

CONTRACT DRAWINGS

FOR

WINDRUSH

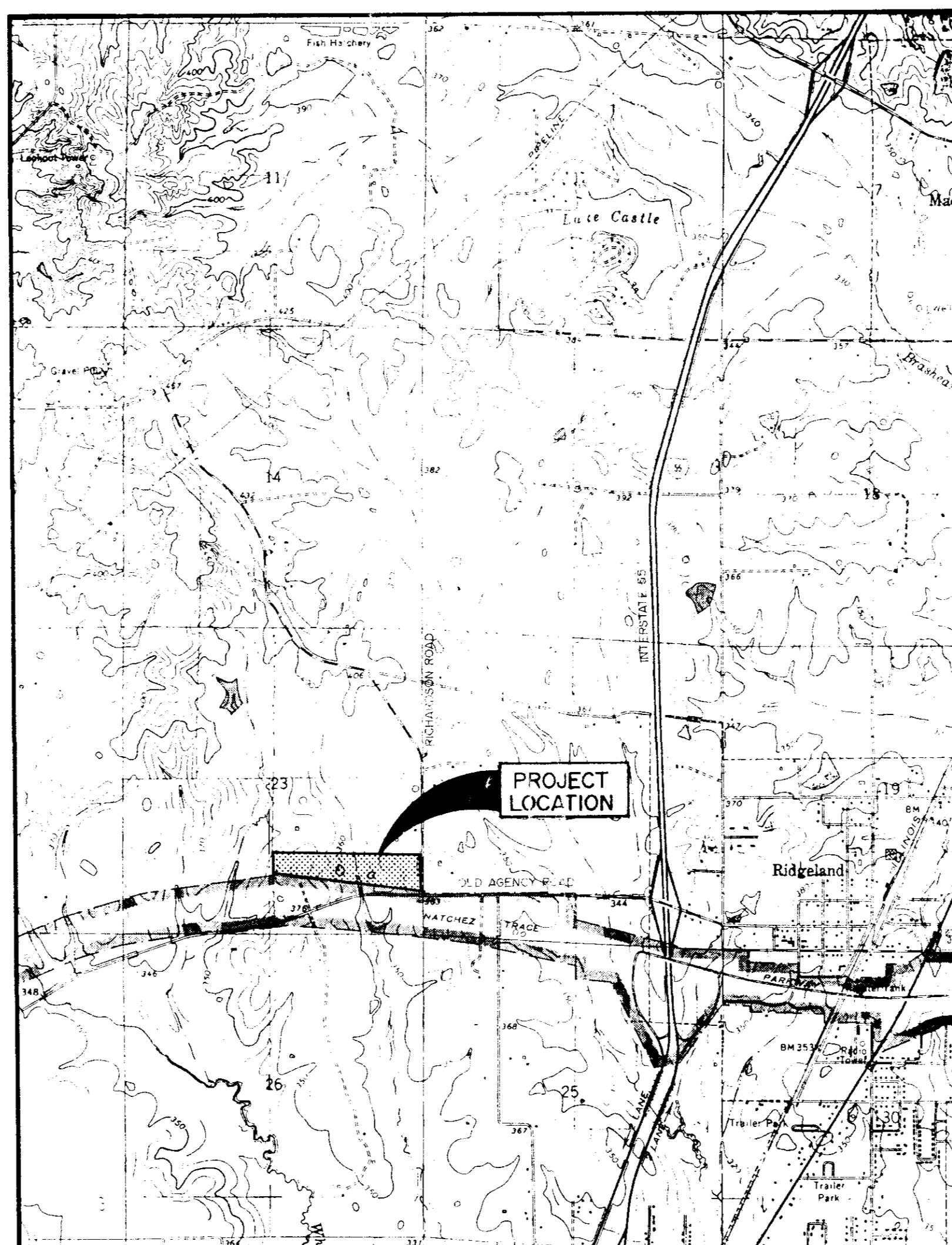
STREETS, DRAINAGE, SANITARY SEWER & WATER SYSTEM

INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	PRELIMINARY PLAT
3	GENERAL LAYOUT,
4	DRAINAGE LAYOUT
5-9	PLAN-PROFILE SHEETS
10	WATER DETAILS
11	SEWER DETAILS
12	DRAINAGE DETAILS
13	PUMP STATION DETAILS

ESTIMATED QUANTITIES

ITEM NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT
STREETS AND DRAINAGE			
100-1	CLEARING & GRUBBING	4.7	AC
200-1	EXCAVATION-COMMON	7,700	CY
200-2	EXCAVATION-CHANNEL	200	CY
200-3	EXCAVATION-STREET & BACKFILL	500	CY
200-4	EMBANKMENT	3,000	CY
300-1	6" LIME TREATED SUB-BASE (ALT.)	11,713	SY
400-1	3" BLACK BASE COURSE (ALT.)	11,713	SY
400-2	4" BLACK BASE COURSE	11,713	SY
400-3	1-1/2" BITUMINOUS SURFACE COURSE	11,713	SY
500-1	CONCRETE CURB & GUTTER	8,415	LF
600-1	CURB INLET	21	EA
600-2	STORM MANHOLE	3	EA
600-3	15" REINFORCED CONCRETE PIPE	622	LF
600-4	18" REINFORCED CONCRETE PIPE	317	LF
600-5	21" REINFORCED CONCRETE PIPE	125	LF
600-6	24" REINFORCED CONCRETE PIPE	432	LF
600-7	30" REINFORCED CONCRETE PIPE	198	LF
600-8	36" REINFORCED CONCRETE PIPE	165	LF
600-9	18"x11" REINFORCED CONCRETE PIPE	587	LF
600-10	44"x27" REINFORCED CONC. PIPE	233	LF
600-11	8'x4' BCX CULVERT	40	LF
600-12	15" FLARED END SECTION	1	EA
600-13	36" FLARED END SECTION	1	EA
600-14	18"x11" FLARED END SECTION	2	EA
600-15	44"x27" FLARED END SECTION	1	EA
600-16	ROCK RIP-RAFF	3	TON



VICINITY MAP

Browning, Inc.
CONSULTING ENGINEERS - SURVEYORS
P. O. Box 1211
108 Argwood Place
Jackson, Mississippi 39211

WATER DISTRIBUTION SYSTEM			
900-1	CONN. TO EXIST. WATER MAIN	1	EA
900-2	12" PVC WATER MAIN, C-900, CLASS 150	3,000	LF
900-3	6" PVC WATER MAIN, C-900, CLASS 150	475	LF
900-4	12"x12"x12" TEE	2	EA
900-5	12"x12"x6" TEE	8	EA
900-6	6"x6"x6" TEE	1	EA
900-7	12" GATE VALVE WITH BOX	4	EA
900-8	6" GATE VALVE WITH BOX	2	EA
900-9	6" FIRE HYDRANT WITH GATE VALVE	7	EA
900-10	12" PLUG WITH 2" BLOW-OFF	2	EA
900-11	6" PLUG WITH 2" BLOW-OFF	2	EA
900-12	SERVICE ASSEMBLY	40	EA
900-13	3/4" SERVICE LINE	1,420	LF
900-14	SERVICE MARKER	40	EA
SANITARY SEWER SYSTEM			
1000-1	8" GRAVITY SAN. SEWER (0'-8')	1,184	LF
1000-2	8" GRAVITY SAN. SEWER (8'-12')	1,643	LF
1000-3	8" GRAVITY SAN. SEWER (12'-16')	652	LF
1000-4	48" STANDARD MANHOLE (0'-8')	8	EA
1000-5	48" STANDARD MANHOLE (8'-12')	4	EA
1000-6	48" STANDARD MANHOLE (12'-16')	3	EA
1000-7	UNDERCUT & SELECT BACKFILL	200	CY
1000-8	6" SANITARY SEWER SERVICE	1,740	LF
1000-9	6" SERVICE TEE	26	EA
1000-10	SERVICE MARKER	40	EA
1000-11	PUMP STATION	1	LS
1000-12	FORCE MAIN CONN. TO EXIST. MANHOLE	1	LS
1000-13	2-1/2" FORCE MAIN	3,450	LF
1000-14	AIR RELEASE VALVE	2	EA
GRASS PLANTING			
1100-1	SEEDING	1.7	AC

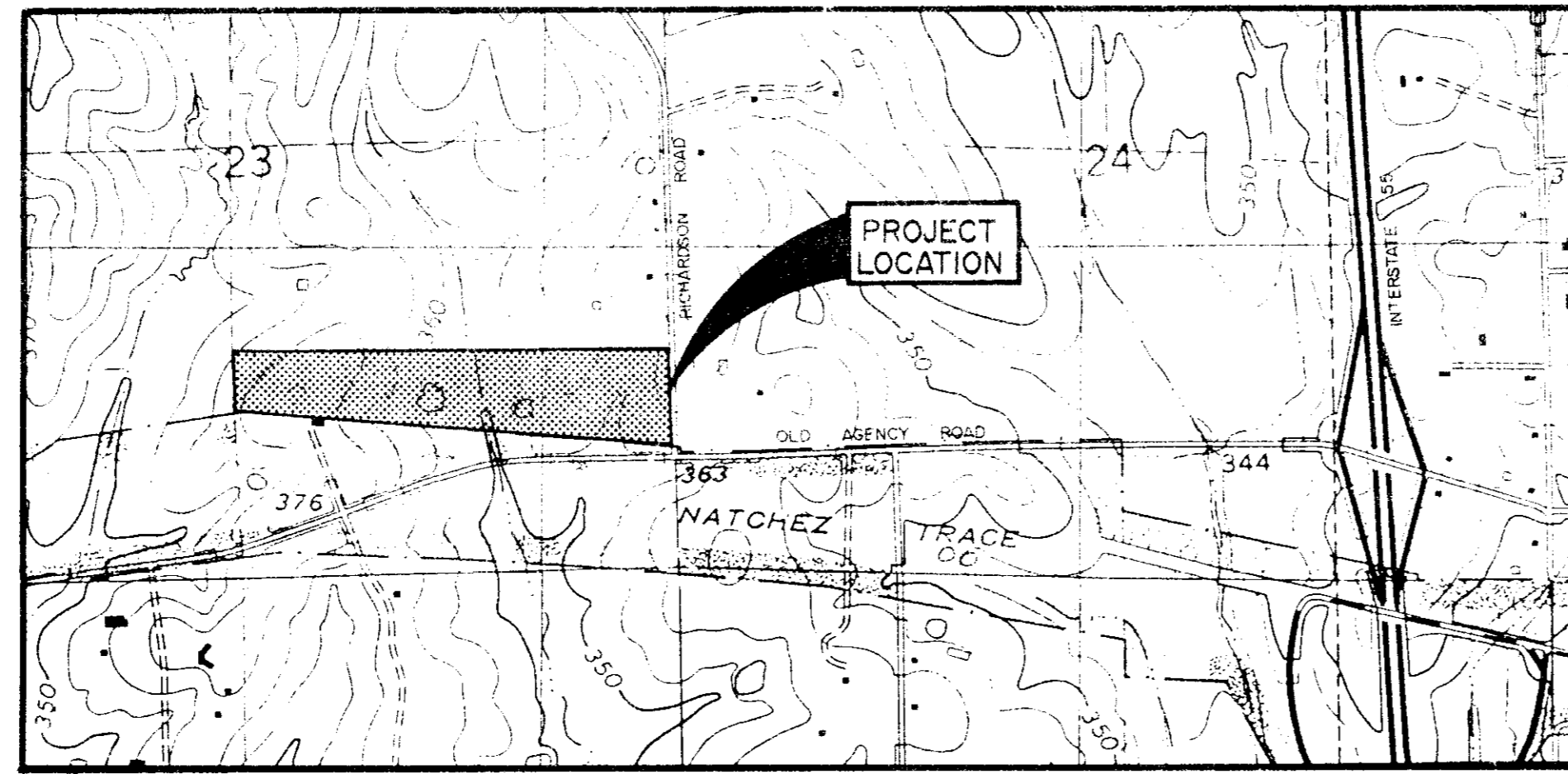
AS BUILTS
FEBRUARY, 1991

I hereby certify that a final field survey was conducted and that these "as built" plans resulted from said survey and are true and correct to the best of my knowledge. I further certify that each improvement has been constructed in accordance with City specifications.

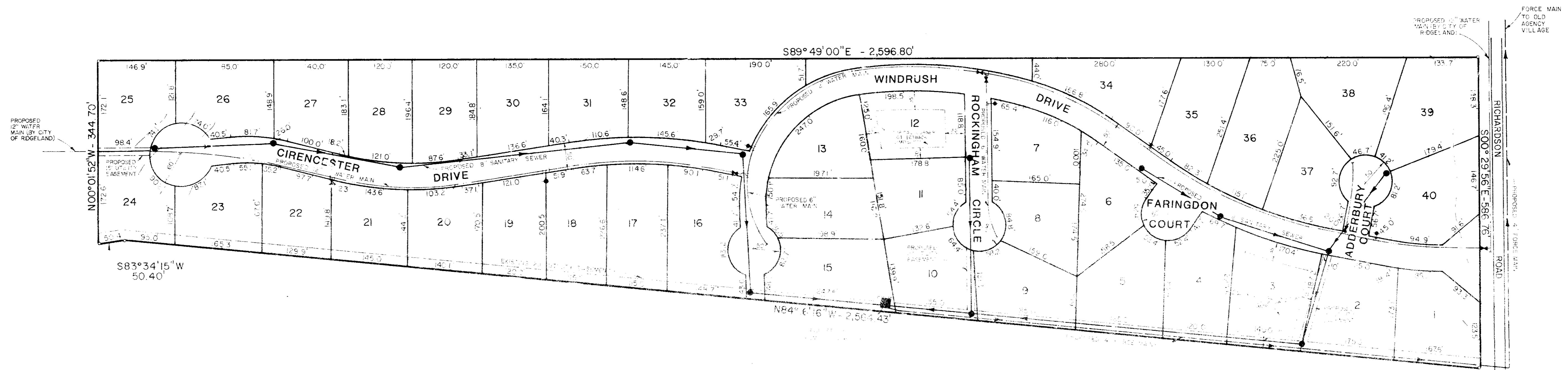
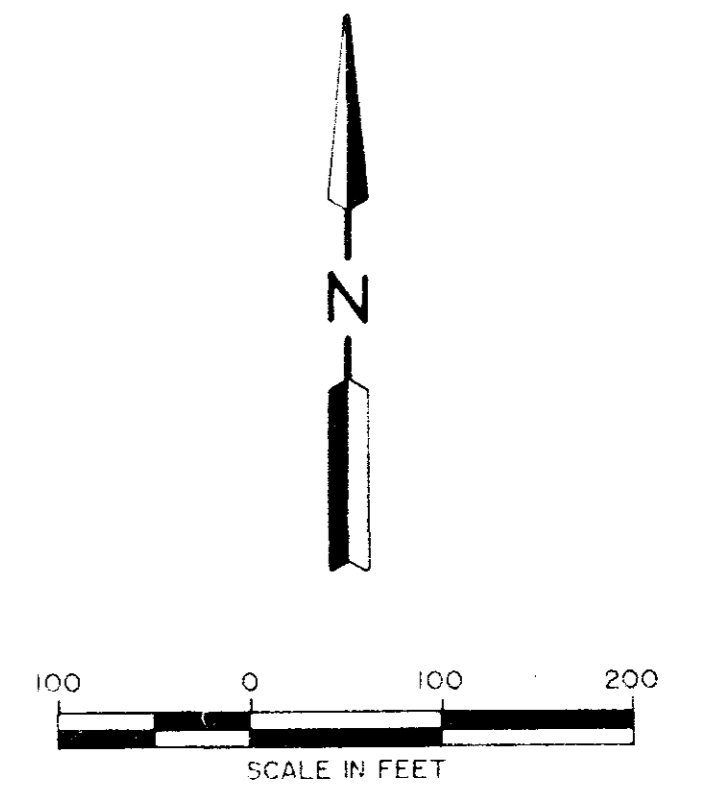
Phillip L. Browning
Phillip L. Browning, P. E. No. 6082



PWP-05013



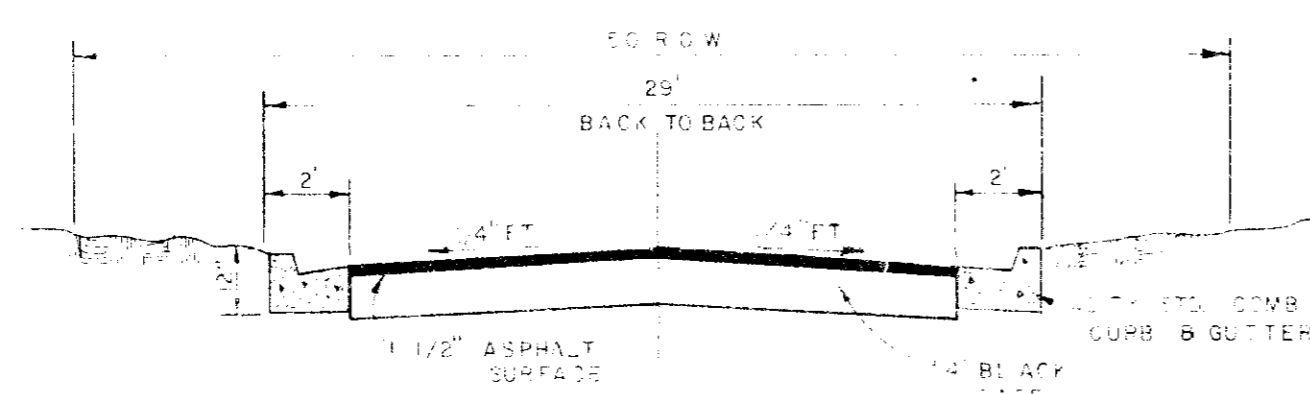
VICINITY MAP
SCALE 1" = 1000'



NATCHEZ TRACE PARKWAY

GENERAL NOTES

1. OWNER - WINDRUSH PARTNERS LP
SUITE 100 MIRROR LAKE PLAZA
2829 LAKELAND DRIVE JACKSON, MS 39208
2. CONTOURS ARE BASED ON MEAN SEA LEVEL DATUM.
THE PRESENT ZONING CLASSIFICATION OF THE SUBJECT
PROPERTY IS R-1, SINGLE-FAMILY RESIDENTIAL DISTRICT.
3. THE MATHEMATICAL CLOSURE OF THE SURVEY IS 1 PART
IN 1,546,025
4. CUL-DE-SACS SHALL HAVE A MINIMUM PAVED SURFACE
DIAMETER OF 80 FEET AND A MINIMUM RIGHT-OF-WAY
DIAMETER OF 100 FEET
5. THIS PROPERTY IS LOCATED IN ZONE C ACCORDING TO
THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL
NUMBER 260228 0295 E. EFFECTIVE DATE JANUARY 2, 1990



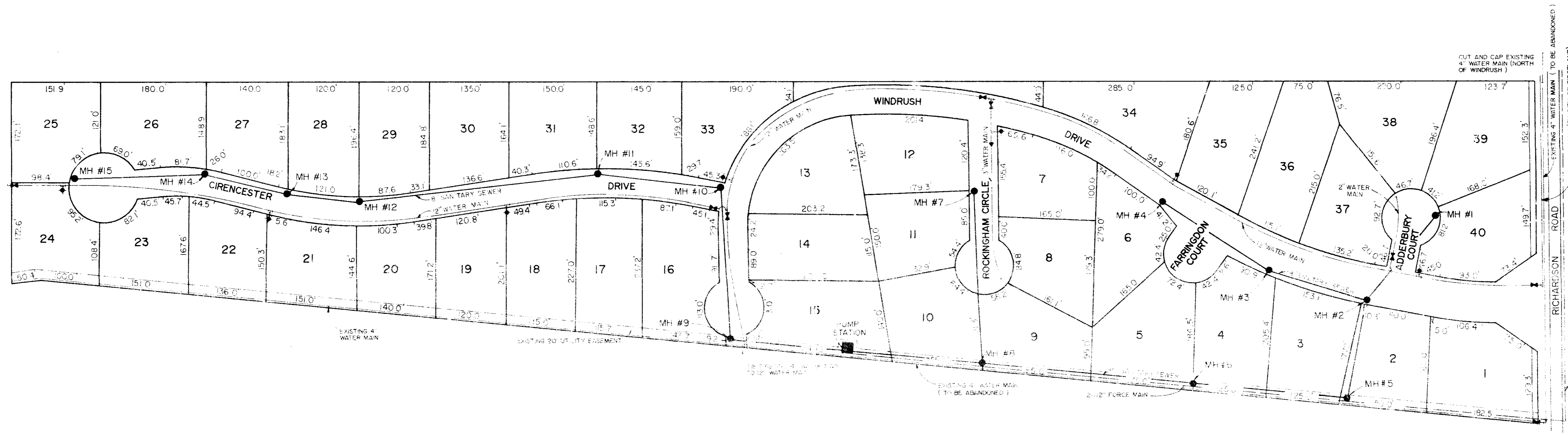
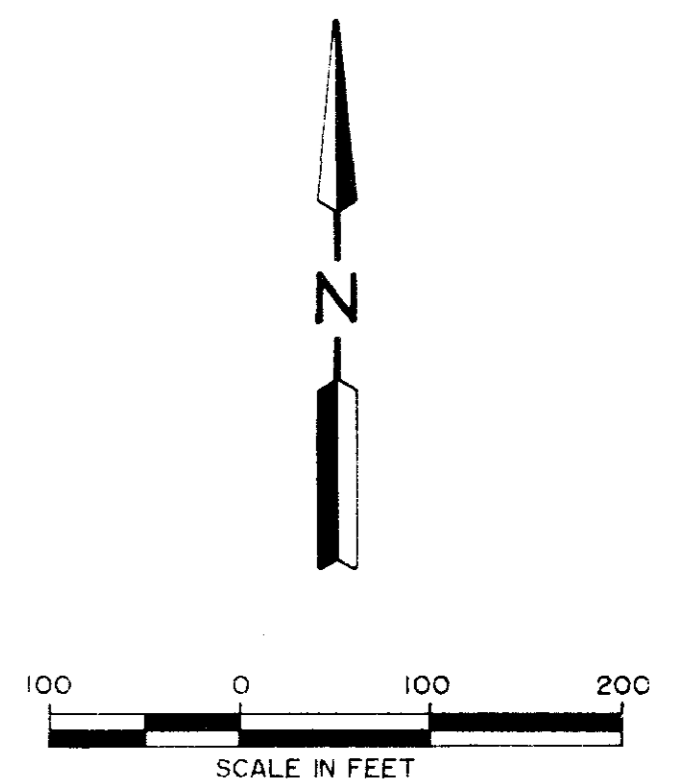
TYPICAL STREET SECTION
(50' R.O.W.)

