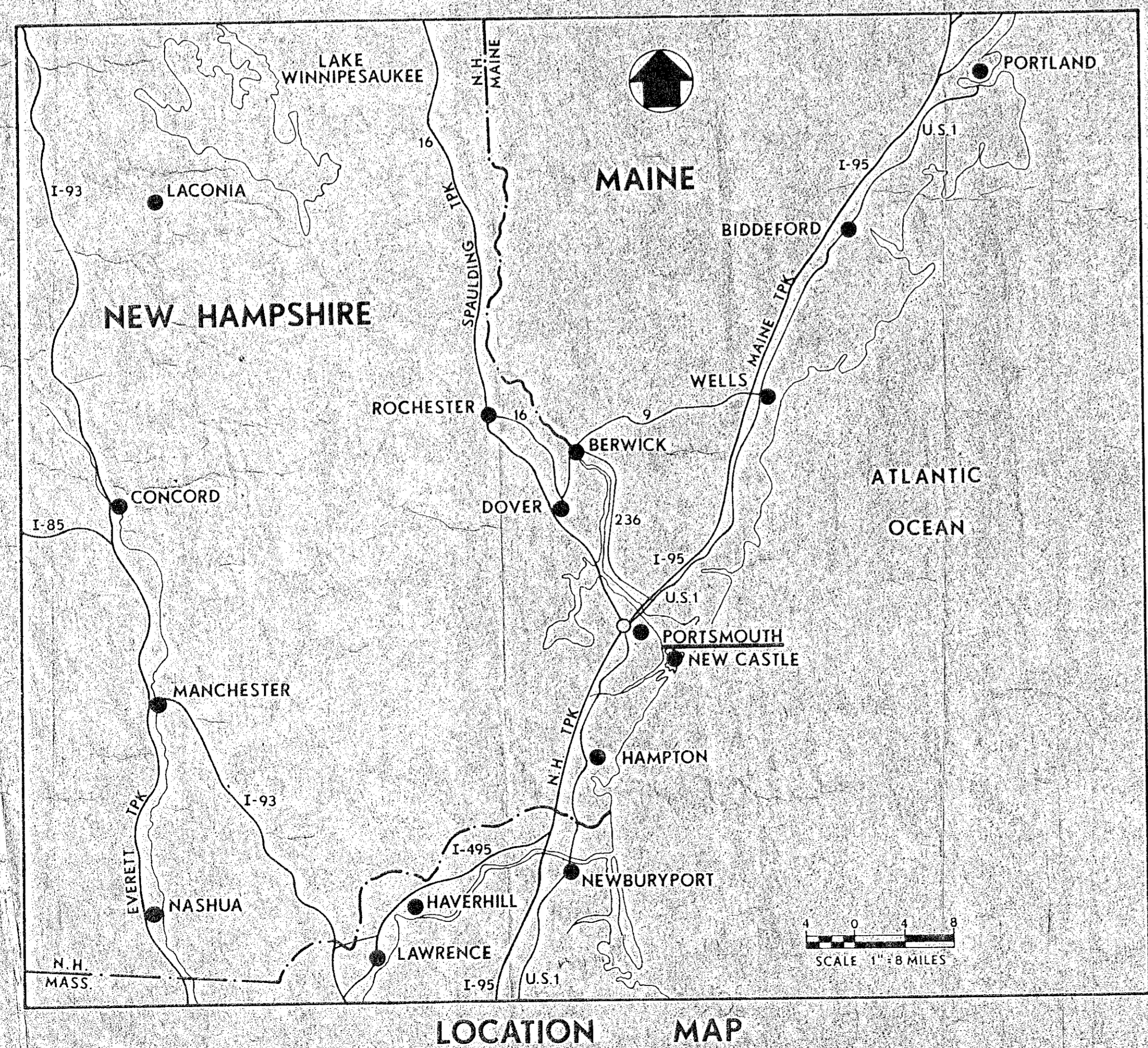


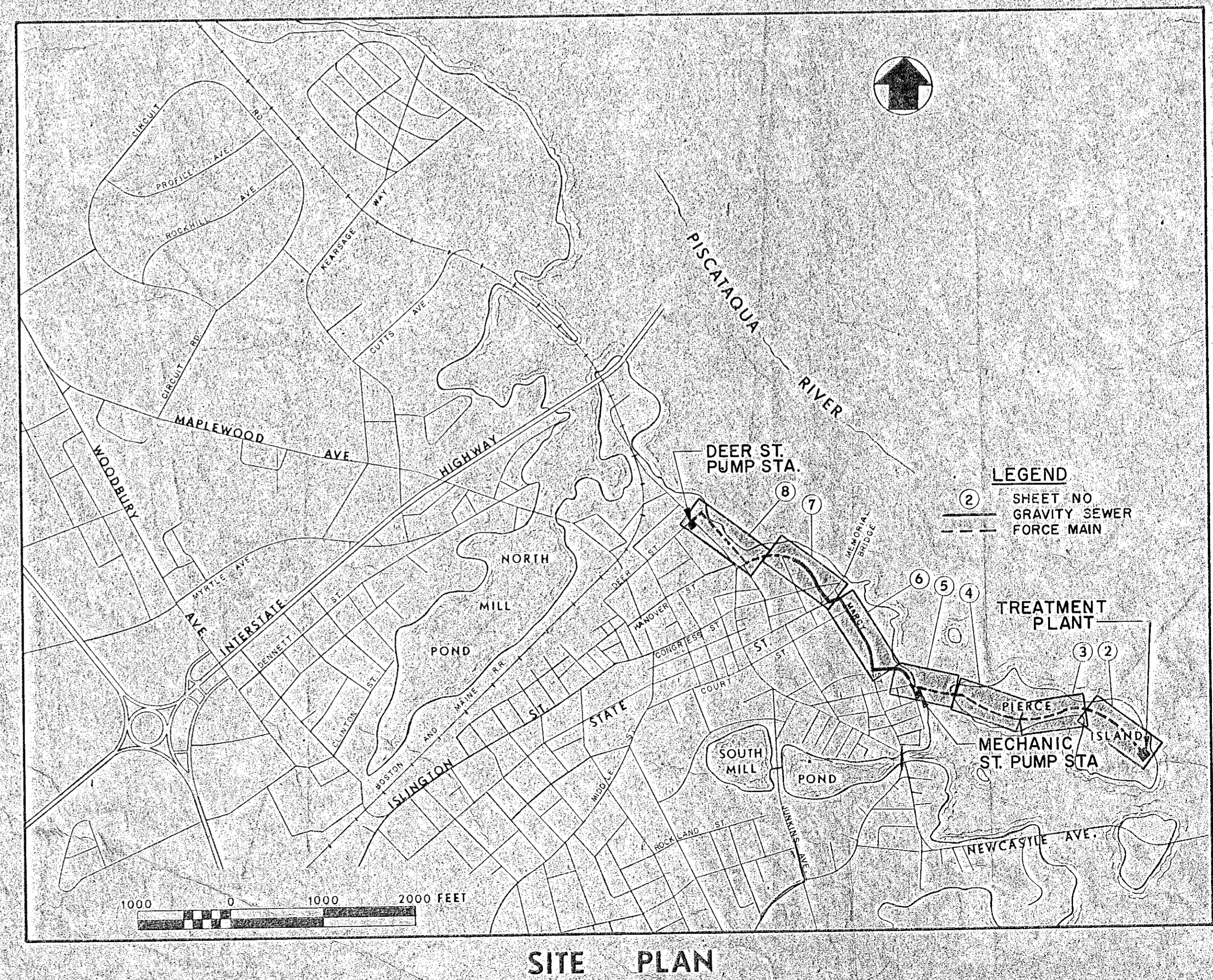
# CITY OF PORTSMOUTH NEW HAMPSHIRE SEWERS AND FORCE MAINS

PREPARED BY  
**WRIGHT, PIERCE, BARNES & WYMAN**  
 ENGINEERS  
 PORTSMOUTH, NEW HAMPSHIRE  
 TOPSHAM, MAINE

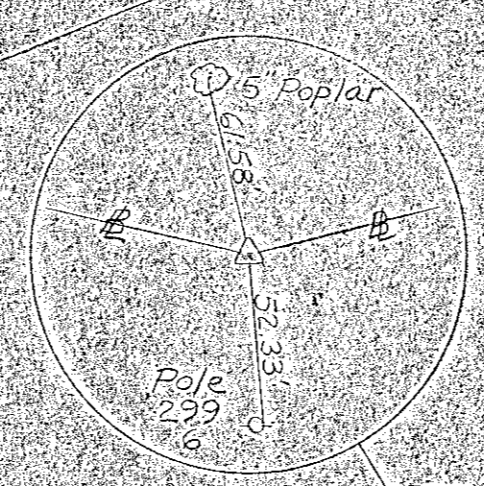
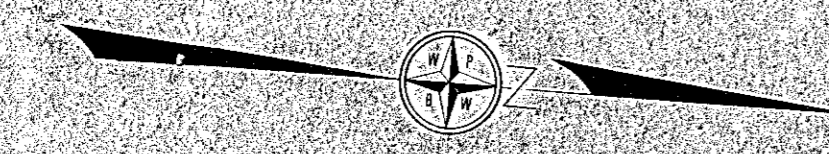


**PLAN INDEX**

TITLE	SHEET NO.
COVER SHEET	1
PLAN & PROFILE	2-8
MANHOLE DETAILS	9
DETAILS	10-11
BRIDGE DETAILS	12



B.M. - U.S.G.S. DISK (1953)  
 APPROX. 24' NORTH OF  
 EXISTING WHITE CHANNEL  
 LIGHT. ELEV. 37.91'



PIPELINE STA.	FROM	TO	SIZE	PIPE CLASS		
				R.C.	A.C.	C.I.
0+00	3+00	18"	---	---	---	150

GENERAL NOTE:  
 THE CONTRACTOR SHALL EXERCISE CAUTION  
 IN AREAS NEAR OR ADJACENT TO HISTORIC  
 BUILDINGS



**STATIONING NOTES:**

1. FORCE MAIN STATIONING IS ALONG THE CENTER LINE OF THE PIPE AND PROCEEDS FROM THE EXISTING SEWER MAIN AT F.M. STA. 0+00 TO F.M. STA. 29+45 AT THE MECHANIC STREET PUMPING STATION. ADDITIONAL STATIONING FOR THE GRAVITY SEWER BEGINS AT THE MECHANIC STREET PUMPING STATION AT SPECIAL STRUCTURE MANHOLE NO. 11 STR. 0+25 AND PROCEEDS ALONG THE PIPE CENTERLINE FROM THERE TO STA. 36+60 AT THE DEER STREET PUMPING STATION.  
 2. SURVEY TRAVERSE STATIONING IS ALONG THE TRAVERSE CENTER LINE AND PROCEEDS FROM STA. 0+00 AT THE DEER STREET PUMPING STATION AND ON TO STA. 33+00 AT THE MECHANIC STREET PUMPING STATION AND ON TO STA. 62+01.46 AT THE PIERCE ISLAND TREATMENT PLANT. ALL MANHOLE LOCATIONS HAVE BEEN ESTABLISHED WITH REFERENCE TO THIS TRAVERSE BASE LINE.

**SUBSURFACE INFORMATION NOTE:**

NO BORINGS OR OTHER SPECIFIC SUBSURFACE INVESTIGATIONS WERE CONDUCTED FOR THIS PROJECT. LEDGE PROFILE INFORMATION WHERE SHOWN WAS TAKEN FROM 'RECORD PLANS' OF CONSTRUCTION OF EXISTING SEWERS OR FORCE MAINS, AS INDICATED, & INDICATES THE BEST AVAILABLE INFORMATION ON THE LEDGE PROFILE OVER THE CENTERLINE OF THOSE EXISTING SEWERS OR FORCE MAINS. NO GUARANTEE IS IMPLIED AS TO THE ACCURACY OF THE LEDGE PROFILE INFORMATION.

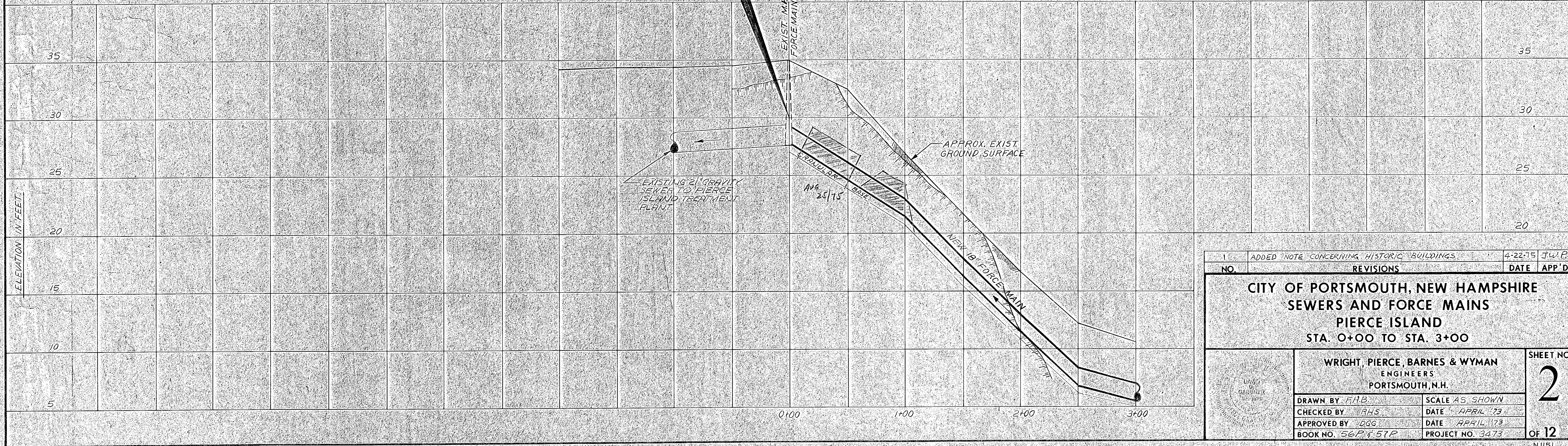
FORCE MAIN  
 STR. 0+00 = SURVEY  
 TRAVERSE STA. 59+38'

PLAN  
 SCALE: 1" = 40'

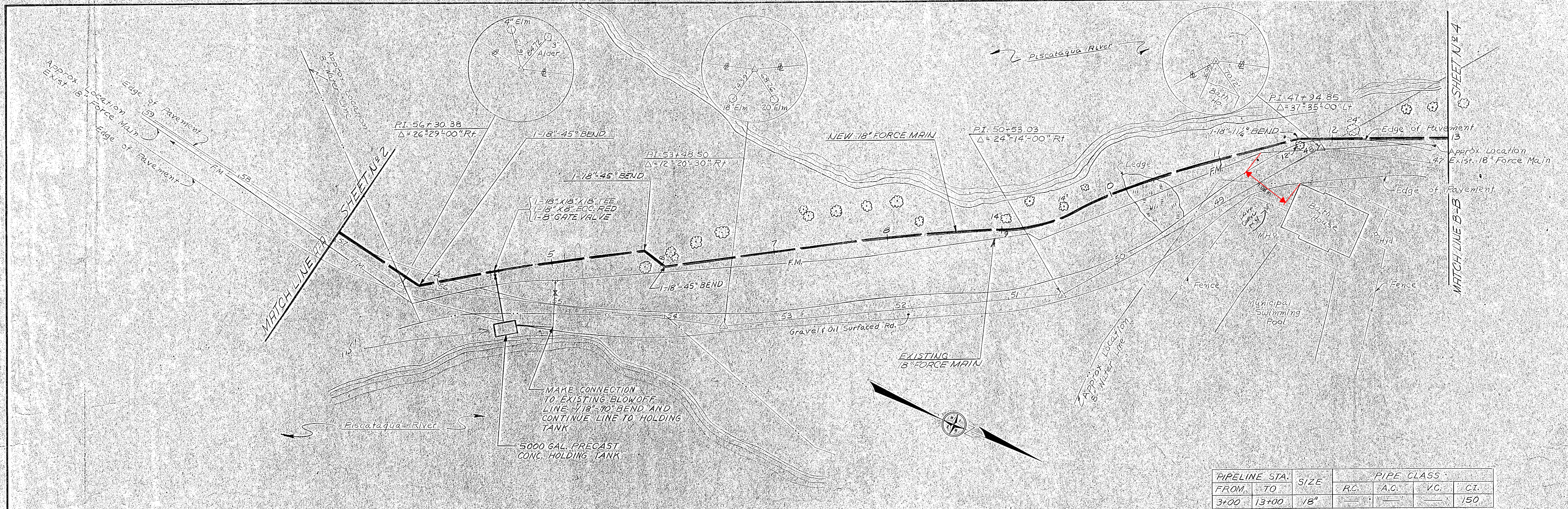
STA. 0+00 TO STA. 3+00 - LEDGE PROFILE INFORMATION OVER EXISTING 18" FORCE MAIN SHOWN - SEE 'SUBSURFACE INFORMATION NOTE', THIS SHEET.

**LEGEND**

- EXIST. SEWER (GRAVITY LINE) & MANHOLES
  - EXIST. SEWER (FORCE MAIN)
  - EXIST. STORM DRAIN LINE
  - EXIST. WATER LINE
  - EXIST. GAS LINE
  - EXIST. UNDERGROUND ELECTRIC CABLE
  - EXIST. HYDRANT
  - UTILITY POLE
  - PROPOSED SEWER (GRAVITY LINE) & MANHOLES
  - PROPOSED SEWER (FORCE MAIN)
  - SURVEY TRAVERSE
- ALL ELEVATIONS ARE BASED ON U.S.G.S. BENCH ON RAIL ROAD TRACK TO 'BOV. ST.' ELEV. 20.33.



