FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS	SHEET
2	OHIO	F - 534(8)		1 / 164

BEL-7-(17.71 - 20.14)

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BEL-7-(17.71-20.14)
BELMONT COUNTY
PULTNEY & PEASE TOWNSHIPS
CITY OF BELLAIRE
VILLAGE OF BRIDGEPORT
GRADE CROSSING ELIMINATION WITH PENNA. RAILROAD

F-534 (8)
LIMITED ACCESS

Con # 297

519

NOTE: ALL REFERENCE TO FED. PROJ. Nº FG-534 (8) APPEARING IN THIS PLAN SHALL BE CONSIDERED TO BE F-534 (8)

~ CONVENTIONAL SIGNS ~

COUNTY LINE
TOWNSHIP LINE
SECTION
CORPORATION LINE
PROPERTY LINE
FENCE LINE
CENTER LINE
POLE LINE — Telephone, Electric
RAILROAD
GUARD RAIL — old, new
DRAIN PIPE (NEW)
DRAIN PIPE (OLD)
HEDGE

~ INDEX OF SHEETS ~

TITLE SHEET — 1
TYPICAL SECTIONS — 2-3
TYPICAL DETAILS & DIAGRAM OF ¢ REFERENCES — 4-5
GENERAL NOTES — 5-6
SUMMARY OF QUANTITIES — 7-11
PLAN AND PROFILE — 12-24
CURVE TABLES — 25-26
CROSS SECTIONS — 27-75
ROAD APPROACHES & STREET RETURNS — 76-100
BUS TURNOUTS & RETAINING WALLS — 101-105
TEMPORARY ROAD — 106-111
STEPS — 112
RAILROAD FORCE ACCOUNT WORK — 112-A, 112-B, & 112-C
STRUCTURES 20' SPAN AND UNDER — 113-147 and 123-A
RIGHT OF WAY — 148-164

~ LINE DATA ~

BEGIN F - 534(8) BELLAIRE MUNICIPAL & PROJECT — STA 35+00
END F - 534(8) BELLAIRE MUNICIPAL — STA 42+82.58
NET LENGTH F - 534(8) BELLAIRE MUNICIPAL = 782.58 LIN. FT. OR 0.148 MI.

BEGIN F - 534(8) RURAL — STA 42+82.58
END F - 534(8) RURAL — STA 142+05.50
NET LENGTH F - 534 (8) RURAL = 9,922.92 LIN. FT. OR 1.879 MI.

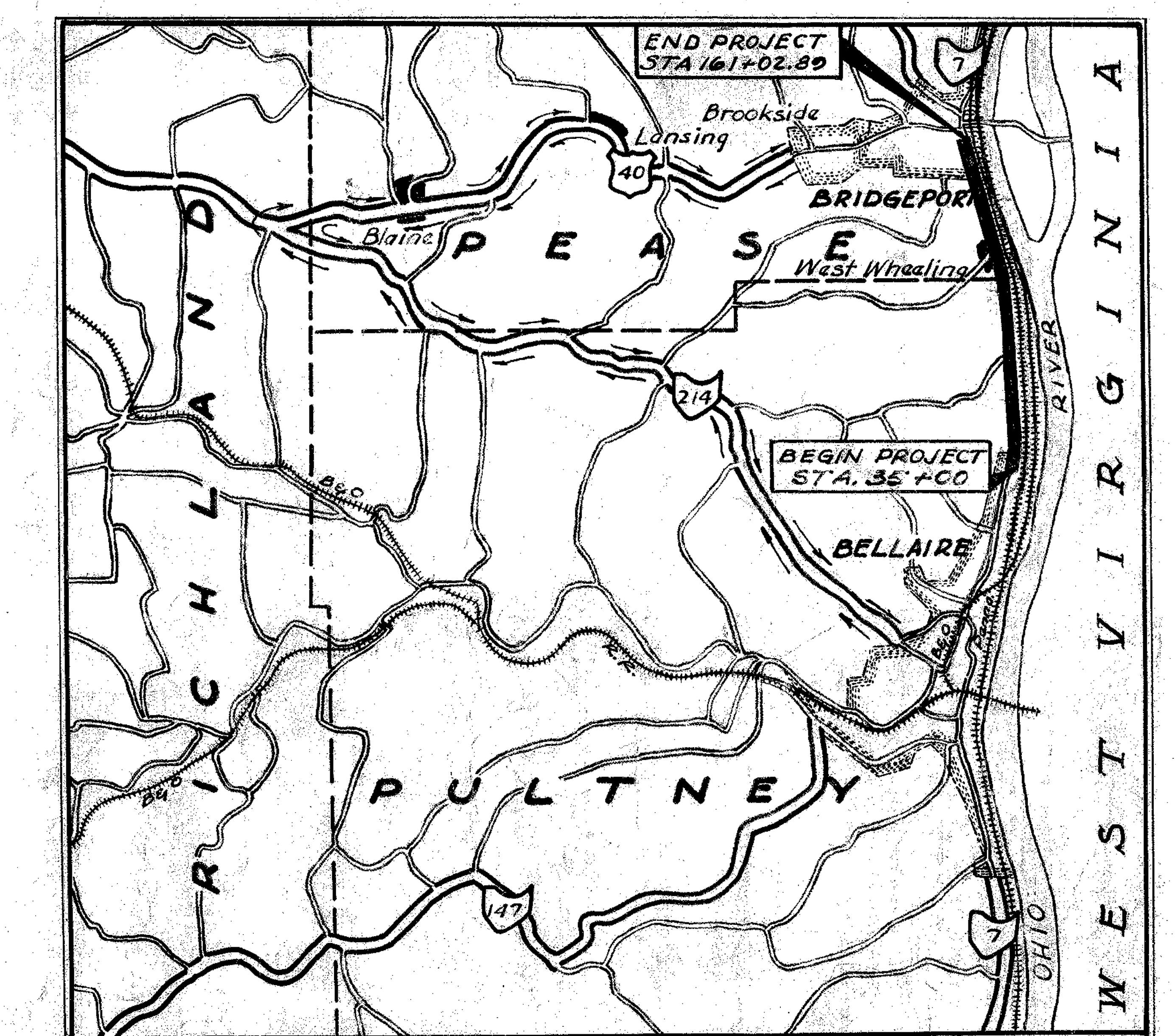
BEGIN F - 534 (8) BRIDGEPORT MUNICIPAL — STA 142+05.50
END F - 534 (8) BRIDGEPORT MUNICIPAL & PROJECT STA 161+02.89
NET LENGTH F - 534 (8) BRIDGEPORT MUNICIPAL = 1897.39 LIN. FT. OR 0.359 MI.

TOTAL LENGTH OF PROJECT F - 534(8) = 12,602.89 LIN. FT. OR 2.386 MI.

LENGTH OF WORK ON S.R. 7 — 12,893.22 LIN. FT.
APPROACH RIGHT, STA. 42+67.50 — 3,468.70 LIN. FT.
APPROACH LEFT, STA 42+67.50 — 1,150.30 LIN. FT.
APPROACH LT. STA. 62 TO STA 64 — 525.00 LIN. FT.
APPROACH LEFT, STA 83+50 — 836.31 LIN. FT.
APPROACH LEFT, STA 115+50 — 511.00 LIN. FT.

TOTAL LENGTH OF WORK — 19,384.53 LIN. FT. OR 3.671 MILES

FILE Nº BEL-7-(17.71 - 20.14)
DATE OF LETTING
CONTRACT Nº



AVERAGE HAUL FROM SIDING 2.5 MILES
DELIVERY POINT - BRIDGEPORT, O.