TBM - ELEVATION 367.73 (M.S.L. DATUM) HIGH CORNER OF
NATCHEZ TRACE PARKWAY MONUMENT LOCATED ON THE
NORTH SIDE OF OLD AGENCY ROAD, 60 FEET EAST OF E
OF RICHARDSON ROAD

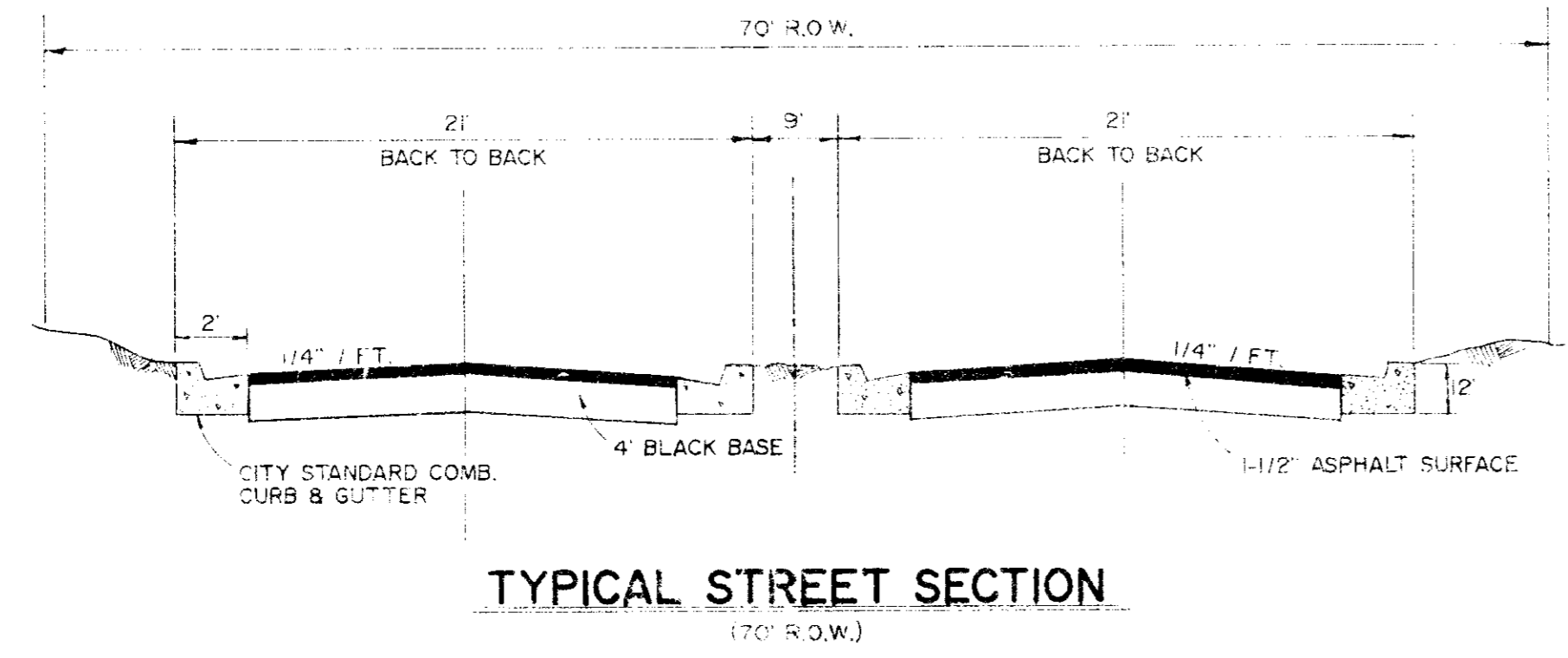
PRELIMINARY PLAT
WINDRUSH
40 LOTS - 27.47 ACRES
SITUATED IN
S 1/2 OF THE SE 1/4
SECTION 23, TOWNSHIP 7 NORTH, RANGE 1 EAST
RIDGELAND, MISSISSIPPI
APRIL, 1990

Prepared By
DEAN/DALE AND DEAN
ARCHITECTS
P.O. Box 4685
2829 Lakeland Drive
1301 Mirror Lake Plaza
Jackson, Ms. 39208

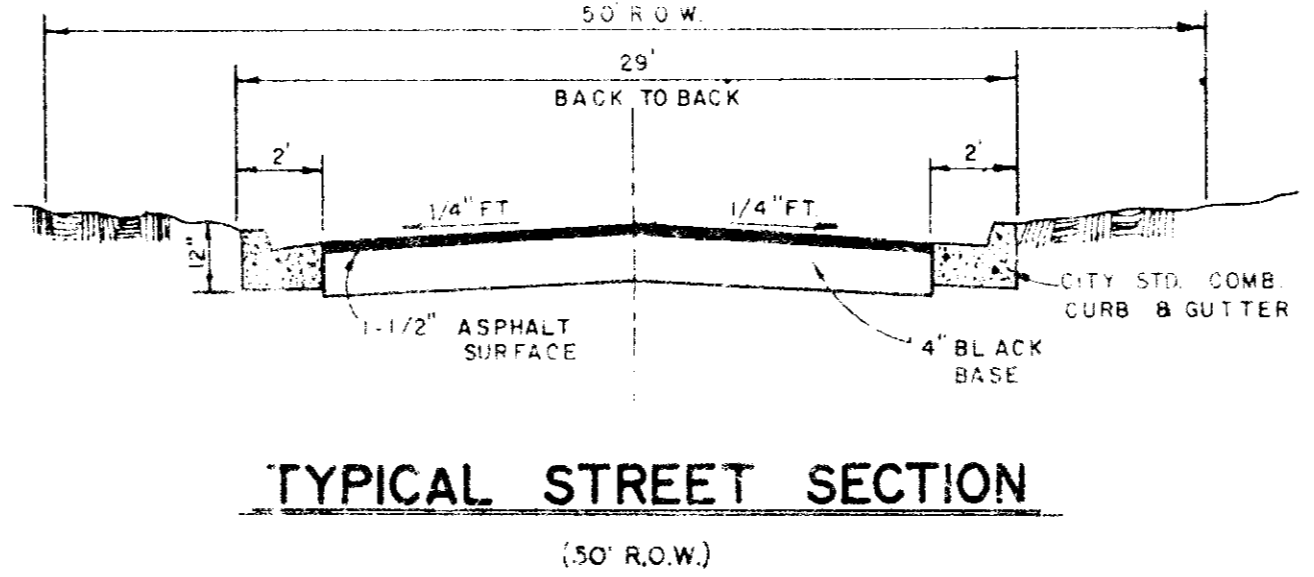
BROWNING, INC.
CONSULTING ENGINEERS-SURVEYORS
P.O. Box 1278
1058 Ridgewood Place
Jackson, Ms. 39211



NATCHEZ TRACE PARKWAY

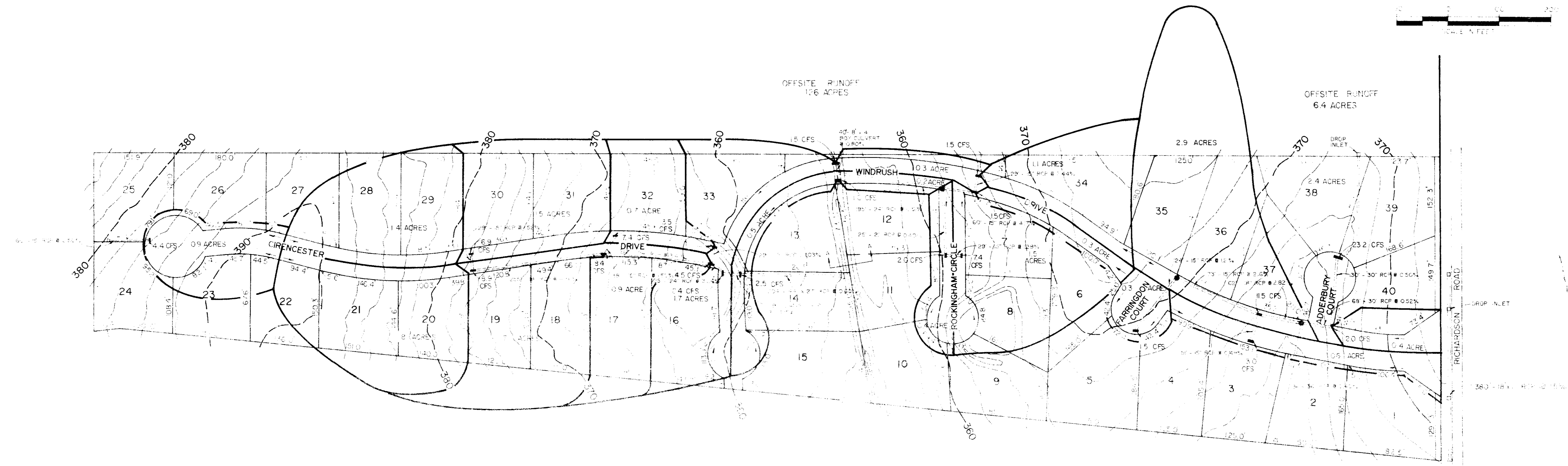
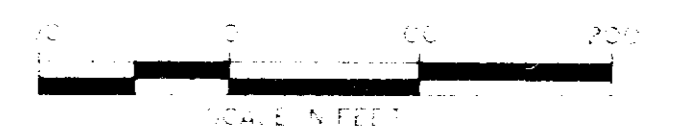


TYPICAL STREET SECTION
(70' R.O.W.)

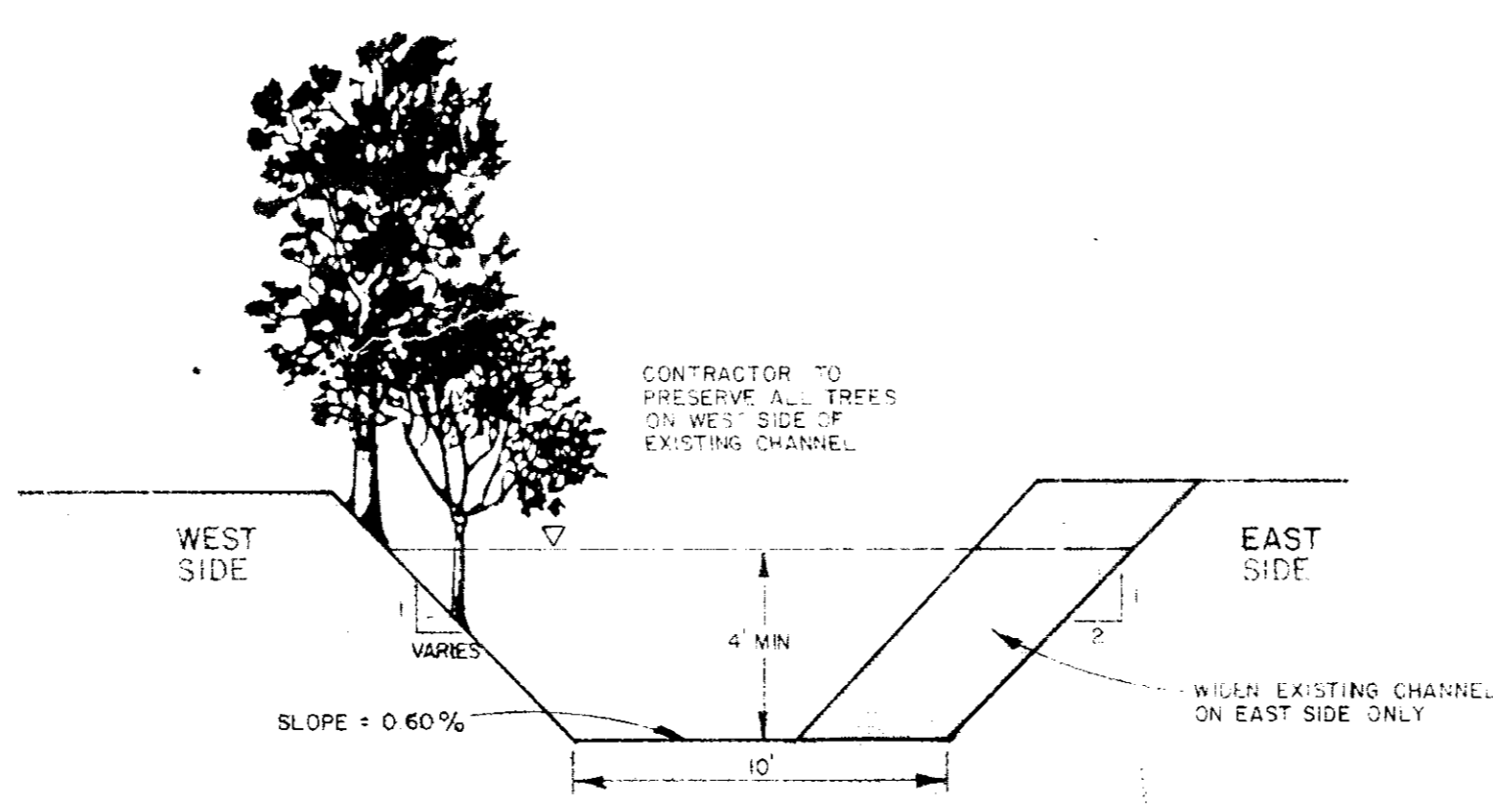


TYPICAL STREET SECTION
(50' R.O.W.)

WINDRUSH		
GENERAL LAYOUT		
BROWNING INC. Consulting Engineers Jackson, Mississippi		
Designed By: P.L.B.	Scale: 1" = 100'	Sheet 3 of 13
Drawn By: J.F.	Date: 10.01.96	



NATCHEZ TRACE PARKWAY



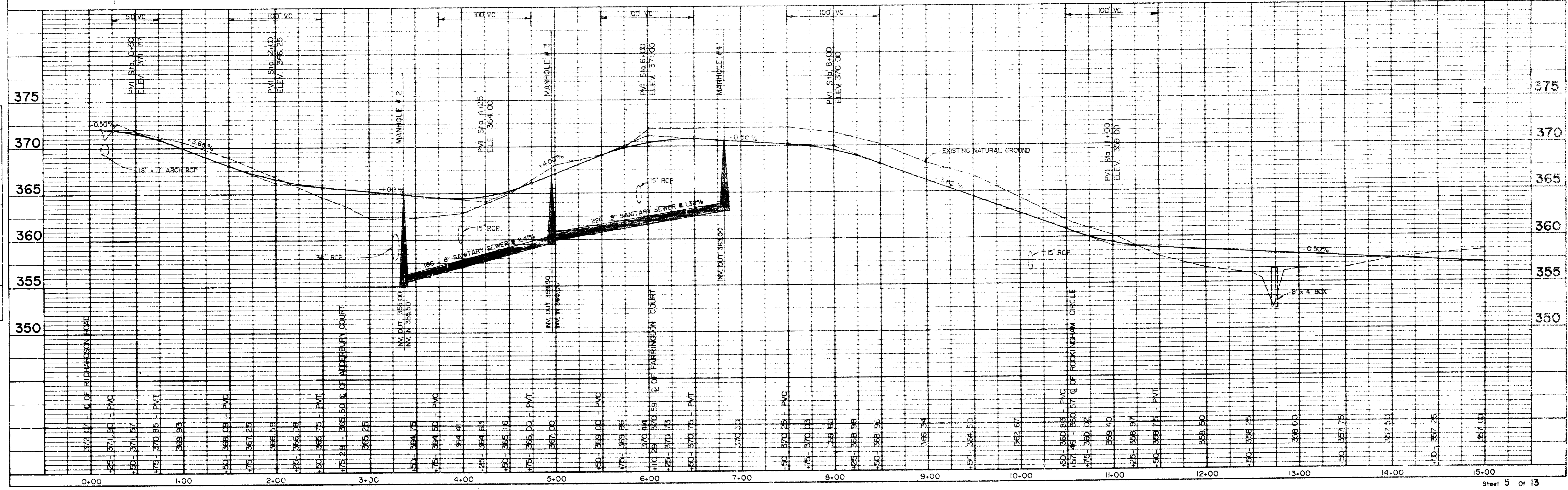
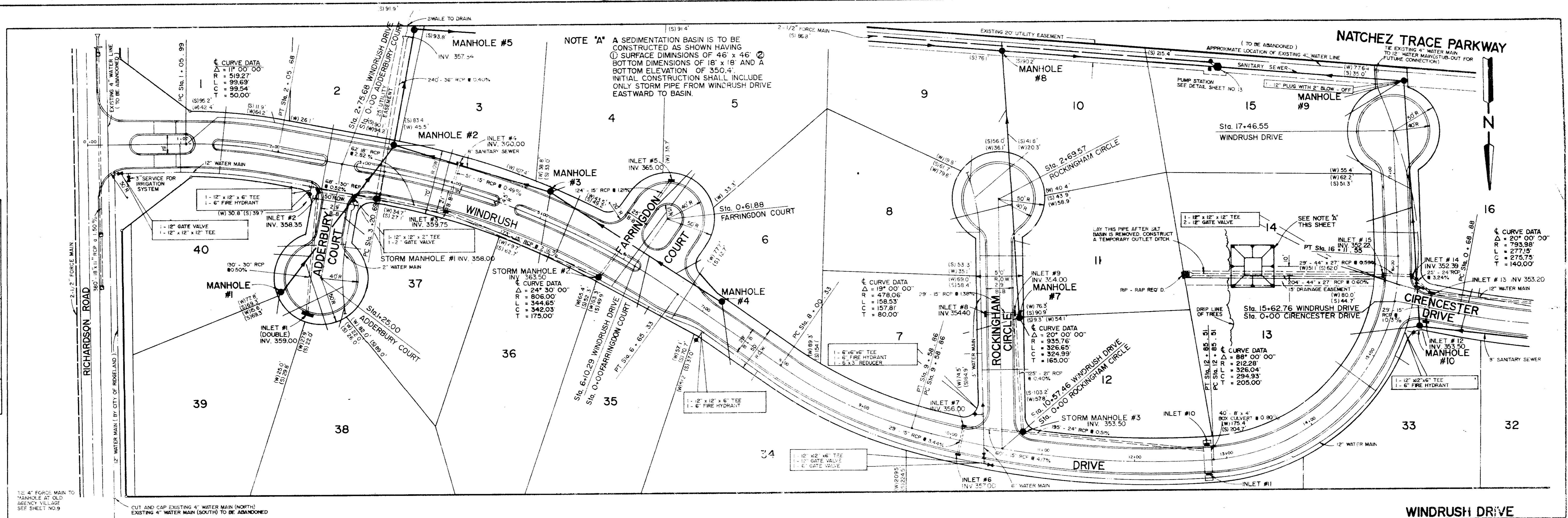
TYPICAL DITCH SECTION A - A

(VIEW LOOKING UPSTREAM)

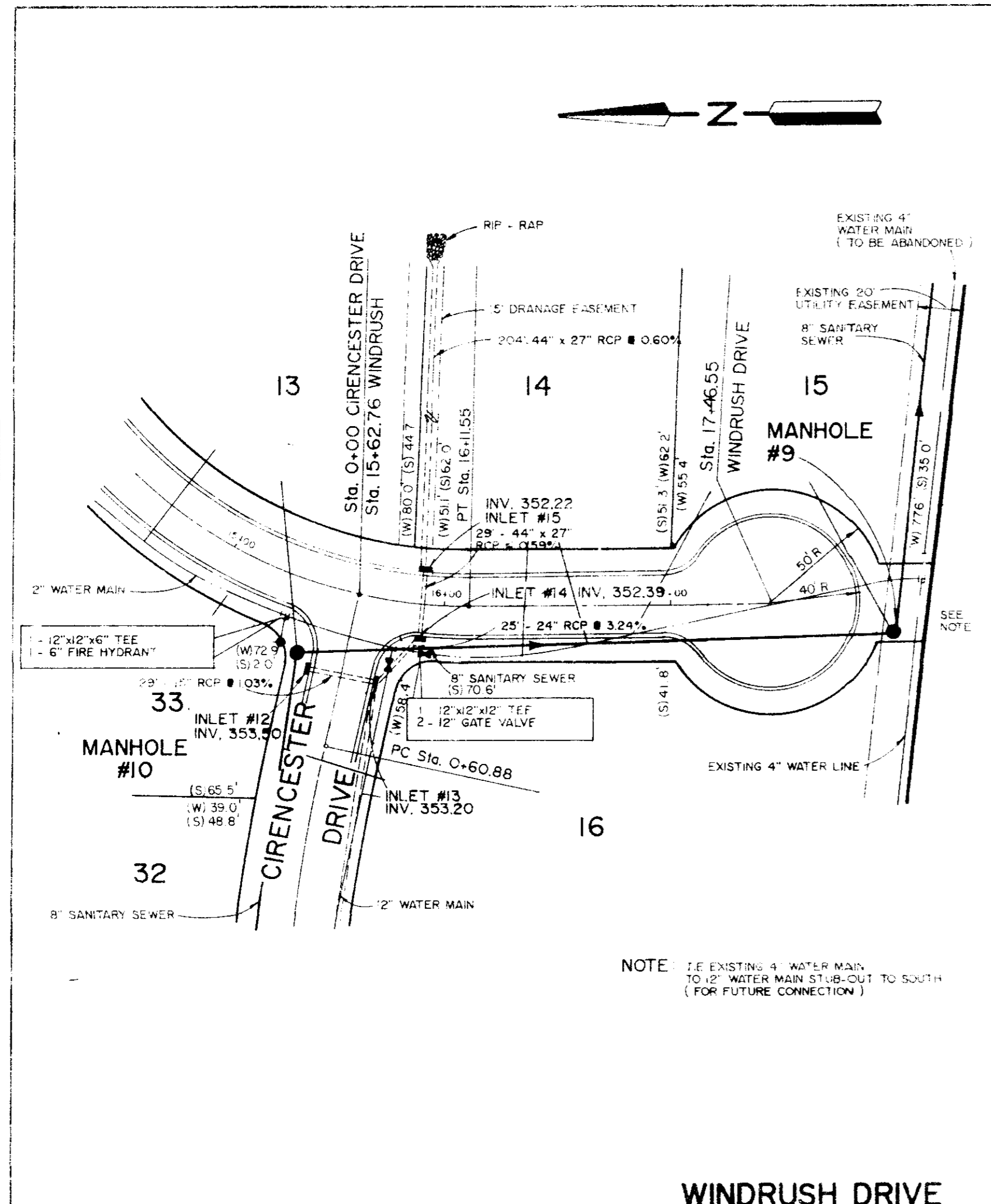
WINDRUSH		
DRAINAGE LAYOUT		
BROWNING INC. Professional Engineer Worcester, Massachusetts		
Designed By: H. H.	Scale: 1"=100'	Sheet 4 of 13
Drawn By: J. J.	Date: MAY, 1990	

