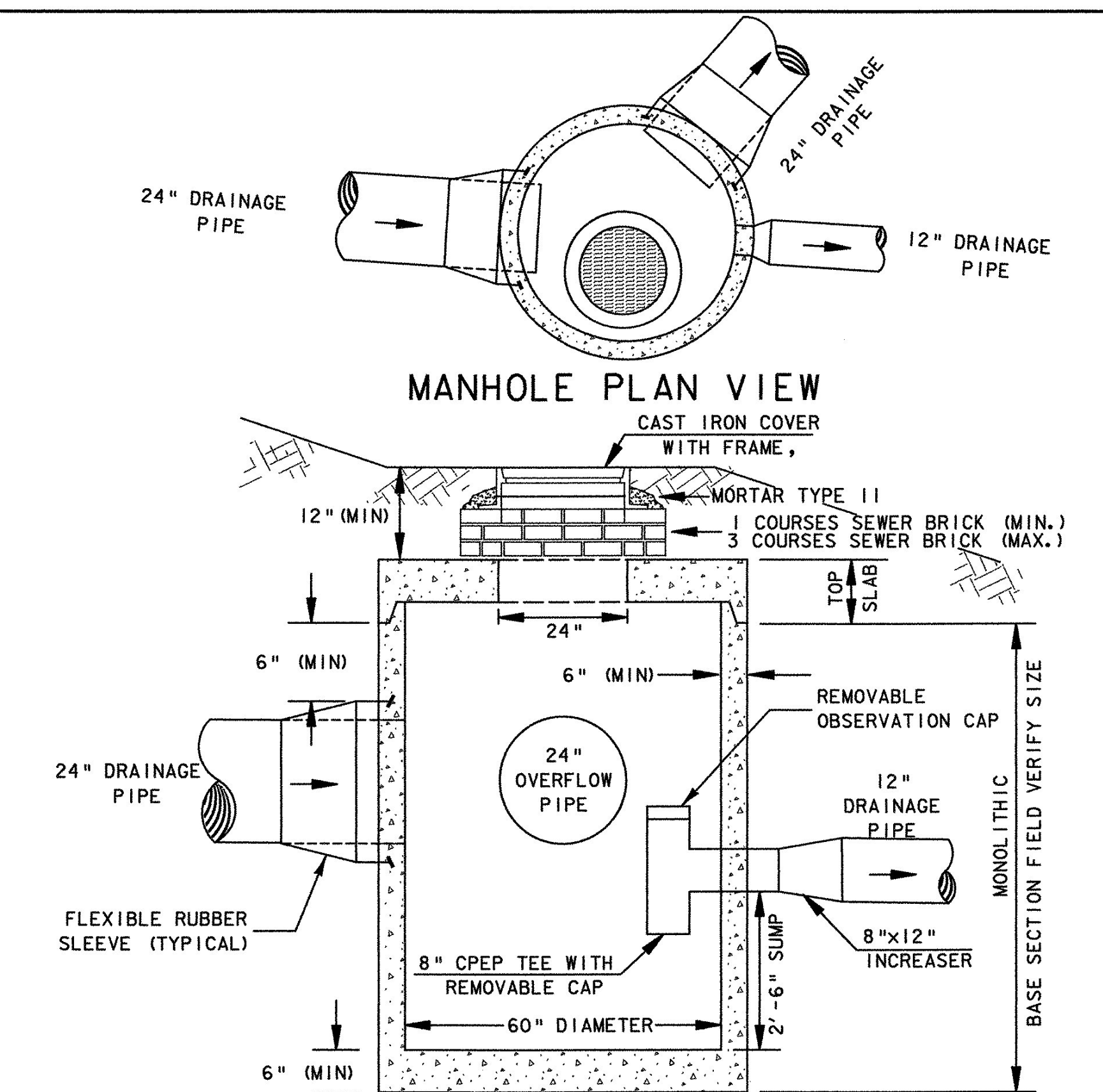
MANHOLE PLAN VIEW



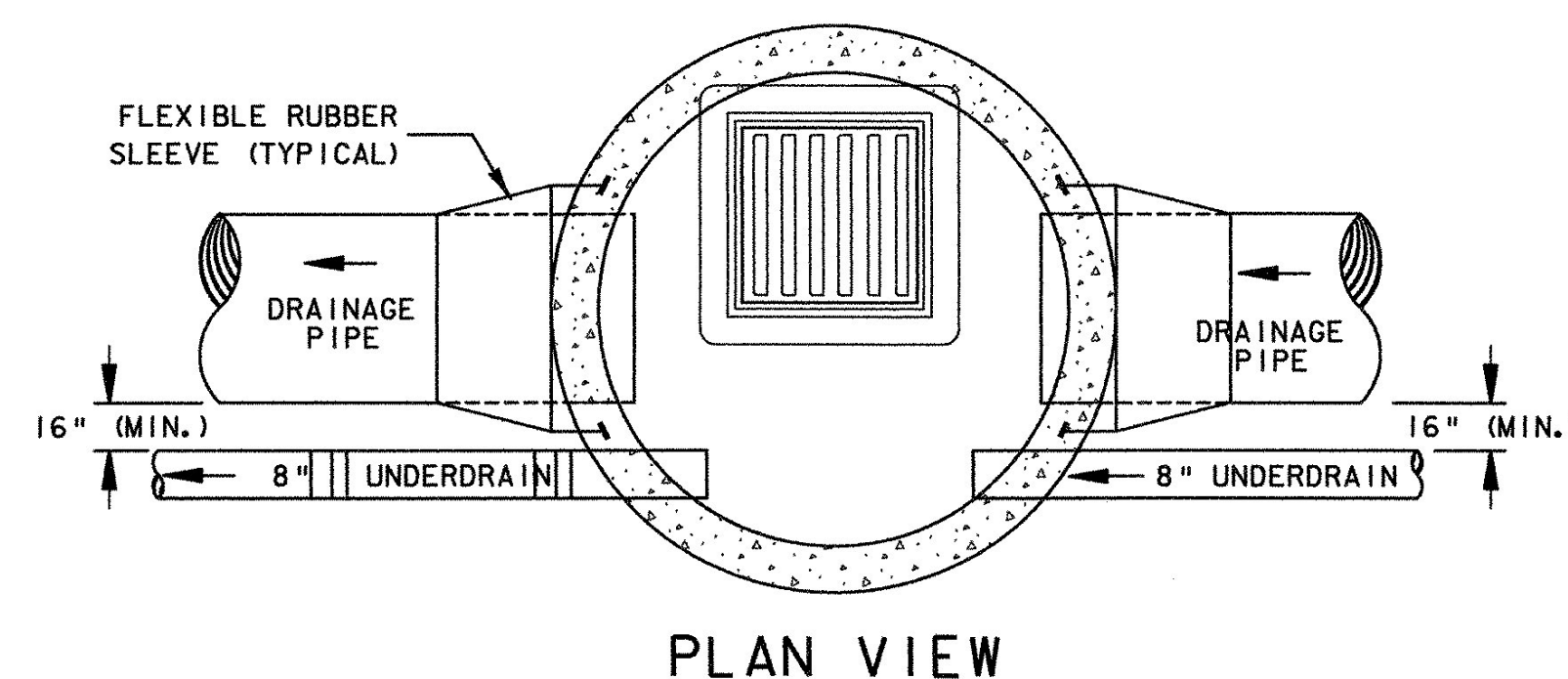
TYPICAL PRECAST DROP INLET OR MANHOLE INSTALLED IN ROADWAY
SCALE: NOT TO SCALE



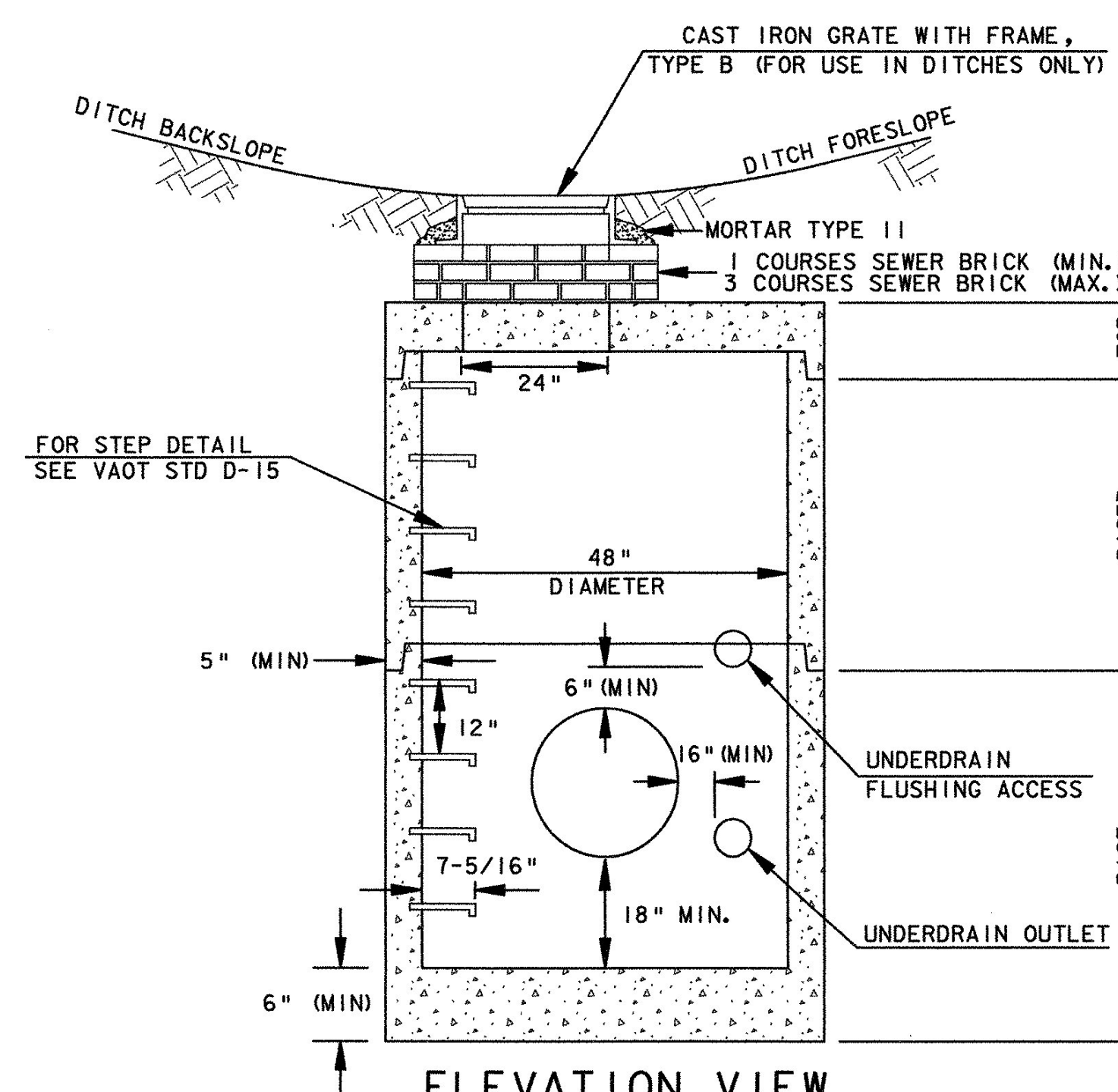
MANHOLE CONE SECTION



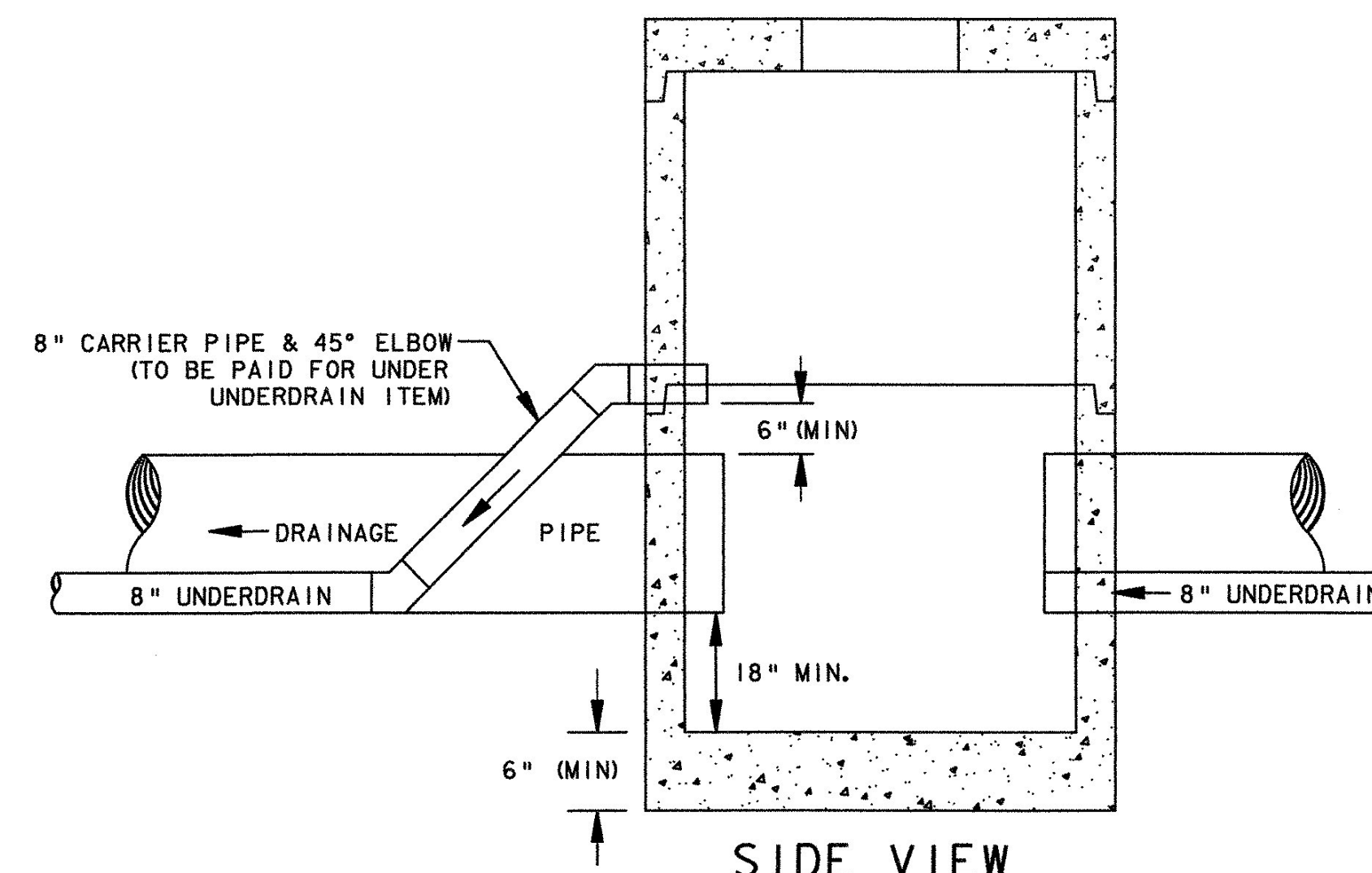
60" DIAMETER PRECAST CONCRETE
DIVERSION MANHOLE AT RAMP "D" STA. 74+25.00RT
SCALE: NOT TO SCALE



PLAN VIEW



ELEVATION VIEW



SIDE VIEW

TYPICAL PRECAST DI INSTALLED IN DITCH W/ UNDERDRAIN FLUSHING ACCESS
