

PLANS FOR
GENERAL CONSTRUCTION

SANITARY
SEWER
EXTENSIONS

WOODCREST KAR-IMM INTERCEPTOR

INDEX TO SHEETS

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- 1982 -

E.P.A. PROJECT NO. C-291090-07

FOR THE

CITY OF O'FALLON, MISSOURI

APPROVED

George F. Morrison

MAYOR

4/1/82

DATE

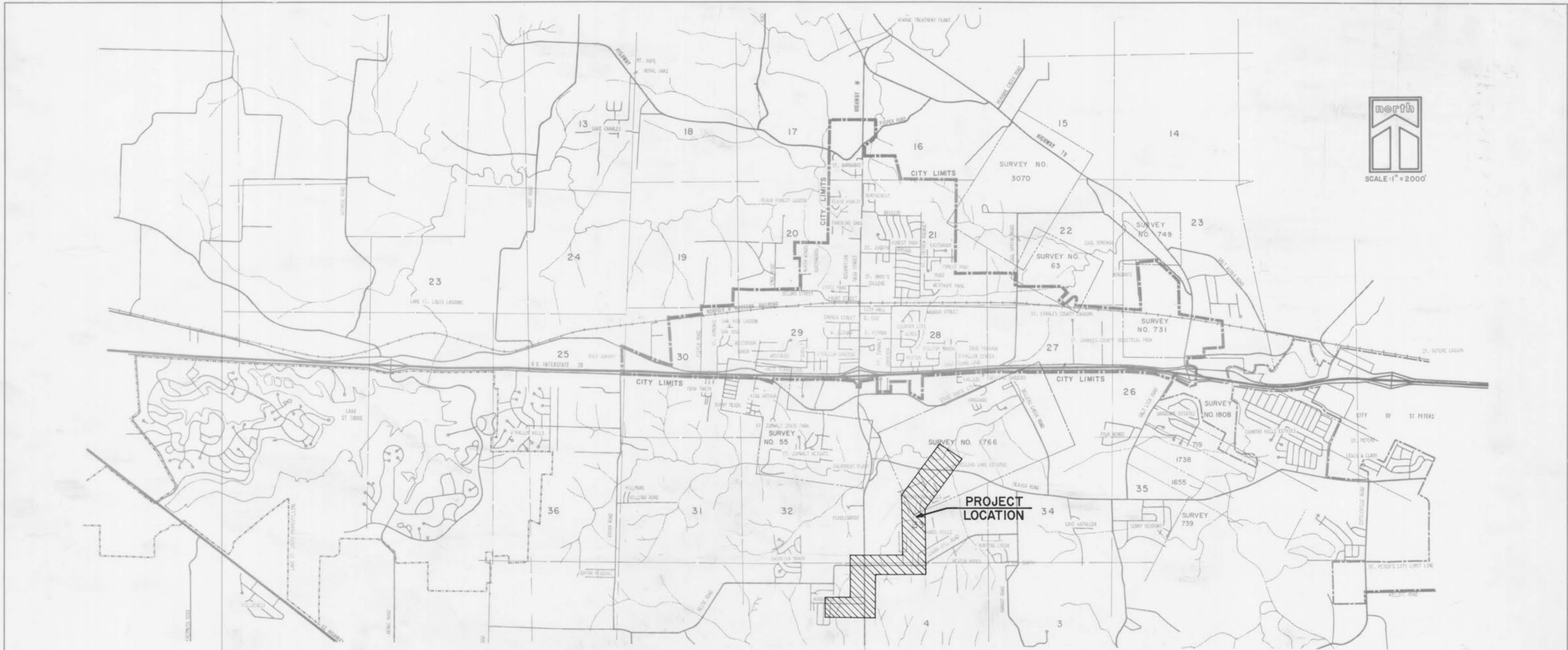
As-Built



GBA

GEORGE BUTLER ASSOCIATES
CONSULTING ENGINEERS / LANDSCAPE ARCHITECTS / PLANNERS
SUITE 305-A FAIRWAY OFFICE CENTER
4210 JOHNSON DRIVE / SHAWNEE MISSION / KANSAS 66205

Woodcrest Sanitary Sewer Ext



LEGEND

- WM W PH W G WV
- GM G 4 BV B
- SS MH S SS
- CL STS 24 MH STS YL
- UGP UGP
- UST UST
- SL W P SL
- IP PC
- WV W 14 B CL
- RIW
- TCE
- RE

- Water Line, WV Water Valve, WM Water Meter, PH Fire Hydrant
- Gas Line, BV Gas Valve, GM Gas Meter
- Sanitary Sewer, MH Sanitary Sewer Manhole
- Storm Sewer, CL Curb Inlet, MH Storm Sewer Manhole, YL Yard Inlet
- Underground Power Line
- Underground Telephone Line
- Service Line, W Water, G Gas, SS Sanitary
- Property Line, IP Iron Pin, PC Property Corner
- Common Ownership
- Fence, WV Woven Wire, BW Barbed Wire, CL Chain Link
- 1/4 Section Line
- Base Line
- Right of Way
- Temporary Construction Easement
- Permanent Easement
- Railroad

- 12" Boring Hole & Number
- ▲ 35" Street Sign
- 3L Street Light
- MB Mail Box
- YL Yard Light

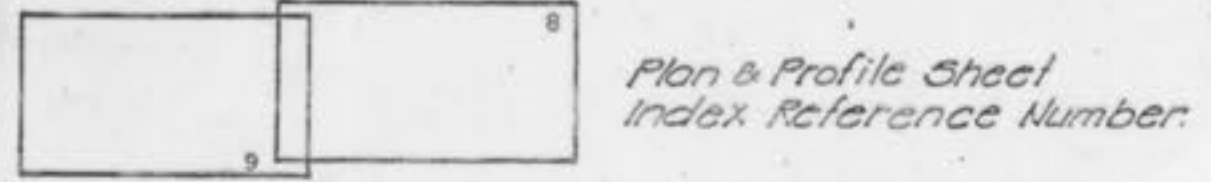
- PP Power Pole & Guy Anchor
- TP Telephone Pole with Guy Anchor
- 12" Elm Tree, Approx. Trunk Diameter
- X To be Removed
- (R) To be Removed

- U.I.P. Use in Place
- L.I.P. Leave in Place

NOTE:

Existing underground (U/G), overhead (O.H.) utilities and drainage structures have been plotted from available information and therefore, their locations must be considered approximate only. It is the responsibility of the individual Contractors to notify the utility companies before actual construction.

- Sanitary Sewer Manhole & Number (General Plan sheet only)
- Bench Mark & Number
- Reference Mark (Nat'l. Geodetic Vertical Datum 1929.) & Number
- Section or Survey Number



NOTE:

Called out on the drawings under "Easement Conditions" are construction related items (i.e. protection of crops, removal and replacement of trees, shrubs, fences, mail boxes, maintenance of drives, entrances, roadways and etc.) which are stipulated agreements between the Owner and the City. These items shall be the responsibility of the Contractor. The Contractor shall include the cost of these items in the unit price shown in the Bid Form for Sewer Pipe.

UTILITY COMPANIES

- Gas - O'Fallon Gas Service Company 272-6231
- Gas - St. Charles Gas Company 535-7100
- Group W Cable TV 723-1500
- Water and Sanitary Service - O'Fallon City Hall 272-6244
- Power and Light - Missouri Edison Company 272-6203
- Cuivre River Electric 800-592-3709
- Telephone - Continental Telephone Co. 114
- Southwestern Bell Tele. Co. 946-5623
- Water - Missouri Cities 724-3100
- Water - St. Charles Co. Public Water Supply Dist. #2 625-3737

GBA
 GEORGE BUTLER ASSOCIATES
 CONSULTING ENGINEERS ARCHITECTS
 LANDSCAPE ARCHITECTS PLANNERS

OFFICES:
 SUITE 305-A LAMAR OFFICE CENTER
 4210 JOHNSON DRIVE, SHAWNEE MISSION, KANSAS 66205
 1100 CITY CENTER SQUARE
 1100 MAIN, KANSAS CITY, MISSOURI 64105
 SUITE 134 LAMAR SQUARE PLAZA
 8700 CORPORAIS DRIVE, KANSAS CITY, MISSOURI 64128

**SANITARY SEWER EXTENSIONS
 WOODCREST KAR-IMM
 INTERCEPTOR
 LOCATION MAP**

FOR THE
CITY OF O'FALLON, MISSOURI

DESIGNED BY REH DRAWN BY TRY-BGT CHECKED BY WAC

E.P.A. PROJECT NO. C-291090-07

JOB NO. 79-2065
 DATE Dec. 1981
 SCALE 1" = 2000'
 SHEET NO. 2 OF 13



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 GEORGE BUTLER ASSOCIATES
 CONSULTING ENGINEERS/ARCHITECTS
 LANDSCAPE ARCHITECTS/PLANNERS

OFFICES:
 SUITE 305-A FAIRWAY OFFICE CENTER
 4210 JOHNSON DRIVE / SHAWNEE MISSION / KANSAS 66205
 1100 CITY CENTER SQUARE
 1100 MAIN / KANSAS CITY / MISSOURI 64105
 SUITE 134 LAKESIDE PLAZA B
 6700 CORPORATE DRIVE / KANSAS CITY / MISSOURI 64120

**SANITARY SEWER EXTENSIONS
 WOODCREST-KAR IMM
 INTERCEPTOR
 GENERAL PLAN SHEET
 FOR THE
 CITY OF O'FALLON, MISSOURI**

DESIGNED BY *REH* DRAWN BY *KF* CHECKED BY *WAC*

E.P.A. PROJECT NO. C-291090-07

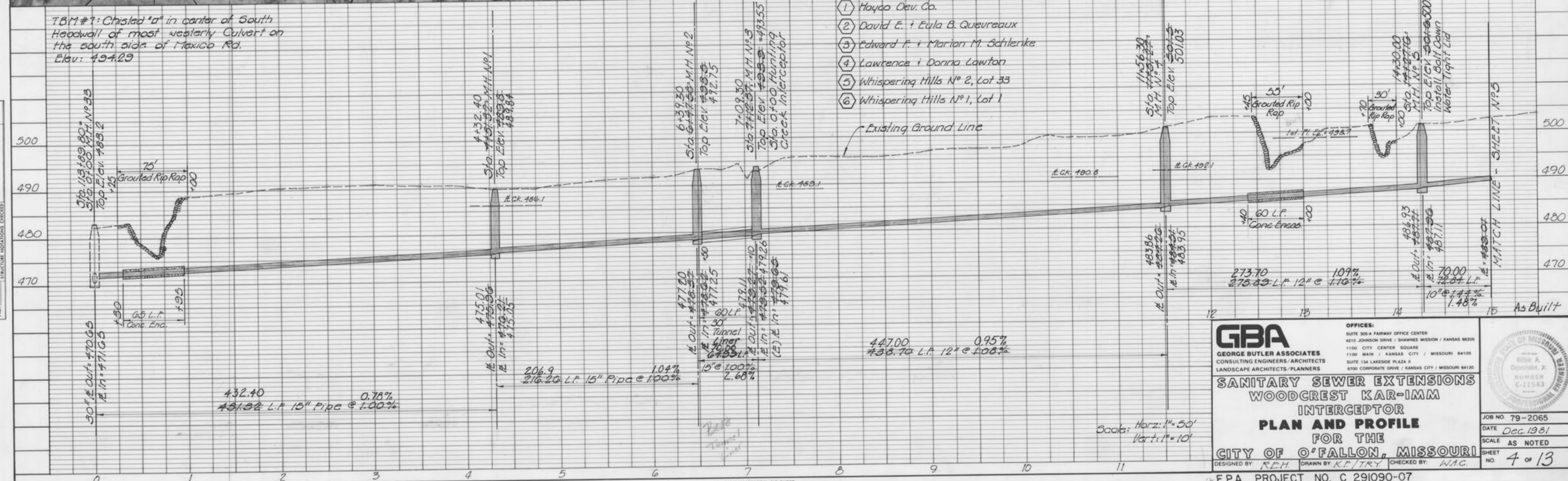
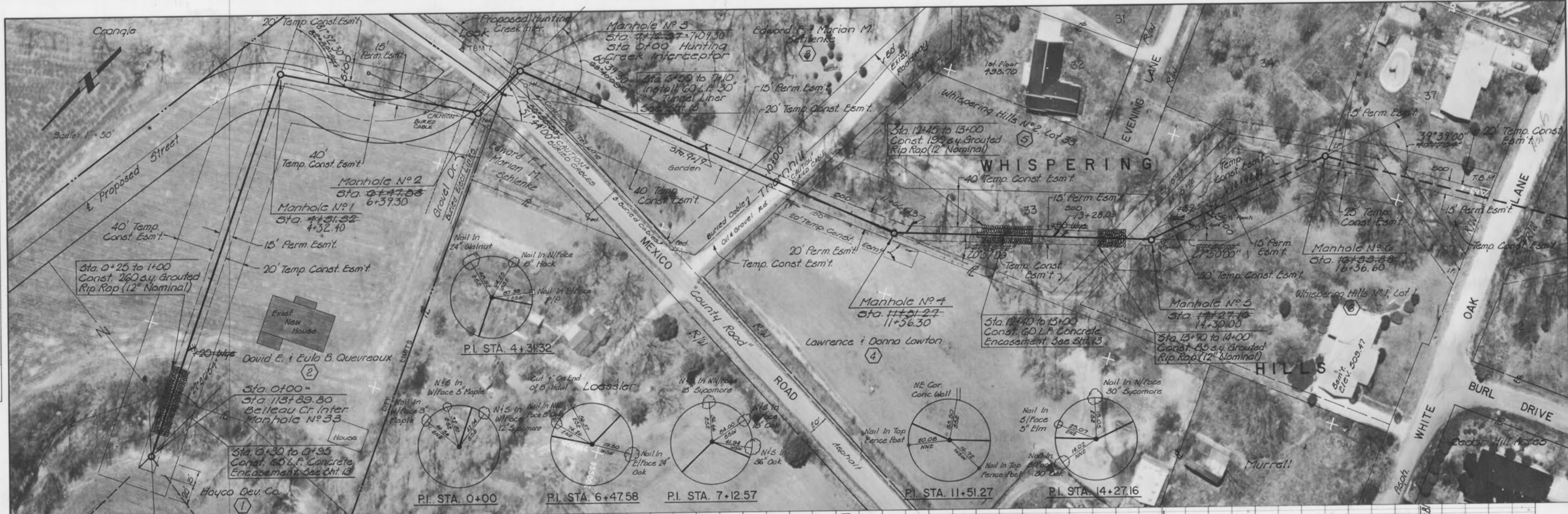
PROFESSIONAL SEAL
 WALTER A. COPPINGER, JR.
 LICENSE NUMBER
 E-11543
 MISSOURI PROFESSIONAL ENGINEER

JOB NO. 79-2065
 DATE Dec 1981
 SCALE 1" = 400'
 SHEET NO. 3 OF 13

Woodcrest Sanitary Sewer Ext

DATE: _____ BY: _____
 SURVEYED: _____
 PLANNED: _____
 NOTE BOOK: _____
 NO. OF WAY CHECKS: _____

DATE: _____ BY: _____
 SURVEYED: _____
 PLANNED: _____
 NOTE BOOK: _____
 NO. OF WAY CHECKS: _____



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 GEORGE BUTLER ASSOCIATES
 CONSULTING ENGINEERS/ARCHITECTS
 LANDSCAPE ARCHITECTS/PLANNERS

OFFICES:
 SUITE 305-A FAIRWAY OFFICE CENTER
 8010 JOHNSON DRIVE / SHAWNEE MISSION / KANSAS 66205
 1100 CITY CENTER SQUARE
 1100 MAIN / KANSAS CITY / MISSOURI 64105
 SUITE 134 LAKESIDE PLAZA B
 8700 CORPORATE DRIVE / KANSAS CITY / MISSOURI 64120