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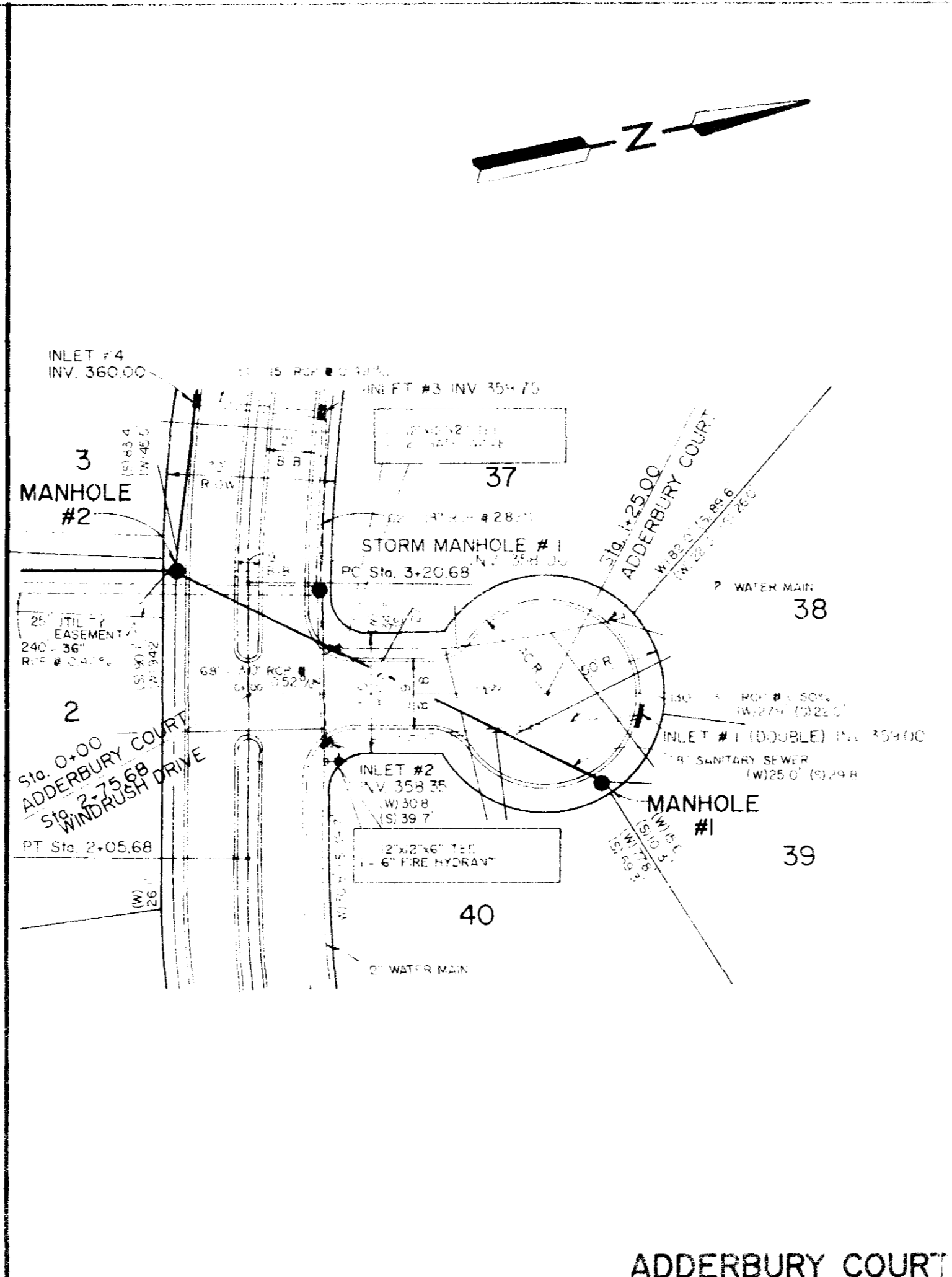


PLAN	DATE	NO.
DESIGNED		
CHECKED		
APPROVED		
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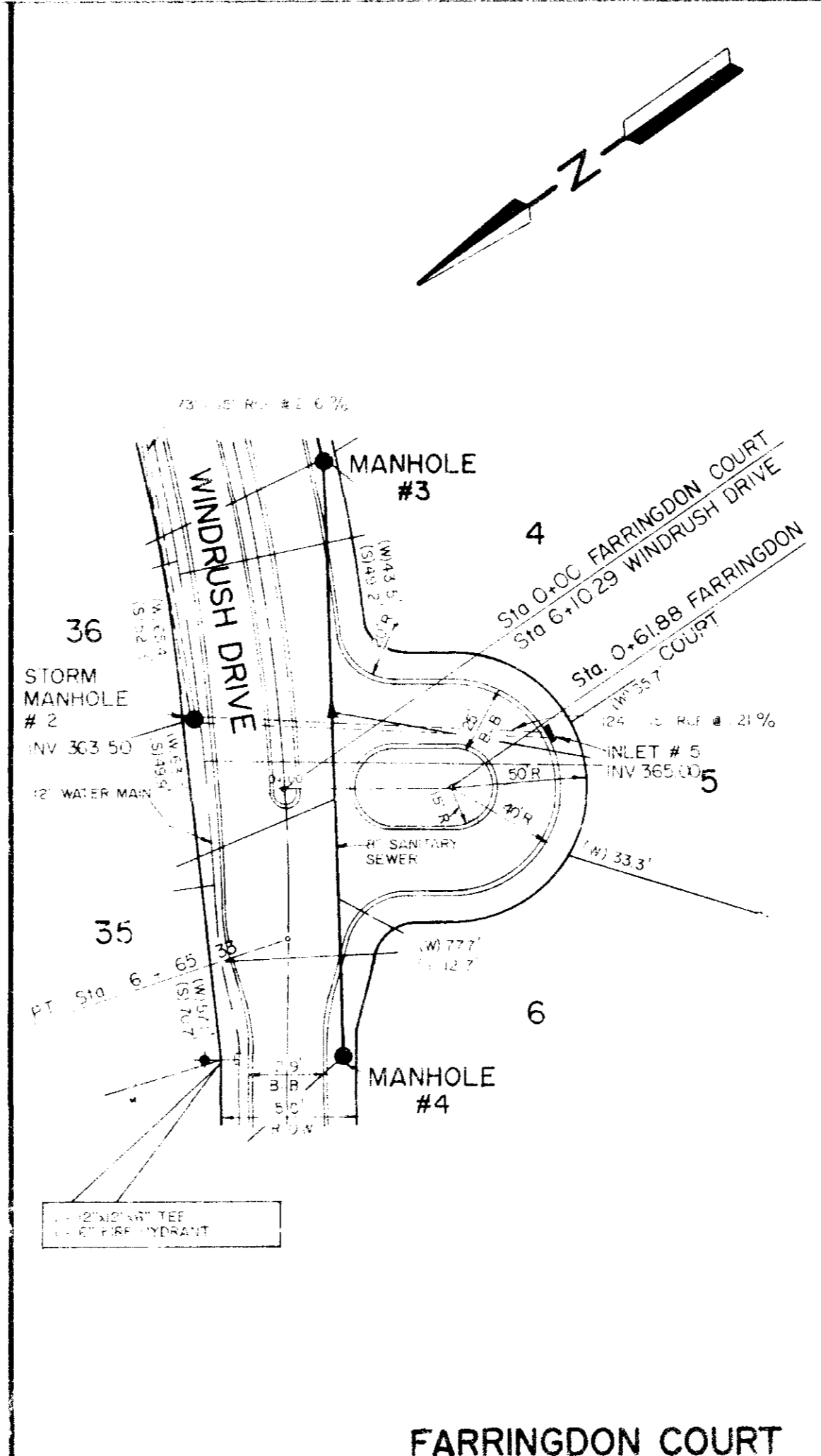


NOTE: 1. EXISTING 4" WATER MAIN TO 2" WATER MAIN STUB-OUT TO SOUTH (FOR FUTURE CONNECTION)

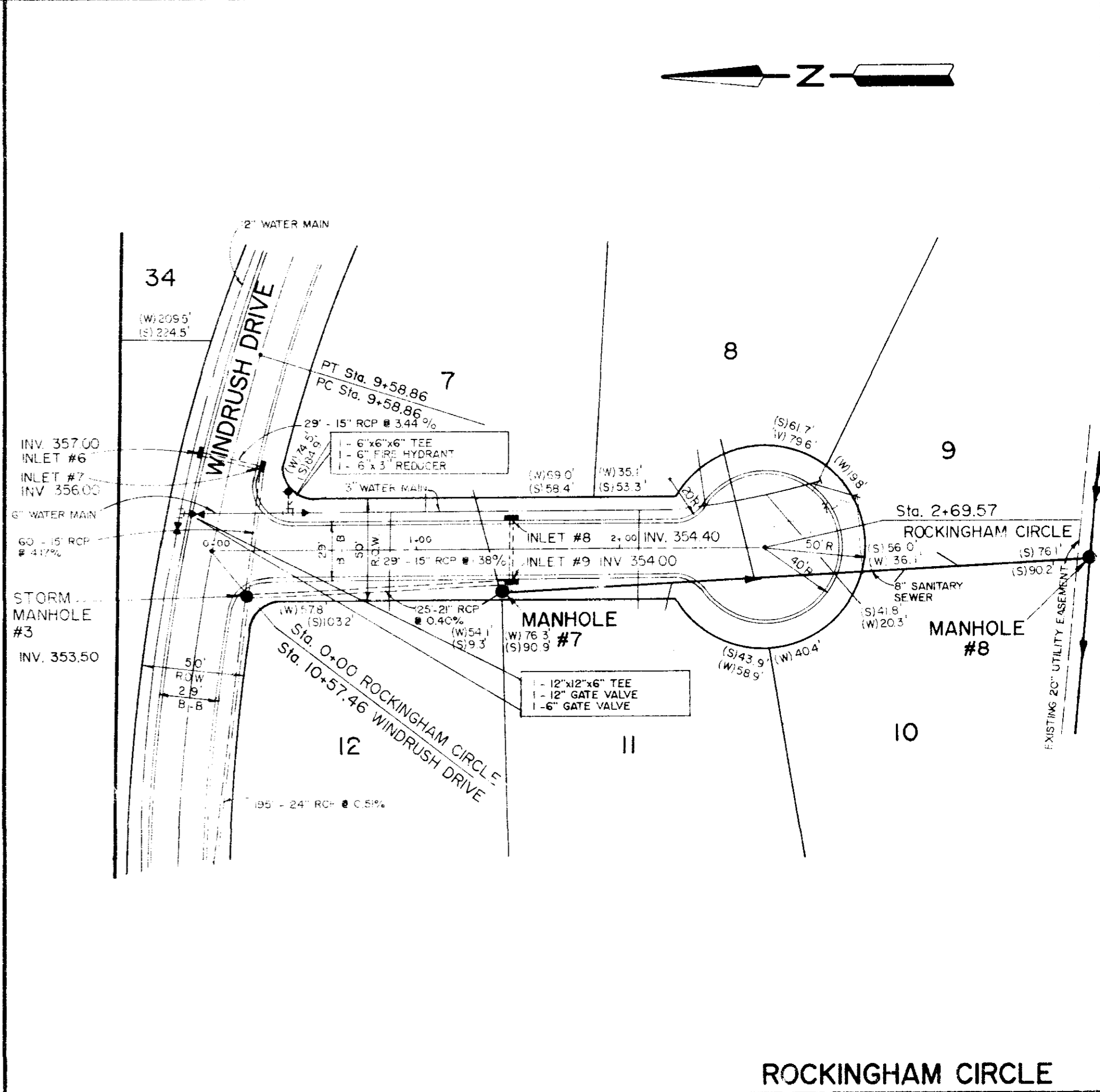
WINDRUSH DRIVE



ADDERBURY COURT

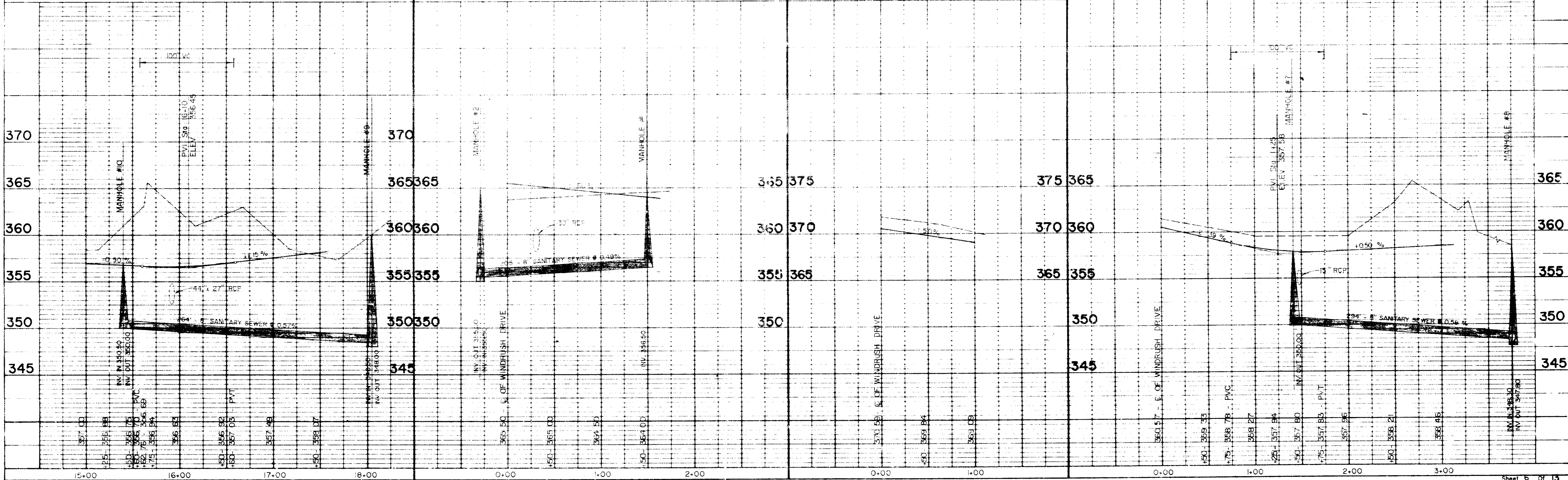


FARRINGTON COURT

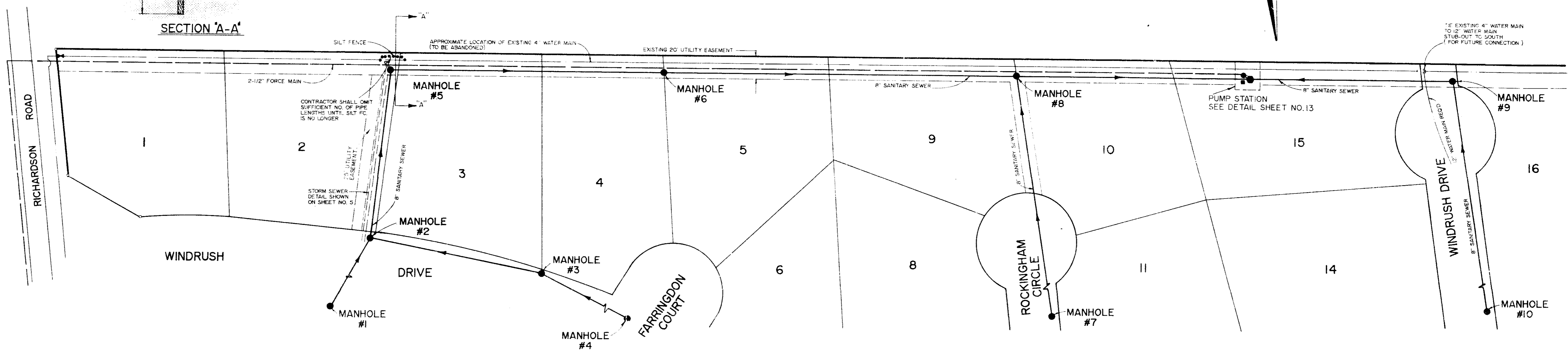
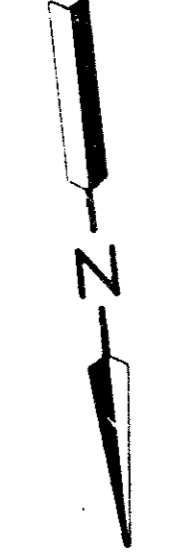
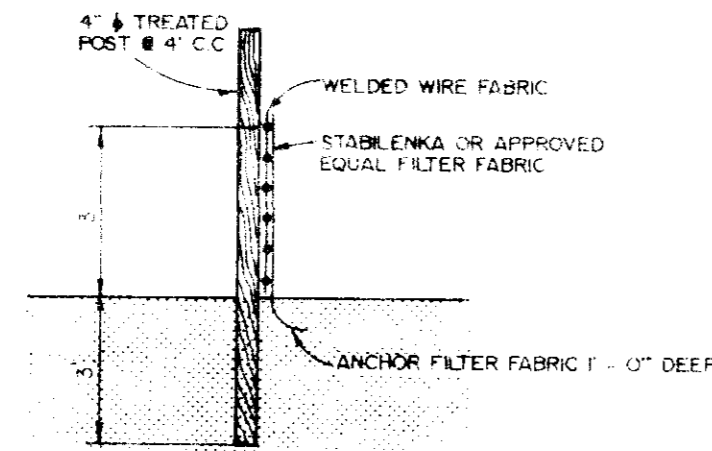


ROCKINGHAM CIRCLE

PROFILE	DATE	NO.
DESIGNED		
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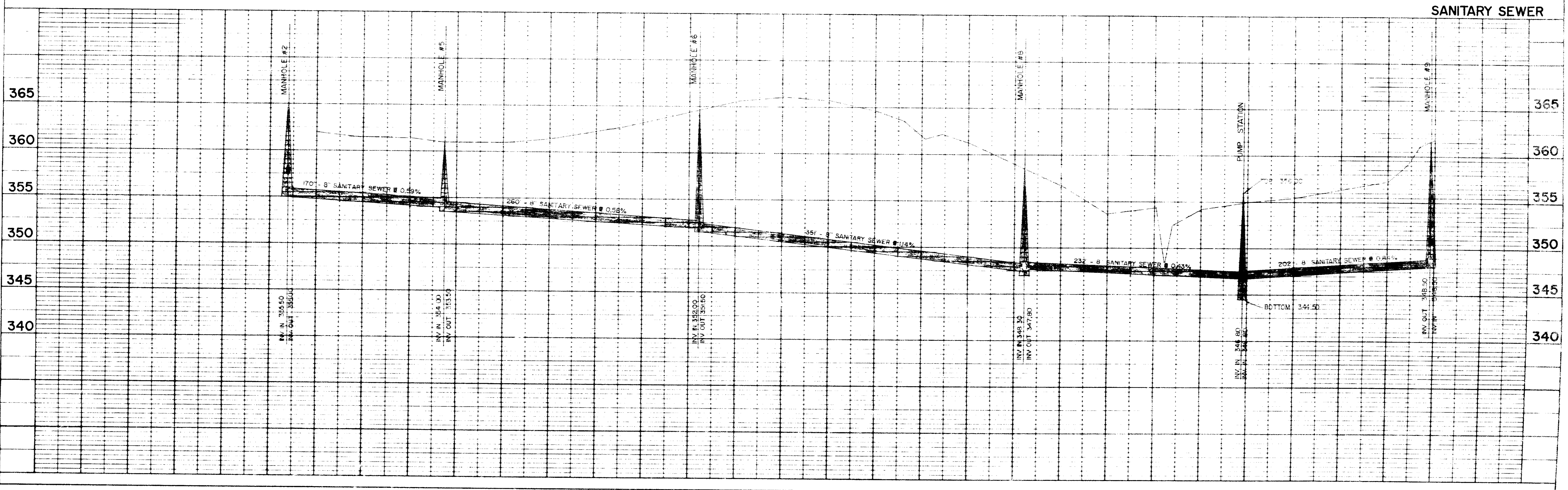


NATCHEZ TRACE PARKWAY



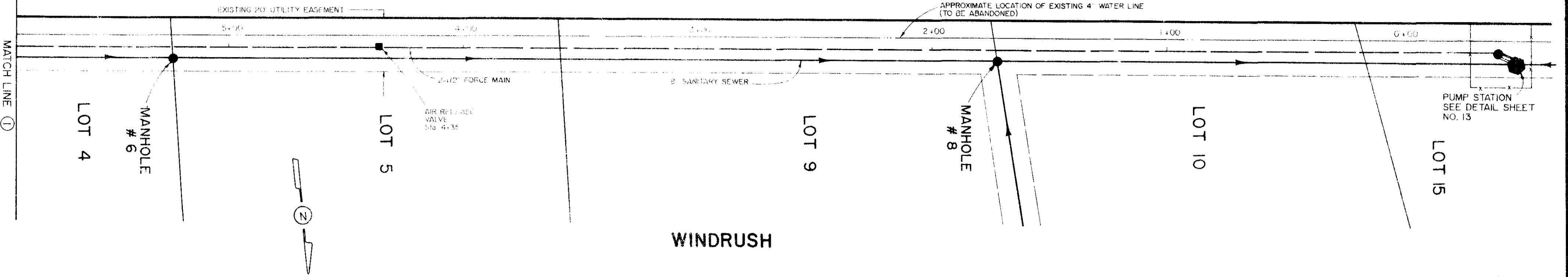
DATE	
PLAN	REVISED
NO. 1	NO. 1
NO. 2	NO. 2
NO. 3	NO. 3
NO. 4	NO. 4
NO. 5	NO. 5
NO. 6	NO. 6
NO. 7	NO. 7
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NO. 12	NO. 12
NO. 13	NO. 13
NO. 14	NO. 14
NO. 15	NO. 15
NO. 16	NO. 16

