

12/18/97 11:21:42 RCD-12

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26444-300-WMTUP-C-8000003100
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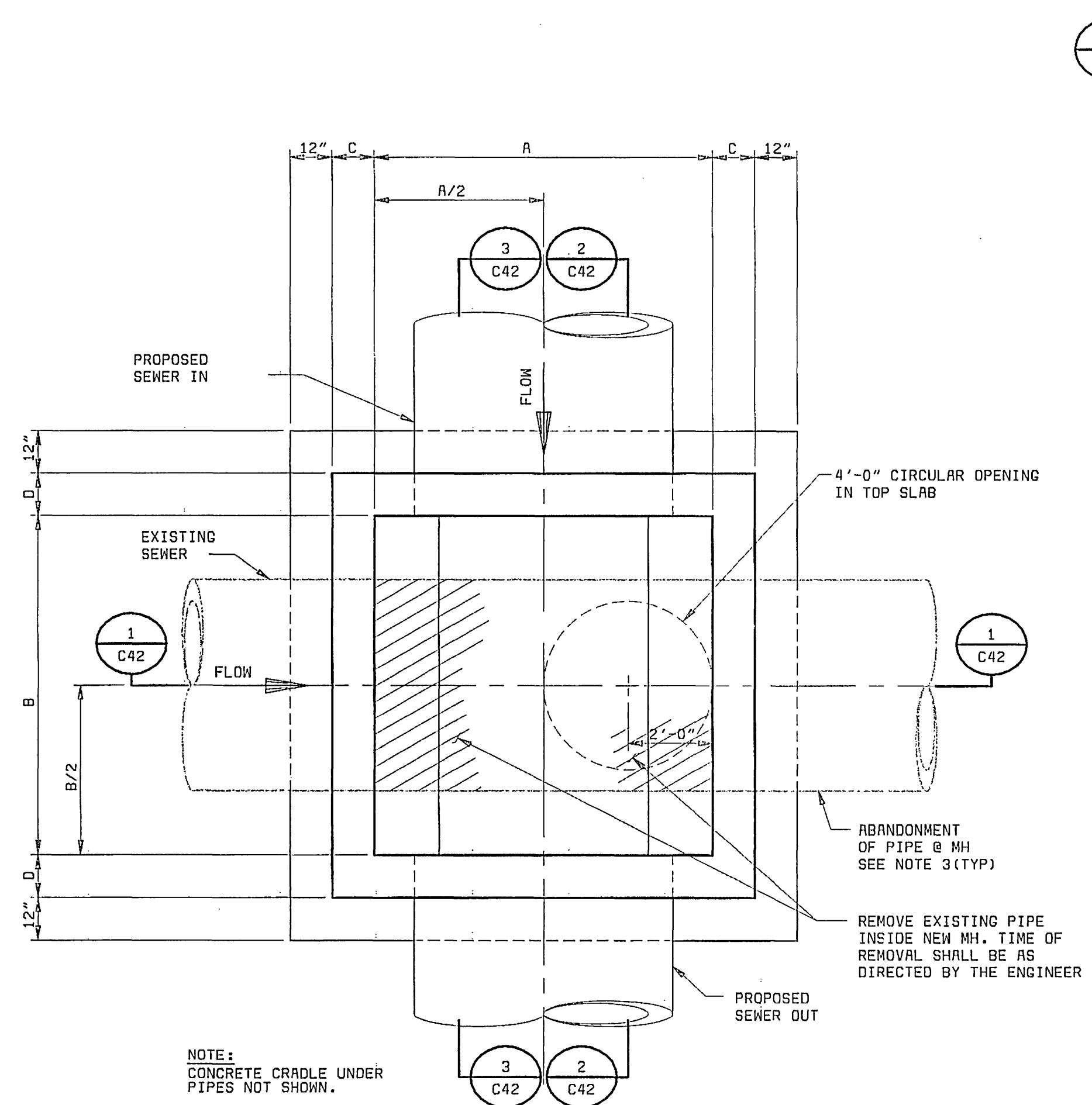
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