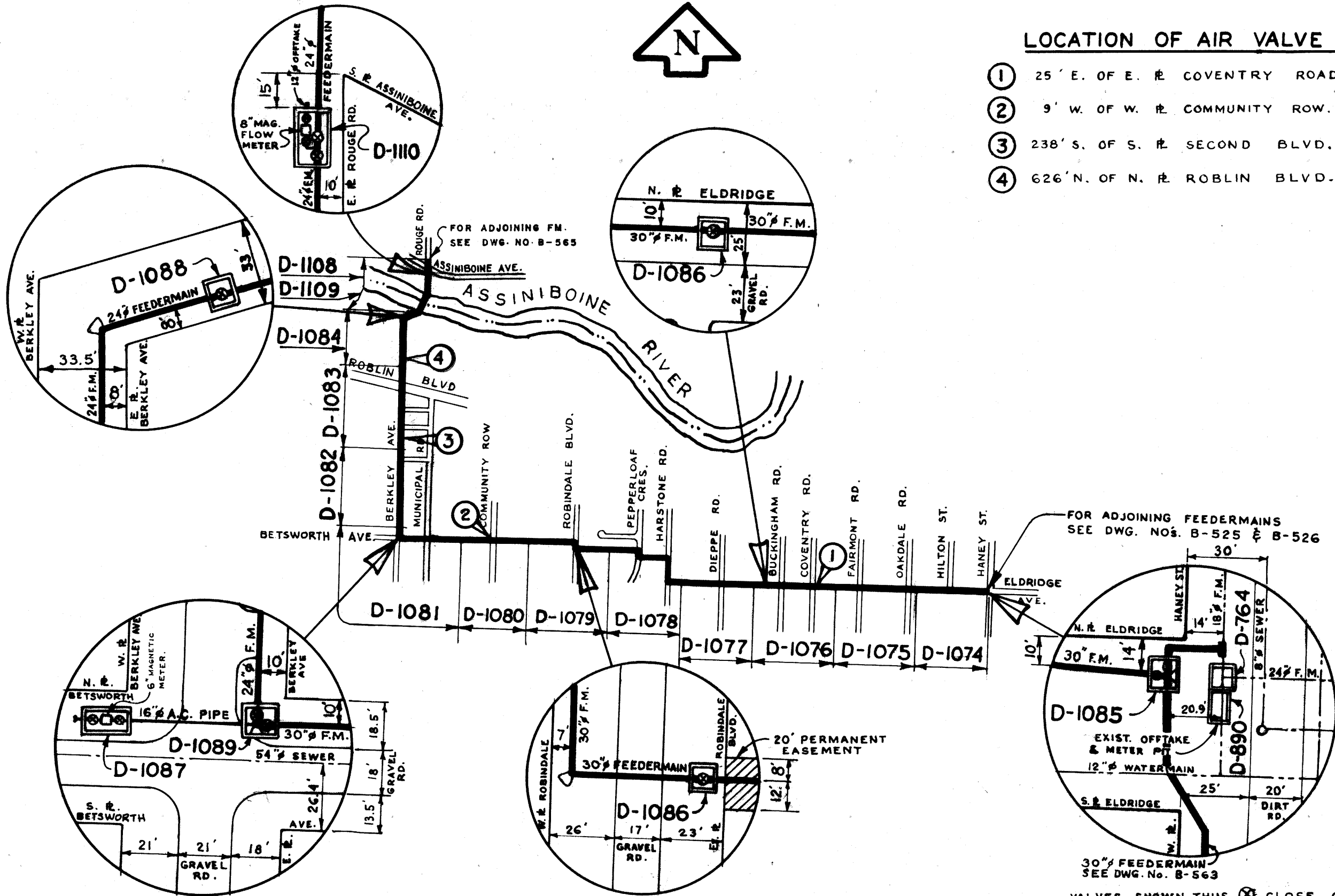




LOCATION OF AIR VALVE PITS

- ① 25' E. OF E. R. COVENTRY ROAD.
- ② 9' W. OF W. R. COMMUNITY ROW.
- ③ 238' S. OF S. R. SECOND BLVD.
- ④ 626' N. OF N. R. ROBLIN BLVD.



FOR ADJOINING FEEDERMAINS
SEE DWG. NOS. B-525 & B-526

VALVES SHOWN THUS ⊗ CLOSE CLOCKWISE
VALVES SHOWN THUS ⊠ CLOSE COUNTERCLOCKWISE.

DES. W. S. B. CHKD. *dk*
DRN. 18 DATE OCT 65
DEPT. CHK'D.
APPROVED *[Signature]*

SCALE
1" = 1500'
DRAWING NO.
B-556

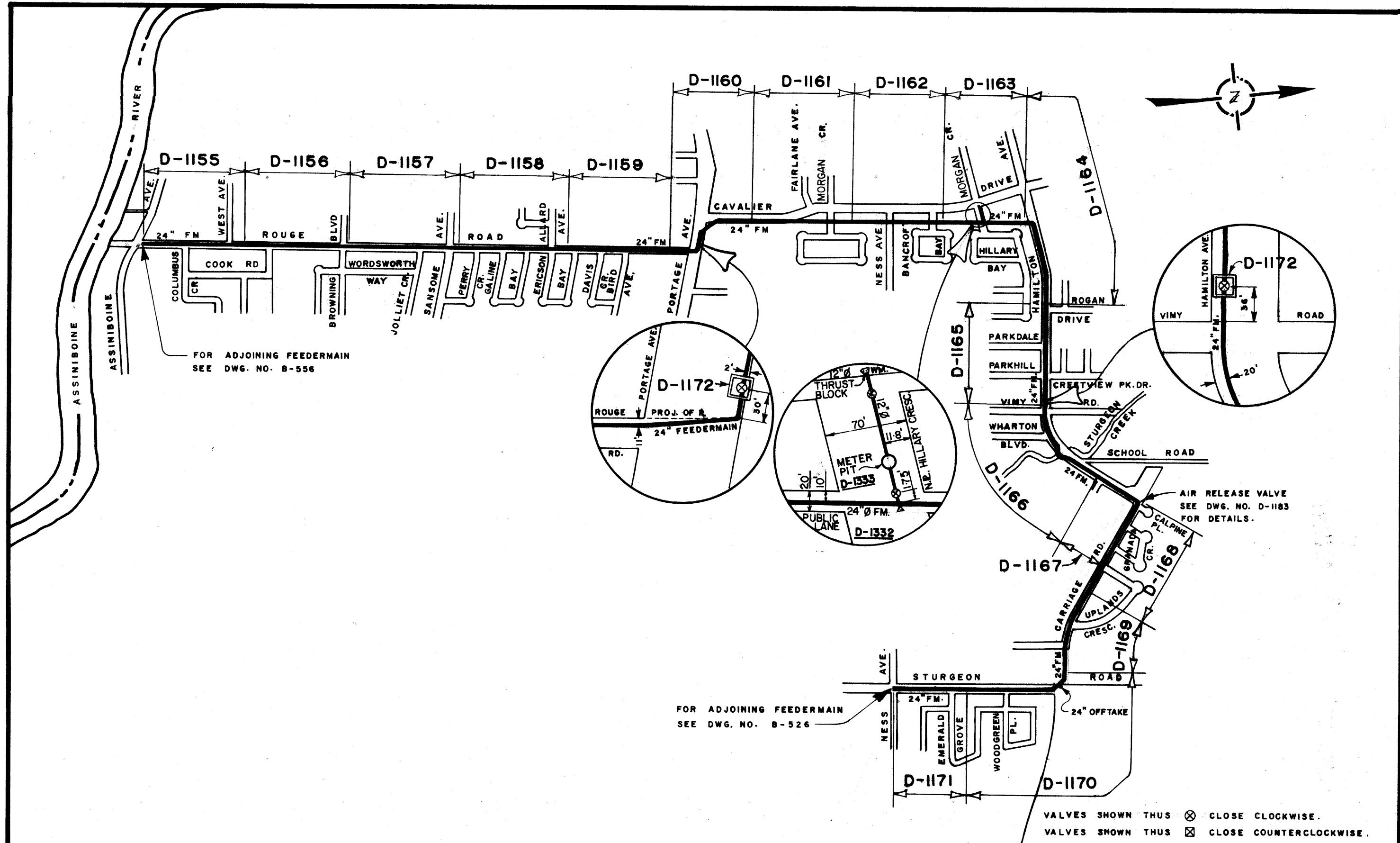
NO.	DESCRIPTION	DATE	BY
2	REVISED TO DATE	24.9.82	TM.
1	REVISED TO DATE	MAR 71	HB
REVISIONS			

THE CITY OF WINNIPEG
WATERWORKS WASTE & DISPOSAL DEPT.
DIRECTOR - A. PENMAN

WATERWORKS DEPT
**CHARLESWOOD ASSINIBOIA FEEDERMAIN
VALVE & METER PIT LOCATIONS**

MICROFILMED 1973

MICROFILMED JANUARY 1977



FOR ADJOINING FEEDERMAIN
SEE DWG. NO. B-556

FOR ADJOINING FEEDERMAIN
SEE DWG. NO. B-526

AIR RELEASE VALVE
SEE DWG. NO. D-1183
FOR DETAILS.

VALVES SHOWN THUS ⊗ CLOSE CLOCKWISE.
VALVES SHOWN THUS ⊠ CLOSE COUNTERCLOCKWISE.

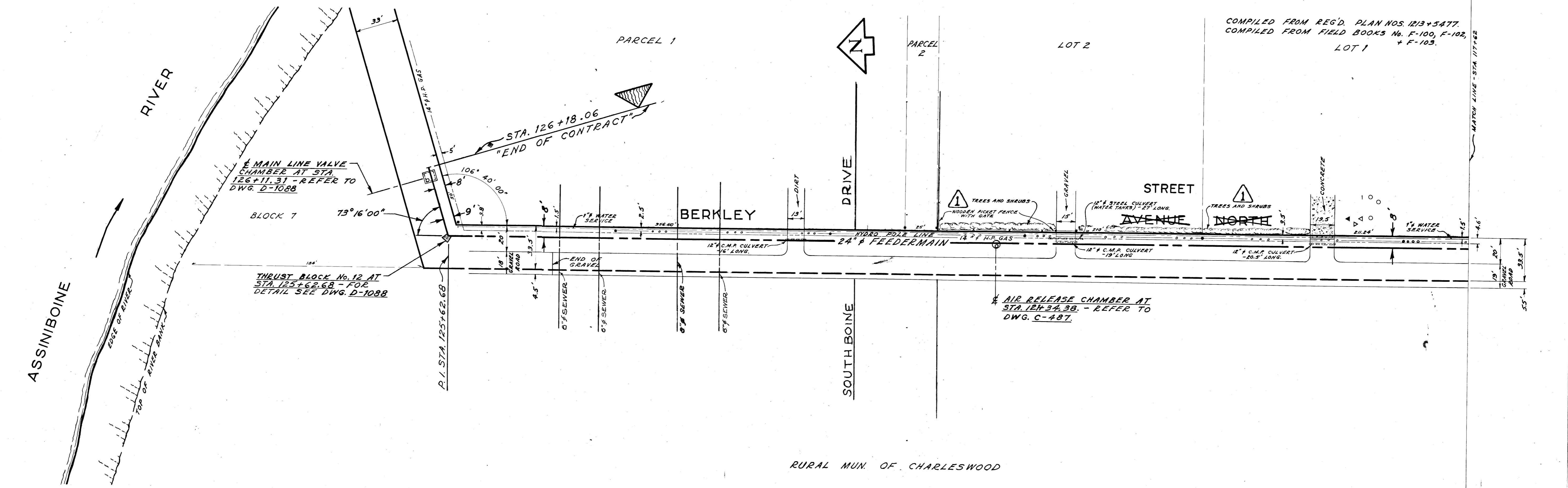
NO.	DESCRIPTION	DATE	BY
1	REVISED TO DATE	24.09.82 TM.	
REVISIONS			

THE CITY OF WINNIPEG
WATERWORKS WASTE AND
DISPOSAL DEPARTMENT
DIRECTOR - A. PENMAN

WATERWORKS DEPT.
**ROUGE ROAD
FEEDERMAIN
VALVE & METER PIT LOCATIONS**

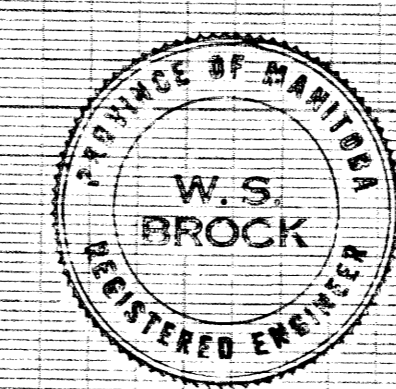
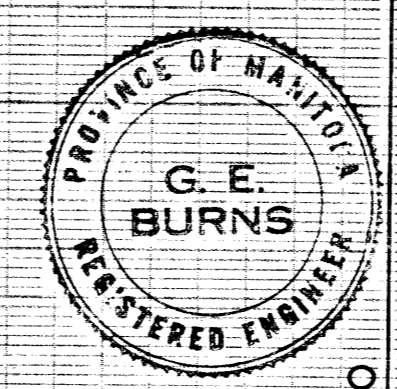
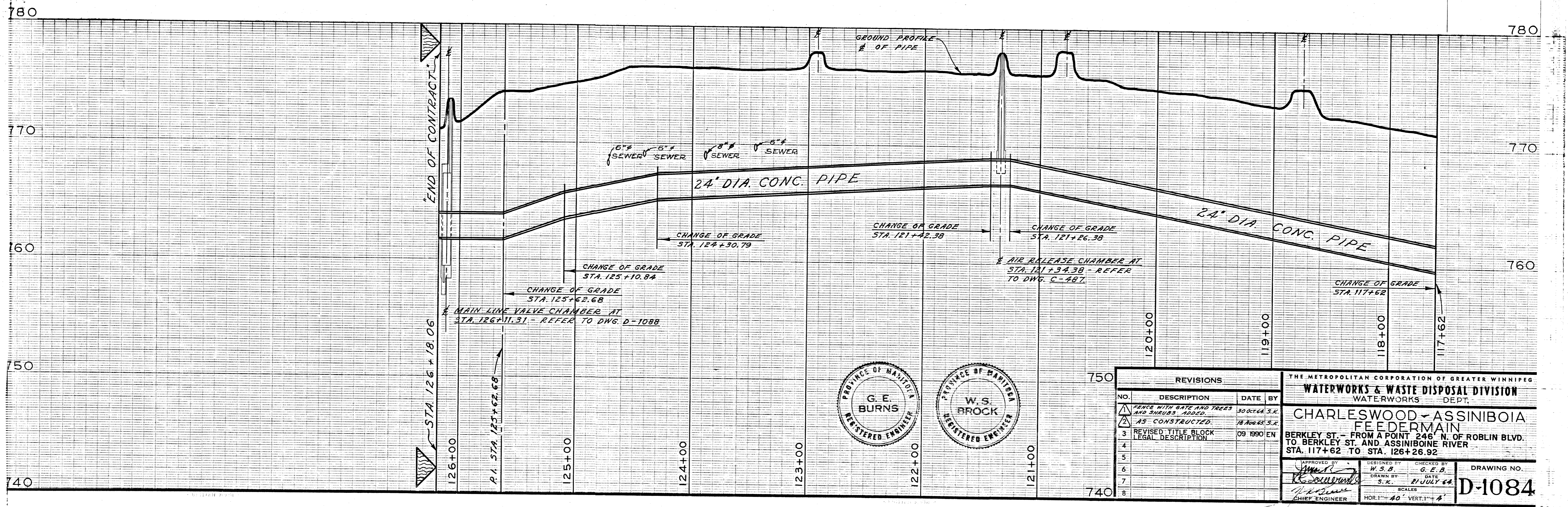
DRN. IS CHKD. *At* DATE MAR 71
DESIGN ENG. *Rm. Gilling*
ENG. OF OPS. *[Signature]*
CHIEF ENG. *R.C. Southerville*

SCALE
1" = 1000'
& N.T.S.
DRAWING NO.
B-565



COMPILED FROM REG'D. PLAN NOS. 1213+5477,
COMPILED FROM FIELD BOOKS No. F-100, F-102,
+ F-103.
LOT 1

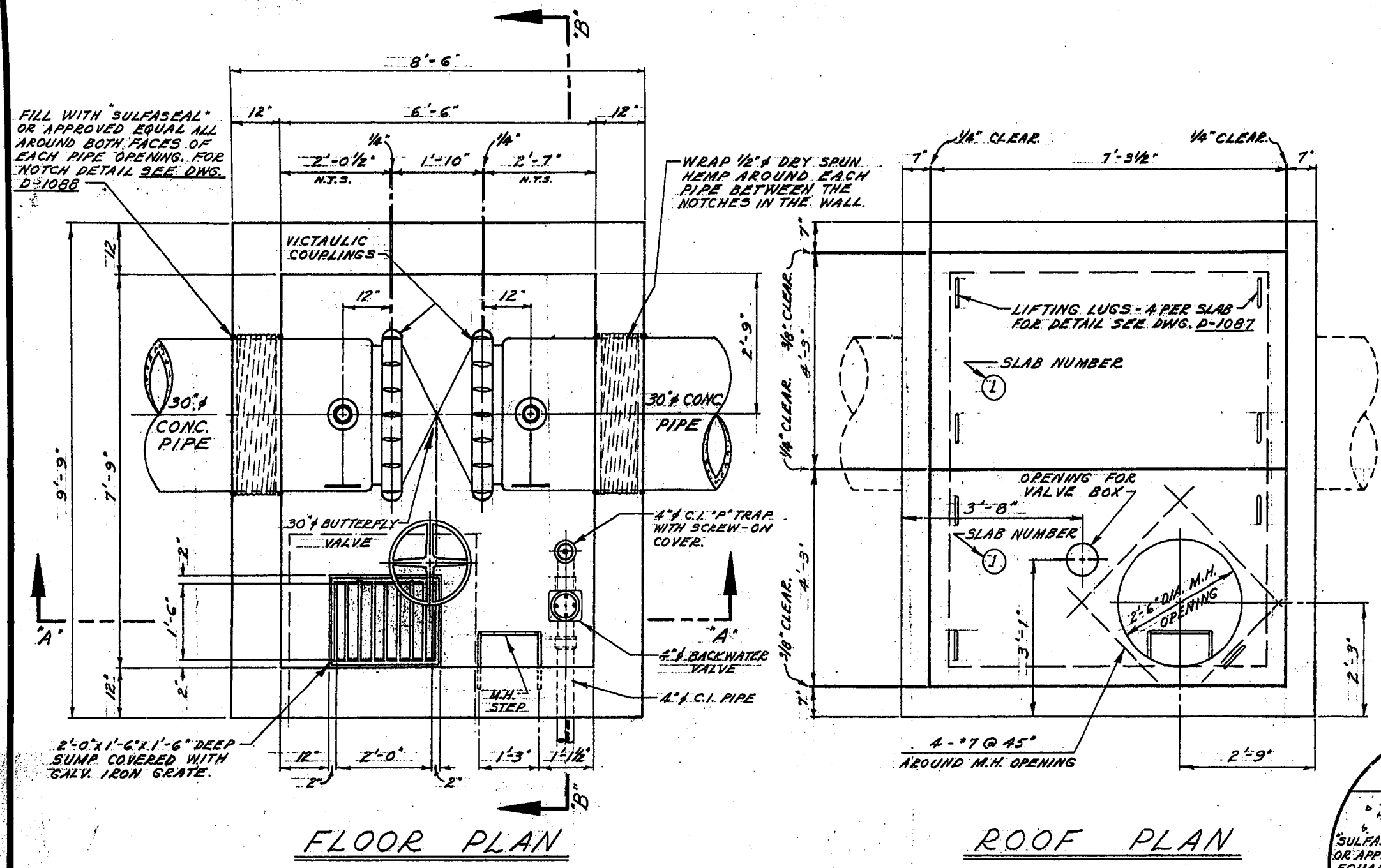
RURAL MUN. OF CHARLESWOOD



REVISIONS		
NO.	DESCRIPTION	DATE BY
1	REVISIONS	
2	REVISIONS	
3	REVISIONS	
4	REVISIONS	
5	REVISIONS	
6	REVISIONS	
7	REVISIONS	
8	REVISIONS	

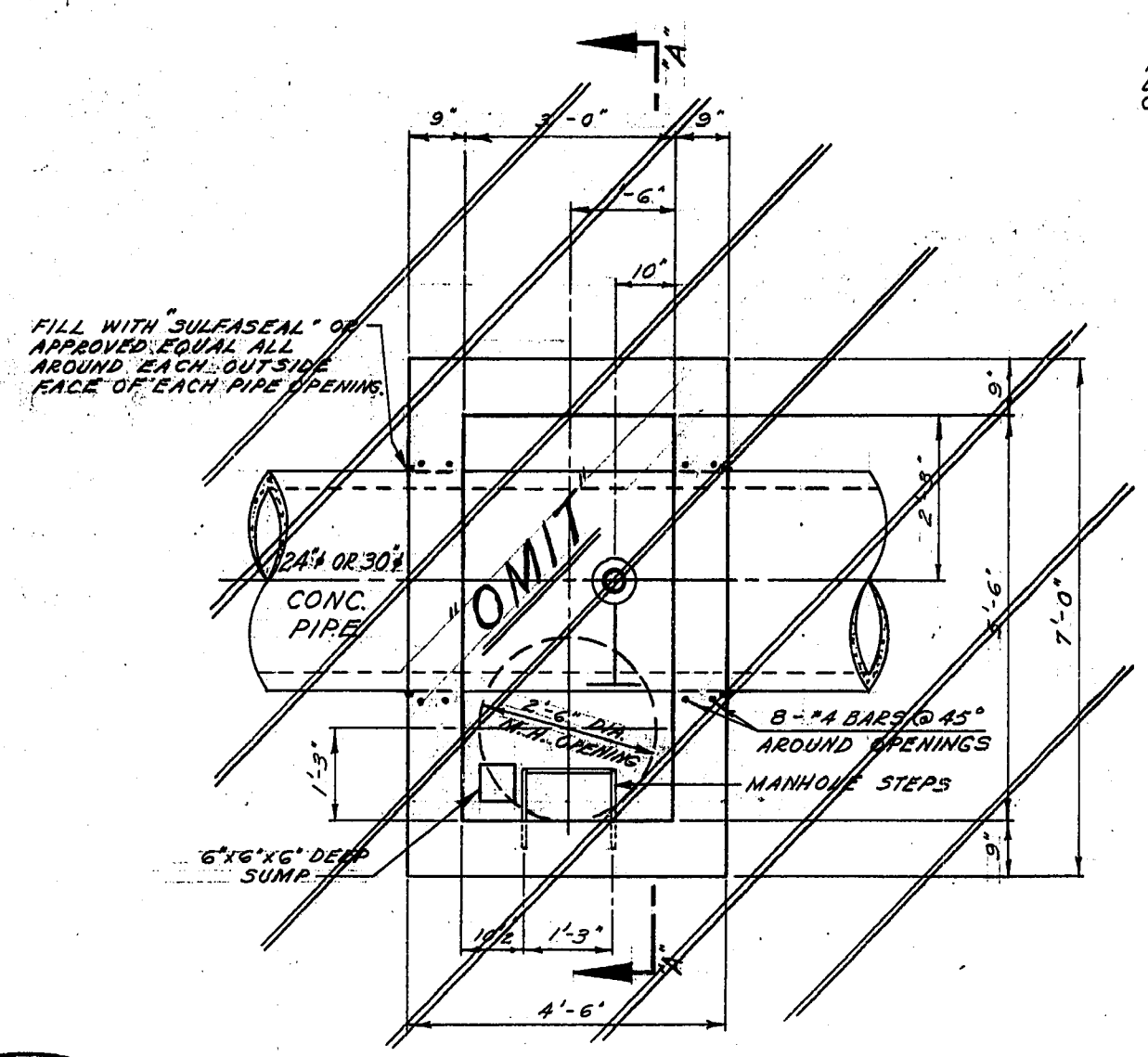
THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
WATERWORKS & WASTE DISPOSAL DIVISION
 WATERWORKS DEPT.
CHARLESWOOD - ASSINIBOIA
FEEDER MAIN
 BERKLEY ST. - FROM A POINT 246' N. OF ROBLIN BLVD.
 TO BERKLEY ST. AND ASSINIBOINE RIVER
 STA. 117+62 TO STA. 126+26.92

DESIGNED BY: *[Signature]*
 DRAWN BY: *[Signature]*
 CHECKED BY: *[Signature]*
 APPROVED BY: *[Signature]*
 DATE: 21 JULY 68
 SCALE: HOR. 1" = 40' VERT. 1" = 4'
 DRAWING NO. **D-1084**

