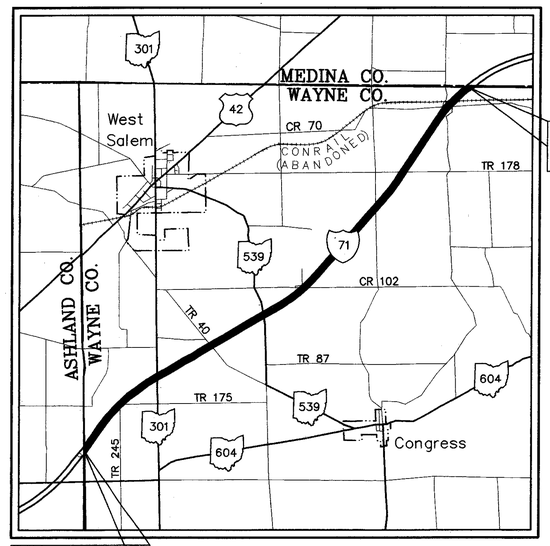
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
WAY-71-0.28
CONGRESS TOWNSHIP
WAYNE COUNTY



BEGIN PROJECT STA. 14+82.88

LOCATION MAP

LATITUDE: N40°57'07" LONGITUDE: W82°04'22"

SCALE IN MILES
0 1 2 3 4

PORTION TO BE IMPROVED
INTERSTATE & DIVIDED HIGHWAY
UNDIVIDED STATE & FEDERAL ROUTES
OTHER ROADS

DESIGN DESIGNATION

CURRENT ADT (2001)	45100
DESIGN YEAR ADT (2021)	62800
DESIGN HOURLY VOLUME (2021)	6910
DIRECTIONAL DISTRIBUTION	56%
TRUCKS (24 HOUR B&C)	26%
DESIGN SPEED	70 MPH
LEGAL SPEED	65 MPH

DESIGN FUNCTIONAL CLASSIFICATION – RURAL INTERSTATE

DESIGN EXCEPTIONS – NONE

INDEX OF SHEETS:

TITLE SHEET	1
SCHEMATIC PLAN & BENCHMARKS	2–6
TYPICAL SECTIONS	7–18
GENERAL NOTES	19–25
SOIL SCHEMATIC PLANS	26–27
MAINTENANCE OF TRAFFIC PLANS	28–99
GENERAL SUMMARY	100–103
SUBSUMMARIES	104–125
ROADWAY CALCULATIONS	126–130
SUPERELEVATION TABLES	131–134
STORM WATER POLLUTION PREVENTION PLANS	135–137
PLAN & PROFILE – I.R. 71	138–172
CROSS SECTIONS – I.R. 71	173–255
PLAN & PROFILE – C.R. 70	256
CROSS SECTIONS – C.R. 70	257–258
PLAN & PROFILE – RAMPS	259–271
RAMP PAVEMENT DETAILS	272–277
DRAINAGE DETAILS	278–287
UNDERDRAIN DETAILS	288–302
GUARDRAIL AND BARRIER DETAILS	303–307
REST AREA PLANS	308–327
RETAINING WALLS	328–343
TRAFFIC CONTROL PLANS	344–361, 361A, 362–377
LIGHTING PLANS	378–387
STRUCTURES OVER 20'	388–425
STRUCTURE DEMOLITION PLAN	426–431, 431A
RIGHT OF WAY	431B, 431C, 432

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF RECONSTRUCTION OF 6.82 MILES OF I–71 INCLUDING ADDING A THIRD LANE IN EACH DIRECTION IN THE EXISTING MEDIAN AREA; NEW GUARDRAIL; NEW OR RECONSTRUCTED DRAINAGE IN THE MEDIAN; RESURFACING OF THE RAMPS IN THE S.R. 301 & S.R. 539 INTERCHANGES; STRUCTURAL LINING OF A 12 FOOT DIAMETER C.M.P.A.; RECONSTRUCTION OF REST AREAS, AND INSTALLATION OF THE NECESSARY TRAFFIC CONTROL DEVICES. ALSO INCLUDED WILL BE THE RECONSTRUCTION OF STRUCTURE WAY–71–0672 L&R OVER CR 70, AND REMOVING AND FILLING STRUCTURE WAY–71–0696 OVER AN ABANDONED RAILROAD.

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 OHIO REVISED CODE.

1997 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 MAINLINE I.R. 71 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF THE TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

IMPROVEMENTS MADE IN THE AREA OF THE S.R. 301 AND S.R. 539 INTERCHANGES WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THESE RAMPS. IMPROVEMENTS IN THE AREA OF C.R. 70 WILL REQUIRE THE CLOSING TO TRAFFIC OF C.R. 70. DETOURS WILL BE PROVIDED AS INDICATED ON SHEET 33.

UNDER AUTHORITY OF SECTION 4511.21, DIVISION (H) OF THE OHIO REVISED CODE, 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.

APPROVED Thomas M. Deany
DATE 7-1-01 DISTRICT DEPUTY DIRECTOR

APPROVED Gordon Proctor
DATE 9-26-01 DIRECTOR, DEPARTMENT OF TRANSPORTATION

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS MUST BE CALLED DIRECTLY

PLAN PREPARED BY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE – WOOSTER, OHIO 44691
TELEPHONE : (330) 345-6556

STRUCTURE
STATE OF OHIO DARRELL B. COLLINS II E-37581 REGISTERED PROFESSIONAL ENGINEER
DARRELL B. COLLINS II 4/27/01 DATE

LIGHTING
STATE OF OHIO GERALD A. PETRIC E-40996 REGISTERED PROFESSIONAL ENGINEER
GERALD A. PETRIC 5/10/01 DATE

ROADWAY
STATE OF OHIO A. FREDERICK SELING JR. E-48722 REGISTERED PROFESSIONAL ENGINEER
A. FREDERICK SELING JR. 5/8/01 DATE

STANDARD CONSTRUCTION DRAWINGS

BP–1.1 07–28–00	DM–4.4 04–29–99	GR–5.2M 11–30–94	MT–35.10 04–20–01	TC–12.30 01–19–01	
BP–2.1 07–28–00	F–2.1 07–28–00	GR–6.1M 01–03–96	MT–95.30M 04–25–94	TC–21.20 01–19–01	
BP–2.2 07–28–00	F–3.1 07–28–00	GR–6.2M 01–03–96	MT–97.10M 04–25–94	TC–22.20 01–19–01	
BP–2.5 07–28–00	F–3.3 07–28–00	HL–10.11M 05–01–95	MT–98.12M 06–24–93	TC–41.10 01–19–01	
BP–3.1 07–28–00	F–3.4 07–28–00	HL–10.12M 05–01–95	MT–98.13M 06–24–93	TC–41.20 01–19–01	
BP–5.1 07–28–00	GR–1.1M 10–21–97	HL–10.13M 05–01–95	MT–98.14M 06–24–93	TC–41.40M 03–31–94	
BP–6.1 07–28–00	GR–1.2M 01–03–96	HL–20.11M 03–31–95	MT–98.15M 06–24–93	TC–42.10 01–19–01	
BP–8.1 07–28–00	GR–1.3M 11–30–94	HL–20.13M 01–31–97	MT–98.16M 06–24–93	TC–42.20 04–20–01	
BP–9.1 07–28–00	GR–2.1M 04–14–98	HL–30.11M 03–31–95	MT–98.17M 04–25–94	TC–52.10 04–20–01	
CB–2.2M 07–12–95	GR–2.2M 10–21–97	HL–30.21M 05–01–95	MT–98.18M 04–25–94	TC–52.20 04–20–01	
CB–2.3M 07–12–95	GR–3.1M 10–21–97	HL–30.33M 08–31–94	MT–99.20M 01–30–95	TC–61.10 01–19–01	
CB–3.1M 07–12–95	GR–3.2M 10–21–97	HL–50.11M 03–31–95	MT–101.60M 04–25–94	TC–65.10M 11–01–95	
CB–3.2M 07–12–95	GR–4.2M 10–21–97	HL–60.11M 05–01–95	MT–102.10M 01–30–95	TC–65.11M 11–01–95	
CB–3.4M 07–12–95	GR–4.3M 10–21–97	HL–60.12M 03–31–95	MT–105.10M 04–25–94	TC–72.20 01–19–01	
DM–1.1M 10–21–97	GR–4.4M 11–30–94	HW–2.1M 07–12–95	MT–105.11M 04–25–94	TC–82.10 01–19–01	
DM–4.2M 06–30–95	GR–4.5 04–29–99	HW–2.2M 07–12–95	RM–1.1 04–29–99	FOR BRIDGE STD. CONSTR.	
DM–4.3 04–29–99	GR–5.1M 04–21–95	MH–1.2M 09–06–95	RM–4.2M 10–21–97	DWGS. SEE SHEET NO.392	

SUPPLEMENTAL SPECIFICATIONS	SUPPLEMENTAL SPECIFICATIONS
	906 05–05–98
814 06–02–98	907 10–21–98
825 07–11–00	908 11–07–00
830 10–21–98	925 09–14–99
842 01–06–99	954 09–09–97
844 01–06–99	1007 09–01–98
846 09–09–97	1019 11–07–00
851 06–06–00	1020 11–02–95
855 06–30–98	1023 12–08–95
863 10–12–99	
870 03–27–01	864 07–11–00
877 04–13–99	
880 11–07–00	
894 10–12–99	
899 10–21–98	NWP# 3&14 11–24–99
905 04–01–98	

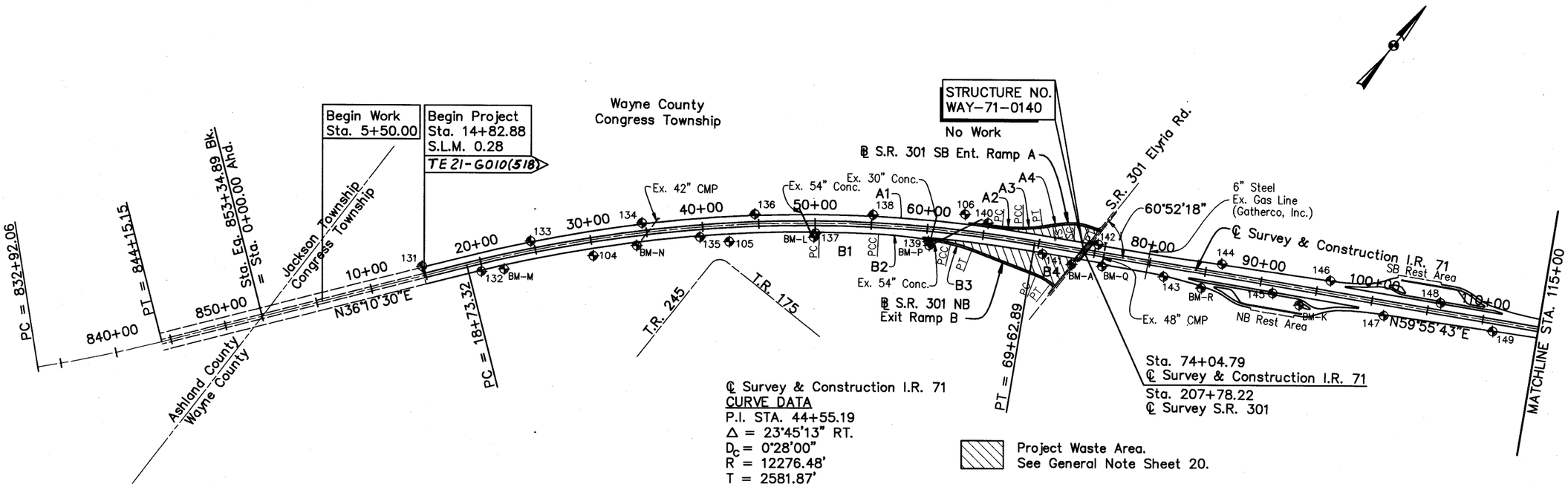
SPECIAL PROVISIONS

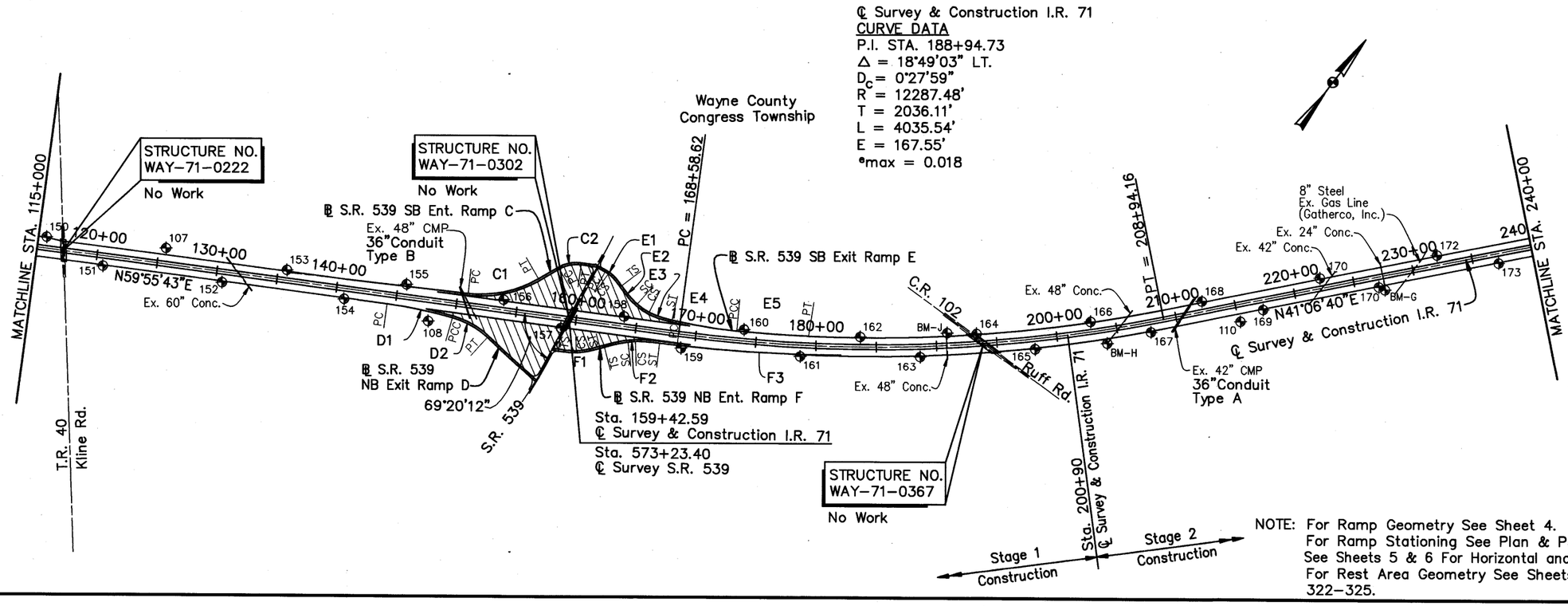
MESA RETAINING WALL	05–01–01
PYRAMID RETAINING WALL	05–01–01

FEDERAL PROJECT NO. TE21–6010 (518)
PID NO. 14016
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
WAY–71–0.28
1/432

WAY-IR 71 - 0.28
010517
DIST 03
PID - 14016
12/12/01

M:\99029\AUTOCAD\ACAD-R13\Title#1.dwg - SHEET 1 - May 08, 2001



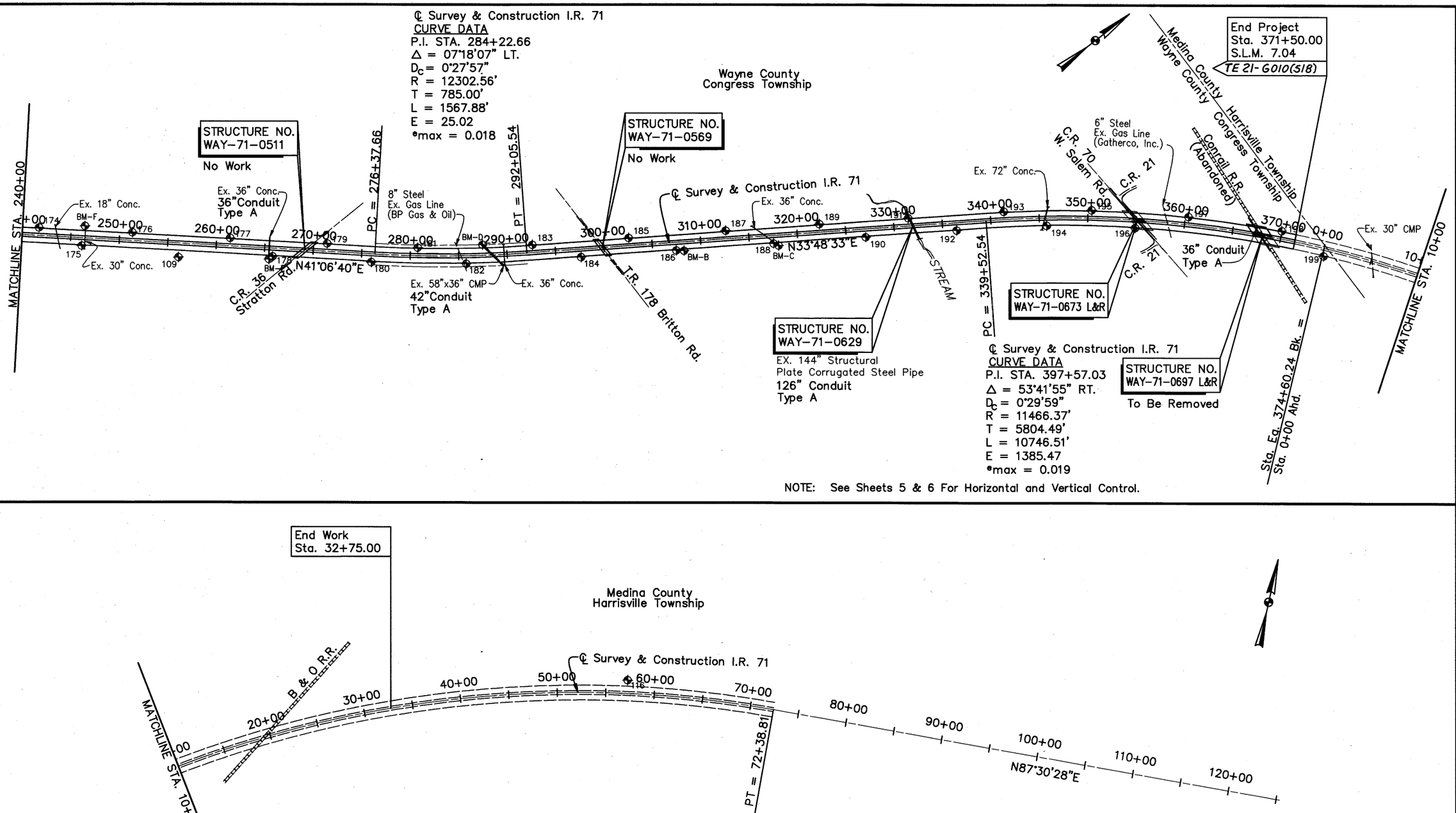


Scale In Feet
0 500 1000

SCHEMATIC PLAN

WAY-71-0.28

Schem.dwg May 03 ,2001


℄ Survey & Construction I.R. 71
CURVE DATA
P.I. STA. 284+22.66
Δ = 07°18'07" LT.
Dc = 0°27'57"
R = 12302.56'
T = 785.00'
L = 1567.88'
E = 25.02
emax = 0.018
Wayne County
Congress Township
STRUCTURE NO. WAY-71-0511
No Work
STRUCTURE NO. WAY-71-0569
No Work
STRUCTURE NO. WAY-71-0629
EX. 144" Structural Plate Corrugated Steel Pipe
126" Conduit Type A
STRUCTURE NO. WAY-71-0673 L&R
STRUCTURE NO. WAY-71-0697 L&R
To Be Removed
End Project
Sta. 371+50.00
S.L.M. 7.04
TE 21-6010(518)
Medina County
Wayne County
Harrisville Township
Congress Township
MATCHLINE STA. 240+00
MATCHLINE STA. 10+00
PC = 276+37.66
PT = 292+05.54
PC = 339+52.54
Ex. 18" Conc.
Ex. 30" Conc.
Ex. 36" Conc.
36"Conduit Type A
8" Steel Ex. Gas Line (BP Gas & Oil)
Ex. 58"x36" CMP
42"Conduit Type A
C.R. 36 Stratton Rd.
I.R. 178 Britton Rd.
STREAM
Ex. 72" Conc.
6" Steel Ex. Gas Line (Gatherco, Inc.)
C.R. 70 W. Salem Rd.
C.R. 21
Conrail R.R. (Abandoned)
Sta. Eq. 374+60.24 Bk. = Sta. 0+00 Ahd.
Ex. 30" CMP
N41°06'40"E
N33°48'33"E
BM-F
BM-D
BM-B
BM-C
℄ Survey & Construction I.R. 71
CURVE DATA
P.I. STA. 397+57.03
Δ = 53°41'55" RT.
Dc = 0°29'59"
R = 11466.37'
T = 5804.49'
L = 10746.51'
E = 1385.47
emax = 0.019
NOTE: See Sheets 5 & 6 For Horizontal and Vertical Control.
End Work
Sta. 32+75.00
Medina County
Harrisville Township
B & O R.R.
PT = 72+38.81
N87°30'28"E
℄ Survey & Construction I.R. 71
CURVE DATA
P.I. STA. 397+57.03
Δ = 53°41'55" RT.
Dc = 0°29'59"
R = 11466.37'
T = 5804.49'
L = 10746.51'
E = 1385.47
emax = 0.019
NOTE: See Sheets 5 & 6 For Horizontal and Vertical Control.
Scale In Feet
0
500
1000
SCHEMATIC PLAN
WAY-71-0.28
3
432
Schem.dwg May 03 ,2001

℄ S.R. 301 SB ENTRANCE RAMP A

A1 Curve Data	A2 Curve Data	A3 Curve Data	A4 Curve Data
P.I. STA. 7+65.14	P.I. STA. 17+60.36	P.I. STA. 19+38.57	P.I. STA. 23+23.25
Δ = 05°36'11" RT.	Δ = 05°30'00" LT.	Δ = 08°30'00" LT.	Δ = 27°02'37" RT.
D_c = 00°27'50"	D_c = 03°00'00"	D_c = 04°54'59"	D_c = 12°00'00"
R = 12352.34'	R = 1909.86'	R = 1165.41'	R = 477.46'
T = 604.45'	T = 91.74'	T = 86.61'	L_s = 200.00'
L = 1207.93'	L = 183.34'	L = 172.89'	Θ_s = 12°00'00"
E = 14.78'	E = 2.20'	E = 3.21'	LT = 133.64'
P.C. STA. 1+60.69	P.C. STA. 16+68.62	P.C.C. STA. 18+51.96	ST = 66.95'
P.T. STA. 13+68.62	P.C.C. STA. 18+51.96	P.T. STA. 20+24.85	Δ_c = 15°02'37"
e_{max} = .016	e_{max} = .046	e_{max} = .047	L_c = 125.36'
			T_1 = 207.85'
			T_2 = 122.49'
			E_s = 15.46'
			T.S. STA. 21+15.40
			S.C. STA. 23+15.40
			P.T. STA. 24+40.76

℄ S.R. 301 NB EXIT RAMP B

B1 Curve Data	B2 Curve Data	B3 Curve Data	B4 Curve Data
P.I. STA. 13+01.99	P.I. STA. 18+90.36	P.I. STA. 23+11.66	P.I. STA. 30+95.40
Δ = 02°28'46" RT.	Δ = 09°42'38" RT.	Δ = 08°30'40" RT.	Δ = 17°24'39" RT.
D_c = 00°28'11"	D_c = 01°30'00"	D_c = 04°20'00"	D_c = 11°30'00"
R = 12198.48'	R = 3819.72'	R = 1322.21'	R = 498.22'
T = 263.99'	T = 324.46'	T = 98.39'	T = 76.29'
L = 527.90'	L = 647.37'	L = 196.41'	L = 151.40'
E = 2.86'	E = 13.76'	E = 3.66'	E = 5.81'
P.C. STA. 10+38.00	P.C.C. STA. 15+65.90	P.C.C. STA. 22+13.27	P.C. STA. 30+19.11
P.C.C. STA. 15+65.90	P.C.C. STA. 22+13.27	P.T. STA. 24+09.68	P.T. STA. 31+70.51
e_{max} = .018	e_{max} = .041	e_{max} = .041	

℄ S.R. 539 SB ENTRANCE RAMP C

C1 Curve Data	C2 Curve Data
P.I. STA. 53+98.16	P.I. STA. 59+84.33
Δ = 36°15'48" LT.	Δ = 38°07'45" RT.
D_c = 06°00'00"	D_c = 19°05'55"
R = 954.93'	R = 300.00'
T = 312.70'	T = 103.68'
L = 604.38'	L = 199.65'
E = 49.90'	E = 17.41'
P.C. STA. 50+85.46	P.C. STA. 58+80.65
P.T. STA. 56+89.84	P.T. STA. 60+80.30
e_{max} = .083	

℄ S.R. 539 NB EXIT RAMP D

D1 Curve Data	D2 Curve Data
P.I. STA. 47+08.38	P.I. STA. 51+54.87
Δ = 08°18'08" RT.	Δ = 26°44'30" RT.
D_c = 01°30'00"	D_c = 08°00'00"
R = 3819.72'	R = 716.20'
T = 277.23'	T = 170.24'
L = 553.48'	L = 334.27'
E = 10.05'	E = 19.95'
P.C. STA. 44+31.15	P.C.C. STA. 49+84.63
P.C.C. STA. 49+84.63	P.T. STA. 53+18.90
e_{max} = .041	e_{max} = .081

℄ S.R. 539 SB EXIT RAMP E

E1 Curve Data	E2 Curve Data	E3 Curve Data	E4 Curve Data	E5 Curve Data
P.I. STA. 61+52.70	P.I. STA. 64+76.25	P.I. STA. 66+65.24	P.I. STA. 70+63.58	P.I. STA. 76+33.61
Δ = 25°00'00" RT.	Δ = 26°13'03" LT.	Θ_s = 13°30'00" LT.	Δ = 08°10'13" LT.	Δ = 02°47'52" LT.
D_c = 23°00'00"	D_c = 12°00'00"	D_1 = 12°00'00"'	D_c = 01°30'00"	D_c = 00°28'09"
R = 249.11'	R = 477.46'	R_1 = 477.46	R = 3819.72'	R = 12209.48'
L_s = 150.00'	L_s = 200.00'	D_2 = 01°30'00"'	T = 272.81'	T = 298.15'
Θ_s = 17°15'00"	Θ_s = 12°00'00"	R_2 = 3819.72	L = 544.69'	L = 596.19'
LT = 100.48'	LT = 113.64'	L_s = 200.00'	E = 9.73'	E = 3.64'
ST = 50.44'	ST = 66.95'	ST = 74.47'	S.C. STA. 67+90.77	P.C.C. STA. 73+35.46
Δ_c = 07°45'00"	Δ_c = 14°13'03"	LT = 126.35'	P.C.C. STA. 73+35.46	P.T. STA. 79+31.65
L_c = 33.70'	L_c = 118.48'	C.S. STA. 65+90.77	e_{max} = .041	e_{max} = .018
T_1 = 64.10'	T_1 = 203.96'	S.C. STA. 67+90.77		
T_2 = 121.96'	T_2 = 119.08'	e_{max} = .041		
E_s = 0.57'	E_s = 3.70'			
P.C. STA. 60+88.60	T.S. STA. 62+72.29			
C.S. STA. 61+22.29	S.C. STA. 64+72.29			
S.T. STA. 62+72.29	C.S. STA. 65+90.77			

℄ S.R. 539 NB ENTRANCE RAMP F

F1 Curve Data	F2 Curve Data	F3 Curve Data
P.I. STA. 60+29.29	P.I. STA. 64+81.49	P.I. STA. 75+39.40
Δ = 22°45'00" LT.	Δ = 20°53'02" RT.	Δ = 06°17'18" LT.
R = 440.74'	D_c = 08°00'00"	D_c = 00°27'44"
L_{s1} = 150.00'	R = 716.20'	R = 12397.54'
L_{s2} = 200.00'	L_s = 200.00'	T = 681.02'
Θ_{s1} = 09°45'00"	Θ_s = 08°00'00"	L = 1360.67'
Θ_{s2} = 13°00'00"	LT = 133.47'	E = 18.69'
LT_1 = 100.15'	ST = 66.79'	P.C. STA. 68+58.38
ST_1 = 50.14'	Δ_c = 04°53'02"	P.T. STA. 82+19.05
ST_2 = 67.00'	L_c = 61.05'	e_{max} = .016
LT_2 = 133.69'	T_s = 232.35'	
T_1 = 168.29'	E_s = 14.43'	
T_2 = 184.99'	T.S. STA. 62+49.14	
E_s = 11.85'	S.C. STA. 64+49.14	
T.S. STA. 58+61.00	C.S. STA. 65+10.19	
S.C.S. STA. 60+11.00	S.T. STA. 67+10.19	
S.T. STA. 62+11.00	e_{max} = .074	

For Rest Area Ramp Geometry See Sheets 313 And 322.

SCHEMATIC PLAN
RAMP GEOMETRY

WAY-71-0.28

Schem.dwg May 03, 2001

NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
131	14+86.58	−85.08	458677.3888	2072250.5698	1034.63	EA Set I.P.'s With "Traverse Point" Caps
132	19+86.88	85.14	458979.8232	2072683.2442	1035.73	EA Set I.P.'s With "Traverse Point" Caps
BM−M	21+89	111			1029.87	Benchmark, disk in headwall (O.D.O.T. Established)
133	24+73.54	−84.19	459467.9618	2072848.0634	1037.71	EA Set I.P.'s With "Traverse Point" Caps
104	30+00.05	142.82	459722.5900	2073360.4337	1056.22	O.D.O.T. Set Traverse Points (Rods Driven To Refusal With O.D.O.T. Caps)
BM−N	33+99	106			1033.87	Benchmark, disk in headwall (O.D.O.T. Established)
134	34+69.29	−86.57	460222.6011	2073507.8652	1040.25	EA Set I.P.'s With "Traverse Point" Caps
135	39+70.28	87.37	460455.5803	2073984.2073	1041.93	EA Set I.P.'s With "Traverse Point" Caps
105	42+29.68	144.87	460590.4773	2074210.3201	1052.22	O.D.O.T. Set Traverse Points (Rods Driven To Refusal With O.D.O.T. Caps)
136	44+68.97	−87.54	460923.0184	2074230.6678	1040.50	EA Set I.P.'s With "Traverse Point" Caps
BM−L	49+90	123			1032.94	Benchmark, disk in headwall (O.D.O.T. Established)
137	50+05.54	88.39	461137.3245	2074753.0107	1049.73	EA Set I.P.'s With "Traverse Point" Caps
138	55+11.85	−89.62	461589.4124	2075042.2109	1061.84	EA Set I.P.'s With "Traverse Point" Caps
139	60+18.67	110.82	461721.7850	2075570.4354	1073.03	EA Set I.P.'s With "Traverse Point" Caps
BM−P	60+29	145			1077.07	Benchmark, disk in headwall (O.D.O.T. Established)
106	63+18.70	−162.00	462115.6825	2075668.6668	1077.65	O.D.O.T. Set Traverse Points (Rods Driven To Refusal With O.D.O.T. Caps)
140	65+28.13	−109.00	462185.0829	2075875.6099	1084.99	EA Set I.P.'s With "Traverse Point" Caps
141	70+46.83	85.17	462285.5667	2076421.1635	1094.52	EA Set I.P.'s With "Traverse Point" Caps
BM−A	73+16	133			1118.80	Benchmark, disk in wingwall (NGS "M238")
142	75+20.78	−82.71	462668.3260	2076747.1967	1099.87	EA Set I.P.'s With "Traverse Point" Caps
BM−Q	75+85	103			1095.11	Benchmark, disk in headwall (O.D.O.T. Established)
143	81+39.71	103.44	462817.3715	2077376.0939	1105.13	EA Set I.P.'s With "Traverse Point" Caps
BM−R	84+86	148			1106.37	Benchmark, disk in headwall (O.D.O.T. Established)
144	86+32.70	−94.00	463235.2633	2077703.7983	1110.24	EA Set I.P.'s With "Traverse Point" Caps
145	91+19.49	84.58	463324.6378	2078214.5438	1115.50	EA Set I.P.'s With "Traverse Point" Caps
BM−K	93+68	148			1125.29	Benchmark, disk in headwall (O.D.O.T. Established)
146	96+07.08	−110.79	463738.0309	2078538.6104	1119.82	EA Set I.P.'s With "Traverse Point" Caps
147	101+25.73	113.98	463803.4004	2709100.0850	1122.68	EA Set I.P.'s With "Traverse Point" Caps
148	106+05.06	−82.23	464213.3817	2079416.5747	1126.46	EA Set I.P.'s With "Traverse Point" Caps
149	111+02.11	87.92	464315.2002	2079931.9870	1129.68	EA Set I.P.'s With "Traverse Point" Caps
150	115+65.17	−94.89	464705.4290	2080241.1178	1132.21	EA Set I.P.'s With "Traverse Point" Caps
151	120+58.06	82.73	464798.6914	2080756.6630	1135.30	EA Set I.P.'s With "Traverse Point" Caps
107	125+56.87	−132.57	465234.9527	2081080.4553	1136.72	O.D.O.T. Set Traverse Points (Rods Driven To Refusal With O.D.O.T. Caps)
152	130+52.63	86.16	465294.0857	2081619.0836	1140.97	EA Set I.P.'s With "Traverse Point" Caps
153	135+71.90	−86.75	465703.9110	2081981.8245	1143.30	EA Set I.P.'s With "Traverse Point" Caps
154	140+72.37	84.87	465806.1707	2082500.9239	1146.90	EA Set I.P.'s With "Traverse Point" Caps
155	145+69.46	−102.06	466217.0240	2082837.4435	1149.45	EA Set I.P.'s With "Traverse Point" Caps
108	147+85.93	171.57	466088.6918	2083161.8865	1052.51	O.D.O.T. Set Traverse Points (Rods Driven To Refusal With O.D.O.T. Caps)
156	153+83.64	−85.76	466610.8834	2083550.1969	1154.77	EA Set I.P.'s With "Traverse Point" Caps
157	158+84.53	82.00	466716.6847	2084067.7336	1158.37	EA Set I.P.'s With "Traverse Point" Caps
158	163+89.82	−82.38	467112.1305	2084422.6432	1161.46	EA Set I.P.'s With "Traverse Point" Caps
159	168+90.99	113.40	467194.0183	2084954.7006	1163.29	EA Set I.P.'s With "Traverse Point" Caps
160	173+94.64	−95.86	467635.1471	2085275.8923	1166.88	EA Set I.P.'s With "Traverse Point" Caps
161	178+72.50	90.79	467744.8283	2085776.9035	1169.61	EA Set I.P.'s With "Traverse Point" Caps
162	183+65.71	−83.32	468175.3653	2086074.0863	1168.66	EA Set I.P.'s With "Traverse Point" Caps
163	188+60.44	84.13	468350.1787	2086566.2298	1164.40	EA Set I.P.'s With "Traverse Point" Caps
BM−J	190+92	−103			1157.79	Benchmark, disk in headwall (O.D.O.T. Established)
164	193+37.01	−82.21	468786.2297	2086820.4802	1159.37	EA Set I.P.'s With "Traverse Point" Caps
165	198+09.38	83.99	468984.6934	2087280.2330	1154.33	EA Set I.P.'s With "Traverse Point" Caps
166	202+94.13	−82.22	469444.8127	2087505.8116	1148.90	EA Set I.P.'s With "Traverse Point" Caps
BM−H	204+03	114			1144.52	EA Set I.P.'s With "Traverse Point" Caps
167	207+72.42	84.62	469682.4727	2087953.1584	1144.70	EA Set I.P.'s With "Traverse Point" Caps
168	212+35.58	−83.22	470142.0229	2088132.2458	1142.89	EA Set I.P.'s With "Traverse Point" Caps
110	215+15.67	141.29	470205.4350	2088485.5590	1143.83	O.D.O.T. Set Traverse Points (Rods Driven To Refusal With O.D.O.T. Caps)
169	217+19.06	82.69	470397.2066	2088575.1475	1141.20	EA Set I.P.'s With "Traverse Point" Caps

SCHEMATIC PLAN
HORIZONTAL & VERTICAL CONTROL

WAY−71−0.28

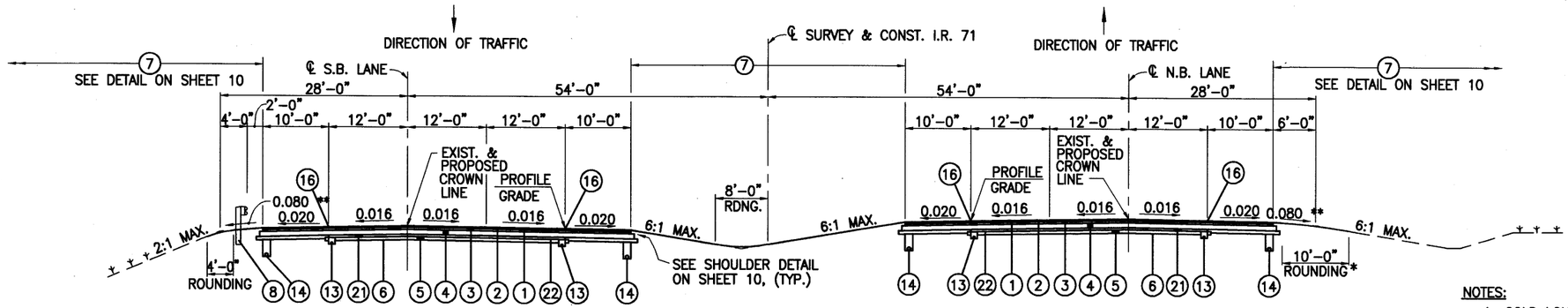
Schem.dwg May 03 ,2001

NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
170	222+31.10	−82.06	470891.3250	2088787.6929	1139.03	EA Set I.P.'s With "Traverse Point" Caps
171	226+96.61	83.72	471133.0527	2089218.6861	1136.96	EA Set I.P.'s With "Traverse Point" Caps
BM−G	227+42	116			1128.30	Benchmark, disk in headwall (O.D.O.T. Established)
172	232+19.33	−81.83	471635.7373	2089437.6522	1135.15	EA Set I.P.'s With "Traverse Point" Caps
173	237+08.40	82.26	471896.3332	2089882.8526	1132.82	EA Set I.P.'s With "Traverse Point" Caps
174	241+67.94	−81.84	472350.4685	2090061.3762	1131.14	EA Set I.P.'s With "Traverse Point" Caps
175	246+16.08	82.29	472580.1887	2090479.6942	1129.31	EA Set I.P.'s With "Traverse Point" Caps
BM−F	246+40	−125			1115.04	Benchmark, disk in headwall (O.D.O.T. Established)
176	251+30.61	−85.23	473078.0008	2090691.7979	1127.48	EA Set I.P.'s With "Traverse Point" Caps
109	256+17.87	145.87	473293.1742	2091186.2986	1136.22	O.D.O.T. Set Traverse Points (Rods Driven To Refusal With O.D.O.T. Caps)
177	261+38.22	−83.36	473835.9411	2091355.7323	1123.42	EA Set I.P.'s With "Traverse Point" Caps
BM−E	265+48	113			1113.75	Benchmark, disk in headwall (O.D.O.T. Established)
178	265+86.52	84.70	474063.2043	2091777.1241	1120.86	EA Set I.P.'s With "Traverse Point" Caps
179	271+39.25	−82.54	474589.6147	2092014.5519	1114.23	EA Set I.P.'s With "Traverse Point" Caps
180	276+03.69	84.28	474829.8577	2092445.6166	1104.64	EA Set I.P.'s With "Traverse Point" Caps
181	280+76.04	−83.41	475298.7894	2092621.9978	1094.52	EA Set I.P.'s With "Traverse Point" Caps
182	285+77.62	82.30	475592.7518	2093060.8088	1083.66	EA Set I.P.'s With "Traverse Point" Caps
BM−D	287+51	−110			1074.13	Benchmark, disk in catch basin (O.D.O.T. Established)
183	292+67.43	−80.49	476250.7838	2093324.9665	1068.78	EA Set I.P.'s With "Traverse Point" Caps
184	297+59.32	83.08	476568.4785	2093734.5760	1057.58	EA Set I.P.'s With "Traverse Point" Caps
185	302+62.46	−80.44	477077.5196	2093878.6675	1046.46	EA Set I.P.'s With "Traverse Point" Caps
186	307+43.74	84.25	477385.7676	2094283.3074	1034.00	EA Set I.P.'s With "Traverse Point" Caps
BM−B	308+23	94			1031.49	Benchmark, disk in catch basin (O.D.O.T. Established)
187	312+65.95	−84.95	477913.8216	2094433.2899	1021.00	EA Set I.P.'s With "Traverse Point" Caps
188	317+49.99	84.38	478221.7872	2094843.3181	1008.93	EA Set I.P.'s With "Traverse Point" Caps
BM−C	317+99	109			1002.39	Benchmark, disk in headwall (O.D.O.T. Established)
189	322+34.75	−84.39	478718.4799	2094972.8238	997.11	EA Set I.P.'s With "Traverse Point" Caps
190	327+01.74	86.02	479011.6774	2095374.2675	985.37	EA Set I.P.'s With "Traverse Point" Caps
191	331+52.77	−81.38	479479.5907	2095486.1403	973.81	EA Set I.P.'s With "Traverse Point" Caps
192	336+42.19	81.20	479795.7792	2095893.5512	962.14	EA Set I.P.'s With "Traverse Point" Caps
193	341+39.39	−81.52	480299.6890	2096037.0167	951.96	EA Set I.P.'s With "Traverse Point" Caps
194	345+75.99	81.52	480558.1925	2096424.7540	946.52	EA Set I.P.'s With "Traverse Point" Caps
195	350+38.42	−81.72	481022.8375	2096581.4776	949.64	EA Set I.P.'s With "Traverse Point" Caps
196	354+93.53	82.49	481263.1822	2097001.3241	955.20	EA Set I.P.'s With "Traverse Point" Caps
197	360+32.69	−81.74	481770.0348	2097247.6385	963.47	EA Set I.P.'s With "Traverse Point" Caps
198	369+98.23	−81.43	482437.5583	2097954.3564	974.19	EA Set I.P.'s With "Traverse Point" Caps
STATION EQUATION						
STA. 374+60.24 BACK = STA. 0+00.00 AHEAD						
199	0+14.18	81.54	482617.0183	2098424.5293	969.72	EA Set I.P.'s With "Traverse Point" Caps
116	57+20.57	−138.34	485144.2520	2103495.3300	921.87	O.D.O.T. Set Traverse Points (Rods Driven To Refusal With O.D.O.T. Caps)

SCHEMATIC PLAN
HORIZONTAL & VERTICAL CONTROL

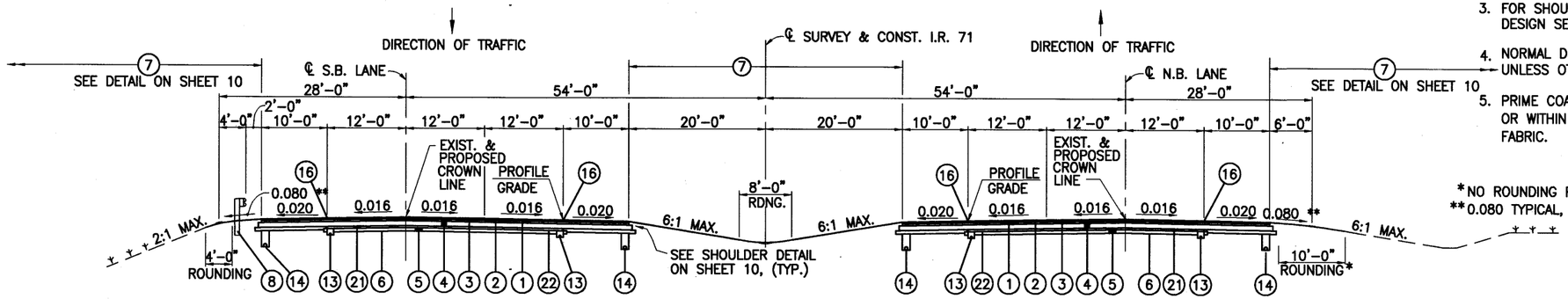
WAY−71−0.28

Schem.dwg May 03, 2001



BIFURCATED TYPICAL SECTION

STATION 110+50.00 TO STATION 123+50.00 = 1300.00 L.F.



NORMAL TYPICAL SECTION

SOUTHBOUND

STATION 14+82.88 TO STATION 17+70.00 = 287.12 L.F.
STATION 70+70.00 TO STATION 110+50.00 = 3980.00 L.F.
STATION 123+50.00 TO STATION 167+00.00 = 4350.00 L.F.
STATION 210+50.00 TO STATION 274+80.00 = 6430.00 L.F.
STATION 293+60.00 TO STATION 338+40.00 = 4480.00 L.F.
TOTAL = 19527.12 L.F.

NORTHBOUND

STATION 14+82.88 TO STATION 17+15.00 = 232.12 L.F.
STATION 71+20.00 TO STATION 110+50.00 = 3930.00 L.F.
STATION 123+50.00 TO STATION 167+55.00 = 4405.00 L.F.
STATION 210+00.00 TO STATION 275+30.00 = 6530.00 L.F.
STATION 293+10.00 TO STATION 337+90.00 = 4480.00 L.F.
TOTAL = 19577.12 L.F.

NOTES:

1. COLD LONGITUDINAL JOINTS IN THE 446 SURFACE COURSE SHALL BE LOCATED AT THE FINAL LANE LINE LOCATIONS. SEE PAVEMENT MARKING DETAIL SHEET 361A .
2. SHOULDER RUMBLE STRIPS SHALL BE PROVIDED THROUGHOUT THE PROJECT LIMITS. SEE STANDARD CONSTRUCTION DRAWING BP-9.1 FOR DETAILS.
3. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON SHEET 10.
4. NORMAL DEPTH OF PIPE UNDERDRAIN IS 30" UNLESS OTHERWISE NOTED.
5. PRIME COAT SHALL NOT BE PLACED ON TOP OF OR WITHIN 1' OF THE FREE DRAINING BASE FILTER FABRIC.

*NO ROUNDING REQUIRED FOR SLOPES 6:1 OR FLATTER.
**0.080 TYPICAL, 6:1 MAX.

PROPOSED ITEM LEGEND

(1)	446	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
(2)	407	TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
(3)	446	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
(4)	302	10 1/2" BITUMINOUS AGGREGATE BASE, PG64-22
(5)	304	6" AGGREGATE BASE
(6)	203	SUBGRADE COMPACTION
(7)	870	SEEDING AND MULCHING (SEE GENERAL NOTE)
(8)	606	GUARDRAIL, TYPE 5
(9)	407	TACK COAT (SEE GENERAL NOTE)
(10)	254	PAVEMENT PLANING, BITUMINOUS (SEE SHEET 17 FOR AVERAGE THICKNESS)
(11)	851	9" REINFORCED CONCRETE PAVEMENT
(12)		NOT USED
(13)	605	4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH - SEE SHEET 10)
(14)	605	6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH) OR 6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (12" NORMAL DEPTH - SEE SHEET 10)
(15)	203	LINEAR GRADING
(16)		HOT LONGITUDINAL JOINT
(17)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN
(18)	611	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN
(19)	830	CURB, TYPE 8, AS PER PLAN
(20)	830	CURB, TYPE 7
(21)	855	4" ASPHALT TREATED FREE DRAINING BASE
(22)	408	BITUMINOUS PRIME COAT (APPLIED AT A RATE OF 0.40 GALLON/SQ. YARD)
(23)		SPECIAL MODULAR BLOCK RETAINING WALL
(24)	606	GUARDRAIL, TYPE 5A
(25)	202	WEARING COURSE REMOVED
(26)	608	4" CONCRETE WALK
(27)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN

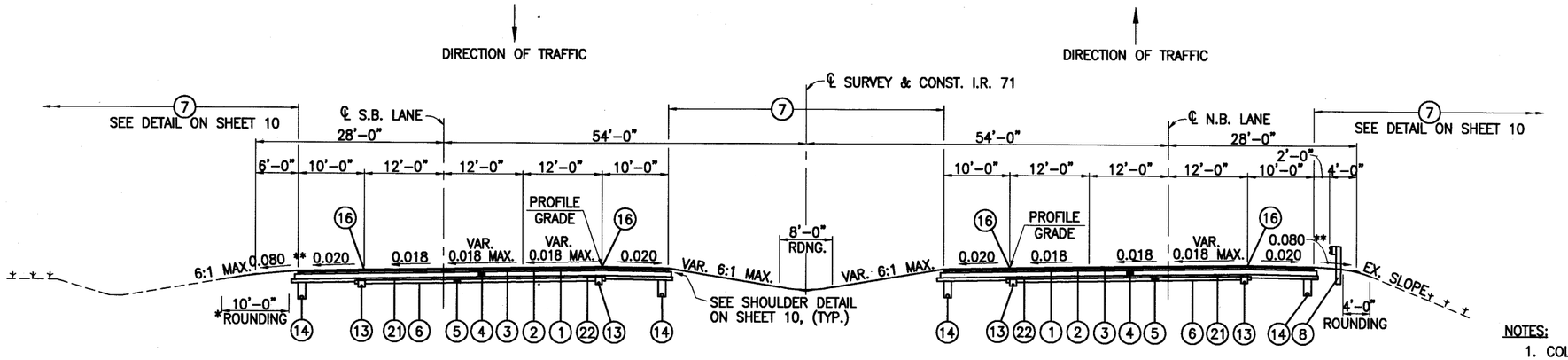
NOTE: MAINLINE I-71 PAVEMENT WARRANTY

THE MAINLINE PAVEMENT BUILDUP ON I-71 SHOWN AS REFERENCES 1-4 AND 9 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE ITEM 880 - ASPHALT CONCRETE (7 YEAR WARRANTY).

TYPICAL SECTIONS

WAY-71-0.28

Typ-1.dwg May 03, 2001



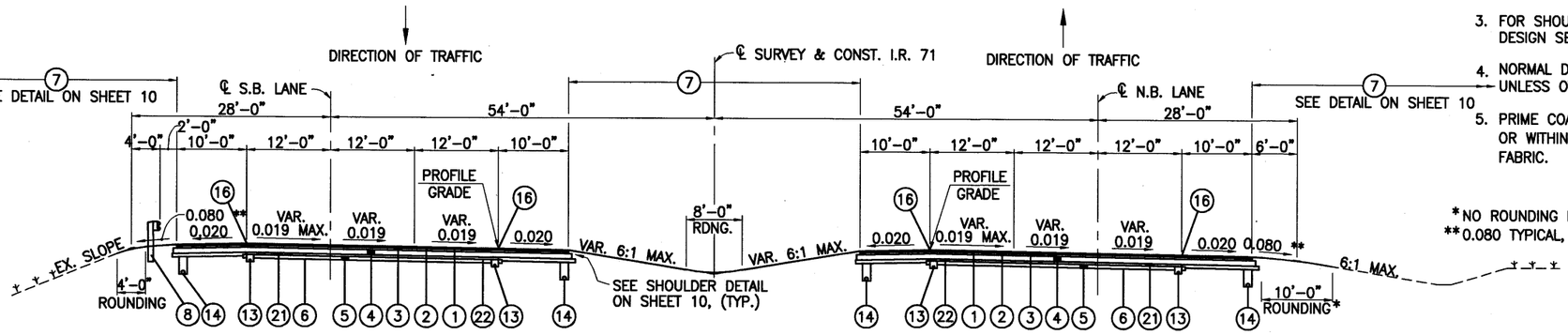
SOUTHBOUND

STATION 167+00.00 TO STATION 210+50.00 = 4350.00 L.F.
STATION 274+80.00 TO STATION 293+60.00 = 1880.00 L.F.
TOTAL = 6230.00 L.F.

SUPERELEVATED TYPICAL SECTION

NORTHBOUND

STATION 167+55.00 TO STATION 210+00.00 = 4245.00 L.F.
STATION 275+30.00 TO STATION 293+10.00 = 1780.00 L.F.
TOTAL = 6025.00 L.F.



SOUTHBOUND

STATION 17+70.00 TO STATION 70+70.00 = 5300.00 L.F.
STATION 338+40.00 TO STATION 354+09.47 = 1569.47 L.F.
STATION 356+19.03 TO STATION 363+00.00 = 680.97 L.F.
TOTAL = 7550.44 L.F.

SUPERELEVATED TYPICAL SECTION

NORTHBOUND

STATION 17+15.00 TO STATION 71+20.00 = 5405.00 L.F.
STATION 337+90.00 TO STATION 354+10.16 = 1620.16 L.F.
STATION 356+18.25 TO STATION 363+00.00 = 681.75 L.F.
TOTAL = 7706.91 L.F.

NOTES:

1. COLD LONGITUDINAL JOINTS IN THE 446 SURFACE COURSE SHALL BE LOCATED AT THE FINAL LANE LINE LOCATIONS. SEE PAVEMENT MARKING DETAIL SHEET 361A .
2. SHOULDER RUMBLE STRIPS SHALL BE PROVIDED THROUGHOUT THE PROJECT LIMITS. SEE STANDARD CONSTRUCTION DRAWING BP-9.1 FOR DETAILS.
3. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON SHEET 10.
4. NORMAL DEPTH OF PIPE UNDERDRAIN IS 30" UNLESS OTHERWISE NOTED.
5. PRIME COAT SHALL NOT BE PLACED ON TOP OF OR WITHIN 1' OF THE FREE DRAINING BASE FILTER FABRIC.

*NO ROUNDING REQUIRED FOR SLOPES 6:1 OR FLATTER.
**0.080 TYPICAL, 6:1 MAX.

PROPOSED ITEM LEGEND

(1)	446	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
(2)	407	TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
(3)	446	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
(4)	302	10 1/2" BITUMINOUS AGGREGATE BASE, PG64-22
(5)	304	6" AGGREGATE BASE
(6)	203	SUBGRADE COMPACTION
(7)	870	SEEDING AND MULCHING (SEE GENERAL NOTE)
(8)	606	GUARDRAIL, TYPE 5
(9)	407	TACK COAT (SEE GENERAL NOTE)
(10)	254	PAVEMENT PLANING, BITUMINOUS (SEE SHEET 17 FOR AVERAGE THICKNESS)
(11)	851	9" REINFORCED CONCRETE PAVEMENT
(12)		NOT USED
(13)	605	4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH - SEE SHEET 10)
(14)	605	6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH) OR 6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (12" NORMAL DEPTH - SEE SHEET 10)
(15)	203	LINEAR GRADING
(16)		HOT LONGITUDINAL JOINT
(17)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN
(18)	611	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN
(19)	830	CURB, TYPE 8, AS PER PLAN
(20)	830	CURB, TYPE 7
(21)	855	4" ASPHALT TREATED FREE DRAINING BASE
(22)	408	BITUMINOUS PRIME COAT (APPLIED AT A RATE OF 0.40 GALLON/SQ. YARD)
(23)		SPECIAL MODULAR BLOCK RETAINING WALL
(24)	606	GUARDRAIL, TYPE 5A
(25)	202	WEARING COURSE REMOVED
(26)	608	4" CONCRETE WALK
(27)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN

NOTE: MAINLINE I-71 PAVEMENT WARRANTY

THE MAINLINE PAVEMENT BUILDUP ON I-71 SHOWN AS REFERENCES 1-4 AND 9 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE ITEM 880 - ASPHALT CONCRETE (7 YEAR WARRANTY).

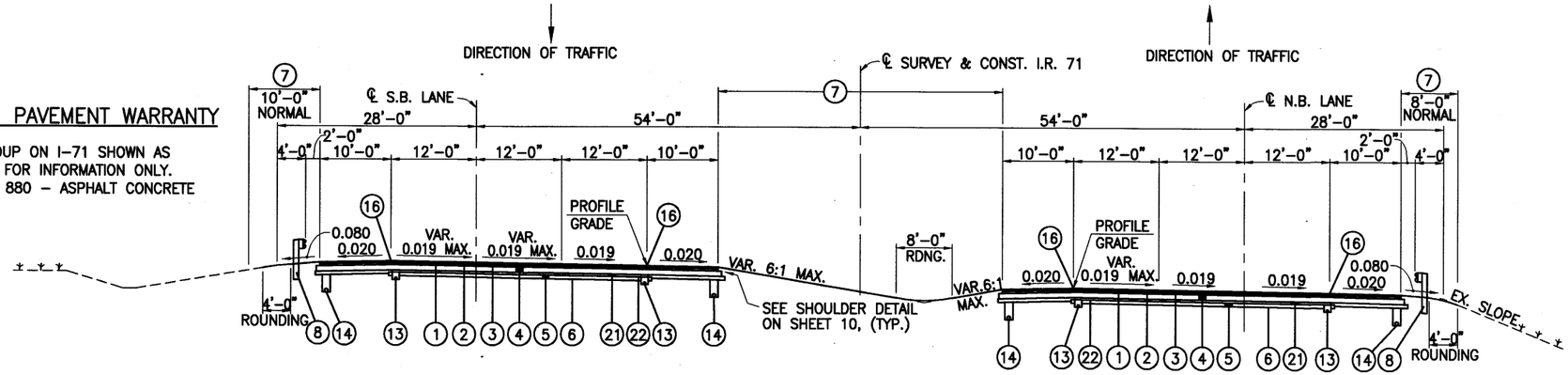
TYPICAL SECTIONS

WAY-71-0.28

TYP-SUPR.DWG May 03, 2001

NOTE: MAINLINE I-71 PAVEMENT WARRANTY

THE MAINLINE PAVEMENT BUILDUP ON I-71 SHOWN AS REFERENCES 1-4 AND 9 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE ITEM 880 - ASPHALT CONCRETE (7 YEAR WARRANTY).

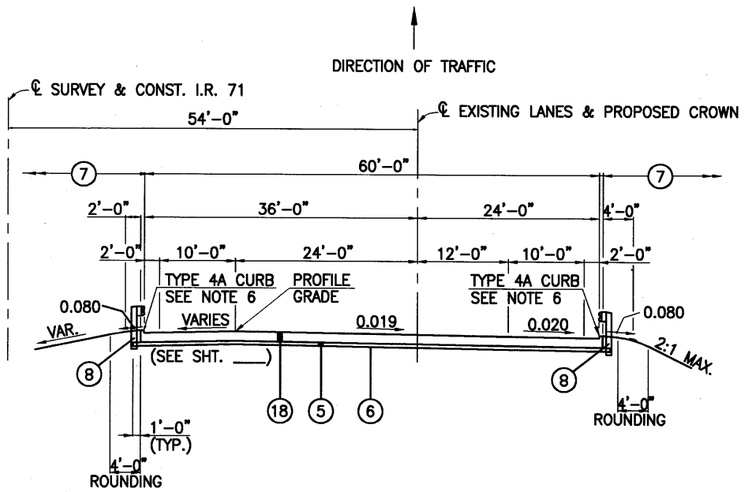


BIFURCATED SUPERELEVATED TYPICAL SECTION

STATION 363+00.00 TO STATION 371+50.00 = 850.00 L.F.

NOTES:

1. COLD LONGITUDINAL JOINTS IN THE 446 SURFACE COURSE SHALL BE LOCATED AT THE FINAL LANE LINE LOCATIONS. SEE PAVEMENT MARKING DETAIL SHEET 361A.
2. SHOULDER RUMBLE STRIPS SHALL BE PROVIDED THROUGHOUT THE PROJECT LIMITS SEE STANDARD CONSTRUCTION DRAWING BP-9.1 FOR DETAILS.
3. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON SHEET 10.
4. NORMAL DEPTH OF PIPE UNDERDRAIN IS 30" UNLESS OTHERWISE NOTED.
5. PRIME COAT SHALL NOT BE PLACED ON TOP OF OR WITHIN 1' OF THE FREE DRAINING BASE FILTER FABRIC.
6. TRANSITION TYPE 4A CURB TO MATCH THE PARAPET ON THE BRIDGE ACROSS THE LIMITS OF THE APPROACH SLAB.
7. TRANSITION PAVED AND GRADED SHOULDER CROSS SLOPES TO MEET APPROACH SLABS IN 10'-0" ON HIGH END OF STRUCTURE. ON LOW END OF STRUCTURE SEE DRAINAGE DETAIL ON SHEET 278.



APPROACH SLAB TYPICAL SECTION

SOUTHBOUND

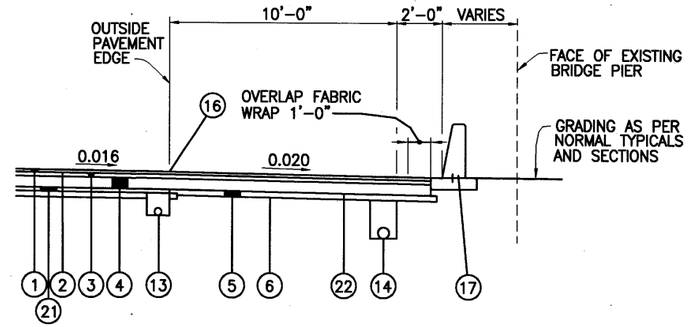
STATION 354+09.47 TO STATION 354+34.47 = 25.00 L.F.
STATION 355+94.03 TO STATION 356+19.03 = 25.00 L.F.
TOTAL = 50.00 L.F.

NORTHBOUND

STATION 354+10.16 TO STATION 354+35.16 = 25.00 L.F.
STATION 355+93.25 TO STATION 356+18.25 = 25.00 L.F.
TOTAL = 50.00 L.F.

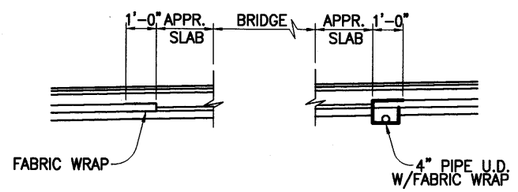
PROPOSED ITEM LEGEND

(1)	446	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
(2)	407	TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
(3)	446	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
(4)	302	10 1/2" BITUMINOUS AGGREGATE BASE, PG64-22
(5)	304	6" AGGREGATE BASE
(6)	203	SUBGRADE COMPACTION
(7)	870	SEEDING AND MULCHING (SEE GENERAL NOTE)
(8)	606	GUARDRAIL, TYPE 5
(9)	407	TACK COAT (SEE GENERAL NOTE)
(10)	254	PAVEMENT PLANING, BITUMINOUS (SEE SHEET 17 FOR AVERAGE THICKNESS)
(11)	851	9" REINFORCED CONCRETE PAVEMENT
(12)		NOT USED
(13)	605	4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH - SEE SHEET 10)
(14)	605	6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH) OR 6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (12" NORMAL DEPTH - SEE SHEET 10)
(15)	203	LINEAR GRADING
(16)		HOT LONGITUDINAL JOINT
(17)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN
(18)	611	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN
(19)	830	CURB, TYPE 8, AS PER PLAN
(20)	830	CURB, TYPE 7



OUTSIDE SHOULDER WITH CONCRETE BARRIER TYPICAL SECTION

FOR LOCATIONS SEE DETAIL SHEET 305.



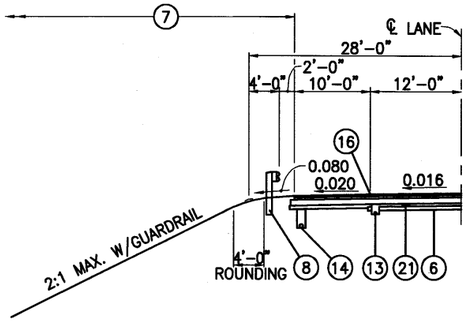
APPROACH SLAB DETAIL

(21)	855	4" ASPHALT TREATED FREE DRAINING BASE
(22)	408	BITUMINOUS PRIME COAT (APPLIED AT A RATE OF 0.40 GALLON/SQ. YARD)
(23)		SPECIAL MODULAR BLOCK RETAINING WALL
(24)	606	GUARDRAIL, TYPE 5A
(25)	202	WEARING COURSE REMOVED
(26)	608	4" CONCRETE WALK
(27)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN

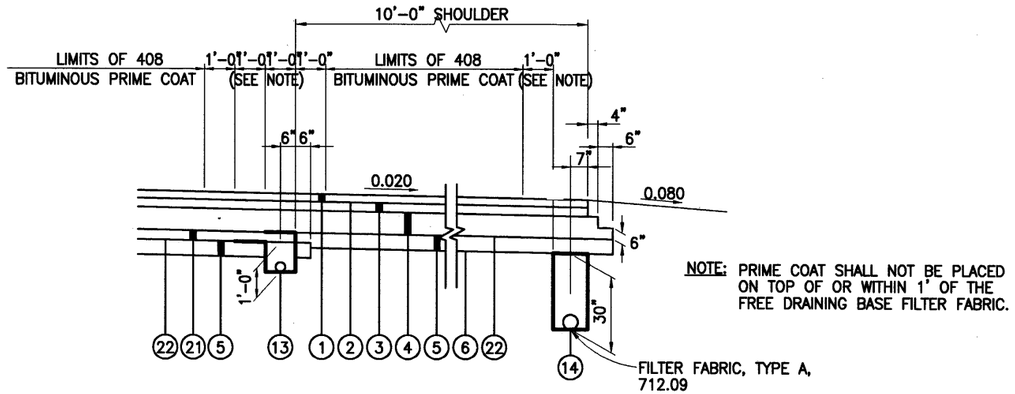
TYPICAL SECTIONS

WAY-71-0.28

TYP-BIFR.DWG May 03, 2001

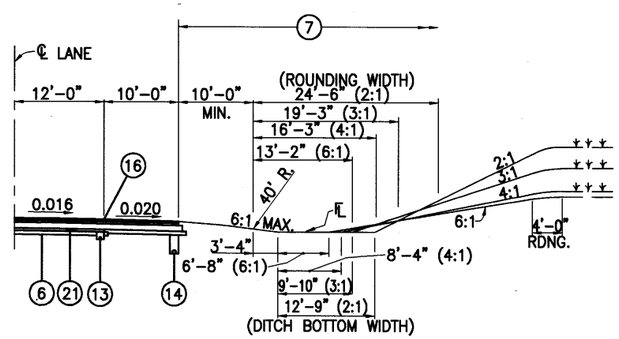


FILL TYPICAL SECTION – OUTSIDE SHOULDER
(WHERE ADDITIONAL GRADING IS REQUIRED – SEE CROSS SECTIONS)

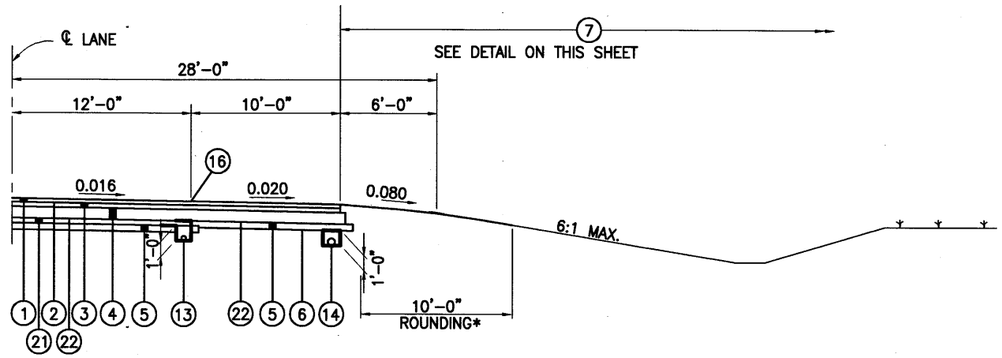


NOTE: PRIME COAT SHALL NOT BE PLACED ON TOP OF OR WITHIN 1' OF THE FREE DRAINING BASE FILTER FABRIC.

SHOULDER BUILDUP AND UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN



CUT TYPICAL SECTION – OUTSIDE SHOULDER
(WHERE ADDITIONAL GRADING IS REQUIRED – SEE CROSS SECTIONS)



TYPICAL ROCK CUT SECTION – UNDERDRAINS
THIS DETAIL TO BE USED WHERE ROCK IS PRESENT, BUT WHEN OVEREXCAVATION IS NOT REQUIRED.

SOUTHBOUND

STATION 292+50.00 TO STATION 295+95.00 = 345.00 L.F.
STATION 298+30.00 TO STATION 299+50.00 = 120.00 L.F.
TOTAL = 465.00 L.F.

NORTHBOUND

STATION 291+50.00 TO STATION 295+95.00 = 345.00 L.F.
STATION 298+30.00 TO STATION 299+50.00 = 120.00 L.F.
TOTAL = 465.00 L.F.

NOTES:

1. COLD LONGITUDINAL JOINTS IN THE 446 SURFACE COURSE SHALL BE LOCATED AT THE FINAL LANE LINE LOCATIONS. SEE PAVEMENT MARKING DETAIL SHEET 361A .
2. SHOULDER RUMBLE STRIPS SHALL BE PROVIDED THROUGHOUT THE PROJECT LIMITS. SEE STANDARD CONSTRUCTION DRAWING BP-9.1 FOR DETAILS.
3. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON THIS SHEET.
4. NORMAL DEPTH OF PIPE UNDERDRAIN IS 30" UNLESS OTHERWISE NOTED.
5. PRIME COAT SHALL NOT BE PLACED ON TOP OF OR WITHIN 1' OF THE FREE DRAINING BASE FILTER FABRIC.

* NO ROUNDING REQUIRED FOR SLOPES 6:1 OR FLATTER.

PROPOSED ITEM LEGEND

(1)	446	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
(2)	407	TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
(3)	446	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
(4)	302	10 1/2" BITUMINOUS AGGREGATE BASE, PG64-22
(5)	304	6" AGGREGATE BASE
(6)	203	SUBGRADE COMPACTION
(7)	870	SEEDING AND MULCHING (SEE GENERAL NOTE)
(8)	606	GUARDRAIL, TYPE 5
(9)	407	TACK COAT (SEE GENERAL NOTE)
(10)	254	PAVEMENT PLANING, BITUMINOUS (SEE SHEET 17 FOR AVERAGE THICKNESS)
(11)	851	9" REINFORCED CONCRETE PAVEMENT
(12)		NOT USED
(13)	605	4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH – SEE SHEET 10)
(14)	605	6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH) OR 6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (12" NORMAL DEPTH – SEE SHEET 10)
(15)	203	LINEAR GRADING
(16)		HOT LONGITUDINAL JOINT
(17)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN
(18)	611	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN
(19)	830	CURB, TYPE 8, AS PER PLAN
(20)	830	CURB, TYPE 7
(21)	855	4" ASPHALT TREATED FREE DRAINING BASE
(22)	408	BITUMINOUS PRIME COAT (APPLIED AT A RATE OF 0.40 GALLON/SQ. YARD)
(23)		SPECIAL MODULAR BLOCK RETAINING WALL
(24)	606	GUARDRAIL, TYPE 5A
(25)	202	WEARING COURSE REMOVED
(26)	608	4" CONCRETE WALK
(27)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN

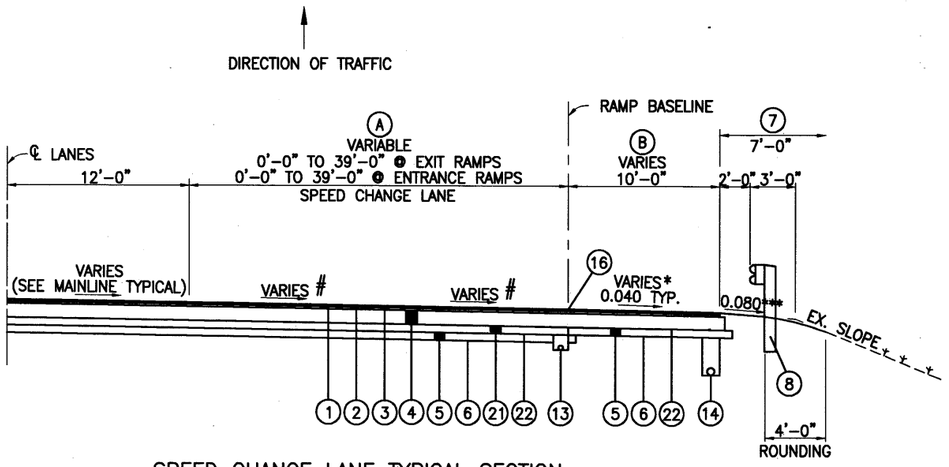
NOTE: MAINLINE I-71 PAVEMENT WARRANTY

THE MAINLINE PAVEMENT BUILDUP ON I-71 SHOWN AS REFERENCES 1-4 AND 9 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE ITEM 880 – ASPHALT CONCRETE (7 YEAR WARRANTY).

TYPICAL SECTIONS

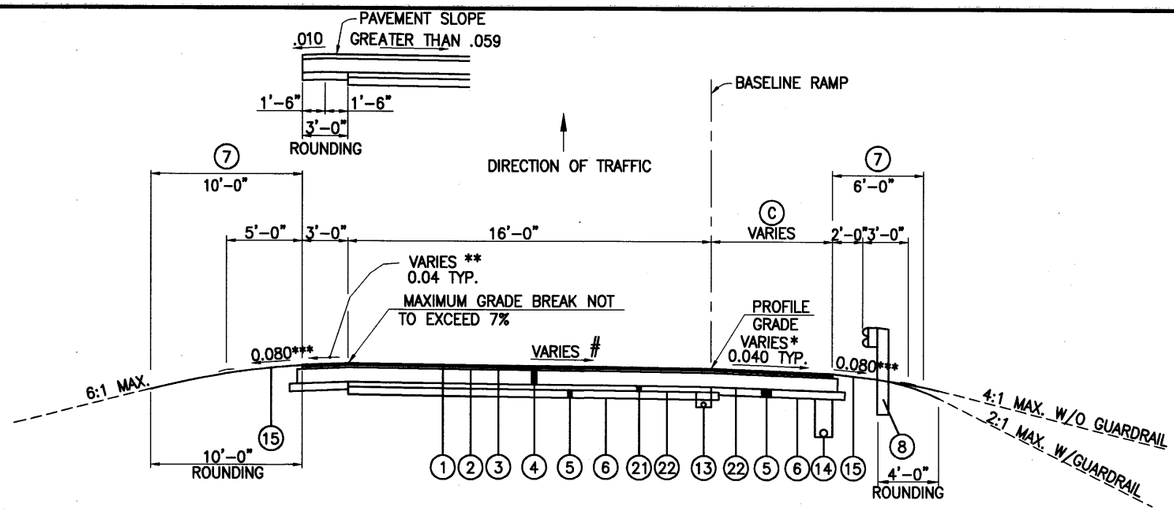
WAY-71-0.28

TYP-SHLDR.DWG May 03, 2001



SPEED CHANGE LANE TYPICAL SECTION

	A	B	LENGTH
RAMP A			
STA. 1+60.69 TO STA. 2+56.96	0' TO 2'-0"	10'-0" TO 8'-0"	= 96.27 L.F.
STA. 2+56.96 TO STA. 13+68.62	2'- 0" TO 25'-0"	8'-0"	= 1111.66 L.F.
STA. 13+68.62 TO STA. 17+32.67	25'- 0" TO 39'-0"	8'-0"	= 364.05 L.F.
RAMP B			
STA. 9+37.87 TO STA. 10+38.00	0' TO 12'-0"	10'-0" TO 8'-0"	= 100.13 L.F.
STA. 10+38.00 TO STA. 15+65.90	12'-0"	8'-0"	= 527.90 L.F.
STA. 15+65.90 TO STA. 21+13.27	12'-0" TO 39'-0"	8'-0"	= 547.37 L.F.
RAMP C			
STA. 35+85.20 TO STA. 36+81.20	0' TO 2'-0"	10'-0" TO 8'-0"	= 96.00 L.F.
STA. 36+81.20 TO STA. 47+85.29	2'-0" TO 25'-0"	8'-0"	= 1104.09 L.F.
STA. 47+85.29 TO STA. 50+85.46	25'-0" TO 31'-3 1/8"	8'-0"	= 300.17 L.F.
STA. 50+85.46 TO STA. 51+87.92	31'-3 1/8" TO 39'-0"	8'-0" TO 6'-0"	= 102.46 L.F.
RAMP D			
STA. 40+84.74 TO STA. 41+85.45	0' TO 12'-0"	10'-0" TO 8'-0"	= 100.71 L.F.
STA. 41+85.45 TO STA. 44+31.15	12'-0"	8'-0"	= 245.70 L.F.
STA. 44+31.15 TO STA. 48+84.63	12'-0" TO 39'-0"	8'-0"	= 453.48 L.F.
RAMP E			
STA. 67+90.37 TO STA. 73+35.46	39'-0" TO 12'-0"	8'-0"	= 544.69 L.F.
STA. 73+35.46 TO STA. 79+31.65	12'-0"	8'-0"	= 596.19 L.F.
STA. 79+31.65 TO STA. 80+31.78	0' TO 12-0"	8'-0" TO 10'-0"	= 100.13 L.F.
RAMP F			
STA. 65+54.47 TO STA. 70+10.87	39'-0" TO 25'-0"	8'-0"	= 456.40 L.F.
STA. 70+10.87 TO STA. 81+23.05	25'-0" TO 2'-0"	8'-0"	= 1112.18 L.F.
STA. 81+23.05 TO STA. 82+19.05	2'-0" TO 0'	8'-0" TO 10'-0"	= 96.00 L.F.



TYPICAL SUPERELEVATED SECTION

ONE-WAY RAMPS

	C	LENGTH
RAMP A		
STA. 17+32.67 TO STA. 20+00.00	8'-0"	= 267.33 L.F.
RAMP B		
STA. 21+13.27 TO STA. 23+00.00	8'-0"	= 186.73 L.F.
RAMP C		
STA. 51+87.92 TO STA. 54+00.00	♯6'-0"	= 212.08 L.F.
RAMP D		
STA. 48+84.63 TO STA. 52+00.00	♯8'-0" TO 6'-0"	= 315.37 L.F.
RAMP E		
STA. 65+84.00 TO STA. 67+90.37	8'-0"	= 206.37 L.F.
RAMP F		
STA. 61+00.00 TO STA. 65+54.16	8'-0"	= 454.16 L.F.

NOTES:

1. COLD LONGITUDINAL JOINTS IN THE 446 SURFACE COURSE SHALL BE LOCATED AT THE FINAL LANE LINE LOCATIONS. SEE PAVEMENT MARKING DETAIL SHEET 361A.
2. SHOULDER RUMBLE STRIPS SHALL BE PROVIDED THROUGHOUT THE PROJECT LIMITS SEE STANDARD CONSTRUCTION DRAWING BP-9.1 FOR DETAILS.
3. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON SHEET 10.
4. NORMAL DEPTH OF PIPE UNDERDRAIN IS 30" UNLESS OTHERWISE NOTED.
5. PRIME COAT SHALL NOT BE PLACED ON TOP OF OR WITHIN 1' OF THE FREE DRAINING BASE FILTER FABRIC.

NOTES:

♯SEE SHOULDER WIDENING DETAIL ON SHEET 12.

*LOW SIDE OF SUPER – SHOULDER CROSS SLOPE 0.04 OR RATE OF SUPER IF GREATER

**HIGH SIDE OF SUPER – SHOULDER CROSS SLOPE 0.04 OR LESS TO NOT EXCEED 7% GRADE BREAK

*** 0.080 TYPICAL, 6:1 MAX.

#SEE RAMP PAVEMENT DETAIL SHEETS FOR CROSS SLOPES.

PROPOSED ITEM LEGEND

(1)	446	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
(2)	407	TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
(3)	446	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
(4)	302	10 1/2" BITUMINOUS AGGREGATE BASE, PG64-22
(5)	304	6" AGGREGATE BASE
(6)	203	SUBGRADE COMPACTION
(7)	870	SEEDING AND MULCHING (SEE GENERAL NOTE)
(8)	606	GUARDRAIL, TYPE 5
(9)	407	TACK COAT (SEE GENERAL NOTE)
(10)	254	PAVEMENT PLANING, BITUMINOUS (SEE SHEET 17 FOR AVERAGE THICKNESS)
(11)	851	9" REINFORCED CONCRETE PAVEMENT
(12)		NOT USED
(13)	605	4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH – SEE SHEET 10)
(14)	605	6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH) OR 6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (12" NORMAL DEPTH – SEE SHEET 10)
(15)	203	LINEAR GRADING
(16)		HOT LONGITUDINAL JOINT
(17)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN
(18)	611	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN
(19)	830	CURB, TYPE 8, AS PER PLAN
(20)	830	CURB, TYPE 7
(21)	855	4" ASPHALT TREATED FREE DRAINING BASE
(22)	408	BITUMINOUS PRIME COAT (APPLIED AT A RATE OF 0.40 GALLON/SQ. YARD)
(23)		SPECIAL MODULAR BLOCK RETAINING WALL
(24)	606	GUARDRAIL, TYPE 5A
(25)	202	WEARING COURSE REMOVED
(26)	608	4" CONCRETE WALK
(27)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN

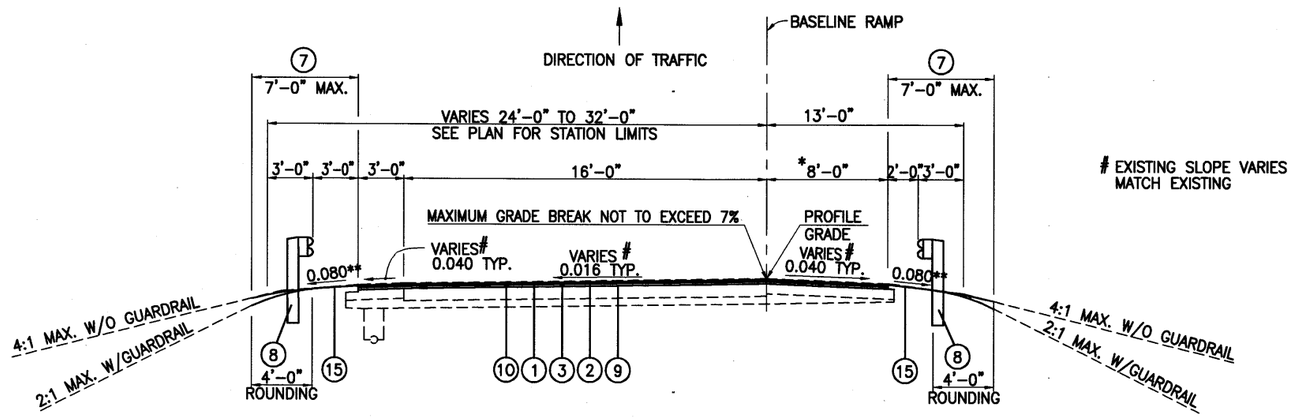
NOTE: MAINLINE I-71 PAVEMENT WARRANTY

THE MAINLINE PAVEMENT BUILDUP ON I-71 SHOWN AS REFERENCES 1-4 AND 9 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE ITEM 880 – ASPHALT CONCRETE (7 YEAR WARRANTY).

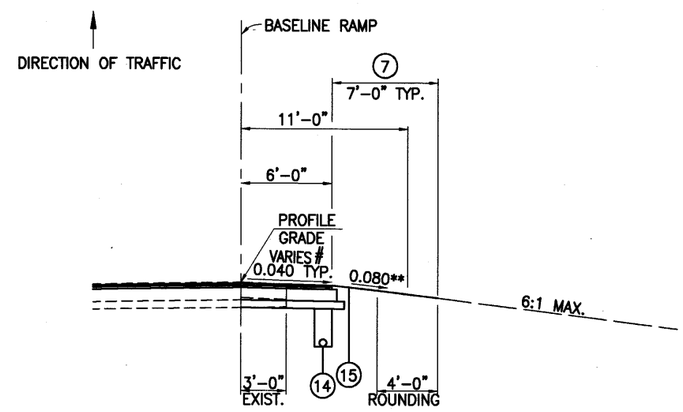
RAMP TYPICAL SECTIONS

WAY-71-0.28

TYP-RAMP.DWG May 03 ,2001



RESURFACING TYPICAL SECTION
ONE-WAY RAMPS



SHOULDER WIDENING AND RESURFACING SECTION
RAMPS C & D

RAMP A
STA. 20+00.00 TO STA. 25+42.38 = 542.38 L.F.

RAMP B
STA. 23+00.00 TO STA. 32+08.19 = 908.19 L.F.

*RAMP C
STA. 54+00.00 TO STA. 62+05.54 = 805.54 L.F.

*RAMP D
STA. 52+00.00 TO STA. 58+46.94 = 646.94 L.F.
(SHOULDER VARIES FROM 8'-0" TO 6'-0" FROM STA. 50+00.00 TO STA. 49+34.63)

RAMP E
STA. 60+19.62 TO STA. 65+84.00 = 564.38 L.F.

RAMP F
STA. 58+23.96 TO STA. 61+00.00 = 276.04 L.F.

NOTES:

1. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON SHEET 10.
2. SEE EXISTING TYPICAL SECTIONS FOR EXISTING PAVEMENT BUILD-UP.

* EXISTING SHOULDER IS 3'-0". SEE TYPICAL SHOULDER WIDENING SECTION.
** 0.080 TYPICAL, 6:1 MAX.

PROPOSED ITEM LEGEND

(1)	446	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
(2)	407	TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
(3)	446	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
(4)	302	10 1/2" BITUMINOUS AGGREGATE BASE, PG64-22
(5)	304	6" AGGREGATE BASE
(6)	203	SUBGRADE COMPACTION
(7)	870	SEEDING AND MULCHING (SEE GENERAL NOTE)
(8)	606	GUARDRAIL, TYPE 5
(9)	407	TACK COAT (SEE GENERAL NOTE)
(10)	254	PAVEMENT PLANING, BITUMINOUS (SEE SHEET 17 FOR AVERAGE THICKNESS)
(11)	851	9" REINFORCED CONCRETE PAVEMENT
(12)		NOT USED
(13)	605	4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH - SEE SHEET 10)
(14)	605	6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH) OR 6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (12" NORMAL DEPTH - SEE SHEET 10)
(15)	203	LINEAR GRADING
(16)		HOT LONGITUDINAL JOINT
(17)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN
(18)	611	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN
(19)	830	CURB, TYPE 8, AS PER PLAN
(20)	830	CURB, TYPE 7
(21)	855	4" ASPHALT TREATED FREE DRAINING BASE
(22)	408	BITUMINOUS PRIME COAT (APPLIED AT A RATE OF 0.40 GALLON/SQ. YARD)
(23)		SPECIAL MODULAR BLOCK RETAINING WALL
(24)	606	GUARDRAIL, TYPE 5A
(25)	202	WEARING COURSE REMOVED
(26)	608	4" CONCRETE WALK
(27)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN

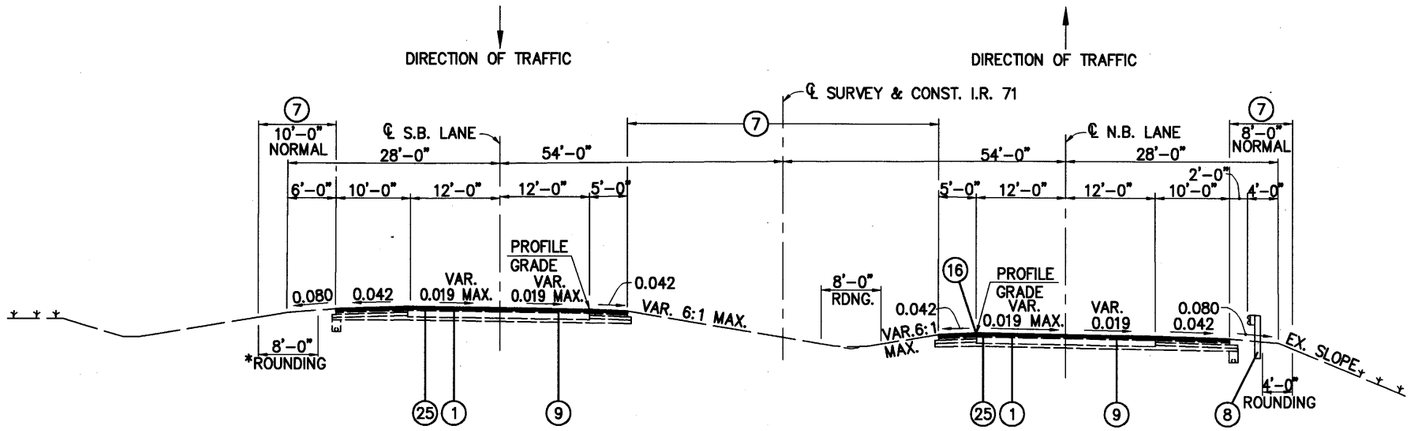
NOTE: MAINLINE I-71 PAVEMENT WARRANTY

THE MAINLINE PAVEMENT BUILDUP ON I-71 SHOWN AS REFERENCES 1-4 AND 9 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE ITEM 880 - ASPHALT CONCRETE (7 YEAR WARRANTY).

RAMP RESURFACING TYPICAL SECTIONS

WAY-71-0.28

TYP-RAMPS.DWG May 03, 2001



RESURFACING TYPICAL SECTION

STATION 14+55.00 TO 14+82.88 = 27.88 L.F.
STATION 371+50.00 TO 371+75.00 = 25.00 L.F.

NOTES:

1. FOR EXISTING BUILDUP SEE SHEET 17.

PROPOSED ITEM LEGEND

(1)	446	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
(2)	407	TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
(3)	446	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
(4)	302	10 1/2" BITUMINOUS AGGREGATE BASE, PG64-22
(5)	304	6" AGGREGATE BASE
(6)	203	SUBGRADE COMPACTION
(7)	870	SEEDING AND MULCHING (SEE GENERAL NOTE)
(8)	606	GUARDRAIL, TYPE 5
(9)	407	TACK COAT (SEE GENERAL NOTE)
(10)	254	PAVEMENT PLANING, BITUMINOUS (SEE SHEET 17 FOR AVERAGE THICKNESS)
(11)	851	9" REINFORCED CONCRETE PAVEMENT
(12)		NOT USED
(13)	605	4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH - SEE SHEET 10)
(14)	605	6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH) OR 6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (12" NORMAL DEPTH - SEE SHEET 10)
(15)	203	LINEAR GRADING
(16)		HOT LONGITUDINAL JOINT
(17)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN
(18)	611	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN
(19)	830	CURB, TYPE 8, AS PER PLAN
(20)	830	CURB, TYPE 7
(21)	855	4" ASPHALT TREATED FREE DRAINING BASE
(22)	408	BITUMINOUS PRIME COAT (APPLIED AT A RATE OF 0.40 GALLON/SQ. YARD)
(23)		SPECIAL MODULAR BLOCK RETAINING WALL
(24)	606	GUARDRAIL, TYPE 5A
(25)	202	WEARING COURSE REMOVED
(26)	608	4" CONCRETE WALK
(27)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN

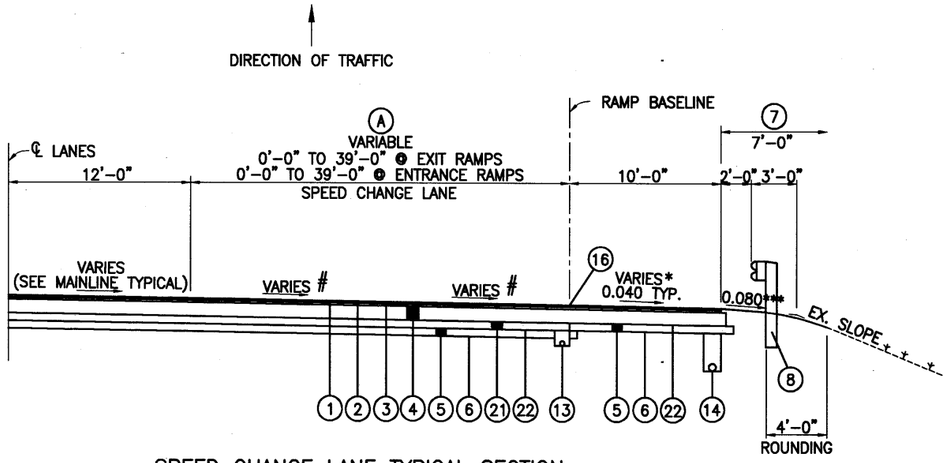
NOTE: MAINLINE I-71 PAVEMENT WARRANTY

THE MAINLINE PAVEMENT BUILDUP ON I-71 SHOWN AS REFERENCES 1-4 AND 9 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE ITEM 880 - ASPHALT CONCRETE (7 YEAR WARRANTY).

RESURFACING TYPICAL SECTIONS I-71

WAY-71-0.28

TYP-RESF.DWG May 03, 2001



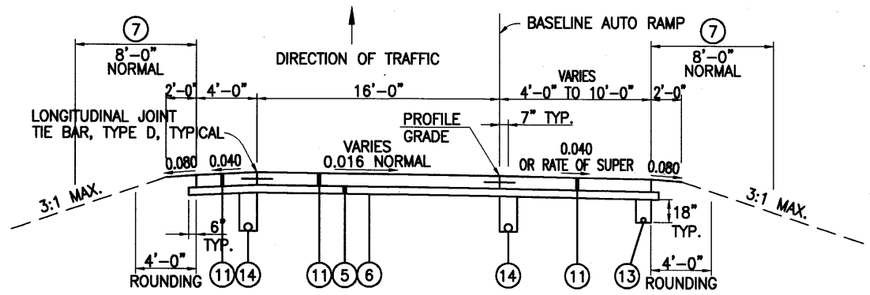
SPEED CHANGE LANE TYPICAL SECTION

*LOW SIDE OF SUPER – SHOULDER CROSS SLOPE 0.04 OR RATE OF SUPER IF GREATER

*** 0.080 TYPICAL, 6:1 MAX.

SEE RAMP PAVEMENT DETAIL SHEETS FOR CROSSSLOPES.

	A	LENGTH
NORTHBOUND REST AREA EXIT RAMP		
STA. 405+42.14 TO STA. 406+42.86	0' TO 12'-0"	= 100.72 L.F.
STA. 406+42.86 TO STA. 408+87.86	12'-0"	= 245.00 L.F.
STA. 408+87.86 TO STA. 413+41.34	12'-0" TO 39'-0"	= 453.48 L.F.
NORTHBOUND REST AREA ENTRANCE RAMP		
STA. 429+19.81 TO STA. 433+65.78	39'-0" TO 25'-0"	= 445.97 L.F.
STA. 433+65.78 TO STA. 445+65.88	25'-0" TO 0'	= 1200.10 L.F.
SOUTHBOUND REST AREA EXIT RAMP		
STA. 600+74.41 TO STA. 612+74.50	0' TO 25'-0"	= 1200.09 L.F.
STA. 612+74.50 TO STA. 617+20.47	25'-0" TO 39'-0"	= 445.97 L.F.
SOUTHBOUND REST AREA ENTRANCE RAMP		
STA. 631+86.17 TO STA. 636+05.90	39'-0" TO 12'-0"	= 419.73 L.F.
STA. 636+05.90 TO STA. 637+06.62	12'-0" TO 0'	= 100.72 L.F.



PROPOSED TYPICAL SECTION

ONE-WAY RAMP AT REST AREA

NOTES:

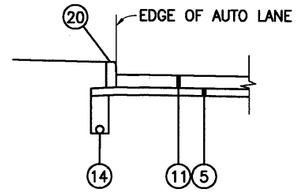
1. COLD LONGITUDINAL JOINTS IN THE 446 SURFACE COURSE SHALL BE LOCATED AT THE FINAL LANE LINE LOCATIONS. SEE PAVEMENT MARKING DETAIL SHEET 361A.

2. SHOULDER RUMBLE STRIPS SHALL BE PROVIDED THROUGHOUT THE PROJECT LIMITS SEE STANDARD CONSTRUCTION DRAWING BP-9.1 FOR DETAILS.

3. FOR SHOULDER EDGE COURSE AND UNDERDRAIN DESIGN SEE DETAIL ON SHEET 10.

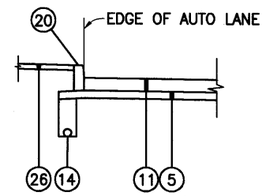
4. NORMAL DEPTH OF PIPE UNDERDRAIN IS 30" UNLESS OTHERWISE NOTED.

5. PRIME COAT SHALL NOT BE PLACED ON TOP OF OR WITHIN 1' OF THE FREE DRAINING BASE FILTER FABRIC.



ISLAND TYPICAL SECTION

ONE-WAY RAMP AT REST AREA



WALK TYPICAL SECTION

ONE-WAY RAMP AT REST AREA

PROPOSED ITEM LEGEND

(1)	446	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
(2)	407	TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
(3)	446	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
(4)	302	10 1/2" BITUMINOUS AGGREGATE BASE, PG64-22
(5)	304	6" AGGREGATE BASE
(6)	203	SUBGRADE COMPACTION
(7)	870	SEEDING AND MULCHING (SEE GENERAL NOTE)
(8)	606	GUARDRAIL, TYPE 5
(9)	407	TACK COAT (SEE GENERAL NOTE)
(10)	254	PAVEMENT PLANING, BITUMINOUS (SEE SHEET 17 FOR AVERAGE THICKNESS)
(11)	851	9" REINFORCED CONCRETE PAVEMENT
(12)		NOT USED
(13)	605	4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH)
(14)	605	6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH) OR 6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (12" NORMAL DEPTH)
(15)	203	LINEAR GRADING
(16)		HOT LONGITUDINAL JOINT
(17)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN
(18)	611	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN
(19)	830	CURB, TYPE 8, AS PER PLAN
(20)	830	CURB, TYPE 7
(21)	855	4" ASPHALT TREATED FREE DRAINING BASE
(22)	408	BITUMINOUS PRIME COAT (APPLIED AT A RATE OF 0.40 GALLON/SQ. YARD)
(23)		SPECIAL MODULAR BLOCK RETAINING WALL
(24)	606	GUARDRAIL, TYPE 5A
(25)	202	WEARING COURSE REMOVED
(26)	608	4" CONCRETE WALK
(27)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN

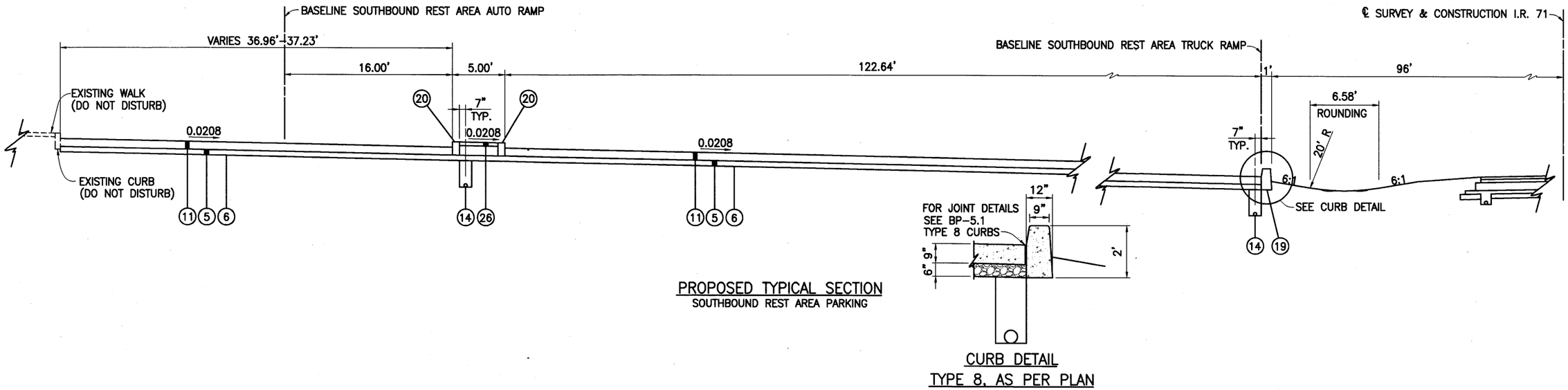
NOTE: MAINLINE I-71 PAVEMENT WARRANTY

THE MAINLINE PAVEMENT BUILDUP ON I-71 SHOWN AS REFERENCES 1-4 AND 9 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE ITEM 880 – ASPHALT CONCRETE (7 YEAR WARRANTY).

REST AREA TYPICAL SECTIONS

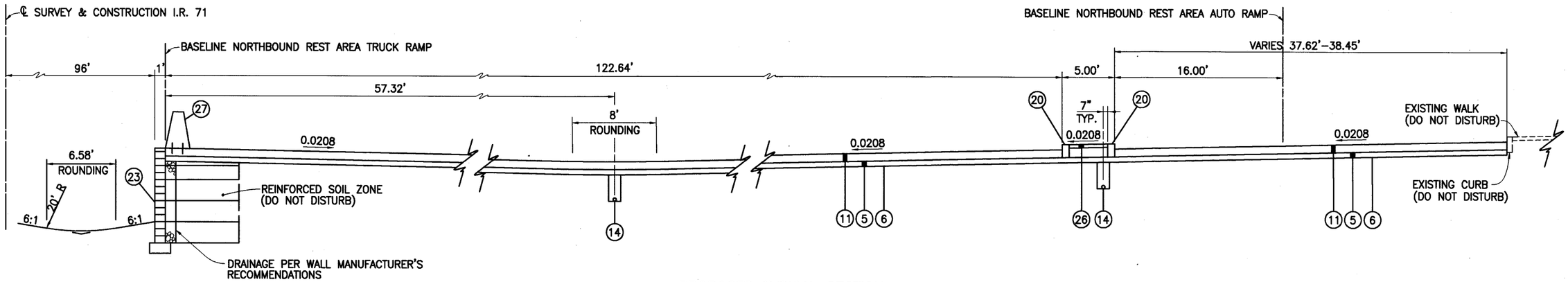
WAY-71-0.28

RDS_REST.DWG May 03 2001



PROPOSED TYPICAL SECTION
SOUTHBOUND REST AREA PARKING

CURB DETAIL
TYPE 8, AS PER PLAN



SEE SHEET 328 FOR WALL DETAILS.

PROPOSED TYPICAL SECTION
NORTHBOUND REST AREA PARKING

PROPOSED ITEM LEGEND

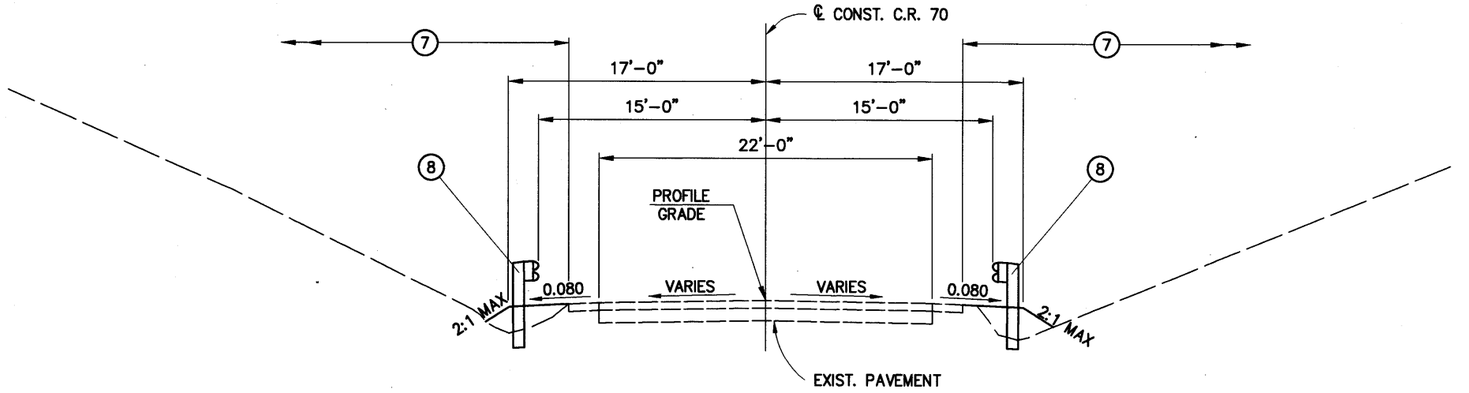
(1)	446	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
(2)	407	TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
(3)	446	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28
(4)	302	10 1/2" BITUMINOUS AGGREGATE BASE, PG64-22
(5)	304	6" AGGREGATE BASE
(6)	203	SUBGRADE COMPACTION
(7)	870	SEEDING AND MULCHING (SEE GENERAL NOTE)
(8)	606	GUARDRAIL, TYPE 5
(9)	407	TACK COAT (SEE GENERAL NOTE)
(10)	254	PAVEMENT PLANING, BITUMINOUS (SEE SHEET 17 FOR AVERAGE THICKNESS)
(11)	851	9" REINFORCED CONCRETE PAVEMENT
(12)		NOT USED
(13)	605	4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH)
(14)	605	6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH) OR 6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (12" NORMAL DEPTH)
(15)	203	LINEAR GRADING
(16)		HOT LONGITUDINAL JOINT
(17)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN
(18)	611	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN
(19)	830	CURB, TYPE 8, AS PER PLAN
(20)	830	CURB, TYPE 7
(21)	855	4" ASPHALT TREATED FREE DRAINING BASE
(22)	408	BITUMINOUS PRIME COAT (APPLIED AT A RATE OF 0.40 GALLON/SQ. YARD)
(23)		SPECIAL RETAINING WALL (SEE SHEET 328).
(24)	606	GUARDRAIL, TYPE 5A
(25)	202	WEARING COURSE REMOVED
(26)	608	4" CONCRETE WALK
(27)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN

NOTE: MAINLINE I-71 PAVEMENT WARRANTY

THE MAINLINE PAVEMENT BUILDUP ON I-71 SHOWN AS REFERENCES 1-4 AND 9 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE ITEM 880 - ASPHALT CONCRETE (7 YEAR WARRANTY).

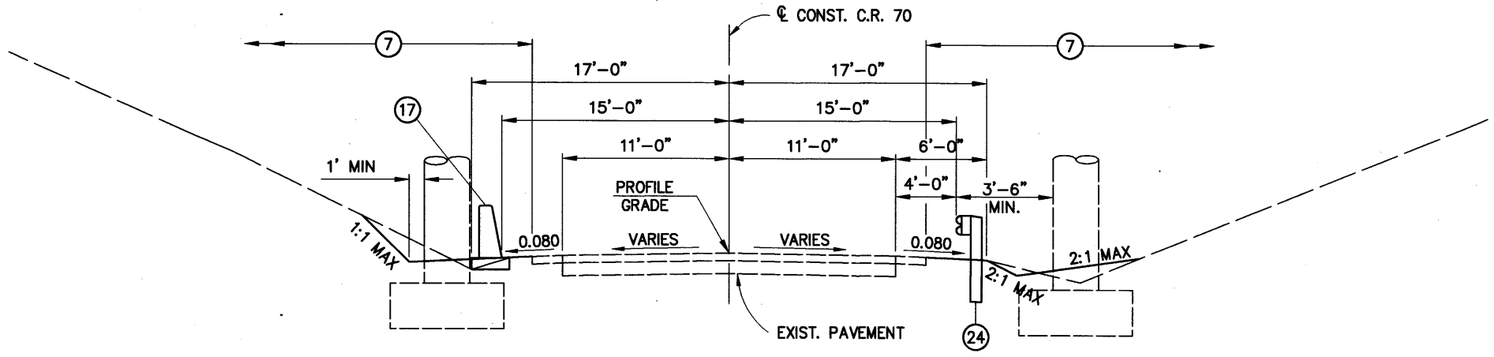
TYPICAL SECTION
REST AREA TYP
WAY-71-0.28
15
432

RDS_RES2.DWG May 03, 2001



TYPICAL SECTION C.R. 70

STATION 7+20 TO 12+25 RT.
STATION 7+75 TO 12+50 LT.



TYPICAL SECTION C.R. 70 AT TYPE D BARRIER

STATION 10+29.50 TO 11+46.50 LT.

PROPOSED ITEM LEGEND

(1)	446	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H
(2)	407	TACK COAT FOR INTERMEDIATE COURSE (SEE GENERAL NOTE)
(3)	446	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64–28
(4)	302	10 1/2" BITUMINOUS AGGREGATE BASE, PG64–22
(5)	304	6" AGGREGATE BASE
(6)	203	SUBGRADE COMPACTION
(7)	870	SEEDING AND MULCHING (SEE GENERAL NOTE)
(8)	606	GUARDRAIL, TYPE 5
(9)	407	TACK COAT (SEE GENERAL NOTE)
(10)	254	PAVEMENT PLANING, BITUMINOUS (SEE SHEET 17 FOR AVERAGE THICKNESS)
(11)	851	9" REINFORCED CONCRETE PAVEMENT
(12)		NOT USED
(13)	605	4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH – SEE SHEET 10)
(14)	605	6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH) OR 6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (12" NORMAL DEPTH – SEE SHEET 10)
(15)	203	LINEAR GRADING
(16)		HOT LONGITUDINAL JOINT
(17)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN
(18)	611	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN
(19)	830	CURB, TYPE 8, AS PER PLAN
(20)	830	CURB, TYPE 7
(21)	855	4" ASPHALT TREATED FREE DRAINING BASE
(22)	408	BITUMINOUS PRIME COAT (APPLIED AT A RATE OF 0.40 GALLON/SQ. YARD)
(23)		SPECIAL MODULAR BLOCK RETAINING WALL
(24)	606	GUARDRAIL, TYPE 5A
(25)	202	WEARING COURSE REMOVED
(26)	608	4" CONCRETE WALK
(27)	622	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN

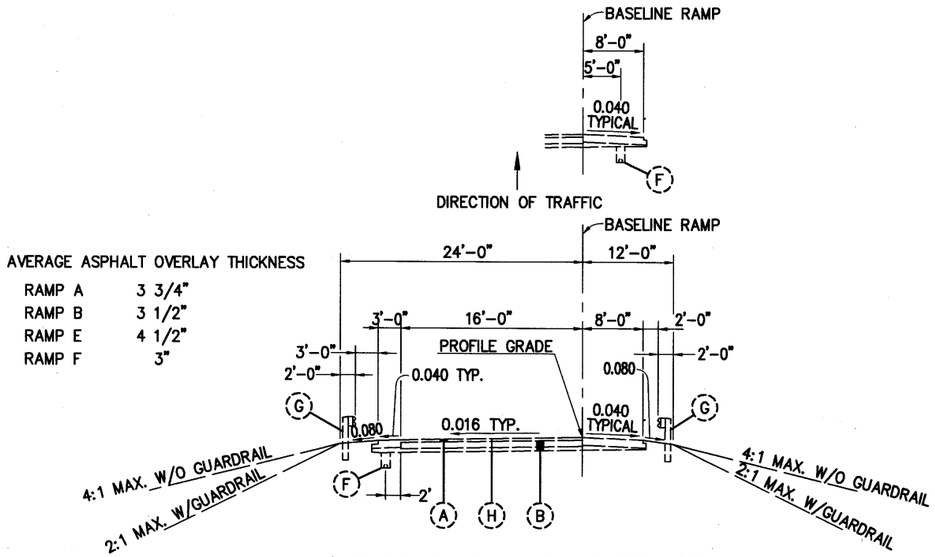
NOTE: MAINLINE I–71 PAVEMENT WARRANTY

THE MAINLINE PAVEMENT BUILDUP ON I–71 SHOWN AS REFERENCES 1–4 AND 9 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE ITEM 880 – ASPHALT CONCRETE (7 YEAR WARRANTY).

CR70 TYPICAL SECTIONS

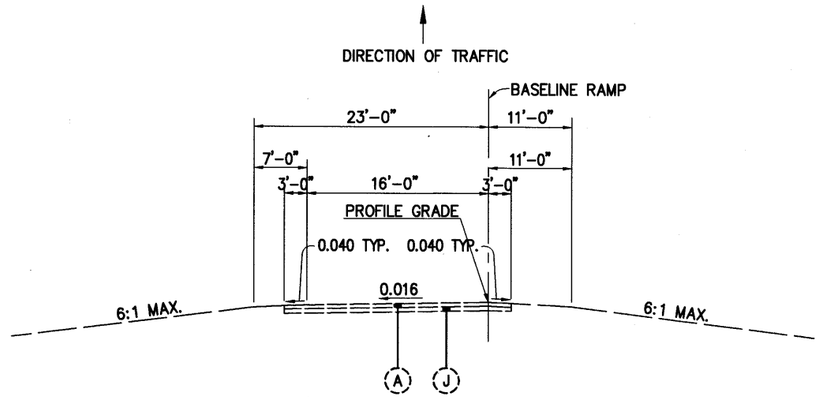
WAY–71–0.28

TYPCR70.DWG May 03 2001

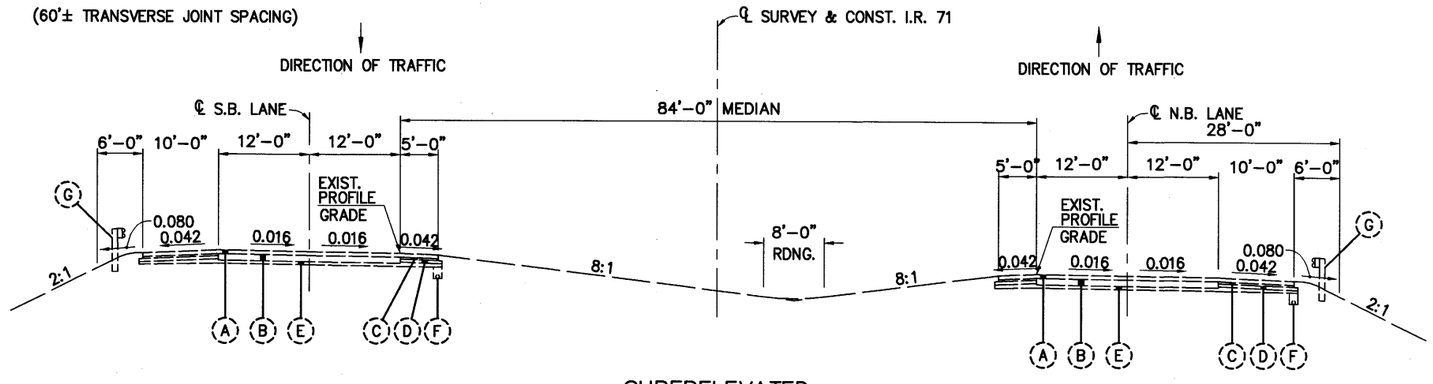


EXISTING RAMP TYPICAL SECTION
RAMPS A, B, E & F

(60'± TRANSVERSE JOINT SPACING)

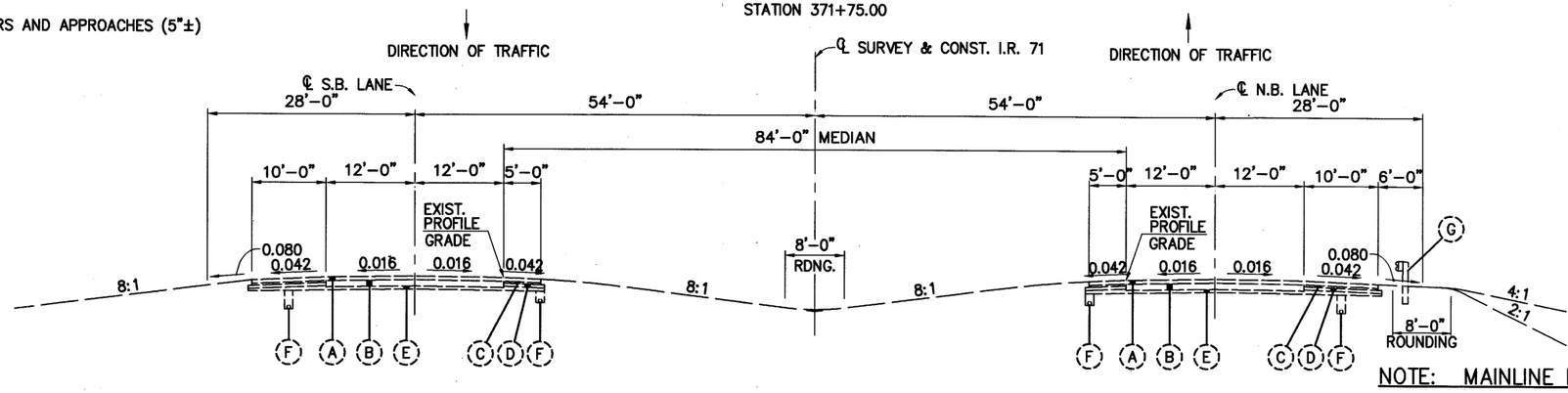


EXISTING RAMP TYPICAL SECTION
RAMPS C & D



SUPERELEVATED
EXISTING BIFURCATED TYPICAL SECTION

STATION 371+75.00



EXISTING TYPICAL SECTION

STATION 14+55.00

EXISTING ITEM LEGEND

- (A) ASPHALT OVERLAY (6"±)
- (B) REINFORCED CONCRETE PAVEMENT (10"±)
- (C) BITUMINOUS MACADAM BASE COURSE (3"±)
- (D) STABILIZED AGGREGATE SHOULDERS AND APPROACHES (5"±)
- (E) SUBBASE (VARIABLE DEPTH)
- (F) 6" PIPE UNDERDRAIN
- (G) GUARDRAIL, TYPE 5
- (H) LONGITUDINAL JOINT
- (J) 7" BITUMINOUS AGGREGATE BASE
- (K) CONCRETE CURB
- (L) CONCRETE SIDEWALK

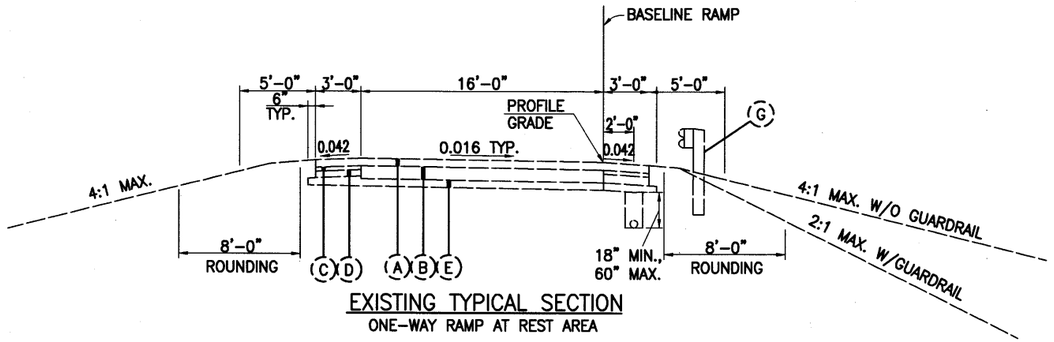
NOTE: MAINLINE I-71 PAVEMENT WARRANTY

THE MAINLINE PAVEMENT BUILDUP ON I-71 SHOWN AS REFERENCES 1-4 AND 9 ARE FOR INFORMATION ONLY. THESE ITEMS ARE TO BE ITEM 880 - ASPHALT CONCRETE (7 YEAR WARRANTY).

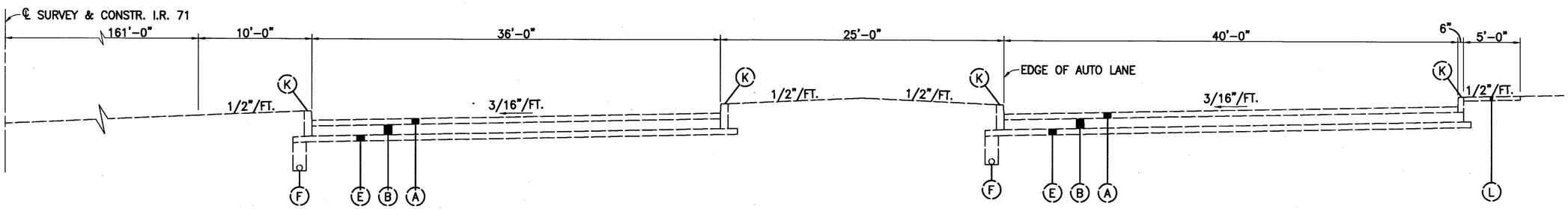
EXISTING TYPICAL SECTIONS I-71

WAY-71-0.28

TYP-EXIS.DWG May 03, 2001



EXISTING TYPICAL SECTION
ONE-WAY RAMP AT REST AREA



REST AREA PARKING TYPICAL SECTION

EXISTING ITEM LEGEND

- (A) ASPHALT OVERLAY (6"±)
- (B) REINFORCED CONCRETE PAVEMENT (10"±)
- (C) BITUMINOUS MACADAM BASE COURSE (3"±)
- (D) STABILIZED AGGREGATE SHOULDERS AND APPROACHES (5"±)
- (E) SUBBASE (VARIABLE DEPTH)
- (F) 6" PIPE UNDERDRAIN
- (G) GUARDRAIL, TYPE 5
- (H) LONGITUDINAL JOINT
- (J) 7" BITUMINOUS AGGREGATE BASE
- (K) CONCRETE CURB
- (L) CONCRETE SIDEWALK

EXISTING REST AREA TYPICAL SECTIONS

WAY-71-0.28

M:\99029\AUTOCAD\ACAD-R13\Typ-RA.dwg - SHEET 18 - May 03, 2001

CALCULATED SDS 04/01 CHECKED AFS 04/01

GENERAL NOTES

ROUNDING
THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES
LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

GAS: GATHERCO, INC.
6273 FRANK AVE. N.W.
NORTH CANTON, OHIO 44720
(330) 498-9553

PETROLEUM: BP AMOCO PIPELINE COMPANY
12716 TANK FARM ROAD
CYGNET, OHIO 43413
(419) 655-2966

ELECTRIC: LORAIN-MEDINA RURAL ELECTRIC COOPERATIVE,INC.
P.O. BOX 158
WELLINGTON, OHIO 44090
(216) 647-2133

TELEPHONE: GTE TELEPHONE OPERATIONS
83 TOWNSEND AVE.
NORWALK, OHIO 44857
(419) 744-3619

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

THE WASTEWATER TREATMENT PLANT AND LINES AT THE REST AREAS WERE CONSTRUCTED AFTER THESE PLANS WERE FINISHED. UTILITIES IN THESE AREAS MAY VARY FROM PLAN LOCATIONS. THE CONTRACTOR SHALL CONTACT ODOT DISTRICT 3 AT THE ADDRESS LISTED BELOW FOR FURTHER INFORMATION.

THE DEPTH OF THE GAS LINES SHOWN AT STATION 79+85, 230+03, 285+23 AND 358+22 ARE AS OBTAINED BY BORINGS PERFORMED BY THE SO-DEEP COMPANY, 449 MUNROE FALLS ROAD, TALLMADGE, OH 44278. FOR A COPY OF THE BORING RESULTS, THE CONTRACTOR SHALL NOTIFY DISTRICT 3 AT THE FOLLOWING ADDRESS.

OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 3
906 NORTH CLARK STREET
ASHLAND, OHIO 44805-1989
MR. JAMES R. TRUESDELL
(800) 276-4188 EXT. 360

CONTINGENCY QUANTITIES
THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT

ELEVATION DATUM
ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.

GRADING LIMITS
GRADING LIMITS HAVE BEEN SHOWN ON THE PLANS AS A LINE LABELED L/G. THESE LIMITS ARE SHOWN TO DEFINE THE EXTENT OF THE GRADING AS SHOWN ON THE CROSS SECTIONS. THE CONTRACTOR SHALL CONSTRICT ACTIVITIES TO WITHIN THESE AREAS. ADDITIONAL WORK SHOWN ON THE PLANS OUTSIDE THE GRADING LIMITS SHALL BE ACCESSED AND ACCOMPLISHED AS DIRECTED BY THE ENGINEER UNLESS OTHERWISE NOTED.

WORK LIMITS
THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN
ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING, AS PER PLAN. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	NO. TREES	NO. STUMPS	TOTAL
15"	21	0	21
30"	0	0	0
48"	0	0	0
60"	0	0	0

THE CONTRACTOR SHALL NOTIFY O.D.O.T. DISTRICT 3 FACILITIES DEPARTMENT AT THE FOLLOWING ADDRESS ONE MONTH PRIOR TO BEGINNING ANY WORK AT THE REST AREAS SO THAT DISTRICT PERSONNEL CAN SALVAGE PLANTINGS.

OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 3
906 NORTH CLARK STREET
ASHLAND, OHIO 44805-1989
MR. MIKE SLOAN
(800) 276-4188 EXT. 343

ALL PLANTINGS REMAINING IN THE CONSTRUCTION LIMITS AFTER THE ONE MONTH TIME PERIOD SHALL BE CONSIDERED "NOT WANTED" AND SHALL BE REMOVED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE DEPARTMENT. ANY REMAINING PLANTINGS OUTSIDE THE CONSTRUCTION LIMITS SHALL NOT BE DISTURBED.

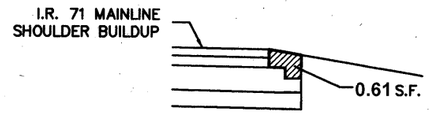
INCLUDED IN THE LUMP SUM BID FOR ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN, THE CONTRACTOR SHALL REMOVE ALL DELINEATORS ALONG THE PROJECT AND THE WOODEN GUARDRAIL POSTS AT THE NORTHBOUND AND SOUTHBOUND REST AREAS.

ADDITIONAL SOIL INFORMATION
THE SOIL PROFILE AND/OR STRUCTURE FOUNDATION INVESTIGATION SHEETS CONTAIN ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN. ADDITIONAL SUBSURFACE INVESTIGATIONS MAY HAVE BEEN MADE TO STUDY SOME ASPECT OF THE PROJECT. MORE INFORMATION, IF ANY, MAY BE OBTAINED IN DISTRICT 3, THE OFFICE OF MATERIALS MANAGEMENT OR THE OFFICE OF STRUCTURAL ENGINEERING.

PROTECTION OF RIGHT-OF-WAY LANDSCAPING
THE CONTRACTOR SHALL CONSTRICT ALL ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION LIMITS. UNLESS OTHERWISE IDENTIFIED IN THE PLANS OR PROPOSAL, THE CONSTRUCTION LIMITS ARE IDENTIFIED AS 30 FEET FROM THE EDGE OF PAVEMENT. SHOULD THE CONTRACTOR WISH TO USE ANY AREA OUTSIDE THESE LIMITS, A REQUEST IN WRITING MUST BE SUBMITTED TO THE PROJECT ENGINEER. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA THAT THE CONTRACTOR PLANS TO USE AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. THE ENGINEER SHALL APPROVE THE REQUEST IN WRITING BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA. PRIOR TO BEGINNING WORK, THE CONTRACTOR, SUPERINTENDENT OR HIS REPRESENTATIVE, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY SHALL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT OF WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS). A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE. ANY ITEMS DAMAGED BEYOND THE CONSTRUCTION LIMITS AS DEFINED ABOVE WILL BE REPLACED IN KIND OR AS DIRECTED BY THE PROJECT ENGINEER.

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS
THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.011 OF THE 1997 CONSTRUCTION AND MATERIALS SPECIFICATIONS. THE APPENDIX OF ASTM E 380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

EARTHWORK VOLUME ADJUSTMENTS
THE EARTHWORK DATUM FOR VOLUME CALCULATIONS SHOWN ON THE CROSS SECTIONS REFLECTS CUT VOLUMES FOR THE PAVEMENT BUILDUP AREAS ONLY. THE FOLLOWING QUANTITIES HAVE BEEN CALCULATED TO ADJUST THE EARTHWORK VOLUMES TO ACCOUNT FOR THE OVEREXCAVATED AREA AND ADDITIONAL EMBANKMENT ABOVE THE PAVEMENT STEPS (SEE HATCHED AREA). THE AVERAGE END AREA FOR THE LENGTH OF THE PROJECT IS 0.86 S.F.



LOCATION	LENGTH	NO. OF EDGES	END AREA	VOLUME
MAINLINE	35667.12'	4	0.61	3223 C.Y.
RAMPS	1643.38'	2	0.61	74 C.Y.
				3297 C.Y.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO ADJUST THE EARTHWORK VOLUMES FOR THE PAVEMENT STEPS:

ITEM 203 - EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	3297 C.Y.
ITEM 203 - EMBANKMENT	3297 C.Y.

ITEM 203 - ROADWAY, MISC.: ASPHALT GRINDINGS
A TOTAL OF TWO THOUSAND (2000) TONS OF PAVEMENT PLANING GRINDINGS ARE TO BE DELIVERED BY THE CONTRACTOR TO THE MEDINA COUNTY ODOT PROPERTY LOCATED AT S.R. 83, BURBANK, OHIO 44214. ONE THOUSAND (1000) TONS ARE TO BE DELIVERED IN THE FIRST YEAR OF CONSTRUCTION, AND ANOTHER ONE THOUSAND (1000) TONS IN THE SECOND YEAR OF CONSTRUCTION. ODOT WILL PROVIDE THE LOCATION OF THE STORAGE AREA AT THIS PROPERTY SITE TO THE CONTRACTOR AT THE PRECONSTRUCTION MEETING. THE GRINDINGS ARE NOT TO BE DELIVERED WET. THE GRINDINGS ARE TO BE DELIVERED BETWEEN THE HOURS OF 7:30 A.M. AND 4;00 P.M., MONDAY THROUGH THURSDAY, EXCLUDING HOLIDAYS.

THE QUANTITY SHALL BE MEASURED BY AGREED UPON ESTIMATED WEIGHT, BETWEEN ODOT AND THE CONTRACTOR. WEIGHTS SHALL BE ESTIMATED PER LOOSE TRUCK LOAD VOLUMES USING A CONVERSION FACTOR OF 1.5 TONS PER CUBIC YARD OF ASPHALT GRINDINGS.

ALL ASSOCIATED COSTS TO LOAD AND TO DELIVER TO THE SITE THE ASPHALT GRINDINGS ARE TO BE INCLUDED FOR PAYMENT BY THE TON PER ITEM 203 - ROADWAY, MISC.: ASPHALT GRINDINGS.

COOPERATION BETWEEN CONTRACTORS
THE CONTRACTOR IS ADVISED OF THE PRESENCE OF POSSIBLY THREE (3) OTHER CONSTRUCTION CONTRACTS WITHIN OR IN THE VICINITY OF THE WORK LIMITS OF THIS PROJECT. THE WASTE WATER TREATMENT PLANT RECONSTRUCTION, ASD/WAY-71-14.383/0.00 AND WAY/MED-71-7.04/0.00 PROJECTS MAY BE UNDER CONSTRUCTION AT THE SAME TIME AND 105.07 COOPERATION BETWEEN CONTRACTORS IS REQUIRED.

WAY-71-0.28

GENNOTE.dwg May 08 ,2001

CALCULATED SDS 04/01 | CHECKED AFS 04/01

DISPOSAL OF WASTE MATERIAL

THE AREAS ON THE INTERIOR OF THE S.R. 301 AND S.R. 539 LOOP RAMPS AS SHOWN ON THE SCHEMATIC PLANS ARE AVAILABLE AS A WASTE SITE FOR THE DISPOSAL OF EXCAVATED MATERIAL, PAVEMENT REMOVED, AND CONCRETE REMOVED FROM STRUCTURES.

IF THE CONTRACTOR DESIRES TO USE ANY OF THESE SITES, THE CONTRACTOR MUST SUBMIT A GRADING PLAN TO THE DISTRICT FOR APPROVAL, AS WELL AS A SUMMARY OF THE MEANS AND METHODS FOR PERFORMING THE WORK IN ACCORDANCE WITH GUIDELINES SET HEREIN AND AS DIRECTED BY THE ENGINEER.

THE GENERAL GUIDELINES FOR GRADING PLAN APPROVAL ARE AS FOLLOWS:

1. THE PROPOSED SLOPES SHALL NOT BE STEEPER THAN THE EXISTING SLOPES. SAFETY GRADING SHALL APPLY.

2. MANHOLES AND CATCH BASINS SHALL BE ADJUSTED TO GRADE AND PIPES SHALL BE EXTENDED AS NECESSARY TO PROPAGATE THE EXISTING DRAINAGE FLOW PATTERNS.

3. CONCRETE TO BE PLACED IN THE WASTE AREA SHALL BE BROKEN INTO PIECES NOT EXCEEDING 2 FEET IN THE LARGEST DIMENSION. THE MATERIAL SHALL CONTAIN PIECES OF VARIOUS SIZES TO AID IN THE COMPACTION OF THE MATERIAL SUCH THAT NOT MORE THAN 50% OF THE MATERIAL SHALL BE LARGER THAN ONE FOOT IN THE LARGEST DIMENSION AND NOT MORE THAN 75% OF THE MATERIAL IS GREATER THAN 4 INCHES IN THE LARGEST DIMENSION. THE MATERIAL SHALL BE PLACED IN ACCORDANCE WITH 203.09(d) WITH EACH LIFT BEING ROLLED AS DIRECTED BY THE ENGINEER. ADDITIONAL WASTE FILL MATERIAL MAY BE INCORPORATED INTO THE CONCRETE TO AID COMPACTION. A TWO FOOT CAP OF SOIL AS DESCRIBED IN 203.09(d) SHALL BE PLACED ON TOP OF THE ROCK EMBANKMENT INCLUDING A MINIMUM OF 6 INCHES OF TOPSOIL. THE FILLED AREA SHALL BE SEEDED IN ACCORDANCE WITH ITEM 870 OF THE SPECIFICATIONS. TEMPORARY EROSION CONTROLS SHALL BE PLACED AS DIRECTED BY THE ENGINEER.

ALL WORK DESCRIBED HEREIN AND ANY ADDITIONAL WORK NECESSARY IN CREATING THE FILL AREA SHALL BE PERFORMED AT THE CONTRACTORS EXPENSE.

ITEM 202 - RAISED PAVEMENT MARKERS REMOVED FOR STORAGE
RAISED PAVEMENT MARKERS SHALL BE REMOVED IN A MANNER THAT PREVENTS DAMAGE TO THE CASTINGS. ALL DEPRESSIONS CAUSED BY REMOVAL OF THE MARKERS SHALL BE FILLED WITH 448 TO THE EXISTING ROAD SURFACE. REMOVED MARKERS ARE TO BE STORED ON THE PROJECT SITE AS DIRECTED BY THE ENGINEER. ALL COSTS TO BE INCLUDED IN THE CONTRACT PRICE BID PER EACH FOR ITEM 202 - RAISED PAVEMENT MARKERS REMOVED FOR STORAGE.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR REMOVING RAISED PAVEMENT MARKERS:

202, RAISED PAVEMENT MARKERS REMOVED FOR STORAGE 600 EACH

BENCHING OF FOUNDATION SLOPES
ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. ALL OTHER SLOPED EMBANKMENT AREAS SHALL BE BENCHED AS SET FORTH IN 203.09. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.09

FILL AT ABANDONED RAILROAD BRIDGE
THE FILL AT THE ABANDONED RAILROAD BRIDGE SHALL BE PLACED IN SEVERAL PHASES ACCORDING TO PLAN DETAILS. ALL FILL MATERIAL SHALL MEET THE REQUIREMENTS OF ITEM 203; EMBANKMENT AND SHALL BE BENCHED ACCORDING TO ITEM 203.

THE INITIAL FILL TO ELEVATION 956.5 +/- SHALL BE IN PLACE A MINIMUM OF 8 MONTHS PRIOR TO PLACING ANY ADDITIONAL FILL. THE INITIAL FILL SHALL BE SLOPED TO DRAIN AND SEEDED AFTER PLACEMENT. THE CONTRACTOR IS REMINDED THAT A 36" CONDUIT IS TO BE INSTALLED THROUGH THE FILL TO MAINTAIN DRAINAGE FROM ONE SIDE TO THE OTHER AND THAT SHEET PILING WILL BE DRIVEN THROUGH THIS FILL DURING STAGE 2 OF THE MAINTENANCE OF TRAFFIC.

ITEM 203 - PROOF ROLLING
AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 203 - DITCH CLEANOUT
THIS WORK SHALL CONSIST OF REESTABLISHING THE CROSS-SECTION OF AN EXISTING DITCH. SURPLUS OR UNSUITABLE MATERIAL, AS DETERMINED BY THE ENGINEER, SHALL BE DISPOSED OF AS PER 203.05. EMBANKMENT REQUIRED FOR ERODED CONDITIONS SHALL MEET THE REQUIREMENTS OF 203.07 EXCEPT THAT THE COMPACTION REQUIREMENTS ARE WAIVED.

MEASUREMENT OF THE DITCH CLEANOUT SHALL BE THE ACTUAL LINEAR FEET MEASURED ALONG THE CENTERLINE OF THE DITCH.

PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203 - DITCH CLEANOUT.

ITEM 203 - LINEAR GRADING
GRADED SHOULDERS ALONG THE RAMPS SHALL BE RESHAPED AS SHOWN ON THE PROPOSED TYPICAL RAMP SECTIONS. EXCESS EXCAVATION RESULTING FROM RESHAPING SHOULDERS SHALL BE DISPOSED OF AS DIRECTED BY THE ENGINEER. AREAS REQUIRING BACKFILL SHALL BE RAISED TO GRADE USING 617 COMPACTED AGGREGATE AT THE CONTRACTORS EXPENSE. ALL THE ABOVE SHALL BE INCLUDED FOR PAYMENT IN ITEM 203, LINEAR GRADING.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL
WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN IN AASHTO M 180. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 606 - GUARDRAIL, TYPE 5
UNDERDRAIN OUTLETS SHALL BE LOCATED ALONG EACH GUARDRAIL RUN BEFORE THE FIRST POST IS SET. POSTS LOCATED OVER AN UNDERDRAIN OUTLET SHALL NOT BE DRIVEN, BUT SHALL BE SET IN DRILLED OR DUG HOLES. CONDUIT OUTLETTING THE SUBGRADE UNDERDRAIN WILL TYPICALLY HAVE 3'-6" OF COVER. CONDUIT OUTLETTING THE FREE-DRAINING BASE UNDERDRAIN WILL TYPICALLY HAVE 2'-0" OF COVER. POSTS LOCATED WHERE THE AVAILABLE POST EMBEDMENT DEPTH IS LESS THAN 3'-5" AND GREATER THAN 2'-6" SHALL BE ENCASED WITH 4" (MIN.) OF CONCRETE (GR-2.2M). WHERE AVAILABLE POST EMBEDMENT DEPTH IS LESS THAN 2'-6", A PLATE, AS DETAILED ON SECTION B-B OF STANDARD CONSTRUCTION DRAWING GR-2.2M MAY BE USED AS AN ALTERNATE ATTACHMENT METHOD.

ITEM 606 - ANCHOR ASSEMBLY, TYPE B-98
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

1) THE SRT-350, GUARDRAIL END TERMINAL AS MANUFACTURED BY SYRO INC., 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE SRT-350 SYSTEM IS CONSIDERED TO BE 37'-6", INCLUSIVE OF THREE 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG. REV DATE	ODOT APPROVAL DATE
SS425M	SLOTTED RAIL TERMINAL SRT-350 POST LAYOUT AND ERECTION DETAILS (12.5, 9 POST)	6/21/97	3/6/98

1) THE FLEAT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 7631 NEW CASTLE DRIVE, FRANKFORT, IL 60423 (TELEPHONE: 815-464-5917).

THE LENGTH OF THE FLEAT-350 IS CONSIDERED TO BE 37'-6", INCLUSIVE OF THREE 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG. REV DATE	ODOT APPROVAL DATE
FLT-M	FLARED ENERGY ABSORBING TERMINAL (FLEAT-350) ASSEMBLY	4/16/98	7/31/98

GRADING SHALL BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING GR-4.3.

THE FACE OF THE TYPE B-98 IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19: APPROXIMATELY 36" W X 12" H FOR THE SRT-350 AND 14" W X 20" H FOR THE FLEAT.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606 - ANCHOR ASSEMBLY, TYPE B-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING REFLECTIVE SHEETING AND ALL RELATED HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

GENERAL NOTES

WAY-71-0.28

GENNOTE.dwg May 08 ,2001

ITEM 606 - ANCHOR ASSEMBLY, TYPE E-98
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

1) THE ET-2000 (1997) MANUFACTURED BY SYRO, INC., 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330- 545-4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF TWO 25'-0" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG. REV. DATE	ODOT APPROVAL DATE
SS265	MET-2000 (1997) PLAN, ELEVATION AND SECTIONS	6/20/97	3/6/98

2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 7631 NEW CASTLE DRIVE, FRANKFORT, IL 60423 (TELEPHONE: 815-464-5917).

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF FOUR 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG. REV. DATE	ODOT APPROVAL DATE
SKT-4M	SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4 FOUNDATION TUBES	12/11/97	3/6/98

THE FACE OF THE TYPE E-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 18" X 18".

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606 - ANCHOR ASSEMBLY, TYPE E-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - IMPACT ATTENUATOR, TYPE 1-98 (UNIDIRECTIONAL)
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING IMPACT ATTENUATORS:

1. THE C-A-T MANUFACTURED BY SYRO, INC., 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330 545-4373). THE LENGTH OF THE C-A-T SYSTEM IS CONSIDERED TO BE 31'-3" LONG. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
SS245M	CRASH-CUSHION ATTENUATING TERMINAL PLAN, ELEVATION & SECTIONS FOR USE AS A LONGITUDINAL MEDIAN BARRIER TERMINAL OR CRASH CUSHION ATTENUATOR	4/10/97 Rev. 4	3/6/98
SS224M	C-A-T TRANSITION TO MEDIAN BARRIER GUARDRAIL PLAN, ELEVATION & SECTIONS	4/26/96	3/6/98
SS226M	C-A-T TRANSITION TO VERTICAL WALL OR PIER PLAN, ELEVATION & SECTIONS	4/26/96	3/6/98

2. THE BRAKEMASTER MANUFACTURED BY ENERGY ABSORPTION SYSTEM, INC., ONE EAST WACKER DRIVE, CHICAGO, IL 60601 (TELEPHONE: 312-467-6750). THE LENGTH OF THE BRAKEMASTER SYSTEM IS CONSIDERED TO BE 32'-8" LONG. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
92-00-01	BRAKEMASTER GENERAL ASSEMBLY (UNIDIRECTIONAL SYSTEM)	3/6/97 Rev. K	3/6/98
92-00-81	BRAKEMASTER (UNIDIRECTIONAL) WITH FOUNDATION TUBES	2/9/98	3/6/98
92-00-02	BRAKEMASTER GENERAL ASSEMBLY (BIDIRECTIONAL SYSTEM)	3/10/97 Rev. K	3/6/98
92-00-82	BRAKEMASTER (BIDIRECTIONAL) WITH FOUNDATION TUBES	2/9/98	3/6/98
9202024	ANCHOR ASSEMBLY, FOUNDATION TUBE, 6 1/2 FT., BRS	6/12/97 Rev. D	3/6/98

THE FACE OF THE TYPE 1-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 36" W x 12" H. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 1-98 (UNIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, HARDWARE, REFLECTIVE SHEETING, AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - IMPACT ATTENUATOR, TYPE 2-98 [(MODEL QS3006Y), UNIDIRECTIONAL]
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A QUADGUARD IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC., ONE EAST WACKER DRIVE, CHICAGO, IL 60601 (TELEPHONE: 312-467-6750).

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
QSTSCVR-U	QUADGUARD SYSTEM WITH TENSION STRUT BACKUP	7/10/96 Rev. A	3/6/98
QSCBCVR-U	QUADGUARD SYSTEM WITH CONCRETE BACKUP	4/28/97 Rev. E	3/6/98
QFTSCVR-U	QUADGUARD SYSTEM W/ 69" & 90" TENSION STRUT BACKUPS	9/5/97 Rev. C	3/6/98
QFCBCVR-U	QUADGUARD SYSTEM W/ 69" & 90" CONCRETE BACKUPS	9/4/97 Rev. D	3/6/98
35-40-20	DEFLECTOR ASSEMBLY, CONCRETE BACKUP RETROFIT, QG	11/14/97 Rev. B	7/31/98
35-40-03	QUADGUARD SYSTEM BACKUP ASSEMBLY, TS, QG	3/19/99 Rev. F	8/27/99
35-40-08 2 SHEETS	QUADGUARD SYSTEM CONCRETE BACKUP, QG ON GRADE & ON EXISTING CONCRETE STRUCTURE	10/14/97 Rev.F 10/14/97 Rev.F	8/27/99 8/27/99
35-40-21 2 SHEETS	TRANSITION ASSEMBLY QUAD-BEAM TO W-BEAM	11/6/97 Rev. B 7/14/97 Rev. A	8/27/99 8/27/99
35-40-22 2 SHEETS	TRANSITION ASSEMBLY QUAD-BEAM TO THRIE-BEAM	7/15/97 Rev. A 7/11/97 Rev. A	8/27/99 8/27/99
35-40-15	QUADGUARD SYSTEM END SHOE ASSEMBLY, QG	9/11/98 REV. F	8/27/99
3540211 2 SHEETS	QG TRANSITION ASSEMBLY QUAD-BEAM TO W-BEAM-WIDE	8/29/97 Rev. A 8/29/97 Rev. A	8/27/99 8/27/99
3540221 2 SHEETS	QG TRANSITION ASSEMBLY QUAD-BEAM TO THRIE-BEAM-WIDE	8/29/97 Rev. A 8/29/97 Rev. A	8/27/99 8/27/99
3540498	QG SYSTEM NOSE ASSEMBLY, QG, 24, 30, 36, WITH BELTING	12/30/98	8/27/99
3540150	QUADGUARD TRANSITION TO VERTICAL CONCRETE BARRIER	9/96	8/27/99

WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 2-98 [(MODEL #), (UNIDIRECTIONAL OR BIDIRECTIONAL)], EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

CALCULATED SDS 04/01 | CHECKED AFS 04/01

GENERAL NOTES

WAY-71-0.28

GENNOTE.dwg May 08 ,2001

ITEM 607 - FENCE, TYPE 47, AS PER PLAN
THIS ITEM SHALL INCLUDE REMOVAL OF ALL EXISTING RIGHT OF WAY FENCE AND ASSOCIATED HARDWARE, CLEARING OF THE NEW FENCE ALIGNMENT OF TREES AND BRUSH, FURNISHING AND APPLYING CUT STUMP HERBICIDE AND FURNISHING AND ERECTING NEW FENCE AND ASSOCIATED HARDWARE IN ACCORDANCE WITH THE PLAN AND CURRENT STANDARDS. THE CONTRACTOR IS ADVISED TO VISIT THE SITE TO DETERMINE THE CORRECT NUMBER OF INDIVIDUAL FENCE COMPONENTS REQUIRED TO CONSTRUCT THE NEW FENCE IN ACCORDANCE WITH CURRENT STANDARDS.

THE INTENT OF THE PLAN IS TO CONSTRUCT THE NEW FENCE OF THE SAME TYPE AND IN THE SAME LOCATION AS THE EXISTING FENCE, EXCEPT AT THE LOCATIONS LISTED BELOW AND WHERE NECESSARY TO COMPLY WITH CURRENT STANDARDS (E.G. AT STRUCTURES ETC.). WHERE EXISTING FENCE IS MISSING AND ITS LOCATION CANNOT BE DETERMINED FROM FIELD EVIDENCE, THE DEPARTMENT WILL STAKE THE RIGHT OF WAY LINE AND NEW FENCE SHALL BE LOCATED FROM THE RIGHT OF WAY LINE IN ACCORDANCE WITH CURRENT STANDARDS. IN ALL CASES, CURRENT STANDARD CONSTRUCTION DRAWINGS SHALL BE USED TO ESTABLISH THE CORRECT CONFIGURATION AND LOCATION OF THE NEW FENCE.

THE WORK SHALL INCLUDE REMOVAL OF ALL OF THE EXISTING RIGHT OF WAY FENCE AND ASSOCIATED HARDWARE AND DISPOSAL. CORNER, END AND ANCHOR POSTS AND THEIR ASSOCIATED CONCRETE ENCASEMENTS ARE TO BE COMPLETELY REMOVED. METAL POSTS SHALL BE REMOVED OR DRIVEN A MINIMUM OF 6" BELOW THE EXISTING GROUND SURFACE.

ALL TREES AND BRUSH WITHIN THE AREA 2'-0" EITHER SIDE OF THE FENCE AND A SUFFICIENT DISTANCE INSIDE THE FENCE ALIGNMENT TO PERMIT ITS CONSTRUCTION SHALL BE REMOVED IN ACCORDANCE WITH ITEM 201, EXCEPT THAT NO STUMP MAY EXCEED A HEIGHT OF 2" ABOVE THE EXISTING GROUND SURFACE. THE STUMPS OF ALL TREES AND BRUSH SHALL BE TREATED WITH AN EPA REGISTERED HERBICIDE LABELED FOR CUT STUMP TREATMENT. THE HERBICIDE SHALL BE APPLIED ACCORDING TO LABEL INSTRUCTIONS. THE HERBICIDE USED FOR THIS PROJECT SHALL BE SHIPPED IN NEW SEALED CONTAINERS BEARING THE MANUFACTURER'S LABEL. THE CONTRACTOR SHALL BE LICENSED BY THE OHIO DEPARTMENT OF AGRICULTURE AS A COMMERCIAL OR LIMITED COMMERCIAL APPLICATORS OR UNDER THE DIRECT SUPERVISION OF THE SAME.

OHIO LAW REGULATES THE DISPOSAL OF LANDSCAPE WASTE THAT RESULT FROM ROADWAY CLEARING AND GRUBBING OPERATIONS. THE REGULATED WASTE INCLUDES BRUSH, TREES, STUMPS, TREE TRIMMINGS, BRANCHES, WEEDS, LEAVES, GRASS, SHRUBBERY, YARD TRIMMINGS, CROP RESIDUE, AND OTHER PLANT MATTER, EXCLUDING SOIL AND GARBAGE. THIS MATERIAL SHALL NOT BE BURIED OFF THE RIGHT-OF-WAY. THIS MATERIAL MAY BE BURIED IN NONSTRUCTURAL AREAS ON THE PROJECT SITE OR RIGHT-OF-WAY, WHERE PERMITTED BY THE ENGINEER.

ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AND SEEDED ACCORDING TO ITEM 870 AND INCLUDED IN ITEM 607 FOR PAYMENT.

FENCE GROUNDING REQUIRED FOR OVERHEAD ELECTRIC LINES, IS TO BE IN ACCORDANCE WITH 625.10 AND STD. CONSTRUCTION DRAWING HL-50.11M.

THE FOLLOWING ESTIMATED QUANTITY FOR ITEM 625 GROUND ROD WILL BE CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 625 GROUND ROD 15 EACH

THE FOLLOWING ESTIMATED QUANTITY OF ITEM 601 IS CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER FOR FENCE STREAM CROSSINGS, AS PER STD. CONSTRUCTION DRAWING F-3.4M.

ITEM 601 ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER 150 CU. YARD

ITEM 607 - FENCE, TYPE 47, AS PER PLAN (CONTINUED)
THE LENGTHS OF FENCE GIVEN AS THE PAY LENGTHS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES SHALL BE MADE IN ACCORDANCE WITH ITEM 607.09.

THE COST OF ALL THE ABOVE EXCEPT ITEM 601 AND 625, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 607, FENCE, TYPE 47, AS PER PLAN.

PROPOSED FENCE LOCATIONS (WHERE DIFFERENT THAN EXISTING)

FROM		TO		SIDE
STATION	OFFSET	STATION	OFFSET	
55+32	168.00	58+86	168.00	RT
58+86	168.00	63+00	241.00	RT
101+38	228.00	101+38	423.00	LT
101+38	423.00	106+33	423.00	LT
106+33	423.00	106+33	273.00	LT
136+50	155.50	139+50	154.25	RT
135+00	149.00	137+85	168.00	LT
137+85	168.00	147+85	168.00	LT
147+85	168.00	149+58	189.00	LT
158+81	382.00	164+85	198.00	RT
162+43	510.00	164+43	331.00	LT
189+12	166.00	190+16	161.00	LT
212+09	148.00	214+48	148.00	LT
214+48	148.00	217+48	158.00	LT
217+48	158.00	221+48	148.00	LT
221+48	148.00	224+00	148.00	LT
215+85	148.00	217+50	148.00	RT
217+50	148.00	219+50	149.50	RT
219+50	149.50	224+36	158.00	RT
253+16	148.00	265+30	148.00	RT
305+00	148.00	317+08	148.00	RT
324+87	148.00	328+22	148.00	LT
331+89	173.00	332+22	173.00	RT
332+22	173.00	332+27	149.00	RT
339+50	148.00	341+96	136.50	LT
341+96	136.50	347+22	148.00	LT
347+22	148.00	349+22	173.00	LT

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR REMOVAL AND REPLACEMENT OF FENCE, TYPE 47, AS PER PLAN.

ITEM 607, FENCE, TYPE 47, AS PER PLAN 74,211 LIN. FT.

ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN
ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN
THESE ITEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ITEM 622 OF O.D.O.T. CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS), STANDARD CONSTRUCTION DRAWING RM-4.3M, AND DETAILS SHOWN ON SHEET NO.305-307 OF THESE PLANS. DOWEL HOLES, DOWEL BARS AND GROUT SHALL BE AS SPECIFIED ON THE PLAN DETAIL.

FULL COMPENSATION FOR ALL LABOR AND MATERIAL TO CONSTRUCT THE CONCRETE BARRIER DOWELED INTO THE NORTHBOUND REST AREA CONCRETE PAVEMENT OR EXISTING PIER FOOTINGS SHALL BE INCLUDED IN THE PER UNIT PRICE BID FOR ITEM 622-CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN AND ITEM 622-CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN.

ITEM 830 - CURB, TYPE 6, AS PER PLAN
THIS ITEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 830 AND STD. DWG. BP-5.1, EXCEPT THE HEIGHT SHALL BE TRANSITIONED AS FOLLOWS: THE CURB HEIGHT ADJACENT TO THE APPROACH SLAB SHALL TAPER FROM 6 INCHES TO 4 INCHES IN A DISTANCE OF 3 FEET; BEYOND THE CATCH BASIN NO. 3A THE HEIGHT SHALL TAPER FROM 6 INCHES TO 0 INCHES IN A DISTANCE OF 3 FEET. SEE SHEET 278 FOR ADDITIONAL DETAILS.

ITEM 601 - RIPRAP USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN
THE RIPRAP PAD SHALL BE CONSTRUCTED AS DETAILED ON SHEET 302. ALSO INCLUDED IN THE COST OF THE 601 - RIPRAP USING 6" REINFORCED CONCRETE PAD, AS PER PLAN WILL BE 6" OF #57 STONE PLACED AS SHOWN ON THE DETAIL. ALL LABOR AND MATERIALS NECESSARY TO CONSTRUCT THIS ITEM AS SHOWN ON THE DETAIL SHALL BE CONSIDERED INCIDENTAL.

ITEM 870 - SEEDING AND MULCHING
THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

870, SEEDING AND MULCHING	316635	SQ. YD.
870, SOIL ANALYSIS TEST	4	EACH
870, TOPSOIL	35146	CU. YD.
870, COMMERCIAL FERTILIZER	42.75	TON
870, AGRICULTURAL LIME	131.09	TON
870, WATER	1710	M. GAL.
870, MOWING	712	M. SQ.FT.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING, ARE BASED ON THESE LIMITS.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL
THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE PLACED BY THE CONTRACTOR WITH THE ENGINEER'S CONCURRENCE FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES:

877, TEMPORARY SEEDING AND MULCHING	126654	SQ. YD.
877, TEMPORARY SLOPE DRAINS	50	LIN. FT.
877, TEMPORARY SEDIMENT BASINS AND DAMS	17	CU. YD.
877, TEMPORARY PERIMETER FILTER FABRIC FENCE	1625	LIN. FT.
877, TEMPORARY DITCH CHECK FILTER FABRIC FENCE	1038	LIN. FT.
877, TEMPORARY INLET PROTECTION FILTER FABRIC FENCE	3300	LIN.FT.
877, TEMPORARY DIKES	40	CU. YD.
877, TEMPORARY DITCH PROTECTION	2755	SQ. YD.
877, SEDIMENT REMOVAL	85	CU. YD.
601, ROCK CHANNEL PROTECTION, TYPE C (WITH FABRIC FILTER)	50	CU. YD.
601, ROCK CHANNEL PROTECTION, TYPE C (WITHOUT FILTER)	211	CU.YD.
870, COMMERCIAL FERTILIZER	13.54	TON
870, REPAIR SEEDING AND MULCHING	15832	SQ. YD.
870, WATER	137	M. GAL.
870, INTER-SEEDING	15832	SQ. YD.

THESE QUANTITIES ARE IN ADDITION TO THE QUANTITIES ON THE STORM WATER POLLUTION PREVENTION PLAN, SHEETS 125 AND 135 TO 137.

EROSION CONTROL
ITEMS 601, 670, AND 840 ARE PROVIDED IN THE PLANS FOR EROSION CONTROL. ROCK OF A STABLE NATURE SHALL NOT BE REMOVED IN ORDER TO PLACE ANY OF THESE ITEMS AND TURF OF A STABLE NATURE SHALL NOT BE REMOVED IN ORDER TO PLACE 840. THE ENGINEER SHALL CHECK AND NON-PERFORM QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES OF THESE ITEMS WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION. IN ADDITION, THESE ITEMS SHALL MEET THE REQUIREMENT OF 108.04.

CALCULATED SDS 04/01
CHECKED AFS 04/01

GENERAL NOTES

WAY-71-0.28

GENNOTE.dwg May 08 ,2001

REVIEW OF DRAINAGE FACILITIES
BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE. ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

FARM DRAINS
ALL FARM DRAINS, WHICH ARE ENCOUNTERED DURING CONSTRUCTION, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY, SHALL BE REPLACED WITHIN THE RIGHT OF WAY LIMITS BY ITEM 603 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES, SHALL BE OUTLETTED INTO THE ROADWAY DITCH BY 603 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE 1 FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL FIELD TILES WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY 603, TYPE E CONDUIT, AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

EROSION CONTROL PADS AND ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLET END OF ALL FARM DRAINS AS PER STANDARD CONSTRUCTION DRAWING DM-1.1M, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE. PAYMENT FOR THE EROSION CONTROL PADS AND ANIMAL GUARDS AND ANY NECESSARY BENDS OR BRANCHES SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

603, 8" CONDUIT, TYPE B	200 LIN. FT.
603, 8" CONDUIT, TYPE E	200 LIN. FT.
603, 8" CONDUIT, TYPE F	200 LIN. FT.
601, ROCK CHANNEL PROTECTION TYPE C WITH FABRIC FILTER	10 CU. YDS.

EXISTING / PROPOSED PIPE CONNECTIONS
THE CONTRACTOR SHALL HAVE THE OPTION OF USING A COUPLING BAND TO JOIN EXISTING CORRUGATED METAL PIPE WITH A PROPOSED SECTION OF CORRUGATED METAL PIPE OR PLACING A CONCRETE COLLAR AS PER STANDARD CONSTRUCTION DRAWING DM-1.1M. ALL CONCRETE PIPE CONNECTIONS SHALL HAVE A CONCRETE COLLAR AS PER STANDARD CONSTRUCTION DRAWING DM-1.1M PLACED AT THE JOINING OF EXISTING AND PROPOSED SECTIONS OF PIPE. ANY EXPOSED METAL FROM THE PIPE CONNECTIONS OF A CORRUGATED METAL PIPE SHALL BE GALVANIZED COATED AS PER CMS SPECIFICATION 711.02 AND INCLUDED IN THE COST OF ITEM 603.

ITEM 603 - CONDUIT BORED AND JACKED, AS PER PLAN
THE CONTRACTOR MAY INSTALL THE CONDUIT BY THE BORING AND JACKING METHOD AT THE LOCATION INDICATED ON THE PLANS OR USING THE OPEN CUT METHOD AT THE EXISTING LOCATION.

IF THE BORE AND JACK METHOD IS UTILIZED, THE EXISTING PIPE SHALL BE PLUGGED AND FILLED WITH ITEM 613 AFTER THE BORING AND JACKING OPERATION IS COMPLETE. A CASING PIPE SHALL BE USED IN THE BORING AND JACKING OPERATION, AND THE VOID BETWEEN IT AND THE INTERIOR CARRIER PIPE SHALL BE COMPLETELY FILLED WITH ITEM 613.

IF THE OPEN TRENCH METHOD IS SELECTED, THE CONTRACTOR SHALL REMOVE AND REPLACE THE EXISTING PIPE AT THE SAME LOCATION, SLOPE, AND INVERT ELEVATIONS. THE PROPOSED PIPE SIZE SHALL BE AS DESIGNATED IN THE PLANS. THE CONTRACTOR MUST ENSURE THAT ALL OPERATIONS WILL COMPLY WITH THE MAINTENANCE OF TRAFFIC DETAILS AS SPECIFIED IN THE PLANS. NO TRENCH EXCAVATION SHALL BE CLOSER THAN 10 FEET TO THE EDGE OF PAVEMENT UNLESS ADEQUATELY SUPPORTED BY SHEETPILING.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 603 - CONDUIT BORED AND JACKED, AS PER PLAN.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES
WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

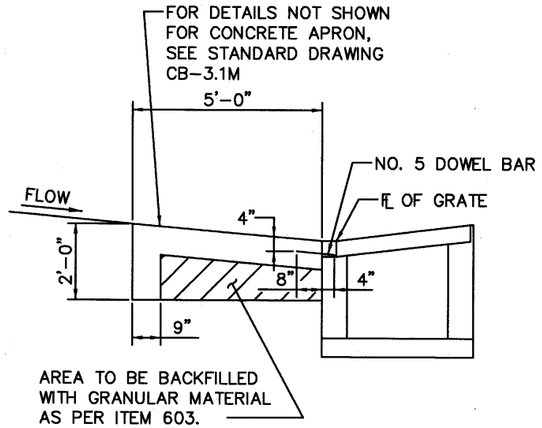
IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY. PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

SPRING DRAINS
THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR DRAINING ANY SPRINGS SHOWN IN THE PLAN OR ENCOUNTERED DURING CONSTRUCTION. THE FOLLOWING TYPES OF PIPES MAY BE USED: 707.33, 707.41, 707.42 or 707.45 PERFORATED PER 707.31.

SPRING DRAINS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD CONSTRUCTION DRAWING DM-1.1M AND PAID FOR AT THE CONTRACT PRICE FOR:

605, 6" UNCLASSIFIED PIPE UNDERDRAIN FOR SPRINGS	75 LIN. FT.
605, AGGREGATE DRAIN FOR SPRINGS	500 LIN. FT.

ITEM 604 - CATCH BASIN NO. 4, AS PER PLAN
ITEM 604 - CATCH BASIN NO. 4A. AS PER PLAN



1. THIS DETAIL SHALL BE USED FOR NO. 4 CATCH BASINS, AS PER PLAN AND FOR NO. 4A CATCH BASINS, AS PER PLAN. FOR DETAILS NOT SHOWN SEE STD. DRAWINGS CB-3.1M AND CB-3.4M. THE CONCRETE APRON SHALL BE REPLACED INCLUDING THE CUTOFF WALL AND BACKFILLED AS SHOWN HERE AND IN THE PERTINENT STANDARD DRAWING.

2. A CONCRETE CUT OFF WALL SHALL BE CONSTRUCTED AS DETAILED ON THE SIDES WHERE WATER WILL FLOW ONTO THE APRON AS SHOWN IN THE PLANS AND AS APPROVED BY THE ENGINEER. MATERIALS, LABOR AND ALL INCIDENTALS WILL BE INCLUDED IN THE COST OF ITEM 604 CATCH BASIN, NO. 4, AS PER PLAN OR CATCH BASIN, NO. 4A, AS PER PLAN.

3. THE FLOW OF WATER FROM THE BACK SIDE OF THE STRUCTURE SHALL BE DIRECTED TOWARDS THE APRON PORTION OF THE PROPOSED CATCH BASIN.

4. NO. 5 BARS SHALL BE EQUALLY SPACED WITH 4 INCHES CLEARANCE EACH SIDE. THE NUMBER OF BARS NEEDED ALONG EACH SIDE OF A NO. 4 CATCH BASIN AND A NO. 4A CATCH BASIN WITH A CONCRETE APRON IS 7.

5. THE FURNISHING AND PLACING OF STEEL FOR THE 5/8" x 12" DOWEL BARS SHALL BE PER 509 REINFORCING STEEL. THE DOWEL BARS SHALL BE EPOXY COATED PER 509.10. THE DOWEL BARS SHALL BE INSTALLED PER 510 OR CAST INTO THE BASIN. BOLT OR INSERTS MAY BE USED. THE CATCH BASIN SHALL BE PRECAST OR CAST-IN-PLACE CONCRETE. BRICK OR CONCRETE BLOCK WILL NOT BE PERMITTED. THE 6" CONCRETE APRON SHALL BE REINFORCED PER 601.04(3).

6. PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 604 CATCH BASIN NO. 4, AS PER PLAN, OR CATCH BASIN NO. 4A, AS PER PLAN, INCLUDING REMOVAL AND DISPOSAL OF THE EXISTING CONCRETE APRONS WHERE APPLICABLE. THE PROPOSED CONCRETE APRON SHALL BE PLACED AN BACKFILLED AS SHOWN HERE AND IN THE PERTINENT STANDARD DRAWING. ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, AND ALL INCIDENTALS NECESSARY TO COMPLETE THIS ITEM OF WORK WILL BE INCLUDED IN THE COST OF THE ITEM 604 - CATCH BASIN NO. 4, AS PER PLAN OR CATCH BASIN NO. 4A, AS PER PLAN.

CALCULATED SDS 04/01 CHECKED AFS 04/01

GENERAL NOTES

WAY-71-0.28

GENNOTE.dwg May 08, 2001

ITEM 604 - CATCH BASIN NO. 6, AS PER PLAN
THE CONCRETE PAVEMENT IN THE TRUCK PARKING AREA OF THE NORTHBOUND REST AREA SHALL BE CONSTRUCTED SUCH THAT THE ROUNDING OF THE PAVEMENT SMOOTHLY TRANSITIONS TO THE GRATE ELEVATIONS LISTED IN THE PLANS IN A DISTANCE NO GREATER THAN TEN (10) FEET UPSTREAM AND DOWNSTREAM. THE TRANSITION SHALL BE CONSTRUCTED SUCH THAT FLOW IS MAINTAINED AND NO PONDING OCCURS.

EXISTING UNDERDRAINS
APPROXIMATE LOCATIONS OF EXISTING UNDERDRAINS HAVE BEEN SHOWN ON THE PLAN AND PROFILE SHEETS. ALL EXISTING UNDERDRAINS NOT REMOVED DURING PROPOSED CONSTRUCTION SHALL BE PROVIDED WITH A POSITIVE OUTLET. ALL MATERIALS, LABOR AND INCIDENTALS NECESSARY TO PROVIDE AN OUTLET FOR THE EXISTING UNDERDRAIN SHALL BE INCLUDED IN ITEM 603 - 8" CONDUIT, TYPE F, TO THE SATISFACTION OF THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY FOR ITEM 603 - 8" CONDUIT, TYPE F HAS CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 603 - 8" CONDUIT, TYPE F 160 LIN. FT.

ITEM 604 - PRECAST REINFORCED CONCRETE OUTLET, AS PER PLAN
PRECAST REINFORCED CONCRETE OUTLETS SHALL BE PLACED AT EACH OF THE EXTENDED EXISTING UNDERDRAIN OUTLETS PER STANDARD CONSTRUCTION DRAWING DM-1.1M, EXCEPT THAT THE OUTLETS SHALL BE PRECAST FOR AN 8" UNDERDRAIN OUTLET PIPE.

THE FOLLOWING ESTIMATED QUANTITY FOR ITEM 604 - PRECAST REINFORCED CONCRETE OUTLET, AS PER PLAN HAS CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

604 - PRECAST REINFORCED CONCRETE OUTLET, AS PER PLAN 16 EACH

ITEM 605 - 4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN
THIS ITEM SHALL BE AS DETAILED ON SHEET NO. 10 AND SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT THIS ITEM.

ITEM 605 - 4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.33 OR 707.41, AS PER PLAN
THIS ITEM SHALL BE AS DETAILED ON SHEET NO. 295. CONSTRUCTION AND MATERIAL SPECIFICATION 605.03 (C) IS MODIFIED TO BACKFILLING THE UNDERDRAIN TRENCH WITH GRANULAR FILTER MATERIAL CONSISTING OF CRUSHED NO. 8 AGGREGATE ONLY.

PROPOSED UNDERDRAINS
UNDERDRAIN OUTLET CONNECTIONS AND TRANSVERSE UNDERDRAINS MAY EXTEND ACROSS ADJOINING CONSTRUCTION PHASES. IN THESE SITUATIONS THE CONTRACTOR SHALL PROVIDE AND INSTALL TEMPORARY PLUGS OR CAPS AT THE LIMITS OF THE UNDERDRAIN CONSTRUCTION. DURING THE CONSTRUCTION OF THE SUBSEQUENT PHASE THE TEMPORARY PLUG OR CAP SHALL BE REMOVED, THE EXISTING UNDERDRAIN OR OUTLET SHALL BE INSPECTED FOR CLEANLINESS, CLEANED IF NECESSARY, AND THE UNDERDRAIN OR OUTLET CONSTRUCTION COMPLETED OR CONTINUED TO THE NEXT STAGE LIMIT. ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY TO PROVIDE, TO THE SATISFACTION OF THE ENGINEER, THE TEMPORARY CAPPING AND PIPE CLEANOUT BETWEEN EACH PHASE SHALL BE INCLUDED IN ITEM 603, 6" CONDUIT, TYPE F AND/OR ITEM 605, SHALLOW PIPE UNDERDRAIN, BY SIZE AND TYPE.

THE UNDERDRAINS AT STATION 200+90 WILL CROSS CONSTRUCTION STAGE LIMITS 1 AND 2. TEMPORARY CAPS SHALL BE PROVIDED DURING STAGE 1 CONSTRUCTION AT THESE LOCATIONS AND THE CONNECTION TO THE ADJOINING CONSTRUCTION STAGE 2 SHALL BE AS REFERENCED ABOVE. ALL MATERIAL, LABOR, AND INCIDENTALS NECESSARY TO PROVIDE, TO THE SATISFACTION OF THE ENGINEER, THE TEMPORARY CAPPING AND PIPE CLEANOUT BETWEEN EACH STAGE SHALL BE INCLUDED IN ITEM 605, SHALLOW PIPE UNDERDRAIN, BY SIZE AND TYPE.

ROCK CUT UNDERDRAINS
THE NORMAL DEPTH OF THE ROCK CUT UNDERDRAINS HAS BEEN DELINEATED ON THE TYPICAL SECTIONS. IF ANY SECTION IN THE ROCK CUT AREA REQUIRES OVER-EXCAVATION PER 203.04 (b), THE DEPTH OF THE APPLICABLE ROCK CUT AND SHALLOW PIPE UNDERDRAIN SHALL BE MODIFIED TO A DEPTH 6" BELOW THE BOTTOM OF THE UNDERCUT (2'-0" BELOW ITEM 304 - AGGREGATE BASE).

WHEN NO UNDERCUTTING IS EMPLOYED AND ROCK APPEARS WITHIN 18" TO 30" OF THE SUBGRADE A 6" TRENCH WILL BE EXCAVATED IN THE ROCK TO ACCOMMODATE THE UNDERDRAIN. DEVELOPED ROCK CUT UNDERDRAIN QUANTITIES REFLECT ASSUMED LOCATIONS SHOWN BELOW ONLY TO ANTICIPATE THE EXTENT OF THIS OPERATION.

STA 295+95	TO	STA 298+30	N.B.
STA 291+50	TO	STA 292+50	S.B.
STA 295+95	TO	STA 298+30	S.B.

THE TRANSITION FROM NORMAL DEPTH TO ROCK CUT DEPTH UNDERDRAINS SHALL BE CONSTRUCTED TO ENSURE A MINIMUM SLOPE OF 0.4% FOR THE UNCLASSIFIED UNDERDRAINS USED IN THE TRANSITION.

IT IS DESIRABLE TO OUTLET NORMAL DEPTH UNDERDRAINS WHEN ROCK IS ENCOUNTERED. FOR THE ADDITIONAL OUTLETS THE FOLLOWING CONTINGENCY QUANTITIES ARE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 601 - RIPRAP USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN	16 S.Y.
ITEM 603 - 6" CONDUIT, TYPE B	250 LIN. FT.
ITEM 603 - 6" CONDUIT, TYPE F	250 LIN. FT.

ITEM 605 - UNDERDRAIN, MISC.: CONNECT EXISTING UNDERDRAINS AT CATCH BASINS
EXISTING UNDERDRAINS WHICH OUTLET INTO EXISTING CATCH BASINS SHALL BE RECONSTRUCTED TO TIE INTO THE NEW UNDERDRAINS PRIOR TO ENTERING THE NEW CATCH BASIN. ALL CONNECTIONS SHALL BE CONSTRUCTED TO SLOPE FROM THE EXISTING TO THE NEW UNDERDRAINS. ALL NECESSARY FITTINGS, LABOR, AND MATERIALS NEEDED TO PROVIDE CONNECTIONS FOR ALL THE EXISTING UNDERDRAINS AT EACH CATCH BASIN SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 605 - UNDERDRAIN MISC.: CONNECT EXISTING UNDERDRAINS AT CATCH BASINS.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR ITEM 605 - UNDERDRAIN MISC.: CONNECT EXISTING UNDERDRAINS AT CATCH BASINS

ITEM 605 - UNDERDRAIN MISC.: CONNECT EXISTING UNDERDRAINS AT CATCH BASINS 40 EACH

WEIGH IN MOTION UNIT
SEE DETAILS ON SHEETS 375-377 FOR NOTES, DETAILS, AND QUANTITIES FOR CONSTRUCTING THIS ITEM.

CONTRACTION AND/OR EXPANSION JOINTS
ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES AND THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS SHALL, IN ALL CASES, BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

PART-WIDTH CONSTRUCTION
BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXTREME CARE SHALL BE TAKEN TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LONGITUDINAL JOINTS SHALL BE LAPPED AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

ITEM 407 - TACK COAT
ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE
THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. FOR ESTIMATING PURPOSES ONLY, THE PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF:

407 - TACK COAT	0.075 GAL. PER SQ. YARD
407 - TACK COAT FOR INTERMEDIATE COURSE	0.04 GAL. PER SQ. YARD

MEDIAN AND/OR CURBING ON APPROACH SLABS
THE SHAPE OF THE MEDIAN AND/OR CURBING ON APPROACH SLABS SHALL BE TRANSITIONED FROM THE STANDARD SECTION ON THE APPROACHES TO THE SECTION USED ON THE BRIDGE, WITHIN THE LIMITS OF THE APPROACH SLAB.

ITEM 611 - REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN
TWO SEPARATE THICKNESSES OF CLEAR OR OPAQUE POLYETHYLENE FILM, 705.06, SHALL BE PLACED ON THE PREPARED SUBBASE AND WHERE THE APPROACH SLAB IS TO BE CONSTRUCTED. THE POLYETHYLENE FILMS SHALL COMPLETELY COVER THE FULL LENGTH AND WIDTH OF THE SUBBASE BETWEEN THE SIDEWALL FORMS FOR THE APPROACH SLAB.

ALL MATERIALS, LABOR AND INSTALLATION SHALL BE INCLUDED WITH APPROACH SLABS FOR PAYMENT.

SR 301 & SR 539 INTERCHANGE RAMP PLANING
PLANING ON RAMPS A, B, E, AND F SHALL BE TO THE TOP OF THE EXISTING CONCRETE PAVEMENT. SEE SHEET 15 FOR ESTIMATED PLANING THICKNESS. JOINTS IN THE CONCRETE RAMP PAVEMENT SHALL BE REPAIRED AFTER ASPHALT IS REMOVED.

PLANING ON RAMPS C AND D SHALL TO THE DEPTH OF THE NEW PAVEMENT (3 1/4").

HEADWALL PATCHING
HEADWALLS ON THE PROJECT THAT ARE NOT BEING REPLACED MAY NEED PATCHING TO REPAIR MINOR SURFACE DETERIORATION. A CONTINGENCY QUANTITY OF ITEM 519 - PATCHING CONCRETE STRUCTURES HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 519 - PATCHING CONCRETE STRUCTURES 10 SQ. FT.

CALCULATED SDS 04/01 | CHECKED AFS 04/01

GENERAL NOTES

WAY-71-0.28

GENNOTE.dwg May 08 ,2001

ASBESTOS NOTIFICATION
AN ASBESTOS SURVEY OF THE BRIDGE(S) SCHEDULED FOR DEMOLITION OR RENOVATION WAS CONDUCTED BY A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST. THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT ON THE BRIDGE(S). THE BRIDGES WHICH WERE SURVEYED AND CONTAINED NO ASBESTOS ARE: WAY-71-0672 L & R (I-71 OVER C.R. 70), WAY-71-0696 L & R (I-71 OVER ABANDONED CONRAIL RAILROAD).

A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM, PARTIALLY COMPLETED AND SIGNED BY THE BRIDGE OWNER, WILL BE PROVIDED TO THE SUCCESSFUL BIDDER AT THE PRECONSTRUCTION MEETING. THE CONTRACTOR SHALL COMPLETE THE FORM AND RETURN IT TO THE DISTRICT CONSTRUCTION ENGINEER. THE COMPLETION OF THIS FORM MAY BE PERFORMED AT THE PRECONSTRUCTION MEETING. THE DISTRICT CONSTRUCTION ENGINEER SHALL SUBMIT IT (OEPA DISTRICT OFFICE OR THE LOCAL AIR AUTHORITY) AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF THE DEMOLITION OF THE BRIDGE. THE DISTRICT CONSTRUCTION ENGINEER SHALL PROVIDE A COPY OF THE COMPLETED FORM TO THE CONTRACTOR. THE CONTRACTOR SHALL NOT COMMENCE DEMOLITION OF THE STRUCTURE UNTIL THE ABOVE REQUIREMENTS ARE MET. INFORMATION REQUIRED ON THE FORM WILL INCLUDE:

- THE CONTRACTORS NAME AND ADDRESS
- THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE BRIDGE REMOVAL AND RENOVATION
- A DESCRIPTION OF THE PLANNED DEMOLITION OR RENOVATION WORK AND THE METHOD(S) TO BE USED

A COPY OF THE OEPA FORM IS AVAILABLE FOR INSPECTION AT THE ODOT DISTRICT 3 OFFICE, 906 N. CLARK STREET, ASHLAND, OHIO, 44805.

THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIAL NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORM. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE BID ITEM 202 FOR STRUCTURE REMOVAL.

ARCHAEOLOGICAL SITES ADJACENT TO RIGHT OF WAY
AS A RESULT OF A CULTURAL RESOURCE SURVEY, ARCHAEOLOGICALLY SENSITIVE AREAS HAVE BEEN IDENTIFIED ADJACENT TO THE PROPOSED RIGHTS OF WAY. THESE ARCHAEOLOGICALLY SENSITIVE AREAS HAVE BEEN DENOTED ON MAPPING THAT IS AVAILABLE FOR REVIEW AT THE OHIO HISTORIC PRESERVATION OFFICE (567 EAST HUDSON AVENUE, COLUMBUS, OHIO 43211), ODOT'S OFFICE OF ENVIRONMENTAL SERVICES, AND THE DISTRICT 3 OFFICE (906 N CLARK STREET, ASHLAND, OHIO 44805-1989). THESE IDENTIFIED AREAS CANNOT BE USED FOR BORROW AREAS, WASTE, OR ANY OTHER PROJECT RELATED ACTIVITIES, SUCH AS TEMPORARY OFF SITE STORAGE OR FIELD OFFICE PLACEMENT, ETC., UNLESS PRIOR APPROVAL IS OBTAINED FROM THE OHIO HISTORIC PRESERVATION OFFICE IN COLUMBUS.

RELATIONSHIP BAR CHART SCHEDULE
THE RELATIONSHIP BAR CHART SCHEDULE SHALL BE COMPUTER GENERATED ONLY. HAND DRAWN SCHEDULES ARE NOT ACCEPTABLE. SEE THE PROPOSAL NOTE FOR ADDITIONAL REQUIREMENTS.

ENVIRONMENTAL COMMITMENTS
1. BANK STABILIZATION WILL BE LIMITED TO WITHIN 150 FEET UPSTREAM AND DOWNSTREAM OF THE EXISTING STRUCTURE. BANK STABILIZATION WILL BE LIMITED TO REGRADING OF THE BANKS FOR THE TOE-OF-SLOPE (IN-STREAM) TO THE TOP OF BANK AND WILL INCLUDE PLACEMENT OF ROCK CHANNEL PROTECTION WHERE REQUIRED. THIS WILL EXCLUDE WORK SUCH AS WIDENING, DEEPENING OR RELOCATION. THIS STABILIZATION WILL BE KEPT TO A MINIMUM.

2. WRITTEN PERMISSION WILL BE OBTAINED FROM THE CHIEF OF ODNR'S DIVISION OF WILDLIFE FOR ANY NECESSARY IN-STREAM BLASTING.

3. THE SPECIFICATIONS SET FORTH IN THE MOST CURRENT VERSION OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATION, LOCATION AND DESIGN MANUAL AND STANDARD DRAWINGS WILL BE USED TO ENSURE ADEQUATE EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION.

4. IF THIS PROJECT IS LOCATED WITHIN FLOOD PLAINS, IT WILL COMPLY WITH NECESSARY FLOOD PLAIN CRITERIA. THOSE PROJECTS IN FEMA DESIGNATED FLOOD PLAINS WILL BE COORDINATED WITH THE APPROPRIATE AUTHORITIES.

STREAM CHANNEL EXCAVATION
THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ANY INCIDENTAL DISCHARGES ASSOCIATED WITH THE EXCAVATION AND HAULING OF MATERIAL FROM STREAM CHANNELS. THIS PERTAINS TO ANY EXCAVATION OPERATIONS SUCH AS, FOUNDATION PIER OR ABUTMENT EXCAVATION, CHANNEL CLEAN OUT, EXCAVATION FOR ROCK CHANNEL PROTECTION AND REMOVAL OF ANY TEMPORARY FILL ASSOCIATED WITH CONSTRUCTION OPERATIONS.

DEMOLITION DEBRIS
THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO AVOID AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING STREAMS. ANY MATERIAL THAT DOES FALL INTO STREAMS SHALL BE REMOVED AS SOON AS POSSIBLE.

INSTREAM WORK
INSTREAM WORK WILL BE LIMITED WHERE PRACTICABLE AND ONLY CLEAN NON-ERODIBLE MATERIAL WILL BE USED FOR FORDS OR COFFERDAMS. THIS TEMPORARY PLACED MATERIAL WILL BE REMOVED AND THE STREAM BOTTOM RESTORED TO NEAR NATURAL CONDITIONS WHEN THE WORK IS COMPLETED.

TREE REMOVAL RESTRICTIONS
THIS PROJECT IS WITHIN THE LIMITS OF THE FEDERAL ENDANGERED INDIANA BAT (MYOTIS SODALIS) AND MAY IMPACT THAT SPECIES HABITAT. *UNAVOIDABLE CUTTING OF TREES WITH EXFOLIATING LOOSE OR PEELING BARK, SPLIT TRUNKS AND/OR BRANCHES, OR CAVITIES SHALL ONLY BE DONE BETWEEN SEPTEMBER 16 AND APRIL 14. TREE CUTTING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO ACCOMMODATE CONSTRUCTION ACTIVITIES.*

ITEM 604 REFERENCE MONUMENT
PROPOSED REFERENCE MONUMENT LOCATIONS LISTED ARE APPROXIMATE FOR STATIONING +/-15' AND INDICATED AS LEFT OR RIGHT OF THE CENTERLINE ONLY FOR THE PURPOSE OF DEFINING A QUANTITY. THE ACTUAL LOCATIONS WILL BE STAKED BY THE DISTRICT THREE SURVEY DEPARTMENT PRIOR TO CONSTRUCTION. THE MONUMENTS WILL BE CONSTRUCTED AS ITEM 604 REFERENCE MONUMENT PER THE STANDARD DRAWING RM-1.1.

STATION	OFFSET	604 REFERENCE MONUMENT
41+50	LT	1
70+00	LT	1
91+50	RT	1
171+50	LT	1
185+50	RT	1
253+00	LT	1
275+00	RT	1
305+50	LT	1
327+00	RT	1
TOTALS CARRIED TO GENERAL SUMMARY		9

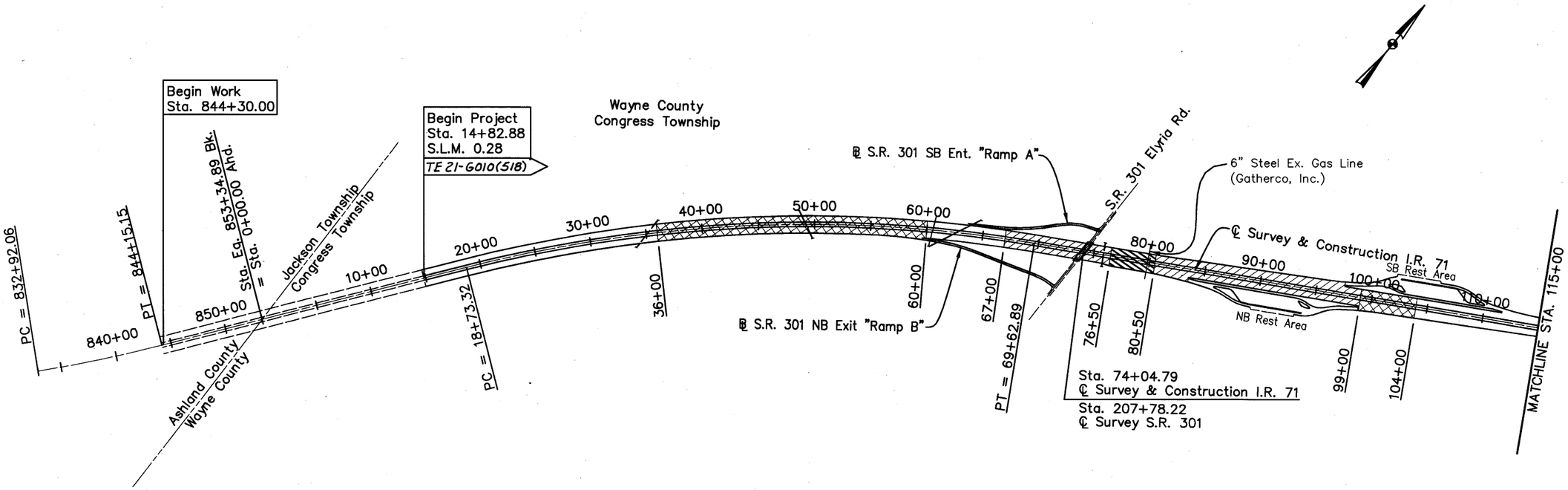
CALCULATED SDS 04/01
CHECKED AFS 04/01

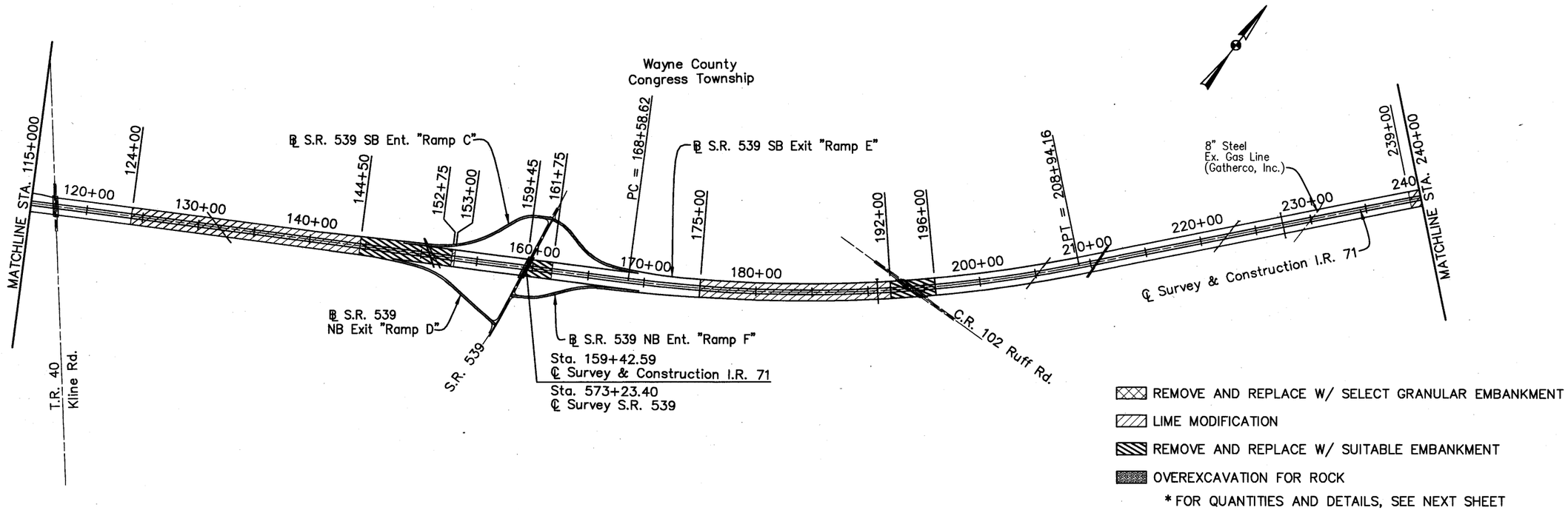
GENERAL NOTES

WAY-71-0.28

25
432

GENNOTE.dwg May 08 ,2001

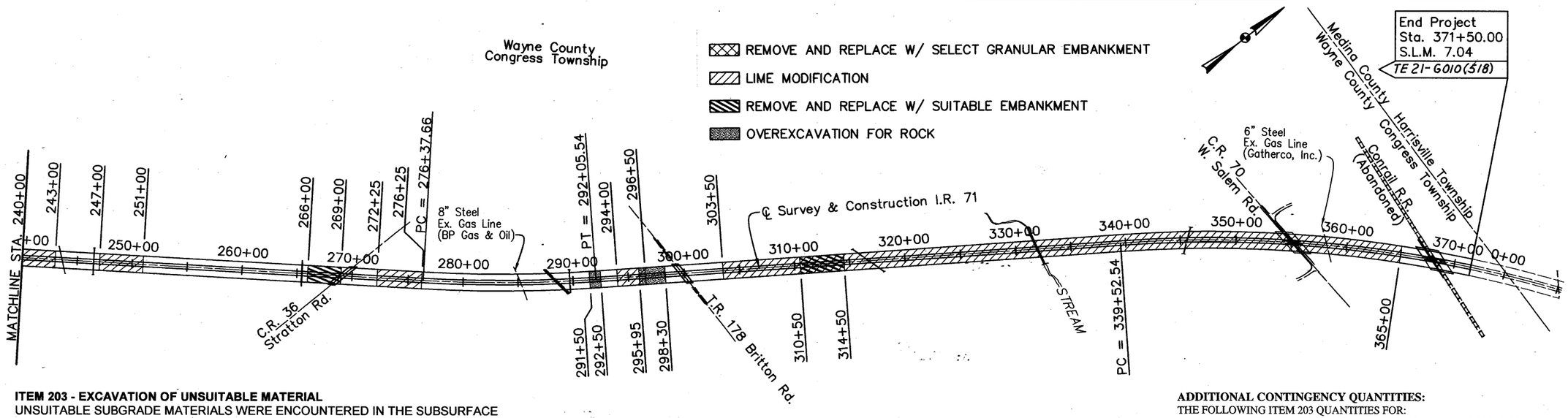




SOIL SCHEMATIC PLAN

WAY-71-0.28

M:\9203\AUTOCAD\LDOT\SOIL-SCHEM.DWG - May 06, 2021



ITEM 203 - EXCAVATION OF UNSUITABLE MATERIAL
UNSUITABLE SUBGRADE MATERIALS WERE ENCOUNTERED IN THE SUBSURFACE INVESTIGATION AND SHOULD BE ANTICIPATED AT THE LOCATIONS INDICATED ON THE PLANS AND CROSS SECTIONS. UNSUITABLE SOILS TYPICALLY CONSIST OF A-7-6 AND A-4B SOILS AND SHALL BE REMOVED AND REPLACED WITH MORE SUITABLE COMPACTED FILL. A-7-6 SOILS SHALL BE OVEREXCAVATED TO A DEPTH OF 2' BELOW SUBGRADE UNDER ANY PAVEMENT AND REPLACED WITH SUITABLE EMBANKMENT.

A-4B SOILS SHALL BE OVEREXCAVATED TO A DEPTH OF 3' BELOW SUBGRADE AND REPLACED WITH SUITABLE EMBANKMENT MATERIAL. AT STA 159+45 TO 161+75, A4-B SOIL BORINGS INDICATE SILT TO A DEPTH OF APPROXIMATELY 5' BELOW EXISTING GROUND. BASED ON THE PROPOSED PROFILE GRADE, AN ESTIMATED DEPTH OF 1' OF OVEREXCAVATION BELOW SUBGRADE WILL BE REQUIRED TO REMOVE THE UNSUITABLE SOILS.

HIGH MOISTURE CONTENT COHESIVE SOILS SHALL BE ANTICIPATED AT STA 36+00 TO 60+00. SOILS SHALL BE OVEREXCAVATED TO A DEPTH OF 3' BELOW SUBGRADE AND REPLACED WITH ITEM 203, SELECT GRANULAR EMBANKMENT. AT STA 99+00 TO 104+00, GRANULAR MATERIAL SHALL BE EXPECTED AT THE SUBGRADE LEVEL WITH OVERLYING COHESIVE SOILS. THE OVERLYING COHESIVE SUBGRADE SOILS SHALL BE INSPECTED CAREFULLY AND REPLACED ONLY IF DEFLECTION OR RUTTING OCCURS.

* THE QUANTITIES FOR ITEM 203, EXCAVATION OF UNSUITABLE MATERIAL AND ITEM 203, SELECT GRANULAR EMBANKMENT, HAVE BEEN INCLUDED IN THE TABLE AS CONTINGENCY QUANTITIES FOR WORK AT STA 99+00 TO 104+00 TO BE USED AS DIRECTED BY THE ENGINEER IF RUTTING OCCURS.

NOTE: ANY UNSUITABLE SOILS WHICH ARE OVER-EXCAVATED MUST NOT BE USED AT ANY OTHER LOCATION ON THE PROJECT AS FILL UNDER PAVEMENT, OR ANY OTHER LOCATION WHERE SPECIFIC MINIMUM SOIL CHARACTERISTICS ARE REQUIRED TO MAINTAIN STRUCTURAL CAPACITY.

ITEM 205 - LIME MODIFIED SOIL-SLURRY METHOD
THE SUBSURFACE INVESTIGATION ENCOUNTERED SOILS THAT WILL REQUIRE LIME MODIFICATION AT THE STATIONS INDICATED ON THE PLANS. LIME MODIFICATION SHALL BE PROVIDED FOR THE ENTIRE WIDTH OF THE PAVEMENT IN THE NORTHBOUNND AND SOUTHBOUND LANES AND SHOULDERS. QUANTITIES FOR THIS ITEM HAVE BEEN CALCULATED BASED ON A 1'-0" DEPTH OF MODIFICATION.

SOIL OVEREXCAVATED FROM STA 295+95 TO STA 296+50 DUE TO ROCK EXCAVATION MUST BE LIME MODIFIED PRIOR TO BEING PLACED AS FILL MATERIAL.

** THE QUANTITIES FOR ITEM 205 - LIME MODIFIED SOIL-SLURRY METHOD, ITEM 205 – LIME, AND ITEM 205 – WATER HAVE BEEN INCLUDED AS CONTINGENCY QUANTITIES FOR WORK AT STA 294+00 TO 296+50 AND 303+00 TO 365+00 TO BE USED AS DIRECTED BY THE ENGINEER

NOTE: ANY OVEREXCAVATED SOIL IN THE AREAS REQUIRING LIME MODIFICATION MAY BE USED AS FILL AT OTHER LOCATIONS ON THE PROJECT ONLY IF THE SOIL IS LIME MODIFIED TO MEET THE RECOMMENDED DESIGN GROUP INDEX OF 10 AND A CBR OF 6.

				203	203	203	205	205	205
STATION	TO	STATION	AVERAGE END AREA (FOR INFO. ONLY)	EXCAVATION OF UNSUITABLE MATERIAL	SELECT GRANULAR EMBANKMENT	EMBANKMENT	LIME-MODIFIED SOIL - SLURRY METHOD	LIME	WATER
			SQ FT	CU YD	CU YD	CU YD	CU YD	TON	M GAL
36+00		60+00	354	31,467	31,467				
67+00		76+50					3,941	319	40
76+50		80+50	232	3,437		3,437			
80+50		99+00					7,674	622	78
99+00	*	104+00	232	4,296	4,296				
124+00		144+50					8,504	689	86
144+50		148+50	354	5,244		5,244			
148+50		152+75	232	3,652		3,652			
152+75		153+00					104	8	1
159+45		161+75	114	971		971			
175+00		192+00					7,052	571	71
192+00		196+00	232	3,437		3,437			
239+00		243+00					1,659	134	17
247+00		251+00					1,659	134	17
266+00		269+00	354	3,933		3,933			
272+25		276+25					1,659	134	17
294+00	**	296+50					1,037	84	10
303+00	**	365+00					25,719	2,083	260
310+50		314+50	232	3,437		3,437			
TOTALS CARRIED TO THE GENERAL SUMMARY				59,874	35,763	24,111	59,008	4,778	597

TYPICAL CALCULATIONS

OVEREXCAVATION:

Item 203, Excavation of Unsuitable Material (Cu. Yd.) = Avg. End Area (Sq. Ft.) x Length (Ft.)/27

SOIL MODIFICATION:

Total Width of Modification (Ft.) = 112 Feet Under Pavement

Item 205, Lime Modified Soil (Cu. Yd.) = 112' Wide x Length (Ft.) x 1' Depth/27

Item 205, Lime (Ton) = [Volume of Lime Modified Soil (Cu. Yd.) x 27 Cu. Ft/Cu. Yd. x Weight of Soil (Assumed to be 120 pcf) x 0.05]/2000

Item 205, Water (M Gal) = [Volume of Lime Modified Soil (Cu. Yd.) x 202 Gal/Cu. Yd x 0.05]/1000

ADDITIONAL CONTINGENCY QUANTITIES:
THE FOLLOWING ITEM 203 QUANTITIES FOR:

EXCAVATION OF UNSUITABLE MATERIAL	130,000 CU.YD.
EMBANKMENT	130,000 CU.YD.

HAVE BEEN INCLUDED IN THE GENERAL SUMMARY AS CONTINGENCY QUANTITIES IN ADDITION TO THOSE QUANTITIES LISTED IN THE TABLE ON THIS SHEET. THESE QUANTITIES FOR WORK SHALL BE USED AS DIRECTED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

ROCK CUT EXCAVATION
IN ACCORDANCE WITH THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, ITEM 203, PARAGRAPH 203.04(B), IN THOSE AREAS WHERE ROCK MAY BE PRESENT A CONTINGENCY QUANTITY OF EXCAVATION AND EMBANKMENT MATERIAL HAS BEEN CALCULATED AND PROVIDED BELOW TO BE USED AS DIRECTED BY THE ENGINEER. THESE AREAS ARE DELINEATED IN THE TYPICAL SECTIONS AND THE ROCK IS LABELED ON THE APPROPRIATE CROSS SECTIONS. THE LIMITS OF ADDITIONAL EXCAVATION ARE DEFINED IN PARAGRAPH 203.04(B).

		END AREA (SF)		VOLUME (CU YD)	
	STATION	CUT	FILL	CUT	FILL
BEGIN ROCK CUT EARTHWORK SB	291+50	0	0		
				110.3	110.3
	292+00	119.1	119.1		
				110.3	110.3
END ROCK CUT EARTHWORK SB	292+50	0	0		
BEGIN ROCK CUT EARTHWORK SB & NB	295+95	0	0		
				19.8	19.8
	296+00	213.6	213.6		
				809.6	809.6
	297+00	223.6	223.6		
				831.1	831.1
	298+00	225.2	225.2		
				125.1	125.1
	298+30	0	0		
END ROCK CUT EARTHWORK SB & NB					
TOTAL ROCK CUT EARTHWORK CARRIED TO THE GENERAL SUMMARY				2006	2006

CALCULATED SDS 04/01
CHECKED GCS 04/01

Scale In Feet
0 500 1000

SOIL SCHEMATIC PLAN

WAY-71-0.28

M:\99029\AUTOCAD\LDOT\SOIL-SCHEM.DWG - May 10, 2001

WORKING HOURS RESTRICTION
INTERSTATE 71 THROUGHOUT DISTRICT THREE (RICHLAND, ASHLAND, WAYNE AND MEDINA COUNTIES) IS A RESTRICTED WORK CORRIDOR DUE TO HIGH TRAFFIC VOLUMES. LANE CLOSURES OR OTHER WORK, INCLUDING INSTALLATION OF MAINTENANCE OF TRAFFIC DEVICES, WHICH OCCUPIES ANY PORTION OF THE PRESENT TRAVEL LANES IS RESTRICTED TO THE FOLLOWING HOURS:

NON-HOLIDAY WEEKS:
SUNDAY 8:00 P.M. THROUGH MONDAY 6:00 A.M.
MONDAY 8:00 P.M. THROUGH TUESDAY 6:00 A.M.
TUESDAY 8:00 P.M. THROUGH WEDNESDAY 6:00 A.M.
WEDNESDAY 8:00 P.M. THROUGH THURSDAY 6:00 A.M.
THURSDAY 8:00 P.M. THROUGH FRIDAY 6:00 A.M.

HOLIDAY WEEKS: HOLIDAY ON MONDAY
TUESDAY 10:00 P.M. THROUGH WEDNESDAY 6:00 A.M.
WEDNESDAY 10:00 P.M. THROUGH THURSDAY 6:00 A.M.
THURSDAY 10:00 P.M. THROUGH FRIDAY 6:00 A.M.

HOLIDAY ON TUESDAY
SUNDAY 10:00 P.M. THROUGH MONDAY 6:00 A.M.
WEDNESDAY 10:00 P.M. THROUGH THURSDAY 6:00 A.M.
THURSDAY 10:00 P.M. THROUGH FRIDAY 6:00 A.M.

HOLIDAY ON WEDNESDAY
SUNDAY 10:00 P.M. THROUGH MONDAY 6:00 A.M.
MONDAY 10:00 P.M. THROUGH TUESDAY 6:00 A.M.
THURSDAY 10:00 P.M. THROUGH FRIDAY 6:00 A.M.

HOLIDAY ON THURSDAY
SUNDAY 10:00 P.M. THROUGH MONDAY 6:00 A.M.
MONDAY 10:00 P.M. THROUGH TUESDAY 6:00 A.M.
TUESDAY 10:00 P.M. THROUGH WEDNESDAY 6:00 A.M.

HOLIDAY ON FRIDAY
SUNDAY 10:00 P.M. THROUGH MONDAY 6:00 A.M.
MONDAY 10:00 P.M. THROUGH TUESDAY 6:00 A.M.
TUESDAY 10:00 P.M. THROUGH WEDNESDAY 6:00 A.M.
WEDNESDAY 10:00 P.M. THROUGH THURSDAY 6:00 A.M.

NO WORK WITHIN ACTIVE TRAVEL LANES OR WHICH WILL SLOW TRAFFIC IS PERMITTED AT ANY OTHER TIMES. ALL MAINTENANCE OF TRAFFIC WORK, INCLUDING INSTALLATION OF SIGNING AND LANE CLOSURES SHALL OCCUR WITHIN THE 8:00 P.M. THROUGH 6:00 A.M. TIME PERIODS. NO EXCEPTIONS ARE PERMITTED.

ALL WORK VEHICLES LICENSED TO OPERATE ON THE HIGHWAY, INCLUDING MATERIAL TRUCKS, SHALL BE EQUIPPED WITH A FLASHING, ROTATING OR OSCILLATING AMBER LIGHT VISIBLE TO ALL DIRECTIONS OF TRAFFIC A MINIMUM OF ONE-QUARTER MILE IN BRIGHT SUNLIGHT AND SHALL BE OPERATED WITH LIGHTED HEAD AND TAIL LAMPS. THE AMBER LIGHT SHALL BE IN OPERATION AT ALL TIMES WITHIN THE WORK ZONE AND WHILE TRAVELING TO AND FROM THE WORK ZONE WHENEVER THE VEHICLE SPEED IS BELOW 40 MPH. VEHICLE HAZARD LAMPS DO NOT SATISFY THIS REQUIREMENT. ALL OTHER EQUIPMENT SHALL BE EQUIPPED WITH A FLASHING, ROTATING OR OSCILLATING AMBER LIGHT VISIBLE TO ALL DIRECTIONS OF TRAFFIC A MINIMUM OF ONE-QUARTER MILE IN BRIGHT SUNLIGHT. THE AMBER LIGHT SHALL BE IN OPERATION WHILE THE EQUIPMENT IS WITHIN THE WORK ZONE.

LIGHTING USED TO ILLUMINATE THE WORK AREA SHALL BE AIMED AND SHIELDED TO PREVENT GLARE ENCROACHING INTO OPEN TRAFFIC LANES. FOR ADDITIONAL NOTES SEE THE "FLOODLIGHTING" NOTE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES PER 108.07 OF THE CMS.

ITEM 614 - MAINTAINING TRAFFIC - I.R. 71
THE INTENT OF THIS PROJECT IS TO ADD A 3RD LANE ALONG THE MEDIAN SIDE OF I-71 IN BOTH DIRECTIONS AND TO RECONSTRUCT EXISTING LANES, SHOULDERS, STRUCTURES AND RAMPS.

TWO LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON I.R. 71, EXCEPT AS NOTED, WHEN ONE LANE OF TRAFFIC IN EACH DIRECTION WILL BE PERMITTED.

THIS PROJECT REQUIRES TWO SEPARATE STAGES OF CONSTRUCTION TO RECONSTRUCT I.R. 71. EACH STAGE WILL REQUIRE ONE CONSTRUCTION SEASON. SEE THE SCHEMATIC PLANS ON SHEETS 2-3 FOR THE DELINEATION OF THE CONSTRUCTION STAGE LIMITS. ALL WORK FOR STAGE 1, WITH THE EXCEPTION OF THE FINAL ASPHALT SURFACE COURSE AND FINAL PAVEMENT MARKINGS, SHALL BE COMPLETED AND TRAFFIC RETURNED TO THE NORMAL LANES OF TRAFFIC IN EACH DIRECTION BY *OCTOBER 15* . THE FINAL ASPHALT SURFACE COURSE AND FINAL PAVEMENT MARKINGS SHALL BE PLACED IN THE YEAR IT IS CONSTRUCTED WHEN POSSIBLE. IF THIS CAN NOT BE DONE, THE CONTRACTOR SHALL PLACE FULL DIMENSION PAVEMENT MARKINGS AT HIS EXPENSE (SEE NOTE ON SHEET 29). ALL WORK FOR STAGE 2 SHALL BE COMPLETED AND TRAFFIC RETURNED TO THE NORMAL LANES OF TRAFFIC IN EACH DIRECTION BY *OCTOBER 15*. ALL WORK IS DEFINED TO INCLUDE RAMPS, MAINLINE, BRIDGES, AND ANY OTHER WORK WHICH FALLS WITHIN THE LIMITS OF EACH STAGE.

OCTOBER 15 SHALL BE CONSIDERED AN INTERIM COMPLETION DATE AND LIQUIDATED DAMAGES WILL BE ASSESSED IN ACCORDANCE WITH 108.07 OF THE CMS FOR EACH CALENDAR DAY THAT TRAFFIC IS STILL DIVERTED FROM THE NORMAL TRAFFIC LANES.

ALL SIGNS, BARRICADES, SIGN SUPPORTS, CONES, DRUMS, FLAGGERS AND INCIDENTALS SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN CONFORMANCE WITH THE MOST RECENT REVISION, CURRENT EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (OMUTCD), EXCEPT AS NOTED BELOW. INTERFERENCE WITH VEHICULAR TRAFFIC SHALL BE KEPT TO A MINIMUM AT ALL TIMES.

THE MAINTENANCE OF TRAFFIC DETAILS SHALL BE COORDINATED WITH THE MAINTENANCE OF TRAFFIC DETAILS OF ANY ADJACENT PROJECTS. THE CONTRACTORS ARE REQUIRED TO COOPERATE WITH EACH OTHERS WORK ACTIVITIES DURING THE ENTIRE CONSTRUCTION PROCESS.

SEQUENCE OF CONSTRUCTION GENERAL
EACH OF THE TWO CONSTRUCTION STAGES SHALL BE COMPLETED IN FOUR PHASES AS NOTED BELOW.

PHASE 1 - MILL & RESURFACE OR REPLACE OUTSIDE SHOULDER

MAINTENANCE OF TRAFFIC
1. MAINTAIN TRAFFIC PER STANDARD DRAWING MT-95.30M.
2. SHIFT TRAFFIC TO PASSING LANE. LANE CLOSURES ARE RESTRICTED PER THE WORKING HOURS RESTRICTION NOTE.

WORK PROPOSED
1. MILL AND RESURFACE THE OUTSIDE SHOULDER TO PROVIDE A TEMPORARY SURFACE TO SUPPORT A CONTINUOUS TRAFFIC LANE AND COMPLETE THE FULL DEPTH SHOULDER REPLACEMENT AT OVERPASS STRUCTURES. THIS SHOULDER RECONSTRUCTION ACTIVITY MAY BE ACCOMPLISHED SEQUENTIALLY FOR EACH OF THE TWO STAGES, OR AS A CONTINUOUS OPERATION THROUGH BOTH STAGES.

2. CONSTRUCT AND MARK THE EMERGENCY PARKING AREAS ON THE OUTSIDE OF THE NORTHBOUND AND SOUTHBOUND LANES FOR USE DURING PHASE 2. SEE SHEETS 37 AND 56 FOR DETAILS.

3. REMOVE EXISTING PAVEMENT MARKINGS AND RETROREFLECTORS IN RPMS WHICH WILL CONFLICT WITH THE PHASE 2 PAVEMENT MARKINGS AND PROVIDE TEMPORARY PAVEMENT MARKINGS FOR PHASE 2 OPERATION.

PHASE 2 - CONSTRUCT PROPOSED PASSING LANE AND MEDIAN SHOULDER

MAINTENANCE OF TRAFFIC
1. SHIFT TRAFFIC ONTO THE RESURFACED SHOULDER AND EXISTING OUTSIDE LANE AND PLACE PORTABLE CONCRETE BARRIER (PCB). THE PCB SHALL BE PLACED IN ACCORDANCE WITH THE WORKING HOURS RESTRICTION NOTE DETAILED ABOVE.
2. PLACE TEMPORARY MARKINGS FOR PHASE 3.

WORK PROPOSED
1. CONSTRUCT PROPOSED PHASE 2 PAVEMENT.
2. COMPLETE ALL GRADING, GUARDRAIL, UNDERDRAINS, DRAINAGE, EROSION CONTROL, AND SIGNING IN THE MEDIAN.

PHASE 3 - CONSTRUCT PROPOSED DRIVING LANE, CENTER LANE, AND OUTSIDE SHOULDER

MAINTENANCE OF TRAFFIC
1. IN ACCORDANCE WITH THE WORKING HOURS RESTRICTION NOTE DETAILED ABOVE, CLOSE THE OLD OUTSIDE LANE (NEAREST TO THE EXISTING PCB LOCATION). MAINTAIN TRAFFIC ON THE OUTSIDE PAVED SHOULDER USING DRUMS IN ACCORDANCE WITH STANDARD DRAWING MT-95.30M AND SHIFT PCB ONTO THE NEW PAVEMENT AS SHOWN IN PHASE 3 PLANS.
2. REVISE PAVEMENT MARKINGS AND SHIFT TRAFFIC INTO THE LOCATION SHOWN FOR PHASE 3.

WORK PROPOSED
1. CONSTRUCT PROPOSED PHASE 3 PAVEMENT.
2. COMPLETE ALL GRADING, GUARDRAIL AND BARRIERS, UNDERDRAINS, DRAINAGE, EROSION CONTROL, AND SIGNING ALONG THE OUTSIDE OF THE ROADWAY.

PHASE 4A - PLACE SURFACE COURSE AND PERMANENT OUTSIDE EDGE LINE PAVEMENT MARKINGS ON THE OUTSIDE SHOULDER, DRIVING LANE AND RAMPS

MAINTENANCE OF TRAFFIC
1. MAINTAIN TWO LANES OF TRAFFIC IN THE PASSING LANE AND MEDIAN SHOULDER PER STANDARD DRAWING MT-102.10M.

WORK PROPOSED
1. PLACE THE SURFACE COURSE ON THE OUTSIDE SHOULDER, DRIVING LANE AND RAMPS WITH A HOT JOINT BETWEEN THE LANES AND THE SHOULDER.
2. FINISH ALL GRADING, PERMANENT EDGE LINE AND MISCELLANEOUS ITEMS. DO NOT PLACE RUMBLE STRIPS ON OUTSIDE SHOULDER UNTIL THE COMPLETION OF PHASE 4C (WHEN TRAFFIC IS NO LONGER DRIVING ON THE SHOULDER).

PHASE 4B - PLACE THE SURFACE COURSE AND PERMANENT PAVEMENT MARKINGS ON THE INSIDE SHOULDER AND PASSING LANES

MAINTENANCE OF TRAFFIC
1. MAINTAIN TWO LANES OF TRAFFIC IN THE DRIVING LANES AND THE OUTSIDE SHOULDER PER STANDARD DRAWING MT-102.10M AND/OR MT-95.30M AND ERECT "NO EDGE LINE SIGNS".

WORK PROPOSED
1. PLACE THE SURFACE COURSE ON THE MEDIAN SHOULDER AND PASSING LANE WITH A HOT JOINT BETWEEN THE LANES AND SHOULDER.
2. FINISH ALL GRADING, PERMANENT EDGE LINE, INSIDE SHOULDER RUMBLE STRIPS AND MISCELLANEOUS ITEMS.

CALCULATED VLK 04/01 | CHECKED SDS 04/01

MAINTENANCE OF TRAFFIC GENERAL NOTES

WAY-71-0.28

MOT-GENNOTE.dwg May 10 ,2001

PHASE 4C - PLACE THE SURFACE COURSE AND PERMANENT PAVEMENT MARKINGS ON THE CENTER LANE

MAINTENANCE OF TRAFFIC

1. MAINTAIN TRAFFIC IN ONE LANE ON THE OUTSIDE SHOULDER. LANE CLOSURES ARE RESTRICTED PER THE WORKING HOURS RESTRICTION NOTE.

WORK PROPOSED

1. PLACE THE SURFACE COURSE ON THE CENTER LANE. APPLY TEMPORARY MARKINGS AT THE CONCLUSION OF PAVING EVERY NIGHT PRIOR TO OPENING TO TRAFFIC.
2. PLACE BOTH LANE LINES AND RPM'S.
   A. CONTRACTOR MAY DELAY THE PLACEMENT OF THE FINAL PAVEMENT AND MARKINGS UNTIL THE SPRING OF THE FOLLOWING YEAR. IF THE CONTRACTOR ELECTS TO DO SO, THE CONTRACTOR SHALL PLACE FULL DIMENSION (CLASS 1) PAVEMENT MARKINGS THROUGHOUT THE RECENTLY COMPLETED STAGE FOR THE PURPOSE OF MAINTAINING TRAFFIC OVER THE WINTER, AT HIS EXPENSE. FURTHERMORE, IF THE CONTRACTOR ELECTS TO PLACE THE SURFACE COURSE IN THE SPRING, HE SHALL COMPLETE THE PLACEMENT OF THE SURFACE COURSE AND FINAL PAVEMENT MARKINGS (INCLUDING RAISED PAVEMENT MARKERS, ETC.) BY THE MONDAY BEFORE MEMORIAL DAY OR SHALL BE ASSESSED LIQUIDATED DAMAGES IN THE AMOUNT PRESCRIBED IN SECTION 108.07 OF THE CMS FOR EVERY DAY AFTER THE MONDAY BEFORE MEMORIAL DAY THAT THE SURFACE COURSE REMAINS UNCOMPLETED FROM THE PREVIOUS STAGE OF WORK.

S.R. 301 AND S.R. 539 RAMPS

DURING THE PHASE 3 WORK OUTLINED FOR MAINLINE I.R. 71, TWO SEPARATE CONSTRUCTION ACTIVITIES WILL BE REQUIRED TO COMPLETE THE S.R. 301 AND S.R. 539 RAMPS AND SPEED CHANGE LANES. THESE ACTIVITIES ARE REFERRED TO AS PHASE 3A AND PHASE 3B AND ARE TO BE COORDINATED WITH ADJOINING PHASE 3 CONSTRUCTION ACTIVITIES ALONG I.R. 71 AS DETAILED ON SHEETS 60-90. DURING STAGE 1, PHASES 1 & 2, WORK WILL BE PERMITTED ON THE RAMPS, BUT RAMP TRAFFIC MUST BE MAINTAINED AT ALL TIMES.

RAMP A

PHASE 3A

1. MAINTAIN RAMP TRAFFIC ON THE OUTSIDE PORTION OF EXISTING RAMP AND I.R. 71 OUTSIDE LANES AND SHOULDER.
2. CONSTRUCT THE TEMPORARY PAVEMENT REQUIRED TO MAINTAIN TRAFFIC IN PHASE 3B.
3. CONSTRUCT THE INSIDE PORTION OF RAMP A, PORTION OF THE SPEED CHANGE LANE, AND THE I.R. 71 OUTSIDE LANES AND SHOULDER AS DETAILED ON SHEETS 60-61.

PHASE 3B

1. SHIFT RAMP A TRAFFIC FROM THE OUTSIDE PORTION OF EXISTING RAMP AND I.R. 71 OUTSIDE LANES AND SHOULDER AS MAINTAINED IN PHASE 3A TO THE NEWLY CONSTRUCTED INSIDE PORTION OF RAMP A AND SPEED CHANGE LANE, AND THE TEMPORARY PAVEMENT CONSTRUCTED ALONG THE INSIDE OF RAMP A IN PHASE 3A.
2. CONSTRUCT THE OUTSIDE PORTION OF RAMP A, THE REMAINING PORTION OF THE SPEED CHANGE LANE, AND THE I.R. 71 OUTSIDE LANES AND SHOULDER AS DETAILED ON SHEETS 62-63.

RAMP B

PHASE 3A

1. MAINTAIN RAMP TRAFFIC ON THE OUTSIDE PORTION OF EXISTING RAMP AND EXISTING SPEED CHANGE LANE.
2. CONSTRUCT THE TEMPORARY PAVEMENT REQUIRED TO MAINTAIN TRAFFIC IN PHASE 3B.
3. CONSTRUCT THE INSIDE PORTION OF RAMP B, PORTION OF THE SPEED CHANGE LANE, AND THE I.R. 71 OUTSIDE LANES AND SHOULDER AS DETAILED ON SHEET 67.

RAMP B (CONT'D)

PHASE 3B

1. SHIFT RAMP B TRAFFIC FROM THE OUTSIDE PORTION OF EXISTING RAMP AND THE EXISTING SPEED CHANGE LANE AS MAINTAINED IN PHASE 3A TO THE NEWLY CONSTRUCTED INSIDE PORTION OF RAMP B AND SPEED CHANGE LANE, AND THE TEMPORARY PAVEMENT CONSTRUCTED ALONG THE INSIDE OF RAMP B IN PHASE 3A.
2. CONSTRUCT THE OUTSIDE PORTION OF RAMP B, THE REMAINING PORTION OF THE SPEED CHANGE LANE, AND THE I.R. 71 OUTSIDE LANES AND SHOULDER AS DETAILED ON SHEET 68.

RAMP C

PHASE 3A

1. MAINTAIN RAMP TRAFFIC ON THE OUTSIDE PORTION OF EXISTING RAMP AND I.R. 71 OUTSIDE LANES AND SHOULDER.
2. CONSTRUCT THE TEMPORARY PAVEMENT REQUIRED TO MAINTAIN TRAFFIC IN PHASE 3B.
3. CONSTRUCT THE INSIDE PORTION OF RAMP C, PORTION OF THE SPEED CHANGE LANE, AND THE I.R. 71 OUTSIDE LANES AND SHOULDER AS DETAILED ON SHEETS 72-73.

PHASE 3B

1. SHIFT RAMP C TRAFFIC FROM THE OUTSIDE PORTION OF EXISTING RAMP AND I.R. 71 OUTSIDE LANES AND SHOULDER AS MAINTAINED IN PHASE 3A TO THE NEWLY CONSTRUCTED INSIDE PORTION OF RAMP C AND SPEED CHANGE LANE, AND THE TEMPORARY PAVEMENT CONSTRUCTED ALONG THE INSIDE OF RAMP C IN PHASE 3A.
2. CONSTRUCT THE OUTSIDE PORTION OF RAMP C, THE REMAINING PORTION OF THE SPEED CHANGE LANE, AND THE I.R. 71 OUTSIDE LANES AND SHOULDER AS DETAILED ON SHEETS 74-75.
3. WIDEN THE EXISTING SHOULDER AS DETAILED ON SHEET 12.

RAMP D

PHASE 3A

1. MAINTAIN RAMP TRAFFIC ON THE OUTSIDE PORTION OF EXISTING RAMP AND EXISTING SPEED CHANGE LANE.
2. CONSTRUCT THE TEMPORARY PAVEMENT REQUIRED TO MAINTAIN TRAFFIC IN PHASE 3B.
3. CONSTRUCT THE INSIDE PORTION OF RAMP D, PORTION OF THE SPEED CHANGE LANE, AND THE I.R. 71 OUTSIDE LANES AND SHOULDER AS DETAILED ON SHEET 79.

PHASE 3B

1. SHIFT RAMP D TRAFFIC FROM THE OUTSIDE PORTION OF EXISTING RAMP AND THE EXISTING SPEED CHANGE LANE AS MAINTAINED IN PHASE 3A TO THE NEWLY CONSTRUCTED INSIDE PORTION OF RAMP D AND SPEED CHANGE LANE, AND THE TEMPORARY PAVEMENT CONSTRUCTED ALONG THE INSIDE OF RAMP D IN PHASE 3A.
2. CONSTRUCT THE OUTSIDE PORTION OF RAMP D, THE REMAINING PORTION OF THE SPEED CHANGE LANE, AND THE I.R. 71 OUTSIDE LANES AND SHOULDER AS DETAILED ON SHEET 80.
3. WIDEN THE EXISTING SHOULDER AS DETAILED ON SHEET 12.

RAMP E

PHASE 3A

1. MAINTAIN RAMP TRAFFIC ON THE OUTSIDE PORTION OF EXISTING RAMP AND EXISTING SPEED CHANGE LANE.
2. CONSTRUCT THE TEMPORARY PAVEMENT REQUIRED TO MAINTAIN TRAFFIC IN PHASE 3B.
3. CONSTRUCT THE INSIDE PORTION OF RAMP E, PORTION OF THE SPEED CHANGE LANE, AND THE I.R. 71 OUTSIDE LANES AND SHOULDER AS DETAILED ON SHEET 84.

PHASE 3B

1. SHIFT RAMP E TRAFFIC FROM THE OUTSIDE PORTION OF EXISTING RAMP AND THE EXISTING SPEED CHANGE LANE AS MAINTAINED IN PHASE 3A TO THE NEWLY CONSTRUCTED INSIDE PORTION OF RAMP E AND SPEED CHANGE LANE, AND THE TEMPORARY PAVEMENT CONSTRUCTED ALONG THE INSIDE OF RAMP E IN PHASE 3A.
2. CONSTRUCT THE OUTSIDE PORTION OF RAMP E, THE REMAINING PORTION OF THE SPEED CHANGE LANE, AND THE I.R. 71 OUTSIDE LANES AND SHOULDER AS DETAILED ON SHEET 85.

RAMP F

PHASE 3A

1. MAINTAIN RAMP TRAFFIC ON THE OUTSIDE PORTION OF EXISTING RAMP AND I.R. 71 OUTSIDE LANES AND SHOULDER.
2. CONSTRUCT THE TEMPORARY PAVEMENT REQUIRED TO MAINTAIN TRAFFIC IN PHASE 3B.
3. CONSTRUCT THE INSIDE PORTION OF RAMP F, PORTION OF THE SPEED CHANGE LANE, AND THE I.R. 71 OUTSIDE LANES AND SHOULDER AS DETAILED ON SHEETS 89-90.

PHASE 3B

1. SHIFT RAMP F TRAFFIC FROM THE OUTSIDE PORTION OF EXISTING RAMP AND I.R. 71 OUTSIDE LANES AND SHOULDER AS MAINTAINED IN PHASE 3A TO THE NEWLY CONSTRUCTED INSIDE PORTION OF RAMP F AND SPEED CHANGE LANE, AND THE TEMPORARY PAVEMENT CONSTRUCTED ALONG THE INSIDE OF RAMP F IN PHASE 3A.
2. CONSTRUCT THE OUTSIDE PORTION OF RAMP F, THE REMAINING PORTION OF THE SPEED CHANGE LANE, AND THE I.R. 71 OUTSIDE LANES AND SHOULDER AS DETAILED ON SHEETS 91-92.

REST AREA CLOSURES

THE NORTHBOUND AND SOUTHBOUND REST AREAS SHALL REMAIN OPEN UNTIL THE BEGINNING OF STAGE 1, PHASE 3. AFTER TRAFFIC HAS BEEN SHIFTED TO THE PHASE 3 INSIDE LANE AND SHOULDER, THESE REST AREAS SHALL BE CLOSED AS DETAILED ON SHEETS 94 AND 95. ALL WORK SHALL BE COMPLETED AS DETAILED ON SHEETS 308-327, INCLUDING FINAL PAVEMENT MARKINGS AND SIGNING AS DETAILED ON SHEETS 369-372. THE REST AREAS SHALL RE-OPEN AT THE COMPLETION OF PHASE 3 OR *OCTOBER 15* WHICHEVER OCCURS FIRST. UNDER NO CIRCUMSTANCES SHALL THE REST AREAS BE CLOSED AFTER *OCTOBER 15*. IF NECESSARY, THE CONTRACTOR SHALL COMPLETE PORTIONS OF THE MAINLINE PHASE 3 CONSTRUCTION IN THE VICINITY OF THE REST AREAS IN ORDER TO MEET THE *OCTOBER 15* OPENING DEADLINE. LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH CMS SECTION 108.07 FOR EACH CALENDAR DAY EITHER OF THE REST AREAS REMAINS CLOSED AFTER THE MAINLINE PHASE 3 CONSTRUCTION IS COMPLETED OR AFTER THE *OCTOBER 15* DEADLINE.

INTERIM CONDITION

FOLLOWING THE FIRST AND SECOND STAGE (YEAR) OF WORK THE TRAFFIC SHALL BE MAINTAINED OVER THE WINTER USING THE INTERIM LAYOUTS SHOWN IN THE PLANS. THIS WILL REQUIRE PLACEMENT OF TEMPORARY MARKINGS AND SIGNS AS SHOWN ON SHEET 97. THE USE OF THE FINAL W-54A OR W-54B SIGNS (DESTINED FOR USE IN THE FINAL SIGNING AT THE COMPLETION OF THE PROJECT AT THE NORTH END) FOR THE SIGNS SHOWN IN THE INTERIM PLANS IS PERMITTED. HOWEVER, IF THE SIGNS ARE DAMAGED OR DEFACED THEY SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

TRANSITIONS FROM ONE TRAFFIC CONTROL PHASE TO ANOTHER SHALL BE PLANNED BY THE CONTRACTOR AND COORDINATED WITH THE PROJECT ENGINEER TO ASSURE MINIMUM DISRUPTION TO TRAFFIC. REMOVAL OF EXISTING MARKINGS, PLACEMENT OF NEW MARKINGS IN AREAS NOT YET ACCESSIBLE TO TRAFFIC AND ERECTION OF SIGNS (COVERED IF NECESSARY) AS WELL AS STOCKPILING OF ALL TRAFFIC CONTROL MATERIALS FOR THE NEXT STAGE SHALL BE ACCOMPLISHED, WHEREVER POSSIBLE, PRIOR TO THE TRANSITION.

THE TRANSITION SHALL OCCUR DURING THE HOURS OF 8 P.M. TO 6 A.M. AS DETAILED IN THE WORKING HOURS RESTRICTION GENERAL NOTE.

CALCULATED VLK 04/01 | CHECKED SDS 04/01

MAINTENANCE OF TRAFFIC GENERAL NOTES

WAY-71-0.28

MOT-GENNOTE.dwg May 10 2001

SUMMARY
AT NO TIME DURING THE ABOVE DESCRIBED ACTIVITIES OR DURING ANY OTHER ACTIVITY SUCH AS PLACEMENT OR REMOVAL OF TEMPORARY MARKINGS, PLANING OPERATIONS, RPM PLACEMENT OR REMOVAL, ETC. SHALL EITHER TRAFFIC DIRECTION BE REDUCED TO LESS THAN TWO TRAFFIC LANES DURING THE DAY. RESTRICTION OF TRAFFIC TO A SINGLE LANE IS ONLY PERMITTED WITHIN THE NIGHT TIME PERIODS DEFINED IN THE WORKING HOURS RESTRICTION NOTE.

PLACEMENT OF PCB SHALL PROCEED IN THE SAME DIRECTION AS TRAFFIC AND REMOVAL SHALL BE OPPOSITE TO TRAFFIC FLOW DIRECTION.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATION, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614- MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

ITEM 614 - MAINTENANCE OF TRAFFIC - C.R. 70
CR 70 SHALL BE CLOSED TO ALLOW FOR CONSTRUCTION OF THE OVER-CROSSING STRUCTURES. WHEN CR 70 IS CLOSED TRAFFIC SHALL BE DETOURED AS SHOWN ON SHEET 34.

DURING STAGE 2, PHASE 2 OF THE I.R. 71 MAINTENANCE OF TRAFFIC CR 70 TRAFFIC SHALL BE DETOURED DURING DEMOLITION OF THE PORTION OF THE STRUCTURE OVER THE CR 70 LANES AND DURING CONSTRUCTION OF THE WIDENED SHOULDER PIERS. CR 70 TRAFFIC MAY BE DETOURED OR CLOSED WITH FLAGGERS PER STANDARD DRAWING MT-97.10M WHILE BEAMS ARE PLACED AND DURING CONCRETE POURS OVER THE CR 70 TRAFFIC LANES. IF CR 70 TRAFFIC IS CONTROLLED WITH FLAGGERS, THE FLAGGERS MUST ALSO CONTROL THE TRAFFIC FROM CR 21. ALL TRAFFIC MUST BE CLEARED FROM ONE BEAM SETTING PRIOR TO CLOSING CR 70 TO TRAFFIC FOR THE NEXT BEAM SETTING. TRAFFIC SHALL NOT BE CLOSED FOR MORE THAN 10 MINUTES PER BEAM SETTING.

DURING STAGE 2, PHASE 3 OF THE I.R. 71 MAINTENANCE OF TRAFFIC, CR 70 TRAFFIC SHALL BE DETOURED UNTIL BRIDGE WORK IS COMPLETED.

THE CLOSURE TO ACCOMPLISH STAGE 2 BRIDGE WORK SHALL BE LIMITED TO A TOTAL OF 210 DAYS FOR PHASES 2 AND 3 COMBINED. FAILURE TO COMPLETE THE STAGE 2 BRIDGE WORK AT CR 70 AND RE-OPEN THE COUNTY ROAD WITHIN THE ALLOTTED TIME SHALL RESULT IN THE ASSESSMENT OF LIQUIDATED DAMAGES. LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH 108.07 FOR EACH CALENDAR DAY THE COUNTY ROAD REMAINS CLOSED TO TRAFFIC BEYOND THE ABOVE SPECIFIED LIMITS.

THE CONTRACTOR SHALL NOTIFY THE WAYNE COUNTY ENGINEER TEN (10) WORKING DAYS PRIOR TO CLOSING C.R. 70. CONTACT MARK SPADEMAN AT THE WAYNE COUNTY ENGINEERING BUILDING: TELEPHONE (330) 287-5500.

THE CONTRACTOR SHALL PROVIDE, ERECT, MAINTAIN AND REMOVE SIGNS AND SIGN SUPPORTS, GATES AND BARRICADES AND THE ADVANCE WARNING SIGNS AS SHOWN ON SHEET 34 AND ON STANDARD CONSTRUCTION DRAWING MT-101.60M. ALL SIGNS SHALL BE IN PLACE BEFORE THE DETOUR IS PLACED IN SERVICE. WHEN THE DETOUR IS NO LONGER REQUIRED, THE CONTRACTOR SHALL REMOVE OR COVER ALL DETOUR SIGNS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATION, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614-MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

FLOODLIGHTING
FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHT TIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE THE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

WORKSITE TRAFFIC SUPERVISOR
THE CONTRACTOR SHALL EMPLOY A PROFESSIONAL WORKSITE TRAFFIC SUPERVISOR (WTS) FOR THE PURPOSE OF MONITORING THE TRAFFIC CONTROL PLAN (TCP). THE WORKSITE TRAFFIC SUPERVISOR SHALL HAVE EXPERIENCE OR TRAINING IN PROJECT SUPERVISION AND TRAFFIC CONTROL COMMENSURATE WITH THE RESPONSIBILITIES OF MANAGING THE PROJECT TRAFFIC CONTROL AND COORDINATING WITH THE MOTORIST INFORMATION SYSTEM OUTSIDE THE PROJECT LIMITS. THE GOALS OF THE WORKSITE TRAFFIC SUPERVISOR'S POSITION ARE TO MINIMIZE TRAFFIC CONGESTION AND MAXIMIZE PROJECT SAFETY AND EFFICIENCY. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL A RESUME OF THE EXPERIENCE, TRAINING AND EDUCATION OF THE PERSON PROPOSED FOR WORKSITE TRAFFIC SUPERVISOR. PROJECT WORK SHALL NOT BEGIN WITHOUT AN APPROVED WORKSITE TRAFFIC SUPERVISOR. THE WTS SHALL BE PRESENT WHEN THE CONTRACTOR INSTALLS A TRAFFIC RESTRICTION, LANE CLOSURE ETC. THE WTS SHALL REVIEW THE TRAFFIC CONTROL PATTERN UPON COMPLETION OF THE INSTALLATION BOTH DURING THE DAY AND AT NIGHT FOR ASSURANCE OF CONTRACT COMPLIANCE. THE WTS SHALL MAKE RECOMMENDATIONS TO MODIFY THE TCP FOR BETTER/SAFER TRAFFIC FLOW. THESE RECOMMENDATIONS SHALL BE MADE IN WRITING TO THE ENGINEER. NO CHANGES TO THE TRAFFIC CONTROL PLAN SHALL BE MADE UNTIL APPROVAL IS OBTAINED FROM THE ENGINEER IN WRITING.

EACH DAY, THE WORKSITE TRAFFIC SUPERVISOR SHALL REVIEW THE PROJECT'S TRAFFIC CONTROL. A MINIMUM OF TWO REVIEWS EACH WEEK SHALL BE PERFORMED AT NIGHT. THE FOLLOWING ITEMS SHALL BE INCLUDED IN EACH REVIEW: TRAFFIC CONTROL DEVICE CONDITION, PLACEMENT, VISIBILITY; TRAFFIC FLOW CONDITIONS, INCIDENTS, CONGESTION POINTS, DELAYS, ADEQUACY OF ADVANCED INFORMATIONAL SIGNS BEYOND THE PROJECT LIMITS; INTERACTION OF WORK VEHICLES AND TRAFFIC; EVIDENCE OF ACCIDENTS; PROPER STORAGE OF MATERIALS AND EQUIPMENT; CONFORMANCE WITH TCP; ADEQUACY OF TCP; CONFLICTING OR NON- PERFORMING PAVEMENT MARKINGS. THE WTS SHALL NOTE ANY TRAFFIC CONTROL DEFICIENCIES. DEFICIENT OR IMPROPERLY PLACED TRAFFIC CONTROL DEVICES SHALL BE CORRECTED. THE WORKSITE TRAFFIC SUPERVISOR SHALL HAVE NECESSARY AUTHORITY TO IMMEDIATELY PERFORM THIS CORRECTIVE WORK. DAILY, A RECORD OF REVIEW SHALL BE GIVEN TO THE PROJECT ENGINEER IN WRITING AND SHALL INCLUDE A RECORD OF DEFICIENCIES AND RESOLUTION OF THE DEFICIENCIES.

FAILURE OF THE CONTRACTOR TO COMPLY WITH ANY OF THE ABOVE SHALL CONSTITUTE CAUSE FOR THE PROJECT ENGINEER TO SUSPEND ALL WORK UNTIL ALL CORRECTIONS ARE MADE.

PAYMENT FOR FURNISHING THE WORKSITE TRAFFIC SUPERVISOR SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR
ITEM 614 -MAINTAINING TRAFFIC.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR
IN ADDITION TO THE REQUIREMENTS OF ITEM 614 AND THE LATEST EDITION OF THE OMUTCD, A UNIFORMED LAW ENFORCEMENT OFFICER (LEO) AND OFFICIAL *VEHICLE* WITH TOP MOUNTED FLASHING LIGHTS SHALL BE PROVIDED FOR CONTROLLING TRAFFIC *AS DIRECTED AND APPROVED BY THE ENGINEER FOR THE FOLLOWING TASKS:*

A) TRANSITION FROM ONE TRAFFIC CONTROL PATTERN TO ANOTHER
B) TO ALLOW FOR FINAL RESURFACING, PAVEMENT MARKING, BARRIER MOVEMENT OR OTHER ACTIVITIES WHEN LESS THAN 2-LANES DIRECTIONAL ARE PROVIDED FOR TRAFFIC.

LAW ENFORCEMENT OFFICERS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. THE LEO'S ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICIAL PATROL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE.

THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THESE SERVICES WITH THE OHIO STATE HIGHWAY PATROL (TELEPHONE: 419-289-0911) LOCATED AT 805 US ROUTE 250, ASHLAND OHIO 44805

LAW ENFORCEMENT OFFICER WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON AN HOURLY BASIS UNDER ITEM 614-LAW ENFORCEMENT OFFICER WITH PATROL CAR. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR: 500 HOURS

THE HOURS PAID SHALL INCLUDE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, HE MAY DO SO AT HIS OWN EXPENSE. PAYMENT FOR THE EXCESS ABOVE THE CONTRACT REQUIREMENTS WILL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

ITEM 614 - DOUBLE FINES IN WORK ZONES SIGN
R-180-48 SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

THE SIGNS SHALL BE COVERED OR REMOVED WHEN THE CONSTRUCTION ZONE IS DISCONTINUED FOR 30 DAYS OR MORE.

THE SIGNS SHALL BE DUAL MOUNTED. THE FIRST SIGN SHALL BE PLACED BETWEEN THE "ROAD CONSTRUCTION AHEAD" (OW-128) SIGN AND THE NEXT SIGN IN THE SEQUENCE. SIGNS SHALL BE ERECTED ON EACH ENTRANCE RAMP AND EVERY TWO MILES THROUGH THE CONSTRUCTION WORK LIMITS.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED BUT GOOD CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE REFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF 730.19 AND U.S. DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL SPECIFICATION FOR TYPE III-C SHEETING, FP-85.

DOUBLE FINES IN WORK ZONES SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION AS DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE, IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVAL OF THE SIGN AND SUPPORT. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - DOUBLE FINES IN WORK ZONE SIGNS 27 EACH

ITEM 614 - BARRIER REFLECTORS AND OBJECT MARKERS
QUANTITIES FOR BARRIER REFLECTOR, TYPE B, AND OBJECT MARKER HAVE BEEN INCLUDED IN THE GENERAL SUMMARY TO PLACE ON THE PORTABLE CONCRETE BARRIER THAT IS USED IN THIS PROJECT.

BARRIER REFLECTORS, OBJECT MARKERS, AND THEIR INSTALLATION SHALL CONFORM TO ITEM 626 EXCEPT THAT THE SPACING SHALL BE 25 FEET.

CALCULATED VLK 04/01 | CHECKED SDS 04/01

MAINTENANCE OF TRAFFIC GENERAL NOTES

WAY-71-0.28

MOT-GENNOTE.dwg May 10 ,2001

ITEM 614 - WORK ZONE SPEED LIMIT SIGN
THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, COVER DURING SUSPENSION OF WORK, AND SUBSEQUENTLY REMOVE WORK ZONE SPEED LIMIT SIGNS AND SUPPORTS (R-9A:VEHICLES OVER 4 TONS EMPTY/NON COMM BUSES/55MPH, R-10:55 SPEED LIMIT/65 SPEED LIMIT, AND R-11A:REDUCED SPEED 55 AHEAD) WITHIN THE WORK LIMITS IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS.

THE CONTRACTOR SHALL COVER OR REMOVE ANY EXISTING SPEED LIMIT OR MINIMUM SPEED SIGNS WITHIN THE REDUCED SPEED ZONE. THESE SIGNS SHALL BE RESTORED DURING SUSPENSION OR TERMINATION OF THE REDUCED SPEED LIMIT. THE EXPENSE OF COVERING OR REMOVAL AND RESTORATION OF EXISTING SPEED LIMIT OR MINIMUM SPEED SIGNS SHALL BE INCLUDED IN THE PAY ITEM FOR THE WORK ZONE SPEED LIMIT SIGNS.

THE WORK ZONE SPEED LIMIT SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN 4 HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN 4 HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL ERECT A WORK ZONE SPEED LIMIT SIGN IN ADVANCE OF ANY LANE RESTRICTION EXPECTED TO LAST AT LEAST 30 DAYS, OR AS DIRECTED BY THE ENGINEER. THE SIGN SHALL BE MOUNTED ON BOTH SIDES OF DIVIDED HIGHWAYS, 500 FEET IN ADVANCE OF THE LANE REDUCTION TAPER OR TRANSITION. THE SIGN SHALL BE REPEATED, ON THE SIDE NEAREST TRAFFIC, EVERY 1 MILE FOR 55 MPH ZONES. THESE SIGNS SHALL ALSO BE ERECTED IMMEDIATELY AFTER EACH OPEN ENTRANCE RAMP WITHIN THE ZONE.

A SIGN(S) TO INDICATE THE RESUMPTION OF THE STATUTORY SPEED LIMIT SHALL BE ERECTED AT THE END OF ANY REDUCED SPEED ZONE. R-10 SIGNS (SPEED LIMIT) SHALL BE USED ON UNDIVIDED ROADWAY. R-10 (SPEED LIMIT) AND R-9A SIGNS (SPEED LIMIT) SHALL BE USED ON DIVIDED ROADWAYS. WHEN USED THE R-10 AND R-9A SIGNS SHALL BE MOUNTED SIDE-BY-SIDE ON SEPARATE SUPPORTS.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED BUT GOOD CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE REFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF 730.19 AND U.S. DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL SPECIFICATION FOR TYPE III-C SHEETING, FP-85. WORK ZONE SPEED LIMIT SIGNS SHALL BE MOUNTED ON TWO (2) ITEM 630 GROUND MOUNTED SUPPORTS, NO 3 POSTS.

WORK ZONE SPEED LIMIT SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGNS AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION WITHIN THE PROJECT DUE TO CHANGES IN THE SPEED ZONE DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE IN PLACE, WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS, AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVING THE SIGNS AND SUPPORTS. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - WORK ZONE SPEED LIMIT SIGN 43 EACH

ITEM 614-PORTABLE CHANGEABLE MESSAGE SIGN, CLASS II, AS PER PLAN
THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, PORTABLE CHANGEABLE MESSAGE SIGN, (PCMS) AS CALLED FOR IN PLAN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR. THE CLASS II UNITS HAVE A MINIMUM LEGIBILITY DISTANCE OF 850 FEET.

EACH SIGN SHALL BE TRAILER MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY.

THE NUMBER, LOCATION, PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE LOCATIONS OF THE PCMS MAY NOT BE WITHIN THE WORK LIMITS OF THE PROJECT BUT SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION, YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS WILL BE OFF, FACING AWAY FROM ALL TRAFFIC AND SHALL DISPLAY ONE OR MORE HIGH INTENSITY YELLOW REFLECTIVE SHEETING SURFACES OF 9 INCH BY 15 INCH MINIMUM SIZE FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT AND TO REVISE SIGN MESSAGE, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD.

THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHRASES SHALL BE SUPPORTED, BUT NORMALLY, NOT MORE THAN TWO MESSAGE PHRASES SHOULD BE EMPLOYED, ALTHOUGH THREE PHRASES MAY BE USED IN UNUSUAL CONDITIONS. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHRASE TO BE READ AT LEAST ONCE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF 614.03 (C). THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE MORE THAN 12 HOURS INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC AND THE ENTIRE COST TO CONTROL TRAFFIC ACCRUED BY THE DEPARTMENT WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24 HOURS PER DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE. THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN AND REMOVE A PCMS UNIT ON THIS PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES AS OUTLINED IN 104.04.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT BID PER SIGN-MONTH FOR ALL SIGNS FURNISHED UNDER ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN, CLASS II, AS PER PLAN AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE, AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK, INCLUDING RELOCATION IF NECESSARY.

A QUANTITY OF 32* SIGN-MONTHS HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

* ESTIMATED 2 LOCATIONS FOR 8 MONTHS IN EACH OF THE 2 STAGES (YEARS).

NOTICE OF CLOSURE SIGNS
NOTICE OF CLOSURE SIGNS (OC-60B), AS DETAILED IN THE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED CLOSURE OF CR 70. THE SIGNS SHALL BE ERECTED ON THE RIGHT HAND SIDE OF THE ROAD FACING TRAFFIC, ONE IN EACH DIRECTION. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS ON THE ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE.

SEE DETOUR PLAN (SHEET 34) FOR SIGN LOCATIONS. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614-MAINTAINING TRAFFIC, AND SHALL INCLUDE FURNISHING, ERECTING, MAINTAINING, AND REMOVING THE SIGNS INCLUDING SUPPORTS.

TRENCH FOR TEMPORARY PAVEMENT
TRENCH EXCAVATION FOR TEMPORARY PAVEMENTS NOT PROTECTED BY PORTABLE CONCRETE BARRIERS SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

OVERNIGHT TRENCH CLOSING
THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 1-1/2 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

ITEM SPECIAL - REPLACEMENT DRUM
DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE BID PRICE PER EACH FOR "ITEM SPECIAL - REPLACEMENT DRUM" AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM; AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

AN ESTIMATED QUANTITY OF 300 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

ITEM SPECIAL - REPLACEMENT SIGN
FLAT SHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED BUT GOOD CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE BID PRICE PER SQUARE FOOT FOR "ITEM SPECIAL - REPLACEMENT SIGN" AND SHALL INCLUDE THE SUPPORTS; AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 250 SQUARE FEET HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

ITEM 614 - BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC:

ITEM 614 - BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC 100 CU.YD.

CALCULATED VLK 04/01
CHECKED SDS 04/01

MAINTENANCE OF TRAFFIC GENERAL NOTES

WAY-71-0.28

MOT-GENNOTE.dwg May 10 ,2001

ITEM 614 - TEMPORARY IMPACT ATTENUATOR, UNIDIRECTIONAL
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING IMPACT ATTENUATORS:

1) THE QUADGUARD CZ, (24" WIDE 6-BAY) TEMPORARY IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC., ONE EAST WACKER DRIVE, CHICAGO, IL 60601 (TELEPHONE: 312-467-6750).

THE LENGTH OF THE 6-BAY QUADGUARD CZ IS 20'-9". INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
QSCZCVR-T4	QUADGUARD CZ SYSTEM FOR CONSTRUCTION ZONES	5/13/99 REV. J	8/27/99
35-40-10	QUADGUARD SYSTEM CONCRETE PAD, CZ, QG REV. D	11/19/97	8/27/99
35-40-16	QUADGUARD SYSTEM BACKUP ASSEMBLY, CZ, QG REV. F	7/30/99	8/27/99
354051Z	QUADGUARD CZ SYSTEM NOSE ASSEMBLY, CZ, QG, 24,30,36	5/17/99	8/27/99
35-40-18	TRANSITION ASSEMBLY, 4 OFFSET, QG REV. F	6/25/99	8/27/99
3540*0260*	QUADGUARD SYSTEM PCMB ANCHOR ASSEMBLY REV. C	11/19/97	8/27/99

2) THE TRACC (TRINITY ATTENUATING CRASH CUSHION) MANUFACTURED BY SYRO INC., 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE TRACC IS 21'-0" LONG AND 2'-7" WIDE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./ REV. DATE	ODOT APPROVAL DATE
SS450	CRASH-CUSHION ATTENUATING TERMINAL PLAN, ELEVATION & SECTIONS REV. 1	3/12/99	8/27/99
SS455	TRACC TRANSITION TO W-BEAM MEDIAN BARRIER PLAN, ELEVATION & SECTIONS	2/18/99	8/27/99
SS461	TRACC TRANSITION TO CONCRETE SAFETY SHAPE BARRIER PLAN, ELEVATION & SECTIONS REV. 1	6/30/99	8/27/99
SS462	TRACC TRANSITION TO CONCRETE BARRIER SINGLE SLOPE PLAN, ELEVATION & SECTIONS	6/30/99	8/27/99

THE CONTRACTOR SHALL PROVIDE A REPLACEMENT UNIT WHEN AN IMPACT IS SEVERE ENOUGH TO REQUIRE COMPLETE REPLACEMENT OF THE ATTENUATOR. THE CONTRACTOR SHALL HAVE A SPARE PARTS PACKAGE AVAILABLE ON THE PROJECT SITE AT ALL TIMES WHEN AN ATTENUATOR IS IN PLACE. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF ONE COMPLETE SPARE PARTS PACKAGE FOR EVERY 1 TO 6 UNITS INSTALLED ON THE PROJECT SITE. FOR EXAMPLE, 5 INSTALLED UNITS REQUIRE 1 SPARE PARTS PACKAGE AND 7 INSTALLED UNITS REQUIRE 2 SPARE PARTS PACKAGES.

WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 614, TEMPORARY IMPACT ATTENUATOR, UNIDIRECTIONAL, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT, MAINTAIN, REPAIR, REPLACE OR RELOCATE A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 615 - TEMPORARY PAVEMENT, CLASS A, AS PER PLAN
ALL PROVISIONS OF ITEM 615 SHALL APPLY EXCEPT THIS PAVEMENT SHALL REMAIN IN PLACE AT THE NORTH END OF THE PROJECT.

ITEM 615 - TEMPORARY PAVEMENT, AS PER PLAN
THE CONTRACTOR SHALL PAVE THE PREVIOUSLY MILLED SHOULDER WITH A 1-1/2 INCH MINIMUM THICKNESS COURSE OF TYPE 448 PAVEMENT. THE PAVEMENT SHALL HAVE A 0.02 CROSS SLOPE AS SHOWN IN THE MAINTENANCE OF TRAFFIC PHASE 1 TYPICAL SECTION.

PAYMENT FOR ACCEPTED QUANTITIES OF ITEM 615 TEMPORARY PAVEMENT, AS PER PLAN, WILL BE MADE PER SQ YD OF TYPE 448 PAVEMENT.

ITEM 616 - DUST CONTROL
THE CONTRACTOR SHALL FURNISH AND APPLY WATER AND CALCIUM CHLORIDE FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR DUST CONTROL PURPOSES:

ITEM 616 WATER	3000 M GAL
ITEM 616 CALCIUM CHLORIDE	300 TON

"LEFT LANE ENDS" SERIES SIGNS
THE "LEFT LANE ENDS-1 MILE", "LEFT LANE ENDS-1/2 MILE", AND "LEFT LANE ENDS - MERGE RIGHT" SIGNS WILL ALREADY BE IN PLACE (NB) FROM THE ASD/WAY-71-14.383/0.000 PROJECT. THESE SIGNS ARE TO BE RE-USED FOR THIS PROJECT. THE CONTRACTOR SHALL REMOVE THESE SIGNS AT THE BEGINNING OF STAGE 1, PHASE 1 CONSTRUCTION AND STORE THEM ON THE PROJECT SITE. THESE SIGNS SHALL THEN BE RE-ERECTED ON NEW SUPPORTS AT THE LOCATIONS SHOWN IN THE PLANS AT THE COMPLETION OF STAGE 1, PHASE 3 CONSTRUCTION PRIOR TO OPENING THE THREE LANES TO TRAFFIC. THE SIGNS SHALL ALSO BE REMOVED AND STORED IN THE ABOVE MANNER FOR STAGE 2 CONSTRUCTION. SEE SHEETS 96, 97 AND 374 FOR LOCATIONS. ALL PROVISIONS OF ITEM 630 SHALL APPLY.

GUARDRAIL DELINEATION DURING PHASE 2 MOT
PRIOR TO SHIFTING TRAFFIC TO THE OUTSIDE SHOULDER FOR PHASE 2 MOT OPERATIONS THE CONTRACTOR SHALL RECONSTRUCT ALL EXISTING TYPE E END TERMINALS AS NOTED ON THIS SHEET, USING ITEM 606 - ANCHOR ASSEMBLY REBUILT, TYPE E, AS PER PLAN B.

IN ADDITION, THE CONTRACTOR SHALL PLACE BARRIER REFLECTORS, TYPE A IN ACCORDANCE WITH ITEM 626 ALONG ALL EXISTING GUARDRAIL RUNS AND SPRAY A NON-SELECTIVE HERBICIDAL SPRAY, (ROUND-UP OR EQUAL) ON A FIVE FOOT WIDE STRIP ADJACENT TO THE OUTSIDE EDGE OF THE PAVED SHOULDER ALONG ALL EXISTING GUARDRAIL RUNS DURING PHASE 1 MOT OPERATIONS PRIOR TO SHIFTING TO PHASE 2.

PLACING/REPLACING THE BARRIER REFLECTORS AND SUPPLYING AND APPLYING THE NON-SELECTIVE HERBICIDAL SPRAY ARE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC. NO SEPARATE PAYMENT WILL BE MADE.

ITEM 606 - ANCHOR ASSEMBLY REBUILT, TYPE E, AS PER PLAN A
THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER TO REPAIR ANCHOR ASSEMBLIES DAMAGED DURING CONSTRUCTION. THE ITEM SHALL INCLUDE ALL COSTS TO REMOVE THE DAMAGED ASSEMBLY AND COMPLETELY REPAIR/REPLACE THE ANCHOR ASSEMBLY. THIS WORK SHALL BE DONE WITHIN 24 HOURS OF BEING DAMAGED. NIGHT WORK ONLY WILL BE PERMITTED. LANE CLOSURES DURING REPAIRS SHALL BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING MT-95.30M. ALL COSTS ASSOCIATED WITH MAINTAINING TRAFFIC DURING REPAIRS SHALL BE CONSIDERED INCIDENTAL TO THE WORK BEING PERFORMED.

ITEM 606 - ANCHOR ASSEMBLY REBUILT, TYPE E, AS PER PLAN A 4 EACH

ITEM 606 - ANCHOR ASSEMBLY REBUILT, TYPE E, AS PER PLAN B
PRIOR TO MOVING TRAFFIC TO THE OUTSIDE SHOULDER FOR MAINTAINING TRAFFIC, THIS ITEM SHALL BE PERFORMED TO REPLACE ALL ANCHOR ASSEMBLIES, TYPE E THAT DO NOT MEET THE OFFSET DESIGN CRITERIA AS SHOWN IN STANDARD CONSTRUCTION DRAWING GR-5.3M.

THE CONTRACTOR SHALL CAREFULLY REMOVE THE EXISTING TYPE E ANCHOR ASSEMBLY AND THE FIRST GUARDRAIL PANEL BEYOND THE ANCHOR ASSEMBLY. THE CONTRACTOR SHALL RE-ERECT THE GUARDRAIL PANEL AND TYPE E ANCHOR ASSEMBLY USING THE OFFSET DESIGN AS DETAILED IN SCD GR-5.3M. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPLACING PARTS DAMAGED AS A RESULT OF REMOVAL OF THE ASSEMBLY AT HIS OWN EXPENSE. ALL GRADING AND RESTORATION NECESSARY AS DETAILED IN THE SCD SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 606 ANCHOR ASSEMBLY, TYPE E, AS PER PLAN B.

THE FOLLOWING LOCATIONS HAVE BEEN IDENTIFIED AND QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

NORTHBOUND	SOUTHBOUND
STA 47+50	STA 72+61
STA 72+41	STA 118+43
STA 115+45	STA 161+11
STA 157+62	STA 194+49
STA 193+29	STA 232+87
STA 238+98	STA 249+84
STA 266+66	STA 271+38
STA 298+77	STA 300+91
STA 316+61	
STA 328+38	

ITEM 606 - ANCHOR ASSEMBLY REBUILT, TYPE E, AS PER PLAN B 18 EACH

ITEM 606 - GUARDRAIL MISC: TEMPORARY GUARDRAIL, TYPE 5
THIS ITEM SHALL CONSIST OF FURNISHING, INSTALLING, MAINTAINING, AND SUBSEQUENTLY REMOVING TEMPORARY GUARDRAIL AND ANCHOR ASSEMBLY AS PER 606 AND STANDARD CONSTRUCTION DRAWINGS GR-2.1M AND GR-4.2M. WOOD POSTS SHALL BE NEW. STEEL POSTS, RAIL ELEMENTS AND RELATED HARDWARE MAY BE USED BUT IN GOOD CONDITION.

ITEM 606, GUARDRAIL MISC: TEMPORARY GUARDRAIL, TYPE 5 LOCATED AT STA 15+99.68 TO STA 17+24.28 NORTH OF THE PROJECT SHALL BE FLARED AN ADDITIONAL ONE FOOT (1') TOWARDS THE MEDIAN TO PROVIDE ADDITIONAL WIDTH FOR MAINTAINING TRAFFIC DURING PHASE 3. TEMPORARY GUARDRAIL AT THIS LOCATION SHALL BE RETURNED TO ITS ORIGINAL LOCATION AFTER CONSTRUCTION IS COMPLETED.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID PER LINEAR FOOT FOR ITEM 606, GUARDRAIL MISC: TEMPORARY GUARDRAIL, TYPE 5 WHICH SHALL INCLUDE ALL MATERIAL, LABOR AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR ITEM 606-GUARDRAIL MISC: TEMPORARY GUARDRAIL, TYPE 5

ITEM 606 - GUARDRAIL MISC: TEMPORARY GUARDRAIL, TYPE 5 125 LIN FT

CALCULATED VLK 04/01 CHECKED SDS 04/01

MAINTENANCE OF TRAFFIC GENERAL NOTES

WAY-71-0.28

MOT-GENNOTE.dwg May 10 ,2001

TEMPORARY ROAD EARTHWORK

EARTHWORK REQUIRED FOR THE CONSTRUCTION OF TEMPORARY PAVEMENT ALONG I.R.71 AND THE RAMPS HAS BEEN INCLUDED IN THE TABLES BELOW FOR INFORMATIONAL PURPOSES ONLY. THIS TABLE DOES NOT INCLUDE STAGE 1 EARTHWORK ALONG I.R. 71 – EARTHWORK FOR THE TEMPORARY PAVEMENT TO BE CONSTRUCTED STA. 200+90 TO STA. 218+70 N.B. AND STA. 200+90 TO STA. 228+59 S.B. IS ACCOUNTED FOR IN THE FINAL GRADING SHOWN ON THE MAINLINE CROSS SECTIONS AND THE TOTALS INCLUDED IN THE MAINLINE CROSS SECTION EARTHWORK VOLUMES.

DESCRIPTION	STATION	END AREA SQUARE FEET		VOLUME CUBIC YARD	
		CUT	FILL	CUT	FILL
RAMP A	17+32.42 AHD.	3	1		
				9	1
	18+00.00	4	0		
				56	0
	19+00.00	26	0		
				56	2
	20+00.00	4	1		
				13	4
	21+00.00 BK.	3	1		
	SUBTOTAL RAMP A			134	7
RAMP B	21+12.78 AHD.	2	1		
				19	2
	22+00.00	10	0		
				30	0
	23+00.00 BK.	6	0		
	SUBTOTAL RAMP B			49	2
RAMP C	51+86.79 AHD.	9	0		
				4	0
	52+00.00	9	0		
				31	0
	53+00.00	8	0		
				30	0
	54+00.00	8	0		
				26	7
	55+00.00	6	4		
				22	13
	56+00.00	6	3		
				20	13
	57+00.00	5	4		
				14	10
	57+75.00 BK.	5	3		
	SUBTOTAL RAMP C			147	43
RAMP D	48+84.26 AHD.	8	0		
				4	0
	49+00.00	7	0		
				24	9
	50+00.00	6	5		
				15	28
	51+00.00	2	10		
				19	24
	52+00.00	8	3		
				30	9
	53+00.00	8	2		
				31	6
	54+00.00	9	1		
				18	2
	54+55.00 BK.	9	1		
	SUBTOTAL RAMP D			141	78
RAMP E	65+25.00 AHD.	4	1		
				13	1
	66+00.00	5	0		
				33	0
	67+00.00	13	0		
				29	0
	67+90.69 BK.	4	0		
	SUBTOTAL RAMP E			75	1

DESCRIPTION	STATION	END AREA SQUARE FEET		VOLUME CUBIC YARD	
		CUT	FILL	CUT	FILL
RAMP F	60+25.00 AHD.	2	1		
				7	3
	61+00.00	3	1		
				9	6
	62+00.00	2	2		
				6	13
	63+00.00	1	5		
				2	19
	64+00.00	0	5		
				0	15
	65+00.00	0	3		
				0	5
	65+54.47 BK.	0	2		
	SUBTOTAL RAMP F			24	61
STAGE 2, PHASE 2					
BEGIN MOT EARTHWORK N.B.	371+50.00 AHD.	0	0		
				6	8
BEGIN TEMP. PAVEMENT TAPER	371+75.00	13	18		
				132	143
	374+60.24 BK.	12	9		
	0+00.00 AHD.	12	9		
				93	70
	2+00.00	13	10		
				133	89
	5+00.00	11	6		
				153	60
END TEMP. PAVEMENT TAPER	9+59.76	7	1		
				78	6
END MOT EARTHWORK N.B.	12+84.76 BK.	6	0		
	SUBTOTAL STAGE 2 N.B.			595	376
BEGIN MOT EARTHWORK S.B.	371+50.00 AHD.	0	0		
				63	201
	374+60.24 BK.	11	35		
	0+00.00 AHD.	11	35		
				81	267
	2+00.00	11	37		
				122	523
BEGIN TEMP. PAVEMENT TAPER	5+13.76	10	53		
				101	424
	8+00.00	9	27		
				100	256
	11+00.00	9	19		
				94	167
	14+00.00	8	11		
				97	71
END TEMP. PAVEMENT TAPER	17+48.76	7	0		
				35	0
END MOT EARTHWORK S.B.	18+00.57 BK.	29	0		
	SUBTOTAL STAGE 2 S.B.			693	1909
	SUBTOTAL RAMP A			134	7
	SUBTOTAL RAMP B			49	2
	SUBTOTAL RAMP C			147	43
	SUBTOTAL RAMP D			141	78
	SUBTOTAL RAMP E			75	1
	SUBTOTAL RAMP F			24	61
	SUBTOTAL STAGE 2 N.B.			595	376
	SUBTOTAL STAGE 2 S.B.			693	1909
	TOTAL MOT EARTHWORK			1858	2477

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE PLAN FOR INFORMATION ONLY:

TEMPORARY EARTHWORK EXCAVATION 1858 CU. YD.

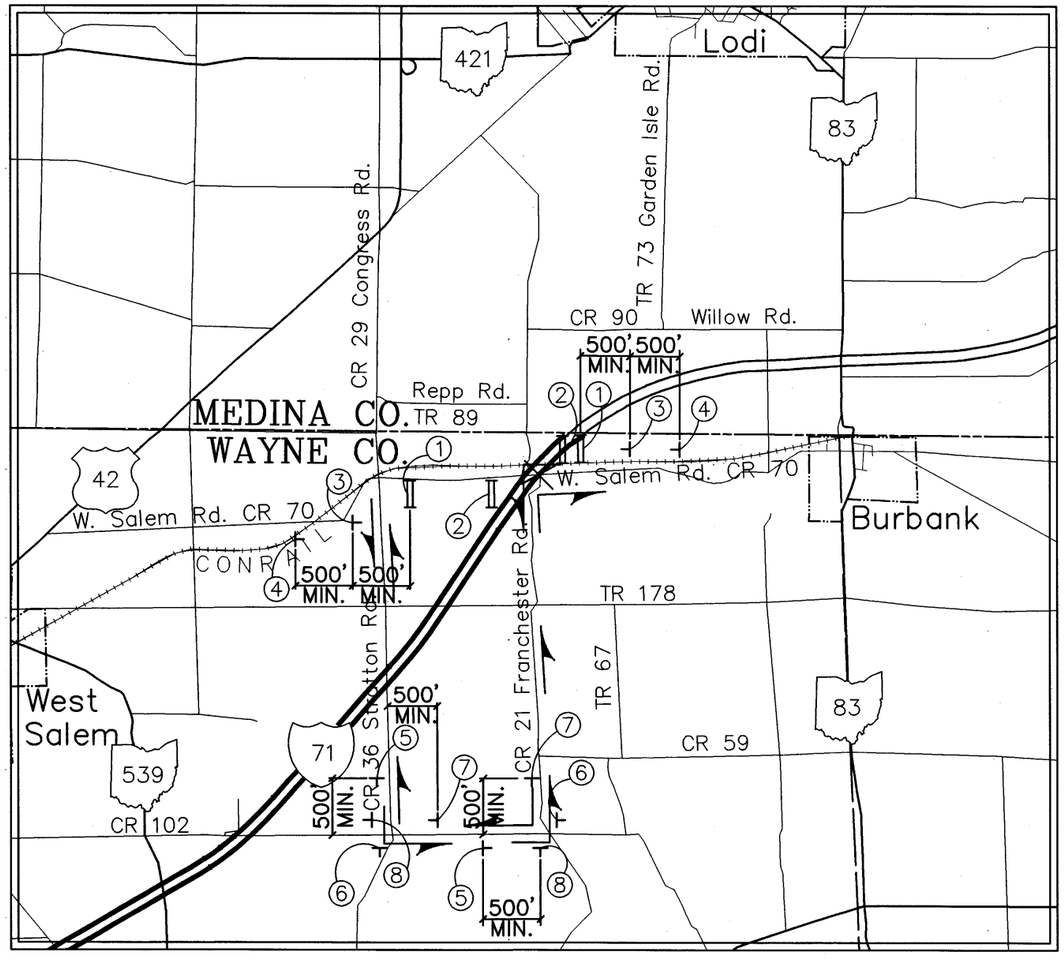
TEMPORARY EARTHWORK EMBANKMENT 2477 CU. YD.

CALCULATED SDS 04/01 CHECKED WLK 04/01

MAINTENANCE OF TRAFFIC GENERAL NOTES

WAY-71-0.28

MOT-EARTH.DWG May 10 ,2001



DETOUR PLAN

Detour Route

Lights

ROAD CLOSED
X MILES AHEAD
LOCAL TRAFFIC ONLY — R-76A

① DETOUR — OC-14R OR L

See Figure C-5 of the Ohio Manual of Uniform Traffic Control Devices.
Note: Type A Yellow Flashing Lights Are Required On All Signs Shown With Lights.

Lights

② ROAD CLOSED — R-75

Gates and Barricades
See Std. Dwg. MT-101.60M

③ ROAD CLOSED AHEAD — OW-120-36

④ DETOUR AHEAD — OW-127-36

⑤ DETOUR OM-23-24
W. SALEM RD. D-14
M-21-24

⑥ DETOUR OM-23-24
W. SALEM RD. D-14
DETOUR OC-29L

⑦ DETOUR OM-23-24
W. SALEM RD. D-14
M-21-24

⑧ DETOUR OM-23-24
W. SALEM RD. D-14
DETOUR OC-29R

MAINTENANCE OF TRAFFIC
CR 70 DETOUR PLAN

HORIZONTAL SCALE IN MILES
0 0.25 0.5 1.0

WAY-71-0.28

34
432

DETOUR70.DWG May 10, 2001

LEGEND

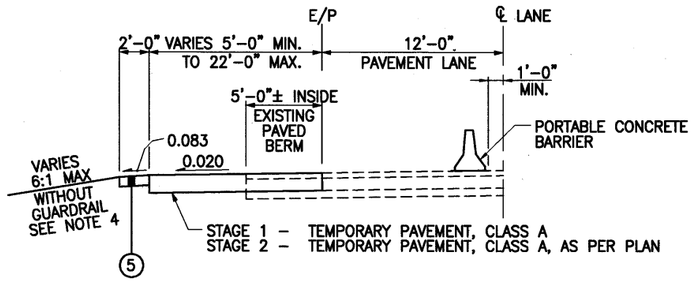
(1) 254 PAVEMENT PLANING, BITUMINOUS (1 1/2" MAX. – VARIABLE DEPTH)

(2) 448 VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64–28
(1 1/2" AT EDGE OF LANE TO 2.4" AT EDGE OF SHOULDER TO MAINTAIN 0.020 CROSS SLOPE).

(3) 407 TACK COAT (SEE GENERAL NOTE)

(4) NOT USED

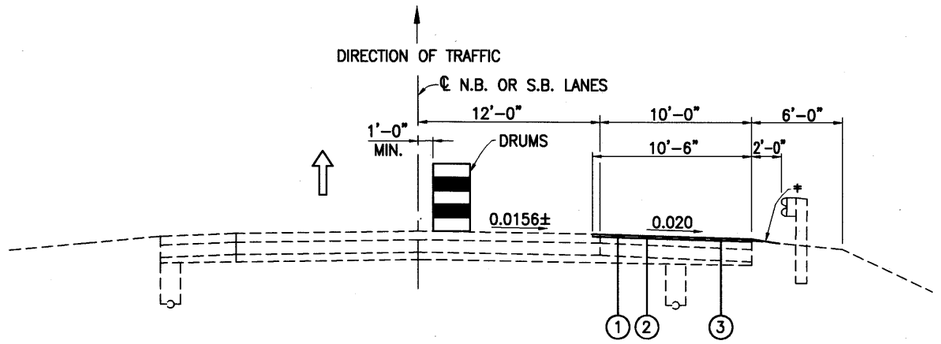
(5) 410 8" TRAFFIC COMPACTED SURFACE,
TYPE A OR B



PHASE 2 – TYPICAL SECTION FOR TEMPORARY PAVEMENT ON INSIDE SHOULDERS
STAGES 1 AND 2

INSIDE SHOULDER TEMPORARY PAVEMENT

STAGE 1 – STA. 200+90.00 TO STA. 218+70.00 N.B.
STAGE 1 – STA. 200+90.00 TO STA. 228+59.00 S.B.
STAGE 2 – STA. 371+50.00 TO STA. 374+60.24 BACK N.B.
STA. 0+00.00 AHEAD TO STA. 12+84.76 N.B.
STAGE 2 – STA. 371+50.00 TO STA. 374+60.24 BACK S.B.
STA. 0+00.00 AHEAD TO STA. 18+00.57 S.B.



PHASE 1 – OUTSIDE SHOULDER RESURFACING TYPICAL SECTION
STAGES 1 AND 2

STAGE 1 – STA. 37+04.07 TO STA. 226+60.00 N.B.*
STA. 48+62.20 TO STA. 240+29.00 S.B.*
STAGE 2 – STA. 226+60.00 TO STA. 374+60.24 BACK N.B.
STA. 0+00.00 AHEAD TO STA. 20+74.76 N.B.
STA. 240+29.00 TO STA. 374+60.24 BACK S.B.
STA. 0+00.00 AHEAD TO STA. 32+43.76 S.B.

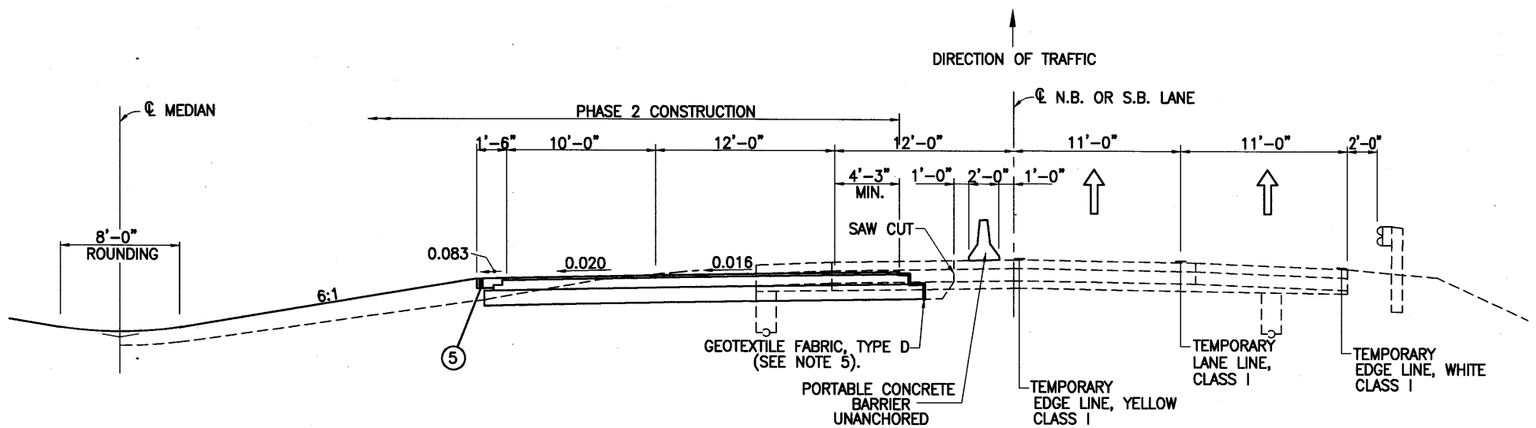
STATION LIMITS INCLUDE OUTSIDE SHOULDER REPLACEMENT (TEMPORARY PAVEMENT), SEE DETAIL SHEET 39 FOR LOCATIONS.

NOTES: MAINTAIN ONE LANE OF TRAFFIC, AS SHOWN, DURING THIS PLANING AND RESURFACING WORK AS PER STANDARD CONSTRUCTION DRAWING MT–95.30M. SEE 614 NOTE FOR ADDITIONAL RESTRICTIONS.

*OUTSIDE SHOULDER RESURFACING FROM STA. 14+82.88 TO STA. 37+04.07 N.B. AND STA. 14+82.88 TO STA. 48+62.20 S.B. WILL HAVE BEEN COMPLETED UNDER PROJECT ASD/WAY–71–14.383/0.000.

*THIS SHOULDER TO BE STABILIZED WITH GRINDINGS FROM THE PROJECT PLACED 2' WIDE AT A DEPTH OF 8", ALL COST TO BE INCLUDED WITH ITEM 614–MAINTAINING TRAFFIC. ALL REQUIREMENTS OF SPECIFICATION 617 SHALL APPLY.

NOTES:
1. ALL STATION LIMITS SHOWN INCLUDE THE EXISTING BRIDGES.
2. ALL TEMPORARY PAVEMENT MARKINGS SHALL BE 642 PAINT UNLESS OTHERWISE NOTED.
3. FOR GUARDRAIL TYPICAL SECTION SEE TYPICAL FILL MEDIAN SHOULDER
4. GEOTEXTILE FABRIC, TYPE D SHALL BE PLACED OVER THE EDGES OF ANY NEWLY CONSTRUCTED PAVEMENT FOR WHICH THE ASPHALT TREATED FREE DRAINING BASE WOULD BE EXPOSED OR IS IN CONTACT WITH TEMPORARY PAVEMENT. THE GEOTEXTILE FABRIC SHALL BE PLACED CONTINUOUSLY ALONG THE NEW PAVEMENT TO SERVE AS AN ISOLATION BARRIER TO PROTECT THE PAVEMENT BUILD–UP EDGES. WHEN CONSTRUCTION CONTINUES IN ADJOINING PHASES, THE GEOTEXTILE FABRIC SHALL BE REMOVED. COST OF THE GEOTEXTILE FABRIC SHALL BE INCLUDED FOR PAYMENT IN ITEM 614–MAINTAINING TRAFFIC.



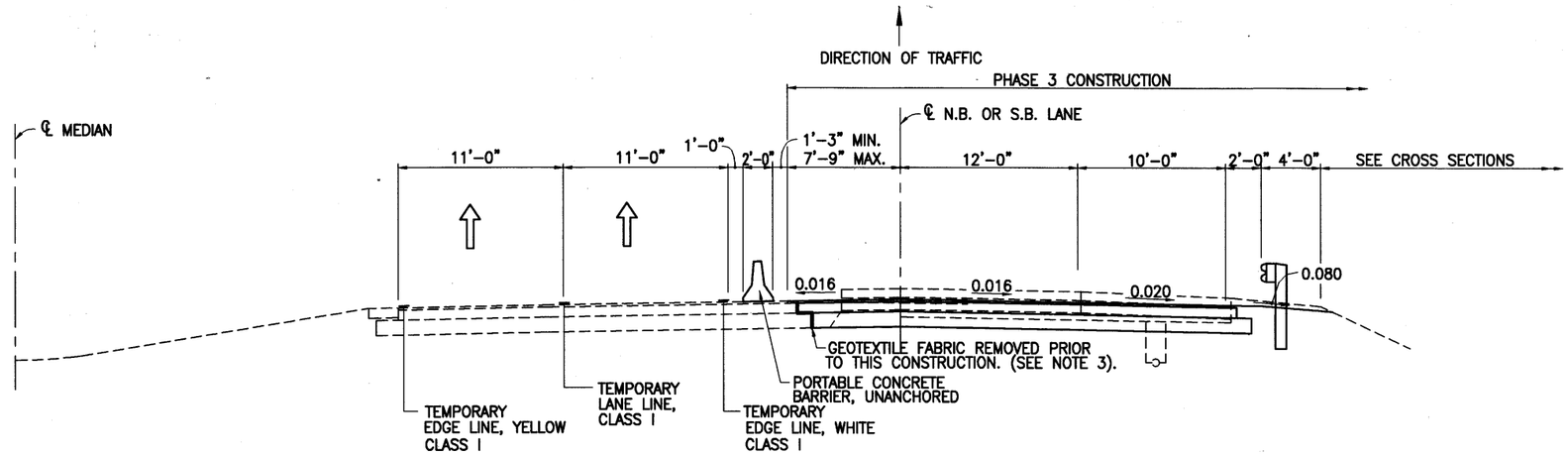
PHASE 2 – MAINTENANCE OF TRAFFIC TYPICAL SECTION
STAGES 1 AND 2

STAGE 1 – STA. 14+82.88 TO STA. 200+90.00 N.B. AND S.B.
STAGE 2 – STA. 200+90.00 TO STA. 371+50.00 N.B. AND S.B.

MAINTENACE OF TRAFFIC – STAGES 1 AND 2
PHASES 1 AND 2 TYPICAL SECTIONS

WAY–71–0.28

Mot–typ1.dwg May 10 ,2001



PHASE 3 – MAINTENANCE OF TRAFFIC TYPICAL SECTION
STAGES 1 AND 2

STAGE 1 – STA. 14+82.88 TO STA. 200+90.00 N.B. AND S.B.
STAGE 2 – STA. 200+90.00 TO STA. 371+50.00 N.B. AND S.B.

LEGEND

(1) 254 PAVEMENT PLANING, BITUMINOUS (1 1/2" MAX. – VARIABLE DEPTH)

(2) 448 VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64–28 (1 1/2" AT EDGE OF LANE TO 2.4" AT EDGE OF SHOULDER TO MAINTAIN 0.020 CROSS SLOPE).

(3) 407 TACK COAT (SEE GENERAL NOTE)

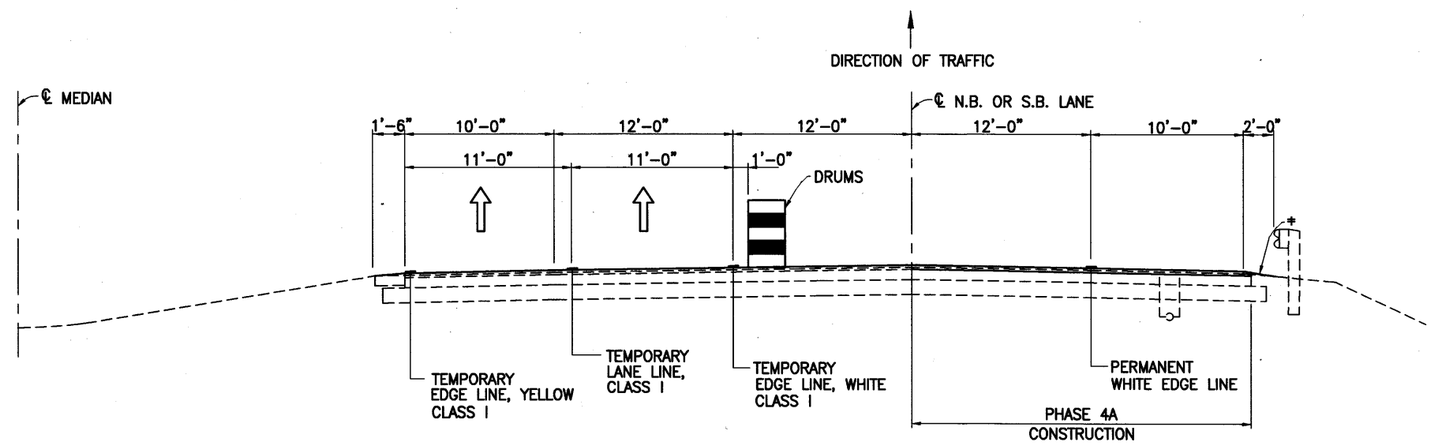
(4) NOT USED

(5) 410 8" TRAFFIC COMPACTED SURFACE, TYPE A OR B

*THIS SHOULDER TO BE STABILIZED WITH GRINDINGS FROM THE PROJECT PLACED 2' WIDE AT A DEPTH OF 8", ALL COST TO BE INCLUDED WITH ITEM 614–MAINTAINING TRAFFIC. ALL REQUIREMENTS OF SPECIFICATION 617 SHALL APPLY.

NOTES:

1. ALL STATION LIMITS SHOWN INCLUDE THE EXISTING BRIDGES.
2. ALL TEMPORARY PAVEMENT MARKINGS SHALL BE 642 PAINT UNLESS OTHERWISE NOTED.
3. GEOTEXTILE FABRIC, TYPE D SHALL BE PLACED OVER THE EDGES OF ANY NEWLY CONSTRUCTED PAVEMENT FOR WHICH THE ASPHALT TREATED FREE DRAINING BASE WOULD BE EXPOSED OR IS IN CONTACT WITH TEMPORARY PAVEMENT. THE GEOTEXTILE FABRIC SHALL BE PLACED CONTINUOUSLY ALONG THE NEW PAVEMENT TO SERVE AS AN ISOLATION BARRIER TO PROTECT THE PAVEMENT BUILD–UP EDGES. WHEN CONSTRUCTION CONTINUES IN ADJOINING PHASES, THE GEOTEXTILE FABRIC SHALL BE REMOVED. COST OF THE GEOTEXTILE FABRIC SHALL BE INCLUDED FOR PAYMENT IN ITEM 614–MAINTAINING TRAFFIC.



PHASE 4A – MAINTENANCE OF TRAFFIC TYPICAL SECTION
STAGES 1 AND 2

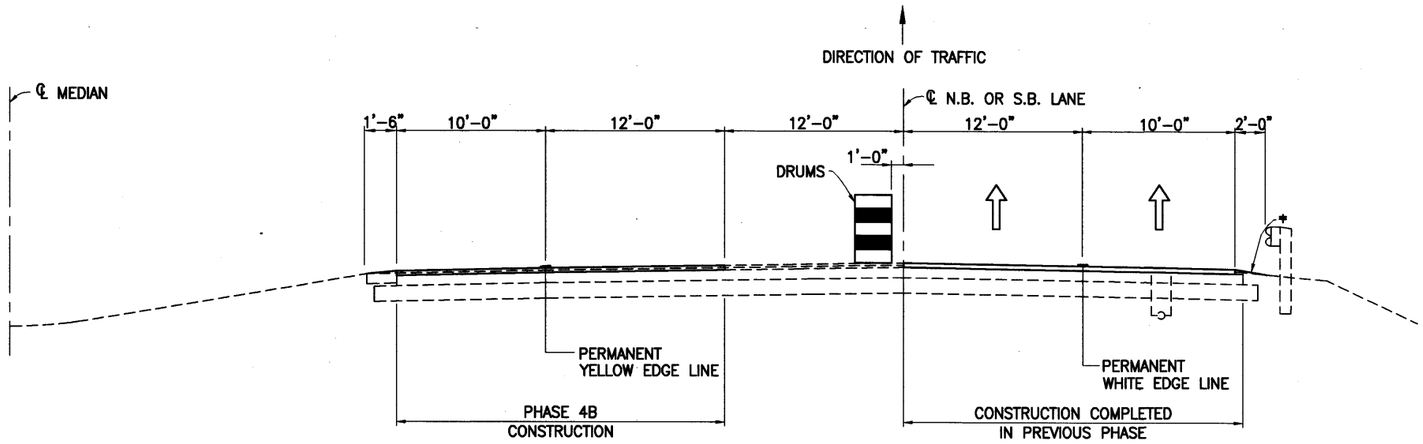
STAGE 1 – STA. 14+82.88 TO STA. 200+90.00 N.B. AND S.B.
STAGE 2 – STA. 200+90.00 TO STA. 371+50.00 N.B. AND S.B.

APPLY FINAL SURFACE COURSE AND FINAL PAVEMENT MARKINGS. SHOULDER RUMBLE STRIPS ON OUTSIDE SHOULDER TO BE PLACED AT COMPLETION OF PHASE 4C.

MAINTENANCE OF TRAFFIC – STAGES 1 AND 2
PHASES 3 AND 4A TYPICAL SECTIONS

WAY–71–0.28

MOT–TYP2.DWG May 10 ,2001



PHASE 4B – MAINTENANCE OF TRAFFIC TYPICAL SECTION
STAGES 1 AND 2

STAGE 1 – STA. 14+82.88 TO STA. 200+90.00 N.B. AND S.B.
STAGE 2 – STA. 200+90.00 TO STA. 371+50.00 N.B. AND S.B.

APPLY FINAL SURFACE COURSE AND FINAL PAVEMENT MARKINGS.
APPLY RUMBLE STRIPS ON INSIDE SHOULDER.

NOTES:
1. ALL STATION LIMITS SHOWN INCLUDE THE EXISTING BRIDGES.
2. ALL TEMPORARY PAVEMENT MARKINGS SHALL BE 642 PAINT UNLESS OTHERWISE NOTED.

LEGEND

(1) 254 PAVEMENT PLANING, BITUMINOUS (1 1/2" MAX. – VARIABLE DEPTH)

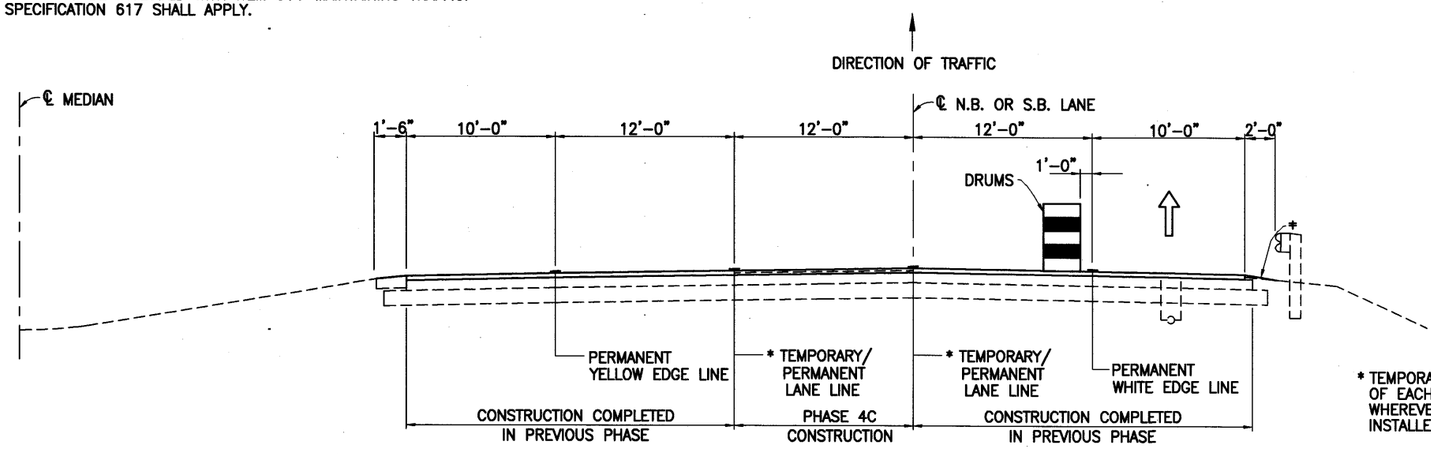
(2) 448 VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-28 (1 1/2" AT EDGE OF LANE TO 2.4" AT EDGE OF SHOULDER TO MAINTAIN 0.020 CROSS SLOPE).

(3) 407 TACK COAT (SEE GENERAL NOTE)

(4) NOT USED

(5) 410 8" TRAFFIC COMPACTED SURFACE, TYPE A OR B

*THIS SHOULDER TO BE STABILIZED WITH GRINDINGS FROM THE PROJECT PLACED 2' WIDE AT A DEPTH OF 8", ALL COST TO BE INCLUDED WITH ITEM 614-MAINTAINING TRAFFIC. ALL REQUIREMENTS OF SPECIFICATION 617 SHALL APPLY.



PHASE 4C – MAINTENANCE OF TRAFFIC TYPICAL SECTION
STAGES 1 AND 2

STAGE 1 – STA. 14+82.88 TO STA. 200+90.00 N.B. AND S.B.
STAGE 2 – STA. 200+90.00 TO STA. 371+50.00 N.B. AND S.B.

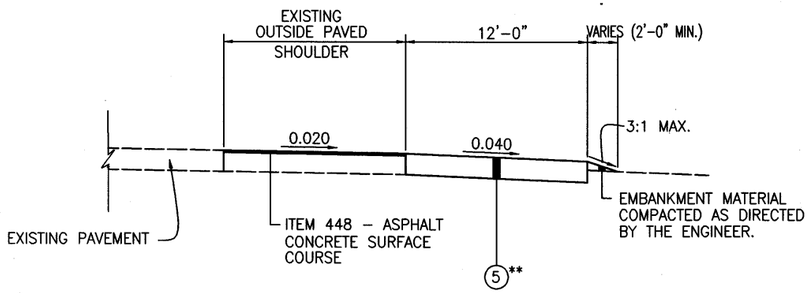
APPLY FINAL SURFACE COURSE, FINAL PAVEMENT MARKINGS, AND RPMS. RUMBLE STRIPS ON OUTSIDE SHOULDER SHALL BE PLACED AT THE COMPLETION OF PHASE 4C.

* TEMPORARY LANE LINES TO BE PLACED AT COMPLETION OF EACH NIGHT'S CONSTRUCTION FOR DAYTIME TRAFFIC WHEREVER THE PERMANENT LANE LINES HAVEN'T BEEN INSTALLED.

MAINTENANCE OF TRAFFIC – STAGES 1 AND 2
PHASES 4B AND 4C TYPICAL SECTIONS

WAY-71-0.28

MOT-TYP2.DWG May 10 ,2001



PHASE 2 – EMERGENCY PARKING AREA TYPICAL SECTION

STAGE 1 – STA. 123+50 N.B.
– REST AREA S.B.

STAGE 2 – STA. 286+00 N.B. AND S.B.

SEE SHEET 57 FOR DETAILS.

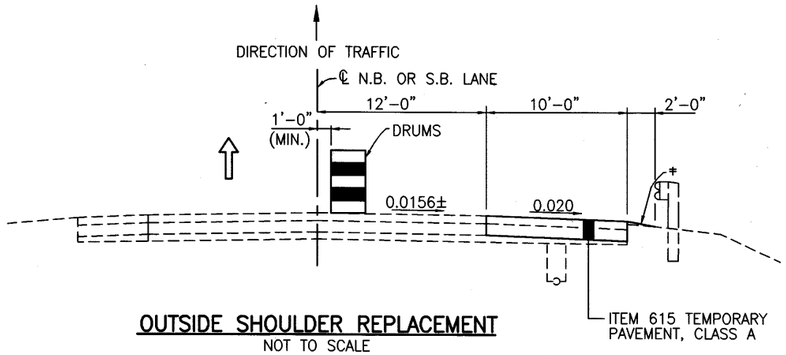
LEGEND

1. 254 PAVEMENT PLANING, BITUMINOUS (1 1/2" MAX. – VARIABLE DEPTH)
2. 448 VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64–28
   (1 1/2" AT EDGE OF LANE TO 2.4" AT EDGE OF SHOULDER TO MAINTAIN 0.020 CROSS SLOPE).
3. 407 TACK COAT (SEE GENERAL NOTE)
4. NOT USED
5. 410 8" TRAFFIC COMPACTED SURFACE,
   TYPE A OR B

NOTES:
1. ALL STATION LIMITS SHOWN INCLUDE THE EXISTING BRIDGES.
2. ALL TEMPORARY PAVEMENT MARKINGS SHALL BE 642 PAINT UNLESS OTHERWISE NOTED.
3. FOR ADDITIONAL PHASES 1 & 2 TYPICAL SECTIONS AND DETAILS, SEE SHEETS 35–36.

* THIS SHOULDER TO BE STABILIZED WITH GRINDINGS FROM THE PROJECT PLACED 2' WIDE AT A DEPTH OF 8", ALL COST TO BE INCLUDED WITH ITEM 614–MAINTAINING TRAFFIC. ALL REQUIREMENTS OF SPECIFICATION 617 SHALL APPLY.

** ASPHALT GRINDINGS MAY BE USED IN LIEU OF ITEM 410.



OUTSIDE SHOULDER REPLACEMENT

NOT TO SCALE

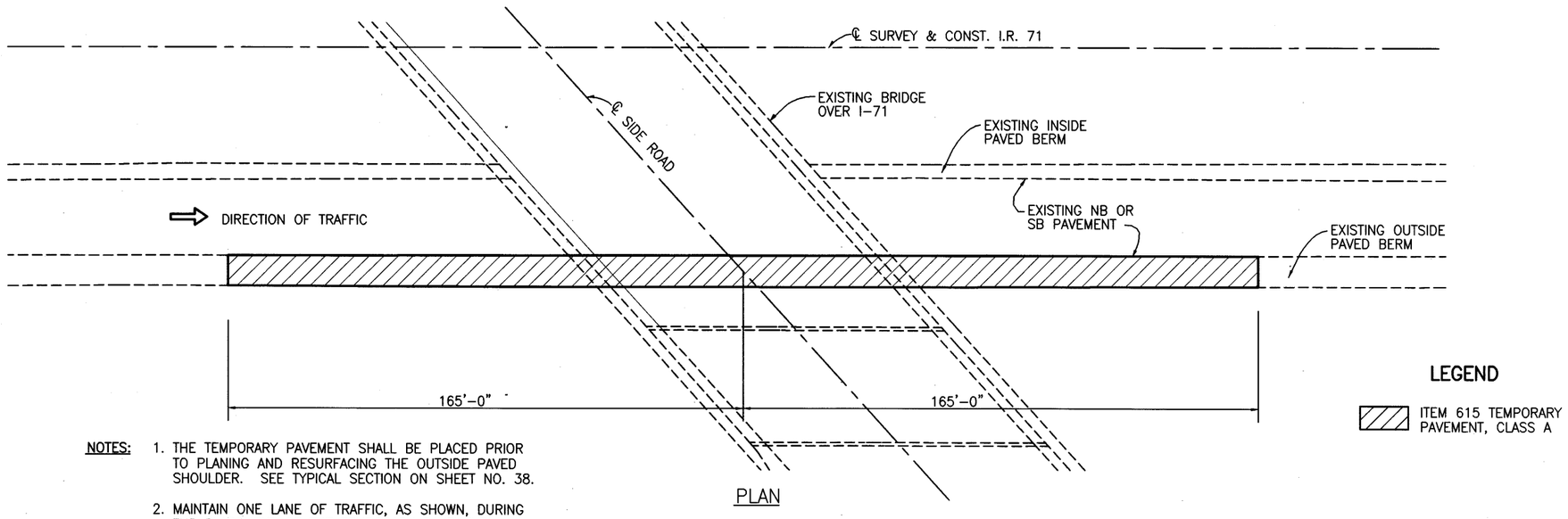
SEE DETAIL SHEET 39 FOR LOCATIONS.

CALCULATED | CHECKED

MAINTENANCE OF TRAFFIC - TYPICAL SECTIONS
OUTSIDE SHOULDER REPLACEMENT AND EMERGENCY PARKING AREAS

WAY-71-028

MOT–STAG.DWG May 10 2001



PLAN

LEGEND

ITEM 615 TEMPORARY PAVEMENT, CLASS A

NOTES:

1. THE TEMPORARY PAVEMENT SHALL BE PLACED PRIOR TO PLANING AND RESURFACING THE OUTSIDE PAVED SHOULDER. SEE TYPICAL SECTION ON SHEET NO. 38.
2. MAINTAIN ONE LANE OF TRAFFIC, AS SHOWN, DURING THE PLACEMENT OF THE TEMPORARY PAVEMENT AS PER STANDARD CONSTRUCTION DRAWING MT-95.30. SEE THE 614 NOTES FOR ADDITIONAL RESTRICTIONS, AND TRENCH GENERAL NOTES.