**SANITARY SEWER EXTENSIONS
 WOODCREST KAR-IMM
 INTERCEPTOR
 PLAN AND PROFILE
 FOR THE
 CITY OF O'FALLON, MISSOURI**

DESIGNED BY: *REH* DRAWN BY: *KE/TRY* CHECKED BY: *WAC*

JOB NO. 79-2065
 DATE: *Dec. 1981*
 SCALE: AS NOTED
 SHEET NO. 4 OF 13

E.P.A. PROJECT NO. C 291090-07



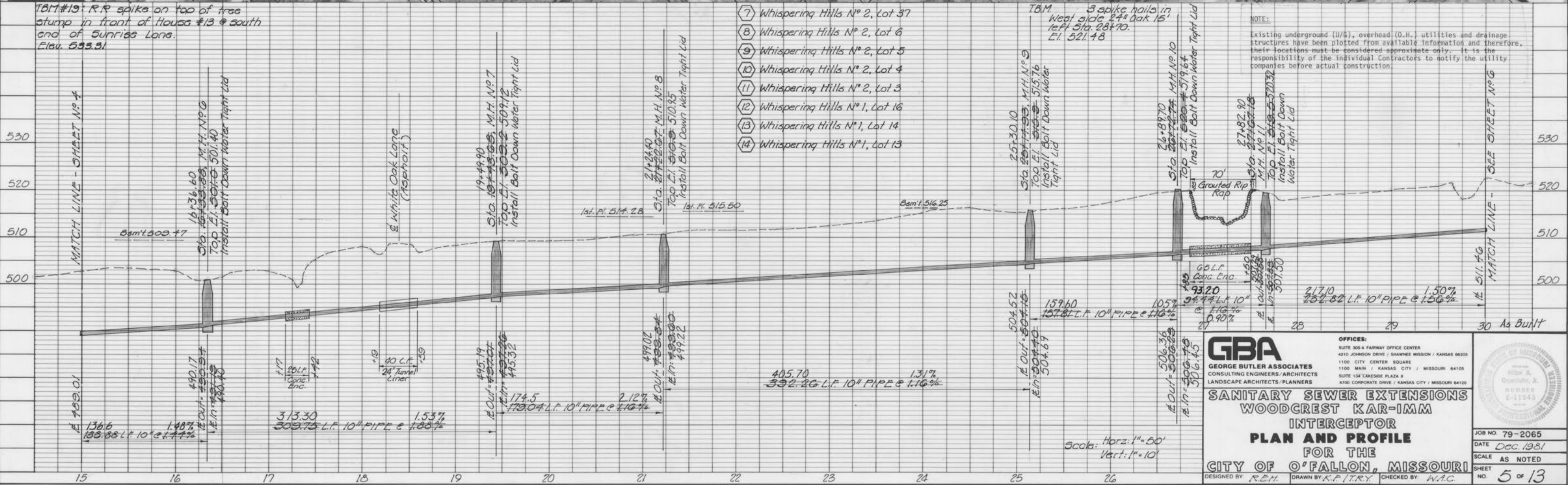
PLAN
 SURVEYED BY: _____
 NOTED BY: _____
 NOTE BOOK NO. _____
 CHECKED BY: _____
 DATE: _____

TBM #19: RR spikes on top of tree stump in front of House #13 @ south end of Sunrise Lane. Elev. 533.31

- 7 Whispering Hills No 2, Lot 37
- 8 Whispering Hills No 2, Lot 6
- 9 Whispering Hills No 2, Lot 5
- 10 Whispering Hills No 2, Lot 4
- 11 Whispering Hills No 2, Lot 3
- 12 Whispering Hills No 1, Lot 16
- 13 Whispering Hills No 1, Lot 14
- 14 Whispering Hills No 1, Lot 13

T.B.M. 3 spike nails in West side 2 1/4" Oak 15' left Sta. 28+70. El. 521.48

NOTE:
 Existing underground (U/G), overhead (O.H.) utilities and drainage structures have been plotted from available information and therefore, their locations must be considered approximate only. It is the responsibility of the individual Contractors to notify the utility companies before actual construction.



PROFILE
 SURVEYED BY: _____
 NOTED BY: _____
 NOTE BOOK NO. _____
 CHECKED BY: _____
 DATE: _____

GBA
 GEORGE BUTLER ASSOCIATES
 CONSULTING ENGINEERS/ARCHITECTS
 LANDSCAPE ARCHITECTS/PLANNERS

OFFICES:
 SUITE 300-A FARMWAY OFFICE CENTER
 4810 JOHNSON DRIVE / SHAWNEE MISSION / KANSAS 66205
 1100 CITY CENTER SQUARE
 1100 MAIN / KANSAS CITY / MISSOURI 64105
 SUITE 154 LAKESIDE PLAZA
 6700 CORPORATE DRIVE / KANSAS CITY / MISSOURI 64130

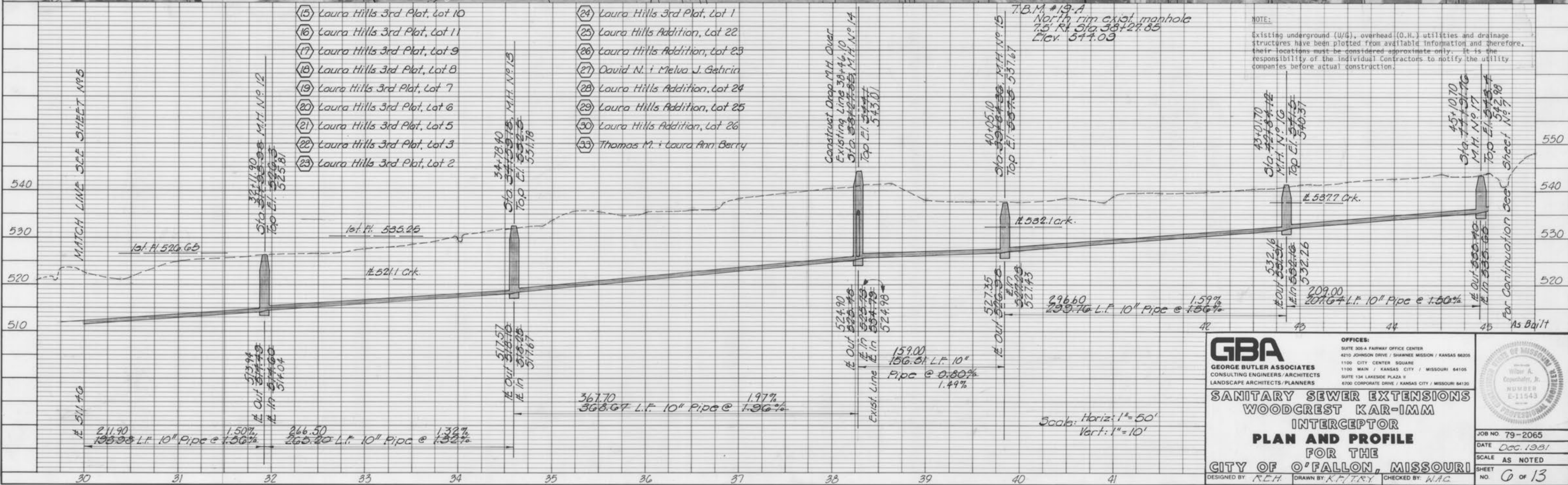
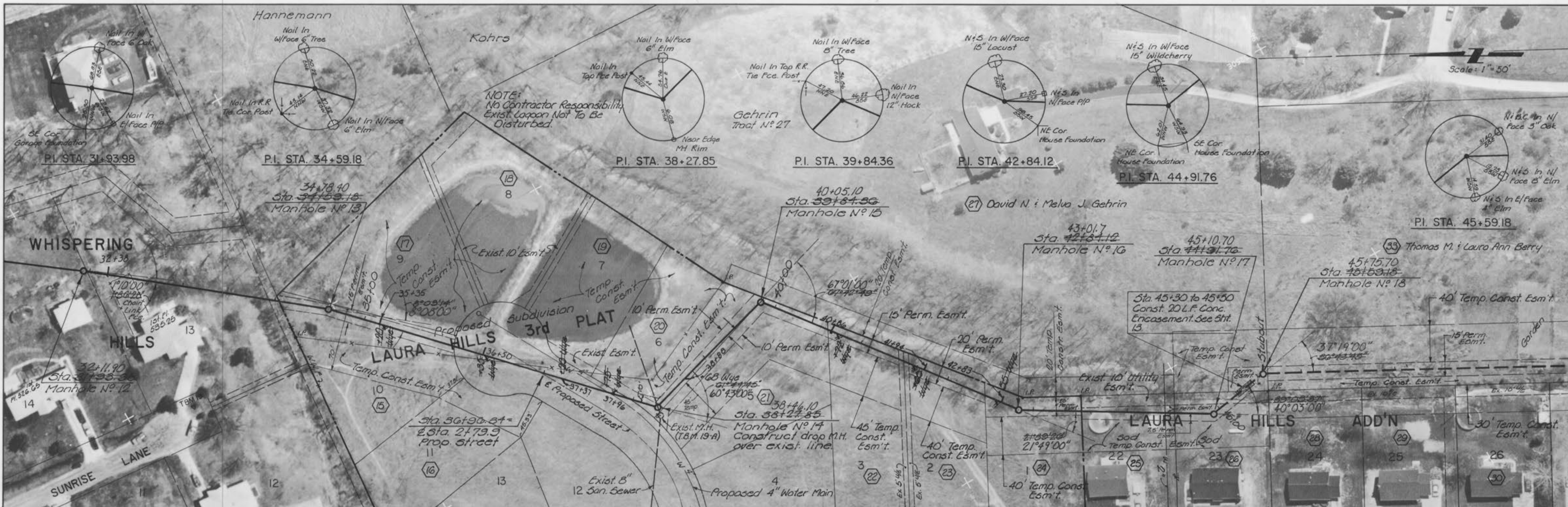
**SANITARY SEWER EXTENSIONS
 WOODCREST KAR-IMM
 INTERCEPTOR
 PLAN AND PROFILE
 FOR THE
 CITY OF O'FALLON, MISSOURI**

DESIGNED BY: R.E.H. DRAWN BY: K.P. TRY CHECKED BY: W.A.C.

JOB NO. 79-2065
 DATE Dec. 1981
 SCALE AS NOTED
 SHEET NO. 5 OF 13

DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
 NOTE BOOK: _____ CHECKED: _____
 No. _____ RE: CIP W/SY CHECKED

DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
 NOTE BOOK: _____ CHECKED: _____
 No. _____ STRUCTURE NOTATIONS CHECKED



GBA
 GEORGE BUTLER ASSOCIATES
 CONSULTING ENGINEERS / ARCHITECTS
 LANDSCAPE ARCHITECTS / PLANNERS

OFFICES:
 SUITE 200-A FAIRWAY OFFICE CENTER
 4210 JOHNSON DRIVE / SHAWNEE MISSION / KANSAS 66205
 1100 CITY CENTER SQUARE
 1100 MAIN / KANSAS CITY / MISSOURI 64105
 SUITE 134 LAKESIDE PLAZA W
 6700 CORPORATE DRIVE / KANSAS CITY / MISSOURI 64120

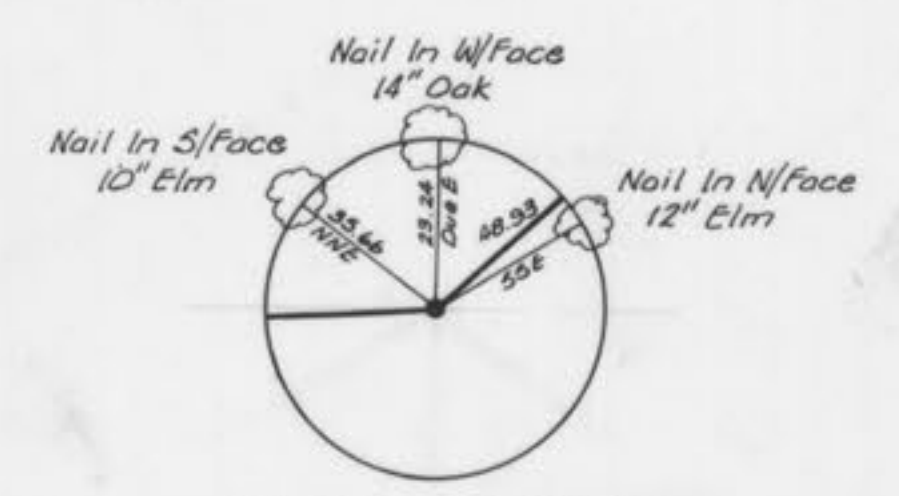
**SANITARY SEWER EXTENSIONS
 WOODCREST KAR-IMM
 INTERCEPTOR
 PLAN AND PROFILE
 FOR THE
 CITY OF O'FALLON, MISSOURI**

DESIGNED BY: R.E.H. DRAWN BY: K.F. TRY CHECKED BY: W.A.C.

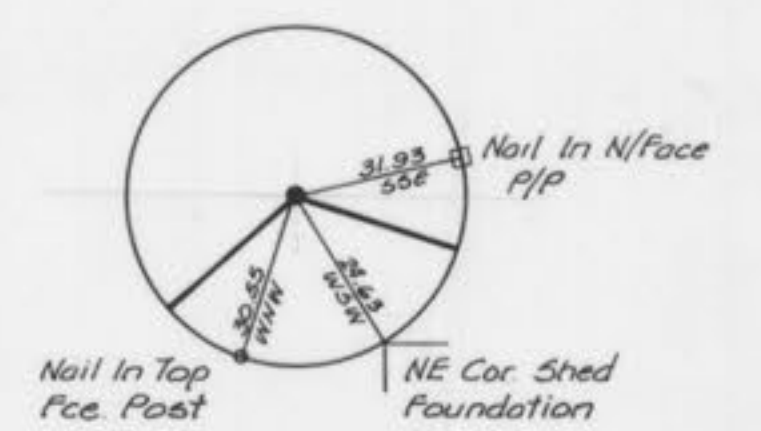
JOB NO: 79-2065
 DATE: Dec. 1931
 SCALE: AS NOTED
 SHEET NO: 6 of 13

DATE: _____ BY: _____
 SURVEYED: _____
 PLOTTED: _____
 NOTE BOOK: _____
 NO. _____
 ADJUSTMENT CHECKED: _____
 RE: OF WAY CHECKED: _____

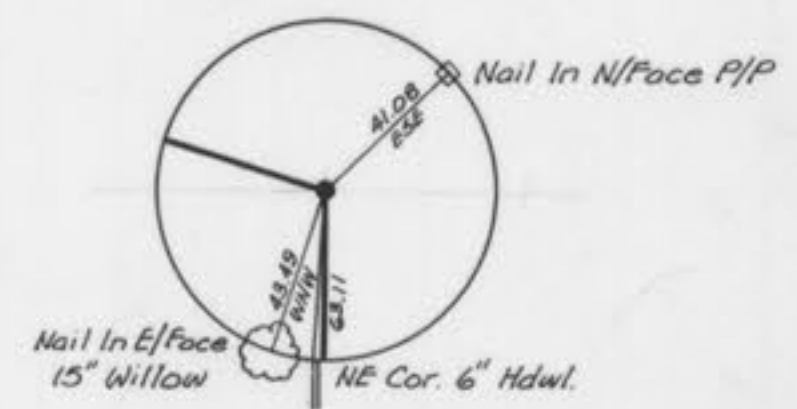
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 NOTE BOOK: _____
 NO. _____
 ADJUSTMENT CHECKED: _____
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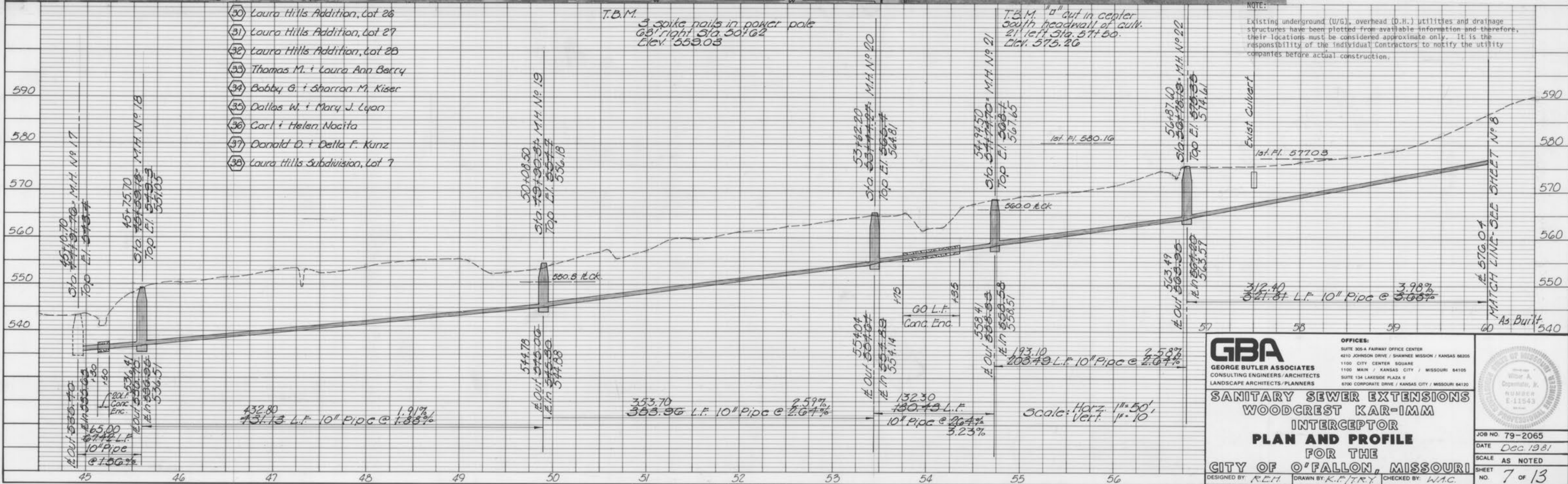
P.I. STA. 53+44.27



P.I. STA. 54+74.70



P.I. STA. 56+78.19



NOTE: Existing underground (U/G), overhead (O.H.) utilities and drainage structures have been plotted from available information and therefore, their locations must be considered approximate only. It is the responsibility of the individual contractors to notify the utility companies before actual construction.