LOCATION PLAN
Scale 1" = 1 Mile

PORTION TO BE IMPROVED
FEDERAL HIGHWAYS
STATE HIGHWAYS
OTHER ROADS
DETOUR

SCALES

PLAN	1" = 50'
PROFILE (Horizontal)	1" = 50'
PROFILE (Vertical)	1" = 5'
CROSS SECTIONS	1" = 10'

* Accepted; ** Submitted to B.P.R. for Approval

STANDARD DRAWINGS							
* G.-7.07	1-2-53	LBC-45 SHEET 1	9-18-47	*I-8CB Nº3-A	5-1-52	L-3	4-1-50
* RI-1	6-1-53	LBC-45 SHEET 2	9-18-47	*I-8CB Nº7	5-1-52	L-3-A	4-1-50
*B-T-50-70-71E No.1	10-1-47	*S-27 P.C.1	5-1-52	*I-8 M.H. Nº1	5-1-52	**S-27 P.C.4	1-4-54
*B-T-71R	3-2-53	S-27 P.C.2	3-15-48	** I-12	7-1-54	**I-8 MH No.1-A	6-1-54
*L.J. Nº1	3-2-53	S-27 P.C.3	2-20-45	* I-14G	1-22-52		
*T.J. Nº1	3-2-53	I-1, 2, 3, 4 & 5	2-20-45	*I-15 Nº1	2-2-53		
*T.J. Nº2	3-2-53	*I-8CB 1-2-A&B	5-1-52	*I-15 Nº2	2-2-53		
*T.J. Nº3	3-2-53	*I-8CB 2-2-A&B	5-1-52	I-15 Nº3	2-1-47		
		*I-8CB 1-3 & 1-4	5-1-52	* I-21	1-2-51		
R.W.-45	9-18-47	*I-8CB 2-3 & 2-4	5-1-52	L-1	4-1-50		

SUPPLEMENTAL SPECIFICATIONS	
30 5-28-48	
10 Rev. 3-19-54	
CE-107 5-21-53	
T-171.19 Rev. 3-19-53	
M-101.7 1-24-53	

The Standard Specifications of The State of Ohio, Department of Highways, including changes and Supplemental Specifications listed in the proposal, shall govern this improvement.

I hereby approve these plans and declare that the making of this improvement will require the part time closing to traffic of the highway, as noted on Sheet 6, and that detours will be provided as indicated on the plans. Additional provisions for the maintenance and safety of traffic will be as set forth on the plans and estimates.

The right of way for this improvement will be provided by The State of Ohio.

Approved
Date 1-28-54 — Division Deputy Director

Approved John J. Heier
Date 7-20-54 — Deputy Director of Planning and Programming

Approved
Date — Engineer of Bridges

Approved
Date — Engineer of Location & Design

Approved
Date — Deputy Director of Design and Construction

Approved
Date 7-20-54 — First Assistant Director

Approved
Date 7/21/54 — Director of Highways

Approved
Date — Chief Engineer, Pennsylvania Railroad Co.

Approved
Date — Chief Engineer, Baltimore & Ohio Railroad Co.

CONSTRUCTION BUREAU MAR 6 1959 GROUND PHOTOGRAPHS

Reviewed and Approved
Date 5-11-54 — Engineer of Traffic and Safety

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED: ______

DISTRICT ENGINEER — DATE

CURVE TABLES

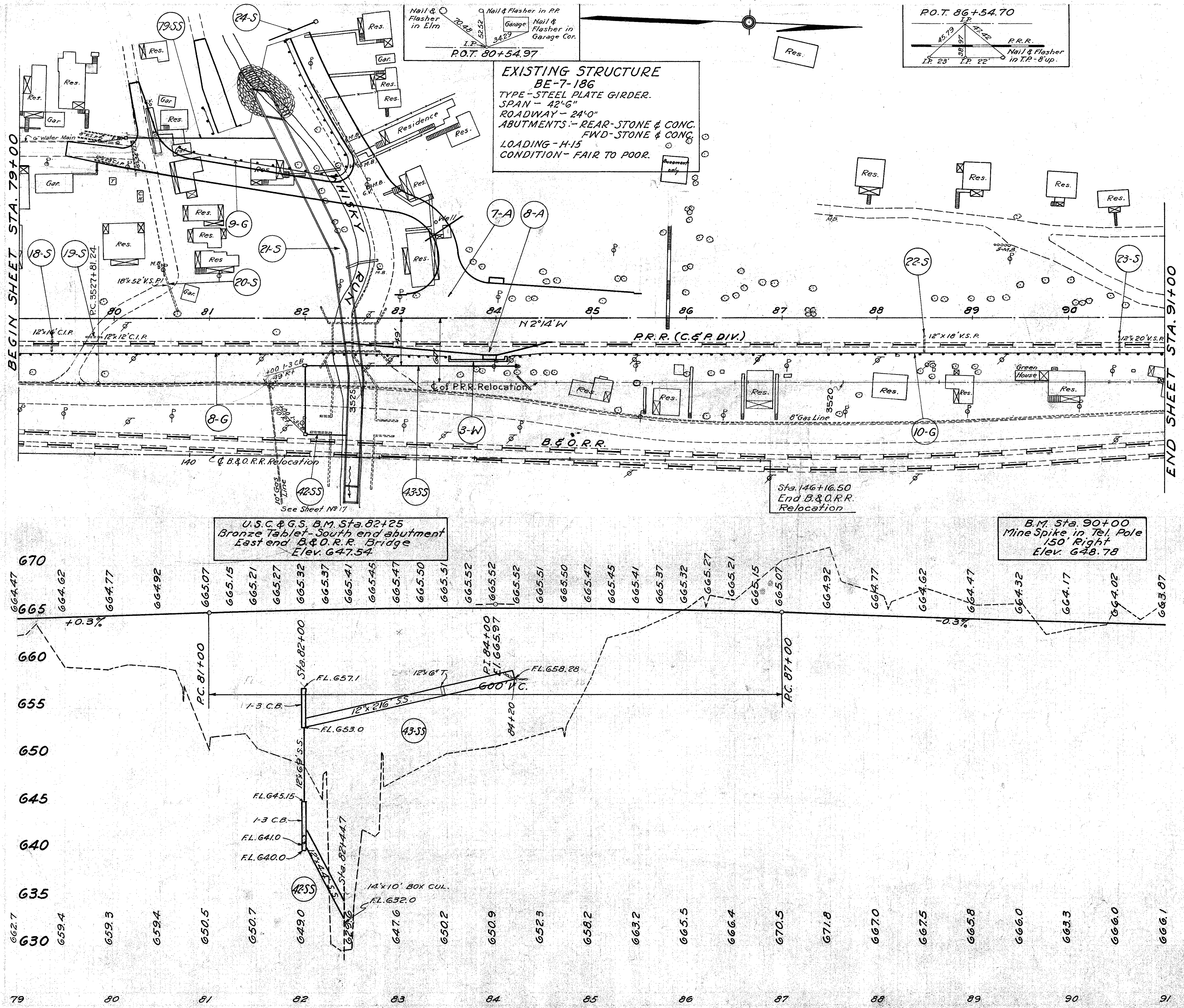
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

BEL.-7-(17.71-20.14)

