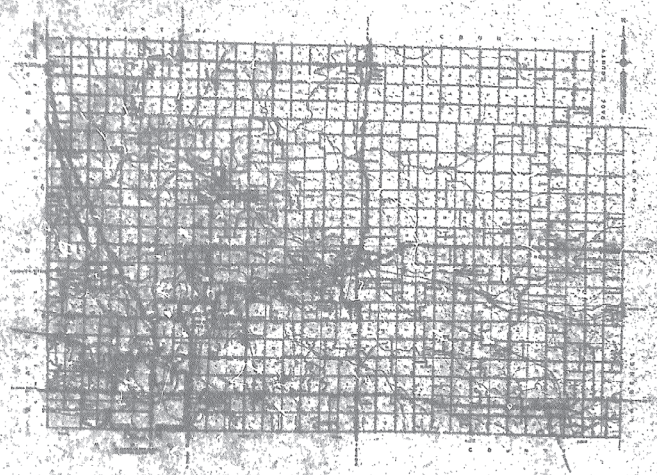
LOCATION MAP



MISSOURI
STATE HIGHWAY COMMISSION
PLAN AND PROFILE
OF PROPOSED
STATE ROAD

FEDERAL AID PROJECT [illegible]

JASPER COUNTY

LENGTH OF MILL GRADING, CULVERT & WIDENING [illegible]

SEC. 17A

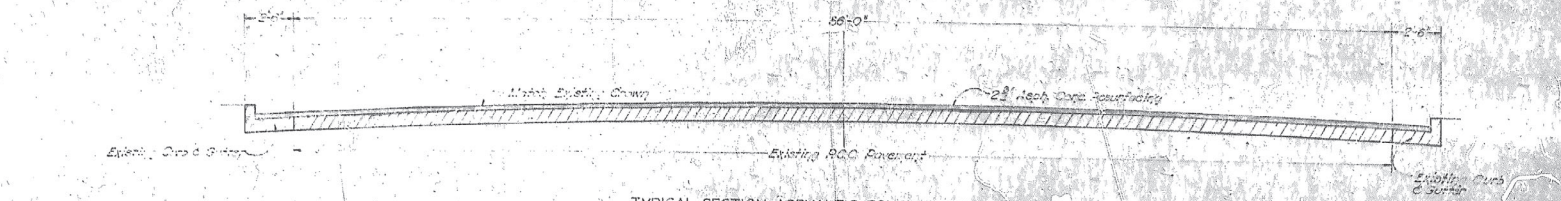
FINAL PLANS

CONTENTS

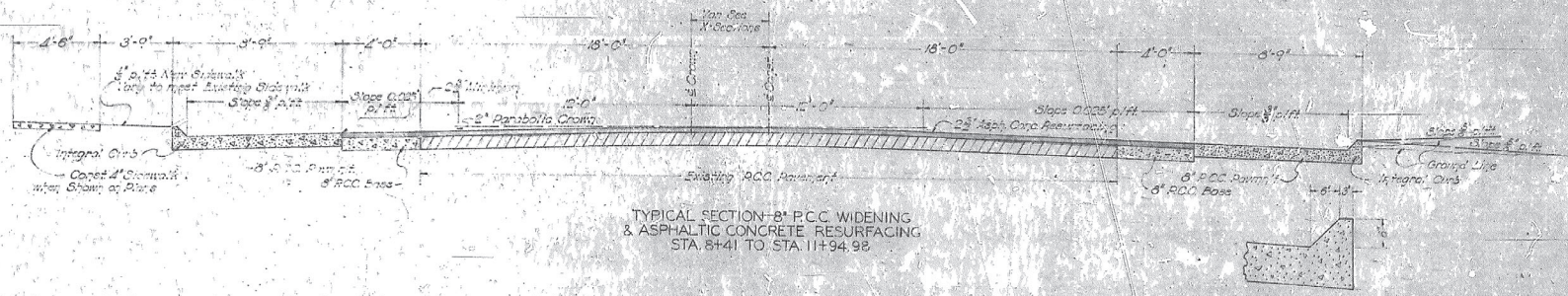
CONVENTIONAL SIGNS

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	SURFACE LINE
BASE OR SURVEY LINE	GRADE LINE

310

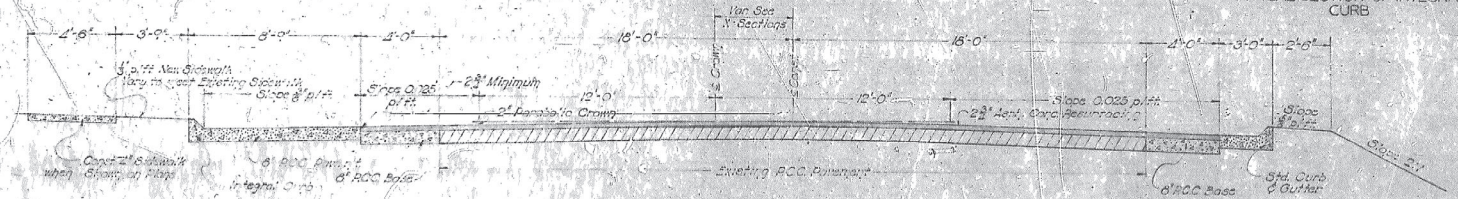


TYPICAL SECTION ASPHALTIC CONCRETE RESURFACING
STA. 0+00 TO STA. 8+41



TYPICAL SECTION-8" P.C.C. WIDENING
& ASPHALTIC CONCRETE RESURFACING
STA. 8+41 TO STA. 11+94.98

TYPICAL SECTION OF INTEGRAL CURB



TYPICAL SECTION 8" P.C.C. WIDENING
& ASPHALTIC CONCRETE RESURFACING
STA. 12+84.51 TO STA. 26+17.57

DETAIL OF ASPHALTIC CONCRETE RESURFACING

TYPICAL SECTIONS
RTE 43 JASPER COUNTY
SECTION U7-A

311

LOCATION North Main Street To Joplin From East Street North & E St. and
Graded Earth, Widen Existing PCC Pavement, Culverts & Asphaltic
TYPE Concrete Pavement Widening From 41' to 60' In Width

MISSOURI STATE HIGHWAY COMMISSION

SUMMARY OF QUANTITIES

Sheet No. 1 of 2

FINAL PLANS

FED. ROAD DIST. No.	STATE	PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
7	MO.				
DIV. No.	COUNTY		ROUTE	SEC. No.	
7	JASPER		43	U7-1	

EXCAVATION

Station	Cl. A Exc. Cu. Yd.	Common Cut Cu. Yd.	Embk. Cu. Yd.	Adj. Comp. Fill Cu. Yd.	Borrow Cu. Yd.	C.C. Exc. Cu. Yd.
Est.						
8400	249	0	739	728		
108105	159%	0	3440	3440	4' 3443	4'
Sub Totals	2215	0	4179	4172	2' 3443	4'
Ext. Fill			6			
Borrow	3443					
Totals	5533		4335	4372		4'

Removal Of Existing Structures & Misc. Items

Station	Station Location	Description	Misc. Items Removed	Remarks	Cub. Yds. Concrete	Sq. Yds. Pavement	Lin. Ft. Curb & Gutter	Sq. Yds. PCC Pavt.
8140	8101	Rt. Curb & Gutter					39.0	
8189	101.101	Lt. Curb & Gutter					192.5	
8141.6	8182.4	Lt. PCC. Sidewalk				14		
8457		Lt. DI E 15"x10" V.C.P.	1					
8457		Lt. DI E 12"x10" V.C.P.	1					
8701	91 50.2	Rt. PCC. Pav. Ext.						825
9193.5	9192.0	Rt. Curb & Gutter					943.6	
10 118.4	10 142.4	Lt. PCC. Pav. Ext.						200
10 142.4	10 126.0	Lt. Curb & Gutter					220.5	
10 492		Rt. Conc. Curb	1					
11 548		Rt. C. Curb	1					
11 837		Rt. Conc. Sign Pdn.	1					
11 98.5	12 06.5	Lt. PCC. Sidewalk				11		
142 06.5		Rt. Conc. Curb	1					
12 188		Lt. PCC. Pav. Ext. Approx.						830
12 130		Rt. Conc. Slab						150
12 109.5	12 161.5	Lt. Curb & Gutter					562.5	
12 120.6	12 147.6	Lt. PCC. Sidewalk				15		
12 140.6		Rt. PCC. Pav. Reinforcing						20
12 392.6		Rt. DI E 15"x12" Conc. Box	1					
12 428.4		Lt. DI E 15"x10" V.C.P.	1					
12 450	12 161.6	Rt. C.C. Side Walk				8		
12 160	12 193	Rt. R.C.P.	1					
12 169		Rt. Precl. Manhole 4'x6" R.C.P.	1					
12 741		Rt. PCC. Pav. Ext. Approx.						990
12 806.4	12 951.4	Lt. Curb & Gutter					80.0	
12 806.9	12 970.9	Rt. PCC. Sidewalk				13		
13 103.6		Lt. DI E 15"x10" V.C.P.	1					
13 106.9		Rt. Drop Inlet	1					
13 120.5	13 143.5	Rt. PCC. Sidewalk				11.5		
13 189.5	13 194.5	Rt. PCC. Pav. Ext.						75.0
13 246.0	13 163.5	Lt. Curb & Gutter					670	
13 410		Rt. Conc. Post	1					
13 468	13 488.8	Rt. PCC. Pav. Ext.						46.5
13 852.5	13 [illegible]	Lt. Curb & Gutter					332.0	
14 011		Rt. Conc. Post	1					
20 115.1		Lt. 21 PCC. Sidewalk				3		
20 140		Lt. 4" W.P. Drain	1					
20 142		Rt. Conc. Post	1					
20 137.4		Lt. 4" V.C.P. Drain	1					
20 153		Rt. 4" Corr. Metal Drain	1			2		
20 177		Lt. 6" V.C.P. Drain	1					
20 153		Lt. 6" V.C.P. Drain	1					
21 216.1		Rt. Conc. Post	1					
21 191		Rt. Conc. Post	1					
22 116		Lt. PCC. Sidewalk				2		
22 140		Rt. 4" Conc. R.R. Culv.	1					
22 151		Rt. Conc. Post	1					
22 153.7	22 169.5	Rt. Curb & Gutter					509.8	
22 198.9	22 209	Rt. PCC. Sidewalk				19		
23 25.6		Rt. PCC. Pav. Ext. Approx.						68.5
23 26.1	23 54.9	Lt. Curb & Gutter					330.0	
23 116.6	23 120.5	Rt. PCC. Sidewalk				21		
23 194		Rt. Conc. Post	1					
24 216		Rt. Conc. Post	1					
24 249.9	24 271	Rt. PCC. Pav. Ext.						8.5
24 270.7	25 120.5	Lt. Curb & Gutter					153.1	
27 210		Rt. Conc. Post	1					
3 411	8	Rt. PCC. Pavt. Removal						35.5
81 43.5	81 50	Lt. " " "						6.0
111 97.5	112 12.5	Rt. " " "						8.5
116 23.5	116 41.5	Lt. " " "						1.5
	Totals		27	440	3458.2	564.5		