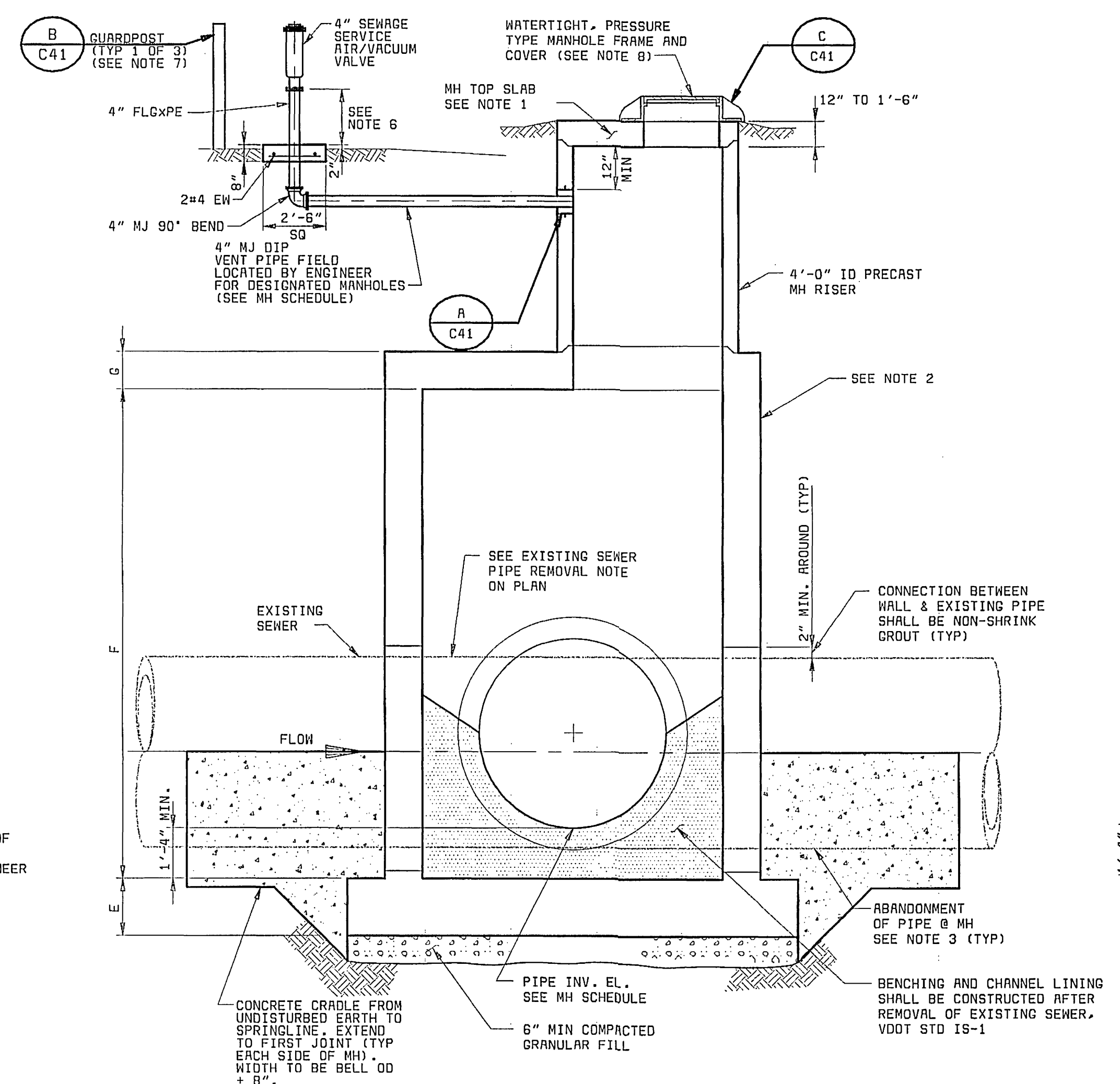
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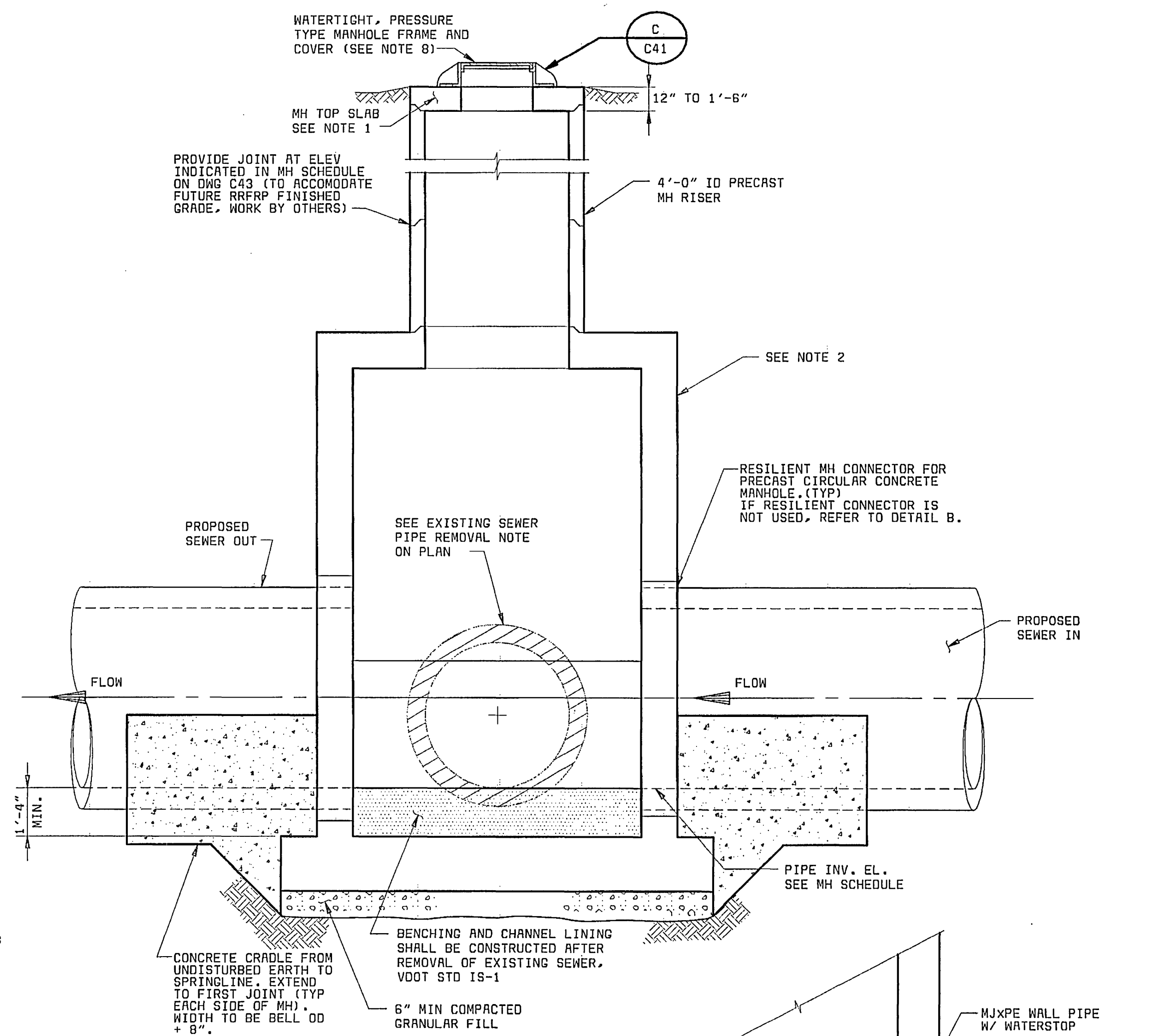
10