DATE	
PROFILE	REVISED
NO. 1	NO. 1
NO. 2	NO. 2
NO. 3	NO. 3
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NO. 16	NO. 16

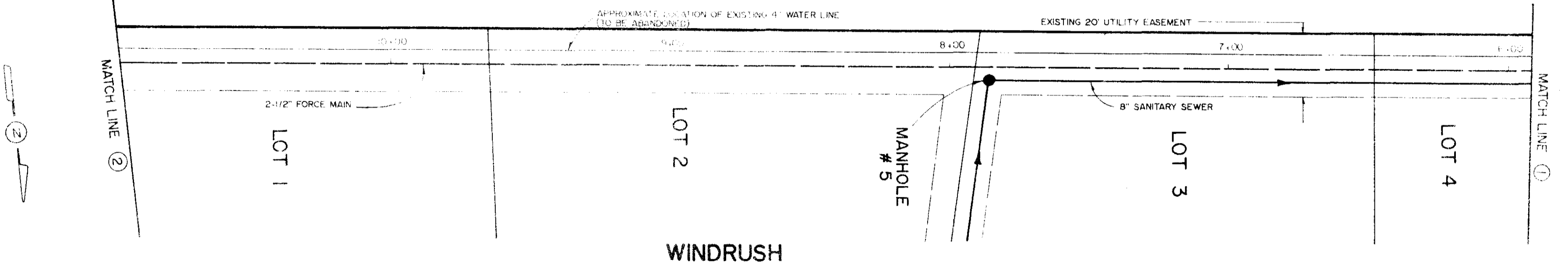


SANITARY SEWER

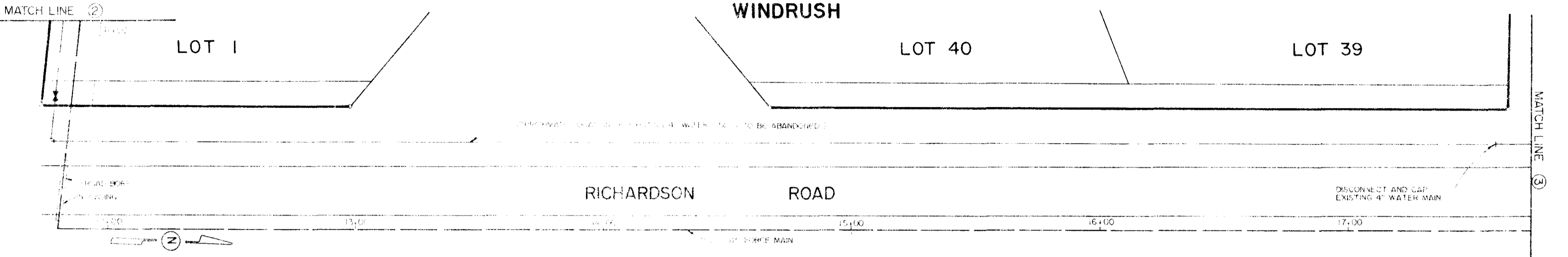
NATCHEZ TRACE PARKWAY



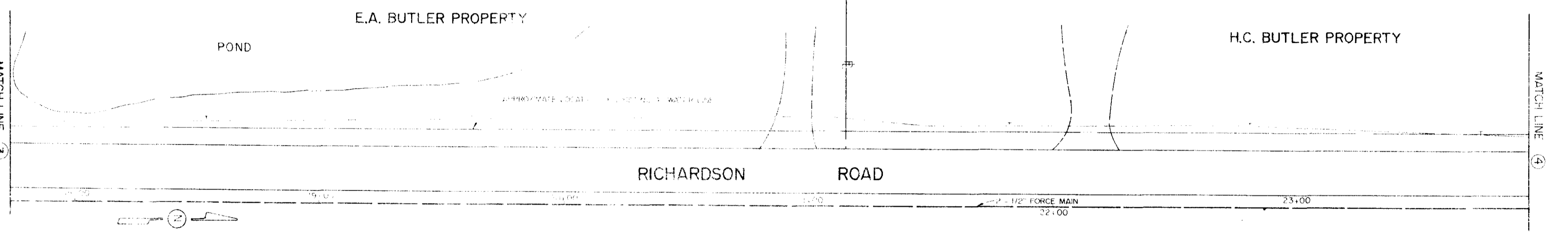
NATCHEZ TRACE PARKWAY



WINDRUSH

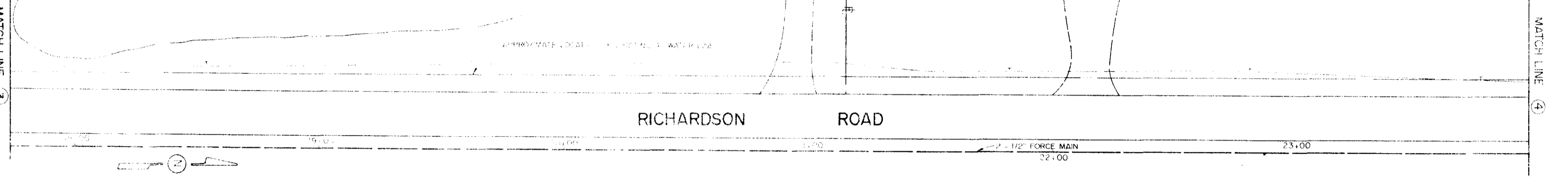


WINDRUSH



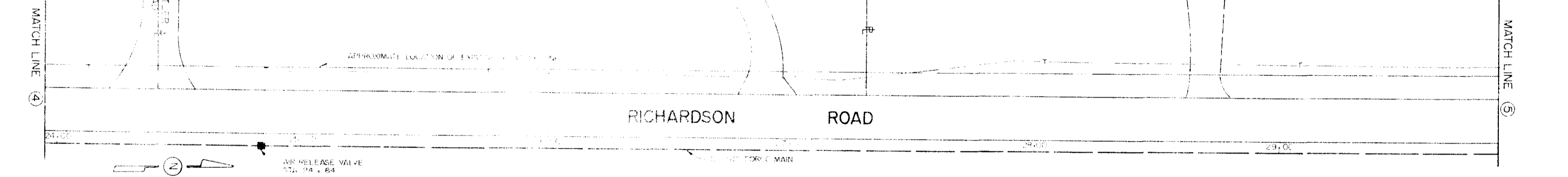
E.A. BUTLER PROPERTY

H.C. BUTLER PROPERTY

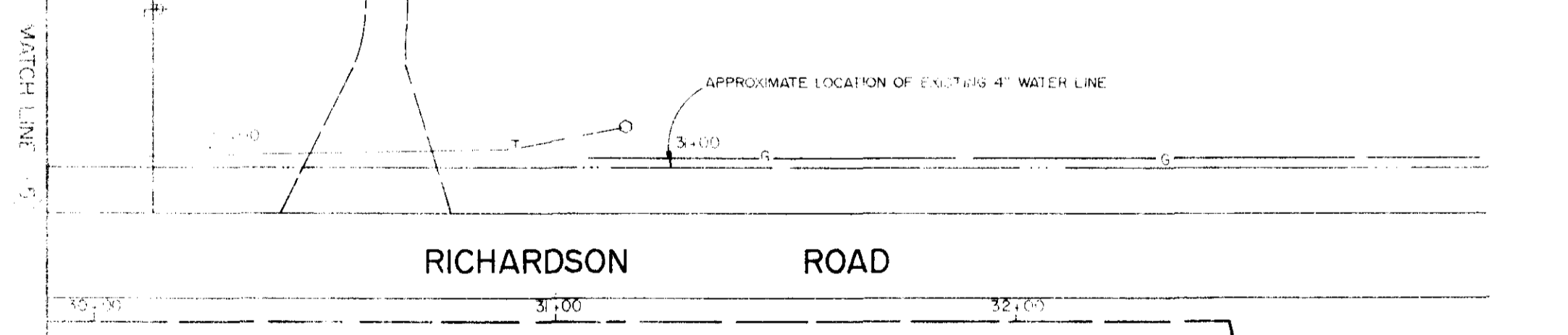


H.M. COWAN PROPERTY

WILLIAM C. NORRIS PROPERTY



DAVID RICHARDSON PROPERTY



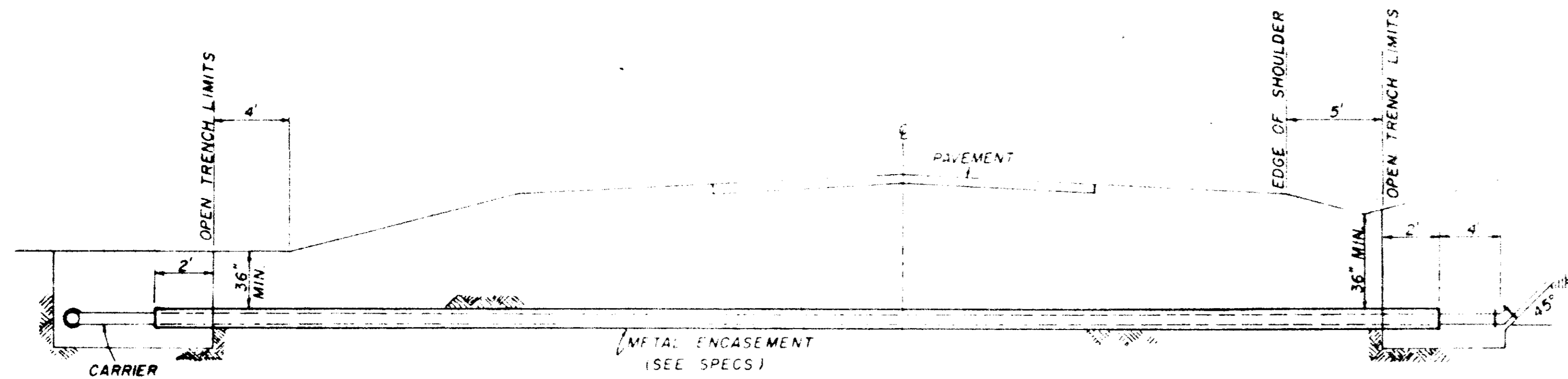
- GENERAL NOTES
1. CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 2. AIR RELEASE VALVES (2) REQUIRED AT THE POINTS OF HIGHEST ELEVATION IN THE FORCE MAIN AT THE APPROXIMATE STATIONS INDICATED.

LOT 59
LOT 58
LOT 57

RED EAGLE CIRCLE
EXISTING 2 1/2" FORCE MAIN (FAL INVERT ELEV. 375.00)
EXISTING MANHOLE
51g 34+80 END OF FORCE MAIN

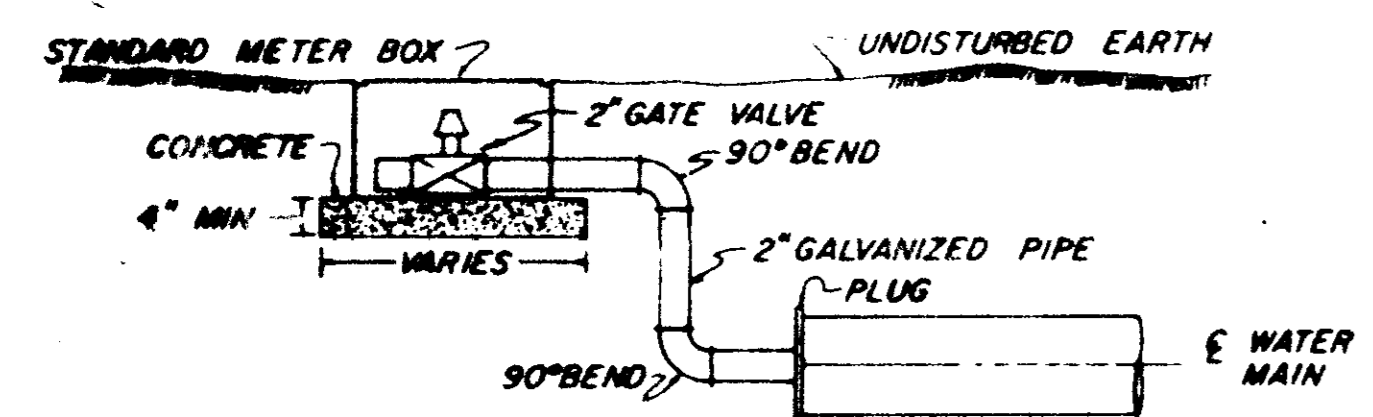
WINDRUSH
FORCE MAIN

BROWNING INC.
Professional Engineers
Scale: 1" = 40'
DATE: MAY 1990
Sheet 9 of 13

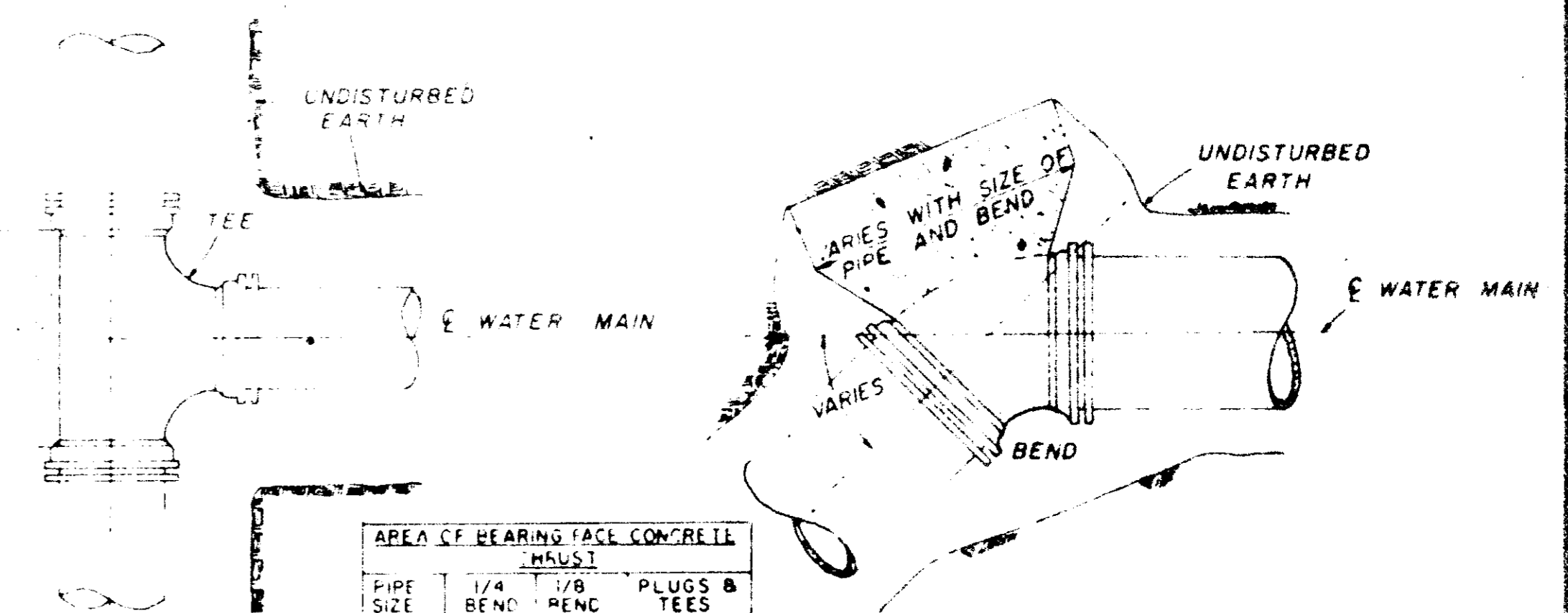


NOTE COMPENSATION FOR CONCRETE TRUST BLOCKS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR VALVES, FIRE HYDRANTS AND FITTINGS

TYPICAL CASSED CROSSING



TYPICAL 2" BLOW-OFF DETAIL

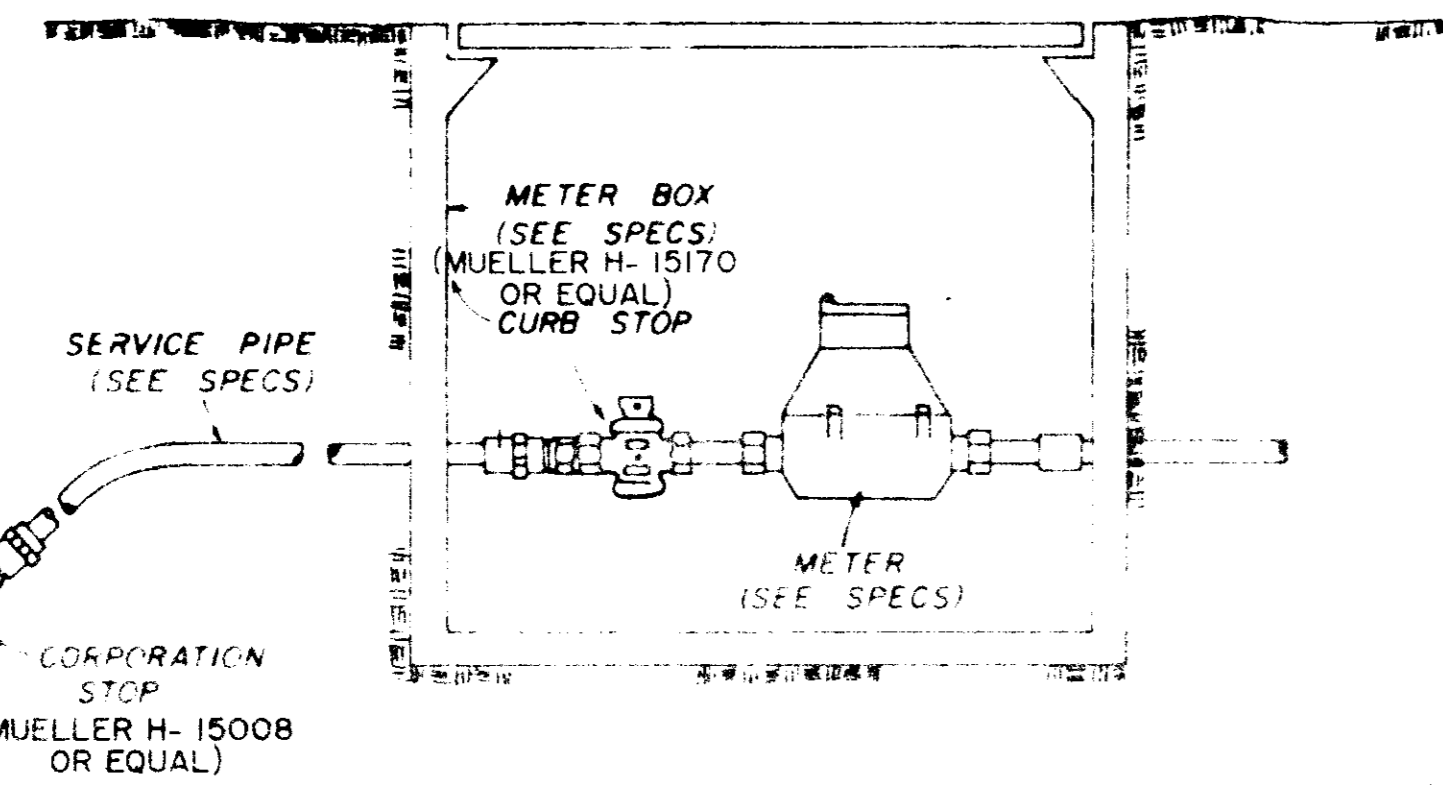


AREA OF BEARING FACE CONCRETE MUST			
PIPE SIZE	1/4 BEND	1/8 BEND	PLUGS & TEES
4-6	3	3	3
8	3	3	3
10	4	3	3
12	6	3	4
16	11	4	7

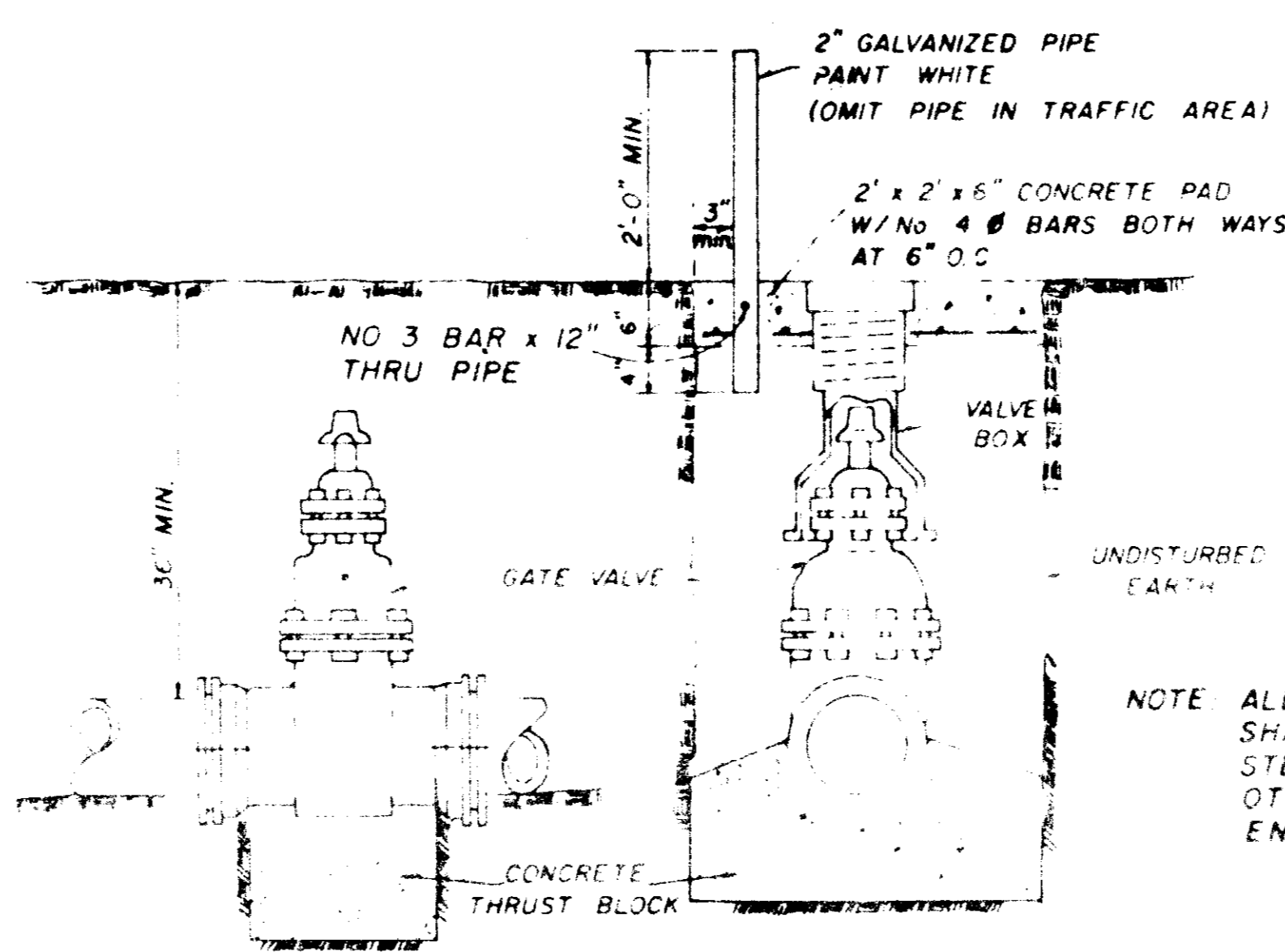
NOTE AREA OF BEARING FACE IN SQUARE FEET