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 LANDSCAPE ARCHITECTS/PLANNERS

OFFICES:
 SUITE 305-A FAIRWAY OFFICE CENTER
 4310 JONGRUB DRIVE / SHAWNEE MISSOURI / KANSAS 66205
 1100 CITY CENTER SQUARE
 1100 MAIN / KANSAS CITY / MISSOURI 64105
 SUITE 134 LAKESIDE PLAZA II
 6700 CORPORATE DRIVE / KANSAS CITY / MISSOURI 64120

**SANITARY SEWER EXTENSIONS
 WOODCREST KAR-IMM
 INTERCEPTOR
 PLAN AND PROFILE
 FOR THE
 CITY OF O'FALLON, MISSOURI**

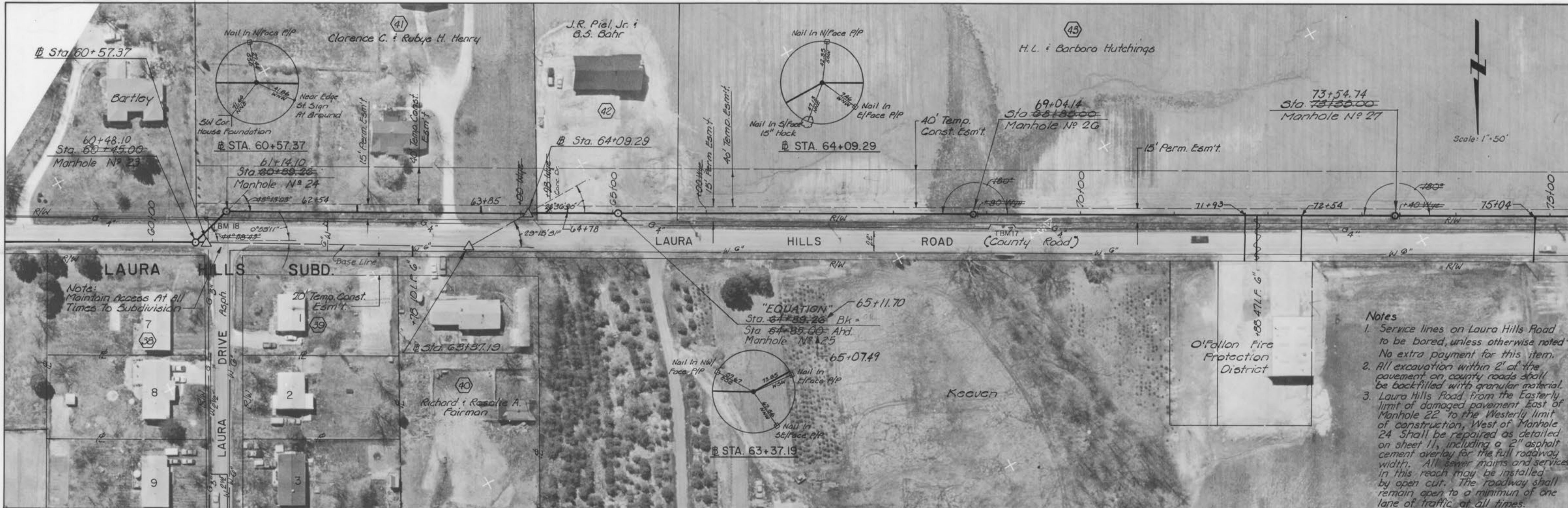
DESIGNED BY: R.C.H. DRAWN BY: K.M. TRY CHECKED BY: W.A.C.

E.P.A. PROJECT NO. C 291090-07

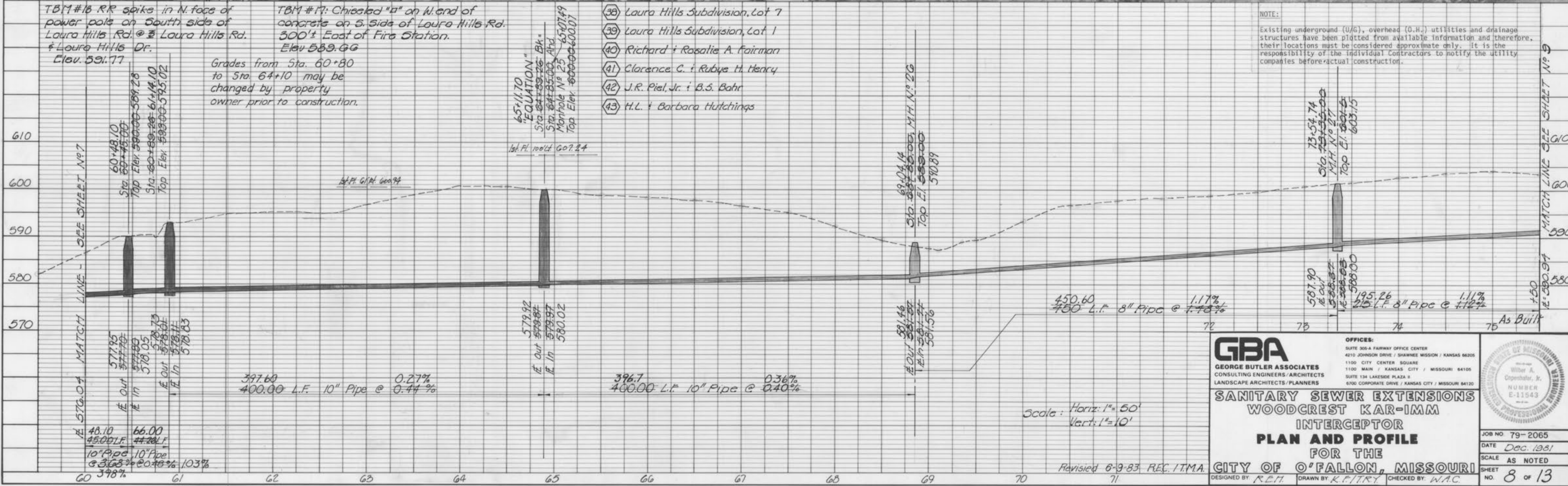
JOB NO: 79-2065
 DATE: Dec. 1981
 SCALE: AS NOTED
 SHEET NO: 7 of 13

DATE: _____
 BY: _____
 SUPERVISOR: _____
 NOTE BOOK: _____
 ASSIGNMENT CHECKED: _____
 BY: _____
 NO. _____

DATE: _____
 BY: _____
 SUPERVISOR: _____
 NOTE BOOK: _____
 GRADES CHECKED: _____
 B.M.'S NOTED: _____
 STRUCTURE NOTATIONS CHECKED: _____
 NO. _____



- Notes**
1. Service lines on Laura Hills Road to be bored, unless otherwise noted. No extra payment for this item.
 2. All excavation within 2' of the pavement on county roads shall be backfilled with granular material.
 3. Laura Hills Road from the Easterly limit of damaged pavement East of Manhole 22 to the Westerly limit of construction, West of Manhole 24 shall be repaired as detailed on sheet 11, including a 2" asphalt cement overlay for the full roadway width. All sewer mains and services in this reach may be installed by open cut. The roadway shall remain open to a minimum of one lane of traffic at all times.



NOTE:
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TBM #16 RR spike in N. face of power pole on South side of Laura Hills Rd. @ Laura Hills Dr. & Laura Hills Dr. Elev. 591.77

TBM #17: Chiseled "a" on W. end of concrete on S. Side of Laura Hills Rd. 500' East of Fire Station. Elev. 589.66

Grades from Sta. 60+80 to Sta. 64+10 may be changed by property owner prior to construction.

- (38) Laura Hills Subdivision, Lot 7
- (39) Laura Hills Subdivision, Lot 1
- (40) Richard & Rosalie A. Fairman
- (41) Clarence C. & Rubye H. Henry
- (42) J.R. Piel, Jr. & B.S. Bahr
- (43) H.L. & Barbara Hutchings

Scale: Horiz: 1"=50'
 Vert: 1"=10'

GBA
 GEORGE BUTLER ASSOCIATES
 CONSULTING ENGINEERS, ARCHITECTS
 LANDSCAPE ARCHITECTS/PLANNERS

OFFICES:
 3014 FAIRWAY OFFICE CENTER
 4210 JOHNSON DRIVE / SHAWNEE MISSION / KANSAS 66205
 1100 CITY CENTER SQUARE
 1100 MAIN / KANSAS CITY / MISSOURI 64105
 SUITE 134 LANESIDE PLAZA II
 6700 CORPORATE DRIVE / KANSAS CITY / MISSOURI 64120

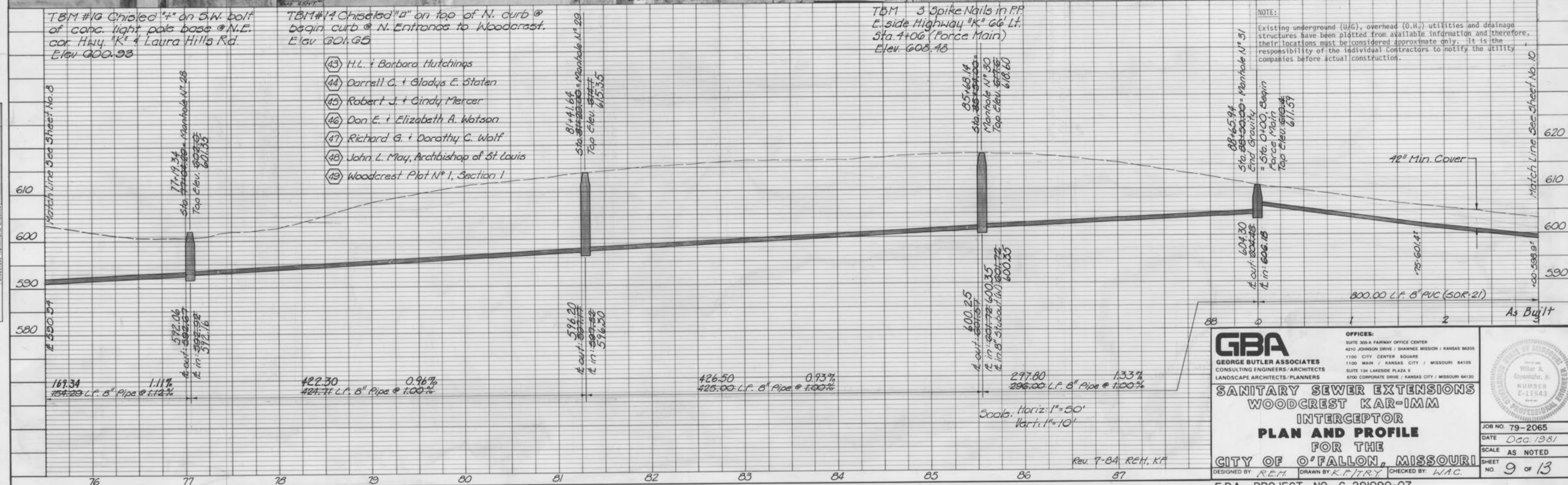
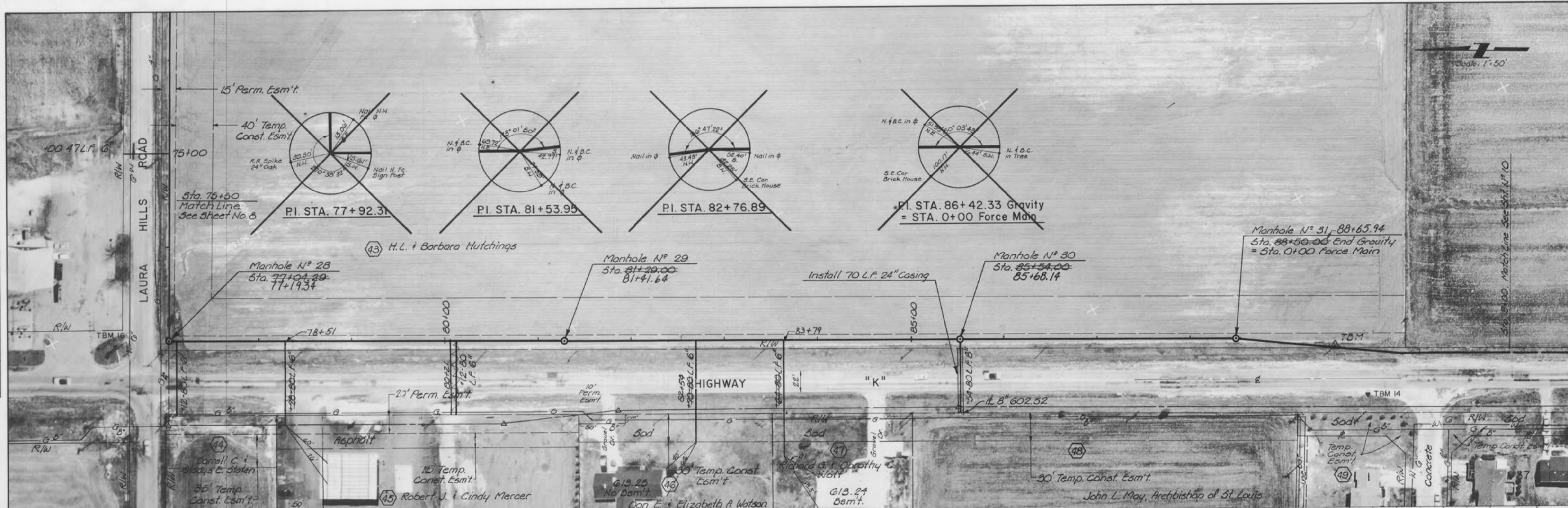
**SANITARY SEWER EXTENSIONS
 WOODCREST KAR-IMM
 INTERCEPTOR
 PLAN AND PROFILE
 FOR THE
 CITY OF O'FALLON, MISSOURI**

DESIGNED BY: R.E.H. DRAWN BY: K.E. TRY CHECKED BY: W.A.C.