BEGIN TRANSITION STA. 43+00		COMPOUND CURVE D = 0°-20' LT. D = 0°-48' LT.		P.C.C. 59+40.75 P.T. 76+90.75	
Left Edge Left Pair Lanes	℄ Left Pair Lanes	STATION	Profile Grade	℄ Right Pair Lanes	Right Edge Right Pair Lanes
662.67	662.86	43+00	663.05	662.86	662.67
662.45	662.64	+25	662.83	662.69	662.54
662.29	662.48	+48	662.67	662.60	662.52
662.28	662.47	+50	662.66	662.59	662.53
662.17	662.36	+75	662.55	662.58	662.60
662.12	662.31	+94	662.50	662.57	662.66
662.10	662.29	44+00	662.48	662.59	662.69
662.10	662.29	+25	662.48	662.64	662.80
662.11	662.30	+34.33	662.49	662.66	662.83
662.14	662.33	+50	662.52	662.71	662.90
662.24	662.43	+84.33	662.62	662.81	663.00
662.29	662.48	45+00	662.67	662.86	663.05
662.39	662.58	+34.42	662.77	662.96	663.15
662.44	662.63	+50	662.82	663.01	663.20
662.52	662.71	+75	662.90	663.09	663.28
662.59	662.78	46+00	662.97	663.16	663.35
662.74	662.93	+50	663.12	663.31	663.50
662.82	663.01	+75	663.20	663.39	663.58
662.88	663.07	47+00	663.26	663.45	663.64
662.94	663.13	+25	663.32	663.51	663.70
662.99	663.18	+50	663.37	663.56	663.75
663.02	663.21	+65	663.40	663.59	663.78
663.04	663.23	+75	663.42	663.61	663.80
663.08	663.27	48+00	663.46	663.65	663.84
663.12	663.31	+25	663.50	663.69	663.88
663.14	663.33	+50	663.52	663.71	663.90
663.17	663.36	+75	663.55	663.74	663.93
663.18	663.37	49+00	663.56	663.75	663.94
663.19	663.38	+25	663.57	663.76	663.95
663.19	663.38	+50	663.57	663.76	663.95
663.19	663.38	+75	663.57	663.76	663.95
663.18	663.37	50+00	663.56	663.75	663.94
663.17	663.36	+25	663.55	663.74	663.93
663.14	663.33	+50	663.52	663.71	663.90
663.12	663.31	+75	663.50	663.69	663.88
663.08	663.27	51+00	663.46	663.65	663.84
663.04	663.23	+25	663.42	663.61	663.80
663.02	663.21	+35	663.40	663.59	663.78
662.99	663.18	+50	663.37	663.56	663.75
662.94	663.13	+75	663.32	663.51	663.70
662.88	663.07	52+00	663.26	663.45	663.64
662.82	663.01	+25	663.20	663.39	663.58
662.74	662.93	+50	663.12	663.31	663.50
662.67	662.86	+75	663.05	663.24	663.43
662.59	662.78	53+00	662.97	663.16	663.35
662.52	662.71	+25	662.90	663.09	663.28
662.44	662.63	+50	662.82	663.01	663.20
662.29	662.48	54+00	662.67	662.86	663.05
662.14	662.33	+50	662.52	662.71	662.90
661.99	662.18	55+00	662.37	662.56	662.75
661.92	662.11	+25	662.30	662.49	662.68
661.84	662.03	+50	662.22	662.41	662.60
661.69	661.88	56+00	662.07	662.26	662.45
661.62	661.81	+25	662.00	662.19	662.38
661.54	661.73	+50	661.92	662.11	662.30
661.47	661.66	+75	661.85	662.04	662.23
661.39	661.58	57+00	661.77	661.96	662.15
661.32	661.51	+25	661.70	661.89	662.08
661.24	661.43	+50	661.62	661.81	662.00
661.17	661.36	+75	661.55	661.74	661.93
661.16	661.35	+77	661.54	661.73	661.92
661.09	661.28	58+00	661.47	661.66	661.85
661.02	661.21	+25	661.40	661.59	661.78
660.92	661.12	+50	661.32	661.51	661.70
660.84	661.04	+75	661.25	661.46	661.66
660.73	660.95	59+00	661.17	661.41	661.65
660.60	660.85	+25	661.10	661.37	661.64
660.47	660.74	+50	661.02	661.31	661.61
660.34	660.64	+75	660.95	661.22	661.48
660.25	660.56	60+00	660.87	661.18	661.49

COMPOUND CURVE CONT'D					
Left Edge Left Pair Lanes	℄ Left Pair Lanes	STATION	Profile Grade	℄ Right Pair Lanes	Right Edge Right Pair Lanes
660.10	660.41	60+50	660.72	661.03	661.34
659.95	660.26	61+00	660.57	660.88	661.19
659.80	660.11	+50	660.42	660.73	661.04
659.73	660.04	+75	660.35	660.66	660.97
659.67	659.98	62+00	660.29	660.60	660.91
659.62	659.93	+25	660.24	660.55	660.86
659.58	659.89	+50	660.20	660.51	660.82
659.55	659.86	+75	660.17	660.48	660.79
659.52	659.83	63+00	660.14	660.45	660.76
659.51	659.82	+25	660.13	660.44	660.75
659.50	659.81	+50	660.12	660.43	660.74
659.51	659.82	+75	660.13	660.44	660.75
659.52	659.83	64+00	660.14	660.45	660.76
659.55	659.86	+25	660.17	660.48	660.79
659.58	659.89	+50	660.20	660.51	660.82
659.62	659.93	+75	660.24	660.55	660.86
659.66	659.97	+92	660.28	660.59	660.90
659.67	659.98	65+00	660.29	660.60	660.91
659.73	660.04	+25	660.35	660.66	660.97
659.80	660.11	+50	660.42	660.73	661.04
659.95	660.26	66+00	660.57	660.88	661.19
660.04	660.35	+30	660.66	660.97	661.28
660.10	660.41	+50	660.72	661.03	661.34
660.25	660.56	67+00	660.87	661.18	661.49
660.39	660.70	+45	661.01	661.32	661.63
660.40	660.71	+50	661.02	661.33	661.64
660.43	660.74	+58	661.05	661.36	661.67
660.55	660.86	68+00	661.17	661.48	661.79
660.56	660.87	+04	661.18	661.49	661.80
660.70	661.01	+50	661.32	661.63	661.94
660.85	661.16	69+00	661.47	661.78	662.09
661.00	661.31	+50	661.62	661.93	662.24
661.15	661.46	70+00	661.77	662.08	662.39
661.30	661.61	+50	661.92	662.23	662.54
661.45	661.76	71+00	662.07	662.38	662.69
661.60	661.91	+50	662.22	662.53	662.84
661.62	661.93	+55	662.24	662.55	662.86
661.75	662.06	72+00	662.37	662.68	662.99
661.90	662.21	+50	662.52	662.83	663.14
662.05	662.36	73+00	662.67	662.98	663.29
662.20	662.51	+50	662.82	663.13	663.44
662.35	662.66	74+00	662.97	663.28	663.59
662.50	662.81	+50	663.12	663.43	663.74
662.65	662.96	75+00	663.27	663.58	663.89
662.80	663.11	+50	663.42	663.73	664.04
662.95	663.26	76+00	663.57	663.88	664.19
663.05	663.35	+25	663.65	663.96	664.27
663.13	663.43	+50	663.72	663.98	664.25
663.26	663.53	+75	663.80	663.97	664.15
663.40	663.64	77+00	663.87	663.94	664.00
663.51	663.73	+25	663.95	663.90	663.85
663.61	663.81	+50	664.02	663.88	663.73
663.72	663.91	+75	664.10	663.91	663.72

P.C. 96+07.77		D=1°00' LT.		P.T. 114+13.60	
Left Edge Left Pair Lanes	℄ Left Pair Lanes	STATION	Profile Grade	℄ Right Pair Lanes	Right Edge Right Pair Lanes
662.89	663.08	93+00	663.27	663.08	662.89
662.82	663.01	+25	663.20	663.01	662.82
662.74	662.93	+50	663.12	662.93	662.74
662.66	662.86	+75	663.05	662.84	662.68
662.59	662.78	94+00	662.97	662.80	662.63
662.51	662.70	+25	662.90	662.75	662.60
662.43	662.62	+50	662.82	662.71	662.60
662.36	662.55	+75	662.75	662.68	662.61
662.29	662.48	95+00	662.67	662.66	662.65
662.20	662.40	+25	662.60	662.65	662.70
662.10	662.32	+50	662.52	662.64	662.75
661.99	662.22	+75	662.45	662.63	662.80
661.86	662.11	96+00	662.37	662.61	662.85
661.81	662.08	P.C. +07.77	662.35	662.61	662.87
661.70	662.00	+25	662.30	662.60	662.90
661.53	661.87	+50	662.22	662.57	662.91
661.40	661.78	+75	662.15	662.54	662.90
661.31	661.69	97+00	662.07	662.46	662.84
661.23	661.61	+25	662.00	662.39	662.77
661.15	661.53	+50	661.92	662.31	662.69
661.10	661.48	+75	661.85	662.24	662.62
661.00	661.38	98+00	661.77	662.16	662.54
660.93	661.31	+25	661.70	662.09	662.47
660.85	661.23	+50	661.62	662.01	662.39
660.78	661.16	+75	661.55	661.94	662.32
660.72	661.10	99+00	661.49	661.88	662.26
660.67	661.05	+25	661.44	661.83	662.21
660.63	661.01	+50	661.40	661.79	662.17
660.60	660.98	+75	661.37	661.76	662.14
660.57	660.95	100+00	661.34	661.73	662.11
660.56	660.94	+25	661.33	661.72	662.10
660.55	660.93	+50	661.32	661.71	662.09
660.56	660.94	+75	661.33	661.72	662.10
660.57	660.95	101+00	661.34	661.73	662.11
660.60	660.98	+25	661.37	661.76	662.14
660.63	661.01	+50	661.40	661.79	662.17
660.67	661.05	+75	661.44	661.83	662.21
660.72	661.10	102+00	661.49	661.88	662.26
660.78	661.16	+25	661.55	661.94	662.32
660.85	661.23	+50	661.62	662.01	662.39
660.93	661.31	+75	661.70	662.09	662.47
661.00	661.38	103+00	661.77	662.16	662.54
661.08	661.46	+25	661.85	662.24	662.62
661.15	661.53	+50	661.92	662.31	662.69
661.23	661.61	+75	662.00	662.39	662.77
661.30	661.68	104+00	662.07	662.46	662.84
661.38	661.76	+25	662.15	662.54	662.92
661.45	661.83	+50	662.22	662.61	662.99
661.53	661.91	+75	662.30	662.69	663.07
661.60	661.98	105+00	662.37	662.76	663.14
661.68	662.06	+25	662.45	662.84	663.22
661.75	662.13	+50	662.52	662.91	663.29
661.83	662.21	+75	662.60	662.99	663.37
661.90	662.28	106+00	662.67	663.06	663.44
661.98	662.36	+25	662.75	663.14	663.52
662.05	662.43	+50	662.82	663.21	663.59
662.13	662.51	+75	662.90	663.29	663.67
662.20	662.58	107+00	662.97	663.36	663.74
662.28	662.66	+25	663.05	663.44	663.82
662.35	662.73	+50	663.12	663.51	663.89
662.43	662.81	+75	663.20	663.59	663.97
662.50	662.88	108+00	663.27	663.66	664.04