SCALE: NOT TO SCALE

PRECAST CONCRETE DIVERSION MANHOLE NOTES:

- 1) PRECAST CONCRETE SECTIONS SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND ASTM C-478.
- 2) MINIMUM CONCRETE COMPRESSIVE STRENGTH: 4,000 PSI AT 28-DAYS
- 3) STEEL REINFORCING SHALL CONFORM TO ASTM A185 OR A82 FOR HS25 LOADING.
- 4) PROVIDE MANHOLE STEPS. STEPS SHALL BE 14" WIDE STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC CONFORMING TO ASTM C-478 AND SHALL BE CAST INTO MANHOLE SECTIONS BY THE PRECAST CONCRETE MANUFACTURER.
- 5) FACE OF PIPE SHALL NOT PROJECT MORE THAN 2" OR LESS THAN 1" FROM INSIDE WALL OF STRUCTURE.
- 6) THERE SHALL BE NO HOLES CLOSER THAN 3" TO JOINTS.
- 7) FITTING FRAME TO FINAL GRADE MAY BE DONE WITH BRICK OR PRECAST CONCRETE GRADE RINGS OF APPROPRIATE THICKNESS (3 COURSES MAX).
- 8) FLAT SLAB TOPS SHALL BE USED.
- 9) ALL PIPE INVERTS AND PENETRATION ANGLES SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
- 10) PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT AND BE ASSEMBLED USING A BUTYL RUBBER OR APPROVED EQUAL SEALANT.
- 11) PROVIDE FLEXIBLE RUBBER SLEEVES CONFORMING TO ASTM C-923, RESILIENT, OF SIZE REQUIRED, FOR EACH PIPE CONNECTING TO STRUCTURE. SLEEVES SHALL BE CAST INTO PRECAST STRUCTURE BY THE MANUFACTURER FOR ALL PIPE PENETRATIONS.
- 12) PAYMENT FOR INSTALLATION OF THE DIVERSION MANHOLE SHALL BE MADE UNDER THE PRECAST REINFORCED CONCRETE MANHOLE WITH CAST IRON GRATE (MOD. - DIVERSION MANHOLE) ITEM (604.21).