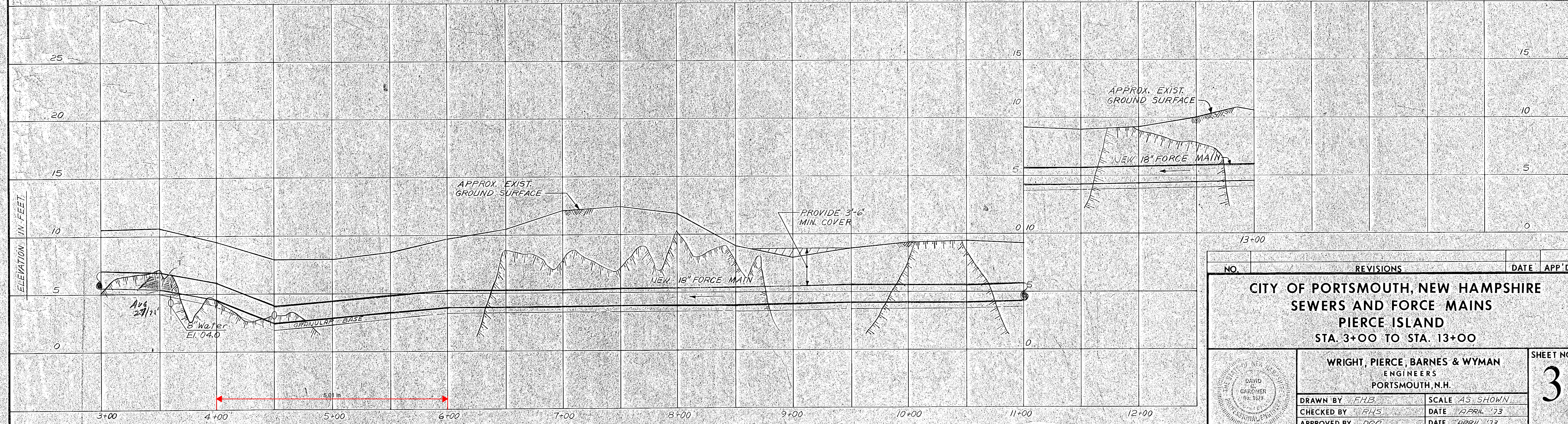
1	ADDED NOTE CONCERNING HISTORIC BUILDINGS	4-22-75	J.W.P.
NO.	REVISIONS	DATE	APP'D.
<b>CITY OF PORTSMOUTH, NEW HAMPSHIRE</b> <b>SEWERS AND FORCE MAINS</b> <b>PIERCE ISLAND</b> <b>STA. 0+00 TO STA. 3+00</b>			
<b>WRIGHT, PIERCE, BARNES &amp; WYMAN</b> ENGINEERS PORTSMOUTH, N.H.		<b>SHEET NO.</b> <span style="font-size: 2em; font-weight: bold;">2</span>	
DRAWN BY: F.A.B.	SCALE AS SHOWN	DATE: APRIL 73	
CHECKED BY: R.H.S.	DATE: APRIL 73	DATE: APRIL 73	
APPROVED BY: D.G.G.	PROJECT NO. 3473		
BOOK NO. 56P & 57P			OF 12



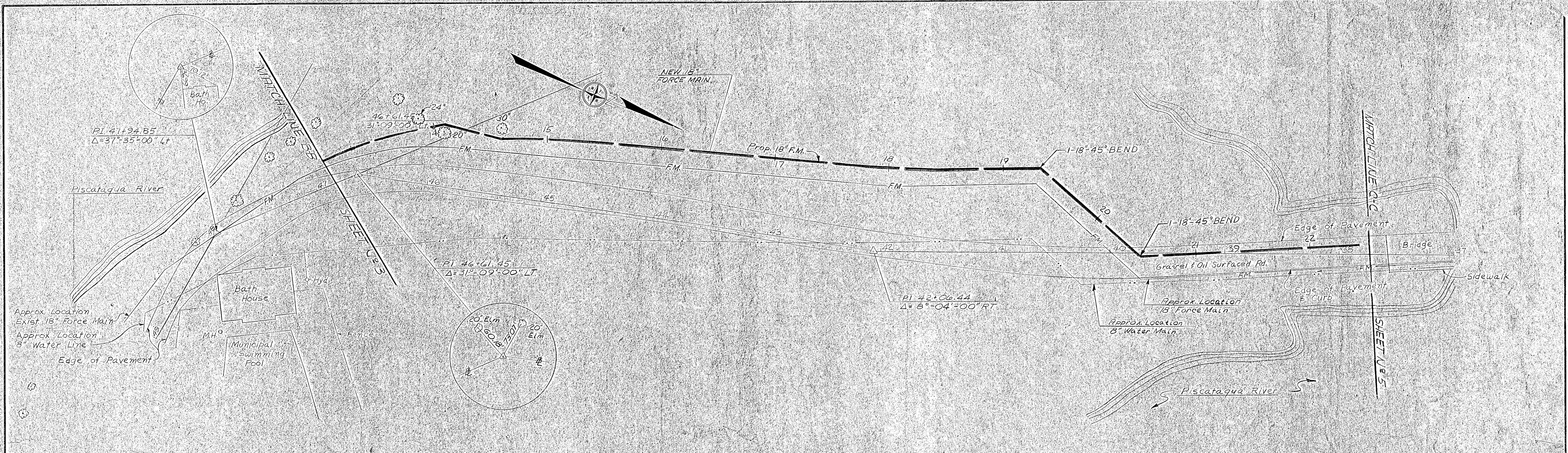
PIPELINE STA.		SIZE	PIPE CLASS			
FROM	TO		R.C.	A.C.	V.C.	C.I.
3+00	13+00	18"				150

PLAN  
SCALE 1"=40'

STA 3+00 TO STA 13+00 - LEDGE PROFILE INFORMATION  
OVER EXISTING 18" FORCE MAIN SHOWN - SEE "SUBSURFACE  
INFORMATION NOTE", SHEET #2



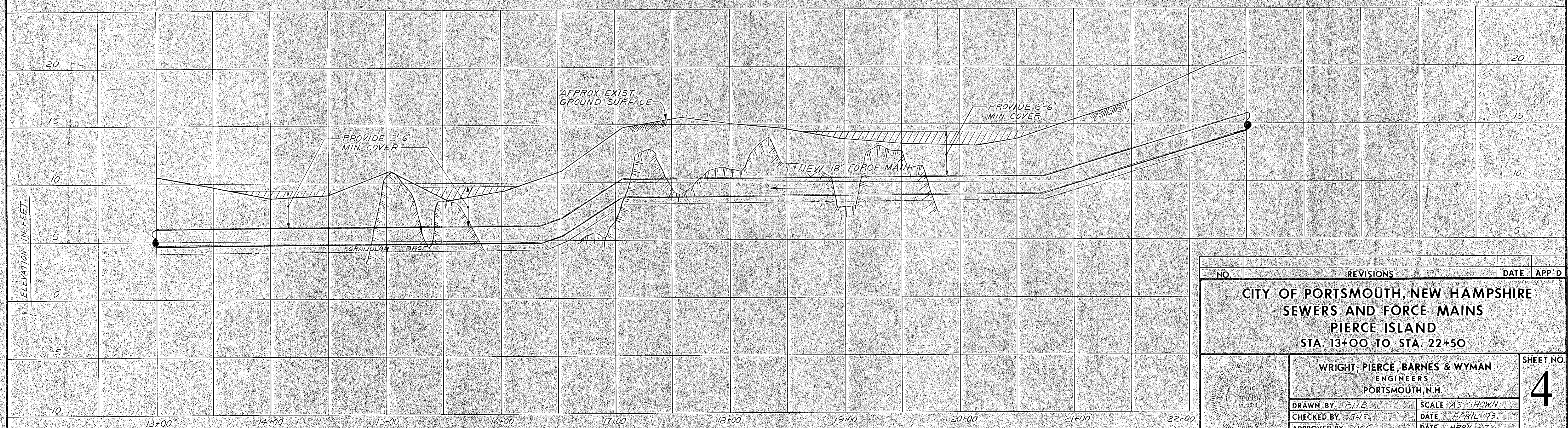
NO.	REVISIONS	DATE	APP'D
<b>CITY OF PORTSMOUTH, NEW HAMPSHIRE</b> <b>SEWERS AND FORCE MAINS</b> <b>PIERCE ISLAND</b> <b>STA. 3+00 TO STA. 13+00</b>			
WRIGHT, PIERCE, BARNES & WYMAN ENGINEERS PORTSMOUTH, N.H.			SHEET NO. <b>3</b>
DRAWN BY: F.H.B. CHECKED BY: W.H.S. APPROVED BY: D.G.G. BOOK NO: 56 P 1 57 P	SCALE: AS SHOWN DATE: APRIL '73 DATE: APRIL '73 PROJECT NO: 3473	OF 12	



PLAN  
SCALE: 1"=40'

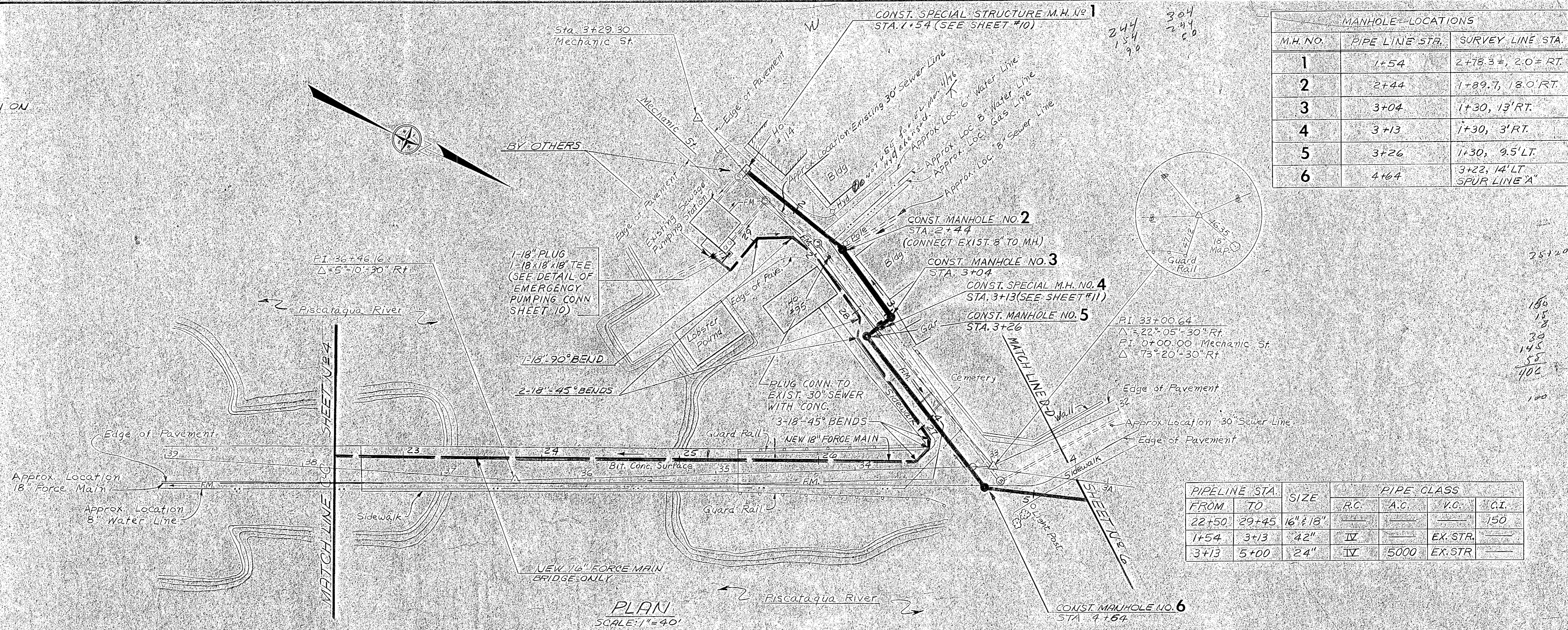
PIPELINE STA.		SIZE	PIPE CLASS			
FROM	TO		R.C.	A.C.	V.C.	C.I.
13+00	22+50	18"				150

STA 13+00 TO STA. 22+50 - LEDGE PROFILE INFORMATION  
OVER EXISTING 18" FORCE MAIN SHOWN - SEE SUBSURFACE  
INFORMATION NOTE, SHEET #2



NO.	REVISIONS	DATE	APP'D
<b>CITY OF PORTSMOUTH, NEW HAMPSHIRE</b> <b>SEWERS AND FORCE MAINS</b> <b>PIERCE ISLAND</b> <b>STA. 13+00 TO STA. 22+50</b>			
<b>WRIGHT, PIERCE, BARNES &amp; WYMAN</b> ENGINEERS PORTSMOUTH, N.H.			<b>SHEET NO.</b> <b>4</b>
DRAWN BY: F.H.B. CHECKED BY: R.H.S. APPROVED BY: D.S.G. BOOK NO: 56P-57P	SCALE: AS SHOWN DATE: APRIL 73 DATE: APRIL 73 PROJECT NO: 13473	<b>of 12</b> <small>N 1153</small>	

NOTE:  
1. FOR DETAILS OF CONSTRUCTION ON BRIDGE SEE SHEET N9.11



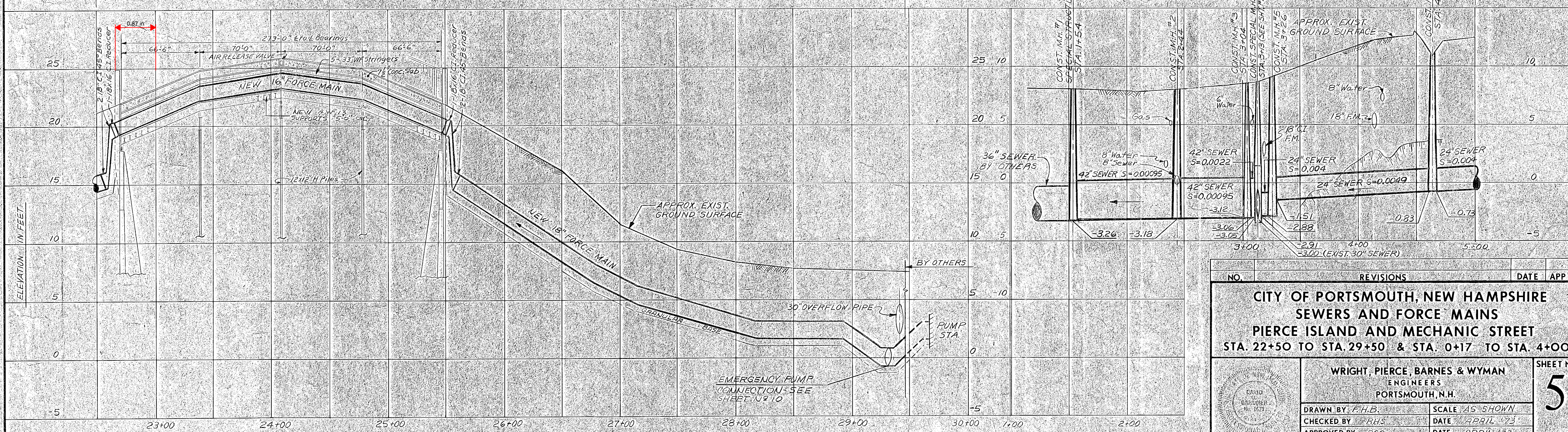
MANHOLE LOCATIONS		
M.H. NO.	PIPE LINE STA.	SURVEY LINE STA.
1	1+54	2+78.3 ±, 2.0' RT.
2	2+44	1+89.7, 18.0' RT.
3	3+04	1+30, 13' RT.
4	3+13	1+30, 3' RT.
5	3+26	1+30, 9.5' LT.
6	4+64	3+22, 14' LT SPUR LINE 'A'

PIPELINE STA.		SIZE	PIPE CLASS			
FROM	TO		R.C.	A.C.	V.C.	C.I.
22+50	29+45	16" x 18"				150
1+54	3+13	42"	IV		EX. STR.	
3+13	5+00	24"	IV	5000	EX. STR.	

PLAN  
SCALE: 1" = 40'

STA. 22+50 TO STA. 29+50 - LEDGE PROFILE INFORMATION OVER EXISTING 18" FORCE MAIN SHOWN - SEE "SUBSURFACE INFORMATION NOTE", SHEET #2.

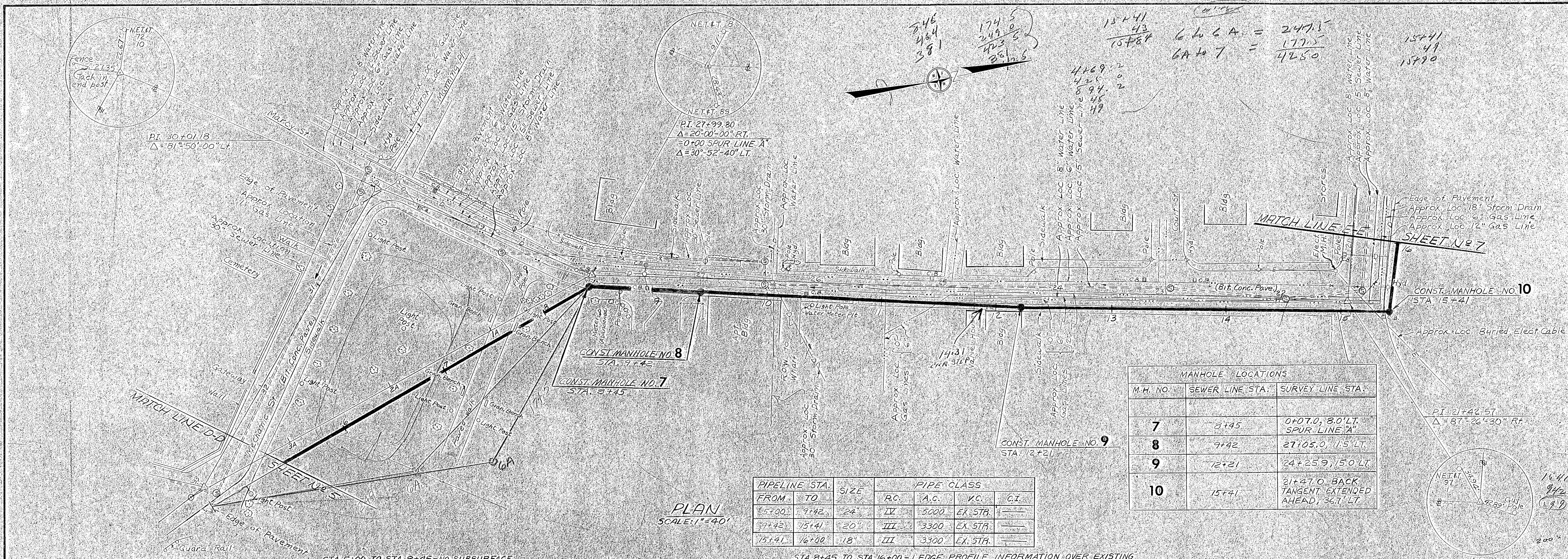
STA. 1+54 TO STA. 4+64 - LEDGE PROFILE INFORMATION OVER EXISTING 30" SEWER IN MECHANIC ST. SHOWN - SEE "SUBSURFACE INFORMATION NOTE", SHEET 2.



NO.	REVISIONS	DATE	APP'D.