STRUCTURES - 20' SPAN & UNDER

Ref. Nº	Station	See Sheet	Removals Type	Removals Size	Removals Length	New Work Type	New Work Size	New Work Length
18-S	79+35	117	C.I.P.	12"	16'			
19-S	79+80	17	C.I.P.	12"	12'			
20-S	80+65	17	V.S.P.	18"	52'			
21-S	82+45.67	124-127				Conc. Box	14'x 10	453
22-S	88+50	17	V.S.P.	12"	18'			
23-S	90+53	17	V.S.P.	12"	20'			
24-S	3+00 Apr.	128				Pipe	15"	53

APPROACHES

Ref. Nº	Station From	Station To	Side	See Sheet	I-17 Aggr. Cu.Yds.	9"T-71 Conc. Sq.Yds.	Type 2-A C.Curb Lin.Ft.	4" Conc. Sidewalk Sq.Ft.	Pipe Removed Lin. Ft. Store 12"	Pipe Removed Lin. Ft. Dispose 15"	Drive Pipe Lin. Ft. 12"
7-A	83+50		Lt.	88-92	300	324	259	75	23	34	47
8-A	83+50		Rt.	102		165	202	75			
Sheet Totals					300	489	461	150	23	34	47

STORM SEWERS

Ref. Nº	Station From	Station To	Side	See Sheet	Pipe 12"	Pipe 8"	Outlet 18"	R.R. Strength 12"			Under Pavt. 18"		Catch Basins Each 1-3	Catch Basins Each 1-2A	Rip-rap Sq.Yds.	Pipe Spec. Each 12"x6"T	Pipe Spec. Each 18"x 22°30' Bend
42-SS	82+00	82+44.7	Rt.	117	44			69					1				
43-SS	82+00	84+20	Rt.	17	216								1		3	1	
79-SS	0+73	Appr.		89		34	126				30			1			1
Sheet Totals					260	34	126	69			30		2	1	3	1	1

GUARD RAIL

Ref. Nº	Station From	Station To	Side	See Sheet	Lin. Ft. Rdwy	Lin. Ft. Appr.
8-G	79+00	83+55	Rt.	17	454.88	
9-G	1+16 Ap.A	2+78 Ap.B	L.& R.	88		352
10-G	84+20	91+00	Rt.	17	680.0	
Sheet Totals					1134.88	352

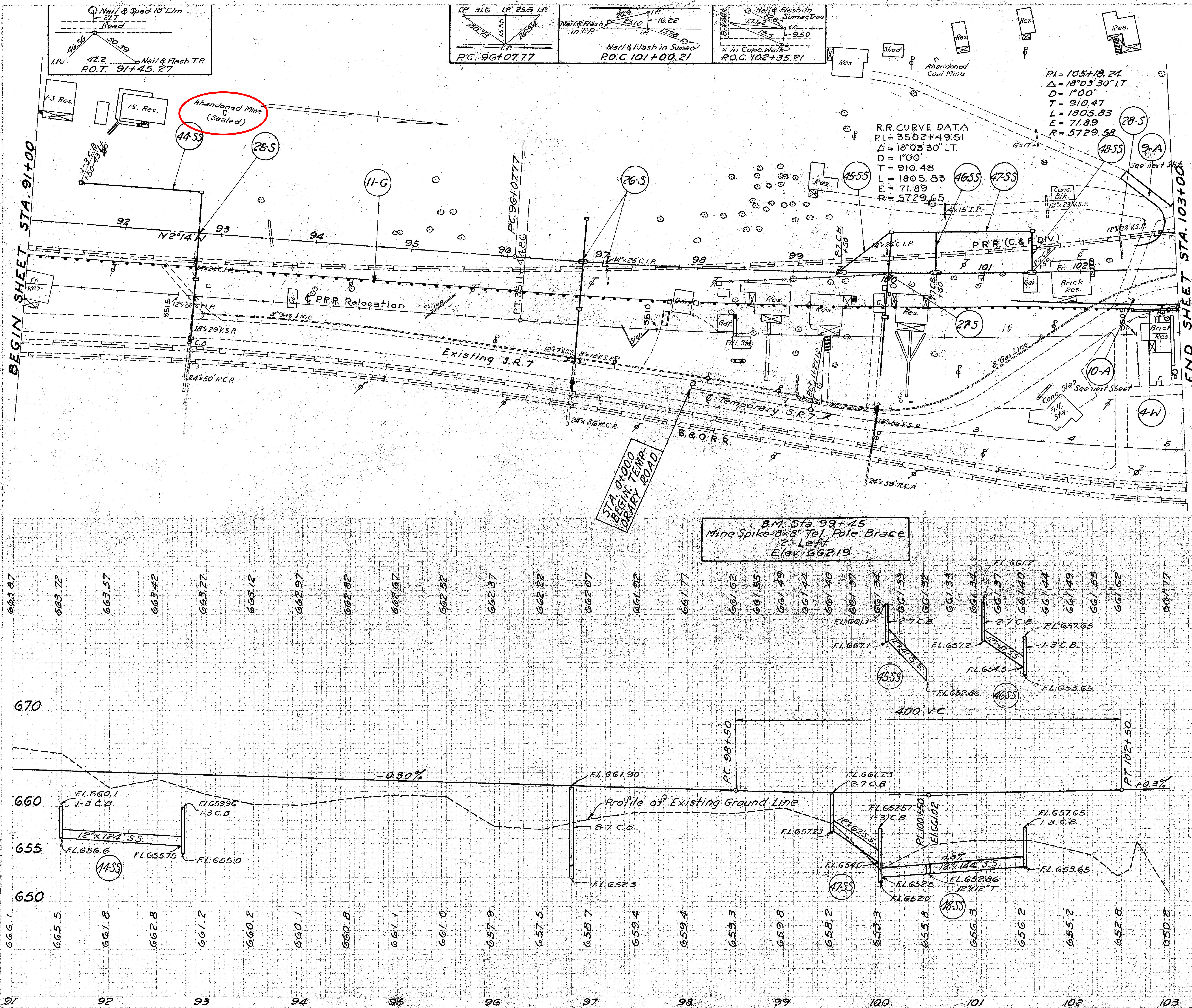
WALLS

Ref. Nº	Station From	Station To	Side	See Sheet
3-W	83+56	84+19	Rt.	102-103

REMOVALS

Station From	Station To	Pavement Sq.Yds.
79+00	91+00	2667
Sheet Totals		2667

PLAN & PROFILE STA. 79+00 TO STA. 91+00



STRUCTURES ~ 20' SPAN & UNDER

Ref. Nº	Station	See Sheet	Removals			New Work		
			Type	Size	Length	Type	Size	Length
25-S	92+76.9	129	C.I.P.	24"	24'	Pipe	21"	150'
25-S	92+76.9	129	C.M.P. V.S.P.	12" 18"	22' 29'	Pipe	24"	3'
26-S	96+79.8	130	C.I.P. V.S.P.	14" 18"	25' 10'	Pipe	18"	136'
26-S	96+79.8	130	V.S.P.	8" 12"	13' 7'	Pipe	24"	15'
27-S	100+00	131	C.I.P. V.S.P.	14" 18"	24' 49'	Pipe	24"	204'
28-S	102+45	18	V.S.P.	12"	28'			

