

GEORGE ROGERS CLARK DISCOVERY TRAIL-PHASE I

SET NO.

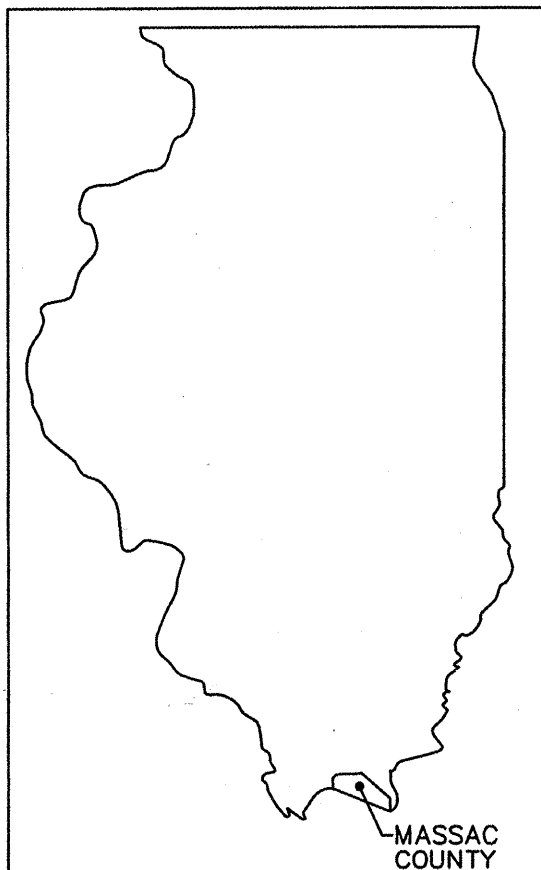
A JOINT SPONSORED PROJECT OF THE
CITY OF METROPOLIS, CITY OF BROOKPORT
AND THE ILLINOIS DEPARTMENT OF NATURAL RESOURCES

PROJECT FUNDED BY THE
AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009

JOB NO. C-99-508-10
FEDERAL PROJECT NO. ARA-5045(009)
SECTION 09-00038-00-BT

MAYOR AND CITY OFFICIALS

BILLY McDANIEL
MAYOR
CHARLES BARFIELD
COUNCIL
KIM BROWN
COUNCIL
BILL CARRELL
COUNCIL
DAVID McMANUS
COUNCIL
JERRY MIZELL
COUNCIL
DAVID DAUGHERTY
COUNCIL
ANDY ANDERSON
COUNCIL
BOB MIDNIGHT
COUNCIL
BRENDA WESTBROOKS
CITY CLERK
KRISTY STEPHENSON
TREASURER
RICK ABELL
CITY ATTORNEY
CHARLOTTE ANDERSON
PROJECT COORDINATOR



UTILITIES

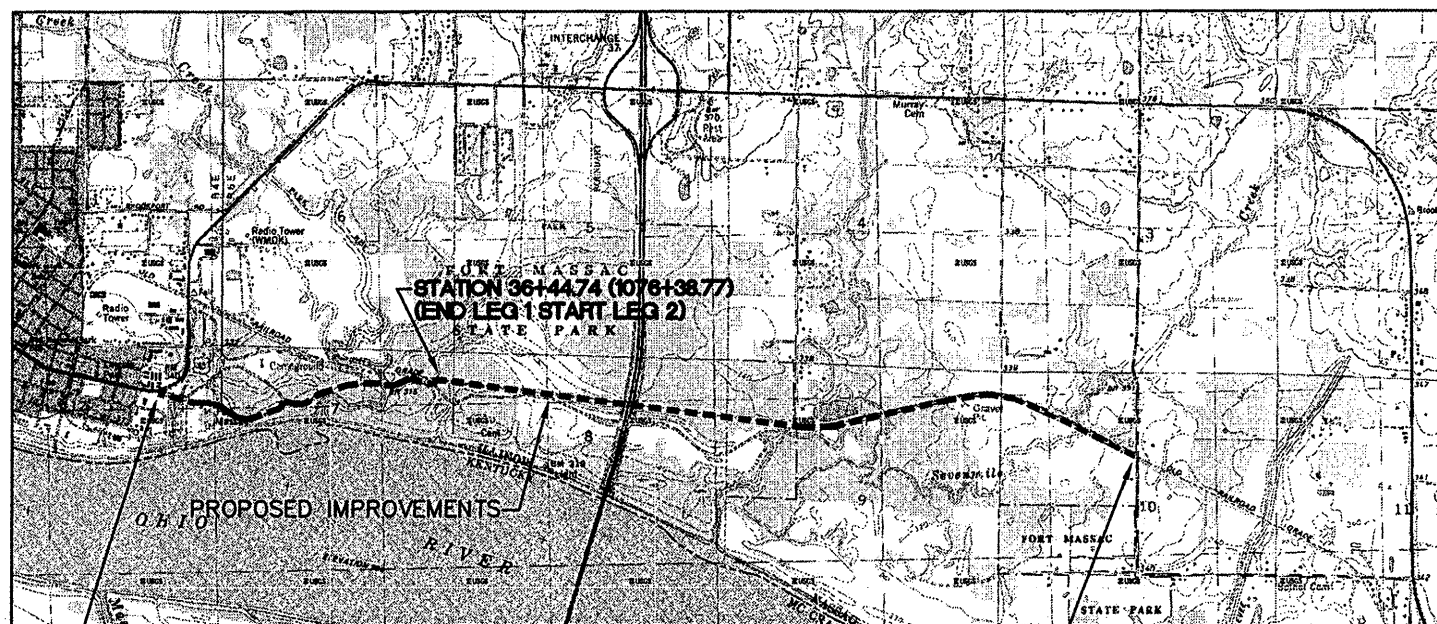
CITY OF METROPOLIS WATER AND SEWER
CITY OF METROPOLIS ELECTRIC
VERIZON TELEPHONE COMPANY
ATMOS ENERGY GAS COMPANY
COMCAST CABLE COMPANY

NOTE:
FULL SIZE PLANS HAVE BEEN PREPARED FOR THIS PROJECT USING
STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS OR
SCALING ON REDUCED PLANS, USE CORRECTED REDUCED SCALES.

NOTE:
ALL EXISTING UTILITIES AND LOCATIONS TO
BE CONFIRMED BY J.U.L.I.E. 1-800-892-0123

CONTRACT NO. 99417

WALKER AND ASSOCIATES, INC. JOB NO. 05.011



START STATION 999+98

LOCATION MAP NO SCALE

END STATION 1216+44

LEG 1: 6,338.02' (1.2 MILES) LEG 2: 14,005.00' (2.65 MILES)
TOTAL LENGTH OF IMPROVEMENTS 20,341.62 (3.85 MILES)

WALKER AND ASSOCIATES, Inc.

QUALITY PROFESSIONAL DESIGN SERVICES SINCE 1972

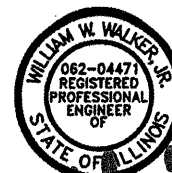
ARCHITECTS ENGINEERS PLANNERS CONSULTANTS
112 NORTH GUM STREET HARRISBURG, ILLINOIS 62946 PHONE (618) 252-7944 FAX (618) 252-0518

CONSULTANT:



engineering, inc.

504 A MARKET STREET
METROPOLIS, ILLINOIS 62960
PH/FAX: (618) 524-1085
www.engr-inc.com
IL LICENSE NO. 184-004492



William W. Walker, Jr.
EXPIRES 11/30/11, SIGNED 12/03/09

CITY OF METROPOLIS

APPROVED DECEMBER 03, 2009

Billy McDaniel
MAYOR, CITY OF METROPOLIS

PASSED 12/29/2009

Richard W. Walker
DISTRICT 9 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
BASED ON LIMITED
REVIEW

12/30/09
Mary C. Lame
MARY C. LAMIE, P.E.
DEPUTY DIRECTOR OF HIGHWAYS
REGION FIVE ENGINEER

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	2
FROM STA.		TO STA.		
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	

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HIGHWAY STANDARDS

000001-05	STANDARDS SYMBOLS, ABBREVIATIONS, AND PATTERNS
280001-05	TEMPORARY EROSION CONTROL SYSTEMS
424001-05	CURB RAMPS FOR SIDEWALK
515001-03	NAME PLATE FOR BRIDGES
542301-02	PRECAST REINFORCED CONCRETE FLARED END SECTION
701006-03	OFF-ROAD OPERATIONS 2L, 2W 15'-0" TO PAVEMENT EDGE FOR SPEEDS ≥45 MPH
701201-03	LANE CLOSURE, 2L, 3W DAY ONLY ON-ROAD TO 2'-0" OFF-ROAD FOR SPEEDS ≥45 MPH
701301-03	LANE CLOSURE, 2L, 2W SHORT TIME OPERATIONS FOR SPEEDS ≥45 MPH
701306-02	LANE CLOSURE 2L, 2W - SLOW MOVING
701422-02	LANE CLOSURE MULTI LANE - 45-55 MPH
701501-05	URBAN LANE CLOSURE 2L, 2W - UNDIVIDED
701901-01	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNT DETAILS
720006-02	SIGN PANEL ERECT DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS, AND DELINEATORS
729001-01	APPLICATIONS OF TYPES A AND B POSTS (FOR SIGNS & MARKERS)
728001-01	TELESCOPING STEEL SIGN SUPPORT
731001-01	BASE FOR TELESCOPING STEEL SIGN SUPPORT
780001-02	TYPICAL PAVEMENT MARKINGS
BLR-17-4	TRAFFIC CONTROL DEVICES - DAY LABOR CONSTRUCTION

GENERAL NOTES

- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 1, 2007. THE SUPPLEMENTAL SPECIFICATIONS AND REOCCURRING SPECIAL PROVISIONS ADOPTED JANUARY 1, 2010, AND LOCAL AGENCY SPECIAL PROVISIONS AND ERRATA STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 1, 2010.
- PORTIONS OF THE WORK UNDER THIS PROJECT CONSIST OF GRADING, SHAPING, AND PAVING ON AN ABANDONED RAILROAD BALLAST TO BE USED AS THE BIKE TRAIL BASE. ANY RAILROAD TIES, TREATED TRESTLE TIMBERS, OR OTHER RAILROAD MATERIALS ENCOUNTERED DURING THE BIKE TRAIL CONSTRUCTION ALONG THE RAILROAD EMBANKMENT AND BALLAST SHALL BECOME THE PROPERTY OF THE CONTRACTOR, WHO SHALL DISPOSE OF SAID MATERIAL IN CONFORMANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, ADMINISTRATIVE RULES, AND ORDINANCES. CLAIMS FOR EXTRA WORK ON ACCOUNT OF THE CONTRACTOR NOT INSPECTING THE SITE PRIOR TO SUBMITTING A BID WILL BE REJECTED.