**CITY OF PORTSMOUTH, NEW HAMPSHIRE  
SEWERS AND FORCE MAINS  
PIERCE ISLAND AND MECHANIC STREET  
STA. 22+50 TO STA. 29+50 & STA. 0+17 TO STA. 4+00**

	<b>WRIGHT, PIERCE, BARNES &amp; WYMAN</b> ENGINEERS PORTSMOUTH, N.H.	<b>SHEET NO.</b> <b>5</b>
DRAWN BY: F.H.B. CHECKED BY: P.H.S. APPROVED BY: D.A.G. BOOK NO.: 56 P. 57 P.	SCALE: AS SHOWN DATE: APRIL 1973 DATE: APRIL 1973 PROJECT NO.: 3413	<b>OF 12</b> N1154

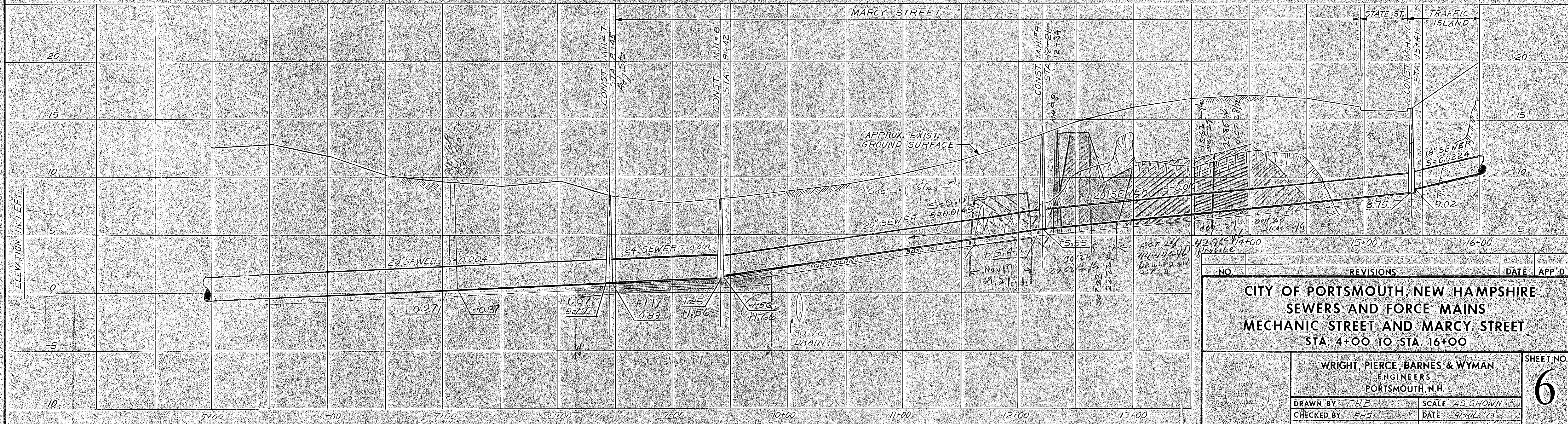


PLAN  
SCALE: 1" = 40'

PIPELINE STA. FROM	PIPELINE STA. TO	SIZE	PIPE CLASS			
			R.C.	A.C.	V.C.	G.I.
5+00	9+42	24"	II	5000	EX. STR.	
9+42	15+41	20"	III	3300	EX. STR.	
15+41	16+00	18"	III	3300	EX. STR.	

MANHOLE LOCATIONS		
M.H. NO.	SEWER LINE STA.	SURVEY LINE STA.
7	8+42	0+07.0, 8.0' LT. SPUR LINE 'A'
8	9+42	27+05.0, 11.5' LT.
9	12+21	24+25.9, 15.0' LT.
10	15+41	21+47.0 BACK TANGENT EXTENDED AHEAD, 36.7' LT.

STA. 8+45 TO STA. 16+00 - LEDGE PROFILE INFORMATION OVER EXISTING 30" x 15" SEWER IN MARCY & STATE STREETS SHOWN - SEE SUBSURFACE INFORMATION NOTE, SHEET 2



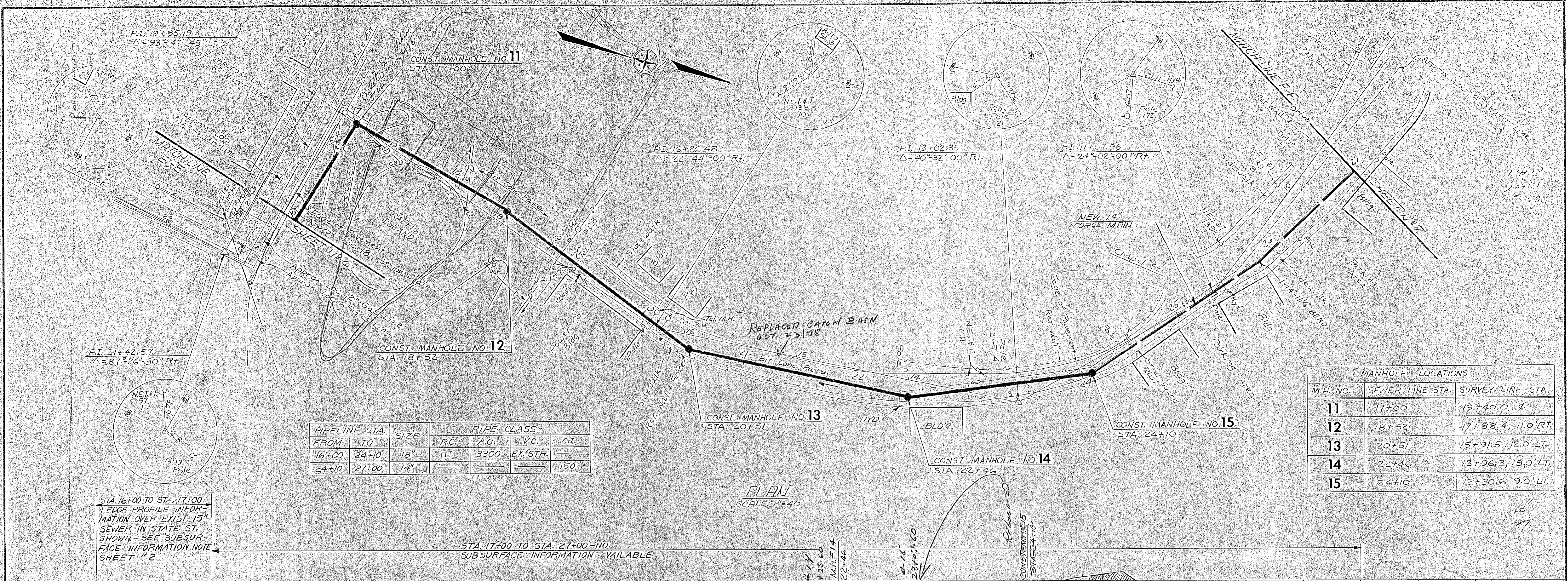
NO.	REVISIONS	DATE	APP'D

**CITY OF PORTSMOUTH, NEW HAMPSHIRE**  
SEWERS AND FORCE MAINS  
MECHANIC STREET AND MARCY STREET  
STA. 4+00 TO STA. 16+00

SHEET NO. **6**  
of 12

WRIGHT, PIERCE, BARNES & WYMAN  
ENGINEERS  
PORTSMOUTH, N.H.

DRAWN BY: F.H.B.	SCALE: AS SHOWN
CHECKED BY: R.H.S.	DATE: APRIL '73
APPROVED BY: J.D.G.	DATE: APRIL '73
BOOK NO. 56P & STP	PROJECT NO. 13473



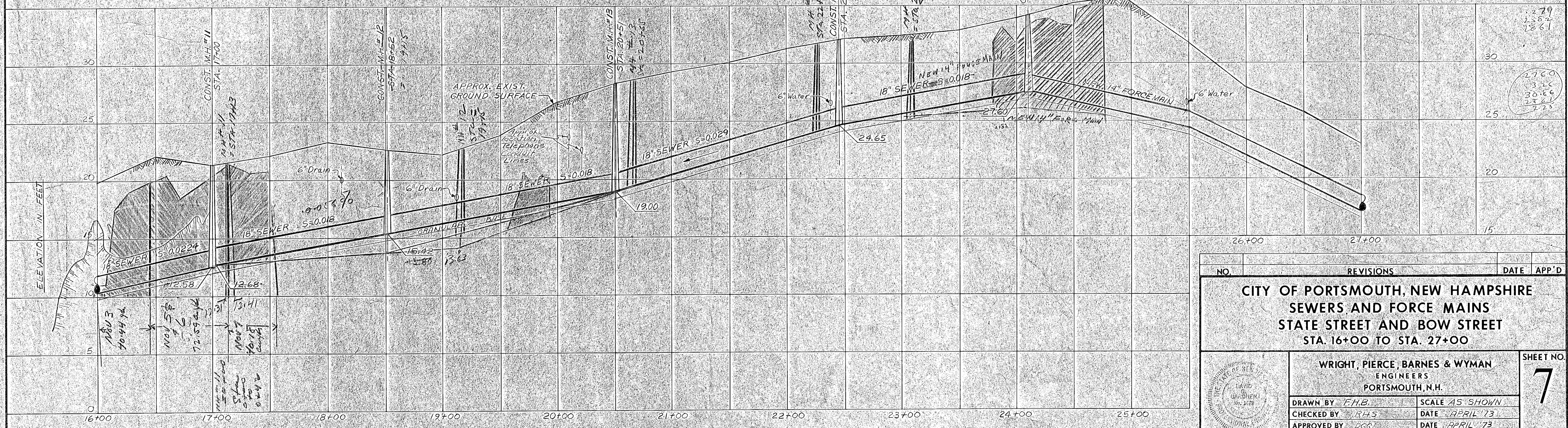
PIPELINE STA.		SIZE	PIPE CLASS			
FROM	TO		R.C.	A.C.	V.C.	C.I.
16+00	24+10	18"	III	3300	EX. STR.	
24+10	27+00	14"				150

MANHOLE LOCATIONS		
M.H. NO.	SEWER LINE STA.	SURVEY LINE STA.
11	17+00	19+40.0, 2
12	18+52	17+38.4, 11.0' RT.
13	20+51	15+91.5, 12.0' LT.
14	22+46	13+96.3, 15.0' LT.
15	24+10	12+30.6, 9.0' LT.

PLAN  
SCALE: 1"=40'

STA. 16+00 TO STA. 17+00  
EDGE PROFILE INFORMATION OVER EXIST. 15" SEWER IN STATE ST. SHOWN - SEE 'SUBSURFACE' INFORMATION NOTE SHEET #2

STA. 17+00 TO STA. 27+00 - NO. SUBSURFACE INFORMATION AVAILABLE



NO.	REVISIONS	DATE	APP'D.

**CITY OF PORTSMOUTH, NEW HAMPSHIRE**  
SEWERS AND FORCE MAINS  
STATE STREET AND BOW STREET  
STA. 16+00 TO STA. 27+00

SHEET NO. **7**

**WRIGHT, PIERCE, BARNES & WYMAN**  
ENGINEERS  
PORTSMOUTH, N.H.

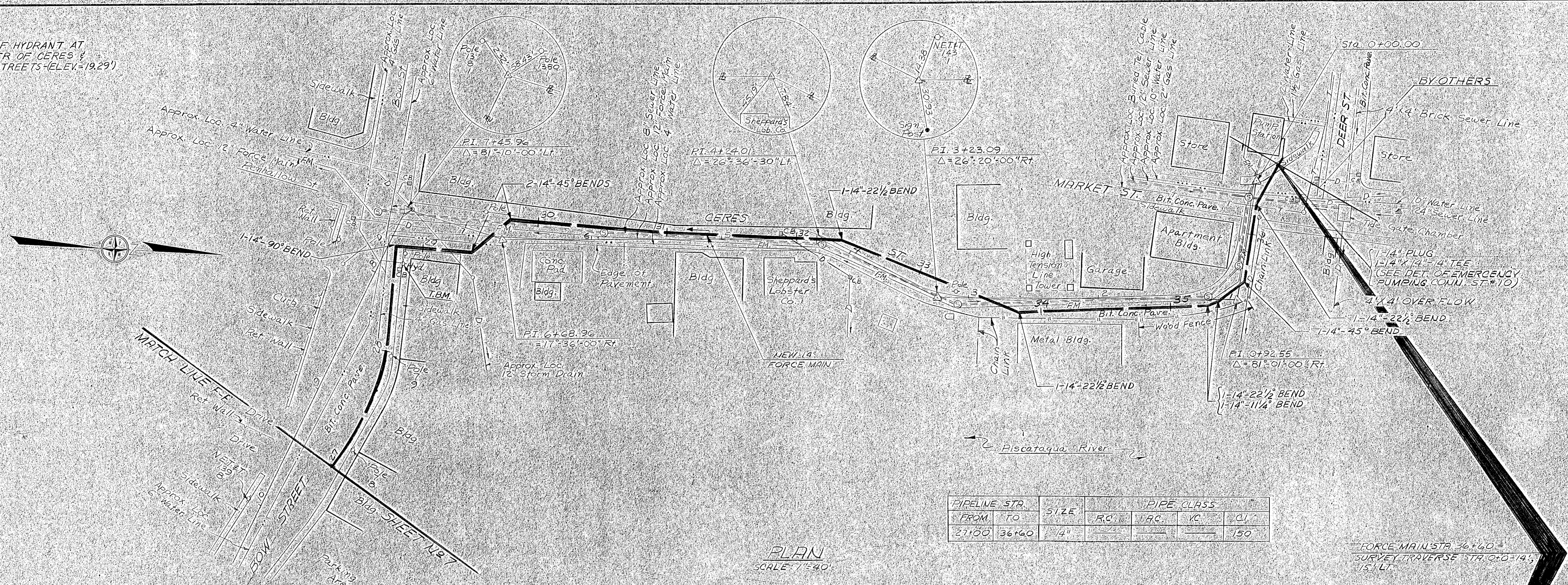
DRAWN BY <i>F.H.B.</i>	SCALE <i>A5 SHOWN</i>
CHECKED BY <i>R.H.S.</i>	DATE <i>APRIL '73</i>
APPROVED BY <i>D.G.G.</i>	DATE <i>APRIL '73</i>
BOOK NO. <i>56P 15TP</i>	PROJECT NO. <i>3473</i>

OF 12

2470  
2451  
369

279  
257  
2861  
2760  
320  
3069  
2861

T.B.M. - TOP OF HYDRANT AT CORNER OF CERES & BOW STREETS (ELEV. = 19.29')



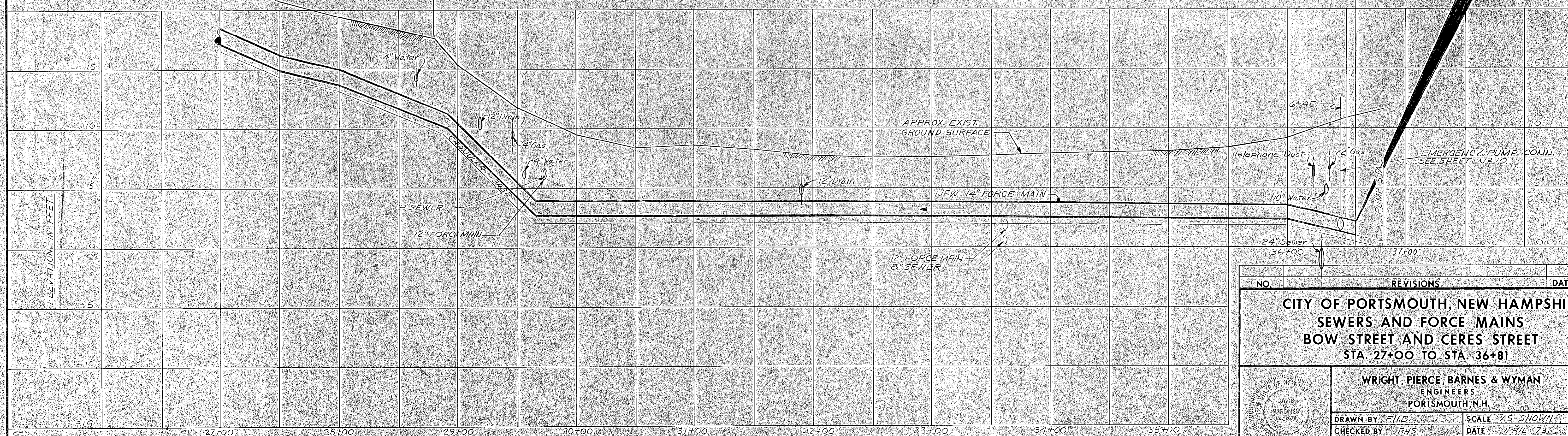
PIPELINE STR.	FROM	TO	SIZE	PIPE CLASS			
				R.C.	P.C.	K.C.	O.I.
1	27+00	36+60	14"				150

PLAN  
SCALE 1" = 40'

FORCE MAIN STR. 36+60 = SURVEY TRAVERSE STR. 0+0-14' 15' LT.

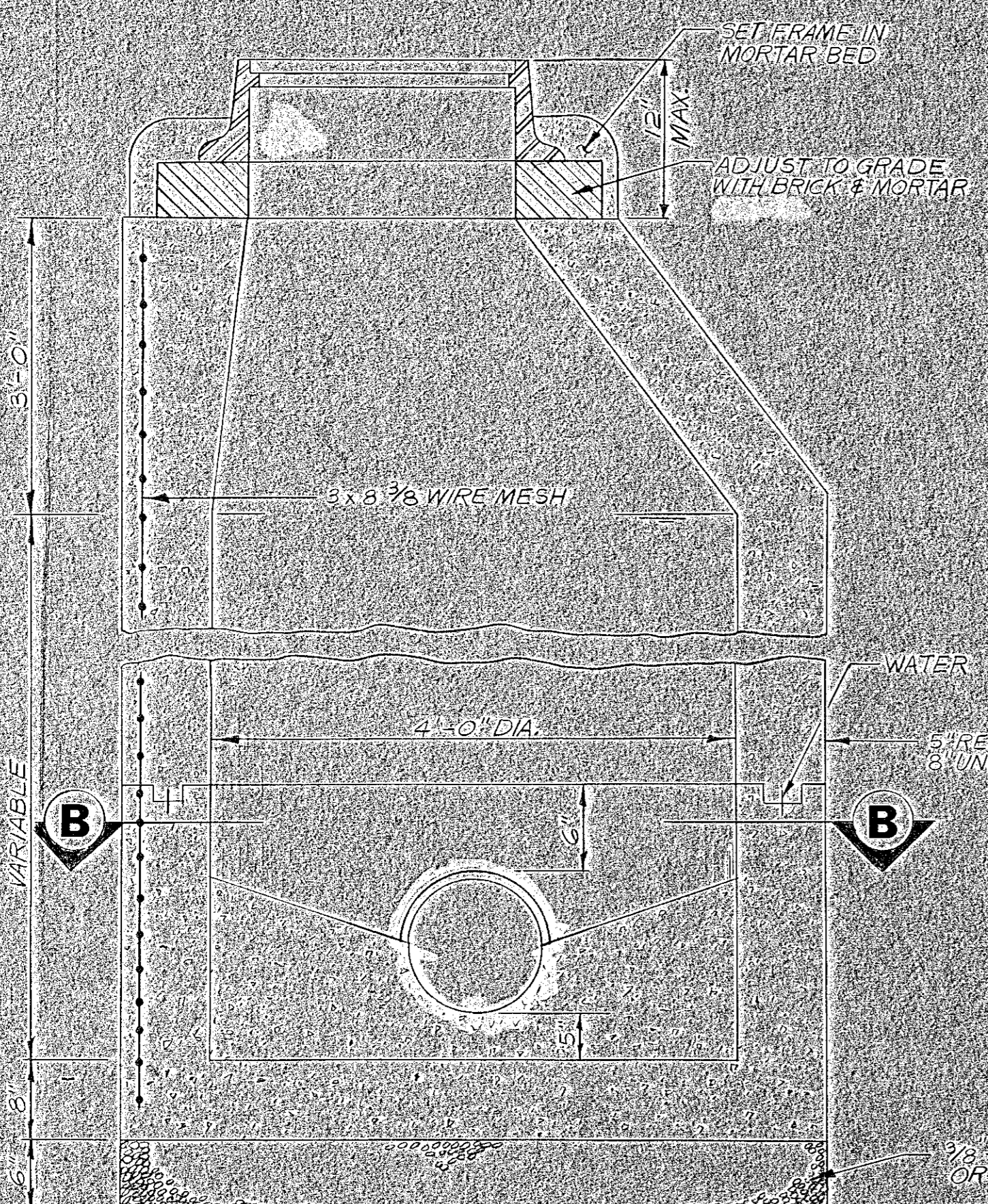
STA. 27+00 TO STA. 28+80 - NO. SUBSURFACE INFORMATION AVAILABLE

STA. 28+80 TO STA. 36+60 - LEDGE PROFILE INFORMATION OVER EXISTING 12" FORCE MAIN SHOWN - SEE "SUBSURFACE INFORMATION NOTE", SHEET #2



