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6	920+00 " 950+00	
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22	1400+00 " 1430+00	
23	1430+00 " 1460+00	
24	1460+00 " 1490+00	
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37	1850+00 " 1880+00	
38	1880+00 " 1910+00	

Incl. X-Sections

MISSOURI

STATE HIGHWAY COMMISSION

PLAN AND PROFILE

OF PROPOSED

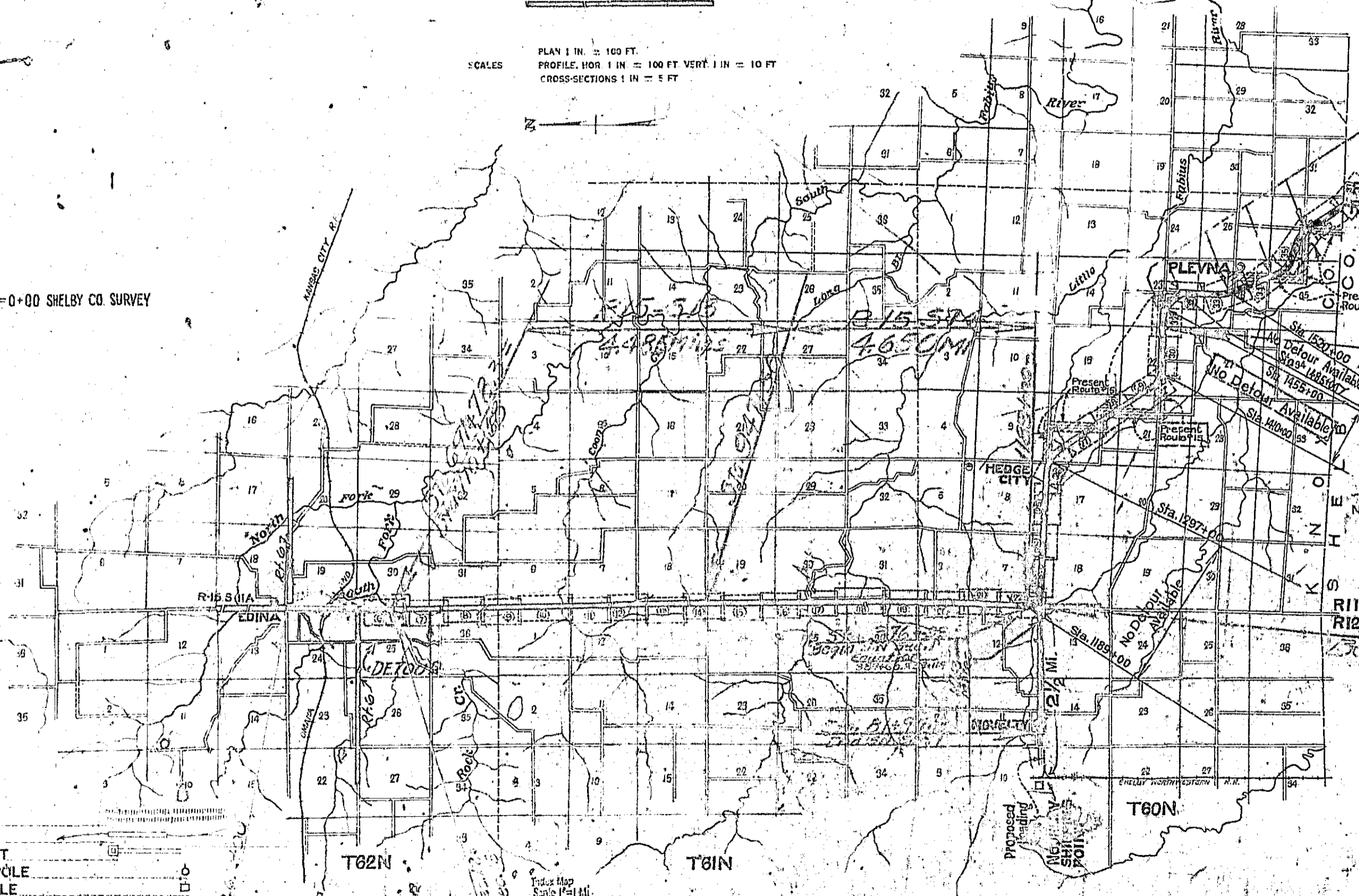
STATE ROAD

FEDERAL AID PROJECT

KNOX COUNTY

EDINA..... SOUTH

PLAN 1 IN. = 100 FT.
 PROFILE, HOR. 1 IN. = 100 FT. VERT. 1 IN. = 10 FT.
 CROSS-SECTIONS 1 IN. = 5 FT.



*Contractor to provide
 10' wide shoulders
 5' wide to 35' E
 5' wide to 35' W
 5' wide to 35' E
 5' wide to 35' W
 Sta. 1025+00
 End 350' W*

*Begin Dec. 15
 Sta. 1427+5
 End 350' W
 Contractor to provide
 5' wide to 35' E
 5' wide to 35' W
 5' wide to 35' E
 5' wide to 35' W*

NOTE:
 PRESENT ROUTE #15
 TO BE USED AS DETOUR
 UNLESS OTHERWISE SHOWN

CONVENTIONAL SIGNS

STATE AND NATIONAL LINE	LEVEE
COUNTY LINE	CULVERTS
CITY, VILLAGE OR BOROUGH	DROP INLET
TOWNSHIP LINE	TROLLEY POLE
SECTION LINE	POWER POLE
GRANT LINE	TELEPHONE OR TELEGRAPH POLE
FENCE LINE	MARSH
GUARD RAIL	HEDGE
UNFENCED PROPERTY	
RIGHT OF WAY LINE	GROUND ELEVATION
TRAVELED WAY	
RAILROADS	GRADE ELEVATION
RETAINING WALL	FACE LINE
BASE OR SURVEY LINE	GRADE LINE

EQUATIONS

STA. 1190+09.7 = 1190+74.5
 SUBTRACT 64.8 FT.
 STA. 1628+56 = 0+00 SHELBY
 STA. 624+39.00 = 630+04.50
 1600 = 1574.00 FT.
 STA. 624+73.00 = 701+66
 SUBTRACT 1360 FT.

LENGTH OF PROJECT

APPARENT LENGTH	FT =	MILES
GROSS LENGTH	11 11	7.0
NET LENGTH	11 11	

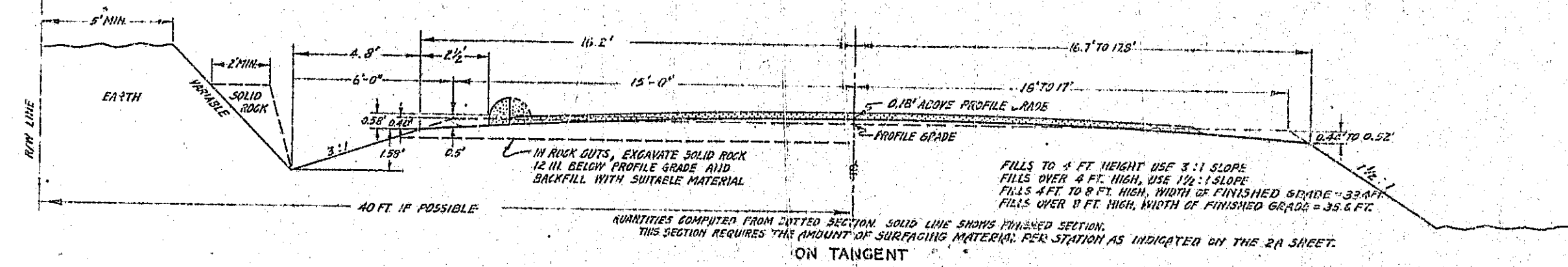
SUBMITTED

CHIEF ENGINEER NO. STATE HIGHWAY COMMISSION
 RECOMMENDED FOR APPROVAL

DISTRICT ENGINEER DISTRICT NO. 5
 RECOMMENDED FOR APPROVAL

CHIEF ENGINEER DISTRICT NO. 5
 APPROVED

NOTE
 A UNIFORM THICKNESS SHALL BE SPREAD OVER SUBGRADE FROM WINDROW ON ONE SHOULDER TO POINT 2 FT. FROM OPPOSITE SHOULDER AND SHALL BE BLADED AND MAINTAINED DAILY AT EXPENSE OF CONTRACTOR FREE FROM HOLES, RUTS OR BUMPS UNTIL FINAL ACCEPTANCE OF WORK. UPON FINAL ACCEPTANCE OF WORK, AMOUNT OF GRAVEL OR CHATS NOT NECESSARY TO SPREAD AND MAINTAIN 2 IN. THICKNESS, SHALL BE LEFT BY CONTRACTOR ON ONE SHOULDER IN A NEAT AND SYMMETRICAL WINDROW AS A STOCK PILE.



SUPERELEVATION PER FOOT OF WIDTH
 $S = \frac{0.067 V^2}{R}$ $V = 35 \text{ M.P.H.}$ $R = \text{RAD.}$

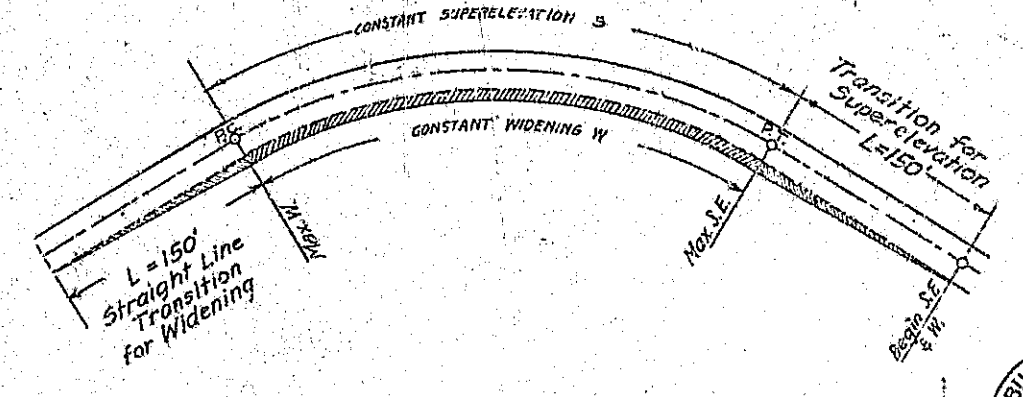
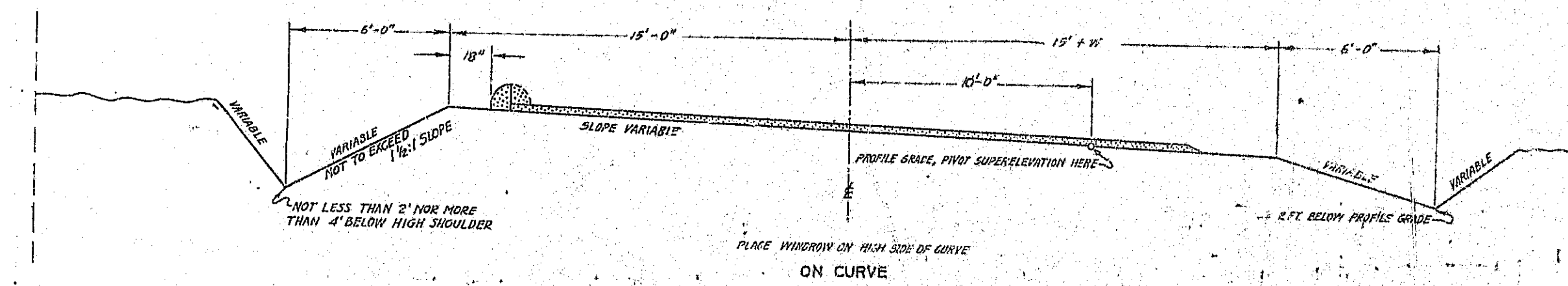
DEGREE	1	2	3	4	5	5°50' Up
S IN FT.	0.0143	0.0286	0.0429	0.0573	0.0716	0.0833

Value of W for Roads designed for High Type Surfacing.