	OVERPASS BRIDGE	STATION TO STATION	SIDE	615 TEMPORARY ROADS LUMP	615 TEMPORARY PAVEMENT, CLASS A SQ. FEET
STAGE 1	S.R. 301 ELYRIA ROAD	72+00 – 75+30	RT.		3300.00
		72+79 – 76+09	LT.		3300.00
	T.R. 40 KLINE ROAD	115+65 – 118+95	RT.		3300.00
		115+42 – 118+72	LT.		3300.00
	S.R. 539	157+51 – 160+81	RT.		3300.00
		158+04 – 161+34	LT.		3300.00
	C.R. 102 RUFF ROAD	193+06 – 196+36	RT.		3300.00
		191+40 – 194+70	LT.		3300.00
STAGE 2	C.R. 36 STRATTON ROAD	266+67 – 269+97	RT.		3300.00
		268+24 – 271+54	LT.		3300.00
	T.R. 178 BRITTON ROAD	298+67 – 301+97	RT.		3300.00
		297+72 – 301+02	LT.		3300.00
TOTALS CARRIED TO M.O.T. CALCULATION SHEETS 44-45.				LUMP	39600.00

CALCULATED TAC 01/01
CHECKED VLK 01/01

MAINTENANCE OF TRAFFIC DETAIL OUTSIDE SHOULDER REPLACEMENT

WAY-71-028

MOTOSRPL.DWG May 10 ,2001

SHEET NUMBER	LOCATION	SIDE	614		614													622	
			TEMPORARY IMPACT ATTENUATOR, UNIDIRECTIONAL		BARRIER REFLECTOR, TYPE B	OBJECT MARKER	TEMPORARY LANE LINE, CLASS 1, 642 PAINT (SOLID)	TEMPORARY LANE LINE, CLASS 1, 642 PAINT (DASHED)	TEMPORARY LANE LINE, CLASS 1, 740.06, TYPE 1 (SOLID)	TEMPORARY LANE LINE, CLASS 1, 740.06, TYPE 1 (DASHED)	TEMPORARY EDGE LINE, CLASS 1, 642 PAINT (WHITE)	TEMPORARY EDGE LINE, CLASS 1, 642 PAINT (YELLOW)	TEMPORARY EDGE LINE, CLASS 1, 740.06, TYPE 1 (WHITE)	TEMPORARY EDGE LINE, CLASS 1, 740.06, TYPE 1 (YELLOW)	TEMPORARY CHANNELIZING LINE, CLASS 1, 642 PAINT			PORTABLE CONCRETE BARRIER, 32"	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED
			EACH		EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.			LIN. FT.	LIN. FT.
	STAGE 1 – PHASE 2																		
	N.B.																		
53	STA. 850+10.89 TO STA. 852+10.89	LT./RT.								200.00			200.00	200.00					
53	STA. 852+10.89 TO STA. 853+34.89 BK.	LT./RT.							124.00				124.00	124.00					
53	STA. 0+00.00 AHD. TO STA. 6+56.00	LT./RT.							656.00				656.00	656.00					
53	STA. 6+56.00 TO STA. 14+55.00	LT./RT.			24	24				799.00			799.00	799.00				600.00	
53	STA. 14+55.00 TO STA. 218+80.00	LT./RT.			817	817		20425.00			20425.00	20425.00						20430.00	
48	STA. 218+80.00 TO STA. 226+60.00	LT./RT.					780.00				780.00	780.00							
49	STA. 226+60.00 TO STA. 228+10.00	LT./RT.						150.00			150.00	150.00							
	S.B.																		
54	STA. 5+15.00 TO STA. 6+65.00	LT./RT.								150.00			150.00	150.00					
54	STA. 6+65.00 TO STA. 14+55.00	LT./RT.							780.00	10.00			790.00	790.00				10.00	
54	STA. 14+55.00 TO STA. 232+49.00	LT./RT.			864	864		21794.00			21794.00	21794.00						21600.00	
47	STA. 232+49.00 TO STA. 240+29.00	LT./RT.					780.00				780.00	780.00							
47	STA. 240+29.00 TO STA. 242+29.00	LT./RT.						200.00			200.00	200.00							
	STAGE 1 – PHASE 3																		
	N.B.																		
55	STA. 850+10.89 TO STA. 852+10.89	LT./RT.								200.00			200.00	200.00					
55	STA. 852+10.89 TO STA. 853+34.89 BK.	LT./RT.							124.00				124.00	124.00					
55	STA. 0+00.00 AHD. TO STA. 6+56.00	LT./RT.							656.00				656.00	656.00					
55	STA. 6+56.00 TO STA. 14+55.00	LT./RT.			24	24				799.00			799.00	799.00				600.00	
55	STA. 14+55.00 TO STA. 45+00.00	LT./RT.			122	122		3045.00			3045.00	3045.00						3050.00	
	STAGE 1 – PHASE 3A																		
	N.B. MAINLINE																		
67	STA. 45+00.00 TO STA. 67+20.00	LT./RT.	1		70	70		2220.00			1740.19	2220.00			160.03			1740.00	
	RAMP B																		
67	STA. 9+37.87 TO STA. 23+10.00	LT./RT.			54	54					1491.38	862.66			320.32			1340.00	
	STAGE 1 – PHASE 3B																		
	N.B. MAINLINE																		
68	STA. 45+00.00 TO STA. 67+20.00	LT./RT.			36	36					479.81				320.24			900.00	
	RAMP B																		
68	STA. 14+78.20 TO STA. 24+35.00	LT./RT.			34	34					834.96	321.73			321.87			840.00	
	STAGE 1 – PHASE 3																		
	N.B.																		
55	STA. 67+20.00 TO STA. 135+00.00	LT./RT.			271	271		6780.00			6780.00	6780.00						6780.00	
	STAGE 1 – PHASE 3A																		
	N.B. MAINLINE																		
79	STA. 135+00.00 TO STA. 155+00.00	LT./RT.	1		61	61		2000.00			1520.00	2000.00			160.00			1520.00	
	RAMP D																		
79	STA. 40+84.74 TO STA. 54+65.00	LT./RT.			70	70					1906.88	1265.00			321.72			1740.00	
	STAGE 1 – PHASE 3B																		
	N.B. MAINLINE																		
80	STA. 135+00.00 TO STA. 155+00.00	LT./RT.			36	36					480.00				320.00			900.00	
	RAMP D																		
80	STA. 42+45.46 TO STA. 54+60.00	LT./RT.			39	39					966.92	576.02			322.68			970.00	
	SUBTOTAL		2		2522	2522	1560.00	56614.00	2340.00	2158.00	63374.14	61199.41	4498.00	4498.00	2246.86			63020.00	–

CALCULATED VLK 04/01
CHECKED SDS 04/01

MAINTENANCE OF TRAFFIC SUB-SUMMARY

WAY-71-0.28

MOTSUBSUM.DWG May 10 ,2001

SHEET NUMBER	LOCATION	SIDE	614		614													622	
			TEMPORARY IMPACT ATTENUATOR, UNIDIRECTIONAL		BARRIER REFLECTOR, TYPE B	OBJECT MARKER	TEMPORARY LANE LINE, CLASS 1, 642 PAINT (SOLID)	TEMPORARY LANE LINE, CLASS 1, 642 PAINT (DASHED)	TEMPORARY LANE LINE, CLASS 1, 740.06, TYPE 1 (SOLID)	TEMPORARY LANE LINE, CLASS 1, 740.06, TYPE 1 (DASHED)	TEMPORARY EDGE LINE, CLASS 1, 642 PAINT (WHITE)	TEMPORARY EDGE LINE, CLASS 1, 642 PAINT (YELLOW)	TEMPORARY EDGE LINE, CLASS 1, 740.06, TYPE 1 (WHITE)	TEMPORARY EDGE LINE, CLASS 1, 740.06, TYPE 1 (YELLOW)	TEMPORARY CHANNELIZING LINE, CLASS 1, 642 PAINT			PORTABLE CONCRETE BARRIER, 32"	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED
			EACH		EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.			LIN. FT.	LIN. FT.
	STAGE 1 – PHASE 3																		
	N.B.																		
55	STA. 155+00.00 TO STA. 162+00.00	LT./RT.			28	28		700.00			700.00	700.00						700.00	
89	STA. 162+00.00 TO STA. 181+50.00	LT./RT.			78	78		1950.00			1950.00	1950.00						1950.00	
90	STA. 181+50.00 TO STA. 203+10.00	LT./RT.			86	86		2160.00			2160.00	2160.00						2160.00	
	STAGE 1 – PHASE 3A																		
	RAMP F																		
89	STA. 59+17.00 TO STA. 81+58.52	LT./RT.			90	90					2241.29	2241.50						2250.00	
	STAGE 1 – PHASE 3																		
	N.B.																		
90	STA. 203+10.00 TO STA. 210+90.00	LT./RT.					780.00				780.00	780.00							
	STAGE 1 – PHASE 3A																		
	RAMP F TRAFFIC (MAINLINE STATIONING)																		
90	STA. 181+50.00 TO STA. 210+90.00	LT./RT.									2942.47	2941.80							
	STAGE 1 – PHASE 3B																		
	RAMP F																		
91	STA. 59+36.00 TO STA. 80+09.27	LT./RT.			81	81					2062.65	916.25						2020.00	
	STAGE 1 – PHASE 3																		
	N.B.																		
52	STA. 210+90.00 TO STA. 218+70.00	LT./RT.					780.00				780.00	780.00							
52	STA. 218+70.00 TO STA. 220+20.00	LT./RT.						150.00			150.00	150.00							
	STAGE 1 – PHASE 3																		
	S.B.																		
56	STA. 5+15.00 TO STA. 6+65.00	LT./RT.								150.00			150.00	150.00					
56	STA. 6+65.00 TO STA. 14+55.00	LT./RT.							780.00	10.00			790.00	790.00				10.00	
56	STA. 14+55.00 TO STA. 39+00.00	LT./RT.			98	98		2445.00			2445.00	2445.00						2450.00	
	STAGE 1 – PHASE 3A																		
	S.B. MAINLINE																		
60	STA. 39+00.00 TO STA. 72+00.00	LT./RT.			83	83		3300.00			2820.00	3300.00						2070.00	
	RAMP A																		
60	STA. 1+60.69 TO STA. 24+82.00	LT./RT.			106	106					3519.42	3036.75						2640.00	
	STAGE 1 – PHASE 3B																		
	S.B. MAINLINE																		
62	STA. 39+00.00 TO STA. 72+00.00	LT./RT.			50	50					480.00							1240.00	
	RAMP A																		
62	STA. 2+85.74 TO STA. 22+85.00	LT./RT.			77	77					1999.26	839.94						1920.00	
	SUBTOTAL		–		777	777	1560.00	10705.00	780.00	160.00	25030.09	22241.24	940.00	940.00	–			19410.00	–

CALCULATED VLK 04/01
CHECKED SDS 04/01

MAINTENANCE OF TRAFFIC SUB-SUMMARY

WAY-71-0.28

MOTSUBSUM.DWG May 10 ,2001

SHEET NUMBER	LOCATION	SIDE	614		614													622	
			TEMPORARY IMPACT ATTENUATOR, UNIDIRECTIONAL		BARRIER REFLECTOR, TYPE B	OBJECT MARKER	TEMPORARY LANE LINE, CLASS 1, 642 PAINT (SOLID)	TEMPORARY LANE LINE, CLASS 1, 642 PAINT (DASHED)	TEMPORARY LANE LINE, CLASS 1, 740.06, TYPE 1 (SOLID)	TEMPORARY LANE LINE, CLASS 1, 740.06, TYPE 1 (DASHED)	TEMPORARY EDGE LINE, CLASS 1, 642 PAINT (WHITE)	TEMPORARY EDGE LINE, CLASS 1, 642 PAINT (YELLOW)	TEMPORARY EDGE LINE, CLASS 1, 740.06, TYPE 1 (WHITE)	TEMPORARY EDGE LINE, CLASS 1, 740.06, TYPE 1 (YELLOW)	TEMPORARY CHANNELIZING LINE, CLASS 1, 642 PAINT			PORTABLE CONCRETE BARRIER, 32"	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED
			EACH		EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.			LIN. FT.	LIN. FT.
	STAGE 1 – PHASE 3																		
	S.B.																		
56	STA. 72+00.00 TO STA. 125+00.00	LT./RT.			212	212		5300.00			5300.00	5300.00						5300.00	
	STAGE 1 – PHASE 3A																		
	S.B. MAINLINE																		
72	STA. 125+00.00 TO STA. 155+00.00	LT./RT.			70	70		3000.00			2519.64	3000.00						1740.00	
	RAMP C																		
72	STA. 35+85.20 TO STA. 60+63.00	LT./RT.			110	110					3475.35	2995.11						2740.00	
	STAGE 1 – PHASE 3B																		
	S.B. MAINLINE																		
74	STA. 125+00.00 TO STA. 155+00.00	LT./RT.			51	51					480.36							1270.00	
	RAMP C																		
74	STA. 39+12.07 TO STA. 57+93.00	LT./RT.			72	72					1884.25	733.73						1790.00	
	STAGE 1 – PHASE 3																		
	S.B.																		
56	STA. 155+00.00 TO STA. 161+50.00	LT./RT.			26	26		650.00			650.00	650.00						650.00	
	STAGE 1 – PHASE 3A																		
	S.B. MAINLINE																		
84	STA. 161+50.00 TO STA. 182+00.00	LT./RT.	1		61	61		2050.00			1530.00	2050.00			160.00			1530.00	
	RAMP E																		
84	STA. 65+15.00 TO STA. 80+31.78	LT./RT.			58	58					1613.07	934.27			320.59			1460.00	
	STAGE 1 – PHASE 3B																		
	S.B. MAINLINE																		
85	STA. 161+50.00 TO STA. 182+00.00	LT./RT.			38	38					520.00				320.00			940.00	
	RAMP E																		
85	STA. 64+42.00 TO STA. 74+25.75	LT./RT.			34	34					854.20	348.83			321.65			860.00	
	STAGE 1 – PHASE 3																		
	S.B.																		
50	STA. 182+00.00 TO STA. 212+99.00	LT./RT.			116	116		3099.00			3099.00	3099.00						2900.00	
50	STA. 212+99.00 TO STA. 228+59.00	LT./RT.					1560.00				1560.00	1560.00							
51	STA. 228+59.00 TO STA. 230+59.00	LT./RT.						200.00			200.00	200.00							
	BETWEEN STAGES OF CONSTRUCTION																		
98	STA. 200+90.00 TO STA. 208+70.00 N.B.	LT./RT.						210.00			210.00	780.00							
98	STA. 200+90.00 TO STA. 205+00.00 S.B.	LT./RT.						410.00			410.00	410.00							
	SUBTOTAL		1		848	848	1560.00	14919.00	–	–	24305.87	22060.94	–	–	1122.24			21180.00	–

CALCULATED VLK 04/01
CHECKED SDS 04/01

MAINTENANCE OF TRAFFIC SUB–SUMMARY

WAY–71–0.28

MOTSUBSUM.DWG May 10 ,2001

SHEET NUMBER	LOCATION	SIDE	614		614													622	
			TEMPORARY IMPACT ATTENUATOR, UNIDIRECTIONAL		BARRIER REFLECTOR, TYPE B	OBJECT MARKER	TEMPORARY LANE LINE, CLASS 1, 642 PAINT (SOLID)	TEMPORARY LANE LINE, CLASS 1, 642 PAINT (DASHED)	TEMPORARY LANE LINE, CLASS 1, 740.06, TYPE 1 (SOLID)	TEMPORARY LANE LINE, CLASS 1, 740.06, TYPE 1 (DASHED)	TEMPORARY EDGE LINE, CLASS 1, 642 PAINT (WHITE)	TEMPORARY EDGE LINE, CLASS 1, 642 PAINT (YELLOW)	TEMPORARY EDGE LINE, CLASS 1, 740.06, TYPE 1 (WHITE)	TEMPORARY EDGE LINE, CLASS 1, 740.06, TYPE 1 (YELLOW)	TEMPORARY CHANNELIZING LINE, CLASS 1, 642 PAINT			PORTABLE CONCRETE BARRIER, 32"	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED
			EACH		EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.			LIN. FT.	LIN. FT.
	STAGE 2 – PHASE 2																		
	N.B.																		
53	STA. 183+11.00 TO STA. 185+11.00	LT./RT.								200.00			200.00	200.00					
53	STA. 185+11.00 TO STA. 192+91.00	LT./RT.							780.00				780.00	780.00					
53	STA. 192+91.00 TO STA. 200+90.00	LT./RT.			24	24				799.00			799.00	799.00				600.00	
48	STA. 200+90.00 TO STA. 374+60.24 BK.	LT./RT.			695	695		17370.24			17370.24	17370.24						17000.00	380.00
48	STA. 0+00.00 AHD. TO STA. 12+94.76	LT./RT.			52	52		1294.76			1294.76	1294.76						1300.00	
48	STA. 12+94.76 TO STA. 20+74.76	LT./RT.					780.00				780.00	780.00							
49	STA. 20+74.76 TO STA. 22+24.76	LT./RT.						150.00			150.00	150.00							
	S.B.																		
54	STA. 191+50.00 TO STA. 193+00.00	LT./RT.								150.00			150.00	150.00					
54	STA. 193+00.00 TO STA. 200+90.00	LT./RT.							780.00	10.00			790.00	790.00				10.00	
46	STA. 200+90.00 TO STA. 374+60.24 BK.	LT./RT.			695	695		17370.24			17370.24	17370.24						17010.00	370.00
46	STA. 0+00.00 AHD. TO STA. 24+63.76	LT./RT.			91	91		2463.76			2463.76	2463.76						2270.00	
46	STA. 24+63.76 TO STA. 32+43.76	LT./RT.					780.00				780.00	780.00							
46	STA. 32+43.76 TO STA. 34+43.76	LT./RT.						200.00			200.00	200.00							
	STAGE 2 – PHASE 3																		
	N.B.																		
55	STA. 183+11.00 TO STA. 185+11.00	LT./RT.								200.00			200.00	200.00					
55	STA. 185+11.00 TO STA. 192+91.00	LT./RT.							780.00				780.00	780.00					
55	STA. 192+91.00 TO STA. 200+90.00	LT./RT.			24	24				799.00			799.00	799.00				600.00	
52	STA. 200+90.00 TO STA. 371+85.00	LT./RT.			684	684		17095.00			17095.00	17095.00						16940.00	160.00
52	STA. 371+85.00 TO STA. 374+60.24 BK.	LT./RT.					275.24				275.24	275.24							
52	STA. 0+00.00 AHD. TO STA. 12+84.76	LT./RT.					1284.76				1284.76	1284.76							
52	STA. 12+84.76 TO STA. 14+34.76	LT./RT.						150.00			150.00	150.00							
	S.B.																		
56	STA. 191+50.00 TO STA. 193+00.00	LT./RT.								150.00			150.00	150.00					
56	STA. 193+00.00 TO STA. 200+90.00	LT./RT.							780.00	10.00			790.00	790.00				10.00	
50	STA. 200+90.00 TO STA. 374+60.24 BK.	LT./RT.			695	695		17370.24			17370.24	17370.24						17220.00	160.00
50	STA. 0+00.00 AHD. TO STA. 5+13.76	LT./RT.			13	13		513.76			513.76	513.76						320.00	
50	STA. 5+13.76 TO STA. 20+73.76	LT./RT.					1560.00				1560.00	1560.00							
51	STA. 20+73.76 TO STA. 22+73.76	LT./RT.						200.00			200.00	200.00							
	STAGE 1 – PHASE 4C																		
38	STA. 14+55.00 TO STA. 200+90.00 N.B.	LT./RT.						37270.00											
38	STA. 14+55.00 TO STA. 200+90.00 S.B.	LT./RT.						37270.00											
	STAGE 2 – PHASE 4C																		
38	STA. 200+90.00 TO STA. 371+75.00 N.B.	LT./RT.						34170.00											
38	STA. 200+90.00 TO STA. 371+75.00 S.B.	LT./RT.						34170.00											
	SUBTOTAL		–		2973	2973	4680.00	217058.00	3120.00	2318.00	78858.00	78858.00	5438.00	5438.00	–			73280.00	1070.00
	SUBTOTAL SHEET 40		2		2522	2522	1560.00	56614.00	2340.00	2158.00	63374.14	61199.41	4498.00	4498.00	2246.86			63020.00	–
	SUBTOTAL SHEET 41		–		777	777	1560.00	10705.00	780.00	160.00	25030.09	22241.24	940.00	940.00	–			19410.00	–
	SUBTOTAL SHEET 42		1		848	848	1560.00	14919.00	–	–	24305.87	22060.94	–	–	1122.24			21180.00	–
	TOTAL		3		7120	7120	9360.00	299296.00	6240.00	4636.00	191568.10	184359.59	10876.00	10876.00	3369.10			176890.00	1070.00
							308656.00		10876.00		375927.69		21752.00		3369.10			176890.00	1070.00
	TOTAL		3		7120	7120													
	TOTALS CARRIED TO GENERAL SUMMARY		3		7120	7120	58.46 MI.		2.06 MI.		71.20 MI.		4.12 MI.		3369			176890	1070

CALCULATED VLK 04/01
CHECKED SDS 04/01

TABLE OF TRAFFIC SUB–SUMMARY

MAINTENANCE OF

WAY–71–0.28

MOTSUBSUM.DWG May 10 ,2001

LINE NO.	* CAD MEASURED AREA	DESCRIPTION	QUANTITY	UNIT
1		ITEM 254 – PAVEMENT PLANING, BITUMINOUS		
2				
3		PHASE 1–OUTSIDE SHOULDER RESURFACING		
4		STAGE 1–N.B.		
5		STA. 37+04.07 TO STA. 226+60.00 = 18955.93 LIN. FT.		
6		(18955.93')(10.5') = 199037.27 SQ. FT.		
7				
8		DEDUCT FOR OUTSIDE SHOULDER REPLACEMENT		
9		STA. 72+00.00 TO STA. 75+30.00 = 330.00 LIN. FT.		
10		STA. 115+65.00 TO STA. 118+95.00 = 330.00 LIN. FT.		
11		STA. 157+51.00 TO STA. 160+81.00 = 330.00 LIN. FT.		
12		STA. 193+06.00 TO STA. 196+36.00 = 330.00 LIN. FT.		
13		TOTAL OF LINES 9 THRU 12 = 1320.00 LIN. FT.		
14		(1320.00')(10') = –13200.00 SQ. FT.		
15				
16		RAMP B: STA. 21+13.07 TO STA. 24+00.00 = 286.93 LIN. FT.		
17		RAMP D: STA. 48+87.57 TO STA. 55+00.00 = 612.43 LIN. FT.		
18		RAMP F: STA. 59+00.00 TO STA. 66+05.24 = 705.24 LIN. FT.		
19		TOTAL OF LINES 16 THRU 18 = 1604.60 LIN. FT.		
20		(1604.60')(3' AVG.) = 4813.80 SQ. FT.		
21				
22		STAGE 1–S.B.		
23		STA. 48+62.20 TO STA. 240+29.00 = 19166.80 LIN. FT.		
24		(19166.80')(10.5') = 201251.40 SQ. FT.		
25				
26		DEDUCT FOR OUTSIDE SHOULDER REPLACEMENT		
27		STA. 72+79.00 TO STA. 76+09.00 = 330.00 LIN. FT.		
28		STA. 115+42.00 TO STA. 118+72.00 = 330.00 LIN. FT.		
29		STA. 158+04.00 TO STA. 161+34.00 = 330.00 LIN. FT.		
30		STA. 191+40.00 TO STA. 194+70.00 = 330.00 LIN. FT.		
31		TOTAL OF LINES 27 THRU 30 = 1320.00 LIN. FT.		
32		(1320.00')(10') = –13200.00 SQ. FT.		
33				
34		RAMP A: STA. 15+81.50 TO STA. 25+00.00 = 918.50 LIN. FT.		
35		RAMP C: STA. 52+17.76 TO STA. 61+00.00 = 882.24 LIN. FT.		
36		RAMP E: STA. 65+00.00 TO STA. 67+91.06 = 291.06 LIN. FT.		
37		TOTAL OF LINES 34 THRU 36 = 2091.80 LIN. FT.		
38		(2091.80')(3' AVG.) = 6275.40 SQ. FT.		
39				
40		STAGE 2–N.B.		
41		STA. 226+60.00 TO STA. 374+60.24 BACK = 14800.24 LIN. FT.		
42		STA. 0+00.00 AHEAD TO STA. 20+74.76 = 2074.76 LIN. FT.		
43		(14800.24'+2074.76')(10.5') = 177187.50 SQ. FT.		
44				
45		DEDUCT FOR BRIDGES		
46		STA. 355+06.64 TO STA. 356+65.76 = 159.12 LIN. FT.		
47		STA. 367+74.71 TO STA. 369+89.27 = 214.56 LIN. FT.		
48		STA. 16+19.75 TO STA. 20+49.76 = 430.01 LIN. FT.		
49		TOTAL OF LINES 46 THRU 48 = 803.69 LIN. FT.		
50		(803.69')(10.5') = –8438.75 SQ. FT.		
51				
52		DEDUCT FOR OUTSIDE SHOULDER REPLACEMENT		
53		STA. 266+67.00 TO STA. 269+97.00 = 330.00 LIN. FT.		
54		STA. 298+67.00 TO STA. 301+97.00 = 330.00 LIN. FT.		
55		TOTAL OF LINES 53 AND 54 = 660.00 LIN. FT.		
56		(660.00')(10') = –6600.00 SQ. FT.		
57				
58		STAGE 2–S.B.		
59		STA. 240+29.00 TO STA. 374+60.24 BACK = 13431.24 LIN. FT.		
60		STA. 0+00.00 AHEAD TO STA. 32+43.76 = 3243.76 LIN. FT.		
61		(13431.24'+3243.76')(10.5') = 175087.50 SQ. FT.		
62				
63		DEDUCT FOR BRIDGES		
64		STA. 353+64.86 TO STA. 355+21.75 = 156.89 LIN. FT.		
65		STA. 366+44.27 TO STA. 368+53.37 = 209.10 LIN. FT.		
66		STA. 17+99.71 TO STA. 22+48.31 = 448.60 LIN. FT.		
67		TOTAL OF LINES 64 THRU 66 = 814.59 LIN. FT.		
68		(814.59')(10.5') = –8553.20 SQ. FT.		
69				
70		DEDUCT FOR OUTSIDE SHOULDER REPLACEMENT		
71		STA. 268+24.00 TO STA. 271+54.00 = 330.00 LIN. FT.		
72		STA. 297+72.00 TO STA. 301+02.00 = 330.00 LIN. FT.		
73		TOTAL OF LINES 71 AND 72 = 660.00 LIN. FT.		
74		(660.00')(10') = –6600.00 SQ. FT.		
75				
76		TOTAL OF LINES 6 THRU 74 (PHASE 1) = 707060.92 SQ. FT.		
77				
78				
79				
80				

LINE NO.	DESCRIPTION	QUANTITY	UNIT
81	PHASE 3A – RAMP MOT		
82	STAGE 1–RAMP B		
83	STA. 48+50.00 TO STA. 50+50.00 = 3732.41 SQ. FT. *		
84	STA. 50+50.00 TO STA. 53+00.00 = 250.00 LIN. FT.		
85	(250.00')(27.00') = 6750.00 SQ. FT.		
86	STA. 53+00.00 TO STA. 54+50.00 = 150.00 LIN. FT.		
87	(150.00')(31.75') = 4762.50 SQ. FT.		
88			
89	STAGE 1–RAMP C		
90	STA. 125+88.24 TO STA. 127+75.00 = 186.76 LIN. FT.		
91	(186.76')(9.00') = 1680.84 SQ. FT.		
92			
93	STAGE 1–RAMP E		
94	STA. 178+25.00 TO STA. 181+00.00 = 275.00 LIN. FT.		
95	(275.00')(15.00') = 4125.00 SQ. FT.		
96			
97	TOTAL OF LINES 83 THRU 95 = 21050.75 SQ. FT.		
98	TOTAL OF LINE 76 (PHASE 1) AND LINE 97 (PHASE 3A) = 728111.67 SQ. FT.		
99	(728111.67 SQ. FT.)(1/9) = 80901.30 SQ. YD. USE	80901	SQ.YD.
100			
101	ITEM 410 – 8" TRAFFIC COMPACTED SURFACE, TYPE A OR B		
102			
103	STAGE 1–N.B.		
104	STA. 200+90.00 TO STA. 218+70.00 = 1780.00 LIN. FT.		
105			
106	STAGE 1–S.B.		
107	STA. 200+90.00 TO STA. 228+59.00 = 2769.00 LIN. FT.		
108			
109	STAGE 2–N.B.		
110	STA. 371+50.00 TO STA. 374+60.24 BACK = 310.24 LIN. FT.		
111	STA. 0+00.00 AHEAD TO STA. 12+84.76 = 1284.76 LIN. FT.		
112			
113	STAGE 2–S.B.		
114	STA. 371+50.00 TO STA. 374+60.24 BACK = 310.24 LIN. FT.		
115	STA. 0+00.00 AHEAD TO STA. 18+00.57 = 1800.57 LIN. FT.		
116			
117	TOTAL OF LINES 104 THRU 115 = 8254.81 LIN. FT.		
118	(8254.81')(2.00') = 16509.62 SQ. FT.		
119			
120	STAGE 1, PHASE 2 – EMERGENCY PARKING AREA STA. 123+50 N.B.		
121	(50')(0+12')(1/2) = 300.00 SQ. FT.		
122	(250')(12') = 3000.00 SQ. FT.		
123	(200')(12'+0)(1/2) = 1200.00 SQ. FT.		
124	TOTAL OF LINES 121 THRU 123 = 4500.00 SQ. FT.		
125			
126	STAGE 2, PHASE 2 – EMERGENCY PARKING AREA STA. 286+00 N.B. AND S.B.		
127	(50')(0+12')(1/2) = 300.00 SQ. FT.		
128	(250')(12') = 3000.00 SQ. FT.		
129	(200')(12'+0)(1/2) = 1200.00 SQ. FT.		
130	TOTAL OF LINES 127 THRU 129 = 4500.00 SQ. FT.		
131	(4500.00 SQ. FT.) x 2 PARKING AREAS = 9000.00 SQ. FT.		
132			
133	TOTAL OF LINES 118, 124, AND 131 = 30009.62 SQ. FT.		
134	(30009.62 SQ. FT.)(8"/12)(1/27) = 740.98 CU. YD. USE	741	CU.YD.
135			
136	ITEM 614 – BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC		
137			
138	PHASE 3A		
139	STAGE 1–RAMP A		
140	STA. 40+14.72 TO STA. 43+82.18 = 367.46 LIN. FT.		
141	(367.46')(25.00')(1/2)(1.21' AVG. DEPTH) = 5557.83 CU. FT.		
142	STA. 43+82.18 TO STA. 44+50.00 = 67.82 LIN. FT.		
143	(67.82')(25.00')(1.37' AVG. DEPTH) = 2322.84 CU. FT.		
144	STA. 44+50.00 TO STA. 48+00.00 = 350.00 LIN. FT.		
145	(350.00')(4.50'+17.00')(1/2) (1.08' AVG. DEPTH) = 4063.50 CU. FT.		
146			
147	STAGE 1–RAMP C		
148	STA. 129+25.00 TO STA. 134+00.00 = 475.00 LIN. FT.		
149	(475.00')(5.00')(.09' AVG. DEPTH) = 213.75 CU. FT.		
150			
151	STAGE 1–RAMP D		
152	STA. 135+50.00 TO STA. 141+00.00 = 550.00 LIN. FT.		
153	(550.00')(6.00')(1"/12)(AVG. DEPTH) = 275.00 CU. FT.		
154			
155	STAGE 1–RAMP E		
156	STA. 175+50.00 TO STA. 178+25.00 = 275.00 LIN. FT.		
157	(275.00')(3.00')(2"/12)(AVG. DEPTH) = 137.50 CU. FT.		
158			
159	TOTAL OF LINES 141 THRU 157 = 12570.42 CU. FT.		
160	(12570.42 CU. FT.)(1/27) = 465.57 CU. YD. USE	466	CU.YD.

CALCULATED VLK 04/01

CHECKED SDS 04/01

MAINTENANCE OF TRAFFIC CALCULATIONS

WAY–71–0.28

MOTCALC.dwg May 10, 2001

LINE NO.	* CAD MEASURED AREA	DESCRIPTION		QUANTITY	UNIT
1					
2		ITEM 615 – TEMPORARY ROAD			
3					
4	OUTSIDE SHOULDER RESURFACING FROM SHEET 39		LUMP		
5					
6	STAGE 1 – N.B. TEMPORARY PAVEMENT		LUMP		
7	STAGE 1 – S.B. TEMPORARY PAVEMENT		LUMP		
8	STAGE 2 – N.B. TEMPORARY PAVEMENT		LUMP		
9	STAGE 2 – S.B. TEMPORARY PAVEMENT		LUMP		
10					
11	RAMP A		LUMP		
12	RAMP B		LUMP		
13	RAMP C		LUMP		
14	RAMP D		LUMP		
15	RAMP E		LUMP		
16	RAMP F		LUMP		
17					
18	TOTAL OF LINES 4 THRU 16 =		LUMP USE	LUMP	
19					
20					
21		ITEM 615 – TEMPORARY PAVEMENT, CLASS A			
22					
23	STAGE 1, PHASE 2				
24					
25	N.B.				
26	STA. 200+90.00 TO STA. 203+00.00 =		210.00 LIN. FT.		
27	(210.00')(4.25') =		892.50 SQ. FT.		
28	STA. 200+90.00 TO STA. 203+10.00 =		220.00 LIN. FT.		
29	(220.00')(22') =		4840.00 SQ. FT.		
30	STA. 203+10.00 TO STA. 215+45.00 =		1235.00 LIN. FT.		
31	(1235.00')(22'+5')(1/2) =		16672.50 SQ. FT.		
32	STA. 215+45.00 TO STA. 218+70.00 =		325.00 LIN. FT.		
33	(325.00')(5') =		1625.00 SQ. FT.		
34					
35	S.B.				
36	STA. 200+90.00 TO STA. 205+00.00 =		410.00 LIN. FT.		
37	(410.00')(4.25') =		1742.50 SQ. FT.		
38	STA. 200+90.00 TO STA. 212+99.00 =		1209.00 LIN. FT.		
39	(1209.00')(22') =		26598.00 SQ. FT.		
40	STA. 212+99.00 TO STA. 225+34.00 =		1235.00 LIN. FT.		
41	(1235.00')(22'+5')(1/2) =		16672.50 SQ. FT.		
42	STA. 225+34.00 TO STA. 228+59.00 =		325.00 LIN. FT.		
43	(325.00')(5') =		1625.00 SQ. FT.		
44					
45	TOTAL OF LINES 27 THRU 43 =		70668.00 SQ. FT.		
46					
47	STAGE 1, PHASE 3				
48					
49	N.B.				
50	STA. 200+90.00 TO STA. 203+00.00 =		210.00 LIN. FT.		
51	(210.00')(29.75') =		6247.50 SQ. FT.		
52					
53	S.B.				
54	STA. 200+90.00 TO STA. 205+00.00 =		410.00 LIN. FT.		
55	(410.00')(29.75') =		12197.50 SQ. FT.		
56					
57	TOTAL OF LINES 51 AND 55 =		18445.00 SQ. FT.		
58					
59	STAGE 1, PHASE 3A				
60					
61	RAMP A				
62	STA. 39+50.00 TO STA. 52+00.00 =		1250.00 LIN. FT.		
63	RAMP B				
64	STA. 48+00.00 TO STA. 53+00.00 =		500.00 LIN. FT.		
65	RAMP C				
66	STA. 125+75.00 TO STA. 138+50.00 =		1275.00 LIN. FT.		
67	RAMP D				
68	STA. 135+50.00 TO STA. 141+00.00 =		550.00 LIN. FT.		
69	RAMP E				
70	STA. 175+50.00 TO STA. 181+50.00 =		600.00 LIN. FT.		
71					
72	TOTAL OF LINES 62 THRU 70 =		4175.00 LIN. FT.		
73	(4175.00')(4.75') =		19831.25 SQ. FT.		
74					
75	STAGES 1 AND 2, PHASE 1				
76					
77	TOTAL OUTSIDE SHOULDER REPLACEMENT FROM SHEET 39		39600.00 SQ. FT.		
78					
79	TOTAL OF LINES 45, 57, 73, AND 77 =		148544.25 SQ. FT.		
80	(148544.25 SQ. FT.)(1/9) =		16504.92 SQ. YD. USE	16505	SQ.YD.

LINE NO.	DESCRIPTION		QUANTITY	UNIT
81				
82	ITEM 615 – TEMPORARY PAVEMENT, CLASS A, AS PER PLAN			
83				
84	STAGE 2 –N.B.			
85	STA. 371+50.00 TO STA. 371+75.00 =	25.00 LIN. FT.		
86	(25.00')(22') =	550.00 SQ. FT.		
87	STA. 371+75.00 TO STA. 374+60.24 BACK =	285.24 LIN. FT.		
88	STA. 0+00.00 AHEAD TO STA. 9+59.76 =	959.76 LIN. FT.		
89	(285.24+959.76)(22'+5')(1/2) =	16807.50 SQ. FT.		
90	STA. 9+59.76 TO STA. 12+84.76 =	325.00 LIN. FT.		
91	(325.00')(5') =	1625.00 SQ. FT.		
92				
93	STAGE 2 –S.B.			
94	STA. 371+50.00 TO STA. 374+60.24 BACK =	310.24 LIN. FT.		
95	STA. 0+00.00 AHEAD TO STA. 5+13.76 =	513.76 LIN. FT.		
96	(310.24+513.76)(22') =	18128.00 SQ. FT.		
97	STA. 5+13.76 TO STA. 17+48.76 =	1235.00 LIN. FT.		
98	(1235.00')(22'+5')(1/2) =	16672.50 SQ. FT.		
99	STA. 17+48.76 TO STA. 18+00.57 =	51.81 LIN. FT.		
100	(51.81')(5') =	259.05 SQ. FT.		
101				
102	TOTAL OF LINES 86 THRU 100 =	54042.05 SQ. FT.		
103	(54042.05 SQ. FT.)(1/9) =	6004.67 SQ. YD. USE	6005	SQ.YD.
104				
105				
106				
107				
108				
109				
110				
111				
112				
113	ITEM 615 – TEMPORARY PAVEMENT, CLASS B			
114				
115	STAGE 1, PHASE 3A			
116				
117	RAMP A			
118	STA. 17+32.42 TO STA. 21+00.00 =	367.58 LIN. FT.		
119	(367.58')(3.00') =	1102.74 SQ. FT.		
120				
121	RAMP B			
122	STA. 21+12.78 TO STA. 23+00.00 =	187.22 LIN. FT.		
123	(187.22')(2.00') =	374.44 SQ. FT.		
124				
125	RAMP C			
126	STA. 51+86.79 TO STA. 54+00.00 =	213.21 LIN. FT.		
127	(213.21')(6.00') =	1279.26 SQ. FT.		
128	STA. 54+00.00 TO STA. 57+75.00 =	375.00 LIN. FT.		
129	(375.00')(6.75') =	2531.25 SQ. FT.		
130				
131	RAMP D			
132	STA. 48+84.27 TO STA. 52+00.00 =	315.73 LIN. FT.		
133	(315.73')(7.00') =	2210.11 SQ. FT.		
134	STA. 52+00.00 TO STA. 54+55.00 =	255.00 LIN. FT.		
135	(255.00')(7.25') =	1848.75 SQ. FT.		
136				
137	RAMP E			
138	STA. 65+25.00 TO STA. 65+84.00 =	59.00 LIN. FT.		
139	(59.00')(3.75') =	221.25 SQ. FT.		
140	STA. 65+84.00 TO STA. 67+90.69 =	206.69 LIN. FT.		
141	(206.69')(3.00') =	620.07 SQ. FT.		
142				
143	RAMP F			
144	STA. 60+25.00 TO STA. 61+00.00 =	75.00 LIN. FT.		
145	(75.00')(1.75') =	131.25 SQ. FT.		
146	STA. 61+00.00 TO STA. 65+54.47 =	454.47 LIN. FT.		
147	(454.47')(2.25') =	1022.56 SQ. FT.		
148				
149	TOTAL OF LINES 119 THRU 147 =	11341.68 SQ. FT.		
150	(11341.68 SQ. FT.)(1/9) =	1260.19 SQ. YD. USE	1260	SQ.YD.
151				
152				
153				
154	ITEM 615 – TEMPORARY PAVEMENT, AS PER PLAN			
155				
156	OUTSIDE SHOULDER RESURFACING AREA FROM LINE 76 SHEET 44 =	707060.92 SQ. FT.		
157	(707060.92 SQ. FT.)(1/9) =	78562.32 SQ. YD. USE	78562	SQ.YD.
158				
159				
160				

CALCULATED VLK 04/01

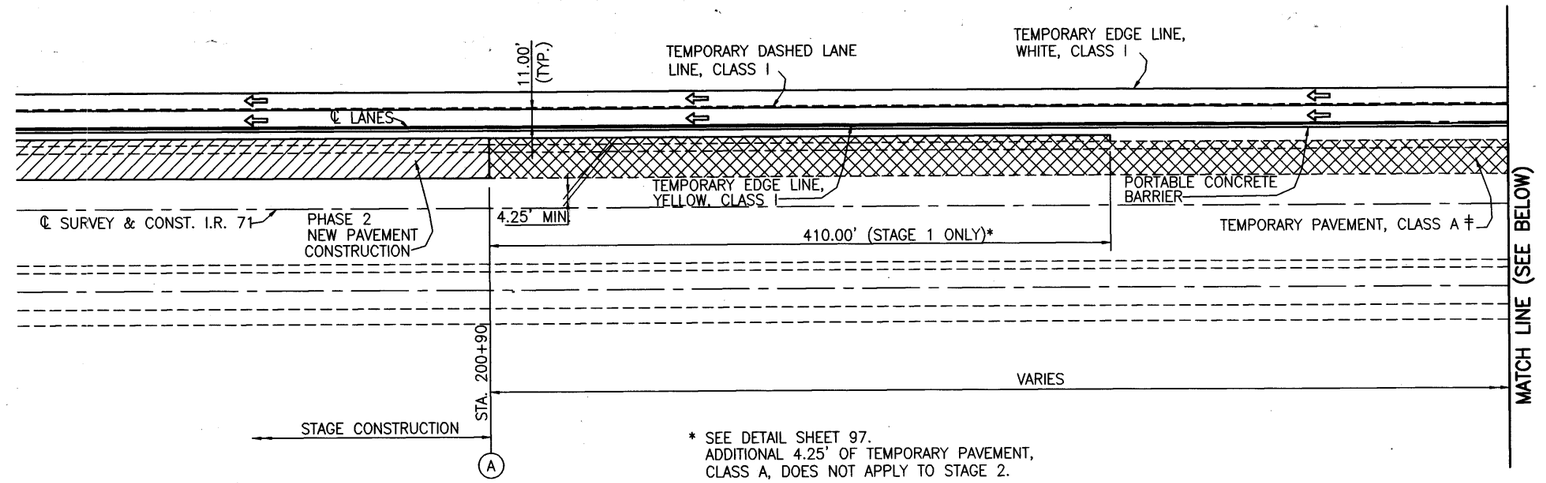
CHECKED SDS 04/01

QUANTITY OF TRAFFIC CALCULATIONS

MAINTENANCE

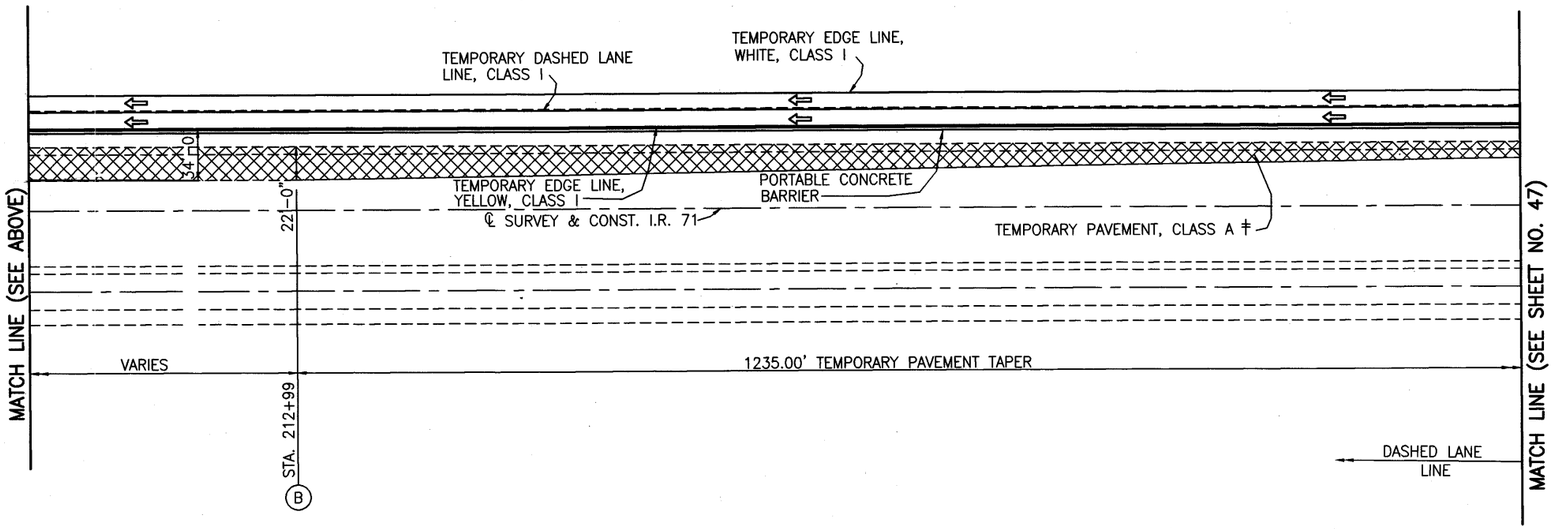
WAY-71-0.28

MOTCALC.dwg May 10, 2001



* SEE DETAIL SHEET 97.
ADDITIONAL 4.25' OF TEMPORARY PAVEMENT, CLASS A, DOES NOT APPLY TO STAGE 2.

ǂ IN STAGE 2, THIS IS TEMPORARY PAVEMENT, CLASS A, AS PER PLAN.
SEE GENERAL NOTE SHEET 32 FOR DETAILS.



LEGEND

- NEW PAVEMENT CONSTRUCTION
- ITEM 615 TEMPORARY PAVEMENT, CLASS A
- ITEM 254 PAVEMENT PLANING BITUMINOUS

NOTES:

1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
2. STATIONING ON DETAIL CORRESPONDS TO PHASE 2 STAGE 1 S.B. CONSTRUCTION – SEE FOLLOWING SHEET FOR ADDITIONAL APPLICATIONS AND ASSOCIATED STATIONING.
3. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT–102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
4. SEE PHASE 2 M.O.T. TYPICAL SECTION, SHEET 35. SEE SHEETS 40–45 FOR M.O.T. QUANTITIES.

ADDITIONAL APPLICABLE M.O.T. CONSTRUCTION PHASES – STAGES
PHASE 2 – STAGE 1 S.B.
PHASE 2 – STAGE 2 S.B.

CALCULATED | CHECKED

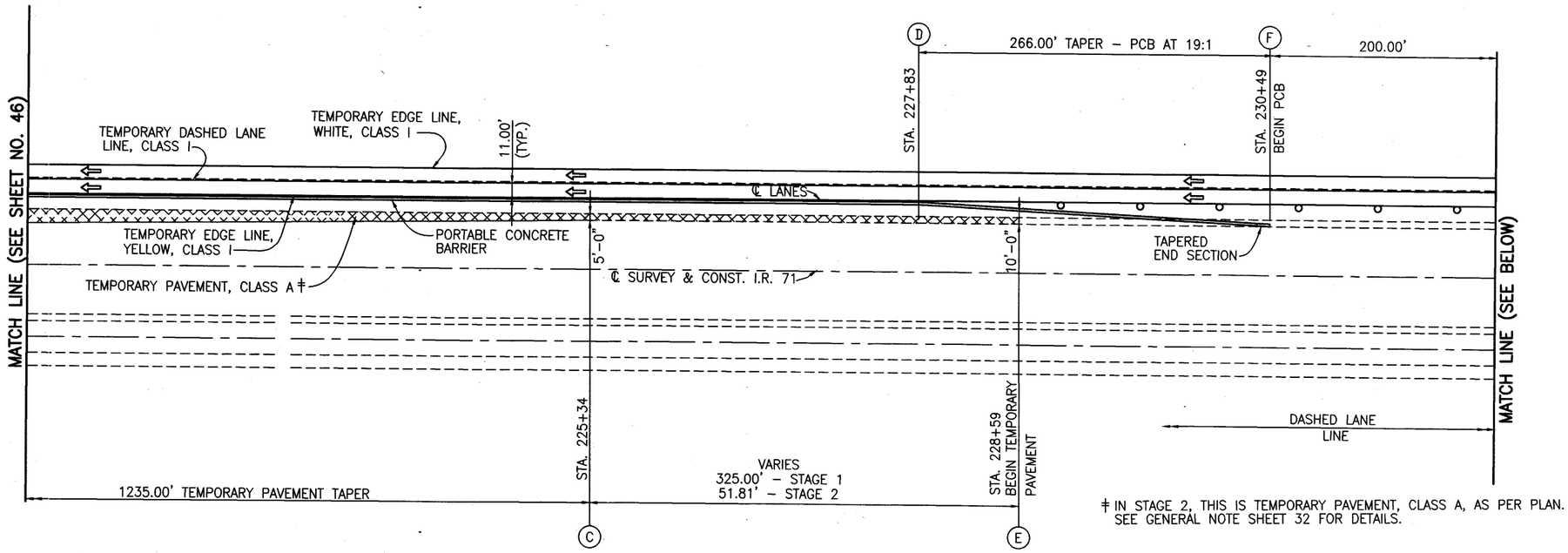
MAINTENANCE OF TRAFFIC – APPROACHING WORK ZONE
TRAFFIC FROM EXISTING PAVEMENT TO OUTSIDE SHOULDER

WAY–71–0.28

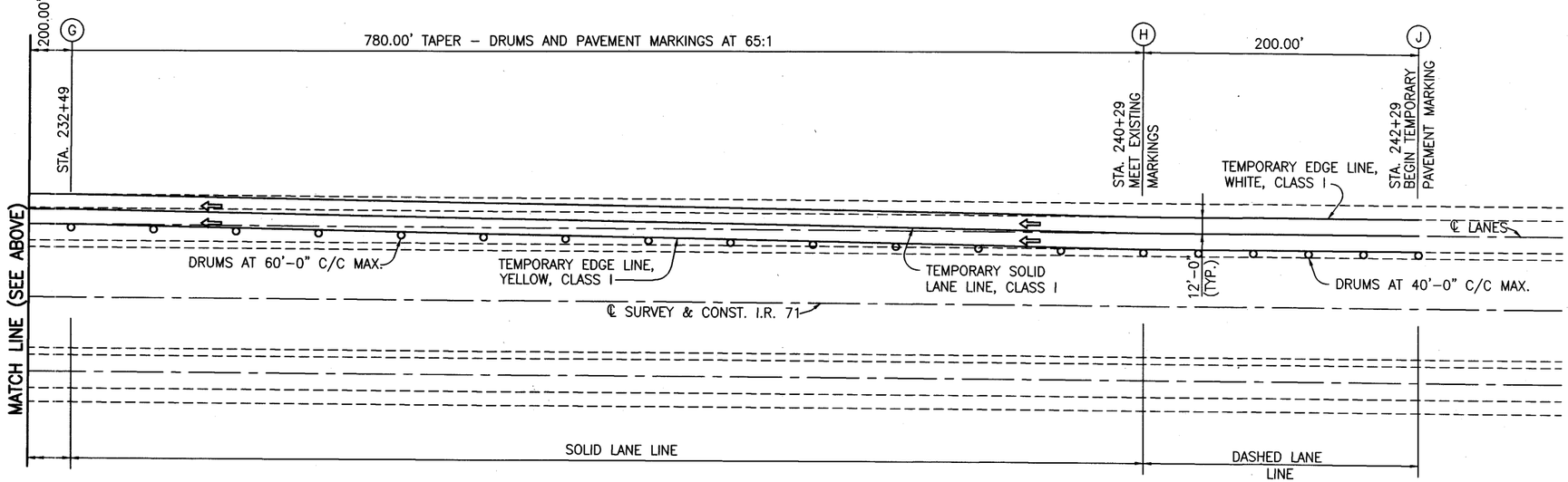
1 / 2

46
432

MTAE20S1.DWG Jan 08 ,2001



ǂ IN STAGE 2, THIS IS TEMPORARY PAVEMENT, CLASS A, AS PER PLAN. SEE GENERAL NOTE SHEET 32 FOR DETAILS.



LEGEND

- NEW PAVEMENT CONSTRUCTION
- ITEM 615 TEMPORARY PAVEMENT, CLASS A
- PAVEMENT PLANING

THIS SAME DETAIL IS ALSO APPLICABLE TO THE FOLLOWING M.O.T. PHASES – STAGES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN								
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(J)
PHASE 2 – STAGE 2 S.B.	371+50	5+13.76	17+48.76	19+97.76	18+00.57	22+63.76	24+63.76	32+43.76	34+43.76

STATION EQUATIONS: 374+60.24 BACK = 0+00.00 AHEAD AT NORTH END OF PROJECT.

NOTE: THE TEMPORARY PAVEMENT MAY REMAIN IN PLACE UNTIL THE NEXT CONSTRUCTION STAGE REMOVES. (TYP.)

ADDITIONAL APPLICABLE M.O.T. CONSTRUCTION PHASES – STAGES
PHASE 2 – STAGE 1 S.B.
PHASE 2 – STAGE 2 S.B.

CALCULATED | CHECKED

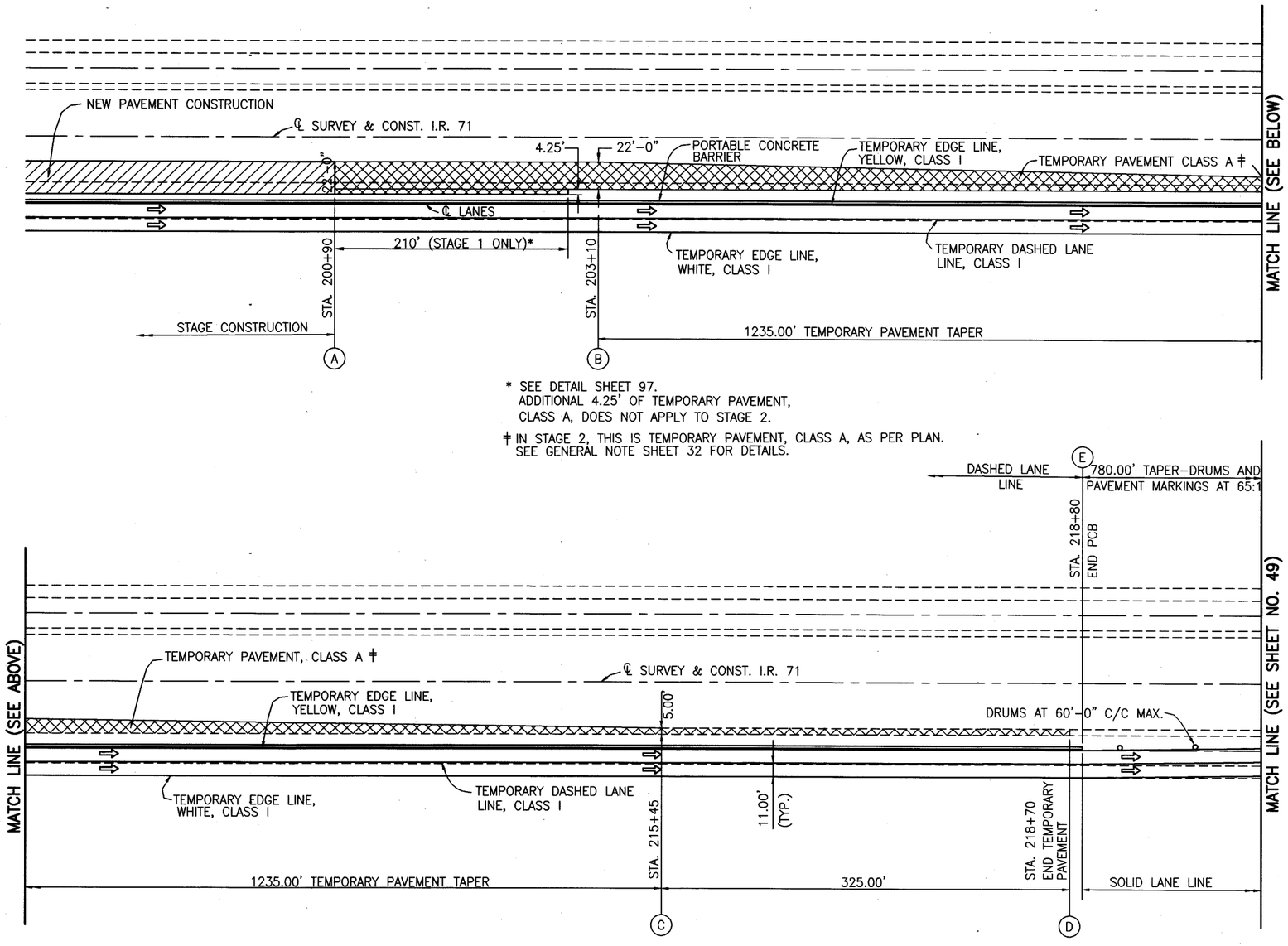
MAINTENANCE OF TRAFFIC – APPROACHING WORK ZONE TRAFFIC FROM EXISTING PAVEMENT TO OUTSIDE SHOULDER

WAY-71-0.28

2 / 2

47 / 432

MTAE20S2.DWG May 10 ,2001



LEGEND

- NEW PAVEMENT CONSTRUCTION
- ITEM 615 TEMPORARY PAVEMENT, CLASS A
- PAVEMENT PLANING

NOTES:

1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
2. STATIONING ON DETAIL CORRESPONDS TO PHASE 2 STAGE 1 N.B. CONSTRUCTION – SEE FOLLOWING SHEET FOR ADDITIONAL APPLICATIONS AND ASSOCIATED STATIONING.
3. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
4. SEE STANDARD CONSTRUCTION DRAWING MT-102.10M FOR ADDITIONAL NOTES AND DETAILS NOT SHOWN, INCLUDING SIGNING.
5. SEE PHASE 2 M.O.T. TYPICAL SECTION, SHEET 35. SEE SHEETS 40-45 FOR M.O.T. QUANTITIES.

ADDITIONAL APPLICABLE M.O.T. CONSTRUCTION PHASES – STAGES
PHASE 2 – STAGE 1 N.B.
PHASE 2 – STAGE 2 N.B.

CALCULATED | CHECKED

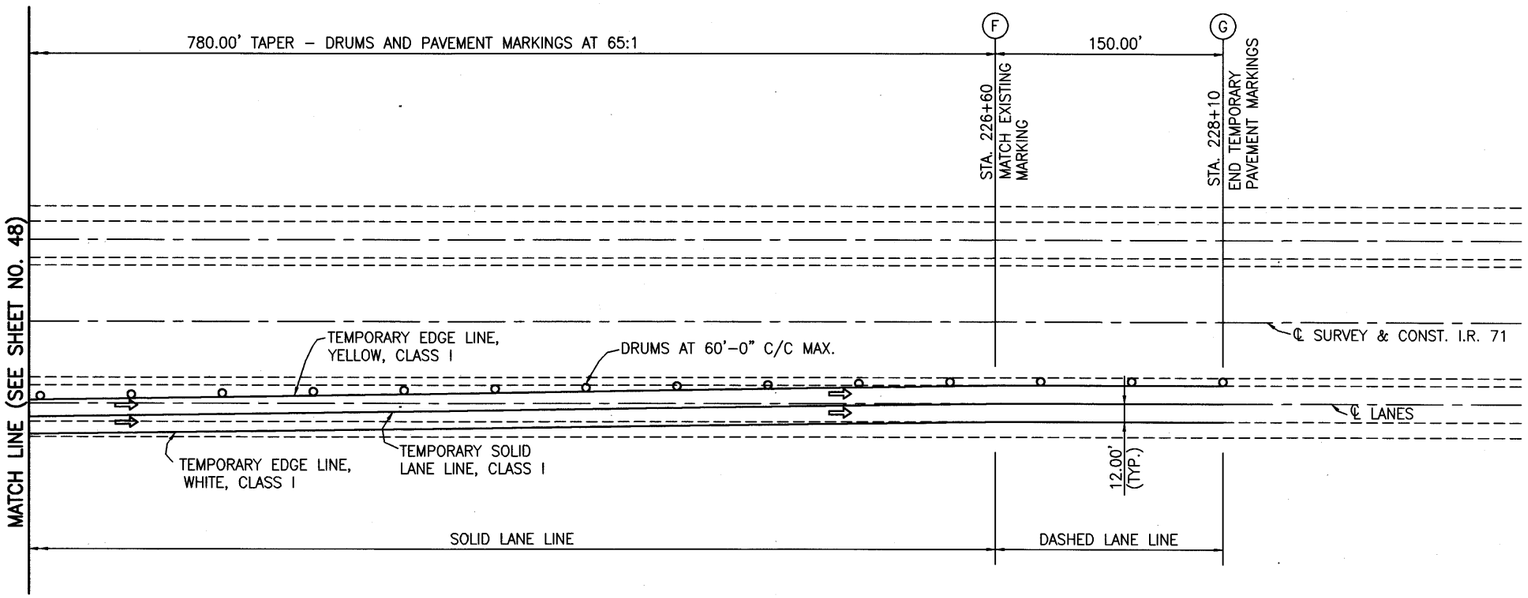
MAINTENANCE OF TRAFFIC – EXITING WORK ZONE OUTSIDE SHOULDER TO EXISTING PAVEMENT

WAY-71-0.28

1 / 2

48 / 432

MTAE20S3.DWG May 10 ,2001



THIS SAME DETAIL IS ALSO APPLICABLE TO THE FOLLOWING M.O.T. PHASES – STAGES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN								
	(A)	(B)	(C)	(D)	(E)	(F)	(G)		
PHASE 2 – STAGE 2 N.B.**	371+50	371+75	9+59.76	12+84.76	12+94.76	20+74.76	22+24.76		

STATION EQUATIONS: 374+60.24 BACK = 0+00.00 AHEAD AT NORTH END OF PROJECT.

LEGEND

- NEW PAVEMENT CONSTRUCTION
- ITEM 615 TEMPORARY PAVEMENT, CLASS A
- PAVEMENT PLANING

** FEATHER TO MEET EXISTING FROM (A) TO (B).

NOTES:
1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
2. STATIONING ON DETAIL CORRESPONDS TO PHASE 2 STAGE 1 N.B. CONSTRUCTION – SEE FOLLOWING SHEET FOR ADDITIONAL APPLICATIONS AND ASSOCIATED STATIONING.
3. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT–102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
4. SEE PHASE 2 M.O.T. TYPICAL SECTION, SHEET 35. SEE SHEETS 40–45 FOR M.O.T. QUANTITIES.

ADDITIONAL APPLICABLE M.O.T. CONSTRUCTION PHASES – STAGES

PHASE 2 – STAGE 1 N.B.

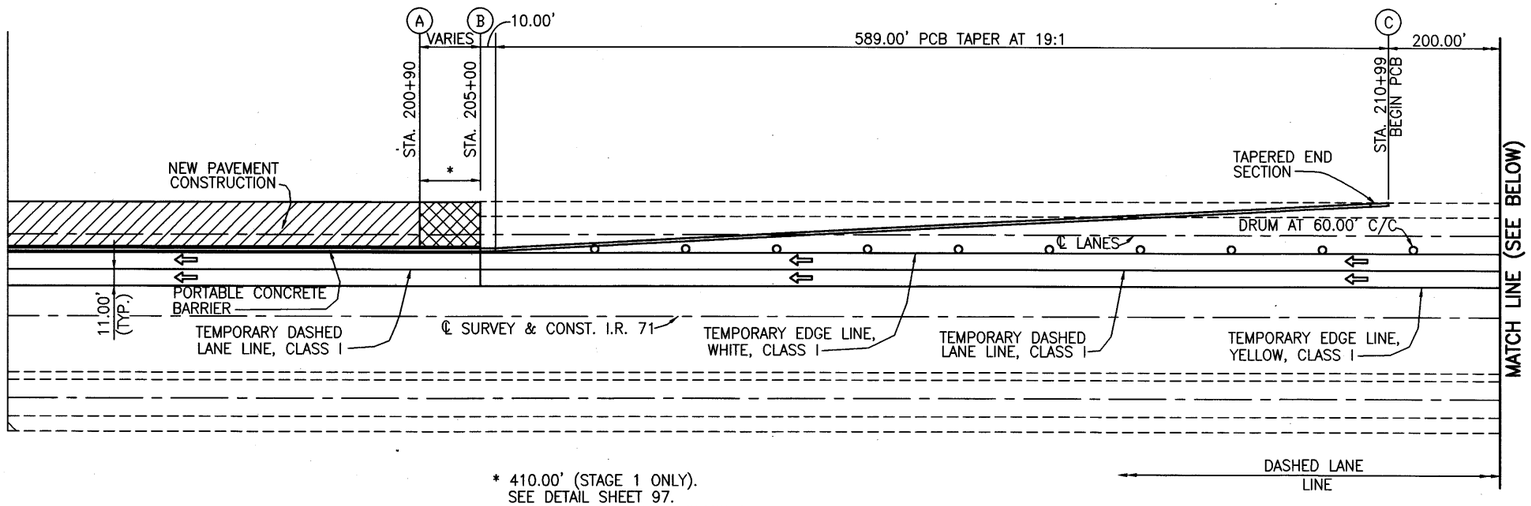
PHASE 2 – STAGE 2 N.B.

CALCULATED | CHECKED

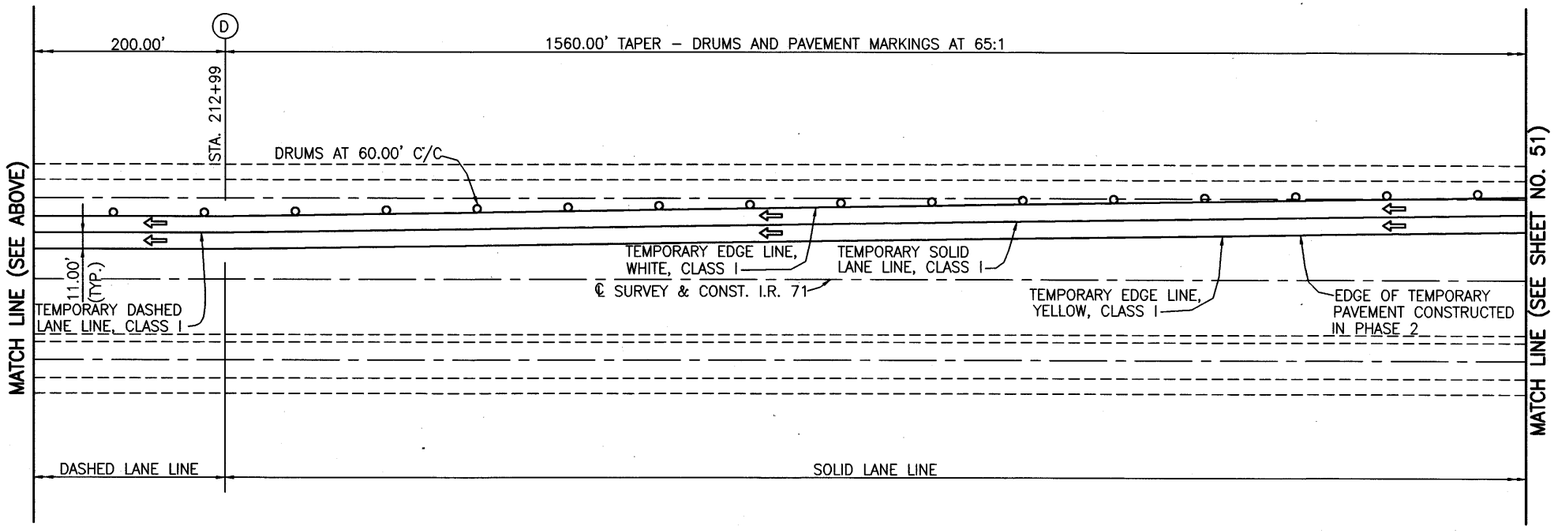
MAINTENANCE OF TRAFFIC – EXITING WORK ZONE
TRAFFIC FROM OUTSIDE SHOULDER TO EXISTING PAVEMENT

WAY–71–0.28

MTXOS2E.DWG May 10 ,2001



* 410.00' (STAGE 1 ONLY).
SEE DETAIL SHEET 97.
TEMPORARY PAVEMENT, CLASS A,
DOES NOT APPLY TO STAGE 2.



LEGEND

- NEW PAVEMENT CONSTRUCTION
- ITEM 615 TEMPORARY PAVEMENT, CLASS A
- PAVEMENT PLANING

NOTES:

1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
2. STATIONING ON DETAIL CORRESPONDS TO PHASE 3 STAGE 1 S.B. CONSTRUCTION – SEE FOLLOWING SHEET FOR ADDITIONAL APPLICATIONS AND ASSOCIATED STATIONING.
3. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
4. SEE PHASE 3 M.O.T. TYPICAL SECTION, SHEET 36. SEE SHEETS 40-45 FOR M.O.T. QUANTITIES.

ADDITIONAL APPLICABLE M.O.T. CONSTRUCTION PHASES – STAGES
PHASE 3 – STAGE 1 S.B.
PHASE 3 – STAGE 2 S.B.

CALCULATED | CHECKED

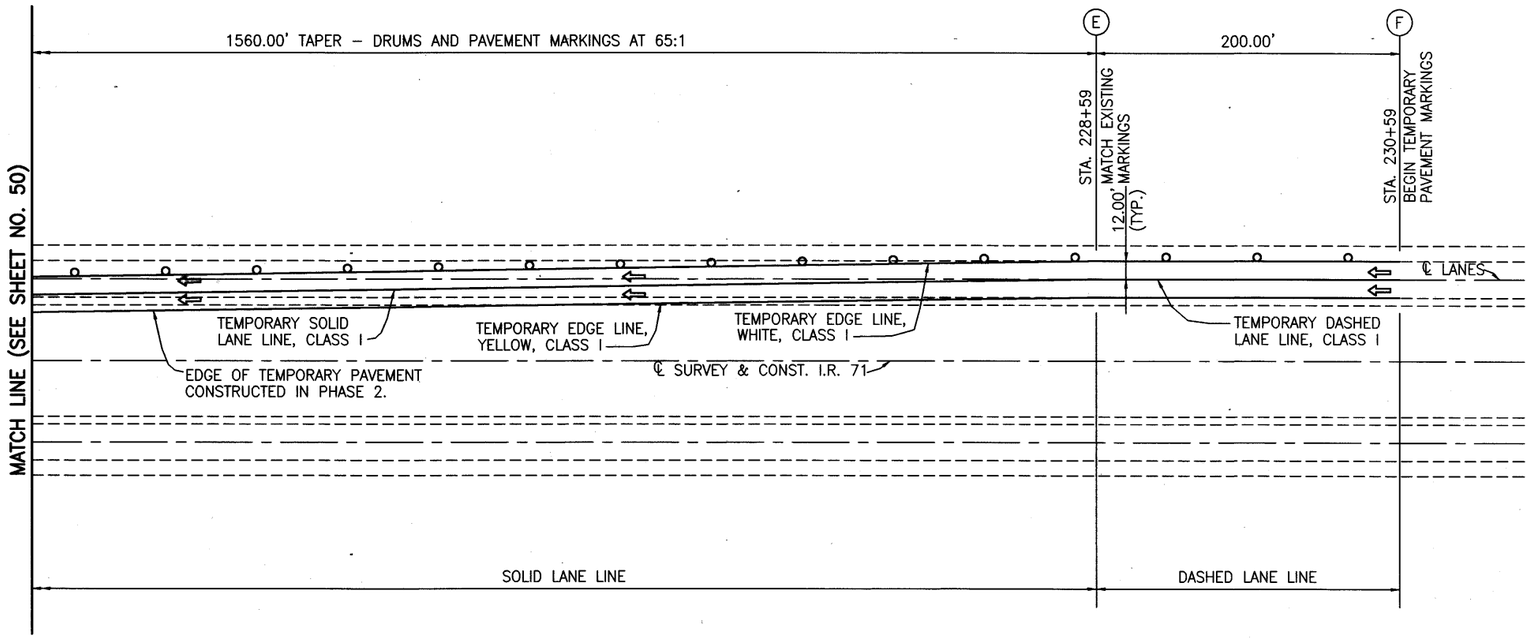
MAINTENANCE OF TRAFFIC – APPROACHING WORK ZONE
TRAFFIC FROM EXISTING PAVEMENT TO INSIDE SHOULDER

WAY-71-0.28

1 / 2

50
432

MTAE2CA1.DWG May 10 ,2001



LEGEND

- NEW PAVEMENT CONSTRUCTION
- ITEM 615 TEMPORARY PAVEMENT, CLASS A
- PAVEMENT PLANING

THIS SAME DETAIL IS ALSO APPLICABLE TO THE FOLLOWING M.O.T. PHASES – STAGES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN								
	(A)	(B)	(C)	(D)	(E)	(F)			
PHASE 3 – STAGE 2 S.B.*	371+50	371+75	3+13.76	5+13.76	20+73.76	22+73.76			

STATION EQUATIONS: 374+60.24 BACK = 0+00.00 AHEAD AT NORTH END OF PROJECT.

*FEATHER TO MEET EXISTING FROM (A) TO (B).

CALCULATED | CHECKED

MAINTENANCE OF TRAFFIC – APPROACHING WORK ZONE TRAFFIC FROM EXISTING PAVEMENT TO INSIDE SHOULDER

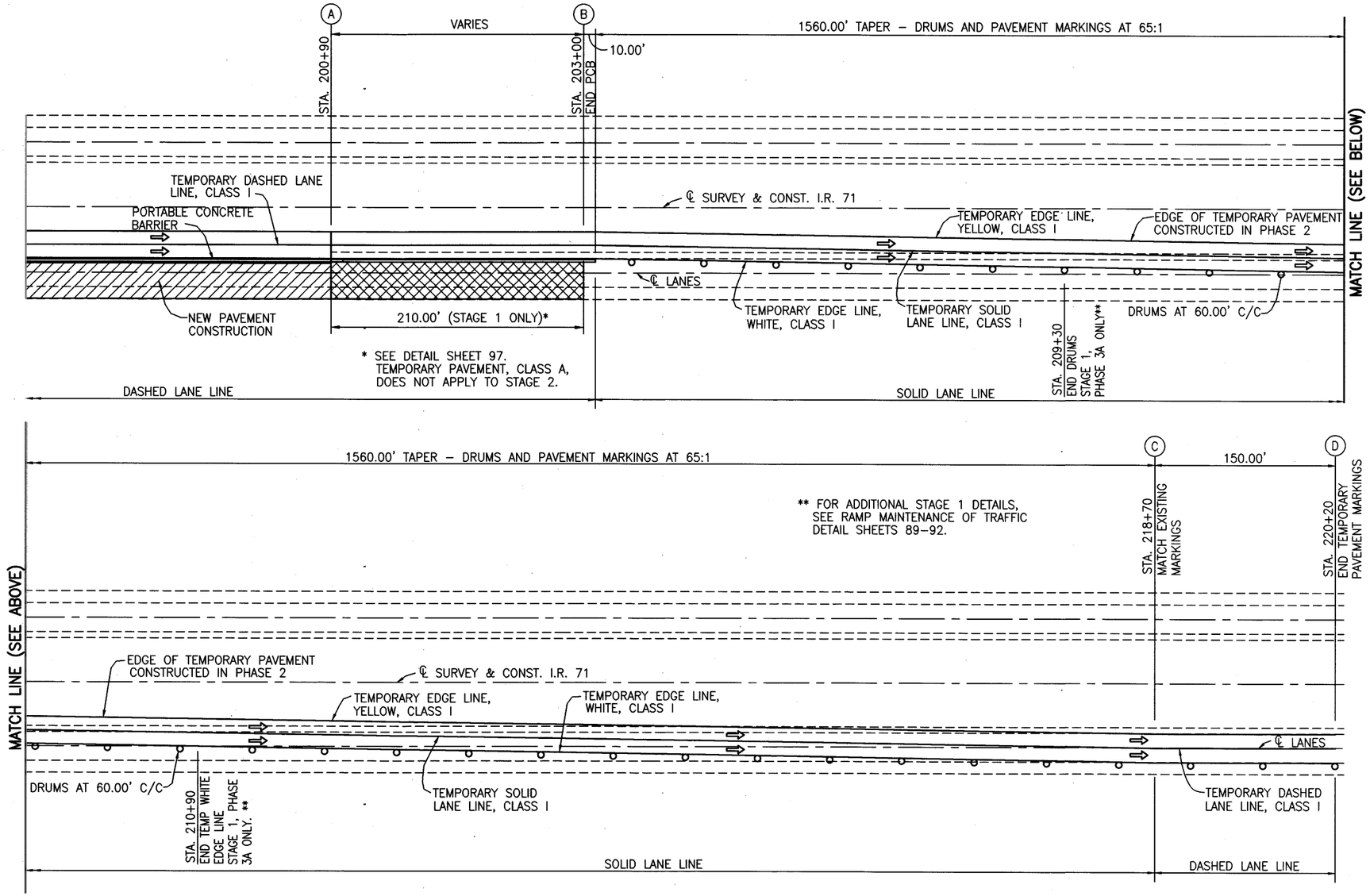
WAY-71-0.28

ADDITIONAL APPLICABLE M.O.T. CONSTRUCTION PHASES – STAGES
PHASE 3 – STAGE 1 S.B.
PHASE 3 – STAGE 2 S.B.

2 / 2

51
432

MTAE2CA2.DWG May 10 ,2001



THIS SAME DETAIL IS ALSO APPLICABLE TO THE FOLLOWING M.O.T. PHASES – STAGES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN			
	(A)	(B)	(C)	(D)
PHASE 3 – STAGE 2 N.B.‡	371+50	371+75	12+84.76	14+34.76

STATION EQUATIONS: 374+60.24 BACK = 0+00.00 AHEAD AT NORTH END OF PROJECT.

‡ FEATHER TO MEET EXISTING FROM (A) TO (B).

LEGEND

- NEW PAVEMENT CONSTRUCTION
- ITEM 615 TEMPORARY PAVEMENT, CLASS A
- PAVEMENT PLANING

NOTES:

1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
2. STATIONING ON DETAIL CORRESPONDS TO PHASE 3 STAGE 1 N.B. CONSTRUCTION – SEE FOLLOWING SHEET FOR ADDITIONAL APPLICATIONS AND ASSOCIATED STATIONING.
3. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT–102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
4. SEE PHASE 3 M.O.T. TYPICAL SECTION, SHEET 36. SEE SHEETS 40–45 FOR M.O.T. QUANTITIES.

ADDITIONAL APPLICABLE M.O.T. CONSTRUCTION PHASES – STAGES
PHASE 3 – STAGE 1 N.B.
PHASE 3 – STAGE 2 N.B.

CALCULATED | CHECKED

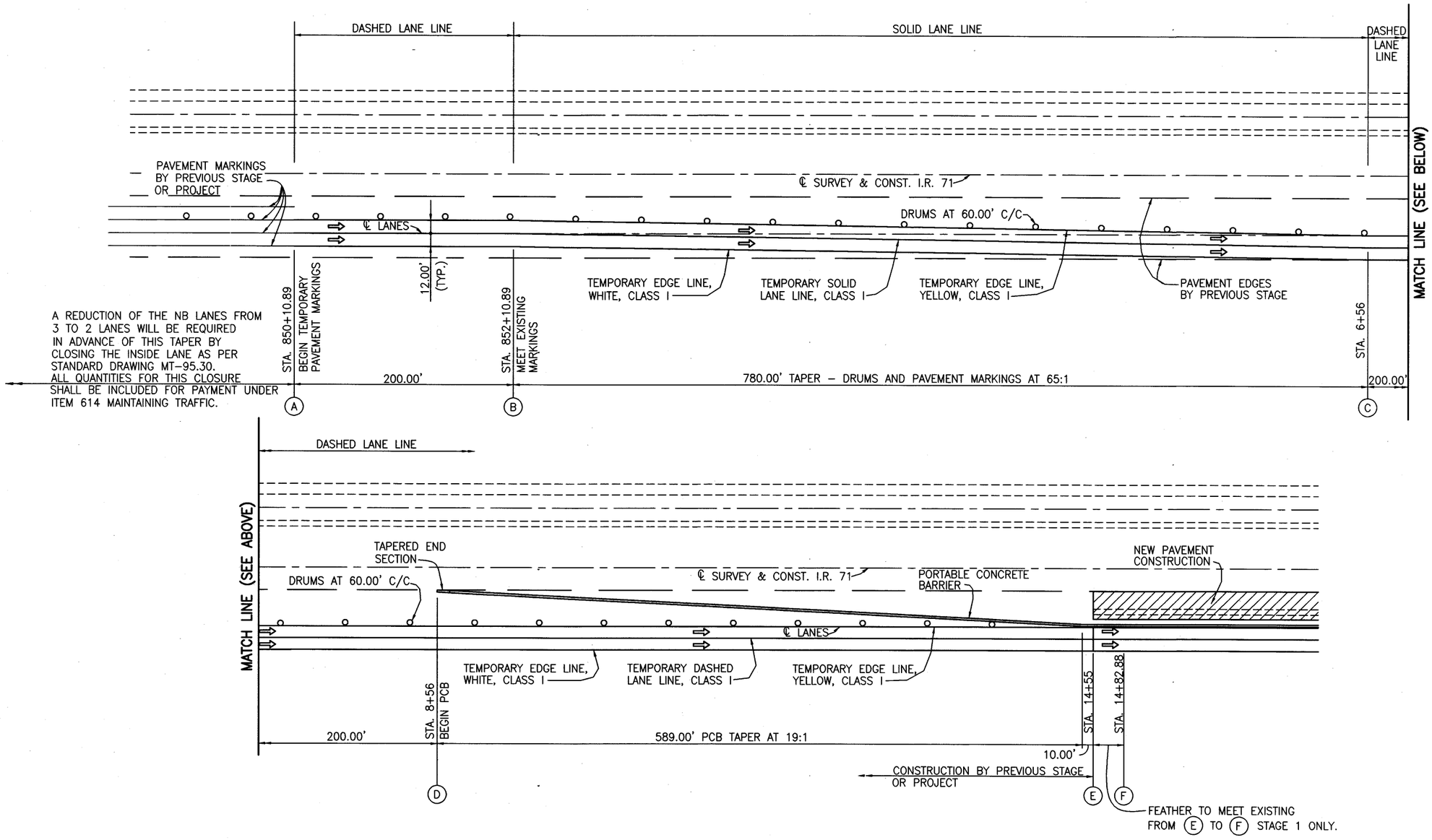
MAINTENANCE OF TRAFFIC – EXITING WORK ZONE
TRAFFIC FROM INSIDE SHOULDER TO EXISTING PAVEMENT

WAY–71–0.28

1 / 1

52
432

MTXNC2E.DWG May 10 2001



LEGEND

- NEW PAVEMENT CONSTRUCTION
- ITEM 615 TEMPORARY PAVEMENT, CLASS A
- PAVEMENT PLANING

THIS SAME DETAIL IS ALSO APPLICABLE TO THE FOLLOWING M.O.T. PHASES – STAGES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN					
	(A)	(B)	(C)	(D)	(E)	(F)
PHASE 2 – STAGE 2 N.B.	183+11	185+11	192+91	194+91	200+90	N/A

STATION EQUATIONS: 853+34.89 BACK = 0+00.00 AHEAD AT SOUTH END OF PROJECT.

NOTES:

1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
2. STATIONING ON DETAIL CORRESPONDS TO PHASE 2 STAGE 1 N.B. CONSTRUCTION.
3. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
4. SEE PHASE 2 M.O.T. TYPICAL SECTION, SHEET 35. SEE SHEETS 40-45 FOR M.O.T. QUANTITIES.
5. ALL TEMPORARY PAVEMENT MARKINGS ON PREVIOUSLY CONSTRUCTED NEW PAVEMENT SHALL BE 740.06, TYPE I ALL EXISTING CONFLICTING MARKINGS SHALL BE REMOVED UNDER ITEM 614 MAINTAINING TRAFFIC.

ADDITIONAL APPLICABLE M.O.T. CONSTRUCTION PHASES – STAGES
PHASE 2 – STAGE 1 N.B.
PHASE 2 – STAGE 2 N.B.

CALCULATED | CHECKED

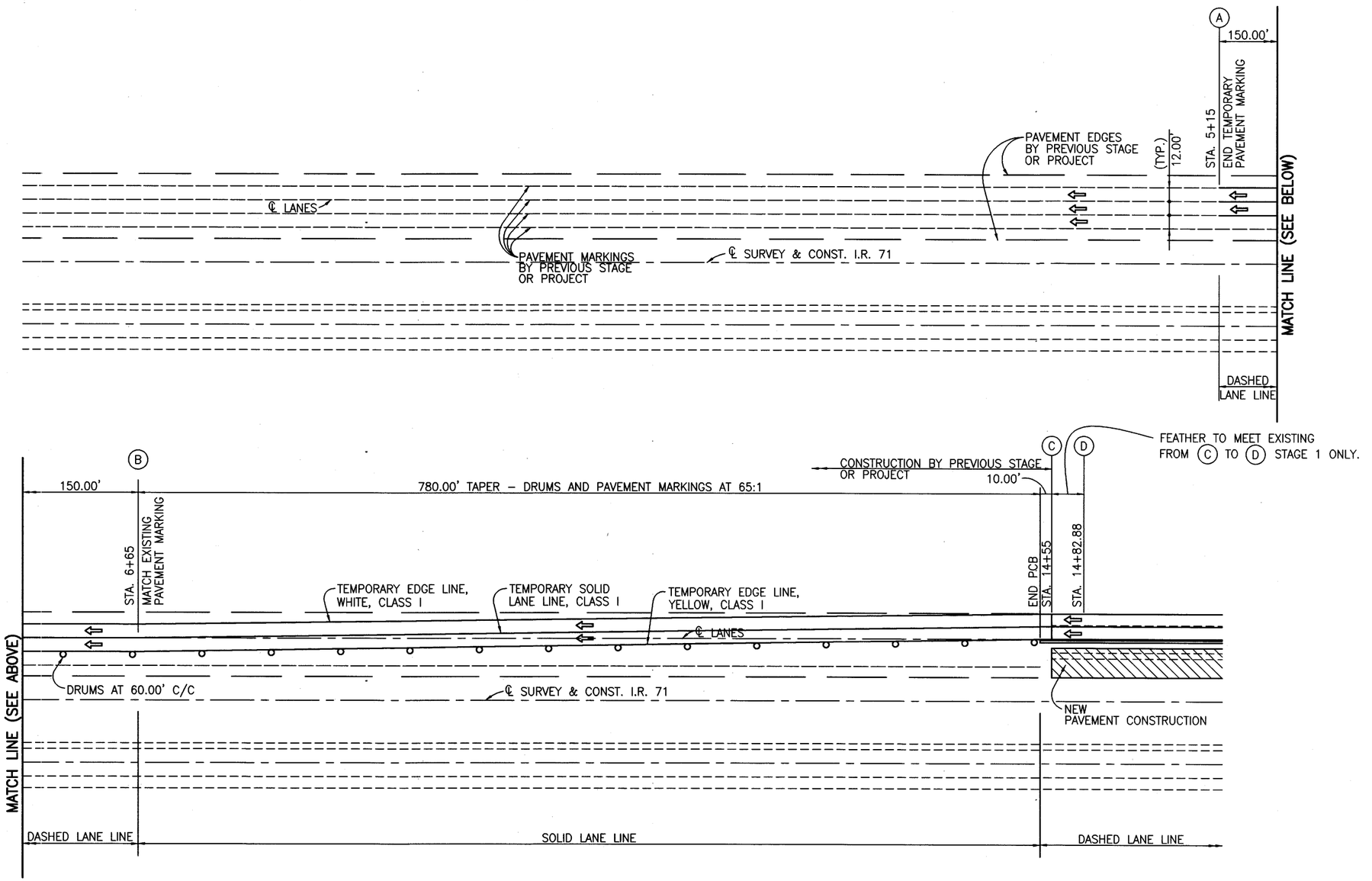
MAINTENANCE OF TRAFFIC – APPROACHING WORK ZONE TRAFFIC FROM PREVIOUS CONSTRUCTION STAGE TO OUTSIDE SHOULDER

WAY-71-0.28

1 / 1

53 / 432

MTAPC220S.DWG May 10, 2001



LEGEND

- NEW PAVEMENT CONSTRUCTION
- ITEM 615 TEMPORARY PAVEMENT, CLASS A
- PAVEMENT PLANING

THIS SAME DETAIL IS ALSO APPLICABLE TO THE FOLLOWING M.O.T. PHASES – STAGES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN				
	(A)	(B)	(C)	(D)	
PHASE 2 – STAGE 2 S.B.	191+50	193+00	200+90	N/A	

NOTES:

1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
2. STATIONING ON DETAIL CORRESPONDS TO PHASE 2 STAGE 1 N.B. CONSTRUCTION.
3. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT–102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
4. SEE PHASE 2 M.O.T. TYPICAL SECTION, SHEET 35. SEE SHEETS 40–45 FOR M.O.T. QUANTITIES.
5. ALL TEMPORARY PAVEMENT MARKINGS ON PREVIOUSLY CONSTRUCTED NEW PAVEMENT SHALL BE 740.06, TYPE I ALL EXISTING CONFLICTING MARKINGS SHALL BE REMOVED UNDER ITEM 614 MAINTAINING TRAFFIC.

ADDITIONAL APPLICABLE M.O.T. CONSTRUCTION PHASES – STAGES
PHASE 2 – STAGE 1 S.B.
PHASE 2 – STAGE 2 S.B.

CALCULATED | CHECKED

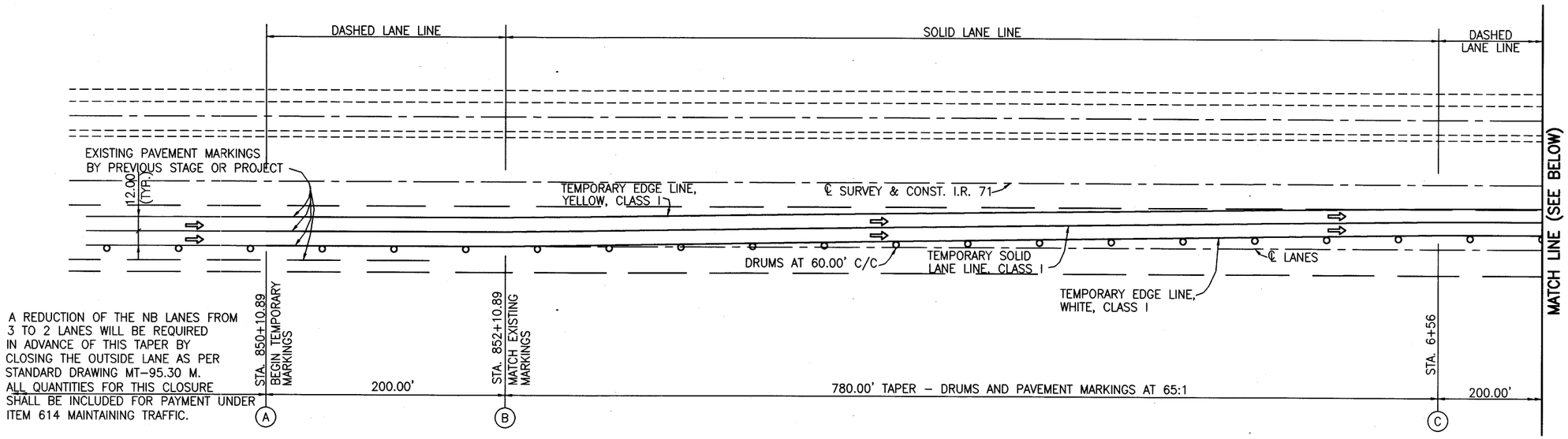
MAINTENANCE OF TRAFFIC – EXITING WORK ZONE
TRAFFIC FROM OUTSIDE SHOULDER TO PREVIOUS CONSTRUCTION STAGE

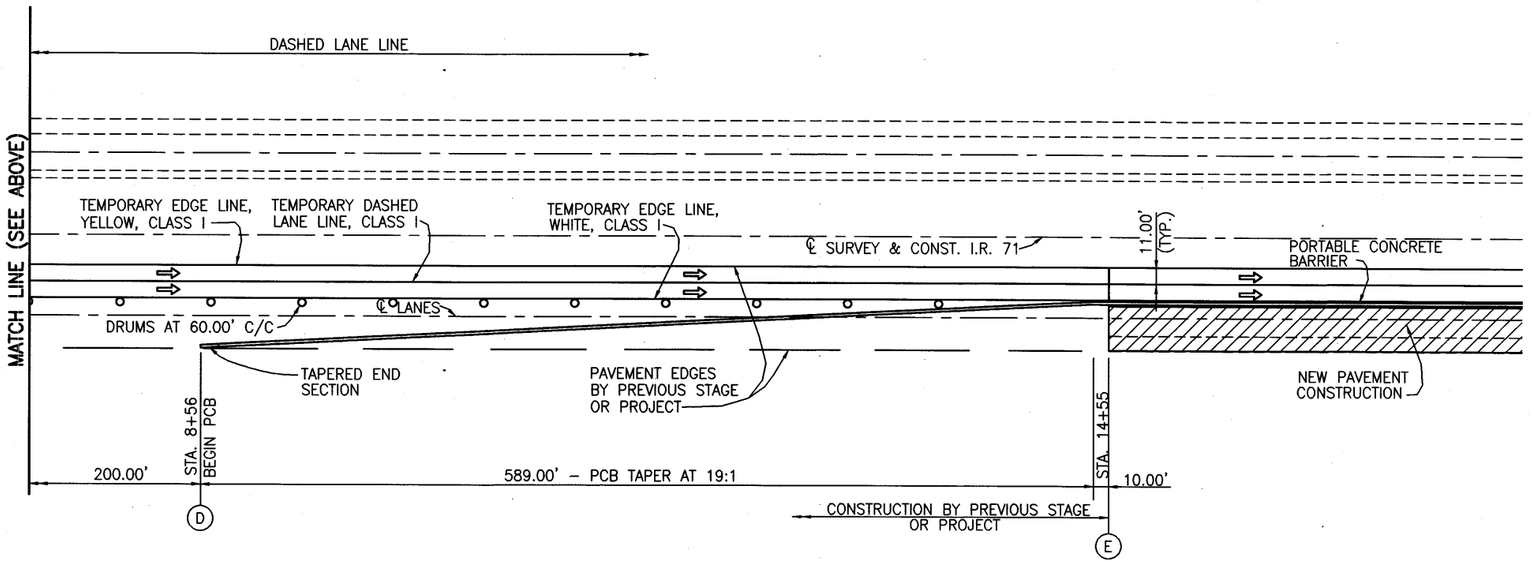
WAY–71–0.28

1 / 1

54
432

MTXOS2PC.DWG May 10, 2001





LEGEND

- NEW PAVEMENT CONSTRUCTION
- ITEM 615 TEMPORARY PAVEMENT, CLASS A
- PAVEMENT PLANING

THIS SAME DETAIL IS ALSO APPLICABLE TO THE FOLLOWING M.O.T. PHASES – STAGES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN				
	(A)	(B)	(C)	(D)	(E)
PHASE 3 – STAGE 2 N.B.	183+11	185+11	192+91	194+91	200+90

STATION EQUATIONS: 853+34.89 BACK = 0+00.00 AHEAD AT SOUTH END OF PROJECT.

NOTES:

1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
2. STATIONING ON DETAIL CORRESPONDS TO PHASE 3 STAGE 1 N.B. CONSTRUCTION.
3. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
4. SEE PHASE 3 M.O.T. TYPICAL SECTION, SHEET 36. SEE SHEETS 40-45 FOR M.O.T. QUANTITIES.
5. ALL TEMPORARY PAVEMENT MARKINGS ON PREVIOUSLY CONSTRUCTED NEW PAVEMENT SHALL BE 740.06, TYPE I ALL EXISTING CONFLICTING MARKINGS SHALL BE REMOVED UNDER ITEM 614 MAINTAINING TRAFFIC.

ADDITIONAL APPLICABLE M.O.T. CONSTRUCTION PHASES – STAGES
PHASE 3 – STAGE 1 N.B.
PHASE 3 – STAGE 2 N.B.

CALCULATED | CHECKED

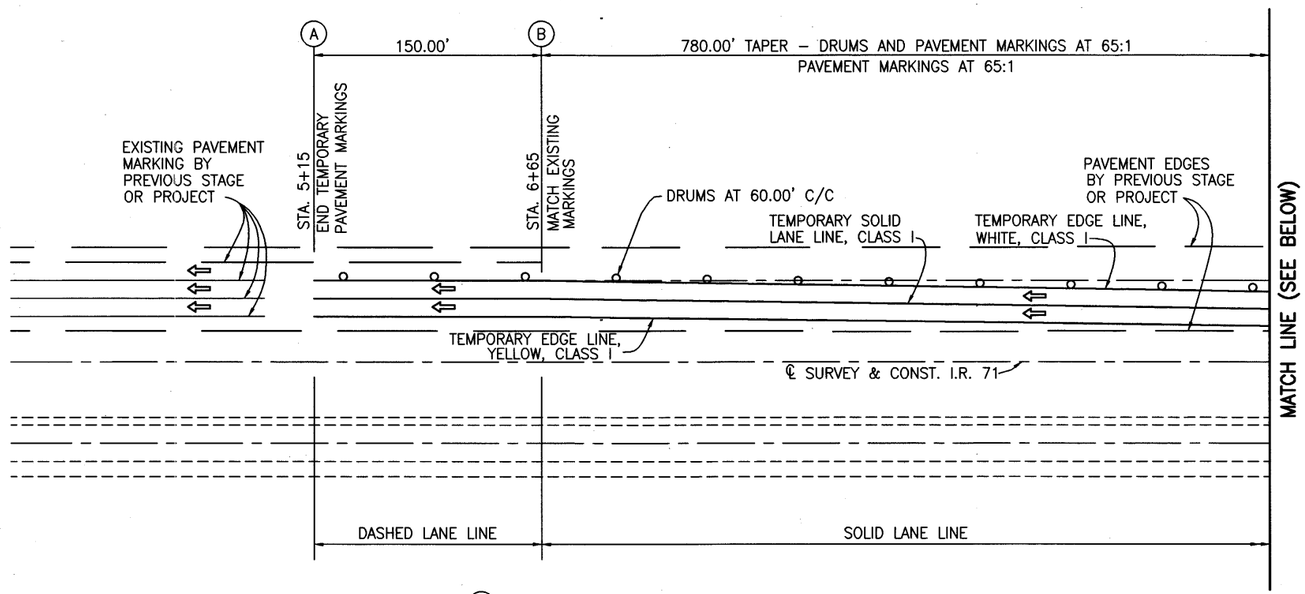
MAINTENANCE OF TRAFFIC – APPROACHING WORK ZONE TRAFFIC FROM PREVIOUS CONSTRUCTION STAGE TO INSIDE SHOULDER

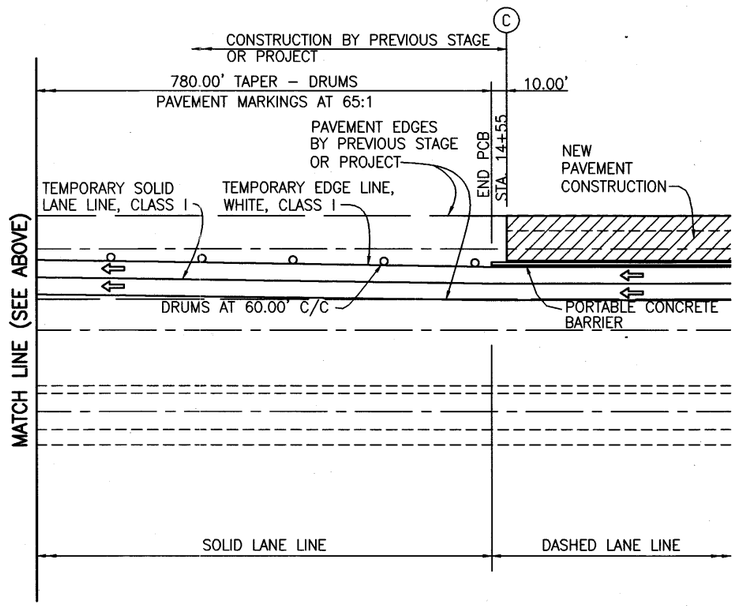
WAY-71-0.28

1 / 1

55 / 432

MTAPC2NC.DWG May 10 ,2001





LEGEND

- NEW PAVEMENT CONSTRUCTION
- ITEM 615 TEMPORARY PAVEMENT, CLASS A
- PAVEMENT PLANING

THIS SAME DETAIL IS ALSO APPLICABLE TO THE FOLLOWING M.O.T. PHASES – STAGES WITH STATIONING AS SHOWN IN THE TABLE.

	REFERENCE STATIONS ON PLAN		
	(A)	(B)	(C)
PHASE 3 – STAGE 2 S.B.	191+50	193+00	200+90

NOTES:

1. DETAILS ARE SHOWN IN DIRECTION THAT TRAFFIC IS TRAVELING. TYPICAL ALL M.O.T. PLAN SHEETS.
2. STATIONING ON DETAIL CORRESPONDS TO PHASE 3 STAGE 1 N.B. CONSTRUCTION.
3. THESE PLAN DETAILS ARE BASED ON STANDARD CONSTRUCTION DRAWING MT-102.10, AND ALL THE REQUIREMENTS OF THIS DRAWING SHALL BE INCORPORATED. AN EXCEPTION TO THE STANDARD DRAWING IS THE 65:1 TAPER RATES.
4. SEE PHASE 3 M.O.T. TYPICAL SECTION, SHEET 36. SEE SHEETS 40–45 FOR M.O.T. QUANTITIES.
5. ALL TEMPORARY PAVEMENT MARKINGS ON PREVIOUSLY CONSTRUCTED NEW PAVEMENT SHALL BE 740.06, TYPE I ALL EXISTING CONFLICTING MARKINGS SHALL BE REMOVED UNDER ITEM 614 MAINTAINING TRAFFIC.

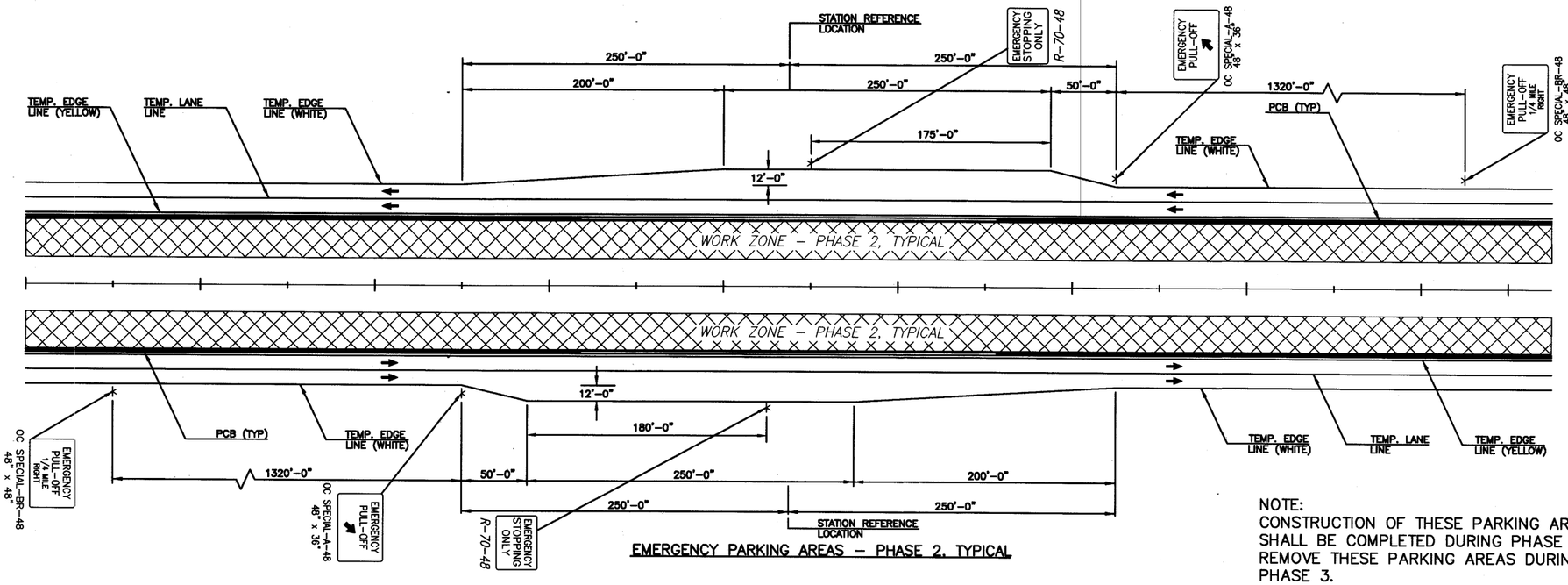
ADDITIONAL APPLICABLE M.O.T. CONSTRUCTION PHASES – STAGES
PHASE 3 – STAGE 1 S.B.
PHASE 3 – STAGE 2 S.B.

CALCULATED | CHECKED

MAINTENANCE OF TRAFFIC – EXITING WORK ZONE TRAFFIC FROM INSIDE SHOULDER TO PREVIOUS CONSTRUCTION STAGE

WAY-71-0.28

MTXNC2PC.DWG May 10 ,2001



EMERGENCY PARKING AREAS - PHASE 2, TYPICAL

NOTE:
CONSTRUCTION OF THESE PARKING AREAS SHALL BE COMPLETED DURING PHASE 1. REMOVE THESE PARKING AREAS DURING PHASE 3.

SEE TYPICAL SECTION SHEET 38 FOR ADDITIONAL DETAILS.

UTILIZE PROPOSED MEDIAN CROSSOVERS DURING PHASE 3 FOR EMERGENCY PARKING AREAS. SEE SHEET 362 FOR MEDIAN CROSSOVER LOCATIONS.

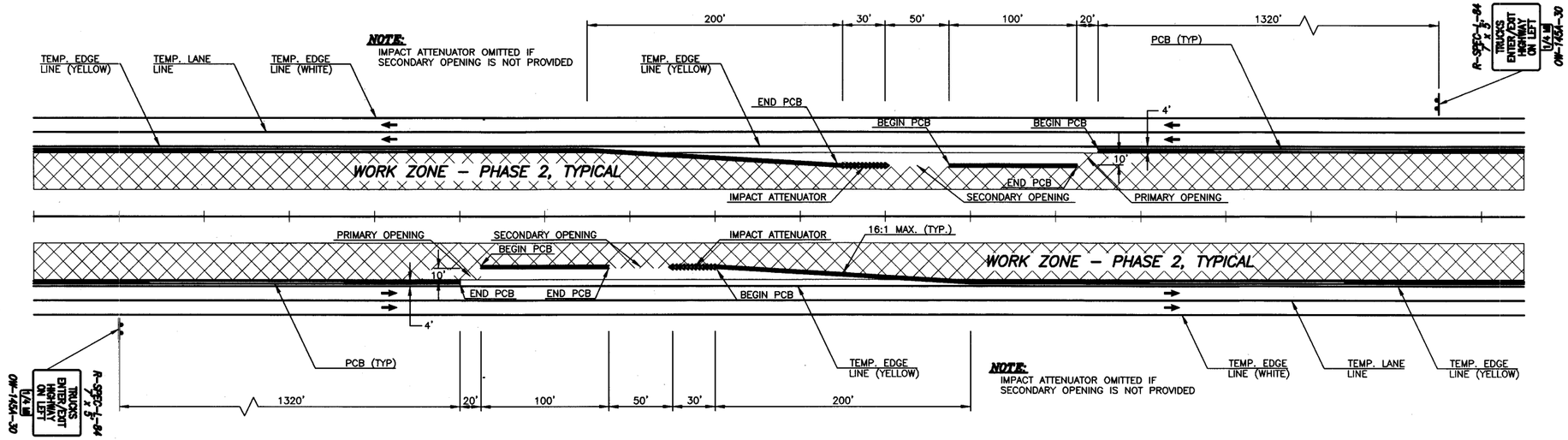
0 12.5 25 50
HORIZONTAL SCALE IN FEET

MAINTENANCE OF TRAFFIC
EMERGENCY PARKING AREAS

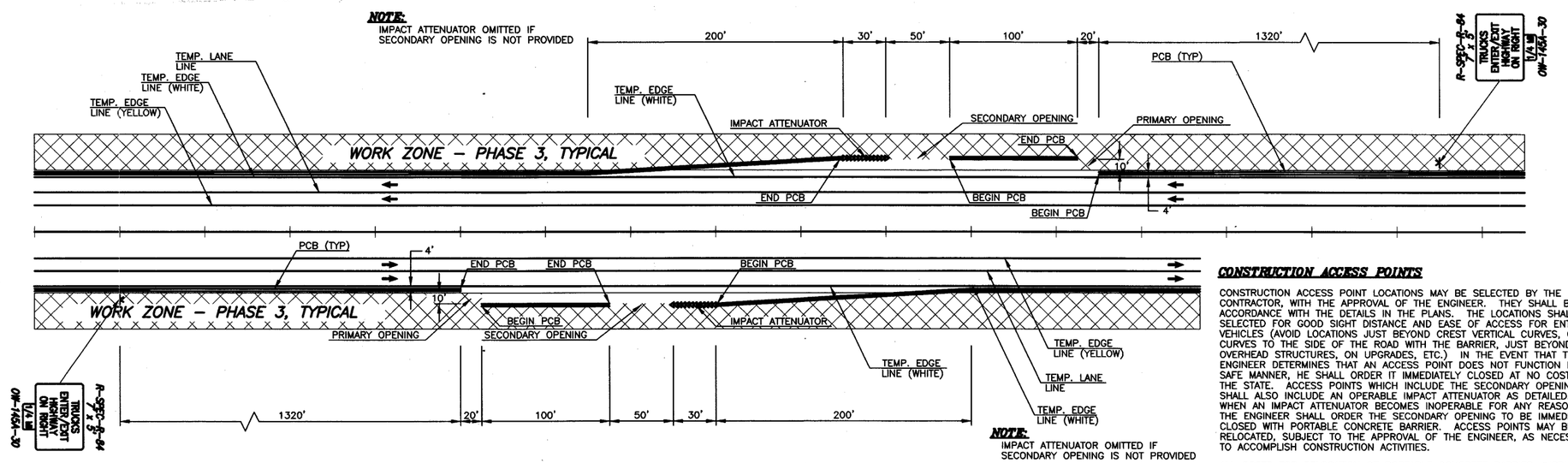
WAY-71-0.28

57
432

MOT-EMRG.DWG May 10, 2001



CONSTRUCTION ACCESS POINTS – PHASE 2, TYPICAL



CONSTRUCTION ACCESS POINTS – PHASE 3, TYPICAL

CONSTRUCTION ACCESS POINTS

CONSTRUCTION ACCESS POINT LOCATIONS MAY BE SELECTED BY THE CONTRACTOR, WITH THE APPROVAL OF THE ENGINEER. THEY SHALL BE IN ACCORDANCE WITH THE DETAILS IN THE PLANS. THE LOCATIONS SHALL BE SELECTED FOR GOOD SIGHT DISTANCE AND EASE OF ACCESS FOR ENTERING VEHICLES (AVOID LOCATIONS JUST BEYOND CREST VERTICAL CURVES, ON CURVES TO THE SIDE OF THE ROAD WITH THE BARRIER, JUST BEYOND OVERHEAD STRUCTURES, ON UPGRADES, ETC.) IN THE EVENT THAT THE ENGINEER DETERMINES THAT AN ACCESS POINT DOES NOT FUNCTION IN A SAFE MANNER, HE SHALL ORDER IT IMMEDIATELY CLOSED AT NO COST TO THE STATE. ACCESS POINTS WHICH INCLUDE THE SECONDARY OPENING SHALL ALSO INCLUDE AN OPERABLE IMPACT ATTENUATOR AS DETAILED. WHEN AN IMPACT ATTENUATOR BECOMES INOPERABLE FOR ANY REASON, THE ENGINEER SHALL ORDER THE SECONDARY OPENING TO BE IMMEDIATELY CLOSED WITH PORTABLE CONCRETE BARRIER. ACCESS POINTS MAY BE RELOCATED, SUBJECT TO THE APPROVAL OF THE ENGINEER, AS NECESSARY TO ACCOMPLISH CONSTRUCTION ACTIVITIES.

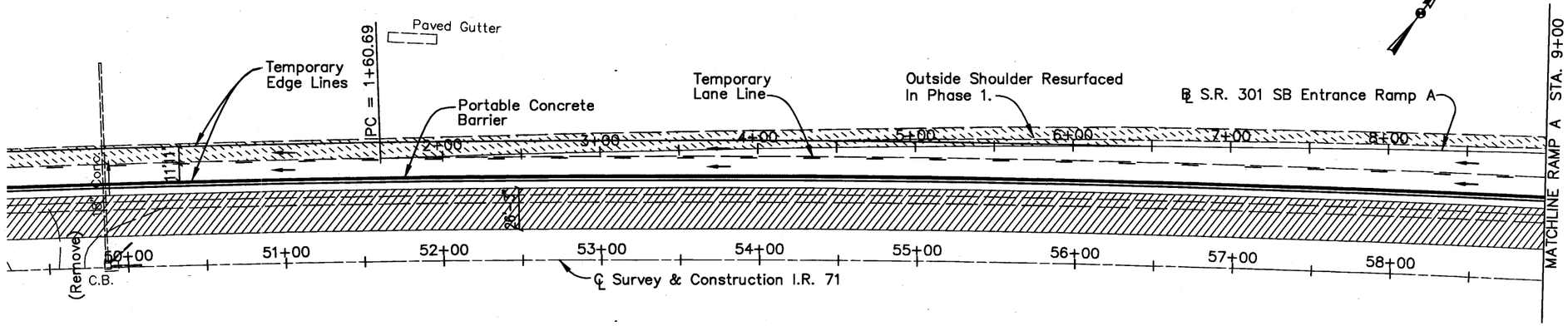
ALL COSTS FOR RELOCATION OF PORTABLE CONCRETE BARRIER, INSTALLATION, REPAIR, REPLACEMENT, AND REMOVAL OF IMPACT ATTENUATORS, GRADING FOR ACCESS DRIVES AND RELATED COSTS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC.

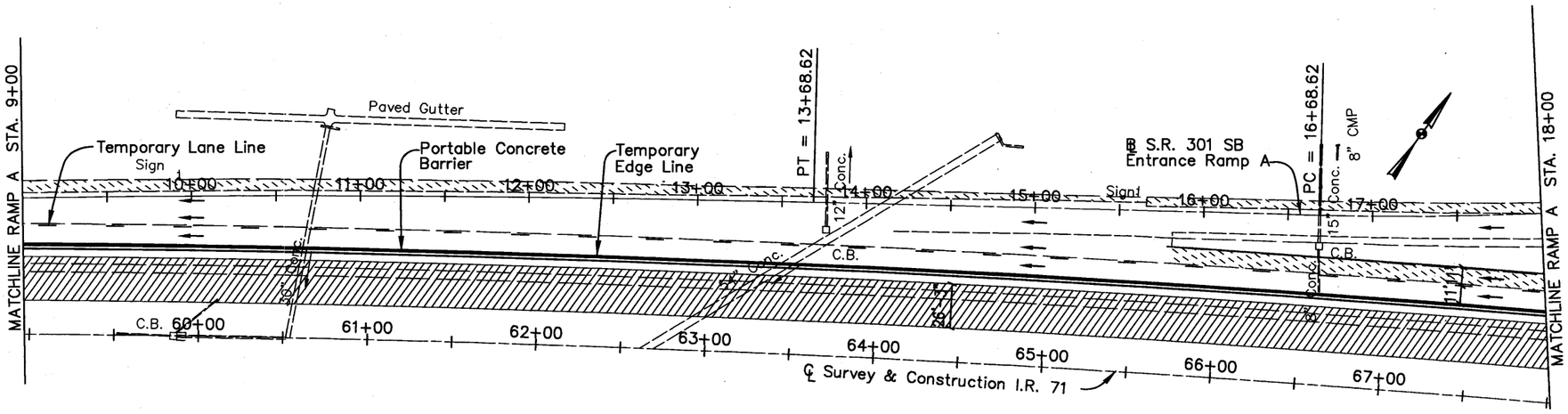
0 12.5 25 50 HORIZONTAL SCALE IN FEET

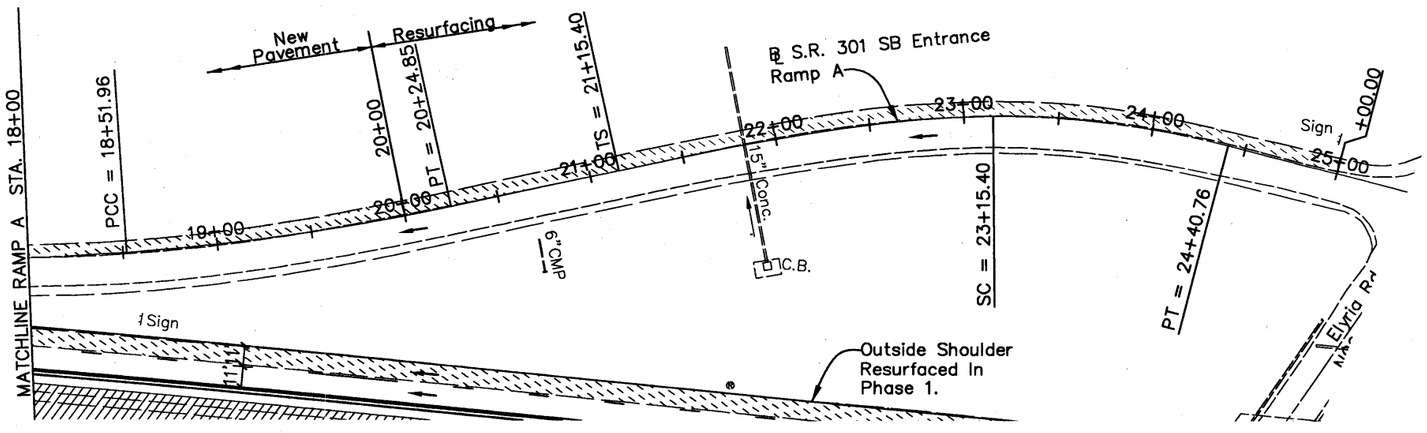
MAINTENANCE OF TRAFFIC
CONSTRUCTION ACCESS POINTS, TYPICAL

WAY-71-0.28

MOT-ACCESS.DWG May 10 ,2001







LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

Scale In Feet: 0 40 80

CALCULATED

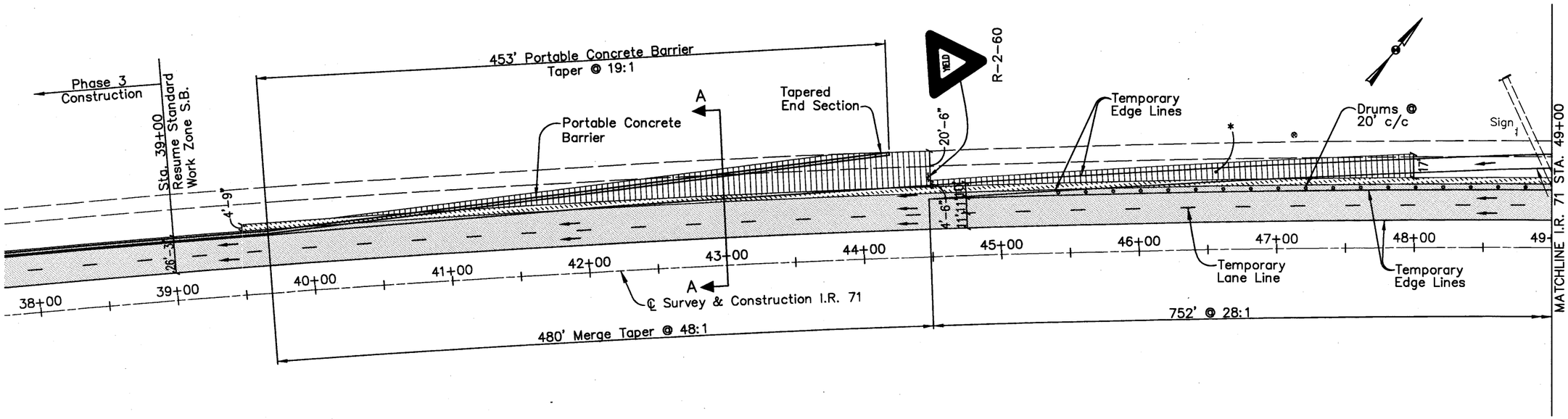
CHECKED

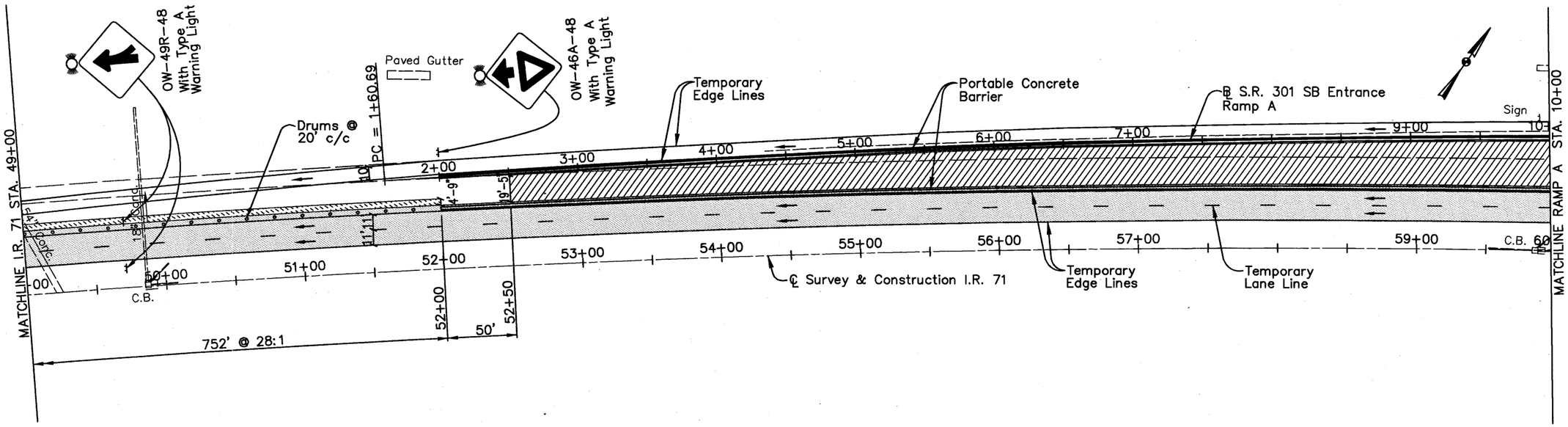
MAINTENANCE OF TRAFFIC DETAIL RAMP A PHASE 2

WAY-71-0.28

59
432

Mot-ra2.dwg May 10 2001





* Bituminous Concrete for Maintaining Traffic and Pavement Planing shall be completed after mainline traffic is in Phase 3 MOT lanes and prior to shifting ramp traffic to this Phase 3A MOT.

LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

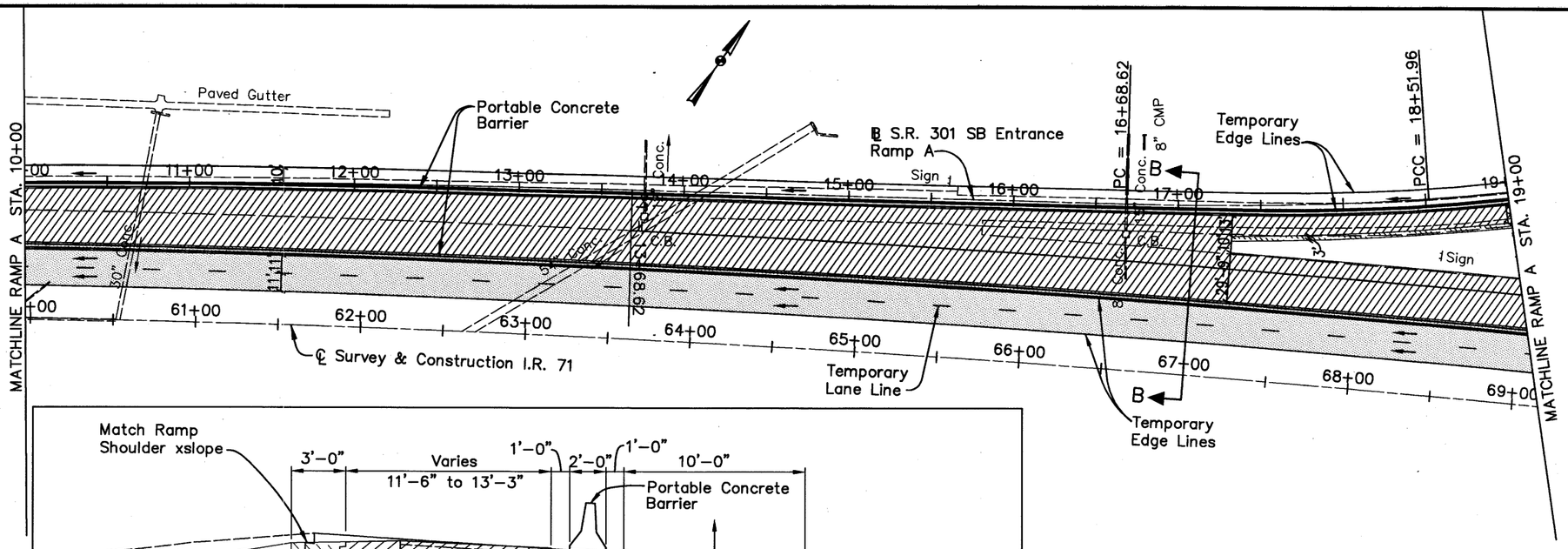
Mot-ra3a.dwg May 10, 2001

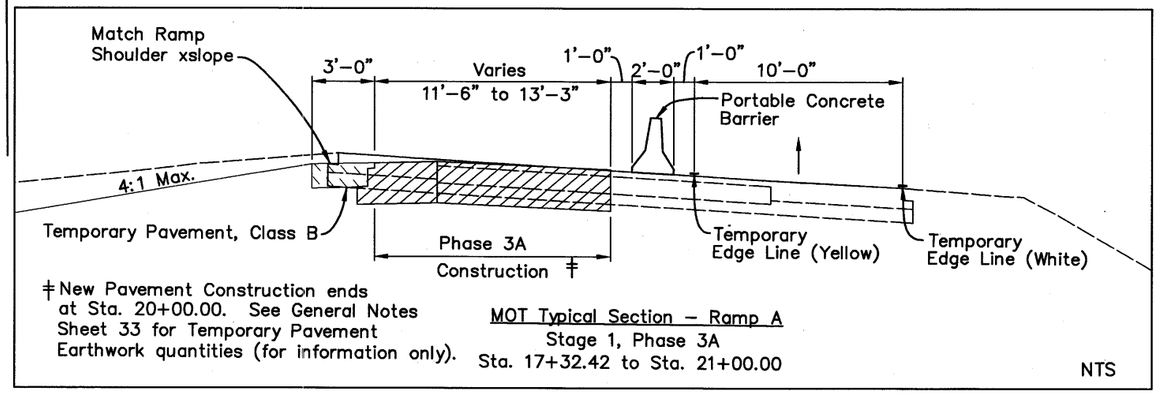
0 40 80 Scale In Feet

CALCULATED CHECKED

MAINTENANCE OF TRAFFIC DETAIL RAMP A PHASE 3A

WAY-71-0.28

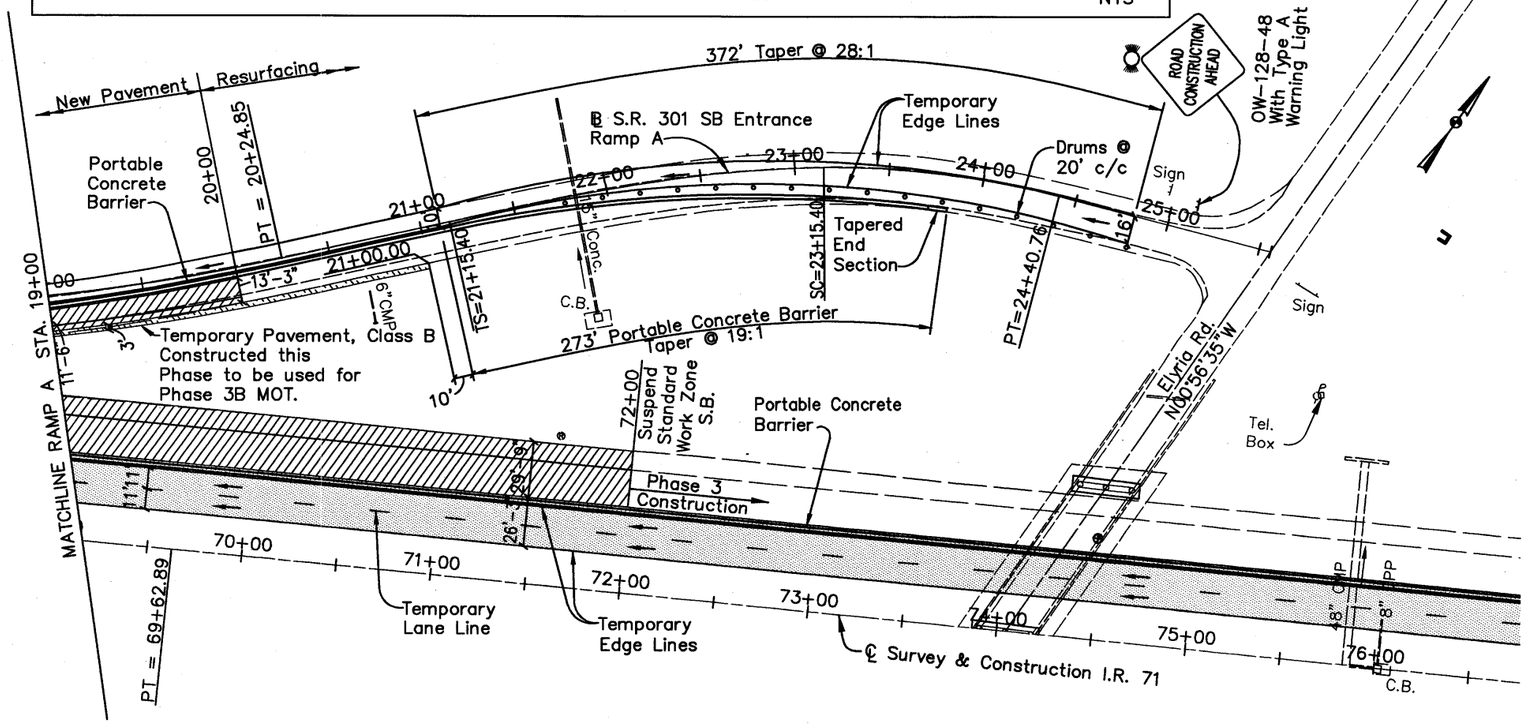




‡ New Pavement Construction ends at Sta. 20+00.00. See General Notes Sheet 33 for Temporary Pavement Earthwork quantities (for information only).

MOT Typical Section – Ramp A
Stage 1, Phase 3A
Sta. 17+32.42 to Sta. 21+00.00

NTS



Note: The existing R-2 yield sign shall be removed and stored until ramp construction is completed. It shall then be re-erected at its original location on new supports. All costs associated to be included in Item 614 Maintaining Traffic and all provisions of Item 630 shall apply. See MT-98.16M for additional details.

LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

0 40 80 Scale In Feet

CALCULATED | CHECKED

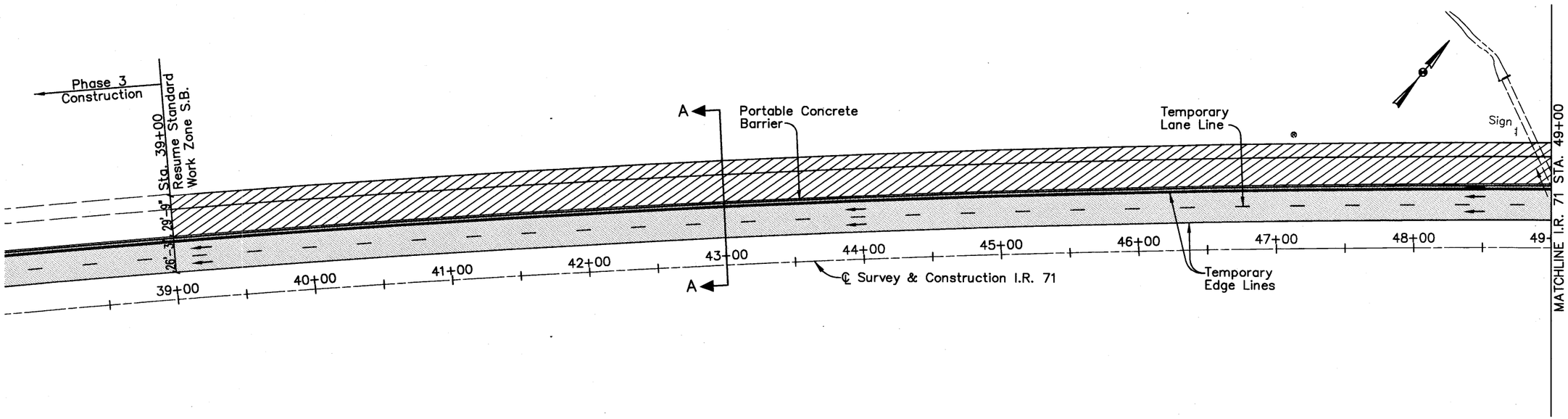
MAINTENANCE OF TRAFFIC DETAIL RAMP A PHASE 3A

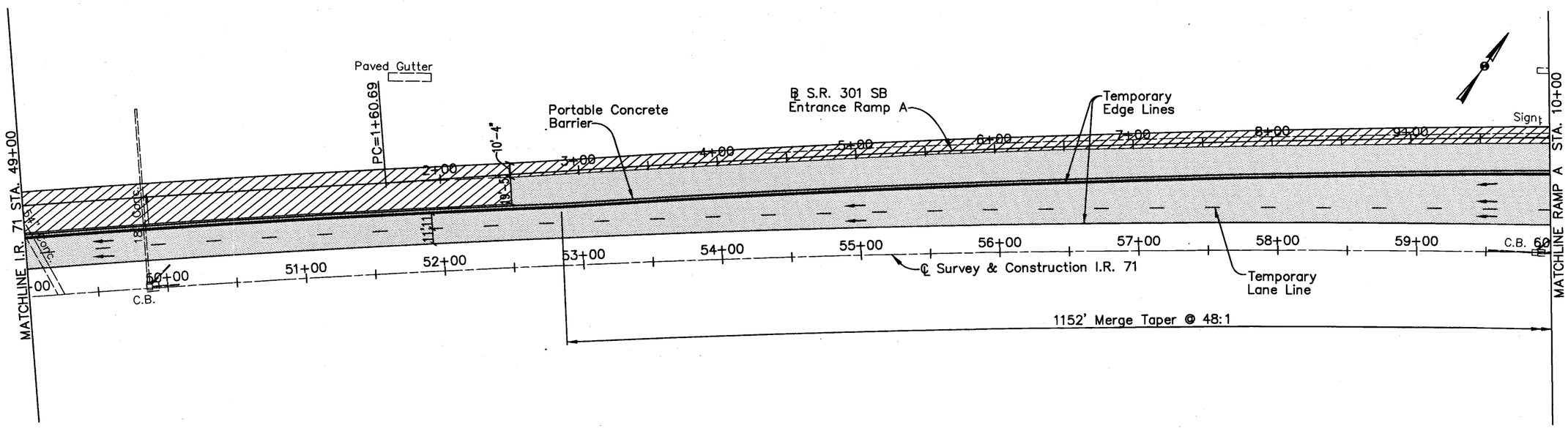
WAY-71-0.28

61
432

Mot-ra3a.dwg May 10, 2001

MAINTENANCE OF TRAFFIC DETAIL RAMP A PHASE 3B





LEGEND

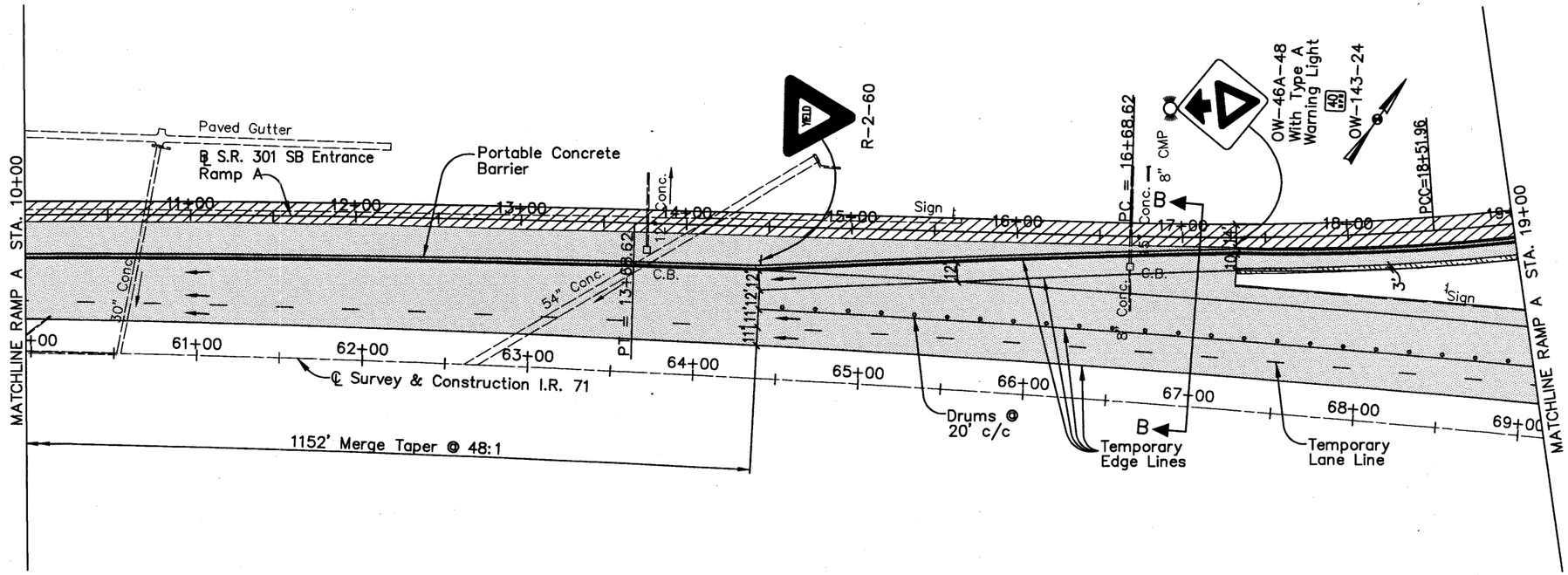
- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

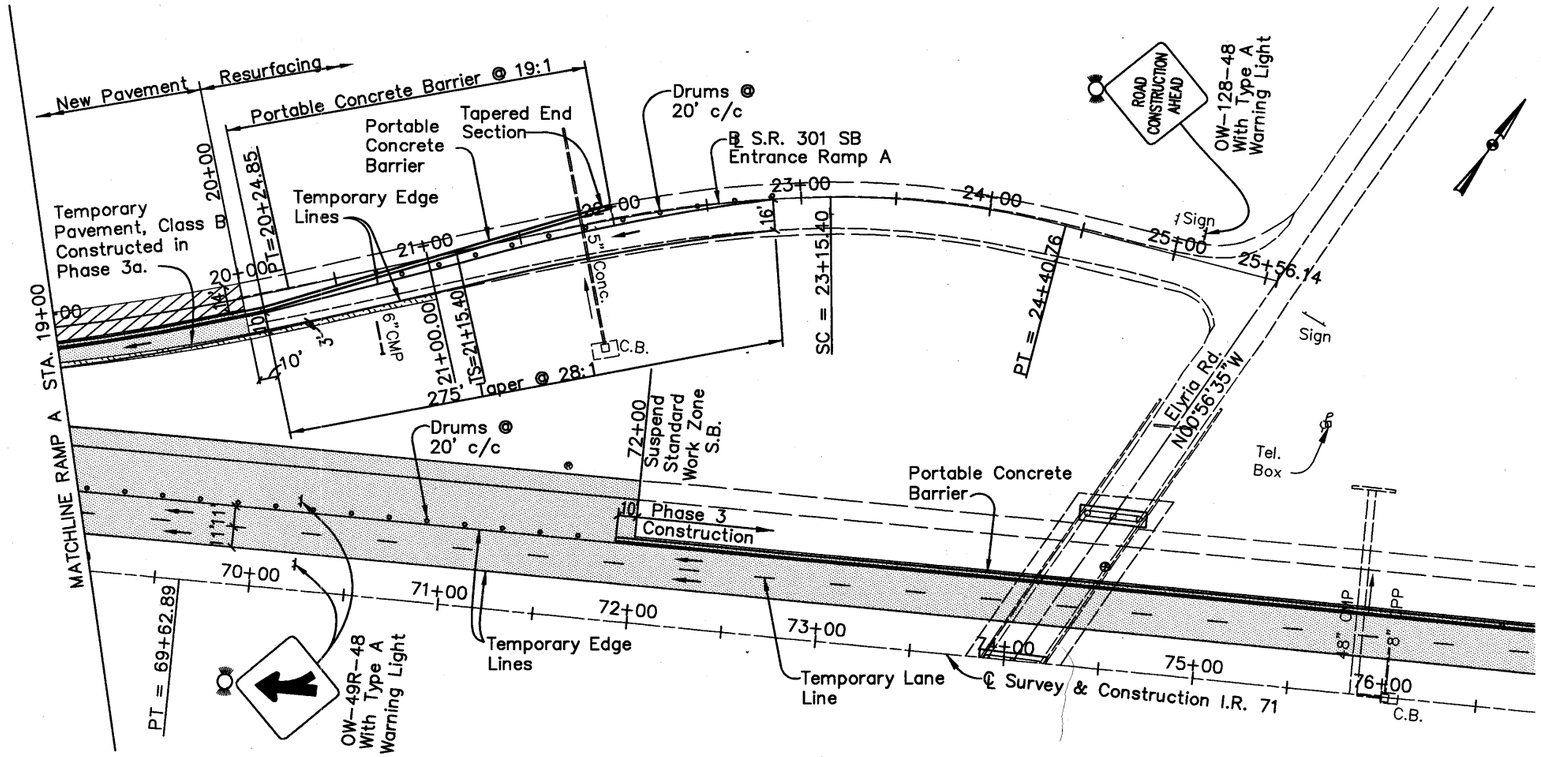
0 40 80 Scale In Feet

CALCULATED | CHECKED

WAY-71-0.28

Mot-ra3b.dwg May 10 ,2001





LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

Scale In Feet: 0 40 80

CALCULATED

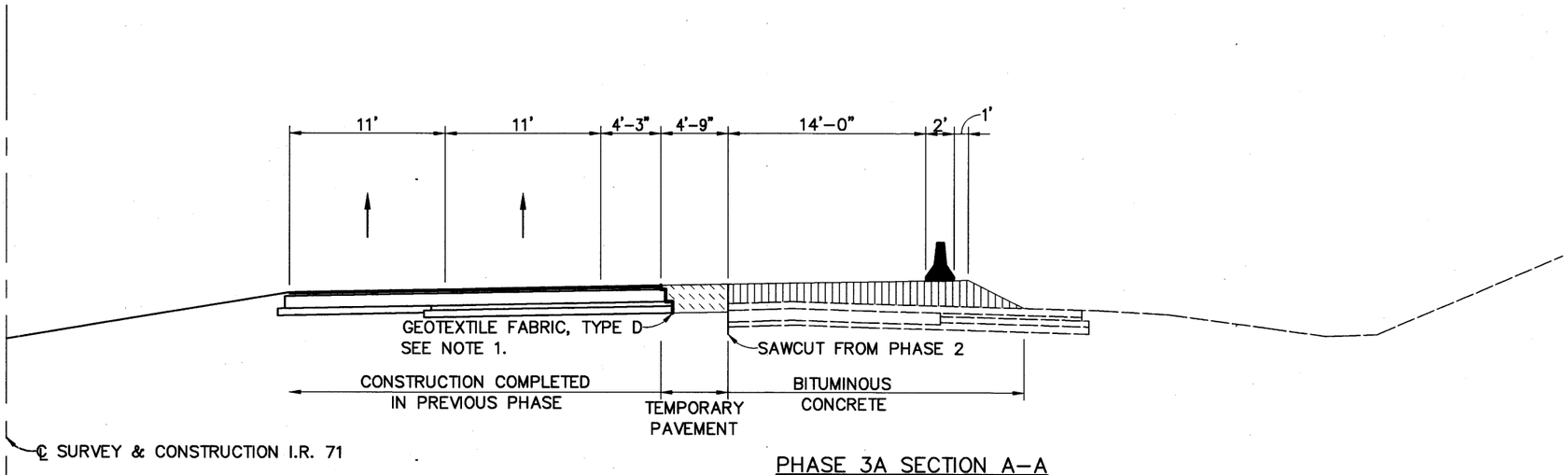
CHECKED

MAINTENANCE OF TRAFFIC DETAIL RAMP A
PHASE 3B

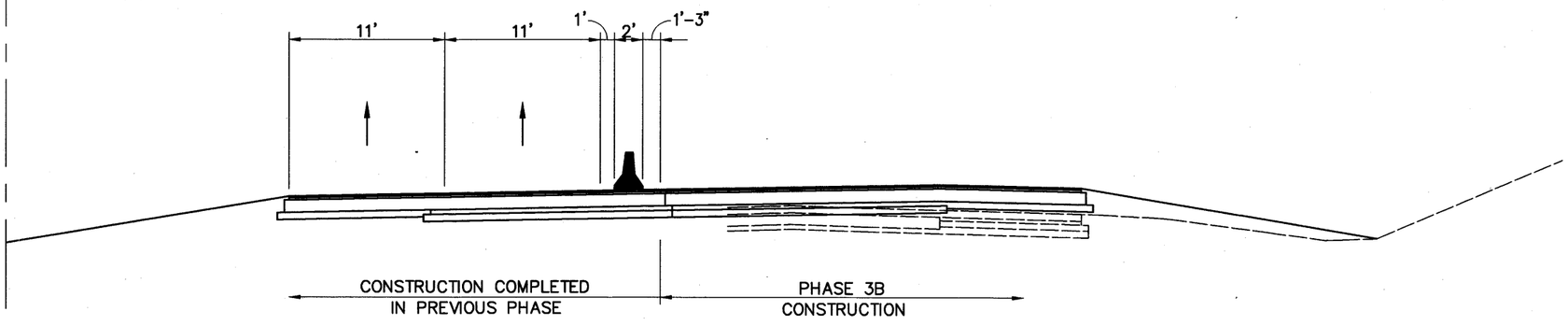
WAY-71-0.28

63
432

Mot-ra3b.dwg May 10, 2001



PHASE 3A SECTION A–A



PHASE 3B SECTION A–A

NOTES:

1. GEOTEXTILE FABRIC, TYPE D SHALL BE PLACED OVER THE EDGES OF ANY NEWLY CONSTRUCTED PAVEMENT FOR WHICH THE ASPHALT TREATED FREE DRAINING BASE WOULD BE EXPOSED OR IS IN CONTACT WITH TEMPORARY PAVEMENT. THE GEOTEXTILE FABRIC SHALL BE PLACED CONTINUOUSLY ALONG THE NEW PAVEMENT TO SERVE AS AN ISOLATION BARRIER TO PROTECT THE PAVEMENT BUILDUP EDGES. WHEN CONSTRUCTION CONTINUES IN ADJOINING PHASES, THE GEOTEXTILE FABRIC SHALL BE REMOVED. THE COST OF THE GEOTEXTILE FABRIC SHALL BE INCLUDED FOR PAYMENT IN ITEM 614–MAINTAINING TRAFFIC.

2. CROSS SECTIONS SHOWN IN DIRECTION OF TRAFFIC

LEGEND

- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

MOT–RAMP–XSEC.dwg May 10 ,2001

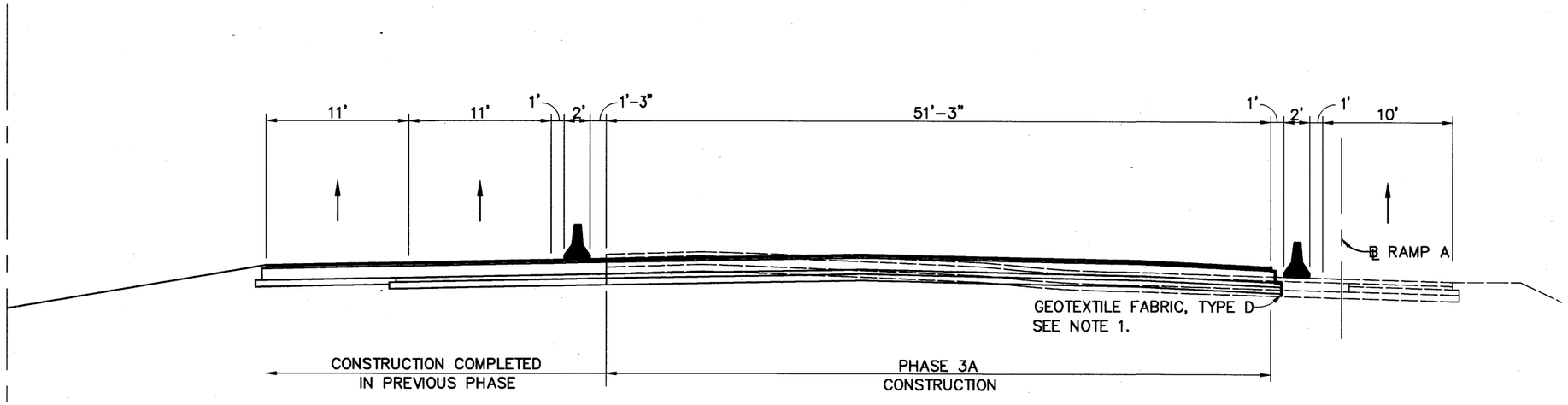
Scale In Feet 0 5 10

CALCULATED | CHECKED

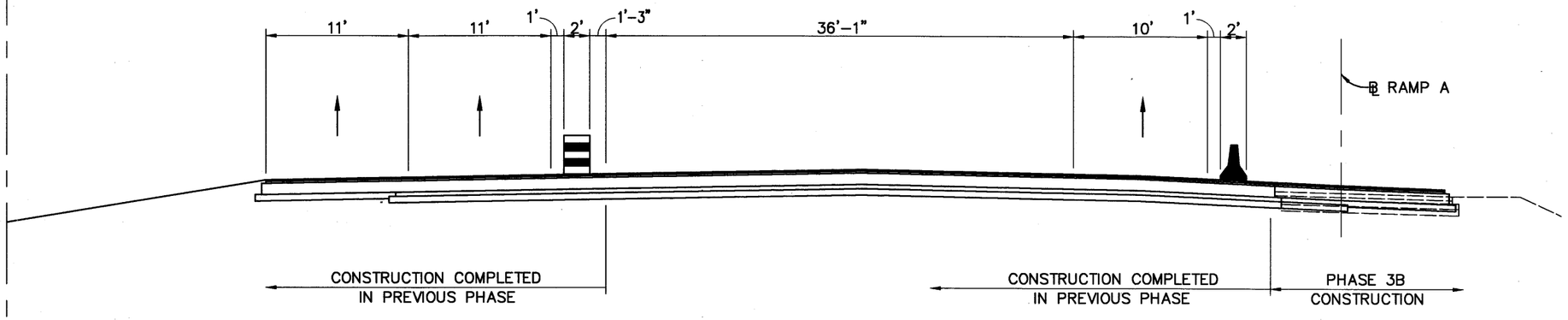
MAINTENANCE OF TRAFFIC
RAMP A – SECTION A–A

WAY–71–0.28

64
432



PHASE 3A SECTION B–B



PHASE 3B SECTION B–B

NOTES:

1. GEOTEXTILE FABRIC, TYPE D SHALL BE PLACED OVER THE EDGES OF ANY NEWLY CONSTRUCTED PAVEMENT FOR WHICH THE ASPHALT TREATED FREE DRAINING BASE WOULD BE EXPOSED OR IS IN CONTACT WITH TEMPORARY PAVEMENT. THE GEOTEXTILE FABRIC SHALL BE PLACED CONTINUOUSLY ALONG THE NEW PAVEMENT TO SERVE AS AN ISOLATION BARRIER TO PROTECT THE PAVEMENT BUILDUP EDGES. WHEN CONSTRUCTION CONTINUES IN ADJOINING PHASES, THE GEOTEXTILE FABRIC SHALL BE REMOVED. THE COST OF THE GEOTEXTILE FABRIC SHALL BE INCLUDED FOR PAYMENT IN ITEM 614–MAINTAINING TRAFFIC.

2. CROSS SECTIONS SHOWN IN DIRECTION OF TRAFFIC

LEGEND

- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

0 5 10 Scale In Feet

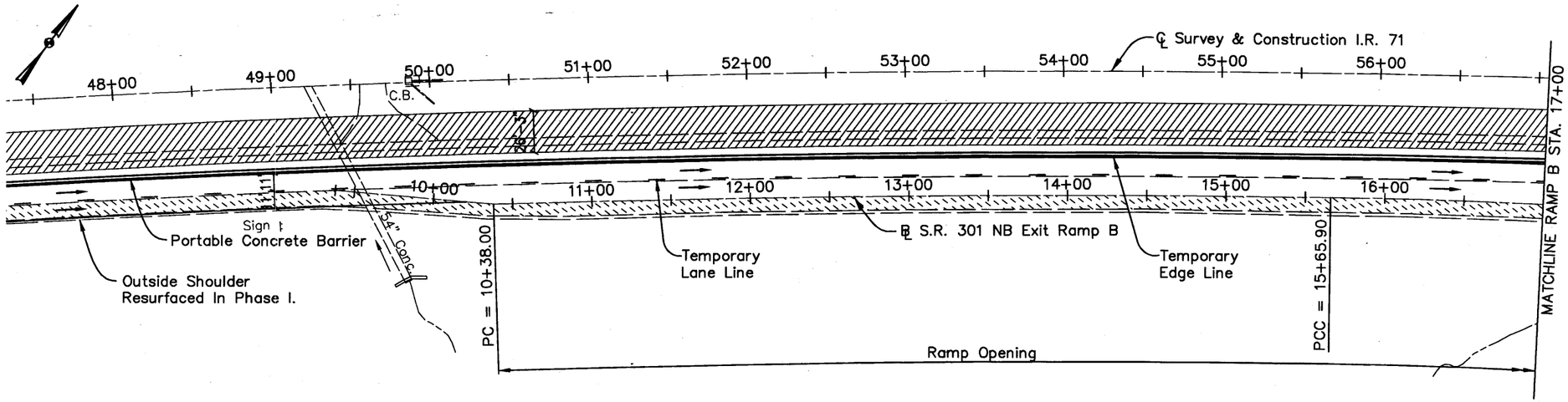
CALCULATED | CHECKED

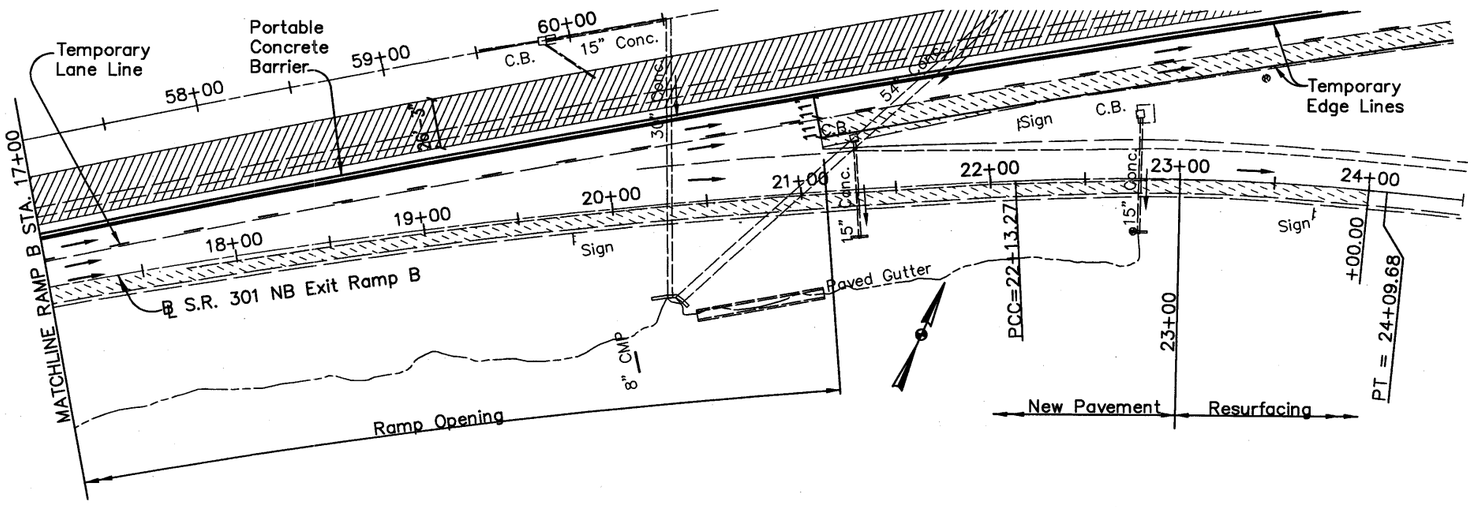
MAINTENANCE OF TRAFFIC
RAMP A – SECTION B–B

WAY–71–0.28

65
432

MOT–RAMP–XSEC.dwg May 10 ,2001





LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

Mot-fb2.dwg May 10 ,2001

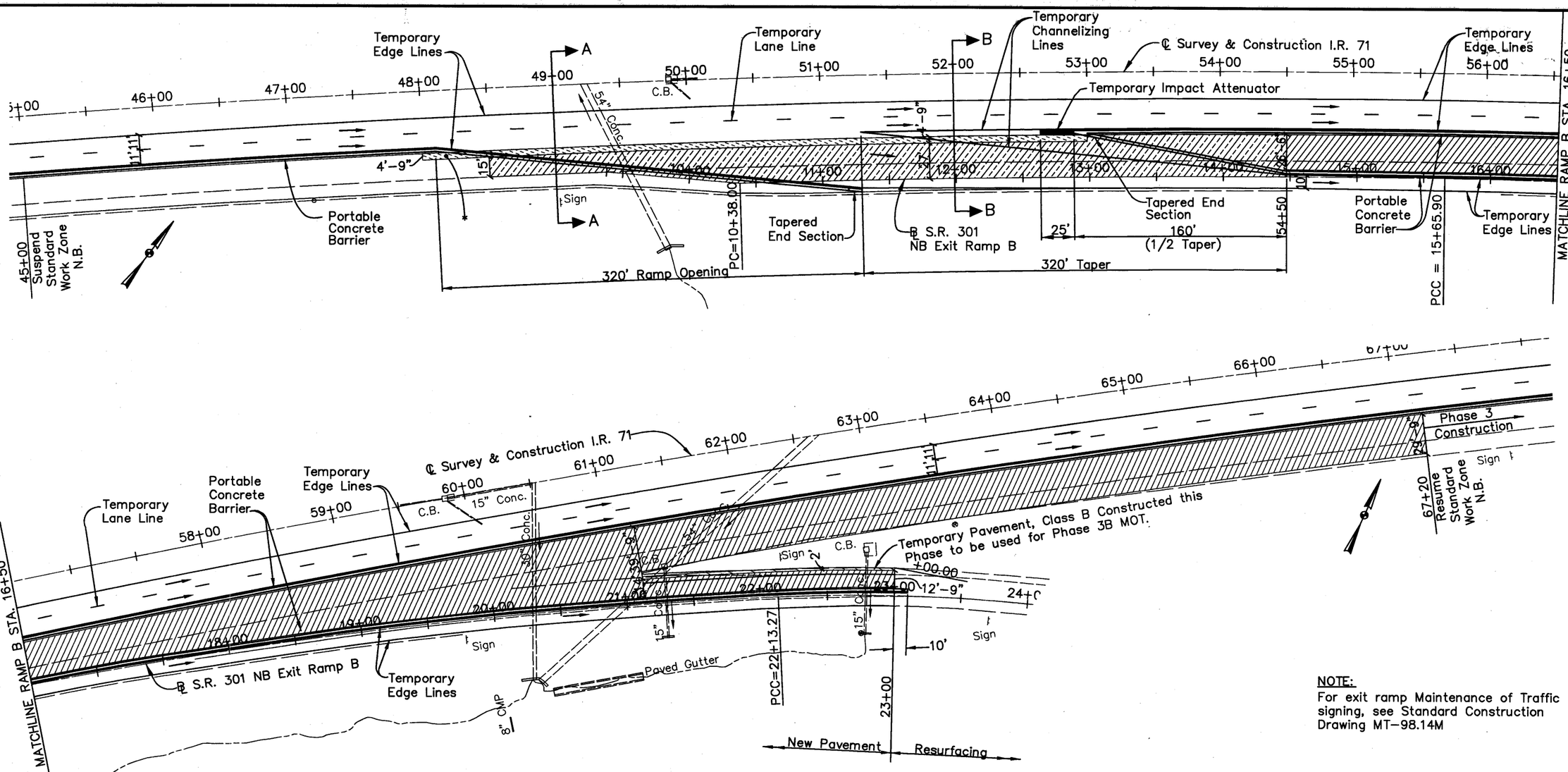
Scale In Feet 0 40 80

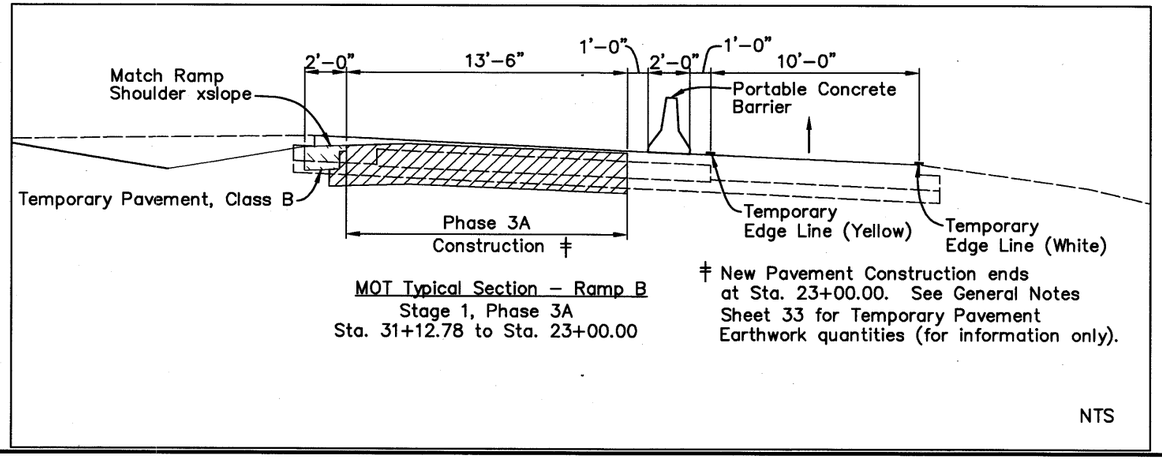
CALCULATED

CHECKED

MAINTENANCE OF TRAFFIC DETAIL RAMP B PHASE 2

WAY-71-0.28





MOT Typical Section – Ramp B
Stage 1, Phase 3A
Sta. 31+12.78 to Sta. 23+00.00

‡ New Pavement Construction ends at Sta. 23+00.00. See General Notes Sheet 33 for Temporary Pavement Earthwork quantities (for information only).

NTS

NOTE:
For exit ramp Maintenance of Traffic signing, see Standard Construction Drawing MT-98.14M

* Bituminous Concrete for Maintaining Traffic and Pavement Planing shall be completed after mainline traffic is in Phase 3 MOT lanes and prior to shifting ramp traffic to this Phase 3A MOT.

LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

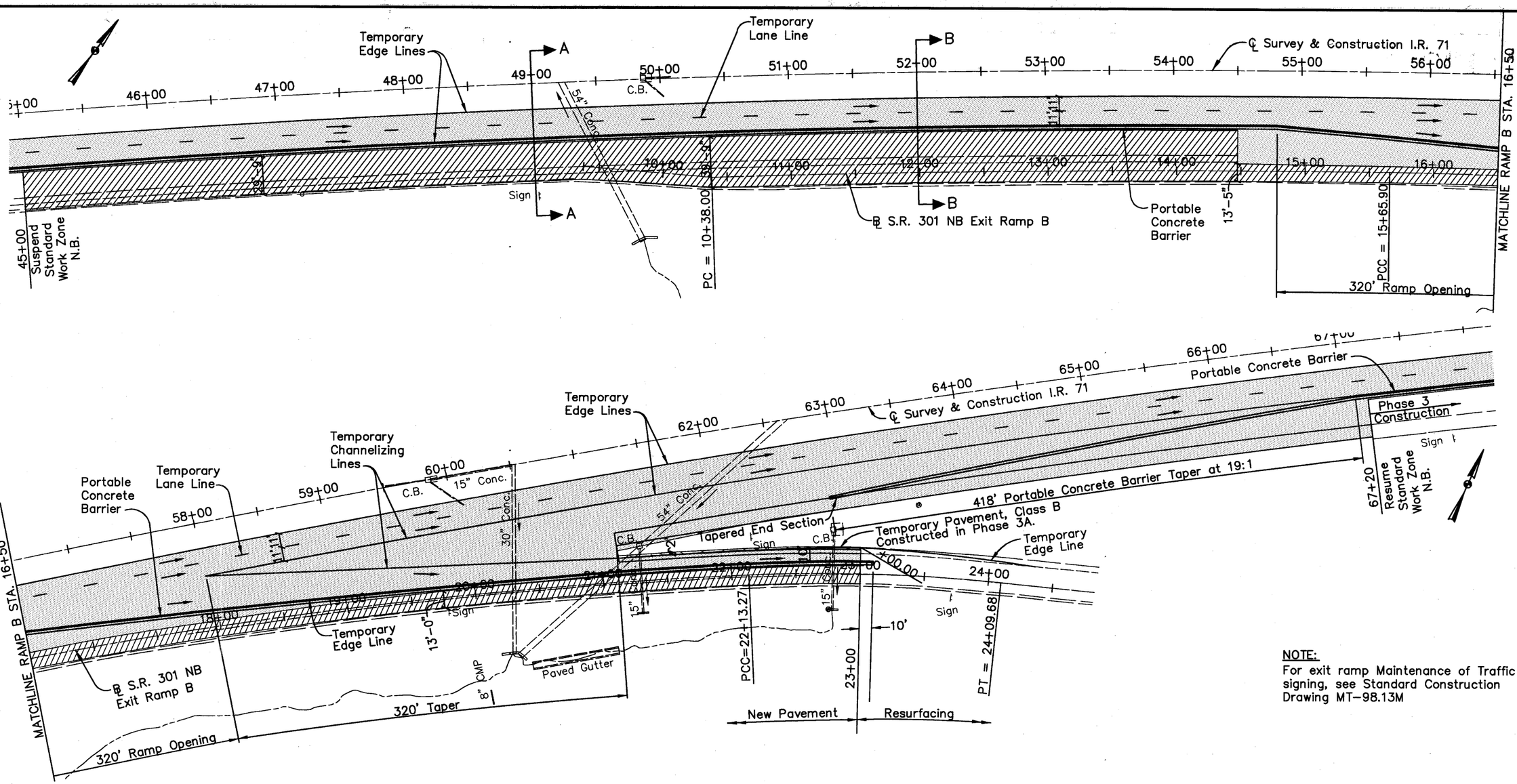
0 40 80 Scale In Feet

CALCULATED CHECKED

MAINTENANCE OF TRAFFIC DETAIL RAMP B PHASE 3A

WAY-71-0.28

Mot-rb3a.dwg May 10 ,2001



NOTE:
For exit ramp Maintenance of Traffic signing, see Standard Construction Drawing MT-98.13M

LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

Scale In Feet 0 40 80

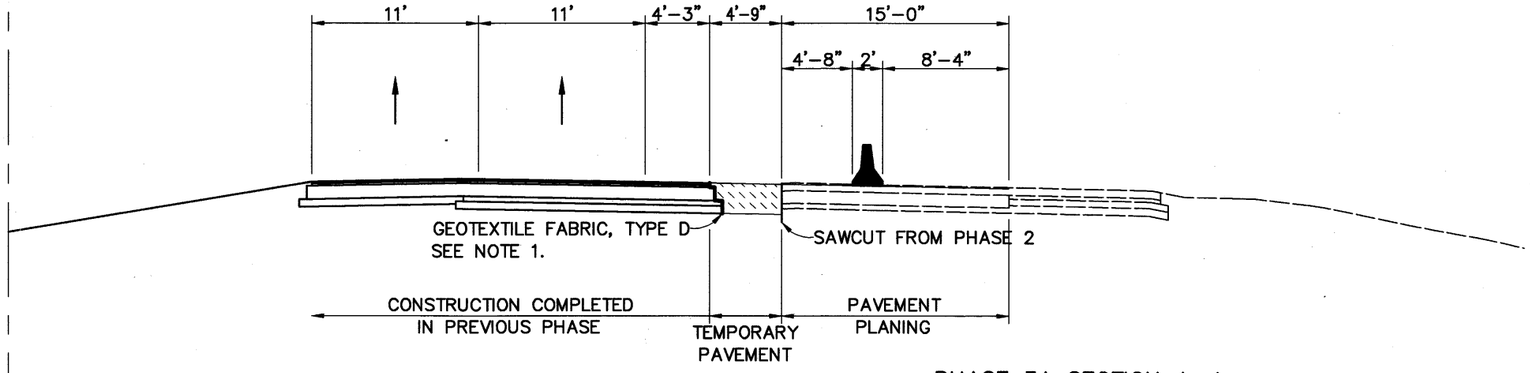
CALCULATED CHECKED

MAINTENANCE OF TRAFFIC DETAIL RAMP B PHASE 3B

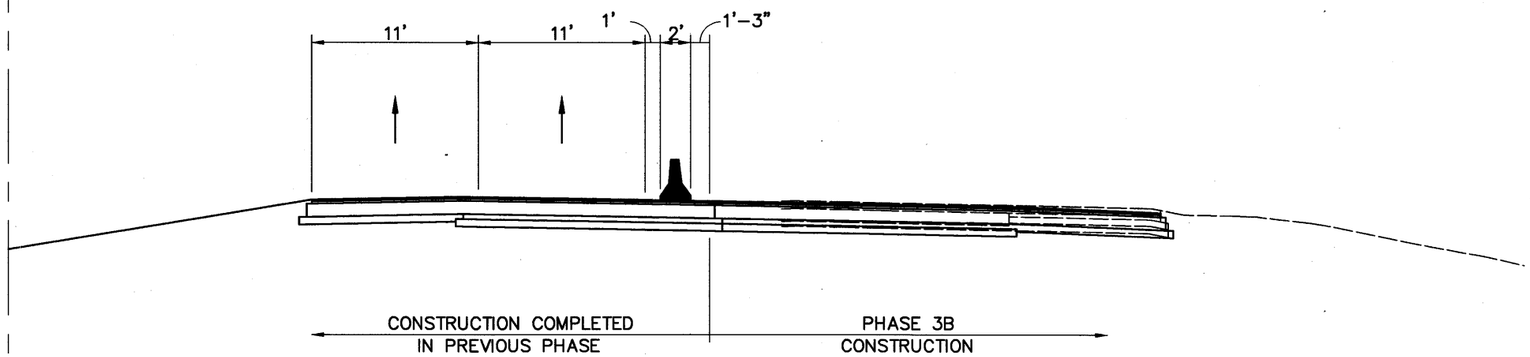
WAY-71-0.28

68
432

Mot-rb3b.dwg May 10 ,2001



PHASE 3A SECTION A–A



PHASE 3B SECTION A–A

NOTES:

1. GEOTEXTILE FABRIC, TYPE D SHALL BE PLACED OVER THE EDGES OF ANY NEWLY CONSTRUCTED PAVEMENT FOR WHICH THE ASPHALT TREATED FREE DRAINING BASE WOULD BE EXPOSED OR IS IN CONTACT WITH TEMPORARY PAVEMENT. THE GEOTEXTILE FABRIC SHALL BE PLACED CONTINUOUSLY ALONG THE NEW PAVEMENT TO SERVE AS AN ISOLATION BARRIER TO PROTECT THE PAVEMENT BUILDUP EDGES. WHEN CONSTRUCTION CONTINUES IN ADJOINING PHASES, THE GEOTEXTILE FABRIC SHALL BE REMOVED. THE COST OF THE GEOTEXTILE FABRIC SHALL BE INCLUDED FOR PAYMENT IN ITEM 614–MAINTAINING TRAFFIC.

2. CROSS SECTIONS SHOWN IN DIRECTION OF TRAFFIC

LEGEND

- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

0 5 10 Scale In Feet

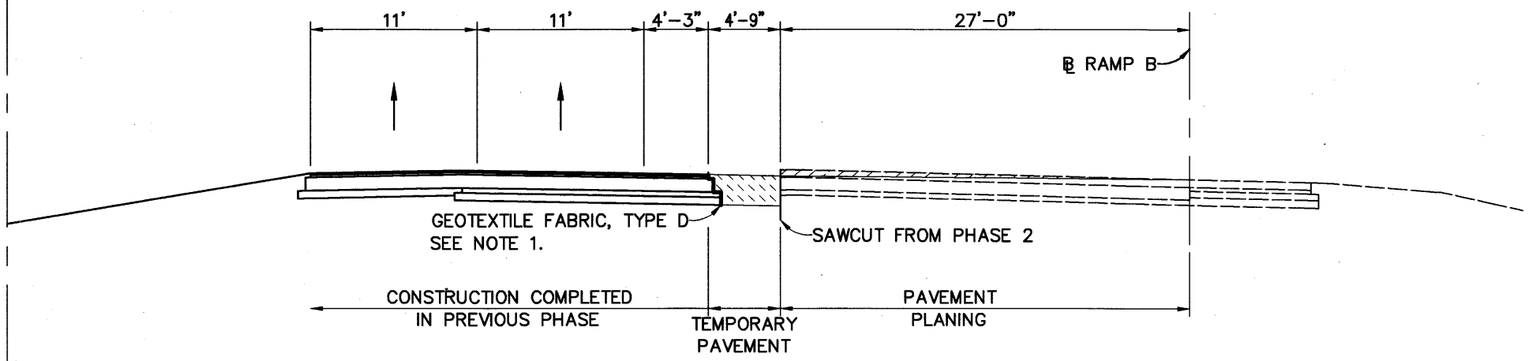
CALCULATED | CHECKED

MAINTENANCE OF TRAFFIC
RAMP B – SECTION A–A

WAY–71–0.28

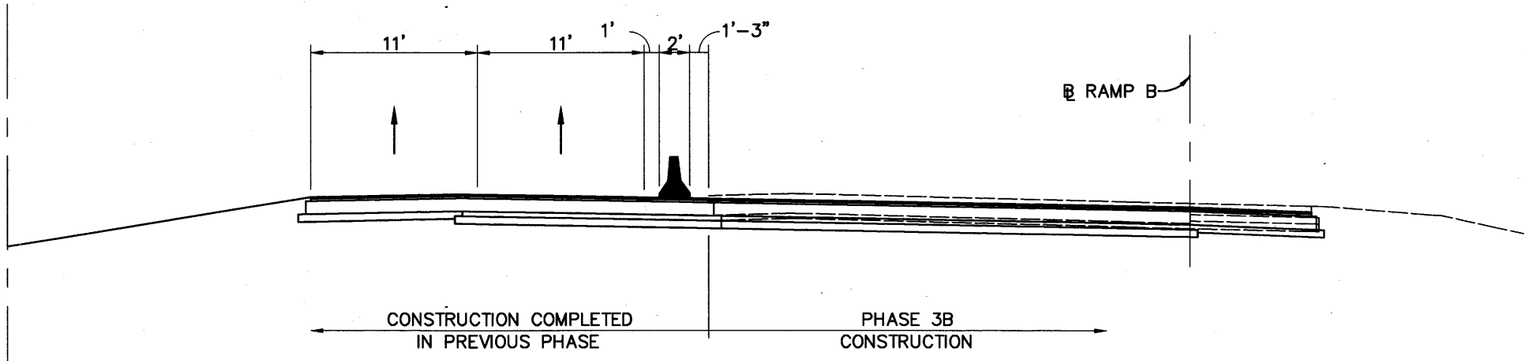
69
432

MOT–RAMP–XSEC.dwg May 10 ,2001



PHASE 3A SECTION B–B

℄ SURVEY & CONSTRUCTION I.R. 71



PHASE 3B SECTION B–B

NOTES:

1. GEOTEXTILE FABRIC, TYPE D SHALL BE PLACED OVER THE EDGES OF ANY NEWLY CONSTRUCTED PAVEMENT FOR WHICH THE ASPHALT TREATED FREE DRAINING BASE WOULD BE EXPOSED OR IS IN CONTACT WITH TEMPORARY PAVEMENT. THE GEOTEXTILE FABRIC SHALL BE PLACED CONTINUOUSLY ALONG THE NEW PAVEMENT TO SERVE AS AN ISOLATION BARRIER TO PROTECT THE PAVEMENT BUILDUP EDGES. WHEN CONSTRUCTION CONTINUES IN ADJOINING PHASES, THE GEOTEXTILE FABRIC SHALL BE REMOVED. THE COST OF THE GEOTEXTILE FABRIC SHALL BE INCLUDED FOR PAYMENT IN ITEM 614–MAINTAINING TRAFFIC.

2. CROSS SECTIONS SHOWN IN DIRECTION OF TRAFFIC

LEGEND

- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

MOT-RAMP-XSEC.dwg May 10 ,2001

Scale In Feet 0 5 10

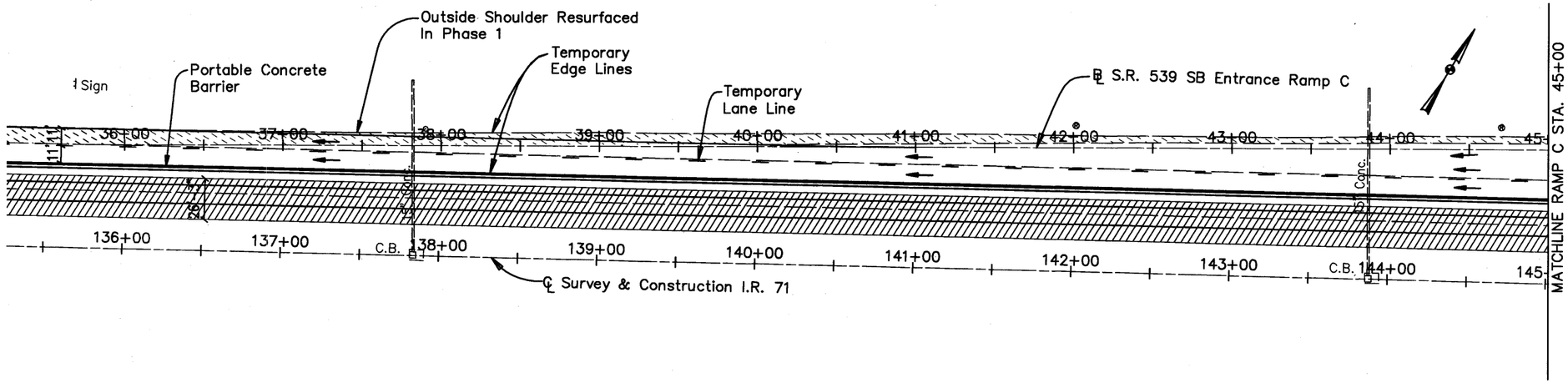
CALCULATED

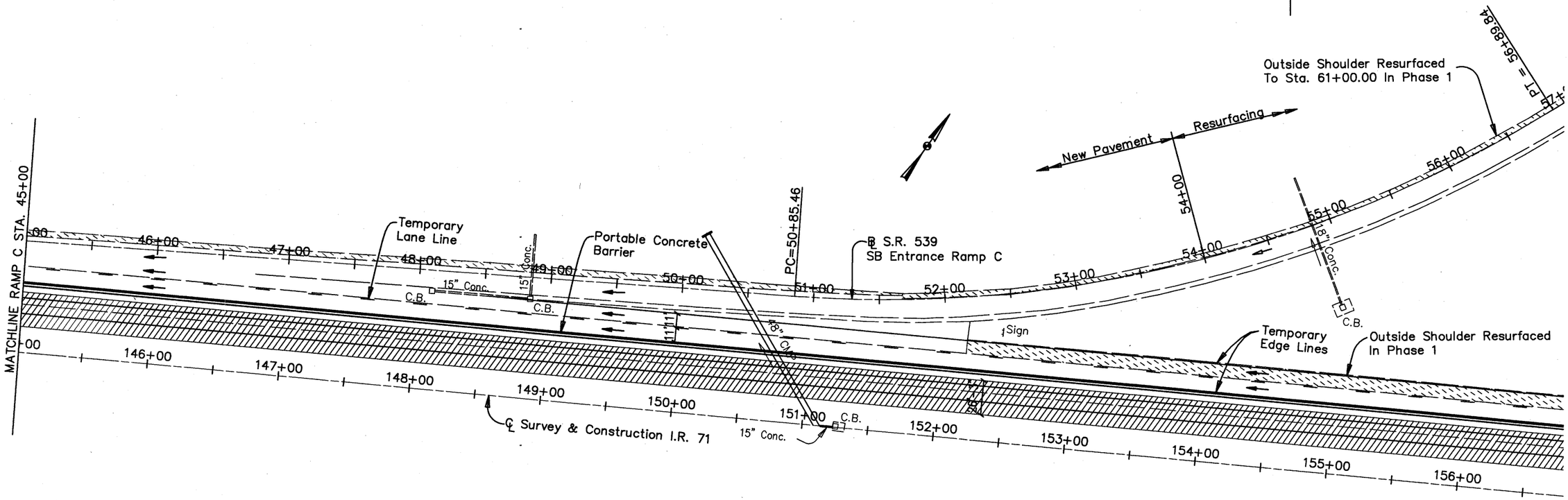
CHECKED

MAINTENANCE OF TRAFFIC
RAMP B – SECTION B–B

WAY–71–0.28

70
432





LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

Scale In Feet: 0 40 80

CALCULATED

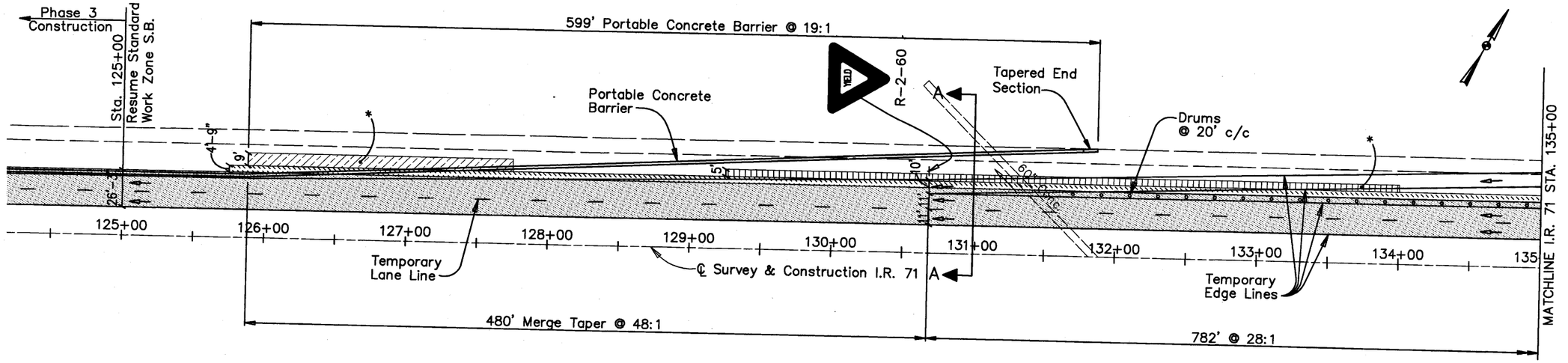
CHECKED

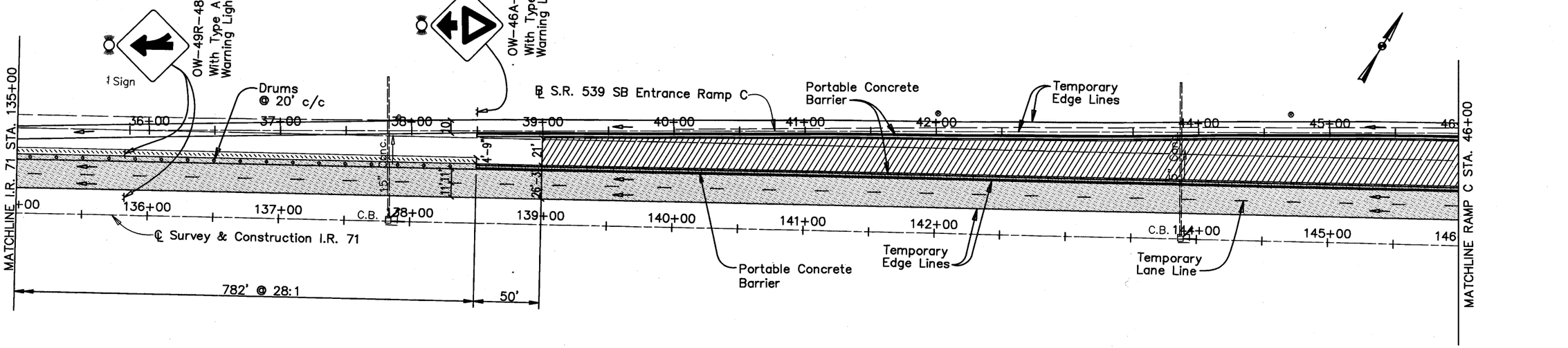
MAINTENANCE OF TRAFFIC DETAIL RAMP C PHASE 2

WAY-71-0.28

71
432

MOT-RC2.DWG May 10 ,2001





* Bituminous Concrete for Maintaining Traffic and Pavement Planing shall be completed after mainline traffic is in Phase 3 MOT lanes and prior to shifting ramp traffic to this Phase 3A MOT.

LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

Mot-rc3a.dwg May 10 ,2001

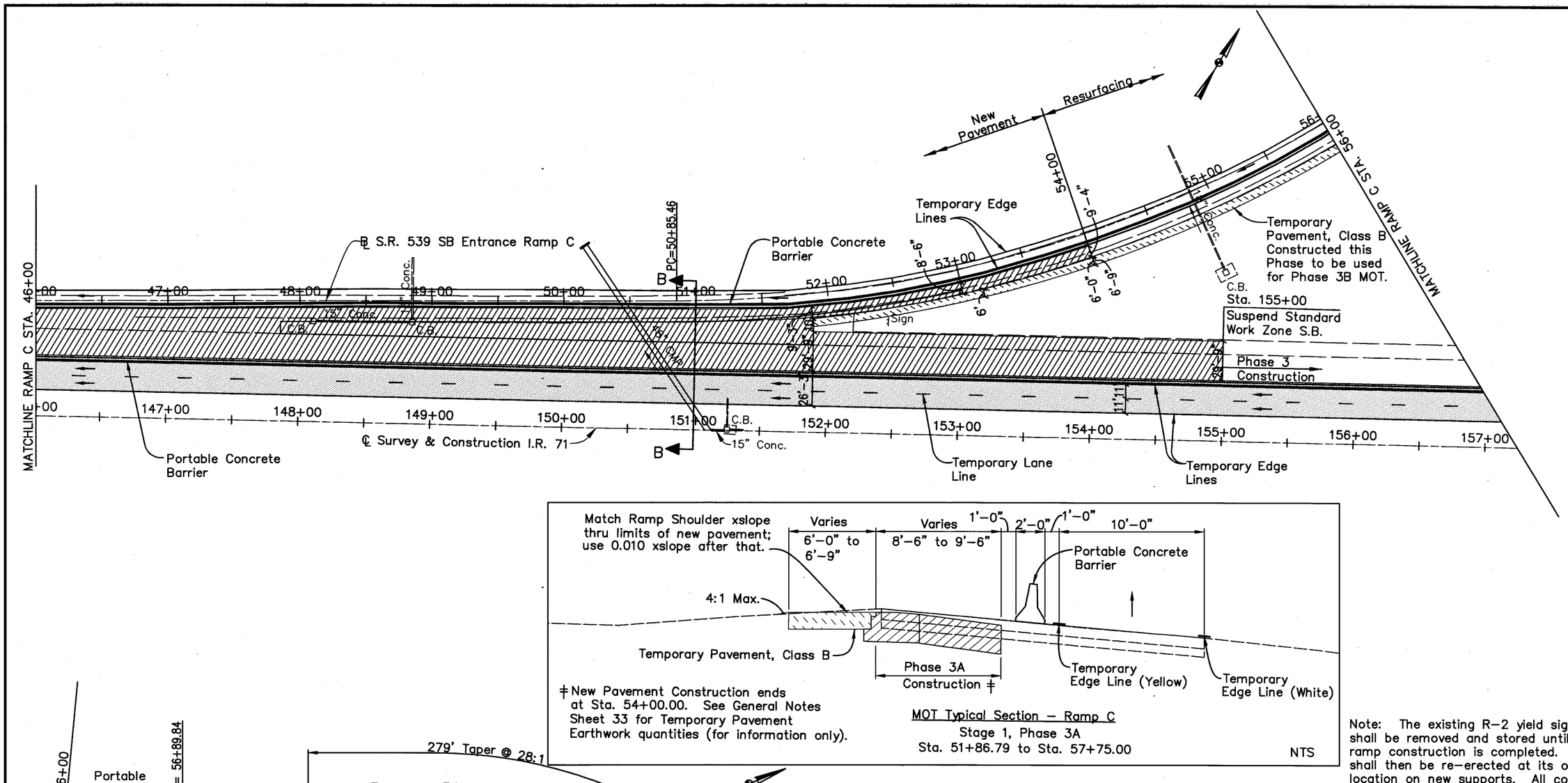
Scale In Feet: 0 40 80

CALCULATED

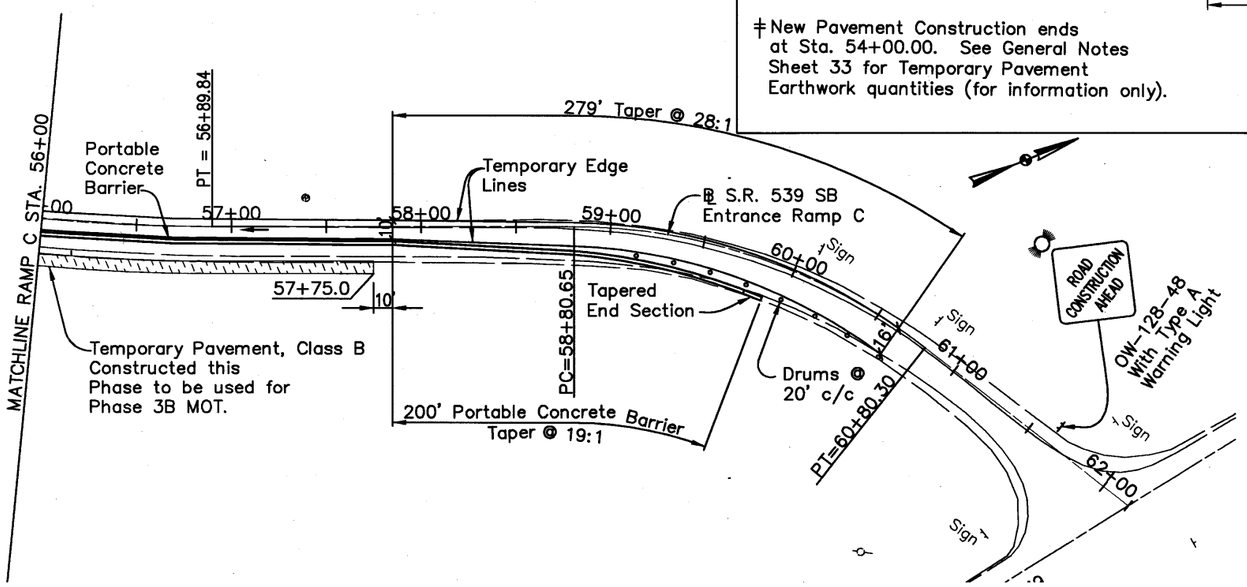
CHECKED

MAINTENANCE OF TRAFFIC DETAIL RAMP C PHASE 3A

WAY-71-0.28



MOT Typical Section – Ramp C
Stage 1, Phase 3A
Sta. 51+86.79 to Sta. 57+75.00
NTS



Note: The existing R–2 yield sign shall be removed and stored until ramp construction is completed. It shall then be re–erected at its original location on new supports. All costs associated to be included in Item 614 Maintaining Traffic and all provisions of Item 630 shall apply. See MT–98.16M for additional details.

LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

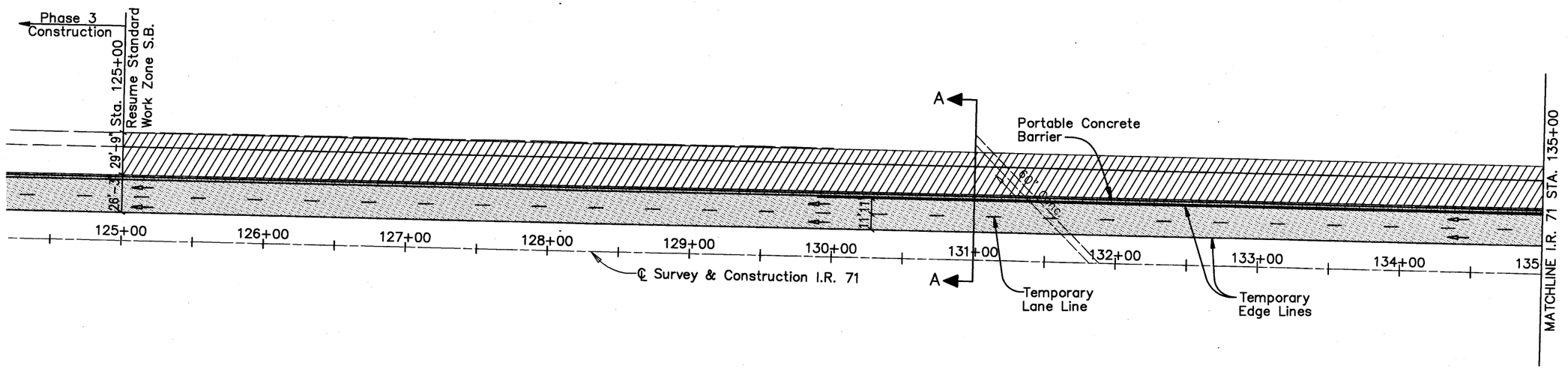
Scale In Feet: 0 40 80

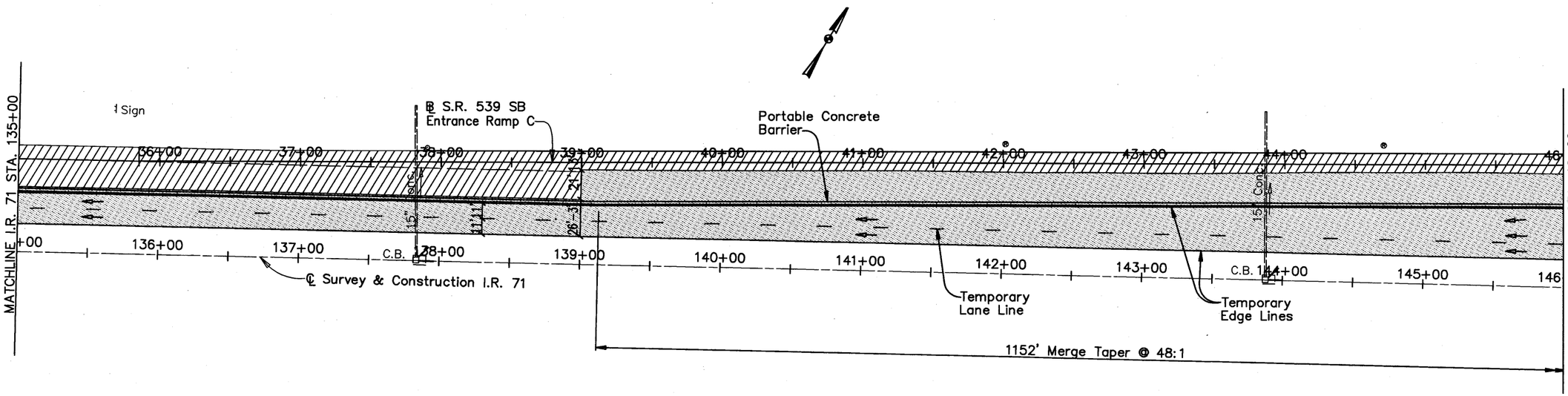
CALCULATED | CHECKED

MAINTENANCE OF TRAFFIC DETAIL RAMP C
PHASE 3A

WAY–71–0.28

Mot-rc3a.dwg May 10 2001





LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

Scale In Feet: 0 40 80

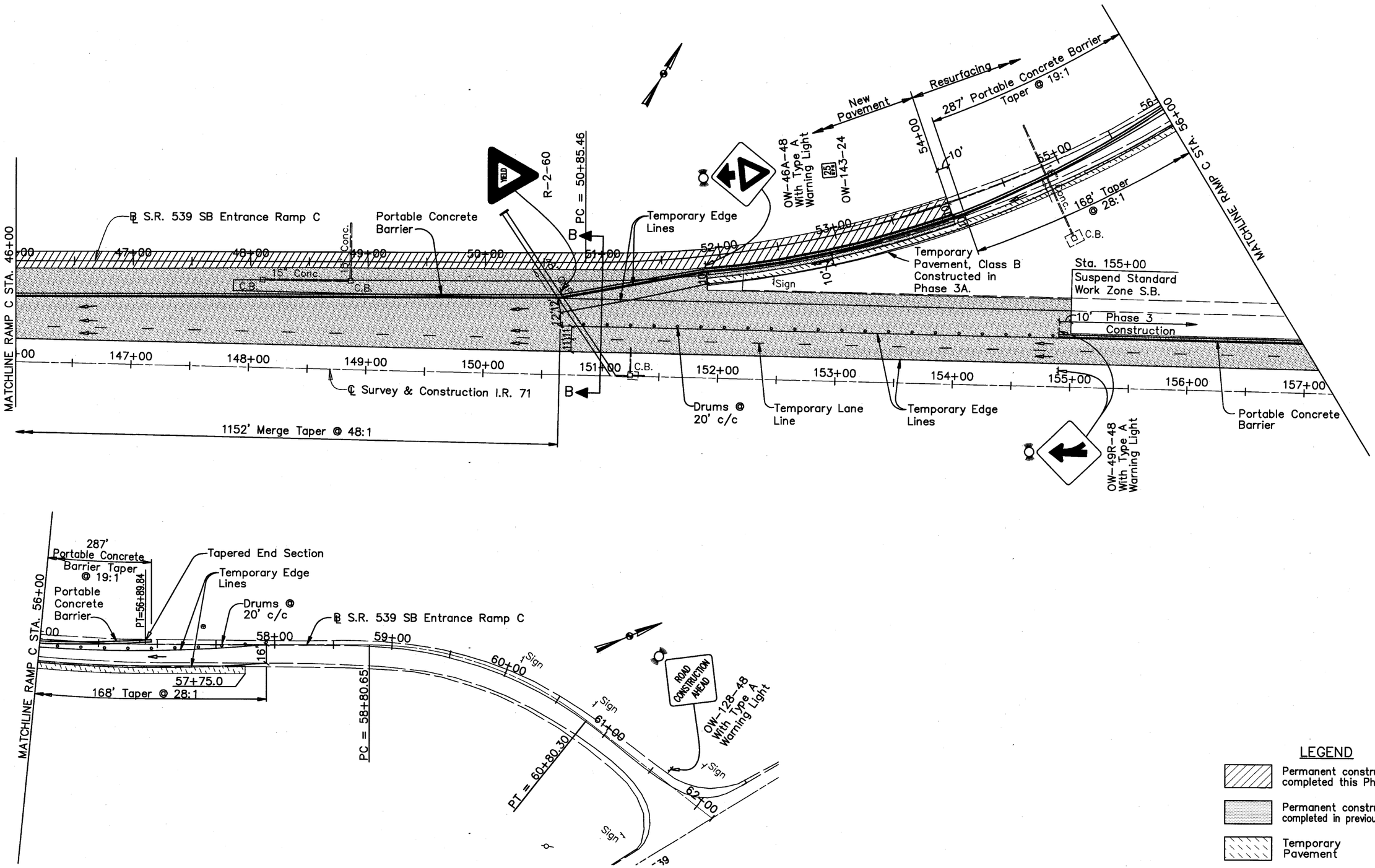
CALCULATED

CHECKED

MAINTENANCE OF TRAFFIC DETAIL RAMP C PHASE 3B

WAY-71-0.28

Mot-rc3b.dwg May 10 ,2001



LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

Scale In Feet: 0 40 80

CALCULATED

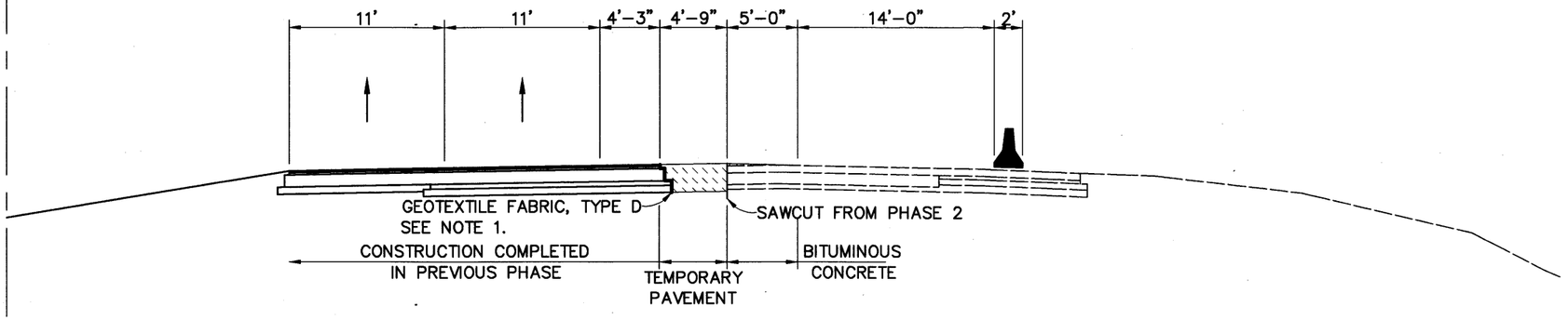
CHECKED

MAINTENANCE OF TRAFFIC DETAIL RAMP C PHASE 3B

WAY-71-0.28

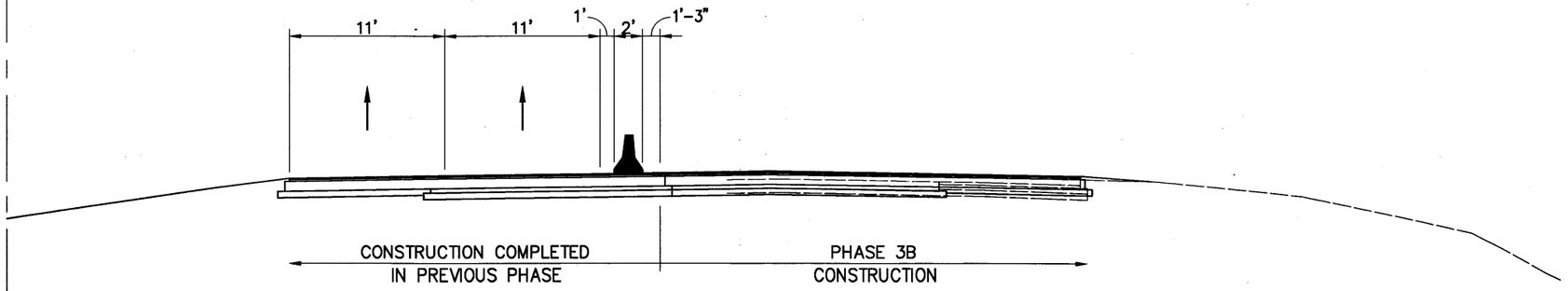
75/432

Mot-rc3b.dwg May 10 2001



PHASE 3A SECTION A–A

℄ SURVEY & CONSTRUCTION I.R. 71



PHASE 3B SECTION A–A

NOTES:

1. GEOTEXTILE FABRIC, TYPE D SHALL BE PLACED OVER THE EDGES OF ANY NEWLY CONSTRUCTED PAVEMENT FOR WHICH THE ASPHALT TREATED FREE DRAINING BASE WOULD BE EXPOSED OR IS IN CONTACT WITH TEMPORARY PAVEMENT. THE GEOTEXTILE FABRIC SHALL BE PLACED CONTINUOUSLY ALONG THE NEW PAVEMENT TO SERVE AS AN ISOLATION BARRIER TO PROTECT THE PAVEMENT BUILDUP EDGES. WHEN CONSTRUCTION CONTINUES IN ADJOINING PHASES, THE GEOTEXTILE FABRIC SHALL BE REMOVED. THE COST OF THE GEOTEXTILE FABRIC SHALL BE INCLUDED FOR PAYMENT IN ITEM 614–MAINTAINING TRAFFIC.

2. CROSS SECTIONS SHOWN IN DIRECTION OF TRAFFIC

LEGEND

- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

0 5 10 Scale In Feet

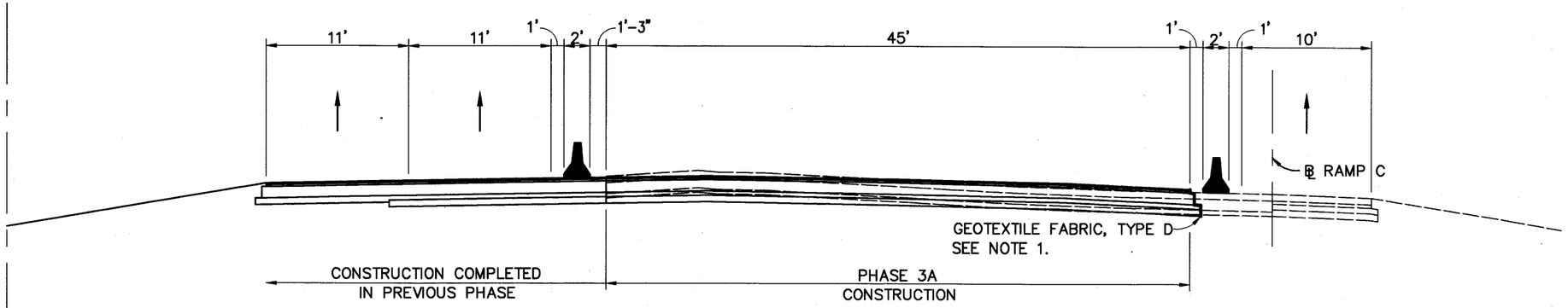
CALCULATED | CHECKED

MAINTENANCE OF TRAFFIC
RAMP C – SECTION A–A

WAY–71–0.28

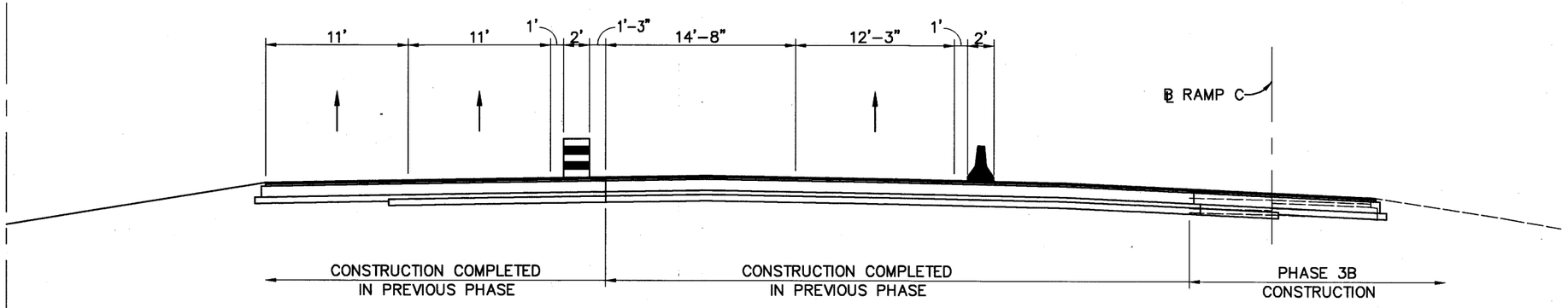
76
432

MOT-RAMP-XSEC.dwg May 10 ,2001



PHASE 3A SECTION B–B

℄ SURVEY & CONSTRUCTION I.R. 71



PHASE 3B SECTION B–B

NOTES:

1. GEOTEXTILE FABRIC, TYPE D SHALL BE PLACED OVER THE EDGES OF ANY NEWLY CONSTRUCTED PAVEMENT FOR WHICH THE ASPHALT TREATED FREE DRAINING BASE WOULD BE EXPOSED OR IS IN CONTACT WITH TEMPORARY PAVEMENT. THE GEOTEXTILE FABRIC SHALL BE PLACED CONTINUOUSLY ALONG THE NEW PAVEMENT TO SERVE AS AN ISOLATION BARRIER TO PROTECT THE PAVEMENT BUILDUP EDGES. WHEN CONSTRUCTION CONTINUES IN ADJOINING PHASES, THE GEOTEXTILE FABRIC SHALL BE REMOVED. THE COST OF THE GEOTEXTILE FABRIC SHALL BE INCLUDED FOR PAYMENT IN ITEM 614–MAINTAINING TRAFFIC.

2. CROSS SECTIONS SHOWN IN DIRECTION OF TRAFFIC

LEGEND

- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

0 5 10 Scale In Feet

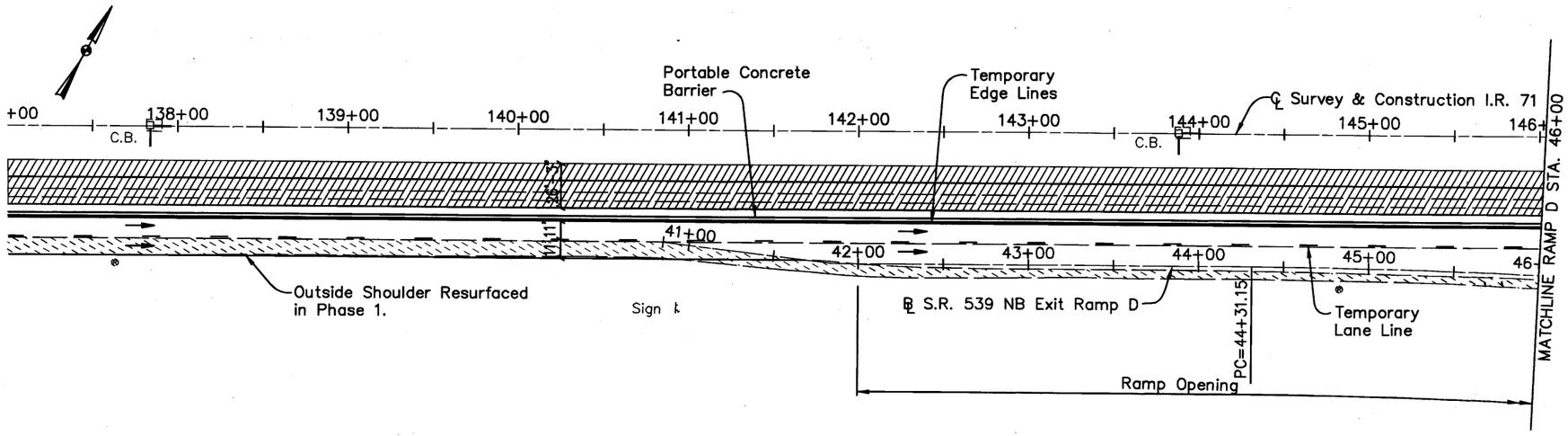
CALCULATED | CHECKED

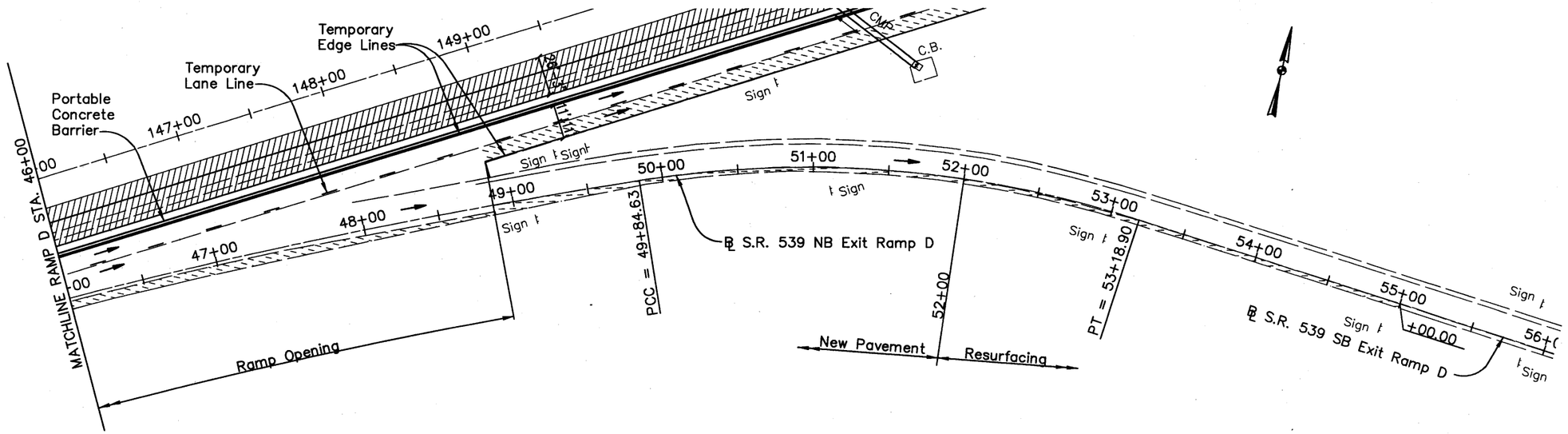
MAINTENANCE OF TRAFFIC
RAMP C – SECTION B–B

WAY–71–0.28

77
432

MOT–RAMP–XSEC.dwg May 10, 2001





LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

Mot-rd2.dwg May 10, 2001

Scale In Feet 0 40 80

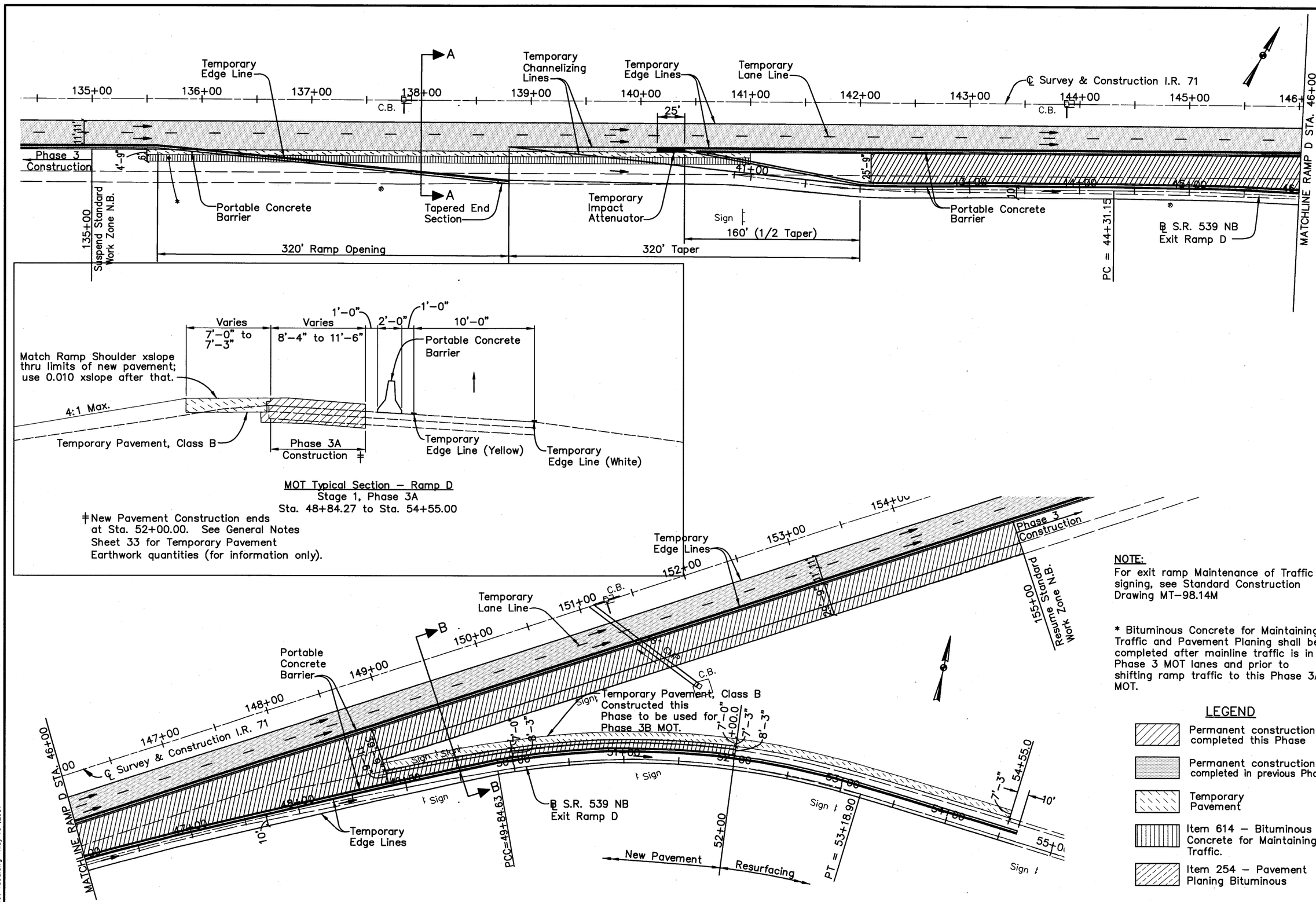
CALCULATED

CHECKED

MAINTENANCE OF TRAFFIC DETAIL RAMP D PHASE 2

WAY-71-0.28

78
432



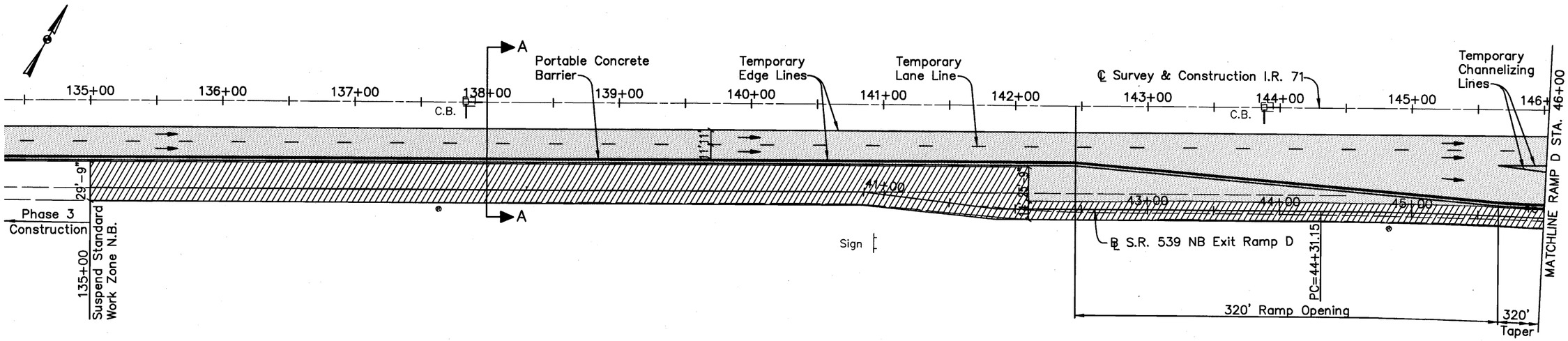
0 40 80 Scale In Feet

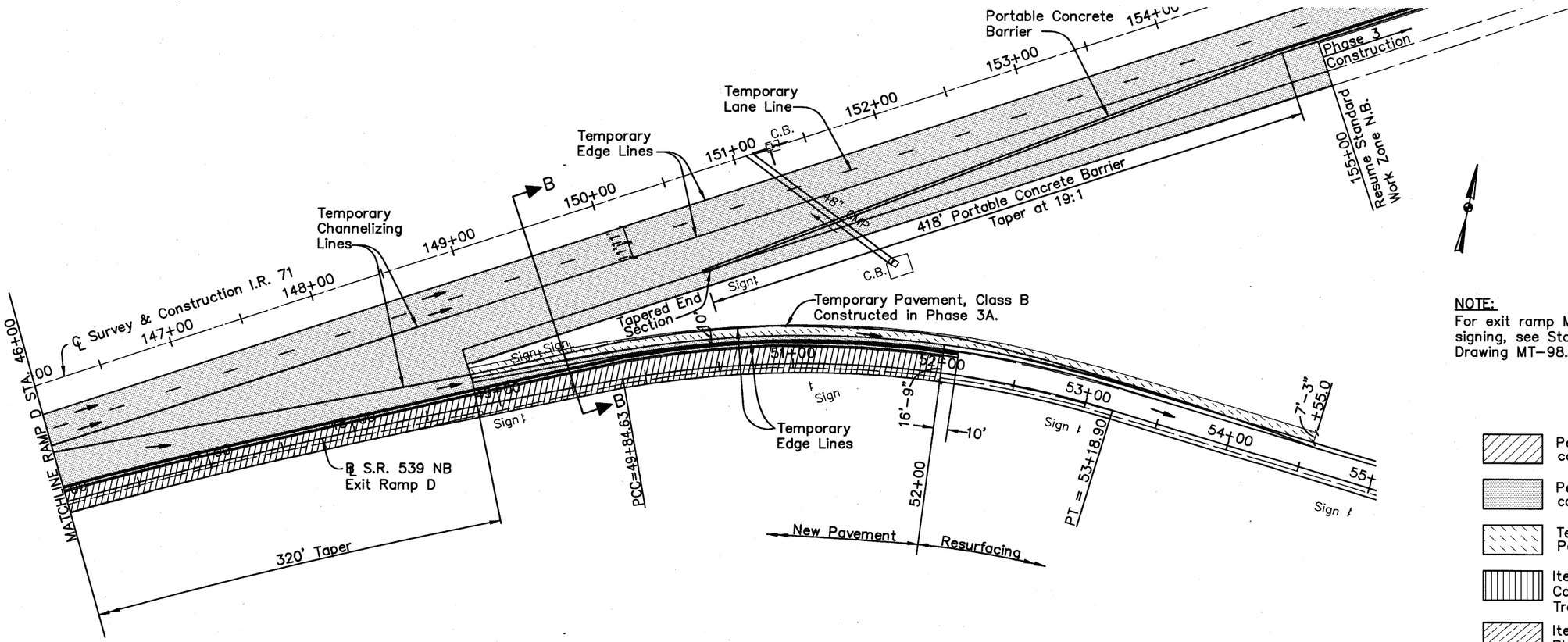
CALCULATED CHECKED

MAINTENANCE OF TRAFFIC DETAIL RAMP D PHASE 3A

WAY-71-0.28

Mot-rd3a.dwg May 10 2001





NOTE:
For exit ramp Maintenance of Traffic signing, see Standard Construction Drawing MT-98.13M

LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

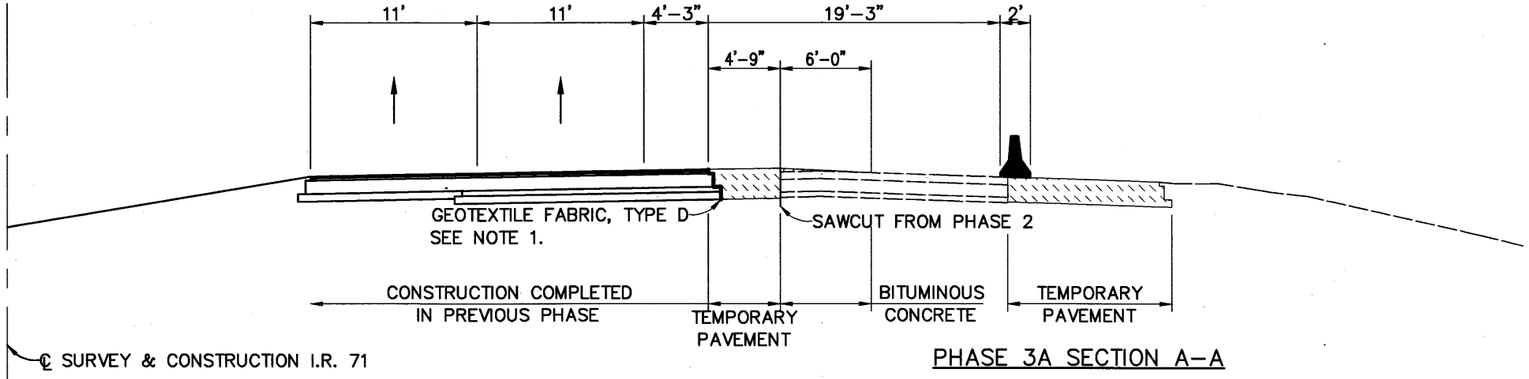
0 40 80 Scale In Feet

CALCULATED | CHECKED

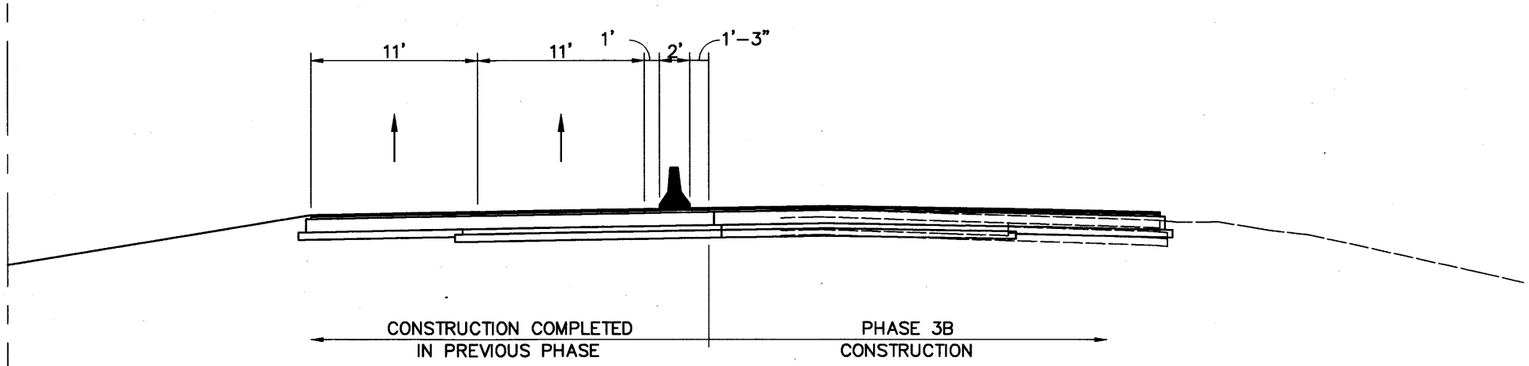
MAINTENANCE OF TRAFFIC DETAIL RAMP D PHASE 3B

WAY-71-0.28

Mot-rd3b.dwg May 10 ,2001



PHASE 3A SECTION A–A



PHASE 3B SECTION A–A

NOTES:

1. GEOTEXTILE FABRIC, TYPE D SHALL BE PLACED OVER THE EDGES OF ANY NEWLY CONSTRUCTED PAVEMENT FOR WHICH THE ASPHALT TREATED FREE DRAINING BASE WOULD BE EXPOSED OR IS IN CONTACT WITH TEMPORARY PAVEMENT. THE GEOTEXTILE FABRIC SHALL BE PLACED CONTINUOUSLY ALONG THE NEW PAVEMENT TO SERVE AS AN ISOLATION BARRIER TO PROTECT THE PAVEMENT BUILDUP EDGES. WHEN CONSTRUCTION CONTINUES IN ADJOINING PHASES, THE GEOTEXTILE FABRIC SHALL BE REMOVED. THE COST OF THE GEOTEXTILE FABRIC SHALL BE INCLUDED FOR PAYMENT IN ITEM 614–MAINTAINING TRAFFIC.

2. CROSS SECTIONS SHOWN IN DIRECTION OF TRAFFIC

LEGEND

- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

Scale In Feet: 0 5 10

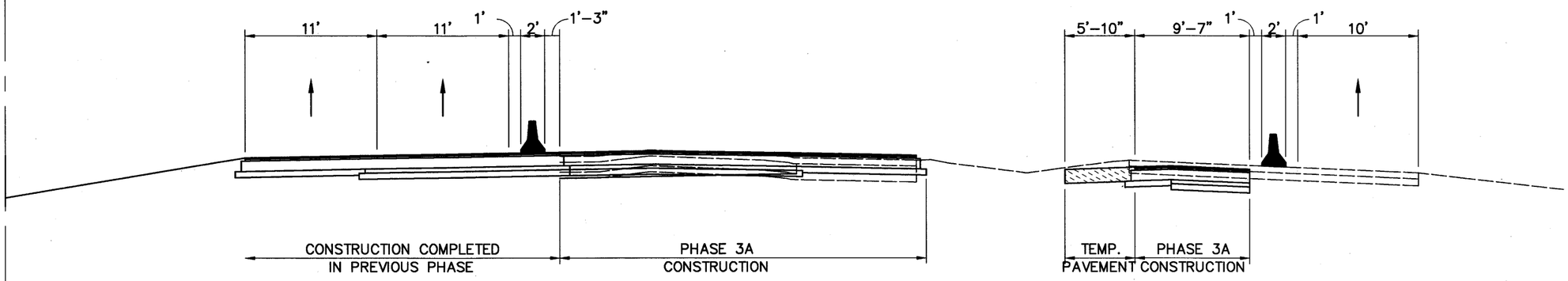
CALCULATED | CHECKED

MAINTENANCE OF TRAFFIC
RAMP D – SECTION A–A

WAY–71–0.28

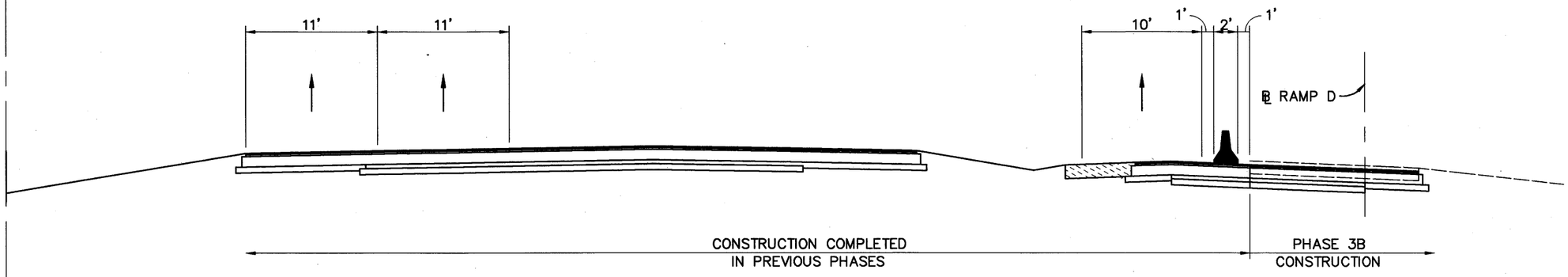
81
432

MOT–RAMP–XSEC.dwg May 10 ,2001



PHASE 3A SECTION B–B

℄ SURVEY & CONSTRUCTION I.R. 71



PHASE 3B SECTION B–B

NOTES:

1. GEOTEXTILE FABRIC, TYPE D SHALL BE PLACED OVER THE EDGES OF ANY NEWLY CONSTRUCTED PAVEMENT FOR WHICH THE ASPHALT TREATED FREE DRAINING BASE WOULD BE EXPOSED OR IS IN CONTACT WITH TEMPORARY PAVEMENT. THE GEOTEXTILE FABRIC SHALL BE PLACED CONTINUOUSLY ALONG THE NEW PAVEMENT TO SERVE AS AN ISOLATION BARRIER TO PROTECT THE PAVEMENT BUILDUP EDGES. WHEN CONSTRUCTION CONTINUES IN ADJOINING PHASES, THE GEOTEXTILE FABRIC SHALL BE REMOVED. THE COST OF THE GEOTEXTILE FABRIC SHALL BE INCLUDED FOR PAYMENT IN ITEM 614–MAINTAINING TRAFFIC.

2. CROSS SECTIONS SHOWN IN DIRECTION OF TRAFFIC

LEGEND

- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

0 5 10 Scale In Feet

CALCULATED

CHECKED

MAINTENANCE OF TRAFFIC
RAMP D – SECTION B–B

WAY–71–0.28

MOT–RAMP–XSEC.dwg May 10 ,2001

LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

Scale In Feet: 0 40 80

CALCULATED | CHECKED

℄ S.R. 539 SB Exit Ramp E

Resurfacing | New Pavement

64+00 | SC = 64+72.29 | 65+00 | 65+84 | CS = 65+90.77 | 66+00 | 67+00 | ST = 67+90.77 | 68+00 | 69+00 | 70+00 | 71+00

Sign | Sign | Sign | Sign

Ramp Opening

Temporary Edge Lines | Temporary Lane Line

48" Conc. | Outside Shoulder Resurfaced in Phase 1. | Portable Concrete Barrier | Temporary Lane Line | Temporary Edge Lines

n Vert.

36" Conc.

162+00 | 163+00 | 164+00 | 165+00 | 166+00 | 167+00 | 168+00 | 169+00 | 170+00 | C.B. | 171+00

℄ Survey & Construction I.R. 71

MATCHLINE RAMP E STA. 72+00

Ramp Opening

MATCHLINE RAMP E STA. 72+00 | PCC = 73+35.46 | PT = 79+31.65

73+00 | 74+00 | 76+00 | 77+00 | 78+00 | 79+00 | 80+00

Temporary Lane Line | Temporary Edge Lines | ℄ S.R. 539 SB Exit Ramp E | Sign | Portable Concrete Barrier | Outside Shoulder Resurfaced in Phase 1.

173+00 | 174+00 | 175+00 | 176+00 | 177+00 | 178+00 | 179+00 | 180+00 | 181+00 | 182+00 | 183+00

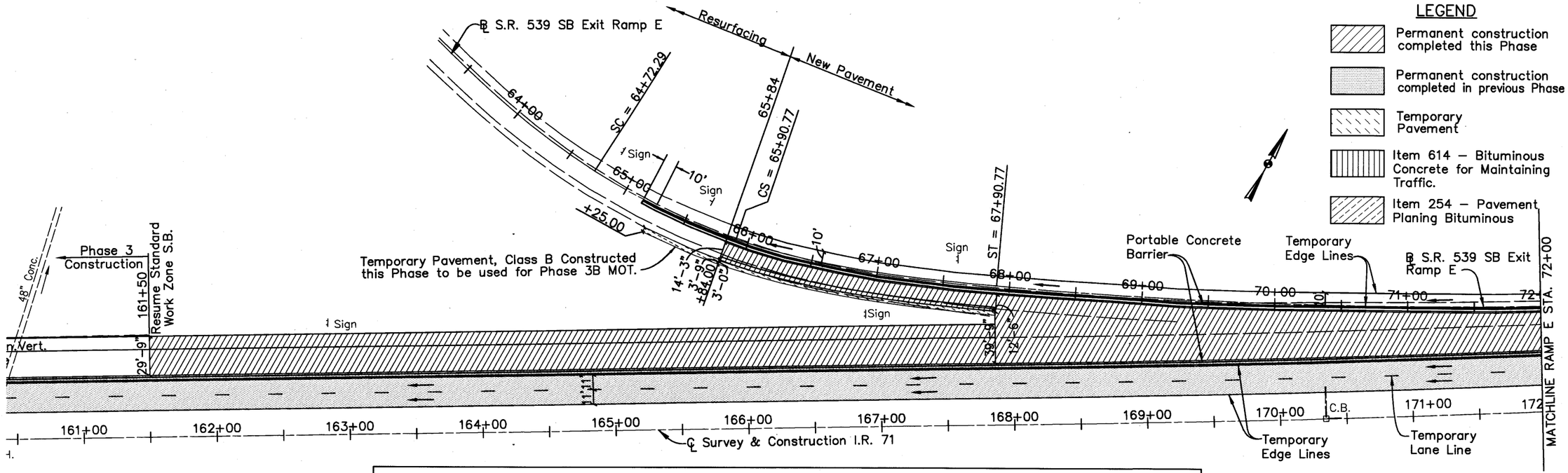
℄ Survey & Construction I.R. 71

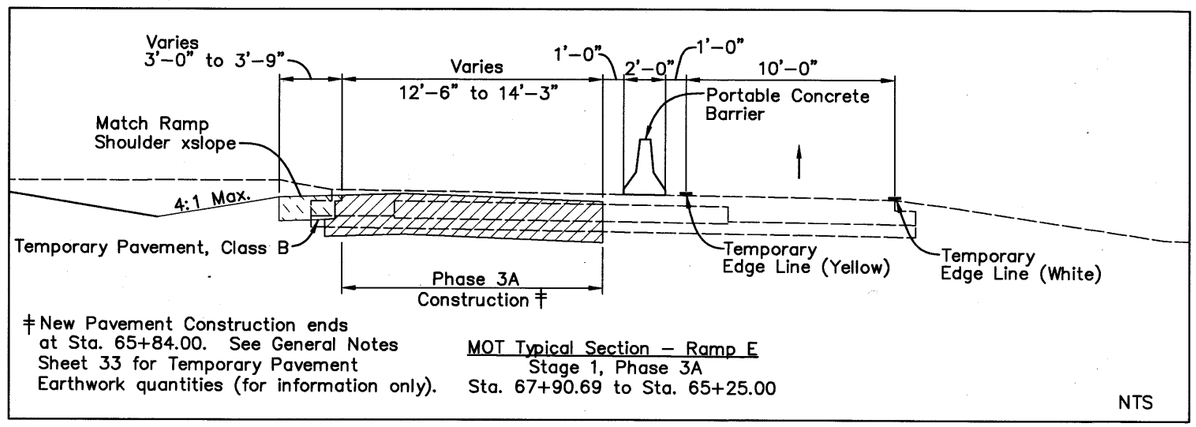
MAINTENANCE OF TRAFFIC DETAIL RAMP E PHASE 2

WAY-71-0.28

83
432

Mot-re2.dwg May 10 ,2001





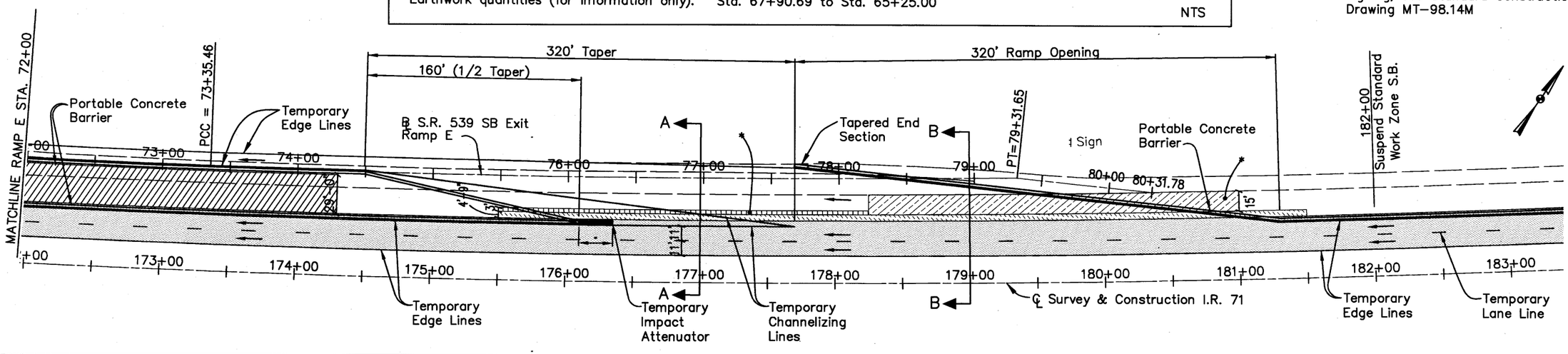
‡ New Pavement Construction ends at Sta. 65+84.00. See General Notes Sheet 33 for Temporary Pavement Earthwork quantities (for information only).

MOT Typical Section – Ramp E
Stage 1, Phase 3A
Sta. 67+90.69 to Sta. 65+25.00

NTS

* Bituminous Concrete for Maintaining Traffic and Pavement Planing shall be completed after mainline traffic is in Phase 3 MOT lanes and prior to shifting ramp traffic to this Phase 3A MOT.

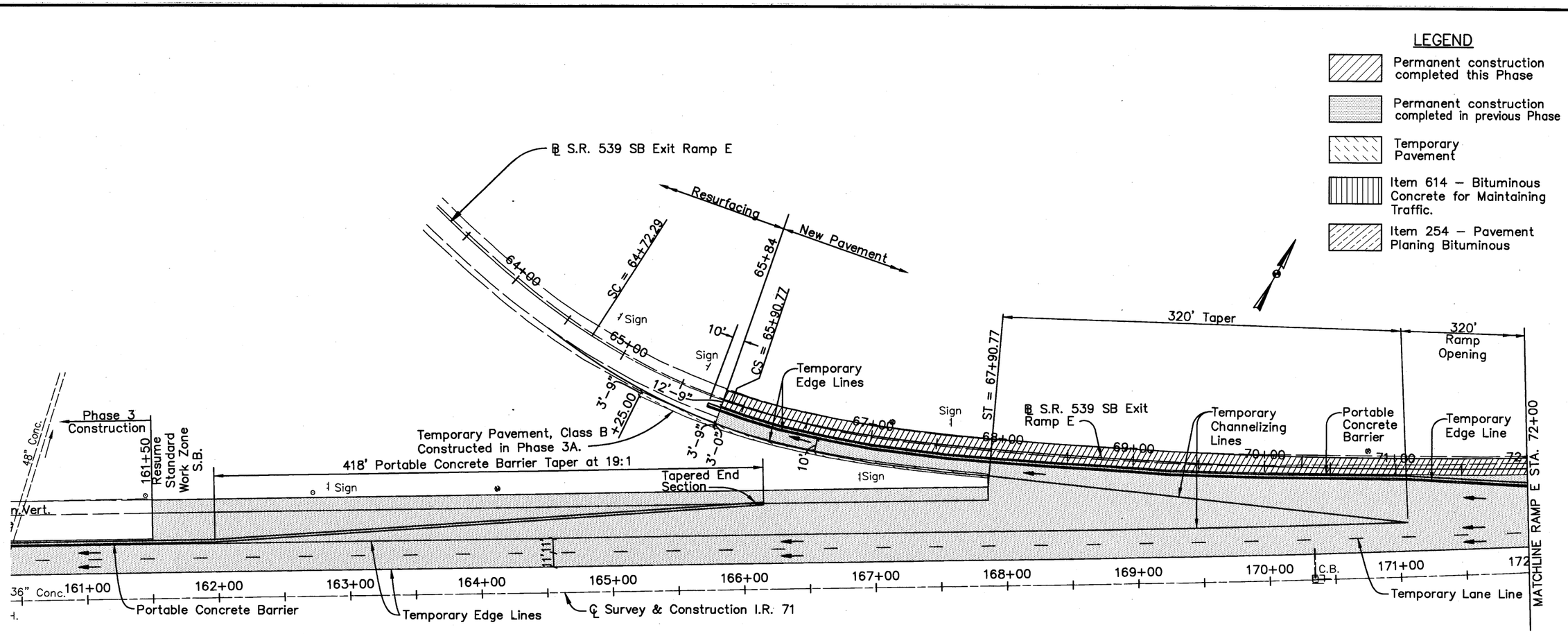
NOTE:
For exit ramp Maintenance of Traffic signing, see Standard Construction Drawing MT–98.14M

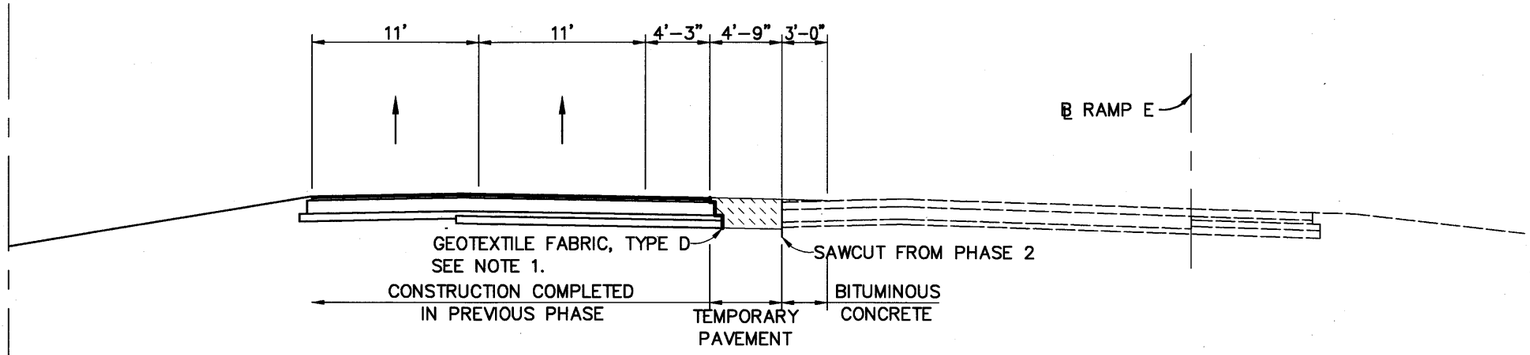


MAINTENANCE OF TRAFFIC DETAIL RAMP E PHASE 3A

WAY–71–0.28

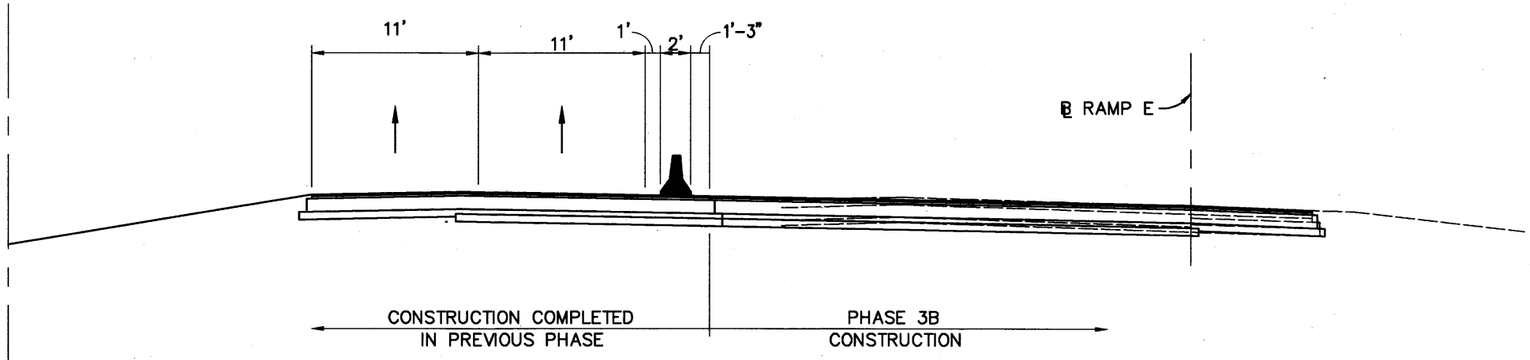
Mot–re3a.dwg May 10, 2001


LEGEND
Permanent construction completed this Phase
Permanent construction completed in previous Phase
Temporary Pavement
Item 614 – Bituminous Concrete for Maintaining Traffic.
Item 254 – Pavement Planing Bituminous
℄ S.R. 539 SB Exit Ramp E
Resurfacing
New Pavement
64+00
SC = 64+72.29
65+84
65+90
CS = 65+90.77
Sign
10'
12'-9"
3'-9"
25.00
3'-0"
Temporary Edge Lines
Temporary Pavement, Class B Constructed in Phase 3A.
418' Portable Concrete Barrier Taper at 19:1
Tapered End Section
Phase 3 Construction
48" Conc.
161+50
Resume Standard Work Zone S.B.
n.Vert.
320' Taper
320' Ramp Opening
ST = 67+90.77
67+00
68+00
69+00
70+00
71+00
72+00
℄ S.R. 539 SB Exit Ramp E
Temporary Channelizing Lines
Portable Concrete Barrier
Temporary Edge Line
MATCHLINE RAMP E STA. 72+00
36" Conc.
161+00
162+00
163+00
164+00
165+00
166+00
167+00
168+00
169+00
170+00
C.B.
171+00
172
11'11"
Portable Concrete Barrier
Temporary Edge Lines
℄ Survey & Construction I.R. 71
Temporary Lane Line
NOTE:
For exit ramp Maintenance of Traffic signing, see Standard Construction Drawing MT–98.13M
320' Ramp Opening
MATCHLINE RAMP E STA. 72+00
PCC=73+35.46
10'-9"
29'-0"
℄ S.R. 539 SB Exit Ramp E
A
B
PT = 79+31.65
Portable Concrete Barrier
182+00
Suspend Standard Work Zone S.B.
73+00
74+00
76+00
77+00
78+00
79+00
80+00
80+31.78
173+00
174+00
175+00
176+00
177+00
178+00
179+00
180+00
181+00
182+00
183+00
℄ Survey & Construction I.R. 71
Temporary Lane Line
Temporary Edge Lines
0
40
80
Scale In Feet
CALCULATED
CHECKED
MAINTENANCE OF TRAFFIC DETAIL RAMP E
PHASE 3B
WAY–71–0.28
85
432
Mot–re3b.dwg May 10 ,2001



PHASE 3A SECTION A–A

℄ SURVEY & CONSTRUCTION I.R. 71



PHASE 3B SECTION A–A

NOTES:

1. GEOTEXTILE FABRIC, TYPE D SHALL BE PLACED OVER THE EDGES OF ANY NEWLY CONSTRUCTED PAVEMENT FOR WHICH THE ASPHALT TREATED FREE DRAINING BASE WOULD BE EXPOSED OR IS IN CONTACT WITH TEMPORARY PAVEMENT. THE GEOTEXTILE FABRIC SHALL BE PLACED CONTINUOUSLY ALONG THE NEW PAVEMENT TO SERVE AS AN ISOLATION BARRIER TO PROTECT THE PAVEMENT BUILDUP EDGES. WHEN CONSTRUCTION CONTINUES IN ADJOINING PHASES, THE GEOTEXTILE FABRIC SHALL BE REMOVED. THE COST OF THE GEOTEXTILE FABRIC SHALL BE INCLUDED FOR PAYMENT IN ITEM 614–MAINTAINING TRAFFIC.

2. CROSS SECTIONS SHOWN IN DIRECTION OF TRAFFIC

LEGEND

- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

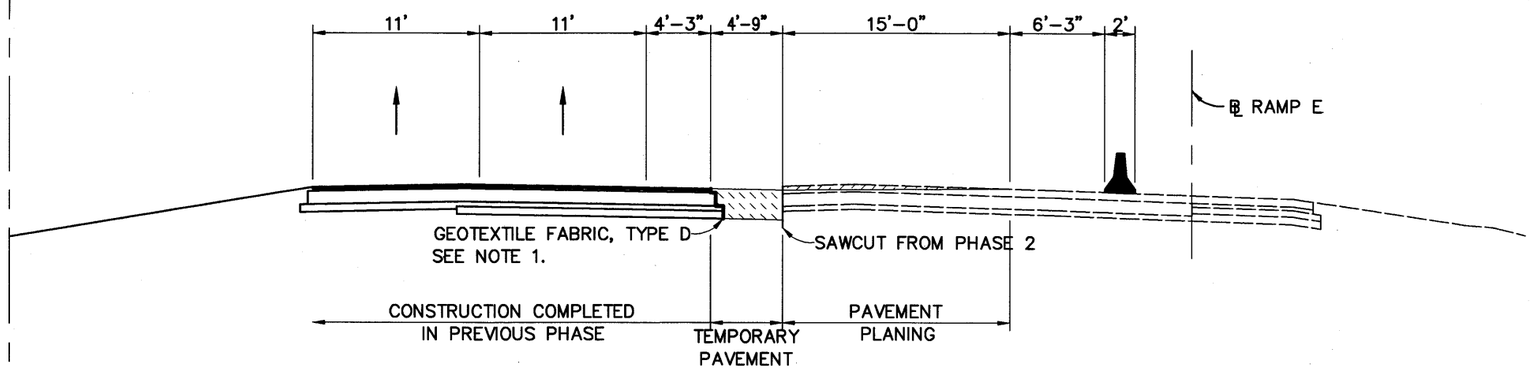
0 5 10 Scale In Feet

CALCULATED | CHECKED

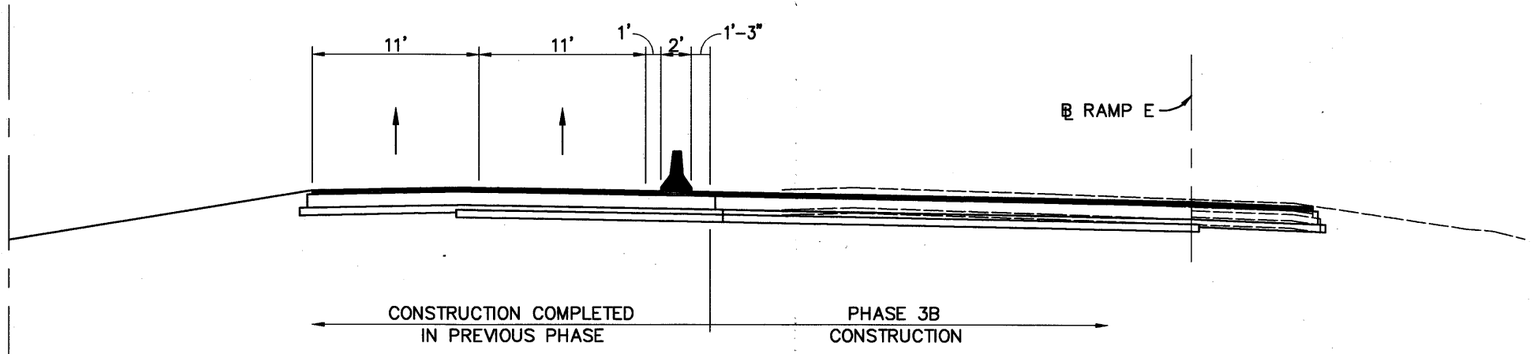
MAINTENANCE OF TRAFFIC
RAMP E – SECTION A–A

WAY–71–0.28

MOT–RAMP–XSEC.dwg May 10 ,2001



PHASE 3A SECTION B–B



PHASE 3B SECTION B–B

NOTES:

1. GEOTEXTILE FABRIC, TYPE D SHALL BE PLACED OVER THE EDGES OF ANY NEWLY CONSTRUCTED PAVEMENT FOR WHICH THE ASPHALT TREATED FREE DRAINING BASE WOULD BE EXPOSED OR IS IN CONTACT WITH TEMPORARY PAVEMENT. THE GEOTEXTILE FABRIC SHALL BE PLACED CONTINUOUSLY ALONG THE NEW PAVEMENT TO SERVE AS AN ISOLATION BARRIER TO PROTECT THE PAVEMENT BUILDUP EDGES. WHEN CONSTRUCTION CONTINUES IN ADJOINING PHASES, THE GEOTEXTILE FABRIC SHALL BE REMOVED. THE COST OF THE GEOTEXTILE FABRIC SHALL BE INCLUDED FOR PAYMENT IN ITEM 614–MAINTAINING TRAFFIC.

2. CROSS SECTIONS SHOWN IN DIRECTION OF TRAFFIC

LEGEND

- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

0 5 10 Scale In Feet

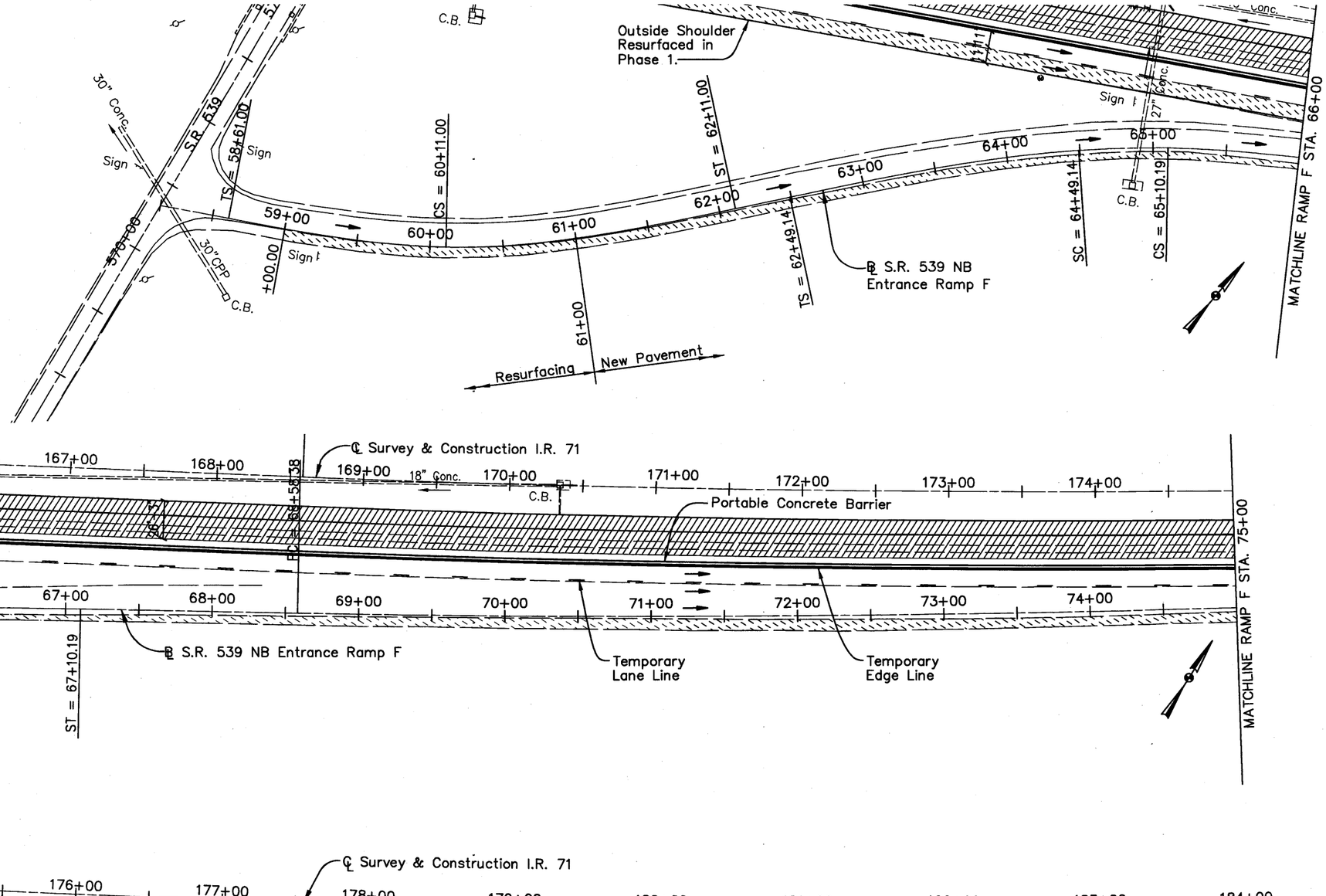
CALCULATED | CHECKED

MAINTENANCE OF TRAFFIC
RAMP E – SECTION B–B

WAY–71–0.28

87
432

MOT–RAMP–XSEC.dwg May 10 ,2001



LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

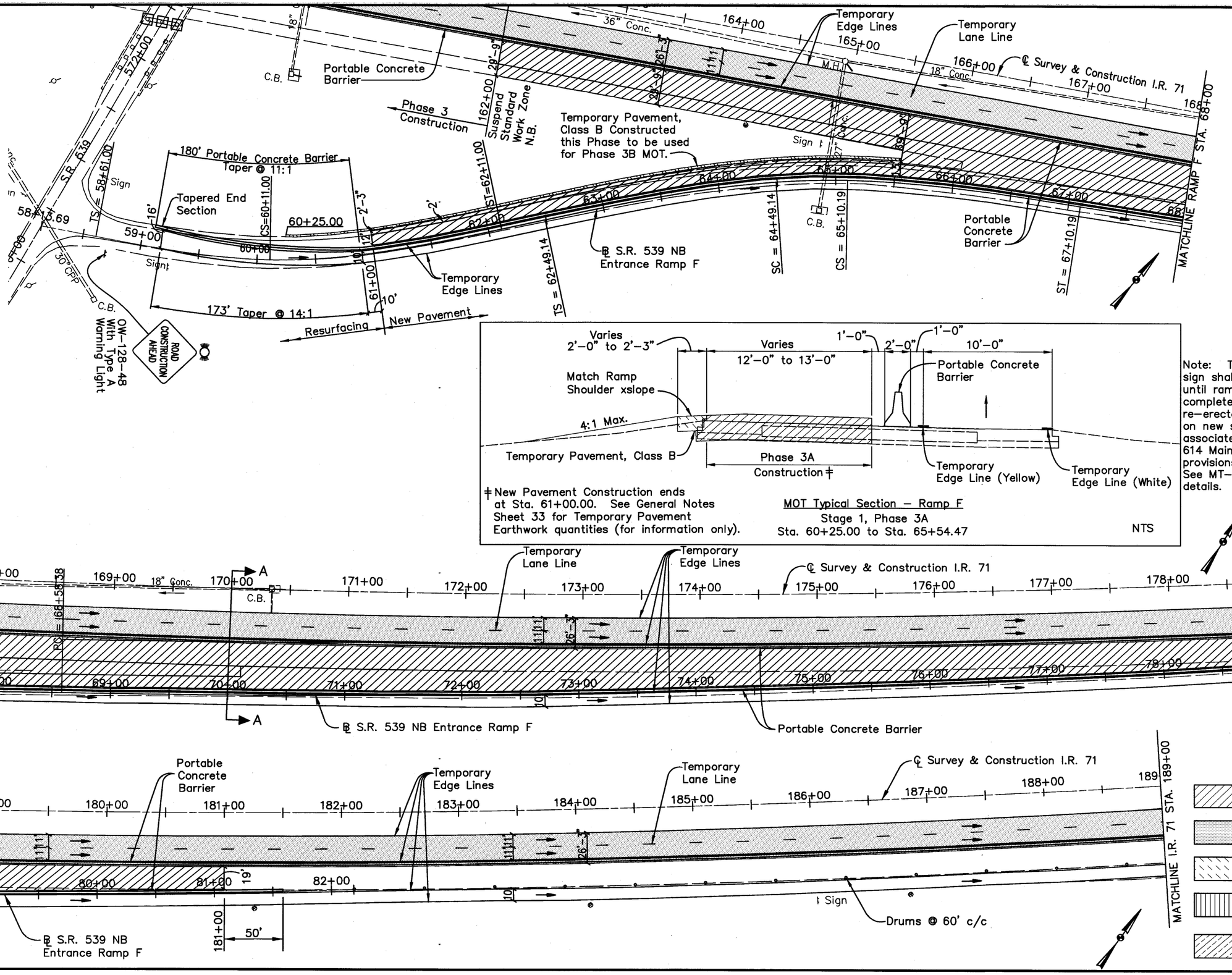
0 40 80 Scale In Feet

CALCULATED | CHECKED

MAINTENANCE OF TRAFFIC DETAIL RAMP F PHASE 2

WAY-71-0.28

MOT-RF2.DWG May 10 ,2001

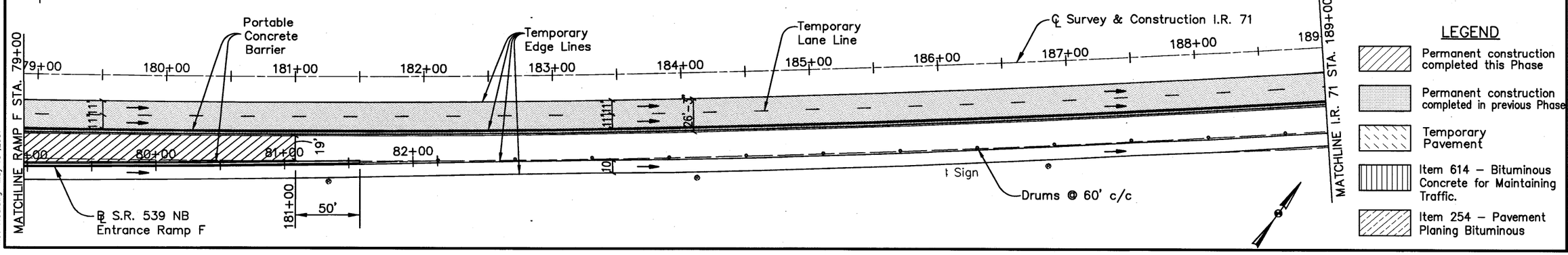


ǂ New Pavement Construction ends at Sta. 61+00.00. See General Notes Sheet 33 for Temporary Pavement Earthwork quantities (for information only).

MOT Typical Section – Ramp F
Stage 1, Phase 3A
Sta. 60+25.00 to Sta. 65+54.47

NTS

Note: The existing R–2 yield sign shall be removed and stored until ramp construction is completed. It shall then be re–erected at its original location on new supports. All costs associated to be included in Item 614 Maintaining Traffic and all provisions of Item 630 shall apply. See MT–98.16M for additional details.



LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

Mot–rf3a.dwg May 10, 2001

0 40 80 Scale In Feet

CALCULATED CHECKED

MAINTENANCE OF TRAFFIC DETAIL RAMP F PHASE 3A

WAY–71–0.28

89 / 432

LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

0 40 80 Scale In Feet

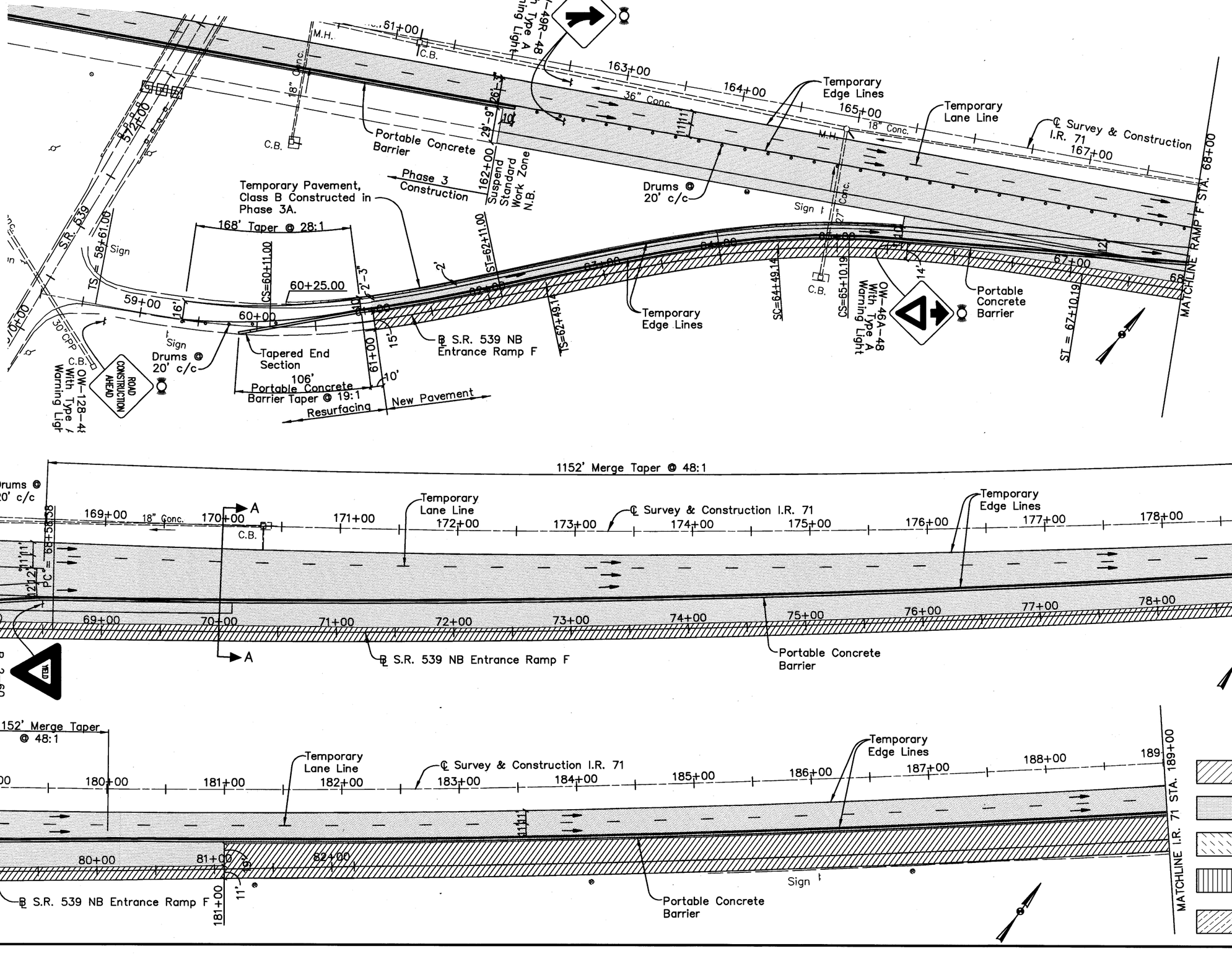
CALCULATED

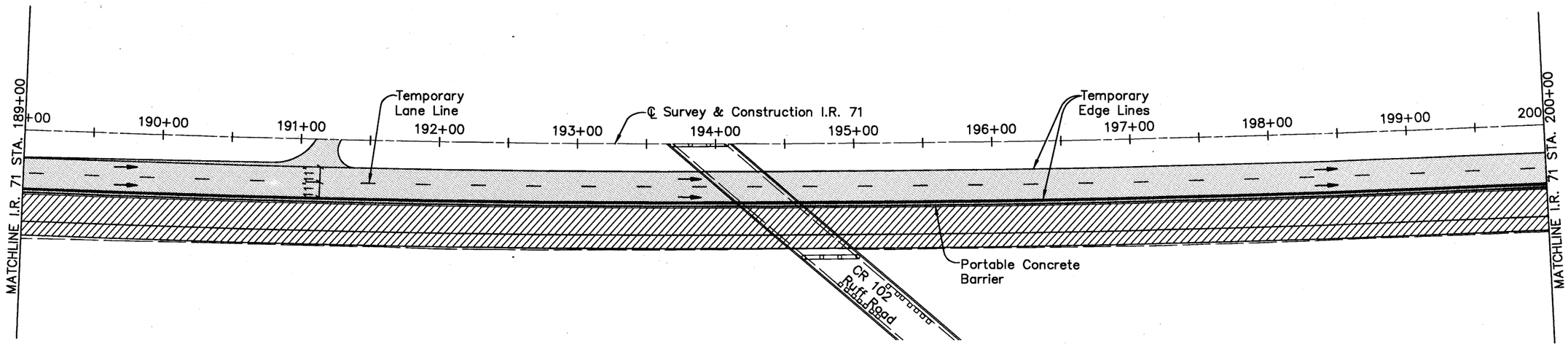
CHECKED

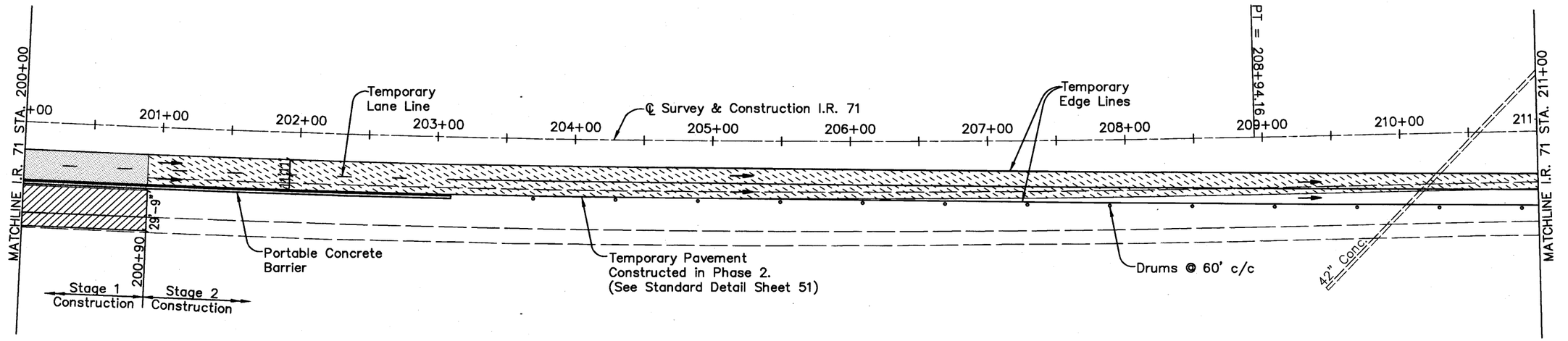
MAINTENANCE OF TRAFFIC DETAIL RAMP F PHASE 3A

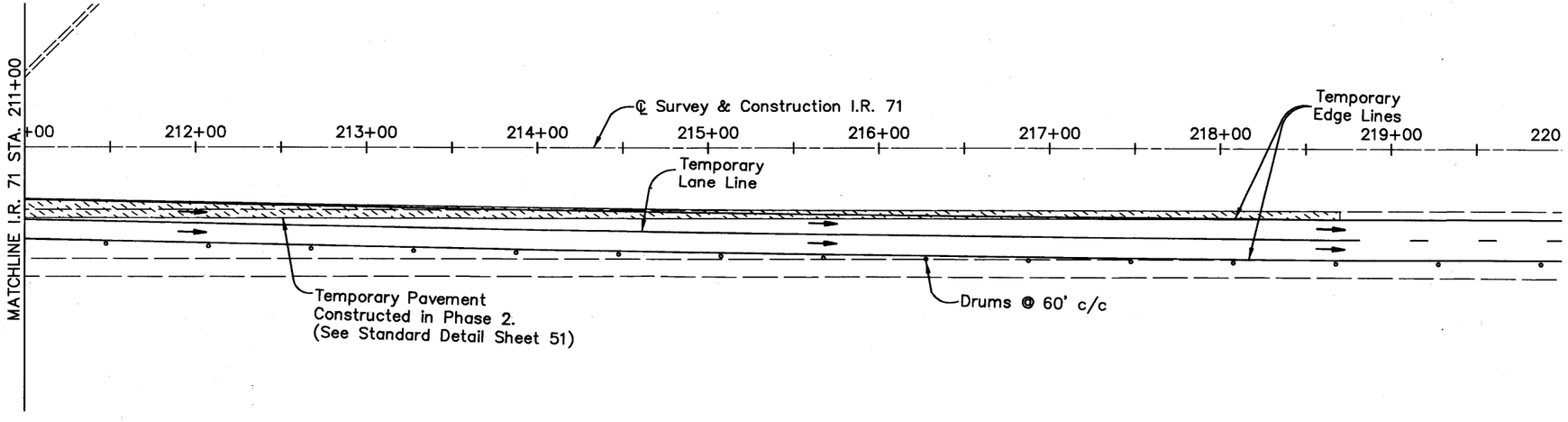
WAY-71-0.28

Mot-rf3a.dwg May 11 ,2001


S.R. 539
572+00
58+61.00
TS = 58+61.00
Sign
59+00
60+00
60+25.00
CS=60+11.00
168' Taper @ 28:1
Temporary Pavement, Class B Constructed in Phase 3A.
Phase 3 Construction
162+00 Suspend Standard Work Zone N.B.
ST=62+11.00
Drums @ 20' c/c
Tapered End Section
106' Portable Concrete Barrier Taper @ 19:1
Resurfacing
New Pavement
61+00
10'
15'
℄ S.R. 539 NB Entrance Ramp F
Portable Concrete Barrier
C.B.
18" Conc.
30" CPP
OW-128-48 With Type A Warning Light
ROAD CONSTRUCTION AHEAD
OW-49R-48 With Type A Warning Light
M.H.
36" Conc.
163+00
164+00
165+00
Temporary Edge Lines
Temporary Lane Line
℄ Survey & Construction I.R. 71
167+00
MATCHLINE RAMP F STA. 68+00
SC=64+49.14
CS=65+10.19
OW-46A-48 With Type A Warning Light
ST = 67+10.19
67+00
MATCHLINE RAMP F STA. 68+00
1152' Merge Taper @ 48:1
Drums @ 20' c/c
169+00
170+00
171+00
172+00
173+00
174+00
175+00
176+00
177+00
178+00
MATCHLINE RAMP F STA. 79+00
PC = 68+53.38
R-2-60
69+00
70+00
71+00
72+00
73+00
74+00
75+00
76+00
77+00
78+00
1152' Merge Taper @ 48:1
180+00
181+00
182+00
183+00
184+00
185+00
186+00
187+00
188+00
189+00
MATCHLINE I.R. 71 STA. 189+00
80+00
81+00
82+00
181+00
Sign
LEGEND
Permanent construction completed this Phase
Permanent construction completed in previous Phase
Temporary Pavement
Item 614 – Bituminous Concrete for Maintaining Traffic.
Item 254 – Pavement Planing Bituminous
0 40 80
Scale In Feet
CALCULATED
CHECKED
MAINTENANCE OF TRAFFIC DETAIL RAMP F PHASE 3B
WAY-71-0.28
91
432
Mot-rf3b.dwg May 10 ,2001







LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase
- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

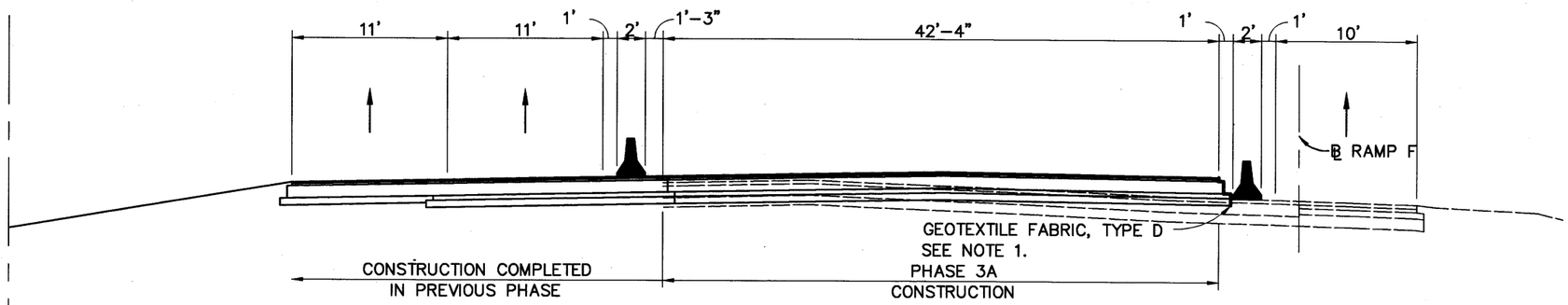
0 40 80 Scale In Feet

CALCULATED | CHECKED

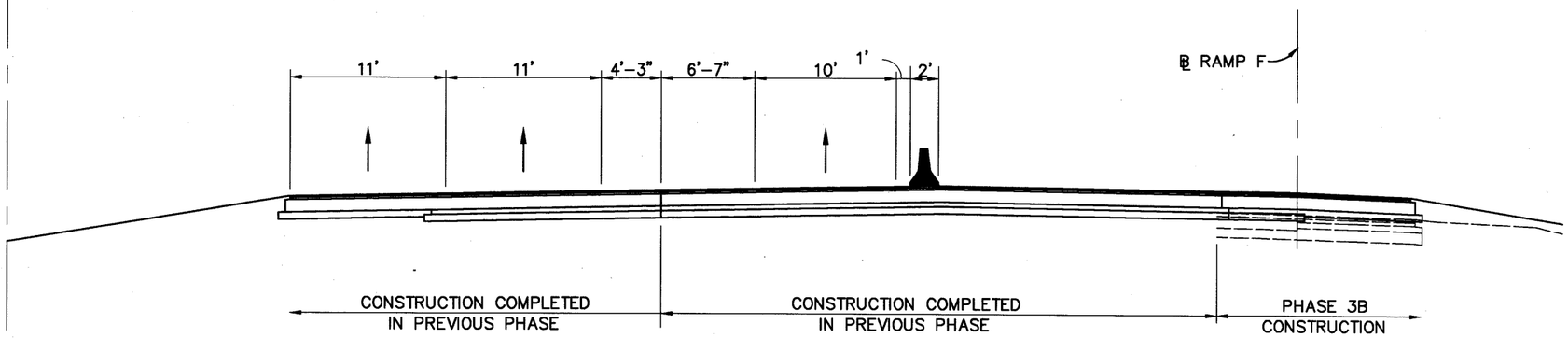
MAINTENANCE OF TRAFFIC DETAIL RAMP F PHASE 3B

WAY-71-0.28

Mot-rf3b.dwg May 10 2001



PHASE 3A SECTION A–A



PHASE 3B SECTION A–A

NOTES:

1. GEOTEXTILE FABRIC, TYPE D SHALL BE PLACED OVER THE EDGES OF ANY NEWLY CONSTRUCTED PAVEMENT FOR WHICH THE ASPHALT TREATED FREE DRAINING BASE WOULD BE EXPOSED OR IS IN CONTACT WITH TEMPORARY PAVEMENT. THE GEOTEXTILE FABRIC SHALL BE PLACED CONTINUOUSLY ALONG THE NEW PAVEMENT TO SERVE AS AN ISOLATION BARRIER TO PROTECT THE PAVEMENT BUILDUP EDGES. WHEN CONSTRUCTION CONTINUES IN ADJOINING PHASES, THE GEOTEXTILE FABRIC SHALL BE REMOVED. THE COST OF THE GEOTEXTILE FABRIC SHALL BE INCLUDED FOR PAYMENT IN ITEM 614–MAINTAINING TRAFFIC.

2. CROSS SECTIONS SHOWN IN DIRECTION OF TRAFFIC

LEGEND

- Temporary Pavement
- Item 614 – Bituminous Concrete for Maintaining Traffic.
- Item 254 – Pavement Planing Bituminous

Scale In Feet: 0, 5, 10

CALCULATED

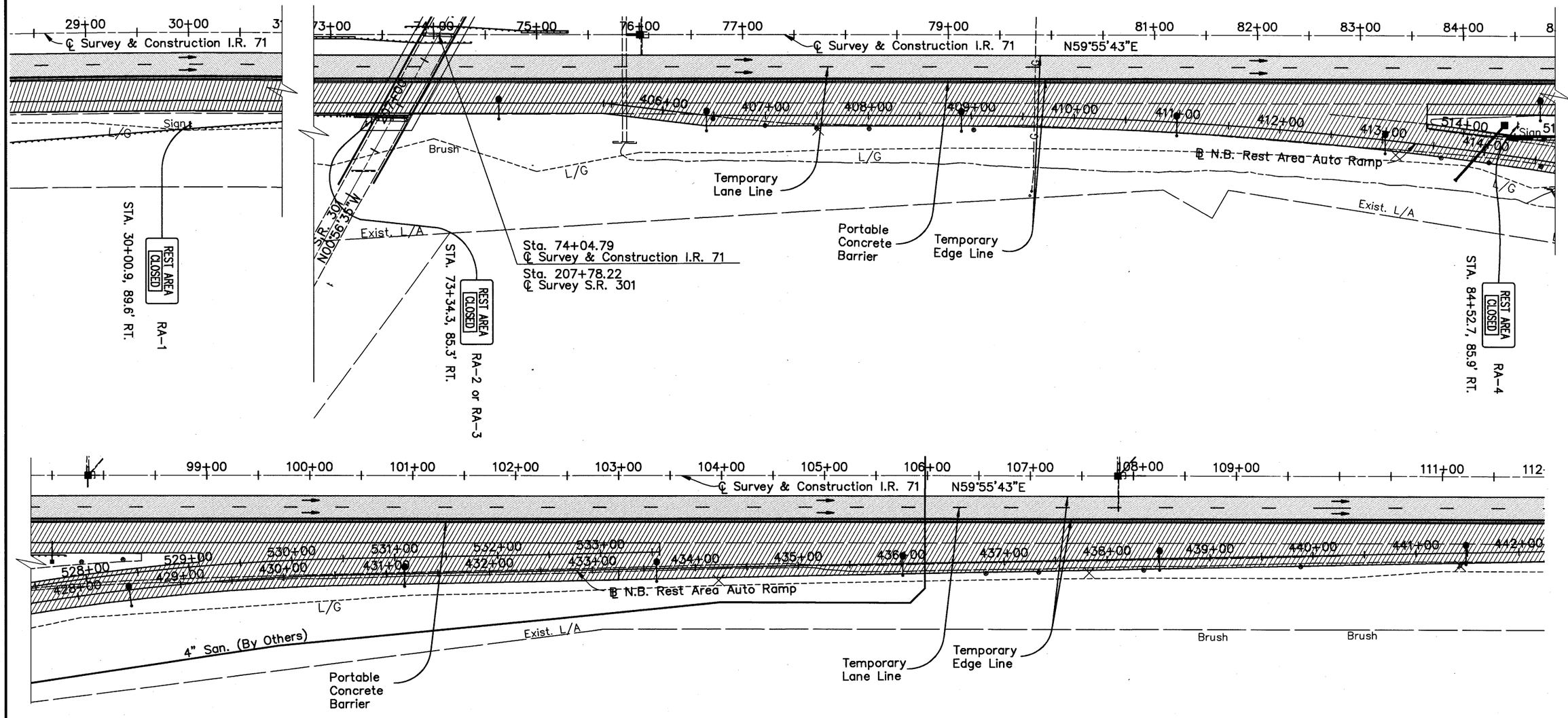
CHECKED

MAINTENANCE OF TRAFFIC
RAMP F – SECTION A–A

WAY–71–0.28

93
432

MOT-RAMP-XSEC.dwg May 10 ,2001



NOTES:

1. REST AREA SIGNS (RA–1 THRU RA–4) SHALL HAVE THE ACTION MESSAGE COVERED BY AN OVERLAY BEARING THE LEGEND "CLOSED". THIS PANEL SHALL HAVE A BLACK LEGEND ON A REFLECTORIZED ORANGE BACKGROUND. THE OVERLAY FOR THE RA–1 AND RA–3 SIGNS SHALL BE 8' x 1 1/2'. THE OVERLAY FOR THE RA–2 AND RA–4 SIGNS SHALL BE 4' x 1 1/2'.
2. SUPPLEMENTAL PANELS LOCATED UNDER MAINLINE REST AREA SIGNS SHALL BE REMOVED OR COVERED WHEN THE REST AREA IS CLOSED. (EXAMPLE: TELEPHONE, TOURIST INFO, HANDICAPPED SYMBOL SIGN).
3. SEE GENERAL NOTE SHEET 29 FOR ADDITIONAL DETAILS.

LEGEND

- Permanent construction completed this Phase
- Permanent construction completed in previous Phase

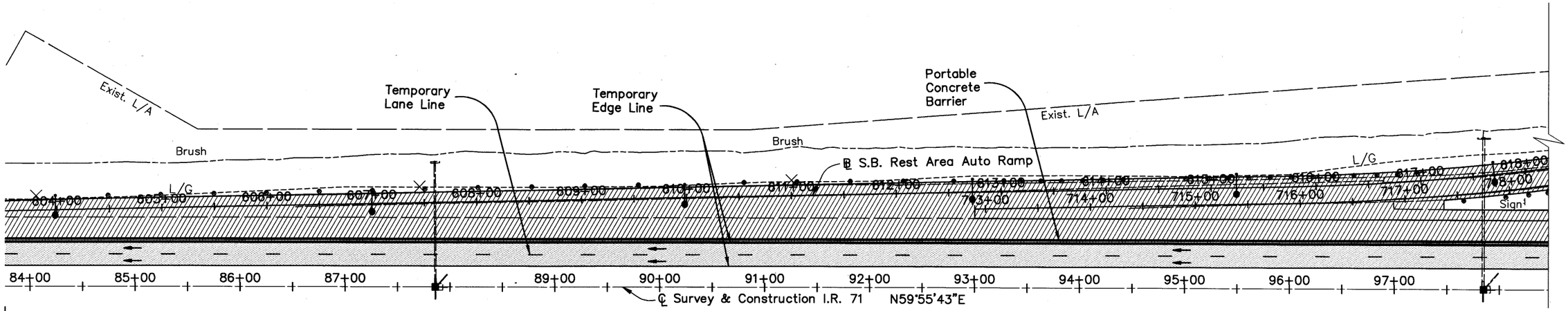
Scale in Feet: 0, 50, 100

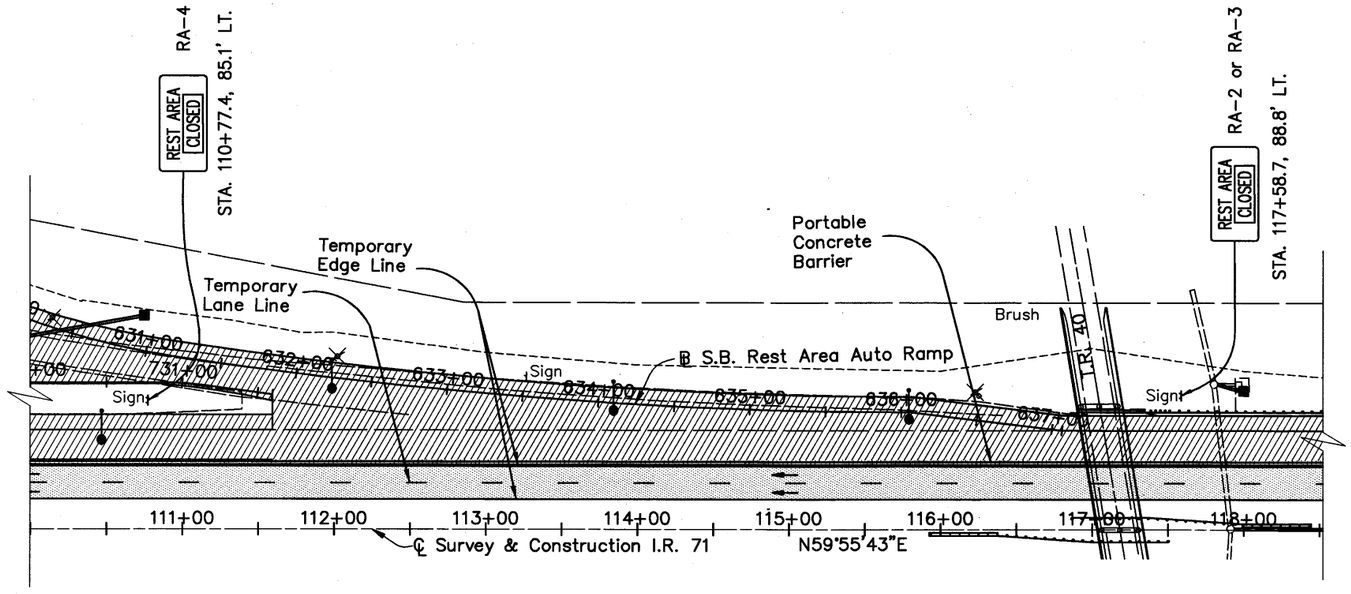
MAINTENANCE OF TRAFFIC STAGE 1, PHASE 3
NORTHBOUND REST AREA CLOSURE

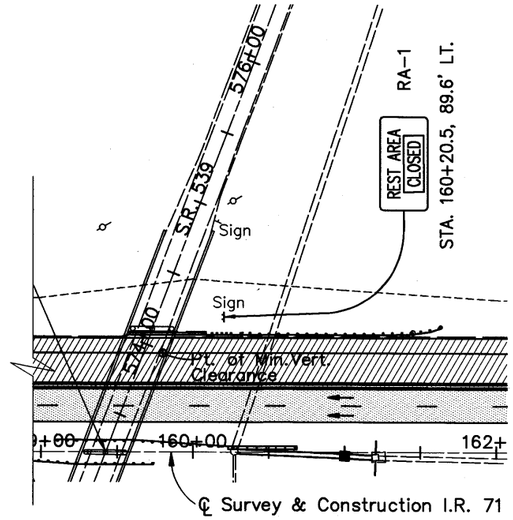
WAY–71–0.28

94
432

RA_Closure.dwg May 10 ,2001







NOTES:

1. REST AREA SIGNS (RA-1 THRU RA-4) SHALL HAVE THE ACTION MESSAGE COVERED BY AN OVERLAY BEARING THE LEGEND "CLOSED". THIS PANEL SHALL HAVE A BLACK LEGEND ON A REFLECTORIZED ORANGE BACKGROUND. THE OVERLAY FOR THE RA-1 AND RA-3 SIGNS SHALL BE 8' x 1 1/2'. THE OVERLAY FOR THE RA-2 AND RA-4 SIGNS SHALL BE 4' x 1 1/2'.
2. SUPPLEMENTAL PANELS LOCATED UNDER MAINLINE REST AREA SIGNS SHALL BE REMOVED OR COVERED WHEN THE REST AREA IS CLOSED. (EXAMPLE: TELEPHONE, TOURIST INFO, HANDICAPPED SYMBOL SIGN).
3. SEE GENERAL NOTE SHEET 29 FOR ADDITIONAL DETAILS.

LEGEND

Permanent construction completed this Phase

Permanent construction completed in previous Phase

0 50 100 Scale in Feet

MAINTENANCE OF TRAFFIC STAGE 1, PHASE 3
SOUTHBOUND REST AREA CLOSURE

WAY-71-0.28

RA_Closure.dwg May 10 ,2001

MAINTENANCE OF TRAFFIC
LEFT LANE ENDS SERIES SIGNS

CALCULATED | CHECKED

0 50 100 Scale in Feet

LEGEND—SIGNING

- EXISTING, TO REMAIN
- EXISTING, TO BE REMOVED
- EXISTING, TO BE RELOCATED/RELOCATED
- PROPOSED

SEE SHEET 97 FOR SIGNING DETAILS.

WAY-71-0.28

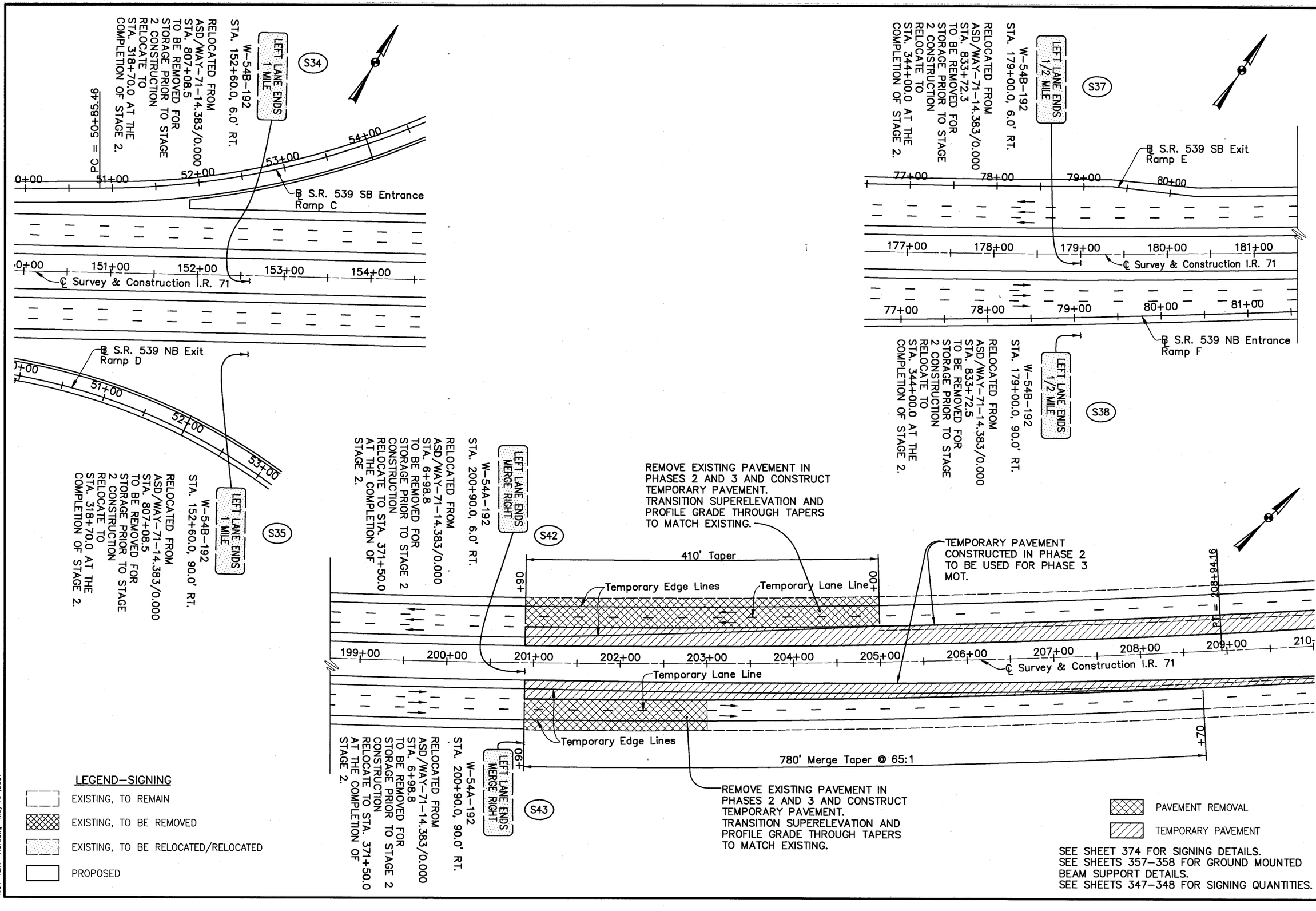
MOT-LEFT-LAN.DWG May 10 ,2001

MAINTENANCE OF TRAFFIC BETWEEN STAGES OF CONSTRUCTION

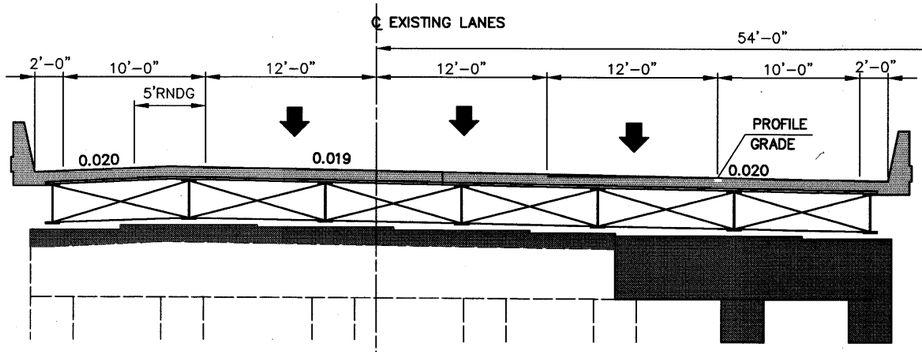
CALCULATED | CHECKED

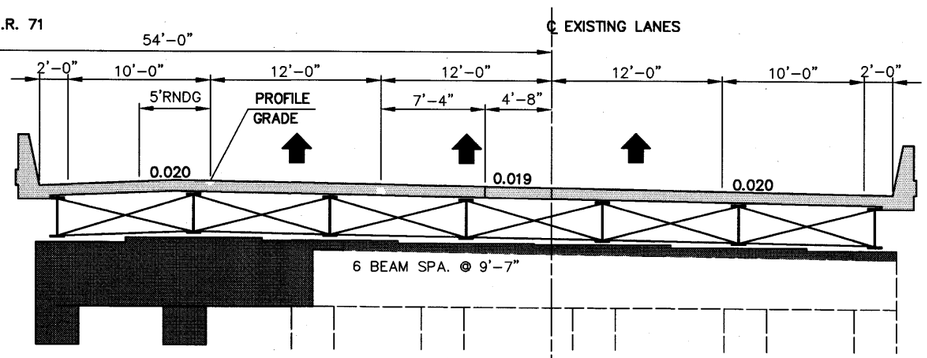
0 50 100 Scale in Feet

WAY-71-0.28

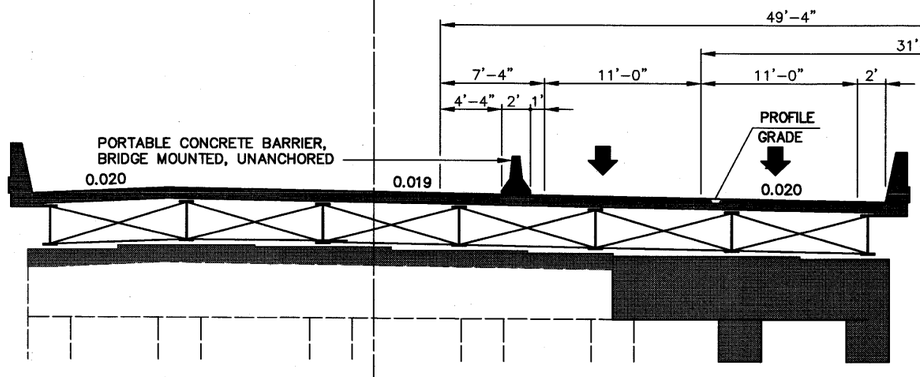


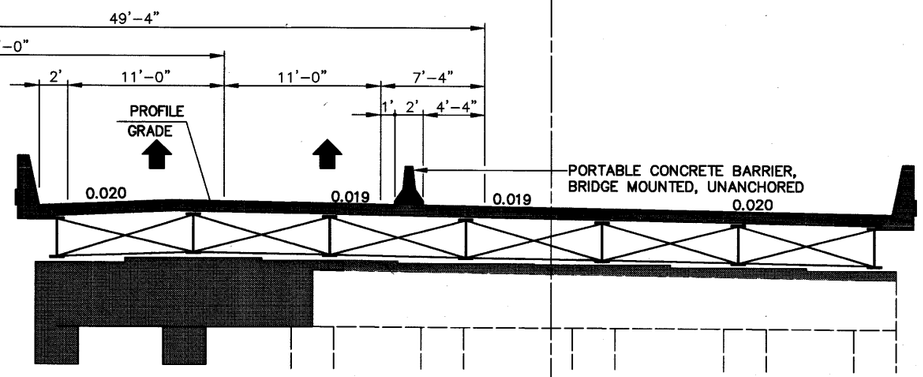
MOT-TEMP-NOR.dgn Nov 10 2001



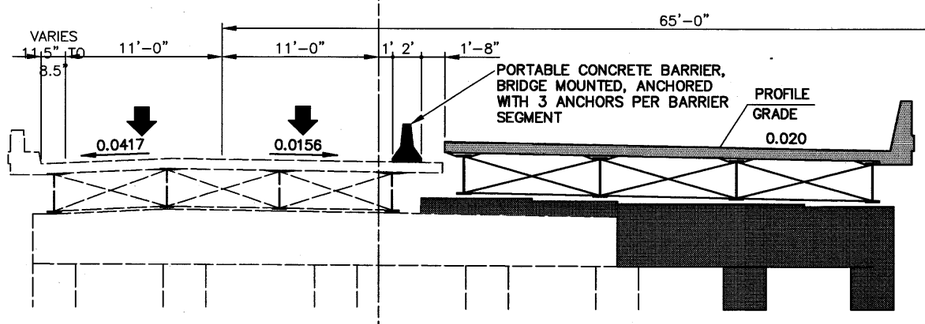


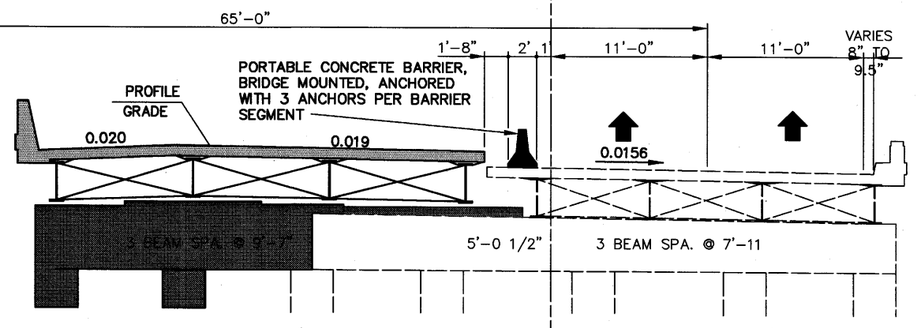
END PHASE 3



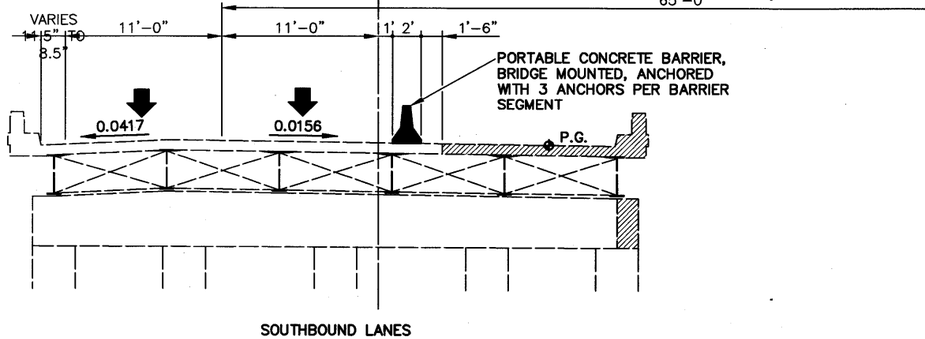


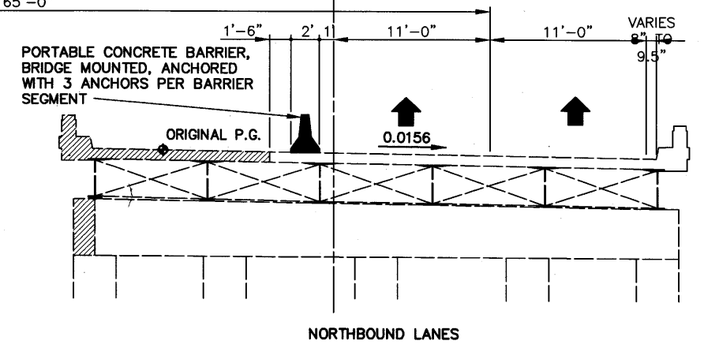
PHASE 3





PHASE 2





PHASE 2

SOUTHBOUND LANES

NORTHBOUND LANES

CALCULATED RLE
CHECKED DLD

MAINTENANCE OF TRAFFIC
STRUCTURE TRANSVERSE SECTIONS – C.R. 70

WAY-71-0.28

98
432

MOT70XS.DWG May 10 ,2001

℄ EXISTING LANES

℄ SURVEY & CONSTRUCTION I.R. 71

℄ EXISTING LANES

END PHASE 3

LIMITS OF FILL
LIMITS OF REMOVAL
SHEET PILING
LIMITS OF PROPOSED ROADBED

PHASE 3

PHASE 3 – COMPLETE OUTSIDE PORTIONS OF FILL.
CONSTRUCT NEW OUTSIDE PAVEMENT.

PHASE 2

PHASE 2 – DRIVE SHEET PILING.
SINGLE LANE OF TRAFFIC IN OUTSIDE LANE – NIGHT TIME LANE CLOSURE REQUIRED.
FILL MEDIAN AREA.
CONSTRUCT NEW MEDIAN PAVEMENT.

TOP OF INITIAL FILL

PHASE 2 – REMOVE MEDIAN PORTION OF EXISTING STRUCTURES.
SINGLE LANE OF TRAFFIC IN OUTSIDE LANE – NIGHT TIME LANE CLOSURE REQUIRED.

FILL TO ELEVATION 956.5 ± DURING
FIRST YEAR OF CONSTRUCTION.