NO.	REVISIONS	DATE	APP'D
<b>CITY OF PORTSMOUTH, NEW HAMPSHIRE</b> <b>SEWERS AND FORCE MAINS</b> <b>BOW STREET AND CERES STREET</b> <b>STA. 27+00 TO STA. 36+81</b>			
WRIGHT, PIERCE, BARNES & WYMAN ENGINEERS PORTSMOUTH, N.H.			SHEET NO. <b>8</b>
DRAWN BY: F.H.B. CHECKED BY: R.H.S. APPROVED BY: D.G.B. BOOK NO.: 56P & 57P	SCALE: AS SHOWN DATE: APRIL '73 DATE: APRIL '73 PROJECT NO.: 3473	OF 12 N1157	

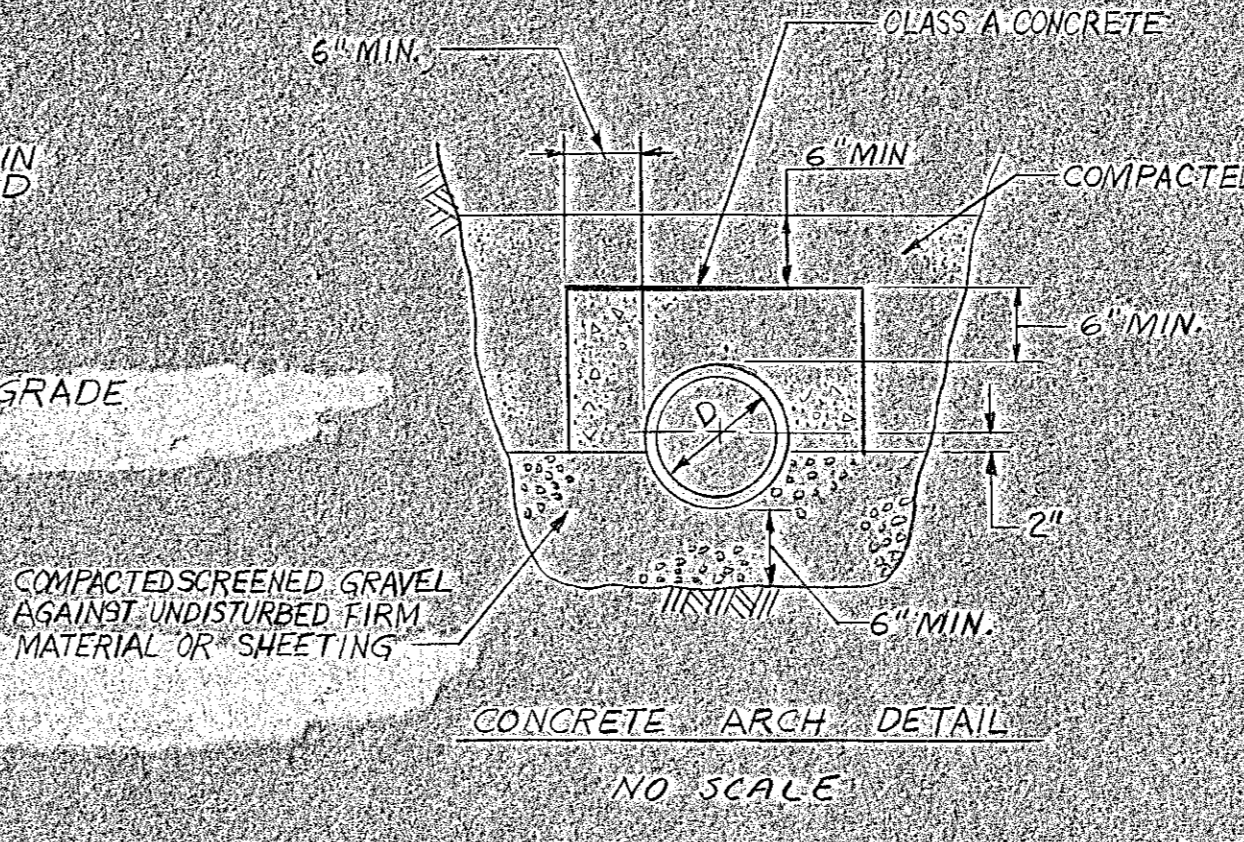




CAST-IN-PLACE MANHOLE  
SECTION A-A  
NO SCALE



PRECAST MANHOLE  
SECTION A-A  
NO SCALE

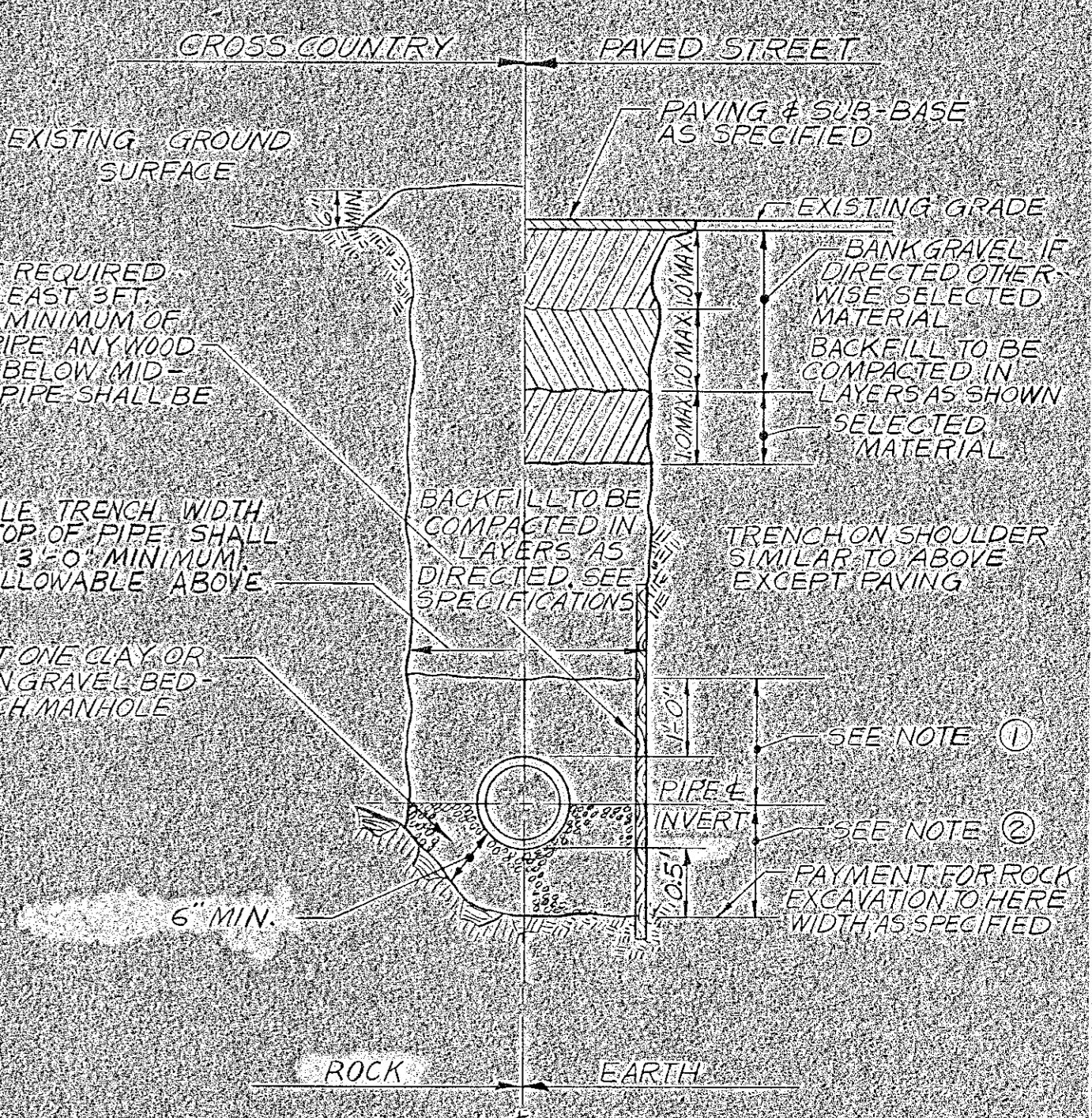


CONCRETE ARCH DETAIL  
NO SCALE

WOOD SHEETING IS REQUIRED TO BE CUT OFF AT LEAST SET BELOW STREET FL MINIMUM OF 1 FT ABOVE TOP OF PIPE. ANY WOOD SHEETING DRIVEN BELOW MID-DIAMETER OF THE PIPE SHALL BE LEFT IN PLACE.

MAXIMUM ALLOWABLE TRENCH WIDTH TO 1 FOOT ABOVE TOP OF PIPE SHALL EQUAL 1/2 TO 1 1/2 TIMES MINIMUM WIDER TRENCH ALLOWABLE ABOVE.

PROVIDE AT LEAST ONE LAYER OF IMPERVIOUS DAM GRAVEL BEDDING BETWEEN EACH MANHOLE WHERE DIRECTED.

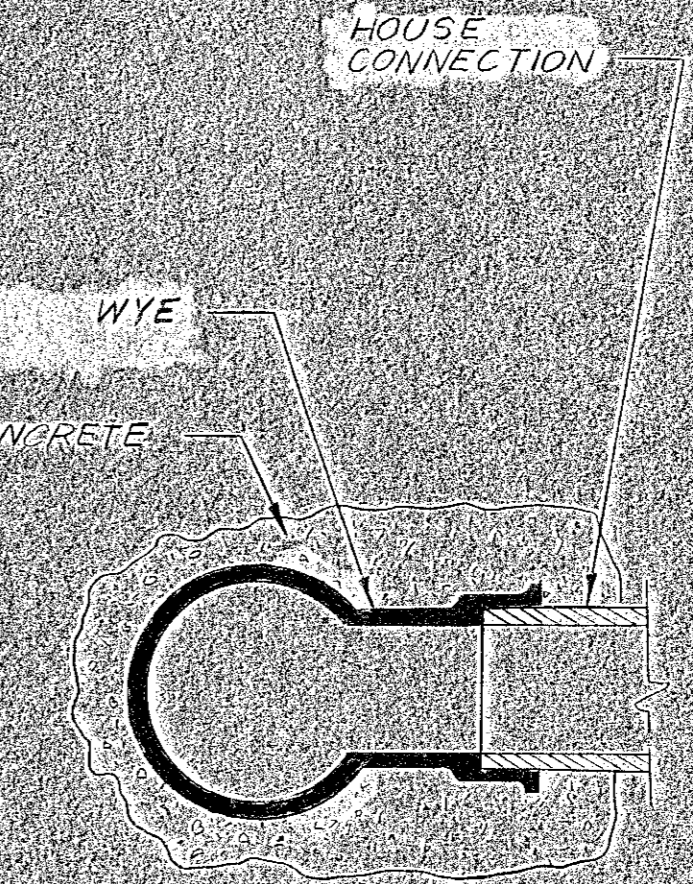


TYPICAL SEWER TRENCH SECTION  
NO SCALE

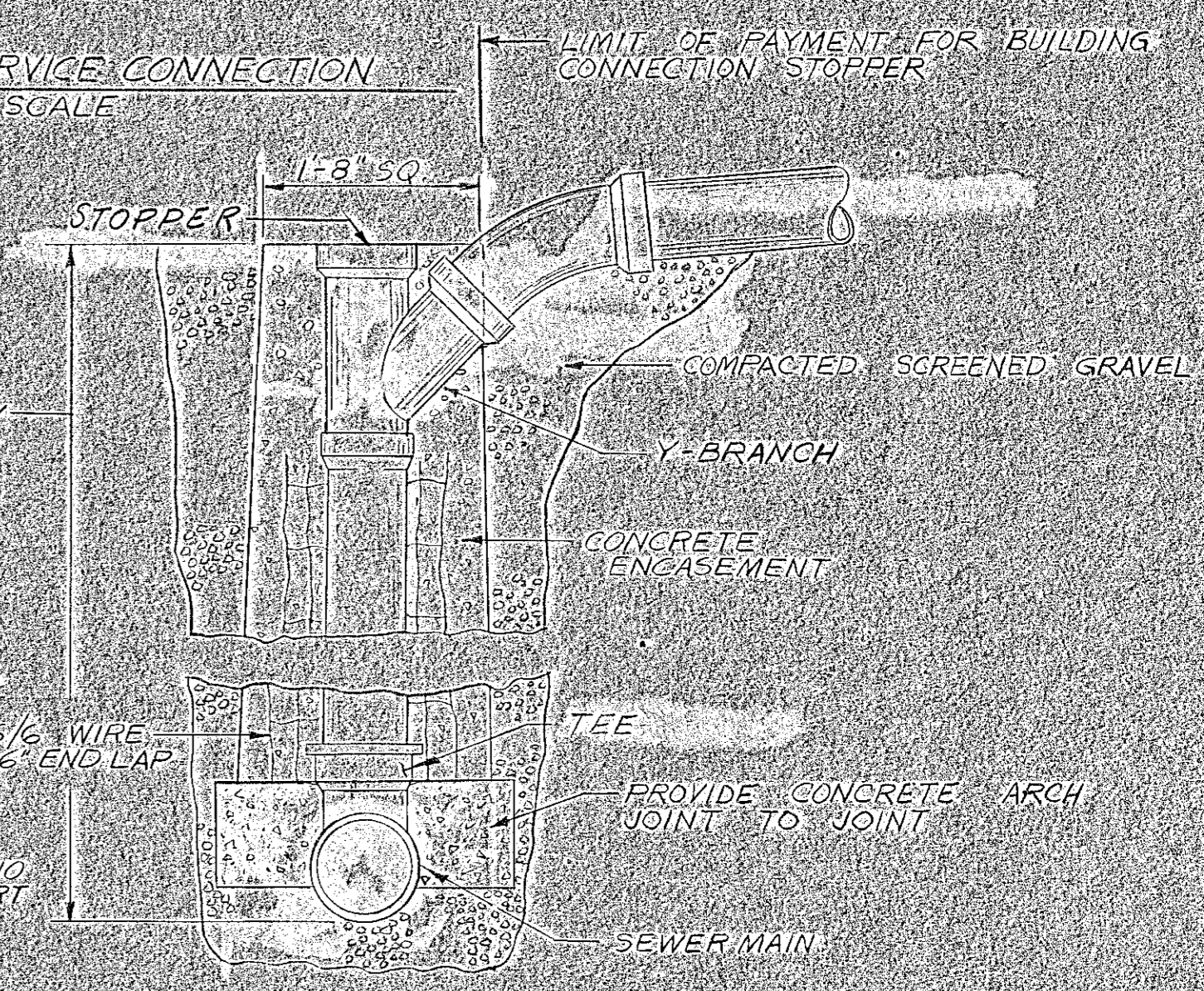
NOTE 1: COMPACTED SAND GUSHIONING LESS THAN 12" ABOVE PIPE

NOTE 2: CRUSHED STONE OR SCREENED GRAVEL BEDDING MATERIAL PLACED AGAINST UNDISTURBED SIDES & BOTTOM OF TRENCH (ASTM C-33 GRADATION NO. 67)

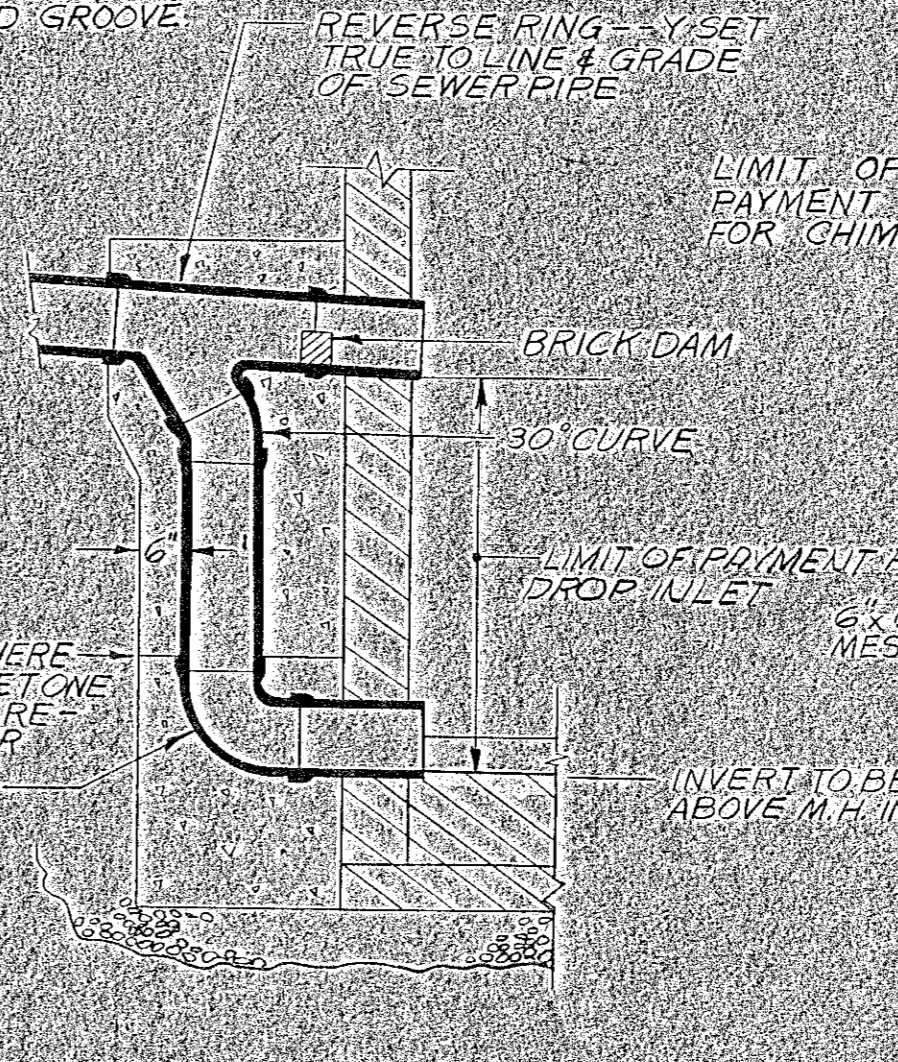
- NOTES:
1. PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH ASTM SPEC G-476-22T
  2. ALL MANHOLE JOINTS WITHIN 6" OF FINAL GRADE TO BE JOINTED UP AFTER TESTING WITH NON-SHRINK MORTAR
  3. PIPE STUBS TO EXTEND MAXIMUM BEYOND EXTERIOR FACE OF MANHOLE
  4. STUBS TO EXTEND MAXIMUM OF 3" FROM INTERIOR FACE OF MANHOLE
  5. CAST-IN-PLACE BASES TO BE UTILIZED WITH PRECAST BARREL SECTIONS SHALL HAVE ACCURATELY CAST METAL FORMED GROOVE