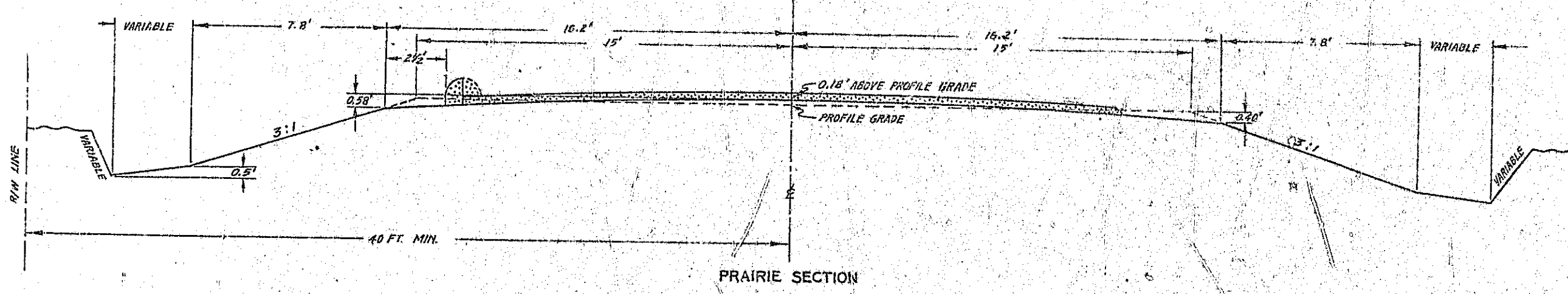
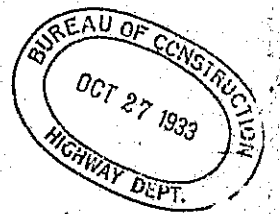
DEGREE	6°-7°59'	8°-9°59'	10°-13°59'	14°-15°59'	16°	17°	18°	19° UP
W IN FT.	2'	3'	4'	4.5'	5'	5.5'	6'	6.5'

Value of W for Secondary Roads.

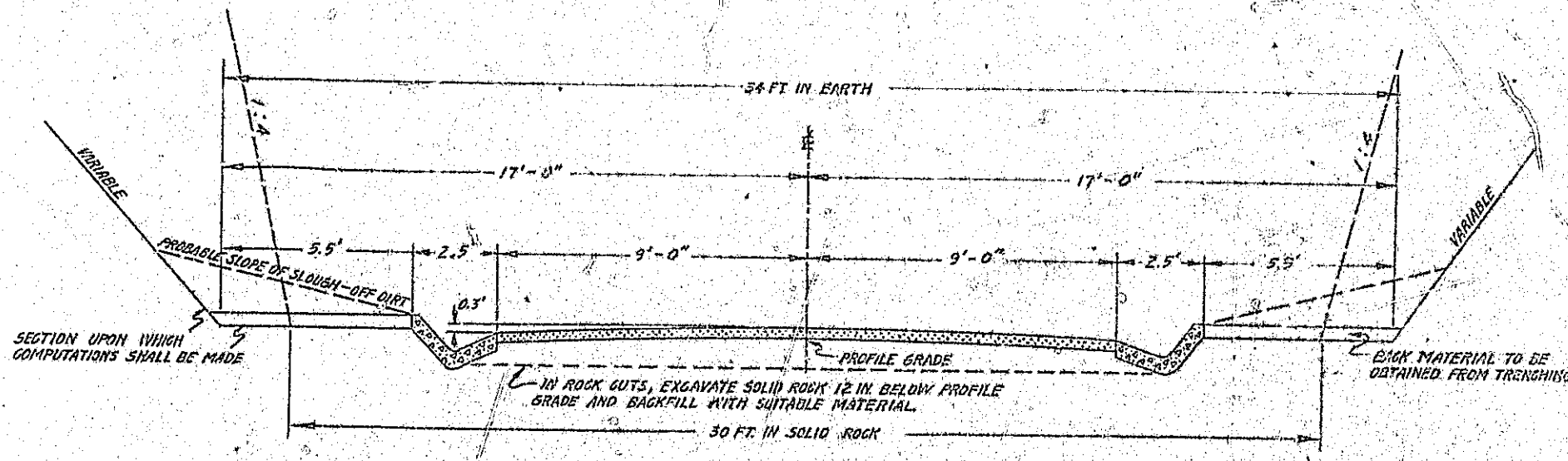
DEGREE	0-9	10	11	12	13	14	15	16	17	18	19 UP
W IN FT.	0	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5



SCHEME OF WIDENING AND SUPERELEVATION TRANSITION

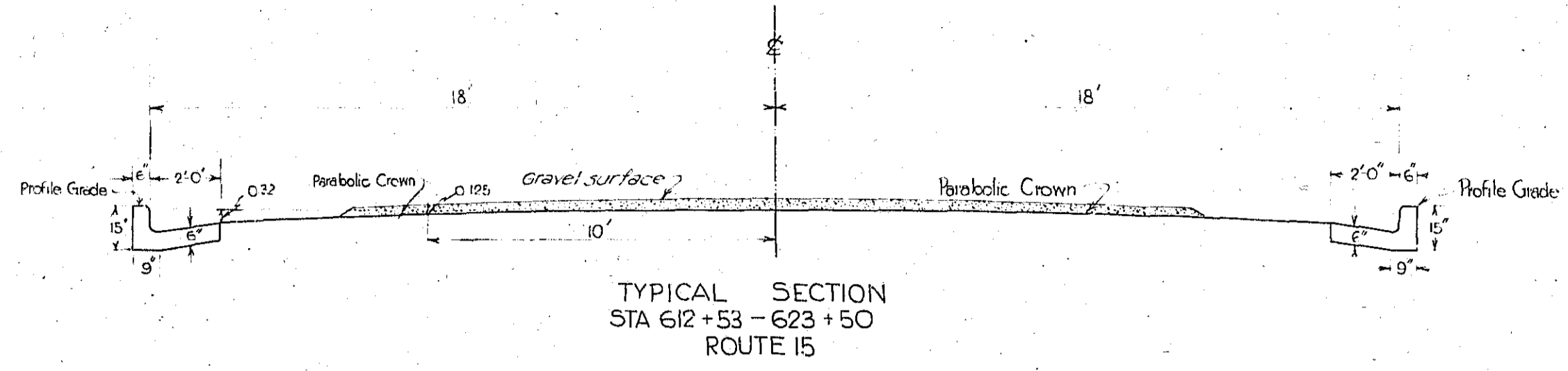


PRAIRIE SECTION

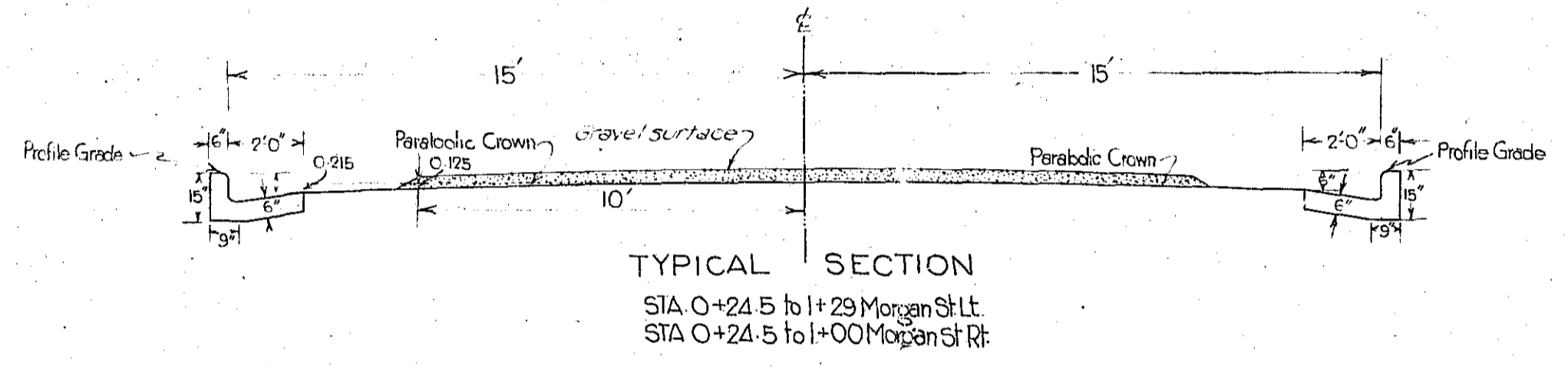


GUTTER SECTION

GRAVEL OR CHATS OR
 TYPE OF SURFACING INDICATED
 ON 2A SHEET
 ON 30 FT. GRADED EARTH



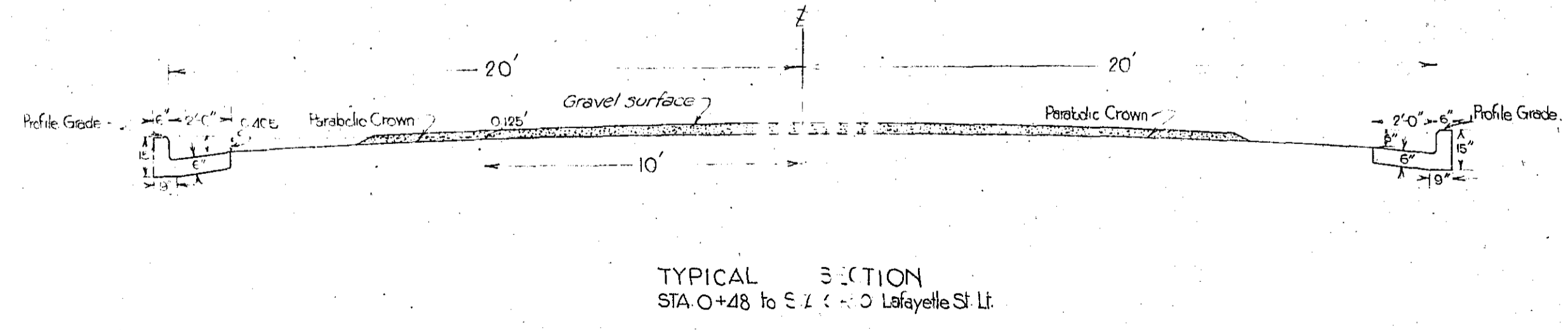
TYPICAL SECTION
STA 612+53 - 623+50
ROUTE 15



TYPICAL SECTION
STA 0+24.5 to 1+29 Morgan St Lt.
STA 0+24.5 to 1+00 Morgan St Rt.

NOTE -
For additional notes on gravel surface, see regular typical section sheet.
Where curb & gutter occurs no gravel is to be windrowed on either shoulder.