36" CURB & GUTTER

Station	Station	Sect.	Lin. Ft.
8 [illegible]	8140	Rt.	3 [illegible]
7[illegible]0	7[illegible]0	Rt.	130
7[illegible]0	8[illegible]00	Lt.	6.0
8[illegible]00	8[illegible]00	Lt.	6.00
8[illegible]00	8[illegible]28	Rt.	18.8
8[illegible]28	8[illegible]37	Rt.	10.1
8[illegible]41	8[illegible]65	Rt.	30.4
	Totals		1000.8

ADJUSTING MANHOLES TO GRADE

Station	Location	Each	Remarks
10 [illegible]	Lt.	1	San. Sewer
15 [illegible]	Lt.	1	San. Sewer
17[illegible]0	Rt.	1	Storm Sewer
17[illegible]4	Lt.	1	San. Sewer
18 [illegible]	Lt.	1	San. Sewer
18[illegible]8	Lt.	1	San. Sewer
24[illegible]3	Lt.	1	San. Sewer

"Conc. Pipe Tie Culverts

Station	Location	Cl. A Exc.	Remarks
[illegible]	Rt.	0.0	18" V.C.P.
24[illegible]4	Rt.	0.1	10" V.C.P.
Totals		0.2	

"Cost of Pipe To be included in Cost of Other Items

LENGTH OF PROJECT

	Station	Station
End of Project		
Beginning of Project		
Assumed Length		Feet
Equations and Exceptions:		
Total Corrections		Feet
Net Length of Project		Feet
State Length =		Miles
Federal Length =		Miles

PCC. Sidewalk

Station	Location	Type	Cu. Yd. Conc.	Sq. Yd. Reinf.	Width	Remarks
11 [illegible]	Lt.	St.	44		4'-6"	
11[illegible]	11[illegible]5.7	Lt.	St.	3.7	4'-6"	
11[illegible]	11[illegible]6	Lt.	St.	3.5	4'-6"	
12 [illegible]	12[illegible]0	Lt.	St.	6.5	4'-6"	
12[illegible]	11[illegible]8	Lt.	St.	7.1	4'-6"	
[illegible]	13[illegible]5	Lt.	St.	5.9	4'-6"	
	13[illegible]5	Lt.	St.	20	4'-6"	Con. End
	13 [illegible]	Lt.	St.	39.5	4'-6"	
	14[illegible]3	Lt.	St.	10	4'-6"	Con. End
	14[illegible]5	Lt.	St.	24.1	4'-6"	
	23[illegible]5	Lt.	St.	7.2	4'-6"	
	23[illegible]2	Lt.	St.	5.4	4'-6"	
	23[illegible]2	Lt.	St.	1212	4'-6"	
Totals				330.6	30.0	

Drop Inlet

Station	Inlet	Sta.	"D"	Cl. A Exc. Cu. Yd.	Cl. B Conc. Cu. Yd.	Reinf. Steel Lbs.	"S" Bars Lbs.	Grate Steel	Remarks
8[illegible]	14 21.5	14[illegible]	10"-1'-0"	6.0	1.31	217	555	1	On Gr. I-13 Sdw.
8[illegible]	21[illegible]	14[illegible]	5"-1'-0"	5.0	0.54	102	205	1	On Gr. I-13 Sdw.
15 [illegible]	4'x 6.5"	14[illegible]	10"-2'-5"	7.0	1.51	234	555		On Gr. I-15 Sdw.
16 [illegible]	21[illegible]	14[illegible]	10"-2'-0"	6.5	1.65	240	555		On Gr. I-15 Sdw.
17[illegible]	4'x 2'x 6"	14[illegible]	10"-2'-0"	6.0	0.89	180	208	1	Low Pt. I-15 Sdw.
17[illegible]	2'x 6.5	14[illegible]	10"-2'-0"	23.3	4.41	420	555	1	Low Pt. I-15 "E" Ext.
18[illegible]	21.9	14[illegible]	5"-1'-4"	5.5	0.72	147	206	1	On Gr. I-15 I-44
20[illegible]	2'x 4'	14[illegible]	2'-6"	6.0	0.93	168	405		On Gr. I-15
Totals				66.0	11.99	1729	3310	5	

Paved Approaches

Station	Type & Side	Return Radius or Apex	Length Plan	Length Actual	Width	Conc. Sq. Yd.	Reinf. Steel Sq. Yd.	Remarks
8[illegible]	St. Rt.	9.25'	Var.	Var.		6.6		
8[illegible]	St. Lt.	18"	Var.	Var.		7.3		
9[illegible]	CF. Rt.	9.25'	9.25'	30		34.9		Alley Type
10[illegible]	Rt.	9.25'	3.75'	18		7.7		
11[illegible]	CF. Rt.	9.25'	3.75'	44.75		73.4		
12[illegible]	St. Lt.	12'	9.25'	33.9			44.5	
12[illegible]	CF. Rt.	9.25'	Var.	50		39.8		45° Skew
14[illegible]	CF. Rt.	6.0'	5.50'	42.25		29.2		Bld. To Shoulder Only
17[illegible]	St. Lt.	12'	9.25'	25.7			35.3	
18[illegible]	CF. Lt.	9.25'	3.75'	10.0		15.8		
18[illegible]	CF. Lt.	9.25'	3.75'	10		10.2		
20[illegible]	PF. Lt.	9.25'	3.25'	14		6.1		
23[illegible]	St. Lt.	12'	9.25'	25.7			37.3	
24[illegible]	CF. Rt.	9.25'	10'	60		94.7		45° Skew RA.
26[illegible]	CF. Rt.	9.25'	Var.	60		116.8		45° Skew LA.
Totals						432.2	129.0	

Conc. Retaining Wall

Station	Station	Location	Cu. Yds. Exc.	Cl. A Conc.	Reinf. Steel	Remarks
17[illegible]	17[illegible]	Rt.	1320	83.1	20.320	BR. DWG No. L-6.51
25[illegible]	25[illegible]	Lt.	16.5	3.9	300	See Br. Dwg No. L-6.52
Totals			101.5	32.0	2330	

Concrete Box Culverts

Station	C. Std.	Size	Length	Cl. A Exc.	Cl. B Conc.	Reinf. Steel	Remarks
22[illegible]	530	4'x 2.5'	2	3.5	2.5	310	Extension to RR. Culv. Rt.
Totals				3.5	2.5	310	

GENERAL SUMMARY

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS	NO. UNITS PER MILE

312

Prepared By _____ Date _____ 19____ Checked in Div. Office By _____ Date _____ 19____ Checked in Central Office By _____ Date _____ 19____ Revised By _____ Date _____ 19____

LOCATION

TYPE

MISSOURI STATE HIGHWAY COMMISSION

SUMMARY OF QUANTITIES

Sheet No. 2 of 2

FINAL PLANS

FED. ROAD DIST. NO.	STATE	PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	MO.			24	
SYS. NO.	COUNTY			ROUTE	SEC. NO.
	JASPER			43	U.S.

LENGTH OF PROJECT

		Station	
End of Project		Station	231.51
Beginning of Project		Station	0.00
Apparent Length			231.51 Feet
Equations and Exceptions:			
Total Corrections			Feet
Net Length of Project			231.51 Feet
State Length as			0.559 Miles
Federal Length as			Miles

8" P.C. Pavement

Series	Station	Side	Lin. Ft.	Width	Sq. Yd.
0+00	2+31.51	Rt.	11.75	Var.	109
0+00	2+31.51	Lt.	11.50	Var.	124
2+40.00	11+42.00	Rt.	345.28	24	920.6
2+40.00	11+42.00	Lt.	1193.48	23.75	1892.0
11+42.00	12+31.51	Rt.	89.51	23.75	236.5
				0.0	
12+41	17+84	Rt.	520.0	Var.	735
27+00.92	28+00.51	Lt.	31.2	Var.	186.7
					1330.5

Includes Approx 200.0 Lin. Ft. of 6" Integral Curb

8" P.C. Base Course

Series	Station	Side	Lin. Ft.	Width	Sq. Yds.
0+13.3	0+22.8	Rt.	9.48	Var.	23
0+08.5	0+19.8	Lt.	11.50	Var.	37
2+40.00	11+42.00	Rt.	1747.82	24	2330.4
2+40.00	11+42.00	Lt.	Not used		2379
12+41	12+53.1	Lt.	200.	5	111
17+41	19+41	Lt.	700.	12	933.4
26+73.5	27+04.1	Lt.	30.93	6'To	21.5
				0	
26+61.8	26+84.8	Lt.	23	Var.	8.8
3+11.7	3+37	Rt.			25.6
0+93.5	2+30	Lt.	65.	8	57.8
2+90.6	3+90	Rt.	1	24	16.0
11+87.2	11+92.2	Lt.	15.	5	8.3
12+88.5	12+48.5	Lt.	8	4	1.2
					1792.7

1" No. 2 P.C. Pool Removal Old Bituminous Patch

Asphalt Tonnage

Book No.	Type A	Type B	Type C	Sq. Yds.
1	185.640	160.320	282.240	
2	264.370	230.545	405.920	
3	100.490	86.870	152.940	
4		67.592	119.000	
5		155.873	274.385	
6		No Mat'l		
Total	670.500	701.202	1234.485	
Use	671.0	1314.0	1129.0	