PLAN

PLAN



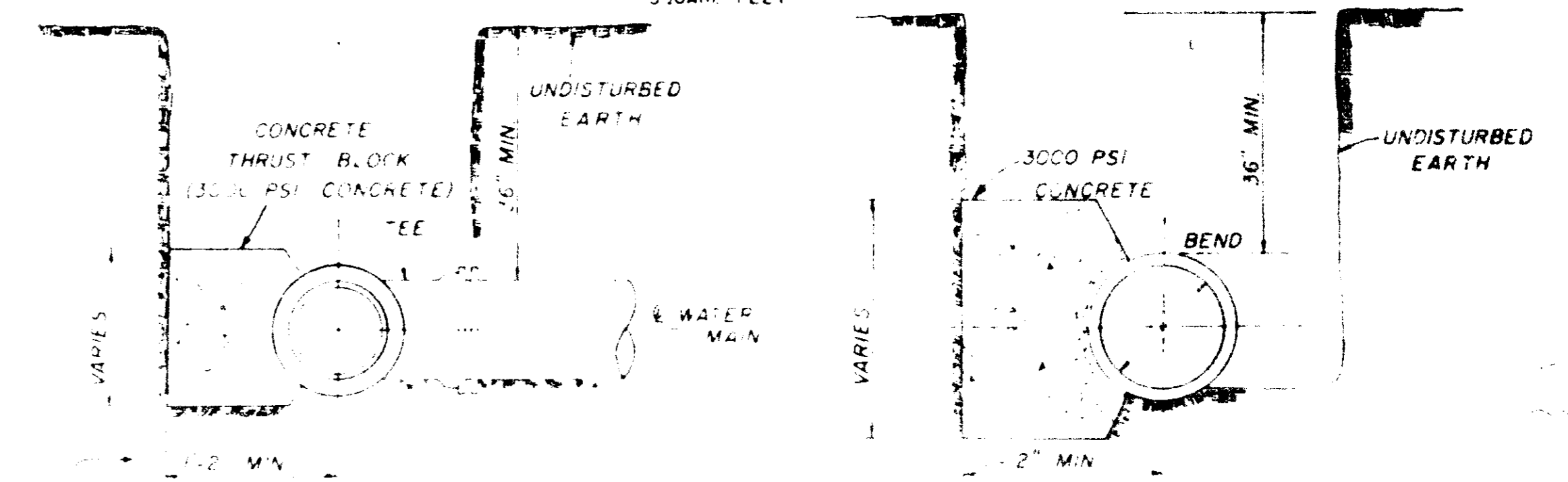
TYPICAL SERVICE ASSEMBLY



ELEVATION SECTION

TYPICAL VALVE & BOX

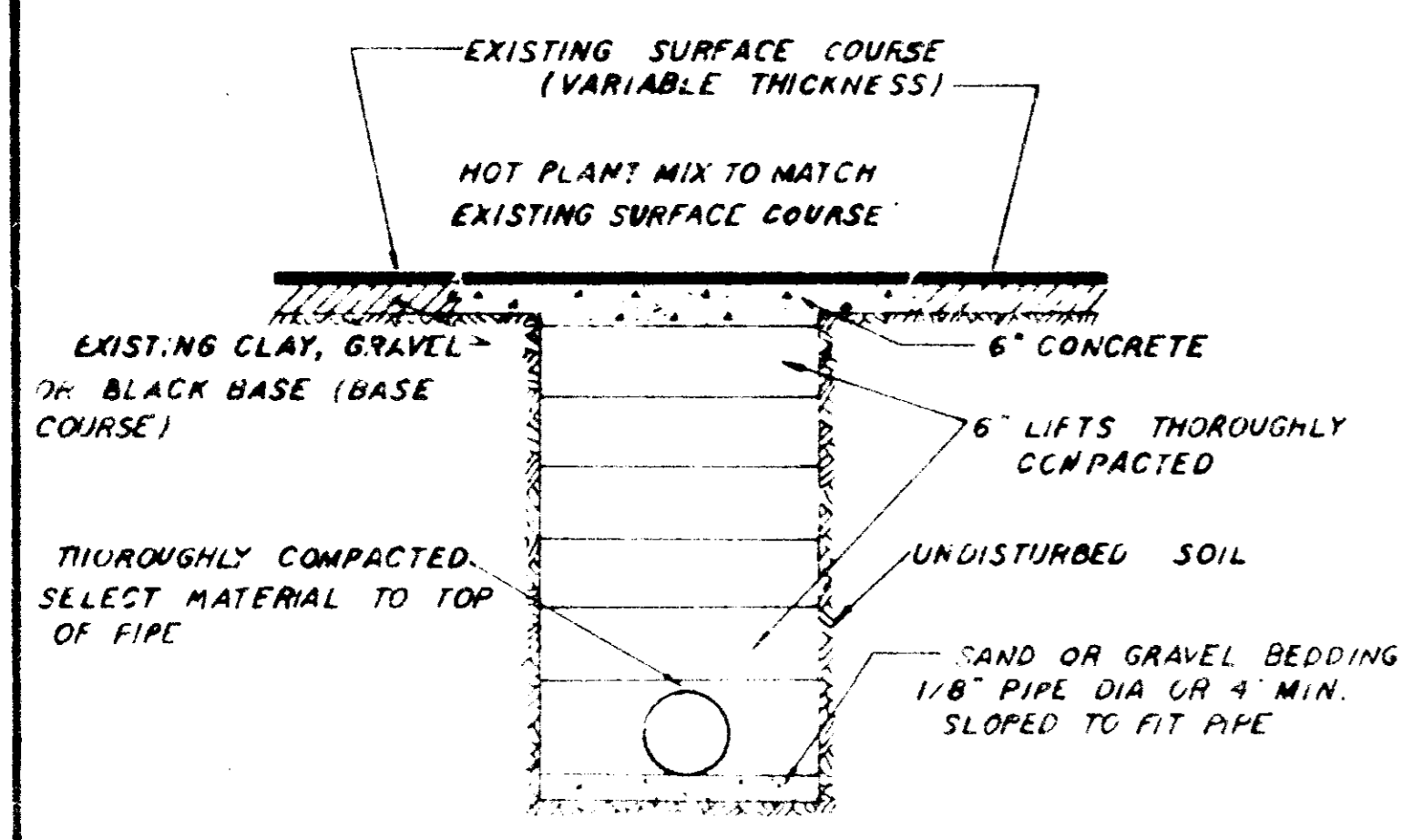
NOTE ALL WATER MAIN CONNECTIONS SHALL BE RODDED WITH ALL STEEL RODS (3/4" MIN) UNLESS OTHERWISE INSTRUCTED BY ENGINEER



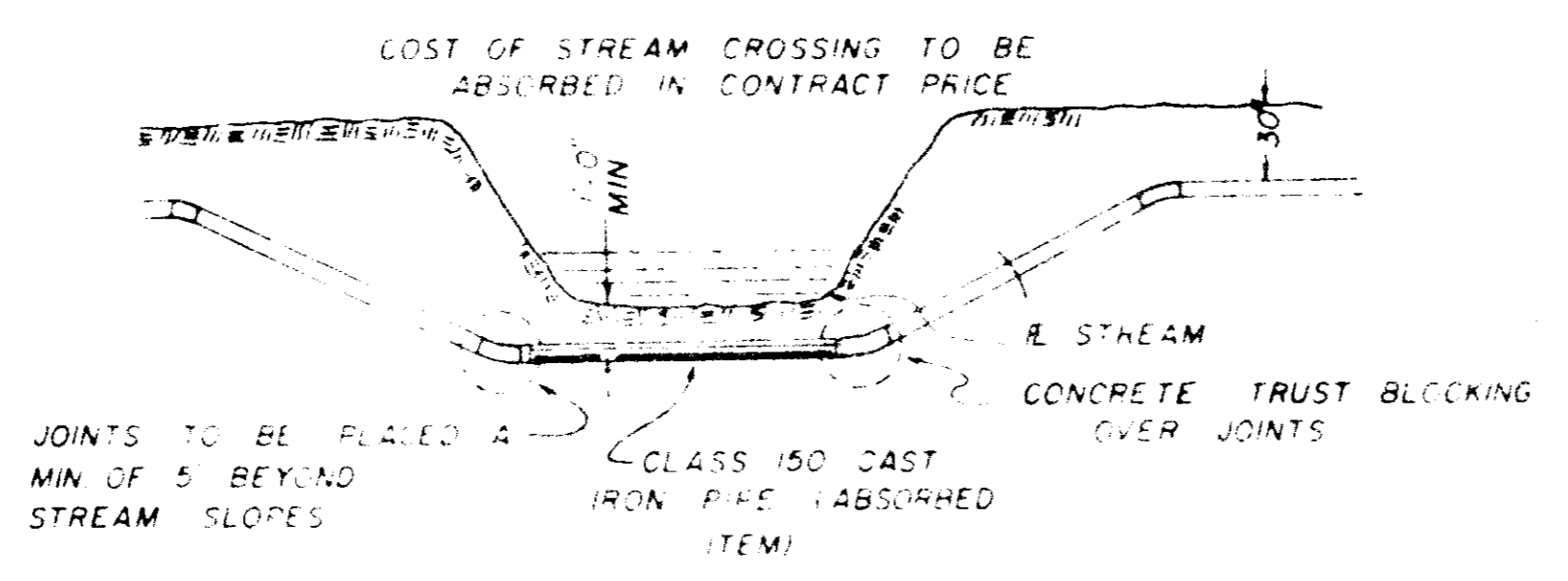
SECTION

SECTION

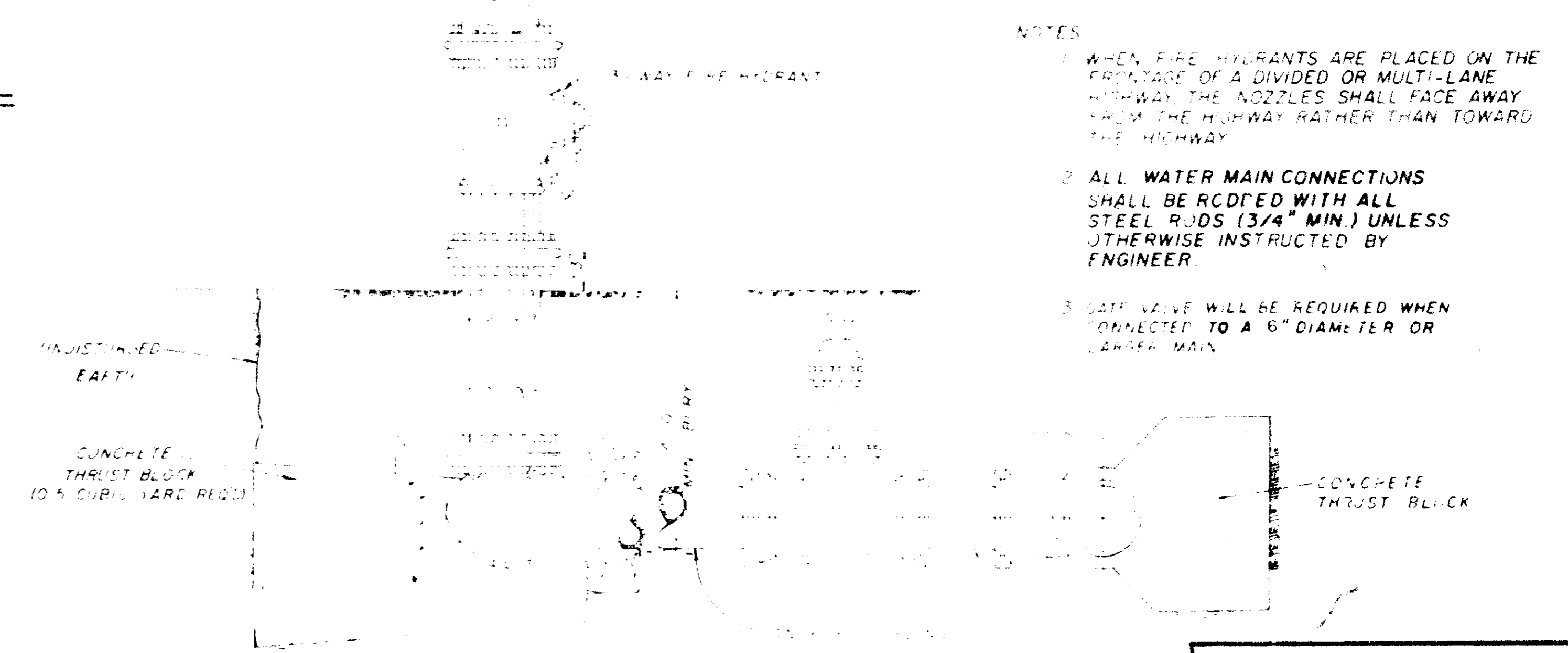
BLOCKING DETAILS FOR TEES & BENDS



STREET REPAIR OF OPEN CUT



TYPICAL STREAM CROSSING



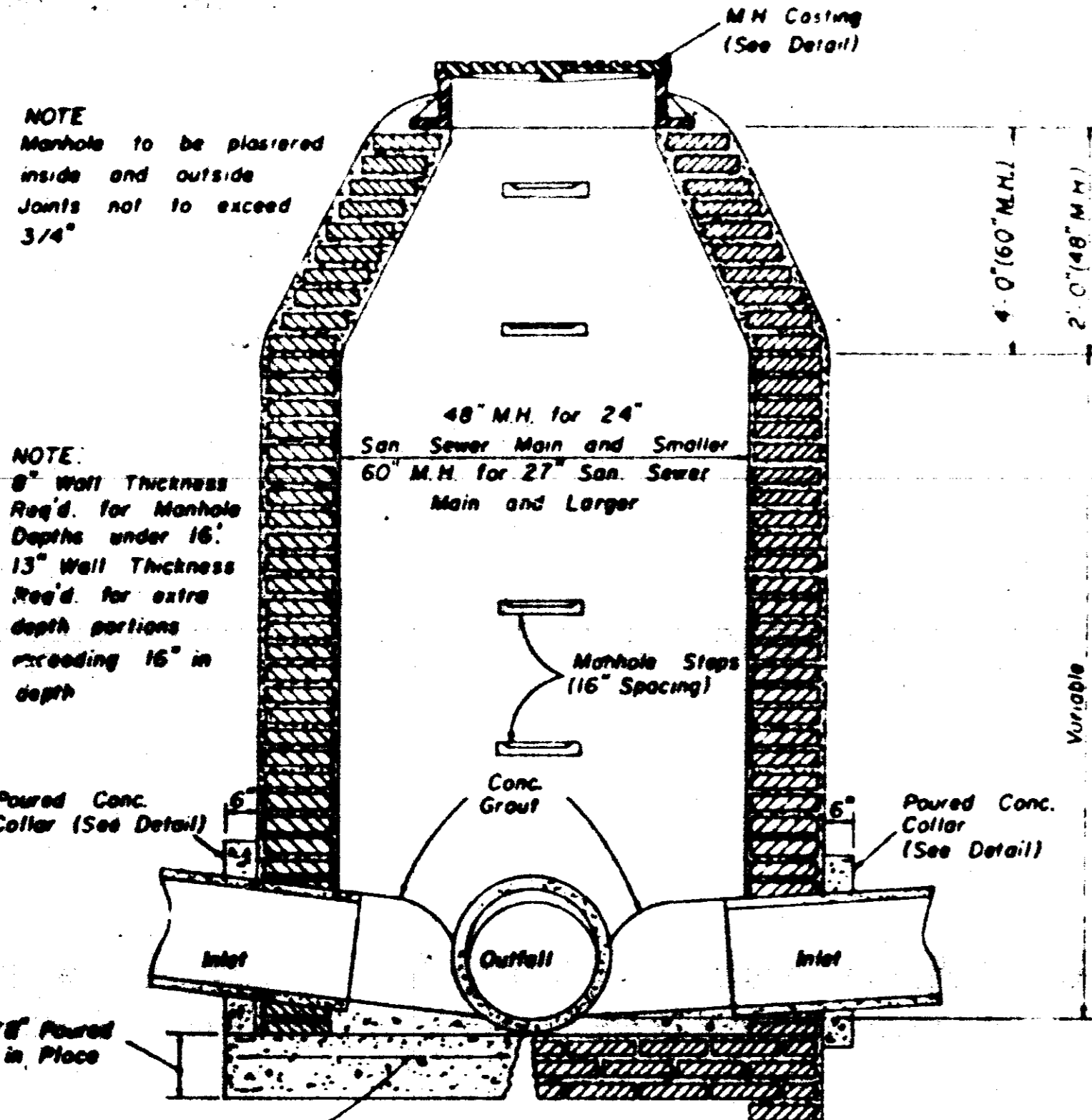
TYPICAL FIRE HYDRANT

- NOTES
1. WHEN FIRE HYDRANTS ARE PLACED ON THE FRONTAGE OF A DIVIDED OR MULTI-LANE HIGHWAY THE NOZZLES SHALL FACE AWAY FROM THE HIGHWAY RATHER THAN TOWARD THE HIGHWAY
 2. ALL WATER MAIN CONNECTIONS SHALL BE RODDED WITH ALL STEEL RODS (3/4" MIN) UNLESS OTHERWISE INSTRUCTED BY ENGINEER
 3. GATE VALVE WILL BE REQUIRED WHEN CONNECTED TO A 6" DIAMETER OR LARGER MAIN

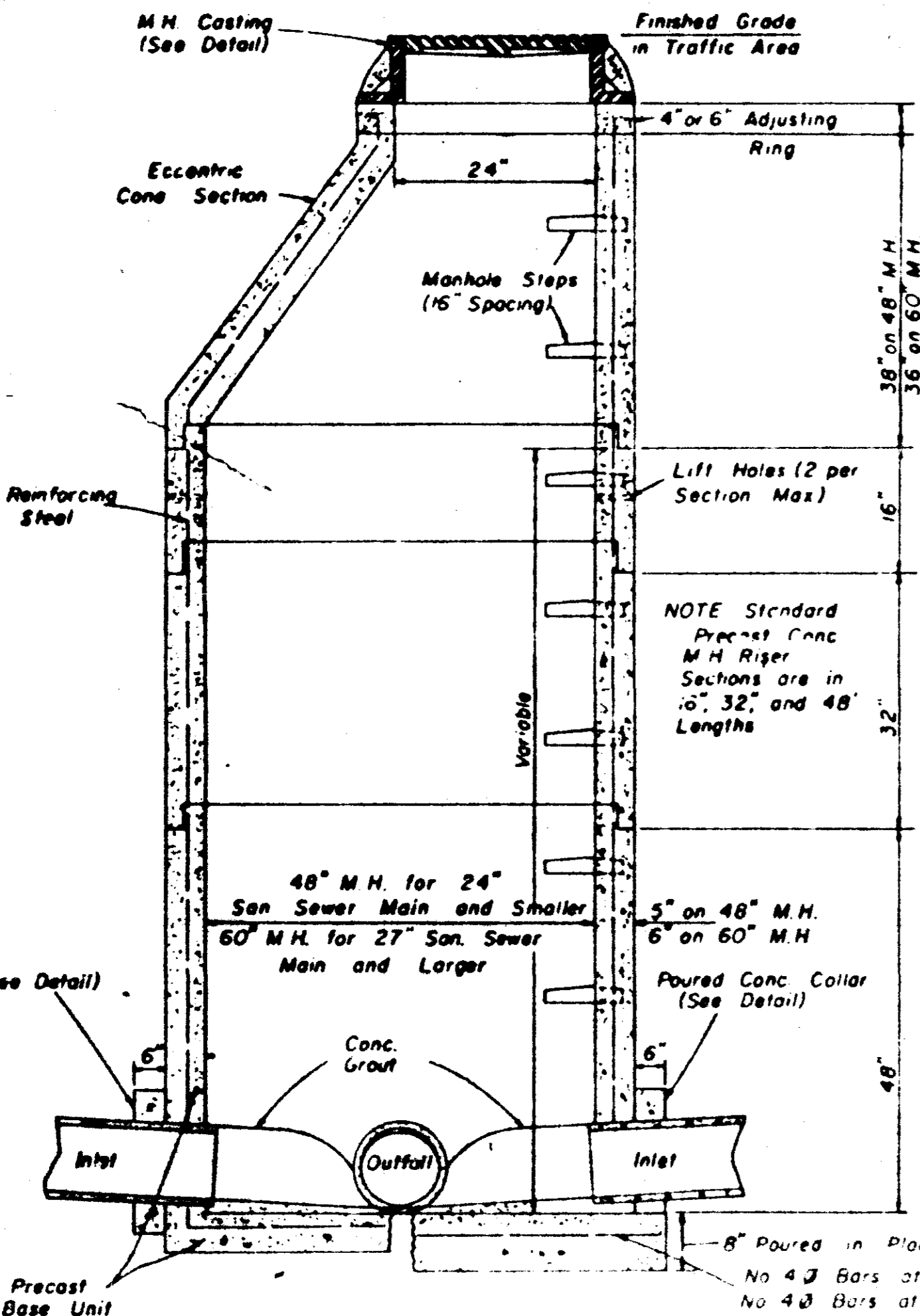
WATER SYSTEM STANDARD DETAILS

NOTE
Manhole to be plastered
inside and outside
Joints not to exceed
3/4"