NOTE:
Centerline grade on 36' curb and gutter section is 0.180' below profile grade
Centerline grade on 40' curb and gutter section is 0.095' below profile grade
Centerline grade on 30' curb and gutter section is 0.290' below profile grade
This difference in grades is to be taken up in the warping of the intersections of 1st & 2nd Morgan St at R¹⁵. No transition in profile or grade being required.



TYPICAL SECTION
STA 0+48 to 5+0 Lafayette St Lt.

TYPICAL SECTION
ROUTE 15 SEC. 12 KNOX CO.
EDINA, MO.

Table with columns: FED. ROAD DIST. NO., STATE, FED. AID PROJECT, FISCAL YEAR, SHEET NO., TOTAL SHEETS, DIV. NO., COUNTY, ROUTE, SEC. NO.

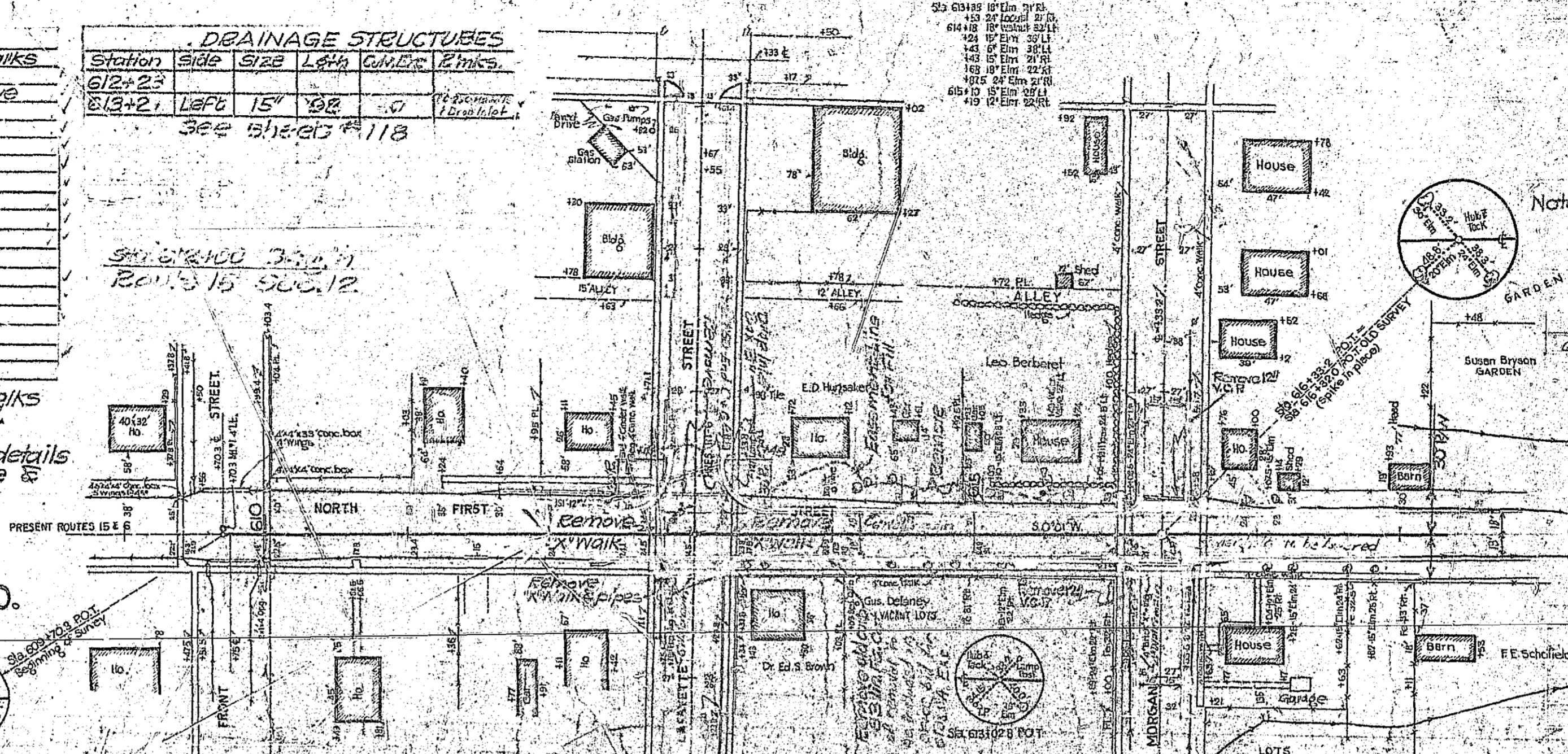
Main project estimate table with columns: EXCAVATION, REINFORCED CONCRETE BOX CULVERTS, LENGTH OF PROJECT, SUMMARY, FINANCIAL PLAN. Includes sub-sections for CLEARING & GRUBBING, RELAY PIPE, F.E. & S.R. PIPE CULVERTS, GRAVEL SURFACE, CULV. REMOVAL, LIGHT STONE REVEAL, STD. CONC. IRB & GUTTER, ENT. THRU C & G, GRAVEL IN STOCK PILE, CLASS X CONCRETE, REMOVAL OF OLD BRIDGES, STEEL GRATES & BEARING PLATES, CHANNEL CHANGES, AUTOMATIC FLOODGATE, ADJUSTING 5 MANHOLES TO GRADE, REMOVING CONC. SIDEWALK, LOWERING WATER MAINS & CONNECTIONS.

STRUCTURES IN PLACE				
Sta.	Side	Size	Qty. Exc.	Remarks
612+50	LT			
613+23	LT	12"	10	Remove
613+09	RT	43x12"	10	"
612+73	RT	6x12"		"
612+79	RT	6x12"		"
613+23	RT	5x12"	1	"
613+32	RT	11x12"	2	"
614+54	LT	10x15"	1	"
615+00	LT	14x15"	2	"
616+11	RT	8x12"	1	"
616+12	RT			
616+15	"	12"	10	"
616+54	"	8x12"	1	"
616+62	"	8x12"	1	"
616+77	LT			
616+56	LT	12"	9	"
Total			60	

DRAINAGE STRUCTURES					
Station	Side	Size	Letth	CONC.	Links
612+23					
613+21	Left	15"	98	0	16' 25" manhole 1 Grab inlet

Sta. 612+00 3.00' 7'
Rov. 3 15 500.12

Shaded areas indicate sidewalks to be removed and replaced. See tabulated quantities. See sheets No 3A-3E for details of intersections @ Lafayette & Morgan Sts.

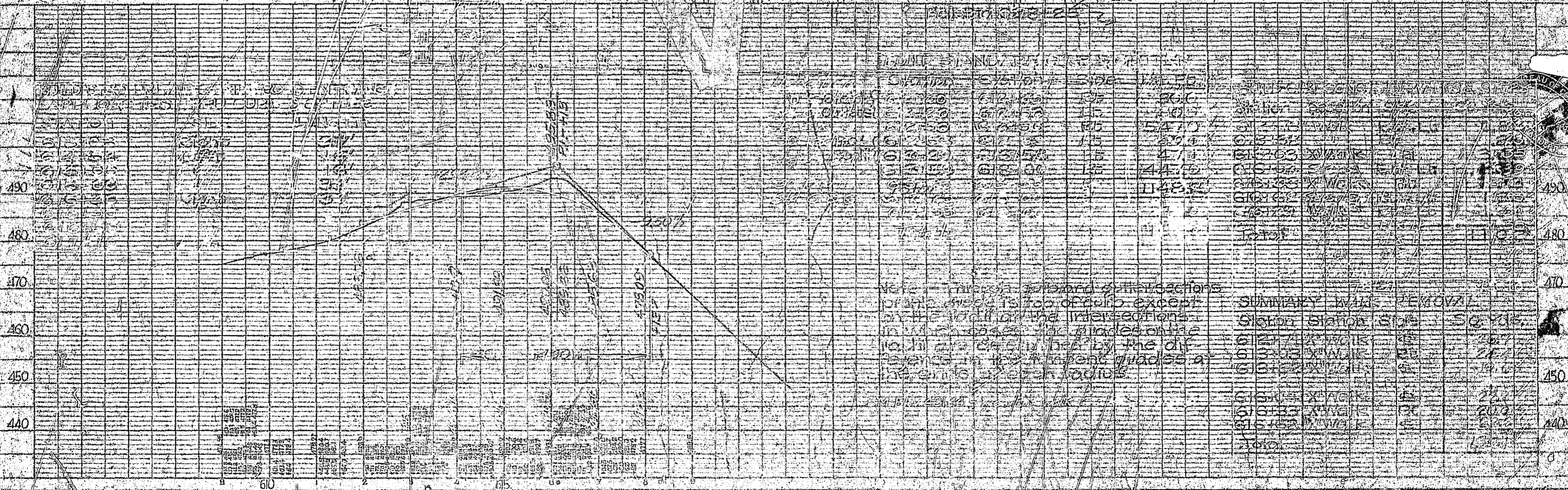
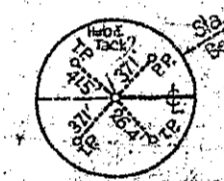


Note: - See sheet No 7-D for watermains and connections to be lowered.

ADJUSTING MANHOLE IN GRADE
Station Side
616+33.2 2' Lower Water Main

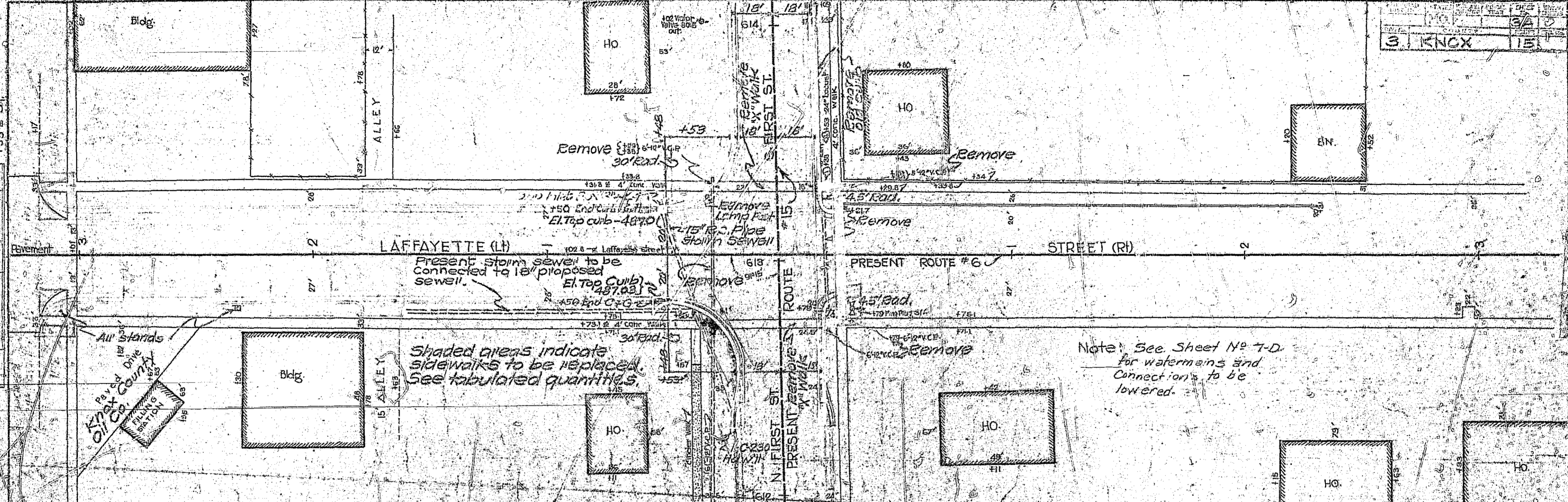
Note: - Curb & gutter radii at intersections are 14.5' or 20.5' radii measured to back of curb. Dimensions on plans are to face of curb so the radii become 15' or 20' radii.