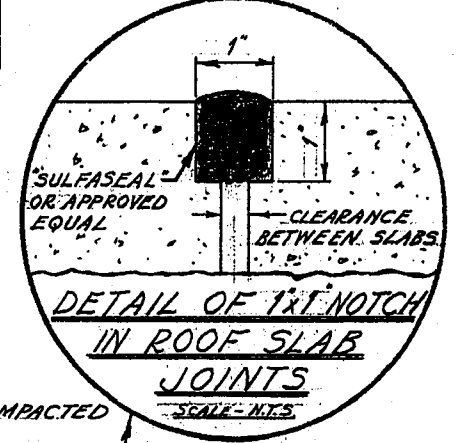


FLOOR PLAN

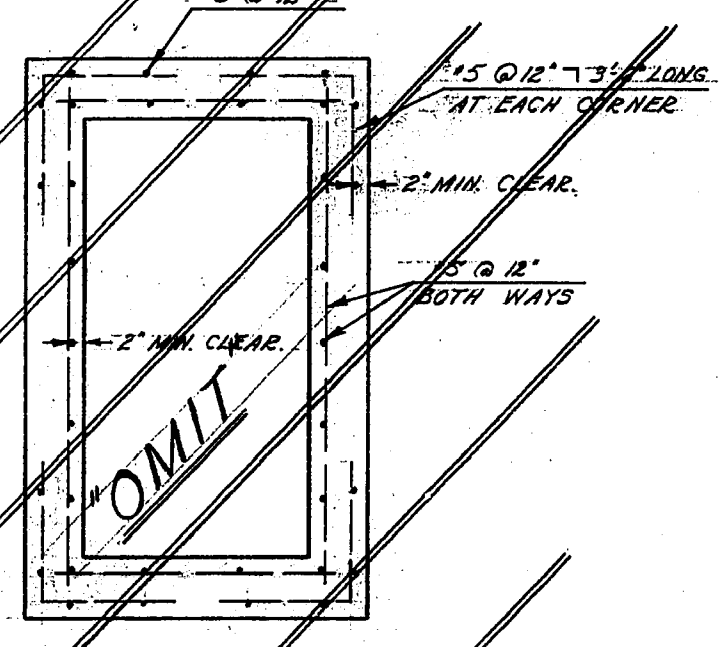
ROOF PLAN



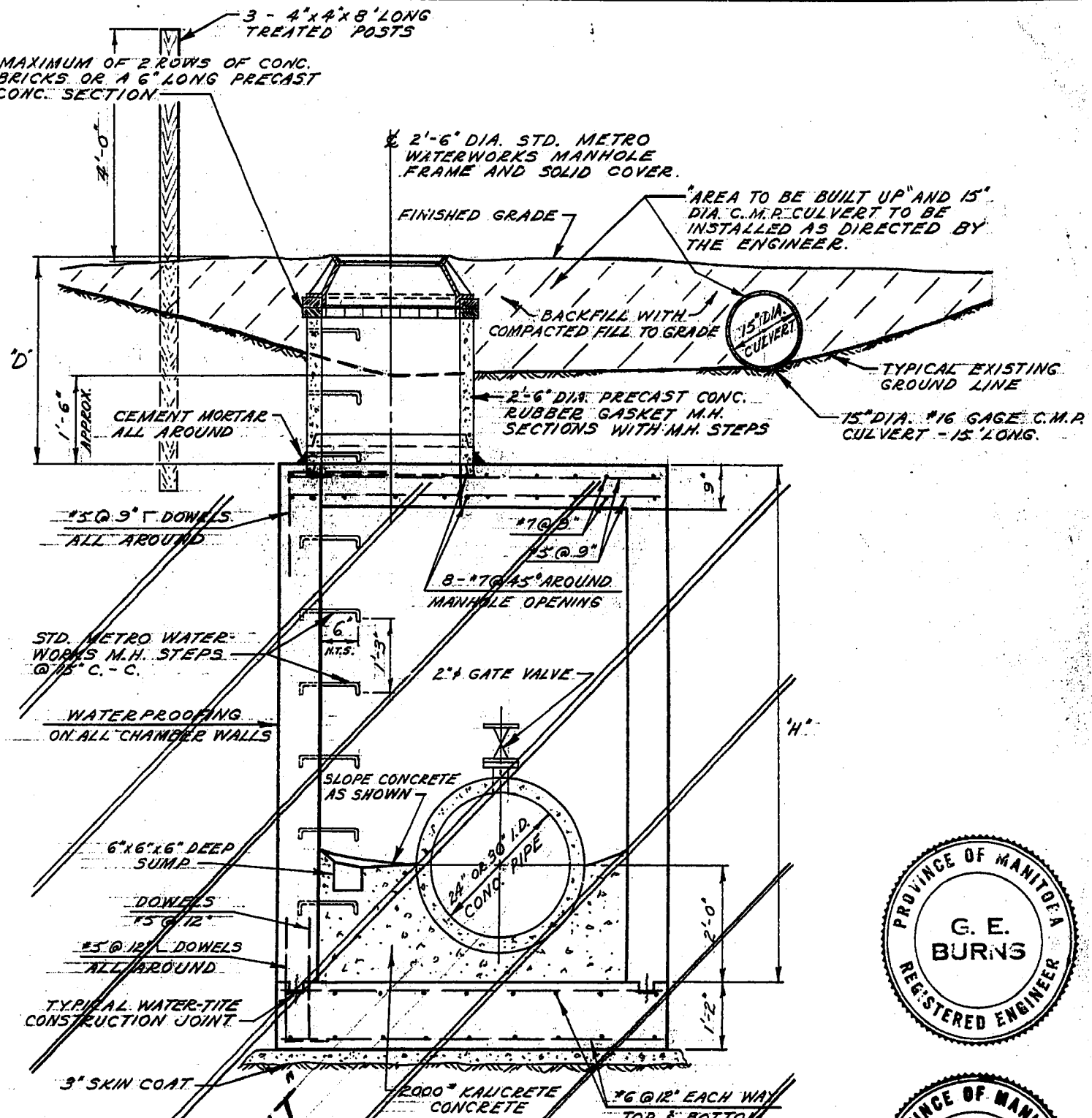
FLOOR PLAN



DETAIL OF 1x1 NOTCH IN ROOF SLAB JOINTS

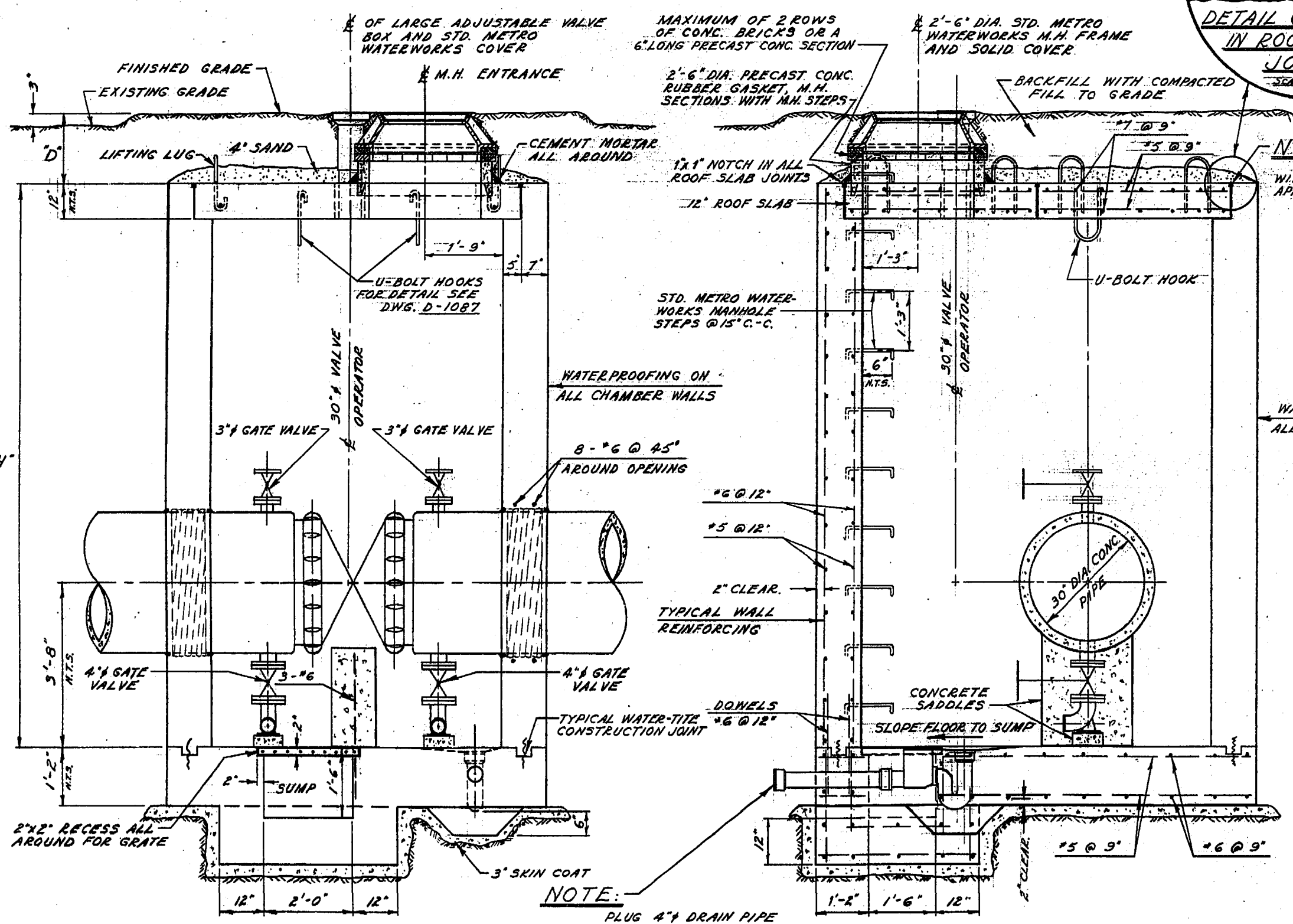
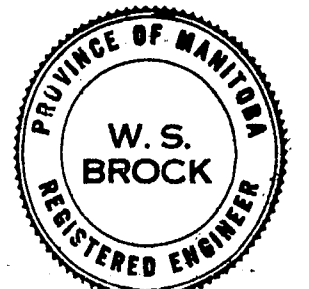


REINFORCING IN WALLS OF CHAMBER



SEC. 'A'-A' CROSS-SECTION

DETAIL OF AIR RELEASE CHAMBER FOR 24" DIA. AND 30" DIA. PIPES



SEC. 'A'-A' LONG SECTION

SEC. 'B'-B' TYPICAL 30" DIA. CROSS-SECTION

MAIN LINE VALVE CHAMBER

SCALE - 1/2" = 1'-0"

TABLE OF ELEVATIONS FOR 30" DIA. MAIN LINE VALVE CHAMBERS

LOCATION	TOP OF FLOOR SLAB	EL. OF PIPE	TOP OF ROOF SLAB	'H'	EXISTING GRADE	FINISHED GRADE	'D'
STA. 33+98.00	EL. 756.70'	EL. 760.37'	EL. 765.70'	9'-0"	EL. 772.20'	EL. 773.80'	8'-1"
STA. 64+29.98	EL. 759.60'	EL. 763.27'	EL. 768.60'	9'-0"	EL. 774.10'	EL. 774.40'	5'-9"

NOTE:
 1. WHEN A MAIN LINE VALVE CHAMBER IS LOCATED IN A DITCH USE THE SAME BACKFILL DETAIL WITH THE CULVERT AND POSTS AS FOR THE AIR RELEASE CHAMBER. SEE SEC. 'A'-A'.
 2. THE 30" MAIN LINE VALVE CHAMBER AT STA. 64+50 TO HAVE AN AIR VALVE ON TOP OF ONE OF THE 3/4" GATE VALVES.

NOTES FOR CHAMBER

- ALL PRECAST CHAMBER SLABS ARE TO BE NUMBERED ON THE UNDERSIDE IN THE ORDER BY WHICH THEY CAN BE REMOVED, CAST IN TYPICAL HOUSE NUMBERS.
- PLACE BUILDING PAPER BETWEEN THE VALVE AND CONCRETE SADDLE.
- ALL EXTERIOR AND INTERIOR CORNERS, INCLUDING PRECAST SLABS TO BE CHAMFERED AS SPECIFIED IN THE SPECIFICATIONS.
- THE VICTAULIC COUPLINGS TO BE STYLE #44.
- FITTINGS REQUIRED FOR EACH 30" PIPE IN THE MAIN LINE VALVE CHAMBER. ON TOP OF PIPE:
 3" NIPPLE (SCREW TO SCREW-ON-FLANGE) - SUPPLIED WITH PIPE.
 3" GATE VALVE FLANGED WITH BRONZE TRIM.
 ON BOTTOM OF PIPE:
 4" NIPPLE (SCREW TO SCREW-ON-FLANGE) - SUPPLIED WITH PIPE.
 4" GATE VALVE FLANGED WITH BRONZE TRIM.
 4" -90° GALV. BASE ELBOW (FLANGE TO SCREW) JOIN ELBOW TO VALVE WITH SCREW END DIRECTED TOWARDS MANHOLE OPENING.
- ALL FITTINGS TO BE MADE OF BRONZE UNLESS SPECIFIED OTHERWISE.

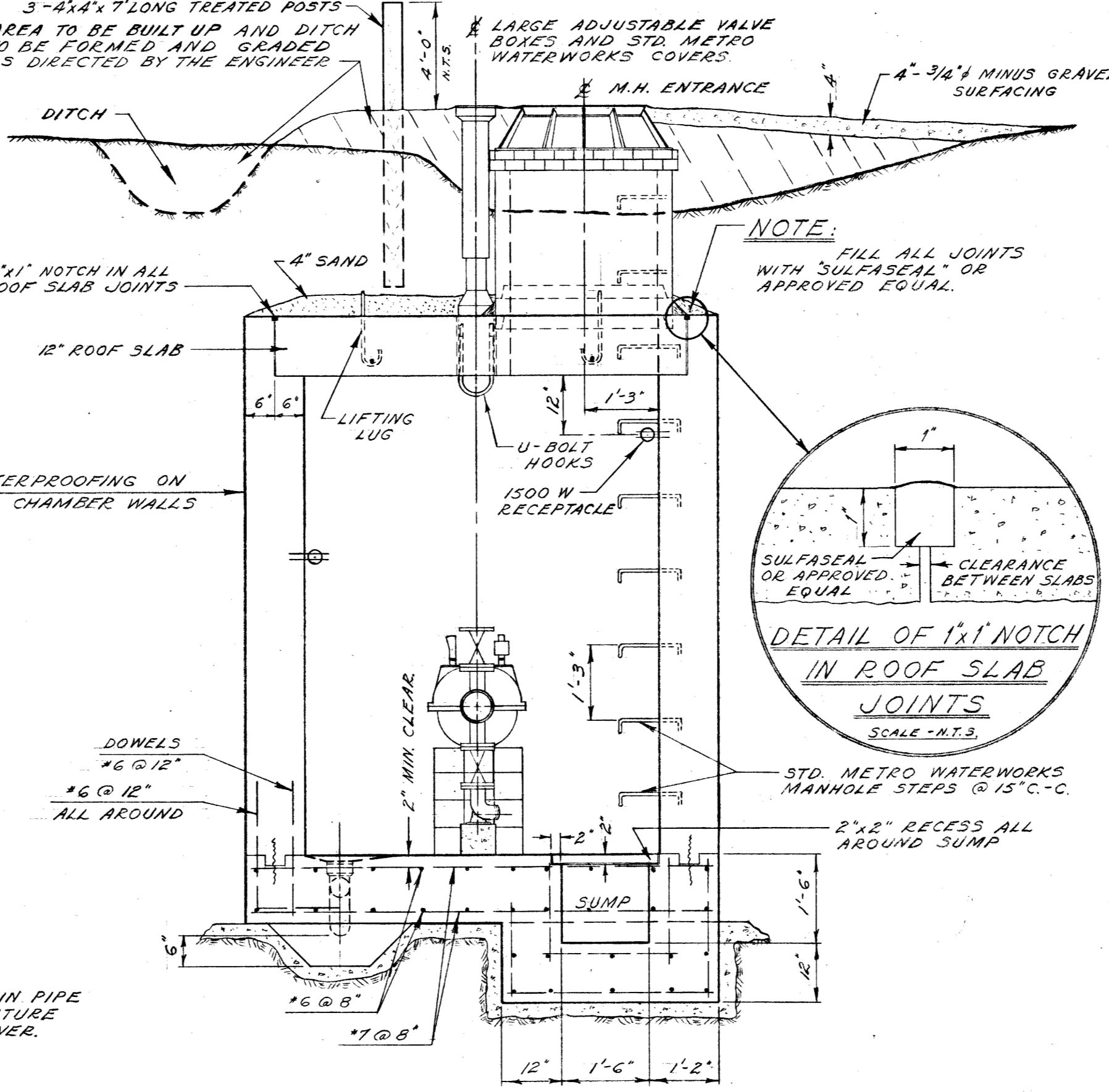
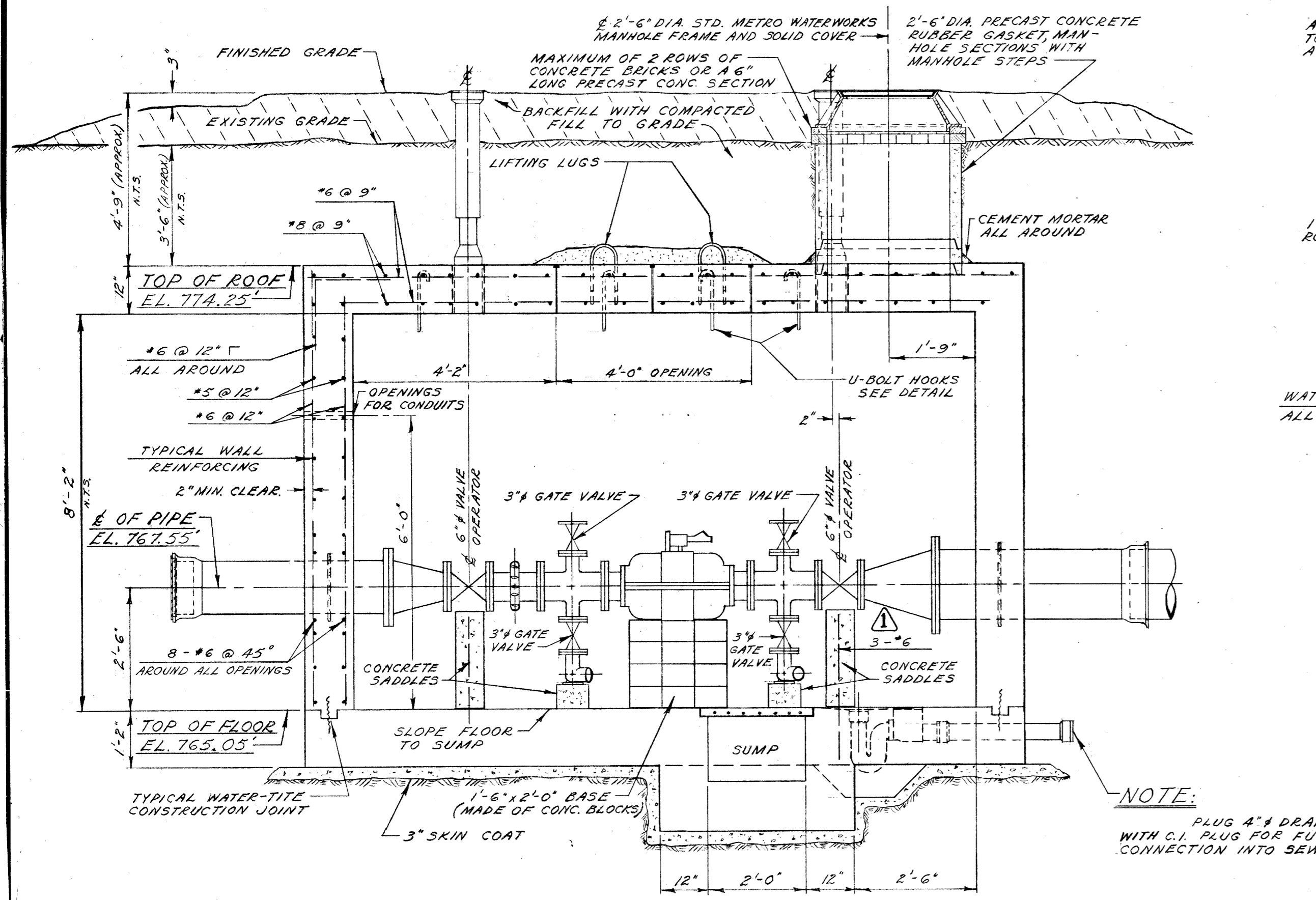
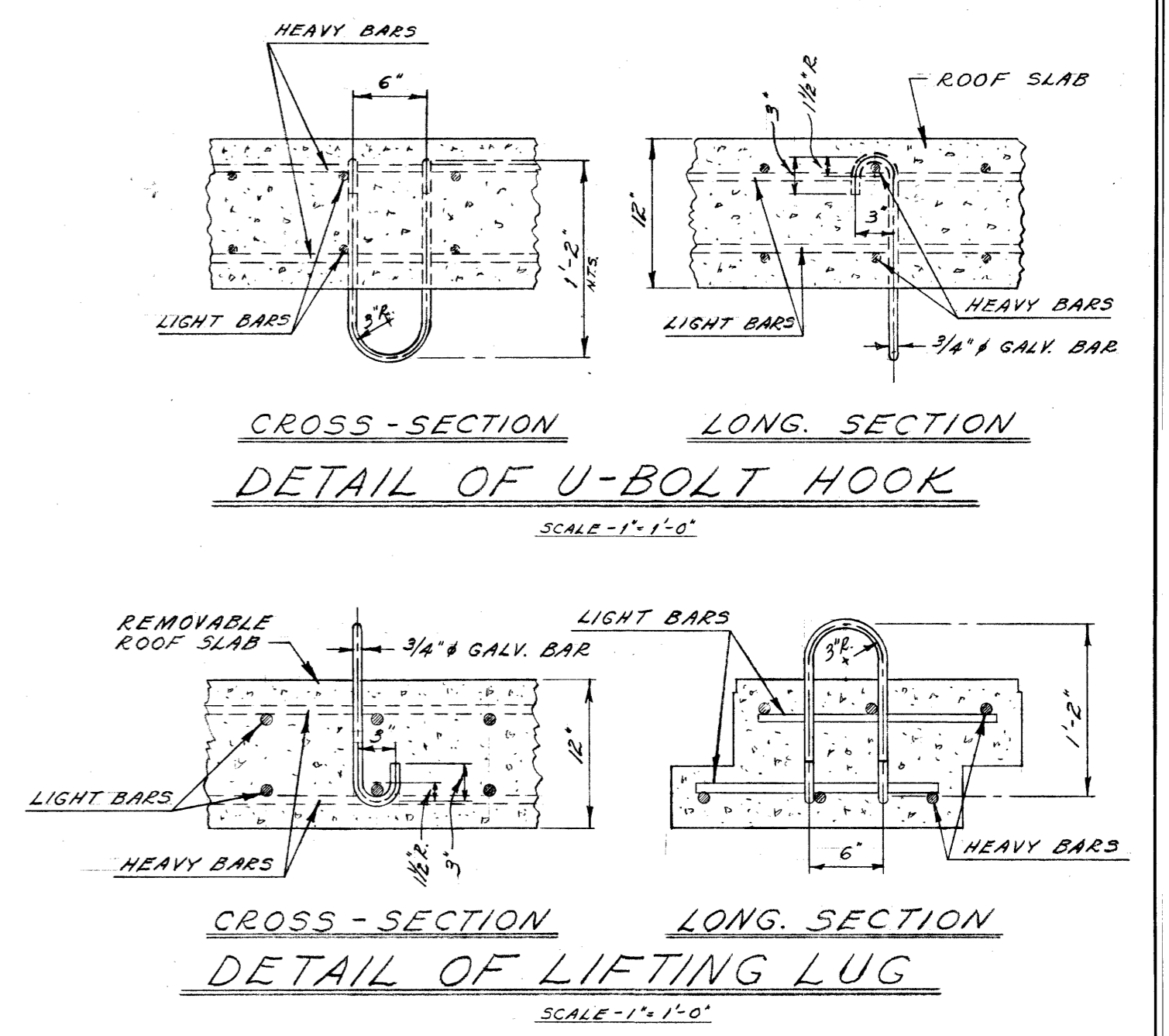
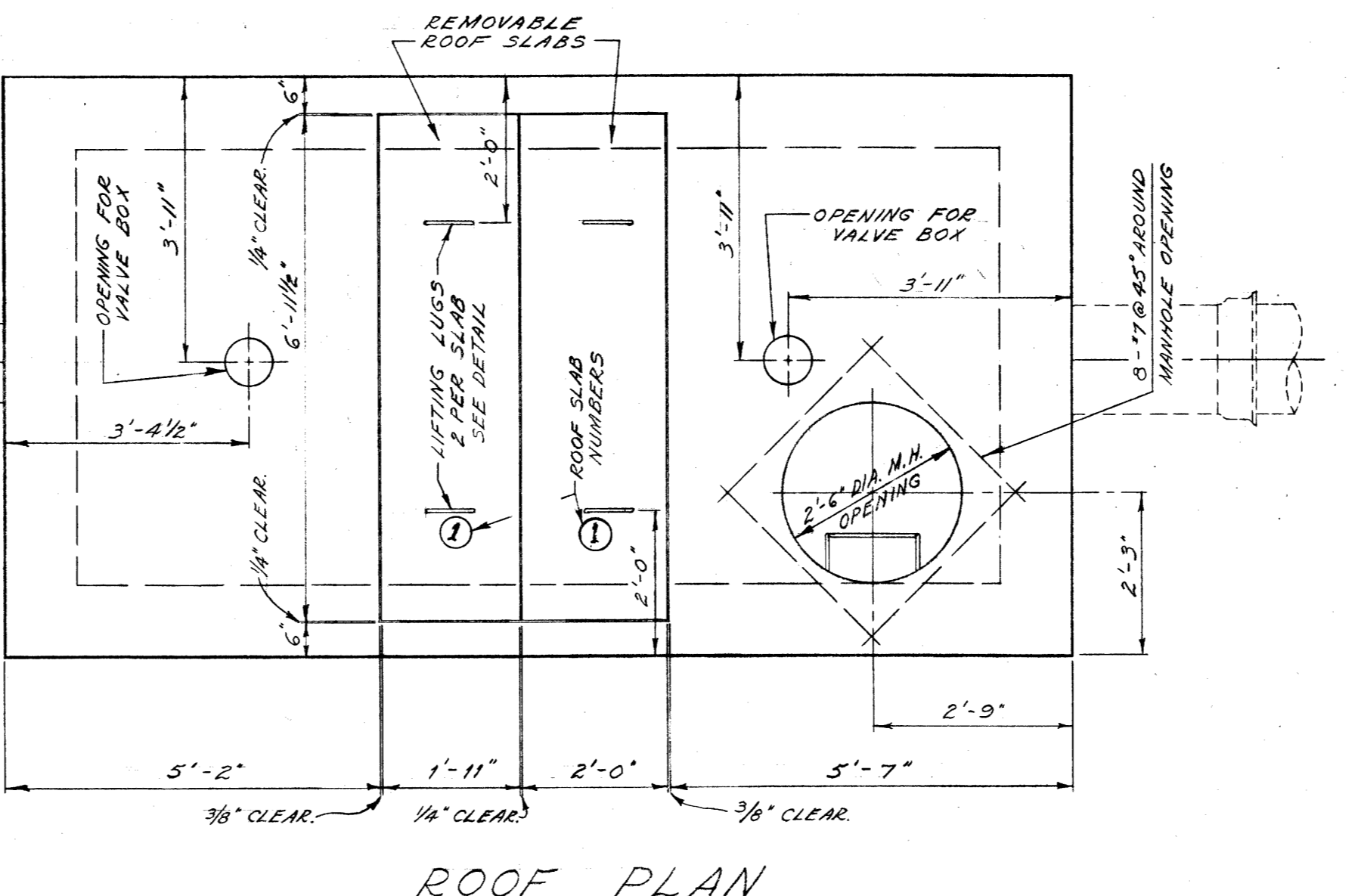
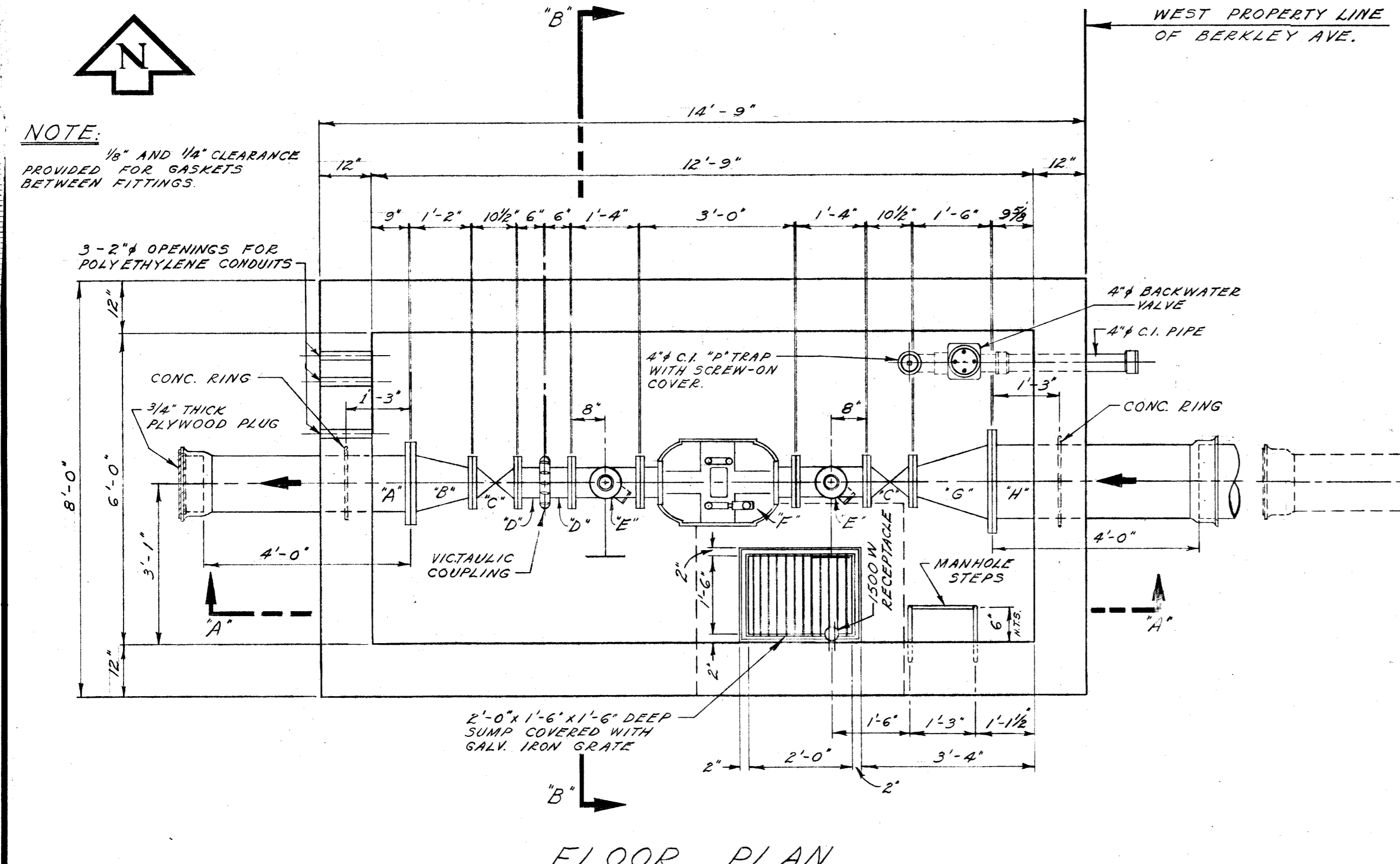
REVISIONS

NO.	DESCRIPTION	DATE	BY
1	AS CONSTRUCTED	6 AUG 65	IB
2			
3			
4			
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6			
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8			

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
WATERWORKS & WASTE DISPOSAL DIVISION - WATERWORKS DEPT.
 CHARLESWOOD - ASSINIBOIA FEEDERMAIN
30" DIA. MAIN LINE VALVE CHAMBER

APPROVED BY: [Signature]
 DESIGNED BY: W. S. B.
 CHECKED BY: G. E. B.
 DRAWN BY: J. H.
 DATE: 21 JULY 64
 SCALE: AS NOTED.