Sand For Primer

Book No.	Tons
1	9.50
Total	9.50
Use	9.0

Asphalt Samples

Book No.	No. Samples
1	7

RC-0 Primer

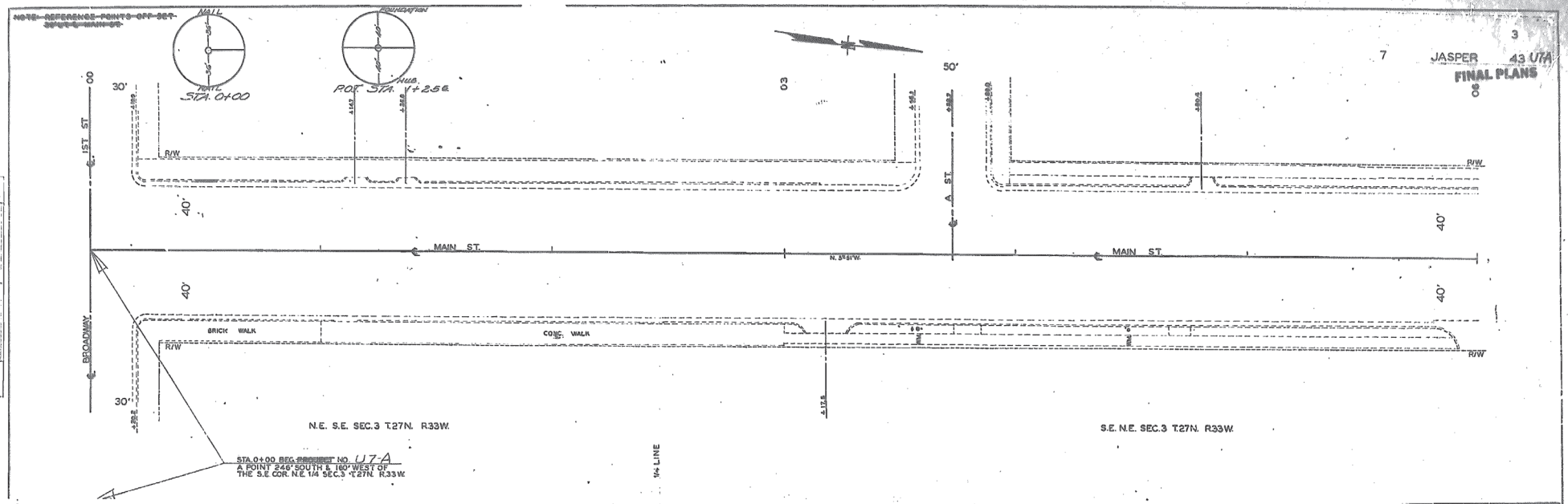
Series	Station	Gal.
0+00	2+31.51	961
Total		961
Pay		960

GENERAL SUMMARY

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS	SEC. UNITS (IF ANY)
1-A	Clearing			
1-B	Grubbing	Acre	1.8	
1-D	Class A Excavation	"	1.0	
1-E	Class B Excavation for Structures	Cu. Yds.	5288	
1-I	Compacting Embankment (Rolling)	" "	5413.6	
1-L	Compacting In Cuts (Rolling)	" "	4388	
1-O	Removing Pavement	" "	0	
1-U	Removing Curb & Gutter	Lin. Ft.	264.5	
1-V	Removing Sidewalk	Sq. Yd.	31.58	
1-X	Breaking Roadway To Grade	" "	220	
1-Z	Removing (22) Misc. Items	Each	1	
1-AA	Water (Compacting & Rolling)	1000 Gal	113.1	
3-A	2" Plant Cement Conc. Base Course	Sq. Yd.	1783.7	
4-A	8" Reinf. Cement Conc. Pavement	" "	2330.8	
16-A	Cl. A Concrete (Box Culv.)	Cu. Yd.	2.5	
16-B	Cl. B Concrete (Other than Culv.)	" "	25.2	
18-2	12" Plain Conc. Culv. Pipe (4 Rod)	Lin. Ft.	185	
18-3	15" " " " " "	" "	56	
18-C	24" " " " " "	" "	52	
19-A	Reinforcing Steel	Lb.	1250	
35-A	30" Concrete Curb & Gutter	Lin. Ft.	1800.0	
55-A	Paved Approach (7") Plain	Sq. Yds.	109.8	
55-AR	" " (9") "	" "	103.2	
56-A	4" Concrete Side Walk	" "	180.0	
56-A	7" Concrete Side Walk	" "	550.6	
59-C	Standard Signs, Flags & Flagging	Lump Sum	1	
76-A	Cl. of Curb Inlet	Each	5	
92-A	Top-Dressing & Mulching	Acre	1.2	
96-A	Grades & Dressing (2) Jobs	Job	3540	
	Asphaltic Concrete Pavement			
2-A	Primer (RC-0)	Gal.	960	
6-A	Sealing Pavement	Ton	9.0	
7-B	Type B Asphaltic Concrete	Ton	1314.0	
7-C	Type C Asphaltic Concrete	Ton	1129.0	
7-D	Asphaltic Concrete Wedge Course	Ton	221.0	
	Contingent Items			
	Asphalt Samples	Each	7	
1-E	Cl. C. Excavation	Cu. Yds.	2	

Prepared By J.G.W. Date 1-20 19 55 Checked in Dist. Office By WHITE, H.H. Date 1-26 19 55 Checked in Central Office By _____ Date _____ 19 _____ Revised By _____ Date _____

3-13



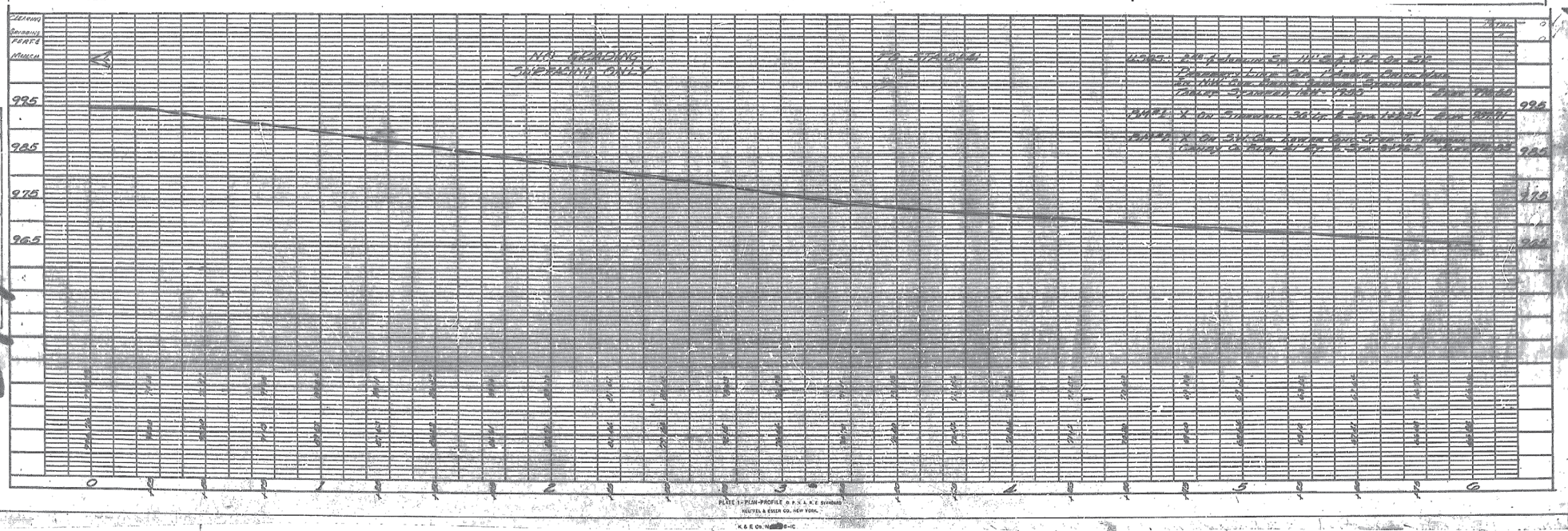
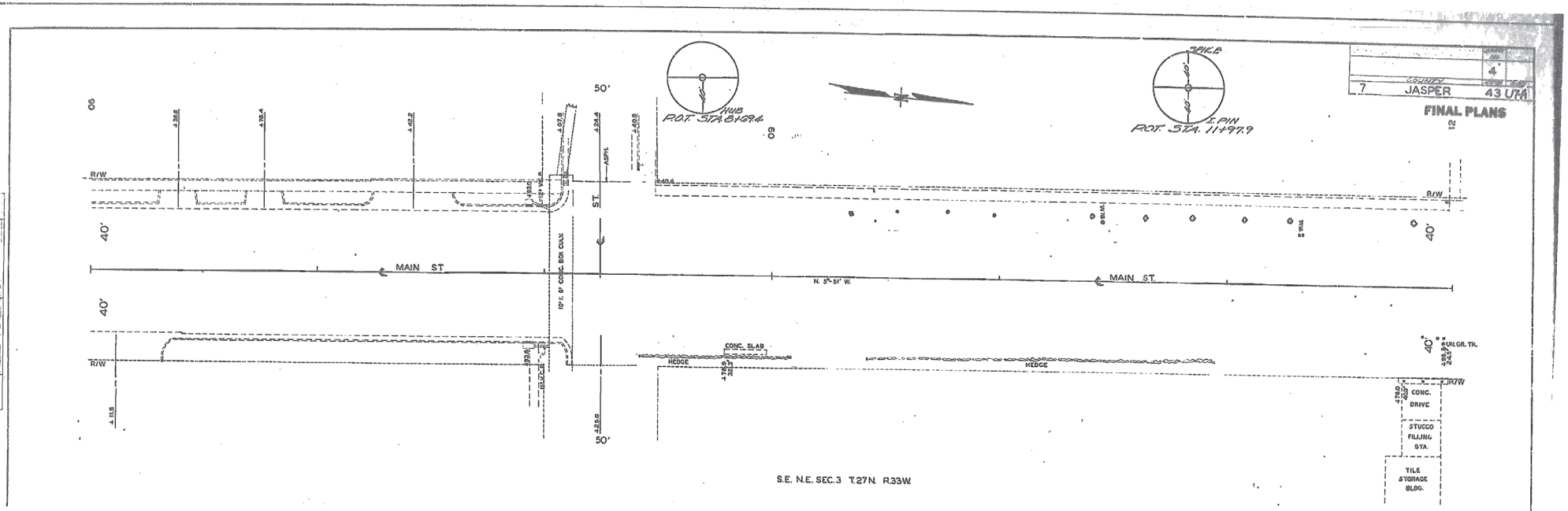
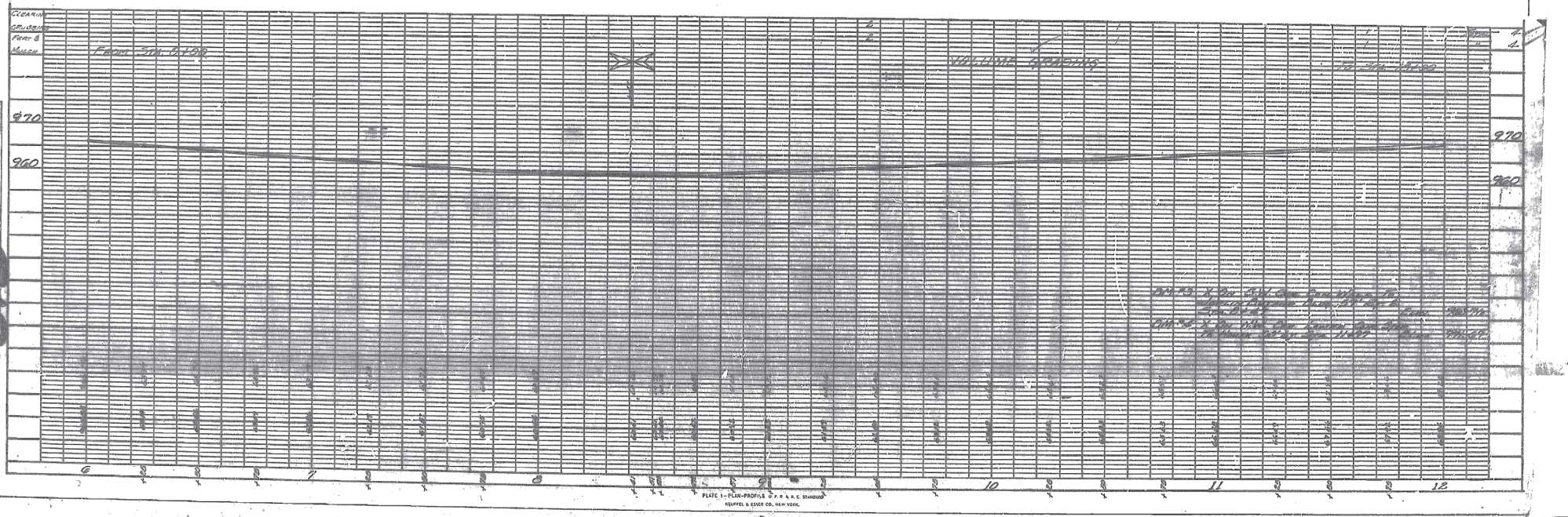
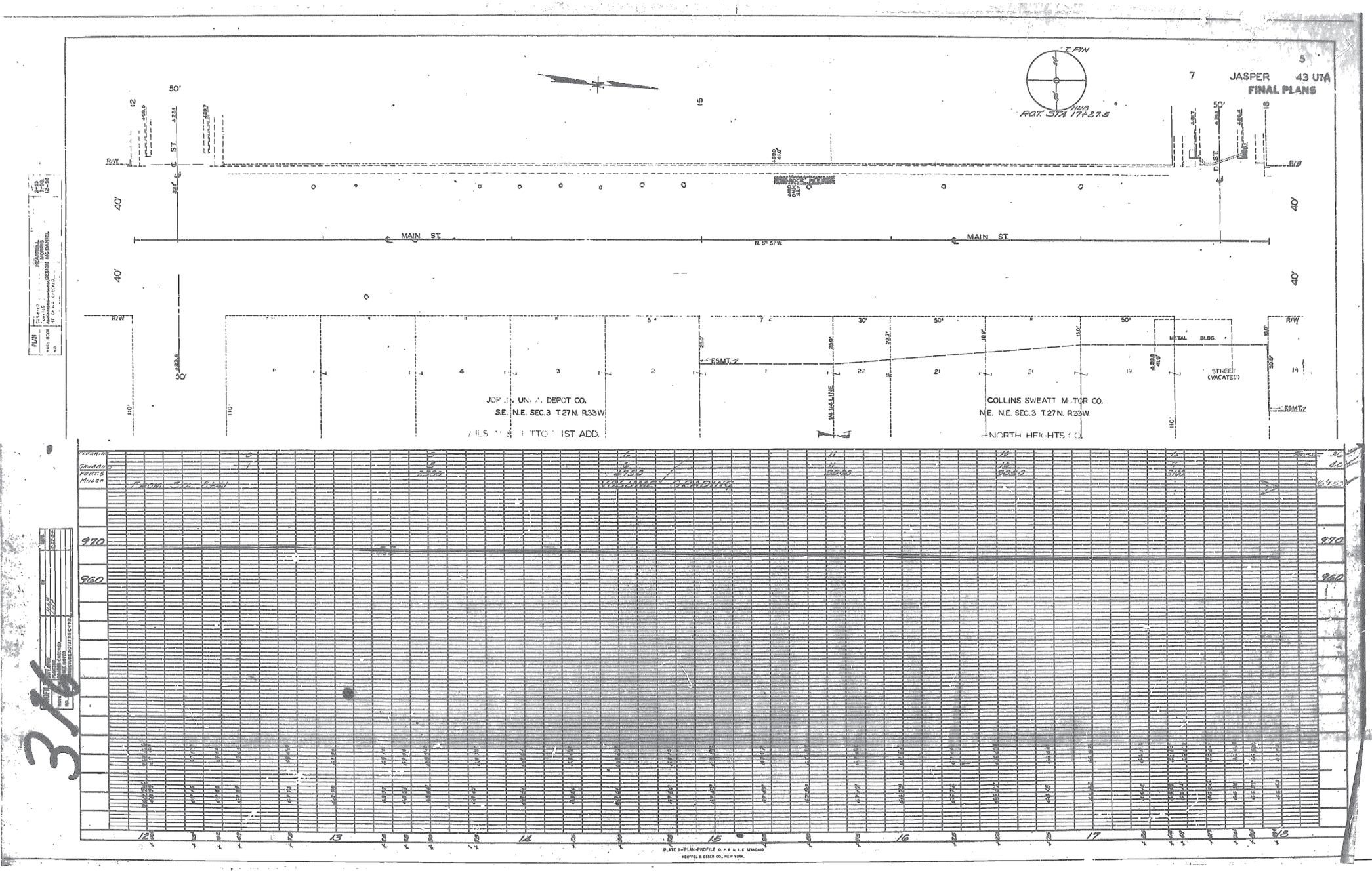