EDINA, MO.



Station	Side	Structure	Quantity	Remarks
612+50	LT	Manhole	1	
612+73	RT	Manhole	1	
612+79	RT	Manhole	1	
613+23	RT	Manhole	1	
613+32	RT	Manhole	2	
614+54	LT	Manhole	1	
615+00	LT	Manhole	2	
616+11	RT	Manhole	1	
616+12	RT	Manhole	1	
616+15	RT	Manhole	10	
616+54	RT	Manhole	1	
616+62	RT	Manhole	1	
616+77	LT	Manhole	1	
616+56	LT	Manhole	9	

112-113

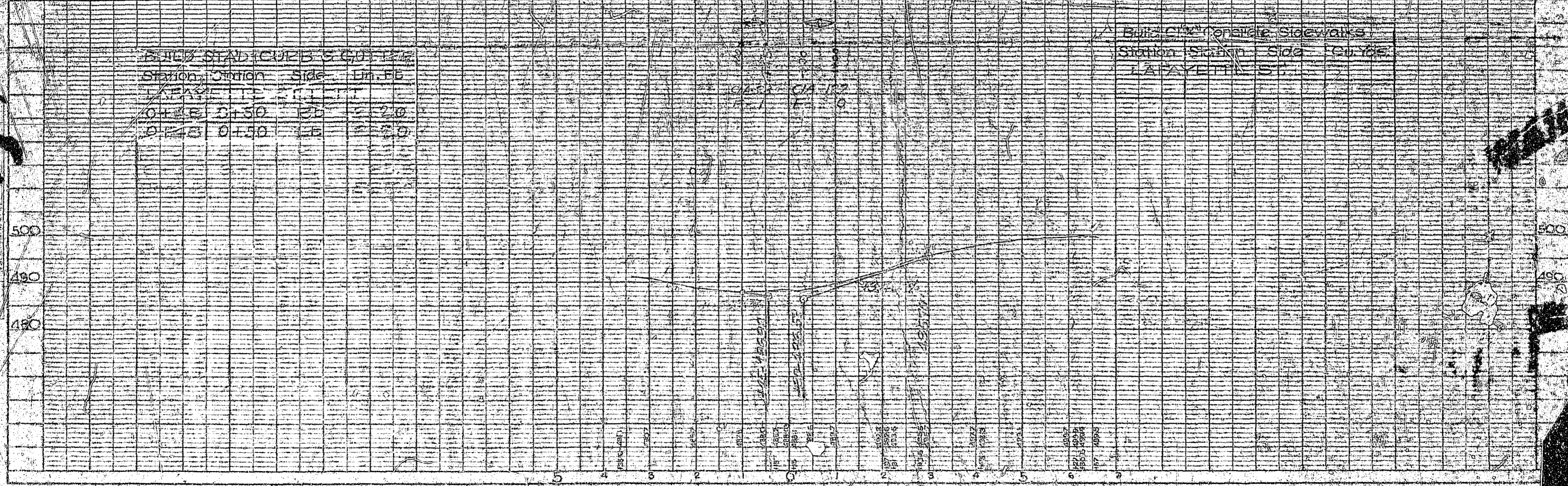


Station	Condition	Side	Lim. FB
0+15	0+50	EB	20
0+15	0+50	WB	20

Station Station Side Curves
LAFAYETTE ST

103

PLAN
KNOX OIL CO. FILLING STATION
18" DIA. PIPE
1" DIA. WATER MAIN
1" DIA. GAS MAIN
1" DIA. SEWER MAIN



Sta. 626+68
Farm Ent. Left
Fill 15 yds.

PROPOSED DRAINAGE STRUCTURES

Sta.	Size	Th	Loc	Remarks
621+11	18"	16"	5'	
621+11	6" x 9"	15"	25'	1-6" x 12" x 18"

Adjusting Manhole / Curb

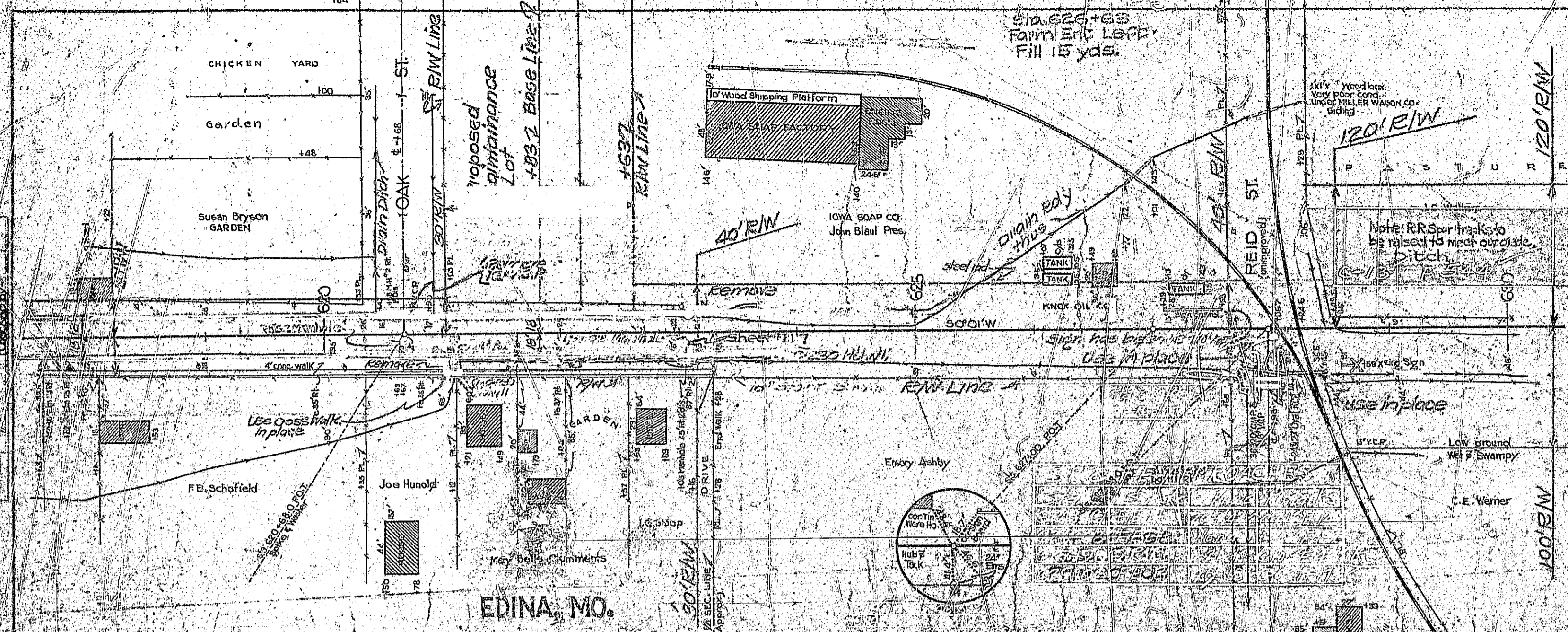
Sta.	Side	Remarks
620+68	Rt	Raise 1/2" to 1/4"
623+05	Lt	Lower 1/2" to 1/4"

CLEARING & GRUBBING

Sta.	Size	Side	Remarks	Other
621+00	24" x 30"	15'	10'	
621+50	24" x 30"	15'	24'	
621+51	24" x 30"	15'	50'	

STRUCTURES IN PLACE

Sta.	Size	Side	Remarks	Exc.
621+01	18" x 18"	15'	15'	3"
621+08	24" x 12"	15'	11'	3"
623+20	15" x 12"	15'	12'	
623+22	15" x 12"	15'	12'	
623+63	18"	15'	15'	
620+68	18" x 12"	15'	15'	
621+02	18" x 24"	15'	15'	



1051



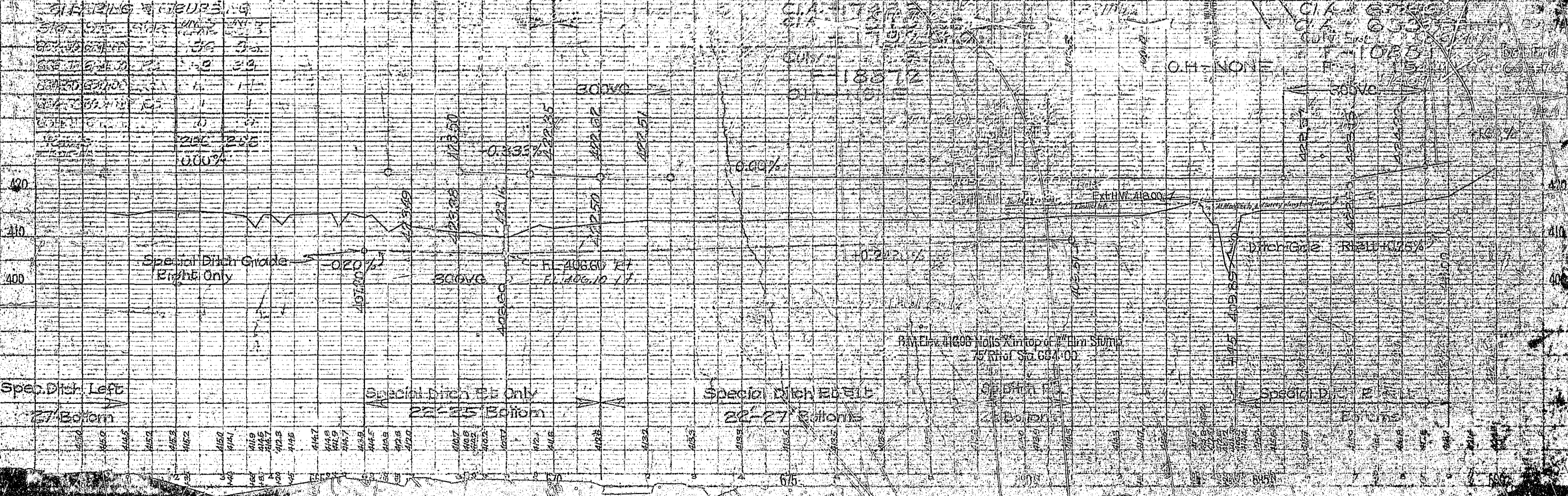
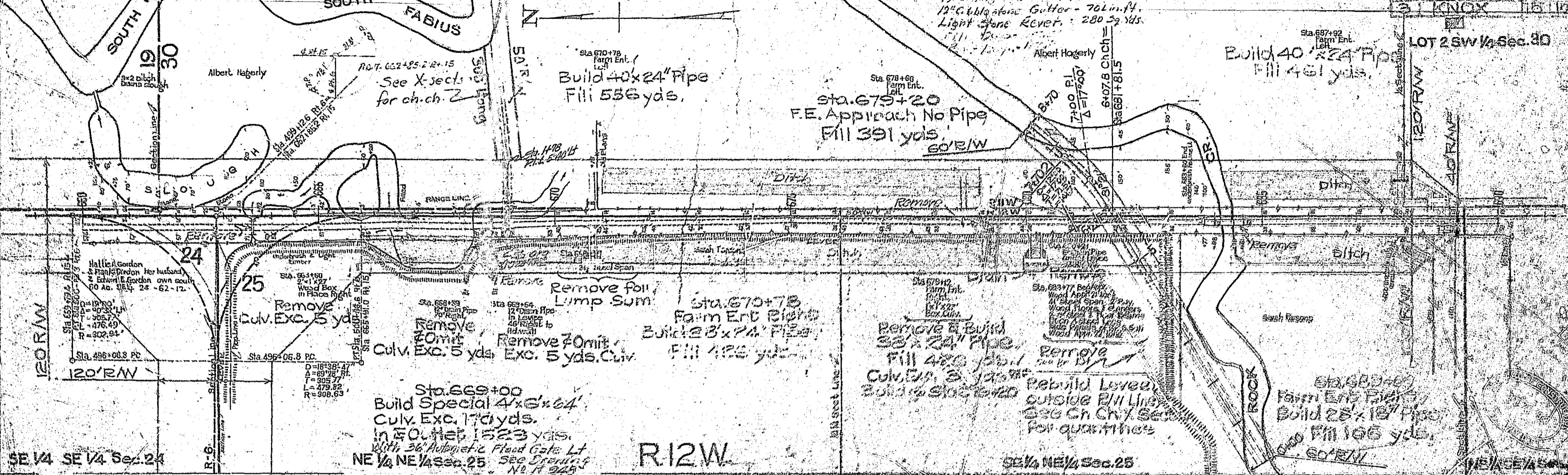
M. Elev. 419.85 Nil & Washer
rest of P. 27. E. 11. 21. 21. 61. 62. 7. 00. 11.