SOUTHBOUND LANES

NORTHBOUND LANES

MAINTENANCE OF TRAFFIC
STRUCTURE TRANSVERSE SECTIONS – OVER ABANDONED RAILROAD

CALCULATED RLE
CHECKED DLD

WAY–71–0.28

MOTRRXS.DWG May 10 ,2001

FROM SHEET NUMBER																	ITEM NO.	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SEE SHEET
19–25	27	28–33	40–43		44–45	104–107	108	110	123	125		126–130		361	375							
																					ROADWAY	
LUMP																	201	11001	LUMP		CLEARING AND GRUBBING, AS PER PLAN	19
												214784					202	23000	214784	SQ.YD.	PAVEMENT REMOVED	
												564					202	23500	564	SQ.YD.	WEARING COURSE REMOVED	
						350											202	30000	350	SQ.FT.	WALK REMOVED	
												3572					202	32000	3572	LIN.FT.	CURB REMOVED	
						460											202	32600	460	LIN.FT.	GUTTER REMOVED	
						2772											202	35100	2772	LIN.FT.	PIPE REMOVED, 24" AND UNDER	
						1228											202	35200	1228	LIN.FT.	PIPE REMOVED, OVER 24"	
								27414									202	38000	27414	LIN.FT.	GUARDRAIL REMOVED	
600																	202	54100	600	EACH	RAISED PAVEMENT MARKER REMOVED FOR STORAGE	
						5											202	58000	5	EACH	MANHOLE REMOVED	
						56											202	58100	56	EACH	CATCH BASIN REMOVED	
						2											202	58200	2	EACH	INLET REMOVED	
						20											202	98100	20	EACH	REMOVAL MISC.: HEADWALL	
4649	2006						307773										203	12000	314428	CU.YD.	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	
	189874																203	13100	189874	CU.YD.	EXCAVATION OF UNSUITABLE MATERIAL	
4649	156117						110714										203	20000	271480	CU.YD.	EMBANKMENT	
	35763																203	35000	35763	CU.YD.	SELECT GRANULAR EMBANKMENT	
												166					203	45000	166	HOUR	PROOF ROLLING	
												498477					203	50000	498477	SQ.YD.	SUBGRADE COMPACTION	
						5284											203	55000	5284	LIN.FT.	DITCH CLEANOUT	
												77					203	60000	77	STATION	LINEAR GRADING	
	59008																205	10100	59008	CU.YD.	LIME MODIFIED SOIL–SLURRY METHOD	
	4778																205	10300	4778	TON	LIME	
	597																205	10400	597	M GAL.	WATER	
9																	604	40500	9	EACH	REFERENCE MONUMENT	
								25400.00									606	13000	25400.00	LIN.FT.	GUARDRAIL, TYPE 5	
								175.00									606	13050	175.00	LIN.FT.	GUARDRAIL, TYPE 5A	
								1587.50									606	14000	1587.50	LIN.FT.	GUARDRAIL, TYPE 8	
								150.00									606	15500	150.00	LIN.FT.	GUARDRAIL, BARRIER DESIGN, TYPE 5	
								4									606	17500	4	EACH	POST END ANCHOR (OR CONCRETE BLOCK END ANCHOR)	
								22									606	22000	22	EACH	ANCHOR ASSEMBLY, TYPE B–98	
								2									606	22010	2	EACH	ANCHOR ASSEMBLY, TYPE E–98	
								27									606	26500	27	EACH	ANCHOR ASSEMBLY, TYPE T	
								18									606	35000	18	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE I	
								6									606	35100	6	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2	
								12									606	60000	12	EACH	IMPACT ATTENUATOR, TYPE I–98 (UNIDIRECTIONAL)	
								1									606	60026	1	EACH	IMPACT ATTENUATOR, TYPE 2–98 [(MODEL QS3006Y), UNIDIRECTIONAL]	
74211																	607	15001	74211	LIN.FT.	FENCE, TYPE 47, AS PER PLAN	22
												4026					608	10000	4026	SQ.FT.	4" CONCRETE WALK	
								961									622	10061	961	LIN.FT.	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN	22
								520									622	10160	520	LIN.FT.	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
								227									622	10161	227	LIN.FT.	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN	22
15																	625	32000	15	EACH	GROUND ROD	
																					EROSION CONTROL	
16									592								601	11001	608	SQ.YD.	RIPRAP USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN	22
						200											601	20000	200	SQ.YD.	CRUSHED AGGREGATE SLOPE PROTECTION	
150						11											601	32104	161	CU.YD.	ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER	
60						139				34							601	32204	233	CU.YD.	ROCK CHANNEL PROTECTION, TYPE C WITH FABRIC FILTER	
211																	601	34200	211	CU.YD.	ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER	
						12851											670	40000	12851	SQ.YD.	DITCH EROSION PROTECTION	
						11309											670	41000	11309	SQ.YD.	SLOPE EROSION PROTECTION	

CALCULATED GDS 04/01
CHECKED AFS 04/01

GENERAL SUMMARY

WAY–71–0.28

100
432

M:\99029\AUTOCAD\ACAD-R12\Gensum.dwg - SHEET 100 - May 09, 2001

FROM SHEET NUMBER																	ITEM NO.	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SEE SHEET
19–25	27	28–33	40–43		44–45	104–107	108	110	123	125		126–130		361	375							
																					EROSION CONTROL (CONTINUED)	
						625											840	98000	625	SQ.YD.	EROSION CONTROL MISC.: SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1	
						423											840	98000	423	SQ.YD.	EROSION CONTROL MISC.: SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 2	
						277											840	98000	277	SQ.YD.	EROSION CONTROL MISC.: SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 3	
4																	870	00100	4	EACH	SOIL ANALYSIS TEST	
35146																	870	00300	35146	CU.YD.	TOPSOIL	
316635																	870	10000	316635	SQ.YD.	SEEDING AND MULCHING	
15832																	870	14000	15832	SQ.YD.	REPAIR SEEDING AND MULCHING	
15832																	870	15000	15832	SQ.YD.	INTER–SEEDING	
56.29																	870	20000	56.29	TON	COMMERCIAL FERTILIZER	
131.09																	870	30000	131.09	TON	AGRICULTURAL LIME	
1847																	870	35000	1847	M GAL.	WATER	
712																	870	40000	712	M SQ. FT.	MOWING	
126654																	877	10000	126654	SQ.YD.	TEMPORARY SEEDING AND MULCHING	
1625										3250							877	30100	4875	LIN.FT.	TEMPORARY PERIMETER FILTER FABRIC FENCE	
1038										2075							877	30200	3113	LIN.FT.	TEMPORARY DITCH CHECK FILTER FABRIC FENCE	
3300										6600							877	30300	9900	LIN.FT.	TEMPORARY INLET PROTECTION FILTER FABRIC FENCE	
50																	877	40000	50	LIN.FT.	TEMPORARY SLOPE DRAINS	
17										170							877	50000	187	CU.YD.	TEMPORARY SEDIMENT BASINS AND DAMS	
40																	877	55000	40	CU.YD.	TEMPORARY DIKES	
2755																	877	55500	2755	SQ.YD.	TEMPORARY DITCH PROTECTION	
85																	877	60000	85	CU.YD.	SEDIMENT REMOVAL	
																					DRAINAGE	
10						25											519	11100	35	SQ.FT.	PATCHING CONCRETE STRUCTURE	
						29.2											602	20000	29.2	CU.YD.	CONCRETE MASONRY	
									1745								603	00100	1745	LIN.FT.	4" CONDUIT, TYPE B	
															120		603	00400	120	LIN.FT.	4" CONDUIT, TYPE E	
									1342								603	00406	1342	LIN.FT.	4" CONDUIT, TYPE F	
250									3116								603	00900	3366	LIN.FT.	6" CONDUIT, TYPE B	
250									2685								603	01500	2935	LIN.FT.	6" CONDUIT, TYPE F	
200																	603	01800	200	LIN.FT.	8" CONDUIT, TYPE B	
200																	603	02500	200	LIN.FT.	8" CONDUIT, TYPE E	
360																	603	02600	360	LIN.FT.	8" CONDUIT, TYPE F	
						152											603	04400	152	LIN.FT.	12" CONDUIT, TYPE B	
						6											603	04400	6	LIN.FT.	12" CONDUIT, TYPE B, 706.02	
						454											603	05900	454	LIN.FT.	15" CONDUIT, TYPE B	
						46											603	05900	46	LIN.FT.	15" CONDUIT, TYPE B, 706.02	
						235											603	06100	235	LIN.FT.	15" CONDUIT, TYPE C	
						218											603	06100	218	LIN.FT.	15" CONDUIT, TYPE C, 706.02	
						50											603	06700	50	LIN.FT.	15" CONDUIT, TYPE F, 707.04	
						259											603	06700	259	LIN.FT.	15" CONDUIT, TYPE F, 707.05, TYPE C	
						295											603	07400	295	LIN.FT.	18" CONDUIT, TYPE B	
						250											603	07600	250	LIN.FT.	18" CONDUIT, TYPE C	
						48											603	07600	48	LIN.FT.	18" CONDUIT, TYPE C, 706.02	
						107											603	08200	107	LIN.FT.	18" CONDUIT, TYPE F, 707.04	
						204											603	08900	204	LIN.FT.	21" CONDUIT, TYPE B	
						12											603	09100	12	LIN.FT.	21" CONDUIT, TYPE C, 706.02	
						40											603	09700	40	LIN.FT.	21" CONDUIT, TYPE F, 707.04	
						675											603	10400	675	LIN.FT.	24" CONDUIT, TYPE B	
						6											603	10600	6	LIN.FT.	24" CONDUIT, TYPE C	
						12											603	10600	12	LIN.FT.	24" CONDUIT, TYPE C, 706.02	
						91											603	11200	91	LIN.FT.	24" CONDUIT, TYPE F, 707.05, TYPE C	
						538											603	11900	538	LIN.FT.	27" CONDUIT, TYPE B	
						300											603	12100	300	LIN.FT.	27" CONDUIT, TYPE C	

CALCULATED GQS 04/01
CHECKED AFS 04/01

GENERAL SUMMARY

WAY–71–0.28

101
432

M:\98028\AUTOCAD\ACAD-R12\Gensum.dwg - SHEET 101 - May 09, 2001

FROM SHEET NUMBER															SUBTOTAL		ITEM NO.	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SEE SHEET
19–25	27	28–33	40–43		44–45	104–107	108	110	123	125		126–130		361	N H	100 % STATE						
																					DRAINAGE (CONT'D)	
						133									133		603	13400	133	LIN.FT.	30" CONDUIT, TYPE B	
						1477									1477		603	13600	1477	LIN.FT.	30" CONDUIT, TYPE C	
						18									18		603	13600	18	LIN.FT.	30" CONDUIT, TYPE C, 706.02	
						232									232		603	16200	232	LIN.FT.	36" CONDUIT, TYPE A	
						410									410		603	16200	410	LIN.FT.	36" CONDUIT, TYPE A, 706.02, 2500 D–LOAD	
						1813									1813		603	16600	1813	LIN.FT.	36" CONDUIT, TYPE C	
						38									38		603	16600	38	LIN.FT.	36" CONDUIT, TYPE C, 706.02	
						4									4		603	19600	4	LIN.FT.	42" CONDUIT, TYPE C, 706.02	
						12									12		603	22600	12	LIN.FT.	54" CONDUIT, TYPE C, 706.02	
						318									318		603	35001	318	LIN.FT.	126" CONDUIT, TYPE A, 707.02 (ALUMINIZED), 10 GAGE, AS PER PLAN	285
						6									6		603	57400	6	LIN.FT.	35" x 24" CONDUIT, TYPE A, 707.01	
						152									152		603	96601	152	LIN.FT.	CONDUIT, BORED OR JACKED: 18" CONDUIT, TYPE B, AS PER PLAN	23
						238									238		603	96601	238	LIN.FT.	CONDUIT, BORED OR JACKED: 21" CONDUIT, TYPE B, AS PER PLAN	23
						320									320		603	96601	320	LIN.FT.	CONDUIT, BORED OR JACKED: 36" CONDUIT, TYPE A, AS PER PLAN	23
						308									308		603	96601	308	LIN.FT.	CONDUIT, BORED OR JACKED: 36" CONDUIT, TYPE B, AS PER PLAN	23
						310									310		603	96601	310	LIN.FT.	CONDUIT, BORED OR JACKED: 42" CONDUIT, TYPE A, AS PER PLAN	23
						5									5		604	00800	5	EACH	CATCH BASIN, NO. 3A	
						53									53		604	01201	53	EACH	CATCH BASIN, NO. 4, AS PER PLAN	23
						1									1		604	01401	1	EACH	CATCH BASIN, NO. 4A, AS PER PLAN	23
						2									2		604	02001	2	EACH	CATCH BASIN, NO. 6, AS PER PLAN	24
						1									1		604	04900	1	EACH	CATCH BASIN, NO. 2–3	
						1									1		604	09000	1	EACH	CATCH BASIN ADJUSTED TO GRADE	
						2									2		604	31500	2	EACH	MANHOLE, NO. 3	
						3									3		604	34500	3	EACH	MANHOLE ADJUSTED TO GRADE	
16															16		604	36601	16	EACH	PRECAST REINFORCED CONCRETE OUTLET, AS PER PLAN	24
									1225						1225		605	05111	1225	LIN.FT.	4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.33 OR 707.41, AS PER PLAN	24
									145346						145346		605	05111	145346	LIN.FT.	4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN	24
									148683						148683		605	11110	148683	LIN.FT.	6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41	
75															75		605	13402	75	LIN.FT.	6" UNCLASSIFIED PIPE UNDERDRAIN FOR SPRINGS	
									656						656		605	13410	656	LIN.FT.	6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41	
									1124						1124		605	13510	1124	LIN.FT.	6" ROCK CUT UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41	
500															500		605	32200	500	LIN.FT.	AGGREGATE DRAIN FOR SPRINGS	
40															40		605	98300	40	EACH	UNDERDRAIN, MISC.: CONNECT EXISTING UNDERDRAINS AT CATCH BASINS	
																					PAVEMENT	
2000																2000	203	98200	2000	TON	ROADWAY, MISC.: ASPHALT GRINDINGS	
												10430			10430		254	01000	10430	SQ.YD.	PAVEMENT PLANING, BITUMINOUS	
												384			384		255	10100	384	SQ.YD.	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS FS	
												1152			1152		255	20000	1152	LIN.FT.	FULL DEPTH PAVEMENT SAWING	
												1981			1981		302	46000	1981	CU.YD.	BITUMINOUS AGGREGATE BASE, PG64–22	
												82279			82279		304	20000	82279	CU.YD.	AGGREGATE BASE	
												825			825		407	10000	825	GAL.	TACK COAT	
												682			682		407	14000	682	GAL.	TACK COAT FOR INTERMEDIATE COURSE	
												150936			150936		408	10000	150936	GAL.	BITUMINOUS PRIME COAT	
												829			829		446	46040	829	CU.YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64–28	
												734			734		446	50000	734	CU.YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1H	
												86			86		452	11000	86	SQ.YD.	7" PLAIN CONCRETE PAVEMENT	
												678			678		611	25001	678	SQ.YD.	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN	24
														27	27		618	40600	27	MILE	RUMBLE STRIPS, TYPE 2 (ASPHALT)	
						73									73		830	26001	73	LIN.FT.	CURB, TYPE 6, AS PER PLAN	22
												3771			3771		830	28000	3771	LIN.FT.	CURB, TYPE 7	
												941			941		830	30001	941	LIN.FT.	CURB, TYPE 8, AS PER PLAN	15
						20									20		830	60100	20	SQ.YD.	10" CONCRETE TRAFFIC ISLAND	
												28093			28093		851	14000	28093	SQ.YD.	9" REINFORCED CONCRETE PAVEMENT	
												310158			310158		855	10000	310158	SQ.YD.	4" ASPHALT TREATED FREE DRAINING BASE	
												190665			190665		880	15000	190665	CU.YD.	ASPHALT CONCRETE (7 YEAR WARRANTY)	

CALCULATED GCS 04/01

CHECKED AFS 04/01

GENERAL SUMMARY

WAY–71–0.28

M:\98228\AUTOCAD\VACAD-R12\Genaum.dwg - SHEET 102 - May 09, 2001

FROM SHEET NUMBER																	ITEM NO.	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SEE SHEET
19–25	27	28–33	40–43		44–45	104–107	108	110	123	125		126–130		361	375							
																					MAINTENANCE OF TRAFFIC	
					80901												254	01000	80901	SQ.YD.	PAVEMENT PLANING, BITUMINOUS	
					741												410	12000	741	CU.YD.	TRAFFIC COMPACTED SURFACE, TYPE A OR B	
		4															606	27851	4	EACH	ANCHOR ASSEMBLY REBUILT, TYPE E, AS PER PLAN A	32
		18															606	27851	18	EACH	ANCHOR ASSEMBLY REBUILT, TYPE E, AS PER PLAN B	32
		125															606	98000	125	LIN.FT.	GUARDRAIL, MISC.: TEMPORARY GUARDRAIL, TYPE 5	
		500															614	11100	500	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR	
			3														614	12336	3	EACH	TEMPORARY IMPACT ATTENUATOR (UNIDIRECTIONAL)	
		43															614	12470	43	EACH	WORK ZONE SPEED LIMIT SIGN	
		27															614	12480	27	EACH	DOUBLED FINES IN WORK ZONE SIGN	
		250															SPEC.	61412500	250	SQ.FT.	REPLACEMENT SIGN	
		300															SPEC.	61412600	300	EACH	REPLACEMENT DRUM	
		100			*466*												614	13000	*566*	CU.YD.	BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC	
			7120														614	13300	7120	EACH	BARRIER REFLECTOR, TYPE B	
			7120														614	13350	7120	EACH	OBJECT MARKER	
		32															614	18600	32	SIGN MNTH	PORTABLE CHANGEABLE MESSAGE SIGN	
			58.46														614	20100	58.46	MILE	TEMPORARY LANE LINE, CLASS I, 642 PAINT	
			2.06														614	20200	2.06	MILE	TEMPORARY LANE LINE, CLASS I, 740.06, TYPE I	
			71.20														614	22100	71.20	MILE	TEMPORARY EDGE LINE, CLASS I, 642 PAINT	
			4.12														614	22200	4.12	MILE	TEMPORARY EDGE LINE, CLASS I, 740.06, TYPE I	
			3369														614	23200	3369	LIN.FT.	TEMPORARY CHANNELIZING LINE, CLASS I, 642 PAINT	
					LUMP												615	10000	LUMP		TEMPORARY ROAD	
					16505												615	20000	*16505*	SQ.YD.	TEMPORARY PAVEMENT, CLASS A	
					6005												615	20001	*6005*	SQ.YD.	TEMPORARY PAVEMENT, CLASS A, *AS PER PLAN*	
					1260												615	25000	*1260*	SQ.YD.	TEMPORARY PAVEMENT, CLASS B	*32*
					78562												615	35001	78562	SQ.YD.	TEMPORARY PAVEMENT, AS PER PLAN	*32*
		3000															616	10000	3000	M. GAL.	WATER	
		300															616	20000	300	TON	CALCIUM CHLORIDE	
			176890														622	40020	176890	LIN.FT.	PORTABLE CONCRETE BARRIER, 32"	
			1070														622	40040	1070	LIN.FT.	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED	
																	614	11000	LUMP		MAINTAINING TRAFFIC	
																	623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
																	624	10000	LUMP		MOBILIZATION	
																	806	16020	21	MONTH	FIELD OFFICE, TYPE C	
																					FOR LIGHTING SEE SHEET *380.*	
																					FOR TRAFFIC CONTROL SEE SHEET 345.	
																					FOR RETAINING WALLS SEE SHEET 328.	
																					FOR STRUCTURE NO. WAY–71–0673 L/R SEE SHEET 394.	
																					FOR STRUCTURE NO. WAY–71–0697 L/R SEE SHEET 426.	
																					FOR ITS SEE SHEET 424–425.	

CALCULATED SDS 04/01
CHECKED VLK 04/01

GENERAL SUMMARY

WAY–71–0.28

M:\99029\AUTOCAD\ACAD-R12\Gensum.dwg - SHEET 103 - May 10, 2001

CALCULATED GCS 04/01 | CHECKED BJR 04/01

SUMMARY OF TABLES

FROM SHEET NO.	STATION TO STATION	202								203	519	601			602
		WALK REMOVED	GUTTER REMOVED	PIPE REMOVED, 24" AND UNDER	PIPE REMOVED, OVER 24"	MANHOLE REMOVED	CATCH BASIN REMOVED	INLET REMOVED	REMOVAL MISC.: HEADWALL	DITCH CLEANOUT	PATCHING CONCRETE STRUCTURE	CRUSHED AGGREGATE SLOPE PROTECTION	ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER	ROCK CHANNEL PROTECTION, TYPE C WITH FABRIC FILTER	CONCRETE MASONRY
	I 71 PLAN AND PROFILES	SQ. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	LIN. FT.	SQ. FT.	SQ. YD.	CU. YD.	CU. YD.	CU. YD.
138	STA. 8+00 TO STA. 20+00														
139	STA. 20+00 TO STA. 32+00						1		1					1	0.3
140	STA. 32+00 TO STA. 44+00						2		1	120				1	0.3
141	STA. 44+00 TO STA. 56+00		31				1						3		0.3
142	STA. 56+00 TO STA. 68+00		68	46			2		1	539				102	3.4
143	STA. 68+00 TO STA. 78+00						1								
144	STA. 78+00 TO STA. 88+00						1								
145	STA. 88+00 TO STA. 98+00						1								
146	STA. 98+00 TO STA. 110+00						1								
147	STA. 110+00 TO STA. 122+00						2								
148	STA. 122+00 TO STA. 134+00						1								
149	STA. 134+00 TO STA. 144+00						2								
150	STA. 144+00 TO STA. 154+00			138	290		4			65				3	0.7
151	STA. 154+00 TO STA. 166+00			4			2								
152	STA. 166+00 TO STA. 178+00						1								
153	STA. 178+00 TO STA. 188+00														
154	STA. 188+00 TO STA. 200+00						1			54					
155	STA. 200+00 TO STA. 212+00			10	334		2			427			8		1.4
156	STA. 212+00 TO STA. 224+00						1		1	581				1	1.1
157	STA. 224+00 TO STA. 236+00						1			883					
SUB–TOTAL CARRIED TO SHEET 106		0	99	198	624	0	27	0	4	2669	0	0	11	108	7.5

FROM SHEET NO.	STATION TO STATION	604								670		830		840		
		CATCH BASIN, NO. 3A	CATCH BASIN, NO. 4, AS PER PLAN	CATCH BASIN, NO. 4A, AS PER PLAN	CATCH BASIN, NO. 6, AS PER PLAN	CATCH BASIN, NO. 2–3	CATCH BASIN ADJUSTED TO GRADE	MANHOLE NO. 3	MANHOLE ADJUSTED TO GRADE	DITCH EROSION PROTECTION	SLOPE EROSION PROTECTION	CURB, TYPE 6 AS PER PLAN	10" CONCRETE TRAFFIC ISLAND	EROSION CONTROL MISC.: SEEDING & EROSION CONTROL W/TURF REINF. MAT–TYPE 1	EROSION CONTROL MISC.: SEEDING & EROSION CONTROL W/TURF REINF. MAT–TYPE 2	EROSION CONTROL MISC.: SEEDING & EROSION CONTROL W/TURF REINF. MAT–TYPE 3
	I 71 PLAN AND PROFILES	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SQ. YD.	SQ. YD.	LIN. FT.	SQ. YD.	SQ. YD.	SQ. YD.	SQ. YD.
138	STA. 8+00 TO STA. 20+00															
139	STA. 20+00 TO STA. 32+00		1													
140	STA. 32+00 TO STA. 44+00		2							100						
141	STA. 44+00 TO STA. 56+00		1							749				288		
142	STA. 56+00 TO STA. 68+00		2				1			651					423	
143	STA. 68+00 TO STA. 78+00		1							366						
144	STA. 78+00 TO STA. 88+00		1							367						
145	STA. 88+00 TO STA. 98+00		1													
146	STA. 98+00 TO STA. 110+00		1													
147	STA. 110+00 TO STA. 122+00		2						1							
148	STA. 122+00 TO STA. 134+00		1													
149	STA. 134+00 TO STA. 144+00		2													
150	STA. 144+00 TO STA. 154+00		2							46						
151	STA. 154+00 TO STA. 166+00		2						2	367						
152	STA. 166+00 TO STA. 178+00		1													
153	STA. 178+00 TO STA. 188+00									122						
154	STA. 188+00 TO STA. 200+00		1							337						
155	STA. 200+00 TO STA. 212+00		2							66				24		
156	STA. 212+00 TO STA. 224+00		1							594				9		
157	STA. 224+00 TO STA. 236+00		1							1009						
SUB–TOTAL CARRIED TO SHEET 106		0	25	0	0	0	1	0	3	4774	0	0	0	321	423	0

M:\99026\AUTOCAD\ACAD-R125\SUMTAB.DWG - SHEET 104 - May 08, 2001

CALCULATED GDS 04/01 | CHECKED BJR 04/01

SUMMARY OF TABLES

FROM SHEET NO.	STATION TO STATION	603 12" CONDUIT, TYPE B	603 12" CONDUIT, TYPE B, 706.02	603 15" CONDUIT, TYPE B	603 15" CONDUIT, TYPE B, 706.02	603 15" CONDUIT, TYPE C	603 15" CONDUIT, TYPE C, 706.02	603 15" CONDUIT, TYPE F, 707.04	603 15" CONDUIT, TYPE F, 707.05 TYPE C	603 18" CONDUIT, TYPE B	603 18" CONDUIT, TYPE C	603 18" CONDUIT, TYPE C, 706.02	603 18" CONDUIT, TYPE F, 707.04	603 21" CONDUIT, TYPE B	603 21" CONDUIT, TYPE C, 706.02	603 21" CONDUIT, TYPE F, 707.04	603 24" CONDUIT, TYPE B	603 24" CONDUIT, TYPE C	603 24" CONDUIT, TYPE C, 706.02	603 24" CONDUIT, TYPE F, 707.05 TYPE C	603 27" CONDUIT, TYPE B	603 27" CONDUIT, TYPE C
	I 71 PLAN AND PROFILES	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.
138	STA. 8+00 TO STA. 20+00																					
139	STA. 20+00 TO STA. 32+00						26															
140	STA. 32+00 TO STA. 44+00						46					6										
141	STA. 44+00 TO STA. 56+00											6	49									
142	STA. 56+00 TO STA. 68+00			142			6															
143	STA. 68+00 TO STA. 78+00						6															
144	STA. 78+00 TO STA. 88+00						6															
145	STA. 88+00 TO STA. 98+00																		6			
146	STA. 98+00 TO STA. 110+00																		6			
147	STA. 110+00 TO STA. 122+00					104																
148	STA. 122+00 TO STA. 134+00											6										
149	STA. 134+00 TO STA. 144+00						12															
150	STA. 144+00 TO STA. 154+00					12																
151	STA. 154+00 TO STA. 166+00											6										
152	STA. 166+00 TO STA. 178+00											6										
153	STA. 178+00 TO STA. 188+00																					
154	STA. 188+00 TO STA. 200+00						9															
155	STA. 200+00 TO STA. 212+00					10									6							
156	STA. 212+00 TO STA. 224+00				46																	
157	STA. 224+00 TO STA. 236+00						6															
SUB–TOTAL CARRIED TO SHEET 107		0	0	142	46	126	117	0	0	0	0	30	49	0	6	0	0	0	12	0	0	0

FROM SHEET NO.	STATION TO STATION	603 30" CONDUIT, TYPE B	603 30" CONDUIT, TYPE C	603 30" CONDUIT, TYPE C, 706.02	603 36" CONDUIT, TYPE A	603 36" CONDUIT, TYPE A, 706.02 2500 D-LOAD	603 36" CONDUIT, TYPE C	603 36" CONDUIT, TYPE C, 706.02	603 42" CONDUIT, TYPE C, 706.02	603 54" CONDUIT, TYPE C, 706.02	603 126" CONDUIT TYPE A, 707.02 (ALUMINIZED), AS PER PLAN	603 35"x24" CONDUIT, TYPE A, 707.01	603 CONDUIT, BORED, OR JACKED: 18", CONDUIT, TYPE B AS PER PLAN	603 CONDUIT, BORED, OR JACKED: 21", CONDUIT, TYPE B AS PER PLAN	603 CONDUIT, BORED, OR JACKED: 36", CONDUIT, TYPE A AS PER PLAN	603 CONDUIT, BORED, OR JACKED: 36", CONDUIT, TYPE B AS PER PLAN	603 CONDUIT, BORED, OR JACKED: 42", CONDUIT, TYPE A AS PER PLAN
	I 71 PLAN AND PROFILES	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.
138	STA. 8+00 TO STA. 20+00																
139	STA. 20+00 TO STA. 32+00																
140	STA. 32+00 TO STA. 44+00																
141	STA. 44+00 TO STA. 56+00																
142	STA. 56+00 TO STA. 68+00			12						12							
143	STA. 68+00 TO STA. 78+00																
144	STA. 78+00 TO STA. 88+00																
145	STA. 88+00 TO STA. 98+00																
146	STA. 98+00 TO STA. 110+00																
147	STA. 110+00 TO STA. 122+00																
148	STA. 122+00 TO STA. 134+00																
149	STA. 134+00 TO STA. 144+00																
150	STA. 144+00 TO STA. 154+00															308	
151	STA. 154+00 TO STA. 166+00						73	26									
152	STA. 166+00 TO STA. 178+00																
153	STA. 178+00 TO STA. 188+00																
154	STA. 188+00 TO STA. 200+00																
155	STA. 200+00 TO STA. 212+00														320		
156	STA. 212+00 TO STA. 224+00								4								
157	STA. 224+00 TO STA. 236+00																
SUB–TOTAL CARRIED TO SHEET 107		0	0	12	0	0	73	26	4	12	0	0	0	0	320	308	0

M:\99029\AUTOCAD\ACAD-R12\SUMTAB.DWG- SHEET 105 - May 08, 2001

CALCULATED GCS 04/01 | CHECKED BJR 04/01

SUMMARY OF TABLES

FROM SHEET NO.	STATION TO STATION	202								203	519	601			602
		WALK REMOVED	GUTTER REMOVED	PIPE REMOVED, 24" AND UNDER	PIPE REMOVED, OVER 24"	MANHOLE REMOVED	CATCH BASIN REMOVED	INLET REMOVED	REMOVAL MISC.: HEADWALL	DITCH CLEANOUT	PATCHING CONCRETE STRUCTURE	CRUSHED AGGREGATE SLOPE PROTECTION	ROCK CHANNEL PROTECTION, TYPE B WITH FABRIC FILTER	ROCK CHANNEL PROTECTION, TYPE C WITH FABRIC FILTER	CONCRETE MASONRY
	I 71 PLAN AND PROFILES	SQ. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	LIN. FT.	SQ. FT.	SQ. YD.	CU. YD.	CU. YD.	CU. YD.
158	STA. 236+00 TO STA. 248+00						1			244					
159	STA. 248+00 TO STA. 260+00			152			1		1	92				2	0.3
160	STA. 260+00 TO STA. 272+00			465			4		3	149				6	2.5
161	STA. 272+00 TO STA. 284+00						1								
162	STA. 284+00 TO STA. 296+00				344		3		1					12	2.8
163	STA. 296+00 TO STA. 306+00					1	3					200			
164	STA. 306+00 TO STA. 318+00		195				2		1	324					0.7
165	STA. 318+00 TO STA. 328+00		166		40	1	1			360					
166	STA. 328+00 TO STA. 340+00						1		1	100	25			1	10.0
167	STA. 340+00 TO STA. 350+00						2		2	99				3	0.6
168	STA. 350+00 TO STA. 362+00			12			3		3	677				1	1.2
169	STA. 362+00 TO STA. 372+00						2		1	570				1	2.0
170	STA. 372+00 TO STA. 7+50														
171	STA. 7+50 TO STA. 17+50														
172	STA. 17+50 TO STA. 25+00														
308	NORTHBOUND REST AREA	176		920	112	1	2	1	2					2	1.0
317	SOUTHBOUND REST AREA	174		1025	108	2	3	1	1					3	0.6
	SUB-TOTAL FROM THIS SHEET	350	361	2574	604	5	29	2	16	2615	25	200	0	31	21.7
	SUB-TOTAL FROM SHEET 104	0	99	198	624	0	27	0	4	2669	0	0	11	108	7.5
	SUB-TOTAL CARRIED TO SHEETS 100-102	350	460	2772	1228	5	56	2	20	5284	25	200	11	139	29.2

FROM SHEET NO.	STATION TO STATION	604										670		830		840		
		CATCH BASIN, NO. 3A	CATCH BASIN, NO. 4, AS PER PLAN	CATCH BASIN, NO. 4A, AS PER PLAN	CATCH BASIN, NO. 6, AS PER PLAN	CATCH BASIN, NO. 2-3	CATCH BASIN ADJUSTED TO GRADE	MANHOLE NO. 3	MANHOLE ADJUSTED TO GRADE			DITCH EROSION PROTECTION	SLOPE EROSION PROTECTION	CURB, TYPE 6 AS PER PLAN	10" CONCRETE TRAFFIC ISLAND	EROSION CONTROL MISC.: SEEDING & EROSION CONTROL W/TURF REINF. MAT-TYPE 1	EROSION CONTROL MISC.: SEEDING & EROSION CONTROL W/TURF REINF. MAT-TYPE 2	EROSION CONTROL MISC.: SEEDING & EROSION CONTROL W/TURF REINF. MAT-TYPE 3
	I 71 PLAN AND PROFILES	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH			SQ. YD.	SQ. YD.	LIN. FT.	SQ. YD.	SQ. YD.	SQ. YD.	SQ. YD.
158	STA. 236+00 TO STA. 248+00		1									204						
159	STA. 248+00 TO STA. 260+00		1									77						
160	STA. 260+00 TO STA. 272+00		4									83						
161	STA. 272+00 TO STA. 284+00		1									727						
162	STA. 284+00 TO STA. 296+00		2									560	5823			94		
163	STA. 296+00 TO STA. 306+00		2			1		1				956	5486					
164	STA. 306+00 TO STA. 318+00		2									854				210		
165	STA. 318+00 TO STA. 328+00			1								1133						277
166	STA. 328+00 TO STA. 340+00		1									1072						
167	STA. 340+00 TO STA. 350+00		2									455						
168	STA. 350+00 TO STA. 362+00	4	4									1128		73				
169	STA. 362+00 TO STA. 372+00		2									828						
170	STA. 372+00 TO STA. 7+50																	
171	STA. 7+50 TO STA. 17+50																	
172	STA. 17+50 TO STA. 25+00																	
308	NORTHBOUND REST AREA		1		2			1							10			
317	SOUTHBOUND REST AREA	1	5												10			
	SUB-TOTAL FROM THIS SHEET	5	28	1	2	1	0	2	0			8077	11309	73	20	304	0	277
	SUB-TOTAL FROM SHEET 104	0	25	0	0	0	1	0	3			4774	0	0	0	321	423	0
	SUB-TOTAL CARRIED TO SHEETS 100-102	5	53	1	2	1	1	2	3			12851	11309	73	20	625	423	277

WAY-71-0.28

M:\99028\AUTOCAD\ACAD-R12\SUMTAB.DWG- SHEET 106 - May 08, 2001

CALCULATED GCS 04/01
CHECKED BJR 04/01

SUMMARY OF TABLES

FROM SHEET NO.	STATION TO STATION	603		603						603					603			603					603	
		12" CONDUIT, TYPE B	12" CONDUIT, TYPE B, 706.02	15" CONDUIT, TYPE B	15" CONDUIT, TYPE B, 706.02	15" CONDUIT, TYPE C	15" CONDUIT, TYPE C, 706.02	15" CONDUIT, TYPE F, 707.04	15" CONDUIT, TYPE F, 707.05 TYPE C	18" CONDUIT, TYPE B	18" CONDUIT, TYPE C	18" CONDUIT, TYPE C, 706.02	18" CONDUIT, TYPE F, 707.04		21" CONDUIT, TYPE B	21" CONDUIT, TYPE C, 706.02	21" CONDUIT, TYPE F, 707.04	24" CONDUIT, TYPE B	24" CONDUIT, TYPE C	24" CONDUIT, TYPE C, 706.02	24" CONDUIT, TYPE F, 707.05 TYPE C		27" CONDUIT, TYPE B	27" CONDUIT, TYPE C
	I 71 PLAN AND PROFILES	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.		LIN. FT.	LIN. FT.
158	STA. 236+00 TO STA. 248+00						6																	
159	STA. 248+00 TO STA. 260+00																							
160	STA. 260+00 TO STA. 272+00						46								92			128						
161	STA. 272+00 TO STA. 284+00										205													
162	STA. 284+00 TO STA. 296+00						6				45				112									
163	STA. 296+00 TO STA. 306+00		6																		91		91	
164	STA. 306+00 TO STA. 318+00											6												
165	STA. 318+00 TO STA. 328+00											6												
166	STA. 328+00 TO STA. 340+00															6	40							
167	STA. 340+00 TO STA. 350+00						12		72															
168	STA. 350+00 TO STA. 362+00			167		109	12		156			6	58											
169	STA. 362+00 TO STA. 372+00						19	50	31															
170	STA. 372+00 TO STA. 7+50																							
171	STA. 7+50 TO STA. 17+50																							
172	STA. 17+50 TO STA. 25+00																							
308	NORTHBOUND REST AREA	152		72														547					447	
317	SOUTHBOUND REST AREA			73						295									6					300
SUB–TOTAL FROM THIS SHEET		152	6	312	0	109	101	50	259	295	250	18	58		204	6	40	675	6	0	91		538	300
SUB–TOTAL FROM SHEET 105		0	0	142	46	126	117	0	0	0	0	30	49		0	6	0	0	0	12	0		0	0
SUB–TOTAL CARRIED TO SHEETS 100–102		152	6	454	46	235	218	50	259	295	250	48	107		204	12	40	675	6	12	91		538	300

FROM SHEET NO.	STATION TO STATION	603				603					603		603		603		603					
		30" CONDUIT, TYPE B	30" CONDUIT, TYPE C	30" CONDUIT, TYPE C, 706.02		36" CONDUIT, TYPE A	36" CONDUIT, TYPE A, 706.02 2500 D–LOAD	36" CONDUIT, TYPE C	36" CONDUIT, TYPE C, 706.02		42" CONDUIT, TYPE C, 706.02		54" CONDUIT, TYPE C, 706.02		126" CONDUIT TYPE A, 707.02 (ALUMINIZED), AS PER PLAN		35"x24" CONDUIT, TYPE A, 707.01		CONDUIT, BORED OR JACKED: 18" CONDUIT, TYPE B AS PER PLAN	CONDUIT, BORED OR JACKED: 21" CONDUIT, TYPE B AS PER PLAN	CONDUIT, BORED OR JACKED: 36" CONDUIT, TYPE A AS PER PLAN	CONDUIT, BORED OR JACKED: 36" CONDUIT, TYPE B AS PER PLAN	CONDUIT, BORED OR JACKED: 42" CONDUIT, TYPE A AS PER PLAN	
	I 71 PLAN AND PROFILES	LIN. FT.	LIN. FT.	LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.		LIN. FT.		LIN. FT.		LIN. FT.		LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	
158	STA. 236+00 TO STA. 248+00																							
159	STA. 248+00 TO STA. 260+00																			152				
160	STA. 260+00 TO STA. 272+00					232															238			
161	STA. 272+00 TO STA. 284+00																							
162	STA. 284+00 TO STA. 296+00								6															310
163	STA. 296+00 TO STA. 306+00		783																					
164	STA. 306+00 TO STA. 318+00		222					978	6															
165	STA. 318+00 TO STA. 328+00			6				762																
166	STA. 328+00 TO STA. 340+00														318									
167	STA. 340+00 TO STA. 350+00																							
168	STA. 350+00 TO STA. 362+00																							
169	STA. 362+00 TO STA. 372+00						410											6						
170	STA. 372+00 TO STA. 7+50																							
171	STA. 7+50 TO STA. 17+50																							
172	STA. 17+50 TO STA. 25+00																							
308	NORTHBOUND REST AREA																							
317	SOUTHBOUND REST AREA	133	472																					
SUB–TOTAL FROM THIS SHEET		133	1477	6		232	410	1740	12		0		0		318		6		152	238	0	0	310	
SUB–TOTAL FROM SHEET 105		0	0	12		0	0	73	26		4		12		0		0		0	0	320	308	0	
SUB–TOTAL CARRIED TO SHEETS 100–102		133	1477	18		232	410	1813	38		4		12		318		6		152	238	320	308	310	

M:\99029\AUTOCAD\ACAD-R12\SUMTAB.DWG-SHEET 107 - May 08, 2001

FROM SHEET NO.	STATION TO STATION	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	203 EMBANKMENT	
		CU. YD.	CU. YD.	
	CROSS SECTIONS			
174	15+00 TO 19+00	3062	403	
175	20+00 TO 24+00	2356	1128	
176	25+00 TO 28+00	1453	1069	
177	29+00 TO 33+00	1533	1486	
178	34+00 TO 38+00	1194	2133	
179	39+00 TO 43+00	1308	2043	
180	44+00 TO 48+00	1271	1904	
181	49+00 TO 53+00	1993	1648	
182	54+00 TO 58+00	2286	1389	
183	59+00 TO 62+00	1470	2509	
184	63+00 TO 67+00	2269	2834	
185	68+00 TO 72+00	8275	132	
186	73+00 TO 76+00	8593	0	
187	77+00 TO 81+00	5240	271	
188	82+00 TO 86+00	2652	1143	
189	87+00 TO 91+00	7575	8922	
190	92+00 TO 96+00	4180	817	
191	97+00 TO 101+00	4849	595	
192	102+00 TO 106+00	12861	2389	
193	107+00 TO 111+00	3997	619	
194	112+00 TO 116+00	6834	182	
195	117+00 TO 120+00	6122	43	
196	121+00 TO 125+00	3958	533	
197	126+00 TO 130+00	2712	881	
198	131+00 TO 135+00	2294	1001	
199	136+00 TO 140+00	2132	1016	
200	141+00 TO 145+00	1824	1842	
201	146+00 TO 150+00	2313	1366	
202	151+00 TO 155+00	4982	528	
203	156+00 TO 159+00	7423	2	
204	160+00 TO 164+00	8160	94	
205	165+00 TO 169+00	2558	1704	
206	170+00 TO 174+00	2374	1754	
207	175+00 TO 179+00	1995	1673	
208	180+00 TO 184+00	3089	1034	
209	185+00 TO 189+00	5623	296	
210	190+00 TO 194+00	7631	12	
211	195+00 TO 199+00	6841	111	
212	200+00 TO 204+00	4379	684	
213	205+00 TO 209+00	3946	538	
214	210+00 TO 214+00	2911	945	
215	215+00 TO 219+00	3189	652	
216	220+00 TO 224+00	3670	709	
217	225+00 TO 229+00	3076	971	
218	230+00 TO 234+00	2818	765	
	TOTAL THIS COLUMN 1	181271	52770	

FROM SHEET NO.	STATION TO STATION	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	203 EMBANKMENT	
		CU. YD.	CU. YD.	
	CROSS SECTIONS			
219	235+00 TO 239+00	2781	621	
220	240+00 TO 244+00	2793	883	
221	245+00 TO 249+00	2761	853	
222	250+00 TO 254+00	2584	793	
223	255+00 TO 259+00	4396	238	
224	260+00 TO 264+00	9343	0	
225	265+00 TO 269+00	10920	0	
226	270+00 TO 273+00	8628	0	
227	274+00 TO 278+00	8624	4	
228	279+00 TO 283+00	6306	194	
229	284+00 TO 288+00	4373	564	
230	289+00 TO 292+00	2756	618	
231	293+00 TO 295+00	9879	416	
232	296+00 TO 298+00	13985	180	
233	299+00 TO 301+00	5717	189	
234	302+00 TO 306+00	4483	629	
235	307+00 TO 311+00	2259	1325	
236	312+00 TO 316+00	2358	1443	
237	317+00 TO 321+00	3011	1198	
238	322+00 TO 326+00	2220	1559	
239	327+00 TO 330+00	1198	1332	
240	331+00 TO 334+00	930	1485	
241	335+00 TO 339+00	1267	1927	
242	340+00 TO 344+00	1833	1285	
243	345+00 TO 349+00	1685	1336	
244	350+00 TO 354+00	1830	1654	
245	355+00 TO 358+00	599	1402	
246	359+00 TO 363+00	2692	1510	
247	364+00 TO 367+00	2310	233	
248	368+00 TO 371+00	1662	33994	
249	372+00 TO 374+60.24	319	79	
	TOTAL THIS COLUMN	126502	57944	
	TOTAL COLUMN 1	181271	52770	
	QUANTITIES CARRIED TO GENERAL SUMMARY	307773	110714	

CALCULATED SLM 04/01
CHECKED GCS 04/01

EARTHWORK SUMMARY

WAY-71-0.28

M:\99229\AUTOCAD\ACAD-R12\earthwork.dwg - SHEET 108 - May 08, 2001

REFERENCE NO.	PLAN AND PROFILE SHEET NO.	STATION TO STATION		SIDE		202				606												622				626		
						GUARDRAIL REMOVED				GUARDRAIL, TYPE 5	GUARDRAIL, TYPE 5 ON RADIUS	GUARDRAIL, TYPE 5A	GUARDRAIL, BARRIER DESIGN, TYPE 5	GUARDRAIL, TYPE 8	ANCHOR ASSEMBLY, TYPE B-98	ANCHOR ASSEMBLY, TYPE E-98	ANCHOR ASSEMBLY, TYPE T	POST END ANCHOR (OR CONCRETE BLOCK END ANCHOR)	BRIDGE TERMINAL ASSEMBLY, TYPE 1	BRIDGE TERMINAL ASSEMBLY, TYPE 2	IMPACT ATTENUATOR, TYPE 1-98 (UNIDIRECTIONAL)	IMPACT ATTENUATOR, TYPE 2-98 (UNIDIRECTIONAL)	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, A.P.P.	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, A.P.P.		BARRIER REFLECTOR, TYPE A	BARRIER REFLECTOR, TYPE B	
		FROM	TO			Lin. Ft.				Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	Lin. Ft.	Lin. Ft.	Lin. Ft.		EACH	EACH	
GR1	139	28+09.41	31+98.58	RT										375.00			1	1										5		
GR2	140	35+06.25	40+76.30	LT		553				181.25				381.25			1	1										7		
GR3	143	71+69.13	73+75.00	RT		438				156.25					1				1					52.10			3	1	
GR4	143	72+78.47	74+36.00	RT		279				100.00			12.50				1				1						3		
GR5	143	73+73.00	75+30.53	LT		279				100.00			12.50				1				1						3		
GR6	143	74+34.00	76+27.87	LT		392				143.75					1				1							52.6	3	1	
GR7	145	95+37.87	97+62.50	RT						200.00					1		1										3		
GR8	147	114+35.90	119+81.50	RT		289				506.25					1		1		1	1				44.10			3	1	
GR9	147	115+92.47	117+50.00	RT		280				100.00			12.50				1				1						3		
GR10	147	116+87.00	118+44.53	LT		280				100.00			12.50				1				1						3		
GR11	147	116+91.00	118+88.37	LT		241				143.75					1				1					43.60			3	1	
GR12	151	157+27.12	159+26.00	RT		253				143.75					1				1					50.10			3	1	
GR13	151	158+15.97	159+73.50	RT		287				100.00			12.50				1				1						4		
GR14	151	159+11.00	160+68.53	LT		287				100.00			12.50				1				1						4		
GR15	151	159+58.00	161+57.38	LT		243				143.75					1				1					50.60			3	1	
GR16	154	192+80.71	195+04.00	RT		265				156.25					1				1						58.10		3	1	
GR17	154	192+55.56	194+25.50	RT		298				112.50			12.50				1				1						3		
GR18	154	193+50.50	195+20.39	LT		298				112.50			12.50				1				1						3		
GR19	154	192+70.00	200+25.00	LT		519				431.25				262.50					1					59.60			9	1	
GR20	152	171+10.42	174+49.83	LT										325.00			1	1									5		
GR21	156	220+12.50	233+12.12	LT		1294				1275.00					1		1										15		
GR22	158	240+00.38	248+00.00	RT		978				775.00					1		1										10		
GR23	158	240+50.00	250+24.61	LT		963				950.00					1		1										11		
GR24	160	266+43.63	268+42.50	RT		266				131.25					1				1						57.60		3	1	
GR25	160	267+78.19	269+48.00	RT		303				112.50			12.50				1				1						3		
GR26	160	268+73.00	270+43.03	LT		303				112.50			12.50				1				1						3		
GR27	160	269+80.00	271+92.39	LT		256				143.75					1				1						58.60		3	1	
GR28	162	286+52.96	290+50.00	RT		303				375.00					1		1										6		
GR29	163	298+15.13	300+58.00	RT		265				181.25					1				1					51.60			3	1	
GR30	163	298+58.47	300+16.00	RT		290				100.00			12.50				1				1						3		
SUBTOTALS THIS SHEET						10702				7187.50	0	0	137.50	1343.75	15	0	20	3	11	1	11	0	0	351.7	226.9		136	11	
FOR CONCRETE BARRIER LOCATIONS SEE SHEET 305.																													
FOR OVERPASS PIER PROTECTION DETAIL SHEET 304.																													

CALCULATED PLD 11-00
CHECKED GCS 11-00

GUARDRAIL SUB-SUMMARY

WAY-71-0.28

GRAIL-SUB-SU.dwg May 03, 2001

REFERENCE NO.	PLAN AND PROFILE SHEET NO.	STATION TO STATION		SIDE	202 GUARDRAIL REMOVED	606 GUARDRAIL, TYPE 5	GUARDRAIL, TYPE 5 ON RADIUS	GUARDRAIL, TYPE 5A	GUARDRAIL, BARRIER DESIGN, TYPE 5	GUARDRAIL, TYPE 8	ANCHOR ASSEMBLY, TYPE B-98	ANCHOR ASSEMBLY, TYPE E-98	ANCHOR ASSEMBLY, TYPE T	POST END ANCHOR (OR CONCRETE BLOCK END ANCHOR)	BRIDGE TERMINAL ASSEMBLY, TYPE 1	BRIDGE TERMINAL ASSEMBLY, TYPE 2	IMPACT ATTENUATOR, TYPE 1-98 (UNIDIRECTIONAL)	IMPACT ATTENUATOR, TYPE 2-98 (UNIDIRECTIONAL)	622 CONCRETE BARRIER, SINGLE SLOPE, TYPE B, A.P.P.	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, A.P.P.	626 BARRIER REFLECTOR, TYPE A	BARRIER REFLECTOR, TYPE B
		FROM	TO		Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	Lin. Ft.	Lin. Ft.	Lin. Ft.	EACH	EACH
GR31	163	299+53.00	301+10.53	LT	290	100.00			12.50								1						3	
GR32	163	299+11.00	301+28.37	LT	267	156.25					1				1					51.10			3	1
GR33	164	316+86.19	355+15.19	RT	3012	3800.00					1				1								40	2
GR34	165	323+44.74	353+60.17	LT	2867	2875.00							1			1							29	2
GR35	168	352+24.58	354+55.10	RT	375	218.75					1				1								3	2
GR36	168	355+13.54	371+70.99	LT	1410	1668.75									1								19	
GR37	168	355+73.69	357+66.25	LT	375	181.25					1				1								3	2
GR38	168	356+71.39	371+81.61	RT	1231	1500.00										1							15	
		ML&RAMP A	SR 301																					
GR39	260	48+35.38	210+63.96	LT	2740	2687.50	50.00						1										29	
		RAMP A	SR 301																					
GR40	260	19+35.72	209+45.47	R/L	608	550.00	50.00						1										8	
		ML&RAMP B	SR 301																					
GR41	262	47+30±	203+17.84	R/L	2364	2187.50	56.25			243.75				1									23	
		RAMP B	SR 301																					
GR42	262	25+44.56	204+44.33	LT	698	600.00	87.50																8	
GR43	149	142+17.55	146+29.91	RT		387.50					1		1										6	
		SR 539	RAMP E																					
GR44	268	579+04.60	62+14.48	R/L	250	187.50	50.00				1												4	
GR45	268	577+77.54	61+24.56	RT	105	81.25	18.75				1												3	
		SR 539	RAMP F																					
GR46	270	569+71.78	59+88.75	RT	120	137.50	62.50						1										4	
		CR 70																						
GR47	256	7+22±	12+04.92	RT		412.50	12.50					1	1										7	
GR48	256	8+06.43	12+46±	LT		81.25	12.50	175.00				1	1		2	3				117.00			5	1
		NB REST AREA																						
GR49	308	514+44.00	524+27.00	RT														1	960.50					11
SUBTOTALS THIS SHEET					16712	17812.50	400.00	175.00	12.50	243.75	7	2	7	1	7	5	1	1	960.50	168.10	0		212	21
SUBTOTALS PREVIOUS SHEET					10702	7187.50	0	0	137.50	1343.75	15	0	20	3	11	1	11	0	0	351.70	226.9		136	11
TOTALS CARRIED TO GENERAL SUMMARY					27414	25400.00		175.00	150.00	1587.50	22	2	27	4	18	6	12	1	961	520	227			
TOTALS CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY																							348	32

FOR CONCRETE BARRIER LOCATIONS SEE SHEET 306.
FOR OVERPASS PIER PROTECTION DETAIL SHEET 304.

CALCULATED PLD 11-00
CHECKED GCS 11-00

GUARDRAIL SUB-SUMMARY

WAY-71-0.28

GRAIL-SUB-SU.dwg May 03, 2001

REFERENCE NO.	PLAN AND PROFILE SHEET NO.	STATION FROM	STATION TO	OFFSET FROM CL I.R. 71	REFERENCE DETAIL		601	603							605								
							RIPRAP USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN	4" CONDUIT, TYPE B	6" CONDUIT, TYPE B				4" CONDUIT, TYPE F	6" CONDUIT, TYPE F		4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.33 OR 707.41, AS PER PLAN	4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN	6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			6" ROCK CUT UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41
							SQ. YD.	LIN. FT.	LIN. FT.				LIN. FT.	LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.			LIN. FT.			LIN. FT.
UD1	138	14+82.88	22+00	75.42 RT	A				10.00									717.12						
UD2	138	14+82.88	17+00	65.50 RT	A			2.00									217.12							
UD3	138	14+82.88	17+00	30.50 RT	A			2.00									217.12							
UD4	138	14+82.88	21+86	20.58 RT	A				10.00									703.12						
UD5	138	14+82.88	21+86	75.42 LT	A				10.00									703.12						
UD6	138	14+82.88	17+00	65.50 LT	A			2.00									217.12							
UD7	138	14+82.88	17+00	30.50 LT	A			2.00									217.12							
UD8	138	14+82.88	21+86	20.58 LT	A				10.00									703.12						
UD9	138	17+00	22+00	65.50 RT	D			12.00									500.00							
UD10	138	17+00	21+86	30.50 RT	B		10	11.00					14.00				486.00							
UD11	138	17+00	21+86	65.50 LT	D			12.00									486.00							
UD12	138	17+00	21+86	30.50 LT	B			11.00					14.00				486.00							
UD13	139	22+00	33+00	75.42 RT	F													1100.00						
UD14	139	22+00	28+00	65.50 RT	F		4	1.75	10.00					24.50			600.00							
UD15	139	21+86	28+00	30.50 RT	E			1.75	10.00					18.00			600.00							
UD16	139	21+86	32+85	20.58 RT	E													1099.00						
UD17	139	21+86	32+85	75.42 LT	G				54.75					18.00				1099.00						
UD18	139	21+86	28+00	65.50 LT	G			2.00									614.00							
UD19	139	21+86	28+00	30.50 LT	G			1.75									614.00							
UD20	139	21+86	32+85	20.58 LT	G													1099.00						
UD21	139	28+00	33+00	65.50 RT	D			12.00									500.00							
UD22	139	28+00	32+85	30.50 RT	B		10	11.00					14.00				485.00							
UD23	139	28+00	32+85	65.50 LT	C		4	11.00					14.00				485.00							
UD24	139	28+00	32+85	30.50 LT	B			11.00					14.00				485.00							
UD25	140	33+00	37+87	75.42 RT	F													487.00						
UD26	140	33+00	37+87	65.50 RT	F		4	1.75	10.00					28.50			487.00							
UD27	140	32+85	37+87	30.50 RT	E			1.75	10.00					18.00			502.00							
UD28	140	32+85	37+87	20.58 RT	E													502.00						
UD29	140	32+85	38+00	75.42 LT	G				54.75					18.00				515.00						
UD30	140	32+85	38+00	65.50 LT	G			2.00									515.00							
UD31	140	32+85	37+87	30.50 LT	G			1.75									502.00							
UD32	140	32+85	37+87	20.58 LT	G													502.00						
UD33	140	37+87	50+00	75.42/81.74 RT	F													1213.00						
UD34	140	37+87	44+00	65.50 RT	F		4	1.75	10.00					27.00			613.00							
UD35	140	37+87	44+00	30.50 RT	E			1.75	10.00					18.00			613.00							
UD36	140	37+87	49+87	20.58 RT	E													1200.00						
UD37	140	38+00	49+87	75.42 LT	F													1187.00						
UD38	140	38+00	44+00	65.50 LT	F		4	1.75	10.00					17.50			600.00							
UD39	140	37+87	44+00	30.50 LT	E			1.75	10.00					18.00			613.00							
UD40	140	37+87	49+87	20.58 LT	E													1200.00						
UD41	141	44+00	50+00	65.50/73.04 RT	D			12.00									600.00							
UD42	141	44+00	49+87	30.50 RT	B		10	11.00					14.00				587.00							
UD43	141	44+00	49+87	65.50 LT	C			11.00					14.00				587.00							
UD44	141	44+00	49+87	30.50 LT	B			11.00					14.00				587.00							
UD45	141	50+00	61+00	81.74/110.48 RT	F													1100.00						
UD46	141	50+00	55+50	73.04/85.42 RT	F		4	1.75	10.00					12.50			550.00							
UD47	141	49+87	55+00	30.50 RT	E			1.75	10.00					18.00			513.00							
UD48	141	49+87	59+85	20.50 RT	E													998.00						
UD49	141	49+87	59+85	75.42/90.59 LT	G				54.75					18.00				998.00						
UD50	141	49+87	55+00	65.50/72.57 LT	G			2.00									513.00							
UD51	141	49+87	55+00	30.50 LT	G			1.75									513.00							
UD52	141	49+87	59+85	20.58 LT	G													998.00						
SUBTOTAL THIS SHEET							54	172.75	304.25				112.00	254.00			16104.48	18123.48						

CALCULATED GCS 11-00
CHECKED SDS 11-00

UNDERDRAIN SUMMARY

WAY-71-0.28

UD SUMMARY.dwg (SHEET 111) May 03, 2001

REFERENCE NO.	PLAN AND PROFILE SHEET NO.	STATION FROM	STATION TO	OFFSET FROM CL I.R. 71	REFERENCE DETAIL		601 RIPRAP USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN		603 4" CONDUIT, TYPE B	603 6" CONDUIT, TYPE B				603 4" CONDUIT, TYPE F	603 6" CONDUIT, TYPE F		605 4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.33 OR 707.41, AS PER PLAN	605 4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN	605 6". SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			605 6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			605 6" ROCK CUT UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41
		FROM	TO				SQ. YD.		LIN. FT.	LIN. FT.				LIN. FT.	LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.			LIN. FT.			LIN. FT.
UD53	141	50+50	(CONNECTION)	77.50 RT	M												45.00								
UD54	141	50+50	(CONNECTION)	30.50 LT	M												51.00								
UD55	141	55+50	61+00	77.50/102.53 RT	C		4		11.00					10.00				550.00							
UD56	141	55+00	59+85	30.50 RT	B		10		11.00					14.00				485.00							
UD57	141	55+00	59+85	72.57/82.67 LT	C		4		11.00					9.50				485.00							
UD58	141	55+00	59+85	30.50 LT	B				11.00					14.00				485.00							
UD59	141	55+55	(CONNECTION)	77.50 RT	M												45.00								
UD60	141	55+50	(CONNECTION)	30.50 LT	M												51.00								
UD61		NOT USED																							
UD62		NOT USED																							
UD63		NOT USED																							
UD64		NOT USED																							
UD65	142	61+00	63+05.32	110.49/135.55 RT	U														205.32						
UD66	142	61+00	63+06.72	102.53/127.75 RT	U				1.75									206.72							
UD67	142	61+00	66+50	75.42 RT	U														550.00						
UD68	142	61+00	66+50	65.50 RT	U		4		1.75	45.00					20.50			550.00							
UD69	142	59+85	66+50	30.50 RT	E				1.75	10.00					18.00			665.00							
UD70	142	59+85	66+50	20.58 RT	E														665.00						
UD71	142	59+85	67+00	90.59/110.70 LT	F														715.00						
UD72	142	59+85	67+00	82.67/102.76 LT	F		4		1.75	10.00					14.50			715.00							
UD73	142	59+85	66+50	30.50 LT	E				1.75	10.00					18.00			665.00							
UD74	142	59+85	66+50	20.58 LT	E														665.00						
UD75	142	61+25	(CONNECTION)	65.50 RT	M												28.00								
UD76	142	61+00	(CONNECTION)	30.50 LT	M												51.00								
UD77	142	66+50	76+25	75.42/82.69 RT	G					54.75					18.00				975.00						
UD78	142	66+50	71+00	65.50 RT	G				1.50									450.00							
UD79	142	66+50	71+00	30.50 RT	G				2.50									450.00							
UD80	142	66+50	76+00	20.58 RT	G					0.75									950.00						
UD81	142	67+00	69+79.66	110.70/159.26 LT	F														279.66						
UD82	142	67+00	69+81.95	102.76/151.68 LT	F		4		1.75	10.00					15.00			281.95							
UD83	142	66+59	76+25	75.42 LT	E														966.00						
UD84	142	66+59	71+75	65.50 LT	E				1.75	16.50								516.00							
UD85	142	66+50	71+00	30.50 LT	E				1.75	10.00					18.00			450.00							
UD86	142	66+50	76+00	20.58 LT	E														950.00						
UD87	143	71+00	76+25	65.50/72.70 RT	C		4		11.00					17.00				525.00							
UD88	143	71+00	76+00	30.50 RT	B		10		11.00					14.00				500.00							
UD89	143	71+75	76+25	65.50 LT	H				11.00					68.00				450.00							
UD90	143	71+00	76+00	30.50 LT	B				11.00					14.00				500.00							
UD91	143	76+00	82+00	30.50 RT	E				1.75	10.00					18.00			600.00							
UD92	143	76+00	87+86	20.58 RT	E														1186.00						
UD93	143	76+25	88+00	75.42/90.01 LT	F														1175.00						
UD94	143	76+25	82+00	65.50/67.58 LT	F		4		1.75	10.00					25.25			575.00							
UD95	143	76+00	82+00	30.50 LT	E				1.75	10.00					18.00			600.00							
UD96	143	76+00	87+86	20.58 LT	E														1186.00						
UD97	144	82+00	87+86	30.50 RT	B		10		11.00					14.00				586.00							
UD98	144	82+00	88+00	67.58/80.09 LT	C		4		11.00					30.75				600.00							
UD99	144	82+00	87+86	30.50 LT	B				11.00					14.00				586.00							
UD100	144	83+65	84+40	75.42 RT	E														75.00						
UD101	144	83+65	84+40	65.50 RT	E				1.75	10.00					8.00			75.00							
SUBTOTAL THIS SHEET							62		146.00	207.00				219.25	191.25		271.00	12551.67	10542.98						

CALCULATED GCS 11-00
CHECKED SDS 11-00

UNDERDRAIN SUMMARY

WAY-71-0.28

UD SUMMARY.dwg (SHEET 112) May 03, 2001

REFERENCE NO.	PLAN AND PROFILE SHEET NO.	STATION FROM	STATION TO	OFFSET FROM CL I.R. 71	REFERENCE DETAIL		601 RIPRAP USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN		603 4" CONDUIT, TYPE B	603 6" CONDUIT, TYPE B				603 4" CONDUIT, TYPE F	603 6" CONDUIT, TYPE F		605 4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.33 OR 707.41, AS PER PLAN	605 4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN	605 6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			605 6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			605 6" ROCK CUT UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41
							SQ. YD.		LIN. FT.	LIN. FT.				LIN. FT.	LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.			LIN. FT.			LIN. FT.
UD102		NOT USED																							
UD103		NOT USED																							
UD104		NOT USED																							
UD105		NOT USED																							
UD106	144	84+40	87+86	75.42 RT	E														346.00						
UD107	144	84+40	87+86	65.50 RT	E													346.00							
UD108	144	87+86	97+85	75.42 RT	G					54.75					18.00				999.00						
UD109	144	87+86	93+00	65.50 RT	G				1.75									514.00							
UD110	144	87+86	93+00	30.50 RT	G				1.75									514.00							
UD111	144	87+86	97+85	20.58 RT	G														999.00						
UD112	144	87+86	93+00	30.50 LT	E				1.75	10.00					18.00			514.00							
UD113	144	87+86	97+85	20.58 LT	E														999.00						
UD114	145	93+00	97+85	65.50 RT	D				12.00									485.00							
UD115	145	93+00	97+85	30.50 RT	B		10		11.00					14.00				485.00							
UD116	145	93+00	97+85	30.50 LT	B				11.00					14.00				485.00							
UD117	146	97+85	98+90	75.42 RT	G					54.75					18.00				105.00						
UD118	146	97+85	98+90	65.50 RT	G				1.75									105.00							
UD119	146	97+85	103+00	30.50 RT	G				1.75									515.00							
UD120	146	97+85	107+85	20.58 RT	G														1000.00						
UD121	146	97+50	107+85	75.42 LT	L														1035.00						
UD122	146	97+50	103+00	65.50 LT	L		4		1.75	54.00					23.50			550.00							
UD123	146	97+85	103+00	30.00 LT	E				1.75	10.00					18.00			515.00							
UD124	146	97+85	107+85	20.58 LT	E														1000.00						
UD125	146	103+00	107+85	30.50 RT	B		10		11.00					14.00				485.00							
UD126	146	103+00	107+85	65.50 LT	D				12.00									485.00							
UD127	146	103+00	107+85	30.50 LT	B				11.00					14.00				485.00							
UD128	146	107+85	117+80	91.15/75.42 RT	G					71.00					18.00				995.00						
UD129	146	107+85	113+00	81.23/70.50 RT	G				2.00									515.00							
UD130	146	107+85	113+00	30.50 RT	G				2.75									515.00							
UD131	146	107+85	117+80	20.58 RT	G					1.00									995.00						
UD132	146	107+85	111+60	75.42 LT	E														375.00						
UD133	146	107+85	111+60	65.50 LT	E				1.75	10.00					12.00			375.00							
UD134	146	107+85	113+00	30.50 LT	E				1.75	10.00					18.00			515.00							
UD135	146	107+85	117+80	20.58 LT	E														995.00						
UD136	147	113+00	117+80	70.50/65.50 RT	D				12.00									480.00							
UD137	147	113+00	117+80	30.50 RT	B		10		11.00					14.00				480.00							
UD138		NOT USED																							
UD139	147	113+00	117+80	30.50 LT	B				11.00					14.00				480.00							
UD140	147	118+00	127+85	75.42 RT	R														985.00						
UD141	147	118+00	123+00	65.50 RT	R				1.75	10.00					22.00			500.00							
UD142	147	118+00	123+00	30.50 RT	R				1.75	10.00					21.00			500.00							
UD143	147	118+00	127+85	20.58 RT	R														985.00						
UD144	147	118+00	128+00	75.42 LT	S														1000.00						
UD145	147	118+00	123+00	65.50 LT	S				1.75	10.00					14.00			500.00							
UD146	147	118+00	123+00	30.50 LT	R				1.75	10.00					21.00			500.00							
UD147	147	118+00	127+85	20.58 LT	R														985.00						
UD148	148	123+00	127+85	65.50 RT	D				12.00									485.00							
UD149	148	123+00	127+85	30.50 RT	B		10		11.00					14.00				485.00							
UD150	148	123+00	128+00	65.50 LT	D				12.00									500.00							
UD151	148	123+00	127+85	30.50 LT	B				11.00					14.00				485.00							
UD152		NOT USED																							
UD153		NOT USED																							
UD154		NOT USED																							
UD155		NOT USED																							
SUBTOTAL THIS SHEET							44		175.50	315.50				112.00	221.50			13798.00	13798.00						

CALCULATED GCS 11-00
CHECKED SDS 11-00

UNDERDRAIN SUMMARY

WAY-71-0.28

UD SUMMARY.dwg (SHEET 113) May 03, 2001

UNDERDRAIN SUMMARY

CALCULATED GCS 11-00 | CHECKED SDS 11-00

REFERENCE NO.	PLAN AND PROFILE SHEET NO.	STATION FROM	STATION TO	OFFSET FROM CL I.R. 71	REFERENCE DETAIL		601 RIPRAP USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN SQ. YD.	603 4" CONDUIT, TYPE B LIN. FT.	603 6" CONDUIT, TYPE B LIN. FT.	603 4" CONDUIT, TYPE F LIN. FT.	603 6" CONDUIT, TYPE F LIN. FT.	605 4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.33 OR 707.41, AS PER PLAN LIN. FT.	605 4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN LIN. FT.	605 6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 LIN. FT.	605 6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 LIN. FT.	605 6" ROCK CUT UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 LIN. FT.
UD156	148	127+85	137+84	75.42 RT	G				54.75		18.00			999.00		
UD157	148	127+85	133+25	65.50 RT	G			1.75					540.00			
UD158	148	127+85	133+00	30.50 RT	G			1.75					515.00			
UD159	148	127+85	137+84	20.58 RT	G									999.00		
UD160	148	128+00	138+00	75.42/77.89 LT	F									1000.00		
UD161	148	128+00	133+00	65.50 LT	F			1.75	10.00		23.00		500.00			
UD162	148	127+85	133+00	30.50 LT	E			1.75	10.00		18.00		515.00			
UD163	148	127+85	137+84	20.58 LT	E									999.00		
UD164	148	133+25	137+84	65.50 RT	C		4	11.00		16.25			459.00			
UD165	148	133+00	137+84	30.50 RT	B		10	11.00		14.00			484.00			
UD166	148	133+00	138+00	65.50/69.97 LT	C		4	11.00		12.50			500.00			
UD167	148	133+00	137+84	30.50 LT	B			11.00		14.00			484.00			
UD168	149	137+84	143+96	75.42/85.42 RT	F									612.00		
UD169	149	137+84	143+96	65.50/77.50 RT	F		4	1.75	10.00		22.00		612.00			
UD170	149	137+84	143+88	30.50 RT	E			1.75	10.00		18.00		604.00			
UD171	149	137+84	143+88	20.58 RT	E									604.00		
UD172	149	138+00	143+96	77.89/90.31 LT	F									596.00		
UD173	149	138+00	143+96	69.97/82.39 LT	F		4	1.75	10.00		28.50		596.00			
UD174	149	137+84	143+88	30.50 LT	E			1.75	10.00		18.00		604.00			
UD175	149	137+84	143+88	20.58 LT	E									604.00		
UD176	150	143+96	148+86	85.42/112.63 RT	F									490.00		
UD177	150	143+96	148+86	77.50/104.68 RT	F		4	1.75	10.00		24.00		490.00			
UD178	150	143+88	148+00	30.50 RT	E			1.75	10.00		18.00		412.00			
UD179	150	143+88	151+35	20.58 RT	E									747.00		
UD180	150	143+96	151+90	90.31/110.66 LT	F									794.00		
UD181	150	143+96	148+00	82.39/90.80 LT	F		4	1.75	10.00		25.75		404.00			
UD182	150	143+88	148+00	30.50 LT	E			1.75	10.00		18.00		412.00			
UD183	150	143+88	151+35	20.58 LT	E									747.00		
UD184	150	148+86	160+35	75.42 RT	U									1149.00		
UD185	150	148+86	156+00	65.50 RT	U		4	1.75	49.25		27.50		714.00			
UD186	150	148+00	151+35	30.50 RT	B		10	11.00		14.00			335.00			
UD187	150	148+00	151+90	90.80/104.69 LT	C		4	11.00		15.25			390.00			
UD188	150	148+00	151+35	30.50 LT	B			11.00		14.00			335.00			
RAMP D																
UD189	150	48+88.04	58+00	7.42 RT	U									911.96		
UD190	150	48+87.08	52+00	0.50 LT	U			1.75					312.92			
UD191		NOT USED														
RAMP C																
UD192	150	51+91.22	61+70	5.42 LT	U									978.78		
UD193	150	51+90.42	54+00	0.50 RT	U								209.58			
UD194		NOT USED														
UD195		NOT USED														
UD196		NOT USED														
UD197	151	151+35	156+00	30.50 RT	E			1.75	10.00		18.00		465.00			
UD198	151	151+35	161+00	20.58 RT	E									965.00		
UD199	151	151+90	161+00	75.42 LT	U									910.00		
UD200	151	151+90	156+00	65.50 LT	U		4	1.75	46.50		28.00		410.00			
UD201	151	151+35	156+00	30.50 LT	E			1.75	10.00		18.00		465.00			
UD202	151	151+35	161+00	20.58 LT	E									965.00		
UD203	151	156+00	160+35	65.50 RT	D			12.00					435.00			
UD204	151	156+00	161+00	30.50 RT	B		10	11.00		14.00			500.00			
UD205	151	156+00	161+00	65.50 LT	D			12.00					500.00			
UD206	151	156+00	161+00	30.50 LT	B			11.00		14.00			500.00			
SUBTOTAL THIS SHEET							66	152.75	270.50	128.00	322.75		13702.50	15070.74		

WAY-71-0.28

114
432

UD SUMMARY.dwg (SHEET 114) May 03, 2001

REFERENCE NO.	PLAN AND PROFILE SHEET NO.	STATION FROM	STATION TO	OFFSET FROM CL I.R. 71	REFERENCE DETAIL		601	603								605									
							RIPRAP USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN		4" CONDUIT, TYPE B	6" CONDUIT, TYPE B				4" CONDUIT, TYPE F	6" CONDUIT, TYPE F		4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.33 OR 707.41, AS PER PLAN	4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN	6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			6" ROCK CUT UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41
							SQ. YD.		LIN. FT.	LIN. FT.				LIN. FT.	LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.			LIN. FT.			LIN. FT.
UD207	151	160+35	165+50	75.42 RT	X					11.00					21.00				515.00						
UD208	151	160+35	165+50	65.50 RT	X				1.75									515.00							
UD209	151	161+00	166+00	30.50 RT	E				1.75	10.00					15.50			500.00							
UD210	151	161+00	170+35	20.58 RT	E														935.00						
UD211	151	161+00	168+00	75.42 LT	G					54.75					20.50				425.00			275.00			
UD212	151	161+00	166+00	65.50 LT	G				1.75									500.00							
UD213	151	161+00	166+00	30.50 LT	G				1.75									500.00							
UD214	151	161+00	170+35	20.58 LT	G														935.00						
RAMP F																									
UD215	151	61+00	64+85.46	7.42 RT	E														385.46						
UD216	151	61+00	64+85.46	0.50 LT	E				1.75	10.00					16.50			385.46							
UD217	151	64+85.46	70+35.98	7.42 RT	E														550.52						
UD218	151	64+85.46	70+36.14	0.50 LT	E													550.68							
UD219	152	166+00	170+35	30.50 RT	B		10		11.00					14.00				435.00							
UD220	152	166+00	168+00	65.50 LT	D				12.00									200.00							
UD221	152	166+00	170+35	30.50 LT	B				11.00					14.00				435.00							
RAMP E																									
UD222	152	65+84	68+01.71	7.42 LT	J					35.75									217.71						
UD223	152	65+84	68+02.51	0.50 RT	J				1.75									218.51							
UD224	152	168+00	170+35	111.14/93.45 LT	J														235.00						
UD225	152	168+00	170+35	103.18/85.52 LT	J													235.00							
UD226	152	170+35	179+14	97.89/79.56 RT	G					78.50					18.00				879.00						
UD227	152	170+35	175+00	89.97/80.25 RT	G				2.00									465.00							
UD228	152	170+35	175+00	30.50 RT	G				2.50									465.00							
UD229	152	170+35	179+14	20.58 RT	G					0.75									879.00						
UD230	152	170+35	179+14	93.45/85.42 LT	G					74.00					18.00				879.00						
UD231	152	170+35	175+00	85.52/77.5 LT	G				2.00									465.00							
UD232	152	170+35	175+00	30.50 LT	G				4.00									465.00							
UD233	152	170+35	179+14	20.58 LT	G					2.25									879.00						
UD234	152	175+00	179+14	79.56/71.64 RT	C		4		11.00					24.75				414.00							
UD235	152	175+00	179+14	30.50 RT	B		10		11.00					14.00				414.00							
UD236	152	175+00	179+14	77.50 LT	D				12.00									414.00							
UD237	152	175+00	179+14	30.50 LT	B				11.00					14.00				414.00							
UD238	153	179+18	190+76	79.56/75.42 RT	Q														1158.00						
UD239	153	179+18	185+00	71.55/65.50 RT	C		4		11.00					15.75				582.00							
UD240	153	179+18	185+00	30.50 RT	B		10		11.00					14.00				582.00							
UD241	153	179+18	190+76	20.58 RT	S														1158.00						
UD242	153	179+18	190+70	85.42/75.42 LT	Q														1152.00						
UD243	153	179+18	185+00	77.50/65.50 LT	C		4		11.00					20.25				582.00							
UD244	153	179+18	185+00	30.50 LT	B				11.00					14.00				582.00							
UD245	153	179+18	190+76	20.58 LT	S														1158.00						
UD246	153	185+00	190+76	65.50 RT	Q		4		1.75	10.00					35.00			576.00							
UD247	153	185+00	190+76	30.50 RT	S				1.75	10.00					18.00			576.00							
UD248	153	185+00	190+70	65.50 LT	Q		4		1.75	10.00					28.00			570.00							
UD249	153	185+00	190+76	30.50 LT	S				1.75	10.00					18.00			576.00							
UD250	154	190+91	200+84	75.42 RT	N					54.75					18.00				993.00						
UD251	154	190+91	196+00	65.50 RT	D				12.00									509.00							
UD252	154	190+91	196+00	30.50 RT	B		10		11.00					14.00				509.00							
UD253	154	190+91	200+84	20.58 RT	N														993.00						
UD254	154	190+91	200+84	75.42 LT	G					54.75					18.00				993.00						
UD255	154	190+91	196+00	65.50 LT	D				12.00									509.00							
UD256	154	190+91	196+00	30.50 LT	B				11.00					14.00				509.00							
UD257	154	190+91	200+84	20.58 LT	G					1.25									993.00						
SUBTOTAL THIS SHEET							60		197.00	427.75				172.75	244.50			14652.65	16312.69			275.00			

CALCULATED GCS 11-00
CHECKED SDS 11-00

UNDERDRAIN SUMMARY

WAY-71-0.28

UD SUMMARY.dwg (SHEET 115) May 03, 2001

REFERENCE NO.	PLAN AND PROFILE SHEET NO.	STATION FROM	STATION TO	OFFSET FROM CL I.R. 71	REFERENCE DETAIL		601	603								605									
							RIPRAP USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN		4" CONDUIT, TYPE B	6" CONDUIT, TYPE B				4" CONDUIT, TYPE F	6" CONDUIT, TYPE F		4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.33 OR 707.41, AS PER PLAN	4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN	6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			6" ROCK CUT UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41
		FROM	TO				SQ. YD.		LIN. FT.	LIN. FT.				LIN. FT.	LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.			LIN. FT.			LIN. FT.
UD258	154	196+00	200+84	65.50 RT	N				1.75									484.00							
UD259	154	196+00	200+84	30.50 RT	N				1.75									484.00							
UD260	154	196+00	200+84	65.50 LT	G				2.00									484.00							
UD261	154	196+00	200+84	30.50 LT	G				3.00									484.00							
UD262	155	200+84	201+97	75.42 LT	G														113.00						
UD263	155	200+84	201+81	65.50 LT	G				1.00									97.00							
UD264	155	200+84	201+25	30.50 LT	G				1.75									41.00							
UD265	155	200+84	201+09	20.58 LT	G														25.00						
UD266	155	200+95	203+90	75.42 RT	F														295.00						
UD267	155	200+95	203+90	65.50 RT	F		4		1.75	10.00					32.00			295.00							
UD268	155	200+95	204+82	30.50 RT	P		10		15.00						29.00			387.00							
UD269	155	200+95	204+93	20.58 RT	P														229.00			169.00			
UD270	155	202+10	205+86	75.42 LT	Q														376.00						
UD271	155	201+94	205+86	65.50 LT	Q		4		1.75	10.00					26.00			392.00							
UD272	155	201+38	205+47	30.50 LT	P				15.00						29.00			409.00							
UD273	155	201+23	205+36	20.58 LT	P														201.00			212.00			
UD274	155	204+53	210+47	75.42 RT	G					54.75					18.00				594.00						
UD275	155	205+13	210+47	20.58 RT	G				1.75										534.00						
UD276	155	206+17	210+47	75.42 LT	F														430.00						
UD277	155	205+56	210+47	20.58 LT	E														491.00						
UD278	155	210+47	220+48	75.42 RT	F														1001.00						
UD279	155	210+47	215+00	65.50 RT	D				12.00									453.00							
UD280	155	210+47	215+00	30.50 RT	B		10		11.00					14.00				453.00							
UD281	155	210+47	220+48	20.58 RT	E														1001.00						
UD282	155	210+47	220+60	75.42 LT	F														1013.00						
UD283	155	210+47	215+00	65.50 LT	C		4		11.00					14.00				453.00							
UD284	155	210+47	215+00	35.50 LT	B				11.00					14.00				453.00							
UD285	155	210+47	220+48	20.58 LT	E														1001.00						
UD286	156	215+00	220+48	65.50 RT	F		4		1.75	10.00					26.00			548.00							
UD287	156	215+00	220+48	30.50 RT	E				1.75	10.00					18.00			548.00							
UD288	156	215+00	220+60	65.50 LT	F		4		1.75	10.00					23.75			560.00							
UD289	156	215+00	220+48	30.50 LT	E				1.75	10.00					18.00			548.00							
UD290	156	220+48	226+00	65.50 RT	C		4		11.00					12.25				552.00							
UD291	156	220+48	226+00	30.50 RT	B		10		11.00					14.00				552.00							
UD292	156	220+60	226+00	65.50 LT	C		4		11.00					13.25				540.00							
UD293	156	220+48	226+00	30.50 LT	B				11.00					14.00				552.00							
UD294	156	220+48	230+49	75.42 RT	G					54.75					18.00				1001.00						
UD295	157	226+00	230+49	65.50 RT	G				1.75									449.00							
UD296	157	226+00	230+49	30.50 RT	G				1.75									449.00							
UD297	156	220+48	230+49	20.58 RT	G														1001.00						
UD298	156	220+60	230+60	75.42 LT	F														1000.00						
UD299	157	226+00	230+60	65.50 LT	F		4		1.75	10.00					23.25			460.00							
UD300	157	226+00	230+49	30.50 LT	E				1.75	10.00					18.00			449.00							
UD301	156	220+48	230+49	20.58 LT	E														1001.00						
UD302	157	230+49	235+00	65.50 RT	C		4		11.00					11.00				451.00							
UD303	157	230+49	235+00	30.50 RT	B		10		11.00					14.00				451.00							
UD304	157	230+60	235+00	65.50 LT	C		4		11.00					13.50				440.00							
UD305	157	230+49	235+00	30.50 LT	B				11.00					14.00				451.00							
UD306	157	230+49	240+60	75.42 RT	F														1011.00						
UD307	157	235+00	240+60	65.50 RT	F		4		1.75	10.00					22.00			560.00							
UD308	157	235+00	240+44	30.50 RT	E				1.75	10.00					18.00			544.00							
UD309	157	230+49	240+44	20.58 RT	E														995.00						
UD310	157	230+60	240+44	75.42 LT	F														984.00						
UD311	157	235+00	240+44	65.50 LT	F		4		1.75	10.00					24.00			544.00							
UD312	157	235+00	240+44	30.50 LT	E				1.75	10.00					18.00			544.00							
UD313	157	230+49	240+44	20.58 LT	E														995.00						
SUBTOTAL THIS SHEET							88		200.50	229.50				148.00	361.00			15561.00	15292.00			381.00			

CALCULATED GCS 11-00
CHECKED SDS 11-00

UNDERDRAIN SUMMARY

WAY-71-0.28

UD SUMMARY.dwg (SHEET 116) May 03, 2001

REFERENCE NO.	PLAN AND PROFILE SHEET NO.	STATION FROM	STATION TO	OFFSET FROM CL I.R. 71	REFERENCE DETAIL		601 RIPRAP USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN		603 4" CONDUIT, TYPE B	603 6" CONDUIT, TYPE B				603 4" CONDUIT, TYPE F	603 6" CONDUIT, TYPE F		605 4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.33 OR 707.41, AS PER PLAN	605 4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN	605 6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			605 6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			605 6" ROCK CUT UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41
							SQ. YD.		LIN. FT.	LIN. FT.				LIN. FT.	LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.			LIN. FT.			LIN. FT.
UD314	158	240+60	245+00	65.50 RT	C		4		11.00					9.00				440.00							
UD315	158	240+44	245+00	30.50 RT	B		10		11.00					14.00				456.00							
UD316	158	240+44	245+00	65.50 LT	C		4		11.00					10.25				456.00							
UD317	158	240+44	245+00	30.50 LT	B				11.00					14.00				456.00							
UD318	158	240+60	250+36	75.42 RT	F														976.00						
UD319	158	245+00	250+36	65.50 RT	F		4		1.75	10.00					28.00			536.00							
UD320	158	245+00	250+36	30.50 RT	E				1.75	10.00					18.00			536.00							
UD321	158	240+44	250+36	20.58 RT	E														992.00						
UD322	158	240+44	250+36	75.42 LT	G					54.75					18.00				992.00						
UD323	158	245+00	250+36	65.50 LT	G				1.75									536.00							
UD324	158	245+00	250+36	30.50 LT	G				1.75									536.00							
UD325	158	240+44	250+36	20.58 LT	G														992.00						
UD326	159	250+36	255+00	65.50 RT	D				12.00									464.00							
UD327	159	250+36	255+00	30.50 RT	B		10		11.00					14.00				464.00							
UD328	159	250+36	255+00	65.50 LT	D				12.00									464.00							
UD329	159	250+36	255+00	30.50 LT	B				11.00					14.00				464.00							
UD330	159	250+36	260+55	75.42 RT	G					54.75					18.00				1019.00						
UD331	159	255+00	260+55	65.50 RT	G				1.75									555.00							
UD332	159	255+00	260+55	30.50 RT	G				1.75									555.00							
UD333	159	250+36	260+55	20.58 RT	G														1019.00						
UD334	159	250+36	260+55	75.42 LT	G					54.75					18.00				1019.00						
UD335	159	255+00	260+55	65.50 LT	G				1.75									555.00							
UD336	159	255+00	260+55	30.50 LT	G				1.75									555.00							
UD337	159	250+36	260+55	20.58 LT	G														1019.00						
UD338	160	260+55	264+00	65.50 RT	C		4		11.00					24.75				345.00							
UD339	160	260+55	264+00	30.50 RT	B		10		11.00					14.00				345.00							
UD340	160	260+55	264+00	65.50 LT	C		4		11.00					23.75				345.00							
UD341	160	260+55	264+00	30.50 LT	B				11.00					14.00				345.00							
UD342	160	260+55	267+46	75.42 RT	G					54.75					18.00				691.00						
UD343	160	264+00	267+46	65.50 RT	G				1.75									346.00							
UD344	160	264+00	267+46	30.50 RT	G				1.75									346.00							
UD345	160	260+55	267+46	20.58 RT	G														691.00						
UD346	160	260+55	267+40	75.42 LT	Q														685.00						
UD347	160	264+00	267+40	65.50 LT	Q		4		1.75	10.00					40.50			340.00							
UD348	160	264+00	267+40	30.50 LT	R				1.75	10.00					21.75			340.00							
UD349	160	260+55	267+40	20.58 LT	R														685.00						
UD350		NOT USED																							
UD351		NOT USED																							
UD352		NOT USED																							
UD353		NOT USED																							
UD354	160	267+46	271+94	75.42 RT	X														448.00						
UD355	160	267+46	271+94	65.50 RT	X				1.75	10.00					22.25			448.00							
UD356	160	267+46	271+94	30.50 RT	X				1.75	10.00					21.75			448.00							
UD357	160	267+46	271+94	20.58 RT	X														448.00						
UD358	160	267+50	271+94	75.42 LT	F														444.00						
UD359	160	267+50	271+94	65.50 LT	F		4		1.75	10.00					33.75			444.00							
UD360	160	267+50	271+94	30.50 LT	X				1.75	10.00					21.75			444.00							
UD361	160	267+50	271+94	20.58 LT	X														444.00						
UD362	161	276+90	(CONNECTION)	30.50 RT	M												51.00								
UD363	161	276+90	(CONNECTION)	65.50 LT	M												28.00								
UD364	161	271+94	277+00	65.50 RT	D				12.00									506.00							
UD365	161	271+94	277+00	30.50 RT	B		10		11.00					14.00				506.00							
UD366	161	271+94	277+00	65.50 LT	D				12.00									506.00							
UD367	161	271+94	277+00	30.50 LT	B				11.00					14.00				506.00							
SUBTOTAL THIS SHEET							68		208.00	299.00				179.75	279.75		79.00	14588.00	12564.00						

CALCULATED GCS 11-00
CHECKED SDS 11-00

UNDERDRAIN SUMMARY

WAY-71-0.28

UD SUMMARY.dwg (SHEET 117) May 03, 2001

REFERENCE NO.	PLAN AND PROFILE SHEET NO.	STATION FROM	STATION TO	OFFSET FROM CL I.R. 71	REFERENCE DETAIL		601	603								605									
							RIPRAP USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN	4" CONDUIT, TYPE B	6" CONDUIT, TYPE B				4" CONDUIT, TYPE F	6" CONDUIT, TYPE F		4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.33 OR 707.41, AS PER PLAN	4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN	6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			6" ROCK CUT UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41
							SQ. YD.	LIN. FT.	LIN. FT.				LIN. FT.	LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.			LIN. FT.			LIN. FT.
UD368	161	281+80	(CONNECTION)	30.50 RT	M											51.00								
UD369	161	281+80	(CONNECTION)	65.50 LT	M											28.00								
UD370	161	271+94	281+95	75.42 RT	G				54.75					18.00				1001.00						
UD371	161	277+00	281+95	65.50 RT	G			2.00									495.00							
UD372	161	277+00	281+95	30.50 RT	G			1.75									495.00							
UD373	161	271+94	281+95	20.58 RT	G													1001.00						
UD374	161	271+94	281+95	75.42 LT	G				54.75					18.00				1001.00						
UD375	161	277+00	281+95	65.50 LT	G			2.00									495.00							
UD376	161	277+00	281+95	30.50 LT	G			3.00									495.00							
UD377	161	271+94	281+95	20.58 LT	G				1.25									1001.00						
UD378	162	284+30	(CONNECTION)	30.50 RT	M											51.00								
UD379	162	284+30	(CONNECTION)	65.50 LT	M											28.00								
UD380	161	281+95	284+45	65.50 RT	D			12.00									250.00							
UD381	161	281+95	284+45	30.50 RT	H			11.00					16.75				250.00							
UD382	161	281+95	284+45	65.50 LT	D			12.00									250.00							
UD383	161	281+95	284+45	30.50 LT	H			11.00					16.75				250.00							
UD384	162	289+40	(CONNECTION)	30.50 RT	M											51.00								
UD385	162	289+40	(CONNECTION)	65.50 LT	M											28.00								
UD386	161	281+95	289+54	75.42 RT	G				54.75					18.00				759.00						
UD387	162	284+45	289+54	65.50 RT	G			2.00									509.00							
UD388	162	284+45	289+54	30.50 RT	G			1.75									509.00							
UD389	161	281+95	289+54	20.58 RT	G													759.00						
UD390	161	281+95	289+54	75.42 LT	G				54.75					18.00				759.00						
UD391	162	284+45	289+54	65.50 LT	G			1.75									509.00							
UD392	162	284+45	289+54	30.50 LT	G			2.75									509.00							
UD393	161	281+95	289+54	20.58 LT	G				1.25									759.00						
UD394	162	289+54	294+00	65.50 RT	Y			10.00									446.00							
UD395	162	289+54	294+00	30.50 RT	Y			10.00									446.00							
UD396	162	289+54	294+00	65.50 LT	Y			10.00									446.00							
UD397	162	289+54	294+00	30.50 LT	Y			10.00									446.00							
UD398	162	293+90	(CONNECTION)	65.50 RT	M											12.00								
UD399	162	293+90	(CONNECTION)	30.50 RT	M											12.00								
UD400	162	293+90	(CONNECTION)	30.50 LT	M											12.00								
UD401	162	293+90	(CONNECTION)	65.50 LT	M											12.00								
UD402	163	298+00	(CONNECTION)	65.50 RT	M											12.00								
UD403	163	298+00	(CONNECTION)	30.50 RT	M											12.00								
UD404	163	298+00	(CONNECTION)	30.50 LT	M											12.00								
UD405	163	298+00	(CONNECTION)	65.50 LT	M											12.00								
UD406	162	289+54	298+17	75.42 RT	G				54.75					18.00				641.00						222.00
UD407	162	294+00	298+17	65.50 RT	G			1.75									417.00							
UD408	162	294+00	298+17	30.50 RT	G			1.50									417.00							
UD409	162	289+54	298+17	20.58 LT	G													641.00						222.00
UD410	163	289+54	298+12	75.42 LT	R													541.00						317.00
UD411	163	294+00	298+12	65.50 LT	R			1.75	10.00					21.75			412.00							
UD412	163	294+00	298+12	30.50 LT	R			1.75	10.00					21.75			412.00							
UD413	163	289+54	298+12	20.58 LT	R													541.00						317.00
UD414		NOT USED																						
UD415		NOT USED																						
UD416		NOT USED																						
UD417		NOT USED																						
UD418		NOT USED																						
SUBTOTAL THIS SHEET								109.75	296.25				33.50	133.50		333.00	8458.00	9404.00						1078.00

CALCULATED GCS 11-00
CHECKED SDS 11-00

UNDERDRAIN SUMMARY

WAY-71-0.28

UD SUMMARY.dwg (SHEET 118) May 03, 2001

UNDERDRAIN SUMMARY

CALCULATED GCS 11-00 | CHECKED SDS 11-00

REFERENCE NO.	PLAN AND PROFILE SHEET NO.	STATION FROM	STATION TO	OFFSET FROM CL I.R. 71	REFERENCE DETAIL		601	603							605								
							RIPRAP USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN	4" CONDUIT, TYPE B	6" CONDUIT, TYPE B				4" CONDUIT, TYPE F	6" CONDUIT, TYPE F		4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.33 OR 707.41, AS PER PLAN	4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN	6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			6" ROCK CUT UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41
							SQ. YD.	LIN. FT.	LIN. FT.				LIN. FT.	LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.			LIN. FT.			LIN. FT.
UD419	163	298+17	308+22	75.42 RT	G				54.75					18.00				992.00						13.00
UD420	163	298+17	303+00	65.50 RT	D			12.00									483.00							
UD421	163	298+17	303+00	30.50 RT	B		10	11.00					14.00				483.00							
UD422	163	298+17	308+22	20.58 RT	G													992.00						13.00
UD423	163	298+20	308+22	75.42 LT	G				54.75					18.00				992.00						10.00
UD424	163	298+20	303+00	65.50 LT	D			12.00									480.00							
UD425	163	298+20	303+00	30.50 LT	B			11.00					14.00				480.00							
UD426	163	298+20	308+22	20.58 LT	G													992.00						10.00
UD427	163	302+85	(CONNECTION)	65.50 RT	M											12.00								
UD428	163	302+85	(CONNECTION)	30.50 RT	M											12.00								
UD429	163	302+85	(CONNECTION)	65.50 LT	M											12.00								
UD430	163	302+85	(CONNECTION)	30.50 LT	M											12.00								
UD431	163	303+00	308+22	65.50 RT	G			1.75									522.00							
UD432	163	303+00	308+22	30.50 RT	G			1.75									522.00							
UD433	163	303+00	308+22	65.50 LT	G			1.75									522.00							
UD434	163	303+00	308+22	30.50 LT	G			1.75									522.00							
UD435	164	308+00	(CONNECTION)	65.50 RT	M											12.00								
UD436	164	308+00	(CONNECTION)	30.50 RT	M											12.00								
UD437	164	308+00	(CONNECTION)	65.50 LT	M											12.00								
UD438	164	308+00	(CONNECTION)	30.50 LT	M											12.00								
UD439	164	308+22	316+40	75.42 RT	G				54.75					18.00				818.00						
UD440	164	308+22	312+00	65.50 RT	C		4	11.00					14.25				378.00							
UD441	164	308+22	312+00	30.50 RT	B		10	11.00					14.00				378.00							
UD442	164	308+22	316+40	20.58 RT	G													818.00						
UD443	164	308+22	316+40	75.42 LT	F													818.00						
UD444	164	308+22	312+00	65.50 LT	D			12.00									378.00							
UD445	164	308+22	312+00	30.50 LT	B			11.00					14.00				378.00							
UD446	164	308+22	316+40	20.58 LT	E													818.00						
UD447	164	311+85	(CONNECTION)	65.50 RT	M											12.00								
UD448	164	311+85	(CONNECTION)	30.50 RT	M											12.00								
UD449	164	311+85	(CONNECTION)	65.50 LT	M											12.00								
UD450	164	311+85	(CONNECTION)	30.50 LT	M											12.00								
UD451	164	312+00	316+40	65.50 RT	G			1.75									440.00							
UD452	164	312+00	316+40	30.50 RT	G			1.75									440.00							
UD453	164	312+00	316+40	65.50 LT	F		4	1.75	10.00					20.75			440.00							
UD454	164	312+00	316+40	30.50 LT	E			1.75	10.00					18.00			440.00							
UD455	164	316+25	(CONNECTION)	65.50 RT	M											12.00								
UD456	164	316+25	(CONNECTION)	30.50 RT	M											12.00								
UD457	164	316+25	(CONNECTION)	65.50 LT	M											12.00								
UD458	164	316+25	(CONNECTION)	30.50 LT	M											12.00								
UD459	164	316+40	325+22	75.42 RT	F													882.00						
UD460	164	316+40	320+00	65.50 RT	C		4	11.00					13.00				360.00							
UD461	164	316+40	320+00	30.50 RT	B		10	11.00					14.00				360.00							
UD462	164	316+40	325+62	20.58 RT	E													922.00						
UD463	164	316+40	325+22	75.42 LT	F													882.00						
UD464	164	316+40	320+00	65.50 LT	D			12.00									360.00							
UD465	164	316+40	320+00	30.50 LT	B			11.00					14.00				360.00							
UD466	164	316+40	325+62	20.58 LT	E													922.00						
UD467	165	319+85	(CONNECTION)	65.50 RT	M											12.00								
UD468	165	319+85	(CONNECTION)	30.50 RT	M											12.00								
UD469	165	319+85	(CONNECTION)	65.50 LT	M											12.00								
UD470	165	319+85	(CONNECTION)	30.50 LT	M											12.00								
UD471		NOT USED																						
UD472		NOT USED																						
UD473		NOT USED																						
UD474		NOT USED																						
SUBTOTAL THIS SHEET							42	150.00	184.25				111.25	92.75		240.00	8726.00	10848.00						46.00

UD SUMMARY.dwg (SHEET 119) May 03, 2001

WAY-71-0.28

REFERENCE NO.	PLAN AND PROFILE SHEET NO.	STATION FROM	STATION TO	OFFSET FROM CL I.R. 71	REFERENCE DETAIL		601	603								605								
							RIPRAP USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN		4" CONDUIT, TYPE B	6" CONDUIT, TYPE B				4" CONDUIT, TYPE F	6" CONDUIT, TYPE F		4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.33 OR 707.41, AS PER PLAN	4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN	6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			6" ROCK CUT UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41
		FROM	TO				SQ. YD.		LIN. FT.	LIN. FT.				LIN. FT.	LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.			LIN. FT.			LIN. FT.
UD475	165	320+00	325+22	65.50 RT	F		4		1.75	10.00					22.50			522.00							
UD476	165	320+00	325+62	30.50 RT	E				1.75	10.00					18.00			562.00							
UD477	165	320+00	325+22	65.50 LT	F		4		1.75	10.00					19.50			522.00							
UD478	165	320+00	325+62	30.50 LT	E				1.75	10.00					18.00			562.00							
UD479	165	325+00	(CONNECTION)	65.50 RT	M												12.00								
UD480	165	325+00	(CONNECTION)	30.50 RT	M												12.00								
UD481	165	325+00	(CONNECTION)	65.50 LT	M												12.00								
UD482	165	325+00	(CONNECTION)	30.50 LT	M												12.00								
UD483	165	325+22	336+00	75.42 RT	F														1078.00						
UD484	165	325+22	330+00	65.50 RT	C		4		11.00					15.00				478.00							
UD485	165	325+62	330+00	30.50 RT	B		10		11.00					14.00				438.00							
UD486	165	325+62	335+73	20.58 RT	E														1011.00						
UD487	165	325+22	335+73	75.42 LT	F														1051.00						
UD488	165	325+22	330+00	65.50 LT	D				12.00									478.00							
UD489	165	325+62	330+00	30.50 LT	B				11.00					14.00				438.00							
UD490	165	325+62	335+73	20.58 LT	E														1011.00						
UD491	166	329+85	(CONNECTION)	65.50 RT	M												12.00								
UD492	166	329+85	(CONNECTION)	30.50 RT	M												12.00								
UD493	166	329+85	(CONNECTION)	65.50 LT	M												12.00								
UD494	166	329+85	(CONNECTION)	30.50 LT	M												12.00								
UD495	166	330+00	336+00	65.50 RT	F		4		1.75	10.00					13.75			600.00							
UD496	166	330+00	335+73	30.50 RT	E				1.75	10.00					18.00			573.00							
UD497	166	330+00	335+73	65.50 LT	F		4		1.75	10.00					18.00			573.00							
UD498	166	330+00	335+73	30.50 LT	E				1.75	10.00					18.00			573.00							
UD499	166	335+50	(CONNECTION)	65.50 RT	M												12.00								
UD500	166	335+50	(CONNECTION)	30.50 RT	M												12.00								
UD501	166	335+50	(CONNECTION)	65.50 LT	M												12.00								
UD502	166	335+50	(CONNECTION)	30.50 LT	M												12.00								
UD503	166	336+00	343+00	75.42 RT	F														700.00						
UD504	166	336+00	339+00	65.50 RT	C		4		11.00					7.75				300.00							
UD505	166	335+73	339+00	30.50 RT	B		10		11.00					14.00				327.00							
UD506	166	335+73	342+73	20.58 RT	E														700.00						
UD507	166	335+73	343+00	75.42 LT	F														727.00						
UD508	166	335+73	339+00	65.50 LT	C		4		11.00					9.25				327.00							
UD509	166	335+73	339+00	30.50 LT	B				11.00					14.00				327.00							
UD510	166	335+73	342+73	20.58 LT	E														700.00						
UD511	166	338+85	(CONNECTION)	65.50 RT	M												28.00								
UD512	166	338+85	(CONNECTION)	30.50 LT	M												51.00								
UD513	166	339+00	343+00	65.50 RT	F		4		1.75	10.00					12.75			400.00							
UD514	166	339+00	342+73	30.50 RT	E				1.75	10.00					18.00			373.00							
UD515	166	339+00	343+00	65.50 LT	F		4		1.75	10.00					13.75			400.00							
UD516	166	339+00	342+73	30.50 LT	E				1.75	10.00					18.00			373.00							
UD517		NOT USED																							
UD518		NOT USED																							
UD519		NOT USED																							
UD520		NOT USED																							
UD521	167	342+50	(CONNECTION)	65.50 RT	M												28.00								
UD522	167	342+50	(CONNECTION)	30.50 LT	M												51.00								
UD523	167	343+00	346+65	75.42 RT	F														365.00						
UD524	167	343+00	346+65	65.50 RT	F		4		1.75	10.00					15.75			365.00							
UD525	167	342+73	346+73	30.50 RT	E				1.75	10.00					18.00			400.00							
UD526	167	342+73	346+73	20.58 RT	E														400.00						
UD527	167	343+00	346+65	75.42 LT	F														365.00						
UD528	167	343+00	346+65	65.50 LT	F		4		1.75	10.00					14.50			365.00							
UD529	167	342+73	346+73	30.50 LT	E				1.75	10.00					18.00			400.00							
UD530	167	342+73	346+73	20.58 LT	E														400.00						
SUBTOTAL THIS SHEET							64		117.0	160.00				88.00	274.50		302.00	10676.00	8508.00						

CALCULATED GCS 11-00
CHECKED SDS 11-00

UNDERDRAIN SUMMARY

WAY-71-0.28

UD SUMMARY.dwg (SHEET 120) May 03, 2001

REFERENCE NO.	PLAN AND PROFILE SHEET NO.	STATION FROM	STATION TO	OFFSET FROM CL I.R. 71	REFERENCE DETAIL		601 RIPRAP USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN	603	603 4" CONDUIT, TYPE B	603 6" CONDUIT, TYPE B				603 4" CONDUIT, TYPE F	603 6" CONDUIT, TYPE F		605 4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.33 OR 707.41, AS PER PLAN	605 4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN	605 6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			605 6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			605 6" ROCK CUT UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41
							SQ. YD.		LIN. FT.	LIN. FT.				LIN. FT.	LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.			LIN. FT.			LIN. FT.
UD531	167	346+65	351+00	75.42 RT	F														435.00						
UD532	167	346+65	351+00	65.50 RT	F		4		1.75	10.00					14.50			435.00							
UD533	167	346+73	350+73	30.50 RT	E				1.75	10.00					18.00			400.00							
UD534	167	346+73	350+73	20.58 RT	E														400.00						
UD535	167	346+65	351+00	75.42 LT	F														435.00						
UD536	167	346+65	351+00	65.50 LT	F		4		1.75	10.00					12.50			435.00							
UD537	167	346+73	350+73	30.50 LT	E				1.75	10.00					18.00			400.00							
UD538	167	346+73	350+73	20.58 LT	E														400.00						
UD539	168	351+00	355+02	75.42 RT	F														402.00						
UD540	168	351+00	354+92	65.50 RT	F													392.00							
UD541	168	350+73	354+56	30.50 RT	E													383.00							
UD542	168	350+73	354+46	20.58 RT	E														373.00						
UD543	168	351+00	353+53	75.42 LT	F														253.00						
UD544	168	351+00	353+63	65.50 LT	F													263.00							
UD545	168	350+73	353+97	30.50 LT	E													324.00							
UD546	168	350+73	354+07	20.58 LT	E														334.00						
UD547	168	355+23	355+77	75.42 LT	T														54.00						
UD548	168	355+33	355+77	65.50 LT	T				2.25									44.00							
UD549	168	355+69	355+77	30.50 LT	T				1.25									8.00							
UD550	168	356+77	357+20	75.42 RT	F														43.00						
UD551	168	356+67	357+20	65.50 RT	F		4		1.75	10.00					13.75			53.00							
UD552	168	356+29	356+98	30.50 RT	E				1.75	10.00					18.00			69.00							
UD553	168	356+19	356+98	20.58 RT	E														79.00						
UD554	168	355+77	361+64	75.42 LT	T														587.00						
UD555	168	355+77	361+64	65.50 LT	T													587.00							
UD556	168	355+77	361+64	30.50 LT	T													587.00							
UD557	168	355+77	361+64	20.58 LT	T		4			54.75					15.00				587.00						
UD558	168	357+20	361+59	75.42 RT	F														439.00						
UD559	168	357+20	361+59	65.50 RT	F													439.00							
UD560	168	356+98	361+59	30.50 RT	E													461.00							
UD561	168	356+98	361+59	20.58 RT	E														461.00						
UD562		NOT USED																							
UD563		NOT USED																							
UD564		NOT USED																							
UD565		NOT USED																							
UD566		NOT USED																							
UD567	169	361+59	371+50	75.42 RT	G					54.75					18.00				991.00						
UD568	169	361+59	366+00	65.50 RT	G				1.75									441.00							
UD569	169	361+59	364+24	30.50 RT	G				2.75									265.00							
UD570	169	361+59	364+24	20.58 RT	G					1.25									265.00						
UD571	169	361+64	371+50	75.42 LT	V					54.75					21.00				986.00						
UD572	169	361+64	366+00	65.50 LT	V				1.75									436.00							
UD573	169	361+64	364+24	30.50 LT	V				1.75									260.00							
UD574	169	361+64	364+24	20.58 LT	V														260.00						
UD575	169	364+24	371+50	30.50 RT	E				1.75	10.00					18.00			726.00							
UD576	169	364+24	371+50	20.58 RT	E														726.00						
UD577	169	364+24	371+50	30.50 LT	E				1.75	10.00					18.00			726.00							
UD578	169	364+24	371+50	20.58 LT	E														726.00						
UD579	169	366+00	371+50	65.50 RT	D				12.00									550.00							
UD580	169	366+00	371+50	65.50 LT	D				12.00									550.00							
SUBTOTAL THIS SHEET							16		49.50	245.50					184.75			9234.00	9236.00						

CALCULATED QCS 11-00
CHECKED SDS 11-00

UNDERDRAIN SUMMARY

WAY-71-0.28

UD SUMMARY.dwg (SHEET 121) May 03, 2001

UNDERDRAIN SUMMARY

CALCULATED GCS 11-00 | CHECKED SDS 11-00

REFERENCE NO.	PLAN AND PROFILE SHEET NO.	STATION FROM	STATION TO	OFFSET FROM CL I.R. 71	REFERENCE DETAIL		601 RIPRAP USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN		603 4" CONDUIT, TYPE B	603 6" CONDUIT, TYPE B				603 4" CONDUIT, TYPE F	603 6" CONDUIT, TYPE F		605 4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.33 OR 707.41, AS PER PLAN	605 4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN	605 6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			605 6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			605 6" ROCK CUT UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41
							SQ. YD.		LIN. FT.	LIN. FT.				LIN. FT.	LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.			LIN. FT.			LIN. FT.
UD581	309	76+25	85+87.63	82.69/148.48 RT	F														962.63						
UD582	309	76+25	81+37.01	72.70/84.25 RT	F		4		1.75	10.00					26.00			512.01							
UD583	309	81+37.01	85+89.91	84.25/139.06 RT	C		4		11.00					19.00				452.90							
		NB REST AREA																							
UD584	308	415+75	416+65		I									7.00				90.00							
UD585	308	415+75	419+46		I		4			15.00					13.00				371.00						
UD586	308	415+75	424+00		I					16.00									825.00						
UD587	308	515+98.23	517+34		I					9.00									135.77						
UD588	308	517+95	520+88		–														293.00						
UD589	308	420+93	423+90		–														297.00						
UD590	308	423+40	427+00		W														360.00						
UD591	308	524+32	526+87.91		W		4			26.00					12.00				255.91						
UD592	309	425+50	427+00		W				2.00									148.50							
UD593	309	96+79.49	107+85	144.61/91.15 RT	W														1105.51						
UD594	309	96+77	103+00	135.01/91.33 RT	W				2.00									621.50							
UD595	309	427+00	429+20		W														220.00						
UD596	309	103+00	107+85	91.33/81.23 RT	D				12.00									485.00							
UD597		NOT USED																							
UD598		NOT USED																							
UD599		NOT USED																							
UD600		NOT USED																							
UD601		NOT USED																							
UD602	318	88+00	97+43	90.01/114.16 LT	F														943.00						
UD603	318	88+00	93+00	80.09/90.50 LT	F		4		1.75	10.00					18.00			500.00							
UD604	318	93+00	97+43	90.50/104.20 LT	C		4		11.00					11.00				443.00							
		SB REST AREA																							
UD605	317	617+23.02	621+00		L				1.75									376.98							
UD606	317	617+22.16	621+95		L														472.84						
UD607	317	717+37.17	721+24		L														386.83						
UD608	317	721+26	722+28.50		O					15.00									102.50						
UD609	317	722+45.50	724+97.50		O					15.00									252.00						
UD610	317	622+39	622+39																60.00						
UD611	317	622+39	627+99		–														560.00						
UD612	317	724+97.50	727+97.50		O					15.00									300.00						
UD613	317	628+01	630+94		K					10.00					12.00				293.00						
UD614	317	628+01	728+63		–														380.00						
UD615	317	727+97.50	731+59		O					15.00									361.50						
UD616	317	629+50	630+94		K				2.00									142.50							
UD617	318	110+72.20	117+80	127.45/75.42 LT	K													707.80							
UD618	318	110+70.27	114+00	117.96/82.45 LT	K				2.00									328.23							
UD619	318	114+00	117+80	82.45/65.50 LT	D				12.00									380.00							
UD620		NOT USED																							
UD621		NOT USED																							
UD622		NOT USED																							
UD623		NOT USED																							
UD624		NOT USED																							
		MAINLINE																							
UD625	155	203+90	204+36	75.42 RT	F														46.00						
UD626	155	203+90	204+46	65.50 RT	F													56.00							
UD627	155	204+64	210+47	65.50 RT	G				1.75									583.00							
UD628	155	205+02	210+47	30.50 RT	G				1.75									545.00							
UD629	155	206+06	210+47	65.50 LT	F		4		1.75	10.00					25.50			441.00							
UD630	155	205+67	210+47	30.50 LT	E				1.75	10.00					18.00			480.00							
SUBTOTAL THIS SHEET							28		66.25	176.00				37.00	124.50			7293.42	8983.49						

UD SUMMARY.dwg (SHEET 122) May 03, 2001

WAY-71-0.28

					601	603							605								
					RIPRAP USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN		4" CONDUIT, TYPE B	6" CONDUIT, TYPE B				4" CONDUIT, TYPE F	6" CONDUIT, TYPE F		4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.33 OR 707.41, AS PER PLAN	4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN	6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			6" UNCLASSIFIED PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41			6" ROCK CUT UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41
					SQ. YD.		LIN. FT.	LIN. FT.				LIN. FT.	LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.			LIN. FT.			LIN. FT.
SUBTOTAL FROM SHEET 111.					54		172.75	304.25				112.00	254.00			16104.48	18123.48						
SUBTOTAL FROM SHEET 112.					62		146.00	207.00				219.25	191.25		271.00	12551.67	10542.98						
SUBTOTAL FROM SHEET 113.					44		175.50	315.50				112.00	221.50			13798.00	13798.00						
SUBTOTAL FROM SHEET 114.					66		152.75	270.50				128.00	322.75			13702.50	15070.74						
SUBTOTAL FROM SHEET 115.					60		197.00	427.75				172.75	244.50			14652.65	16312.69				275.00		
SUBTOTAL FROM SHEET 116.					88		200.50	229.50				148.00	361.00			15561.00	15292.00				381.00		
SUBTOTAL FROM SHEET 117.					68		208.00	299.00				179.75	279.75		79.00	14588.00	12564.00						
SUBTOTAL FROM SHEET 118.							109.75	296.25				33.50	133.50		333.00	8458.00	9404.00						1078.00
SUBTOTAL FROM SHEET 119.					42		150.00	184.25				111.25	92.75		240.00	8726.00	10848.00						46.00
SUBTOTAL FROM SHEET 120.					64		117.00	160.00				88.00	274.50		302.00	10676.00	8508.00						
SUBTOTAL FROM SHEET 121.					16		49.50	245.50					184.75			9234.00	9236.00						
SUBTOTAL FROM SHEET 122.					28		66.25	176.00				37.00	124.50			7293.42	8983.49						
TOTAL CARRIED TO SHEETS 100–102.					592		1745	3116				1342	2685		1225	145346	148683				656		1124

CALCULATED GCS 11-00
CHECKED SDS 11-00

UNDERDRAIN SUMMARY

WAY-71-0.28

UD SUMMARY.dwg (SHEET 123) May 03, 2001

BENDS AND BRANCHES – FOR INFORMATION ONLY

DETAIL	NO. OF LOCATIONS*	4" X 6" REDUCER	4" X 45° BEND	4" X 90° BEND	4" X 6" 90° BEND	6" X 45° BEND	6" X 90° BEND	4" TEE	6" X 6" X 4" TEE	6" TEE	4" WYE	4" X 6" X 6" WYE	6" WYE	6" CROSS
		EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
A	4			4	4		4			4				
B	57							57						
C	28							28						
D	31			31				31	31					
E	46				46			46						46
F	36				36			36						36
G	27							54	54	41				20
H	3							3						
I	1		1				1	1				1		1
J	1						1	1	1	1				
K	1	2	4							1				1
L	1			2	1				1	3				
M	58										58			
N	1			2			1		2	1				
O	4					2							2	
P NB	1	1	1			1				1				
P SB	1	1	1	1		1				1				
Q	4			4	4					4				
R	6			6	6	6				6				
S	3			3	3					3				
T	1						1	2		2				1
U	3			3	3			3	3	3				3
V	1					1		2	2	1				1
W	1	2	4							1				2
X	4				4	4		4						4
Y	4							4	4					

*FOR DETAIL LOCATIONS
SEE UNDERDRAIN SUMMARY.

NOTE: DROP TUBE WITH TEES TO BE USED AT STA. 66+50, 107+85, 170+35, 200+84, 281+95, 289+54, 361+59

CALCULATED GCS 11-00
CHECKED SDS 11-00

UNDERDRAIN SUMMARY

WAY-71-0.28

124
432

UD SUMMARY.dwg (SHEET 124) May 03, 2001

STORM WATER POLLUTION PREVENTION PLAN SUB-SUMMARY

REFERENCE NO.	STATION	SIDE	877 TEMPORARY PERIMETER FILTER FABRIC FENCE LIN. FT.	877 TEMPORARY DITCH CHECK FILTER FABRIC FENCE LIN. FT.	877 TEMPORARY INLET PROTECTION FILTER FABRIC FENCE LIN. FT.
DC	16+85	MED		25	
PP	21+85	RT	70		
CB	21+86	MED			90
DC	24+85	MED		25	
DC	28+85	MED		25	
CB	32+85	MED			90
DC	33+89	RT		25	
PP	37+85	LT	70		
CB	37+87	MED			90
DC	41+85	MED		25	
DC	45+85	MED		25	
PP	49+85	LT	70		
CB	49+87	MED			90
DC	50+00	RT		25	
DC	54+85	MED		25	
DC	56+71	RT		25	
DC	58+00	RT		25	
CB	59+85	MED			90
DC	60+00	RT		25	
CB	61+39	RT			60
DC	62+00	Rt		25	
CB	62+94	RT			60
CB	63+68	LT			60
DC	64+85	MED		25	
CB	66+50	MED			60
CB	66+59	LT			60
DC	69+85	MED		25	
CB	71+74	LT			60
CB	76+00	MED			90
DC	76+50	RT		25	
DC	79+85	MED		25	
DC	81+50	LT/RT		50	
DC	83+85	MED		25	
CB	84+40	RT			60
CB	85+85	RT			30
DC	86+00	LT/RT		50	
CB	87+86	MED			90
CB	87+95	RT			60
PP	88+00	RT	350		
MH	88+86	RT			30
MH	89+06	RT			30
CB	89+70	RT			30
DC	90+00	RT		25	
CB	90+96	RT			60
DC	91+00	LT		25	
DC	92+85	MED		25	
MH	94+28	RT			60
PP	94+50	RT	260		
DC	96+00	LT		25	
DC	96+72	RT		25	
CB	97+85	MED			90
PP	98+50	LT	730		
CB	100+13	LT			60
CB	100+36	LT			30
MH	101+65	LT			30
MH	101+66	LT			30
TOTALS COLUMN #1			1550	650	1590

REFERENCE NO.	STATION	SIDE	877 TEMPORARY PERIMETER FILTER FABRIC FENCE LIN. FT.	877 TEMPORARY DITCH CHECK FILTER FABRIC FENCE LIN. FT.	877 TEMPORARY INLET PROTECTION FILTER FABRIC FENCE LIN. FT.
CB	102+35	LT			60
CB	102+36	LT			30
CB	102+40	LT			60
DC	102+85	MED		25	
DC	103+00	RT		25	
CB	104+85	LT			60
CB	107+85	MED			90
CB	107+85	LT			60
MH	107+85	LT			30
DC	108+00	RT		25	
PP	108+50	LT	530		
CB	108+85	LT			30
CB	110+75	LT			60
DC	111+75	MED		25	
DC	113+00	RT		25	
DC	114+00	LT		25	
DC	115+50	MED		25	
MH	117+80	LT			60
CB	117+86	RT			120
MH	117+91	MED			60
CB	117+96	LT			60
CB	118+75	MED			90
DC	123+85	MED		25	
CB	127+85	MED			90
DC	132+85	MED		25	
CB	137+84	MED			90
DC	140+85	MED		25	
CB	143+88	MED			90
DC	147+50	MED		25	
CB	148+10	LT			30
CB	148+86	LT			60
DC	149+75	LT		25	
CB	150+88	MED			60
CB	151+25	MED			30
CB	151+25	RT			60
CB	151+82	RT			30
CB	155+01	LT			60
DC	156+25	MED		25	
CB	160+27	RT			90
MH	160+27	MED			60
CB	161+00	MED			90
CB	164+91	RT			60
MH	164+91	MED			60
DC	165+75	MED		25	
CB	170+35	MED			90
DC	175+35	MED		25	
DC	185+75	MED		25	
CB	190+76	MED			90
DC	190+92	LT		25	
DC	195+85	MED		25	
CB	200+84	MED			90
DC	204+03	RT		25	
DC	205+85	MED		25	
DC	206+80	LT		25	
DC	209+30	RT		25	
CB	210+47	MED			90
DC	212+00	LT		25	
TOTALS COLUMN #2			530	575	2190

REFERENCE NO.	STATION	SIDE	877 TEMPORARY PERIMETER FILTER FABRIC FENCE LIN. FT.	877 TEMPORARY DITCH CHECK FILTER FABRIC FENCE LIN. FT.	877 TEMPORARY INLET PROTECTION FILTER FABRIC FENCE LIN. FT.
DC	215+50	MED		25	
CB	220+48	MED			90
DC	221+10	RT		25	
DC	225+50	LT/MED		50	
DC	227+38	RT		25	
DC	227+50	LT		25	
DC	227+57	RT		25	
DC	229+00	LT		25	
CB	230+49	MED			90
DC	235+50	MED		25	
CB	240+44	MED			90
DC	243+20	LT		25	
DC	243+37	LT		25	
DC	245+50	MED		25	
DC	246+35	LT		25	
DC	246+55	LT		25	
DC	248+43	RT		25	
CB	250+36	MED			90
DC	255+50	MED		25	
CB	260+55	MED			90
DC	263+95	MED		25	
CB	267+46	MED			90
DC	268+75	LT		25	
CB	272+00	MED			90
DC	272+00	LT		25	
CB	272+00	RT			90
DC	276+95	MED		25	
CB	281+95	MED			90
CB	284+45	MED			90
CB	289+54	MED			90
PP	289+95	RT	90		
DC	293+85	MED		25	
CB	298+17	LT			90
CB	298+17	MED			90
CB	298+40	LT			60
MH	299+98	MED			90
DC	303+25	MED		25	
CB	308+22	MED			90
CB	308+22	RT			60
DC	312+50	MED		25	
DC	315+45	LT		25	
CB	316+46	MED			90
DC	320+40	RT		25	
DC	320+85	MED		25	
CB	325+22	MED			90
DC	325+58	RT		25	
MH	325+62	MED			90
DC	330+45	MED		25	
PP	332+75	RT	200		
CB	335+73	MED			90
DC	335+78	RT		25	
DC	339+75	MED		25	
CB	342+73	MED			90
PP	342+75	RT	30		
DC	346+00	LT		25	
CB	346+73	MED			90
CB	350+25	RT			60
TOTALS COLUMN #3			320	775	2070

REFERENCE NO.	STATION	SIDE	877 TEMPORARY PERIMETER FILTER FABRIC FENCE LIN. FT.	877 TEMPORARY DITCH CHECK FILTER FABRIC FENCE LIN. FT.	877 TEMPORARY INLET PROTECTION FILTER FABRIC FENCE LIN. FT.
CB	350+73	MED			90
CB	353+20	LT			60
CB	353+81	MED			60
CB	354+15	MED			60
CB	354+75	RT			60
DC	355+23	LT		25	
CB	356+40	MED			60
CB	356+98	MED			90
DC	360+23	LT		25	
CB	361+59	MED			90
CB	364+24	MED			90
DC	365+23	LT		25	
PP	366+75	LT	550		
PP	368+50	RT	300		
CB	369+69	MED			90
TOTALS THIS COLUMN			850	75	750
TOTALS COLUMN #1			1550	650	1590
TOTALS COLUMN #2			530	575	2190
TOTALS COLUMN #3			320	775	2070
TOTALS CARRIED TO GENERAL SUMMARY			3250	2075	6600

REFERENCE NO.	STATION	SIDE	877 TEMPORARY SEDIMENT BASINS AND DAMS CU. YD.	601 ROCK CHANNEL PROTECTION, TYPE C, WITH FABRIC FILTER CU. YD.
	369+50	RT	170	34
TOTALS CARRIED TO GENERAL SUMMARY			170	34

CALCULATED SDS 04/01
CHECKED GCS 04/01

STORM WATER POLLUTION PREVENTION PLAN SUB-SUMMARY

WAY-71-0.28

M:\99029\AUTOCAD\ACAD-R12\SW-SUBSM.DWG - May 08, 2001

LINE NO.	DESCRIPTION	QUANTITY	UNIT
1	ASPHALT PAVEMENT AREAS (WARRANTY)		
2			
3	I.R. 71 NORTHBOUND		
4	STA. 14+82.88 TO STA. 371+50.00 = 35667.12 LIN.FT.		
5	DEDUCT FOR CR 70 BRIDGE = −158.09 LIN.FT.		
6	DEDUCT FOR APPROACH SLABS = −50.00 LIN.FT.		
7			
8	I.R. 71 SOUTHBOUND		
9	STA. 14+82.88 TO STA. 371+50.00 = 35667.12 LIN.FT.		
10	DEDUCT FOR CR 70 BRIDGE = −159.56 LIN.FT.		
11	DEDUCT FOR APPROACH SLABS = −50.00 LIN.FT.		
12	TOTAL OF LINES 4 THRU 11 = 70916.59 LIN.FT.		
13	(70916.59)(36)/9 = 283666.36 SQ.YD.		
14			
15	ACCELERATION AND DECELERATION LANES		
16	NORTHBOUND		
17	STA. 49+37.99 TO STA. 50+37.99: (100.00)(0+12.00)/2 = 600.00 SQ.FT.		
18	STA. 50+37.99 TO STA. 55+69.26: (531.27)(12.00) = 6375.24 SQ.FT.		
19	STA. 55+69.26 TO STA. 61+21.24: (CAD MEASURED AREA) = 11517.06 SQ.FT.		
20	STA. 75+65.00 TO STA. 76+65.00: (100.00)(0+12.00)/2 = 600.00 SQ.FT.		
21	STA. 76+65.00 TO STA. 79+10.00: (245.00)(12.00) = 2940.00 SQ.FT.		
22	STA. 79+10.00 TO STA. 83+65.00: (CAD MEASURED AREA) = 9523.50 SQ.FT.		
23	STA. 98+92.80 TO STA. 103+39.83: (CAD MEASURED AREA) = 13463.26 SQ.FT.		
24	STA. 103+39.83 TO STA. 115+40.00: (1200.17)(25.00+0)/2 = 15002.13 SQ.FT.		
25	STA. 140+85.45 TO STA. 141+85.45: (100.00)(0+12.00)/2 = 600.00 SQ.FT.		
26	STA. 141+85.45 TO STA. 144+31.15: (245.70)(12.00) = 2948.40 SQ.FT.		
27	STA. 144+31.15 TO STA. 148+85.46: (CAD MEASURED AREA) = 9536.70 SQ.FT.		
28	STA. 165+52.97 TO STA. 170+09.60: (CAD MEASURED AREA) = 13774.56 SQ.FT.		
29	STA. 170+09.60 TO STA. 182+10.19: (1200.59)(25.00+0)/2 = 15007.38 SQ.FT.		
30	SOUTHBOUND		
31	STA. 51+60.69 TO STA. 63+61.01: (1200.32)(0+25)/2 = 15004.00 SQ.FT.		
32	STA. 63+61.01 TO STA. 67+22.91: (CAD MEASURED AREA) = 11148.74 SQ.FT.		
33	STA. 81+00.00 TO STA. 96+00.00: (1500.00)(0+31.25)/2 = 23437.50 SQ.FT.		
34	STA. 96+00.00 TO STA. 97+47.19: (CAD MEASURED AREA) = 5020.51 SQ.FT.		
35	STA. 111+59.37 TO STA. 115+80.00: (CAD MEASURED AREA) = 8821.97 SQ.FT.		
36	STA. 115+80.00 TO STA. 116+80.00: (100.00)(12+0)/2 = 600.00 SQ.FT.		
37	STA. 135+85.45 TO STA. 147+85.62: (1200.17)(0+25)/2 = 15002.13 SQ.FT.		
38	STA. 147+85.62 TO STA. 151+89.56: (CAD MEASURED AREA) = 11974.45 SQ.FT.		
39	STA. 167+86.32 TO STA. 173+35.46: (CAD MEASURED AREA) = 11433.55 SQ.FT.		
40	STA. 173+35.46 TO STA. 179+35.46: (600.00)(12.00) = 7200.00 SQ.FT.		
41	STA. 179+35.46 TO STA. 180+35.46: (100.00)(12.00+0)/2 = 600.00 SQ.FT.		
42	TOTAL OF LINES 17 THRU 41: (212131.08 S.F.)/9 = 23570.12 SQ.YD.		
43	TOTAL PAVEMENT AREA: (283666.36 S.Y.+23570.12 S.Y.) = 307236.48 SQ.YD.		
44			
45	ASPHALT PAVEMENT AREAS (NOT WARRANTY)		
46			
47	RAMP A STA. 17+32.42 TO STA. 20+00.00: (267.58)(16.00) = 4281.28 SQ.FT.		
48	RAMP B STA. 21+13.27 TO STA. 23+00.00: (186.73)(16.00) = 2987.68 SQ.FT.		
49	RAMP C STA. 51+87.54 TO STA. 54+00.00: (212.46)(16.00) = 3399.36 SQ.FT.		
50	RAMP D STA. 48+84.63 TO STA. 52+00.00: (315.37)(16.00) = 5045.92 SQ.FT.		
51	RAMP E STA. 65+84.00 TO STA. 67+90.77: (206.77)(16.00) = 3308.32 SQ.FT.		
52	RAMP F STA. 61+00.00 TO STA. 65+54.47: (454.47)(16.00) = 7271.52 SQ.FT.		
53	TOTAL OF LINES 41 THRU 51: (26294.08)/9 = 2921.56 SQ.YD.		
54			
55	ASPHALT SHOULDER AREAS (WARRANTY)		
56			
57	NORTHBOUND		
58	MEDIAN SHOULDER		
59	STA. 14+82.88 TO STA. 371+50.00: (35667.12)(10.00) = 356671.20 SQ.FT.		
60	DEDUCT FOR CR 70 BRIDGE AND APPROACH SLABS: (208.09)(10.00) = −2080.90 SQ.FT.		
61	STA. 14+82.88 TO STA. 49+37.99: (3455.11)(10.00) = 34551.10 SQ.FT.		
62	STA. 49+37.99 TO STA. 50+37.99: (100.00)(10.00+8.00)/2 = 900.00 SQ.FT.		
63	RAMP B STA. 10+38.00 TO STA. 21+13.27: (1075.27)(8.00) = 8602.16 SQ.FT.		
64	STA. 61+21.24 TO STA. 75+65.00: (1443.76)(10.00) = 14437.60 SQ.FT.		
65	STA. 75+65.00 TO STA. 76+65.00: (100.00)(10.00) = 1000.00 SQ.FT.		
66	STA. 76+65.00 TO STA. 79+10.00: (245.00)(10.00) = 2450.00 SQ.FT.		
67	STA. 79+10.00 TO STA. 83+65.00: (455.00)(10.00) = 4550.00 SQ.FT.		
68	STA. 83+64.31 TO STA. 98+92.80: (1528.49)(10.00) = 15284.90 SQ.FT.		
69	STA. 98+92.80 TO STA. 103+39.83: (447.03)(10.00) = 4470.30 SQ.FT.		
70	STA. 103+39.83 TO STA. 115+40.00: (1200.17)(10.00) = 12001.70 SQ.FT.		
71	STA. 115+40.00 TO STA. 140+85.45: (2545.45)(10.00) = 25454.50 SQ.FT.		
72	STA. 140+85.45 TO STA. 141+85.45: (100.00)(10.00+8.0)/2 = 900.00 SQ.FT.		
73	RAMP D STA. 41+85.45 TO STA. 48+84.63: (699.18)(8.00) = 5593.44 SQ.FT.		
74	STA. 148+85.46 TO STA. 165+52.97: (1667.51)(10.00) = 16675.10 SQ.FT.		
75	RAMP F STA. 65+54.47 TO STA. 81+22.95: (1568.48)(8.00) = 12547.84 SQ.FT.		
76	RAMP F STA. 81+22.95 TO STA. 82+19.05: (96.10)(8.00+10.00)/2 = 864.90 SQ.FT.		
77	STA. 182+10.19 TO STA. 371+50.00: (18939.81)(10.00) = 189398.10 SQ.FT.		
78	DEDUCT FOR CR 70 BRIDGE AND APPROACH SLABS: (208.09)(10.00) = −2080.90 SQ.FT.		
79	TOTAL OF LINES 59 THRU 78: (702191.04 S.F.)/9 = 78021.23 SQ.YD.		
80			

LINE NO.		QUANTITY	UNIT
81	ASPHALT SHOULDER AREAS (WARRANTY) CONT'D.		
82			
83	SOUTHBOUND		
84	MEDIAN SHOULDER		
85	STA. 14+82.88 TO STA. 371+50.00: (35667.12)(10.00) = 356671.20 SQ.FT.		
86	DEDUCT FOR CR 70 BRIDGE AND APPROACH SLABS: (209.56)(10.00) = −2095.60 SQ.FT.		
87	STA. 14+82.88 TO STA. 51+60.69: (3677.81)(10.00) = 36778.10 SQ.FT.		
88	RAMP A STA. 1+60.69 TO STA. 2+56.96: (96.27)(10.00+8.00)/2 = 866.43 SQ.FT.		
89	RAMP A STA. 2+56.96 TO STA. 17+32.42: (1475.46)(8.00) = 11803.68 SQ.FT.		
90	STA. 67+22.91 TO STA. 81+00.00: (1377.09)(10.00) = 13770.90 SQ.FT.		
91	STA. 81+00.00 TO STA. 96+00.00: (1500.00)(10.00) = 15000.00 SQ.FT.		
92	STA. 96+00.00 TO STA. 97+47.19: (147.19)(10.00) = 1471.90 SQ.FT.		
93	STA. 97+47.19 TO STA. 111+59.37: (1412.18)(10.00) = 14121.80 SQ.FT.		
94	STA. 111+59.37 TO STA. 115+80.00: (420.63)(10.00) = 4206.30 SQ.FT.		
95	STA. 115+80.00 TO STA. 116+80.00: (100.00)(10.00) = 1000.00 SQ.FT.		
96	STA. 116+80.00 TO STA. 135+85.39: (1905.39)(10.00) = 19053.90 SQ.FT.		
97	RAMP C STA. 35+85.20 TO STA. 36+81.38: (96.18)(10.00+8.00)/2 = 865.62 SQ.FT.		
98	RAMP C STA. 36+81.38 TO STA. 50+85.46: (1404.08)(8.00) = 11232.64 SQ.FT.		
99	RAMP C STA. 50+85.46 TO STA. 51+87.54: (102.08)(8.00+6.00)/2 = 714.56 SQ.FT.		
100	STA. 151+89.56 TO STA. 167+86.32: (1596.76)(10.00) = 15967.60 SQ.FT.		
101	RAMP E STA. 67+90.77 TO STA. 79+31.65: (1140.88)(8.00) = 9127.04 SQ.FT.		
102	RAMP E STA. 79+31.65 TO STA. 80+31.78: (100.13)(8.00+10.00)/2 = 901.17 SQ.FT.		
103	STA. 180+35.46 TO STA. 371+50.00: (19114.54)(10.00) = 191145.40 SQ.FT.		
104	DEDUCT FOR CR 70 BRIDGE AND APPROACH SLABS: (209.56)(10.00) = −2095.60 SQ.FT.		
105	TOTAL OF LINES 85 THRU 104: (700507.04 S.F.)/9 = 77834.12 SQ.YD.		
106	TOTAL SHOULDER AREA: (78021.23+77834.12) = 155855.35 SQ.YD.		
107			
108	ASPHALT SHOULDER AREAS (NOT WARRANTY)		
109			
110	RAMP A STA. 17+32.42 TO STA. 20+00.00: (267.58)(8.00+3.00) = 2943.38 SQ.FT.		
111	RAMP B STA. 21+13.27 TO STA. 23+00.00: (186.73)(8.00+3.00) = 2054.03 SQ.FT.		
112	RAMP C STA. 51+87.54 TO STA. 54+00.00: (212.46)(6.00+3.00) = 1912.14 SQ.FT.		
113	RAMP C STA. 54+00.00 TO STA. 61+62.88: (762.88)(6.00) = 4577.28 SQ.FT.		
114	RAMP C STA. 61+62.88 TO STA. SR539: (CAD MEASURED AREA) = 500.83 SQ.FT.		
115	RAMP D STA. 48+84.63 TO STA. 49+84.63: (100.00)(8.00+6.00)/2 = 700.00 SQ.FT.		
116	RAMP D STA. 49+84.63 TO STA. 57+98.62: (813.99)(6.00) = 4883.94 SQ.FT.		
117	RAMP D STA. 57+98.62 TO STA. SR539: (CAD MEASURED AREA) = 469.83 SQ.FT.		
118	RAMP E STA. 65+84.00 TO STA. 67+90.77: (206.77)(8.00+3.00) = 2274.47 SQ.FT.		
119	RAMP F STA. 61+00.00 TO STA. 65+54.47: (454.47)(8.00+3.00) = 4999.17 SQ.FT.		
120	TOTAL OF LINES 110 THRU 119: (25315.07 S.F.)/9 = 2812.79 SQ.YD.		
121			
122	MEDIAN CROSSOVER		
123	STA. 37+42.00 = 1558.10 SQ.FT.		
124	STA. 127+50.00 (CAD MEASURED AREA) = 1548.50 SQ.FT.		
125	STA. 191+20.00 = 1625.90 SQ.FT.		
126	STA. 316+72.00 = 1548.50 SQ.FT.		
127	TOTAL OF LINES 123 THRU 126: (6281.00 S.F.)/9 = 697.89 SQ.YD.		
128			
129	ADDITIONAL AT BARRIERS		
130	SR301 RT.: (2.00)(52.10+68.10)/2 = 120.20 SQ.FT.		
131	LT.: (2.00)(52.61+68.60)/2 = 121.21 SQ.FT.		
132			
133	TR40 RT.: (2.00)(44.10+60.10)/2 = 104.20 SQ.FT.		
134	LT.: (2.00)(43.60+59.60)/2 = 103.20 SQ.FT.		
135			
136	SR539 RT.: (2.00)(50.35+65.84)/2 = 116.19 SQ.FT.		
137	LT.: (2.00)(50.60+66.09)/2 = 116.69 SQ.FT.		
138			
139	CR102 RT.: (2.00)(58.10+74.10)/2 = 132.20 SQ.FT.		
140	LT.: (2.00)(59.60+75.60)/2 = 135.20 SQ.FT.		
141			
142	CR36 RT.: (2.00)(57.60+73.60)/2 = 131.20 SQ.FT.		
143	LT.: (2.00)(58.60+74.60)/2 = 133.20 SQ.FT.		
144			
145	TR178 RT.: (2.00)(51.60+67.60)/2 = 119.20 SQ.FT.		
146	LT.: (2.00)(51.10+67.10)/2 = 118.20 SQ.FT.		
147	TOTAL OF LINES 130 THRU 146: (1450.89 S.F.)/9 = 161.21 SQ.YD.		
148			
149	ADDITIONAL AT CR 70 BRIDGE		
150	STA. 353+04.00 TO STA. 353+35.41 LT.: (CAD MEASURED AREA) = 51.39 SQ.FT.		
151	STA. 353+66.00 TO STA. 353+91.78 LT.: (CAD MEASURED AREA) = 39.60 SQ.FT.		
152	STA. 353+99.00 TO STA. 354+29.90 RT.: (CAD MEASURED AREA) = 49.87 SQ.FT.		
153	STA. 354+58.50 TO STA. 354+87.90 RT.: (CAD MEASURED AREA) = 46.07 SQ.FT.		
154	TOTAL OF LINES 150 THRU 153: (186.93 S.F.)/9 = 20.77 SQ.YD.		
155	TOTAL SHOULDER AREA (2812.79+697.89+161.21+20.77) = 3692.66 SQ.YD.		
156			
157			
158			
159			
160			

CALCULATED P.L.D. 04/01
CHECKED S.D.S. 04/01

CALCULATIONS

WAY-71-0.28

M:\99209\AUTOCAD\ACAD-R12\Calc.dwg - SHEET 128 - May 09, 2001

LINE NO.	DESCRIPTION		QUANTITY	UNIT
1	ITEM 202 – PAVEMENT REMOVED			
2				
3	I.R.71			
4	NORTHBOUND			
5	STA. 14+82.88 TO STA. 371+50.00 =	35667.12 LIN.FT.		
6	DEDUCT FOR CR70 BRIDGE =	−158.09 LIN.FT.		
7	DEDUCT FOR CONRAIL BRIDGE =	−213.61 LIN.FT.		
8				
9	SOUTHBOUND			
10	STA. 14+82.88 TO STA. 371+50.00 =	35667.12 LIN.FT.		
11	DEDUCT FOR CR70 BRIDGE =	−159.56 LIN.FT.		
12	DEDUCT FOR CONRAIL BRIDGE =	−210.94 LIN.FT.		
13				
14	TOTAL OF LINES 5 THRU 12: =	70592.04 LIN.FT.		
15	(70592.04)(24.00)/9 =	188245.44 SQ.YD.		
16				
17	SR 301			
18	RAMP A			
19	STA. 1+60.69 TO STA. 13+68.62: (1207.93)(0+25)/2 =	15099.13 SQ.FT.		
20	STA. 13+68.62 TO STA. 18+18.62: (450)(14+18)/2 =	7200.00 SQ.FT.		
21	STA. 18+18.62 TO STA. 20+00.00: (181.38)(16) =	2902.08 SQ.FT.		
22	RAMP B			
23	STA. 9+37.87 TO STA. 10+38.00: (100.13)(12)/2 =	600.78 SQ.FT.		
24	STA. 10+38.00 TO STA. 15+65.90: (527.90)(12) =	6334.80 SQ.FT.		
25	STA. 15+65.90 TO STA. 21+29.11: (563.21)(12+39)/2 =	14361.86 SQ.FT.		
26	STA. 21+29.11 TO STA. 23+00.00: (170.89)(16.58+18)/2 =	2954.69 SQ.FT.		
27	SHOULDER			
28	STA. 61+37.56 TO STA. 62+37.56: (100)(14+10)/2 =	1200.00 SQ.FT.		
29				
30	SR539			
31	RAMP E			
32	SHOULDER			
33	STA. 166+85.56 TO STA. 167+86.10: (100.54)(10+14)/2 =	1206.48 SQ.FT.		
34	RAMP E			
35	STA. 65+84.00 TO STA. 67+90.77: (206.77)(16+18)/2 =	3515.09 SQ.FT.		
36	STA. 67+90.77 TO STA. 73+35.46: (544.69)(39+12)/2 =	13889.60 SQ.FT.		
37	STA. 73+35.46 TO STA. 79+31.65: (596.19)(12) =	7154.28 SQ.FT.		
38	STA. 179+35.46 TO STA. 180+35.46: (100)(12)/2 =	600.00 SQ.FT.		
39	RAMP F			
40	STA. 61+00.00 TO STA. 65+60.30: (460.30)(16) =	7364.80 SQ.FT.		
41	STA. 65+60.30 TO STA. 67+10.30: (150)(18+16)/2 =	2550.00 SQ.FT.		
42	STA. 67+10.30 TO STA. 70+10.30: (300)(16+14)/2 =	4500.00 SQ.FT.		
43	STA. 70+10.30 TO STA. 82+19.05: (1208.75)(25)/2 =	15109.38 SQ.FT.		
44	REST AREAS			
45	(60600 S.F.+71700 S.F.) =	132300.00 SQ.FT.		
46	TOTAL OF LINES 19 THRU 45: = 238842.97/9 =	26538.11 SQ.YD.		
47	188245.44 SQ.YD. + 26538.11 SQ.YD. =	214783.55 SQ.YD. USE	214784	SQ.YD.
48				
49				
50	ITEM 202 – WEARING COURSE REMOVED			
51				
52	STA. 14+55.00 TO STA. 14+82.88: (27.88)(56.00)(2) = 3122.56 S.F.			
53	STA. 371+50.00 TO STA. 371+75.00: (25.00)(39.00)(2) = 1950.00 S.F.			
54	(3122.56 S.F.+1950.00 S.F.)/9 =	563.62 SQ.YD. USE	564	SQ.YD.
55				
56				
57	ITEM 202 – CURB REMOVED			
58				
59	STA. 61+42 TO STA. 62+39 RT.: (97)(2) =	194 LIN.FT.		
60	STA. 83+79 TO STA. 84+69 RT.: (90)(2) =	180 LIN.FT.		
61	STA. 110+84 TO STA. 111+47 LT.: (63+73) =	136 LIN.FT.		
62	STA. 166+89 TO STA. 167+37 LT.: (48+52) =	100 LIN.FT.		
63				
64	REST AREA (NB)			
65	STA. 418+65 TO STA. 419+47 : (CAD MEASURED LENGTH) =	120 LIN.FT.		
66	STA. 418+65 TO STA. 423+84 : (CAD MEASURED LENGTH) =	512 LIN.FT.		
67	STA. 419+47 TO STA. 423+18 : (CAD MEASURED LENGTH) =	767 LIN.FT.		
68	STA. 423+38 TO STA. 423+87 : (CAD MEASURED LENGTH) =	121 LIN.FT.		
69				
70	REST AREA (SB)			
71	STA. 621+14 TO STA. 621+95 : (CAD MEASURED LENGTH) =	119 LIN.FT.		
72	STA. 621+10 TO STA. 626+32 : (CAD MEASURED LENGTH) =	465 LIN.FT.		
73	STA. 622+06 TO STA. 625+84 : (CAD MEASURED LENGTH) =	767 LIN.FT.		
74	STA. 625+84 TO STA. 626+33 : (CAD MEASURED LENGTH) =	91 LIN.FT.		
75				
76	TOTAL OF LINES 59 THRU 74: =	3572 LIN.FT. USE	3572	LIN.FT.
77				
78				
79				
80				

LINE NO.	DESCRIPTION		QUANTITY	UNIT
81	ITEM 203 – SUBGRADE COMPACTION			
82				
83	WARRANTY PAVEMENT FROM LINE 43 SHEET 126.	307236.48 SQ.YD.		
84	OTHER PAVEMENT FROM LINE 53 SHEET 126.	2921.56 SQ.YD.		
85	WARRANTY SHOULDER FROM LINE 106 SHEET 126.	155855.35 SQ.YD.		
86	OTHER SHOULDER FROM LINE 155 SHEET 126.	3692.66 SQ.YD.		
87	CONCRETE PAVEMENT FROM LINE 109 SHEET 129.	28092.67 SQ.YD.		
88	APPROACH SLABS FROM LINE 133 SHEET 129.	677.78 SQ.YD.		
89	TOTAL OF LINES 83 THRU 87: =	498476.50 SQ.YD. USE	498477	SQ.YD.
90				
91				
92	ITEM 203 – PROOF ROLLING			
93				
94	FROM LINE 89: (498476.50)/(3000SQ.YD./HR.) =	166.16 HOUR USE	166	HOUR
95				
96				
97	ITEM 254 – PAVEMENT PLANING, BITUMINOUS			
98				
99	RAMP A			
100	STA. 20+00.00 TO STA. 25+00.00: (500.00)(27.00) =	13500.00 SQ.FT.		
101	STA. 25+00.00 TO STA. 25+42.59: (CAD MEASURED AREA) =	1555.96 SQ.FT.		
102				
103	RAMP B			
104	STA. 23+00.00 TO STA. 31+75.00: (875.00)(27.00) =	23625.00 SQ.FT.		
105	STA. 31+75.00 TO STA. 32+07.40: (CAD MEASURED AREA) =	1257.10 SQ.FT.		
106				
107	RAMP C			
108	STA. 54+00.00 TO STA. 61+25.00: (725.00)(19.00) =	13775.00 SQ.FT.		
109	STA. 61+25.00 TO STA. 62+05.54: (CAD MEASURED AREA) =	2540.55 SQ.FT.		
110				
111	RAMP D			
112	STA. 52+00.00 TO STA. 57+80.00: (580.00)(19.00) =	11020.00 SQ.FT.		
113	STA. 57+80.00 TO STA. 58+46.94: (CAD MEASURED AREA) =	2595.94 SQ.FT.		
114				
115	RAMP E			
116	STA. 60+19.20 TO STA. 60+60.00: (CAD MEASURED AREA) =	1664.78 SQ.FT.		
117	STA. 60+60.00 TO STA. 65+84.00: (524.00)(27.00) =	14148.00 SQ.FT.		
118				
119	RAMP F			
120	STA. 58+23.97 TO STA. 58+80.00: (CAD MEASURED AREA) =	2252.12 SQ.FT.		
121	STA. 58+80.00 TO STA. 61+00.00: (220.00)(27.00) =	5940.00 SQ.FT.		
122				
123	TOTAL OF LINES 100 THRU 121: (93874.45 S.F.)/9 =	10430.49 SQ.YD. USE	10430	SQ.YD.
124				
125				
126	ITEM 255 – FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS FS			
127	(AT 60 FEET C/C, APPROXIMATELY)			
128				
129	SR 301 RAMP A (9 JOINTS)			
130	(9)(16)(6)/9 =	96.00 SQ.YD.		
131				
132	SR 301 RAMP B (14 JOINTS)			
133	(14)(16)(6)/9 =	149.33 SQ.YD.		
134				
135	SR 539 RAMP E (9 JOINTS)			
136	(9)(16)(6)/9 =	96.00 SQ.YD.		
137				
138	SR 539 RAMP F (4 JOINTS)			
139	(4)(16)(6)/9 =	42.67 SQ.YD.		
140				
141	TOTAL OF LINES 130 THRU 139: =	384.00 SQ.YD. USE	384	SQ.YD.
142				
143				
144	ITEM 255 – FULL DEPTH PAVEMENT SAWING			
145	(AT 60 FEET C/C, APPROXIMATELY)			
146				
147	SR 301 RAMP A (9 JOINTS)			
148	(9)(16)(2) =	288.00 LIN.FT.		
149				
150	SR 301 RAMP B (14 JOINTS)			
151	(14)(16)(2) =	448.00 LIN.FT.		
152				
153	SR 539 RAMP E (9 JOINTS)			
154	(9)(16)(2) =	288.00 LIN.FT.		
155				
156	SR 539 RAMP F (4 JOINTS)			
157	(4)(16)(2) =	128.00 LIN.FT.		
158				
159	TOTAL OF LINES 148 THRU 157: =	1152.00 LIN.FT. USE	1152	LIN.FT.
160				

CALCULATED P.L.D. 04/01
CHECKED S.D.S. 04/01

CALCULATIONS

WAY-71-0.28

M:\98029\AUTOCAD\ACAD-R12\Calc.dwg - SHEET 127 - May 08, 2001

LINE NO.	DESCRIPTION		QUANTITY	UNIT
1	ITEM 302 – BITUMINOUS AGGREGATE BASE, PG64–22			
2				
3	PAVEMENT AREA FROM LINE 53 SHEET 126: =	2921.56 SQ.YD.		
4	SHOULDER AREA FROM LINE 155 SHEET 126: =	3692.66 SQ.YD.		
5				
6	ADDITIONAL WIDTH AT SHOULDERS			
7	RAMP A			
8	STA. 17+32.42 TO STA. 20+00.00: (267.58)(2) =	535.16 LIN.FT.		
9	RAMP B			
10	STA. 21+13.47 TO STA. 23+00.00: (186.53)(2) =	373.06 LIN.FT.		
11	RAMP C			
12	STA. 51+87.54 TO STA. 54+00.00: (212.46)(2) =	424.92 LIN.FT.		
13	STA. 54+00.00 TO STA. 61+62.88: =	762.88 LIN.FT.		
14	STA. 61+62.88 TO SR539: =	70.53 LIN.FT.		
15	RAMP D			
16	STA. 48+84.63 TO STA. 52+00.00: (315.37)(2) =	630.74 LIN.FT.		
17	STA. 52+00.00 TO STA. 57+98.62: =	598.62 LIN.FT.		
18	STA. 57+98.62 TO SR539: =	93.95 LIN.FT.		
19	RAMP E			
20	STA. 65+84.00 TO STA. 67+90.77: (206.77)(2) =	413.54 LIN.FT.		
21	RAMP F			
22	STA. 61+00.00 TO STA. 65+54.47: (454.47)(2) =	908.94 LIN.FT.		
23				
24	TOTAL OF LINES 8 THRU 22: (4812.34)(4/12)/9 =	178.23 SQ.YD.		
25				
26	FROM LINE 3, 4 AND 24: (6792.45 S.Y.)(0.875)/3 =	1981.13 CU.YD. USE	1981	CU.YD.
27				
28				
29	ITEM 304 – AGGREGATE BASE			
30				
31	PAVEMENT AREA FROM LINE 43 SHEET 126: =	307236.48 SQ.YD.		
32	PAVEMENT AREA FROM LINE 53 SHEET 126: =	2921.56 SQ.YD.		
33	SHOULDER AREA FROM LINE 106 SHEET 126: =	155855.35 SQ.YD.		
34	SHOULDER AREA FROM LINE 155 SHEET 126: =	3692.66 SQ.YD.		
35	CR70 APPROACH SLABS: (25.00)(63.00)(4)/9 =	700.00 SQ.YD.		
36	MEDIAN EDGES			
37	ADDITIONAL WIDTH AT EDGE OF PAVEMENT AND EDGE OF SHOULDER			
38	STA. 14+82.88 TO STA. 371+50.00: (35667.12)(6/12)(2)/9 =	3963.01 SQ.YD.		
39	STA. 14+82.88 TO STA. 371+50.00: (35667.12)(10/12)(2)/9 =	6605.02 SQ.YD.		
40	DEDUCT FOR CR70 BRIDGE AND APPROACH SLABS: (208.09+209.56)(16/12)/9=	−61.87 SQ.YD.		
41				
42	OUTSIDE EDGE NB			
43	STA. 14+82.88 TO STA. 49+37.99: (3455.11)(16/12)/9 =	511.87 SQ.YD.		
44	RAMP B			
45	STA. 9+37.87 TO STA. 21+13.27: (1175.40)(16/12)/9 =	174.13 SQ.YD.		
46	STA. 21+13.27 TO STA. 23+00.00: (186.73)(26/12)/9 =	44.95 SQ.YD.		
47	STA. 61+21.24 TO STA. 75+65.00: (1443.76)(16/12)/9 =	213.89 SQ.YD.		
48	STA. 75+65.00 TO STA. 83+65.00: (800.00)(16/12)/9 =	118.52 SQ.YD.		
49	STA. 83+65.00 TO STA. 98+92.80: (1527.80)(16/12)/9 =	226.34 SQ.YD.		
50	STA. 98+92.80 TO STA. 115+40.00: (1647.20)(16/12)/9 =	244.03 SQ.YD.		
51	STA. 115+40.00 TO STA. 140+85.45: (2545.45)(16/12)/9 =	377.10 SQ.YD.		
52	RAMP D			
53	STA. 40+84.74 TO STA. 48+84.63: (799.89)(16/12)/9 =	118.50 SQ.YD.		
54	STA. 48+84.63 TO STA. 52+00.00: (315.37)(26/12)/9 =	75.92 SQ.YD.		
55	STA. 52+00.00 TO STA. 57+98.62: (598.62)(10/12)/9 =	55.43 SQ.YD.		
56	STA. 57+98.62 TO SR539: (93.95)(10/12)/9 =	8.70 SQ.YD.		
57	STA. 148+85.46 TO STA. 165+52.97: (1667.51)(16/12)/9 =	247.04 SQ.YD.		
58	RAMP F			
59	STA. 61+00.00 TO STA. 65+54.47: (454.47)(26/12)/9 =	109.41 SQ.YD.		
60	STA. 65+54.47 TO STA. 82+19.05: (1664.58)(16/12)/9 =	246.60 SQ.YD.		
61	STA. 182+10.19 TO STA. 371+50.00: (18939.81)(16/12)/9 =	2805.90 SQ.YD.		
62	DEDUCT FOR CR70 BRIDGE AND APPROACH SLABS: (208.09)(16/12)/9 =	−30.83 SQ.YD.		
63				
64	OUTSIDE EDGE SB			
65	STA. 14+82.88 TO STA. 51+60.69: (3677.81)(16/12)/9 =	544.86 SQ.YD.		
66	RAMP A			
67	STA. 1+60.69 TO STA. 17+32.42: (1571.73)(16/12)/9 =	232.85 SQ.YD.		
68	STA. 17+32.42 TO STA. 20+00.00: (267.58)(26/12)/9 =	64.42 SQ.YD.		
69	STA. 67+22.91 TO STA. 81+00.00: (1377.09)(16/12)/9 =	204.01 SQ.YD.		
70	STA. 81+00.00 TO STA. 97+47.19: (1647.19)(16/12)/9 =	244.03 SQ.YD.		
71	STA. 97+47.19 TO STA. 111+59.37: (1412.18)(16/12)/9 =	209.21 SQ.YD.		
72	STA. 111+59.37 TO STA. 116+80.00: (520.63)(16/12)/9 =	77.13 SQ.YD.		
73	STA. 116+80.00 TO STA. 135+85.45: (1905.45)(16/12)/9 =	282.29 SQ.YD.		
74				
75				
76				
77				
78				
79				
80				

LINE NO.	DESCRIPTION		QUANTITY	UNIT
81	ITEM 304 – AGGREGATE BASE CONT'D.			
82				
83	RAMP C			
84	STA. 35+85.20 TO STA. 51+87.54: (1602.34)(16/12)/9 =	237.38 SQ.YD.		
85	STA. 51+87.54 TO STA. 54+00.00: (212.46)(26/12)/9 =	51.15 SQ.YD.		
86	STA. 54+00.00 TO STA. 61+62.88: (762.88)(10/12)/9 =	70.64 SQ.YD.		
87	STA. 61+62.88 TO SR539: (70.53)(10/12)/9 =	6.53 SQ.YD.		
88	STA. 151+89.56 TO STA. 167+86.32: (1596.76)(16/12)/9 =	236.56 SQ.YD.		
89	RAMP E			
90	STA. 65+84.00 TO STA. 67+90.77: (206.77)(26/12)/9 =	49.78 SQ.YD.		
91	STA. 67+90.77 TO STA. 80+31.78: (1241.01)(16/12)/9 =	183.85 SQ.YD.		
92	STA. 180+35.46 TO STA. 371+50.00: (19114.54)(16/12)/9 =	2831.78 SQ.YD.		
93				
94	TOTAL OF LINES 31 THRU 92: (491986.18)(0.5)/3 =	81997.70 CU.YD.		
95				
96	DEDUCT FOR OVERLAP AT PAVEMENT EDGE			
97				
98	STA. 14+82.88 TO STA. 371+50.00: (35667.12)(4) =	142668.48 LIN.FT.		
99	DEDUCT FOR CR70 BRIDGE AND APPROACH SLABS: (208.09+209.56)(2)=	−835.30 LIN.FT.		
100	TOTAL OF LINES 98 AND 99: (141833.18)(0.50)(2/12)/27 =	−437.76 CU.YD.		
101				
102	REST AREAS			
103	CONCRETE PAVEMENT AREA FROM LINE 109 SHEET 129: =	28092.67 SQ.FT.		
104	NORTHBOUND			
105	STA. 413+41.34 TO STA. 419+46.15: (604.81)(0.50) =	302.41 SQ.FT.		
106	STA. 423+38.05 TO STA. 429+19.81: (581.76)(0.50) =	290.88 SQ.FT.		
107	STA. 513+63.84 TO STA. 514+40.00: (76.16)(0.50) =	38.08 SQ.FT.		
108	STA. 524+27.00 TO STA. 529+10.40: (483.40)(0.50) =	241.70 SQ.FT.		
109	LIFT STATION DRIVE			
110	STA. 93+70.47 TO STA. 94+16.30 (CAD MEASURED AREA) :	494.22 SQ.FT.		
111	ADDITIONAL AT CURBS AND ISLANDS (CAD MEASURED AREA) :	4160.58 SQ.FT.		
112	SOUTHBOUND			
113	STA. 617+20.47 TO STA. 621+94.66: (474.19)(0.50) =	237.10 SQ.FT.		
114	STA. 625+84.74 TO STA. 631+85.79: (601.05)(0.50) =	300.53 SQ.FT.		
115	STA. 717+36.83 TO STA. 721+25.00: (388.17)(0.50) =	194.09 SQ.FT.		
116	STA. 730+87.00 TO STA. 731+59.87: (72.87)(0.50) =	36.44 SQ.FT.		
117	WASTEWATER TREATMENT PLANT DRIVE			
118	STA. 105+89.26 TO STA. 106+31.27 (CAD MEASURED AREA) :	325.21 SQ.FT.		
119	ADDITIONAL AT CURBS AND ISLANDS (CAD MEASURED AREA) :	4125.06 SQ.FT.		
120				
121	TOTAL OF LINES 103 THRU 119: (38838.97)(0.5)/27 =	719.24 CU.YD.		
122				
123	TOTAL OF LINES 94, 100 AND 121:			
124	(81997.70−437.76+719.24) =	82279.18 CU.YD. USE	82279	CU.YD.
125				
126				
127				
128				
129				
130				
131				
132				
133				
134				
135				
136				
137				
138				
139				
140				
141				
142				
143				
144				
145				
146				
147				
148				
149				
150				
151				
152				
153				
154				
155				
156				
157				
158				
159				
160				

CALCULATED PLD 04/01
CHECKED SDS 04/01

CALCULATIONS

WAY–71–0.28

M:\98029\AUTOCAD\ACAD-R12\Calc.dwg - SHEET 128 - May 06, 2021

LINE NO.	DESCRIPTION		QUANTITY	UNIT
1	ITEM 407 – TACK COAT			
2				
3	BUTT JOINT			
4	STA. 14+55.00 TO STA. 14+82.88: (27.88)(56.00)(2) =	3122.56 SQ.FT.		
5	STA. 371+50.00 TO STA. 371+75.00: (25.00)(39.00)(2) =	1950.00 SQ.FT.		
6	PAVEMENT PLANING FROM LINE 123 SHEET 127:	93874.45 SQ.FT.		
7				
8	TOTAL OF LINES 4 THRU 6: (98947.01 S.F.)/9 =	10994.11 SQ.YD.		
9	(10994.11 S.Y.)(0.075 GAL./S.Y.) =	824.56 GAL. USE	825	GAL.
10				
11				
12	ITEM 407 – TACK COAT FOR INTERMEDIATE COURSE			
13				
14	PAVEMENT AREA FROM LINE 53 SHEET 126:	2921.56 SQ.YD.		
15	SHOULDER AREA FROM LINE 155 SHEET 126:	3692.66 SQ.YD.		
16	PAVEMENT PLANING AREA FROM LINE 123 SHEET 127:	10430.49 SQ.YD.		
17				
18	TOTAL OF LINES 14 THRU 16: (17044.71 S.Y.)(0.04 GAL./S.Y.) =	681.79 GAL. USE	682	GAL.
19				
20				
21	ITEM 408 – BITUMINOUS PRIME COAT			
22				
23	AREA OF ITEM 304 FROM LINE 94 SHEET 128:	491986.18 SQ.YD.		
24	DEDUCT FOR ITEM 304 OVERLAP:			
25	OVERLAP AT PAVEMENT EDGE FROM LINE 100 SHEET 128:			
26	(141833.18 LIN.FT.)(0.5)/9 =	−7879.62 SQ.YD.		
27				
28	DEDUCT FOR AREA OVER FILTER FABRIC			
29	STA. 14+82.88 TO STA. 371+50.00: (35667.12)(4) =	142668.48 LIN. FT.		
30	DEDUCT FOR CR70 BRIDGE AND APPROACH SLABS: (208.09+209.56)(2) =	−835.30 LIN. FT.		
31	(142668.48−835.30)(4.00+3.00)/9 =	−110314.70 SQ.YD.		
32				
33				
34	RAMP A			
35	STA. 17+32.42 TO STA. 20+00.00: (267.58)(4.00+3.00)/9 =	−208.12 SQ.YD.		
36	RAMP B			
37	STA. 21+13.27 TO STA. 23+00.00: (186.73)(4.00+3.00)/9 =	−145.23 SQ.YD.		
38	RAMP C			
39	STA. 51+87.54 TO STA. 54+00.00: (212.46)(4.00+3.00)/9 =	−165.25 SQ.YD.		
40	STA. 54+00.00 TO STA. 61+70.00: (770.00)(3.00)/9 =	−256.67 SQ.YD.		
41	RAMP D			
42	STA. 48+84.63 TO STA. 52+00.00: (315.37)(4.00+3.00)/9 =	−245.29 SQ.YD.		
43	STA. 52+00.00 TO STA. 58+00.00: (600.00)(3.00)/9 =	−200.00 SQ.YD.		
44	RAMP E			
45	STA. 65+84.00 TO STA. 67+90.77: (206.77)(4.00+3.00)/9 =	−160.82 SQ.YD.		
46	RAMP F			
47	STA. 61+00.00 TO STA. 65+54.47: (454.47)(4.00+3.00)/9 =	−353.48 SQ.YD.		
48				
49	VERTICAL EDGE			
50	STA. 14+82.88 TO STA. 371+50.00: (35667.12)(4)(4/12)/9 =	5284.02 SQ.YD.		
51	TOTAL OF LINES 23, 26, 31 THRU 50: =	377341.02 SQ.YD.		
52	(377341.02 S.Y.)(0.40GAL./S.Y.) =	150936.41 GAL. USE	150936	GAL.
53				
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				
71				
72				
73				
74				
75				
76				
77				
78				
79				
80				

LINE NO.	DESCRIPTION		QUANTITY	UNIT
81	ITEM 446 – 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H			
82				
83	PAVEMENT AREA FROM LINE 53 SHEET 126:	2921.56 SQ.YD.		
84	SHOULDER AREA FROM LINE 155 SHEET 126:	3692.66 SQ.YD.		
85	RESURFACING AREA FROM LINE 123 SHEET 127:	10430.49 SQ.YD.		
86	BUTT JOINT AREA FROM LINE 54 SHEET 127:	563.62 SQ.YD.		
87				
88	TOTAL OF LINES 83 THRU 86: (17608.33 S.Y.)(1.5/12)/3 =	733.68 CU.YD. USE	734	CU.YD.
89				
90				
91	ITEM 446 – 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64–28			
92				
93	PAVEMENT AREA FROM LINE 53 SHEET 126:	2921.56 SQ.YD.		
94	SHOULDER AREA FROM LINE 155 SHEET 126:	3692.66 SQ.YD.		
95	RESURFACING AREA FROM LINE 123 SHEET 127:	10430.49 SQ.YD.		
96				
97	TOTAL OF LINES 93 THRU 95: (17044.71 S.Y.)(1.75/12)/3 =	828.56 CU.YD. USE	829	CU.YD.
98				
99				
100	ITEM 851 – 9" REINFORCED CONCRETE PAVEMENT			
101				
102	NORTHBOUND REST AREA			
103	STA. 413+41.34 TO STA. 429+19.81: (CAD MEASURED) =	131254.08 SQ.FT.		
104				
105	SOUTHBOUND REST AREA			
106	STA. 617+20.47 TO STA. 619+66.00: (245.53)(30.00) =	7365.90 SQ.FT.		
107	STA. 619+66.00 TO STA. 631+86.17: (CAD MEASURED) =	114214.09 SQ.FT.		
108				
109	TOTAL OF LINES 103 THRU 107 (252834.07 S.F.)/9 =	28092.67 SQ.YD. USE	28093	SQ.YD.
110				
111				
112	ITEM 452 – 7" PLAIN CONCRETE PAVEMENT			
113				
114	NORTHBOUND REST AREA LIFT STATION DRIVE			
115	STA. 93+70.47 TO STA. 94+16.30: (CAD MEASURED) =	460.76 SQ.FT.		
116				
117	SOUTHBOUND REST AREA WASTEWATER TREATMENT PLANT DRIVE			
118	STA. 105+89.26 TO STA. 106+31.27: (CAD MEASURED) =	312.08 SQ.FT.		
119				
120	TOTAL OF LINES 115 AND 118: (772.84 S.F.)/9 =	85.87 SQ.YD. USE	86	SQ.YD.
121				
122				
123	ITEM 608 – 4" CONCRETE WALK			
124				
125	NB REST AREA: (CAD MEASURED AREA)	2098.41 SQ.FT.		
126				
127	SB REST AREA: (CAD MEASURED AREA)	1927.31 SQ.FT.		
128	(2098.41 S.F.+1927.31 S.F.) =	4025.72 SQ.FT. USE	4026	SQ.FT.
129				
130				
131	ITEM 611 – REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN			
132				
133	CR70: (25.00)(61.00)(4)/9 =	677.78 SQ.YD. USE	678	SQ.YD.
134				
135				
136				
137				
138				
139				
140				
141				
142				
143				
144				
145				
146				
147				
148				
149				
150				
151				
152				
153				
154				
155				
156				
157				
158				
159				
160				

CALCULATED PLD 04/01

CHECKED SDS 04/01

CALCULATIONS

WAY–71–0.28

M:\99029\AUTOCAD\ACAD-R12\calc.dwg - SHEET 129 - May 09, 2001

LINE NO.	DESCRIPTION		QUANTITY	UNIT
1	ITEM 830 – CURB, TYPE 7			
2				
3	NB REST AREA: (CAD MEASURED LENGTH) =	1877.60 LIN.FT.		
4				
5	SB REST AREA: (CAD MEASURED LENGTH) =	1892.95 LIN.FT.		
6	(1877.60+1892.95) =	3770.55 LIN.FT. USE	3771	LIN.FT.
7				
8				
9	ITEM 830 – CURB, TYPE 8, AS PER PLAN			
10				
11	SB REST AREA			
12	STA. 721+25 TO STA. 730+87 (TRUCK RAMP) =	962.00 LIN.FT.		
13	SUBTRACT 7 CURB OPENINGS @ 3'	962.00 – (7)(3) = 941.00 LIN. FT. USE	941	LIN.FT.
14				
15				
16	ITEM 855 – 4" ASPHALT TREATED FREE DRAINING BASE			
17				
18	PAVEMENT AREA FROM LINE 43 SHEET 126:	307236.48 SQ.YD.		
19	PAVEMENT AREA FROM LINE 53 SHEET 126:	2921.56 SQ.YD.		
20				
21	(307236.48 SQ.YD.+2921.56 SQ.YD.) =	310158.04 SQ.YD. USE	310158	SQ.YD.
22				
23				
24	ITEM 870 – SEEDING AND MULCHING			
25				
26	STA. 14+55 TO STA. 66+00: (5145)(69) =	355005 SQ.FT.		
27	RAMP A: (810)(16) =	12960 SQ.FT.		
28	RAMP B: (1090)(16) =	17440 SQ.FT.		
29	STA. 66+00 TO STA. 78+00: (1200)(113) =	135600 SQ.FT.		
30	STA. 78+00 TO STA. 100+00: (2200)(67) =	147400 SQ.FT.		
31	STA. 100+00 TO STA. 132+00: (3200)(76) =	243200 SQ.FT.		
32	NORTHBOUND REST AREA: (CAD MEASURED AREA) =	27244 SQ.FT.		
33	SOUTHBOUND REST AREA: (CAD MEASURED AREA) =	32282 SQ.FT.		
34	STA. 132+00 TO STA. 148+00: (1600)(54) =	86400 SQ.FT.		
35	RAMP C: (1015)(16) =	1804 SQ.FT.		
36	RAMP D: (960)(16) =	1707 SQ.FT.		
37	STA. 148+00 TO STA. 166+00: (1800)(83) =	149400 SQ.FT.		
38	RAMP E: (770)(16) =	1369 SQ.FT.		
39	RAMP F: (730)(16) =	1298 SQ.FT.		
40	STA. 166+00 TO STA. 202+00: (3600)(78) =	280800 SQ.FT.		
41	STA. 202+00 TO STA. 254+00: (5200)(64) =	332800 SQ.FT.		
42	STA. 254+00 TO STA. 292+00: (3800)(85) =	323000 SQ.FT.		
43	STA. 292+00 TO STA. 302+00: (1000)(200) =	200000 SQ.FT.		
44	STA. 302+00 TO STA. 330+00: (2800)(69) =	193200 SQ.FT.		
45	CULVERT AT STA. 331+96: (CAD MEASURED AREA) =	2520 SQ.FT.		
46	STA. 330+00 TO STA. 371+75: (4175)(75) =	313125 SQ.FT.		
47	DEDUCTION			
48	COUNTY ROAD 70 PAVEMENT: (340)(26) =	–8840 SQ.FT.		
49				
50	TOTAL OF LINES 26 THRU 48:= 2849714/9 =	316635 SQ.YD.	316635	SQ.YD.
51				
52				
53	ITEM 870 – TOPSOIL			
54				
55	(316635 S.Y.)(111 C.Y. /1000 S.Y.) =	35146.49 CU. YD. USE	35146	CU.YD.
56				
57				
58	ITEM 870 – SOIL ANALYSIS TEST			
59				
60	(35146.49 C.Y.)(1 TEST/10,000 C.Y. TOPSOIL) =	3.51 EACH USE	4	EACH
61				
62				
63	ITEM 870 – COMMERCIAL FERTILIZER			
64				
65	(316635 S.Y.)(9)(30 LB/1000 S.F.)/2000 =	42.75 TON USE	42.75	TON
66				
67				
68	ITEM 870 – AGRICULTURAL LIME			
69				
70	(316635 S.Y.)(9)(92 LB/1000 S.F.)/2000 =	131.09 TON USE	131.09	TON
71				
72				
73	ITEM 870 – WATER			
74				
75	(316635 S.Y.)(9)(300 GAL./1000 S.F.)/1000 (2 APPLICATIONS) =	1709.83 M.GAL. USE	1710	MGAL.
76				
77	ITEM 870 – MOWING			
78	(316635 S.Y.)(9)(0.25)/1000 =	712.43 M.SQ.FT. USE	712	MSQ.FT.
79				
80	NOTE: ALL ITEM 870 QUANTITIES CARRIED TO GENERAL NOTES			

LINE NO.			QUANTITY	UNIT
81	ITEM 880 – ASPHALT CONCRETE (7 YEAR WARRANTY) (FROM LINE 115)		190665	CU.YD.
82				
83	NOTE: CALCULATIONS AND QUANTITIES SHOWN BELOW FROM LINES 86 THRU 130 ARE FOR INFORMATION ONLY.			
84				
85				
86	ITEM 302 – BITUMINOUS AGGREGATE BASE, PG64–22			
87				
88	MAINLINE PAVEMENT AREA FROM LINE 43 SHEET 126:	307236.48 SQ.YD.		
89				
90	SHOULDER AREA FROM LINE 106 SHEET 126:	155855.35 SQ.YD.		
91	ADDITIONAL WIDTH SHOULDERS			
92	STA. 14+82.88 TO STA. 371+50.00: (35667.12)(4)(4/12) =	47556.16 SQ.YD.		
93				
94	DEDUCT FOR CR70 BRIDGE AND APPROACH SLABS			
95	N.B. (158.09+50.00)(2) =	–416.18 LIN.FT.		
96	S.B. (159.56+50.00)(2) =	–419.12 LIN.FT.		
97	TOTAL OF LINES 95 AND 96: (–835.30)(4/12) =	–278.43 SQ.YD.		
98				
99	TOTAL FROM LINES 88, 90, 92, AND 97: (510369.56 SQ.YD.)(0.875)/3 =	148857.79 CU.YD.		
100				
101				
102	ITEM 446 – ASPHALT CONCRETE SURFACE COURSE, TYPE 1H			
103				
104	MAINLINE PAVEMENT AREA FROM LINE 43 SHEET 126:	307236.48 SQ.YD.		
105	SHOULDER AREA FROM LINE 106 SHEET 126:	155855.35 SQ.YD.		
106	TOTAL OF LINES 104 AND 105: (463091.83 SQ.YD.)(1.5/12)/3 =	19295.49 CU.YD.		
107				
108				
109	ITEM 446 – ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64–28			
110				
111	MAINLINE PAVEMENT AREA FROM LINE 43 SHEET 126:	307236.48 SQ.YD.		
112	SHOULDER AREA FROM LINE 106 SHEET 126:	155855.35 SQ.YD.		
113	TOTAL OF LINES 111 AND 112: (463091.83 SQ.YD.)(1.75/12))/3 =	22511.41 CU.YD.		
114				
115	TOTAL OF LINES 99, 106, AND 113: =	190664.69 CU.YD.		
116				
117				
118	ITEM 407 – TACK COAT FOR INTERMEDIATE COURSE			
119				
120	TOTAL OF LINES 111 AND 112: (463091.83 SQ.YD.)(0.04 GAL./SQ.YD.) =	18523.67 GAL.		
121	ADDITIONAL AT VERTICAL EDGE FOR PHASE CONSTRUCTION			
122	STA. 14+82.88 TO STA. 371+50.00: (35667.12)(4)(1.5/12)/9 =	1981.51 SQ.YD.		
123	(1981.51 SQ.YD.)(0.25 GAL./SQ.YD.) =	495.38 GAL.		
124	TOTAL FROM LINES 120 AND 123: (18523.67 GAL.+495.38 GAL.) =	19019.05 GAL.		
125				
126				
127	ITEM 407 – TACK COAT			
128				
129	STA. 14+82.88 TO STA. 371+50.00: (35667.12)(4)(12.25/12)/9 =	16182.30 SQ.YD.		
130	(16182.30 SQ.YD.)(0.25 GAL./SQ.YD.) =	4045.58 GAL.		
131				
132				
133	ITEM 203 – LINEAR GRADING			
134				
135	RAMP SHOULDERS			
136	RAMP A			
137	STA. 19+16.48 TO STA. 21+00.00 =	183.52 LIN. FT.		
138	STA. 21+00.00 TO STA. 25+56.14 (2 SHOULDERS) =	912.28 LIN. FT.		
139				
140	RAMP B			
141	STA. 22+94.73 TO STA. 23+00.00 =	5.27 LIN. FT.		
142	STA. 23+00.00 TO STA. 32+18.89 (2 SHOULDERS) =	1837.78 LIN. FT.		
143				
144	RAMP C			
145	STA. 53+04.02 TO STA. 57+75.00 =	470.98 LIN. FT.		
146	STA. 57+75.00 TO STA. 62+16.54 (2 SHOULDERS) =	883.08 LIN. FT.		
147				
148	RAMP D			
149	STA. 50+02.15 TO STA. 54+55.00 =	452.85 LIN. FT.		
150	STA. 54+55.00 TO STA. 58+59.96 (2 SHOULDERS) =	809.92 LIN. FT.		
151				
152	RAMP E			
153	STA. 60+09.41 TO STA. 65+25.00 (2 SHOULDERS) =	1031.18 LIN. FT.		
154	STA. 65+25.00 TO STA. 67+00.33 =	175.33 LIN. FT.		
155				
156	RAMP F			
157	STA. 58+13.69 TO STA. 60+25.00 (2 SHOULDERS) =	422.62 LIN. FT.		
158	STA. 60+25.00 TO STA. 64+97.51 =	472.51 LIN. FT.		
159	TOTAL OF LINES 137 TO 158: (7657.32 LIN. FT.)/100 =	76.57 STATION USE	77	STATION
160				

CALCULATED PLD 04/01
CHECKED GCS 04/01

CALCULATIONS

WAY–71–0.28

130
432

M:\99029\AUTOCAD\ACAD-R12\Calc.dwg - SHEET 130 - May 08, 2001

DESCRIPTION	STATION	SOUTHBOUND LANES										MEDIAN	NORTHBOUND LANES									
		PAVEMENT ELEVATION 66' LEFT	LANE WIDTH	PAVEMENT X-SLOPE	CROWN PAVEMENT ELEVATION 54' LEFT	LANE WIDTH	PAVEMENT X-SLOPE	PAVEMENT ELEVATION 42' LEFT	LANE WIDTH	PAVEMENT X-SLOPE	PROFILE GRADE ELEVATION 30' LEFT		PROFILE GRADE ELEVATION 30' RIGHT	PAVEMENT X-SLOPE	LANE WIDTH	PAVEMENT ELEVATION 42' RIGHT	PAVEMENT X-SLOPE	LANE WIDTH	CROWN PAVEMENT ELEVATION 54' RIGHT	PAVEMENT X-SLOPE	LANE WIDTH	PAVEMENT ELEVATION 66' RIGHT
NORMAL SECTION																						
BEGIN SUPER TRANS NORTHBOUND	17+15.00												1036.12	+0.0160	12	1036.31	+0.0160	12	1036.50	-0.0160	12	1036.31
	17+25.00												1036.17	+0.0143	12	1036.34	+0.0143	12	1036.51	-0.0160	12	1036.32
	17+50.00												1036.28	+0.0102	12	1036.40	+0.0102	12	1036.52	-0.0160	12	1036.33
BEGIN SUPER TRANS SOUTHBOUND	17+70.00	1036.55	12	-0.0160	1036.74	12	+0.0160	1036.55	12	+0.0160	1036.36											
	17+75.00	1036.59	12	-0.0151	1036.77	12	+0.0160	1036.58	12	+0.0160	1036.39		1036.39	+0.0060	12	1036.46	+0.0060	12	1036.53	-0.0160	12	1036.34
	18+00.00	1036.76	12	-0.0106	1036.88	12	+0.0160	1036.69	12	+0.0160	1036.50		1036.50	+0.0018	12	1036.52	+0.0018	12	1036.54	-0.0160	12	1036.35
	18+11.00												1036.55	0.0000	12	1036.55	0.0000	12	1036.55	-0.0160	12	1036.36
	18+25.00	1036.92	12	-0.0060	1036.99	12	+0.0160	1036.80	12	+0.0160	1036.61		1036.61	-0.0023	12	1036.58	-0.0023	12	1036.55	-0.0160	12	1036.36
	18+50.00	1037.09	12	-0.0015	1037.10	12	+0.0160	1036.91	12	+0.0160	1036.72		1036.72	-0.0065	12	1036.64	-0.0065	12	1036.56	-0.0160	12	1036.37
	18+58.42	1037.13	12	0.0000	1037.13	12	+0.0160	1036.94	12	+0.0160	1036.75											
	18+73.32	1037.24	12	+0.0027	1037.20	12	+0.0160	1037.01	12	+0.0160	1036.82		1036.82	-0.0104	12	1036.70	-0.0104	12	1036.57	-0.0160	12	1036.38
	18+75.00	1037.25	12	+0.0030	1037.21	12	+0.0160	1037.02	12	+0.0160	1036.83		1036.83	-0.0107	12	1036.70	-0.0107	12	1036.57	-0.0160	12	1036.38
	19+00.00	1037.41	12	+0.0075	1037.32	12	+0.0160	1037.13	12	+0.0160	1036.94		1036.94	-0.0148	12	1036.76	-0.0148	12	1036.58	-0.0160	12	1036.39
	19+07.00												1036.97	-0.0160	12	1036.78	-0.0160	12	1036.59	-0.0160	12	1036.39
BEGIN FULL SUPER NORTHBOUND	19+25.00	1037.58	12	+0.0120	1037.43	12	+0.0160	1037.24	12	+0.0160	1037.05		1037.05	-0.0180	12	1036.83	-0.0180	12	1036.62	-0.0180	12	1036.40
	19+46.83	1037.72	12	+0.0160	1037.52	12	+0.0160	1037.33	12	+0.0160	1037.14											
	19+50.00	1037.74	12	+0.0162	1037.55	12	+0.0162	1037.35	12	+0.0162	1037.16											
	19+75.00	1037.91	12	+0.0177	1037.69	12	+0.0177	1037.48	12	+0.0177	1037.27											
BEGIN FULL SUPER SOUTHBOUND	19+80.00	1037.94	12	+0.0180	1037.72	12	+0.0180	1037.51	12	+0.0180	1037.29											
FULL SUPERELEVATION																						
END FULL SUPER SOUTHBOUND	68+60.00	1092.94	12	+0.0180	1092.72	12	+0.0180	1092.51	12	+0.0180	1092.29											
	68+75.00	1093.09	12	+0.0171	1092.88	12	+0.0171	1092.68	12	+0.0171	1092.47											
	68+93.17	1093.26	12	+0.0160	1093.06	12	+0.0160	1092.87	12	+0.0160	1092.68											
	69+00.00	1093.31	12	+0.0148	1093.13	12	+0.0160	1092.94	12	+0.0160	1092.75											
END FULL SUPER NORTHBOUND	69+10.00												1092.86	-0.0180	12	1092.64	-0.0180	12	1092.43	-0.0180	12	1092.21
	69+25.00	1093.54	12	+0.0102	1093.41	12	+0.0160	1093.22	12	+0.0160	1093.03		1093.03	-0.0163	12	1092.83	-0.0163	12	1092.64	-0.0163	12	1092.44
	69+28.00												1093.06	-0.0160	12	1092.87	-0.0160	12	1092.68	-0.0160	12	1092.48
	69+50.00	1093.74	12	+0.0057	1093.67	12	+0.0160	1093.48	12	+0.0160	1093.29		1093.29	-0.0123	12	1093.14	-0.0123	12	1092.99	-0.0160	12	1092.80
	69+62.89	1093.84	12	+0.0034	1093.80	12	+0.0160	1093.61	12	+0.0160	1093.42		1093.42	-0.0102	12	1093.30	-0.0102	12	1093.18	-0.0160	12	1092.98
	69+75.00	1093.94	12	+0.0012	1093.92	12	+0.0160	1093.73	12	+0.0160	1093.54		1093.54	-0.0082	12	1093.44	-0.0082	12	1093.34	-0.0160	12	1093.15
	69+81.58	1093.99	12	0.0000	1093.99	12	+0.0160	1093.80	12	+0.0160	1093.61											
	70+00.00	1094.12	12	-0.0033	1094.16	12	+0.0160	1093.97	12	+0.0160	1093.78		1093.78	-0.0040	12	1093.73	-0.0040	12	1093.68	-0.0160	12	1093.49
	70+24.00												1094.00	0.0000	12	1094.00	0.0000	12	1094.00	-0.0160	12	1093.81
	70+25.00	1094.30	12	-0.0079	1094.39	12	+0.0160	1094.20	12	+0.0160	1094.01		1094.01	+0.0002	12	1094.01	+0.0002	12	1094.01	-0.0160	12	1093.82
	70+50.00	1094.47	12	-0.0124	1094.61	12	+0.0160	1094.42	12	+0.0160	1094.23		1094.23	+0.0043	12	1094.28	+0.0043	12	1094.33	-0.0160	12	1094.14
END SUPER TRANS SOUTHBOUND	70+70.00	1094.59	12	-0.0160	1094.78	12	+0.0160	1094.59	12	+0.0160	1094.40											
	70+75.00												1094.44	+0.0085	12	1094.54	+0.0085	12	1094.64	-0.0160	12	1094.45
	71+00.00												1094.64	+0.0127	12	1094.79	+0.0127	12	1094.94	-0.0160	12	1094.75
END SUPER TRANS NORTHBOUND	71+20.00												1094.79	+0.0160	12	1094.98	+0.0160	12	1095.17	-0.0160	12	1094.98
NORMAL SECTION																						

CALCULATED

CHECKED

SUPERELEVATION TABLES

WAY-71-0.28

supertab.dwg May 03 ,2001

DESCRIPTION	STATION	SOUTHBOUND LANES										MEDIAN	NORTHBOUND LANES									
		PAVEMENT ELEVATION 66' LEFT	LANE WIDTH	PAVEMENT X-SLOPE	CROWN PAVEMENT ELEVATION 54' LEFT	LANE WIDTH	PAVEMENT X-SLOPE	PAVEMENT ELEVATION 42' LEFT	LANE WIDTH	PAVEMENT X-SLOPE	PROFILE GRADE ELEVATION 30' LEFT		PROFILE GRADE ELEVATION 30' RIGHT	PAVEMENT X-SLOPE	LANE WIDTH	PAVEMENT ELEVATION 42' RIGHT	PAVEMENT X-SLOPE	LANE WIDTH	CROWN PAVEMENT ELEVATION 54' RIGHT	PAVEMENT X-SLOPE	LANE WIDTH	PAVEMENT ELEVATION 66' RIGHT
NORMAL SECTION																						
BEGIN SUPER TRANS SOUTHBOUND	167+00.00	1165.09	12	-0.0160	1165.28	12	+0.0160	1165.09	12	+0.0160	1164.90											
	167+25.00	1165.16	12	-0.0160	1165.35	12	+0.0118	1165.21	12	+0.0118	1165.07											
	167+50.00	1165.21	12	-0.0160	1165.40	12	+0.0077	1165.31	12	+0.0077	1165.22											
BEGIN SUPER TRANS NORTHBOUND	167+55.00												1165.25	+0.0160	12	1165.44	+0.0160	12	1165.63	-0.0160	12	1165.44
	167+75.00	1165.26	12	-0.0160	1165.45	12	+0.0035	1165.41	12	+0.0035	1165.37		1165.37	+0.0160	12	1165.56	+0.0160	12	1165.75	-0.0124	12	1165.61
	167+96.00	1165.31	12	-0.0160	1165.50	12	0.0000	1165.50	12	0.0000	1165.50											
	168+00.00	1165.31	12	-0.0160	1165.50	12	-0.0007	1165.51	12	-0.0007	1165.52		1165.52	+0.0160	12	1165.71	+0.0160	12	1165.90	-0.0079	12	1165.81
	168+25.00	1165.36	12	-0.0160	1165.55	12	-0.0048	1165.61	12	-0.0048	1165.67		1165.67	+0.0160	12	1165.86	+0.0160	12	1166.05	-0.0033	12	1166.01
	168+43.42												1165.78	+0.0160	12	1165.97	+0.0160	12	1166.16	0.0000	12	1166.16
	168+50.00	1165.41	12	-0.0160	1165.60	12	-0.0090	1165.71	12	-0.0090	1165.82		1165.82	+0.0160	12	1166.01	+0.0160	12	1166.20	+0.0012	12	1166.22
	168+58.62	1165.43	12	-0.0160	1165.62	12	-0.0104	1165.74	12	-0.0104	1165.87		1165.87	+0.0160	12	1166.06	+0.0160	12	1166.25	+0.0028	12	1166.29
	168+75.00	1165.46	12	-0.0160	1165.65	12	-0.0132	1165.81	12	-0.0132	1165.97		1165.97	+0.0160	12	1166.16	+0.0160	12	1166.35	+0.0057	12	1166.42
	168+92.00	1165.49	12	-0.0160	1165.69	12	-0.0160	1165.88	12	-0.0160	1166.07											
	169+00.00	1165.51	12	-0.0169	1165.71	12	-0.0169	1165.92	12	-0.0169	1166.12		1166.12	+0.0160	12	1166.31	+0.0160	12	1166.50	+0.0102	12	1166.63
BEGIN FULL SUPER SOUTHBOUND	169+10.00	1165.53	12	-0.0180	1165.75	12	-0.0180	1165.96	12	-0.0180	1166.18											
	169+25.00												1166.27	+0.0160	12	1166.46	+0.0160	12	1166.65	+0.0148	12	1166.83
	169+31.83												1166.31	+0.0160	12	1166.50	+0.0160	12	1166.69	+0.0160	12	1166.89
	169+50.00												1166.42	+0.0171	12	1166.63	+0.0171	12	1166.83	+0.0171	12	1167.04
BEGIN FULL SUPER NORTHBOUND	169+65.00												1166.51	+0.0180	12	1166.73	+0.0180	12	1166.94	+0.0180	12	1167.16
FULL SUPERELEVATION																						
END FULL SUPER NORTHBOUND	207+90.00												1145.75	+0.0180	12	1145.97	+0.0180	12	1146.18	+0.0180	12	1146.40
	208+00.00												1145.71	+0.0174	12	1145.92	+0.0174	12	1146.13	+0.0174	12	1146.34
	208+23.17												1145.62	+0.0160	12	1145.81	+0.0160	12	1146.00	+0.0160	12	1146.20
	208+25.00												1145.61	+0.0160	12	1145.80	+0.0160	12	1145.99	+0.0157	12	1146.18
END FULL SUPER SOUTHBOUND	208+40.00	1144.90	12	-0.0180	1145.12	12	-0.0180	1145.33	12	-0.0180	1145.55											
	208+50.00	1144.84	12	-0.0169	1145.10	12	-0.0169	1145.31	12	-0.0169	1145.51		1145.51	+0.0160	12	1145.70	+0.0160	12	1145.89	+0.0111	12	1146.03
	208+58.00	1144.79	12	-0.0160	1145.10	12	-0.0160	1145.29	12	-0.0160	1145.48											
	208+75.00	1144.69	12	-0.0160	1145.09	12	-0.0132	1145.25	12	-0.0132	1145.41		1145.41	+0.0160	12	1145.60	+0.0160	12	1145.79	+0.0066	12	1145.87
	208+94.16	1144.56	12	-0.0160	1145.09	12	-0.0100	1145.21	12	-0.0100	1145.33		1145.33	+0.0160	12	1145.52	+0.0160	12	1145.71	+0.0032	12	1145.75
	209+00.00	1144.53	12	-0.0160	1145.09	12	-0.0090	1145.20	12	-0.0090	1145.31		1145.31	+0.0160	12	1145.50	+0.0160	12	1145.69	+0.0021	12	1145.72
	209+11.58												1145.26	+0.0160	12	1145.45	+0.0160	12	1145.64	0.0000	12	1145.64
	209+25.00	1144.38	12	-0.0160	1145.09	12	-0.0048	1145.15	12	-0.0048	1145.21		1145.21	+0.0160	12	1145.40	+0.0160	12	1145.59	-0.0024	12	1145.56
	209+50.00	1144.22	12	-0.0160	1145.09	12	-0.0007	1145.10	12	-0.0007	1145.11		1145.11	+0.0160	12	1145.30	+0.0160	12	1145.49	-0.0070	12	1145.41
	209+54.00	1144.19	12	-0.0160	1145.09	12	0.0000	1145.09	12	0.0000	1145.09											
	209+75.00	1144.07	12	-0.0160	1145.09	12	+0.0035	1145.05	12	+0.0035	1145.01		1145.01	+0.0160	12	1145.20	+0.0160	12	1145.39	-0.0115	12	1145.26
END SUPER TRANS NORTHBOUND	210+00.00	1143.91	12	-0.0160	1145.09	12	+0.0077	1145.00	12	+0.0077	1144.91		1144.91	+0.0160	12	1145.10	+0.0160	12	1145.29	-0.0160	12	1145.10
	210+25.00	1143.76	12	-0.0160	1145.09	12	+0.0118	1144.95	12	+0.0118	1144.81											
END SUPER TRANS SOUTHBOUND	210+50.00	1143.61	12	-0.0160	1145.09	12	+0.0160	1144.90	12	+0.0160	1144.71											
NORMAL SECTION																						

CALCULATED

CHECKED

SUPERELEVATION TABLES

WAY-71-0.28

supertab.dwg May 03, 2001

DESCRIPTION	STATION	SOUTHBOUND LANES										MEDIAN	NORTHBOUND LANES									
		PAVEMENT ELEVATION 66' LEFT	LANE WIDTH	PAVEMENT X-SLOPE	CROWN PAVEMENT ELEVATION 54' LEFT	LANE WIDTH	PAVEMENT X-SLOPE	PAVEMENT ELEVATION 42' LEFT	LANE WIDTH	PAVEMENT X-SLOPE	PROFILE GRADE ELEVATION 30' LEFT		PROFILE GRADE ELEVATION 30' RIGHT	PAVEMENT X-SLOPE	LANE WIDTH	PAVEMENT ELEVATION 42' RIGHT	PAVEMENT X-SLOPE	LANE WIDTH	CROWN PAVEMENT ELEVATION 54' RIGHT	PAVEMENT X-SLOPE	LANE WIDTH	PAVEMENT ELEVATION 66' RIGHT
NORMAL SECTION																						
BEGIN SUPER TRANS SOUTHBOUND	274+80.00	1106.89	12	-0.0160	1107.08	12	+0.0160	1106.89	12	+0.0160	1106.70											
	275+00.00	1106.41	12	-0.0160	1106.60	12	+0.0127	1106.45	12	+0.0127	1106.30											
	275+25.00	1105.80	12	-0.0160	1105.99	12	+0.0085	1105.89	12	+0.0085	1105.79											
BEGIN SUPER TRANS NORTHBOUND	275+30.00												1105.69	+0.0160	12	1105.88	+0.0160	12	1106.07	-0.0160	12	1105.88
	275+50.00	1105.18	12	-0.0160	1105.37	12	+0.0043	1105.32	12	+0.0043	1105.27		1105.27	+0.0160	12	1105.46	+0.0160	12	1105.65	-0.0124	12	1105.51
	275+75.00	1104.56	12	-0.0160	1104.75	12	+0.0002	1104.75	12	+0.0002	1104.75		1104.75	+0.0160	12	1104.94	+0.0160	12	1105.13	-0.0079	12	1105.04
	275+76.00	1104.54	12	-0.0160	1104.73	12	0.0000	1104.73	12	0.0000	1104.73											
	276+00.00	1103.94	12	-0.0160	1104.13	12	-0.0040	1104.18	12	-0.0040	1104.23		1104.23	+0.0160	12	1104.42	+0.0160	12	1104.61	-0.0033	12	1104.57
	276+18.42												1103.85	+0.0160	12	1104.04	+0.0160	12	1104.23	0.0000	12	1104.23
	276+25.00	1103.32	12	-0.0160	1103.51	12	-0.0082	1103.61	12	-0.0082	1103.71		1103.71	+0.0160	12	1103.90	+0.0160	12	1104.09	+0.0012	12	1104.11
	276+37.66	1103.01	12	-0.0160	1103.20	12	-0.0103	1103.33	12	-0.0103	1103.45		1103.45	+0.0160	12	1103.64	+0.0160	12	1103.83	+0.0035	12	1103.88
	276+50.00	1102.70	12	-0.0160	1102.89	12	-0.0123	1103.04	12	-0.0123	1103.19		1103.19	+0.0160	12	1103.38	+0.0160	12	1103.57	+0.0057	12	1103.64
	276+72.00	1102.16	12	-0.0160	1102.36	12	-0.0160	1102.55	12	-0.0160	1102.74											
	276+75.00	1102.08	12	-0.0163	1102.28	12	-0.0163	1102.47	12	-0.0163	1102.67		1102.67	+0.0160	12	1102.86	+0.0160	12	1103.05	+0.0102	12	1103.18
BEGIN FULL SUPER SOUTHBOUND	276+90.00	1101.71	12	-0.0180	1101.93	12	-0.0180	1102.14	12	-0.0180	1102.36											
	277+00.00												1102.15	+0.0160	12	1102.34	+0.0160	12	1102.53	+0.0148	12	1102.71
	277+06.83												1102.01	+0.0160	12	1102.20	+0.0160	12	1102.39	+0.0160	12	1102.59
	277+25.00												1101.63	+0.0171	12	1101.84	+0.0171	12	1102.04	+0.0171	12	1102.25
BEGIN FULL SUPER NORTHBOUND	277+40.00												1101.32	+0.0180	12	1101.54	+0.0180	12	1101.75	+0.0180	12	1101.97
FULL SUPERELEVATION																						
END FULL SUPER NORTHBOUND	291+00.00												1073.04	+0.0180	12	1073.26	+0.0180	12	1072.73	+0.0180	12	1073.69
	291+25.00												1072.52	+0.0165	12	1072.72	+0.0165	12	1072.92	+0.0165	12	1073.11
	291+33.17												1072.35	+0.0160	12	1072.54	+0.0160	12	1072.73	+0.0160	12	1072.93
END FULL SUPER SOUTHBOUND	291+50.00	1071.35	12	-0.0180	1071.57	12	-0.0180	1071.78	12	-0.0180	1072.00		1072.00	+0.0160	12	1072.19	+0.0160	12	1072.38	+0.0130	12	1072.54
	291+68.00	1071.04	12	-0.0160	1071.24	12	-0.0160	1071.43	12	-0.0160	1071.62											
	291+75.00	1070.93	12	-0.0160	1071.12	12	-0.0148	1071.30	12	-0.0148	1071.48		1071.48	+0.0160	12	1071.67	+0.0160	12	1071.86	+0.0084	12	1071.97
	292+00.00	1070.51	12	-0.0160	1070.70	12	-0.0107	1070.83	12	-0.0107	1070.96		1070.96	+0.0160	12	1071.15	+0.0160	12	1071.34	+0.0039	12	1071.39
	292+05.54	1070.41	12	-0.0160	1070.61	12	-0.0097	1070.72	12	-0.0097	1070.84		1070.84	+0.0160	12	1071.03	+0.0160	12	1071.22	+0.0029	12	1071.26
	292+21.58												1070.51	+0.0160	12	1070.70	+0.0160	12	1070.89	0.0000	12	1070.89
	292+25.00	1070.09	12	-0.0160	1070.28	12	-0.0065	1070.36	12	-0.0065	1070.44		1070.44	+0.0160	12	1070.63	+0.0160	12	1070.82	-0.0006	12	1070.82
	292+50.00	1069.66	12	-0.0160	1069.85	12	-0.0023	1069.88	12	-0.0023	1069.91		1069.91	+0.0160	12	1070.10	+0.0160	12	1070.29	-0.0051	12	1070.23
	292+64.00	1069.43	12	-0.0160	1069.62	12	0.0000	1069.62	12	0.0000	1069.62											
	292+75.00	1069.23	12	-0.0160	1069.42	12	+0.0018	1069.40	12	+0.0018	1069.38		1069.38	+0.0160	12	1069.57	+0.0160	12	1069.76	-0.0097	12	1069.65
	293+00.00	1068.78	12	-0.0160	1068.97	12	+0.0060	1068.90	12	+0.0060	1068.83		1068.83	+0.0160	12	1069.02	+0.0160	12	1069.21	-0.0142	12	1069.04
END SUPER TRANS NORTHBOUND	293+10.00												1068.61	+0.0160	12	1068.80	+0.0160	12	1068.99	-0.0160	12	1068.80
	293+25.00	1068.33	12	-0.0160	1068.52	12	+0.0102	1068.40	12	+0.0102	1068.28											
	293+50.00	1067.86	12	-0.0160	1068.05	12	+0.0143	1067.88	12	+0.0143	1067.71											
END SUPER TRANS SOUTHBOUND	293+60.00	1067.68	12	-0.0160	1067.87	12	+0.0160	1067.68	12	+0.0160	1067.49											
NORMAL SECTION																						

CALCULATED

CHECKED

SUPERELEVATION TABLES

WAY-71-0.28

133
432

supertab.dwg May 03, 2001

DESCRIPTION	STATION	SOUTHBOUND LANES										MEDIAN	NORTHBOUND LANES									
		PAVEMENT ELEVATION 66' LEFT	LANE WIDTH	PAVEMENT X-SLOPE	CROWN PAVEMENT ELEVATION 54' LEFT	LANE WIDTH	PAVEMENT X-SLOPE	PAVEMENT ELEVATION 42' LEFT	LANE WIDTH	PAVEMENT X-SLOPE	PROFILE GRADE ELEVATION 30' LEFT		PROFILE GRADE ELEVATION 30' RIGHT	PAVEMENT X-SLOPE	LANE WIDTH	PAVEMENT ELEVATION 42' RIGHT	PAVEMENT X-SLOPE	LANE WIDTH	CROWN PAVEMENT ELEVATION 54' RIGHT	PAVEMENT X-SLOPE	LANE WIDTH	PAVEMENT ELEVATION 66' RIGHT
NORMAL SECTION																						
BEGIN SUPER TRANS NORTHBOUND	337+90.00												959.96	+0.0160	12	960.15	+0.0160	12	960.34	-0.0160	12	960.15
	338+00.00												959.71	+0.0143	12	959.88	+0.0143	12	960.05	-0.0160	12	959.86
	338+25.00												959.09	+0.0102	12	959.21	+0.0102	12	959.33	-0.0160	12	959.14
BEGIN SUPER TRANS SOUTHBOUND	338+40.00	958.91	12	-0.0160	959.10	12	+0.0160	958.91	12	+0.0160	958.72											
	338+50.00	958.69	12	-0.0140	958.85	12	+0.0160	958.66	12	+0.0160	958.47		958.47	+0.0060	12	958.54	+0.0060	12	958.62	-0.0160	12	958.42
	338+75.00	958.13	12	-0.0092	958.24	12	+0.0160	958.05	12	+0.0160	957.86		957.86	+0.0019	12	957.88	+0.0019	12	957.91	-0.0160	12	957.71
	338+86.42												957.59	0.0000	12	957.59	0.0000	12	957.59	-0.0160	12	957.40
	339+00.00	957.60	12	-0.0043	957.65	12	+0.0160	957.46	12	+0.0160	957.27		957.27	-0.0023	12	957.24	-0.0023	12	957.22	-0.0160	12	957.02
	339+21.95	957.14	12	0.0000	957.14	12	+0.0160	956.95	12	+0.0160	956.76											
	339+25.00	957.09	12	+0.0006	957.08	12	+0.0160	956.89	12	+0.0160	956.70		956.70	-0.0064	12	956.62	-0.0064	12	956.55	-0.0160	12	956.35
	339+50.00	956.59	12	+0.0055	956.52	12	+0.0160	956.33	12	+0.0160	956.14		956.14	-0.0106	12	956.01	-0.0106	12	955.89	-0.0160	12	955.69
	339+52.54	956.55	12	+0.0060	956.47	12	+0.0160	956.28	12	+0.0160	956.09		956.09	-0.0110	12	955.96	-0.0110	12	955.83	-0.0160	12	955.63
	339+75.00	956.12	12	+0.0104	955.99	12	+0.0160	955.80	12	+0.0160	955.61		955.61	-0.0147	12	955.43	-0.0147	12	955.26	-0.0160	12	955.07
	339+82.84												955.44	-0.0160	12	955.25	-0.0160	12	955.06	-0.0160	12	954.86
BEGIN FULL SUPER NORTHBOUND	340+00.00	955.66	12	+0.0152	955.47	12	+0.0160	955.28	12	+0.0160	955.09		955.09	-0.0179	12	954.88	-0.0179	12	954.66	-0.0179	12	954.45
	340+10.00												954.89	-0.0190	12	954.66	-0.0190	12	954.43	-0.0190	12	954.21
	340+03.89	955.59	12	+0.0160	955.39	12	+0.0160	955.20	12	+0.0160	955.01											
	340+25.00	955.23	12	+0.0174	955.02	12	+0.0174	954.81	12	+0.0173	954.60											
BEGIN FULL SUPER SOUTHBOUND	340+50.00	954.80	12	+0.0190	954.58	12	+0.0190	954.35	12	+0.0190	954.12											
FULL SUPERELEVATION																						

CALCULATED

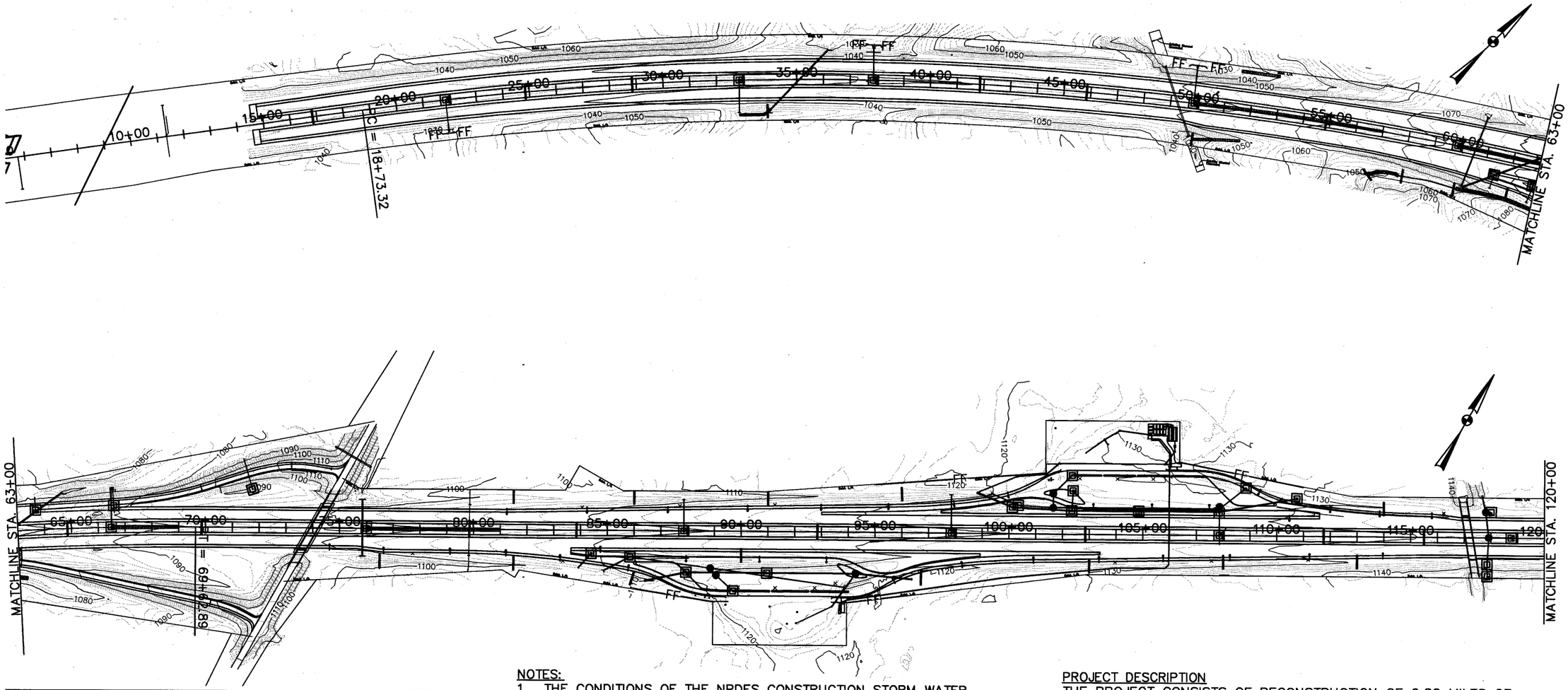
CHECKED

SUPERELEVATION TABLES

WAY-71-0.28

134
432

supertab.dwg May 03, 2001



PROJECT DATA	
TOTAL AREA (RIGHT–OF–WAY)	118 ha
AREA TO UNDERGO EXCAVATION, FILLING OR GRADING	68 ha
RUNNOFF COEFFICIENT FOR PRE–CONSTRUCTION SITE	0.53
RUNNOFF COEFFICIENT FOR POST CONSTRUCTION SITE	0.63
SOIL DATA	SEE SOIL PROFILE
RECEIVING WATERS:	
IMMEDIATE	SUBSEQUENT
MUDDY FORK	LAKE FORK
FOUR(4)UNAMED STREAMS	KILLBUCK CREEK

ITEM 877, TEMPORARY SEDIMENT BASINS AND DAMS
THE SEDIMENT BASIN QUANTITIES LISTED ON THIS STORM WATER POLLUTION PREVENTION PLAN ARE THE STORAGE VOLUMES REQUIRED FOR THE SEDIMENT BASIN. THE PAY QUANTITY FOR EACH BASIN SHALL BE DETERMINED AS THE ACTUAL AMOUNT OF EXCAVATION OR EMBANKMENT REQUIRED TO PROVIDE THAT STORAGE VOLUME.

NOTES:

1. THE CONDITIONS OF THE NPDES CONSTRUCTION STORM WATER GENERAL PERMIT (SEE PROPOSAL) SHALL BE MET DURING ALL STAGES OF CONSTRUCTION. THE LOCATION AND TIMING OF ALL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE FIELD ADJUSTED TO PREVENT SIGNIFICANT IMPACT ON RECEIVING WATER. IMPLEMENTATION OF THIS STORM WATER POLLUTION PREVENTION PLAN SHALL CONTINUE THROUGHOUT THE DURATION OF THE PROJECT OR UNTIL SUCH TIME THAT THE UPSLOPE DISTURBED AREAS ARE STABILIZED.
2. INSTALLATION OF SEDIMENT BASINS/DAMS, PERIMETER FILTER FABRIC FENCE, AND DITCH CHECKS SHALL BE CONCURRENT WITH CLEARING AND GRUBBING AND/OR GRADING OPERATIONS.
3. ALL REASONABLE ATTEMPTS SHALL BE MADE TO MINIMIZE THE TOTAL AREA OF DISTURBED LAND.
4. AREAS TO REMAIN DORMANT FOR MORE THAN 45 DAYS SHALL BE IMMEDIATELY STABILIZED WITH TEMPORARY SEEDING AND MULCHING, EROSION CONTROL MATTING OR OTHER APPROPRIATE EROSION CONTROL MEASURES.
5. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PLACED IN ACCORDANCE WITH STANDARD DRAWINGS DM–4.3 AND DM–4.4.

SEE SHEET 125 FOR QUANTITIES.

PROJECT DESCRIPTION
THE PROJECT CONSISTS OF RECONSTRUCTION OF 6.82 MILES OF I–71 INCLUDING ADDING A THIRD LANE IN EACH DIRECTION IN THE EXISTING MEDIAN AREA; NEW GUARDRAIL; NEW OR RECONSTRUCTED DRAINAGE IN THE MEDIAN; RESURFACING OF THE RAMPS IN THE S.R.301 & S.R.539 INTERCHANGES; STRUCTURAL LINING OF A 12 FOOT DIAMETER C.M.P.A.; RECONSTRUCTION OF REST AREAS, AND INSTALLATION OF THE NECESSARY TRAFFIC DEVICES. ALSO INCLUDED WILL BE THE RECONSTRUCTION OF STRUCTURE WAY–71–0672 L&R OVER C.R.70, AND REMOVING AND FILLING STRUCTURE WAY–71–0696 OVER AN ABANDONED RAILROAD.

LEGEND:

- MANHOLE
- CATCH BASIN W/TEMPORARY INLET PROTECTION FILTER FABRIC FENCE (30 FT)
- TEMPORARY DITCH CHECK FILTER FABRIC FENCE (25 FT)
- —FF— TEMPORARY PERIMETER PROTECTION FILTER FABRIC FENCE
- DITCH EROSION PROTECTION
- TEMPORARY SEDIMENT BASIN

USGS QUADRANTS: N4052.5 W8200/7.5 WEST SALEM, OHIO
40082–H2–TF–024 POLK, OHIO

APPROXIMATE CENTER OF PROJECT
LONGITUDE: 82° 04' 30"
LATITUDE: 40° 56' 45"

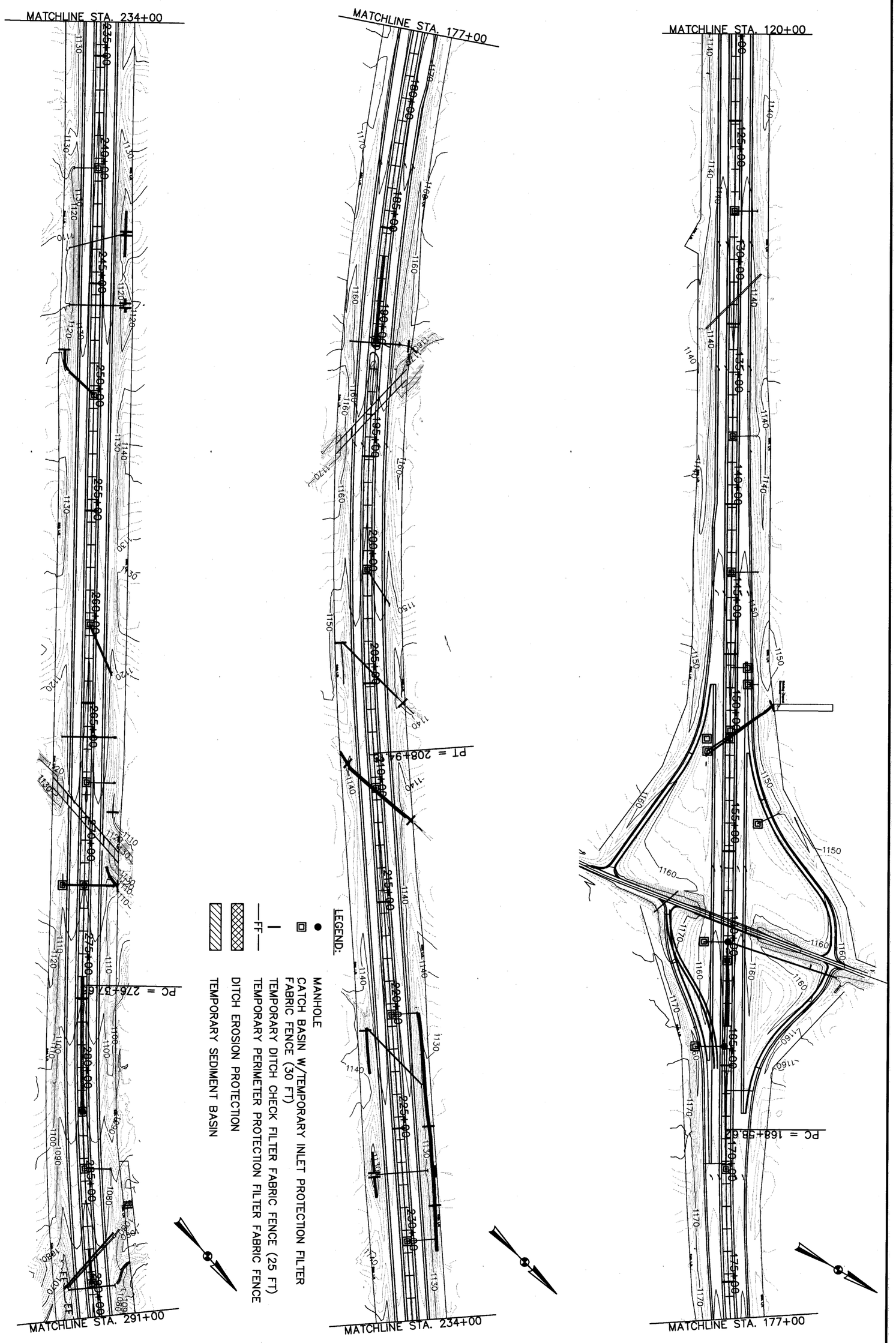
0 200 400 Scale In Feet

CALCULATED
CHECKED

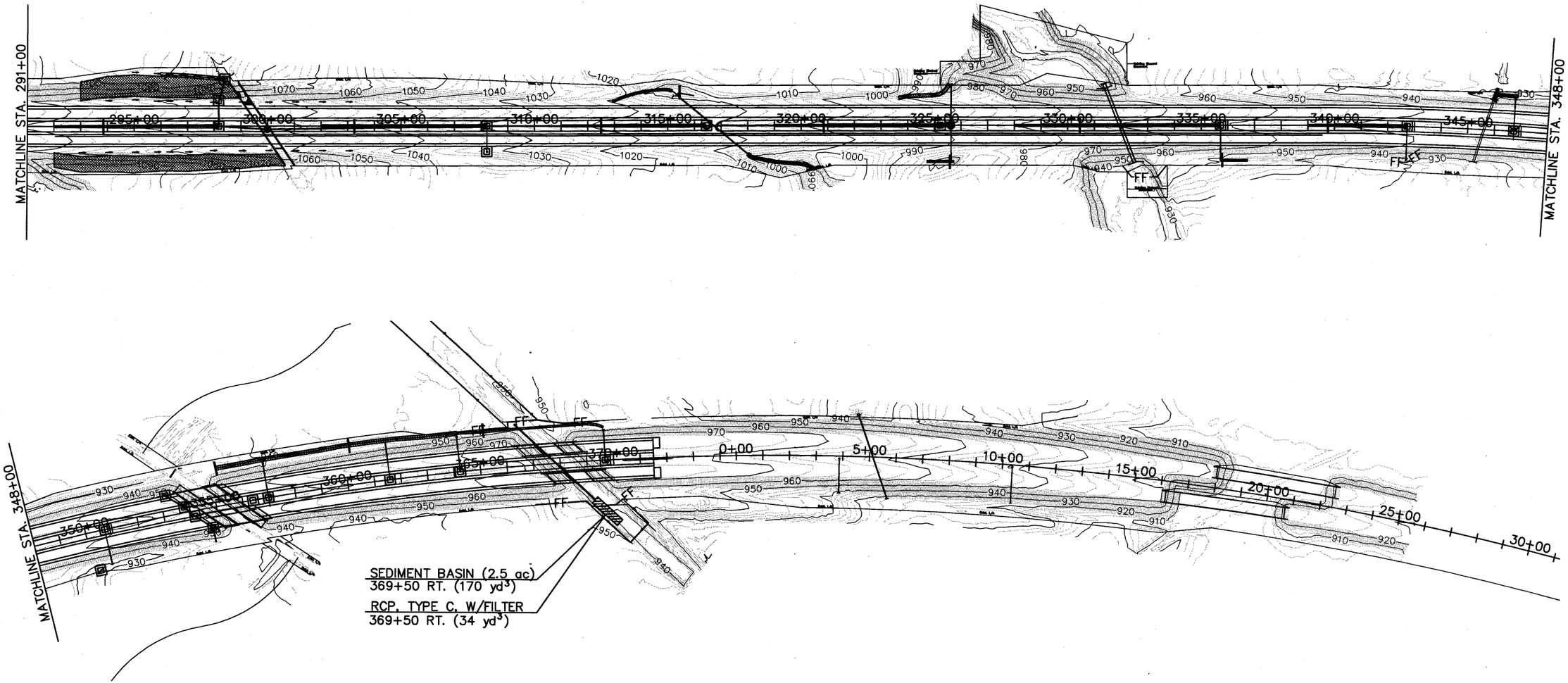
STORM WATER POLLUTION PREVENTION PLAN
STA. 5+00 TO STA. 120+00

WAY–71–0.28

M:\99202\AUTOCAD\SDSK-72\STORM01.dwg - SHEET 135 - May 03, 2001



136 / 432	WAY-71-0.28	STORM WATER POLLUTION PREVENTION PLAN STA. 120+00 TO STA. 291+00	CALCULATED / CHECKED; 0 200 400 Scale In Feet



LEGEND:

- MANHOLE
- CATCH BASIN W/TEMPORARY INLET PROTECTION FILTER FABRIC FENCE (30 FT)
- TEMPORARY DITCH CHECK FILTER FABRIC FENCE (25 FT)
- —FF— TEMPORARY PERIMETER PROTECTION FILTER FABRIC FENCE
- DITCH EROSION PROTECTION
- TEMPORARY SEDIMENT BASIN

0 200 400 Scale In Feet

CALCULATED

CHECKED

STORM WATER POLLUTION PREVENTION PLAN
STA. 291+00 TO STA. 31+00

WAY-71-0.28

137
432

M:\98029\AUTOCAD\SDSK-72\STORM03.dwg - SHEET 137 - May 03, 2001

Begin Work
Sta. 5+50.00

End Project
ASD/WAY-71-
14.383/0.000

Begin Project
Sta. 14+82.88
S.L.M. 0.28
TE 21-G010(518)

STA. EQ. (853'-3"±) 89 BK.
=STA. 0+00.00 AHD.

Jackson Township
Congress Township
Ashland County
Wayne County

Exist. L/A
Brush
Exist. U.D.
15" Pipe
C.B.
℄ Survey & Construction I.R. 71
N36°10'30"E
L/G
+55
+82.88
36'
10'
20'
10'
10'
36'
PC 18+73.32
MATCHLINE STA. 20+00

UD 1 UD 2 UD 3 UD 4 UD 5 UD 6 UD 7 UD 8 UD 9 UD 10 UD 11 UD 12

NOTE: TIE INTO EXIST. UNDERDRAINS FROM ASD/WAY-71-14.383/0.000 AT STA. 14+82.88

℄ Survey & Construction I.R. 71 Curve Data
P.I. STA. 44+55.19
Δ = 23°45'13" RT.
Dc = 0°28'00"
R = 12276.48'
T = 2581.87'
L = 5089.57'
E = 268.56'
emax = 0.018

ITEM 202 – 1 1/2" WEARING COURSE REMOVED & RESURFACED WITH 446 ASPHALT CONCRETE SURFACE COURSE OVER 407 TACK COAT. THE LENGTH MAY BE ADJUSTED IN THE FIELD TO MATCH EXISTING CONDITIONS.

Butt Joint
See BP-3.1
Match Existing
27.88'
Resurfacing
(N.B. & S.B.)
+0.44%

1035.10 1035.18 1035.40 1035.62 1035.84 1036.06 1036.28 1036.50 1036.72 1036.94 1037.16 1037.38
1033.80 1033.95 1034.10 1034.25 1034.40 1034.55 1034.70 1034.85 1035.00 1035.0 1034.9 1035.0 1035.1 1035.4 1035.5 1035.7 1035.9 1036.1 1036.2 1036.4
1050 1040 1030 1020
11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
111–124	Underdrain Quantities
288–302	Underdrain Details

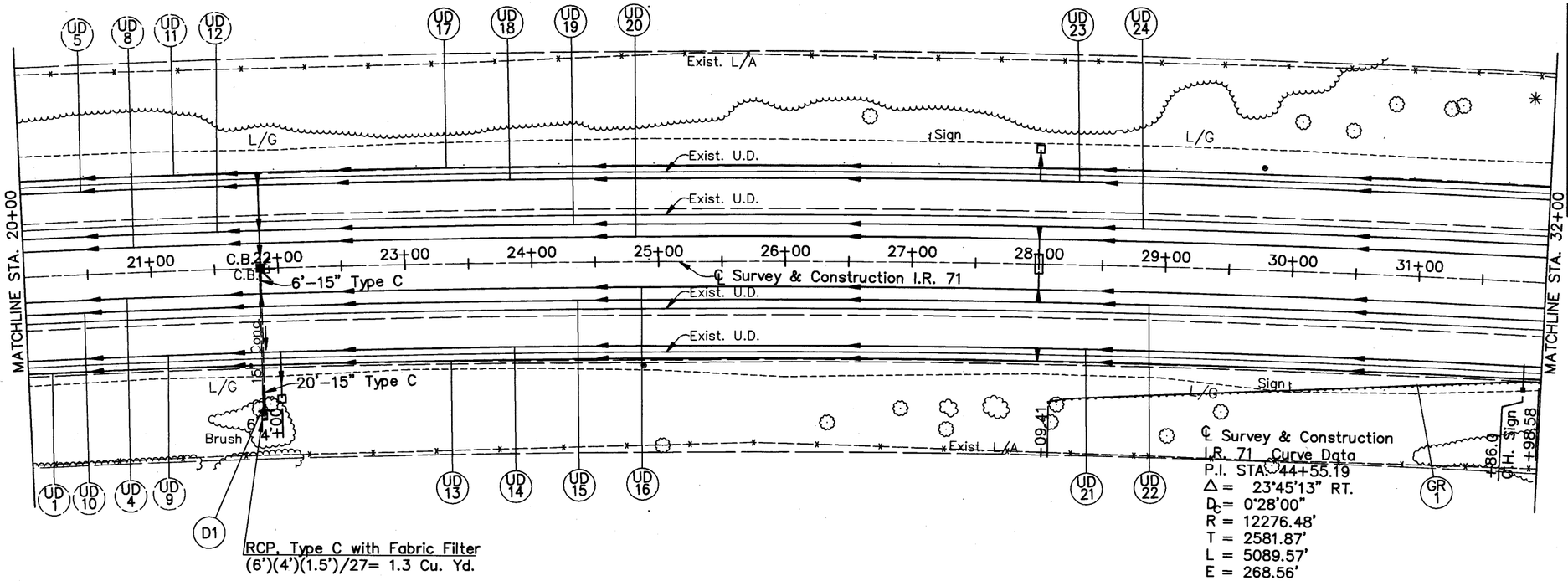
Scale in Feet 0 50 100
CALCULATED
CHECKED

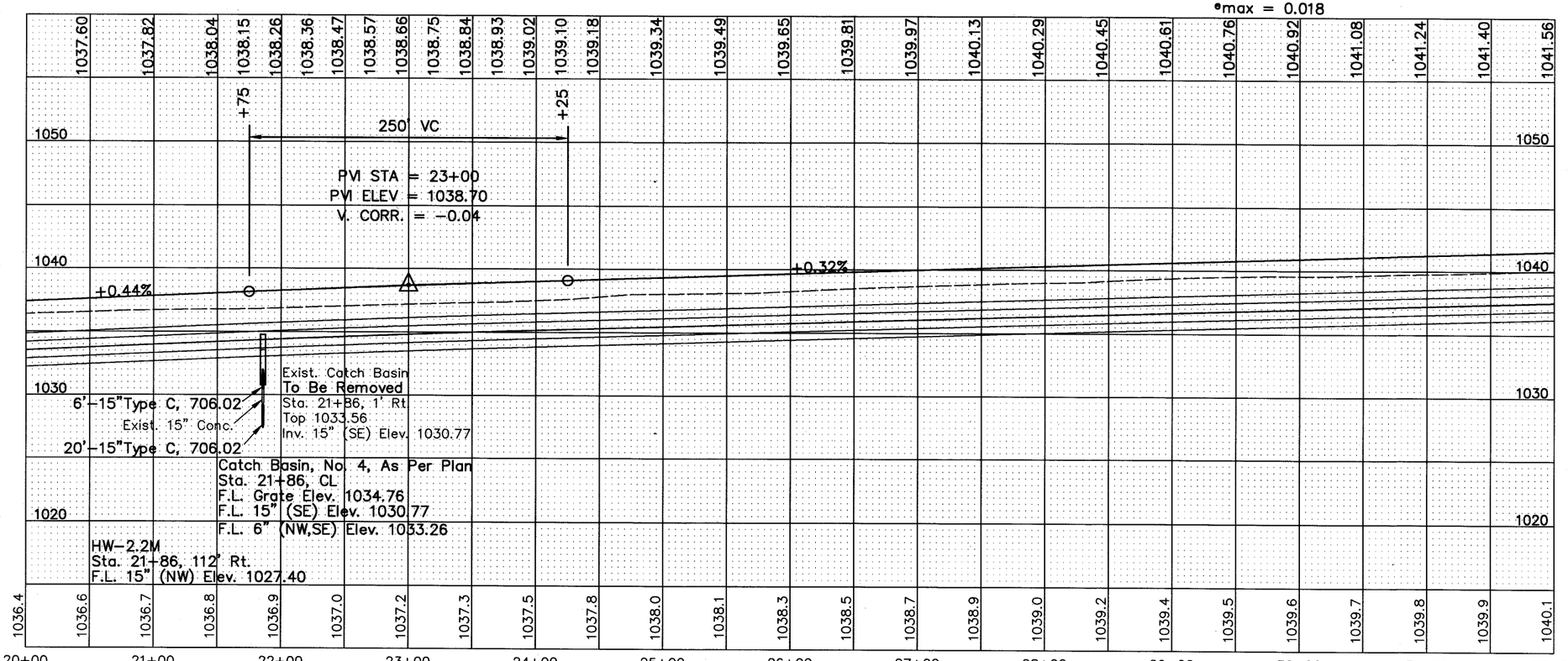
PLAN AND PROFILE SHEET
STA. 8+00 TO STA. 20+00

WAY-71-0.28

138
432

M:\660208\AUTOCAD\660K-72\Pp01.dwg - SHEET 138 - May 05, 2001





CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
288–302	Underdrain Details
349	Overhead Sign Details

604	Catch Basin, No. 4, As Per Plan	Each			1	1
603	15" Conduit, Type C, 706.02	Lin.Ft.			26	26
602	Concrete Masonry	Cu.Yd.			0.3	0.3
601	Rock Channel Protection, Type C With Fabric Filter	Cu.Yd.			1.3	1
202	Removal Misc.: Headwall	Each			1	1
202	Catch Basin Removed	Each			1	1
SIDE					Rt	
STATION	FROM				21+86	
	TO					
REFERENCE					D1	

QUANTITIES CARRIED TO SHEETS 104–107

CALCULATED QCS 04/01
CHECKED BJR 04/01

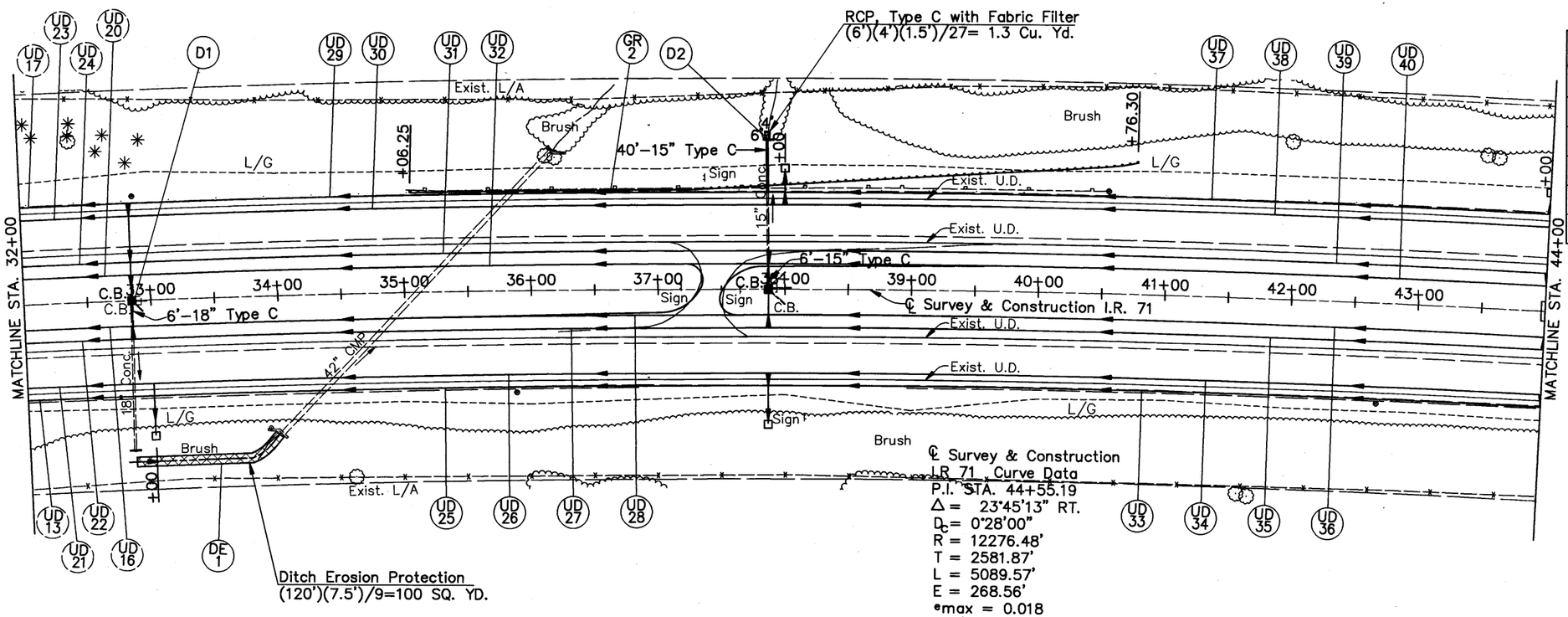
Scale in Feet
0 50 100

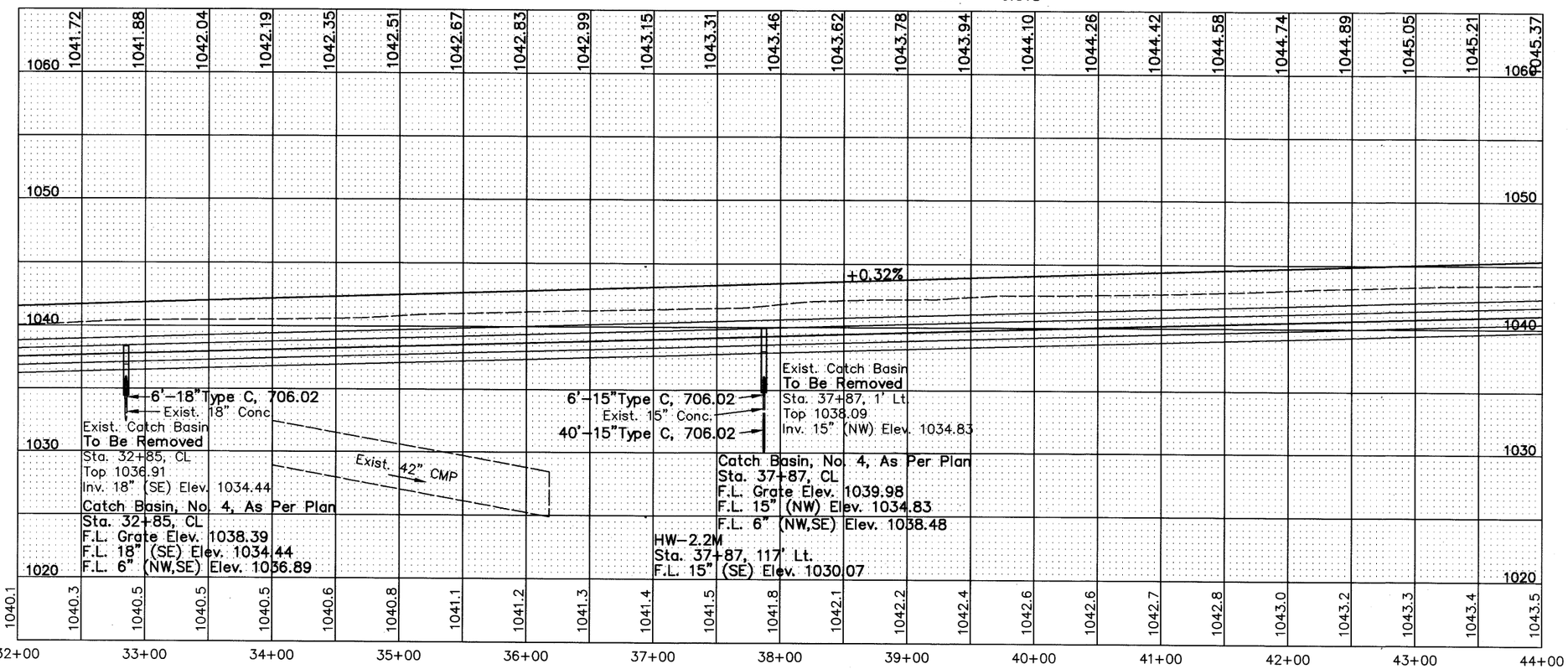
PLAN AND PROFILE SHEET
STA. 20+00 TO STA. 32+00

WAY-71-0.28

139
432

M:\9802\dsk\AUTOCAD\BDK-72PP02.DWG - SHEET 139 - May 02, 2001





CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
288–302	Underdrain Details
362	Median Opening Detail

670	Ditch Erosion Protection	Sq.Yd.							100	100	
604	Catch Basin, No. 4, As Per Plan	Each			1				1	2	
603	18" Conduit, Type C, 706.02	Lin.Ft.			6					6	
603	15" Conduit, Type C, 706.02	Lin.Ft.			46					46	
602	Concrete Masonry	Cu.Yd.			0.3					0.3	
601	Rock Channel Protection, Type C With Fabric Filter	Cu.Yd.			1.3					1	
203	Ditch Cleanout	Lin. Ft							120	120	
202	Removal Misc.: Headwall	Each			1				1	1	
202	Catch Basin Removed	Each			1				1	2	
SIDE					Rt				Rt		
STATION	FROM	TO			Lt						
	32+85		D1		1						
	37+87		D2		1						
	32+84	33+98	DE1						Rt		
REFERENCE											QUANTITIES CARRIED TO SHEETS 104–107

Scale in Feet: 0 50 100

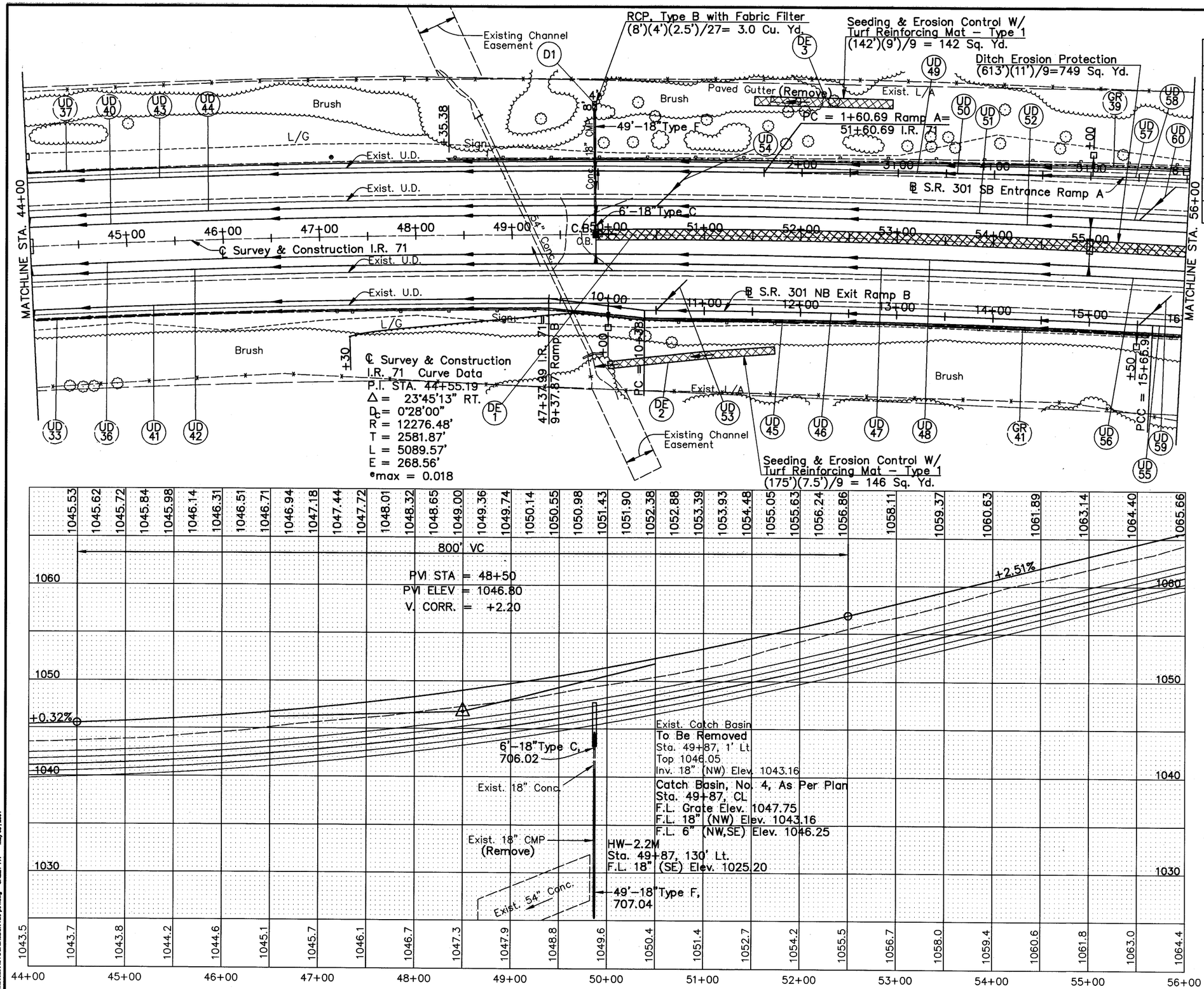
CALCULATED GCS 04/01
CHECKED BJR 04/01

PLAN AND PROFILE SHEET STA. 32+00 TO STA. 44+00

WAY-71-0.28

140
432

M:\98025\AUTOCAD\SIGK-725PROD.DWG - SHEET 140 - May 02, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
272–273	Ramp Details
287	Ditch Profile
288–302	Underdrain Details

Scale in Feet: 0, 50, 100

CALCULATED GCS 04/01 CHECKED BJR 04/01

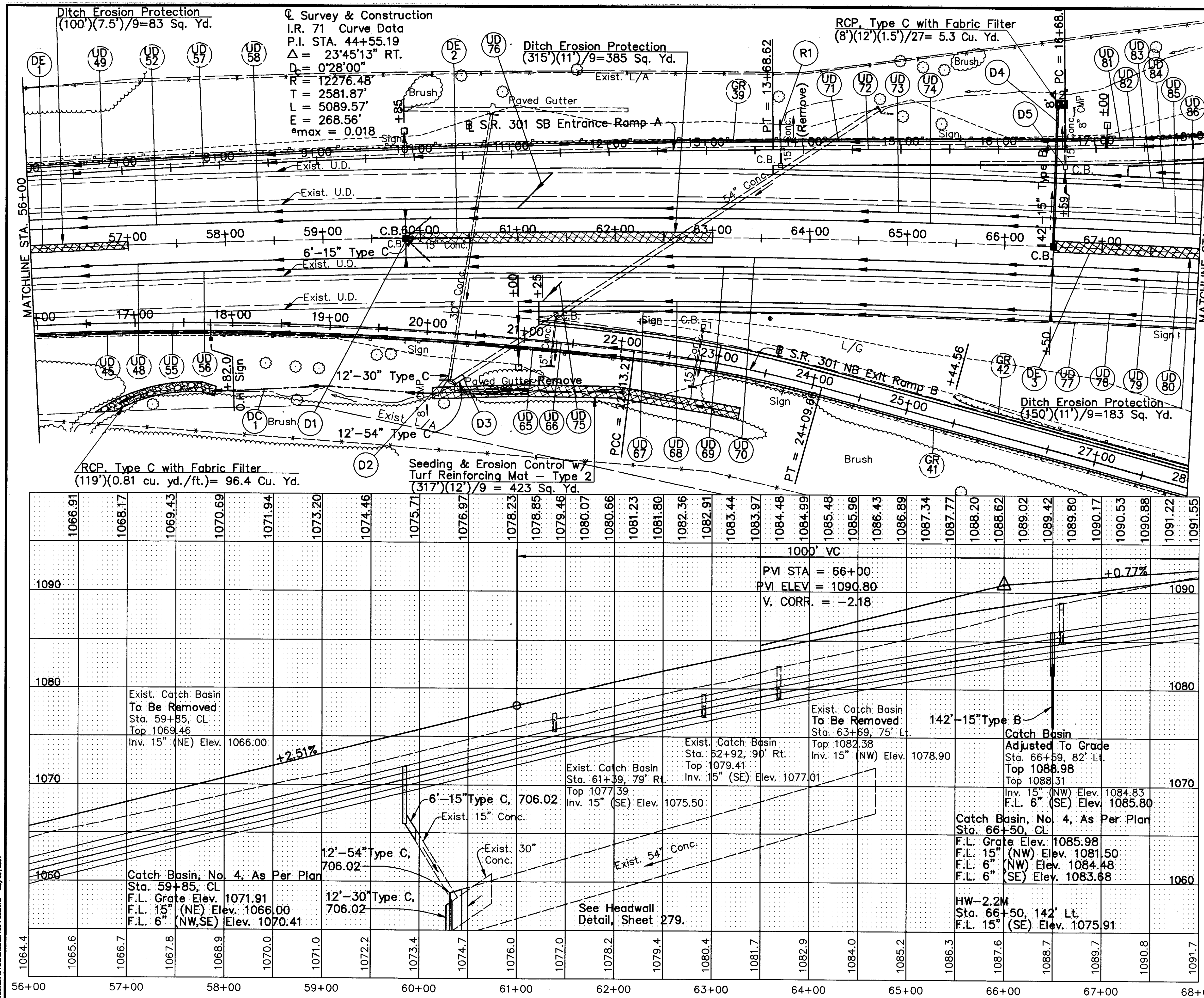
REFERENCE	STATION FROM	STATION TO	SIDE	BENDS 18"X30" Bend Each	840 Eros.Contr., Misc.: Seed. & Eros. Contr. W/Turf. Reinf.Mat, Type 1 Sq.Yd.	670 Ditch Erosion Protection Sq.Yd.	604 Catch Basin, No. 4, As Per Plan Each	603 18" Conduit, Type F, 707.04 Lin.Ft.	603 18" Conduit, Type C, 706.02 Lin.Ft.	602 Concrete Masonry Cu.Yd.	601 Rock Channel Protection, Type B With Fabric Filter Cu.Yd.	202 Catch Basin Removed Each	202 Gutter Removed Lin.Ft.	QUANTITIES CARRIED TO SHEETS 104–107
D1	49+87		Lt				1		6	0.3	3.0	1		288
DE1	49+87	56+00	CL			749		49						749
DE2	50+00	51+75	Rt		146									146
DE3	51+50	52+92	Lt		142									142
				2									31	31
				2	288	749	1	49	6	0.3	3.0	1	31	

PLAN AND PROFILE SHEET STA. 44+00 TO STA. 56+00

WAY-71-0.28

141
432

M:\99029\AUTOCAD\SBSK-72\P0M.dwg - SHEET 141 - May 09, 2001



CROSS REFERENCES

SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
259–262	Ramp Plan & Profile
272–273	Ramp Details
279	Headwall Detail
287	Ditch Profile
288–302	Underdrain Details
349	Overhead Sign Details

REFERENCE	STATION FROM	STATION TO	SIDE	840 Eros.Contr., Misc.: Seed. & Eros. Contr. W/Turf. Reinf.Mat. Type 2 (Sq.Yd.)	670 Ditch Erosion Protection (Sq.Yd.)	604 Catch Basin Adjusted to Grade (Each)	604 Catch Basin, No. 4, As Per Plan (Each)	603 54" Conduit, Type C, 706.02 (Lin.Ft.)	603 30" Conduit, Type C, 706.02 (Lin.Ft.)	603 15" Conduit, Type C, 706.02 (Lin.Ft.)	603 15" Conduit, Type B (Lin.Ft.)	602 Concrete Masonry (Cu.Yd.)	601 Rock Channel Protection, Type C With Fabric Filter (Cu.Yd.)	203 Ditch Cleanout (Lin.Ft.)	202 Removal Misc.: Headwall (Each)	202 Catch Basin Removed (Each)	202 Pipe Removed, 24" and Under (Lin.Ft.)	202 Gutter Removed (Lin.Ft.)
D1	59+85		CL				1			6						1		
D2	60+28		Rt						12			3.1			1			
D3	60+32		Rt					12										
D4	66+50		Lt				1				142	0.3	5.3					
D5	66+59		Lt			1												
DC1	56+59	63+29	Rt	423									96.4	539				68
DE1	56+00	57+00	CL		83													
DE2	59+85	63+00	CL		385													
DE3	66+50	68+00	CL		183													
R1	63+69		Lt													1	46	
QUANTITIES CARRIED TO SHEETS 104–107				423	651	1	2	12	12	6	142	3.4	102	539	1	2	46	68

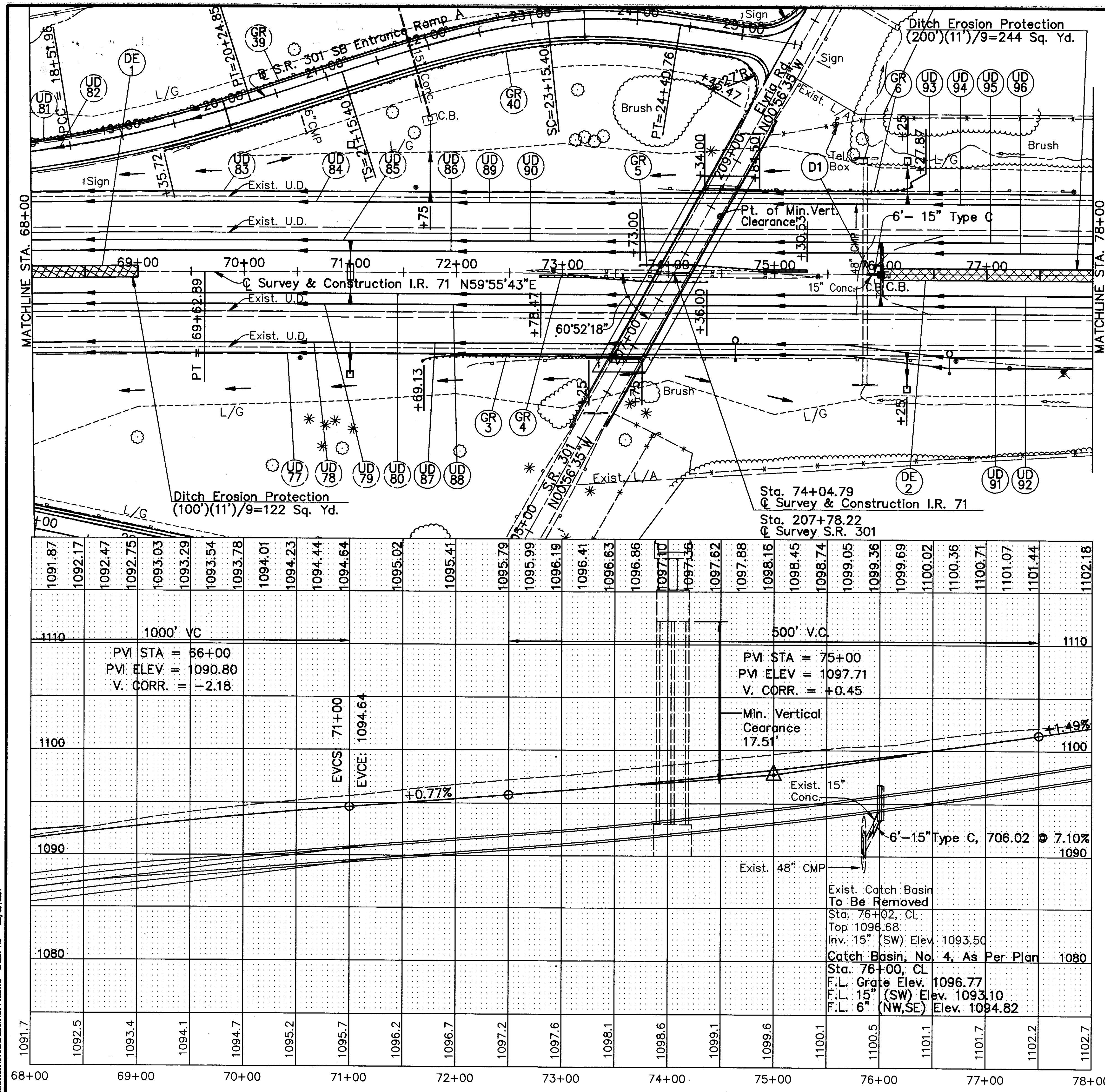
Scale in Feet: 0 50 100

CALCULATED GCS 04/01
CHECKED BJR 04/01

PLAN AND PROFILE SHEET
STA. 56+00 TO STA. 68+00

WAY–71–0.28

M:\98029\AUTOCAD\SDSK-72\PP05.DWG - May 03, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
259–262	Ramp Plan & Profile
272–273	Ramp Details
288–302	Underdrain Details
378–387	Lighting Plan

REFERENCE	STATION FROM	STATION TO	SIDE	202 Catch Basin Removed (Each)	603 15" Conduit, Type C, 706.02 (Lin.Ft.)	604 Catch Basin, No. 4, As Per Plan (Each)	670 Ditch Erosion Protection (Sq.Yd.)
D1	76+00		CL	1	6	1	
DE1	68+00	69+00	CL				122
DE2	76+02	78+00	CL				244
QUANTITIES CARRIED TO SHEETS 104–107				1	6	1	366

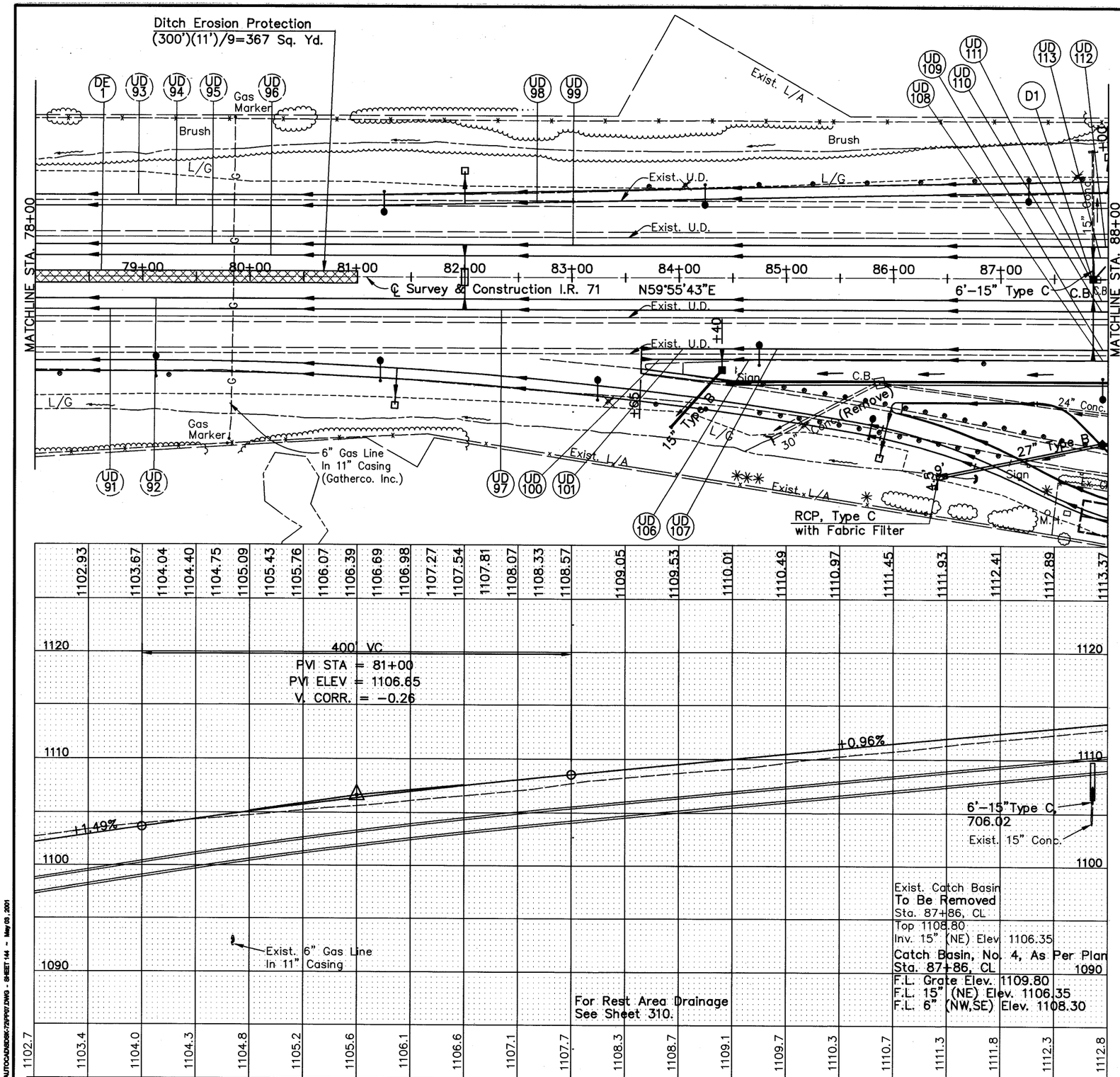
Scale in Feet: 0 50 100

CALCULATED GCS 04/01
CHECKED BJR 04/01

PLAN AND PROFILE SHEET
STA. 68+00 TO STA. 78+00

WAY–71–0.28

M:\96029\AUTOCAD\DSGK-72PP06.DWG - SHEET 143 - May 03, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
111–124	Underdrain Quantities
288–302	Underdrain Details
313–316	NB Rest Area Details
322–325	SB Rest Area Details
378–387	Lighting Plan

N

0 50 100 Scale in Feet

CALCULATED GCS 04/01 CHECKED BJR 04/01

REFERENCE	STATION FROM	STATION TO	SIDE	202 Catch Basin Removed Each	603 15" Conduit, Type C, 706.02 Lin.Ft.	604 Catch Basin, No. 4, As per Plan Each	670 Ditch Erosion Protection Sq.Yd.
D1	87+86		CL	1	6	1	
DE1	78+00	81+00	CL				367
QUANTITIES CARRIED TO SHEETS 104–107				1	6	1	367

PROFILE SHEET TO STA. 88+00

PLAN AND PROFILE STA. 78+00 TO STA. 88+00

WAY-71-0.28

M:\99029\AUTOCAD\BSK\729P97.DWG - SHEET 144 - May 09, 2001

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
288–302	Underdrain Details
313–316	NB Rest Area Details
322–325	SB Rest Area Details
350	Overhead Sign Details
378–387	Lighting Plan

Scale in Feet: 0, 50, 100

CALCULATED GCS 04/01 | CHECKED BJR 04/01

PLAN AND PROFILE SHEET STA. 88+00 TO STA. 98+00

WAY–71–0.28

145/432

MATCHLINE STA. 88+00

MATCHLINE STA. 98+00

UD 112, UD 113, UD 116, UD 121, UD 122, UD 123, UD 124

Exist. L/A

Brush

L/G

Rest Area Ramp

Exist. U.D.

+50

24" Conc.

89+00 90+00 91+00 92+00 93+00 94+00 95+00 96+00 97+00

℄ Survey & Construction I.R. 71 N59°55'43"E

6'– 24" Type C C.B.

UD 108, UD 109, UD 110, UD 111, UD 114, UD 115

Sign

(Remove)

M.H.

27" Type B

24" Type B

24" Conc. (Remove)

15" Conc. (Remove)

Elect. Box

12" Type B

+37.87

GR 7

+80.0

+67.50

D1, UD 120, UD 119, UD 118, UD 117

4" San (BY OTHERS)

Exist. L/A

Lift Station (BY OTHERS)

Chain Link Fence

Elect. Box

Tyd M.H.

SAN. M.H.

San

C.B.

HC

1113.85 1114.33 1114.81 1115.29 1115.77 1116.25 1116.73 1117.21 1117.69 1118.17 1118.65 1119.13 1119.37 1119.60 1119.82 1120.05 1120.26 1120.47 1120.67 1120.87 1121.06 1121.25 1121.43 1121.61 1121.77 1121.94 1122.10 1122.25

1130 / 1120 / 1110 / 1100

400' VC
PVI STA = 96+00
PVI ELEV = 1121.05
V. CORR. = −0.18

+0.96%

6'–24"Type C, 706.02

Exist. 24" Conc.

Exist. Catch Basin
To Be Removed
Sta. 97+85, CL
Top 1117.93
Inv. 24" (NW) Elev. 1114.99

Catch Basin, No. 4, As Per Plan
Sta. 97+85, CL
F.L. Grate Elev. 1118.72
F.L. 24" (NW) Elev. 1114.99
F.L. 6" (NW,SE) Elev. 1117.22

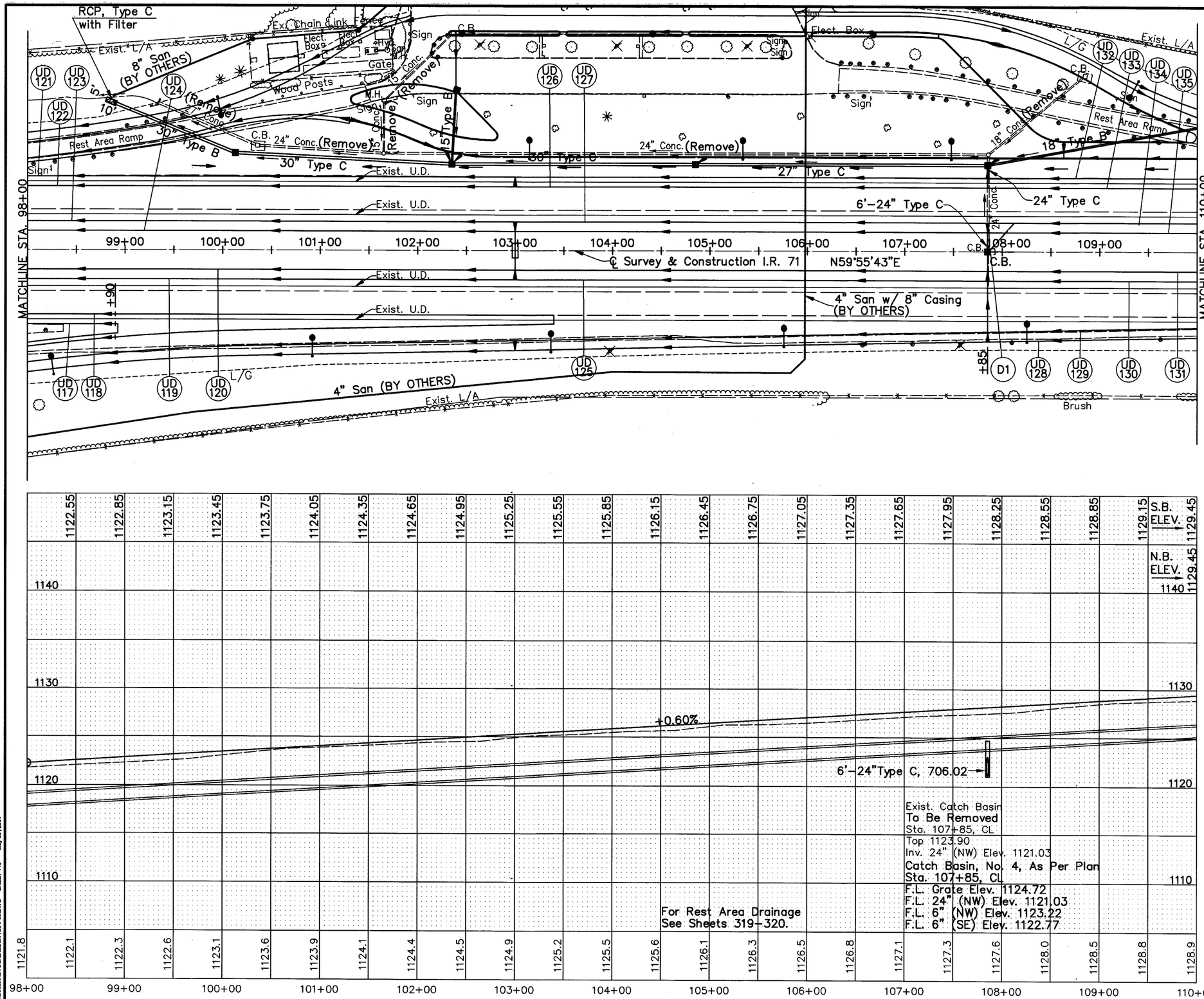
For Rest Area Drainage See Sheet 310.

1112.8 1113.4 1113.9 1114.3 1114.8 1115.4 1115.9 1116.4 1117.0 1117.4 1117.8 1118.4 1118.9 1119.4 1119.7 1119.9 1120.4 1120.8 1121.0 1121.5 1121.8

88+00 89+00 90+00 91+00 92+00 93+00 94+00 95+00 96+00 97+00 98+00

REFERENCE	STATION FROM	STATION TO	SIDE				QUANTITIES CARRIED TO SHEETS 104–107
202 Catch Basin Removed			Each	Lt	1	1	1
603 24" Conduit, Type C, 706.02			Lin.Ft.		6	6	6
604 Catch Basin, No. 4, As Per Plan			Each		1	1	1
D1	97+85			Lt	1		

M:\98028\AUTOCAD\SD8K-72PP08.DWG - SHEET 145 - May 03, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
111–124	Underdrain Quantities
288–302	Underdrain Details
313–316	NB Rest Area Details
322–325	SB Rest Area Details
378–387	Lighting Plan

N

Scale in Feet: 0, 50, 100

CALCULATED GCS 04/01

CHECKED BJR 04/01

REFERENCE	STATION FROM	STATION TO	SIDE					
202 Catch Basin Removed			Each	1				1
603 24" Conduit, Type C, 706.02			Lin.Ft.	6				6
604 Catch Basin, No. 4, As Per Plan			Each	1				1
D1	107+85		Lt	1				1

QUANTITIES CARRIED TO SHEETS 104-107

PLAN AND PROFILE SHEET STA. 98+00 TO STA. 110+00

WAY-71-0.28

146
432

M:\98023\AUTOCAD\SDSK-7\PP00.DWG - SHEET 146 - May 03, 2001

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
288–302	Underdrain Details
313–316	NB Rest Area Details
322–325	SB Rest Area Details
350	Overhead Sign Details
378–387	Lighting Plan

Scale in Feet: 0, 50, 100

CALCULATED GCS 04/01

CHECKED BJR 04/01

PROFILE SHEET TO STA. 122+00

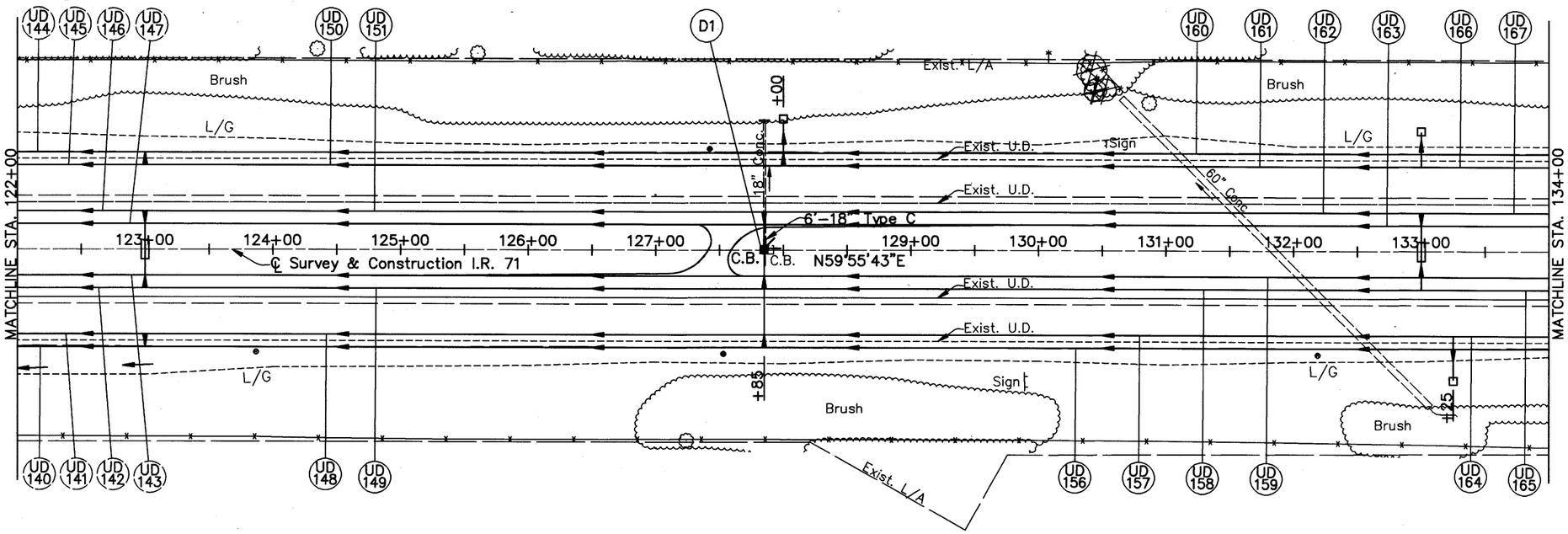
PLAN AND PROFILE STA. 110+00 TO STA. 122+00

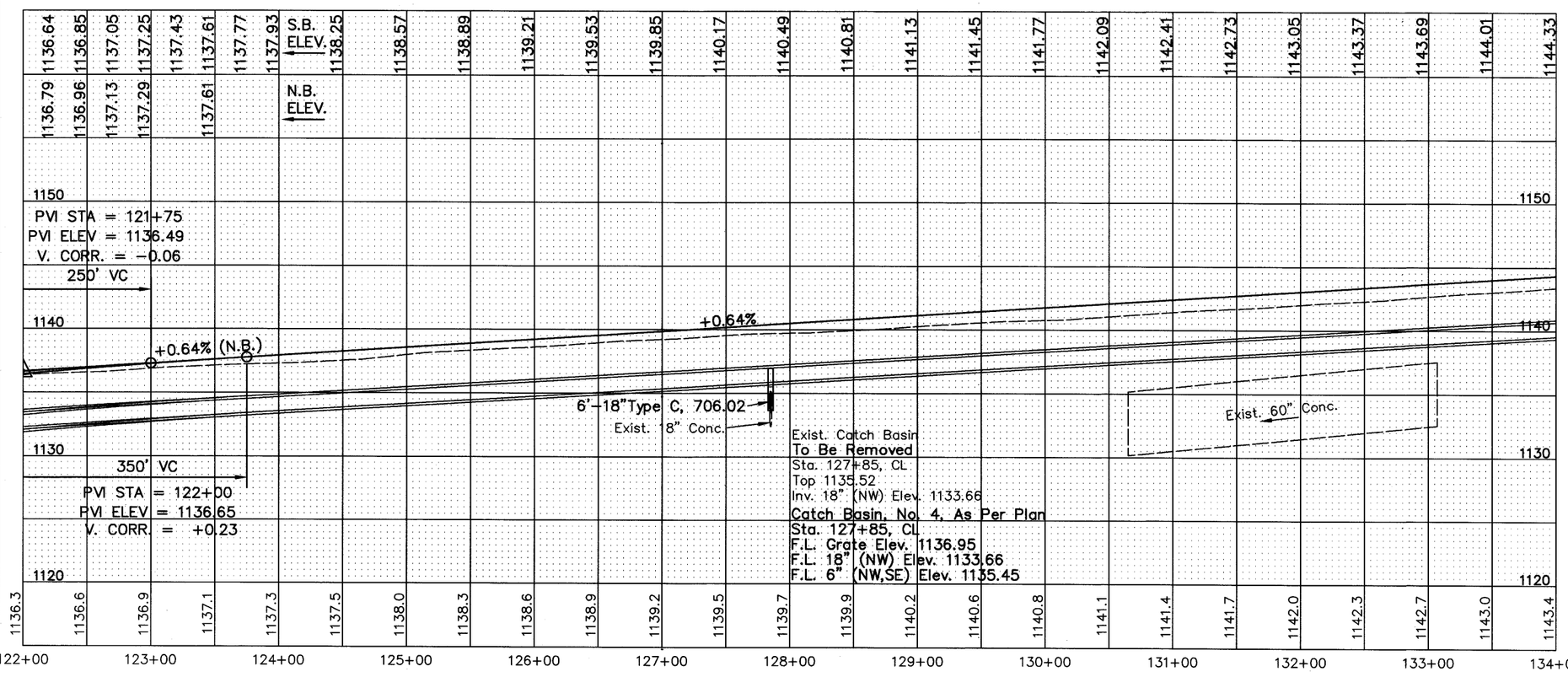
WAY-71-0.28

604	Manhole Adjusted To Grade	Each				1	1
604	Catch Basin, No. 4, As Per Plan	Each				1	2
603	15" Conduit, Type C	Lin.Ft.				84	104
202	Catch Basin Removed	Each				1	2
SIDE							
STATION FROM	STATION TO	SIDE					QUANTITIES CARRIED TO SHEETS 104–107
117+91	118+75	CL					
118+00		LT					
REFERENCE							
D1							
D2							

147/432

M:\90\02\AUTOCAD\SBK-72PP10.DWG - SHEET 147 - May 03, 2001





CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
111–124	Underdrain Quantities
288–302	Underdrain Details
362	Median Opening Detail

Scale in Feet: 0, 50, 100

CALCULATED GCS 04/01 CHECKED BJR 04/01

REFERENCE	STATION FROM	STATION TO	SIDE					
								QUANTITIES CARRIED TO SHEETS 104–107
D1	127+85		Lt.	1	6	Lin.Ft.	603	18" Conduit, Type C, 706.02
				1	1	Each	604	Catch Basin, No. 4, As Per Plan
				1	1	Each	202	Catch Basin Removed

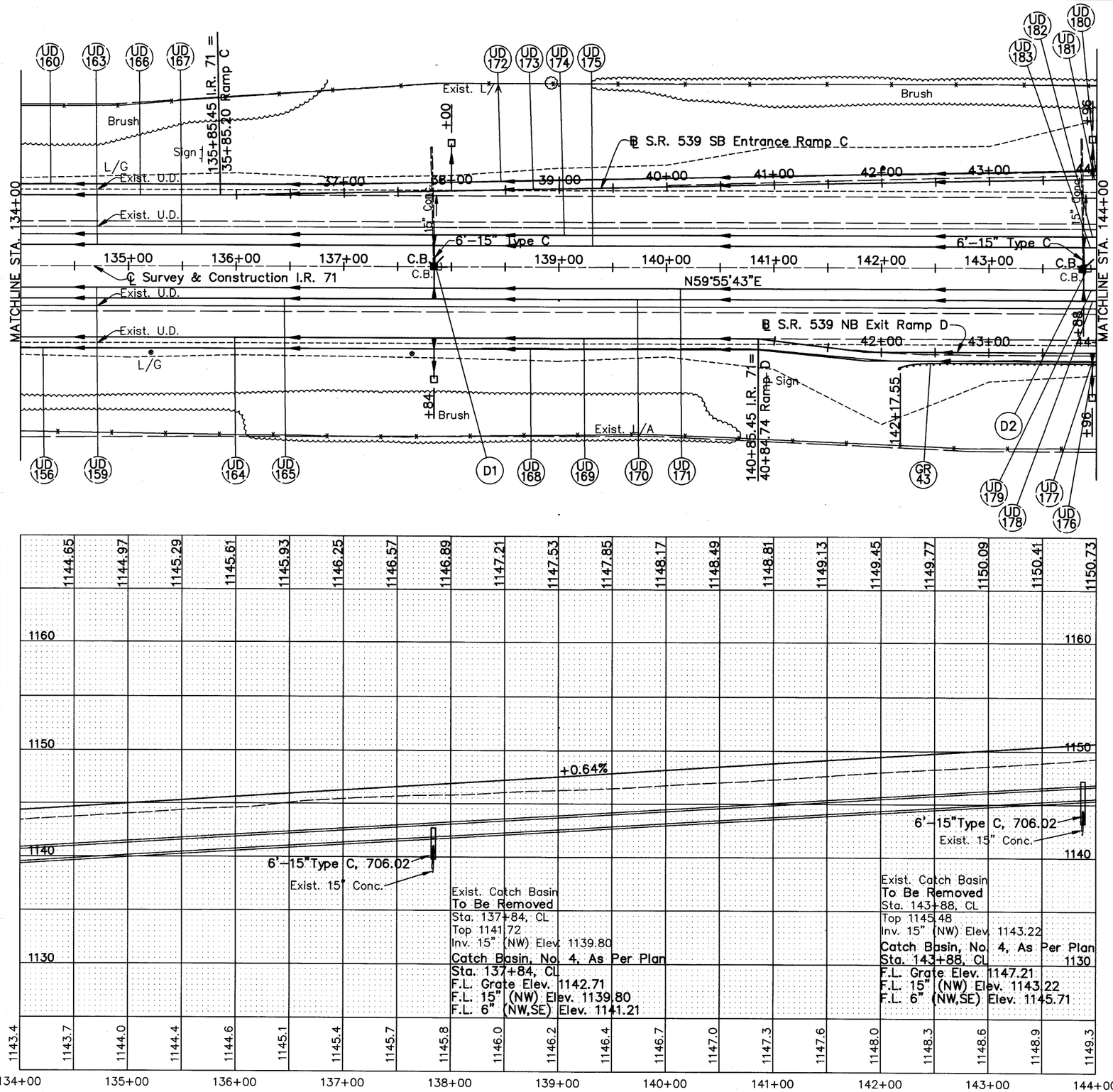
PROFILE SHEET TO STA. 134+00

PLAN AND PROFILE STA. 122+00 TO STA. 134+00

WAY-71-0.28

148
432

M:\99023\AUTOCAD\SBSK-72PP11.DWG - SHEET 148 - May 03, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
263–267	Ramp Plan & Profile
274–275	Ramp Details
288–302	Underdrain Details

Scale in Feet: 0, 50, 100

CALCULATED GCS 04/01
CHECKED BJR 04/01

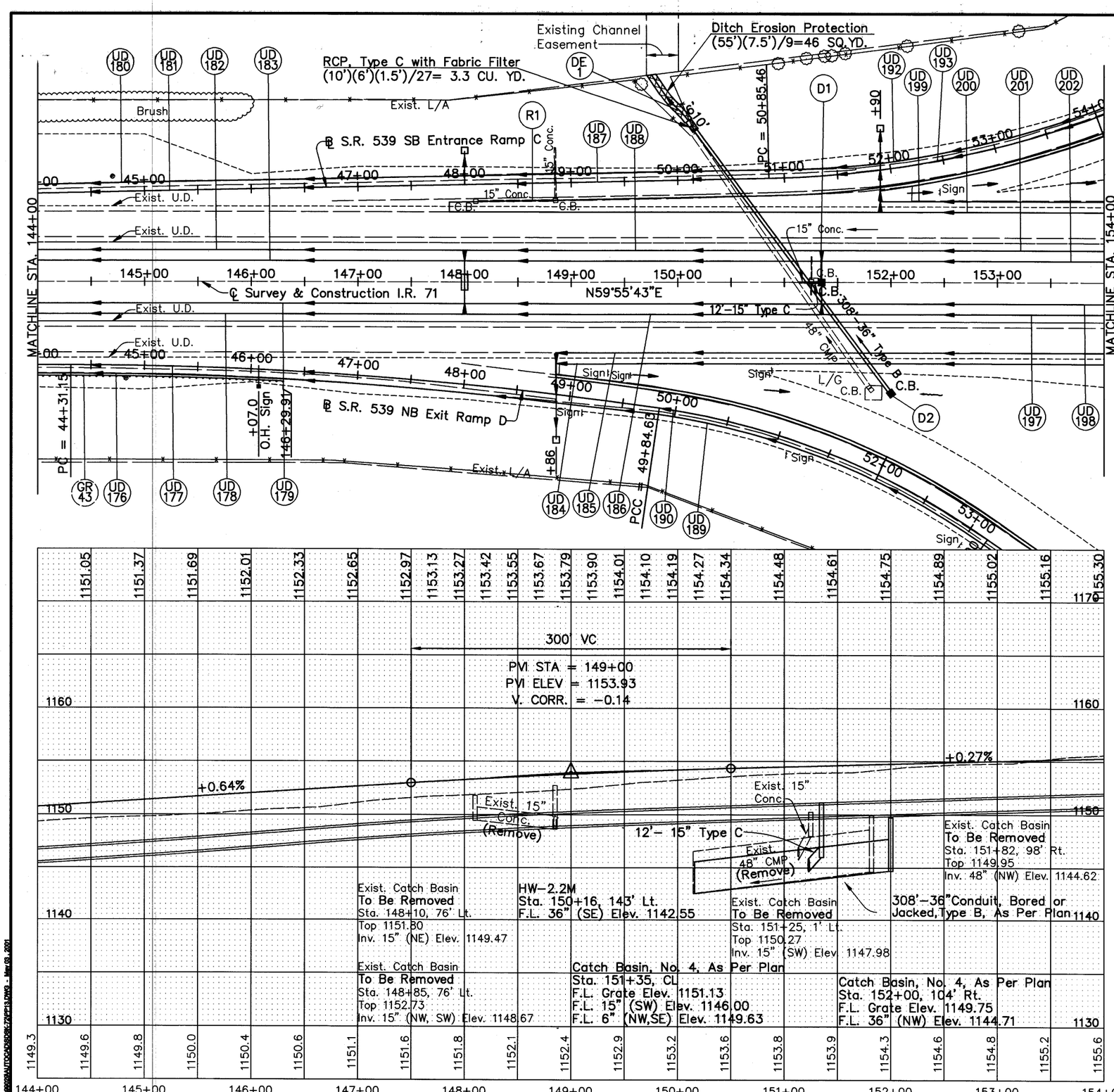
REFERENCE	STATION FROM	STATION TO	SIDE	202 Catch Basin Removed Each	603 15" Conduit, Type C, 706.02 Lin.Ft.	604 Catch Basin, No. 4, As Per Plan Each
D1	137+84		Lt	1	6	1
D2	143+88		Lt	1	6	1
QUANTITIES CARRIED TO SHEETS 104–107				2	12	2

PROFILE SHEET
TO STA. 144+00
PLAN AND PRO
STA. 134+00

WAY-71-0.28

149
432

M:\89020\AUTOCAD\DGN\C72PP12.DWG - SHEET 149 - May 09, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
263–267	Ramp Plan & Profile
274–275	Ramp Details
280	Culvert Details
288–302	Underdrain Details
350	Overhead Sign Details

REFERENCE	STATION FROM	STATION TO	SIDE	670 Ditch Erosion Protection Each Sq.Yd.	604 Catch Basin, No. 4, As Per Plan Each	603 Conduit, Bored Or Jacked: 36" Conduit,Type B, As Per Plan Lin.Ft.	603 15" Conduit, Type C Lin.Ft.	602 Concrete Masonry Cu.Yd.	601 Rock Channel Protection, Type C With Fabric Filter Cu.Yd.	203 Ditch Cleanout Lin.Ft.	202 Catch Basin Removed Each	202 Pipe Removed, Over 24" Lin.Ft.	202 Pipe Removed, 24" And Under Lin.Ft.
R1	148+10	148+85	Lt								2		124
D1	151+10	152+00	CL		1		12						14
D2	151+23		LR		1	308		0.7			1	290	
DE1	149+75	150+16	Lt	46					3.3	65			
QUANTITIES CARRIED TO SHEETS 104-107				46	2	308	12	0.7	3	65	4	290	138

CALCULATED GCS 04/01
CHECKED BJR 04/01

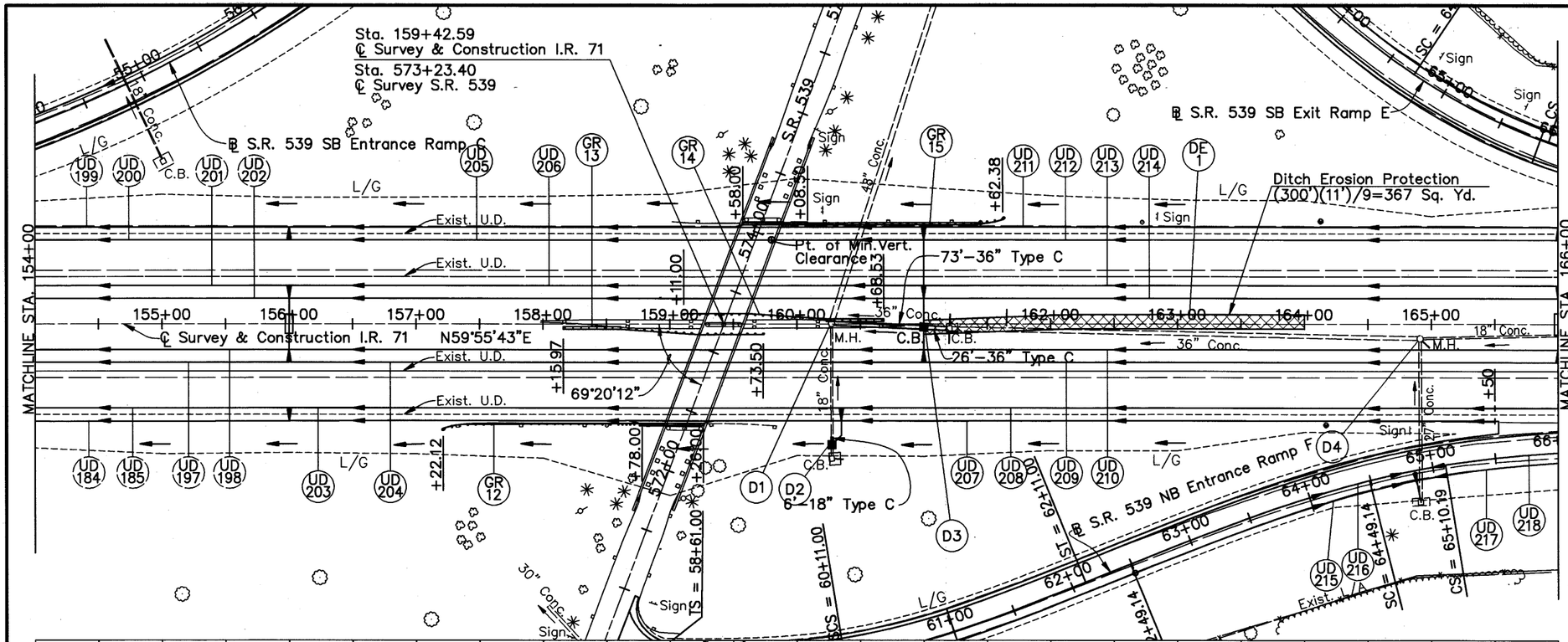
Scale in Feet: 0, 50, 100

PLAN AND PROFILE SHEET
STA. 144+00 TO STA. 154+00

WAY-71-0.28

150
432

M:\99999\AUTOCAD\BORE-72\P21.DWG - May 03, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
268–271	Ramp Plan & Profile
276–277	Ramp Details
288–302	Underdrain Details

Scale in Feet: 0, 50, 100

CALCULATED GCS 04/01
CHECKED BJR 04/01

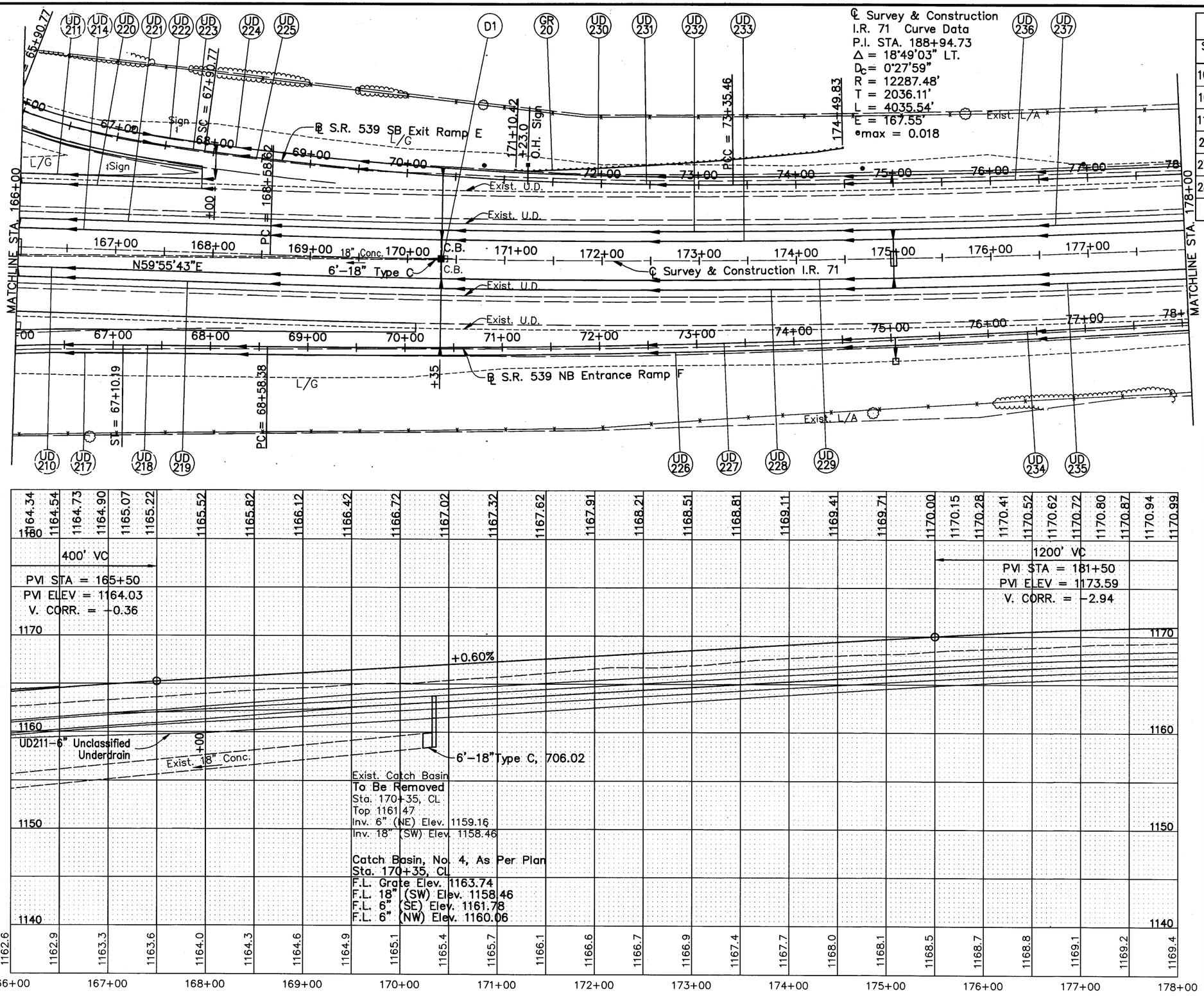
REFERENCE	STATION FROM	STATION TO	SIDE	670 Ditch Erosion Protection Lin.Ft.	604 Manhole Adjusted To Grade Each	604 Catch Basin, No. 4, As Per Plan Each	603 36" Conduit, Type C, 706.02 Lin.Ft.	603 36" Conduit, Type C Lin.Ft.	603 18" Conduit, Type C, 706.02 Lin.Ft.	202 Catch Basin Removed Each	202 Pipe Removed 24" And Under Lin.Ft.
D1	160+27		Lt			1					4
D2	160+27		Rt			1			6	1	4
D3	160+27	161+65	Rt			1	26	73			
D4	164+91		Rt		1						
DE1	161+00	164+00	Rt	367		2			6	2	4
QUANTITIES CARRIED TO SHEETS 104–107				367	2	2	26	73	6	2	4

PLAN AND PROFILE SHEET STA. 154+00 TO STA. 166+00

WAY-71-0.28

151
432

M:\SHEETS\AUTOCAD\BOOK72\PP143.DWG - SHEET 151 - May 03, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
268–271	Ramp Plan & Profile
276–277	Ramp Details
288–302	Underdrain Details
351	Overhead Sign Details

Scale in Feet: 0, 50, 100

CALCULATED GCS 04/01
CHECKED BJR 04/01

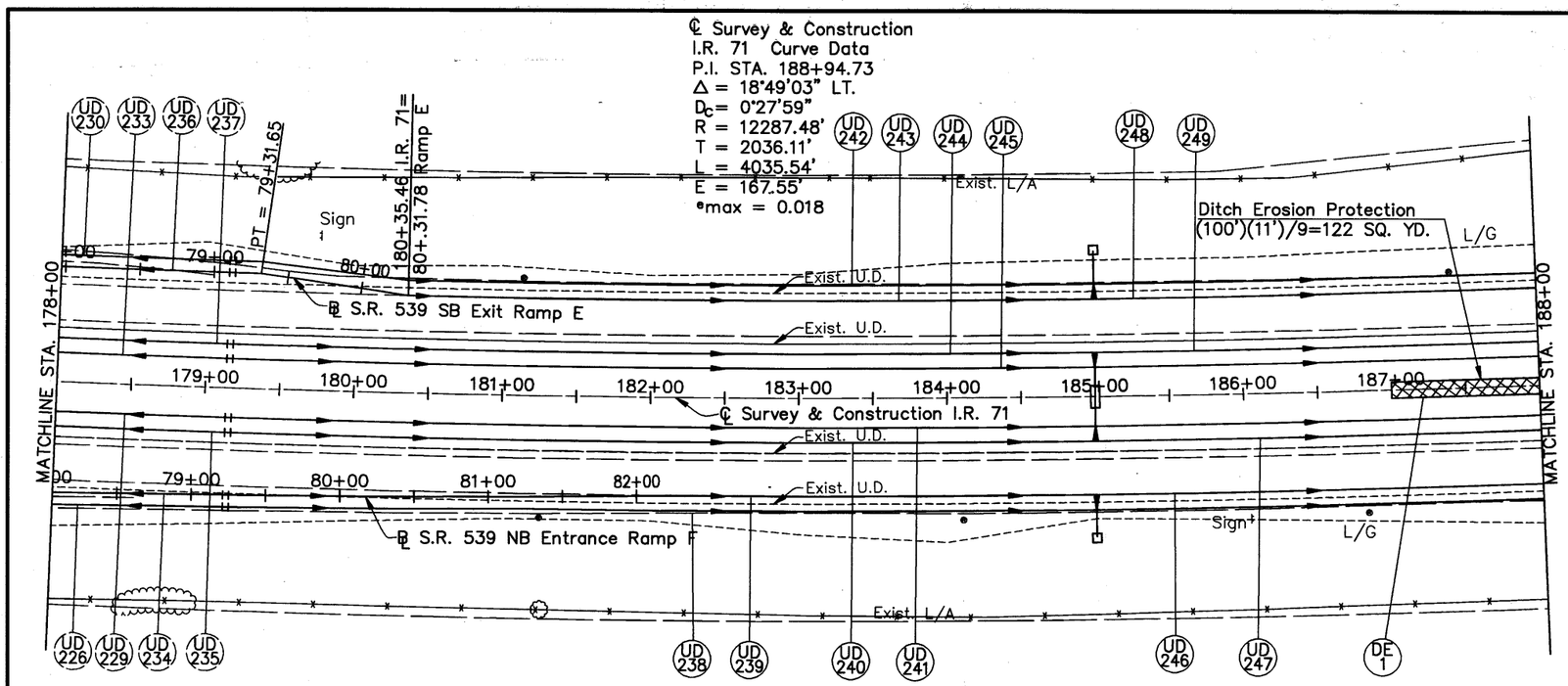
STATION FROM	STATION TO	SIDE					
REFERENCE							
D1	170+35	Lt	1	6	603	18" Conduit, Type C, 706.02	Lin.Ft.
			1	1	604	Catch Basin, No. 4, As Per Plan	Each
			1	6	202	Catch Basin Removed	Each
QUANTITIES CARRIED TO SHEETS 104–107							

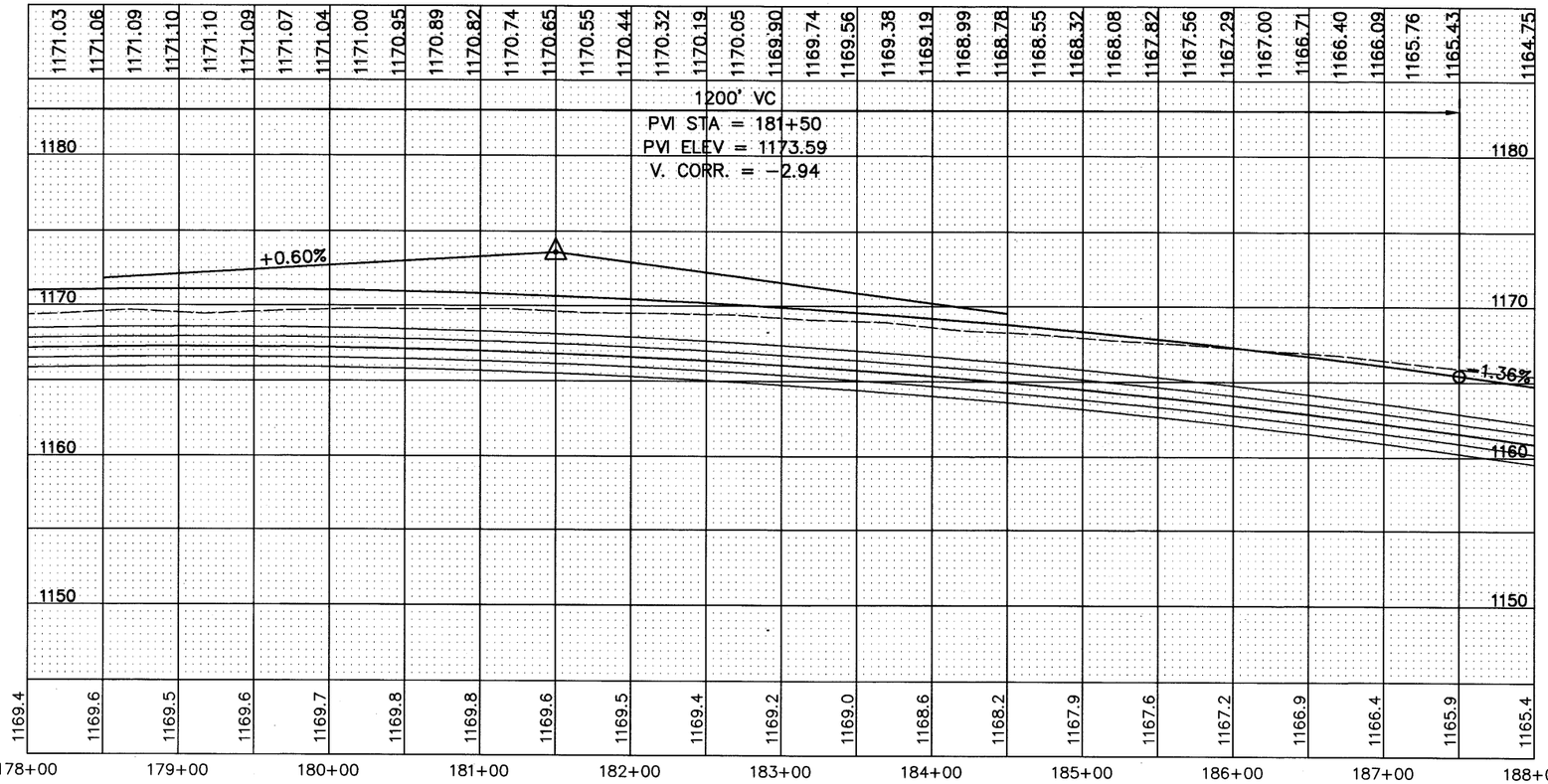
PLAN AND PROFILE SHEET STA. 166+00 TO STA. 178+00

WAY-71-0.28

152
432

M:\WORDS\AUTOCAD\SIGN\72PP15.DWG - SHEET 152 - May 03, 2001





CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
111–124	Underdrain Quantities
268–271	Ramp Plan & Profile
276–277	Ramp Details
288–302	Underdrain Details

Scale in Feet: 0, 50, 100

CALCULATED QCS 04/01
CHECKED BJR 04/01

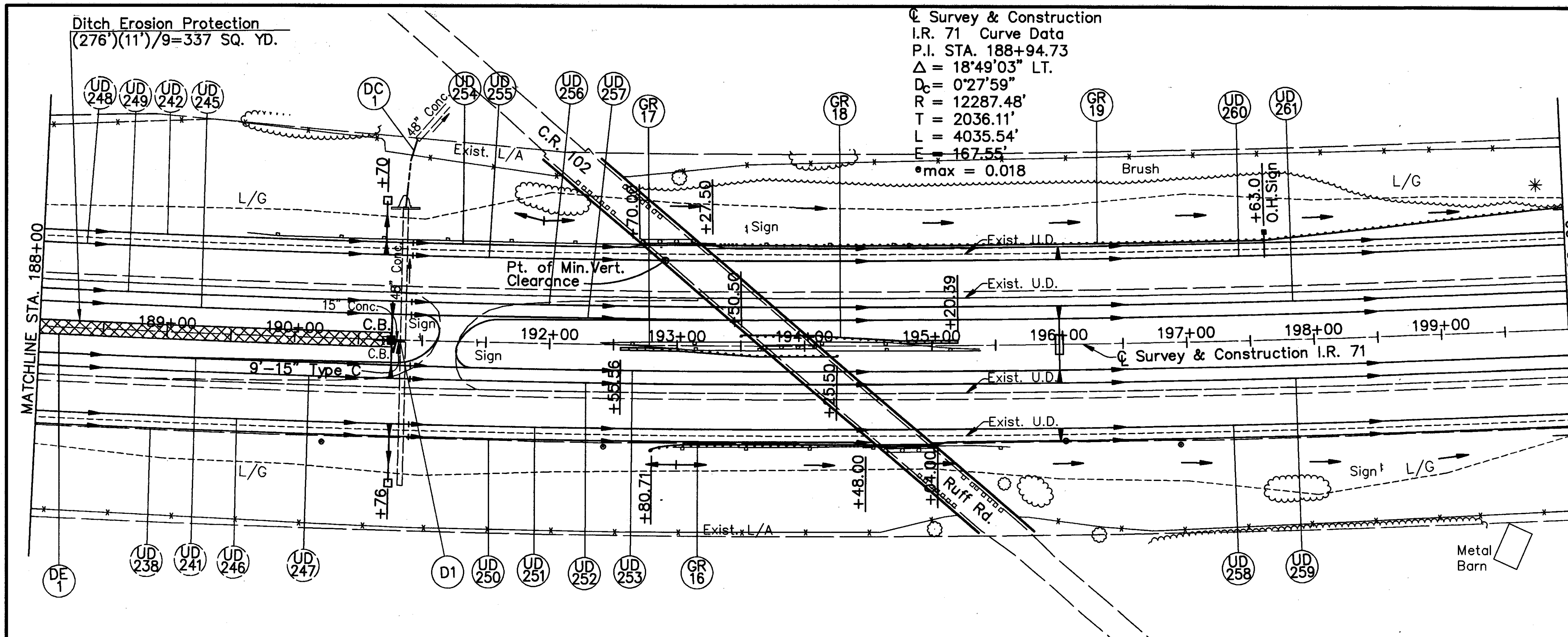
REFERENCE	STATION FROM	STATION TO	SIDE	670 Ditch Erosion Protection Sq.Yd.
DE1	187+00	188+00	CL	122
QUANTITIES CARRIED TO SHEETS 104–107				122

PLAN AND PROFILE SHEET STA. 178+00 TO STA. 188+00

WAY–71–0.28

153
432

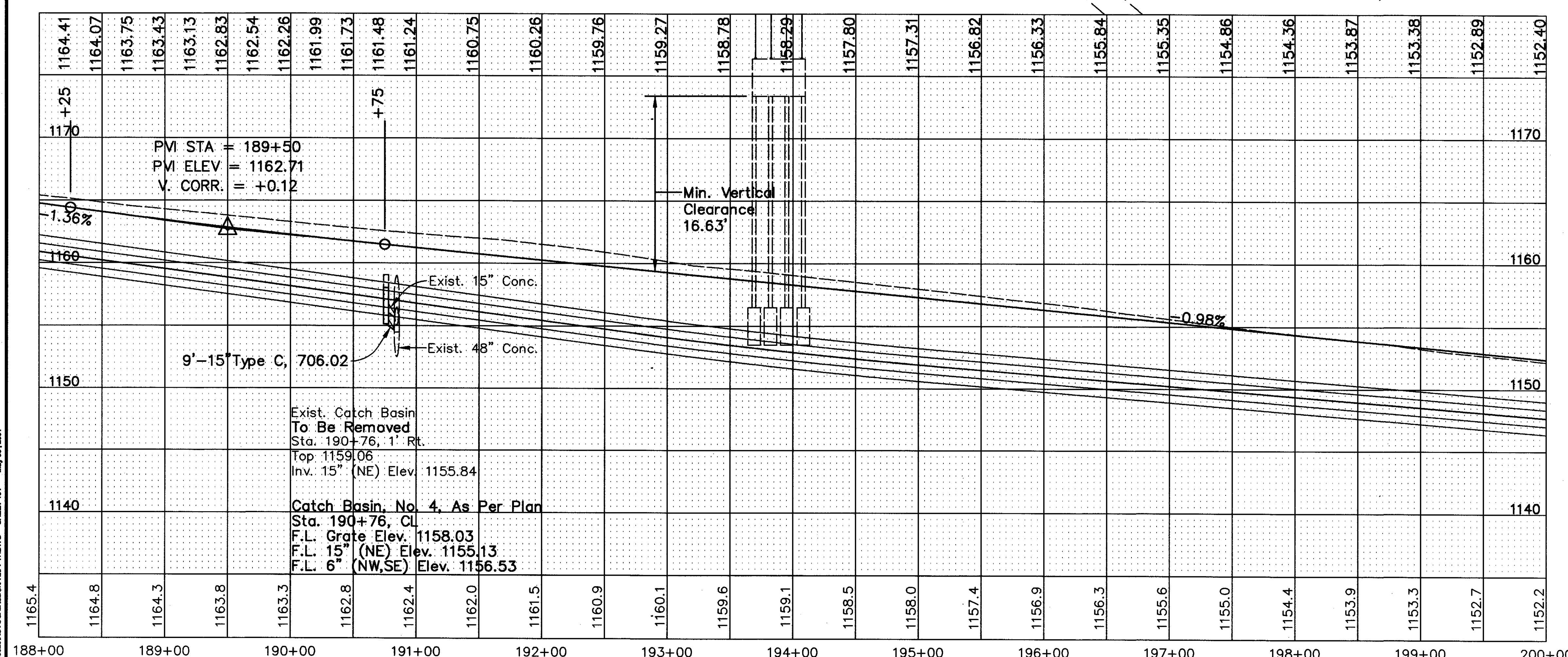
M:\900\DGN\AUTOCAD\900K72\PP18.DWG - SHEET 153 - May 03, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
288–302	Underdrain Details
351	Overhead Sign Details
362	Median Opening Detail

0 50 100 Scale in Feet

CALCULATED GCS 04/01 CHECKED BJR 04/01

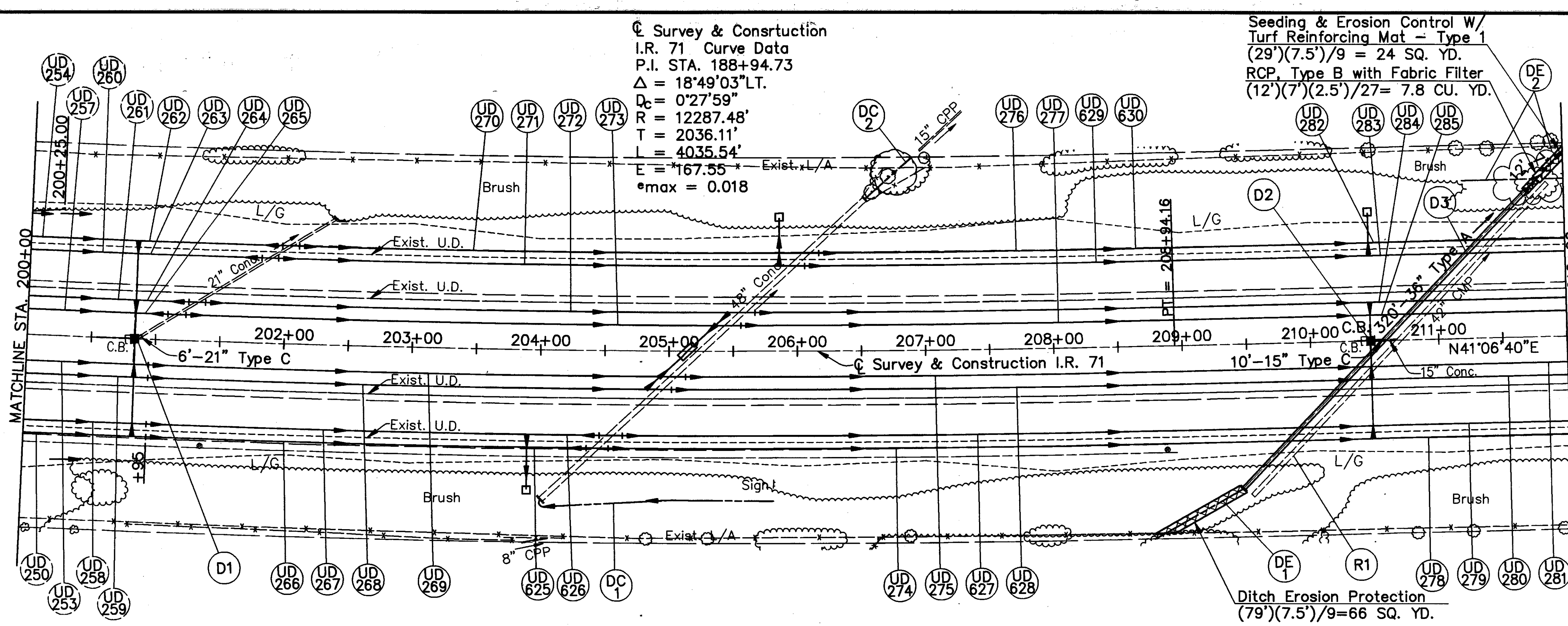


REFERENCE	STATION FROM	STATION TO	SIDE	202 Catch Basin Removed (Each)	203 Ditch Cleanout (Lin.Ft.)	603 15" Conduit, Type C, 706.02 (Lin.Ft.)	604 Catch Basin, No. 4, As Per Plan (Each)	670 Ditch Erosion Protection (Sq.Yd.)
D1	190+76	190+85	Rt	1		9	1	
DC1	190+83	190+92	Lt		53.7			
DE1	188+00	190+76	CL					337
QUANTITIES CARRIED TO SHEETS 104–107				1	54	9	1	337

PLAN AND PROFILE SHEET
STA. 188+00 TO STA. 200+00

WAY–71–0.28

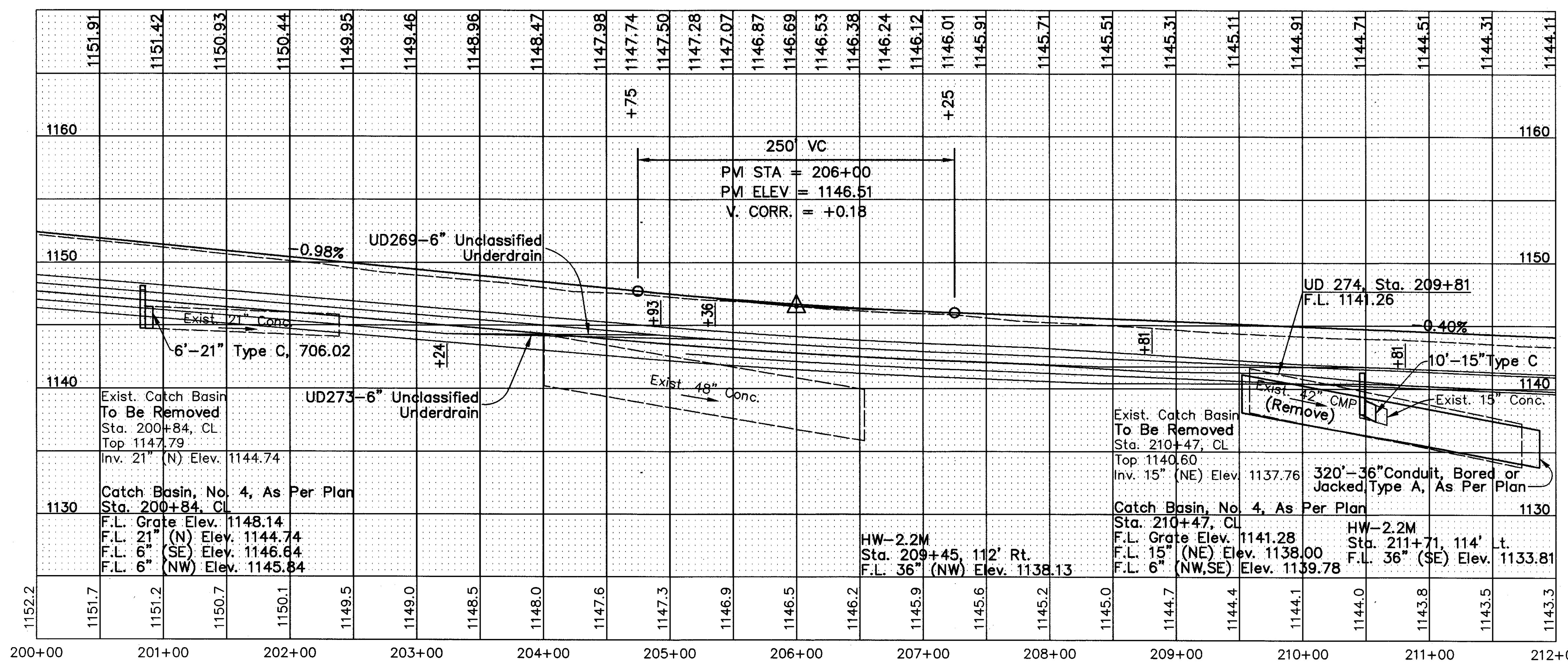
M:\99029\AUTOCAD\SDSK-72\PP17.DWG - SHEET 154 - May 08, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
111–124	Underdrain Quantities
281	Culvert Details
288–302	Underdrain Details

0 50 100 Scale in Feet

CALCULATED GCS 04/01
CHECKED BJR 04/01



Item	Description	Unit	D1	D2	D3	DC1	DC2		DE1	DE2		R1	QUANTITIES CARRIED TO SHEETS 104–107
840	Eros.Contr., Misc.: Seed. & Eros. Contr. W/Turf. Reinf.Mat. Type 1	Sq.Yd.								24			24
670	Ditch Erosion Protection	Sq.Yd.							66				66
604	Catch Basin, No. 4, As Per Plan	Each	1	1									2
603	Conduit, Bored, Or Jacked: 36" Conduit, Type A As Per Plan	Lin.Ft.			320								320
603	21" Conduit, Type C, 706.02	Lin.Ft.	6										6
603	15" Conduit, Type C	Lin.Ft.		10									10
602	Concrete Masonry	Cu.Yd.			1.4								1.4
601	Rock Channel Protection, Type B With Fabric Filter	Cu.Yd.			7.8								8
203	Ditch Cleanout	Lin.Ft.				180	48		79	120			427
202	Catch Basin Removed	Each	1	1									2
202	Pipe Removed, Over 24"	Lin.Ft.										334	334
202	Pipe Removed, 24" And Under	Lin.Ft.		10									10
	SIDE		CL	Lt	LR	Rt	Lt		Rt	Lt		LR	
	STATION FROM		200+84	210+47	210+57	204+01	206+54		208+75	211+21		209+52	
	STATION TO					205+81	206+90		209+44	212+00		211+87	
	REFERENCE		D1	D2	D3	DC1	DC2		DE1	DE2		R1	

PLAN AND PROFILE SHEET
STA. 200+00 TO STA. 212+00

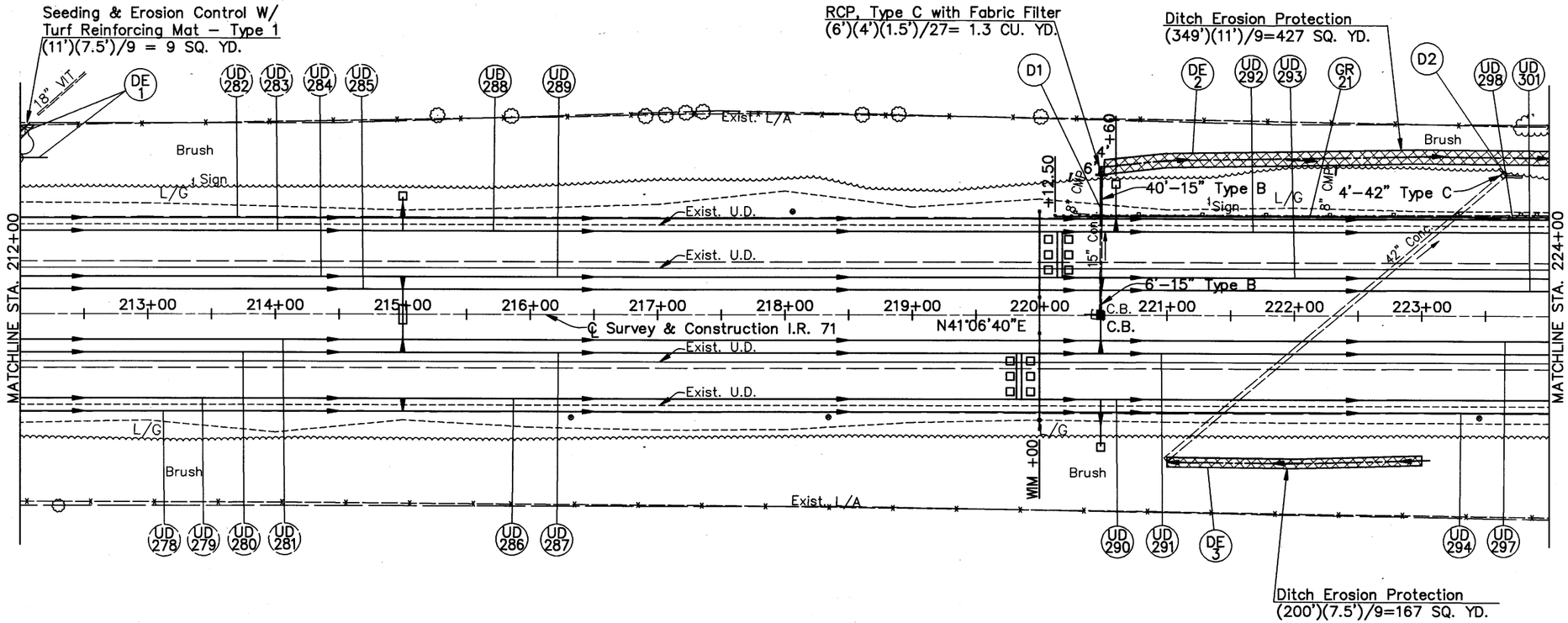
WAY–71–0.28

M:\99029\AUTOCAD\SDSK-72\PP18.DWG - SHEET 155 ~ May 08, 2001

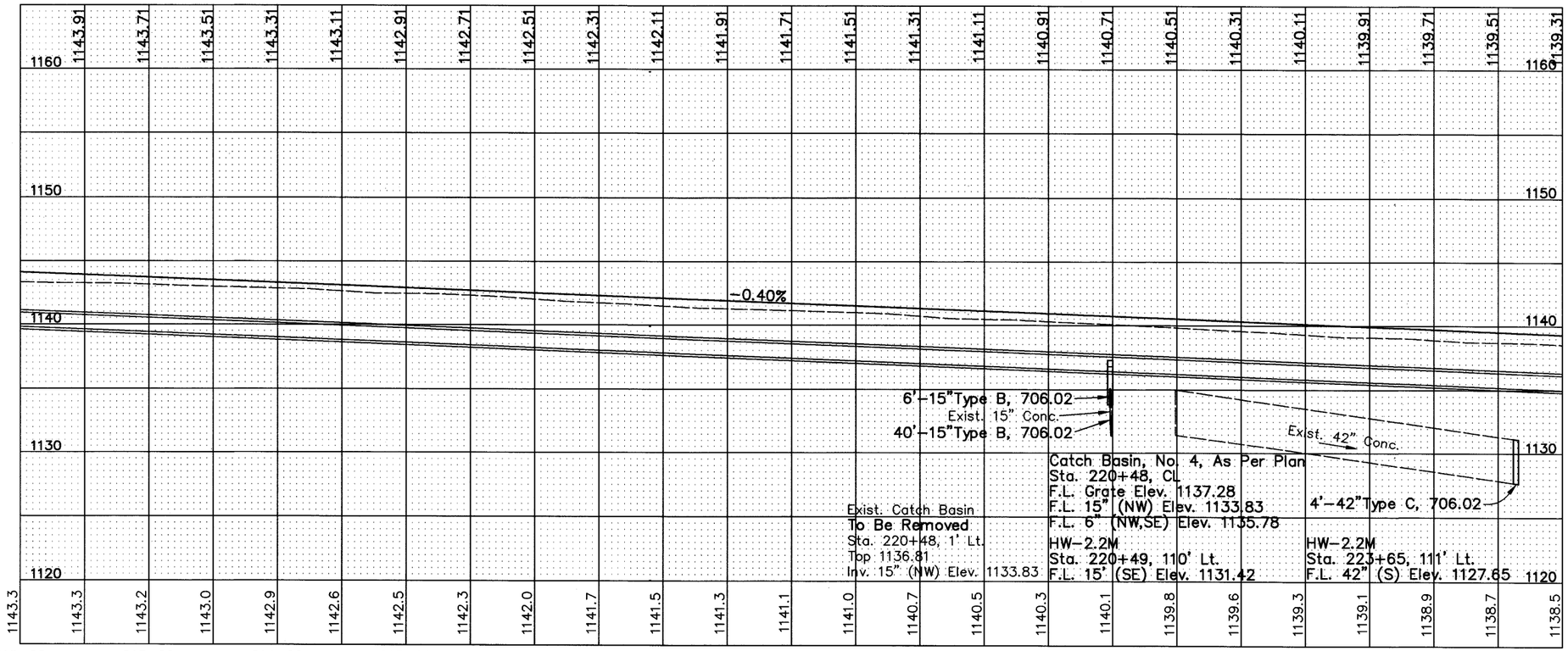
Seeding & Erosion Control W/
Turf Reinforcing Mat – Type 1
(11')(7.5')/9 = 9 SQ. YD.