DRAWING NO. **D-1086**



- NOTES:**
- ALL PRECAST CHAMBER SLABS ARE TO BE NUMBERED ON THE UNDERSIDE IN THE ORDER BY WHICH THEY CAN BE REMOVED. CAST IN TYPICAL HOUSE NUMBERS.
 - PLACE BUILDING PAPER BETWEEN VALVES AND CONCRETE SADDLES, BETWEEN ELBOWS AND CONCRETE SADDLES AND BETWEEN CONCRETE BASE AND METER.
 - ALL EXTERIOR AND INTERIOR CORNERS, INCLUDING PRECAST SLABS TO BE CHAMFERED AS SPECIFIED IN THE SPECIFICATIONS.
 - VICTAULIC COUPLING TO BE STYLE #44.
 - FITTINGS REQUIRED FOR EACH 6"x6"x3"x3" CROSS (ITEM 'E') ON THE TOP 3" OUTLET
3" C.I. GATE VALVE FLANGED WITH BRONZE TRIM ON THE BOTTOM 3" OUTLET
3" C.I. GATE VALVE FLANGED WITH BRONZE TRIM. 3" - 90° GALV. BASE ELBOW (FLANGE TO SCREW). JOIN ELBOW TO VALVE WITH SCREW END DIRECTED TOWARDS MANHOLE OPENING.
 - ALL FITTINGS TO BE MADE OF BRONZE UNLESS SPECIFIED OTHERWISE.
 - SEE DWG. C-480 FOR ELECTRICAL REQUIREMENTS.

LIST OF MATERIALS FOR METER PIT

ITEM	DESCRIPTION	LENGTH
A	12" C.I. SHORT (RING-TITE BELL TO FLANGE).	4'-0"
B	6"x12" C.I. INCREASER FLANGED.	1'-2"
C	2'-6" GATE VALVES FLANGED.	0'-10 1/2"
D	2'-6" C.I. FILLER PIECES (FLANGE TO VICTAULIC).	0'-6"
E	2'-6"x6"x3"x3" C.I. CROSS FLANGED.	1'-4"
F	6" MAGNETIC - FLOW METER FLANGED.	3'-0"
G	16"x6" C.I. REDUCER FLANGED.	1'-6"
H	16"x6" C.I. SHORT (FLANGE TO BELL).	4'-0"

NOTE: ITEM 'A' TO HAVE A CONCRETE RING 1'-3" FROM THE FLANGED END AND ITEM 'H' TO HAVE A CONCRETE RING 1'-3" FROM THE FLANGED END.
METRO CORPORATION WILL SUPPLY ITEMS 'C' (6" GATE VALVES), ITEM 'F' (METER) AND A 6" VICTAULIC COUPLING.

DETAIL OF METER PIT
SCALE - 1/2" = 1'-0"

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	REINFORCING STEEL ADDED TO CONCRETE SADDLES.	1/22/94	S.K.
2	AS CONSTRUCTED	6 AUG 95	IB
3	REVISED TITLE	09 1990	EN
4			
5			
6			
7			
8			

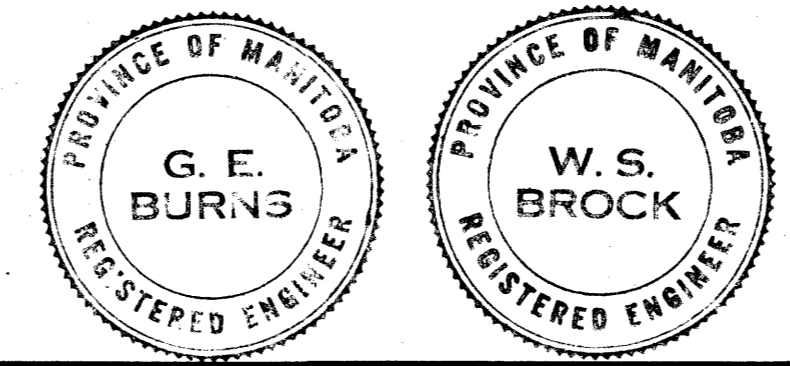
THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
WATERWORKS & WASTE DISPOSAL DIVISION
WATERWORKS DEPT.

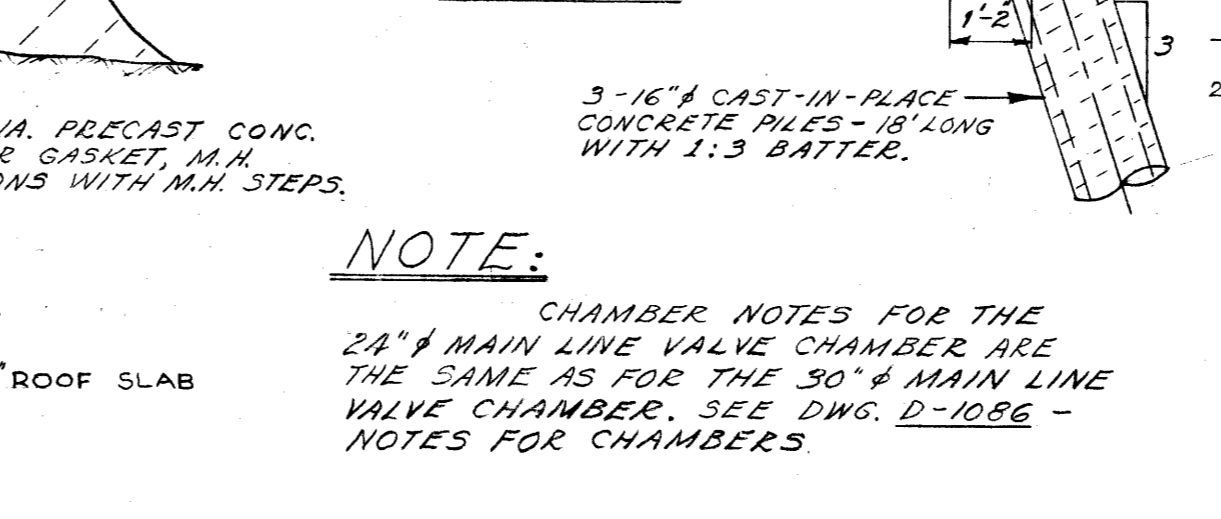
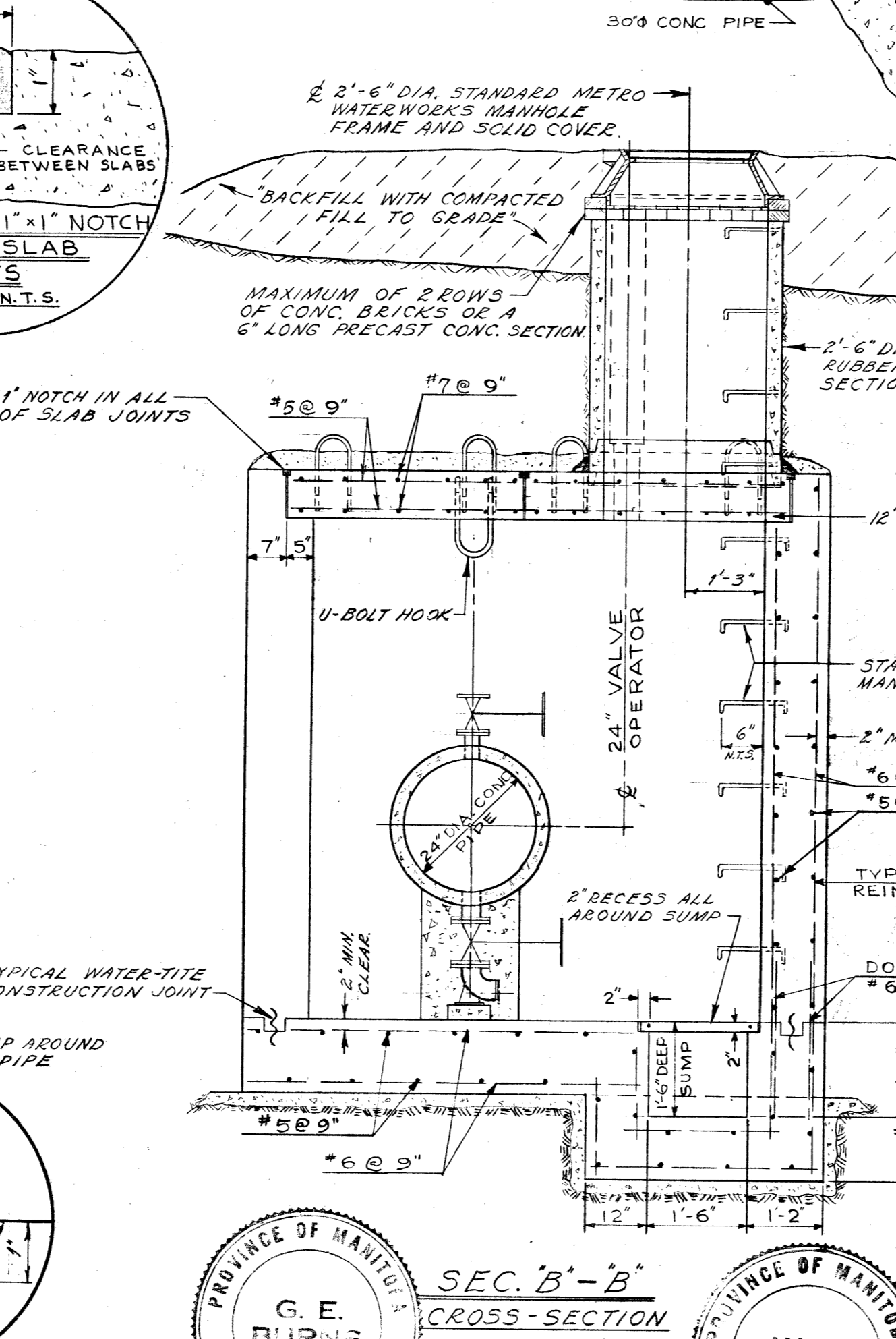
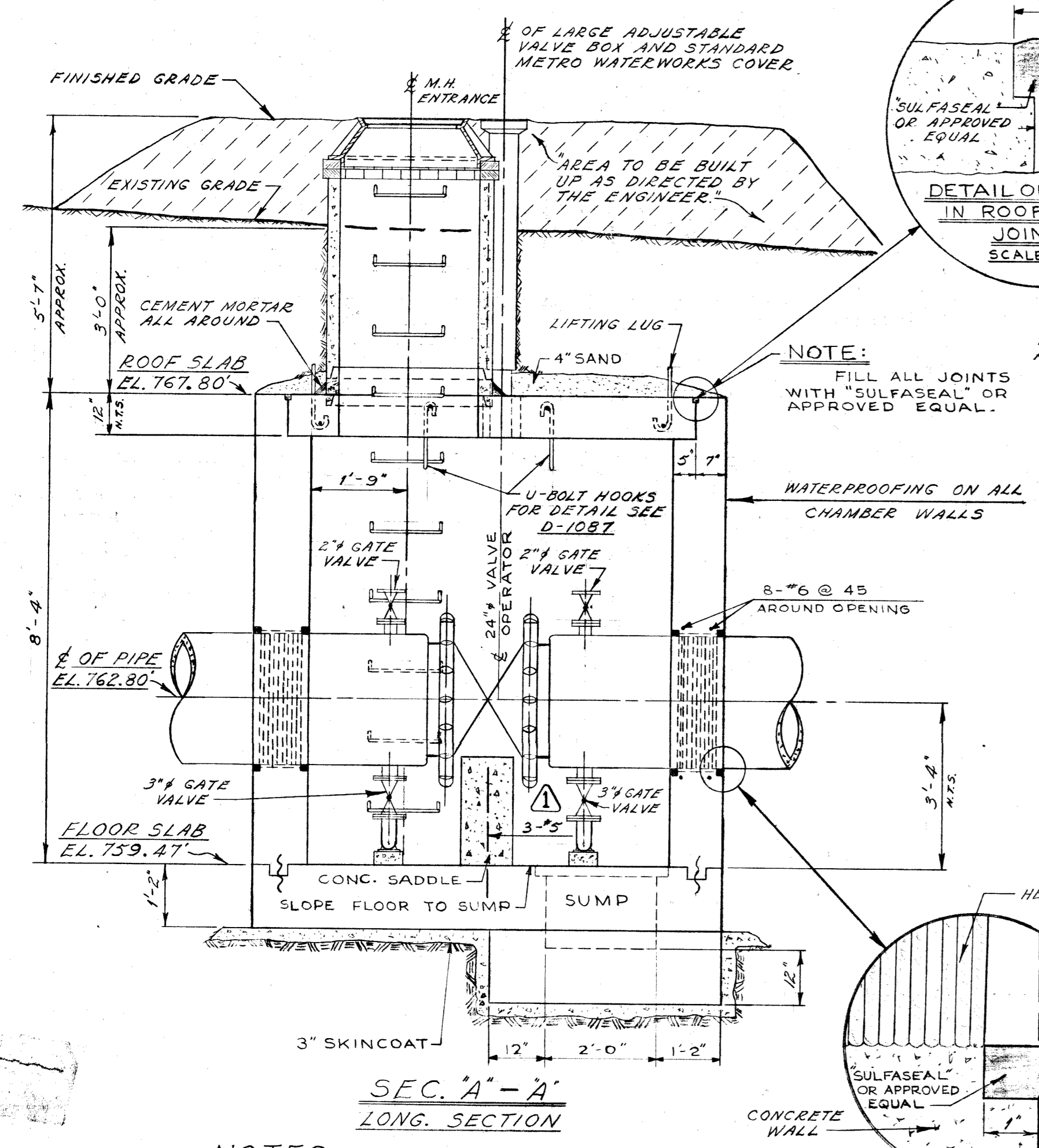
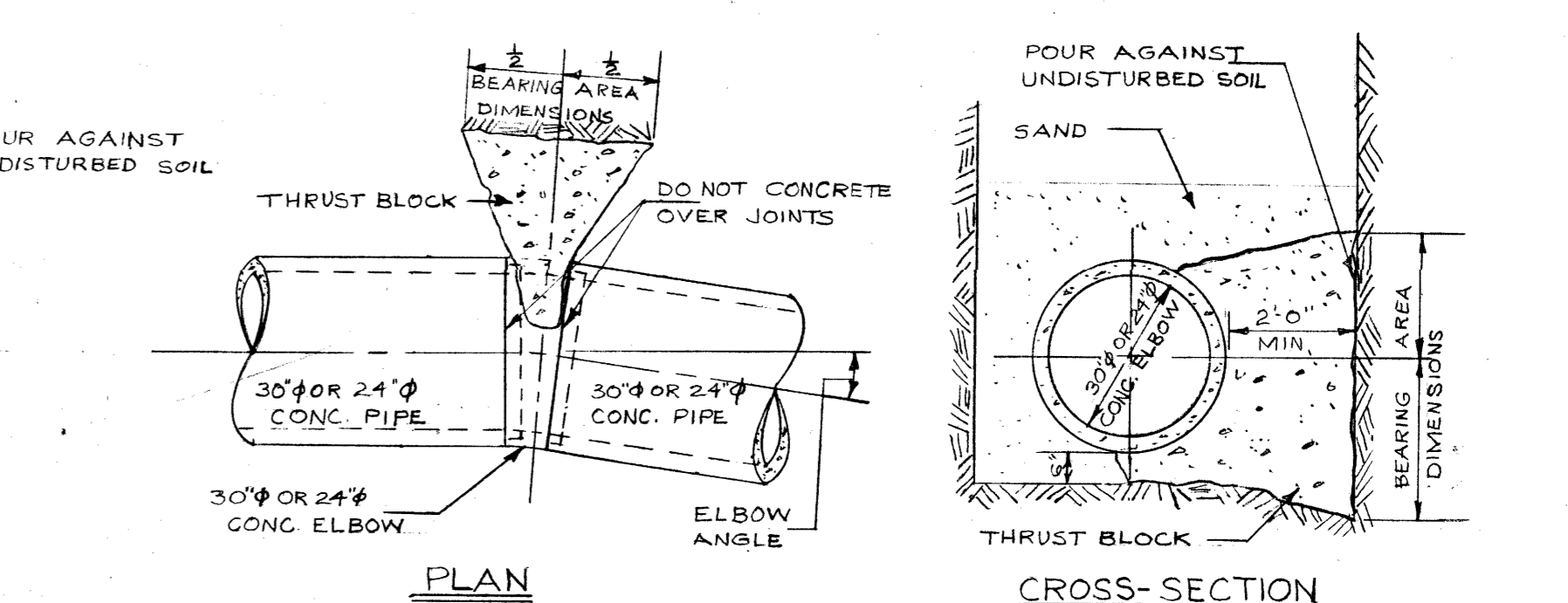
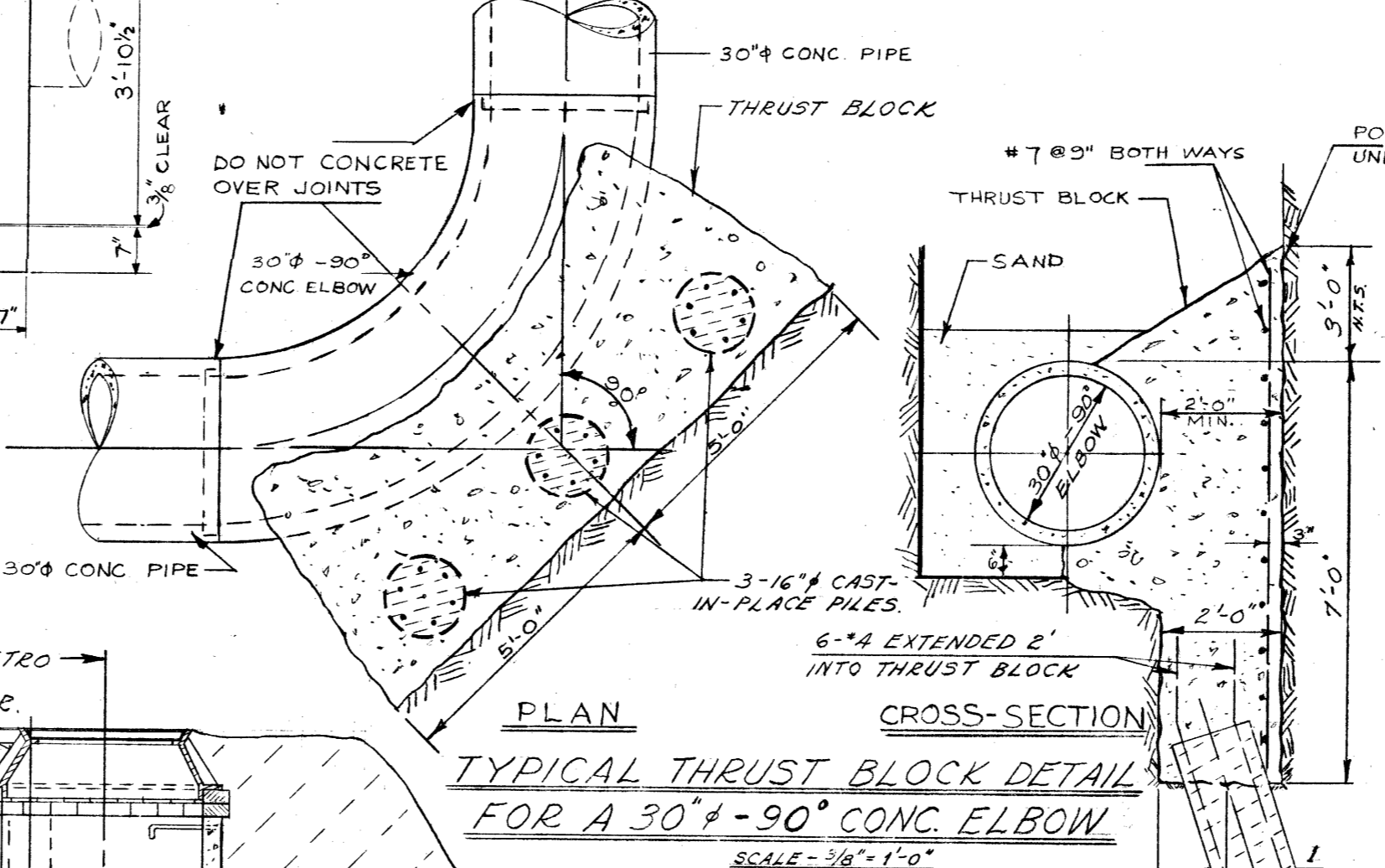
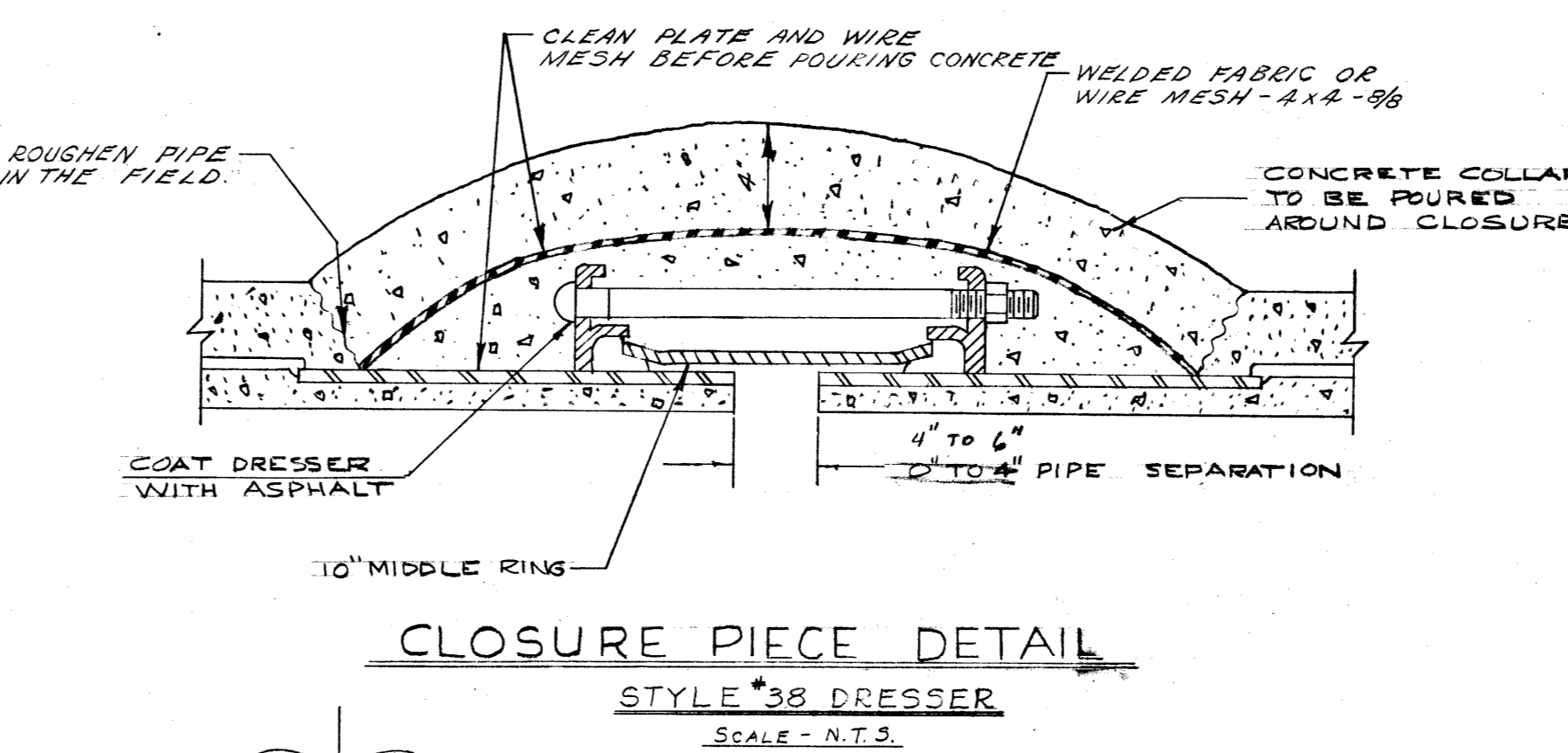
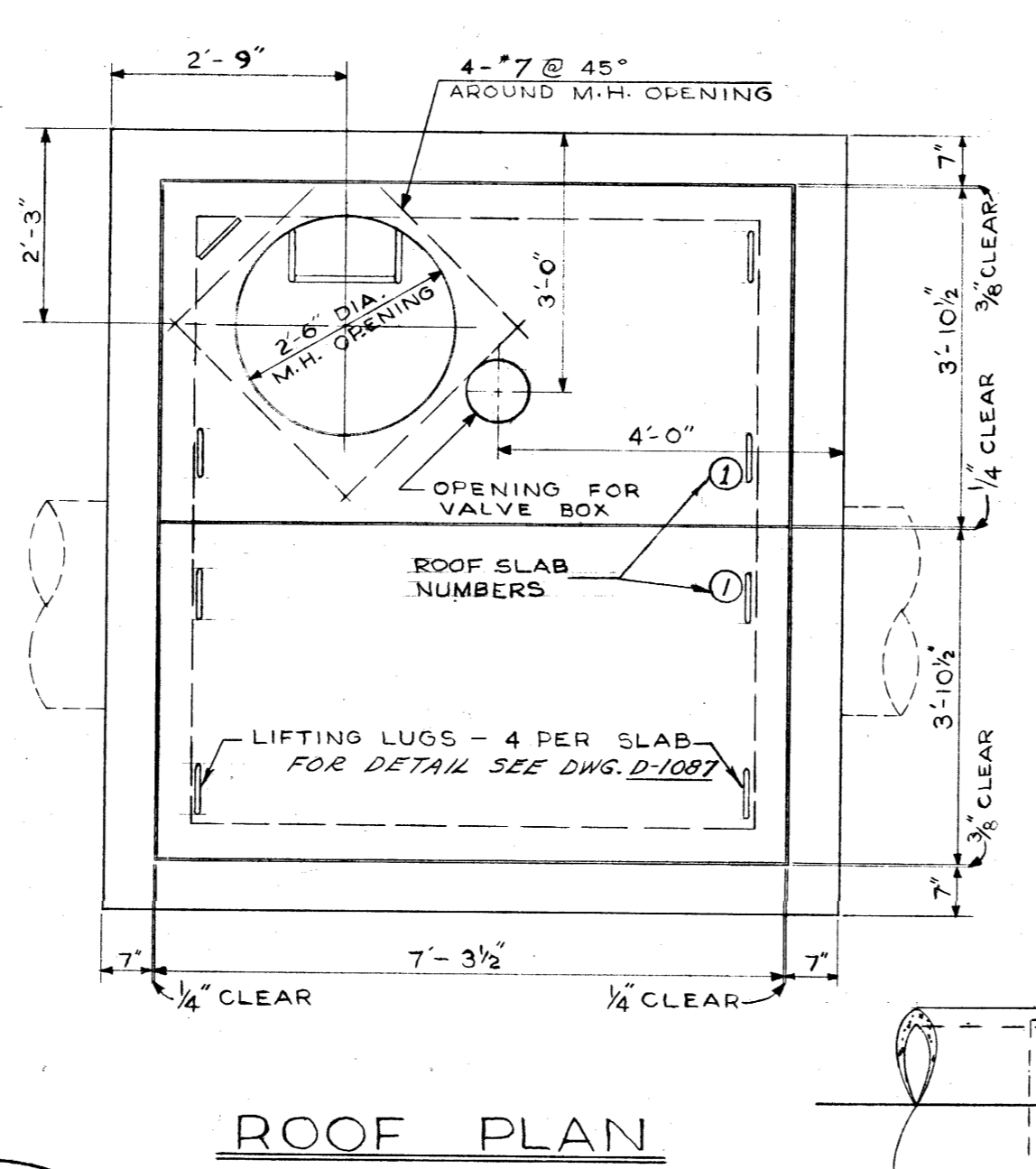
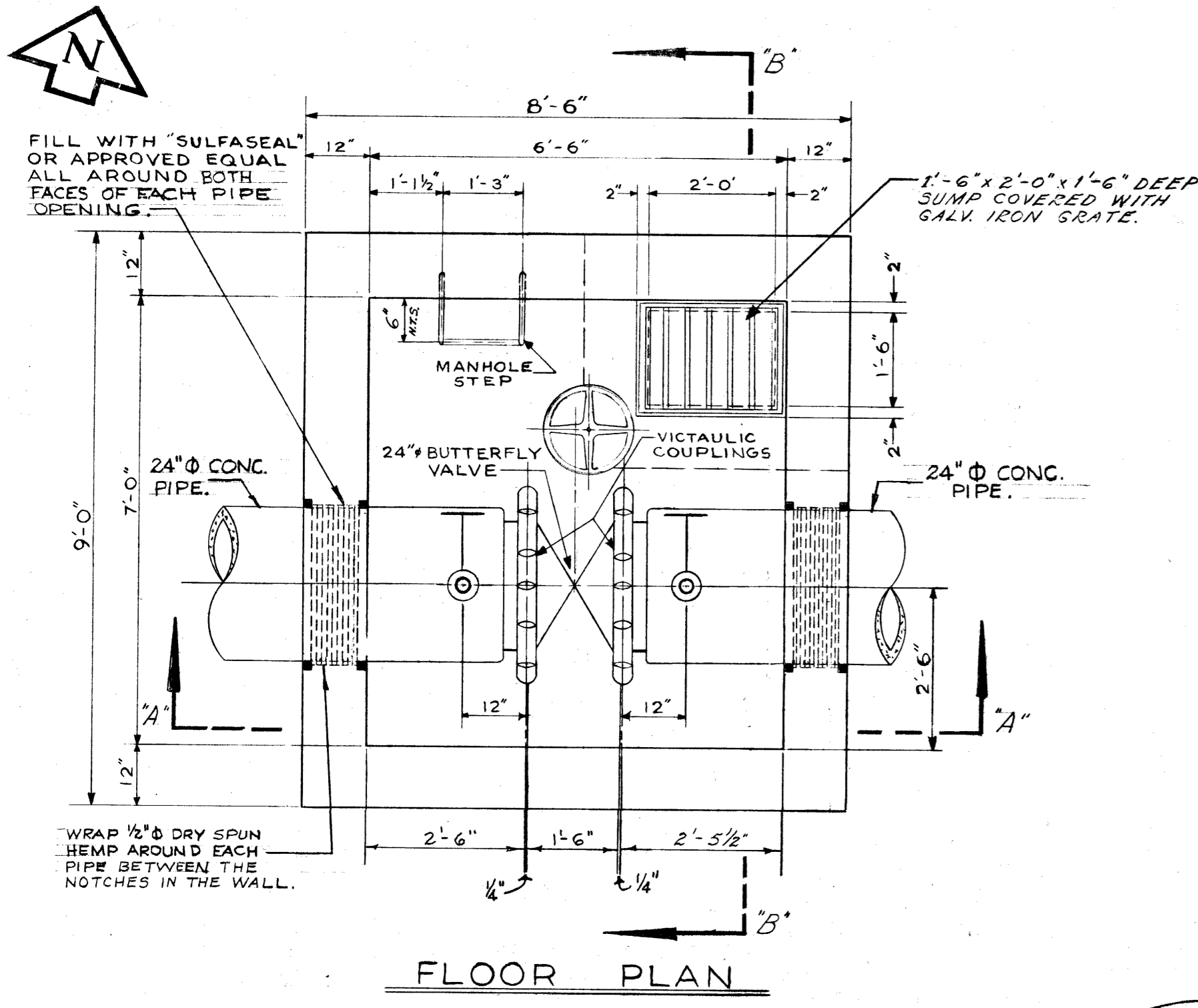
CHARLESWOOD - ASSINIBOIA FEEDERMAIN
METER PIT
ON BETSWORTH ST. AT BERKLEY AVE. AND MISC. DETAILS