ENVIRONMENTAL COMMITMENTS

- PROJECT ENVIRONMENTAL CONSIDERATIONS:

THE ILLINOIS DEPARTMENT OF NATURAL RESOURCES, DIVISION OF ECOSYSTEMS AND ENVIRONMENT HAS DETERMINED THAT SEVERAL THREATENED AND ENDANGERED SPECIES ARE POSSIBLY PRESENT WITHIN THE PROPOSED PROJECT AREA. THE TRAIL ALSO PASSES THROUGH THE ILLINOIS NATURAL AREAS INVENTORY SITE FORT MASSAC AREA, THE FORT MASSAC NATURE PRESERVE AND THE FORT MASSAC LAND AND WATER RESERVE. THE IDNR HAS THE FOLLOWING RECOMMENDATIONS AND STIPULATIONS REGARDING THE CONSTRUCTION PHASE OF THIS PROJECT:

- IF HEAVY EQUIPMENT IS USED TO CONSTRUCT THE TRAIL, IT MUST REMAIN ON THE RAILROAD BERM WHEN WORK IS CONDUCTED WITHIN OR ADJACENT TO NATURE PRESERVES OR LAND AND WATER RESERVES.
- AREAS THAT REQUIRE BRIDGE CONSTRUCTION ARE HIGHLY DISTURBED FLOOD PLAIN AREAS AND IN THESE, ILLINOIS NATURE PRESERVES COMMISSION WOULD ALLOW WORK TO TAKE PLACE WITHIN 100 FEET ON EITHER SIDE OF THE TRAIL WHERE THE BRIDGE WILL BE LOCATED.
- EROSION CONTROL MEASURES MUST BE IN PLACE WHERE EARTH IS DISTURBED.
- BECAUSE OF THE PROXIMITY TO LISTED SPECIES AND NATURE PRESERVE AND ILLINOIS NATURAL INVENTORY SITE, NO HERBICIDES SHOULD BE USED ALONG THE TRAIL. ALL WEED CONTROL SHOULD BE MECHANICAL. THIS STIPULATION APPLIES TO ALL FUTURE MAINTENANCE AS WELL AS DURING THE CONSTRUCTION PERIOD.
- THE DISTRICT HERITAGE BIOLOGIST SHOULD LOCATE THE POPULATIONS OF TWO FLOWERED MELIC GRASS (MELICA MUTICA) INCLUDING ANY PREVIOUSLY UNREPORTED SPECIMENS ON THE SIDE SLOPES AND PROTECT THEM FROM DISTURBANCE.
- BEFORE CONSTRUCTION BEGINS, THE DISTRICT HERITAGE BIOLOGIST WILL CONDUCT A SPRING SURVEY FOR THE MELIC GRASS (MELICA MUTICA) AND TRANSLOCATE ANY SPECIMENS FOUND.
- BECAUSE OF THE PROBABLE PRESENCE OF THE INDIANA BAT (MYOTIS SODALIS), TREE REMOVAL SHOULD NOT TAKE PLACE BETWEEN APRIL 1 AND SEPTEMBER 30.
- TREE REMOVALS OVER 6" IN DIAMETER WILL BE MITIGATED ON ADJACENT DNR PROPERTY (PREFERABLY WITH BALLED AND BURLAPPED SPECIMENS).