RCP, Type C with Fabric Filter
(6')(4')(1.5')/27= 1.3 CU. YD.

Ditch Erosion Protection
(349')(11')/9=427 SQ. YD.



Ditch Erosion Protection
(200')(7.5')/9=167 SQ. YD.



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
288–302	Underdrain Details
375–377	WIM Details

Scale in Feet: 0, 50, 100

CALCULATED GCS 04/01
CHECKED BJR 04/01

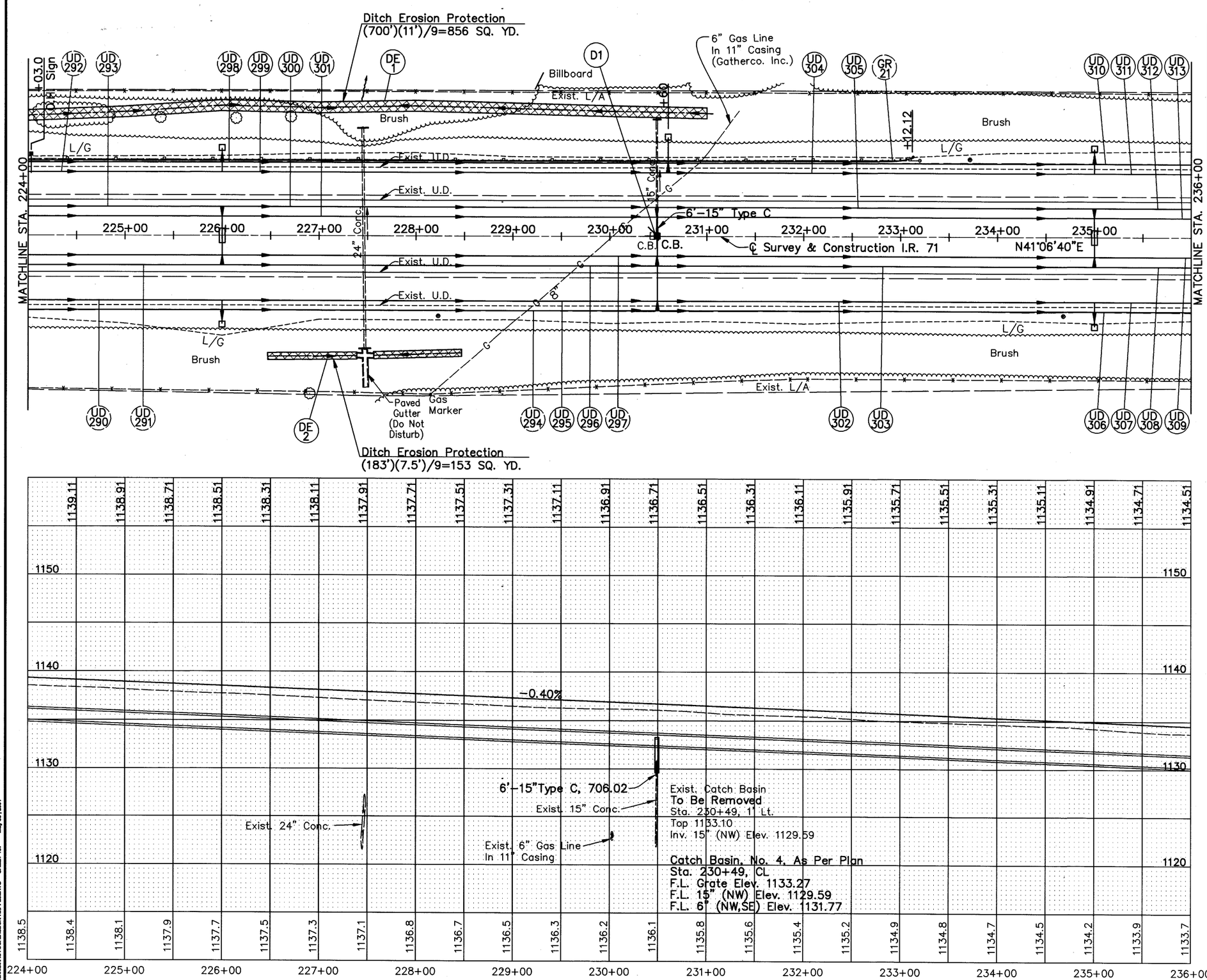
REFERENCE	STATION FROM	STATION TO	SIDE	202 Removal Misc.: Headwall Each	202 Catch Basin Removed Each	203 Ditch Cleanout Lin.Ft.	601 Rock Channel Protection, Type C With Fabric Filter Cu.Yd.	602 Concrete Masonry Cu.Yd.	603 15" Conduit, Type B, 706.02 Lin.Ft.	603 42" Conduit, Type C, 706.02 Lin.Ft.	604 Catch Basin, No. 4, As Per Plan Each	670 Ditch Erosion Protection Sq.Yd.	840 Eros.Contr., Misc.: Seed. & Eros. Contr. W/Turf. Reinf.Mat. Type 1 Sq.Yd.
D1	220+48		Lt	1	1		1.3	0.3	46		1		
D2	223+65		Lt					0.8		4			9
DE1	212+00	212+21	Lt			32							
DE2	220+51	224+00	Lt			349						427	
DE3	221+00	223+00	Rt			200						167	
QUANTITIES CARRIED TO SHEETS 104–107				1	1	581	1	1.1	46	4	1	594	9

PLAN AND PROFILE SHEET STA. 212+00 TO STA. 224+00

WAY–71–0.28

156
432

M:\WORK\AUTOCAD\BSDR-72PP19.DWG - SHEET 156 - May 09, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
288–302	Underdrain Details
351	Overhead Sign Details

Scale in Feet: 0, 50, 100

CALCULATED GCS 04/01
CHECKED BJR 04/01

SIDE									
670	Ditch Erosion Protection	Sq.Yd.					856	153	1009
604	Catch Basin, No. 4, As Per Plan	Each	1						1
603	15" Conduit, Type C, 706.02	Lin.Ft.		6					6
203	Ditch Cleanout	Lin.Ft.					700	183	883
202	Catch Basin Removed	Each	1						1

STATION FROM	STATION TO	SIDE	QUANTITIES CARRIED TO SHEETS 104–107						
230+49		Lt.	1	6	1				
224+00	231+00	Lt.				1	700		883
226+47	228+47	Rt.						183	183

REFERENCE

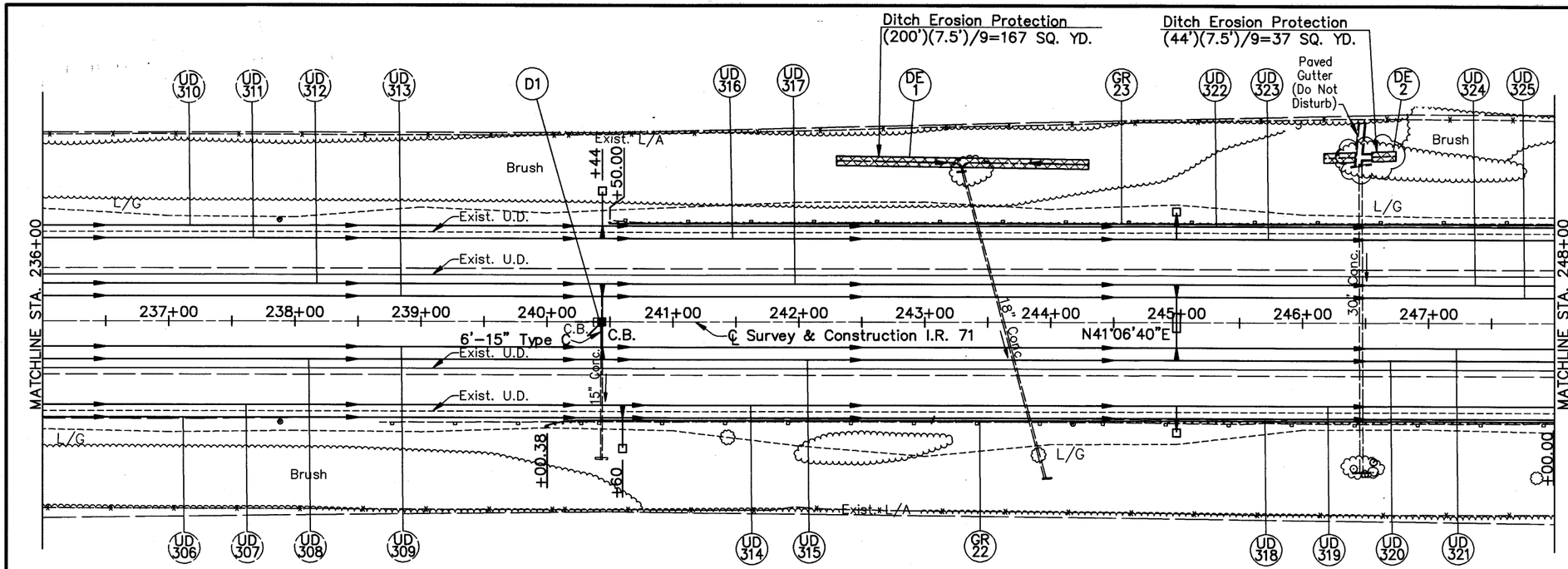
D1
DE1
DE2

PLAN AND PROFILE SHEET STA. 224+00 TO STA. 236+00

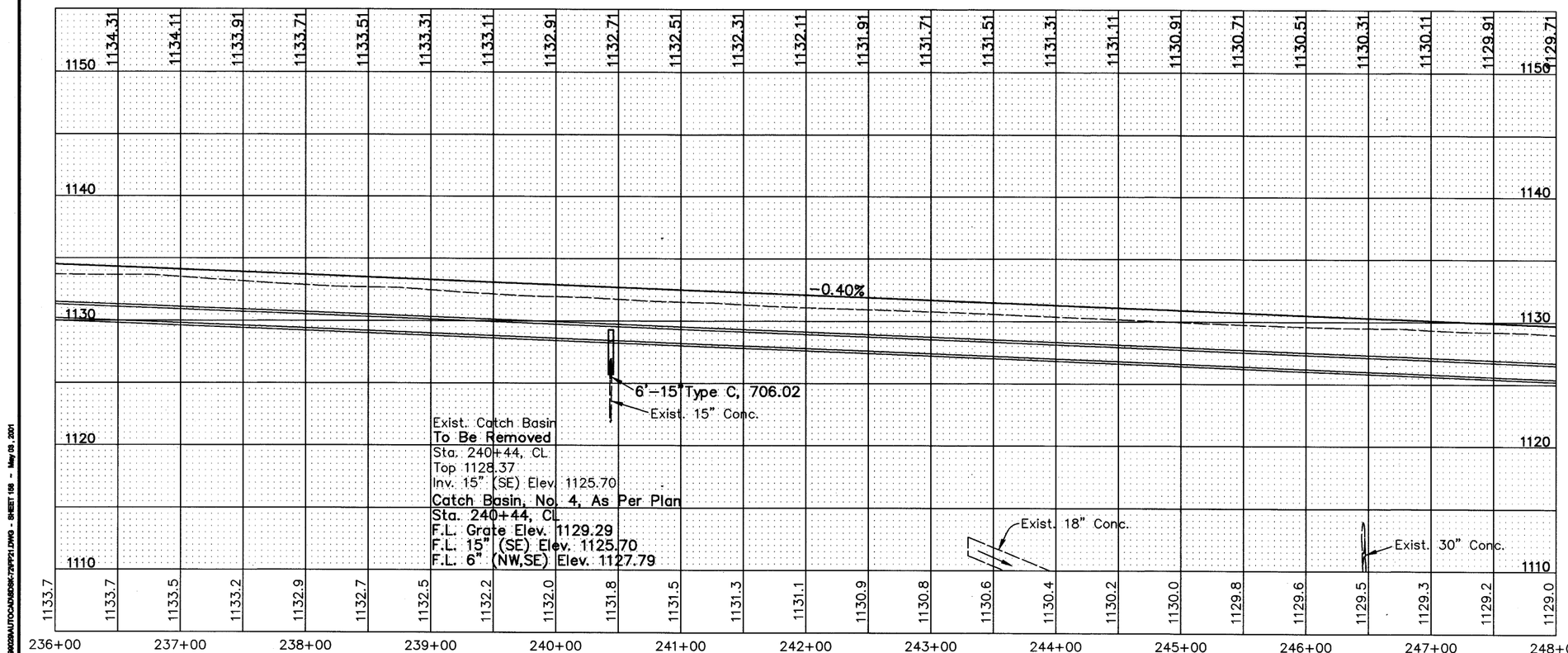
WAY-71-0.28

157
432

M:\98028\AUTOCAD\98028C-72PP02.DWG - SHEET 157 - May 03, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
288–302	Underdrain Details



REFERENCE	STATION FROM	STATION TO	SIDE	202 Catch Basin Removed Each	203 Ditch Cleanout Lin.Ft.	603 15" Conduit, Type C, 706.02 Lin.Ft.	604 Catch Basin, No. 4, As Per Plan Each	670 Ditch Erosion Protection Sq.Yd.
D1	240+44		Lt	1		6	1	
DE1	242+30	244+30	Lt		200			167
DE2	246+17	246+74	Lt		44			37
QUANTITIES CARRIED TO SHEETS 104–107				1	244	6	1	204

0 50 100 Scale in Feet

CALCULATED GCS 04/01 CHECKED BJR 04/01

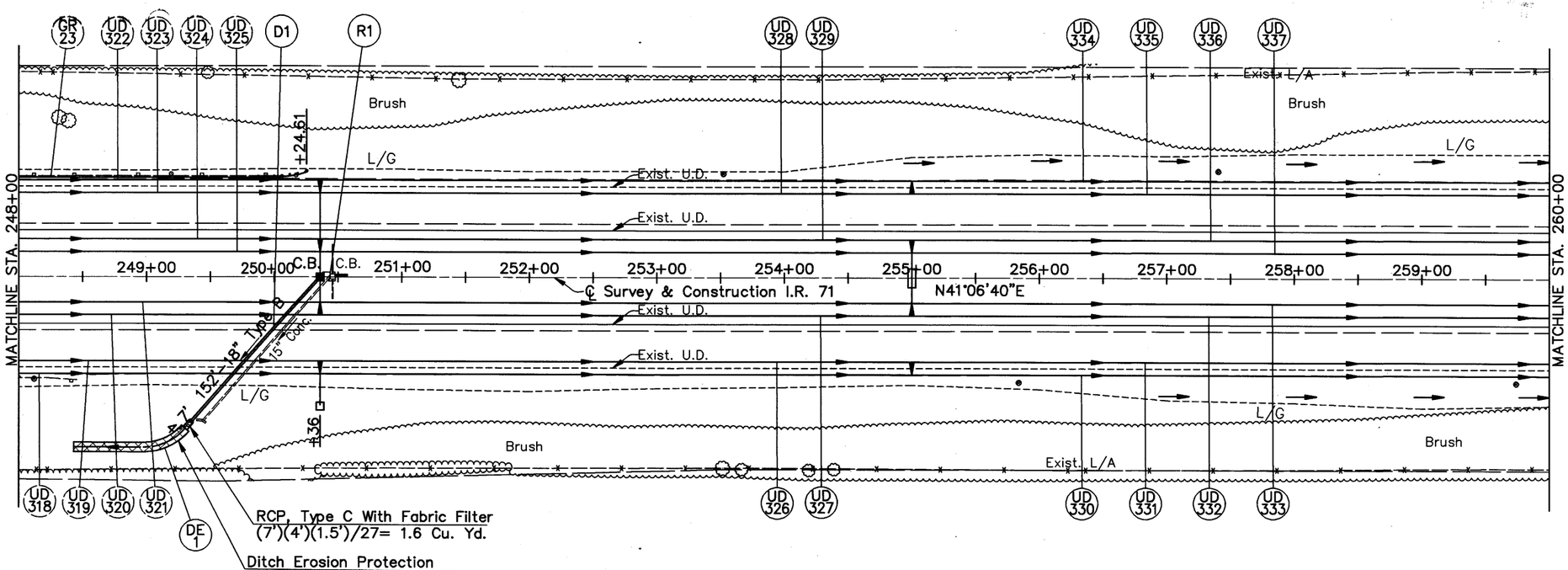
PLAN AND PROFILE SHEET STA. 236+00 TO STA. 248+00

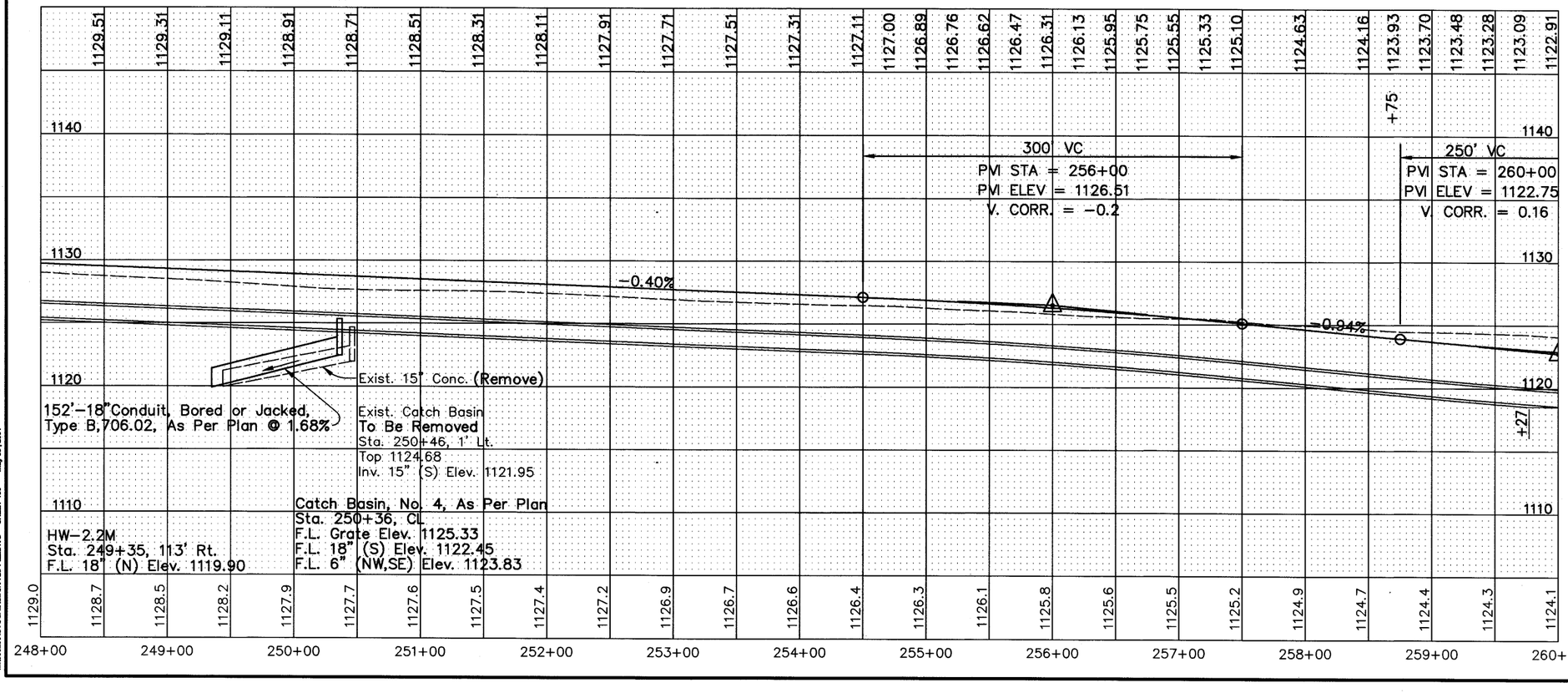
WAY-71-0.28

158 432

M:\WK028\AUTOCAD\BDK72\PP21.DWG - SHEET 158 - May 03, 2001

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
288–302	Underdrain Details





REFERENCE	STATION FROM	STATION TO	SIDE	202 Pipe Removed, 24" And Under Lin.Ft.	202 Catch Basin Removed Each	202 Removal Misc.: Headwall Each	203 Ditch Cleanout Lin.Ft.	601 Rock Channel Protection, Type C With Fabric Filter Cu.Yd.	602 Concrete Masonry Cu.Yd.	603 Conduit, Bored Or Jacked: 18" Conduit, Type B As Per Plan Lin.Ft.	604 Catch Basin, No. 4, As Per Plan Each	670 Ditch Erosion Protection Sq.Yd.
D1	249+35	250+36	Rt					1.6	0.3	152	1	
R1	249+44	250+46	Rt	152	1	1						
DE1	248+43	249+30	Rt				92					77
QUANTITIES CARRIED TO SHEETS 104–107				152	1	1	92	2	0.3	152	1	77

Scale in Feet: 0, 50, 100

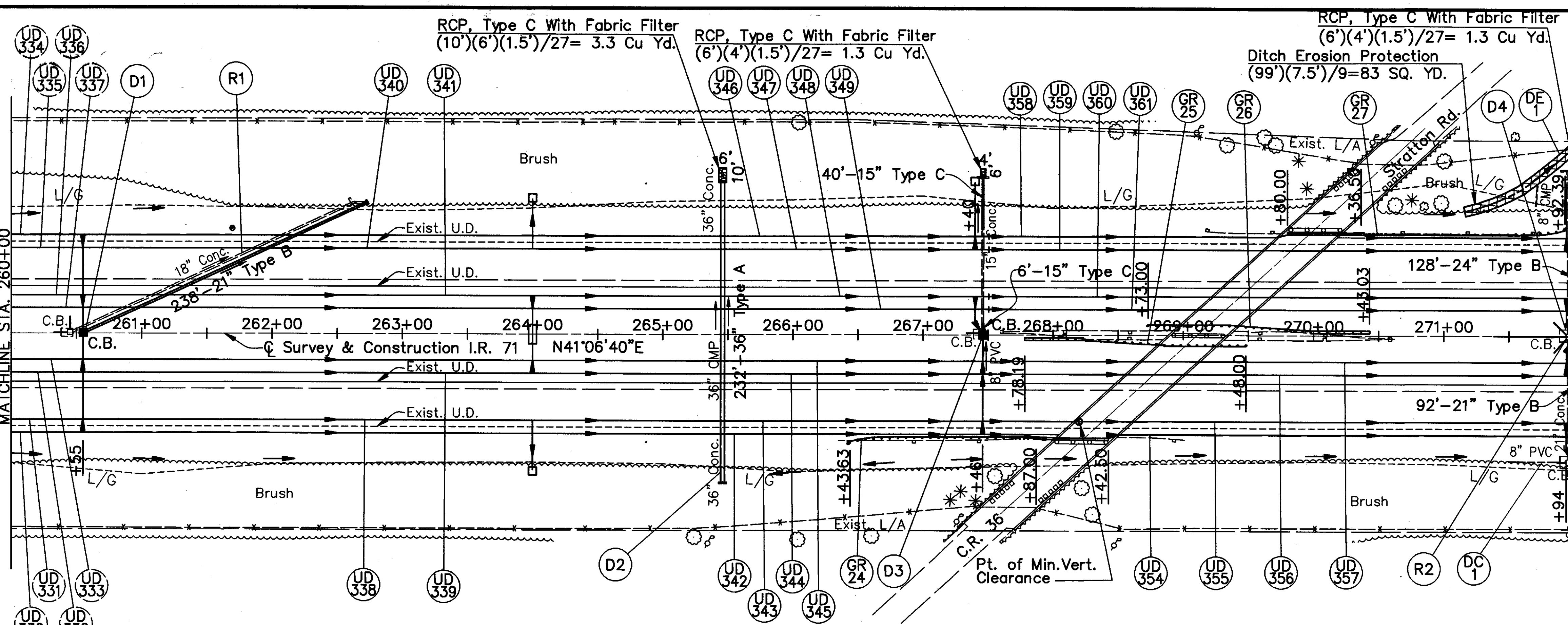
CALCULATED GCS 04/01
CHECKED BJR 04/01

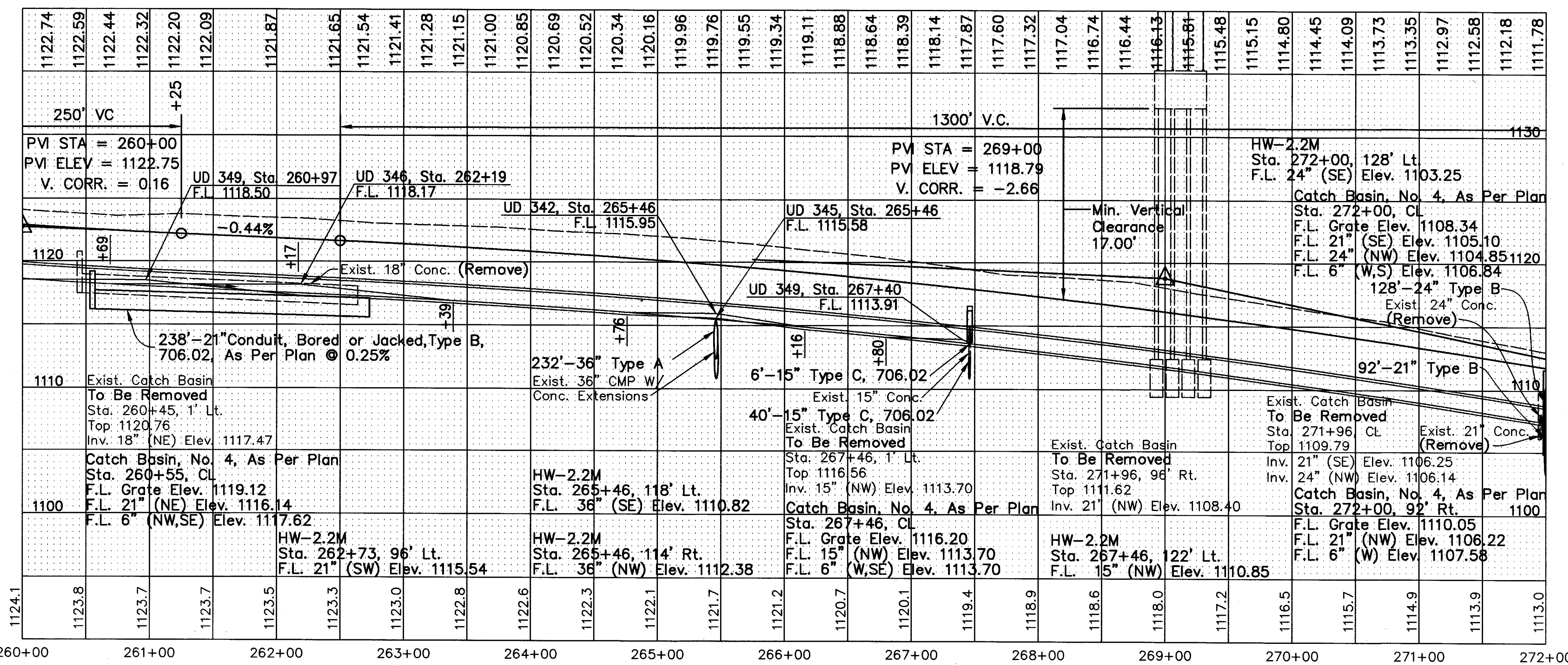
PLAN AND PROFILE SHEET STA. 248+00 TO STA. 260+00

WAY-71-0.28

159
432

M:\MODOAUTOCAD\BOK-73\PP2.DWG - SHEET 159 - May 03, 2001





CROSS REFERENCES

SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
282	Culvert Details
288–302	Underdrain Details

Item	Description	Unit	D1	D2	D3	D4	DC1	DE1	R1	R2	QUANTITIES CARRIED TO SHEETS 104–107
670	Ditch Erosion Protection	Sq.Yd.						83			83
604	Catch Basin, No. 4, As Per Plan	Each	1		1	2					4
603	Conduit, Bored, Or Jacked: 21" Conduit, Type B As Per Plan	Lin.Ft.	238								238
603	36" Conduit, Type A	Lin.Ft.		232							232
603	24" Conduit, Type B	Lin.Ft.				128					128
603	21" Conduit, Type B	Lin.Ft.				92					92
603	15" Conduit, Type C, 706.02	Lin.Ft.			46						46
602	Concrete Masonry	Cu.Yd.	0.4	1.4	0.3	0.4					2.5
601	Rock Channel Protection, Type C With Fabric Filter	Cu.Yd.		3.3	1.3	1.3					6
203	Ditch Cleanout	Lin.Ft.					50	99			149
202	Removal Misc.: Headwall	Each			1				1	1	3
202	Catch Basin Removed	Each			1				1	2	4
202	Pipe Removed, 24" And Under	Lin.Ft.							241	224	465
SIDE			Lt	LR	Lt	LR	Rt	Lt	Lt	LR	
STATION	FROM		260+55	265+46	267+46	272+00	271+39	271+16	260+45	271+96	
STATION	TO		262+73				271+89	272+00	262+64		
REFERENCE			D1	D2	D3	D4	DC1	DE1	R1	R2	

Scale in Feet: 0 50 100

CALCULATED GCS 04/01 CHECKED BJR 04/01

PLAN AND PROFILE SHEET
STA. 260+00 TO STA. 272+00

WAY-71-0.28

M:\96029\AUTOCAD\SDSK-72\PP23.DWG - SHEET 160 - May 03, 2001

℄ Survey & Construction
I.R. 71 Curve Data
P.I. STA. 284+22.66
Δ = 07°18'07" LT.
Dc = 0°27'57"
R = 12302.56'
T = 785.00'
L = 1567.88'
E = 25.02'
emax = 0.018

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
111–124	Underdrain Quantities
288–302	Underdrain Details

Scale in Feet: 0, 50, 100

CALCULATED GCS 04/01
CHECKED BJR 04/01

MATCHLINE STA. 272+00

MATCHLINE STA. 284+00

24" Conc.

L/G

Brush

128'–24" Type B

92'–21" Type B

6" PVC

C.B.

N41°06'40"E

PC = 276+37.66

±90

±80

±95

Exist. U.D.

Exist. L/A

℄ Survey & Construction I.R. 71

283+00
15" Conc.

205'–18" Type C

Ditch Erosion Protection
(595')(11')/9=727 SQ. YD.

UD 366, UD 367, UD 363, UD 374, UD 375, UD 376, UD 377, UD 369, D1, UD 382, UD 383, UD 390, UD 393

UD 364, UD 365, UD 362, UD 370, UD 371, UD 372, UD 373, DE 1, UD 368, UD 380, UD 381, UD 386, UD 389

1300' V.C.
PVI STA = 269+00
PVI ELEV = 1118.79
V. CORR. = −2.66

−2.08%

Catch Basin, No. 4, As Per Plan
Sta. 272+00, 92' Rt.
F.L. Grate Elev. 1110.05
F.L. 21" (NW) Elev. 1106.22

Catch Basin, No. 4, As Per Plan
Sta. 272+00, CL
F.L. Grate Elev. 1108.34
F.L. 21" (SE) Elev. 1105.10
F.L. 24" (NW) Elev. 1104.85

HW–2.2M
Sta. 272+00, 128' Lt.
F.L. 24" (SE) Elev. 1103.25

Exist. Catch Basin
To Be Removed
Sta. 281+95, 1' Rt.
Top 1088.62
Inv. 15" (NE) Elev. 1085.82

Catch Basin, No. 4, As Per Plan
Sta. 281+95, CL
F.L. Grate Elev. 1088.07
F.L. 18" (NE) Elev. 1085.34
F.L. 6" (SE) Elev. 1086.57
F.L. 6" (NW) Elev. 1086.12

205'–18" Type C @ 2.11%

Exist. 15" Conc. (Remove)

1111.37, 1110.94, 1110.51, 1110.08, 1109.63, 1109.18, 1108.72, 1108.25, 1107.77, 1107.29, 1106.80, 1106.30, 1105.79, 1105.27, 1104.23, 1103.19, 1102.15, 1101.11, 1100.07, 1099.03, 1097.99, 1096.95, 1095.91, 1094.87, 1093.83, 1092.80, 1091.76, 1090.72, 1089.68, 1088.64, 1087.60

1113.0, 1112.2, 1111.5, 1110.5, 1109.6, 1108.6, 1107.5, 1106.3, 1105.2, 1104.1, 1103.0, 1101.9, 1100.8, 1099.7, 1098.6, 1097.5, 1096.4, 1095.2, 1094.0, 1092.9, 1091.9, 1090.8, 1089.9, 1088.7, 1087.6

272+00, 273+00, 274+00, 275+00, 276+00, 277+00, 278+00, 279+00, 280+00, 281+00, 282+00, 283+00, 284+00

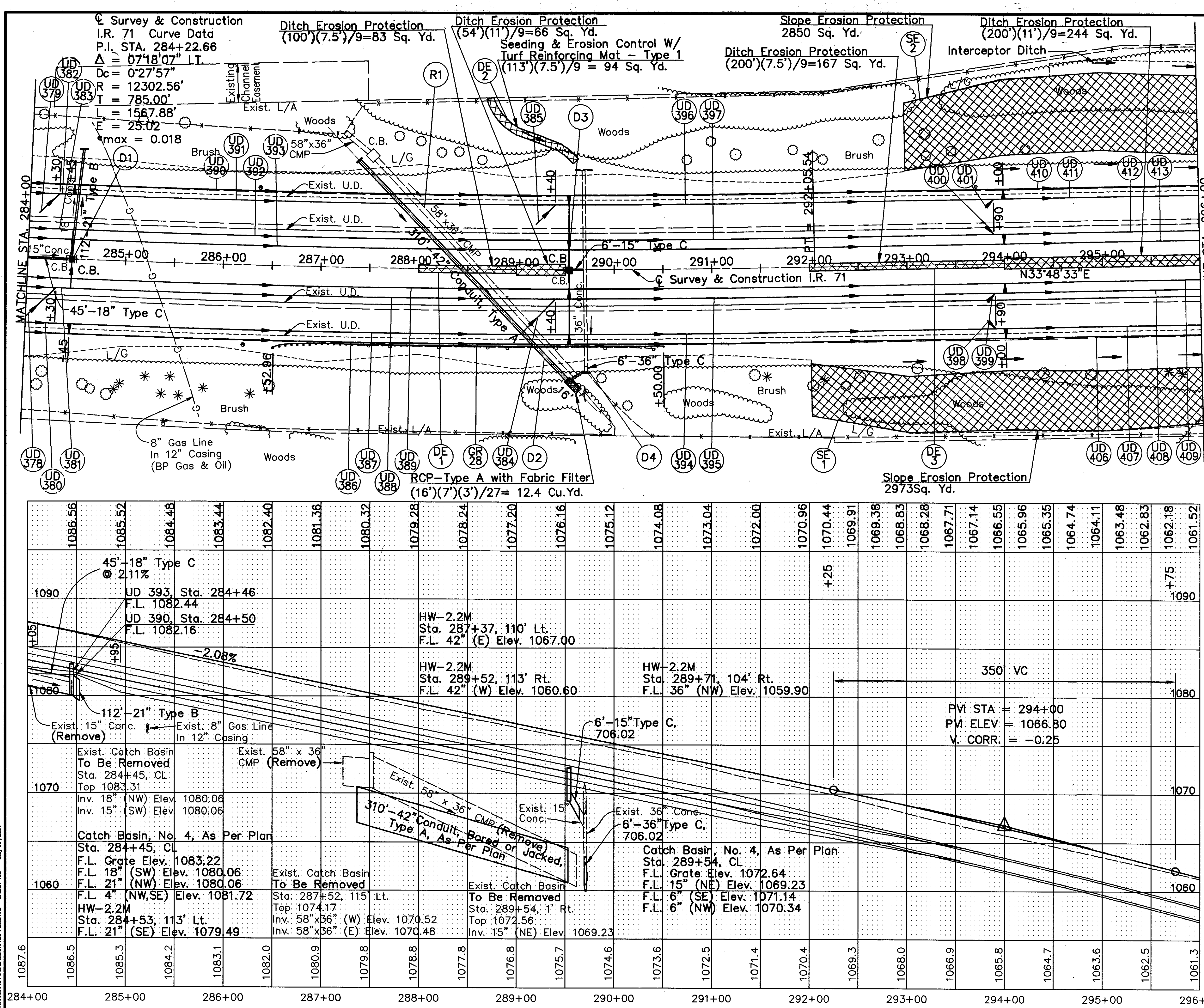
QUANTITIES CARRIED TO SHEETS 104–107			SIDE	STATION FROM	STATION TO	REFERENCE
202	Catch Basin Removed	Each	1	281+95	284+00	D1
603	18" Conduit, Type C	Lin.Ft.	205	281+95	284+00	D1
604	Catch Basin, No. 4, As Per Plan	Each	1	276+00	281+95	DE1
670	Ditch Erosion Protection	Sq.Yd.	727.2			
202	Catch Basin Removed	Each	1			
603	18" Conduit, Type C	Lin.Ft.	205			
604	Catch Basin, No. 4, As Per Plan	Each	1			
670	Ditch Erosion Protection	Sq.Yd.	727			

PLAN AND PROFILE SHEET
STA. 272+00 TO STA. 284+00

WAY–71–0.28

161
432

M:\ROD\AUTOCAD\ROD#\72PP4.DWG - SHEET 161 - May 03, 2001



CROSS REFERENCES

SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
283	Culvert Details
287	Ditch Profile
288–302	Underdrain Details

SLOPE EROSION PROTECTION

Left Slope Sta.	W(Ft)	A(SqYd)	Right Slope Sta.	W(Ft)	A(SqYd)
293+00	78		292+00	61	
		906			706
294+00	85		293+00	66	
		961			750
295+00	88		294+00	69	
		983			767
296+00	89		295+00	69	
		2850			750
			296+00	66	
					2973

Item	Description	Unit	D1	D2	D3	D4	SE1	SE2	DE1	DE2	DE3		R1	QUANTITIES CARRIED TO SHEETS 104-107
840	Eros.Contr., Misc.: Seed. & Eros. Contr. W/Turf. Reinf.Mat, Type 1	Sq.Yd.								94				94
670	Slope Erosion Protection	Sq.Yd.					2973	2850						5823
670	Ditch Erosion Protection	Sq.Yd.							149		411			560
604	Catch Basin, No. 4, As Per Plan	Each	1		1									2
603	Conduit, Bored, Or Jacked: 42" Conduit, Type A As Per Plan	Lin.Ft.		310										310
603	36" Conduit, Type C, 706.02	Lin.Ft.				6								6
603	21" Conduit, Type B	Lin.Ft.	112											112
603	18" Conduit, Type C	Lin.Ft.	45											45
603	15" Conduit, Type C, 706.02	Lin.Ft.			6									6
602	Concrete Masonry	Cu.Yd.	0.4	1.7		0.7								2.8
601	Rock Channel Protection, Type C With Fabric Filter	Cu.Yd.		12.4										12
202	Removal Misc.: Headwall	Each											1	1
202	Catch Basin Removed	Each	1		1								1	3
202	Pipe Removed, Over 24"	Lin.Ft.											344	344
SIDE			Lt	LR	Rt	Rt	Rt	Lt	CL	Lt	CL		LR	
STATION	FROM		284+00	288+45	289+54	289+71	292+00	293+00	288+00	288+72	292+00		287+23	
STATION	TO		284+54				296+00	296+00	289+54	289+61	296+00		289+62	
REFERENCE			D1	D2	D3	D4	SE1	SE2	DE1	DE2	DE3		R1	

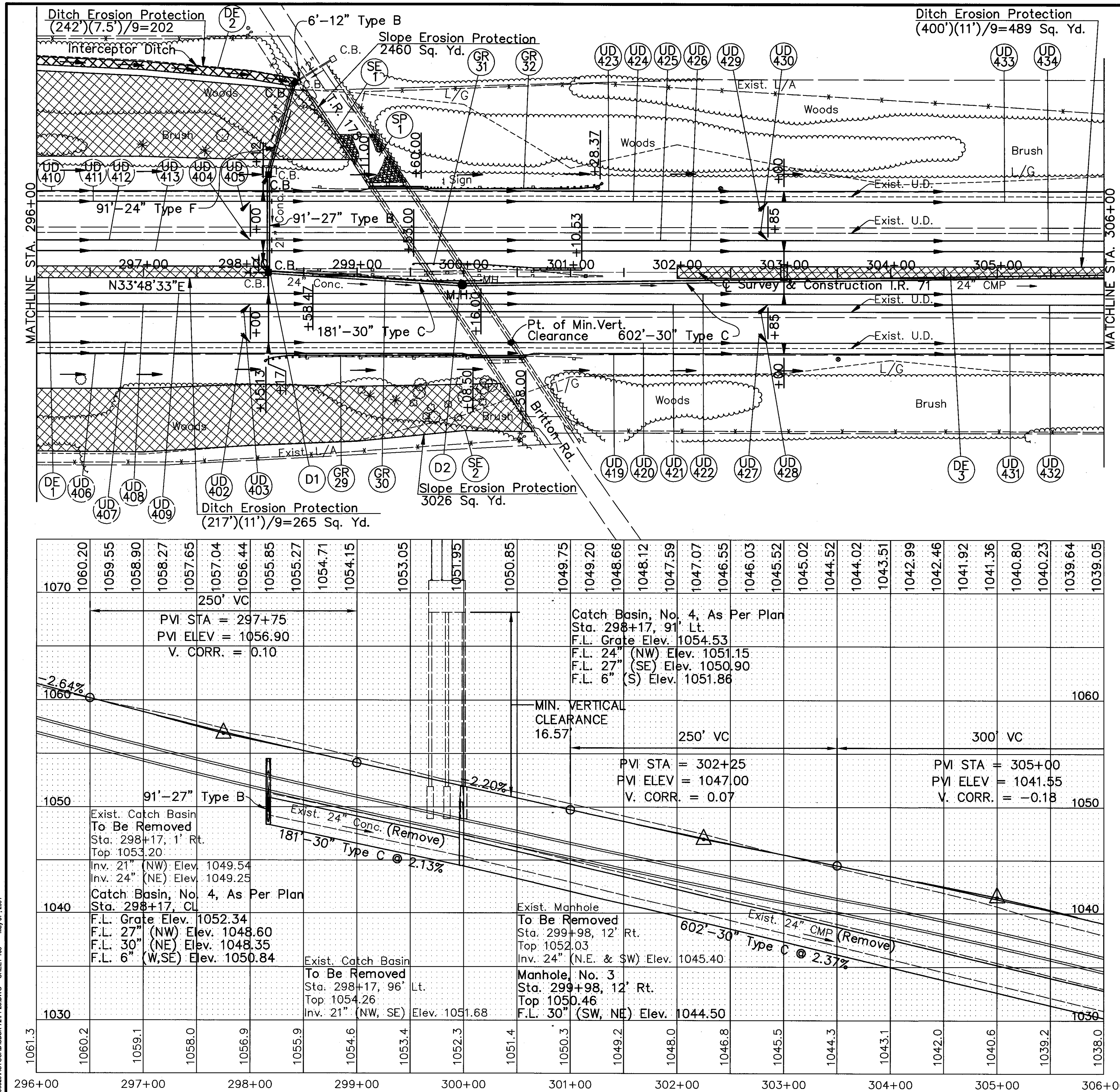
Scale in Feet: 0 50 100

CALCULATED GCS 04/01
CHECKED BJR 04/01

PLAN AND PROFILE SHEET
STA. 284+00 TO STA. 296+00

WAY-71-0.28

M:\99029\AUTOCAD\SDSK-72\PP26.DWG - SHEET 162 - May 03, 2001



M:\99029\AUTOCAD\SDSK-72\PP26.DWG - SHEET 163 ~ May 07, 2001

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
288–302	Underdrain Details

SLOPE EROSION PROTECTION

Left Slope Sta.	W(Ft)	A(SqYd)
296+00	89	
		956
297+00	83	
		889
298+00	77	
		439
298+53	72	
		176
298+97	0	
		2460

Right Slope Sta.	W(Ft)	A(SqYd)
296+00	66	
		733
297+00	66	
		717
298+00	63	
		667
299+00	57	
		611
300+00	53	
		208
300+35	54	
		90
300+65	0	
		3026

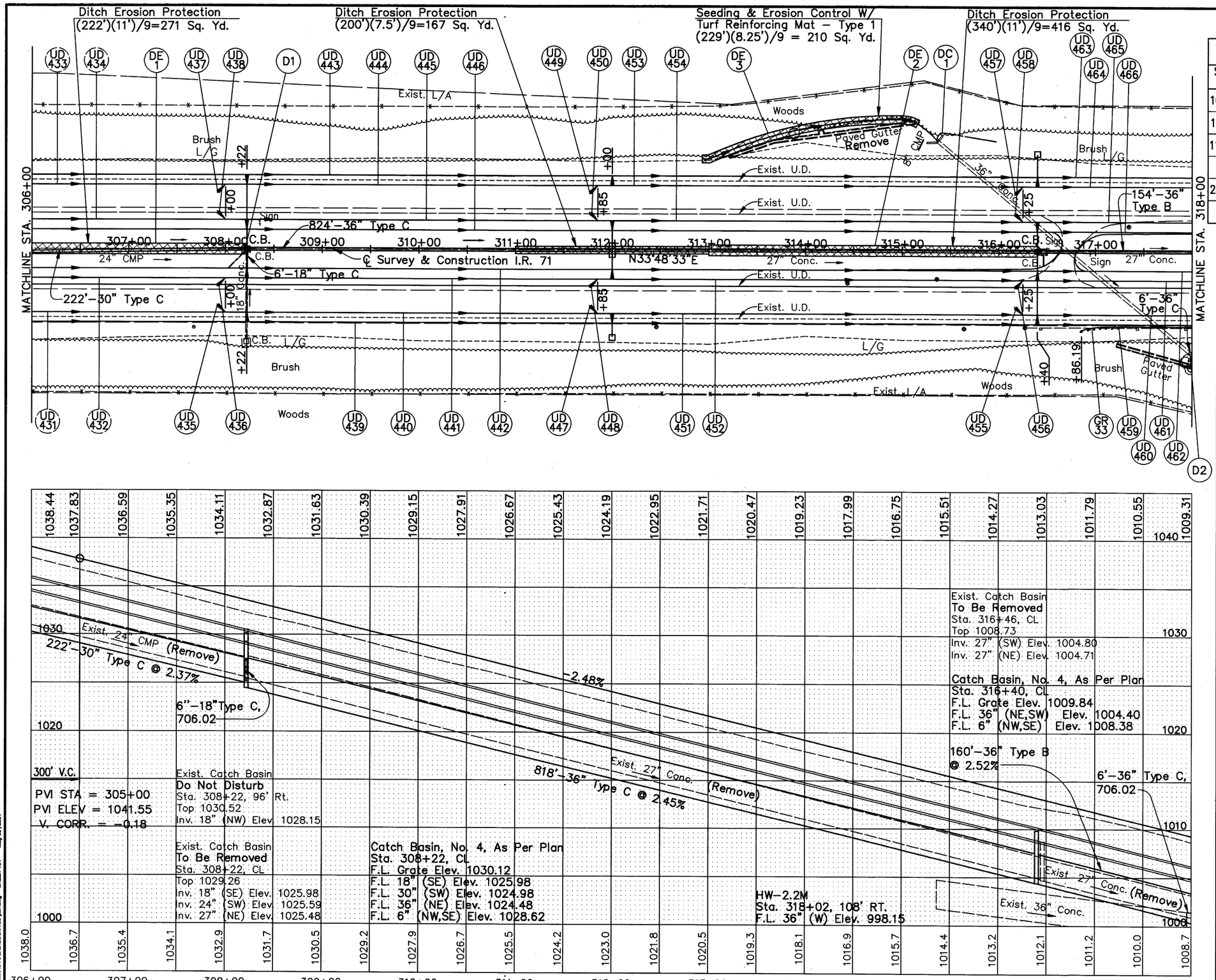
REFERENCE	STATION FROM	STATION TO	SIDE	670 Slope Erosion Protection (Sq.Yd.)	670 Ditch Erosion Protection (Sq.Yd.)	604 Mahole No. 3 (Each)	604 Catch Basin, No. 2–3 (Each)	604 Catch Basin, No. 4, As Per Plan (Each)	603 30" Conduit, Type C (Lin.Ft.)	603 27" Conduit, Type B (Lin.Ft.)	603 24" Conduit, Type F, 707.05 Type C (Lin.Ft.)	603 12" Conduit, Type B, 706.02 (Lin.Ft.)	601 Crushed Aggregate Slope Protection (Sq.Yd.)	202 Catch Basin Removed (Each)	202 Manhole Removed (Each)
D1	298+17	299+98	LR				1	2	181	91	91	6		3	
D2	299+98	306+00	Rt			1			602						1
SE1	296+00	298+97	Lt	2460											
SE2	296+00	300+65	Rt	3026											
SP1	298+80	299+40	Lt										200		
DE1	296+00	298+17	CL		265										
DE2	296+00	298+42	Lt		202										
DE3	302+00	306+00	CL		489										
QUANTITIES CARRIED TO SHEETS 104–107				5486	956	1	1	2	783	91	91	6	200	3	1

0 50 100 Scale in Feet

CALCULATED GCS 04/01 CHECKED BJR 04/01

PLAN AND PROFILE SHEET
STA. 296+00 TO STA. 306+00

WAY–71–0.28



CROSS REFERENCES

SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
287	Ditch Profile
288–302	Underdrain Details
362	Median Opening Detail

Scale in Feet: 0, 50, 100

CALCULATED GCS 04/01
CHECKED BJR 04/01

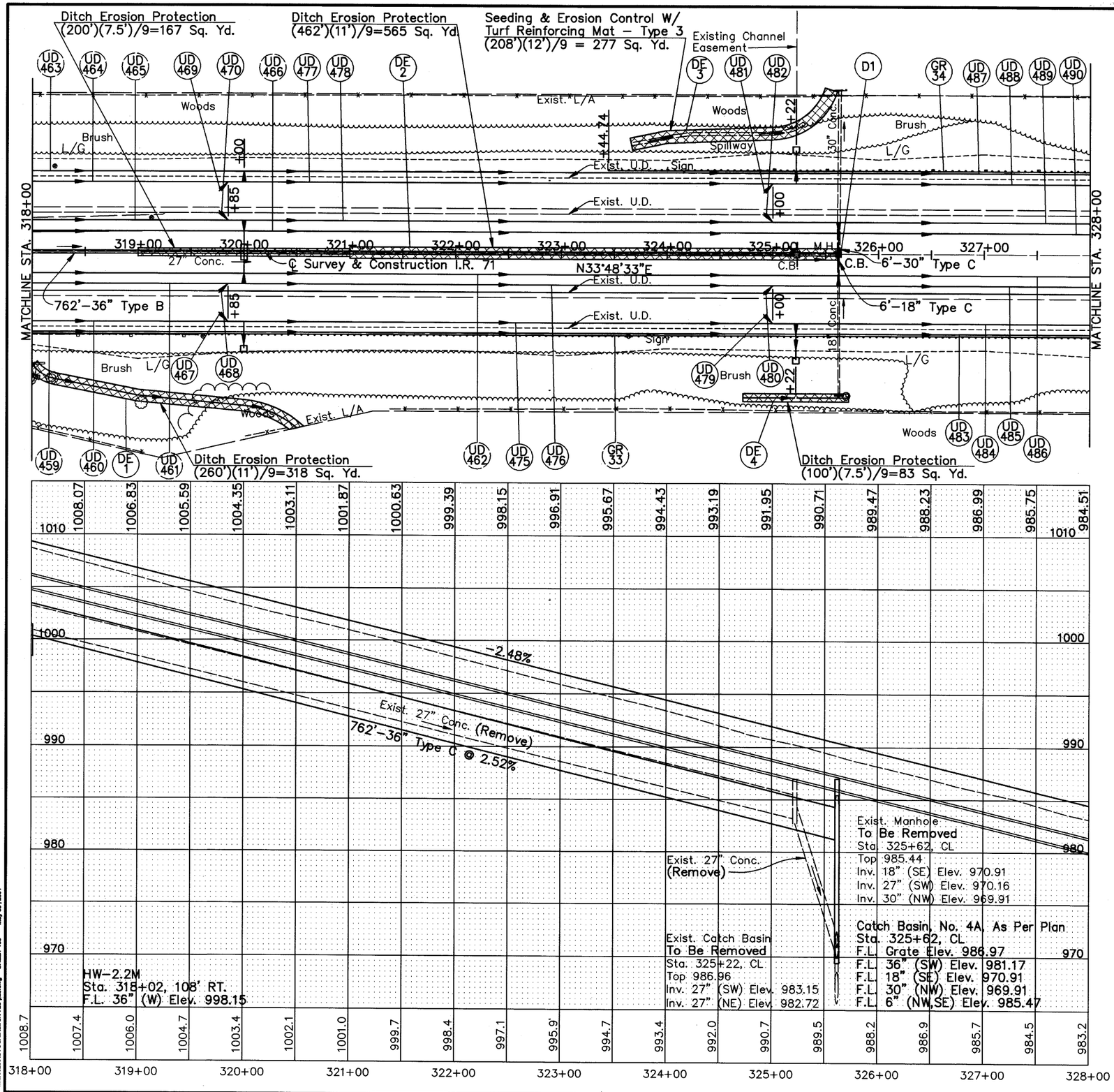
REFERENCE	STATION FROM	STATION TO	SIDE	202 Gutter Removed Lin.Ft.	202 Catch Basin Removed Each	202 Removal Misc.: Headwall Each	203 Ditch Cleanout Lin.Ft.	602 Concrete Masonry Cu.Yd.	603 18" Conduit, Type C, 706.02 Lin.Ft.	603 30" Conduit, Type C Lin.Ft.	603 36" Conduit, Type C Lin.Ft.	603 36" Conduit, Type C, 706.02 Lin.Ft.	604 Catch Basin, No. 4, As Per Plan Each	670 Ditch Erosion Protection Sq.Yd.	840 Eros.Contr., Misc.: Seed. & Eros. Contr. W/Turf. Reinf.Mat, Type 1 Sq.Yd.
D1	306+00	318+00	CR		2	1	324	0.7	6	222	978	6	2	854	210
D2	317+96	318+02	Rt												
DC1	315+16	315+97	Lt				95								
DE1	306+00	308+22	CL						6	222	978	6	2	271	
DE2	311+00	316+46	CL				229							583	
DE3	312+93	315+16	Lt	195											210
QUANTITIES CARRIED TO SHEETS 104–107				195	2	1	324	0.7	6	222	978	6	2	854	210

PLAN AND PROFILE SHEET
STA. 306+00 TO STA. 318+00

WAY–71–0.28

164
432

M:\99029\AUTOCAD\S99K-72P.pdf.dwg - SHEET 164 - May 08, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
287	Ditch Profile
288–302	Underdrain Details

REFERENCE	STATION FROM	STATION TO	SIDE	202 Cutter Removed Lin.Ft.	202 Pipe Removed, Over 24" Lin.Ft.	202 Manhole Removed Each	202 Catch Basin Removed Each	203 Ditch Cleanout Lin.Ft.	603 18" Conduit, Type C, 706.02 Lin.Ft.	603 30" Conduit, Type C, 706.02 Lin.Ft.	603 36" Conduit, Type C Lin.Ft.	604 Catch Basin, No. 4A, As Per Plan Each	670 Ditch Erosion Protection Sq.Yd.	840 Eros.Contr., Misc.: Seed. & Eros. Contr. W/Turf. Reinf.Mat. Type 3 Sq.Yd.
D1	318+00	325+62	CL		40	1	1		6	6	762	1	1133	277
DE1	318+02	320+40	Rt					260					318	
DE2	319+00	325+62	CL										732	
DE3	323+66	325+55	Lt	166										277
DE4	324+72	325+72	Rt					100					83	
QUANTITIES CARRIED TO SHEETS 104–107				166	40	1	1	360	6	6	762	1	1133	277

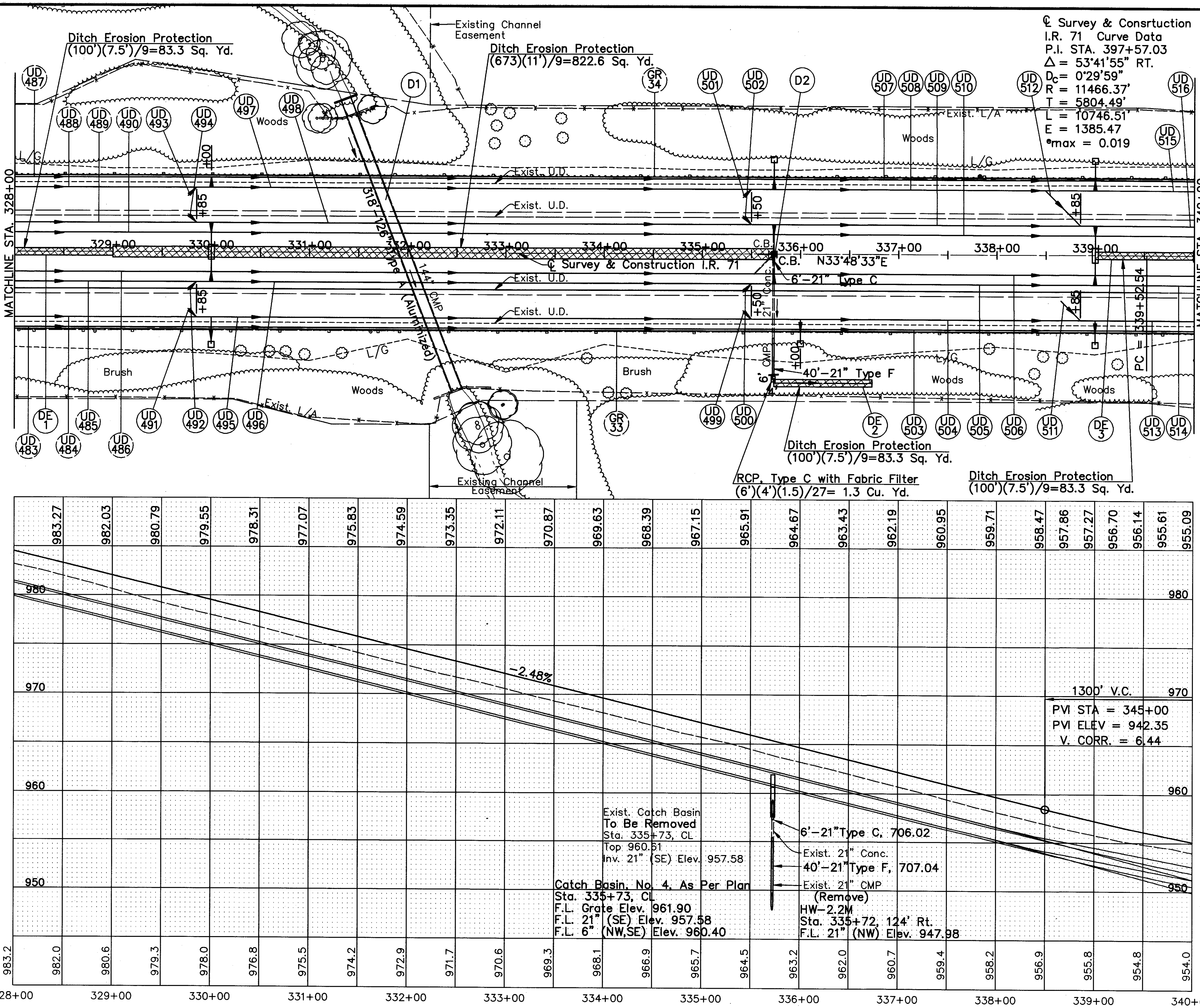
Scale in Feet: 0, 50, 100

CALCULATED GCS 04/01
CHECKED BJR 04/01

PLAN AND PROFILE SHEET STA. 318+00 TO STA. 328+00

WAY–71–0.28

M:\RODWAY\TOCADS\SHEET\72\P328.dwg - SHEET 165 - May 09, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
284	Culvert Details
288–302	Underdrain Details

Scale in Feet: 0 50 100

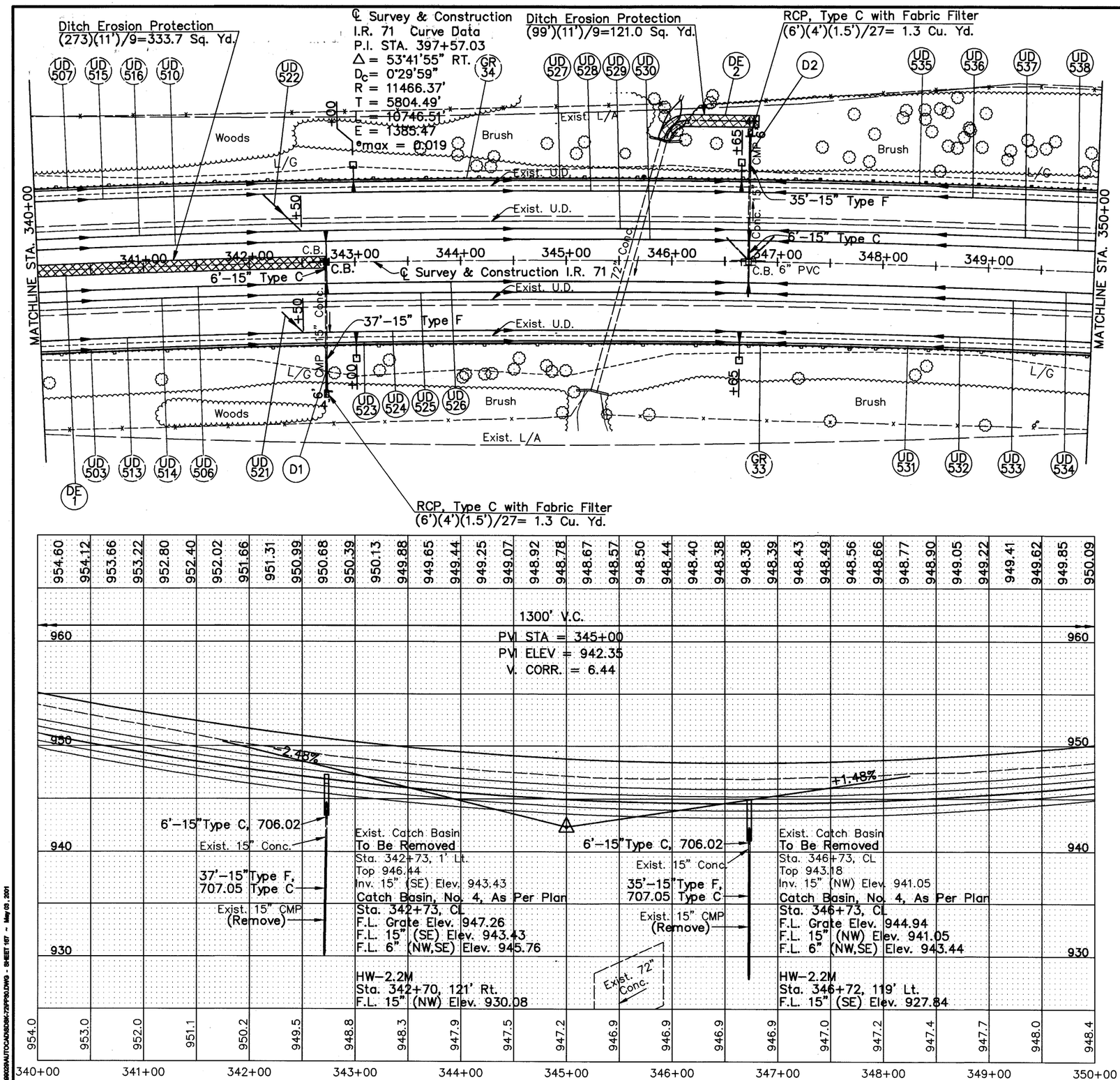
REFERENCE	STATION FROM	STATION TO	SIDE	BENDS 21"X30° Bend (Each)	670 Ditch Erosion Protection (Sq.Yd.)	604 Catch Basin, No. 4, As Per Plan (Each)	603 126" Conduit, Type A, 707.02 (Aluminized), As Per Plan (Lin.Ft.)	603 21" Conduit, Type F, 707.04 (Lin.Ft.)	603 21" Conduit, Type C, 706.02 (Lin.Ft.)	602 Concrete Masonry (Cu.Yd.)	601 Rock Channel Protection, Type C With Fabric Filter (Cu.Yd.)	519 Patching Concrete Structure (Sq.Ft.)	203 Ditch Cleanout (Lin.Ft.)	202 Removal Misc.: Headwall (Each)	202 Catch Basin Removed (Each)
D1	331+96		LR				318			9.6		25			
D2	335+73		Rt	2		1		40	6	0.4	1.3			1	1
DE1	328+00	335+73	CL		906										
DE2	335+73	336+73	Lt		83								100		
DE3	339+00	340+00	CL		83										
QUANTITIES CARRIED TO SHEETS 104–107				X	1072	1	318	40	6	10.0	1	25	100	1	1

CALCULATED GCS 04/01
CHECKED BJR 04/01

PLAN AND PROFILE SHEET
STA. 328+00 TO STA. 340+00

WAY-71-0.28

M:\99029\AUTOCAD\SDSK-72\PP29.dwg - SHEET 166 - May 03, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
288–302	Underdrain Details

REFERENCE	SIDE	STATION FROM	STATION TO	670 Ditch Erosion Protection Sq.Yd.	604 Catch Basin, No. 4, As Per Plan Each	603 15" Conduit, Type F, 707.05 Type C Lin.Ft.	603 15" Conduit, Type C, 706.02 Lin.Ft.	602 Concrete Masonry Cu.Yd.	601 Rock Channel Protection, Type C With Fabric Filter Cu.Yd.	203 Ditch Cleanout Lin.Ft.	202 Removal Misc.: Headwall Each	202 Catch Basin Removed Each	18"X30" Bend BENDS Each	QUANTITIES CARRIED TO SHEETS 104–107
D1	Rt	342+73			1		6	0.3	1.3		1	1	2	
D2	Lt	346+73			1	37	6	0.3	1.3		1	1	2	
DE1	CL	340+00	342+73	334										455
DE2	Lt	345+92	346+80	121						99				

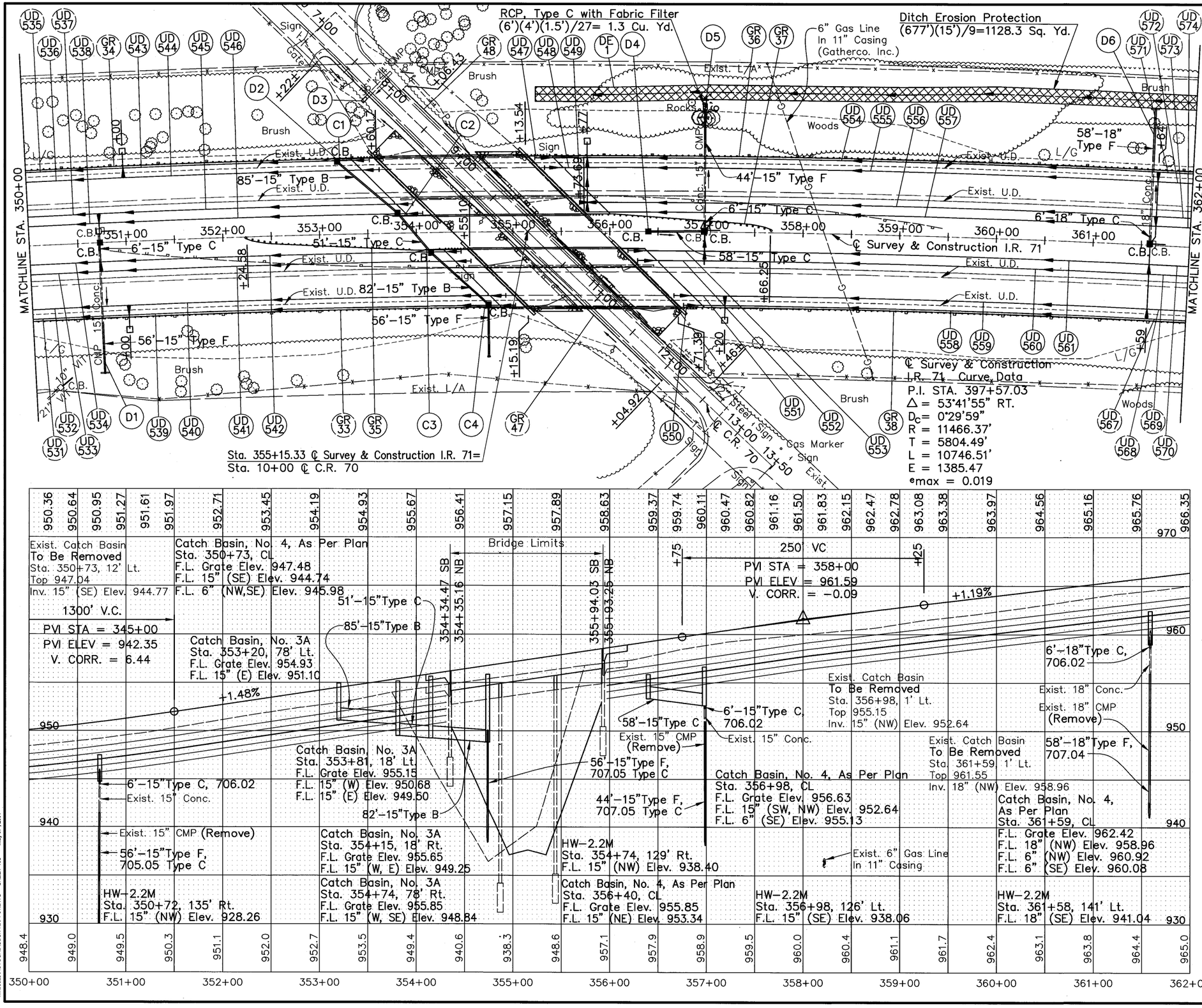
CALCULATED GCS 04/01
CHECKED BJR 04/01

0 50 100 Scale in Feet

PLAN AND PROFILE SHEET STA. 340+00 TO STA. 350+00

WAY-71-0.28

M:\MICROSTATION\CADD\08K-72PP80.DWG - SHEET 107 - May 03, 2001



CROSS REFERENCES

SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
256	C.R. 70 Plan And Profile
288–302	Underdrain Details

Scale in Feet: 0, 50, 100

CALCULATED GCS 04/01
CHECKED BJR 04/01

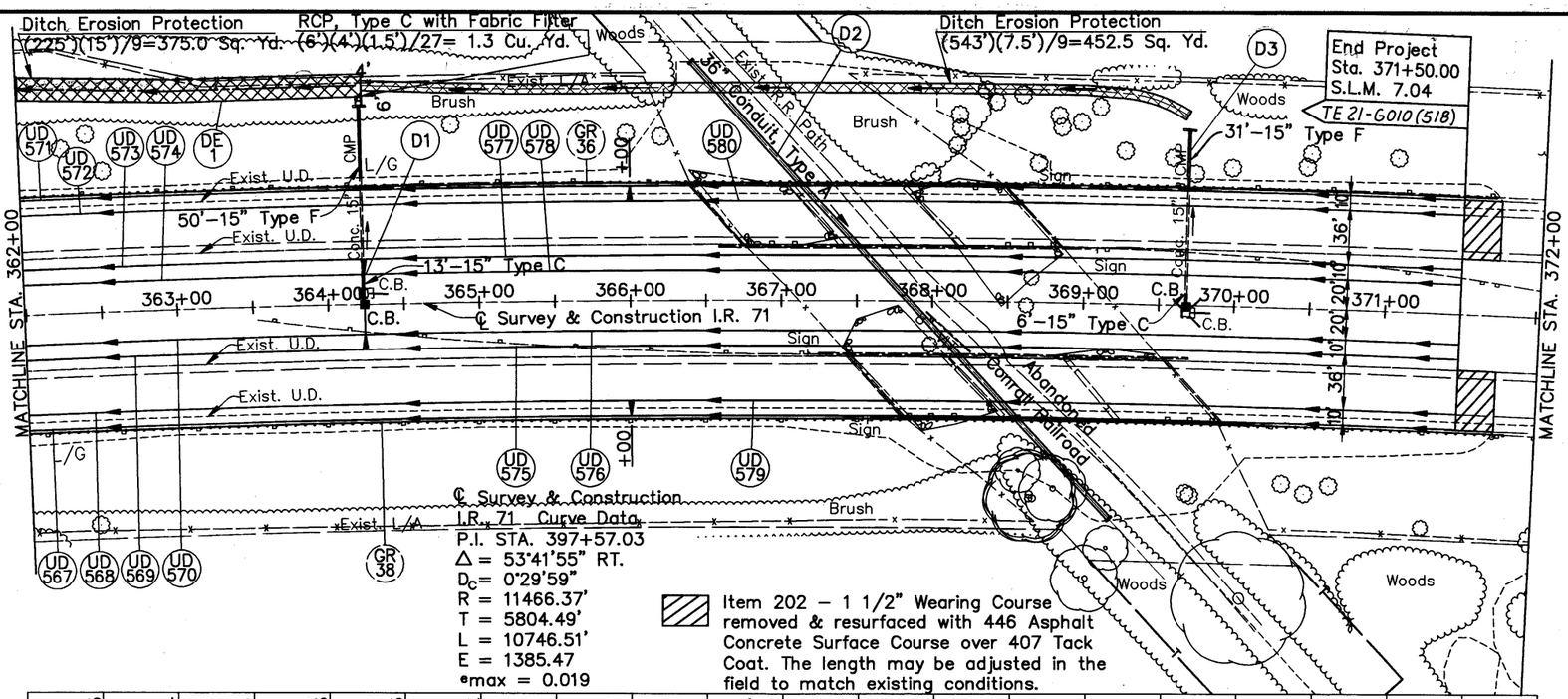
REFERENCE	STATION FROM	STATION TO	SIDE	18" X 30° Bend (BENDS, Each)	15" X 30° Bend (BENDS, Each)	15" X 22.5° Bend (BENDS, Each)	Curb, Type 6 As Per Plan (830, Lin.Ft.)	Ditch Erosion Protection (670, Sq.Yd.)	Catch Basin No. 4 As Per Plan (604, Each)	Catch Basin No. 3A (604, Each)	35"X24" Conduit, Type A, 707.01 (603, Lin.Ft.)	18" Conduit, Type F, 707.04 (603, Lin.Ft.)	18" Conduit, Type C, 706.02 (603, Lin.Ft.)	15" Conduit, Type F, 707.05 Type C (603, Lin.Ft.)	15" Conduit, Type C, 706.02 (603, Lin.Ft.)	15" Conduit, Type (603, Lin.Ft.) B	15" Conduit, Type (603, Lin.Ft.) C	Concrete Masonry (602, Cu.Yd.)	Rock Channel Protection, Type C With Fabric Filter (601, Cu.Yd.)	Ditch Cleanout (203, Lin.Ft.)	Removal Misc.: Headwall (202, Each)	Catch Basin Removed (202, Each)	Pipe Removed, 24" And Under (202, Lin.Ft.)
D1	350+73	353+14.01	Lt												6								
D2	353+20	354+74	LR											56	56								
D3	353+47	353+51	Lt													51							
D4	356+40	356+98	CL											44	6		58						
D5	356+98		Lt															0.3	1.3				
D6	361+59		Lt															0.3					
C1	353+33.48	353+91.78	Lt																				
C2	353+76.00	354+27.92	Rt																				
C3	354+09.00	354+87.73	Rt																				
C4	354+68.50	362+00	Lt																				
DE1	355+23																			677			
QUANTITIES CARRIED TO SHEETS 104–107				12	3	1	156	109	12	4	6	58	6	156	12	167	58	1.2	1	677	3	3	12

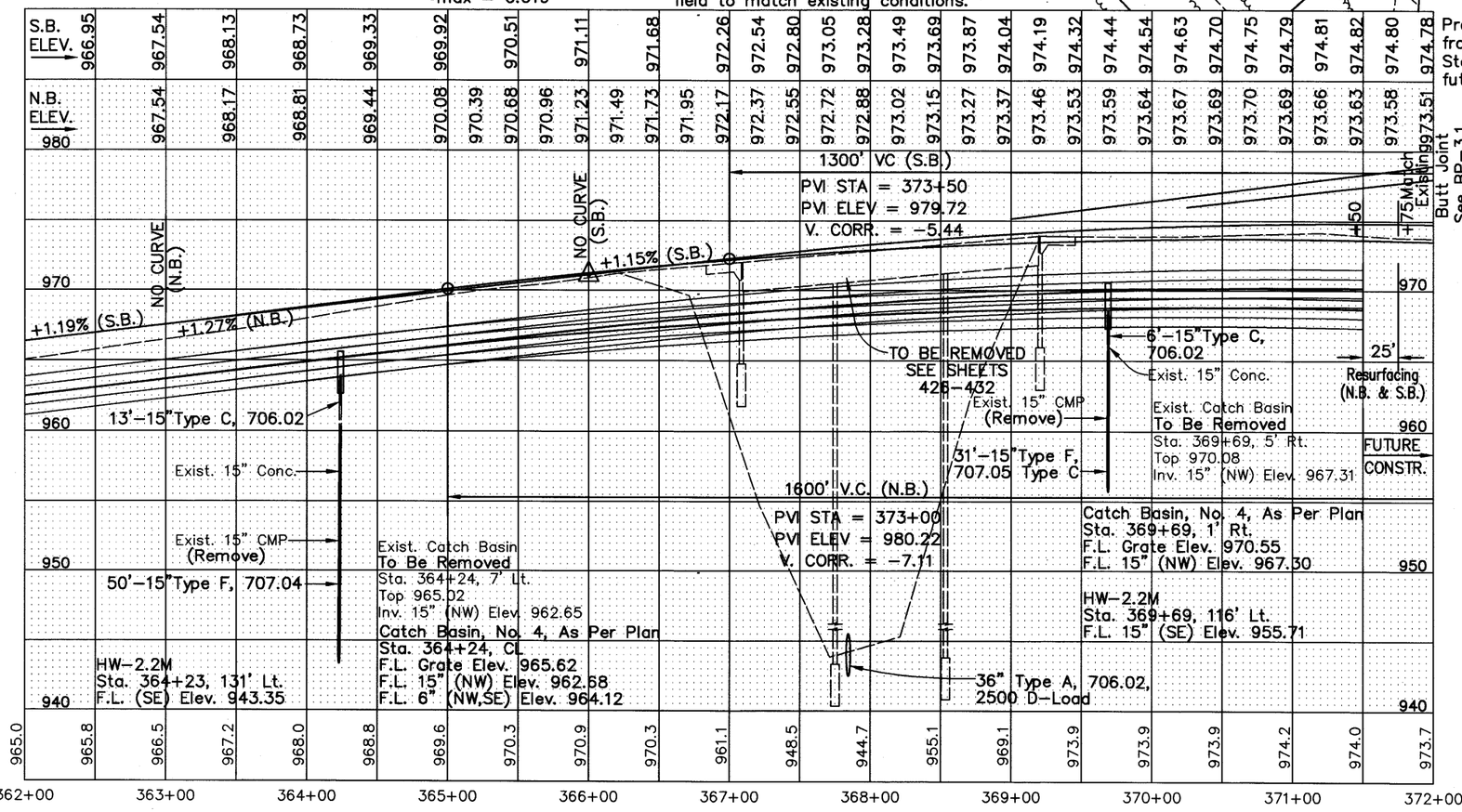
PLAN AND PROFILE SHEET STA. 350+00 TO STA. 362+00

WAY-71-0.28

168
432

M:\99029\AUTOCAD\SSK-72PP31.DWG - SHEET 168 - May 07, 2001





EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.
SPANS: 64'-80'-64' C/C BRG'S
ROADWAY: 40'-0" F/F SAFETY CURBS
ORIGINAL DESIGN LOADING: CF=2000
SKEW: 43° 02' 48"
ALIGNMENT: 0° 30' 00"
WEARING SURFACE: 1" MONOLITHIC
APPROACH SLABS: 25'-0" LONG
SUPERELEVATION: 3/16"/FT.
DATE BUILT: 1959 (DECK OVERLAY AND EXPANSION JOINT SEALS ADDED IN 1984)
STRUCTURE FILE NUMBER: LEFT 8503338
RIGHT 8503362

CROSS REFERENCES

SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
285	Culvert Details
288–302	Underdrain Details
426–432	Structure Removal

Scale in Feet: 0, 50, 100

CALCULATED GCS 04/01
CHECKED BJR 04/01

REFERENCE	STATION FROM	STATION TO	SIDE	202 Catch Basin Removed Each	202 Removal Misc.: Headwall Each	203 Ditch Cleanout Lin.Ft.	601 Rock Channel Protection, Type C With Fabric Filter Cu.Yd.	602 Concrete Masonry Cu.Yd.	603 15" Conduit, Type C, 706.02 Lin.Ft.	603 15" Conduit, Type F, 707.04 Lin.Ft.	603 15" Conduit, Type C, 707.05 Type C Lin.Ft.	603 36" Conduit, Type A, 706.02 2500D-Load Lin.Ft.	604 Catch Basin, No. 4, As Per Plan Each	670 Ditch Erosion Protection Sq.Yd.	680 BENDS 15" X 30° Bend Each
D1	364+24		Lt	1			1.3	0.3	13	50			1		2
D2	367+84		LR					1.4			410				
D3	369+69		Lt	1	1			0.3	6		31		1		2
DE1	362+00	369+68	Lt			570								827.5	
QUANTITIES CARRIED TO SHEETS 104–107				2	1	570	1	2.0	19	50	31	410	2	828	

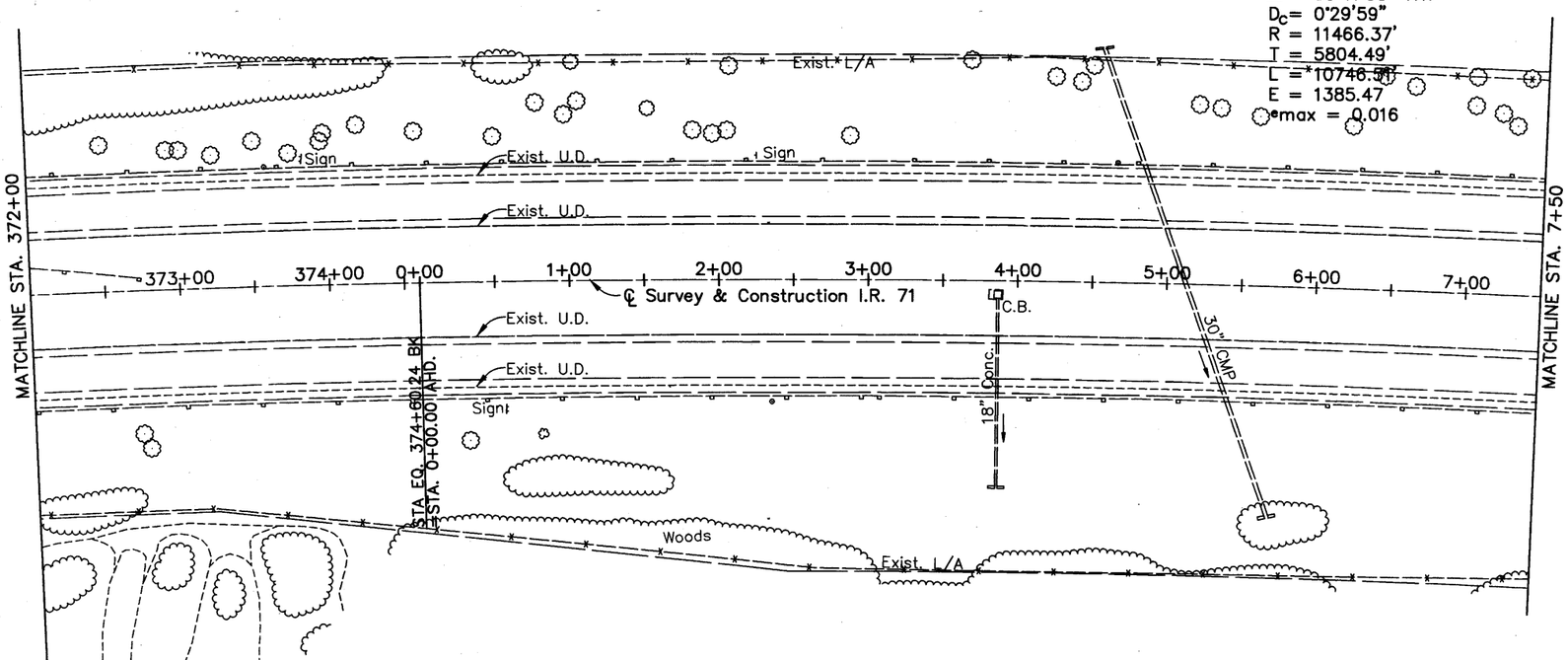
PLAN AND PROFILE SHEET STA. 362+00 TO STA. 372+00

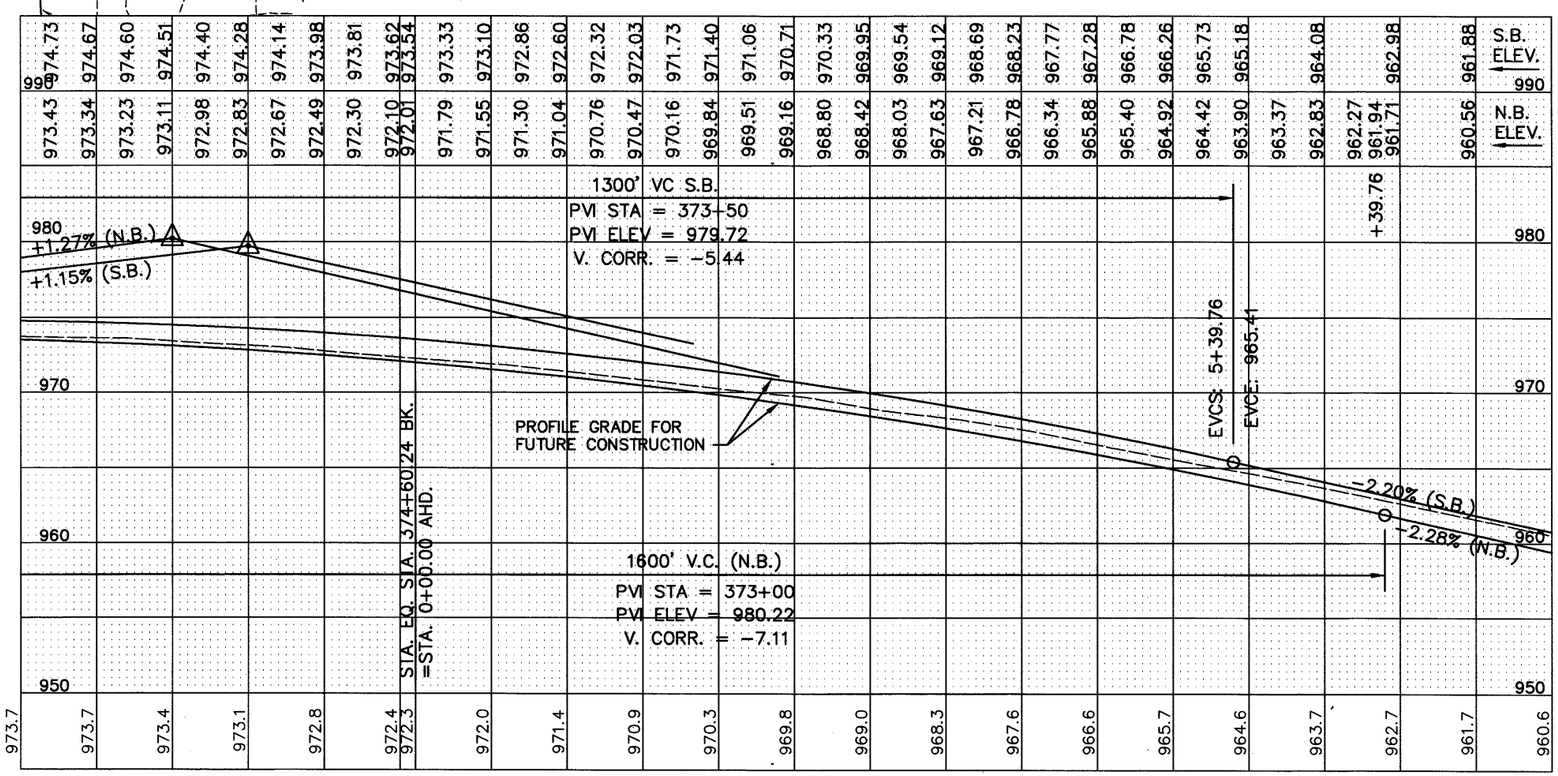
WAY-71-0.28

169
432

M:\ROADWAY\TOCADD\DGN\-TYP-02.dwg - SHEET 169 - May 03, 2001

℄ Survey & Construction
I.R. 71 Curve Data
P.I. STA. 397+57.03
Δ = 53°41'55" RT.
D_c = 0°29'59"
R = 11466.37'
T = 5804.49'
L = 10746.50'
E = 1385.47
emax = 0.016





Proposed elevations from Sta. 372+00 to Sta. 7+00 for future construction.

N

Scale in Feet
0 50 100

CALCULATED
CHECKED

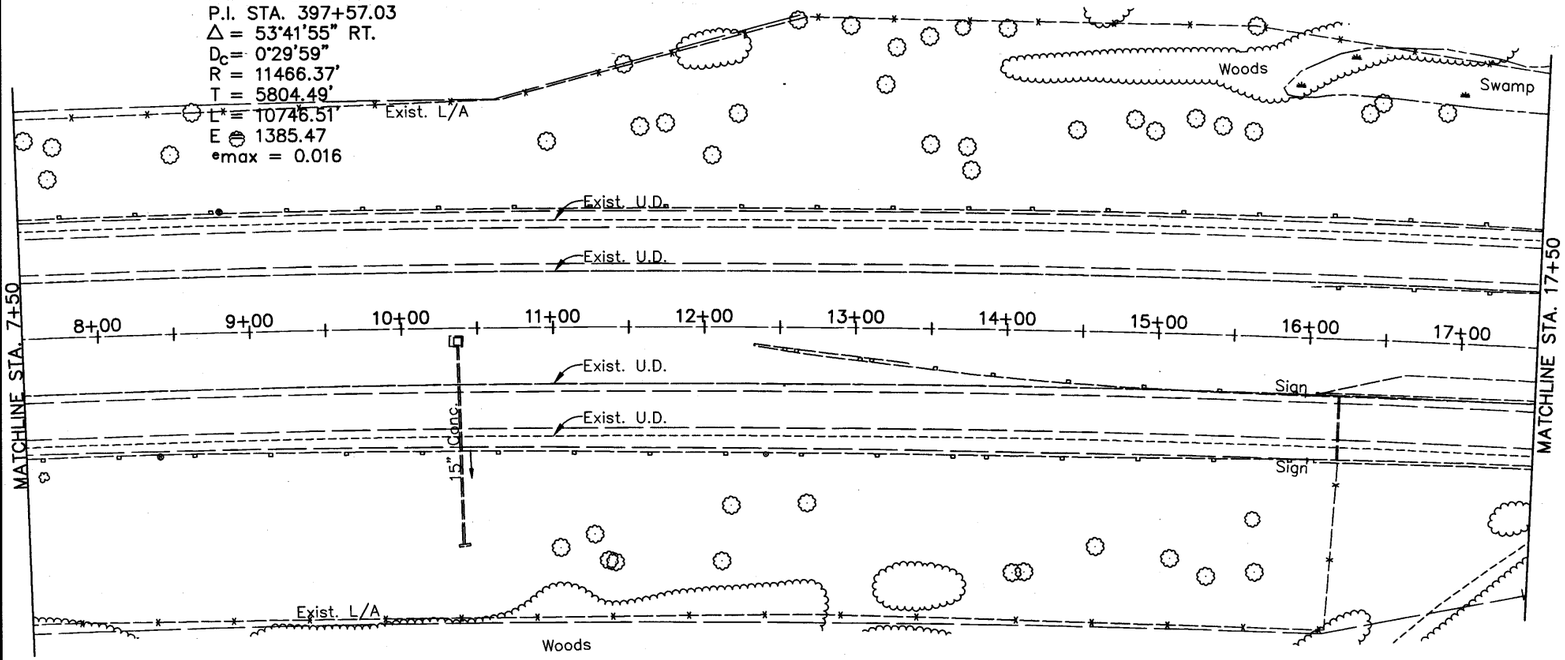
PLAN AND PROFILE SHEET
STA. 372+00 TO STA. 7+50

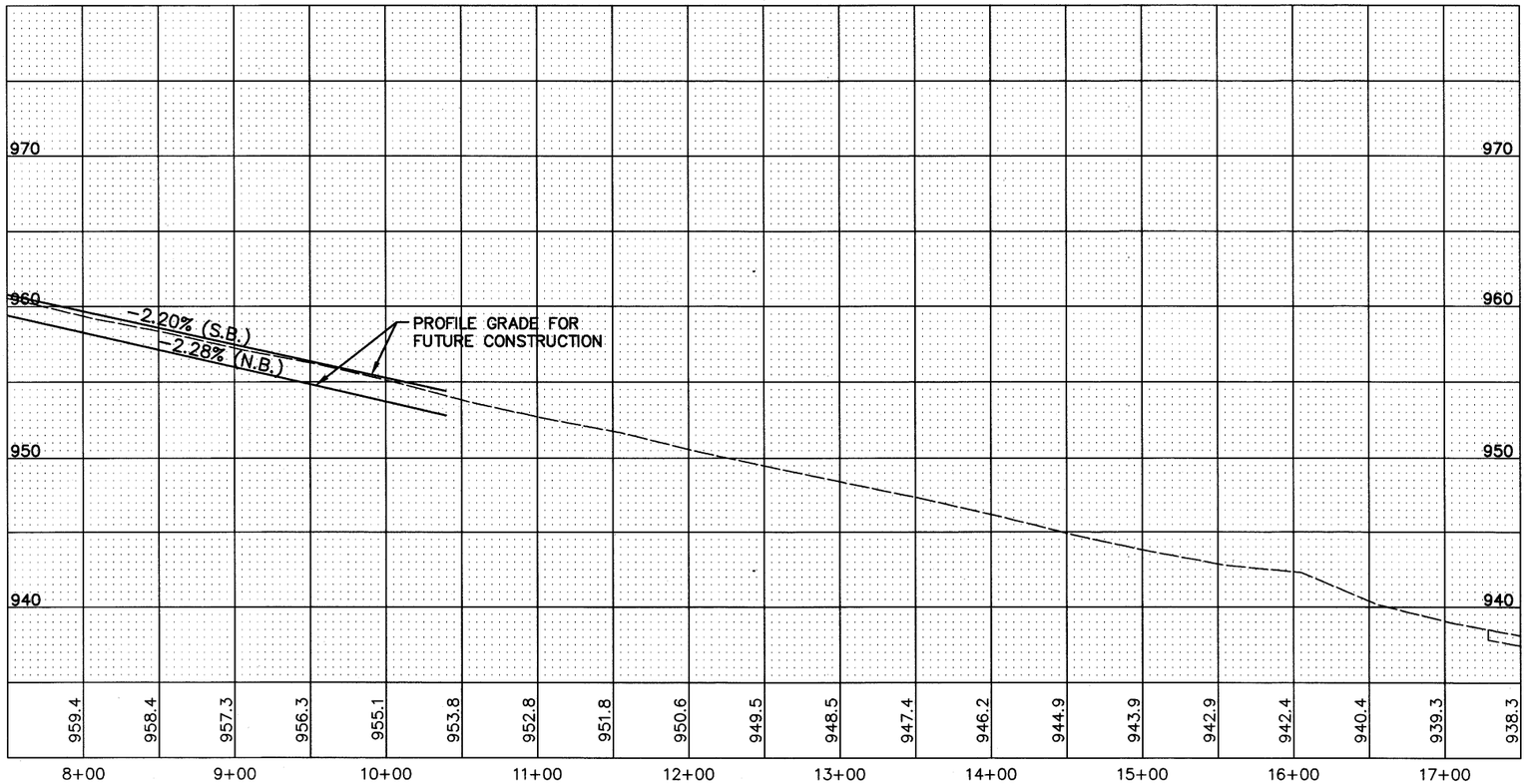
WAY-71-0.28

170
432

M:\99002\AUTOCAD\BDK-72\PPBLDWG - SHEET 170 - May 09, 2001

℄ Survey & Construction
I.R. 71 Curve Data
P.I. STA. 397+57.03
Δ = 53°41'55" RT.
D_c = 0°29'59"
R = 11466.37'
T = 5804.49'
L = 10746.51'
E = 1385.47
emax = 0.016





M:\99\03\AUTOCAD\SDSK-73\PP94.DWG - SHEET 171 - May 03, 2001

Scale in Feet: 0, 50, 100

CALCULATED

CHECKED

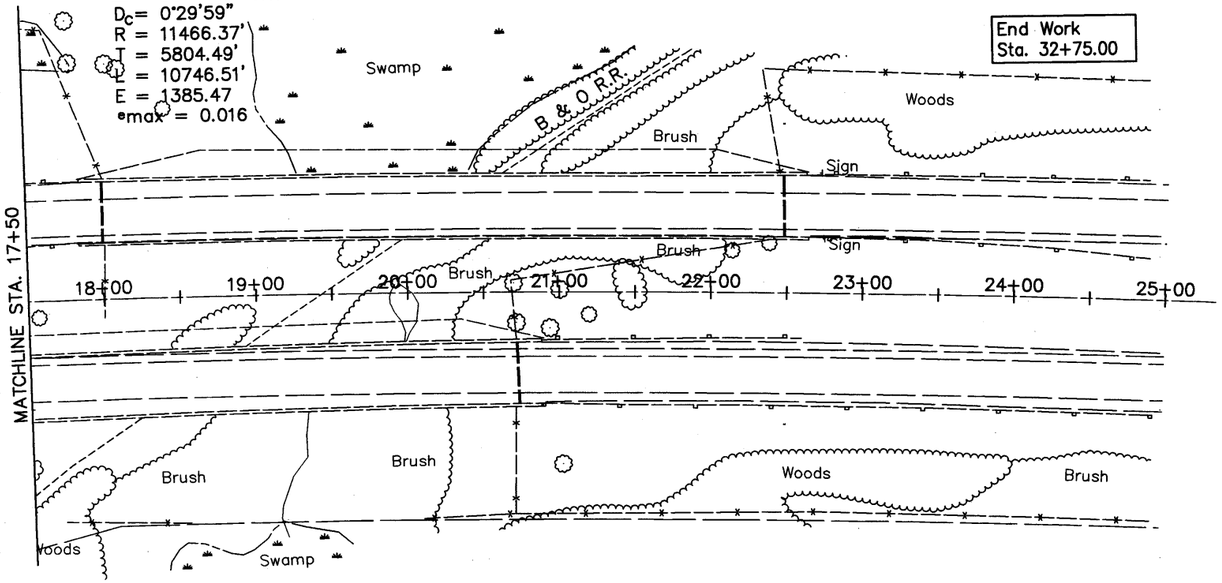
PLAN AND PROFILE SHEET
STA. 7+50 TO STA. 17+50

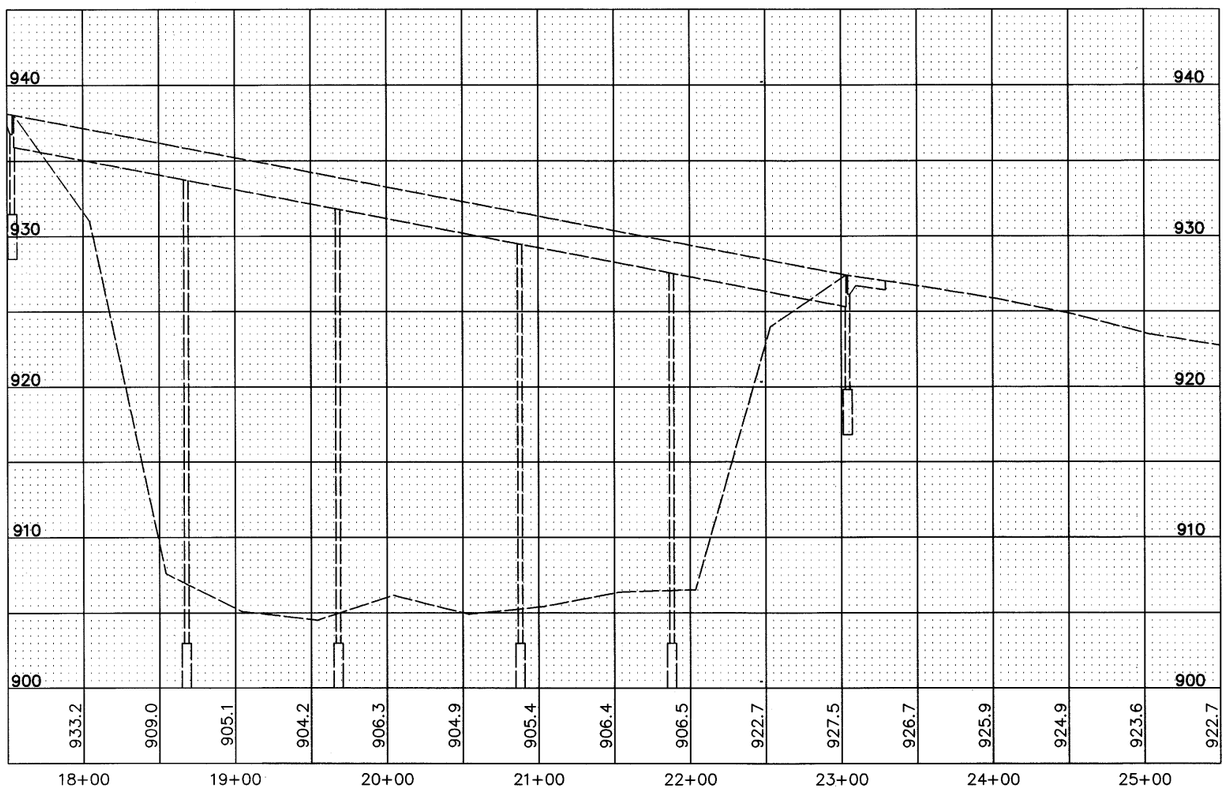
WAY-71-0.28

171
432

℄ Survey & Construction
I.R. 71 Curve Data
P.I. STA. 397+57.03
Δ = 53°41'55" RT.
D_c = 0°29'59"
R = 11466.37'
T = 5804.49'
L = 10746.51'
E = 1385.47
emax = 0.016

End Work
Sta. 32+75.00





N:\80028\AUTOCAD\SDB\C-72\Ps56.dwg - SHEET 172 - May 03, 2001

Scale in Feet
0 50 100

CALCULATED
CHECKED

PROFILE SHEET
TO STA. 25+00

PLAN AND PROFILE
STA. 17+50 TO

WAY-71-0.28

172
432

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
Ahead 211	0		
Back 0	0		

CALCULATED SLM 01/01

CHECKED GKS 01/01

1050
1040
1030

1035.10
14+82.88
1035.10
BEGIN PROJECT

BEGIN NEW PAVEMENT

BEGIN RESURFACING STA. 14+55

14+00
1034.85

13+00
1034.55

12+00
1034.25

STA. EQUATION 853+34.89 BACK=
STA. 0+00 AHEAD

BEGIN WORK STA. 5+50

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET
STA. 12+00 TO STA. 14+82.88

WAY-71-0.28

M:\98\039\AUTOCAD\SDSK-72ss0.dwg - SHEET 173 - May 03, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
173	50		
		648	159
177	36		
		680	119
190	28		
		750	78
215	14		
		841	44
239	10		
		143	3

CALCULATED SLW 01-01

CHECKED GCS 01-01

Existing Concrete Pavement (Typ.)

1036.94
19+00
1036.1

1036.50
18+00
1035.7

1036.06
17+00
1035.4

1035.62
16+00
1035.0

1035.18
15+00
1035.0

6:1 6:1 6:1 12:1

12:1 12:1

12:1 6:1 6:1 12:1

1050 1040 1030

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET
STA. 15+00 TO STA. 19+00

WAY-71-0.28

M:\99\02\AUTOCAD\SDK-72\ss1.dwg - SHEET 174 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

6:1 6:1 6:1 12:1

1039.02
24+00
1037.5

1038.66
23+00
1037.2

Rock Channel Protection, Type C, 18" Thick w/Fabric Filter

12:1 6'

6'–15" Type C, 706.02

Exist. 15" Conc.

20'–15" Type C, 706.02

Exist. Catch Basin To Be Removed
Sta. 21+36, 1' Rt.
Top 1033.56
Inv. 15" (SE) Elev. 1030.77

1038.26
22+00
1036.9

Catch Basin, No. 4, As Per Plan
Sta. 21+86, CL
F.L. Grate Elev. 1034.76
F.L. 15" (SE) Elev. 1030.77
F.L. 6" (NW,SE) Elev. 1033.26

HW–2.2M
Sta. 21+86, 112' Rt.
F.L. 15" (NW) 1027.40

1037.82
21+00
1036.7

6:1 6:1 6:1 12:1

Existing Concrete Pavement (Typ.)

1037.38
20+00
1036.4

END AREA		VOLUME	
CUT	FILL	CUT	FILL
101	77		
		385	257
107	62		
		404	243
111	69		
		454	237
134	59		
		520	204
147	51		
		593	187

CALCULATED SLM 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 20+00 TO STA. 24+00

WAY–71–0.28

M:\98028\AUTOCAD\SDSK-72\ss2.dwg - SHEET 175 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
66	99	322	307
108	67	394	244
105	65	372	248
96	69	365	270

CALCULATED SLM 01-01

CHECKED GCS 01-01

Existing Concrete Pavement (Typ.)

1040.29
28+00
1039.0

1039.97
27+00
1038.7

1039.65
26+00
1038.3

1039.34
25+00
1038.0

Existing Concrete Pavement (Typ.)

CROSS SECTION SHEET
STA. 25+00 TO STA. 28+00

WAY-71-0.28

M:\98020\AUTOCAD\80K-72ss5.dwg - SHEET 178 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

6:1 6:1 6:1 12:1

6'-18"Type C,706.02

Exist. 18" Conc.

Sta. 33+98 Rt.
End Ditch Restoration
And Erosion Protection
F.L. 1028.93

Ditch Erosion Protection
7.5
4:1
F.L. 1030.89

Exist. Catch Basin
To Be Removed
Sta. 32+85, CL
Top 1036.91
Inv. 18" (SE) Elev. 1034.44

1041.88
33+00
1040.5

Catch Basin, No. 4, As Per Plan
Sta. 32+85, CL
F.L. Grate Elev. 1038.39
F.L. 18" (SE) Elev. 1034.44
F.L. 6" (NW,SE) Elev. 1036.89

Sta. 32+84 Rt.
Begin Ditch Restoration
And Erosion Protection
Match Existing

1041.56
32+00
1040.1

1041.24
31+00
1039.8

1040.92
30+00
1039.6

1040.61
29+00
1039.4

Existing Concrete Pavement (Typ.)

END AREA		VOLUME	
CUT	FILL	CUT	FILL
78	88		
		280	335
73	93		
		287	324
82	82		
		324	283
93	71		
		346	246
94	62		
		296	298

CALCULATED SLM 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 29+00 TO STA. 33+00

WAY-71-0.28

177
432

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

M:\99\039\AUTOCAD\MDR\-77ss4.dwg - SHEET 177 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Rock Channel Protection, Type C, 18" Thick w/Fabric Filter

Existing Concrete Pavement (Typ.)

6'

3:1

6:1

6:1

6:1

Approximate area of undercut (Typ.)

Exist. 15" Conc.

40'–15"Type C,706.02

6'–15"Type C,706.02

HW–2.2M
Sta. 37+87, 117' Lt.
F.L. 15" (SE) 1030.07

Exist. Catch Basin
To Be Removed
Sta. 37+87, 1' Lt.
Top 1038.09
Inv. 15" (NW) Elev. 1034.83

1043.46
38+00
1041.8

Catch Basin, No. 4, As Per Plan
Sta. 37+87, CL
F.L. Grate Elev. 1039.98
F.L. 15" (NW) Elev. 1034.83
F.L. 6" (NW,SE) Elev. 1038.48

2.5:1

1043.15
37+00
1041.4

2.5:1

Approximate area of undercut (Typ.)

Exist. 42" CMP

1042.83
36+00
1041.2

6:1

1042.51
35+00
1040.8

6:1

6:1

6:1

Existing Concrete Pavement (Typ.)

Exist. 42" CMP

1042.19
34+00
1040.5

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

END AREA		VOLUME	
CUT	FILL	CUT	FILL
61	128		
		215	406
55	91		
		222	370
65	109		
		239	520
64	172		
		246	496
69	96		
		272	341

CALCULATED SLW 01-01

CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 34+00 TO STA. 38+00

WAY–71–0.28

178
432

M:\98029\AUTOCAD\ROW-72ndLAng - SHEET 178 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
49	134	198	459
58	114	224	422
63	114	252	411
73	108	328	357
104	85	306	394

CALCULATED SLW 01-01

CHECKED GCS 01-01

Existing Concrete Pavement (Typ.)

6:1

Approximate area of undercut (Typ.)

1045.05
43+00
1043.3

1044.74
42+00
1043.0

1044.42
41+00
1042.7

1044.10
40+00
1042.6

4:1

12:1

Existing Concrete Pavement (Typ.)

1043.78
39+00
1042.2

1060 1050 1040 1030 1020

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET STA. 39+00 TO STA. 43+00

WAY-71-0.28

M:\98029\AUTOCAD\RDSK-72ndB.dwg - SHEET 179 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
84	84	309	322
83	90	281	344
69	96	248	378
65	108	231	406
60	111	202	454

CALCULATED SLM 01-01

CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 44+00 TO STA. 48+00

WAY-71-0.28

1048.32
48+00
1046.7

1047.18
47+00
1045.7

1045.31
46+00
1044.6

1045.72
45+00
1043.8

1045.37
44+00
1043.5

Existing Concrete Pavement (Typ.)

Approximate area of undercut (Typ.)

6:1

1050
1040
1030
1060

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

M:\680\09\AUTOCAD\R2SK-72hw7.dwg - SHEET 180 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL
144	54
136	73
104	115
105	97
79	91

VOLUME	
CUT	FILL
519	235
444	348
387	393
341	348
302	324

CALCULATED SLM 01-01
CHECKED GCS 01-01

Existing Concrete Pavement (Typ.)
Ditch Erosion Protection 1'
1.7:1
6:1
6:1
12:1
Approximate area of undercut (Typ.)
1058.11
53+00
1056.7
Seeding & Erosion Control w / Turf Reinforcing Mat–Type 1
9'
3:1
3:1
FL 1033.74
Match Line Sta. 52+00
Sta. 52+92 Lt. End Seeding And Erosion Control F.L. 1039.96
2:1
Ditch Erosion Protection 1'
1055.63
52+00
1054.2
Sta. 51+75 Rt. End Seeding And Erosion Control F.L. 1047.80
Match Line
Sta. 51+50 Lt. Begin Seeding And Erosion Control F.L. 1032.44
Ditch Erosion Protection 1'
1.5:1
Seeding & Erosion Control w / Turf Reinforcing Mat–Type 1
7.5'
3:1
3:1
F.L. 1041.33
1053.39
51+00
1051.4
Rock Channel Protection, Type B, 30" Thick w/Fabric Filter
8'
Match Line Sta. 50+00
Ditch Erosion Protection 1'
HW–2.2M
Sta. 49+87, 130' Lt.
F.L. 18" (SE) 1025.20
12:1
Seeding & Erosion Control w / Turf Reinforcing Mat–Type 1
7.5'
2:1
2:1
Exist. 18" Conc.
18"x30" Bend F.L. Elev. 1041.46
6'–18"Type C,706.02
Sta. 49+87, CL Begin Ditch Erosion Protection
Exist. 54" Conc.
F.L. 1030.4
Match Line
Exist. Catch Basin To Be Removed Sta. 49+87, 1' Lt. Top 1046.05 Inv. 18" (NW) Elev. 1043.16
1051.43
50+00
1049.6
Catch Basin, No. 4, As Per Plan Sta. 49+87, CL F.L. Grate Elev. 1047.75 F.L. 18" (NW) Elev. 1043.16 F.L. 6" (NW,SE) Elev. 1046.25
Sta. 50+00 Rt. Begin Seeding And Erosion Control
31'–18"Type F, 707.04
18'–18"Type F, 707.04 @ 2.00%
18"x30" Bend F.L. Elev. 1025.56
1.5:1
6:1
6:1
12:1
Existing Concrete Pavement (Typ.)
Approximate area of undercut (Typ.)
1049.74
49+00
1047.9
Exist. 54" Conc.

1060 1050 1040 1030 1020

140 130 120 110 100 90 80 70 60 50 40 30 20 10 · 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET STA. 49+00 TO STA. 53+00

WAY–71–0.28

M:\98028\AUTOCAD\SDK-72sdt.dwg - SHEET 181 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
123	94		
110	90	431	341
117	69	420	294
126	66	450	250
131	76	476	263
		509	241

CALCULATED SLM 01-01

CHECKED GCS 01-01

Existing Concrete Pavement (Typ.)

Approximate area of undercut (Typ.)

Match Line Sta. 58+00

F.L. 1050.26

4:1

3:1

1070.69
58+00
1068.9

Sta. 57+00, CL
End Ditch Erosion Protection

Ditch Erosion Protection
7.5'

Sta. 57+85 Rt.
Begin Ditch Cleanout
End RCP, Type C w/ Filter
F.L. 1050.00

Match Line Sta. 57+00

10'

5'-6"

Rock Channel Protection, Type C, 18" Thick w/Fabric Filter

1068.17
57+00
1066.7

Sta. 56+59 Rt.
Begin RCP, Type C with Filter

Ditch Erosion Protection
7.5'
11'
Ahead
Back

1065.66
56+00
1064.4

Ditch Erosion Protection
11'

1063.14
55+00
1061.8

Ditch Erosion Protection
11'

Approximate area of undercut (Typ.)

Existing Concrete Pavement (Typ.)

1060.63
54+00
1059.4

2:1 6:1 6:1 1.8:1

1070 1060 1050

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET
STA. 54+00 TO STA. 58+00

WAY-71-0.28

182
432

M:\99\20\AUTOCAD\SDK-72\ss6.dwg - SHEET 182 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
103	195		
		307	835
63	256		
		291	811
94	182		
		409	513
127	95		
		463	350

CALCULATED SLW 01-01

CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 59+00 TO STA. 62+00

1090 / 1080 / 1070 / 1060 / 1050

Ditch Erosion Protection 11'

Existing Concrete Pavement (Typ.)

2:1 6:1 6:1

1080.66
62+00
1078.2

Match Line Sta. 62+00

6:1 12' 5:1

F.L. 1072.43

Seeding & Erosion Control w / Turf Reinforcing Mat–Type 2

Match Line

Seeding & Erosion Control w / Turf Reinforcing Mat–Type 2

Match Line Sta. 61+00

4:1 12' 4:1

F.L. 1065.65

Sta. 61+33 Rt.
F.L. 1071.06

Ditch Erosion Protection 11'

Exist. 15" Conc.

3:1

Exist. Catch Basin
Sta. 61+39, 79' Rt.
Top 1077.39
Inv. 15" (SE) Elev. 1075.50

Match Line

Exist. 30" Conc.

1078.23
61+00
1076.0

Match Line Sta. 60+00

12'–30"Type C, 706.02

12'–54"Type C, 706.02

Sta. 60+30 Rt.
FL 1054.15

3:1 3:1

Ditch Erosion Protection 11'

Sta. 60+10 Rt.
Begin Seeding & Erosion Control
F.L. 1053.81

F.L. 1053.66

2:1

See Headwall Detail Sheet

Approximate area of undercut (Typ.)

Match Line

Exist. 30" Conc.

Exist. 54" Conc.

Sta. 59+85, CL
Begin Ditch Erosion Protection

Exist. Catch Basin
To Be Removed
Sta. 59+85, CL
Top 1069.46
Inv. 15" (NE) Elev. 1066.00

1075.71
60+00
1073.4

Catch Basin, No. 4, As Per Plan
Sta. 59+85, CL
F.L. Grate Elev. 1071.91
F.L. 15" (NE) Elev. 1066.00
F.L. 6" (NW,SE) Elev. 1070.41

2:1 6:1 6:1

Approximate area of undercut (Typ.)

Existing Concrete Pavement (Typ.)

Match Line Sta. 59+00

3:1 3:1

F.L. 1051.96

Match Line

1075.20
59+00
1071.0

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

WAY–71–0.28

183
432

M:\899\AUTOCAD\899K-72\sht10.dwg - SHEET 183 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
225	27		
		785	191
199	76		
		524	539
84	215		
		272	719
63	173		
		307	672
103	190		
		381	713

CALCULATED SLM 01-01

CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 63+00 TO STA. 67+00

WAY-71-0.28

Existing Concrete Pavement (Typ.)

Exist. 15" Conc.

Catch Basin
Adjusted To Grade
Sta. 66+69, 82' Lt.
Top 1088.98
Top 1088.31
Inv. 15" (NW) Elev. 1084.83
F.L. 6" (SE) Elev. 1085.80

Match Line Sta. 66+00

8'

HW-2.2M
Sta. 66+50, 142' Lt.
F.L. 15" (SE) Elev. 1075.91

Rock Channel Protection,
Type C, 18" Thick w/Fabric Filter

6:1 6:1 11' Ditch Erosion Protection

1090.17
67+00
1089.7

12:1

Sta. 66+50, CL
Begin Ditch Erosion Protection

142'-15"Type B @ 3.94%

Match Line

Catch Basin, No. 4, As Per Plan
Sta. 66+50, CL
F.L. Grate Elev. 1085.98
F.L. 15" (NW) Elev. 1081.50
F.L. 6" (NW) Elev. 1084.48
F.L. 6" (SE) Elev. 1083.68

1088.62
66+00
1087.6

2:1

Match Line Sta. 65+00

Exist. 54" Conc.

2:1

Match Line

Exist. 54" Conc.

1086.89
65+00
1085.2

Exist. 15" Conc.
(Removed)

Exist. Catch Basin
To Be Removed
Sta. 63+69, 75' Lt.
Top 1082.38
Inv. 15" (NW) Elev. 1078.90

1084.99
64+00
1082.9

Ditch Erosion Protection
11'

2:1 1 6:1 6:1

1082.91
63+00
1080.4

Sta. 63+00, CL
End Ditch Erosion Protection

Existing Concrete Pavement (Typ.)

6:1

Sta. 63+00 Match Line

Seeding & Erosion Control w / Turf Reinforcing Mat-Type 2

12' 4:1 5:1

Sta. 63+29 Rt.
End Ditch Cleanout
And Erosion Protection
Match Existing

F.L. 1074.53

6:1

Exist. 15" Conc.

Match Line

Exist. Catch Basin
Sta. 62+92, 90' Rt.
Top 1079.41
Inv. 15" (SE) Elev. 1077.01

1090
1080
1070

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

M:\MOSMAUTOCAD\SDSK-72set11.DWG - SHEET 184 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

1095.41
72+00
1096.7

1094.64
71+00
1095.7

1093.78
70+00
1094.7

1092.75
69+00
1093.4

1091.55
68+00
1091.7

Sta. 69+00, CL
End Ditch Erosion Protection

Ditch Erosion Protection
11'

Ditch Erosion Protection
11'

12:1
6:1
6:1
6:1
5:1
F.L. 1091.3

12:1
F.L. 1089.5

12:1
8:1
F.L. 1091.9

3:1
8:1
F.L. 1091.6

6:1
6:1
F.L. 1090.7

6:1
5:1
F.L. 1085.9

12:1
Match Line

12:1
Match Line

F.L. 1087.7

Existing Concrete Pavement (Typ.)

1100
1090
1080

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

END AREA		VOLUME	
CUT	FILL	CUT	FILL
604	0		
		2087	0
523	0		
		1833	2
467	1		
		1794	2
502	0		
		1537	39
328	21		
		1024	89

CALCULATED SLW 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 68+00 TO STA. 72+00

WAY-71-0.28

185
432

xs12.dwg May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
402	0	1850	0
597	0		
2069	0		
520	0	2259	0
700	0		
		2415	0

CALCULATED SJW 01-01

CHECKED GCS 01-01

Ditch Erosion Protection
11'

Existing Concrete Pavement (Typ.)

Exist. 48" CMP

Sta. 76+00, CL
Begin Ditch Erosion Protection

Exist. Catch Basin
To Be Removed
Sta. 76+02, CL
Top 1096.68
Inv. 15" (SW) Elev. 1093.50

1099.36
76+00
1100.5

Catch Basin, No. 4, As Per Plan
Sta. 76+00, CL
F.L. Grate Elev. 1096.77
F.L. 15" (SW) Elev. 1093.10
F.L. 6" (NW,SE) Elev. 1094.82

F.L. 1096.0

F.L. 1093.7

1098.16
75+00
1099.6

F.L. 1095.5

74+50

F.L. 1094.9

1097.10
74+00
1098.6

F.L. 1094.0

73+50

Existing Concrete Pavement (Typ.)

F.L. 1093.1

1096.19
73+00
1097.6

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET
STA. 73+00 TO STA. 76+00

WAY-71-0.28

M:\WKDS\AUTOCAD\SDSK-72\sht15.dwg - SHEET 186 - May 02, 2001

CROSS SECTION SHEET
STA. 77+00 TO STA. 81+00

CALCULATED SLW 01-01
CHECKED GCS 01-01

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		154	46	609	141
		175	30		
		248	17	783	87
		327	3	1065	37
		387	0	1322	6
				1461	0

Sta. 81+00, CL
End Ditch Erosion Protection

1106.39
81+00
1105.6

1105.09
80+00
1104.8

1103.67
79+00
1104.0

1102.18
78+00
1102.7

1100.71
77+00
1101.7

Ditch Erosion Protection
11'

Existing Concrete Pavement (Typ.)

Approximate area of undercut (Typ.)

Exist. 6" Gas Line In 11" Casing (Gatherco, Inc.)

6:1 12:1 8:1

1110 1100 1090

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

WAY-71-0.28

187
432

M:\98029\AUTOCAD\SDSK-72in14.dwg - SHEET 187 - May 02, 2001

CROSS SECTION SHEET
STA. 82+00 TO STA. 86+00

WAY-71-0.28

188
432

CALCULATED SLW 01-01
CHECKED QCS 01-01

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
136	71		
		478	252
122	65		
		457	228
125	58		
		552	222
173	62		
		600	235
151	65		
		565	206

1120 / 1110 / 1100 / 1090

Existing Concrete Pavement (Typ.)

6:1 6:1 6:1

1111.45
86+00
1110.7

Earthwork Matchline

6:1 6:1

F.L. 1110.07

See Rest Area Plans

Exist. Catch Basin
To Be Removed
Sta. 85+85, 98' Rt.
Top 1107.62
Inv. 30" (SW) Elev. 1103.77
Inv. 24" (E) Elev. 1103.25

1110.49
85+00
1109.7

Earthwork Matchline

6:1 6:1

F.L. 1109.11

See Rest Area Plans

12:1 12:1

Earthwork Matchline

6:1

F.L. 1108.96 72'-15"Type B

1109.53
84+00
1108.7

Catch Basin, No. 4, As Per Plan
Sta. 84+40, 86' Rt.
F.L. Grate Elev. 1108.65
F.L. 15" (S) Elev. 1104.53
F.L. 6" (NW) Elev. 1105.67

HW-2.2M
Sta. 83+92, 140' Rt.
F.L. 15" (N) 1103.88

12:1

1108.57
83+00
1107.7

6:1 6:1 6:1

Existing Concrete Pavement (Typ.)

1107.54
82+00
1106.6

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

M:\99229\AUTOCAD\SB39C-72sht15.dwg - SHEET 188 - May 02, 2001

CROSS SECTION SHEET
STA. 87+00 TO STA. 91+00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
182	47		
		646	183
167	52		
		458	67
		622	198
169	55		
		613	207
162	57		
		578	224
150	64		
		530	250

CALCULATED SLW 01-01

CHECKED GCS 01-01

Existing Concrete Pavement (Typ.)

Earthwork Match Line

See Rest Area Plans

6:1

F.L. 1114.87

1116.25
91+00
1115.9

F.L. 1113.91

Additional at Northbound Rest Area

1115.29
90+00
1114.8

F.L. 1112.95

Exist. Manhole
To Be Removed
Sta. 88+86, 138' Rt.
Top 1114.84
Inv. 24" (E) Elev. 1107.55
Inv. 18" (SE) Elev. 1107.50
Inv. 24" (W) Elev. 1107.37

1114.33
89+00
1113.9

F.L. 1111.99

Exist. 15" Conc.

6'-15"Type C,706.02

Exist. Catch Basin
To Be Removed
Sta. 87+86, CL
Top 1108.80
Inv. 15" (NE) Elev. 1106.35

1113.37
88+00
1112.8

Catch Basin, No. 4, As Per Plan
Sta. 87+86, CL
F.L. Grate Elev. 1109.80
F.L. 15" (NE) Elev. 1106.35
F.L. 6" (NW,SE) Elev. 1108.30

F.L. 1111.03

Existing Concrete Pavement (Typ.)

1112.41
87+00
1111.8

1120 1110 1100

140 130 120 110 100 90 80 70 60 50 40 30 20 10 · 10 20 30 40 50 60 70 80 90 100 110 120 130 140

WAY-71-0.28

189
432

M:\8002\AUTOCAD\8008K-72sht16.dwg - SHEET 189 - May 03, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
260	54	1048	187
306	47	961	191
213	56	770	150
203	25	720	124
186	42	681	165

CALCULATED SLM 01-01

CHECKED QCS 01-01

Existing Concrete Pavement (Typ.)

Earthwork Match Line

See Rest Area Plans

1120.87
96+00
1120.4
F.L. 1119.47

1120.05
95+00
1119.7
F.L. 1118.65

1119.13
94+00
1118.9
F.L. 1117.75

1118.17
93+00
1117.8
F.L. 1116.79

1117.21
92+00
1117.0
F.L. 1115.83

Existing Concrete Pavement (Typ.)

CROSS SECTION SHEET
STA. 92+00 TO STA. 96+00

WAY-71-0.28

190
432

M:\MICRO\AUTOCAD\BDBK-72\sht17.dwg - SHEET 190 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Earthwork Match Line

Existing Concrete Pavement (Typ.)

1130 / 1120

9:1 9:1 6:1 6:1 12:1

Exist. 24" Conc. ○ ○ 30" Conduit, Type C

F.L. 1121.48

1124.05
101+00
1123.9

Earthwork Match Line

1130 / 1120

7:1 7:1

F.L. 1120.44

1110

Exist. Catch Basin
To Be Removed
Sta. 100+36, 108' Rt.
Top 1119.67
Inv. 24" (E) Elev. 1115.95
Inv. 27" (W) Elev. 1115.83

Catch Basin, No. 4, As Per Plan
Sta. 100+13, 100' Lt.
F.L. Grate Elev. 1120.15
F.L. 30" (NE,W) Elev. 1115.95

1123.45
100+00
1123.1

Earthwork Match Line

Match Line

1130 / 1120

6:1 6:1

F.L. 1120.76

Match Line Sta. 99+00

10'

Exist. 27" Conc.
153'-30" Type B

HW-2.2M
Sta. 98+90, 150' Lt.
F.L. 30" (E) Elev. 1115.00

1122.85
99+00
1122.3

Earthwork Match Line

Rock Channel Protection
Type C 18" Thick w/Fabric Filter

1120 / 1110

6:1 6:1

Exist. 24" Conc.
F.L. 1121.03

6-24" Type C, 706.02

Earthwork Match Line

6:1 6:1 3:1 2:1

F.L. 1120.69

1119.1

Exist. Catch Basin
To Be Removed
Sta. 97+85, CL
Top 1117.93
Inv. 24" (NW) Elev. 1114.99

1122.25
98+00
1121.8

Catch Basin, No. 4, As Per Plan
Sta. 97+85, CL
F.L. Grate Elev. 1118.72
F.L. 24" (NW) Elev. 1114.99
F.L. 6" (NW,SE) Elev. 1117.22

Earthwork Match Line

1130 / 1120 / 1110

6:1 6:1 6:1 6:1

F.L. 1120.21

Existing Concrete Pavement (Typ.)

1121.61
97+00
1121.0

140 130 120 110 100 90 80 70 60 50 40 30 20 10 · 10 20 30 40 50 60 70 80 90 100 110 120 130 140

END AREA		VOLUME	
CUT	FILL	CUT	FILL
274	35		
		1089	104
314	21		
		1093	89
276	27		
		837	107
176	31		
		837	126
276	37		
		993	169

CALCULATED SLW 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 97+00 TO STA. 101+00

WAY-71-0.28

191
432

M:\66029\AUTOCAD\BOOK-72to15.dwg - SHEET 191 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
242	35	885	124
236	32	902	115
251	30	8068	1778
288	21	998	94
261	47	1017	126
		991	152

CALCULATED SLM 01-01

CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 102+00 TO STA. 106+00

WAY-71-0.28

192
432

1140
1130
1120

See Rest Area Plans

Earthwork Match Line

Existing Concrete Pavement (Typ.)

6:1 6:1 6:1 6:1 12:1

F.L. 1125.43

Exist. 24" Conc.

27" Conduit, Type C

1127.05
106+00
1126.5

F.L. 1124.83

Catch Basin, No. 4, As Per Plan
Sta. 104+85, 89' Lt.
F.L. Grate Elev. 1124.73
F.L. 27" (NE) Elev. 1118.54
F.L. 30" (SW) Elev. 1118.29
F.L. 6" (N) Elev. 1122.51

1126.45
105+00
1126.1

F.L. 1124.23

Additional at Southbound Rest Area

1125.85
104+00
1125.5

6:1 6:1

F.L. 1123.94

Exist. 24" Conc.

30" Conduit, Type C

12:1 12:1

Match Line Sta. 102+00

1125.25
103+00
1124.9

Catch Basin, No. 3A
Sta. 102+39, 161.91' Lt.
F.L. Grate Elev. 1126.20
F.L. 15" (S) Elev. 1123.25
F.L. 6" (NW) Elev. 1123.25

73'-15" Type B @ 4.04%

8:1 7:1 6:1 6:1 12:1

F.L. 1123.12

Existing Concrete Pavement (Typ.)

Exist. Manhole
To Be Removed
Sta. 101+66, 100' Lt.
Top 1121.90
Inv. 15" (NW) Elev. 1117.80
Inv. 24" (W) Elev. 1116.73
Inv. 24" (E) Elev. 1116.65

Catch Basin, No. 4, As Per Plan
Sta. 102+35, 89' Lt.
F.L. Grate Elev. 1123.23
F.L. 15" (N) Elev. 1120.30
F.L. 30" (NE,SW) Elev. 1117.29
F.L. 6" (N,W) Elev. 1121.08

1124.65
102+00
1124.4

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

M:\ROGNAUTOCAD\ROR-72to19.dwg - SHEET 192 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
222	27		
		813	102
217	28		
		791	115
210	34		
		772	143
207	43		
		778	137
213	31		
		843	122

CALCULATED SLM 01-01

CHECKED GCS 01-01

Match Line

Earthwork Match Line

Match Line Sta. 111+00

Existing Concrete Pavement (Typ.)

6:1 6:1

F.L. 1128.62

1130.00
111+00
1129.4

Catch Basin, No. 4, As Per Plan
Sta. 110+75, 141' Lt.
F.L. Grate Elev. 1126.50
F.L. 18" (SW) Elev. 1123.30
F.L. 6" (S) Elev. 1124.81

See Rest Area Plans

Earthwork Match Line

6:1 6:1

F.L. 1128.07

18" Type B

1129.45
110+00
1128.9

Earthwork Match Line

12:1

See Rest Area Plans

F.L. 1127.47

18" Type B

1128.85
109+00
1128.5

Earthwork Match Line

See Rest Area Plans

F.L. 1126.87

6'-24"Type C,706.02

Exist. 24" Conc.

6'-24"Type C,706.02

Catch Basin, No. 4, As Per Plan
Sta. 107+85, 89' Lt.
F.L. Grate Elev. 1126.53
F.L. 18" (NE) Elev. 1121.50
F.L. 24" (SE) Elev. 1119.99
F.L. 27" (SW) Elev. 1119.74
F.L. 6" (SE) Elev. 1123.89
F.L. 6" (N) Elev. 1124.30

Exist. Catch Basin
To Be Removed
Sta. 107+85, CL
Top 1123.90
Inv. 24" (NW) Elev. 1121.03

1128.25
108+00
1127.6

Catch Basin, No. 4, As Per Plan
Sta. 107+85, CL
F.L. Grate Elev. 1124.72
F.L. 24" (NW) Elev. 1121.03
F.L. 6" (NW) Elev. 1123.22
F.L. 6" (SE) Elev. 1122.77

Exist. Storm Manhole
To Be Removed
Sta. 107+85, 100' Lt.
Top 1126.44
Inv. 18" (NE) Elev. 1120.40
Inv. 24" (SE,SW) Elev. 1119.97

Earthwork Match Line

See Rest Area Plans

6:1 6:1

F.L. 1126.20

Exist. 24" Conc.

27" Conduit, Type C

6:1 6:1 12:1

Existing Concrete Pavement (Typ.)

1127.65
107+00
1127.1

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET
STA. 107+00 TO STA. 111+00

WAY-71-0.28

193
432

M:\899\DWA\UTOCAD\899R-72\wa20.dwg - SHEET 193 - May 02, 2001

SEEDING

END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

3:1 6:1 10:1 10:1 6:1 25:1 10:1 10:1 12:1

F.L. 1129.40

1131.22

1131.22
116+00
1132.5

F.L. 1128.90

6:1 6:1

1130.85
115+00
1132.1

F.L. 1128.40

1130.71
114+00
1131.6

F.L. 1127.90

1130.63
113+00
1131.0

3:1 6:1 6:1 6:1 12:1

F.L. 1127.40

Existing Concrete Pavement (Typ.)

1130.40
112+00
1130.1

1140 1130 1120

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
458	1		
		1617	7
415	3		
		1463	17
375	6		
		1369	30
364	10		
		1324	48
351	16		
		1061	80

CALCULATED SLW 01-01

CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 112+00 TO STA. 116+00

WAY-71-0.28

194
432

M:\99228\AUTOCAD\508K-75\sc21.dwg - SHEET 194 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
358	4		
		1315	11
352	2		
		1409	4
409	0		
		1654	13
484	7		
		1744	15

CALCULATED SLM 01-01

CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 117+00 TO STA. 120+00

WAY-71-0.28

Existing Concrete Pavement (Typ.)

F.L. 1133.1

1134.31
120+00
1135.1

F.L. 1133.3

F.L. 1131.9

Catch Basin No. 4, As Per Plan
Sta. 118+75, CL
F.L. Grate Elev. 1130.93
F.L. 18" (SW) Elev. 1127.90

1133.25
119+00
1134.3

Exist. Catch Basin
To Be Removed
Sta. 118+76, CL
Top 1130.41
Inv. 15" (SW) Elev 1128.41

F.L. 1132.9

Match Line
Sta. 118+00

Exist. Catch Basin
Do Not Disturb
Sta. 117+87, 144' Rt.
Top 1140.40
Inv. 15" (SW) Elev 1138.40

20'-15"Type C

F.L. 1130.9

Exist. 36" Conc.

Exist. 36" Conc.

Exist. 27" Conc.

F.L. 1132.1

Exist. 15" CMP

Match Line

Exist. Catch Basin
To Be Removed
Sta. 117+97, 96' Lt.
Top 1131.62
Inv. 15" (SW) Elev 1129.45

Exist. Storm Manhole
Sta. 117+80, 96' Lt.
Top 1131.60
Inv. 36" (SE,SW) Elev. 1124.20
Inv. 15" (NE) Elev. 1125.20 - To Be Removed
Inv. 15" (NE) Elev. 1125.20
Pipe Shall Enter Manhole Using
Opening From The 15" Pipe Removed

Catch Basin No. 4, As Per Plan
Sta. 118+00, 92' Lt.
F.L. Grate Elev. 1130.65
F.L. 15" (SW) Elev. 1127.40
F.L. 6" (SE) Elev. 1128.12

1132.42
118+00
1133.8

Exist. Storm Manhole
Sta. 117+91, 1' Lt.
Top 1134.00
Adjust To Grade 1132.42
Inv. 15" (NE) Elev. 1127.28
Inv. 18" (NE) Elev. 1127.28
Inv. 27" (SE) Elev. 1127.15
Inv. 36" (NW) Elev. 1126.40
F.L. 6" (N) Elev. 1127.82
F.L. 6" (E) Elev. 1129.06

Exist. Catch Basin
Do Not Disturb
Sta. 117+86, 99' Rt.
Top 1131.55
Inv. 15" (SE) Elev. 1129.36
Inv. 27" (SW) Elev. 1128.36
F.L. 6" (N) Elev. 1129.20

F.L. 1129.9

1131.79
117+00
1133.1

Existing Concrete Pavement (Typ.)

F.L. 1131.3

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

M:\99\029\AUTOCAD\SIDEK-72ss22.dwg - SHEET 195 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

1138.57
125+00
1138.0

1137.93
124+00
1137.3

1137.25
123+00
1136.9

1136.42
122+00
1136.3

1135.43
121+00
1135.8

6:1 6:1

8:1
F.L. 1135.5
3:1

12:1
F.L. 1135.1
3:1

12:1 6:1 6:1 12:1
F.L. 1134.6
Existing Concrete Pavement (Typ.)

1150 1140 1130

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

END AREA		VOLUME	
CUT	FILL	CUT	FILL
153	46	569	152
154	36	652	137
198	38	763	124
214	29	854	83
247	16	1120	37

CALCULATED SLM 01-01

CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 121+00 TO STA. 125+00

WAY-71-0.28

196
432

M:\98029\AUTOCAD\SDSK-72sc23.dwg - SHEET199 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

6:1 6:1 12:1

1141.77
130+00
1140.8

12:1

1141.13
129+00
1140.2

Exist. 18" Conc.

6'-18"Type C,706.02

Exist. Catch Basin
To Be Removed
Sta. 127+85, CL
Top 1135.52
Inv. 18" (NW) Elev. 1133.66

Catch Basin No. 4, As Per Plan
Sta. 127+85, CL
F.L. Grate Elev. 1136.95
F.L. 18" (NW) Elev. 1133.66
F.L. 6" (NW,SE) Elev. 1135.45

1140.49
128+00
1139.7

1139.85
127+00
1139.2

6:1 6:1

Existing Concrete Pavement (Typ.)

1139.21
126+00
1138.6

END AREA		VOLUME	
CUT	FILL	CUT	FILL
133	50		
		504	189
139	52		
		528	194
146	53		
		552	176
152	42		
		563	157
152	43		
		565	165

CALCULATED SLM 01-01

CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 126+00 TO STA. 130+00

WAY-71-0.28

197
432

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

M:\98029\AUTOCAD\BOOK-72\ss24.dwg - SHEET 197 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

6:1 6:1

1144.97
135+00
1144.0

1144.33
134+00
1143.4

1143.69
133+00
1142.7

Exist. 60" Conc.

1143.05
132+00
1142.0

6:1 6:1

Exist. 60" Conc.

Existing Concrete Pavement (Typ.)

1142.41
131+00
1141.4

END AREA		VOLUME	
CUT	FILL	CUT	FILL
126	41		
		456	163
120	47		
		437	194
116	58		
		448	222
126	62		
		470	222
128	58		
		483	200

CALCULATED SLM 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 131+00 TO STA. 135+00

WAY-71-0.28

198
432

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

M:\98029\AUTOCAD\98029K-72sx26.dwg - SHEET 199 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

1148.17
140+00
1146.7

1147.53
139+00
1146.2

Exist. 15" Conc.
6'-15"Type C,706.02

Exist. Catch Basin
To Be Removed
Sta. 137+84, CL
Top 1141.72
Inv. 15" (NW) Elev. 1139.80

1146.89
138+00
1145.8

Catch Basin No. 4, As Per Plan
Sta. 137+84, CL
F.L. Grate Elev. 1142.71
F.L. 15" (NW) Elev. 1139.80
F.L. 6" (NW,SE) Elev. 1141.21

1146.25
137+00
1145.4

Existing Concrete Pavement (Typ.)

1145.61
136+00
1144.6

END AREA		VOLUME	
CUT	FILL	CUT	FILL
105	69		
		393	241
107	61		
		419	217
119	56		
		437	202
117	53		
		433	189
117	49		
		450	167

CALCULATED SLM 01-01

CHECKED QCS 01-01

CROSS SECTION SHEET
STA. 136+00 TO STA. 140+00

WAY-71-0.28

199
432

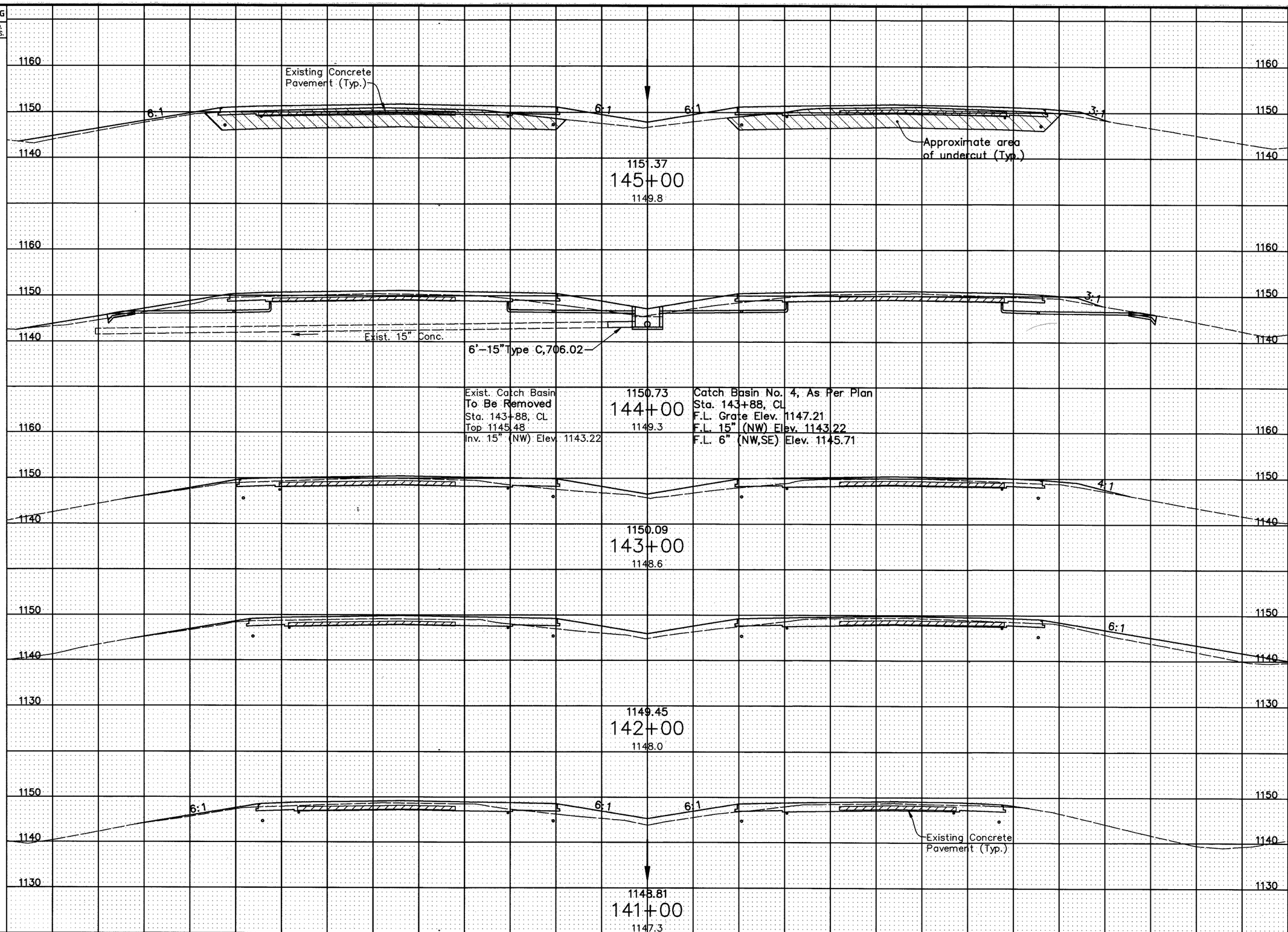
M:\WKSPACE\AUTOCAD\BDBK-72to28.dwg - SHEET 199 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
82	120		
		369	448
117	122		
		387	365
92	75		
		346	385
95	133		
		352	381
95	73		
		370	263

CALCULATED SLM 01-01

CHECKED GCS 01-01



CROSS SECTION SHEET
STA. 141+00 TO STA. 145+00

WAY-71-0.28

M:\$$$$$$\AUTOCAD\$$$$$$-72ss27.dwg - SHEET 200 - May 03, 2001

CROSS SECTION SHEET
STA. 146+00 TO STA. 150+00

CALCULATED SLM 01-01
CHECKED GCS 01-01

SEEDING END WIDTH	SEEDING SQ. YDS.
140	181
130	170
120	119
110	102
100	102
90	341
80	378
70	409
60	535
50	656
40	
30	
20	
10	

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
181	54		
		656	213
170	61		
		535	241
119	69		
		409	261
102	72		
		378	281
102	80		
		341	370

Rock Channel Protection, Type C, 18" Thick w/ Fabric Filter

Ditch Erosion Protection 7.5' 2:1 2:1 10'

Match Line 150+00

Sta. 150+16 Lt.
End Ditch Restoration
And Erosion Protection
F.L. 1142.51

Existing Concrete Pavement (Typ.)

F.L. 1142.32

HW-2.2M
Sta. 150+16, 143' Lt.
F.L. 36" (SE) Elev. 1142.55

Exist. 48" CMP (Remove)

Sta. 149+75 Lt.
Begin Ditch Restoration
And Erosion Protection
Match Existing

308'-36"Conduit, Bored or Jacked, Type B, @ 0.70% As Per Plan

1154.19
150+00
1153.2

F.L. 1151.97

Approximate area of undercut (Typ.)

Exist. 15" Conc. (Remove)

Exist. Catch Basin To Be Removed
Sta. 148+85, 76' Lt.
Top 1152.73
Inv. 15" (NW,SW) Elev. 1148.67

1153.79
149+00
1152.4

F.L. 1152.46

Exist. Catch Basin To Be Removed
Sta. 148+10, 76' Lt.
Top 1151.80
Inv. 15" (NE) Elev. 1149.47

1153.27
148+00
1151.8

1152.65
147+00
1151.1

Approximate area of undercut (Typ.)

1152.01
146+00
1150.4

Existing Concrete Pavement (Typ.)

WAY-71-0.28

M:\MSD\DGN\AUTOCAD\MSD8K-72ss28.dwg - SHEET 201 - May 03, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
367	1		
		1244	13
305	6		
		1141	39
311	15		
		1028	74
244	25		
		843	174
211	69		
		726	228

CALCULATED SLM 01-01

CHECKED GCS 01-01

Existing Concrete Pavement (Typ.)

1155.57
155+00
1156.1

F.L. 1153.6

1155.30
154+00
1155.6

F.L. 1152.27

1155.02
153+00
1154.8

F.L. 1153.09

1154.75
152+00
1154.3

Approximate area of undercut (Typ.)

Exist. 48" CMP (Remove)

308'-36"Conduit, Bored or Jacked, Type B,@ 0.70% As Per Plan

Catch Basin No. 4, As Per Plan
Sta. 152+00, 104' Rt.
F.L. Grate Elev. 1149.75
F.L. 36" (NW) Elev. 1144.71

Exist. Catch Basin To Be Removed
Sta. 151+82, 98' Rt.
Top 1149.95
Inv. 48" (NW) Elev. 1144.62

Existing Concrete Pavement (Typ.)

6:1 NORMAL (RAMP D)

Approximate area of undercut (Typ.)

Exist. Catch Basin To Be Removed
Sta. 151+25, 1' Lt.
Top 1150.27
Inv. 15" (SW) Elev. 1147.98

1154.48
151+00
1153.8

Catch Basin No. 4, As Per Plan
Sta. 151+35, CL
F.L. Grate Elev. 1151.13
F.L. 15" (SW) Elev. 1146.00
F.L. 6" (NW,SE) Elev. 1149.63

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET
STA. 151+00 TO STA. 155+00

WAY-71-0.28

202
432

M:\MRGDNAUTOCAD\RDBK-72way29.dwg - SHEET 202 - May 09, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
649	0	2230	0
555	0	1950	0
498	0	1743	0
443	0	1500	2

CALCULATED SLM 01-01

CHECKED QCS 01-01

Match Line Sta. 159+00

Match Line

Existing Concrete Pavement (Typ.)

1170
1160
1150

3:1 8:1 F.L. 1155.2

10:1 10:1 25:1 25:1 10:1 10:1

12:1 8:1 F.L. 1155.2 2:1

1157.07
159+00
1158.4

F.L. 1154.7 8:1 3:1 F.L. 1154.7

1156.54
158+00
1157.9

6:1 6:1

F.L. 1154.3 F.L. 1154.3

1156.13
157+00
1157.3

3:1 8:1 F.L. 1153.9 8:1 3:1 F.L. 1153.9

Existing Concrete Pavement (Typ.)

1155.84
156+00
1156.7

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET
STA. 156+00 TO STA. 159+00

WAY-71-0.28

203
432

M:\8802\ACAD\8805K-75\s805.dwg - SHEET 203 - May 09, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

Ditch Erosion Protection 11'

6:1 6:1 6:1 6:1

Exist. 36" Conc.
Sta. 164+00, CL
End Ditch Erosion Protection

1162.03
164+00
1161.5

Ditch Erosion Protection 11'

5:1 8:1
F.L. 1159.0

7:1 3:1
F.L. 1158.9

1160.73
163+00
1161.0

Ditch Erosion Protection 11'

6:1 6:1
F.L. 1157.7

8:1 3:1
F.L. 1157.7

Exist. 36" Conc.

1159.45
162+00
1160.3

Ditch Erosion Protection 11'

3:1 8:1
F.L. 1156.6

8:1 3:1
F.L. 1156.6

Exist. Catch Basin
To Be Removed
Sta. 161+20, 3' Rt.
Top 1156.79
Inv. 36" (NE) Elev. 1149.25
Inv. 36" (SW) Elev. 1149.23

1158.41
161+00
1159.6

Catch Basin, No. 4, As Per Plan
Sta. 161+00, 2.5' Rt.
F.L. Grate Elev. 1156.24
F.L. 36" (NE,SW) Elev. 1149.13
F.L. 6" (NW,SE) Elev. 1153.87

Sta. 161+00, CL
Begin Ditch Erosion Protection

Approximate area of undercut (Typ.)

Catch Basin, No. 4, As Per Plan
Sta. 160+27, 95' Rt.
F.L. Grate Elev. 1155.70
F.L. 18" (NW) Elev. 1153.03
F.L. 6" (N) Elev. 1153.51

Manhole Adjusted to Grade
Sta. 160+27, 1' Lt.
Top 1159.78
Top 1158.00
Inv. 18" (SE) Elev. 1150.58
Inv. 36" (NW) Elev. 1148.07
Inv. 36" (NW) Elev. 1148.07
Inv. 48" (N) Elev. 1147.98

Exist. Catch Basin
To Be Removed
Sta. 160+26, 105' Rt.
Top 1156.76
Inv. 18" (NW) Elev. 1153.28

Existing Concrete Pavement (Typ.)

2:1 8:1 12:1
F.L. 1155.8

10:1 10:1 25:1 25:1 10:1 10:1

Approximate area of undercut (Typ.)

Exist. 48" Conc.

Exist. 18" Conc.

8:1 5:1
F.L. 1155.8

6'-18"Type C,706.02

Exist. 18" Conc. (Remove)

1157.67
160+00
1159.1

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

END AREA		VOLUME	
CUT	FILL	CUT	FILL
191	39		
		887	83
288	6		
		1296	11
412	0		
		1728	0
521	0		
		2006	0
562	0		
		2243	0

CALCULATED SLM 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 160+00 TO STA. 164+00

WAY-71-0.28

204
432

M:\900\DWG\AUTOCAD\900R-72\ss01.dwg - SHEET 204 - May 03, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
130	135		
145	99	509	433
160	106	565	380
112	103	504	387
113	65	417	311
		563	193

CALCULATED SLW 01-01

CHECKED GCS 01-01

Existing Concrete Pavement. (Typ.)

6:1 6:1 6:1

Exist. 18" Conc.

1166.12
169+00
1164.6

1165.52
168+00
1164.0

12:1 8:1 6:1

1164.90
167+00
1163.3

15:1 6:1

Exist. 18" Conc.

1164.13
166+00
1162.6

Existing Concrete Pavement (Typ.)

6:1 6:1 6:1 6:1

Exist. 27" Conc.

Manhole Adjusted To Grade
Sta. 164+91, 11' Rt.
Top 1159.41
Top 1161.37
Inv. 18" (NE) Elev. 1153.06
Inv. 27" (SE) Elev. 1152.20
Inv. 36" (SW) Elev. 1150.93

Exist. Catch Basin
Sta. 164+92, 140' Rt.
Top 1157.90
Inv. 27" (NW) Elev. 1154.48
F.L. 6" (NW) Elev. 1156.40

1163.17
165+00
1162.1

1170 1160 1150 1140

140 130 120 110 100 90 80 70 60 50 40 30 20 10 · 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET
STA. 165+00 TO STA. 169+00

WAY-71-0.28

M:\898233\AUTOCAD\SS\SSC-72ss02.dwg - SHEET 205 - May 09, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
132	92		
		469	331
121	87		
		457	306
126	78		
		476	306
131	87		
		487	361
132	108		
		485	450

CALCULATED SLW 01-01

CHECKED GCS 01-01

Existing Concrete Pavement (Typ.)

1169.11
174+00
1167.7

1168.51
173+00
1166.9

1167.91
172+00
1166.6

1167.32
171+00
1165.7

Existing Concrete Pavement (Typ.)

Exist. Catch Basin
To Be Removed
Sta. 170+35, CL
Top 1161.47
Inv. 6" (NE) Elev. 1159.16
Inv. 18" (SW) Elev. 1158.46

1166.72
170+00
1165.1

Catch Basin No. 4, As Per Plan
Sta. 170+35, CL
F.L. Grate Elev. 1163.74
F.L. 18" (SW) Elev. 1158.46
F.L. 6" (SE) Elev. 1161.78
F.L. 6" (NW) Elev. 1160.06

CROSS SECTION SHEET STA. 170+00 TO STA. 174+00

WAY-71-0.28

206
432

M:\99029\AUTOCAD\SIDEK-72ss33.dwg - SHEET 205 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

6:1 6:1 6:1 6:1

1171.10
179+00
1169.5

1170.99
178+00
1169.4

1170.72
177+00
1169.1

12:1

1170.28
176+00
1168.7

12:1 6:1 6:1 6:1

Existing Concrete Pavement (Typ.)

1169.71
175+00
1168.1

1180 1170 1160

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

END AREA		VOLUME	
CUT	FILL	CUT	FILL
119	87		
		415	330
105	91		
		374	352
97	99		
		385	344
111	87		
		391	319
100	85		
		430	328

CALCULATED SLW 01-01

CHECKED QCS 01-01

CROSS SECTION SHEET
STA. 175+00 TO STA. 179+00

WAY-71-0.28

M:\$\$\$\$\$\$\$\AUTOCAD\$\$\$\$\$\$\-72as34.dwg - SHEET 207 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

1169.19
184+00
1168.6

1169.90
183+00
1169.2

1170.44
182+00
1169.5

1170.82
181+00
1169.8

1171.04
180+00
1169.7

Existing Concrete Pavement (Typ.)

END AREA		VOLUME	
CUT	FILL	CUT	FILL
199	41		
		713	154
186	42		
		659	167
170	48		
		589	189
148	54		
		591	231
171	71		
		537	293

CALCULATED SLM 01-01

CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 180+00 TO STA. 184+00

WAY-71-0.28

208
432

M:\MICROSTATION\CADD\DGN\C-72ss36.dwg - SHEET 208 - May 03, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

Ditch Erosion Protection
1'

12:1 6:1 6:1 12:1

1163.43
189+00
1164.3

Ditch Erosion Protection
1'

1164.75
188+00
1165.4

Ditch Erosion Protection
1'

12:1

Sta. 187+00, CL
Begin Ditch Erosion Protection

1166.09
187+00
1166.4

1167.29
186+00
1167.2

12:1 6:1 6:1

Existing Concrete Pavement (Typ.)

1168.32
185+00
1167.9

1170 1160 1150

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
415	0		
		1443	6
364	3		
		1263	30
318	13		
		1143	52
299	15		
		980	80
230	28		
		794	128

CALCULATED SLM 01-01

CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 185+00 TO STA. 189+00

WAY-71-0.28

209
432

M:\8620\AUTOCAD\8620K-72as36.dwg - SHEET 209 - May 03, 2001

CROSS SECTION SHEET
STA. 190+00 TO STA. 194+00

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
380	0		
		1396	0
374	0		
		1402	6
383	3		
		1585	6
473	0		
		1678	0
433	0		
		1570	0

CALCULATED SLM 01-01

CHECKED GCS 01-01

Existing Concrete Pavement (Typ.)

F.L. 1154.9

8:1

10:1 10:1 25:1 25:1 10:1 10:1

6:1 3:1

F.L.1157.0

Approximate area of undercut (Typ.)

1158.29
194+00
1159.1

6:1 3:1

F.L. 1156.3

10:1 10:1 25:1 25:1 10:1 10:1

6:1 3:1

F.L. 1158.0

1159.27
193+00
1160.1

3:1 6:1

F.L. 1157.2

10:1 10:1 25:1 25:1 10:1 10:1

12:1

Approximate area of undercut (Typ.)

1160.26
192+00
1161.5

Sta. 190+92 Lt.
End Ditch Restoration
F.L. 1149.73

Sta. 190+83 Lt.
Begin Ditch Restoration
F.L. 1152.49

0.083

Match Line
Sta. 191+00

0.083

Match Line

6:1 6:1

Exist. 48" Conc.

Exist. Catch Basin
To Be Removed
Sta. 190+76, 1' Rt.
Top 1159.06
Inv. 15" (NE) Elev. 1155.84

1161.24
191+00
1162.4

Ditch Erosion Protection
1'

Catch Basin No. 4, As Per Plan
Sta. 190+76, CL
F.L. Grate Elev. 1158.03
F.L. 15" (NE) Elev. 1155.13
F.L. 6" (NW,SE) Elev. 1156.53

12:1 6:1 6:1 12:1

Sta. 190+76, CL
End Ditch Erosion Protection

Existing Concrete Pavement (Typ.)

1162.26
190+00
1163.3

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

WAY-71-0.28

M:\MSGS\AUTOCAD\SDSK-72\std37.dwg - SHEET 210 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

F.L. 1150.2

1153.38
199+00
1153.3

F.L. 1150.8

F.L. 1151.2

1154.36
198+00
1154.4

F.L. 1152.3

F.L. 1152.2

1155.35
197+00
1155.6

F.L. 1153.5

F.L. 1153.2

1156.33
196+00
1156.9

F.L. 1154.7

Approximate area of undercut (Typ.)

F.L. 1153.9

Approximate area of undercut (Typ.)

1157.31
195+00
1158.0

Existing Concrete Pavement (Typ.)

F.L. 1155.8

END AREA		VOLUME	
CUT	FILL	CUT	FILL
280	26		
		1131	72
331	13		
		1291	30
366	3		
		1439	7
411	1		
		1519	2
409	0		
		1461	0

CALCULATED SLW 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 195+00 TO STA. 199+00

WAY-71-0.28

211
432

M:\99\0029\AUTOCAD\SBSK-72ss38.dwg - SHEET 211 - May 02, 2001

SEEDING	
END WIDTH	SD. YDS.

Existing Concrete Pavement (Typ.)

12:1 6:1 6:1

1148.47
204+00
1148.0

Sta. 204+01 Rt.
Begin Ditch Restoration
F.L. 1140.21

Exist. 48" Conc.

14:1

F.L. 1140.21

1149.46
203+00
1149.0

12:1

1150.44
202+00
1150.1

3:1 6:1

F.L. 1147.9

Exist. 21' Conc.

6'-21"Type C,706.02

Exist. Catch Basin
To Be Removed
Sta. 200+84, CL
Top 1147.79
Inv. 21" (N) Elev. 1144.74

1151.42
201+00
1151.2

Catch Basin No. 4, As Per Plan
Sta. 200+84, CL
F.L. Grate Elev. 1148.14
F.L. 21" (N) Elev. 1144.74
F.L. 6" (SE) Elev. 1146.64
F.L. 6" (NW) Elev. 1145.84

3:1 6:1 6:1

F.L. 1149.2

Existing Concrete Pavement (Typ.)

1152.40
200+00
1152.2

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

END AREA		VOLUME	
CUT	FILL	CUT	FILL
204	43	750	178
201	53	817	156
240	31	869	126
229	37	924	122
270	29	1019	102

CALCULATED SLM 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 200+00 TO STA. 204+00

WAY-71-0.28

212
432

M:\99\99WAUTOCAD\99DRK-72ss99.dwg - SHEET 212 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

Sta. 209+44 Rt.
End Ditch Restoration
And Erosion Protection
F.L. 1138.12

Ditch Erosion Protection
7.5'
F.L. 1139.63

1145.31
209+00
1144.7

Sta. 208+75 Rt.
Begin Ditch Restoration
And Erosion Protection
Match Existing

1145.71
208+00
1145.2

Exist. 48" Conc.

Sta. 206+90 Lt.
End Ditch Restoration
F.L. 1135.60

1146.12
207+00
1145.9

Sta. 206+54 Lt.
Begin Ditch Restoration
F.L. 1135.87

1146.69
206+00
1146.5

Sta. 205+81 Rt.
End Ditch Restoration
Match Existing

Existing Concrete Pavement (Typ.)

F.L. 1141.16

1147.50
205+00
1147.3

END AREA		VOLUME	
CUT	FILL	CUT	FILL
171	42		
		702	128
208	27		
		809	94
229	24		
		846	89
228	24		
		817	96
213	28		
		772	131

CALCULATED SLM 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 205+00 TO STA. 209+00

WAY-71-0.28

213
432

M:\800\2\AUTOCAD\SD8K-75\sd40.dwg - SHEET 213 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
167	36	607	156
161	48	591	189
158	54	567	202
148	55	552	211
150	59	594	187

CALCULATED SLW 01-01

CHECKED GCS 01-01

Existing Concrete Pavement (Typ.)

6:1 6:1

1143.31
214+00
1142.9

Sta. 212+21 Lt.
End Ditch Restoration
Match Existing

Rock Channel Protection, Type B, 30" Thick, w/ Fabric Filter

12'

F.L. 1133.55

Match Line Sta. 212+00

Sta. 212+06 Lt.
End Seeding And
Erosion Control
Match Existing

1143.71
213+00
1143.2

HW-2.2M
Sta. 211+71, 114' Lt.
F.L. 36" (SE) Elev. 1133.81

Match Line

Exist. 42" CMP

320'-36"Conduit, Bored or Jacked, Type A, @ 1.35% As Per Plan

Sta. 211+71 Lt.
Ditch Low Point
F.L. 1133.40

1144.11
212+00
1143.3

Sta. 211+21 Lt.
Begin Ditch Restoration
Match Existing

Sta. 211+79 Lt.
Begin Seeding And
Erosion Control
F.L. 1133.4

6:1

1144.51
211+00
1143.8

Existing Concrete Pavement (Typ.)

6:1 6:1 6:1

320'-36"Conduit, Bored or Jacked, Type A, @ 1.35% As Per Plan

Exist. 42" CMP (Remove)

Exist. Catch Basin
To Be Removed
Sta. 210+47, CL
Top 1140.60
Inv. 15" (NE) Elev. 1137.76

1144.91
210+00
1144.1

Catch Basin, No. 4, As Per Plan
Sta. 210+47, CL
F.L. Grate Elev. 1141.28
F.L. 15" (NE) Elev. 1138.00
F.L. 6" (NW,SE) Elev. 1139.78

HW-2.2M
Sta. 209+45, 112' Rt.
F.L. 36" (NW) Elev. 1138.13

1150 1140 1130

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET
STA. 210+00 TO STA. 214+00

WAY-71-0.28

214
432

M:\98029\AUTOCAD\98DRK-72to41.dwg - SHEET 214 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

6:1 6:1

1141.31
219+00
1140.7

12:1

1141.71
218+00
1141.1

12:1

1142.11
217+00
1141.5

1142.51
216+00
1142.0

6:1 6:1

Existing Concrete Pavement (Typ.)

1142.91
215+00
1142.5

END AREA		VOLUME	
CUT	FILL	CUT	FILL
177	33		
		644	152
171	49		
		630	156
169	35		
		643	119
178	29		
		646	106
171	28		
		626	119

CALCULATED SLM 01-01

CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 215+00 TO STA. 219+00

WAY-71-0.28

M:\$\$CD\$\$\AUTOCAD\$\$\SK-72sx42.dwg - SHEET 216 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

Ditch Erosion Protection
11'
3:1 3:1
F.L. 1125.64

Exist. 42" Conc.

4'-42"Type C,706.02

HW-2.2M
Sta. 223+65, 111' Lt.
F.L. (S) Elev. 1127.65

1139.31
224+00
1138.5

Sta. 223+00 Rt.
End Ditch Restoration
And Erosion Protection
Match Existing

Ditch Erosion Protection
7.5'
6:1 4:1
F.L. 1134.50

Ditch Erosion Protection
11'
3:1 3:1
F.L. 1126.84

Exist. 42" Conc.

1139.71
223+00
1138.9

Ditch Erosion Protection
11'
3:1 3:1
F.L. 1128.04

Ditch Erosion Protection
7.5'
4:1 4:1
F.L. 1133.00

1140.11
222+00
1139.3

Sta. 221+00 Rt.
Begin Ditch Restoration
And Erosion Protection
F.L. 1131.50

Ditch Erosion Protection
11'
4:1
3:1 3:1
F.L. 1129.24

Begin Ditch Erosion Protection
7.5'
3:1
F.L. 1131.50

Exist. 42" Conc.

1140.51
221+00
1139.8

Sta. 220+51 Lt.
Begin Ditch Restoration
And Erosion Protection
F.L. 1129.85

Rock Channel Protection,
Type C, 18" Thick w/Fabric Filter
6'

Existing Concrete Pavement (Typ.)

6:1 6:1

Exist. 15" Conc.

40'-15"Type B,706.02

6'-15"Type B,706.02

HW-2.2M
Sta. 220+49, 110' Lt.
F.L. 15" (SE) Elev. 1131.42

Exist. Catch Basin
To Be Removed
Sta. 220+48, 1' Lt.
Top 1136.81
Inv. 15" (NW) Elev. 1133.83

1140.91
220+00
1140.3

Catch Basin, No. 4, As Per Plan
Sta. 220+48, CL
F.L. Grate Elev. 1137.28
F.L. 15" (NW) Elev. 1133.83
F.L. 6" (NW,SE) Elev. 1135.78

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

END AREA		VOLUME	
CUT	FILL	CUT	FILL
197	38		
		783	163
226	50		
		793	169
202	41		
		752	137
204	33		
		696	120
172	32		
		646	120

CALCULATED SLM 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 220+00 TO STA. 224+00

WAY-71-0.28

216
432

M:\60028\AUTOCAD\SDB\C72sa43.dwg - SHEET 216 - May 02, 2001

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		148	56	530	219
		138	62	587	222
		179	58	639	200
		166	50	631	176
		175	45	689	154

CALCULATED SLW 01-01

CHECKED GCS 01-01

Existing Concrete Pavement (Typ.)

Ditch Erosion Protection 11' 3:1 3:1

F.L. 1122.28

1137.31
229+00
1136.5

Exist. 6" Gas Line In 11" Casing (Gatherco, Inc.)

Sta. 228+47 Rt.
End Ditch Restoration
And Erosion Protection
Match Existing

Ditch Erosion Protection 7.5' 4:1 4:1

F.L. 1127.69

Ditch Erosion Protection 11' 3:1 3:1

F.L. 1121.78

1137.71
228+00
1136.8

Sta. 227+45 Lt.
Low Point of Ditch
F.L. 1121.50

Ditch Erosion Protection 11' 3:1 3:1

Ditch Erosion Protection 7.5' 4:1 4:1

F.L. 1127.19

Exist. 24" Conc.

1138.11
227+00
1137.3

Ditch Erosion Protection 11' 3:1 3:1

F.L. 1122.04

Match Line Sta. 226+00

Sta. 226+47 Rt.
Begin Ditch Restoration
And Erosion Protection
Match Existing

F.L. 1123.24

Match Line

1138.51
226+00
1137.7

Ditch Erosion Protection 11' 3:1 3:1

F.L. 1124.44

Existing Concrete Pavement (Typ.)

1138.91
225+00
1138.1

140 130 120 110 100 90 80 70 60 50 40 30 20 10 · 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET
STA. 225+00 TO STA. 229+00

WAY-71-0.28

217
432

M:\99\029\AUTOCAD\SB29K-75sx44.dwg - SHEET 217 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

1140
1130
1120

1135.31
234+00
1134.7

6:1 6:1

1135.71
233+00
1134.9

1136.11
232+00
1135.4

Sta. 231+00 Lt.
End Ditch Restoration
And Erosion Protection
Match Existing

Ditch Erosion Protection
11'
3:1 3:1
F.L. 1123.28

Exist. 6" Gas Line
In 11" Casing
(Gatherco, Inc.)

1136.51
231+00
1135.8

Ditch Erosion Protection
11'
3:1 3:1
F.L. 1122.78

6:1 6:1

Exist. 15" Conc.

Existing Concrete Pavement (Typ.)

6'-15" Type C,706.02

Exist. Catch Basin
To Be Removed
Sta. 230+49, 1' Lt.
Top 1133.10
Inv. 15" (NW) Elev. 1129.59

1136.91
230+00
1136.2

Catch Basin, No. 4, As Per Plan
Sta. 230+49, CL
F.L. Grate Elev. 1133.27
F.L. 15" (NW) Elev. 1129.59
F.L. 6" (NW,SE) Elev. 1131.77

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

END AREA		VOLUME	
CUT	FILL	CUT	FILL
146	33	531	146
141	46	550	169
156	45	585	150
160	36	587	131
157	35	565	169

CALCULATED SLW 01-01
CHECKED QCS 01-01

CROSS SECTION SHEET
STA. 230+00 TO STA. 234+00

WAY-71-0.28

218
432

M:\606\0\AUTOCAD\606R-72sht45.dwg - SHEET 218 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

6:1 6:1

1133.31
239+00
1132.5

1133.71
238+00
1132.9

1134.11
237+00
1133.5

1134.51
236+00
1133.7

6:1 6:1

Existing Concrete Pavement (Typ.)

1134.91
235+00
1134.2

1140 1130 1120

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
148	38	539	131
143	33	546	130
152	37	572	126
157	31	572	115
152	31	552	119

CALCULATED SLW 01-01

CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 235+00 TO STA. 239+00

WAY-71-0.28

M:\MICRO\AUTOCAD\SD98\72sw46.dwg - SHEET 219 - May 03, 2001

SEEDING	
END WIDTH	SQ. YDS.

Sta. 244+30 Lt.
End Ditch Restoration
And Erosion Protection
Match Existing

Existing Concrete Pavement (Typ.)

Ditch Erosion Protection
7.5'
3:1
3:1
F.L. 1113.30

1131.31
244+00
1130.4
Exist. 18" Conc.

Sta. 243+30 Lt.
Low Point of Ditch
F.L. 1111.20

Ditch Erosion Protection
7.5'
3:1
3:1
F.L. 1112.40

1131.71
243+00
1130.8

Sta. 242+30 Lt.
Begin Ditch Restoration
And Erosion Protection
Match Existing

1132.11
242+00
1131.1

1132.51
241+00
1131.5

Existing Concrete Pavement (Typ.)

Exist. Catch Basin
To Be Removed
Sta. 240+44, CL
Top 1128.37
Inv. 15" (SE) Elev. 1125.70

6'-15"Type C,706.02

1132.91
240+00
1132.0

Catch Basin, No. 4, As Per Plan
Sta. 240+44, CL
F.L. Grate Elev. 1129.29
F.L. 15" (SE) Elev. 1125.70
F.L. 6" (NW,SE) Elev. 1127.79
Exist. 15" Conc.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
181	53		
		607	200
147	55		
		535	196
142	51		
		544	165
152	38		
		557	161
149	49		
		550	161

CALCULATED SLW 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 240+00 TO STA. 244+00

WAY-71-0.28

220
432

M:\WK2\MAUTOCAD\BORK-72\ex47.dwg - SHEET 220 - May 03, 2001

SEEDING

END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

Sta. 249+30 Rt.
End Ditch Restoration
And Erosion Protection
F.L. 1119.41

Ditch Erosion Protection 7.5'

F.L. 1118.29

1129.31
249+00
1128.5

Sta. 248+43 Rt.
Begin Ditch Restoration
And Erosion Protection
Match Existing

1129.71
248+00
1129.0

1130.11
247+00
1129.3

Sta. 246+74 Lt
End Ditch Restoration
And Erosion Protection
Match Existing

Sta. 246+46 Lt
Low Point of Ditch
F.L. 1111.50

Sta. 246+17 Lt.
Begin Ditch Restoration
And Erosion Protection
Match Existing

1130.51
246+00
1129.6

Exist. 30" Conc.

Existing Concrete Pavement (Typ.)

1130.91
245+00
1130.0

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
144	50		
		537	172
146	43		
		541	146
146	36		
		533	152
142	46		
		539	185
149	54		
		611	198

CALCULATED SLW 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 245+00 TO STA. 249+00

WAY-71-0.28

221
432

M:\98028\AUTOCAD\98028K-72sht40.dwg - SHEET 221 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
144	28		
		531	119
143	36		
		524	133
140	36		
		507	146
134	43		
		502	191
137	60		
		520	204

CALCULATED SLW 01-01

CHECKED GCS 01-01

Existing Concrete Pavement (Typ.)

6:1 6:1 6:1

1127.31
254+00
1126.6

1127.71
253+00
1126.9

1128.11
252+00
1127.4

1128.51
251+00
1127.6

Rock Channel Protection, Type C, 18" Thick w/Fabric Filter

Existing Concrete Pavement (Typ.)

6:1 6:1

7'

Exist. Catch Basin To Be Removed
Sta. 250+46, 1' Lt.
Top 1124.68
Inv. 15" (S) Elev. 1121.95

Catch Basin, No. 4, As Per Plan
Sta. 250+36, CL
F.L. Grate Elev. 1125.33
F.L. 18" (S) Elev. 1122.45
F.L. 6" (NW,SE) Elev. 1123.83

1128.91
250+00
1127.9

Exist. 15" Conc. (Remove)
152'-18"Conduit Bored or Jacked, Type B, 706.02
@ 1.68 % As Per Plan

HW-2.2M
Sta. 249+35, 113' Rt.
F.L. 18" (N) Elev. 1119.90

1140 1130 1120 1140 1130 1120 1140 1130 1120 1140 1130 1120 1140 1130 1120 1140 1130 1120

140 130 120 110 100 90 80 70 60 50 40 30 20 10 · 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET STA. 250+00 TO STA. 254+00

WAY-71-0.28

M:\99\0028\AUTOCAD\0028SK7\sht40.dwg - SHEET 22 - May 02, 2001

CROSS SECTION SHEET
STA. 255+00 TO STA. 259+00

CALCULATED SLW 01-01
CHECKED GCS 01-01

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		430	0	1411	6
		332	3	1061	19
		241	7	774	43
		177	16	606	74
		150	24	544	96

Existing Concrete Pavement (Typ.)

1130 / 1120 / 1110 / 1140

3:1 8:1 F.L. 1122.2

6:1 6:1 F.L. 1123.1

3:1 8:1 F.L. 1124.0

3:1 8:1 F.L. 1124.8

6:1 6:1 F.L. 1125.4

1123.70
259+00
1124.4

1124.63
258+00
1124.9

1125.55
257+00
1125.5

1126.31
256+00
1125.8

1126.89
255+00
1126.3

Existing Concrete Pavement (Typ.)

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

WAY-71-0.28

223
432

M:\99209\AUTOCAD\ISDSK-72ss50.dwg - SHEET 223 - May 07, 2001

CROSS SECTION SHEET
STA. 260+00 TO STA. 264+00

CALCULATED SLM 01-01
CHECKED GCS 01-01

SEEDING END WIDTH	SEEDING SQ. YDS.
140	
130	
120	
110	
100	
90	
80	
70	
60	
50	
40	
30	
20	
10	

264+00
1120.85
1122.6

Existing Concrete Pavement (Typ.)

12:1 6:1 6:1 12:1

263+00
1121.41
1123.0

238'-21"Conduit Bored or Jacked, Type B,706.02 @ 0.25% As Per Plan

HW-2.2M
Sta. 262+73, 96' Lt.
F.L. 21" (SW) Elev. 1115.54

12:1

262+00
1121.87
1123.5

12:1 8:1 3:1

F.L. 1119.2

261+00
1122.32
1123.7

6:1 12:1

F.L. 1120.8

F.L. 1120.3

Existing Concrete Pavement (Typ.)

Exist. 18" Conc. (Remove)

3:1 8:1 6:1 6:1 8:1 3:1

F.L. 1121.4

F.L. 1121.4

238'-21"Conduit Bored or Jacked, Type B,706.02 @ 0.25% As Per Plan

Exist. Catch Basin To Be Removed
Sta. 260+45, 1' Lt.
Top 1120.76
Inv. 18" (NE) Elev. 1117.47

260+00
1122.91
1124.1

Catch Basin, No. 4, As Per Plan
Sta. 260+55, CL
F.L. Grate Elev. 1119.12
F.L. 21" (NE) Elev. 1116.14
F.L. 6" (NW,SE) Elev. 1117.62

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
525	0		
		1928	0
516	0		
		1926	0
524	0		
		1954	0
531	0		
		1861	0
474	0		
		1674	0

WAY-71-0.28

M:\98000\AUTOCAD\98396-72\sht1.dwg - SHEET 224 - May 03, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
652	0		
		2433	0
662	0		
		2294	0
577	0		
		2113	0
564	0		
		2076	0
557	0		
		2004	0

CALCULATED SLM 01-01

CHECKED GCS 01-01

1116.13
269+00
1118.0

Existing Concrete Pavement (Typ.)

Approximate area of undercut (Typ.)

F.L. 1114.6

1117.32
268+00
1118.9

HW-2.2M
Sta. 267+46, 122' Lt.
F.L. 15" (NW) Elev. 1110.85

Exist. Catch Basin To Be Removed
Sta. 267+46, 1' Lt.
Top 1116.56
Inv. 15" (NW) Elev. 1113.70

Catch Basin, No. 4, As Per Plan
Sta. 267+46, CL
F.L. Grate Elev. 1116.20
F.L. 15" (NW) Elev. 1113.70
F.L. 6" (W,SE) Elev. 1113.70

F.L. 1115.5

Rock Channel Protection, Type C, 18" Thick w/Fabric Filter

6'

Exist. 15" Conc.

40'-15" Type C, 706.02

6-15"Type C,706.02

F.L. 1116.4

1118.39
267+00
1120.1

Approximate area of undercut (Typ.)

1119.34
266+00
1121.2

Existing Concrete Pavement (Typ.)

Rock Channel Protection, Type C, 18" thick with Fabric Filter

10'

Exist. 36" Conc.

Exist. 36" CMP

1120.16
265+00
1122.1

232'-36" Type A @ 0.67%

Exist. 36" Conc.

HW-2.2M
Sta. 265+46, 118' Lt.
F.L. 36" (SE) Elev. 1110.82

HW-2.2M
Sta. 265+46, 114' Rt.
F.L. 36" (NW) Elev. 1112.38

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET
STA. 265+00 TO STA. 269+00

WAY-71-0.28

225
432

M:\960\AUTOCAD\960K-72ss02.dwg - SHEET 225 - May 02, 2001

SEEDING

END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

Ditch Erosion Protection

7.5' 6' 4:1

Rock Channel Protection, Type C, 18" Thick w/Fabric Filter

F.L. 1103.14

Match Line Sta. 272+00

Sta. 272+00 Lt
End Ditch Restoration
And Erosion Protection

Match Line

HW-2.2M
Sta. 272+00, 128' Lt.
F.L. 24" (SE) 1103.25

Exist. 24" Conc. (Remove)

128'-24"Type B

92'-21"Type B

Exist. 21" Conc. (Remove)

F.L. 1108.6

F.L. 1108.6

F.L. 1110.3

1110.08
273+00
1111.5

Exist. Catch Basin
To Be Removed
Sta. 271+96, CL
Top 1109.79
Inv. 21" (SE) Elev. 1106.25
Inv. 24" (NW) Elev. 1106.14

1111.78
272+00
1113.0

Catch Basin, No. 4, As Per Plan
Sta. 272+00, CL
F.L. Grate Elev. 1108.34
F.L. 21" (SE) Elev. 1105.10
F.L. 24" (NW) Elev. 1104.85
F.L. 6" (W,S) Elev. 1106.84

Exist. Catch Basin
To Be Removed
Sta. 271+96, 96' Rt.
Top 1111.62
Inv. 21" (NW) Elev. 1108.40

Catch Basin, No. 4, As Per Plan
Sta. 272+00, 92' Rt.
F.L. Grate Elev. 1110.05
F.L. 21" (NW) Elev. 1106.22
F.L. 6" (W) Elev. 1107.58

Sta. 271+89 Rt
End Ditch Restoration
F.L. 1112.00

Sta. 271+39 Rt
Begin Ditch Restoration
F.L. 1112.50

Sta. 271+16 Lt.
Begin Ditch Restoration
And Erosion Protection
F.L. 1111.64

F.L. 1112.0

F.L. 1111.9

1113.35
271+00
1114.9

F.L. 1114.2

Existing Concrete Pavement (Typ.)

F.L. 1113.3

1114.80
270+00
1116.5

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
507	0		
		1878	0
507	0		
		2054	0
602	0		
		2302	0
641	0		
		2394	0

CALCULATED SLM 01-01

CHECKED QCS 01-01

CROSS SECTION SHEET
STA. 270+00 TO STA. 273+00

WAY-71-0.28

226
432

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

M:\98026\AUTOCAD\98026-72ss03.dwg - SHEET 226 - May 02, 2001

SEEDING

END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

Ditch Erosion Protection 1'

F.L. 1097.7 — 3:1, 7:1, 6:1

1100.07
278+00
1100.8

F.L. 1099.0 — 6:1, 3:1

F.L. 1099.8 — 3:1, 6:1

1102.15
277+00
1103.0

F.L. 1101.0 — 6:1, 3:1

F.L. 1102.3 — 3:1, 8:1, 6:1

Sta. 276+00, CL
Begin Ditch Erosion Protection

1104.23
276+00
1105.2

F.L. 1102.9 — 6:1, 3:1

F.L. 1104.8 — 3:1, 8:1

F.L. 1104.8

1106.30
275+00
1107.5

F.L. 1106.8 — 3:1, 8:1, 6:1, 6:1

1108.25
274+00
1109.6

F.L. 1106.8 — 6:1, 3:1

Existing Concrete Pavement (Typ.)

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
412	0		
		1580	2
441	1		
		1667	2
459	0		
		1722	0
471	0		
		1794	0
498	0		
		1861	0

CALCULATED SLW 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 274+00 TO STA. 278+00

WAY-71-0.28

227
432

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

M:\WKSN\AUTOCAD\SDR\7\sec54.dwg - SHEET 227 - May 03, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

F.L. 1087.3

6:1 12:1 6:1 6:1

18"Conduit, Type C

Exist. 15" Conc. (Remove)

1089.68
283+00
1089.9

F.L. 1089.4

3:1 8:1 12:1

Exist. Catch Basin
To Be Removed
Sta. 281+95, 1' Rt.
Top 1088.62
Inv. 15" (NE) Elev. 1085.82

1091.76
282+00
1091.9

Catch Basin, No. 4, As Per Plan
Sta. 281+95, CL
F.L. Grate Elev. 1088.07
F.L. 18" (NE) Elev. 1085.34
F.L. 6" (SE) Elev. 1086.57
F.L. 6" (NW) Elev. 1086.12

Ditch Erosion Protection
11'

Sta. 281+95, CL
End Ditch Erosion Protection

F.L. 1091.5

12:1 3:1

F.L. 1092.3

1093.83
281+00
1094.0

Ditch Erosion Protection
11'

F.L. 1093.6

12:1 3:1

F.L. 1094.9

1095.91
280+00
1096.4

Ditch Erosion Protection
11'

F.L. 1095.7

3:1 8:1 6:1 6:1 10:1 3:1

Existing Concrete Pavement (Typ.)

F.L. 1097.0

1097.99
279+00
1098.6

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

END AREA		VOLUME	
CUT	FILL	CUT	FILL
276	21	1006	80
276	22		
314	16	1093	70
374	2	1274	33
399	2	1431	7
		1502	4

CALCULATED SLM 01-01

CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 279+00 TO STA. 283+00

WAY-71-0.28

228
432

M:\900\DGN\AUTOCAD\900SK-72ss05.dwg - SHEET 228 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Ditch Erosion Protection
7.5'

Existing Concrete Pavement (Typ.)

12:1 6:1 6:1 6:1

1079.28
288+00
1078.8
Sta. 288+00, CL
Begin Ditch Erosion Protection

Exist. Catch Basin
To Be Removed
Sta. 287+52, 115' Lt.
Top 1074.17
Inv. 58"x36" (W) Elev. 1070.52
Inv. 58"x36" (E) Elev. 1070.48

Exist. 58"x36" CMP (Remove)

Exist. 58"x36" CMP (Remove)

310'-42"Conduit, Bored or Jacked, Type A, @ 2.06% As Per Plan

1081.36
287+00
1080.9

HW-2.2M
Sta. 287+37, 110' Lt.
F.L. 42" (E) Elev. 1067.00

1083.44
286+00
1083.1

Exist. 8" Gas Line
In 12" Casing
(BP Gas & Oil)

1085.52
285+00
1085.3

12:1 6:1 6:1

112'-21"Type B

Exist. 18" Conc. (Remove)

18"Conduit, Type C

Exist. 15" Conc.

Existing Concrete Pavement (Typ.)

Exist. Catch Basin
To Be Removed
Sta. 284+45, CL
Top 1083.31
Inv. 18" (NW) Elev. 1080.06
Inv. 15" (SW) Elev. 1080.06

1087.60
284+00
1087.6

Catch Basin, No. 4, As Per Plan
Sta. 284+45, CL
F.L. Grate Elev. 1083.22
F.L. 18" (SW) Elev. 1080.06
F.L. 21" (NW) Elev. 1080.06
F.L. 4" (NW,SE) Elev. 1081.72

HW-2.2M
Sta. 284+53, 113' Lt.
F.L. 21" (SE) Elev. 1079.49

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

END AREA		VOLUME	
CUT	FILL	CUT	FILL
199	49		
		746	178
204	47		
		794	154
225	36		
		896	100
259	18		
		961	63
260	16		
		976	69

CALCULATED SLW 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 284+00 TO STA. 288+00

WAY-71-0.28

229
432

M:\99\03\AUTOCAD\SDSK-72ss05.dwg - SHEET 229 - May 03, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

Approximate area of undercut (Typ.)

Ditch Erosion Protection
7.5'

6:1 6:1

1070.96
292+00
1070.4

Sta. 292+00, CL
Begin Ditch Erosion Protection

For Rock Cut Excavation,
See Soil Schematic Sheet 27.

Slope Erosion Protection
61'

Match Line Sta. 292+00

Slope Erosion Protection
61'

Rock Elevation 1068.08

Match Line

6:1

Sta. 292+00 Rt.
Begin Slope
Erosion Protection

12:1

6:1

1073.04
291+00
1072.5

Rock Channel Protection
Type C, 3' Thick w/Fabric Filter

HW-2.2M
Sta. 289+71, 104' Rt.
F.L. 36" (NW) Elev. 1059.90

3:1

Exist. 36" Conc.

6'-36"Type C,706.02
Exist. 58"x36" CMP

16'

Exist. Catch Basin
To Be Removed
Sta. 289+54, 1' Rt.
Top 1072.56
Inv. 15" (NE) Elev. 1069.23

6'-15"Type C,706.02

1075.12
290+00
1074.6

Catch Basin, No. 4, As Per Plan
Sta. 289+54, CL
F.L. Grate Elev. 1072.64
F.L. 15" (NE) Elev. 1069.23
F.L. 6" (SE) Elev. 1071.14
F.L. 6" (NW) Elev. 1070.34

Sta. 289+54, CL
End Ditch Erosion Protection

Ahead

Back

310'-42"Conduit, Bored or Jacked,
Type A, @ 2.06% As Per Plan

HW-2.2M
Sta. 289+52, 113' Rt.
F.L. 42" (W) Elev. 1060.60

Seeding & Erosion Control W/ Turf Reinforcing Mat - Type 1
7.5'
2:1 2:1
F.L. 1076.10

Match Line Sta. 289+00

Match Line

Sta. 289+61 Lt.
End Seeding & Erosion Control
F.L. 1070.91

Ditch Erosion Protection
11'
7.5'

12:1

6:1 6:1

2.5:1

1077.20
289+00
1076.8

Sta. 288+72 Lt.
Begin Seeding & Erosion Control
F.L. 1079.83

Existing Concrete Pavement (Typ.)

END AREA		VOLUME	
CUT	FILL	CUT	FILL
187	24		
		678	117
179	39		
		672	154
184	44		
		689	169
188	47		
		717	178

CALCULATED SLM 01-01
CHECKED QCS 01-01

CROSS SECTION SHEET
STA. 289+00 TO STA. 292+00

WAY-71-0.28

230
432

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

M:\WORDAUTOCAD\ROBK-72\ss67.dwg - SHEET 230 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
1490	18		
		5098	130
1263	52		
		3387	169
566	39		
		1394	117

CALCULATED SLM 01-01

CHECKED GCS 01-01

Slope Erosion Protection 88'
F.L. 1102.7
Slope Erosion Protection 88'
Match Line Sta. 295+00
Existing Concrete Pavement (Typ.)
Ditch Erosion Protection 11'
Slope Erosion Protection 69'
Match Line Sta. 295+00
Slope Erosion Protection 69'
Rock Elevation 1061.45
F.L. 1062.0
F.L. 1062.3
Sta. 294+50 Lt. Begin Ditch
Slope Erosion Protection 85'
1064.11
295+00
1063.6
Slope Erosion Protection 69'
Slope Erosion Protection 85'
Match Line Sta. 294+00
Ditch Erosion Protection 11'
Ahead
7.5'
Back
Match Line Sta. 294+00
Slope Erosion Protection 69'
Rock Elevation 1063.66
F.L. 1063.9
F.L. 1063.9
1066.55
294+00
1065.8
Slope Erosion Protection 66'
Slope Erosion Protection 78'
Match Line Sta. 293+00
Slope Erosion Protection 78'
Match Line Sta. 293+00
Ditch Erosion Protection 7.5'
Match Line Sta. 293+00
Slope Erosion Protection 66'
Rock Elevation 1065.87
F.L. 1066.1
Sta. 293+00 Lt. Begin Slope Erosion Protection
1068.83
293+00
1068.0
Existing Concrete Pavement (Typ.)

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET
STA. 293+00 TO STA. 295+00

WAY-71-0.28

231
432

M:\900\2\AUTOCAD\900K-73\sht79.dwg - SHEET 231 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Slope Erosion Protection 77'

F.L. 1089.9

Exist. Catch Basin To Be Removed
Sta. 298+42, 177' Lt.
Top 1084.82
Inv. 12" (N) Elev. 1082.73
Inv. 21" (SE) Elev. 1081.90

24"x22.5° Bend
F.L. Elev. 1081.86

2:1 Exist. 21"

Sta. 298+97 Lt.
End Slope
Erosion Protection

Sta. 298+42 Lt.
End Ditch Restoration
And Erosion Protection
F.L. Elev. 1084.8

Match Line Sta. 298+00

Catch Basin No. 2-3
Sta. 298+42, 177' Lt.
Top 1084.82
Inv. 12" (N) Elev. 1082.73
Inv. 24" (SE) Elev. 1081.90

Slope Erosion Protection 63'

Match Line Sta. 298+00

2:1

Slope Erosion Protection 77'

Match Line

1070
1060
1050

2:1

75'-24"Type F, 707.05 Type C

16'-24"Type F, 707.05 Type C @ 2.25%

Existing Concrete Pavement (Typ.)

12:1 3:1 6:1

1054.8

24"x22.5° Bend
F.L. Elev. 1051.51

Exist. 21" Cond.
Catch Basin, No. 4, As Per Plan
Sta. 298+17, 91' Lt.
F.L. Grate Elev. 1054.53
F.L. 24" (NW) Elev. 1051.15
F.L. 27" (SE) Elev. 1050.90
F.L. 6" (S) Elev. 1051.86

91'-27"Type B

Ditch Erosion Protection 11'

Sta. 298+17, CL
End Ditch Erosion Protection

6:1 6:1 6:1

Approximate area of undercut (Typ.)

Slope Erosion Protection 63'

Match Line

Rock Elevation 1054.02

F.L. 1054.8

Ditch Erosion Protection 7.5'

F.L. 1095.3

1056.44
298+00
1056.9

Catch Basin, No. 4, As Per Plan
Sta. 298+17, CL
F.L. Grate Elev. 1052.34
F.L. 27" (NW) Elev. 1048.60
F.L. 30" (NE) Elev. 1048.35
F.L. 6" (W,SE) Elev. 1050.84

Exist. Catch Basin To Be Removed
Sta. 298+17, 1' Rt.
Top 1053.20
Inv. 21" (NW) Elev. 1049.54
Inv. 24" (NE) Elev. 1049.25

Slope Erosion Protection 66'

Slope Erosion Protection 83'

Match Line Sta. 297+00

Exist. Catch Basin To Be Removed
Sta. 298+17, 96' Lt.
Top 1054.26
Inv. 21" (NW,SE) Elev. 1051.68

Ditch Erosion Protection 11'

Match Line Sta. 297+00

Slope Erosion Protection 83'

Match Line

2:1

12:1 3:1 8:1

F.L. 1057.2

Slope Erosion Protection 66'

Match Line

Rock Elevation 1056.53

F.L. 1056.9

Ditch Erosion Protection 7.5'

F.L. 1099.7

1058.90
297+00
1059.1

Slope Erosion Protection 89'

Slope Erosion Protection 66'

Match Line Sta. 296+00

For Rock Cut Excavation, See Soil Schematic Sheet 27.

Match Line Sta. 296+00

Slope Erosion Protection 89'

Match Line

Ditch Erosion Protection 11'

Slope Erosion Protection 66'

Match Line

F.L. 1059.8

Approximate area of undercut (Typ.)

Existing Concrete Pavement (Typ.)

F.L. 1059.5

Rock Elevation 1059.04

Sta. 296+00 Lt.
Begin Ditch Restoration
And Erosion Protection
F.L. Elev. 1099.7

1061.52
296+00
1061.3

140 130 120 110 100 90 80 70 60 50 40 30 20 10 · 10 20 30 40 50 60 70 80 90 100 110 120 130 140

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
906	9		
		4059	37
1286	11		
		4774	65
1292	24		
		5152	78

CALCULATED SLW 01-01

CHECKED QCS 01-01

CROSS SECTION SHEET STA. 296+00 TO STA. 298+00

WAY-71-0.28

232
432

M:\WORK\AUTOCAD\SDSK-72\ss05.dwg - SHEET 232 - May 03, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
421	1	1506	4
392	1	1630	85
488	45	2581	100

CALCULATED SLM 01-01

CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 299+00 TO STA. 301+00

Existing Concrete Pavement (Typ.)

F.L. 1048.3

3:1 7:1 6:1 6:1 6:1 3:1

Rock Elevation 1045.14

1049.75
301+00
1050.3

Exist. 24" Conc. (Remove)
30" Conduit, Type C

Sta. 300+65 Rt.
End Slope
Erosion Protection

Slope Erosion Protection
53'

Match Line Sta. 300+00

Match Line

F.L. 1050.3

3:1 6:1 10:1 10:1 25:1 25:1 10:1 10:1 6:1 3:1 12:1 2:1

Rock Elevation 1047.66

Manhole No. 3
Sta. 299+98, 12' Rt.
Top 1050.46
F.L. 30" (SW,NE) Elev. 1044.50

1051.95
300+00
1052.3

Exist. Storm Manhole
To Be Removed
Sta. 299+98, 12' Rt.
Top 1052.03
Inv. 24" (SW,NE) Elev. 1045.40

Slope Erosion Protection
57'

Match Line Sta. 299+00

Match Line

2:1

6:1 10:1 10:1 25:1 25:1 10:1 10:1 6:1 3:1 12:1 2:1

F.L. 1052.5

Rock Elevation 1051.51

Existing Concrete Pavement (Typ.)

Exist. 24" Conc. (Remove)
30" Conduit, Type C

1054.15
299+00
1054.6

1060 1050 1040

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

WAY-71-0.28

233
432

M:\WORK\AUTOCAD\BDBK-72way69.dwg - SHEET 233 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
122	76		
		513	265
155	67		
		652	189
197	35		
		848	104
261	21		
		1087	54
326	8		
		1383	17

CALCULATED SLM 01-01

CHECKED GCS 01-01

Ditch Erosion Protection 1'

Existing Concrete Pavement (Typ.)

6:1

Exist. 24" Conc. (Remove)

30"Conduit, Type C

1039.05

306+00

1038.0

1041.36

305+00

1040.6

1043.51

304+00

1043.1

3:1

8:1

F.L. 1044.0

1045.52

303+00

1045.5

Rock Elevation 1038.81

Rock Elevation 1040.92

For Rock Cut Excavation, See General Note Sheet

Sta. 302+00, CL Begin Ditch Erosion Protection

F.L. 1046.1

1047.59

302+00

1048.0

Rock Elevation 1043.03

Existing Concrete Pavement (Typ.)

1050 1040 1030

140 130 120 110 100 90 80 70 60 50 40 30 20 10 · 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET STA. 302+00 TO STA. 306+00

WAY-71-0.28

234
432

M:\MRGDNAUTOCAD\ROW\7\way71x0p28.dwg - SHEET 234 - May 03, 2001

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		120	62	456	237
		126	66	472	235
		129	61	467	259
		123	79	433	300
		111	83	431	294

CALCULATED SLW 01-01

CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 307+00 TO STA. 311+00

Ditch Erosion Protection
7.5'

Existing Concrete Pavement (Typ.)

6:1 6:1 6:1 6:1

36"Conduit, Type C

Exist. 27" Conc. (Remove)

Approximate area of undercut (Typ.)

1026.67
311+00
1025.5

Sta. 311+00, CL
Begin Ditch Erosion Protection

1029.15
310+00
1027.9

36"Conduit, Type C

Exist. 27" Conc. (Remove)

1031.63
309+00
1030.5

Sta. 308+22, CL
End Ditch Erosion Protection

Ditch Erosion Protection
11'

Exist. 18" Conc.

6'-18"Type C,706.02

Exist. Catch Basin
To Be Removed
Sta. 308+22, CL
Top 1029.26
Inv. 18" (SE) Elev. 1025.98
Inv. 24" (SW) Elev. 1025.59
Inv. 27" (NE) Elev. 1025.48

1034.11
308+00
1032.9

Catch Basin, No. 4, As Per Plan
Sta. 308+22, CL
F.L. Grate Elev. 1030.12
F.L. 18" (SE) Elev. 1025.98
F.L. 30" (SW) Elev. 1024.98
F.L. 36" (NE) Elev. 1024.48
F.L. 6" (NW,SE) Elev. 1028.62

Exist. Catch Basin
Do Not Disturb
Sta. 308+22, 96' Rt.
Top 1030.52
Inv. 18" (NW) Elev. 1028.15

Ditch Erosion Protection
11'

6:1 6:1 6:1 6:1

Existing Concrete Pavement (Typ.)

Exist. 24" Conc. (Remove)
30"Conduit, Type C

1036.59
307+00
1035.4

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

M:\99029\AUTOCAD\8096-73\sht1.dwg - SHEET 235 - May 02, 2001

WAY-71-0.28

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

Exist. 36" Cond.

Sta. 315+97 Lt.
End Ditch Restoration
F.L. 1005.62

Sta. 315+16 Lt.
Begin Ditch Restoration
End Seeding & Erosion Control
F.L. 1003.62

Seeding & Erosion Control w / Turf Reinforcing Mat – Type 1
8.25'
F.L. 1004.68

Seeding & Erosion Control w / Turf Reinforcing Mat – Type 1
8.25'
F.L. 1011.65

Matchline Sta. 314+00

Seeding & Erosion Control w / Turf Reinforcing Mat – Type 1
8.25'
F.L. 1018.80

Sta. 312+93 Lt.
Begin Seeding & Erosion Control
Match Existing

Ditch Erosion Protection
1'

Exist. Catch Basin To Be Removed
Sta. 316+46, CL
Top 1008.73
Inv. 27" (SW) Elev. 1004.80
Inv. 27" (NE) Elev. 1004.71

1014.27
316+00
1013.2

Sta. 316+46, CL
End Ditch Erosion Protection

Catch Basin, No. 4, As Per Plan
Sta. 316+40, CL
F.L. Grate Elev. 1009.84
F.L. 36" (SW,NE) Elev. 1004.40
F.L. 6" (NW,SE) Elev. 1008.38

36"Conduit, Type C

Exist. 27" Cond. (Remove)

1016.75
315+00
1015.7

1019.23
314+00
1018.1

Approximate area of undercut (Typ.)

Ditch Erosion Protection
1'
Ahead
7.5'
Back

1021.71
313+00
1020.5

Approximate area of undercut (Typ.)

Existing Concrete Pavement (Typ.)

1024.19
312+00
1023.0

END AREA		VOLUME	
CUT	FILL	CUT	FILL
139	69		
		511	237
137	59		
		489	307
127	107		
		467	363
125	89		
		450	293
118	69		
		441	243

CALCULATED SLW 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 312+00 TO STA. 316+00

WAY-71-0.28

236
432

M:\MICROSTATION\CADD\DGN\C-72way02.dwg - SHEET 236 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

Ditch Erosion Protection
11' Ahead
7.5' Back

6:1 6:1 6:1 6:1

36"Conduit,Type C
Exist. 27" Conc. (Remove)

1001.87
321+00
1001.0

Sta. 320+40 Rt.
End Ditch Restoration
And Erosion Protection
Match Existing

Ditch Erosion Protection
7.5'

1004.35
320+00
1003.4

Ditch Erosion Protection
11'
Match Line Sta. 320+00
4:1 2:1
F.L. 988.12
4:1
Match Line

Ditch Erosion Protection
7.5'

Sta. 319+00 CL
Begin Ditch Erosion Protection

1006.83
319+00
1006.0

Ditch Erosion Protection
11'
Match Line Sta. 319+00
4:1 2:1
F.L. 993.12
4:1
Match Line

Sta. 318+02 Rt.
Begin Ditch Restoration
And Erosion Protection
F.L. 998.15

6:1 6:1 6:1

1009.31
318+00
1008.7

Begin Ditch Erosion Protection
11'
Exist. 36" Conc.
3:1
6'-36"Type C 706.01
F.L. 998.12

HW-2.2M
Sta. 318+02, 108' Rt.
F.L. 36" (W) Elev. 998.15

6:1 8.5:1 8.5:1 6:1

36"Conduit,Type C
Exist. 27" Conc. (Remove)

1011.79
317+00
1011.2

Existing Concrete Pavement (Typ.)

END AREA		VOLUME	
CUT	FILL	CUT	FILL
121	68	531	276
166	81	624	300
171	81	691	270
202	65	641	172
144	28	524	180

CALCULATED SLM 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 317+00 TO STA. 321+00

WAY-71-0.28

M:\900\25\AUTOCAD\SDR-7\sd63.dwg - SHEET 237 - May 02, 2001

SEEDING

END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

6'–30" Conduit, Type C, 706.02

6'–18" Conduit, Type C, 706.02

Exist. 18" Conc.

Exist. 30" Conc.

Sta. 325+55 Lt.
End Seeding And Erosion Control Match Existing

Exist. Storm Manhole To Be Removed
Sta. 325+62, CL
Top 985.44
Inv. 18" (SE) Elev. 970.91
Inv. 27" (SW) Elev. 970.16
Inv. 30" (NW) Elev. 969.91

989.47
326+00
988.2

Ditch Erosion Protection
11'

Catch Basin No. 4A, As Per Plan
Sta. 325+62, CL
Top 986.97
F.L. 36" (SW) Elev. 981.17
F.L. 18" (SE) Elev. 970.91
F.L. 30" (NW) Elev. 969.91
F.L. 6" (NW,SE) Elev. 985.47

Sta. 325+62, CL
End Ditch Erosion Protection

Sta. 325+72 Rt.
End Ditch Restoration And Erosion Protection Match Existing

Sta. 325+62 Rt.
Ditch Low Point
F.L. 974.37

Ditch Erosion Protection
7.5'

F.L. 979.33

Seeding And Erosion Control w / Turf Reinforcing Mat – Type 1
12'
F.L. 982.78

Exist. Catch Basin To Be Removed
Sta. 325+22, CL
Top 986.96
Inv. 27" (SW) Elev. 983.15
Inv. 27" (NE) Elev. 982.72

991.95
325+00
990.7

Ditch Erosion Protection
11'

Seeding And Erosion Control w / Turf Reinforcing Mat – Type 1
12'
F.L. 988.34

Sta. 324+72 Rt.
Begin Ditch Restoration And Erosion Protection Match Existing

Sta. 323+66 Lt.
Begin Seeding And Erosion Control Match Existing

36" Conduit, Type C

Exist. 27" Conc. (Remove)

994.43
324+00
993.4

Ditch Erosion Protection
11'

996.91
323+00
995.9

Ditch Erosion Protection
11'

36" Conduit, Type C

Exist. 27" Conc. (Remove)

999.39
322+00
998.4

Existing Concrete Pavement (Typ.)

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
94	84		
		367	359
104	110		
		437	369
132	89		
		481	304
128	75		
		474	270
128	71		
		461	257

CALCULATED SLM 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 322+00 TO STA. 326+00

WAY-71-0.28

238
432

M:\98026\AUTOCAD\BOOK-72ss64.dwg - SHEET 238 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Ditch Erosion Protection
11'
Existing Concrete Pavement (Typ.)
2:1
6:1
6:1
5:1
979.55
330+00
978.0

Ditch Erosion Protection
11'
Ahead
7.5'
Back
2:1
6:1
982.03
329+00
980.6

Ditch Erosion Protection
7.5'
6:1
Sta. 328+00, CL
Begin Ditch Erosion Protection
984.51
328+00
983.2

6:1
6:1
6:1
6:1
6:1
Existing Concrete Pavement (Typ.)
986.99
327+00
985.7

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

END AREA		VOLUME	
CUT	FILL	CUT	FILL
71	99	287	356
84	93	296	339
76	90	291	324
81	85	324	313

CALCULATED SLW 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 327+00 TO STA. 330+00

WAY-71-0.28

239
432

M:\660226\AUTOCAD\660K-72ws66.dwg - SHEET 239 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

Ditch Erosion Protection 1'

969.63
334+00
968.1

Ditch Erosion Protection 1'

972.11
333+00
970.6

Ditch Erosion Protection 1'

974.59
332+00
972.9

Exist. 144" CMP

Ditch Erosion Protection 1'

318'-126"Type A, 707.02 (Aluminized), As Per Plan @ 1.07%

Existing Concrete Pavement (Typ.)

977.07
331+00
975.5

END AREA		VOLUME	
CUT	FILL	CUT	FILL
74	91		
		270	331
72	88		
		231	365
53	109		
		198	404
54	109		
		231	385

CALCULATED SLW 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 331+00 TO STA. 334+00

WAY-71-0.28

240
432

M:\WKSPACE\AUTOCAD\SDR\C72sdr26.dwg - SHEET 240 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
86	77	298	331
75	102	252	393
61	110	233	415
56	116	217	419
70	108	267	369

CALCULATED SLM 01-01

CHECKED QCS 01-01

Existing Concrete Pavement (Typ.)

Ditch Erosion Protecion 7.5'

2:1 6:1 6:1 6:1

957.27
339+00
955.8
Sta. 339+00 CL
End Ditch Erosion Prortection

2:1 2:1

959.71
338+00
958.2

2.5:1

962.19
337+00
960.7

6:1

Exist. Catch Basin
To Be Removed
Sta. 335+73, CL
Top 960.61
Inv. 21" (SE) Elev. 957.58

964.67
336+00
963.2

6'-21"Type C,706.02

Exist. 21" CMP

Catch Basin, No. 4, As Per Plan
Sta. 335+73, CL
F.L. Grate Elev. 961.90
F.L. 21" (SE) Elev. 957.58
F.L. 6" (NW,SE) Elev. 960.40

Sta. 335+73 CL
End Ditch Erosion Prortection

21"x30° Bend
F.L. Elev. 957.33

20'-21" Type F, 707.04

Sta. 336+73 Rt
End Ditch Restoration
And Erosion Protection
Match Existing

21"x30° Bend
F.L. Elev. 948.08

Ditch Erosion Protection 7.5' 6' 5:1 4:1

F.L. 946.59

20'-21" Type F, 707.04 @ 0.50%

HW-2.2M
Sta. 335+72, 124' Rt.
F.L. 21" (NW) Elev. 947.98

Rock Channel Protection, Type C, 18" Thick w/Fabric Filter

Ditch Erosion Protecion 11'

6:1 6:1 6:1

Sta. 335+73 Rt
Begin Ditch Restoration
And Erosion Protection
F.L. 947.40

2:1

Existing Concrete Pavement (Typ.)

967.15
335+00
965.7

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET
STA. 335+00 TO STA. 339+00

WAY-71-0.28

241
432

M:\900\2\AUTOCAD\SDSK-7\sect1.dwg - SHEET 241 - May 03, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

949.44
344+00
947.9

Exist. Catch Basin
To Be Removed
Sta. 342+73, 1' Lt.
Top 946.44
Inv. 15" (SE) Elev. 943.43

950.39
343+00
948.8

6'-15" Type C,706.02
Catch Basin, No. 4, As Per Plan
Sta. 342+73, CL
F.L. Grate Elev. 947.26
F.L. 15" (SE) Elev. 943.43
F.L. 6" (NW,SE) Elev. 945.76

Exist. 15" Conc.

15"x30° Bend
F.L. Elev. 942.18

29'-15" Type F,707.05 Type C

8'-15" Type F,707.05 Type C @ 0.63%

Rock Channel Protection,
Type C, 18" Thick w/Fabric Filter

15"x30° Bend
F.L. Elev. 930.13

6'

HW-2.2M
Sta. 342+70, 121' Rt.
F.L. 15" (NW) Elev. 930.08

Ditch Erosion Protection
1'

951.66
342+00
950.2

Ditch Erosion Protection
1'

953.22
341+00
952.0

Ditch Erosion Protection
1'

955.09
340+00
954.0

Existing Concrete Pavement (Typ.)

END AREA		VOLUME	
CUT	FILL	CUT	FILL
68	77		
		309	274
99	71		
		381	263
107	71		
		389	254
103	66		
		393	237
109	62		
		361	257

CALCULATED SLM 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 340+00 TO STA. 344+00

WAY-71-0.28

242
432

M:\98\03\AUTOCAD\98SK-72sw98.dwg - SHEET 242 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Existing Concrete Pavement (Typ.)

949.22
349+00
947.7

948.66
348+00
947.2

Rock Channel Protection, Type C, 18" Thick w/Fabric Filter

15"x30° Bend
F.L. Elev. 927.88

6'

15"x30° Bend
F.L. Elev. 940.80

27'-15"Type F, 707.05 Type C

8'-15"Type F, 707.05 Type C @ 0.50%

HW-2.2M
Sta. 346+72, 119' Lt.
F.L. 15" (SE) Elev. 927.84

Exist. 15" Conc.

6'-15"Type C,706.02

Exist. Catch Basin
To Be Removed
Sta. 346+73, CL
Top 943.18
Inv. 15" (NW) Elev. 941.05

948.39
347+00
946.9

Catch Basin, No. 4, As Per Plan
Sta. 346+73, CL
F.L. Grate Elev. 944.94
F.L. 15" (NW) Elev. 941.05
F.L. 6" (NW,SE) Elev. 943.44

Sta. 346+80 Lt.
End Ditch Restoration
And Erosion Protection
F.L. 926.34

Ditch Erosion Protection
11'

948.44
346+00
946.9

Exist. 72" Conc.

Sta. 345+92 Lt.
Begin Ditch Restoration
And Erosion Protection
F.L. 925.37

948.78
345+00
947.2

Existing Concrete Pavement (Typ.)

Exist. 72" Conc.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
108	63		
		394	237
105	65		
		365	257
92	74		
		330	281
86	78		
		315	281
84	74		
		281	280

CALCULATED SLW 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 345+00 TO STA. 349+00

WAY-71-0.28

243
432

M:\WKGRAU\TCOADS\DSK-7\sec69.dwg - SHEET 243 - May 02, 2001

SEEDING

END WIDTH	SQ. YDS.

960 950 940 930 920

SB BRIDGE LIMITS = 159.56'
End Approach Slab SB
Sta. 354+34.47

Begin Approach Slab SB
Sta. 354+09.47

6:1 6:1 10:1

82'–15"Type B, @ 0.50%

955.67
354+00
949.4

8'–15"Type F,707.05 Type C @ 0.50%

NB BRIDGE LIMITS = 158.09'
End Approach Slab NB
Sta. 354+35.16

Begin Approach Slab NB
Sta. 354+10.15

Catch Basin, No. 3A
Sta. 354+15, 18' Rt.
F.L. Grate Elev. 955.65
F.L. 15" (W ,E) Elev. 949.25

36'–15"Type F, 707.05 Type C

15"x22.5° Bend
F.L. Elev. 948.80

15"x22.5° Bend
F.L. Elev. 938.46

HW–2.2M
Sta. 354+74, 129' Rt.
F.L. 15" (NW) Elev. 938.40

354+10 Back

Catch Basin, No. 3A
Sta. 354+74, 78' Rt.
F.L. Grate Elev. 955.85
F.L. 15" (W,SE) Elev. 948.84

12'–15"Type F,707.05 Type C @ 0.50%

Existing Concrete Pavement (Typ.)

2:1 6:1 6:1 10:1

85'–15"Type B, @ 0.49%

51'–15"Type C, @ 0.49%

Catch Basin, No. 3A
Sta. 353+20, 78' Lt.
F.L. Grate Elev. 954.93
F.L. 15" (E) Elev. 951.10

Catch Basin, No. 3A
Sta. 353+81, 18' Lt.
F.L. Grate Elev. 955.15
F.L. 15" (W) Elev. 950.68
F.L. 15" (E) Elev. 949.50

954.19
353+00
952.7

2:1 6:1 6:1 10:1

952.71
352+00
951.1

2.5:1 6:1 6:1 6:1

Exist. 15" Conc. (Remove)

6'–15"Type C,706.02

Exist. 15" Conc.

15"x30° Bend
F.L. Elev. 943.76

15"x30° Bend
F.L. Elev. 928.36

36'–15"Type F,707.05 Type C

Exist. Catch Basin
To Be Removed
Sta. 350+73, 12' Lt.
Top 947.04
Inv. 15" (SE) Elev. 944.77

951.27
351+00
949.5

Catch Basin, No. 4, As Per Plan
Sta. 350+73, CL
F.L. Grate Elev. 947.48
F.L. 15" (SE) Elev. 944.74
F.L. 6" (NW,SE) Elev. 945.98

20'–15"Type F,707.05 Type C @ 0.50%

HW–2.2M
Sta. 350+72, 135' Rt.
F.L. 15" (NW) Elev. 928.26

2.5:1 6:1 6:1 6:1

Existing Concrete Pavement (Typ.)

950.09
350+00
948.4

140 130 120 110 100 90 80 70 60 50 40 30 20 10 · 10 20 30 40 50 60 70 80 90 100 110 120 130 140

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
37	60		
		259	371
90	122		
		356	513
102	155		
		406	367
117	43		
		413	183
106	56		
		396	220

CALCULATED SLM 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 350+00 TO STA. 354+00

WAY–71–0.28

244
432

M:\98028\AUTOCAD\98028K-72ea70.dwg - SHEET 244 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

Ditch Erosion Protection
15'
3:1
4:1
Match Line Sta. 358+00
F.L. 939.07
6" Gas Line
2:1
Existing Concrete Pavement (Typ.)
6:1
6:1
2:1
961.50
358+00
960.0
Match Line
6" Gas Line In 11" Casing (Gatherco, Inc.)

Ditch Erosion Protection
15'
6'
3:1
4:1
F.L. 937.32
Match Line Sta. 357+00
HW-2.2M
Sta. 356+98, 126' Lt.
F.L. 15" (SE) Elev. 938.06
Rock Channel Protection, Type C, 18" Thick w/Filter

15"x30" Bend
F.L. Elev. 938.20
15"x30" Bend
F.L. Elev. 952.39
30'-15"Type F, 707.05 Type C
14'-15"Type F, 707.05 Type C @ 1.00%
Match Line
Exist. 15" Conc.
Exist. Catch Basin To Be Removed
Sta. 356+98, 1' Lt.
Top 955.15
Inv. 15" (NW) Elev. 952.64
6'-15"Type C,706.02
960.11
357+00
958.9
Catch Basin, No. 4, As Per Plan
Sta. 356+98, CL
F.L. Grate Elev. 956.63
F.L. 15" (SW,NW) Elev. 952.64
F.L. 6" (SE) Elev. 955.13
Existing Concrete Pavement (Typ.)
2:1

Ditch Erosion Protection
15'
3:1
4:1
F.L. 935.57
Match Line Sta. 356+00
2:1
6:1
Match Line
End Approach Slab NB
Sta. 356+18.25
Begin Approach Slab NB
Sta. 355+93.25
NB BRIDGE LIMITS = 158.09'
356+20 Ahead
958.63
356+00
957.1
Catch Basin, No. 4, As Per Plan
Sta. 356+40, CL
F.L. Grate Elev. 955.85
F.L. 15" (NE) Elev. 953.34
Additional For CR 70
Sta. 355+23 Lt.
Begin Ditch Restoration
And Erosion Protection
Match Existing
End Approach Slab SB
Sta. 356+19.03
Begin Approach Slab SB
Sta. 355+94.03
SB BRIDGE LIMITS = 159.56'

END AREA		VOLUME	
CUT	FILL	CUT	FILL
131	161		
		407	589
89	157		
		187	345
37	76		
		5	468

CALCULATED SLW 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 355+00 TO STA. 358+00

WAY-71-0.28

245
432

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

M:\660026\AUTOCAD\SBDSK-72ss71.dwg - SHEET 245 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
181	31		
		635	146
162	48		
		581	170
152	44		
		481	328
108	133		
		476	407
149	87		
		519	459

CALCULATED SLM 01-01

CHECKED GCS 01-01

Ditch Erosion Protection
15'
3:1
3:1
F.L. 941.57
Match Line Sta. 363+00
Existing Concrete Pavement (Typ.)
6:1
6:1
6:1
6:1
967.54
363+00
966.5

Match Line
20'-18" Type F, 707.04 @ 0.45%
18"x30° Bend
F.L. Elev. 941.13
Match Line Sta. 362+00
Ditch Erosion Protection
15'
3:1
4:1
F.L. 941.07
Exist. 18" Conc
HW-2.2M
Sta. 361+58, 141' Lt.
F.L. 18" (SE) Elev. 941.04
6:1
Exist. 18" Conc.
6-18" Type C,706.02
Match Line
18"x30° Bend
F.L. Elev. 958.71
38'-18" Type F, 707.04
Exist. Catch Basin
To Be Removed
Sta. 361+59, 1' Lt.
Top 961.55
Inv. 18" (NW) Elev. 958.96
966.35
362+00
965.0
Catch Basin, No. 4, As Per Plan
Sta. 361+59, CL
F.L. Grate Elev. 962.42
F.L. 18" (NW) Elev. 958.96
F.L. 6" (NW) Elev. 960.92
F.L. 6" (SE) Elev. 960.08

Ditch Erosion Protection
15'
F.L. 940.57
Match Line Sta. 361+00
6:1
965.16
361+00
963.8

Match Line
Ditch Erosion Protection
15'
3:1
4:1
F.L. 940.07
Match Line Sta. 360+00
963.97
360+00
962.4

Match Line
Ditch Erosion Protection
15'
3:1
4:1
F.L. 939.57
Match Line Sta. 359+00
2:1
6:1
6:1
Existing Concrete Pavement (Typ.)
3:1
962.78
359+00
961.1

940 950 960 970

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET
STA. 359+00 TO STA. 363+00

WAY-71-0.28

246
432

M:\960026\AUTOCAD\BOOK-72nd72.dwg - SHEET 246 - May 02, 2001

SEEDING

END WIDTH	SQ. YDS.

Ditch Erosion Protection 7.5' 12:1 2:1 2:1 2:1
Match Line Sta. 367+00
F.L. 949.7
MoT PHASE 3 FILL
SHEET PILING FOR MoT PHASE 2
MoT PHASE 2 FILL
FILL TO ELEV. 956.5 +/- DURING 1ST YEAR OF CONSTRUCTION. SLOPE TO DRAIN.
6:1 6:1 12:1 2:1 12:1
972.26
367+00
961.1

Ditch Erosion Protection 7.5'
Match Line Sta. 366+00
FL 947.6
Existing Concrete Pavement (Typ.)
HW-2.2M
Sta 366+40, 157' Lt.
F.L. 36" (E) Elev. 944.10
410'-36"Type A,706.02, 2500 D-Load @ 0.76%
971.11
366+00
970.9

Ditch Erosion Protection 7.5' 2:1 2:1
Match Line Sta. 365+00
F.L. 945.4
969.92
365+00
969.6

Rock Channel Protection Type C, 18" Thick w/Fabric Filter
10'-15"Type F, 707.04 @ 9.50%
HW-2.2M
Sta 364+23, 131' Lt.
F.L. 15" (SE) Elev. 943.35
Ditch Erosion Protection 15' 3:1 3:1
Match Line Sta. 364+00
F.L. 942.07
6'
15"x30° Bend
F.L. Elev. 944.30
12:1 6:1 6:1 12:1
Exist. 15" Conc.
13'-15"Type C,706.02
15"X30° Bend
F.L. Elev. 962.40
40'-15"Type F, 707.04
Existing Concrete Pavement (Typ.)
Exist. Catch Basin To Be Removed
Sta. 364+24, 7' Lt.
Top 965.02
Inv. 15" (NW) Elev. 962.65
968.73
364+00
968.0
Catch Basin, No. 4, As Per Plan
Sta. 364+24, CL
F.L. Grate Elev. 965.62
F.L. 15" (NW) Elev. 962.68
F.L. 6" (NW,SE) Elev. 964.12

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
Back			
186	29		
		752	94
220	22		
		815	61
220	11		
		743	78

CALCULATED SLW 01-01
CHECKED GCS 01-01

CROSS SECTION SHEET
STA. 364+00 TO STA. 367+00

WAY-71-0.28

247
432

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

M:\960\dgn\AUTOCAD\960BK-72sht73.dwg - SHEET 247 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
133	85		
		494	309
Ahead 134	82		

CALCULATED SLW 11-00

CHECKED GCS 11-00

970
960
950
940

Existing Concrete Pavement (Typ.)

6:1 6:1 2:1

974.79
371+00
974.2

Existing Concrete Pavement (Typ.)

15"x30° Bend
F.L. Elev. 955.87

15"x30° Bend
F.L. Elev. 967.04

Exist. 15" Conc.

6'-15"Type C,706.02

Exist. Catch Basin
To Be Removed
Sta. 369+69, 5' Rt.
Top 970.08
Inv. 15" (NW) Elev. 967.31

974.54
370+00
973.9

Catch Basin, No. 4, As Per Plan
Sta. 369+69, 1' Rt.
F.L. Grate Elev. 970.55
F.L. 15" (NW) Elev. 967.30

23'-15"Type F, 707.05 Type C

8'-15"Type F, 707.05 Type C @ 2.00%

HW-2.2M
Sta 369+69, 116' Lt.
F.L. 15" (SE) Elev. 955.71

Sta. 369+68 Lt.
End Ditch Restoration
And Erosion Protection
F.L. 955.61

Ditch Erosion Protection
7.5'

3:1 4:1
F.L. 954.0

Match Line Sta. 369+00

Match Line Sta. 368+00

Ditch Erosion Protection
7.5'

2:1 2:1 12:1
F.L. 951.9

HW-2.2M
Sta 369+20, 143' Rt.
F.L. 36" (W) Elev. 941.00

Match Line Sta. 369+00

SHEET PILING FOR MoT PHASE 2

MoT PHASE 2 FILL

MoT PHASE 3 FILL

974.04
369+00
969.1

FILL TO ELEV. 956.5 +/- DURING 1ST YEAR OF CONSTRUCTION. SLOPE TO DRAIN.

Match Line

410'-36"Type A,706.02,
2500 D-LOAD @ 0.76%

Additional For Bridge

1168.33685

6:1 6:1 2:1

MoT PHASE 3 FILL

SHEET PILING FOR MoT PHASE 2

SHEET PILING FOR MoT PHASE 2

MoT PHASE 2 FILL

MoT PHASE 3 FILL

973.28
368+00
944.7

FILL TO ELEV. 956.5 +/- DURING 1ST YEAR OF CONSTRUCTION. SLOPE TO DRAIN.

12:1

Match Line

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

M:\98028\AUTOCAD\98028K-75sx74.dwg - SHEET 248 - May 02, 2001

CROSS SECTION SHEET
STA. 368+00 TO STA. 371+00

WAY-71-0.28

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		0	0
0	0		
211	0	319	79

CALCULATED SLW 01-01

CHECKED GCS 01-01

Existing Concrete Pavement (Typ.)

374+60.24 BACK = 0+00 AHEAD
972.3

374+00
972.8

373+00
973.4

372+00
973.7

Existing Concrete Pavement (Typ.)

END PROJECT
371+50 END NEW PAVEMENT

371+50 Ahead
371+50 Back

970
960
950

140 130 120 110 100 90 80 70 60 50 40 30 20 10 · 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET
STA. 372+00 TO STA. 374+60.24

WAY-71-0.28

249
432

M:\99029\AUTOCAD\BOOK-72w70.dwg - SHEET 249 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

Existing Concrete Pavement (Typ.)

970
960
950
940

4+00
967.6

3+00
969.0

2+00
970.3

1+00
971.4

Existing Concrete Pavement (Typ.)

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET
STA. 1+00 TO STA. 4+00

WAY-71-0.28

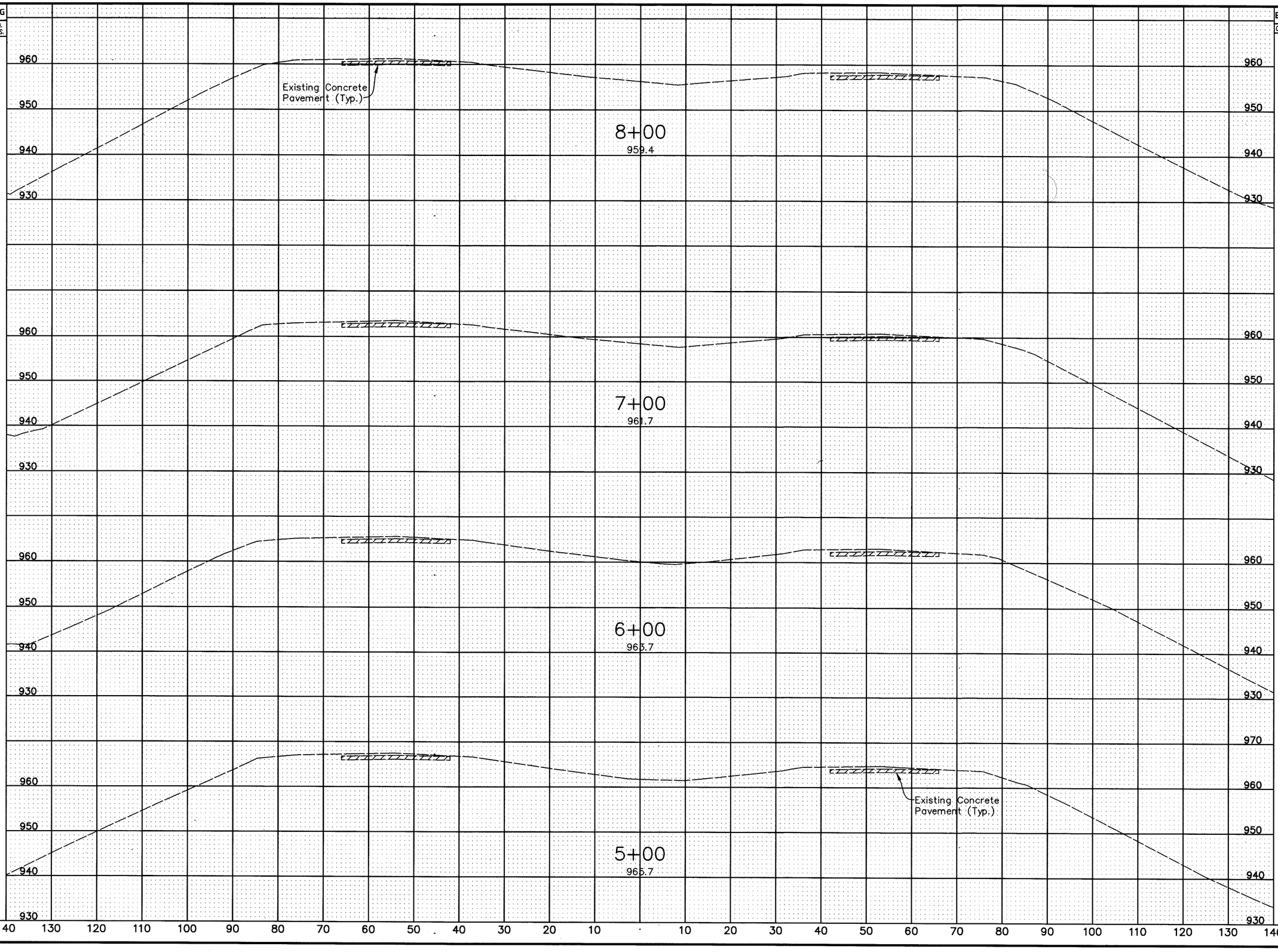
M:\99\SDM\AUTOCAD\SDSK-7\sw7b.dwg - SHEET 250 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED



CROSS SECTION SHEET STA. 5+00 TO STA. 8+00

WAY-71-0.28

M:\MRODNAUTOCAD\ROW-7\sht7.dwg - SHEET 251 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

Existing Concrete Pavement (Typ.)

12+00
950.6

11+00
952.8

10+00
955.1

9+00
957.3

Existing Concrete Pavement (Typ.)

950 940 930 920 960

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET
STA. 9+00 TO STA. 12+00

WAY-71-0.28

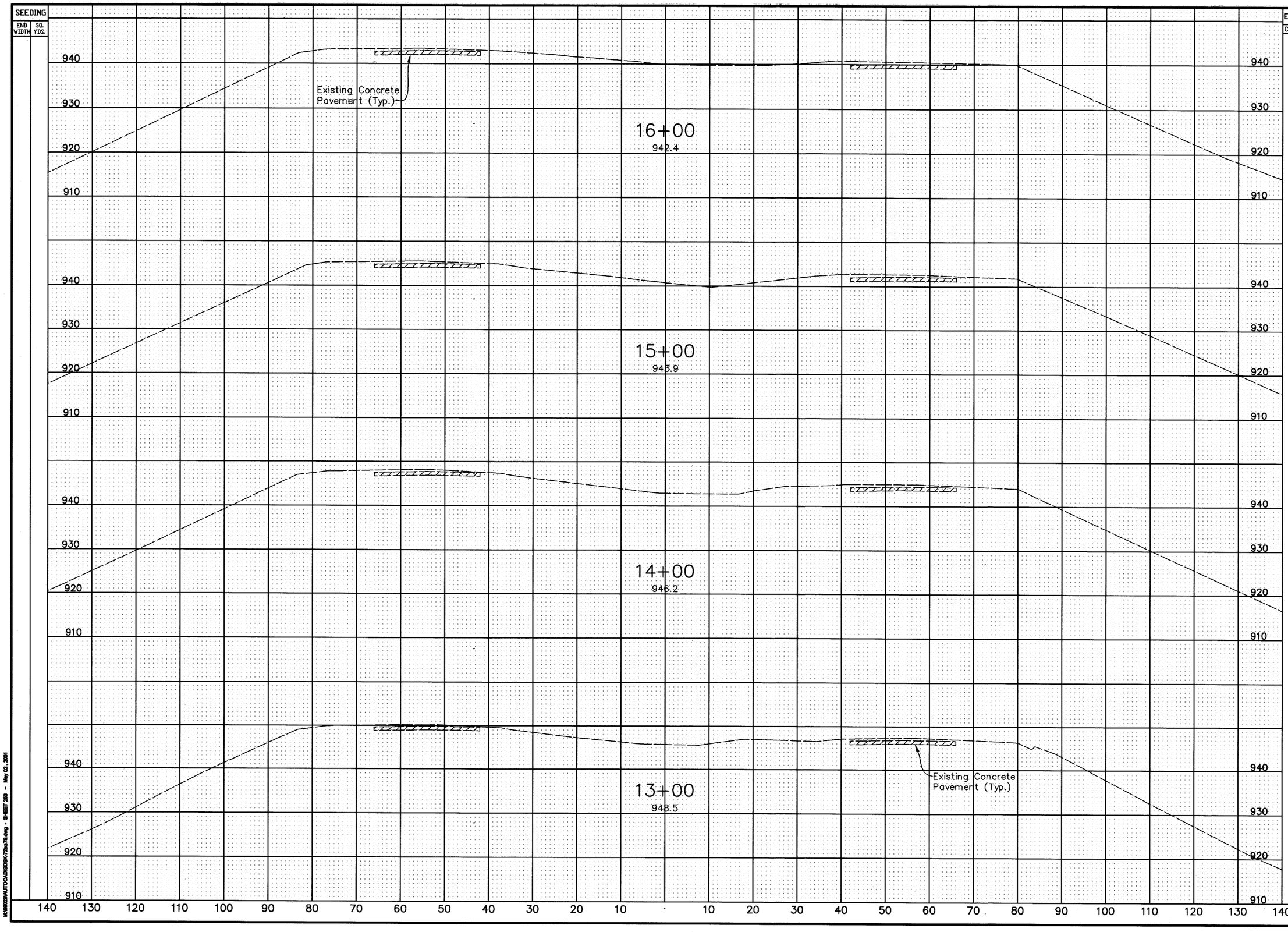
M:\960\03\AUTOCAD\960K-73sr78.dwg - SHEET 252 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED



CROSS SECTION SHEET
STA. 13+00 TO STA. 16+00

WAY-71-0.28

M:\MRODS\AUTOCAD\SDSK-7\sm71.dwg - SHEET 253 - May 02, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

Existing Concrete Pavement (Typ.)

20+00
906.3

19+00
905.1

18+00
933.2

17+00
939.3

910 900 910 900 940 930 920 910 940 930 920 910 900

140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET
STA. 17+00 TO STA. 20+00

WAY-71-0.28

254
432

M:\WORDSMAUTOCAD\ROR\72se60.dwg - SHEET 254 - May 09, 2001

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED

CHECKED

32+75 END WORK

Existing Concrete Pavement (Typ.)

25+00
923.6

24+00
925.9

23+00
927.5

22+00
906.5

Existing Concrete Pavement (Typ.)

21+00
905.4

930 920 910 900

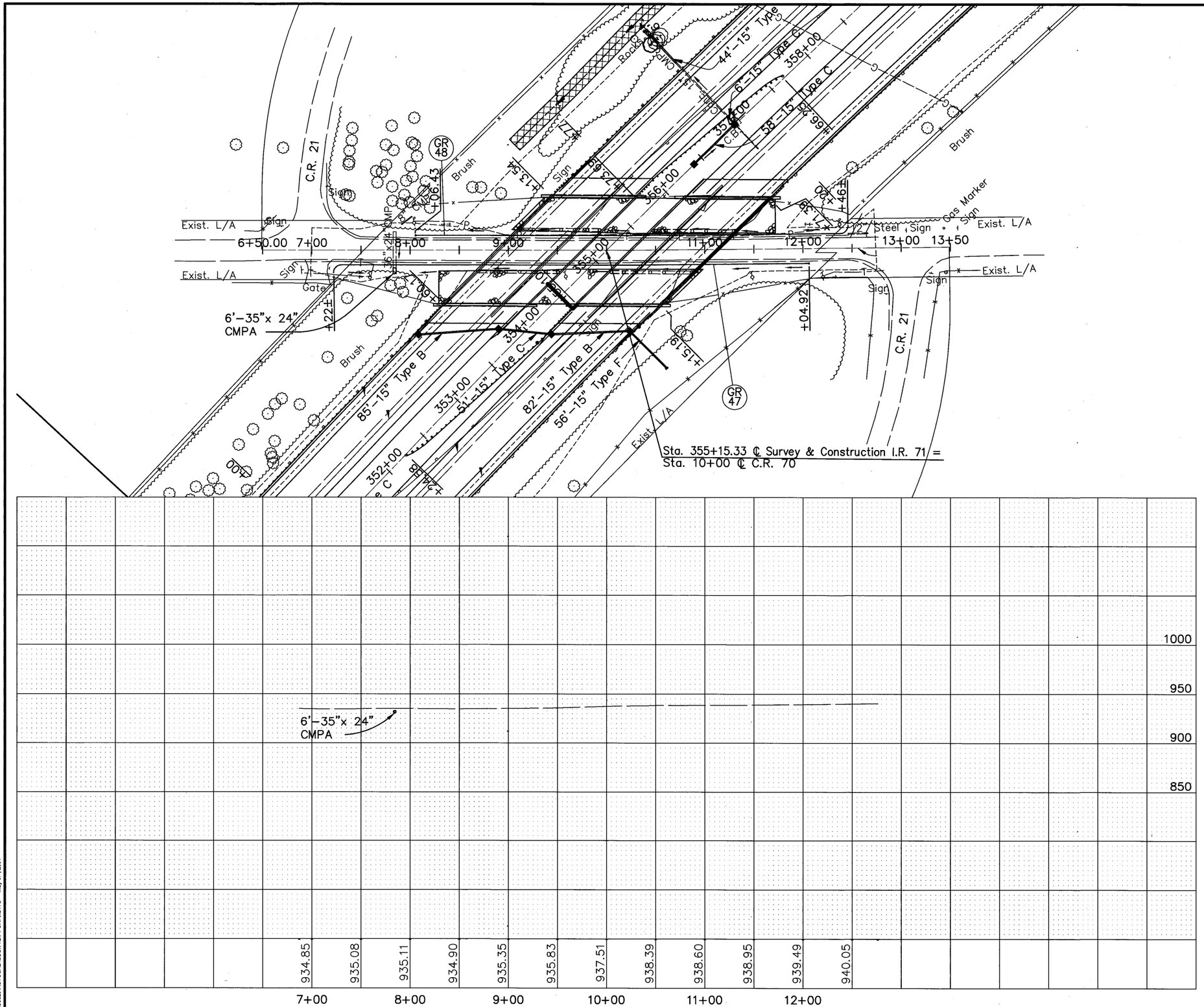
140 130 120 110 100 90 80 70 60 50 40 30 20 10 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CROSS SECTION SHEET STA. 21+00 TO STA. 25+00

WAY-71-0.28

M:\WK2\MAUTOCAD\D0BK72\sh01.dwg - SHEET 255 - May 03, 2001

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
109–110	Guardrail Quantities
168	Mainline Plan and Profile



CALCULATED

CHECKED

0 - 50 - 100 Scale in Feet

PLAN AND PROFILE SHEET – C.R. 70
STA. 6+50 TO STA. 13+50

WAY–71–0.28

256
432

M:\99028\AUTOCAD\SDSK-72\PGR70.DWG - May 07, 2001

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		0	38		
				0	64
		0	31		
				0	62
		0	20		
				3	30
		3	7		
				0	1
		0	0		

9+00
935.35
933.6
933.3

8+50
934.90
932.7
932.8
Begin Ditch Left
8+85
Begin Guardrail Left
8+06.60

7+84.30
935.10
6'-35"x 24" CMPA
Exist. 36" x 22" CMPA
930.39
Masonry Collar

7+25
934.62
932.3
Begin Guardrail Right
7+22±

7+20
BEGIN WORK
Begin Ditch Right
7+20

7+00
934.85

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		0	11		
				0	51
		0	44		
				0	72
		0	46		
				0	78
		0	32		
				0	70

End Concrete Barrier Left
Sta. 11+46.50
937.5
936.8

11+00
938.60

937.4
936.6

10+50
938.39

935.8
936.2

10+00
937.51
Begin Concrete Barrier Left
Sta. 10-29.50

934.7
934.2

9+50
935.83

50 40 30 20 10 · 10 20 30 40 50

CALCULATED

CHECKED

CROSS SECTION – C.R. 70
STA. 7+00 TO STA. 11+00

WAY-71-0.28

257
432

M:\WORK\AUTOCAD\SDSK-72\sec70.dwg - SHEET 257 - May 02, 2001

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0		
				1	7
		1	8		
				1	15
		0	8		
				0	18

END WORK
12+50

End Ditch Left
12+50

12+50
940.05

End Guardrail Left
12+46±

End Ditch Right
12+25

End Guardrail Right
12+04.92

3:1
937.8
2:1
937.8

12+00
939.49

2:1
937.6
2:1
937.2

11+50
938.95

960 950 940 930 920 970

50 40 30 20 10 ℄ 10 20 30 40 50

CROSS SECTION – C.R. 70
STA. 11+50 TO STA. 12+50

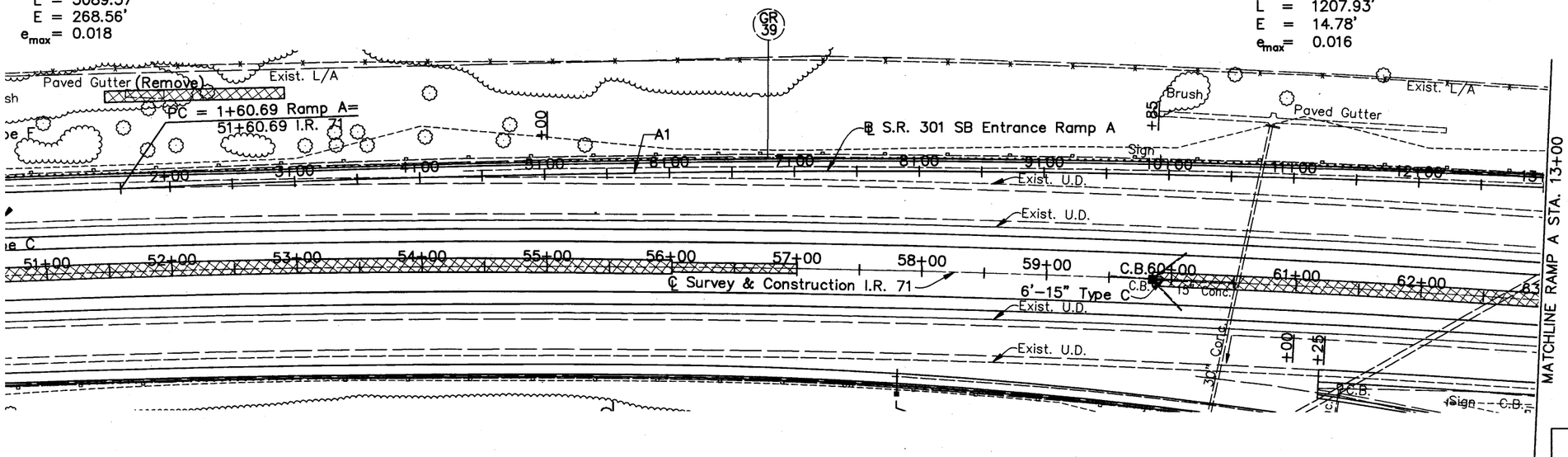
WAY-71-0.28

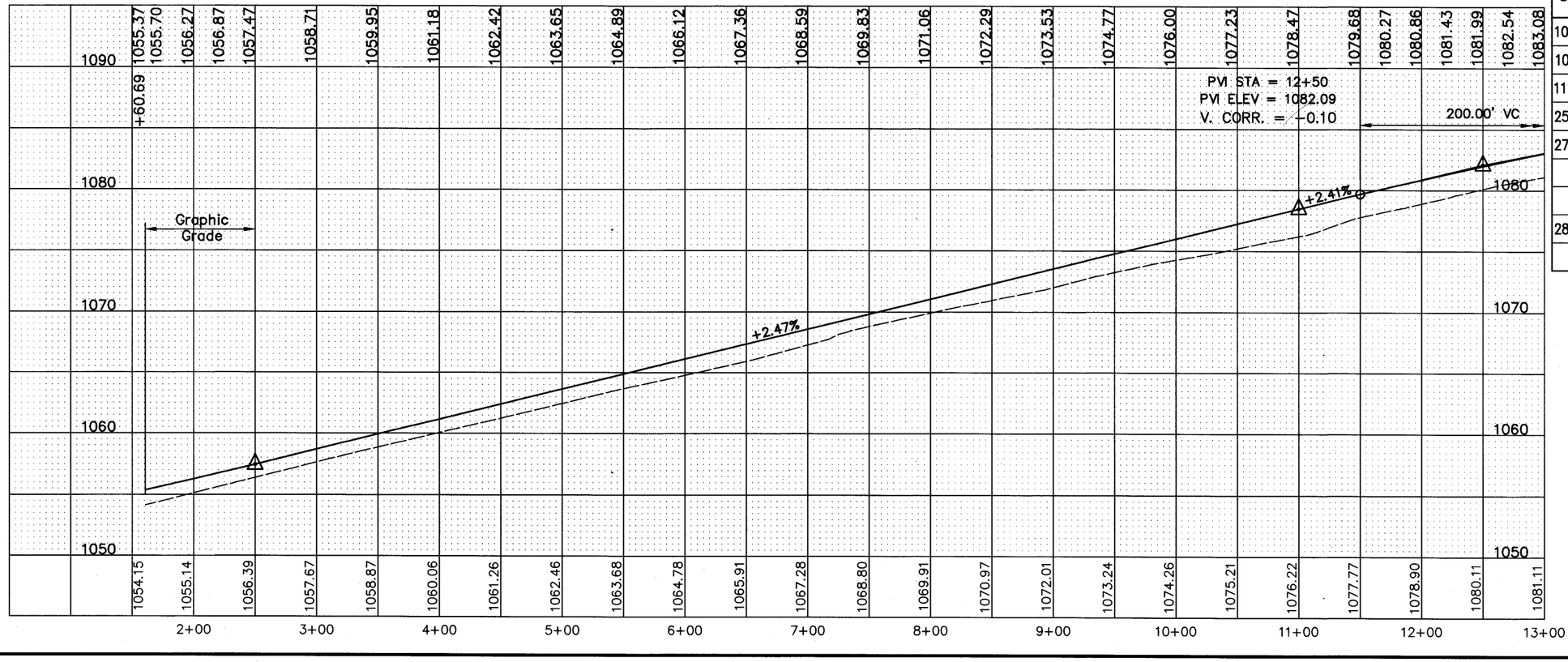
258
432

M:\RODWAY\AUTOCAD\BDBK-7\Sheet70-2.dwg - SHEET 258 - May 02, 2001

℄ CONSTRUCTION I.R.71
P.I. STA. 44+55.19
Δ = 23°45'13"
D_C = 0°28'00" RT.
R = 12276.48'
T = 2581.87'
L = 5089.57'
E = 268.56'
e_{max} = 0.018

℄ S.R. 301 SB ENTRANCE RAMP A
A1 Curve Data
P.I. STA. 7+65.14
Δ = 05°36'11" RT.
D_c = 00°27'50"
R = 12352.34'
T = 604.45'
L = 1207.93'
E = 14.78'
e_{max} = 0.016





CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
259–262	Ramp Plan & Profile
272–273	Ramp Details
279	Headwall Detail
287	Ditch Profile
288–302	Underdrain Details
349	Overhead Sign Details

N

0 50 100 Scale In Feet

CALCULATED | CHECKED

PLAN AND PROFILE SHEET RAMP A
STA. 1+60.69 TO STA. 13+00

WAY-71-0.28

259
432

M:\800\AUTOCAD\800K72PP-RA-1.DWG - SHEET 259 - May 02, 2001

℄ CONSTRUCTION I.R. 71
P.I. STA. 44+55.19
Δ = 23°45'13"
D_c = 0°28'00" RT.
R = 12276.48'
T = 2581.87'
L = 5089.57'
E = 268.56'
•max = 0.018

℄ S.R. 301 SB ENTRANCE RAMP A

A2 Curve Data
P.I. STA. 17+60.36
Δ = 05°30'00" LT.
D_c = 03°00'00"
R = 1909.86'
T = 91.74'
L = 183.34'
E = 2.20'
e_{max} = 0.046

A3 Curve Data
P.I. STA. 19+38.57
Δ = 08°30'00" LT.
D_c = 04°54'59"
R = 1165.41'
T = 86.61'
L = 172.89'
E = 3.21'
e_{max} = 0.047

A4 Curve Data
P.I. STA. 23+23.25
Δ = 27°02'37" RT.
D_c = 12°00'00"
R = 477.46'
L_s = 200.00'
Θ_s = 12°00'00"
LT = 133.64'
ST = 66.95'
Δ_c = 15°02'37"
L_c = 125.36'
T_1 = 207.85'
T_2 = 122.49'
E_s = 15.46'

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
259–262	Ramp Plan & Profile
272–273	Ramp Details
288–302	Underdrain Details

PVI STA = 12+50
PVI ELEV = 1082.09
V. CORR. = −0.10
200.00' VC
+2.02%
+1.76%

PVI STA = 15+50
PVI ELEV = 1087.77
V. CORR. = −0.15
225' VC
−1.26%

PVI STA = 18+50
PVI ELEV = 1091.36
V. CORR. = +0.98
250' VC
+1.13%
+4.29%
Exist. +4.2%

JOINT REPAIR AND RESURFACING

+00 End New Pavement

MATCHLINE RAMP A STA. 13+00

STA. 74+04.79 ℄ I.R. 71
STA. 207+78.22 S.R. 301

Scale In Feet: 0, 50, 100

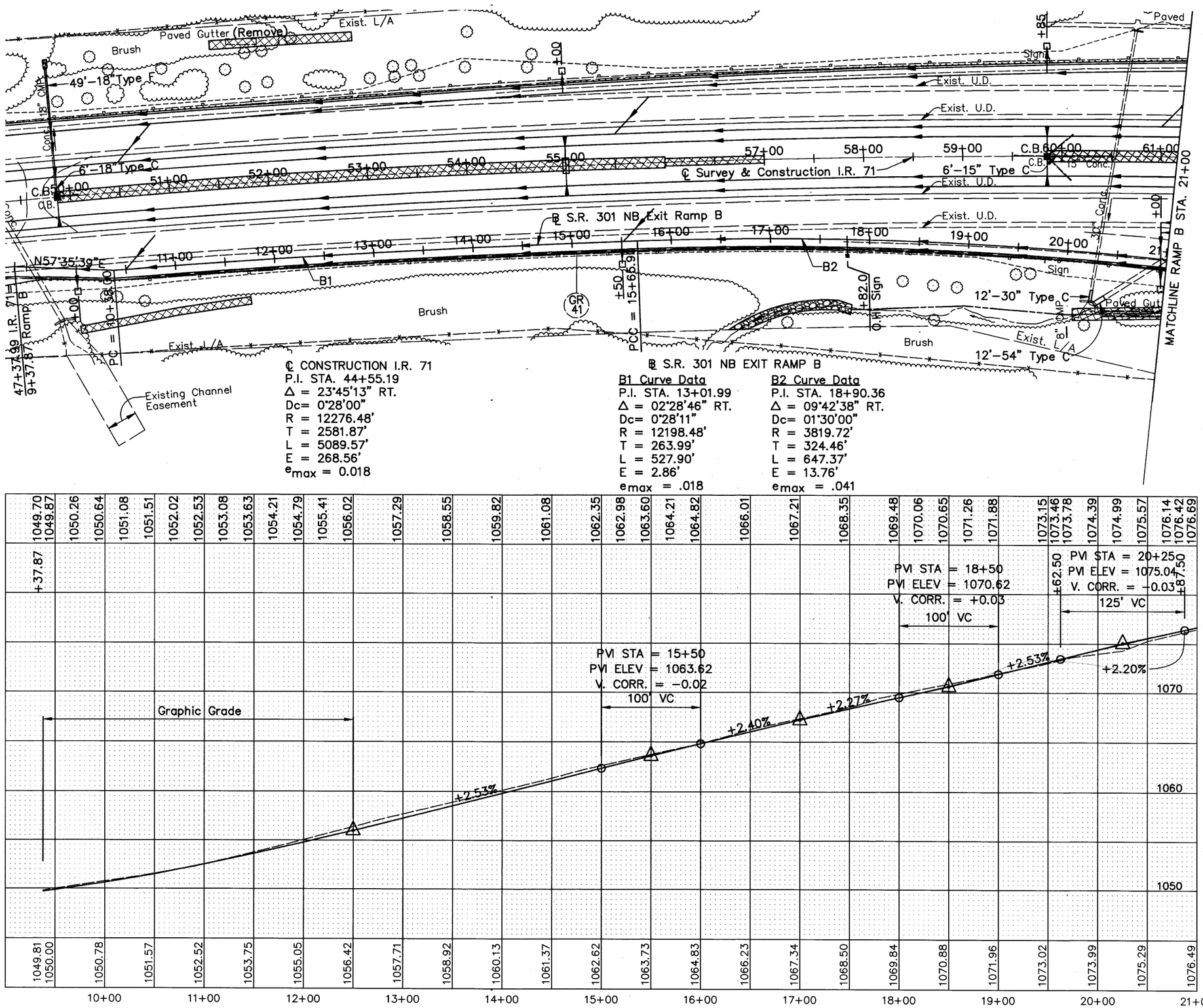
CALCULATED
CHECKED

PLAN AND PROFILE SHEET RAMP A
STA. 13+00.00 TO STA. 25+56.14

WAY-71-0.28

260
432

M:\98029\AUTOCAD\BDSK-7\PP-RA-1.DWG - SHEET 260 - May 03, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
259–262	Ramp Plan & Profile
272–273	Ramp Details
279	Headwall Detail
287	Ditch Profile
288–302	Underdrain Details
349	Overhead Sign Details

N

Scale In Feet 0 50 100

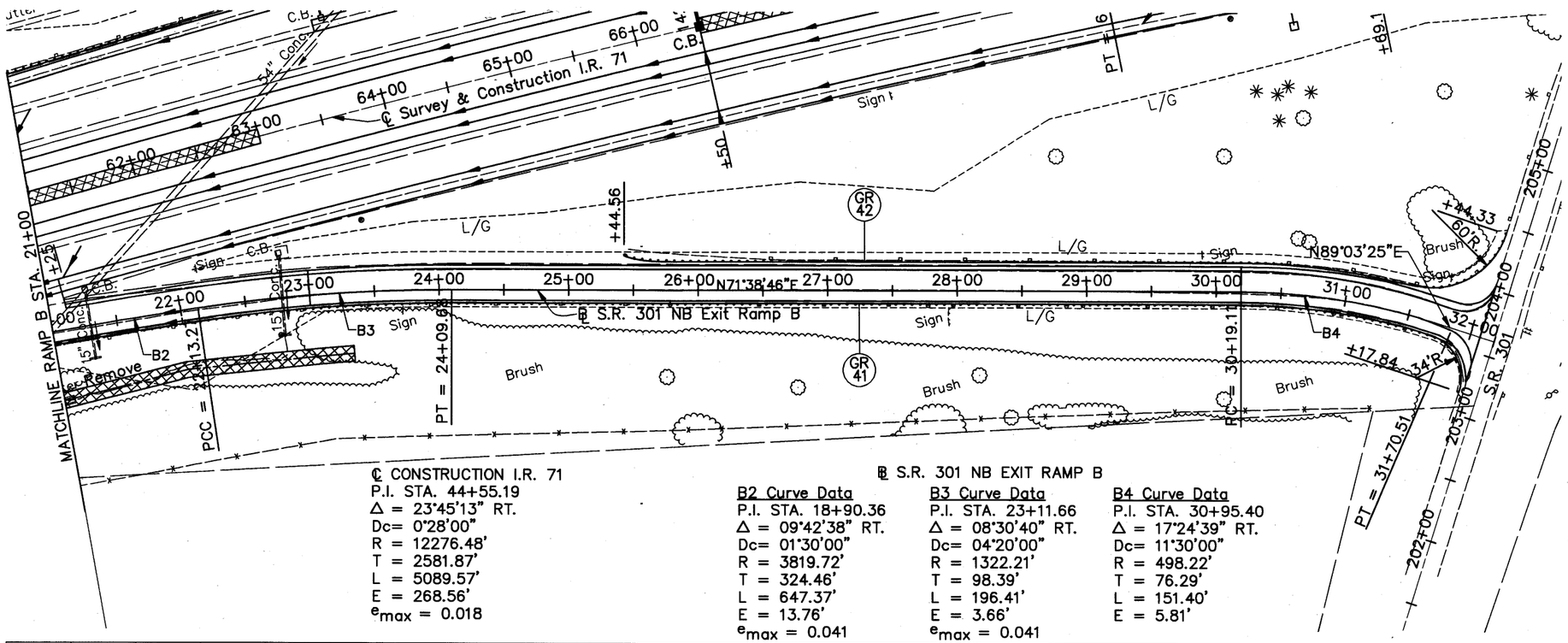
CALCULATED CHECKED

PLAN AND PROFILE SHEET RAMP B STA. 9+37.87 TO STA. 21+00

WAY–71–0.28

261
432

M:\MICROSTATION\DGN\K-720\P-b-1.dwg - SHEET 261 - May 02, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
259–262	Ramp Plan & Profile
272–273	Ramp Details
288–302	Underdrain Details

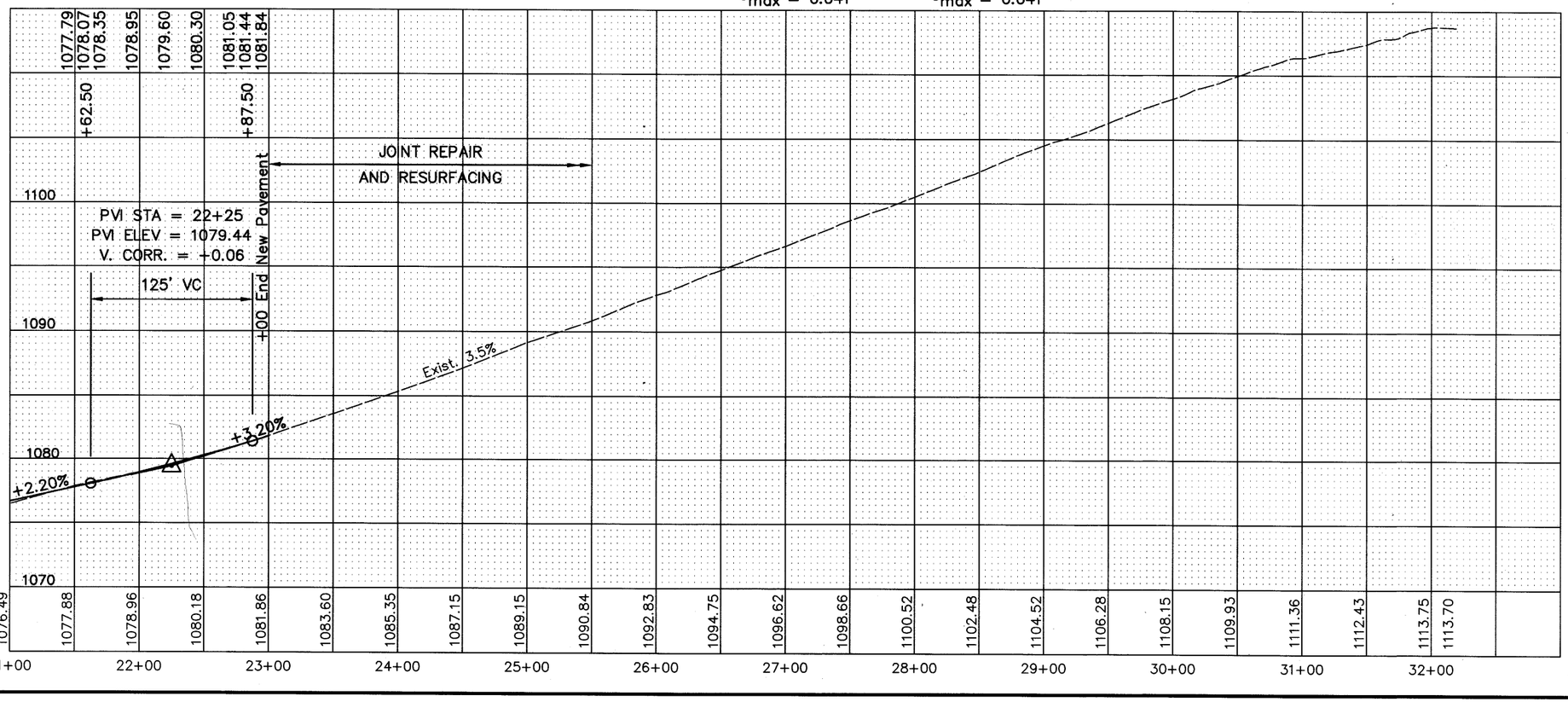
℄ CONSTRUCTION I.R. 71
P.I. STA. 44+55.19
Δ = 23°45'13" RT.
Dc= 0°28'00"
R = 12276.48'
T = 2581.87'
L = 5089.57'
E = 268.56'
e_{max} = 0.018

℄ S.R. 301 NB EXIT RAMP B

B2 Curve Data
P.I. STA. 18+90.36
Δ = 09°42'38" RT.
Dc= 01°30'00"
R = 3819.72'
T = 324.46'
L = 647.37'
E = 13.76'
e_{max} = 0.041

B3 Curve Data
P.I. STA. 23+11.66
Δ = 08°30'40" RT.
Dc= 04°20'00"
R = 1322.21'
T = 98.39'
L = 196.41'
E = 3.66'
e_{max} = 0.041

B4 Curve Data
P.I. STA. 30+95.40
Δ = 17°24'39" RT.
Dc= 11°30'00"
R = 498.22'
T = 76.29'
L = 151.40'
E = 5.81'



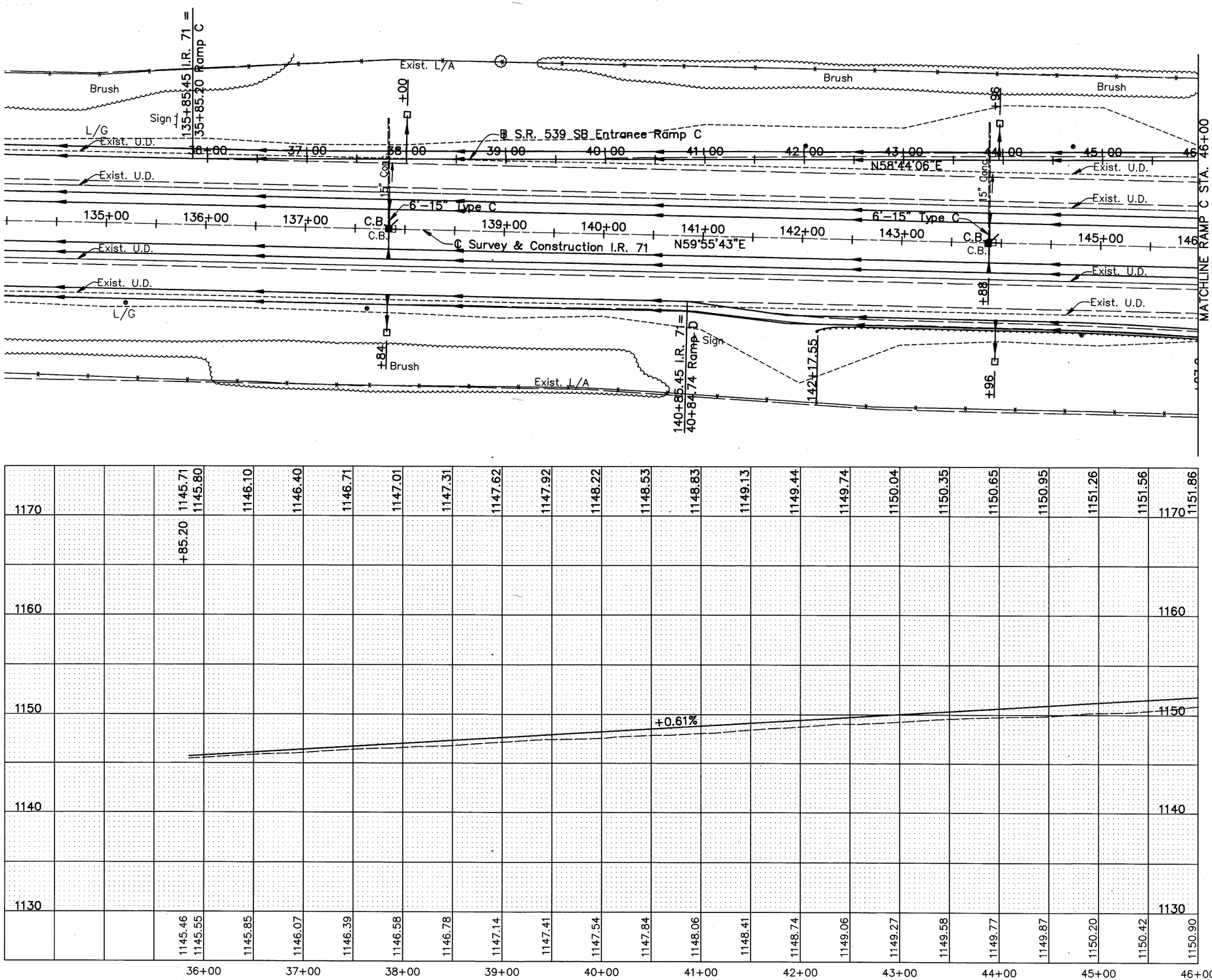
N
Scale In Feet 0 50 100
CALCULATED
CHECKED

PLAN AND PROFILE SHEET RAMP B
STA. 21+00 TO STA. 32+18.89

WAY-71-0.28

262
432

M:\WKSN\AUTOCAD\BDSK-72\Pr-fs-2.dwg - SHEET 262 - May 02, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
263–267	Ramp Plan & Profile
274–275	Ramp Details
280	Culvert Details
288–302	Underdrain Details
350	Overhead Sign Details

N

0 50 100 Scale in Feet

CALCULATED CHECKED

PROFILE SHEET RAMP C
STA. 35+85.20 TO STA. 46+00

PLAN AND PROFILE
STA. 35+85.20 TO STA. 46+00

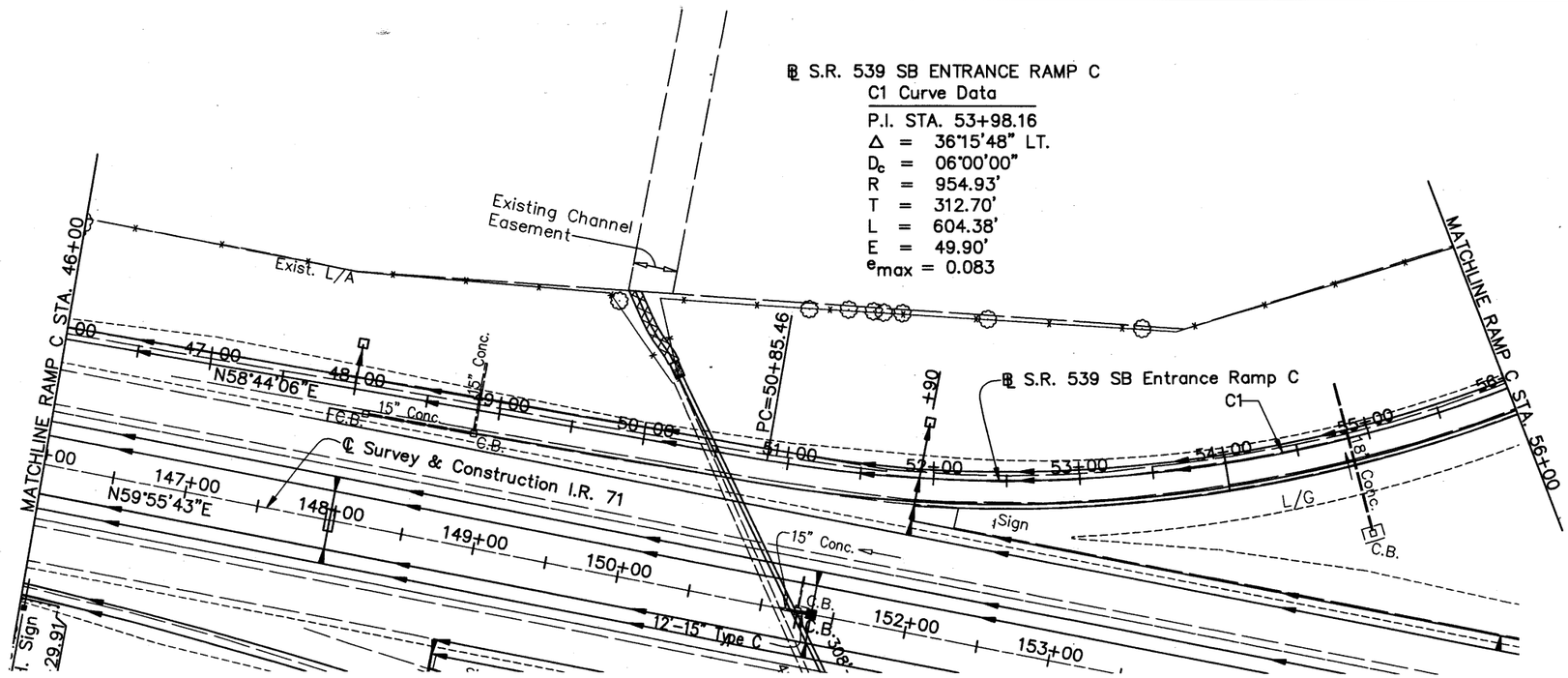
WAY-71-0.28

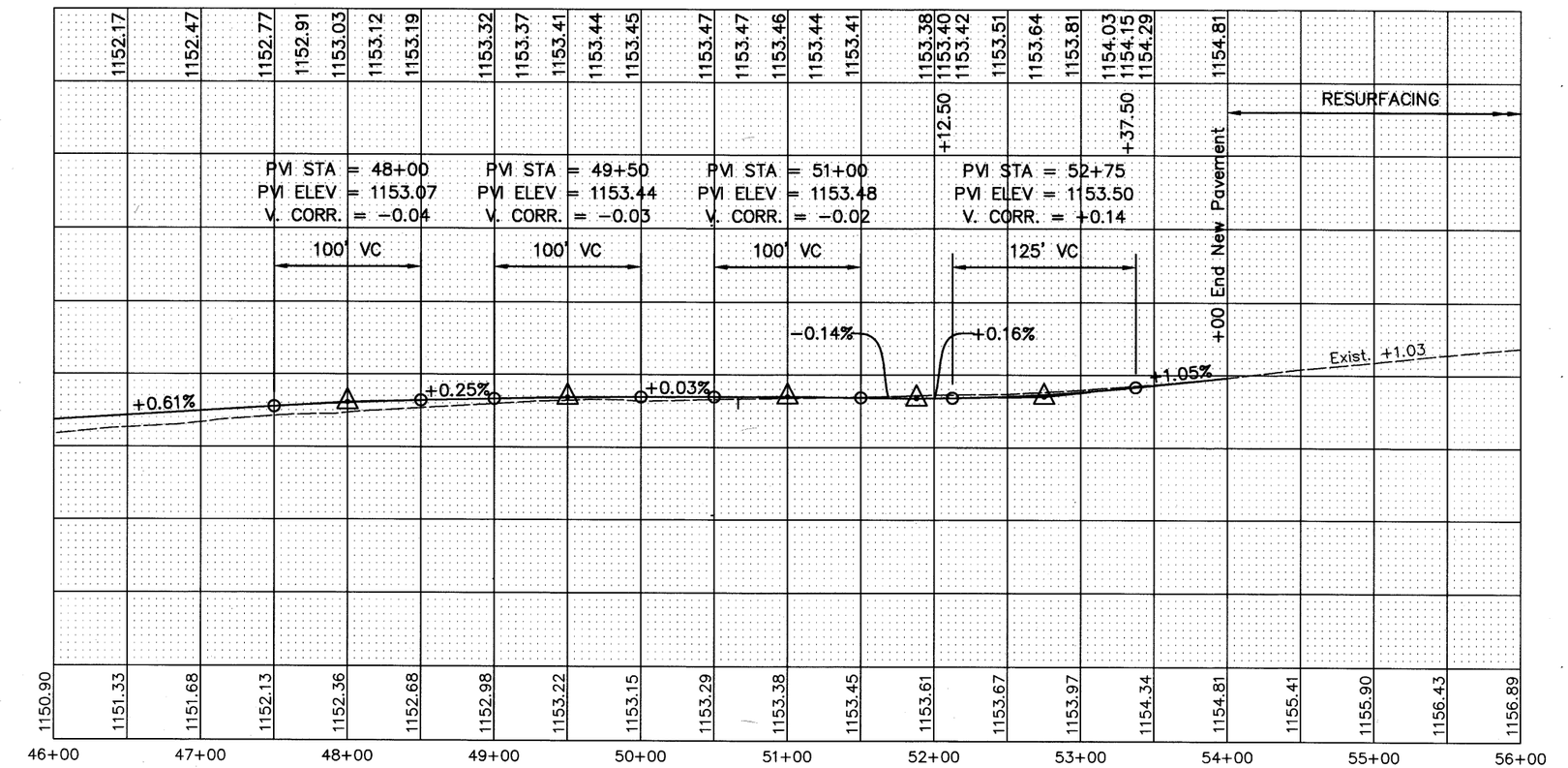
263
432

M:\MRGDATA\AUTOCAD\SDSK-72\PP-RC-1.DWG - SHEET 263 - May 02, 2001

℄ S.R. 539 SB ENTRANCE RAMP C
C1 Curve Data

P.I. STA. 53+98.16
Δ = 36°15'48" LT.
D_c = 06°00'00"
R = 954.93'
T = 312.70'
L = 604.38'
E = 49.90'
e_{max} = 0.083





CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
263–267	Ramp Plan & Profile
274–275	Ramp Details
280	Culvert Details
288–302	Underdrain Details
350	Overhead Sign Details

N

0 50 100 Scale in Feet

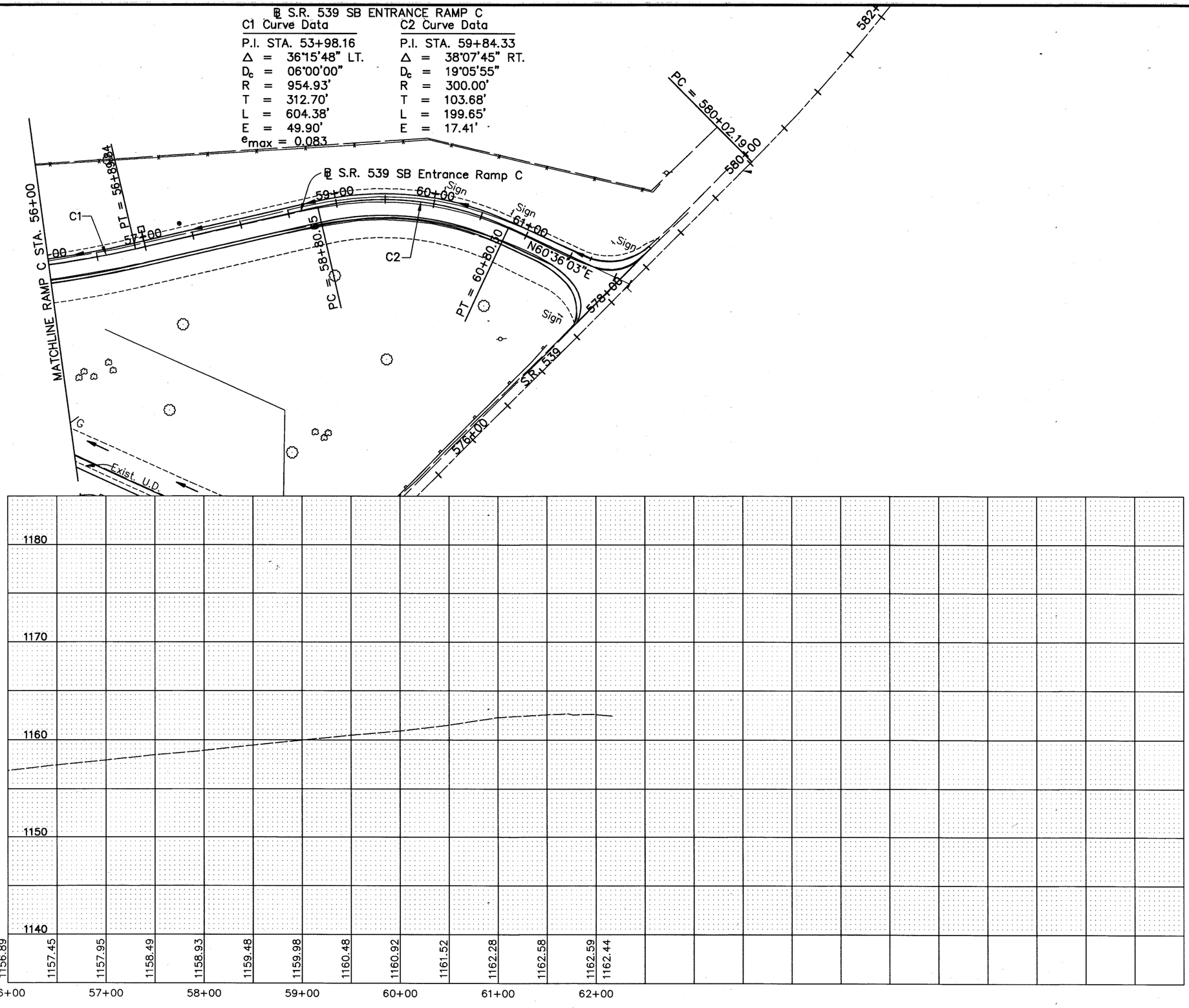
CALCULATED CHECKED

PLAN AND PROFILE SHEET RAMP C
STA. 46+00 TO STA. 56+00

WAY–71–0.28

264
432

M:\99028\AUTOCAD\BSDK-75\PP-RC-2.DWG - SHEET 264 - May 02, 2001



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
263–267	Ramp Plan & Profile
274–275	Ramp Details
280	Culvert Details
288–302	Underdrain Details
350	Overhead Sign Details

N

0 50 100 Scale in Feet

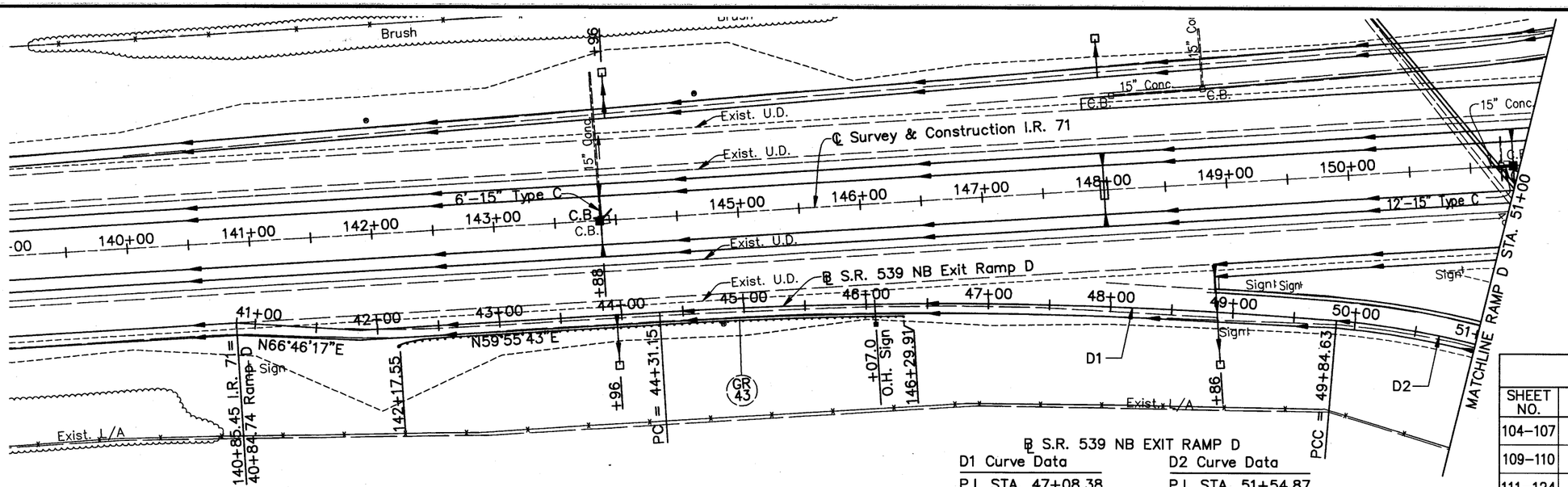
CALCULATED | CHECKED

PLAN AND PROFILE SHEET RAMP C
STA. 56+00 TO STA. 62+16.54

WAY–71–0.28

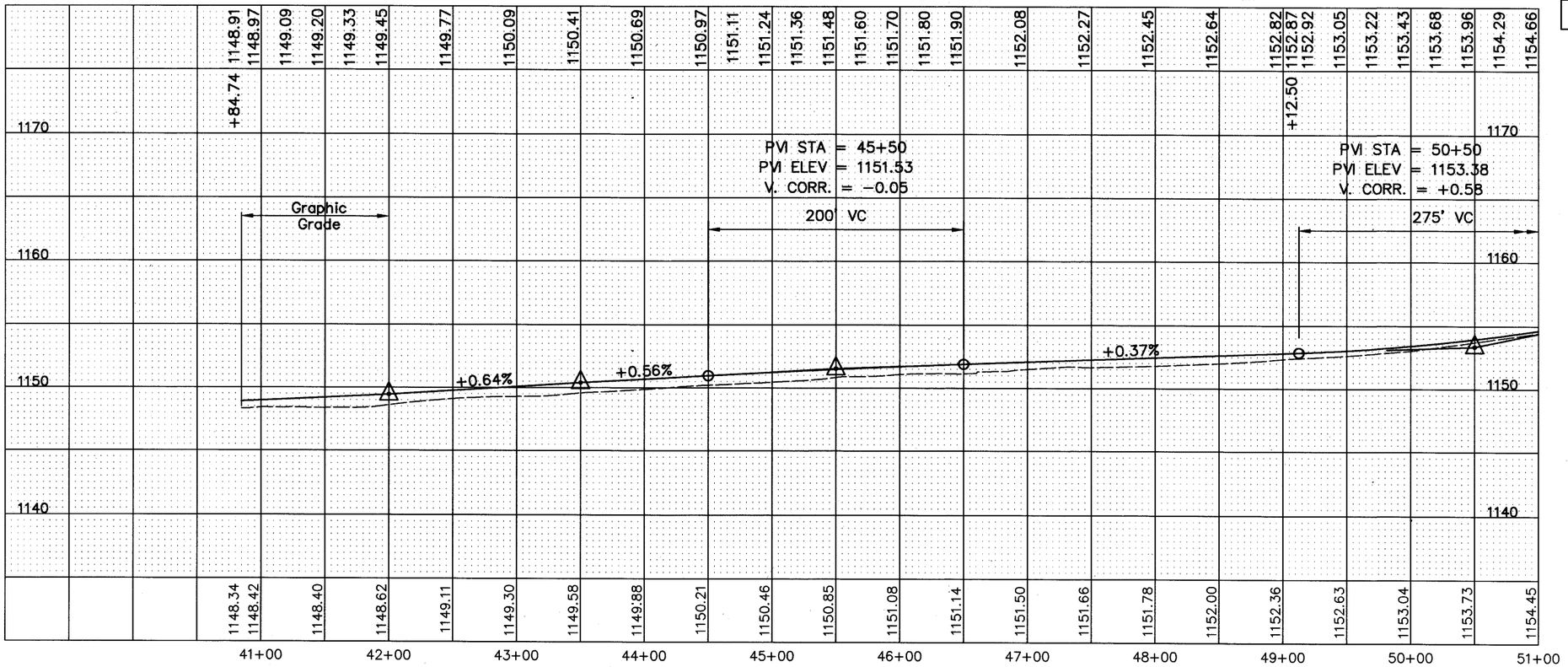
265
432

M:\MKDS\AUTOCAD\SDSK-72\Pp-rc-3.dwg - SHEET 265 - May 02, 2001



℄ S.R. 539 NB EXIT RAMP D

D1 Curve Data		D2 Curve Data	
P.I. STA.	47+08.38	P.I. STA.	51+54.87
Δ	= 08°18'08" RT.	Δ	= 26°44'30" RT.
D_c	= 01°30'00"	D_c	= 08°00'00"
R	= 3819.72'	R	= 716.20'
T	= 277.23'	T	= 170.24'
L	= 553.48'	L	= 334.27'
E	= 10.05'	E	= 19.95'
e_{max}	= 0.041	e_{max}	= 0.081



CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
263–267	Ramp Plan & Profile
274–275	Ramp Details
280	Culvert Details
288–302	Underdrain Details
350	Overhead Sign Details