APPROVED BY: *[Signature]*
DESIGNED BY: W. S. B.
DATE: 21 JULY 94
DRAWN BY: S.K.
CHECKED BY: G. E. B.
DATE: 21 JULY 94
CHIEF ENGINEER

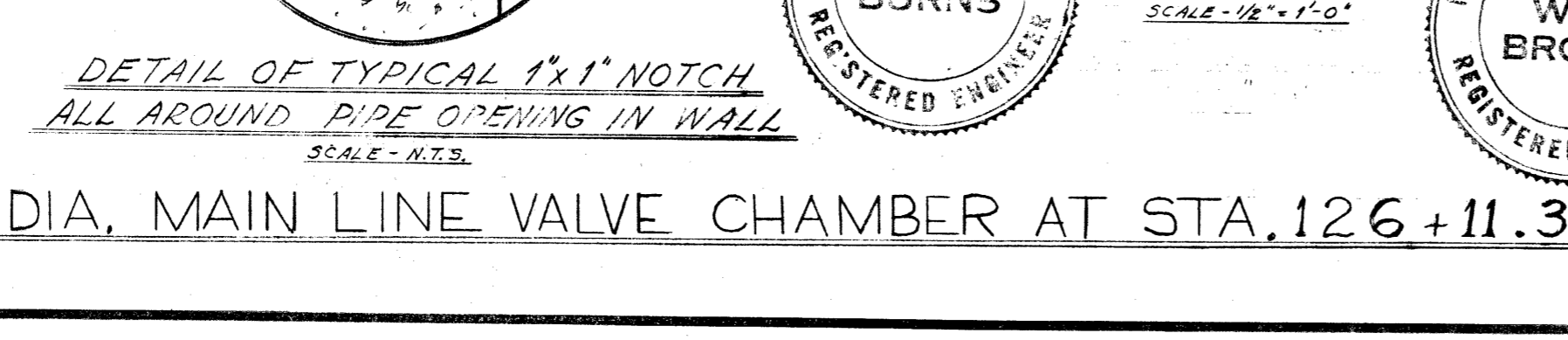
DRAWING NO. **D-1087**

SCALES: AS NOTED





- NOTES**
- FITTINGS REQUIRED FOR EACH 24" PIPE IN CHAMBER ON TOP OF PIPE.
 - 2" NIPPLE (SCREW TO SCREW-ON-FLANGE) - SUPPLIED WITH PIPE.
 - 2" GATE VALVE FLANGED ON BOTTOM OF PIPE.
 - 3 1/4" NIPPLE (SCREW TO SCREW-ON-FLANGE) - SUPPLIED WITH PIPE.
 - 3 1/4" GATE VALVE FLANGED WITH BRASS TRIM.
 - 3 1/4" 90° GALV. BASE ELBOW (FLANGE TO SCREW), JOIN ELBOW TO VALVE WITH SCREW END DIRECTED TOWARDS MANHOLE OPENING.
 - ALL FITTINGS TO BE MADE OF BRONZE UNLESS SPECIFIED OTHERWISE.



LIST OF THRUST BLOCKS

NO.	LOCATION	ANGLE	BEARING AREA	NO. OF PILES	LENGTH OF PILES
2	30° ELBOW AT P.I. STA. 47+73.90	90° 00' 00"	10'-0" x 10'-0"	3	18'-0"
3	30° ELBOW AT P.I. STA. 50+17.60	90° 00' 00"	10'-0" x 10'-0"	3	18'-0"
4	30° ELBOW AT P.I. STA. 54+68.20	90° 00' 00"	10'-0" x 10'-0"	3	18'-0"
5	30° ELBOW AT P.I. STA. 55+27.62	90° 00' 00"	10'-0" x 10'-0"	3	18'-0"
6	30° ELBOW AT P.I. STA. 64+76.64	90° 00' 00"	10'-0" x 10'-0"	3	18'-0"
7	30° ELBOW AT P.I. STA. 65+94.64	90° 00' 00"	10'-0" x 10'-0"	3	18'-0"
8	30° ELBOW AT P.I. STA. 86+75.00	7° 50' 00"	4'-0" x 3'-0"	—	—
9	30° ELBOW AT P.I. STA. 87+37.79	7° 50' 00"	4'-0" x 3'-0"	—	—
10	24" ELBOW AT P.I. STA. 115+92.80	5° 00' 00"	3'-0" x 3'-0"	—	—
11	24" ELBOW AT P.I. STA. 115+97.50	5° 00' 00"	3'-0" x 3'-0"	—	—

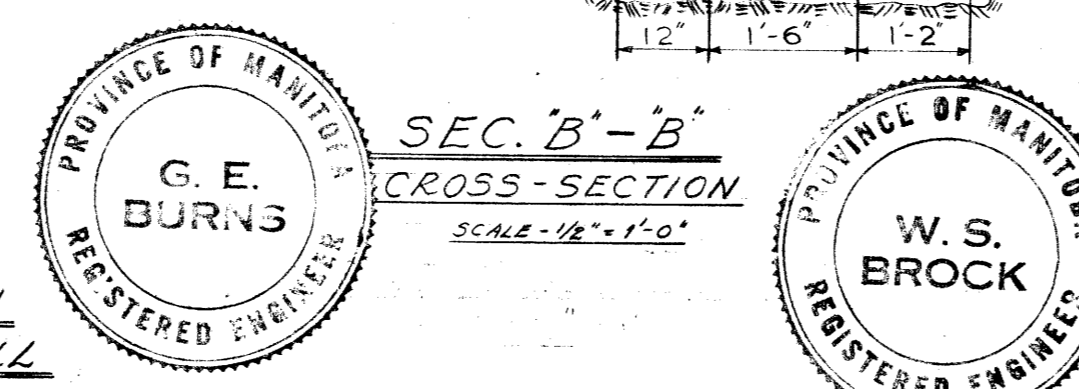
REVISIONS

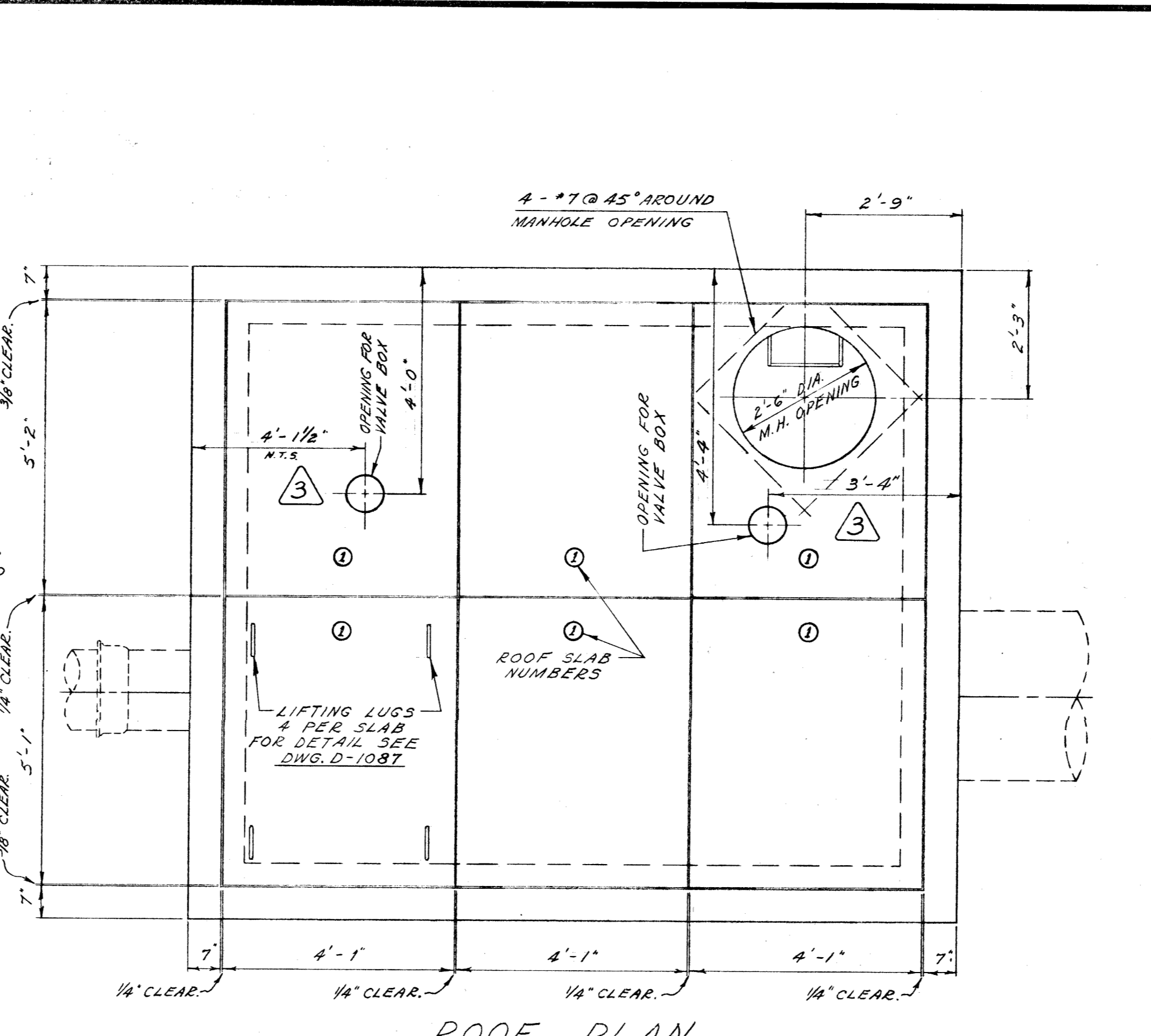
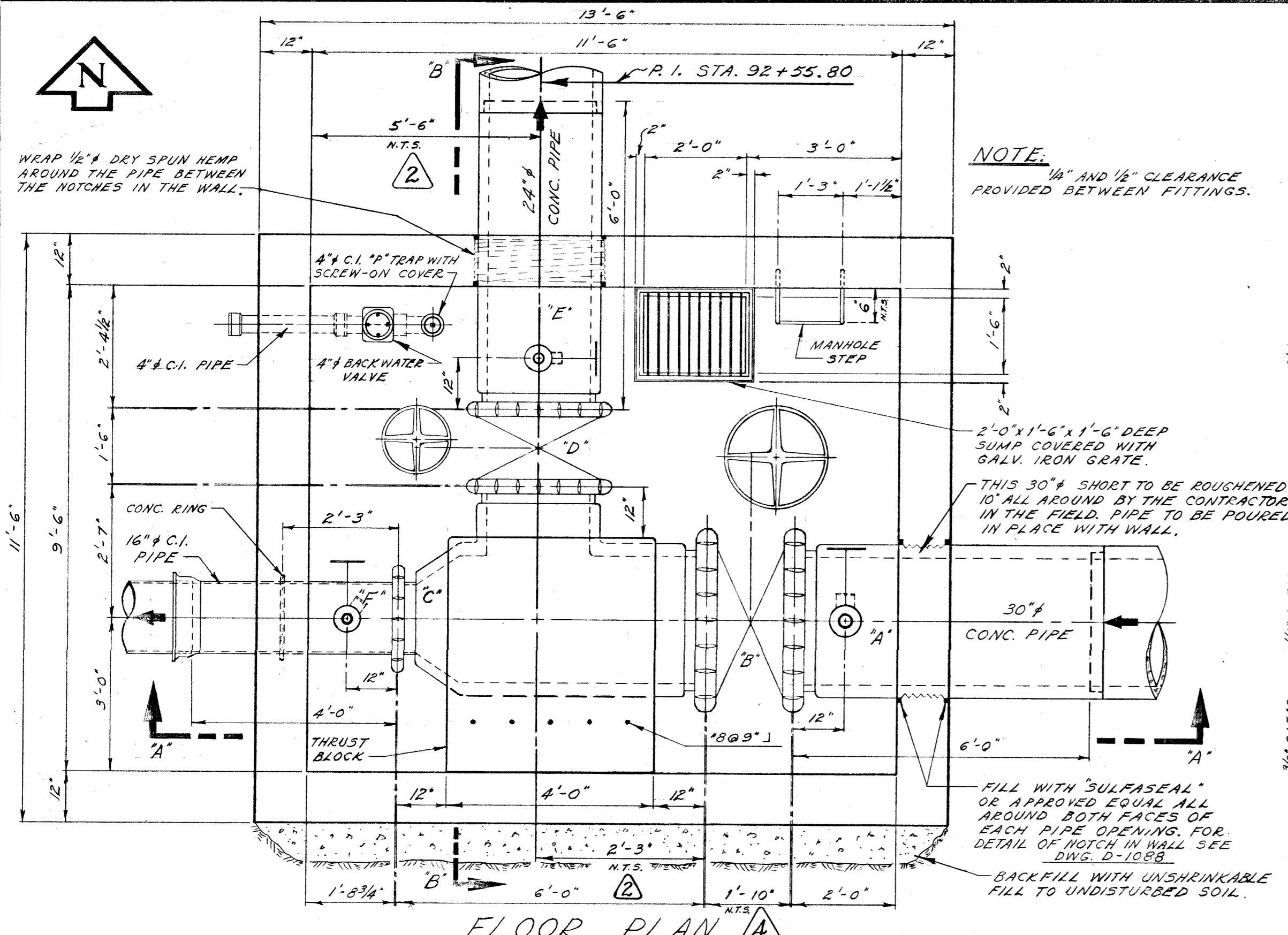
NO.	DESCRIPTION	DATE	BY
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2	AS CONSTRUCTED	6 AUG 65	EN
3	REVISED TITLE	09 1990	EN
4			
5			
6			
7			
8			

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
WATERWORKS & WASTE DISPOSAL DIVISION
 WATERWORKS DEPT.
CHARLESWOOD-ASSINIBOIA FEEDERMAIN
24" FEEDERMAIN MAIN LINE VALVE CHAMBER
THRUST BLOCKS AND MISC. DETAILS

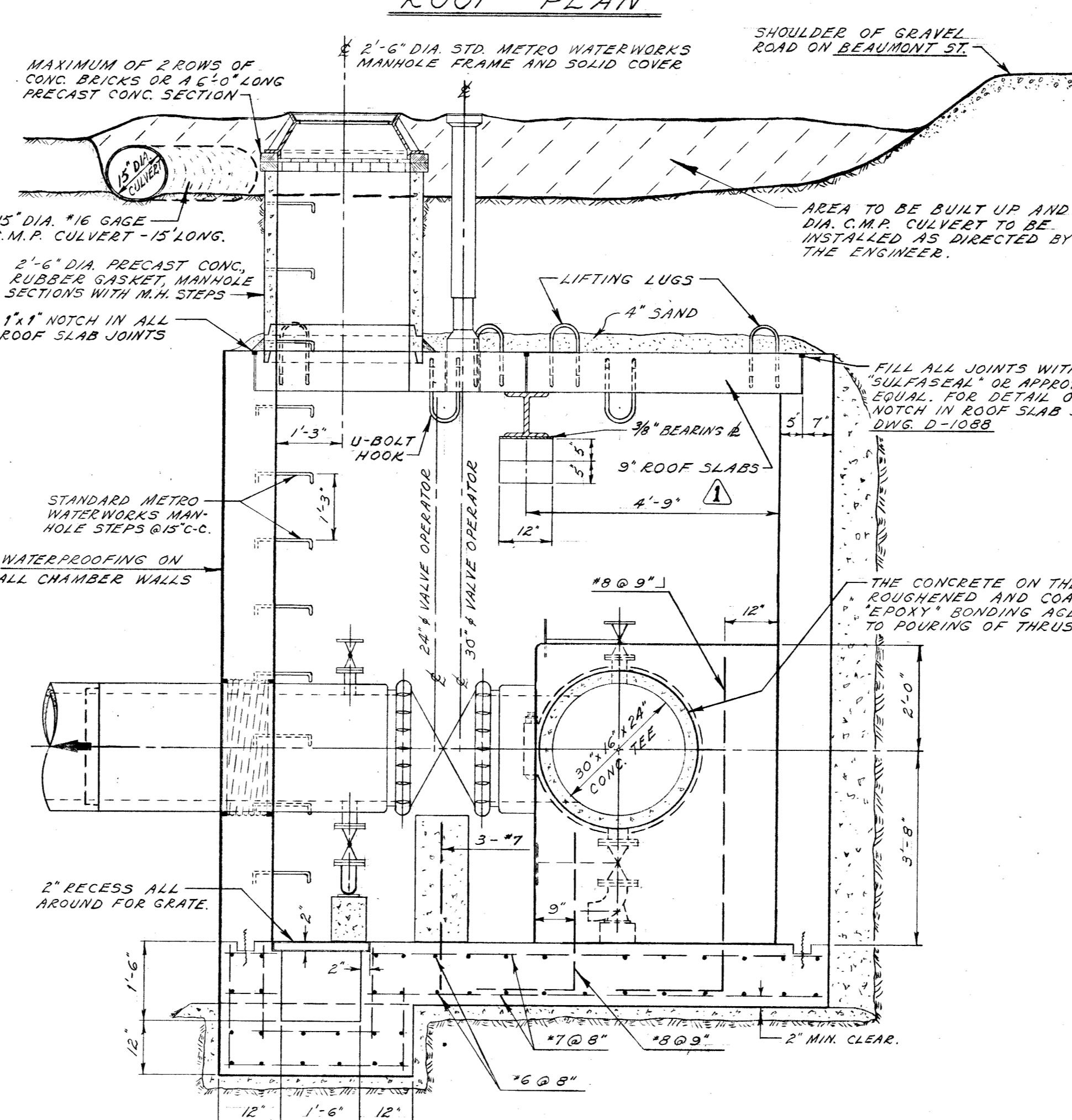
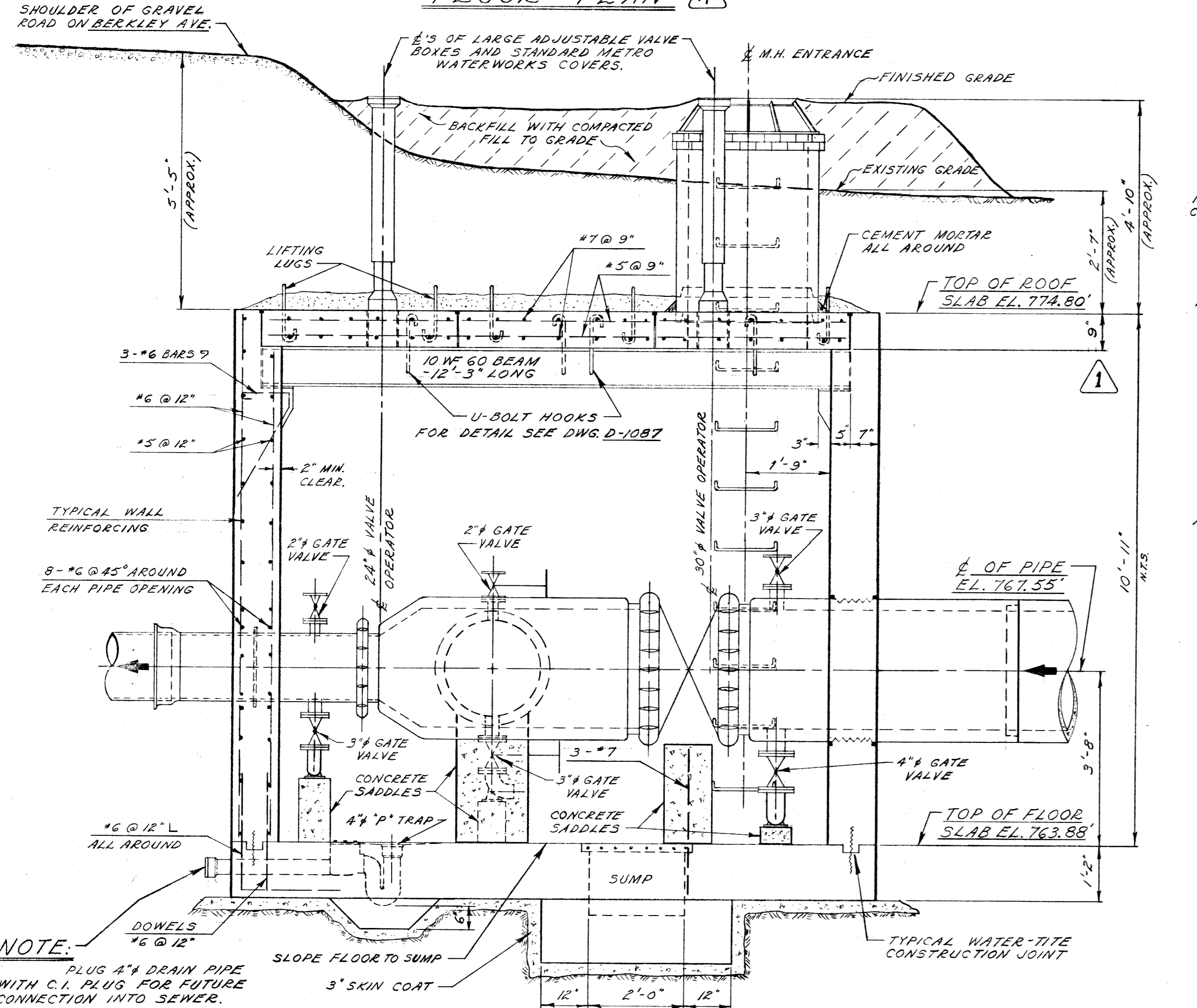
APPROVED BY: *[Signature]*
 DESIGNED BY: W.S.B.
 CHECKED BY: G.E.B.
 DRAWN BY: A.C. P. & C.
 DATE: 21 JULY 64
 SCALE: AS NOTED