0.001 2.00 0.00 0.00

LOT 2 SW 1/4 Sec. 19

T. 62 N. R. 11 W.
LOT 2 NW 1/4 Sec. 30

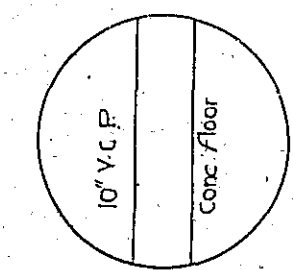
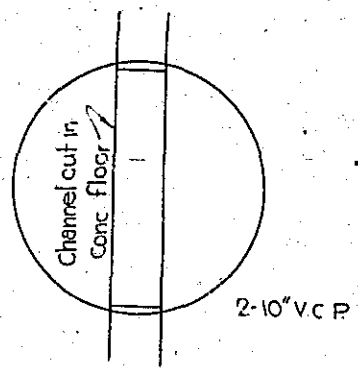
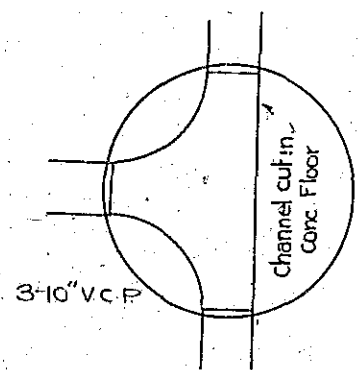
STATE OF MISSOURI
COUNTY OF KNOX
15 110



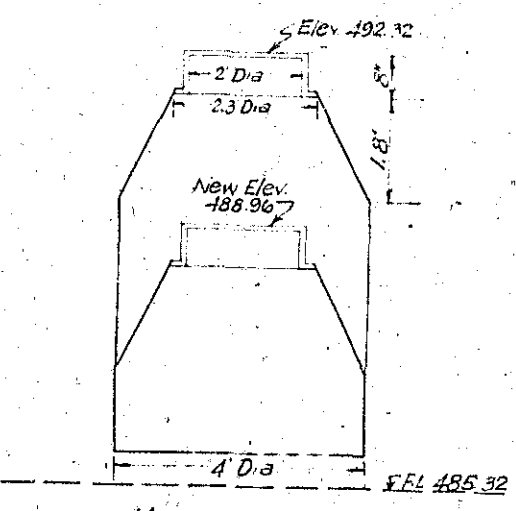
Handwritten notes:
11/17
11/18



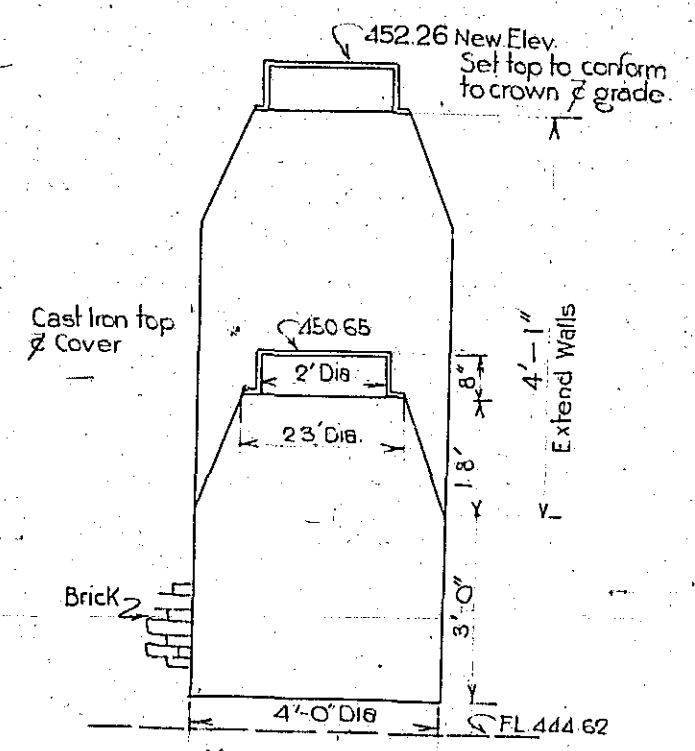
SP



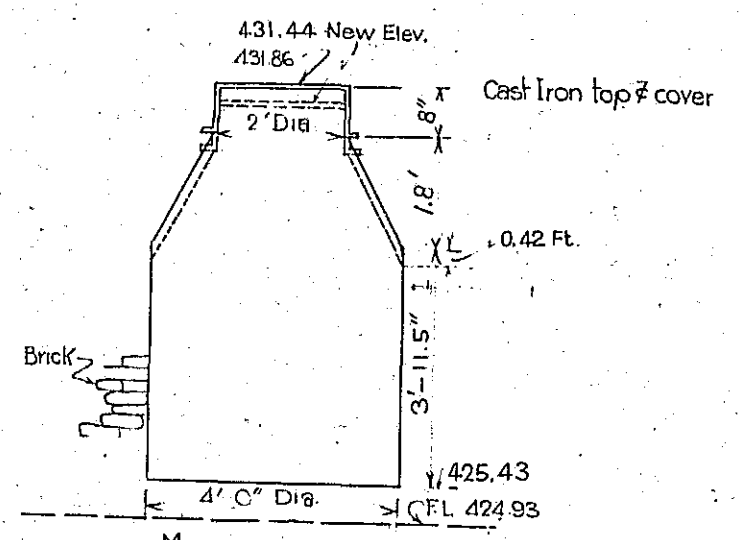
NOTE: Manhole rings & covers to be removed and reset to new grade and crown of pavement. Lump sum bid each for raising or lowering manholes shall include all necessary excavation, new brick & mortar, and the furnishing of all necessary tools & labor involved in removing rings and covers, extending walls to new grade and replacing rings and covers.



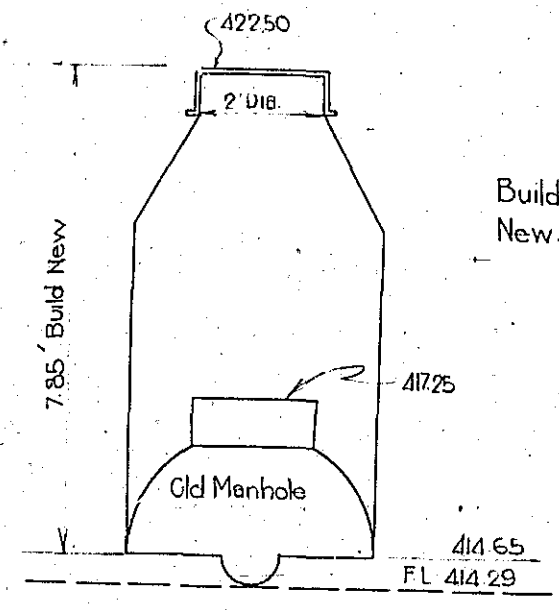
MANHOLE NO. 1
on Sta. 616+33.2
Scale 1"=2'



MANHOLE NO. 2
4' Rt of Sta. 620+68
Scale 1"=2'



MANHOLE NO. 3
75 Rt of Sta. 623+05
Scale 1"=2'

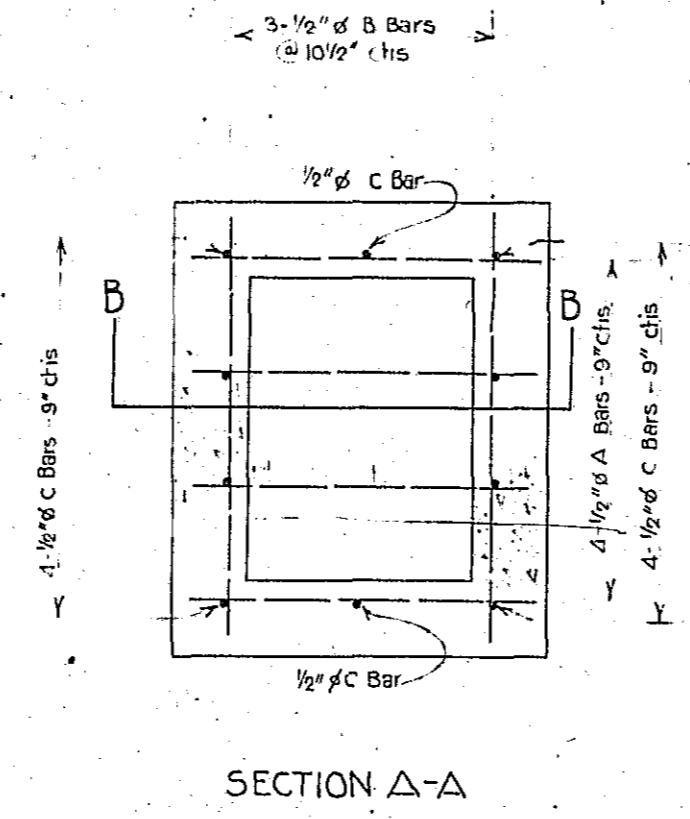
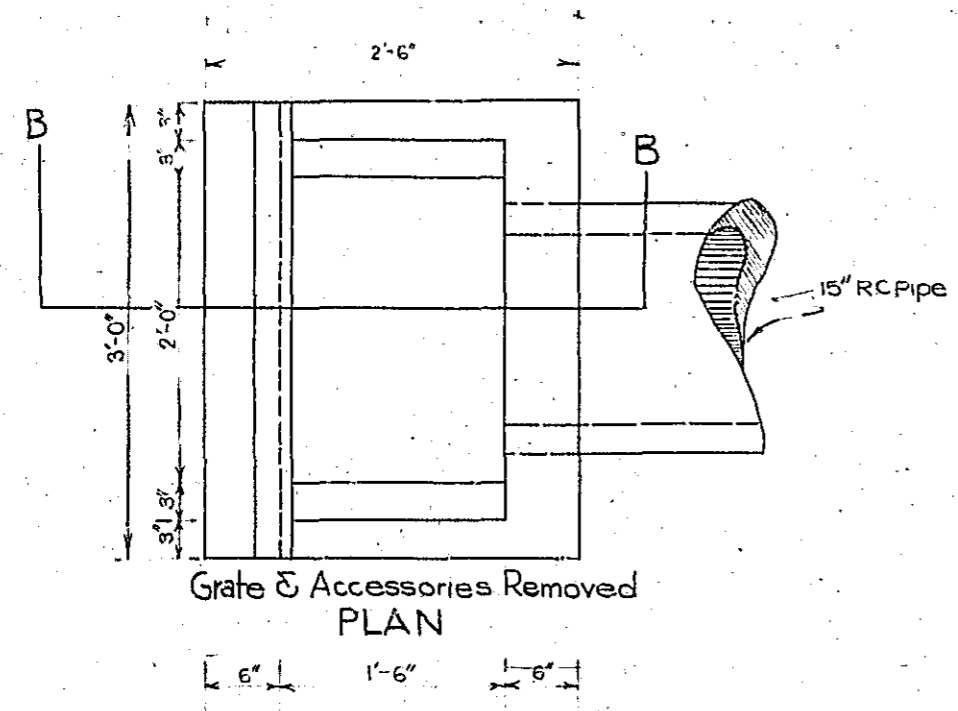