NOTE:
8" Wall Thickness
Req'd. for Manhole
Depth under 16';
13" Wall Thickness
Req'd. for extra
depth portions
exceeding 16" in
depth

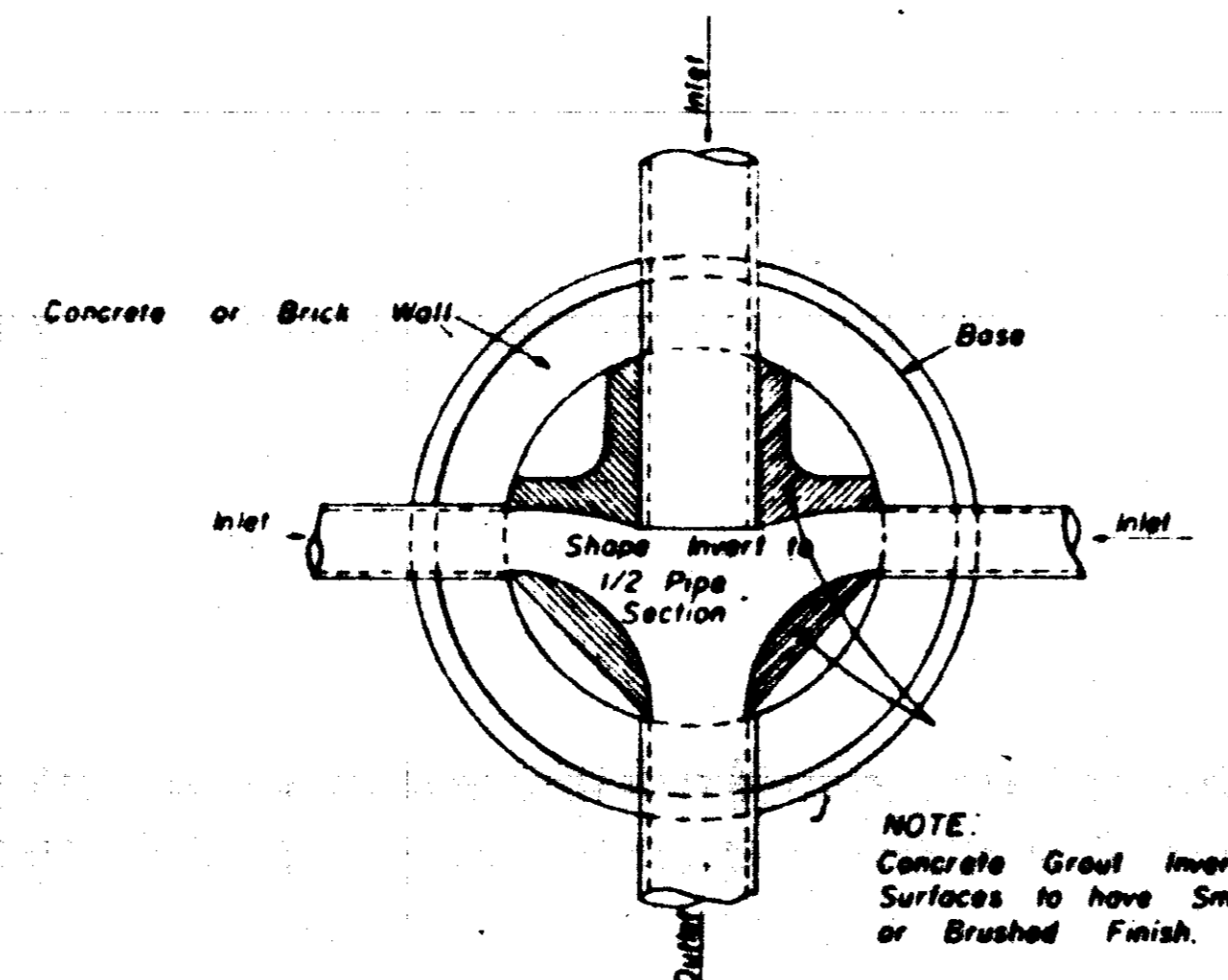
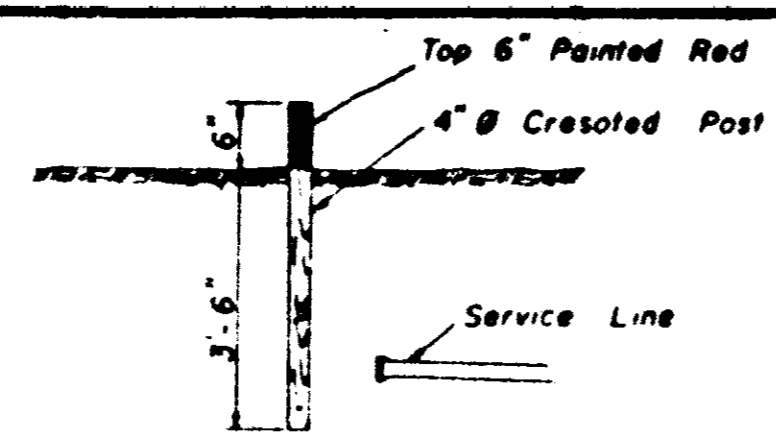


**SECTION
STANDARD BRICK MANHOLE**

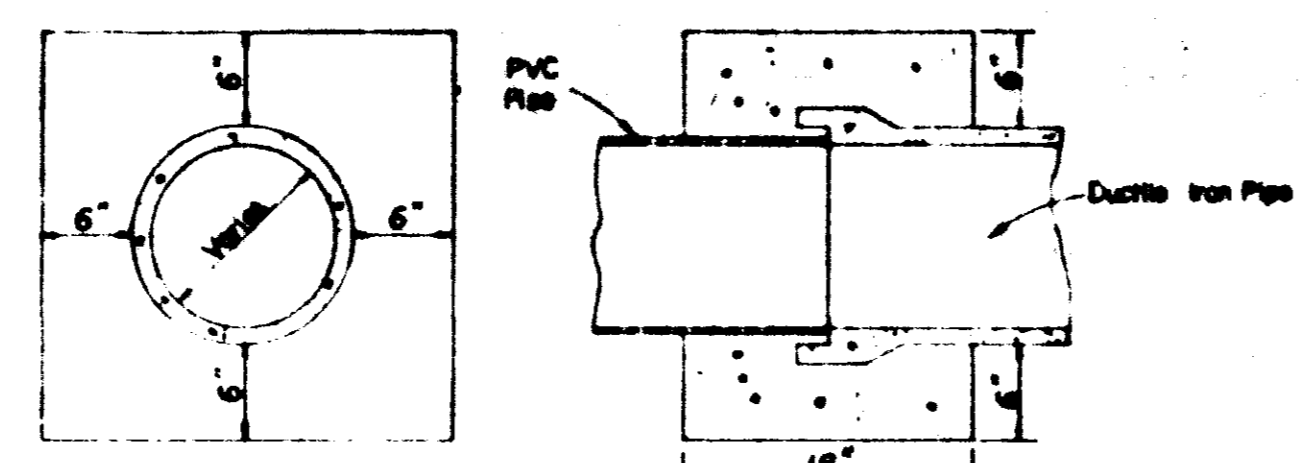


**SECTION
PRECAST CONCRETE MANHOLE**

SEWER SERVICE MARKER



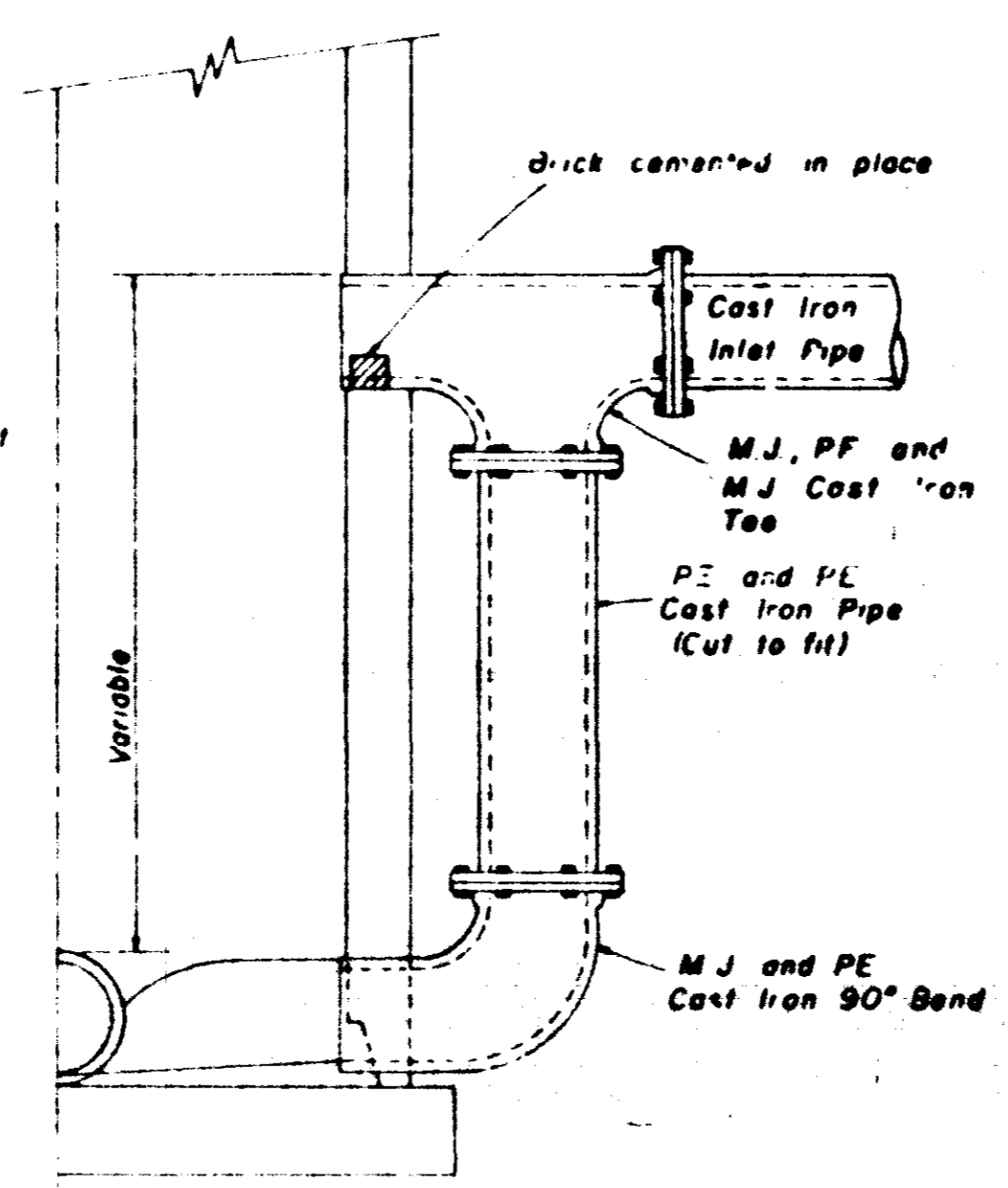
**PLAN OF MANHOLE
FLOW CHANNELS**



**ELEVATION SECTION
CONCRETE COLLAR DETAILS**

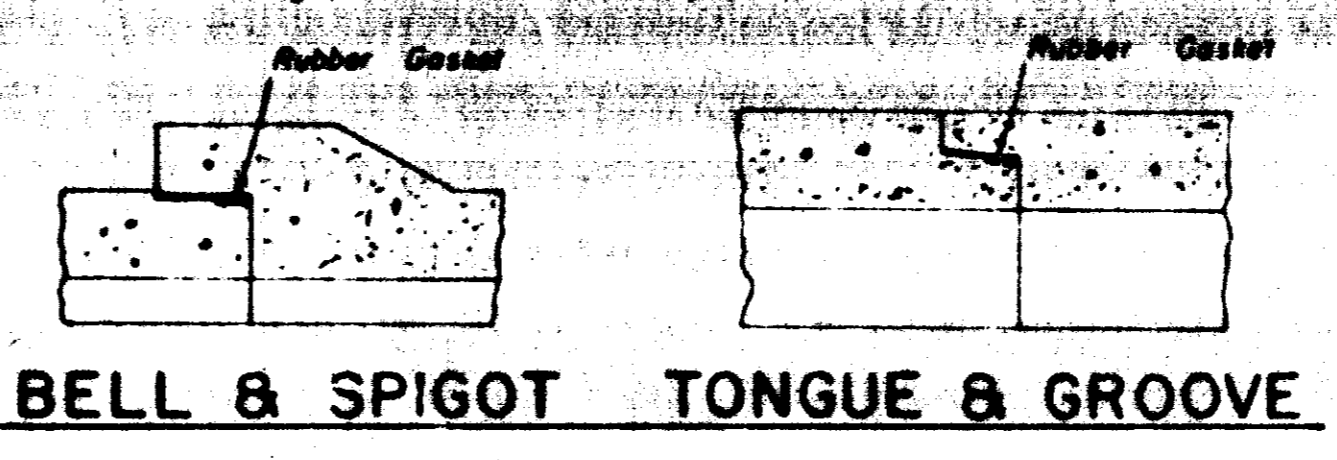
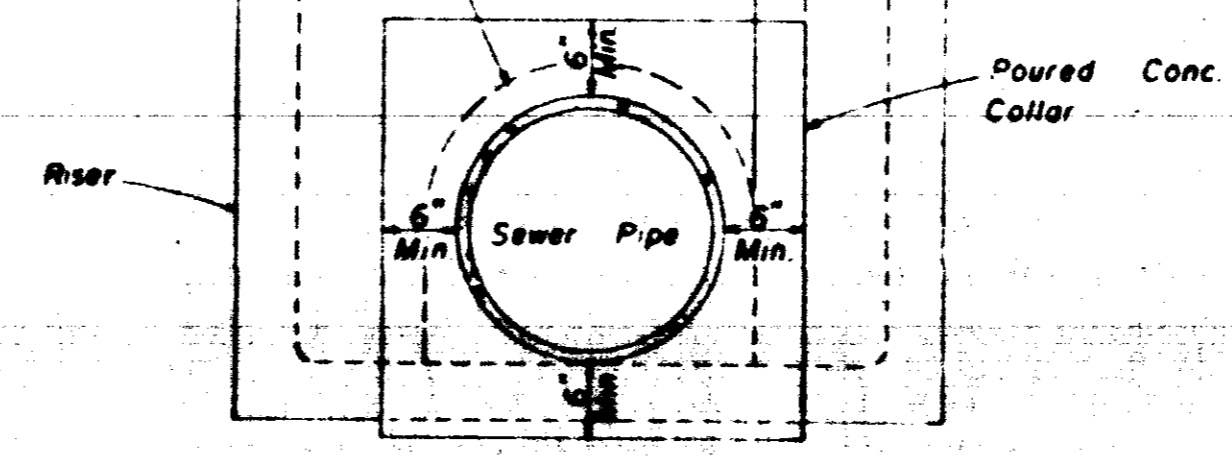
NOTE
All Lift Holes on
each Section shall
be sealed Watertight
with non-shrink Grout
inside and outside

NOTE All Manhole Joints
to be Rubber Gasket

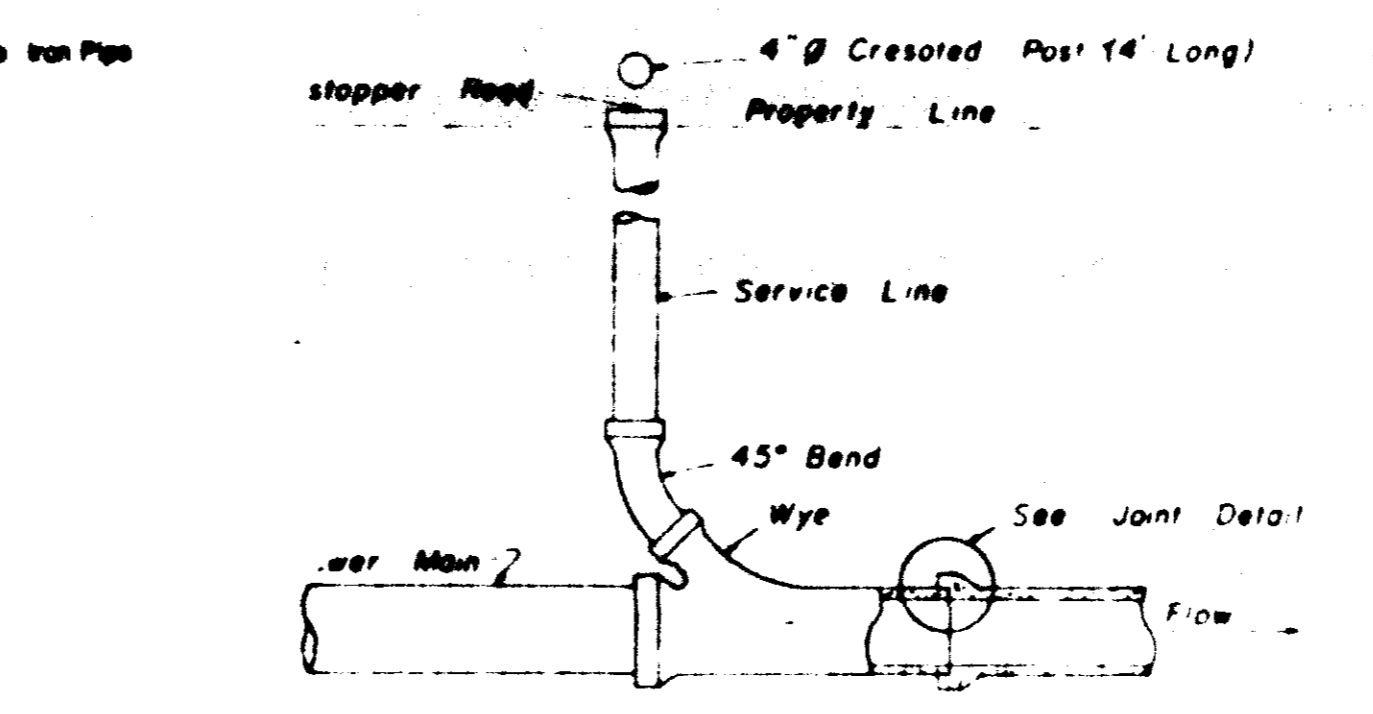


**HALF SECTION
MANHOLE WITH DROP CONNECTION**

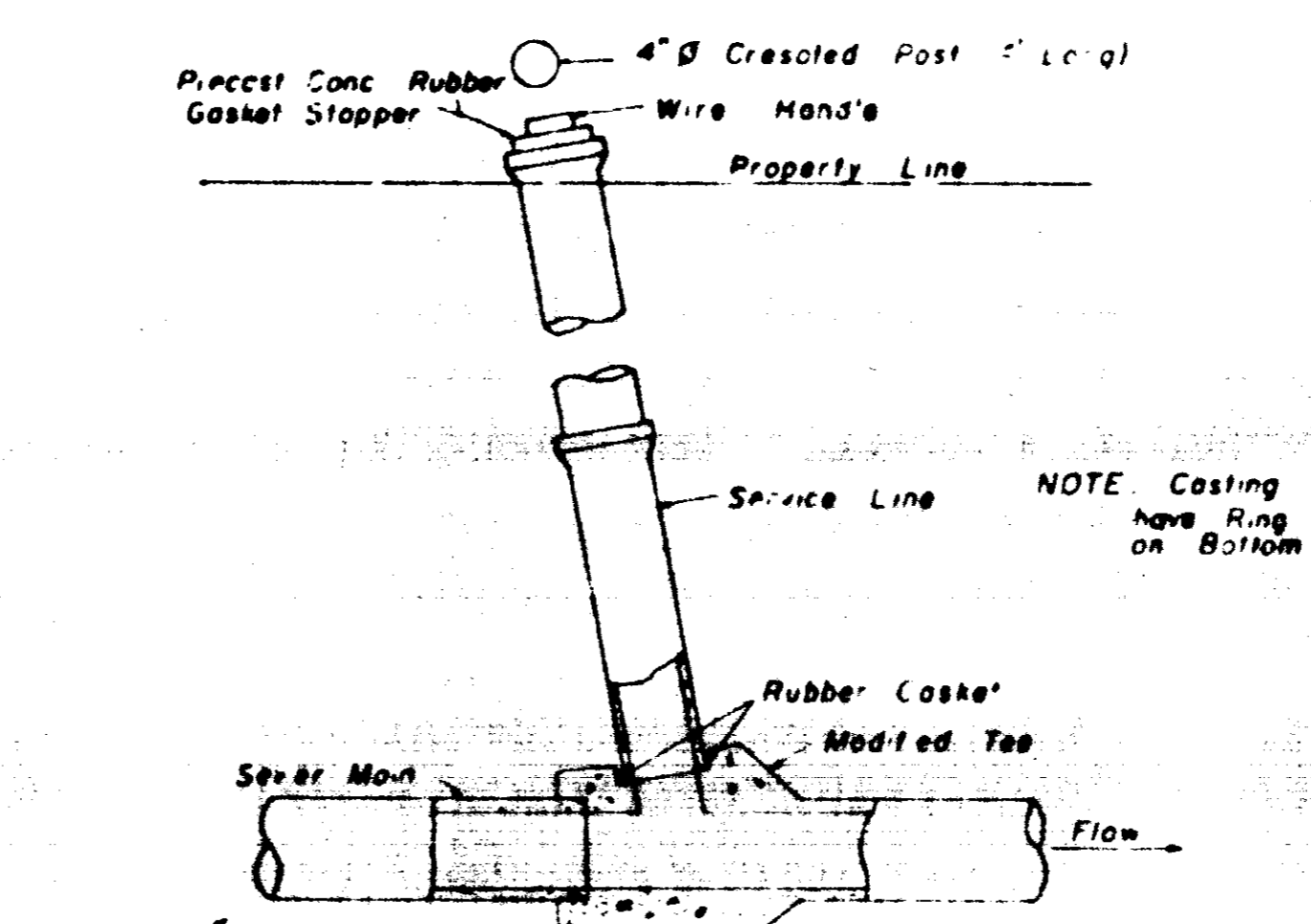
**ELEVATION
CONCRETE COLLAR AT
MANHOLE CONNECTION**