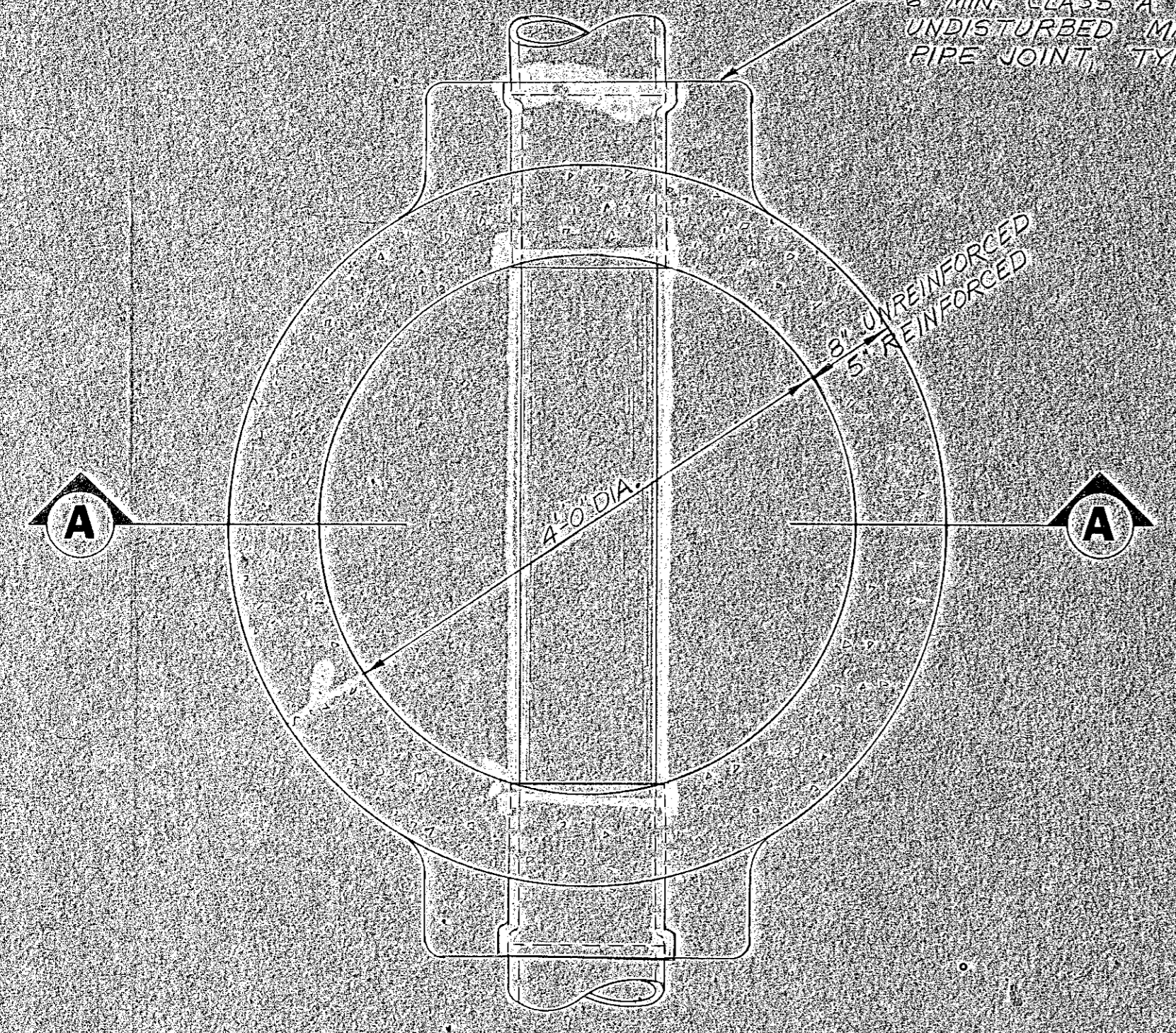
TYPICAL SERVICE CONNECTION  
NO SCALE



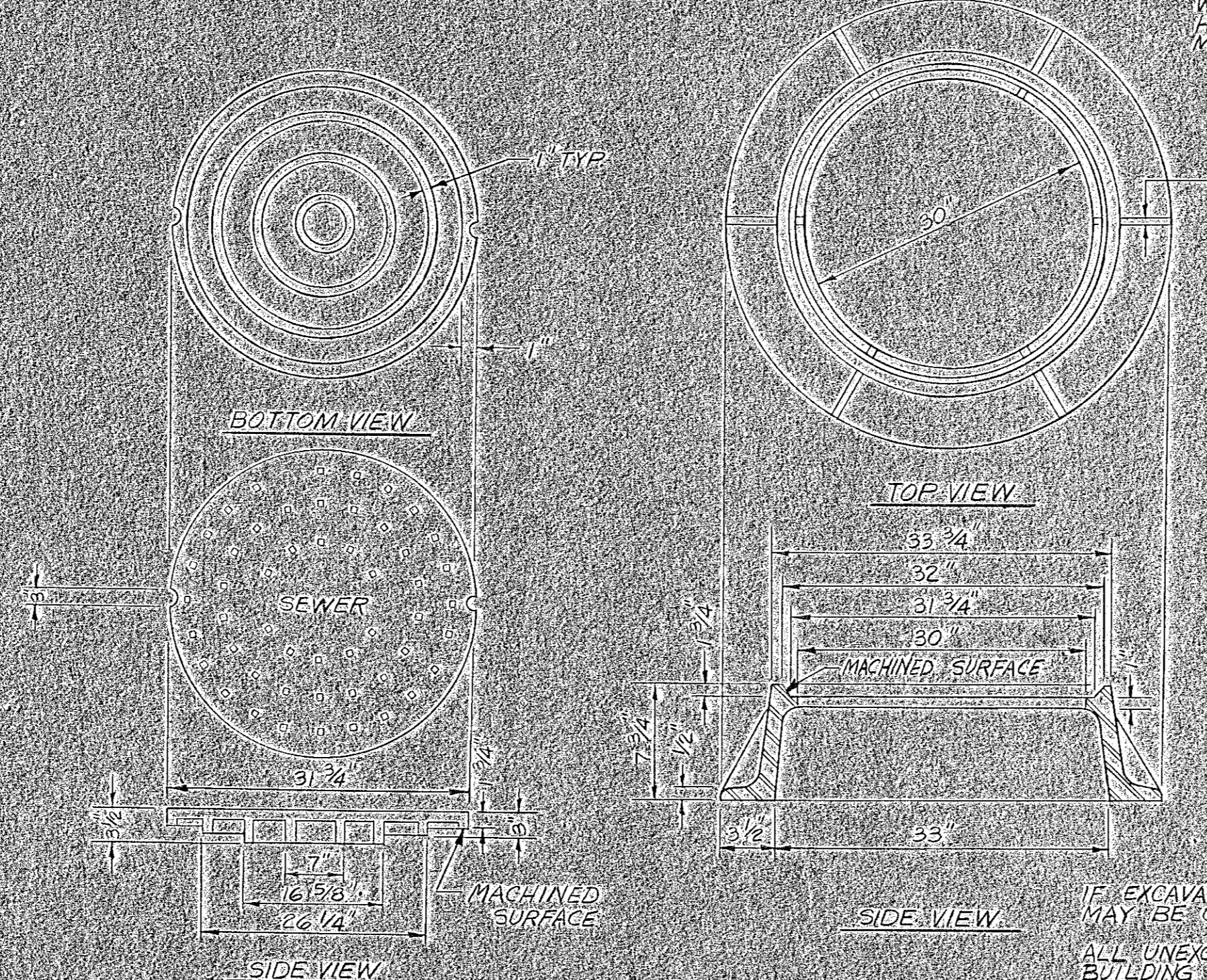
CHIMNEY DETAIL  
NO SCALE



DROP INLET DETAIL  
NO SCALE



SECTIONAL PLAN B-B  
STANDARD MANHOLE  
NO SCALE



STANDARD COVER & FRAME  
MINIMUM WEIGHT 325 LBS  
NO SCALE

GENERAL NOTES

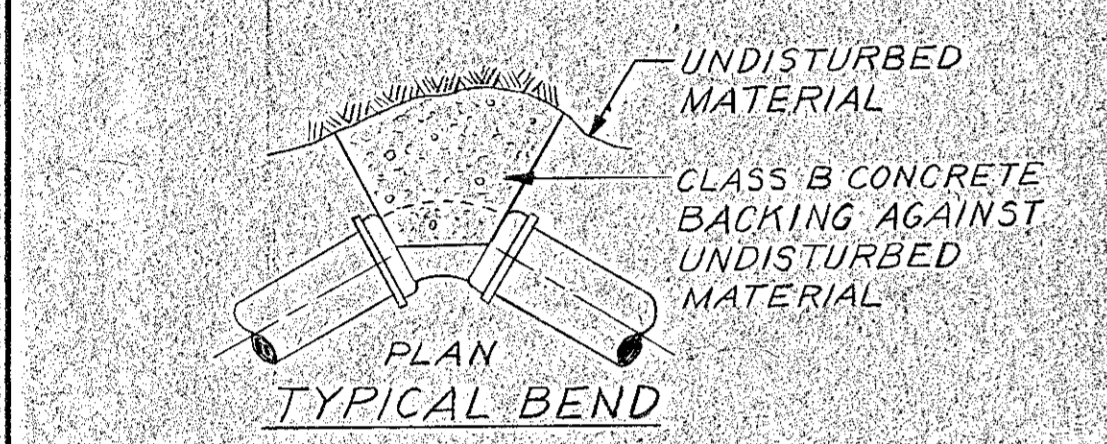
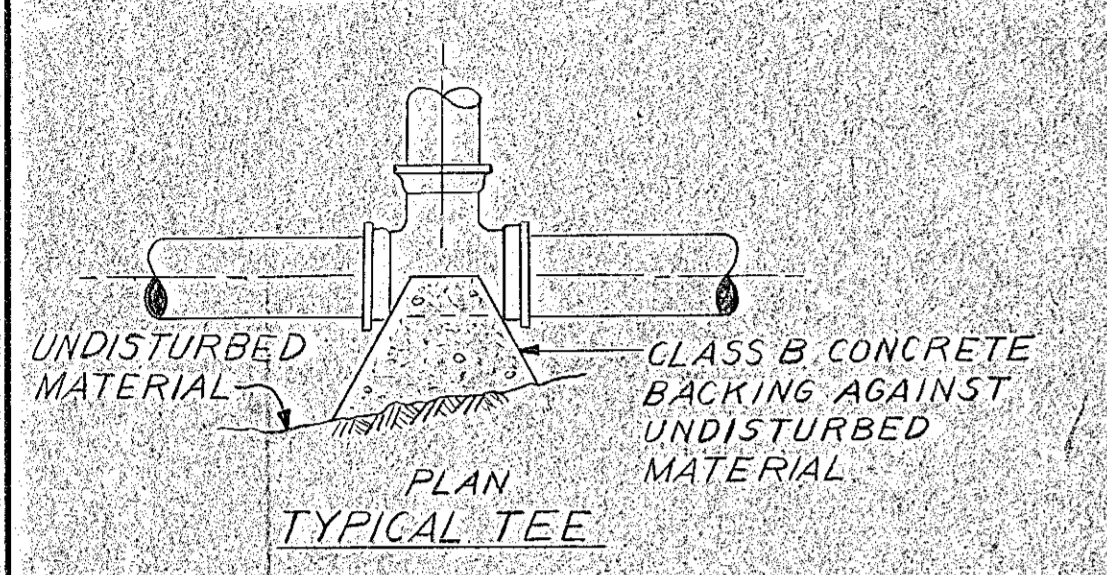
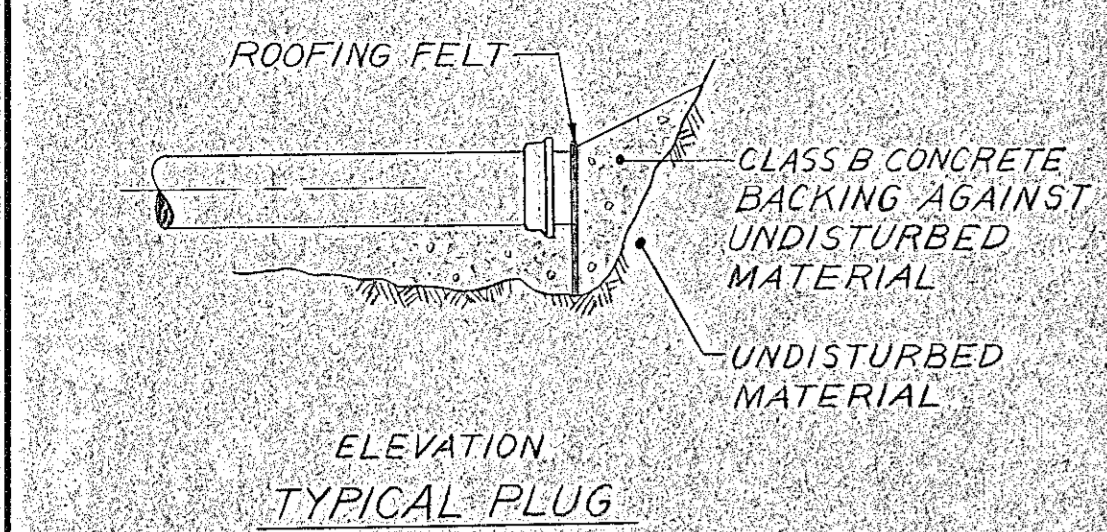
IF EXCAVATION AND BACKFILL BELOW NORMAL DEPTH IS REQUIRED SHEETING MAY BE ORDERED.

ALL UNEXCAVATED ROCK WITHIN 3'-0" HORIZONTALLY OF THE ENDS OF BUILDING CONNECTIONS, BRANCHES, AND STUBS, AND DOWN TO A HORIZONTAL PLANE 6" BELOW THE BOTTOMS OF SUCH CONNECTIONS, BRANCHES AND STUBS SHALL BE SHATTERED. SEE SPECIFICATIONS.

ALL EXTERIOR SURFACES OF MANHOLE GRADE ADJUSTMENT COURSES SHALL BE COVERED WITH 1/4" TO 3/8" MASONRY CEMENT PLASTER.

CONCRETE ARCH SHALL BE PLACED IN SECTIONS NOT EXCEEDING 15" IN LENGTH AND 3' IN HEIGHT. LOCATED JOINTS IN SECTIONS OF ARCH SHALL BE SEPARATED FROM ADJACENT SECTIONS WITH 1/2" FRESHLODGED JOINT FILLER. PIPE SURFACES TO BE IN CONTACT WITH THE ARCH SHALL BE THOROUGHLY CLEANED OF FOREIGN MATERIALS AND SATURATED WITH CLEAN WATER PRIOR TO THE PLACEMENT OF CONCRETE.

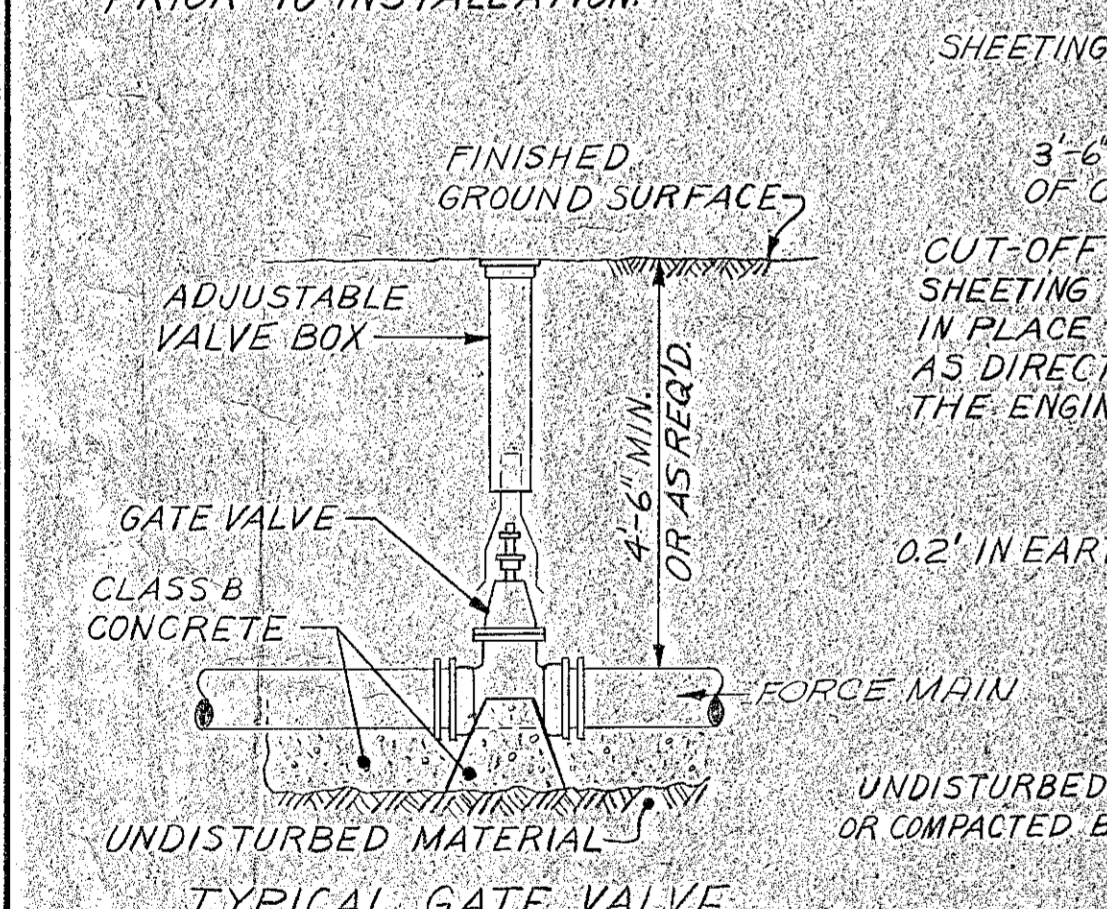
NO.	REVISIONS	DATE	APP'D.
<b>CITY OF PORTSMOUTH, NEW HAMPSHIRE SEWERS AND FORCE MAINS MANHOLES DETAILS</b>			
WRIGHT, PIERCE, BARNES & WYMAN ENGINEERS PORTSMOUTH, N.H.			SHEET NO. <b>9</b>
DRAWN BY	R.N.K.	SCALE	AS SHOWN
CHECKED BY	R.H.S.	DATE	APRIL 73
APPROVED BY	D.G.C.	DATE	APRIL 73
BOOK NO.	568, 4, 578	PROJECT NO.	3473
			OF 12