N

Scale in Feet 0 50 100

CALCULATED

CHECKED

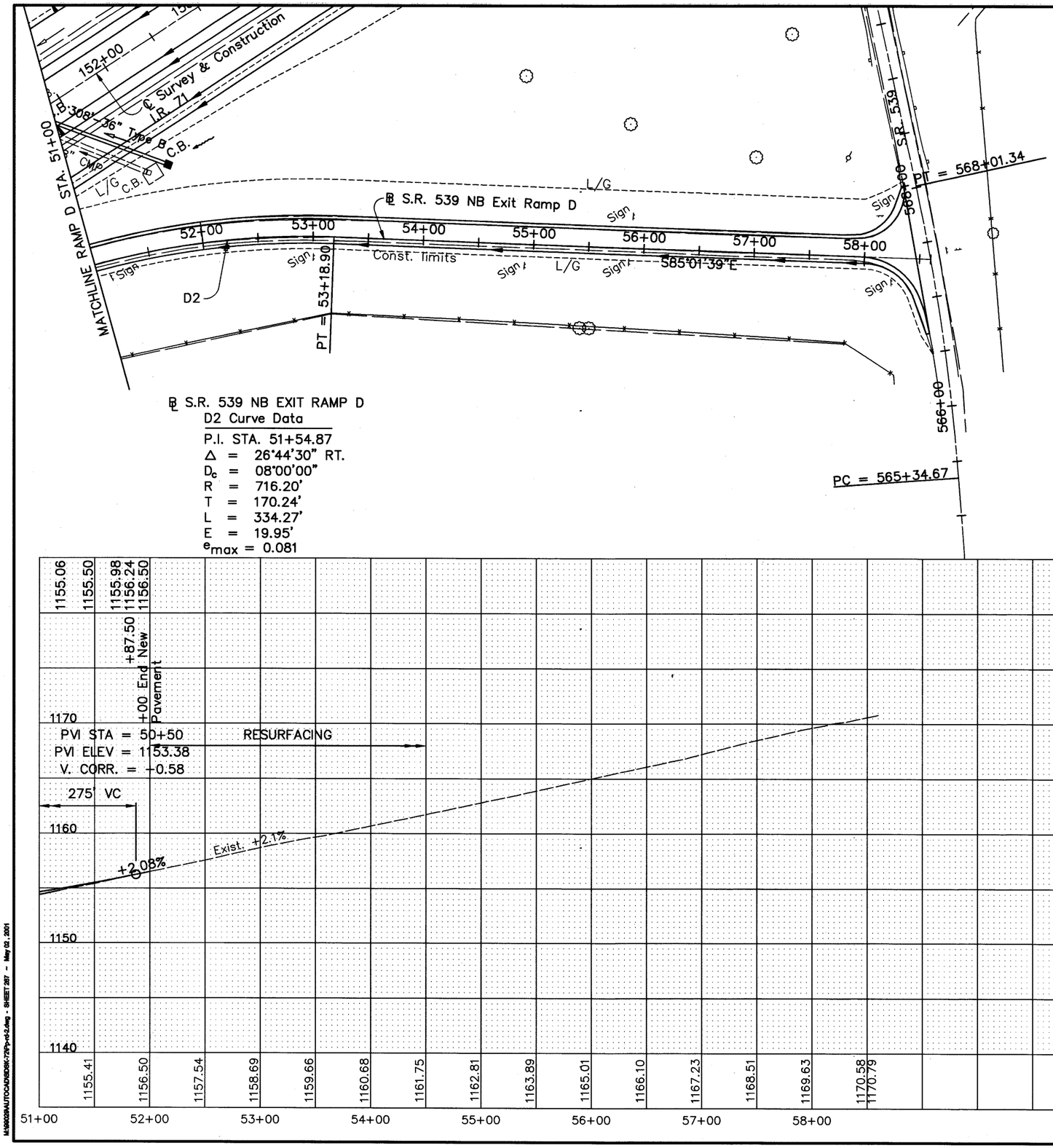
PLAN AND PROFILE SHEET RAMP D
STA. 40+84.74 TO STA. 51+00

WAY-71-0.28

266
432

M:\MICROSTATION\DGN\K-72Pp-16-1.dwg - SHEET 266 - May 02, 2001

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
263–267	Ramp Plan & Profile
274–275	Ramp Details
280	Culvert Details
288–302	Underdrain Details
350	Overhead Sign Details



℄ S.R. 539 NB EXIT RAMP D
D2 Curve Data

P.I. STA. 51+54.87
Δ = 26°44'30" RT.
D_c = 08°00'00"
R = 716.20'
T = 170.24'
L = 334.27'
E = 19.95'
e_{max} = 0.081

N

0 50 100 Scale in Feet

CALCULATED

CHECKED

PLAN AND PROFILE SHEET RAMP D
STA. 51+00 TO STA. 58+59.96

WAY-71-0.28

267
432

M:\$WORK\AUTOCAD\$\DGK-72\Pp-rd-2.dwg - SHEET 267 - May 02, 2001

℄ Construction I.R. 71
P.I. STA. 188+94.73
Δ = 18°49'03" LT.
Dc= 0°27'59"
R = 12287.48'
T = 2036.11'
L = 4035.54'
E = 167.55'
e_{max} = 0.018

E1 Curve Data
P.I. STA. 61+52.70
Δ = 25°00'00" RT.
D_c = 23°00'00"
R = 249.11'
L_s = 150.00'
Θ_s = 17°15'00"
LT = 100.48'
ST = 50.44'
Δ_c = 07°45'00"
L_c = 33.70'
T_1 = 64.10'
T_2 = 121.96'
E_s = 0.57'

E2 Curve Data
P.I. STA. 64+76.25
Δ = 26°13'03" LT.
D_c = 12°00'00"
R = 477.46'
L_s = 200.00'
Θ_s = 12°00'00"
LT = 113.64'
ST = 66.95'
Δ_c = 14°13'03"
L_c = 118.48'
T_1 = 203.96'
T_2 = 119.08'
E_s = 3.70'

E3 Curve Data
P.I. STA. 66+65.24
Θ_s = 13°30'00" LT.
D_1 = 12°00'00"
R_1 = 477.46'
D_2 = 01°30'00"
R_2 = 3819.72
L_s = 200.00'
ST = 74.47'
LT = 126.35'
e_{max} = 0.041

E4 Curve Data
P.I. STA. 70+63.58
Δ = 08°10'13" LT.
D_c = 01°30'00"
R = 3819.72'
T = 272.81'
L = 544.69'
E = 9.73'
e_{max} = 0.041

℄ S.R. 539 SB EXIT RAMP E

℄ S.R. 539 SB Exit Ramp E

S.R. 539
GR 44
GR 45
+04.60
+32'R.
Signs
E1
+14.48
+22.29
61+00
62+00
63+00
64+00
65+00
66+00
67+00
68+00
69+00
70+00
71+00
N80°35'34"E
+77.54
+24.56
PC = 60+88.60
CS = 61+22.29
ST = 62+72.29
SC = 64+72.29
CS = 65+90.77
SC = 67+90.77
E2
E3
E4
L/G
Sign
18" C.B.
48" Conc.
+84
+00
+35
168+58.92
168+00
167+00
N59°55'43"E
169+00 18" Conc.
170+00
6'-18" Type C
C.B.
Ex
MATCHLINE RAMP E STA. 71+00
℄ Survey & Construction I.R. 71

JOINT REPAIR
AND RESURFACING
+84 End New Pavement
Exist. +0.66%
+0.71%

1162.66	1162.04	1161.25	1160.50	1160.02	1159.92	1160.12	1160.49	1160.87	1161.32	1161.74	1162.11	1162.30	1162.41	1162.54	1162.77	1163.00	1163.13	1163.33	1163.48	1163.67	1163.84	1163.97	1164.20	1164.35	1164.55	1164.62	1164.91	1165.01	1165.27	1165.59	1165.62	1166.01	1165.97	1166.34
61+00				62+00				63+00				64+00				65+00				66+00				67+00				68+00				69+00				70+00		71+00

1180 1170 1160 1150

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
268–271	Ramp Plan & Profile
276–277	Ramp Details
288–302	Underdrain Details
351	Overhead Sign Details

N

0 50 100 Scale in Feet

CALCULATED CHECKED

PLAN AND PROFILE SHEET RAMP E
STA. 60+09.41TO STA. 71+00

WAY–71–0.28

268
432

M:\99029\AUTOCAD\SD5K-72\Pp-re-1.dwg - SHEET 268 - May 02, 2001

℄ S.R. 539 SB EXIT RAMP E

E4 Curve Data

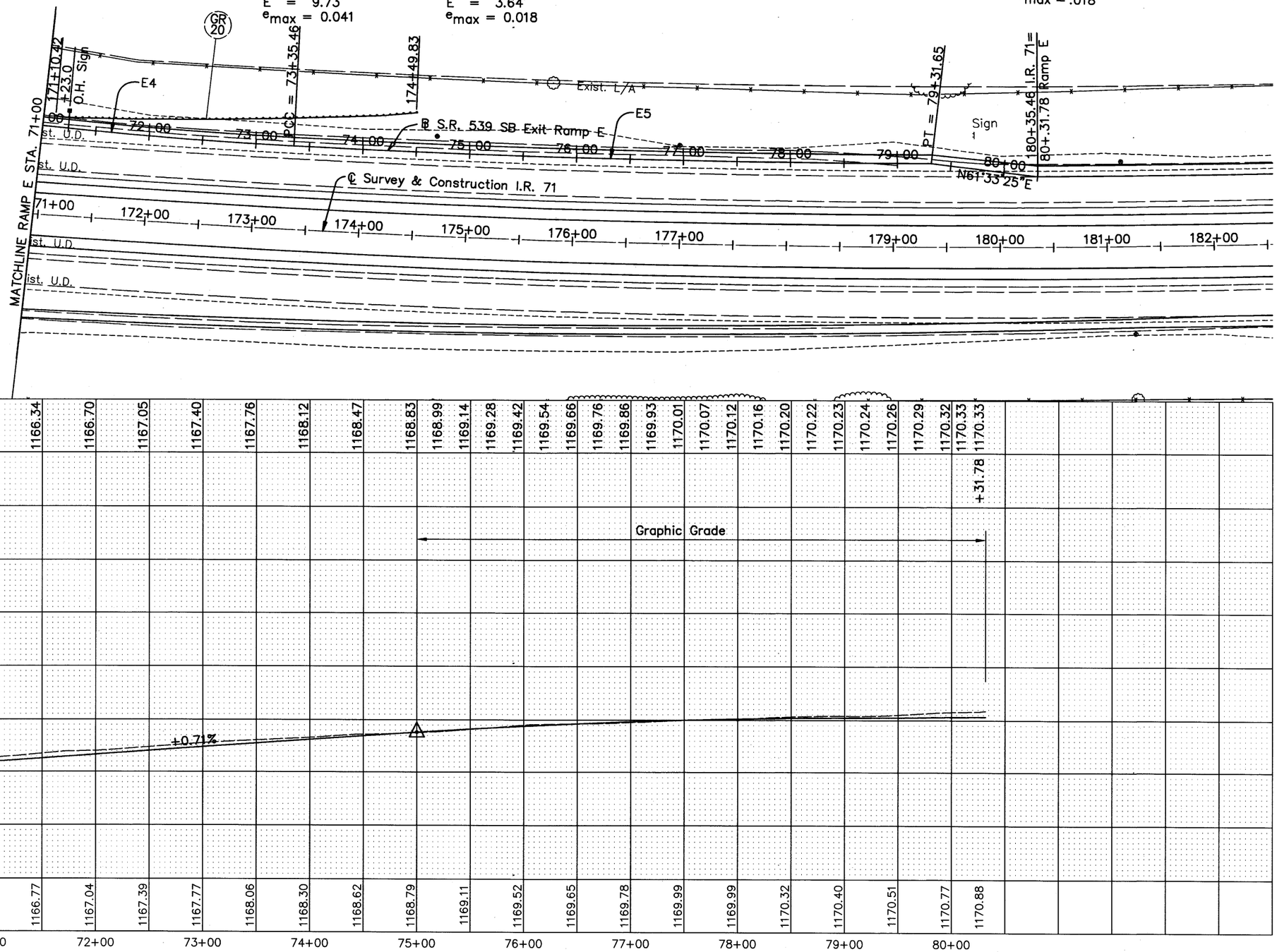
P.I. STA. 70+63.58
Δ = 08°10'13" LT.
D_c = 01°30'00"
R = 3819.72'
T = 272.81'
L = 544.69'
E = 9.73'
e_{max} = 0.041

E5 Curve Data

P.I. STA. 76+33.61
Δ = 02°47'52" LT.
D_c = 00°28'09"
R = 12209.48'
T = 298.15'
L = 596.19'
E = 3.64'
e_{max} = 0.018

℄ Construction I.R. 71
P.I. STA. 188+94.73
Δ = 18°49'03" LT.
Dc= 0°27'59"
R = 12287.48'
T = 2036.11'
L = 4035.54'
E = 167.55'
•max = .018

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
268–271	Ramp Plan & Profile
276–277	Ramp Details
288–302	Underdrain Details
351	Overhead Sign Details



Scale in Feet: 0 50 100

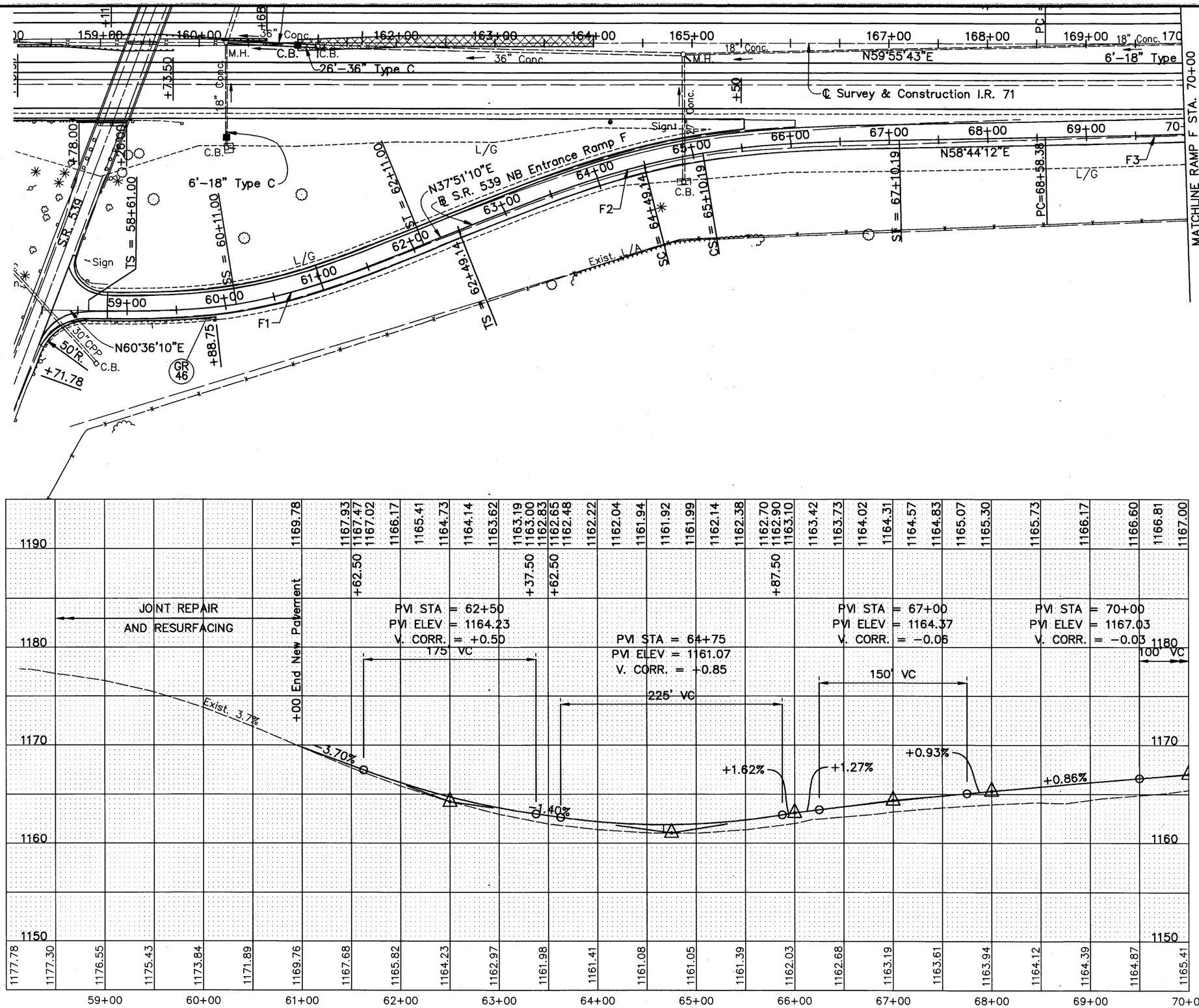
CALCULATED | CHECKED

PLAN AND PROFILE SHEET RAMP E
STA. 71+00 TO STA. 80+31.78

WAY–71–0.28

269
432

M:\98029\AUTOCAD\98DSK-72\Pp-re-2.dwg - SHEET 269 - May 02, 2001



℄ S.R. 539 NB ENTRANCE RAMP F

F1 Curve Data
P.I. STA. 60+29.29
Δ = 22°45'00" LT.
R = 440.74'
L_{s1} = 150.00'
L_{s2} = 200.00'
Θ_{s1} = 09°45'00"
Θ_{s2} = 13°00'00"
LT_1 = 100.15'
ST_1 = 50.14'
ST_2 = 67.00'
LT_2 = 133.69'
T_1 = 168.29'
T_2 = 184.99'
E_s = 11.85'

F2 Curve Data
P.I. STA. 64+81.49
Δ = 20°53'02" RT.
D_c = 08°00'00"
R = 716.20'
L_s = 200.00'
Θ_s = 08°00'00"
LT = 133.47'
ST = 66.79'
L_c = 61.05'
T_s = 232.35'
E_s = 14.43'
e_{max} = 0.074

F3 Curve Data
P.I. STA. 75+39.40
Δ = 06°17'18" LT.
D_c = 00°27'44"
R = 12397.54'
T = 681.02'
L = 1360.67'
E = 18.69'
e_{max} = 0.016

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
109–110	Guardrail Quantities
111–124	Underdrain Quantities
268–271	Ramp Plan & Profile
276–277	Ramp Details
288–302	Underdrain Details

Scale in Feet: 0, 50, 100

CALCULATED

CHECKED

PLAN AND PROFILE SHEET RAMP F
STA. 58+13.69 TO STA. 70+00

WAY-71-0.28

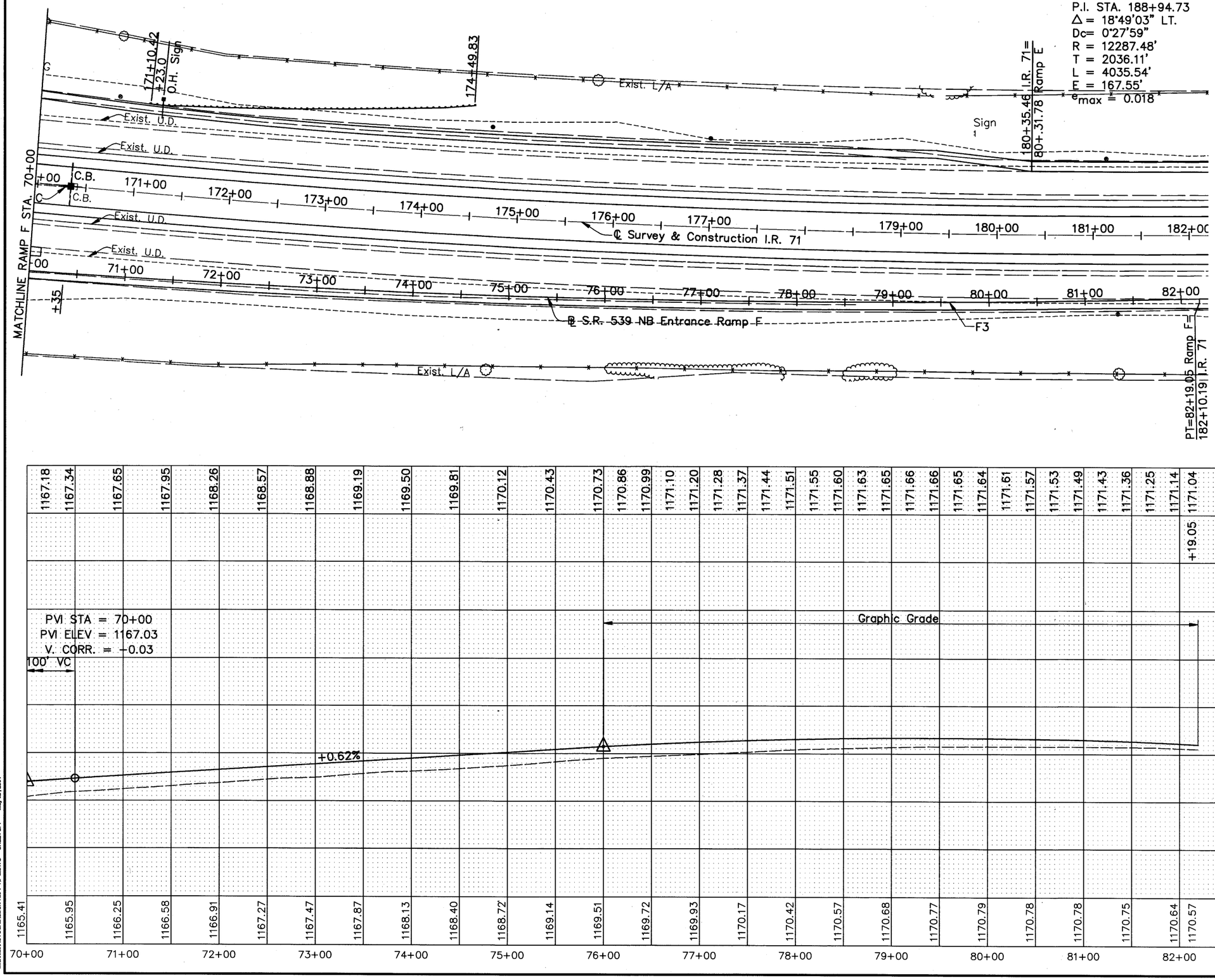
270
432

M:\99\029\AUTOCAD\SDSK-72\PR-RP-1.DWG - SHEET 270 - May 03, 2001

℄ Construction I.R. 71
P.I. STA. 188+94.73
Δ = 18°49'03" LT.
Dc= 0°27'59"
R = 12287.48'
T = 2036.11'
L = 4035.54'
E = 167.55'
e_{max} = 0.018

℄ S.R. 539 NB ENTRANCE RAMP F
F3 Curve Data
P.I. STA. 75+39.40
Δ = 06°17'18" LT.
Dc= 0°27'44"
R = 12397.54'
T = 681.02'
L = 1360.67'
E = 18.69'
e_{max} = 0.016

CROSS REFERENCES	
SHEET NO.	DESCRIPTION
104–107	Summary of Tables
111–124	Underdrain Quantities
268–271	Ramp Plan & Profile
276–277	Ramp Details
288–302	Underdrain Details



Scale in Feet: 0 50 100

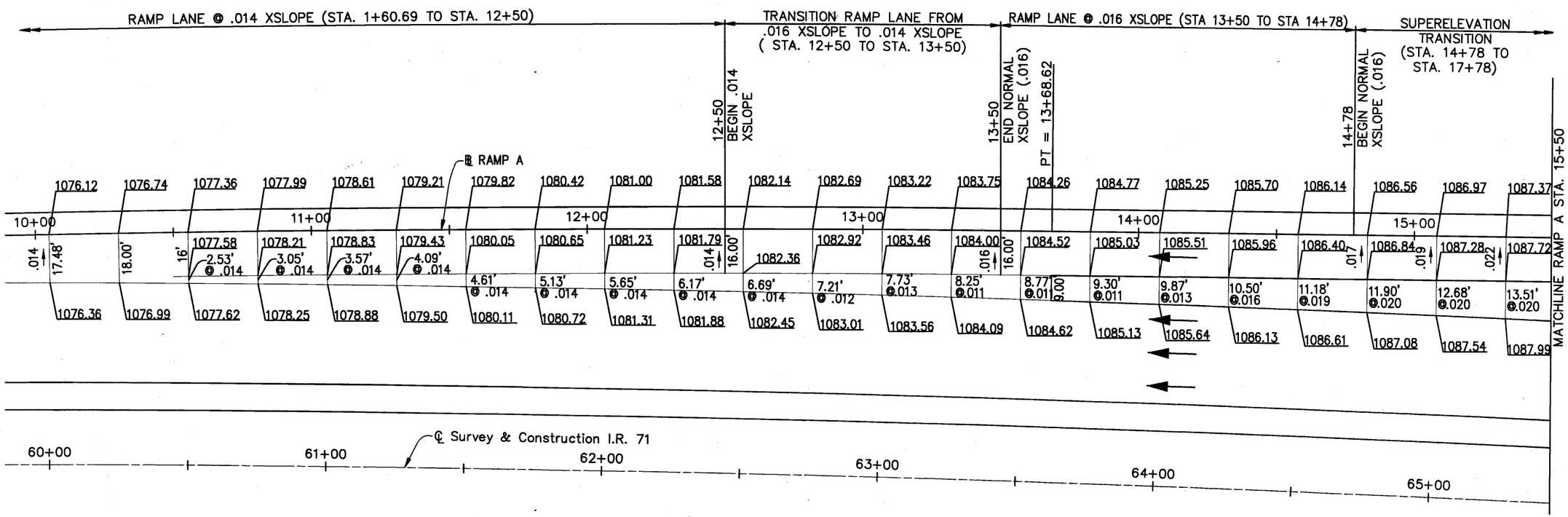
CALCULATED | CHECKED

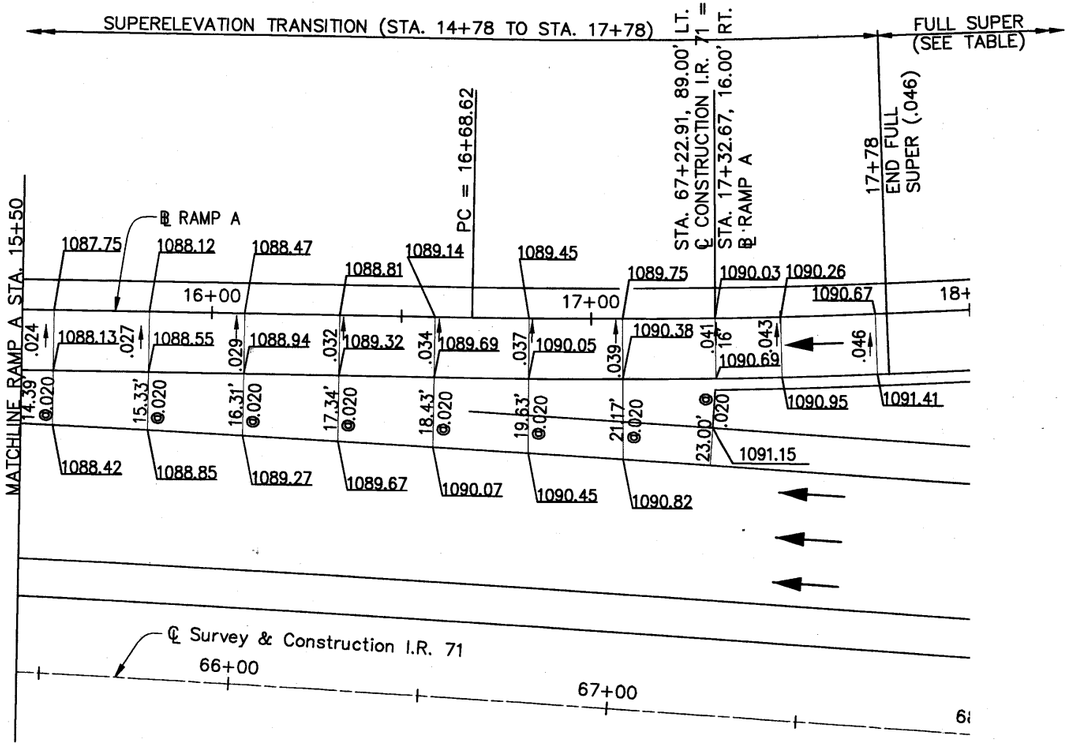
PLAN AND PROFILE SHEET RAMP F
STA. 70+00 TO STA. 82+19.05

WAY-71-0.28

271
432

M:\90029\AUTOCAD\508K-72PP-RF-2.DWG - SHEET 271 - May 02, 2001





NOTES:

1 ALL ELEVATIONS SHOWN ARE AT 25' INTERVALS UNLESS OTHERWISE NOTED.

2 CROSS SLOPES SHOWN ON THE RAMPS REPRESENT THE CROSS SLOPE NORMAL TO THE RAMP BASELINE.

Ramp A Superelevation Table

	Ramp Stationing				Inside Edge of Pavement Elevation	Pavement Width	Pavement X-Slope	Outside Edge of Pavement Elevation (PG)			
BEGIN NEW PAV'T.	20+00				1098.14	16'	.022	1097.79			
	19+75				1097.20	16'	.030	1096.72			
	19+50				1096.30	16'	.039	1095.68			
BEGIN FULL SUPER	19+26				1095.52	16'	.047	1094.77			
	19+25				1095.48	16'	.047	1094.73			
	19+00				1094.61	16'	.047	1093.86			
	18+75				1093.81	16'	.047	1093.06			
END FULL SUPER	18+53				1093.17	16'	.047	1092.42			
BEGIN FULL SUPER	18+50				1093.08	16'	.046	1092.34			
	18+25				1092.44	16'	.046	1091.70			
	18+00				1091.89	16'	.046	1091.15			

PAVEMENT DETAIL RAMP A

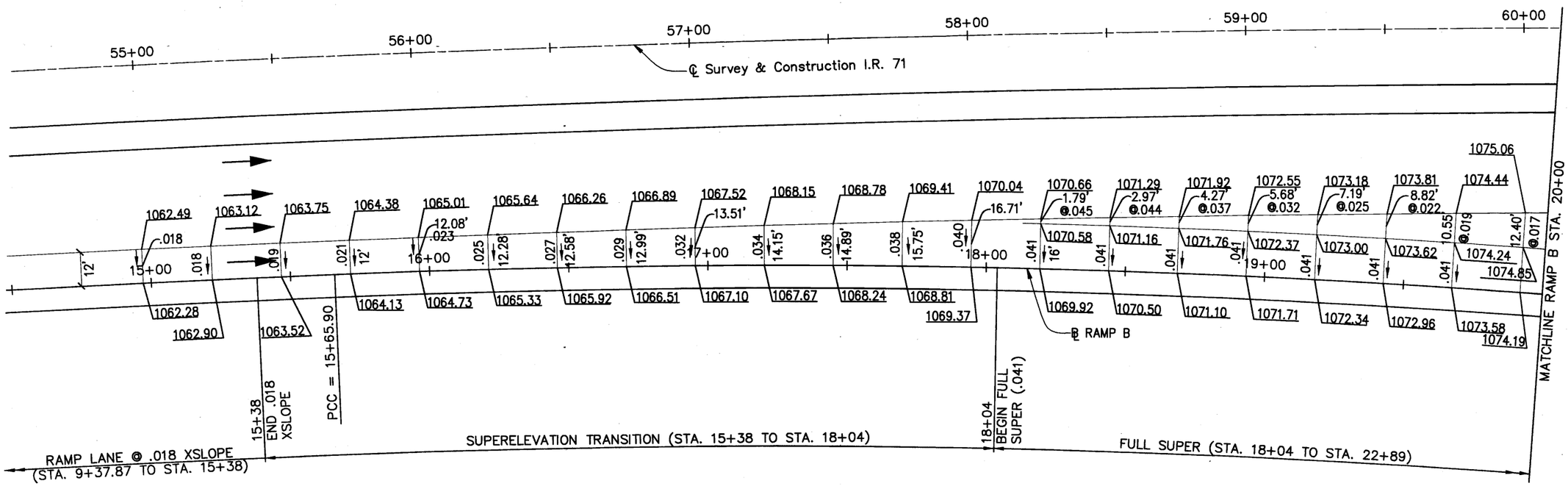
WAY-71-0.28

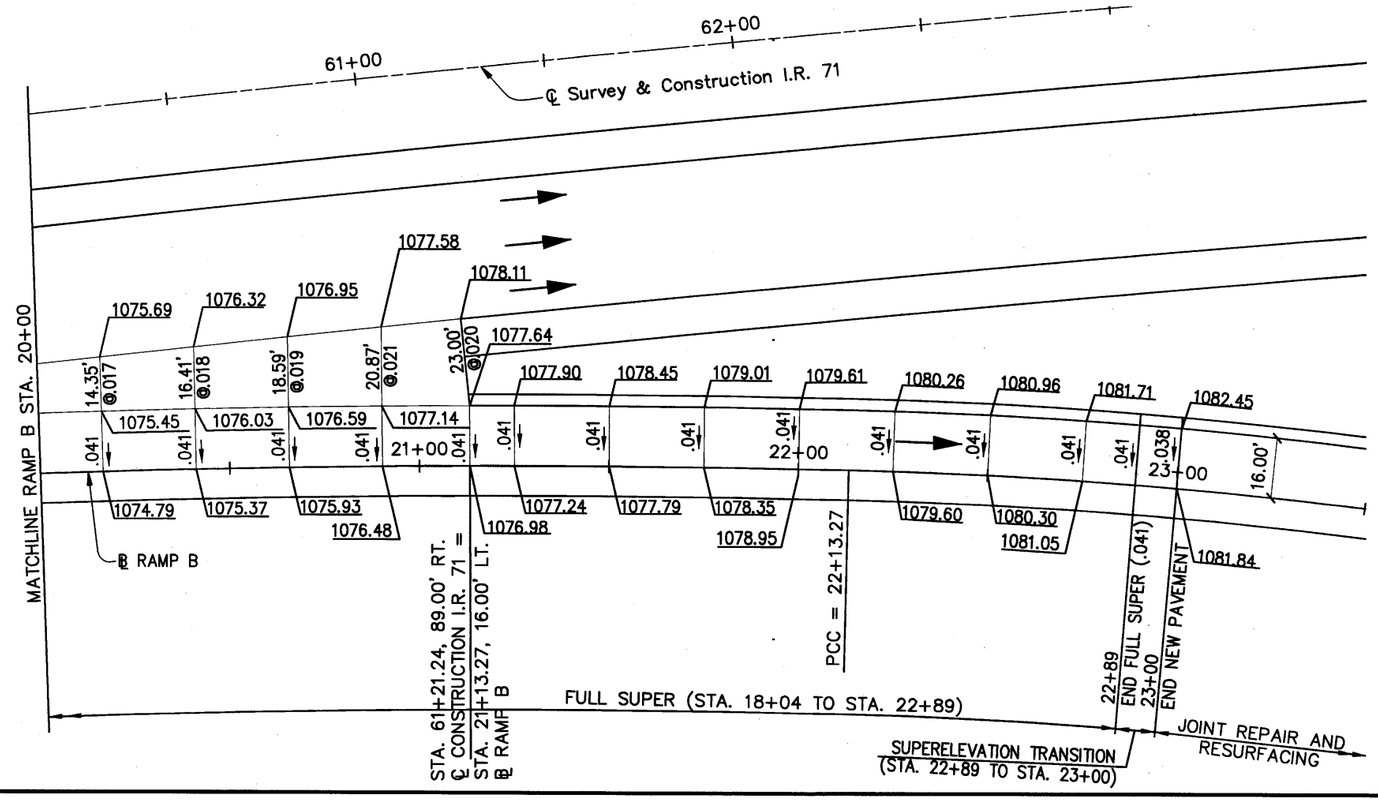
272
432

Scale in Feet 0 20 40

CALCULATED CHECKED

M:\98003\AUTOCAD\SDSK-72\Pw004-s.dwg - SHEET 272 - May 02, 2001





NOTES:

1 ALL ELEVATIONS SHOWN ARE AT 25' INTERVALS UNLESS OTHERWISE NOTED.

2 CROSS SLOPES SHOWN ON THE RAMPS REPRESENT THE CROSS SLOPE NORMAL TO THE RAMP BASELINE.

N

0 20 40 Scale in Feet

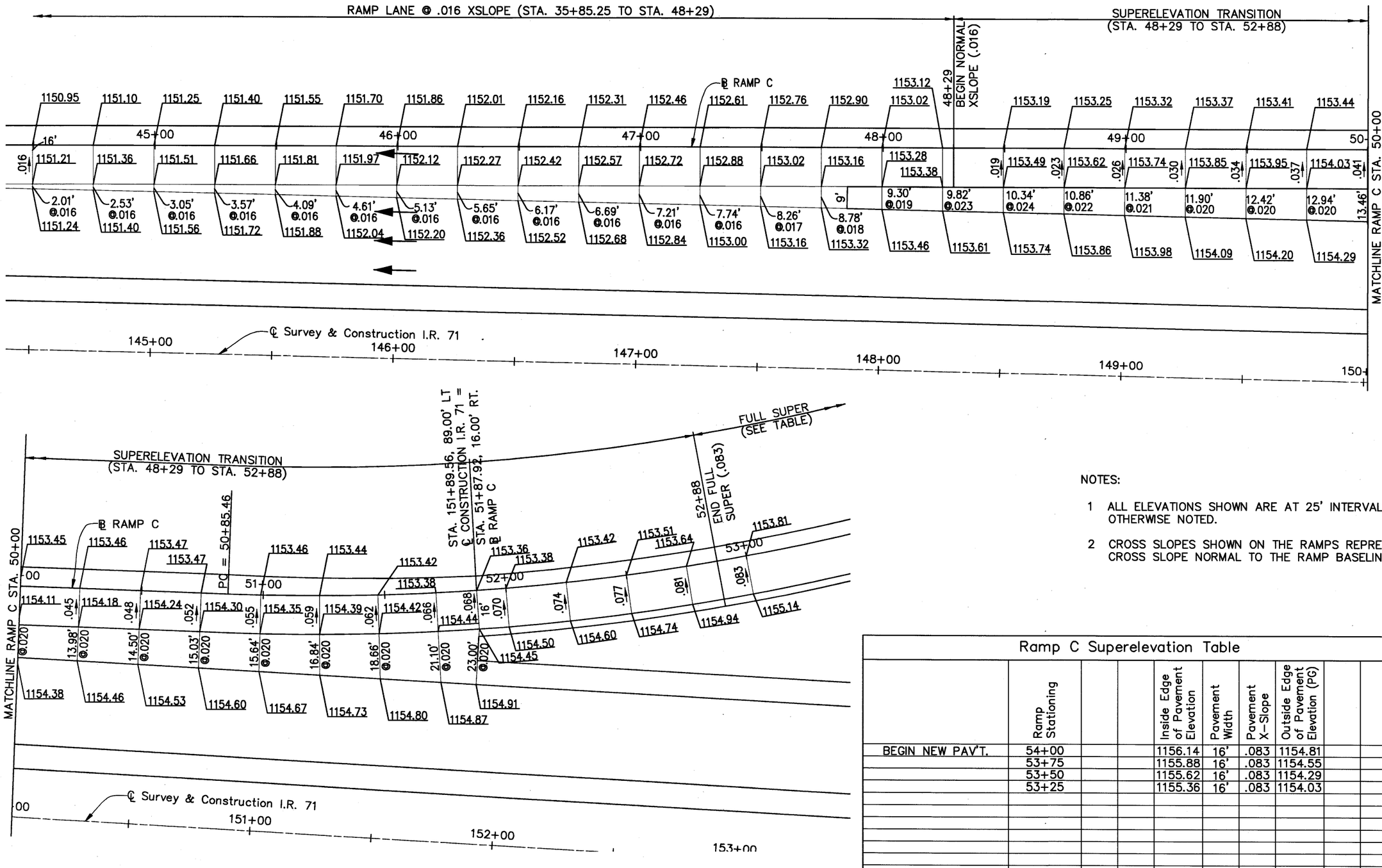
CALCULATED | CHECKED

PAVEMENT DETAIL RAMP B

WAY-71-0.28

273
432

M:\99029\AUTOCAD\SDSK-725\PAVDET-B.DWG - SHEET 273 - May 02, 2001



NOTES:

1 ALL ELEVATIONS SHOWN ARE AT 25' INTERVALS UNLESS OTHERWISE NOTED.

2 CROSS SLOPES SHOWN ON THE RAMPS REPRESENT THE CROSS SLOPE NORMAL TO THE RAMP BASELINE.

Ramp C Superelevation Table

	Ramp Stationing			Inside Edge of Pavement Elevation	Pavement Width	Pavement X-Slope	Outside Edge of Pavement Elevation (PG)		
BEGIN NEW PAV'T.	54+00			1156.14	16'	.083	1154.81		
	53+75			1155.88	16'	.083	1154.55		
	53+50			1155.62	16'	.083	1154.29		
	53+25			1155.36	16'	.083	1154.03		

Scale in Feet: 0 20 40

CALCULATED

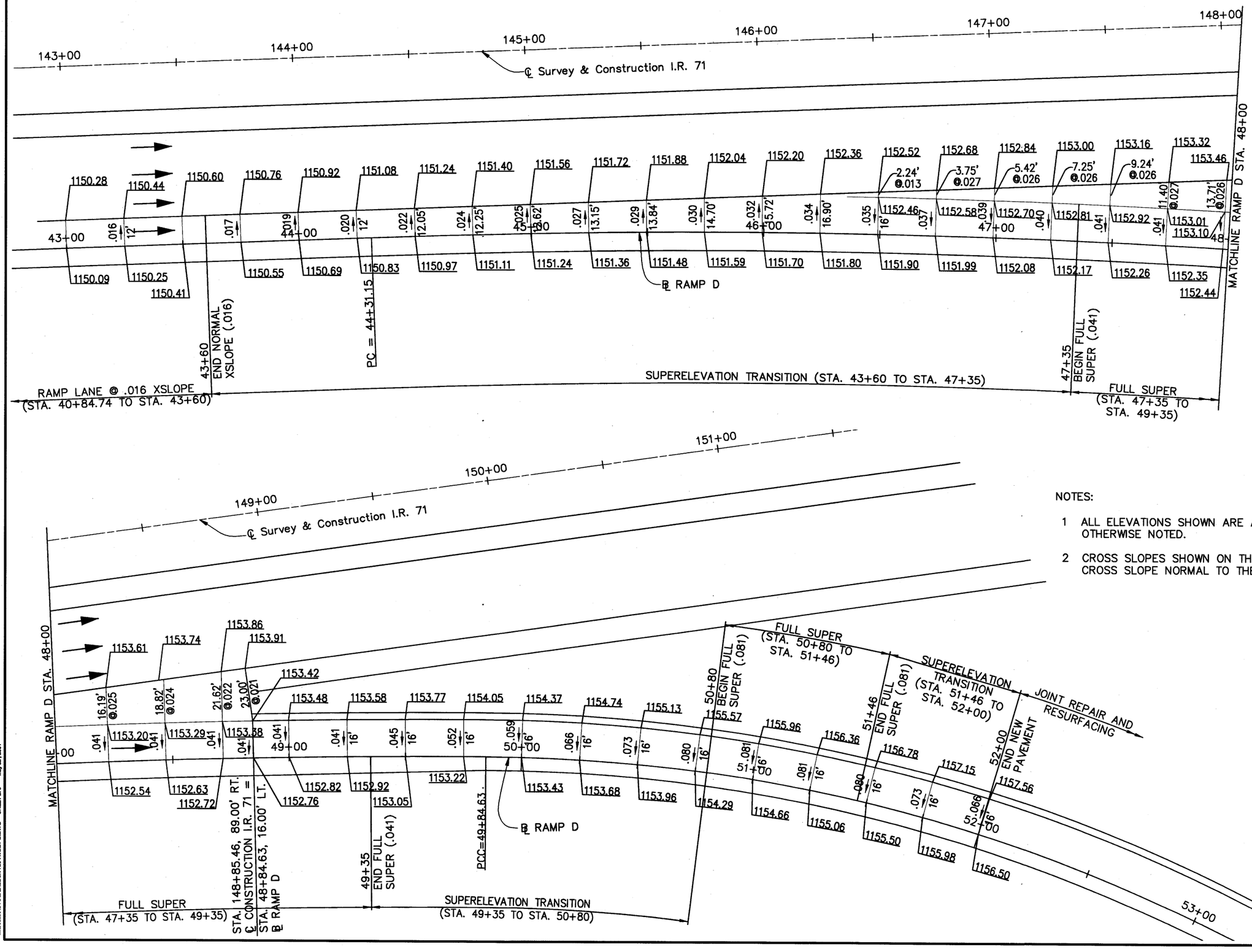
CHECKED

PAVEMENT DETAIL RAMP C

WAY-71-0.28

274 / 432

M:\90028\AUTOCAD\90028-72PAVDET-C.DWG - SHEET 274 - May 03, 2001



NOTES:

1 ALL ELEVATIONS SHOWN ARE AT 25' INTERVALS UNLESS OTHERWISE NOTED.

2 CROSS SLOPES SHOWN ON THE RAMPS REPRESENT THE CROSS SLOPE NORMAL TO THE RAMP BASELINE.

N

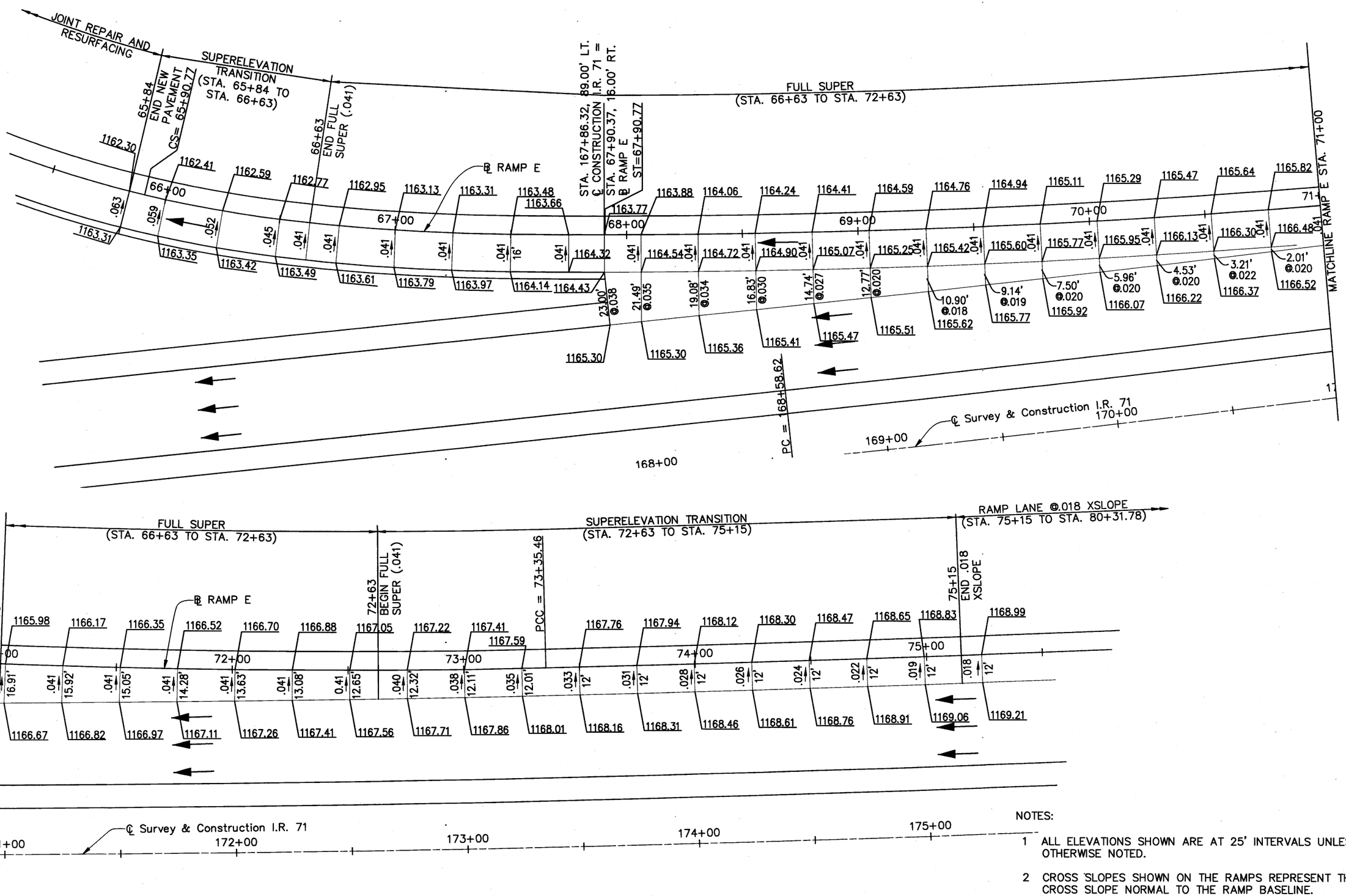
Scale in Feet
0 20 40

CALCULATED
CHECKED

PAVEMENT DETAIL
RAMP D

WAY-71-0.28

M:\WORDMAN\TOCADD\SDR\75PAVDET-D.DWG - SHEET 275 - May 02, 2001



NOTES:

1 ALL ELEVATIONS SHOWN ARE AT 25' INTERVALS UNLESS OTHERWISE NOTED.

2 CROSS SLOPES SHOWN ON THE RAMPS REPRESENT THE CROSS SLOPE NORMAL TO THE RAMP BASELINE.

Scale in Feet 0 20 40

CALCULATED

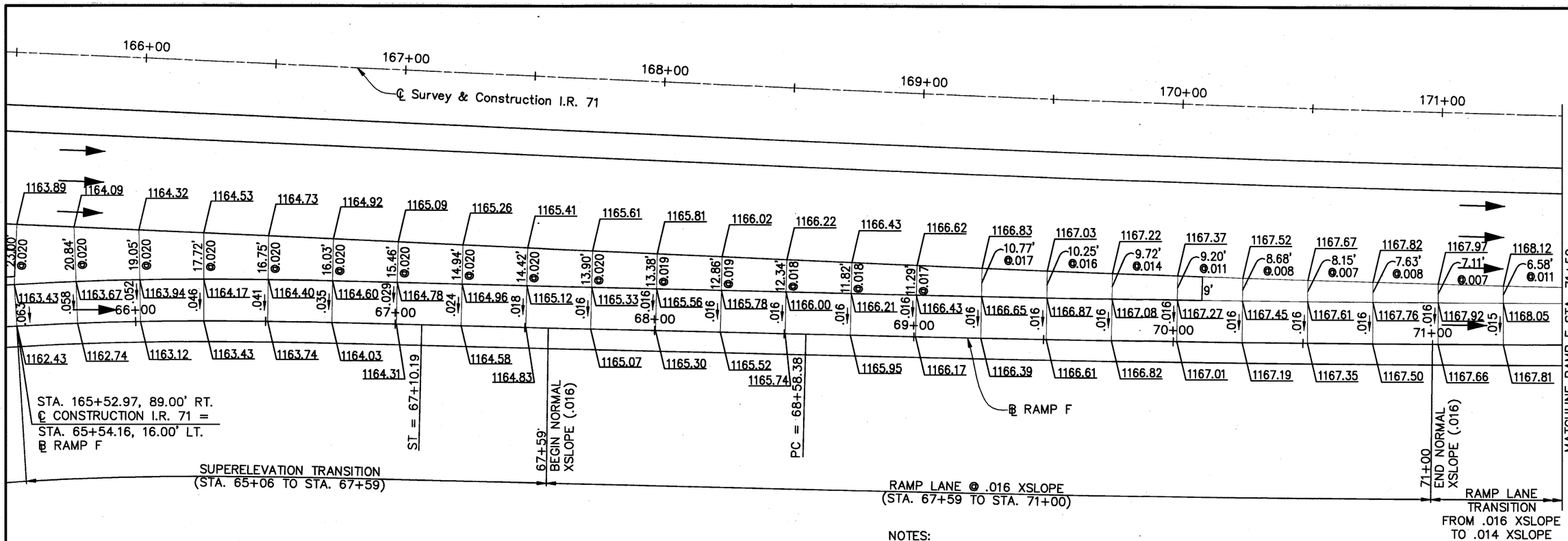
CHECKED

PAVEMENT DETAIL RAMP E

WAY-71-0.28

276 / 432

M:\WIDOT\AUTOCAD\SS\SK-72PAVDET-E.DWG - SHEET 276 - May 02, 2001



NOTES:

1 ALL ELEVATIONS SHOWN ARE AT 25' INTERVALS UNLESS OTHERWISE NOTED.

2 CROSS SLOPES SHOWN ON THE RAMPS REPRESENT THE CROSS SLOPE NORMAL TO THE RAMP BASELINE.

Ramp F Superelevation Table

	Ramp Stationing				Inside Edge of Pavement Elevation	Pavement Width	Pavement X-Slope	Outside Edge of Pavement Elevation (PG)			
BEGIN NEW PAV'T.	61+00				1169.41	16'	.023	1169.78			
	61+25				1168.64	16'	.014	1168.86			
	61+50				1167.85	16'	.005	1167.93			
	61+75				1167.07	16'	.003	1167.02			
	62+00				1166.36	16'	.012	1166.17			
BEGIN .016 XSLOPE	62+11				1166.09	16'	.016	1165.83			
	62+25				1165.67	16'	.016	1165.41			
BEGIN SUPER TRANSITION	62+49.14				1165.01	16'	.016	1164.75			
	62+50				1164.99	16'	.016	1164.73			
	62+75				1164.52	16'	.024	1164.14			
	63+00				1164.12	16'	.031	1163.62			
	63+25				1163.80	16'	.038	1163.19			
	63+50				1163.55	16'	.045	1162.83			
	63+75				1163.33	16'	.053	1162.48			
	64+00				1163.18	16'	.060	1162.22			
	64+25				1163.11	16'	.067	1162.04			
BEGIN FULL SUPER	64+49.14				1163.12	16'	.074	1161.94			
	64+50				1163.12	16'	.074	1161.94			
	64+75				1163.10	16'	.074	1161.92			
	65+00				1163.17	16'	.074	1161.99			
END FULL SUPER	65+06				1163.20	16'	.074	1162.02			
	65+25				1163.26	16'	.070	1162.14			
	65+50				1163.40	16'	.064	1162.38			

N

0 20 40 Scale in Feet

CALCULATED

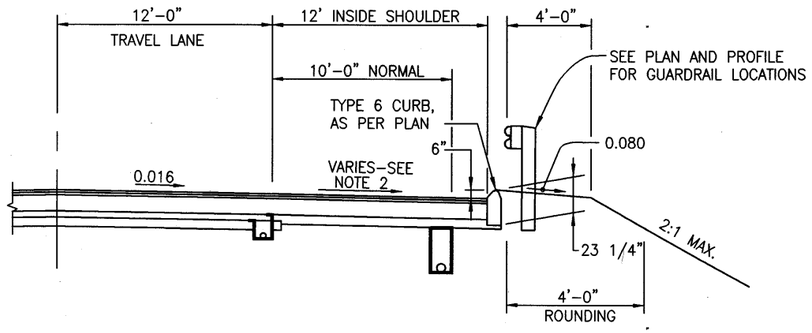
CHECKED

PAVEMENT DETAIL
RAMP F

WAY-71-0.28

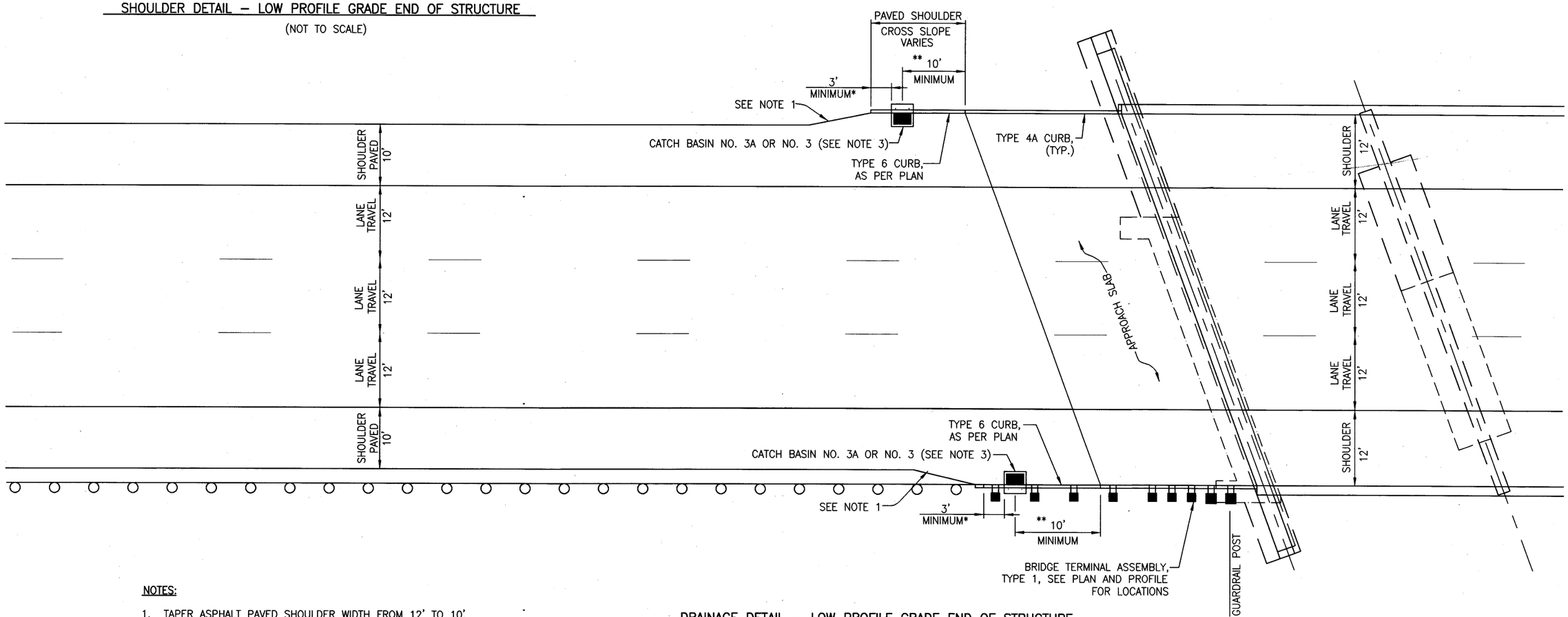
277
432

M:\98028\AUTOCAD\SDSK-7\SPAVDET-F.DWG - SHEET 277 - May 02, 2001



SHOULDER DETAIL – LOW PROFILE GRADE END OF STRUCTURE

(NOT TO SCALE)



DRAINAGE DETAIL – LOW PROFILE GRADE END OF STRUCTURE

NOTES:

1. TAPER ASPHALT PAVED SHOULDER WIDTH FROM 12' TO 10' IN 10' FROM THE END OF ASPHALT CONCRETE CURB.
2. TRANSITION CROSS SLOPE FROM 0.016 TO 0.02 IN 15'–0" MINIMUM.
3. SEE DRAINAGE SUBSUMMARY FOR APPLICABLE CATCH BASIN TYPE. SEE PLAN AND PROFILE SHEETS FOR OUTLET PIPING ARRANGEMENT.

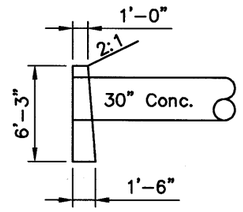
** PLACE CATCH BASIN BETWEEN GUARDRAIL POSTS BEYOND 10 FEET WHERE PROPOSED GUARDRAIL IS TO BE ERECTED.

* EXTEND CURB 2'–0" PAST GUARDRAIL POST IF 3' BEYOND CATCH BASIN DOES NOT EXTEND 2'–0" BEYOND CLOSEST GUARDRAIL POST.

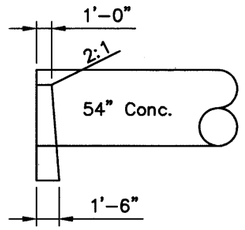
DRAINAGE DETAILS

WAY–71–0.28

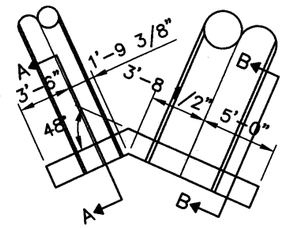
M:\99029\AUTOCAD\ACAD-2000\DRAINDET.DWG - SHEET 278 - May 09, 2001



SECTION A–A



SECTION B–B



PLAN VIEW

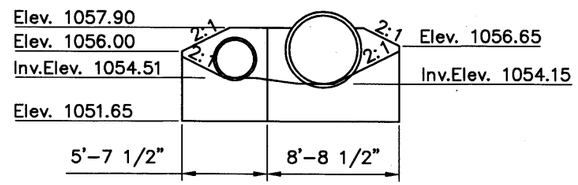
ITEM 602 – CONCRETE MASONRY

Headwall:
{[5'+(7 1/2")/12]+[8'+(8 1/2")/12]}[(12"+18")/2/12]
(6'+3"/12)/27 =4.15 Cu.Yd.
Wedge:
[(1.02)(1.37)/2](6+3/12)/27 = 0.16 Cu.Yd.
Subtotal = 4.15+0.16 =4.31 Cu.Yd.

Deductions:
Pipe Openings
0.28+0.71 =0.99 Cu.Yd.
Chamfers
0.13+0.06 = 0.19 Cu.Yd.

Total: 4.31–0.99–0.19 =3.13 Cu.Yd.
Use 3.1 Cu.Yd.

NOTE: Quantities Carried To Sheet 142.



ELEVATION

HEADWALL STA. 60+30

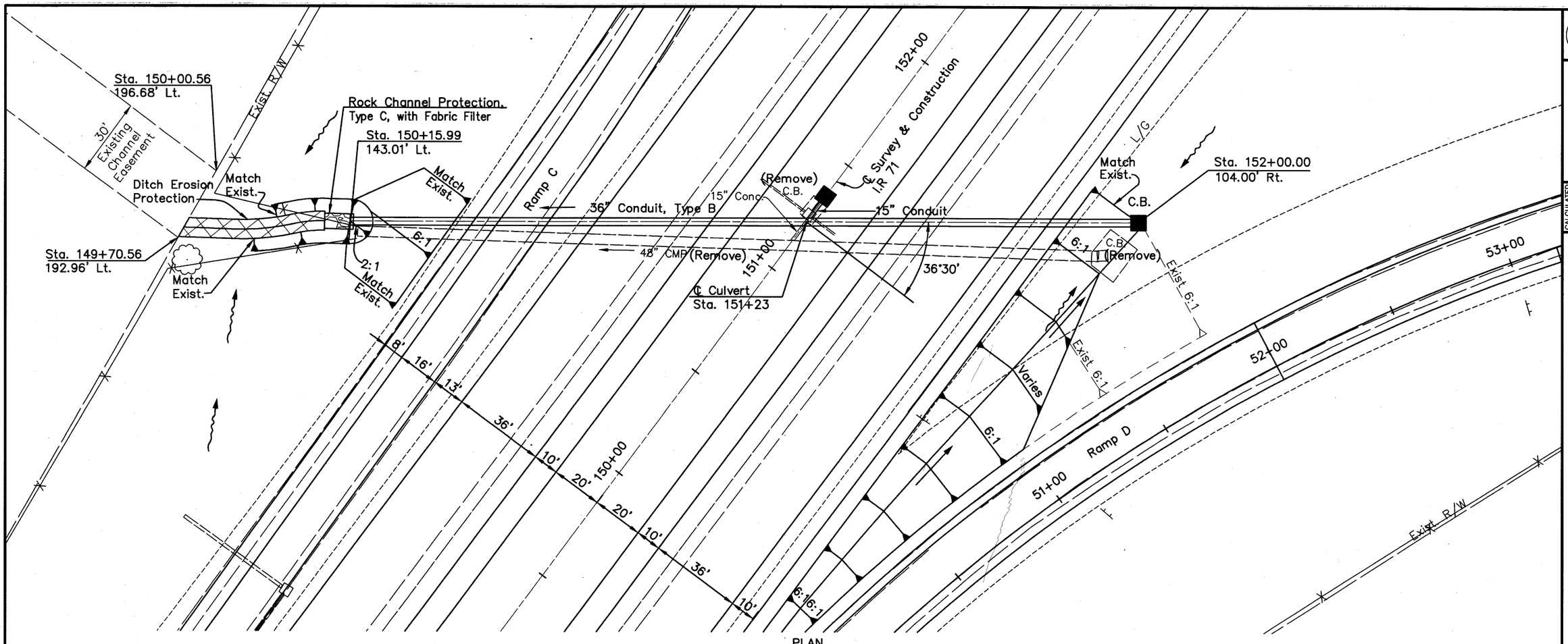
HW-DET.dwg May 02 ,2001

CALCULATED GDS 04/01
CHECKED SDS 04/01

HEADWALL DETAIL
STA. 60+30

WAY–71–0.28

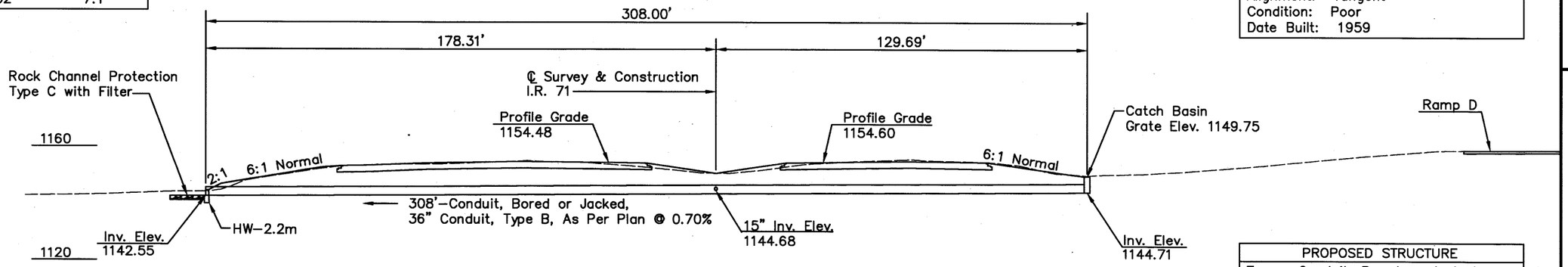
279
432



PLAN

HYDRAULIC DATA		
Drainage Area 11.4 Acres		
Freq. (Yr.)	Q (cfs)	Vel. (fps)
50	27	6.7
100	32	7.1

EXISTING STRUCTURE
Type: Corrugated Metal Pipe
Size: 48"
Skew: 35° R.F.
Alignment: Tangent
Condition: Poor
Date Built: 1959



PROFILE ALONG ℄ CULVERT

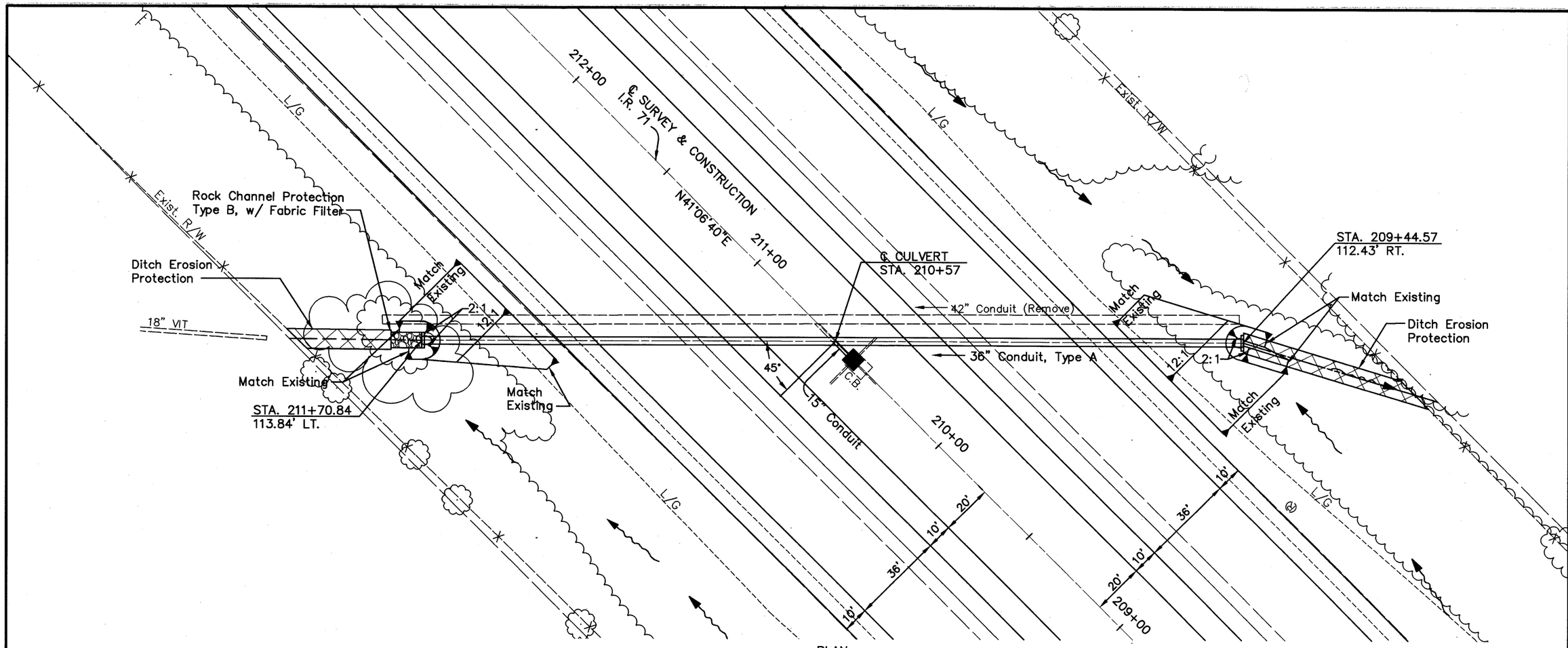
PROPOSED STRUCTURE
Type: Conduit, Bored or Jacked: 36" Conduit, Type B, As Per Plan
Skew: 36°30' R.F.

CULV15076.dwg May 02, 2001

CULVERT DETAIL
STA. 151+23

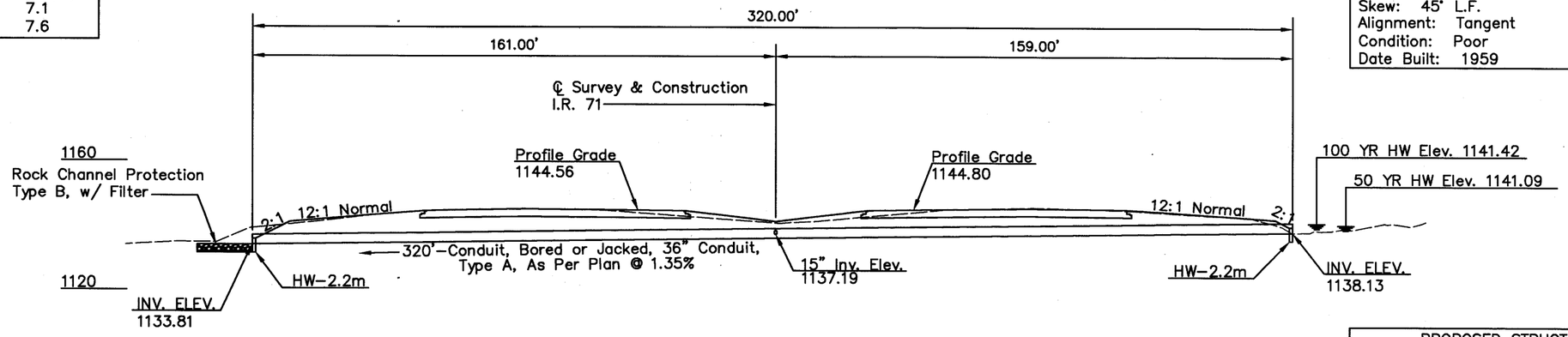
WAY–71–0.28

280
432



PLAN

HYDRAULIC DATA		
Drainage Area	14.7 Acres	
Freq. (Yr.)	Q (cfs)	Vel. (fps)
50	32	7.1
100	38	7.6



PROFILE ALONG ℄ CULVERT

EXISTING STRUCTURE
Type: Corrugated Metal Pipe
Size: 42"
Skew: 45° L.F.
Alignment: Tangent
Condition: Poor
Date Built: 1959

PROPOSED STRUCTURE
Type: Conduit, Bored or Jacked: 36" Conduit, Type A, As Per Plan
Skew: 45° L.F.

Scale in Feet: 0, 20, 40

CALCULATED

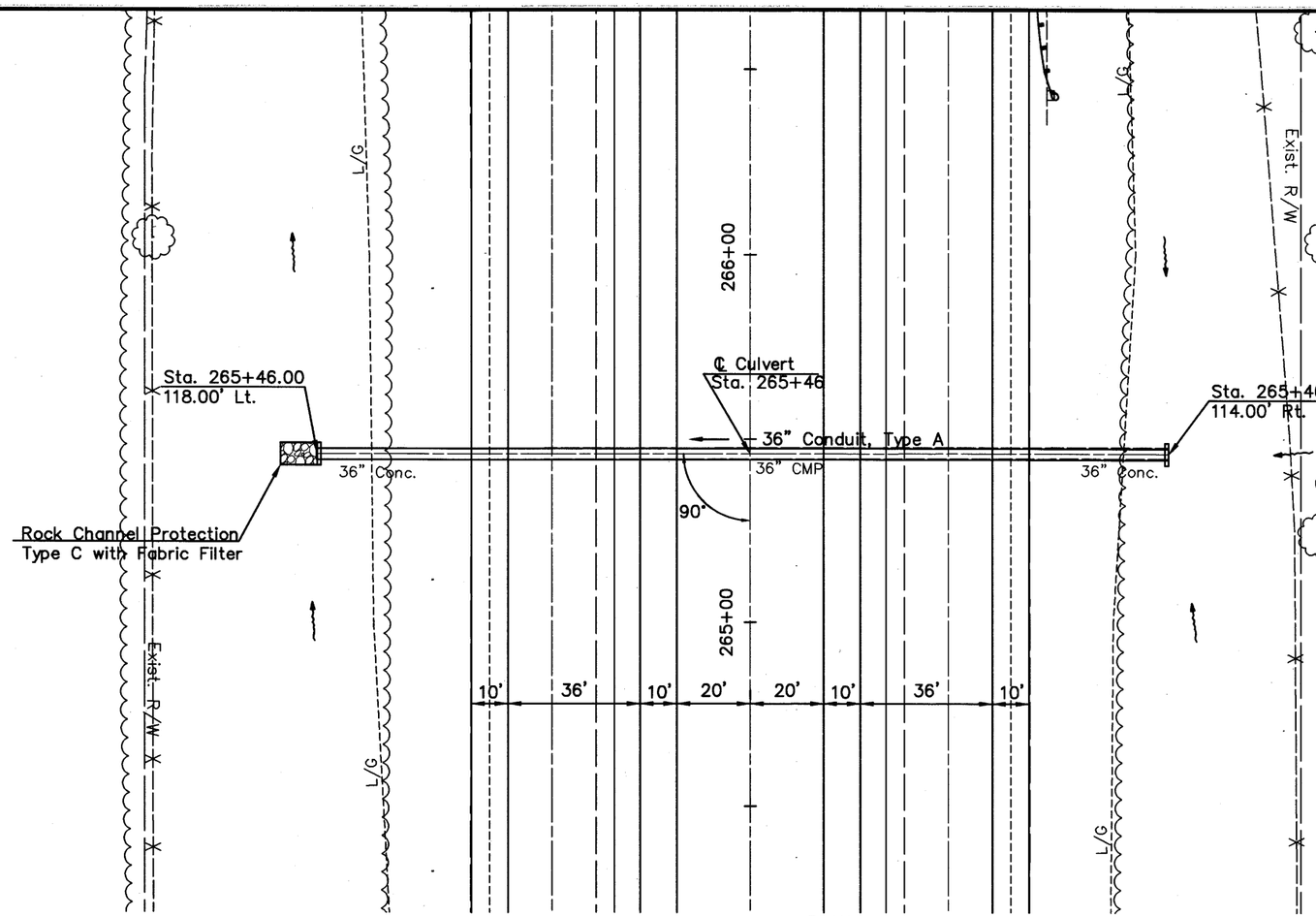
CHECKED

CULVERT DETAILS
STA. 210+57

WAY-71-0.28

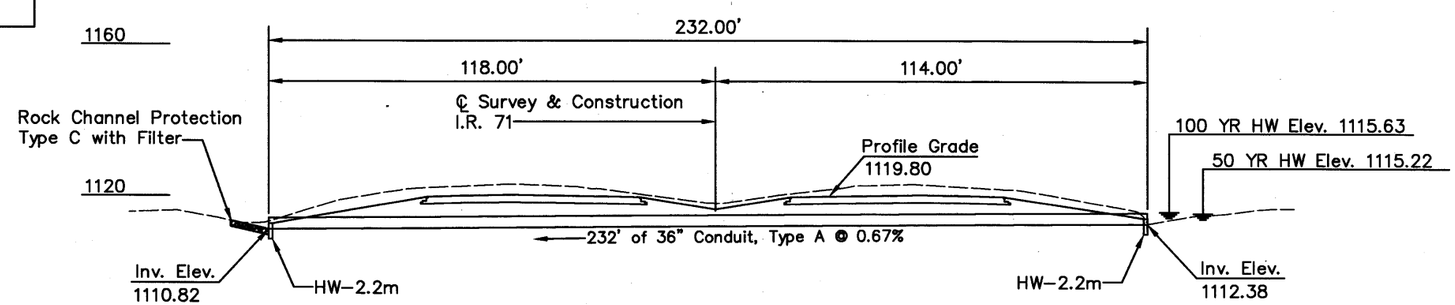
281
432

CULV21057.dwg May 02, 2001



PLAN

HYDRAULIC DATA		
Drainage Area	12.9 Acres	
Freq. (Yr.)	Q (cfs)	Vel. (fps)
50	28	8.3
100	33	8.6



PROFILE ALONG ℄ CULVERT

EXISTING STRUCTURE
Type: Corrugated Metal Pipe with Concrete Pipe Extensions
Size: 36"
Skew: 0°
Alignment: Tangent
Condition: Poor
Date Built: 1959

PROPOSED STRUCTURE
Type: 36" Conduit, Type A
Skew: 0°

N

0 20 40 Scale In Feet

CALCULATED

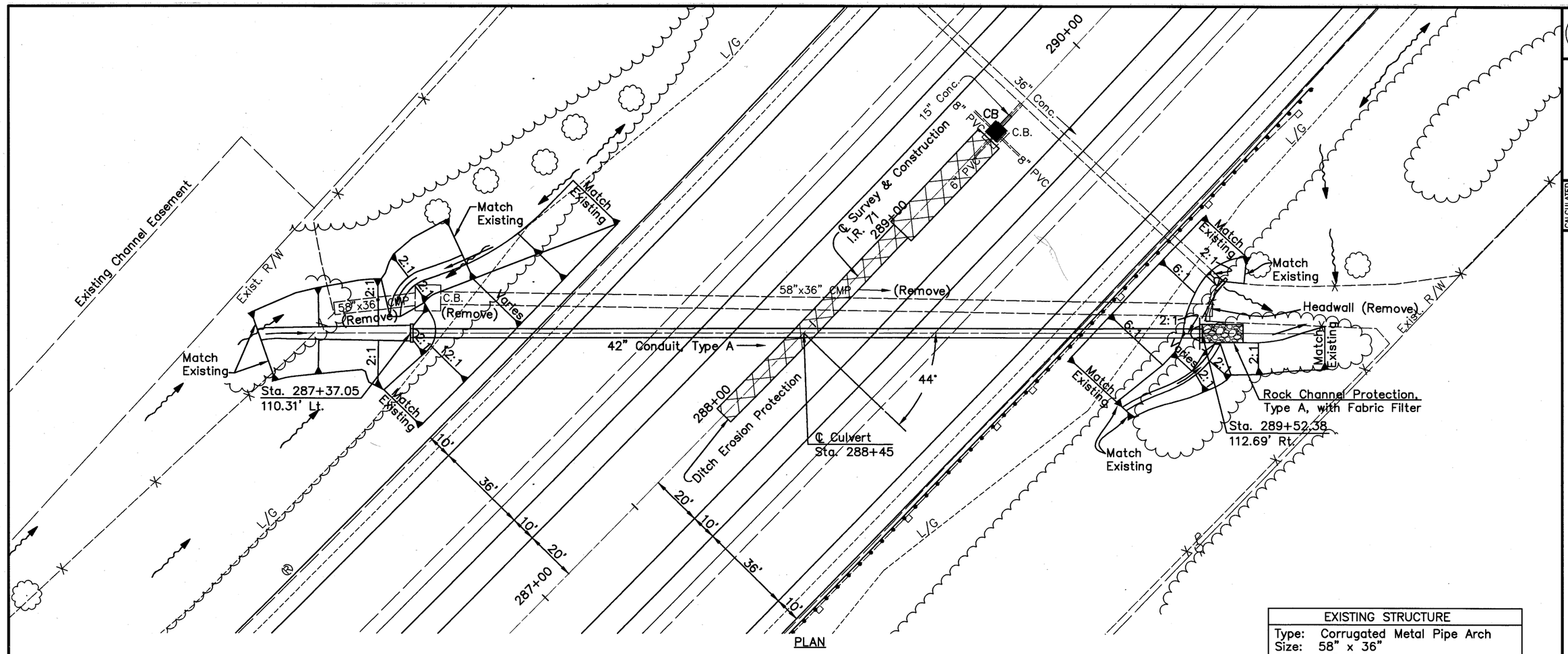
CHECKED

CULVERT DETAIL
STA. 265+46

WAY-71-0.28

282
432

CULV26546.DWG May 02 ,2001

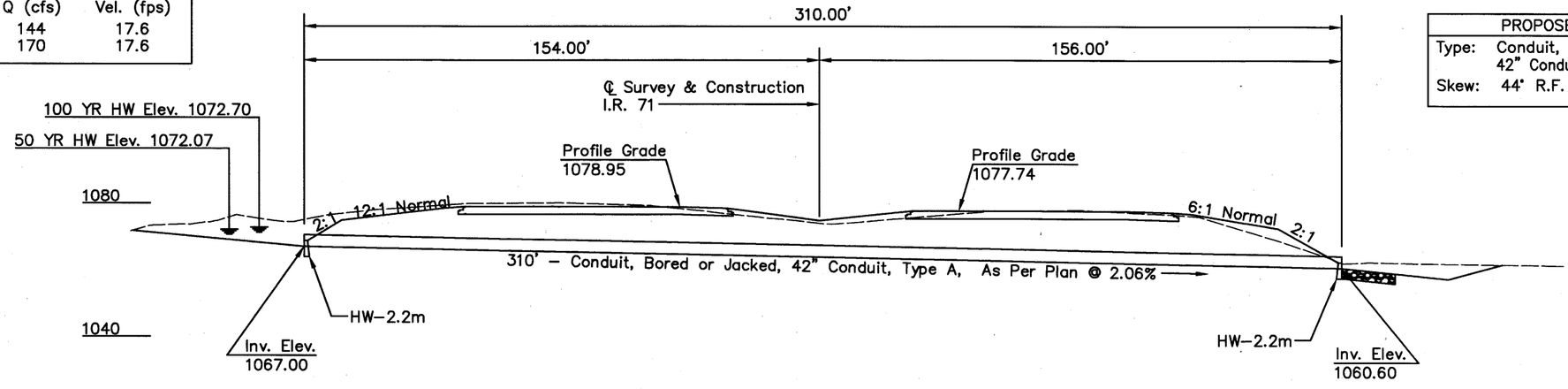


PLAN

HYDRAULIC DATA		
Drainage Area	118 Acres	
Freq. (Yr.)	Q (cfs)	Vel. (fps)
50	144	17.6
100	170	17.6

EXISTING STRUCTURE
Type: Corrugated Metal Pipe Arch
Size: 58" x 36"
Skew: 43° R.F.
Alignment: 12302.56' Curve to the left
Condition: Poor
Date Built: 1959

PROPOSED STRUCTURE
Type: Conduit, Bored or Jacked: 42" Conduit, Type A, As Per Plan
Skew: 44° R.F.



PROFILE ALONG ℄ CULVERT

CULV28845.DWG May 02 ,2001

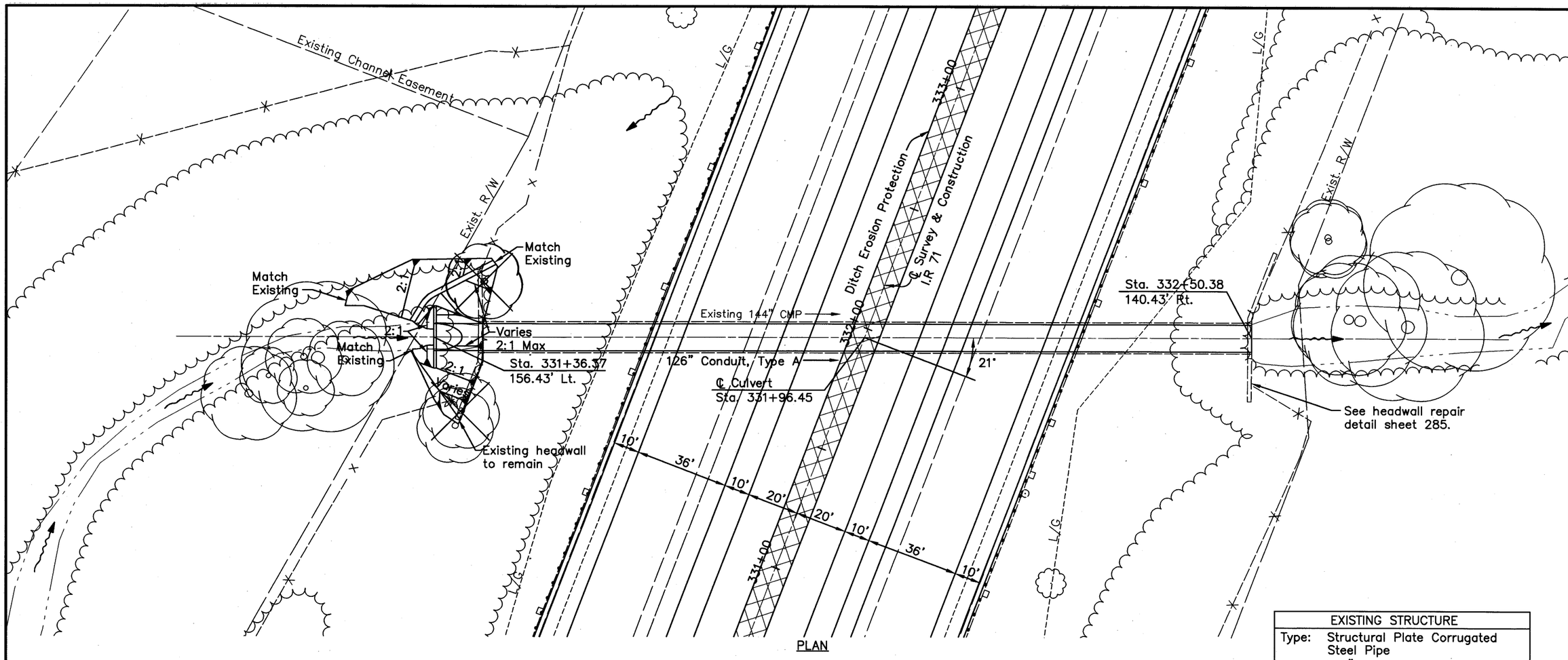
CALCULATED | CHECKED

Scale In Feet 0 20 40

CULVERT DETAIL
STA. 288+45

WAY–71–0.28

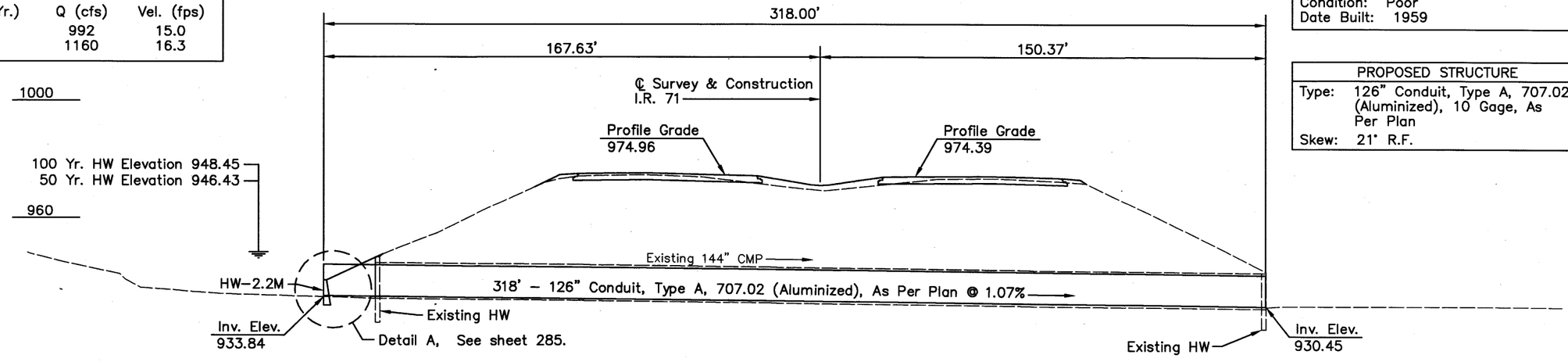
283
432



HYDRAULIC DATA		
Drainage Area	1862 Acres	
Freq. (Yr.)	Q (cfs)	Vel. (fps)
50	992	15.0
100	1160	16.3

EXISTING STRUCTURE
Type: Structural Plate Corrugated Steel Pipe
Size: 144"
Skew: 21° R.F.
Alignment: Tangent
Condition: Poor
Date Built: 1959

PROPOSED STRUCTURE
Type: 126" Conduit, Type A, 707.02 (Aluminized), 10 Gage, As Per Plan
Skew: 21° R.F.



PROFILE ALONG ℄ CULVERT

CULV33196.dwg May 08 ,2001

Scale in Feet: 0 20 40

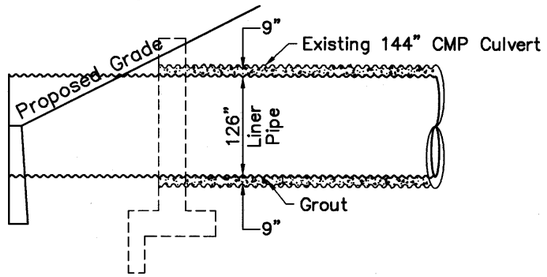
CALCULATED

CHECKED

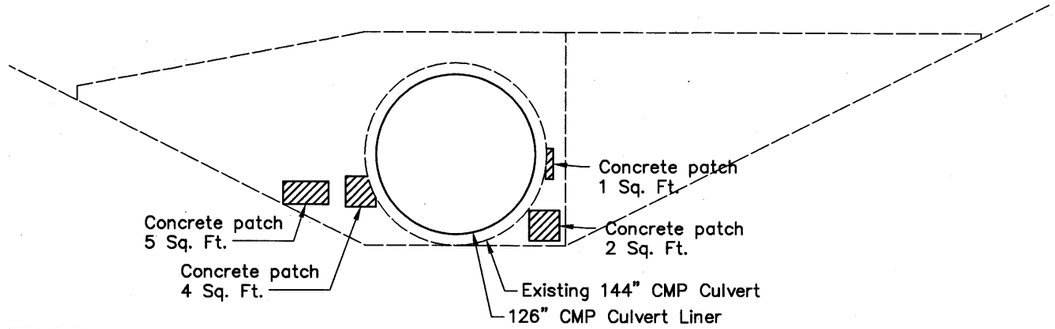
CULVERT DETAIL
STA. 331+96.45

WAY-71-0.28

284
432



DETAIL A
(Not to Scale)



ITEM 519
Patching Concrete Structure
Measured Quantity = 12 Sq.Ft.
Estimated Quantity = 25 Sq.Ft.
Quantity carried to plan and profile sheet 166.

HEADWALL REPAIR DETAIL
Scale: 1" = 5'

— Indicates approximate area to be patched per ITEM 519 – Patching Concrete Structures. Exact dimensions and locations of patches shall be determined by the engineer in the field for final pay quantity.

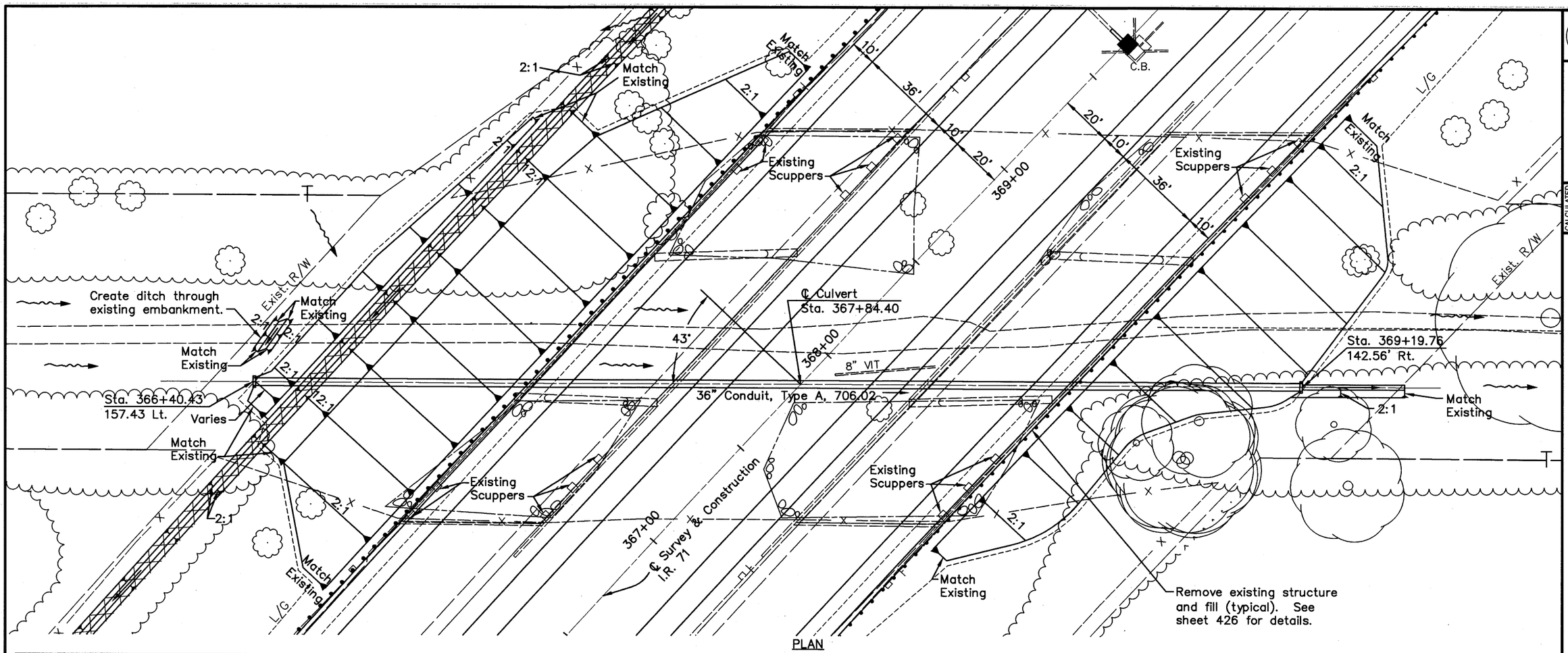
CALCULATED
CHECKED

CULVERT DETAIL
STA. 331+96.45

WAY-71-0.28

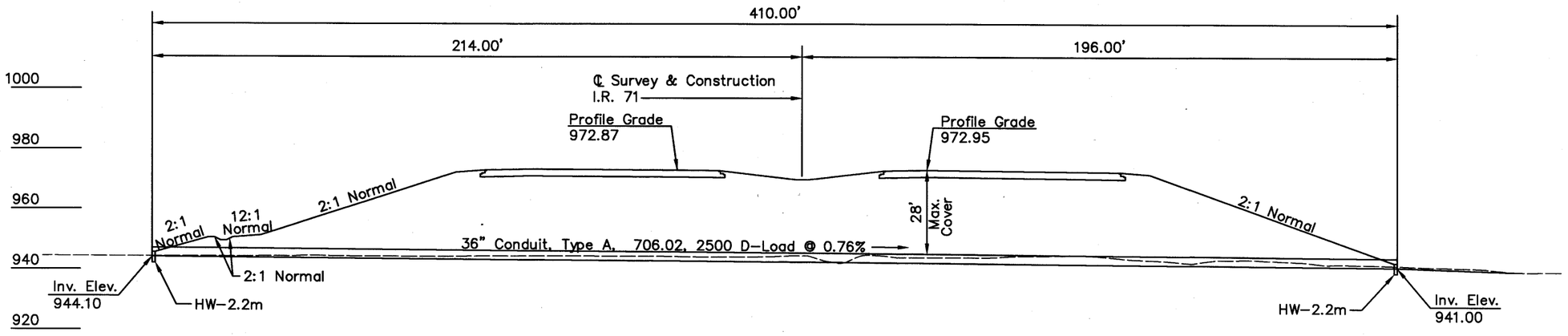
285
432

CULV-DET.dwg May 02 ,2001



HYDRAULIC DATA	
Drainage Area	12.9 Acres
Freq. (Yr.)	Q (cfs)
50	21
100	25

PROPOSED STRUCTURE	
Type:	36" Conduit, Type A, 706.02 2500 D–Load
Skew:	43° R.F.



PROFILE ALONG C CULVERT

CULV36784.dwg May 02 ,2001

CALCULATED | CHECKED

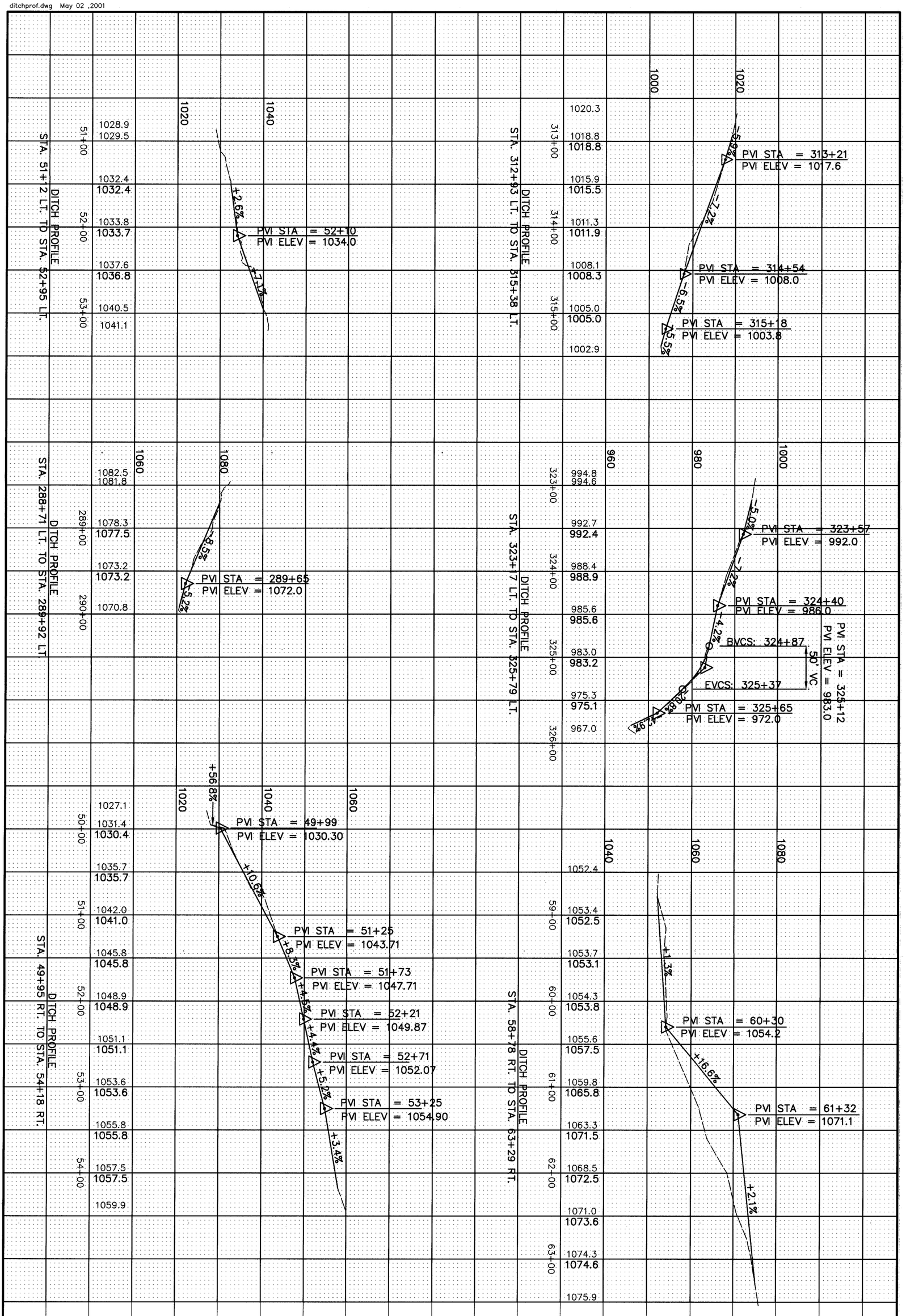
Scale In Feet: 0 20 40

CULVERT DETAIL
STA. 367+84.40

WAY–71–0.28

286
432

ditchprof.dwg May 02 ,2001



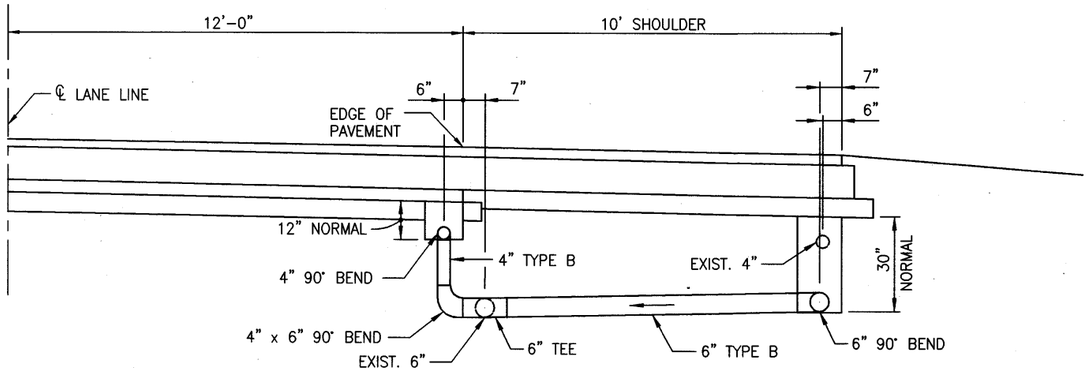
287/432

WAY-71-0.28

DITCH PROFILES
I.R. 71 NORTHBOUND & SOUTHBOUND

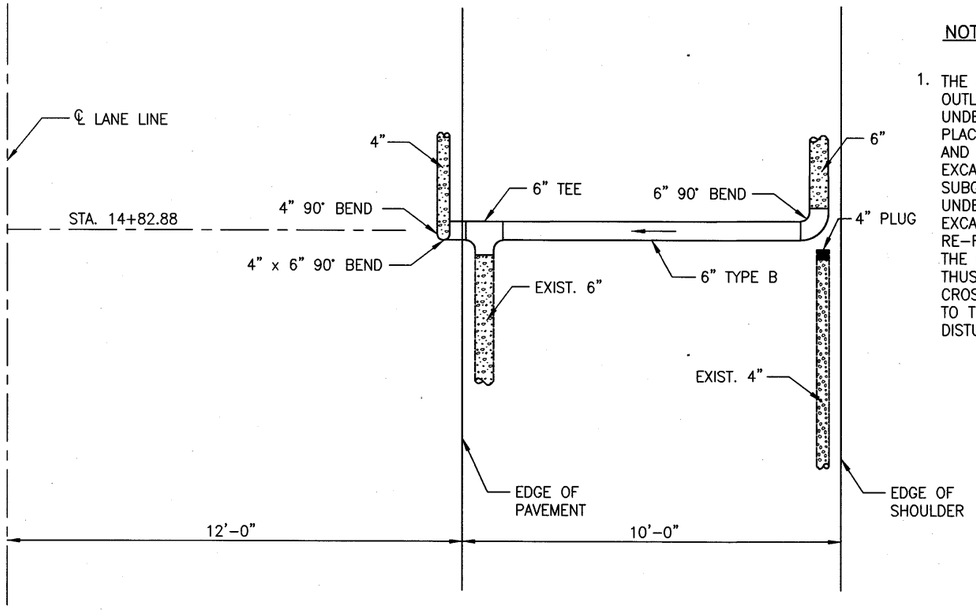
CALCULATED

CHECKED



CROSS SECTION

STA. 14+82.88



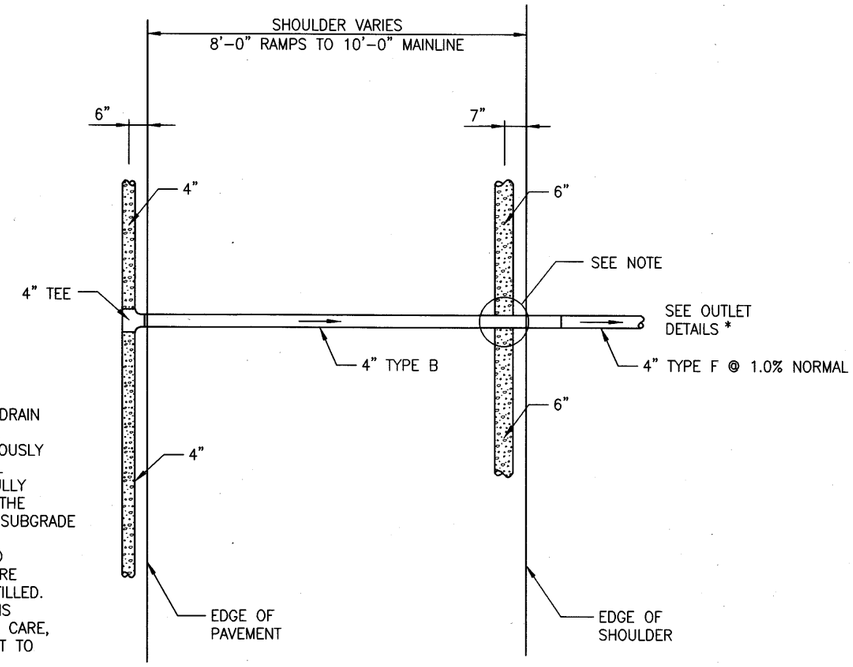
PLAN

UNDERDRAIN DETAIL A

(TIE INTO EXISTING UNDERDRAIN AT STA. 14+82.88)

NOTE:

1. THE ASPHALT TREATED FREE-DRAINING BASE UNDERDRAIN OUTLET PIPES WILL EXTEND ACROSS THE SUBGRADE UNDERDRAIN AND THROUGH THE TOP OF THE PREVIOUSLY PLACED SUBGRADE UNDERDRAIN GRANULAR MATERIAL AND FABRIC WRAP. THE CONTRACTOR SHALL CAREFULLY EXCAVATE THE 304 MATERIAL AT THE LOCATION OF THE SUBGRADE UNDERDRAIN CROSSING TO EXPOSE THE SUBGRADE UNDERDRAIN FABRIC WRAP, CUT THE FABRIC WRAP, EXCAVATE THE NECESSARY GRANULAR MATERIAL, AND RE-FOLD THE SUBGRADE UNDERDRAIN FABRIC BEFORE THE OUTLET PIPE IS PLACED AND THE TRENCH IS FILLED. THUS, THE OUTLET PIPE TRENCH EXCAVATION AT THIS CROSSING LOCATION SHALL PROCEED WITH EXTREME CARE, TO THE SATISFACTION OF THE ENGINEER, SO AS NOT TO DISTURB ANY SUBGRADE UNDERDRAIN.



CONNECTION DETAIL FOR UNDERDRAIN DETAILS B, C, & H

* FOR UNDERDRAIN DETAIL B, SEE OUTLET DETAIL TO SHARED RIPRAP
* FOR UNDERDRAIN DETAIL C, SEE OUTLET DETAIL TO RIPRAP
* FOR UNDERDRAIN DETAIL H, SEE OUTLET DETAIL TO CATCH BASIN

LEGEND

4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH), OR

6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH)

OUTLET PIPE

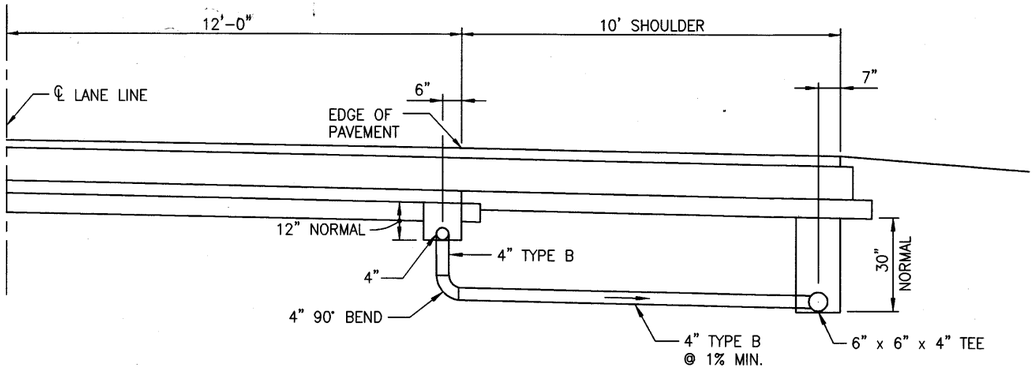
CALCULATED | CHECKED

UNDERDRAIN DETAILS A, B, C, & H

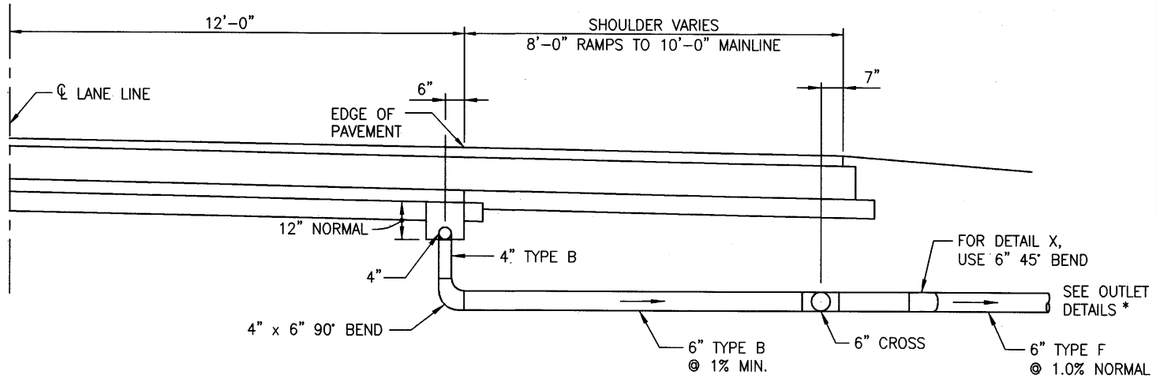
WAY-71-0.28

288
432

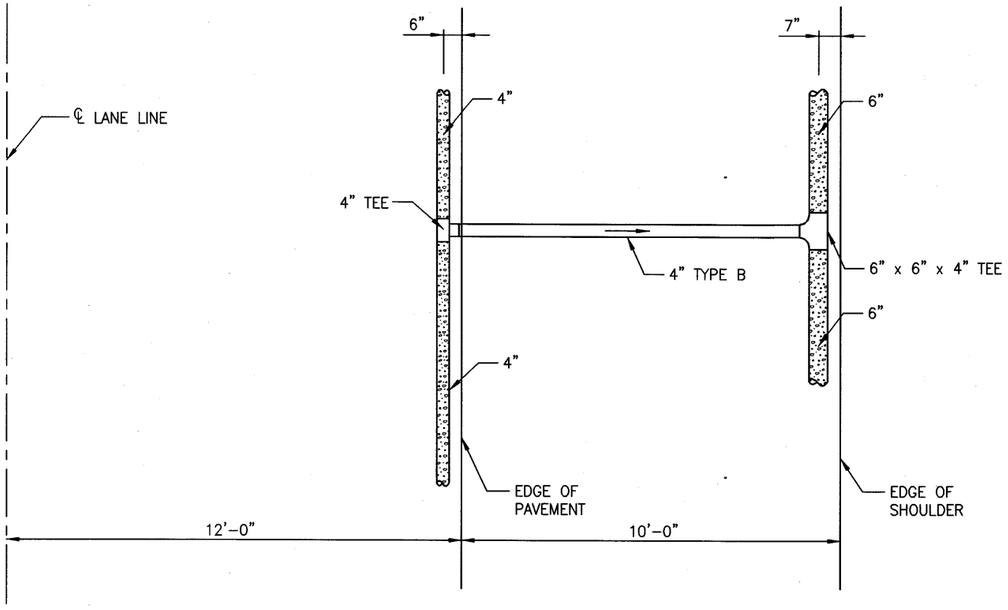
M:\99229\AUTOCAD\ACAD-2000\UD_DETAIL1A.DWG - SHEET 288 - May 04, 2001



CROSS SECTION

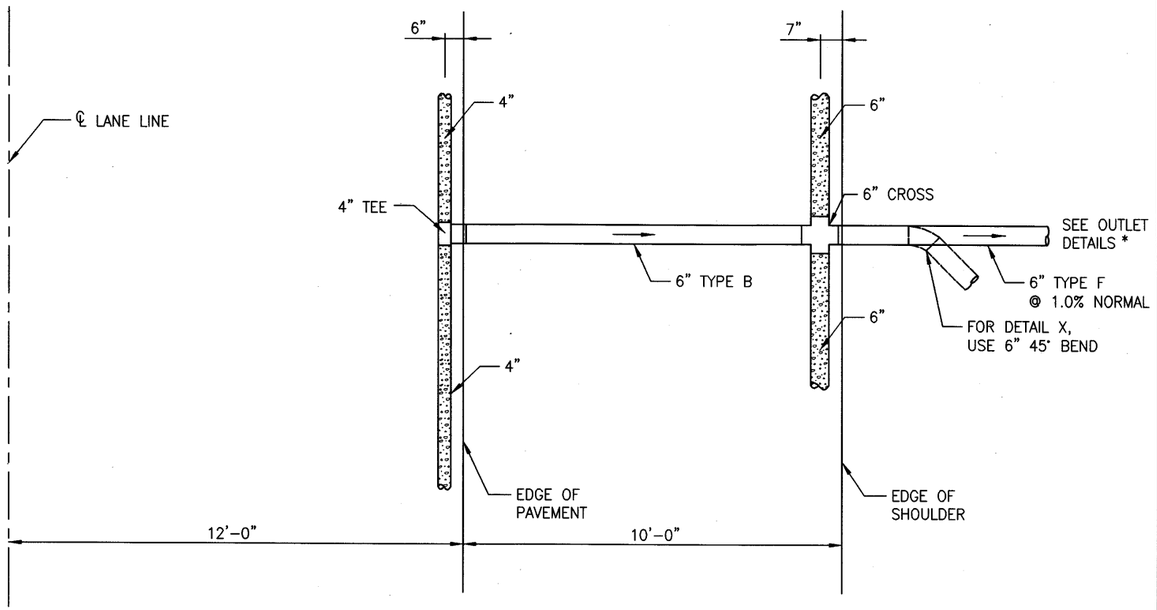


CROSS SECTION



PLAN

UNDERDRAIN DETAIL D



UNDERDRAIN DETAIL FOR DETAILS E, F, & X

* FOR UNDERDRAIN DETAIL E & X, SEE OUTLET DETAIL TO CATCH BASIN

* FOR UNDERDRAIN DETAIL F, SEE OUTLET DETAIL TO RIPRAP

LEGEND

PLAN

4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH), OR

6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH)

OUTLET PIPE

CALCULATED

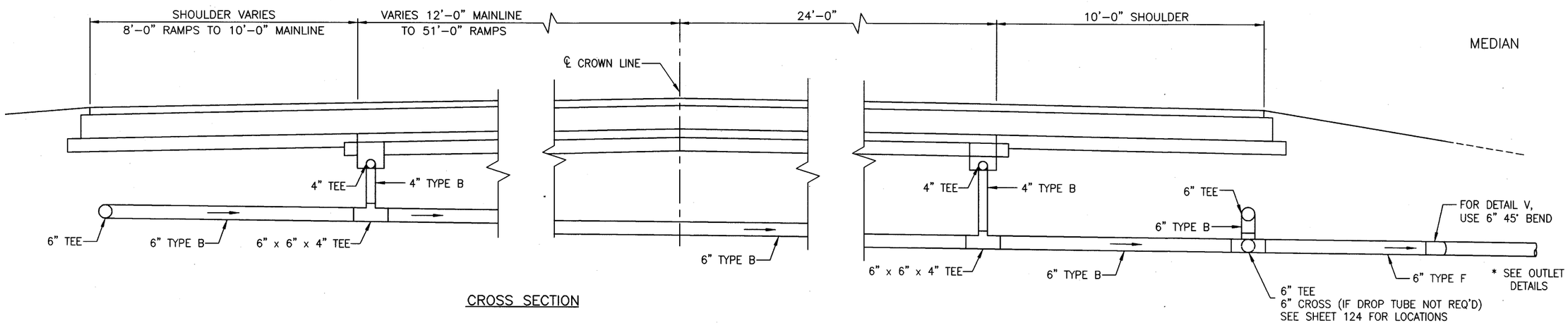
CHECKED

UNDERDRAIN DETAILS D, E, F, & X

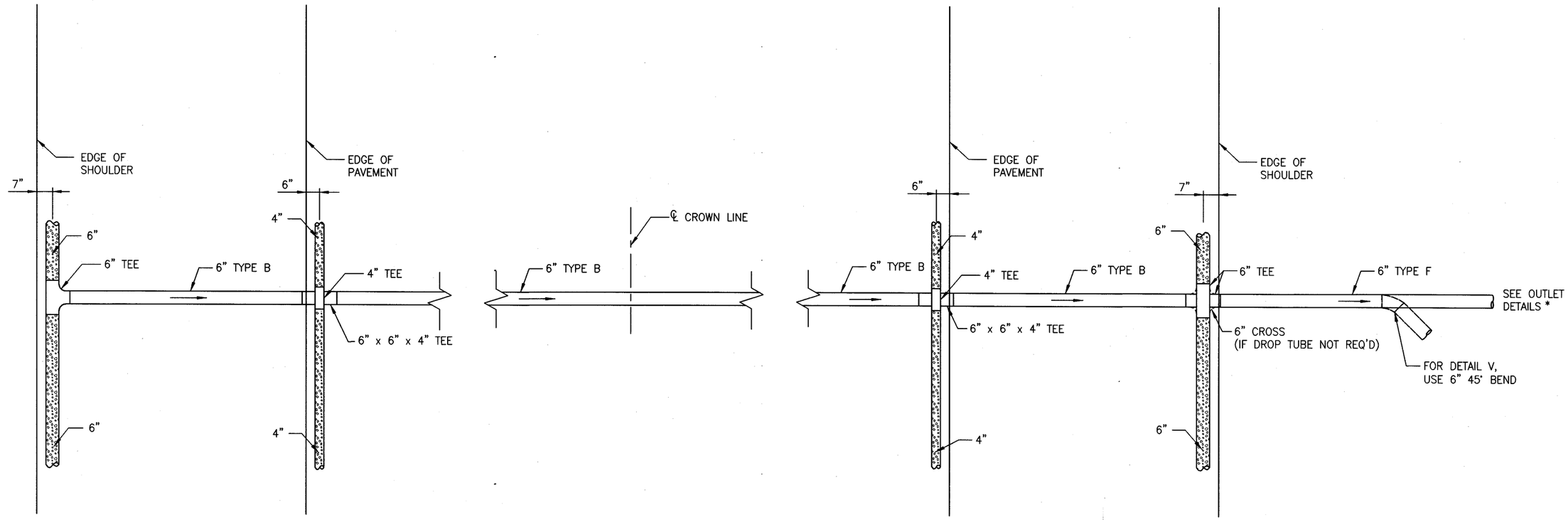
WAY-71-0.28

289/432

M:\99229\AUTOCAD\ACAD-2000\UD_DETAILS.DWG - SHEET 289 - May 04, 2001



CROSS SECTION



PLAN

UNDERDRAIN DETAIL G & V

* FOR UNDERDRAIN DETAILS G & V, SEE OUTLET DETAIL TO CATCH BASIN

LEGEND

4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP,
707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH), OR

6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP,
707.31 OR 707.41 (30" NORMAL DEPTH)

OUTLET PIPE

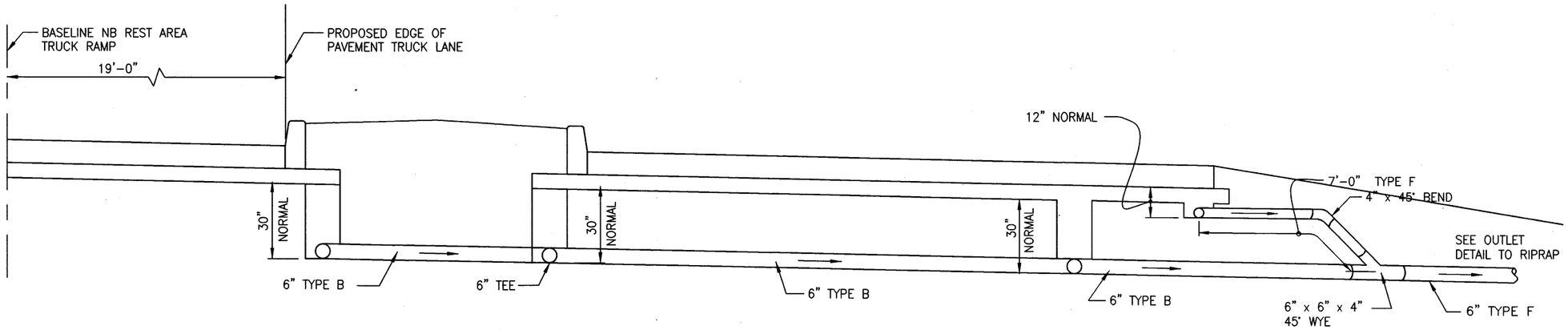
CALCULATED | CHECKED

UNDERDRAIN DETAILS G & V

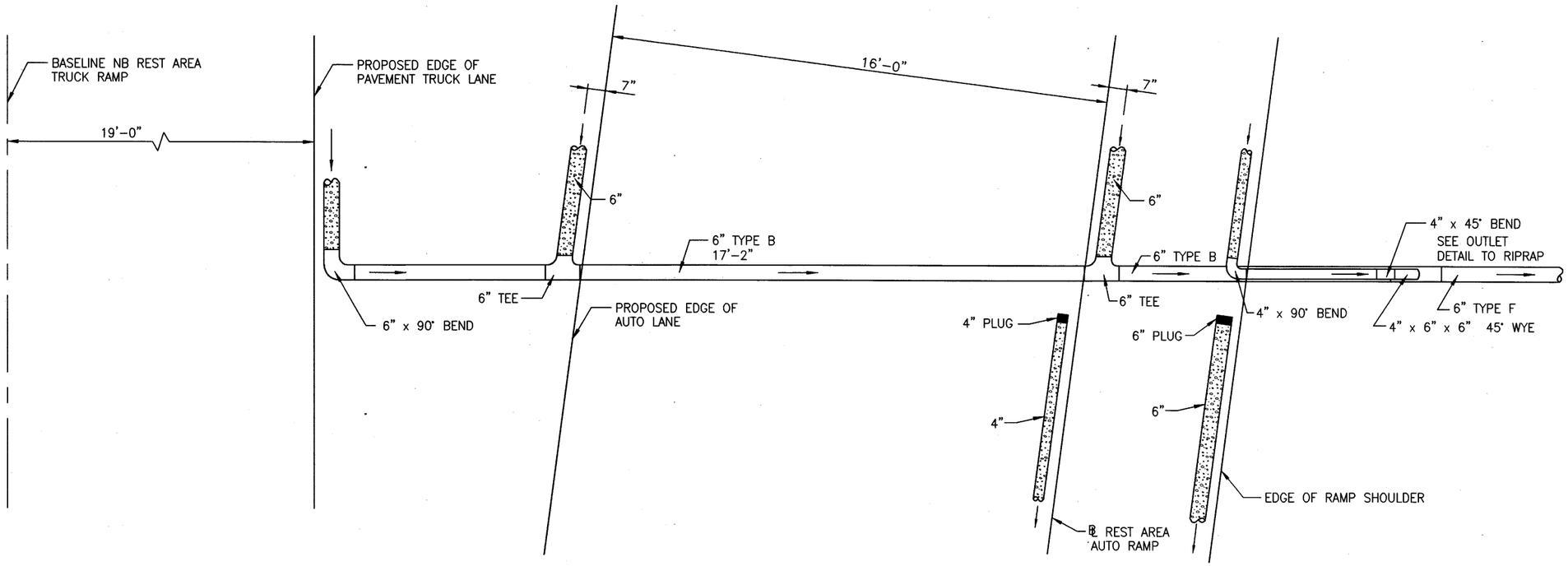
WAY–71–0.28

290
432

M:\99229\AUTOCAD\ACAD-2000\UD_DETAILS.DWG - SHEET 290 - May 04, 2001



CROSS SECTION



PLAN

CONNECTION DETAIL FOR UNDERDRAIN DETAIL I

NOTE:

THIS DETAIL IS USED UNDER THE NORTHBOUND REST AREA EXIT RAMP.

LEGEND

4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH), OR

6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH)

OUTLET PIPE

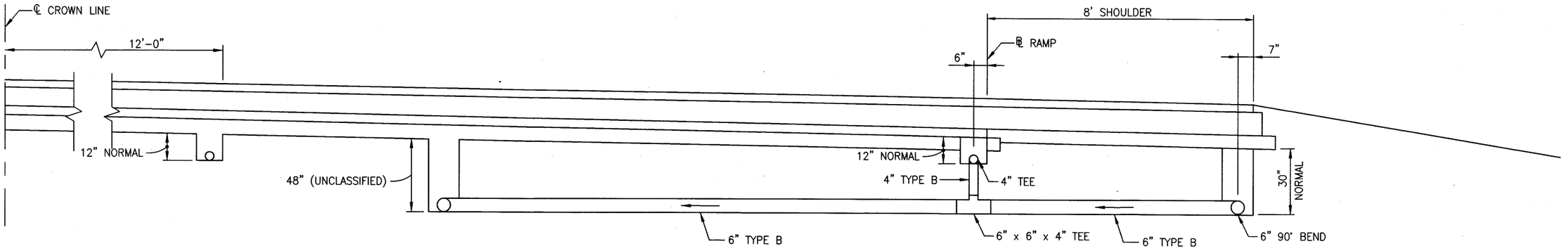
CALCULATED | CHECKED

UNDERDRAIN DETAIL I

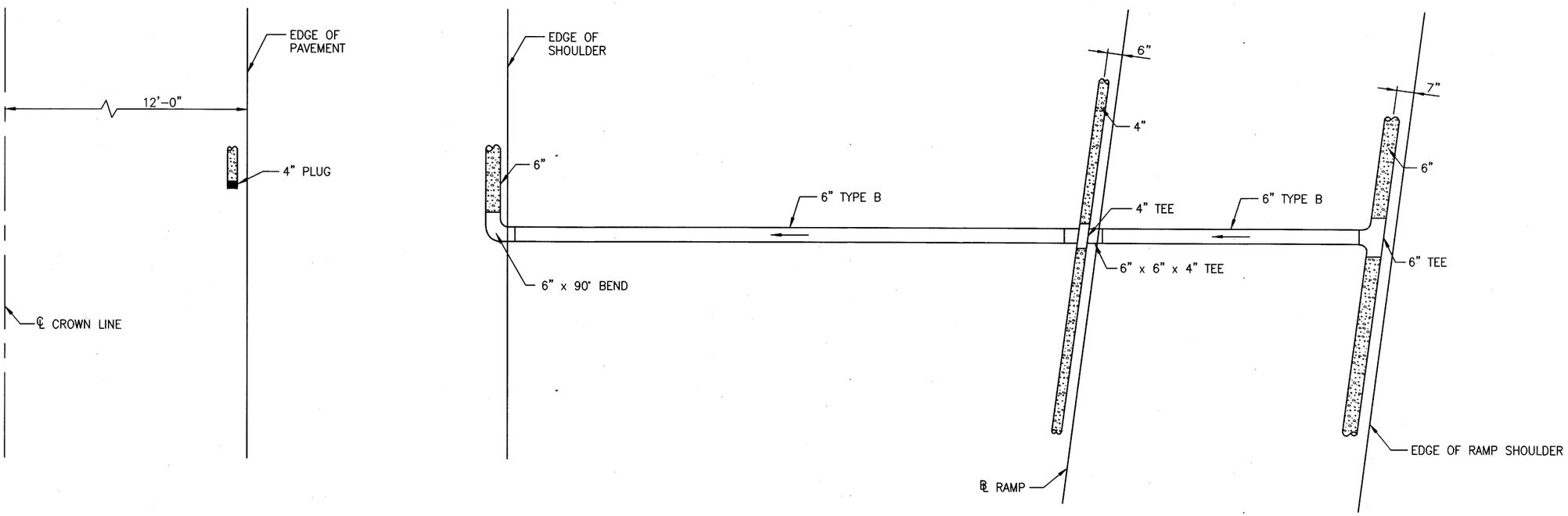
WAY-71-0.28

291
432

M:\99029\AUTOCAD\ACAD-2000\UD_DETAILA.DWG - SHEET 291 - May 04, 2001



CROSS SECTION



PLAN

CONNECTION DETAIL FOR UNDERDRAIN DETAIL J

LEGEND

4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP,
707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH), OR

6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP,
707.31 OR 707.41 (30" NORMAL DEPTH)

OUTLET PIPE

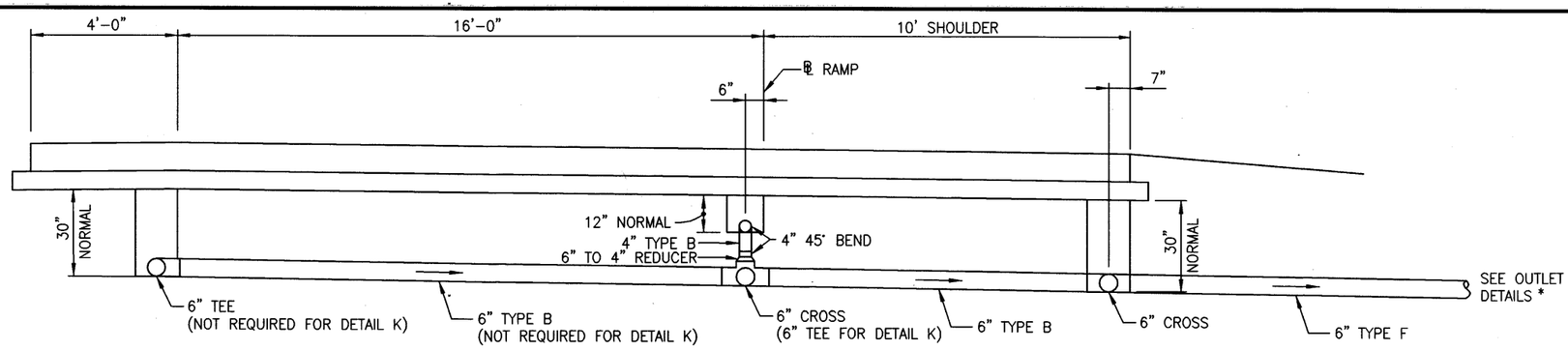
CALCULATED | CHECKED

UNDERDRAIN DETAIL J

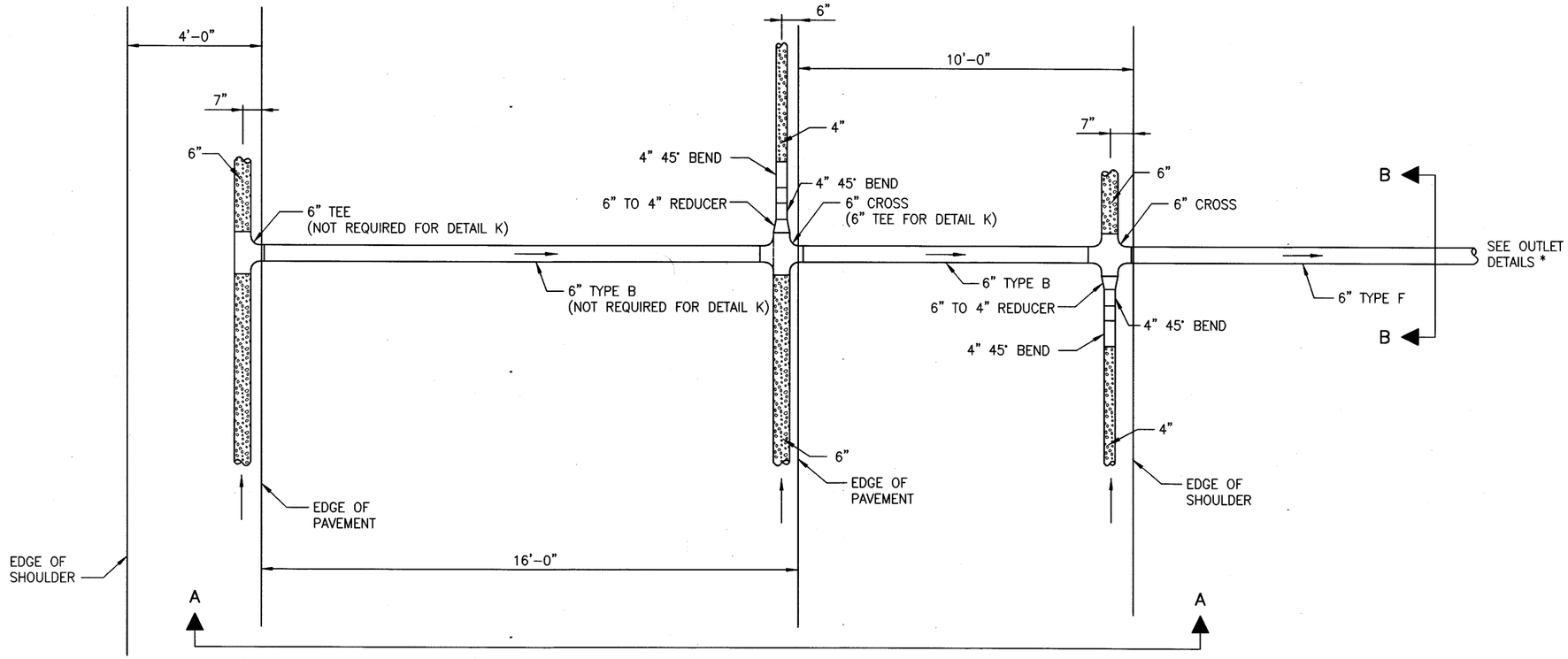
WAY-71-0.28

292
432

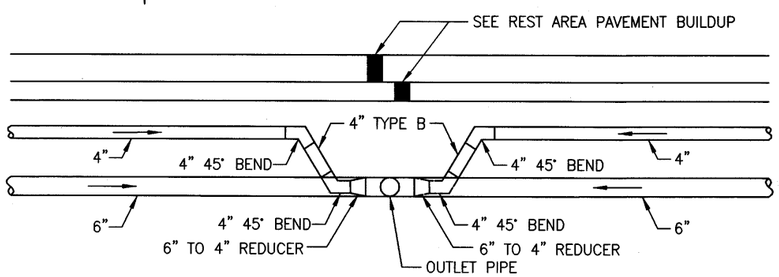
M:\99028\AUTOCAD\ACAD-25001\UD_DETAILSA.DWG - SHEET 292 - May 04, 2001



SECTION A–A



PLAN



SECTION B–B

LEGEND

4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH), OR

6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH)

OUTLET PIPE

UNDERDRAIN DETAIL K & W

* FOR UNDERDRAIN DETAIL W, SEE OUTLET DETAIL TO RIPRAP

* FOR UNDERDRAIN DETAIL K, SEE OUTLET DETAIL TO CATCH BASIN

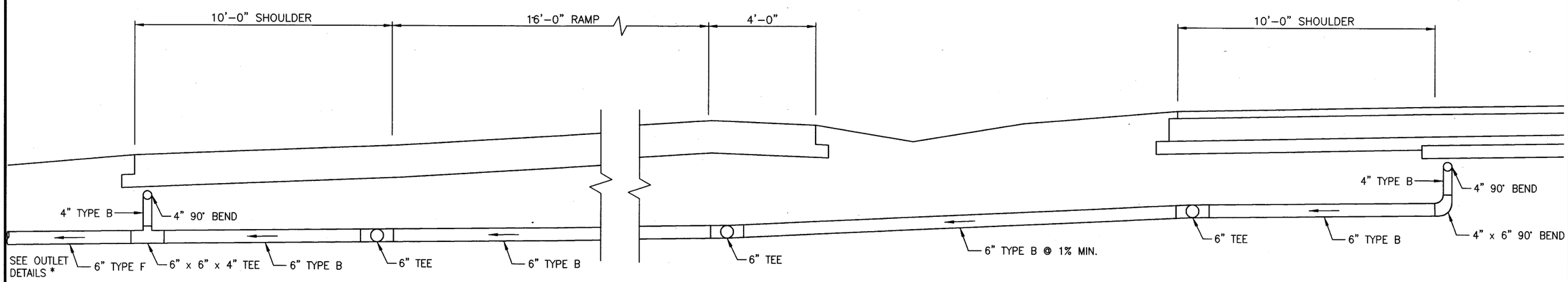
CALCULATED | CHECKED

UNDERDRAIN DETAILS K & W

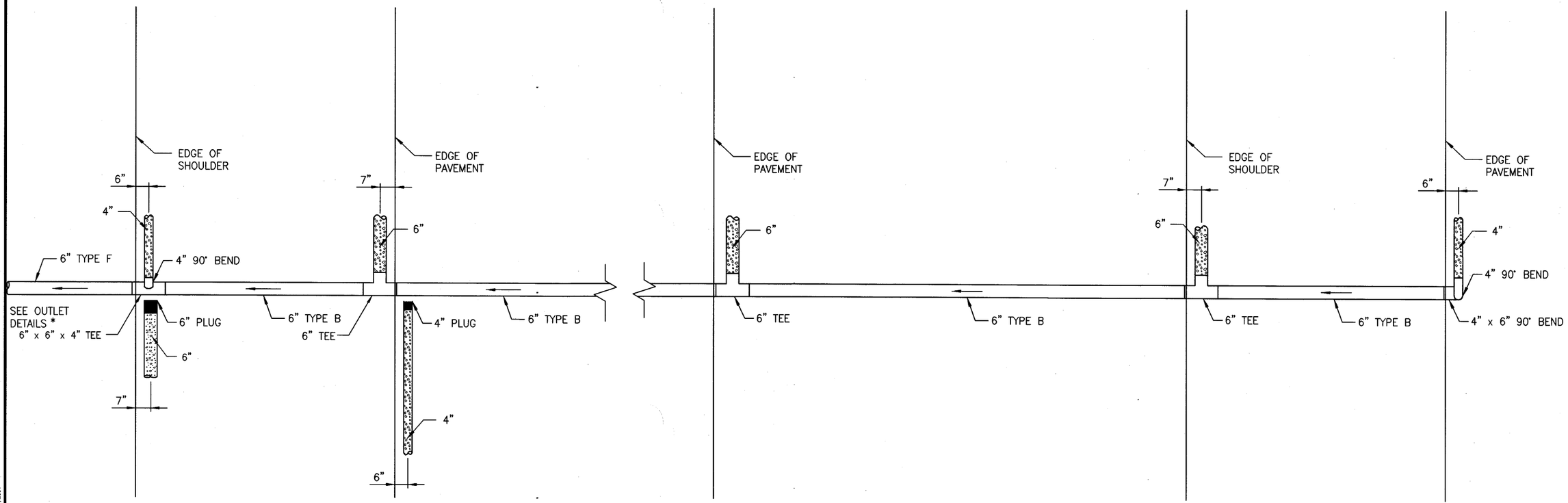
WAY–71–0.28

293
432

M:\99228\AUTOCAD\MCAD-2000\UD_DETAILSA.DWG - SHEET 293 - May 04, 2001



CROSS SECTION



PLAN

UNDERDRAIN DETAIL L

* FOR UNDERDRAIN DETAIL L, SEE OUTLET DETAIL TO RIPRAP

LEGEND

4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH), OR

6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH)

OUTLET PIPE

CALCULATED

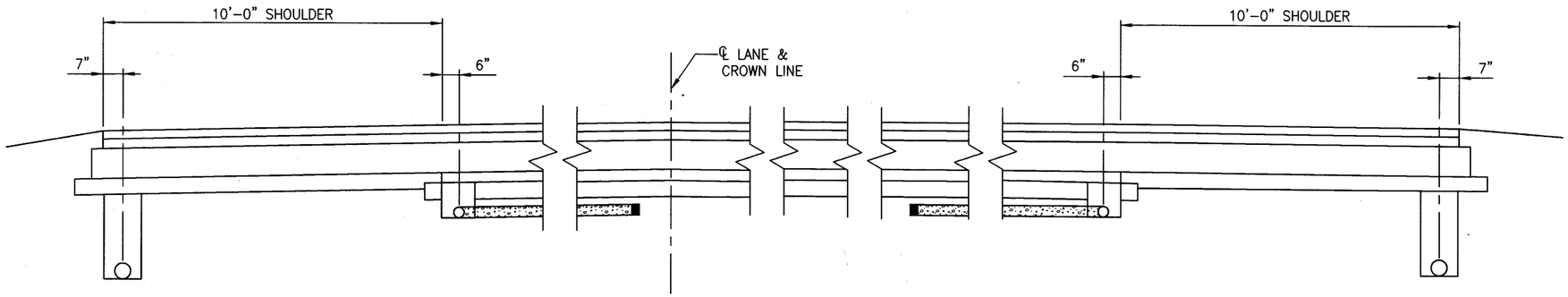
CHECKED

UNDERDRAIN DETAIL L

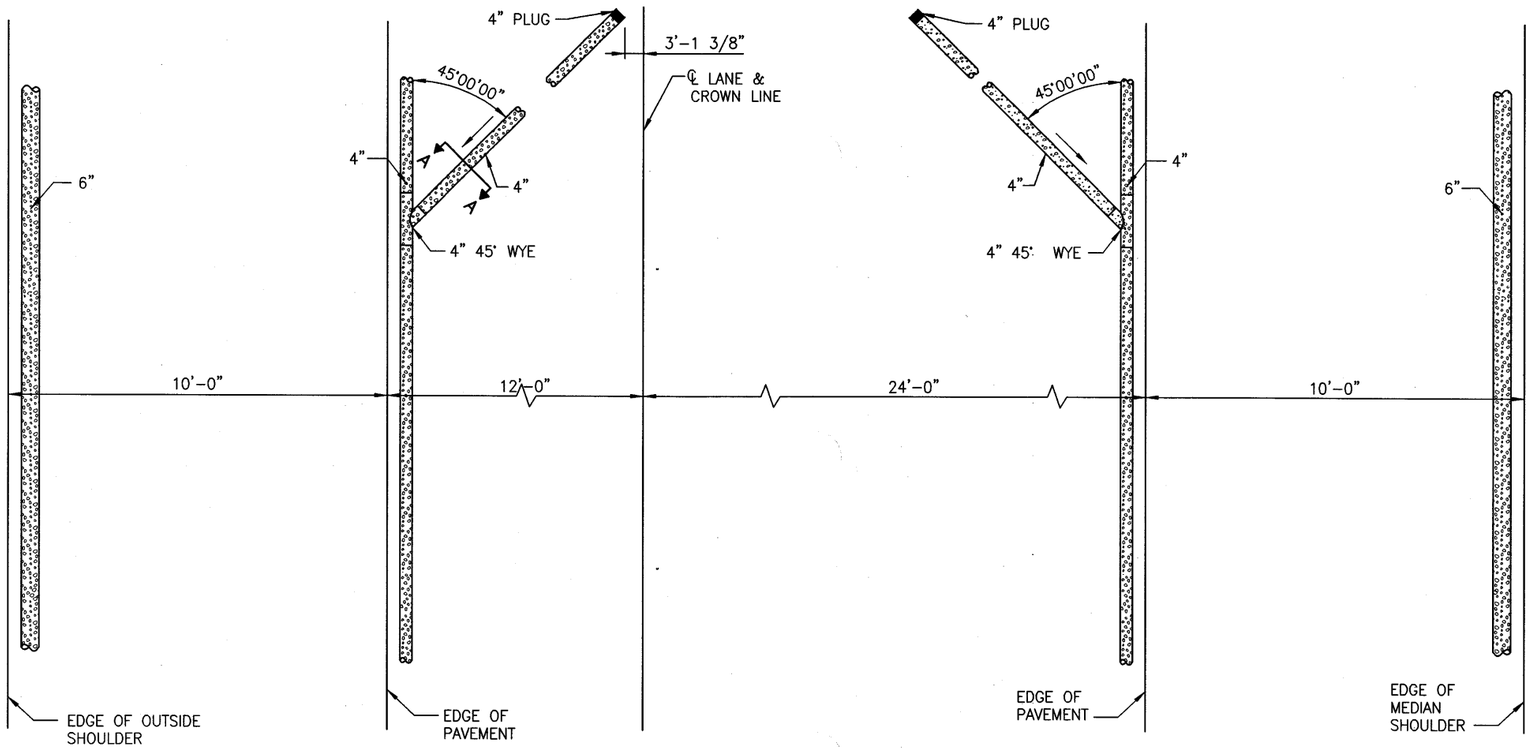
WAY-71-0.28

294
432

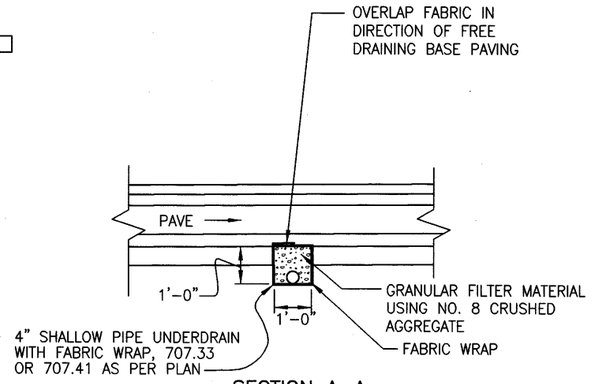
M:\99029\AUTOCAD\ACAD-2000\UD_DETAILTA.DWG - SHEET 294 - May 04, 2001



SECTION



PLAN



SECTION A–A

APPLICABLE FOR ALL TRANSVERSE UNDERAINS

NOTE:

1. THE CONSTRUCTION OF THE TRANSVERSE UNDERDRAIN IS DICTATED BY THE APPLICABLE CONSTRUCTION PHASE IN EACH STAGE. IN THE SUPERELEVATED SECTIONS WHERE THE TRANSVERSE UNDERDRAINS FLOW TOWARDS THE MEDIAN, THE PROPOSED TRANSVERSE UNDERDRAIN SHALL BE CONSTRUCTED TO THE OUTSIDE EDGE OF THE PAVEMENT. THE CONSTRUCTION OF THESE UNDERDRAINS SHALL BE CONSTRUCTED PART WIDTH IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PHASES.

LEGEND

4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH), OR

6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH), OR

4" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP, 707.33 OR 707.41, AS PER PLAN (12" NORMAL DEPTH)

OUTLET PIPE

TRANSVERSE UNDERDRAINS

DETAIL M

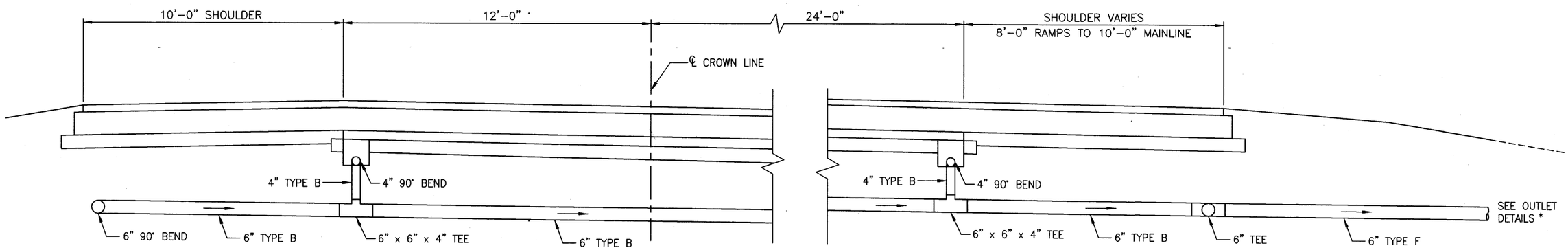
CALCULATED | CHECKED

UNDERDRAIN DETAIL M

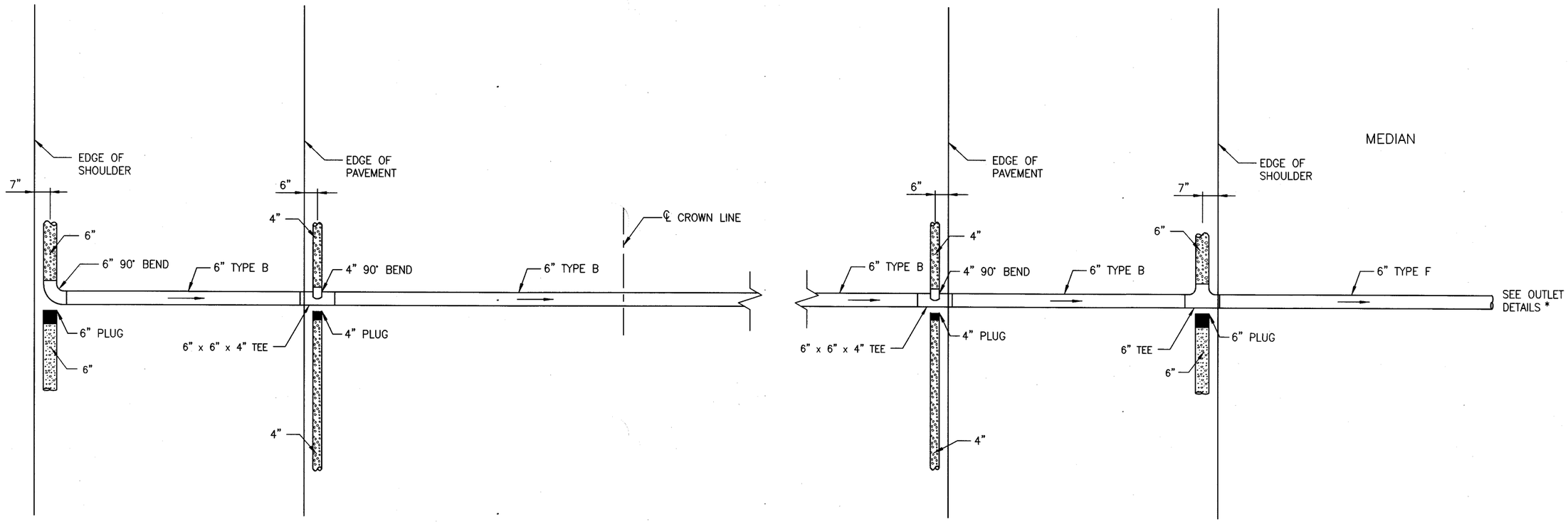
WAY-71-0.28

295
432

M:\98029\AUTOCAD\ACAD-2000\UD_DETAILBA.DWG - SHEET 295 - May 04, 2001



CROSS SECTION



PLAN

UNDERDRAIN DETAIL N

* FOR UNDERDRAIN DETAILS N, SEE OUTLET DETAIL TO CATCH BASIN

LEGEND

4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH), OR

6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH)

OUTLET PIPE

CALCULATED | CHECKED

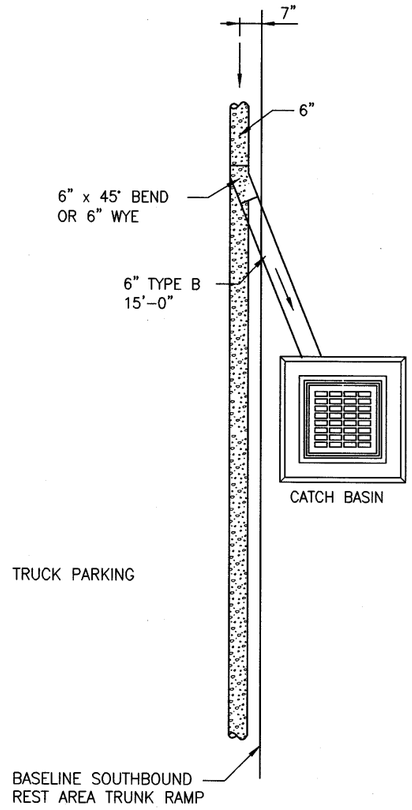
UNDERDRAIN DETAIL N

WAY-71-0.28

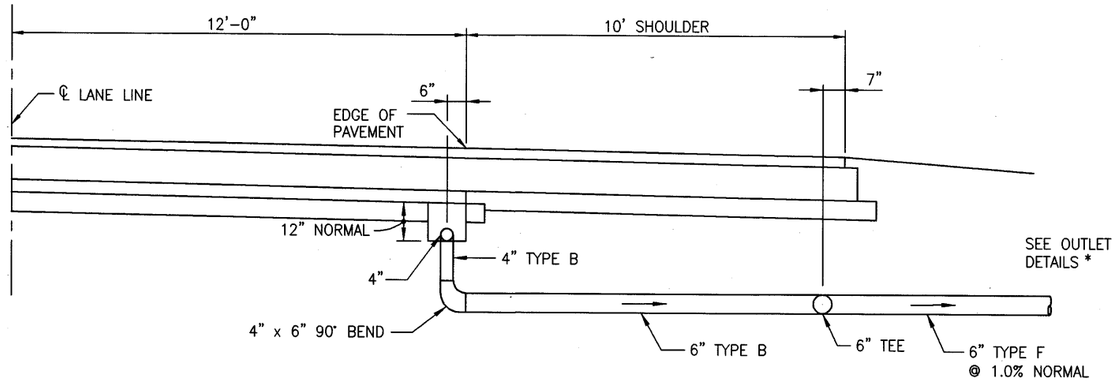
296
432

M:\99229\AUTOCAD\ACAD-2000\UD_DETAILS\A.DWG - SHEET 296 - May 04, 2001

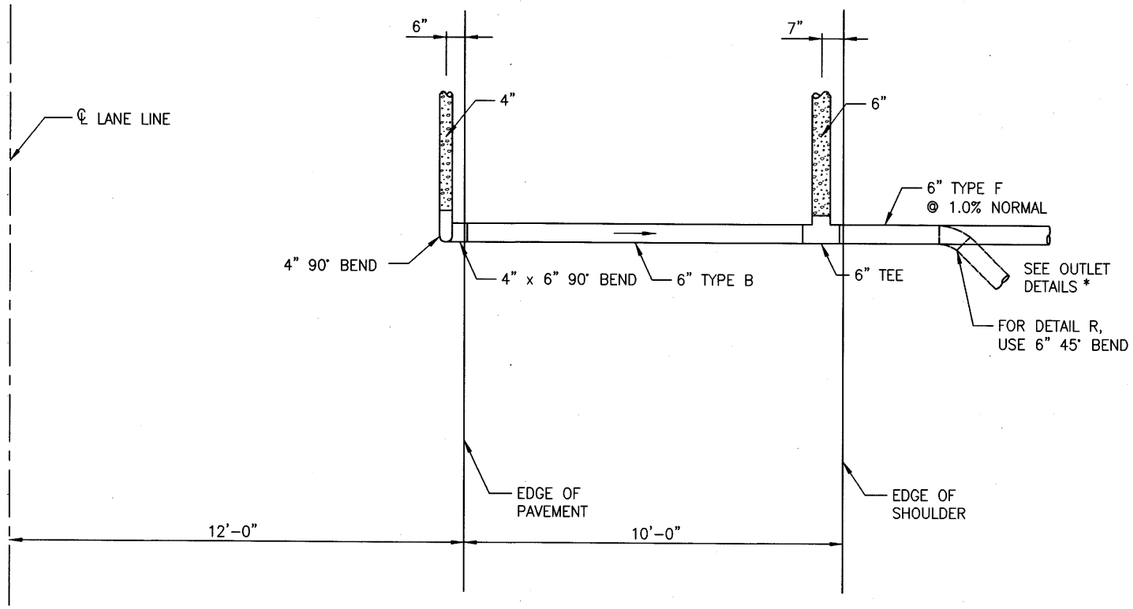
NOTE:
6" x 45° BEND SHOULD BE USED ONLY AT STA. 722+28.50 AND STA. 722+45.50 SOUTHBOUND TRUCK RAMP.



UNDERDRAIN DETAIL Q



CROSS SECTION



UNDERDRAIN DETAIL FOR DETAILS Q, R, & S

* FOR UNDERDRAIN DETAIL Q, SEE OUTLET DETAIL TO RIPRAP

* FOR UNDERDRAIN DETAIL R & S, SEE OUTLET DETAIL TO CATCH BASIN

LEGEND

PLAN

4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH), OR

6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH)

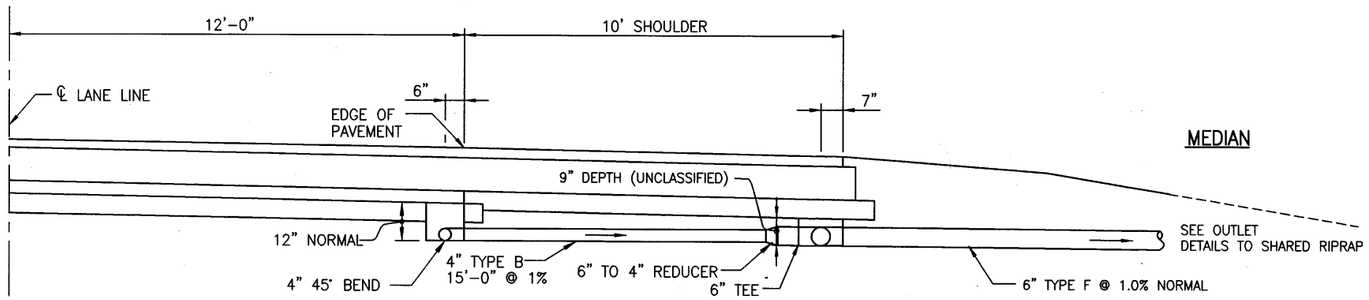
OUTLET PIPE

CALCULATED | CHECKED

UNDERDRAIN DETAILS O, Q, R, & S

WAY-71-0.28

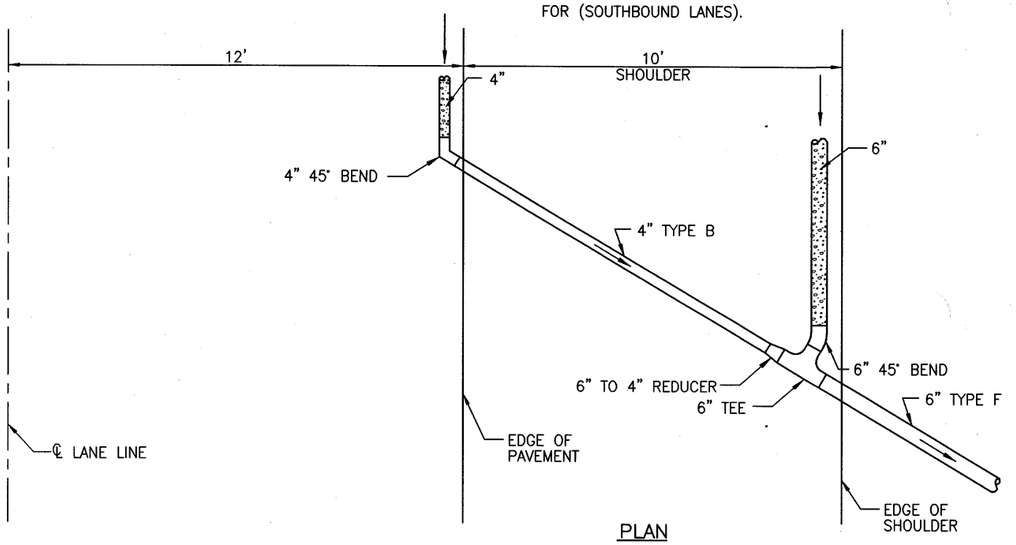
M:\99209\AUTOCAD\MOAD-2000\UD_DETAIL10A.DWG - SHEET 297 - May 04, 2001



MEDIAN

SECTION

*CROSS SECTION ABOVE APPLICABLE TO (NORTHBOUND LANES) AND IS SIMILAR FOR (SOUTHBOUND LANES).



PLAN

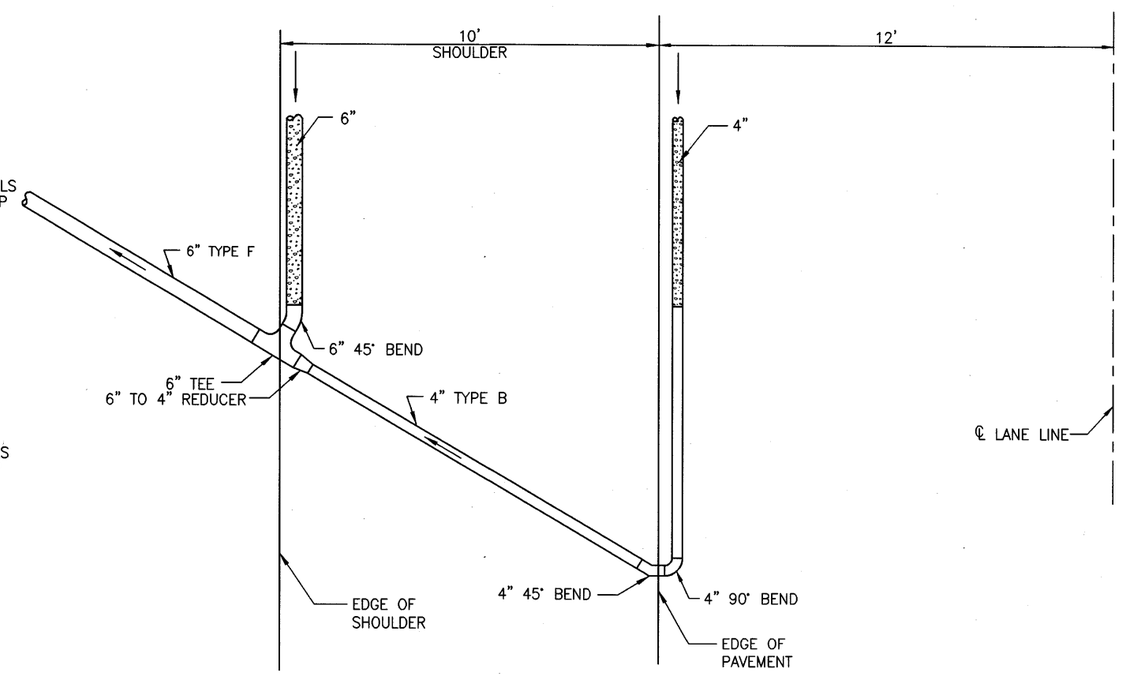
UNDERDRAIN DETAIL P NB

LEGEND

4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH), OR

6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH)

OUTLET PIPE



PLAN

UNDERDRAIN DETAIL P SB

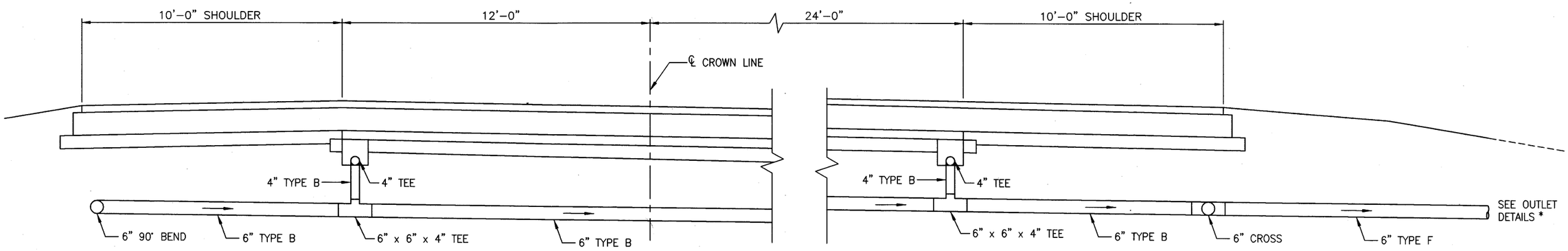
CALCULATED | CHECKED

UNDERDRAIN DETAIL P

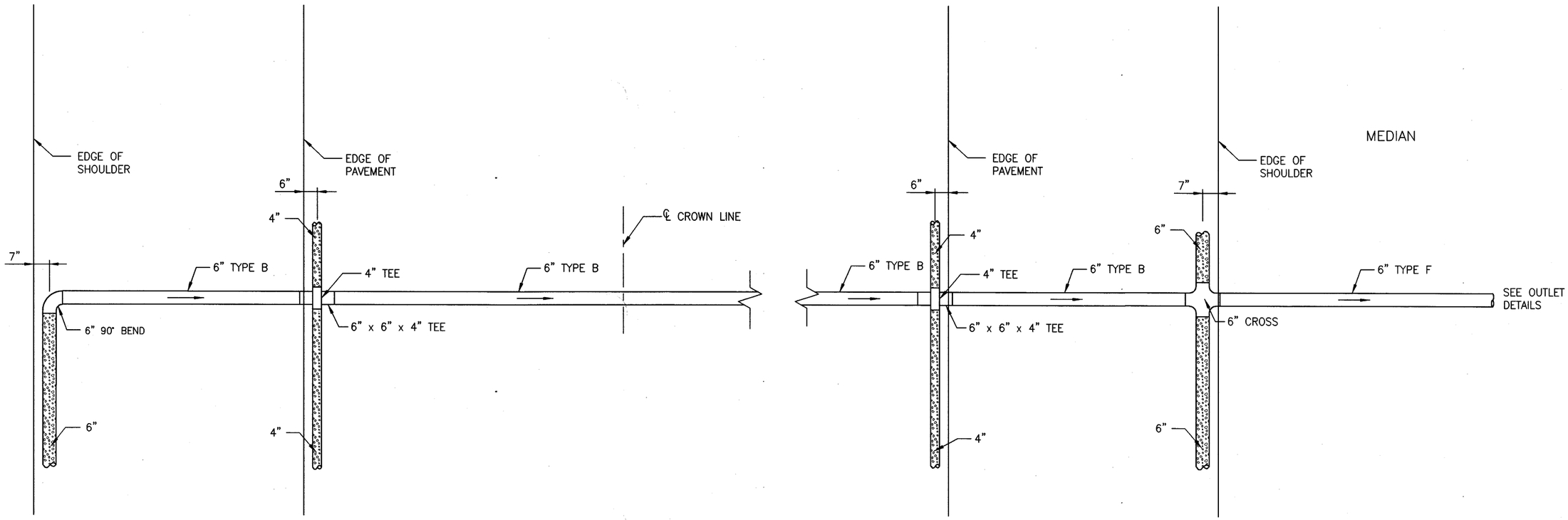
WAY-71-0.28

298
432

M:\99029\AUTOCAD\XCAD-2000\UD_DETAILS1A.DWG - SHEET 298 - May 04, 2001



CROSS SECTION



PLAN

LEGEND

4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH), OR

6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH)

OUTLET PIPE

UNDERDRAIN DETAIL T

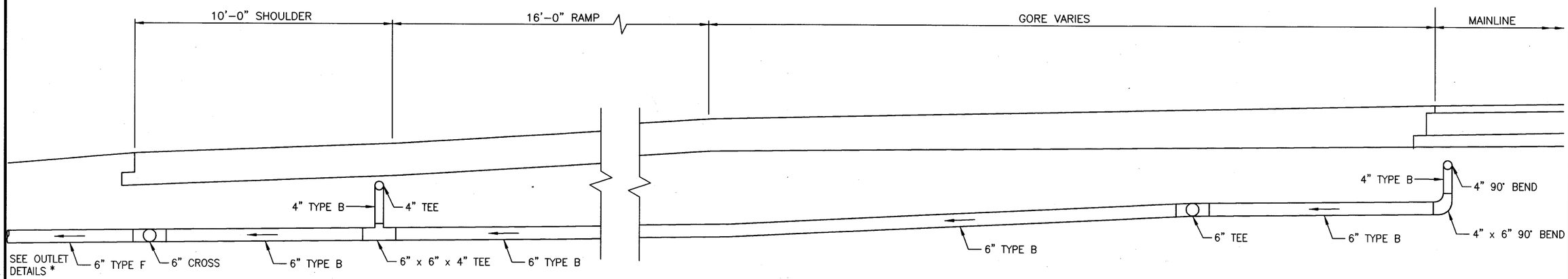
* FOR UNDERDRAIN DETAIL T, SEE OUTLET DETAIL TO RIPRAP

CALCULATED | CHECKED

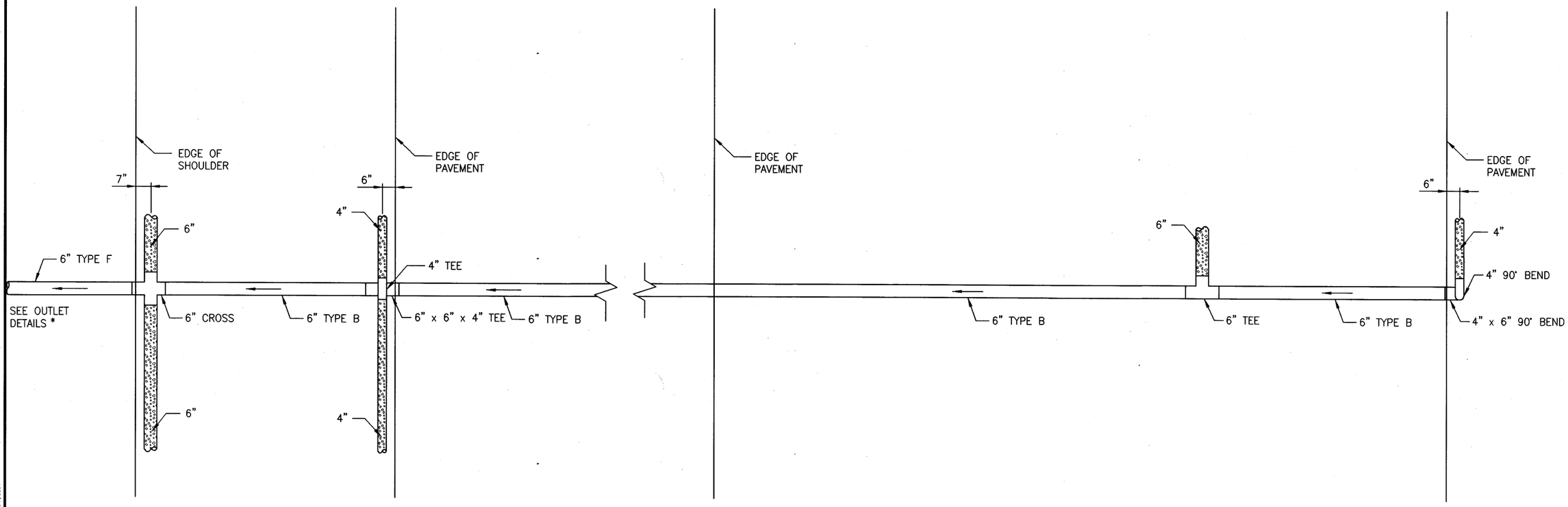
UNDERDRAIN DETAIL T

WAY-71-0.28

M:\98209\AUTOCAD\ACAD-2000\UD_DETAIL12A.DWG - SHEET 299 - May 04, 2001



CROSS SECTION



PLAN

LEGEND

4" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41, AS PER PLAN (12" NORMAL DEPTH), OR

6" BY TYPE PIPE UNDERDRAIN WITH FABRIC WRAP, 707.31 OR 707.41 (30" NORMAL DEPTH)

OUTLET PIPE

UNDERDRAIN DETAIL U

* FOR UNDERDRAIN DETAIL U, SEE OUTLET DETAIL TO RIPRAP

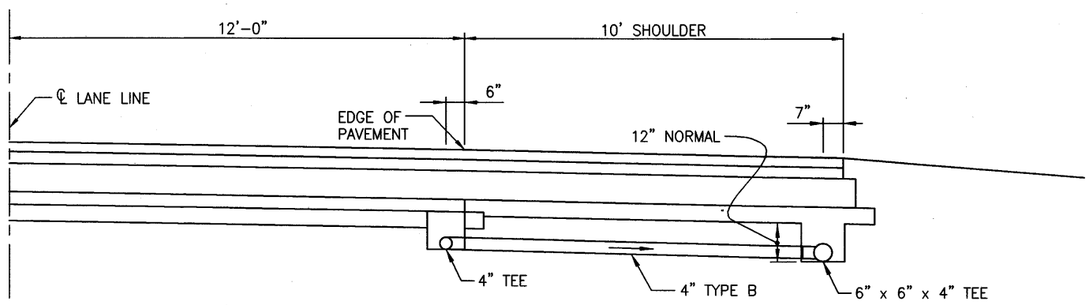
CALCULATED | CHECKED

UNDERDRAIN DETAIL U

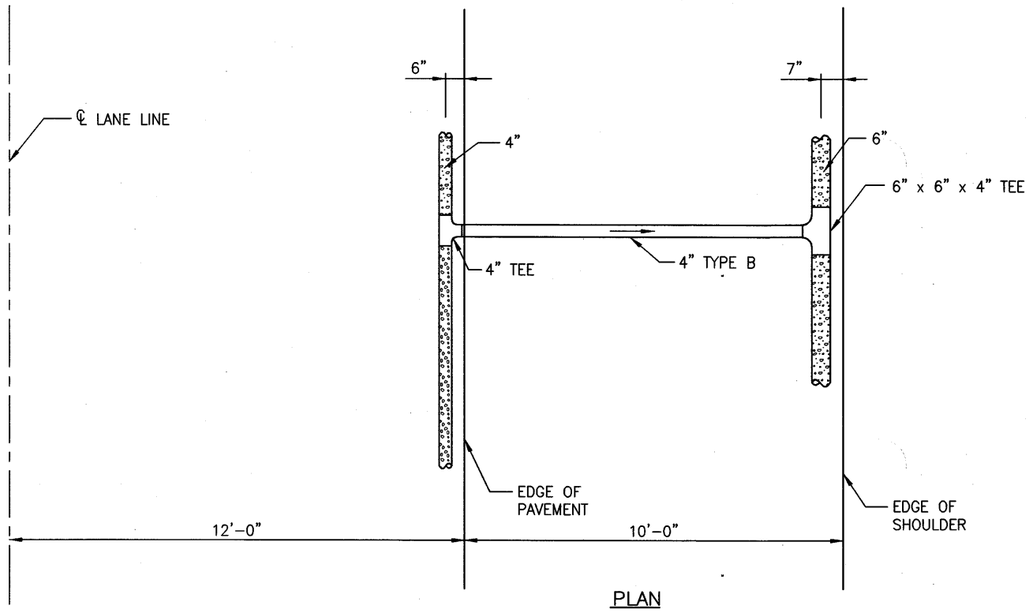
WAY-71-0.28

300
432

M:\9926\AUTOCAD\ACAD-2000\UD_DETAILS22.DWG - SHEET 300 - May 04, 2001



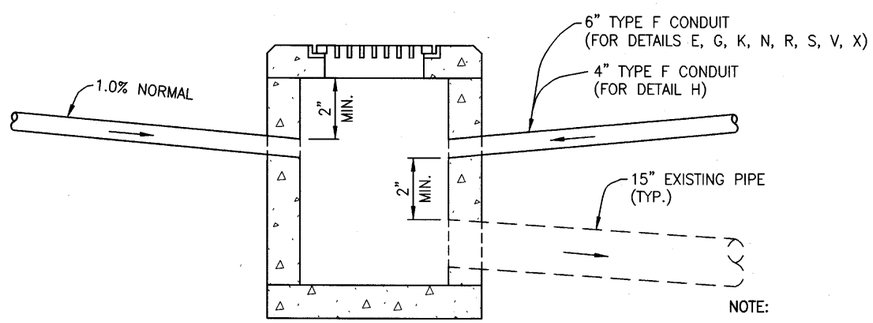
CROSS SECTION



PLAN

UNDERDRAIN DETAIL Y

TOP VIEW



CROSS-SECTION

NOTE:
WHEN NECESSARY TO AVOID EXISTING PIPES, CONNECT THE TYPE F CONDUIT TO THE SIDE OF THE CATCH BASIN OR MANHOLE WITH APPROPRIATE BEND

OUTLET DETAIL TO CATCH BASIN OR MANHOLE

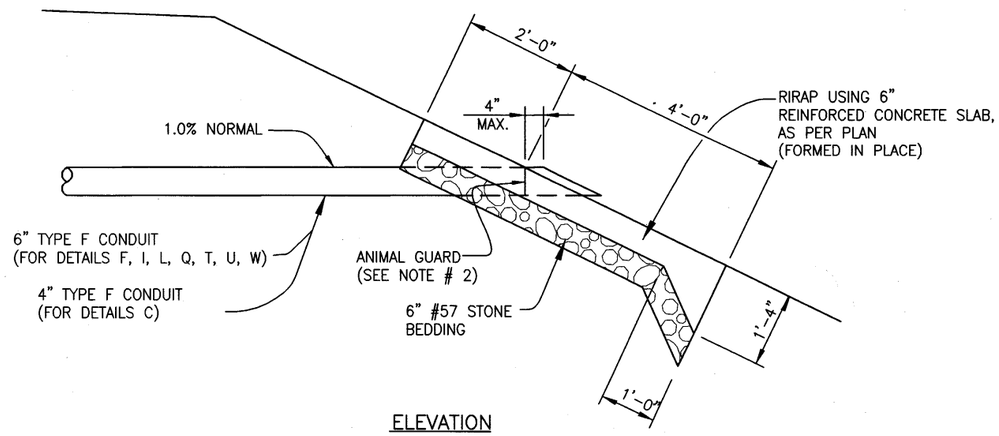
CALCULATED | CHECKED

UNDERDRAIN DETAIL Y & OUTLET DETAIL

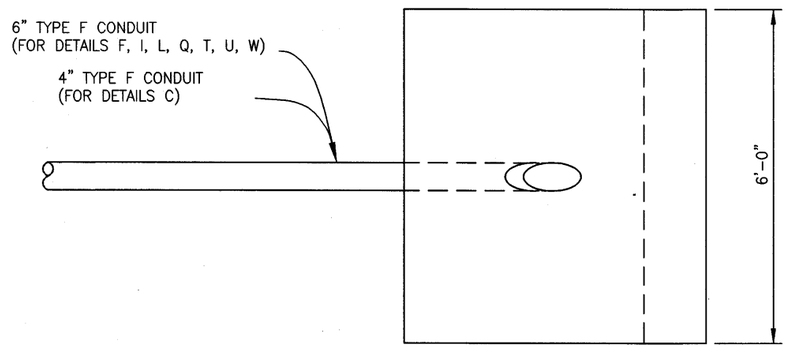
WAY-71-0.28

301
432

M:\99229\AUTOCAD\ACAD-2000\ud_details.dwg - SHEET 301 - May 04, 2001



ELEVATION

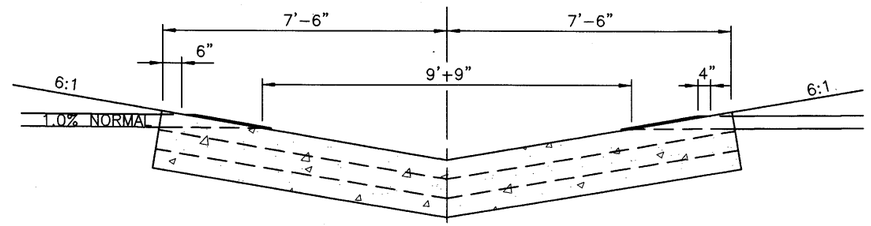


PLAN

NOTES:

1. SOME LOCATIONS FOR RIPRAP PLACEMENT WILL HAVE AN EXISTING HEADWALL NEARBY, DO NOT DISTURB THESE HEADWALLS. THE OUTLET SHALL BE PLACED SO THERE IS POSITIVE DRAINAGE FLOW AND SHALL NOT OUTLET BEHIND THE HEADWALL OR BE PLACED IN A MANNER THAT WILL ERODE THE GROUND AROUND THE HEADWALLS AS DIRECTED BY THE ENGINEER.
2. ANIMAL GUARD IS TO BE PLACED VERTICALLY AS PER STANDARD DRAWING DM-1.1M. LOCATE AS FAR AS POSSIBLE IN FROM THE END OF PIPE TOWARDS THE RIPRAP.
3. RIPRAP PADS SHALL CONFORM TO THE PROPOSED OR EXISTING SLOPE AT OUTLET LOCATION.

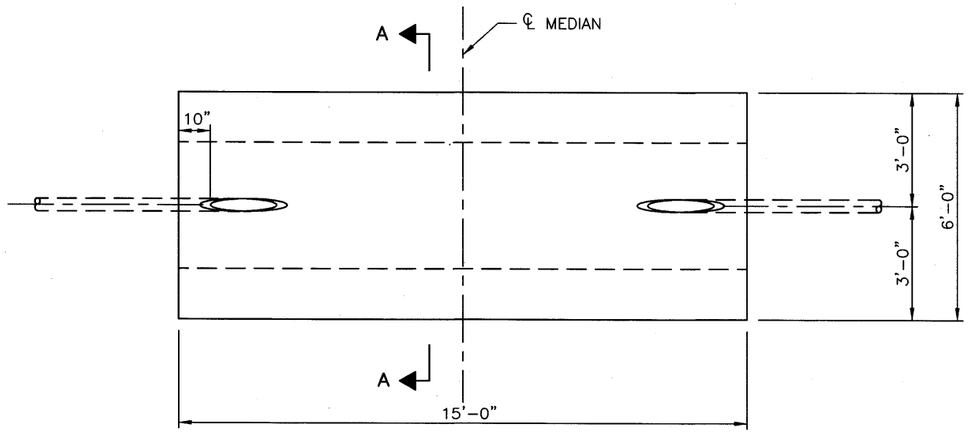
OUTLET DETAIL TO RIPRAP



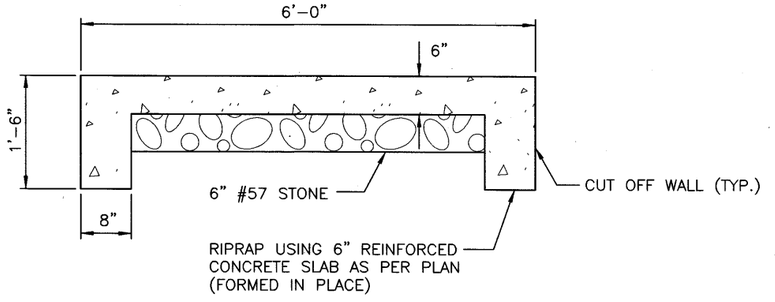
CROSS SECTION

NOTE:

OUTLET DETAIL TO SHARED RIPRAP IS USED WITH UNDERDRAIN DETAIL "B" AND "P".



PLAN



SECTION A-A

OUTLET DETAIL TO SHARED RIPRAP

CALCULATED

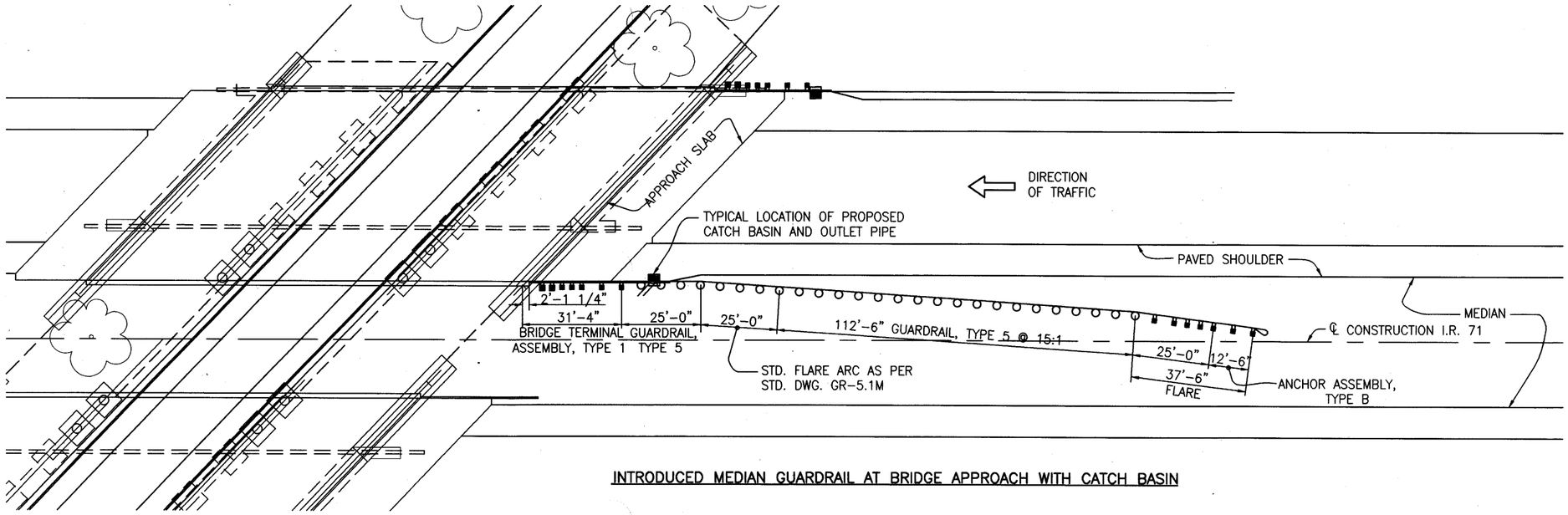
CHECKED

UNDERDRAIN OUTLET DETAILS

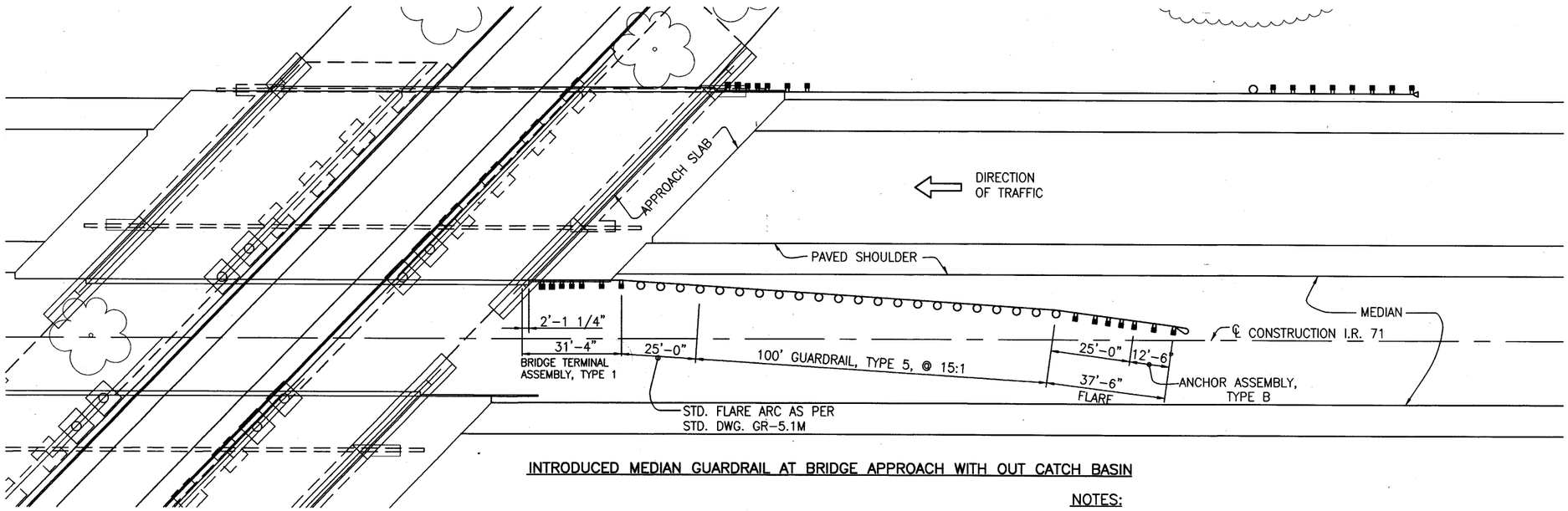
WAY-71-0.28

302
432

M:\99229\AUTOCAD\ACAD-2000\ud_Outlets.dwg - SHEET 302 - May 04, 2001



INTRODUCED MEDIAN GUARDRAIL AT BRIDGE APPROACH WITH CATCH BASIN



INTRODUCED MEDIAN GUARDRAIL AT BRIDGE APPROACH WITH OUT CATCH BASIN

NOTES:

1. FOR ADDITIONAL NOTES AND DETAILS SEE STANDARD CONSTRUCTION DRAWING GR-1.1M, GR-1.2M, GR-1.3M, GR-3.1M, GR-4.3M, GR-4.4M AND GR-5.1M.
2. SEE THE I.R. 71 PLAN AND PROFILE SHEETS FOR LOCATIONS AND REFERENCE NUMBERS. SEE THE ROADWAY SUBSUMMARY FOR QUANTITIES.

HORIZONTAL SCALE IN FEET
0 20' 40'

CALCULATED | CHECKED

MEDIAN GUARDRAIL AT BRIDGE DETAIL

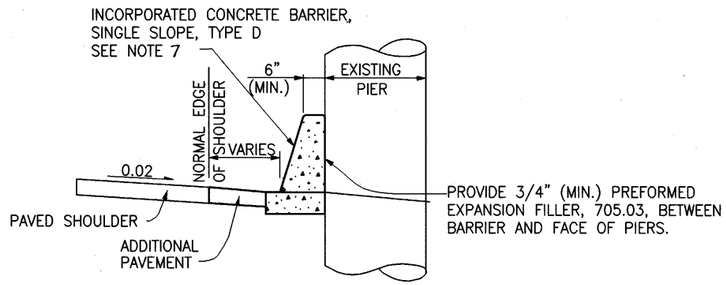
WAY-71-0.28

303
432

M:\99\0099AUTOCAD\ACAD-2000\MED_GR@BRG.dwg - SHEET 303 - May 02, 2001

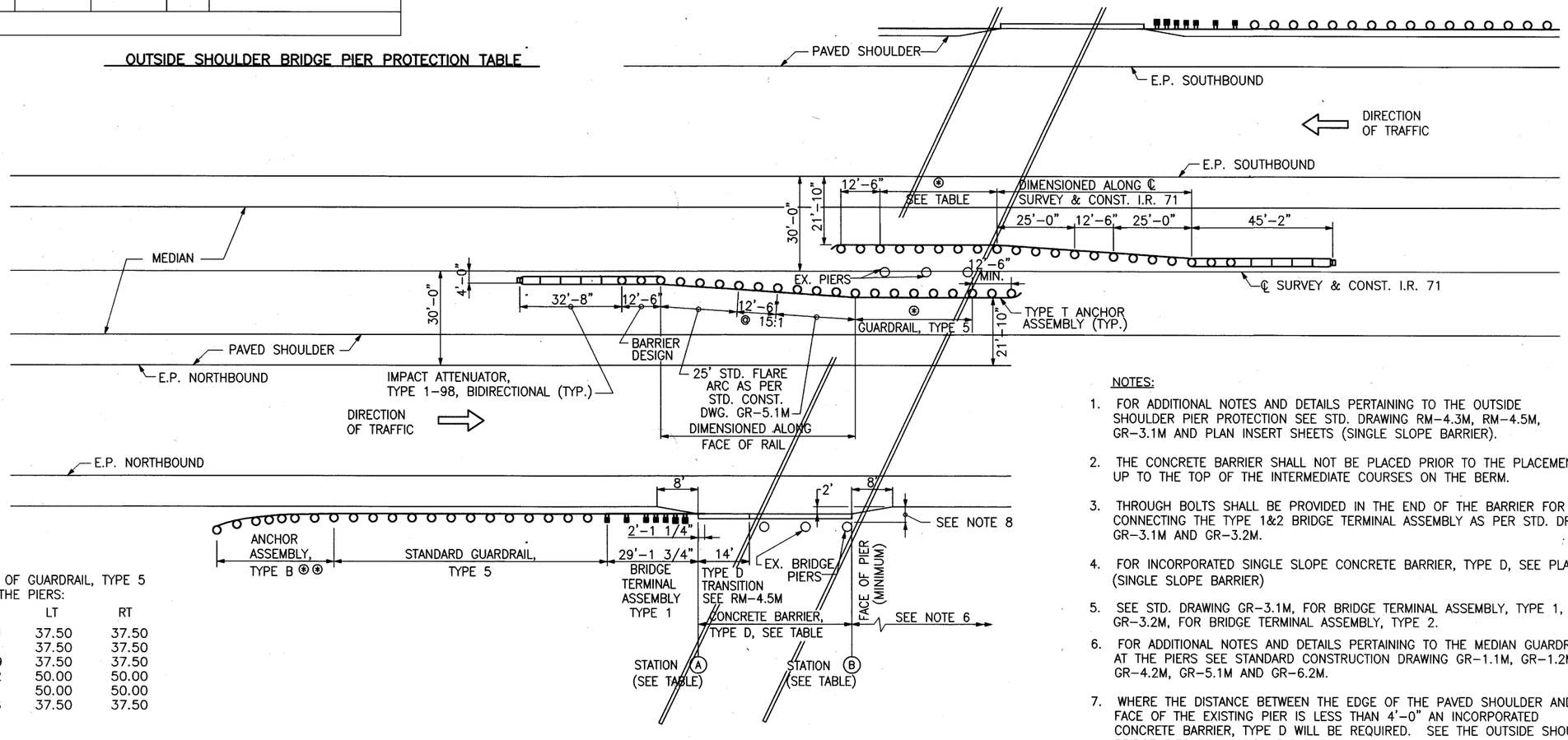
REF.	LOCATION	CONCRETE BARRIER STATION		SIDE	REMARKS
		A	B		
	SR 301	73+22.90	73+75.00	RT	
	SR 301	74+34.00	74+86.60	LT	INCORPORATED
	TR 40	116+91.00	117+34.60	LT	
	TR 40	117+01.90	117+46.00	RT	
	SR 539	158+75.90	159+26.00	RT	
	SR 539	159+58.00	160+08.60	LT	
	CR 102	192+70.00	193+29.60	LT	INCORPORATED
	CR 102	194+45.90	195+04.00	RT	
	CR 36	267+84.90	268+42.50	RT	INCORPORATED
	CR 36	269+80.00	270+38.60	LT	
	TR 178	299+11.00	299+62.10	LT	
	TR 178	300+06.40	300+58.00	RT	

OUTSIDE SHOULDER BRIDGE PIER PROTECTION TABLE



NORMAL SECTION INCORPORATED SINGLE SLOPE BARRIER, TYPE D

SEE TABLE FOR LOCATIONS OF INCORPORATED INSTALLATIONS



⊛ LENGTH OF GUARDRAIL, TYPE 5 ALONG THE PIERS:

	LT	RT
SR 301	37.50	37.50
TR 40	37.50	37.50
SR 539	37.50	37.50
CR 102	50.00	50.00
CR 36	50.00	50.00
TR 178	37.50	37.50

⊛⊛ TYPE 8 GUARDRAIL AT C.R.102 LEFT

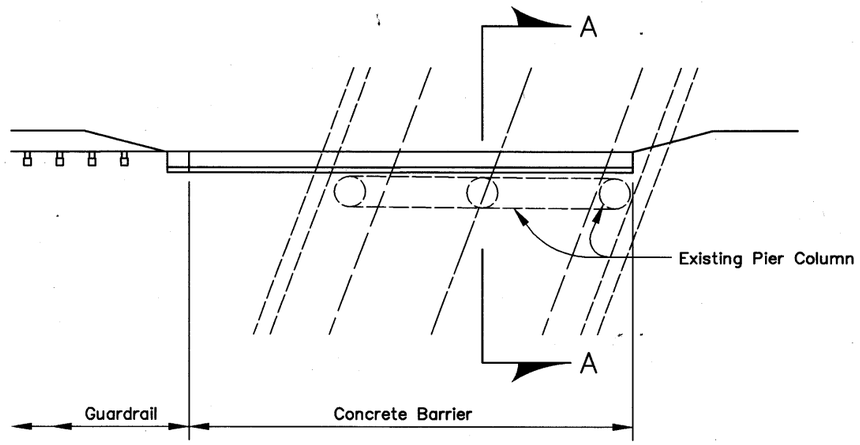
NOTES:

1. FOR ADDITIONAL NOTES AND DETAILS PERTAINING TO THE OUTSIDE SHOULDER PIER PROTECTION SEE STD. DRAWING RM-4.3M, RM-4.5M, GR-3.1M AND PLAN INSERT SHEETS (SINGLE SLOPE BARRIER).
2. THE CONCRETE BARRIER SHALL NOT BE PLACED PRIOR TO THE PLACEMENT UP TO THE TOP OF THE INTERMEDIATE COURSES ON THE BERM.
3. THROUGH BOLTS SHALL BE PROVIDED IN THE END OF THE BARRIER FOR CONNECTING THE TYPE 1&2 BRIDGE TERMINAL ASSEMBLY AS PER STD. DRAWING GR-3.1M AND GR-3.2M.
4. FOR INCORPORATED SINGLE SLOPE CONCRETE BARRIER, TYPE D, SEE PLAN INSERT SHEETS (SINGLE SLOPE BARRIER)
5. SEE STD. DRAWING GR-3.1M, FOR BRIDGE TERMINAL ASSEMBLY, TYPE 1, AND GR-3.2M, FOR BRIDGE TERMINAL ASSEMBLY, TYPE 2.
6. FOR ADDITIONAL NOTES AND DETAILS PERTAINING TO THE MEDIAN GUARDRAIL AT THE PIERS SEE STANDARD CONSTRUCTION DRAWING GR-1.1M, GR-1.2M, GR-2.1M, GR-4.2M, GR-5.1M AND GR-6.2M.
7. WHERE THE DISTANCE BETWEEN THE EDGE OF THE PAVED SHOULDER AND THE FACE OF THE EXISTING PIER IS LESS THAN 4'-0" AN INCORPORATED CONCRETE BARRIER, TYPE D WILL BE REQUIRED. SEE THE OUTSIDE SHOULDER BRIDGE PIER PROTECTION TABLE FOR LOCATIONS. SEE THE I.R. 71 PLAN AND PROFILE SHEETS FOR REFERENCE NUMBERS. SEE PLAN INSERT SHEETS (SINGLE SLOPE BARRIER). SEE ROADWAY SUBSUMMARY FOR QUANTITIES.

OVERPASS PIER PROTECTION DETAIL

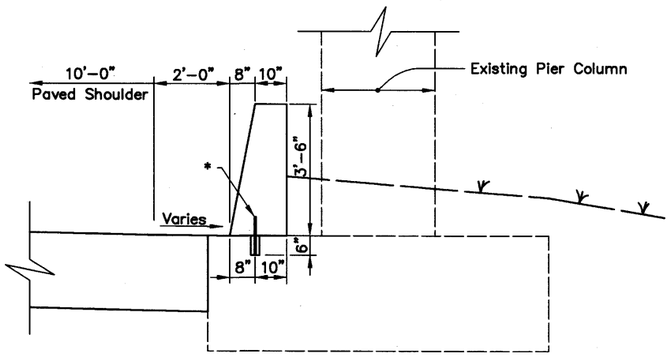
WAY-71-0.28

M:\900226\AUTOCAD\ACAD-R1\RDR-PIER.dwg - SHEET 304 - May 02, 2001



PLAN VIEW

*Drill Dowels In Existing Footing As Per CMS 510. Dowel Bars Shall Be #8 Epoxy Coated Deformed Steel Bars, 1'–0" Long. Nonshrink, Nonmetal Grout Shall Meet The Requirements Of CMS 705.20.

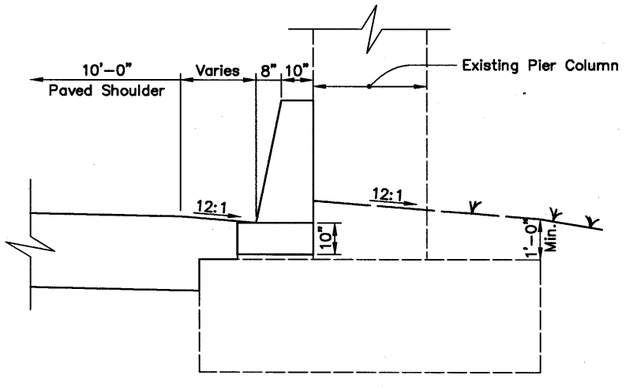


SECTION A–A

NOTE: Dowell barrier according to details on this sheet. Do not use the dowelling details on sheet 306.

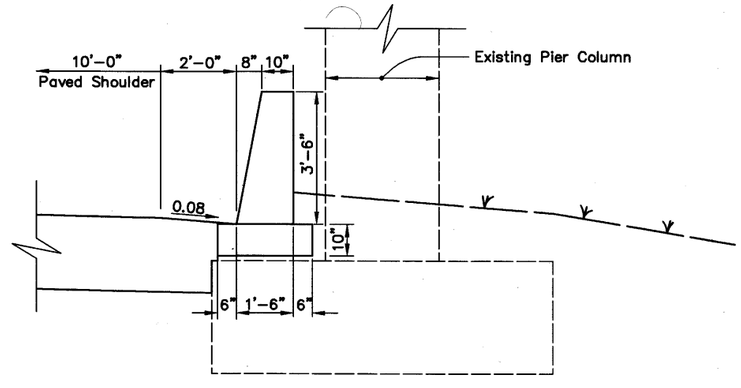
CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN

T.R. 40 NORTHBOUND
C.R. 36 NORTHBOUND (INCORPORATED)
C.R. 36 SOUTHBOUND



INCORPORATED BARRIER

S.R. 301 SOUTHBOUND



CONCRETE BARRIER, SINGLE SLOPE, TYPE D

S.R. 301 NORTHBOUND
T.R. 40 SOUTHBOUND
S.R. 539 NORTHBOUND & SOUTHBOUND
T.R. 178 NORTHBOUND & SOUTHBOUND

CALCULATED | CHECKED

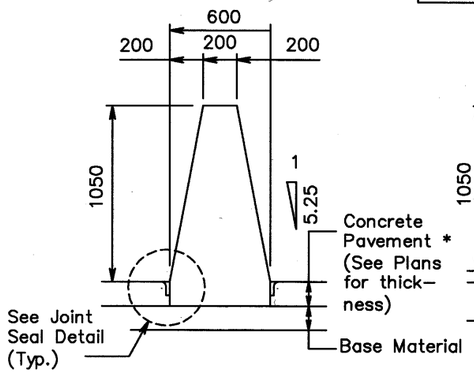
CONCRETE BARRIER DETAILS

WAY–71–0.28

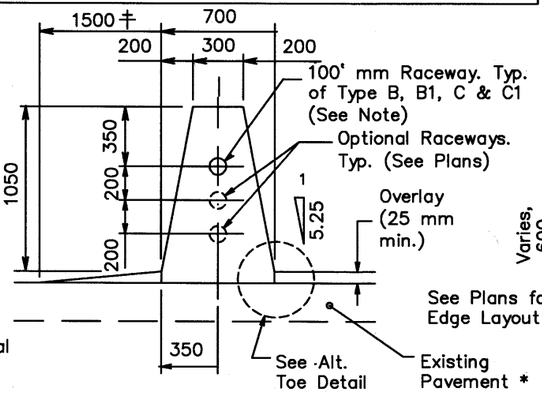
305
432

M:\98229\AUTOCAD\BDSK-725CON-BARR.dwg - SHEET 305 - May 02, 2001

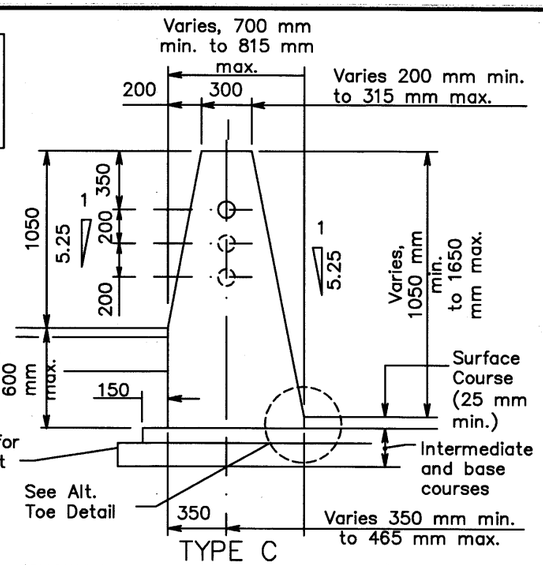
* See Dowelling Details for alternate construction with concrete pavement
** Use 1200 mm max. spacing for overall length less than 6.0 m.
‡ See Adjoining Pavement Note



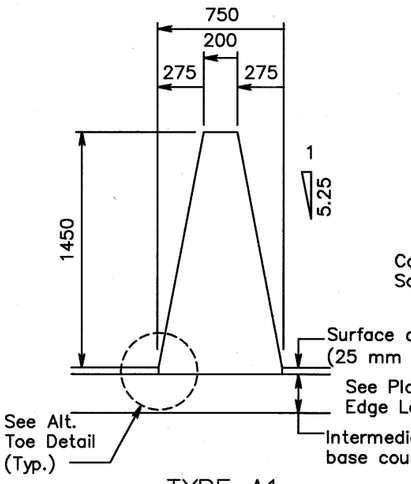
TYPE A
(SHOWN WITH NEW CONCRETE PAVEMENT)



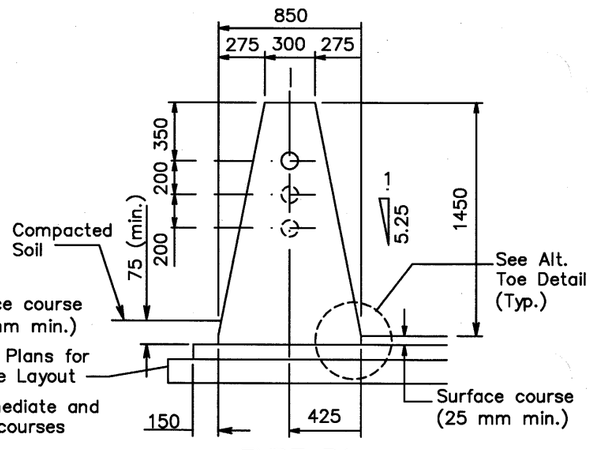
TYPE B
(SHOWN WITH EXISTING PAVEMENT)



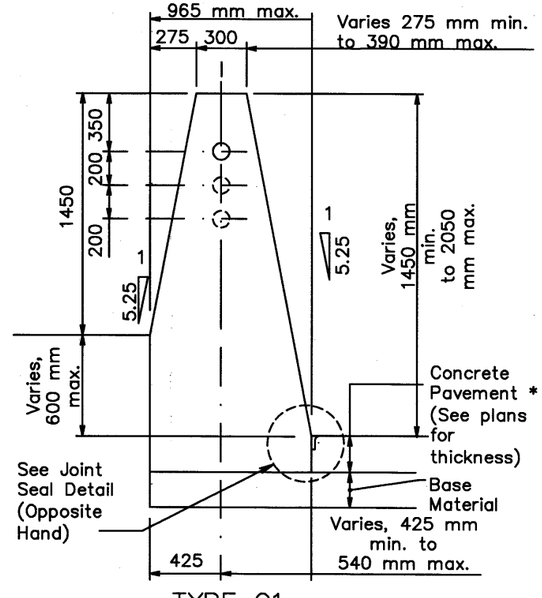
TYPE C
(SHOWN WITH NEW ASPHALT PAVEMENT)



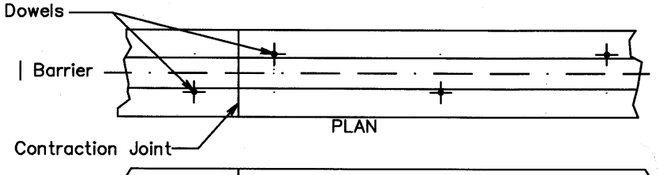
TYPE A1
(SHOWN WITH NEW ASPHALT PAVEMENT)



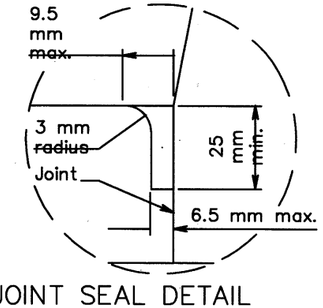
TYPE B1
(SHOWN WITH PAVEMENT ON ONE SIDE ONLY)



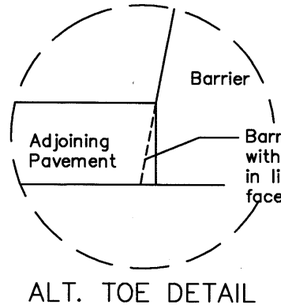
TYPE C1
(SHOWN WITH NEW CONCRETE PAVEMENT)



DOWELLING DETAILS



JOINT SEAL DETAIL



ALT. TOE DETAIL

NOTES

CONCRETE BARRIER, SINGLE SLOPE, may be cast-in-place or slip-formed.

CONTRACTION JOINTS, shall be unsealed and spaced at 6.0 m maximum throughout the run of the barrier. Joints may be constructed by using metal inserts inside the forms, preformed full width joint filler, a grooving tool, or by sawing. Inserts and tooled or sawed joints shall have a 75-mm minimum depth.

All joints shall be constructed for the full height of the barrier.

Sawing shall be done as soon as curing will allow to prevent spalling. When used in conjunction with concrete pavement, the joints shall match those in the concrete pavement but shall not exceed the 6.0 m max. allowable spacing.

ADJOINING PAVEMENT: When the barrier is constructed in con-junction with new asphalt pavement, it shall be placed directly on the intermediate course. The surface course shall be constructed directly against the barrier.

Barrier placed on existing pavement may be set with a continuous wedge of surface material tapering from a 25-mm minimum thickness at the toe of the barrier to zero. For bidirectional installations the wedge shall be constructed on both sides of the barrier. For unidirectional installations, the wedge shall be constructed on the traveled way side and the width may be reduced to 300 mm minimum.

When the barrier is constructed in conjunction with new con-crete pavement, it shall be placed directly on the base material. The concrete slab shall be constructed against the barrier.

Barrier may be placed on top of existing concrete pavement and dowelled as shown in Dowelling Details.

When pavement is to be constructed on one side of the barrier only, then compacted soil on the opposite side must be placed against the barrier at a minimum height of 75 mm.

SEALING JOINTS: The longitudinal joint between the barrier and adjoining concrete pavement shall be a butt joint sealed with Item 705.04 joint sealer.

TRANSITIONS: Linear transitions between different types of barrier shall be made within a 6.0 m length.

STATION MARKINGS shall be impressed in the "green" concrete on both sides at the top of the barrier if specified on the plans. The cost shall be incidental to the unit cost bid for Item 622 Concrete Barrier, Single Slope, Type ____ .

RACEWAY: The contractor shall ensure that the electrical raceway is clear of obstructions. Cost of the 100-mm polyvinyl chloride raceway shall be included in the unit cost for Item 622 Concrete Barrier, Single Slope, Type ____ .

The cost for additional raceways and No. 10 AWG copper-clad or aluminum-clad wire shall also be included where shown in the plans for future installation of circuits.

MATERIALS: All concrete shall be Class C concrete. Reinforcing steel shall be metric Grade 400, and shall be placed with a 50-mm clear distance from the joints and end sections. Top and end edges shall be constructed with either a 25-mm radius or 20-mm chamfer, except at light pole foundations.

PAYMENT will be made at the unit price bid per Meter for Item 622 - Concrete Barrier, Single Slope, Type ____ shall be with the appropriate deductions made for other items as follows:

Item 604 Barrier Median Inlet - 6 meters
Item 625 Light Pole Foundation or Pullbox - 1 meter
Item 630 Overhead Sign Support Foundation - 3 meters
Item 630 Barrier Wall Assembly - 3 meters

Payment shall include all materials, labor, dowel holes and other incidentals necessary to construct the barrier.

metric units

All dimensions are in millimeters unless otherwise noted.

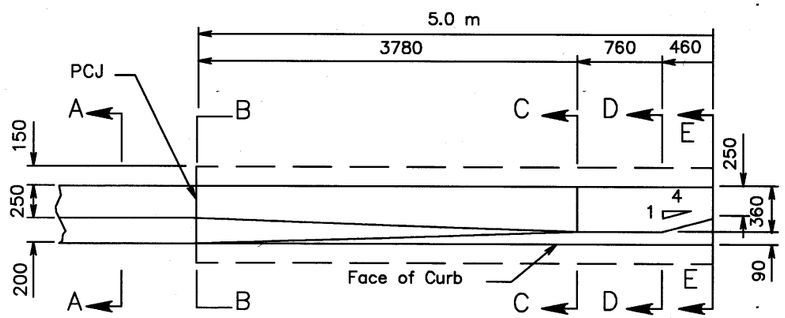
CALCULATED
CHECKED

CONCRETE BARRIER, SINGLE SLOPE, TYPES A, B, C, A1, B1 & C1

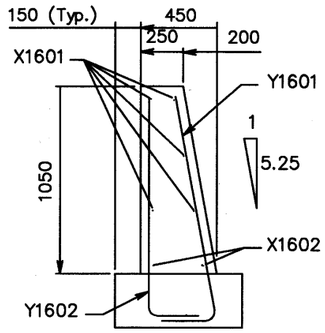
WAY-71-0.28

306
432

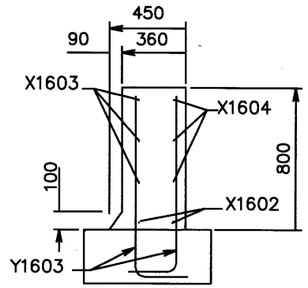
SSCONCBAR



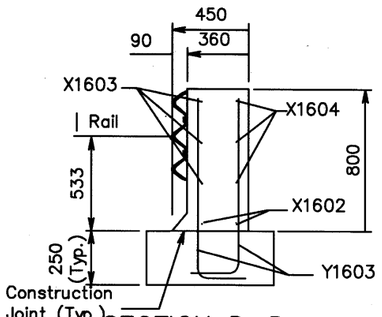
PLAN



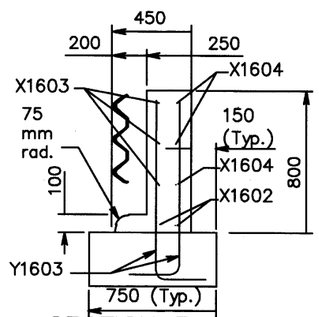
SECTION B–B



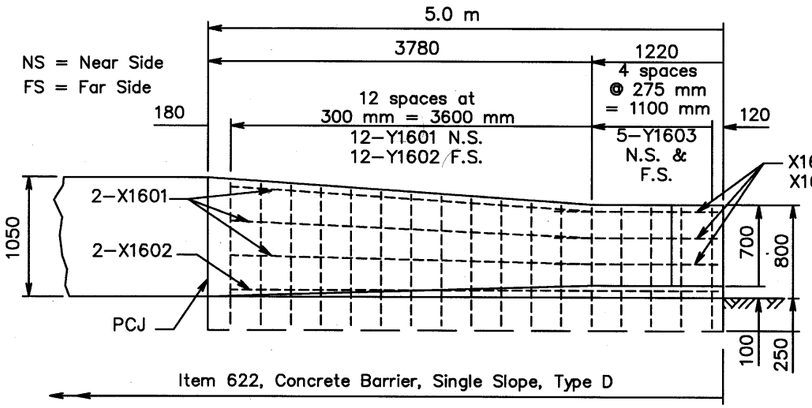
SECTION C–C



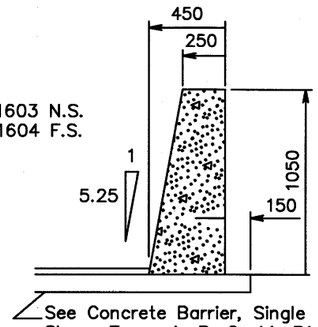
SECTION D–D



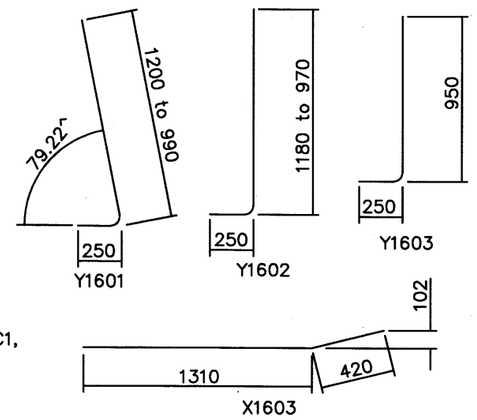
SECTION E–E



ELEVATION



SECTION A–A



BENDING DIAGRAMS

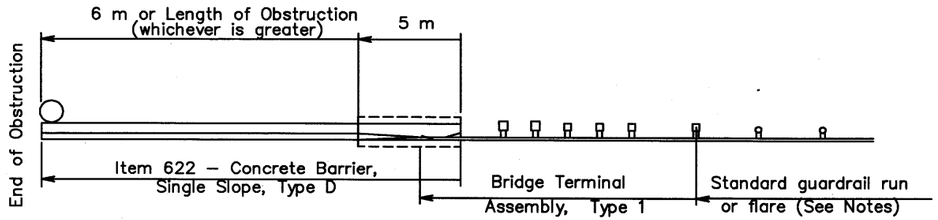
NOTES

INCORPORATED INSTALLATIONS: For barrier installations that cannot be constructed at the normal guardrail offset, the incorporated installations shown may be installed at vertical walls. piers or other similar obstructions. For pier–incorporated installations the contractor may use the optional treatment, forming the back face of the Single Slope Concrete Barrier, Type D, to the location shown (between piers only), with any additional cost being included in the cost of Item 622.

REINFORCING: All reinforcing bars shall be epoxy coated.

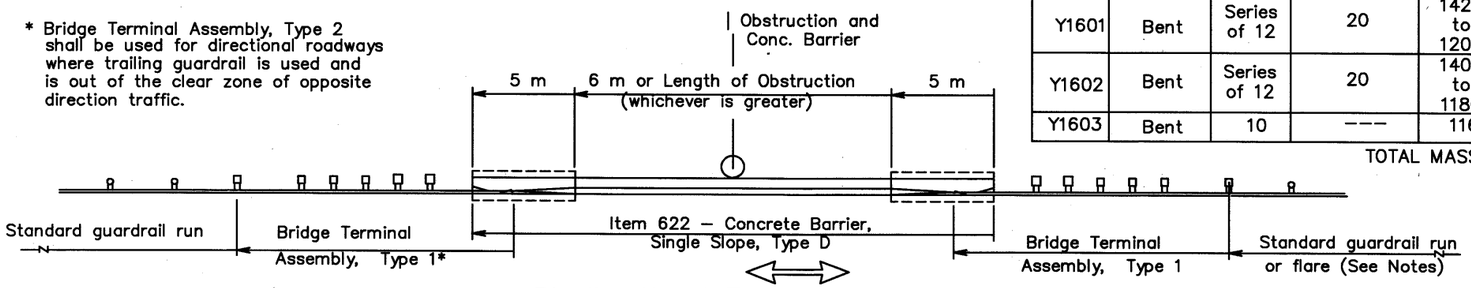
MISCELLANEOUS: For Bridge Terminal Assembly, Types 1 and 2 details and connections, see GR–3.1M and GR–3.2M.

PAYMENT: Payment will be made at the unit price bid per Meter for Item 622 – Concrete Barrier, Single Slope, Type D shall include all materials, labor and reinforcing steel required to construct the barrier as shown.



Directional Travel where no trailing guardrail is used.

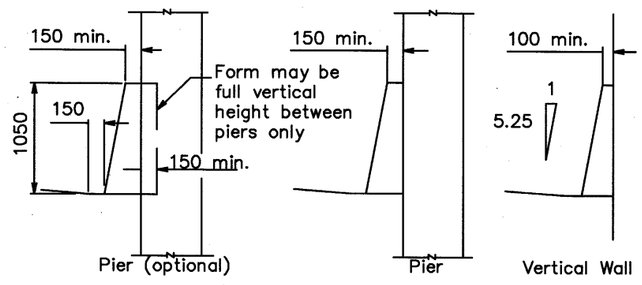
* Bridge Terminal Assembly, Type 2 shall be used for directional roadways where trailing guardrail is used and is out of the clear zone of opposite direction traffic.



Bi–directional Travel or Directional Travel where trailing guardrail is used.

TYPICAL INSTALLATIONS

REINFORCING (For Estimating Purposes Only)					
BAR	SHAPE	NO.	INCREMENT	LENGTH	MASS
X1601	Straight	6	---	3680	34.27
X1602	Straight	2	---	4900	15.21
X1603	Bent	3	---	1730	8.05
X1604	Straight	3	---	1730	8.05
Y1601	Bent	Series of 12	20	1420 to 1200	24.40
Y1602	Bent	Series of 12	20	1400 to 1180	24.02
Y1603	Bent	10	---	1160	18.00
				TOTAL MASS:	132.00



INCORPORATED INSTALLATIONS

metric units

All dimensions are in millimeters unless otherwise noted.

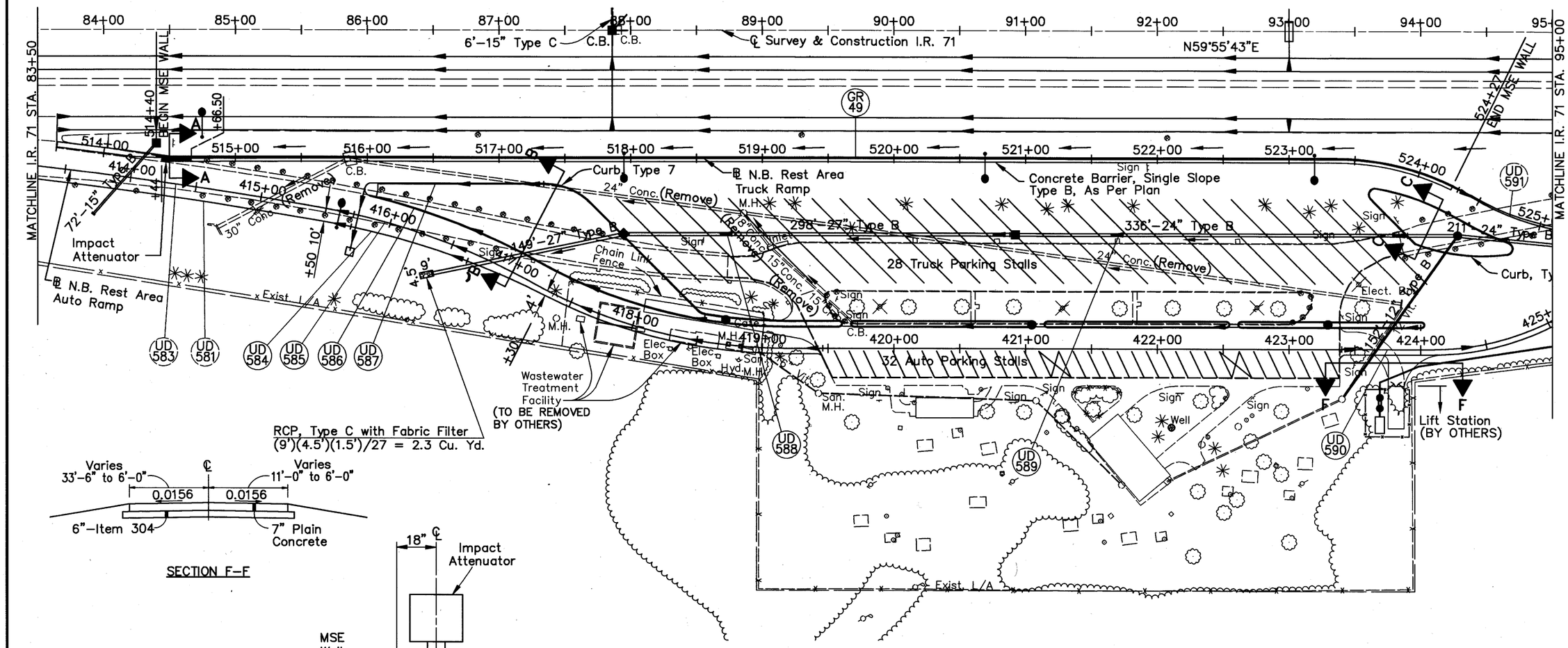
SINGLE SLOPE BARRIER, TYPE D

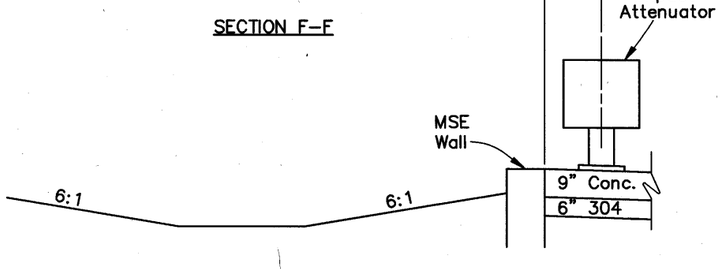
CALCULATED CHECKED

WAY–71–0.28

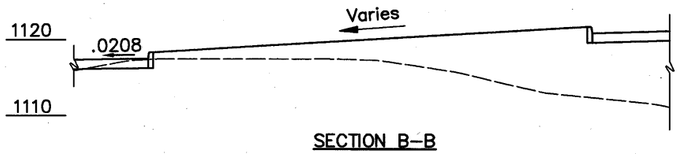
307
432

SS08AR

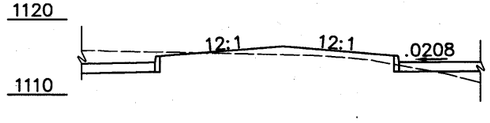




SECTION A—A



SECTION B—B



SECTION C—C

FOR REST AREA LIGHTING, SEE SHEET 378.
FOR MSE WALL, SEE SHEET 328

REFERENCE	STATION FROM	STATION TO	SIDE	202 Walk Removed Sq. Ft.	202 Pipe Removed, 24" And Under Lin. Ft.	202 Pipe Removed, Over 24" Lin. Ft.	202 Manhole Removed Each	202 Catch Basin Removed Each	202 Inlet Removed Each	202 Removal Misc.: Headwall Each	601 Rock Channel Protection, Type C With Fabric Filter Cu. Yd.	602 Concrete Masonry Cu. Yd.	603 12" Conduit Type B Lin. Ft.	603 15" Conduit Type B Lin. Ft.	603 24" Conduit Type B Lin. Ft.	603 27" Conduit Type B Lin. Ft.	604 Catch Basin No. 4 As Per Plan Each	604 Catch Basin No. 6 As Per Plan Each	604 Manhole No. 3 Each		830 10" Concrete Traffic Island Sq. Yd.			
	83+92	84+40	Rt.											72			1							
	84+85	93+86	Rt.		920	112	1	2	1	2														
	85+98	86+08	Rt.																		10			
	86+49	87+95	Rt.								2.3	0.5				149		1						
	87+95	90+92	Rt.													298		1						
	90+92	94+28	Rt.										152		336				1					
	94+28	96+38	Rt.									0.5			211									
	420+58	421+85	Lt.	176																				
QUANTITIES CARRIED TO SHEET				176	920	112	1	2	1	2	2	1.0	152	72	547	447	1	2	1		10			

PLAN
I.R. 71 N.B. REST AREA

I.R. 71

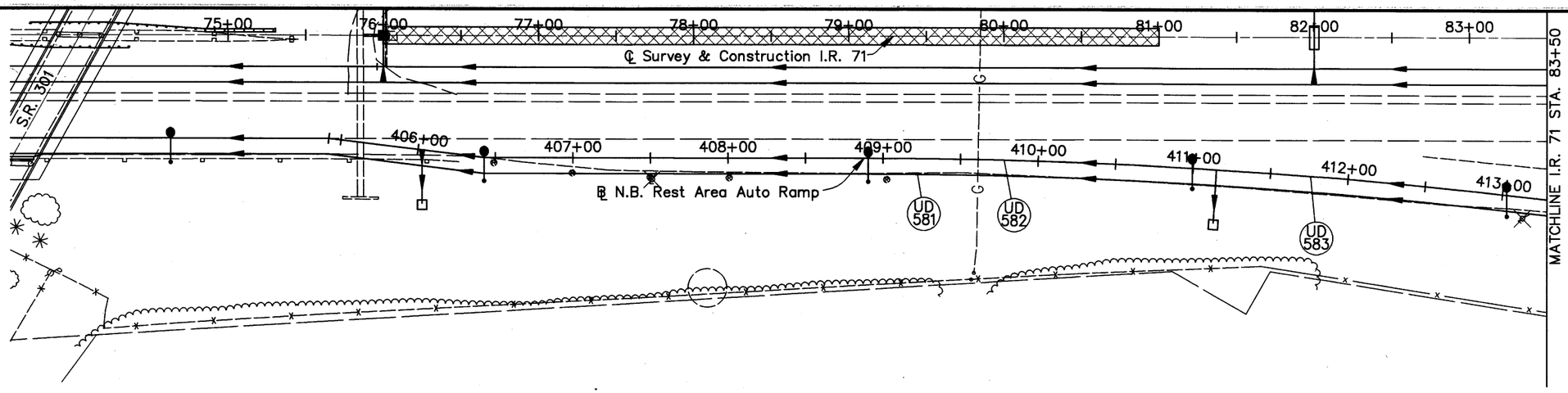
WAY-71-0.28

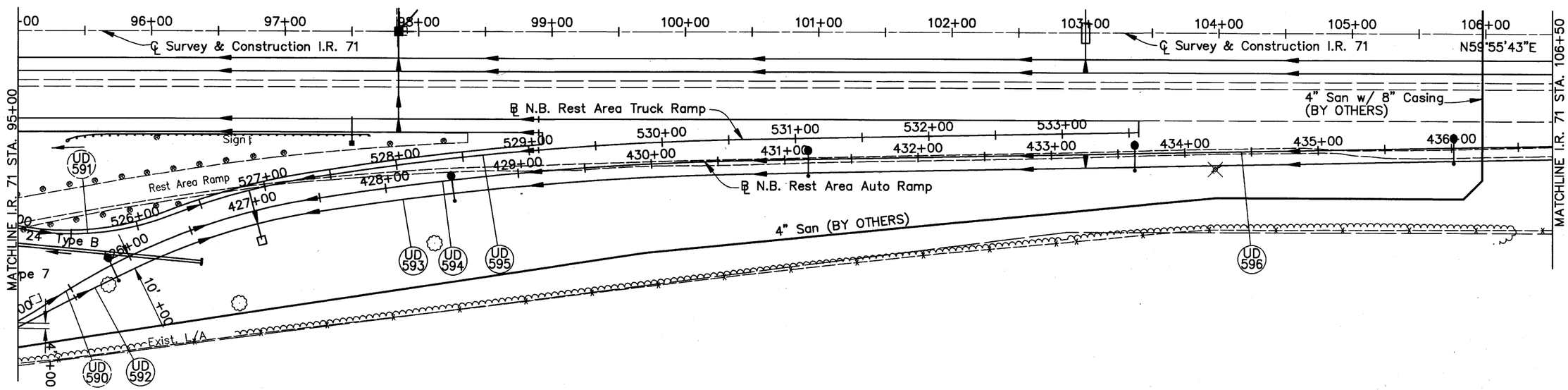
308
432

Scale in Feet 0 40 80

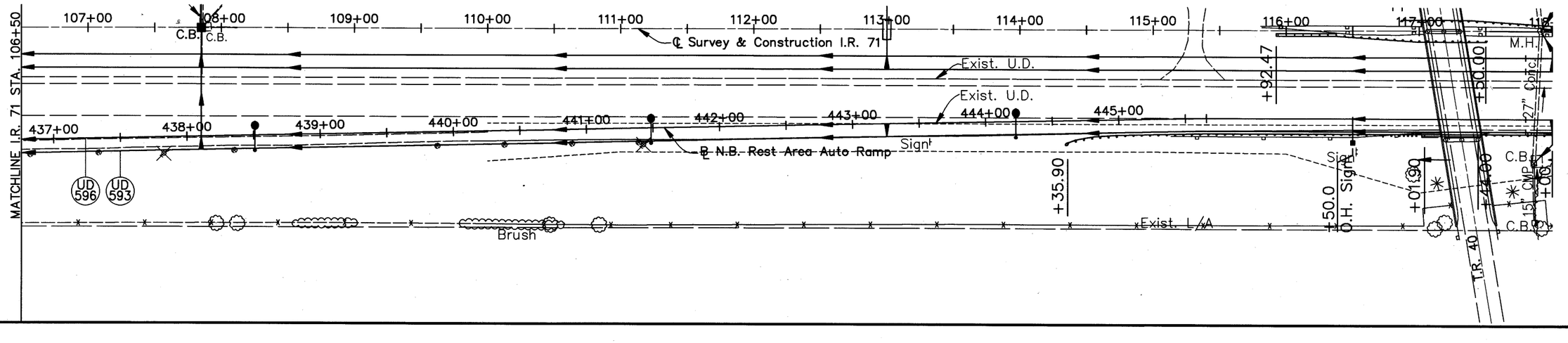
CALCULATED SDS CHECKED GCS

M:\WORK\AUTOCAD\SDSK-72PLAN-NB-RA.dwg - N.B. SHEET 308 - May 08, 2001





FOR REST AREA LIGHTING, SEE SHEET 378.



M:\99029\AUTOCAD\SDSK-72PLAN-RB-RA.dwg - RB Ramps SHEET 309 - May 03, 2001

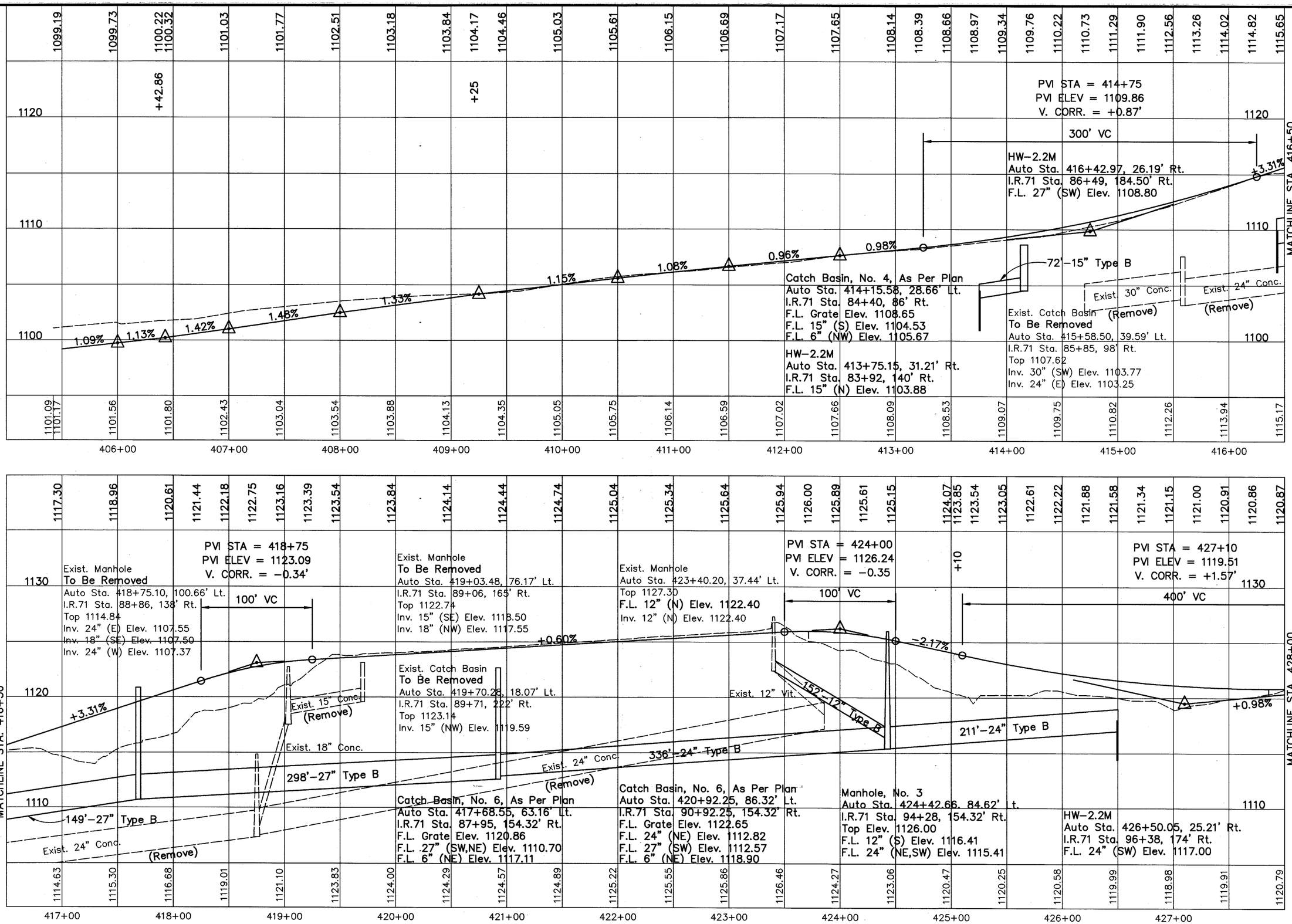
CALCULATED
CHECKED

0 40 80 Scale in Feet

PLAN
REST AREA RAMPS
I.R. 71 N.B.

WAY-71-0.28

309
432



CALCULATED
CHECKED

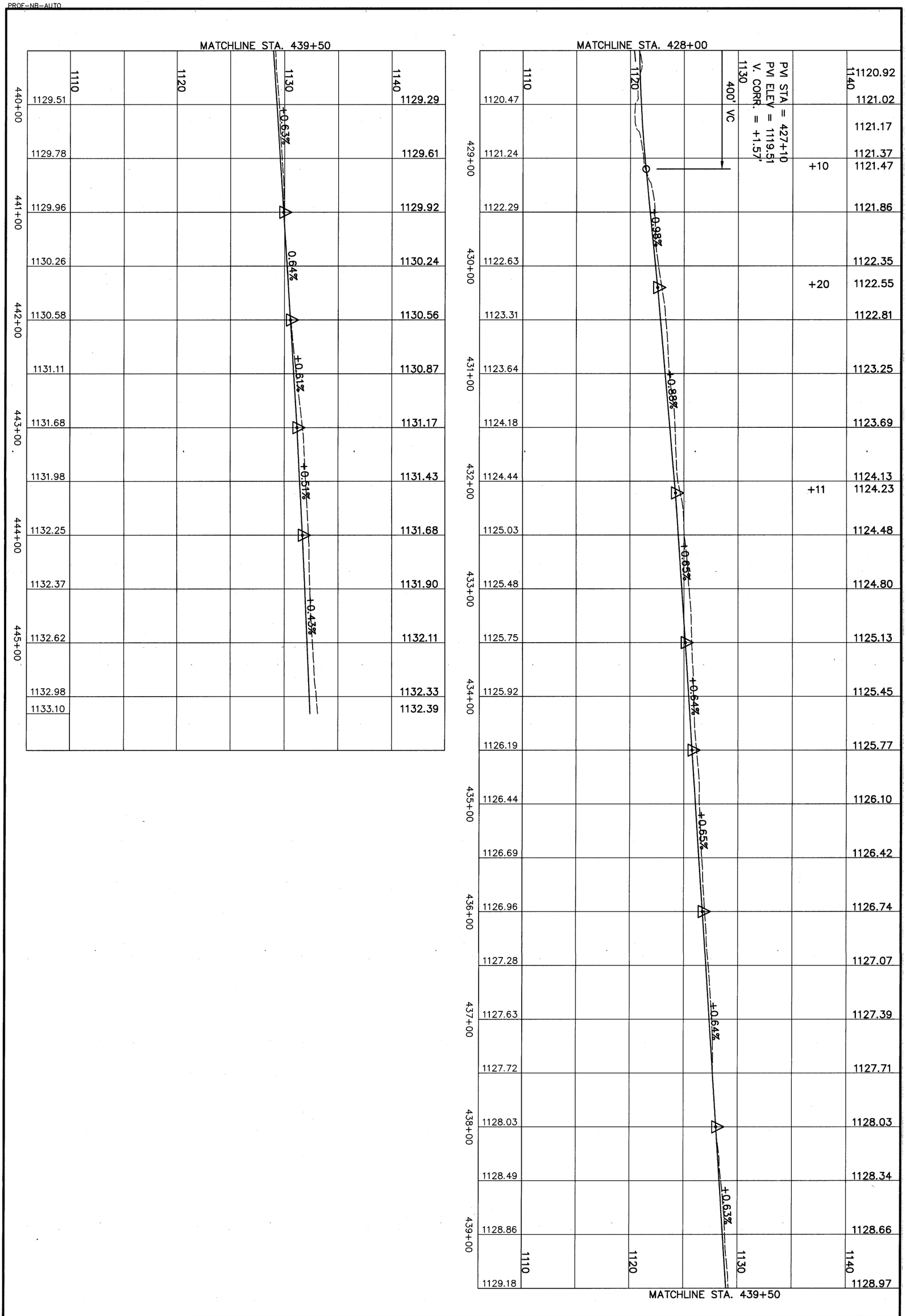
N.B. REST AREA AUTO PROFILE
STA. 405+42.14 TO STA. 428+00

WAY-71-0.28

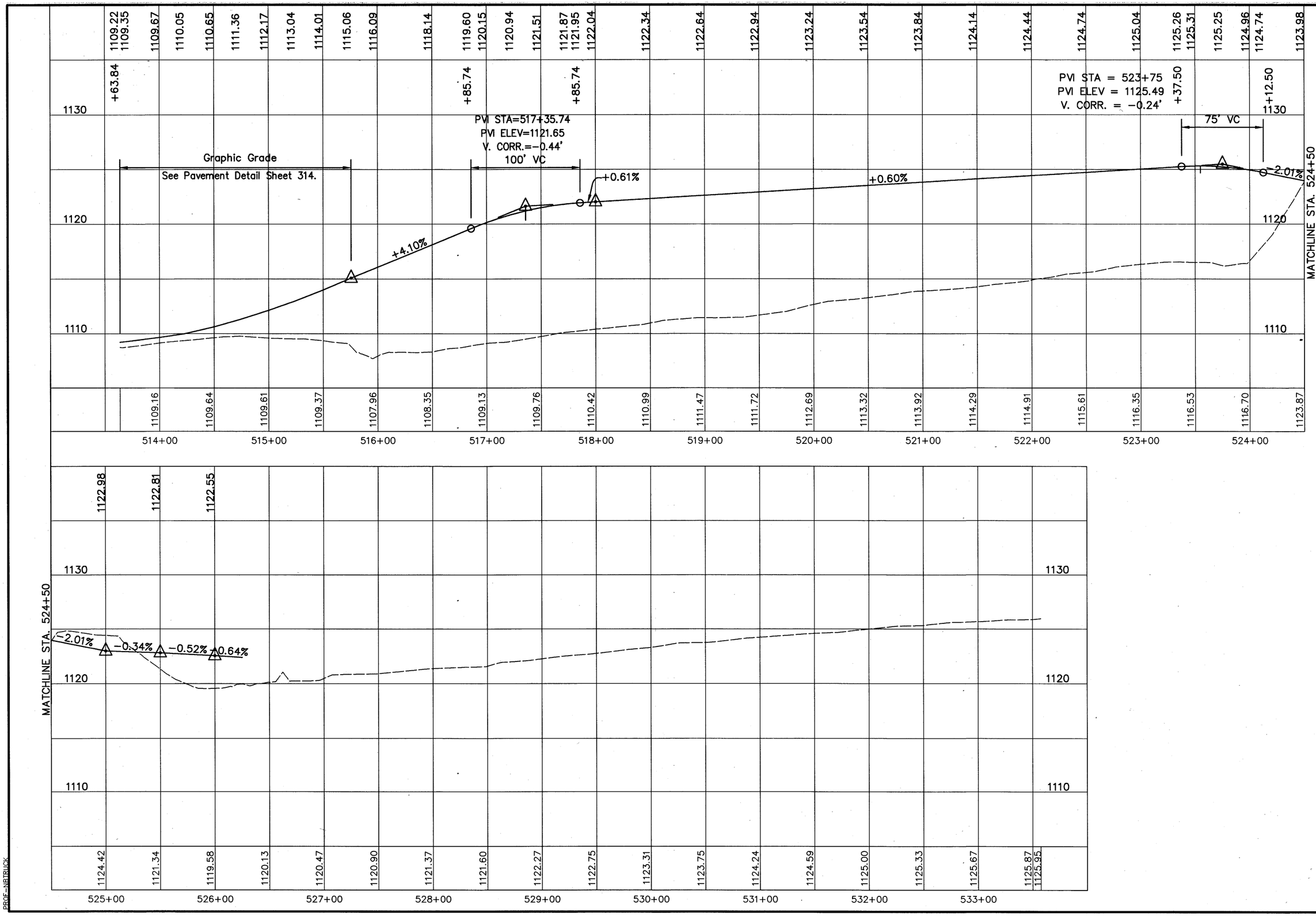
310
432

PROF-NB-AUTO

PROF-NB-AUTO



311 / 432	WAY-71-0.28	N.B. REST AREA AUTO PROFILE STA. 428+00 TO STA. 445+65.88	CALCULATED CHECKED



CALCULATED

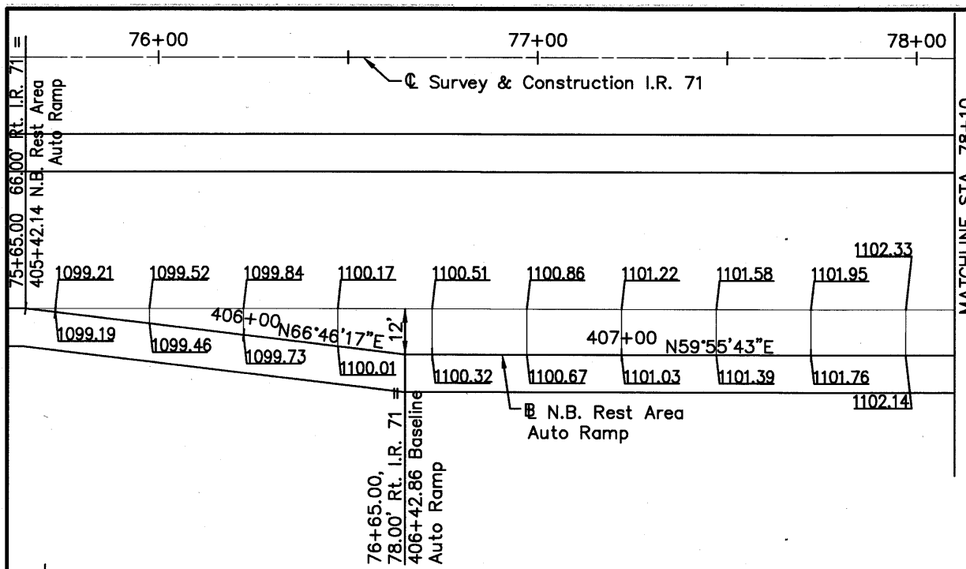
CHECKED

N.B. REST AREA TRUCK PROFILE
STA. 513+63.84 TO STA. 533+57.39

WAY-71-0.28

312
432

PROF-NBTRUCK



N.B. Rest Area Auto Ramp Curve Data

Ⓐ P.I. STA. 412+18.68
Δ = 9°54'00" Rt.
Dc = 1°30'00"
R = 3819.72'
T = 330.82'
L = 660.00'
E = 14.30'

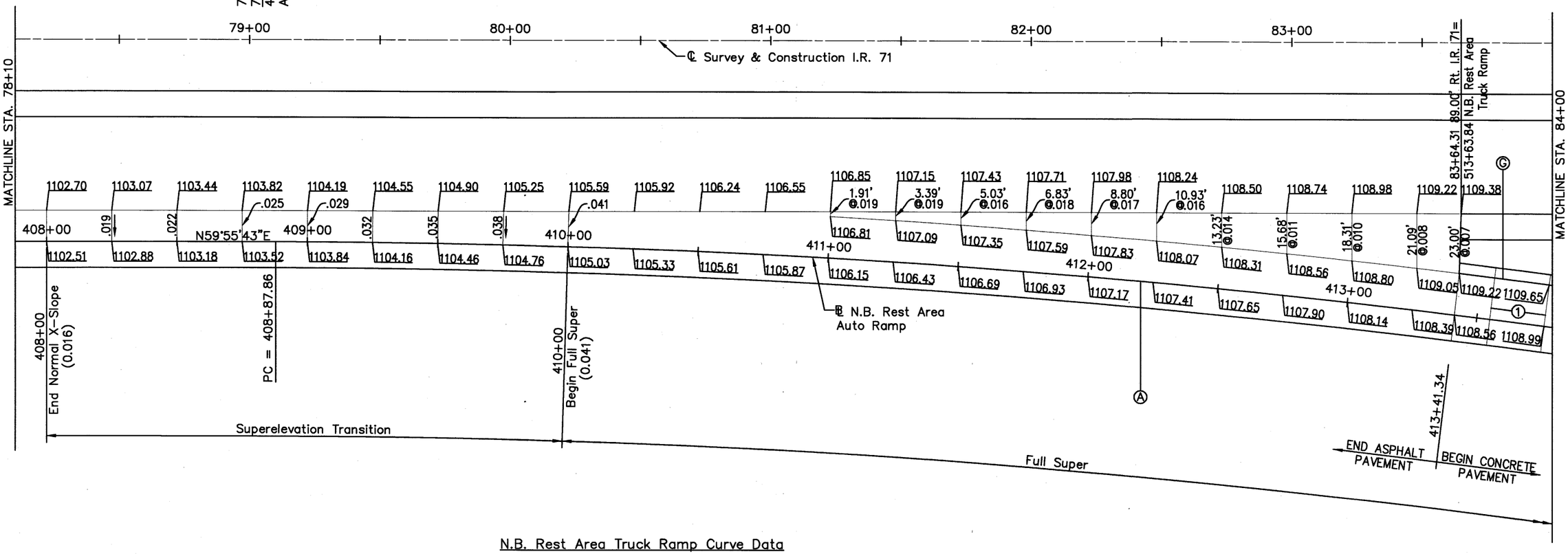
Ⓑ P.I. STA. 416+32.19
Δ = 19°08'52" Rt.
Dc = 11°27'33"
R = 500.00'
T = 84.33'
L = 167.10'
E = 7.06'

Ⓒ P.I. STA. 418+18.58
Δ = 29°02'52" Lt.
Dc = 14°19'26"
R = 400.00'
T = 103.63'
L = 202.79'
E = 13.20'

Ⓓ P.I. STA. 424+69.74
Δ = 34°10'29" Lt.
Dc = 28°38'52"
R = 200.00'
T = 61.48'
L = 119.29'
E = 9.24'

Ⓔ P.I. STA. 426+38.31
Δ = 24°58'53" Rt.
Dc = 11°27'33"
R = 500.00'
T = 110.76'
L = 218.00'
E = 12.12'

Ⓕ P.I. STA. 429+05.81
Δ = 8°00'00" Rt.
Dc = 2°30'00"
R = 2291.83'
T = 160.26'
L = 320.00'
E = 5.60'



N.B. Rest Area Truck Ramp Curve Data

Ⓖ P.I. STA. 513+88.92
Δ = 00°44'57" Rt.
Dc = 1°29'37"
R = 3835.72'
T = 25.08'
L = 50.15'
E = 0.08'

Ⓗ P.I. STA. 514+27.19
Δ = 7°33'05" Lt.
Dc = 28°38'52"
R = 200.00'
T = 13.20'
L = 26.36'
E = 0.44'

Ⓘ P.I. STA. 523+91.12
Δ = 30°41'47" Rt.
Dc = 28°38'52"
R = 200.00'
T = 54.89'
L = 107.15'
E = 7.40'

Ⓙ P.I. STA. 525+41.09
Δ = 52°04'39" Lt.
Dc = 28°38'52"
R = 200.00'
T = 97.71'
L = 181.78'
E = 22.59'

Ⓚ P.I. STA. 526+80.25
Δ = 12°11'15" Rt.
Dc = 11°06'14"
R = 516.00'
T = 55.09'
L = 109.76'
E = 2.93'

Ⓛ P.I. STA. 528+96.30
Δ = 8°00'00" Rt.
Dc = 2°28'58"
R = 2307.83'
T = 161.38'
L = 322.23'
E = 5.64'

LEGEND

① Transverse Dowelled Joint
② Longitudinal Tied Joint
For Joint Details, See BP-2.1

Scale in Feet 0 20 40

CALCULATED

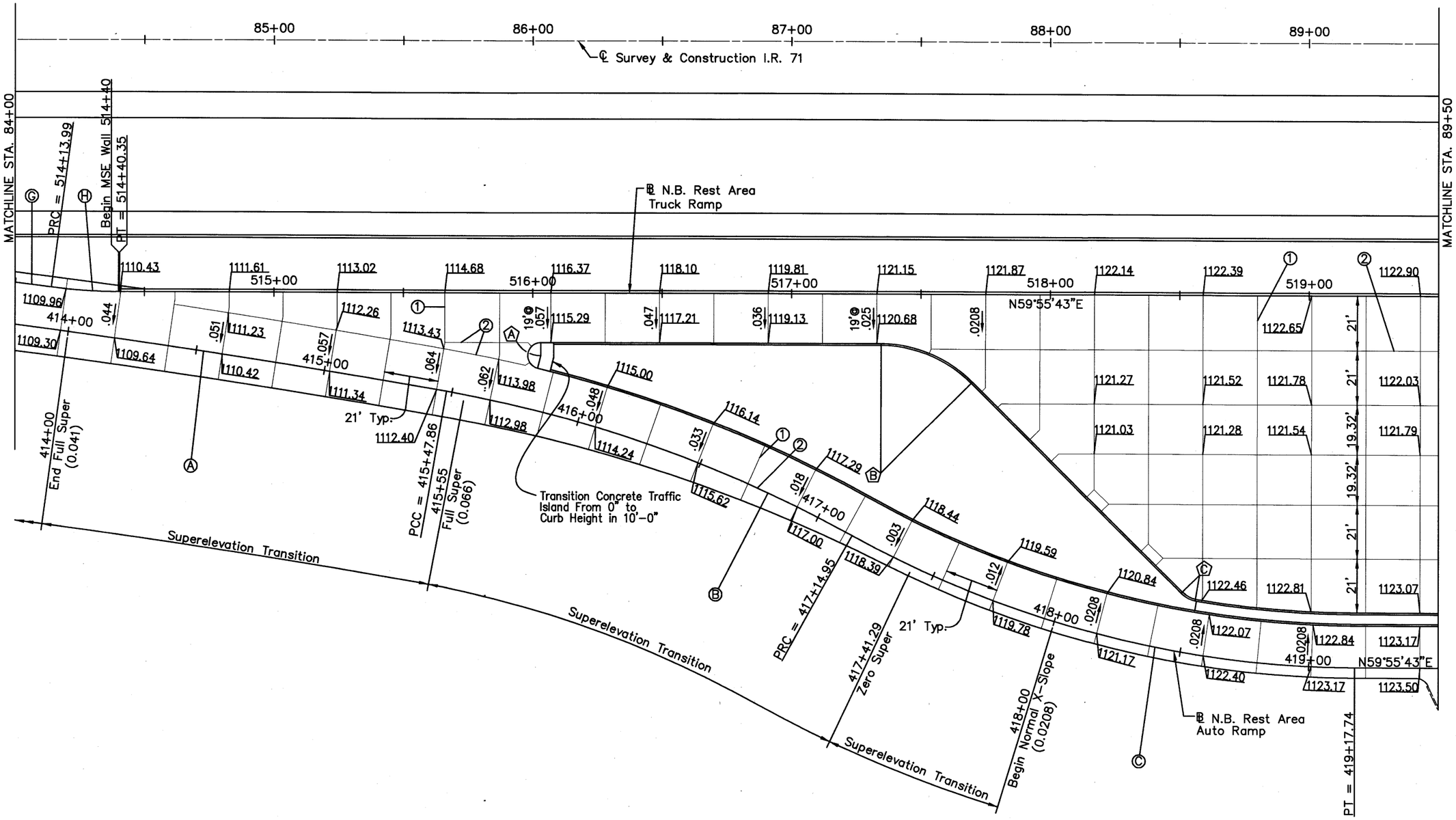
CHECKED

PAVEMENT DETAIL N.B. REST AREA STA. 76+50 TO STA. 84+00

WAY-71-0.28

313
432

PD-RA-NB-1.DWG May 03 ,2001



REF.	STATION	OFFSET	RADIUS	LENGTH	Δ
Ⓐ	516+03.09	24.00' Rt.	5'	14.52'	166°25'08"
Ⓑ	517+34.61	69.00' Rt.	50'	39.27'	45°00'00"
Ⓒ	418+52.78	30.33' Lt.	10'	6.23'	35°39'26"

LEGEND

① Transverse Dowelled Joint
② Longitudinal Tied Joint
For Joint Details, See BP-2.1

0 20 40 Scale in Feet

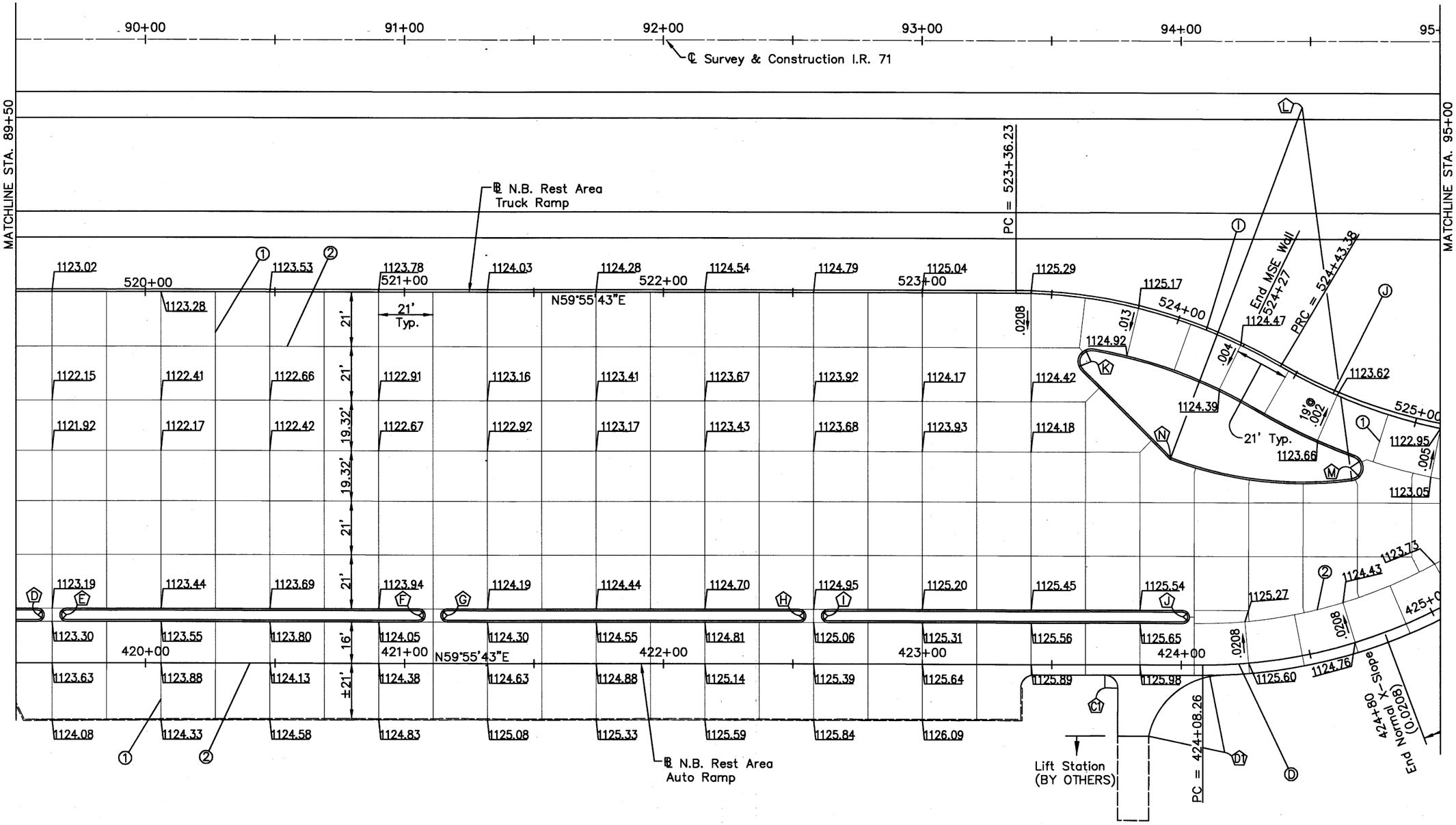
CALCULATED
CHECKED

PAVEMENT DETAIL N.B. REST AREA
STA. 84+00 TO STA. 89+50

WAY-71-0.28

314
432

PD-RA-NB-2.DWG May 03 ,2001



REF.	STATION	OFFSET	RADIUS	LENGTH	Δ
D	419+58.50	18.50' Lt.	2.5'	7.85'	180°00'00"
E	419+69.50	18.50' Lt.	2.5'	7.85'	180°00'00"
F	421+05.50	18.50' Lt.	2.5'	7.85'	180°00'00"
G	421+16.50	18.50' Lt.	2.5'	7.85'	180°00'00"
H	422+52.50	18.50' Lt.	2.5'	7.85'	180°00'00"
I	422+63.50	18.50' Lt.	2.5'	7.85'	180°00'00"
J	424+00.64	18.50' Lt.	2.5'	7.85'	180°00'00"

REF.	STATION	OFFSET	RADIUS	LENGTH	Δ
K	523+69.27	24.00' Rt.	5.0'	12.61'	144°27'54"
L	524+13.49	93.16' Lt.	144.83'	71.34'	28°13'18"
M	524+82.04	24.00' Rt.	5.0'	13.33'	152°46'07"
N	423+95.71	79.64' Lt.	–	–	–
C1	423+70.45	9.01' Rt.	5.0'	7.91'	90°40'10"
D1	424+15.52	33.99' Rt.	30.0'	40.46'	77°16'28"

LEGEND

① Transverse Dowelled Joint
② Longitudinal Tied Joint
For Joint Details, See BP–2.1

Scale in Feet
0 20 40

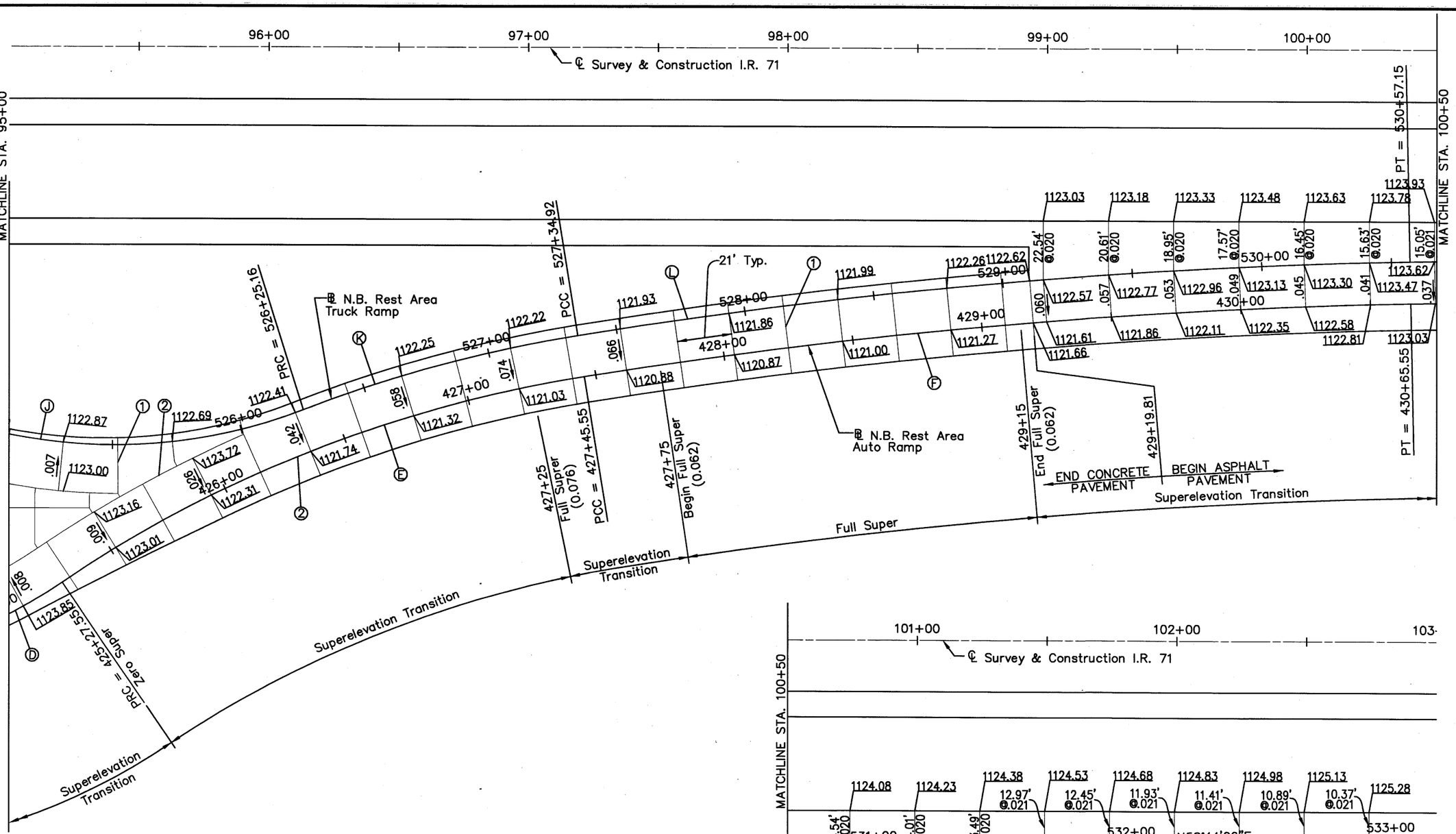
CALCULATED
CHECKED

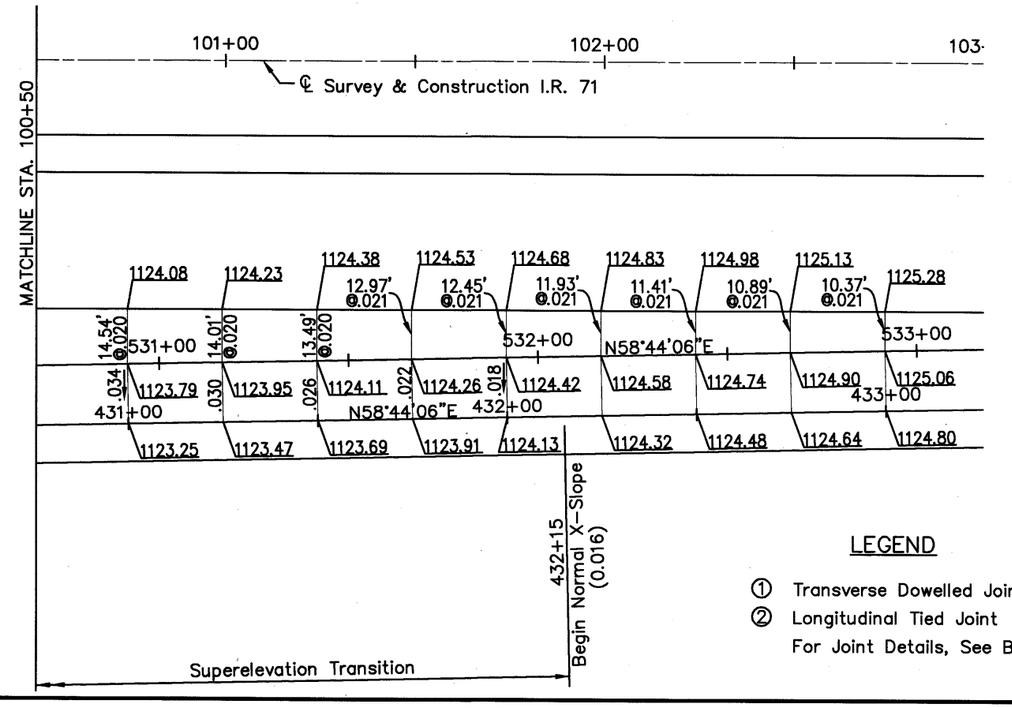
PAVEMENT DETAIL N.B. REST AREA
STA. 89+50 TO STA. 95+00

WAY–71–0.28

315
432

PD–RA–NB–3.DWG May 03 ,2001





LEGEND

① Transverse Dowelled Joint

② Longitudinal Tied Joint

For Joint Details, See BP-2.1

PD-RA-NB-4.DWG May 03, 2001

CALCULATED

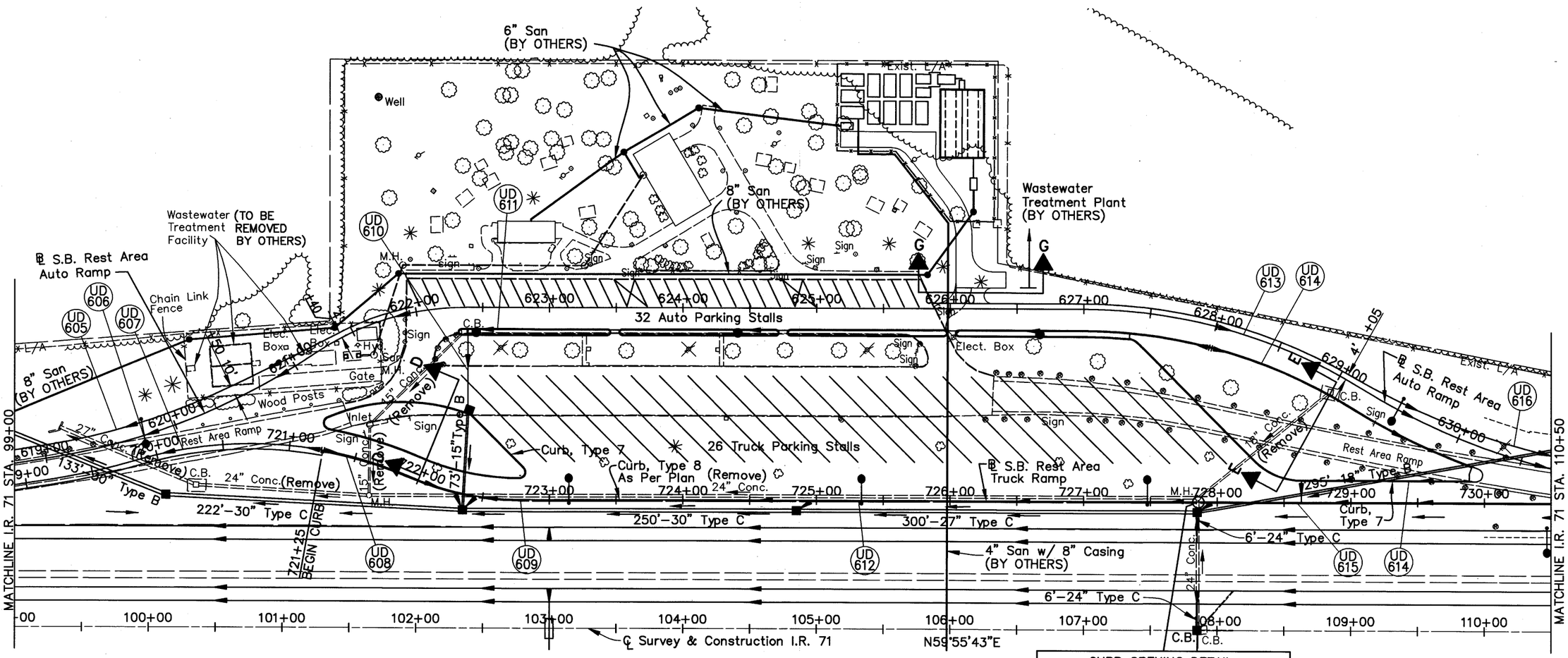
CHECKED

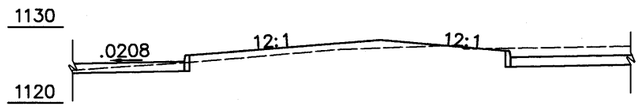
0 20 40 Scale in Feet

PAVEMENT DETAIL N.B. REST AREA
STA. 95+00 TO STA. 103+00

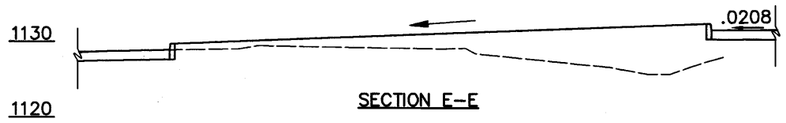
WAY-71-0.28

316
432

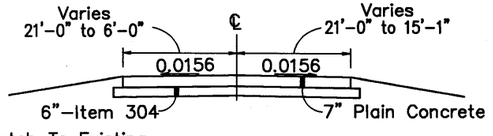




SECTION D–D



SECTION E–E

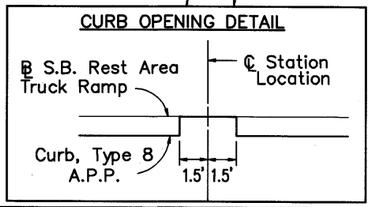


SECTION G–G

℄ LOCATIONS FOR 3' OPENINGS IN CURB, TYPE 8, AS PER PLAN.

722+46	725+86
722+86	726+86
723+86	727+86
724+86	

CURB OPENING DETAIL



FOR REST AREA LIGHTING, SEE SHEET 378.

REFERENCE	STATION FROM	STATION TO	SIDE	202 Walk Removed Sq. Ft.	202 Pipe Removed, 24" And Under Lin. Ft.	202 Pipe Removed, Over 24" Lin. Ft.	202 Manhole Removed Each	202 Catch Basin Removed Each	202 Inlet Removed Each	202 Removal Misc.: Headwall Each	601 Rock Channel Protection, Type C, With Fabric Filter Cu. Yd.	602 Concrete Masonry Cu. Yd.	603 15" Conduit Type B Lin. Ft.	603 18" Conduit Type B Lin. Ft.	603 24" Conduit Type C Lin. Ft.	603 27" Conduit Type C Lin. Ft.	603 30" Conduit Type B Lin. Ft.	603 30" Conduit Type C Lin. Ft.	604 Catch Basin No. 3A Each	604 Catch Basin No. 4 As Per Plan Each	830 10" Concrete Traffic Island Sq. Yd.
	98+90	100+13	Lt.								2.8	0.6					133			1	
	99+25	108+84	Lt.		1025	108	2	3	1	1											
	100+13	102+35	Lt.															222		1	
	102+35	104+85	Lt.										73					250	1	1	
	104+85	107+85	Lt.												6	300				1	
	107+85	110+75	Lt.											295						1	
	109+89	109+99	Lt.																		10
	623+25	624+30	Rt.	174																	
QUANTITIES CARRIED TO SHEET				174	1025	108	2	3	1	1	3	0.6	73	295	6	300	133	472	1	5	10

PLAN
I.R. 71 S.B. REST AREA

Scale in Feet 0 40 80

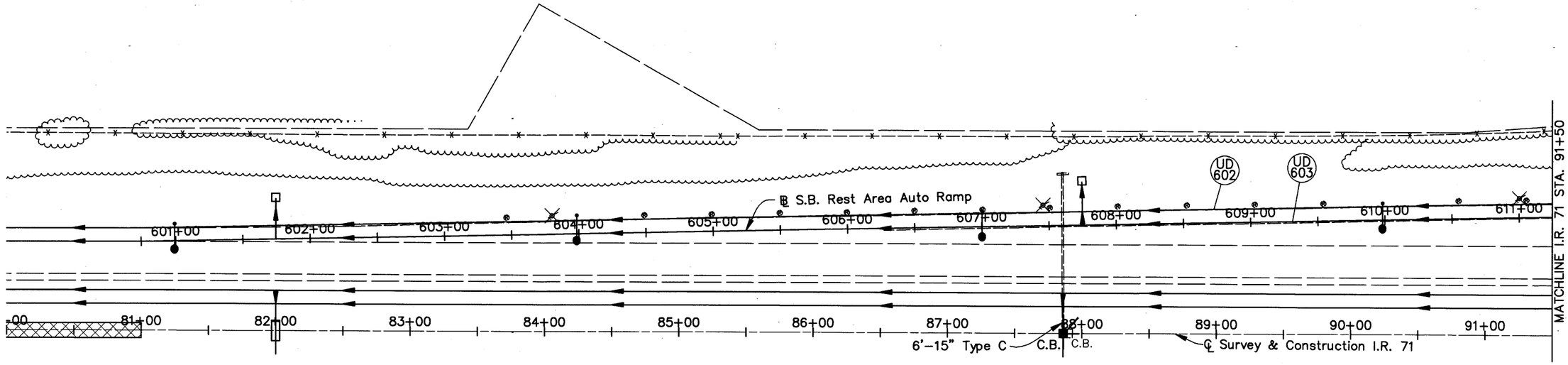
CALCULATED SDS CHECKED GCS

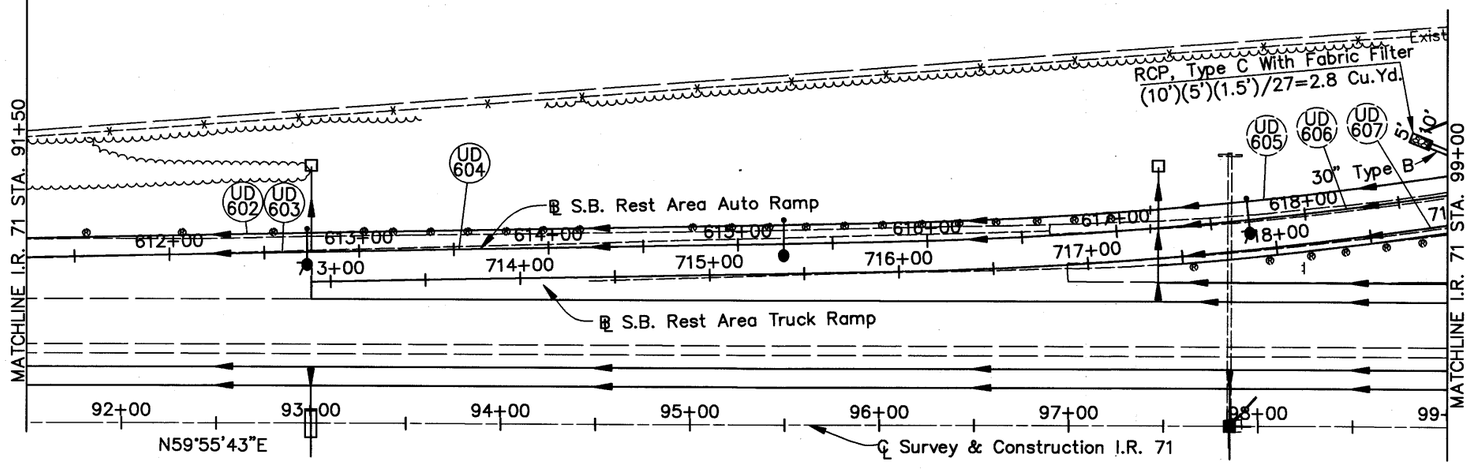
I.R. 71

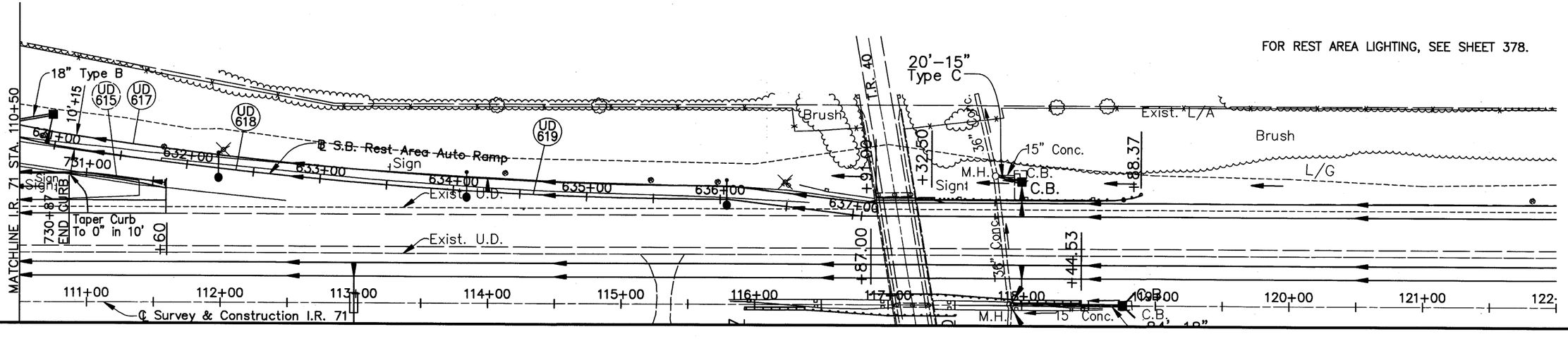
WAY-71-0.28

317
432

M:\MRGDWAUTOCAD\RDSK-72PLAN-SB-RA.dwg - S.B. SHEET 317 - May 09, 2001







PLAN
I.R. 71 S.B. REST AREA RAMPS

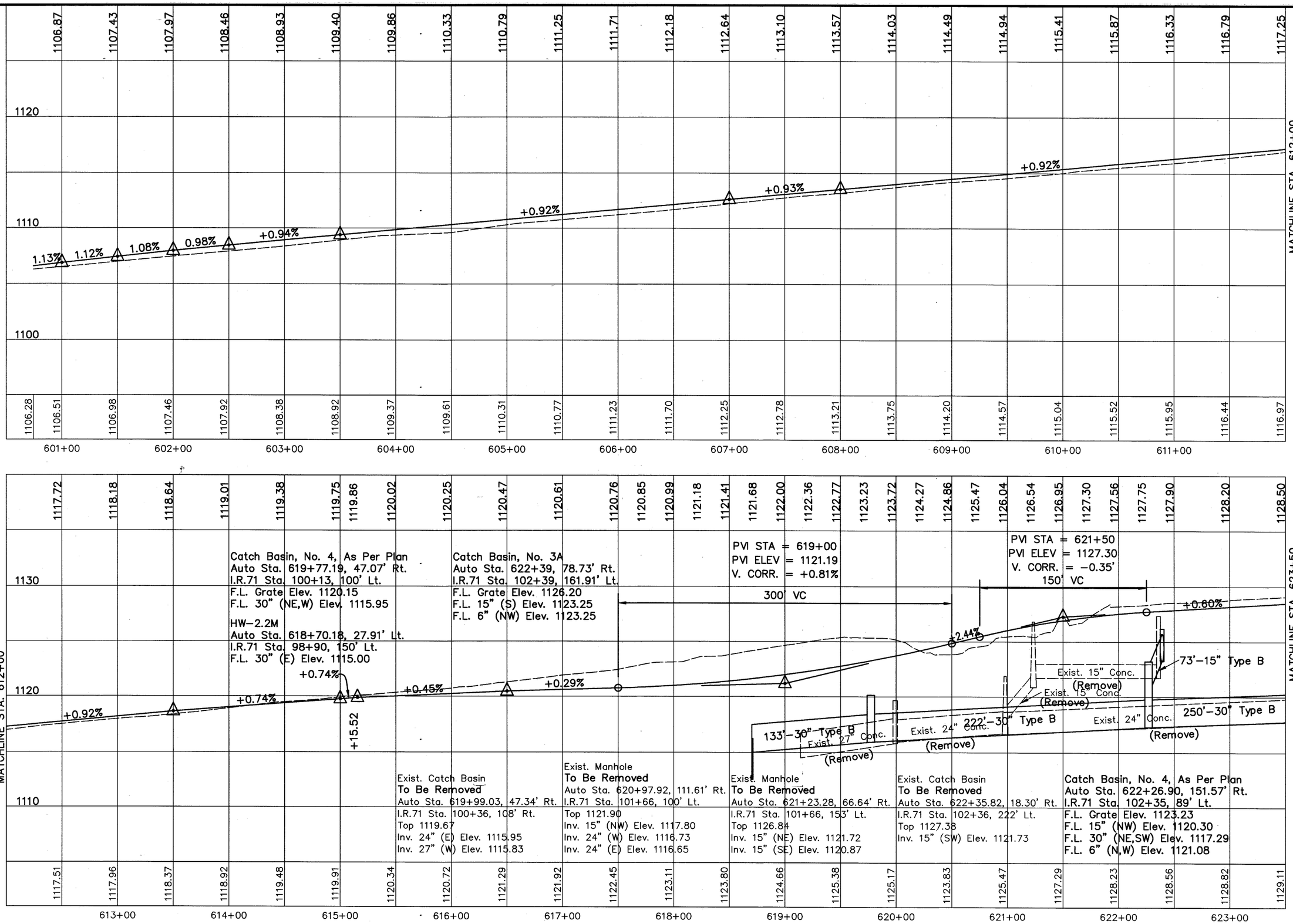
Scale in Feet
0 40 80

CALCULATED
CHECKED

WAY-71-0.28

318
432

M:\99026\AUTOCAD\B26K-72PLAN-SB-RA.dwg - SB Ramps SHEET 318 - May 09, 2001



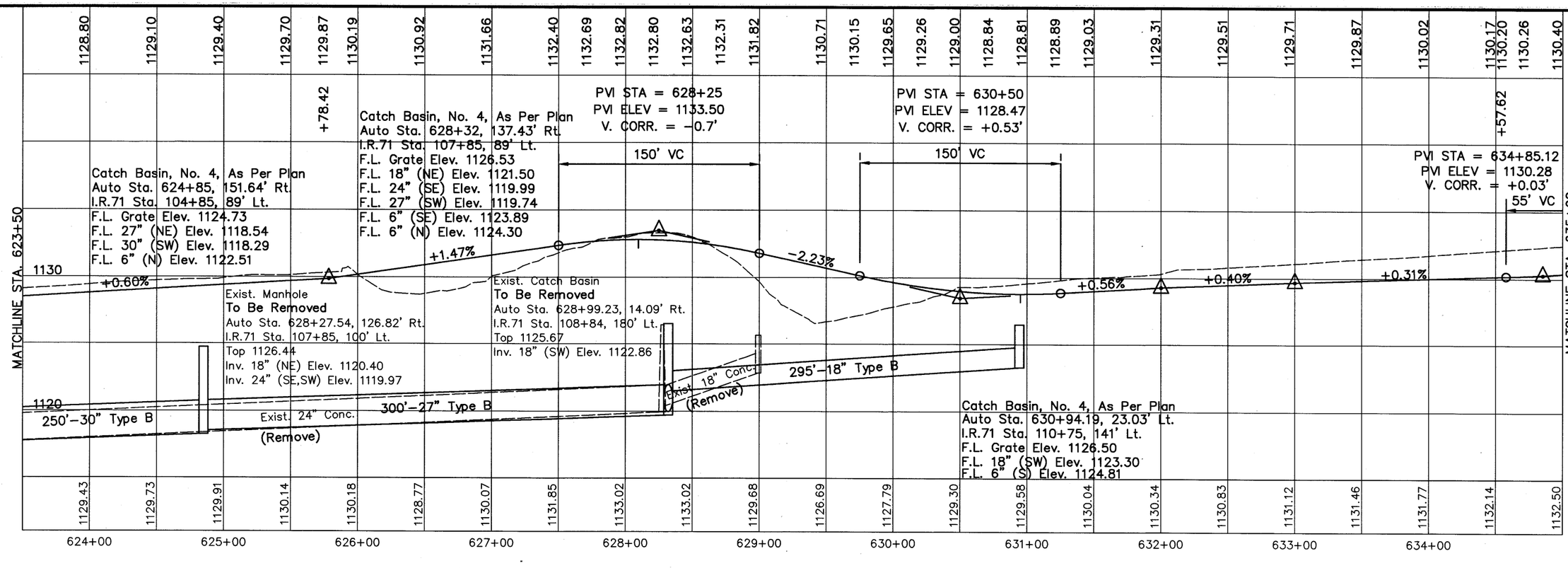
S.B. REST AREA AUTO PROFILE
STA. 600+74.41 TO STA. 623+50

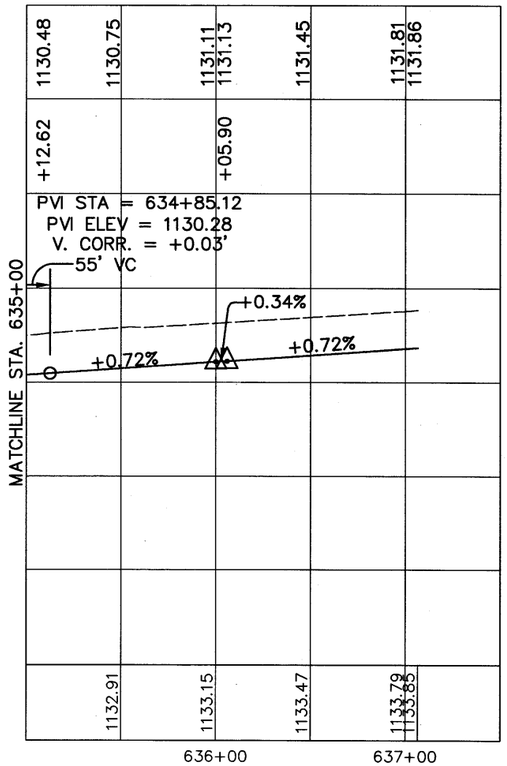
CALCULATED
CHECKED

WAY-71-0.28

319
432

PROF-SB-AUTO





CALCULATED
CHECKED

S.B. REST AREA AUTO PROFILE
STA. 623+50 TO STA. 637+06.62

WAY-71-0.28

320
432

PROF-SB-AUTO

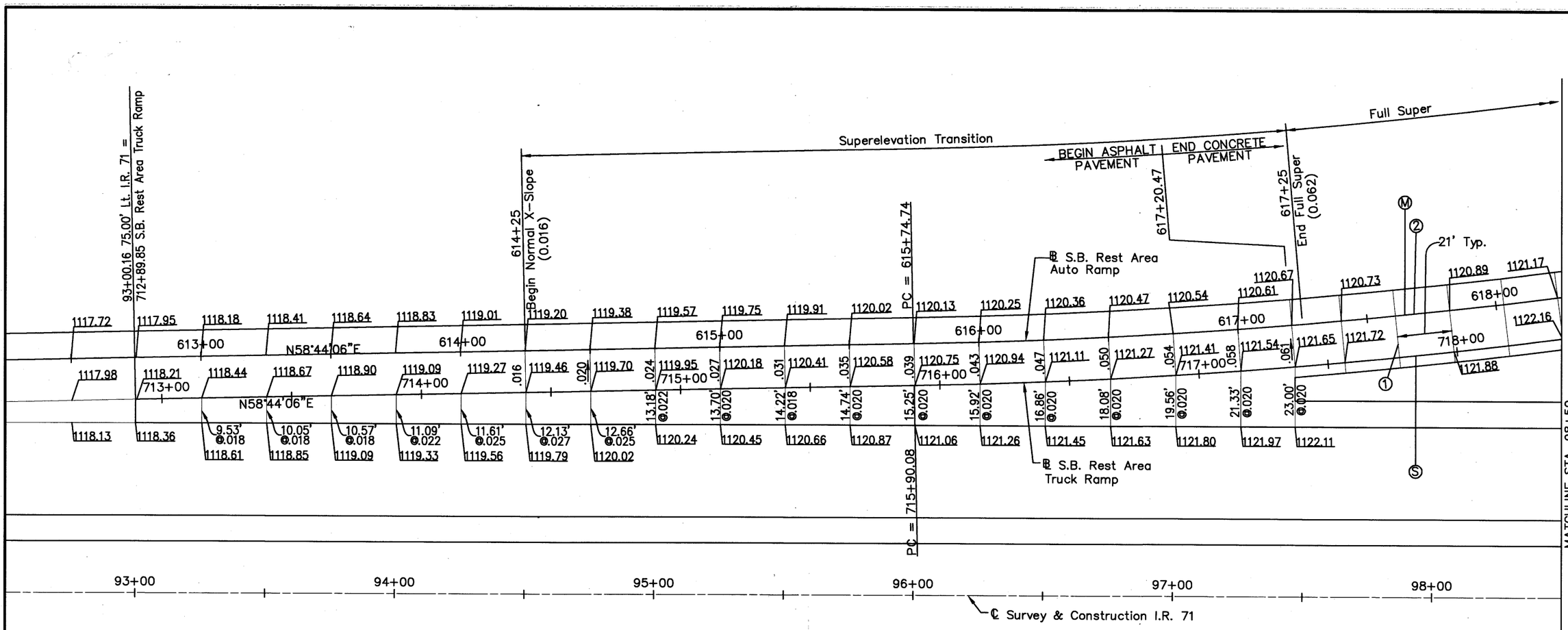
PROF-SBTRUCK

S.B. REST AREA TRUCK PROFILE
STA. 712+89.85 TO STA. 731+59.87

CALCULATED
CHECKED

WAY-71-0.28

321
432



S.B. Rest Area Auto Ramp Curve Data

Ⓜ P.I. STA. 617+40.02
Δ = 8°15'00" Lt.
Dc = 2°30'00"
R = 2291.83'
T = 165.29'
L = 330.00'
E = 5.95'

Ⓞ P.I. STA. 621+80.07
Δ = 33°59'23" Rt.
Dc = 28°38'52"
R = 200.00'
T = 61.13'
L = 118.65'
E = 9.13'

Ⓠ P.I. STA. 630+20.51
Δ = 22°54'33" Lt.
Dc = 11°27'33"
R = 500.00'
T = 101.31'
L = 199.92'
E = 10.16'

Ⓝ P.I. STA. 620+13.51
Δ = 24°32'46" Lt.
Dc = 11°27'33"
R = 500.00'
T = 108.77'
L = 214.21'
E = 11.69'

Ⓟ P.I. STA. 628+12.32
Δ = 31°25'41" Rt.
Dc = 14°19'26"
R = 400.00'
T = 112.54'
L = 219.41'
E = 15.53'

Ⓡ P.I. STA. 633+62.96
Δ = 8°31'08" Lt.
Dc = 1°45'00"
R = 3274.04'
T = 243.85'
L = 486.79'
E = 9.07'

S.B. Rest Area Truck Ramp Curve Data

Ⓢ P.I. STA. 717+56.52
Δ = 8°15'00" Lt.
Dc = 2°28'58"
R = 2307.83'
T = 166.44'
L = 332.30'
E = 5.99'

Ⓤ P.I. STA. 720+94.71
Δ = 39°58'14" Rt.
Dc = 19°05'55"
R = 300.00'
T = 109.10'
L = 209.28'
E = 19.22'

Ⓦ P.I. STA. 731+01.17
Δ = 8°07'16" Rt.
Dc = 28°38'52"
R = 200.00'
T = 14.20'
L = 28.35'
E = 0.50'

Ⓣ P.I. STA. 719+54.04
Δ = 7°01'13" Lt.
Dc = 11°06'14"
R = 516.00'
T = 31.65'
L = 63.22'
E = 0.97'

Ⓥ P.I. STA. 722+36.51
Δ = 23°30'24" Lt.
Dc = 28°38'52"
R = 200.00'
T = 41.61'
L = 82.05'
E = 4.28'

Ⓧ P.I. STA. 731+37.60
Δ = 00°46'33" Lt.
Dc = 1°44'29"
R = 3290.05'
T = 22.27'
L = 44.54'
E = 0.08'

LEGEND

① Transverse Dowelled Joint
② Longitudinal Tied Joint
For Joint Details, See BP-2.1

Scale in Feet: 0, 20, 40

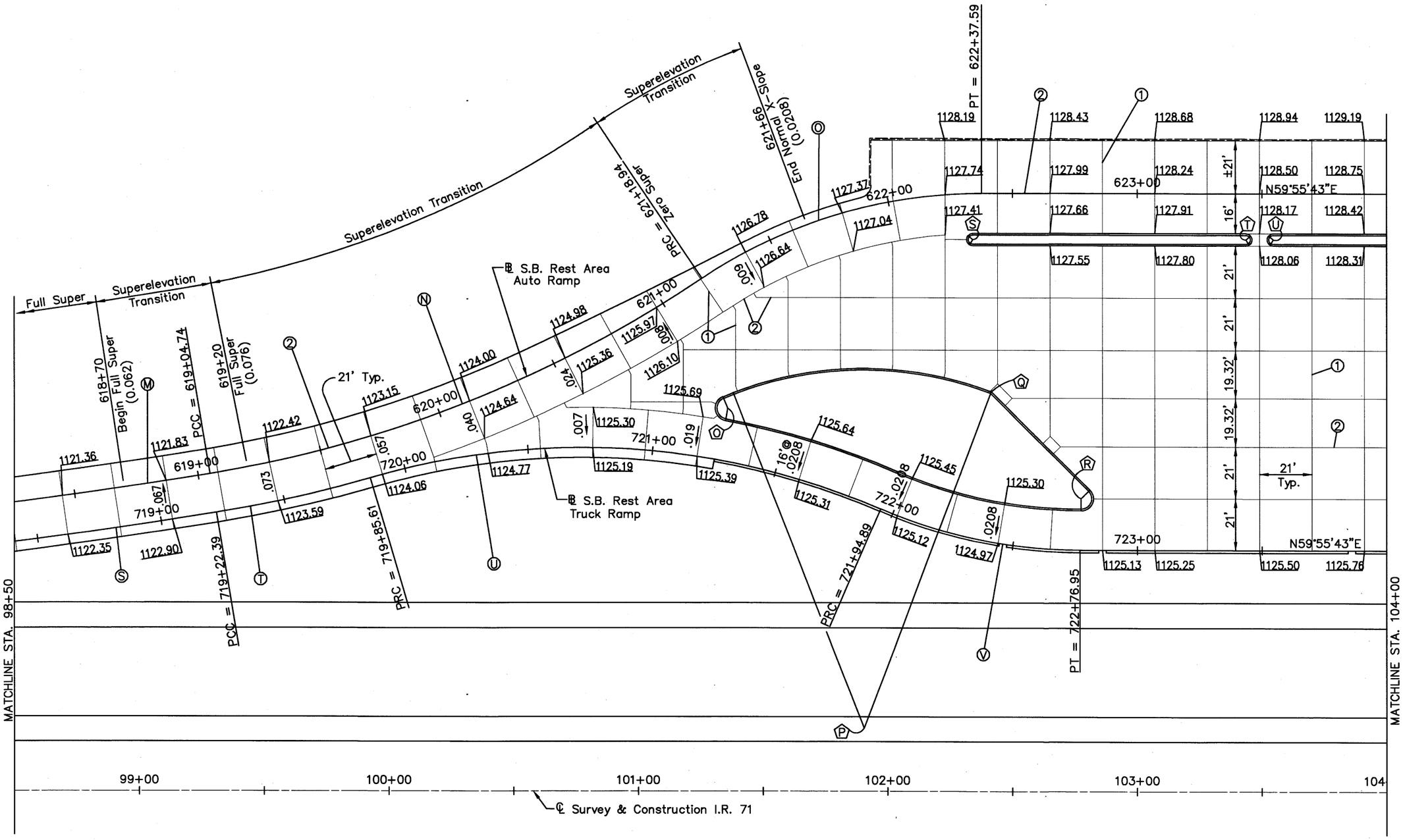
CALCULATED
CHECKED

PAVEMENT DETAIL S.B. REST AREA STA. 92+50 TO STA. 98+50

WAY-71-0.28

322
432

PD-RA-SB-1.DWG May 03 ,2001



REF.	STATION	OFFSET	RADIUS	LENGTH	Δ
O	721+26.63	21.00' Lt.	5'	12.79'	146°31'30"
P	722+15.31	84.98' Rt.	144.83'	110.25'	41°51'24"
Q	622+41.48	79.64' Rt.	–	–	–
R	722+77.41	21.00' Lt.	5'	11.78'	135°00'00"

REF.	STATION	OFFSET	RADIUS	LENGTH	Δ
S	622+33.69	18.47' Rt.	2.5'	7.85'	180°00'00"
T	623+43.50	18.50' Rt.	2.5'	7.85'	180°00'00"
U	623+54.50	18.50' Rt.	2.5'	7.85'	180°00'00"

LEGEND

① Transverse Dowelled Joint
② Longitudinal Tied Joint
For Joint Details, See BP–2.1

Scale in Feet: 0, 20, 40

CALCULATED

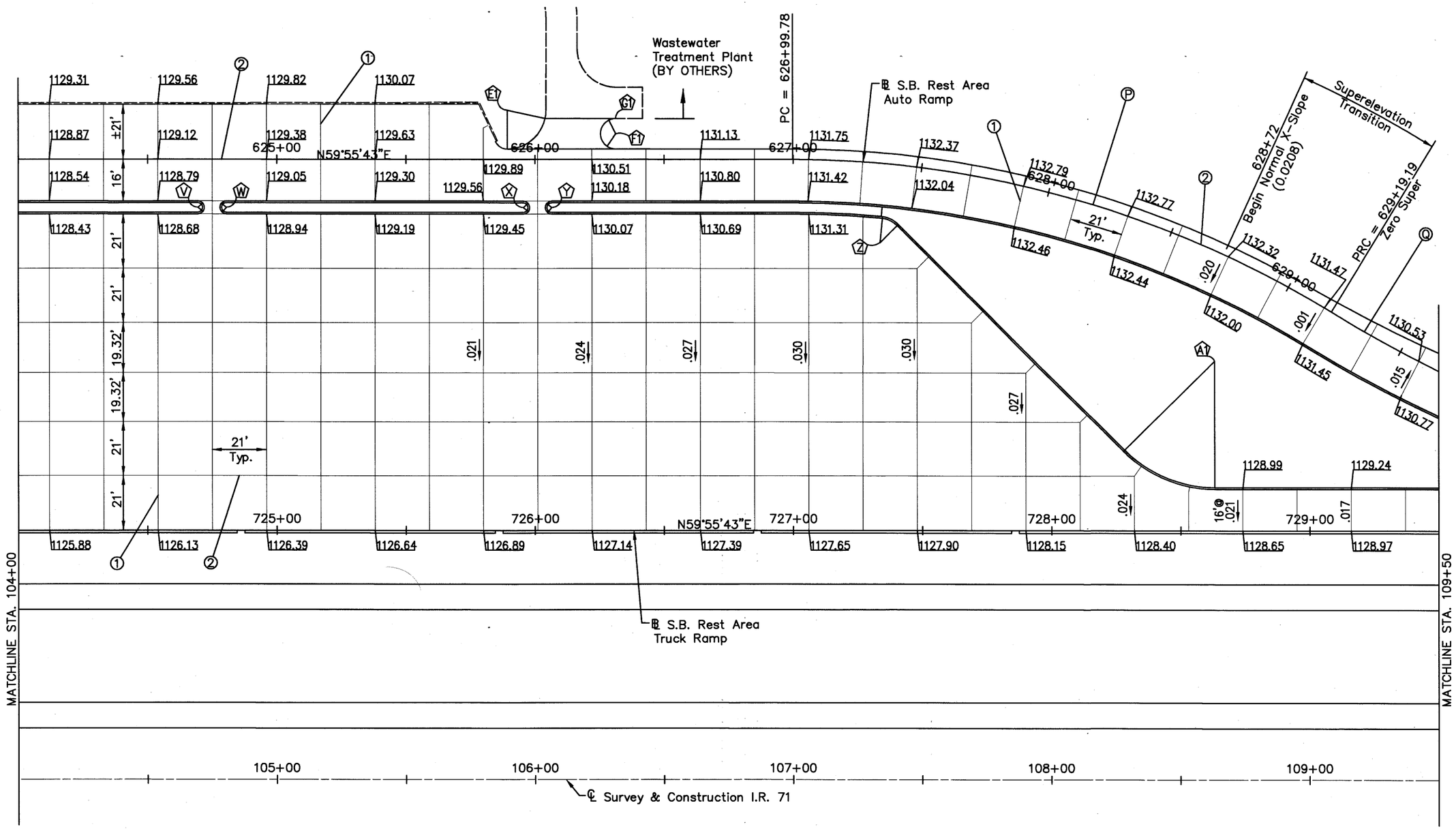
CHECKED

PAVEMENT DETAIL S.B. REST AREA STA. 98+50 TO STA. 104+00

WAY–71–0.28

323
432

PD–RA–SB–2.DWG May 03 ,2001



REF.	STATION	OFFSET	RADIUS	LENGTH	Δ
V	624+69.50	18.50' Rt.	2.5'	7.85'	180°00'00"
W	624+80.50	18.50' Rt.	2.5'	7.85'	180°00'00"
X	625+95.50	18.50' Rt.	2.5'	7.85'	180°00'00"
Y	626+06.50	18.50' Rt.	2.5'	7.85'	180°00'00"
Z	627+36.02	31.00' Rt.	10'	6.95'	39°44'25"

REF.	STATION	OFFSET	RADIUS	LENGTH	Δ
A7	728+63.15	66.00' Lt.	50'	39.27'	45°00'00"
*B7	729+93.72	21.00' Lt.	5'	13.99'	160°19'57"
E7	625+89.26	19.00' Lt.	15.00'	20.38'	89°50'21"
F7	626+31.25	9.88' Lt.	5.88'	18.54'	180°00'00"
G7	626+31.25	15.76' Lt.	–	–	–

* See Next Sheet

LEGEND

① Transverse Dowelled Joint
② Longitudinal Tied Joint
For Joint Details, See BP-2.1

Scale in Feet: 0 20 40

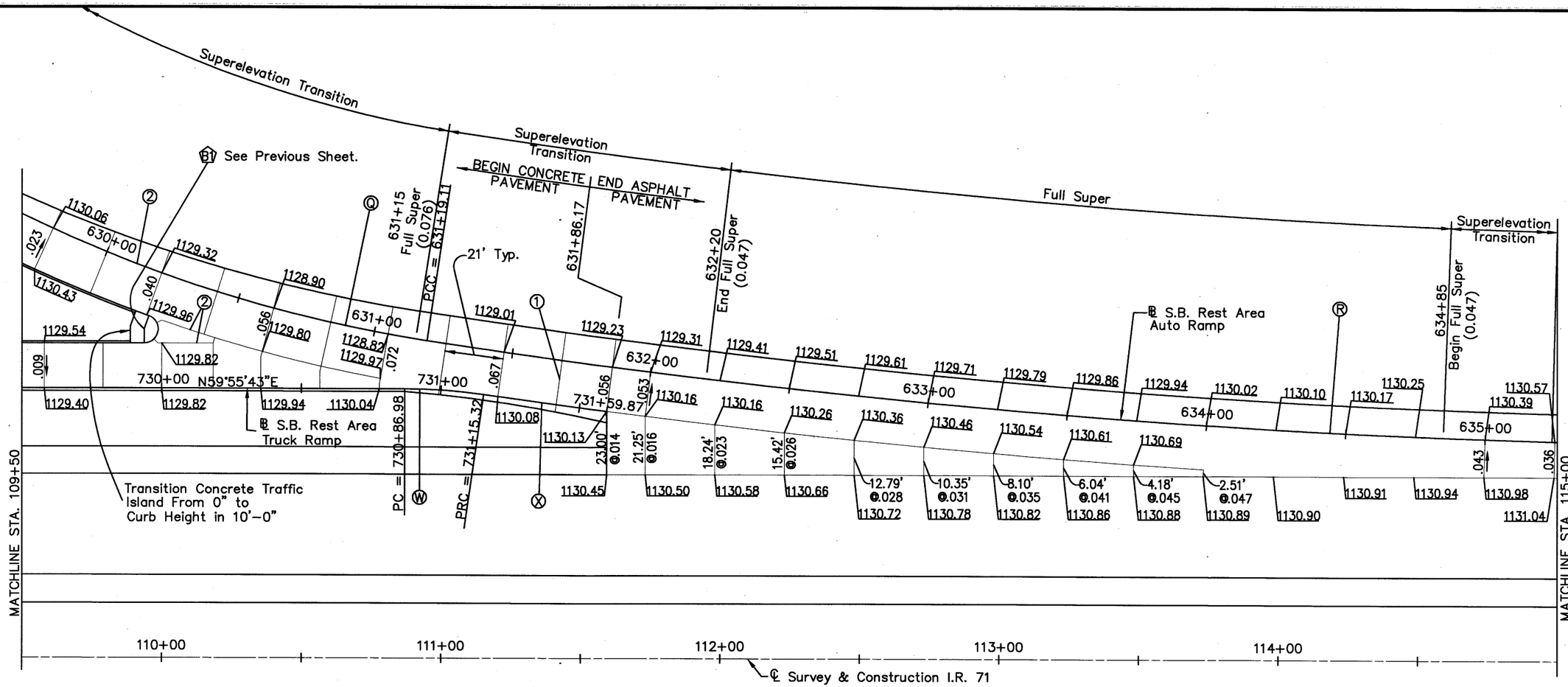
CALCULATED

CHECKED

PAVEMENT DETAIL S.B. REST AREA STA. 104+00 TO STA. 109+50

WAY-71-0.28

PD-RA-SB-3.DWG May 03, 2001



LEGEND

① Transverse Dowelled Joint
② Longitudinal Tied Joint
For Joint Details, See BP-2.1

Scale in Feet 0 20 40

CALCULATED

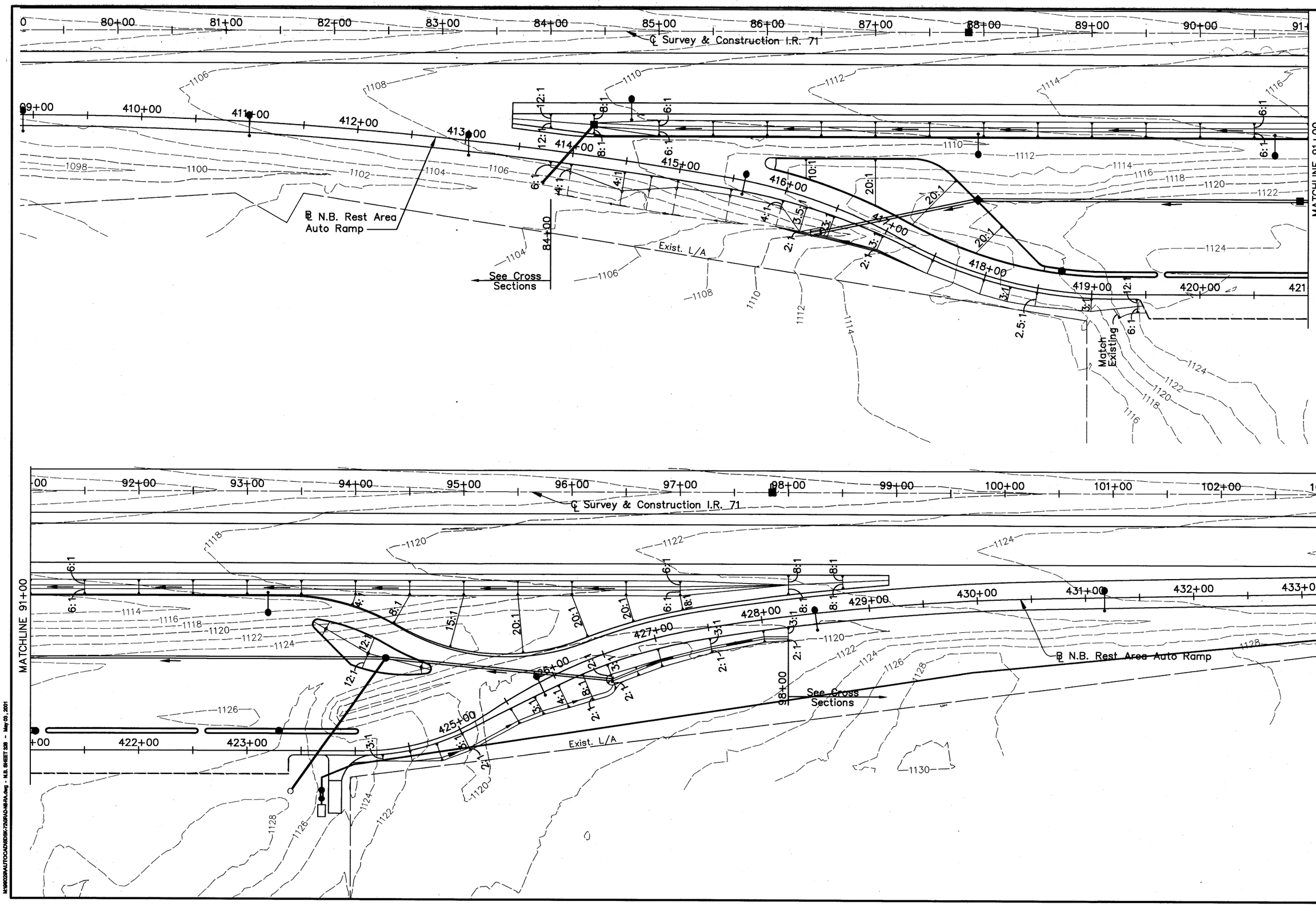
CHECKED

PAVEMENT DETAIL S.B. REST AREA STA. 109+50 TO STA. 117+50

WAY-71-0.28

325/432

PD-RA-SB-4.DWG May 03 ,2001



Scale in Feet: 0, 40, 80

CALCULATED

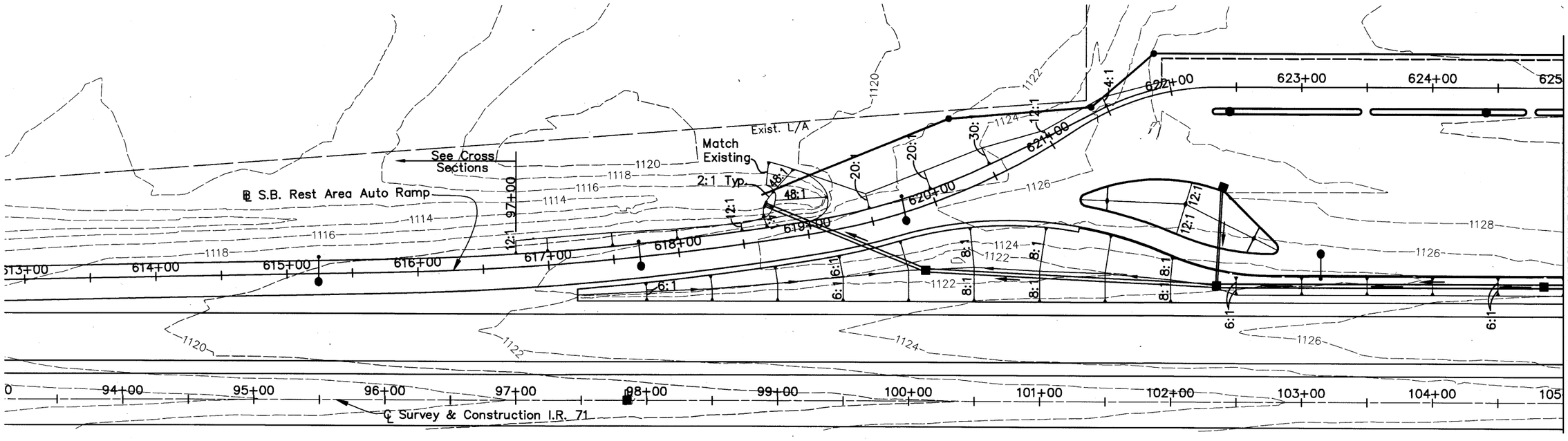
CHECKED

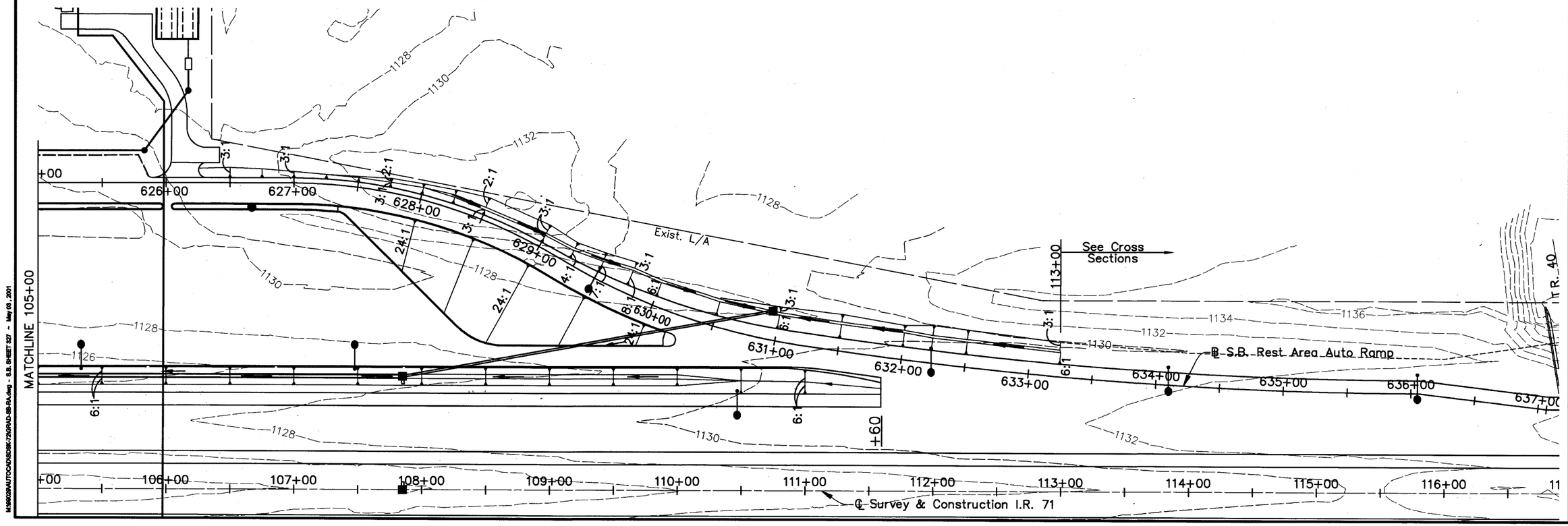
GRADING PLAN
I.R. 71 N.B. REST AREA

WAY-71-0.28

326
432

M:\800\05\AUTOCAD\05SK-71ERAD-NB-RA.dwg - N.B. SHEET 326 - May 09, 2001





N

0 40 80 Scale in Feet

CALCULATED

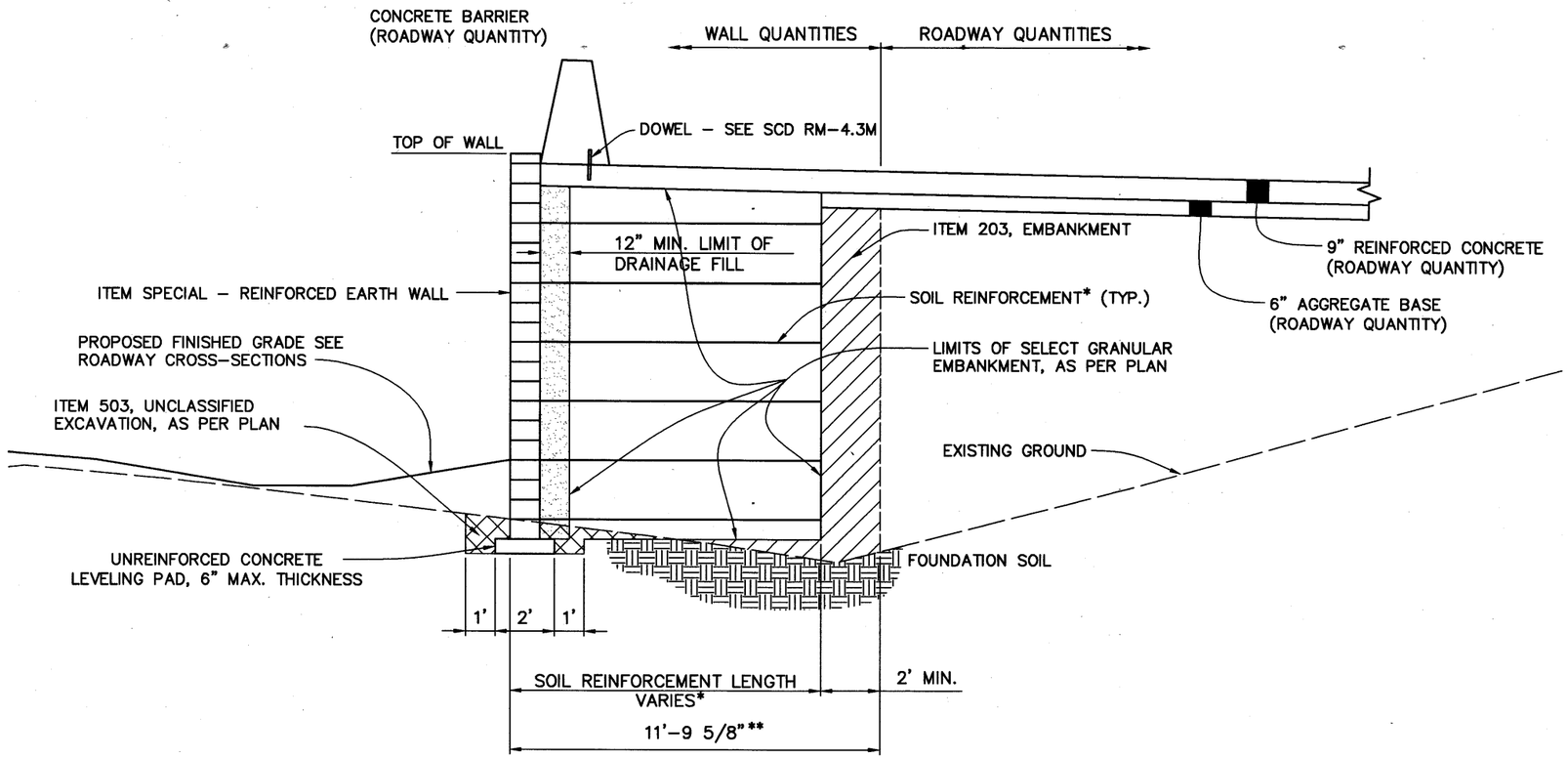
CHECKED

GRADING PLAN
I.R. 71 S.B. REST AREA

WAY-71-0.28

327
432

M:\98028\AUTOCAD\98028K-726RAD-SB-RA.dwg - S.B. SHEET 327 - May 09, 2001



TYPICAL CROSS–SECTION
* SEE DETAILED PLANS
** 14'–0" AT LIGHT POLES

NOTES:

1. SEE SHEETS 329 THRU 337 OF THE DETAILED PLANS PREPARED BY TENSAR EARTH TECHNOLOGIES, INC. FOR DESIGN 1 DETAILS.
2. SEE SHEETS 338 THRU 343 OF THE DETAILED PLANS PREPARED BY THE REINFORCED EARTH COMPANY FOR DESIGN 2 DETAILS.
3. REFER TO THE SPECIAL PROVISIONS FOR BOTH WALL COMPANIES FOR CONSTRUCTION PROCEDURES AND BASIS OF PAYMENT FOR ESTIMATED QUANTITIES.
4. ALL WALL UNITS SHALL HAVE A SPLIT FACE FINISH.
5. ALL WALL UNITS SHALL BE COLOR 36492 FROM THE FEDERAL STANDARD COLORS CHART (7690–01–162–2210) OR SIMILAR COLOR APPROVED BY THE ENGINEER.