DRAWING NO. **D-1088**





- NOTES:**
1. ALL PRECAST CHAMBER SLABS ARE TO BE NUMBERED ON THE UNDERSIDE IN THE ORDER BY WHICH THEY CAN BE REMOVED. CAST IN TYPICAL HOUSE NUMBERS.
 2. PLACE BUILDING PAPER BETWEEN VALVES AND CONCRETE SADDLES AND BETWEEN ELBOWS AND CONCRETE SADDLES.
 3. ALL CONCRETE SADDLES FOR VALVES SHALL HAVE 3-#7 BARS OF REINFORCING.
 4. VICTAULIC COUPLINGS TO BE STYLE #44.
 5. ALL EXTERIOR AND INTERIOR CORNERS, INCLUDING PRECAST CONC. SLABS TO BE CHAMFERED AS SPECIFIED IN THE SPECIFICATIONS.
 6. FITTINGS REQUIRED FOR ITEM "A" (30" # CONC. SHORT)
 - ON TOP OF PIPE
 - 3" # NIPPLE (SCREW TO SCREW-ON-FLANGE) - SUPPLIED WITH PIPE.
 - 3" # C.I. GATE VALVE FLANGED WITH BRONZE TRIM.
 - ON BOTTOM OF PIPE
 - 4" # NIPPLE (SCREW TO SCREW-ON-FLANGE) - SUPPLIED WITH PIPE
 - 4" # C.I. GATE VALVE FLANGED WITH BRONZE TRIM.
 - 4" # -90° GALV. BASE ELBOW (FLANGE TO SCREW). JOIN ELBOW TO VALVE WITH SCREW END DIRECTED TOWARDS MANHOLE OPENING.
 7. FITTINGS REQUIRED FOR ITEM "E" (24" # CONC. SHORT)
 - ON TOP OF PIPE
 - 2" # NIPPLE (SCREW TO SCREW-ON-FLANGE) - SUPPLIED WITH PIPE
 - 2" # GATE VALVE FLANGED.
 - ON BOTTOM OF PIPE
 - 3" # NIPPLE (SCREW TO SCREW-ON-FLANGE) - SUPPLIED WITH PIPE.
 - 3" # C.I. GATE VALVE FLANGED WITH BRONZE TRIM.
 - 3" # -90° GALV. BASE ELBOW (FLANGE TO SCREW). JOIN ELBOW TO VALVE WITH SCREW END DIRECTED TOWARDS MANHOLE OPENING.
 8. FITTINGS REQUIRED FOR ITEM "F" (16" # C.I. SHORT)
 - ON TOP OF PIPE
 - 2" # NIPPLE (SCREW TO SCREW-ON-FLANGE)
 - 2" # GATE VALVE FLANGED.
 - ON BOTTOM OF PIPE
 - 3" # NIPPLE (SCREW TO SCREW-ON-FLANGE)
 - 3" # C.I. GATE VALVE FLANGED WITH BRONZE TRIM.
 - 3" # -90° GALV. BASE ELBOW (FLANGE TO SCREW). JOIN ELBOW TO VALVE WITH SCREW END DIRECTED TOWARDS MANHOLE OPENING.
 9. ALL FITTINGS TO BE MADE OF BRONZE UNLESS SPECIFIED OTHERWISE.

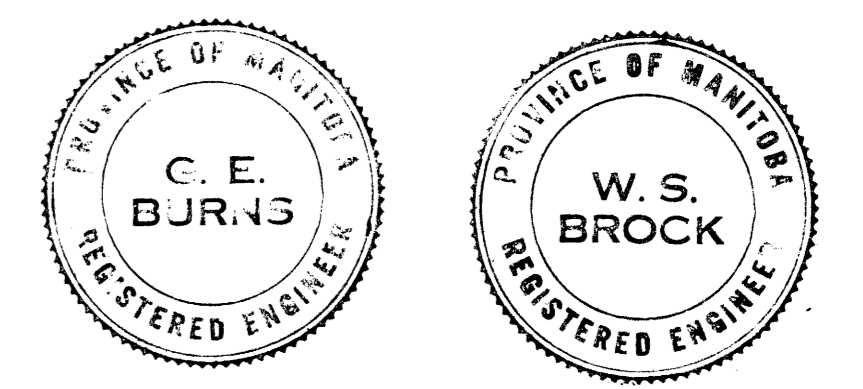


LIST OF MATERIALS FOR OFFTAKE CHAMBER

ITEM	DESCRIPTION	LENGTH
A	30" # CONC. SHORT (SPIGOT END TO VICTAULIC).	6'-0"
B	30" # VICTAULIC BUTTERFLY VALVE.	1'-10"
C	30"x16"x24" CONC. TEE (VICT. TO VICT. TO VICT. BRANCH).	6'-0"
D	24" # VICTAULIC BUTTERFLY VALVE.	1'-6"
E	24" # CONC. SHORT (VICTAULIC TO BELL).	6'-0"
F	16" # C.I. SHORT (VICTAULIC TO BELL).	4'-0"

NOTE:

- - METRO CORPORATION WILL SUPPLY ALL ITEMS, EXCEPT ITEM "F" (16" # C.I. SHORT), ITEM "E" AND ALL FITTINGS TO BE SUPPLIED BY THE CONTRACTOR.
- ▲ - ITEM "F" TO HAVE A CONCRETE RING 2'-3" FROM THE VICTAULIC END. ALSO ITEM "E" TO HAVE A 2" # TAPPED HOLE ON TOP AND A 3" # TAPPED HOLE ON THE BOTTOM.

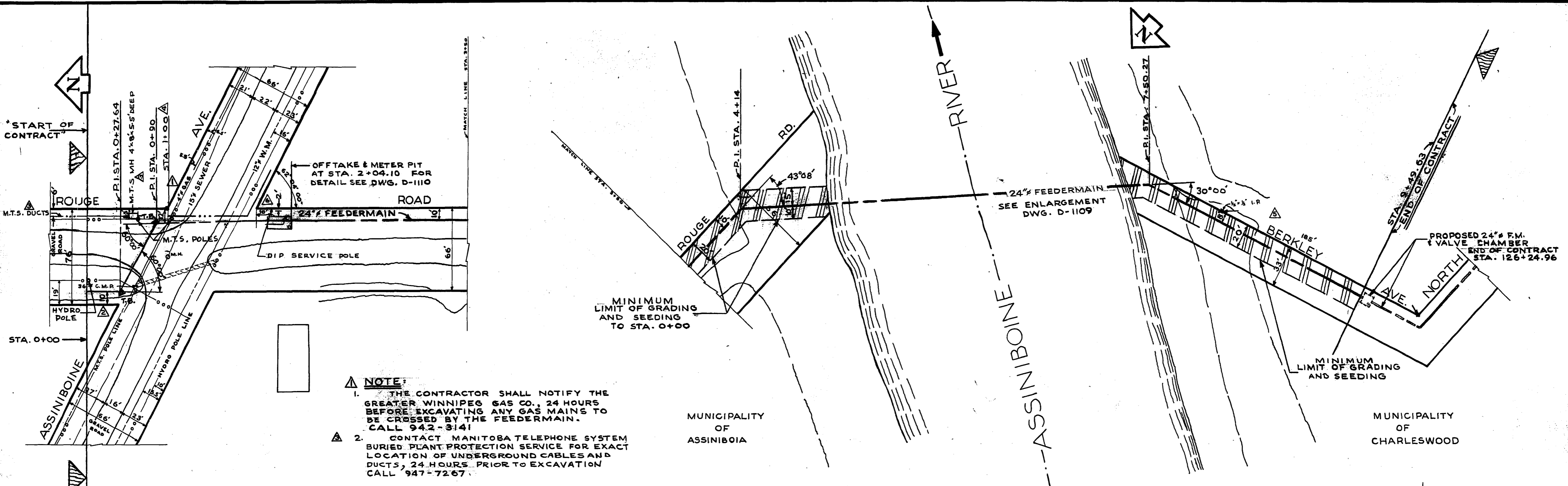


REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	ROOF SLABS THICKNESS CHANGED FROM 12" TO 9"	26 DEC 68	S.K.
2	DIMENSIONS FOR 30"x16"x24" TEE ADDED	2 DEC 68	S.K.
3	DIMENSIONS FOR VALVE BOX OPENINGS IN ROOF SLABS ADDED	2 DEC 68	S.K.
4	30" VALVE DIMENSION CHANGED FROM 1'-6" TO 1'-10"	11 MAR 69	S.K.
5	AS CONSTRUCTED	6 AUG 69	JB
6	TITLE BLOCK REVISED	32 NOV 90	MBD
7			
8			

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
WATERWORKS & WASTE DISPOSAL DIVISION
 WATERWORKS DEPT.
 CHARLESWOOD - ASSINIBOIA FEEDERMAIN
OFFTAKE CHAMBER
 STATION 92+45.96
 ON BETSWORTH AVE. AT BERKLEY STREET

APPROVED BY: *[Signature]* CHIEF ENGINEER
 DESIGNED BY: W.S.B. G.E.B.
 DRAWN BY: S.K. DATE: 21 JULY 68
 CHECKED BY: G.E.B. DATE: 21 JULY 68
 DRAWING NO. **D-1089**

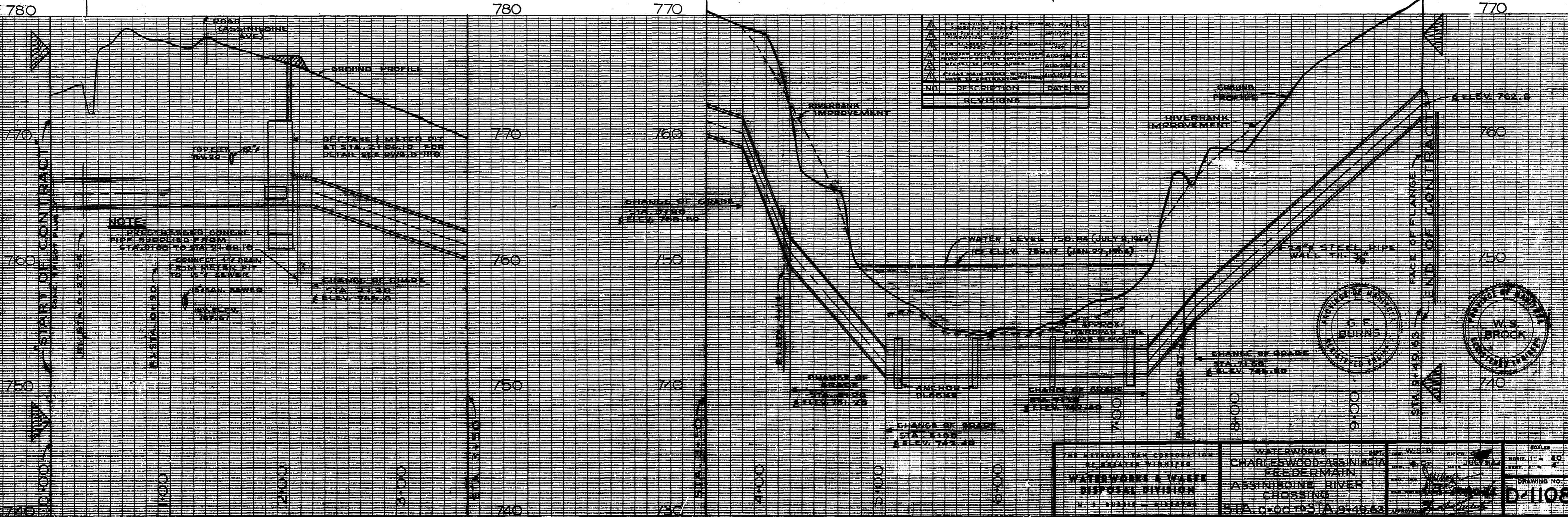
D-1089



- NOTE:**
1. THE CONTRACTOR SHALL NOTIFY THE GREATER WINNIPEG GAS CO., 24 HOURS BEFORE EXCAVATING ANY GAS MAINS TO BE CROSSED BY THE FEEDERMAIN. CALL 942-3141
 2. CONTACT MANITOBA TELEPHONE SYSTEM BURIED PLANT PROTECTION SERVICE FOR EXACT LOCATION OF UNDERGROUND CABLES AND DUCTS, 24 HOURS PRIOR TO EXCAVATION CALL 947-7267.

MUNICIPALITY OF ASSINIBOIA

MUNICIPALITY OF CHARLESWOOD



THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
 WATERWORKS & WASTE DISPOSAL DIVISION
 W. J. BURNS - CHIEF ENGINEER

WATERWORKS CHARLESWOOD-ASSINIBOIA FEEDERMAIN ASSINIBOINE RIVER CROSSING
 STA. 0+00 TO STA. 9+49.63

W.S. BROCK
 ENGINEER

SCALE: HORIZ. 1" = 80' VERT. 1" = 4'

DRAWING NO. **D-1108**

MUNICIPALITY OF ASSINIBOIA

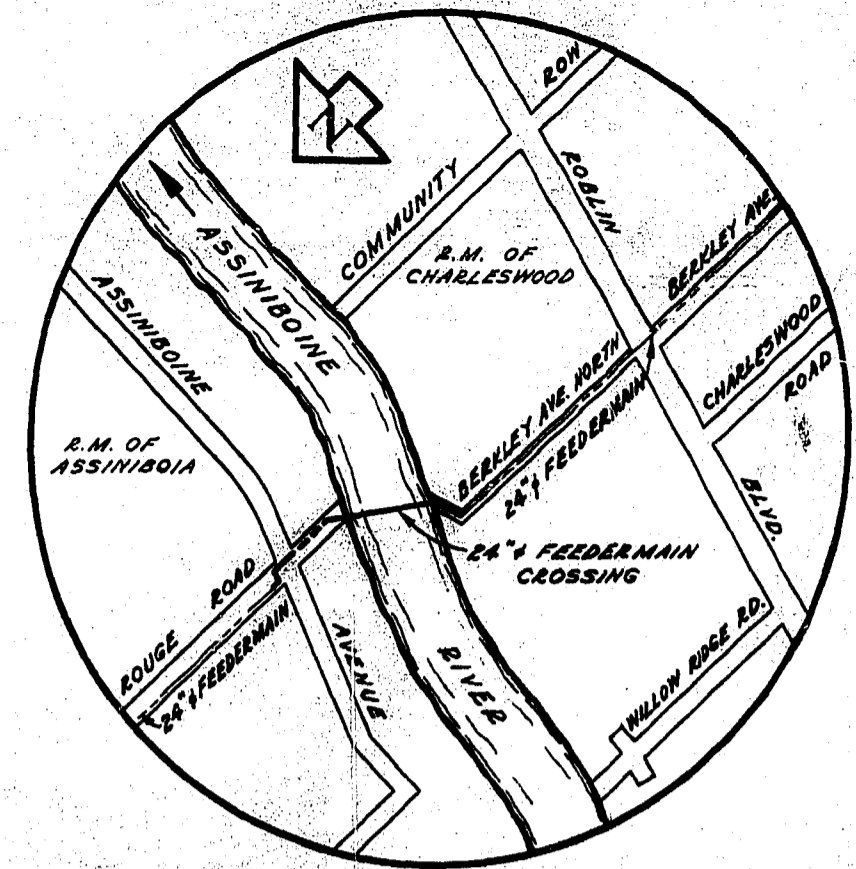
MUNICIPALITY OF CHARLESWOOD

Deposited in the Winnipeg Land Titles Office this 13th day of September A.D. 1964 at 12:38 P.M. as Railway Deposit No 830.

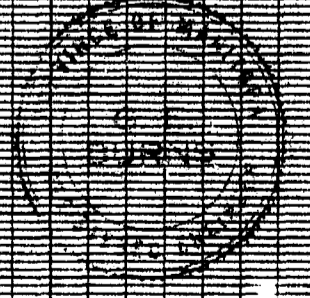
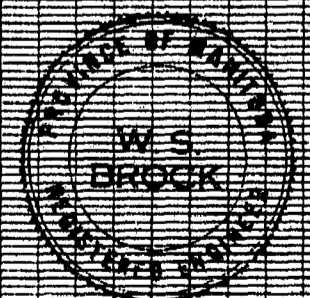
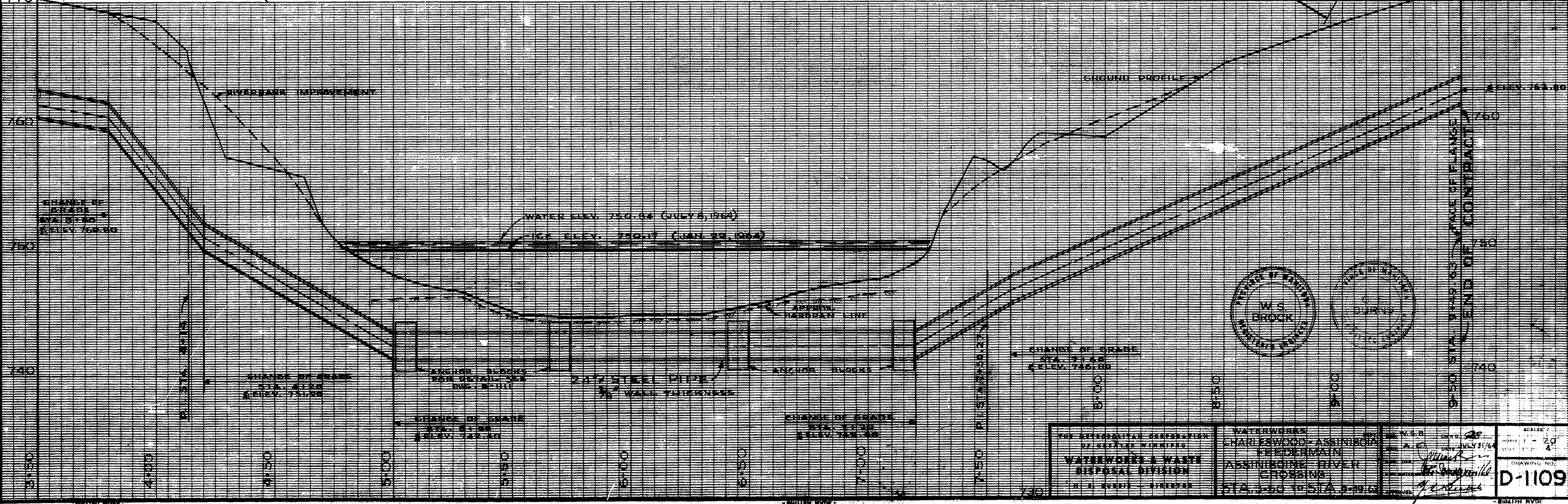
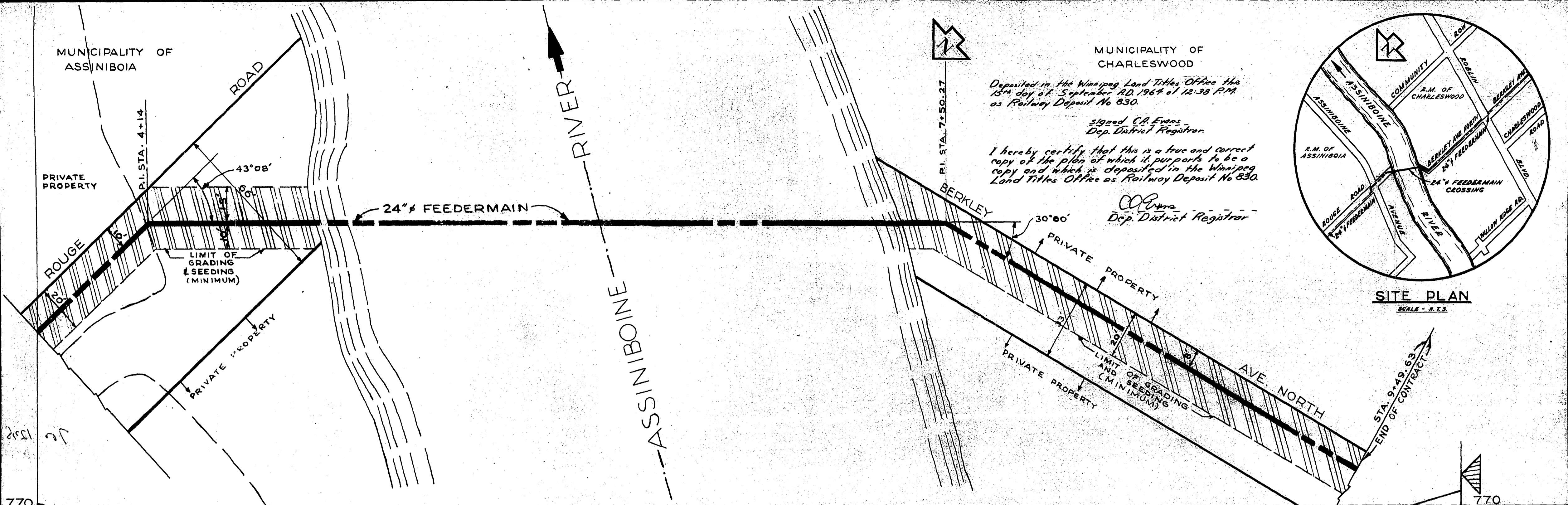
Signed C.A. Evans - Dep. District Registrar

I hereby certify that this is a true and correct copy of the plan of which it purports to be a copy and which is deposited in the Winnipeg Land Titles Office as Railway Deposit No 830.