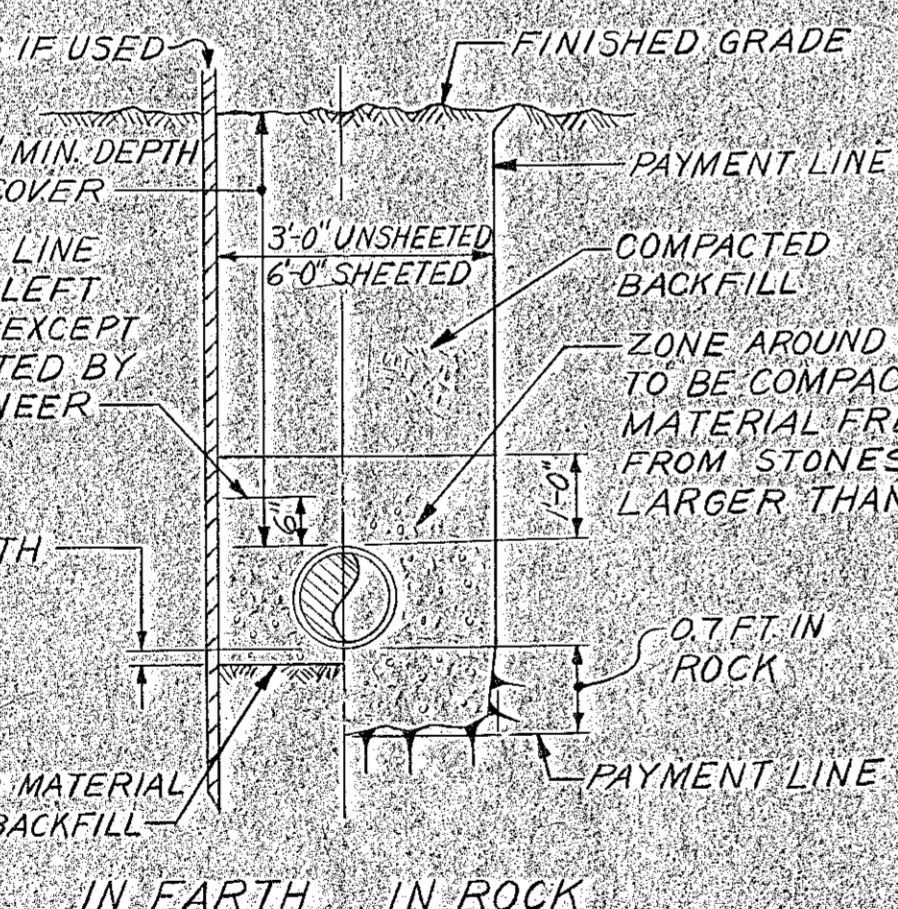
**THRUST BLOCK DETAILS**  
NO SCALE

**THRUST BLOCK NOTES:**

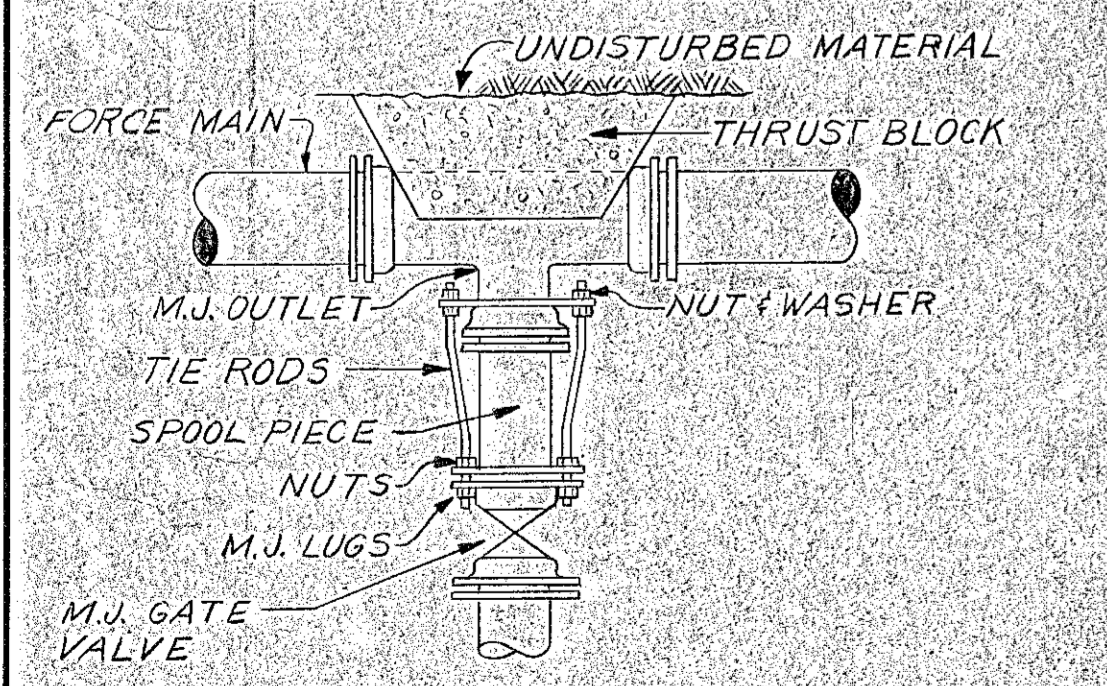
1. THE MIN. ALLOWABLE BEARING AREA FOR THRUST BLOCKS AGAINST UNDISTURBED WELL DRAINED DENSE SAND, GRAVEL OR TILL IS TO BE 10 SQ. FT. WHERE, IN THE OPINION OF THE ENGINEER THE SOIL IS NOT CAPABLE OF WITHSTANDING THE UNIT PRESSURES EXERTED BY THE MIN. BLOCKS, OR WHERE THE FREE WATER TABLE IS ABOVE THE PIPE, THE BEARING SURFACE SHALL BE INCREASED, BRIDLE RODS INSTALLED, OR BOTH BRIDLE RODS & A THRUST BLOCK INSTALLED AS REQ'D BY THE ENGINEER.
2. JOINTS SHALL NOT BE ENCASED IN CONCRETE.
3. THE CONTRACTOR SHALL SUBMIT TWO WEEKS IN ADVANCE OF PLACEMENT, WORKING DRAWINGS FOR EACH THRUST BLOCK & ANCHOR TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.



**TYPICAL GATE VALVE**

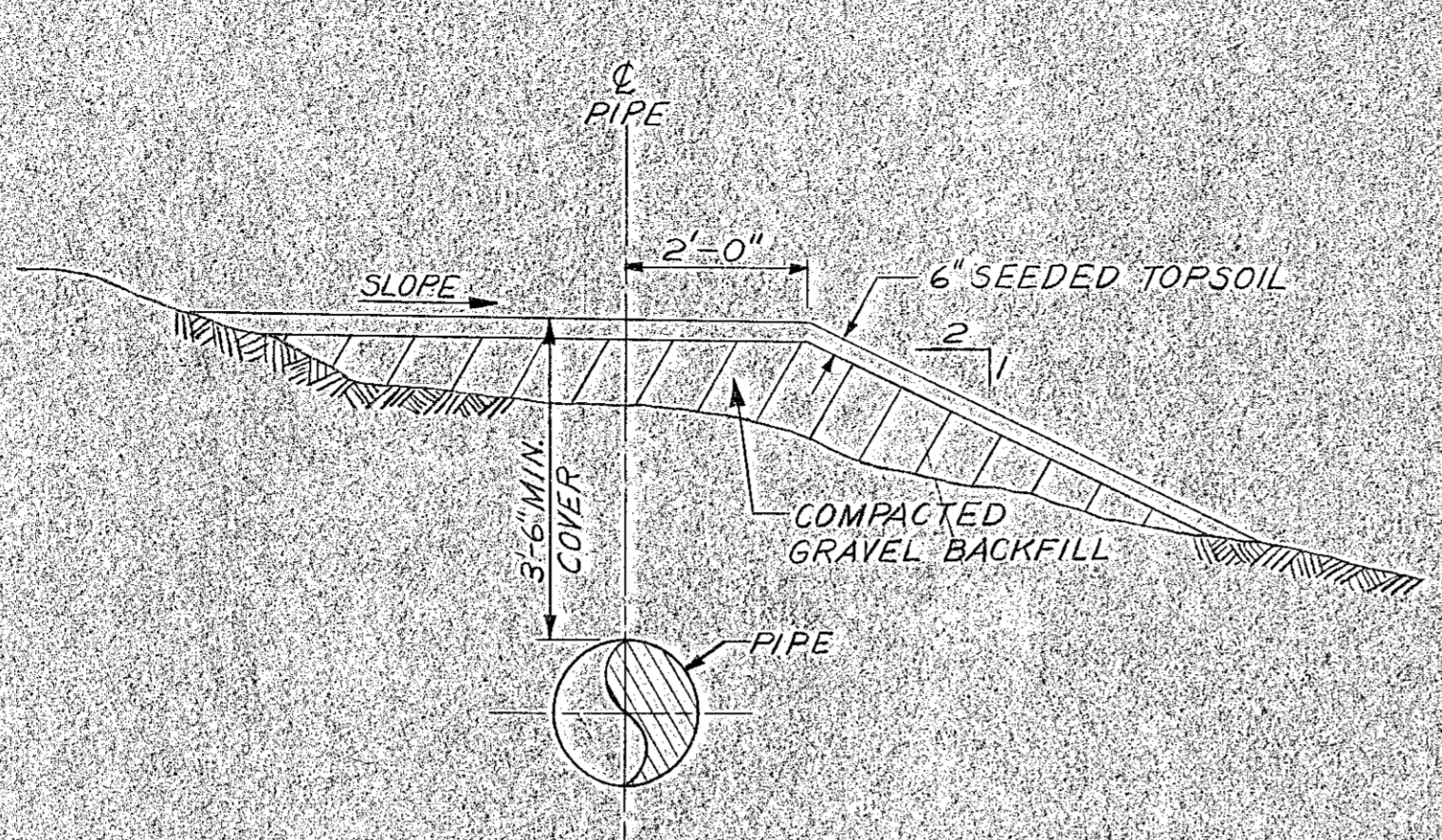


**TYPICAL TRENCH SECTIONS FOR FORCE MAINS**  
NO SCALE

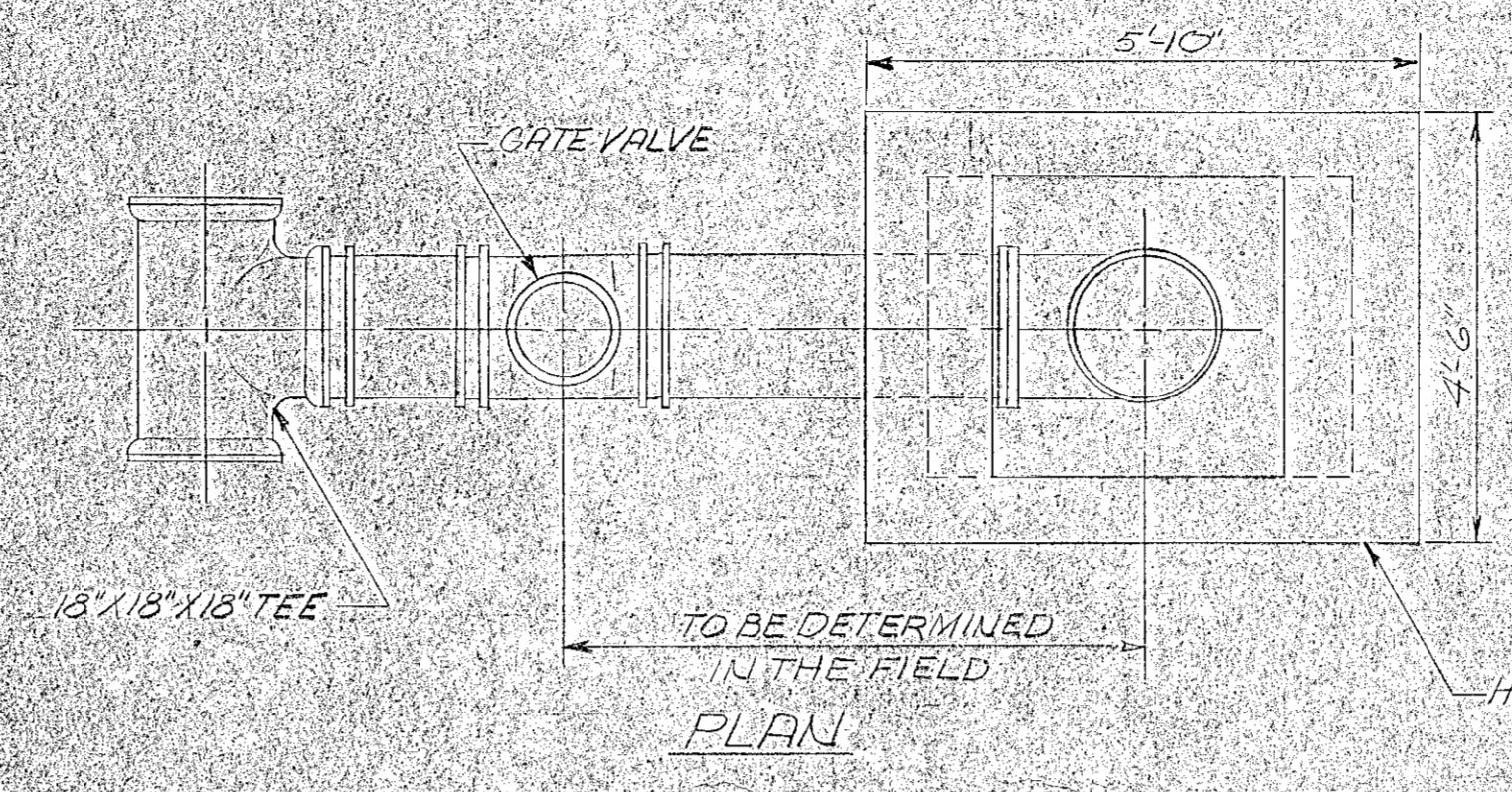


**TYPICAL VALVE CONNECTIONS**

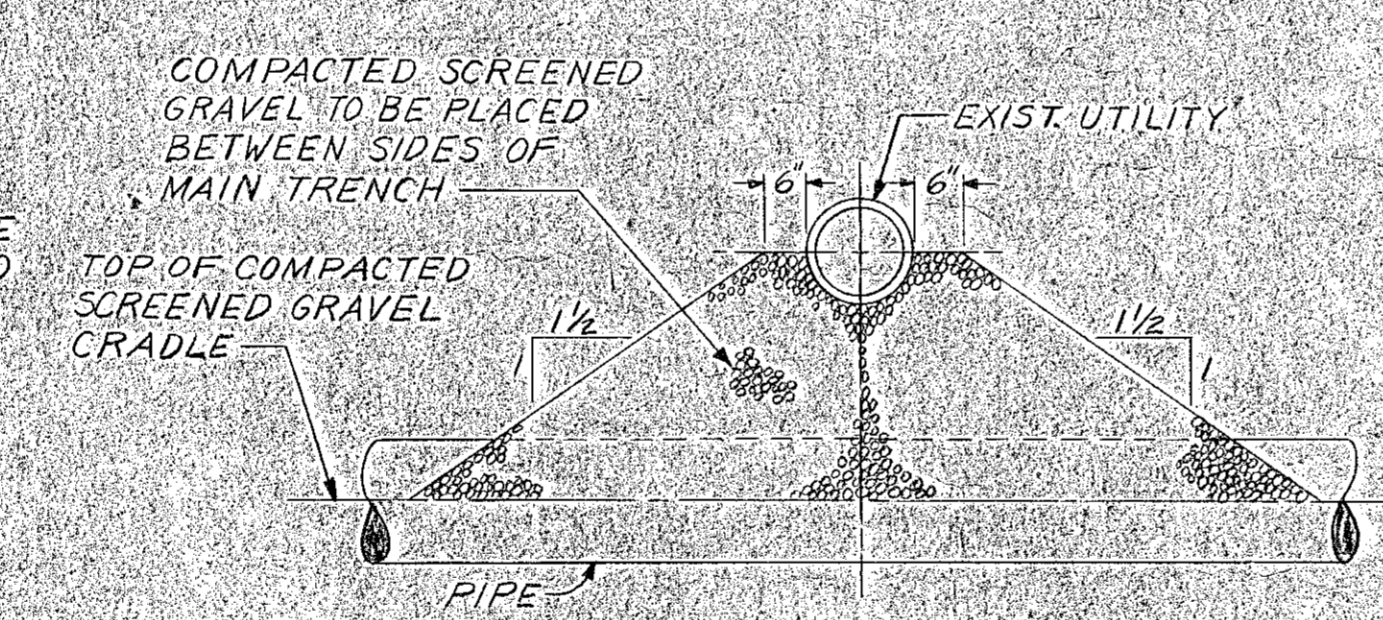
**VALVE DETAILS**  
NO SCALE



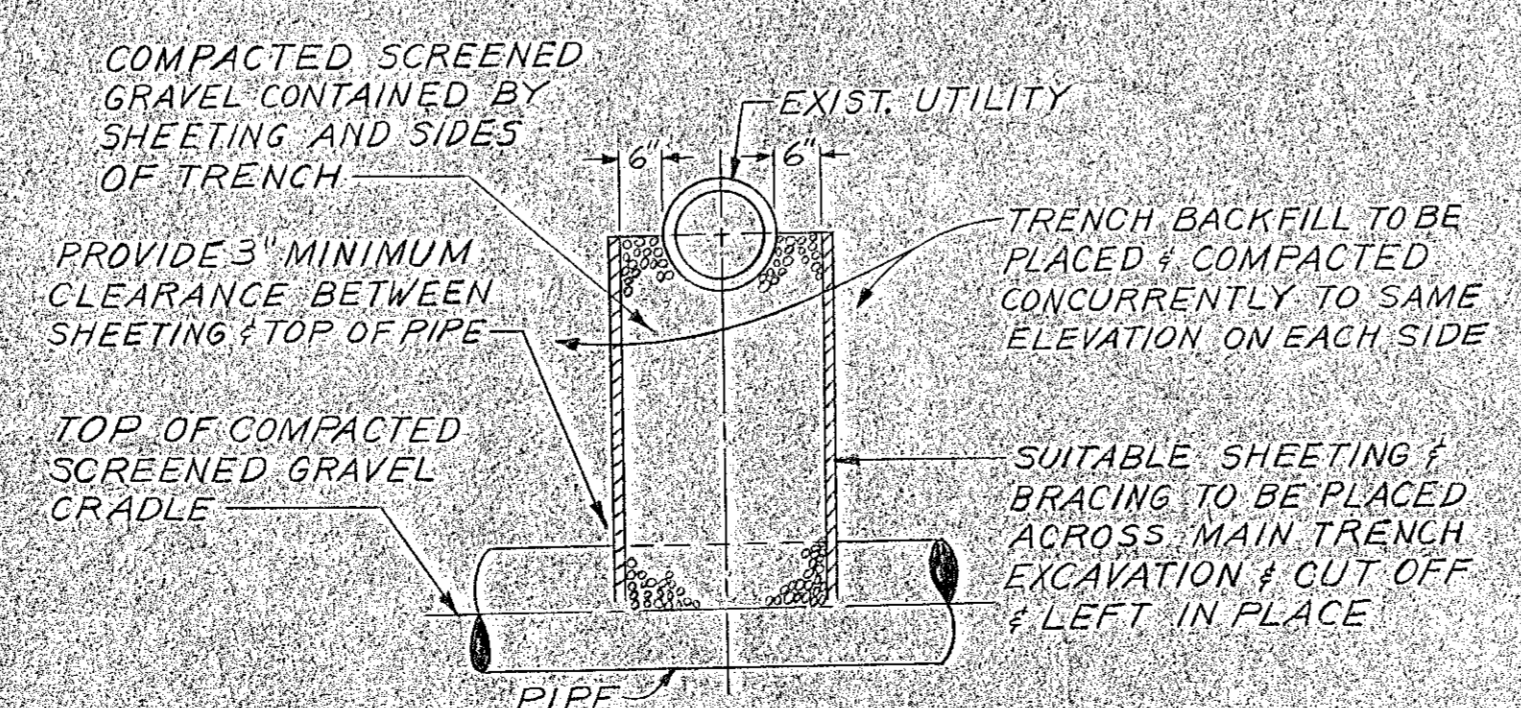
**TYPICAL SECTION IN AREA REQUIRING FILLING**  
NO SCALE