JOB NO. 79-2065
 DATE Dec. 1981
 SCALE AS NOTED
 SHEET NO. 8 OF 13

DATE: _____ BY: _____
 CHECKED: _____
 DATE: _____ BY: _____
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DATE: _____ BY: _____
 CHECKED: _____
 DATE: _____ BY: _____
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GBA
 GEORGE BUTLER ASSOCIATES
 CONSULTING ENGINEERS/ARCHITECTS
 LANDSCAPE ARCHITECTS/PLANNERS

OFFICES:
 SUITE 305-A FAIRWAY OFFICE CENTER
 4210 JOHNSON DRIVE / SHAWNEE MISSION / KANSAS 66205
 1100 CITY CENTER SQUARE
 1100 MAIN / KANSAS CITY / MISSOURI 64108
 SUITE 124 LAKEVIEW PLAZA II
 8100 CORPORATE DRIVE / KANSAS CITY / MISSOURI 64120

**SANITARY SEWER EXTENSIONS
 WOODCREST KAR-IMM
 INTERCEPTOR
 PLAN AND PROFILE
 FOR THE
 CITY OF O'FALLON, MISSOURI**

DESIGNED BY: REH DRAWN BY: K.P./J.R. CHECKED BY: W.A.C.

JOB NO: 79-2065
 DATE: Dec. 1981
 SCALE: AS NOTED
 SHEET NO: 9 OF 13

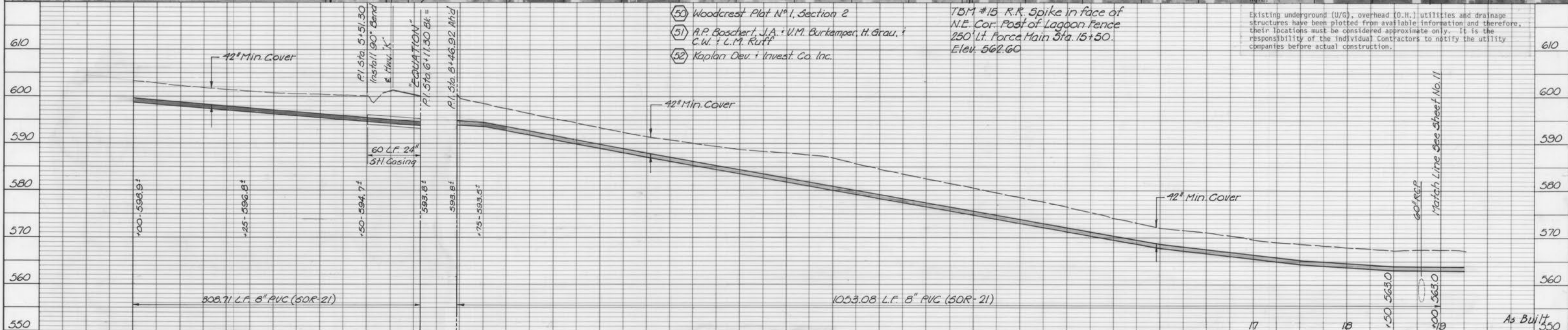
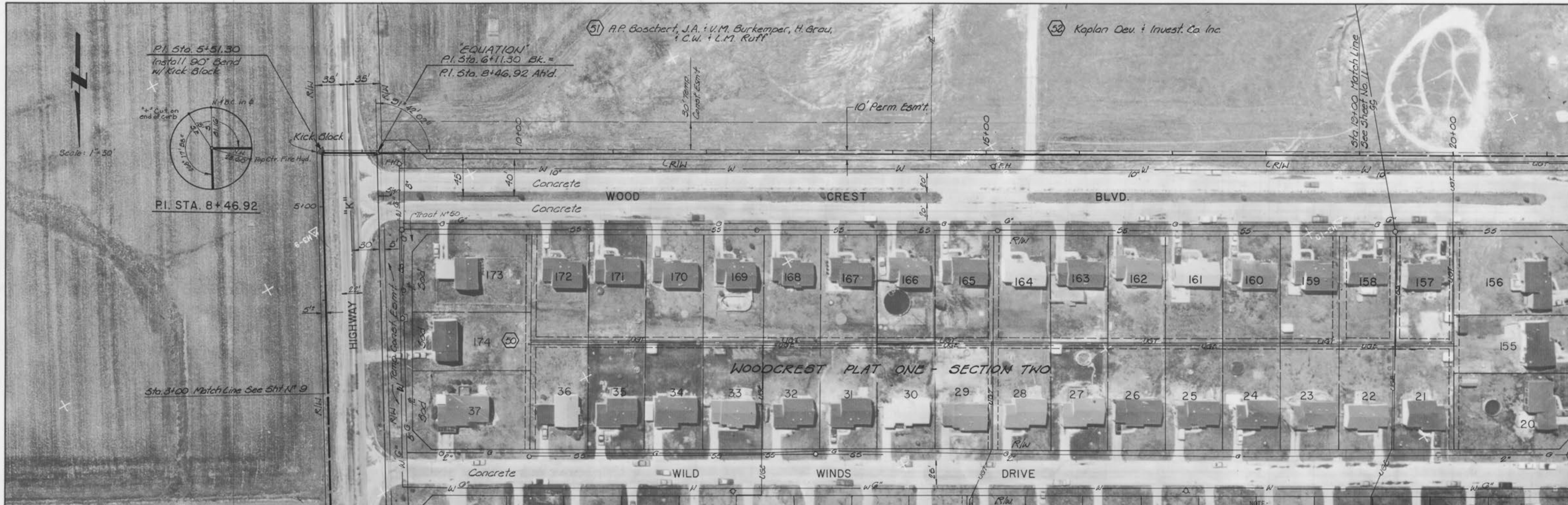
E.P.A. PROJECT NO. C 291090-07

PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE
 PRINTED IN U.S.A.

Woodcrest Sanitary Sewer Ext.

DATE	
BY	
REVISED	
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GBA
 GEORGE BUTLER ASSOCIATES
 CONSULTING ENGINEERS/ARCHITECTS
 LANDSCAPE ARCHITECTS/PLANNERS

OFFICES:
 SUITE 200-A FAIRWAY OFFICE CENTER
 4270 JOHNSON DRIVE / SHAWNEE MISSION / KANSAS 66205
 1100 CITY CENTER SQUARE
 1100 MAIN / KANSAS CITY / MISSOURI 64105
 SUITE 134 LAKESIDE PLAZA #
 6700 CORPORATE DRIVE / KANSAS CITY / MISSOURI 64120

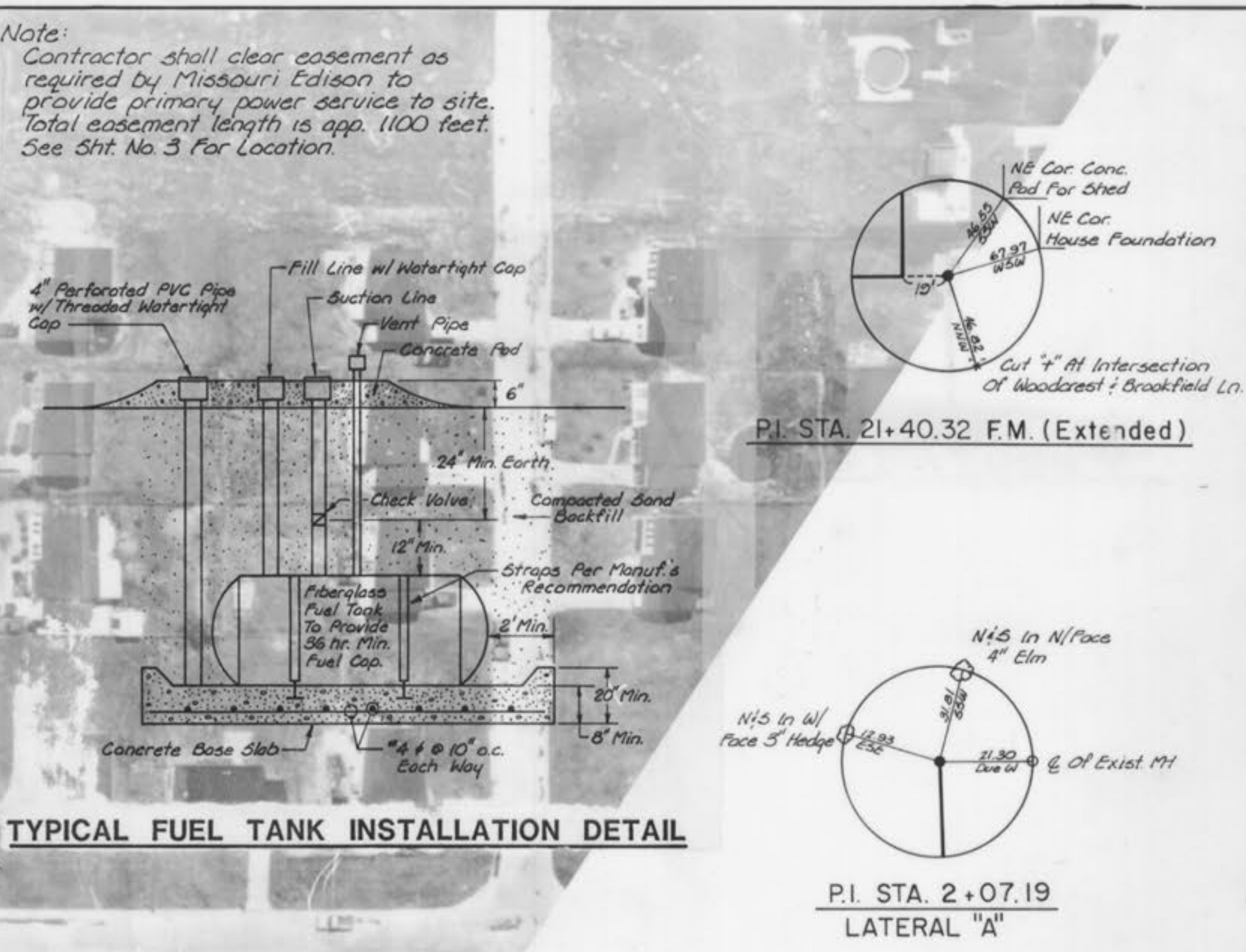
**SANITARY SEWER EXTENSIONS
 WOODCREST KAR-1MM
 INTERCEPTOR
 PLAN AND PROFILE
 FOR THE
 CITY OF O'FALLON, MISSOURI**

DESIGNED BY: R.E.H. DRAWN BY: K.PITRY CHECKED BY: W.A.C.

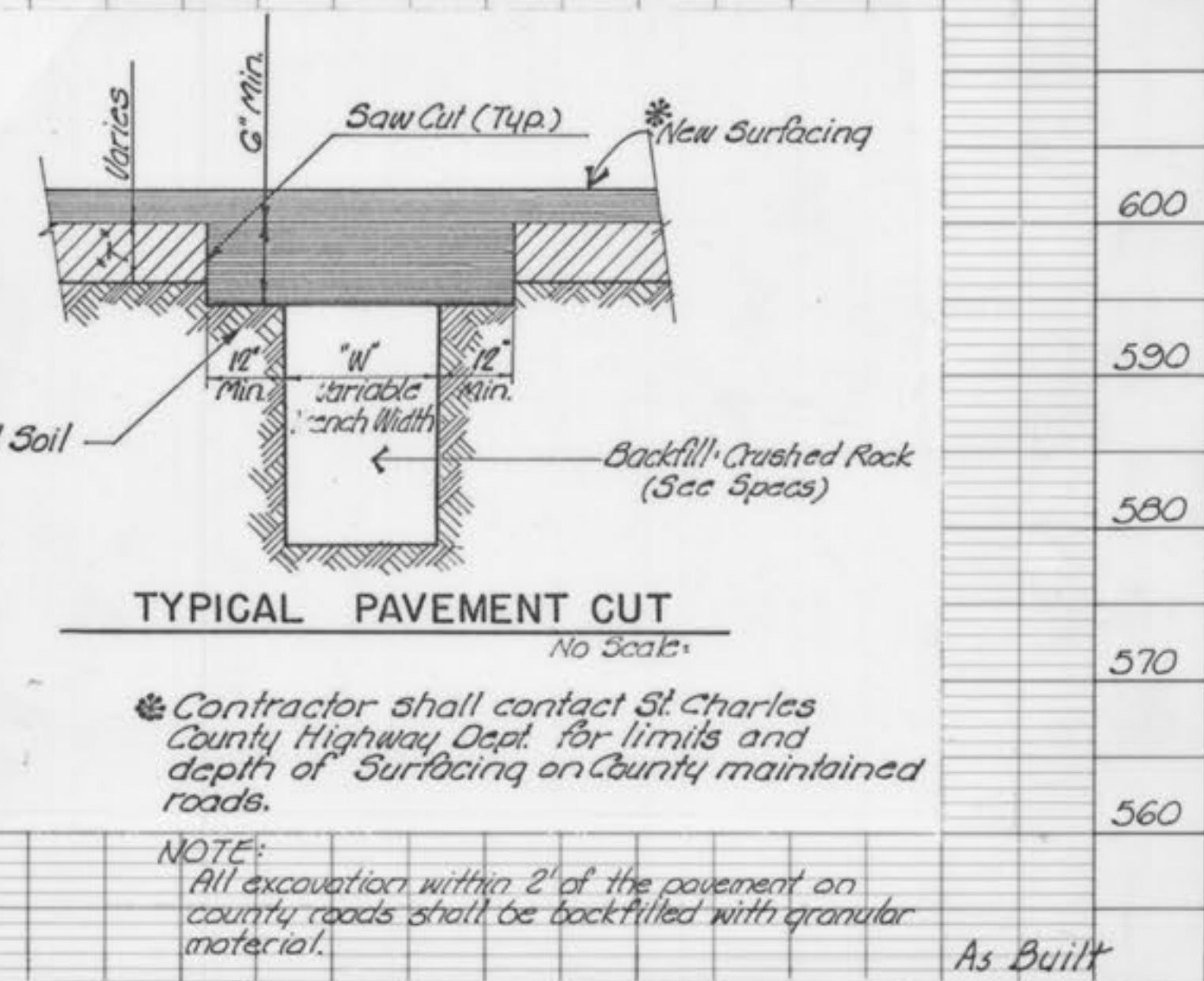
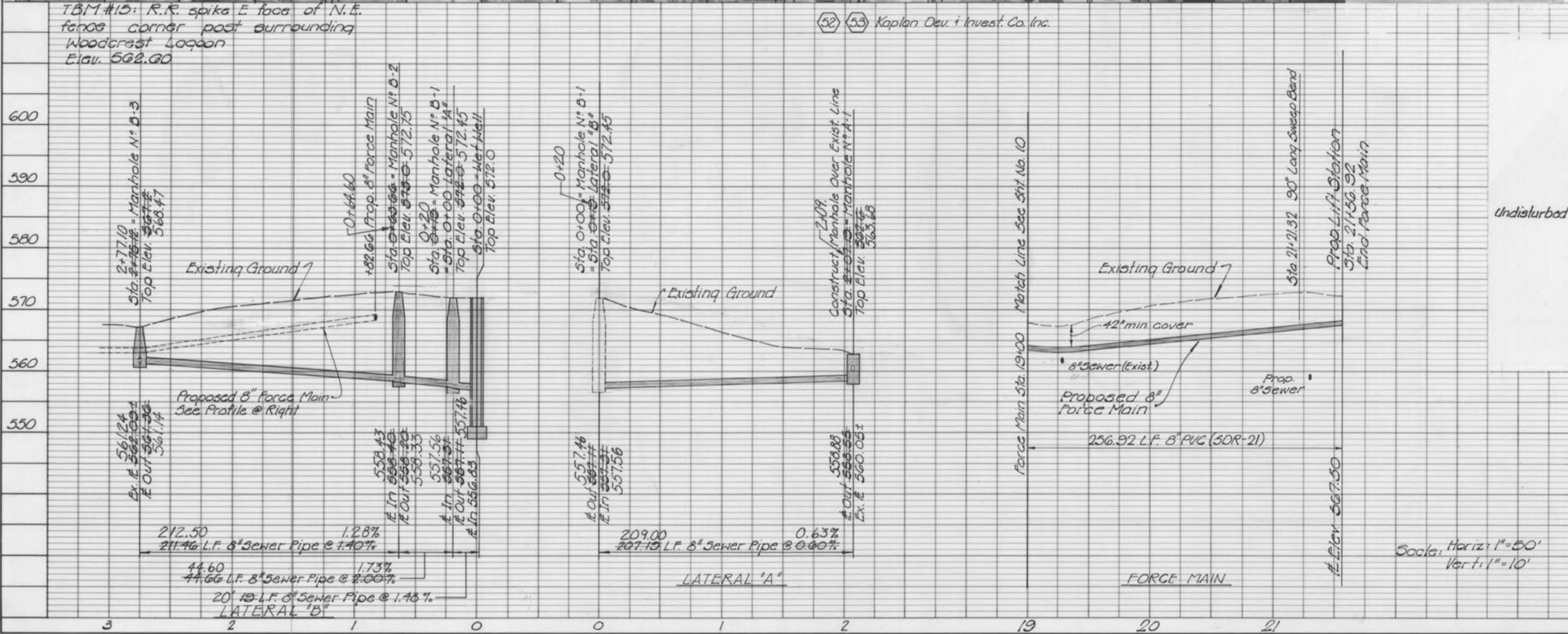
JOB NO. 79-2065
 DATE Dec. 1981
 SCALE AS NOTED
 SHEET NO. 10 OF 13

E.P.A. PROJECT NO. C 291090-07 Woodcrest Sanitary Sewer Ext.