PAY 1-Dec-09

SUMMARY OF QUANTITIES

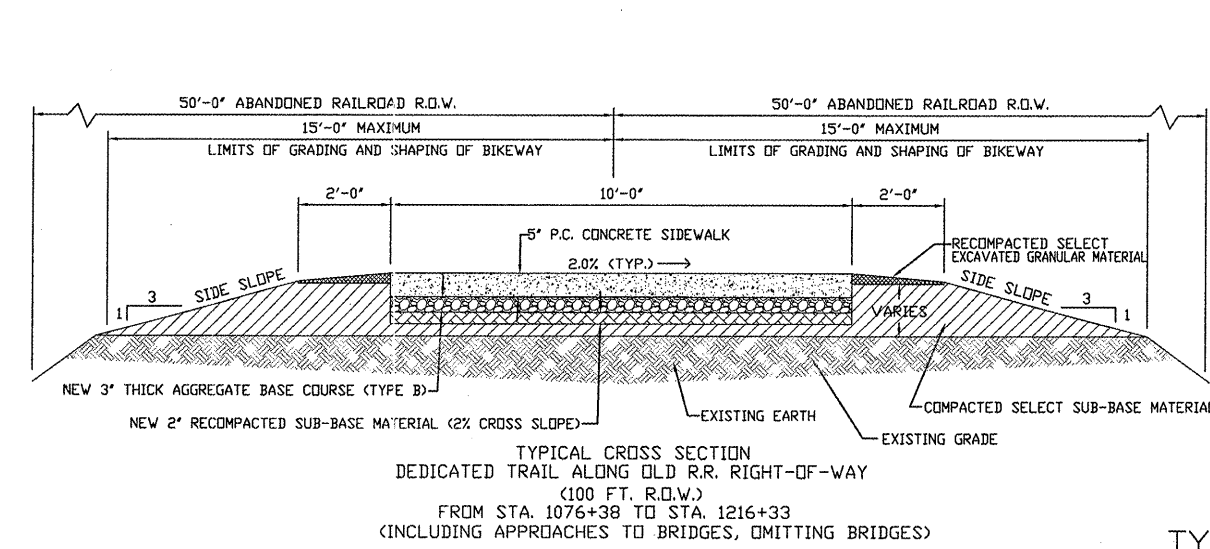
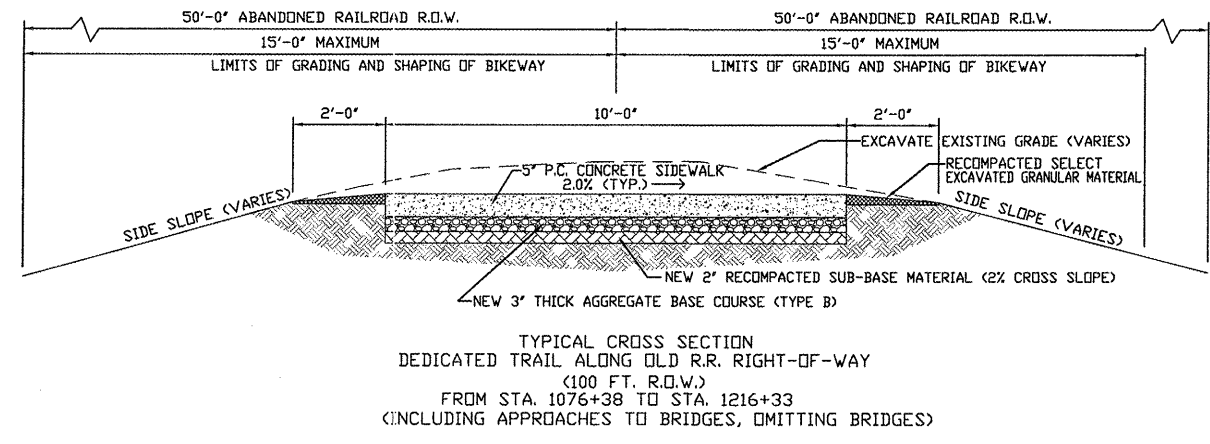
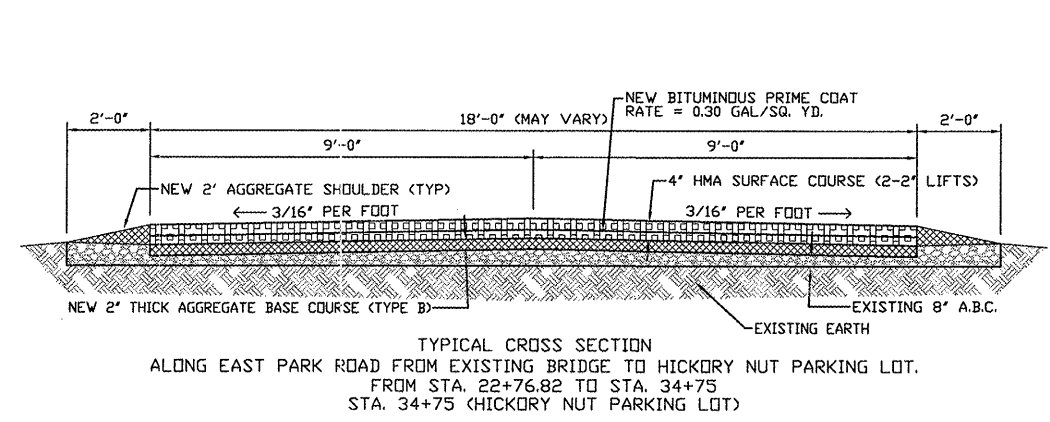
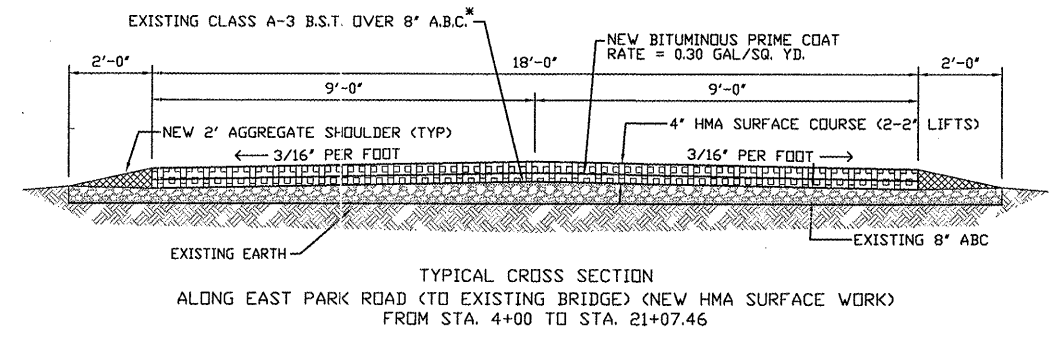
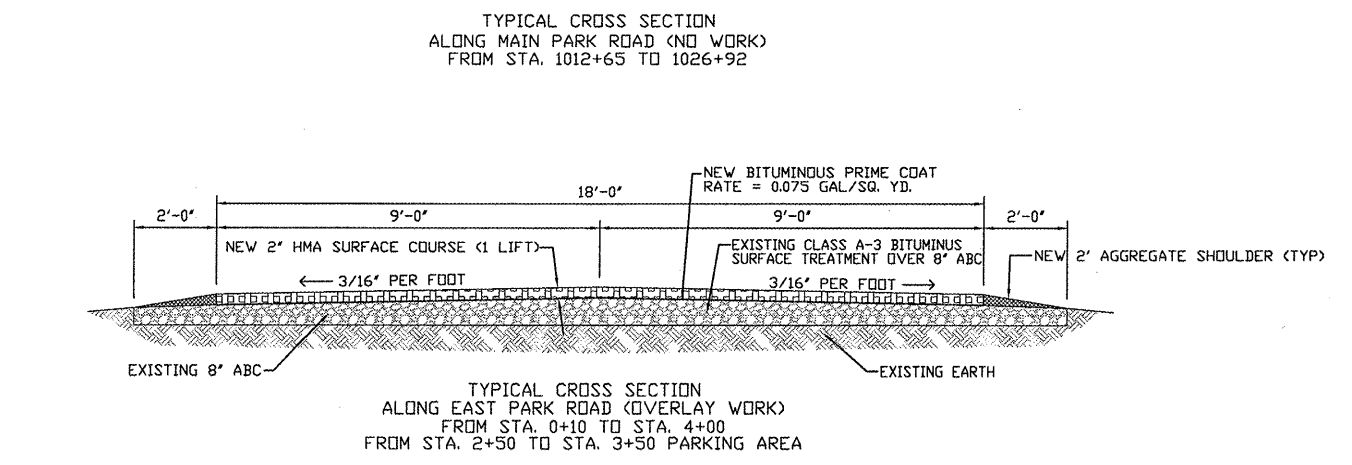
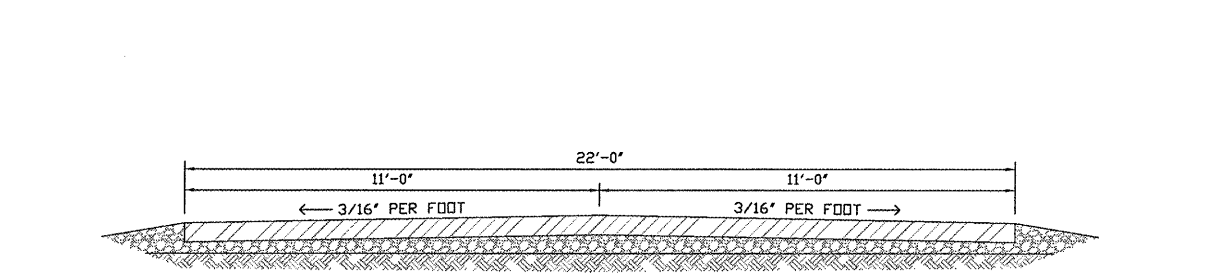
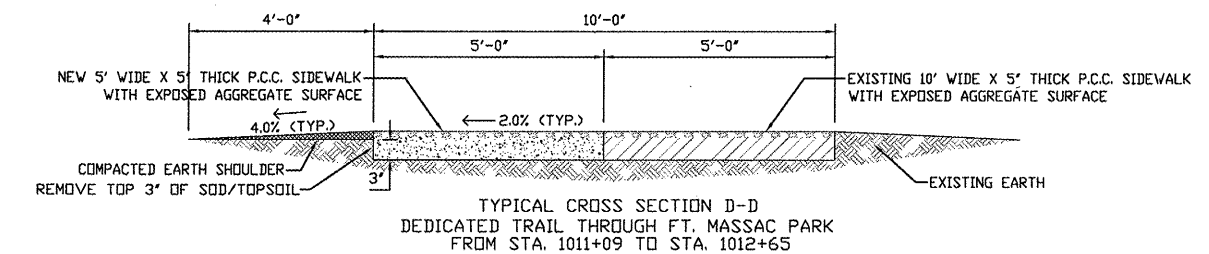
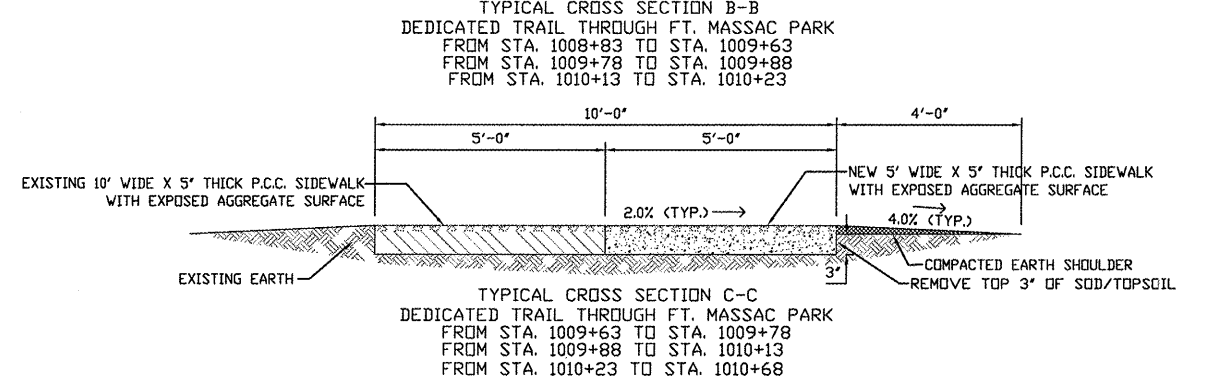
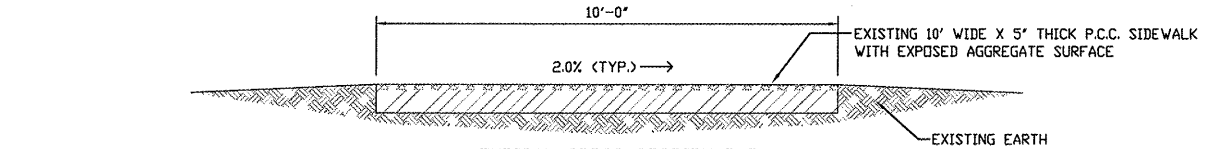
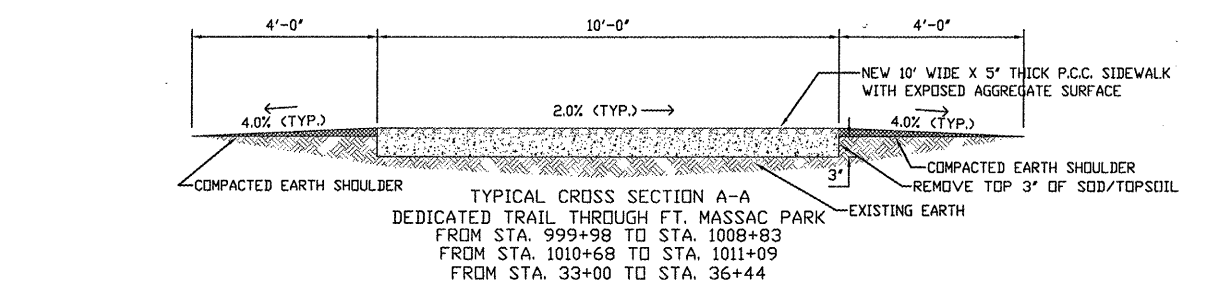
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT09-00038-00-BT		MASSAC	55	3
FROM STA.	TO STA.			
FEDERAL PROJECT NO. ARA-5045(009)		CONTRACT NO. 99417		