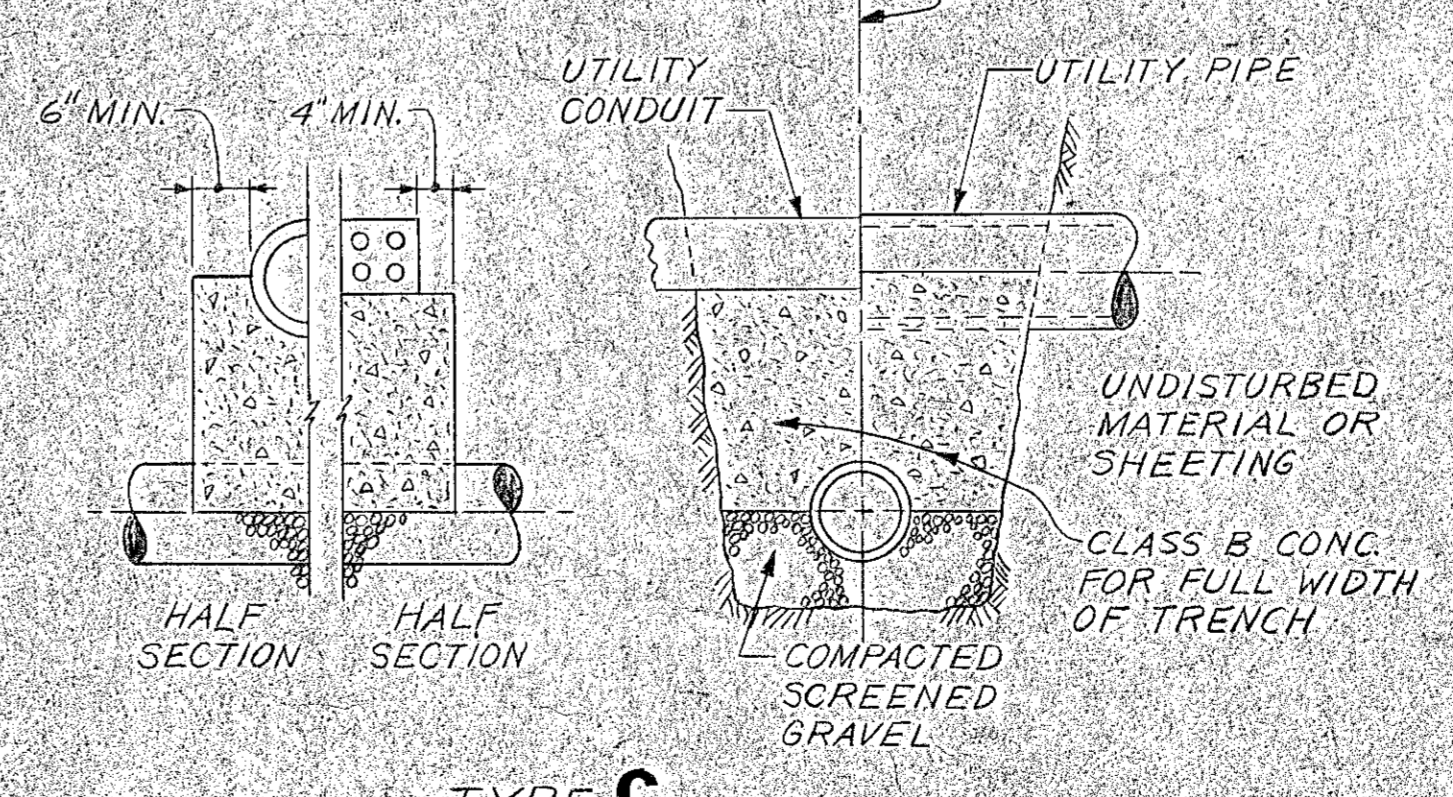
**EMERGENCY PUMPING CONNECTION**  
SCALE: 1/4"=1'-0"



**TYPE A**

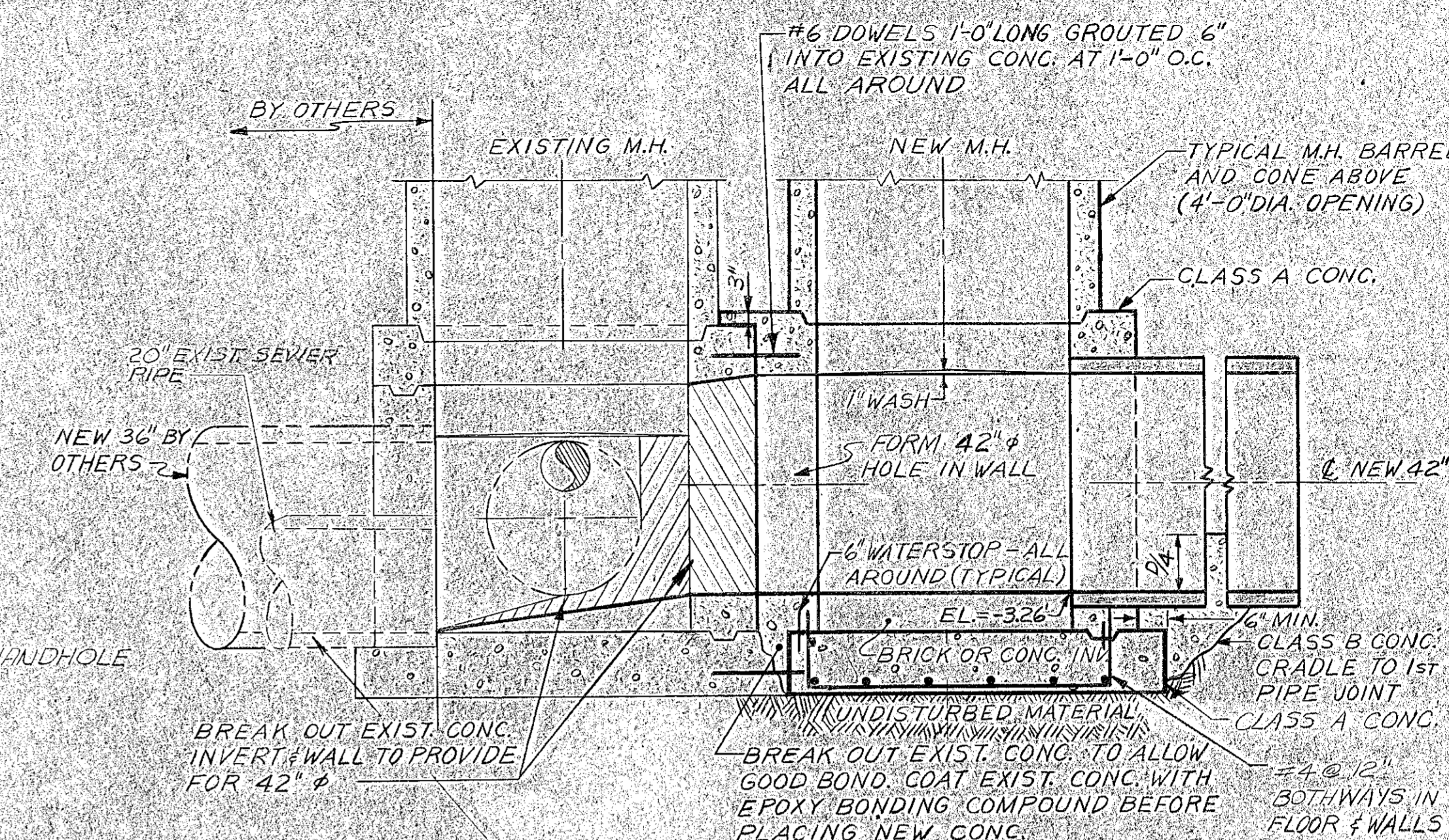


**TYPE B**

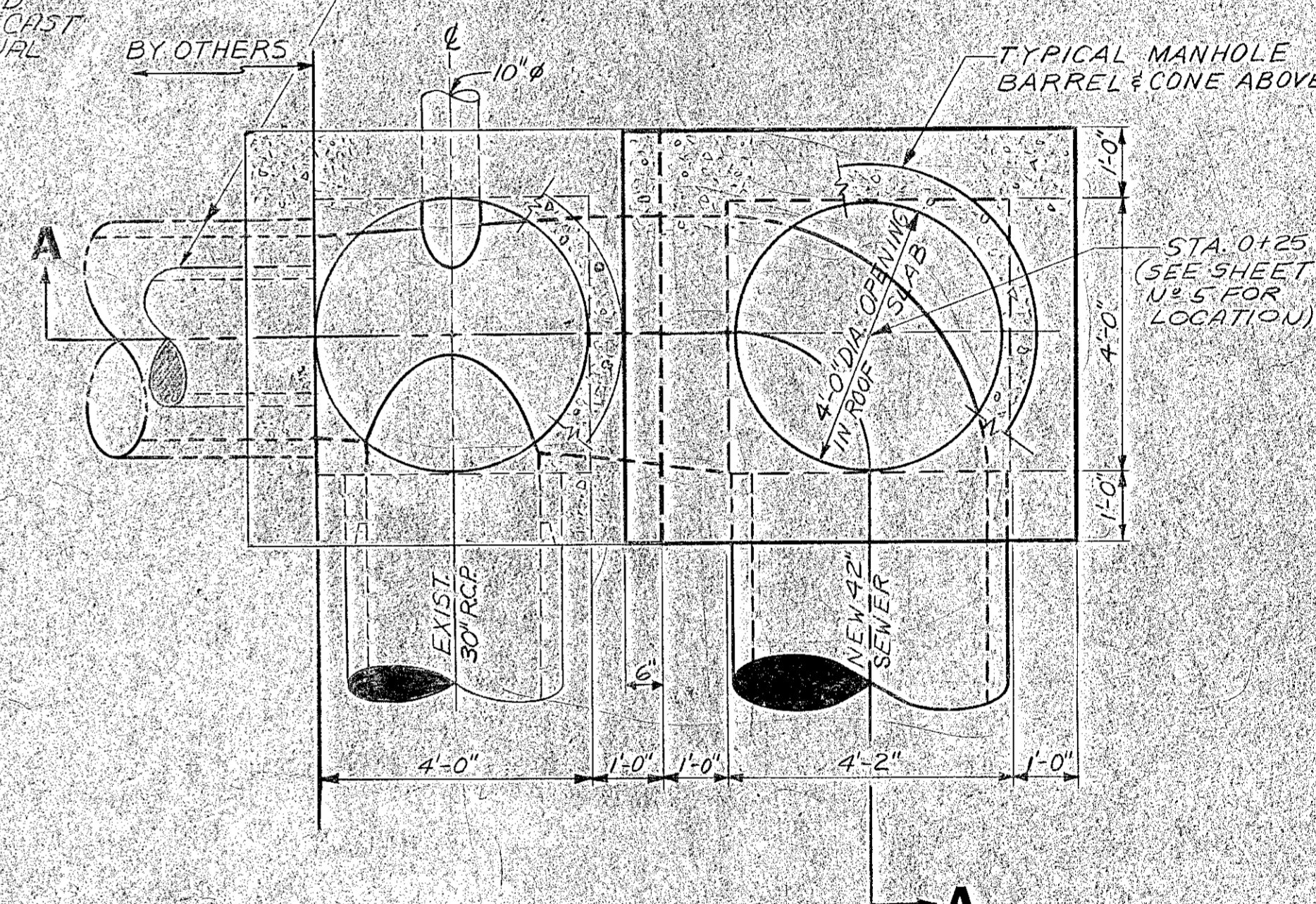


**TYPE C**

**TYPICAL SUPPORTS FOR UTILITIES**  
NO SCALE

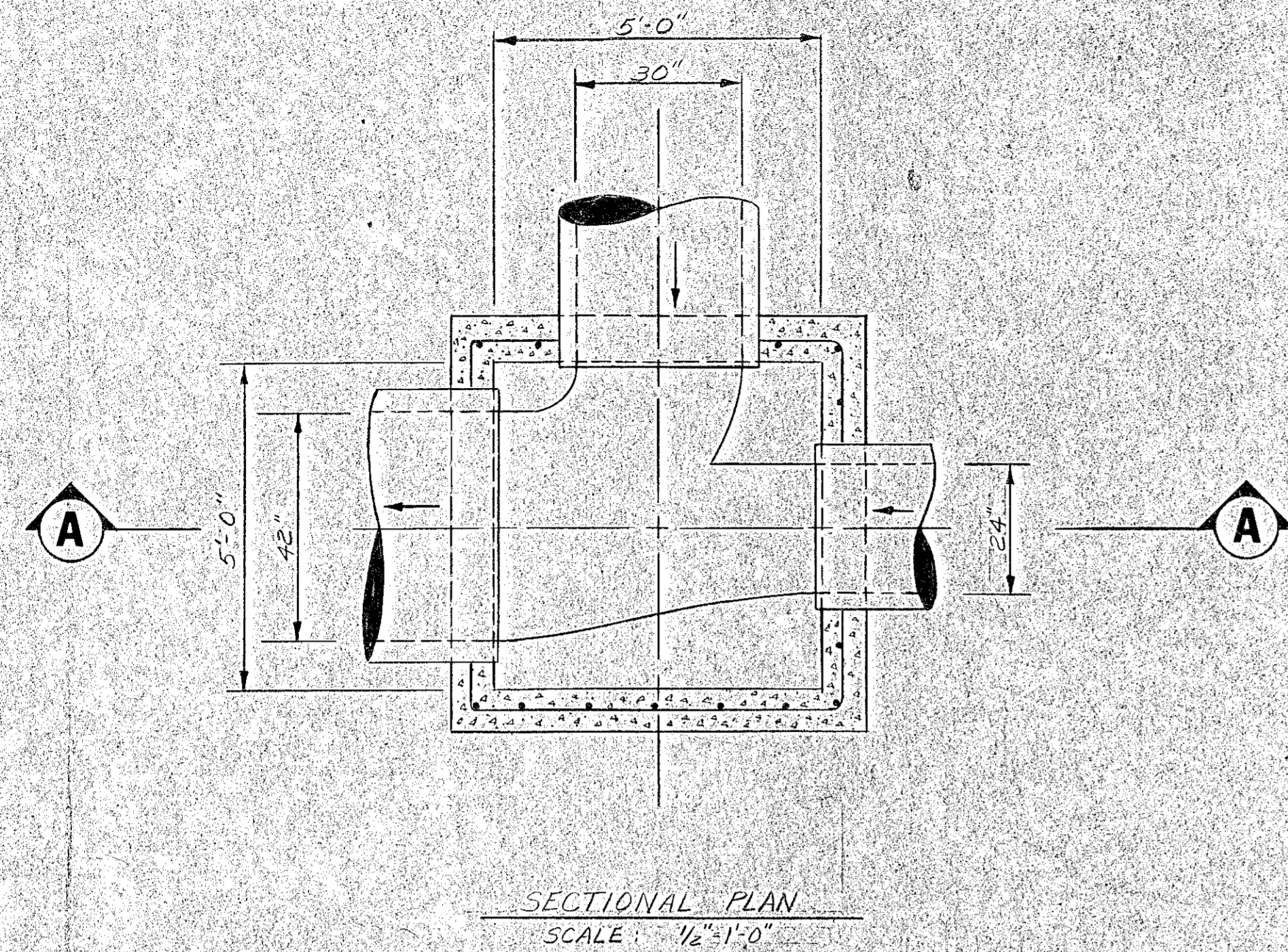


**SECTION A-A**

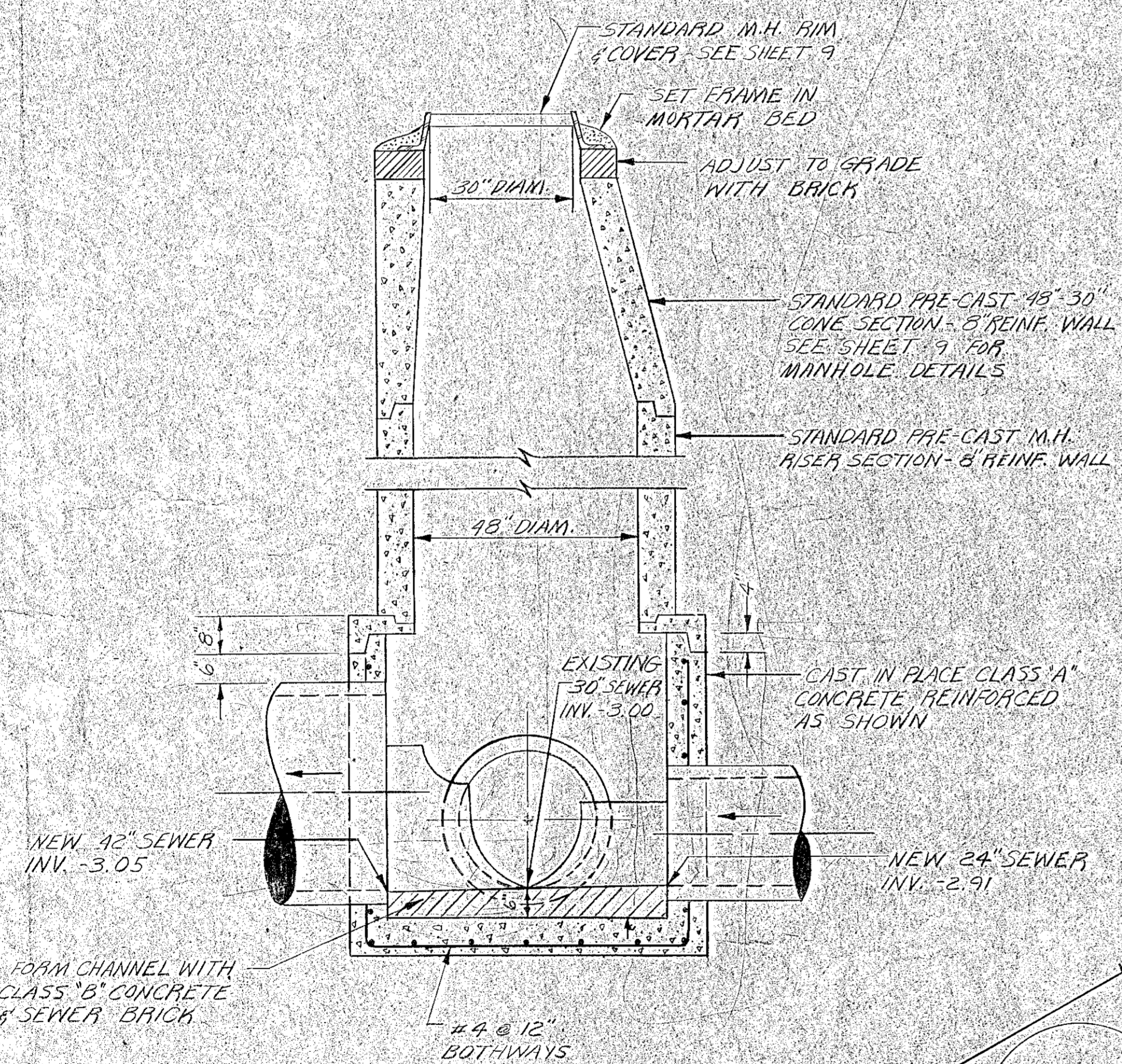


**PLAN OF SPECIAL STRUCTURE AT STA. 1+54 MECHANIC ST**  
SCALE: 1/4"=1'-0"

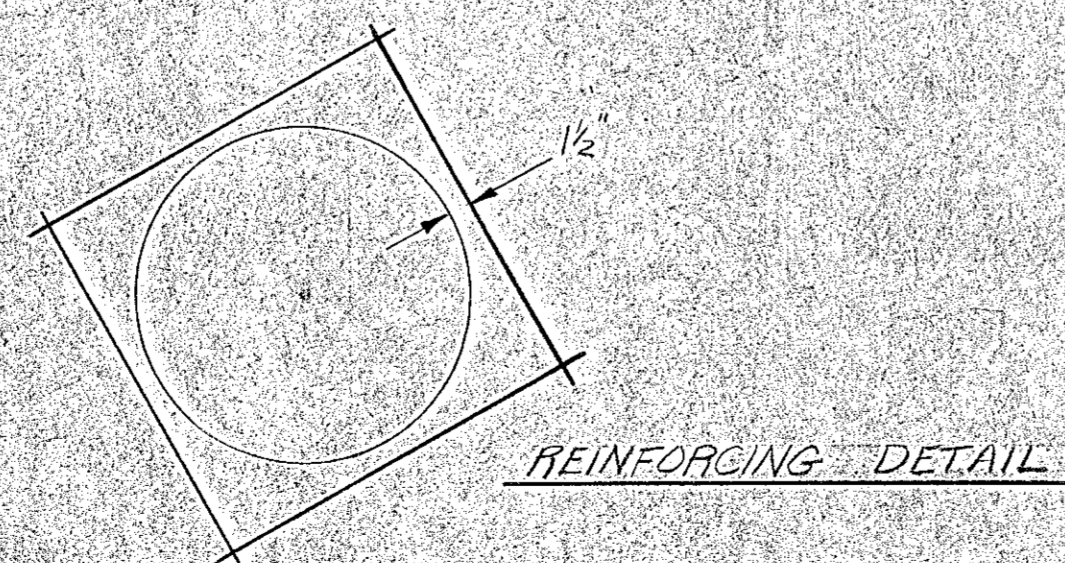
NO.	REVISIONS	DATE	APP'D
<b>CITY OF PORTSMOUTH, NEW HAMPSHIRE SEWERS AND FORCE MAINS DETAILS</b>			
<b>WRIGHT, PIERCE, BARNES &amp; WYMAN ENGINEERS PORTSMOUTH, N.H.</b>			
DRAWN BY JOE.		SCALE AS SHOWN	
CHECKED BY R.H.S.		DATE APRIL 73	
APPROVED BY D.G.G.		DATE APRIL 73	
BOOK NO. 56P45TP		PROJECT NO. 3473	