DATE	
BY	
REVISION	
NO.	
PLAN	
NOTE BOOK	
ALIGNMENT CHECKED	
BY	
DATE	
NO.	



DATE	
BY	
REVISION	
NO.	
PROFILE	
NOTE BOOK	
ALIGNMENT CHECKED	
BY	
DATE	
NO.	



GBA
GEORGE BUTLER ASSOCIATES
CONSULTING ENGINEERS/ARCHITECTS
LANDSCAPE ARCHITECTS/PLANNERS

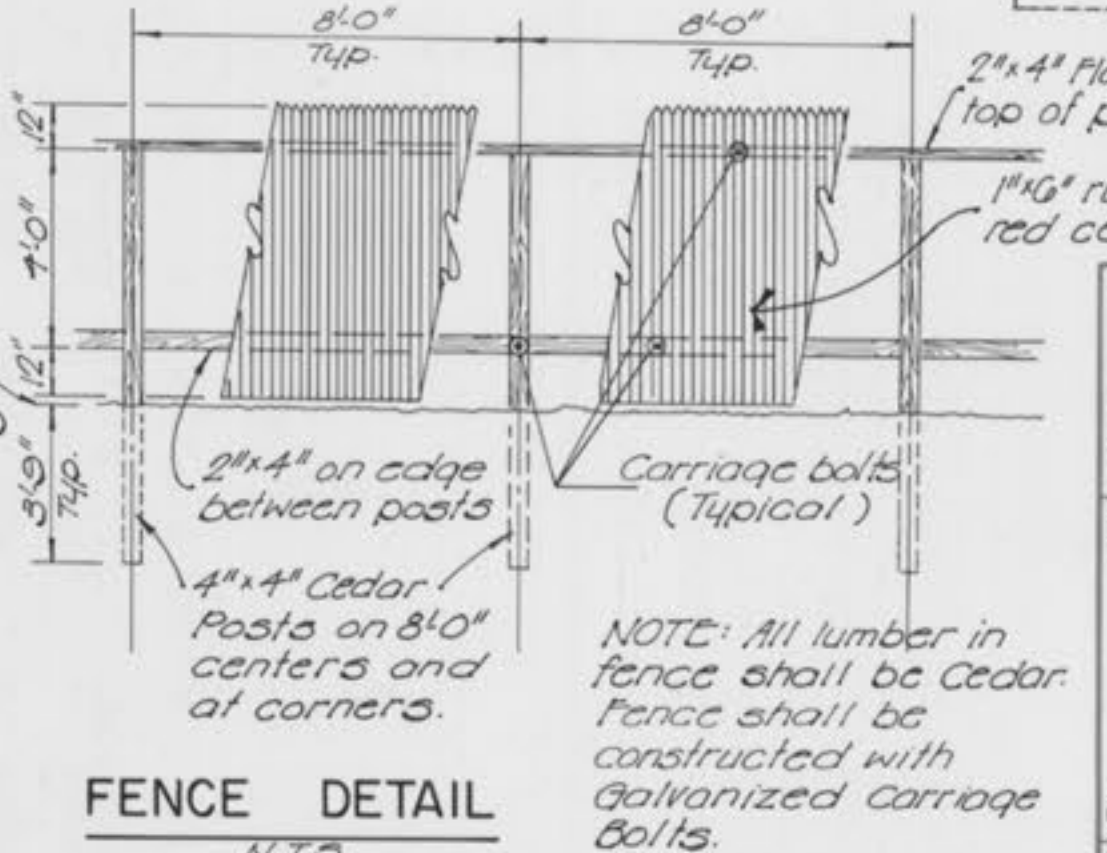
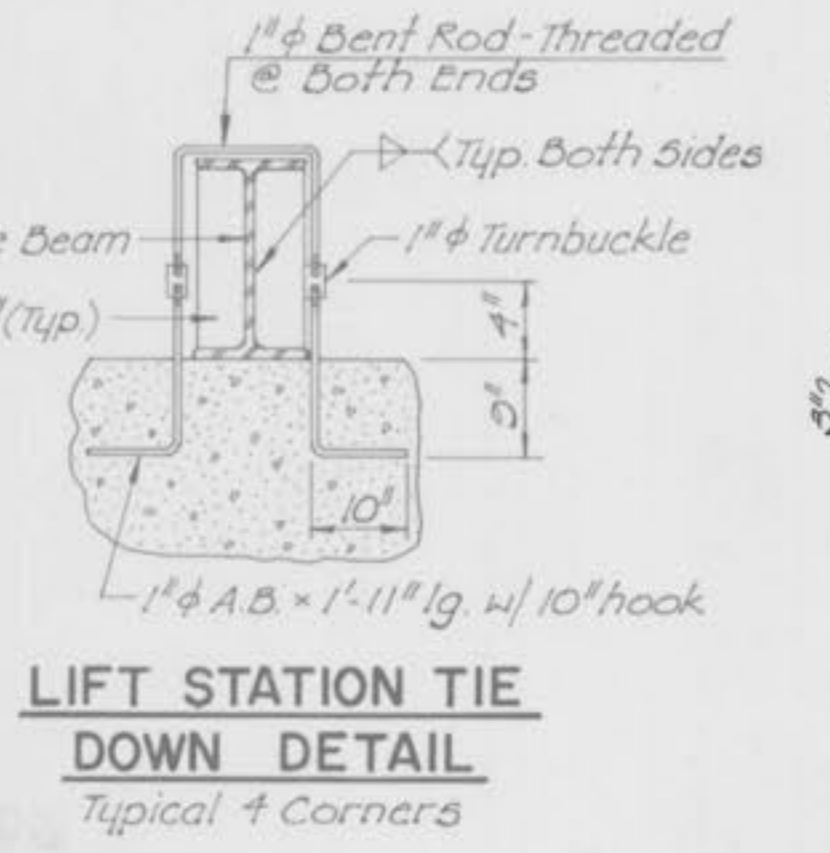
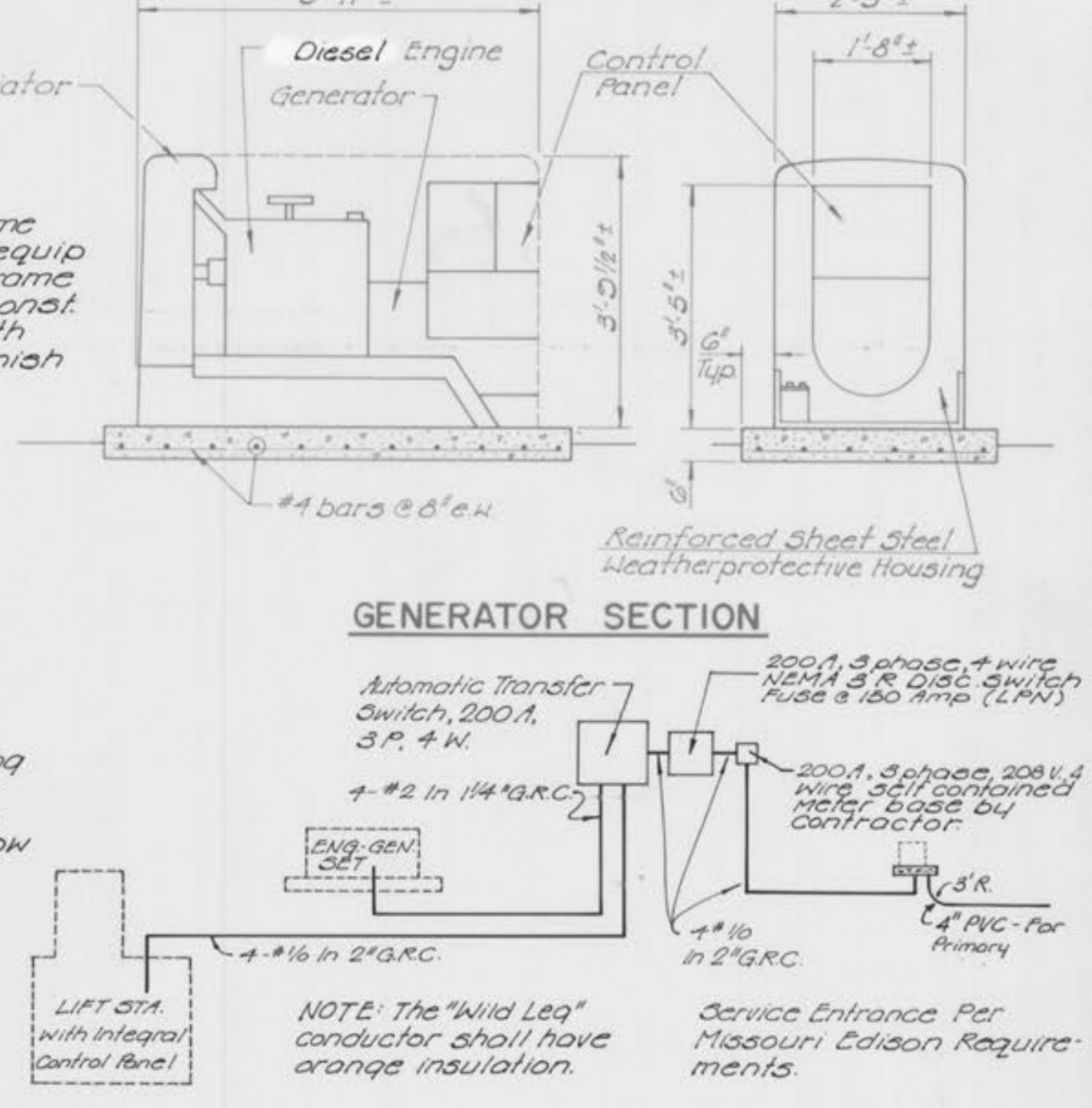
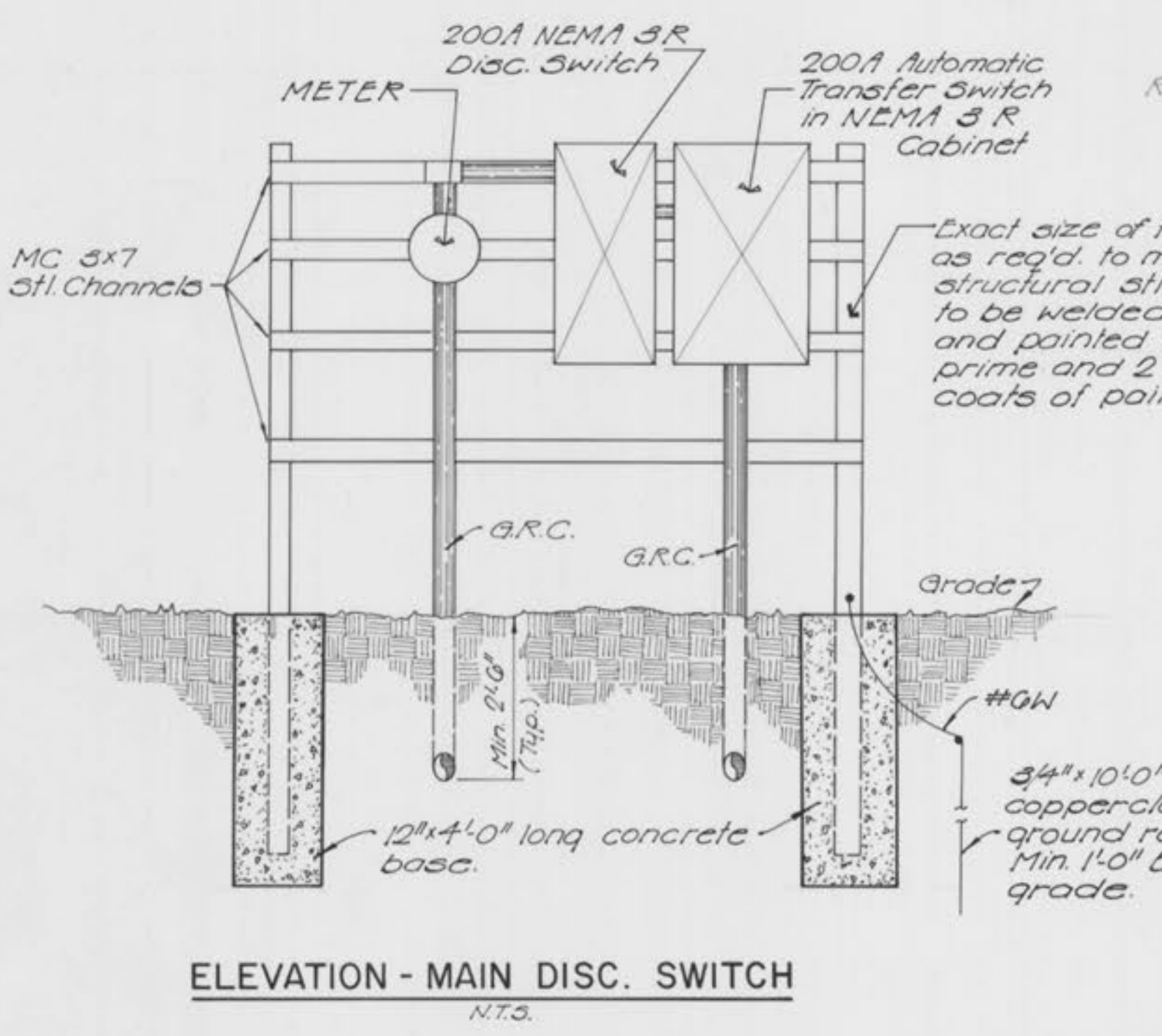
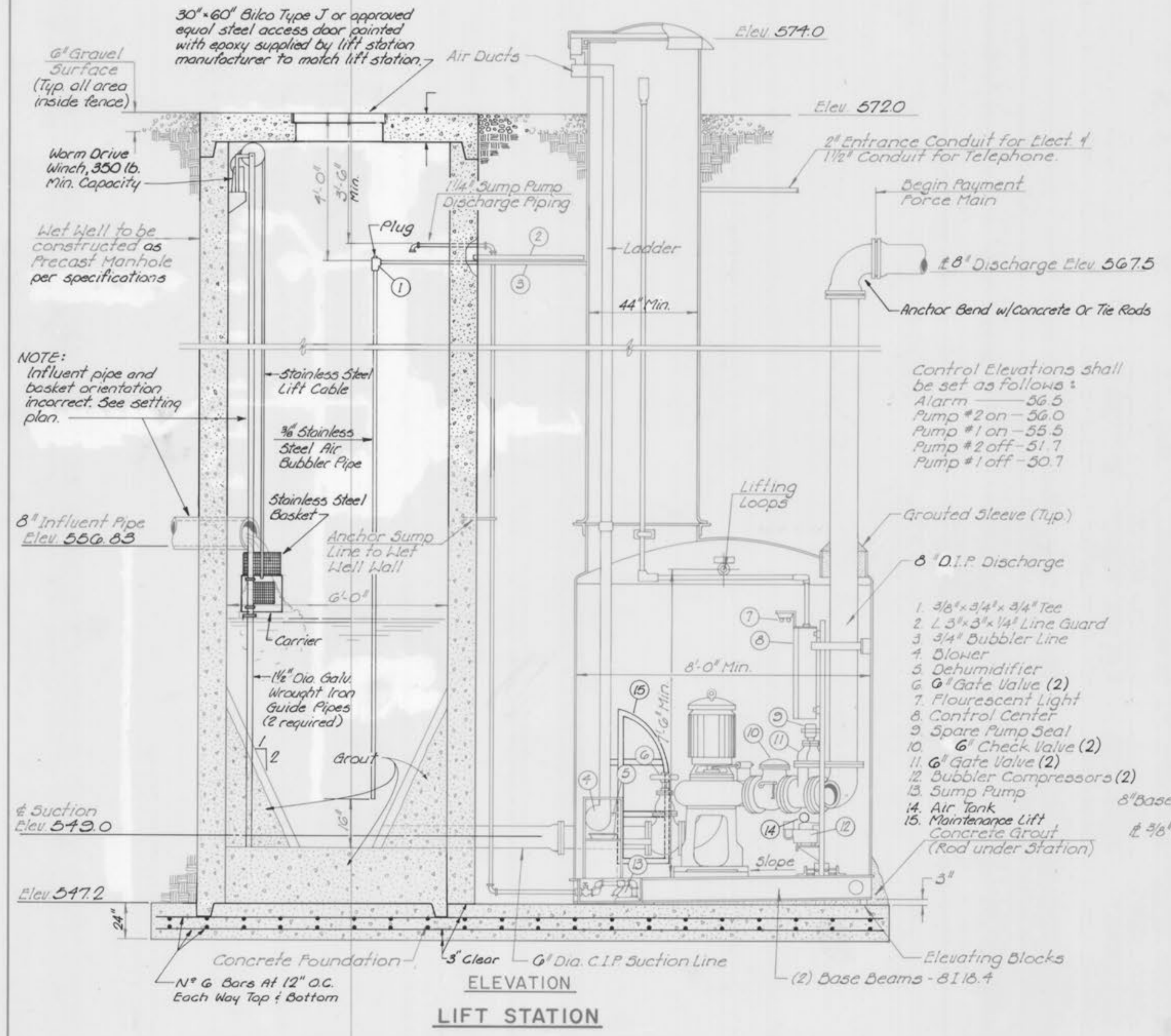
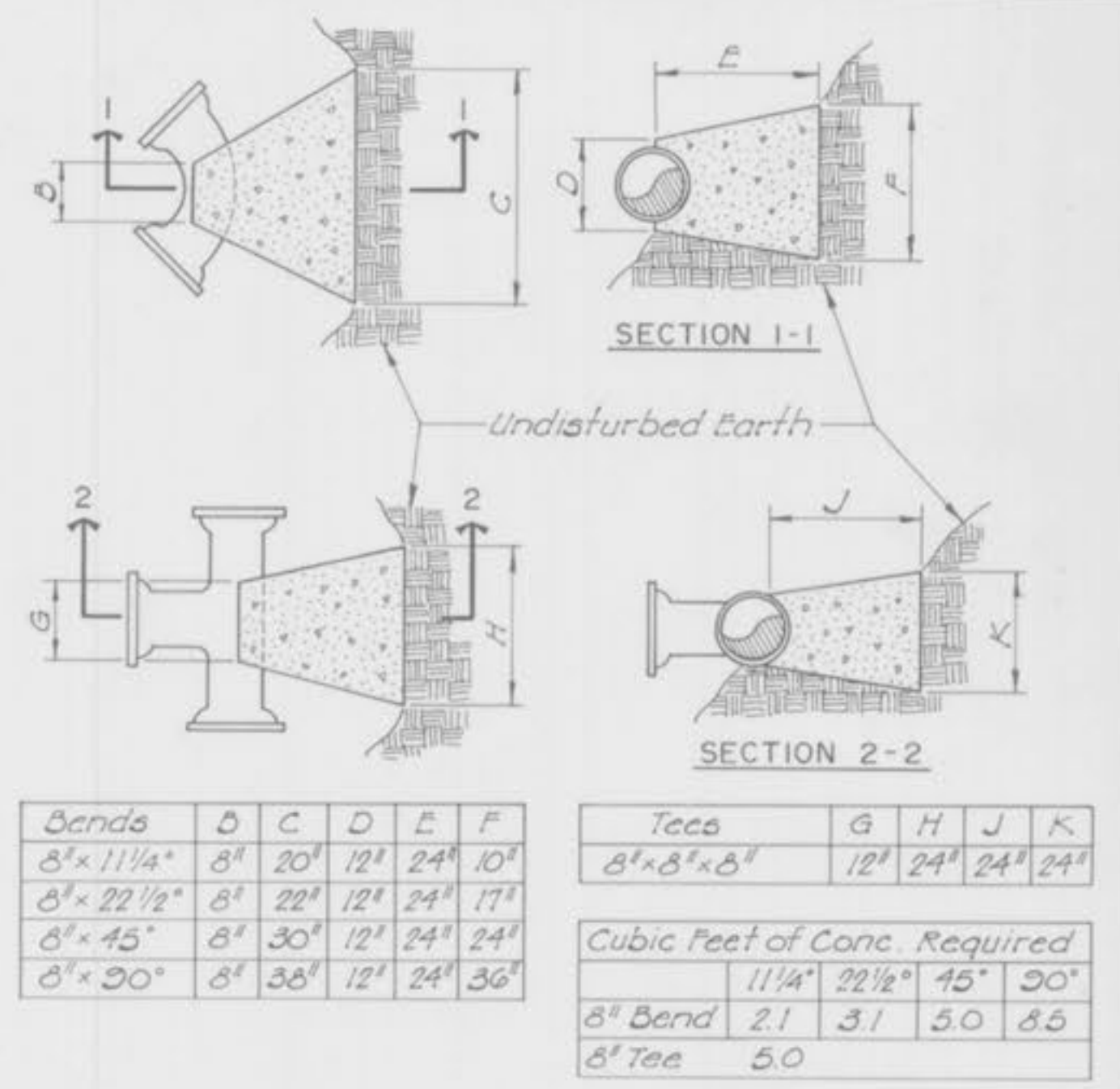