MANHOLE NO. 4
215' Rt Sta. 632+44
Scale 1"=2'

Build New Manhole to New Grade

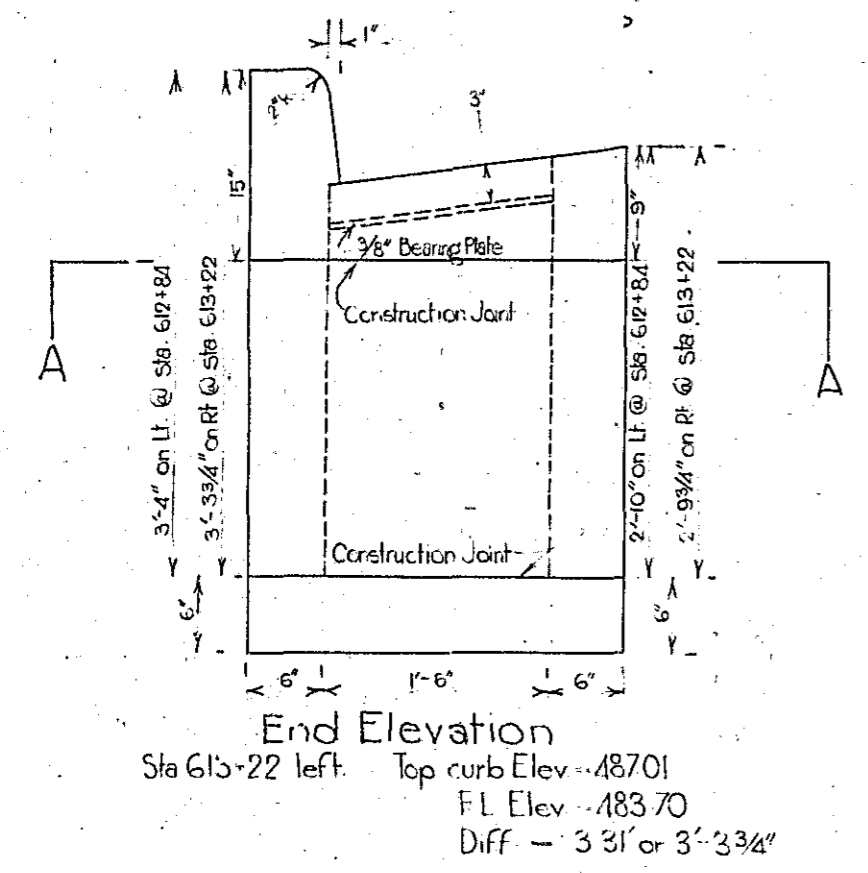
SKETCH SHOWING
MANHOLES TO BE EXTENDED
TO NEW GRADE ON
SOUTH FIRST ST.
Route 15 Sec. 12 KNOX, CO.
IN EDINA

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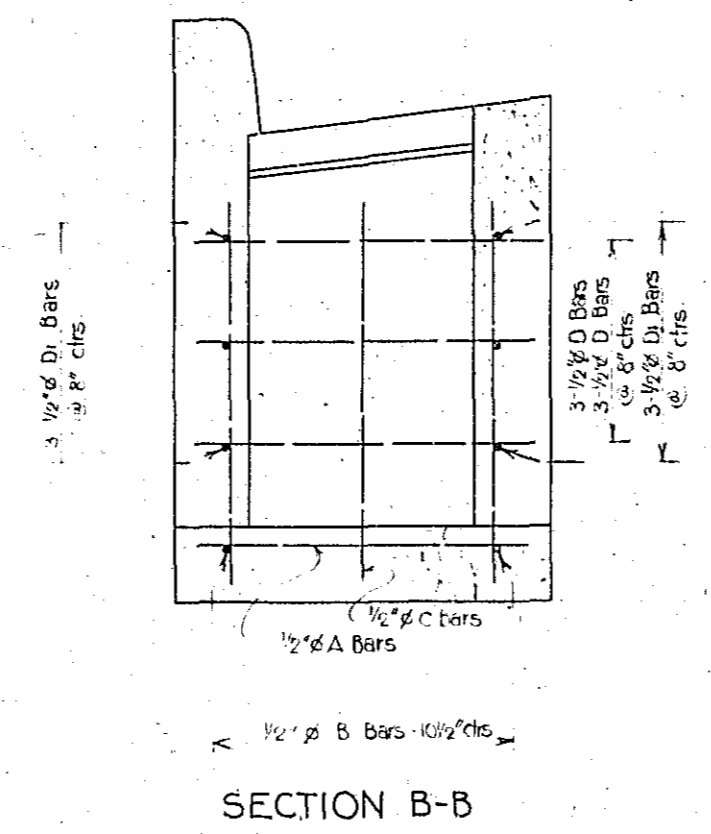


SECTION A-A

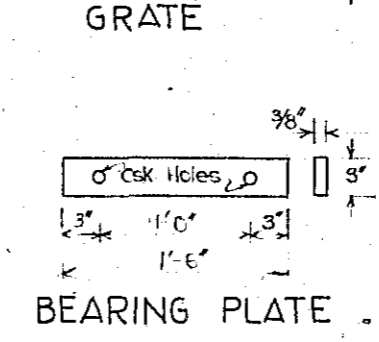
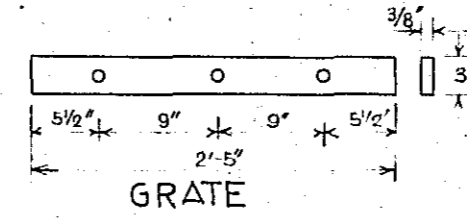
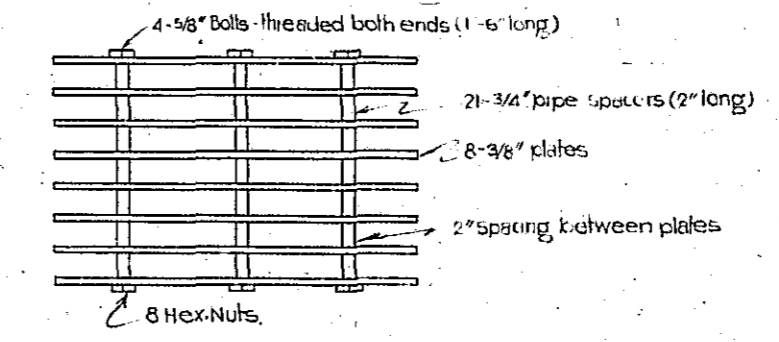
NOTE: Steel in wall of box to be cut or bent to admit R. C. Pipe



End Elevation
 Sta 613+22 left Top curb Elev. 487.01
 FL Elev. 483.70
 Diff. - 3' 3 1/4" or 3'-3 3/4"



SECTION B-B

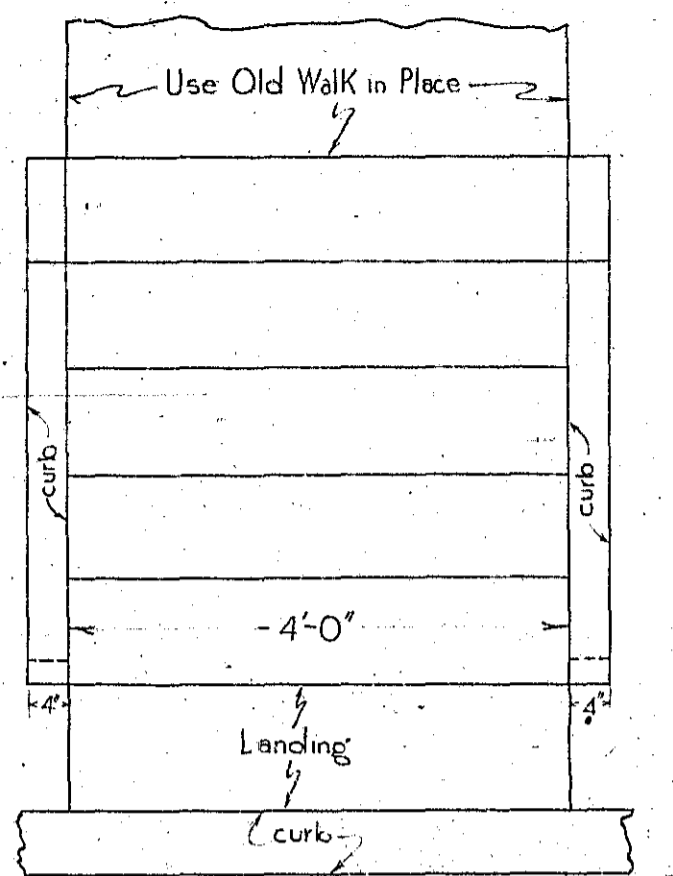


BILL OF REINFORCING STEEL			
Mark	No.	Size	Length
A	4	1/2" ϕ	2'-3"
B	3	1/2" ϕ	2'-9"
C	10	1/2" ϕ	2'-6"
D	6	1/2" ϕ	2'-3"
D1	6	1/2" ϕ	2'-9"

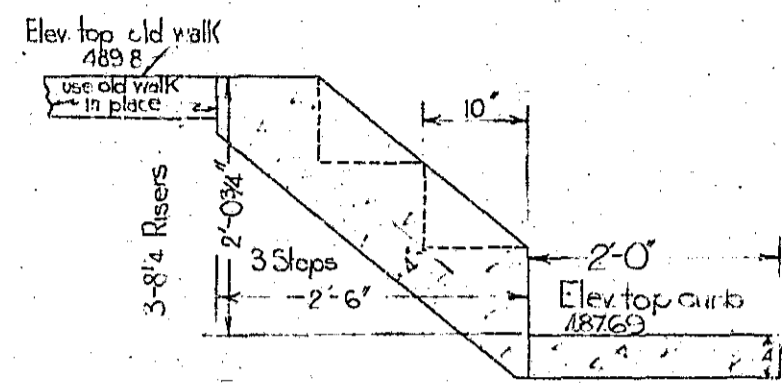
ESTIMATED QUANTITIES				
Box	STA.	Grate & Accessories	Cl. B Conc.	Reinf. Steel
B	G13+22	1 Complete	0.55 cu. yd.	48#

SKETCH & TABULATION
 OF QUANTITIES FOR DROP INLET
 AT
 STA. G13+22 IN EDINA
 Route 15 Sec. 12 KNOX, CO.