STORM SEWERS

Ref. Nº	Station From	Station To	Side	See Sheet	Pipe Lin. Ft. Pipe 12"		Pipe Lin. Ft. Under Pvt. 12"		Catch Basins Each 1-3	Catch Basins Each 2-7		Pipe Spec. Each 12"x12"T
44-SS	91+50	92+76	Lt.	18	124				1			
45-SS	99+50	100+03	Lt.	18			67			1		
46-SS	100+50			18			41			1		
47-SS	100+03	101+50	Lt.	18	144				1			1
48-SS	101+50			18			41			1		
Sheet Totals					268		149		2	3		1

GUARD RAIL

Ref. Nº	Station From	Station To	Side	See Sheet	Roadway Lin. Ft.
11-G	91+00	102+54.1	Rt	18	1157.50
Sheet Totals					1157.50

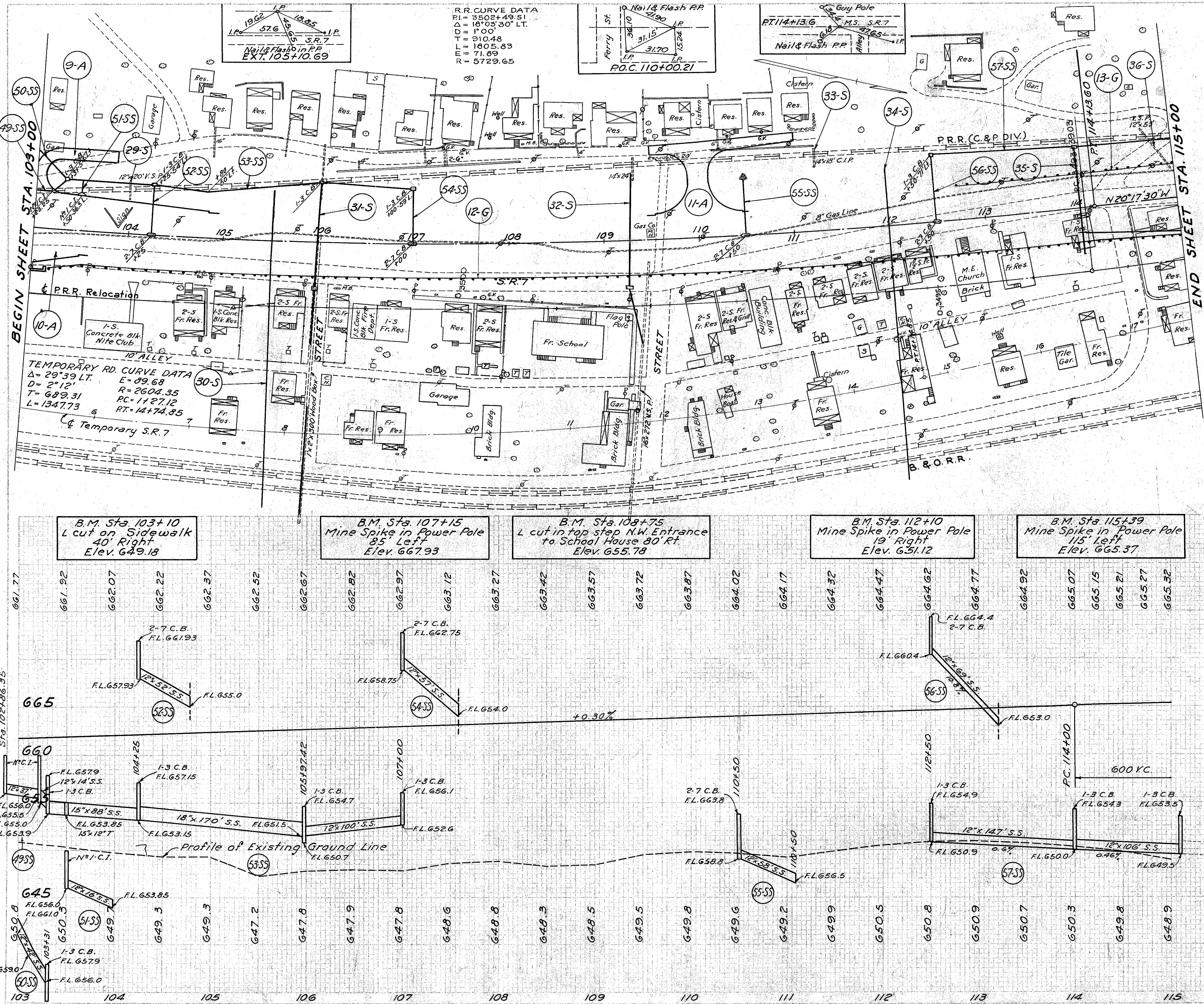
WALLS

Ref Nº	Station From	Station To	Side	See Sheet
4-W	102+54.79	103+17.62	Rt	103-104

REMOVALS

Station From	Station To	Pavement Sq. Yds.
91+00	103+00	2765
Sheet Totals		2765

BEL-7 (17.71 - 20.14)



STRUCTURES - 20' SPAN & UNDER

Ref. Nº	Station	See Sheet	Removals			New Work		
			Type	Size	Length	Type	Size	Length
29-S	104+00	19	V.S.P.	12"	20'			
30-S	105+50	132				C.I.P.	3"	334'
31-S	105+97.42	133	V.S.P. C.I.P.	12" 14"	12' 25'	Pipe	21" 24"	162 113
32-S	109+27.12	134	V.S.P. C.I.P.	18" 14"	83' 22'			
32-S	109+27.12	134	V.S.P.	8" 10"	35' 21'	Pipe	18"	174
33-S	111+20	19	C.I.P.	14"	18'			
34-S	112+00	132				C.I.P.	3"	332
35-S	114+00	19				Pipe	12"	108
36-S	114+80	19	V.S.P.	12"	53'			

APPROACHES

Ref Nº	Station	Side	See Sheet	I-17 Aggr. Cu.Yds.	9"T-71 C. Pav't. Sq.Yds.	Type 2-A C.Curb Lin.Ft.	4" Conc. Sidewalk Sq.Ft.	Drive Pipe L.F. 12"		Pipe Remove & Dispose Lin.Ft.(12")
9-A	103+00	Lt.	93	30	232	213	75			
10-A	103+00	Rt.	93		165	202	75			
11-A	110+00	Lt.	94	45	151	108				20
Sheet Totals				75	548	523	150			20

STORM SEWERS

Ref Nº	Station From	Station To	Side	See Sheet	Pipe - Lin. Ft. Pipe 12"	15"	18"		Und. Pvt. 12"		Catch Basins Each 1-3	2-7	1-C.I.		Pipe Spec. Each 15"x12"T	Rip-rap Sq.Yds.
49-SS	102+86.35	103+23.25	Lt.	19					51				2			
50-SS	103+00	103+31	Lt.	19					42							5
51-SS	103+50		Lt.	19					16				1			
52-SS	104+25			19					52			1				
53-SS	103+31	107+00	Lt.	19	100	88	170				3				1	
54-SS	107+00			19					57			1				
55-SS	110+50			19					58			1				5
56-SS	112+50			19					69			1				
57-SS	112+50	115+09	Lt.	19	253						2					
Sheet Totals					353	88	170		345		5	4	3		1	10

GUARD RAIL

Ref Nº	Station From	Station To	Side	See Sheet	Roadway Lin.Ft.
12-G	103+18.2	114+99	Rt	19	1187.50
13-G	112+74.12	5+30 Appr	Lt	19	287.50
Sheet Totals					1475.00

REMOVALS

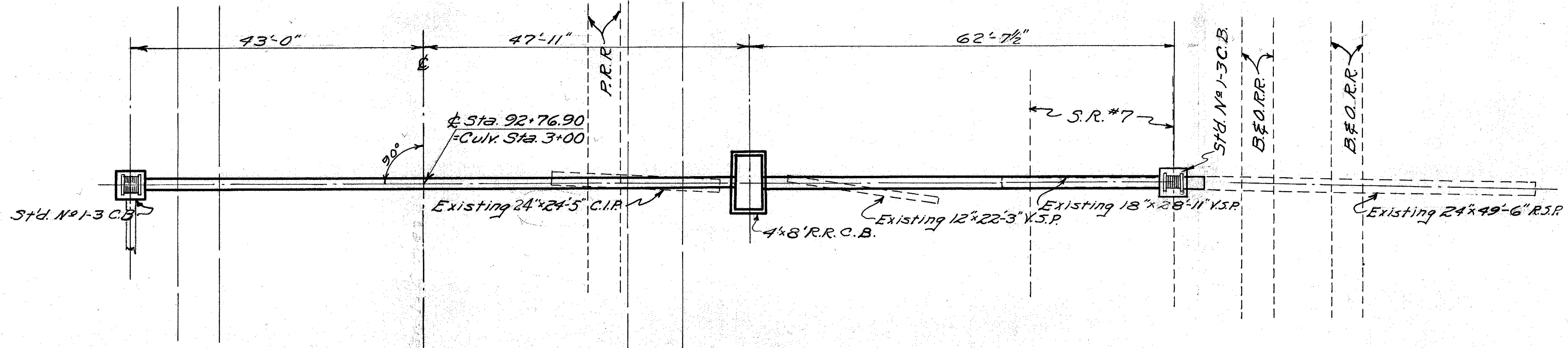
Station From	Station To	Pavement Sq.Yds.
103+00	115+00	2678
Sheet Total		2678