DESIGN 1 – MESA WALL

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION
203	20000	870	CU YD	EMBANKMENT
203	35001	2410	CU YD	SELECT GRANULAR EMBANKMENT, AS PER PLAN
503	21101	464	CU YD	UNCLASSIFIED EXCAVATION, AS PER PLAN
203	98000	433	CU YD	ROADWAY MISC.: DRAINAGE FILL
SPECIAL	61013500	10355	SQ FT	REINFORCED EARTH WALL(MESA RETAINING WALL)

DESIGN 2 – PYRAMID WALL

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION
203	20000	625	CU YD	EMBANKMENT
203	35001	2375	CU YD	SELECT GRANULAR EMBANKMENT, AS PER PLAN
503	21101	530	CU YD	UNCLASSIFIED EXCAVATION, AS PER PLAN
203	98000	434	CU YD	ROADWAY MISC.: DRAINAGE FILL
SPECIAL	61013500	10380	SQ FT	REINFORCED EARTH WALL(PYRAMID RETAINING WALL)

CALCULATED GCS 04/01
CHECKED SLM 04/01

ESTIMATED PROPRIETARY WALL QUANTITIES
I.R. 71

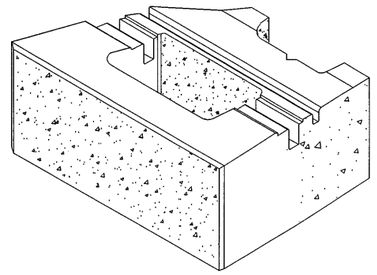
WAY–71–0.28

328
432

M:\99029\AUTOCAD\details-72\MSEWall.dwg - Wall Detail-Sheet 328 - May 10, 2001

Tensar
Earth Technologies, Inc.

CONSTRUCTION DRAWINGS
Prepared For



mesa™

I – 71

WAYNE COUNTY, OHIO

INDEX

SHEET	DESCRIPTION
1.	Title Sheet
2.	Construction Notes
3.	Plan View
4.	Elevation View
5.	Elevation View (Cont.)
6.	Elevation View (Cont.)
7.	Typical Cross–Section
8.	Typical Cross–Section
9.	Typical Details

I0020501.DWG

THIS DESIGN IS BASED UPON SPECIFIC PROPERTIES OF TENSAR PRODUCTS (GEOGRIDS, DRAINAGE COMPOSITES AND EROSION MEDIA), WHICH ARE PROPRIETARY TO THE TENSAR CORPORATION 1210 CITIZENS PARKWAY, MORROW GA. 30260. ANY SUBSTITUTION OF THE SPECIFIED PRODUCTS WILL INVALIDATE THIS DESIGN. THIS DRAWING IS BEING FURNISHED FOR USE ON THIS SPECIFIC PROJECT ONLY. ANY PARTY ACCEPTING THIS DOCUMENT DOES SO IN CONFIDENCE AND AGREES THAT IT SHALL NOT BE DUPLICATED WHOLE OR IN PART, NOR DISCLOSED TO OTHERS, WITHOUT THE CONSENT OF TENSAR EARTH TECHNOLOGIES, INC.

THIS DRAWING, DESIGN NOTES AND ASSOCIATED CALCULATIONS HAVE BEEN PREPARED BY TENSAR EARTH TECHNOLOGIES, INC. FOR PRELIMINARY DESIGN PURPOSES AND SHALL NOT BE USED FOR FINAL DESIGN OR CONSTRUCTION.

COPYRIGHT 2000, TENSAR EARTH TECHNOLOGIES, INC.

TENSAR
EARTH TECHNOLOGIES, INC.
5883 Glenridge Drive
Suite 200
Atlanta, Georgia 30328
(404) 250–1290

mesa™

STATE OF OHIO
KENNETH P. AKINS, JR.
#E–61358
REGISTERED PROFESSIONAL ENGINEER
{ SEAL }
3/13/01

REVISIONS \ ISSUE		
0	12/21/00	ISSUED FOR REVIEW
1	3/13/01	ISSUED FOR BID

Project Number	I00205
Date Drawn	12/21/00
Scale	As Shown
Designed by	WL
Drawn by	BBC
Checked by	KA

I – 71
WAYNE COUNTY, OHIO

TITLE SHEET

329/432

Sheet Number 1 of 9

CONSTRUCTION NOTES FOR PLACEMENT OF TENSAR GEOGRIDS AND BACKFILL SOILS FOR TENSAR / MESA REINFORCED RETAINING WALLS

1.0 MATERIAL

1.1 BACKFILL SOILS

1.1.1 REINFORCED BACKFILL MATERIAL SPECIFIED BELOW SHALL BE ON-SITE SOILS OR SELECT FREE DRAINING BACKFILL. REINFORCED BACKFILL MATERIALS SHALL BE APPROVED BY OWNER OR OWNER'S REPRESENTATIVE AND SHALL MEET THE STRENGTH REQUIREMENTS AS DEFINED IN SECTION 7.0. THE REINFORCED BACKFILL MATERIAL SHALL MEET THE FOLLOWING GRADATION:

SIEVE SIZE	PERCENT PASSING
4"	100
No. 40	60 – 0
No. 200	0 – 7

THE PORTION OF THE REINFORCED BACKFILL MATERIAL PASSING THE No. 40 SIEVE SHALL HAVE A LIQUID LIMIT LESS THAN 40 AND A PLASTICITY INDEX LESS THAN 20. REINFORCED BACKFILL MATERIAL SHALL BE CLASSIFIED PER THE UNIFIED SOIL CLASSIFICATION SYSTEM AS LOW PLASTICITY OR NON-PLASTIC SOILS.

1.1.2 FURTHERMORE, REINFORCED BACKFILL AND RETAINED SOIL/FILL MATERIALS SHALL BE FREE OF EXCESS MOISTURE, ROOTS, MUCK, SOD, SNOW, FROZEN LUMPS, ORGANIC MATTER OR OTHER DELETERIOUS MATERIALS. ALL ROCK PARTICLES AND HARD EARTH CLODS SHALL BE LESS THAN THREE INCHES IN THE LONGEST DIMENSION. REINFORCED BACKFILL MATERIALS WHICH DO NOT MEET THIS CRITERIA SHALL BE CONSIDERED UNSUITABLE AND SHALL BE REMOVED.

1.2 GEOGRID REINFORCIEMENT SHALL BE TENSAR UNIAXIAL GEOGRIDS MANUFACTURED BY TENSAR CORPORATION, MORROW, GEORGIA.

1.3 BODKIN BARS SHALL BE 1 1/2" x 1/4" HDPE BARS MANUFACTURED BY TENSAR CORPORATION, MORROW, GEORGIA.

1.4 CONNECTORS SHALL BE SUPPLIED BY THE TENSAR CORPORATION, MORROW, GEORGIA.

1.5 DRAINAGE MATERIALS

1.5.1 GEOTEXTILE AND DRAINAGE COMPOSITE SHALL BE MANUFACTURED BY EVERGREEN TECHNOLOGIES, INC., EVERGREEN, ALABAMA.

1.5.2 DRAINAGE PIPES SHALL BE 4 INCHES DIAMETER (MIN.) SOLID AND PERFORATED A2000 PIPE OR APPROVED EQUIVALENT.

1.5.3 DRAINAGE STONE SHALL BE 3/4 INCH MINUS FREE DRAINING STONE WITH LESS THAN FIVE PERCENT PASSING THE NO. 200 SIEVE.

2.0 TECHNICAL REQUIREMENTS

2.1 THE OWNER OR OWNER'S REPRESENTATIVE SHALL SUBMIT TO TENSAR EARTH TECHNOLOGIES, INC. REINFORCED BACKFILL MATERIAL AND RETAINED SOIL/FILL GRADATIONS FOR APPROVAL PRIOR TO PROCEEDING WITH CONSTRUCTION.

2.2 PRIOR TO CONSTRUCTION OF THE TENSAR REINFORCED WALL, THE CONTRACTOR SHALL CLEAR AND GRUB THE REINFORCED BACKFILL ZONE AREA, REMOVING TOP SOIL, BRUSH, SOD OR OTHER ORGANIC OR DELETERIOUS MATERIAL. ANY UNSUITABLE SOILS SHALL BE OVER-EXCAVATED, REPLACED AND COMPACTED WITH REINFORCED BACKFILL MATERIAL TO PROJECT SPECIFICATIONS OR OTHERWISE DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.

2.3 FOUNDATION SHALL BE PROOF ROLL INSPECTED USING A LOADED TRUCK WITH 18 KIP AXLE LOADS OR PER PROJECT SPECIFICATIONS, THE OWNER OR OWNER'S REPRESENTATIVE SHALL CONFIRM THAT THE SITE HAS BEEN PROPERLY PREPARED AND THE DESIGN PARAMETERS IN SECTION 7.0 ARE APPROPRIATE PRIOR TO FILL PLACEMENT.

2.4 FILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 8 INCHES IN UNCOMPACTED THICKNESS FOR HEAVY COMPACTION EQUIPMENT. FOR ZONES WHERE COMPACTION IS ACCOMPLISHED WITH HAND OPERATED EQUIPMENT, FILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 5 INCHES IN UNCOMPACTED THICKNESS. ONLY HAND-OPERATED EQUIPMENT SHALL BE ALLOWED WITHIN THREE FEET OF THE BACK FACE OF WALL.

2.5 FILL MATERIALS SHALL BE PLACED FROM THE BACK OF THE MESA FACING UNITS TOWARDS THE ENDS OF THE GEOGRID TO ENSURE FURTHER TENSIONING.

2.6 FILL SHALL BE COMPACTED AS SPECIFIED BY PROJECT SPECIFICATIONS OR TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D-698 (STANDARD PROCTOR), AT A MOISTURE CONTENT NO GREATER THAN 2 PERCENTAGE POINTS WET AND NO LESS THAN 1 PERCENTAGE POINT DRY OF OPTIMUM.

2.7 TESTING METHODS AND FREQUENCY, AND VERIFICATION OF MATERIAL SPECIFICATIONS SHALL BE THE RESPONSIBILITY OF THE OWNER OR OWNER'S REPRESENTATIVE.

2.8 MESA CAP UNITS SHALL BE PERMANENTLY SECURED TO THE MESA STANDARD UNITS USING AN APPROVED CONSTRUCTION ADHESIVE PER BLOCK MANUFACTURER'S RECOMMENDATIONS.

2.9 A COMPLETE SET OF APPROVED CONSTRUCTION DRAWINGS AND CONTRACT SPECIFICATIONS SHALL BE ON-SITE AT ALL TIMES, DURING CONSTRUCTION OF THE TENSAR REINFORCED RETAINING WALL.

3.0 TENSAR GEOGRID PLACEMENT

3.1 TENSAR GEOGRID SHALL BE PLACED AT THE LOCATIONS AND ELEVATIONS SHOWN ON THE DRAWINGS.

3.2 TENSAR GEOGRID LENGTHS SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS. GEOGRID LENGTH IS MEASURED FROM THE FRONT FACE OF THE WALL, EXTENDING TO THE TAIL OF THE GEOGRIDS.

3.2.1 TENSAR GEOGRID REINFORCEMENT SHALL BE CONTINUOUS THROUGHOUT THEIR EMBEDMENT LENGTH(S). THE BODKIN CONNECTION SHALL NOT BE UTILIZED UNLESS PRE-APPROVED BY THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.

3.2.2 IF PRE-APPROVED, TENSAR UNIAXIAL GEOGRIDS MAY BE SPLICED UTILIZING THE BODKIN CONNECTION DETAIL. NO MORE THAN ONE SPLICE SHALL BE ALLOWED IN ANY ONE LENGTH OF REINFORCEMENT AND NO SPLICES SHALL BE ALLOWED FOR GEOGRIDS LESS THAN SIX FEET IN LENGTH (EACH). THE BODKINS CONNECTION SHALL NOT BE PLACED LESS THAN 6 FEET BELOW PLANNED FINISHED GRADE, NOR HORIZONTALLY NOR VERTICALLY ADJACENT TO ANOTHER BODKIN CONNECTION.

3.3 PRIOR TO PLACING FILL, THE GEOGRID MATERIALS SHALL BE PLACED OVER THE SLOT IN THE TOP OF THE MESA BLOCK. DRIVE CONNECTOR BAR FINGERS THROUGH THE GEOGRID APERTURES BEHIND THE FIRST TRANSVERSE BAR. REMOVE SLACK AND ANCHOR.

3.4 TRACKED CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED DIRECTLY ON THE GEOGRID. A MINIMUM BACKFILL THICKENED OF SIX INCHES IS REQUIRED FOR OPERATION OF TRACKED VEHICLES OVER THE GEOGRID. TURNING OF TRACKED VEHICLES SHOULD BE KEPT TO A MINIMUM TO PREVENT TRACKS FROM DISPLACING THE FILL AND/OR THE GEOGRID.

3.5 RUBBER-TIRED VEHICLES MAY PASS OVER THE GEOGRID REINFORCEMENT AT SLOW SPEEDS, LESS THAN 10 MPH. SUDDEN BRAKING AND SHARP TURNING SHALL BE AVOIDED.

3.6 TENSAR UNIAXIAL GEOGRID SHALL BE ROLLED OUT WITH THE LONG AXIS OF THE APERTURES (MACHINE DIRECTION) PERPENDICULAR TO THE WALL FACE.

3.6.1 UNIAXIAL GEOGRIDS SHALL BE CUT NEXT TO THE CROSS MACHINE DIRECTION BAR. THE CROSS MACHINE DIRECTION BAR SHALL BE PLACED AT THE FRONT FACE OF THE WALL.

3.7 A MINIMUM OF 3 INCHES OF FILL MATERIAL SHALL BE REQUIRED BETWEEN LAYERS OF UNIAXIAL GEOGRIDS, UNLESS OTHERWISE SHOWN.

4.0 CHANGES TO GEOGRID LAYOUT OR PLACEMENT

4.1 NO CHANGES TO THE TENSAR GEOGRID LAYOUT, INCLUDING, BUT NOT LIMITED TO, LENGTH, GEOGRID TYPE, OR ELEVATION, SHALL BE MADE WITHOUT THE EXPRESSED OR WRITTEN CONSENT OF TENSAR EARTH TECHNOLOGIES, INC.

5.0 DRAINAGE

5.1 AT THE END OF EACH WORK DAY, BACKFILL SURFACE SHALL BE GRADED AWAY FROM THE WALL FACE A MINIMUM OF 2 PERCENT SLOPE AND A TEMPORARY SOIL BERM SHALL BE CONSTRUCTED NEAR THE WALL CREST TO PREVENT SURFACE WATER RUNOFF FROM OVERTOPPING THE WALL.

5.2 AT THE END OF EACH WORK DAY, BACKFILL SURFACE SHALL BE COMPACTED WITH A SMOOTH WHEEL ROLLER TO MINIMIZE PONDING OF WATER AND SATURATION OF THE BACKFILL.

5.3 THE ENGINEERING, DESIGN, ANALYSIS, DETAILING AND MITIGATION OF BOTH SURFACE DRAINAGE AND SEEPAGE OF GROUNDWATER SHALL BE THE RESPONSIBILITY OF THE OWNER OR OWNER'S REPRESENTATIVE.

5.4 PERMANENT SURFACE WATER DIVERSION SHALL BE REQUIRED AND PROVIDED BY THE OWNER OR OWNER'S REPRESENTATIVE.

5.5 THE TENSAR REINFORCED WALL HAS BEEN DESIGNED ON THE ASSUMPTION THAT THE REINFORCED BACKFILL MATERIAL SHALL BE FREE OF SUBSURFACE DRAINAGE OF WATER (SEEPAGE). PERMANENT SUBSURFACE WATER (SEEPAGE) COLLECTION AND DIVERSION SHALL BE THE RESPONSIBILITY OF THE OWNER OR OWNER'S REPRESENTATIVE

5.6 CARE SHALL BE TAKEN NOT TO CONTAMINATE THE GEOTEXILE FABRIC AND/OR DRAINAGE STONE WITH FINE-GRAINED SOILS OR OTHER DELETERIOUS MATERIALS.

6.0 METHOD OF PAYMENT

6.1 PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR ALL LABOR, MATERIAL, AND EQUIPMENT TO INSTALL TENSAR STRUCTURAL GEOGRIDS, WALL FILL, REINFORCED BACKFILL, EROSION MATERIALS, DRAINAGE MATERIALS AND CLEAN UP.

6.2 QUANTITIES MAY VARY FROM THAT SHOWN ON THE CONSTRUCTION DRAWINGS DEPENDING ON EXISTING TOPOGRAPHY. CHANGE OF TOTAL QUANTITY OF MATERIALS WILL BE AT THE CONTRACT UNIT PRICE BID.

6.3 THE TENSAR REINFORCED RETAINING WALL SYSTEM, SHALL BE PAID ON A SQUARE FOOT OF WALL SURFACE BASED ON THE CONTRACT UNIT PRICE. MEASUREMENT OF THE SQUARE FOOT OF WALL SHALL INCLUDE ALL MATERIALS SUPPLIED AND INSTALLED BY THE CONTRACTOR. MEASUREMENT AND PAYMENT SHALL INCLUDE ALL NECESSARY MATERIALS, LABOR, DE-WATERING AND INCIDENTIALS TO COMPLETE THE RETAINING WALLS.

7.0 DESIGN PARAMETERS

7.1 DESIGN OF THE REINFORCED SOIL STRUCTURE IS BASED ON THE FOLLOWING PARAMETERS.

	EFFECTIVE FRICTION ANGLE	EFFECTIVE COHESION	MOIST UNIT WEIGHT
REINFORCED BACKFILL	34°	0 psf	120 pcf
RETAINED SOIL	30°	0 psf	120 pcf
FOUNDATION SOIL	30°	0 psf	120 pcf

7.2 FACTORS OF SAFETY:

7.2.1 INTERNAL STABILITY

	STATIC	SEISMIC
MINIMUM FACTORS OF SAFETY FOR GEOGRID PULLOUT	= 1.5	= N/A
MINIMUM FACTORS OF SAFETY FOR SLIDING AT LOWEST GEOGRID	= 1.5	= N/A
SOIL-GEOGRID INTERACTION COEFFICIENT	= 0.6	
PERCENT COVERAGE OF GEOGRID	= 100	

7.2.2 EXTERNAL STABILITY

MINIMUM FACTORS OF SAFETY FOR SLIDING AT BASE = 1.25
MINIMUM FACTORS OF SAFETY FOR GEOGRID STRENGTH = 1.78

7.2.3 GLOBAL STABILITY:

GLOBAL STABILITY IS THE RESPONSIBILITY OF THE OWNER OR OWNER'S REPRESENTATIVE. TENSAR EARTH TECHNOLOGIES, INC. ACCEPTS NO LIABILITY OR RESPONSIBILITY FOR GLOBAL STABILITY.

7.3 SURCHARGE LOADING: = 250 psf

7.4 HYDROSTATIC DESIGN = NONE

GROUNDWATER/PHREATIC SURFACES NOT CONSIDERED IN WALL DESIGN WATER SURFACE ASSUMED TO BE SUFFICIENTLY BELOW BOTTOM OF WALL AS NOT TO INFLUENCE INTERNAL AND EXTERNAL STABILITY.

7.5 MAXIMUM APPLIED BEARING PRESSURE (STATIC) = 2464.4 psf

8.0 SPECIAL PROVISIONS

8.1 THE DESIGN PRESENTED HEREIN IS BASED ON SOIL PARAMETERS. FOUNDATION CONDITIONS, GROUNDWATER CONDITIONS, AND LOADINGS STATED IN SECTION 7.0.

8.2 WALL ELEVATION VIEWS AND LOCATIONS AND GEOMETRY OF EXISTING STRUCTURES MUST BE VERIFIED BY THE OWNER OF OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.

8.3 TENSAR EARTH TECHNOLOGIES, INC. ASSUMES NO LIABILITY FOR INTERPRETATION OR VERIFICATION OF SUBSURFACE CONDITIONS, SUITABILITY OF SOIL DESIGN PARAMETERS AND INTERPRETATION OF SUBSURFACE GROUNDWATER CONDITIONS.

8.4 THE OWNER OF OWNER'S REPRESENTATIVE IS RESPONSIBLE FOR REVIEWING AND VERIFYING THAT THE ACTUAL SITE CONDITIONS ARE AS DESCRIBED IN SECTION 7.0 PRIOR TO AND DURING CONSTRUCTION. THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE ON-SITE TO ASSURE THE PROVISIONS OF THE CONSTRUCTION NOTES ARE FOLLOWED.

8.5 THE SOIL DESIGN PARAMETERS STATED IN SECTION 7.0 SHALL BE VERIFIED BY THE OWNER OR OWNER'S REPRESENTATIVE. WRITTEN VERIFICATION OF DESIGN PARAMETERS SHALL BE SUBMITTED TO TENSAR EARTH TECHNOLOGIES, INC. PRIOR TO COMMENCING WITH CONSTRUCTION.

8.6 PROCEEDING WITH CONSTRUCTION WITHOUT FIRST PROVIDING TENSAR EARTH TECHNOLOGIES, INC. A WRITTEN REPORT VERIFYING CONDITIONS DISCUSSED IN SECTION 7.0 SHALL ABSOLVE TENSAR EARTH TECHNOLOGIES, INC. FORM ALL LIABILITY FOR THE DESIGN AND CONSTRUCTION OF THIS STRUCTURE AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS TENSAR EARTH TECHNOLOGIES, INC. FROM ALL RESULTING CLAIMS, DAMAGES, LOSSES AND EXPENSES.

8.7 IF ANY ROCK FORMATIONS AND/OR GROUNDWATER ARE ENCOUNTERED DURING CONSTRUCTION, IMMEDIATELY CONTACT TENSAR EARTH TECHNOLOGIES, INC. AT 404-250-1290 AND THE OWNER'S REPRESENTATIVE.

8.8 ANY REVISIONS TO DESIGN PARAMETERS STATED IN SECTION 7.0 OR STRUCTURE GEOMETRY SHALL REQUIRE DESIGN MODIFICATIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.

8.9 THIS DESIGN IS ONLY VALID FOR THE PROPOSED TENSAR RETAINING WALL AS SHOWN HEREIN.

8.10 TOTAL AND DIFFERENTIAL SETTLEMENT, FOUNDATION BEARING CAPACITY GLOBAL STABILITY AND THEIR EFFECTS ON THE TENSAR RETAINING WALL SYSTEM SHALL BE THE RESPONSIBILITY OF THE OWNER OR OWNER'S REPRESENTATIVE.

I0020502.DWG

THIS DESIGN IS BASED UPON SPECIFIC PROPERTIES OF TENSAR PRODUCTS (GEOGRIDS, DRAINAGE COMPOSITES AND EROSION MEDIA), WHICH ARE PROPRIETARY TO THE TENSAR CORPORATION 1210 CITIZENS PARKWAY, MORROW GA. 30260. ANY SUBSTITUTION OF THE SPECIFIED PRODUCTS WILL INVALIDATE THIS DESIGN. THIS DRAWING IS BEING FURNISHED FOR USE ON THIS SPECIFIC PROJECT ONLY. ANY PARTY ACCEPTING THIS DOCUMENT DOES SO IN CONFIDENCE AND AGREES THAT IT SHALL NOT BE DUPLICATED WHOLE OR IN PART, NOR DISCLOSED TO OTHERS, WITHOUT THE CONSENT OF TENSAR EARTH TECHNOLOGIES, INC.

THIS DRAWING, DESIGN NOTES AND ASSOCIATED CALCULATIONS HAVE BEEN PREPARED BY TENSAR EARTH TECHNOLOGIES, INC. FOR PRELIMINARY DESIGN PURPOSES AND SHALL NOT BE USED FOR FINAL DESIGN OR CONSTRUCTION.

COPYRIGHT 2000, TENSAR EARTH TECHNOLOGIES, INC.

TENSAR
EARTH TECHNOLOGIES, INC.
5883 Glenridge Drive
Suite 200
Atlanta, Georgia 30328
(404) 250-1290

mesa™

STATE OF OHIO
KENNETH P. AKINS, JR.
#E-61358
REGISTERED
PROFESSIONAL ENGINEER
3/13/01

REVISIONS \ ISSUE

0	12/21/00	ISSUED FOR REVIEW	
1	3/13/01	ISSUED FOR BID	

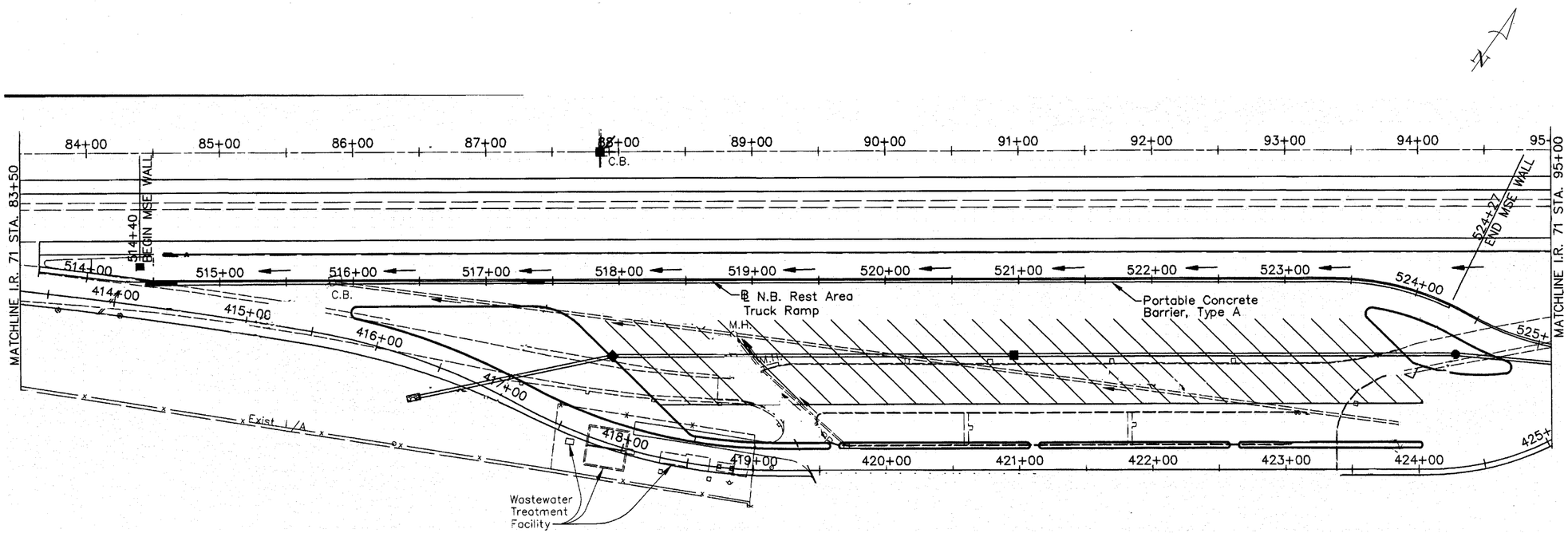
Project Number 100205
Date Drawn 12/21/00
Scale As Shown
Designed by WL
Drawn by BBC
Checked by

I - 71
WAYNE COUNTY, OHIO

CONSTRUCTION NOTES

330
432

Sheet Number 2 of 9



NOTE:

PLAN VIEW SHOWN FOR ILLUSTRATIVE PURPOSE ONLY.
THE PLAN VIEW IS REPRODUCED FROM THE PLAN PROVIDED
BY ENGINEERING ASSOCIATES, INC.

I0020503.DWG

THIS DESIGN IS BASED UPON SPECIFIC PROPERTIES OF TENSAR PRODUCTS (GEOGRIDS, DRAINAGE COMPOSITES AND EROSION MEDIA), WHICH ARE PROPRIETARY TO THE TENSAR CORPORATION 1210 CITIZENS PARKWAY, MORROW GA. 30260. ANY SUBSTITUTION OF THE SPECIFIED PRODUCTS WILL INVALIDATE THIS DESIGN. THIS DRAWING IS BEING FURNISHED FOR USE ON THIS SPECIFIC PROJECT ONLY. ANY PARTY ACCEPTING THIS DOCUMENT DOES SO IN CONFIDENCE AND AGREES THAT IT SHALL NOT BE DUPLICATED WHOLE OR IN PART, NOR DISCLOSED TO OTHERS, WITHOUT THE CONSENT OF TENSAR EARTH TECHNOLOGIES, INC.

THIS DRAWING, DESIGN NOTES AND ASSOCIATED CALCULATIONS HAVE BEEN PREPARED BY TENSAR EARTH TECHNOLOGIES, INC. FOR PRELIMINARY DESIGN PURPOSES AND SHALL NOT BE USED FOR FINAL DESIGN OR CONSTRUCTION.

COPYRIGHT 2000, TENSAR EARTH TECHNOLOGIES, INC.

TENSAR
EARTH TECHNOLOGIES, INC.
5883 Glenridge Drive
Suite 200
Atlanta, Georgia 30328
(404) 250-1290

mesa™

STATE OF OHIO
KENNETH P. AKINS, JR.
#E-61358
REGISTERED
PROFESSIONAL ENGINEER
3/13/01

REVISIONS \ ISSUE			
0	12/21/00	ISSUED FOR REVIEW	
1	3/13/01	ISSUED FOR BID	

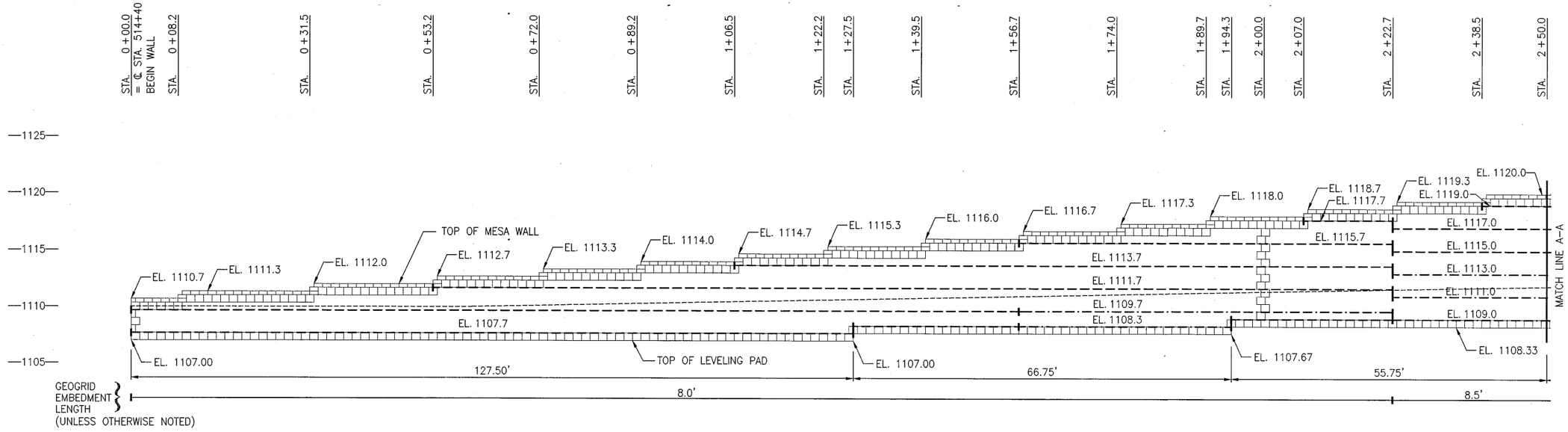
Project Number	I00205
Date Drawn	12/21/00
Scale	As Shown
Designed by	WL
Drawn by	BBC
Checked by	

I - 71

WAYNE COUNTY, OHIO

PLAN VIEW \ 331/432

Sheet Number 3 of 9



I0020504.DWG

THIS DESIGN IS BASED UPON SPECIFIC PROPERTIES OF TENSAR PRODUCTS (GEOGRIDS, DRAINAGE COMPOSITES AND EROSION MEDIA), WHICH ARE PROPRIETARY TO THE TENSAR CORPORATION 1210 CITIZENS PARKWAY, MORROW GA. 30260. ANY SUBSTITUTION OF THE SPECIFIED PRODUCTS WILL INVALIDATE THIS DESIGN. THIS DRAWING IS BEING FURNISHED FOR USE ON THIS SPECIFIC PROJECT ONLY. ANY PARTY ACCEPTING THIS DOCUMENT DOES SO IN CONFIDENCE AND AGREES THAT IT SHALL NOT BE DUPLICATED WHOLE OR IN PART, NOR DISCLOSED TO OTHERS, WITHOUT THE CONSENT OF TENSAR EARTH TECHNOLOGIES, INC.

THIS DRAWING, DESIGN NOTES AND ASSOCIATED CALCULATIONS HAVE BEEN PREPARED BY TENSAR EARTH TECHNOLOGIES, INC. FOR PRELIMINARY DESIGN PURPOSES AND SHALL NOT BE USED FOR FINAL DESIGN OR CONSTRUCTION.

COPYRIGHT 2000, TENSAR EARTH TECHNOLOGIES, INC.

TENSAR
EARTH TECHNOLOGIES, INC.
5883 Glenridge Drive
Suite 200
Atlanta, Georgia 30328
(404) 250-1290

mesa™

STATE OF OHIO
KENNETH P. AKINS, JR.
#E-61358
REGISTERED PROFESSIONAL ENGINEER
3/1/01

REVISIONS \ ISSUE		
0	12/21/00	ISSUED FOR REVIEW
1	3/13/01	ISSUED FOR BID

Project Number 100205
Date Drawn 12/21/00
Scale As Shown
Designed by WL
Drawn by BBC
Checked by KPA

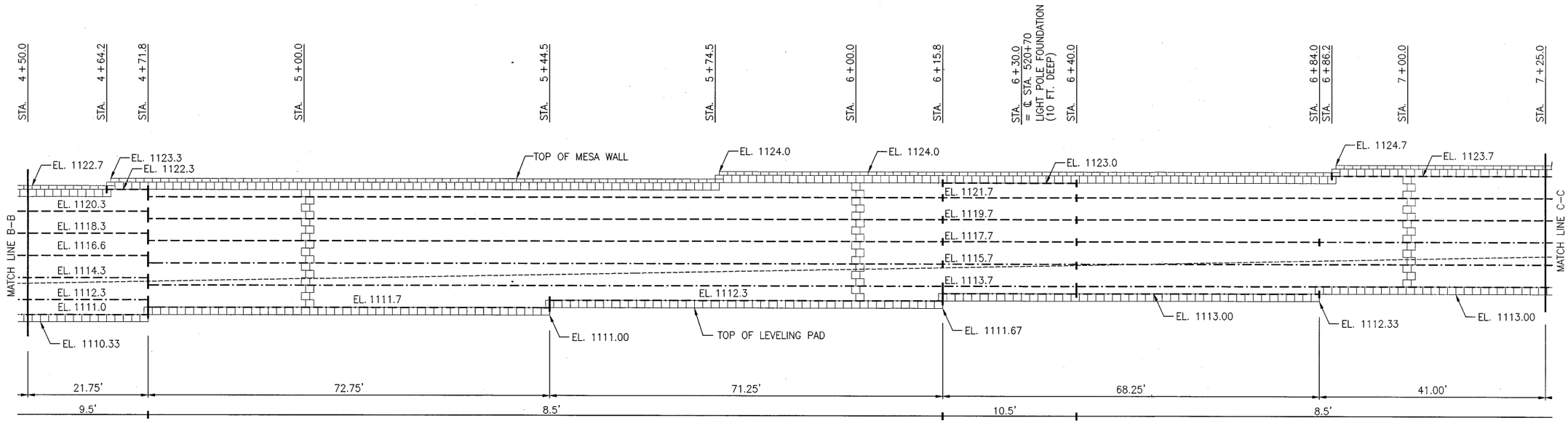
I - 71

WAYNE COUNTY, OHIO

ELEVATION VIEW

332/432

Sheet Number 4 of 9



LEGEND

▭	MESA CAP UNIT
□	MESA STANDARD UNIT
----------	PROPOSED GRADE
– – –+– – –	CHANGE IN EMBEDMENT LENGTH OR GEOGRID TERMINATION
—·—·—	TENSAR MESA4 GEOGRID
– – – – –	TENSAR MESA3 GEOGRID
EL. XXX.X	APPROX. GEOGRID ELEVATION
(XX.X')	GEOGRID EMBEDMENT LENGTH
(XX%)	GEOGRID PERCENT COVERAGE

VERTICAL SCALE FEET: 10, 5, 0, 5

HORIZONTAL SCALE FEET: 10, 5, 0, 10, 20

I0020504.DWG

THIS DESIGN IS BASED UPON SPECIFIC PROPERTIES OF TENSAR PRODUCTS (GEOGRIDS, DRAINAGE COMPOSITES AND EROSION MEDIA), WHICH ARE PROPRIETARY TO THE TENSAR CORPORATION 1210 CITIZENS PARKWAY, MORROW GA. 30260. ANY SUBSTITUTION OF THE SPECIFIED PRODUCTS WILL INVALIDATE THIS DESIGN. THIS DRAWING IS BEING FURNISHED FOR USE ON THIS SPECIFIC PROJECT ONLY. ANY PARTY ACCEPTING THIS DOCUMENT DOES SO IN CONFIDENCE AND AGREES THAT IT SHALL NOT BE DUPLICATED WHOLE OR IN PART, NOR DISCLOSED TO OTHERS, WITHOUT THE CONSENT OF TENSAR EARTH TECHNOLOGIES, INC.

THIS DRAWING, DESIGN NOTES AND ASSOCIATED CALCULATIONS HAVE BEEN PREPARED BY TENSAR EARTH TECHNOLOGIES, INC. FOR PRELIMINARY DESIGN PURPOSES AND SHALL NOT BE USED FOR FINAL DESIGN OR CONSTRUCTION.

COPYRIGHT 2000, TENSAR EARTH TECHNOLOGIES, INC.

TENSAR
EARTH TECHNOLOGIES, INC.
5883 Glenridge Drive
Suite 200
Atlanta, Georgia 30328
(404) 250–1290

mesa™

STATE OF OHIO
KENNETH P. AKINS, JR.
#E–61358
REGISTERED PROFESSIONAL ENGINEER
SEAL
3/13/01

REVISIONS \ ISSUE

0	12/21/00	ISSUED FOR REVIEW	
1	3/13/01	ISSUED FOR BID	

Project Number: I00205
Date Drawn: 12/21/00
Scale: As Shown
Designed by: WL
Drawn by: BBC
Checked by:

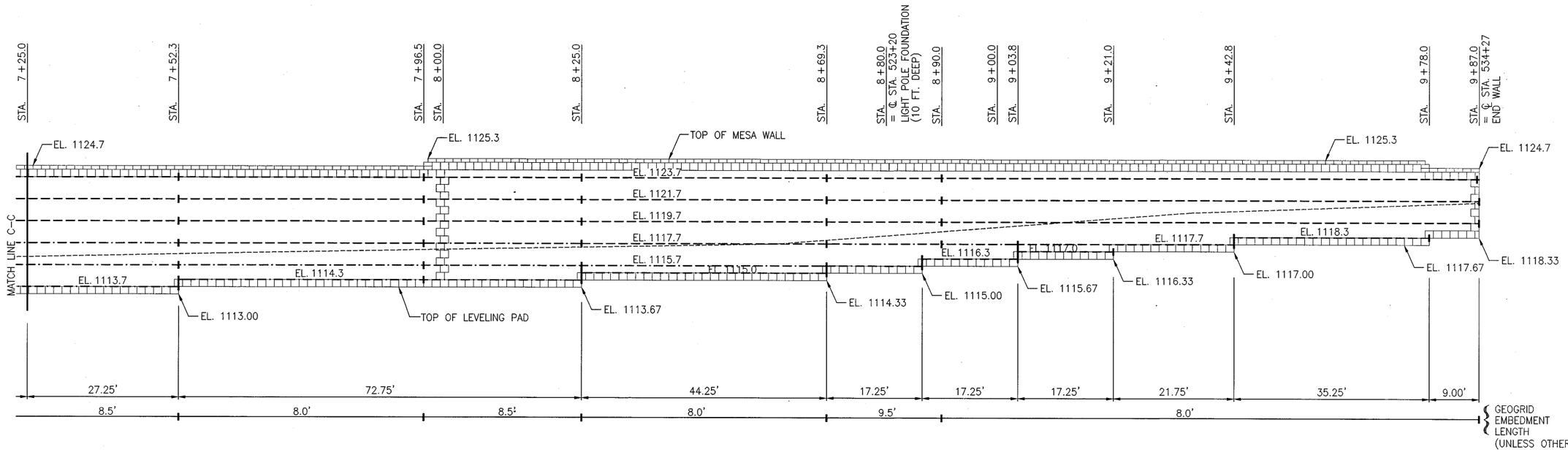
I – 71

WAYNE COUNTY, OHIO

ELEVATION VIEW (CONT.)

333/432

Sheet Number 5 of 9



I0020504.DWG

THIS DESIGN IS BASED UPON SPECIFIC PROPERTIES OF TENSAR PRODUCTS (GEOGRIDS, DRAINAGE COMPOSITES AND EROSION MEDIA), WHICH ARE PROPRIETARY TO THE TENSAR CORPORATION 1210 CITIZENS PARKWAY, MORROW GA. 30260. ANY SUBSTITUTION OF THE SPECIFIED PRODUCTS WILL INVALIDATE THIS DESIGN. THIS DRAWING IS BEING FURNISHED FOR USE ON THIS SPECIFIC PROJECT ONLY. ANY PARTY ACCEPTING THIS DOCUMENT DOES SO IN CONFIDENCE AND AGREES THAT IT SHALL NOT BE DUPLICATED WHOLE OR IN PART, NOR DISCLOSED TO OTHERS, WITHOUT THE CONSENT OF TENSAR EARTH TECHNOLOGIES, INC.

THIS DRAWING, DESIGN NOTES AND ASSOCIATED CALCULATIONS HAVE BEEN PREPARED BY TENSAR EARTH TECHNOLOGIES, INC. FOR PRELIMINARY DESIGN PURPOSES AND SHALL NOT BE USED FOR FINAL DESIGN OR CONSTRUCTION.

COPYRIGHT 2000, TENSAR EARTH TECHNOLOGIES, INC.

TENSAR
EARTH TECHNOLOGIES, INC.
5883 Glenridge Drive
Suite 200
Atlanta, Georgia 30328
(404) 250-1290

mesa™

STATE OF OHIO
KENNETH P. AKINS, JR.
#E-61358
REGISTERED PROFESSIONAL ENGINEER
SEAL
3/13/01

REVISIONS \ ISSUE			
0	12/21/00	ISSUED FOR REVIEW	
1	3/13/01	ISSUED FOR BID	

Project Number	I00205
Date Drawn	12/21/00
Scale	As Shown
Designed by	WL
Drawn by	BBC
Checked by	

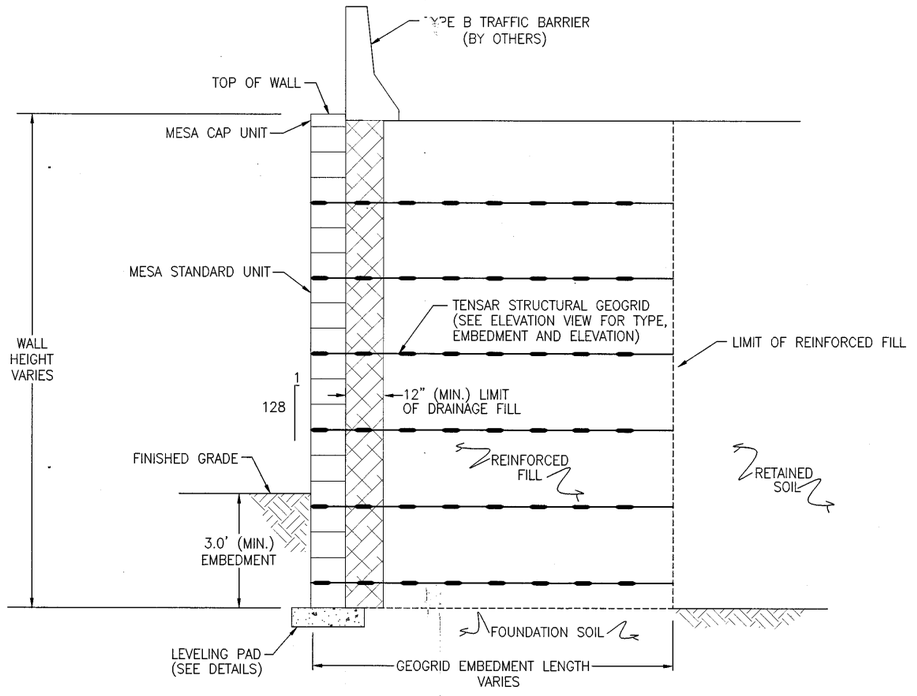
I - 71

WAYNE COUNTY, OHIO

ELEVATION VIEW (CONT.)

334/432

Sheet Number 6 of 9



TYPICAL CROSS-SECTION

I0020507.DWG

SCALE
2 1 0 2 4 FEET

THIS DESIGN IS BASED UPON SPECIFIC PROPERTIES OF TENSAR PRODUCTS (GEOGRIDS, DRAINAGE COMPOSITES AND EROSION MEDIA), WHICH ARE PROPRIETARY TO THE TENSAR CORPORATION 1210 CITIZENS PARKWAY, MORROW GA. 30260. ANY SUBSTITUTION OF THE SPECIFIED PRODUCTS WILL INVALIDATE THIS DESIGN. THIS DRAWING IS BEING FURNISHED FOR USE ON THIS SPECIFIC PROJECT ONLY. ANY PARTY ACCEPTING THIS DOCUMENT DOES SO IN CONFIDENCE AND AGREES THAT IT SHALL NOT BE DUPLICATED WHOLE OR IN PART, NOR DISCLOSED TO OTHERS, WITHOUT THE CONSENT OF TENSAR EARTH TECHNOLOGIES, INC.

THIS DRAWING, DESIGN NOTES AND ASSOCIATED CALCULATIONS HAVE BEEN PREPARED BY TENSAR EARTH TECHNOLOGIES, INC. FOR PRELIMINARY DESIGN PURPOSES AND SHALL NOT BE USED FOR FINAL DESIGN OR CONSTRUCTION.

COPYRIGHT 2000, TENSAR EARTH TECHNOLOGIES, INC.

TENSAR
EARTH TECHNOLOGIES, INC.
5883 Glenridge Drive
Suite 200
Atlanta, Georgia 30328
(404) 250-1290

mesa™

STATE OF OHIO
KENNETH P. AKINS, JR.
#E-61358
REGISTERED PROFESSIONAL ENGINEER
SEAL
3/13/01

REVISIONS \ ISSUE			
0	12/21/00	ISSUED FOR REVIEW	
1	3/13/01	ISSUED FOR BID	

Project Number	I00205
Date Drawn	12/21/00
Scale	As Shown
Designed by	WL
Drawn by	BBC
Checked by	

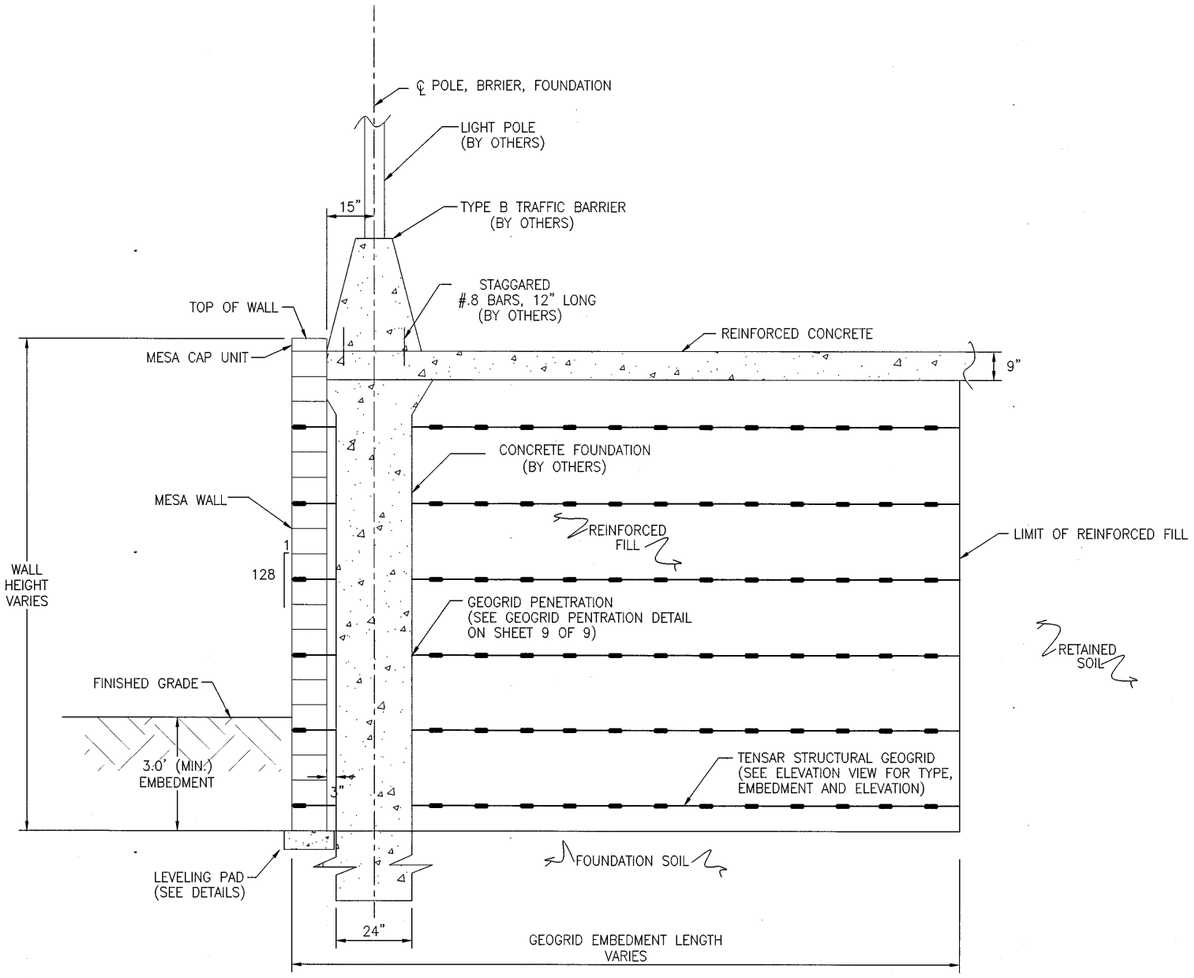
I - 71

WAYNE COUNTY, OHIO

TYPICAL CROSS-SECTION

335
432

Sheet Number
7 of 9



MEDIAN LIGHT POLE FOUNDATION
(FOR STA. 3+55, STA. 6+30, & STA. 8+80)

NOT TO SCALE

I0020508.DWG

THIS DESIGN IS BASED UPON SPECIFIC PROPERTIES OF TENSAR PRODUCTS (GEOGRIDS, DRAINAGE COMPOSITES AND EROSION MEDIA), WHICH ARE PROPRIETARY TO THE TENSAR CORPORATION 1210 CITIZENS PARKWAY, MORROW GA. 30260. ANY SUBSTITUTION OF THE SPECIFIED PRODUCTS WILL INVALIDATE THIS DESIGN. THIS DRAWING IS BEING FURNISHED FOR USE ON THIS SPECIFIC PROJECT ONLY. ANY PARTY ACCEPTING THIS DOCUMENT DOES SO IN CONFIDENCE AND AGREES THAT IT SHALL NOT BE DUPLICATED WHOLE OR IN PART, NOR DISCLOSED TO OTHERS, WITHOUT THE CONSENT OF TENSAR EARTH TECHNOLOGIES, INC.

THIS DRAWING, DESIGN NOTES AND ASSOCIATED CALCULATIONS HAVE BEEN PREPARED BY TENSAR EARTH TECHNOLOGIES, INC. FOR PRELIMINARY DESIGN PURPOSES AND SHALL NOT BE USED FOR FINAL DESIGN OR CONSTRUCTION.

COPYRIGHT 2000, TENSAR EARTH TECHNOLOGIES, INC.

TENSAR
EARTH TECHNOLOGIES, INC.
5883 Glenridge Drive
Suite 200
Atlanta, Georgia 30328
(404) 250-1290

mesa™

STATE OF OHIO
KENNETH P. AKINS, JR.
#E-61358
REGISTERED PROFESSIONAL ENGINEER
{ SEAL } 5/2/01

REVISIONS \ ISSUE			
0	3/13/01	ISSUED FOR BID	

Project Number	I00205.DWG
Date Drawn	3/13/01
Scale	As Shown
Designed by	WL
Drawn by	AMH
Checked by	

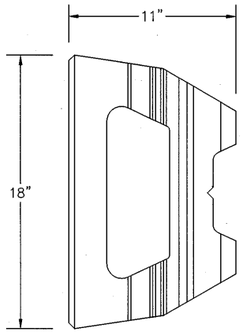
I - 71

WAYNE COUNTY, OHIO

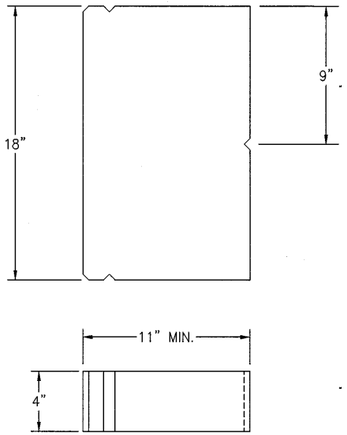
TYPICAL CROSS-SECTION

336/432

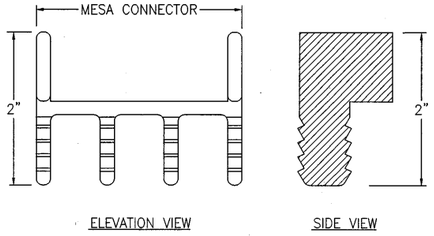
Sheet Number 8 of 9



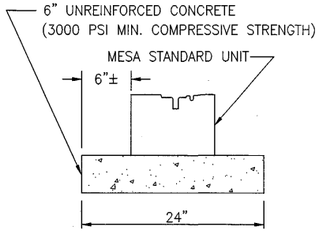
MESA STANDARD UNIT
NOT TO SCALE



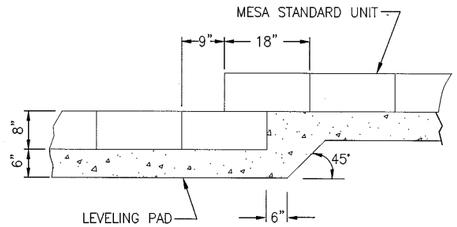
MESA STRAIGHT SIDED CAP UNIT
NOT TO SCALE



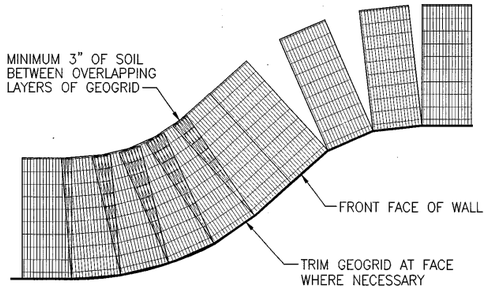
MESA STANDARD CONNECTOR



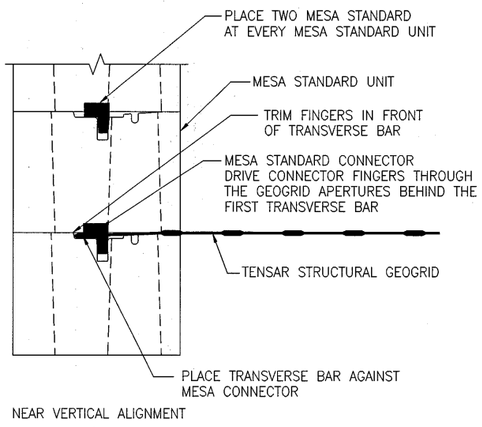
LEVELING PAD DETAIL
NOT TO SCALE



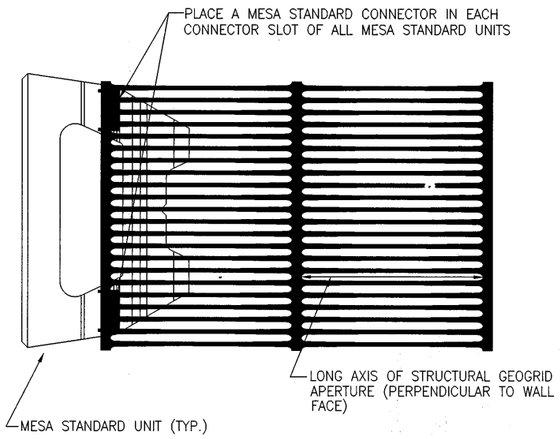
TYPICAL LEVELING PAD STEP DETAIL
NOT TO SCALE



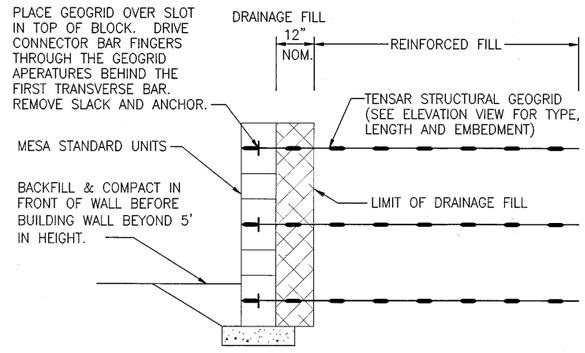
GEOGRID PLACEMENT ON CURVES
NOT TO SCALE



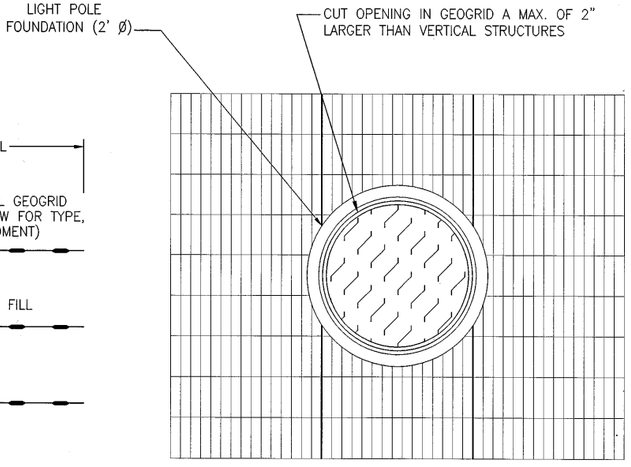
MESA STANDARD UNIT AND
GEOGRID CONNECTION DETAIL
NOT TO SCALE



GEOGRID ORIENTATION
NOT TO SCALE



LIMITS OF DRAINAGE FILL AND
GEOGRID ATTACHMENT DETAIL
NOT TO SCALE



GEOGRID PENETRATION
NOT TO SCALE

I0020509.DWG

THIS DESIGN IS BASED UPON SPECIFIC PROPERTIES OF TENSAR PRODUCTS (GEOGRIDS, DRAINAGE COMPOSITES AND EROSION MEDIA), WHICH ARE PROPRIETARY TO THE TENSAR CORPORATION 1210 CITIZENS PARKWAY, MORROW GA. 30260. ANY SUBSTITUTION OF THE SPECIFIED PRODUCTS WILL INVALIDATE THIS DESIGN. THIS DRAWING IS BEING FURNISHED FOR USE ON THIS SPECIFIC PROJECT ONLY. ANY PARTY ACCEPTING THIS DOCUMENT DOES SO IN CONFIDENCE AND AGREES THAT IT SHALL NOT BE DUPLICATED WHOLE OR IN PART, NOR DISCLOSED TO OTHERS, WITHOUT THE CONSENT OF TENSAR EARTH TECHNOLOGIES, INC.

THIS DRAWING, DESIGN NOTES AND ASSOCIATED CALCULATIONS HAVE BEEN PREPARED BY TENSAR EARTH TECHNOLOGIES, INC. FOR PRELIMINARY DESIGN PURPOSES AND SHALL NOT BE USED FOR FINAL DESIGN OR CONSTRUCTION.

COPYRIGHT 2000, TENSAR EARTH TECHNOLOGIES, INC.

TENSAR
EARTH TECHNOLOGIES, INC.
5883 Glenridge Drive
Suite 200
Atlanta, Georgia 30328
(404) 250-1290

mesa™

STATE OF OHIO
KENNETH P. AKINS, JR.
#E-61358
REGISTERED
PROFESSIONAL ENGINEER
SEAL
3/13/01

REVISIONS \ ISSUE			
0	12/21/00	ISSUED FOR REVIEW	
1	3/13/01	ISSUED FOR BID	

Project Number	I00205
Date Drawn	12/21/00
Scale	As Shown
Designed by	WL
Drawn by	BBC
Checked by	

I - 71

WAYNE COUNTY, OHIO

TYPICAL DETAILS

337
432

Sheet Number
9 of 9

PYRAMID™

MODULAR BLOCK RETAINING WALL SYSTEM

ENGINEERED BY: THE REINFORCED EARTH COMPANY

8614 WESTWOOD CENTER DRIVE, SUITE 1100, VIENNA, VIRGINIA 22182 - (703) 821-1175

reinforced earth®

GENERAL NOTES

DESIGN CRITERIA

1. DESIGN IS BASED ON THE ASSUMPTION THAT THE SELECT BACKFILL MATERIAL WITHIN THE REINFORCED VOLUME, METHODS OF CONSTRUCTION AND QUALITY OF PREFABRICATED MATERIALS SHALL CONFORM TO THE CONTRACTING AGENCY'S TECHNICAL SPECIFICATIONS FOR PYRAMID MODULAR BLOCK RETAINING WALLS.
2. SOILS CHARACTERISTICS ASSUMED FOR DESIGN:

REINFORCED BACKFILL
ϕ = 34 degrees, c = 0 p.s.f., γ = 120 p.c.f.

GRADATION

SIEVE SIZE	% PASSING
4 inch	100
3 inch	75–100
no. 200	0–30

RANDOM BACKFILL
ϕ = 30 degrees, c = 0 p.s.f., γ = 120 p.c.f.

MODULAR BLOCK/DRAINAGE FILL

GRADATION

SIEVE SIZE	% PASSING
1 inch	100
3/4 inch	75–100
NO. 4	0–30
NO. 200	0–5

IF THE ACTUAL CHARACTERISTICS OF THE SOIL MATERIALS DIFFER SIGNIFICANTLY FROM THOSE ABOVE, THE REINFORCED EARTH COMPANY SHOULD BE NOTIFIED PRIOR TO CONSTRUCTION TO EVALUATE THE NEED FOR REDESIGN OF THE WALL.

3. THE MAXIMUM APPLIED BEARING PRESSURE AT THE FOUNDATION LEVEL IS AS SHOWN ON THE WALL ELEVATIONS FOR EACH DESIGN CASE. IT IS THE RESPONSIBILITY OF THE ENGINEER TO DETERMINE THAT THIS APPLIED BEARING PRESSURE IS ALLOWABLE FOR THAT LOCATION.
4. ANY UNSUITABLE FOUNDATION MATERIAL BELOW THE REINFORCED VOLUME, AS DETERMINED BY THE ENGINEER, SHALL BE EXCAVATED AND REPLACED WITH SUITABLE MATERIAL OR OTHERWISE STABILIZED AS DIRECTED BY THE ENGINEER.
5. LADDER REINFORCING STRIPS FOR PYRAMID WALLS SHALL BE SHOP FABRICATED OF COLD DRAWN STEEL WIRE CONFORMING TO THE PHYSICAL AND MECHANICAL PROPERTIES OF ASTM A-82, AND WELDED INTO THE FINISHED STRIP CONFIGURATION IN ACCORDANCE WITH ASTM A-185. GALVANIZATION SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF ASTM A-123.

WALL CONSTRUCTION

6. FOR LOCATION AND ALIGNMENT OF PYRAMID WALLS SEE PLAN.
7. IF MANHOLES AND DROP INLETS ARE PRESENT, THEY SHALL BE LOCATED AS SHOWN ON THE WALL ELEVATIONS.

7a. AT THE END OF EACH DAY'S WORK BACKFILL SHALL BE GRADED TO SLOPE AWAY FROM WALL FACE IN ORDER TO DIVERT WATER RUNOFF FROM THE STRUCTURE AREA. OTHER MEASURES SHALL BE EMPLOYED, IF NECESSARY, TO DIVERT WATER RUNOFF AWAY FROM THE STRUCTURE AREA.

WALL CONSTRUCTION (CONT.)

8. IF PILES ARE LOCATED WITHIN THE REINFORCED VOLUME, THEY SHALL BE DRIVEN PRIOR TO CONSTRUCTION OF THE PYRAMID WALL UNLESS A METHOD TO PROTECT THE STRUCTURE, WHICH IS ACCEPTABLE TO THE ENGINEER AND THE REINFORCED EARTH COMPANY, IS PROPOSED AND APPROVED IN WRITING.
9. BACKFILL MATERIAL SHALL BE COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR PYRAMID WALLS TO A LEVEL OF 2" (±) ABOVE THE CONNECTION ELEVATION. INSTALLATION OF LADDER REINFORCING STRIPS SHALL BE PERMITTED ONLY AFTER PLACEMENT AND COMPACTION OF THE BACKFILL MATERIAL HAS REACHED THE REQUIRED LEVEL.
10. COMPACTION AND OPERATION EQUIPMENT SHALL BE KEPT A MINIMUM DISTANCE OF 3'-0" FROM THE BACK FACE OF THE MODULAR BLOCK UNITS. COMPACTION WITHIN 3'-0" OF THE BLOCK UNITS SHALL BE ACHIEVED WITH AT LEAST THREE (3) PASSES OF A LIGHTWEIGHT MECHANICAL TAMPER, ROLLER OR VIBRATORY SYSTEM.
11. IF STRUCTURES IN EXCESS OF 12' IN HEIGHT OCCUR, THE FINISHED GRADE IN FRONT OF THE WALL SHALL BE PLACED AND COMPACTED BEFORE WALL CONSTRUCTION EXCEEDS A HEIGHT OF 12'.
12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF ANY GUARDRAIL POSTS WITHIN THE REINFORCED VOLUME. PRIOR TO PLACEMENT OF THE TOP LAYER OF REINFORCEMENTS, INDIVIDUAL LADDER STRIPS MAY BE SYSTEMATICALLY SHIFTED TO AVOID THE POST LOCATIONS IF AUTHORIZED BY THE REINFORCED EARTH COMPANY. ANY DAMAGE DONE TO THE LADDER REINFORCING STRIPS DUE TO INSTALLATION OF GUARDRAIL POSTS SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
13. IF EXISTING OR FUTURE STRUCTURES, PIPES, FOUNDATIONS OR GUARDRAIL POSTS WHICH ARE WITHIN THE REINFORCED VOLUME INTERFERE WITH THE NORMAL PLACEMENT OF LADDER REINFORCING STRIPS AND SPECIFIC DIRECTION HAS NOT BEEN PROVIDED ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE REINFORCED EARTH COMPANY TO DETERMINE WHAT COURSE OF ACTION SHOULD BE TAKEN.
14. ALL DETAILING AND CHECKING OF REINFORCING STEEL FOR ANY C.I.P. CONCRETE WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.
15. FOR OTHER INFORMATION PERTAINING TO WALL CONSTRUCTION PLEASE REFER TO THE PYRAMID CONSTRUCTION MANUAL.

15A. OWNER'S GEOTECHNICAL ENGINEER SHALL APROVE THE BOTTOM OF ALL WALL EXCAVATIONS PRIOR TO BEGINNING WALL CONSTRUCTION.

MATERIALS NOTES

16. NOMINAL STRIP LENGTH

THE NOMINAL LADDER REINFORCING STRIP LENGTHS, L, SHOWN ON THE PLANS ARE MEASURED FROM THE BACK FACE OF THE MODULAR BLOCK UNITS. THE ACTUAL FABRICATED STRIP LENGTHS ARE APPROXIMATELY 8 INCHES LONGER THAN THE NOMINAL LENGTH, L, TO PERMIT CONNECTION OF THE STRIPS TO THE MODULAR BLOCK FACING UNITS. THE REQUIRED HORIZONTAL LIMIT OF REINFORCED BACKFILL (INCLUDING UNIT AND DRAINAGE FILL) IS EQUAL TO THE NOMINAL STRIP LENGTH. ADDITIONAL GRANULAR BACKFILL BEYOND THE NOMINAL STRIP LENGTH IS NOT REQUIRED BY CALCULATION.

MATERIALS NOTES (CONT.)

17. REINFORCED BACKFILL QUANTITY

THE REINFORCED BACKFILL QUANTITY INDICATED BY THE REINFORCED EARTH COMPANY IS CALCULATED BY MULTIPLYING THE NOMINAL STRIP LENGTHS, L, SHOWN ON THE PLANS MINUS ONE FOOT AVERAGE THICKNESS OF THE DRAINAGE/UNIT FILL BY THEIR TRIBUTARY WALL SURFACE AREA AND CONVERTING THE RESULT TO A NEATLINE CUBIC YARD QUANTITY. THIS INFORMATION IS FURNISHED FOR THE CONTRACTOR'S INFORMATION ONLY AND IS NOT INTENDED TO REPRESENT THE ACTUAL QUANTITY REQUIRED TO COMPLETE THE WORK. THE CONTRACTOR MUST CALCULATE HIS OWN EXCAVATION AND BACKFILL QUANTITIES BASED UPON THE SPECIFIC CONDITIONS OF THE PROJECT.

18. DRAINAGE/UNIT FILL

THE DRAINAGE/UNIT FILL INDICATED BY THE REINFORCED EARTH COMPANY IS CALCULATED BY MULTIPLYING 1.2 CU. FT. PER SQ. FT. OF WALL FACING BY THE SURFACE AREA OF THE WALL AND CONVERTING THE RESULT TO A NEATLINE CUBIC YARD QUANTITY. THIS QUANTITY ASSUMES THE AVERAGE THICKNESS OF DRAINAGE/UNIT FILL BEHIND THE MODULAR BLOCK UNITS IS 12 INCHES. THIS INFORMATION IS FURNISHED FOR THE CONTRACTOR'S INFORMATION ONLY AND IS NOT INTENDED TO REPRESENT THE ACTUAL QUANTITY REQUIRED TO COMPLETE THE WORK. QUANTITIES WILL VARY BASED ON WORKMANSHIP AND INSTALLATION PROCEDURES. THE CONTRACTOR MUST CALCULATE HIS OWN DRAINAGE/UNIT FILL QUANTITY FOR CONSTRUCTION.

19. MODULAR BLOCK FINISH

PYRAMID MODULAR BLOCKS FOR THIS PROJECT SHALL HAVE A SPLIT FACE FINISH UNLESS OTHERWISE SPECIFIED.

20. ADHESIVE FOR CAP UNITS

IF CAP UNITS ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL SUPPLY AND INSTALL ADHESIVE BELOW THE CAP UNITS IN ACCORDANCE WITH THE CONSTRUCTION MANUAL TO SECURE THE CAP UNITS AGAINST VANDELISM. THE ADHESIVE SHALL BE EITHER DAP 4000 ADHESIVE OR LIQUID NAILS ADHESIVE, OR AN APPROVED EQUAL BY THE REINFORCED EARTH COMPANY.

21. NOTE TO CONTRACTORS

ONLY THE FOLLOWING MATERIALS ARE SUPPLIED BY THE REINFORCED EARTH COMPANY:

- DRYCAST CONCRETE MODULAR BLOCKS
- LADDER REINFORCING STRIPS
- CONNECTOR PINS

ANY OTHER MATERIALS CALLED FOR IN THE CONTRACT PLANS OR SPECIFICATIONS ARE TO BE SUPPLIED BY THE CONTRACTOR. ANY JOINT MATERIALS SHOWN AT THE INTERFACE OF MODULAR BLOCK UNITS AND CAST-IN-PLACE CONCRETE STRUCTURES ARE TO BE SUPPLIED BY THE ERECTION CONTRACTOR. ALL PAINTING, ADHESIVES, SEALERS OR OTHER SPECIAL APPLIED COATINGS ARE TO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR IN THE FIELD.

CERTIFIED WITH RESPECT TO INTERNAL STABILITY OF REINFORCED EARTH STRUCTURES ONLY.

STATE OF OHIO
ALEXANDER ABRAHAM
E-57763
REGISTERED
PROFESSIONAL ENGINEER

This drawing contains information proprietary to The Reinforced Earth Company, and is being furnished for the use of State of Ohio Dept. of Transportation only in connection with this project, and the information contained is not to be transmitted to any other organization unless specifically authorized in writing by The Reinforced Earth Company. The Reinforced Earth Company is exclusive licensee in the United States under patents issued to Henri Vidal, and the furnishing of this drawing does not constitute an expressed or implied license under the Vidal patents.

The design contained on these drawings is based on information provided by the owner. On the basis of this information, The Reinforced Earth Company has designed, and is responsible for the internal stability of the structure only. External stability, including foundation and slope stability, is the responsibility of the owner.

The Reinforced Earth Company
8614 Westwood Center Drive
Suite 1100 Vienna, Virginia 22182
(703) 821-1175 FAX-(703) 821-1815

DESIGNED	DRAWN	REVIEWED	DATE
IEP	IEP		01/15/01
CHECKED	REVISED	STRUCTURE FILE NO.	

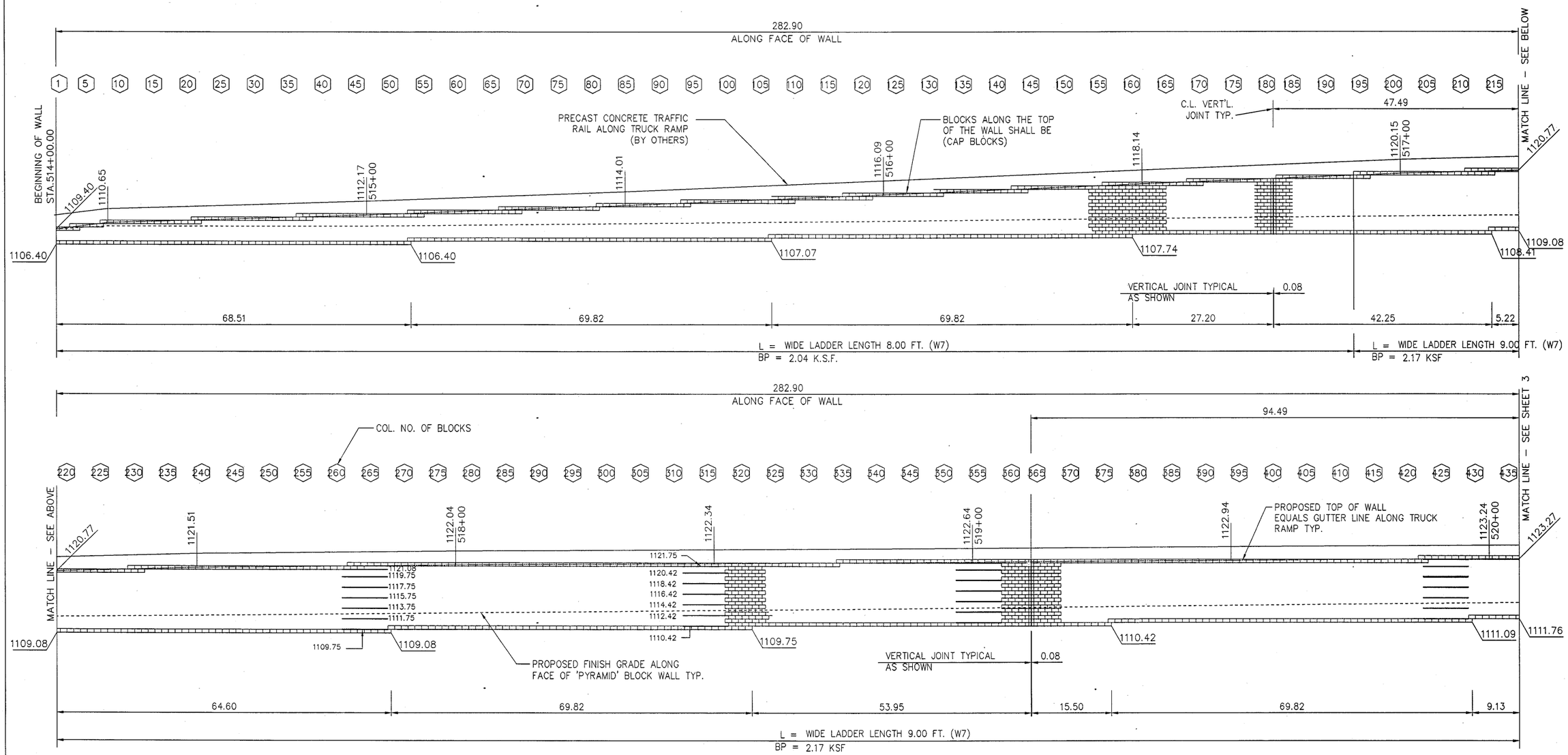
GENERAL NOTES
MODULAR BLOCK RETAINING WALL SYSTEM
WAY - 71 - 0.28, PID 14016

WAY-71-0.28

1 / 6

338
432

RE-9157



ELEVATION – BACK FACE

SCALE 1"=10'

L = DESIGNATED REINFORCEMENT LENGTH MEASURED FROM BACK FACE OF MODULAR BLOCKS (FT)
BP = MAXIMUM APPLIED BEARING PRESSURE (KSF)

CERTIFIED WITH RESPECT TO INTERNAL STABILITY OF REINFORCED EARTH STRUCTURES ONLY.

STATE OF OHIO
ALEXANDER ABRAHAM
E-57763
REGISTERED
PROFESSIONAL ENGINEER

This drawing contains information proprietary to The Reinforced Earth Company, and is being furnished for the use of State of Ohio Dept. of Transportation only in connection with this project, and the information contained is not to be transmitted to any other organization unless specifically authorized in writing by The Reinforced Earth Company. The Reinforced Earth Company is exclusive licensee in the United States under patents issued to Henri Vidal, and the furnishing of this drawing does not constitute an expressed or implied license under the Vidal patents.

The design contained on these drawings is based on information provided by the owner. On the basis of this information, The Reinforced Earth Company has designed, and is responsible for the internal stability of the structure only. External stability, including foundation and slope stability, is the responsibility of the owner.

The Reinforced Earth Company
8614 Westwood Center Drive
Suite 1100 Vienna, Virginia 22182
(703) 821-1175 FAX-(703) 821-1815
reinforced earth

DESIGNED	DRAWN	REVIEWED	DATE
IEP	IEP		01/15/01
CHECKED	REVISED	STRUCTURE FILE NO.	

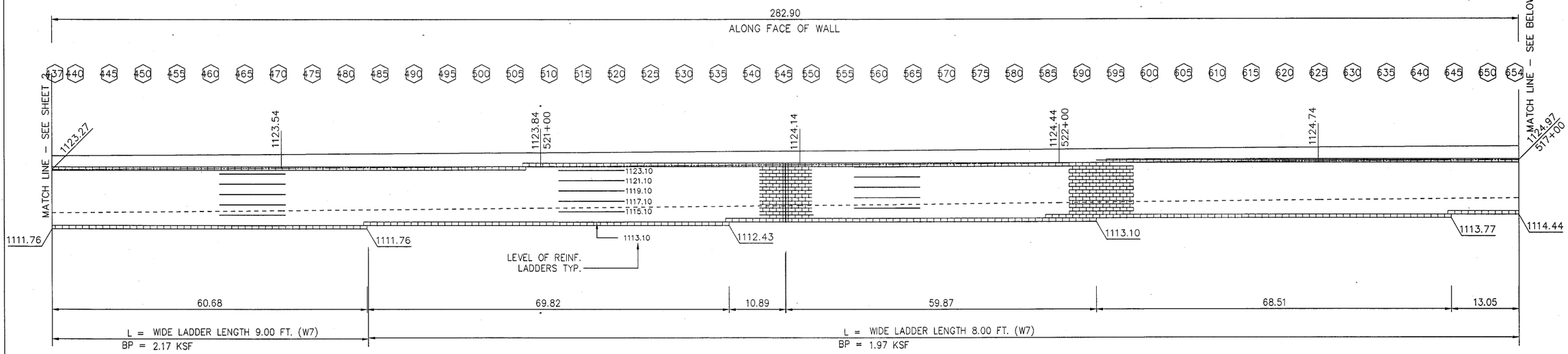
WALL ELEVATION
MODULAR BLOCK RETAINING WALL SYSTEM
WAY - 71 - 0.28, PID 14016

WAY-71-0.28

2 / 6

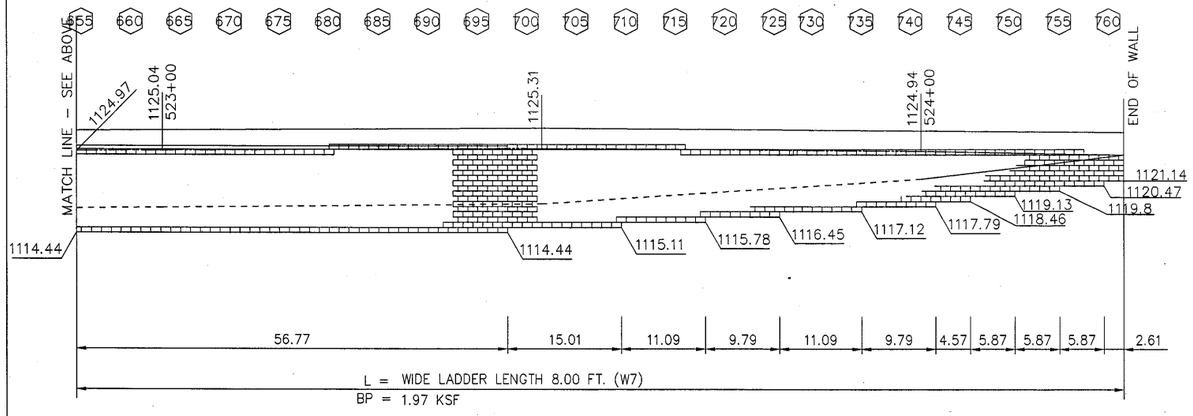
339
432

RE-9157



ELEVATION – BACK FACE

SCALE 1"=10'



L = DESIGNATED REINFORCEMENT LENGTH MEASURED FROM BACK FACE OF MODULAR BLOCKS (FT)
BP = MAXIMUM APPLIED BEARING PRESSURE (KSF)

CERTIFIED WITH RESPECT TO INTERNAL STABILITY OF REINFORCED EARTH STRUCTURES ONLY.

STATE OF OHIO
ALEXANDER ABRAHAM
E-57763
REGISTERED
PROFESSIONAL ENGINEER

This drawing contains information proprietary to The Reinforced Earth Company, and is being furnished for the use of State of Ohio Dept. of Transportation only in connection with this project, and the information contained is not to be transmitted to any other organization unless specifically authorized in writing by The Reinforced Earth Company. The Reinforced Earth Company is exclusive licensee in the United States under patents issued to Henri Vidal, and the furnishing of this drawing does not constitute an expressed or implied license under the Vidal patents.

The design contained on these drawings is based on information provided by the owner. On the basis of this information, The Reinforced Earth Company has designed, and is responsible for the internal stability of the structure only. External stability, including foundation and slope stability, is the responsibility of the owner.

The Reinforced Earth Company
8614 Westwood Center Drive
Suite 1100 Vienna, Virginia 22182
(703) 821-1175 FAX-(703) 821-1815
reinforced earth

DESIGNED IEP | DRAWN IEP | CHECKED | REVISED | REVIEWED | DATE 01/15/01 | STRUCTURE FILE NO.

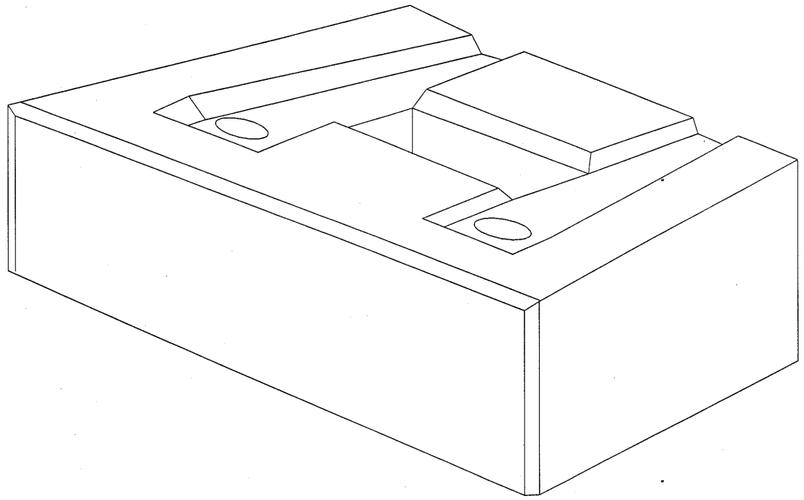
WALL ELEVATION CON'T.
MODULAR BLOCK RETAINING WALL SYSTEM
WAY – 71 – 0.28, PID 14016

WAY-71-0.28

3 / 6

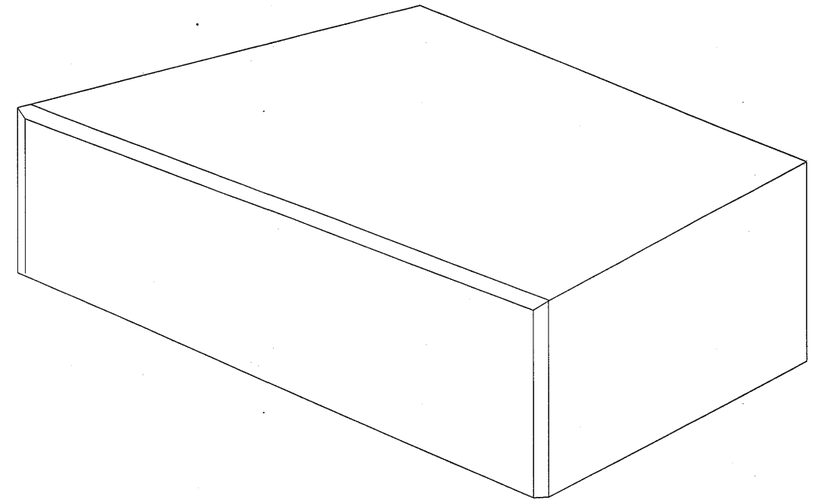
340
432

RE-9157

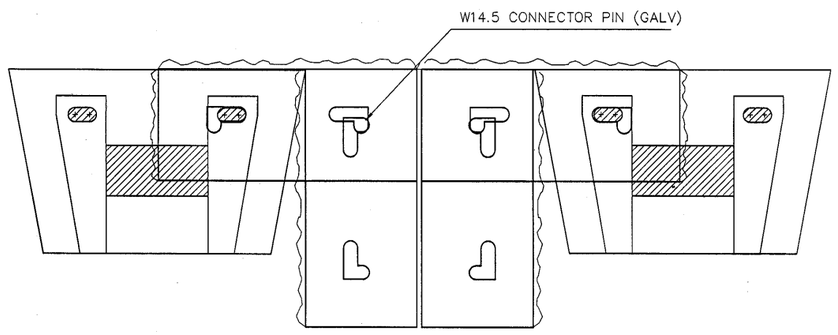


STANDARD UNIT

(SHOWN UPSIDE-DOWN)

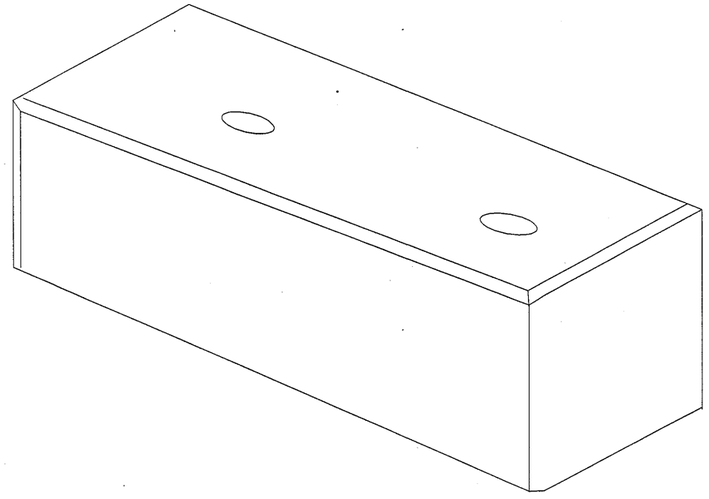


CAP UNIT



SLIP JOINT DETAILS

1/4" = 1"



CORNER UNIT

1"=5'

CERTIFIED WITH RESPECT TO INTERNAL STABILITY OF REINFORCED EARTH STRUCTURES ONLY.

STATE OF OHIO
ALEXANDER ABRAHAM
E-57763
REGISTERED
PROFESSIONAL ENGINEER

This drawing contains information proprietary to The Reinforced Earth Company, and is being furnished for the use of State of Ohio Dept. of Transportation only in connection with this project, and the information contained is not to be transmitted to any other organization unless specifically authorized in writing by The Reinforced Earth Company. The Reinforced Earth Company is exclusive licensee in the United States under patents issued to Henri Vidal, and the furnishing of this drawing does not constitute an expressed or implied license under the Vidal patents.

The design contained on these drawings is based on information provided by the owner. On the basis of this information, The Reinforced Earth Company has designed, and is responsible for the internal stability of the structure only. External stability, including foundation and slope stability, is the responsibility of the owner.

The Reinforced Earth Company
8614 Westwood Center Drive Suite 1100 Vienna, Virginia 22182
(703) 821-1175 FAX-(703) 821-1815

DESIGNED	DRAWN	REVIEWED	DATE
IEP	IEP	STRUCTURE	1/02/01
CHECKED	REVISED	FILE NO.	

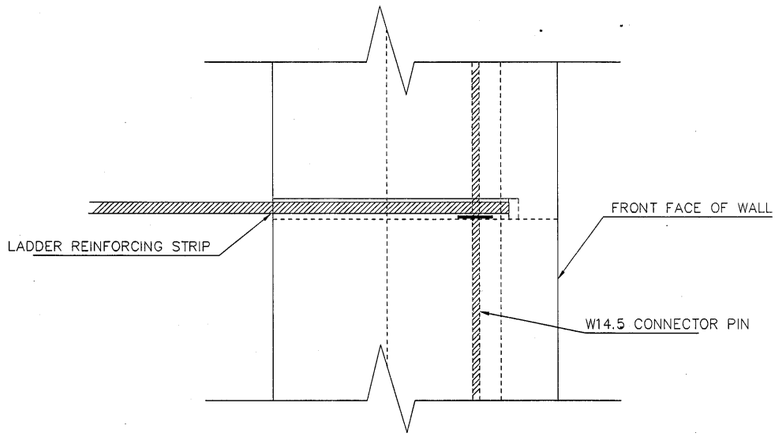
STANDARD DETAILS
MODULAR BLOCK RETAINING WALL SYSTEM
WAY - 71 - 0.28, PID 14016

WAY-71-0.28

4 / 6

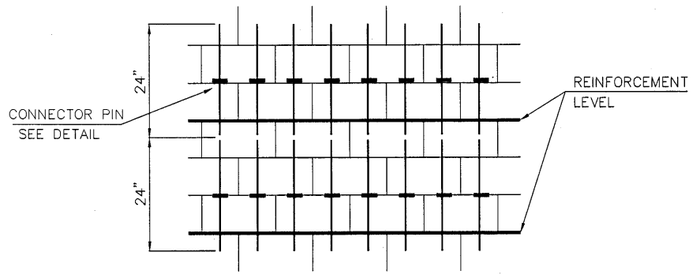
341
432

RE-9157



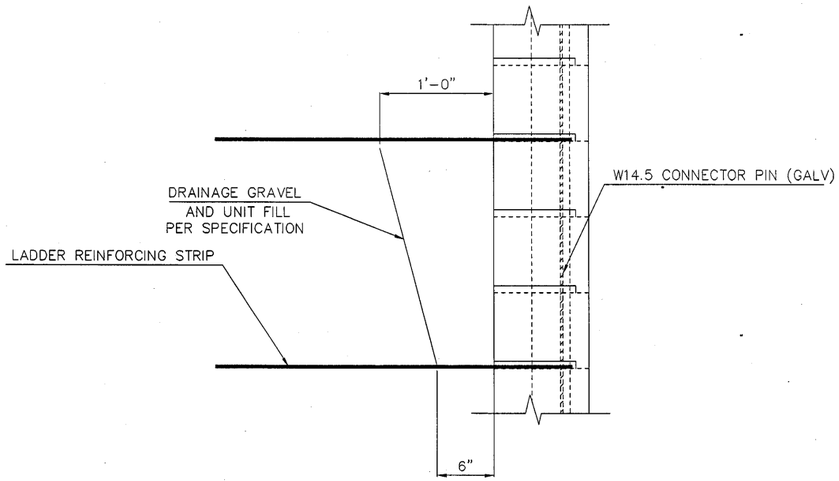
CONNECTOR PIN PLACEMENT SECTION

N.T.S.

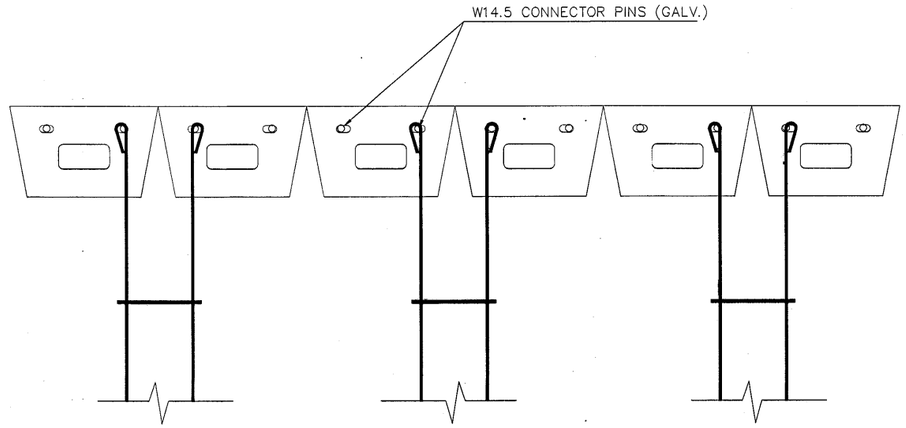


CONNECTOR PIN PLACEMENT
ELEVATION

N.T.S.



TYPICAL LADDER REINFORCEMENT
LAYOUT ELEVATION



TYPICAL LADDER REINFORCEMENT
LAYOUT PLAN
1/8" = 1"

CERTIFIED WITH RESPECT TO INTERNAL STABILITY OF REINFORCED EARTH STRUCTURES ONLY.

STATE OF OHIO
ALEXANDER ABRAHAM
E-57763
REGISTERED
PROFESSIONAL ENGINEER

This drawing contains information proprietary to The Reinforced Earth Company, and is being furnished for the use of State of Ohio Dept. of Transportation only in connection with this project, and the information contained is not to be transmitted to any other organization unless specifically authorized in writing by The Reinforced Earth Company. The Reinforced Earth Company is exclusive licensee in the United States under patents issued to Henri Vidal, and the furnishing of this drawing does not constitute an expressed or implied license under the Vidal patents.

The design contained on these drawings is based on information provided by the owner. On the basis of this information, The Reinforced Earth Company has designed, and is responsible for the internal stability of the structure only. External stability, including foundation and slope stability, is the responsibility of the owner.

The Reinforced Earth Company
8614 Westwood Center Drive
Suite 1100 Vienna, Virginia 22182
(703) 821-1175 FAX-(703) 821-1815

reinforced earth®

DESIGNED	DRAWN	REVIEWED	DATE
IEP	IEP		1/02/01
CHECKED	REVISED	STRUCTURE FILE NO.	

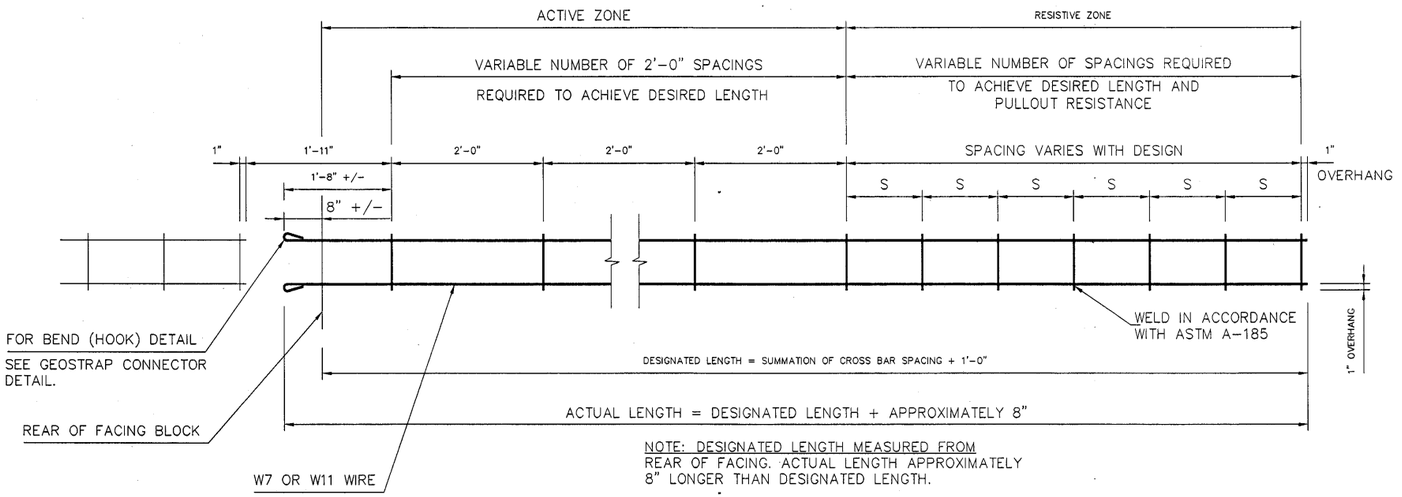
STANDARD DETAILS
MODULAR BLOCK RETAINING WALL SYSTEM
WAY - 71 - 0.28, PID 14016

WAY-71-0.28

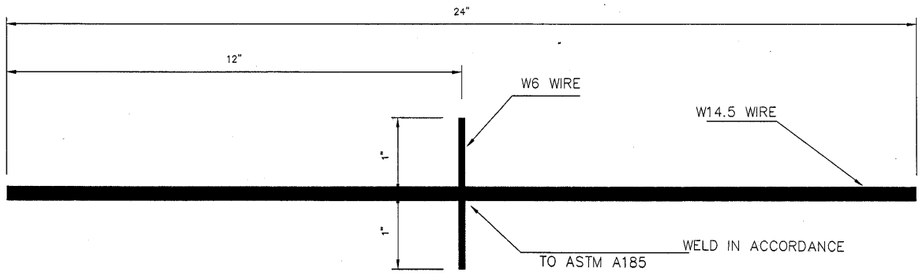
5 / 6

342
432

RE-9157



LADDER REINFORCING STRIP (GALVANIZED)



CONNECTOR PIN (GALVANIZED)

SCALE: 1" = 1'

CERTIFIED WITH RESPECT TO INTERNAL STABILITY OF REINFORCED EARTH STRUCTURES ONLY.

STATE OF OHIO
ALEXANDER ABRAHAM
E-57763
Registered
PROFESSIONAL ENGINEER

This drawing contains information proprietary to The Reinforced Earth Company, and is being furnished for the use of State of Ohio Dept. of Transportation only in connection with this project, and the information contained is not to be transmitted to any other organization unless specifically authorized in writing by The Reinforced Earth Company. The Reinforced Earth Company is exclusive licensee in the United States under patents issued to Henri Vidal, and the furnishing of this drawing does not constitute an expressed or implied license under the Vidal patents.

The design contained on these drawings is based on information provided by the owner. On the basis of this information, The Reinforced Earth Company has designed, and is responsible for the internal stability of the structure only. External stability, including foundation and slope stability, is the responsibility of the owner.

The Reinforced Earth Company
8614 Westwood Center Drive
Suite 1100 Vienna, Virginia 22182
(703) 821-1175 FAX-(703) 821-1815

reinforced earth®

DESIGNED	DRAWN	REVIEWED	DATE
IEP	IEP		1/02/01
CHECKED	REVISED	STRUCTURE FILE NO.	

WALL ELEVATION
MODULAR BLOCK RETAINING WALL SYSTEM
WAY - 71 - 0.28, PID 14016

WAY-71-0.28

6 / 6

343
432

RE-9157

TRAFFIC CONTROL GENERAL NOTES

MILE MARKER LOCATION

THE LOCATION OF MILE MARKERS ON THE PLANS ARE APPROXIMATE AND A MORE PRECISE LOCATION WILL BE PROVIDED BY THE DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 30 DAYS IN ADVANCE OF THE PLANNED DATE OF MARKER INSTALLATION. THE ENGINEER WILL CONTACT THE BUREAU OF TECHNICAL SERVICES WHICH WILL LOCATE THE THE LONGITUDINAL POSITION OF MILE MARKERS BY MEANS OF A PAINT MARK ON THE PAVEMENT EDGE. ALTERNATE MARKS WILL NOT BE PROVIDED ON DIVIDED HIGHWAYS AND THE CONTRACTOR SHALL SET MARKERS FOR THE OPPOSITE ROADWAY ACROSS FROM THE PROVIDED MARK. DELINEATORS WHOSE NORMAL POSITION FALLS WITHIN 50 FEET OF A MILE MARKER SHALL BE OMITTED.

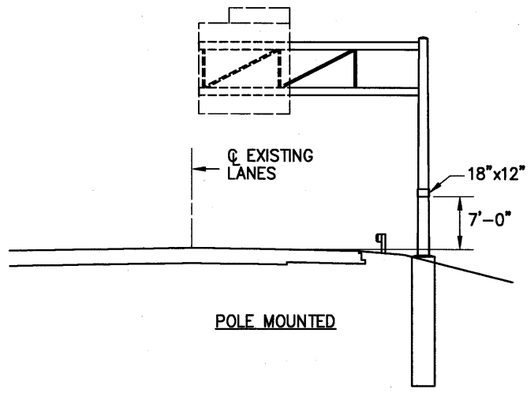
FREEWAY LOCATION IDENTIFICATION SYSTEM SIGNS

THESE SIGNS CONSIST OF A MAINLINE MARKER (N-44B) OR A RAMP MARKER (N-43B), ATTACHED TO GUIDE AND DESTINATION SIGNS WITH AN ITEM 630 - SIGN BACKING ASSEMBLY IF ATTACHED TO A GROUND-MOUNTED SIGN OR AN ITEM 630 - SIGN SUPPORT ASSEMBLY, POLE MOUNTED IF ATTACHED TO THE VERTICAL MEMBER OF AN OVERHEAD SIGN STRUCTURE.

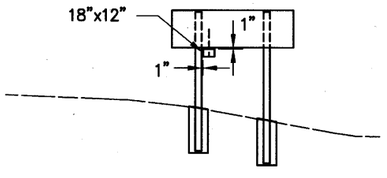
THE CONTRACTOR SHALL DETERMINE THE CORRECT STRAIGHT LINE MILEAGE, IN HUNDREDTH'S OF A MILE, FOR EACH SIGN BASED ON THE FINAL LOCATION OF THE SIGN. THE CORRECT MILEAGE SHALL BE DETERMINED ONLY AFTER THE MILE MARKERS HAVE BEEN LOCATED BY THE DEPARTMENT. THE PLAN SHOWS THE ROUTE NUMBER, ROUTE DIRECTION AND RAMP CODES (WHERE APPLICABLE). SEE THIS SHEET FOR DETAILS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A RECORD OF THE STRAIGHT LINE MILEAGE FOR EACH FREEWAY LOCATION IDENTIFICATION SYSTEM SIGN.

PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE FOOT FOR ITEM 630 - SIGN, FLAT SHEET, TYPE F. THE REQUIRED ITEM 630 - SIGN BACKING ASSEMBLY OR ITEM 630 - SIGN SUPPORT ASSEMBLY, POLE MOUNTED ARE PAID SEPARATELY AS INDICATED.

FREEWAY LOCATION IDENTIFICATION SYSTEM SIGN DETAIL



POLE MOUNTED



GROUND MOUNTED

RETURN OF NON-PERFORMED RAISED PAVEMENT MARKER MATERIALS SUPPLIED BY THE DEPARTMENT

RAISED PAVEMENT MARKER MATERIALS SUPPLIED BY THE DEPARTMENT, THAT ARE NON-PERFORMED SHALL BE CAREFULLY REPACKED OR PACKED IN BOXES IN THE SAME STYLE AND QUANTITY AS ORIGINALLY RECEIVED FROM THE DEPARTMENT. CASTING STYLES SHALL NOT BE MIXED WITHIN ANY ONE CONTAINER. THE CONTRACTOR SHALL CLEARLY MARK ON THE OUTSIDE OF EACH CONTAINER THE COLOR OF THE PRISMATIC RETRO-REFLECTOR AND THE STYLE OF CASTING. BOXES SHALL BE PLACED ON SKIDS OR PALLETS IN THE SAME STYLE (LOW PROFILE OR CONVENTIONAL, REFLECTORIZED OR NON-REFLECTORIZED) AND NO MORE THAN 420 RPM'S (OR 21 BOXES) ON ONE SKID.

ONLY USE THE BOXES SUPPLIED BY THE RAISED PAVEMENT MARKER RECYCLER. BOXES MUST BE MARKED WITH THE RECYCLER'S PART OR CATALOG NUMBER AND THE PROJECT NUMBER. THE RECYCLER'S CATALOG NUMBERS MAY BE OBTAINED FROM THE OFFICE OF TRAFFIC ENGINEERING IN COLUMBUS, OHIO OR FROM THE RECYCLER. BOXES NOT MARKED WITH THE PROPER RECYCLER'S CATALOG OR PART NUMBER, AND THE DEPARTMENT'S PROJECT NUMBER WILL NOT BE ACCEPTED AT THE RECYCLER'S WAREHOUSE.

NON-PERFORMED MATERIAL WILL BE RETURNED TO THE LOCATION AS SPECIFIED BY THE DISTRICT CONSTRUCTION ENGINEER WITHIN 30 DAYS OF THE COMPLETION OF THE PROJECT.

THE WORK ABOVE INCLUDING ALL LABOR, EQUIPMENT AND MATERIAL NEEDED TO PERFORM THE WORK SHALL BE CONSIDERED INCIDENTAL TO THE RESPECTIVE PAY ITEM.

IF THE DEPARTMENT HAS TO REPACKAGE THE RPM'S CORRECTLY, THE CONTRACTOR WILL BE ASSESSED THE ACTUAL COST FOR REPACKAGING THE MATERIALS BY THE DEPARTMENT FORCES.

ITEM SPECIAL - SIGNING, MISC.: SIGN DATA COLLECTION

THIS ITEM OF WORK SHALL CONSIST OF LOGGING INFORMATION FOR ANY WORK INVOLVING PERMANENT SIGNING INCLUDING REMOVAL, RELOCATION OR NEW INSTALLATION ON THIS PROJECT. ALL EXISTING SIGNS HAVE A BAR CODE STICKER. THE BAR CODE NUMBER FOR ANY SIGNS REMOVED ON THE PROJECT SHALL BE RECORDED SO THEY CAN BE REMOVED FROM THE INVENTORY. THE BAR CODE NUMBER FOR ANY SIGNS THAT ARE NEW OR RELOCATED SHALL ALSO BE RECORDED COMPLETELY AND ACCURATELY. NEW SIGNS REQUIRE NEW BAR CODE STICKERS WHICH WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRECONSTRUCTION MEETING. ANY STICKERS NOT USED ARE TO BE RETURNED TO ODOT D03 TRAFFIC DEPARTMENT.

THE INFORMATION SHALL BE RECORDED COMPLETELY AND ACCURATELY BY A PERSON FAMILIAR WITH SIGNING TERMINOLOGY. THE INFORMATION REQUIRED APPEARS ON A FORM WHICH WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRECONSTRUCTION MEETING. AFTER THE FORM IS COMPLETED, IT SHALL BE RETURNED TO ODOT DISTRICT 03 TRAFFIC DEPARTMENT. A COPY OF THIS FORM IS AVAILABLE UPON REQUEST FOR THE CONTRACTOR TO REVIEW FOR BIDDING PURPOSES. FOR A COPY OF THIS FORM PLEASE CALL 1-419-281-0513 EXTENSION 340 - ROADWAY SERVICES MANAGER.

PAYMENT FOR THE LABOR, MATERIALS AND EQUIPMENT NECESSARY TO PERFORM THE ABOVE WORK WHICH INCLUDES COMPLETION OF THE FORMS SUPPLIED TO THE CONTRACTOR, INSTALLATION OF BAR CODE STICKERS, MEASURING OF THE SIGNS AND ANY OTHER WORK IN ORDER TO COMPLETE THE FORM SHALL BE INCLUDED IN THE COST OF ITEM SPECIAL - SIGNING, MISC.: SIGN DATA COLLECTION PER EACH. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE TRAFFIC CONTROL GENERAL SUMMARY:

ITEM SPECIAL - SIGNING, MISC.: SIGN DATA COLLECTION 88 EACH

SERVICE SIGNS

ALL SERVICE TYPE SIGNS, WHICH ARE BLUE SIGNS IDENTIFYING RESTAURANTS, LODGING, AND GAS STATIONS, ARE ADMINISTERED BY "OHIO LOGOS INCORPORATED". THESE SIGNS SHALL REMAIN IN PLACE AND FUNCTIONAL AS LONG AS POSSIBLE. IF THE CONTRACTOR DETERMINES THAT THESE SIGNS WILL BE AFFECTED BY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT OHIO LOGOS, INC. (1-800-860-5646) IN WRITING A MINIMUM OF THIRTY (30) DAYS PRIOR TO THE PROJECT BEGINNING DATE. THIS INFORMATION SHALL BE SENT TO:

OHIO LOGOS, INC.
4384 TULLER RD.
DUBLIN, OH 43017
ATTN: ROGER ROSE, GENERAL MANAGER

OHIO LOGOS, INC. IS RESPONSIBLE FOR REMOVAL AND REERECTION OF THE LOGO SIGNS. THE CONTRACTOR SHALL NOT ALTER, REMOVE, RELOCATE, OR TAKE THESE SIGNS DOWN. THE CONTRACTOR, AT THE COMPLETION OF THIS PROJECT, SHALL NOTIFY OHIO LOGOS, INC. THAT THEY CAN REERECT THE SIGNS THAT HAD BEEN PREVIOUSLY REMOVED. THIS "DOWN TIME" SHALL BE LIMITED TO A MAXIMUM TWO (2) WEEK PERIOD.

"LEFT LANE ENDS" SERIES SIGNS

THE "LEFT LANE ENDS-1 MILE", "LEFT LANE ENDS-1/2 MILE", AND "LEFT LANE ENDS - MERGE RIGHT" SIGNS WILL ALREADY BE IN PLACE (NB) FROM THE ASD/WAY-71-14.383/0.000 PROJECT. THESE SIGNS ARE TO BE RE-USED FOR THIS PROJECT. THE CONTRACTOR SHALL REMOVE THESE SIGNS AT THE BEGINNING OF STAGE 1, PHASE 1 CONSTRUCTION AND STORE THEM ON THE PROJECT SITE. THESE SIGNS SHALL THEN BE RE-ERECTED ON NEW SUPPORTS AT THE LOCATIONS SHOWN IN THE PLANS AT THE COMPLETION OF STAGE 1, PHASE 3 CONSTRUCTION PRIOR TO OPENING THE THREE LANES TO TRAFFIC. THE SIGNS SHALL ALSO BE REMOVED AND STORED IN THE ABOVE MANNER FOR STAGE 2 CONSTRUCTION. SEE SHEETS 96, 97 AND 374 FOR LOCATIONS. ALL PROVISIONS OF ITEM 630 SHALL APPLY.

CALCULATED VLK 11-00
CHECKED SDS 11-00

TRAFFIC CONTROL GENERAL NOTES

WAY-71-0.28

TRAFFIC-GENNOTE.dwg May 08, 2001

FROM SHEET NUMBER														SUBTOTAL		ITEM NO.	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SEE SHEET
		110		344	348			361		375		424		NH	100% STATE						
																				LIGHTING	
										131				131		625	25500	131	LIN FT	CONDUIT, 3", 713.04	
										154				154		625	25900	154	LIN FT	CONDUIT, JACKED OR DRILLED, 1", 713.04	
										138				138		625	25900	138	LIN FT	CONDUIT, JACKED OR DRILLED, 3"	
												358		358		625	25920	358	LIN FT	CONDUIT, MISC.: 4" MULTICELL RACEWAY	
										160				160		625	29000	160	LIN FT	TRENCH	
										3				3		625	30700	3	EACH	PULL BOX, 713.08, 18"	
										1				1		625	30706	1	EACH	PULL BOX, 713.08, 24"	
												4		4		625	30707	4	EACH	PULL BOX, 713.08, 24", AS PER PLAN	424
					9					2				11		625	32000	11	EACH	GROUND ROD	
										12				12		632	26501	12	EACH	DETECTOR LOOP, AS PER PLAN	376
										1				1		632	63000	1	EACH	PHONE DROP	
										820				820		632	65200	820	LIN FT	LOOP DETECTOR LEAD-IN CABLE	
										12				12		632	90400	12	EACH	SIGNALIZATION, MISC.: PIEZOCABLE AXLE SENSOR CLASS 1 (11' IN LENGTH)	
										1				1		632	90400	1	EACH	SIGNALIZATION, MISC.: GROUND MOUNTED CONTROLLER FOUNDATION	
										1				1		633	65001	1	EACH	CABINET WITHOUT CONTROLLER, AS PER PLAN	377
										12				12		633	70500	12	SQ FT	CONTROLLER WORK PAD	
										1				1		633	99000	1	EACH	CONTROLLER ITEM, MISC.: SOLAR PANEL	
																				FOR REST AREA LIGHTING, SEE GENERAL SUMMARY SHEET 380.	
																				TRAFFIC CONTROL	
								295						295		620	10300	295	EACH	DELINEATOR, TYPE C, POST MOUNTED	
								92						92		620	15300	92	EACH	DELINEATOR, TYPE D, POST MOUNTED	
					10									10		620	40300	10	EACH	REFLECTOR, TYPE D	
								1195						1195		621	00214	1195	EACH	RAISED PAVEMENT MARKER, HIGH PROFILE WHITE, INSTALLATION ONLY	
								99						99		621	00218	99	EACH	RAISED PAVEMENT MARKER, HIGH PROFILE WHITE-RED, INSTALLATION ONLY	
								126						126		621	00220	126	EACH	RAISED PAVEMENT MARKER, HIGH PROFILE YELLOW-RED, INSTALLATION ONLY	
		348												348		626	00100	348	EACH	BARRIER REFLECTOR, TYPE A	
		32												32		626	00200	32	EACH	BARRIER REFLECTOR, TYPE B	
					146.5									146.5		630	02100	146.5	LIN FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
					168.0									168.0		630	03100	168.0	LIN FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
					122.5									122.5		630	04100	122.5	LIN FT	GROUND MOUNTED SUPPORT, NO. 4 POST	
					128.0									128.0		630	06400	128.0	LIN FT	GROUND MOUNTED SUPPORT, S4X7.7 BEAM	
					90.5									90.5		630	07000	90.5	LIN FT	GROUND MOUNTED SUPPORT, W8X18 BEAM	
					442.0									442.0		630	07600	442.0	LIN FT	GROUND MOUNTED SUPPORT, W10X12 BEAM	
					30									30		630	09000	30	EACH	BREAKAWAY BEAM CONNECTION	
					9									9		630	21000	9	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 10	
					9									9		630	79500	9	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
					13.5									13.5		630	80100	13.5	SQ FT	SIGN, FLAT SHEET, TYPE F	
					46.0									46.0		630	80102	46.0	SQ FT	SIGN, FLAT SHEET, TYPE G	
					960.0									960.0		630	81200	960.0	SQ FT	SIGN ERECTED, EXTRUSHEET	
					11									11		630	82000	11	EACH	SIGN BACKING ASSEMBLY	
					34									34		630	84500	34	EACH	GROUND MOUNTED BEAM SUPPORT FOUNDATION	
					9									9		630	84510	9	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
					5									5		630	84900	5	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
					46									46		630	85100	46	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
					12									12		630	85500	12	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND STORAGE	
					10									10		630	85600	10	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION	
					36									36		630	86002	36	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
					48									48		630	86102	48	EACH	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND DISPOSAL	
				88											88	SPECIAL	63097700	88	EACH	SIGNING, MISC.: SIGN DATA COLLECTION	
								1.06						1.06		642	00102	1.06	MILE	EDGE LINE, TYPE 2	
								167						167		642	00402	167	LIN FT	CHANNELIZING LINE, TYPE 2	
								33						33		642	00702	33	LIN FT	TRANSVERSE LINE, TYPE 2	
								6789						6789		642	01202	6789	LIN FT	PARKING LOT STALL MARKING, TYPE 2	
								8						8		642	01704	8	EACH	HANDICAP SYMBOL MARKING, TYPE 2	
								32.10						32.10		644	00100	32.10	MILE	EDGE LINE	
								27.72						27.72		644	00200	27.72	MILE	LANE LINE	
								3705						3705		644	00400	3705	LIN FT	CHANNELIZING LINE	
								1184						1184		644	00700	1184	LIN FT	TRANSVERSE LINE	
								1139						1139		644	30000	1139	LIN FT	REMOVAL OF PAVEMENT MARKING	

CALCULATED VLK 11-00
CHECKED SDS 11-00

TRAFFIC CONTROL GENERAL SUMMARY

WAY-71-0.28

TC_ GENSUM.DWG May 09 ,2001

SHEET NO.	REFERENCE NO.	LOCATION	SIDE	CODE	SIZE (inch)	620	625	630																				
						REFLECTOR, TYPE D	GROUND ROD	GROUND MOUNTED SUPPORT, NO. 2 POST	GROUND MOUNTED SUPPORT, NO. 3 POST	GROUND MOUNTED SUPPORT, NO. 4 POST	GROUND MOUNTED SUPPORT, S4x7.7 BEAM	GROUND MOUNTED SUPPORT, W8x18 BEAM	GROUND MOUNTED SUPPORT, W10x12 BEAM	BREAKAWAY BEAM CONNECTION	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 10	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	SIGN, FLAT SHEET, TYPE F	SIGN, FLAT SHEET, TYPE G	SIGN ERECTED, EXTRUSHEET	SIGN BACKING ASSEMBLY	GROUND MOUNTED BEAM SUPPORT FOUNDATION	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND STORAGE	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND DISPOSAL
						EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	SQ. FT.	SQ. FT.	SQ. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
		MAINLINE																										
349	S1	8+56.3 NB TO	RT	GB	144x144																			2		1		2
		5+90.0, 84.5'		GEP-96	96x24		1								1					1		1						
				SPECIAL	144x24															1								
				N-44B	18x12											1	1.5											
349	S2	38+15.8 NB TO	RT	GB	144x144																			1		1		2
		31+86.0, 84.5'		GEP-96	96x24		1								1					1		1						
				N-44B	18x12											1	1.5											
362	S3	37+18.3 TO	CL	R-123	36x36																			2				1	
		37+17.0		R-19	24x30	1				15.5																			
362	S4	37+64.6 TO	CL	R-123	36x36																			2				1	
		37+67.0		R-19	24x30	1				15.5																			
349	S5	49+02.3 NB TO	RT	GE	144x144																			2		1		2
		57+82.0, 98.5'		GEP-96	96x24		1								1					1		1						
				SPECIAL	144x24															1								
				N-43B	18x12											1	1.5											
369	S6	73+34.3 NB TO	RT	RA-3-132	132x54																			1		1		2
		72+75.0, 87.5' RT.		N-86-120	120x18								20.0/21.0	2							2							
370	S7	84+52.7 NB TO	RT	RA-4-72	72x66																			1				2
		84+35.0, 85.0' RT.									16.0/16.0			2							2							
		NB REST AREA																										
370	S8	416+93.4, 9.5' LT. TO		RA-74-48	48x30																			1				2
		415+00.0, 18.0' RT.						14.5/14.5																				
370	S9	418+40.3, 75.8' LT. TO		R-41B-36	36x36																			1				1
		416+93.0, 67.7' LT.							11.5																			
370	S10	418+40.0, 19.5' LT.		R-41B-36	36x36				11.5									9.0										
370	S11	419+56.4, 37.3' LT. TO		RA-87-36	36x36																			1				1
		416+10.0, 31.2' LT.							12.5																			
370	S12	419+57.7, 27.0' LT. TO		R-142-24	24x24																			1				1
		416+10.0, 19.0' LT.						12.0																				
		MAINLINE																										
350	S13	91+92.3 NB TO	RT	GB	144x144																			1		1		2
		97+50.0, 84.5'		GEP-96	96x24		1								1					1		1						
				N-44B	18x12											1	1.5											
		NB REST AREA																										
370	S14	423+40.1, 24.9' LT. TO		R-2-36	36x36																			1				1
		425+00.0, 13.5' RT.						15.0																				
370	S15	423+42.1, 86.3' LT.		R-43R-36	36x12																				1			1
370	S16	423+81.4, 98.2' LT. TO		N-84-48	48x36																			2				2
		425+60.0, 56.75' LT.		N-99-48	48x30						15.5/15.5			2							2							
		MAINLINE																										
370	S17	96+73.6 NB TO	RT	W-49R-48	48x48																			1				2
		95+50.0, 84.8'							16.0/16.0																			
370	S18	98+24.3 SB TO	LT	W-49R-48	48x48																			1				2
		98+50.0, 84.8'							15.5/16.0																			
SUBTOTAL THIS SHEET						2	4	56.0	99.0	31.0	63.0	–	41.0	6	4	4	6.0	9.0	–	6	6	4	1	21	–	5	15	12

CALCULATED VLK 11-00
CHECKED SDS 11-00

SIGNING SUB-SUMMARY

WAY-71-0.28

346
432

signsum.dwg May 03 ,2001

SHEET NO.	REFERENCE NO.	LOCATION	SIDE	CODE	SIZE (inch)	620	625	630																				
						REFLECTOR, TYPE D	GROUND ROD	GROUND MOUNTED SUPPORT, NO. 2 POST	GROUND MOUNTED SUPPORT, NO. 3 POST	GROUND MOUNTED SUPPORT, NO. 4 POST	GROUND MOUNTED SUPPORT, S4x7.7 BEAM	GROUND MOUNTED SUPPORT, W8x18 BEAM	GROUND MOUNTED SUPPORT, W10x12 BEAM	BREAKAWAY BEAM CONNECTION	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 10	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	SIGN, FLAT SHEET, TYPE F	SIGN, FLAT SHEET, TYPE G	SIGN ERECTED, EXTRUSHEET	SIGN BACKING ASSEMBLY	GROUND MOUNTED BEAM SUPPORT FOUNDATION	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND STORAGE	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND DISPOSAL
						EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	SQ. FT.	SQ. FT.	SQ. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
		SB REST AREA																										
371	S19	621+15.5, 70.7' RT. TO		N-84-48	48x36																			2			2	
		620+43.0, 47.0' RT.		N-99-48	48x30						16.0/16.0			2							2						
371	S20	621+88.1, 14.8' RT. TO		R-2-36	36x36																			1			1	
		621+00.0, 13.5' LT.						14.5																				
371	S21	621+68.9, 75.3' RT.		R-43R-36	36x12																				1		1	
371	S22	625+74.5, 33.7' RT. TO		RA-87-36	36X36																			1			1	
		630+00.0, 31.5' RT.							12.5																			
371	S23	625+75.7, 30.8' RT. TO		R-142-24	24x24																			1			1	
		630+00.0, 19.0' RT.						12.0																				
371	S24	625+90.7, 3.2' RT. TO		SPECIAL	30x12																			1			1	
		625+90.0, 12.6' LT.						12.0																				
371	S25	626+64.9, 84.2' RT. TO		R-41B-36	36x36																			1			1	
		629+15.0, 78.75' RT.							12.5																			
371	S26	627+50.0, 19.5' RT.		R-41B-36	36x36				12.5									9.0										
371	S27	629+39.7, 17.2' RT. TO		RA-74-48	48x30																			1			2	
		630+75.0, 18.0' LT.						14.0/14.5																				
		MAINLINE																										
371	S28	110+77.4, 85.1' LT. SB TO	LT	RA-4-72	72x66																			1				2
		111+05.0, 85.0' LT.									16.5/16.5			2							2							
372	S29	113+26.8, 101.6' LT. SB TO	LT	N-41-12	12x48																			1			1	
		113+26.8, 100.8' LT.						12.5																				
350	S30	116+52.5 NB TO	RT	GB	144x144																			1		1		2
		116+50.0, 84.5'		GEP-96	96x24		1								1					1		1						
				N-44B	18x12											1	1.5											
362	S31	127+25.0	CL	R-123	36x36	2				15.0								9.0/5.0										
				R-19	24x30																							
362	S32	127+75.0	CL	R-123	36x36	2				15.5								9.0/5.0										
				R-19	24x30																							
350	S33	140+93.1 NB TO	RT	GE	144x144																			1		1		2
		146+07.0, 98.5'		GEP-96	96x24		1								1					1		1						
				N-43B	18x12											1	1.5											
97	S34	152+60.0, 6.0' RT NB	RT	W-54B-192	192x60								19.5/21.0	2					80.0		2							
		(FROM ASD/WAY-71-14.383/0.000 STA. 807+08.5)																							1			2
97	S35	152+60.0, 90.0' RT NB	RT	W-54B-192	192x60								18.5/20.5	2					80.0		2							
		(FROM ASD/WAY-71-14.383/0.000 STA. 807+08.5)																							1			2
351	S36	179+75.8 SB TO	LT	GE	144x144																			1		1		2
		171+23.0, 98.5'		GEP-96	96x24		1								1					1		1						
				N-43B	18x12											1	1.5											
97	S37	179+00.0, 6.0' RT NB	RT	W-54B-192	192x60								19.5/21.0	2					80.0		2							
		(FROM ASD/WAY-71-14.383/0.000 STA. 833+72.5)																							1			2
97	S38	179+00.0, 94.4' RT NB	RT	W-54B-192	192x60								19.5/20.5	2					80.0		2							
		(FROM ASD/WAY-71-14.383/0.000 STA. 833+72.5)																							1			2
362	S39	190+98.2 TO	CL	R-123	36x36																			2			1	
		190+95.0		R-19	24x30	1				15.5																		
362	S40	191+43.0 TO	CL	R-123	36x36																			2			1	
		191+45.0		R-19	24x30	1				15.0																		
		SUBTOTAL THIS SHEET				6	3	79.5	37.5	61.0	65.0	–	160.0	12	3	3	4.5	37.0	320.0	3	12	3	1	17	4	3	13	16

CALCULATED VLK 11-00
CHECKED SDS 11-00

SIGNING SUB-SUMMARY

WAY-71-0.28

signsum.dwg May 03, 2001

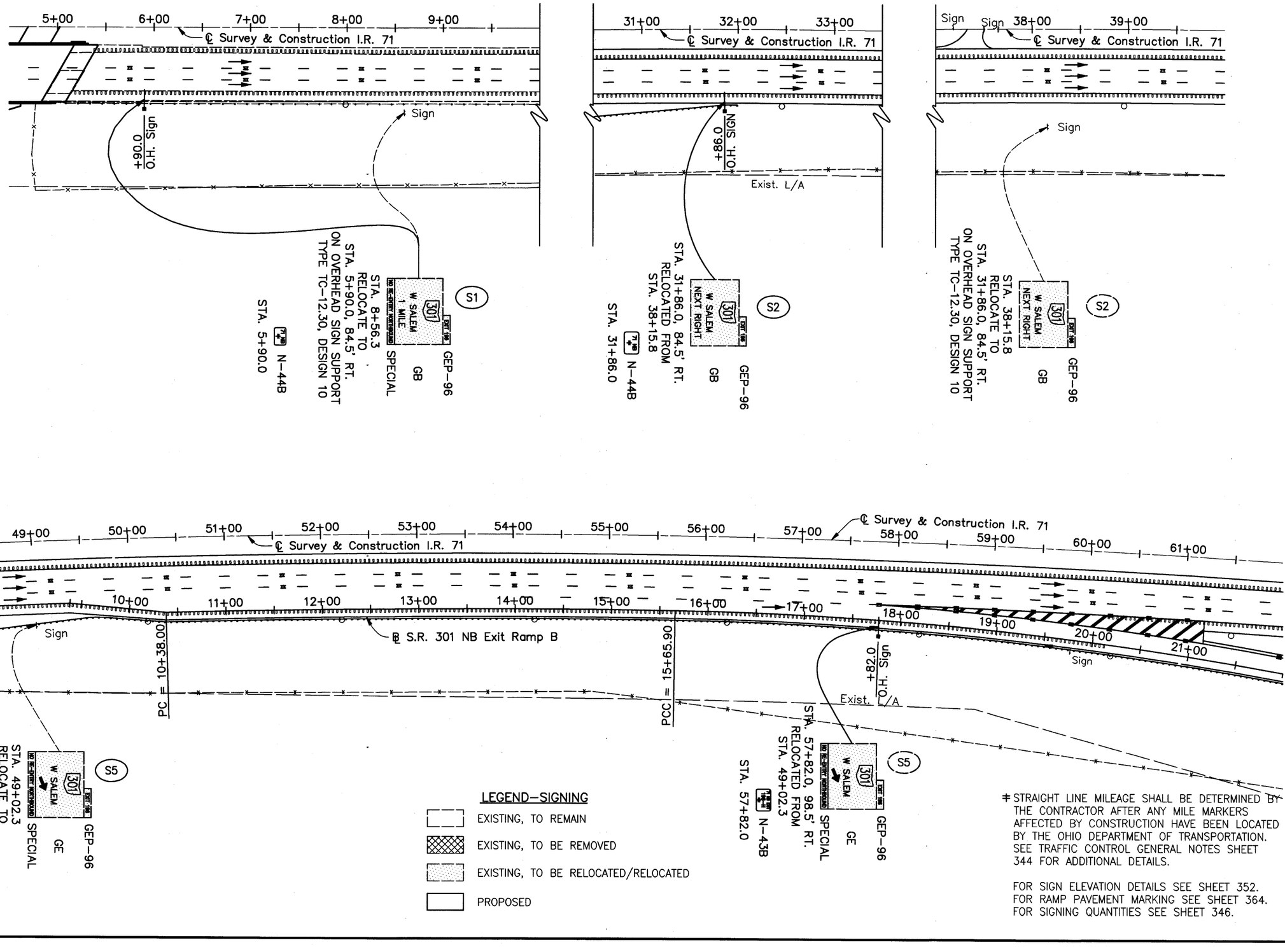
SHEET NO.	REFERENCE NO.	LOCATION	SIDE	CODE	SIZE (inch)	620	625	630																				
						REFLECTOR, TYPE D	GROUND ROD	GROUND MOUNTED SUPPORT, NO. 2 POST	GROUND MOUNTED SUPPORT, NO. 3 POST	GROUND MOUNTED SUPPORT, NO. 4 POST	GROUND MOUNTED SUPPORT, S4x7.7 BEAM	GROUND MOUNTED SUPPORT, W8x18 BEAM	GROUND MOUNTED SUPPORT, W10x12 BEAM	BREAKAWAY BEAM CONNECTION	OVERHEAD SIGN SUPPORT, TYPE TC-12.30, DESIGN 10	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	SIGN, FLAT SHEET, TYPE F	SIGN, FLAT SHEET, TYPE G	SIGN ERECTED, EXTRUSHEET	SIGN BACKING ASSEMBLY	GROUND MOUNTED BEAM SUPPORT FOUNDATION	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND STORAGE	REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED BEAM SUPPORT AND DISPOSAL
						EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	SQ. FT.	SQ. FT.	SQ. FT.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
		MAINLINE																										
351	S41	193+54.4 SB TO	LT	GB	144x144																			1		1		2
		197+63.0, 84.5'		GEP-96	96x24		1								1					1		1						
				N-44B	18x12											1	1.5											
97	S42	200+90.0, 6.0' RT NB	RT	W-54A-192	192x60								19.5/21.0	2					80.0		2							
		(FROM ASD/WAY-71-																										
		14.383/0.000 STA. 6+98.8)																							1			2
97	S43	200+90.0, 90.0' RT NB	RT	W-54A-192	192x60								19.0/20.0	2					80.0		2							
		(FROM ASD/WAY-71-																										
		14.383/0.000 STA. 6+98.8)																							1			2
351	S44	221+33.2 SB TO	LT	GB	144x144																			1		1		2
		224+03.0, 84.5'		GEP-96	96x24		1								1					1		1						
				N-44B	18x12											1	1.5											
163	S45	299+82.0 SB TO	LT	W-172-48	48x48																			1				2
		304+00.0							16.0/15.5																			
164	S46	308+35.6 SB	LT	R-35-48	48x60																		1					1	
362	S47	316+51.7 TO	CL	R-123	36x36																			2				1	
		316+47.0		R-19	24x30	1				15.5																			
362	S48	316+94.3 TO	CL	R-123	36x36																			2				1	
		316+97.0		R-19	24x30	1				15.0																			
374	S49	318+70.0, 6.0' RT NB	RT	W-54B-192	192x60								19.5/21.0	2					80.0		2							
		FROM 152+60.0, 6.0' RT																							1			2
374	S50	318+70.0, 90.0' RT NB	RT	W-54B-192	192x60								19.0/21.5	2					80.0		2							
		FROM 152+60.0, 90.0' RT																							1			2
374	S51	344+00.0, 6.0' RT NB	RT	W-54B-192	192x60								19.5/21.0	2					80.0		2							
		FROM 179+00.0, 6.0' RT																							1			2
374	S52	344+00.0, 90.0' RT NB	RT	W-54B-192	192x60							21.0/25.0							80.0		2							
		FROM 179+00.0, 94.4' RT																							1			2
168	S53	354+48.3 NB TO	RT	X-6R	12x36																			1				1
		354+47.0, 16.0' RT.						11.0																				
169	S54	367+17.6 NB	LT	X-6R	12x36																		1					1
169	S55	369+08.8 SB	RT	X-6L	12x36																		1					1
374	S56	371+50.0, 6.0' RT NB	RT	W-54A-192	192x60								19.5/20.5	2					80.0		2							
		FROM 200+90.0, 6.0' RT																							1			2
374	S57	371+50.0, 90.0' RT NB	RT	W-54A-192	192x60							20.0/24.5							80.0		2							
		FROM 200+90.0, 90.0' RT																							1			2
		SUBTOTAL THIS SHEET				2	2	11.0	31.5	30.5	–	90.5	241.0	12	2	2	3.0	–	640.0	2	16	2	3	8	8	2	8	20
		SUBTOTAL SHEET 346				2	4	56.0	99.0	31.0	63.0	–	41.0	6	4	4	6.0	9.0	–	6	6	4	1	21	–	5	15	12
		SUBTOTAL SHEET 347				6	3	79.5	37.5	61.0	65.0	–	160.0	12	3	3	4.5	37.0	320.0	3	12	3	1	17	4	3	13	16
		TOTAL				10	9	146.5	168.0	122.5	128.0	90.5	442.0	30	9	9	13.5	46.0	960.0	11	34	9	5	46	12	10	36	48
		TOTALS CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY SHEET 345				10	9	146.5	168.0	122.5	128.0	90.5	442.0	30	9	9	13.5	46.0	960.0	11	34	9	5	46	12	10	36	48

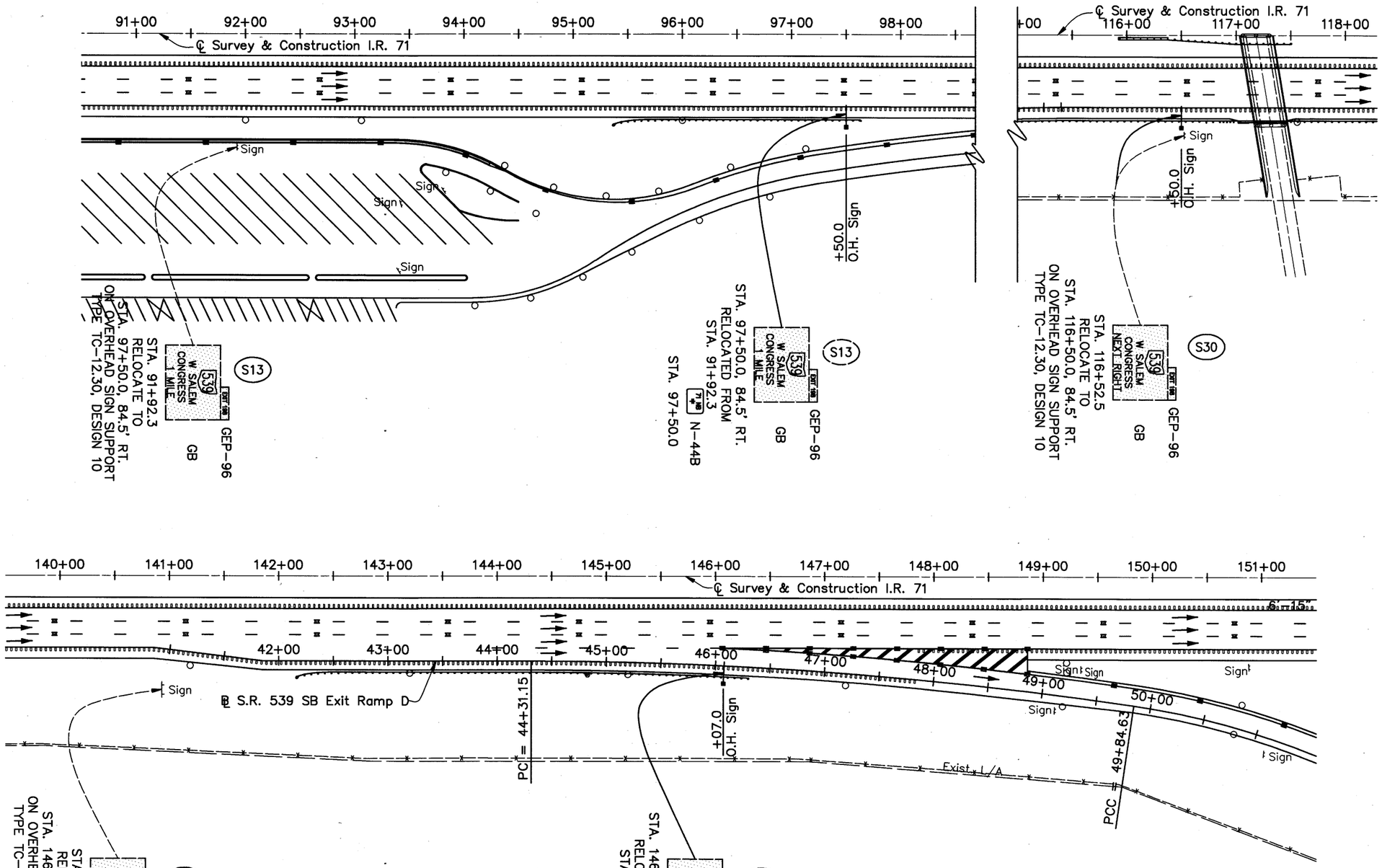
CALCULATED VLK 11-00
CHECKED SDS 11-00

SIGNING SUB-SUMMARY

WAY-71-0.28

signsum.dwg May 03, 2001


Survey & Construction I.R. 71
Sign
S.R. 301 NB Exit Ramp B
PC = 10+38.00
PCC = 15+65.90
O.H. Sign 0+60.0
O.H. Sign 0+86.0
O.H. Sign 0+28.0
Exist. L/A
GEP-96
GB
GE
SPECIAL
W SALEM 1 MILE
NEXT RIGHT
STA. 38+15.8 RELOCATE TO STA. 31+86.0, 84.5' RT. ON OVERHEAD SIGN SUPPORT TYPE TC-12.30, DESIGN 10
STA. 31+86.0, 84.5' RT. RELOCATED FROM STA. 38+15.8
STA. 8+56.3 RELOCATE TO STA. 5+90.0, 84.5' RT. ON OVERHEAD SIGN SUPPORT TYPE TC-12.30, DESIGN 10
STA. 49+02.3 RELOCATE TO STA. 57+82.0, 98.5' RT. ON OVERHEAD SIGN SUPPORT TYPE TC-12.30, DESIGN 10
STA. 31+86.0
STA. 5+90.0
STA. 57+82.0
STA. 49+02.3
N-44B
N-43B
LEGEND-SIGNING
EXISTING, TO REMAIN
EXISTING, TO BE REMOVED
EXISTING, TO BE RELOCATED/RELOCATED
PROPOSED
STRAIGHT LINE MILEAGE SHALL BE DETERMINED BY THE CONTRACTOR AFTER ANY MILE MARKERS AFFECTED BY CONSTRUCTION HAVE BEEN LOCATED BY THE OHIO DEPARTMENT OF TRANSPORTATION. SEE TRAFFIC CONTROL GENERAL NOTES SHEET 344 FOR ADDITIONAL DETAILS.
FOR SIGN ELEVATION DETAILS SEE SHEET 352.
FOR RAMP PAVEMENT MARKING SEE SHEET 364.
FOR SIGNING QUANTITIES SEE SHEET 346.
CALCULATED
CHECKED
0 50 100 Scale in Feet
SIGNING PLAN RAMP B
WAY-71-0.28
349
432
sign-rampB.dwg May 03, 2001



LEGEND–SIGNING

- EXISTING, TO REMAIN
- EXISTING, TO BE REMOVED
- EXISTING, TO BE RELOCATED/RELOCATED
- PROPOSED

STRAIGHT LINE MILEAGE SHALL BE DETERMINED BY THE CONTRACTOR AFTER ANY MILE MARKERS AFFECTED BY CONSTRUCTION HAVE BEEN LOCATED BY THE OHIO DEPARTMENT OF TRANSPORTATION. SEE TRAFFIC CONTROL GENERAL NOTES SHEET 344 FOR ADDITIONAL DETAILS.

FOR SIGN ELEVATION DETAILS SEE SHEET 353.
FOR RAMP PAVEMENT MARKING SEE SHEET 366.
FOR REST AREA DETAILS SEE SHEETS 369–372.
FOR SIGNING QUANTITIES SEE SHEETS 346 AND 347.

0 50 100 Scale in Feet

CALCULATED

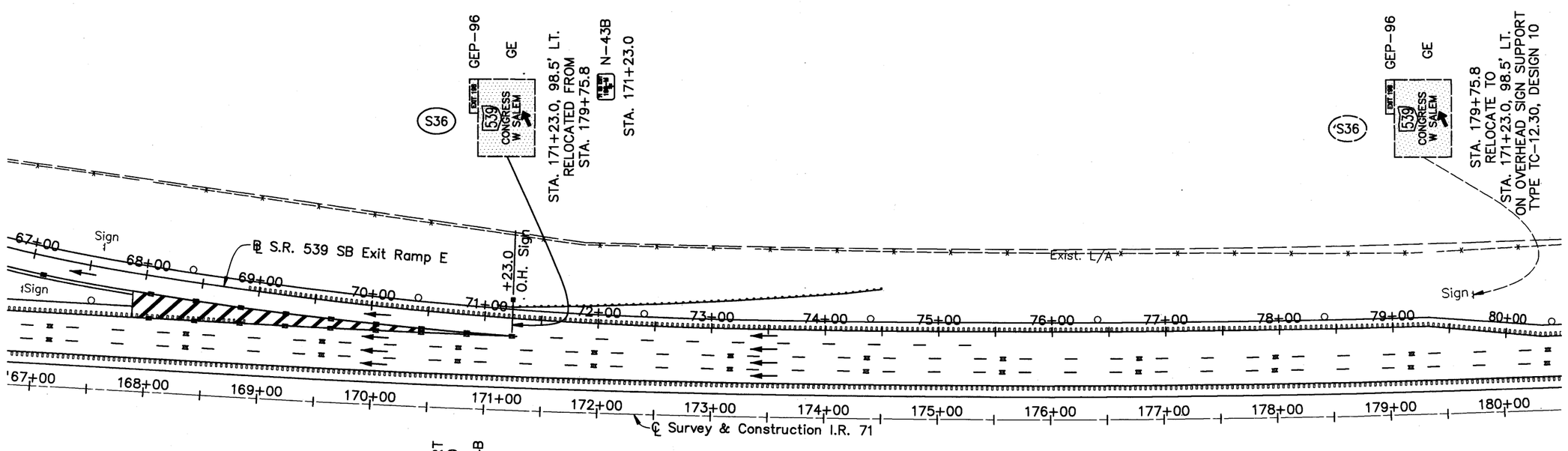
CHECKED

SIGNING PLAN
RAMP D

WAY–71–0.28

350
432

sign-rampD.dwg May 03 2001



LEGEND–SIGNING

- EXISTING, TO REMAIN
- EXISTING, TO BE REMOVED
- EXISTING, TO BE RELOCATED/RELOCATED
- PROPOSED

≠ STRAIGHT LINE MILEAGE SHALL BE DETERMINED BY THE CONTRACTOR AFTER ANY MILE MARKERS AFFECTED BY CONSTRUCTION HAVE BEEN LOCATED BY THE OHIO DEPARTMENT OF TRANSPORTATION. SEE TRAFFIC CONTROL GENERAL NOTES SHEET 344 FOR ADDITIONAL DETAILS.

FOR SIGN ELEVATION DETAILS SEE SHEET 354.
FOR RAMP PAVEMENT MARKING SEE SHEET 367.
FOR WIM DETAILS SEE SHEETS 375–377.
FOR SIGNING QUANTITIES SEE SHEETS 347 AND 348.

CALCULATED
CHECKED

0 50 100
Scale in Feet

SIGNING PLAN
RAMP E

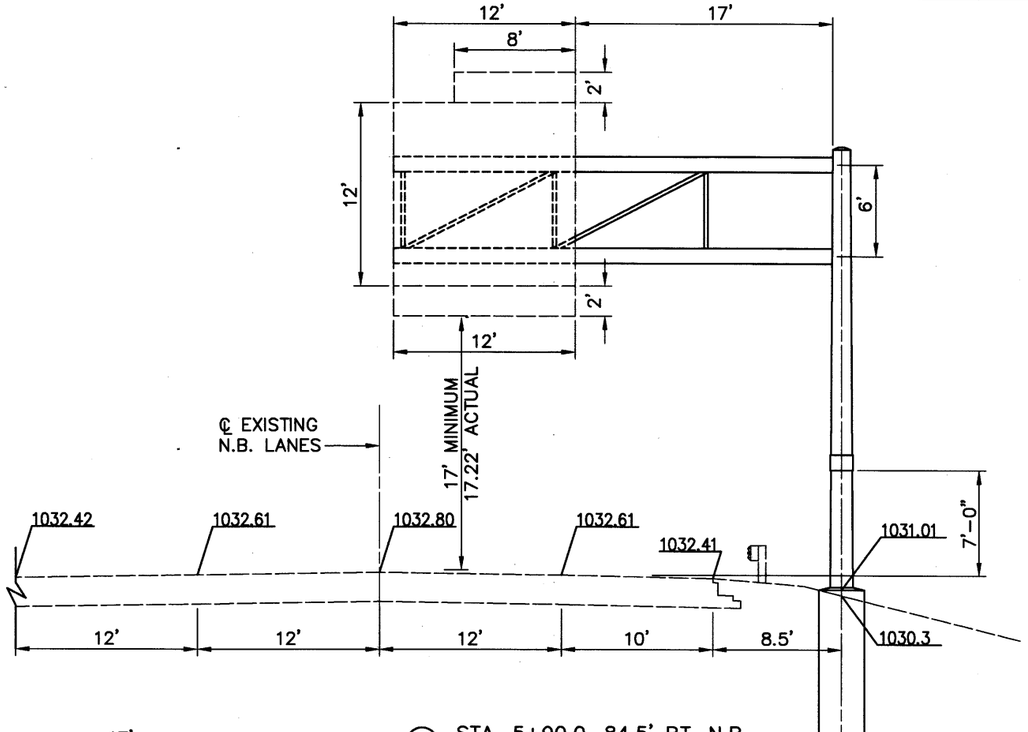
WAY–71–0.28

351
432

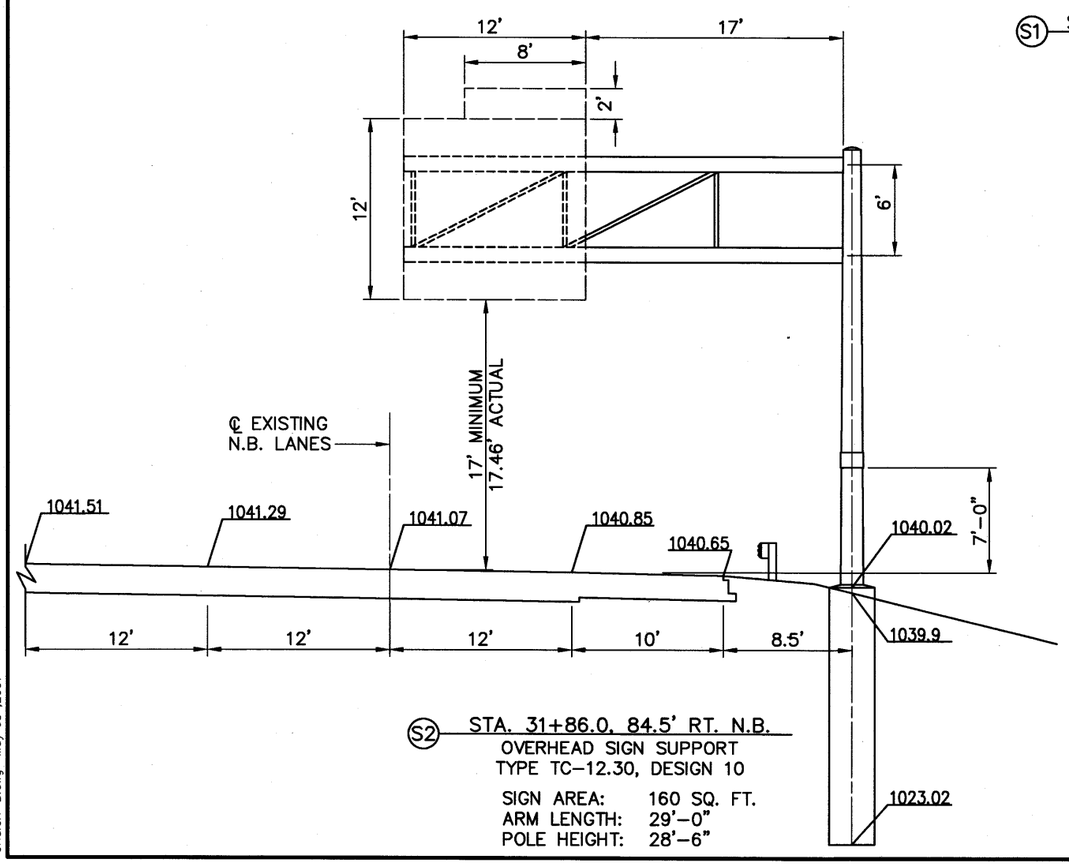
sign-rampE.dwg May 03, 2001

NOTE: ALL DETAILS SHOWN IN THE DIRECTION TRAFFIC IS TRAVELING.

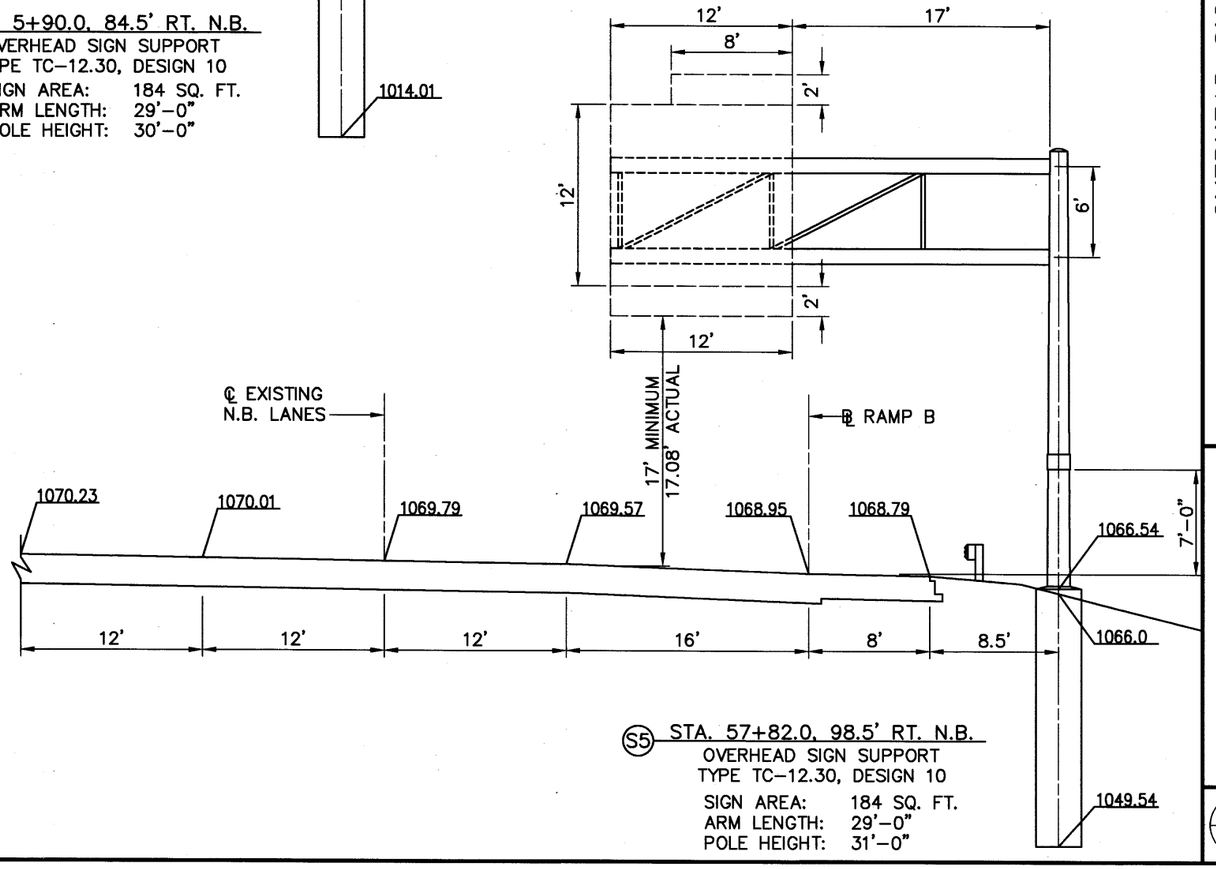
SEE SHEET 349 FOR RAMP SIGNING PLAN.
SEE SHEET 344 FOR FREEWAY LOCATION IDENTIFICATION SYSTEM SIGN DETAIL.
SEE SHEET 346 FOR SIGNING QUANTITIES.



(S1) STA. 5+90.0, 84.5' RT. N.B.
OVERHEAD SIGN SUPPORT
TYPE TC-12.30, DESIGN 10
SIGN AREA: 184 SQ. FT.
ARM LENGTH: 29'-0"
POLE HEIGHT: 30'-0"



(S2) STA. 31+86.0, 84.5' RT. N.B.
OVERHEAD SIGN SUPPORT
TYPE TC-12.30, DESIGN 10
SIGN AREA: 160 SQ. FT.
ARM LENGTH: 29'-0"
POLE HEIGHT: 28'-6"



(S5) STA. 57+82.0, 98.5' RT. N.B.
OVERHEAD SIGN SUPPORT
TYPE TC-12.30, DESIGN 10
SIGN AREA: 184 SQ. FT.
ARM LENGTH: 29'-0"
POLE HEIGHT: 31'-0"

CALCULATED
CHECKED

OVERHEAD SIGN DETAILS
RAMP B

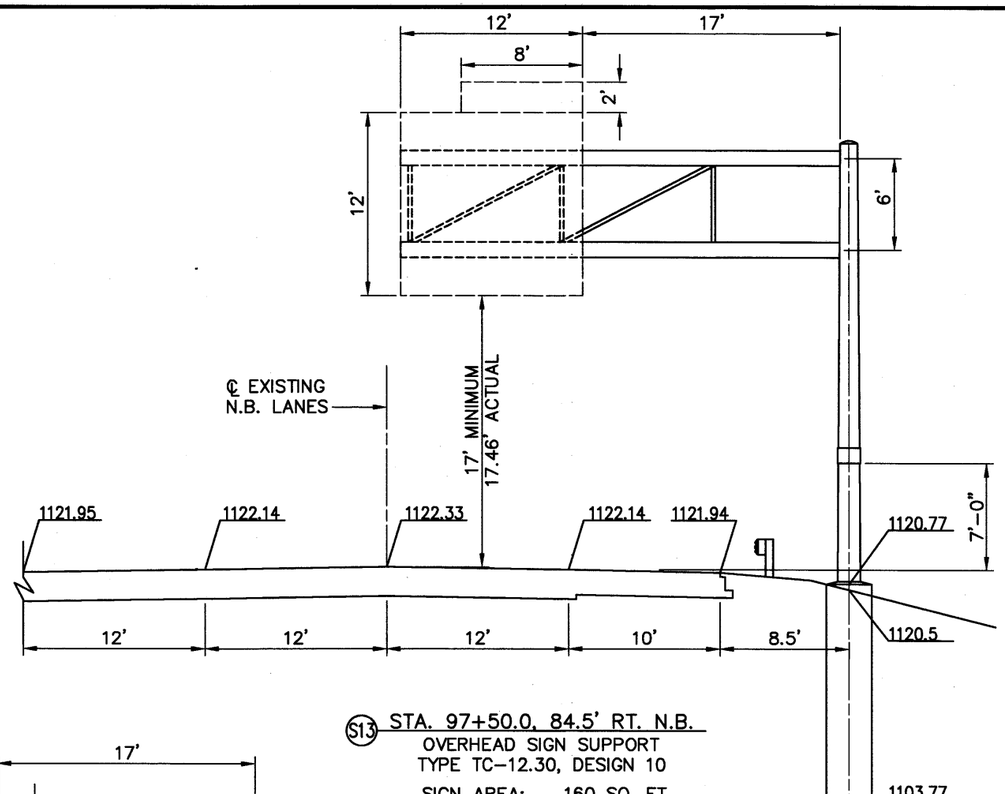
WAY-71-0.28

352
432

OHSIGN-B.dwg May 03, 2001

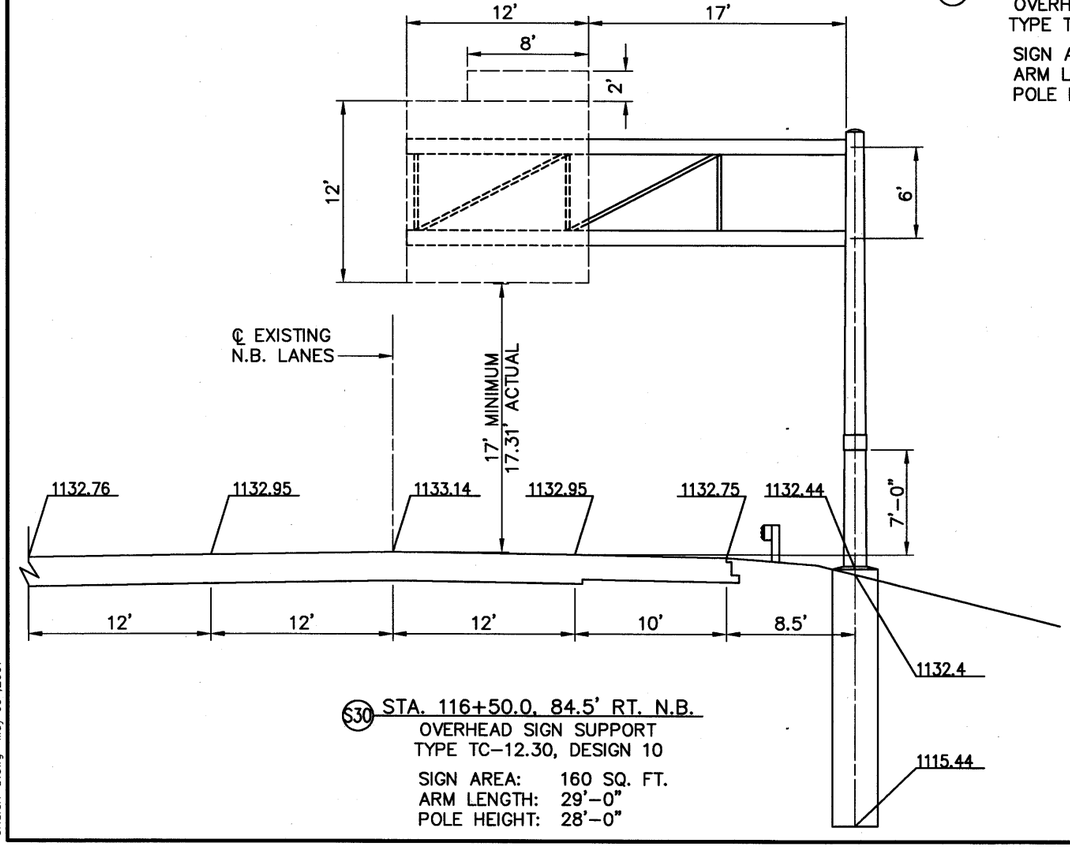
NOTE: ALL DETAILS SHOWN IN THE DIRECTION TRAFFIC IS TRAVELING.

SEE SHEET 350 FOR RAMP SIGNING PLAN.
SEE SHEET 344 FOR FREEWAY LOCATION IDENTIFICATION SYSTEM SIGN DETAIL.
SEE SHEETS 346 AND 347 FOR SIGNING QUANTITIES.



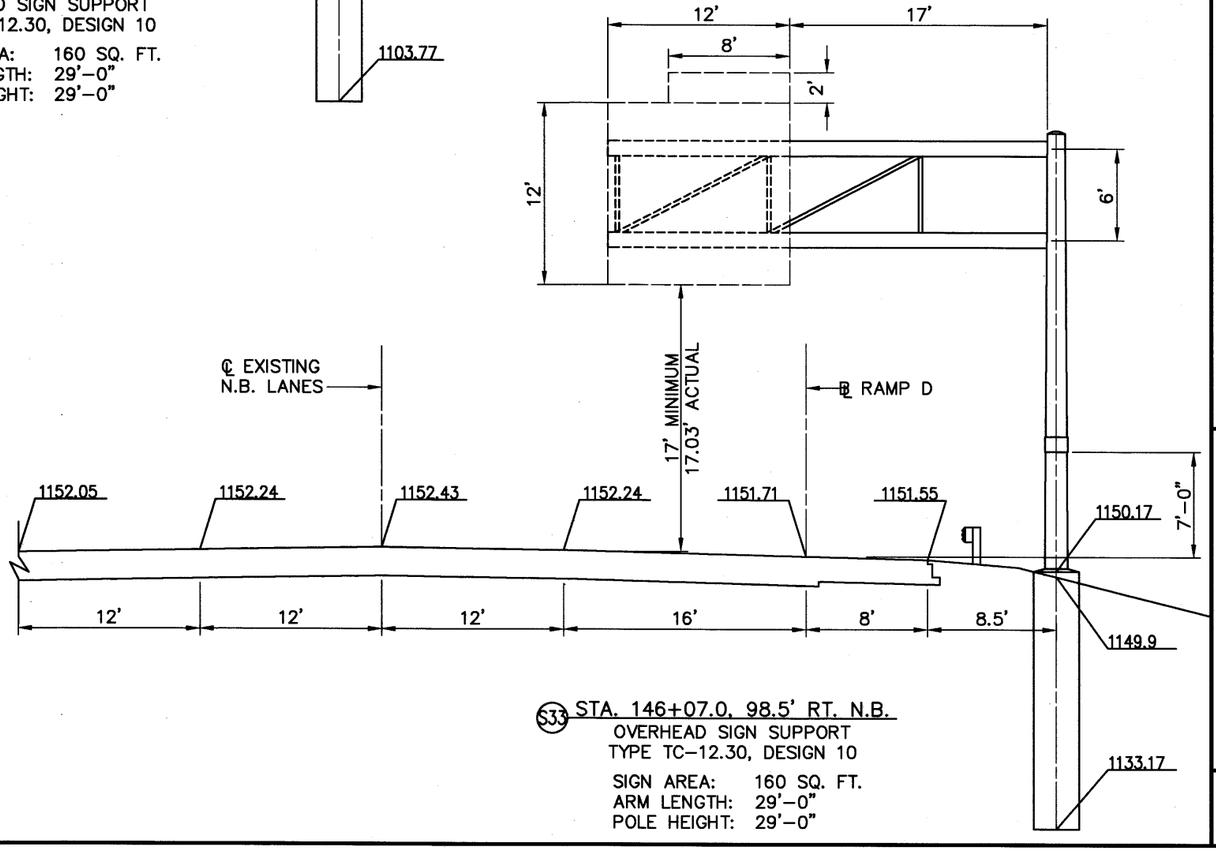
S13 STA. 97+50.0, 84.5' RT. N.B.
OVERHEAD SIGN SUPPORT
TYPE TC-12.30, DESIGN 10

SIGN AREA: 160 SQ. FT.
ARM LENGTH: 29'-0"
POLE HEIGHT: 29'-0"



S30 STA. 116+50.0, 84.5' RT. N.B.
OVERHEAD SIGN SUPPORT
TYPE TC-12.30, DESIGN 10

SIGN AREA: 160 SQ. FT.
ARM LENGTH: 29'-0"
POLE HEIGHT: 28'-0"



S33 STA. 146+07.0, 98.5' RT. N.B.
OVERHEAD SIGN SUPPORT
TYPE TC-12.30, DESIGN 10

SIGN AREA: 160 SQ. FT.
ARM LENGTH: 29'-0"
POLE HEIGHT: 29'-0"

CALCULATED
CHECKED

OVERHEAD SIGN DETAILS
RAMP D

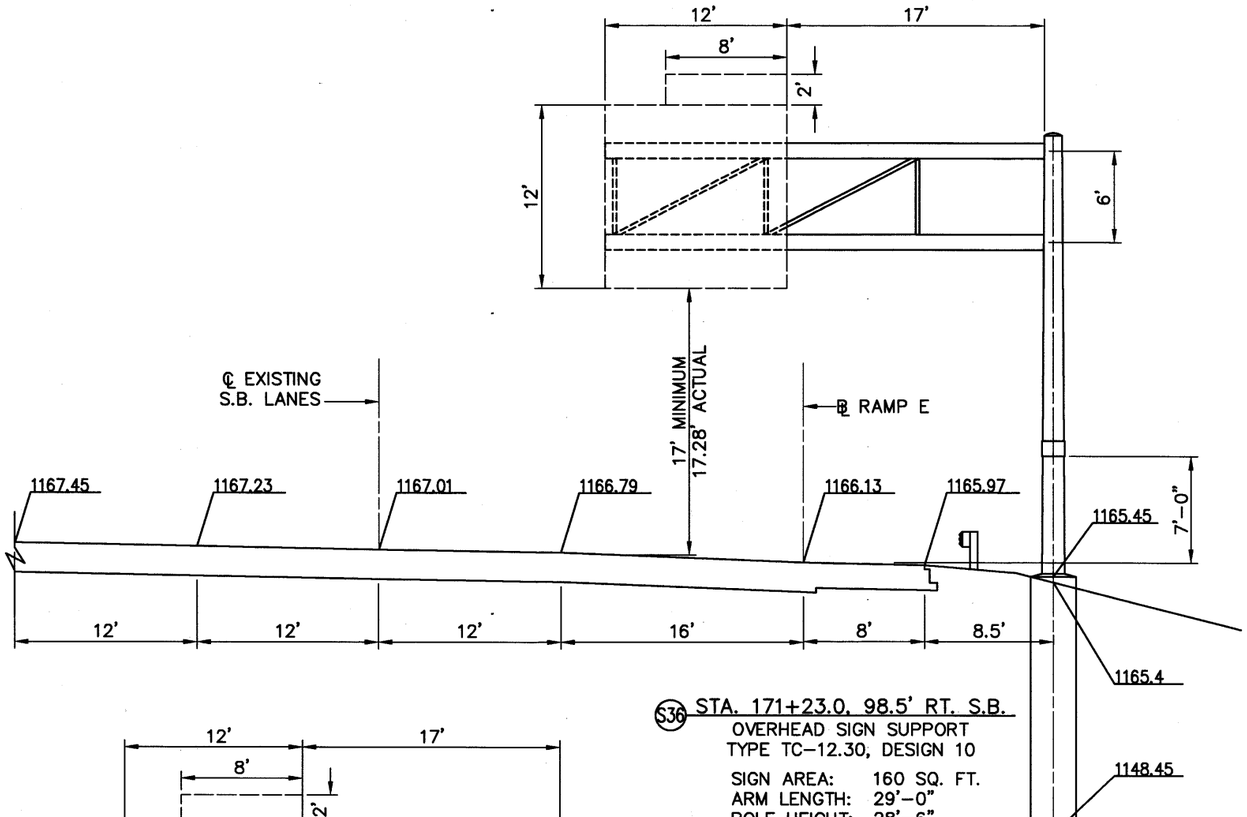
WAY-71-0.28

353
432

OHSIGN-D.dwg May 03 ,2001

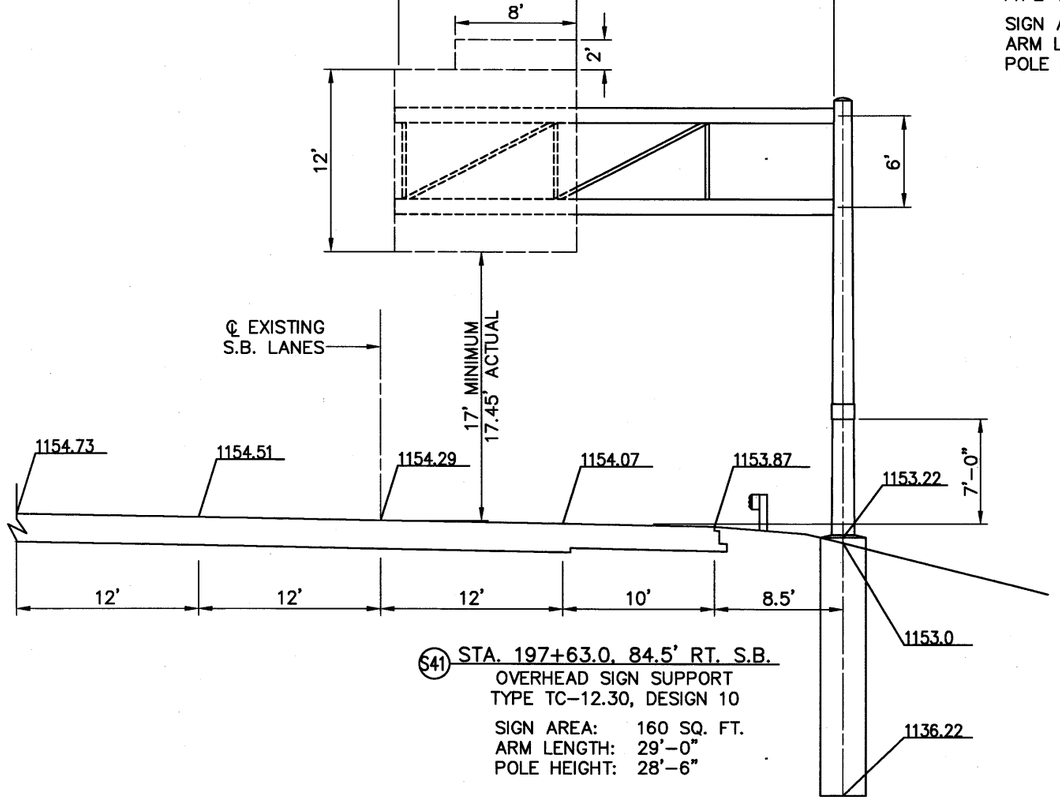
NOTE: ALL DETAILS SHOWN IN THE DIRECTION TRAFFIC IS TRAVELING.

SEE SHEET 351 FOR RAMP SIGNING PLAN.
SEE SHEET 344 FOR FREEWAY LOCATION IDENTIFICATION SYSTEM SIGN DETAIL.
SEE SHEETS 347 AND 348 FOR SIGNING QUANTITIES.



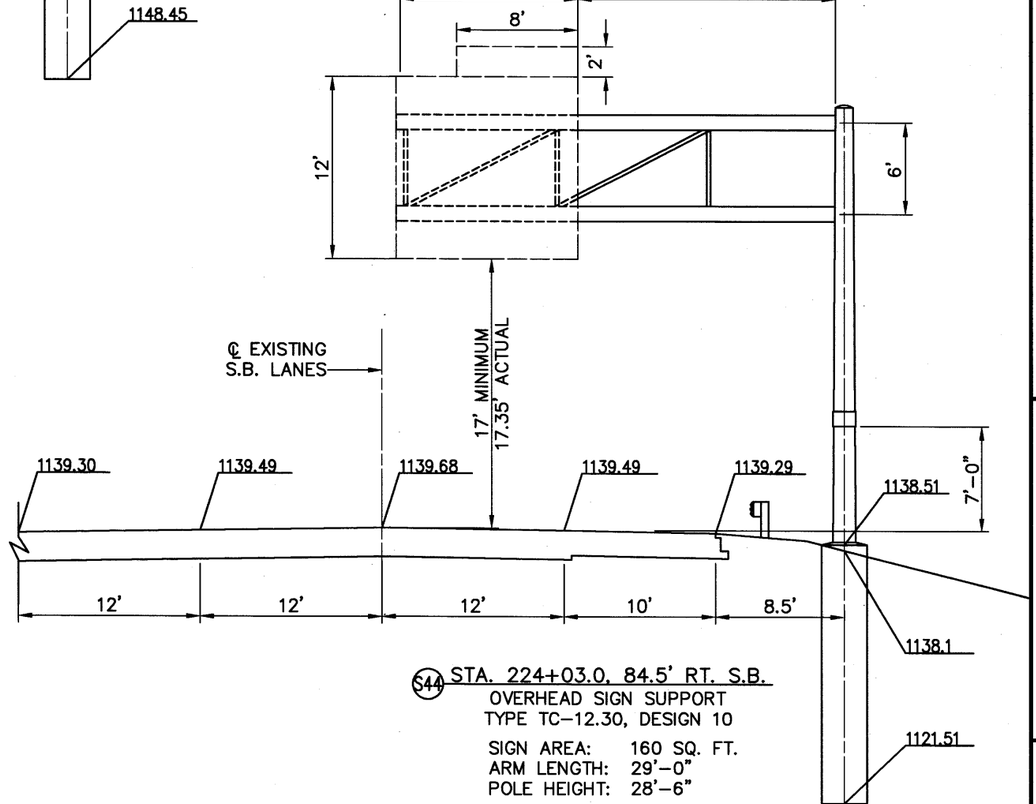
S36 STA. 171+23.0, 98.5' RT. S.B.
OVERHEAD SIGN SUPPORT
TYPE TC-12.30, DESIGN 10

SIGN AREA: 160 SQ. FT.
ARM LENGTH: 29'-0"
POLE HEIGHT: 28'-6"



S41 STA. 197+63.0, 84.5' RT. S.B.
OVERHEAD SIGN SUPPORT
TYPE TC-12.30, DESIGN 10

SIGN AREA: 160 SQ. FT.
ARM LENGTH: 29'-0"
POLE HEIGHT: 28'-6"



S44 STA. 224+03.0, 84.5' RT. S.B.
OVERHEAD SIGN SUPPORT
TYPE TC-12.30, DESIGN 10

SIGN AREA: 160 SQ. FT.
ARM LENGTH: 29'-0"
POLE HEIGHT: 28'-6"

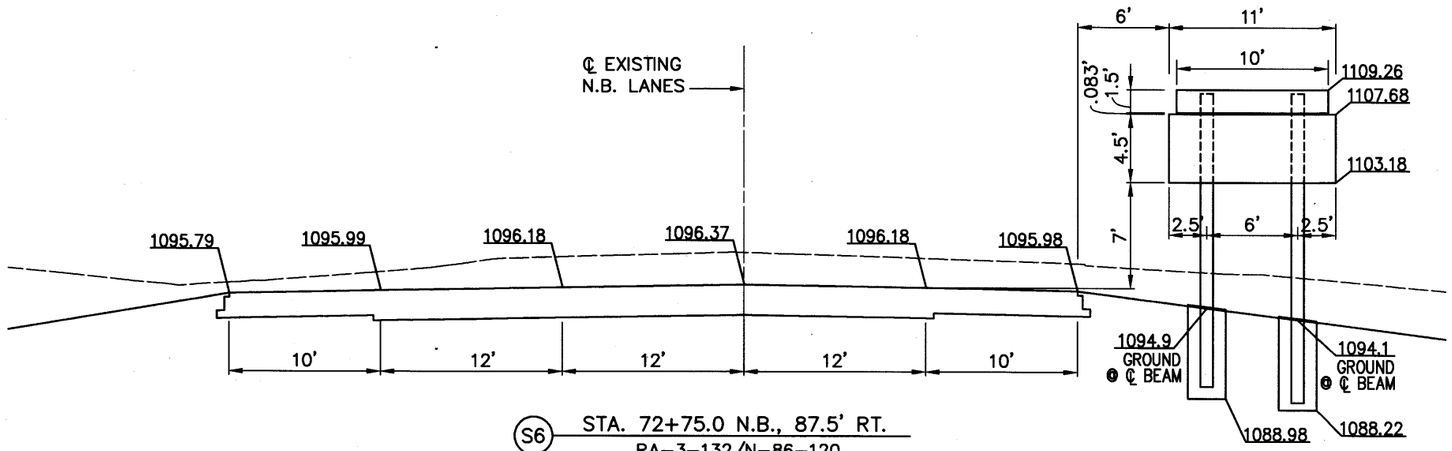
CALCULATED
CHECKED

OVERHEAD SIGN DETAILS
RAMP E

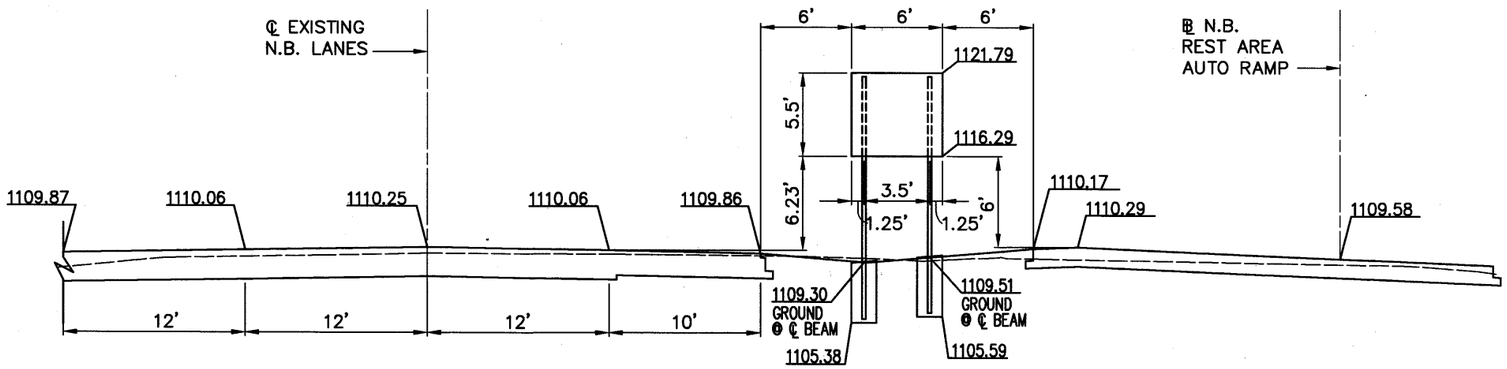
WAY-71-0.28

354
432

OHSIGN-E.dwg May 03 ,2001



S6 STA. 72+75.0 N.B., 87.5' RT.
RA-3-132/N-86-120
2-W10x12 BEAMS 20.0'/21.0' LONG



S7 STA. 84+35.0 N.B., 85.0' RT.
RA-4-72
2-S4x7.7 BEAMS 16.0'/16.0' LONG

NOTE: ALL DETAILS SHOWN IN THE DIRECTION TRAFFIC IS TRAVELING.

SEE SHEETS 369 AND 370 FOR REST AREA PLAN VIEW.
SEE SHEET 346 FOR SIGNING QUANTITIES.

SEE STANDARD CONSTRUCTION DRAWING TC-41.10M FOR ADDITIONAL DETAILS.

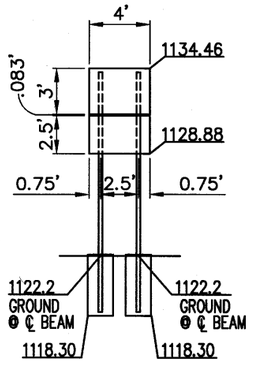
CALCULATED
CHECKED

GROUND MOUNTED BEAM SUPPORT SIGN DETAILS

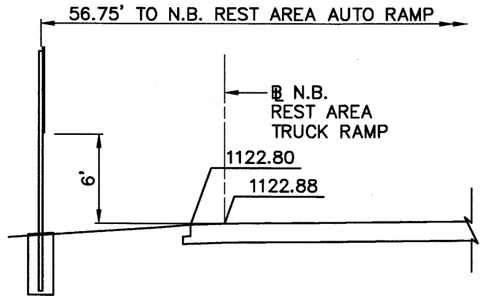
WAY-71-0.28

355
432

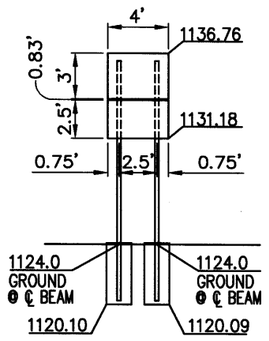
GMB1-SIGN.dwg May 03 ,2001



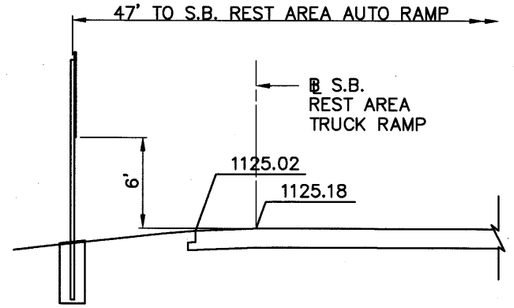
FRONT VIEW



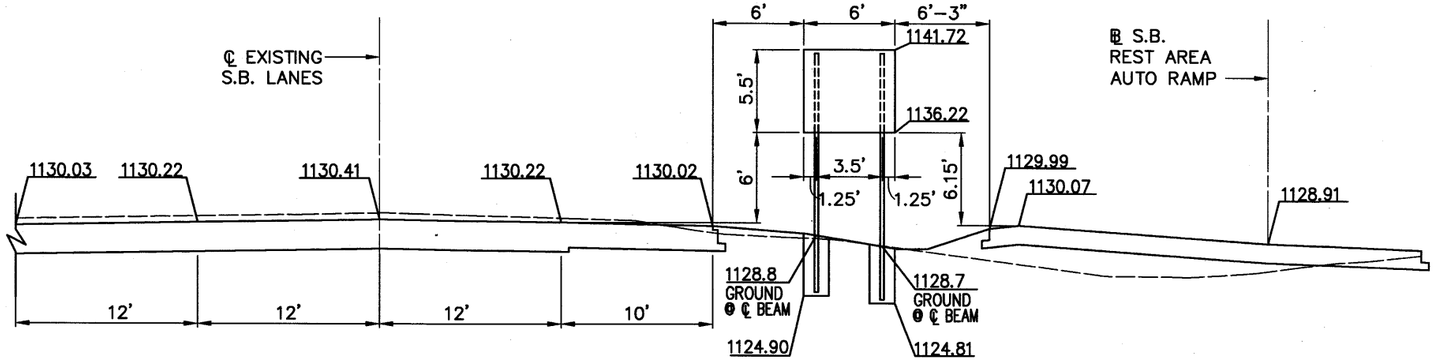
S16 STA. 425+60.0 N.B. REST AREA, 56.75' LT.
N–84–48/N–99–48
2–S4x7.7 BEAMS 15.5'/15.5' LONG



FRONT VIEW



S19 STA. 620+43.0 S.B. REST AREA, 47.0' RT.
N–84–48/N–99–48
2–S4x7.7 BEAMS 16.0'/16.0' LONG



S28 STA. 111+05.0 S.B., 85.0' LT.
RA–4–72
2–S4x7.7 BEAMS 16.5'/16.5' LONG

NOTE: ALL DETAILS SHOWN IN THE DIRECTION TRAFFIC IS TRAVELING.

SEE SHEETS 370 AND 371 FOR REST AREA PLAN VIEW.
SEE SHEETS 346 AND 347 FOR SIGNING QUANTITIES.

SEE STANDARD CONSTRUCTION DRAWING
TC–41.10M FOR ADDITIONAL DETAILS.

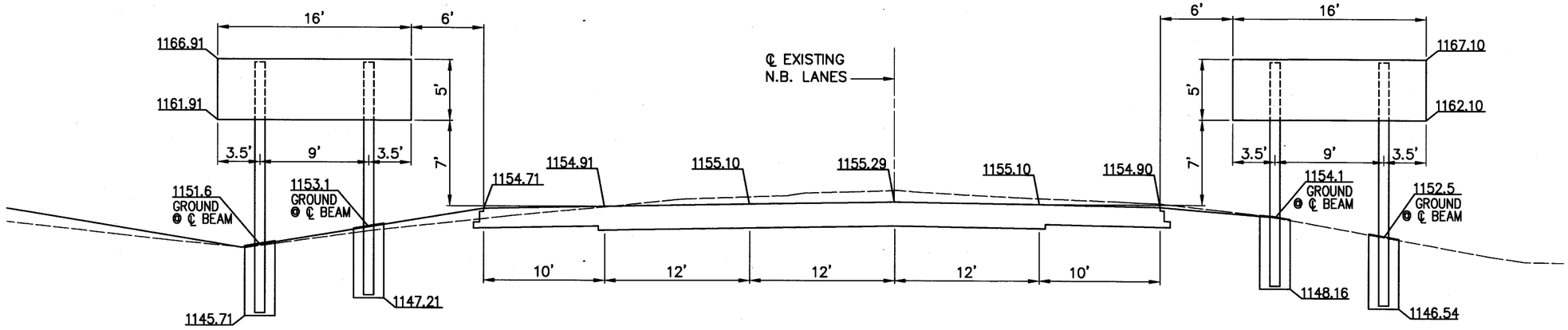
GROUND MOUNTED BEAM
SUPPORT SIGN DETAILS

CALCULATED
CHECKED

WAY–71–0.28

356
432

GMB2–SIGN.dwg May 03 ,2001



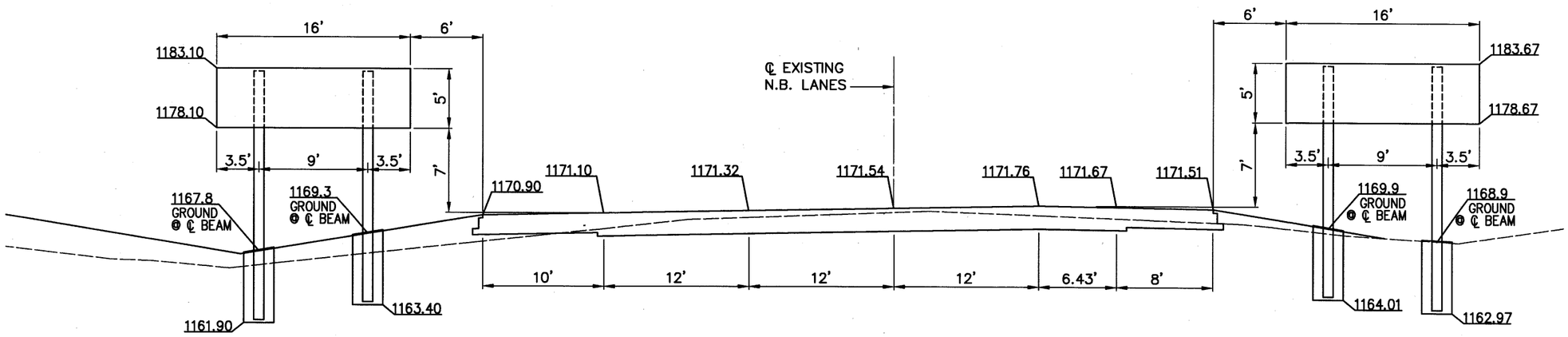
S34 STA. 152+60.0 N.B., 6.0' RT.
W-54B-192
2-W10x12 BEAMS 19.5'/21.0' LONG

S35 STA. 152+60.0 N.B., 90.0' RT.
W-54B-192
2-W10x12 BEAMS 18.5'/20.5' LONG

NOTE: ALL DETAILS SHOWN IN THE DIRECTION TRAFFIC IS TRAVELING.

SEE SHEET 97 FOR PLAN VIEW.
SEE SHEET 347 FOR SIGNING QUANTITIES.

SEE STANDARD CONSTRUCTION DRAWING TC-41.10M FOR ADDITIONAL DETAILS.



S37 STA. 179+00.0 N.B., 6.0' RT.
W-54B-192
2-W10x12 BEAMS 19.5'/21.0' LONG

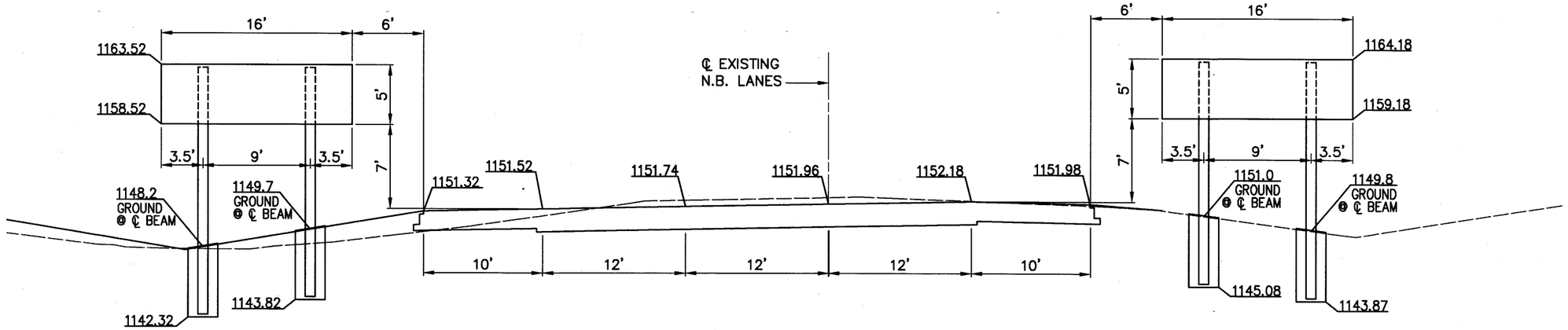
S38 STA. 179+00.0 N.B., 94.4' RT.
W-54B-192
2-W10x12 BEAMS 19.5'/20.5' LONG

CALCULATED | CHECKED

GROUND MOUNTED BEAM SUPPORT SIGN DETAILS

WAY-71-0.28

GMB5-SIGN.dwg May 03, 2001



S42 STA. 200+90.0 N.B., 6.0' RT.
W-54A-192
2-W10x12 BEAMS 19.5'/21.0' LONG

S43 STA. 200+90.0 N.B., 90.0' RT.
W-54A-192
2-W10x12 BEAMS 19.0'/20.0' LONG

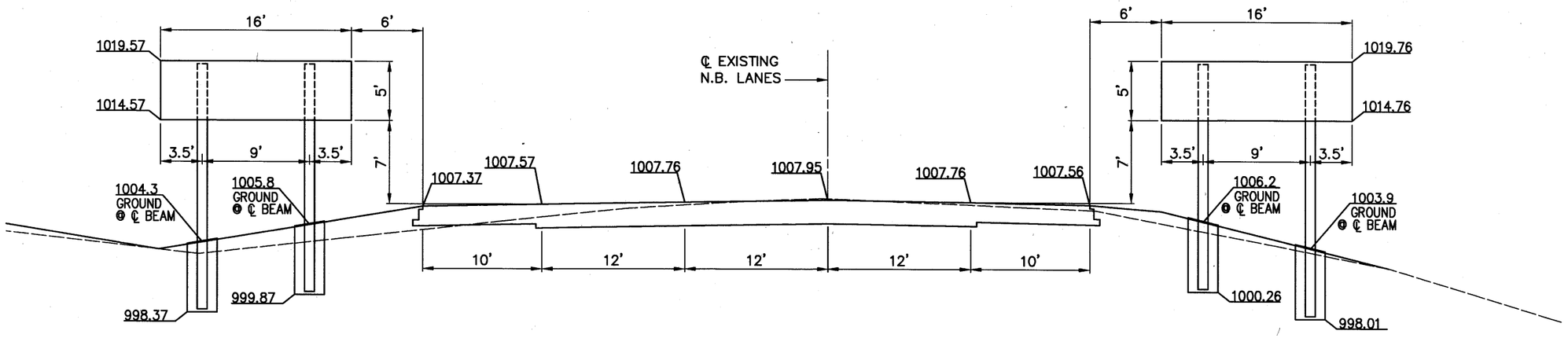
NOTE: ALL DETAILS SHOWN IN THE DIRECTION TRAFFIC IS TRAVELING.

SEE SHEET 97 FOR (S42) AND (S43) PLAN VIEW.

SEE SHEET 374 FOR (S49) AND (S50) PLAN VIEW.

SEE SHEET 348 FOR SIGNING QUANTITIES.

SEE STANDARD CONSTRUCTION DRAWING TC-41.10M FOR ADDITIONAL DETAILS.



S49 STA. 318+70.0 N.B., 6.0' RT.
W-54B-192
2-W10x12 BEAMS 19.5'/21.0' LONG

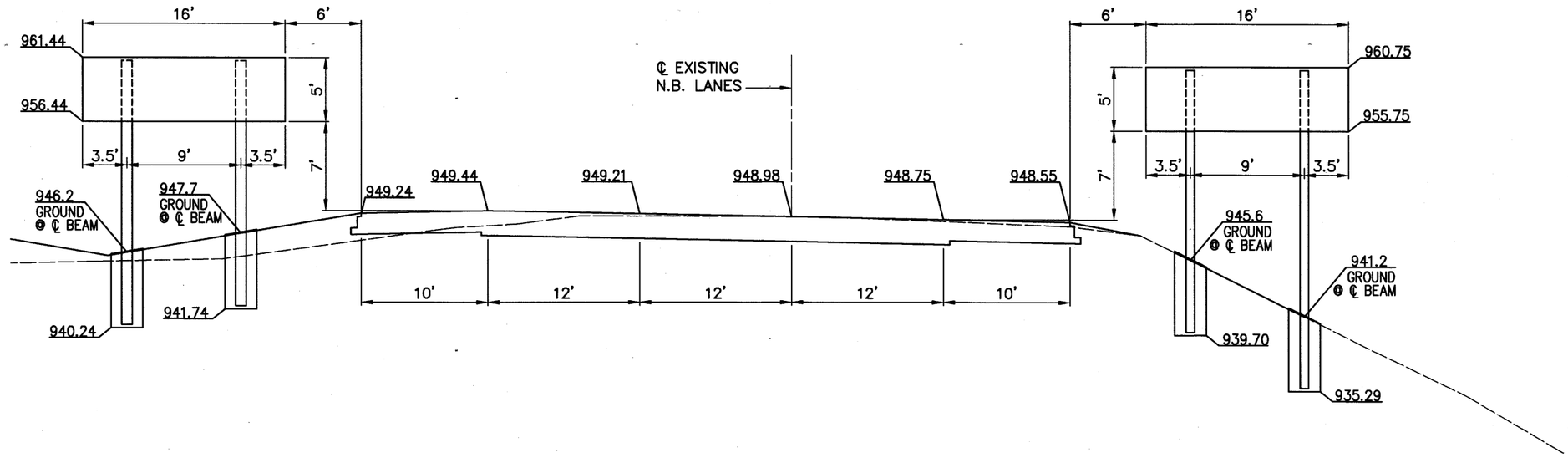
S50 STA. 318+70.0 N.B., 90.0' RT.
W-54B-192
2-W10x12 BEAMS 19.0'/21.5' LONG

GMB4-SIGN.dwg May 03, 2001

CALCULATED | CHECKED

GROUND MOUNTED BEAM SUPPORT SIGN DETAILS

WAY-71-0.28



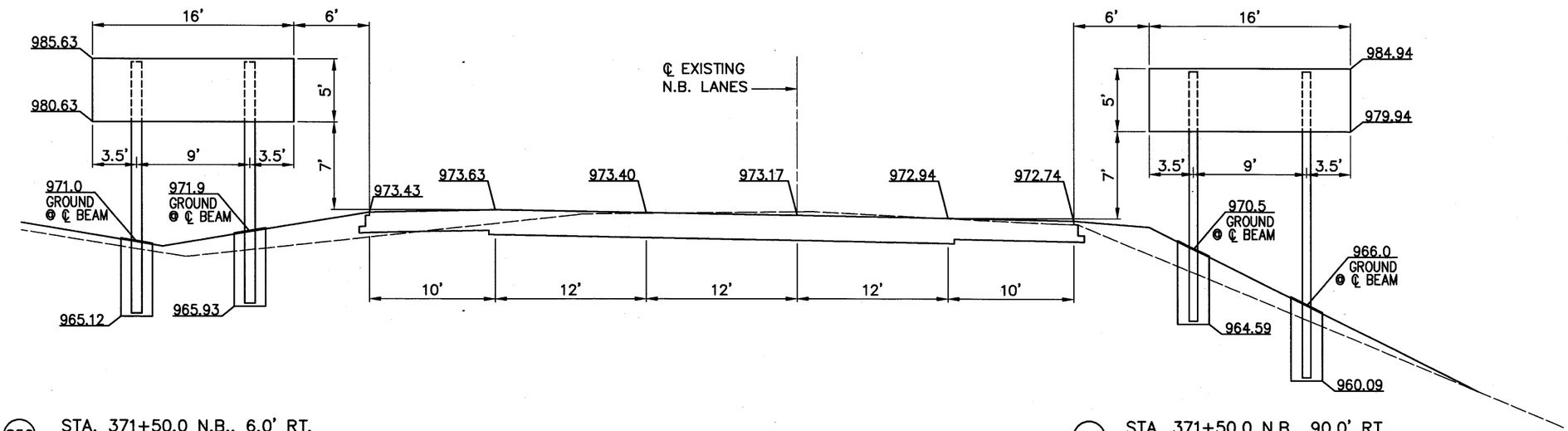
S51 STA. 344+00.0 N.B., 6.0' RT.
W-54B-192
2-W10x12 BEAMS 19.5'/21.0' LONG

S52 STA. 344+00.0 N.B., 90.0' RT.
W-54B-192
2-W8x18 BEAMS 21.0'/25.0' LONG

NOTE: ALL DETAILS SHOWN IN THE DIRECTION TRAFFIC IS TRAVELING.

SEE SHEET 374 FOR PLAN VIEW.
SEE SHEET 348 FOR SIGNING QUANTITIES.

SEE STANDARD CONSTRUCTION DRAWING TC-41.10M FOR ADDITIONAL DETAILS.



S56 STA. 371+50.0 N.B., 6.0' RT.
W-54A-192
2-W10x12 BEAMS 19.5'/20.5' LONG

S57 STA. 371+50.0 N.B., 90.0' RT.
W-54A-192
2-W8x18 BEAMS 20.0'/24.5' LONG

CALCULATED | CHECKED

GROUND MOUNTED BEAM SUPPORT SIGN DETAILS

WAY-71-0.28

GMB3-SIGN.dwg May 03 ,2001

SHEET NO.	STATION TO STATION	LOCATION	618 RUMBLE STRIPS, TYPE 2 (ASPHALT) MEDIAN	618 RUMBLE STRIPS, TYPE 2 (ASPHALT) SHOULDER	620 DELINEATOR, TYPE C, POST MOUNTED (WHITE)	620 DELINEATOR, TYPE D, POST MOUNTED (YELLOW)	621 RAISED PAVEMENT MARKER, HIGH PROFILE WHITE, INSTALLATION ONLY	621 RAISED PAVEMENT MARKER, HIGH PROFILE WHITE-RED, INSTALLATION ONLY	621 RAISED PAVEMENT MARKER, HIGH PROFILE YELLOW-RED, INSTALLATION ONLY	642 EDGE LINE, TYPE 2 (WHITE)	642 EDGE LINE, TYPE 2 (YELLOW)	642 CHANNELIZING LINE, TYPE 2 (WHITE)	642 24" TRANSVERSE LINE, TYPE 2 (WHITE)	642 PARKING LOT STALL MARKING, TYPE 2	642 HANDICAP SYMBOL MARKING, TYPE 2	644 EDGE LINE (WHITE)	644 EDGE LINE (YELLOW)	644 LANE LINE	644 CHANNELIZING LINE (WHITE)	644 24" TRANSVERSE LINE (WHITE)	644 REMOVAL OF PAVEMENT MARKING
			LIN. FT.		EACH	EACH	EACH	EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.
	MAINLINE																				
373	850+10.89 TO 853+34.89 BACK N.B.	LT./RT.														324.00	324.00				
373	0+00.00 AHEAD TO 6+98.80 N.B.	LT./RT.														698.80	698.80				
373	6+98.80 TO 14+82.88 N.B.	LT./RT.					7										784.08	784.08			974.50
361A	14+82.88 TO 49+38.00 N.B.	LT./RT.	3455.12	3455.12	9	3	58									3455.12	3455.12	6910.24			
361A	49+38.00 TO 61+21.00 N.B.	LT./RT.	1183.00	100.20			20										1183.00	2366.00			
	RAMP B																				
364	9+37.87 TO 31+08 (AVG.)	LT./RT.		1075.03	12	6		17	13							2279.07	1102.89	369.20	676.19	269.92	
	MAINLINE																				
361A	61+21.00 TO 75+65.00 N.B.	LT./RT.	1444.00	1444.00	4		24									1444.00	1444.00	2888.00			
361A	75+65.00 TO 83+65.00 N.B.	LT./RT.	800.00	100.70			14										800.00	1600.00			
361A	83+65.00 TO 104+84.00 N.B.	LT./RT.	2119.00	2074.20	5		36									2118.80	2119.00	4238.00			
361A	104+84.00 TO 115+40.00 N.B.	LT./RT.	1056.00				18										1056.00	2112.00			
	NB REST AREA																				
369	405+42.14 TO 413+41.34	LT./RT.		698.22	5			15								799.20		209.33	559.37	226.70	
370	413+41.34 TO 429+19.81	LT./RT.			16	4				1193.30		103.27	20.25	874.33	4						
371	429+19.81 TO 445+65.88	LT./RT.		1098.98	8			4								1646.07		288.07	144.03		
370	513+63.84 TO 529+10.40	LT./RT.			6	8			19	167.42	1546.92			2610.00							
371	529+10.40 TO 533+57.39	LT./RT.							5								446.99				
	MAINLINE																				
361A	115+40.00 TO 140+85.00 N.B.	LT./RT.	2545.00	2545.00	6	3	42									2545.00	2545.00	5090.00			
361A	140+85.00 TO 148+85.00 N.B.	LT./RT.	800.00	99.50			14										800.00	1600.00			
	RAMP D																				
366	40+84.74 TO 58+46 (AVG.)	LT./RT.		698.96	10	6		15	11							1814.36	974.60	210.10	558.21	218.66	
	MAINLINE																				
361A	148+85.00 TO 171+55.00 N.B.	LT./RT.	2270.00	2224.60	4		38									2268.00	2270.00	4540.00			
361A	171+55.00 TO 182+10.00 N.B.	LT./RT.	1055.00				18										1055.00	2110.00			
	RAMP F																				
368	58+29 (AVG.) TO 82+19.05	LT./RT.		1106.95	13	4		4	15							2423.32	1183.10	289.10	144.43		
	MAINLINE																				
361A	182+10.00 TO 200+90.00 N.B.	LT./RT.	1880.00	1880.00	5	3	32									1880.00	1880.00	3760.00			
361A	200+90.00 TO 371+50.00 N.B.	LT./RT.	16850.15*	16850.15*	42*	3	280*									17060.00	17060.00	34120.00			
374	371+50.00 TO 374+60.24 BACK N.B.	LT./RT.														25.00	310.24	25.00			
374	0+00.00 AHEAD TO 21+99.76 N.B.	LT./RT.															2199.76				
	SUBTOTAL		35457.27	35451.61	145	40	601	55	63	1360.72	1546.92	103.27	20.25	3484.33	4	40780.74	43691.58	73509.12	2082.23	715.28	974.50

* DEDUCTION FOR BRIDGE

CALCULATED VLK 11-00
CHECKED SDS 11-00

PAVEMENT MARKING SUB-SUMMARY

WAY-71-0.28

360
432

PM-TABLE.DWG May 03, 2001

CALCULATED VLK 11-00 | CHECKED SDS 11-00

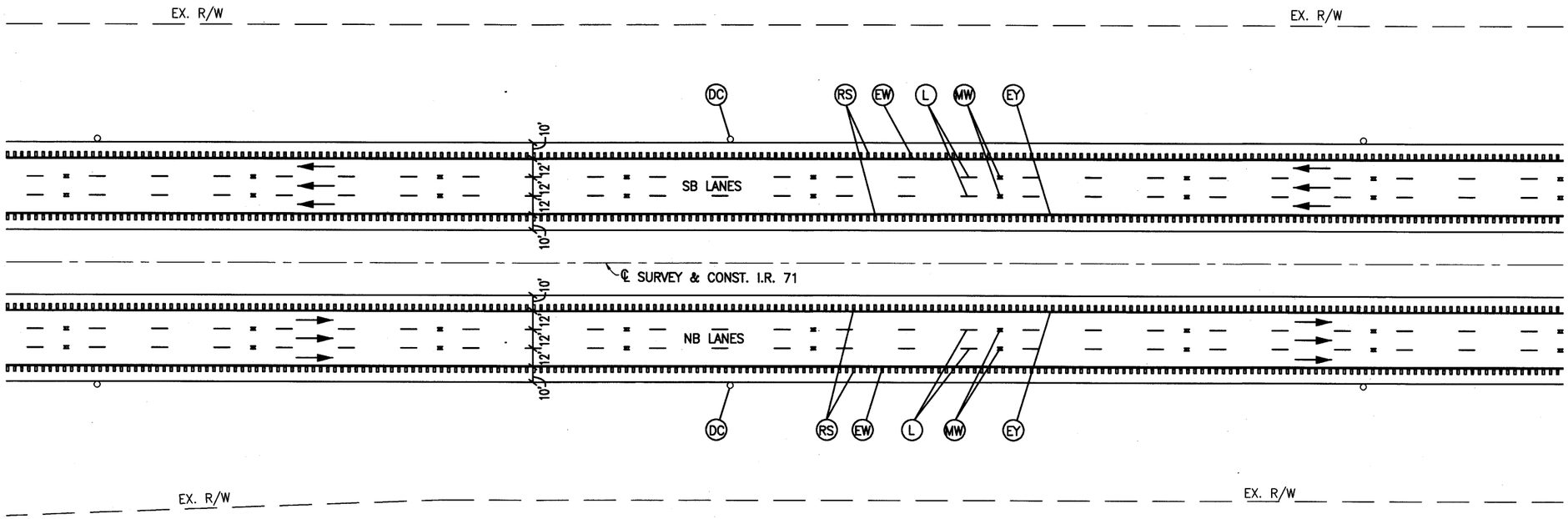
PAVEMENT MARKING SUB-SUMMARY

SHEET NO.	STATION TO STATION	LOCATION	618 RUMBLE STRIPS, TYPE 2 (ASPHALT) MEDIAN	618 RUMBLE STRIPS, TYPE 2 (ASPHALT) SHOULDER	620 DELINEATOR, TYPE C, POST MOUNTED (WHITE)	620 DELINEATOR, TYPE D, POST MOUNTED (YELLOW)	621 RAISED PAVEMENT MARKER, HIGH PROFILE WHITE, INSTALLATION ONLY	621 RAISED PAVEMENT MARKER, HIGH PROFILE WHITE-RED, INSTALLATION ONLY	621 RAISED PAVEMENT MARKER, HIGH PROFILE YELLOW-RED, INSTALLATION ONLY	642 EDGE LINE, TYPE 2 (WHITE)	642 EDGE LINE, TYPE 2 (YELLOW)	642 CHANNELIZING LINE, TYPE 2 (WHITE)	642 24" TRANSVERSE LINE, TYPE 2 (WHITE)	642 PARKING LOT STALL MARKING, TYPE 2	642 HANDICAP SYMBOL MARKING, TYPE 2	644 EDGE LINE (WHITE)	644 EDGE LINE (YELLOW)	644 LANE LINE	644 CHANNELIZING LINE (WHITE)	644 24" TRANSVERSE LINE (WHITE)	644 REMOVAL OF PAVEMENT MARKING
			LIN. FT.		EACH	EACH	EACH	EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.
	MAINLINE																				
373	5+15.00 TO 13+18.90 S.B.	LT./RT.														803.90	803.90				
373	13+18.90 TO 14+82.88 S.B.	LT./RT.					2										163.98	163.98			164.40
361A	14+82.88 TO 51+61.00 S.B.	LT./RT.	3678.12	3678.12	9	3	62									3678.12	3678.12	7356.24			
361A	51+61.00 TO 62+23.00 S.B.	LT./RT.	1062.00				18										1062.00	2124.00			
	RAMP A																				
363	1+60.69 TO 25+42 (AVG.)	LT./RT.		1106.01	16	8		5	14							2397.59	1169.79	290.04	145.32		
	MAINLINE																				
361A	62+23.00 TO 81+00.00 S.B.	LT./RT.	1877.00	1839.70	3		32									1877.00	1877.00	3754.00			
361A	81+00.00 TO 91+56.00 S.B.	LT./RT.	1056.00				18										1056.00	2112.00			
361A	91+56.00 TO 111+59.00 S.B.	LT./RT.	2003.00	1957.40	4		34									2003.00	2003.00	4006.00			
361A	111+59.00 TO 116+80.00 S.B.	LT./RT.	521.00	100.40			8										521.00	1042.00			
	SB REST AREA																				
370	600+74.41 TO 617+20.47	LT./RT.		1098.99	9			4								1646.06		288.06	144.03		
371	617+20.47 TO 631+86.17	LT./RT.			12	4				1081.89		63.28	13.10	874.94	4						
372	631+86.17 TO 637+06.62	LT./RT.		419.49	3			13								520.45		80.69	517.99	209.36	
370	712+89.85 TO 717+36.83	LT./RT.							6								446.98				
371	717+36.83 TO 731+59.87	LT./RT.			7	12			17	168.54	1423.04			2430.00							
	MAINLINE																				
361A	116+80.00 TO 135+85.00 S.B.	LT./RT.	1905.00	1905.00	5	3	32									1905.00	1905.00	3810.00			
361A	135+85.00 TO 146+41.00 S.B.	LT./RT.	1056.00				18										1056.00	2112.00			
	RAMP C																				
365	35+85.20 TO 62+00 (AVG.)	LT./RT.		1099.60	20	12		5	17							2643.11	1422.67	288.00	144.10		
	MAINLINE																				
361A	146+41.00 TO 167+86.00 S.B.	LT./RT.	2145.00	2100.40	4		36									2145.00	2145.00	4290.00			
361A	167+86.00 TO 180+35.00 S.B.	LT./RT.	1249.00	100.30			20										1249.00	2498.00			
	RAMP E																				
367	60+20 (AVG.) TO 80+31.78	LT./RT.		1140.78	11	4		17	9							2036.22	782.86	403.40	671.11	259.48	
	MAINLINE																				
361A	180+35.00 TO 200+90.00 S.B.	LT./RT.	2055.00	2055.00	5	3	34									2055.00	2055.00	4110.00			
361A	200+90.00 TO 371+50.00 S.B.	LT./RT.	16852.16*	16852.16*	42*	3	280*									17060.00	17060.00	34120.00			
374	371+50.00 TO 374+60.24 BACK S.B.	LT./RT.														25.00	310.24	25.00			
374	0+00.00 AHEAD TO 34+43.76 S.B.	LT./RT.															3443.76				
	SUBTOTAL THIS SHEET		35459.28	35453.35	150	52	594	44	63	1250.43	1423.04	63.28	13.10	3304.94	4	40795.45	44211.30	72873.41	1622.55	468.84	164.40
	SUBTOTAL SHEET 360		35457.27	35451.61	145	40	601	55	63	1360.72	1546.92	103.27	20.25	3484.33	4	40780.74	43691.58	73509.12	2082.23	715.28	974.50
	SUBTOTAL		70916.55	70904.96	295	92	1195	99	126	2611.15	2969.96	166.55	33.35	6789.27	8	81576.19	87902.88	146382.53	3704.78	1184.12	1138.90
	TOTAL		141821.51		295	92	1195	99	126	5581.11		166.55	33.35	6789.27	8	169479.07		146382.53	3704.78	1184.12	1138.90
TOTAL CARRIED TO GENERAL SUMMARY SHEET 102			27 MI.		295	92	1195	99	126	1.06 MI.		167	33	6789	8	32.10 MI.		27.72 MI.	3705	1184	1139
TOTALS CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY SHEET 345																					

* DEDUCTION FOR BRIDGE

WAY-71-0.28

PM-TABLE.DWG May 03 ,2001



TRAFFIC CONTROL LEGEND

- (EW) EDGE LINE, WHITE
- (EY) EDGE LINE, YELLOW
- (L) LANE LINE
- (C) CHANNELIZING LINE
- (T) 24" TRANSVERSE LINE, WHITE
- TRAFFIC DIRECTION

- (DC) TYPE C DELINEATOR (WHITE) @ 400' c/c (DO NOT PLACE ON BRIDGE DECKS)*
- (DD) TYPE D DELINEATOR (YELLOW) *
- (MW) 1 WAY (WHITE) RAISED PAVEMENT MARKER @ 120' c/c (DO NOT PLACE ON BRIDGE DECKS)
- (MWR) 2 WAY (WHITE/RED) RAISED PAVEMENT MARKER @ 40' c/c
- (MY) 2 WAY (YELLOW/RED) RAISED PAVEMENT MARKER @ 80' c/c
- (RS) RUMBLE STRIPS, TYPE 2 (ASPHALT)

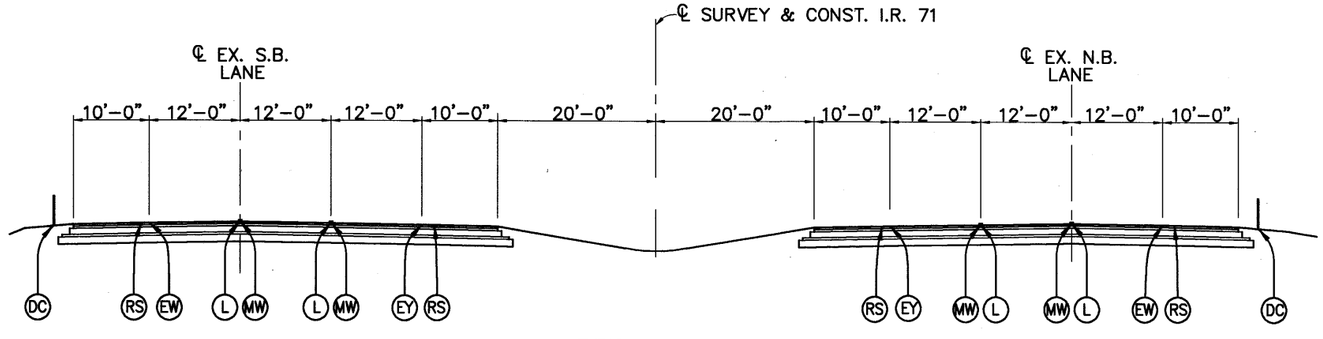
NOTES: SEE STANDARD CONSTRUCTION DRAWINGS TC-61.10M, TC-65.10M, TC-65.11M, TC-72.20M, AND BP-9.1 FOR ADDITIONAL DETAILS.

ALL STRIPING TO BE ITEM 644 UNLESS OTHERWISE NOTED ON SHEETS.

* SPACING VARIES ON RAMPS. SEE SHEETS 363 TO 372 FOR DETAILS.

SEE SHEET 362 FOR MEDIAN CROSSOVER DETAILS.

SEE SHEETS 360-361 FOR PAVEMENT MARKING QUANTITIES.



TYPICAL LAYOUT
SCALE: 1" = 10'

0 40 80 Scale In Feet

CALCULATED

CHECKED

TYPICAL PAVEMENT MARKING PLAN

WAY-71-0.28

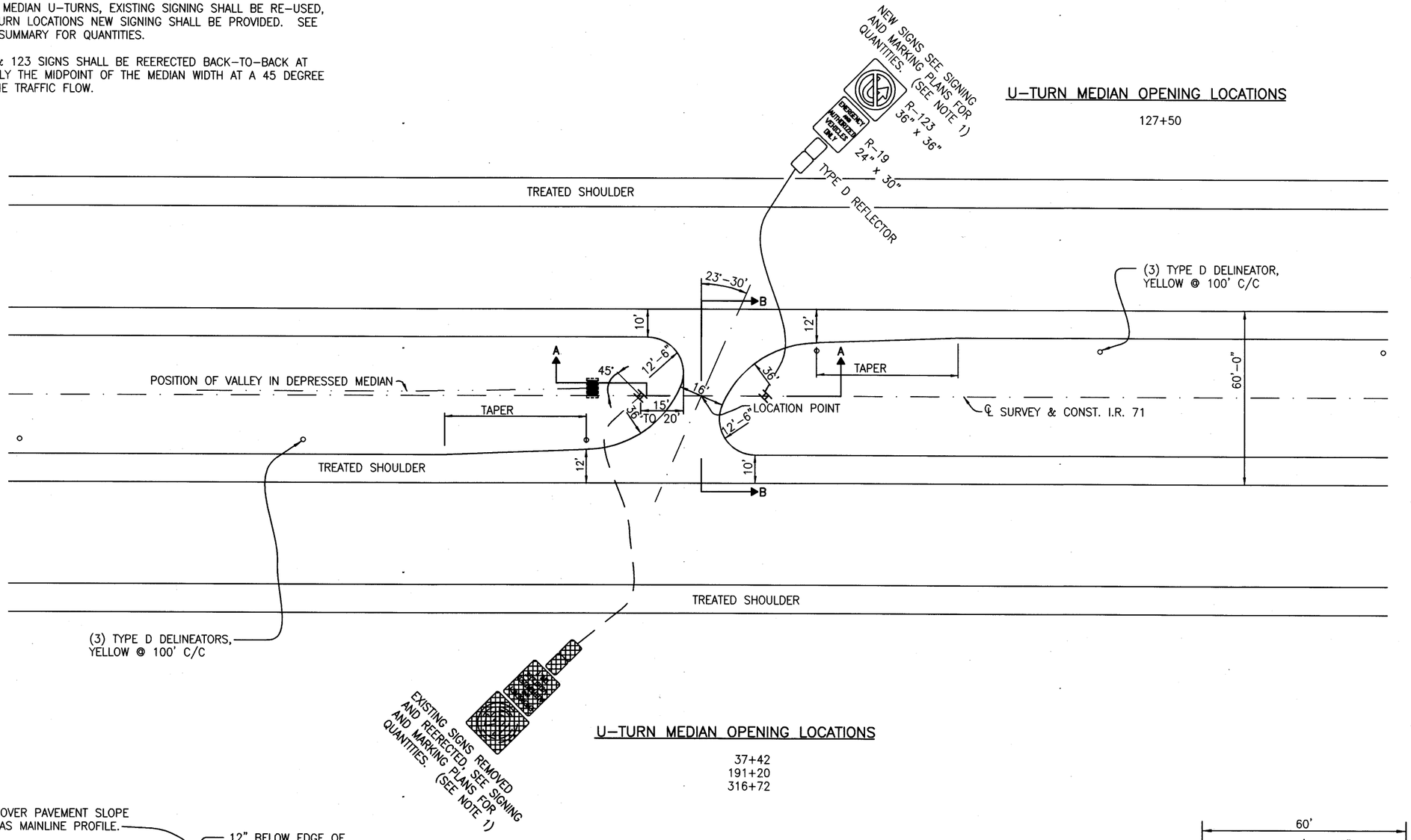
361A
432

PAVTMARK.dwg Apr 20, 2001

NOTES:

1. AT EXISTING MEDIAN U-TURNS, EXISTING SIGNING SHALL BE RE-USED, AT NEW U-TURN LOCATIONS NEW SIGNING SHALL BE PROVIDED. SEE SIGNING SUBSUMMARY FOR QUANTITIES.

2. THE R-19 & 123 SIGNS SHALL BE REERECTED BACK-TO-BACK AT APPROXIMATELY THE MIDPOINT OF THE MEDIAN WIDTH AT A 45 DEGREE ANGLE TO THE TRAFFIC FLOW.

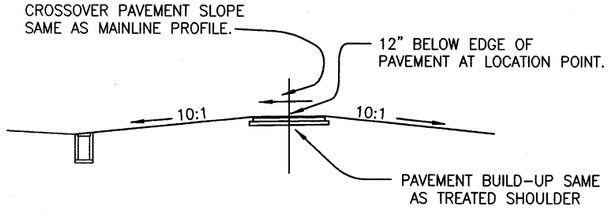


U-TURN MEDIAN OPENING LOCATIONS

127+50

U-TURN MEDIAN OPENING LOCATIONS

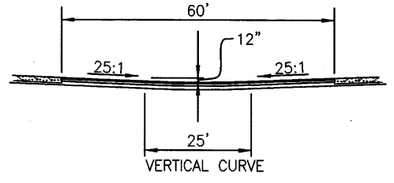
37+42
191+20
316+72



SECTION A-A

LOCATIONS OF U-TURN MEDIAN OPENINGS

STA. 37+42 – (S3) AND (S4)
STA. 127+50 – (S31) AND (S32)
STA. 191+20 – (S39) AND (S40)
STA. 316+72 – (S47) AND (S48)



SECTION B-B

SEE SHEETS 346-348 FOR SIGNING QUANTITIES.
SEE SHEETS 360 AND 361 FOR PAVEMENT MARKING QUANTITIES.

HORIZONTAL SCALE IN FEET
0' 5' 10'

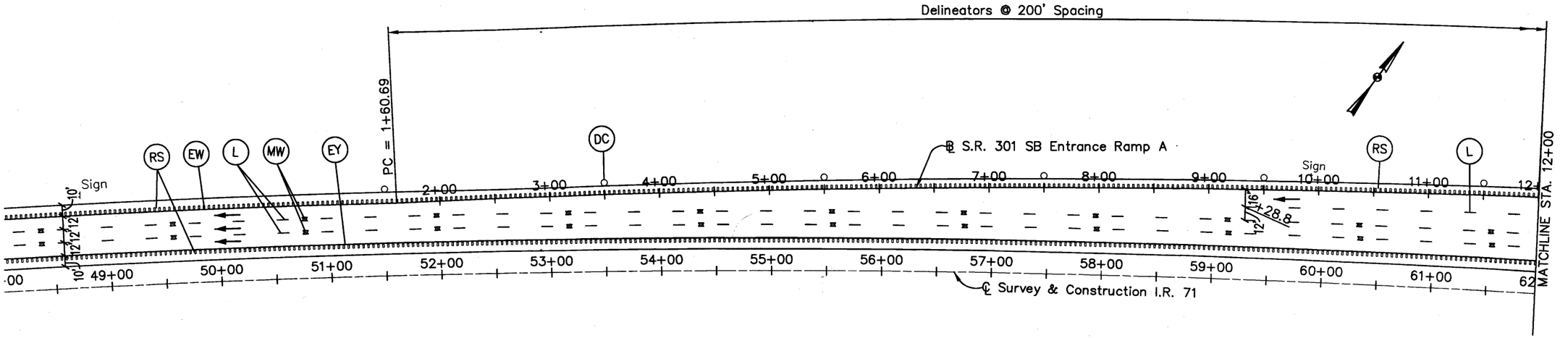
CALCULATED | CHECKED

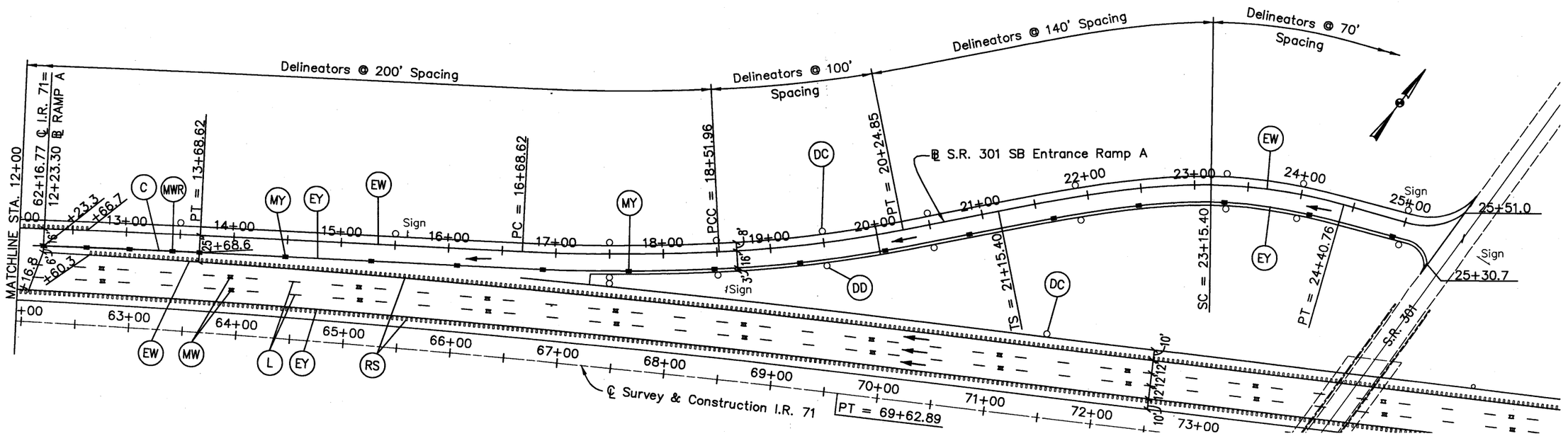
SIGNING PLAN AND PAVEMENT DETAIL
STANDARD U-TURN MEDIAN OPENING

WAY-71-0.28

362
432

median-stng.dwg May 03 ,2001





TRAFFIC CONTROL LEGEND

- (EW) EDGE LINE, WHITE
- (EY) EDGE LINE, YELLOW
- (L) LANE LINE
- (C) CHANNELIZING LINE
- (T) 24" TRANSVERSE LINE, WHITE
- ← TRAFFIC DIRECTION

- (DC) TYPE C DELINEATOR (WHITE) @ 400' c/c (DO NOT PLACE ON BRIDGE DECKS)*
- (DD) TYPE D DELINEATOR (YELLOW) *
- (MW) 1 WAY (WHITE) RAISED PAVEMENT MARKER @ 120' c/c (DO NOT PLACE ON BRIDGE DECKS)
- (MWR) 2 WAY (WHITE/RED) RAISED PAVEMENT MARKER @ 40' c/c
- (MY) 2 WAY (YELLOW/RED) RAISED PAVEMENT MARKER @ 80' c/c
- (RS) RUMBLE STRIPS, TYPE 2 (ASPHALT)

NOTES: SEE STANDARD CONSTRUCTION DRAWINGS TC-61.10M, TC-65.10M, TC-65.11M, TC-72.20M, AND BP-9.1 FOR ADDITIONAL DETAILS.

ALL STRIPING TO BE ITEM 644 UNLESS OTHERWISE NOTED ON SHEETS.

* SPACING VARIES ON RAMPS. SEE SHEETS 363 TO 372 FOR DETAILS.

SEE SHEET 361 FOR PAVEMENT MARKING QUANTITIES.

Scale In Feet 0 50 100

CALCULATED

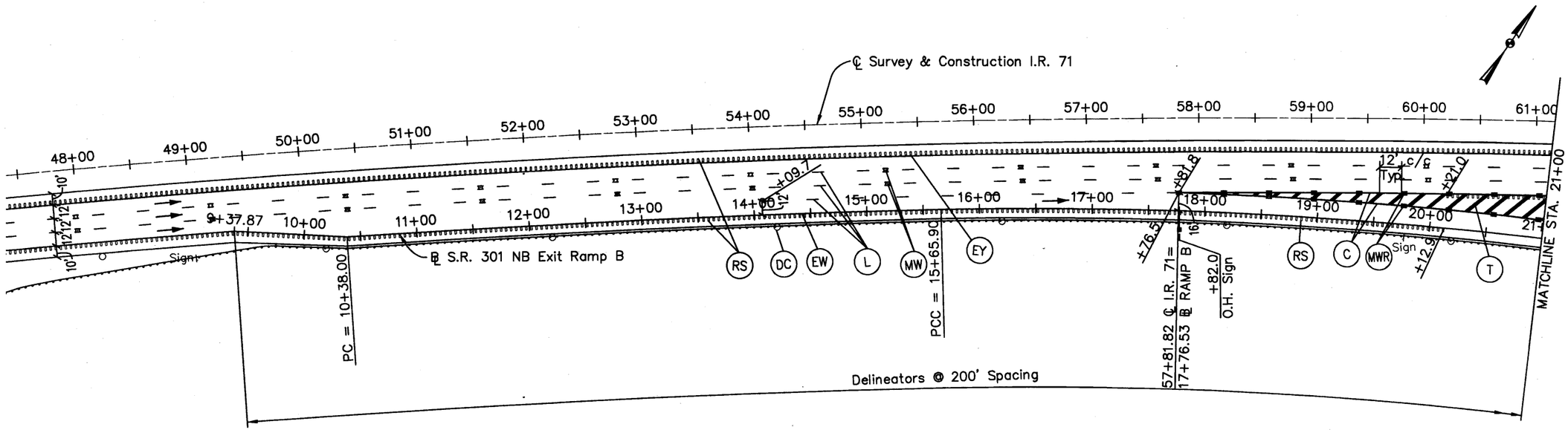
CHECKED

PAVEMENT MARKING PLAN – RAMP A

WAY-71-0.28

363
432

pm-rampA.dwg May 03 ,2001



TRAFFIC CONTROL LEGEND

- (EW) EDGE LINE, WHITE
- (EY) EDGE LINE, YELLOW
- (L) LANE LINE
- (C) CHANNELIZING LINE
- (T) 24" TRANSVERSE LINE, WHITE
- ← TRAFFIC DIRECTION
- (DC) TYPE C DELINEATOR (WHITE) @ 400' c/c (DO NOT PLACE ON BRIDGE DECKS)*
- (DD) TYPE D DELINEATOR (YELLOW) *
- (MW) 1 WAY (WHITE) RAISED PAVEMENT MARKER @ 120' c/c (DO NOT PLACE ON BRIDGE DECKS)
- (MWR) 2 WAY (WHITE/RED) RAISED PAVEMENT MARKER @ 40' c/c
- (MY) 2 WAY (YELLOW/RED) RAISED PAVEMENT MARKER @ 80' c/c
- (RS) RUMBLE STRIPS, TYPE 2 (ASPHALT)

NOTES: SEE STANDARD CONSTRUCTION DRAWINGS TC-61.10M, TC-65.10M, TC-65.11M, TC-72.20M, AND BP-9.1 FOR ADDITIONAL DETAILS.

ALL STRIPING TO BE ITEM 644 UNLESS OTHERWISE NOTED ON SHEETS.

* SPACING VARIES ON RAMPS. SEE SHEETS 363 TO 372 FOR DETAILS.

SEE SHEET 349 FOR SIGNING DETAILS.
SEE SHEET 360 FOR PAVEMENT MARKING QUANTITIES.

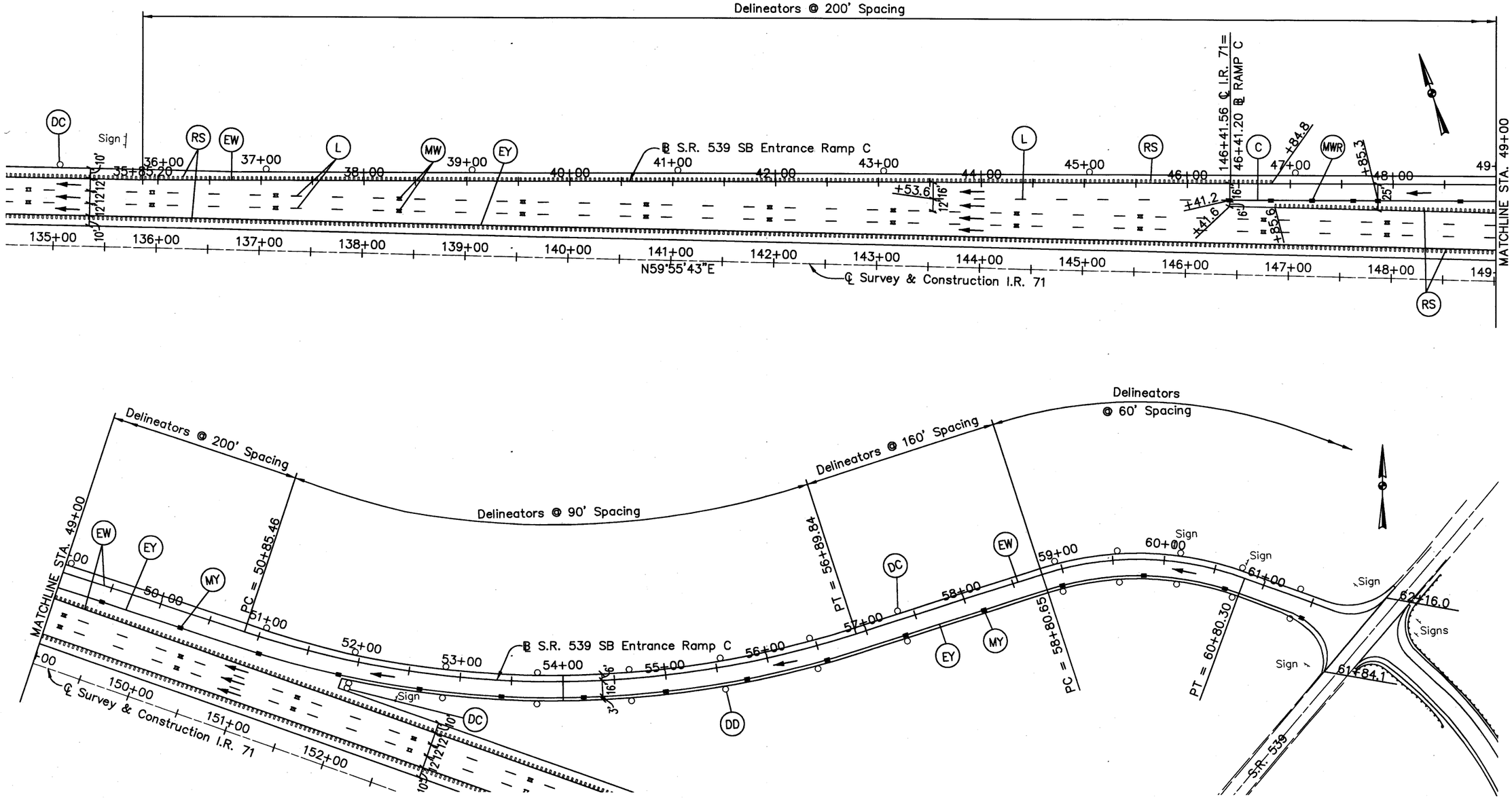
Scale In Feet: 0 50 100

CALCULATED | CHECKED

PAVEMENT MARKING PLAN – RAMP B

WAY-71-0.28

pm-rampB.dwg May 03, 2001



TRAFFIC CONTROL LEGEND

- (EW) EDGE LINE, WHITE
- (EY) EDGE LINE, YELLOW
- (L) LANE LINE
- (C) CHANNELIZING LINE
- (T) 24" TRANSVERSE LINE, WHITE
- ← TRAFFIC DIRECTION

- (DC) TYPE C DELINEATOR (WHITE) @ 400' c/c (DO NOT PLACE ON BRIDGE DECKS)*
- (DD) TYPE D DELINEATOR (YELLOW) *
- (MW) 1 WAY (WHITE) RAISED PAVEMENT MARKER @ 120' c/c (DO NOT PLACE ON BRIDGE DECKS)
- (MWR) 2 WAY (WHITE/RED) RAISED PAVEMENT MARKER @ 40' c/c
- (MY) 2 WAY (YELLOW/RED) RAISED PAVEMENT MARKER @ 80' c/c
- (RS) RUMBLE STRIPS, TYPE 2 (ASPHALT)

NOTES: SEE STANDARD CONSTRUCTION DRAWINGS TC-61.10M, TC-65.10M, TC-65.11M, TC-72.20M, AND BP-9.1 FOR ADDITIONAL DETAILS.

ALL STRIPING TO BE ITEM 644 UNLESS OTHERWISE NOTED ON SHEETS.

* SPACING VARIES ON RAMPS. SEE SHEETS 363 TO 372 FOR DETAILS.

SEE SHEET 361 FOR PAVEMENT MARKING QUANTITIES.

Scale in Feet: 0 50 100

CALCULATED

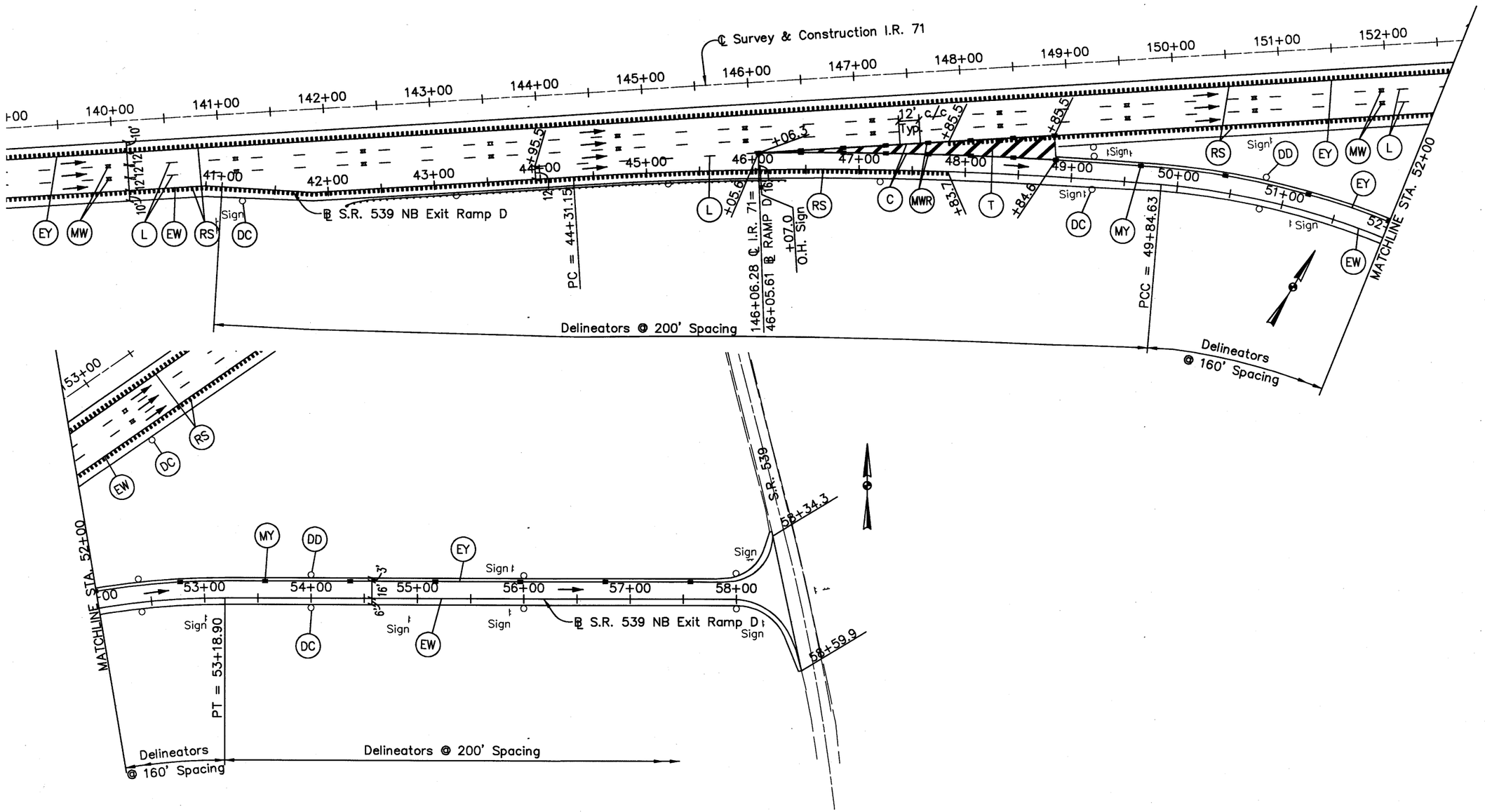
CHECKED

PAVEMENT MARKING PLAN – RAMP C

WAY-71-0.28

365
432

pm-rampC.dwg May 03, 2001



TRAFFIC CONTROL LEGEND

- (EW) EDGE LINE, WHITE
- (EY) EDGE LINE, YELLOW
- (L) LANE LINE
- (C) CHANNELIZING LINE
- (T) 24" TRANSVERSE LINE, WHITE
- ← TRAFFIC DIRECTION
- (DC) TYPE C DELINEATOR (WHITE) @ 400' c/c (DO NOT PLACE ON BRIDGE DECKS)*
- (DD) TYPE D DELINEATOR (YELLOW) *
- (MW) 1 WAY (WHITE) RAISED PAVEMENT MARKER @ 120' c/c (DO NOT PLACE ON BRIDGE DECKS)
- (MWR) 2 WAY (WHITE/RED) RAISED PAVEMENT MARKER @ 40' c/c
- (MY) 2 WAY (YELLOW/RED) RAISED PAVEMENT MARKER @ 80' c/c
- (RS) RUMBLE STRIPS, TYPE 2 (ASPHALT)

NOTES: SEE STANDARD CONSTRUCTION DRAWINGS TC-61.10M, TC-65.10M, TC-65.11M, TC-72.20M, AND BP-9.1 FOR ADDITIONAL DETAILS.

ALL STRIPING TO BE ITEM 644 UNLESS OTHERWISE NOTED ON SHEETS.

* SPACING VARIES ON RAMPS. SEE SHEETS 363 TO 372 FOR DETAILS.

SEE SHEET 350 FOR SIGNING DETAILS.
SEE SHEET 360 FOR PAVEMENT MARKING QUANTITIES.

Scale in Feet 0 50 100

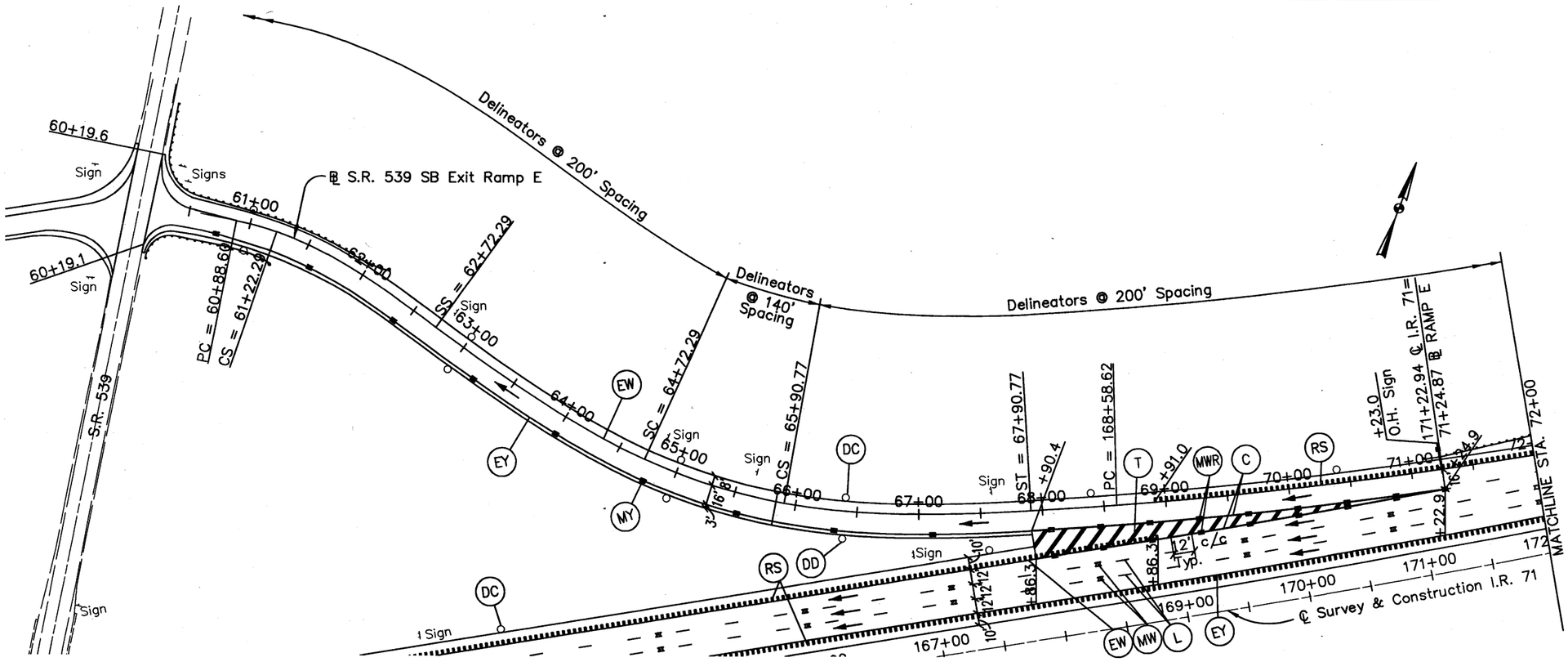
CALCULATED CHECKED

PAVEMENT MARKING PLAN – RAMP D

WAY-71-0.28

366/432

pm-rampD.dwg May 03, 2001



TRAFFIC CONTROL LEGEND

- (EW) EDGE LINE, WHITE
- (EY) EDGE LINE, YELLOW
- (L) LANE LINE
- (C) CHANNELIZING LINE
- (T) 24" TRANSVERSE LINE, WHITE
- ← TRAFFIC DIRECTION
- (DC) TYPE C DELINEATOR (WHITE) @ 400' c/c (DO NOT PLACE ON BRIDGE DECKS)*
- (DD) TYPE D DELINEATOR (YELLOW) *
- (MW) 1 WAY (WHITE) RAISED PAVEMENT MARKER @ 120' c/c (DO NOT PLACE ON BRIDGE DECKS)
- (MWR) 2 WAY (WHITE/RED) RAISED PAVEMENT MARKER @ 40' c/c
- (MY) 2 WAY (YELLOW/RED) RAISED PAVEMENT MARKER @ 80' c/c
- (RS) RUMBLE STRIPS, TYPE 2 (ASPHALT)

NOTES: SEE STANDARD CONSTRUCTION DRAWINGS TC-61.10M, TC-65.10M, TC-65.11M, TC-72.20M, AND BP-9.1 FOR ADDITIONAL DETAILS.

ALL STRIPING TO BE ITEM 644 UNLESS OTHERWISE NOTED ON SHEETS.

* SPACING VARIES ON RAMPS. SEE SHEETS 363 TO 372 FOR DETAILS.

SEE SHEET 351 FOR SIGNING DETAILS.
SEE SHEET 361 FOR PAVEMENT MARKING QUANTITIES.

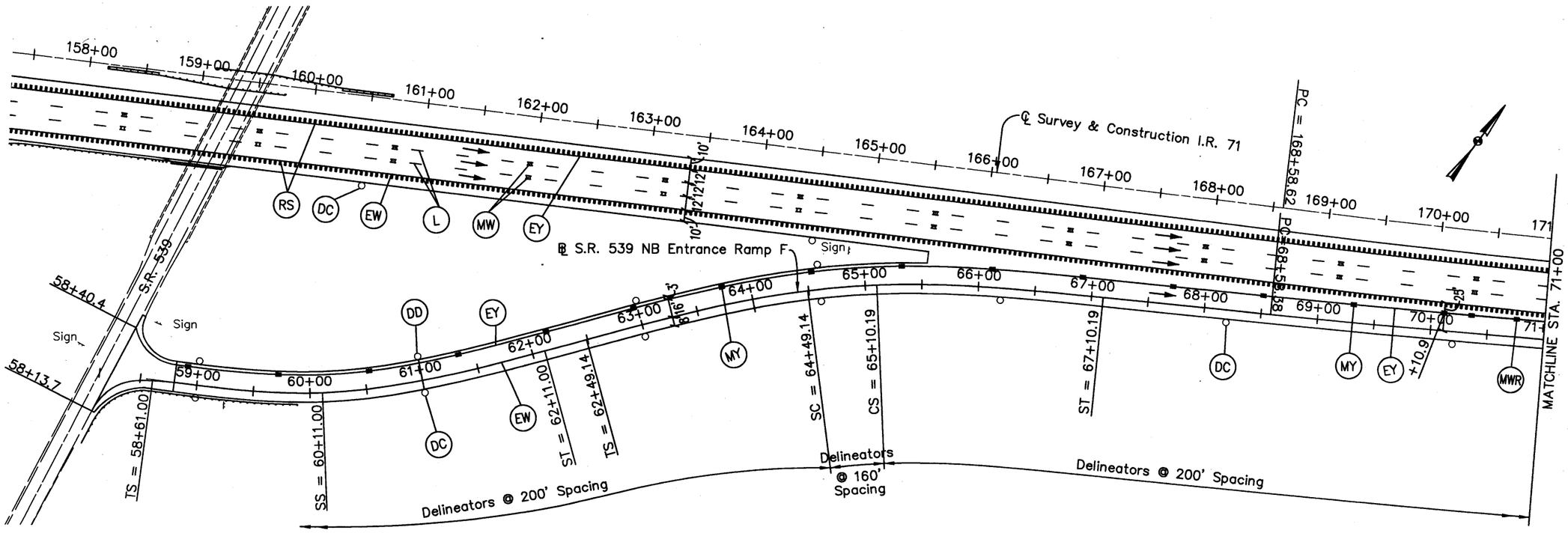
Scale in Feet: 0 50 100

CALCULATED | CHECKED

PAVEMENT MARKING PLAN – RAMP E

WAY-71-0.28

pm-rampE.dwg May 03, 2001



TRAFFIC CONTROL LEGEND

- (EW) EDGE LINE, WHITE
- (EY) EDGE LINE, YELLOW
- (L) LANE LINE
- (C) CHANNELIZING LINE
- (T) 24" TRANSVERSE LINE, WHITE
- ← TRAFFIC DIRECTION
- (DC) TYPE C DELINEATOR (WHITE) @ 400' c/c (DO NOT PLACE ON BRIDGE DECKS)*
- (DD) TYPE D DELINEATOR (YELLOW) *
- (MW) 1 WAY (WHITE) RAISED PAVEMENT MARKER @ 120' c/c (DO NOT PLACE ON BRIDGE DECKS)
- (MWR) 2 WAY (WHITE/RED) RAISED PAVEMENT MARKER @ 40' c/c
- (MY) 2 WAY (YELLOW/RED) RAISED PAVEMENT MARKER @ 80' c/c
- (RS) RUMBLE STRIPS, TYPE 2 (ASPHALT)

NOTES: SEE STANDARD CONSTRUCTION DRAWINGS TC-61.10M, TC-65.10M, TC-65.11M, TC-72.20M, AND BP-9.1 FOR ADDITIONAL DETAILS.

ALL STRIPING TO BE ITEM 644 UNLESS OTHERWISE NOTED ON SHEETS.

* SPACING VARIES ON RAMPS. SEE SHEETS 363 TO 372 FOR DETAILS.

SEE SHEET 360 FOR PAVEMENT MARKING QUANTITIES.

Scale in Feet 0 50 100

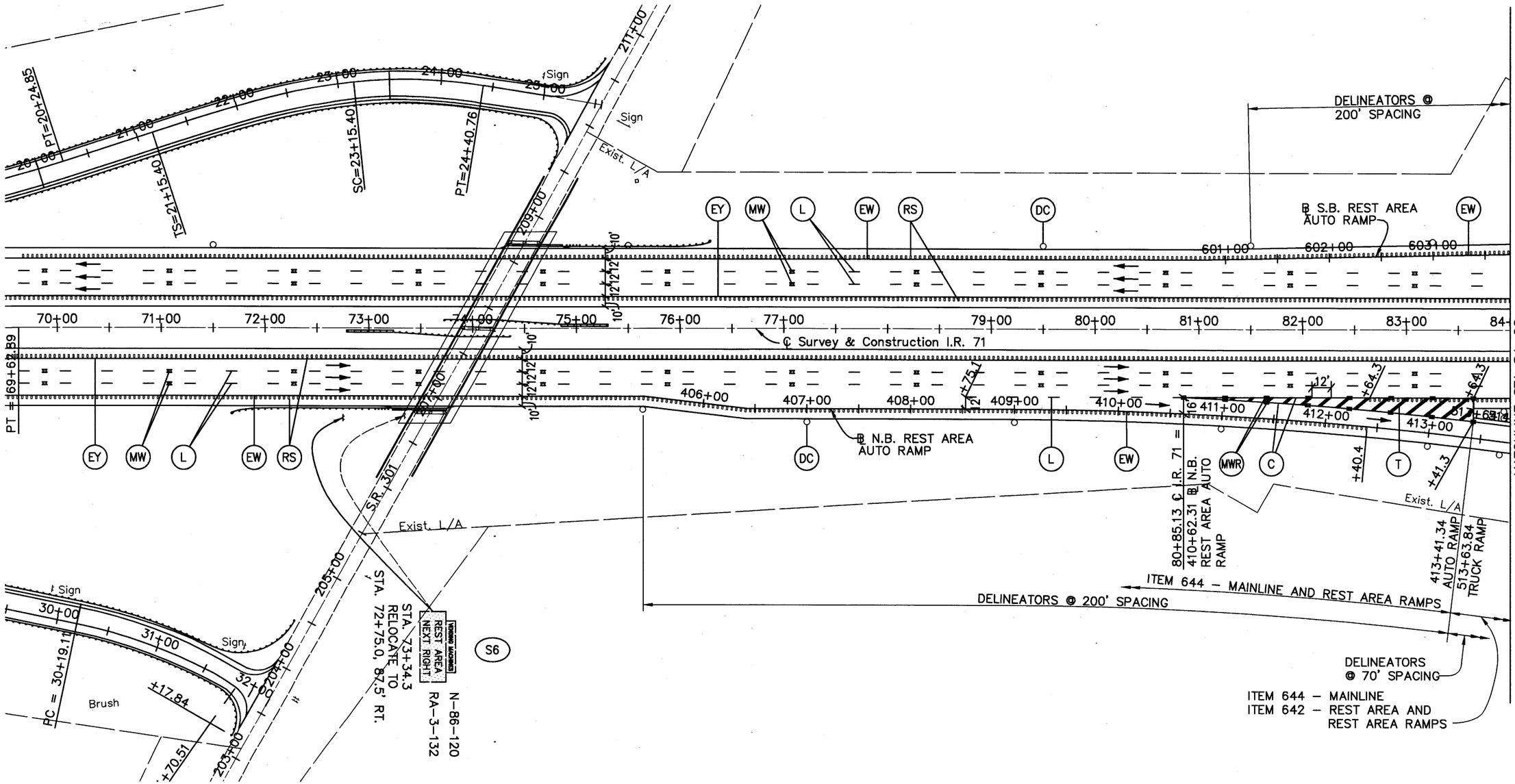
CALCULATED

CHECKED

PAVEMENT MARKING PLAN – RAMP F

WAY-71-0.28

pm-rampF.dwg May 03 ,2001



LEGEND–SIGNING

- EXISTING, TO REMAIN
- EXISTING, TO BE REMOVED
- EXISTING, TO BE RELOCATED/ RELOCATED
- PROPOSED

- (EW) EDGE LINE, WHITE
- (EY) EDGE LINE, YELLOW
- (L) LANE LINE
- (C) CHANNELIZING LINE
- (T) 24" TRANSVERSE LINE, WHITE
- (PS) 4" WHITE PARKING STALL MARKING
- (HS) HANDICAP SYMBOL MARKING
- ← TRAFFIC DIRECTION

TRAFFIC CONTROL LEGEND

- (DC) TYPE C DELINEATOR (WHITE) @ 400' c/c (DO NOT PLACE ON BRIDGE DECKS)*
- (DD) TYPE D DELINEATOR (YELLOW) *
- (MW) 1 WAY (WHITE) RAISED PAVEMENT MARKER @ 120' c/c (DO NOT PLACE ON BRIDGE DECKS)
- (MWR) 2 WAY (WHITE/RED) RAISED PAVEMENT MARKER @ 40' c/c
- (MY) 2 WAY (YELLOW/RED) RAISED PAVEMENT MARKER @ 80' c/c
- (RS) RUMBLE STRIPS, TYPE 2 (ASPHALT)

NOTES: SEE STANDARD CONSTRUCTION DRAWINGS TC-61.10M, TC-65.10M, TC-65.11M, TC-72.20M, AND BP-9.1 FOR ADDITIONAL DETAILS.

ALL STRIPING TO BE ITEM 644 UNLESS OTHERWISE NOTED ON SHEETS.

* SPACING VARIES ON RAMPS. SEE SHEETS 363 TO 372 FOR DETAILS.

SEE SHEET 355 FOR GROUND MOUNTED BEAM SUPPORT SIGN DETAILS.
SEE SHEET 346 FOR SIGNING QUANTITIES.
SEE SHEETS 360 AND 361 FOR PAVEMENT MARKING QUANTITIES.

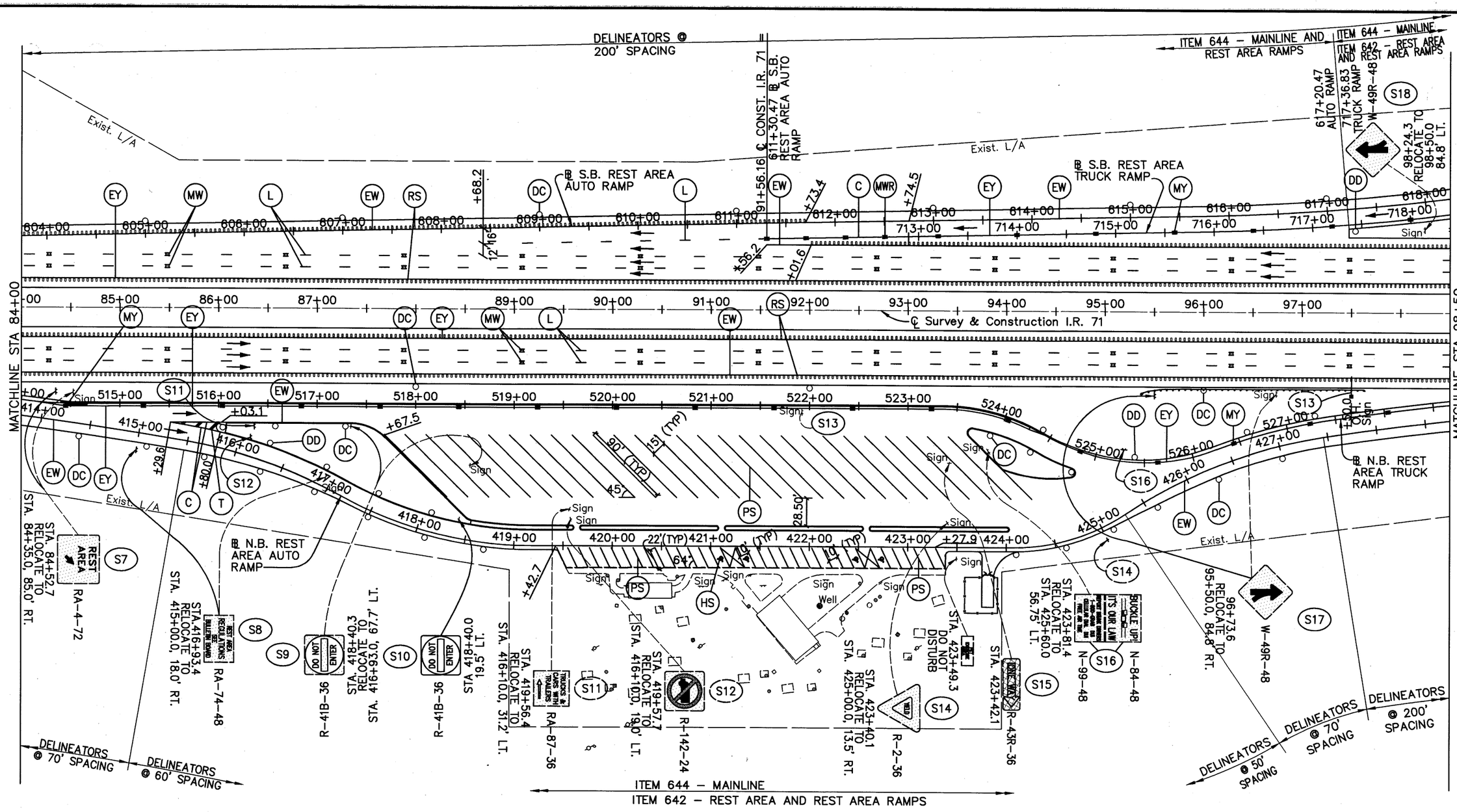
Scale In Feet 0 50 100

CALCULATED | CHECKED

SIGNING AND PAVEMENT MARKING PLAN REST AREAS

WAY-71-0.28

pm-ra-01.DWG May 03 ,2001



LEGEND–SIGNING

- EXISTING, TO REMAIN
- EXISTING, TO BE REMOVED
- EXISTING, TO BE RELOCATED/ RELOCATED
- PROPOSED

(EW) EDGE LINE, WHITE
(EY) EDGE LINE, YELLOW
(L) LANE LINE
(C) CHANNELIZING LINE
(T) 24" TRANSVERSE LINE, WHITE
(PS) 4" WHITE PARKING STALL MARKING
(HS) HANDICAP SYMBOL MARKING

TRAFFIC CONTROL LEGEND

(DC) TYPE C DELINEATOR (WHITE) @ 400' c/c (DO NOT PLACE ON BRIDGE DECKS)*
(DD) TYPE D DELINEATOR (YELLOW) *
(MW) 1 WAY (WHITE) RAISED PAVEMENT MARKER @ 120' c/c (DO NOT PLACE ON BRIDGE DECKS)
(MWR) 2 WAY (WHITE/RED) RAISED PAVEMENT MARKER @ 40' c/c
(MY) 2 WAY (YELLOW/RED) RAISED PAVEMENT MARKER @ 80' c/c
(RS) RUMBLE STRIPS, TYPE 2 (ASPHALT)
← TRAFFIC DIRECTION

NOTES: SEE STANDARD CONSTRUCTION DRAWINGS TC-61.10M, TC-65.10M, TC-65.11M, TC-72.20M, AND BP-9.1 FOR ADDITIONAL DETAILS.

ALL STRIPING TO BE ITEM 644 UNLESS OTHERWISE NOTED ON SHEETS.

* SPACING VARIES ON RAMPS. SEE SHEETS 363 TO 372 FOR DETAILS.

SEE SHEETS 355 AND 356 FOR GROUND MOUNTED BEAM SUPPORT SIGN DETAILS.
SEE SHEET 353 FOR OVERHEAD SIGN DETAILS.
SEE SHEET 346 FOR SIGNING QUANTITIES.
SEE SHEETS 360 AND 361 FOR PAVEMENT MARKING QUANTITIES.

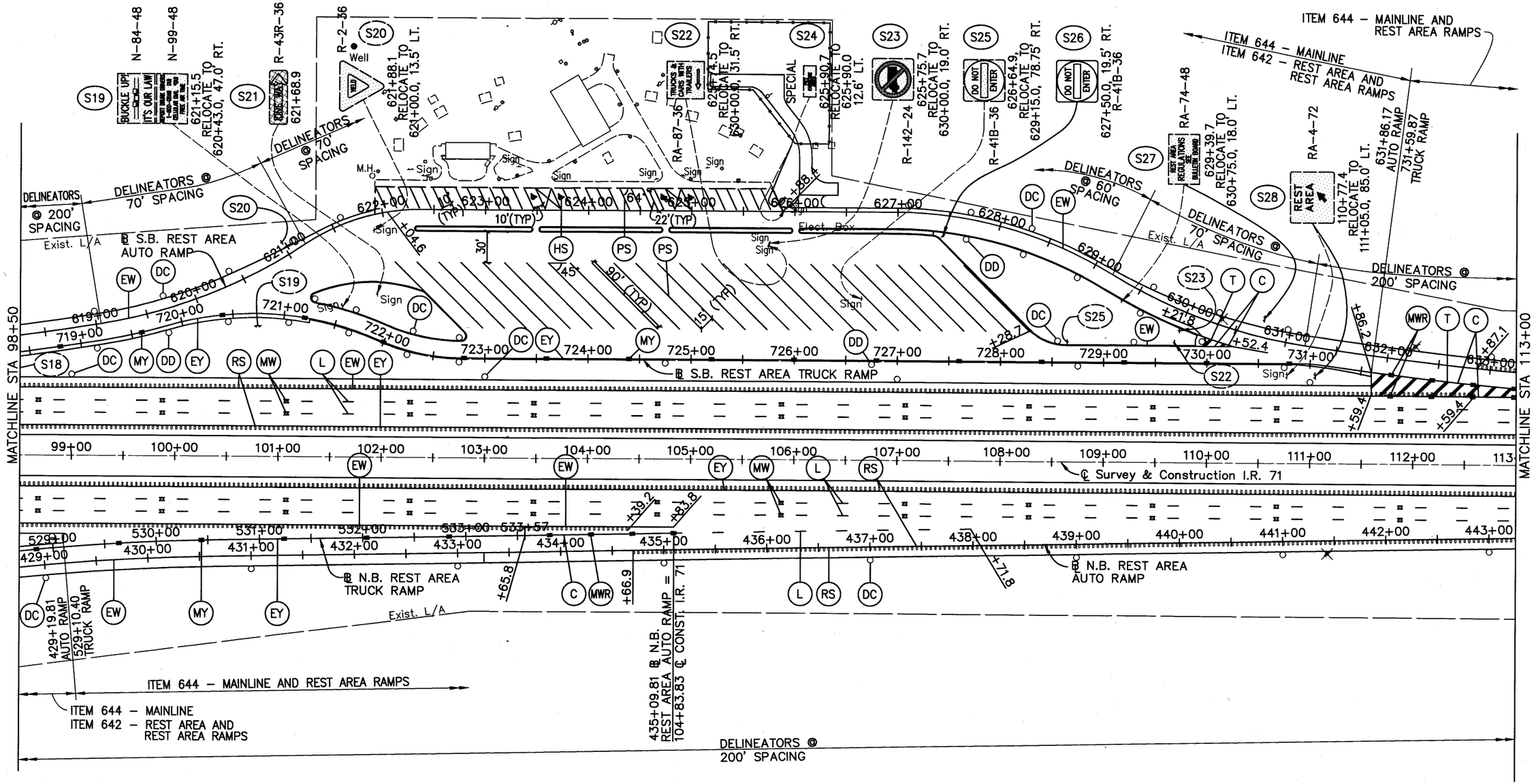
Scale In Feet 0 50 100
CALCULATED
CHECKED

SIGNING AND PAVEMENT MARKING PLAN REST AREAS

WAY-71-0.28

370
432

pm-ra-02.dwg May 03, 2001



LEGEND–SIGNING

- EXISTING, TO REMAIN
- EXISTING, TO BE REMOVED
- EXISTING, TO BE RELOCATED/ RELOCATED
- PROPOSED

- (EW) EDGE LINE, WHITE
- (EY) EDGE LINE, YELLOW
- (L) LANE LINE
- (C) CHANNELIZING LINE
- (T) 24" TRANSVERSE LINE, WHITE
- (PS) 4" WHITE PARKING STALL MARKING
- (HS) HANDICAP SYMBOL MARKING
- ← TRAFFIC DIRECTION

TRAFFIC CONTROL LEGEND

- (DC) TYPE C DELINEATOR (WHITE) @ 400' c/c (DO NOT PLACE ON BRIDGE DECKS)*
- (DD) TYPE D DELINEATOR (YELLOW) *
- (MW) 1 WAY (WHITE) RAISED PAVEMENT MARKER @ 120' c/c (DO NOT PLACE ON BRIDGE DECKS)
- (MWR) 2 WAY (WHITE/RED) RAISED PAVEMENT MARKER @ 40' c/c
- (MY) 2 WAY (YELLOW/RED) RAISED PAVEMENT MARKER @ 80' c/c
- (RS) RUMBLE STRIPS, TYPE 2 (ASPHALT)

NOTES: SEE STANDARD CONSTRUCTION DRAWINGS TC-61.10M, TC-65.10M, TC-65.11M, TC-72.20M, AND BP-9.1 FOR ADDITIONAL DETAILS.

ALL STRIPING TO BE ITEM 644 UNLESS OTHERWISE NOTED ON SHEETS.

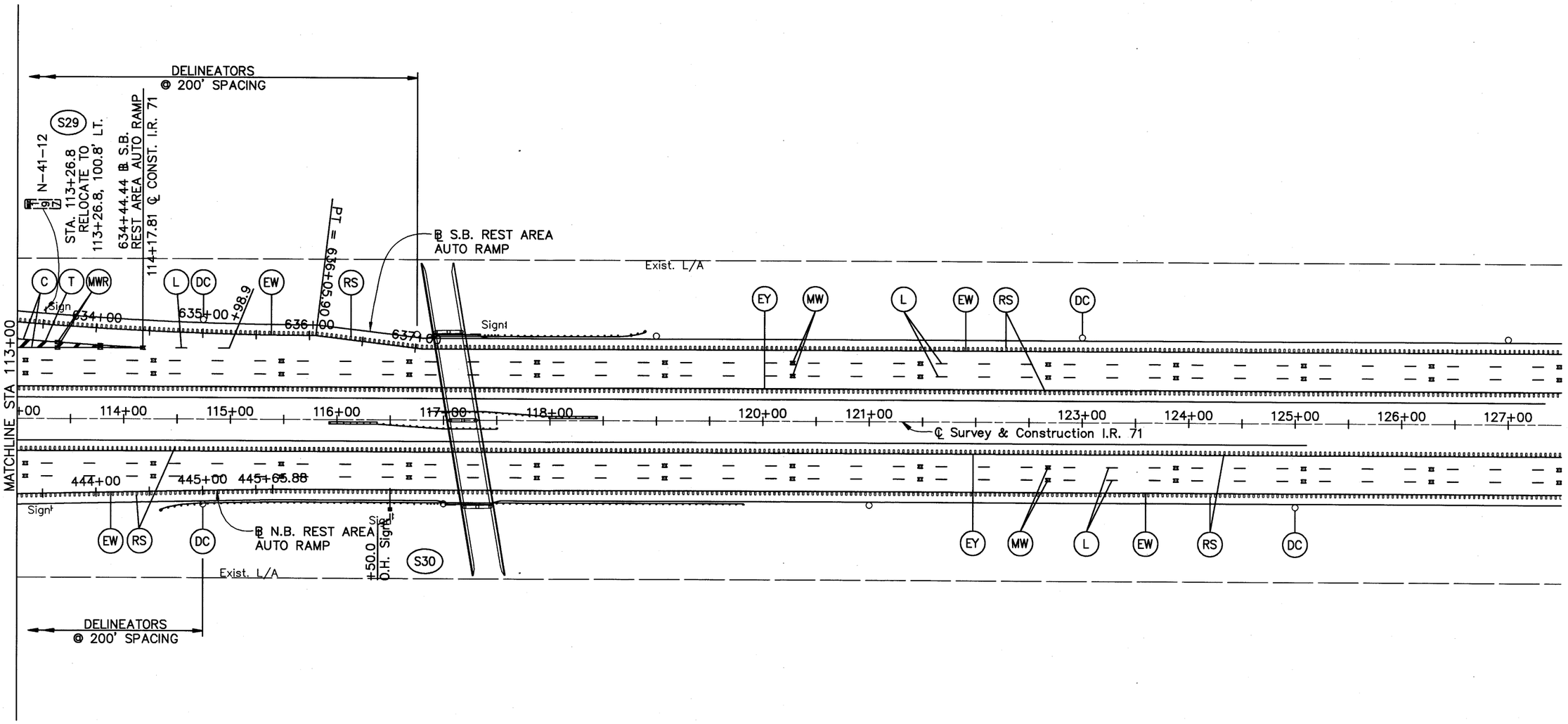
* SPACING VARIES ON RAMPS. SEE SHEETS 363 TO 372 FOR DETAILS.

SEE SHEET 356 FOR GROUND MOUNTED BEAM SUPPORT SIGN DETAILS.
SEE SHEET 347 FOR SIGNING QUANTITIES.
SEE SHEETS 360 AND 361 FOR PAVEMENT MARKING QUANTITIES.

SIGNING AND PAVEMENT MARKING PLAN REST AREAS

WAY-71-0.28

pm-ra-03.dwg May 03 2001



LEGEND–SIGNING

- EXISTING, TO REMAIN
- EXISTING, TO BE REMOVED
- EXISTING, TO BE RELOCATED/ RELOCATED
- PROPOSED

- (EW) EDGE LINE, WHITE
- (EY) EDGE LINE, YELLOW
- (L) LANE LINE
- (C) CHANNELIZING LINE
- (T) 24" TRANSVERSE LINE, WHITE
- (PS) 4" WHITE PARKING STALL MARKING
- (HS) HANDICAP SYMBOL MARKING
- ← TRAFFIC DIRECTION

TRAFFIC CONTROL LEGEND

- (DC) TYPE C DELINEATOR (WHITE) @ 400' c/c (DO NOT PLACE ON BRIDGE DECKS)*
- (DD) TYPE D DELINEATOR (YELLOW) *
- (MW) 1 WAY (WHITE) RAISED PAVEMENT MARKER @ 120' c/c (DO NOT PLACE ON BRIDGE DECKS)
- (MWR) 2 WAY (WHITE/RED) RAISED PAVEMENT MARKER @ 40' c/c
- (MY) 2 WAY (YELLOW/RED) RAISED PAVEMENT MARKER @ 80' c/c
- (RS) RUMBLE STRIPS, TYPE 2 (ASPHALT)

NOTES: SEE STANDARD CONSTRUCTION DRAWINGS TC-61.10M, TC-65.10M, TC-65.11M, TC-72.20M, AND BP-9.1 FOR ADDITIONAL DETAILS.

ALL STRIPING TO BE ITEM 644 UNLESS OTHERWISE NOTED ON SHEETS.

* SPACING VARIES ON RAMPS. SEE SHEETS 363 TO 372 FOR DETAILS.

SEE SHEET 353 FOR OVERHEAD SIGN DETAILS.
SEE SHEET 347 FOR SIGNING QUANTITIES.
SEE SHEETS 360 AND 361 FOR PAVEMENT MARKING QUANTITIES.

N

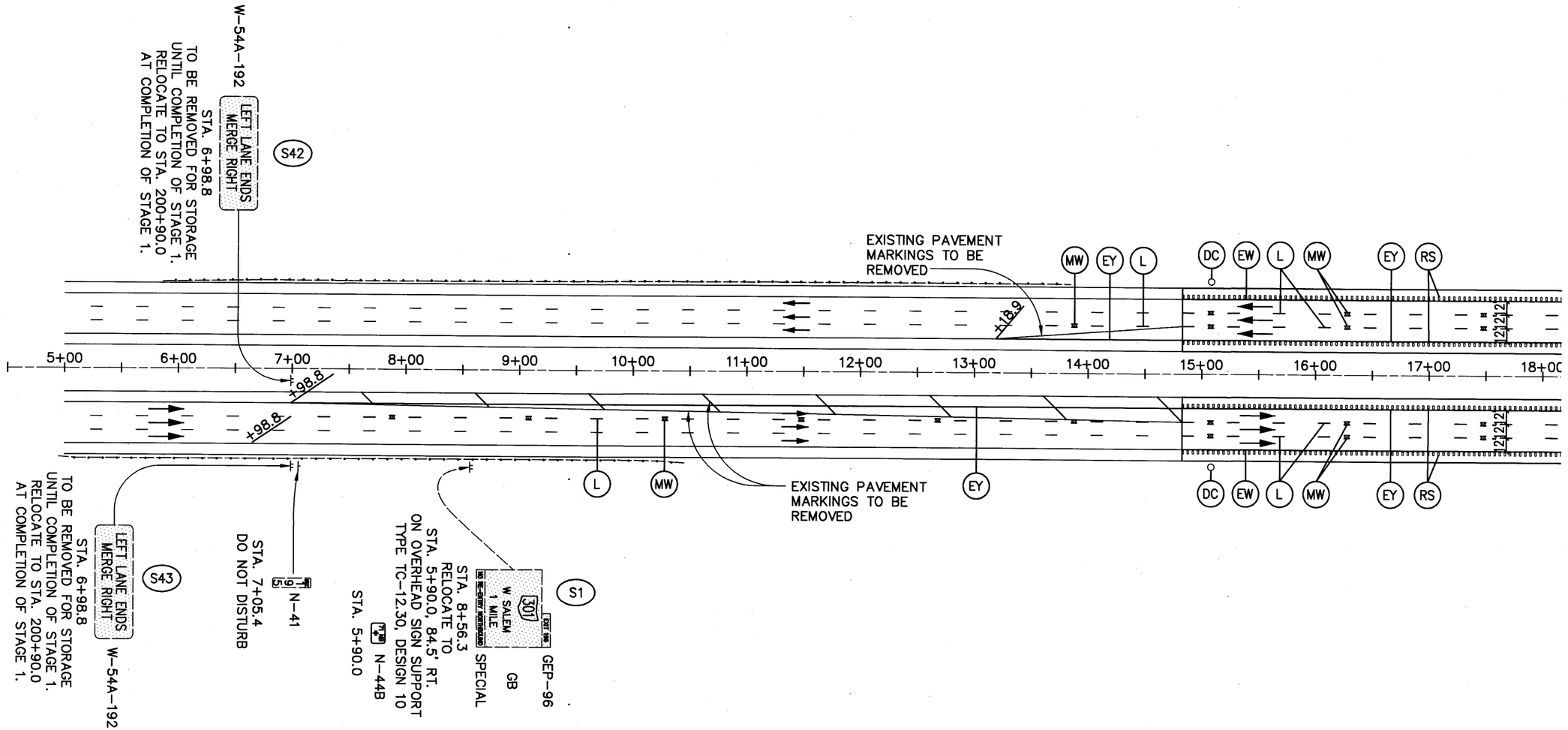
0 50 100 Scale In Feet

CALCULATED | CHECKED

SIGNING AND PAVEMENT MARKING PLAN REST AREAS

WAY-71-0.28

pm-rg-04.dwg May 03 ,2001



TRAFFIC CONTROL LEGEND

- (EW) EDGE LINE, WHITE
- (EY) EDGE LINE, YELLOW
- (L) LANE LINE
- (C) CHANNELIZING LINE
- (T) 24" TRANSVERSE LINE, WHITE
- ← TRAFFIC DIRECTION
- (DC) TYPE C DELINEATOR (WHITE) @ 400' c/c (DO NOT PLACE ON BRIDGE DECKS)*
- (DD) TYPE D DELINEATOR (YELLOW) *
- (MW) 1 WAY (WHITE) RAISED PAVEMENT MARKER @ 120' c/c (DO NOT PLACE ON BRIDGE DECKS)
- (MWR) 2 WAY (WHITE/RED) RAISED PAVEMENT MARKER @ 40' c/c
- (MY) 2 WAY (YELLOW/RED) RAISED PAVEMENT MARKER @ 80' c/c
- (RS) RUMBLE STRIPS, TYPE 2 (ASPHALT)

LEGEND–SIGNING

- EXISTING, TO REMAIN
- EXISTING, TO BE REMOVED
- EXISTING, TO BE RELOCATED/ RELOCATED
- PROPOSED

NOTES: SEE STANDARD CONSTRUCTION DRAWINGS TC-61.10M, TC-65.10M, TC-65.11M, TC-72.20M, AND BP-9.1 FOR ADDITIONAL DETAILS.

ALL STRIPING TO BE ITEM 644 UNLESS OTHERWISE NOTED ON SHEETS.

* SPACING VARIES ON RAMPS. SEE SHEETS 363 TO 372 FOR DETAILS.

‡ STRAIGHT LINE MILEAGE SHALL BE DETERMINED BY THE CONTRACTOR AFTER ANY MILE MARKERS AFFECTED BY CONSTRUCTION HAVE BEEN LOCATED BY THE OHIO DEPARTMENT OF TRANSPORTATION. SEE TRAFFIC CONTROL GENERAL NOTES SHEET 344 FOR ADDITIONAL DETAILS.

SEE SHEET 97 FOR LEFT LANE ENDS SERIES SIGN DETAILS.
SEE SHEET 358 FOR GROUND MOUNTED BEAM SUPPORT SIGN DETAILS.
SEE SHEET 349 FOR OVERHEAD SIGN DETAILS.
SEE SHEETS 346 AND 348 FOR SIGNING QUANTITIES.
SEE SHEETS 360 AND 361 FOR PAVEMENT MARKING QUANTITIES.

N

0 50 100 Scale in Feet

CALCULATED | CHECKED

SIGNING AND PAVEMENT MARKING PLAN SOUTH END

WAY-71-0.28

373
432

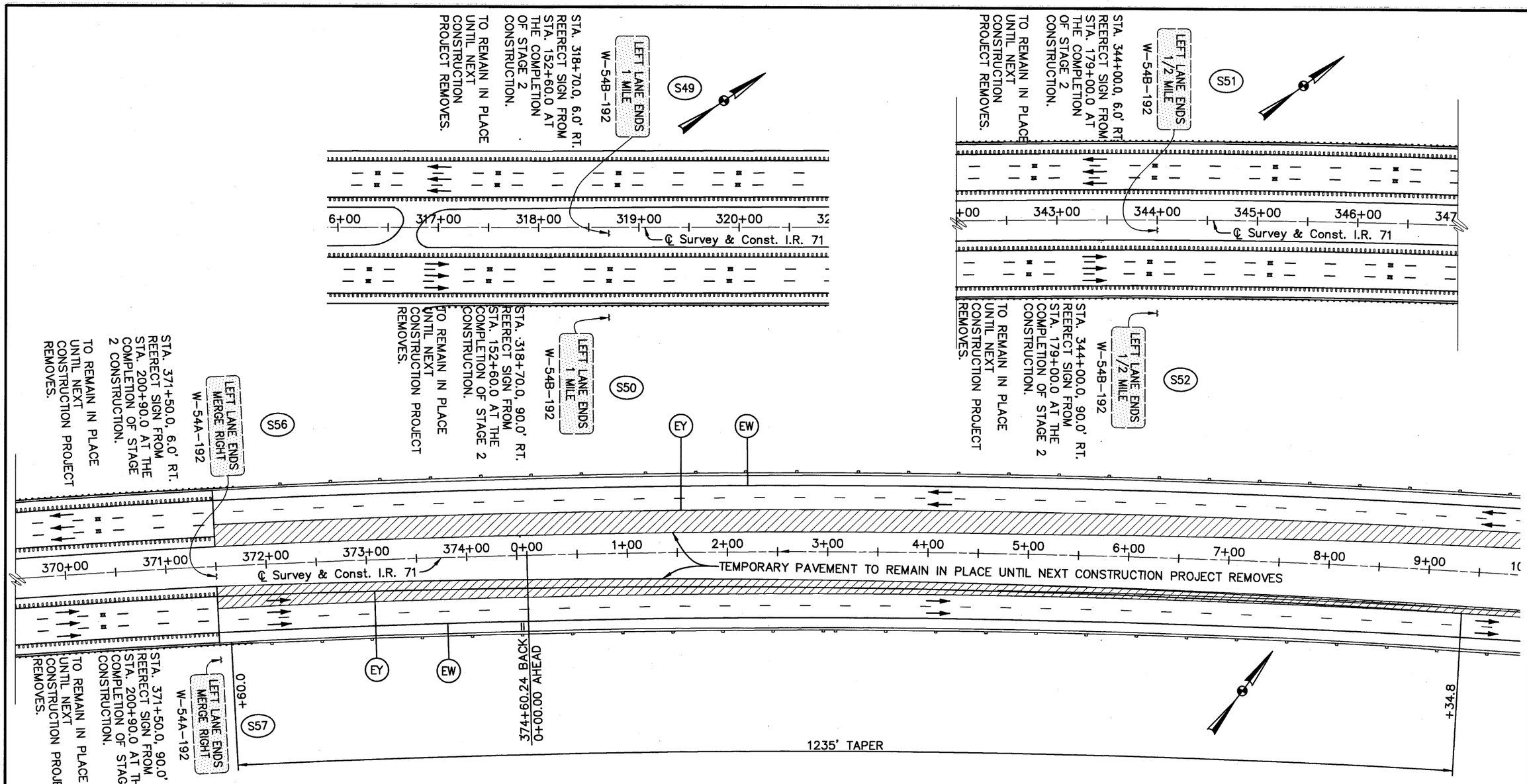
pm-SOUTHEND.dwg May 03 2001

SIGNING AND PAVEMENT MARKING PLAN NORTH END

CALCULATED

CHECKED

0 50 100 Scale in Feet



LEGEND–SIGNING

- EXISTING, TO REMAIN
- EXISTING, TO BE REMOVED
- EXISTING, TO BE RELOCATED/ RELOCATED
- PROPOSED
- TEMPORARY PAVEMENT

- (EW) EDGE LINE, WHITE
- (EY) EDGE LINE, YELLOW
- (L) LANE LINE
- (C) CHANNELIZING LINE
- (T) 24" TRANSVERSE LINE, WHITE
- ← TRAFFIC DIRECTION

TRAFFIC CONTROL LEGEND

- (DC) TYPE C DELINEATOR (WHITE) @ 400' c/c (DO NOT PLACE ON BRIDGE DECKS)*
- (DD) TYPE D DELINEATOR (YELLOW) *
- (MW) 1 WAY (WHITE) RAISED PAVEMENT MARKER @ 120' c/c (DO NOT PLACE ON BRIDGE DECKS)
- (MWR) 2 WAY (WHITE/RED) RAISED PAVEMENT MARKER @ 40' c/c
- (MY) 2 WAY (YELLOW/RED) RAISED PAVEMENT MARKER @ 80' c/c
- (RS) RUMBLE STRIPS, TYPE 2 (ASPHALT)

NOTES: SEE STANDARD CONSTRUCTION DRAWINGS TC–61.10M, TC–65.10M, TC–65.11M, TC–72.20M, AND BP–9.1 FOR ADDITIONAL DETAILS.