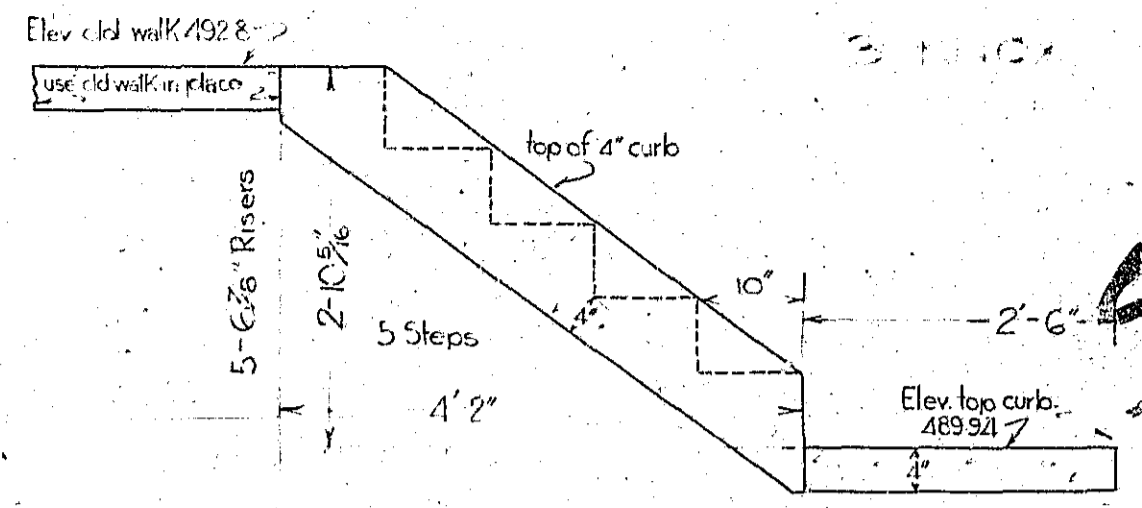
122



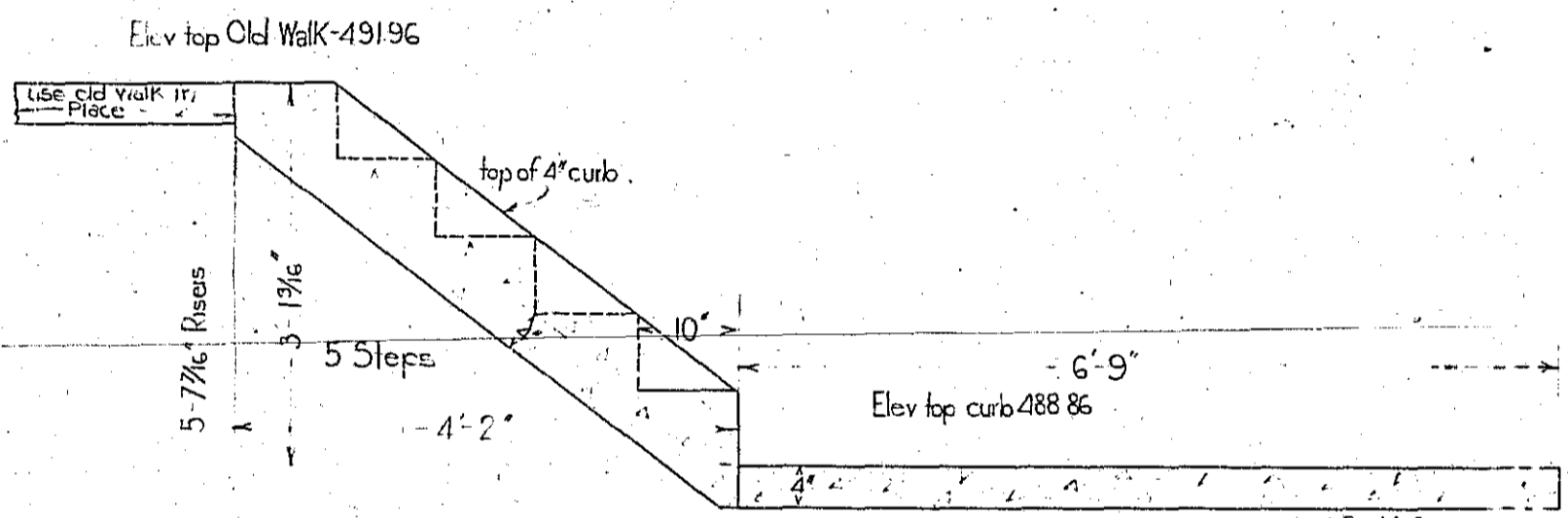
PLAN



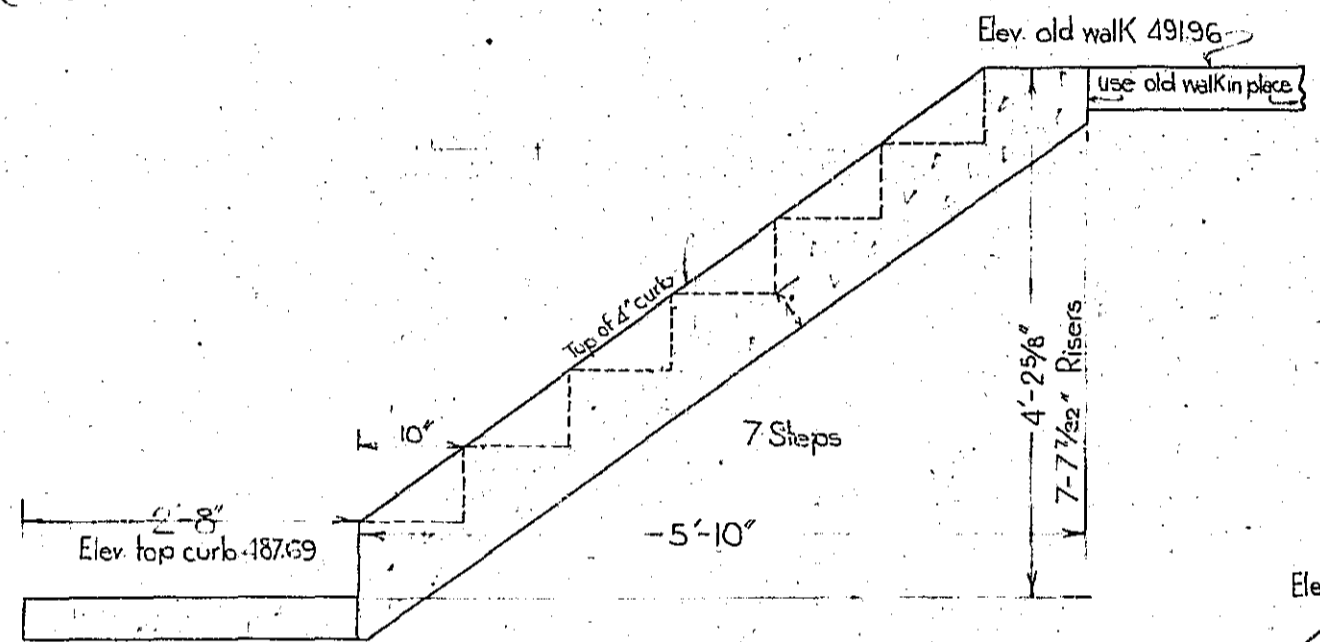
Steps @ Sta. 616+61.7 Lt.



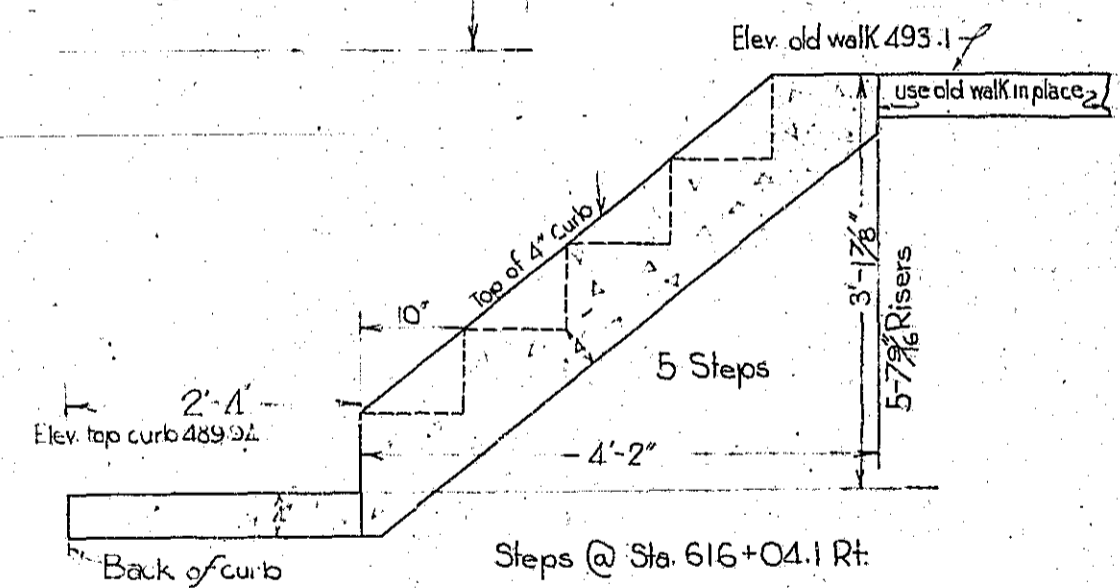
Steps @ Sta. 616+04.1 Lt.



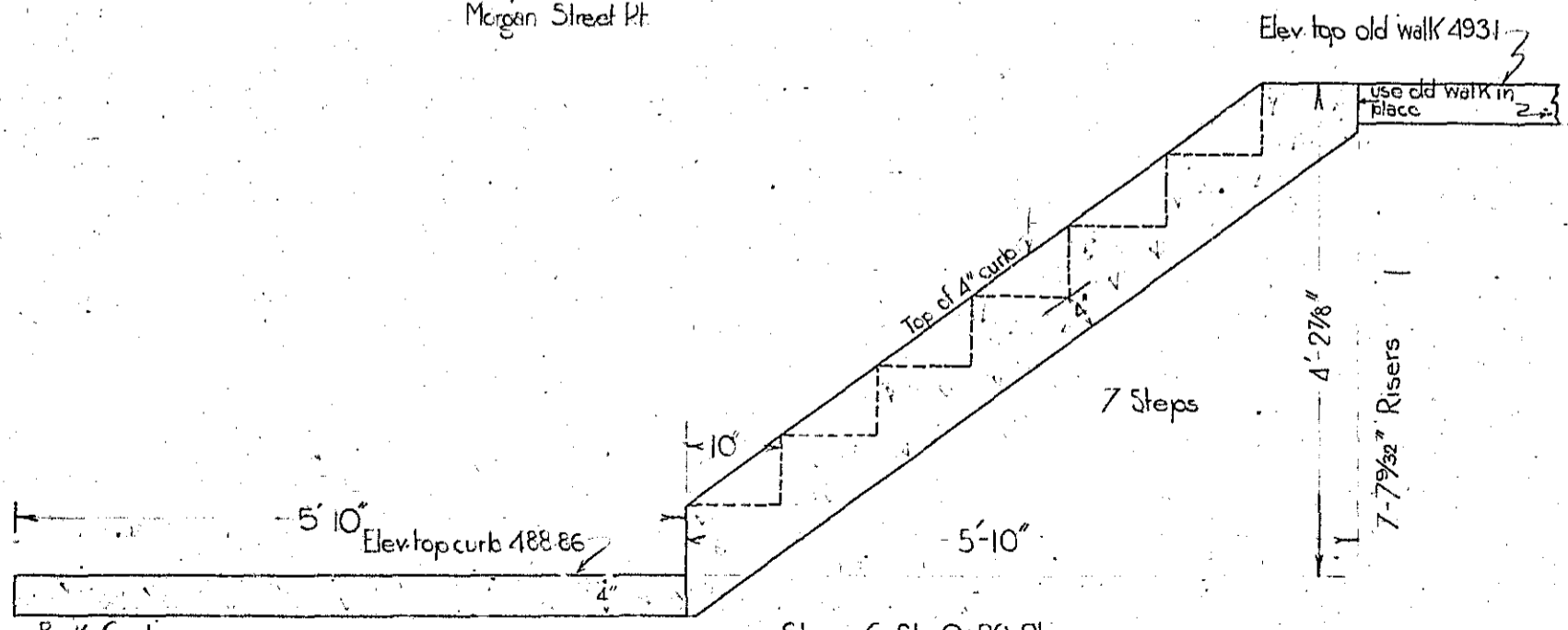
Steps @ Sta. 0+29 Lt.
Morgan Street Rt.