C.A. Evans - Dep. District Registrar



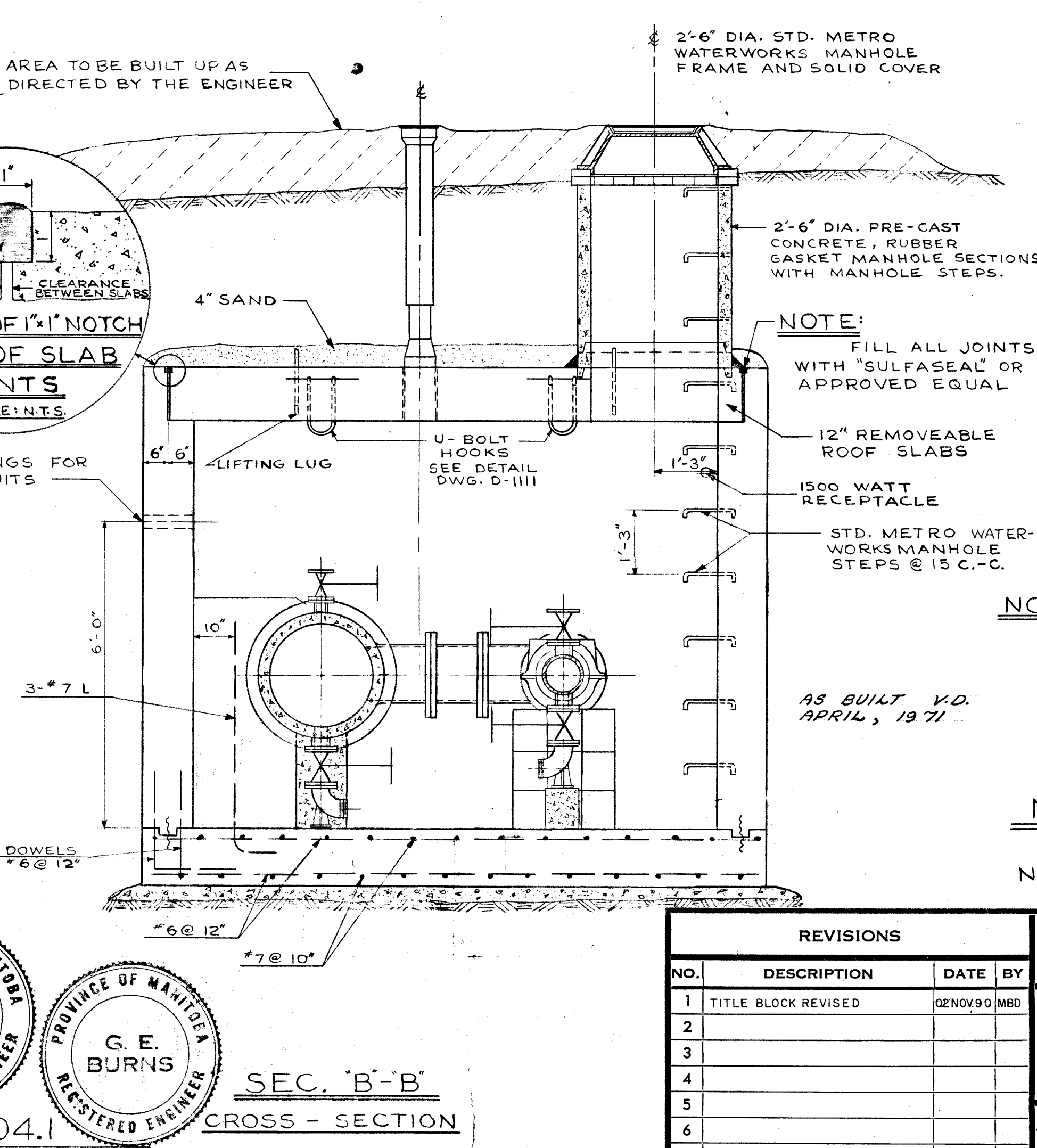
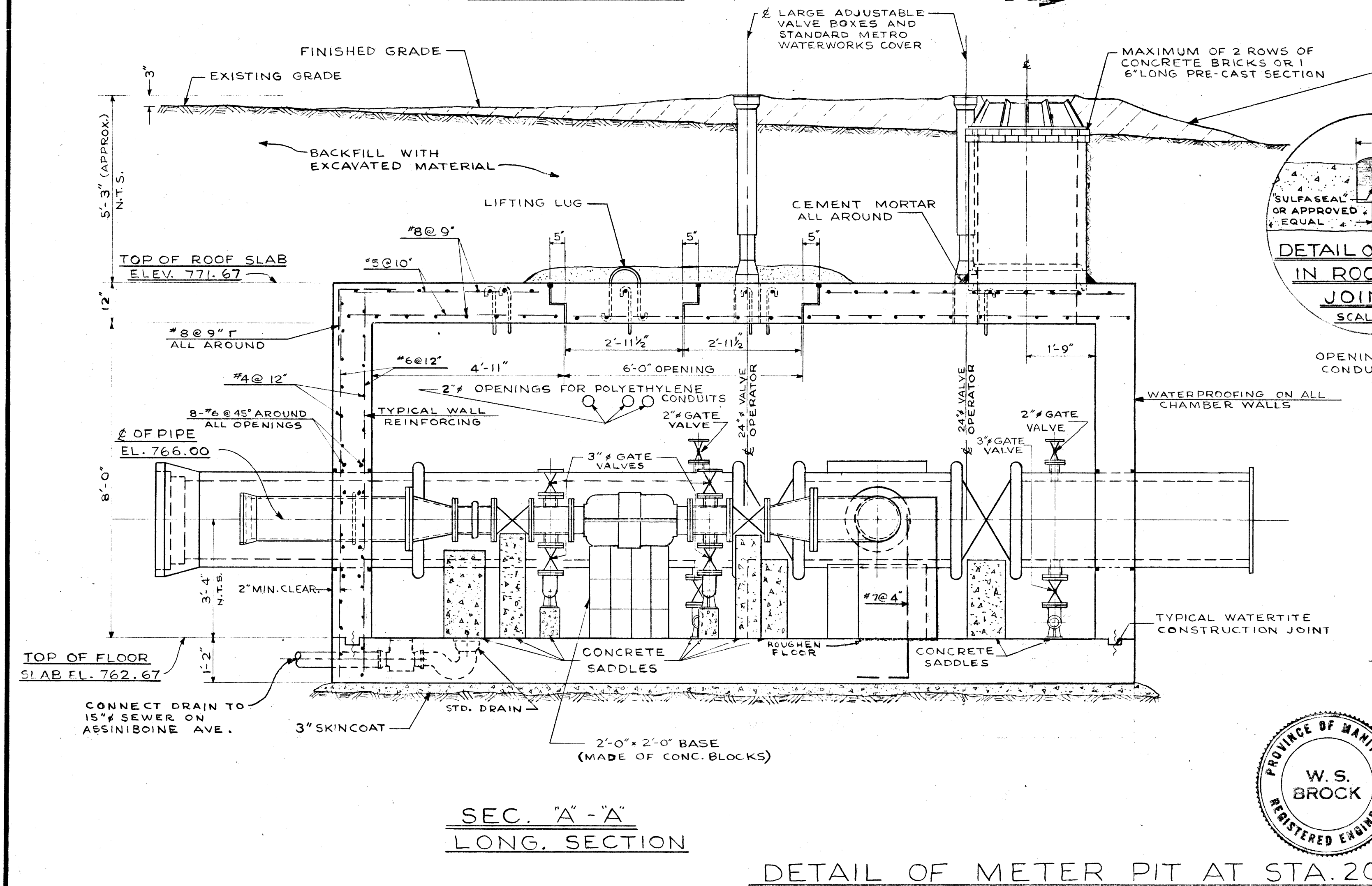
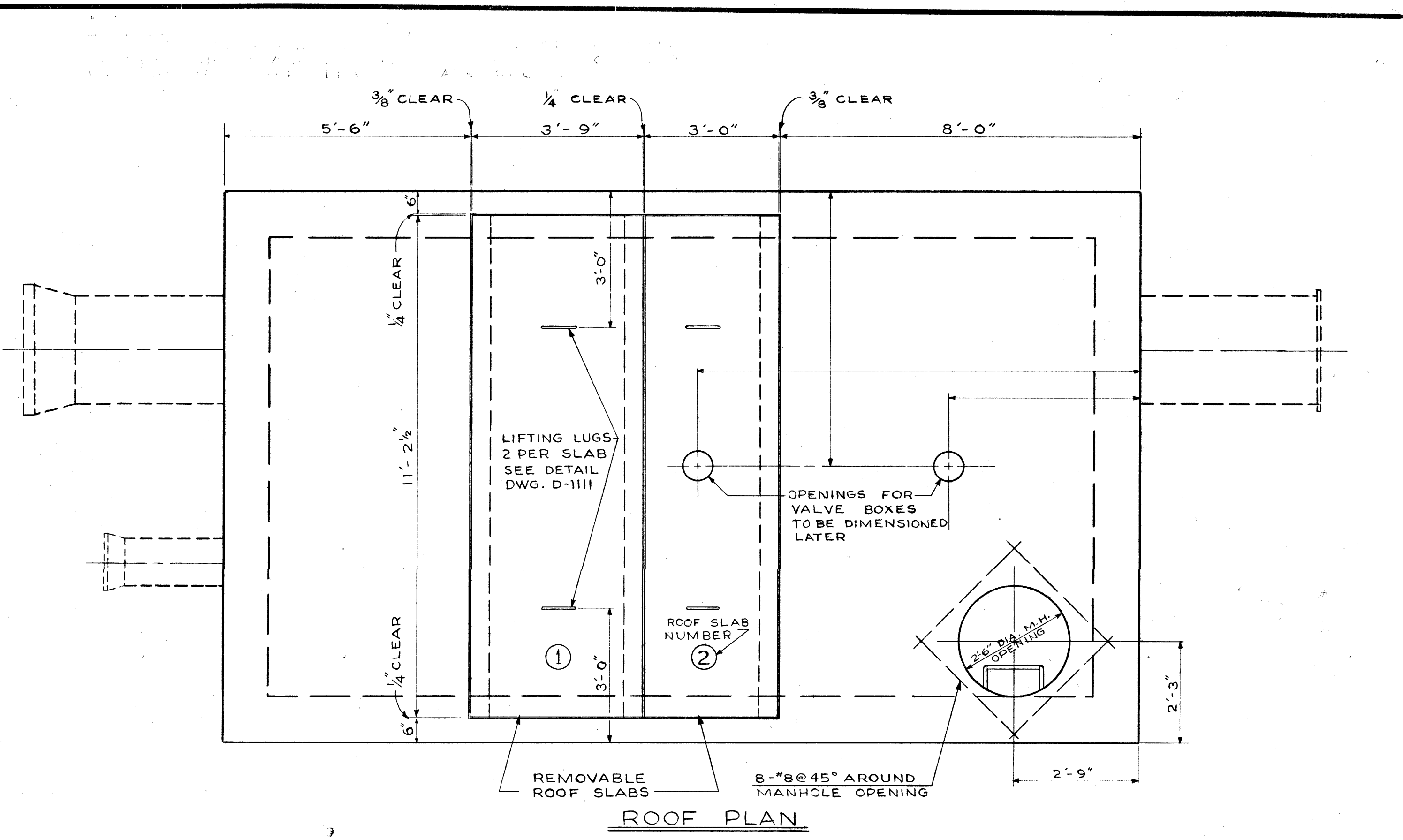
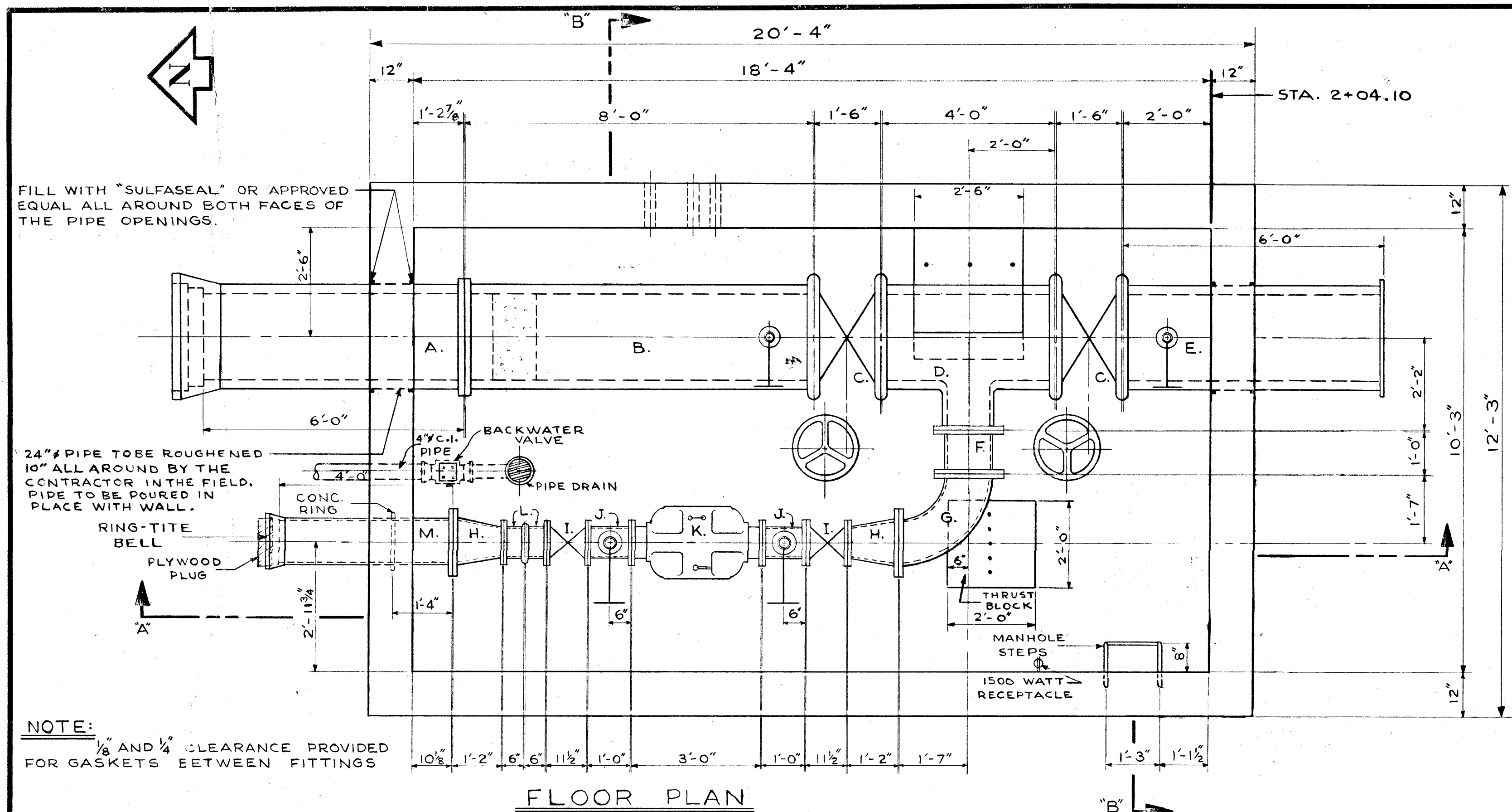
SITE PLAN SCALE - H.T.S.



WATERWORKS & WASTE DISPOSAL DIVISION

CHARLESWOOD-ASSINIBOIA FEEDERMAIN CROSSING

D-1109



LIST OF MATERIALS FOR METER PIT		
ITEM	DESCRIPTION	LENGTH
A.	24" CONC. PIPE (FLANGE TO BELL)	6'-0"
B.	24" CONC. PIPE (VICTAULIC TO FLANGE)	8'-0"
C.	2-24" VICTAULIC BUTTERFLY VALVE	1'-6"
D.	24" x 24" x 12" CONC. TEE (VICT. TO VICT. TO FLANGE)	4'-0"
E.	24" CONC. PIPE (FLANGE TO VICTAULIC)	6'-0"
F.	12" C.I. FILLER PIECE FLANGED	1'-0"
G.	12" C.I. ELBOW FLANGED	1'-7"
H.	2-12" x 8" C.I. REDUCER/INCREASER FLANGED	1'-2"
I.	2-8" GATE VALVES FLANGED	11 1/2"
J.	2-8" C.I. FILLER PIECES FLANGED WITH OUTLETS	1'-0"
K.	8" MAGNETIC-FLOW METER FLANGED	3'-0"
L.	2-8" C.I. FILLER PIECES (FLANGE TO VICTAULIC)	0'-6"
M.	12" C.I. PIPE (FLANGE TO BELL)	4'-0"

NOTE:

- ITEMS J. TO HAVE 3" TAPPED HOLES ON OPPOSITE SIDES.
- ITEM M. TO HAVE A CONCRETE RING 1'-4" FROM THE FLANGED END.
- THE METRO CORPORATION WILL SUPPLY ITEMS A., B., C., D., E., I., J., K.; ALSO 4-24" VICTAULIC COUPLINGS AND AN 8" VICTAULIC COUPLING.

NOTE:

FOR FURTHER DETAILS AND NOTES ON METER PIT SEE DWG. D-1111

AS BUILT V.D. APRIL, 1971

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	TITLE BLOCK REVISED	02 NOV 90	JMBD
2			
3			
4			
5			
6			
7			
8			

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
WATERWORKS & WASTE DISPOSAL DIVISION
WATERWORKS DEPT.

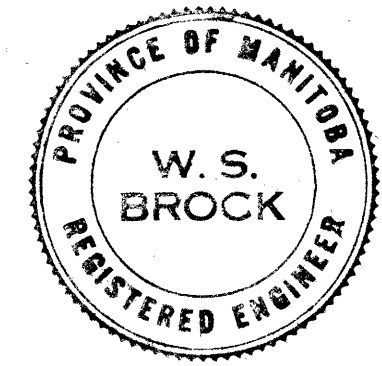
CHARLESWOOD-ASSINABOIA FEEDERMAIN RIVER CROSSING
METER PIT - ROUGE ROAD AT ASSINABOINE AVENUE
STA. 2+04.10

APPROVED BY: *[Signature]*
DESIGNED BY: W.S.B.
DRAWN BY: A.C.
DATE: JULY 31/71

CHIEF ENGINEER

SCALES: AS NOTED

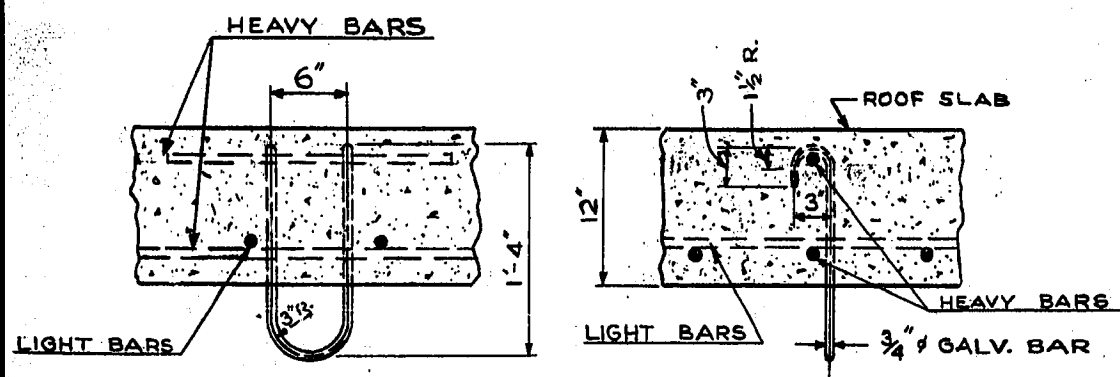
DRAWING NO. **D-1110**



DETAIL OF METER PIT AT STA. 204.1
SCALE: 1/2" = 1'-0"

SEC. 'A-A'
LONG SECTION

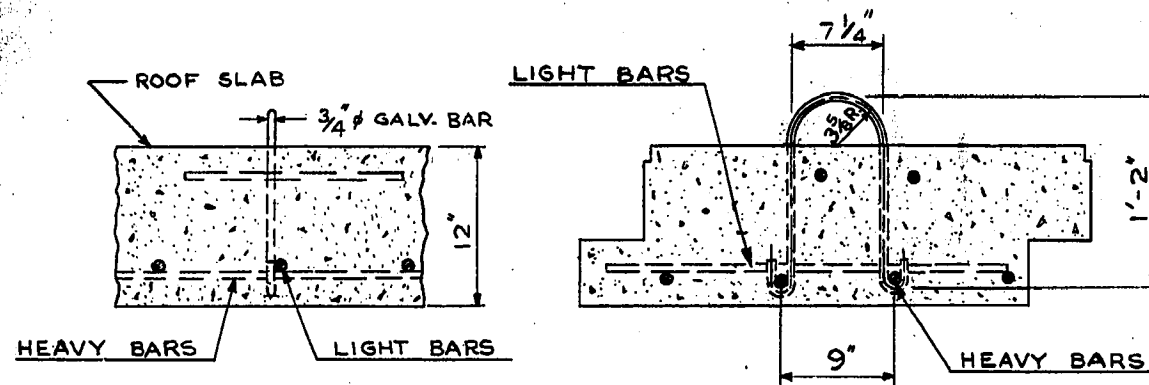
SEC. 'B-B'
CROSS-SECTION



CROSS-SECTION LONG-SECTION

DETAIL OF U-BOLT HOOK

SCALE: 1" = 1'-0"



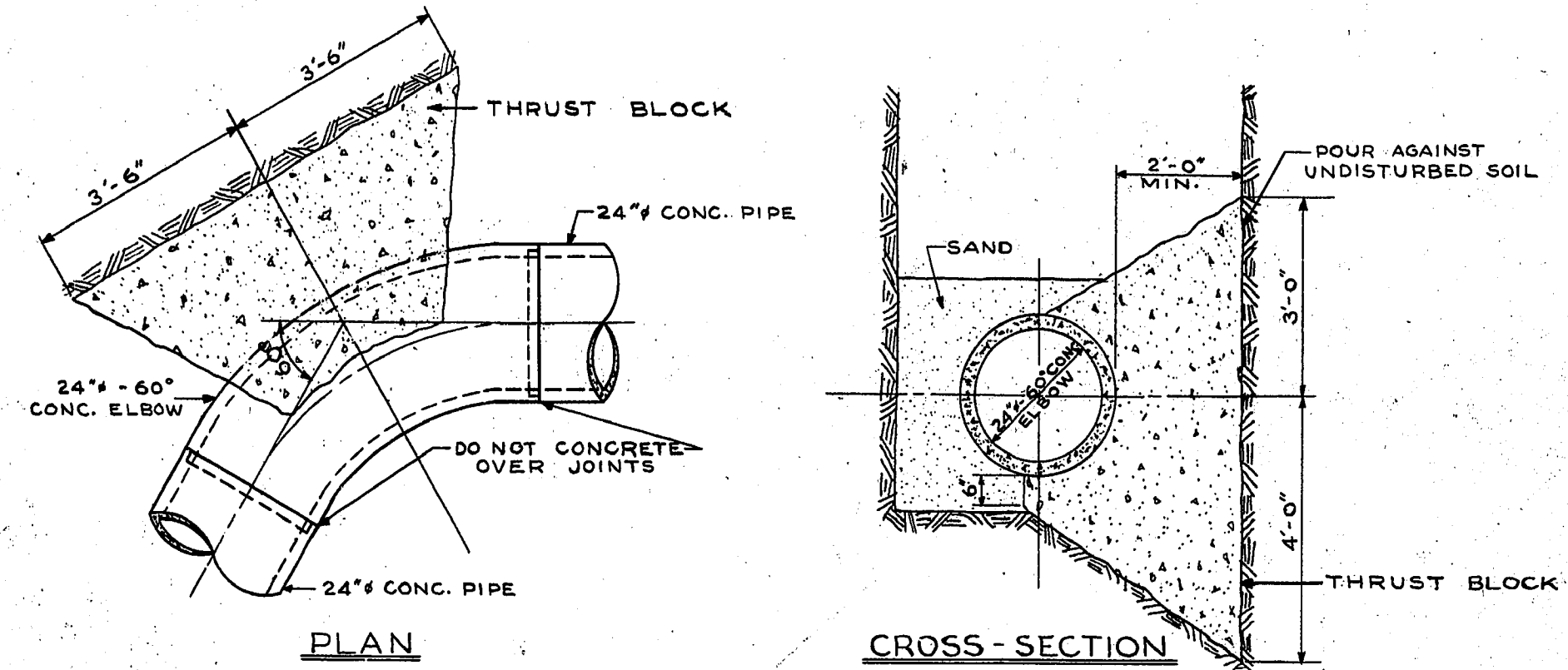
CROSS-SECTION LONG-SECTION

DETAIL OF LIFTING LUG

SCALE: 1" = 1'-0"

NOTES: (REFERING TO METER PIT AT STA. 2+04.10 - SEE DWG. D-1110)

1. ALL PRECAST CHAMBER SLABS ARE TO BE NUMBERED ON THE UNDERSIDE IN THE ORDER BY WHICH THEY CAN BE REMOVED. CAST IN TYPICAL HOUSE NUMBERS.
2. PLACE BUILDING PAPER BETWEEN VALVES AND CONCRETE SADDLES, BETWEEN ELBOWS AND CONCRETE SADDLES AND BETWEEN CONCRETE BASE AND METER.
3. ALL EXTERIOR AND INTERIOR CORNERS, INCLUDING PRECAST SLABS, TO BE CHAMFERED AS SPECIFIED IN THE SPECIFICATIONS.
4. THE VICTAULIC COUPLINGS TO BE STYLE # 44.
5. FITTINGS REQUIRED FOR EACH 8" C.I. SHORT WITH 3" OUTLETS.
 - ON TOP OF 8" SHORT
 - 3" NIPPLE (SCREW TO SCREW-ON-FLANGE)
 - 3" C.I. GATE VALVE FLANGED WITH BRONZE TRIM
 - ON BOTTOM OF 8" SHORT
 - 3" NIPPLE (SCREW TO SCREW-ON-FLANGE)
 - 3" GATE VALVE FLANGED WITH BRONZE TRIM
 - 3" 90° GALV. BASE ELBOW (FLANGE TO SCREW)-DIRECT ELBOW TOWARDS MANHOLE OPENING.
6. FITTINGS REQUIRED FOR ITEMS B. AND E.
 - ON TOP OF 24" PIPE
 - 2" NIPPLE (SCREW TO SCREW-ON-FLANGE) - SUPPLIED WITH PIPE.
 - 2" C.I. GATE VALVE FLANGED WITH BRONZE TRIM
 - ON BOTTOM OF 24" PIPE
 - 3" NIPPLE (SCREW TO SCREW-ON-FLANGE) - SUPPLIED WITH PIPE.
 - 3" C.I. GATE VALVE FLANGED WITH BRONZE TRIM
 - 3" 90° GALV. BASE ELBOW (FLANGE TO SCREW)- DIRECT ELBOW TOWARDS MANHOLE OPENING.
7. ALL FITTINGS TO BE MADE OF BRONZE UNLESS SPECIFIED OTHERWISE.
8. SEE DWG. C-480 FOR ELECTRICAL REQUIREMENTS.