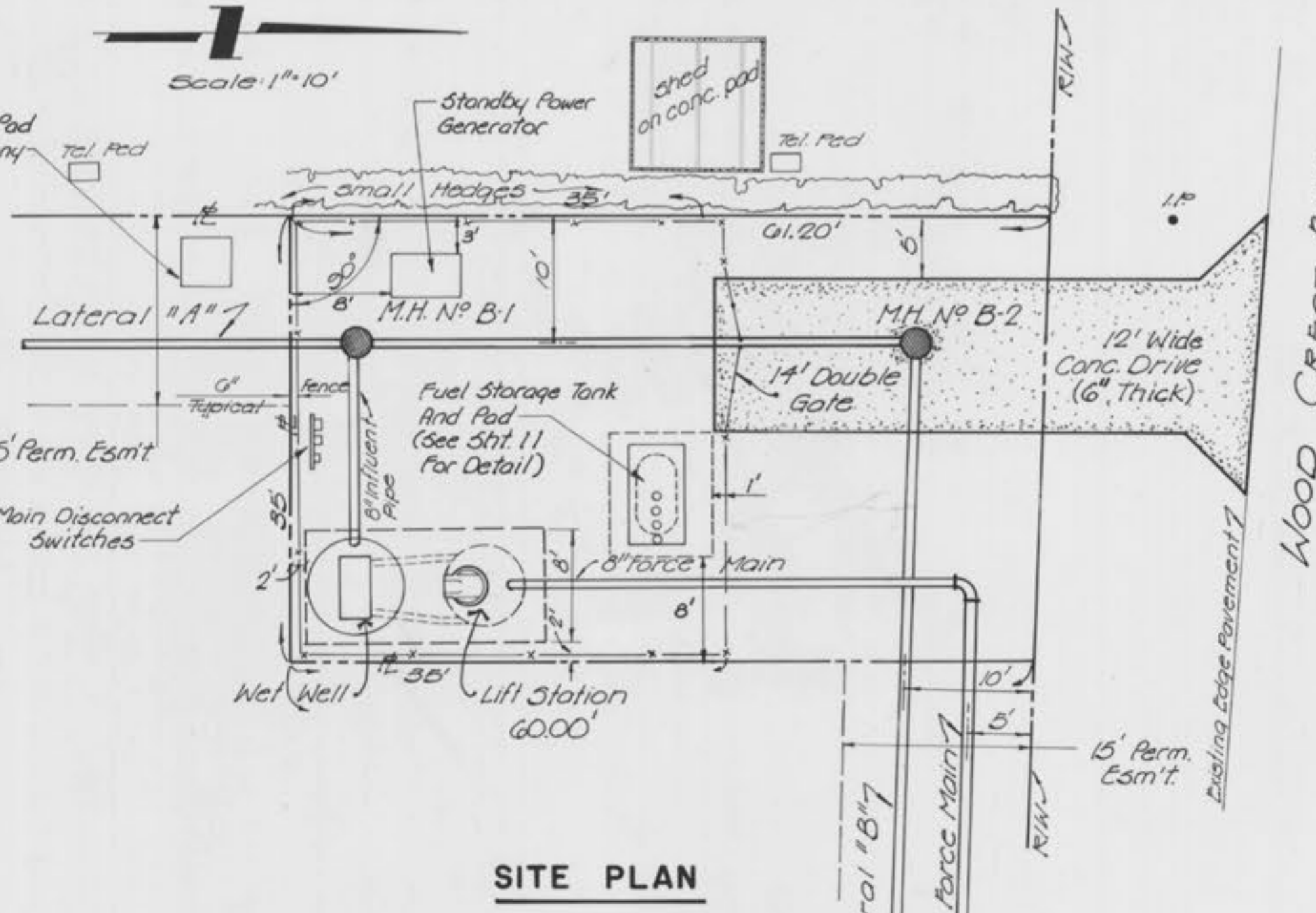
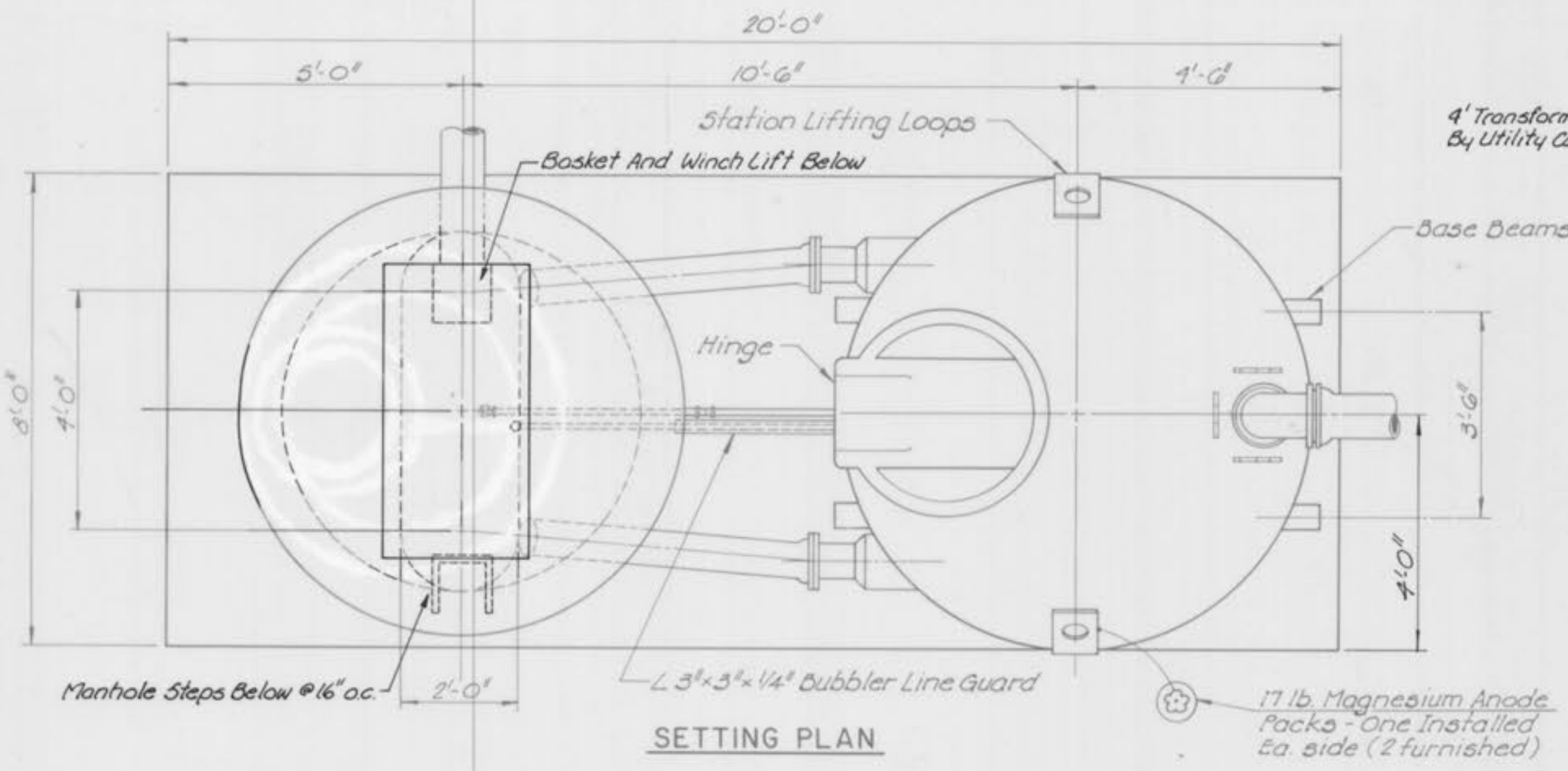
OFFICES:
SUITE 305-A FAIRWAY OFFICE CENTER
4210 JOHNSON DRIVE / SHANNON MISSION / KANSAS 66205
1100 CITY CENTER SQUARE
1100 MAIN / KANSAS CITY / MISSOURI 64105
SUITE 134 LAKESIDE PLAZA B
6706 CORPORATE DRIVE / KANSAS CITY / MISSOURI 64130

**SANITARY SEWER EXTENSIONS
WOODCREST KAR-1MM
INTERCEPTOR
PLAN AND PROFILE
FOR THE
CITY OF O'FALLON, MISSOURI**

DESIGNED BY R.E.H. DRAWN BY K.F. ITRY CHECKED BY W.A.C.