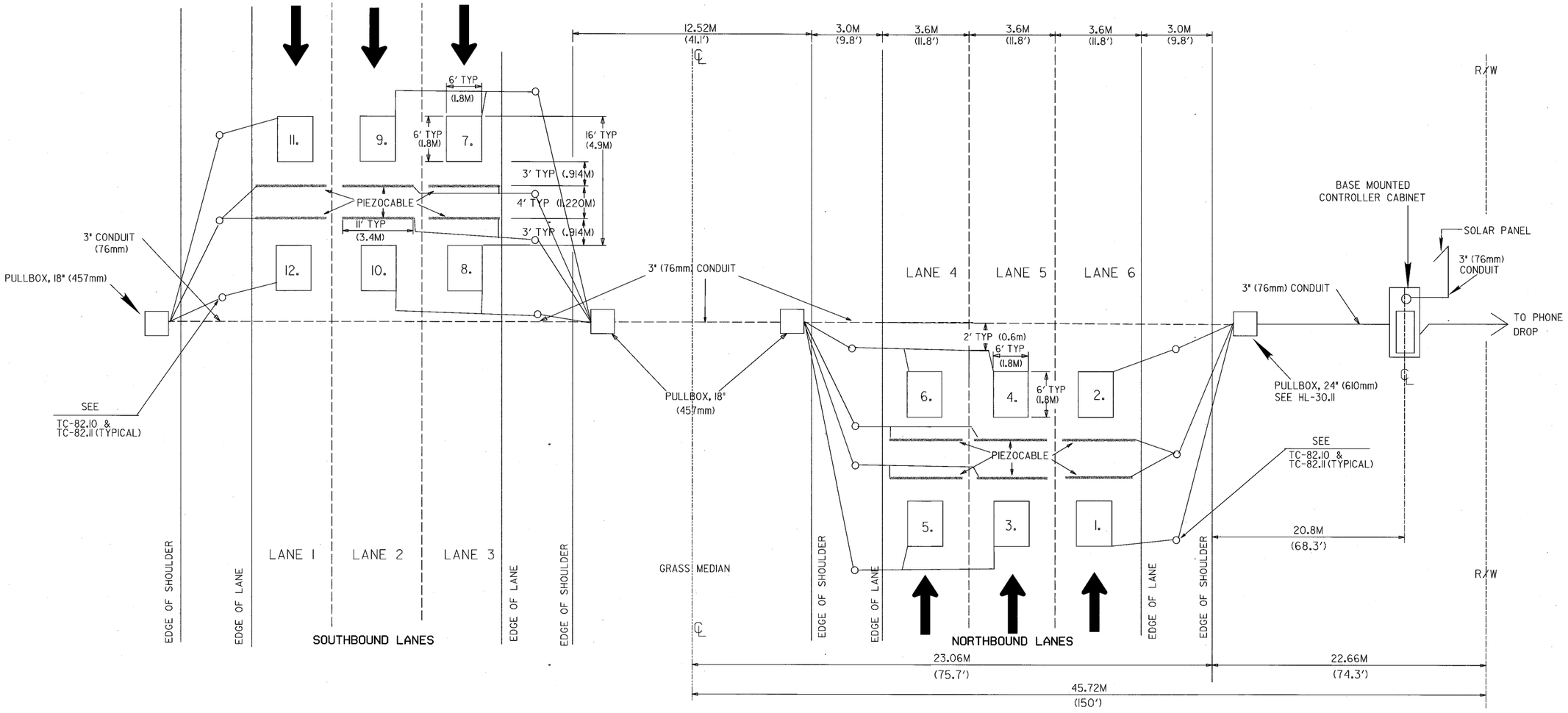
ALL STRIPING TO BE ITEM 644 UNLESS OTHERWISE NOTED ON SHEETS.

* SPACING VARIES ON RAMPS. SEE SHEETS 363 TO 372 FOR DETAILS.

SEE SHEET 97 FOR LEFT LANE ENDS SERIES SIGN DETAILS.
SEE SHEETS 358 AND 359 FOR GROUND MOUNTED BEAM SUPPORT SIGN DETAILS.
SEE SHEET 348 FOR SIGNING QUANTITIES.
SEE SHEETS 360 AND 361 FOR PAVEMENT MARKING QUANTITIES.

WAY–71–0.28

pm–NORTHEND.dwg May 03 ,2001



AUTOMATIC TRAFFIC RECORDER INSTALLATION
6 LANE WEIGH-IN-MOTION STATION
IR 71, LOG POINT 220+00 FEET
D03 SITE No 85-AA-W#

ITEM	ITEM EXT.			TOTAL	UNIT	DESCRIPTION
603	00400			120	LIN FT	4" CONDUIT, TYPE E
625	25500			131	LIN FT	CONDUIT, 3", 713.04
625	25900			154	LIN FT	CONDUIT, JACKED OR DRILLED, 1", 713.04
625	25900			138	LIN FT	CONDUIT, JACKED OR DRILLED, 3"
625	29000			160	LIN FT	TRENCH
625	30700			3	EACH	PULL BOX, 713.08, 18"
625	30706			1	EACH	PULL BOX, 713.08, 24"
625	32000			2	EACH	GROUND ROD
632	26501			12	EACH	DETECTOR LOOP, AS PER PLAN
632	63000			1	EACH	PHONE DROP
632	65200			820	LIN FT	LOOP DETECTOR LEAD-IN CABLE
632	90400			12	EACH	SIGNALIZATION, MISC.: PIEZOCABLE AXLE SENSOR CLASS I (11' IN LENGTH)
632	90400			1	EACH	SIGNALIZATION, MISC: GROUND MOUNTED CONTROLLER FOUNDATION
633	65001			1	EACH	CABINET WITHOUT CONTROLLER, AS PER PLAN
633	70500			12.2	SQ. FT	CONTROLLER WORK PAD
633	99000			1	EACH	CONTROLLER ITEM, MISC.: SOLAR PANEL
ALL ITEMS CARRIED TO THE TRAFFIC CONTROL GENERAL SUMMARY, SHEET 345 EXCEPT						
ITEM 603-4" CONDUIT, TYPE E; THIS ITEM IS CARRIED TO THE GENERAL SUMMARY SHEETS 100 TO 103.						

*SEE NEXT PAGE FOR WEIGH-IN-MOTION UNIT PLAN NOTES.

CALCULATED
CHECKED
DATE 1/16/01

AUTOMATIC TRAFFIC RECORDER PLAN INSERT SHEET FOR WEIGH IN MOTION UNIT

ATR SITE #85-AA-W
DRAWING NO 14016-01
STATION: 220+00 FT

375
432

PLOT-85-AA-W#.DGN MAY 4, 2001

SBW

WEIGH IN MOTION UNIT PLAN NOTES

1. CONTRACTOR SHALL CONTACT THE OFFICE OF TECH. SERVICES AT (614) 466-3727, AND MR. JIM BUZZARD AT DISTRICT # 03, (419) 281-0513 EXT. # 357 FIVE (5) WORKING DAYS PRIOR TO THE SCHEDULED SITE INSTALLATION.

2. ALL WORK AND ITEMS SHALL CONFORM TO CONSTRUCTION AND MATERIAL SPECIFICATIONS 499, 511, 603, 625, 632, 633, 705, 713, 732, AND 733, UNLESS OTHERWISE SPECIFIED.

3. ALL SENSORS ARE TO BE TESTED BY TECHNICAL SERVICES PERSONNEL AFTER THE INSTALLATION IS COMPLETE SO AS TO VERIFY THAT THE STATION IS OPERATING PROPERLY. IF THE ELECTRONIC EQUIPMENT DOES NOT PERFORM PROPERLY BECAUSE OF A POORLY INSTALLED SENSOR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF THE FAULTY SENSOR(S), AS SOON AS POSSIBLE AT THEIR OWN COST.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND TESTING THE PHONE DROP INSIDE OF THE CONTROLLER CABINET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CHARGES INCURRED PRIOR TO THE TRANSFER OF THE TELEPHONE ACCOUNT. THE CONTRACTOR SHALL COORDINATE WITH ODOT, TELECOMMUNICATIONS, MR. MIKE WIGGINS (614) 466-4452 TO TRANSFER THE TELEPHONE ACCOUNT AND THE BILLING RESPONSIBILITY FROM THE CONTRACTOR TO ODOT. PAYMENT WILL BE AT THE CONTRACT UNIT PRICE PER EACH ITEM 632 PHONE DROP AND SHALL INCLUDE ALL MATERIAL, LABOR, TOOLS, EQUIPMENT, INCIDENTALS AND PAYMENT OF ALL PHONE COMPANY FEES NECESSARY FOR EACH INSTALLATION, IN PLACE COMPLETE, AND ACCEPTED.

5. ALL LOOPS SHALL BE SIX (6) FEET (1.8M) BY SIX (6) FEET (1.8M). LOOPS SHALL BE SPACED LONGITUDINALLY SIXTEEN (16) FEET (4.9M) FROM LEADING EDGE TO LEADING EDGE. INSTALLATION OF LOOPS SHALL CONFORM TO TC-82.10 & TC-82.11, EXCEPT THAT LOOPS SHALL BE INSTALLED WITH FOUR (4) TURNS, AND HAVE A MINIMUM EPOXY COVER OF FOUR (4) INCHES FOR ASPHALT OR THREE QUARTER (3/4) INCH (19MM) FOR CONCRETE. THE LOOP TURNS SHALL TERMINATE AT THE OUTSIDE OF THE LOOP CONFIGURATION. THE LOOP TURN EXTENSION WIRES SHALL RUN IN A MANNER SO THAT THEY ARE NEVER BETWEEN THE ACTUAL LOOP TURNS OF TWO (2) OR MORE LOOPS OR PIEZO SENSORS. LOOPS AND PIEZOCABLES SHALL BE CUT IN THE SURFACE ASPHALT COURSE. THEY SHALL NOT BE INSTALLED BETWEEN THE INTERMEDIATE AND SURFACE COURSES. THE CONDUIT PAVEMENT DRILL HOLES SHALL BE LOCATED 60" (1.5M) FROM THE EDGE IN THE MIDDLE OF THE PAVED SHOULDER.

6. THE POLARITY OF ADJACENT LOOPS (TRANSVERSE AND LONGITUDINAL) SHALL BE IN OPPOSITE DIRECTIONS, i.e., LOOP 1, LOOP 4, LOOP 6, AND LOOP 7, CLOCKWISE; LOOP 2, LOOP 3, LOOP 5, AND LOOP 8, COUNTERCLOCKWISE.

7. LOOP INDUCTANCE READING SHALL BE BETWEEN SEVENTY (70) AND THREE HUNDRED (300) MICRO HENRIES. THE LOOP INDUCTANCE READING BETWEEN TWO LOOPS IN THE SAME LANE SHALL BE WITHIN TWENTY (20) MICRO HENRIES OF EACH OTHER.

8. THE PIEZOCABLE SENSOR SHALL BE MADE BY MEASUREMENT SPECIALITIES ROADTRAX BRASS LINGUINI (BL) CLASS I AXLE SENSOR OR EQUIVALENT. THE SENSOR WITH A LENGTH ONE (1) FOOT (.3M) SHORTER THAN THE ONSITE LANE WIDTH SHALL BE CENTERED IN THE LANE. PAYMENT WILL BE AT THE CONTRACT UNIT PRICE PER EACH ITEM SIGNALIZATION, MISCELLANEOUS: PIEZOCABLE AXLE SENSOR, CLASS I (IN LENGTH) AND SHALL INCLUDE ALL MATERIAL, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY FOR EACH INSTALLATION, IN PLACE, COMPLETE AND ACCEPTED. THE PIEZOCABLE LEAD-IN CABLE IS ORDERED IN DIFFERENT LENGTHS AS PART OF SENSOR AND SHALL NOT BE SPLICED. INCLUDED WITH THIS ITEM SHALL BE PAVEMENT CUTTING OF SLOTS, PLACEMENT OF LEAD-IN WIRE, AND THE APPLICATION OF EPOXY AS RECOMMENDED BY SENSOR MANUFACTURER. CONDUIT, DRILLING, TRENCHING, BACKFILLING, AND SURFACE RESTORATION FROM THE EDGE OF THE PAVEMENT TO THE PULL BOX SHALL ALSO BE INCLUDED.

9. CABLE AND WIRE SHALL BE IDENTIFIED IN ACCORDANCE WITH 632.04. IDENTIFICATION SHALL INCLUDE THE DIRECTION OF TRAVEL (i.e., NB, EB), POLARITY OF THE WIRE, AND THE LOOP NUMBER AS SHOWN. NORTH AND EAST ARE THE PREVAILING DIRECTION OF TRAVEL. THE POSITIVE POLARITY SHALL ALWAYS BE THE BLACK WIRE. EACH LOOP AND PIEZO SHOULD HAVE A SEPARATE LEAD-IN CABLE ROUTED TO THE CONTROLLER CABINET TERMINAL BLOCK AND TAGGED AS DESCRIBED ABOVE. THREE (3) FEET OF EXTRA CABLE SHALL REMAIN IN THE CABINET AFTER THE CONNECTION, WITH NO OBSTRUCTION TO THE TERMINAL BLOCK CONNECTIONS.

10. PIEZOCABLES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS AND ENSURE THAT THE COMPLETE CURING OF EPOXY OR SEALANT TAKES PLACE PRIOR TO OPENING THE LANE TO TRAFFIC. (EG: WINTER GRADE EPOXY).

11. THE ATR SYSTEM SHALL BE GROUNDED WITH A MINIMUM OF TWO (2) ONE (1) INCH (25MM) DIAMETER, TEN (10) FEET (3M) LONG GROUND RODS. THE GROUND RODS SHALL BE DRIVEN ADJACENT TO THE ATR CABINET AND SPACED A MINIMUM OF SEVENTY-TWO (72) INCHES (1.8M) APART. THREE (3) INCH (76.2MM) DIAMETER SOLAR PANEL MAST AND THE GROUND RODS SHALL BE CONNECTED TO THE NO. 2 AWG. INSULATED COPPER GROUND WIRE WITH AN EXOTHERMIC WELD PER CONSTRUCTION AND MATERIAL SPECIFICATION 625.10. THE GROUND WIRE SHALL BE MECHANICALLY BONDED TO THE CABINET BASE AND CONTROLLER CABINET. LUGS AND TERMINAL STRIPS SHALL BE PROVIDED FOR OTHER EQUIPMENT GROUND ATTACHMENTS.

12. THE PREFERRED LOCATION SHALL BE FIFTY (50) FEET (15.2M) FROM THE CLOSEST LANE WHICH ALLOWS FOR A VIEW OF ALL LANES. AS A MINIMUM, THE CABINET SHALL BE THIRTY (30) FEET (9.1M) FROM THE CLOSEST LANE. IF PLACED BEHIND A GUARDRAIL, THE CABINET MUST HAVE A FIVE (5) FEET (1.5M) CLEARANCE. SEE DRAWING 534A AUTOMATIC TRAFFIC RECORDER PLAN INSERT SHEET FOR LAYOUT DETAILS. THE CABINET SHALL NOT BE PLACED IN A DITCH OR ANY AREA SUBJECT TO FLOODING OR EROSION.

13. THE PULL BOXES SHALL BE INSTALLED BETWEEN TWENTY-FOUR (24) INCHES (.6M) AND THIRTY-SIX (36) INCHES (.9M) FROM THE PAVED SHOULDER EDGE TO THE CENTERLINE OF THE PULL BOX. REFERENCE IS MADE TO STANDARD DRAWING HL-30.11 FOR DETAILS OF DRAINING CONCRETE PULL BOXES. UNDER DRAINS SHALL BE PROVIDED FOR ALL PULL BOXES AS DIRECTED BY THE ENGINEER. HIGHWAY UNDER DRAINS MAY BE USED IF THE DRAIN LENGTH REQUIRED FOR A SATISFACTORY OUTLET EXCEEDS THIRTY (30) FEET (9.1M). THE OUTLETS OF THE PULL BOX DRAINS SHALL BE GRATED TO ONE (1) INCH OPENINGS AND A BED OF STONES PLACED AROUND THE OPENING. THE PULL BOX DRAIN ENTRANCE SHALL BE SCREENED TO ONE QUARTER (1/4) INCH (6.3MM) OPENINGS IN THE PULL BOXES.

14. THE CONDUITS FOR THE PIEZO AND LOOP CABLES SHALL BE ONE (1) INCH (25MM) RIGID CONDUIT AND SHALL BE LIMITED TO TWO CABLES PER EACH CONDUIT RUN.

15. ALL ELECTRICAL AND COMMUNICATION CONDUIT ENDS SHALL BE DUCT SEALED WERE THEY ENTER OR LEAVE A PULL BOX OR CABINET. THE USE OF FOAM IS NOT PERMITTED.

16. THE SOLAR PANEL SHALL BE INSTALLED WITH A ONE PIECE THREE (3) INCH (76.2MM) RIGID GALVANIZED CONDUIT MOUNTED IN THE CONCRETE CONTROLLER FOUNDATION WITH THE SOLAR PANEL BEING AT A MINIMUM HEIGHT ABOVE GROUND LEVEL OF FIFTEEN (15) FEET (4.6M). THE THREE (3) INCH ()76.2MM CONDUIT SHALL BE CAPPED WITH A THREADED THREE (3) INCH (76.2MM) GALVANIZED PIPE CAP. THE SOLAR OUTPUT CABLE SHALL BE A MINIMUM SIZE OF TWO (2), SIXTEEN (16) GAUGE AWG., INSULATED, STRAINED, COPPER, WITH COLOR CODED CONDUCTORS AND SHALL BE TAGGED BY USE AND POLARITY IN THE CONTROLLER CABINET. THE SOLAR PANEL OUTPUT CABLE SHALL BE SECURED AND ROUTED TO THE INSIDE OF THE CABINET FOR CONNECTION TO THE TERMINAL BLOCK THROUGH A ONE (1) INCH (25.4MM) RIGID CONDUIT. THIS CONDUIT SHALL RUN FROM THE LOWER SIDE ADJACENT TO THE BOTTOM OF THE CONTROLLER CABINET TO THE THREE (3) INCH (76.2MM) MAST AND UP TO THE CAP ON THE MAST.. THE ONE (1) INCH (25.4MM) RIGID CONDUIT SHALL BE EQUIPPED WITH A WATER TIGHT WEATHER HEAD AND ATTACHED EVERY THIRTY (30) INCHES (762MM) WITH TWO (2) HOLE STEEL ZINC PLATED STRAP CLAMPS USING STAINLESS STEEL FASTENERS DRILLED AND TAPPED. PROVIDE A DRIP LEG IN THE SOLAR PANEL OUTPUT CABLE. THE SOLAR PANEL SHALL BE MOUNTED AT A FORTY-FIVE DEGREE (45^) ANGLE FACING SOUTH UNIMPEDED BY ANY OBSTACLES TO ENSURE DIRECT EXPOSURE TO SUNLIGHT THROUGHOUT THE DAYLIGHT HOURS.

17. SOLAR PANEL SHALL BE A FIFTY (50) WATT - TWELVE (12) VOLT NOMINAL SYSTEM WITH MOUNTING HARDWARE, AND CABLES. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, AND INCIDENTALS NECESSARY FOR EACH INSTALLATION, IN PLACE COMPLETE AND ACCEPTED.

18. ANY MANUALS, MANUFACTURES CUT SHEETS, MANUFACTURES TEST DATA, PART NUMBERS, ALL FIELD TEST RESULTS (PIEZO READINGS, GROUND TESTS, ECT.) AND INSTRUCTIONS FOR MATERIALS OR EQUIPMENT USED IN THIS ATR INSTALLATION SHALL BE CONTAINED IN A WATERPROOF ENVELOPE OR SLEEVE INSIDE THE CONTROLLER CABINET.

CALCULATED | CHECKED

DATE 1/16/01

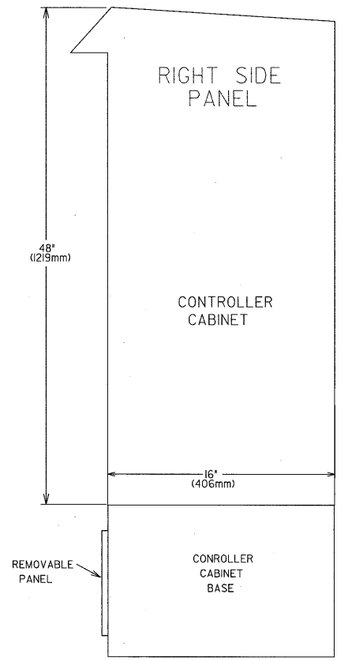
AUTOMATIC TRAFFIC RECORDER PLAN NOTE SHEET FOR WEIGH IN MOTION UNIT

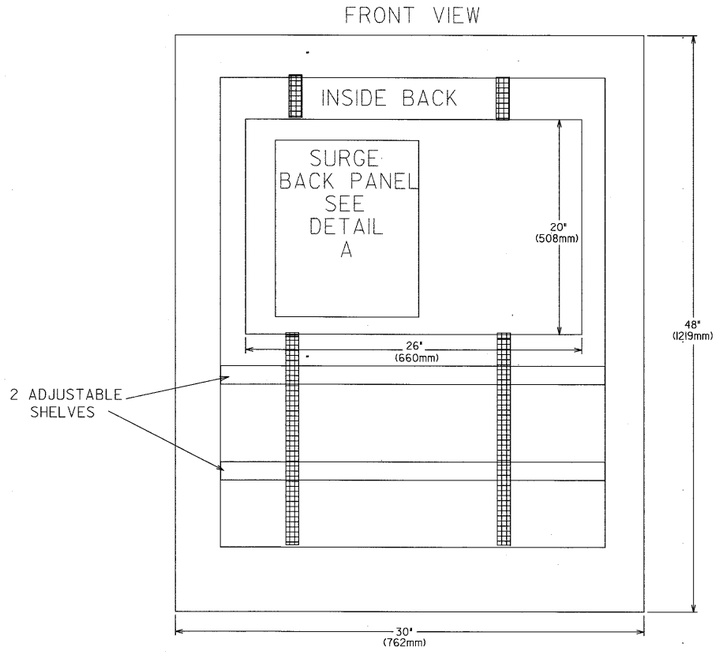
ATR SITE *85-AA-W
DRAWING NO 14016-02
STATION: 220+00 FT

376
432

PNOTES-85-AA-W*.DGN MAY 4, 2001

SBW





ATR CABINET NOTES

1. THE ALUMINUM CONTROLLER CABINET SHALL BE A PAD MOUNTED, WITH BASE NEMA 3R RATED, SIZE 5 (48" (1219MM) HIGH BY 30" (762MM) WIDE BY 16" (406MM) DEEP)PER TABLE 7.3-1.THE ALUMINUM CABINET SHALL CONFORM TO NEMA STANDARD PUBLICATION NUMBER TS 2-1992, SECTION NUMBER 7 (CABINETS). IT SHALL BE SHEET ALUMINUM AS DETAILED IN SECTION 7.2.2.1 OR CAST ALUMINUM DETAILED IN SECTION 7.2.2.2. IT SHALL ALSO CONFORM TO SECTIONS: 7.4, 7.5 EXCEPT FOR SECTION 7.5.7. SECTIONS 7.6, 7.7.3, AND 7.8.3. DO NOT APPLY TO THIS CABINET, SEE FOLLOWING DETAILS. ALL WORK AND ITEMS SHALL CONFORM TO CONSTRUCTION AND MATERIALSPECIFICATIONS 499, 511, 625, 632, 633, 705, 713, 732, AND 733, UNLESS OTHERWISE SPECIFIED.

2. THE ALUMINUM CONTROLLER CABINET SHALL BE MOUNTED ON A TWELVE (12) GAUGE 304 STAINLESS STEEL RISER ADAPTER BASE THAT IS A MINIMUM OF EIGHT (8) INCHES (203MM) HIGH. PROVIDE A LARGE REMOVABLE ACCESS PANEL ON THE FRONT SIDE OF THE RISER. ALL FASTENERS SHALL BE STAINLESS STEEL. THE CABINET DOOR SHALL BE NEMA TYPE 3R CONSTRUCTION WITH A NEOPRENE GASKET, A SOLID INTEGRAL BOTTOM, A CONTINUOUS FOURTEEN (14) GAUGE STAINLESS STEEL HINGE, THREE POINT LATCHING SYSTEM , EQUIPPED WITH A TWELVE (12) INCH (304MM) BY EIGHTEEN (18) INCH (457MM) FOLDING SHELF. LOCKS KEYED TO STATE MASTER #2.

3. THE CABINET SHALL BE EQUIPPED WITH A MINIMUM OF SIX (6) ADJUSTABLE "C" CHANNELS. A MINIMUM OF TWO (2) ADJUSTABLE "C" CHANNELS SHALL BE MOUNTED ON EACH OF THE THREE INTERIOR SIDES. THE CONTROLLER CABINET SHALL BE EQUIPPED WITH A TWENTY-SIX (26) INCH (660MM) WIDE BY TWENTY (20) INCH (508MM) BACK PANEL MOUNTED ON ADJUSTABLE RAILS, AND MOUNTED AT THE TOP OF CABINET. THE CONTROLLER CABINET SHALL BE EQUIPPED WITH TWO (2) RAIL MOUNTED SHELVES WHICH ARE FULLY ADJUSTABLE FROM THE TOP TO THE BOTTOM OF THE CABINET WITH THE BACK PANEL AND SURGE PANEL INSTALLED. DESIGN THE SHELVING TO ALLOW FOR THE PASSAGE OF VENTILATION AIR IN THE CABINET.

4. THE GROUND ROD WIRE SHALL BE MECHANICALLY BONDED TO THE CABINET BASE AND CONTROLLER CABINET. LUGS AND TERMINAL STRIPS SHALL BE PROVIDED AND MOUNTED ON THE CABINET SIDE FOR OTHER EQUIPMENT GROUND ATTACHMENTS.

5. INSTALL THE HOUSING CABINET AS TO ALLOW ALL EQUIPMENT TO STAND IN AN UPRIGHT POSITION WITH ALL EQUIPMENT AND DEVICES CAPABLE OF BEING REMOVED BY PULLING STRAIGHT OUT AND NOT TURNING SIDEWAYS AND WITHOUT RELOCATING OR DISCONNECTING ONE DEVICE TO REMOVE ANOTHER DEVICE.

6. THE CONTRACTOR SHALL COMPLETELY WIRE UP ALL CONNECTIONS TO THE TERMINAL BLOCKS OF THE SURGE PANEL USING SOLDERED SPADE TYPE CONNECTORS. PROVIDE THAT ALL HOUSING CABINET WIRING AND TERMINALS ARE CLEARLY MARKED AND LABELED AS SHOWN ON THE CABINET WIRING DIAGRAM DETAILS. PROVIDE THAT WIRING IS LACED OR BOUND TOGETHER WITH SELF-LOCKING NYLON TIE-WRAPS. MAKE A LOOP NUMBERING DIAGRAM WITH CORRESPONDING TERMINAL NUMBERS FOR EACH SITE AND STORE IN A PLASTIC WEATHER PROOF ENVELOP IN THE ENCLOSURE. PROVIDE A DUPLICATE DIAGRAM TO THE ODOT PROJECT INSPECTOR.

7. THE CONTROLLER CABINET SHALL BE EQUIPPED WITH CABINET TOP AND LOWER DOOR GRAVITY VENTILATION. THE CONTROLLER CABINET TOP SHALL BE CONSTRUCTED TO FORM AN OVERHANG TO HOUSE SCREENED ONE EIGHTH (.125) OF AN INCH (3.2MM) VENTILATION SLOTS AND EQUIPPED WITH REPLACEABLE FILTERS. THE LOWER PORTION OF THE CABINET DOOR SHALL HAVE SCREENED ONE EIGHTH (.125) OF AN INCH (3.2MM) LOUVERS EQUIPPED WITH REPLACEABLE FILTERS. ALL FILTERS SHALL BE AN INDUSTRY STANDARD SIZE AND SECURED FIRMLY IN PLACE WITH BRACKETS AND CLAMPS. PROVIDE TWO SETS OF SPARE FILTERS. NO FAN IS REQUIRED.

8. PROVIDE SURGE PROTECTION PANEL WITH A MINIMUM OF SIXTEEN (16) LOOP, AND SIXTEEN (16) PIEZO SENSOR CAPACITY. THE SURGE PANEL SHALL HAVE AN INTEGRAL RESETTABLE COMMUNICATION LINE SURGE SUPPRESSOR CAPABLE OF A LESS THAN ONE (1) NANOSECOND TRIP RESPONSE FOR LINE TO LINE AND LINE TO GROUND SURGES. THE COMMUNICATION LINE SURGE SUPPRESSOR SHALL WITH STAND A MINIMUM OF TWO HUNDRED (200) AMPERES AND TWO HUNDRED AND TWENTY (220) VOLTS WITHOUT DERATING OR FAILURE. THE SURGE PANEL SHALL INCORPORATE A VOLTAGE REGULATOR WITH A MINIMUM OUTPUT RATING OF FIFTY-FIVE (55) WATTS AND VOLTAGE OUTPUT RATING OF FOURTEEN AND ONE TENTH (14.1) VOLT PLUS SIXTY (60) MILLIVOLTS WITH AN INPUT VOLTAGE OF THIRTY (30) VOLTS OR LESS. THE REGULATOR SHALL PREFORM AS A BATTERY CHARGE AND BE ABLE TO CHARGE A BATTERY FROM A FULLY DISCHARGED CONDITION TO A FULLY CHARGED CONDITION. THE SURGE PANEL SHALL INCORPORATE LIGHTNING PROTECTION FOR THE SOLAR PANEL CIRCUIT. THE COMPLETE SURGE PROTECTION PANEL SHALL BE SUITABLE FOR USE IN TEMPERATURES RANGING FROM -40^F (-40^C) TO 185^F (+85^C) (FAHRENHEIT/CELSIUS). MODEL 82-1344 16L/16P SURGE PANEL WITH ASC REGULATOR FROM PEEK TRAFFIC INCORPORATED, SARASOTA, FLORIDA OR EQUIVALENT. THIS SURGE PROTECTOR SHALL BE MOUNTED AND WIRED TO BACK PANEL. PROVIDE MANUFACTURES TEST DATA FOR ALTERNATE EQUIVALENT UNIT APPROVAL.

9. THE CONTROLLER CABINET SHALL BE ORIENTED SO THAT THE DOOR OPENS TOWARD THE RIGHT OF WAY FENCE, SO THAT THE FIELD TECHNICIAN CAN OBSERVE TRAFFIC WHILE WORKING ON THE SYSTEM. THE CABINET SHALL BE INSTALLED IN A MANNER TO WITHSTAND ALL WEATHER CONDITIONS AND PREVENT THE INTRUSION OF REPTILES, RODENTS, AND INSECTS.

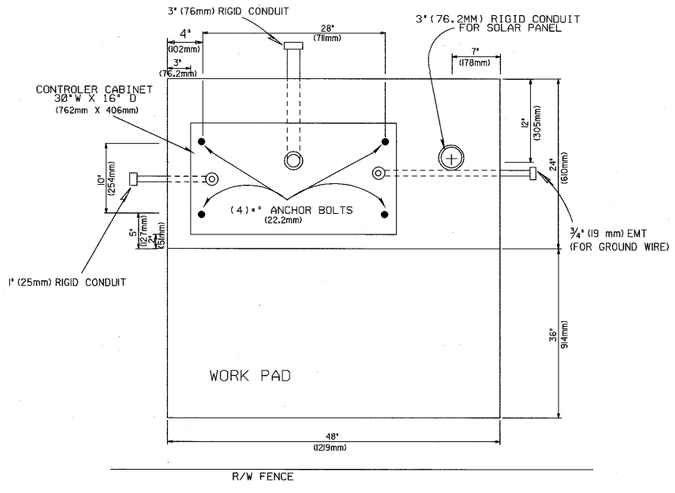
10. THE DISTANCE BETWEEN THE TOP OF THE CONTROLLER PANEL CABINET AND THE WORK PAD SHALL NOT EXCEED SEVENTY-SIX (76) INCHES (1.9M) AND SHALL NOT BE LESS THAN SEVENTY (70) INCHES (1.8M). THE WORK PAD SHALL NOT BE HIGHER THAN THE CONTROLLER FOUNDATION . IN LEVEL AREAS THE TOP OF THE PAD SHALL BE ONE (1) INCH (25MM) ABOVE THE GROUND LINE. IN STEEPLY SLOPED AREAS THE PAD'S LOCATION SHALL BE ADJUSTED TO PROVIDE ACCESS AND DRAINAGE. THE HEIGHT OF THE CONTROLLER CABINET RISER ADAPTER MAY BE GREATER THAN EIGHT (8) INCHES (203MM).

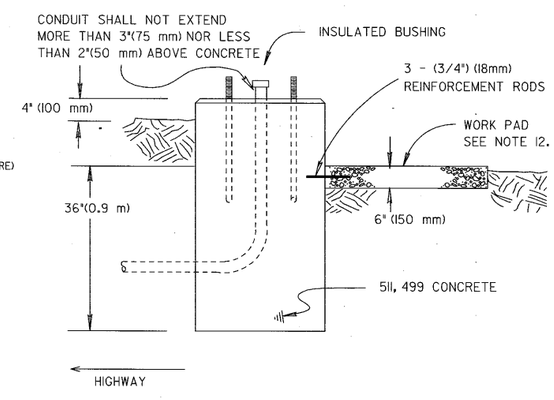
11. THE CONTROLLER FOUNDATION SHALL BE FORTY (48) INCHES (1.2M) WIDE AND TWENTY-FOUR (24) INCHES (.6M) DEEP. PROVIDE FOUR (4) 7/8 INCH (22.2MM) ANCHOR BOLTS FOR THE CABINET BASE ATTACHMENT AND ONE QUARTER (1/4) INCH (6.3MM) THICK NEOPRENE GASKETS FOR THE BOTH THE TOP AND BOTTOM CABINET BASE ATTACHMENT. THE THREE (3) INCH (76.2MM) SOLAR MAST SHALL BE CAST INTO THIS CONTROLLER PAD.

12. THE CONTROLLER WORK PAD SHALL BE THREE (3) FEET (.9M) BY FOUR (4) FEET (1.2M) BY SIX (6) INCHES (152MM) DEEP AND SHALL BE LEVEL. THE WORK PAD SHALL BE POURED SIMULTANEOUSLY WITH THE CONTROLLER FOUNDATION BASE SO THEY WILL FORM ONE UNIT, AND SHALL BE TIED TOGETHER USING THREE(3) 3/4" (18mm) REINFORCEMENT RODS. A ONE HALF (1/2) INCH (13MM) PREFORMED JOINT FILLER AS PER CONSTRUCTION AND MATERIAL SPECIFICATION 705.03 SHALL BE USED BETWEEN FOUNDATIONS AND ADJACENT PAVED AREAS. THE PLACEMENT OF THE CONTROLLER CABINET FOUNDATION SHALL PROVIDE A MINIMUM OF THIRTY-SIX (36) INCHES (.9M) BETWEEN THE CONTROLLER CABINET AND ANY GROUNDED OBJECT AND THE DOOR SHALL SWING FULLY OPEN.

13. THE CONTROLLER CABINET FOUNDATION SHALL HAVE THE FOLLOWING CONDUITS CAST IN TO IT:
- ONE THREE (3) INCH (76MM) EXITING TOWARD THE FOUR (4) LANE HIGHWAY.
- ONE THREE QUARTER (3/4) INCH (19MM) EXITING TOWARD THE GROUND ROD LOCATION.
- ONE ONE (1) INCH (25MM) EXITING TO THE DIRECTION OF THE CLOSEST TELEPHONE LINE FEED.

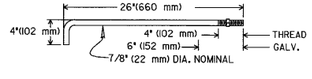
THESE CONDUITS SHALL CONFORM TO STANDARD DRAWING TC -83.20 AND PROJECT AT A NINETY DEGREE (90^) ANGLE TO THE PAD TOP. THESE CONDUITS SHALL BE EXTENDED AND BUSHED IN TO THE BOTTOM OF THE CONTROLLER CABINET USING PLASTIC CONDUIT OR LIQUID TIGHT FLEXIBLE METAL CONDUIT.





W	D	FOUNDATION CONCRETE	WORK PAD	
48" (1.2 m)	24" (0.6 m)	.99 C.Y. (0.72 m^3)	1.33 S.Y. (1.11 m^2)	0.22 C.Y. (0.17 m^3)

ATR BASE MOUNTED CONTROLLER FOUNDATION



PEDESTAL ANCHOR BOLT
ASTM A307 STEEL

CALCULATED | CHECKED
DATE

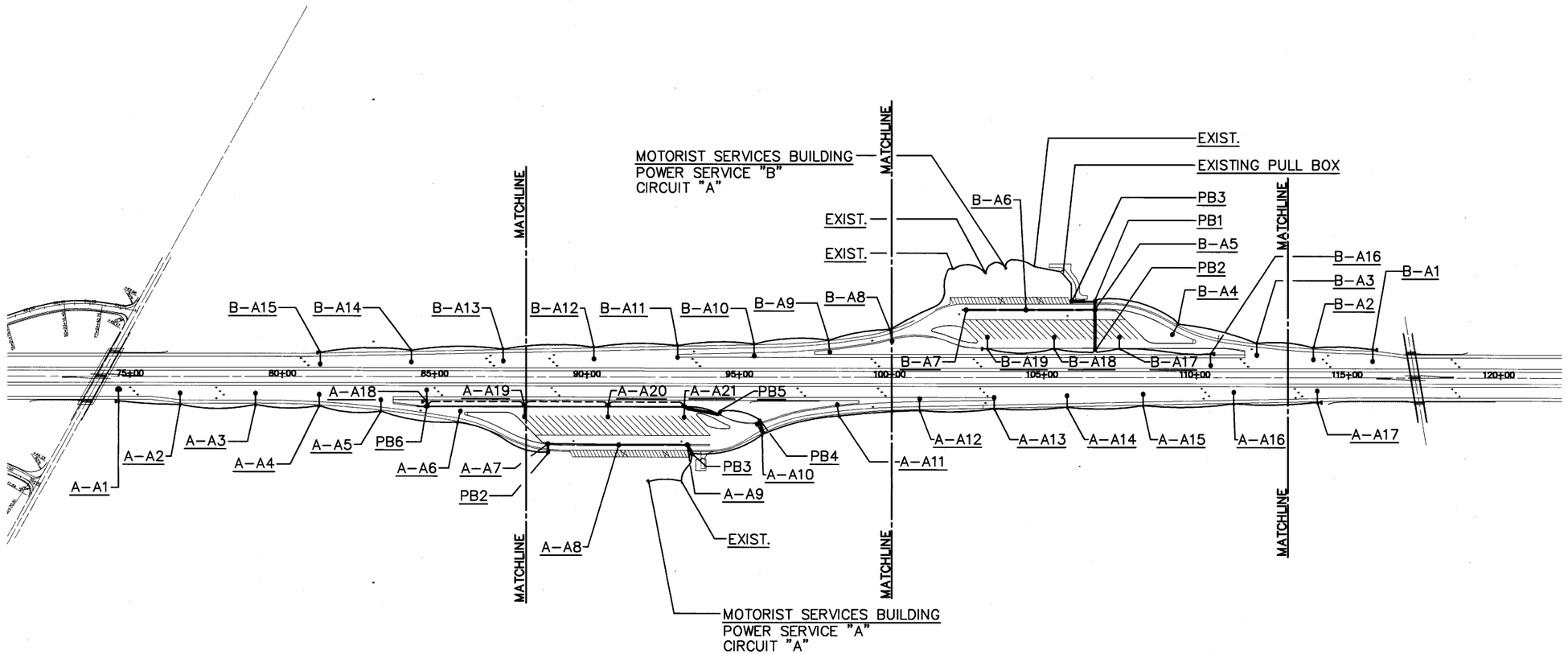
NEMA TYPE 3R, SIZE 5 CABINET DETAILS
FOR WEIGH IN MOTION & CLASSIFICATION UNITS

ATR SITE #85-AA-W
DRAWING NO. 14016-03
STATION: 220+00FT

377
432

CABINET-85-AA-W*.DGN MAY 4, 2001

SBW



GRAPHIC SCALE
SCALE: 1" = 200'
0 200 400

CALCULATED

CHECKED

SCHEMATIC PLAN

WAY-71-0.28

378
432

KORDA/NEMETH ENGINEERING, INC.

LIGHTING GENERAL NOTES

EXISTING POWER SERVICE

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

HOLMES–WAYNE ELECTRIC CO–OP
6060 S.R. 83
MILLERSBURG, OHIO 44654

ATTN: JOHN PORTER
(330) 674–1055

ELECTRICAL ENERGY FROM EXISTING POWER SERVICES SHALL CONTINUE TO BE CHARGED TO THE MAINTAINING AGENCY.

THIS SHALL INCLUDE REASSIGNMENT OF EXISTING SERVICE DUE TO WORK PERFORMED BY THIS PROJECT.

EXISTING UTILITIES

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

THE WASTEWATER TREATMENT PLANT AND LINES AT THE REST AREAS WERE CONSTRUCTED AFTER THESE PLANS WERE FINISHED. UTILITIES IN THESE AREAS MAY VARY FROM PLAN LOCATIONS. THE CONTRACTOR SHALL CONTACT ODOT DISTRICT 3 AT THE ADDRESS LISTED BELOW FOR FURTHER INFORMATION.

UNDERDRAINS FOR PULL BOXES

REFERENCE IS MADE TO THE STANDARD DRAWINGS FOR DETAILS OF DRAINING PULL BOXES. UNDERDRAINS FOR PULL BOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFACTORY OUTLET DOES NOT EXCEED APPROXIMATELY 20 FEET. AN ESTIMATED QUANTITY OF 160 LINEAR FEET OF ITEM 603 "4 INCH CONDUIT TYPE E" IS INCLUDED IN THE LIGHTING GENERAL SUMMARY FOR THIS PURPOSE.

ITEM 713.14 – LAMPS

HIGH PRESSURE SODIUM LAMPS SHALL BE GENERAL ELECTRIC "LUCALOX", WESTINGHOUSE "CERAMALUX", SYLVANIA "LUMALUX" OR EQUAL APPROVED BY THE ENGINEER.

LOW MAST LUMINAIRES

THE LUMINAIRE ARRAYS AND ASSOCIATED ILLUMINATION TEST AREAS SPECIFIED IN SECTION 713.21 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS ARE HEREBY WAIVED FOR THIS PROJECT. INSTEAD, THE LUMINAIRES FOR THIS PROJECT SHALL MEET THE FOLLOWING REQUIREMENTS.

ASYMMETRIC, TYPE II OR III, LUMINAIRES FOR LOW MAST LIGHTING MAY BE HOLOPHANE "HMST" TEST NO. 46973, OR GENERAL ELECTRIC "HM" TEST NO. 7349, OR COOPER "HMC" TEST NO. 766194.

THE CONTRACTOR MAY ELECT TO USE DIFFERENT LOW MAST LUMINAIRES THAN AS SPECIFIED ABOVE. SUCH LUMINAIRES WILL BE CONSIDERED PROVIDED THEY MEET ALL ODOT LIGHTING DESIGN CRITERIA BASED ON DESIGNED LIGHT POLE LOCATIONS. CONTRACTOR SHALL ALSO SUBMIT PHOTOMETRIC CALCULATIONS AND LIGHT FIXTURE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY THE ENGINEER.

ITEM 202 – PULL BOX REMOVED

THIS ITEM SHALL INCLUDE REMOVING THE PULL BOX TO ONE FOOT (1') BELOW THE GROUND LEVEL (REMOVE THE ENTIRE PULL BOX WHERE PULL BOX IS TO BE REPLACED WITH A NEW CONCRETE PULL BOX) AND RESTORING THE DISTURBED AREA. WHERE A PULLBOX IS TO BE REPLACED WITH A NEW CONCRETE PULL BOX, IT IS THE INTENT OF THIS NOTE TO CUT ALL CONDUITS IN A NEAT FASHION IN ORDER TO REUSE THE EXISTING CONDUITS IN PLACE. CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING CIRCUIT CONDUCTORS IF THEY ARE TO BE REUSED. PAYMENT SHALL BE PER EACH ITEM 202 – "PULL BOX REMOVED".

ITEM 202 – LIGHT POLE REMOVED, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING LIGHT POLE INCLUDING THE BRACKET ARM(S) AND TRANSFORMER BASE (IF ANY). THE POLE, BRACKET ARM(S), BASE AND WIRING, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE PROJECT SITE. PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH ITEM 202 – LIGHT POLE REMOVED, AS PER PLAN

ITEM 202 – LIGHT POLE FOUNDATION REMOVED

THIS ITEM SHALL INCLUDE REMOVING THE LIGHT POLE CONCRETE FOUNDATION TO A DEPTH OF ONE FOOT (1') BELOW GROUND LEVEL, TWO FEET (2') BELOW GROUND LEVEL WHERE IT WOULD INTERFERE WITH PROPOSED TRENCHING AND THREE FEET (3') BELOW GROUND LEVEL WHERE THE FOUNDATION IS TO BE REPLACED BY A PULL BOX, AND RESTORING THE DISTURBED AREA.

PAYMENT SHALL BE PER EACH ITEM 202 – "LIGHT POLE FOUNDATION REMOVED".

ITEM 202 – LUMINAIRE REMOVED, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING LUMINAIRE. THE LUMINAIRE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF OFF THE PROJECT SITE. PAYMENTS SHALL BE MADE AT THE UNIT BID PRICE FOR EACH ITEM 202 – "LUMINAIRE REMOVED, AS PER PLAN".

HIGH VOLTAGE TEST

A LUMP SUM FOR PERFORMING THE HIGH VOLTAGE TEST REQUIRED BY THE ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS HAS BEEN INCLUDED IN THE GENERAL SUMMARY.

CONVENTIONAL LUMINAIRES

STYLE B, TYPE III, 310 WATT, 240 VOLT LUMINAIRES SHALL BE GENERAL ELECTRIC M–400 TEST NO. 1015, COOPER OVD TEST NO. 766491, AMERICAN ELECTRIC SERIES 126 TEST NO. AE3846I, OR EQUAL AS APPROVED BY THE ENGINEER.

ITEM 202 – DISCONNECT EXISTING CIRCUIT

THIS ITEM OF WORK SHALL CONSIST OF THE DISCONNECTION OF AN EXISTING LIGHT CIRCUIT AT A PULL BOX OR AT A LIGHT POLE.
DISCONNECTION AT A PULL BOX OR POLE BASE SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL CONNECTOR KITS. ANY CABLE THAT IS TO BE ABANDONED SHALL BE TERMINATED IN A MANNER SUCH THAT NO CABLE IS LEFT REMAINING IN THE PULL BOX OR POLE BASE. ANY CABLE THAT IS TO BE REUSED SHALL BE CUT IN A MANNER SO THAT THERE IS SUFFICIENT LENGTH OF CABLE LEFT FOR RECONNECTION. CONNECTOR KITS SHALL BE PAID FOR SEPARATELY UNDER EACH ITEM 625 – "CABLE SPLICING KIT".

PAYMENT WILL BE MADE AT THE UNIT BID PROVIDED FOR EACH ITEM 202 "DISCONNECT EXISTING CIRCUIT" AND SHALL BE FULL COMPENSATION INCLUDING ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THE WORK IN A SATISFACTORY WORKMANLIKE MANNER.

LIGHT POLE FOUNDATION, 24" x 10' DEEP, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF PROVIDING A LIGHT POLE FOUNDATION, 24" x 10' DEEP, AS PER STANDARD CONSTRUCTION DRAWING HL–20.11M EXCEPT THAT THE TOP OF THE FOUNDATION WILL BE AT 36" ABOVE FINISHED GRADE TO PREVENT DAMAGE FROM VEHICULAR TRAFFIC. TOTAL BURIAL DEPTH OF LIGHT POLE FOUNDATION SHALL BE 10'–0" BELOW FINISHED GRADE. THE UNIT PRICE BID FOR EACH LIGHT POLE FOUNDATION, 24" x 10' DEEP, AS PER PLAN, SHALL INCLUDE PAYMENT FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK IN A SATISFACTORY WORKMANLIKE MANNER.

LIGHT POLE FOUNDATION, MISC.: 24" x 25' DEEP, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF PROVIDING A LIGHT POLE FOUNDATION, 24" x 25' DEEP, AS PER STANDARD CONSTRUCTION DRAWING HL–20.13M, MEDIAN LIGHT POLE FOUNDATION, EXCEPT THAT; THE BARRIER SHALL BE A SINGLE SLOPE, TYPE B, THE SIX #6 VERTICAL LONG BARS SHALL BE CHANGED TO EIGHT #7 VERTICAL LONG BARS AND THE 18" SPACING OF THE #4 TIE BARS SHALL BE CHANGED TO 12". IN ADDITION, FORMING AND POURING OF THE LIGHT POLE FOUNDATION SHALL BE CLOSELY COORDINATED WITH THE MECHANICALLY STABILIZED EARTH (MSE) WALL INSTALLATION. REFER TO DETAIL ON SHEET 387/387. THE UNIT PRICE BID FOR EACH LIGHT POLE FOUNDATION, MISC.: 24" x 25' DEEP, AS PER PLAN, SHALL INCLUDE PAYMENT FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK IN A SATISFACTORY WORKMANLIKE MANNER.

CONVERSION OF METRIC STANDARD DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.011 OF THE 1997 "CONSTRUCTION AND MATERIALS SPECIFICATIONS". THE APPENDIX OF ASTM E 380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

CALCULATED | CHECKED

LIGHTING GENERAL NOTES

WAY–71–0.28

379
432

KORDA/NEMETH ENGINEERING, INC.

LIGHTING GENERAL SUMMARY

LIGHTING QUANTITIES

SHEET NUMBER			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
379	381	382					
	1	1	202	75300	2	EACH	PULL BOX REMOVED
	9	9	202	75401	18	EACH	LIGHT POLE REMOVED, AS PER PLAN
	9	9	202	75500	18	EACH	LIGHT POLE FOUNDATION REMOVED
	9	9	202	75507	18	EACH	LUMINAIRE REMOVED, AS PER PLAN
	2	6	202	75800	8	EACH	DISCONNECT EXISTING CIRCUIT
160			603	00400	160	LIN. FT.	4" CONDUIT, TYPE E
	44	42	625	00500	86	EACH	CONNECTOR KIT, TYPE II
	2	2	625	01004	4	EACH	CONNECTOR KIT, TYPE VII B
	4	8	625	01500	12	EACH	CABLE SPLICING KIT
	3		625	04900	3	EACH	LIGHT POLE, DESIGN A4B40
		3	625	05990	3	EACH	LIGHT POLE, DESIGN AT4B41.7
	15	13	625	06400	28	EACH	LIGHT POLE, DESIGN AT15B41.7
	3	3	625	10470	6	EACH	LOW MAST LIGHT POLE, DESIGN ATON51.7
	15	16	625	14200	31	EACH	LIGHT POLE FOUNDATION, 24" X 10' DEEP
	3	3	625	14201	6	EACH	LIGHT POLE FOUNDATION, 24" X 10' DEEP, AS PER PLAN
	3		625	14600	3	EACH	LIGHT POLE FOUNDATION, MISC.: 24" X 25' DEEP, AS PER PLAN
	3180	540	625	23200	3720	LIN. FT.	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE
	2304	2088	625	23400	4392	LIN. FT.	NO. 10 AWG POLE AND BRACKET CABLE
	4385	5110	625	24320	9495	LIN. FT.	1-1/2"DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES
	245		625	24330	245	LIN. FT.	1-1/2"DUCT CABLE WITH THREE NO. 2 AWG 5000 VOLT CABLES
	240	165	625	25500	405	LIN. FT.	CONDUIT, 3", 713.04
	18	16	625	26250	34	EACH	LUMINAIRE, CONVENTIONAL, 310 WATT, H.P.S. TYPE III, 240 VOLT
	3	3	625	26270	6	EACH	LUMINAIRE, LOW MAST, 400 WATT, H.P.S. TYPE III, 713.21, 240 VOLT
	1		625	28000	1	EACH	GLARE SHIELD
	4580	5010	625	29002	9590	LIN. FT.	TRENCH, 24" DEEP
	3		625	29900	3	EACH	JUNCTION BOX
	3	3	625	30700	6	EACH	PULL BOX, 713.08, 18"
	1		625	30706	1	EACH	PULL BOX, 713.08, 24"
	1		625	31500	1	EACH	MEDIAN PULL BOX
	21	19	625	32000	40	EACH	GROUND ROD
LUMP			625	38000	LUMP	LUMP	HIGH VOLTAGE TEST

CALCULATED JPA
CHECKED RFG

LIGHTING GENERAL SUMMARY

WAY-71-0.28

380
432

KORDA/NEMETH ENGINEERING, INC.

LIGHTING QUANTITIES SUB–SUMMARY

STATION				LOCATION	SIDE	ITEM 202					ITEM 625																						
SHT. NO.	REF. NO.	FROM –OR– AT	TO			DISCONNECT EXISTING CIRCUIT	LUMINAIRE REMOVED, AS PER PLAN	LIGHT POLE REMOVED, AS PER PLAN	LIGHT POLE FOUNDATION REMOVED	PULL BOX REMOVED	LIGHT POLE, DESIGN AT15B41.7	LOW MAST LIGHT POLE, ATONB51.7	LIGHT POLE, DESIGN A4B40	GLARE SHEILD	LUMINAIRE, CONVENTIONAL 310 WATT, H.P.S., TYPE III, 240 VOLT	LUMINAIRE, LOW MAST, 400 WATT, H.P.S., TYPE III, 713.21, 240 VOLT	LIGHT POLE FOUNDATION, MISC.; 24" X 25' DEEP, AS PER PLAN	LIGHT POLE FOUNDATION, 24" X 10' DEEP, AS PER PLAN.	LIGHT POLE FOUNDATION, 24" X 10' DEEP	GROUND ROD	PULL BOX, 713.08, 18"	PULL BOX, 713.08, 24"	MEDIAN PULL BOX	TRENCH, 24" DEEP	CONDUIT, 3", 713.04		NO. 10 AWG POLE AND BRACKET CABLE	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE		CONNECTOR KIT, TYPE VII B	CABLE SPLICING KIT	CONNECTOR KIT, TYPE II	1–1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES	1–1/2" DUCT CABLE WITH THREE NO. 2 AWG 5000 VOLT CABLES	JUNCTION BOX
						EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	L.F.	L.F.		L.F.	L.F.		EA.	EA.	EA.	L.F.	L.F.	EA.
383	A–A1	74+60, RT		I.R. 71	RIGHT						1			1	1					1	1					114					2			
383		74+60, RT	406+45	I.R. 71/RAMP	RIGHT																		190								200		
383	A–A2	406+45		RAMP	RIGHT						1				1					1	1					114					2			
383		406+45	408+90	RAMP	RIGHT		1	1	1														245								255		
383	A–A3	408+90		RAMP	RIGHT						1				1					1	1					114					2			
383		408+90	411+00	RAMP	RIGHT																		210								220		
383	A–A4	411+00		RAMP	RIGHT						1				1					1	1					114					2			
383		411+00	413+05	RAMP	RIGHT																		205								215		
383	A–A5	413+05		RAMP	RIGHT						1				1					1	1					114					2			
383		413+05	415+60	RAMP	RIGHT		2	2	2														255								265		
383	A–A6	415+60		RAMP	RIGHT						1				1					1	1					114					2			
383		415+60	418+75, 15' RT		RIGHT																		310								320		
384	PB2	418+75, RT			RIGHT																	1											
384		418+75, RT	418+75, 18.5' LT	RAMP	RT/LT																		30	30							40		
384	A–A7	418+75, 18.5' LT		RAMP	LEFT							1				1		1		1						110					2			
384		418+75, 18.5' LT	421+05.5, 18.5' LT	RAMP	LEFT		1	1	1														230								240		
384	A–A8	421+05.5, 18.5' LT		RAMP	LEFT							1				1		1		1						110					2			
384		421+05.5, 18.5' LT	423+30, 18.5' LT	RAMP	LEFT		2	2	2														225								235		
384	A–A9	423+30, 18.5' LT		RAMP	LEFT							1				1		1		1						110					2			
384		423+30, 18.5' LT	423+45, RT	RAMP	LEFT																		30	30			120							
384		423+50, 50' LT		RAMP	LEFT					1																								
384	PB3	423+45, RT		RAMP	RIGHT																	1							2				
384		423+45, RT	423+10, 102' RT	RAMP	RIGHT																		105									115		
384		423+10, 102' RT		RAMP	RIGHT	1																								2				
384		423+10, 102' RT	POWER SERVICE	RAMP	RIGHT	1																	110									130		
384		423+45, RT	425+90	RAMP	RIGHT																		255								265		
384	A–A10	425+90		RAMP	RIGHT						1				1					1	1					114			2		2			
383	A–A18	84+75		I.R. 71	RIGHT						1				1					1	1					114					2			
383		84+75	514+75	I.R. 71/RAMP	RT/CL																		15	15			75							
383	PB6	514+75		RAMP	CL																	1											
383		514+75	517+95	RAMP	CL																						960							
383	A–A19	517+95		RAMP	CL								1		1		1			1						88					2			1
383		517+95	520+70	RAMP	CL																						855							
384	A–A20	520+70		RAMP	CL								1		1		1			1						88					2			1
384		520+70	523+20	RAMP	CL																						780							
384	A–A21	523+20		RAMP	CL								1		1		1			1						88					2			1
384		523+20	524+30, LT	RAMP	CL/LT																		120	120			390							
384	PB5	524+30		RAMP	LT																	1							2				
384		524+30	525+75	RAMP	LEFT																		140								150		
384	PB4	525+75		RAMP	LEFT																	1											
384		525+75	425+90	RAMP	LT/RT																		45	45							55		
384		425+90	428+55	RAMP	RIGHT																		280								290		
384	A–A11	428+55		RAMP	RIGHT						1				1					1	1					114					2			
384		428+55	431+20	RAMP	RIGHT																		265								275		
385	A–A12	431+20		RAMP	RIGHT						1				1					1	1					114					2			
385		431+20	433+60	RAMP	RIGHT																		240								250		
385	A–A13	433+60		RAMP	RIGHT						1				1					1	1					114					2			
385		433+60	436+05	RAMP	RIGHT		1	1	1														245								250		
385	A–A14	436+05		RAMP	RIGHT						1				1					1	1					114					2			
385		436+05	438+50	RAMP	RIGHT		1	1	1														255								265		
385	A–A15	438+50		RAMP	RIGHT						1				1					1	1					114					2			
385		438+50	441+45	RAMP	RIGHT		1	1	1														295								305		
385	A–A16	441+45		RAMP	RIGHT						1				1					1	1					114					2			
385		441+45	444+25	RAMP	RIGHT																		280								290		
386	A–A17	444+25		RAMP	RIGHT						1				1					1	1					114					2			
		TOTAL				2	9	9	9	1	15	3	3	1	18	3	3	3	15	21	3	1	1	4580	240		2304	3180		2	4	44	4385	245	3

CALCULATED JPA
CHECKED RFG

LIGHTING SUB–SUMMARY

WAY–71–0.28

KORDA/NEMETH ENGINEERING, INC.

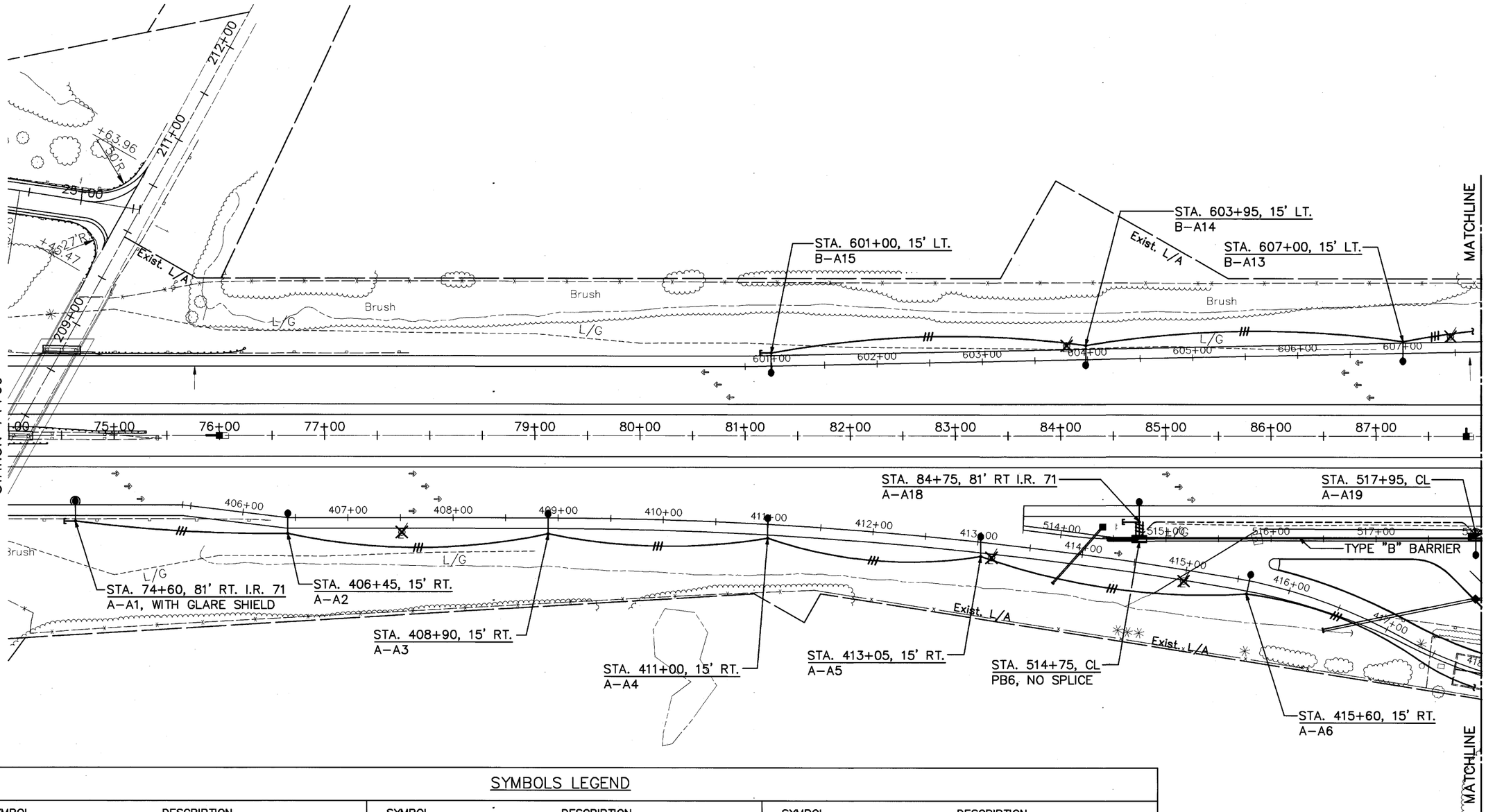
LIGHTING QUANTITIES SUB-SUMMARY

STATION				LOCATION	SIDE	ITEM 202					ITEM 625																	
SHT. NO.	REF. NO.	FROM -OR- AT	TO			DISCONNECT EXISTING CIRCUIT	LUMINAIRE REMOVED, AS PER PLAN	LIGHT POLE REMOVED, AS PER PLAN	LIGHT POLE FOUNDATION REMOVED	PULL BOX REMOVED	LIGHT POLE, DESIGN AT15B41.7	LOW MAST LIGHT POLE, DESIGN ATON51.7	LIGHT POLE, DESIGN AT4B41.7	LUMINAIRE, CONVENTIONAL 310 WATT, H.P.S., TYPE III 240 VOLT	LUMINAIRE, LOW MAST 400 WATT H.P.S. TYPE III, 721.21, 240 VOLT	LIGHT POLE FOUNDATION, 24" X 10' DEEP	LIGHT POLE FOUNDATION, 24" X 10' DEEP, AS PER PLAN	GROUND ROD	PULL BOX, 713.08, 18"	TRENCH, 24" DEEP	3" CONDUIT, 713.04	NO. 10 AWG POLE AND BRACKET CABLE	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	CABLE SPLICING KIT	CONNECTOR KIT, TYPE II	CONNECTOR KIT, TYPE VII B	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES
						EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	L.F.	L.F.	L.F.	L.F.	EA.	EA.	EA.	EA.
383	B-A15	601+00		RAMP	LEFT						1			1		1		1			114			2		
383		601+00	603+95	RAMP	LEFT		1	1	1										295					2		305
383	B-A14	603+95		RAMP	LEFT						1			1		1		1			114			2		
383		603+95	607+00	RAMP	LEFT														305							315
383	B-A13	607+00		RAMP	LEFT						1			1		1		1			114			2		
383		607+00	609+95	RAMP	LEFT		1	1	1										295							305
384	B-A12	609+95		RAMP	LEFT						1			1		1		1			114			2		
384		609+95	612+75	RAMP	LEFT		1	1	1										280							290
384	B-A11	612+75		RAMP	LEFT						1			1		1		1			114			2		
384		612+75	615+25	RAMP	LEFT														250							260
384	B-A10	615+25		RAMP	LEFT						1			1		1		1			114			2		
384		615+25	617+70	RAMP	LEFT														245							255
384	B-A9	617+70		RAMP	LEFT						1			1		1		1			114			2		
384		617+70	619+75	RAMP	LEFT														205							215
384	B-A8	619+75		RAMP	LEFT						1			1		1		1			114			2		
384		619+75	622+00, 115' LT	RAMP	LEFT														310							320
385	EXIST.	622+00, 115' LT		RAMP	LEFT	1																		2		
385		622+00, 115' LT	623+10, 99' LT	RAMP	LEFT														110							120
385	EXIST.	623+10, 99' LT		RAMP	LEFT	1																		2		
385		623+10, 99' LT	POWER. SERVICE	RAMP	LEFT														70							90
385		POWER SERVICE				1																				
385	B-A19	723+20, 3' RT		RAMP	RIGHT								1	1		1		1			92			2		
385		723+20, 3' RT	725+35, 3' RT	RAMP	RIGHT														215							225
385	B-A18	725+35, 3' RT		RAMP	RIGHT								1	1		1		1			92			2		
385		725+35, 3' RT	726+65, 3' RT	RAMP	RIGHT														130							140
385		726+65, 3' RT	727+45, 3' RT	RAMP	RIGHT														80							90
385	B-A17	727+45, 3' RT		RAMP	RIGHT								1	1		1		1			92			2		
385		727+45, 3' RT	110+45, LT	RAMP	RT/LT														300							310
385	B-A16	110+45, LT		I.R. 71	LT						1			1		1		1			114			2		
385	PB2	726+65, 3' RT		RAMP	RT													1						2		
385		726+65, 3' RT	626+65, 18.5' RT	RAMP	RIGHT														130	130		420				
385	B-A5	626+65, 18.5' RT		RAMP	RIGHT							1			1		1	1			110			2	2	
385	B-A7	622+45, 18.5' RT		RAMP	RIGHT							1			1		1	1			110			2		
385		622+45, 18.5' RT	624+55, 18.5' RT	RAMP	RIGHT		2	2	2										210							220
385	B-A6	624+55, 18.5' RT		RAMP	RIGHT							1			1		1	1			110			2		
385		624+55, 18.5' RT	626+65, 18.5' RT	RAMP	RIGHT		1	1	1	1									210							220
385		626+65, 18.5' RT	626+65, 10' LT	RAMP	RIGHT														30			120				
385	PB1	626+65, 10' LT		RAMP	LEFT													1						2		
385		626+65, 10' LT	625+90, 10' LT	RAMP	LEFT														75	35						85
385	PB3	625+90, 10' LT		RAMP	LEFT													1								
385		625+90, 10' LT	625+60, 105' LT	RAMP	LEFT														105							115
385	EPB	625+60, 105' LT		RAMP	LEFT	1																		2		
385		625+60, 105' LT	624+70, 123' LT	RAMP	LEFT														95							105
385	EXIST.	624+70, 123' LT		RAMP	LEFT	1																		2		
385		624+70, 123' LT	POWER SERVICE	RAMP	LEFT														120							140
385		POWER SERVICE				1																				
385		626+65, 10' LT	629+50	RAMP	LEFT														285							295
385	B-A4	629+50		RAMP	LEFT						1			1		1		1			114			2		
385		629+50	632+20	RAMP	LEFT		1	1	1										275							285
385	B-A3	632+20		RAMP	LEFT						1			1		1		1			114			2		
385		632+20	634+10	RAMP	LEFT		1	1	1										190							200
386	B-A2	634+10		RAMP	LEFT						1			1		1		1			114			2		
386		634+10	636+05	RAMP	LEFT														195							205
386	B-A1	636+05		RAMP	LEFT						1			1		1		1			114			2		
386		636+45		RAMP	LEFT		1	1	1																	
		TOTALS				6	9	9	9	1	13	3	3	16	3	16	3	19	3	5010	165	2088	540	8	42	2	5110

CALCULATED JPA
CHECKED RFG

LIGHTING SUB-SUMMARY

WAY-71-0.28



SYMBOLS LEGEND

SYMBOL	DESCRIPTION
●↑	1–400 WATT HPS, TYPE III DISTRIBUTION, 54.7' M.H. LOW MAST, ARROW INDICATES AIMING OF LIGHT FIXTURE
●—	1–310 WATT HPS, TYPE III DISTRIBUTION, 41.7' M.H. CONVENTIONAL
◐—	1–310 WATT HPS, TYPE III DISTRIBUTION, 41.7 M.H. CONVENTIONAL WITH GLARE SHIELD.
	EXISTING LIGHT POLE AND LUMINAIRE
	EXISTING UTILITY POLE

SYMBOL	DESCRIPTION
■	PROPOSED PULL BOX
□	EXISTING PULL BOX
▬	PROPOSED MEDIAN PULL BOX
▷	EXISTING POWER SERVICE, 240 VOLT, 3 WIRE, GROUNDED NEUTRAL
X	SYMBOL WITH "X" INDICATES ITEM TO BE DEMOLISHED
– –T– –	EXISTING OVERHEAD TELEPHONE
– –L– –	EXISTING LIGHTING CIRCUIT TO REMAIN

SYMBOL	DESCRIPTION
–X–L–X–	EXISTING LIGHTING CIRCUIT TO BE ABANDONED
– –E– –	EXISTING UNDERGROUND ELECTRIC TO REMAIN
#2	PROPOSED LIGHTING CIRCUIT #4 AWG, TICK MARKS INDICATE QUANTITY OF CONDUCTORS, #2 INDICATES CONDUCTOR SIZE IF OTHER THAN #4 AWG
	PROPOSED LIGHTING CIRCUIT IN 3" CONDUIT
– – – –	PROPOSED LIGHTING CIRCUIT IN 4" CONDUIT, IN BARRIER
⊢	2" CONDUIT STUB–OUT

GRAPHIC SCALE
SCALE: 1" = 50'
0 50 100

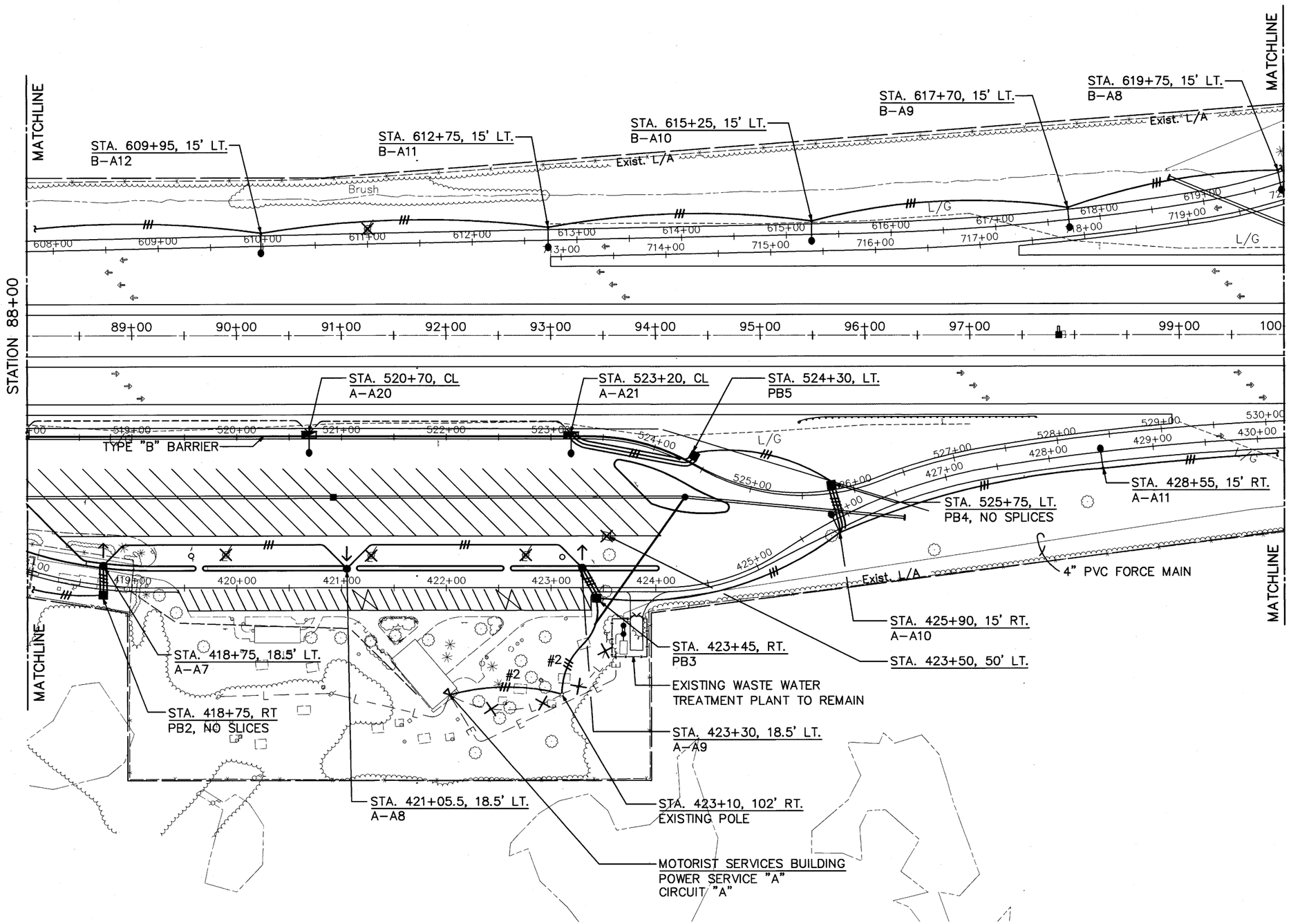
CALCULATED
CHECKED

LIGHTING PLAN
STATION 74+00 TO 88+00

WAY–71–0.28

383
432

KORDA/NEMETH ENGINEERING, INC.



GRAPHIC SCALE
SCALE: 1" = 50'
0 50 100
CALCULATED
CHECKED

LIGHTING PLAN
STATION 88+00 TO 100+00

WAY-71-0.28

384
432

KORDA/NEMETH ENGINEERING, INC.

MOTORIST SERVICES BUILDING
POWER SERVICE "B"
CIRCUIT "A"

STA. 623+10, 99' LT.
EXISTING POLE

STA. 622+00, 115' LT.
EXISTING POLE

STA. 624+55, 18.5 RT.
B–A6

STA. 624+70, 123' LT.
EXISTING POLE

STA. 625+90, 148' LT.
EXISTING POLE
MAINTAIN CIRCUIT

STA. 625+60, 105' LT.
EXISTING PULL BOX

EXISTING WASTE WATER
TREATMENT PLANT TO REMAIN

STA. 625+90, 10' LT.
PB3, NO SPLICE

STA. 626+65, 10' LT.
PB1

STA. 626+65, 18.5' RT.
B–A5

STA. 726+65, 3' RT.
PB2

STA. 629+50, 15' LT.
B–A4

STA. 110+45, 81' LT. I.R. 71
B–A16

STA. 632+20, 15' LT.
B–A3

MATCHLINE

620+00 621+00 622+00 623+00 624+00 625+00 626+00 627+00 628+00 629+00 630+00 631+00 632+00 633+00

721+00 722+00 723+00 724+00 725+00 726+00 727+00 728+00 729+00 730+00 731+00

Exist. L/A

730+87
END CURB

STA. 622+45, 18.5' RT.
B–A7

STA. 723+20, 3' RT.
B–A19

STA. 725+35, 3' RT.
B–A18

STA. 727+45, 3' RT.
B–A17

STATION 100+00

100+00 101+00 102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00 111+00 112+00 113+00

STATION 113+00

4" PVC FORCE MAIN

431+00 432+00 433+00 434+00 435+00 436+00 437+00 438+00 439+00 440+00 441+00 442+00 443+00

531+00 532+00 533+00

Exist. L/A

STA. 436+05, 15' RT.
A–A14

STA. 438+50, 15' RT.
A–A15

STA. 441+45, 15' RT.
A–A16

Brush

Brush

STA. 433+60, 15' RT.
A–A13

STA. 431+20, 15' RT.
A–A12

MATCHLINE

MATCHLINE

N

GRAPHIC SCALE
SCALE: 1" = 50'
0 50 100

CALCULATED

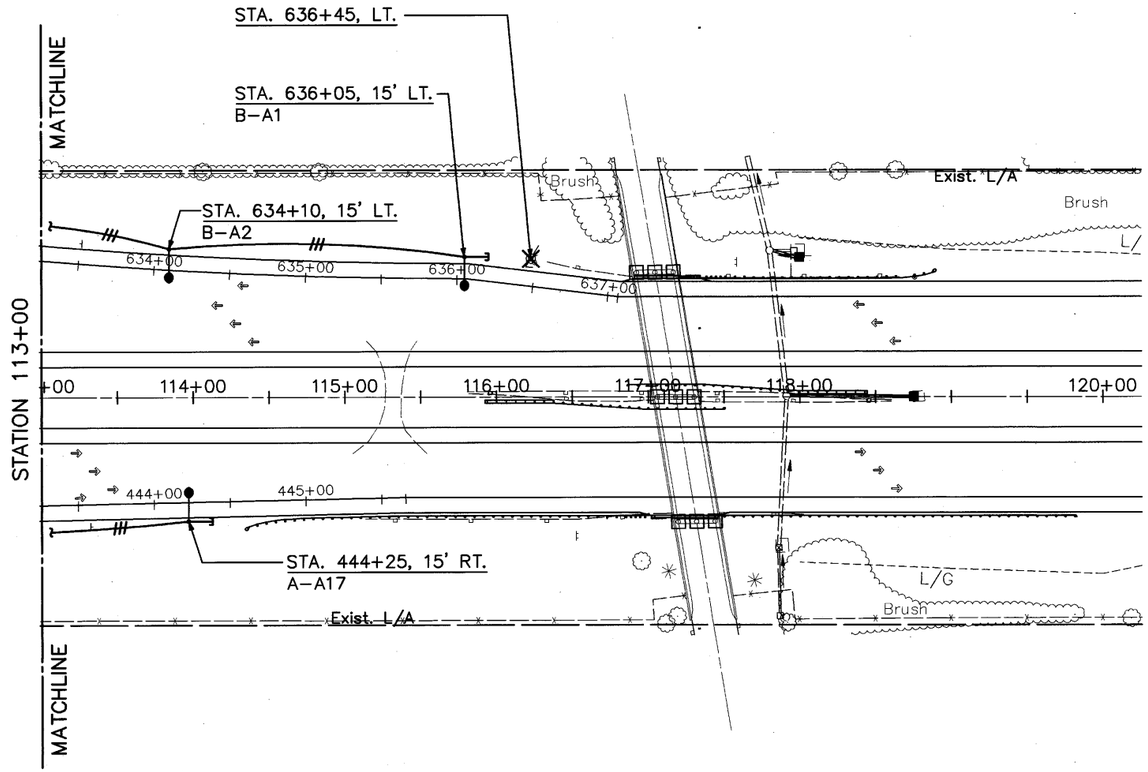
CHECKED

LIGHTING PLAN
STATION 100+00 TO 113+00

WAY–71–0.28

385
432

KORDA/NEMETH ENGINEERING, INC.



CALCULATED D CHECKED

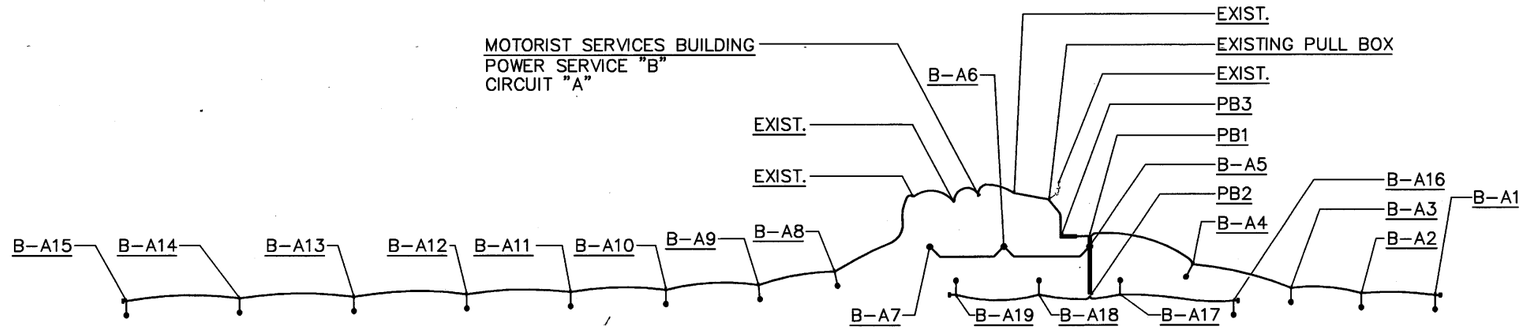
GRAPHIC SCALE
SCALE: 1" = 50'
0 50 100

LIGHTING PLAN
STATION 113+00 TO 120+00

WAY-71-0.28

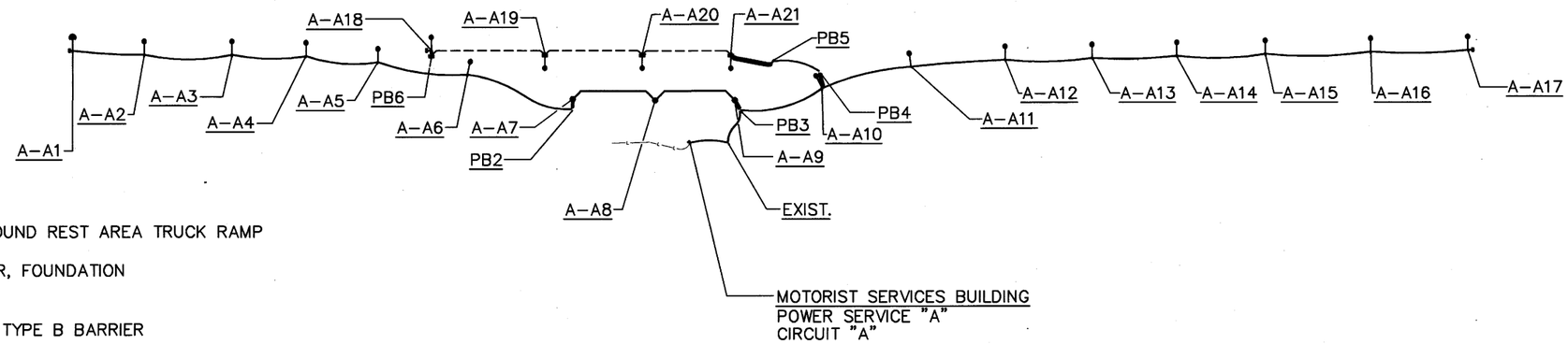
386
432

KORDA/NEMETH ENGINEERING, INC.



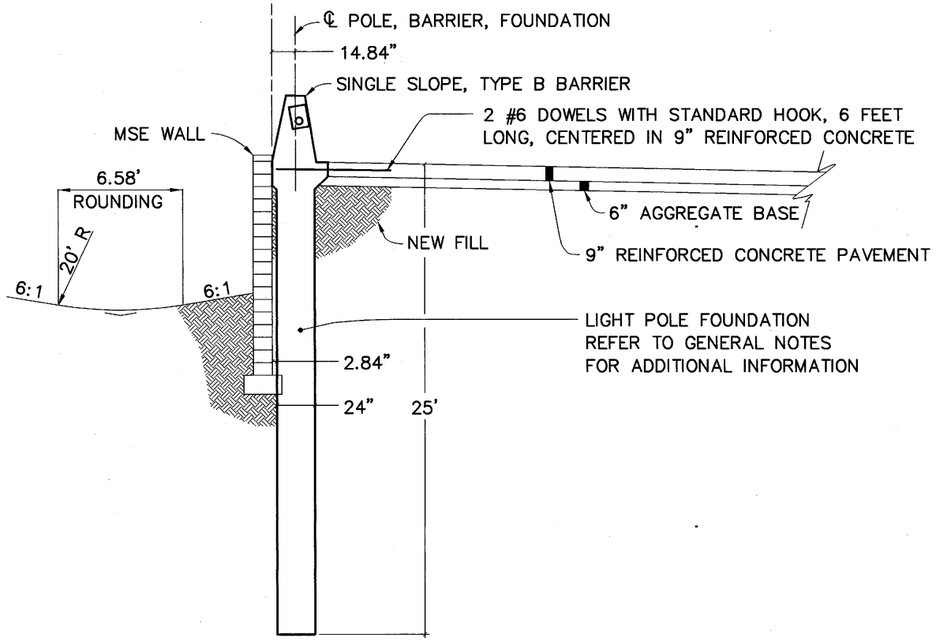
POWER SERVICE "B" CIRCUIT SCHEMATIC

N.T.S.



POWER SERVICE "A" CIRCUIT SCHEMATIC

N.T.S.



LIGHT POLE FOUNDATION, MISC.: 24" X 25' DEEP, AS PER PLAN

1/4" = 1'-0"

POWER SERVICE DATA (EXISTING)

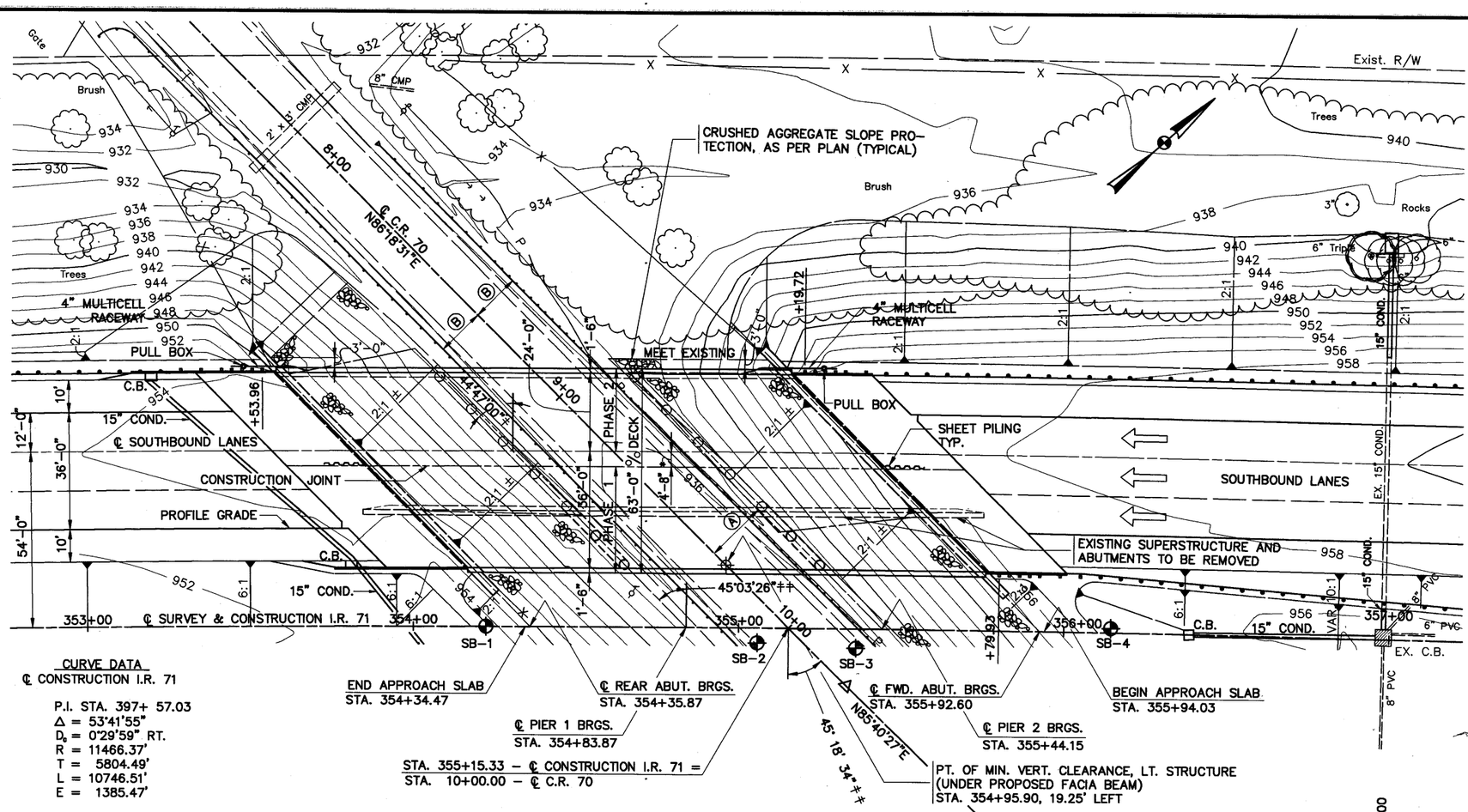
Power Service	Type of Service	Connected Load KVA	Service Entrance Conductor Size-AWG	Enclosure Rating	Circuit No.	Circuit Load Amps	Circuit Fuse Size Amps	Maintaining Agency
A	120/240 Volt 3W, 1ø Gnd. Neutral	8.9	#4	60 Amp	A	37.1	60	State of Ohio
B	120/240 Volt 3W, 1ø Gnd. Neutral	8.1	#4	60 Amp	A	33.9	60	State of Ohio

CALCULATED | CHECKED

LIGHTING CIRCUIT SCHEMATICS AND DETAILS

WAY-71-0.28

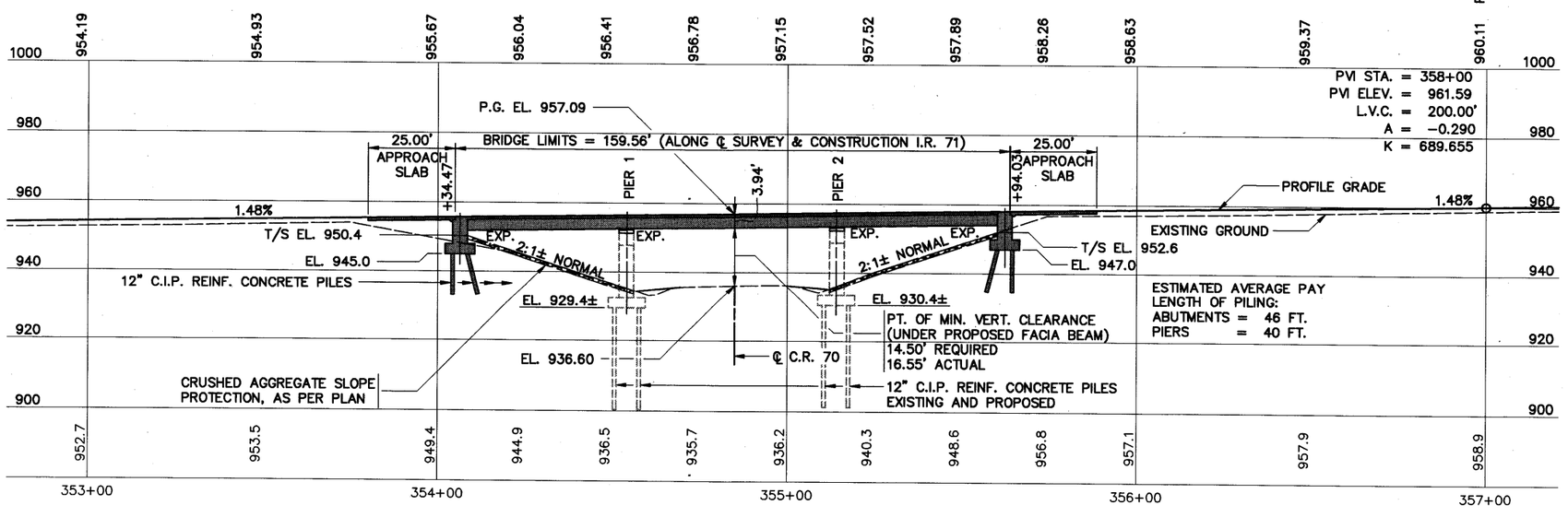
KORDA/NEMETH ENGINEERING, INC.



CURVE DATA
℄ CONSTRUCTION I.R. 71

P.I. STA. 397+ 57.03
Δ = 53°41'55"
D_e = 0°29'59" RT.
R = 11466.37'
T = 5804.49'
L = 10746.51'
E = 1385.47'

PLAN



PROFILE ALONG INSIDE EDGE OF PAVEMENT

FOUNDATION INVESTIGATION LEGEND

⊕ INDICATES CORE BORING LOCATION

NOTES

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

Ⓐ EXISTING MINIMUM HORIZONTAL CLEARANCE = 19.06'

Ⓑ PROPOSED HORIZONTAL CLEARANCE = 15.00'

‡ R.F. TO REFERENCE CHORD, LEFT STRUCTURE (SEE BRIDGE LAYOUT DIAGRAM, SHEET 4 OF 38)

†† R.F. TO TANGENT TO ℄ SURVEY AND CONSTRUCTION I.R. 71 AT STA. 355+15.33

* PHASE 3 (CLOSURE POUR)

TRAFFIC DATA

CURRENT ADT	(2001) =	22550
DESIGN YEAR ADT	(2021) =	31400
DESIGN YEAR ADTT	(2021) =	8165

BENCH MARK

IRON PIN AT STA. 354+93.53, 82.49' RIGHT. ELEV. 955.20

EXISTING STRUCTURE

TYPE: THREE SPAN CONTINUOUS STEEL BEAMS WITH REINFORCED CONCRETE DECK ON CONCRETE STUB ABUTMENTS AND CAP & COLUMN PIERS

SPANS: 48.00'± – 60.00'± – 48.00'± C/C BRGS. (ALONG REFERENCE LINE THROUGH CENTER OF PIERS, LEFT STRUCTURE)

ROADWAY: 39'–8"± T/T SAFETY CURB

ORIGINAL DESIGN LOADING: LANE LOADING/CF–2000 (51)

SKEW: 44° 44' 37"± RIGHT FORWARD TO REFERENCE LINE, LEFT STRUCTURE

ALIGNMENT: 0° 30' 00" CURVE (RIGHT)

WEARING SURFACE: LATEX MODIFIED CONCRETE OVERLAY

APPROACH SLABS: AS–1–54 (25'–0"± LONG)

DATE BUILT: 1959 (DECK OVERLAY AND EXPANSION JOINT SEALS ADDED IN 1984)

STRUCTURE FILE NUMBER: 8503273

PROPOSED STRUCTURE

PROPOSED WORK: NEW SUPERSTRUCTURE ON NEW ABUTMENTS AND WIDENED EXISTING PIERS (PHASE CONSTRUCTION)

TYPE: THREE SPAN CONTINUOUS NON–COMPOSITE GALVANIZED A572 STEEL BEAMS WITH REINFORCED CONCRETE DECK ON CONCRETE SEMI–INTEGRAL STUB ABUTMENTS AND MODIFIED EXISTING CAP & COLUMN PIERS

SPANS: 48.00' – 60.00' – 48.00' C/C BEARINGS (ALONG REF. CHORD BETWEEN CENTERLINE SOUTHBOUND LANES AND CENTERLINE ABUTMENT BEARINGS, LEFT STRUCTURE)

ROADWAY: 60'–0" T/T PARAPET

DESIGN LOADING: HS25 (CASE I) AND ALTERNATE MILITARY LOADING

SKEW: 44° 47' 00" RIGHT FORWARD TO REFERENCE CHORD, LEFT STRUCTURE

ALIGNMENT: 0° 29' 59" CURVE (RIGHT)

SUPERELEVATION: 0.019

WEARING SURFACE: MONOLITHIC CONCRETE

APPROACH SLABS: AS–1–81 (25'–0" LONG)

LOCATION: LATITUDE N 40° 59' 12", LONGITUDE W 82° 02' 09"

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DATE 02/28/01
REVIEWED DWS
STRUCTURE FILE NUMBER 8503273
DRAWN DLD
REVISED
DESIGNED RLE
CHECKED DBC

WAYNE COUNTY
STA. 354+34.47
STA. 355+94.03

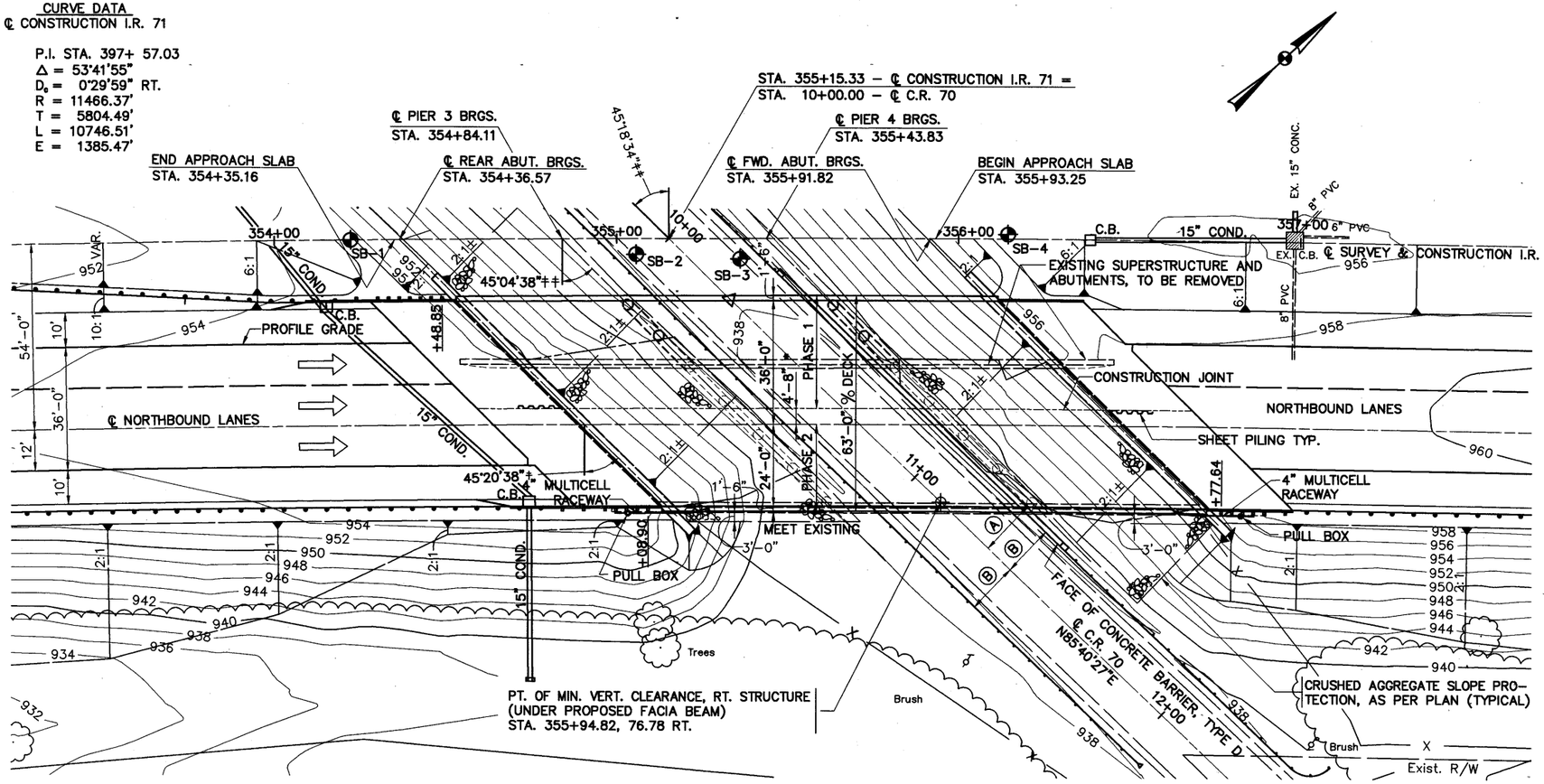
SITE PLAN
BRIDGE NO. WAY–71–0671 LEFT
OVER WAYNE COUNTY ROAD NO. 70

WAY–71–0.28

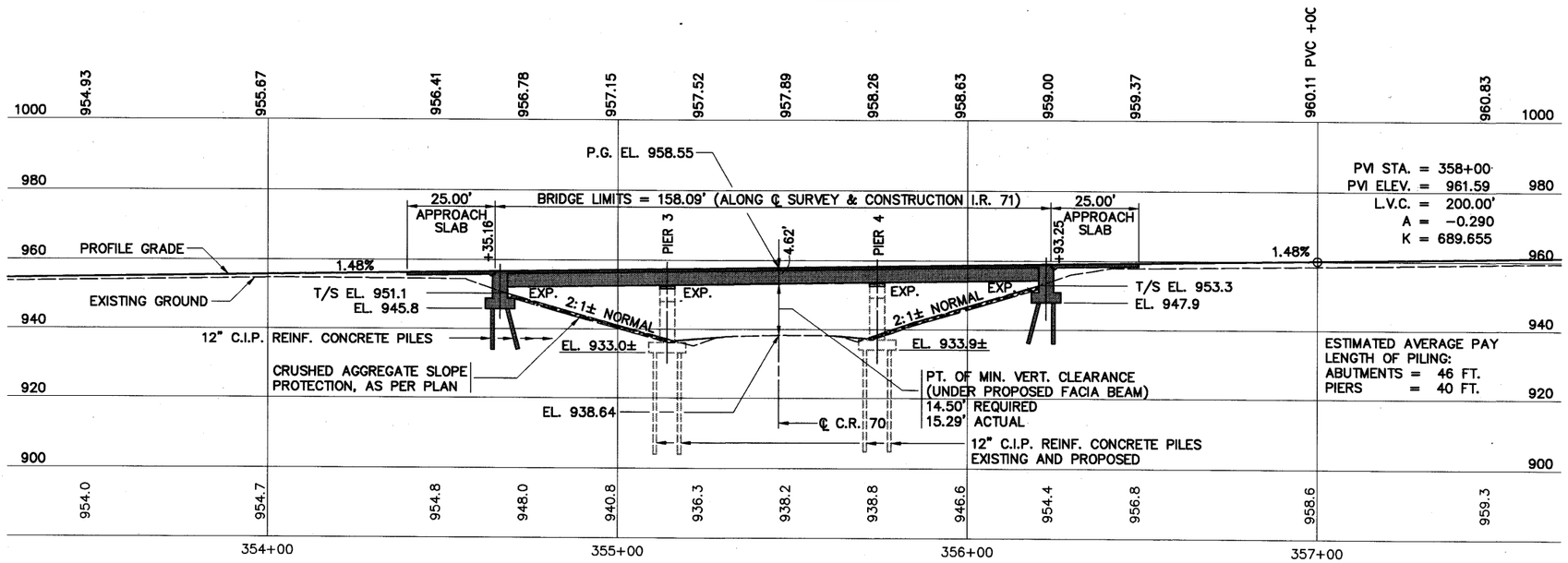
M:\99029\AUTOCAD\ACAD-2000\WAY71spf.dwg - May 03, 2001

CURVE DATA
℄ CONSTRUCTION I.R. 71

P.I. STA. 397+ 57.03
Δ = 53°41'55"
D_a = 0°29'59" RT.
R = 11466.37'
T = 5804.49'
L = 10746.51'
E = 1385.47'



PLAN



PROFILE ALONG INSIDE EDGE OF PAVEMENT

FOUNDATION INVESTIGATION LEGEND

⊕ INDICATES CORE BORING LOCATION

NOTES

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

Ⓐ EXISTING MINIMUM HORIZONTAL CLEARANCE = 16.90'

Ⓑ PROPOSED HORIZONTAL CLEARANCE = 15.00'

+ R.F. TO REFERENCE CHORD, RIGHT STRUCTURE (SEE BRIDGE LAYOUT DIAGRAM, SHEET 4 OF 38)

++ R.F. TO TANGENT TO ℄ SURVEY AND CONSTRUCTION I.R. 71 AT STA. 355+15.33

* PHASE 3 (CLOSURE POUR)

TRAFFIC DATA

CURRENT ADT	(2001) =	22550
DESIGN YEAR ADT	(2021) =	31400
DESIGN YEAR ADTT	(2021) =	8165

BENCH MARK

IRON PIN AT STA. 354+93.53, 82.49' RIGHT. ELEV. 955.20

EXISTING STRUCTURE

TYPE: THREE SPAN CONTINUOUS STEEL BEAMS WITH REINFORCED CONCRETE DECK ON CONCRETE STUB ABUTMENTS AND CAP & COLUMN PIERS

SPANS: 48.00'± – 60.00'± – 48.00'± C/C BRGS. (ALONG REFERENCE LINE THROUGH CENTER OF PIERS, RIGHT STRUCTURE)

ROADWAY: 39'–8"± T/T SAFETY CURB

ORIGINAL DESIGN LOADING: LANE LOADING/CF–2000 (51)

SKEW: 45° 18' 52"± RIGHT FORWARD TO REFERENCE LINE, RIGHT STRUCTURE

ALIGNMENT: 0° 30' 00" CURVE (RIGHT)

WEARING SURFACE: LATEX MODIFIED CONCRETE OVERLAY

APPROACH SLABS: AS–1–54 (25'–0"± LONG)

DATE BUILT: 1959 (DECK OVERLAY AND EXPANSION JOINT SEALS ADDED IN 1984)

STRUCTURE FILE NUMBER: 8503303

PROPOSED STRUCTURE

PROPOSED WORK: NEW SUPERSTRUCTURE ON NEW ABUTMENTS AND WIDENED EXISTING PIERS (PHASE CONSTRUCTION)

TYPE: THREE SPAN CONTINUOUS NON–COMPOSITE GALVANIZED A572 STEEL BEAMS WITH REINFORCED CONCRETE DECK ON CONCRETE SEMI–INTEGRAL STUB ABUTMENTS AND MODIFIED EXISTING CAP & COLUMN PIERS

SPANS: 48.00' – 60.00' – 48.00' C/C BEARINGS (ALONG REF. CHORD BETWEEN CENTERLINE NORTHBOUND LANES AND CENTERLINE ABUTMENT BEARINGS, RIGHT STRUCTURE)

ROADWAY: 60'–0" T/T PARAPET

DESIGN LOADING: HS25 (CASE I) AND ALTERNATE MILITARY LOADING

SKEW: 45° 20' 38" RIGHT FORWARD TO REFERENCE CHORD, RIGHT STRUCTURE

ALIGNMENT: 0° 29' 59" CURVE (RIGHT)

SUPERELEVATION: 0.019

WEARING SURFACE: MONOLITHIC CONCRETE

APPROACH SLABS: AS–1–81 (25'–0" LONG)

LOCATION: LATITUDE N 40° 59' 13", LONGITUDE W 82° 02' 08"

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
2710 WINKLER DRIVE
WOOSTER, OHIO 44691

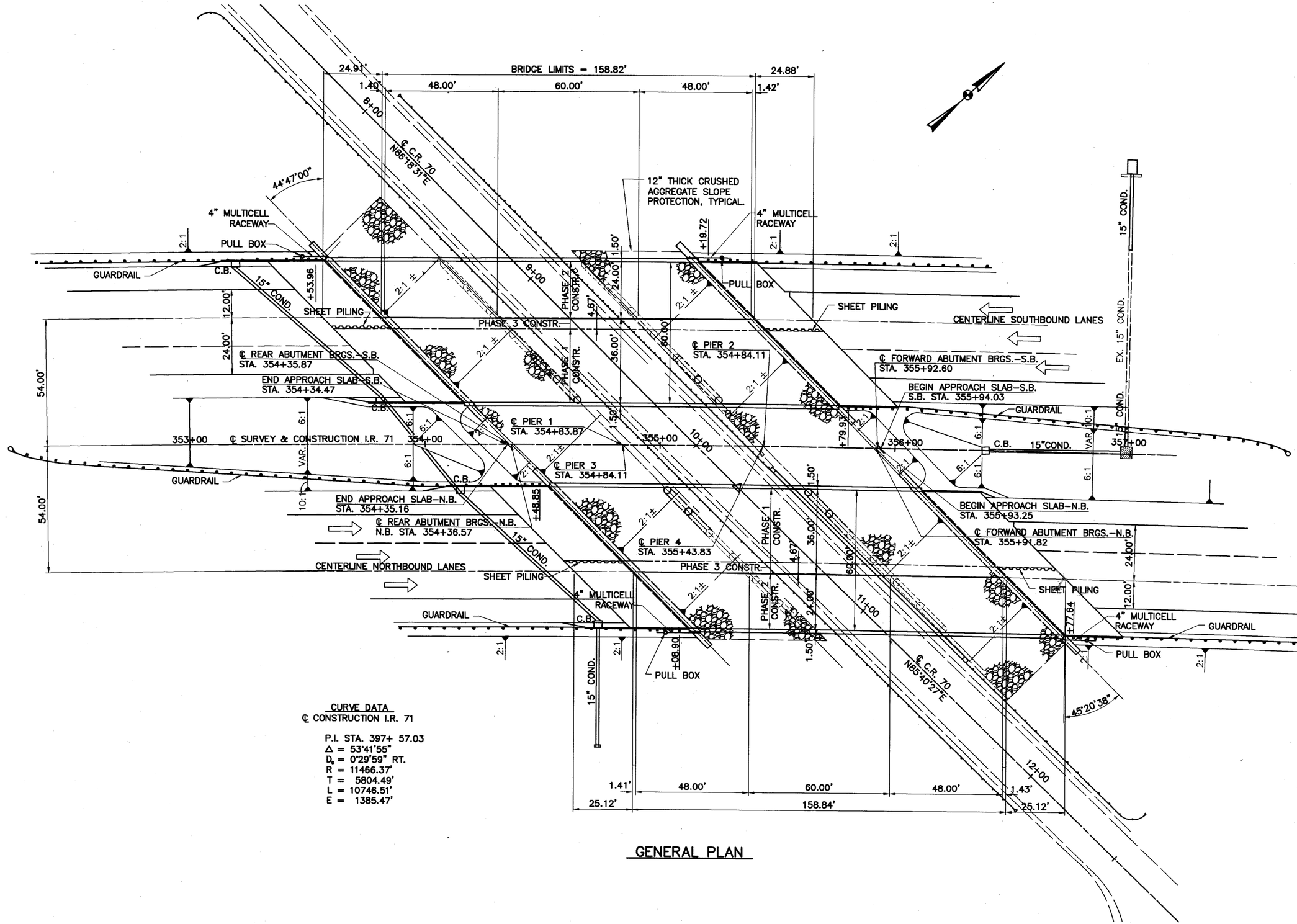
DESIGNED RLE | DRAWN DLD | CHECKED DBC | REVIEWED DWS | DATE 02/28/01 | REVISED | STRUCTURE FILE NUMBER 8503303

WAYNE COUNTY
STA. 354+35.16
STA. 355+93.25

SITE PLAN
BRIDGE NO. WAY–71–0671 RIGHT
OVER WAYNE COUNTY ROAD NO. 70

WAY–71–0.28

M:\99029\AUTOCAD\ACAD-2000\WN071SP2.DWG - May 03, 2001



CURVE DATA
℄ CONSTRUCTION I.R. 71

P.I. STA. 397+ 57.03
Δ = 53°41'55"
D_s = 0°29'59" RT.
R = 11466.37'
T = 5804.49'
L = 10746.51'
E = 1385.47'

GENERAL PLAN

M:\99\029\AUTOCAD\ACAD-2000\WN071GP1.dwg - May 03, 2001

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

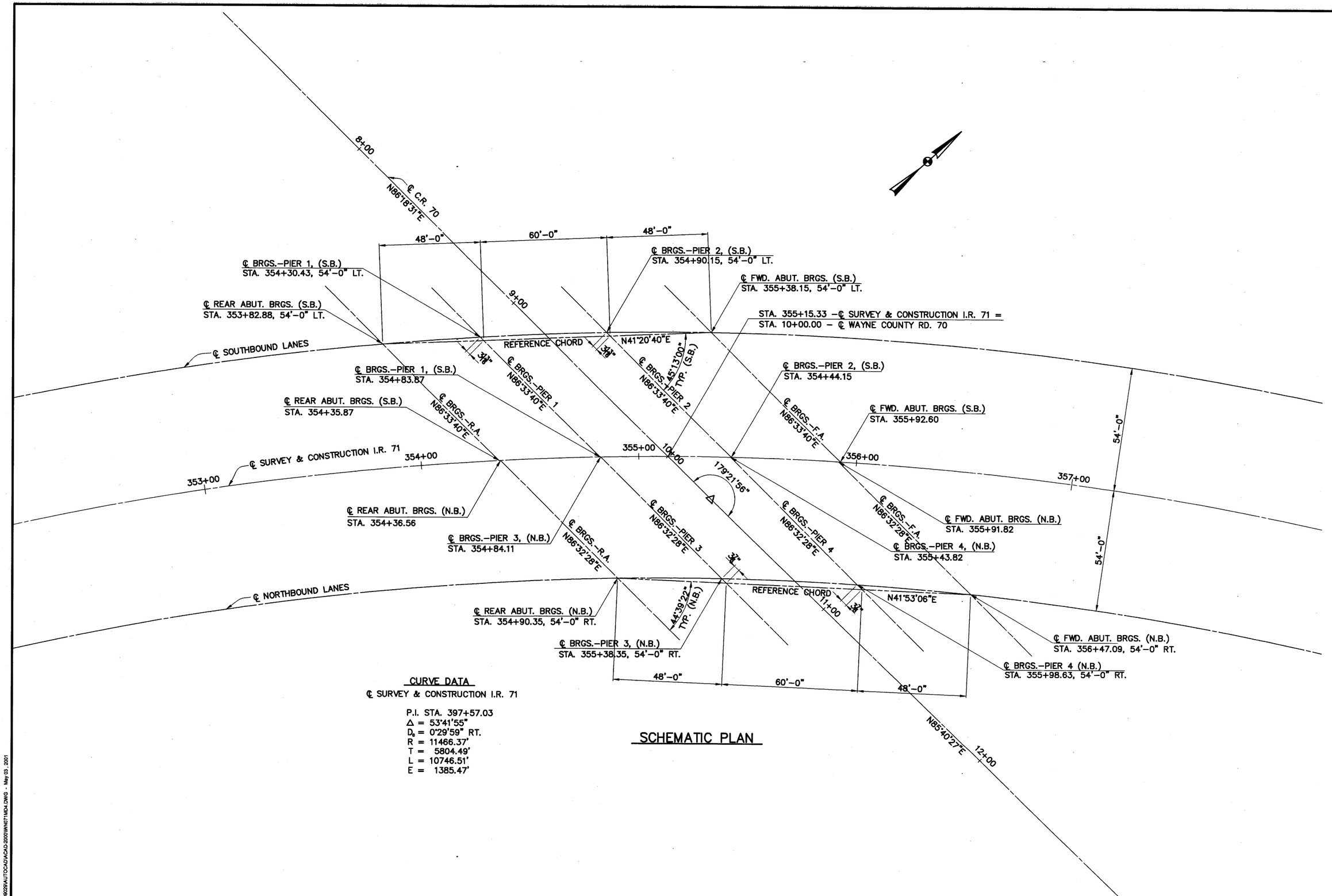
DESIGNED	DRAWN	REVIEWED	DATE
RLE	DLD	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BDH		8503273/8503303	

GENERAL PLAN
BRIDGE NO. WAY-71-0671 L/R
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

3 / 38

390
432



CURVE DATA

℄ SURVEY & CONSTRUCTION I.R. 71

P.I. STA. 397+57.03
Δ = 53°41'55"
D_a = 0°29'59" RT.
R = 11466.37'
T = 5804.49'
L = 10746.51'
E = 1385.47'

SCHEMATIC PLAN

M:\99029\AUTOCAD\ACAD-2000\WAY71MD4.DWG - May 03, 2001

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
RLE	DLD	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BDH		8503273/8503303	

GEOMETRY PLAN
BRIDGE NO. WAY-71-0671 L/R
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

REFERENCE SHALL BE MADE TO THE FOLLOWING STANDARD DRAWINGS:

AS-1-81	REVISED 04-20-01
BS-1-93	DATED 12-19-94
DM-1.1M	REVISED 10-21-97
GSD-1-96	REVISED 04-20-01
PCB-91	REVISED 07-06-99
SBR-1-99	DATED 01-12-99
SICD-1-96	REVISED 04-20-01

AND THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

842	DATED 01-06-99
844	DATED 01-06-99
846	DATED 09-09-97
863	DATED 10-12-99
864	DATED 07-11-00
894	DATED 10-12-99
899	DATED 10-21-98
954	DATED 09-09-97

DESIGN SPECIFICATIONS:
THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996, INCLUDING THE 1997, 1998, AND 1999 INTERIM SPECIFICATIONS AND THE O.D.O.T. BRIDGE DESIGN MANUAL.

DESIGN LOADING:
HS25, CASE I, AND THE ALTERNATE MILITARY LOADING.
FUTURE WEARING SURFACE (FWS) OF 60 LBS/SQ.FT.

DESIGN DATA:
HIGH PERFORMANCE CONCRETE - COMPRESSIVE STRENGTH 4,500 PSI (SUPERSTRUCTURE)
CONCRETE CLASS C - COMPRESSIVE STRENGTH 4,000 PSI (SUBSTRUCTURE)
REINFORCING STEEL - ASTM A615, A616, OR A617, GRADE 60 MINIMUM
YIELD STRENGTH 60,000 PSI.
SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82, OR A615.
STRUCTURAL STEEL - ASTM A572/A709 GRADE 50 (GALVANIZED)
YIELD STRENGTH 50,000 PSI

DECK PROTECTION METHOD:
EPOXY COATED REINFORCING STEEL AND 2 1/2" CONCRETE COVER.

MONOLITHIC WEARING SURFACE:
IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

EXISTING STRUCTURE VERIFICATION:
DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND FROM FIELD OBSERVATION AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TO BE TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, AND 105.02.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURES BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

UTILITY LINES:
THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO PROTECT EXISTING UTILITY LINES IN THE VICINITY OF THE STRUCTURES WHILE PERFORMING ANY WORK. THE CONTRACTOR AND UTILITY COMPANY(IES) ARE REQUESTED TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM. ALL EXPENSE INVOLVED IN RELOCATING ANY AFFECTED UTILITY LINES SHALL BE BORNE BY THE UTILITY(IES).

REFER TO ROADWAY GENERAL NOTES FOR FURTHER INFORMATION.

CONSTRUCTION SEQUENCE:
ALSO SEE MAINTENANCE OF TRAFFIC PLAN SHEETS.
THE FOLLOWING IS THE REQUIRED SEQUENCE OF CONSTRUCTION:

PHASE 1 CONSTRUCTION:
A. WITH TWO LANES OF ONE WAY TRAFFIC MAINTAINED ON THE OUTSIDE LANE AND SHOULDER OF BOTH THE NORTH AND SOUTHBOUND BRIDGE DECKS, REMOVE THE EXISTING DECK, PARAPET, AND STEEL BEAM SUPERSTRUCTURE FROM THE INSIDE PART OF BOTH BRIDGES.
B. REMOVE THE EXISTING ABUTMENT BACKWALLS, BREASTWALLS AND FOOTINGS.
C. DRIVE ADDITIONAL PILES AND CONSTRUCT NEW PORTIONS OF THE ABUTMENTS AND PIERS ON THE INSIDE PART OF BOTH BRIDGES.
D. ERECT THE NEW STEEL GIRDERS AND CROSS FRAMES ON THE NEW ELASTOMERIC BEARINGS.
E. CONSTRUCT NEW BRIDGE DECK, PARAPET, AND APPROACH SLABS FOR THE INSIDE PART OF BOTH BRIDGES.
F. SWITCH TRAFFIC TO THE INSIDE PART OF BOTH BRIDGES.

PHASE 2 CONSTRUCTION
WITH TWO LANES OF ONE WAY TRAFFIC MAINTAINED ON THE INSIDE LANE AND SHOULDER OF BOTH THE NORTH AND SOUTHBOUND BRIDGE DECKS, REPEAT STEPS A THRU E WITHOUT THE WIDENING IN PHASE 1 FOR THE OUTSIDE PART OF BOTH BRIDGES.

PHASE 3 CONSTRUCTION
A. WITH TWO LANES OF ONE WAY TRAFFIC MAINTAINED ON THE INSIDE LANE AND SHOULDER OF BOTH THE NORTH AND SOUTHBOUND BRIDGE DECKS, ERECT CROSS FRAMES BETWEEN THE TWO PARTS AND CONSTRUCT THE LAST PORTION OF THE DECK.
B. APPLY THE HMWM RESIN TO THE CONCRETE DECK AND SEAL OTHER CONCRETE SURFACES WHERE APPLICABLE.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN:
SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. ITEMS TO BE REMOVED INCLUDE ALL THE EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED IN TO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER.

CONCRETE SHALL BE REMOVED BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. THE USE OF EXPLOSIVES AND/OR HEADACHE BALLS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, A HEAVIER HAMMER MAY BE USED UPON APPROVAL OF THE ENGINEER. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. ALL WORK SHALL BE DONE IN A MANNER THAT WILL NOT CUT, ELONGATE, OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED, (PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.)

EXISTING REINFORCING STEEL MAINTAINED AS INDICATED IN THE PLANS, OR AS DIRECTED BY THE ENGINEER, TO SERVE AS DOWELS OR PRINCIPAL REINFORCEMENT IN THE REBUILT STRUCTURE SHALL BE CLEANED BY SANDBLASTING TO GRADE SA-1 TO REMOVE ALL LOOSE PARTICLES OF CONCRETE OR RUST. CARE SHALL BE TAKEN TO PRESERVE THE BOND OF SUCH DOWELS OR PRINCIPAL REINFORCEMENT TO THE EXISTING CONCRETE. WHERE BOND BETWEEN EXISTING CONCRETE AND REINFORCING STEEL THAT IS TO BE RETAINED HAS BEEN DESTROYED, THE UNBONDED CONCRETE ADJACENT TO THE BAR SHALL BE REMOVED TO A DEPTH WHICH WILL PERMIT NEW CONCRETE TO BOND THE ENTIRE PERIPHERY OF THE BAR SO DEBONDED. A MINIMUM OF 1 1/2" CLEARANCE AROUND THE PERIMETER OF THE STEEL SHALL BE PROVIDED. DAMAGED AREAS OF REINFORCEMENT THAT ARE TO REMAIN SHALL BE CUT AND STRESS TRANSFER ACCOMPLISHED BY EITHER A LAPPED OR MECHANICAL SPLICE AS APPROVED BY THE ENGINEER. OTHER EXISTING REINFORCEMENT WITHIN THE REMOVAL LIMITS SHALL BE REMOVED AND DISPOSED OF. ALL NECESSARY LABOR, EQUIPMENT, AND MATERIAL REQUIRED TO CUT AND CLEAN EXISTING REINFORCING STEEL SHALL BE PROVIDED BY THE CONTRACTOR AND INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN, FOR PAYMENT. LAPPED OR MECHANICAL SPLICES REQUIRED FOR STRESS TRANSFER WHERE EXISTING REINFORCEMENT IS DAMAGED BY THE CONTRACTOR SHALL BE PROVIDED BY THE CONTRACTOR AT HIS EXPENSE.

SAW CUT CONSTRUCTION JOINTS / EXISTING PIER CAPS: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, SHALL BE LEFT IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT, ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THE JOINT SURFACE AND EXPOSED REINFORCEMENT SHALL BE THOROUGHLY CLEANED OF ALL DIRT, DUST, RUST, OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING CONCRETE SURFACES WHICH NEW CONCRETE WILL BE PLACED AGAINST SHALL BE WET, BUT WITHOUT FREE WATER, AT THE TIME OF CONCRETE PLACEMENT.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT HIS PLANS FOR THE PROTECTION OF VEHICULAR TRAFFIC ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR FOR APPROVAL. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION TEMPORARY VERTICAL CLEARANCES SPECIFIED ON THE PLANS OR IN THE PROPOSAL SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS OTHERWISE APPROVED BY THE DIRECTOR.

PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE BID, WHICH PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS, WITH PERTINENT PROVISIONS OF 202, AND TO THE SATISFACTION OF THE ENGINEER.

TEMPORARY SHORING / PHASE CONSTRUCTION:
TEMPORARY SHEET PILING CONFORMING TO THE REQUIREMENTS OF 504 SHALL BE DRIVEN TO SUPPORT THE ROADWAY EMBANKMENT DURING PHASE CONSTRUCTION. SHEET PILING BEHIND THE ABUTMENTS SHALL EXTEND APPROXIMATELY 13 FEET BEYOND THE REAR FACE OF THE ABUTMENT BACK WALL. IT SHALL BE DRIVEN A MINIMUM OF 11 FEET BELOW THE ELEVATION OF THE RESPECTIVE ABUTMENT FOOTING AND HAVE A MINIMUM SECTION MODULUS OF 12.6 CUBIC INCHES PER FOOT OF WALL. PORTIONS OF THE WALL SHALL BE REMOVED AS NECESSARY TO PLACE PROPOSED ABUTMENT CONCRETE. ALL SHEET PILING SHALL BE REMOVED UPON COMPLETION OF PHASE 3 BACK FILLING. THIS WORK SHALL BE INCLUDED WITH ITEM 503 - COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN FOR PAYMENT.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN:
UNCLASSIFIED EXCAVATION SHALL BE IN ACCORDANCE WITH 503 EXCEPT THAT THE BACK FILL MATERIAL BEHIND THE ABUTMENTS SHALL BE 203 GRANULAR MATERIAL PLACED IN 6 INCH LIFTS AND COMPACTED IN ACCORDANCE WITH 304.04.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):
THE ULTIMATE BEARING VALUE IS 98 TONS PER PILE FOR THE 12 INCH DIAMETER CAST-IN-PLACE REINFORCED CONCRETE ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 86 TONS PER PILE FOR THE 12 INCH DIAMETER CAST-IN-PLACE REINFORCED CONCRETE PIER PILES.

ABUTMENT PILES:
100 PILES 46 FEET LONG, ESTIMATED LENGTH
100 PILES OF ORDER LENGTH 46 FEET LONG
50 SPLICES

PIER PILES:
32 PILES 40 FEET LONG, ESTIMATED LENGTH
32 PILES OF ORDER LENGTH 40 FEET LONG
16 SPLICES

ITEM SPECIAL - SEALING OF CONCRETE SURFACES, (EPOXY-URETHANE):
EPOXY-URETHANE SEALER SHALL BE APPLIED TO THE CONCRETE SURFACES DETAILED IN THE PLANS. THE CONCRETE SEALING MATERIAL SHALL HAVE A "NEUTRAL" COLOR MEETING FEDERAL COLOR STANDARD NO. 27778. FOR ADDITIONAL NOTES SEE THE PROPOSAL NOTE TITLED "SEALING OF CONCRETE SURFACES".

ITEM 518 - POROUS BACK FILL WITH FILTER FABRIC, AS PER PLAN:
THE AGGREGATE SHALL BE NO. 57 GRAVEL.

ITEM 518 - 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN:
ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLET OF THE DRAINAGE PIPES. THE STEEL BOLTS OR RODS FOR THE ANIMAL GUARD SHALL BE GALVANIZED PER CMS 710.06. SEE STANDARD DRAWING DM-1.1M FOR ADDITIONAL DETAILS AND NOTES. PAYMENT FOR THE ANIMAL GUARDS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 518 - 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN.

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN:
ALL SURFACES TO BE PATCHED AND THE EXPOSED REINFORCING STEEL WITHIN SHALL BE THOROUGHLY CLEANED BY ABRASIVE BLASTING PRIOR TO THE CLEANING SPECIFIED BY 519.04. CLEANING SHALL PRECEDE APPLICATION OF THE PATCHING MATERIAL OR ERECTION OF THE FORMS BY NOT MORE THAN 24 HOURS.

A CONTINGENCY QUANTITY OF 10 SQUARE FEET IS INCLUDED PER BRIDGE TO BE USED AT THE DIRECTION OF THE ENGINEER FOR REPAIR OF THE PIERS.

SURVEY DISC ON STRUCTURE: THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST ONE (1) WEEK IN ADVANCE OF POURING THE CONCRETE FOR COMPLETION OF THE ABUTMENTS. THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) SURVEY DISC (OBTAINED FROM THE DISTRICT SURVEYOR) WHICH THE CONTRACTOR SHALL PLACE IN THE SURFACE OF THE FRESH CONCRETE OF ONE OF THE BRIDGES. THE LOCATION OF THE DISC SHALL BE ON THE ABUTMENT, AND ON A FLAT, HORIZONTAL SURFACE BEYOND THE EDGE OF THE DECK AND GUARDRAIL. THE BENCHMARK SHALL BE ACCESSIBLE TO A SURVEYOR'S ROD WITHOUT ANY OBSTRUCTIONS. COST OF THIS WORK IS CONSIDERED INCIDENTAL TO THE CONCRETE BID ITEM.

ADDITIONAL STRUCTURE GENERAL NOTES: SEE SHEET 6 / 38 AND REFERENCED STANDARD DRAWINGS.

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
203 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
DBC	DLD	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RLE		3503273/8503303	

STRUCTURE GENERAL NOTES-1
BRIDGE NO. WAY-71-0671
OVER WAYNE COUNTY ROAD NO.70

WAY-71-0.28

5 / 38

392
432

M:\99029\AUTOCAD\ACAD-2000\WNDTGN1.dwg - May 03, 2001

ITEM 601 – CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN:
BEFORE ERECTING THE NEW STRUCTURAL STEEL, PHASES 1 & 2, THE EXISTING EMBANKMENT SURFACES IN FRONT OF THE NEW ABUTMENTS SHALL BE RESTORED TO A UNIFORM PLANE SURFACE WITH CRUSHED AGGREGATE SLOPE PROTECTION. NEW EMBANKMENT SURFACES SHALL BE PROTECTED AS SPECIFIED IN 601.05. PROTECTION SHALL EXTEND LONGITUDINALLY FROM THE FACE OF THE ABUTMENTS DOWN TO THE TOE OF THE SLOPE AND LATERALLY TO AT LEAST 3'–0" BEYOND THE OUTSIDE EDGES OF EACH DECK, INCLUDING THE MEDIAN AREA IN ITS ENTIRETY. THE TOTAL THICKNESS OF THE PROPOSED PROTECTION (RESTORED AND/OR NEW) SHALL BE 1'–0" MINIMUM.

ITEM 842 – CLASS C CONCRETE, PIER ABOVE FOOTINGS AS PER PLAN;
ITEM 842 – CLASS C CONCRETE, FOOTING, AS PER PLAN:
THE AGGREGATE SHALL CONSIST OF NO. 8 LIMESTONE.

ITEM 842, CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN
THE AGGREGATE SHALL CONSIST OF NO. 8 LIMESTONE.
INSTALL A 3 FOOT WIDE STRIP, 3/32 INCH THICK, GENERAL PURPOSE, HEAVY–DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT AT LOCATIONS SHOWN IN THE PLANS. SECURE THE 3 FOOT WIDE NEOPRENE SHEETING TO THE CONCRETE WITH 1 1/4" x 3/32" (LENGTH x SHANK DIAMETER) #10 GAUGE GALVANIZED WASHER. MAXIMUM FASTENER SPACING IS 9 INCHES. OTHER SIMILAR GALVANIZED DEVICES WHICH WILL NOT DAMAGE EITHER THE NEOPRENE OR THE CONCRETE MAY BE USED SUBJECT TO THE APPROVAL OF THE ENGINEER.

CENTER THE NEOPRENE STRIPS ON ALL JOINTS. FOR HORIZONTAL JOINTS, SECURE THE HORIZONTAL NEOPRENE STRIPS BY USING A SINGLE LINE OF FASTENERS, STARTING AT 6 INCHES (±) FROM THE TOP OF THE NEOPRENE STRIP. FOR THE VERTICAL JOINT, SECURE THE VERTICAL NEOPRENE STRIP BY USING A SINGLE VERTICAL LINE OF FASTENERS, STARTING AT 6 INCHES (±) FROM THE VERTICAL EDGE OF THE NEOPRENE STRIP NEAREST TO THE CENTERLINE OF THE ROADWAY. FOR VERTICAL JOINTS, INSTALL 2 ADDITIONAL FASTENERS AT 6 INCHES CENTER TO CENTER ACROSS THE TOP OF THE NEOPRENE STRIP ON THE SAME SIDE OF THE VERTICAL JOINT AS THE SINGLE VERTICAL ROW OF FASTENERS IS LOCATED.

THE VERTICAL NEOPRENE STRIPS SHOULD COMPLETELY OVERLAP THE HORIZONTAL STRIPS. LAPS IN THE LENGTH OF THE HORIZONTAL STRIPS DUE TO MATERIAL MANUFACTURING SHALL BE AT LEAST 12 INCHES IN LENGTH, IF NOT VULCANIZED OR ADHESIVE BONDED, OR 6 INCHES IN LENGTH IF THE LAP IS VULCANIZED OR ADHESIVE BONDED. NO LAPS ARE ACCEPTABLE IN VERTICALLY INSTALLED NEOPRENE STRIPS.

THE NEOPRENE SHEETING SHALL BE 3/32 INCH THICK, GENERAL PURPOSE, HEAVY–DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT. THE SHEETING SHALL BE "FAIRPRENE NUMBER NN–0003", BY E.I. DUPONT DE NEMOURS AND COMPANY, INC., "WINGPRENE" BY THE GOODYEAR TIRE AND RUBBER COMPANY, OR AN APPROVED ALTERNATE. THE NEOPRENE SHEETING SHALL CONFORM TO THE FOLLOWING:

DESCRIPTION OF TEST	ASTM METHOD	REQUIREMENT
THICKNESS, INCHES	D 751	0.84 ± 0.01
BREAKING STRENGTH, GRAB WXF, LBS., MINIMUM	D 751	700 x 700
ADHESIVE 1" STRIP, 2" MINIMUM, LBS., MINIMUM	D 751	9
BURST STRENGTH (MULLEN) p.s.i., MINIMUM	D 751	1400
HEAT AGING 70 HOURS T 212°F, 180 BEND WITHOUT CRACKING	D 2136	NO CRACKING OF COATING
LOW TEMPERATURE BRITTLENESS 1 HOUR AT –40°F, BEND AROUND 1/4 INCH MANDREL	D 2156	NO CRACKING OF COATING

IN LIEU OF NEOPRENE SHEETING THE CONTRACTOR MAY CHOOSE TO SUPPLY TYPE 3 MEMBRANE, 711.29.

PAYMENT FOR LABOR, MATERIALS, AND INSTALLATION OF THESE ITEMS SHALL BE INCLUDED IN ITEM 842, CLASS C CONCRETE, ABUTMENT, AS PER PLAN.

DOWEL HOLES WITH NON–SHRINK, NON–METALLIC GROUT
ALL DOWEL HOLES SHALL BE CORE DRILLED AND GROUTED WITH AN EPOXY MORTAR MEETING THE REQUIREMENTS OF CMS 510. PAYMENT FOR ALL OF THE ABOVE SHALL BE PER APPLICABLE 842 ITEMS.

ITEM 863 – STRUCTURAL STEEL MEMBERS, LEVEL THREE (3) FABRICATION, GALVANIZED, A572, GRADE 50, AS PER PLAN:

1. ALL STRUCTURAL STEEL SHALL BE ASTM A572, GRADE 50. IN LIEU OF PAINTING, THE STEEL SHALL BE GALVANIZED PER 711.02. PAYMENT FOR GALVANIZING SHALL BE INCLUDED IN THE COST OF ITEM 863.

2. WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), THE MATERIAL SHALL MEET SPECIFIED MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01 OF THE SPECIFICATIONS. ALL FIELD SPLICE MATERIAL SHALL BE (CVN).

3. ALL FIELD SPLICES SHALL HAVE 1 1/8 INCH DIAMETER HIGH STRENGTH BOLTS CONFORMING TO ASTM A325, TYPE 1 GALVANIZED WITH WASHERS SUPPLIED UNDER THE HEAD AND THE NUT. THE HOLES SHALL BE OVERSIZED 1 1/4 INCH DIAMETER HOLES. BOLTS SHALL BE PLACED WITH THEIR HEADS ON THE OUTSIDE FACE OF THE EXTERIOR BEAM, ON THE BOTTOM OF THE BOTTOM FLANGE PLATES AND TOP OF THE TOP FLANGE PLATES.

4. FABRICATOR SHALL GIVE THE BEAMS A STEEL STRUCTURES PAINTING COUNCIL (SSPC) GRADE SIX COMMERCIAL BLAST CLEANING PRIOR TO SHOP GALVANIZING. ALL MATERIAL SHALL BE FREE OF PAINT MARKS. SECONDARY ANGLES, PLATES, BARS AND SHAPES NEED NOT BE BLAST CLEANED.

5. AREAS OF FIELD CONNECTIONS SHALL HAVE A UNIFORM GALVANIZED COATING THICKNESS FREE OF LOCAL EXCESSIVE ROUGHNESS WHICH WOULD PREVENT SPLICE PLATES, BEARINGS OR OTHER FIELD CONNECTIONS FROM MAKING INTIMATE CONTACT.

6. FAYING SURFACES OF THE BOLTED SPLICES SHALL BE ROUGHENED IN THE SHOP AFTER GALVANIZING BY LIGHT HAND WIRE BRUSHING. TREATMENT SHALL NOT BE SEVERE ENOUGH TO PRODUCE ANY BREAK OR DISCONTINUITY IN THE ZINC SURFACE. POWER WIRE BRUSHING IS NOT PERMITTED. ALL FILED SPLICE BOLT HOLES SHALL BE FREE OF ZINC BUILD UP AND EACH HOLE SHALL BE CHECKED IN THE SHOP AFTER GALVANIZING TO RECEIVE A 1 3/16" INCH DIAMETER DRIFT PIN. CONSIDERATION WILL BE GIVEN TO OTHER METHODS OF TREATING THE FAYING SURFACES IF A WRITTEN REQUEST IS SUBMITTED TO THE DIRECTION IN ACCORDANCE WITH CMS 108.05.

7. MATERIAL SHALL BE FREE OF IMPERFECTIONS OR DEPRESSIONS CAUSED BY MATERIAL HANDLING. THE FABRICATOR, GALVANIZER AND ERECTOR SHALL USE LIFTING CLAMPS OF SOFTENERS FOR HANDLING. PRIOR TO GALVANIZING, THE FABRICATOR MAY REPAIR IMPERFECTIONS BY GRINDING AS ALLOWED BY ASTM A6. IMPERFECTIONS THAT ARE GREATER THAN THE LIMITS ALLOWED BY GRINDING PER A6 SHALL BE DOCUMENTED. REPAIR OR REPLACEMENT OF THIS MEMBER SHALL BE AT THE DISCRETION OF THE DIRECTOR.

8. AFTER GALVANIZING, MATERIAL SHALL BE PLACED IN A SECOND SHOP ASSEMBLY PER CMS SECTION 863.26 TO CHECK ALIGNMENT OF HOLES, SWEEP AND CAMBER AGAINST THE FABRICATOR'S ORIGINAL RECORDED LAY DOWN DIMENSIONS. THIS SHOP ASSEMBLY MAY BE PERFORMED AT THE GALVANIZER'S FACILITY BY THE FABRICATOR'S PERSONNEL, IF APPROVED BY THE DIRECTOR. THE SECOND LAY DOWN MAY BE WAIVED BY THE DIRECTOR IF INDIVIDUAL BEAM CAMBERS AND SWEEPS RECORDED BY THE FABRICATOR DURING THE FIRST LAY DOWN, AND DIMENSIONS COMPARED AFTER GALVANIZING, FALL WITHIN THE FOLLOWING TOLERANCES:

   POSITION OF BEARING POINTS AFTER GALVANIZING SHALL BE WITHIN 1/8 INCH ± OF

   VALUES RECORDED FOR THE FIRST LAY DOWN.

   CAMBER AFTER GALVANIZING SHALL NOT EXCEED VALUES RECORDED FOR THE FIRST LAY DOWN BY MORE THAN + 1/4 INCH OR – 0 INCH.

   SWEEP AFTER GALVANIZING SHALL NOT EXCEED VALUES RECORDED FOR THE FIRST LAY DOWN BY MORE THAN 3/8 INCH ±.

   INDIVIDUAL BEAMS THAT EXCEED THE LISTED TOLERANCES SHALL BE PLACED WITH AT

   LEAST TWO ADJACENT BEAMS IN LAY DOWN FOR CHECKING AGAINST THE RECORDED SHOP ASSEMBLY RECORDS PER 863.07.

9. ALL DAMAGED GALVANIZING SHALL BE REPAIRED IN ACCORDANCE WITH ASTM A780, METHOD A1 OR A3.

DRIP GROOVES
THE DRIP GROOVES AS DETAILED ON STANDARD CONSTRUCTION DRAWINGS SHALL NOT BE CONSTRUCTED.

ITEM 894 – HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN
THE DESIGN MIX SHALL BE MIX NO. 4. COURSE AGGREGATE SHALL BE LIMESTONE. THE OPTION OF SLIPFORM CONSTRUCTION OF THE BRIDGE RAILING PER 844.031 IS NOT PERMITTED.

CURING SHALL BE PER METHOD (A) WATER CURE ONLY.

M:\99029\AUTOCAD\ACAD-2000\WN07TGN2.dwg - May 03, 2001

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
DBC	DLD	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RLE		8503273/8503303	

STRUCTURE GENERAL NOTES–2
BRIDGE NO. WAY–71–0671 L/R
OVER WAYNE COUNTY ROAD NO.70

WAY–71–0.28

ESTIMATED QUANTITES

CALC. BY DLD DATE: 10/00 CHKD. BY BDH DATE: 02/01

ITEM	ITEM EXT.	TOTAL LEFT STRUCTURE (S.B.)	TOTAL RIGHT STRUCTURE (N.B.)	UNIT	DESCRIPTION	LEFT STRUCTURE – S.B. (SFN: 8503273)				RIGHT STRUCTURE – N.B. (SFN: 8503303)				SEE SHEET
						ABUTS.	PIERS	SUPER.	GEN'L	ABUTS.	PIERS	SUPER.	GEN'L	
202	11203	LUMP	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LUMP				LUMP	5 OF 38
503	11101	LUMP	LUMP		COFFERDAMS, CRIBS AND SHEETING, AS PER PLAN				LUMP				LUMP	5 OF 38
503	21301	LUMP	LUMP		UNCLASSIFIED EXCAVATION, AS PER PLAN				LUMP				LUMP	5 OF 38
505	11100	LUMP	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION				LUMP				LUMP	
507	00500	2940	2940	LIN FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	2300	640			2300	640			
507	00550	2940	2940	LIN FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	2300	640			2300	640			
507	50500	33	33	EACH	STEEL PILE SPLICES	25	8			25	8			
512	33000	6	6	SQ YD	TYPE 2 WATERPROOFING	6				6				
516	13900	64	64	SQ FT	2" PREFORMED EXPANSION JOINT FILLER	64				64				
516	44000	14	14	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE): (1 7/8" X 9 1/2" X 16" WITH 1 1/2" X 10 1/2" X 17" LOAD PLATE)	14				14				
516	44000	14	14	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE): (1 7/8" X 12" X 19" WITH 2 1/4" X 20" X 20" LOAD PLATE)		14				14			
518	21231	LUMP	LUMP		POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN	LUMP				LUMP				5 OF 38
518	40000	230	232	LIN FT	6" PERFORATED CORRUGATED PLASTIC PIPE	230				232				
518	40010	30	28	LIN FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	30				28				
519	11101	10	10	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN				10				10	5 OF 38
523	11100	3	3	HOUR	DYNAMIC LOAD TEST	3				3				
601	20001	1047	1086	SQ YD	CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN				1047				1086	6 OF 38
842	41001	62	48	CU YD	CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN		62				48			6 OF 38
842	44101	100	98	CU YD	CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN	100				98				6 OF 38
842	46501	197	198	CU YD	CLASS C CONCRETE, FOOTING, AS PER PLAN	151	46			152	46			6 OF 38
844	49000	LUMP	LUMP		HIGH PERFORMANCE CONCRETE TRIAL MIX			LUMP				LUMP		
844	49010	LUMP	LUMP		HIGH PERFORMANCE CONCRETE TESTING			LUMP				LUMP		
863	10061	LUMP	LUMP		STRUCTURAL STEEL MEMBERS, LEVEL THREE (3) FABRICATION, GALVANIZED, A572, GRADE 50, AS PER PLAN			LUMP				LUMP		
864	10100	1000	939	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	121	456	423		122	396	421		
894	10001	398	398	CU YD	HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN			398				398		6 OF 38

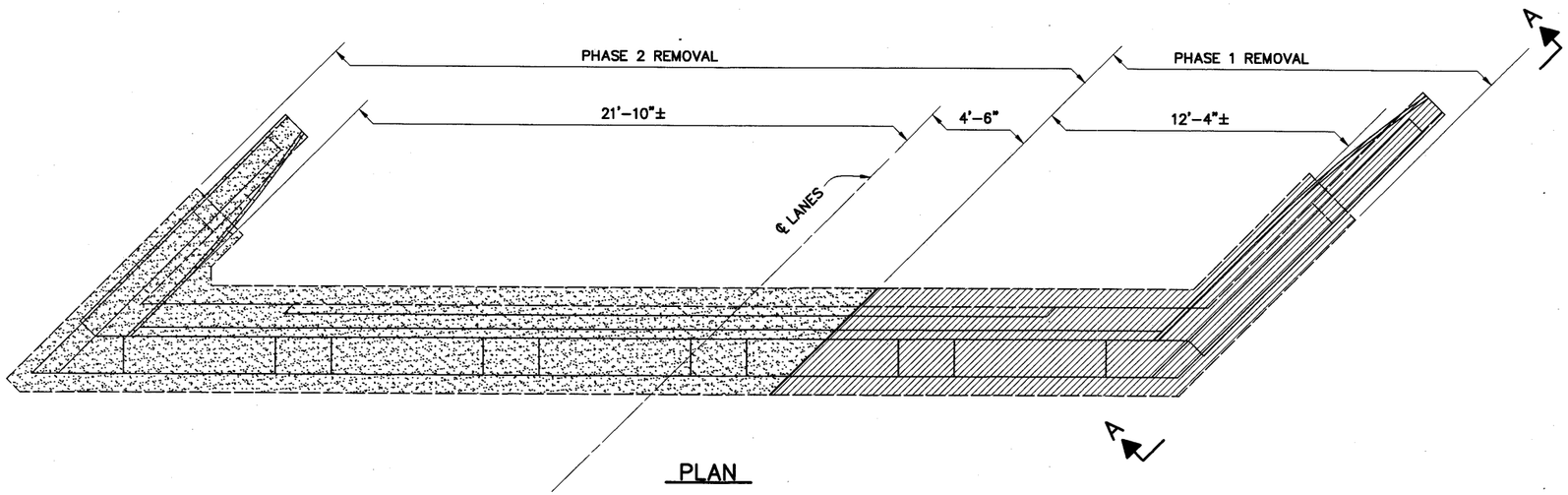
DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED RLE | DRAWN DLD | REVIEWED DWS | DATE 02/28/01
CHECKED BDH | REVISED | STRUCTURE FILE NUMBER 8503273/8503303

ESTIMATED QUANTITIES
BRIDGE NO. WAY-71-0671 L/R
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

M:\98029\AUTOCAD\ACAD-2000\WAN071E01.dwg - May 08, 2001

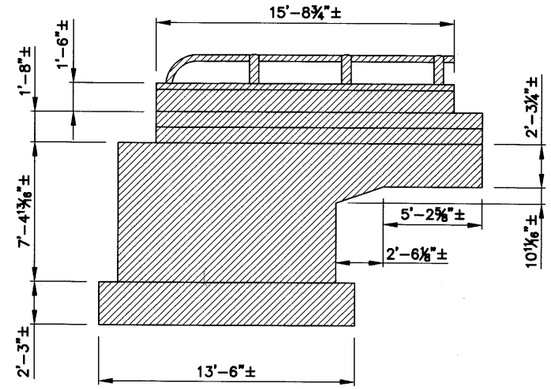


PLAN

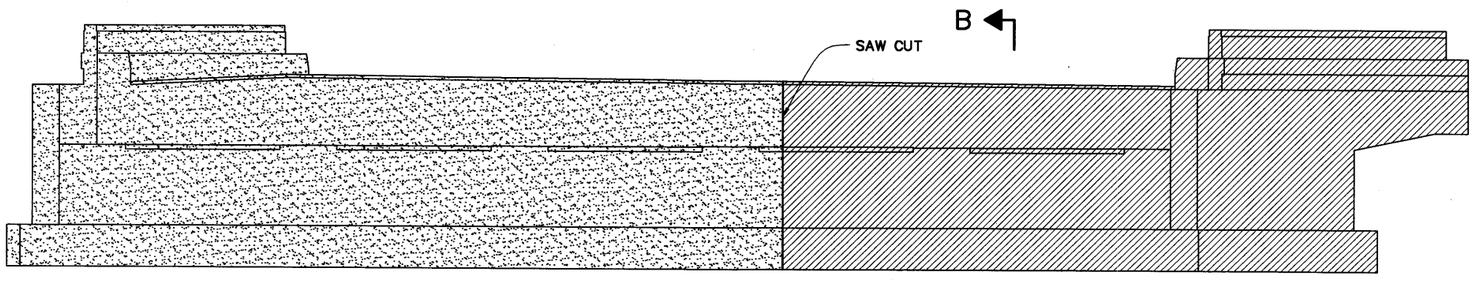
LEGEND

INDICATES LIMITS OF PHASE 1 REMOVAL

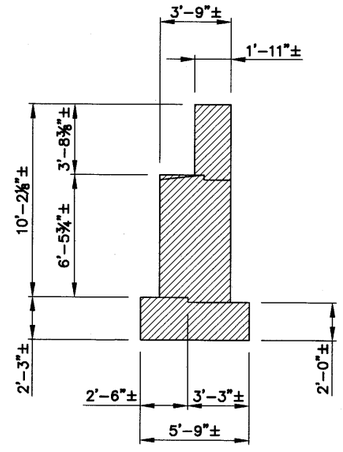
INDICATES LIMITS OF PHASE 2 REMOVAL



SECTION A-A



ELEVATION



SECTION B-B

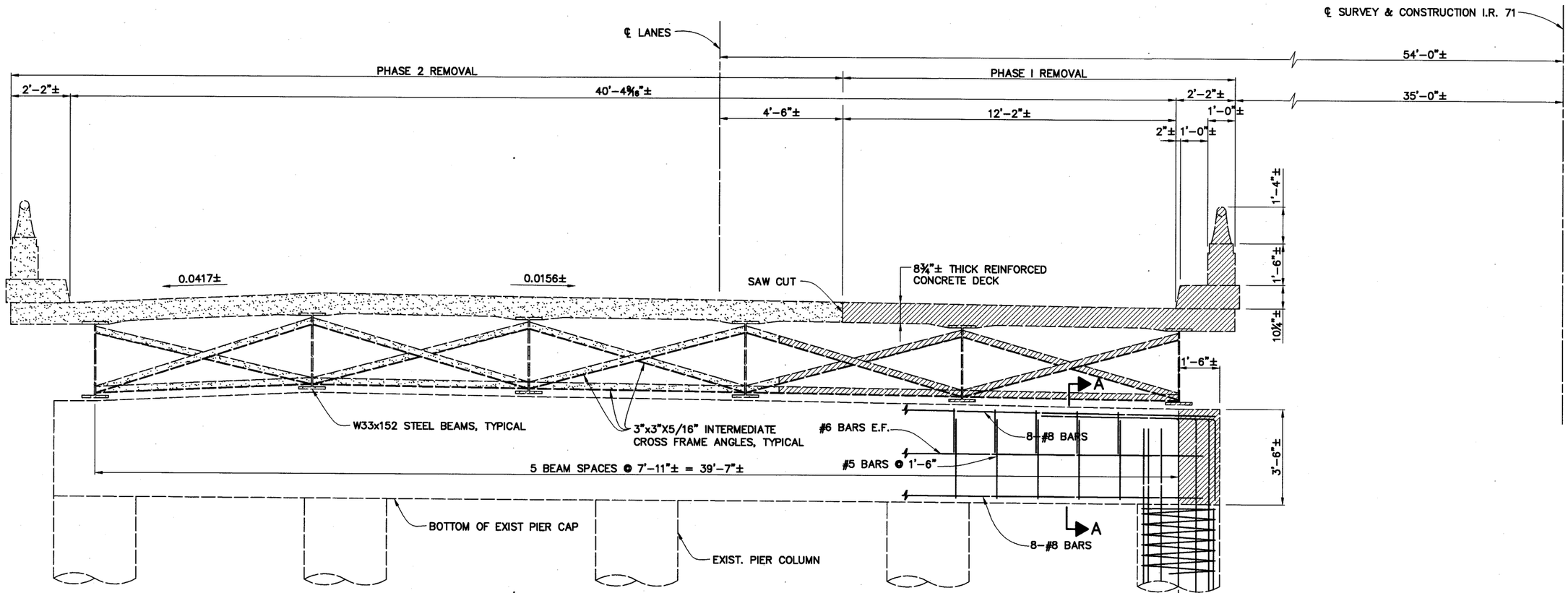
M:\99\026\AUTOCAD\ACAD-2000\WAY071MDT.dwg - May 03, 2001

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
RLE	MDG	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BDH		3503273/8503303	

STRUCTURE REMOVAL DETAILS-1
BRIDGE NO. WAY-71-0671 L/R
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28



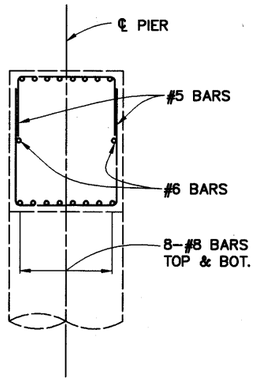
TRANSVERSE SECTION

SOUTHBOUND STRUCTURE DRAWN
NORTHBOUND STRUCTURE SIMILAR

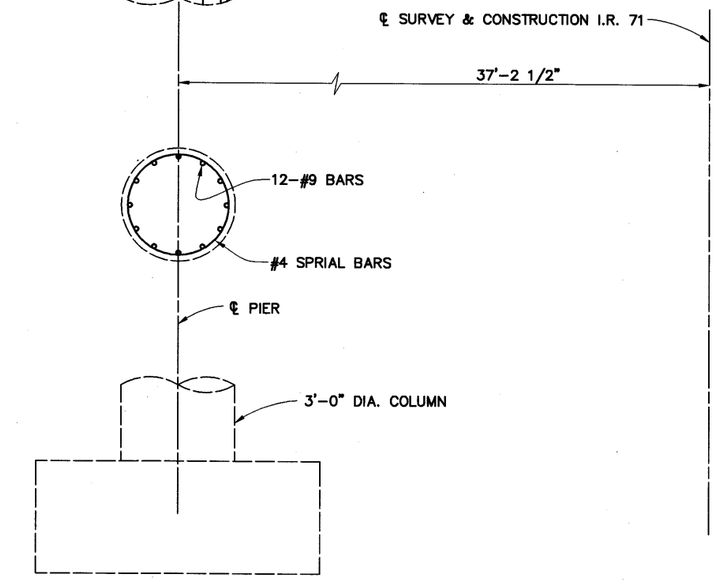
LEGEND

INDICATES LIMITS OF PHASE 1 REMOVAL

INDICATES LIMITS OF PHASE 2 REMOVAL



SECTION A-A



PARTIAL PIER ELEVATION

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

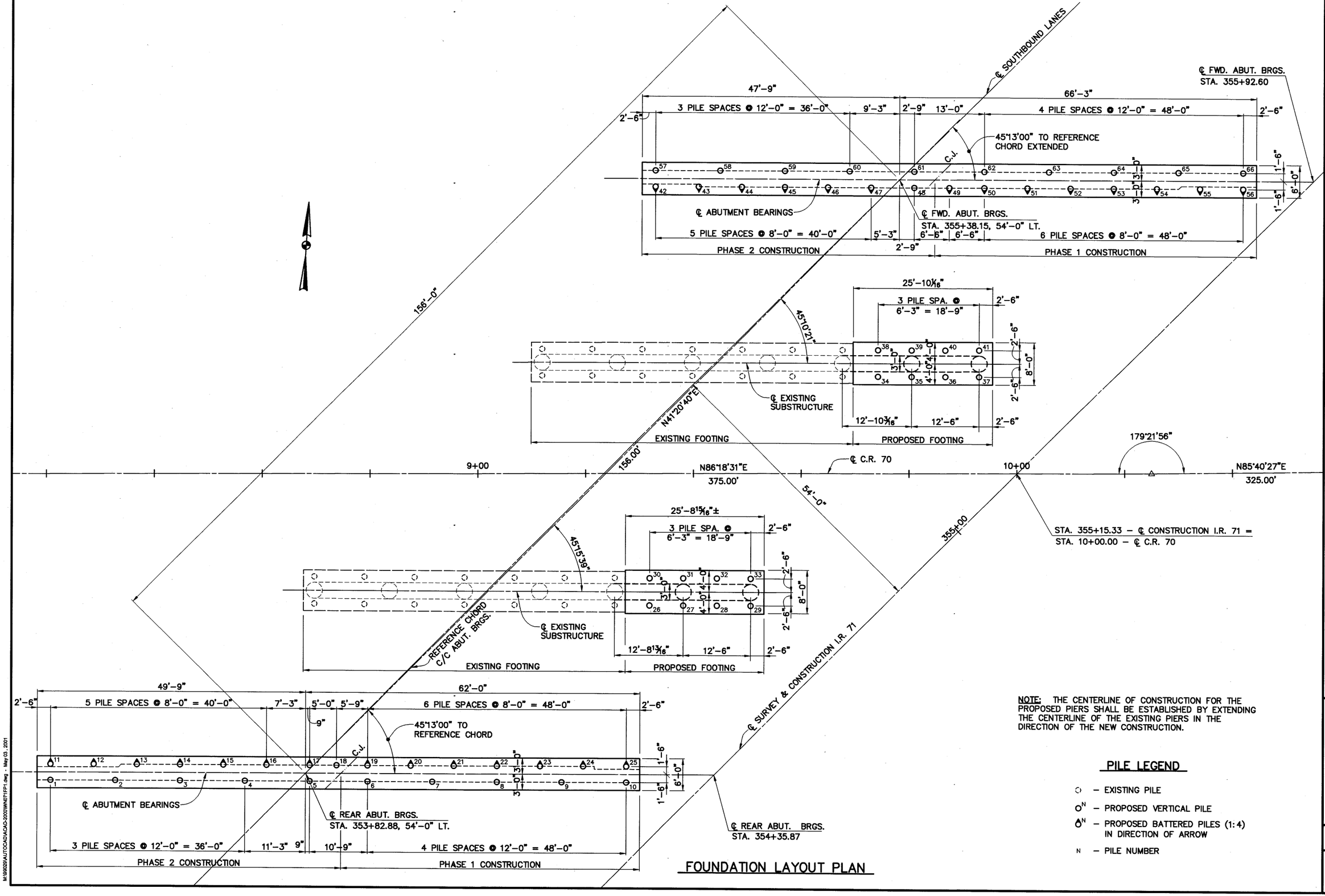
DESIGNED	DRAWN	REVIEWED	DATE
RLE	MDG	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BDH		8503273/8503303	

STRUCTURE REMOVAL DETAILS-2

BRIDGE NO. WAY-71-0671 L/R
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

M:\99029\AUTOCAD\ACAD-2000\WN071M02.dwg - May 03, 2001



NOTE: THE CENTERLINE OF CONSTRUCTION FOR THE PROPOSED PIERS SHALL BE ESTABLISHED BY EXTENDING THE CENTERLINE OF THE EXISTING PIERS IN THE DIRECTION OF THE NEW CONSTRUCTION.

PILE LEGEND

- ○ – EXISTING PILE
- O^N – PROPOSED VERTICAL PILE
- δ^N – PROPOSED BATTERED PILES (1:4) IN DIRECTION OF ARROW
- N – PILE NUMBER

FOUNDATION LAYOUT PLAN

FOUNDATION LAYOUT PLAN – S.B. STRUCTURE

BRIDGE NO. WAY-71-0671 L
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

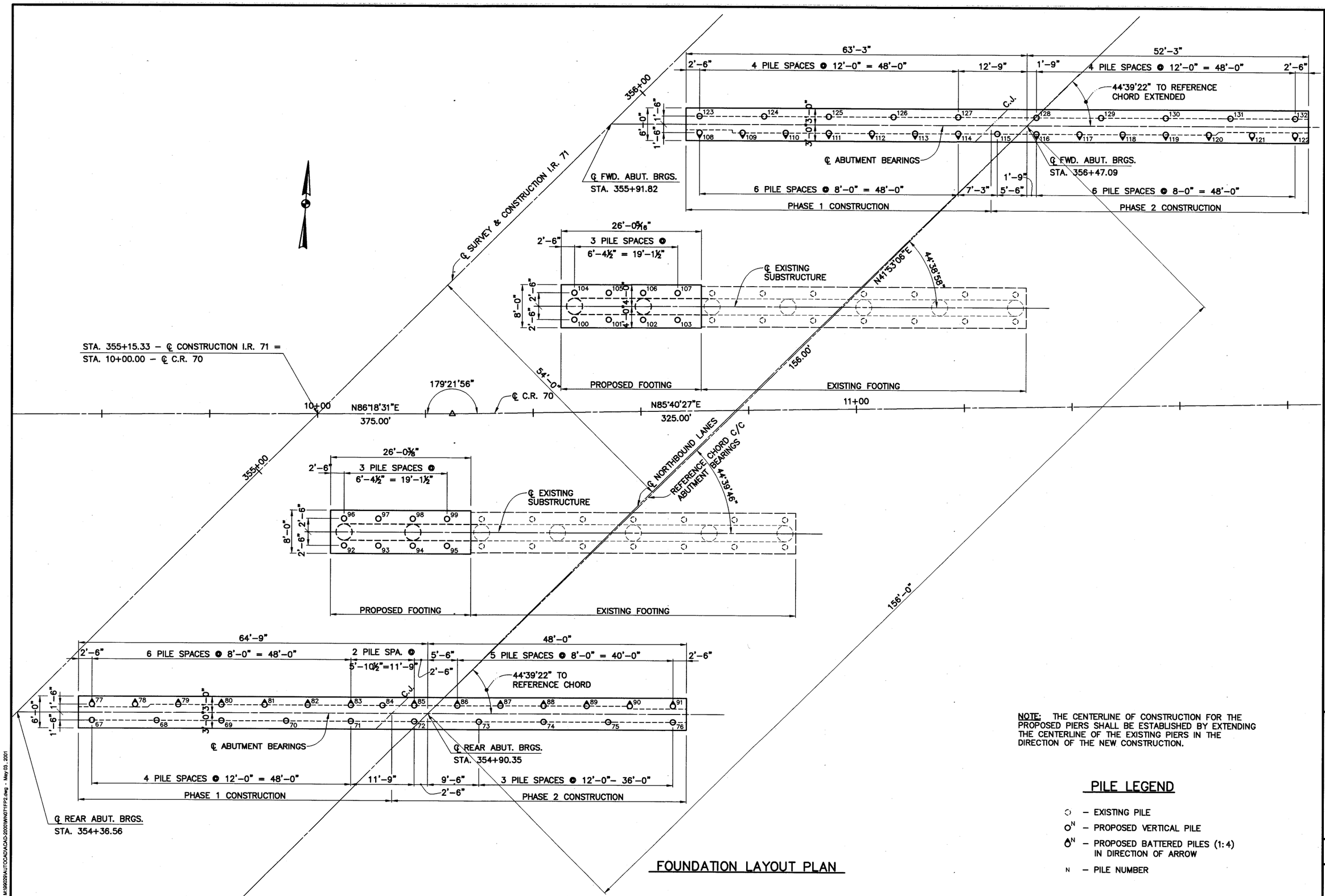
10/38

397/432

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
2700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
BDH	RLE	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DBC		8503273	

M:\99029\AUTOCAD\ACAD-2000\WN071FP1.dwg - May 03, 2001



FOUNDATION LAYOUT PLAN

NOTE: THE CENTERLINE OF CONSTRUCTION FOR THE PROPOSED PIERS SHALL BE ESTABLISHED BY EXTENDING THE CENTERLINE OF THE EXISTING PIERS IN THE DIRECTION OF THE NEW CONSTRUCTION.

PILE LEGEND

- ○ – EXISTING PILE
- O^N – PROPOSED VERTICAL PILE
- δ^N – PROPOSED BATTERED PILES (1:4) IN DIRECTION OF ARROW
- N – PILE NUMBER

M:\99029\AUTOCAD\CAD-2000\WAY071FPZ.dwg - May 03, 2001

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
BDH	RLE	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DBC		8503303	

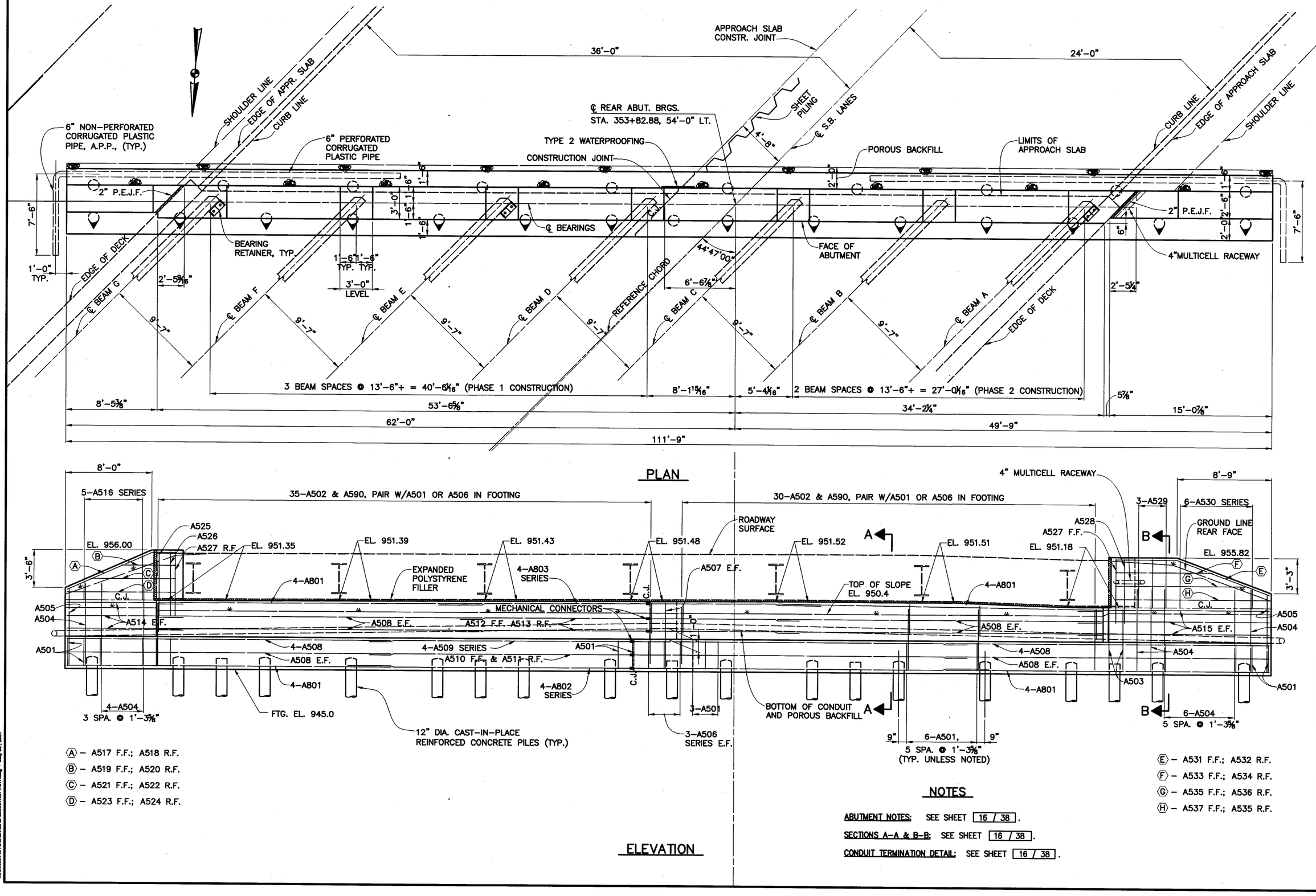
FOUNDATION LAYOUT PLAN – N.B. STRUCTURE

BRIDGE NO. WAY-71-0671 R
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

11/38

398/432



ELEVATION

NOTES

ABUTMENT NOTES: SEE SHEET 16 / 38 .

SECTIONS A-A & B-B: SEE SHEET 16 / 38 .

CONDUIT TERMINATION DETAIL: SEE SHEET 16 / 38 .

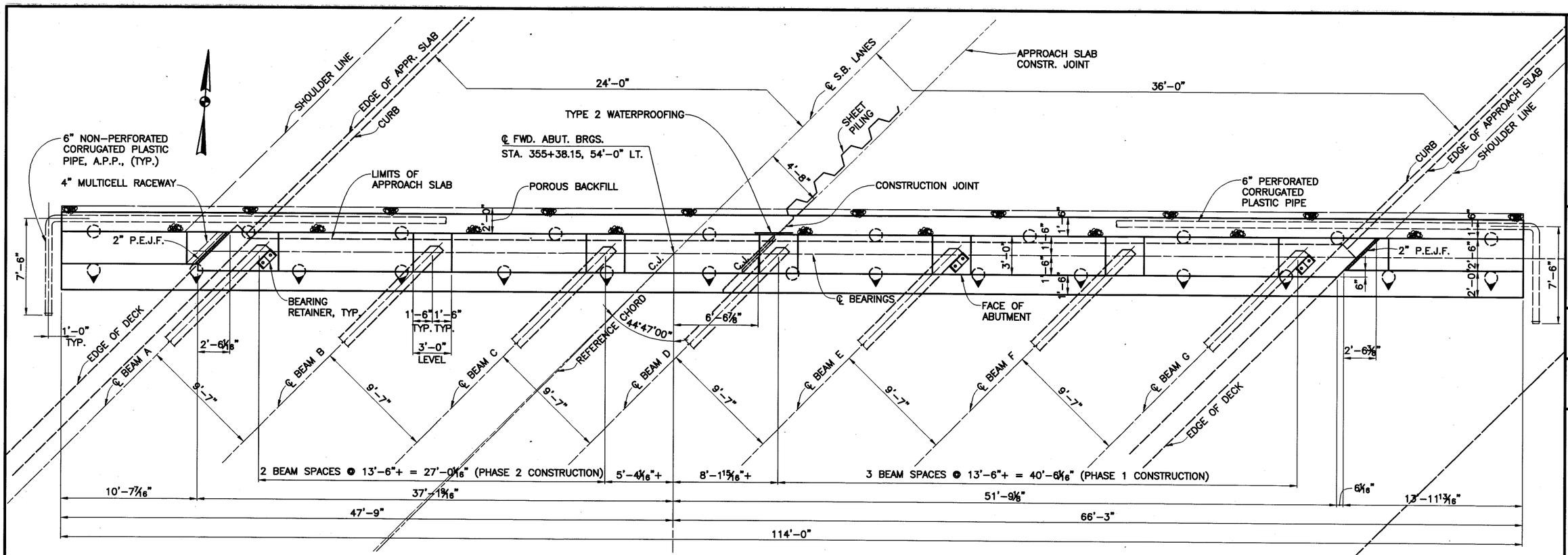
M:\99\0039\AUTOCAD\ACAD-2000\WAY71RA1.dwg - May 09, 2001

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
200 HANKLER DRIVE
WOOSTER, OHIO 44691

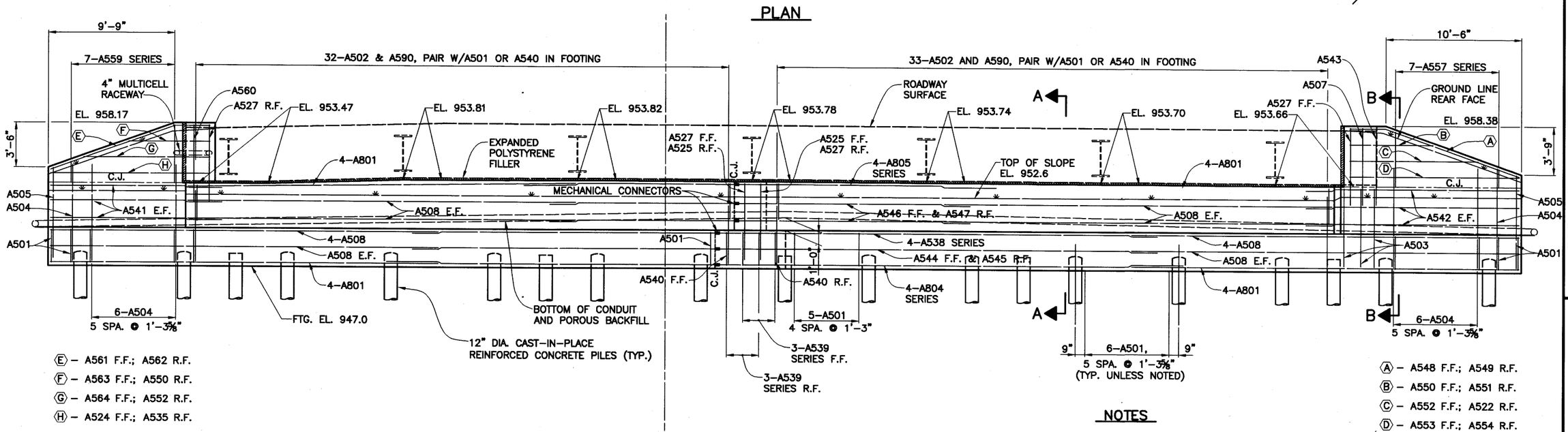
DESIGNED	DRAWN	REVIEWED	DATE
RLE	RLE	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BDH		8503273	

REAR ABUTMENT - S.B. STRUCTURE
BRIDGE NO. WAY-71-0671 L
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28



PLAN



ELEVATION

NOTES

ABUTMENT NOTES: SEE SHEET 16 / 38 .

SECTIONS A-A & B-B: SEE SHEET 16 / 38 .

CONDUIT TERMINATION DETAIL: SEE SHEET 16 / 38 .

M:\99\02\AUTOCAD\ACAD-2000\WAY71FX1.dwg - May 09, 2001

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WHALEY DRIVE
WOOSTER, OHIO 44691

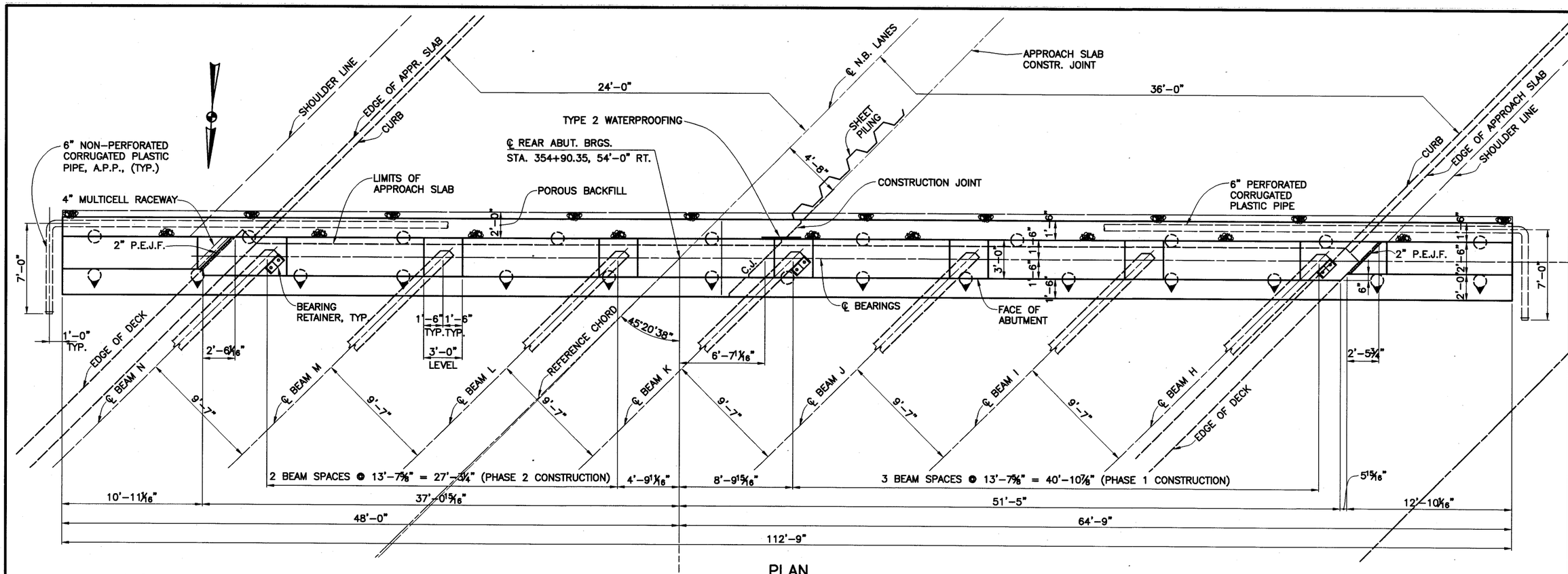
DESIGNED	DRAWN	REVIEWED	DATE
RLE	RLE	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BDH		8503273	

FORWARD ABUTMENT - S.B. STRUCTURE
BRIDGE NO. WAY-71-0671 L
OVER WAYNE COUNTY ROAD NO. 70

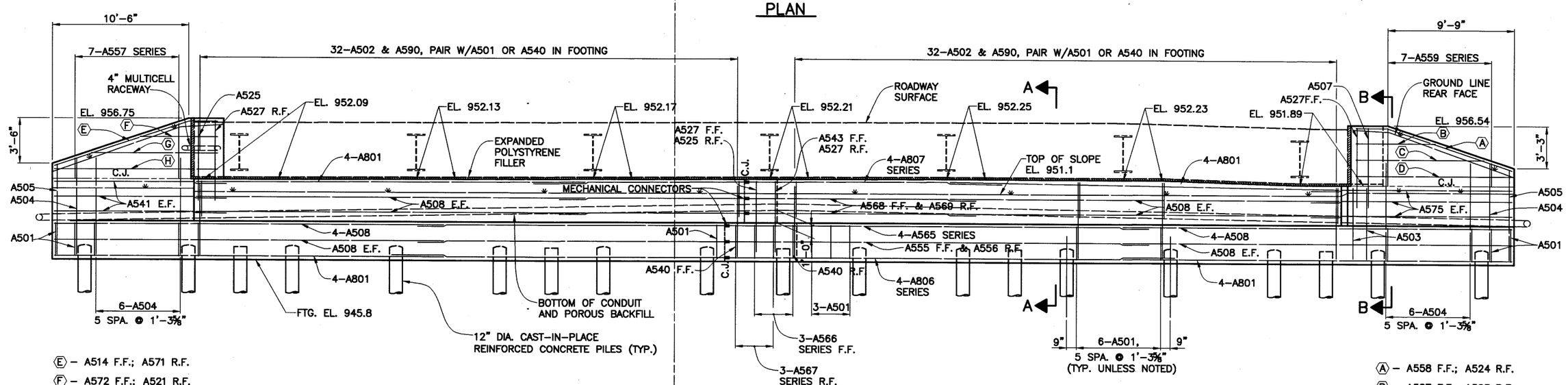
WAY-71-0.28

13/38

400/432



PLAN



Ⓔ – A514 F.F.; A571 R.F.
Ⓕ – A572 F.F.; A521 R.F.
Ⓖ – A564 F.F.; A552 R.F.
Ⓗ – A574 F.F.; A573 R.F.

Ⓐ – A558 F.F.; A524 R.F.
Ⓑ – A527 F.F.; A563 R.F.
Ⓒ – A552 F.F.; A522 R.F.
Ⓓ – A570 F.F., A524 R.F.

ELEVATION

NOTES

ABUTMENT NOTES: SEE SHEET 16 / 38 .

SECTIONS A-A & B-B: SEE SHEET 16 / 38 .

CONDUIT TERMINATION DETAIL: SEE SHEET 16 / 38 .

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

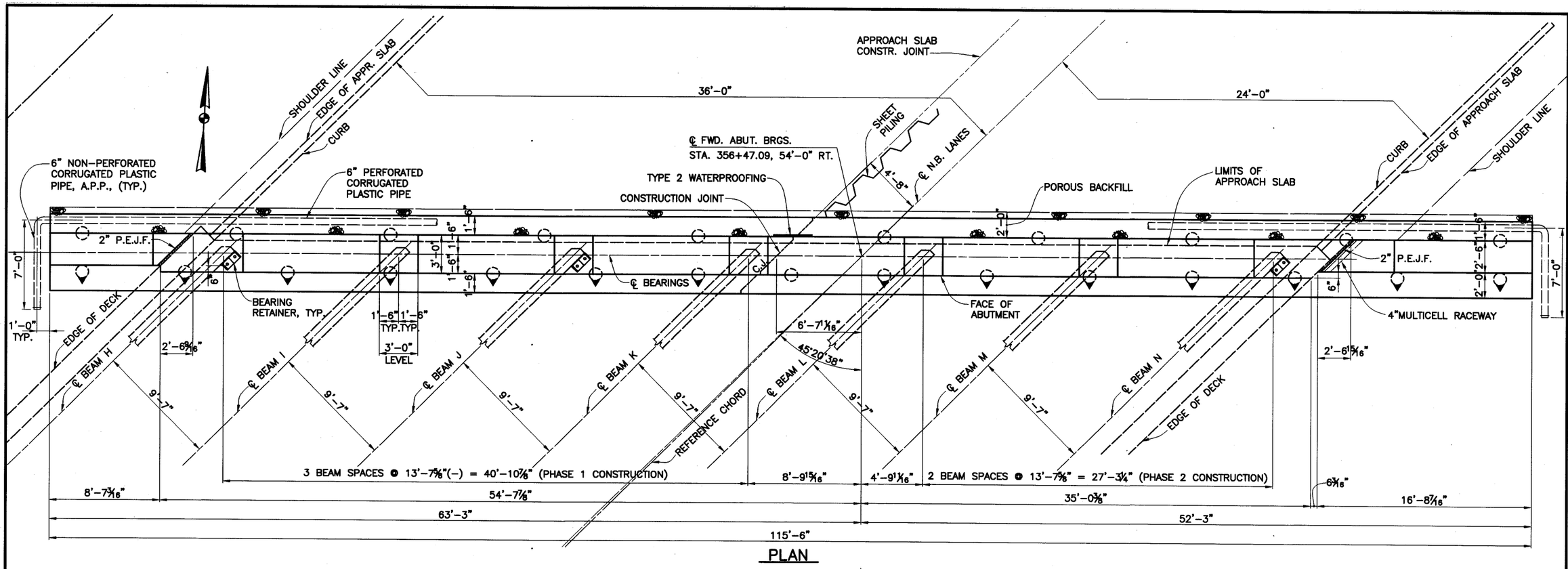
DESIGNED	DRAWN	REVIEWED	DATE
RLE	RLE	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BDH		8503303	

REAR ABUTMENT – N.B. STRUCTURE

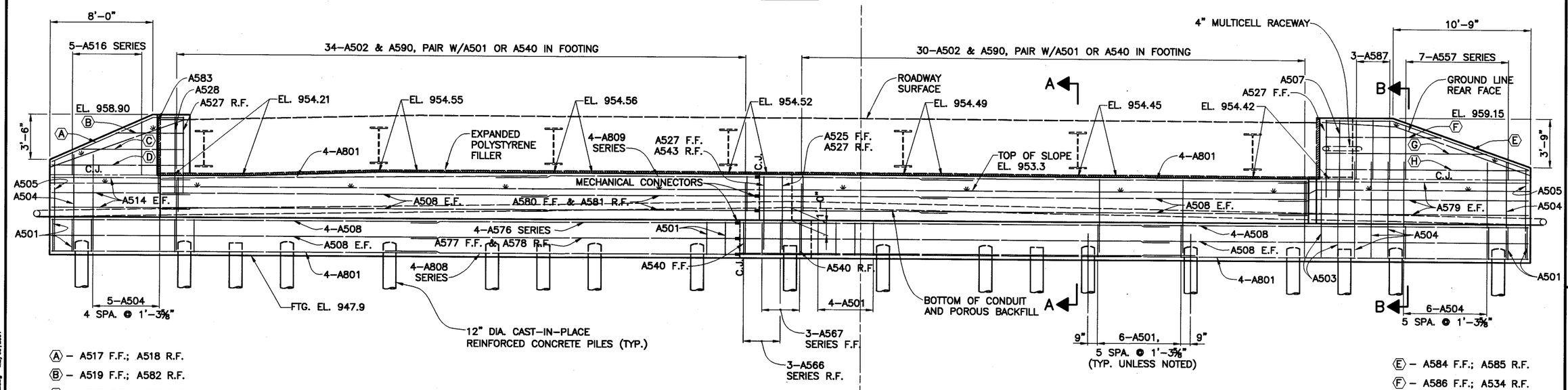
BRIDGE NO. WAY-71-0671 R
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

M:\98\98028\AUTOCAD\ACAD-2000\WAY671R02.dwg - May 09, 2001



PLAN



ELEVATION

Ⓐ – A517 F.F.; A518 R.F.
Ⓑ – A519 F.F.; A582 R.F.
Ⓒ – A527 F.F.; A523 R.F.
Ⓓ – A523 F.F.; A536 R.F.

Ⓔ – A584 F.F.; A585 R.F.
Ⓕ – A586 F.F.; A534 R.F.
Ⓖ – A573 F.F.; A536 R.F.
Ⓗ – A588 F.F.; A589 R.F.

NOTES

ABUTMENT NOTES: SEE SHEET 16 / 38 .

SECTIONS A-A & B-B: SEE SHEET 16 / 38 .

CONDUIT TERMINATION DETAIL: SEE SHEET 16 / 38 .

M:\99\02\MAUTOCAD\ACAD-2000\WW\WAY71FA2.dwg - May 03, 2001

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
200 WINKLER DRIVE
WOOSTER, OHIO 44691

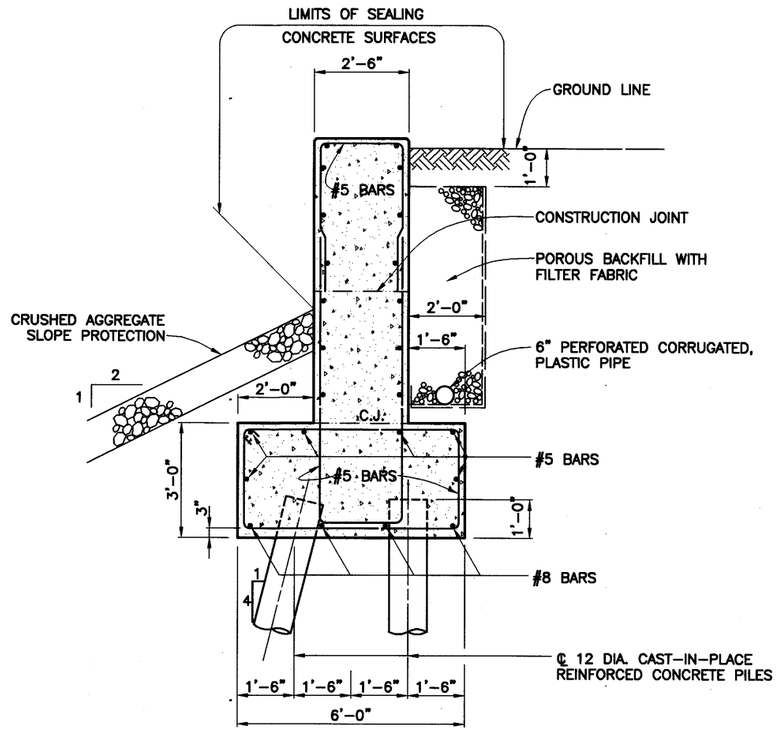
DESIGNED	DRAWN	REVISED	DATE
RLE	RLE		02/28/01
CHECKED	REVIEWED		STRUCTURE FILE NUMBER
BDH	DWS		8503303

FORWARD ABUTMENT – N.B. STRUCTURE
BRIDGE NO. WAY-71-0671 R
OVER WAYNE COUNTY ROAD NO. 70

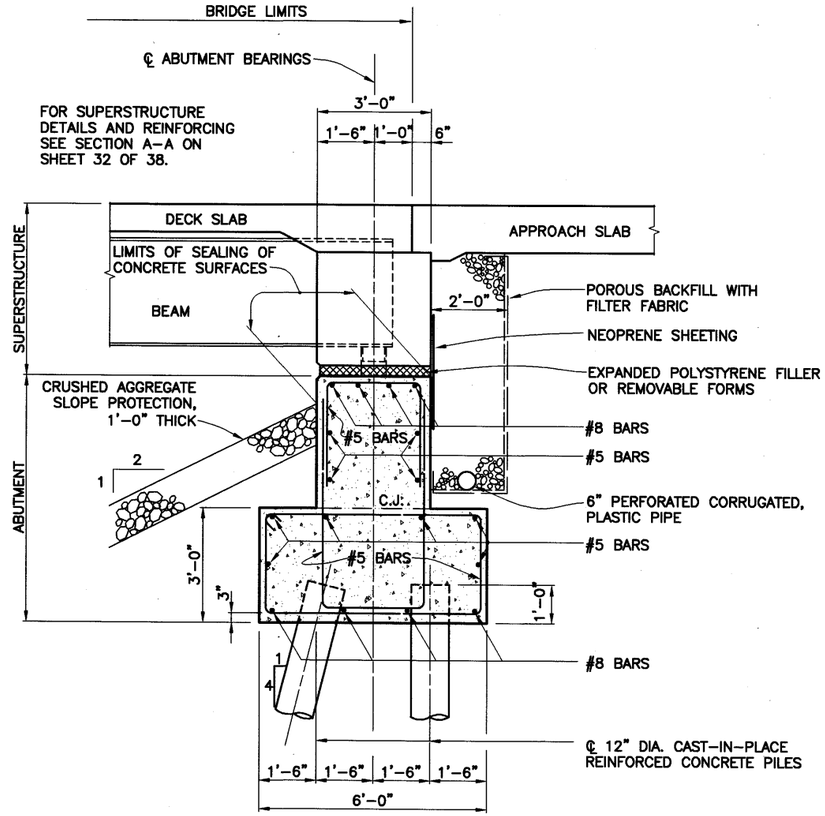
WAY-71-0.28

15/38

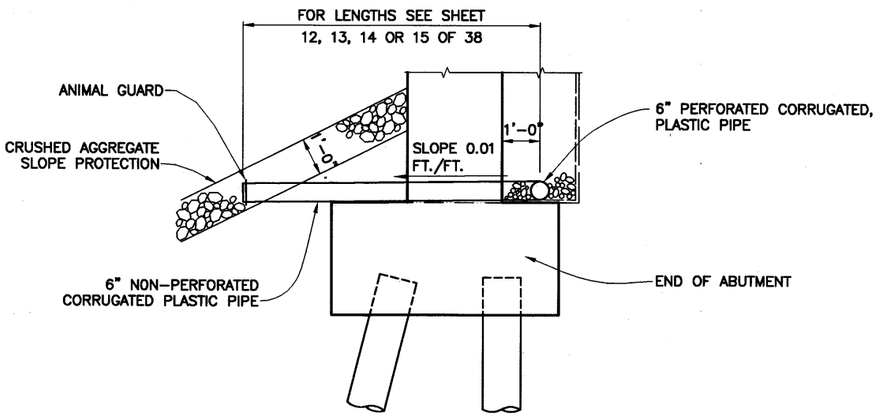
402/432



SECTION B–B



SECTION A–A



TERMINATION OF 6"
NON–PERFORATED CONDUIT

ABUTMENT NOTES

SEE STD. DWG. SICD–1–96 FOR ADDITIONAL ABUTMENT DETAILS AND NOTES.

FOR LOCATION OF SECTIONS A–A & B–B: SEE ABUTMENT ELEVATIONS ON SHEETS 12,13,14 & 15 / 38 .

REINFORCING STEEL SPLICE LENGTHS SHALL BE 2–0" FOR #5 BARS AND 4'–0" FOR #8 BARS.

BRIDGE SEAT REINFORCING: IN THE VICINITY OF THE BEAM SEATS SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING RETAINER ANCHORS OR THE PRESETTING OF THE BEARING RETAINER ANCHORS.

REMOVAL DETAILS: SEE SHEET 8 / 38 .

4" MULTICELL RACEWAY: FOR DETAILS SEE SHEETS 37 & 38 / 38 .

NOTATIONS:

E.F. = EACH FACE
F.F. = FRONT FACE
R.F. = REAR FACE
EL. = ELEVATION
C.J. = CONSTRUCTION JOINT
P.E.J.F. = PREFORMED EXPANSION JOINT FILLER

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

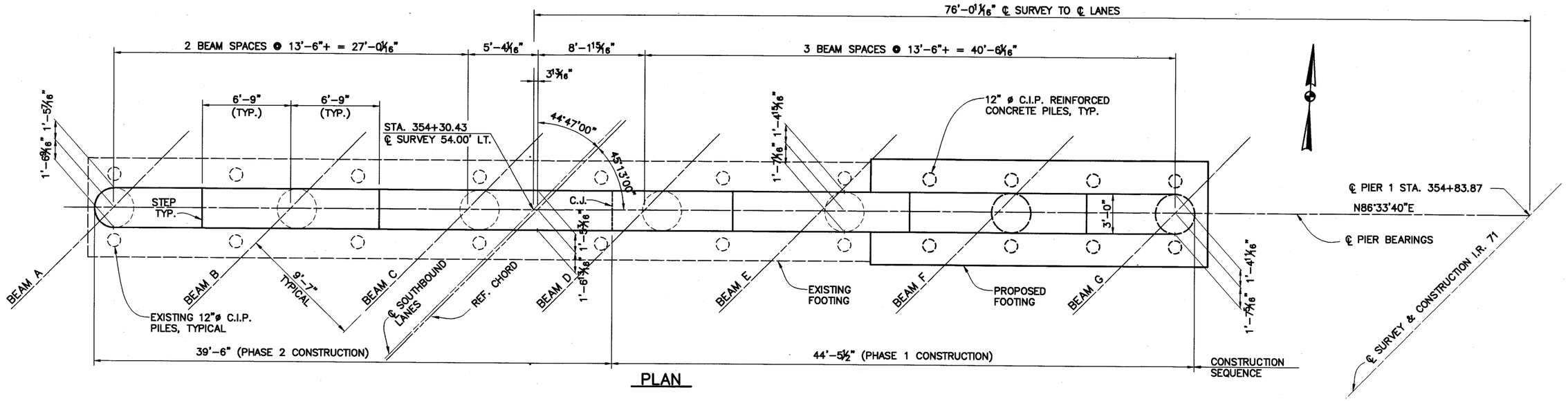
DESIGNED RLE | DRAWN RLE | REVIEWED DWS | DATE 02/28/01
CHECKED BDH | REVISED | STRUCTURE FILE NUMBER 3503273/8503303

ABUTMENT DETAILS

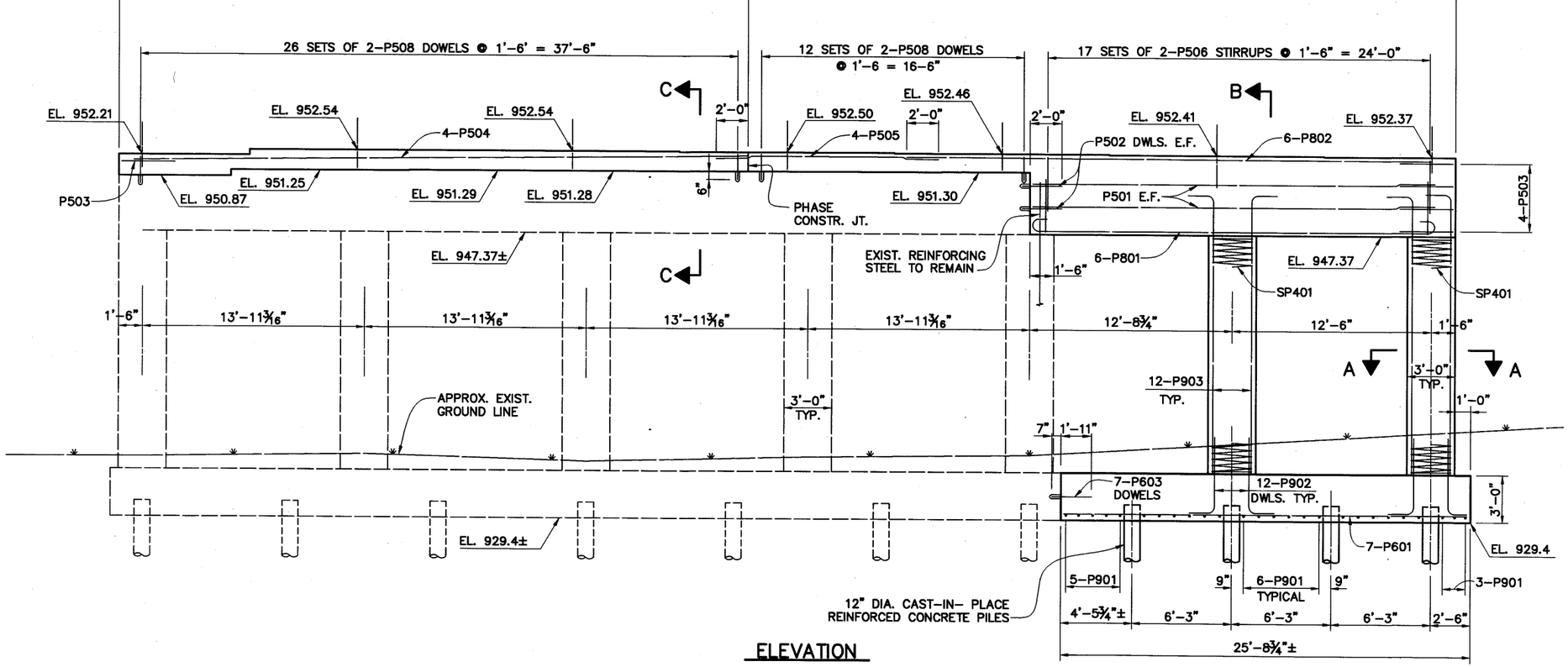
BRIDGE NO. WAY–71–0671 L/R
OVER WAYNE COUNTY ROAD NO. 70

WAY–71–0.28

M:\99\029\AUTOCAD\ACAD-2000\WN071M03.dwg - May 03, 2001



PLAN



ELEVATION

NOTES

PIER NOTES: SEE SHEET 21 / 38 .

SECTIONS A-A, B-B, & C-C: SEE SHEET 21 / 38 .

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
720 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
RLE	DLD	BDH	DWS	02/28/01

REVISED

STRUCTURE FILE NUMBER 8503273

PIER 1 - S.B. STRUCTURE

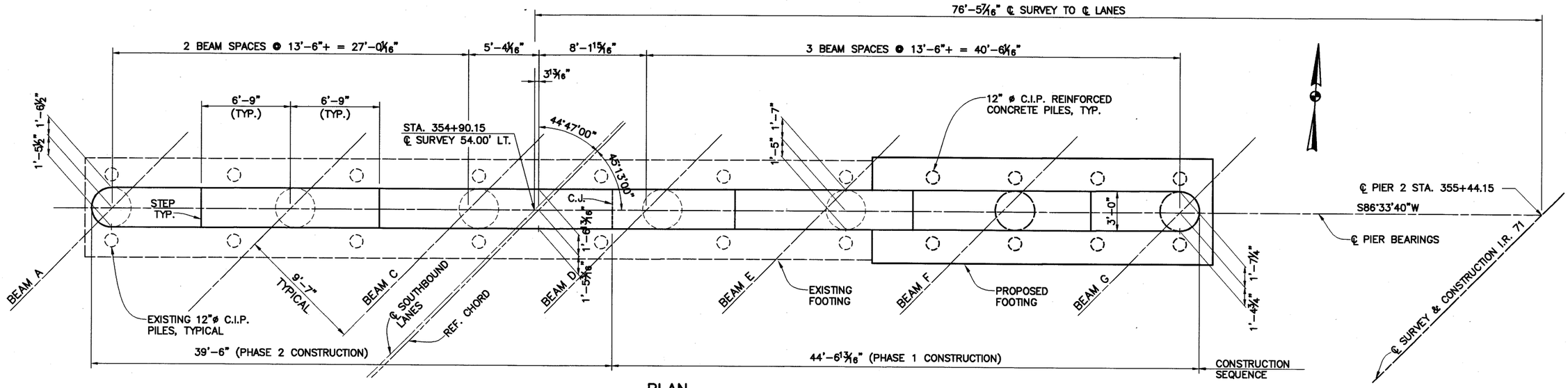
BRIDGE NO. WAY-71-0671 L
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

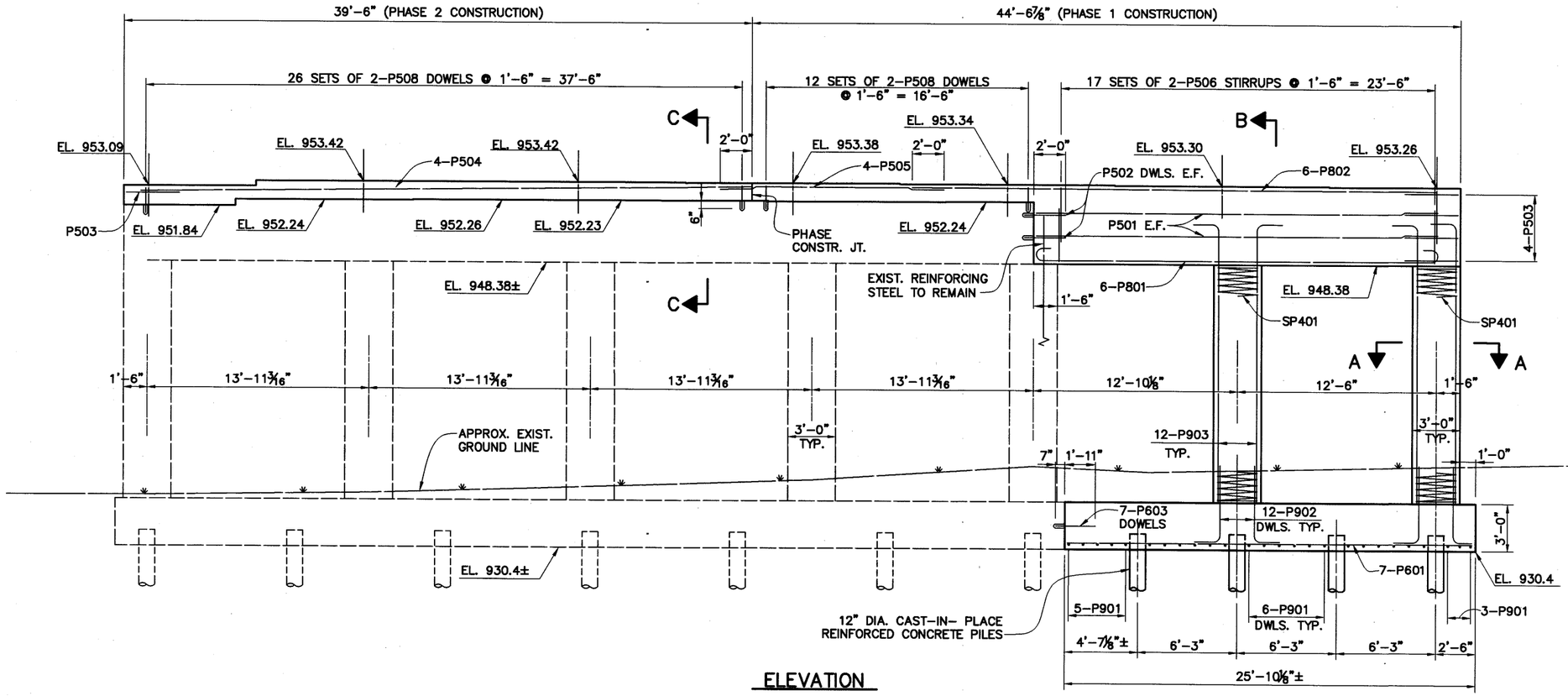
17/38

404/432

M:\99\0028\AUTOCAD\ACAD-2000\WAY71P1.dwg - May 03, 2001



PLAN



ELEVATION

NOTES

PIER NOTES: SEE SHEET 21 / 38 .

SECTIONS A-A, B-B, & C-C: SEE SHEET 21 / 38 .

M:\99\99MAUTOCAD\ACAD-2000\WAY\71PIER2.dwg - May 03, 2001

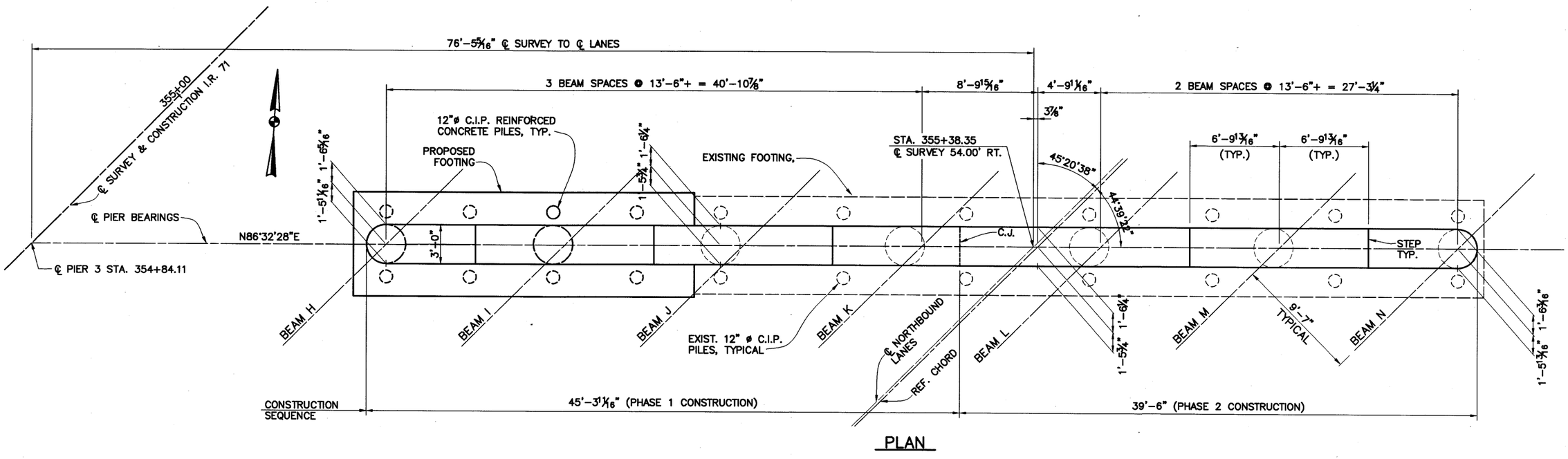
DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
RLE	DLD	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BDH		8303273	

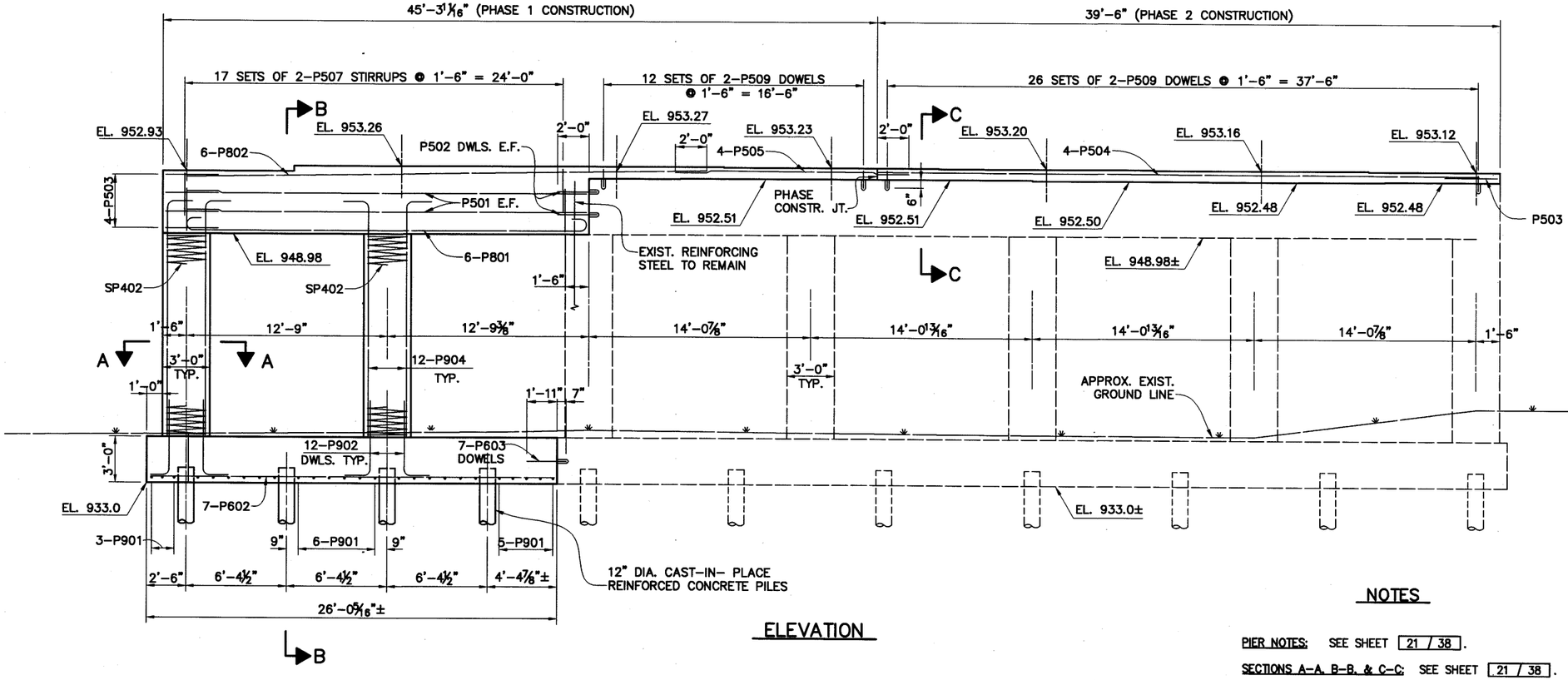
PIER 2 - S.B. STRUCTURE

BRIDGE NO. WAY-71-0671 L
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28



PLAN



ELEVATION

NOTES

PIER NOTES: SEE SHEET 21 / 38 .

SECTIONS A-A, B-B, & C-C: SEE SHEET 21 / 38 .

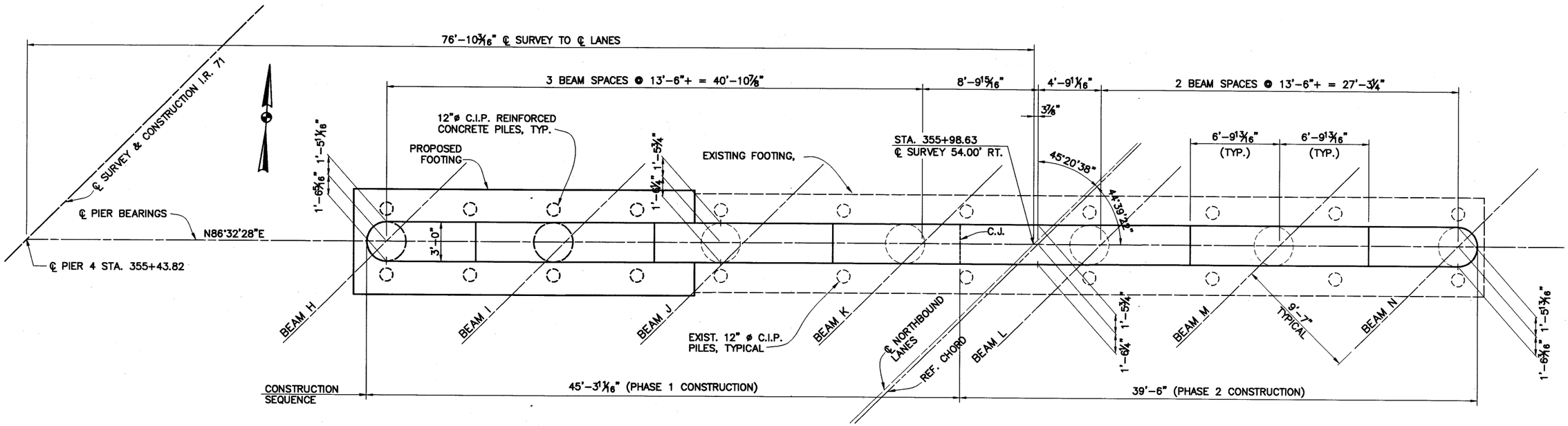
DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
RLE	DLD	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BDH		8503303	

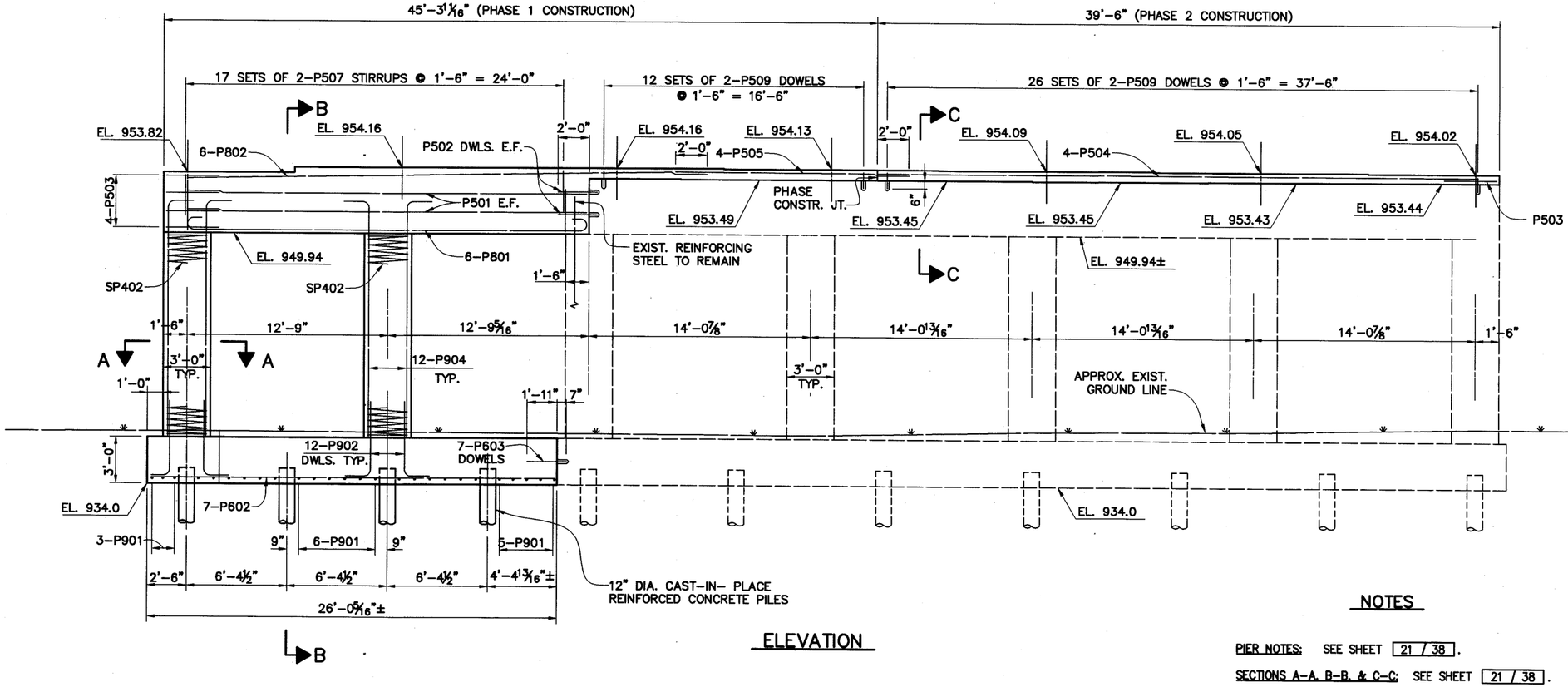
PIER 3 - N.B. STRUCTURE
BRIDGE NO. WAY-71-0671 R
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

M:\98028\AUTOCAD\MCAD-2000\N\N07TP3.dwg - May 03, 2001



PLAN



ELEVATION

NOTES

PIER NOTES: SEE SHEET 21 / 38 .

SECTIONS A-A, B-B, & C-C: SEE SHEET 21 / 38 .

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

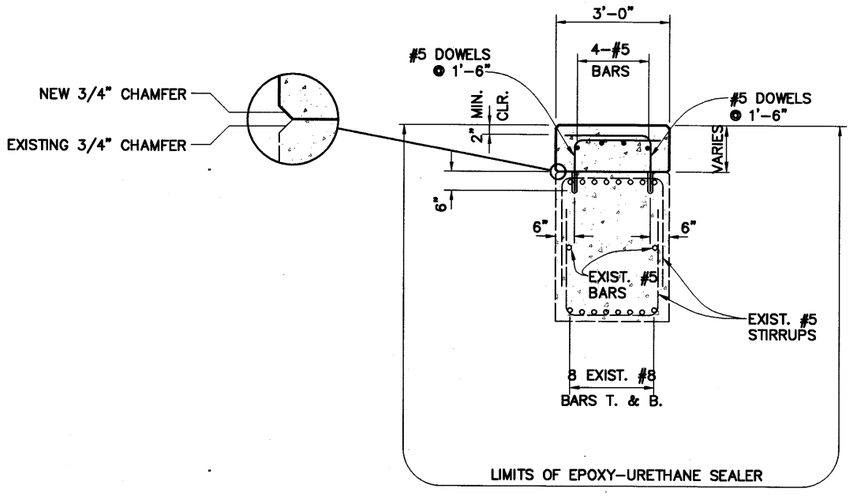
DESIGNED	DRAWN	REVIEWED	DATE
RLE	DLD	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BDH		8503303	

PIER 4 – N.B. STRUCTURE

BRIDGE NO. WAY-71-0671 R
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

M:\8503303\AUTOCAD\ACAD-2000\8503301PH4.dwg - May 09, 2001



SECTION C-C

SECTION B-B

PIER NOTES

FOR LOCATION OF SECTIONS A-A, B-B & C-C: SEE SHEETS 17,18,19 & 20 / 38 .

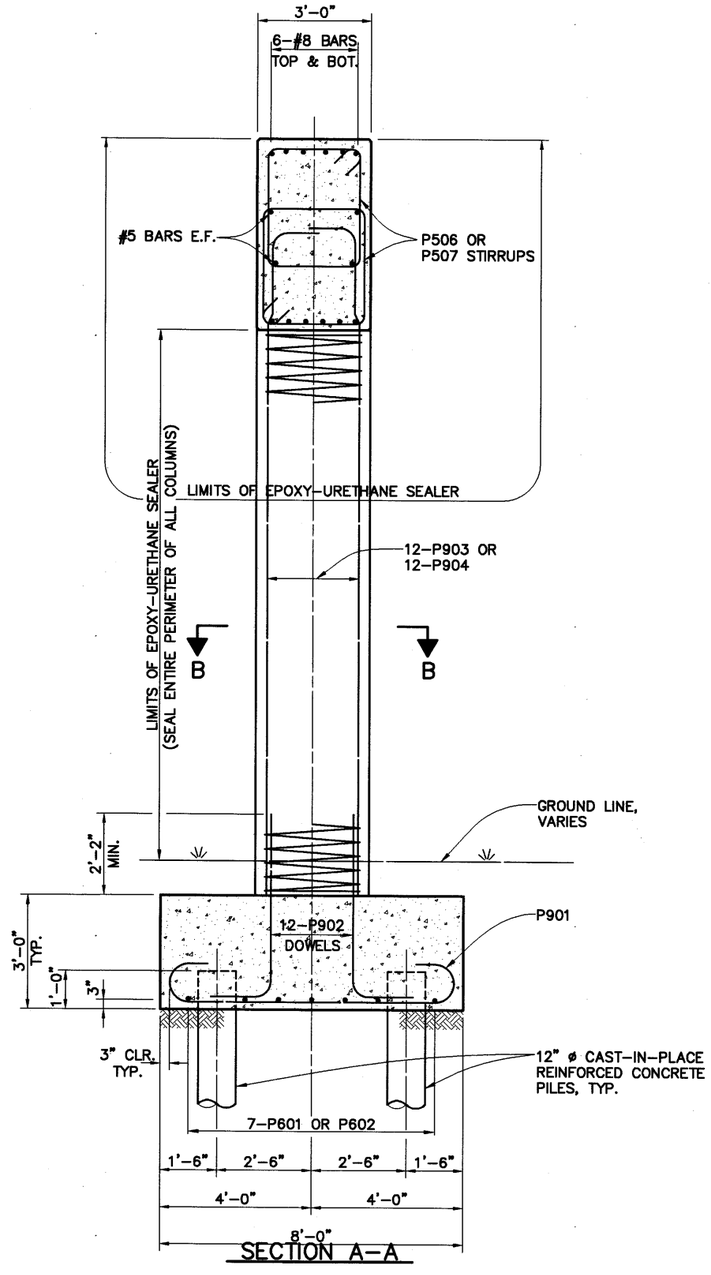
GEOMETRY: THE CENTERLINE OF PIER BEARINGS IS NOT THE SAME LINE AS THE CENTERLINE OF PIER SUBSTRUCTURES.

FOUNDATION LAYOUT PLANS: SEE SHEETS 10 & 11 / 38 .

BRIDGE SEAT REINFORCING: IN THE VICINITY OF THE BRIDGE BEAM SEATS AT PIERS 2 & 4 SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF ANCHOR BAR HOLES OR THE PRESETTING OF BEARING ANCHORS.

SEALING OF CONCRETE SURFACES: EXISTING AND PROPOSED PIER SURFACES SHALL BE SEALED WITH AN EPOXY URETHANE SEALER TO THE LIMITS SHOWN ON THE DETAILS ON THIS SHEET.

REMOVAL DETAILS: SEE SHEET 9 / 38 .



SECTION A-A

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED RLE | DRAWN DLD | CHECKED BDH | REVIEWED DWS | DATE 02/28/01 | REVISED | STRUCTURE FILE NUMBER 8503273,8503303

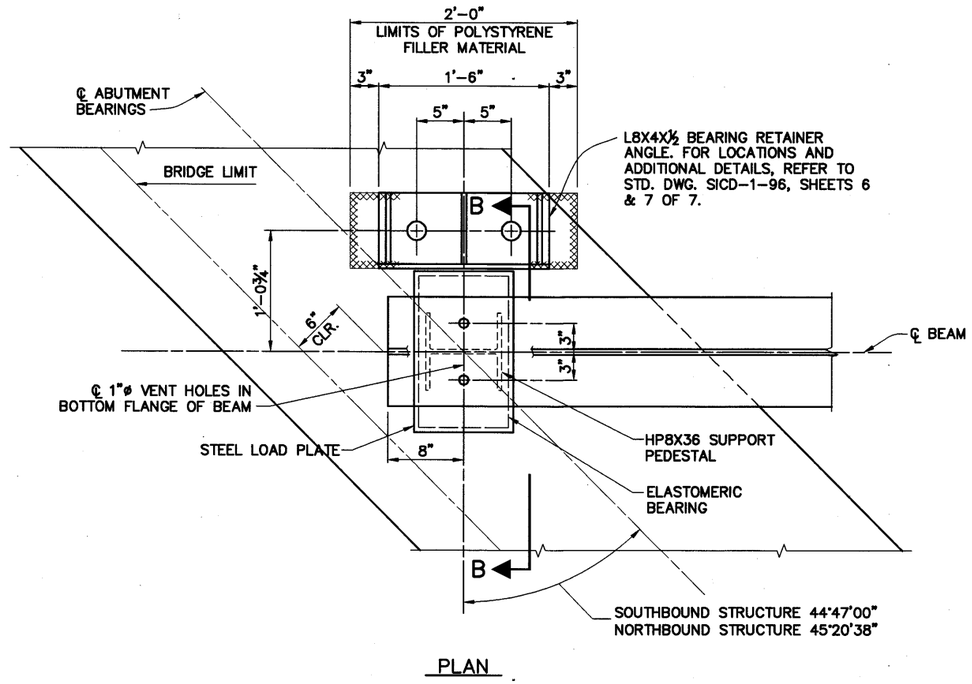
PIER DETAILS
BRIDGE NO. WAY-71-0671 L/R
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

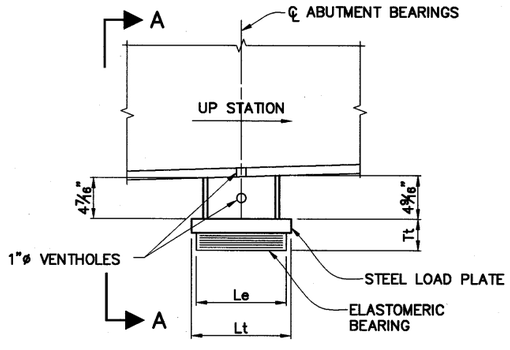
21/38

408/432

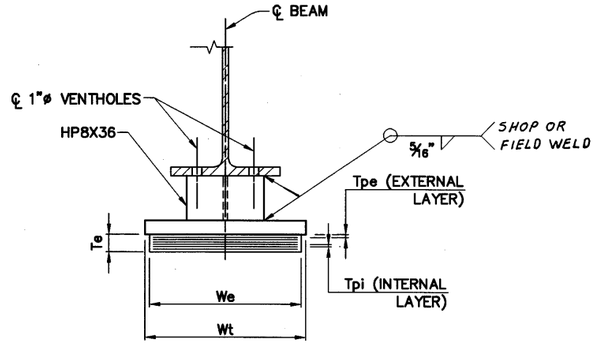
M:\98039\AUTOCAD\ACAD-2000\WAY71PIE.dwg - May 03, 2001



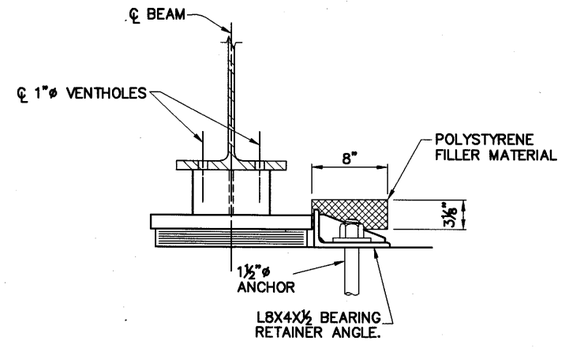
PLAN



ELEVATION



SECTION A-A



SECTION B-B

BEARING NOTES

ELASTOMERIC BEARINGS: SHALL COMPLY WITH ITEM 516 AND AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, SECTION 18, BEARING DEVICES, DIVISION 2, CONSTRUCTION, ARTICLES 18.4.5.1 AND 18.5.6.2. BEARINGS SHALL BE GRADE 3, 50 DUROMETER ELASTOMER, AND SHALL BE SUBJECTED TO THE LOAD TESTING REQUIREMENTS DEFINED IN ARTICLE 18.7.4.5 OF THE AASHTO DOCUMENT LISTED ABOVE. BEARINGS WERE DESIGNED UNDER SECTION 14.6.1 OF SECTION 14, BEARINGS, DIVISION 1, DESIGN. TESTING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARINGS EACH.

BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS EITHER FIXED OR EXPANSION. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516, EACH, LAMINATED ELASTOMERIC BEARINGS.

THE STEEL LOAD PLATE AND HP8X36 SUPPORT PEDESTAL SHALL BE THE SAME MATERIAL AS THE ATTACHED STRUCTURAL STEEL. THE STEEL LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. THE HP8X36 SUPPORT PEDESTALS SHALL BE WELDED TO THE BEAMS BEFORE GALVANIZING.

WELDING: SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

BEARING REPOSITIONING: IF THE STEEL IS ERECTED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60°F ± 10°F, THE BEAMS SHALL BE RAISED TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F ± 10°F.

CONNECTION BOLTS SHALL BE 1 INCH DIAMETER GALVANIZED A325 HIGH STRENGTH BOLTS UNLESS OTHERWISE NOTED.

FOR LOCATIONS OF BEARING RETAINER ANGLES: SEE SHEETS 12,13,14 & 15 / 38

LAMINATED ELASTOMERIC EXPANSION BEARING

BEARING LOCATION	BEARING TYPE	NO. REQ'D.		DEAD LOAD KIPS	LIVE LOAD KIPS	TOTAL LOAD (DL+LL) KIPS	Le in.	We in.	Tpi in.	NO. OF Tpi'S	Tpe (2 EA.) in.	NUMBER OF INTERNAL LAMINATES (0.0747 in.)	Te in.	STEEL LOAD PLATE				Tt in.	FILLET WELD SIZE in.	RETAINER ANGLE NO. REQ'D	
		LEFT	RIGHT											Wt in.	Lt in.	t1 in.	t2 in.			LEFT	RIGHT
REAR ABUTMENT	EXP.	7	7	81	68	149	9½	16	0.28	4	0.20	5	1⅞	17	10½	1½	1½	3⅜		3	3
FORWARD ABUTMENT	EXP.	7	7	81	68	149	9½	16	0.28	4	0.20	5	1⅞	17	10½	1½	1½	3⅜		3	3

M:\99028\AUTOCAD\ACAD-2000\WH071SD1.dwg - May 04, 2001

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 CHANDLER DRIVE
WOOSTER, OHIO 44691

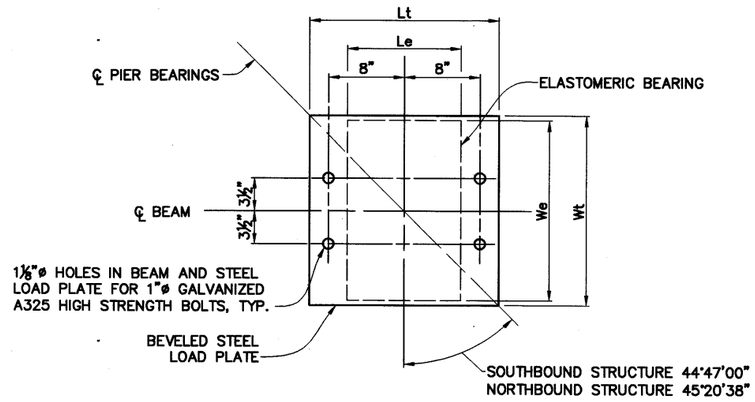
DESIGNED	DRAWN	REVIEWED	DATE
BDH	BJR	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DBC		3503273/8503303	

BEARING DETAILS - ABUTMENTS
BRIDGE NO. WAY-71-0671 L/R
OVER WAYNE COUNTY ROAD NO. 70

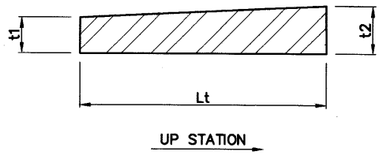
WAY-71-0.28

22/38

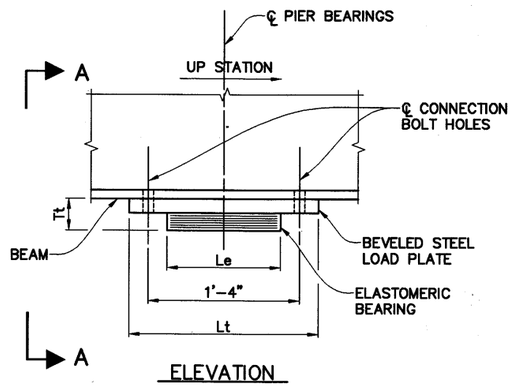
409/432



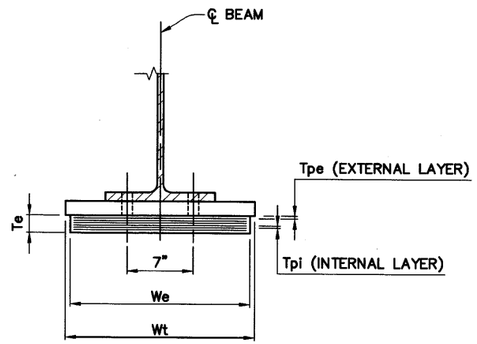
PLAN



BEVELED STEEL LOAD PLATE



ELEVATION



SECTION A–A

LAMINATED ELASTOMERIC EXPANSION BEARING

NOTES

BEARING NOTES: SEE SHEET 22 / 38 .

BEARING LOCATION	BEARING TYPE	NO. REQ'D.		DEAD LOAD KIPS	LIVE LOAD KIPS	TOTAL LOAD (DL+LL) KIPS	Le in.	We in.	Tpi in.	NO. OF Tpi'S	Tpe (2 EA.) in.	NUMBER OF INTERNAL LAMINATES (0.0747 in.)	Te in.	STEEL LOAD PLATE				Tt in.	FILLET WELD SIZE in.	RETAINER ANGLE NO. REQ'D	
		S.B.	N.B.											Wt in.	Lt in.	t1 in.	t2 in.			S.B.	N.B.
PIER 1	EXP.	7		121	84	205	12	19	0.36	3	0.25	4	1⅞	20	20	2	2¼	4			
PIER 2	EXP.	7		121	84	205	12	19	0.36	3	0.25	4	1⅞	20	20	2	2¼	4			
PIER 3	EXP.		7	121	84	205	12	19	0.36	3	0.25	4	1⅞	20	20	2	2¼	4			
PIER 4	EXP.		7	121	84	205	12	19	0.36	3	0.25	4	1⅞	20	20	2	2¼	4			

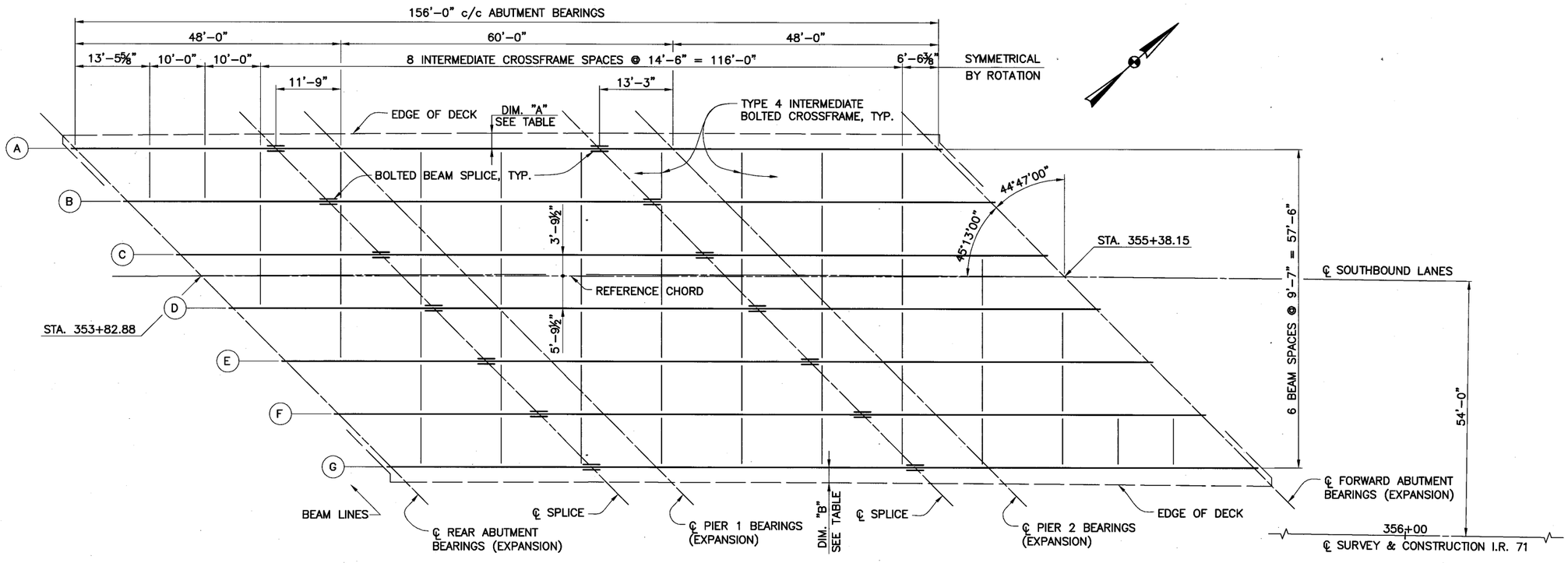
M:\000\026\AUTOCAD\ACAD-03000\WAY71\0122.dwg - May 09, 2001

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
720 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
BDH	BJR	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DBC		3503273/8503303	

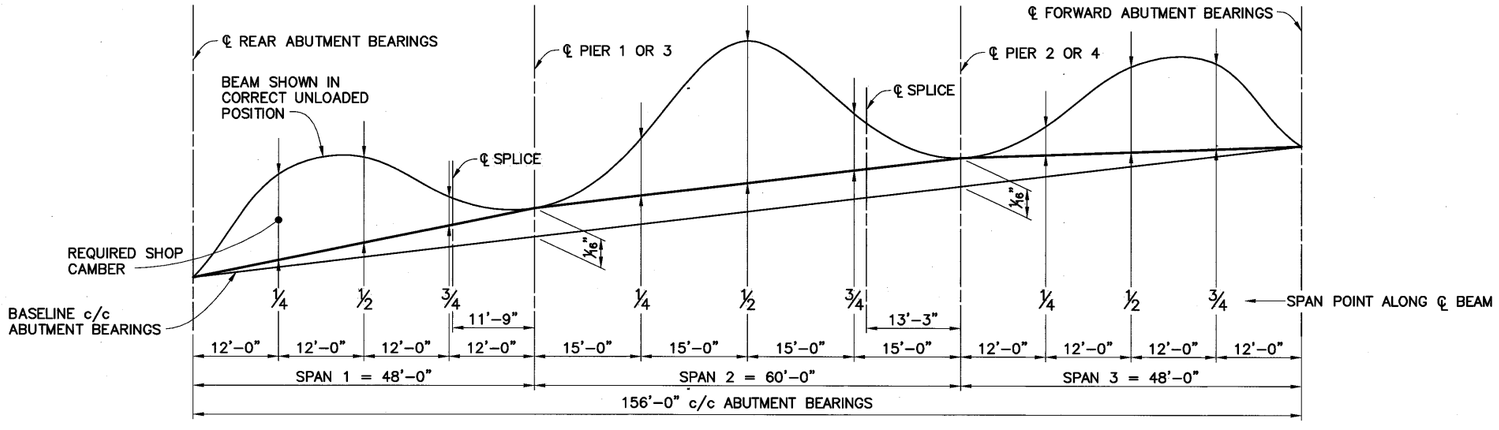
BEARING DETAILS – PIERS
BRIDGE NO. WAY-71-0671 L/R
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28



FRAMING PLAN

ALL BEAMS W33x169 (CVN)



CAMBER DIAGRAM

DEFLECTION AND CAMBER (INCHES)

LOCATION	SPAN 1				SPAN 2				SPAN 3		
	¼	½	¾	SPLICE	¼	½	¾	SPLICE	¼	½	¾
DEFLECTION DUE TO WEIGHT OF STEEL	0	0	0	0	0	+1/16	0	0	0	0	0
DEFLECTION DUE TO REMAINING DEAD LOAD	+3/16	+3/16	+1/16	+1/16	+1/8	+1/4	+1/8	+1/8	+1/16	+3/16	+3/16
ADJUSTMENT DUE TO HORIZONTAL CURVE	0	0	0	0	0	0	0	0	0	0	0
REQUIRED SHOP CAMBER	+3/16	+3/16	+1/16	+1/16	+1/8	+5/16	+1/8	+1/8	+1/16	+3/16	+3/16

DECK SLAB OVERHANG DIMENSIONS SOUTHBOUND STRUCTURE

LOCATION	DIM. "A"	DIM. "B"
REAR ABUTMENT	2'-4⅜"	2'-9⅝"
¼ PT.	2'-5⅜"	2'-8⅞"
½ PT.	2'-6⅝"	2'-8½"
¾ PT.	2'-7½"	2'-8⅝"
PIER 1	2'-8¼"	2'-8⅝"
¼ PT.	2'-8⅝"	2'-8½"
½ PT.	2'-9⅞"	2'-8⅝"
¾ PT.	2'-9⅛"	2'-9⅜"
PIER 2	2'-9⅛"	2'-10½"
¼ PT.	2'-9½"	2'-11⅜"
½ PT.	2'-9⅜"	3'-0⅜"
¾ PT.	2'-8⅛"	3'-1⅜"
FORWARD ABUTMENT	2'-8⅛"	3'-2⅞"

NOTES

BOLTED BEAM SPLICES: SEE SHEET 25 / 38 .

SUPERSTRUCTURE NOTES: SEE SHEET 26 / 38 .

STRUCTURE GENERAL NOTES: SEE SHEETS 5 & 6 / 38 .

BEARING DETAILS: SEE SHEETS 22 & 23 / 38 .

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED BDH | DRAWN DLD | CHECKED DBC | REVISED | REVIEWED DWS | DATE 02/28/01 | STRUCTURE FILE NUMBER 8503273

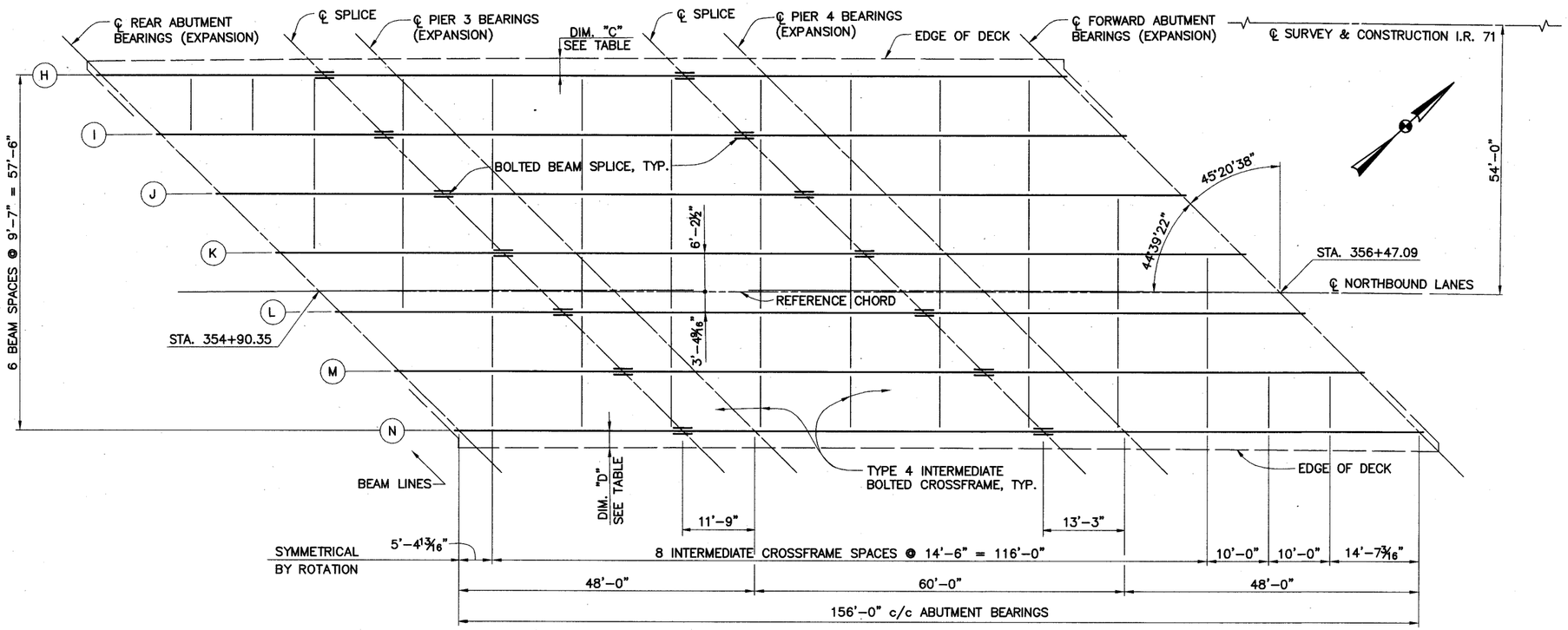
FRAMING PLAN - S.B. STRUCTURE
BRIDGE NO. WAY-71-0671 L
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

24/38

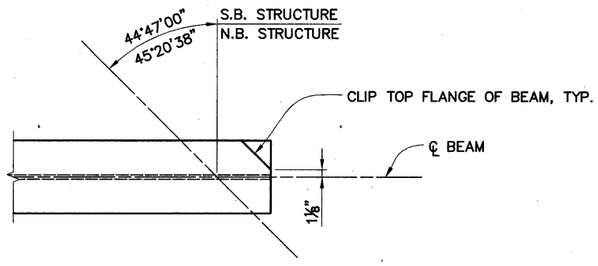
411/432

M:\98029\AUTOCAD\ACAD-2000\WN071S03.dwg - May 07, 2001

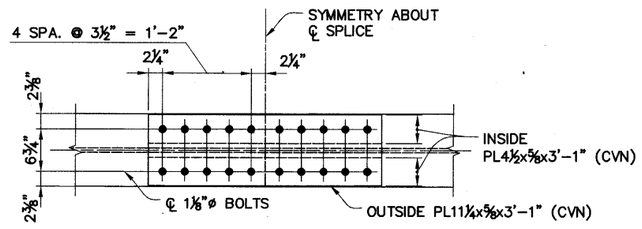


FRAMING PLAN

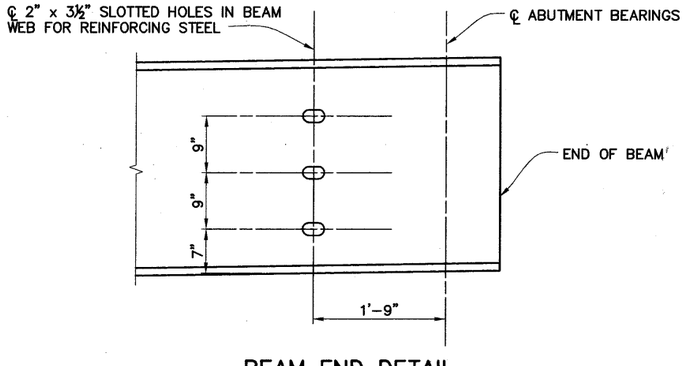
ALL BEAMS W33x169 (CVN)



CLIPPED FLANGE DETAIL

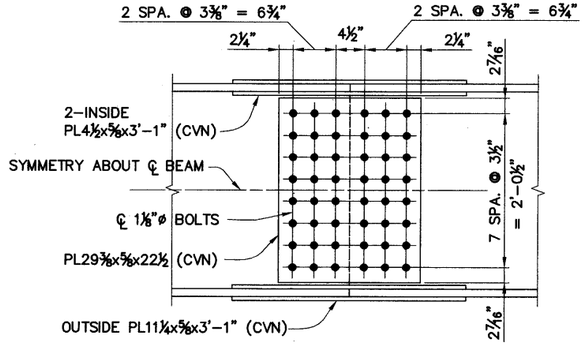


TOP VIEW



BEAM END DETAIL

FORWARD END OF BEAM SHOWN, REAR END SIMILAR.



ELEVATION VIEW

SPLICE DETAILS

DECK SLAB OVERHANG DIMENSIONS NORTHBOUND STRUCTURE

LOCATION	DIM. "C"	DIM. "D"
REAR ABUTMENT	2'-3"	2'-9⅞"
¼ PT.	2'-4⅜"	2'-9¼"
½ PT.	2'-5⅝"	2'-8¾"
¾ PT.	2'-6⅝"	2'-8⅞"
PIER 3	2'-7½"	2'-8⅝"
¼ PT.	2'-8⅞"	2'-8⅝"
½ PT.	2'-9⅛"	2'-8⅝"
¾ PT.	2'-9½"	2'-9"
PIER 4	2'-9¾"	2'-9¾"
¼ PT.	2'-9 11/16"	2'-10½"
½ PT.	2'-9⅝"	2'-11⅜"
¾ PT.	2'-9¼"	3'-0 7/16"
FORWARD ABUTMENT	2'-8 13/16"	3'-1⅝"

NOTES

SUPERSTRUCTURE NOTES: SEE SHEET 26 / 38 .

STRUCTURE GENERAL NOTES: SEE SHEETS 5 & 6 / 38 .

CAMBER DIAGRAM AND TABLE: SEE SHEET 24 / 38 .

BEARING DETAILS: SEE SHEETS 22 & 23 / 38 .

M:\99029\AUTOCAD\CAD-2000\WN071SH3.dwg - May 11, 2001

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

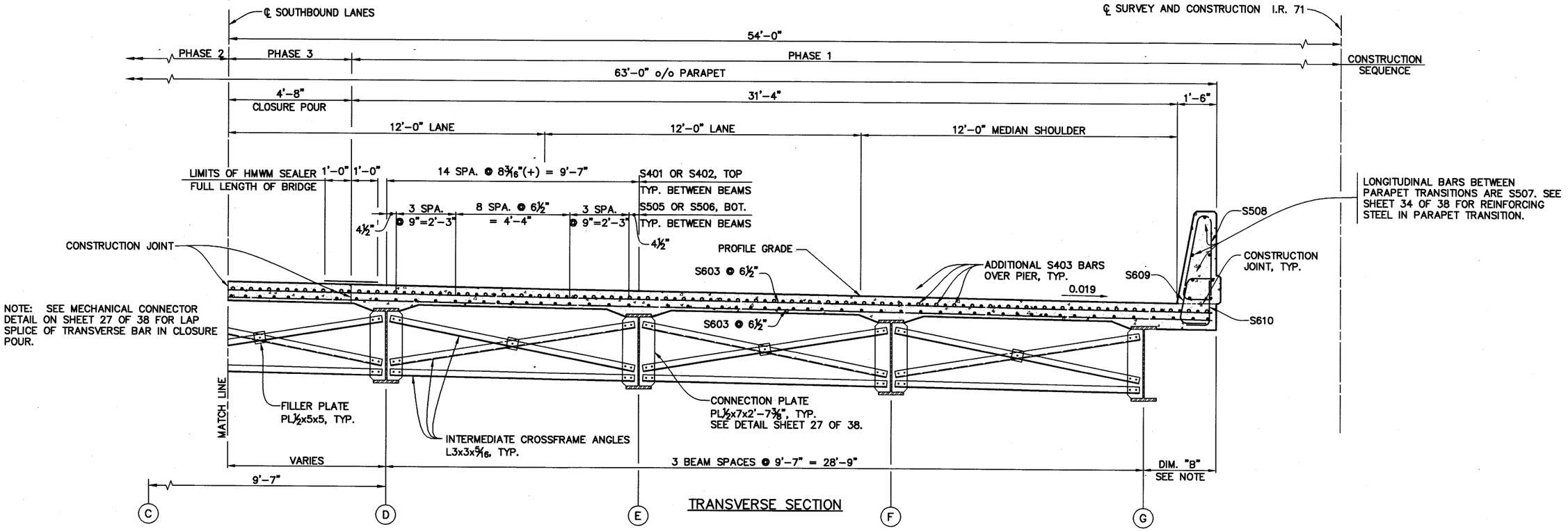
DESIGNED	DRAWN	REVIEWED	DATE
BDH	DLD	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DBC		8503303	

FRAMING PLAN – N.B. STRUCTURE
BRIDGE NO. WAY-71-0671 R
OVER WAYNE COUNTY ROAD NO. 70

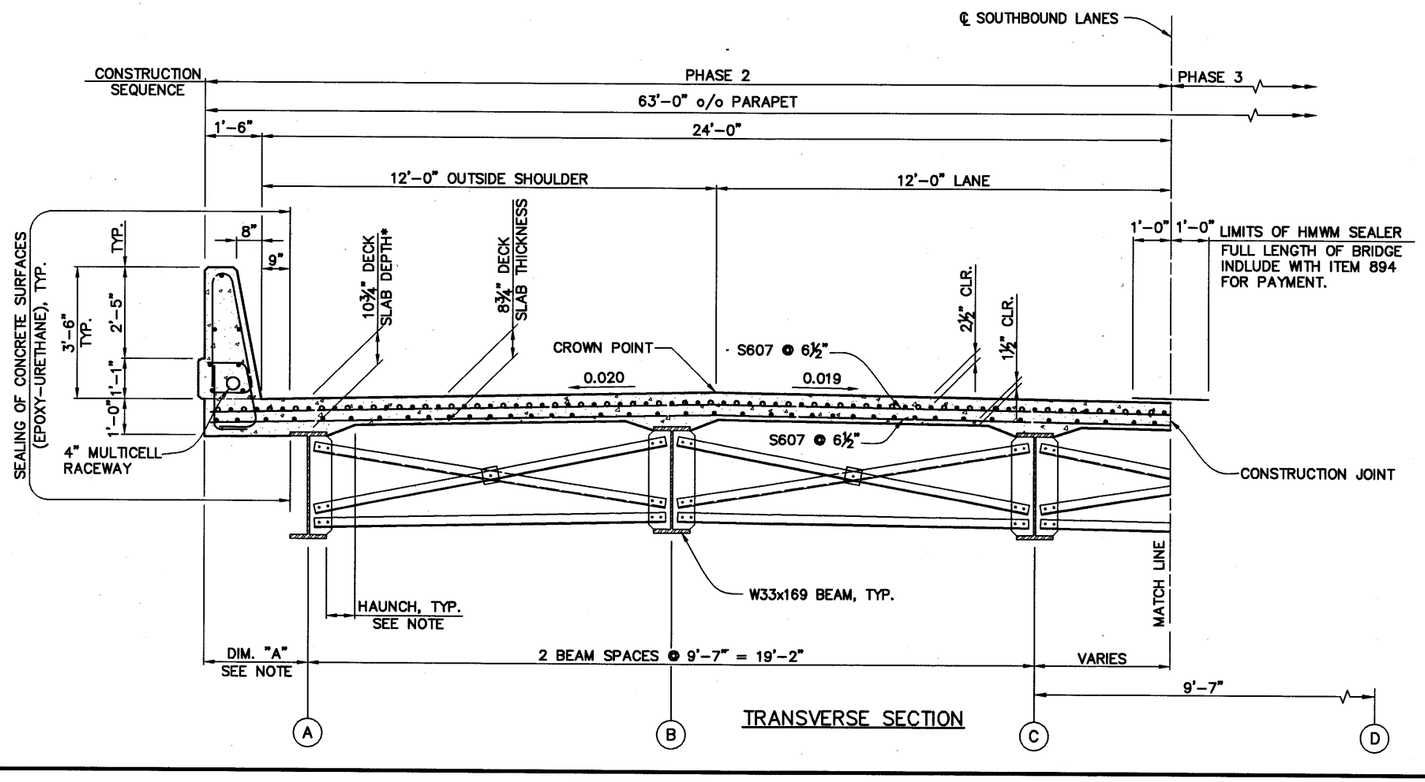
WAY-71-0.28

25/38

412/432



TRANSVERSE SECTION



TRANSVERSE SECTION

SUPERSTRUCTURE NOTES

*DECK SLAB DEPTH FOR CONCRETE QUANTITY: THE DIMENSION SHOWN FROM THE TOP OF THE CONCRETE DECK TO THE TOP OF THE FLANGE, MINUS THE DESIGN HAUNCH THICKNESS OF 2 INCHES, HAS BEEN USED FOR COMPUTING THE DECK CONCRETE QUANTITIES. CONCRETE REQUIRED TO FILL THE HAUNCHES, INCLUDING ADDITIONAL OR LESS MATERIAL REQUIRED DUE TO HAUNCH CONSTRUCTION TOLERANCES, SHALL BE CONSIDERED AS INCIDENTAL AND WILL NOT BE INCLUDED IN THE QUANTITY CALCULATION FOR PAYMENT.

A HAUNCH WIDTH OF 9 INCHES SHALL BE USED. HOWEVER, THE HAUNCH WIDTH MAY VARY BETWEEN 6 INCHES AND 12 INCHES.

NO WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE WILL BE ALLOWED.

DECK SLAB OVERHANG: DUE TO THE CURVED DECK SLAB, OVERHANG DIMENSIONS "A" AND "B" VARY ALONG THE SPAN. SEE TABLE ON SHEET 24 / 38 FOR DECK SLAB OVERHANG DIMENSIONS.

INTERMEDIATE CROSS FRAMES SHALL NOT BE PERMANENTLY ATTACHED IN THE CLOSURE POUR LOCATION UNTIL THE CONCRETE POURS IN CONSTRUCTION PHASES 1 AND 2 HAVE BEEN COMPLETED.

REINFORCING STEEL SPLICE LENGTHS SHALL BE 1'-8" FOR #4 BARS, 2'-0" FOR #5 BARS, AND 3'-1" FOR #6 BARS.

MECHANICAL CONNECTOR OPTION: AT THE OPTION OF THE CONTRACTOR, THE MECHANICAL CONNECTORS ON THE TRANSVERSE DECK SLAB REINFORCING BETWEEN PHASE 2 AND PHASE 3 CONSTRUCTION MAY BE OMITTED. IF THIS OPTION IS EXERCISED, THE S607 AND S608 TYPE 11 BARS DETAILED SHALL BE REPLACED BY STRAIGHT BARS OF THE SAME OVERALL LENGTH.

ADDITIONAL DECK SLAB REINFORCING: SEE SLAB PLAN ON SHEET 28 / 38 .

DEFLECTOR PARAPET: SEE STANDARD DRAWING SBR-1-99.

GENERAL STEEL DETAILS: SEE STANDARD DRAWING GSD-1-96.

STRUCTURE GENERAL NOTES: SEE SHEETS 5 & 6 / 38 .

4" MULTICELL RACEWAY: FOR DETAILS SEE SHEETS 37 & 38/ 38 .

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
BDH	MDG	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RLE		8503273	

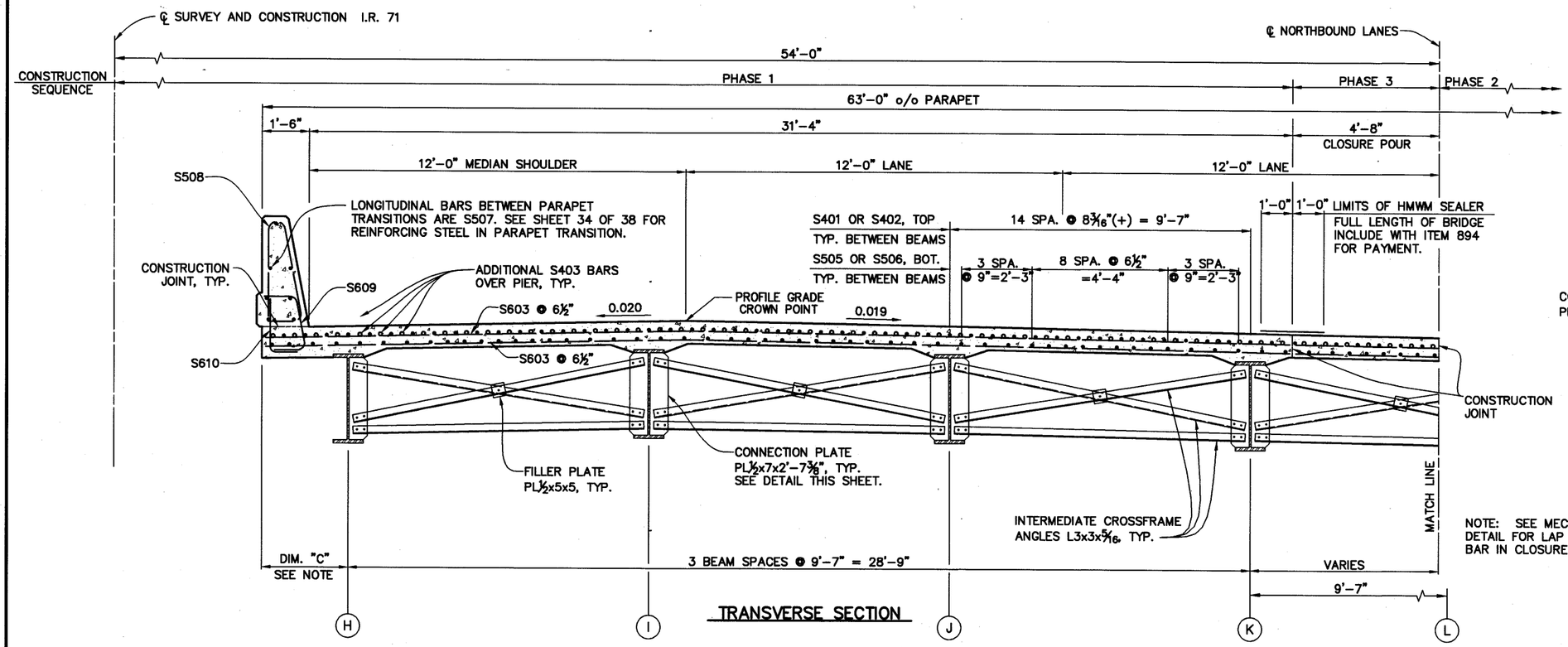
TRANSVERSE SECTION – S.B. STRUCTURE
BRIDGE NO. WAY-71-0671 L
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

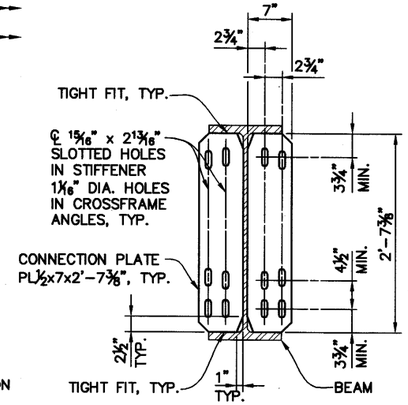
26/38

413/432

M:\99\99229\AUTOCAD\ACAD-2000\WN071TS1.dwg - May 03, 2001

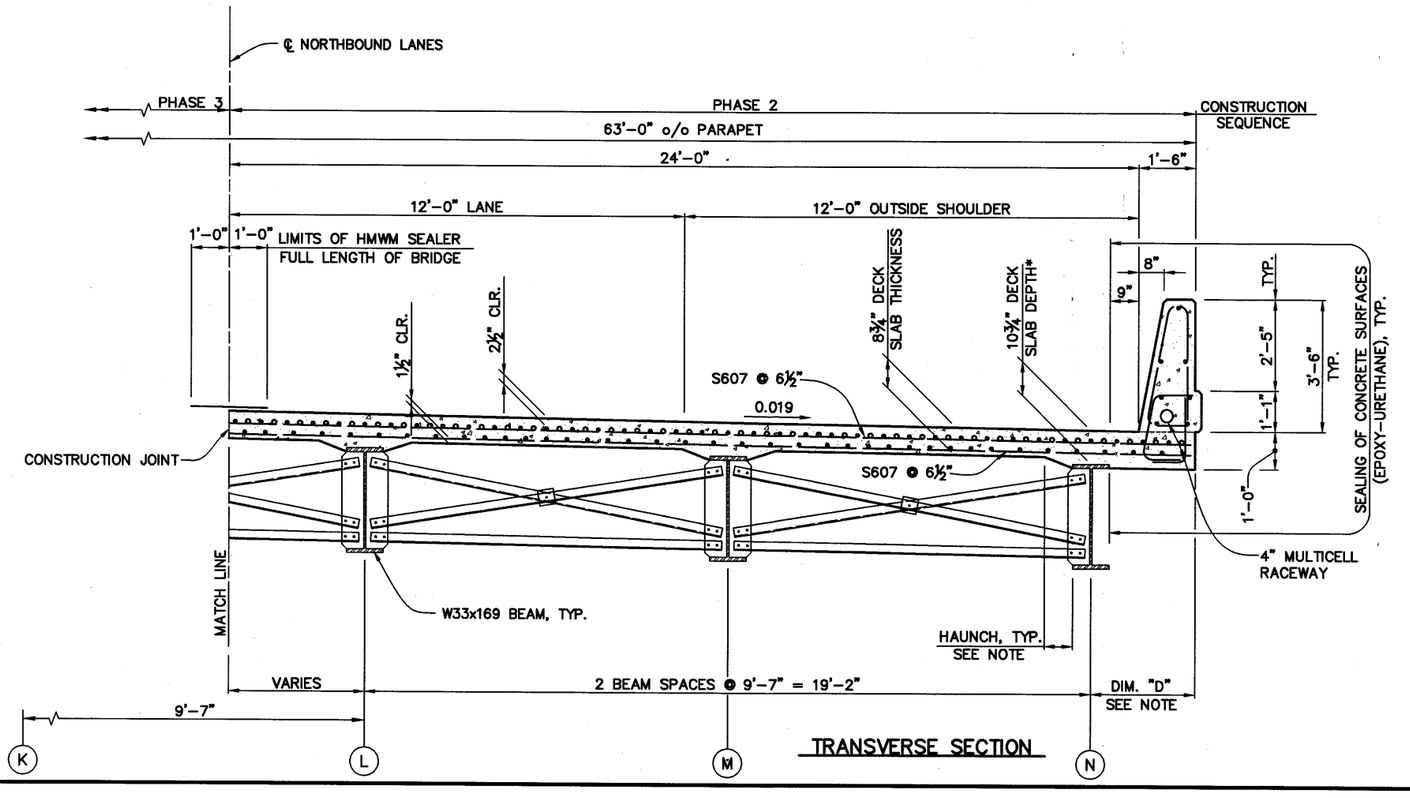


TRANSVERSE SECTION

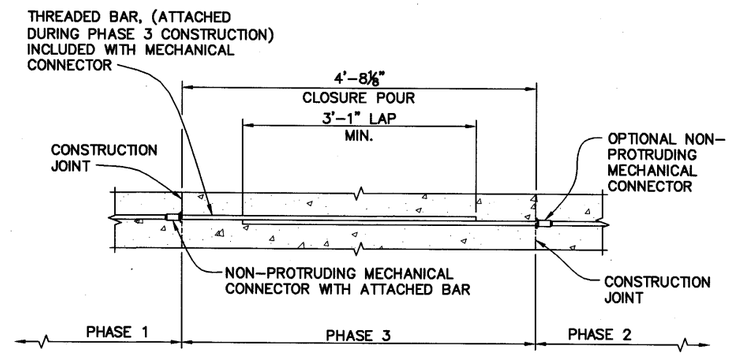


CONNECTION PLATE DETAIL AT CROSSFRAMES

NOTE: SEE MECHANICAL CONNECTOR DETAIL FOR LAP SPLICE OF TRANSVERSE BAR IN CLOSURE POUR.



TRANSVERSE SECTION



MECHANICAL CONNECTOR DETAIL

NOTES

DECK SLAB OVERHANG: DUE TO THE CURVED DECK SLAB, OVERHANG DIMENSIONS "C" AND "D" VARY ALONG THE SPAN. SEE TABLE ON SHEET 25 / 38 FOR DECK SLAB OVERHANG DIMENSIONS.

ADDITIONAL DECK SLAB REINFORCING: SEE SLAB PLAN ON SHEET 29 / 38 .

* DECK SLAB DEPTH FOR CONCRETE QUANTITY: SEE SUPERSTRUCTURE NOTES.

HAUNCH WIDTH: SEE SUPERSTRUCTURE NOTES.

SUPERSTRUCTURE NOTES: SEE SHEET 26 / 38 .

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

REVIEWED DWS 02/28/01
STRUCTURE FILE NUMBER 8503303

DRAWN MDG
REVISED

DESIGNED BDH
CHECKED RLE

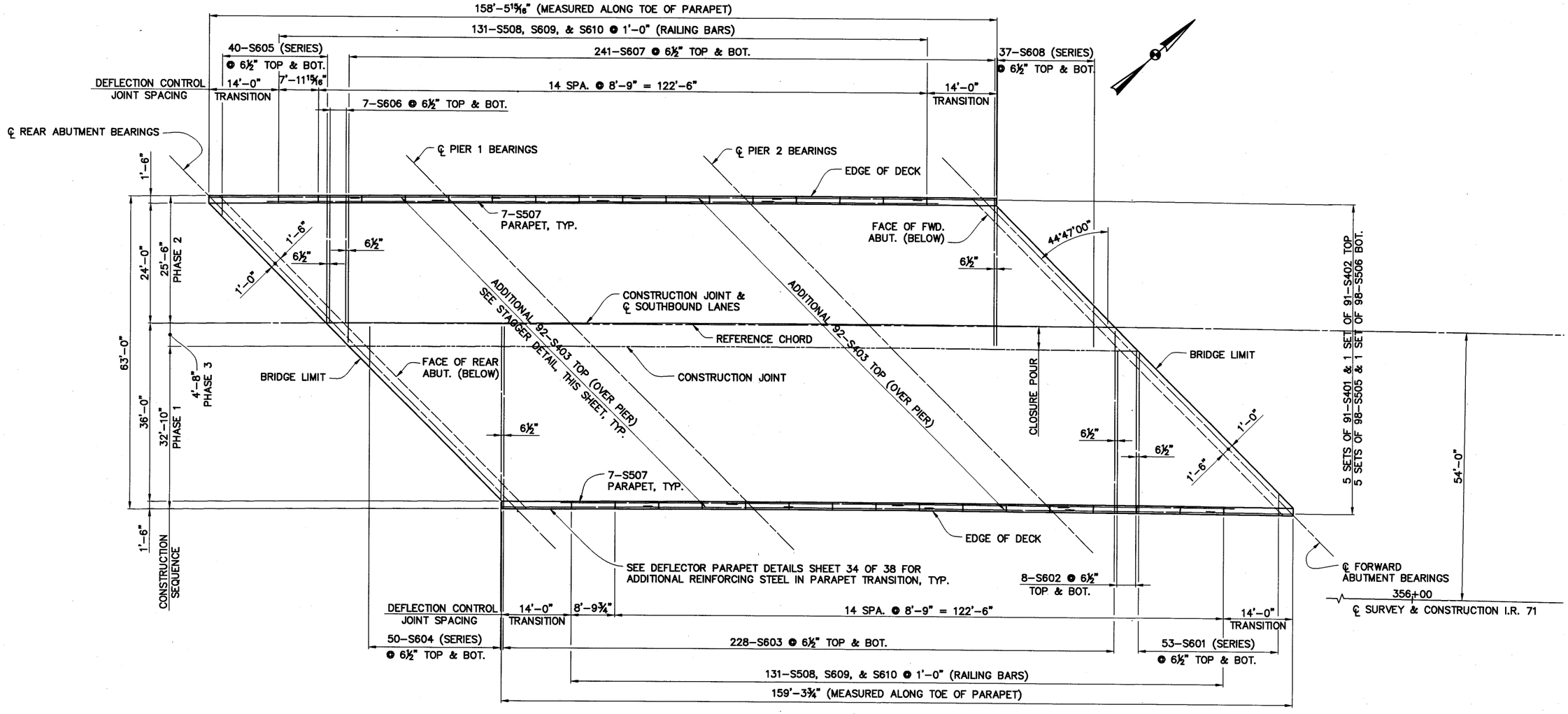
TRANSVERSE SECTION – N.B. STRUCTURE
BRIDGE NO. WAY-71-0671 R
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

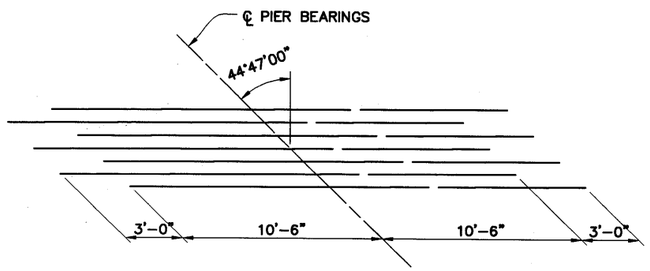
27/38

414/432

M:\99029\AUTOCAD\ACAD-2000\WN071TS2.dwg - May 03, 2001



SLAB PLAN



STAGGER OF S403 BARS OVER PIERS

NOTES

TRANSVERSE SECTION: SEE SHEET 26 / 38 .

SUPERSTRUCTURE NOTES: SEE SHEET 26 / 38 .

STRUCTURE GENERAL NOTES: SEE SHEETS 5 & 6 / 38 .

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED BDH | DRAWN BDH | CHECKED RLE | REVISED

REVIEWED DWS 02/28/01 | DATE | STRUCTURE FILE NUMBER 8503273

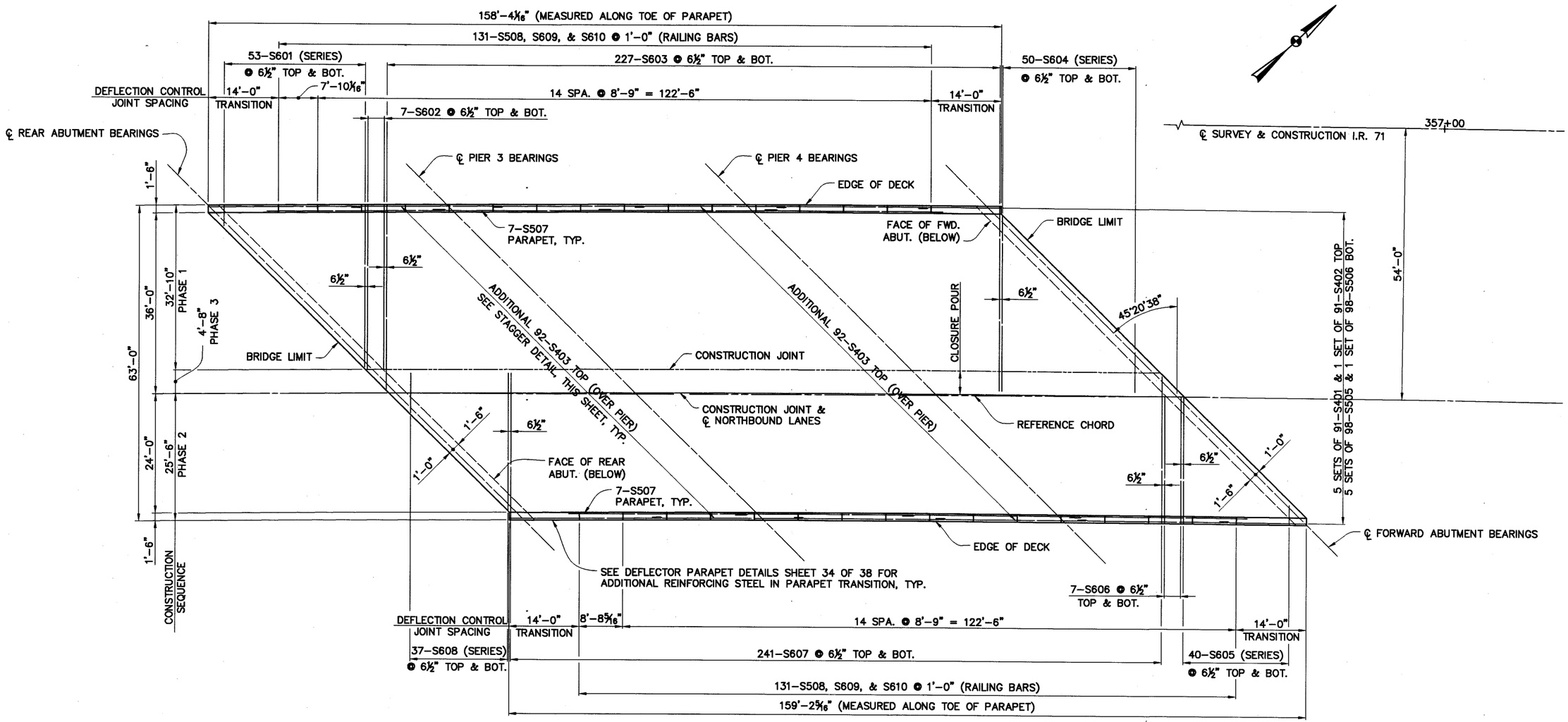
SLAB PLAN – S.B. STRUCTURE
BRIDGE NO. WAY-71-0671 L
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

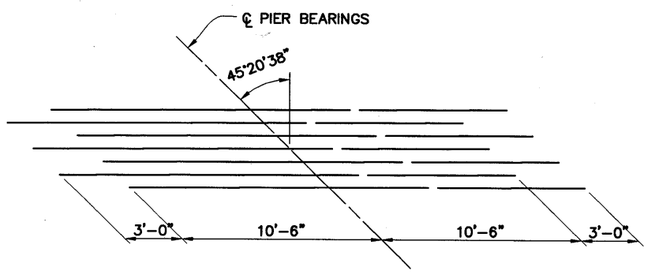
28/38

415/432

M:\99209\AUTOCAD\ACAD-2000\WN071S05.dwg - May 03, 2001



SLAB PLAN



STAGGER OF S403 BARS OVER PIERS

AT THE OPTION OF THE CONTRACTOR, THE MECHANICAL CONNECTOR ON THE S607 AND S608 BARS MAY BE PLACED ON THE COMPLEMENTARY PIECE.

NOTES

TRANSVERSE SECTION: SEE SHEET 27 / 38 .

SUPERSTRUCTURE NOTES: SEE SHEET 26 / 38 .

STRUCTURE GENERAL NOTES: SEE SHEETS 5 & 6 / 38 .

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
BDH	BDH	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RLE		8503303	

SLAB PLAN – N.B. STRUCTURE
BRIDGE NO. WAY-71-0671 R
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

29/38

416/432

M:\99029\AUTOCAD\ACAD-2000\WAY71S06.dwg - May 03, 2001

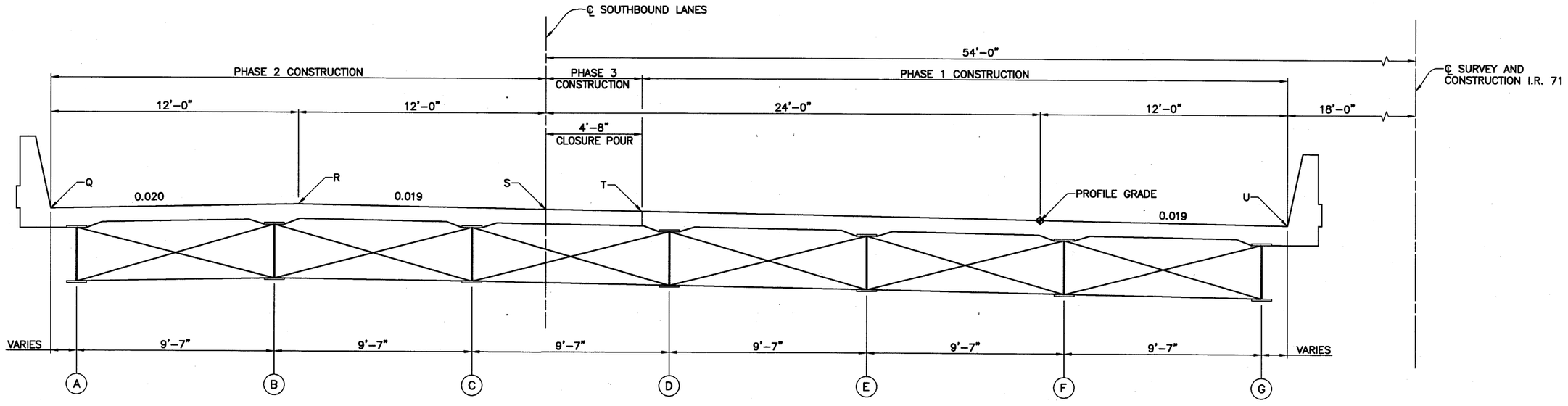
SCREED ELEVATION TABLE (LEFT BRIDGE)

SPAN NO.	LOCATION	Q	BEAM A	BEAM B	R	BEAM C	S	T	BEAM D	BEAM E	BEAM F	BEAM G	U
SPAN NO. 1	0.00 L	955.52	955.55	955.88	955.93	955.89	955.87	955.85	955.85	955.80	955.76	955.72	955.71
	0.25 L	955.70	955.74	956.07	956.12	956.08	956.06	956.04	956.04	955.99	955.95	955.91	955.90
	0.50 L	955.88	955.92	956.25	956.30	956.26	956.24	956.22	956.21	956.17	956.13	956.08	956.08
	0.75 L	956.05	956.09	956.42	956.46	956.43	956.41	956.39	956.38	956.34	956.30	956.25	956.25
	SPLICE POINT	956.05	956.09	956.42	956.47	956.43	956.41	956.39	956.39	956.34	956.30	956.26	956.25
SPAN NO. 2	0.00 L	956.22	956.26	956.59	956.63	956.59	956.58	956.56	956.55	956.51	956.47	956.42	956.42
	0.25 L	956.45	956.49	956.82	956.86	956.83	956.81	956.79	956.78	956.74	956.70	956.66	956.65
	0.50 L	956.68	956.72	957.06	957.09	957.06	957.04	957.02	957.01	956.97	956.93	956.89	956.88
	0.75 L	956.89	956.93	957.27	957.30	957.27	957.25	957.23	957.23	957.19	957.14	957.10	957.10
	SPLICE POINT	956.91	956.96	957.29	957.33	957.29	957.28	957.26	957.25	957.21	957.17	957.13	957.12
SPAN NO. 3	0.00 L	957.10	957.14	957.47	957.51	957.48	957.46	957.44	957.43	957.39	957.35	957.31	957.31
	0.25 L	957.28	957.33	957.66	957.70	957.66	957.65	957.63	957.62	957.58	957.54	957.50	957.49
	0.50 L	957.47	957.51	957.84	957.88	957.85	957.83	957.81	957.81	957.77	957.73	957.69	957.68
	0.75 L	957.64	957.68	958.02	958.06	958.02	958.01	957.99	957.98	957.94	957.90	957.86	957.86
	1.00 L	957.80	957.84	958.18	958.22	958.19	958.17	958.15	958.15	958.11	958.07	958.03	958.02

NOTES

SCREED ELEVATIONS ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR THE ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.

L = SPAN LENGTH



SCREED LINE LOCATIONS

M:\99029\AUTOCAD\ACAD-2000\WAY71SD7.DWG - May 03, 2001

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
BDH	DLD	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RLE		8503273	

SCREED ELEVATIONS – S.B. STRUCTURE
BRIDGE NO. WAY-71-0671 L
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

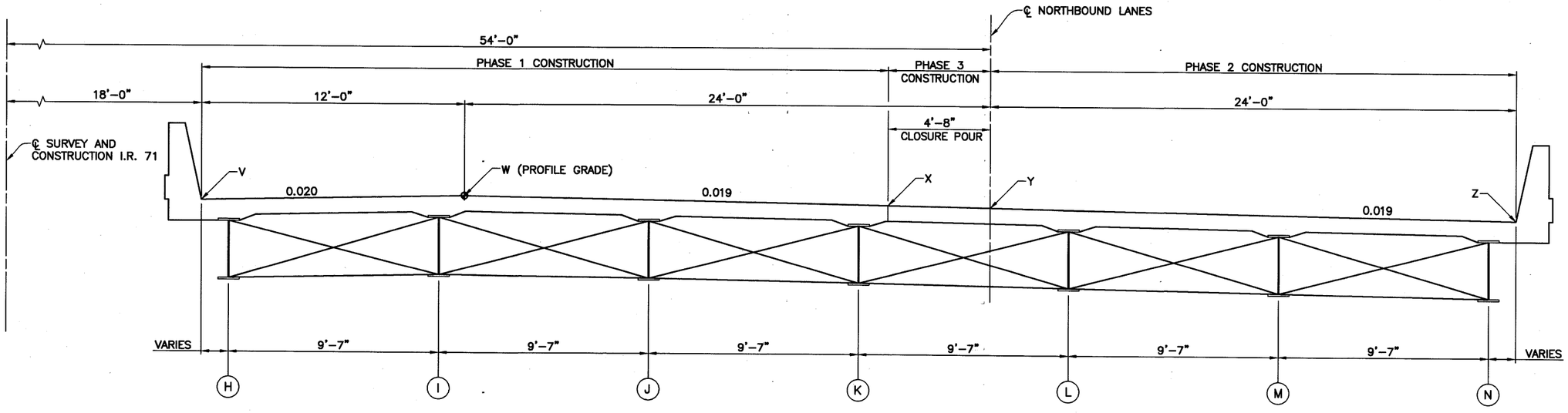
SCREED ELEVATION TABLE (RIGHT BRIDGE)

SPAN NO.	LOCATION	V	BEAM H	BEAM I	W	BEAM J	BEAM K	X	Y	BEAM L	BEAM M	BEAM N	Z
SPAN NO. 1	0.00 L	956.24	956.26	956.60	956.65	956.62	956.58	956.57	956.55	956.54	956.50	956.46	956.45
	0.25 L	956.42	956.45	956.79	956.84	956.81	956.77	956.76	956.74	956.73	956.69	956.65	956.64
	0.50 L	956.60	956.63	956.97	957.02	956.99	956.95	956.94	956.92	956.91	956.87	956.83	956.82
	0.75 L	956.77	956.81	957.15	957.19	957.16	957.12	957.11	957.09	957.08	957.04	957.00	956.99
	SPLICE POINT	956.77	956.81	957.15	957.19	957.16	957.12	957.12	957.10	957.08	957.04	957.00	957.00
SPAN NO. 2	0.00 L	956.94	956.98	957.32	957.36	957.33	957.29	957.28	957.26	957.25	957.21	957.17	957.17
	0.25 L	957.17	957.22	957.55	957.59	957.56	957.52	957.52	957.50	957.48	957.45	957.41	957.40
	0.50 L	957.40	957.45	957.79	957.83	957.79	957.75	957.75	957.73	957.72	957.68	957.64	957.63
	0.75 L	957.62	957.66	958.00	958.04	958.00	957.97	957.96	957.94	957.93	957.89	957.85	957.85
	SPLICE POINT	957.64	957.69	958.02	958.06	958.03	957.99	957.99	957.97	957.95	957.92	957.88	957.87
SPAN NO. 3	0.00 L	957.83	957.87	958.21	958.25	958.21	958.18	958.17	958.15	958.14	958.10	958.07	958.06
	0.25 L	958.01	958.06	958.40	958.43	958.40	958.36	958.36	958.34	958.33	958.29	958.26	958.25
	0.50 L	958.20	958.24	958.58	958.62	958.59	958.55	958.55	958.53	958.52	958.48	958.44	958.44
	0.75 L	958.38	958.42	958.76	958.80	958.77	958.73	958.72	958.71	958.69	958.66	958.62	958.62
	1.00 L	958.54	958.58	958.92	958.96	958.93	958.89	958.89	958.87	958.86	958.82	958.79	958.78

NOTES

SCREED ELEVATIONS ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR THE ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.

L = SPAN LENGTH



SCREED LINE LOCATIONS

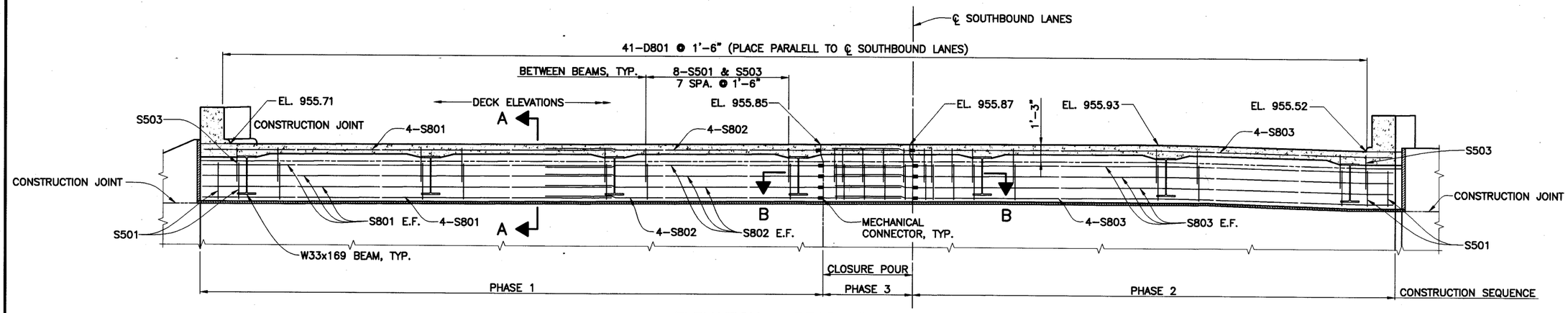
SCREED ELEVATIONS – N.B. STRUCTURE
BRIDGE NO. WAY-71-0671 R
OVER WAYNE COUNTY ROAD NO. 70

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

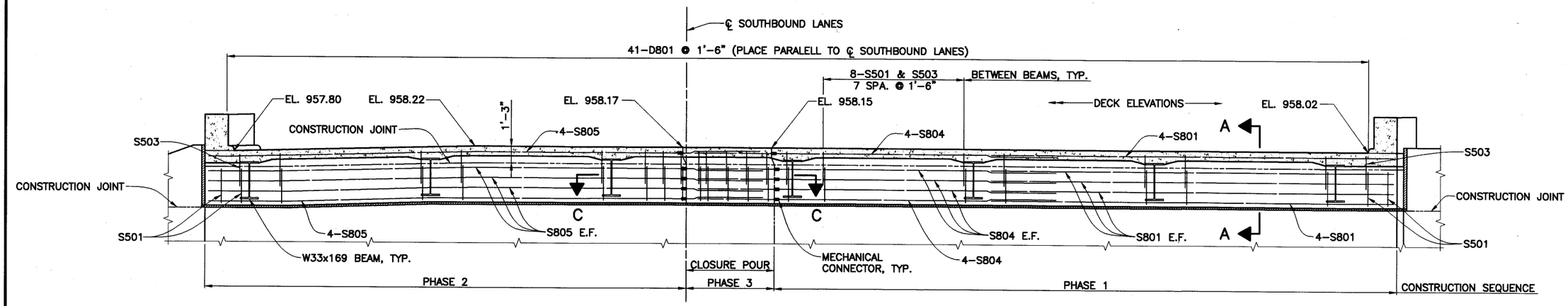
DESIGNED	DRAWN	REVIEWED	DATE
BDH	DLD	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RLE		8303303	

WAY-71-0.28

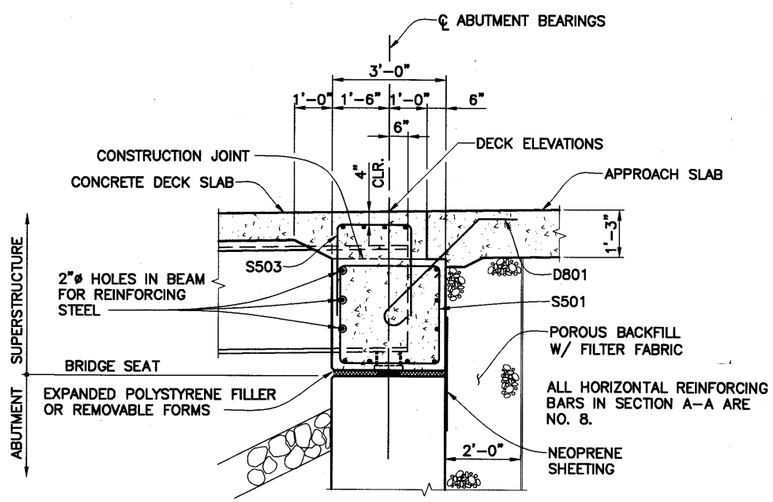
M:\99029\AUTOCAD\ACAD-2000\WAY71SCR.DWG - May 03, 2001



ELEVATION – REAR ABUTMENT



ELEVATION – FORWARD ABUTMENT



SECTION A–A

BACKWALL NOTES

DIAPHRAGM CONCRETE ENCASING THE STEEL BEAMS SUPPORTED IN THE ABUTMENTS SHALL BE PLACED AT LEAST 48 HOURS BEFORE THE DECK SLAB CONCRETE IS PLACED.

REINFORCING STEEL SPLICE LENGTHS SHALL BE 4'–10" FOR #8 BARS.

STRUCTURE GENERAL NOTES: SEE SHEETS [5 & 6 / 38].

ADDITIONAL DETAILS: SEE STANDARD DRAWING SICD–1–96.

SECTIONS B–B & C–C: SEE SHEET [33 / 38].

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED BDH | DRAWN BDH | CHECKED RLE | REVIEWED DWS | DATE 02/28/01 | REVISED | STRUCTURE FILE NUMBER 8503273

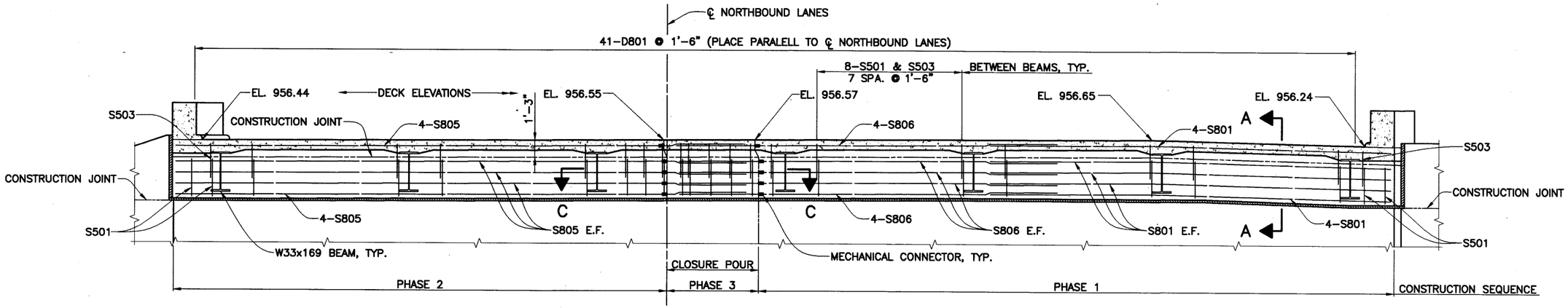
SUPERSTRUCTURE BACKWALLS – S.B. STRUCTURE
BRIDGE NO. WAY–71–0671 L
OVER WAYNE COUNTY ROAD NO. 70

WAY–71–0.28

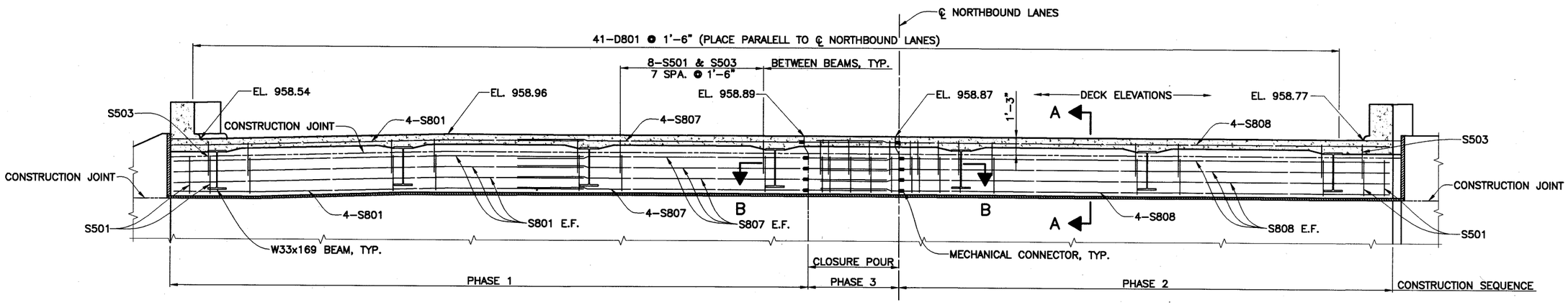
32/38

419/432

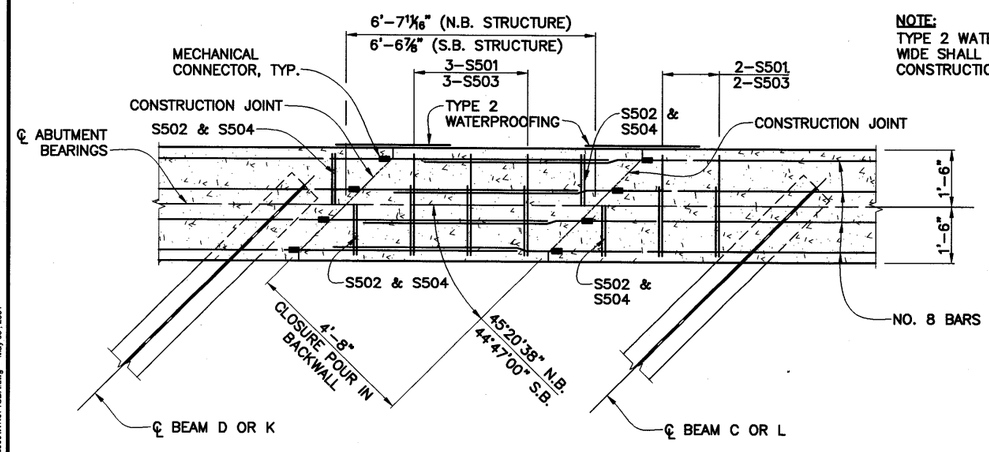
M:\WORKING\TODAD\ACAD-2005\WAY71678.dwg - May 03, 2001



ELEVATION – REAR ABUTMENT

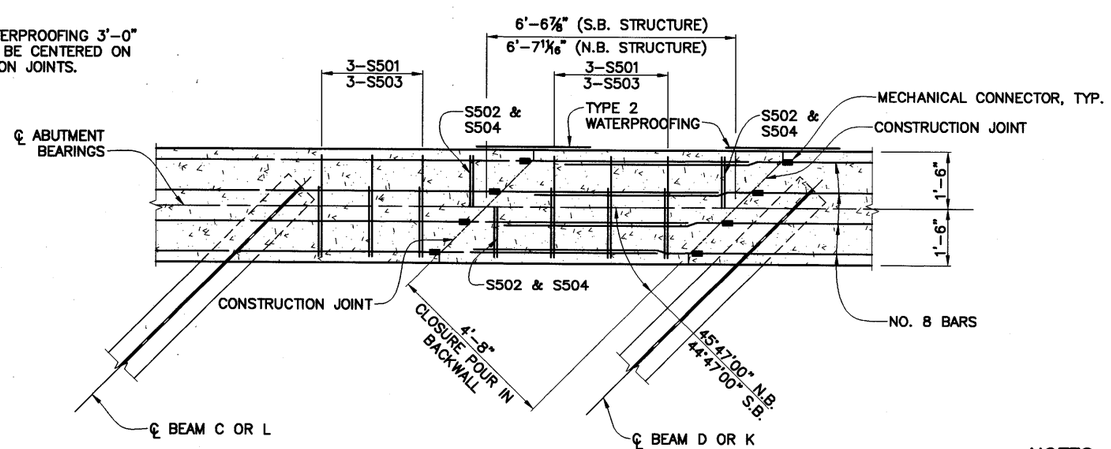


ELEVATION – FORWARD ABUTMENT



SECTION B–B

NOTE:
TYPE 2 WATERPROOFING 3'–0" WIDE SHALL BE CENTERED ON CONSTRUCTION JOINTS.



SECTION C–C

NOTES

BACKWALL NOTES: SEE SHEET 32 / 38 .

SECTION A–A: SEE SHEET 32 / 38 .

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

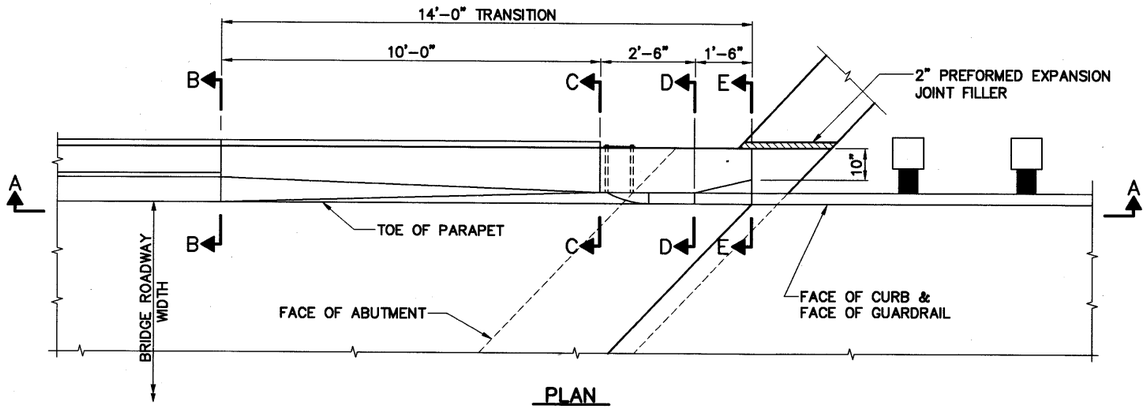
DATE 02/28/01
STRUCTURE FILE NUMBER 8503303
REVIEWED DWS
DRAWN BDH
REVISED
DESIGNED BDH
CHECKED RLE

SUPERSTRUCTURE BACKWALLS – N.B. STRUCTURE

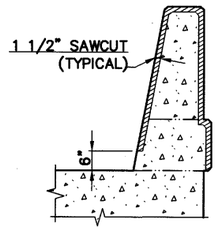
BRIDGE NO. WAY–71–0671 R
OVER WAYNE COUNTY ROAD NO. 70

WAY–71–0.28

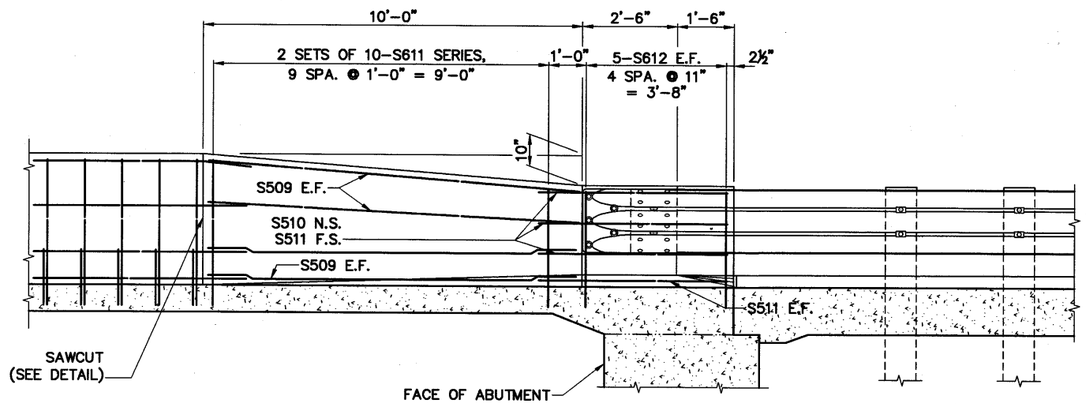
M:\99\9929\AUTOCAD\ACAD-2000\WNGT1SUA.dwg - May 03, 2001



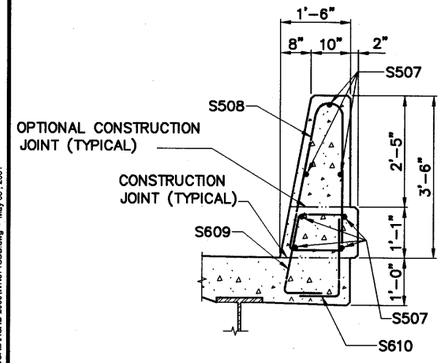
PLAN



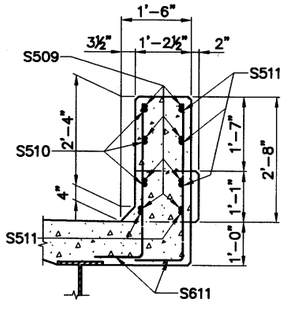
SAWCUT DETAIL



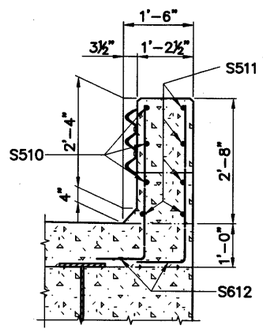
SECTION A-A



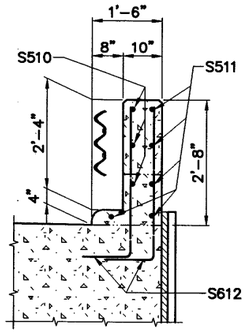
SECTION B-B



SECTION C-C



SECTION D-D



SECTION E-E

NOTES

CONTROL JOINTS FOR CONCRETE PARAPETS: THE JOINTS SHALL BE CONSTRUCTED BY SAWING 1 1/2" DEEP ALONG THE PERIMETER OF THE PARAPET AS SOON AS THE SAW CAN BE OPERATED WITHOUT DAMAGING THE CONCRETE.