PRECAST CONCRETE DROP INLET AND MANHOLE NOTES:

- 1) PRECAST CONCRETE SECTIONS SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND ASTM C-478.
- 2) MINIMUM CONCRETE COMPRESSIVE STRENGTH: 4,000 PSI AT 28-DAYS
- 3) STEEL REINFORCING SHALL CONFORM TO ASTM A185 OR A82 FOR HS25 LOADING.
- 4) MANHOLE STEPS SHALL BE 14" WIDE STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC CONFORMING TO ASTM C-478 AND SHALL BE CAST INTO MANHOLE SECTIONS BY THE PRECAST CONCRETE MANUFACTURER.
- 5) FACE OF PIPE SHALL NOT PROJECT MORE THAN 2" OR LESS THAN 1" FROM INSIDE WALL OF STRUCTURE.
- 6) ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12" OF OUTSIDE SURFACE BETWEEN HOLES, NO MORE THAN 75% OF A HORIZONTAL CROSS-SECTION SHALL BE HOLES, AND THERE SHALL BE NO HOLES CLOSER THAN 3" TO JOINTS.
- 7) FITTING FRAME TO FINAL GRADE MAY BE DONE WITH BRICK OR PRECAST CONCRETE GRADE RINGS OF APPROPRIATE THICKNESS (3 COURSES MAX).
- 8) THE MANHOLE AT RAMP "C" STA. 42+56.2 SHALL BE AN ECCENTRIC CONE TOP SECTION. FLAT SLAB TOPS SHALL BE USED FOR ALL DROP INLETS AND THE DIVERSION MANHOLE AT RAMP "D" STA. 74+25 RT. UNLESS OTHERWISE PERMITTED BY THE ENGINEER.
- 9) ALL PIPE INVERTS AND PENETRATION ANGLES SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
- 10) PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT AND BE ASSEMBLED USING A BUTYL RUBBER OR APPROVED EQUAL SEALANT.
- 11) PROVIDE FLEXIBLE RUBBER SLEEVES CONFORMING TO ASTM C-923, RESILIENT, OF SIZE REQUIRED, FOR EACH PIPE CONNECTING TO STRUCTURE. SLEEVES SHALL BE CAST INTO PRECAST STRUCTURE BY THE MANUFACTURER FOR ALL PIPE PENETRATIONS.
- 12) DROP INLET GRATE ORIENTATION SHALL BE IN ACCORDANCE WITH STANDARD DETAIL D-15 FOR TYPE D AND D-16 FOR TYPE B GRATES.
- 13) INSTALLATION OF DROP INLETS OVER EXISTING PIPES SHALL INCLUDE CLEAN CUTTING OF EXISTING PIPES, PROVIDING AN EXTENSION PIPE OF SIMILAR MATERIAL AND SIZE AS THE EXISTING PIPE, COUPLINGS REQUIRED FOR THE CONNECTION BETWEEN THE EXTENSION PIPE AND THE EXISTING PIPE, AND INSTALLING FLEXIBLE RUBBER SLEEVES AS SHOWN IN DETAILS PROVIDED ON THIS SHEET.
- 14) PAYMENT FOR INSTALLATION OF THE DROP INLETS SHALL BE MADE UNDER THE PRECAST REINFORCED CONC. CATCH BASIN WITH CAST IRON GRATE ITEM (604.20).
- 15) PAYMENT FOR INSTALLATION OF THE MANHOLE AT RAMP "C" STA. 42+56.2 SHALL BE MADE UNDER THE PRECAST REINFORCED CONCRETE MANHOLE WITH CAST IRON GRATE ITEM (604.21).

PROJECT NAME:	SOUTH BURLINGTON
PROJECT NUMBER:	IM 089-3(37)
FILE NAME:	z03d178+yp.dgn
PROJECT LEADER:	KEN UPMAL
DESIGNED BY:	E.ATKINS/P. MILEWSKI
PLOT DATE:	5/5/2006
DRAWN BY:	E.ATKINS
CHECKED BY:	K.ISHIKURA
SHEET	22 OF 99