MH BUILT OVER
EXISTING SEWER
3/8" = 1'-0"



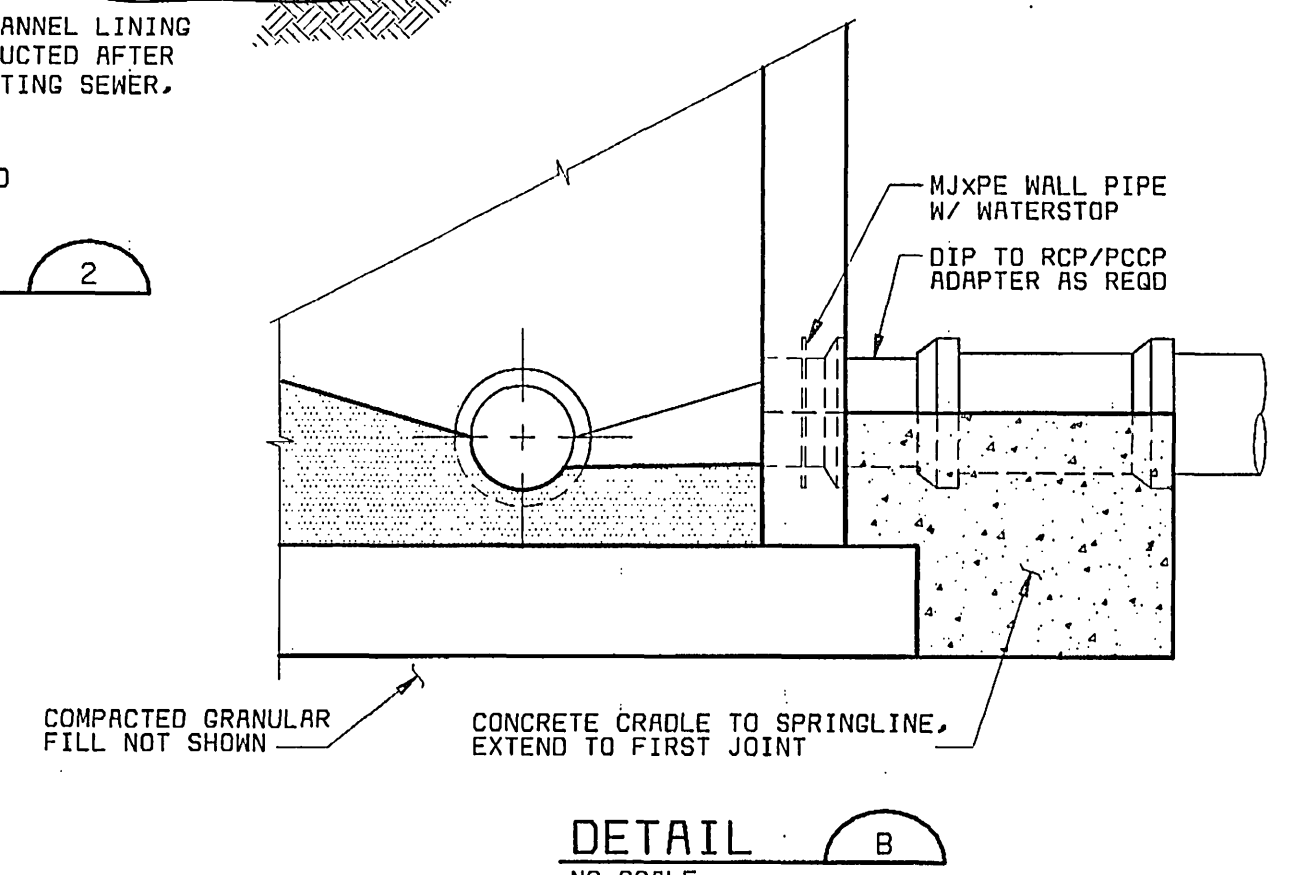
SECTION 1
3/8" = 1'-0"



SECTION 2
3/8" = 1'-0"