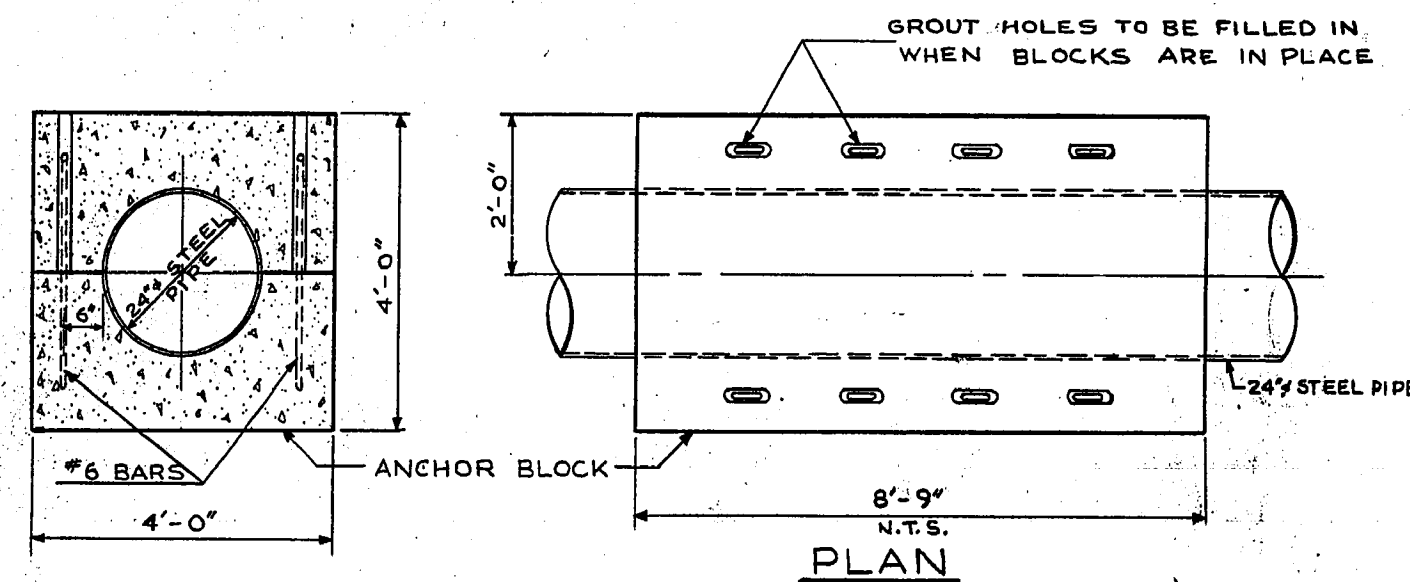


DETAIL OF THRUST BLOCKS NOS. 1 & 2 FOR 24" CONC. PIPE - 60° ELBOW

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

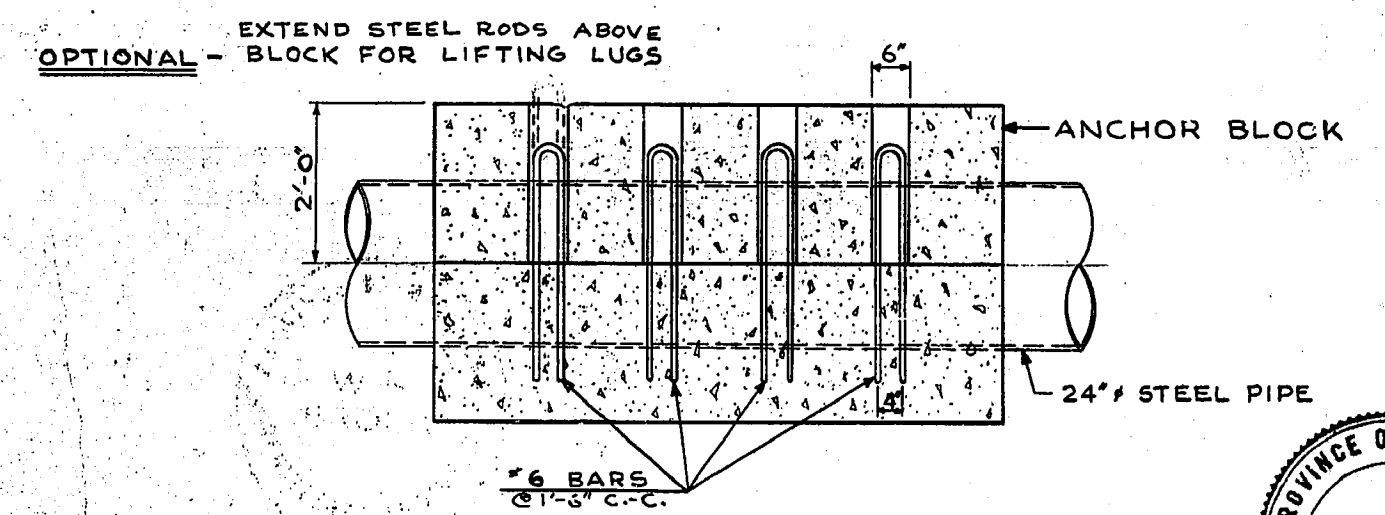
LIST OF THRUST BLOCKS FOR 24" CONC. PIPE			
NO.	LOCATION	ANGLE	BEARING AREA
1	60° ELBOW AT P.I. STA.	60°00'00"	7'-0" x 7'-0"
2	60° ELBOW AT P.I. STA.	60°00'00"	7'-0" x 7'-0"
3	END OF CONTRACT STA. 9+49.63		7'-0" x 7'-0"

LIST OF ANCHOR BLOCKS FOR 24" STEEL PIPE		
NO.	LOCATION	LENGTH
1	STA. 5+05	8'-9"
2	STA. 5+70	8'-9"
3	STA. 6+45	8'-9"
4	STA. 7+15	8'-9"



CROSS-SECTION

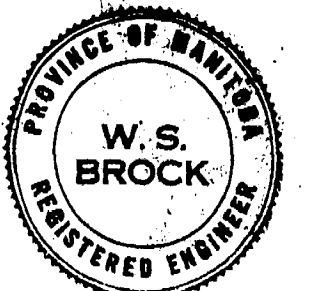
PLAN



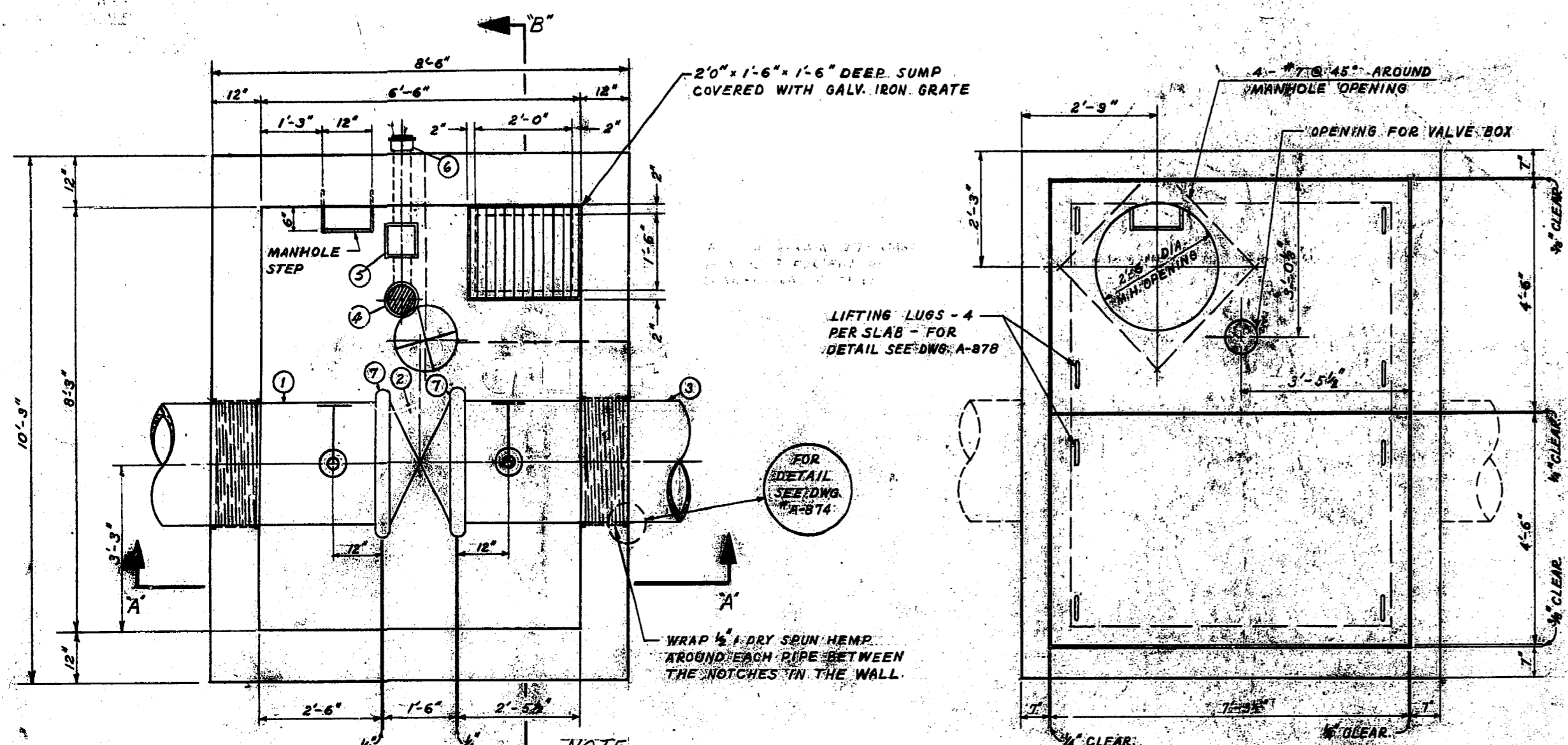
LONG-SECTION

TYPICAL DETAIL OF ANCHOR BLOCKS - FOR 24" STEEL PIPE

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



THE METROPOLITAN CORPORATION OF GREATER WINNIPEG WATERWORKS & WASTE DISPOSAL DIVISION N. S. BUBBIS - DIRECTOR	WATERWORKS CHARLESWOOD - ASSINIBOIA FEEDERMAIN	DES. W. S. B. CHK'D. GEB DRN. A.C. DATE: JULY 31/64	SCALE HORIZ. 1" = 48' VERT. 1" = NOTED
	ASSINIBOINE RIVER CROSSING THRUST AND ANCHOR BLOCKS & MISCELLANEOUS DETAILS	ENG. DES. J. G. SULLIVAN ENG. WATERWORKS	DRAWING NO. D-1111
	APPROVED: [Signature]		



FLOOR PLAN

ROOF PLAN

NOTE: VALVE CHAMBER AT STA. 61+62.52 HAS 4" X 4" FIT DRAIN CONNECTED TO SUMP ON PORTAGE AVE. IN SECTIONS INSTALLED 1'-4" AND 1'-10" WITH 2 ROWS OF BRICKS TO M.H. FRAME. 1'-0" DEPTH FROM TOP OF ROAD SLAB TO M.H. COVER.

NOTE: VALVE CHAMBER AT STA. 113+63.72 HAS 4" X 4" FIT DRAIN WITH PLUG. THEREFORE NOT CONNECTED TO SUMP AND CONTAINS A SUMP. M.H. SECTION INSTALLED 1'-10" WITH 2 ROWS OF BRICKS TO M.H. FRAME. 1'-0" DEPTH FROM TOP OF SLAB TO M.H. COVER.

24" DIA. MAIN LINE VALVE CHAMBER	
STATION	ELEV. \pm OF PIPE
STATION 61+62.52	ELEV. 764.89
STATION 113+63.72	ELEV. 769.16

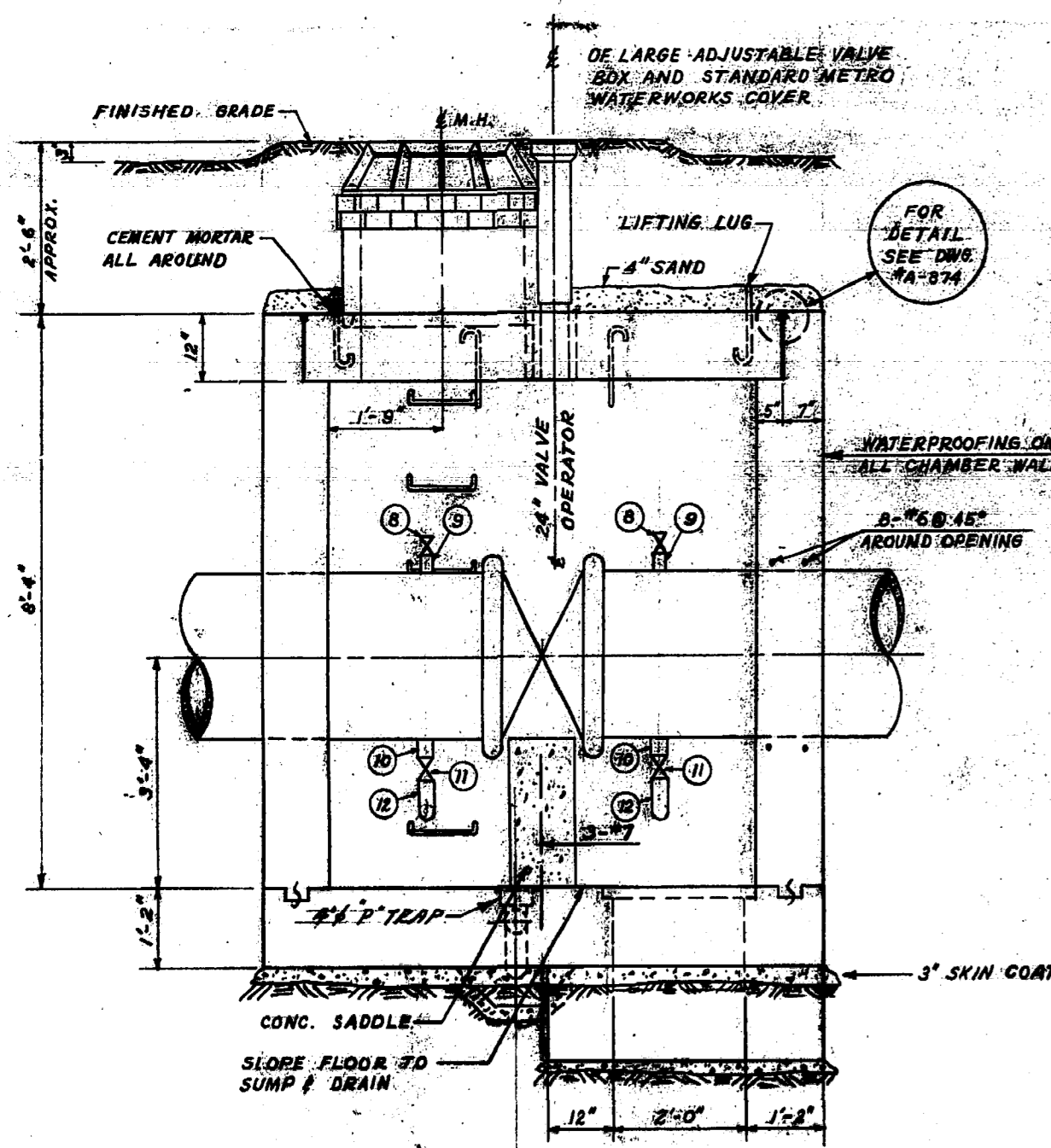
LIST OF MATERIALS		
NO.	DESCRIPTION	QUANTITY
1	24" CONG. PIPE SPIGOT TO VICTAULIC ELBOW	1
2	24" BUSHING VALVE (BANANA VALVE)	1
3	24" VICTAULIC VALVE - 1'-6" LONG	1
4	24" CONG. PIPE VICTAULIC NO. BELL	1
5	2" X 1/2" TEAP DRAIN WITH SCREW-ON COVER	1
6	4" BACKWATER VALVE	1
7	4" A.C. PIPE	1
8	24" STYLE #44 VICTAULIC COUPLING	2
9	2" BRONZE GATE VALVE - SCREWED ENDS	2
10	2" BRONZE NIPPLE - SCREWED ENDS	2
11	3/4" BRONZE NIPPLE - SCREWED ENDS	2
12	3/4" 90° BRONZE ELBOW - SCREWED ENDS	2

NOTE: BUILDING PAPER PLACED BETWEEN VALVES AND CONCRETE SADDLES.

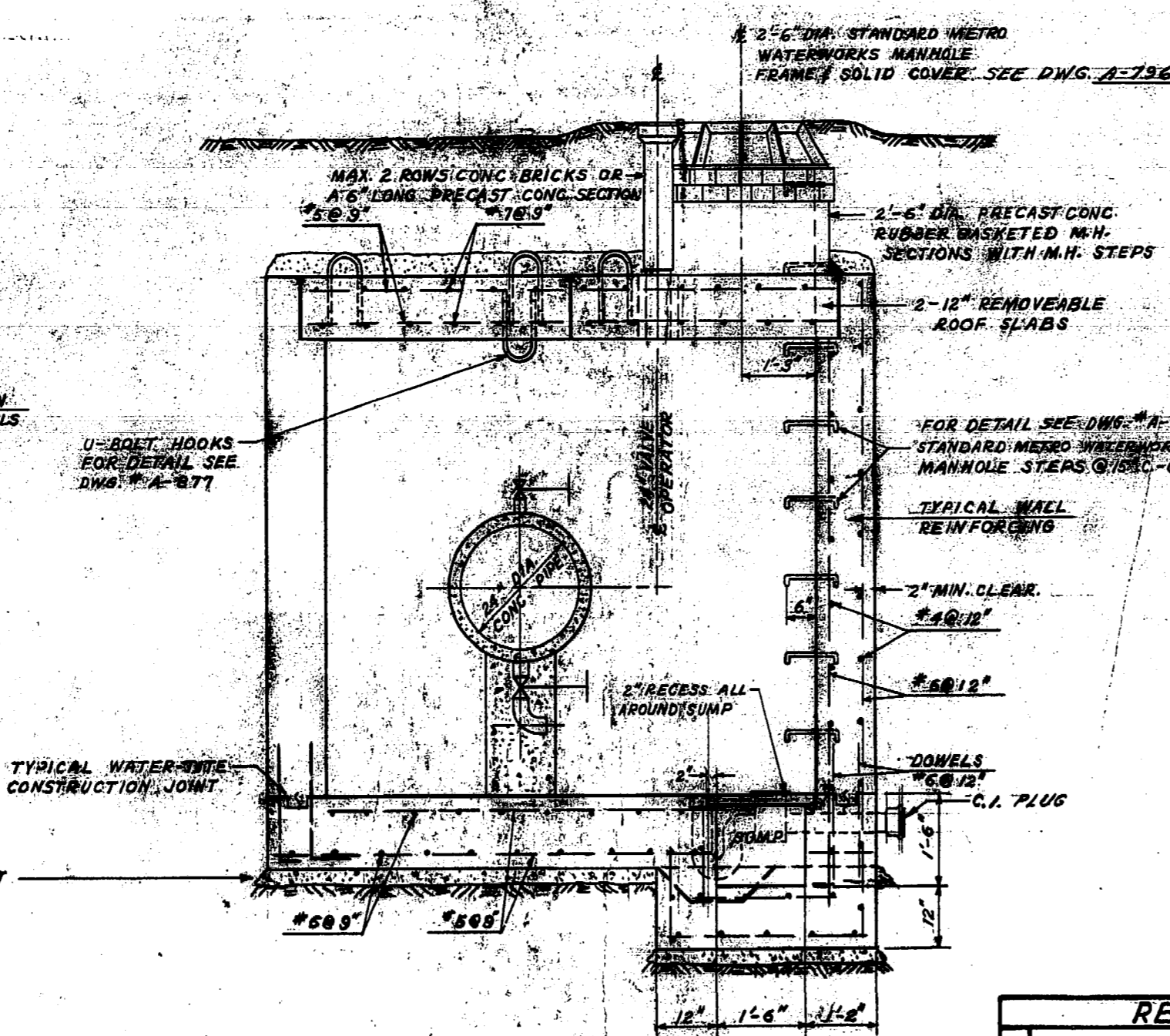
LIST OF THRUST BLOCKS			
No.	LOCATION	ANGLE	BEARING AREA
1	P.I. STA. 33E03.60	5°00'00"	3'-0" x 2'-6"
2	P.I. STA. 34E23.86	5°00'00"	3'-0" x 2'-6"
3	P.I. STA. 61E28.91	75°07'00"	8'-0" x 7'-0"
4	P.I. STA. 64E28.08	85°00'00"	5'-0" x 4'-9"
5	P.I. STA. 68E38.54	45°00'00"	6'-0" x 5'-9"
6	P.I. STA. 88E30.59	74°58'50"	8'-0" x 7'-0"
7	P.I. STA. 105E15.98	7°30'00"	3'-0" x 2'-6"
8	P.I. STA. 105E36.10	7°30'00"	3'-0" x 2'-6"
9	P.I. STA. 124E28.13	26°30'00"	3'-0" x 2'-6"
10	P.I. STA. 124E28.13	43°00'00"	3'-0" x 2'-6"
11	P.I. STA. 126E32.78	42°00'00"	3'-0" x 2'-6"
12	P.I. STA. 126E32.78	27°33'00"	3'-0" x 2'-6"
13	STA. 125+30.15 (CHANGE OF GRADE)	12° (MIN.)	3'-0" x 2'-6"
14	STA. 126+58.92 (CHANGE OF GRADE)	12° (MIN.)	3'-0" x 2'-6"
15	P.I. STA. 126E18.08	130°00'00"	3'-0" x 2'-6"
16	P.I. STA. 127E32.83	182°00'00"	3'-0" x 2'-6"
17	P.I. STA. 128E32.77	162°00'00"	3'-0" x 2'-6"
18	P.I. STA. 125E36.93	12°00'00"	3'-0" x 2'-6"
19	P.I. STA. 126E28.01	72°00'00"	3'-0" x 2'-6"

NOTE: BUILDING PAPER PLACED BETWEEN CONCRETE PIPE AND THRUST BLOCK FOR T.B. No. 13 AND No. 14.

TYPICAL THRUST BLOCK DETAIL FOR 24" 70° TO 90° CONG. ELBOWS SCALE: 3/8"=1'-0"

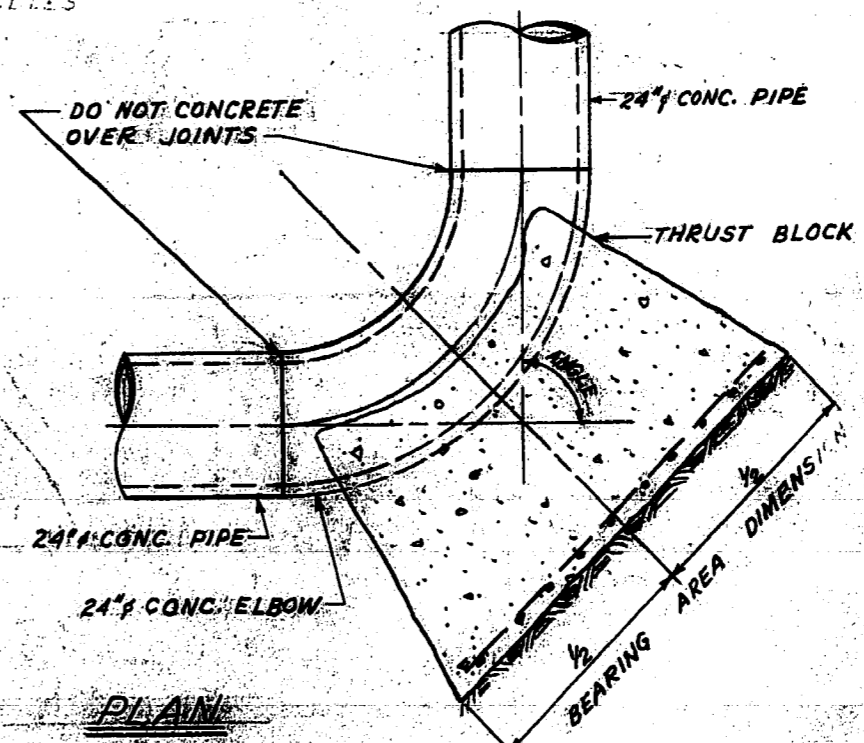


SEC. A-A

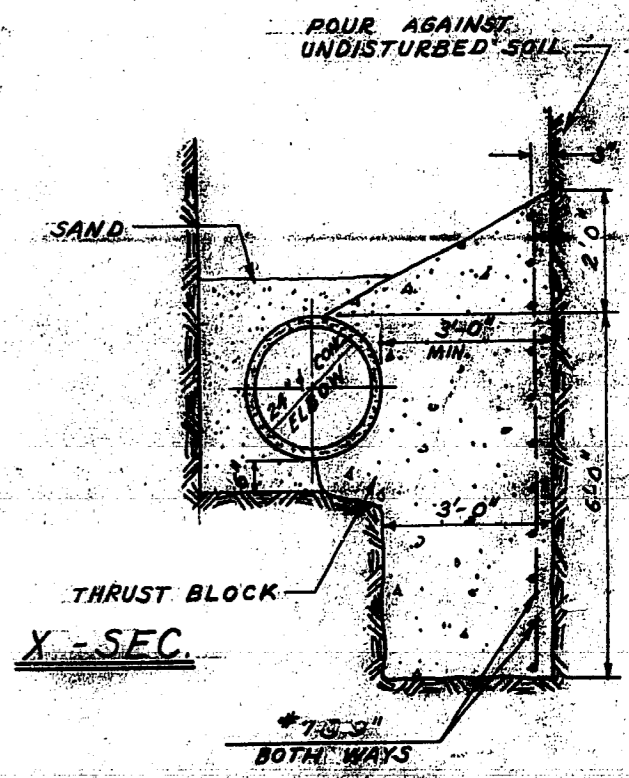


SEC. B-B

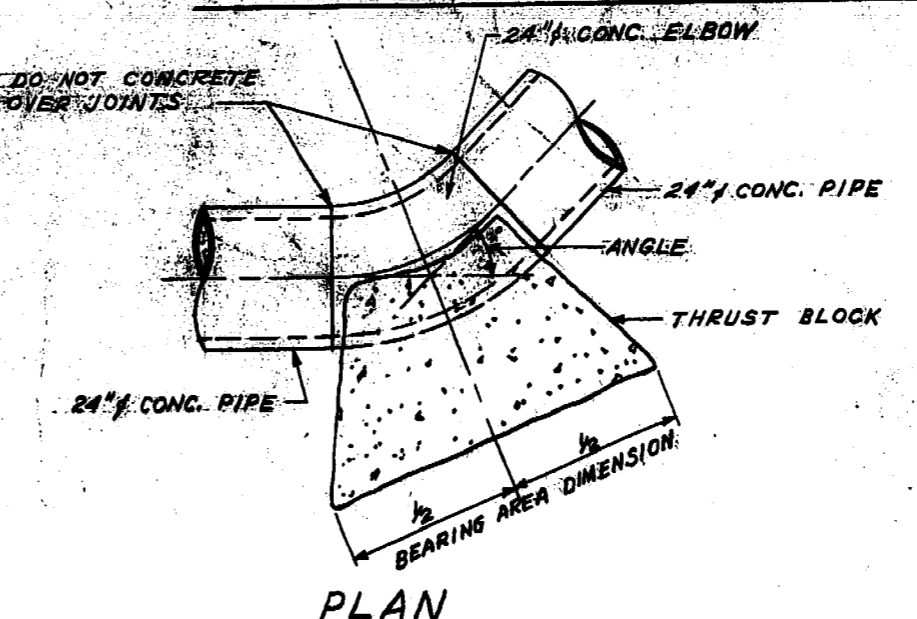
TYPICAL 24" DIA. MAIN LINE VALVE CHAMBER SCALE: 1/4"=1'-0"



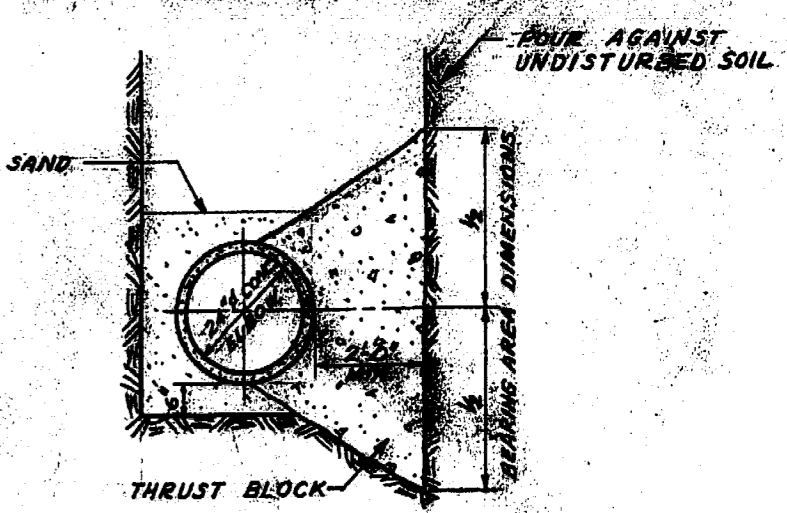
PLAN



X-SEC.



PLAN



X-SEC.