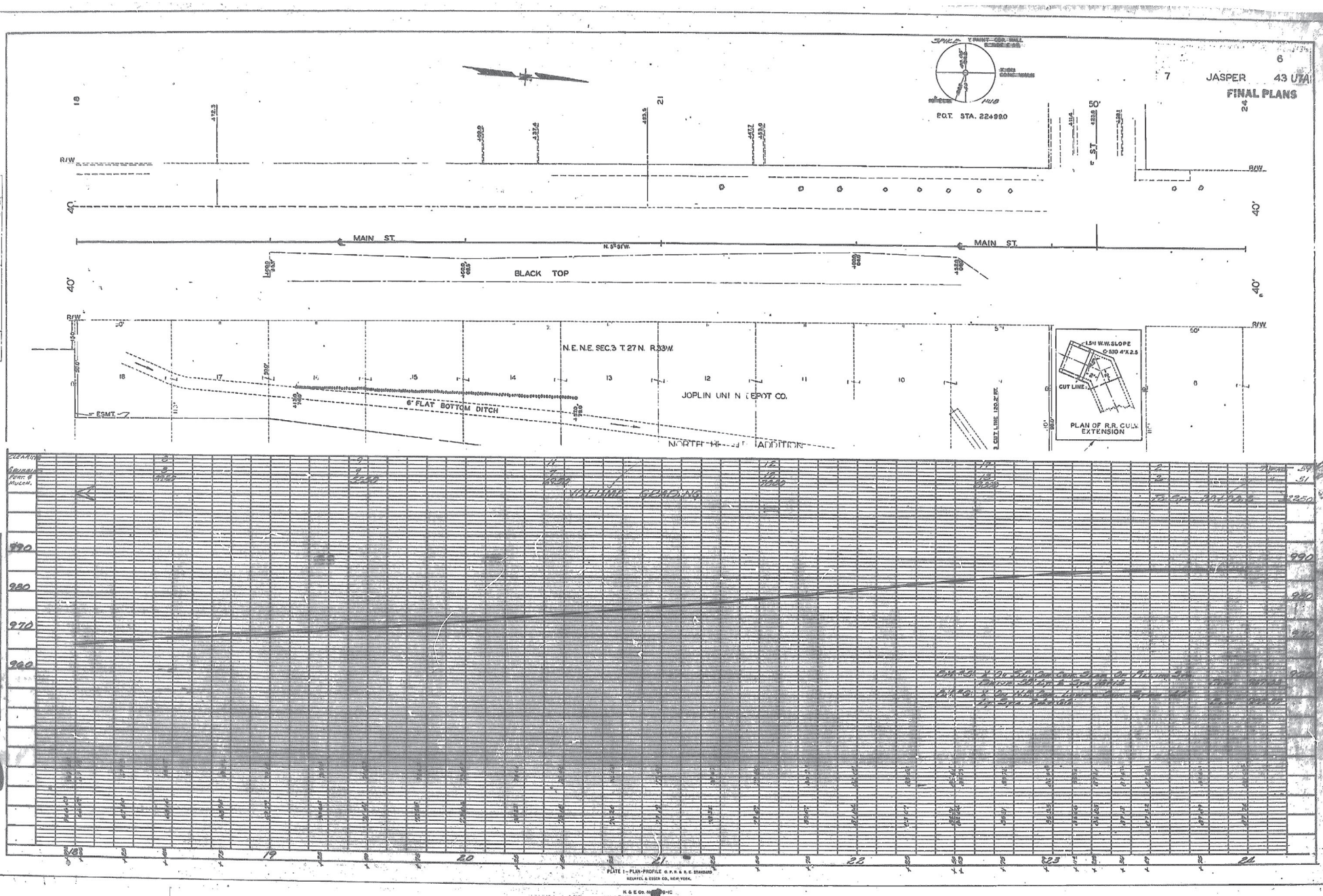
PLATE 1—PLAN-PROFILE D.P.N.A.R.E. SYMBOLS
KEUFFEL & ESSER CO., NEW YORK.