MANHOLE SCHEDULE - TYPE III FOR PCPP PER SECTION 1													
MATERIAL	MH NO.	SEWER IN ² SIZE	SEWER OUT ² SIZE	CONNECTIONS EXIST ⁴ NEW ³	A	B	C	D	E	F ¹	G	COMMENTS	
PCPP, RCP, DIP	RR-307A	24"	24"	36", 42"	24"	5'-0"	6'-0"			PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED		FIELD LOCATE OVER EXISTING SEWER	
PCPP, RCP, DIP	RR-325	48"	60"	24"	-	7'-0"	5'-0"			PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED		FIELD LOCATE OVER EXISTING SEWER	
PCPP, RCP, DIP	RR-342A	48"	48"	36"	-	7'-0"	5'-0"			PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED		FIELD LOCATE OVER EXISTING SEWER	
PCPP, RCP, DIP	RR-346	48"	48"	24"	-	7'-0"	5'-0"			PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED		FIELD LOCATE OVER EXISTING SEWER	
PCPP, RCP, DIP	SEE DWG C43	60"	60"	REFER TO DWG C43		8'-0"	5'-0"			PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED		SEE DRAWING NOTE 5	
PCPP, RCP, DIP	SEE DWG C43	48"	48"	REFER TO DWG C43		7'-0"	5'-0"			PER HYDROSTATIC HEAD AND H-20 LOADING AS REQUIRED		SEE DRAWING NOTE 5	

MANHOLE SCHEDULE NOTES:
1. MINIMUM F DIMENSION IS 8'-0".
2. INVERT ELEVATION FOR NEW SEWER IN AND NEW SEWER OUT SHALL BE AS INDICATED ON DWG C19-C32 OR C34.
3. INVERT ELEVATION OF NEW MANHOLE CONNECTIONS SHALL BE AS INDICATED IN THE CONNECTION PROFILES ON DWG C34.
4. TYPE III MANHOLES PROPOSED FOR LOCATION OVER EXISTING SEWERS SHALL BE FIELD LOCATED OVER THE SEWER. COORDINATES PROVIDED ON DWG C19-C32 ARE APPROXIMATE FOR THESE MANHOLES. THE EXISTING PIPE SHALL BE SUPPORTED AS NECESSARY AND FLOW MAINTAINED THROUGH THE NEW MANHOLE UNTIL SUCH TIME AS DIRECTED BY ENGINEER. THE EXISTING PIPE INSIDE THE NEW MANHOLES SHALL THEN BE REMOVED, THE DOWNSTREAM CONNECTION PLUGGED, AND BENCHING/CHANNEL LINING CONSTRUCTED AS INDICATED ON DWG C42 FOR MANHOLES RR-307A, RR-325, RR-342A AND RR-346.
5. ALL TYPE III MANHOLES ARE NOT LISTED IN SCHEDULE. REFER TO PROFILE VIEW OF DWGS C19 - C31 AND C43 FOR IDENTIFICATION OF OTHER TYPE III MANHOLES.