TYPICAL THRUST BLOCK DETAILS FOR 24" 45° OR LESS - CONG. ELBOWS SCALE: 3/8"=1'-0"

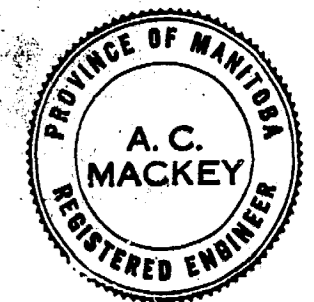
REVISIONS		
No.	DESCRIPTION	BY DATE
1	THRUST BLOCKS No. 13 & 14 DELETED	A.C. APRIL 1968
2	THRUST BLOCK No. 15 RELOCATED	A.C. APRIL 1968
3	AS CONSTRUCTED	S.K. MAY 1968
4		
5		

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
WATERWORKS & WASTE DISPOSAL DIVISION
A. PENMAN - DIRECTOR

WATERWORKS DEPT.
ROUGE ROAD FEEDERMAIN
MAIN LINE VALVE CHAMBERS & THRUST BLOCK DETAILS

DESIGNED BY: CH'D. R.M.B.
DRAWN BY: A.C. DATE: MAR 1968
ENG. DESIGNED BY: J. J. [Signature]
ENG. OPERATED BY: J. J. [Signature]
APPROVED BY: J. J. [Signature]

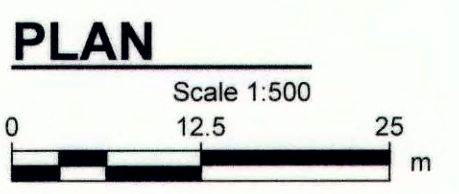
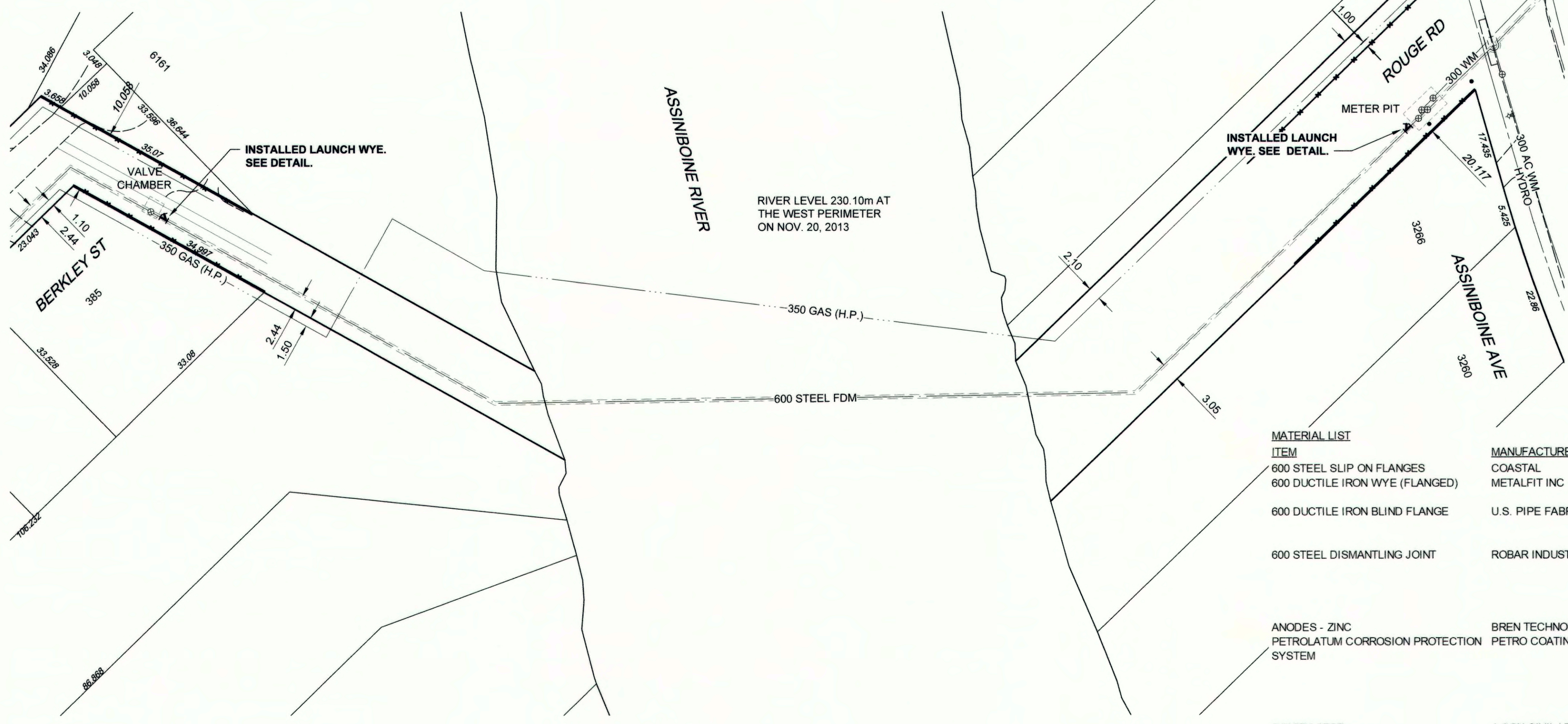
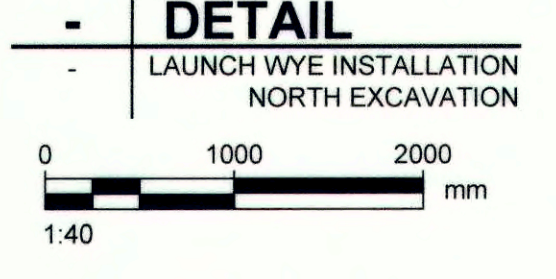
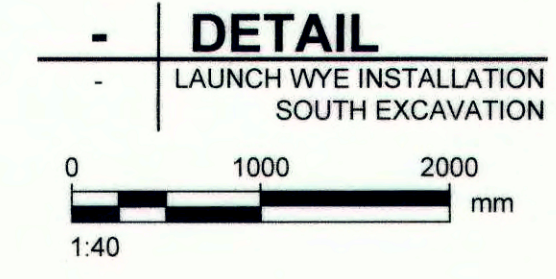
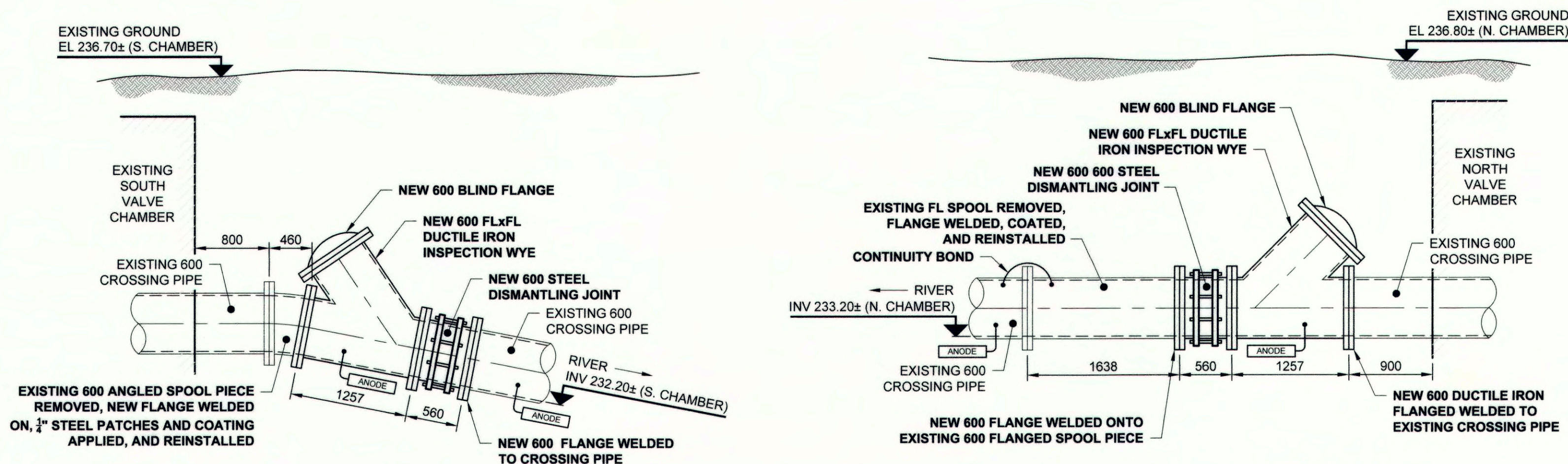
SCALE: AS SHOWN
DRAWING NO. **D-1172**



D SIZE 22" x 34" (559mm x 864mm)

PLOT: 1/3/2020 11:40:52 AM

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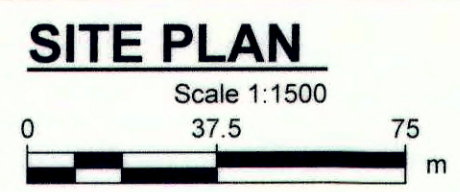


**ENGINEERS
GEO-SCIENTISTS
MANITOBA**
Certificate of Authorization
AECOM Canada Ltd.
No. 4671 Date: Jan 6/20

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

ITEM	MANUFACTURER	MATERIAL SPECIFICATION
600 STEEL SLIP ON FLANGES	COASTAL	ANSI/AWWA C110/A21.10
600 DUCTILE IRON WYE (FLANGED)	METALFIT INC	ANSI B16.1, ASTM A 536
600 DUCTILE IRON BLIND FLANGE	U.S. PIPE FABRICATION	ASME/ANSI B16.1 Class 125
600 STEEL DISMANTLING JOINT	ROBAR INDUSTRIES LTD	Fusion bonded epoxy coating in accordance with AWWA C116
ANODES - ZINC	BREN TECHNOLOGIES INC	Meets AWWA C207 & C219
PETROLATUM CORROSION PROTECTION SYSTEM	PETRO COATING SYSTEMS LTD	Barrel: ASTM A36
		End rings: ASTM A576, Grade 1020 / A36
		Gaskets: NBR per ASTM D2000
		Fusion epoxy coated per AWWA C213
		ASTM B418
		AWWA C217

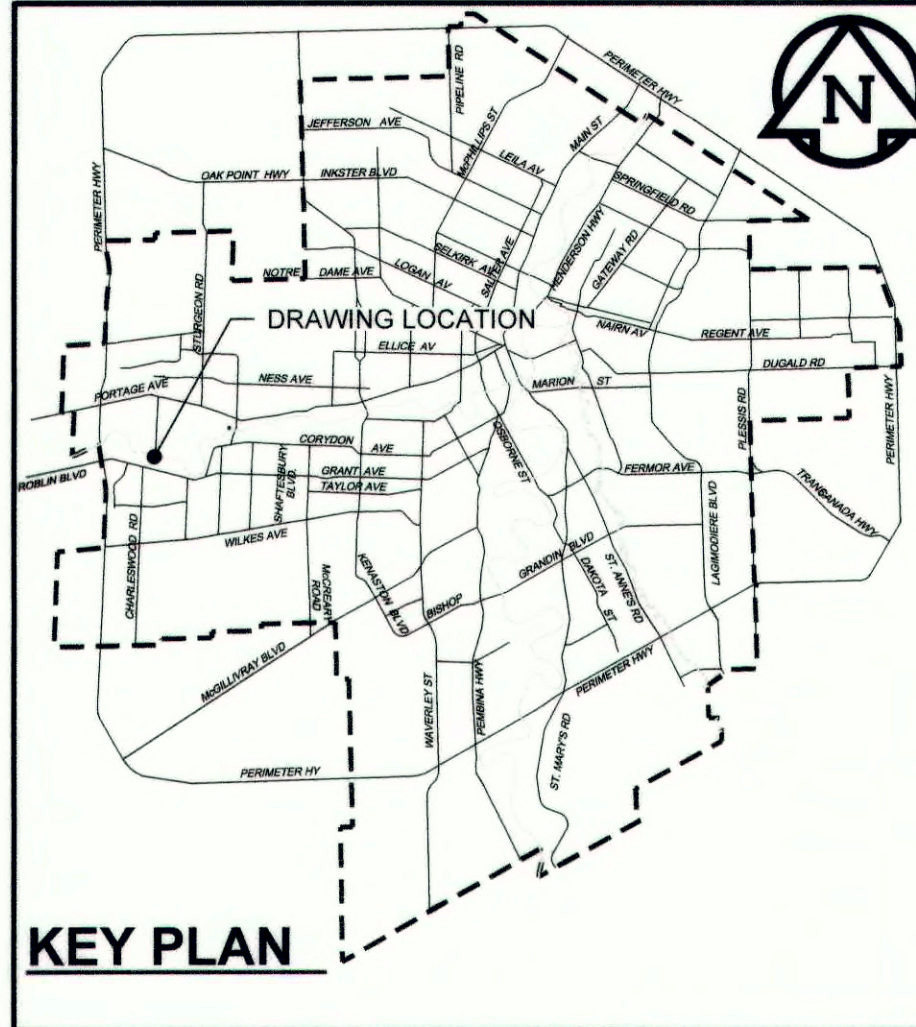
CONTRACTOR: J-CON CIVIL LTD
CONSTRUCTION PERIOD: SEPT. 14, 2018 to NOV. 8, 2019



SITE PLAN
Scale 1:1500

SPECIAL FEATURES
CLASS D

24 LB ZINC ANODE INCLUDES:
LOW TEMPERATURE PETROLATUM TAPE
VOID-FILLING MASTIC FILLER
PETROLATUM PASTE PRIMER
PROTECTIVE OUTERWRAP



RECORD DRAWING

CONSTRUCTION COMPLETION DATE:
NOVEMBER 8, 2019

BID OPPORTUNITY NO. 492-2018

150 WM	WATERMAIN	150 WM	EXISTING	LEGEND - PLAN	NEW	EXISTING	LEGEND - PROFILE	NEW
○	HYDRANT	●	---	CURB STOP	+	---	WATERMAIN	---
⊙	VALVE	⊙	---	REDUCER	+	---	HYDRANT	---
⊕	LAND DRAINAGE SEWER	⊕	---	COUPLING	+	---	VALVE	---
⊖	WASTE WATER SEWER	⊖	---	ANODE	+	---	LAND DRAINAGE SEWER	---
○	MANHOLE	●	---	HYDRO	+	---	WASTE WATER SEWER	---
□	CATCH BASIN	■	---	MTS	+	---	PAVEMENT CROWN	---
△	CURB INLET	▲	---	GAS	+	---	N/W PROPERTY LINE	---
▭	CULVERT	▭	---	TESTHOLE	+	---	S/E PROPERTY LINE	---
+	PIPE ABANDONMENTS	+	---	LAMP STANDARD	+	---	N/W GUTTER	---
+	SURVEY BAR	+	---	TREE	+	---	S/E GUTTER	---
+	EXISTING	+	---		+	---		---
+	LEGEND - PLAN	+	---		+	---		---
+	NEW	+	---		+	---		---

LOCATION APPROVED
UNDERGROUND STRUCTURES

SUPR. U/G STRUCTURES DATE COMMITTEE

NOTE:
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE. BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

NO.	REVISIONS	DATE	BY
2	ISSUED FOR RECORD	19/11/28	KLC
1	REVISED GAS MAIN ALIGNMENT	18/08/02	KLC
0	ISSUED FOR CONSTRUCTION	18/06/01	KLC

DESIGNED BY	CHKD BY	DATE
NJK	MGM	
DRAWN BY	APPROVED BY	DATE
KLC		
HOR. SCALE	VERT. SCALE	DATE
AS NOTED	N/A	

PROFESSIONAL'S SEAL
PROVINCE OF MANITOBA
A.D. BRAUN
Member
24453
Jan 8/20
REGISTERED PROFESSIONAL ENGINEER

CONSULTANT DRAWING NO.
60549028-SHT-30-0000-C-1002

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

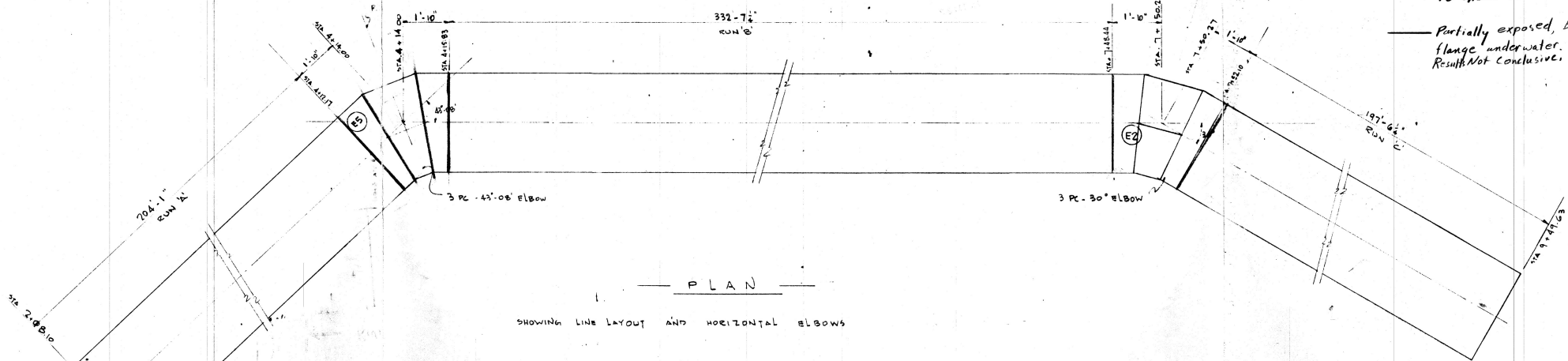
PROVISION OF PIPELINE ACCESS MODIFICATIONS, CLEANING AND SUPPORT SERVICES FOR RIVER CROSSING INSPECTIONS - PHASE TWO

SITE 2
CHARLESWOOD - ASSINIBOIA FEEDER MAIN

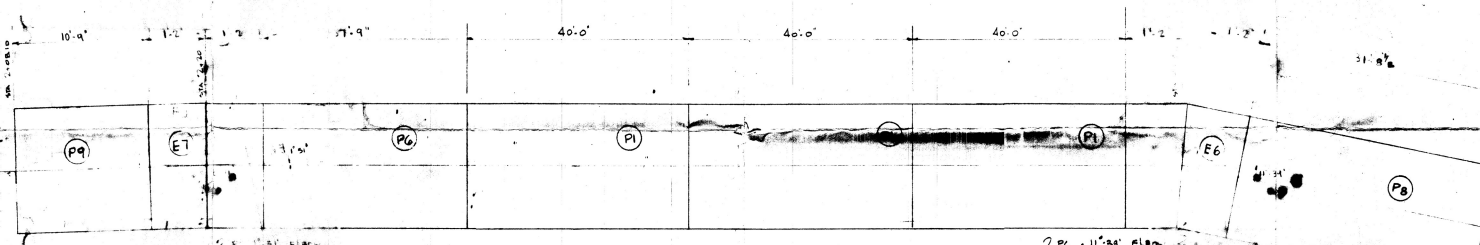
SHEET 4 OF 8
CITY DRAWING NUMBER
D-15160
REV 2

Flanges exposed to check for leakage.

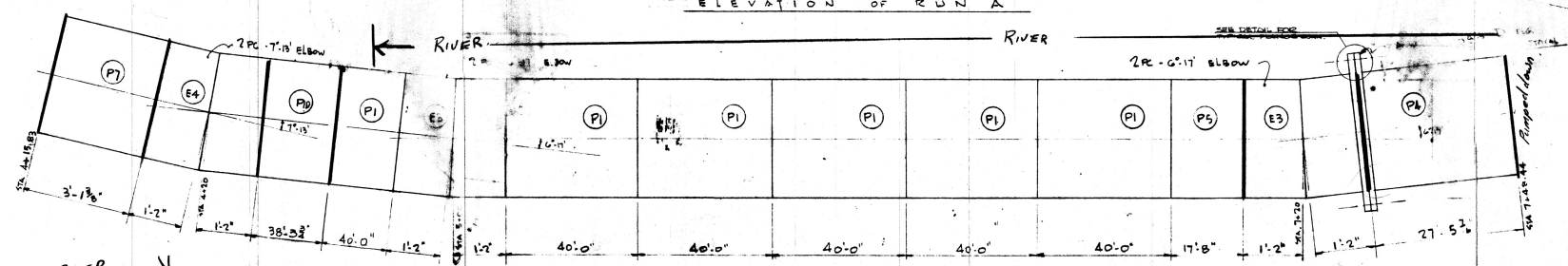
Partially exposed, but flange underwater. Result Not conclusive.



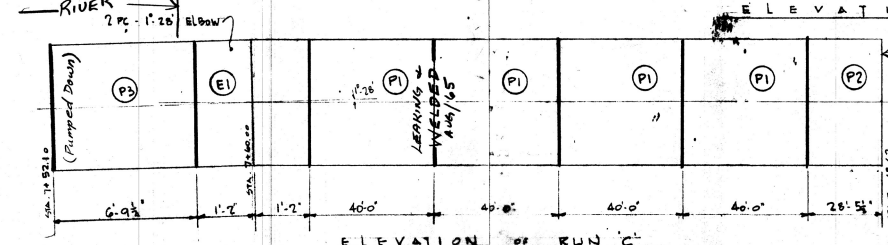
PLAN
SHOWING LINE LAYOUT AND HORIZONTAL ELBOWS



ELEVATION OF RUN A



ELEVATION OF RUN B



ELEVATION OF RUN C

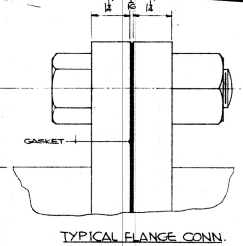
Connection made by Borgers was leaking. Bolts tightened by Borgers found to be not leaking with line pressure. March/65.

ALL PIPE TO BE 24\"/>

SEE ALSO ARMCO DRAWING W-51-M-8

GUELPHI ORDER NO 50-766-3

APPROVED FOR CONSTRUCTION
Date OCT 21 1964
Approval of this drawing covers only the general design and arrangement of material or equipment and does not in any way relieve the Contractor of any liability or responsibility for the satisfactory operation of this installation.



NO.	DATE	DESCRIPTION OF REVISION	CHKD.	APP'D.
B	9/24/64	P7, REV'D FROM 5/10/64 TO 3/1/65	MK	
		P8, 1 3/4\"/>		

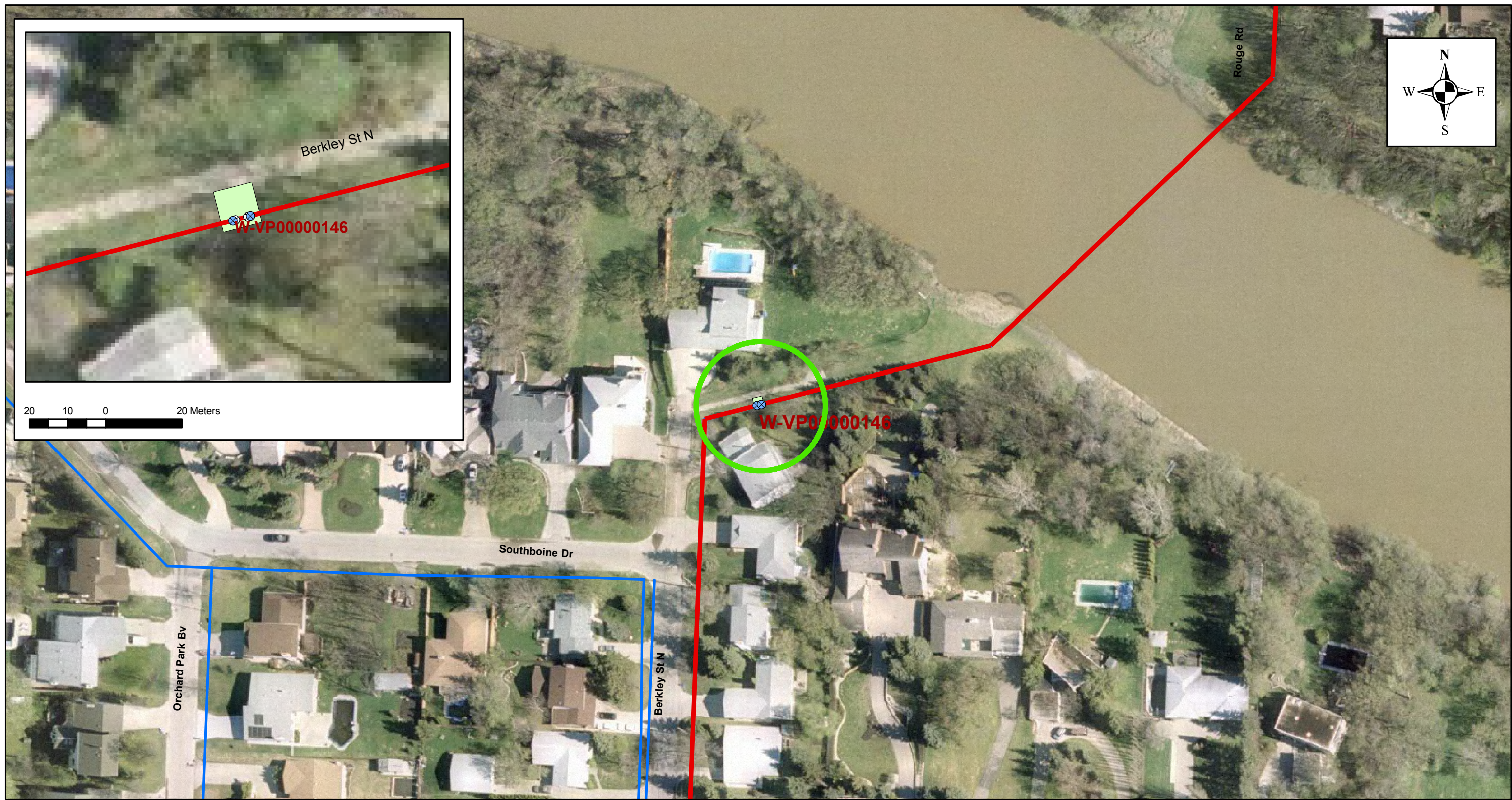
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METRO WINNIPEG WATERWORKS DIV.

CHARLESWOOD - ASSINIBOIA FEEDER MAIN
24\"/>

DATE AUG 31
DRAWN MK
CHECKED GT
APPROVED
SCALE D=NOT
ARMCO DRAINAGE & METAL PRODUCTS OF CANADA LTD.
DRAWING NO. 7183/164B

FILE



Legend WATER_DRAIN_VALVE WATER_BLOWOFF_VALVE WATER_AIRVALVE wpg_roads WATER_MAIN WATER_VALVE_PIT WATER_FEEDER_MAIN	AECOM PROJECT: CoW FEEDERMAIN VALVE CHAMBER CONDITION ASSESSMENT	DATE: MAY 20, 2011
	SCALE: 0 12.5 25 50 75 100 Meters	PROJECT No.: 60163220



20 10 0 20 Meters

Legend

- ⊗ WATER_DRAIN_VALVE
- ⊗ WATER_BLOWOFF_VALVE
- ⊗ WATER_AIRVALVE
- wpg_roads
- WATER_MAIN
- WATER_VALVE_PIT
- WATER_FEEDER_MAIN



PROJECT:
CoW FEEDERMAIN VALVE CHAMBER CONDITION ASSESSMENT

DATE:
MAY 20, 2011

SCALE:
0 12.5 25 50 75 100 Meters

PROJECT No.: **60163220**
DRAWING No.: **W-VP00000147**