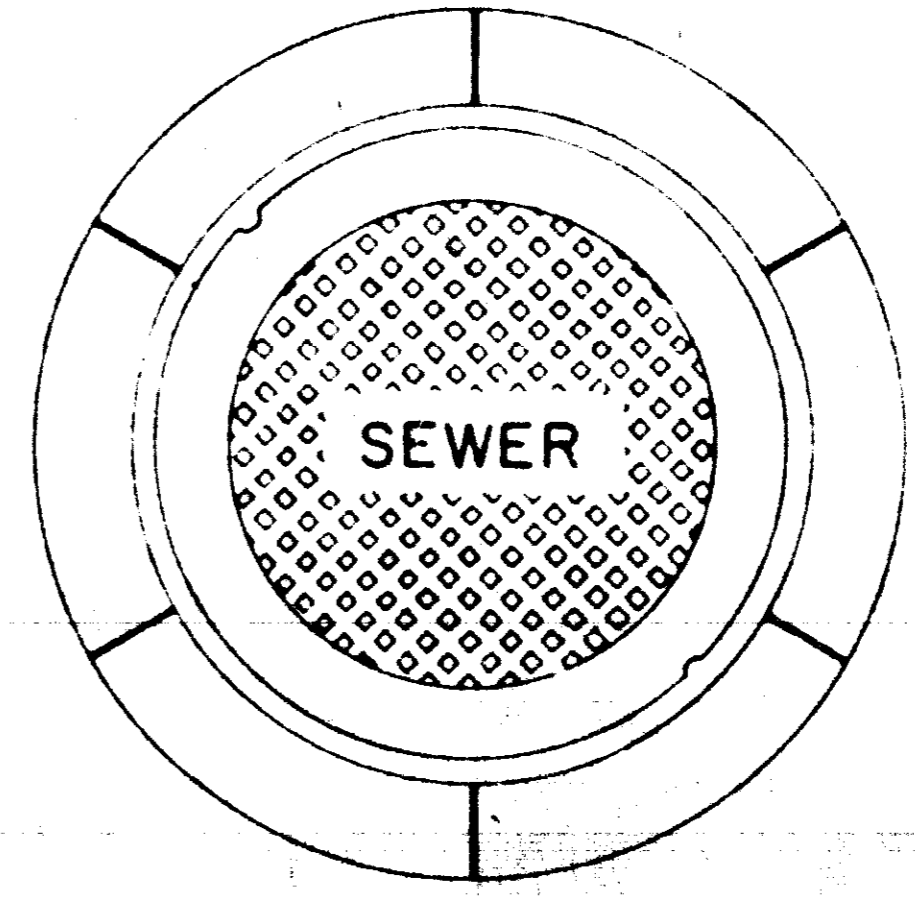
**BELL & SPIGOT TONGUE & GROOVE
JOINT DETAILS**



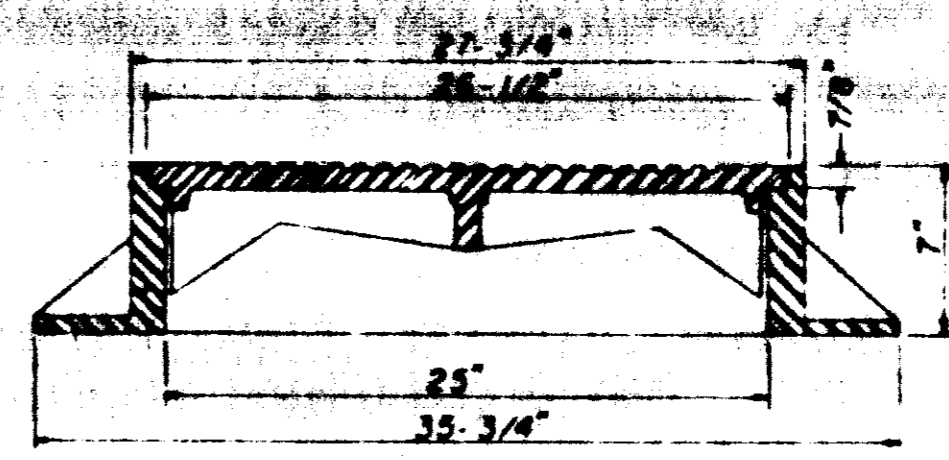
**TYPICAL SERVICE TO PROPERTY LINE
WITH WYE JOINT**



**TYPICAL SERVICE TO PROPERTY LINE
WITH MODIFIED TEE JOINT**

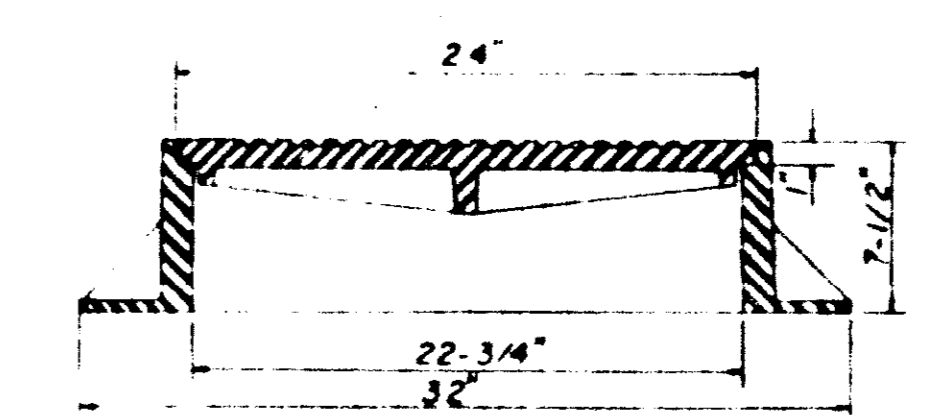


**PLAN
MANHOLE CASTING**



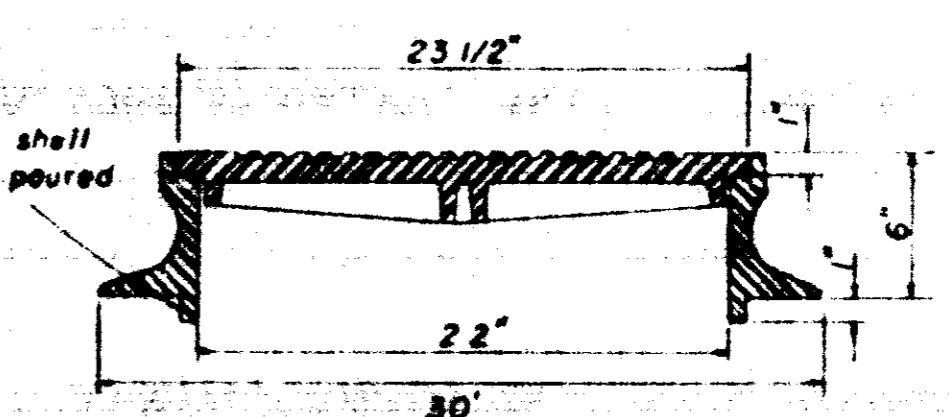
**SECTION
TYPE "A" MANHOLE CASTING**

NOTE 1 Use Type "A" Manhole Casting in Street ROW
2 Use Harper No. 2, City of Jackson Standard (420 lbs.)
or Vulcan No. VM-15, City of Jackson Standard (420 lbs.)



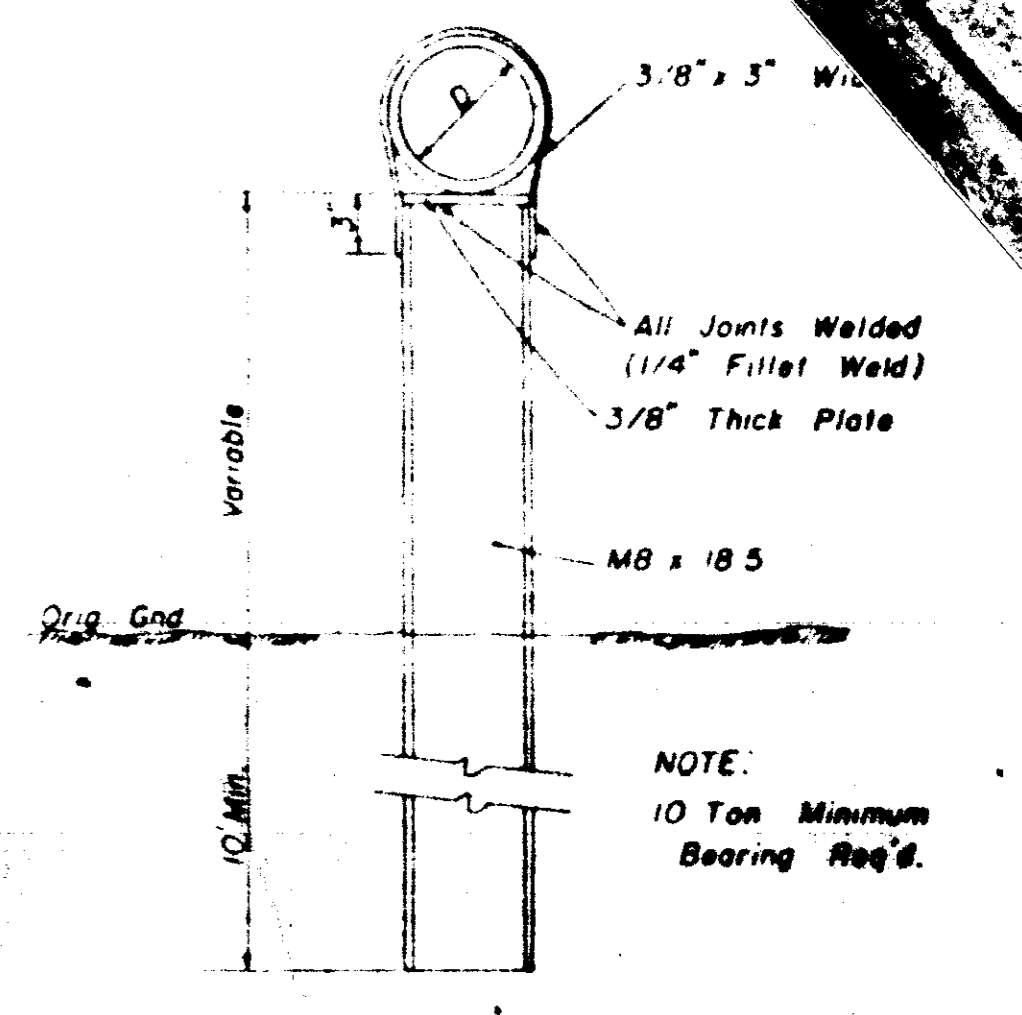
**SECTION
TYPE "B" MANHOLE CASTING**

NOTE 1 Use Type "B" Manhole Casting for any Manhole not in a Street ROW.
2 Use Harper No. 1 (M.S.P.E. Standard) Light Weight (330 lbs.) or Vulcan No. VM-17 (300 lbs.) or Opetika Foundry No. C-2-1 (325 lbs.)

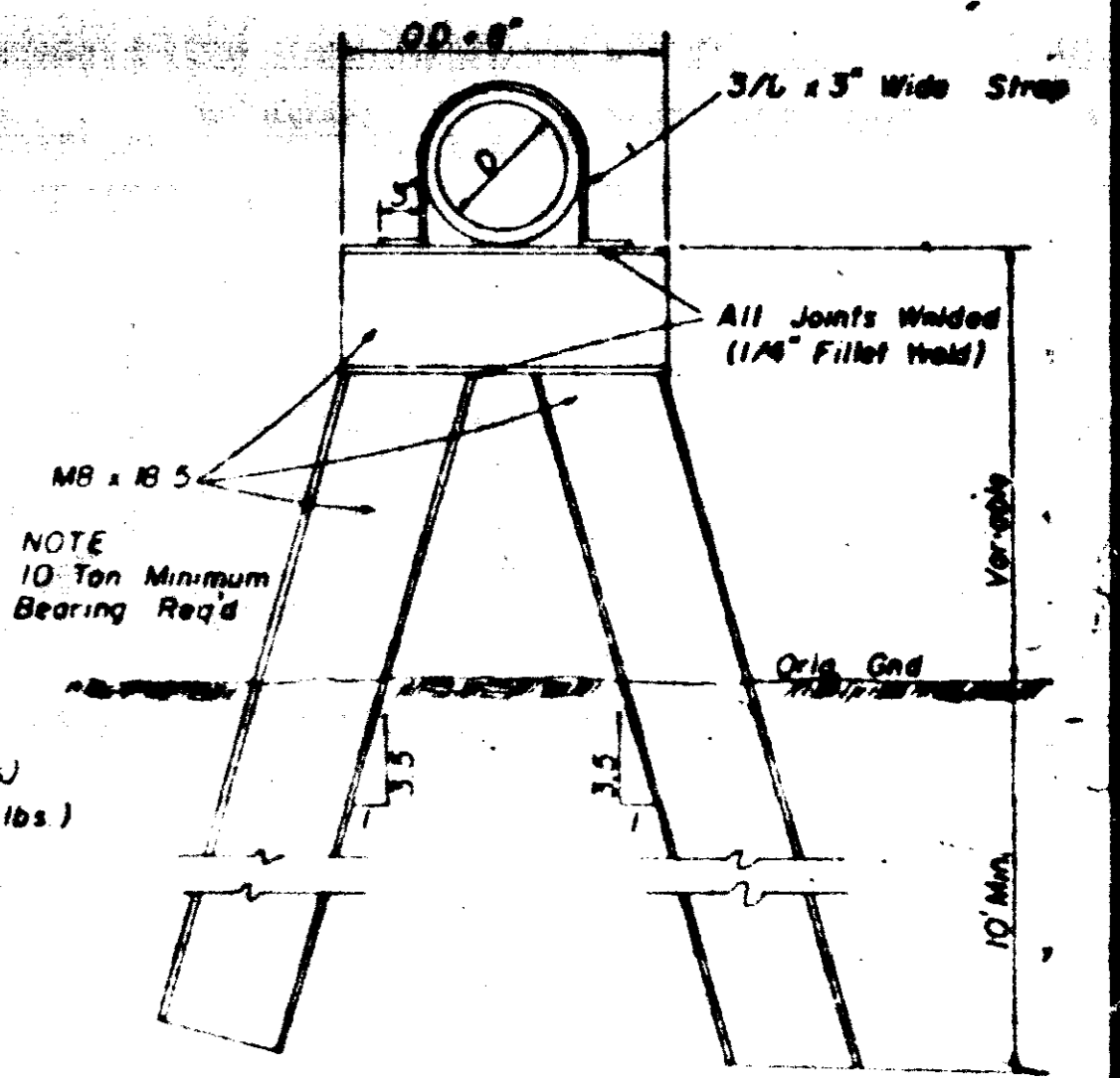


**SECTION
TYPE "C" MANHOLE CASTING**

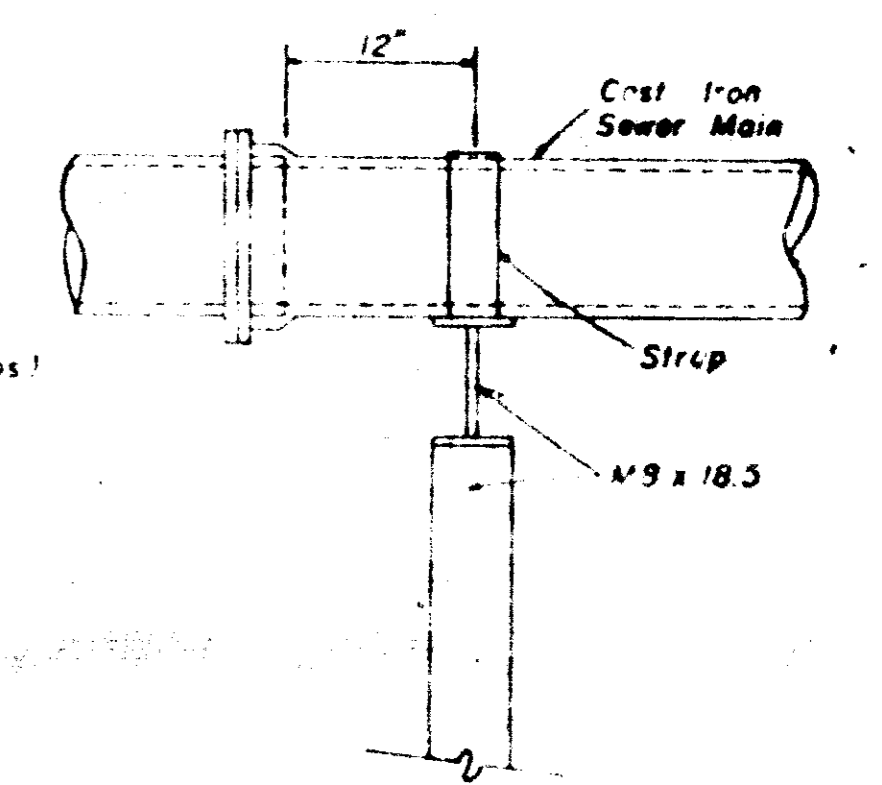
NOTE 1 Use Type "C" Manhole Casting for Precast Manhole not in a Street ROW
2 Use Harper No. B1330 lbs. or Neenah No. R-1779 (330 lbs.) or Vulcan No. VM 71330 lbs.