Steps @ Sta. 616+61.7 Rt.

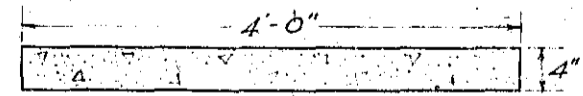


Steps @ Sta. 616+04.1 Rt.



Steps @ Sta. 0+29 Rt.
Morgan Street Rt.

ESTIMATED QUANTITIES			
Station	Side	No. Steps	cu. yds.
616+04.1	Rt.	5	0.69
616+04.1	Lt.	5	0.66
616+61.7	Rt.	7	0.88
616+61.7	Lt.	3	0.45
0+29	Rt.	7	1.06
0+29	Lt.	5	0.85
Total			4.59



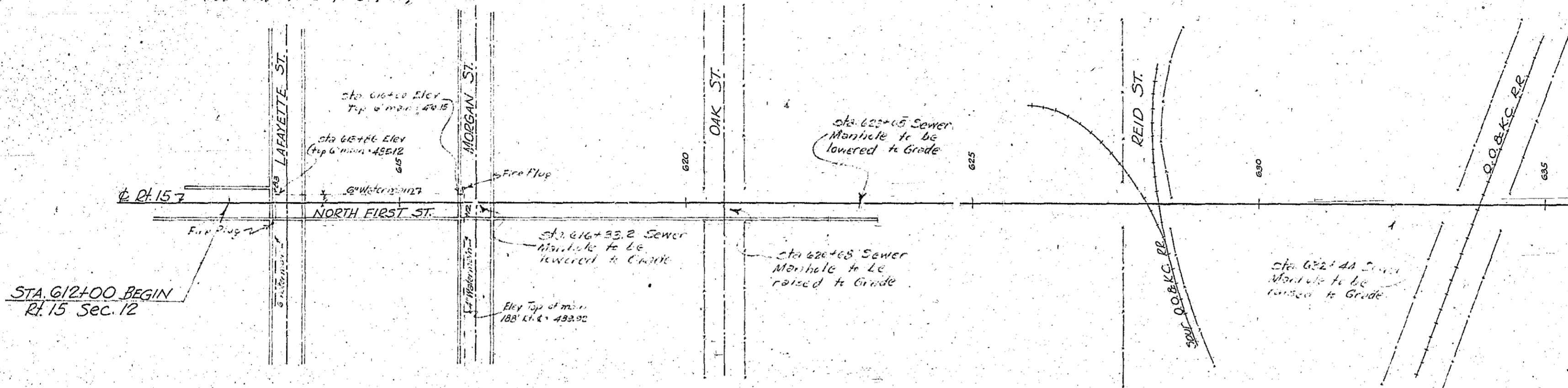
Cross Section of all Proposed Sidewalks

DETAILS
of
CONCRETE STEPS & WALKS
SCALE - 1"=1'
Route 15 Sec. 12 KNOX CO.
EDINA, MO.

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NOTE: The Contractor will be required to lower approximately 400' of watermain on North First St. and 210' on Morgan St. with connections made for two houses and two fire plugs.

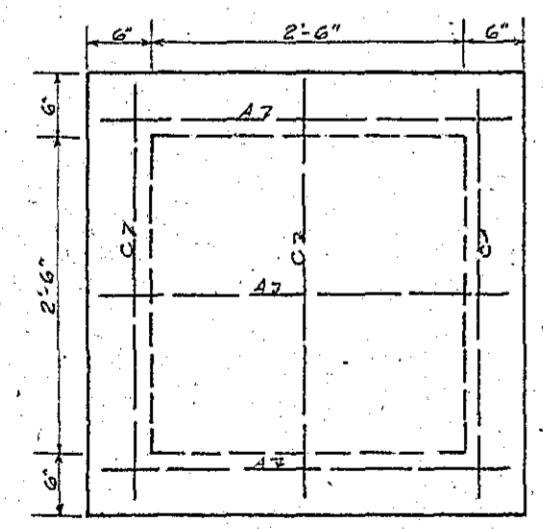


STA. 612+00 BEGIN
RT. 15 Sec. 12

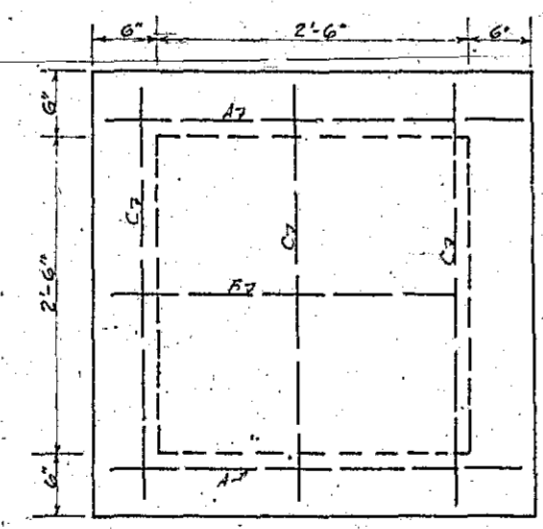
EDINA Mo.

Sketch showing
SEWER MANHOLES
to be
Adjusted to Grade
&
WATERMAINS TO BE LOWERED
Scale 1"=100'

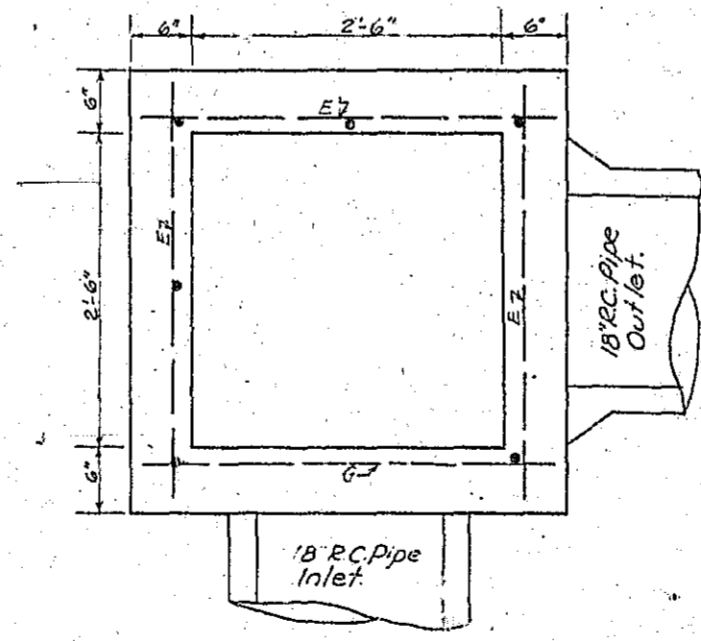
58



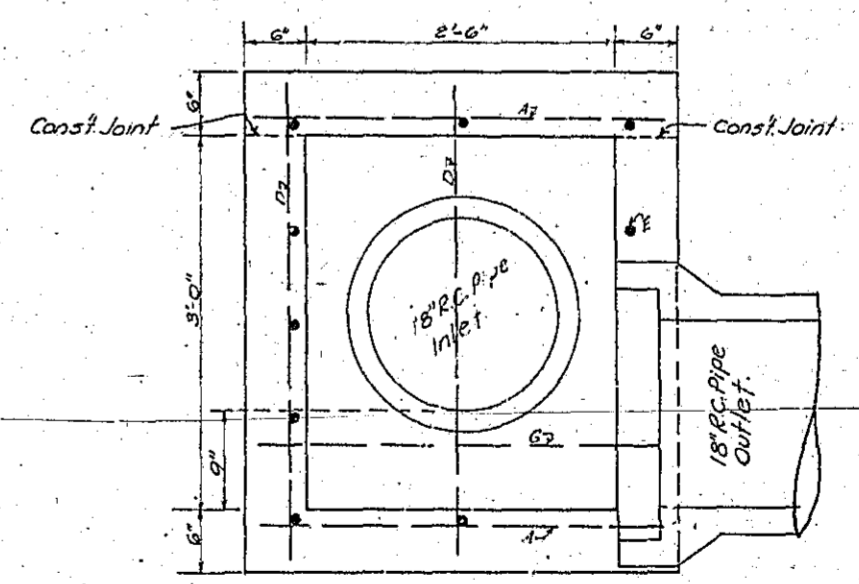
TOP SLAB



BOTTOM SLAB



PLAN



SIDE ELEVATION.

Mark	NR.	Size	Length
A	5	1/2"	3'-3"
B	1	1/2"	2'-6"
C	6	1/2"	3'-3"
D	6	1/2"	3'-9"
E	7	1/2"	3'-3"
G	1	1/2"	2'-9"

Cl. B Concrete	Reinforcement
cu. yds.	Pounds
0.73	58

JUNCTION BOX
Right Sta 621+11

KNOX COUNTY
Route 15 Section 12
Scale 1"=1'

FINAL SURVEY PLOTTED
DATE
BY
CHECKED
DATE
BY
REVISIONS
DATE
BY

ORIGINAL SURVEY PLOTTED
DATE
BY
CHECKED
DATE
BY
REVISIONS
DATE
BY

STANDARDS

TYP Sec & Earthwork

Rte 15
Sec ~~10~~ 12
County KNOX
Sheet # 10

Surf, Curb & Gutter + APP
K-1B-31

125

Drainage
C-230

Bridges
C-502R2
T-20
MISC.

Conc Reinf APParts Finish etc

DATE	
BY	
NO.	
FINAL SURVEY	
NOTE BOOK	
NO.	
AREAS CHECKED	
AREAS	
DATE	
BY	
NO.	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	
AREAS CHECKED	
AREAS	
DATE	
BY	
NO.	

DATE	
BY	
NO.	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	
AREAS CHECKED	
AREAS	
DATE	
BY	
NO.	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	
AREAS CHECKED	
AREAS	
DATE	
BY	
NO.	