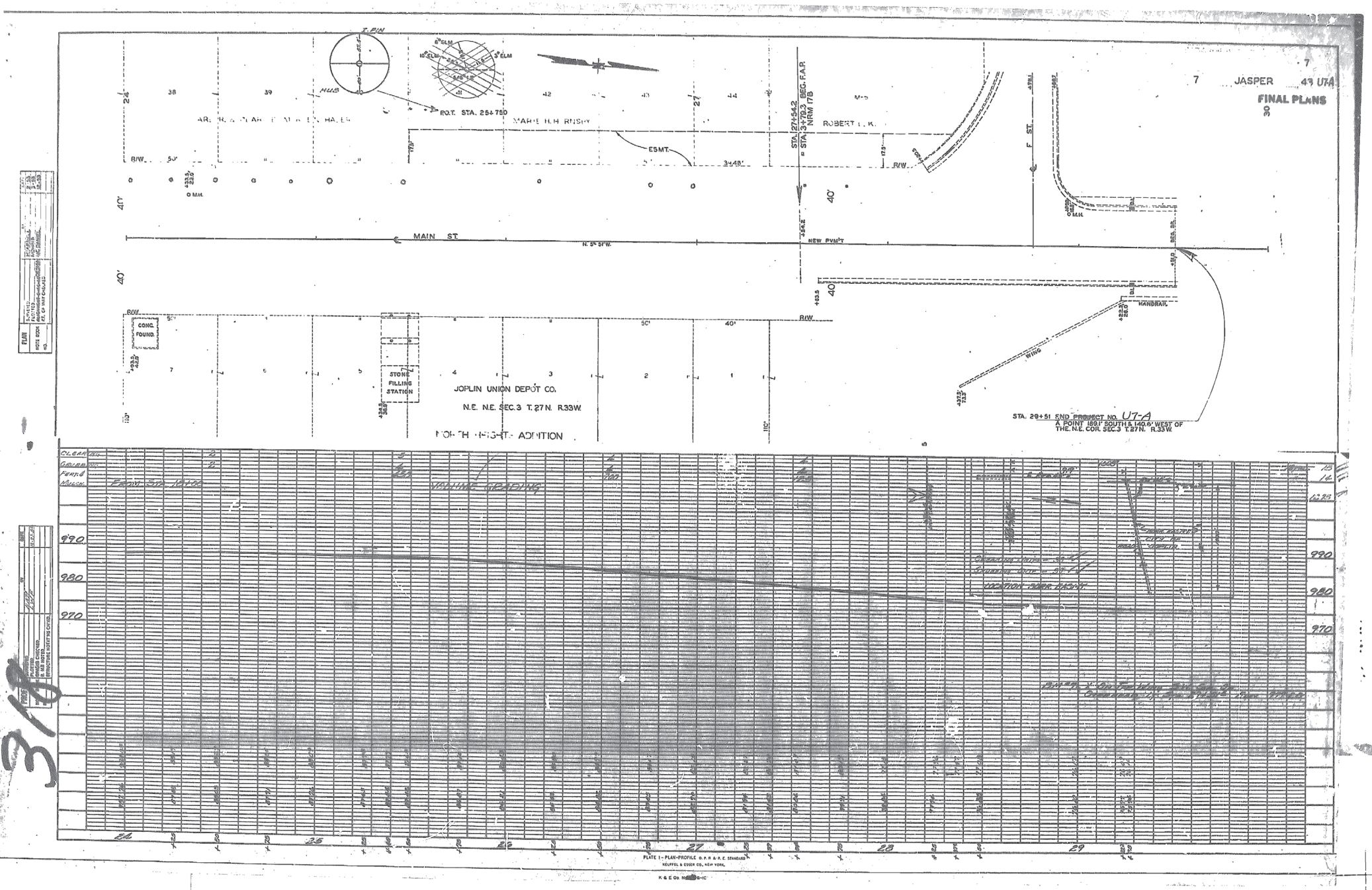
K & E Co. No. 8-IC


JASPER
43 U74
FINAL PLANS
HUB
P.O.T. STA. 8+69.4
SPIKE
P.O.T. STA. 11+97.9
MAIN ST
N. 5°-51' W.
MAIN ST.
R/W
50'
40'
CONC. SLAB
HEDGE
CONC. DRIVE
STUCCO FILLING STA.
TILE STORAGE BLDG.
S.E. N.E. SEC. 3 T.27N. R.33W.


From Sta. 6+00
970
960
VOLUME GRADING
PLATE 1—PLAN-PROFILE U. P. R. & R. C. STANDARD
KEUFFEL & ESSER CO. NEW YORK.


T. PIN
PROT. STA 174+27.5
7
JASPER 43 UTA
FINAL PLANS
50'
12
15
C ST
D ST
R/W
40'
MAIN ST.
N. 5° 51' W.
MAIN ST.
110'
JOPLIN UNION DEPOT CO.
S.E. N.E. SEC. 3 T. 27 N. R. 33 W.
U.S. HIGHWAY 71 1ST ADD.
COLLINS SWEATT MOTOR CO.
N.E. N.E. SEC. 3 T. 27 N. R. 33 W.
NORTH HEIGHTS CO.
METAL BLDG.
STREET (VACATED)
F.S.M.T. 2
PLAN
PROFILE
HOLE BOOK
DESIGN MC DANIEL
DRAWN
TRACED
CHECKED
QUANTITIES SUBMITTED BY
DATE
SCALE
PLATE 1—PLAN-PROFILE O. P. R. & N. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.


6
7
JASPER 43 UTA
FINAL PLANS
P.O.T. STA. 224980
50'
R/W
40'
MAIN ST.
N. 5° 51' W.
BLACK TOP
N.E. N.E. SEC. 3 T. 27 N. R. 33 W.
JOPLIN UNION DEPOT CO.
6' FLAT BOTTOM DITCH
ESMT.
CUT LINE
PLAN OF R.R. CULV. EXTENSION
VOLUME GRADING
CLEARING
GRUBBING
FERT. & MULCH.
PLATE 1 - PLAN-PROFILE C. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.


7
JASPER 49 UTA
FINAL PLANS
30
MAIN ST
N. 54° 51'W.
NEW PVMT
F ST.
MARIE H.H. RUSH
ROBERT L. K.
ESMT.
R/W
50'
40'
STA. 271+54.2
= STA. 3+76.3 BEG. F.A.P. NRM 176
STONE FILLING STATION
CONC. FOUND.
JOPLIN UNION DEPOT CO.
N.E. N.E. SEC. 3 T. 27 N. R. 33 W.
NORTH HEIGHTS ADDITION
MANRAIL
WING
STA. 29+51 END PROJECT NO. U7-A
A POINT 189.1' SOUTH & 140.6' WEST OF
THE N.E. COR. SEC. 3 T. 27 N. R. 33 W.
FROM STA. 10+00
STA. 11+00
CLEARING
GRUBBING
PEMP & MULCH
SHRUBS
TREES
SLOPE GRADING
990
980
970
PLATE I - PLAN-PROFILE O. P. R. & R. C. STANDARD
KEUFFEL & ESSER CO., NEW YORK.
K & E Co. No. 8-1C

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19		

FINAL PLANS

FINAL PLANS

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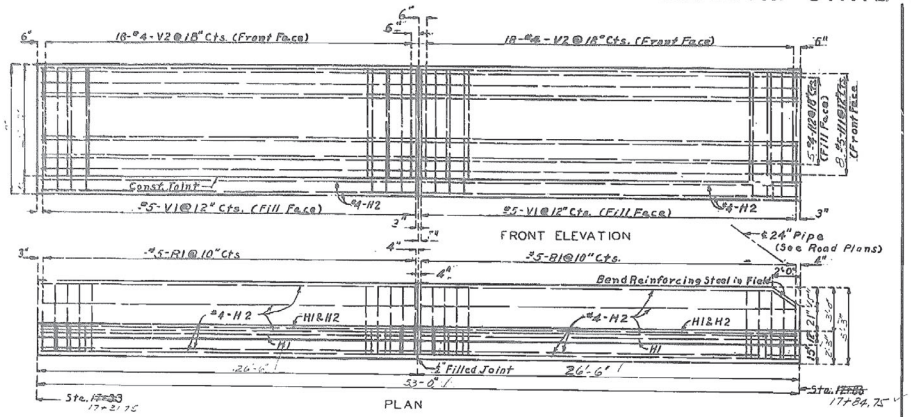
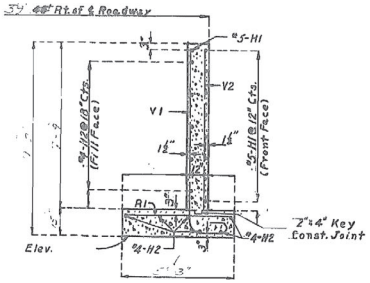
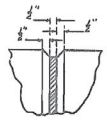


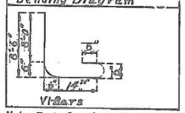




Note: Use bevel as shown for exposed faces of all joints consisting of joint filler.

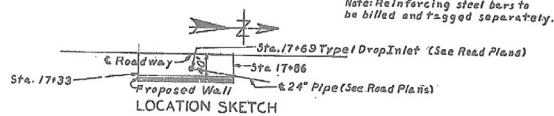
REINFORCING STEEL			
No.	Size	Length	Mark
84	#5	11'-9"	V1
36	#4	7'-8"	V2
78	#5	26'-3"	H1
22	#4	26'-3"	H2
84	#5	5'-0"	R1

Bending Diagram



Note: Reinforcing steel bars to be billed and tagged separately.

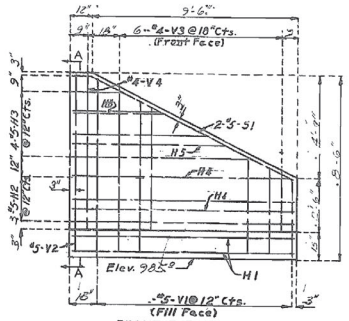
FINAL QUANTITIES		
Concrete Class "A"	Cu.Yds.	28.4 ✓
Reinforcing Steel	Lbs.	2030 ✓
Class 3 Excavation	Cu.Yds.	85.5 ✓

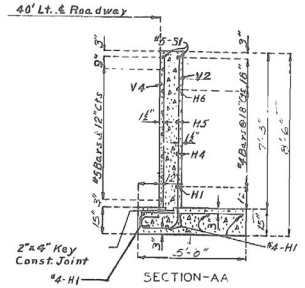


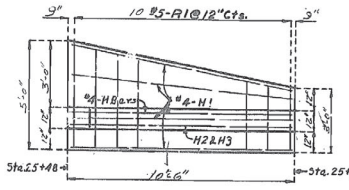
LOCATION SKETCH

RETAINING WALL FROM STA 17+33 TO STA 17+86

DRAWING NO L-651

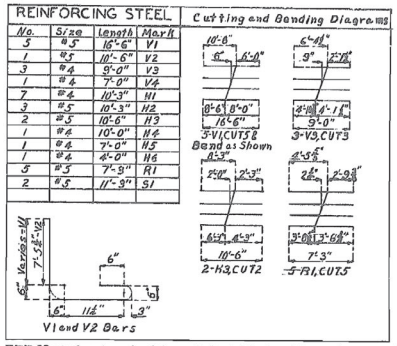






REINFORCING STEEL			
No.	Size	Length	Mark
5	#5	16'-6"	V1
1	#5	11'-6"	V2
3	#4	9'-0"	V3
1	#4	7'-0"	V4
7	#4	10'-3"	H1
3	#5	10'-3"	H2
2	#5	10'-6"	H3
1	#4	10'-0"	H4
1	#4	7'-0"	H5
1	#4	4'-0"	H6
5	#5	7'-9"	R1
2	#5	11'-9"	S1

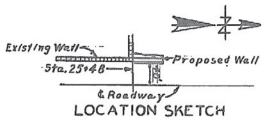
Cutting and Bending Diagrams



Note: Reinforcing steel bars to be billed and tagged separately.

Note: Excavation below and outside the limits of Roadway Excavation shall be paid for as class 3 Excavation for structures.

FINAL QUANTITIES		
Concrete Class "B"	Cu.Yds.	3.9 ✓
Reinforcing Steel	Lbs.	300 ✓
Class 3 Excavation	Cu.Yds.	16.5 ✓



LOCATION SKETCH

GENERAL NOTES:

Design Specifications A.A.S.H.O.-1953
Reinforcing Steel Stress 18,000#/in²
Class "B" Concrete Stress 1,000#/in²
All Concrete Class "B"
Where Joint Filler is specified on plans it shall conform with the requirements of Sec. 38-19 B(2) of the Standard Specifications for Gray Rubber Compound.