PERMANENT PAVEMENT SCHEDULE	
LOCATION	TYPE PAVEMENT
PIERCE ISLAND ACCESS ROAD	TYPE B
APPROACH TO PIERCE ISLAND BRIDGE BASELINE STA. 32+53 TO STA. 38+43	TYPE B & C
MECHANIC STREET	TYPE B & C
STATE STREET	TYPE B
BOW STREET FROM DANIEL ST. TO CHAPEL ST.	TYPE B & C
BOW STREET FROM CHAPEL ST. TO CERES ST.	TYPE B
CERES STREET	TYPE B & C



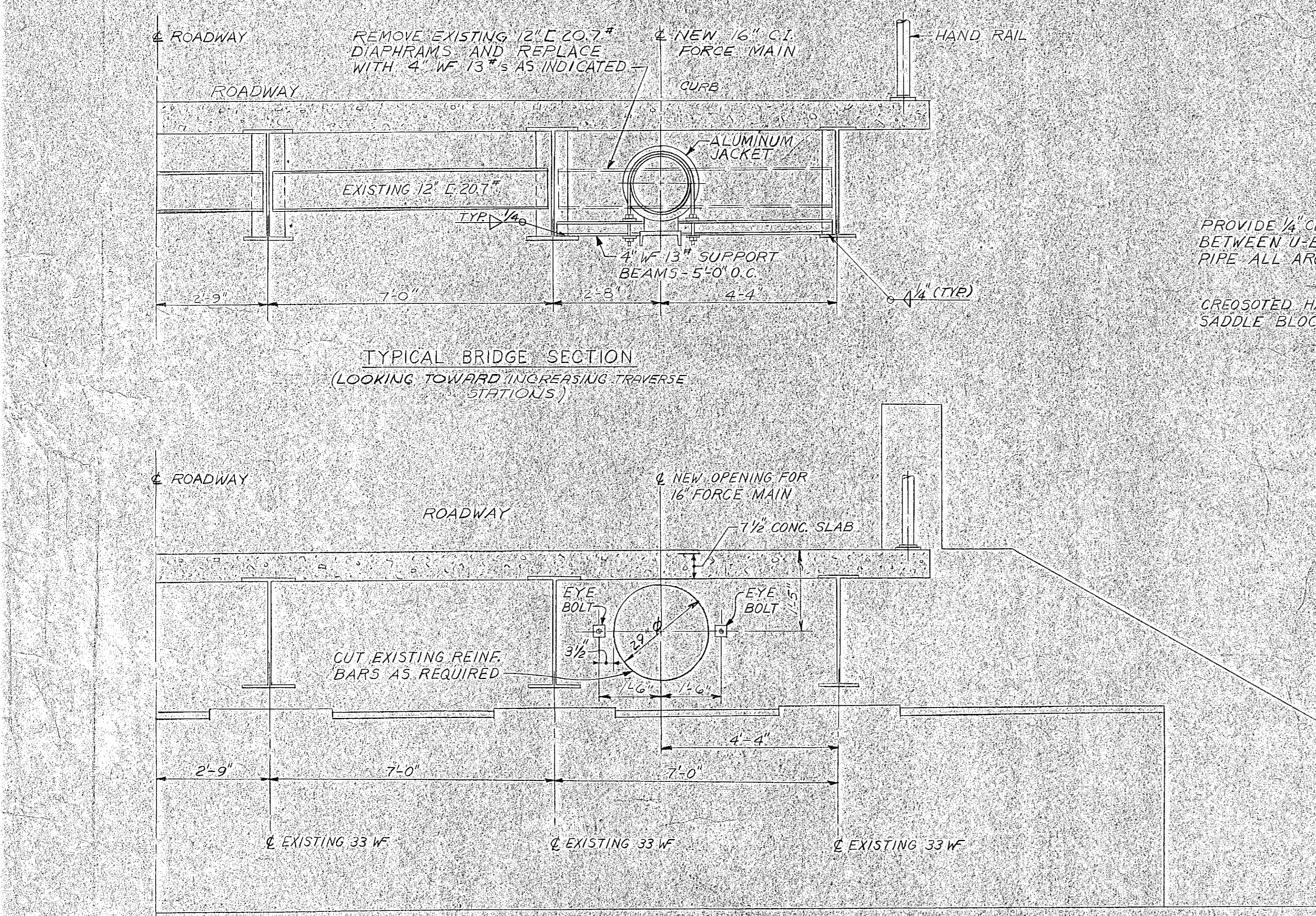
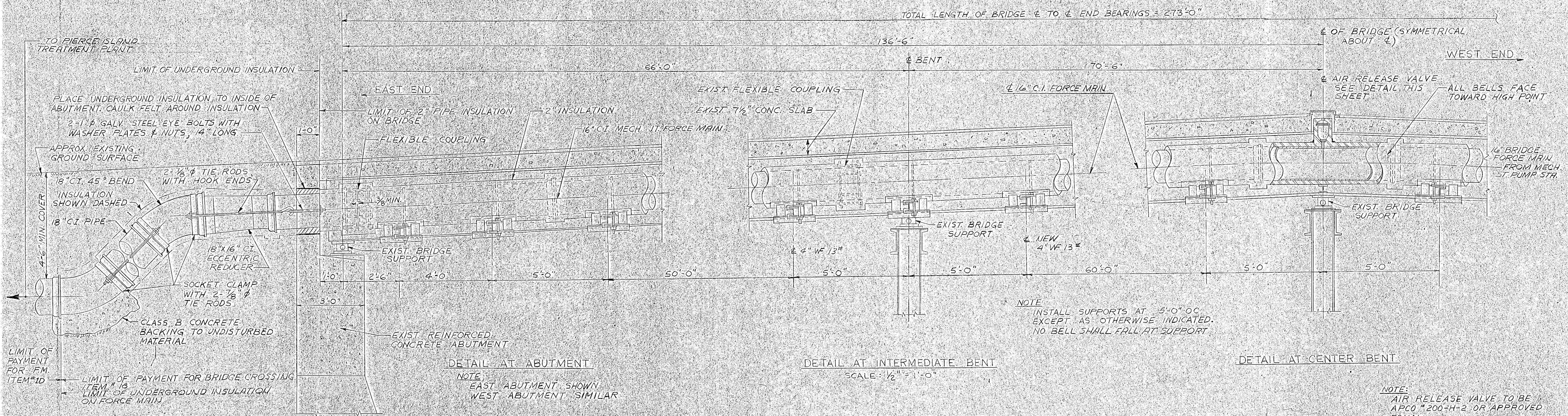
SECTION A-A  
SCALE: 1/2"=1'-0"



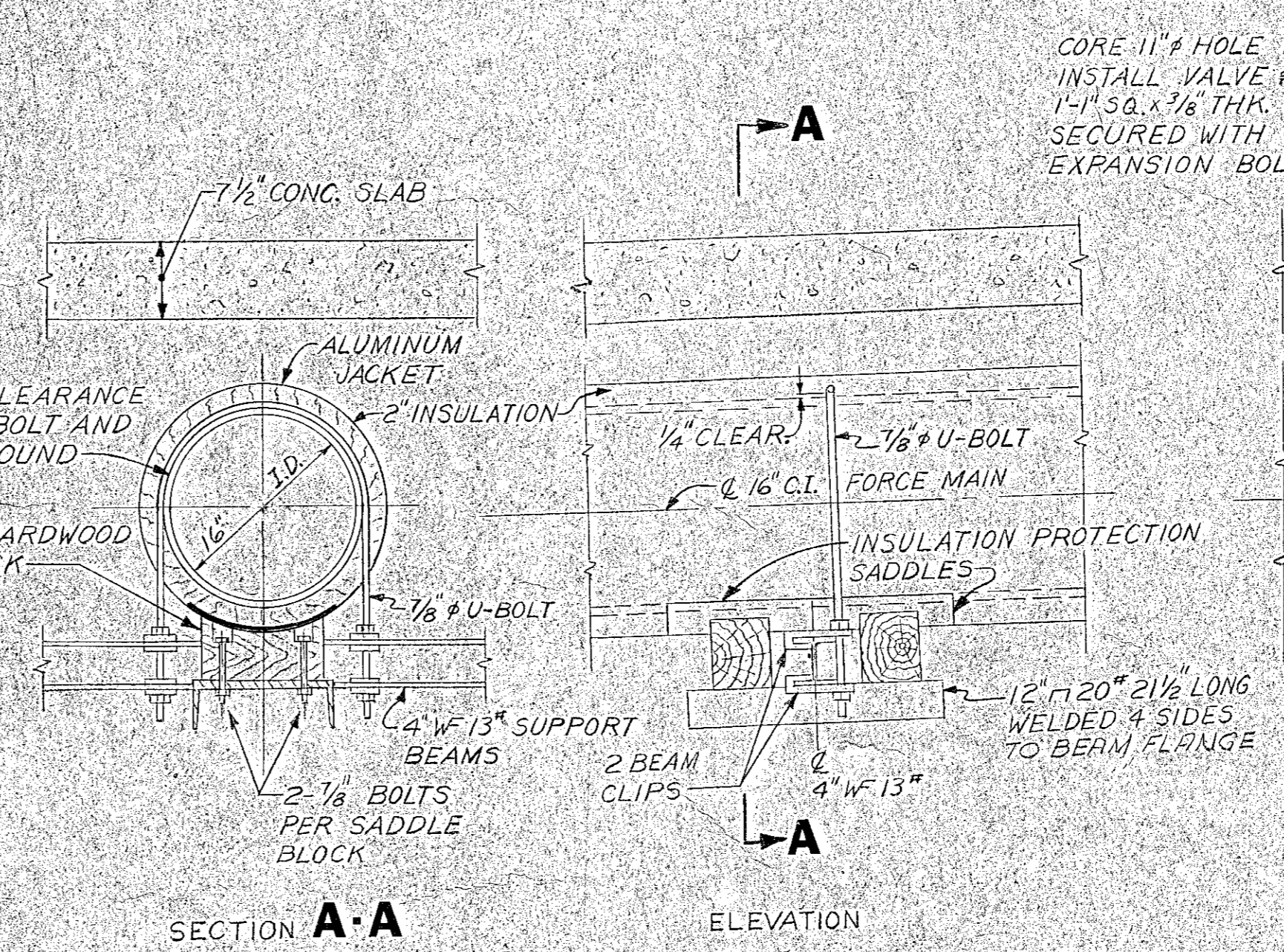
ALL OPENINGS IN WALLS & SLABS TO BE REINFORCED WITH #5 BARS LENGTH AS REQ'D. BARS TO BE PLACED AT APPROXIMATE 45° TO WALL & SLAB REINFORCEMENT.

SPECIAL STRUCTURE STA. 3+13

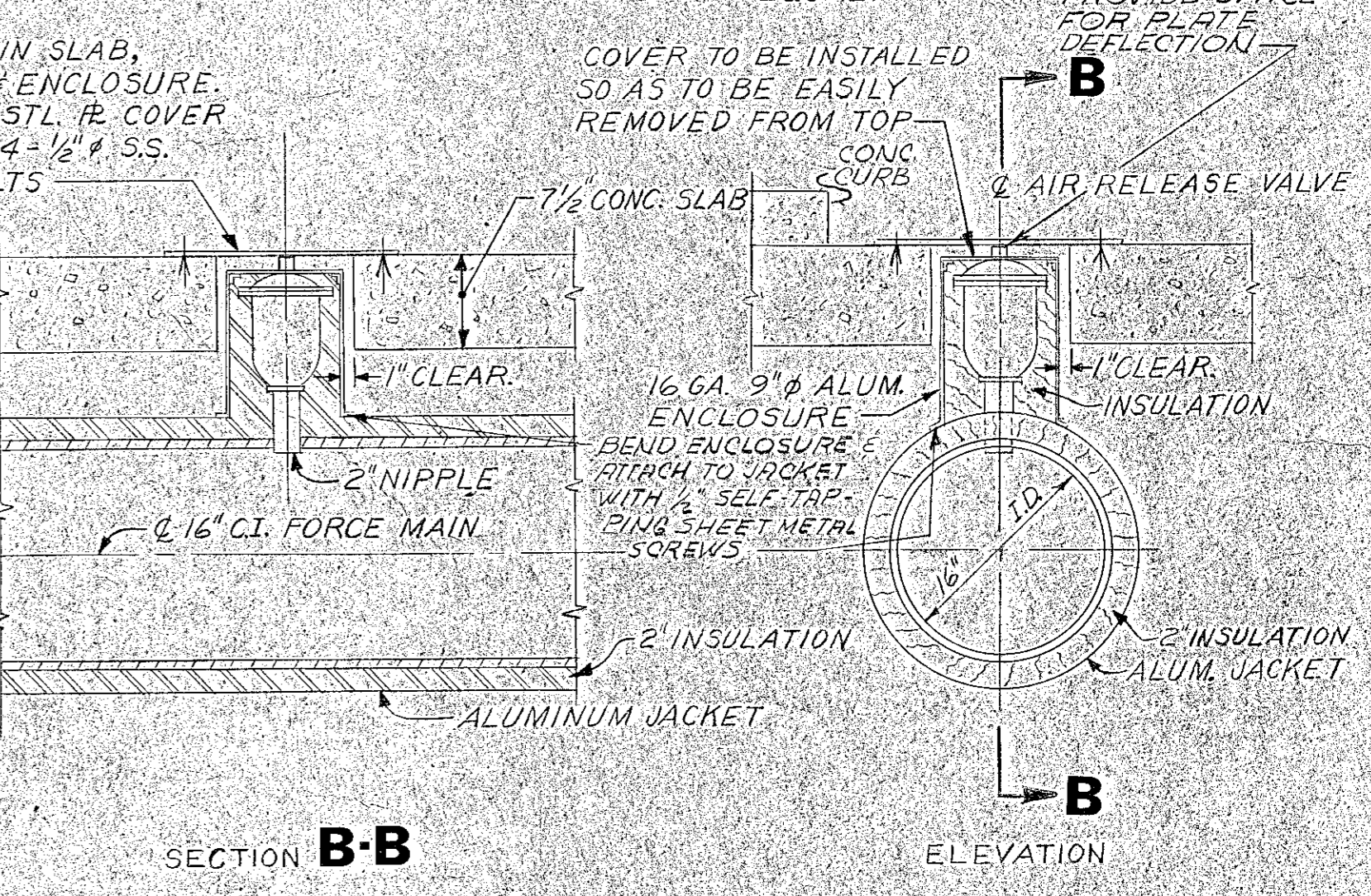
NO.	REVISIONS	DATE	APP'D
<b>CITY OF PORTSMOUTH, NEW HAMPSHIRE SEWERS AND FORCE MAINS DETAILS</b>			
<b>WRIGHT, PIERCE, BARNES &amp; WYMAN ENGINEERS PORTSMOUTH, N.H.</b>		<b>SHEET NO. 11</b>	
DRAWN BY V.E.B.		SCALE AS SHOWN	
CHECKED BY R.B./J.M.R.		DATE NOV. 1973	
APPROVED BY D.G.G.		DATE NOV. 1973	
BOOK NO. 56.P.157.P		PROJECT NO. 3473	
		OF 12	



ELEVATION OF ABUTMENT  
SCALE: 1/2" = 1'-0"  
(LOOKING TOWARD INCREASING TRAVERSE STATIONS)



DETAIL OF TYPICAL PIPE SUPPORT  
SCALE: 1/2" = 1'-0"



DETAIL OF AIR RELEASE VALVE  
SCALE: 1/2" = 1'-0"

- NOTES:
1. AT ALL MECHANICAL JOINTS, A SPACE OF AT LEAST 1/8" SHALL BE LEFT BETWEEN THE SPIGOT END AND INSIDE BELL END OF THE PIPE.
  2. THE CONTRACTOR SHALL PRESENT TO THE ENGINEER IN WRITING HIS PROPOSED SEQUENCE OF CONSTRUCTION IN THE BRIDGE CROSSING AREA.

NO.	REVISIONS	DATE	APP'D.
<b>CITY OF PORTSMOUTH, NEW HAMPSHIRE SEWERS AND FORCE MAINS BRIDGE DETAILS</b>			
<b>WRIGHT, PIERCE, BARNES &amp; WYMAN ENGINEERS PORTSMOUTH, N.H.</b>			<b>SHEET NO. 12</b>
DRAWN BY: FHB		SCALE: AS SHOWN	
CHECKED BY: RNS		DATE: APRIL 73	
APPROVED BY: DGC		DATE: APRIL 73	
BOOK NO. 56P-157P		PROJECT NO. 3473	