**DETAIL
TYPE "A" PIER**

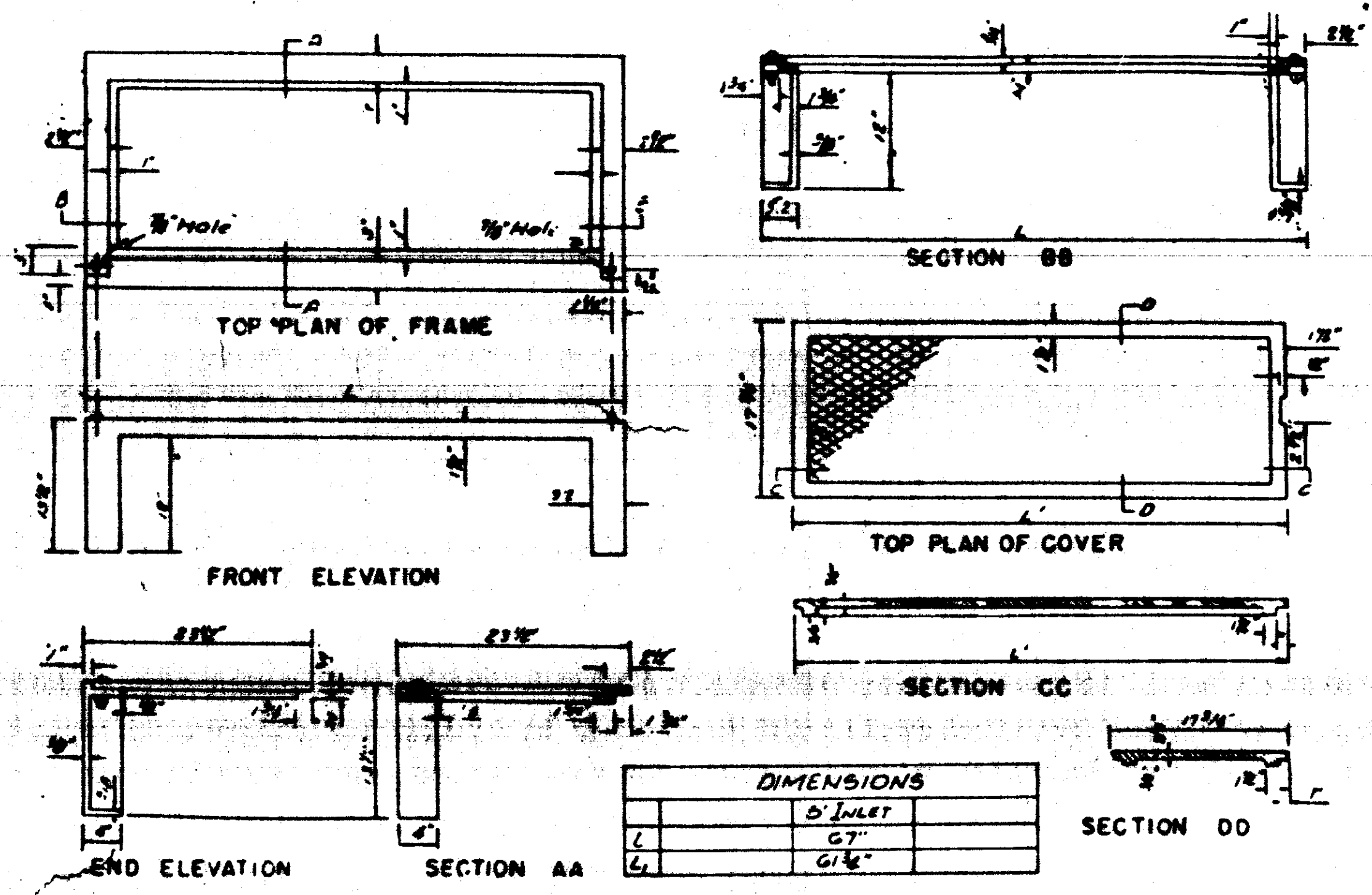


**DETAIL
TYPE "B" PIER**



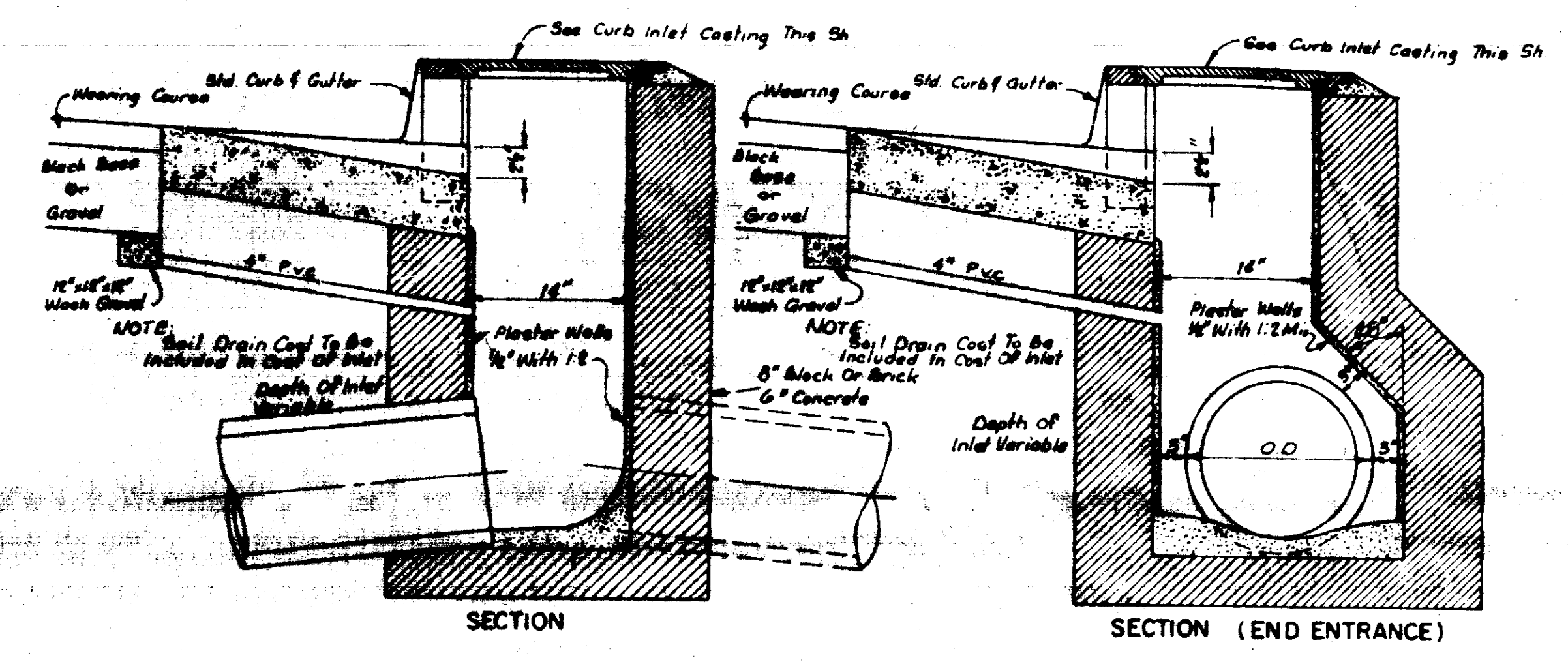
**SIDE ELEVATION
TYPE "B" PIER**

**SANITARY SEWER
STANDARD DETAILS**

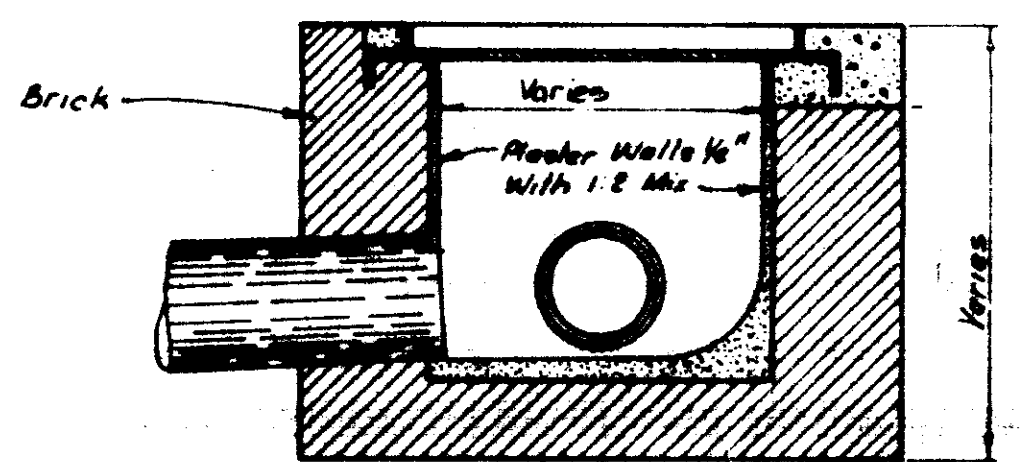


DIMENSIONS	
D ₁ INLET	
L	67"
L ₁	61 1/2"

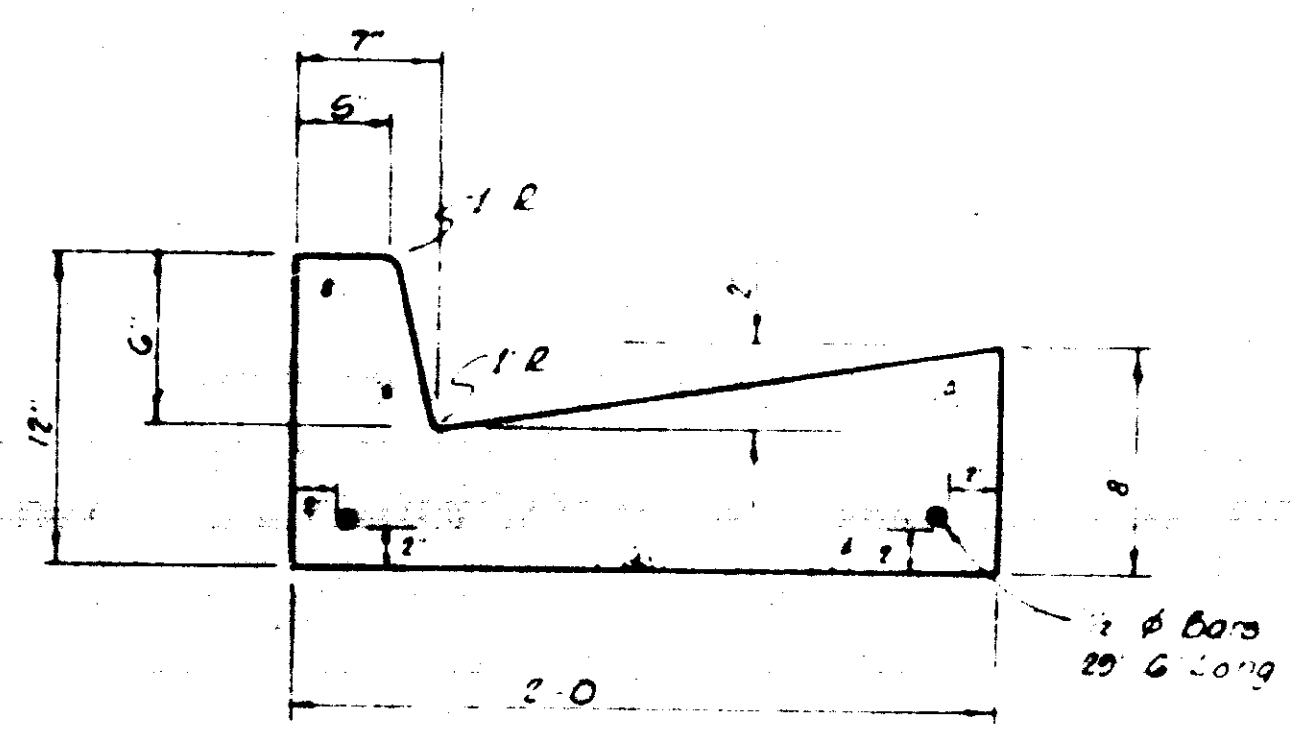
STANDARD CURB INLET CASTING



STANDARD CURB INLET



JUNCTION BOX WITH 24" NON-TRAFFIC OPEN GRATE



STANDARD CURB & GUTTER

NOTE Water Service Connections Shall Be Marked In The Face Of The Curb With A "W" And The Sanitary Sewer Service Connections Shall Be Marked With An "S"

WINDRUSH

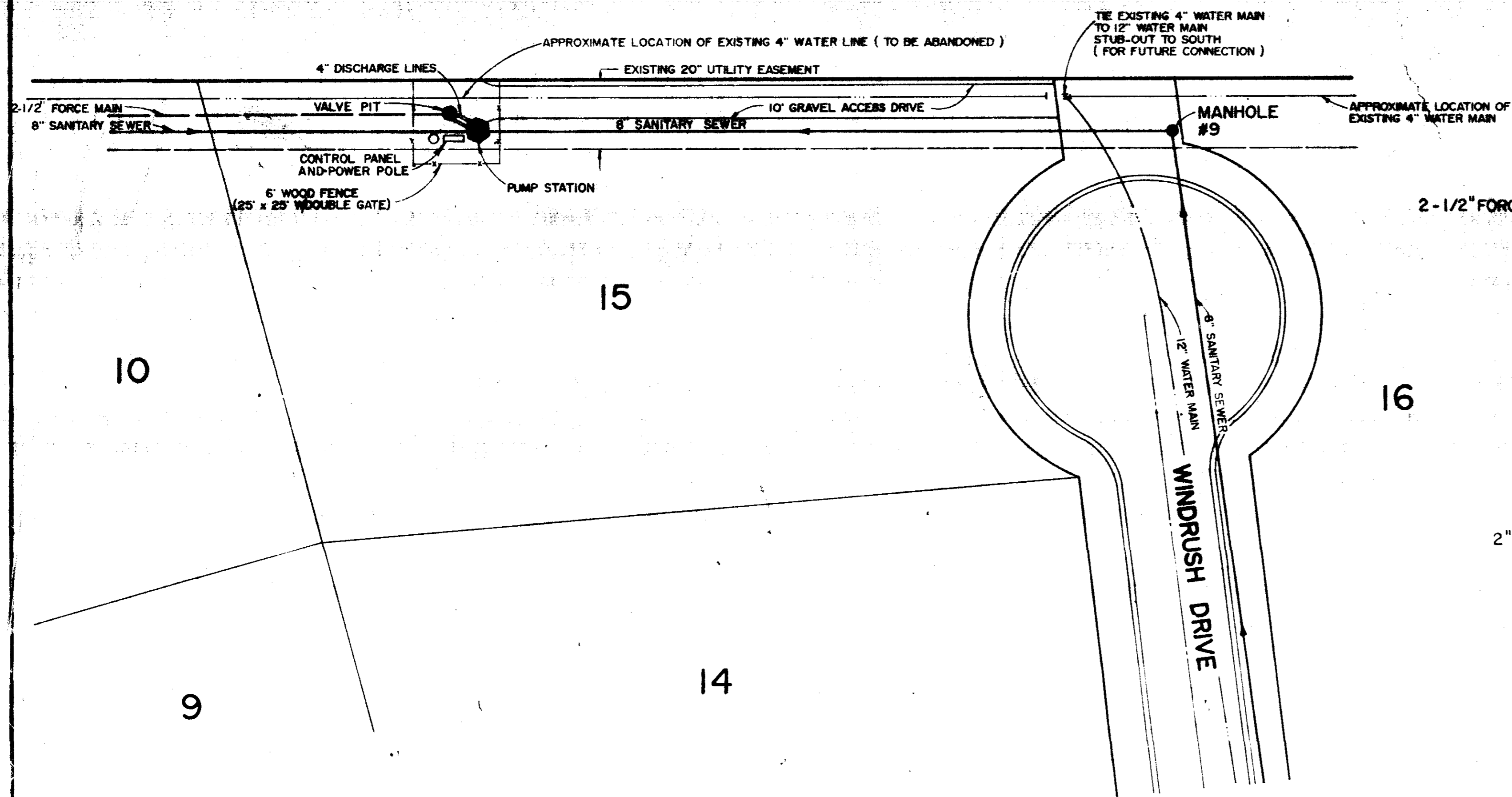
TYPICAL DRAINAGE DETAILS

BROWNING INC.
Consulting Engineers Jackson, Mississippi

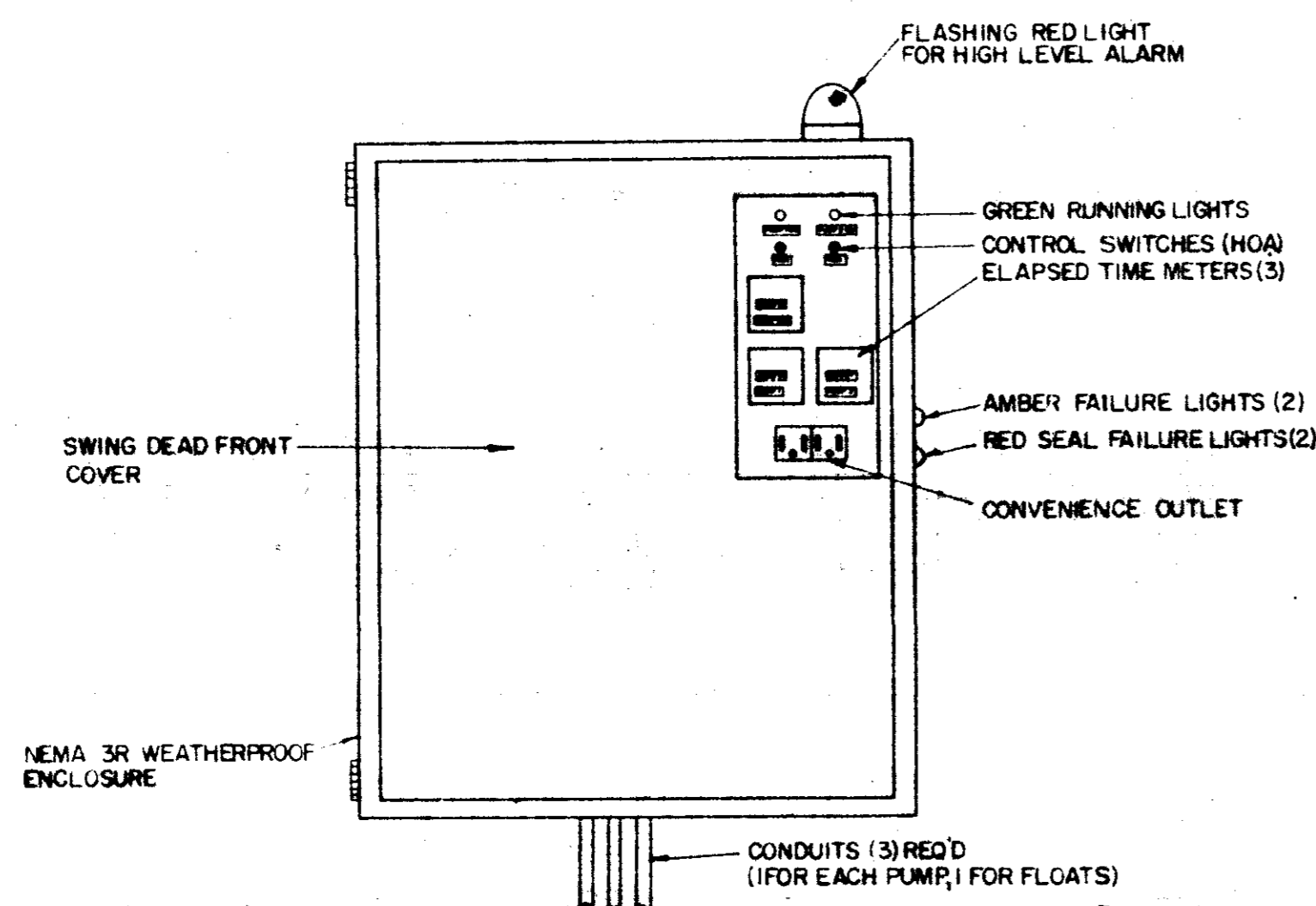
Designed By P.L.B. Scale: None
Drawn By J.F. Date: MAY, 1990

Sheet 12 of 13

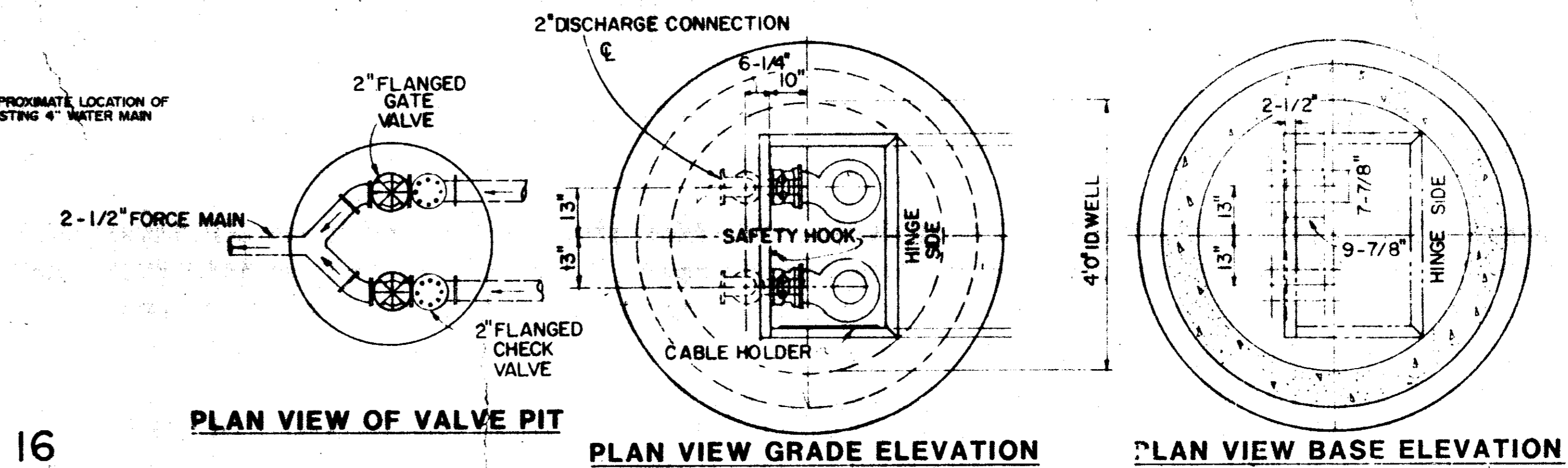
NATCHEZ TRACE PARKWAY



PLAN VIEW OF PUMP STATION SITE



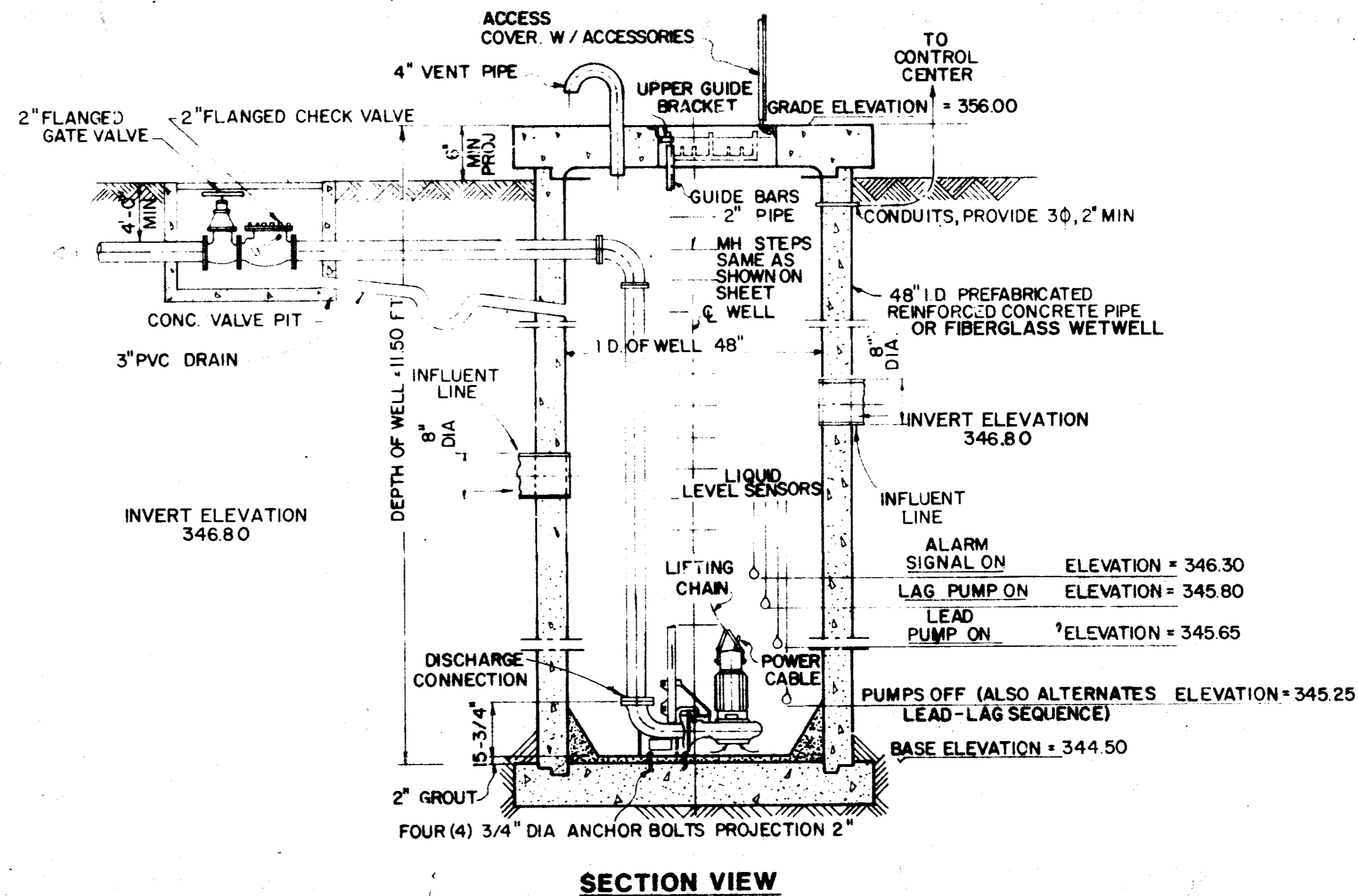
CONTROL PANEL DETAIL



PLAN VIEW OF VALVE PIT

PLAN VIEW GRADE ELEVATION

PLAN VIEW BASE ELEVATION



SECTION VIEW

WINDRUSH

PUMP STATION DETAILS

BROWNING, INC.

Consulting Engineers Jackson, Mississippi

Designed By: P.B. Scale: N.T.S. Sheet 13 of 13
 Drawn By: J.F. Date: MAY, 1990