JOB NO. 79-2065
DATE Oct. 1981
SCALE AS NOTED
SHEET NO. 11 OF 13

E.P.A. PROJECT NO. C 291090-07 Sanitary Sewer Ext Woodcrest



ELECTRICAL RISER DIAGRAM

As Built Rev. 3/83 REC

GBA
GEORGE BUTLER ASSOCIATES
CONSULTING ENGINEERS / ARCHITECTS
LANDSCAPE ARCHITECTS - PLANNERS

OFFICES:
SUITE 305-A FAIRWAY OFFICE CENTER
4210 JOHNSON DRIVE / SHARPEE MISSION / KANSAS 66205
1100 CITY CENTER SQUARE
1100 MAIN / KANSAS CITY / MISSOURI 64108
SUITE 134 LAKESIDE PLAZA B
8100 CORPORATE DRIVE / KANSAS CITY / MISSOURI 64120

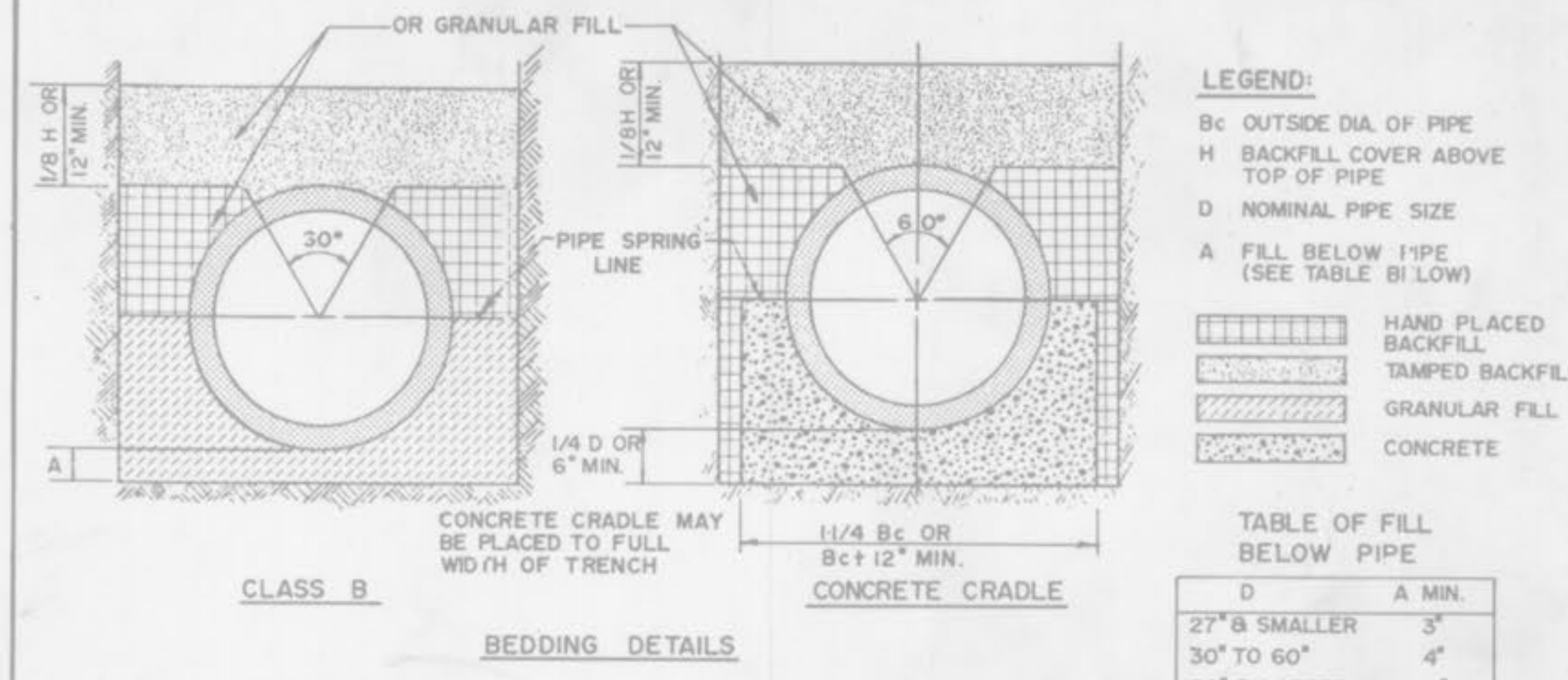
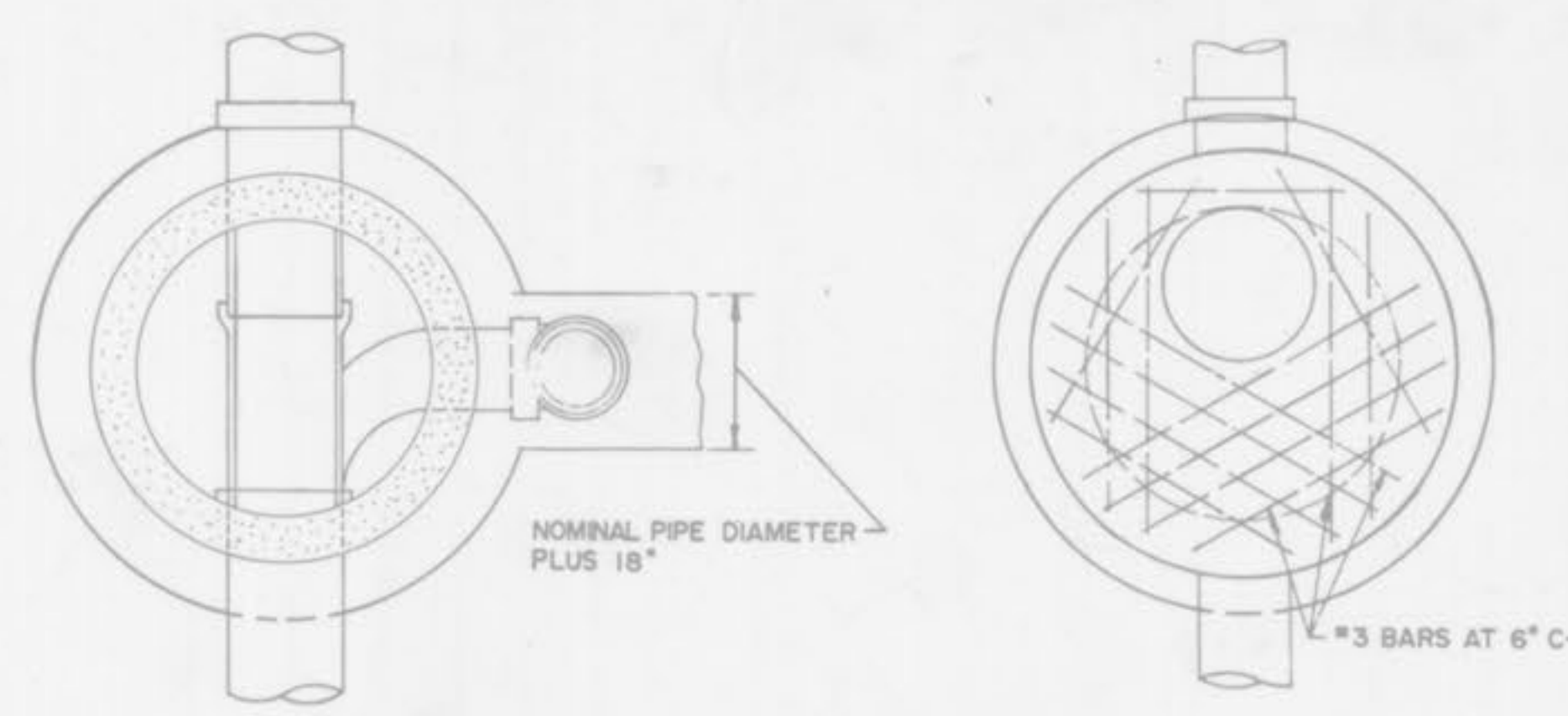
**SANITARY SEWER EXTENSIONS
WOODCREST KAR-IMM
INTERCEPTOR
LIFT STATION DETAILS
FOR THE
CITY OF FALLON, MISSOURI**

DESIGNED BY: REC DRAWN BY: JEB CHECKED BY: WAC

JOB NO. 79-2065
DATE Dec. 1981
SCALE NOT TO SCALE
SHEET NO. 12 OF 13

E.P.A. PROJECT NO. C 291090-07 Sanitary Sewer Ext Woodcrest

WALL THICKNESS		MANHOLE BASE THICKNESS	
DIA. M.H.	"D" DIM. PRE CAST	DEPTH (FEET)	"D" DIM.
48"	5"	0-20	8" w/ 4 BARS @ 12" CTRS. EACH WAY
60"	6"	20-30	8" w/ 4 BARS @ 9" CTRS. EACH WAY
72"	7"	30-40	10" w/ 5 BARS @ 10" CTRS. EACH WAY

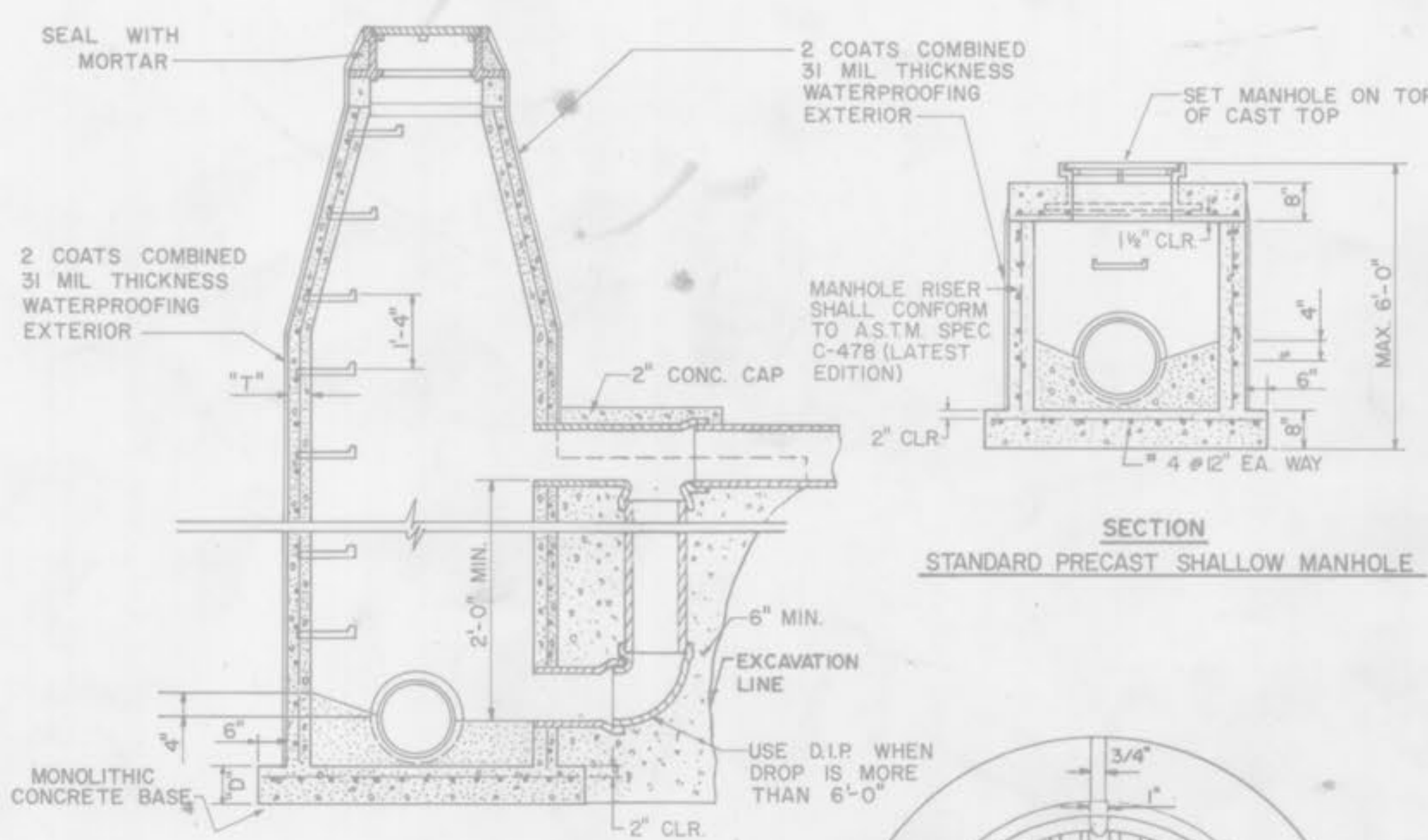
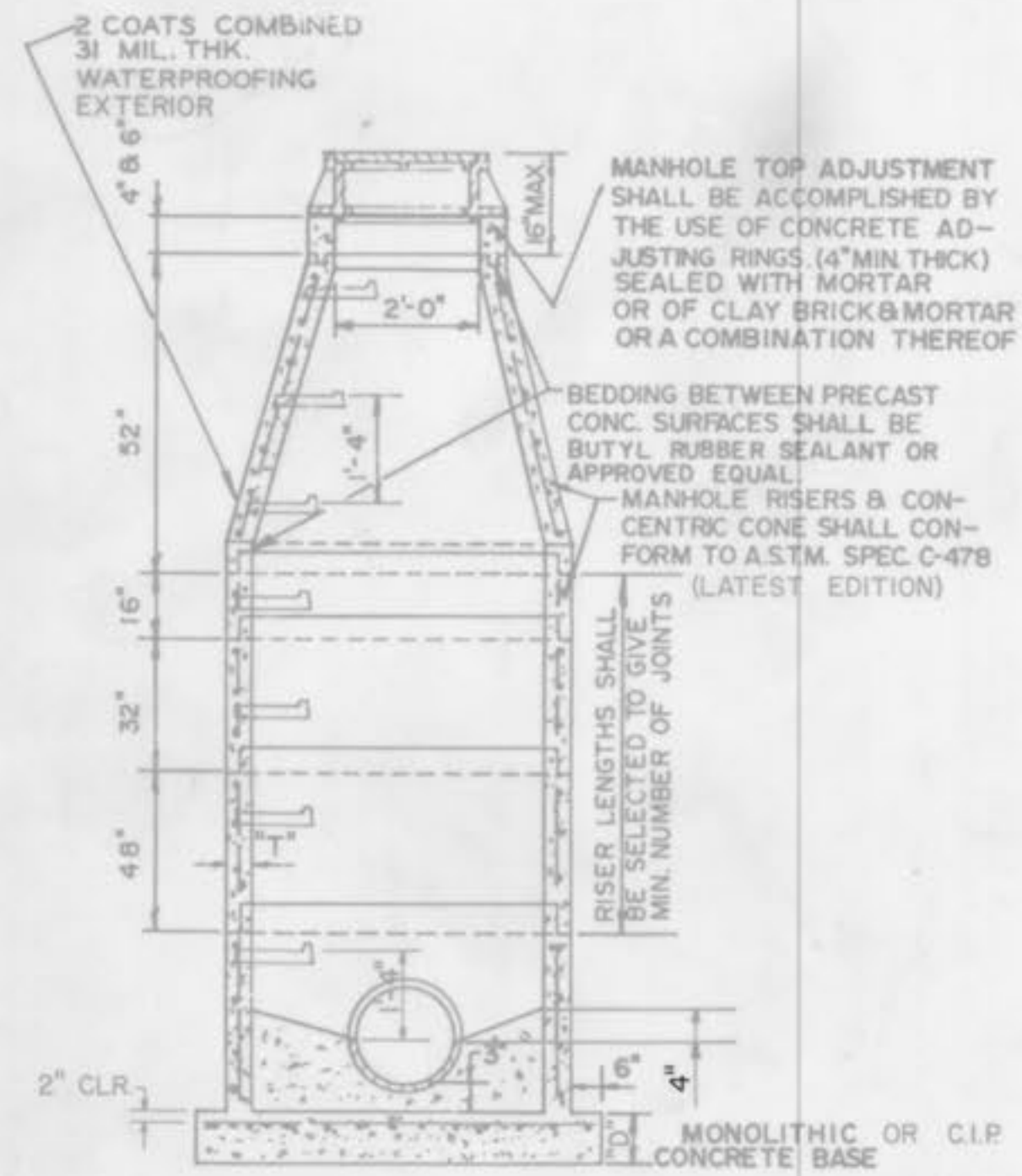


LEGEND:

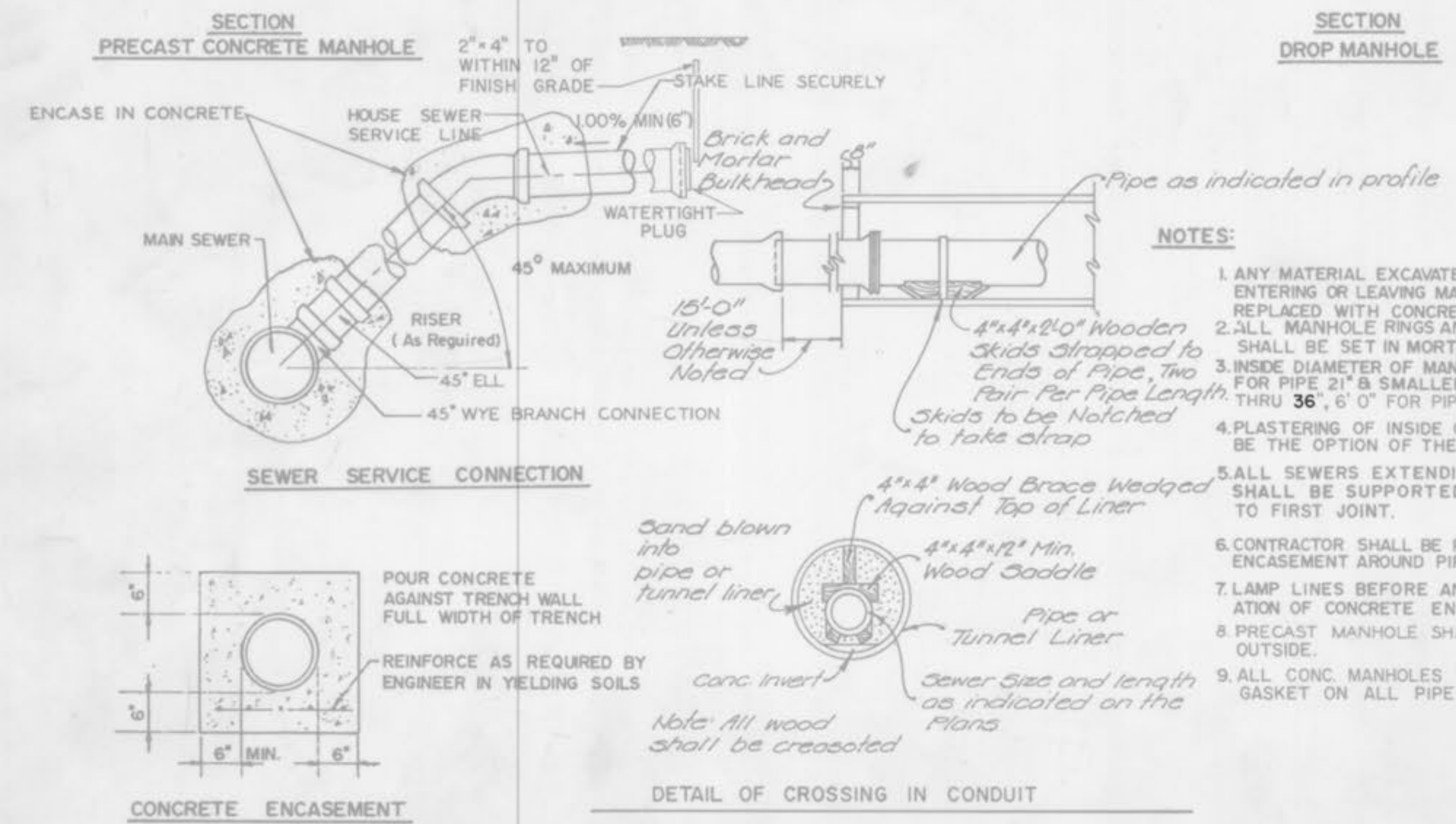
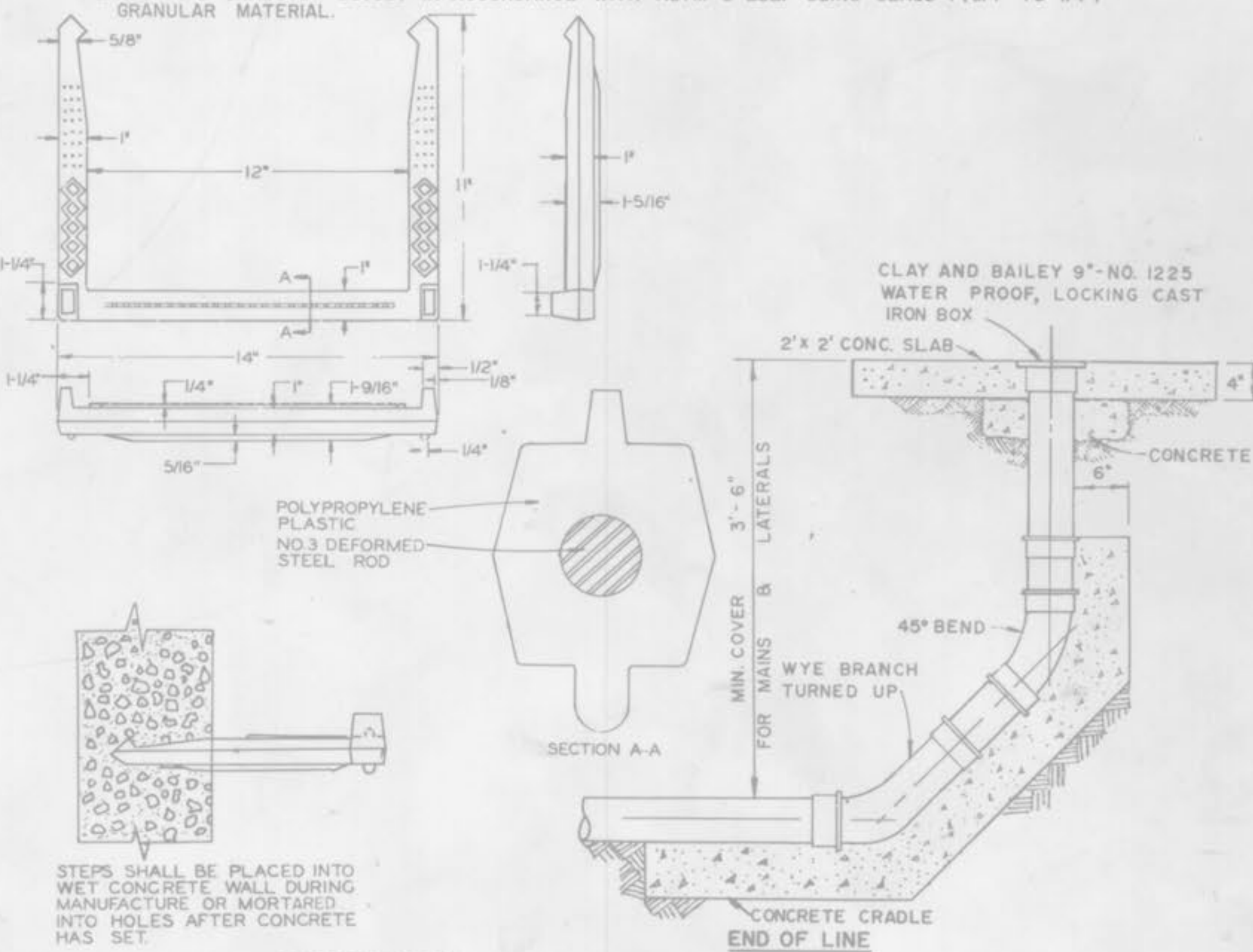
- Bc OUTSIDE DIA. OF PIPE
- H BACKFILL COVER ABOVE TOP OF PIPE
- D NOMINAL PIPE SIZE
- A FILL BELOW PIPE (SEE TABLE B1 LOW)

TABLE OF FILL BELOW PIPE

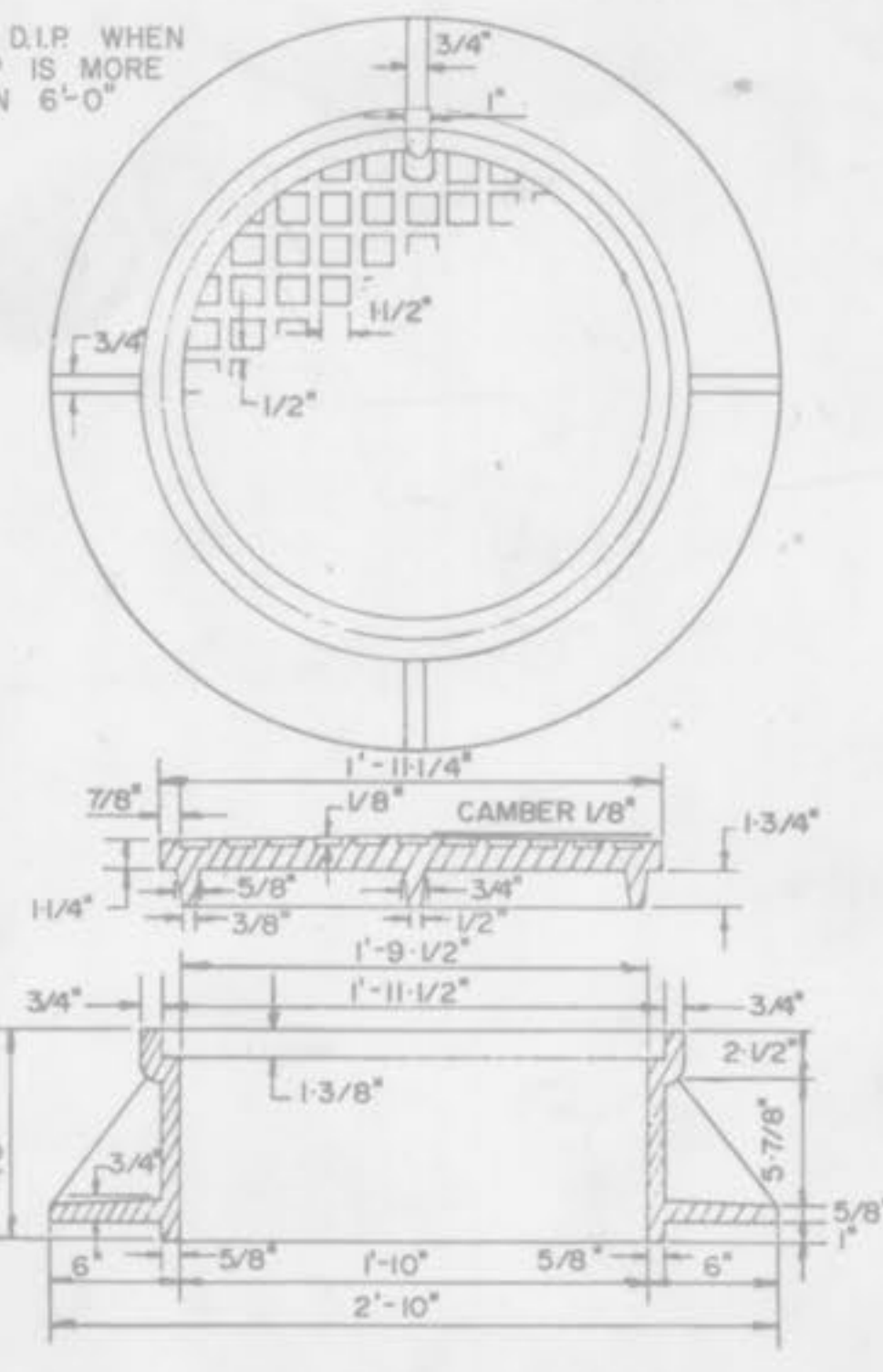
D	A MIN.
27" & SMALLER	3"
30" TO 60"	4"
66" & LARGER	6"



- NOTES:**
1. GRANULAR FILL TO BE CRUSHE'D STONE OR PEA GRAVEL WITH NOT LESS 95% PASSING 1/2" AND NOT LESS THAN 95% TO BE RETAINED ON A #4, TO BE PLACED IN NOT MORE THAN 6" LAYERS AND COMPACTED BY SLICING WITH A SHOVEL. (1/2" & #4 REFERS TO SIEVE SIZE.)
 2. TAMPED BACKFILL SHALL BE FINELY DIVIDED JOB EXCAVATED MATERIAL FREE FROM DEBRIS, ORGANIC MATERIAL AND STONES, COMPACTED TO 95% MAXIMUM DENSITY AS DETERMINED BY AASHO STANDARD METHOD T-99. GRANULAR FILL MAY BE SUBSTITUTED FOR TAMPED BACKFILL TO TOP OF THE PIPE.
 3. HAND PLACED BACKFILL SHALL BE FINELY DIVIDED MATERIAL FREE FROM DEBRIS AND STONES.
 4. ALL BEDDING DETAILS APPLY TO BUILDING SEWER SERVICE LINES AS WELL AS OTHER SEWERS.
 5. CONCRETE CRADLE SHALL BE USED WHEN TRENCH WIDTH EXCEEDS 24" PLUS THE PIPE DIAMETER FOR 36" I.D. & LARGER PIPE, OR EXCEEDS PIPE O.D. PLUS 16" FOR SMALLER THAN 36" PIPE.
 6. PVC PIPE SHALL BE BEDDED IN ACCORDANCE WITH ASTM D 2321 USING CLASS 1 (3/4" TO 1/4") GRANULAR MATERIAL.



- NOTES:**
1. ANY MATERIAL EXCAVATED BENEATH PIPE ENTERING OR LEAVING MANHOLES SHALL BE REPLACED WITH CONCRETE.
 2. ALL MANHOLE RINGS AND ADJUSTING RINGS SHALL BE SET IN MORTAR.
 3. INSIDE DIAMETER OF MANHOLES TO BE 4'-0" FOR PIPE 21" & SMALLER, 5'-0" FOR PIPE 24" THRU 36", 6'-0" FOR PIPE OVER 36"
 4. PLASTERING OF INSIDE OF MANHOLES SHALL BE THE OPTION OF THE CONTRACTOR.
 5. ALL SEWERS EXTENDING FROM MANHOLES SHALL BE SUPPORTED WITH CONCRETE TO FIRST JOINT.
 6. CONTRACTOR SHALL BE PAID FOR 6" CONCRETE ENCASEMENT AROUND PIPE AS SHOWN IN DETAIL.
 7. LAMP LINES BEFORE AND AFTER INSTALLATION OF CONCRETE ENCASEMENT.
 8. PRECAST MANHOLE SHALL BE WATERPROOFED OUTSIDE.
 9. ALL CONC. MANHOLES TO HAVE RUBBER GASKET ON ALL PIPE OPENINGS.



STANDARD MANHOLE RING AND COVER

CLAY & BAILEY - NO. 2008 (N° 2014 OR) *
NEENAH - R-1736 (N° R 1315 F2) *
DEETER - 1315 (N° 1313 O-Ring) *
OR EQUAL

GBA
 GEORGE BUTLER ASSOCIATES
 CONSULTING ENGINEERS ARCHITECTS
 LANDSCAPE ARCHITECTS PLANNERS

OFFICES:
 3018 S.W. 4th AVE. OFFICE CENTER
 4210 JOHNSON DRIVE - SHAWNEE MISSOURI - KANSAS 66201
 1100 CITY CENTER SQUARE
 1100 MAIN - KANSAS CITY - MISSOURI 64105
 3001 134 LEXINGTON PLAZA
 4300 CORPORATE DRIVE - KANSAS CITY - MISSOURI 64112

**SANITARY SEWER EXTENSIONS
 WOODCREST KAR-IMM
 INTERCEPTOR
 CONSTRUCTION DETAILS**

**FOR THE
 CITY OF O'FALLON, MISSOURI**

DESIGNED BY **REH** DRAWN BY **TRY/BGT** CHECKED BY **WAC**

E.P.A. PROJECT NO. C 291090-07

As Built

JOB NO. 79-2065
 DATE: Oct 1981
 SCALE: As Shown
 SHEET NO. 13 OF 13

Sanitary Sewer Ext.
 Woodcrest