DETAIL B
NO SCALE

- DRAWING NOTES:
- MANHOLE FABRICATOR SHALL DESIGN AND PROVIDE TYPE III MANHOLES DESIGNED TO RESIST AN INTERNAL HYDROSTATIC HEAD OF 30 FEET OF WATER AND SIMULTANEOUS H-20 EXTERNAL LOADING. CONNECTIONS BETWEEN RISER SECTIONS AND BETWEEN RISER SECTION AND MANHOLE TOP SLAB SHALL BE STRAPPED AND BOLTED TOGETHER WITH EXTERNAL TYPE 316 STAINLESS STEEL JOINT HARNESS. A MINIMUM OF 3 JOINT HARNESSES, EQUALLY SPACED AROUND MANHOLE, SHALL BE USED AT EACH JOINT. BOLTS SHALL NOT EXTEND INTO INSIDE OF MANHOLE. MANHOLE FABRICATOR SHALL DESIGN TOP SLABS TO RESIST A MINIMUM EXTERNAL LOAD OF 20 FEET OF WATER COLUMN OR H-20 LOADING, AND FABRICATE AND PROVIDE SLAB BASED ON THE MORE CONSERVATIVE LOADING CONDITION. MANHOLE SHALL BE ANCHORED TO CAST IN PLACE CONCRETE BASE BY EXTENDING EXPOSED BAR CAGE REINFORCING FROM BOTTOM SECTION OF RISER SECTION A MINIMUM OF 18 INCHES INTO MANHOLE BASE AND SPLICING WITH BASE REINFORCING. MANHOLE FABRICATOR SHALL ENGAGE A PROFESSIONAL ENGINEER REGISTERED IN THE COMMONWEALTH OF VIRGINIA TO DESIGN THE MANHOLE COMPLETE WITH JOINT RESTRAINT AND BASE ANCHORAGE SYSTEMS. CONSTRUCTION DRAWINGS BEARING THE SEAL OF THE REGISTERED ENGINEER SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO BEGINNING MANHOLE FABRICATION.
 - PRECAST CONCRETE MANHOLE DESIGNED PER DIMENSIONS IN MANHOLE SCHEDULE AND LOADINGS IN NOTE 1, OR PRECAST CIRCULAR CONCRETE MANHOLE DESIGNED PER LOADINGS IN NOTE 1, MINIMUM INSIDE DIMENSION OF DIMENSION A PLUS 12" FOR 60" DIP, DIMENSION A PLUS 24" FOR 60" PCPP OR RCP, DIMENSION A FOR 48" DIP, OR DIMENSION A PLUS 12" FOR 48" PCPP OR RCP. MANHOLE SHALL HAVE "DOUGHHOUSE" BASE TO FIT OVER EXISTING SEWER.
 - AT TIME DIRECTED BY ENGINEER, SEWER TO BE ABANDONED SHALL BE COMPLETELY DISCONNECTED FROM MANHOLE BY CUTTING PIPE INSIDE MANHOLE AND PLUGGING ABANDONED SEWER AND MANHOLE WALL WITH WATERTIGHT MASONRY.
 - IF A DROP CONNECTION IS REQUIRED FOR USE WITH TYPE III MH, REFER TO TYPE II MANHOLE "STANDARD DROP MANHOLE" DETAIL ON DRAWING C41.
 - AT CONTRACTOR'S OPTION, TYPE I OR TYPE II MANHOLES MAY BE USED WITH 60" OR 48" PCPP, RCP, OR DIP AS INDICATED IN MH SCHEDULE ON DRAWING C43.
 - TERMINATE AIR/VACUUM VALVE AT ELEVATION AS INDICATED IN MH SCHEDULE, DWG C43.
 - PLACE 3 GUARDPOSTS 2'-6" UPSTREAM OF CENTERLINE OF VALVE ASSEMBLY, SPACED 2'-0" ON CENTERS.
 - WHERE MANHOLES ARE INSTALLED IN PAVED AREAS, COVER SHALL BE FLUSH WITH FINISHED GRADE.

RECORD DRAWING
THIS DRAWING HAS BEEN MODIFIED TO REFLECT CHANGES MADE DURING CONSTRUCTION BASED UPON INFORMATION AS MAY BE PROVIDED BY THE CONTRACTOR AND CONSTRUCTION OBSERVATION BY THE ENGINEER'S AUTHORIZED REPRESENTATIVE
BY *[Signature]* 3/5/01
ENGINEER DATE

TYPE III MANHOLE

DESIGNED JBB,SLF
DETAILED ABW,CGL
CHECKED RAF
APPROVED
DATE



PROJECT NO.
26444

CITY OF ROANOKE, VIRGINIA
ROANOKE RIVER INTERCEPTOR

MANHOLE DETAILS

THIS DOCUMENT
ORIGINALLY ISSUED
AND SEALED BY
BRENT M. REUSS
PROFESSIONAL ENGINEER,
COMMONWEALTH OF VIRGINIA
REGISTRATION NO. 026345
ON 12/29/97

C42
SHEET
21 OF 23

DATE REVISIONS AND RECORD OF ISSUE NO. BY CK APP