THE USE OF AN EDGE GUIDE, FENCE, OR JIG IS REQUIRED TO INSURE THAT THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL FACES OF THE PARAPET. THE JOINT WIDTH SHALL BE THE WIDTH OF THE SAW BLADE, A NOMINAL WIDTH OF 1/4".

THE PERIMETER OF THE DEFLECTION CONTROL JOINT SHALL BE SEALED WITH A CAULKING MATERIAL TO A MINIMUM DEPTH OF 1 1/2" CONFORMING TO FEDERAL SPECIFICATION TT-S-00227E. THE BOTTOM 1/2" OF THE OUTSIDE FACE OF THE PARAPET SHOULD BE LEFT UNSEALED TO ALLOW ANY WATER WHICH MAY ENTER THE JOINT TO ESCAPE.

QUANTITIES OF CONCRETE, REINFORCING STEEL, DEFLECTION JOINT SAWCUT AND CAULKING MATERIAL FOR THE PARAPET ARE INCLUDED WITH ITEM 894 - HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN FOR PAYMENT.

FOR BRIDGE TERMINAL ASSEMBLY SEE STANDARD CONSTRUCTION DRAWINGS GR-3.1 AND GR-3.2.

NOTATION: N.S. - NEAR SIDE; F.S. - FAR SIDE.

ADDITIONAL RAILING DETAILS: SEE STANDARD DRAWING SBR-1-99.

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
BDH	DLD	DWS	02/28/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RLE		8503273/8503303	

DEFLECTOR PARAPET DETAILS

BRIDGE NO. WAY-71-0671 L/R
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

M:\99029\AUTOCAD\ACAD-2000\WAY071SDB.dwg - May 03, 2001

ABUTMENT REINFORCING STEEL SCHEDULE

MARK	STRUCTURE S.B. REAR	STRUCTURE S.B. FWD.	STRUCTURE N.B. REAR	STRUCTURE N.B. FWD.	TOTAL	LENGTH	TYPE	A	B	C	H	INC.
A501	81	82	80	82	325	17'-1"	1	STD	5'-8"	2'-7"		
A502	65	65	64	64	258	12'-5"	2	5'-6"	2'-8"	5'-6"		
A503	2	3	2	2	9	15'-11"	1	STD	2'-2"	5'-6"		
A504	14	14	14	16	58	17'-5"	2	7'-9"	2'-2"	7'-9"		
A505	2	2	2	2	8	18'-11"	1	STD	2'-2"	7'-0"		
A506	2 SER OF 3				2 SER OF 3	7'-9" TO 13'-7"	1	STD	1'-0" TO 3'-11"	2'-7"		1'-5½"
A507	2	1	1	1	5	12'-9"	2	6'-0"	1'-0"	6'-0"		
A508	20	20	20	20	80	30'-0"	STR					
A509	1 SER OF 4				1 SER OF 4	55'-6"	11	24'-8" TO 29'-11"				1'-9"
A510	1				1	55'-6"	11	24'-8"				
A511	1				1	55'-6"	11	29'-11"				
A512	2				2	31'-6"	11	17'-9"				
A513	2				2	31'-6"	11	20'-0"				
A514	6		1	6	13	10'-9"	STR					
A515	6				6	17'-9"	STR					
A516	1 SER OF 5			1 SER OF 5	2 SER OF 5	5'-5" TO 10'-1"	2	1'-9" TO 4'-1"	2'-2"	1'-9" TO 4'-1"		7"
A517	1			1	2	8'-6"	STR					
A518	1			1	2	10'-11"	10	5¼	8'-7"	2'-4"		
A519	1			1	2	3'-0"	STR					
A520	1				1	5'-0"	STR					
A521	1		1		2	5'-9"	STR					
A522	1	1	1		3	7'-9"	STR					
A523	1			2	3	8'-0"	STR					
A524	1	1	2		4	10'-0"	STR					
A525	1	2	2	1	6	13'-3"	2	6'-0"	1'-6"	6'-0"		
A526	1				1	12'-3"	2	6'-0"	0'-6"	6'-0"		
A527	2	4	5	5	16	6'-0"	STR					
A528	1			1	2	12'-6"	2	6'-0"	0'-9"	6'-0"		
A529	3				3	10'-9"	2	4'-5"	2'-2"	4'-5"		
A530	1 SER OF 6				1 SER OF 6	5'-3" TO 10'-7"	2	1'-8" TO 4'-4"	2'-2"	1'-8" TO 4'-4"		6⅜"+
A531	1				1	14'-9"	10	4⅞	9'-2"	5'-7"		
A532	1				1	12'-9"	10	4⅞	9'-2"	3'-7"		
A533	1				1	8'-9"	STR					
A534	1			1	2	6'-9"	STR					
A535	2	1			3	12'-3"	STR					
A536	1			2	3	10'-3"	STR					
A537	1				1	14'-3"	STR					
A538		1 SER OF 4			1 SER OF 4	57'-9"	11	28'-11" TO 34'-2"				1'-9"
A539		2 SER OF 3			2 SER OF 3	9'-7" TO 14'-7"	1	STD	1'-11" TO 4'-5"	2'-7"		1'-3"
A540		2	2	2	6	2'-7"	STR					
A541		6	6		12	13'-3"	STR					
A542		6			6	16'-6"	STR					
A543		1	1	1	3	13'-11"	2	6'-0"	2'-2"	6'-0"		
A544		1			1	57'-9"	11	34'-3"				
A545		1			1	57'-9"	11	28'-10"				
A546		2			2	32'-8"	11	18'-4"				
A547		2			2	32'-8"	11	15'-10"				
A548		1			1	13'-9"	10	4⅝	11'-0"	2'-9"		
A549		1			1	11'-7"	10	4⅝	11'-0"	0'-7"		
A550		2			2	6'-3"	STR					
A551		1			1	4'-3"	STR					
A552		2	2		4	9'-9"	STR					
A553		1			1	13'-0"	STR					
A554		1			1	11'-0"	STR					

ABUTMENT REINFORCING STEEL SCHEDULE

MARK	STRUCTURE S.B. REAR	STRUCTURE S.B. FWD.	STRUCTURE N.B. REAR	STRUCTURE N.B. FWD.	TOTAL	LENGTH	TYPE	A	B	C	H	INC.
A555			1		1	56'-7"	11	32'-9"				
A556			1		1	56'-7"	11	27'-3"				
A557		1 SER OF 7	1 SER OF 7	1 SER OF 7	3 SER OF 7	4'-9" TO 10'-5"	2	1'-5" TO 4'-3"	2'-2"	1'-5" TO 4'-3"		5⅝"+
A558			1		1	12'-6"	10	4	10'-1"	2'-5"		
A559		1 SER OF 7	1 SER OF 7		2 SER OF 7	5'-1" TO 10'-9"	2	1'-7" TO 4'-5"	2'-2"	1'-7" TO 4'-5"		5⅝"+
A560		1			1	13'-0"	2	6'-0"	1'-3"	6'-0"		
A561		1			1	10'-9"	10	4⅝	10'-2"	0'-7"		
A562		1			1	12'-10"	10	4⅝	10'-2"	2'-8"		
A563		1	1		2	4'-0"	STR					
A564		1	1		2	7'-6"	STR					
A565			1 SER OF 4		1 SER OF 4	56'-7"	11	27'-3" TO 32'-9"				1'-10"
A566			1 SER OF 3	1 SER OF 3	2 SER OF 3	9'-11" TO 15'-9"	1	STD	2'-1" TO 5'-0"	2'-7"		1'-5½"
A567			1 SER OF 3	1 SER OF 3	2 SER OF 3	8'-11" TO 14'-9"	1	STD	1'-7" TO 4'-6"	2'-7"		1'-5½"
A568			2		2	32'-3"	11	17'-11"				
A569			2		2	32'-3"	11	15'-5"				
A570			1		1	12'-0"	STR					
A571			1		1	13'-1"	10	4	10'-11"	2'-2"		
A572			1		1	3'-9"	STR					
A573			1	1	2	12'-6"	STR					
A574			1		1	10'-6"	STR					
A575			6		6	15'-6"	STR					
A576				1 SER OF 4	1 SER OF 4	59'-4"	11	25'-9" TO 31'-3"				1'-10"
A577				1	1	59'-4"	11	25'-9"				
A578				1	1	59'-4"	11	31'-3"				
A579				6	6	19'-6"	STR					
A580				2	2	33'-5"	11	18'-7"				
A581				2	2	33'-5"	11	21'-2"				
A582				1	1	5'-3"	STR					
A583				1	1	13'-9"	2	6'-0"	2'-0"	6'-0"		
A584				1	1	16'-5"	10	4⅜	11'-3"	5'-2"		
A585				1	1	14'-3"	10	4⅜	11'-3"	3'-0"		
A586				1	1	9'-0"	STR					
A587				3	3	10'-11"	2	4'-6"	2'-2"	4'-6"		
A588				1	1	15'-9"	STR					
A589				1	1	13'-6"	STR					
A590	65	65	64	64	258	7'-11"	2	2'-9"	2'-8"	2'-9"		
A801	16	16	16	16	64	30'-0"	STR					
A802	1 SER OF 4				1 SER OF 4	59'-6"	11	26'-8" TO 31'-11"				1'-9"
A803	1 SER OF 4				1 SER OF 4	35'-6"	11	19'-7" TO 21'-1"				10"
A804		1 SER OF 4			1 SER OF 4	61'-9"	11	30'-11" TO 36'-2"				1'-9"
A805		1 SER OF 4			1 SER OF 4	36'-8"	11	17'-10" TO 20'-4"				10"
A806			1 SER OF 4		1 SER OF 4	60'-7"	11	34'-9" TO 29'-3"				1'-10"
A807			1 SER OF 4		1 SER OF 4	36'-3"	11	17'-5" TO 19'-11"				10"
A808				1 SER OF 4	1 SER OF 4	63'-4"	11	27'-9" TO 33'-3"				1'-10"
A809				1 SER OF 4	1 SER OF 4	37'-5"	11	20'-9" TO 23'-0"				9"

REINFORCING STEEL NOTES AND BENDING DIAGRAMS: SEE SHEET 36/38 .

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
ZOLMAN & WHALEN, INC.
701 WHALEN DRIVE
WOOSTER, OHIO 44691

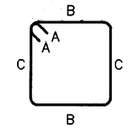
DESIGNED RLE | DRAWN MDG | REVIEWED DWS | DATE 02/28/01
CHECKED DBC | REVISED | STRUCTURE FILE NUMBER 8503273/8503303

REINFORCING STEEL LIST-1

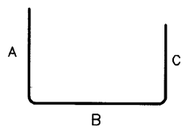
BRIDGE NO. WAY-71-0671 L/R
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

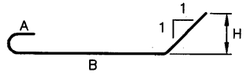
M:\8503\AUTOCAD\CAD-3000\WW071RL1.dwg - May 09, 2001



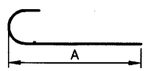
TYPE-1



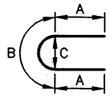
TYPE-2



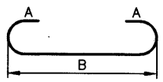
TYPE-3



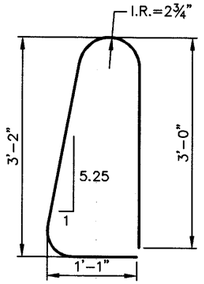
TYPE-4



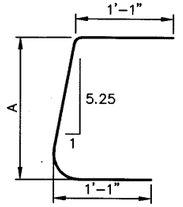
TYPE-5



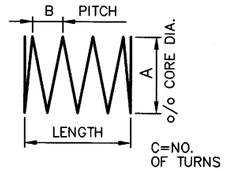
TYPE-6



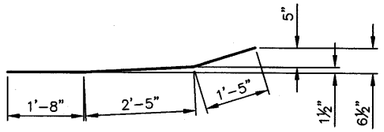
TYPE-7



TYPE-8

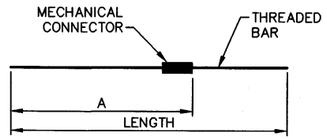


TYPE-SPIRAL



TYPE-9

TYPE-10



TYPE-11

BENDING DIAGRAMS

PIER REINFORCING STEEL SCHEDULE

MARK	SOUTHBOUND STRUCTURE PIER 1	SOUTHBOUND STRUCTURE PIER 2	NORTHBOUND STRUCTURE PIER 3	NORTHBOUND STRUCTURE PIER 4	TOTAL	LENGTH	TYPE	A	B	C	H	INC.
P501	4	4	4	4	16	25'-3"	STR					
P502	4	4	4	4	16	2'-6"	STR					
P503	5	5	5	5	20	8'-2"	5	2'-0"	4'-2"	2'-8"		
P504	4	4	4	4	16	38'-0"	STR					
P505	4	4	4	4	16	14'-10"	STR					
P506	34	34			68	12'-5"	1	STD	2'-8"	3'-3"		
P507			34	34	68	11'-1"	1	STD	2'-8"	2'-7"		
P508	76	76			152	3'-8"	2	1'-6"	2'-3"	0		
P509			76	76	152	3'-1"	2	11"	2'-3"	0		
P601	7	7			14	25'-4"	STR					
P602			7	7	14	25'-7"	STR					
P603	7	7	7	7	28	2'-6"	STR					
P801	6	6	6	6	24	26'-10"	6	STD	25'-0"			
P802	6	6	6	6	24	33'-0"	STR					
P901	26	26	26	26	104	10'-0"	6	STD	7'-6"			
P902	24	24	24	24	96	6'-3"	2	4'-11"	1'-7"	0		
P903	24	24			48	18'-10"	2	17'-6"	1'-7"	0		
P904			24	24	48	16'-4"	2	15'-0"	1'-7"	0		
SP401	2	2			4	14'-9"	SPIRAL	2'-6"	4½"	42		
SP402			2	2	4	12'-9"	SPIRAL	2'-6"	4½"	37		

SUPERSTRUCTURE REINFORCING STEEL SCHEDULE

MARK	STRUCTURE S.B.	STRUCTURE N.B.	STRUCTURE TOTAL	LENGTH	TYPE	A	B	C	H	INC.
S401	455	455	910	30'-0"	STR					
S402	91	91	182	17'-2"	STR					
S403	184	184	368	24'-0"	STR					
S501	99	99	198	11'-0"	1	STD	2'-8"	2'-7"		
S502	7	7	14	8'-4"	1	STD	1'-4"	2'-7"		
S503	95	95	190	6'-5"	2	2'-5"	1'-10"	2'-5"		
S504	7	7	14	5'-11"	2	2'-5"	1'-4"	2'-5"		
S505	490	490	980	30'-0"	STR					
S506	98	98	196	18'-10"	STR					
S507	56	56	112	35'-4"	STR					
S508	262	262	524	7'-5"	7					
S509	32	32	64	10'-0"	STR					
S510	12	12	24	5'-6"	9					
S511	20	20	40	5'-6"	STR					
S601	2 SER OF 53	2 SER OF 53	4 SER OF 53	4'-0" TO 32'-2"	STR					6½"
S602	16	14	30	32'-8"	STR					
S603	456	454	910	36'-7"	11	32'-8"				
S604	2 SER OF 50	2 SER OF 50	4 SER OF 50	7'-11" TO 34'-9"	11	4'-0" TO 30'-10"				6⁹⁄₁₆"+
S605	2 SER OF 40	2 SER OF 40	4 SER OF 40	3'-9" TO 25'-2"	STR					6⁹⁄₁₆"+
S606	14	14	28	25'-4"	STR					
S607	482	482	964	29'-3"	11	25'-4"				
S608	2 SER OF 37	2 SER OF 37	4 SER OF 37	7'-11" TO 27'-5"	11	4'-0" TO 23'-6"				6½"
S609	262	262	524	3'-6"	8	1'-6"				
S610	262	262	524	2'-5"	2	1'-6"	1'-1"	0		
S611	8 SER OF 10	8 SER OF 10	16 SER OF 10	4'-1" TO 4'-10"	2	3'-2" TO 3'-11"	1'-1"			1"
S612	40	40	80	4'-0"	2	3'-1"	1'-1"			
S801	28	28	56	30'-0"	STR					
S802	14		14	26'-1"	11	20'-4"				
S803	14		14	41'-2"	11	35'-5"				
S804	14		14	27'-1"	11	21'-4"				
S805	14	14	28	41'-6"	11	35'-9"				
S806		14	14	26'-8"	11	20'-11"				
S807		14	14	27'-5"	11	21'-8"				
S808		14	14	42'-1"	11	36'-4"				
D801	82	82	164	5'-0"	3	STD	2'-8"		1'-0"	

REINFORCING STEEL NOTES

ALL REINFORCING STEEL: SHALL BE EPOXY COATED. SEE STRUCTURE GENERAL NOTES, SHEET 5 / 38 , FOR ADDITIONAL MATERIAL REQUIREMENTS.

REINFORCING STEEL SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED FOR PAYMENT IN THE PRICE BID FOR THE ITEM IN WHICH IT IS PLACED.

BAR DIMENSIONS SHOWN ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180 DEGREE AND 135 DEGREE HOOKS UNLESS OTHERWISE INDICATED.

BAR BENDS: BEND BARS CAREFULLY TO THE DIMENSIONS LISTED IN THE ABOVE SCHEDULES AND/OR STANDARD BENDS TABLE (CMS 509.05). "STD" WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

SPIRAL REINFORCING STEEL: THE "LENGTH" SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE OUT TO OUT OF COILS, INCLUDING THE FINISHING TURNS TOP AND BOTTOM, AND IS BASED ON THE INDIVIDUAL LENGTHS OF THE PIER COLUMNS MINUS 3 INCHES.

THE "NUMBER OF TURNS SHOWN IS THE ("LENGTH" MINUS 3 BAR DIAMETERS) DIVIDED BY THE PITCH, ALL IN INCHES, PLUS THREE TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER. 1 1/2 CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.

THREE STEEL CHANNELS, TEE OR ANGLE SPACERS WEIGHING APPROXIMATELY 0.80 POUNDS PER LINEAL FOOT SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL.

M:\98028\AUTOCAD\CAD-2000\WAY71RL2.dwg - May 08, 2001

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

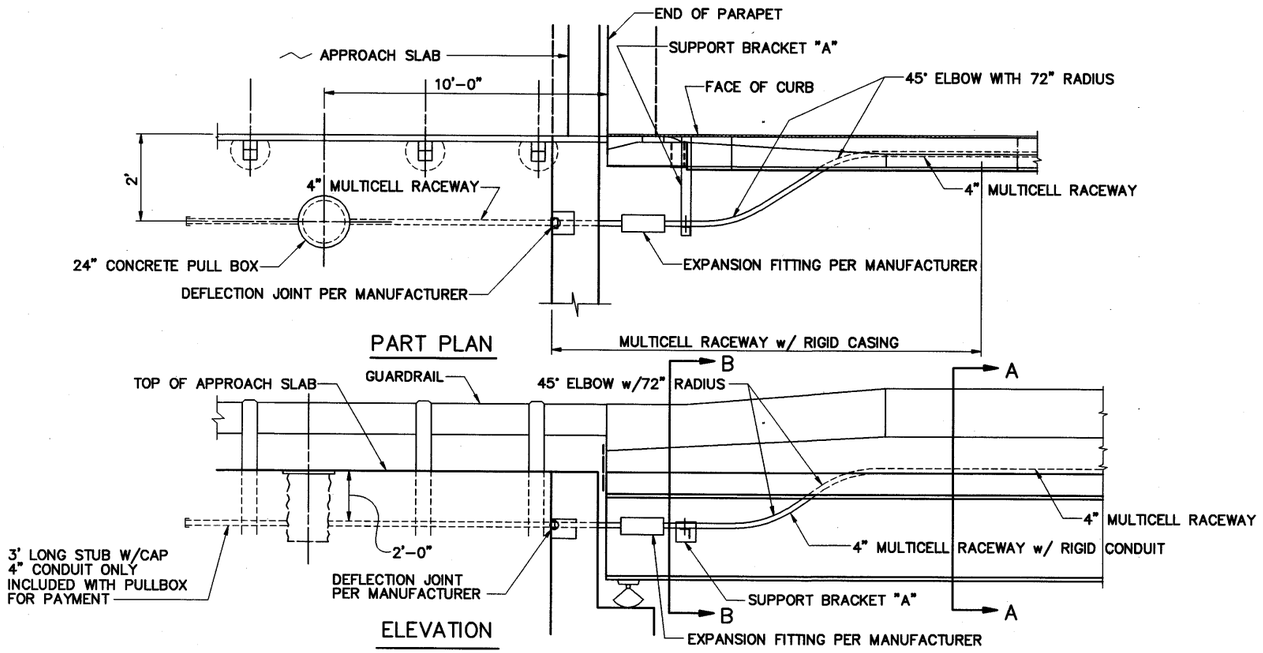
DATE 02/28/01
STRUCTURE FILE NUMBER 8503273/8503303
REVIEWED DWS
DRAWN MDG
REVISED
DESIGNED RLE
CHECKED DBC

REINFORCING STEEL LIST-2
BRIDGE NO. WAY-71-0671 L/R
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

36/38

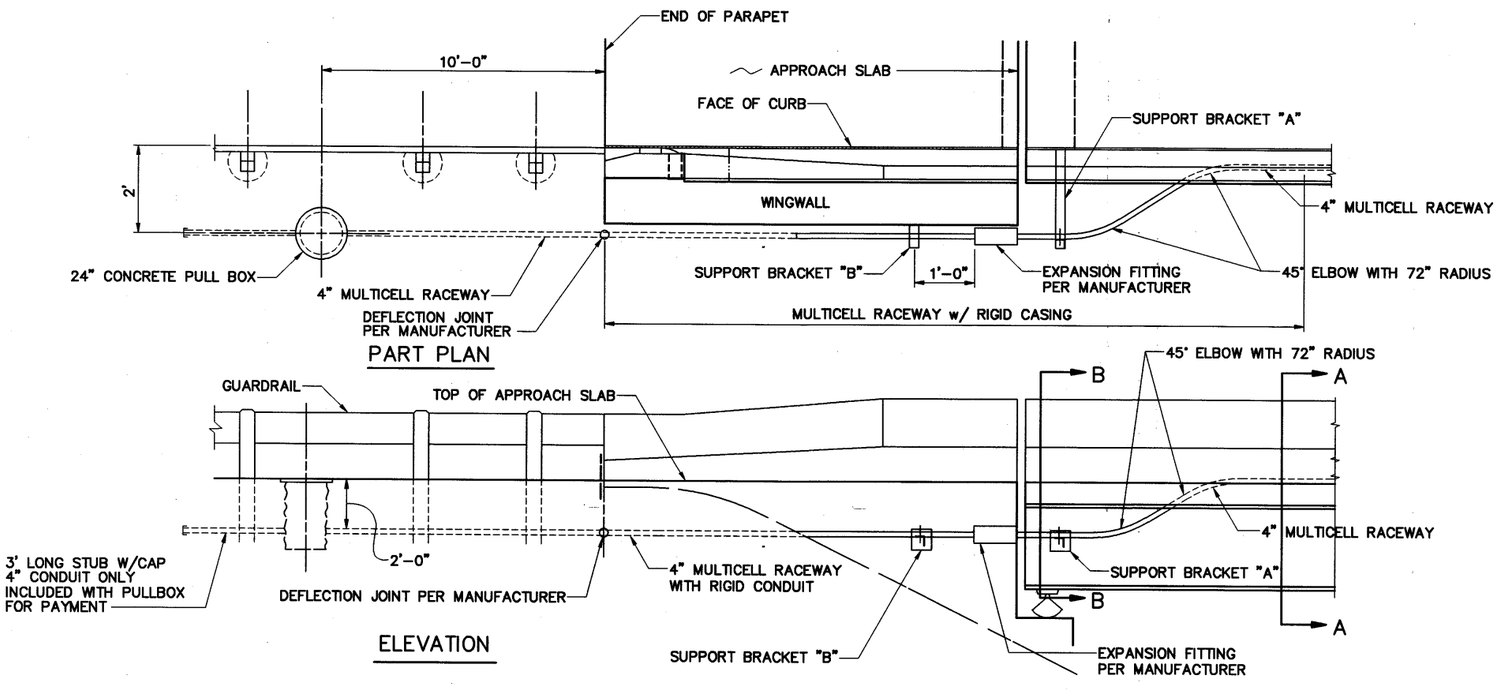
423/432



CONDUIT DETAILS FOR BRIDGE WITH STRAIGHT WINGWALLS

BRIDGE NO.	PULL BOX, CONCRETE 24", AS PER PLAN EACH	CONDUIT MISC: 4" MULTICELL RACEWAY FEET		
	625	625		
WAY-71-0671 L	2	179		
WAY-71-0671 R	2	179		
TOTALS	4	358		

QUANTITIES CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY, SHEET 345.



CONDUIT DETAILS FOR BRIDGE WITH TURN BACK WINGWALLS

NOTES:

ITEM 625, CONDUIT, MISC.: 4" MULTICELL RACEWAY:
THE ITS RACEWAY SHALL CONSIST OF A FACTORY ASSEMBLED SYSTEM OF (4) INNERDUCTS WITHIN A PROTECTIVE OUTERDUCT. IN GENERAL THE OUTERDUCT SHALL BE PVC CAPABLE OF BURIAL OR CONCRETE ENCASEMENT. HOWEVER, IN AREAS DESIGNATED RIGID CASING THE OUTERDUCT WILL BE GALVANIZED STANDARD CONDUIT. THE STANDARD RACEWAY AND RIGID CASING RACEWAY SHALL BE CONNECTABLE WITHOUT SPECIAL BRACKETS. THE ELBOWS, BENDS, OR FITTINGS REQUIRED FOR THE CONSTRUCTION SHALL BE STANDARD UNITS MADE BY THE RACEWAY MANUFACTURER. ANY SUPPORT BRACKETS SHALL BE FABRICATED UNDER THE REQUIREMENTS OF SS863. THE STEEL SHALL MEET ASTM A36, AND THE BOLTS ASTM A307. BRACKETS TO BE PAINTED AS PART OF THE STRUCTURE.

THE INNERDUCTS SHALL BE NOMINAL 1", SCHEDULE 40 PVC PER 713.07 WITH A BELL INSERTION DEPTH OF 2" MINIMUM.

THE COUPLING SHALL BE DESIGNED IN A MANNER TO PERMIT EASY FIELD ASSEMBLY. THE COUPLING SHALL BE MARKED OR KEYED IN A MANNER TO ENSURE THE INNERDUCTS ARE PROPERLY ALIGNED, ANY COLOR CODES ARE CONTINUED AND THE ADJOINING SECTION IS INSERTED TO THE PROPER DEPTH IN THE BELL. ALL KEYS AND/OR MARKINGS SHALL BE VISIBLE AFTER ASSEMBLY BEFORE BURIAL. THE SEALING SYSTEM SHALL BE DESIGNED TO ASSURE AIR INTEGRITY OF EACH INDIVIDUAL INNERDUCT AND WATER INTEGRITY OF THE ENTIRE SYSTEM.

WHERE MULTICELL DUCT IS TO REMAIN EMPTY, A 1/4 " NYLON ROPE SHALL BE INSTALLED IN EACH EMPTY DUCT. THE ROPE WILL REMAIN TO BE USED FOR A FUTURE CABLE INSTALLATION.

THE RACEWAY WILL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM 625 - CONDUIT MISC.: 4" MULTICELL RACEWAY. THIS PRICE SHALL INCLUDE THE INCIDENTAL COST OF THE FITTINGS, SUPPORT BRACKETS, RIGID CASING OUTERDUCT AND ALL OTHER ITEMS NECESSARY TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM.

SUPPORT BRACKET "A" AND SUPPORT BRACKET "B": SEE SHEET 38/38

SECTIONS A-A AND B-B: SEE SHEET 38/38

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

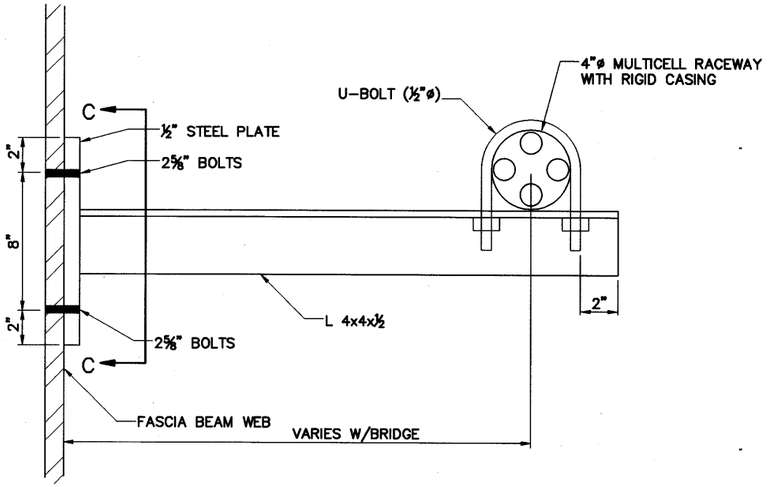
DESIGNED	DRAWN	REVIEWED	DATE
CHECKED	REVISED	DWS	02/28/01

STRUCTURE FILE NUMBER 8503273/8503303

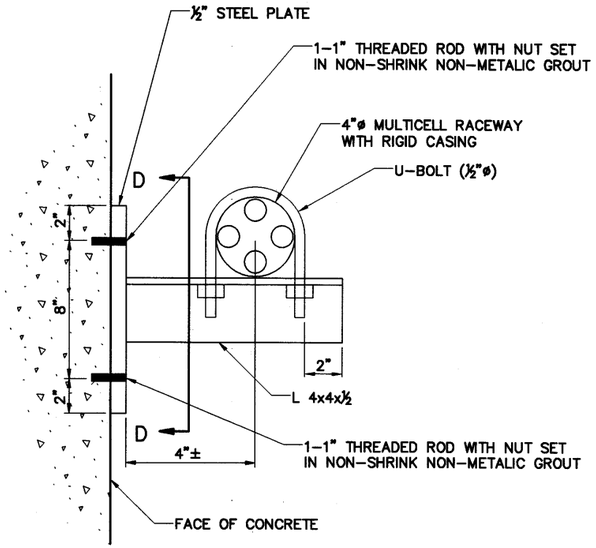
ITS DUCT ON STRUCTURE
BRIDGE NO. WAY-71-0671 L/R
OVER WAYNE COUNTY ROAD NO. 70

WAY-71-0.28

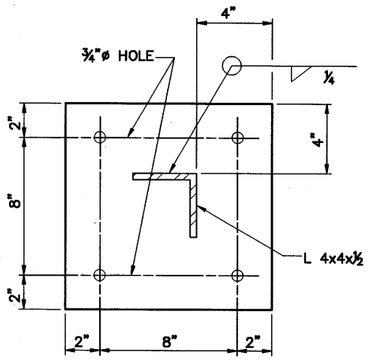
M:\98009\AUTOCAD\ACAD-2000\PAGE\WAY.DWG - May 03, 2001



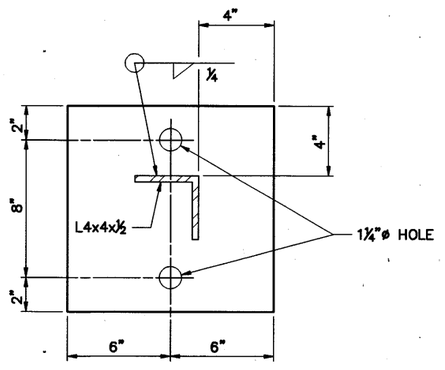
SUPPORT BRACKET "A"



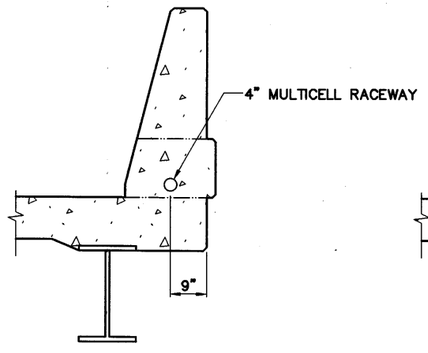
SUPPORT BRACKET "B"



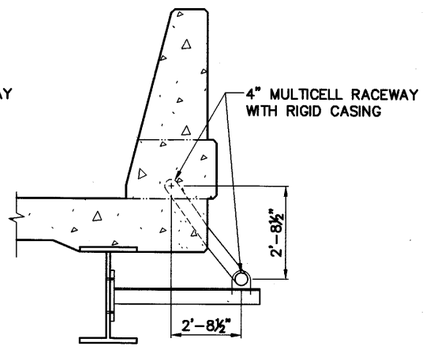
SECTION C–C



SECTION D–D



SECTION A–A



SECTION B–B

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
CHECKED	DLD	DWS	02/28/01
	REVISED	STRUCTURE FILE NUMBER	8503273/8503303

RACEWAY DETAILS
BRIDGE NO. WAY–71–0671 L/R
OVER WAYNE COUNTY ROAD NO. 70

WAY–71–0.28

2/2

425
432

M:\99029\AUTOCAD\ACAD-2000\RACEWAY.DWG - May 03, 2001

EXISTING STRUCTURE VERIFICATION:
THE DETAILS SHOWN ON THE FOLLOWING SHEETS ARE COPIES OF THE ORIGINAL CONSTRUCTION PLANS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES BUT THEY SHALL BE CONSIDERED TO BE TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, AND 105.02.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURES BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

UTILITY LINES:
THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO PROTECT EXISTING UTILITY LINES IN THE VICINITY OF THE STRUCTURES WHILE PERFORMING ANY WORK. THE CONTRACTOR AND UTILITY COMPANY(IES) ARE REQUESTED TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

REFER TO ROADWAY GENERAL NOTES FOR FURTHER INFORMATION.

CONSTRUCTION SEQUENCE:
ALSO SEE MAINTENANCE OF TRAFFIC PLANS ON SHEETS 28-99.
THE FOLLOWING IS THE REQUIRED SEQUENCE OF CONSTRUCTION:

STAGE 1 - PHASE 1 CONSTRUCTION: (STAGE 1 - PHASE 1 MAINTENANCE OF TRAFFIC)
A. INSTALL 36" CONDUIT, FILL AREA UNDER EXISTING STRUCTURE TO ELEVATION 956.5+/-, SLOPE TO DRAIN AND SEED.

PHASE 1 CONSTRUCTION: (STAGE 2 - PHASE 2 MAINTENANCE OF TRAFFIC)
A. WITH TWO LANES OF ONE WAY TRAFFIC MAINTAINED ON THE OUTSIDE LANE AND SHOULDER OF BOTH THE NORTH AND SOUTHBOUND BRIDGE DECKS, REMOVE THE EXISTING DECK, PARAPET, AND STEEL GIRDER SUPERSTRUCTURE FROM THE INSIDE PART OF BOTH BRIDGES.
B. REMOVE THE EXISTING ABUTMENT BACK WALLS AND BREAST WALLS DOWN TO 3' BELOW THE FINISHED SUBGRADE.
C. REMOVE THE EXISTING PIER CAPS TO 3' BELOW FINISHED GRADE.
D. DRIVE SHEET PILING.
E. CONSTRUCT FILL BETWEEN SHEET PILING TO FINISHED GRADE FOR THE MEDIAN PORTION OF THE FILL AND CONSTRUCT NEW PAVEMENT, SHOULDERS, AND DRAINAGE.
F. SWITCH TRAFFIC TO THE MEDIAN LANES AND SHOULDERS.

PHASE 2 CONSTRUCTION (STAGE 2 - PHASE 3 MAINTENANCE OF TRAFFIC)
A. WITH TWO LANES OF ONE WAY TRAFFIC MAINTAINED ON THE INSIDE LANE AND SHOULDER OF BOTH THE NORTH AND SOUTHBOUND BRIDGE DECKS, REMOVE THE EXISTING DECK, PARAPET, AND STEEL GRIDER SUPERSTRUCTURE FROM THE OUTSIDE PART OF BOTH BRIDGES.
B. REMOVE THE EXISTING ABUTMENT BACK WALLS AND BREAST WALLS DOWN TO 3' BELOW THE FINISHED SUBGRADE.
C. REMOVE THE EXISTING PIER CAPS TO 3' BELOW FINISHED GRADE.
D. CONSTRUCT OUTSIDE PORTION OF THE FILL TO FINISHED GRADE AND CONSTRUCT NEW PAVEMENT, SHOULDERS, AND DRAINAGE.

ESTIMATED QUANTITES

CALC. BY VLK DATE: 4/01 CHKD. BY AFS DATE: 4/01

ITEM	ITEM EXT.	TOTAL LEFT STRUCTURE (S.B.)	TOTAL RIGHT STRUCTURE (N.B.)	UNIT	DESCRIPTION
202	11202	LUMP	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN
504	11100	9840	9840	SQ FT	STEEL SHEET PILING LEFT IN PLACE
505	11100	LUMP	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN
ALL BRIDGE ELEMENTS (SUPERSTRUCTURE AND SUBSTRUCTURE) SHALL BE REMOVED TO AT LEAST 3 FEET BELOW THE FINAL SUBGRADE. ABUTMENTS, PIERS AND OTHER BRIDGE ELEMENTS THAT ARE AT LEAST 3 FEET BELOW SUBGRADE MAY REMAIN IN PLACE. REMOVAL OF THE BRIDGE ELEMENTS SHALL PROCEED ACCORDING TO THE CONSTRUCTION SEQUENCE AS NOTED ON THIS SHEET AND THE MAINTENANCE OF TRAFFIC SEQUENCING.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT HIS PLANS FOR THE PROTECTION OF VEHICULAR TRAFFIC ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE DIRECTOR FOR APPROVAL. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION.

PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE BID, WHICH PRICE AND PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS, WITH PERTINENT PROVISIONS OF 202, AND TO THE SATISFACTION OF THE ENGINEER.

STEEL SHEET PILING PILING LEFT IN PLACE SHALL HAVE A MINIMUM SECTION MODULUS OF 36.6 CUBIC INCHES PER FOOT OF WALL. STEEL SHEET PILING SHALL BE DRIVEN A MINIMUM OF 26 FEET BELOW THE INITIAL FILL ELEVATION OF 956.5 OR 26 FEET BELOW EXISTING GROUND WHERE THE EXISTING GROUND ELEVATION IS ABOVE 956.5. THE STEEL SHEET PILING SHALL EXTEND UP TO THE SUBGRADE ELEVATION. CARE SHALL BE TAKEN WHEN DRIVING SHEET PILING NEAR THE EXISTING PIER AND ABUTMENTS, FOOTINGS, AND THE NEW 36" CONDUIT TO BE INSTALLED IN FRONT OF THE REAR PIERS (SEE SHEET 286). SHEET PILING SHALL BE DRIVEN WITH THE INSIDE FACE OF THE PILING OFFSET 47'-6" FROM THE CENTERLINE AS SHOWN ON SHEETS 99, 247 AND 248. SHEET PILING SHALL BE DRIVEN FROM TOP OF SLOPE TO TOP OF SLOPE.

THE CONTRACTOR MAY SUBMIT ALTERNATE DESIGNS FOR THE STEEL SHEET PILING TO BE LEFT IN PLACE. THE ALTERNATE DESIGN MUST BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

ADDITIONAL STRUCTURE GENERAL NOTES: SEE SHEET 6 / 38 AND REFERENCED STANDARD DRAWINGS.

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
VLK	SLM	DWS	04/30/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
AFS		8503338/8503362	

DEMOLITION NOTES & ESTIMATED QUANTITIES
BRIDGE NO. WAY-71-0695 L/R
OVER ABANDONED CONRAIL RAILROAD

WAY-71-0.28

1/7

426/432

M:\98028\AUTOCAD\ACAD-2000\RRDEMONOTES.dwg - May 08, 2001

FED. RD.	STATE	PROJECT	
2	OHIO	I-1105(22)	

158
206

WAY-I-5.54
MED-I-0.00

STD. EROSION CONTROL SEE MEMO-D-32

WEST TO CHICAGO

18+00 ℄ ERIE R/R

FOR RELOCATION OF POWERLINE SEE SHEET #104

42°-47'-04" SKEW

PT. MIN. CLEARANCE

49+00

50+00

51+00

947.01 N. TRACK
946.57 S. TRACK

N. TRACK 946.06
S. TRACK 945.62

945.07 N. TRACK
944.61 S. TRACK

MIN. CLEARANCE SEE CLEARANCE DIAGRAM

TOP OF HIGHEST RAIL (NORTH TRACK)

SEE MIN. CLEARANCE CLEARANCE DIAGRAM

CULTIVATED FIELD

℄ MEDIAN DITCH

END APPROACH SLAB STA. 74+83.80

ERIE RAILROAD R/W LINE

4-24"-ASH

43°-02'-48" SKEW

133°-02'-48"-SKEW

TEMPORARY CABLE

SURVEY of STATE ROUTE NO. I

STA. 75+90.88

43°-19'-01"

ERIE RAILROAD R/W LINES

SOUTHBOUND LANES

15"-SEWER 122' LONG

OPEN FIELD

BEGIN APPROACH SLAB STA. 76+97.96

℄ MEDIAN DITCH

NORTHBOUND LANES

PT. MIN. CLEARANCE

PROPOSED POWER LINE

64'-0"

80'-0"

64'-0"

EAST TO HOBOKEN-JERSEY CITY

℄ ERIE R/R

STD. EROSION CONTROL SEE MEMO-D-32

TOE SLOPE NO DITCH

CURVE DATA:
Δ 53°-43'-40"
Dc= 00°-30'-00"
R= 11,459.16
L= 10,745.56
T= 5,804.48
E= 1,386.24

POINT OF MINIMUM CLEARANCE

LEFT STRUCTURE

RIGHT STRUCTURE

CLEARANCE DIAGRAM

73+00 74+00 75+00 76+00 77+00 78+00

947 946 945 944 943 942 941 940 939 938 937 936 935 934 933 932 931 930 929 928 927 926 925 924 923 922 921 920 919 918 917 916 915 914 913 912 911 910 909 908 907 906 905 904 903 902 901 900

980 960 940

R-970.79 L-971.16
R-971.28 L-971.80
R-971.72 L-972.38
R-972.11 L-972.90
STA. 74+83.80 R-972.35 L-973.23 R-972.46 L-973.37
R-972.75 L-973.79
R-972.99 L-974.14
R-973.18 L-974.44
STA. 76+96.96 R-973.32 L-964.69
R-973.41 L-974.88

BRIDGE LIMITS 214.17'

L. LANE PVC STA. 72+50 EL 970.47 1600' VC +1.44% PVI STA. 80+50 EL 981.99
NORTH TAN. of VERT. CURVE -2.13%
R. LANE PVC STA. 71+00 EL 968.31 1600' VC +1.44% PVI STA. 80+00 EL 981.27
NORTH TAN. of VERT. CURVE -2.19%

2:1 NORMAL

MIN. CLEARANCE SEE CLEARANCE DIAGRAM

2:1 NORMAL

12" DIA. PILES - ESTIMATED AVERAGE PAY LENGTH 35'-0" EACH PIER.

PROPOSED STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.
SPAN: 64'-80'-64' C/C BRGS. ALONG ℄ OF SUBSTRUCTURE.
ROADWAY: 42'-0" F/F PARAPETS.
LOAD FREQUENCY: CF 2000 ADEQUATE FOR A.A.S.H.O. ALT. LING
SKEW: 43°-02'-48" RF FROM SUBTANGENT.
WEARING SURFACE: 1" MONOLITHIC.
APPROACH SLAB: 25' LONG AS-1-54
ALIGNMENT: 0°-30'-0" CURVE RIGHT.
SUPERELEVATION: 3/16" PER FOOT.
SEE DWG. 105 FOR GEOMETRIC LAYOUT PLAN.
FDN-SOUNDINGS, FDN. DESIGN & FDN. QUANTITIES ARE BASED ON A STUDY OF SOIL-SAMPLING SOUNDINGS MADE AT THE SITE. THIS SOUNDING INFORMATION MAY BE INSPECTED IN THE INTERSTATE PROJECT OFFICE IN COLUMBUS OR IN THE DIVISION OFFICE, BUT THE STATE DOES NOT GUARANTEE THE ACCURACY THEREOF.
8 PASSENGER TRAINS DAILY @ 70 MI./HR.
18 FREIGHT TRAINS DAILY @ 50 MI./HR.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

BEISWENGER & HOCH, Consulting Engineers
AKRON, OHIO

SITE PLAN
BRIDGE NO. WAY-I-0697
OVER ERIE RAILROAD
WAYNE COUNTY SCALE: 1"=20'
STA. 74+83.80 TO STA. 76+96.96

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
		REB RAE				3.19.58

NOTE: THIS SHEET IS A COPY OF THE ORIGINAL CONSTRUCTION PLANS AND IS PROVIDED FOR INFORMATION ABOUT THE EXISTING STRUCTURE ONLY. IT IS NOT TO SCALE.

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
VLK	SLM	DWS	02/15/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
AFS		3503338/8503362	

SITE PLAN
BRIDGE NO. WAY-71-0695 L/R
OVER ABANDONED CONRAIL RAILROAD

WAY-71-0.28

2/7

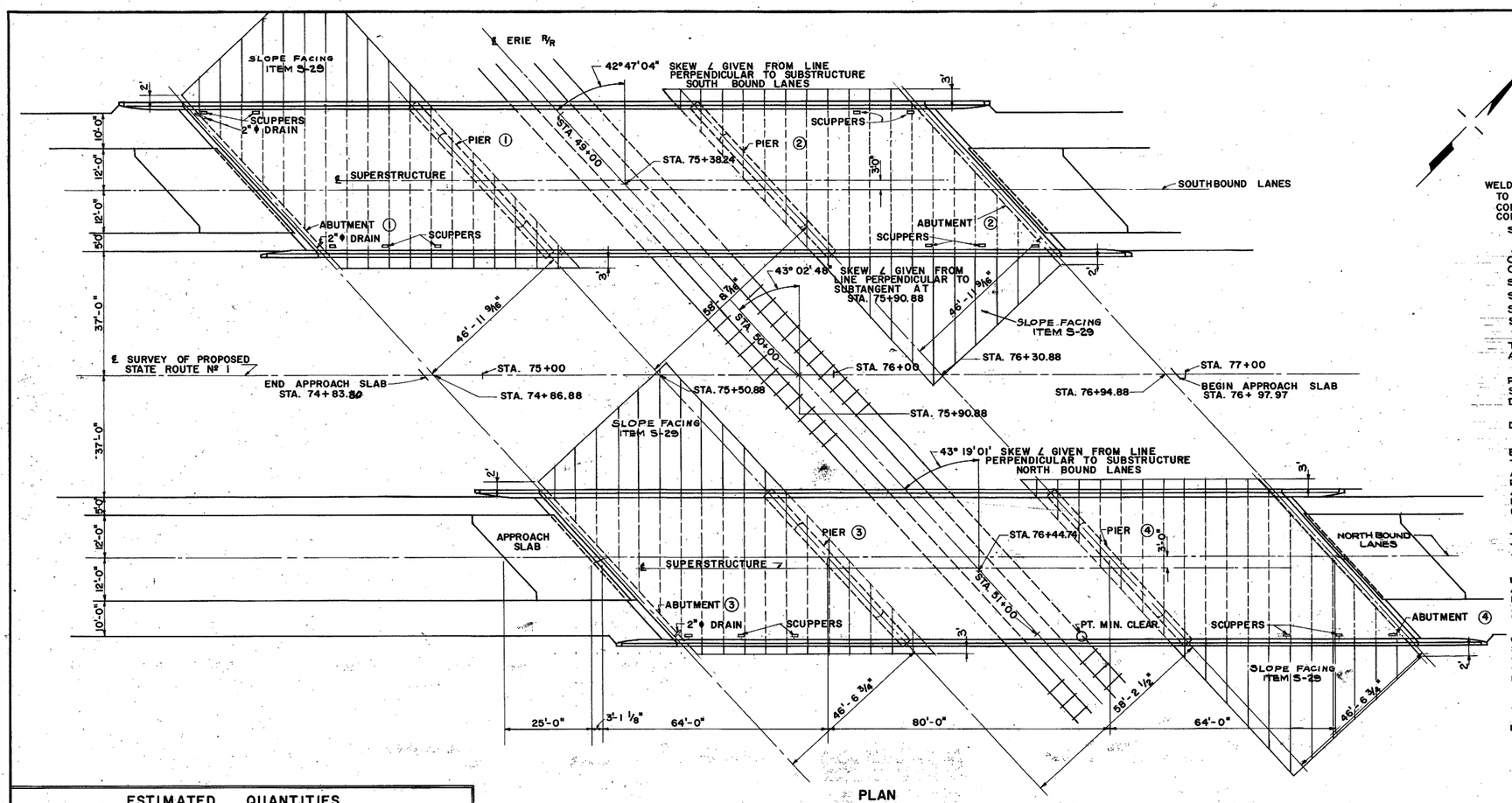
427/432

M:\96029\AUTOCAD\ACAD-2000\rdemo1.dwg - May 04, 2001

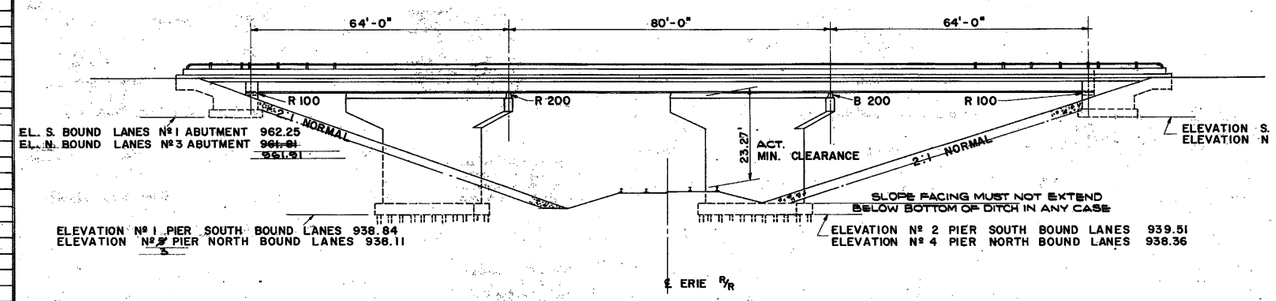
FED. RD.	STATE	PROJECT	
2	OHIO	I-1105(22)	

159
206

WAY.-1-5.54
MED.-1-0.00



PLAN



ELEVATION

GENERAL NOTES

WELDED STEEL: THE STEEL FOR THE 33" WF BEAMS SHALL CONFORM TO ASTM DESIGNATION A-373, ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO EITHER ASTM A-7 (AS PER SEC. M-74 (a) OF THE CONSTRUCTION & MATERIAL SPECIFICATIONS) OR TO A-373

SEE STANDARD DRAWING RB-1-55 FOR BEARING DETAILS

ALL PILES TO BE 12" MIN. TOP DIAMETER CAST-IN-PLACE CONCRETE PILES DRIVEN TO A MINIMUM BEARING CAPACITY OF 40 TONS.

SEE STANDARD DRAWING AR-1-57 FOR ALUMINUM RAILING DETAILS

SEE STANDARD DRAWING RB-1-55 FOR BOLSTER & ROCKER DETAILS

SEE STANDARD DRAWING CSB-2-56 SHT. 2&3 FOR STD. DETAILS

SEE DWG.Nº 190 FOR STANDARD DETAILS

SLOPE FACING: POROUS DRAINS NOT LESS THAN 12 INCHES THICK SHALL BE PLACED ON AREAS OUTLINED ON PLAN IN ACCORDANCE WITH ITEM S-29

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO THE REQUIREMENTS OF "DESIGN SPECIFICATIONS FOR HIGHWAY STRUCTURES" OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS, DATED 10-1-51

FOUNDATION BEARING PRESSURE: ABUTMENT FOOTINGS ARE DESIGNED FOR A MAXIMUM BEARING PRESSURE OF ONE TON/SQ.FT.

EXCAVATION QUANTITY INCLUDES THE REMOVAL OF FILL MATERIAL BETWEEN THE SURFACE OF THE PROPOSED EMBANKMENT AND THE BOTTOM OF THE ABUTMENT. BACKFILL BEHIND THE ABUTMENTS SHALL BE MADE WITH MATERIAL MEETING THE REQUIREMENTS OF SEC. 1-22 AND SHALL BE COMPACTED IN ACCORDANCE WITH REQUIREMENTS FOR EMBANKMENT COMPACTION. PAYMENT FOR BACKFILL SHALL BE INCLUDED WITH ITEM E-2, UNCLASSIFIED EXCAVATION.

CONSTRUCTION CLEARANCE OF 20'-0" VERTICALLY ABOVE THE TOP OF THE RAILROAD RAILS AND 8'-0" HORIZONTALLY FROM THE CENTER OF THE TRACKS SHALL BE MAINTAINED AT ALL TIMES.

SHEETING AND BRACING: BEFORE CONSTRUCTION IS STARTED, EIGHT SETS OF PRINTS SHOWING DETAILS OF THE SHEETING AND BRACING TO BE USED FOR EXCAVATION ADJACENT TO THE RAILROAD TRACKS SHALL BE SUBMITTED TO THE DIRECTOR FOR APPROVAL BY THE DEPARTMENT OF HIGHWAYS AND BY THE RAILROAD COMPANY.

ALIGNING RAILROAD TRACKS: AFTER THE CONTRACTOR HAS COMPLETED ALL EXCAVATION AND BACKFILL ADJACENT TO THE RAILROAD TRACKS IN COMPLIANCE WITH SEC. E-2.04 AND E-2.08 OF THE CONSTRUCTION & MATERIAL SPECIFICATIONS SUBJECT TO THE SUPERVISION OF THE RAILROAD COMPANY. NOTHING IN SEC. E-2.04 OR G-8.07 OF THE SPECIFICATIONS SHALL BE CONSTRUED TO HOLD THE CONSTRUCTOR LIABLE FOR ALIGNING AND RESURFACING THE RAILROAD TRACKS.

SEE SUPPLEMENTAL SPECIFICATIONS S-114 AND I-127.

ERIE RAILROAD FORCE ACCOUNTWORK:

(1) RELOCATE COMMUNICATION LINES TEMPORARY AND REBUILD IN FINAL POSITION.

(2) RELOCATE SIGNAL AND RELOCATE SIGNAL LINES TEMPORARILY AND REBUILD IN FINAL POSITION

CARE MUST BE TAKEN IN PLACING REINFORCING STEEL UNDER BEAM SEATS IN ORDER TO CLEAR ANCHOR BOLTS, WHERE THEY OCCUR.

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Super	Abuts	Piers	Gen
E-2	971	Cu.Yds.	UNCLASSIFIED EXCAVATION		689	282	
E-2	Lump	Sum	CRIBS, SHEETING & COFFERDAMS				Lump
S-1	567	Cu.Yds.	CLASS "C" CONCRETE SUPERSTRUCTURE	567			
S-1	253	Cu.Yds.	CLASS "E" CONCRETE ABUTMENTS		253		
S-1	446	Cu.Yds.	CLASS "C" CONCRETE PIERS ABOVE FOOTINGS			446	
S-1	296	Cu.Yds.	CLASS "E" CONC. PIER & ABUT. FOOTINGS		128	168	
	225,450			164,050	29,810		
S-4	284,960	Lbs.	REINFORCING STEEL	243,342	29,810	40,592	
S-7	659,380	Lbs.	STRUCTURAL STEEL	659,380			
S-8	659,380	Lbs.	FIELD PAINTING OF STRUCTURAL STEEL	659,380			
S-14	972	Lin.Ft.	RAILING (ALUMINUM RAIL AND SUPPORTS -CONCRETE PARAPETS)	972			
S-16	Lump	Sum	FIRST TEST PILE				Lump
S-18	2800	Lin.Ft.	12" ϕ CAST IN PLACE REINFORCED CONCRETE PILES			2800	
S-29	80	Cu.Yds.	POROUS BACKFILL				80
S-29	852	Cu.Yds.	SLOPE FACING (S 29.05 TYPE)				852
1-127	4	Each	BRIDGE DELINEATORS	4			

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

BEISWENGER & HOCH / CONSULTING ENGINEERS
AKRON, OHIO

GENERAL PLAN & ELEVATION
BRIDGE NO. WAY-1-0697
OVER ERIE RAILROAD
WAYNE COUNTY
STA. 74+83.79 TO STA. 76+97.97

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
		DYE				3.19.58

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
VLK	SLM	DWS	02/15/01

CHECKED	REVISED	STRUCTURE FILE NUMBER
AFS		8503338/8503362

GENERAL PLAN AND ELEVATION
BRIDGE NO. WAY-71-0695 L/R
OVER ABANDONED CONRAIL RAILROAD

WAY-71-0.28

3/7

428/432

NOTE: THIS SHEET IS A COPY OF THE ORIGINAL CONSTRUCTION PLANS AND IS PROVIDED FOR INFORMATION ABOUT THE EXISTING STRUCTURE ONLY. IT IS NOT TO SCALE.

M:\99029\AUTOCAD\ACAD_2000\rdsm2.dwg - May 04, 2001

FED. RD.	STATE	PROJECT	
2	OHIO	I-1105(22)	

160
206

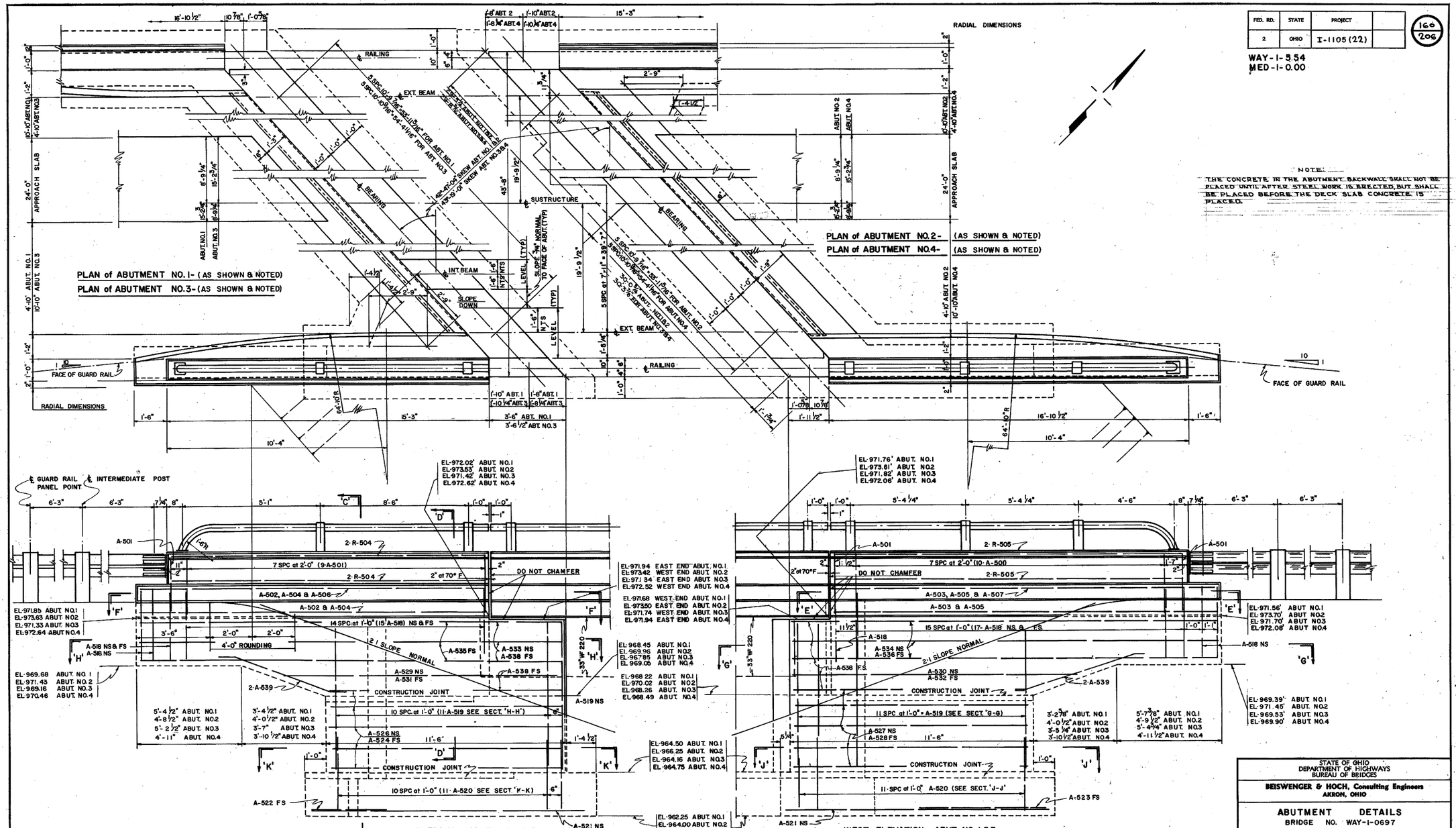
WAY-I-3.54
MED-I-0.00

RADIAL DIMENSIONS

NOTE:
THE CONCRETE IN THE ABUTMENT BACKWALL SHALL NOT BE PLACED UNTIL AFTER STEEL WORK IS ERECTED, BUT SHALL BE PLACED BEFORE THE DECK SLAB CONCRETE IS PLACED.

PLAN of ABUTMENT NO. I- (AS SHOWN & NOTED)
PLAN of ABUTMENT NO.3-(AS SHOWN & NOTED)

PLAN of ABUTMENT NO.2- (AS SHOWN & NOTED)
PLAN of ABUTMENT NO.4- (AS SHOWN & NOTED)



WORK THIS SHEET WITH SHEET No. 1G1

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

BEISWENGER & HOCH, Consulting Engineers
AKRON, OHIO

ABUTMENT DETAILS
BRIDGE NO. WAY-I-0697
OVER ERIE RAILROAD

WAYNE COUNTY

STA. 74+83.79 TO STA. 76+97.97

DESIGNED	DRAWN	TRACED V.C.B. R.A.E.	CHECKED	REVIEWED	DATE	REVISED 3-19-38

NOTE: THIS SHEET IS A COPY OF THE ORIGINAL CONSTRUCTION PLANS AND IS PROVIDED FOR INFORMATION ABOUT THE EXISTING STRUCTURE ONLY. IT IS NOT TO SCALE.

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
VLK	SLM	DWS	02/15/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
AFS		8503338/8503362	

ABUTMENT DETAILS
BRIDGE NO. WAY-71-0695 L/R
OVER ABANDONED CONRAIL RAILROAD

WAY-71-0.28

4/7

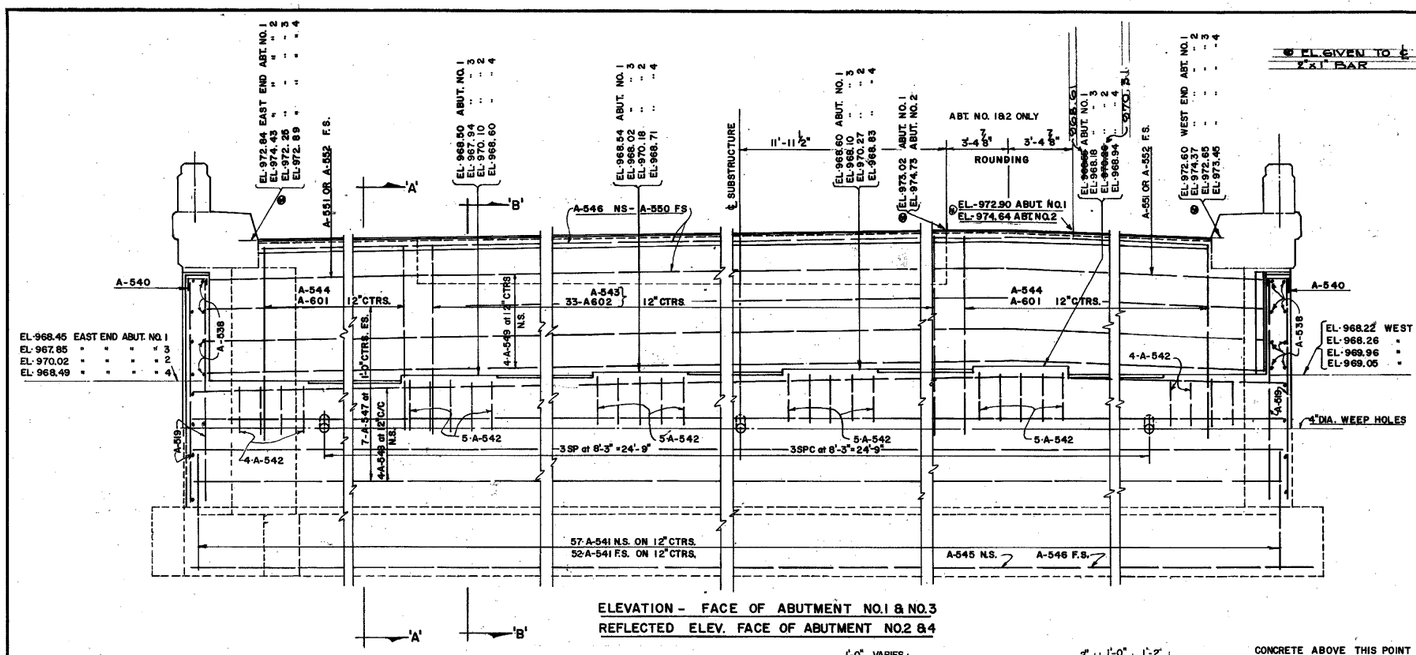
429/432

M:\99029\AUTOCAD\ACAD-2000\rdetail3.dwg - May 04, 2001

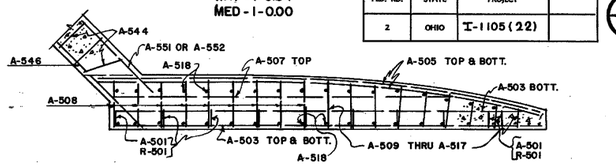
FED. RD.	STATE	PROJECT	
2	OHIO	I-1105(22)	

101
206

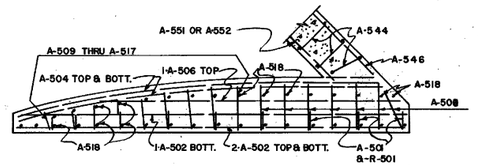
WAY - I-5.54
MED - I-0.00



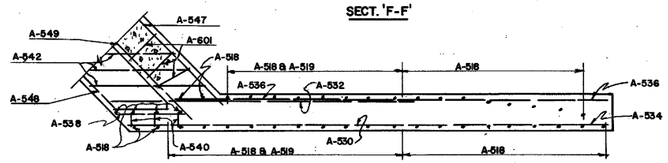
ELEVATION - FACE OF ABUTMENT NO.1 & NO.3
REFLECTED ELEV. FACE OF ABUTMENT NO.2 &4



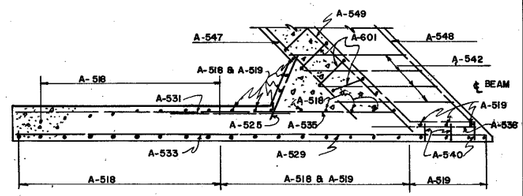
SECT. 'E-E'



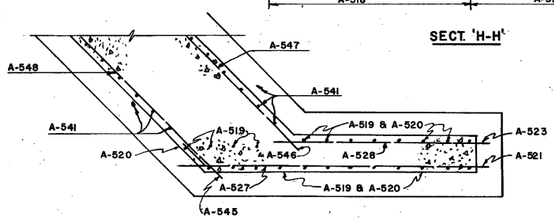
SECT. 'F-F'



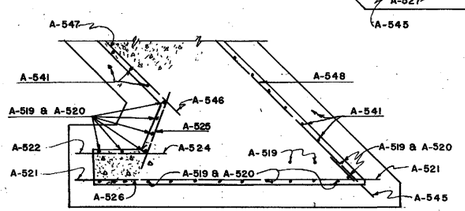
SECT. 'G-G'



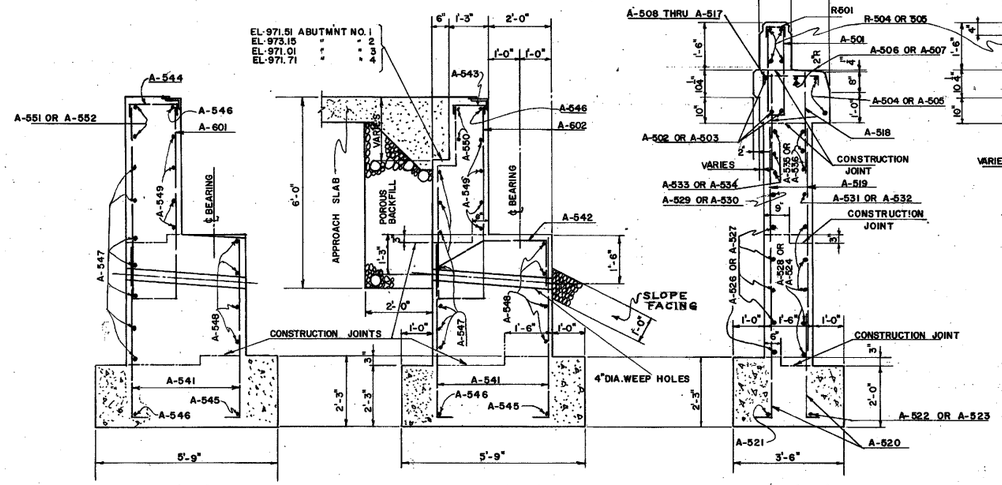
SECT. 'H-H'



SECT. 'J-J'



SECT. 'K-K'



WORK THIS SHEET WITH SHEET No. 100

NOTES

ALL REINFORCING STL. TO BE COVERED WITH 3" OF CONCRETE WHEN BEARING ON EARTH. ALL OTHER STL. MUST BE COVERED WITH 2" OF CONCRETE UNLESS OTHERWISE NOTED.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

BEISWENGER & HOCH, Consulting Engineers
AKRON, OHIO

ABUTMENT DETAILS
BRIDGE NO. WAY-I-0697
OVER ERIE RAILROAD
WAYNE COUNTY
STA. 74+83.79 TO STA. 76+97.97

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
		RAE CAD				3.19.58

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
VLK	SLM	DWS	02/15//01

CHECKED	REVISED	STRUCTURE FILE NUMBER
AFS		8503338/8503362

ABUTMENT DETAILS
BRIDGE NO. WAY-71-0695 L/R
OVER ABANDONED CONRAIL RAILROAD

WAY-71-0.28

5/7

430/432

NOTE: THIS SHEET IS A COPY OF THE ORIGINAL CONSTRUCTION PLANS AND IS PROVIDED FOR INFORMATION ABOUT THE EXISTING STRUCTURE ONLY. IT IS NOT TO SCALE.

M:\99029\AUTOCAD\ACAD-2000\rdetm04.dwg - May 04, 2001

FED. RD.	STATE	PROJECT	
2	OHIO	I-1105(22)	

162
2.06

WAY-I-5.54
MED-I-0.00

EAST SIDE

WEST SIDE

ELEVATION PIERS 3 & 4

PLAN

SECTION B-B

SHADED AREA INDICATES 1/2" PREFORMED EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF SEC. M.10.02 TYPE 2 INCLUDE WITH CONCRETE FOR PAYMENT.

EAST END

WEST END

CARE MUST BE TAKEN IN PLACING TOP REINFORCING STEEL SO AS TO CLEAR ANCHOR BOLTS FOR BEAM BEARING PLATES

SEE DIAGRAM ABOVE FOR VERTICAL DIMENSIONS ON PIERS 3 & 4

NOTE

REINFORCING STEEL TO HAVE A MINIMUM COVER OF 2" UNLESS OTHERWISE NOTED

ELEVATION

SECTION A-A

16-P1001 IN TWO LAYERS-8 PER LAYER

P507; ALTERNATE WITH P506

P601 DOWELS

12"Φ CAST IN PLACE CONC. PILE

STOP P507 HERE

CONST. JT.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

BEISWENGER & HOCH, Consulting Engineers
AKRON, OHIO

PIER DETAILS
BRIDGE NO. WAY-I-0697
OVER ERIE RAILROAD
WAYNE COUNTY
STA. 74+83.80 TO STA. 76+96.96

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
		RGV WCH				3.19.58

NOTE: THIS SHEET IS A COPY OF THE ORIGINAL CONSTRUCTION PLANS AND IS PROVIDED FOR INFORMATION ABOUT THE EXISTING STRUCTURE ONLY. IT IS NOT TO SCALE.

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
700 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
VLK	SLM	DWS	02/15/01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
AFS		3503338/8503362	

PIER DETAILS
BRIDGE NO. WAY-71-0695 L/R
OVER ABANDONED CONRAIL RAILROAD

WAY-71-0.28

6/7

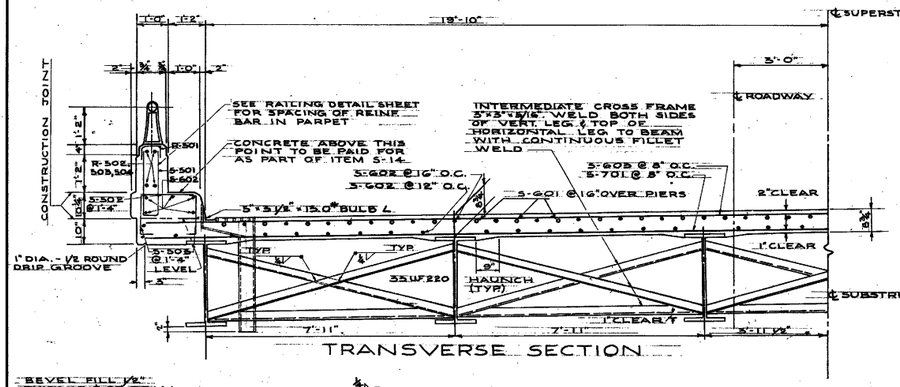
431
432

M:\99029\AUTOCAD\ACAD-2000\rstems05.dwg - May 04, 2001

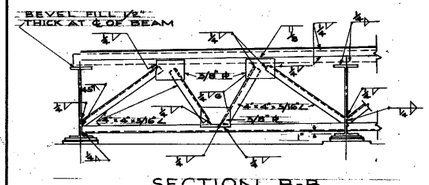
WAY-1-5.54
MED-1-0.00

FED. RD.	STATE	PROJECT	
2	OHIO	I-1105 (22)	

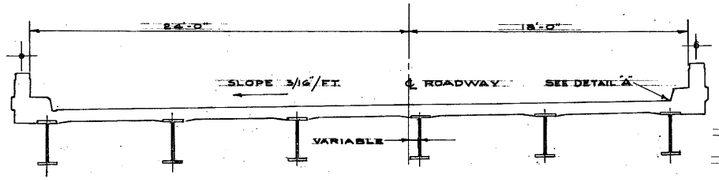
163
206



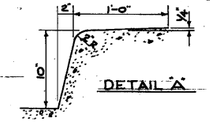
TRANSVERSE SECTION



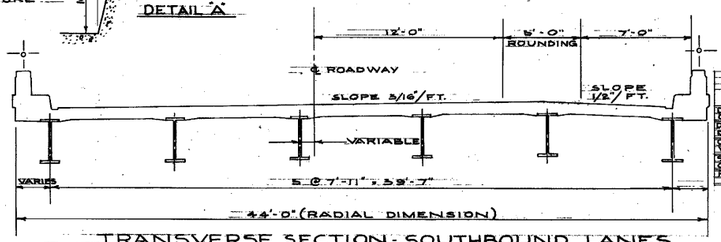
SECTION B-B



TRANSVERSE SECTION - NORTHBOUND LANES
(LOOKING SOUTH)



DETAIL 'A'



TRANSVERSE SECTION - SOUTHBOUND LANES
(LOOKING SOUTH)

1. CONCRETE DECK PLACING:
IN ORDER TO FACILITATE WATER CURING OF THE CONCRETE OF THE DECK SLAB, THE PLACING OF CONCRETE SHALL PROGRESS UPGRADE. THE SLABS MAY BE PLACED IN SECTIONS BETWEEN TRANSVERSE CONSTRUCTION JOINTS WHICH ARE NORMAL TO THE CENTERLINE OF BRIDGE AND ARE LOCATED NEAR THE CENTER OF ANY SPAN.

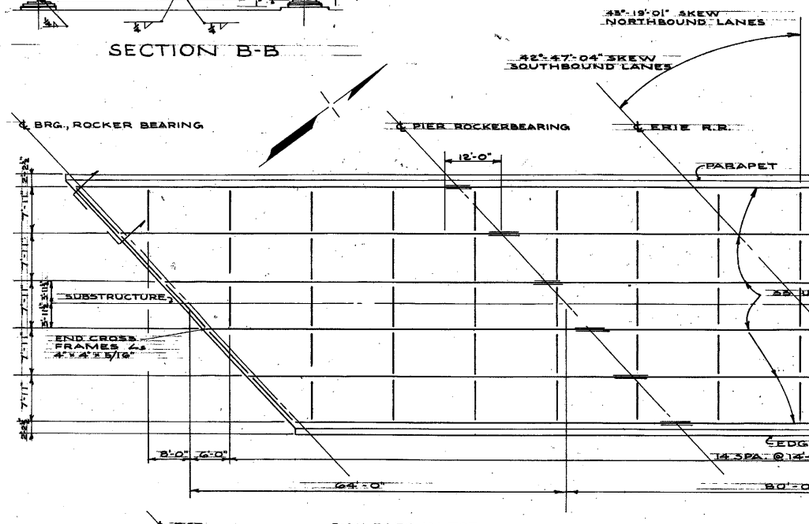
2. SLAB THICKNESS SHOWN INCLUDES 1" OF MONOLITHIC WEARING SURFACE.

3. WELDING PROCEDURE:
LIFT END OF BEAM 2½" AT NORTH & SOUTH ABUTMENTS. WELD SPLICES AS INDICATED BELOW. THEN LOWER BEAMS INTO PLACE AT THE ABUTMENTS. BUTTWELD BEAM FLANGES AND WEB USING THE FOLLOWING SEQUENCE: - MAKE ONE PASS ON EACH FLANGE, THEN ONE ON THE WEB. REPEAT UNTIL WELDS ARE COMPLETED. WELD THE TOP & BOTTOM MOMENT PLATES.

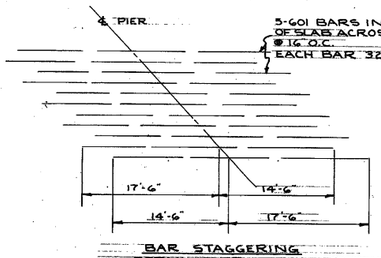
4. WELDING OF STRUCTURAL STEEL SHALL BE CLASS "A" EXCEPT AS OTHERWISE SHOWN. ANY WELDS SHOWN AS FIELD WELDS MAY, AT THE OPTION OF THE CONTRACTOR, BE MADE IN THE SHOP.

ERIE R.R.
DEFLECTION & CAMBER

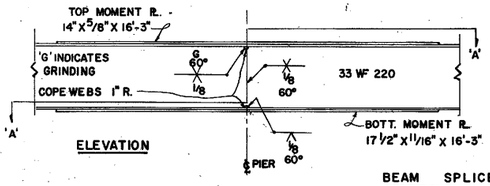
LOCATION	OUTSIDE BEAMS		INSIDE BEAMS	
	END-SPANS	MIDDLE-SPANS	END-SPANS	MIDDLE-SPANS
DEFLECTION DUE TO WEIGHT OF STEEL	0.05	0.15	0.05	0.15
DEFLECTION DUE TO REMAINING DEAD LOAD	0.15	0.75	0.10	0.60
CONVEXITY REQUIRED FOR VERTICAL CURVE	0.15	0.25	0.15	0.25
SUM OF DEFLECTION & CURVEXITY	0.35	1.15	0.30	1.00
REQUIRED CAMBER	0	1¼"	0	1"



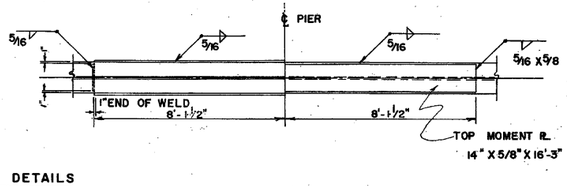
FRAMING PLAN



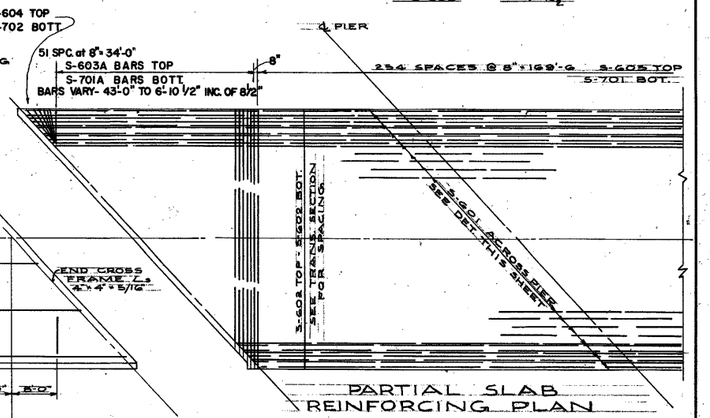
BAR STAGGERING DETAIL OVER PIERS



ELEVATION



BEAM SPLICE DETAILS



PARTIAL SLAB REINFORCING PLAN

LAP ALL LONGITUDINAL BARS (S-602 & S-701) 2'-3" MIN.
S-602
1'-10½"

NOTE:
WELDING OF STRUCT. STL. SHALL BE CLASS 'A' EXCEPT AS OTHERWISE SHOWN. ANY WELDS SHOWN AS FIELD MAY, AT THE OPTION OF THE CONTRACTOR, BE MADE IN THE SHOP.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

BEISWENGER & HOCH, Consulting Engineers
AKRON, OHIO

SUPERSTRUCTURE DETAILS
BRIDGE NO. WAY-1-0697
OVER ERIE RAILROAD
WAYNE COUNTY
STA. 74+83.79 TO STA. 76+97.97

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
		Stephanie R.C.V.				3.19.98

NOTE: THIS SHEET IS A COPY OF THE ORIGINAL CONSTRUCTION PLANS AND IS PROVIDED FOR INFORMATION ABOUT THE EXISTING STRUCTURE ONLY. IT IS NOT TO SCALE.

DESIGN AGENCY
ENGINEERING ASSOCIATES, INC.
200 WINKLER DRIVE
WOOSTER, OHIO 44691

DESIGNED	DRAWN	REVIEWED	DATE
VLK	SLM	DWS	02/15//01
CHECKED	REVISED	STRUCTURE FILE NUMBER	
AFS		8503338/8503362	

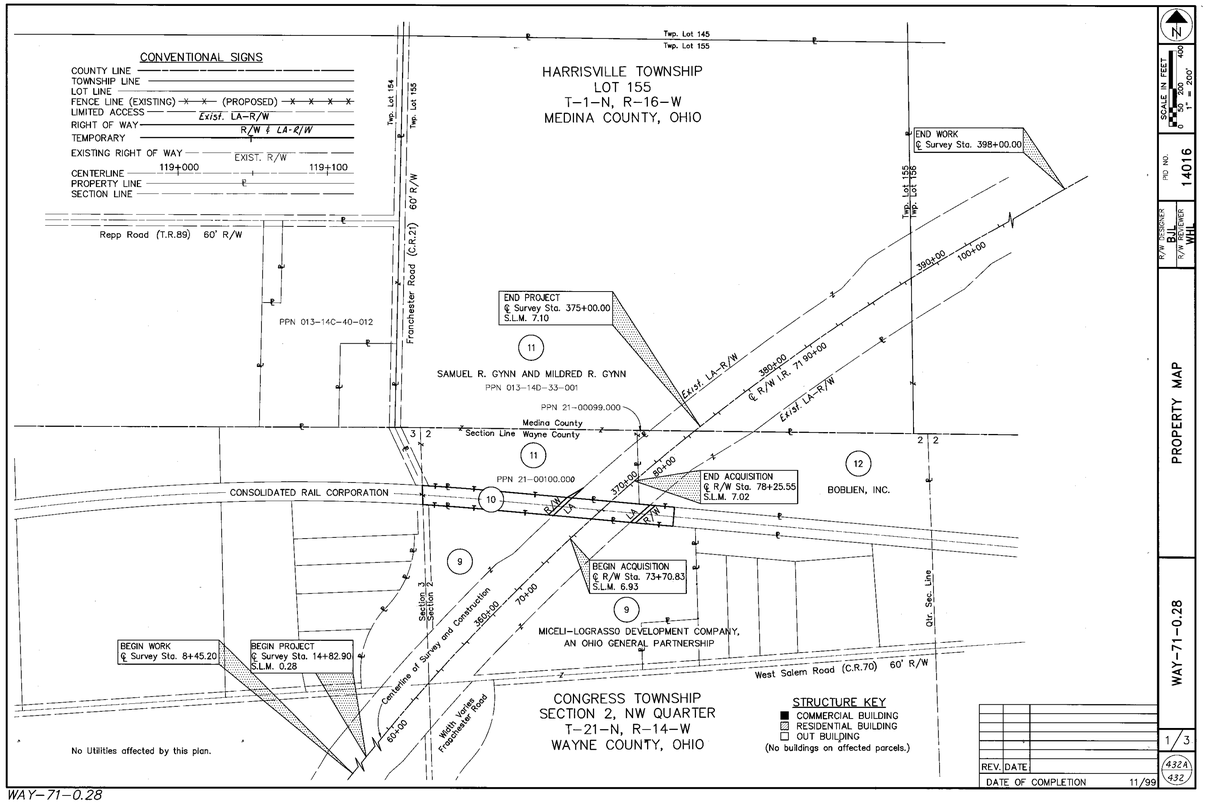
SUPERSTRUCTURE DETAILS
BRIDGE NO. WAY-71-0695 L/R
OVER ABANDONED CONRAIL RAILROAD

WAY-71-0.28

7/7

432
432

M:\99029\AUTOCAD\ACAD-2000\mdms5.dwg - May 04, 2001


CONVENTIONAL SIGNS
COUNTY LINE
TOWNSHIP LINE
LOT LINE
FENCE LINE (EXISTING) (PROPOSED)
LIMITED ACCESS Exist. LA-R/W
RIGHT OF WAY R/W & LA-R/W
TEMPORARY
EXISTING RIGHT OF WAY EXIST. R/W
CENTERLINE 119+000 119+100
PROPERTY LINE
SECTION LINE
HARRISVILLE TOWNSHIP
LOT 155
T-1-N, R-16-W
MEDINA COUNTY, OHIO
Twp. Lot 145
Twp. Lot 155
Twp. Lot 154
Twp. Lot 155
Repp Road (T.R.89) 60' R/W
Franchester Road (C.R.21) 60' R/W
PPN 013-14C-40-012
END WORK
℄ Survey Sta. 398+00.00
END PROJECT
℄ Survey Sta. 375+00.00
S.L.M. 7.10
11
SAMUEL R. GYNN AND MILDRED R. GYNN
PPN 013-14D-33-001
PPN 21-00099.000
Medina County
Section Line Wayne County
3 2
2 2
11
PPN 21-00100.000
12
BOBLIEN, INC.
CONSOLIDATED RAIL CORPORATION
10
9
9
Exist. LA-R/W
380+00
℄ R/W I.R. 719
790+00
Exist. LA-R/W
370+00
80+00
℄ R/W LA
LA ℄ R/W
BEGIN ACQUISITION
℄ R/W Sta. 73+70.83
S.L.M. 6.93
END ACQUISITION
℄ R/W Sta. 78+25.55
S.L.M. 7.02
398+00
100+00
Twp. Lot 155
Twp. Lot 156
Qtr. Sec. Line
Section 3
Section 2
Centerline of Survey and Construction
380+00
704+00
MICELI-LOGRASSO DEVELOPMENT COMPANY,
AN OHIO GENERAL PARTNERSHIP
BEGIN WORK
℄ Survey Sta. 8+45.20
BEGIN PROJECT
℄ Survey Sta. 14+82.90
S.L.M. 0.28
60'-00
Wells Varga
Freshwater Road
West Salem Road (C.R.70) 60' R/W
No Utilities affected by this plan.
CONGRESS TOWNSHIP
SECTION 2, NW QUARTER
T-21-N, R-14-W
WAYNE COUNTY, OHIO
STRUCTURE KEY
COMMERCIAL BUILDING
RESIDENTIAL BUILDING
OUT BUILDING
(No buildings on affected parcels.)
N
SCALE IN FEET
0 50 200 400
P.I.D. NO. 14016
R/W DESIGNER BJL
R/W REVIEWER WEH
PROPERTY MAP
WAY-71-0.28
REV. DATE
DATE OF COMPLETION 11/99
1/3
432A
432

WAY-71-0.28

NET RESIDUE = RECORD AREA − TOTAL PRO − NET TAKE

TOTAL NUMBER OF:
4 OWNERSHIPS
0 TOTAL TAKE
0 OWNERSHIPS WITH STRUCTURES INVOLVED
0 OWNERSHIPS WITH "P" ITEMS

GRANTEE:
ALL RIGHT OF WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED BOOK	AS ACQUIRED PAGE
1-8	NOT USED																
9	MICELI-LOGRASSO DEVELOPMENT COMPANY, AN OHIO GENERAL PARTNERSHIP	3	DV 716	794	Multiple	452.439									No R/W required.		
10WL	CONSOLIDATED RAIL CORPORATION	3	DV 61	225	21-00317.000	6.110*	0.055	0.943	0.055	0.888				STATE	Acquired by Atlantic & Great Western		
			DV 61	229										↓	Railroad, circa 1864.		
10WD			DV 63	285				0.062	0.000	0.062					*NW Qtr. Sec. 2 only		
10WD-1								0.064	0.000	0.064							
					TOTAL	6.110*	0.055	1.069	0.055	1.014		1.642*	3.399*				
10T								1.642		1.642					For construction access & grading.		
10T-1								0.344		0.344					For temporary sediment basin.		
11WD	SAMUEL R. GYNN AND MILDRED R. GYNN	3	DV 371	264	21-00099.000	0.050	0.000	0.000				0.050					
					21-00100.000	9.000	1.582	0.018	0.000	0.018		7.400					
					WAYNE CO. TOTAL:	9.050	1.582	0.018	0.000	0.018		7.450					
			DV 182	59	013-14D-33-001	120.950	12.596	0.000				108.354			Medina County		
			DV 292	308	013-14C-40-012	13.670	0.869	0.000				12.801			Medina County		
					MEDINA CO. TOTAL:	134.620	13.465	0.000				121.155		STATE			
12	BOBLIEN, INC.	3	OR 72	457	21-00104.000	15.800									No R/W required.		

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

** – DENOTES RIGHT OF WAY ENCROACHMENT.

NOTE: ALL TEMPORARY PARCELS TO BE OF A 24 MONTH DURATION.

NOTE: A "DV" BESIDE THE OWNERS RECORD VOLUME INDICATES DEED VOLUME, AND AN "OR" INDICATES OFFICIAL RECORD, ACCORDING TO WAYNE CO. RECORDER.

REV. DATE

DATE OF COMPLETION 11/99

FEDERAL PROJECT NO.

PID NO. 14016

STATE JOB NO. 0308/0

R/W ASSIGNED BJL

R/W CHECKED WHL

SUMMARY OF ADDITIONAL RIGHT OF WAY

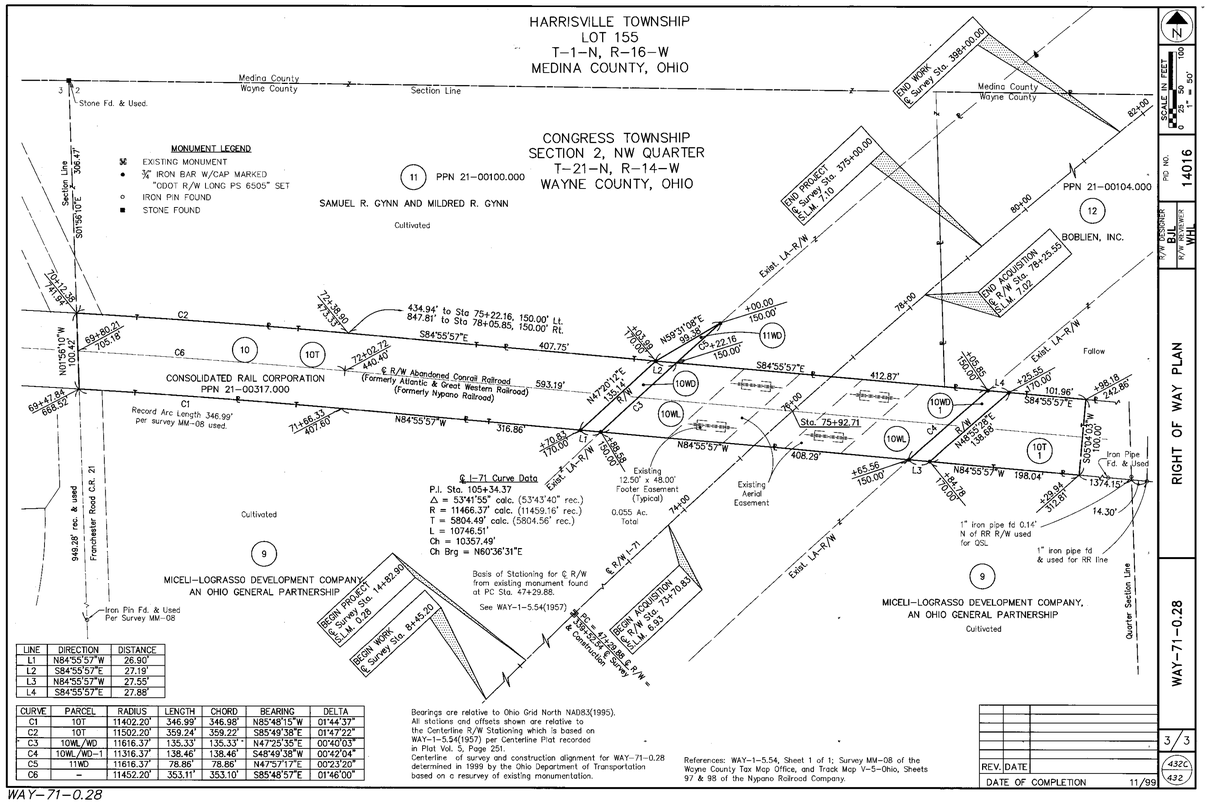
WAY-71-0.28

2/3

4328
432

WAY-71-0.28

M:\WAYS\LAYOUT\ALIGN\PLOT.DGN 04-Nov-22 14:48:02 5999



LINE	DIRECTION	DISTANCE
L1	N84°55'57"W	26.90'
L2	S84°55'57"E	27.19'
L3	N84°55'57"W	27.55'
L4	S84°55'57"E	27.88'

CURVE	PARCEL	RADIUS	LENGTH	CHORD	BEARING	DELTA
C1	10T	11402.20'	346.99'	346.98'	N85°48'15"W	01°44'37"
C2	10T	11502.20'	359.24'	359.22'	S85°49'38"E	01°47'22"
C3	10WL/WD	11616.37'	135.33'	135.33'	N47°25'36"E	00°40'03"
C4	10WL/WD-1	11316.37'	138.46'	138.46'	S48°49'38"W	00°42'04"
C5	11WD	11616.37'	78.86'	78.86'	N47°57'17"E	00°23'20"
C6	-	11452.20'	353.11'	353.10'	S85°48'57"E	01°46'00"

Bearings are relative to Ohio Grid North NAD83(1995). All stations and offsets shown are relative to the Centerline R/W Stationing which is based on WAY-1-5.54(1957) per Centerline Plat recorded in Plat Vol. 5, Page 251.
Centerline of survey and construction alignment for WAY-71-0.28 determined in 1999 by the Ohio Department of Transportation based on a resurvey of existing monumentation.

References: WAY-1-5.54, Sheet 1 of 1; Survey MM-08 of the Wayne County Tax Map Office, and Track Map V-5-Ohio, Sheets 97 & 98 of the Nypano Railroad Company.

WAY-71-0.28

K:\2000\CAD\SURVEY\71\16.DW Mon Nov 22 11:46:33 1999

INTRODUCTION

THIS REPORT IS A PRESENTATION OF THE SUBSURFACE INVESTIGATION PERFORMED FOR THE PROPOSED WIDENING OF INTERSTATE 71 (I-71). THE WIDENING IS PART OF THE WAY-71-0.28 PROJECT, WHICH ENTAILS PROVIDING AN ADDITIONAL SOUTHBOUND LANE AND AN ADDITIONAL NORTHBOUND LANE IN THE MEDIAN OF I-71. THE LIMITS OF THE PROJECT EXTEND FROM 0.83 MILE NORTH OF STATE ROUTE 604 AND EXTENDING NORTHEAST TO 0.06 MILE SOUTH OF THE WAYNE/MEDINA COUNTY LINE. THE TOTAL PROJECT LENGTH IS 6.82 MILES.

THE PROPOSED PAVEMENT GRADE FOR A MAJORITY OF THE PROJECT WILL ROUGHLY MATCH THE EXISTING GRADE. HOWEVER, IN ORDER TO INCREASE THE VERTICAL CLEARANCE BENEATH THE SIX (6) OVERPASS STRUCTURES WITHIN THE PROJECT LIMITS, THE PROFILE GRADE OF I-71 WILL BE LOWERED BENEATH THE OVERPASSES.

GEOLOGY AND OBSERVATIONS OF THE PROJECT

GEOLOGICALLY, THE SITE LIES ON THE KILLBUCK-GLACIATED PITTSBURGH PLATEAU. THE WISCONSIN GLACIER PASSED OVER THE AREA. THE PROJECT TRAVERSES SOIL CLASSIFIED AS HIRAM AND LAKE END MORAINE AND GROUND MORAINE TILL, DEPOSITED BY THE LATE WISCONSINAN ICE SHEET. THE UNDERLYING BEDROCK IS SHALE AND SANDSTONE OF THE CUYAHOGA FORMATION. BASED ON THE BEDROCK TOPOGRAPHY MAP OF THE WEST SALEM QUADRANGLE, OBTAINED FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR), AND THE BORINGS DRILLED FOR THE ORIGINAL CONSTRUCTION OF I-71, THE TOP OF BEDROCK ALONG THIS SECTION OF THE ROADWAY FLUCTUATES SIGNIFICANTLY. IN PARTICULAR, THE TOP OF BEDROCK AT BOTH THE SOUTH END AND NORTH END OF THE PROJECT IS BETWEEN ELEVATIONS 800 AND 850 FEET. THE HIGHEST POINT OF BEDROCK WITHIN THIS SECTION IS AT APPROXIMATELY ELEVATION 1090 FEET, LOCATED WITHIN AN EXISTING CUT SECTION JUST SOUTH OF BRITTON ROAD.

EXPLORATION

A TOTAL OF NINETY-SEVEN (97) TEST BORINGS, DESIGNATED RB-1 THROUGH RB-97, WERE DRILLED ALONG THE MEDIAN OF I-71, AT THE STATIONS AND OFFSETS SHOWN ON THE SUMMARY OF SOIL TEST DATA SHEETS. THE BORINGS WERE SPACED AT APPROXIMATELY 400-FOOT INTERVALS, ALTERNATING 30 FEET LEFT AND RIGHT FROM THE CENTERLINE OF THE MEDIAN. A MAJORITY OF THE BORINGS WERE PLANNED TO A DEPTH OF 10.0 FEET, HOWEVER THE BOREHOLES DRILLED IN THE VICINITY OF THE SIX (6) OVERPASSES WERE PLANNED TO A DEPTH OF 13.0 FEET TO ACCOUNT FOR LOWERING THE PROFILE OF I-71. THE BORING LOCATIONS WERE FIELD STAKED AND SURVEYED BY REPRESENTATIVES OF ENGINEERING ASSOCIATES. THE BORINGS WERE SAMPLED WITH A GEOPROBE MODEL 4220, A VEHICLE-MOUNTED, HYDRAULICALLY-POWERED MACHINE THAT UTILIZES STATIC FORCE AND PERCUSSION TO ADVANCE A 48-INCH LONG BY 2.0-INCH DIAMETER SOIL SAMPLER.

IN ADDITION TO THE BORINGS ALONG THE MEDIAN, ONE (1) BORING, DESIGNATED CB-1, WAS DRILLED ALONG THE SOUTHBOUND OUTSIDE SHOULDER, IN REFERENCE TO THE REPLACEMENT OF THE INLET HEADWALL OF THE 144 INCH CULVERT, AT APPROXIMATELY STATION 332+00. THE BORING WAS DRILLED TO A DEPTH OF 45.0 FEET. THREE (3) BORINGS, DESIGNATED RR-1 THROUGH RR-3, WERE DRILLED FOR THE PROPOSED CONSTRUCTION OF THE EMBANKMENT AT THE ABANDONED RAILROAD AT APPROXIMATELY STATION 368+00. THE BORINGS WERE EACH DRILLED TO A DEPTH OF 30.0 FEET. FOUR (4) BORINGS, DESIGNATED EB-1 THROUGH EB-4, WERE DRILLED FOR THE SLOPE STABILITY INVESTIGATION OF BACKSLOPES JUST SOUTH OF TOWNSHIP ROAD 178 (BRITTON ROAD). THE BORINGS WERE DRILLED TO AUGER REFUSAL AT DEPTHS RANGING FROM 23.0 FEET TO 28.0 FEET. THE BORINGS WERE DRILLED WITH A TRUCK MOUNTED ROTARY DRILLING MACHINE UTILIZING 3.73 INCH HOLLOW STEM AUGERS TO ADVANCE THE HOLES.THE DRILLING WAS PERFORMED BETWEEN JULY 30, 1999 AND JANUARY 14, 2000.

INVESTIGATIONAL FINDINGS

THE TEST BORINGS EXHIBITED BETWEEN 2.0 INCHES AND 24.0 INCHES OF TOPSOIL AT THE GROUND SURFACE, HOWEVER, A MAJORITY OF THE BORINGS EXHIBITED 12.0 INCHES OR LESS. THE TOPSOIL IS GENERALLY DESCRIBED AS EITHER BROWN TO DARK BROWN CLAYEY SILT (SILTY CLAY) WITH THE PRESENCE OF ORGANICS, OR AS DARK BROWN SANDY SILT (SILTY SAND) WITH THE PRESENCE OF ORGANICS.

THE SUBSURFACE SOIL ALONG THE PROPOSED NORTHBOUND AND SOUTHBOUND LANES IS CONSISTENT, COMPRISED PRIMARILY OF COHESIVE GROUND MORAINE AND END MORAINE TILL. THIS COHESIVE SOIL IS PRIMARILY DESCRIBED AS BROWN TO GRAY SILTY CLAY (CLAYEY SILT, SILT AND CLAY) WITH "LITTLE" TO "SOME" COARSE TO FINE SAND AND "TRACE" TO "LITTLE" FINE GRAVEL (ODOT A-6A AND A-6B). OTHER SOIL TYPES ENCOUNTERED ALONG THE PROPOSED ROUTE INCLUDE:

SCATTERED LAYERS OF BROWN TO GRAY, MODERATE TO HIGH PLASTICITY, CLAY WITH "LITTLE" TO "SOME" SILT (ODOT A-7-6) WERE ENCOUNTERED IN APPROXIMATELY 10% OF THE BORINGS ALONG THE PROJECT.

LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS - 119 SAMPLES TESTED

DESCRIPTION	ODOT CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
GRAVEL AND/OR STONE FRAGMENTS	A-1-a	56	19	14	-11-		NP	NP	5	1
GRAVEL WITH SAND	A-1-b	29	31	25	-15-		NP	NP	20	6
GRAVEL AND/OR STONE FRAGMENTS W/SAND AND SILT	A-2-4	44	18	14	-24-		28	10	11	2
COARSE AND FINE SAND	A-3a(0)	VISUAL CLASSIFICATION								
GRAVEL WITH SAND, SILT AND CLAY	A-2-6(0)	33	22	17	-28-		NP	NP	9	1
SANDY SILT	A-4a(4)	11	14	17	35	23	23	9	12	4
SILT	A-4b	2	3	5	73	17	26	6	19	4
SILT AND CLAY	A-6a(8)	7	8	14	37	34	27	13	14	54
SILTY CLAY	A-6b(11)	9	7	12	36	36	30	17	14	43
CLAY	A-7-6(17)	3	3	10	35	49	44	28	17	4
WEATHERED SHALE	VISUAL CLASSIFICATION									
SHALE	VISUAL CLASSIFICATION									
SANDSTONE	VISUAL CLASSIFICATION									

ASPHALT

SOD AND/OR TOP SOIL = X = APPROXIMATE DEPTH

BERM MATERIAL

AUGER BORING - PLAN VIEW

DRIVE SAMPLE AND/OR CORE BORING - PLAN VIEW

ROADWAY OR AUGER BORING PLOTTED TO VERTICAL SCALE ONLY

DRIVE SAMPLE AND/OR CORE BORING PLOTTED TO VERTICAL SCALE ONLY

● WATER CONTENT NEARLY EQUAL TO OR GREATER THAN LIQUID LIMIT

INDICATES A NON-PLASTIC MATERIAL WITH A HIGH WATER CONTENT

FREE WATER

STATIC WATER LEVEL

NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (or X/Y/Z)
X = NUMBER OF BLOWS FOR FIRST 6"
Y = NUMBER OF BLOWS FOR SECOND 6"
Z = NUMBER OF BLOWS FOR THIRD 6"

NOTE: FIGURES BESIDE BORINGS INDICATE WATER CONTENT IN PERCENT. e.g. 15

LAYERS OF BROWN SILTY COARSE TO FINE SAND (CLAYEY FINE TO COARSE SAND) WITH "TRACE" TO "LITTLE" FINE GRAVEL (ODOT A-4A) WERE ENCOUNTERED IN APPROXIMATELY 10% OF THE TEST BORINGS ALONG THE PROJECT.

SCATTERED LAYERS OF BROWN, LOW PLASTICITY, SILT WITH "LITTLE" TO "SOME" CLAY (ODOT A-4B) WERE ENCOUNTERED IN APPROXIMATELY 5% OF THE BORINGS ALONG THE PROJECT.

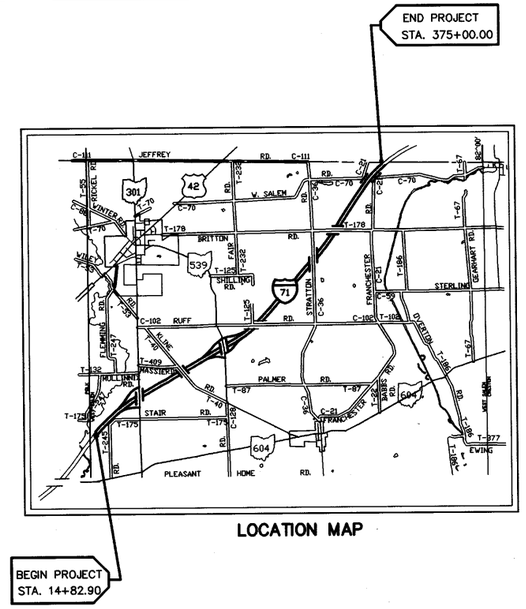
LAYERS/LENSES OF GRANULAR SOIL, GENERALLY DESCRIBED AS BROWN COARSE AND FINE SAND AND/OR FINE GRAVEL WITH "LITTLE" TO "SOME" SILT (ODOT A-1-A, A-1-B, A-3A, A-2-4, AND A-2-6), WERE ENCOUNTERED IN APPROXIMATELY 15% OF THE TEST BORINGS. A MAJORITY OF THE BORINGS THAT EXHIBITED GRANULAR SOIL WERE DRILLED WEST OF STATION 115+00.

THE TEST BORINGS, RB-74 THROUGH RB-78, SAMPLED BETWEEN STATIONS 290+00 AND 306+00, DRILLED WITHIN AN ORIGINAL CUT SECTION, AS WELL AS RB-82, ENCOUNTERED REFUSAL ON EITHER SHALE OR SANDSTONE BEDROCK, AT DEPTHS RANGING FROM 2.0 FEET (RB-75) AND 5.0 FEET (RB-77). TWO ADDITIONAL BORINGS, RB-91 AND RB-95, ENCOUNTERED REFUSAL AT 5.0 FEET, HOWEVER, BECAUSE THE BORINGS WERE DRILLED IN A FILL SECTION, REFUSAL WAS NOT OBTAINED ON BEDROCK.

A MORE COMPREHENSIVE DESCRIPTION OF THE SOILS AND BEDROCK ENCOUNTERED DURING THE DRILLING PROGRAM CAN BE FOUND ON THE BORING LOGS IN APPENDIX 3, AT THE END OF THE SUBSURFACE INVESTIGATION REPORT.

THE NATURAL MOISTURE CONTENTS OF COHESIVE SOIL SAMPLES TESTED RANGED FROM 10% TO 29%, BUT WERE PRIMARILY LESS THAN 20%. THE NATURAL MOISTURE CONTENTS OF GRANULAR SOIL SAMPLES TESTED RANGED FROM 4% TO 24%, BUT WERE PRIMARILY LESS THAN 15%. THE NATURAL MOISTURE CONTENTS OF THE SOIL SAMPLES TESTED FOR PLASTICITY INDEX RANGED FROM 12% BELOW TO 6% ABOVE THEIR CORRESPONDING PLASTIC LIMITS, BUT WERE PRIMARILY AT OR BELOW THEIR CORRESPONDING PLASTIC LIMITS. OVERALL, THE SOIL IS CONSIDERED TO BE SLIGHTLY BELOW TO SLIGHTLY ABOVE CORRESPONDING OPTIMUM MOISTURE CONTENTS (BASED ON CORRELATION CHARTS).

GROUNDWATER WAS INITIALLY ENCOUNTERED DURING THE DRILLING PROCESS IN RB-64 AT 6.0 FEET (ELEVATION 1121.2 FEET), AND IN RB-71 AT 7.0 FEET (ELEVATION 1092.8 FEET). GROUNDWATER WAS NOT ENCOUNTERED DURING THE DRILLING PROCESS IN THE REMAINING TEST BORINGS, AND THE BOREHOLES WERE DRY UPON COMPLETION. GROUNDWATER LEVELS AND/OR THE PRESENCE OF GROUNDWATER ARE CONSIDERED TO BE DEPENDENT ON SEASONAL FLUCTUATIONS IN PRECIPITATION. AT THE TIME OF THIS INVESTIGATION, RECENT PRECIPITATION WAS CONSIDERED TO BE BELOW NORMAL.



LOCATION MAP

Note--all available soil and bedrock information which can be conveniently shown on the structure foundation investigation sheets has been so reported. Additional subsurface investigations may have been made to study some special aspect of the project. Copies of the data, if any, may be inspected in the District Deputy Director's Office (District 3), the Pavement and Soils Section of the Office of Roadway Engineering or in the Office of Bridges at 1980 West Broad Street.

PROJECT INDEX

STATIONS FROM	STATIONS TO	PLAN VIEW SHEET	PROFILE SHEET	CUT MAX.	FILL EMB. MAX.
14+82.90	43+000	7	7	0.0' FT	0.0' FT
43+000	72+000	8	8	2.0' FT	1.0' FT
72+000	100+000	9	9	2.0' FT	1.0' FT
100+000	110+000	10	10	0.0' FT	0.0' FT
110+000	137+000	11	11	0.0' FT	0.0' FT
137+000	166+000	12	12	1.0' FT	1.0' FT
166+000	200+000	13	13	2.0' FT	1.0' FT
200+000	228+000	14	14	0.0' FT	0.0' FT
228+000	256+00	15	15	1.0' FT	0.0' FT
256+000	284+000	16	16	2.0'FT	0.0' FT
284+000	312+000	17	17	0.0' FT	1.0' FT
312+000	340+000	18	18	0.0' FT	2.0' FT
340+000	368+000	19	19	0.0' FT	2.0' FT
368+000	378+000	20	20	0.0' FT	1.0' FT

RESOURCE INTERNATIONAL, INC.
281 ENTERPRISE DRIVE
WESTERVILLE, OHIO 43081
(614) 885-1959

DRAWN	REVIEWED	DATE	CALCULATED	CHECKED
REK		1/17/00		GPH

SOIL PROFILE

WAY -71-0.28

1/20

1
32

SUMMARY OF SOIL TEST DATA

BORINGS REFERENCED TO CENTERLINE

	Location & Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I	W.C.	SHTL Class.
RB–1	14+90, 30' LT	1.0–3.5	30	31	28	–	11 –			6	A–1–b
		3.5–4.0	SAME AS 1.0–3.5							8	VISUAL
		4.0–6.5	56	19	14	–	11 –			6	A–1–a
		6.5–9.0	SAME AS 4.0–6.5							8	VISUAL
		9.0–9.5	SAME AS 4.0–6.5							8	VISUAL
		9.5–10.0	REDDISH BROWN SILTY CLAY, TRACE GRAVEL, TRACE SAND.							22	VISUAL
RB–2	18+80, 30' RT	0–0.9	DARK BROWN CLAYEY SILT, SOME SAND, LITTLE GRAVEL, TRACE ORGANICS (TOPSOIL)							13	VISUAL
		0.9–4.0	3	7	14	38	38	29	13	13	A–6a
		4.0–9.0	SAME AS 0.9–4.0							13	VISUAL
		9.0–10.0	SAME AS 0.9–4.0							11	VISUAL
RB–3	22+70, 30' LT	0.3–2.5	7	8	14	34	37	29	14	16	A–6a
		2.5–4.0	SAME AS 0.3–2.5							14	VISUAL
		4.0–6.5	SAME AS 0.3–2.5							16	VISUAL
		6.5–9.0	SAME AS 0.3–2.5							17	VISUAL
		9.0–10.0	SAME AS 0.3–2.5							15	VISUAL
RB–4	26+60, 30' RT	0–0.4	DARK BROWN SILTY CLAY, SOME SAND, LITTLE GRAVEL, TRACE ORGANICS (TOPSOIL)							18	VISUAL
		0.4–1.5	13	20	18	23	26			10	VISUAL
		1.5–7.0	5	6	16	29	44	27	13	16	A–6a
		7.0–10.0	SAME AS 1.5–7.0							14	VISUAL
RB–5	30+50, 30' LT	0.5–2.5	14	17	20	–	49 –	20	8	11	A–4a
		2.5–6.5	40	28	19	–	13 –			8	A–1–b
		6.5–7.0	BROWN TO GRAY SILTY CLAY, TRACE SAND, TRACE GRAVEL.							18	VISUAL
		7.0–9.5	SAME AS 6.5–7.0							19	VISUAL
		9.5–10.0	SAME AS 6.5–7.0							16	VISUAL
RB–6	34+40, 30' RT	0–0.8	DARK BROWN TO LIGHT BROWN CLAYEY SILT, SOME SAND, LITTLE GRAVEL, TRACE ORGANICS (TOPSOIL).							10	VISUAL
		0.8–5.0	4	6	12	38	40	32	16	13	A–6b
		5.0–10.0	SAME AS 0.8–5.0							17	VISUAL
RB–7	38+30, 30' LT	0–1.5	BROWN SILTY CLAY, LITTLE SAND, TRACE ORGANICS (TOPSOIL).							17	VISUAL
		1.5–2.5	6	47	34	–	13 –			4	A–1–b
		2.5–4.0	7	10	24	31	28	26	13	19	A–6a
		4.0–7.0	BROWNISH GRAY CLAYEY SAND, SOME SILT, LITTLE GRAVEL.							21	VISUAL
		7.0–10.0	BROWNISH GRAY SAND AND GRAVEL, LITTLE SILT, TRACE CLAY.							14	VISUAL
RB–8	42+20, 30' RT	0.5–3.0	8	13	18	32	29	26	12	12	A–6a
		3.0–4.0	SAME AS 0.5–3.0							15	VISUAL
		4.0–7.0	GRAY CLAY, LITTLE SILT, TRACE SAND, TRACE GRAVEL.							22	VISUAL
		7.0–10.0	SAME AS 4.0–7.0							20	VISUAL
RB–9	46+10, 30' LT	0.3–2.5	13	11	17	32	27	23	10	12	A–4a
		2.5–5.0	SAME AS 0.3–2.5							15	VISUAL
		5.0–7.5	SAME AS 0.3–2.5							15	VISUAL
		7.5–10.0	SAME AS 0.3–2.5							19	VISUAL
RB–10	50+13, 30' RT	0.2–2.5	8	7	13	35	37	33	15	13	A–6a
		2.5–5.0	SAME AS 0.2–2.5							18	VISUAL
		5.0–7.5	SAME AS 0.2–2.5							19	VISUAL
		7.5–10.0	SAME AS 0.2–2.5							16	VISUAL
RB–11	53+90, 30' LT	0.3–2.5	8	10	18	–	64 –	26	12	15	A–6a
		2.5–5.0	SAME AS 0.3–2.5							14	VISUAL
		5.0–7.5	SAME AS 0.3–2.5							12	VISUAL
		7.5–10.0	SAME AS 0.3–2.5							16	VISUAL
RB–12	57+80, 30' RT	0.4–2.2	33	22	17	–	28 –			9	VISUAL
		2.2–5.0	6	6	14	29	45	31	16	15	A–6b
		5.0–7.5	SAME AS 2.2–5.0							20	VISUAL
		7.5–10.0	SAME AS 2.2–5.0							13	VISUAL

BORINGS REFERENCED TO CENTERLINE

	Location & Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I	W.C.	SHTL Class.
RB–13	61+70, 30' LT	0–1.5	DARK BROWN CLAYEY SILT, SOME SAND, TRACE ORGANICS (TOPSOIL)								VISUAL
		1.5–4.0	4	8	14	–	74 –	32	16	13	A–6b
		4.0–7.0	SAME AS 1.5–4.0							16	VISUAL
		7.0–10.0	SAME AS 1.5–4.0							17	VISUAL
RB–14	65+60, 30' RT	0.3–1.5	DARK BROWN GRAVEL AND SAND, SOME SILT, LITTLE CLAY, TRACE ORGANICS.							12	VISUAL
		1.5–3.0	3	5	11	39	42	33	16	16	A–6b
		3.0–4.0	SAME AS 1.5–3.0							13	VISUAL
		4.0–7.5	SAME AS 1.5–3.0							17	VISUAL
		7.5–10.0	SAME AS 1.5–3.0							15	VISUAL
RB–15	69+50, 30' LT	0.3–2.5	3	6	13	31	47	32	17	14	A–6b
		2.5–5.0	SAME AS 0.3–2.5							17	VISUAL
		5.0–7.5	SAME AS 0.3–2.5							15	VISUAL
		7.5–10.0	SAME AS 0.3–2.5							15	VISUAL
RB–16	73+42.25, 30' RT	0.3–2.0	13	23	21	35	8			11	VISUAL
		2.0–4.5	5	7	10	–	78 –	35	17	20	A–6b
		4.5–7.0	SAME AS 2.0–4.5							23	VISUAL
		7.0–8.5	SAME AS 2.0–4.5							21	VISUAL
		8.5–11.5	BROWN CLAYEY SAND, SOME SILT, LITTLE GRAVEL.							19	VISUAL
		11.5–13.0	GRAYISH BROWN SILTY CLAY, SOME SAND, TRACE GRAVEL.							14	VISUAL
RB–17	74+67, 30' LT	0–0.5	BROWN SILTY CLAY, SOME ORGANICS, LITTLE SAND, TRACE GRAVEL (TOPSOIL).								VISUAL
		0.5–3.0	4	7	14	37	38	30	15	16	A–6a
		3.0–5.5	SAME AS 0.5–3.0							15	VISUAL
		5.5–7.0	SAME AS 0.5–3.0							14	VISUAL
		7.0–9.5	SAME AS 0.5–3.0							25	VISUAL
		9.5–10.5	SAME AS 0.5–3.0							23	VISUAL
		10.5–12.5	SAME AS 0.5–3.0							25	VISUAL
		12.5–13.0	BROWN SAND, SOME SILT, TRACE CLAY.							24	VISUAL
RB–18	78+50, 30' RT	0.3–3.5	3	3	10	34	50	44	24	15	A–7–6
		3.5–6.0	SAME AS 0.3–3.5							15	VISUAL
		6.0–7.0	BROWN TO MOTTLED BROWN AND GRAY SILT AND CLAY, LITTLE SAND, TRACE GRAVEL.							15	VISUAL
		7.0–10.0	SAME AS 6.0–7.0							15	VISUAL
RB–19	82+33, 30' LT	0–1.0	BROWN SILTY CLAY, SOME ORGANICS, TRACE SAND, TRACE GRAVEL (TOPSOIL).								VISUAL
		1.0–3.5	6	10	18	–	66 –	34	19	14	A–6b
		3.5–6.0	SAME AS 1.0–3.5							22	VISUAL
		6.0–8.5	SAME AS 1.0–3.5							17	VISUAL
		8.5–10.0	SAME AS 1.0–3.5							17	VISUAL
RB–20	86+16, 30' RT	0.3–2.5	SAME AS 2.5–6.5							13	VISUAL
		2.5–6.5	14	3	9	35	39	39	19	20	A–6b
		6.5–7.5	SAME AS 2.5–6.5							21	VISUAL
		7.5–10.0	SAME AS 2.5–6.5							18	VISUAL
RB–21	89+99, 30' LT	0–0.8	BROWN SILTY CLAY, SOME ORGANICS, LITTLE GRAVEL, TRACE SAND (TOPSOIL).								VISUAL
		0.8–3.0	5	4	9	36	46	37	19	14	A–6b
		3.0–5.5	SAME AS 0.8–3.0							22	VISUAL
		5.5–8.0	SAME AS 0.8–3.0							24	VISUAL
		8.0–10.0	SAME AS 0.8–3.0							23	VISUAL
RB–22	93+82, 30' RT	0.4–2.5	SAME AS 2.5–5.0							12	VISUAL
		2.5–5.0	5	7	13	38	37	32	16	14	A–6b
		5.0–7.5	SAME AS 2.5–5.0							17	VISUAL
		7.5–9.6	SAME AS 2.5–5.0							16	VISUAL
		9.6–10.0	BROWN SAND, SOME SILT, LITTLE CLAY, TRACE GRAVEL.							12	VISUAL
RB–23	97+65, 30' LT	0–2.0	BROWN SILTY CLAY, LITTLE SAND, TRACE ORGANICS (TOPSOIL).								VISUAL
		2.0–4.5	3	8	21	–	68 –			15	A–6b
		4.5–7.5	SAME AS 2.0–4.5							19	VISUAL
		7.5–10.0	SAME AS 2.0–4.5							15	VISUAL
RB–24	101+48, 30' RT	0.6–1.3	BROWN SILTY CLAY, SOME SAND, LITTLE GRAVEL, TRACE ORGANICS.							12	VISUAL
		1.3–2.7	33	27	19	–	21 –			7	VISUAL
		2.7–5.0	4	2	9	37	48	41	23	20	A–7–6
		5.0–7.5	SAME AS 2.7–5.0							14	VISUAL
		7.5–9.5	SAME AS 2.7–5.0							14	VISUAL
		9.5–10.0	BROWN SAND, SOME SILT, LITTLE SAND, TRACE CLAY.							12	VISUAL
RB–25	105+31, 30' LT	0.5–1.5	35	21	22	–	22 –			4	A–1–b
		1.5–4.0	5	7	13	–	75 –	27	11	14	A–6a
		4.0–6.5	SAME AS 1.5–4.0							13	VISUAL
		6.5–9.0	SAME AS 1.5–4.0							14	VISUAL
		9.0–10.0	SAME AS 1.5–4.0							13	VISUAL

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

CALCULATED | CHECKED GPH
DATE 1/12/00 | DATE 1/12/00
REVIEWED
DRAWN LS

SOIL PROFILE

WAY–71–0.28

2/20

2
32

RESOURCE INTERNATIONAL INC.
PROJECT NO. WI-9138
FILENAME: 9138-1.DWG
DATE: 12-JAN-2000

SUMMARY OF SOIL TEST DATA

BORINGS REFERENCED TO CENTERLINE

Location & Offset		From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I	W.C.	SHTL Class.
RB-26	109+14, 30' RT	0.3-2.0	10	12	15	32	31	28	12	14	A-6a
		2.0-2.5	SAME AS 0.3-2.0							11	VISUAL
		2.5-5.0	SAME AS 0.3-2.0							14	VISUAL
		5.0-7.5	SAME AS 0.3-2.0							15	VISUAL
		7.5-10.0	SAME AS 0.3-2.0							19	VISUAL
RB-27	112+97, 30' LT	0.3-2.5	5	6	13	36	40	30	15	13	A-6a
		2.5-5.0	SAME AS 0.3-2.5							14	VISUAL
		5.0-8.5	SAME AS 0.3-2.5							14	VISUAL
		8.5-10.0	SAME AS 0.3-2.5							14	VISUAL
RB-28	116+82, 30' RT	0.3-3.5	SAME AS 3.5-6.0							15	VISUAL
		3.5-6.0	5	4	9	-	82 -	32	16	16	A-6b
		6.0-8.5	SAME AS 3.5-6.0							17	VISUAL
		8.5-11.0	SAME AS 3.5-6.0							17	VISUAL
		11.0-13.0	SAME AS 3.5-6.0							14	VISUAL
RB-29	117+54, 30' LT	0-0.5	BROWN CLAYEY SILT, LITTLE SAND, TRACE ORGANICS (TOPSOIL)								VISUAL
		0.5-3.0	3	7	6	45	39	31	14	14	A-6a
		3.0-6.0	SAME AS 0.5-3.0							15	VISUAL
		6.0-8.5	SAME AS 0.5-3.0							18	VISUAL
		8.5-13.0	SAME AS 0.5-3.0							20	VISUAL
RB-30	121+69.5, 30' RT	0.6-2.5	7	6	12	40	35	27	9	14	A-4a
		2.5-5.0	SAME AS 0.6-2.5							15	VISUAL
		5.0-7.5	SAME AS 0.6-2.5							15	VISUAL
		7.5-10.0	SAME AS 0.6-2.5							16	VISUAL
RB-31	125+85, 30' LT	1.0-2.5	2	4	11	-	83 -	38	19	20	A-6b
		2.5-5.0	SAME AS 1.0-2.5							19	VISUAL
		5.0-7.5	SAME AS 1.0-2.5							19	VISUAL
		7.5-10.0	SAME AS 1.0-2.5							15	VISUAL
RB-32	130+00, 30' RT	0.8-2.5	5	5	11	41	38	38	19	15	A-6b
		2.5-5.0	SAME AS 0.8-2.5							18	VISUAL
		5.0-7.5	SAME AS 0.8-2.5							14	VISUAL
		7.5-10.0	SAME AS 0.8-2.5							14	VISUAL
RB-33	134+16, 30' LT	0.3-2.5	8	6	13	32	41	31	15	13	A-6a
		2.5-5.0	SAME AS 0.3-2.5							16	VISUAL
		5.0-7.5	SAME AS 0.3-2.5							18	VISUAL
		7.5-10.0	SAME AS 0.3-2.5							17	VISUAL
RB-34	138+31.5, 30' RT	0.3-2.5	10	5	8	45	32	37	18	14	A-6b
		2.5-4.5	SAME AS 0.3-2.5							19	VISUAL
		4.5-7.5	SAME AS 0.3-2.5							25	VISUAL
		7.5-10.0	SAME AS 0.3-2.5							17	VISUAL
RB-35	142+47, 30' LT	0-1.0	BROWN CLAYEY SILT, LITTLE ORGANICS, LITTLE SAND, TRACE GRAVEL (TOPSOIL).								VISUAL
		1.0-4.0	6	8	14	-	72 -			14	A-6a
		4.0-8.0	SAME AS 1.0-4.0							21	VISUAL
		8.0-10.0	SAME AS 1.0-4.0							16	VISUAL
RB-36	146+62.5, 30' RT	0.9-2.5	4	5	13	59	19			15	A-4b
		2.5-5.0	SAME AS 0.9-2.5							20	VISUAL
		5.0-7.5	SAME AS 0.9-2.5							18	VISUAL
		7.5-10.0	SAME AS 0.9-2.5							15	VISUAL
RB-37	150+78, 30' LT	0.4-2.5	1	1	6	-	92 -	47	32	13	A-7-6
		2.5-5.0	SAME AS 0.4-2.5							17	VISUAL
		5.0-8.5	SAME AS 0.4-2.5							25	VISUAL
		8.5-10.0	SAME AS 0.4-2.5							18	VISUAL
RB-38	154+93.5, 30' RT	0.3-2.5	3	7	12	59	15	30	14	14	A-6a
		2.5-5.0	SAME AS 0.3-2.5							14	VISUAL
		5.0-7.5	SAME AS 0.3-2.5							15	VISUAL
		7.5-10.0	SAME AS 0.3-2.5							15	VISUAL

BORINGS REFERENCED TO CENTERLINE

Location & Offset		From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I	W.C.	SHTL Class.
RB-39	159+11, 30' LT	0-2.5	SAME AS 2.5-5.0								VISUAL
		2.5-5.0	7	7	14	-	72 -	31	16	14	A-6b
		5.0-8.0	SAME AS 2.5-5.0							15	VISUAL
		8.0-10.5	SAME AS 2.5-5.0							14	VISUAL
		10.5-13.0	SAME AS 2.5-5.0							14	VISUAL
RB-40	159+74, 30' RT	0.3-2.5	3	6	12	61	16			14	VISUAL
		2.5-5.0	SAME AS 0.3-2.5							13	VISUAL
		5.0-8.0	BROWN TO BROWNISH GRAY SILTY CLAY, SOME SAND, LITTLE GRAVEL.							15	VISUAL
		8.0-10.0	SAME AS 5.0-8.0							13	VISUAL
		10.0-13.0	SAME AS 5.0-8.0							16	VISUAL
RB-41	163+97.5, 30' LT	0.2-2.5	7	7	12	35	39	29	14	12	A-6a
		2.5-5.0	SAME AS 0.2-2.5							12	VISUAL
		5.0-7.5	SAME AS 0.2-2.5							13	VISUAL
		7.5-10.0	SAME AS 0.2-2.5							13	VISUAL
RB-42	168+21, 30' RT	0.3-2.5	4	5	10	-	81 -	31	12	14	A-6a
		2.5-5.0	SAME AS 0.3-2.5							14	VISUAL
		5.0-7.5	SAME AS 0.3-2.5							14	VISUAL
		7.5-10.0	SAME AS 0.3-2.5							12	VISUAL
RB-43	172+44.5, 30' LT	0.3-2.5	7	8	13	-	72 -	30	14	14	A-6a
		2.5-6.5	SAME AS 0.3-2.5							14	VISUAL
		6.5-9.0	SAME AS 0.3-2.5							14	VISUAL
		9.0-10.0	SAME AS 0.3-2.5							14	VISUAL
RB-44	176+68, 30' RT	0.3-2.5	4	8	13	-	75 -	37	18	16	A-6b
		2.5-5.0	SAME AS 0.3-2.5							13	VISUAL
		5.0-7.5	SAME AS 0.3-2.5							16	VISUAL
		7.5-10.0	SAME AS 0.3-2.5							15	VISUAL
RB-45	180+91.5, 30' LT	0.5-2.5	2	5	11	35	46	38	21	15	A-6b
		2.5-5.0	SAME AS 0.5-2.5							19	VISUAL
		5.0-7.5	SAME AS 0.5-2.5							21	VISUAL
		7.5-10.0	SAME AS 0.5-2.5							14	VISUAL
RB-46	185+15, 30' RT	0.4-3.0	2	6	12	66	13	36	20	15	A-6b
		3.0-5.0	SAME AS 0.4-3.0							19	VISUAL
		5.0-7.5	SAME AS 0.4-3.0							13	VISUAL
		7.5-10.0	SAME AS 0.4-3.0							14	VISUAL
RB-47	189+38.5, 30' LT	0-1.0	BROWN CLAYEY SILT, SOME ORGANICS, LITTLE SAND (TOPSOIL).								VISUAL
		1.0-4.0	10	6	11	35	38	30	14	14	A-6a
		4.0-7.5	SAME AS 1.0-4.0							23	VISUAL
		7.5-10.0	SAME AS 1.0-4.0							14	VISUAL
RB-48	193+62, 30' RT	0.3-2.5	4	5	17	44	30			16	VISUAL
		2.5-5.0	5	4	13	47	31	39	21	23	A-6b
		5.0-7.5	SAME AS 2.5-5.0							14	VISUAL
		7.5-10.5	SAME AS 2.5-5.0							14	VISUAL
		10.5-13.0	SAME AS 2.5-5.0							14	VISUAL
RB-49	194+15, 30' LT	0-2.0	DARK BROWN SILTY CLAY, SOME SAND, TRACE ORGANICS (TOPSOIL).								VISUAL
		2.0-4.5	2	7	13	34	44	43	25	20	A-7-6
		4.5-7.5	SAME AS 2.0-4.5							14	VISUAL
		7.5-10.0	SAME AS 2.0-4.5							13	VISUAL
		10.0-13.0	SAME AS 2.0-4.5							10	VISUAL
RB-50	198+05, 30' RT	0.3-1.5	SAME AS 1.5-3.0							14	VISUAL
		1.5-3.0	0	0	17	48	35			12	VISUAL
		3.0-4.5	0	0	17	-	83 -	26	11	14	A-6a
		4.5-7.0	SAME AS 3.0-4.5							12	VISUAL
		7.0-10.0	SAME AS 3.0-4.5							13	VISUAL
RB-51	201+94, 30' LT	0-1.0	BROWN CLAYEY SILT, LITTLE ORGANICS, LITTLE SAND (TOPSOIL).								VISUAL
		1.0-5.5	4	6	12	36	42	29	12	12	A-6a
		5.5-8.0	SAME AS 1.0-5.5							17	VISUAL
		8.0-10.0	SAME AS 1.0-5.5							9	VISUAL

RESOURCE INTERNATIONAL INC. PROJECT NO. W-9138 FILENAME: 9138-2.DWG DATE: 12-JAN-2000

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

CALCULATED | CHECKED GPH
DATE 1/12/00 | DATE 1/12/00
REVIEWED
DRAWN LS

SOIL PROFILE

WAY-71-0.28

3/20

3
32

SUMMARY OF SOIL TEST DATA

BORINGS REFERENCED TO CENTERLINE

Location & Offset		From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I	W.C.	SHTL Class.
RB-52	205+84, 30' RT	0.2-2.5	9	7	14	40	30	30	12	13	A-6a
		2.5-6.0	SAME AS 0.2-2.5							23	VISUAL
		6.0-8.0	SAME AS 0.2-2.5							19	VISUAL
		8.0-10.0	SAME AS 0.2-2.5							24	VISUAL
RB-53	209+74, 30' LT	0.3-1.0	11	7	14	33	35	35	19	8	A-6b
		1.0-2.0	SAME AS 0.3-1.0							16	VISUAL
		2.0-4.0	SAME AS 0.3-1.0							17	VISUAL
		4.0-7.0	SAME AS 0.3-1.0								VISUAL
		7.0-10.0	SAME AS 0.3-1.0								VISUAL
RB-54	213+64, 30' RT	0.3-2.5	6	5	13	45	31	31	13	17	A-6a
		2.5-5.0	SAME AS 0.3-2.5							17	VISUAL
		5.0-7.5	SAME AS 0.3-2.5							13	VISUAL
		7.5-10.0	SAME AS 0.3-2.5							15	VISUAL
RB-55	217+53, 30' LT	0.3-3.0	5	6	12	38	39	33	17	14	A-6b
		3.0-5.5	SAME AS 0.3-3.0								VISUAL
		5.5-6.5	SAME AS 0.3-3.0							16	VISUAL
		6.5-7.5	BROWN SILTY SAND, SOME CLAY, TRACE GRAVEL.								VISUAL
		7.5-9.0	BROWN SILTY CLAY, LITTLE SAND, TRACE GRAVEL.							16	VISUAL
		9.0-10.0	BROWN SANDY SILT, SOME CLAY.							20	VISUAL
RB-56	221+43, 30' RT	0.5-2.5	5	8	14	33	40	32	15	13	A-6a
		2.5-5.0	SAME AS 0.5-2.5							17	VISUAL
		5.0-7.5	SAME AS 0.5-2.5							16	VISUAL
		7.5-10.0	SAME AS 0.5-2.5							13	VISUAL
RB-57	225+33, 30' LT	0.3-1.5	SAME AS 1.5-4.0							12	VISUAL
		1.5-4.0	10	7	12	31	40	31	16	13	A-6b
		4.0-6.5	SAME AS 1.5-4.0							15	VISUAL
		6.5-10.0	SAME AS 1.5-4.0								VISUAL
RB-58	229+23, 30' RT	0.4-3.0	11	9	14	32	34	29	13	11	A-6a
		3.0-5.5	SAME AS 0.4-3.0							18	VISUAL
		5.5-8.0	SAME AS 0.4-3.0							18	VISUAL
		8.0-9.0	SAME AS 0.4-3.0							16	VISUAL
		9.0-10.0	SAME AS 0.4-3.0							21	VISUAL
RB-59	233+12, 30' LT	0-1.0	BROWN CLAYEY SILT, SOME SAND, LITTLE ORGANICS (TOPSOIL).								
		1.0-3.0	11	8	11	33	37	31	14	14	A-6a
		3.0-5.5	SAME AS 1.0-3.0							15	VISUAL
		5.5-7.5	SAME AS 1.0-3.0							21	VISUAL
		7.5-10.0	SAME AS 1.0-3.0							21	VISUAL
RB-60	237+20, 30' RT	0.3-2.5	8	10	16	37	29	30	13	12	A-6a
		2.5-6.5	SAME AS 0.3-2.5							13	VISUAL
		6.5-8.0	SAME AS 0.3-2.5							18	VISUAL
		8.0-10.0	SAME AS 0.3-2.5							16	VISUAL
RB-61	240+92, 30' LT	0.5-2.0	5	5	13	35	42	34	18	10	A-6b
		2.0-3.5	SAME AS 0.5-2.0							13	VISUAL
		3.5-4.5	SAME AS 0.5-2.0							15	VISUAL
		4.5-7.0	SAME AS 0.5-2.0							16	VISUAL
		7.0-8.5	SAME AS 0.5-2.0								VISUAL
		8.5-9.5	SAME AS 0.5-2.0							17	VISUAL
		9.5-10.0	SAME AS 0.5-2.0							24	VISUAL
RB-62	244+82, 30' RT	0.3-2.5	10	9	15	-	66	-	28	11	13	A-6a
		2.5-5.0	SAME AS 0.3-2.5								13	VISUAL
		5.0-7.5	SAME AS 0.3-2.5								15	VISUAL
		7.5-10.0	SAME AS 0.3-2.5								19	VISUAL
RB-63	248+71, 30' LT	0-1.0	BROWN CLAYEY SILT, SOME SAND, LITTLE ORGANICS (TOPSOIL).								VISUAL
		1.0-3.0	5	6	11	32	46	37	20	10	A-6b
		3.0-6.5	SAME AS 1.0-3.0							14	VISUAL
		6.5-10.0	SAME AS 1.0-3.0							13	VISUAL
RB-64	252+61, 30' RT	0.3-2.5	7	6	13	36	38	29	12	14	A-6a
		2.5-6.0	SAME AS 0.3-2.5							14	VISUAL
		6.0-8.0	BROWN SAND, SOME SILT, SOME CLAY.							17	VISUAL
		8.0-10.0	BROWN SILTY CLAY, LITTLE SAND, TRACE GRAVEL.							15	VISUAL

BORINGS REFERENCED TO CENTERLINE

Location & Offset		From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I	W.C.	SHTL Class.
RB-65	256+51, 30' LT	0-1.0	BROWN CLAYEY SILT, LITTLE ORGANICS, LITTLE SAND (TOPSOIL).								VISUAL
		1.0-4.0	6	7	15	31	41	29	13	13	A-6a
		4.0-7.0	SAME AS 1.0-4.0							14	VISUAL
		7.0-10.0	SAME AS 1.0-4.0							15	VISUAL
RB-66	260+41, 30' RT	0.3-2.5	36	27	21	-	16	-		11	A-1-b
		2.5-5.0	7	8	13	-	72	-	32	13	15	A-6a
		5.0-7.5	SAME AS 2.5-5.0								15	VISUAL
		7.5-10.0	SAME AS 2.5-5.0								14	VISUAL
RB-67	264+30, 30' LT	0-1.0	BROWN CLAYEY SILT, SOME SAND, LITTLE ORGANICS (TOPSOIL).								VISUAL
		1.0-2.5	5	8	15	-	72	-	28	9	13	A-6a
		2.5-7.0	SAME AS 1.0-2.5								18	VISUAL
		7.0-10.0	MOTTLED BROWN AND GRAY CLAY, SOME SILT, TRACE ORGANICS.								29	VISUAL
RB-68	268+20, 30' RT	0.5-2.5	4	4	8	60	24	26	6	18	A-4b
		2.5-5.0	SAME AS 0.5-2.5								17	VISUAL
		5.0-7.5	SAME AS 0.5-2.5								15	VISUAL
		7.5-10.0	SAME AS 0.5-2.5								16	VISUAL
		10.0-13.0	BROWN CLAYEY SILT, SOME SAND, TRACE GRAVEL.								14	VISUAL
RB-69	270+05, 30' LT	0-1.0	BROWN CLAYEY SILT, LITTLE ORGANICS, LITTLE SAND (TOPSOIL).								VISUAL
		1.0-4.0	6	7	13	34	40	33	16	14	A-6b
		4.0-7.5	SAME AS 1.0-4.0								19	VISUAL
		7.5-9.5	SAME AS 1.0-4.0								17	VISUAL
		9.5-13.0	SAME AS 1.0-4.0								18	VISUAL
RB-70	274+27, 30' RT	0.3-2.5	6	8	15	-	71	-	38	27	15	A-6b
		2.5-7.0	SAME AS 0.3-2.5								16	VISUAL
		7.0-8.5	SAME AS 0.3-2.5								12	VISUAL
		8.5-10.0	SAME AS 0.3-2.5								13	VISUAL
RB-71	278+48, 30' LT	0-1.5	BROWN CLAYEY SILT, SOME SAND, TRACE GRAVEL, TRACE ORGANICS (TOPSOIL).								VISUAL
		1.5-3.5	7	7	14	30	42	32	17	13	A-6b
		3.5-5.5	SAME AS 1.5-3.5							14	VISUAL
		5.5-6.2	BROWN SAND, TRACE SILT, TRACE GRAVEL.							15	VISUAL
		6.2-7.0	0	1	3	86	10			24	VISUAL
		7.0-8.5	GRAY SAND, LITTLE SILT, TRACE CLAY.							13	VISUAL
		8.5-10.0	GRAY SILTY CLAY, SOME SAND, TRACE GRAVEL.							15	VISUAL
RB-72	282+70, 30' RT	0.8-1.5	BROWN SANDY SILT, LITTLE TO SOME CLAY, LITTLE GRAVEL.							11	VISUAL
		1.5-2.4	SAME AS 0.8-1.5							12	VISUAL
		2.4-5.0	5	4	14	43	34	27	12	15	A-6a
		5.0-7.5	SAME AS 2.4-5.0							17	VISUAL
		7.5-9.5	SAME AS 2.4-5.0							15	VISUAL
		9.5-10.0	GRAY SAND, SOME SILT, LITTLE SAND, TRACE CLAY.							19	VISUAL
RB-73	286+91, 30' LT	0-2.0	BROWN CLAYEY SILT, SOME SAND, TRACE ORGANICS (TOPSOIL).								VISUAL
		2.0-3.5	7	7	15	32	39	36	20	15	A-6b
		3.5-7.0	SAME AS 2.0-3.5								VISUAL
		7.0-9.5	BROWNISH GRAY CLAY, SOME SILT, LITTLE SAND, TRACE GRAVEL.								VISUAL
		9.5-10.0	SAME AS 7.0-9.5								VISUAL
RB-74	291+13, 30' RT	0.4-2.0	BROWN AND GRAY CLAY.							13	VISUAL
		2.0-4.0	GRAY WEATHERED SANDSTONE.								VISUAL
EB-4	294+74, 159.3' RT	0.-1.5	BROWN SILT, TRACE CLAY, SOME COARSE TO FINE SAND, TRACE ORGANICS.							26	VISUAL
		1.5-3.0	0	7	7	40	46	39	20	19	A-6b
		3.5-5.0	SAME AS 3.5-5.0							12	VISUAL
		6.0-7.5	SAME AS 3.5-5.0							10	VISUAL
		8.5-10.0	BROWN TO GRAY INDURATED CLAY/HIGHLY WEATHERED SHALE.								VISUAL
		11.0-12.5	SAME AS 8.5-10.0								VISUAL
		13.5-15.0	SAME AS 8.5-10.0								VISUAL
		16.0-17.5	SAME AS 8.5-10.0								VISUAL
		18.5-20.0	GRAY HIGHLY WEATHERED SHALE								VISUAL
		21.0-22.5	SAME AS 18.5-20.0								VISUAL
		23.5-25.0	SAME AS 18.5-20.0								VISUAL
RB-75	295+34, 30' LT	0-2.0	BROWN CLAY AND SILT, LITTLE ORGANICS, TRACE SAND (TOPSOIL)							19	VISUAL

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

CALCULATED | CHECKED GPH
DATE 1/12/00 | DATE 1/12/00
REVIEWED
DRAWN LS

SOIL PROFILE

WAY-71-0.28

4/20

4/32

RESOURCE INTERNATIONAL INC. PROJECT NO. W-9138 DATE: 12_JAN_2000 FILENAME: 9138-3.DWG

SUMMARY OF SOIL TEST DATA

NOTE: NP SHOWN IN LIQUID LIMIT AND PLASTIC INDEX COLUMNS INDICATES THAT THE SAMPLE IS NON-PLASTIC

BORINGS REFERENCED TO CENTERLINE

Location & Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I	W.C.	SHTL Class.
EB-1 295+37, 170.8' LT	0-1.5	BROWN SILT, LITTLE COARSE TO FINE SAND, TRACE CLAY AND ORGANICS.							25	VISUAL
	1.5-3.0	4	5	11	40	40	35	17	21	A-6b
	3.5-5.0	SAME AS 1.5-3.0							11	VISUAL
	6.0-7.5	SAME AS 1.5-3.0							11	VISUAL
	8.5-10.0	BROWN TO BROWNISH GRAY INDURATED CLAY, HIGHLY WEATHERED SHALE.								VISUAL
	11.0-12.5	SAME AS 8.5-10.0								VISUAL
	13.5-15.0	SAME AS 8.5-10.0								VISUAL
	16.0-17.5	GRAY HIGHLY WEATHERED SHALE								VISUAL
	18.5-20.0	SAME AS 16.0-17.5								VISUAL
	21.0-22.5	SAME AS 16.0-17.5								VISUAL
	23.5-25.0	SAME AS 16.0-17.5								VISUAL
	26.0-27.5	SAME AS 16.0-17.5								VISUAL
EB-3 296+38, 159.0' RT	0-1.5	BROWN SILT, LITTLE COARSE TO FINE SAND, TRACE CLAY AND ORGANICS.							29	VISUAL
	1.5-3.0	5	7	13	39	37			21	A-6b
	3.5-5.0	SAME AS 1.5-3.0							12	VISUAL
	6.0-7.5	SAME AS 1.5-3.0							10	VISUAL
	8.5-10.0	BROWN TO GRAY INDURATED CLAY, HIGHLY WEATHERED SHALE.								VISUAL
	11.0-12.5	SAME AS 8.5-10.0								VISUAL
	13.5-15.0	SAME AS 8.5-10.0								VISUAL
	16.0-17.5	SAME AS 8.5-10.0								VISUAL
	18.5-20.0	GRAY HIGHLY WEATHERED SHALE								VISUAL
	21.0-22.5	SAME AS 16.0-17.5								VISUAL
EB-2 296+82, 170.3' LT	1.0-2.5	7	3	13	42	34			15	A-6a
	3.5-5.0	BROWN AND GRAY COARSE TO FINE SANDY SILT LITTLE CLAY AND FINE GRAVEL.							8	VISUAL
	6.0-7.5	BROWN INDURATED CLAY/HIGHLY WEATHERED SHALE.							10	VISUAL
	8.5-10.0	SAME AS 6.0-7.5							8	VISUAL
	11.0-12.5	GRAY AND BROWN HIGHLY WEATHERED SHALE.								VISUAL
	13.5-15.0	SAME AS 11.0-12.5								VISUAL
	16.0-17.5	SAME AS 11.0-12.5								VISUAL
	18.5-20.0	SAME AS 11.0-12.5								VISUAL
	21.0-22.5	SAME AS 11.0-12.5								VISUAL
	23.5-25.0	SAME AS 11.0-12.5								VISUAL
RB-76 299+56, 30' RT	0.5-3.0	14	10	9	33	34	35	15	16	A-6a
	3.0-3.5	BROWN WEATHERED SANDSTONE.								VISUAL
RB-77 300+12, 30' LT	0-2.0	BROWN SILTY CLAY AND GRAVEL, LITTLE SAND, TRACE ORGANICS (TOPSOIL).								VISUAL
	2.0-5.0	44	6	6	21	24	39	18	9	A-6b
RB-78 304+29, 30' RT	0.4-2.5	5	6	18	-	71	-	29	12	A-6a
	2.5-4.0	SAME AS 0.4-2.5							12	VISUAL
RB-79 308+46, 30' LT	0-1.5	BROWN CLAYEY SILT, LITTLE SAND, LITTLE ORGANICS (TOPSOIL).								VISUAL
	1.5-5.0	3	5	9	40	43	32	15	17	A-6a
	5.0-8.0	SAME AS 1.5-5.0							17	VISUAL
	8.0-10.0	SAME AS 1.5-5.0							13	VISUAL
RB-80 312+62, 30' RT	0.2-2.5	10	7	10	-	73	-	42	23	18	A-7-6
	2.5-5.0	SAME AS 0.2-2.5								15	VISUAL
	5.0-7.5	SAME AS 0.2-2.5								15	VISUAL
	7.5-10.0	SAME AS 0.2-2.5								15	VISUAL
RB-81 316+79, 30' LT	0-0.5	BROWN SILT, SOME CLAY, LITTLE ORGANICS, TRACE SAND (TOPSOIL).								VISUAL
	0.5-3.5	6	5	10	38	41	35	17	15	A-6b
	3.5-8.0	SAME AS 0.5-3.5							22	VISUAL
	8.0-10.0	BROWNISH GRAY SAND, SOME GRAVEL, LITTLE SILT, TRACE GRAVEL.							12	VISUAL
RB-82 320+96, 30' RT	0.3-2.5	9	12	9	39	31	35	15	14	A-6a
	2.5-4.0	SAME AS 0.3-2.5							10	VISUAL
RB-83 325+13, 30' LT	0-2.0	BROWN CLAYEY SILT, LITTLE ORGANICS, LITTLE SAND.								VISUAL
	2.0-4.5	10	9	11	36	34	34	17	13	A-6b
	4.5-7.0	SAME AS 2.0-4.5							18	VISUAL
	7.0-10.0	SAME AS 2.0-4.5							17	VISUAL
RB-84 329+29, 30' RT	0.2-2.5	12	4	8	44	32			14	VISUAL
	2.5-5.0	14	5	8	-	73	-	35	16	18	A-6b
	5.0-7.0	SAME AS 2.5-5.0								14	VISUAL
	7.0-9.0	SAME AS 2.5-5.0								16	VISUAL
	9.0-10.0	BROWN AND GRAY GRAVEL AND SAND, SOME SILT, LITTLE CLAY.							11	VISUAL

BORINGS REFERENCED TO CENTERLINE

Location & Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I	W.C.	SHTL Class.
CB-1 331+38, 72.3' LT	3.5-5.0	SAME AS 13.5-15.0							17	VISUAL
	8.5-10.0	SAME AS 13.5-15.0							16	VISUAL
	13.5-15.0	23	5	9	32	31			17	VISUAL
	18.5-20.0	SAME AS 13.5-15.0							15	VISUAL
	21.0-22.5	SAME AS 13.5-15.0							14	VISUAL
	23.5-25.0	SAME AS 13.5-15.0							17	VISUAL
	26.0-27.5	SAME AS 13.5-15.0							18	VISUAL
	28.5-30.0	SAME AS 13.5-15.0							19	VISUAL
	31.0-32.5	SAME AS 13.5-15.0							13	VISUAL
	33.5-35.0	SAME AS 13.5-15.0							16	VISUAL
	36.0-37.5	SAME AS 13.5-15.0							16	VISUAL
	38.5-40.0	SAME AS 36.0-37.5							13	VISUAL
	41.0-42.5	55	8	10	-27-		28	10	14	A-2-4
	43.5-45.0	BROWN HIGHLY WEATHERED ARENACEOUS SHALE.								VISUAL
RB-85 333+46, 30' LT	0-1.5	BROWN SILTY CLAY, LITTLE ORGANICS, LITTLE SAND (TOPSOIL).								VISUAL
	1.5-4.0	13	5	9	40	33	34	17	14	A-6b
	4.0-8.0	SAME AS 1.5-4.0							15	VISUAL
	8.0-10.0	SAME AS 1.5-4.0							22	VISUAL
RB-86 337+63, 30' RT	0.3-2.5	12	6	10	34	38	36	17	13	A-6b
	2.5-5.0	SAME AS 0.3-2.5							10	VISUAL
	5.0-7.5	SAME AS 0.3-2.5							12	VISUAL
	7.5-10.0	SAME AS 0.3-2.5							17	VISUAL
RB-87 341+80, 30' LT	0-1.5	BROWN CLAYEY SILT, SOME SAND, LITTLE ORGANICS (TOPSOIL).								VISUAL
	1.5-4.0	11	6	12	38	33	32	17	10	A-6b
	4.0-7.0	SAME AS 1.5-4.0							14	VISUAL
	7.0-10.0	SAME AS 1.5-4.0							14	VISUAL
RB-88 345+96, 30' RT	0.2-2.0	SAME AS 2.0-2.5							12	VISUAL
	2.0-2.5	12	7	10	31	40	33	15	12	A-6a
	2.5-5.0	GRAY SILTY CLAY.							8	VISUAL
	5.0-7.5	SAME AS 2.5-5.0							11	VISUAL
	7.5-10.0	SAME AS 2.5-5.0							12	VISUAL
RB-89 350+13, 30' LT	0-1.5	BROWN CLAYEY SILT, SOME ORGANICS, LITTLE SAND (TOPSOIL).								VISUAL
	1.5-3.0	20	14	8	31	27	37	14	14	A-6a
	3.0-5.5	SAME AS 1.5-3.0							13	VISUAL
	5.5-8.0	SAME AS 1.5-3.0							14	VISUAL
	8.0-10.0	SAME AS 1.5-3.0							13	VISUAL
RB-90 354+30, 30' RT	0-1.0	BROWN CLAYEY SILT, SOME ORGANICS, LITTLE SAND (TOPSOIL).								VISUAL
	1.0-4.0	23	8	9	33	28	36	18	10	A-6b
	4.0-6.5	SAME AS 1.0-4.0							11	VISUAL
	6.5-10.0	SAME AS 1.0-4.0							12	VISUAL
RB-91 356+00, 30' LT	0-1.5	BROWNISH GRAY CLAYEY SILT, LITTLE ORGANICS, LITTLE SAND, TRACE GRAVEL (TOPSOIL).								VISUAL
	1.5-3.0	15	11	6	36	32	37	18	11	A-6b
	3.0-5.0	GRAY WEATHERED SHALE FRAGMENTS.							11	VISUAL
RB-92 359+67, 30' RT	0-2.0	BROWN CLAYEY SILT, LITTLE ORGANICS, LITTLE SAND (TOPSOIL).								VISUAL
	2.0-4.5	5	7	10	37	41	31	14	13	A-6a
	4.5-7.0	SAME AS 2.0-4.5							12	VISUAL
	7.0-10.0	SAME AS 2.0-4.5							10	VISUAL
RB-93 363+33, 30' LT	0-2.0	DARK BROWN CLAYEY SILT, LITTLE ORGANICS, LITTLE SAND, TRACE GRAVEL.								VISUAL
	2.0-4.5	17	7	7	36	33	34	14	15	A-6a
	4.5-7.5	SAME AS 2.0-4.5							12	VISUAL
	7.5-10.0	SAME AS 2.0-4.5							12	VISUAL
RB-94 367+00, 30' RT	0-2.0	BROWN CLAYEY SILT, SOME SAND, LITTLE ORGANICS, TRACE GRAVEL (TOPSOIL).								VISUAL
	2.0-4.5	10	8	11	36	35	33	16	12	A-6b
	4.5-7.0	SAME AS 2.0-4.5							9	VISUAL
	7.0-10.0	SAME AS 2.0-4.5							17	VISUAL

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

DRAWN	REVIEWED	DATE	CALCULATED
LS/REK		1/12/00	CHECKED GPH
		DATE 1/12/00	

SOIL PROFILE

WAY-71-0.28

5/20

5
32

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138
FILENAME: 9138-4.DWG
DATE: 12_JAN_2000

SUMMARY OF SOIL TEST DATA

BORINGS REFERENCED TO CENTERLINE

Location & Offset		From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I	W.C.	SHTL Class.
RR-1	367+36, 84.0' LT	1.0-2.5	BROWN FINE TO COARSE SAND AND GRAVEL. LITTLE SILT AND CLAY.							20	VISUAL
		3.5-5.0	8	9	14	37	32	27	14	13	A-6a
		6.0-7.5	SAME AS 3.5-5.0							13	VISUAL
		8.0-10.0	10	8	13	34	35	26	12	14	A-6a
		11.0-12.5	SAME AS 8.0-10.0							14	VISUAL
		13.5-15.0	SAME AS 8.0-10.0							14	VISUAL
		16.0-17.5	SAME AS 8.0-10.0							14	VISUAL
		18.5-20.0	SAME AS 8.0-10.0							14	VISUAL
		23.5-25.0	5	6	14	40	35	26	12	15	A-6a
		28.5-30.0	SAME AS 8.0-10.0							15	VISUAL
RR-2	368+19, ℄	1.0-2.5	BROWN FINE TO COARSE SAND AND FINE GRAVEL. LITTLE SILT AND CLAY.							7	A-1-b
		3.5-5.0	13	11	19	28	29			16	A-6a
		6.0-7.5	SAME AS 3.5-5.0							14	VISUAL
		8.0-10.0	8	8	14	37	33	25	11	14	A-6a
		11.0-12.5	SAME AS 8.0-10.0							14	VISUAL
		13.5-15.0	SAME AS 8.0-10.0							14	VISUAL
		16.0-17.5	SAME AS 8.0-10.0							14	VISUAL
		18.5-20.0	7	8	15	36	34	25	12	13	A-6a
		23.5-25.0	SAME AS 8.0-10.0							14	VISUAL
		28.5-30.0	SAME AS 8.0-10.0							14	VISUAL
RR-3	368+89, 82.3' RT	1.0-2.5	BROWN TO GRAY CLAYEY SILT, SOME COARSE TO FINE SAND. LITTLE TO TRACE FINE GRAVEL.							18	VISUAL
		3.5-5.0	SAME AS 1.0-2.5							17	VISUAL
		6.0-7.5	SAME AS 1.0-2.5							14	VISUAL
		8.5-10.0	11	8	13	34	34	26	12	14	A-6a
		11.0-12.5	SAME AS 8.5-10.0							15	VISUAL
		13.5-15.0	SAME AS 8.5-10.0							12	VISUAL
		16.0-17.5	SAME AS 8.5-10.0							14	VISUAL
		18.0-20.0	7	8	15	37	33	25	11	13	A-6a
		23.5-25.0	SAME AS 8.5-10.0							14	VISUAL
		28.5-30.0	SAME AS 8.5-10.0							14	VISUAL
RB-95	369+26, 30' LT	0-2.0	BROWN SILTY SAND, LITTLE ORGANICS, TRACE GRAVEL (TOPSOIL).								VISUAL
		2.0-5.0	8	8	14	36	34	30	15	13	A-6a
RB-96	373+26, 30' RT	0-1.0	BROWN CLAYEY SILT, SOME SAND, LITTLE ORGANICS (TOPSOIL).								VISUAL
		1.0-4.5	5	9	15	35	36	27	11	12	A-6a
		4.5-7.5	SAME AS 1.0-4.5							15	VISUAL
		7.5-10.0	SAME AS 1.0-4.5							13	VISUAL
RB-97	377+26, 30' LT	0-1.0	DARK BROWN CLAYEY SILT, SOME ORGANICS, LITTLE SAND (TOPSOIL).								VISUAL
		1.0-4.0	2	3	8	41	46	35	11	16	A-6a
		4.0-7.0	SAME AS 1.0-4.0							16	VISUAL
		7.0-10.0	SAME AS 1.0-4.0							21	VISUAL

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

DRAWN LS/REK | REVIEWED | DATE 1/24/00 | CALCULATED | DATE 1/24/00 | CHECKED GPH

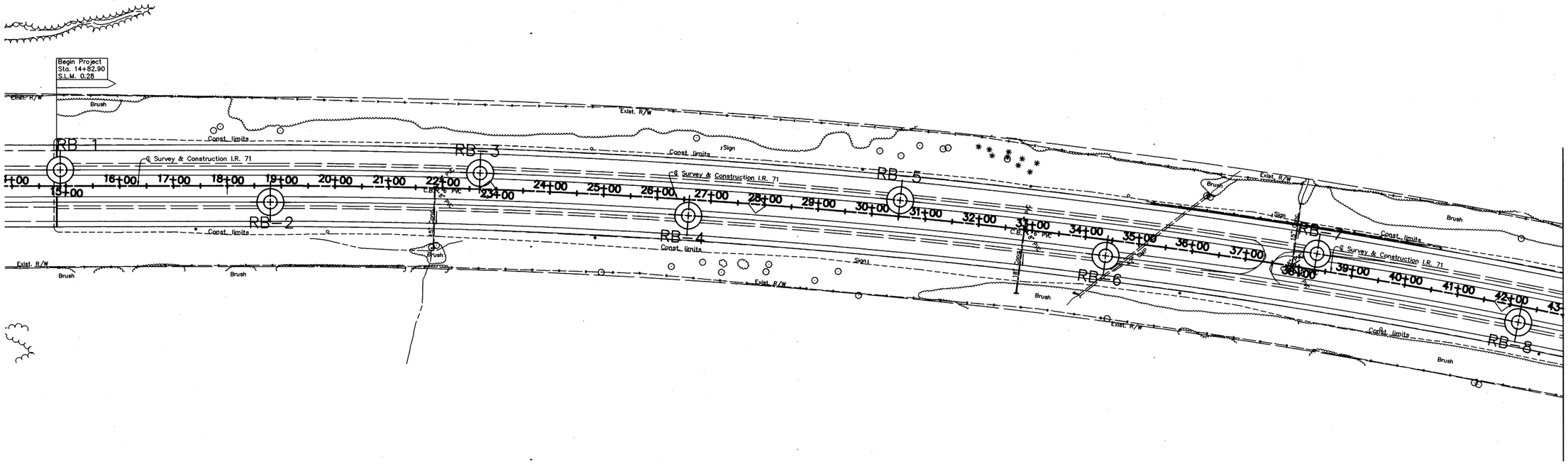
SOIL PROFILE

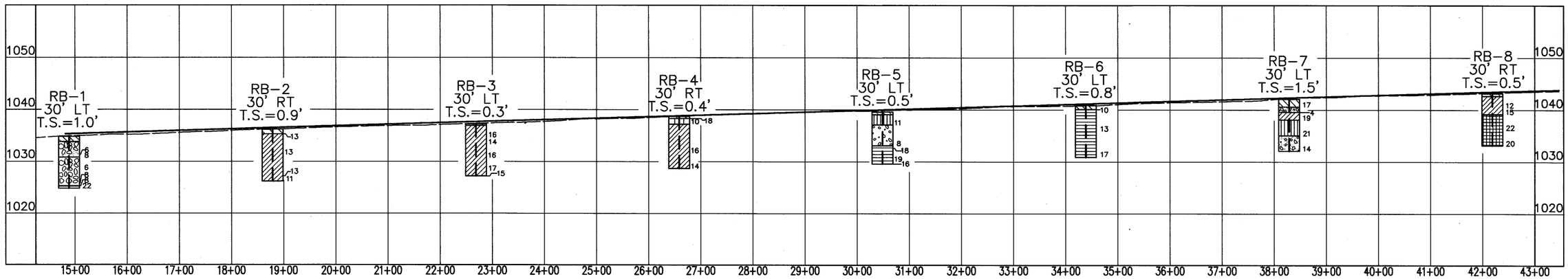
WAY-71-0.28

6/20

6
32

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138
FILENAME: 9138-4.DWG
DATE: 12_JAN_2000





RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138
FILENAME:
DATE:

DRAWN	REVIEWED	DATE	CALCULATED	CHECKED
REK		1/6/2000		GPH
		DATE 1/6/2000		

HORIZONTAL SCALE IN FEET
0 100 200

STA. 14+82.90 TO STA. 43+00
SOIL PROFILE

WAY-71-0.28

7/20

7
32

MATCHLINE STA. 43+00

MATCHLINE STA. 72+00

RB-9 RB-10 RB-11 RB-12 RB-13 RB-14 RB-15

Brush
Const. limits
Exist. R/W
72" Conc.
Paved Gutter
Sign
C.B.
℄ Survey & Construction I.R. 71
℄ S.R. 301 NB Exit "Ramp B"
℄ S.R. 301 SB Ent. "Ramp A"
Roadway
Shoulder
Guardrail
Curb
Swale
Ditch
Culvert
Inlet
Manhole
Utility Pole
Guy Wire
Fence
Concrete Barrier
Overhead Utility Lines
Underground Utility Lines
Gas Line
Water Line
Telephone Line
Electric Line
Cable TV Line
Storm Sewer
Sanitary Sewer
Traffic Signal Box
Mailbox
Flood Light
Tree
Bush
Shrub
Hedge
Rock
Boulder
Retaining Wall
Gate
Post
Pole
Light Pole
Traffic Signal
Traffic Sign
Traffic Signal Pole
Traffic Signal Arm
Traffic Signal Head
Traffic Signal Cable
Traffic Signal Conduit
Traffic Signal Junction Box
Traffic Signal Controller
Traffic Signal Cabinet
Traffic Signal Loop
Traffic Signal Detector
Traffic Signal Pedestrian Push Button
Traffic Signal Pedestrian Signal Head
Traffic Signal Pedestrian Signal Pole
Traffic Signal Pedestrian Signal Arm
Traffic Signal Pedestrian Signal Cable
Traffic Signal Pedestrian Signal Conduit
Traffic Signal Pedestrian Signal Junction Box
Traffic Signal Pedestrian Signal Controller
Traffic Signal Pedestrian Signal Cabinet
Traffic Signal Pedestrian Signal Loop
Traffic Signal Pedestrian Signal Detector
Traffic Signal Pedestrian Signal Pedestrian Push Button
Traffic Signal Pedestrian Signal Pedestrian Signal Head
Traffic Signal Pedestrian Signal Pedestrian Signal Pole
Traffic Signal Pedestrian Signal Pedestrian Signal Arm
Traffic Signal Pedestrian Signal Pedestrian Signal Cable
Traffic Signal Pedestrian Signal Pedestrian Signal Conduit
Traffic Signal Pedestrian Signal Pedestrian Signal Junction Box
Traffic Signal Pedestrian Signal Pedestrian Signal Controller
Traffic Signal Pedestrian Signal Pedestrian Signal Cabinet
Traffic Signal Pedestrian Signal Pedestrian Signal Loop
Traffic Signal Pedestrian Signal Pedestrian Signal Detector

RB-9
30' LT
T.S.=0.3'
12
15
15
19

RB-10
30' RT
T.S.=0.2'
13
18
19
16

RB-11
30' LT
T.S.=0.3'
15
14
12
16

RB-12
30' RT
T.S.=0.4'
9
15
20
13

RB-13
30' LT
T.S.=1.5'
13
16
17

RB-14
30' RT
T.S.=0.3'
12
16
13
17
15

RB-15
30' LT
T.S.=0.3'
14
17
15
15

1100
1090
1080
1070
1060
1050
1040
1030

43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00 51+00 52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00 61+00 62+00 63+00 64+00 65+00 66+00 67+00 68+00 69+00 70+00 71+00 72+00

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138
FILENAME:
DATE:

HORIZONTAL SCALE IN FEET
0 100 200

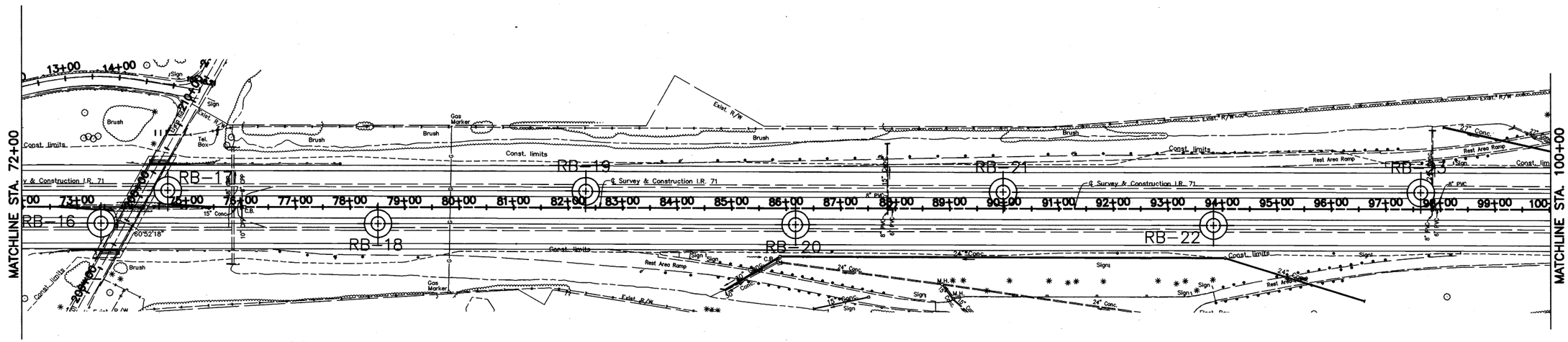
DRAWN	REVIEWED	DATE	CALCULATED	DATE	CHECKED
REK		1/7/00		1/7/00	GPH

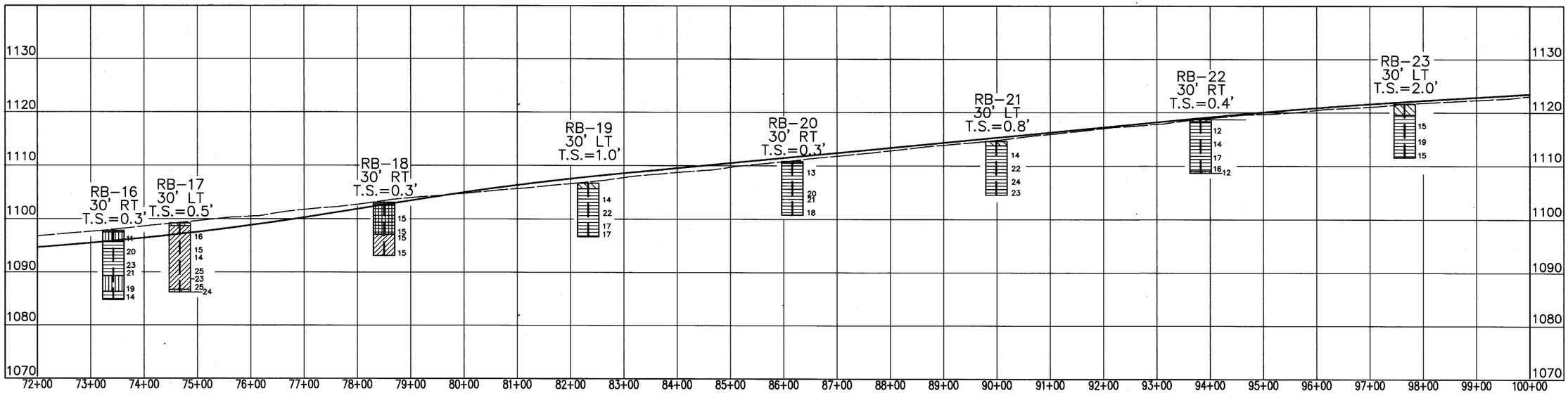
STA. 43+00 TO STA. 72+00
SOIL PROFILE

WAY-71-0.28

8/20

8
32





RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138
FILENAME:
DATE:

HORIZONTAL SCALE IN FEET
0 100 200

CALCULATED	CHECKED
	GPH

DATE	DATE
1/10/00	1/10/00

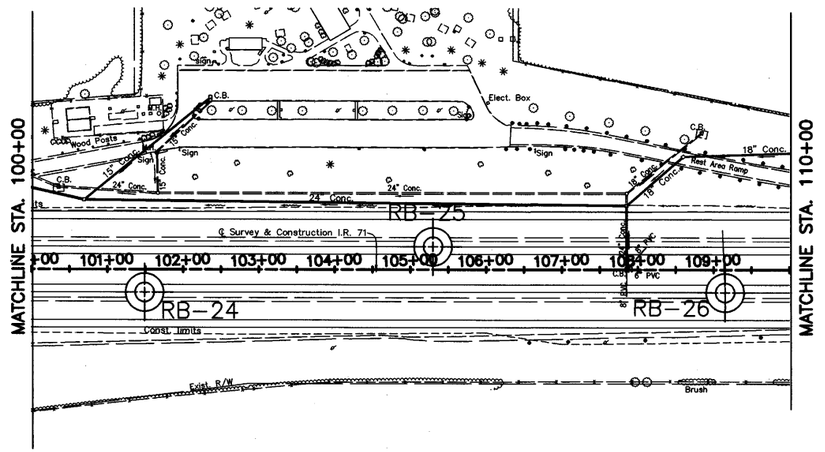
REVIEWED	DRAWN
	REK

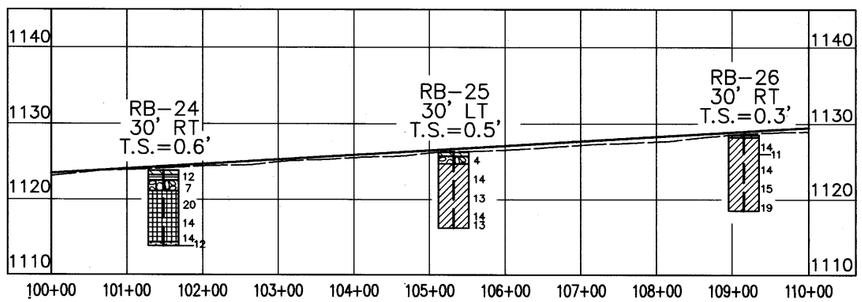
STA. 72+00 TO STA. 100+00
SOIL PROFILE

WAY-71-0.28

9/20

9
32





RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138

FILENAME:
DATE:

HORIZONTAL SCALE IN FEET
0 100 200

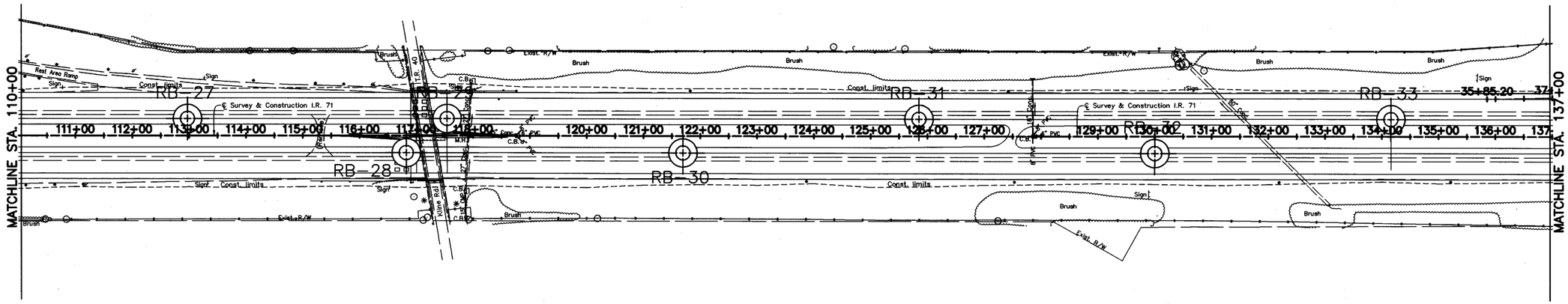
DRAWN	REVIEWED	DATE	CALCULATED
REK		1/10/00	
		DATE	CHECKED
		1/10/00	GPH

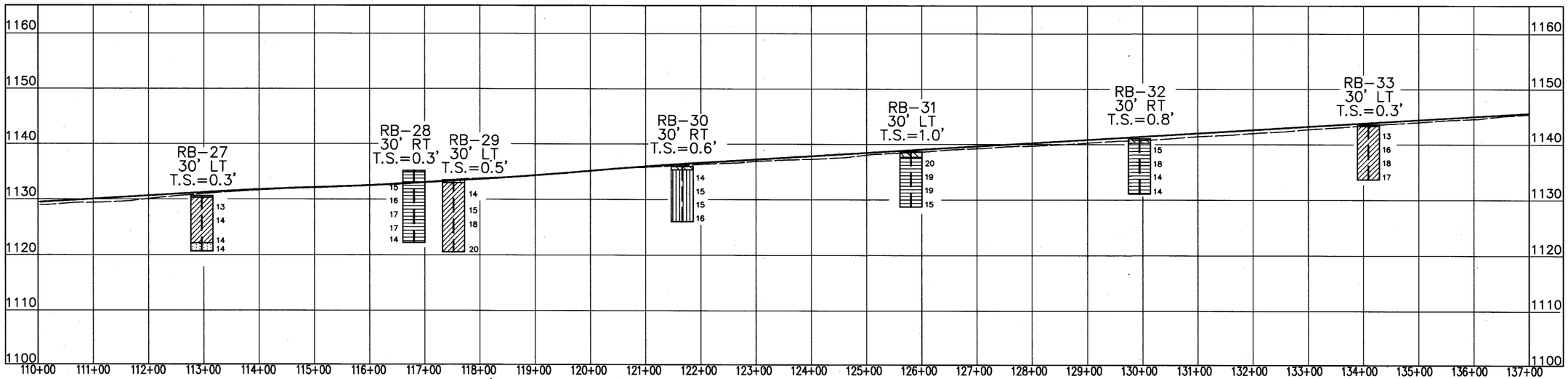
STA. 100+00 TO STA. 110+00
SOIL PROFILE

WAY-71-0.28

10/20

10
32





RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138
FILENAME:
DATE:

DRAWN REK
REVIEWED
DATE 1/7/2000
CALCULATED
CHECKED GPH
DATE 1/7/2000
HORIZONTAL SCALE IN FEET
0 100 200

STA. 110+00 TO STA. 137+00
SOIL PROFILE

WAY-71-0.28

11/20

11
32

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138
FILENAME:
DATE:

HORIZONTAL SCALE IN FEET
0 100 200

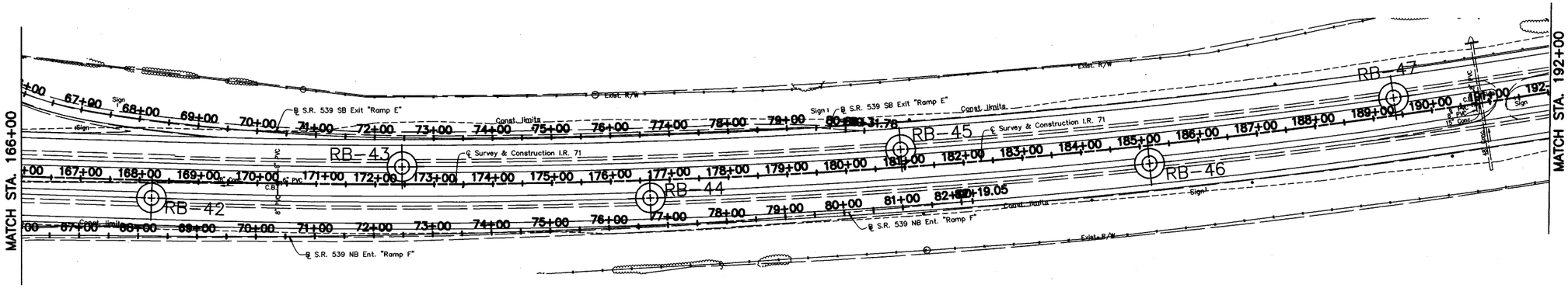
CALCULATED	CHECKED
	GPH
DATE	DATE
1/7/2000	1/7/2000
REVIEWED	
DRAWN	
REK	

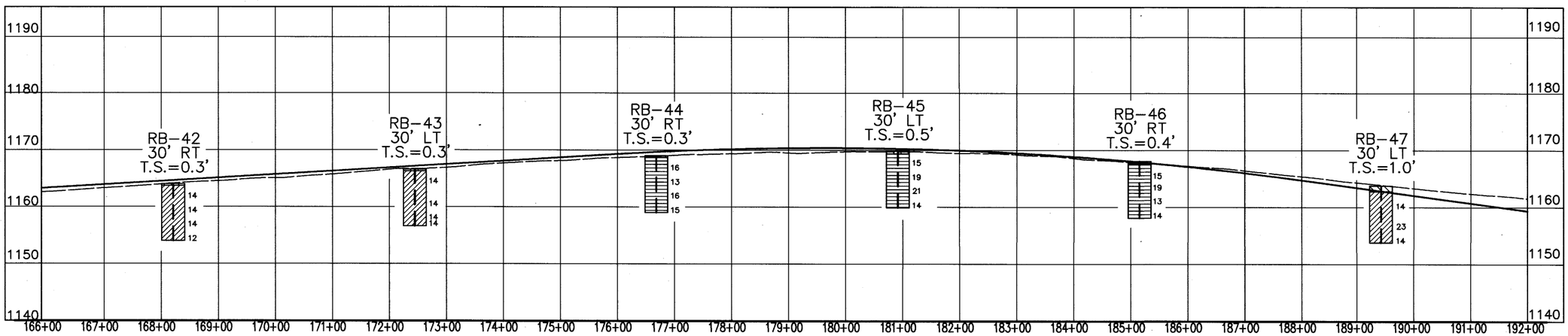
STA. 137+00 TO STA. 166+00
SOIL PROFILE

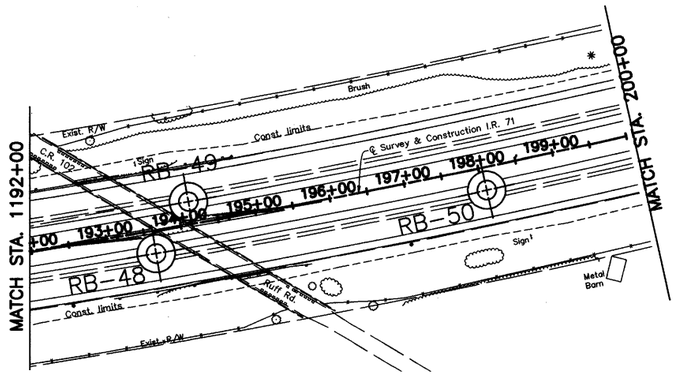
WAY-71-0.28

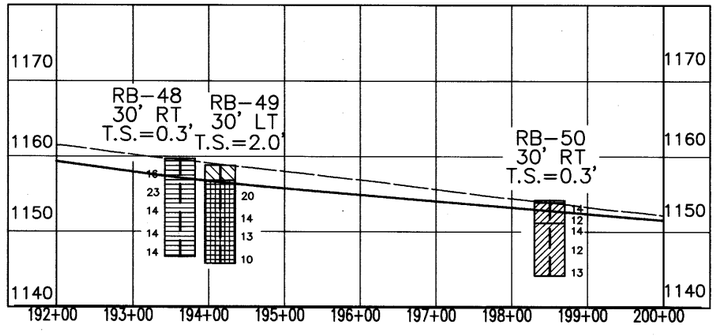
12/20

12
32









HORIZONTAL SCALE IN FEET
0 100 200

CALCULATED
CHECKED GPH
DATE 1/10/00
DATE 1/10/00
REVIEWED
DRAWN REK

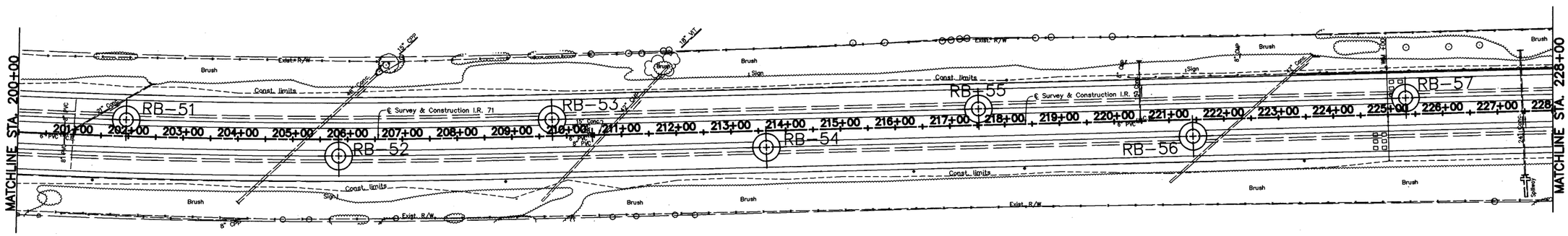
STA. 166+00 TO STA. 200+00
SOIL PROFILE

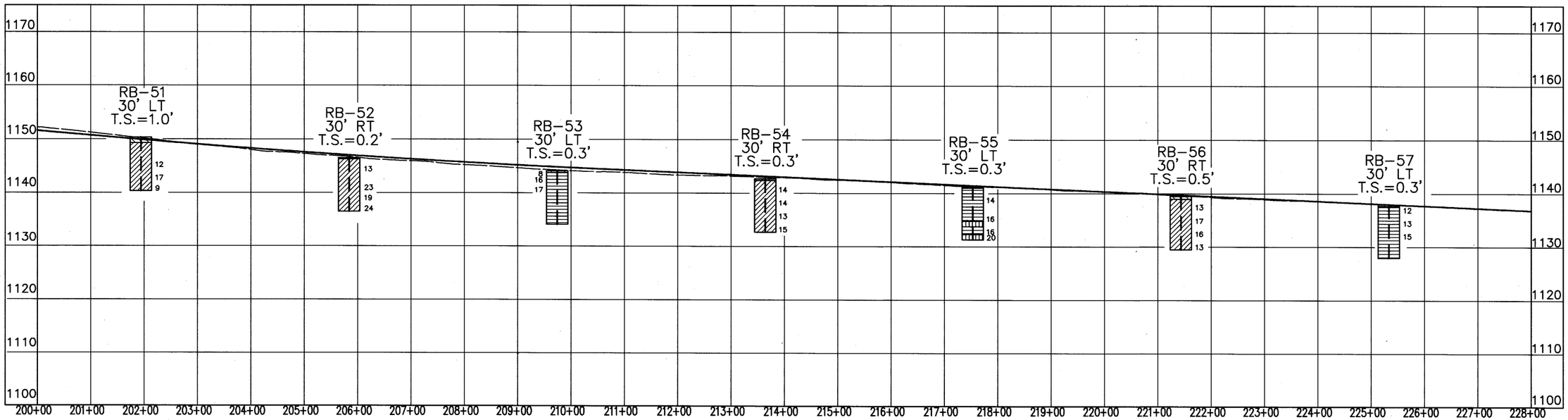
WAY-71-0.28

13/20

13
32

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138
FILENAME:
DATE:





RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138
FILENAME:
DATE:

HORIZONTAL SCALE IN FEET
0 100 200

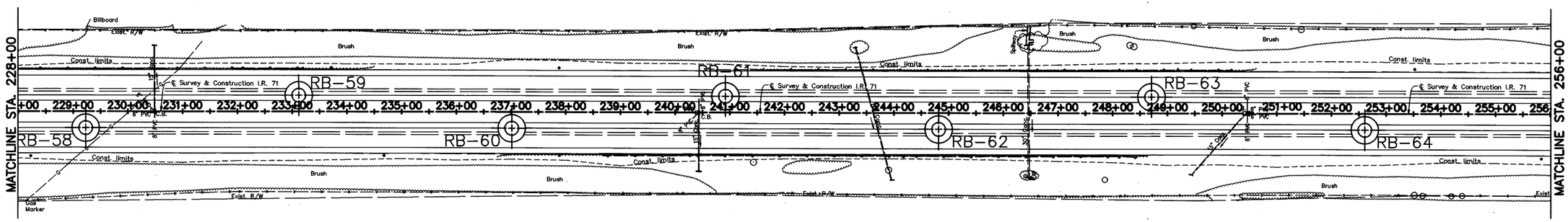
DRAWN	REVIEWED	DATE	CALCULATED	DATE	CHECKED
REK		1/7/2000		1/7/2000	GPH

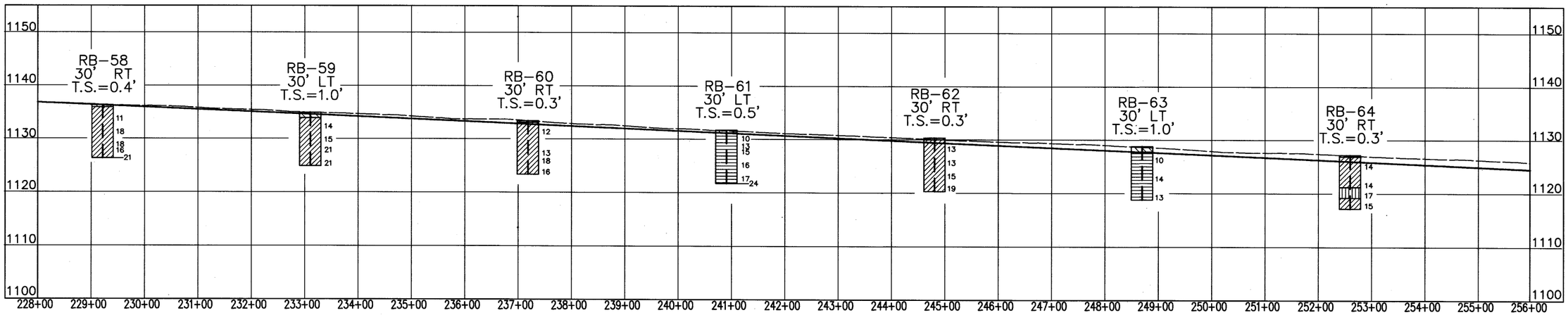
STA. 200+00 TO STA. 228+00
SOIL PROFILE

WAY-71-0.28

14/20

14
32





RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138
FILENAME:
DATE:

HORIZONTAL SCALE IN FEET
0 100 200

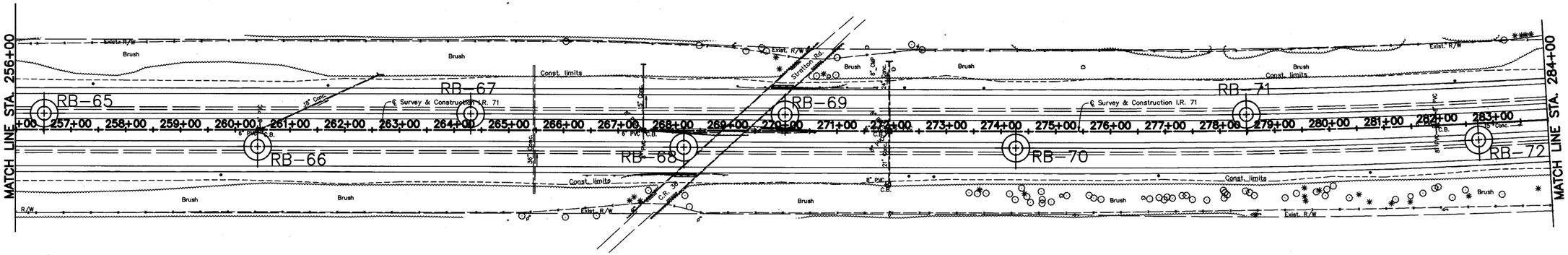
DRAWN	REVIEWED	DATE	CALCULATED	DATE	CHECKED
REK		1/7/2000		1/7/2000	GPH

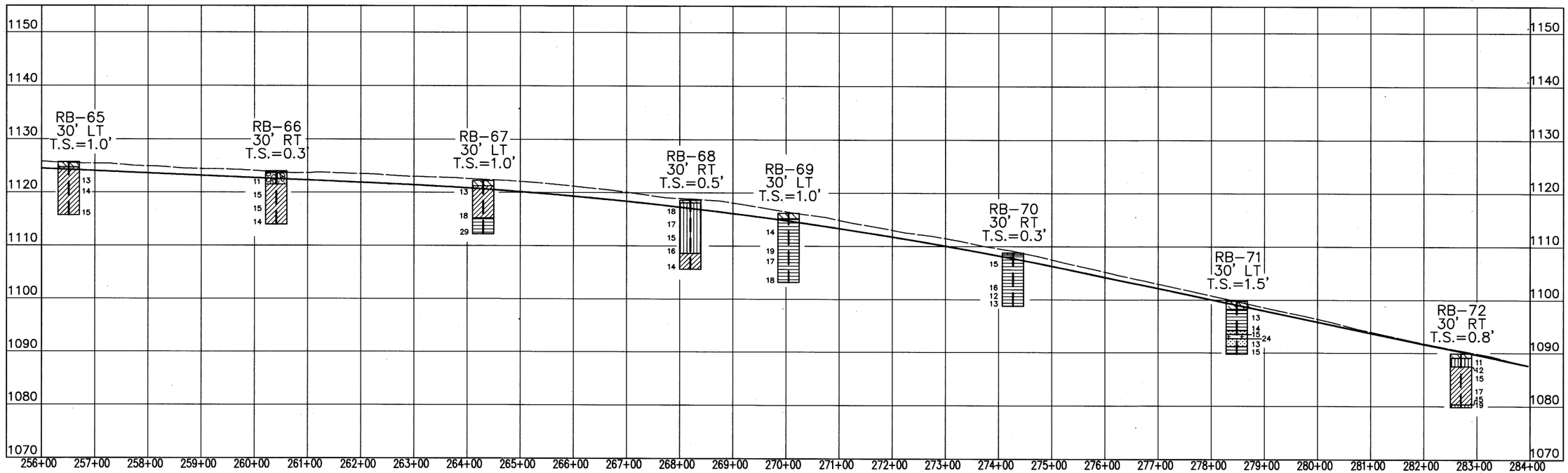
STA. 228+00 TO STA. 256+00
SOIL PROFILE

WAY-71-0.28

15/20

15
32





RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138
FILENAME:
DATE:

HORIZONTAL SCALE IN FEET
0 100 200

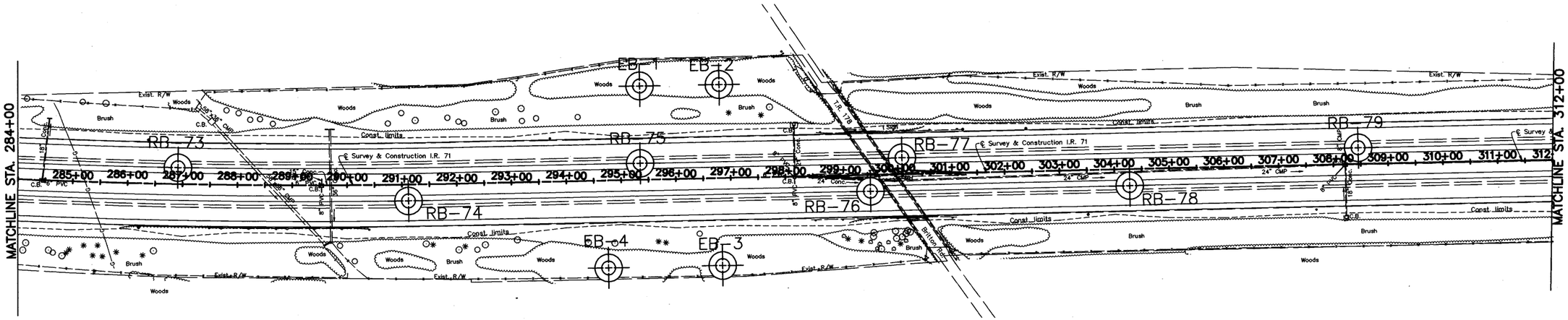
CALCULATED	CHECKED
	GPH
DATE	DATE
1/12/00	1/12/00
REVIEWED	
DRAWN	
REK	

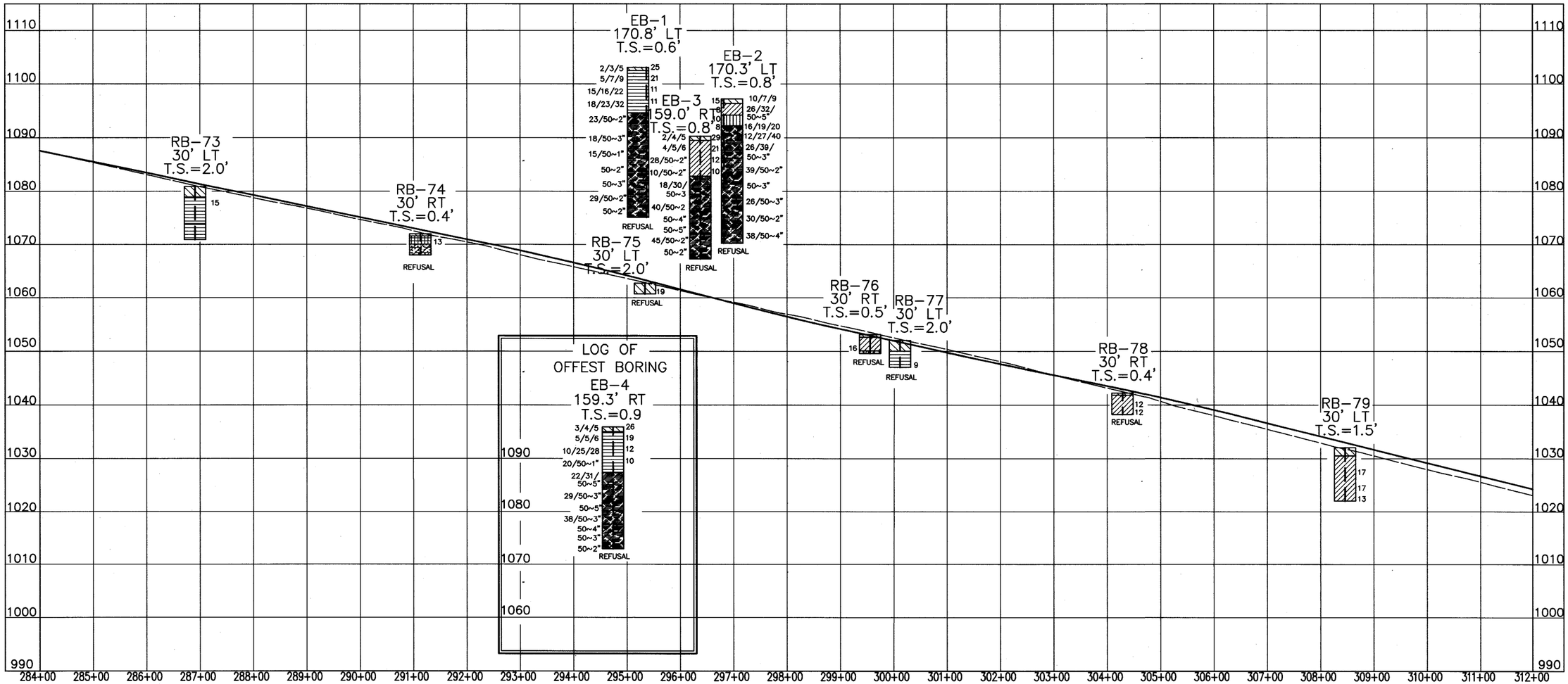
STA. 256+00 TO STA. 284+00
SOIL PROFILE

WAY-71-0.28

16/20

16
32





HORIZONTAL SCALE IN FEET
0 100 200

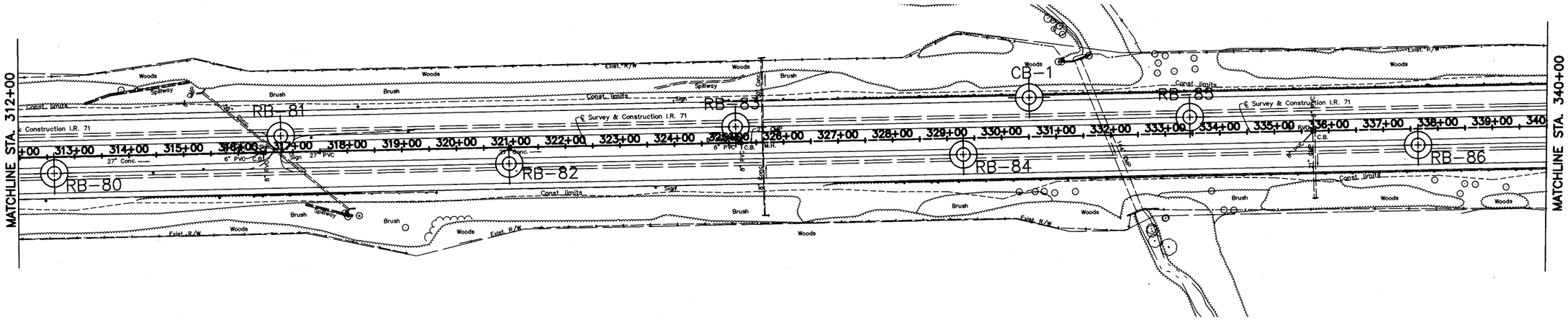
CALCULATED	CHECKED
DATE 1/12/00	DATE 1/12/00
REVIEWED	
DRAWN REK	

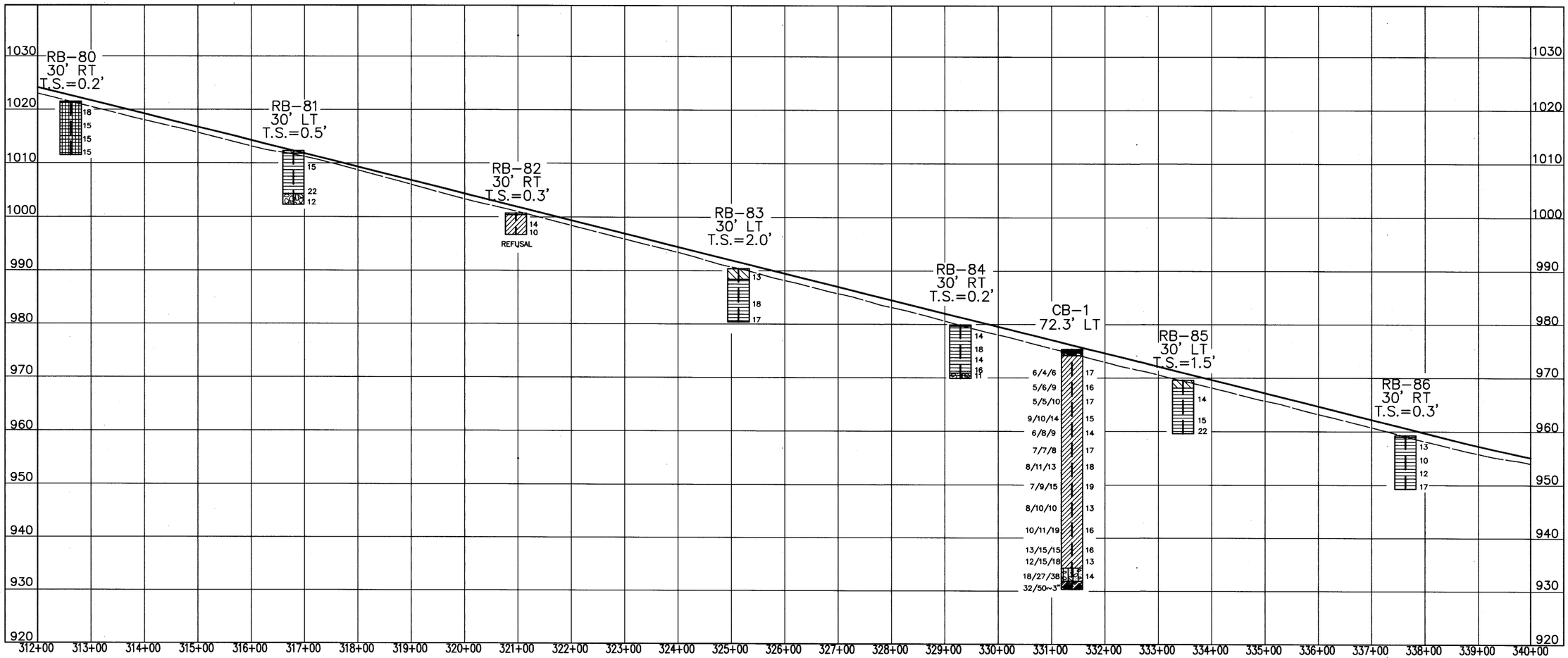
STA. 284+00 TO STA. 312+00
SOIL PROFILE

WAY-71-0.28

17/20
17
32

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138
FILENAME:
DATE:





HORIZONTAL SCALE IN FEET
0 100 200

DRAWN	REVIEWED	DATE	CALCULATED	DATE	CHECKED
REK		1/7/2000		1/7/2000	GPH

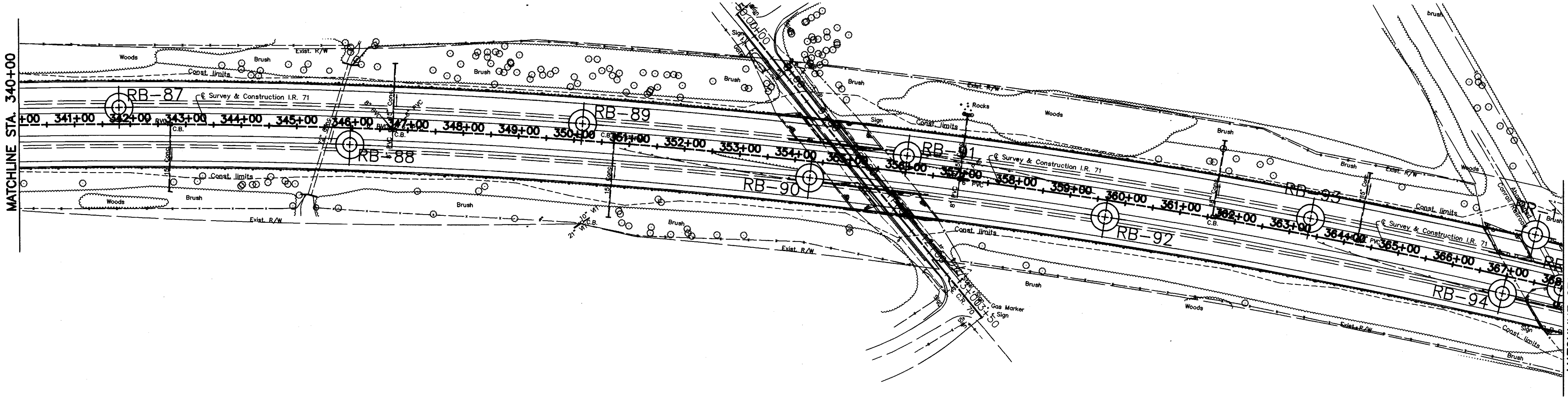
STA. 312+00 TO STA. 340+00
SOIL PROFILE

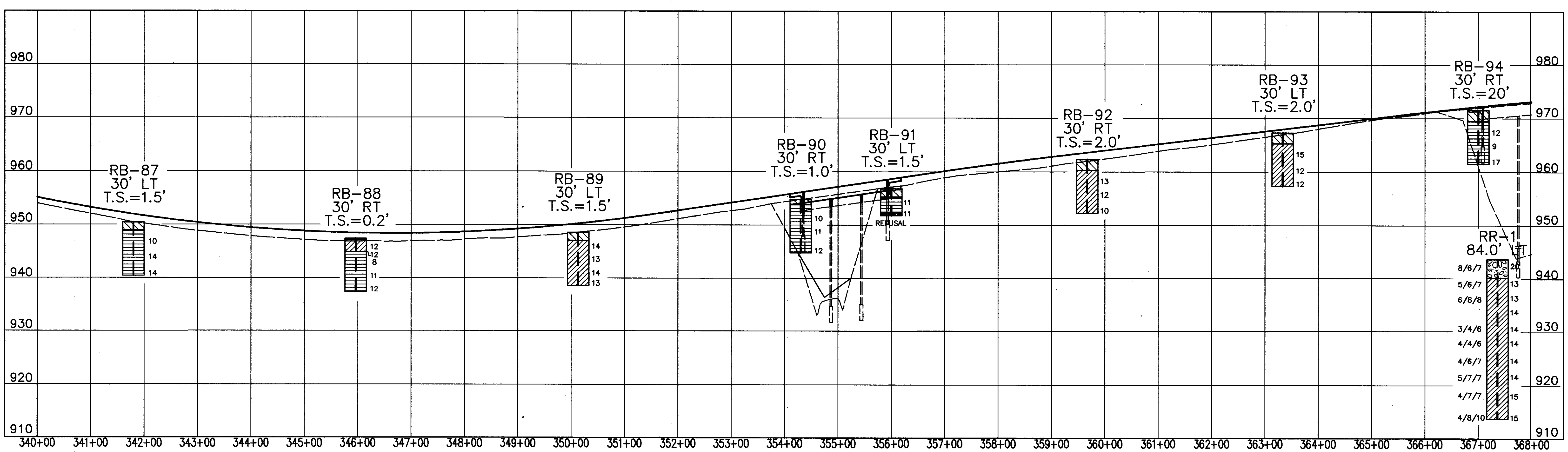
WAY-71-0.28

18/20

18/32

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138
FILENAME:
DATE:





HORIZONTAL SCALE IN FEET: 0 100 200

DRAWN	REVIEWED	DATE	CALCULATED
REK		1/7/2000	
		DATE 1/7/2000	CHECKED GPH

STA. 340+00 TO STA. 368+00

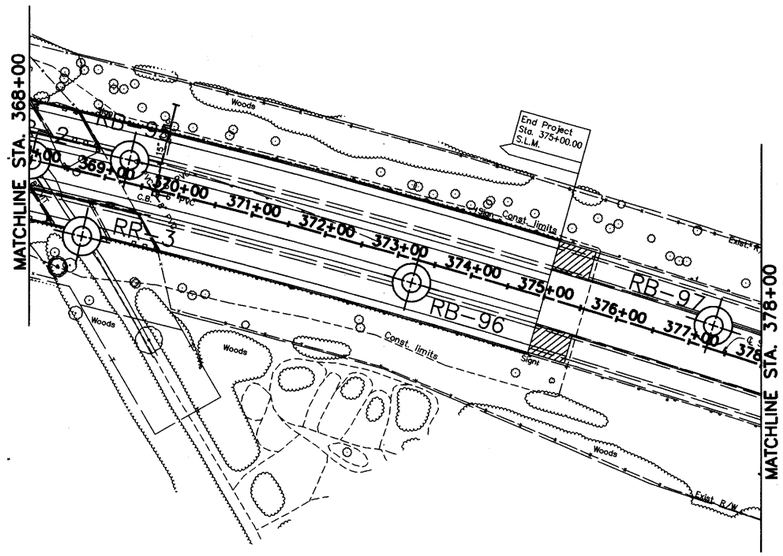
SOIL PROFILE

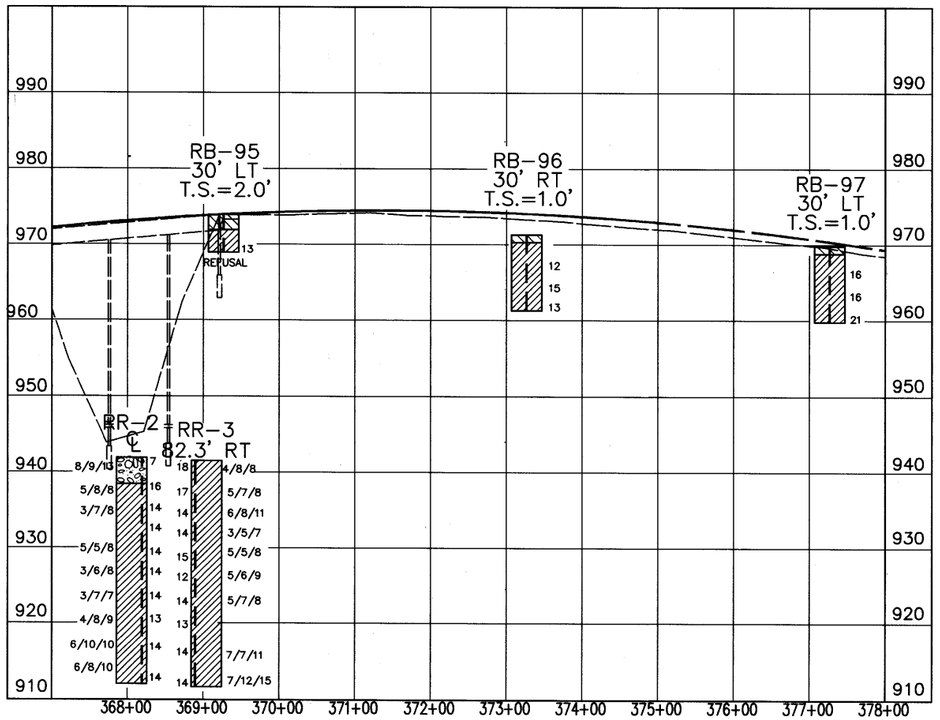
WAY-71-0.28

19/20

19 / 32

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138
FILENAME:
DATE:





RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138

FILENAME:
DATE:

DRAWN	REVIEWED	DATE	CALCULATED
REK		1/13/00	
		DATE	CHECKED
		1/13/00	GPH

HORIZONTAL SCALE IN FEET
0 100 200

STA. 368+00 TO STA. 378+00
SOIL PROFILE

WAY-71-0.28

20/20

20
32

INTRODUCTION

THIS REPORT IS A PRESENTATION OF THE SUBSURFACE INVESTIGATION PERFORMED FOR THE PROPOSED IMPROVEMENTS TO THE EXISTING NORTHBOUND AND SOUTHBOUND REST AREAS WITHIN THE SUBJECT DESIGN SECTION, WAY-71-0.28. THE PROJECT IS LOCATED IN CONGRESS TOWNSHIP, WAYNE COUNTY. THE PROPOSED IMPROVEMENTS INCLUDE THE DESIGN AND CONSTRUCTION OF NEW ENTRANCE AND EXIT RAMPS AND PARKING LOTS FOR THE REST AREAS, LOCATED BETWEEN MAINLINE STATIONS 77+00 AND 117+00. THE RAMPS WILL BE CONSTRUCTED AS FOLLOWS:

- THE NORTHBOUND REST AREA AUTO RAMP WILL BE CONSTRUCTED PRIMARILY AT THE EXISTING GRADE. TWO (2) SMALL FILL SECTIONS, LOCATED BETWEEN NORTHBOUND AUTO RAMP STATIONS 416+50 AND 419+35, AND BETWEEN STATIONS 423+50 AND 428+00, ARE PROPOSED ALONG THE RAMP. THE MAXIMUM FILL HEIGHT WILL BE 4.0± FEET.
- THE NORTHBOUND REST AREA TRUCK RAMP WILL BE CONSTRUCTED WITHIN A FILL SECTION LOCATED DIRECTLY BEHIND THE PROPOSED MSE WALL. THE MAXIMUM FILL HEIGHT WILL BE 12.0± FEET.
- THE SOUTHBOUND REST AREA AUTO RAMP WILL BE CONSTRUCTED PRIMARILY AT THE EXISTING GRADE. A SMALL CUT SECTION IS PROPOSED BETWEEN SOUTHBOUND AUTO RAMP STATIONS 615+00 AND 620+00. THE MAXIMUM CUT DEPTH WILL BE BETWEEN 2.0 AND 3.0 FEET.
- THE SOUTHBOUND REST AREA TRUCK RAMP WILL BE CONSTRUCTED WITHIN A SMALL FILL SECTION. THE FILL HEIGHT WILL BE 2.0 FEET OR LESS.

THE NORTHBOUND REST AREA WILL INCLUDE THE DESIGN OF AN MSE WALL, APPROXIMATELY 1000 FEET LONG, BORDERING THE I-71 MAINLINE NORTHBOUND LANES. EACH REST AREA WILL ALSO INCLUDE TWO (2) HIGH MAST LIGHT TOWERS.

GEOLOGY AND OBSERVATIONS OF THE PROJECT

GEOLOGICALLY, THE SITE LIES ON THE KILLBUCK-GLACIATED PITTSBURGH PLATEAU, A REGION CHARACTERIZED BY RIDGES AND FLAT UPLANDS COVERED WITH THIN GLACIAL DRIFT. THE WISCONSIN GLACIER PASSED OVER THE SITE, DEPOSITING CLAYEY END MORAINE AND GROUND MORAINE TILL, IDENTIFIED AS THE HIRAM TILL. THE UNDERLYING BEDROCK CONSISTS OF SHALE AND SANDSTONE OF THE CUYAHOGA FORMATION. BASED ON THE BEDROCK TOPOGRAPHY MAP OF THE WEST SALEM QUADRANGLE, OBTAINED FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR), THE TOP OF BEDROCK AT THE SITE IS BETWEEN ELEVATIONS 1000 AND 1050 FEET.

EXPLORATION

A TOTAL OF TWENTY-TWO (22) PAVEMENT BORINGS WERE DRILLED IN REFERENCE TO THE REST AREAS. ELEVEN (11) PAVEMENT BORINGS, DESIGNATED NB-1 THROUGH NB-11, WERE DRILLED AT THE NORTHBOUND REST AREA, AND ELEVEN (11) PAVEMENT BORINGS, DESIGNATED SB-1 THROUGH SB-11, WERE DRILLED AT THE SOUTHBOUND REST AREA. EACH OF THE BORINGS WAS DRILLED TO A DEPTH OF 10.0 FEET.

A TOTAL OF FOUR (4) HIGH MAST LIGHT TOWER BORINGS WERE DRILLED. TWO (2) LIGHT TOWER BORINGS, DESIGNATED L-1 AND L-2, WERE DRILLED AT THE NORTHBOUND REST AREA, AND TWO (2) LIGHT TOWER BORINGS, DESIGNATED L-3 AND L-4, WERE DRILLED AT THE SOUTHBOUND REST AREA. EACH OF THE BORINGS WAS DRILLED TO A DEPTH OF 50.0 FEET.

SIX (6) MSE WALL BORINGS, DESIGNATED MSE-1 THROUGH MSE-6, WERE DRILLED ALONG THE ALIGNMENT OF THE PROPOSED WALL AT THE NORTHBOUND REST AREA. THE BORINGS, EACH DRILLED TO A DEPTH OF 50.0 FEET, WERE DRILLED AT APPROXIMATELY 200-FOOT INTERVALS.

THE BORING LOCATIONS WERE DESIGNATED AND FIELD STAKED BY REPRESENTATIVES OF ENGINEERING ASSOCIATES, INC. THE BORINGS WERE DRILLED BETWEEN OCTOBER 16 AND OCTOBER 30, 2000 WITH EITHER A TRUCK MOUNTED OR AN ATV-MOUNTED ROTARY DRILLING MACHINE, UTILIZING 3.75-INCH HOLLOW-STEM AUGERS TO ADVANCE THE HOLES.

INVESTIGATIONAL FINDINGS

TWELVE (12) PAVEMENT BORINGS WERE DRILLED THROUGH THE EXISTING PAVEMENT. THE BORINGS EXHIBITED THE EXISTING PAVEMENT SECTIONS PRESENTED IN THE FOLLOWING TABLE. BORINGS NB-1 AND SB-3 EXHIBITED 10.0 INCHES AND 6.0 INCHES, RESPECTIVELY, OF SAND AND GRAVEL BERM AT THE GROUND SURFACE. THE REMAINING BORINGS EXHIBITED BETWEEN 2.0 AND 12.0 INCHES OF TOPSOIL AT THE GROUND SURFACE, GENERALLY DESCRIBED AS EITHER BROWN SILTY CLAY (CLAYEY SILT) WITH THE PRESENCE OF ORGANICS, OR AS BROWN SANDY SILT WITH THE PRESENCE OF ORGANICS.

BORING NO.	ASPHALT	CONCRETE	SAND AND GRAVEL BASE
NB-2	11.0 INCHES	---	11.0 INCHES
NB-4	3.5 INCHES	10.0 INCHES	---
NB-5	4.0 INCHES	10.0 INCHES	12.0 INCHES
NB-6	4.0 INCHES	---	8.0 INCHES
NB-8	8.0 INCHES	---	6.0 INCHES
NB-11	10.0 INCHES	---	6.0 INCHES
SB-1	9.0 INCHES	---	12.0 INCHES
SB-2	9.0 INCHES	---	7.0 INCHES
SB-4	1.0 INCHES	9.0 INCHES	---
SB-5	2.0 INCHES	8.0 INCHES	---
SB-6	3.0 INCHES	8.0 INCHES	---
SB-11	11.0 INCHES	---	6.0 INCHES

LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS - 46 SAMPLES TESTED

DESCRIPTION	ODOT CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
COARSE AND FINE SAND	A-3a				VISUALLY CLASSIFIED					
GRAVEL AND/OR STONE FRAGMENTS W/SAND AND SILT	A-2-4(0)	25	23	20	18	14	25	9	11	1
SANDY SILT	A-4a(6)	9	9	14	32	26	25	8	14	13
SILT	A-4b(8)	0	2	8	51	39	29	9	16	1
SILT AND CLAY	A-6a(9)	6	7	12	40	35	31	13	17	24
SILTY CLAY	A-6b(11)	4	4	7	40	45	37	17	22	5
CLAY	A-7-6(15)	2	4	11	43	40	45	26	21	2
RANDOM FILL					VISUALLY CLASSIFIED					

ASPHALT
SOD AND/OR TOPSOIL
CONCRETE
SAND AND GRAVEL
BERM MATERIAL

DRIVE SAMPLE/GEOPROBE BORING - PLAN VIEW

DRIVE SAMPLE/GEOPROBE BORING PLOTTED TO VERTICAL SCALE ONLY

X/Y/Z NUMBER OF BLOWS FOR STANDARD PENETRATION TEST
X = NUMBER OF BLOWS FOR FIRST 6 INCHES
Y = NUMBER OF BLOWS FOR SECOND 6 INCHES
Z = NUMBER OF BLOWS FOR THIRD 6 INCHES

● WATER CONTENT NEARLY EQUAL TO OR GREATER THAN LIQUID LIMIT.

⊖ INDICATES A NON-PLASTIC MATERIAL WITH A HIGH WATER CONTENT.

W FREE WATER

▼ STATIC WATER LEVEL

NOTE: FIGURES BESIDE BORINGS INDICATE WATER CONTENT IN PERCENT. E.G. 15

(CONT'D) INVESTIGATIONAL FINDINGS

THE SUBSURFACE SOIL AT THE REST AREAS IS CONSISTENT, COMPRISED PRIMARILY OF COHESIVE GROUND MORAINE AND END MORAINE TILL. THIS COHESIVE SOIL IS PRIMARILY DESCRIBED AS EITHER BROWN AND/OR GRAY, CLAYEY SILT (SILTY CLAY) WITH LESSER PERCENTAGES OF SAND AND FINE GRAVEL, OR AS BROWN AND/OR GRAY, SANDY SILT (SILTY SAND) WITH VARYING PERCENTAGES OF CLAY AND LESSER AMOUNTS OF FINE GRAVEL. LABORATORY TEST RESULTS AND VISUAL INSPECTION OF REPRESENTATIVE SAMPLES INDICATE THAT THESE SOIL STRATA ARE CLASSIFIED AS ODOT A-4A, A-6A, AND A-6B. OTHER SOIL TYPES ENCOUNTERED AT THE REST AREAS INCLUDE:

- LAYERS OF BROWN CHANGING TO MOTTLED BROWN AND GRAY, MODERATE TO HIGH PLASTICITY, CLAY "AND" SILT WITH LESSER AMOUNTS OF SAND AND FINE GRAVEL (ODOT A-7-6) WERE EXHIBITED IN SB-4, SB-5, AND SB-6.
- A LAYER OF BROWN, LOW PLASTICITY, SILT "AND" CLAY (ODOT A-4B) WAS ENCOUNTERED FULL-DEPTH IN SB-8.
- LENSES OF GRANULAR SOIL, GENERALLY DESCRIBED AS BROWN, COARSE TO FINE (FINE TO COARSE) SAND WITH VARYING PERCENTAGES OF FINE GRAVEL AND LESSER AMOUNTS OF SILT AND CLAY (ODOT A-3A AND A-2-4), WERE ENCOUNTERED IN SB-6 AND SB-7 AT VARYING DEPTHS.

A MORE COMPREHENSIVE DESCRIPTION OF THE SOIL ENCOUNTERED DURING THE DRILLING PROGRAM CAN BE FOUND ON THE SUMMARY OF SOIL TEST DATA SHEETS.

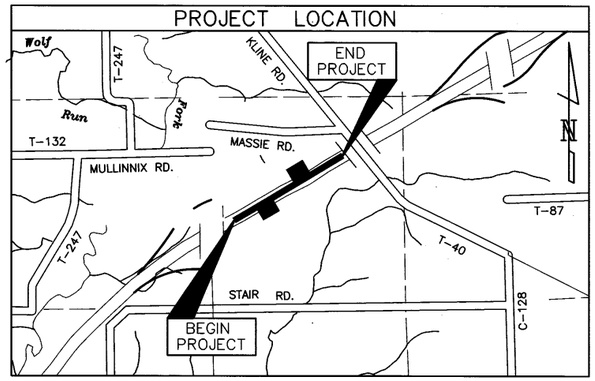
ALTHOUGH INFREQUENTLY ENCOUNTERED DURING THE DRILLING PROCESS, COARSE GRAVEL, COBBLES AND BOULDERS ARE COMMONLY PRESENT IN GLACIAL TILL. HOWEVER, DUE TO THE SIZE LIMITATIONS OF THE SPLIT-SPOON SAMPLERS COMMONLY USED IN THE INDUSTRY (AND USED IN THIS INVESTIGATION), LARGER SIZED PARTICLES CANNOT BE RETAINED FOR CLASSIFICATION. DUE TO THE MANNER IN WHICH THE SOIL IS DEPOSITED, ZONES OF "NESTED" COBBLES AND/OR BOULDERS MAY BE PRESENT AT VARIABLE DEPTHS THROUGHOUT THE SITE. SUCH ZONES ARE SUSPECTED IN MSE-3 BETWEEN 13.5 AND 33.5 FEET, AND IN MSE-4 BETWEEN 10.5 AND 28.5 FEET.

MANY SOIL PROPERTIES, INCLUDING SOIL CONSISTENCY AND SHEAR STRENGTH (OF COHESIVE SAMPLES), ARE PRIMARILY DERIVED FROM STANDARD PENETRATION BLOW COUNTS AND HAND PENETROMETER READINGS (PERFORMED ON COHESIVE SAMPLES). JUDGING FROM THE STANDARD PENETRATION BLOW COUNTS OBTAINED, THE TEST BORINGS EXHIBITED PRIMARILY MEDIUM STIFF (N=4 TO 8 BLOWS PER FOOT [BPF]) TO VERY STIFF (N=15 TO 30 BPF) COHESIVE SOIL LAYERS AND LOOSE (N=4 TO 10 BPF) TO MEDIUM DENSE (N=10 TO 30 BPF) GRANULAR SOIL LENSES IN THE TOP 10.0 FEET, OVERLYING PRIMARILY STIFF (N=8 TO 15 BPF) TO HARD (N>30 BPF) COHESIVE SOIL. BLOW COUNTS RANGED FROM 4 TO 46 BPF, AND GENERALLY INCREASED WITH DEPTH IN THE BORINGS.

LABORATORY TESTS WERE PERFORMED TO DETERMINE THE "IN-SITU" UNIT WEIGHT AND THE UNCONFINED COMPRESSIVE STRENGTH OF THE SUBSURFACE SOIL. THE RESULTS ARE PRESENTED IN THE FOLLOWING TABLE.

BORING NO. SAMPLE NUMBER	SAMPLE DEPTH	"IN-SITU" UNIT WEIGHT (pounds per cubic foot)	UNCONFINED COMPRESSIVE STRENGTH (pounds per square foot)
L-3 (ST-3)	6.0-7.0 FT	142 pcf	7,829 psf @ 3.5% strain
L-4 (ST-6)	13.5-15.0 FT	153 pcf	6,000 psf @ 15% strain

PROJECT LOCATION



PROJECT INDEX

STATIONS FROM	STATIONS TO	PLAN VIEW SHEET	PROFILE SHEET	CUT MAX.	FILL EMB. MAX.
N.B. REST AREA AUTO RAMP					
409+00	434+00	4	5	1 FT	4 FT
N.B. REST AREA TRUCK RAMP					
512+00	529+00	4	6	2 FT	12 FT
S.B. REST AREA AUTO RAMP					
612+00	636+00	4	7	3 FT	4 FT
S.B. REST AREA TRUCK RAMP					
719+00	732+00	4	7	1 FT	2 FT

(CONT'D) INVESTIGATIONAL FINDINGS

THE UNCONFINED COMPRESSIVE STRENGTH OF THE COHESIVE SOIL SAMPLES TESTED, AS OBTAINED FROM THE HAND PENETROMETER, RANGED FROM 1.5 TO 9.0+ KSF (THE LIMIT OF THE INSTRUMENT).

THE NATURAL MOISTURE CONTENTS OF THE SOIL SAMPLES TESTED RANGED FROM 7% TO 30%, BUT WERE PRIMARILY BETWEEN 10% AND 20%. THE NATURAL MOISTURE CONTENTS OF THE SOIL SAMPLES TESTED FOR PLASTICITY INDEX RANGED FROM 5% BELOW TO 5% ABOVE THEIR CORRESPONDING PLASTIC LIMITS. OVERALL, THE SOIL EXHIBITED NATURAL MOISTURE CONTENTS ESTIMATED TO BE SLIGHTLY BELOW TO SIGNIFICANTLY ABOVE OPTIMUM MOISTURE.

GROUNDWATER WAS ENCOUNTERED IN FIVE (5) OF THE TEST BORINGS, AS PRESENTED IN THE FOLLOWING TABLE.

BORING NO.	DEPTH OF INITIAL GROUNDWATER	DEPTH OF GROUNDWATER AT COMPLETION	CAVE-IN DEPTH
L-1	33.5 FEET	29.5 FEET	31.5 FEET
MSE-3	33.5 FEET	SEEPAGE WITHIN SAND SEAMS	38.9 FEET
MSE-4	20.0 FEET	SEEPAGE WITHIN SAND SEAMS	29.7 FEET
MSE-5	11.0 FEET	SEEPAGE WITHIN SAND SEAMS	38.2 FEET
MSE-6	6.0 FEET	SEEPAGE WITHIN SAND SEAMS	38.0 FEET

THE GROUNDWATER WAS PRIMARILY ASSOCIATED WITH THIN SAND LENSES WITHIN THE COHESIVE SOIL STRATA. IT IS NOTED THAT IN L-1, CAVE-IN OCCURRED (AFTER REMOVING THE AUGERS) BELOW THE GROUNDWATER LEVEL UPON COMPLETION AND LIKELY INFLUENCED THE GROUNDWATER READING (I.E., THE CAVED-IN MATERIAL MAY HAVE DISPLACED THE WATER IN THE BOREHOLE OR SMALL VOLUMES OF WATER SEEPAGE MAY HAVE COLLECTED ON TOP OF THE CAVED-IN SOIL [OR SOIL BRIDGE]). GROUNDWATER LEVELS AND/OR THE PRESENCE OF GROUNDWATER ARE CONSIDERED TO BE DEPENDENT ON SEASONAL FLUCTUATIONS IN PRECIPITATION. AT THE TIME OF THIS INVESTIGATION, RECENT PRECIPITATION WAS CONSIDERED TO BE SLIGHTLY ABOVE NORMAL.

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

DRAWN KAL | REVIEWED DLK
DATE 12/22/00 | DATE 12/22/00

PROFILE

WAYNE COUNTY
WAY-71-0.28

1/7

21/32

RESOURCE INTERNATIONAL INC. PROJECT NO. W-9138 FILENAME: RA-01-CVR.DWG DATE: 12/22/00

SUMMARY OF SOIL TEST DATA

NOTE: NP SHOWN IN LIQUID LIMIT AND PLASTIC INDEX COLUMNS INDICATES THAT THE SAMPLE IS NON-PLASTIC

Location & Offset			From	To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I	W.C.	ODOT CLASS
BORINGS REFERENCED TO BASELINE – N.B. REST AREA AUTO RAMP													
NB-1	411+00,	BL	1.0	2.5	7	7	11	41	34	35	17	16	A-6b
			3.5	5.0	SAME AS 1.0-2.5								VISUAL
			6.0	7.5	MOTTLED BROWN AND GRAY SILTY CLAY, TRACE TO LITTLE SAND, TRACE GRAVEL							30	VISUAL
			8.5	10.0	SAME AS 6.0-7.5								VISUAL
NB-2	415+72,	15' LT	1.0	2.5	SAME AS 3.5-5.0								VISUAL
			3.5	5.0	9	11	19	37	24	28	12	19	A-6a
			6.0	7.5	SAME AS 3.5-5.0								VISUAL
			8.5	10.0	SAME AS 3.5-5.0							20	VISUAL
NB-3	416+50,	BL	1.0	2.5	6	6	11	43	34	32	14	18	A-6a
			3.5	5.0	SAME AS 1.0-2.5								VISUAL
			6.0	7.5	SAME AS 1.0-2.5							19	VISUAL
			8.5	10.0	SAME AS 1.0-2.5								VISUAL
L-1	420+33,	19' LT	1.0	2.5	DARK BROWN AND GRAY CLAYEY SILT, SOME SAND, TRACE GRAVEL								VISUAL
			3.5	5.0	BROWNISH GRAY SILT, SOME CLAY, LITTLE SAND (POSSIBLE FILL)							23	VISUAL
			6.0	7.5	SAME AS 8.5-10.0								VISUAL
			8.5	10.0	4	5	10	34	47	31	12	14	A-6a
			11.0	12.5	SAME AS 8.5-10.0								VISUAL
			13.5	15.0	SAME AS 8.5-10.0							12	VISUAL
			16.0	17.5	SAME AS 8.5-10.0								VISUAL
			18.5	20.0	GRAY CLAYEY SILT, SOME SAND, TRACE GRAVEL							16	VISUAL
			21.0	22.5	SAME AS 18.5-20.0								VISUAL
			23.5	25.0	SAME AS 18.5-20.0							15	VISUAL
			28.5	30.0	SAME AS 18.5-20.0								VISUAL
			33.5	35.0	SAME AS 18.5-20.0							15	VISUAL
			38.5	40.0	SAME AS 18.5-20.0								VISUAL
			43.5	45.0	SAME AS 18.5-20.0							14	VISUAL
			48.5	50.0	SAME AS 18.5-20.0								VISUAL
NB-6	423+29,	12' RT	1.0	2.5	2	5	12	34	47	33	15	21	A-6a
			3.5	5.0	SAME AS 1.0-2.5							17	VISUAL
			6.0	7.5	SAME AS 1.0-2.5								VISUAL
			8.5	10.0	SAME AS 1.0-2.5							16	VISUAL
L-2	423+57,	18' LT	1.0	2.5	SAME AS 6.0-7.5							15	VISUAL
			3.5	5.0	SAME AS 6.0-7.5								VISUAL
			6.0	7.5	6	7	15	39	33	30	13	15	A-6a
			8.5	10.0	SAME AS 6.0-7.5								VISUAL
			11.0	12.5	SAME AS 6.0-7.5							13	VISUAL
			13.5	15.0	SAME AS 21.0-22.5								VISUAL
			16.0	17.5	SAME AS 21.0-22.5							18	VISUAL
			18.5	20.0	SAME AS 21.0-22.5								VISUAL
			21.0	22.5	5	4	8	39	44	31	14	17	A-6a
			23.5	25.0	SAME AS 21.0-22.5								VISUAL
			28.5	30.0	16	12	21	26	25			7	VISUAL
			33.5	35.0	SAME AS 28.5-30.0								VISUAL
			38.5	40.0	SAME AS 28.5-30.0							10	VISUAL
			43.5	45.0	BROWNISH GRAY SILTY CLAY, LITTLE SAND, TRACE GRAVEL								VISUAL
			48.5	50.0	SAME AS 43.5-45.0							18	VISUAL
NB-7	424+57,	32' LT	1.0	2.5	7	9	18	34	32	25	7	19	A-4a
			3.5	5.0	SAME AS 1.0-2.5							17	VISUAL
			6.0	7.5	SAME AS 1.0-2.5								VISUAL
			8.5	10.0	SAME AS 1.0-2.5							14	VISUAL
NB-10	428+00,	BL	1.0	2.5	5	9	13	35	38	31	13	20	A-6a
			3.5	5.0	SAME AS 1.0-2.5							22	VISUAL
			6.0	7.5	SAME AS 1.0-2.5								VISUAL
			8.5	10.0	SAME AS 1.0-2.5							14	VISUAL
NB-11	431+50,	BL	1.0	2.5	BROWN SILTY SAND, SOME CLAY, LITTLE GRAVEL							9	VISUAL
			3.5	5.0	4	5	12	44	35	27	9	18	A-4a
			6.0	7.5	SAME AS 3.5-5.0								VISUAL
			8.5	10.0	SAME AS 3.5-5.0							13	VISUAL
BORINGS REFERENCED TO BASELINE – N.B. REST AREA TRUCK RAMP													
MSE-1	514+50,	BL	1.0	2.5	SAME AS 6.0-7.5							14	VISUAL
			3.5	5.0	SAME AS 6.0-7.5								VISUAL
			6.0	7.5	1	3	5	54	37	40	16	25	A-6b
			8.5	10.0	SAME AS 21.0-22.5								VISUAL
			11.0	12.5	SAME AS 21.0-22.5							18	VISUAL
			13.5	15.0	SAME AS 21.0-22.5								VISUAL
			16.0	17.5	SAME AS 21.0-22.5							15	VISUAL
			18.5	20.0	SAME AS 21.0-22.5								VISUAL
			21.0	22.5	7	7	12	42	32	31	13	13	A-6a
			23.5	25.0	BROWNISH GRAY CHANGING TO GRAY CLAYEY SILT, SOME SAND, TRACE GRAVEL								VISUAL
			28.5	30.0	SAME AS 23.5-25.0							14	VISUAL
			33.5	35.0	GRAY SILTY CLAY, LITTLE SAND, TRACE GRAVEL								VISUAL
			38.5	40.0	SAME AS 33.5-35.0							14	VISUAL
			43.5	45.0	SAME AS 33.5-35.0								VISUAL
			48.5	50.0	SAME AS 33.5-35.0							9	VISUAL

Location & Offset			From	To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I	W.C.	ODOT CLASS
(CONT'D) BORINGS REFERENCED TO BASELINE – N.B. REST AREA TRUCK RAMP													
MSE-2	516+50,	BL	1.0	2.5	SAME AS 6.0-7.5							23	VISUAL
			3.5	5.0	SAME AS 6.0-7.5								VISUAL
			6.0	7.5	6	6	12	34	42	31	13	16	A-6a
			8.5	10.0	SAME AS 6.0-7.5								VISUAL
			11.0	12.5	SAME AS 6.0-7.5							17	VISUAL
			13.5	15.0	SAME AS 6.0-7.5								VISUAL
			16.0	17.5	7	6	11	34	42			10	VISUAL
			18.5	20.0	SAME AS 16.0-17.5								VISUAL
			21.0	22.5	SAME AS 16.0-17.5							13	VISUAL
			23.5	25.5	SAME AS 16.0-17.5								VISUAL
			28.5	30.0	SAME AS 16.0-17.5							15	VISUAL
			33.5	35.0	SAME AS 16.0-17.5								VISUAL
			38.5	40.0	SAME AS 16.0-17.5							16	VISUAL
			43.5	45.0	SAME AS 16.0-17.5								VISUAL
			48.5	50.0	SAME AS 16.0-17.5							15	VISUAL
MSE-3	518+50,	BL	1.0	2.5	SAME AS 3.5-5.0								VISUAL
			3.5	5.0	3	4	7	27	59	36	16	21	A-6b
			6.0	7.5	SAME AS 3.5-5.0								VISUAL
			8.5	10.0	SAME AS 3.5-5.0							14	VISUAL
			11.0	12.5	SAME AS 3.5-5.0								VISUAL
			13.5	15.0	11	12	19	34	24	21	7	10	A-4a
			16.0	17.5	SAME AS 13.5-15.0								VISUAL
			18.5	20.0	SAME AS 13.5-15.0							13	VISUAL
			21.0	22.5	SAME AS 13.5-15.0								VISUAL
			23.5	25.0	SAME AS 13.5-15.0							11	VISUAL
			28.5	30.0	SAME AS 13.5-15.0								VISUAL
			33.5	35.0	GRAY AND SILT, LITTLE SAND (SCATTERED SAND SEAMS WITH WATER SEEPAGE, TRACE GRAVEL							13	VISUAL
			38.5	40.0	SAME AS 33.5-35.0								VISUAL
			43.5	45.0	SAME AS 33.5-35.0							16	VISUAL
			48.5	50.0	SAME AS 33.5-35.0								VISUAL
NB-4	519+88,	69' RT	1.0	2.5	BROWN SANDY SILT, SOME CLAY, LITTLE GRAVEL								VISUAL
			3.5	5.0	6	6	13	44	31	31	14	17	A-6a
			6.0	7.5	SAME AS 3.5-5.0								VISUAL
			8.5	10.0	SAME AS 3.5-5.0							14	VISUAL
MSE-4	520+50,	BL	1.0	2.5	1	3	8	52	36			20	VISUAL
			3.5	5.0	SAME AS 1.0-2.5								VISUAL
			6.0	7.5	SAME AS 1.0-2.5							18	VISUAL
			8.5	10.0	SAME AS 1.0-2.5								VISUAL
			11.0	12.5	21	17	19	28	15	18	5	10	A-4a
			13.5	15.0	SAME AS 11.0-12.5								VISUAL
			16.0	17.5	SAME AS 11.0-12.5							13	VISUAL
			18.0	20.0	SAME AS 11.0-12.5								VISUAL
			21.0	22.5	SAME AS 11.0-12.5							14	VISUAL
			23.5	25.0	SAME AS 11.0-12.5								VISUAL
			28.5	30.0	GRAY SILTY CLAY, LITTLE SAND, TRACE GRAVEL							14	VISUAL
			33.5	35.0	SAME AS 28.5-30.0								VISUAL
			38.5	40.0	SAME AS 28.5-30.0								VISUAL
			43.5	45.0	GRAY CLAYEY SILT, SOME SAND, LITTLE GRAVEL							11	VISUAL
			48.5	50.0	SAME AS 43.5-45.0								VISUAL
MSE-5	522+50,	BL	1.0	2.5	5	6	12	35	42	30	12	16	A-6a
			3.5	5.0	SAME AS 1.0-2.5								VISUAL
			6.0	7.5	SAME AS 1.0-2.5							14	VISUAL
			8.5	10.0	SAME AS 1.0-2.5								VISUAL
			11.0	12.5	11	11	19	33	26	21	7	13	A-4a
			13.5	15.0	SAME AS 11.0-12.5								VISUAL
			16.0	17.5	SAME AS 11.0-12.5							13	VISUAL
			18.5	20.0	SAME AS 28.5-30.0								VISUAL
			21.0	22.5	SAME AS 28.5-30.0							13	VISUAL
			23.5	25.0	SAME AS 28.5-30.0								VISUAL
			28.5	30.0	6	6	15	38	35			12	VISUAL
			33.5	35.0	SAME AS 28.5-30.0								VISUAL
			38.5	40.0	SAME AS 28.5-30.0							15	VISUAL
			43.5	45.0	SAME AS 28.5-30.0								VISUAL
			48.5	50.0	SAME AS 28.5-30.0							10	VISUAL
NB-5	522+86,	69' RT	1.0	2.5	4	6	12	30	48	32	15	14	A-6a
			3.5	5.0	SAME AS 1.0-2.5								VISUAL
			6.0	7.5	SAME AS 1.0-2.5							16	VISUAL
			8.5	10.0	SAME AS 1.0-2.5								VISUAL
MSE-6	524+27,	BL	1.0	2.5	SAME AS 3.5-5.0								VISUAL
			3.5	5.0	9	8	14	27	42	29	12	15	A-6a
			6.0	7.5	GRAY (SOME BROWN MOTTLING) CLAYEY SILT, SOME SAND, TRACE GRAVEL								VISUAL
			8.5	10.0	SAME AS 6.0-7.5							14	VISUAL
			11.0	12.5	SAME AS 6.0-7.5								VISUAL
			13.5	15.0	SAME AS 6.0-7.5							13	VISUAL
			16.0	17.5	SAME AS 6.0-7.5								VISUAL
			18.5	20.0	SAME AS 6.0-7.5							16	VISUAL
			21.0	22.5	SAME AS 6.0-7.5								VISUAL
			23.5	25.0	SAME AS 6.0-7.5							13	VISUAL
			28.5	30.0	SAME AS 33.5-35.0								VISUAL
			33.5	35.0	16	11	16	33	24	24	10	12	A-4a
			38.5	40.0	GRAY CLAYEY SILT, SOME SAND, TRACE GRAVEL								VISUAL
			43.5	45.0	SAME AS 38.5-40.0							11	VISUAL
			48.5	50.0	SAME AS 38.5-40.0								VISUAL

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138
FILENAME: RA-02-DATA.DWG
DATE: 12/22/00

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

DRAWN KAL
REVIEWED GPH
DATE 12/22/00
DATE 12/22/00

SOIL PROFILE

WAYNE COUNTY
WAY-71-0.28

2/7

22
32

SUMMARY OF SOIL TEST DATA

NOTE: NP SHOWN IN LIQUID LIMIT AND PLASTIC INDEX COLUMNS INDICATES THAT THE SAMPLE IS NON-PLASTIC

Location & Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I	W.C.	ODOT CLASS
(CONT'D) BORINGS REFERENCED TO BASELINE – N.B. REST AREA TRUCK RAMP										
NB-8 524+68, BL	1.0–2.5	15	18	18	26	23	28	11	16	A-6a
	3.5–5.0	BROWN CHANGING TO MOTTLED BROWN AND GRAY CLAYEY SILT, LITTLE TO SOME SAND, TRACE GRAVEL							16	VISUAL
	6.0–7.5	SAME AS 3.5–5.0								VISUAL
	8.5–10.0	SAME AS 3.5–5.0							15	VISUAL
NB-9 526+90, 26' LT	1.0–2.5	2	4	11	45	38	39	19	25	A-6b
	3.5–5.0	SAME AS 3.5–5.0							16	VISUAL
	6.0–7.5	BROWN SANDY SILT, SOME CLAY, TRACE GRAVEL								VISUAL
	8.5–10.0	BROWN CHANGING TO BROWN AND GRAY SILTY CLAY, LITTLE TO SOME SAND, TRACE GRAVEL							16	VISUAL
BORINGS REFERENCED TO BASELINE – S.B. REST AREA AUTO RAMP										
SB-1 614+00, BL	1.0–2.5	10	7	12	42	29	32	15	16	A-6a
	3.5–5.0	SAME AS 1.0–2.5								VISUAL
	6.0–7.5	MOTTLED BROWN AND GRAY SILTY CLAY, LITTLE SAND, TRACE GRAVEL							22	VISUAL
	8.5–10.0	SAME AS 6.0–7.5							22	VISUAL
SB-2 618+50, BL	1.0–2.5	SAME AS 3.5–5.0								VISUAL
	3.5–5.0	7	5	11	46	31	32	14	19	A-6a
	6.0–7.5	SAME AS 3.5–5.0								VISUAL
	8.5–10.0	SAME AS 3.5–5.0							22	VISUAL
L-3 622+38, 22' RT	1.0–2.5	SAME AS 6.0–7.5							12	VISUAL
	3.5–5.0	SAME AS 6.0–7.5								VISUAL
	6.0–7.5	6	5	10	44	35	29	11	15	A-6a
	8.5–10.0	SAME AS 6.0–7.5								VISUAL
	11.0–12.5	SAME AS 6.0–7.5							14	VISUAL
	13.5–15.0	SAME AS 6.0–7.5								VISUAL
	16.0–17.5	8	7	13	33	39			12	VISUAL
	18.5–20.0	SAME AS 16.0–17.5								VISUAL
	21.0–22.5	SAME AS 16.0–17.5							17	VISUAL
	23.5–25.0	SAME AS 16.0–17.5								VISUAL
	28.5–30.0	8	9	16	29	38	24	9	15	A-4a
	33.5–35.0	SAME AS 28.5–30.0								VISUAL
	38.5–40.0	SAME AS 28.5–30.0							21	VISUAL
	43.5–45.0	SAME AS 28.5–30.0								VISUAL
	48.5–50.0	SAME AS 28.5–30.0							15	VISUAL
SB-6 625+67, 12' LT	1.0–2.5	25	23	20	18	14	25	9	11	A-2-4
	3.5–5.0	BROWN CHANGING TO MOTTLED BROWN AND GRAY CLAY AND SILT, LITTLE SAND, TRACE GRAVEL								VISUAL
	6.0–7.5	SAME AS 3.5–5.0							16	VISUAL
	8.5–10.0	SAME AS 3.5–5.0								VISUAL
L-4 626+72, 25' RT	1.0–2.5	SAME AS 6.0–7.5							14	VISUAL
	3.5–5.0	SAME AS 6.0–7.5								VISUAL
	6.0–7.5	14	14	18	34	20	24	8	11	A-4a
	8.5–10.0	SAME AS 6.0–7.5								VISUAL
	11.0–12.5	SAME AS 6.0–7.5							15	VISUAL
	13.5–15.0	5	6	11	45	33	25	10	14	A-4a
	16.0–17.5	SAME AS 21.0–22.5							15	VISUAL
	18.5–20.0	SAME AS 21.0–22.5								VISUAL
	21.0–22.5	8	7	12	36	37	26	10	16	A-4a
	23.5–25.0	SAME AS 21.0–22.5								VISUAL
	28.5–30.0	SAME AS 21.0–22.5							15	VISUAL
	33.5–35.0	SAME AS 21.0–22.5								VISUAL
	38.5–40.0	6	1	2	31	60	36	18	21	A-6b
	43.5–45.0	SAME AS 38.5–40.0								VISUAL
	48.5–50.0	SAME AS 38.5–40.0							20	VISUAL
SB-8 628+00, BL	1.0–2.5	0	2	8	51	39	29	9	16	A-4b
	3.5–5.0	SAME AS 1.0–2.5							20	VISUAL
	6.0–7.5	SAME AS 1.0–2.5								VISUAL
	8.5–10.0	SAME AS 1.0–2.5							14	VISUAL
SB-11 634+00, BL	1.0–2.5	8	7	12	40	33	27	10	14	A-4a
	3.5–5.0	SAME AS 1.0–2.5								VISUAL
	6.0–7.5	SAME AS 1.0–2.5							14	VISUAL
	8.5–10.0	SAME AS 1.0–2.5								VISUAL
BORINGS REFERENCED TO BASELINE – S.B. REST AREA TRUCK RAMP										
SB-3 720+79, BL	1.0–2.5	5	8	12	51	24	31	11	18	A-6a
	3.5–5.0	SAME AS 1.0–2.5								VISUAL
	6.0–7.5	SAME AS 1.0–2.5							19	VISUAL
	8.5–10.0	SAME AS 1.0–2.5								VISUAL
SB-4 722+53, 65' LT	1.0–2.5	3	4	9	44	40	48	29	20	A-7-6
	3.5–5.0	SAME AS 1.0–2.5								VISUAL
	6.0–7.5	SAME AS 1.0–2.5							14	VISUAL
	8.5–10.0	SAME AS 1.0–2.5								VISUAL
SB-5 725+67, 67' LT	1.0–2.5	SAME AS 3.5–5.0								VISUAL
	3.5–5.0	1	5	12	42	40	41	23	22	A-7-6
	6.0–7.5	SAME AS 3.5–5.0								VISUAL
	8.5–10.0	SAME AS 3.5–5.0							15	VISUAL
SB-7 724+50, BL	1.0–2.5	8	7	14	39	32	29	11	13	A-6a
	3.5–5.0	BROWN SAND, LITTLE SILT, LITTLE GRAVEL								VISUAL
	6.0–7.5	GRAY CHANGING TO BROWNISH GRAY SILTY CLAY, LITTLE TO SOME SAND, TRACE GRAVEL							14	VISUAL
	8.5–10.0	SAME AS 6.0–7.5								VISUAL

Location & Offset	From To	% Agg	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I	W.C.	ODOT CLASS
(CONT'D) BORINGS REFERENCED TO BASELINE – S.B. REST AREA TRUCK RAMP										
SB-9 727+77, 82' LT	1.0–2.5	6	6	11	41	36	31	13	16	A-6a
	3.5–5.0	SAME AS 1.0–2.5								VISUAL
	6.0–7.5	SAME AS 1.0–2.5							13	VISUAL
	8.5–10.0	SAME AS 1.0–2.5								VISUAL
SB-10 730+49, 3' LT	1.0–2.5	6	7	12	31	44	30	12	16	A-6a
	3.5–5.0	SAME AS 1.0–2.5								VISUAL
	6.0–7.5	SAME AS 1.0–2.5							14	VISUAL
	8.5–10.0	SAME AS 1.0–2.5								VISUAL

RESOURCE INTERNATIONAL INC.
281 ENTERPRISE DR.
WESTERVILLE, OHIO 43081
(614) 885-1959

DRAWN KAL | REVIEWED GPH
DATE 12/22/00 | DATE 12/22/00

SOIL PROFILE

WAYNE COUNTY
WAY-71-0.28

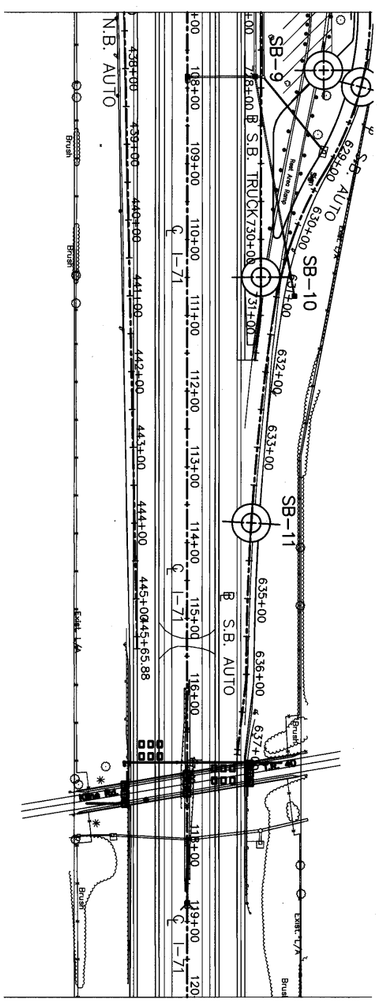
3/7

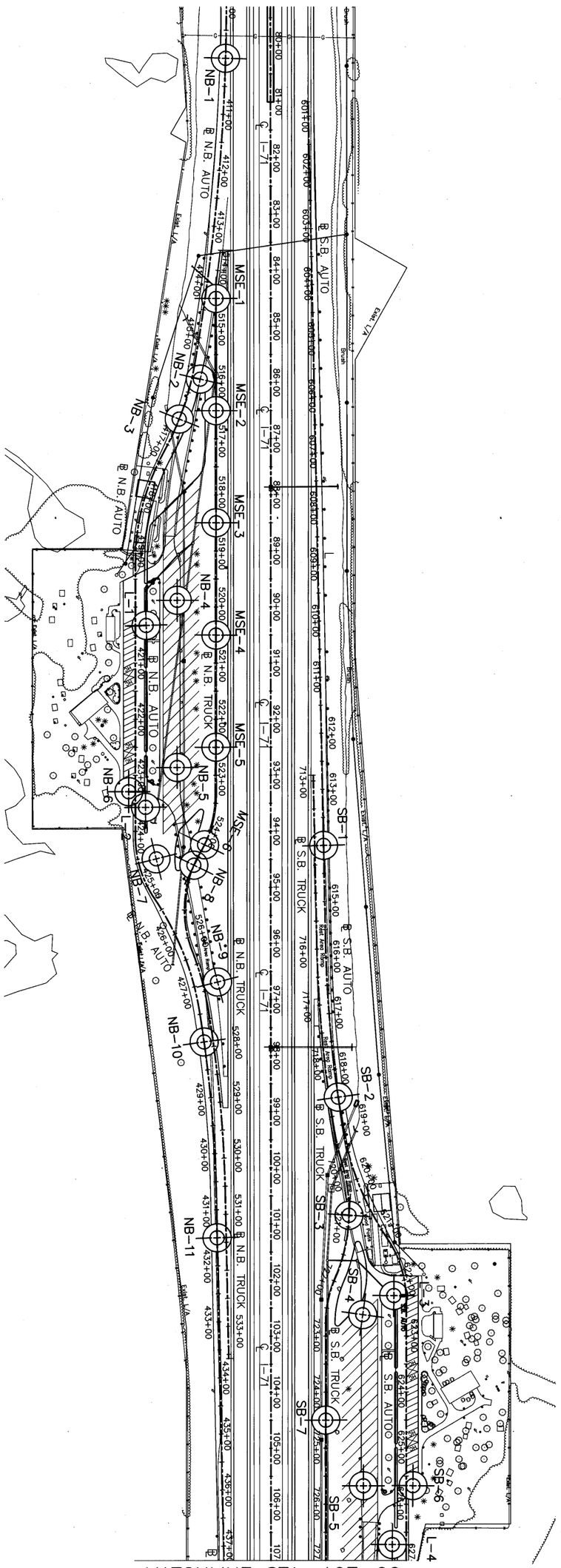
23
32

RESOURCE INTERNATIONAL INC. FILENAME: RA-03-DATA.DWG
PROJECT NO. W-9138 DATE: 12/22/00

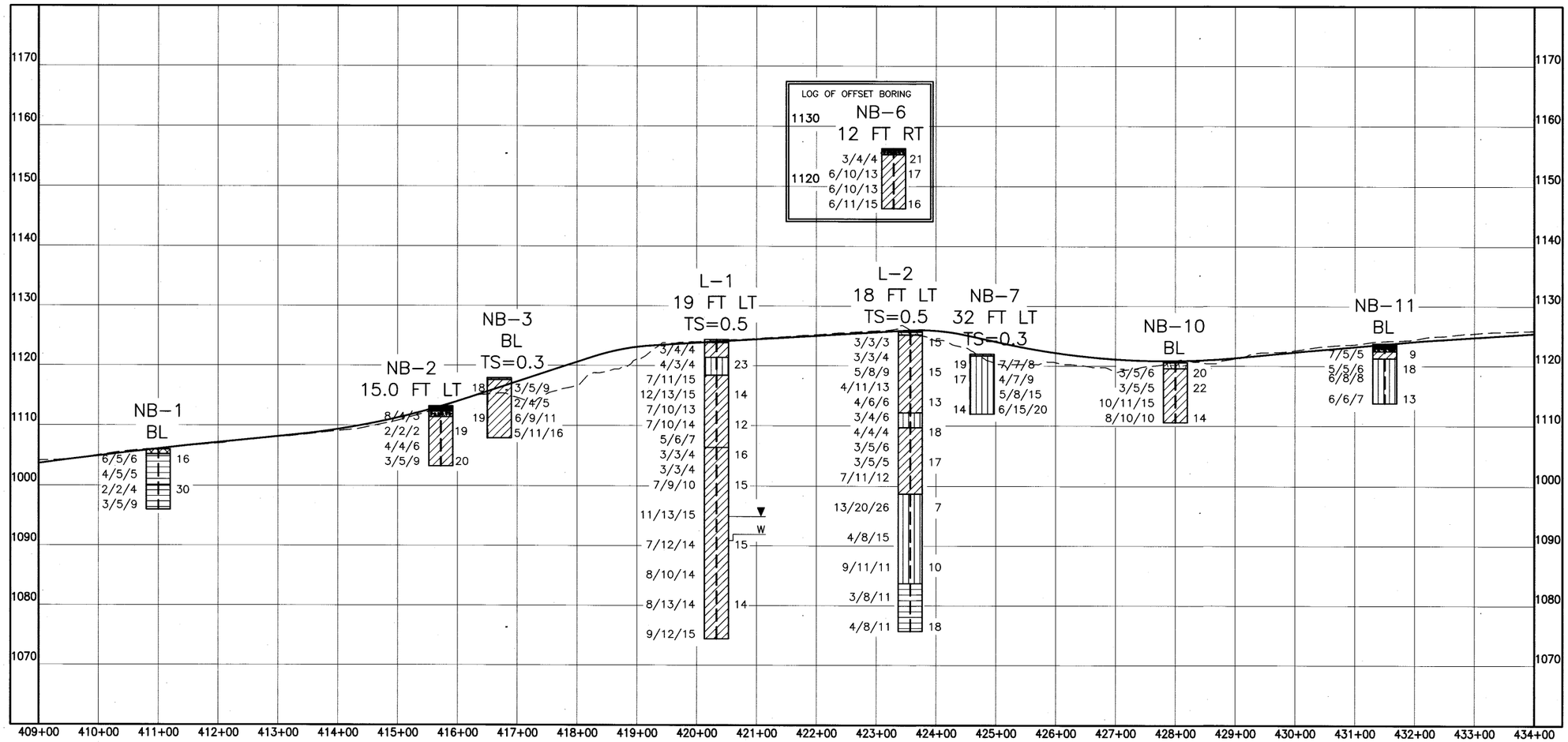
RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138

FILENAME: RA-04-PP.DWG
DATE: 12/22/00





24/32	4/7	WAYNE COUNTY WAY-71-0.28	WAYNE 71 – N.B & S.B. REST AREAS SOIL PROFILE	DRAWN KAL	REVIEWED	DATE 12/22/00	DATE	0 100 200 HORIZONTAL SCALE IN FEET	N
						DATE 12/22/00	CHECKED GPH		



N.B. REST AREA (AUTO) – STA. 409+00 TO STA. 434+00

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138
FILENAME: RA-05-PP.DWG
DATE: 12/22/00

HORIZONTAL SCALE IN FEET
0 100 200

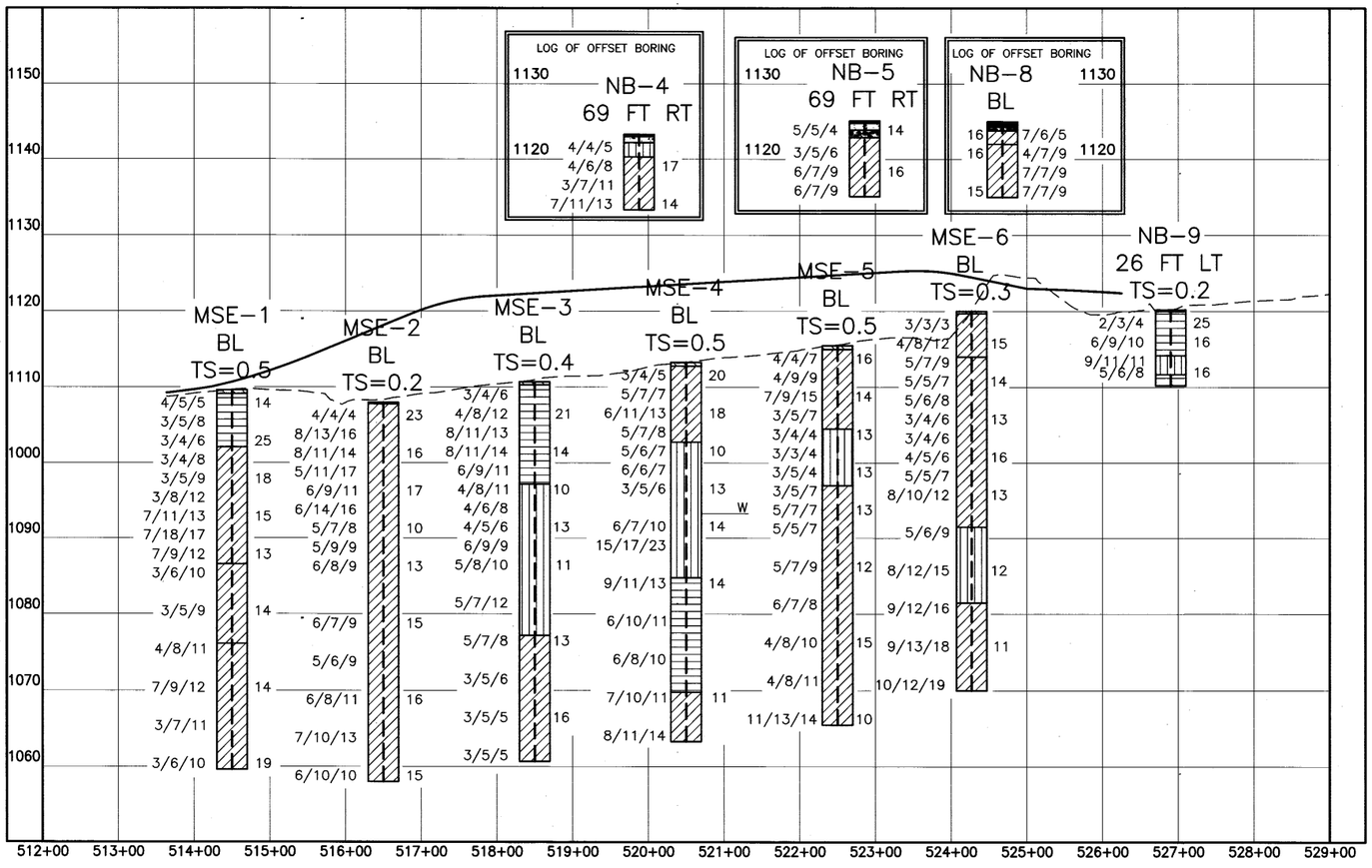
DRAWN	REVIEWED	DATE	DATE	CHECKED
KAL		12/22/00	12/22/00	GPH

N.B. REST AREA (AUTO) STA. 409+00 TO STA. 434+00
SOIL PROFILE

WAYNE COUNTY
WAY-71-0.28

5/7

25/32



N.B. REST AREA (TRUCK) – STA. 512+00 TO STA. 529+00

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138
FILENAME: RA-06-PP.DWG
DATE: 12/22/00

HORIZONTAL SCALE IN FEET
0 100 200

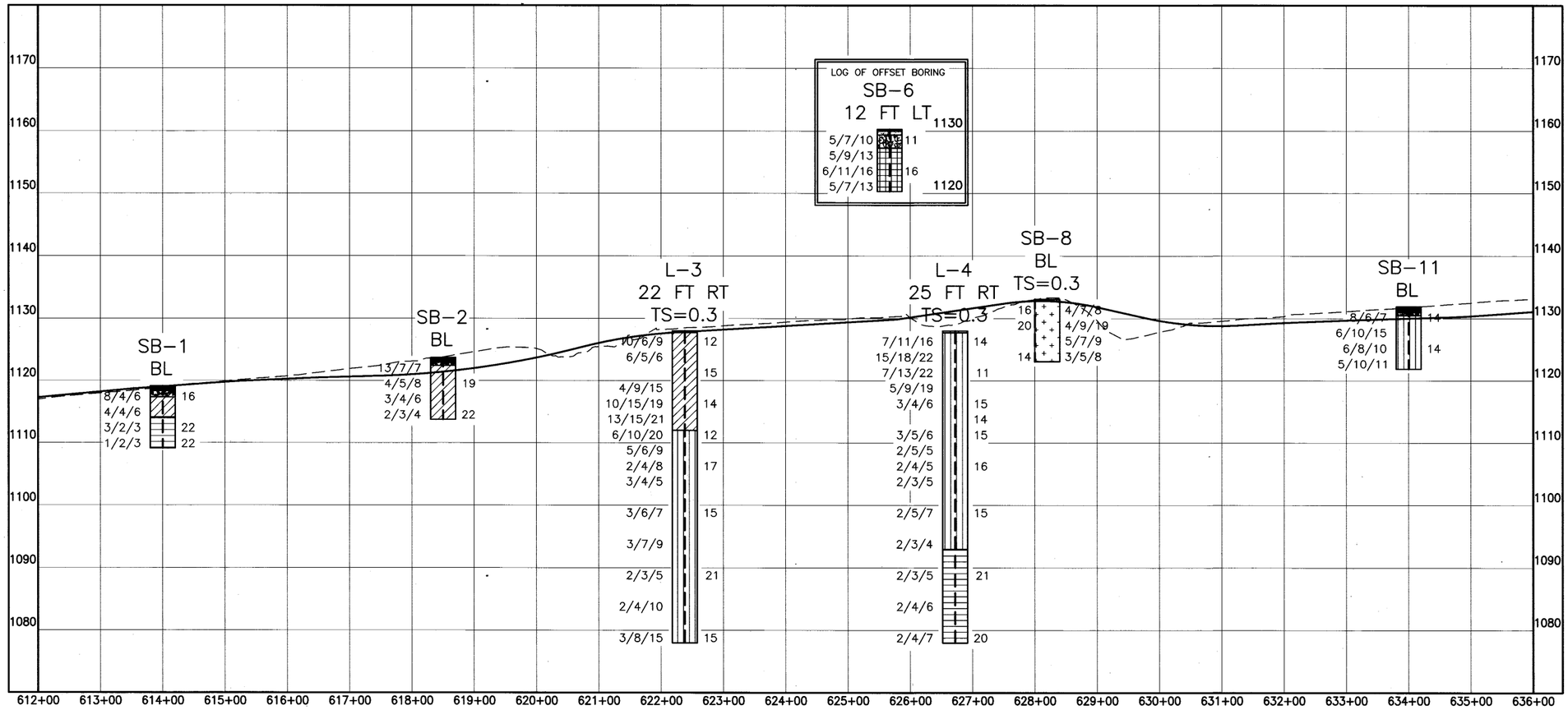
DRAWN	REVIEWED	DATE	DATE	CHECKED
KAL		12/22/00	12/22/00	GPH

N.B. REST AREA (TRUCK) STA. 512+00 TO STA. 529+00
SOIL PROFILE

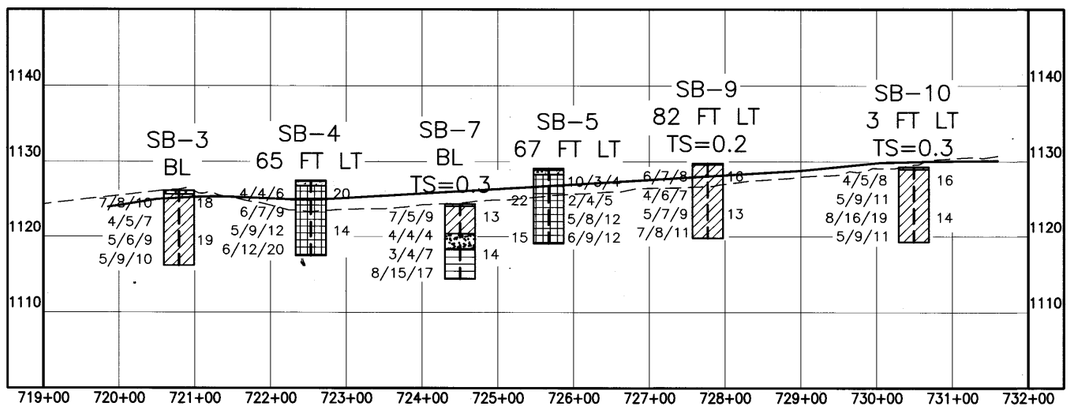
WAYNE COUNTY
WAY-71-0.28

6/7

26
32



S.B. REST AREA (AUTO) – STA. 612+00 TO STA. 636+00



S.B. REST AREA (TRUCK) – STA. 612+00 TO STA. 636+00

RESOURCE INTERNATIONAL INC.
PROJECT NO. W-9138
FILENAME: RA-07-PP.DWG
DATE: 12/22/00

HORIZONTAL SCALE IN FEET
0 100 200

DRAWN	REVIEWED	DATE	CHECKED	DATE
KAL		12/22/00	GPH	12/22/00

S.B. REST AREA (AUTO & TRUCK)
SOIL PROFILE

WAYNE COUNTY
WAY–71–0.28

7/7

27
32

GEOLOGY OF THE SITE

GEOLOGICALLY, THE SITE LIES ON THE KILLBUCK-GLACIATED PITTSBURGH PLATEAU. THE WISCONSIN GLACIER PASSED OVER THE AREA. THE PROJECT SITE TRAVERSES SOIL CLASSIFIED AS HIRAM AND LAKE END MORAINE AND GROUND MORAINE TILL, DEPOSITED BY THE LATE WISCONSINAN ICE SHEET. THE UNDERLYING BEDROCK IS SHALE AND SANDSTONE OF THE CUYAHOGA FORMATION. BASED ON THE BEDROCK TOPOGRAPHY MAP OF THE WEST SALEM QUADRANGLE, OBTAINED FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR), THE TOP OF BEDROCK UNDERLYING THE PROPERTY IS AT APPROXIMATELY ELEVATION 875 FEET ABOVE MEAN SEA LEVEL (MSL).

EXPLORATION

FOUR (4) STRUCTURAL TEST BORINGS, DESIGNATED SB-1 THROUGH SB-4, WERE DRILLED AT THE APPROXIMATE LOCATIONS ILLUSTRATED ON THE BORING LOGS PRESENTED IN APPENDIX 3. THE BORINGS WERE DESIGNATED BY REPRESENTATIVES OF RESOURCE INTERNATIONAL. BORING SB-1, DRILLED TO A DEPTH OF 65.0 FEET, WAS DRILLED THROUGH THE MEDIAN OF I-71, JUST SOUTH OF THE BRIDGES, IN REFERENCE TO THE WIDENING OF THE REAR ABUTMENTS. BORING SB-2, DRILLED TO A DEPTH OF 45.0 FEET, WAS DRILLED THROUGH COUNTY ROAD 70, IN REFERENCE TO THE WIDENING OF THE REAR PIERS. BORING SB-3, DRILLED TO A DEPTH OF 45.0 FEET, WAS DRILLED JUST NORTH OF COUNTY ROAD 70, IN REFERENCE TO THE WIDENING OF THE FORWARD PIERS. BORING SB-4, DRILLED TO A DEPTH OF 75.0 FEET, WAS DRILLED THROUGH THE MEDIAN OF THE I-71, JUST NORTH OF THE BRIDGES, IN REFERENCE TO THE WIDENING OF THE FORWARD ABUTMENTS. THE BORINGS WERE DRILLED WITH A TRUCK MOUNTED ROTARY DRILLING MACHINE, UTILIZING 3.75-INCH HOLLOW-STEM AUGERS TO ADVANCE THE HOLES. THE DRILLING WAS PERFORMED BETWEEN OCTOBER 6 AND OCTOBER 22, 1999.

INVESTIGATIONAL FINDINGS AND OBSERVATIONS

BORING SB-1, DRILLED JUST SOUTH OF THE BRIDGES, EXHIBITED 4.0 INCHES OF TOPSOIL AT THE GROUND SURFACE, DESCRIBED AS BROWN SILTY CLAY WITH THE PRESENCE OF ORGANICS. BORING SB-2, DRILLED ALONG THE EASTBOUND LANE OF COUNTY ROAD 70, EXHIBITED 6.0 INCHES OF ASPHALT OVERLYING 4.0 INCHES OF SAND AND GRAVEL BASE.

BASED ON THE PLANS PROVIDED FOR THE EXISTING STRUCTURES (DATED 3/19/58), THE ORIGINAL GROUND SURFACE ELEVATION IN THE VICINITY OF COUNTY ROAD 70 WAS BETWEEN ELEVATIONS 935.0 AND 940.0 FEET. CONSEQUENTLY, DURING CONSTRUCTION OF I-71, BETWEEN 15.0 AND 20.0 FEET OF EMBANKMENT FILL WAS PLACED AT BOTH THE REAR AND FORWARD ABUTMENTS TO BRING THE I-71 PAVEMENT GRADE TO THE BRIDGE ELEVATION. THE TEST BORINGS DRILLED INDICATE THAT THE EMBANKMENT FILL, AS WELL AS THE UNDERLYING 'IN-SITU' SOIL, IS PRIMARILY COHESIVE, GENERALLY DESCRIBED AS BROWN TO GRAY CLAYEY SILT (SILTY CLAY, SILT AND CLAY) WITH 'LITTLE' TO 'SOME' COARSE TO FINE SAND AND 'TRACE' FINE GRAVEL. BORINGS SB-1 AND SB-2 EACH ENCOUNTERED A LAYER/LENS OF BROWN COARSE TO FINE SANDY SILT (SILTY SAND) WITH 'LITTLE' TO 'SOME' CLAY AT VARYING ELEVATIONS. GRANULAR SOIL LAYERS/LENSES WERE ENCOUNTERED IN SB-2 AND SB-4. IN PARTICULAR, BROWNISH GRAY FINE GRAVEL WITH 'SOME' FINE TO COARSE SAND WAS ENCOUNTERED IN BOTH BORINGS AT ELEVATION 913.5 FEET. GRAY FINE TO COARSE GRAVEL (LIMESTONE FRAGMENTS) WAS ENCOUNTERED IN SB-2 BELOW ELEVATION 893.5 FEET, AND IN SB-4 BELOW ELEVATION 898.3 FEET. A MORE COMPREHENSIVE DESCRIPTION OF WHAT WAS ENCOUNTERED DURING THE DRILLING PROCESS MAY BE FOUND ON THE BORING LOGS AT THE END OF THIS REPORT. LABORATORY TEST RESULTS AND VISUAL INSPECTION OF REPRESENTATIVE SAMPLES INDICATE THAT THE SOIL TYPES ENCOUNTERED ARE CLASSIFIED AS ODOT A-1-A, A-1-B, A-4A, A-6A, AND A-6B.

MANY SOIL PROPERTIES, INCLUDING SOIL CONSISTENCY AND SHEAR STRENGTH (OF COHESIVE SAMPLES), ARE PRIMARILY DERIVED FROM STANDARD PENETRATION BLOW COUNTS AND HAND PENETROMETER READINGS (PERFORMED ON COHESIVE SAMPLES IF APPLICABLE). JUDGING FROM THE STANDARD PENETRATION BLOW COUNTS OBTAINED, THE TEST BORINGS EXHIBITED PRIMARILY VERY STIFF TO HARD COHESIVE SOIL AND DENSE TO VERY DENSE GRANULAR SOIL. BLOW COUNTS RANGED FROM 7 BLOWS PER FOOT (BPF) TO REFUSAL, BUT WERE PRIMARILY GREATER THAN 15 BPF. REFUSAL IS DEFINED AS OBTAINING IN EXCESS OF 50 BLOWS WITH LESS THAN 6 INCHES OF PENETRATION, AND WAS ENCOUNTERED PRIMARILY WITHIN THE GRANULAR SOIL LAYERS.

LABORATORY TESTS WERE PERFORMED TO DETERMINE THE 'IN-SITU' UNIT WEIGHT AND THE UNCONFINED COMPRESSIVE STRENGTH OF THE SUBSURFACE SOIL. THE RESULTS OF THE TESTING ON SAMPLE SS-10 FROM BORING SB-1 YIELDED AN UNCONFINED COMPRESSIVE STRENGTH OF 4,250 POUNDS PER SQUARE FOOT, AND AN 'IN-SITU' UNIT WEIGHT OF 134 POUNDS PER CUBIC FOOT. THE UNCONFINED COMPRESSIVE STRENGTH OF THE SOIL, AS OBTAINED FROM THE HAND PENETROMETER, RANGED FROM 3.0 KSF TO IN EXCESS OF 9.0 KSF (THE LIMIT OF THE INSTRUMENT).

LEGEND

- PRESS SAMPLE, DRIVE SAMPLE,AND/OR CORE BORING LOCATION--PLAN VIEW.
- TR — TOP OF ROCK
- W —— INDICATES FREE WATER ELEVATION
- ▼—— INDICATES STATIC WATER ELEVATION
- H, X/Y/Z — HORIZONTAL BAR ON BORING LOG INDICATES THE DEPTH THE SAMPLE WAS TAKEN - PROFILE VIEW

FIGURES BESIDE THE BORING IN PROFILE INDICATE THE NUMBER OF BLOWS FOR STANDARD PENETRATION TEST

- X = NUMBER OF BLOWS FOR FIRST 0.15 m
- Y = NUMBER OF BLOWS FOR SECOND 0.15 m
- Z = NUMBER OF BLOWS FOR THIRD 0.15 m

PARTICLE SIZE DEFINITIONS

8″	3″	2.0 mm		0.42 mm		0.074 mm	0.005 mm
Boulders	Cobbles	Gravel	CoarseSand		*FineSand*	Silt	Clay
			No. 10 SIEVE		No. 40 SIEVE	No. 200 SIEVE	

GENERAL INFORMATION

DRIVE SAMPLES

DRIVE SAMPLE BORINGS ARE MADE BY MEANS OF A MECHANICALLY-POWERED, ROTARY-TYPE DRILL RIG EMPLOYING A 2.0-INCH O.D., 1.375-INCH I.D., SPLIT-SPOON SAMPLER, AT 2.5-FOOT TO 5.0-FOOT DEPTH INTERVALS, DRIVEN BY MEANS OF A 140 POUND HAMMER WITH A FREE FALL OF 30 INCHES. THE NUMBER OF BLOWS REQUIRED TO DRIVE THE SAMPLER THREE 6.0-INCH INCREMENTS IS CONSIDERED THE STANDARD PENETRATION TEST.

PRESS SAMPLES

PRESS SAMPLES ARE TAKEN BY MEANS OF MECHANICALLY-POWERED, ROTARY-TYPE DRILL RIG, EMPLOYING A 3.0-INCH O.D. THIN-WALL PRESS SAMPLING TUBE. THE PRESS SAMPLING TUBE IS ADVANCED BY CONTINOUS UNIFORM PRESSURE APPLIED BY THE DRILL RIG.

CORE BORINGS

CORE BORINGS ARE MADE BY MEANS OF MECHANICALLY-POWERED, ROTARY-TYPE DRILL RIG, EMPLOYING AN NW-PAM CORE BARREL WITH AN INDUSTRIAL DIAMOND CUTTING HEAD.

SAMPLING AND TESTING

THE BORING LOG SHEETS SHOW A GRAPHIC PLOT OF THE INFORMATION OBTAINED, INCLUDING DEPTH AND ELEVATION OF THE SAMPLE, TYPE OF SAMPLE, NUMBER OF BLOWS FOR THE STANDARD PENETRATION TEST IN THREE 6.0 INCH INCREMENTS, AND A SAMPLE DESCRIPTION BASED ON LABORATORY TEST RESULTS, UTILIZING THE ODOT CLASSIFICATION SYSTEM. RESULTS OF STRENGTH AND CONSOLIDATION TESTING, IF PERFORMED ON UNDISTURBED SAMPLES, APPEAR GRAPHICALLY ON SEPARATE ENCLOSURES. ROCK SAMPLES ARE DISPLAYED ON THE LOG SHEETS, INCLUDING DEPTH AND ELEVATION OF THE SAMPLE, AMOUNT OF RECOVERY, AND A VISUAL CLASSIFICATION BASED ON TYPE, COLOR, DEGREE OF HARDNESS, GRAIN SIZE, DETERIORATION, BEDDING, ACID REACTION, AND OTHER QUALIFYING FACTORS.

AT DEPTHS WHERE MATERIALS ARE BOULDERY OR GRAVELLY TO THE EXTENT THAT A SAMPLER CANNOT BE UTILIZED, A WASH SAMPLE IS PROCURED AND VISUALLY CLASSIFIED, IN ORDER TO DETERMINE THE GENERAL CHARACTERISTICS OF THE MATERIAL. THESE SAMPLES ARE NOT CONSIDERED SUFFICIENTLY REPRESENTATIVE TO WARRANT LABORATORY TESTING.

NOTES

ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN ON THE STRUCTURE FOUNDATION INVESTIGATIONS SHEETS HAS BEEN SO REPORTED. ADDITIONAL SUBSURFACE INVESTIGATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE, (DISTRICT 3), THE SOILS SECTION OF THE OFFICE OF ROADWAY ENGINEERING, OR IN THE OFFICE OF BRIDGES AT 1680 WEST BROAD STREET, COLUMBUS, OHIO 43223.

OVERALL, NATURAL MOISTURE CONTENTS OF THE SOIL SAMPLES TESTED RANGED FROM 6% TO 21%, BUT WERE PRIMARILY LESS THAN 16%. THE NATURAL MOISTURE CONTENT OF THE COHESIVE SOIL SAMPLES TESTED FOR PLASTICITY INDEX RANGED FROM 9% BELOW TO 6% ABOVE THEIR CORRESPONDING PLASTIC LIMITS, BUT WERE PRIMARILY AT OR BELOW THEIR CORRESPONDING PLASTIC LIMITS. IN GENERAL, THE SOIL EXHIBITED NATURAL MOISTURE CONTENTS CONSIDERED TO BE SLIGHTLY BELOW TO ABOVE OPTIMUM MOISTURE LEVELS (BASED ON CORRELATION CHARTS).

DURING THE DRILLING PROCESS, GROUNDWATER WAS INITIALLY ENCOUNTERED ON THE DRILL ROD IN SB-1 AT 48.0 FEET (ELEVATION 905.9 FEET), IN SB-2 AT 28.5 FEET (ELEVATION 908.5 FEET), IN SB-3 AT 13.5 FEET (ELEVATION 924.3 FEET), AND IN SB-4 AT 28.0 FEET (ELEVATION 928.8 FEET). UPON COMPLETION OF THE DRILLING PROCESS, GROUNDWATER WAS MEASURED IN SB-2 AT 32.0 FEET (ELEVATION 905.0 FEET). GROUNDWATER LEVELS AND/OR THE PRESENCE OF GROUNDWATER ARE CONSIDERED TO BE DEPENDENT ON SEASONAL FLUCTUATIONS IN PRECIPITATION. AT THE TIME OF THIS INVESTIGATION, RECENT PRECIPITATION WAS CONSIDERED TO BE BELOW NORMAL.

RESOURCE INTERNATIONAL, INC.
281 ENTERPRISE DRIVE
WESTERVILLE, OHIO 43081
(614) 885-1959

DRAWN	REVIEWED	DATE	CALCULATED
REK		12/29/99	CHECKED DLK
		DATE 12/29/99	

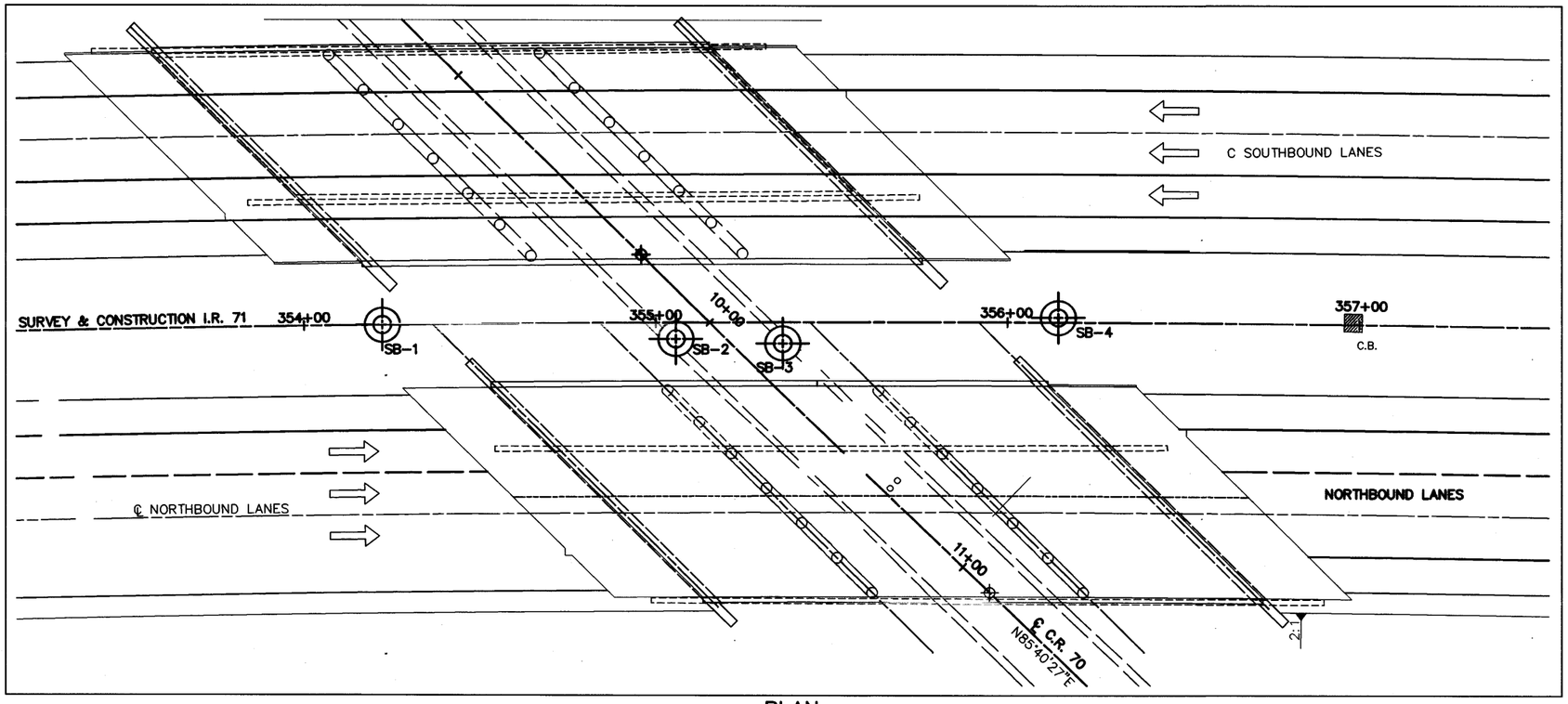
STRUCTURE FOUNDATION INVESTIGATION
WAY-71-0672 OVER COUNTY RD. 70

WAY-71-0.28

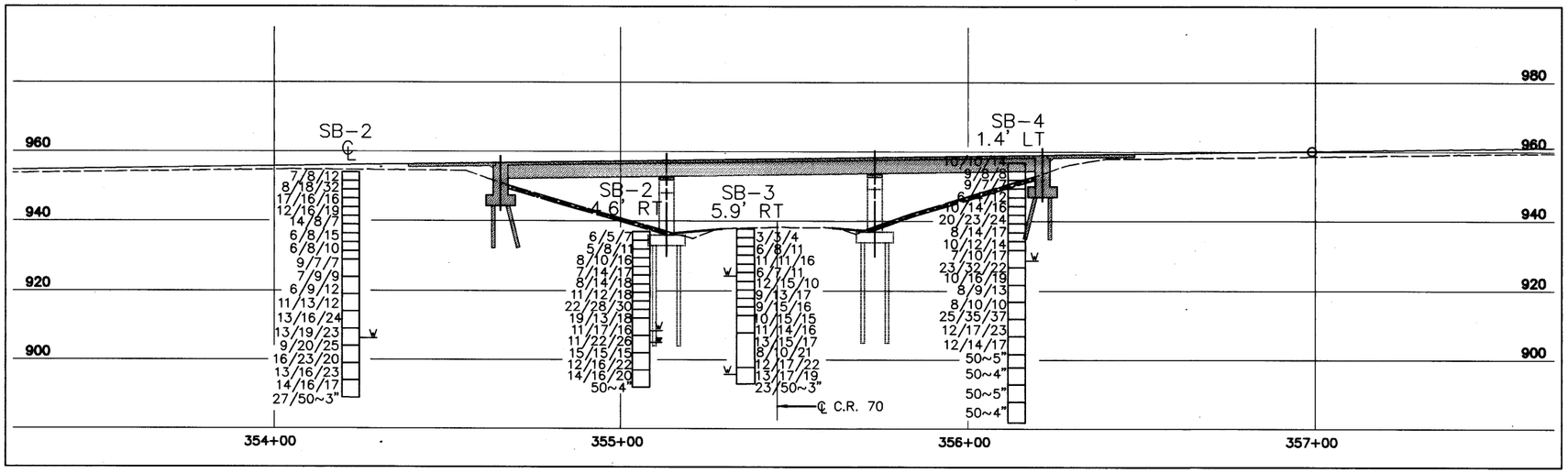
1/5

28/32

[[BBD]]9138S1-1.DWG - JAN 04, 2000 - 13:08:37



PLAN



PROFILE ALONG INSIDE EDGE OF PAVEMENT

STRUCTURE FOUNDATION INVESTIGATION
WAY-71-0672 OVER COUNTY RD. 70

WAY -71-0.28

HORIZONTAL SCALE IN FEET
0 10 20

DRAWN REK
CHECKED DLK
DATE 1/4/2000
DATE 1/4/2000

2/5
29/32

[[BBD]]913851-2.DWG - JAN 04, 2000 - 09:46:49

LOG OF BORING

Date Started 10/06/99 Sampler's Type HSA Dia. 3.75 IN. Water Elev. 905.9 FT
Date Completed 10/06/99
Boring No. SB-1 Station & Offset 354+22, ℄ Surface Elev. 953.9 FT

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (%)	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I.	W.C.	ODOT Class
953.9	0			0.3										
951.4		7/8/12	44	4'-Brown Silty Clay, some organics, little sand (Topsoil).	SS-1								10	VISUAL
948.9	5	8/18/32	44	Brown to gray Clayey Silt, little to some sand, trace gravel.	SS-2	1	4	6	47	42			7	VISUAL
946.4		17/16/16	22		SS-3								6	VISUAL
943.9	10	12/16/19	22		SS-4								7	VISUAL
941.4		14/8/7	33		SS-5								8	VISUAL
938.9	15	6/8/15	44		SS-6								14	VISUAL
936.4		6/8/10	67		SS-7	8	8	13	36	35	30	15	15	A-6a
933.9	20	9/7/7	0		SS-8								10	VISUAL
931.4		7/9/9	78	23.0	SS-9								20	VISUAL
928.9	25	6/9/12	89	Mottled brown and gray Silty Clay, little sand, trace gravel.	SS-10	8	4	11	38	39	41	25	21	A-6b
923.9	30	11/13/12	33		SS-11								15	VISUAL
918.9	35	13/16/24	89		SS-12								12	VISUAL
913.9	40	13/19/23	89	38.5 Brown Silty Sand, some clay, little gravel.	SS-13	19	21	16	24	20			9	VISUAL
908.9	45	9/20/25	56		SS-14								8	VISUAL
903.9	50	16/23/20	78	48.5 Brownish gray to gray Clayey Silt, little sand, trace gravel.	SS-15	3	4	8	44	41	26	11	14	A-6a
898.9	55	13/16/23	78		SS-16								13	VISUAL
893.9	60	14/16/17	0		SS-17									VISUAL
888.9	65	27/50~3"	44	63.5 Gray Sandy Silt, some gravel little clay.	SS-18								12	VISUAL

Bottom of Boring = 65.0'

LOG OF BORING

Date Started 10/11/99 Sampler's Type HSA Dia. 3.75 IN. Water Elev. 905.0 FT
Date Completed 10/11/99
Boring No. SB-2 Station & Offset 355+06, 4.6 FT RT Surface Elev. 937.0 FT

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (%)	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I.	W.C.	ODOT Class
937.0	0			6"-- Asphalt 0.5										
934.5		6/5/7	67	4'-Sand and gravel base 0.8 Brown Sandy Silt, some clay. 3.5	SS-1								16	VISUAL
932.0	5	5/8/11	67	Brown to gray Clayey Silt, some sand, trace gravel.	SS-2								14	VISUAL
929.5		8/10/16	78		SS-3	7	10	14	37	32	30	13	15	A-6a
927.0	10	7/14/17	78		SS-4								14	VISUAL
924.5		8/14/18	67		SS-5								16	VISUAL
922.0	15	11/12/18	78		SS-6								13	VISUAL
919.5		22/28/30	11		SS-7								14	VISUAL
917.0	20	19/13/18	6		SS-8								13	VISUAL
914.5		11/17/16	89	23.5	SS-9								13	VISUAL
912.0	25	11/22/26	44	Brown to gray Gravel, some sand, little silt.	SS-10	49	15	17	-19-				9	A-1-a
907.0	30	15/15/15	67		SS-11								12	VISUAL
902.0	35	12/16/22	56	33.5 Brownish gray Clayey Silt, some sand, little gravel.	SS-12	15	9	16	32	28	24	11	12	A-6a
897.0	40	14/16/20	78		SS-13								11	VISUAL
892.0	45	50/4"	100	43.5 Gray Gravel little sand.	SS-14								16	VISUAL

Bottom of Boring = 45.0'

RESOURCE INTERNATIONAL, INC.
281 ENTERPRISE DRIVE
WESTERVILLE, OHIO 43081
(614)985-1959

CALCULATED | CHECKED DLK
DATE 12-29-99 | DATE 12-29-99
REVIEWED -
DRAWN REK

STRUCTURE FOUNDATION INVESTIGATION
WAY-71-0672 OVER COUNTY RD. 70

WAY-71-0.28

3 / 5

30 / 32

[[BBD]]91385I-3.DWG - JAN 03, 2000 - 09:55:19

LOG OF BORING

Date Started 10/22/99 Sampler's Type HSA Dia. 3.75 IN. Water Elev. SEEPAGE AT 895.8 FT
Date Completed 10/22/99
Boring No. SB-3 Station & Offset 355+36, 5.9 FT RT Surface Elev. 937.8 FT

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (%)	Description	Sample No.	Physical Characteristics								
						% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I.	W.C.	ODOT Class
937.8	0													
935.3		3/3/4	56	Brown Silty Clay, some sand trace gravel.	SS-1								15	VISUAL
932.8	5	6/8/11	100		SS-2								16	VISUAL
930.3		11/11/16	89		SS-3	10	8	13	31	38	31	14	16	A-6a
927.8	10	6/7/11	56		SS-4								13	VISUAL
925.3		12/15/10	44		SS-5								14	VISUAL
922.8	15	9/13/17	22		SS-6								16	VISUAL
920.3		9/15/16	33	18.5	SS-7								12	VISUAL
917.8	20	10/15/15	56	Gray Clayey Silt, some sand, trace gravel.	SS-8								14	VISUAL
915.3		11/14/16	44		SS-9	8	9	15	37	31	24	10	15	A-4a
912.8	25	13/15/17	56		SS-10								16	VISUAL
907.8	30	8/10/21	56		SS-11								14	VISUAL
902.8	35	12/17/22	44		SS-12								16	VISUAL
897.8	40	13/17/19	33		SS-13								12	VISUAL
892.8	45	23/50~3"	22		SS-14								6	VISUAL

Bottom of Boring = 45.0'

RESOURCE INTERNATIONAL, INC.
281 ENTERPRISE DRIVE
WESTERVILLE, OHIO 43081
(614)885-1959

DRAWN	REVIEWED	DATE	CALCULATED
REK	-	12-30-99	

DATE	CHECKED
12-30-99	DLK

STRUCTURE FOUNDATION INVESTIGATION
WAY-71-0672 OVER COUNTY RD. 70

WAY-71-0.28

[[BBD]]9138S1-4.DWG - JAN 03, 2000 - 09:54:55

LOG OF BORING

Date Started 10/07/99 Sampler's Type HSA Dia. 3.75 IN. Water Elev. SEEPAGE AT 928.8
Date Completed 10/08/99
Boring No. SB-4 Station & Offset 356+14, 1.4 FT LT Surface Elev. 956.8 FT

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (%)	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	ODOT Class
956.8	0													
954.3		10/10/14	67	Brownish gray to brown Silt and Clay, little sand, little to trace gravel.	SS-1	10	5	7	40	38	38	17	12	A-6b
951.8	5	9/8/8	17		SS-2								8	VISUAL
949.3		9/7/7	17		SS-3								8	VISUAL
946.8	10	6/4/12	22		SS-4								8	VISUAL
944.3		10/14/16	56		SS-5								13	VISUAL
941.8	15	20/23/24	56		SS-6								10	VISUAL
939.3		8/14/17	56		SS-7								15	VISUAL
936.8	20	10/12/14	67		SS-8	10	6	9	38	37			17	VISUAL
934.3		7/10/17	78		SS-9								14	VISUAL
931.8	25	23/32/22	78		SS-10								14	VISUAL
926.8	30	10/16/19	0		SS-11									VISUAL
921.8	35	8/9/13	78	35.0 Gray Clayey Silt, some sand, trace gravel.	SS-12								13	VISUAL
916.8	40	8/10/10	89		SS-13	8	8	14	41	29			16	VISUAL
911.8	45	25/35/37	44	43.5 Brownish gray gravel, some sand, little silt.	SS-14	47	18	16	-19-				7	A-1-b
906.8	50	12/17/23	89	48.5 Gray to brownish gray Silty Clay, little sand, trace gravel.	SS-15								18	VISUAL
901.8	55	12/14/17	78		SS-16								13	VISUAL
896.8	60	50~5"	60	58.5 Gray Gravel	SS-17									VISUAL

(Boring continued on this page)

LOG OF BORING

Date Started 10/07/99 Sampler's Type HSA Dia. 3.75 IN. Water Elev. SEEPAGE AT 928.8 FT
Date Completed 10/08/99
Boring No. SB-4 Station & Offset 356+14, 1.4 FT LT Surface Elev. 956.8 FT

Elev. (ft)	Depth (ft)	Std. Pen./ RQD	Rec. (%)	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L	P.I	W.C.	ODOT Class
	60													
891.8	60	50~4"	50		SS-18									VISUAL
886.8	70	50~5"	100		SS-19									VISUAL
881.8	75	50~4"	50		SS-20									VISUAL

Bottom of Boring = 75.0'

RESOURCE INTERNATIONAL, INC.
281 ENTERPRISE DRIVE
WESTERVILLE, OHIO 43081
(614)885-1959

CALCULATED | CHECKED DLK
DATE 12-30-99 | DATE 12-30-99
REVIEWED - |
DRAWN REK

STRUCTURE FOUNDATION INVESTIGATION
WAY-71-0672 OVER COUNTY RD. 70

WAY-71-0.28

5 / 5

32 / 32

[[BBD]]9138S1-5.DWG - JAN 03, 2000 - 09:55:40