ITEM	CODE #	CONSTRUCTION TYPE CODE ITEM	UNIT	QUANTITY
1	20100310	TREE REMOVAL (6" TO 15 UNITS DIAMETER)	UNIT	50.0
2	20200410	EARTH EXCAVATION (SPECIAL)	CU YD	6348.3
3	20201000	GRADING AND SHAPING ROADWAY	UNIT	33.7
4	20400805	FURNISHED EXCAVATION, SPECIAL	CU YD	1256.0
5	20800150	TRENCH BACKFILL	CU YD	654.3
6	21400100	GRADING AND SHAPING DITCHES	FOOT	315.0
7	25000400	▲ NITROGEN FERTILIZER NUTRIENT	POUND	171.0
8	25000500	▲ PHOSPHORUS FERTILIZER NUTRIENT	POUND	171.0
9	25000600	▲ POTASSIUM FERTILIZER NUTRIENT	POUND	171.0
10	25000700	▲ AGRICULTURAL GROUND LIMESTONE	TON	4.75
11	25001100	▲ SEEDING, CLASS 3 (SPECIAL)	ACRE	1.9
12	25100110	▲ MULCH, METHOD 1	TON	3.8
13	25300400	▲ PEAT MOSS	CU FT	540.0
14	28000250	▲ TEMPORARY EROSION CONTROL SEEDING	POUND	102.5
15	28000305	TEMPORARY DITCH CHECKS	FOOT	80
16	28000400	PERIMETER EROSION BARRIER	FOOT	4264.0
17	28100806	STONE DUMPED RIPRAP, CLASS A3 (SPECIAL)	TON	25.0
18	28100807	STONE DUMPED RIPRAP, CLASS A4	TON	192.0
19	35101400	AGGREGATE BASE COURSE TYPE B (SPECIAL)	TON	2342.9
20	40300100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	1080.3
21	40603085	HOT MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	804.1
22	40603315	HOT MIX ASPHALT SURFACE COURSE, MIX (C), N70	TON	893.0
23	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	134470.0
24	42400430	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH, SPECIAL	SQ FT	13805.0
25	42400800	DETECTABLE WARNINGS	SQ FT	500.0
26	44000600	SIDEWALK REMOVAL	SQ FT	605.0
27	48101200	AGGREGATE SHOULDERS, TYPE B	TON	939.7
28	50200100	STRUCTURE EXCAVATION	CU YD	253.2
29	50300225	CONCRETE STRUCTURES	CU YD	110.7
30	50800105	REINFORCEMENT BARS	POUND	4364.0
31	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	13473.0
32	51201600	FURNISHING STEEL PILES, HP12X53	FOOT	744.0
33	51201610	FURNISHING STEEL PILES, HP12X63	FOOT	400.0
34	51201700	FURNISHING STEEL PILES, HP12X74	FOOT	400.0
35	51202305	DRIVING PILES	FOOT	1544.0
36	51500100	NAME PLATES	EACH	2.0
37	542A0223	PIPE CULVERTS, CL A 1'-18"	FOOT	170.0
38	54213663	PRECAST REINFORCED CONCRETE FLARED END SECTION 18"	EACH	6.0
39	59300100	CONTROLLED LOW STRENGTH MATERIAL	CU YD	59.2
40	60101705	PIPE DRAINS 6" (SPECIAL)	FOOT	260.0
41	60213400	CATCH BASINS SPECIAL, N1	EACH	4.0
42	60615400	PAVED DITCH, TYPE A-15	FOOT	270.0
43	66400105	CHAIN LINK FENCE, 4'	FOOT	3232.0
44	67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	12.0
45	67100100	MOBILIZATION	L SUM	1.0
46	72000100	SIGN PANEL - TYPE 1	SQ FT	221.2
47	72400710	RELOCATE SIGN PANEL TYPE 1	SQ FT	3.0
48	72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	30.0
49	73000105	WOOD SIGN SUPPORT, SPECIAL	FOOT	807.5
50	78001100	▲ PAINT PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	27.0
51	78001110	▲ PAINT PAVEMENT MARKING - LINE 4"	FOOT	630.0
52	78001150	▲ PAINT PAVEMENT MARKING - LINE 12"	FOOT	35.0
53	Z0007800	BUMPER BLOCKS	EACH	16.0
54	Z0013798	CONSTRUCTION LAYOUT	L SUM	1.0
55	Z0084600	SELECTIVE CLEARING	ACRE	2.6
56	A2005512	▲ TREE, NYSSA SYLVATICA (BLACK TUPELO), 1-1/2" CALIPER BALLED & BURLAPPED	EACH	8.0
57	A2006514	▲ TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 1-3/4" CALIPER BALLED & BURLAPPED	EACH	14.0
58	A2006614	▲ TREE, QUERCUS IMBRICARIA (SHINGLE OAK) 1-3/4" CALIPER BALLED & BURLAP ED	EACH	8.0
59	A2006916	▲ TREE, QUERCUS PALUSTRIS (PIN OAK), 2" CALIPER, BALLED & BURLAPPED	EACH	10.0
60	A2007668	▲ TREE, TAXODIUM DISTICHUM (COMMON BALD CYPRESS) 7" HEIGHT CLUMP FORM, BALLED AND BURLAPPED	EACH	12.0
61	B2000668	▲ TREE, AMELANCHIER X GRANDIFLORA (APPLE SERVICEBERRY), 7' HT, SHRUB FORM, BALLED & BURLAPPED	EACH	2.0
62	B2001168	▲ TREE, CERCIS CANADENSIS (EASTRN REDBUD) 7' HEIGHT CLUMP FORM, BALLED AND BURLAPPED	EACH	3.0
63	C2C008G3	▲ SHRUB, RHUS AROMATICA (FRAGRANT SUMAC), CONTAINER GROWN, 3- GALLON	EACH	9.0
64	K0030397	▲ PERRENNIAL PLANTS, EUPATORIUM PURPUREUM, (PURPLE JOE PYE WEED), 1-GALLON.	EACH	5.0
65	K0030404	▲ PERRENNIAL, RUBECKIA FULGIDA "GOLDSTURM" (GOLDSTURM BLACK EYED SUSAN), 1 - GALLON	EACH	17.0
66	K0030411	▲ PERRENNIAL, ECHINACEA PURPUREA "MAGNUS" (MAGNUS PURPLE CONEFLOWER), 1-GALLON	EACH	15.0
67	K0030428	▲ PERRENNIAL PLANTS, SPOROBOLUS HETEROLEPIS, (PRAIRIE DROPSEED), 1-GALLON	EACH	25.0
68	K0030490	▲ PERRENNIAL PLANTS, FOR SUN), 1/2-GAL. CONTAINER	UNIT	24.0
69	K1005481	▲ SHREDDED BARK MULCH 3"	SQ YD	325.0

70	XX001011	BICYCLE RACKS	EACH	5.0
71	XX001472	WOOD BOLLARD	EACH	139.0
72	XX001693	INFORMATION KIOSK	EACH	2.0
73	XX002744	GRADING AND SHAPING BIKEWAY	STA	148.9
74	70102635	TRAFFIC CONTROL AND PROTECTION STANDARD 701701	L SUM	1.0
75	XX004652	PIPE GATE	EACH	2.0
76	XX008324	▲ PLANTING SOIL AMENDMENT	SQ YD	325.0
77	XX006783	SIGN PANEL FURNISHED AND INSTALLED	EACH	4.0
78	K0030396	▲ SCHIZACHYRIUM (LITTLE BLUESTEM), 1-GALLON	EACH	7.0
79	XX006670	TRAIL HEAD SIGN, COMPLETE	EACH	2.0
80	X0322508	▲ PEDESTRIAN TRUSS SUPERSTRUCTURE	SQ FT	7205.0
81	X0324773	▲ FLASHING BEACON INSTALLATION	EACH	4.0
82	X0325140	WOOD GUARDRAIL REPAIR	L SUM	1.0

* SPECIAL PROVISION
 ▲ SUPPLEMENTAL SPECIAL PROVISION
 ▲ SPECIALTY ITEMS

ROUTE	SECTION	COUNTY	TOTAL SHEET SHEETS	NO.
GRCDT	09-00038-00-BT	MASSAC	55	4
FROM STA.		TO STA.		
FEDERAL PROJECT NO. ARA-5045(009) CONTRACT NO. 99417				



***SPECIAL NOTE:**
IN THIS SECTION, THE EXISTING CLASS A-3 B.S.T. SURFACE IS POT-HOLED, AND DETERIORATED. THE CONTRACTOR IS TO SCARIFY AND MILL THE EXISTING SURFACE, ADD 2" OF NEW CA-6 AGGREGATE BASE COURSE AND SHAPE AND COMPACT AGGREGATE TO NOT LESS THAN 100% OF THE STANDARD LABORATORY DENSITY USING AASHTO T-310, OR BY OTHER METHODS APPROVED BY THE ENGINEER. THE BASE COURSE IS THEN TO BE PRIMED AND RECEIVE A 2" THICK HMA COURSE, FOLLOWED BY A 2" THICK HMA SURFACE COURSE.

PAY ITEM RECAP						
PAY ITEM: TREE REMOVAL (6" TO 15 UNITS DIAMETER)						
ITEM CODE NO.: 20100310 NO. 1						
FROM STATION	TO STATION	QUAN	UNIT	DEPTH	QUANTITY	
+	+	50	UNIT		50	
TOTAL					50	

PAY ITEM RECAP						
PAY ITEM: GRADING AND SHAPING DITCHES						
ITEM CODE NO.: 21400100 NO. 6						
STATION	LENGTH	UNIT	QUANTITY			
1157 + 0	35	FOOT	35			
1159 + 0	55	FOOT	55			
1160 + 0	45	FOOT	45			
1160 + 0	45	FOOT	45			
1165 + 0	45	FOOT	45			
1166 + 0	45	FOOT	45			
1167 + 0	45	FOOT	45			
TOTAL			315			

PAY ITEM RECAP						
PAY ITEM: AGRICULTURAL GROUND LIMESTONE						
ITEM CODE NO.: 25000700 NO. 10						
FROM STATION	TO STATION	LENGTH	WIDTH	UNIT	QUANTITY	
999 + 0	1008 + 84	984	8	TON	0.45	
1010 + 70	1011 + 9	39	20	TON	0.04	
0 + 0	36 + 44	3644	1	TON	0.21	
2 + 68	4 + 0	132	10	TON	0.08	
33 + 0	34 + 0	100	5	TON	0.03	
35 + 50	35 + 75	25	30	TON	0.04	
1078 + 80	1079 + 20	40	60	TON	0.14	
1155 + 0	1160 + 60	560	20	TON	0.64	
1156 + 90	1157 + 10	20	20	TON	0.02	
1158 + 90	1159 + 10	20	20	TON	0.02	
1159 + 90	1160 + 44	54	20	TON	0.06	
1164 + 0	1170 + 0	600	20	TON	0.69	
1164 + 90	1165 + 10	20	20	TON	0.02	
1165 + 90	1166 + 10	20	20	TON	0.02	
1166 + 90	1167 + 10	20	20	TON	0.02	
1207 + 0	1213 + 0	600	18	TON	0.62	
1076 + 38	1216 + 44	14006	2	TON	1.60	
1215 + 0	1215 + 33	33	50	TON	0.09	
TOTAL					4.8	