PLAN & PROFILE STA. 103+00 TO STA. 115+00

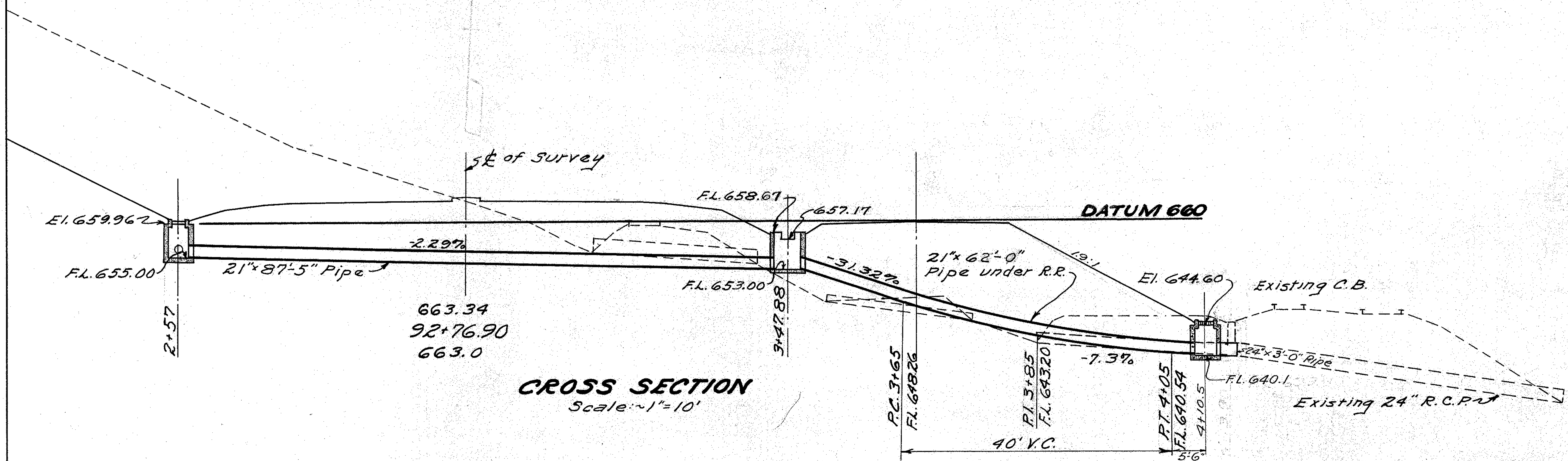
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

129
164

BEL-7-(17.71-20.14)



PLAN
Scale:~1"=10'



CROSS SECTION
Scale:~1"=10'

STRUCTURE DATA

TYPE:~ Std. Pipe Culvert
SIZE:~ 21"x149'-5" & 24"x3'-0"
WORK REQ'D:~ Remove existing 12"x22' V.S.P., 24"x24' C.I.P. and 18"x29' V.S.P. Build 87'-5" Std. Pipe Culvert with Std. Nº 1-3 Catch Basin at inlet and 4'x8' R.R.C.B. at outlet. Build 21"x62'-0" pipe culvert (R.R. strength) under P.R.R. with Std. Nº 1-3 Catch Basin at outlet and connecting inlet to 4'x8' R.R.C.B. Connect existing 24" R.R. Culvert to Nº 1-3 C.B with 24"x3'-0" pipe extension.

REFERENCE DRAWINGS

Pipe Culverts	S.27, P.C. 2&3
Catch Basins	I-8, C.B. Nº 1-3

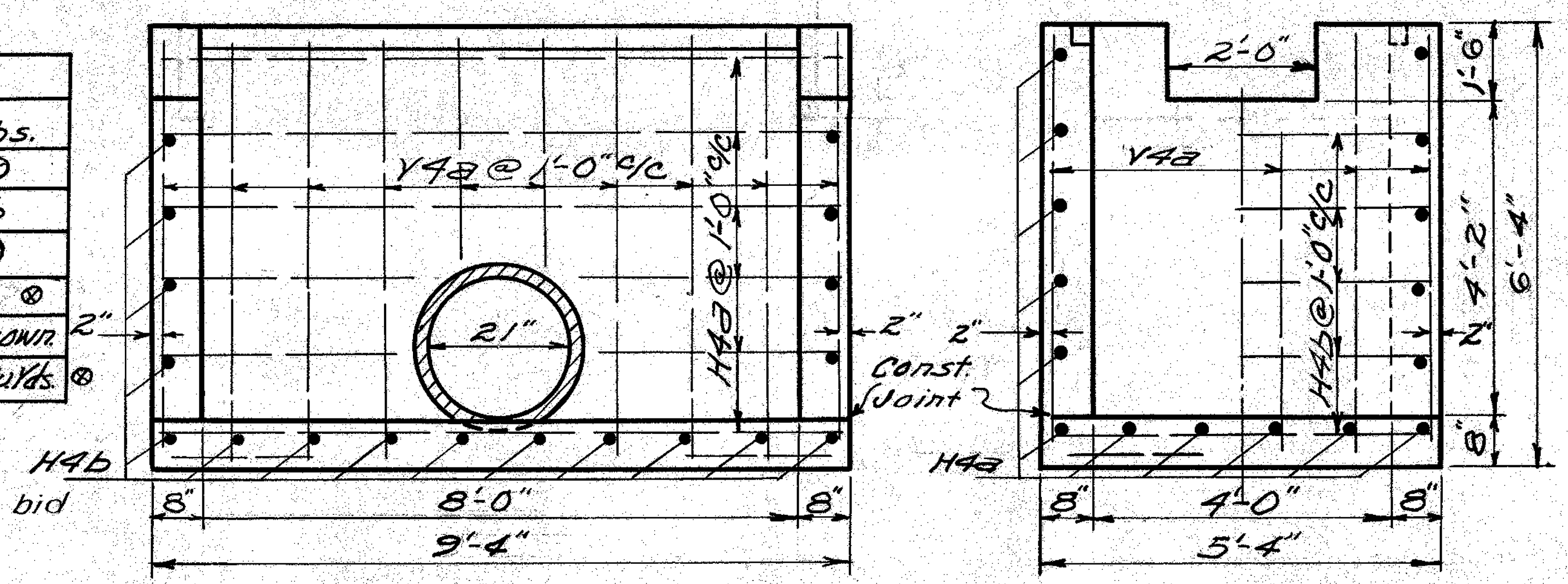
ESTIMATED QUANTITIES

E-2, Structure Excavation	77 Cu. Yds.
S-27, 21" Pipe for Roadway Culverts	88 Lin. Ft.
S-27, 21" Pipe for Culverts (Railroad Strength)	62 Lin. Ft.
S-27, 24" Pipe for Culverts (Railroad Strength)	3 Lin. Ft.
I-8 Nº 4-8 R.R. Catch Basins as per plan.	1 Each
I-8 Std. Nº 1-3 Catch Basins	2 Each
E-12, 12" Pipe Removed and Disposed of	22 Lin. Ft.
E-12, 24" Pipe Removed and Stored	24 Lin. Ft.
E-12, 18" Pipe Removed and Disposed of	29 Lin. Ft.

STEEL LIST

Mark	Bar Nº	Nº	Length	Shape	Wt. Lbs.
V4a	4	28	7'-11"	Bent	149
H4a	4	16	9'-0"	Str't.	96
H4b	4	18	5'-0"	Str't.	60
				Total	305 ⊗
Bars bent and cut in field as shown					
Volume of Concrete (Class "C") 5.0 Cu.Yds. ⊗					

⊗ Note: These quantities included in price bid per each Nº 4x8 R.R.C.B.