B.M. No. 5 Elev. 969.03 X on S.E. corner slab of Filling Station Drive 58'Lt ℄ Main St. Sta. 19+15.0.
B.M. No. 6 Elev. 988.57 X on N.E. corner lower concrete step 40' Lt ℄ Main St. Sta. 24+66.0

RETAINING WALL FROM STA. 25+48 TO STA. 25+58.5

DRAWING NO. L-652

RETAINING WALLS

STATE ROAD - NORTH MAIN STREET IN JOPLIN

ABOUT 1.0 MILE SOUTH OF JOPLIN 17+33 TO 17+86

PROJECT NO. RT 43 - SEC. 07-A STA. 25+48 TO 25+58.5

JASPER COUNTY

SUBMITTED BY J. A. Williams DESIGN ENGINEER DATE 4/19/1954

APPROVED BY Ray C. Wilson CHIEF ENGINEER DATE 4/19/1954

Drawn March 1954 by T.O.S.
Checked Apr. 1954 by J.E.L.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1

L-651
L-652

FINAL PLANS

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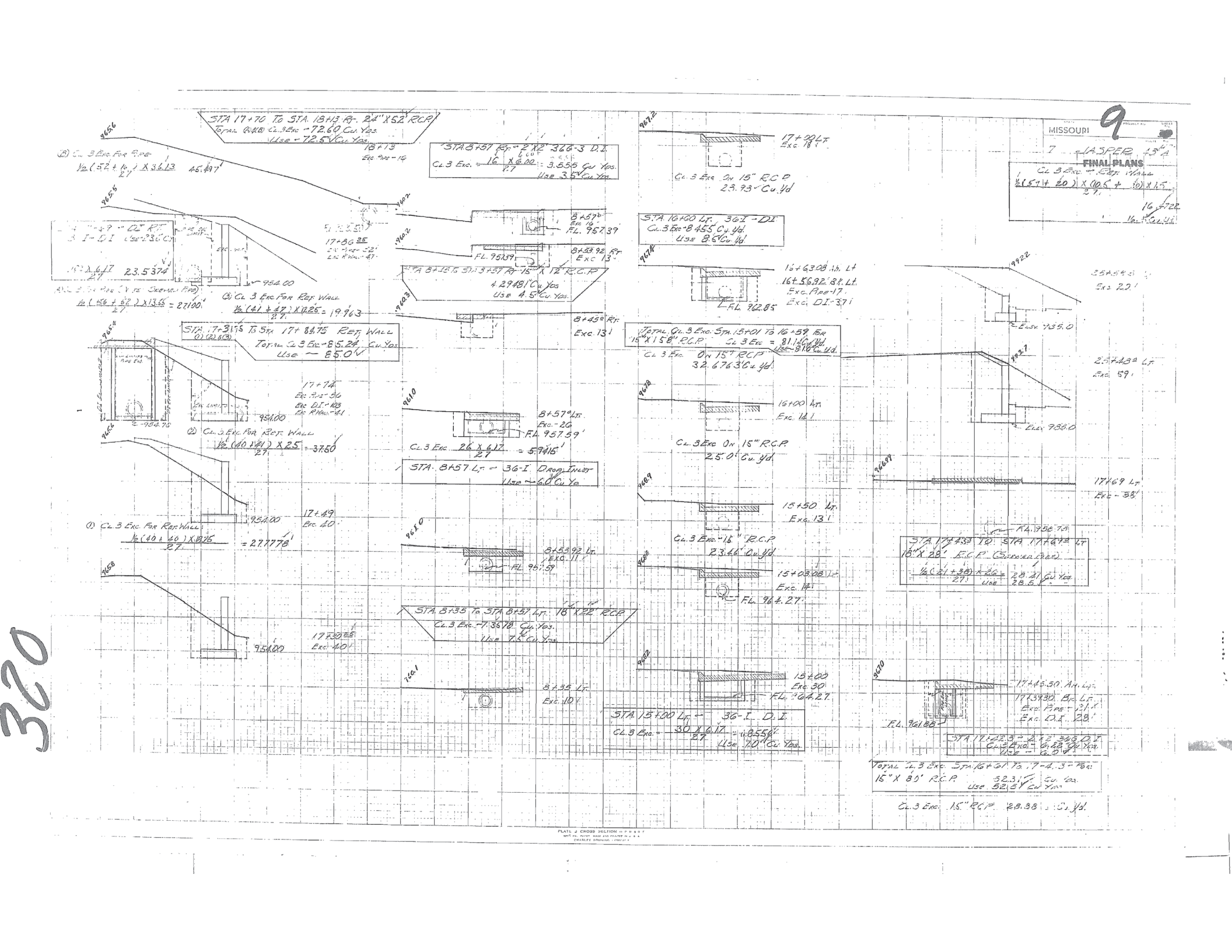
STA 17+70 To STA. 18+13 Rt. 24" X 52' R.C.P.
Total Cl. 3 Exc. = 72.60 Cu. Yds.
Use = 72.5 Cu. Yds.
18+13
Exc. Pipe = 16'
STA. 8+57 Rt. = 2'X2' 366-3 D.I.
Cl. 3 Exc. = 16 X 6.00 / 27 = 3.555 Cu. Yds.
Use 3.5 Cu. Yds.
17+94 Lt.
Exc. 18'
Cl. 3 Exc. On 15" R.C.P.
23.93 Cu. Yd.
MISSOURI
9
7 JASPER 13
FINAL PLANS
Cl. 3 Exc. at Cap. Wall
1/2 (5 + 20) X 10.5 + 10) X 1.5 / 27
16+72R
Lt. Cu. Yd.
9656
(B) Cl. 3 Exc. For Pipe
1/2 (52 + 16) / 27 X 36.13 = 45.49
9655
17+89 = CL Rt.
3 I-DI Use 23.6 Cy
16 X 6.17 / 27 = 23.537
954.00
9654
(A) Cl. 3 Exc. For Pipe (V. Ft. Screened Pipe)
1/2 (56 + 52) X 13.65 / 27 = 27.100
(3) Cl. 3 Exc. For Ret. Wall
1/2 (41 + 47) X 12.25 / 27 = 19.963
STA. 17+31.5 To Sta. 17+84.75 Ret. Wall
(1) (2) & (3)
Total Cl. 3 Exc. = 85.24 Cu. Yds.
Use = 85.0 Cu. Yds.
17+74
Exc. Pipe = 36'
Exc. DI = 10.3'
Exc. R Wall = 6.1'
954.00
(2) Cl. 3 Exc. For Ret. Wall
1/2 (40 + 41) X 2.5 / 27 = 37.50
9656
954.00
(1) Cl. 3 Exc. For Ret. Wall
1/2 (40 + 40) X 18.75 / 27 = 27.7778
17+49
Exc. 40'
9658
954.00
17+30.25
Exc. 40'
9660
8+57 Lt.
Exc. = 26'
F.L. 957.59'
Cl. 3 Exc. 26 X 6.17 / 27 = 5.9415
STA. 8+57 Lt. = 36-I Drop Inlet
Use = 6.0 Cu. Yds.
9661.0
8+53.92 Lt.
Exc. 11'
F.L. 961.59
STA. 8+35 To STA. 8+57 Lt. 18" X 22" R.C.P.
Cl. 3 Exc. = 7.3578 Cu. Yds.
Use 7.5 Cu. Yds.
9661.1
8+35 Lt.
Exc. 10'
9662
8+57.92 Rt.
Exc. 13'
F.L. 957.39
STA. 8+16 To STA. 8+57 Rt. 15" X 12" R.C.P.
4.2948 Cu. Yds.
Use 4.5 Cu. Yds.
9663
8+45.9 Rt.
Exc. 13'
9662.2
17+90 Lt.
Exc. 18'
Cl. 3 Exc. On 15" R.C.P.
23.93 Cu. Yd.
STA. 16+60 Lt. 36-I-DI
Cl. 3 Exc. = 8.455 Cu. Yd.
Use 8.5 Cu. Yd.
9667
16+63.08 Lt. Lt.
16+56.92 Rt. Lt.
Exc. Pipe = 17'
Exc. DI = 3.7'
F.L. 962.85
Total Cl. 3 Exc. Sta. 15+01 To 16+59 For
15" X 158' R.C.P. Cl. 3 Exc. = 31.16 Cu. Yd.
Use 31.0 Cu. Yd.
Cl. 3 Exc. On 15" R.C.P.
32.6763 Cu. Yd.
9668
16+00 Lt.
Exc. 16'
Cl. 3 Exc On 15" R.C.P.
25.0 Cu. Yd.
9669
15+50 Lt.
Exc. 13'
Cl. 3 Exc. = 15" R.C.P.
23.66 Cu. Yd.
9668
15+03.08 Lt.
Exc. 14'
F.L. 964.27
9669.7
17+69 Lt.
Exc. = 38'
F.L. 956.75
STA 17+43.3 To STA 17+67.2 Lt.
15" X 28' E.C.P. (Screened Pipe)
1/2 (21 + 38) X 26 / 27 = 28.21 Cu. Yds.
Use 28.5
9670
17+45.30 Rt. Lt.
17+39.30 Lt. Lt.
Exc. Pipe = 31.5'
Exc. D.I. = 28'
F.L. 961.88
STA 17+42.5 = 2'X2' 366 D.I.
Cl. 3 Exc. = 6.428 Cu. Yds.
Use = 6.0 Cu. Yds.
Total Cl. 3 Exc. Sta. 16+61 To 17+4.3 = For
15" X 81' R.C.P. 32.31 Cu. Yds.
Use 32.5 Cu. Yds.
Cl. 3 Exc. 15" R.C.P. 28.38 Cu. Yd.
9672
17+22
Exc. 22'
F.L. 955.0
9673.1
2+37.43 Lt.
Exc. 59'
F.L. 955.0
9674
35+54.6 Lt.
Exc. 22'
320

MISSOURI

FINAL PLANS

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STA. 18+06.8 TO 19+77.3 Lt
18" X 193' R.C.P.
a) a(2) Total Cl. 3 Exc. — 94.14 Cu. Yds.
Use — 94.0 " "

20+00.3
Exc. DI. - 27
Exc. Pipe - 13

Cl. 3 Pipe - $\frac{1/2\,(13+13)\times 97.3}{27}$ = 46.85 C.Y.

Cl. 3 for DI - $\frac{27\times 6.00}{27}$ = 6.00

Sta. 20+00.3 - 36B-2 C.I.
Total Cl. 3 Exc. = 52.85 C.Y.
Use 46.0 " "

17+00
Exc. 13

a) Cl. 3 for Pipe - $\frac{1/2\,(15+13)\times 91.20}{27}$ = 47.29 Cu Yds.