PAY ITEM RECAP						
PAY ITEM: EARTH EXCAVATION (SPECIAL)						
ITEM CODE NO.: 20200410 NO. 2						
FROM STATION	TO STATION	LENGTH	WIDTH	UNIT	DEPTH	QUANTITY
35 + 50	35 + 75	25	20	CU YD	10	185.2
1078 + 45	1078 + 59	14	40	CU YD	14	290.4
1155 + 0	1156 + 0	100	21	CU YD	1.5	116.7
1156 + 0	1157 + 0	100	22	CU YD	3	244.4
1156 + 90	1157 + 10	20	40	CU YD	3	88.9
1157 + 0	1158 + 0	26	20	CU YD	5.5	529.6
1158 + 0	1159 + 0	100	29	CU YD	6	644.4
1158 + 90	1159 + 10	20	32	CU YD	4	94.8
1159 + 0	1160 + 43	143	40	CU YD	5.5	1165.2
1159 + 90	1160 + 10	20	32	CU YD	6	142.2
1164 + 30	1166 + 0	170	32	CU YD	8	1611.9
1164 + 90	1165 + 10	20	25	CU YD	8	148.1
1165 + 90	1166 + 10	20	35	CU YD	3	77.8
1166 + 0	1167 + 0	100	28	CU YD	4.5	466.7
1166 + 90	1167 + 10	20	20	CU YD	3	44.4
1167 + 0	1168 + 0	100	20	CU YD	2	148.1
1168 + 0	1169 + 5	100	21.5	CU YD	3.3	262.8
1169 + 0	1170 + 0	100	18	CU YD	1.3	86.7
TOTAL						6348.3

PAY ITEM RECAP						
PAY ITEM: NITROGEN FERTILIZER NUTRIENT						
ITEM CODE NO.: 25000400 NO. 7						
FROM STATION	TO STATION	LENGTH	WIDTH	UNIT	QUANTITY	
999 + 0	1008 + 84	984	8	POUND	16.02	
1010 + 70	1011 + 9	39	20	POUND	1.59	
0 + 0	36 + 44	3644	1	POUND	7.42	
2 + 68	4 + 0	132	10	POUND	2.69	
33 + 0	34 + 0	100	5	POUND	1.02	
35 + 50	35 + 75	25	30	POUND	1.53	
1078 + 80	1079 + 20	40	60	POUND	4.88	
1155 + 0	1160 + 60	560	20	POUND	22.80	
1156 + 90	1157 + 10	20	20	POUND	0.81	
1158 + 90	1159 + 10	20	20	POUND	0.81	
1159 + 90	1160 + 44	54	20	POUND	2.20	
1164 + 0	1170 + 0	600	20	POUND	24.42	
1164 + 90	1165 + 10	20	20	POUND	0.81	
1165 + 90	1166 + 10	20	20	POUND	0.81	
1166 + 90	1167 + 10	20	20	POUND	0.81	
1207 + 0	1213 + 0	600	18	POUND	21.98	
1076 + 38	1216 + 44	14006	2	POUND	57.01	
1215 + 0	1215 + 33	33	50	POUND	3.36	
TOTAL					171.0	

PAY ITEM RECAP						
PAY ITEM: SEEDING, CLASS 3 (SPECIAL)						
ITEM CODE NO.: 25001100 NO. 11						
FROM STATION	TO STATION	LENGTH	WIDTH	UNIT	QUANTITY	
999 + 0	1008 + 84	984	8	ACRE	0.18	
1010 + 70	1011 + 9	39	20	ACRE	0.02	
0 + 0	36 + 44	3644	1	ACRE	0.08	
2 + 68	4 + 0	132	10	ACRE	0.03	
33 + 0	34 + 0	100	5	ACRE	0.01	
35 + 50	35 + 75	25	30	ACRE	0.02	
1078 + 80	1079 + 20	40	60	ACRE	0.06	
1155 + 0	1160 + 60	560	20	ACRE	0.26	
1156 + 90	1157 + 10	20	20	ACRE	0.01	
1158 + 90	1159 + 10	20	20	ACRE	0.01	
1159 + 90	1160 + 44	54	20	ACRE	0.02	
1164 + 0	1170 + 0	600	20	ACRE	0.28	
1164 + 90	1165 + 10	20	20	ACRE	0.01	
1165 + 90	1166 + 10	20	20	ACRE	0.01	
1166 + 90	1167 + 10	20	20	ACRE	0.01	
1207 + 0	1213 + 0	600	18	ACRE	0.25	
1076 + 38	1216 + 44	14006	2	ACRE	0.64	
1215 + 0	1215 + 33	33	50	ACRE	0.04	
TOTAL					1.93	

PAY ITEM RECAP						
PAY ITEM: GRADING AND SHAPING ROADWAY						
ITEM CODE NO.: 20201000 NO. 3						
FROM STATION	TO STATION	LENGTH	WIDTH	UNIT	QUANTITY	
2 + 50	3 + 75	125	45	UNIT	1.3	
4 + 0	21 + 8	1708	22	UNIT	17.1	
22 + 77	34 + 75	1198	22	UNIT	12.0	
33 + 75	35 + 0	125	27	UNIT	1.3	
1145 + 20	1145 + 40	20	20	UNIT	0.2	
1215 + 0	1215 + 50	50	20	UNIT	0.5	
1215 + 0	1216 + 43	143	20	UNIT	1.4	
TOTAL					33.7	

PAY ITEM RECAP						
PAY ITEM: PHOSPHORUS FERTILIZER NUTRIENT						
ITEM CODE NO.: 25000500 NO. 8						
FROM STATION	TO STATION	LENGTH	WIDTH	UNIT	QUANTITY	
999 + 0	1008 + 84	984	8	POUND	16.02	
1010 + 70	1011 + 9	39	20	POUND	1.59	
0 + 0	36 + 44	3644	1	POUND	7.42	
2 + 68	4 + 0	132	10	POUND	2.69	
33 + 0	34 + 0	100	5	POUND	1.02	
35 + 50	35 + 75	25	30	POUND	1.53	
1078 + 80	1079 + 20	40	60	POUND	4.88	
1155 + 0	1160 + 60	560	20	POUND	22.80	
1156 + 90	1157 + 10	20	20	POUND	0.81	
1158 + 90	1159 + 10	20	20	POUND	0.81	
1159 + 90	1160 + 44	54	20	POUND	2.20	
1164 + 0	1170 + 0	600	20	POUND	24.42	
1164 + 90	1165 + 10	20	20	POUND	0.81	
1166 + 90	1167 + 10	20	20	POUND	0.81	
1207 + 0	1213 + 0	600	18	POUND	21.98	
1076 + 38	1216 + 44	14006	2	POUND	57.01	
1215 + 0	1215 + 33	33	50	POUND	3.36	
TOTAL					171.0	

PAY ITEM RECAP						
PAY ITEM: TEMPORARY EROSION CONTROL SEEDING						
ITEM CODE NO.: 28000250 NO. 14						
FROM STATION	TO STATION	LENGTH	WIDTH	UNIT	QUANTITY	
001 + 13	1001 + 33	20	20	POUND	0.96	
011 + 50	1011 + 70	20	20	POUND	0.96	
36 + 0	36 + 44	44	5	POUND	0.53	
078 + 0	1079 + 0	100	20	POUND	4.82	
1155 + 0	1160 + 60	560	20	POUND	27.00	
1156 + 90	1157 + 10	20	25	POUND	1.21	
1158 + 90	1159 + 10	20	60	POUND	2.89	
1159 + 90	1160 + 10	20	60	POUND	2.89	
1164 + 0	1170 + 0	600	20	POUND	28.93	
1164 + 90	1165 + 10	20	35	POUND	1.69	
1165 + 90	1166 + 10	20	45	POUND	2.17	
1166 + 90	1167 + 10	20	50	POUND	2.41	
1207 + 0	1213 + 0	600	18	POUND	26.03	
TOTAL					102.49	

PAY ITEM RECAP						
PAY ITEM: FURNISHED EXCAVATION, SPECIAL						
ITEM CODE NO.: 20400805 NO. 4						
FROM STATION	TO STATION	LENGTH	WIDTH	UNIT	DEPTH	QUANTITY
1010 + 90	1011 + 10	20	20	CU YD	2	35.6
1208 + 0	1208 + 50	50	19.5	CU YD	12	520.0
1208 + 50	1209 + 0	50	22.5	CU YD	1.5	75.0
1209 + 0	1209 + 50	50	24	CU YD	2.5	133.3
1209 + 50	1210 + 0	50	21	CU YD	3	140.0
1210 + 0	1210 + 50	50	21	CU YD	2	93.3
1210 + 50	1211 + 0	50	19.2	CU YD	1.75	74.7
1211 + 0	1211 + 50	50	19	CU YD	1.6	67.6
1211 + 50	1212 + 0	50	18	CU YD	1.3	52.0
1212 + 0	1212 + 50	50	17.5	CU YD	1	38.9
1212 + 50	1213 + 0	50	16.5	CU YD	0.7	25.7
TOTAL						1256.0