DETAIL OF 4'x8' RAILROAD CATCH BASIN
NOTE:~ Casting for Catch Basin to be furnished by Penna R.R. Co.

Scale: 1"=2'

STA. 92+76.90
21"x62'-0" PIPE CULVERT (R.R.)
21"x88'-0" PIPE CULVERT
24"x3'-0" PIPE EXT.

25-S

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
BEL-7-17.99
VILLAGE OF BRIDGEPORT
PULTNEY & PEASE TOWNSHIPS
BELMONT COUNTY

DESIGN DESIGNATION

CURRENT YEAR (1996) ADT --------15,240
DESIGN YEAR (2006) ADT_________17,520
DHV (2006)------------------------1,752
D _______________________________55%
T _______________________________5.0%
DESIGN SPEED___________________55 MPH
LEGAL SPEED LIMIT____________ 55 MPH
FUNCTIONAL CLASSIFICATION--ARTERIAL (RURAL AND URBAN)

DESIGN EXCEPTIONS	APPROVAL DATE
GRADED SHOULDER WIDTH	5/25/93
STOPPING SIGHT DISTANCE	5/25/93
VERTICAL ALIGNMENT	5/25/93

CONVENTIONAL SIGNS

COUNTY LINE
TOWNSHIP LINE
SECTION LINE
CORPORATION LINE OR
FENCE (EXISTING) —X—X—
(PROPOSED) —X—X—
CENTERLINE
TREES STUMPS
(TO BE REMOVED)
UTILITY POLES:
TELEPHONE POWER LIGHT

LIMITED ACCESS (ONLY) — L/A —
RIGHT OF WAY (ONLY) — R/W —
LIMITED ACCESS & RIGHT OF WAY — L/A & R/W —
EXISTING RIGHT OF WAY — R/W —
PROPERTY LINE — ℞ —
EXISTING FENCE —X— ℞ —X—
RAILROAD OR
GUARDRAIL (EXISTING)
(PROPOSED)

SHEET INDEX

TITLE SHEET------------------------------------1
SCHEMATIC---------------------------------------2-3
TYPICAL SECTIONS-------------------------------4-8
CALCULATIONS------------------------------------9-15
GENERAL AND MAINTENANCE OF TRAFFIC NOTES--16-19,19A
GENERAL SUMMARY----------------------------- 20-21
PLAN SHEETS-------------------------------------22-29
CONCRETE BARRIER DETAILS------------------ 30-31
MEDIAN DRAINAGE DETAILS AND QUANTITIES------ 32-33
MISCELLANEOUS DETAILS---------------------- 34-37
TRAFFIC CONTROL QUANTITIES-----------------38,39,39A-C,40
TRAFFIC CONTROL PLAN------------------------41-48
STRUCTURES, 20' SPAN & OVER------------------49-52
LIGHTING GENERAL NOTES ------------------- 53
LIGHTING GENERAL SUMMARY ----------------- 54
LIGHTING QUANTITIES SUB-SUMMARY ----------- 55
LIGHTING PLAN -------------------------------- 56
LIGHTING DETAILS ---------------------------57

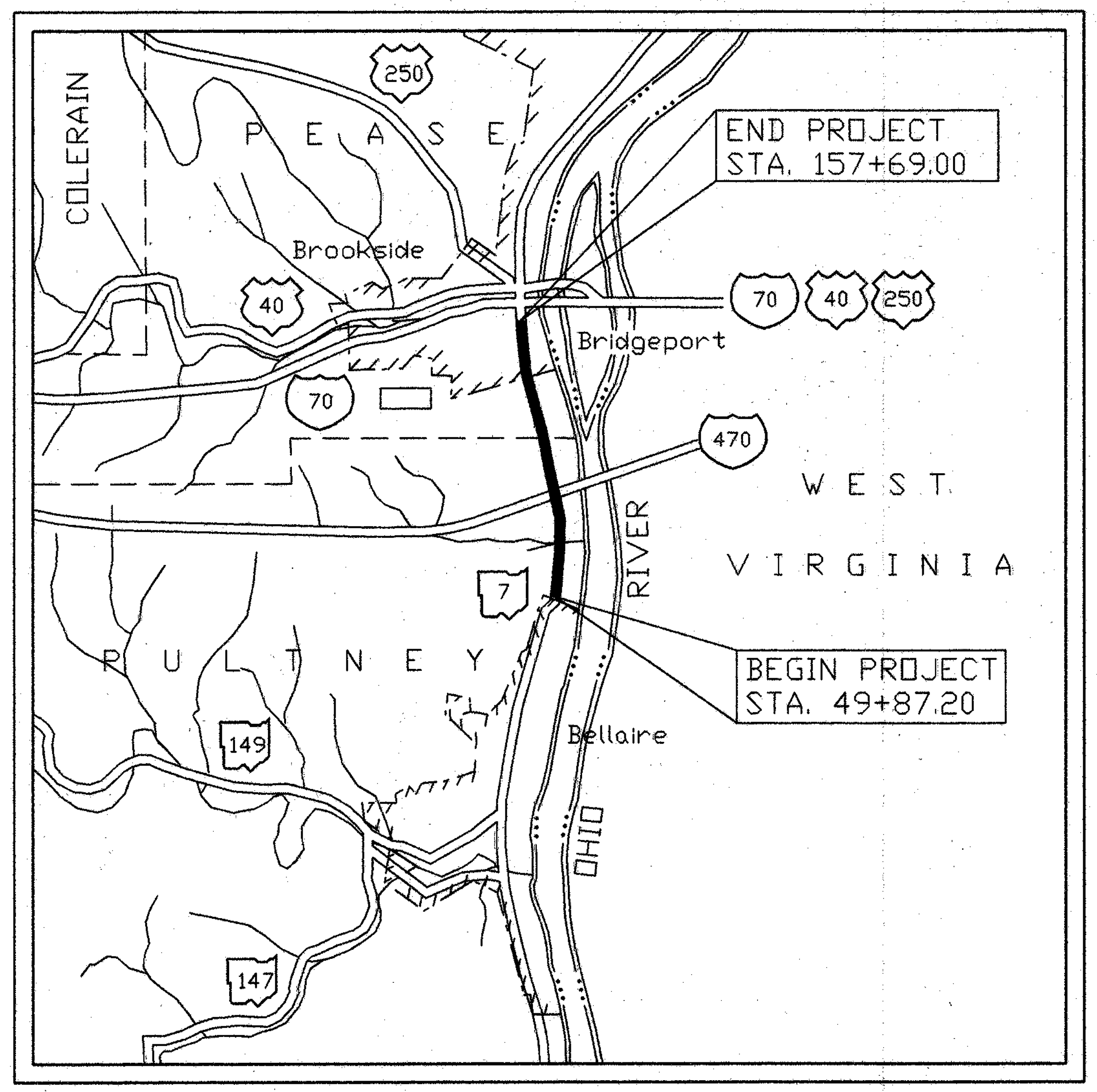
LINE DATA

BEGIN PROJECT = STA. 49+87.20
END PROJECT = STA. 157+69.00
TOTAL PROJECT LENGTH = 10,781.80 LIN. FT. OR 2.04 MILES.

ADD FOR WORK:
STA. 43+00.00 TO STA. 49+87.20 = 687.20 LIN. FT.
STA. 157+69.00 TO STA. 169+12.75 =1143.75 LIN. FT.

NET LENGTH OF WORK = **12612.75** LIN. FT. OR **2.39** MILES.

PROJECT: BEL-7-17.99 BELMONT COUNTY
DATE OF LETTING____________ 19___, CONTRACT NO. _________



LOCATION MAP

SCALE IN MILES
0 1 2 3 4

PORTION TO BE IMPROVED__________
STATE & FEDERAL ROUTES__________
OTHER ROADS ____________________

SCALES

PLAN________________________ 0' 50' 100'

LIMITED ACCESS

This improvement is especially designed for through traffic and has been declared a limited access highway or freeway by action of the Director in accordance with the provisions of Section 5511.02 of the Revised Code of Ohio.

1995 SPECIFICATIONS

The standard specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal shall govern this improvement.

I hereby approve these plans and declare that the making of this improvement will not require the closing to traffic of the highway and that provisions for the maintenance and safety of traffic will be as set forth on the plans and estimates.