18+08.80
Exc. 15

18+05.8
Exc. DI = 24
Exc. Pipe = 16

STA 18+05.8 36B-1 "DI"
24 X 6.00 / 27 = 5.333
Use 5.5 Cu. Yds. Cl. 3

Cl. 3 for Pipe = $\frac{1/2\,(40+16)\times 33'}{27}$ = 34.22 Cu Yds

STA 17+11 To 18+04.3 Lt.
18" X 35' R.C.P.
Cl. 3 Exc. — 34.2 Cu. Yds.
Use — 34.0 " "

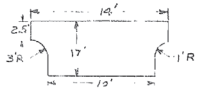
17+69
Exc-40

STA. 22+73.8 Rt.
4x2.5 - 4' Culv. Extension
Std. C-5.30 1.5:1 Wing Wall Slopes
45° Skew

$\frac{10.77 \;/\; 10.72 \times 7^{2}}{27}$ + $\frac{\text{Tie Wall}}{2.17 \times 5.08 \times 1.38}$ = $\frac{3.9}{5.4}$ Cy. Yds.

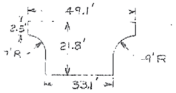
Use 3.5 " "

FL = 944.3



STA 10+10.1 TO 10+27.9 LT
P.C.C. PAV. ENT
$\frac{14 \times 6.5 + \frac{1}{2}(10 \times 4.5 + 3^2 - \frac{\pi 3^2}{2}) + \frac{\pi 4^2}{4}}{9}$
= 20.2384 SQ YD
USE 20.0 SQ YDS

STA 9+50.3 TO 18+93.9 RT
CURB & GUTTER 943.6 LN. FT.



STA. 9+01 TO 9+50.3 RT
P.C.C. PAV. ENTR.
$\frac{(49.1 \times 2.5) + (\frac{1}{2} \times 3.3 \times 9) + (\frac{\pi 7^2}{4} - \frac{\pi 3^2}{4}) + (\frac{\pi 9^2}{4} - \frac{\pi 7^2}{4})}{9}$
= 87.7107 USE 87.5 SQ YDS

STA 8+57.1 LT. D.I. & 12"X20' V.C.P.
MISC 1-Z

STA 8+57 LT. D.I. & 15"X10' V.C.P.
MISC 1-Z

STA 8+41.4 TO 8+48.4 LT.
P.C.C. SIDEWALK
$\frac{7 \times 18}{9}$ = 14.018 SQ YD
USE 14 SQ YD

STA 8+40.9 TO 10+10.1 LT.
GUTTER & CURB 192.3 LN. FT.

STA. 8+23.5 - 8+35.0 LT. P.C.C.P. REMOVAL
$\frac{6.5 \times 8}{9}$ = 5.777 SQ YDS
USE 6 " "

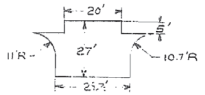
STA 8+40 TO 9+01 RT CURB & GUTTER 75.4 LN. FT.

STA. 3+11 1" P.C.C. P. REMOVAL
$\frac{(20 \times 9.4) + (7.5 \times 5) + (26.5 \times 6.3)}{9}$ = 35.43 SQ YDS
USE 35.5 SQ YDS

STA. 12+39.7 TO 17+61.7 LT.
CURB & GUTTER 562.5 LN. FT.

STA. 12+33.5 TO 12+42.5 LT. P.C.C.P. REM.
$\frac{5 \times 8}{9}$ = 4.444 SQ YDS
USE 4.5 " "

STA 12+30 RT. CONC. SLAB
$\frac{15.2 \times 7}{9}$ = 15.2 SQ. YDS
USE 15 SQ. YDS.



STA 12+23.1 LT. P.C.C. PAV.
ST. APPR.
$\frac{(5 \times 20) + (\frac{1}{2} \times 2.2 \times 29.2) + (11^2 - \frac{\pi 11^2}{4}) + (10.7^2 - \frac{\pi 10.7^2}{4})}{9}$
= 88.1020 USE 88.0 SQ YDS

STA 12+06.5 RT CONC. CURB
MISC 1-Z

STA 11+98.6 TO 12+06.3 LT
P.C.C. SIDEWALK
$\frac{(4.5 \times 7.5) + (4.5 \times 13.7)}{9}$ = 10.60
USE 11 SQ YDS

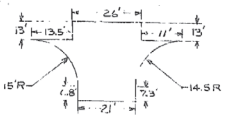
STA. 11+77.5 TO 12+12.5 LT. P.C.C.P. REM.
$\frac{5 \times 15}{9}$ = 8.333 SQ YDS
USE 8.5 " "

STA 11+87 RT. CONC. SIGN FDN.
MISC 1-Z

STA 11+54.4 RT. CONC. CURB
MISC 1-Z

STA 10+95 RT. CONC. WALL
MISC. 1-Z

STA 10+27 TO 12+06.3 LT
CURB & GUTTER 200.5 LN FT.



STA. 17+74.1 LT. P.C.C. PAV.
ST. APPR.
$\frac{(13 \times 2.6) + (\frac{1}{2} \times 2.1 \times 13) + (14.5^2 - \frac{\pi 14.5^2}{4}) + (15^2 - \frac{\pi 15^2}{4})}{9}$
= 98.8005 USE 99 SQ YDS.

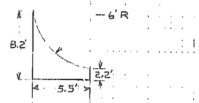
STA 17+69 RT. BRICK M.H. & 18" R.C.P.
MISC 1-Z

STA. 17+69 TO 18+13 RT.
24" R.C.P.
MISC 1-Z

STA. 17+50 TO 17+61.2 LT.
P.C.C. SIDEWALK
$\frac{(6.5 \times 4.5) + (9.8 \times 4.5)}{9}$ = 8.15
USE 8 SQ. YDS.

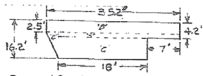
STA 17+42.3 LT. D.I. & 15"x8' V.C.P.
MISC 1-Z

STA 17+39.6 RT D.I. & 2'x2' CONC. BOX
MISC. 1-Z



STA. 12+40.6 RT. P.C.C. PAV. RETURN
$\frac{(2.2 \times 5.5) + (\frac{1}{2} \times 4^2 - \frac{\pi 4^2}{4})}{9}$ = 2.2028
USE 2 SQ. YDS.

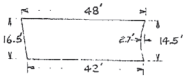
STA. 12+40.2 TO 12+47.6 LT
P.C.C. SIDEWALK
$\frac{7.4 \times 18.8}{9}$ = 15.4578 SQ. YDS.
USE 15 SQ. YDS.



STA 19+63 TO 19+98.6 LT.
P.C.C. PAV. ENT.
$\frac{1.7 \times 2.5 + \frac{1}{2} \times 3.5 \times 2 + 12 \times 18 + \frac{10.2 \times 13.7}{2}}{9}$ = 46.263
USE 46.5 SQ. YDS.

STA 19+01 RT. CONC. POST.
MISC. 1-Z

STA 18+96 TO 19+63 LT. CURB & GUTTER 67 LN. FT.



STA. 18+49.3 TO. 18.95.3 LT.
P.C.C. PAV. ENT.
$\frac{6 \times 16.5 + 15.5 \times 42 - 2.7 \times 14.5 \times .6867}{9}$ = 74.84
USE 75 SQ. YDS

STA. 18+40.5 TO 20+43.5 LT.
P.C.C. SIDEWALK
$\frac{107.8 \times 4.5 + 50.1 \times 6 + 45.1 \times 5.5}{9}$
= 114.86
USE 115 SQ. YDS.

STA. 18+06.3 RT. D.I.
MISC. 1-Z

STA. 18+05.8 LT. D.I. & 15"x10' V.C.P.
MISC. 1-Z

STA. 17+86.9 TO 17+97.8 LT.
P.C.C. SIDEWALK
$\frac{26.8 \times 4.5}{9}$ = 13.4 SQ. YDS.
USE 13 SQ. YDS.

STA 17+86.4 TO 18+49.3 LT.
CURB & GUTTER 80 LN. FT.

MISSOURI
7 JASPER 43 U7-A
FINAL PLANS
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STA 21+61 RT. CONC. POST
MISC. 1-Z

STA 21+53 LT. 4" V.C.P. DRAIN
MISC. 1-Z

STA 21+47.7 LT 4" V.C.P. DRAIN
MISC 1-Z

STA 21+31 RT. CONC. POST
MISC 1-Z

STA 20+69 LT. 3' P.C.C. SIDEWALK
$\frac{3 \times 4.75}{9}$ = 1.583
USE 2 SQ. YDS.

STA 20+37.4 LT. 4" V.C.P. DRAIN
MISC. 1-Z

STA 20+09 LT. 4" V.C.P. DRAIN
MISC. 1-Z

STA. 20+42 RT. CONC. POST.
MISC. 1-Z

STA. 20+15.1 LT. 2' P.C.C. SIDEWALK
$\frac{2 \times 13.7}{9}$ = 3.044 SQ. YDS.
USE 3 SQ. YDS.

STA 20+11 RT. CONC. POST.
MISC. 1-Z

STA. 19+98.4 TO 23+11.4 LT. CURB & GUTTER 334.0 LN. FT.

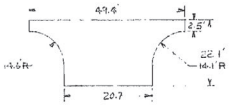
322

PLATE 3 CROSS SECTION STANDARD

MISSOURI
7 JASPER 43 U-A
FINAL PLANS
12

STA. 23+36.6 To 28+20.5 Lt
P.C.C. SIDEWALK
$\frac{(6.5\times5.5)+(5.5\times13.8)+\left[\frac{(23+48)-(23+36.6)}{2}\times4.5\right]+\left[\frac{(27+84.2+47.8-26+22.1)}{2}\times4.5\right]}{9}$
= 244.445 SQ. YDS.
USE 244 SQ. YDS.

STA. 23+36.1 To 26+54.9 Lt.
CURB & GUTTER 340.0 LN. FT.



STA. 23+23.6 Lt P.C.C. PAV. ST. APPR.
$\frac{4.9\times2.5+20.7\times19.6+14.6^2-\frac{\pi\times4.6^2}{2}+14.1^2-\frac{\pi\times14.1^2}{4}}{9}$
= 65.625 SQ. YDS.
USE 66 SQ. YDS.

STA. 22+98.9 To 23+10.9 Lt.
P.C.C. SIDEWALK
$\frac{5.5\times5.5+4.5\times9.4+4.5\times13.8}{9}$ = 13.46
USE 13 SQ. YDS.

STA. 22+53.7 To 27+63.5 Rt.
CURB & GUTTER 509.8 LN. FT.

STA 22+51 Rt. CONC. POST
MISC 1-Z

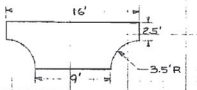
STA. 22+50 Rt. 4'x26' CONC. R.R. CULV.
MISC. 1-Z

STA. 22+21.6 Lt. P.C.C. SIDEWALK
$\frac{4.5\times4.5}{9}$ = 2.25 SQ. YDS.
USE 2 SQ. YDS.

STA. 21+91 Rt. CONC. POST
MISC. 1-Z

STA. 27+10 Rt. CONC. POST
MISC 1-Z

STA. 26+70.7 To 28+20.5 Lt.
CURB & GUTTER 153.1 LN. FT.