PAY ITEM RECAP						
PAY ITEM: POTASSIUM FERTILIZER NUTRIENT						
ITEM CODE NO.: 25000600 NO. 9						
FROM STATION	TO STATION	LENGTH	WIDTH	UNIT	QUANTITY	
999 + 0	1008 + 84	984	8	POUND	16.02	
1010 + 70	1011 + 9	39	20	POUND	1.59	
0 + 0	36 + 44	3644	1	POUND	7.42	
2 + 68	4 + 0	132	10	POUND	2.69	
33 + 0	34 + 0	100	5	POUND	1.02	
35 + 50	35 + 75	25	30	POUND	1.53	
1078 + 80	1079 + 20	40	60	POUND	4.88	
1155 + 0	1160 + 60	560	20	POUND	22.80	

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT09-00038-00-BT		MASSAC	55	6
FROM STA.	TO STA.			
FEDERAL PROJECT NO. ARA-5045(009) CONTRACT NO. 99417				

PAY ITEM RECAP									
PAY ITEM: PERIMETER EROSION BARRIER									
ITEM CODE NO.: 28000400 0 NO. 16									
FROM STATION	TO STATION	LENGTH	SIDES	UNIT	QUANTITY				
33 + 0	36 + 44	344	1	FOOT	344				
1078 + 0	1079 + 0	100	2	FOOT	200				
1155 + 0	1160 + 0	560	2	FOOT	1120				
1164 + 0	1170 + 0	600	2	FOOT	1200				
1206 + 0	1213 + 0	700	2	FOOT	1400				
TOTAL					4264				

PAY ITEM RECAP									
PAY ITEM: STONE DUMPED RIPRAP, CLASS A3 (SPECIAL)									
ITEM CODE NO.: 28100800 * NO. 17									
STATION	LENGTH	WIDTH	UNIT	QUANTITY					
1157 + 0	10	5	TON	4.2					
1159 + 0	10	5	TON	4.2					
1160 + 0	10	5	TON	4.2					
1165 + 0	10	5	TON	4.2					
1166 + 0	10	5	TON	4.2					
1167 + 0	10	5	TON	4.2					
TOTAL				25.0					

PAY ITEM RECAP									
PAY ITEM: AGGREGATE BASE COURSE TYPE B (SPECIAL)									
ITEM CODE NO.: 35101400 * NO. 19									
FROM STATION	TO STATION	LENGTH	WIDTH	UNIT	QUANTITY				
22 + 77	34 + 75	1198	18	TON	215.6				
33 + 75	35 + 0	125	27	TON	33.8				
1076 + 38	1145 + 20	6882	10	TON	1032.3				
1145 + 35	1160 + 44	1509	10	TON	226.4				
1164 + 66	1203 + 57	3891	10	TON	583.7				
1205 + 94	1216 + 44	1050	10	TON	157.5				
1215 + 0	1215 + 44	44	142	TON	93.7				
TOTAL					2342.9				

PAY ITEM RECAP									
PAY ITEM: BITUMINOUS MATERIALS (PRIME COAT)									
ITEM CODE NO.: 40300100 0 NO. 20									
FROM STATION	TO STATION	LENGTH	WIDTH	UNIT	QUANTITY				
0 + 10.0	4 + 0.0	390	18	GALLON	58.5				
2 + 50.0	3 + 75.0	125	45	GALLON	93.8				
4 + 0.0	21 + 8.0	1708	18	GALLON	512.4				
22 + 77.0	34 + 75.0	1198	18	GALLON	359.4				
33 + 75.0	35 + 0.0	125	27	GALLON	56.3				
TOTAL					1080.3				

PAY ITEM RECAP									
PAY ITEM: HOT MIX ASPHALT BINDER COURSE, IL-19.0, N70									
ITEM CODE NO.: 40603085 0 NO. 21									
FROM STATION	TO STATION	LENGTH	WIDTH	UNIT	QUANTITY				
2 + 50	3 + 75	125	48	TON	76.0				
4 + 0	21 + 8	1708	18	TON	389.4				
22 + 77	34 + 75	1198	18	TON	273.1				
33 + 75	35 + 0	125	21	TON	33.3				
1215 + 0	1215 + 50	50	51	TON	32.3				
TOTAL					804.1				

PAY ITEM RECAP									
PAY ITEM: HOT MIX ASPHALT SURFACE COURSE, MIX (C), N70									
ITEM CODE NO.: 40603315 0 NO. 22									
FROM STATION	TO STATION	LENGTH	WIDTH	UNIT	QUANTITY				
0 + 10	4 + 0	390	18	TON	88.9				
2 + 50	3 + 75	125	48	TON	76.0				
4 + 0	21 + 8	1708	18	TON	389.4				
22 + 77	34 + 75	1198	18	TON	273.1				
33 + 75	35 + 0	125	21	TON	33.3				
1215 + 0	1215 + 50	50	51	TON	32.3				
TOTAL					893.0				

PAY ITEM RECAP									
PAY ITEM: PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH									
ITEM CODE NO.: 42400200 0 NO. 23									
FROM STATION	TO STATION	LENGTH	WIDTH	UNIT	QUANTITY				
1076 + 38	1160 + 44	8406	10	SQ FT	84060				
1164 + 66	1203 + 57	3891	10	SQ FT	38910				
1205 + 94	1216 + 44	1050	10	SQ FT	10500				
1215 + 0	1215 + 50	50	20	SQ FT	1000				
TOTAL					134470				

PAY ITEM RECAP									
PAY ITEM: PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH, SPECIAL									
ITEM CODE NO.: 42400430 * NO. 24									
FROM STATION	TO STATION	LENGTH	WIDTH	UNIT	QUANTITY				
999 + 98	1008 + 83.5	885.5	10	SQ FT	8855				
1007 + 90	1008 + 0	10	10	SQ FT	100				
1009 + 63	1009 + 78	15	5	SQ FT	75				
1009 + 88	1010 + 13	25	5	SQ FT	125				
1010 + 23	1010 + 68	45	5	SQ FT	225				
1010 + 66	1011 + 9	41	5	SQ FT	205				
1011 + 9	1012 + 65	156	5	SQ FT	780				
33 + 0	36 + 44	344	10	SQ FT	3440				
TOTAL					13805				

PAY ITEM RECAP									
PAY ITEM: DETECTABLE WARNINGS									
ITEM CODE NO.: 42400800 0 NO. 25									
TO STATION	LENGTH	WIDTH	UNIT	QUANTITY					
999 + 98	5	10	SQ FT	50					
1012 + 84.5	5	10	SQ FT	50					
33 + 0	5	10	SQ FT	50					
1076 + 38	5	10	SQ FT	50					
1145 + 20	5	10	SQ FT	50					
1145 + 40	5	10	SQ FT	50					
1216 + 44	5	10	SQ FT	50					
21 + 0	5	10	SQ FT	50					
22 + 80	5	10	SQ FT	50					
33 + 10	5	10	SQ FT	50					
TOTAL				500					

PAY ITEM RECAP									
PAY ITEM: SIDEWALK REMOVAL									
ITEM CODE NO.: 44000600 0 NO. 26									
FROM STATION	TO STATION	LENGTH	WIDTH	UNIT	QUANTITY				
1010 + 70	1011 + 91	121	5	SQ FT	605				
TOTAL					605				

PAY ITEM RECAP									
PAY ITEM: AGGREGATE SHOULDERS, TYPE B									
ITEM CODE NO.: 48101200 0 NO. 27									
FROM STATION	TO STATION	LENGTH	WIDTH	UNIT	QUANTITY				
4 + 0	21 + 8	1708	4	TON	85.4				
22 + 77	34 + 75	1198	4	TON	59.9				
33 + 75	35 + 0	125	5	TON	7.8				
33 + 0	36 + 45	345	4	TON	17.3				
1076 + 38	1145 + 20	6882	4	TON	344.1				
1145 + 35	1160 + 44	1509	4	TON	75.5				
1164 + 66	1203 + 57	3891	4	TON	194.6				
1205 + 95	1216 + 44	1049	4	TON	52.5				
1200 + 0	1216 + 44	1644	5	TON	102.8				
TOTAL					939.7				

PAY ITEM RECAP									
PAY ITEM: PIPE CULVERTS, TYPE 1 RCCP 18"									
ITEM CODE NO.: 0 NO. 37									
STATION	LENGTH	UNIT	QUANTITY						
1078 + 53	74	FOOT	74						
35 + 75	40	FOOT	40						
1216 + 60	20	FOOT	20						
1216 + 50	36	FOOT	36						
TOTAL			170						

PAY ITEM RECAP									
PAY ITEM: PRECAST REINFORCED CONCRETE FLARED END SECTION 18"									
ITEM CODE NO.: 54213663 0 NO. 38									
STATION	DIA	QUAN	UNIT	QUANTITY					
1078 + 53	18"	2	EACH	2					
1216 + 60	18"	2	EACH	2					
1216 + 50	18"	2	EACH	2					
TOTAL				6					

PAY ITEM RECAP									
PAY ITEM: PIPE DRAINS 6" (SPECIAL)									
ITEM CODE NO.: 60101705 * NO. 40									
FROM STATION	TO STATION	LENGTH	WIDTH	UNIT	QUANTITY				
1001 + 13.5	40	1	FOOT	40					
1011 + 0	20	1	FOOT	20					
1000 + 10	1002 + 10	200	1	FOOT	200				
TOTAL					260				

PAY ITEM RECAP										
PAY ITEM: PAVED DITCH, TYPE A-15										
ITEM CODE NO.: 60615400 * NO. 42										
STATION	LENGTH	UNIT	QUANTITY							
1157 + 0	35	FOOT	35							
1159 + 0	55	FOOT	55							
1160 + 0	45	FOOT	45							
1165 + 0	45	FOOT	45							
1166 + 0	45	FOOT	45							
1167 + 0	45	FOOT	45							
TOTAL				270						