Approved ____John H. McClain____
Date 3-4-96 District Deputy Director of Transportation

Approved ____Jerry Wray____
Date 3/14/96 Director, Department of Transportation

"UNDER AUTHORITY OF SECTION 4511.21, DIVISION (1) OF THE REVISED CODE OF OHIO, THE REVISED PRIMA FACIE SPEED LIMITS AS INDICATED HEREIN ARE DETERMINED TO BE REASONABLE AND SAFE, AND ARE HEREBY ESTABLISHED FOR THE DURATION OF THIS PROJECT. THE PRIMA FACIE SPEED LIMIT OR LIMITS HEREBY ESTABLISHED SHALL BECOME EFFECTIVE WHEN APPROPRIATE SIGNS GIVING NOTICE THEREOF ARE ERECTED."

SUPPLEMENTAL SPECIFICATIONS		
802	3-23-95	
815	7-17-95	
820	6-14-95	
910	7-17-95	
931	7-17-95	
944	12-7-95	

PREPARED BY:
CENTRAL ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS
22700 ROYALTON ROAD
STRONGSVILLE, OH. 44136
(216) 238-9699

UNDERGROUND UTILITIES

2 WORKING DAYS
BEFORE YOU DIG
CALL 800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS

BP-5.1	10-28-94	GR-5.2	10-30-92	HL-50.11	5-1-87			TC-41.10	8-29-84
BP-3.1	2-21-92	GR-5.3	10-30-92	HL-50.21	5-1-87			TC-41.20	6-21-94
CB-2-3&2-4	5-1-79	GR-6	2-5-82	HL-60.11	5-1-87			TC-42.20	3-26-79
CB-5	**11-10-83**	GR-8.1	1-31-94	HL-60.12	5-1-87			TC-52.10	4-3-79
F-7	11-1-77			HL-60.31M	3-31-95			TC-52.20	4-3-79
GR-1.1	5-6-91	HL-10.11	5-1-87			MT-95.30	10-10-88		
GR-1.2	10-30-92	HL-10.12	5-1-87	I-2	12-18-84	MT-95.40	10-1-92		
GR-1.3	2-21-92	HL-10.13	5-1-87	I-3A&B	4-1-80	MT-98.13	6-24-93		
GR-2.1	5-6-91	HL-20.11	5-1-87	I-3C&D	4-1-80	MT-98.14	6-24-93		
GR-3.1	5-6-91	HL-20.13	5-1-87			MT-98.15	6-24-93	TC-71.10	9-10-91
GR-3.2	5-6-91	HL-20.31	5-1-87	MC-4	7-26-76	MT-99.10	11-14-86	TC-72.20	2-26-82
GR-3.5	1-31-94	HL-30.11	5-1-87	MC-6	1-30-84				
GR-4.2	5-6-91	HL-30.21	5-1-87	MC-9.2	5-6-91			**BR-1**	**12-15-94**
GR-4.3	2-21-92	HL-30.22	5-1-87	MC-9.3	10-30-92				
GR-4.4	2-21-92	HL-30.33	5-1-87	MC-11	8-1-78				
GR-5.1	10-30-92	HL-40.10	5-1-87						

STATE OF OHIO
CHAU S. CHAN
E-47185
REGISTERED PROFESSIONAL ENGINEER

Department of Transportation
Federal Highway Administration
Approved:
DIVISION ADMINISTRATOR DATE

BEL-7-17.99
960412
57PGS
06-12-96
DIST.11
BEL-7

F.H.W.A. REGION	STATE	PROJECT		
5	OHIO			24/57

BEL-7-17.99

FOR CATCH BASIN QUANTITIES SEE SHT. No. 15,32
FOR MEDIAN DRAINAGE QUANTITIES SEE SHT No. 32
FOR CONCRETE BARRIER QUANTITIES SEE SHT. No. 13
FOR TRAFFIC CONTROL QUANTITIES, SEE SHT No. 14,38,39,and 40
FOR GUARDRAILS QUANTITIES, SEE SHT. No. 14
FOR PIPE CLEANOUT QUANTITIES, SEE SHT. No. 15

07PLAN3Z

N

BENCH MARK

I.P. IN CONC. MON.
STA. 89+50.00, 35′ RT.

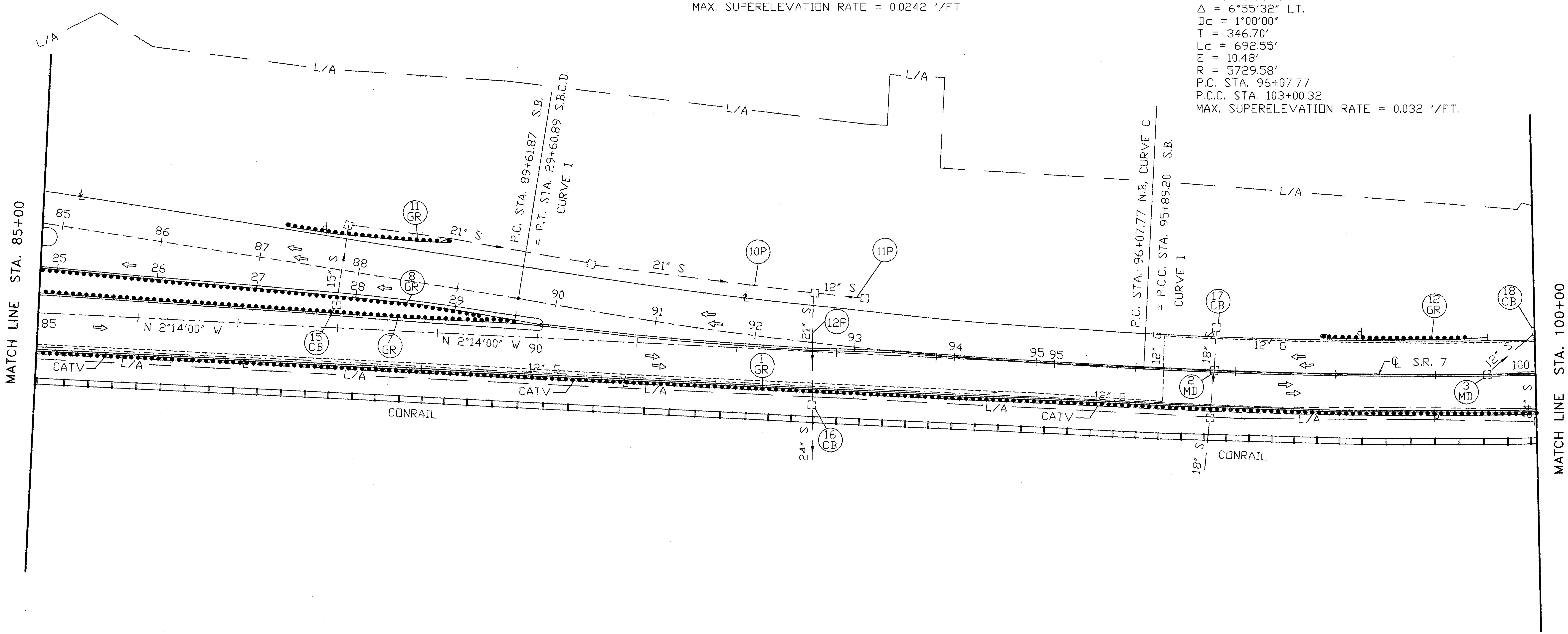
ELEV. 663.71

S.R. 7 CURVE I, SB ONLY

Δ = 6°16′24″
Dc = 1°00′00″
R = 5729.58′
L = 627.33′
T = 313.98′
E = 8.60′
P.C. STA. 89+61.87
P.C.C. STA. 95+89.20
MAX. SUPERELEVATION RATE = 0.0242 ′/FT.

S.R. 7 CURVE C

P.I. STA. 99+54.47
Δ = 6°55′32″ LT.
Dc = 1°00′00″
T = 346.70′
Lc = 692.55′
E = 10.48′
R = 5729.58′
P.C. STA. 96+07.77
P.C.C. STA. 103+00.32
MAX. SUPERELEVATION RATE = 0.032 ′/FT.



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F.H.W.A. REGION	STATE	PROJECT		
5	OHIO			

26
57

BEL-7-17.99

FOR CATCH BASIN QUANTITIES SEE SHT. No. 15,32
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FOR GUARDRAIL QUANTITIES SEE SHT. #14
FOR PIPE CLEANOUT QUANTITIES SEE SHT. #15

07PLAN5Z

STA. 100+00 TO STA. 115+00