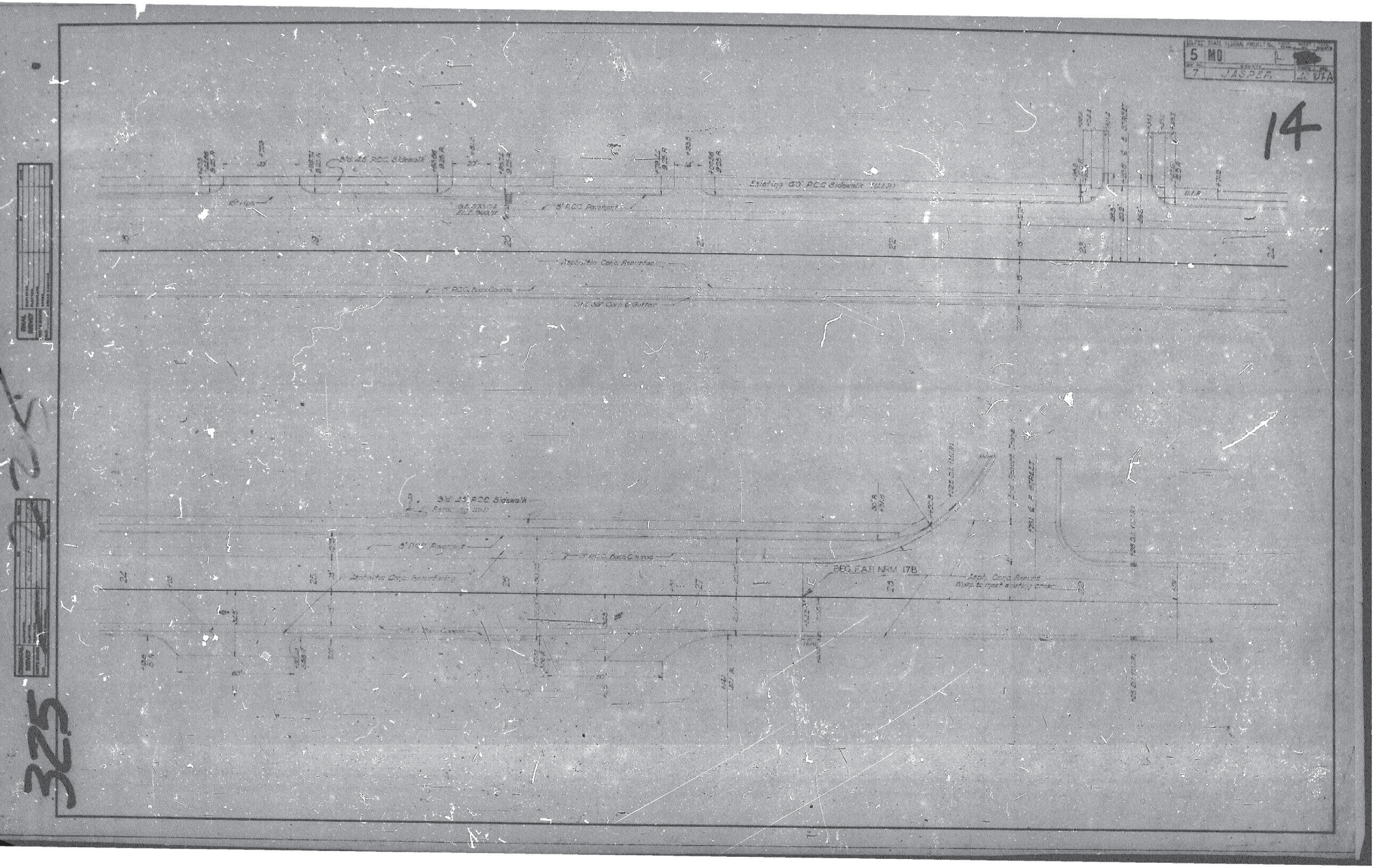


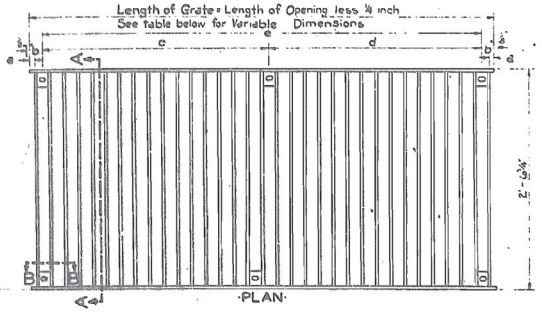
STA. 26+54.9 To 26+71.1 Lt. P.C.C. PAV. ENT.
$\frac{16\times2.5+9\times3.5+\left(16.5^2-\frac{\pi\times16.5^2}{2}\right)\frac{2}{\pi}}{9}$ = 8.5286
USE 8.5 SQ. YDS.

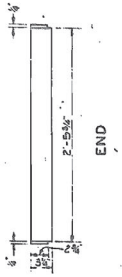
STA 26+16 Rt. CONC. POST
MISC. 1-Z

STA 24+94 Rt. CONC. POST
MISC. 1-Z

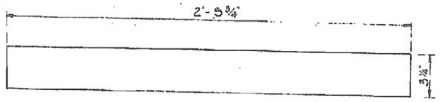
323


5 MO
7 JASPER
14
Existing 6'0" P.C.C. Sidewalk (U.I.P.)
5'-6" P.C.C. Pavement
Asphaltic Conc. Resurfacing
6" P.C.C. Base Course
6'-0" P.C.C. Curb & Gutter
3'-6" P.C.C. Sidewalk
Asphaltic Conc. Resurfacing
6" P.C.C. Base Course
BEG. E.A.P. NRM 17B
Asph. Conc. Resurf.
Match to meet existing grade
325

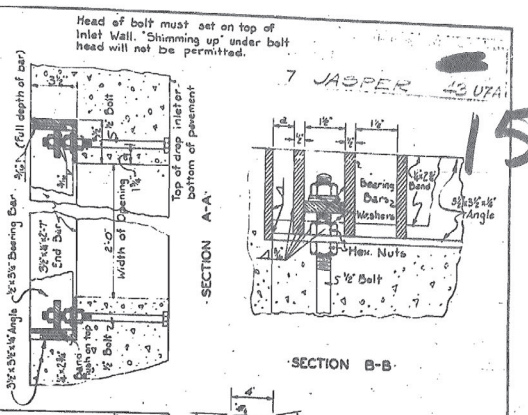


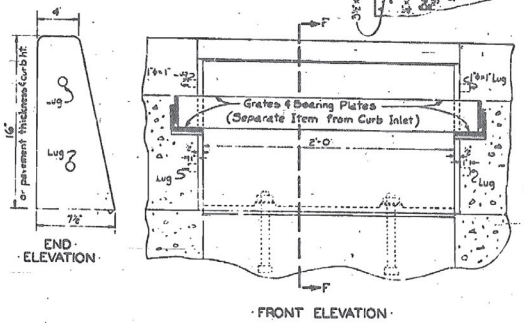


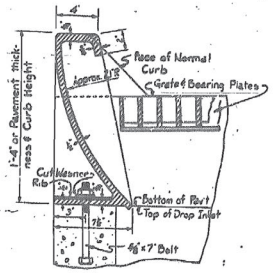
GRATE

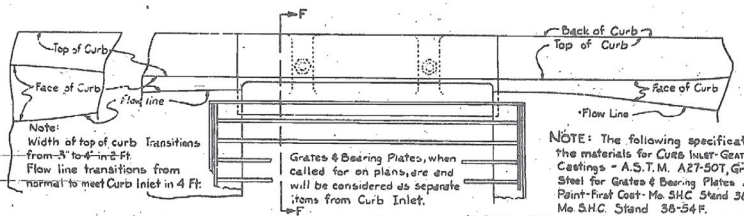


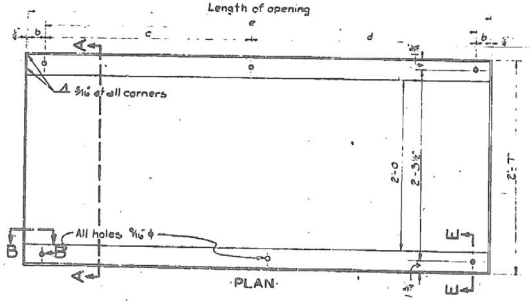
BEARING BAR











BEARING PLATE

WEIGHT AND DIMENSION DATA											
			Bars		Openings		Variable Dimensions				
Size	Weight*	Type	No.	Width	No. of Inter-mediate Openings	Width of End Opening	a	b	c	d	e
2'-0" × 2'-0"	205	Fabricated	11	½"	10	1⅞"	1⅞"	5"	—	—	1'-6"
2'-0" × 3'-0"	305	Fabricated	17	½"	16	1¾"	1⅞"	3"	—	—	2'-6"
2'-0" × 4'-0"	405	Fabricated	23	½"	22	1¾"	1⅞"	3"	1'-8"	1'-10"	—
2'-0" × 5'-0"	505	Fabricated	29	½"	28	1⅝"	1⅞"	3	2'-2"	2'-4"	—
2'-0" × 5'-6"	555	Fabricated	32	½	31	1⅝	1⅞	3"	2'-6	2'-6	—

*Weight shown on plans are the estimated weights of Fabricated Type Grates and Bearing Plates. Payment will be made on the actual weight of Grates & Bearing Plates used on the Project.

NOTE: The following specifications shall govern the materials for Curb Inlet Grates & Bearing Plates Castings - A.S.T.M. A27-50T, Gr. 65-35, Structural Steel for Grates & Bearing Plates A.S.T.M A7-50T Paint-First Coat-Mo. S.H.C. Stand 36-54C, Second Coat Mo. S.H.C. Stand 38-54F.

All Bearing Plates and all fabricated Grates shall have 2 coats of paint applied in the shop or field by any method that will insure a complete cover for each coat. All bruises or damage to paint shall be retouched before item is installed.

When bolts are cut in the field, threads must be cleaned to permit the final nut to run freely on the bolt.

This Drawing is not to scale Follow Dimensions.

MISSOURI STATE HIGHWAY COMMISSION

CURB INLET, GRATES, AND BEARING PLATES

SUBMITTED BY [signature] ENG'R OF SURVEYS & PLANS

APPROVED BY [signature] CHIEF ENGINEER

DRAWN	REVISED
12-52	10-53

36A-SPECIAL

7 JASPER 43 U2A1

15

326

Standards

RTE 43
Proj U7A
County Jasper
Sheet # 16

TYP SEC & Earthwork

Surface - Curb & Gutter
Approaches
250-13
250B-7

DRAINAGE
360-4
360-3
~~360-10~~
C530
C112R

CON-REINF APPURTS,
FINISH Etc
150-1
C110R3

Bridges

Misc.
260-10