PAY ITEM RECAP									
PAY ITEM: CHAIN LINK FENCE, 4'									
ITEM CODE NO.: 66400105 * NO. 43									
FROM STATION	TO STATION	LENGTH	QUAN	UNIT	QUANTITY				
20 + 59	21 + 7	48	2	FOOT	96				
22 + 77	23 + 25	48	2	FOOT	96				
24 + 11	24 + 61	50	2	FOOT	100				
35 + 75	36 + 45	70	1	FOOT	70				
1076 + 40	1076 + 90	50	1	FOOT	50				
1078 + 0	1079 + 0	100	2	FOOT	200				
1111 + 15	1114 + 75	360	2	FOOT	720				
1145 + 40	1147 + 40	200	1	FOOT	200				
1158 + 43	1160 + 43	200	2	FOOT	400				
1164 + 66.5	1166 + 66.5	200	2	FOOT	400				
1201 + 56	1203 + 56	200	2	FOOT	400				
1206 + 0	1208 + 0	200	2	FOOT	400				
1156 + 75	1157 + 25	50	2	FOOT	100				
1167 + 75	1168 + 25	50	2	FOOT	100				
TOTAL					3232				

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT09-00038-00-BT		MASSAC	55	8
FROM STA. 999+98		TO STA. 1216+44		
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	

PROJECT BM DESCRIPTION:
 USGS BRASS MONUMENT MARKED: "USA/NAD '83/ILL. EAST #0022"
 ELEV. 339.89, LOCATED 34' LEFT OF CENTERLINE AT STATION 1000+20.60
 NEAR THE WESTERN ENTRANCE TO FORT MASSAC STATE PARK
 METROPOLIS ILLINOIS

MASSAC CREEK BRIDGE (BM #26) DESCRIPTION:
 1/2" X 24" REBAR, WITH PLASTIC SURVEY CAP MARKED "CITY
 OF METROPOLIS". C.P. # 26. ELEV. 337.57. LOCATED 575' RIGHT
 OF CENTERLINE OF EAST PARK ROAD AT STA. 9+50

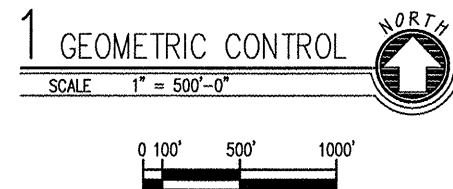
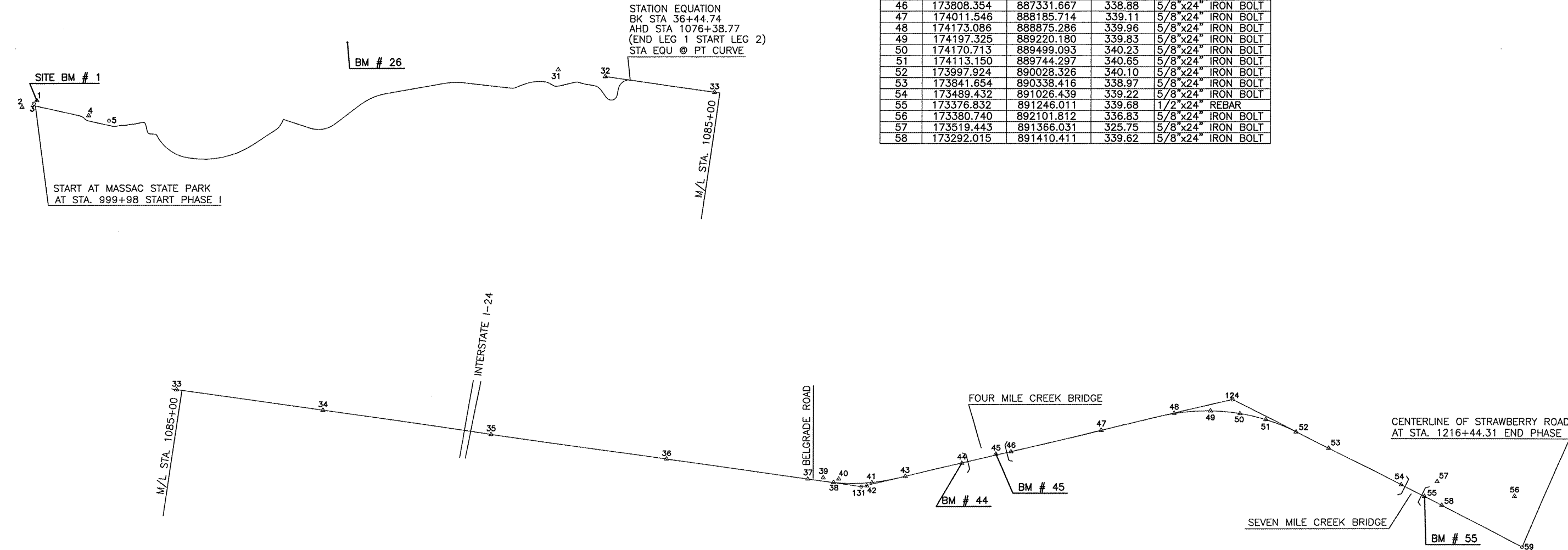
FOUR MILE CREEK BRIDGE (BM #44) DESCRIPTION:
 1/2" X 24" REBAR, WITH PLASTIC SURVEY CAP MARKED "CITY
 OF METROPOLIS". C.P. # 44. ELEV. 339.12. LOCATED 2' RIGHT
 OF CENTERLINE OF RAILROAD BED AT STA. 1059+73.16.

FOUR MILE CREEK BRIDGE (BM #45) DESCRIPTION:
 1/2" X 24" REBAR, WITH PLASTIC SURVEY CAP MARKED "CITY
 OF METROPOLIS". C.P. # 45. ELEV. 315.86. LOCATED 9' LEFT
 OF CENTERLINE OF RAILROAD BED AT STA. 1063+06.27.

SEVEN MILE CREEK BRIDGE (BM #55) DESCRIPTION:
 1/2" X 24" REBAR, WITH PLASTIC SURVEY CAP MARKED "CITY
 OF METROPOLIS". C.P. (3-7)# 55. ELEV. 339.68. LOCATED ON
 CENTERLINE OF RAILROAD BED AT STA. 1205+87.88

GEOMETRIC CONTROL POINTS				
POINT	DESCRIPTION	NORTHING	EASTING	
3	START AT PARK	174299.644	872979.791	
5	P.I. CURVE 1	174139.073	873694.268	
6	P.I. CURVE 2	174338.632	873628.586	
107	P.I. CURVE 3	174448.103	873761.422	
10	P.I. CURVE 4	174460.244	873931.883	
204	P.I. CURVE 5	174574.513	873935.411	
115	P.I. CURVE 6	174731.795	874181.855	
201	P.I. CURVE 7	175173.570	874179.766	
18	P.I. CURVE 8	175255.733	874037.706	
203	P.I. CURVE 9	175795.892	874102.337	
22	P.I. CURVE 10	175918.454	874100.898	
147	P.I. CURVE 11	174860.120	876271.326	
131	P.I. CURVE 12	173471.531	885915.944	
124	P.I. CURVE 13	174307.322	889428.909	
59	P.I. CURVE 14	172900.694	892176.229	

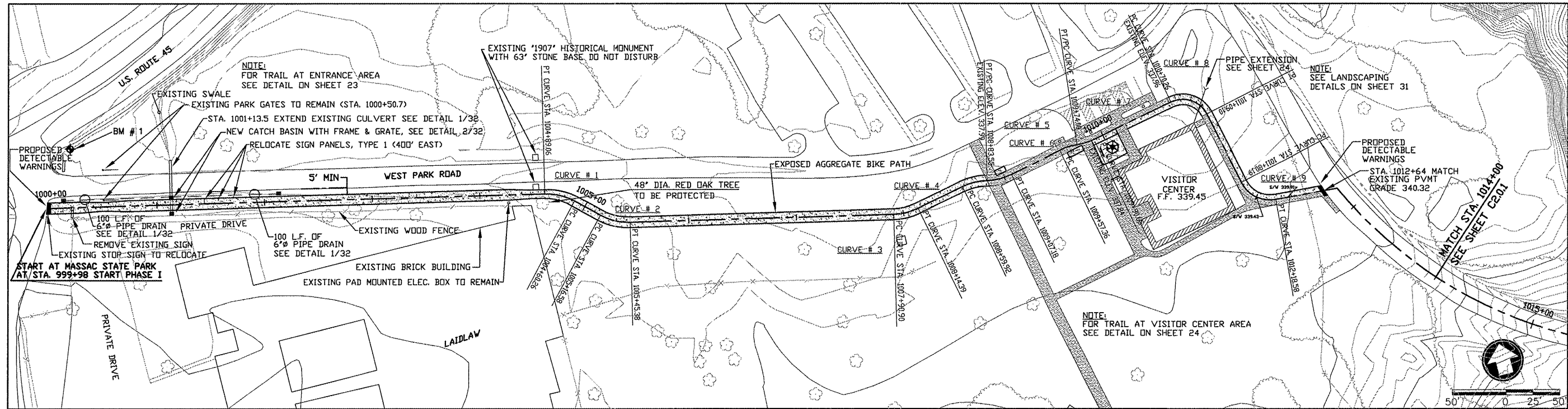
SURVEY CONTROL POINTS				
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	174328.447	873007.181	339.89	USGS-0022/BRASS
2	174266.543	872867.810	339.60	GPS-0023/CAP
4	174185.393	873501.993	338.68	PK NAIL
19	175481.079	874052.323	335.33	PK NAIL
23	175839.095	874264.524	340.84	5/8"x24" IRON BOLT
24	174963.441	876059.528	339.09	5/8"x24" IRON BOLT
25	174903.700	876202.791	339.05	5/8"x24" IRON BOLT
26	174879.674	875946.867	337.57	FD CITY CAP
27	174855.390	876369.440	339.05	5/8"x24" IRON BOLT
28	174808.173	876612.842	338.17	5/8"x24" IRON BOLT
29	174718.597	877022.360	312.61	5/8"x24" IRON BOLT
30	174698.036	877429.171	314.18	5/8"x24" IRON BOLT
31	174619.119	877945.651	338.06	5/8"x24" IRON BOLT
32	174554.269	878389.367	338.72	5/8"x24" IRON BOLT
33	174404.060	879428.467	339.24	5/8"x24" IRON BOLT
34	174203.940	880819.829	341.60	5/8"x24" IRON BOLT
35	173975.409	882408.890	343.38	5/8"x24" IRON BOLT
36	173736.456	884070.087	343.15	5/8"x24" IRON BOLT
37	173544.349	885409.611	341.87	5/8"x24" IRON BOLT
38	173512.577	885653.112	341.18	5/8"x24" IRON BOLT
39	173557.190	885554.878	341.45	5/8"x24" IRON BOLT
40	173544.395	885701.154	340.88	5/8"x24" IRON BOLT
41	173510.350	886015.805	340.93	5/8"x24" IRON BOLT
42	173480.618	885968.190	340.20	CITY KAP
43	173570.182	886332.747	340.72	5/8"x24" IRON BOLT
44	173695.461	886868.371	339.12	CITY KAP
45	173783.697	887189.769	315.86	CITY KAP
46	173808.354	887331.667	338.88	5/8"x24" IRON BOLT
47	174011.546	888185.714	339.11	5/8"x24" IRON BOLT
48	174173.086	888875.286	339.96	5/8"x24" IRON BOLT
49	174197.325	889220.180	339.83	5/8"x24" IRON BOLT
50	174170.713	889499.093	340.23	5/8"x24" IRON BOLT
51	174113.150	889744.297	340.65	5/8"x24" IRON BOLT
52	173997.924	890028.326	340.10	5/8"x24" IRON BOLT
53	173841.654	890338.416	338.97	5/8"x24" IRON BOLT
54	173489.432	891026.439	339.22	5/8"x24" IRON BOLT
55	173376.832	891246.011	339.68	1/2"x24" REBAR
56	173380.740	892101.812	336.83	5/8"x24" IRON BOLT
57	173519.443	891366.031	325.75	5/8"x24" IRON BOLT
58	173292.015	891410.411	339.62	5/8"x24" IRON BOLT



ALL COORDINATES GIVEN ARE BASED ON ILLINOIS
 STATE PLANE COORDINATE SYSTEM. NAD83. EAST ZONE

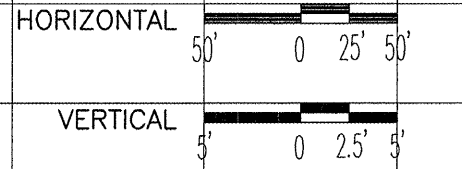
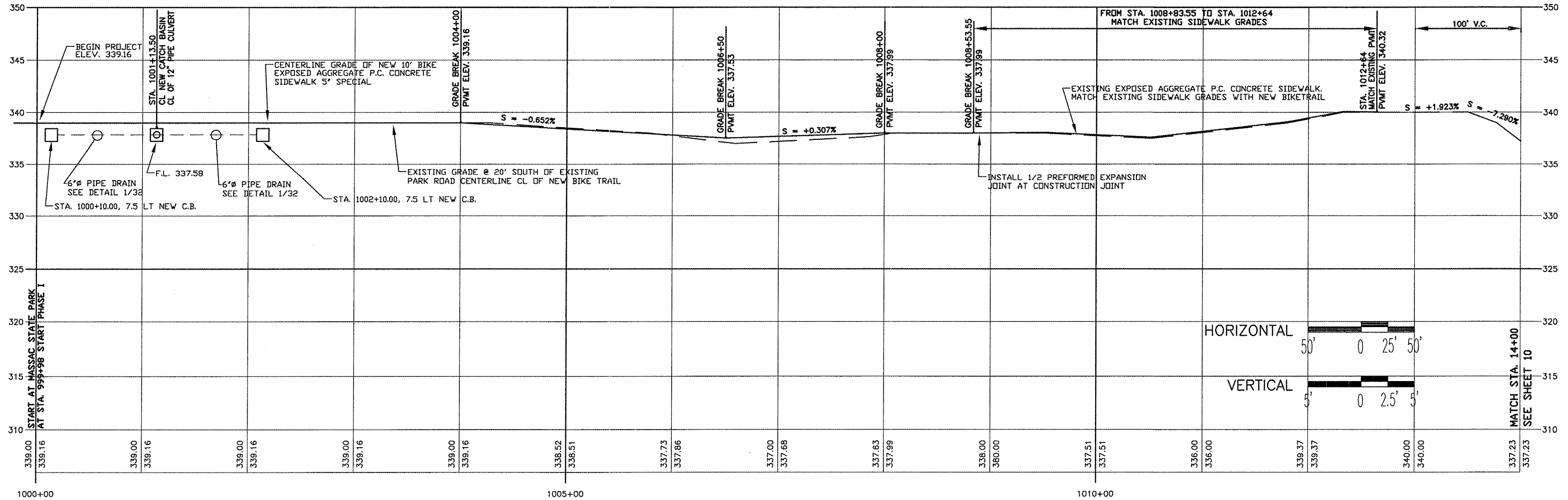
ALL ELEVATIONS GIVEN ARE BASED ON
 USGS - 0022 BRASS CAP ELEV. 339.890'

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	9
FROM STA. 999+98 TO STA. 1014+00				
FEDERAL PROJECT NO. ARA-5045(009) CONTRACT NO. 99417				



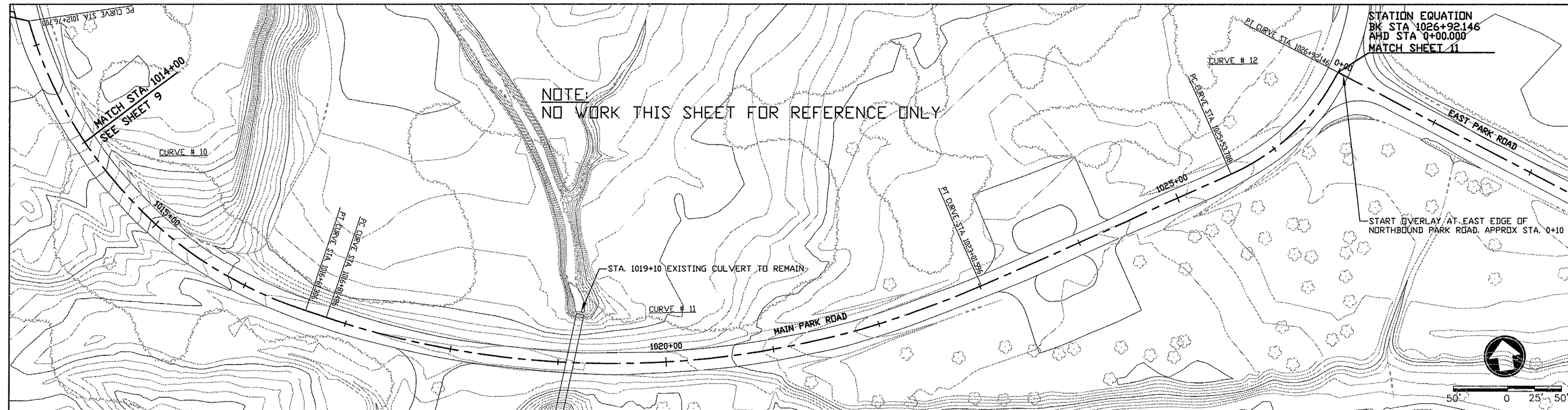
HORIZONTAL CURVE # 1 DATA	HORIZONTAL CURVE # 2 DATA	HORIZONTAL CURVE # 3 DATA	HORIZONTAL CURVE # 4 DATA	HORIZONTAL CURVE # 5 DATA	HORIZONTAL CURVE # 6 DATA	HORIZONTAL CURVE # 7 DATA	HORIZONTAL CURVE # 8 DATA	HORIZONTAL CURVE # 9 DATA
PI STA. = 1004+75.000 R = 55.000	PI STA. = 1005+31.321 R = 55.000	PI STA. = 1008+02.825 R = 55.000	PI STA. = 1008+71.918 R = 55.000	PI STA. = 1008+95.551 R = 55.000	PI STA. = 1009+65.745 R = 55.000	PI STA. = 1009+82.391 R = 55.000	PI STA. = 1010+94.831 R = 25.000	PI STA. = 1012+02.514 R = 30.000
PC STA. = 1004+60.263 T = 14.737	PC STA. = 1005+16.584 T = 14.737	PC STA. = 1007+90.898 T = 11.927	PC STA. = 1008+59.916 T = 12.002	PC STA. = 1008+83.549 T = 12.002	PC STA. = 1009+57.357 T = 8.387	PC STA. = 1009+74.004 T = 8.387	PC STA. = 1010+70.263 T = 24.567	PC STA. = 1011+80.186 T = 22.327
PT STA. = 1004+89.061 L = 28.798	PT STA. = 1005+45.382 L = 28.798	PT STA. = 1008+14.389 L = 23.491	PT STA. = 1008+83.549 L = 23.633	PT STA. = 1009+07.183 L = 23.633	PT STA. = 1009+74.004 L = 16.647	PT STA. = 1009+90.650 L = 16.647	PT STA. = 1011+09.097 L = 38.834	PT STA. = 1012+18.575 L = 38.388
DELTA = 30°00'00" E = 1.940	DELTA = 30°00'00" E = 1.940	DELTA = 24°28'19" E = 1.278	DELTA = 24°37'12" E = 1.294	DELTA = 24°37'12" E = 1.294	DELTA = 17°20'29" E = 0.636	DELTA = 17°20'29" E = 0.636	DELTA = 89°00'00" E = 10.051	DELTA = 73°18'58" E = 7.397

WEST ENTRANCE & VISITOR CENTER



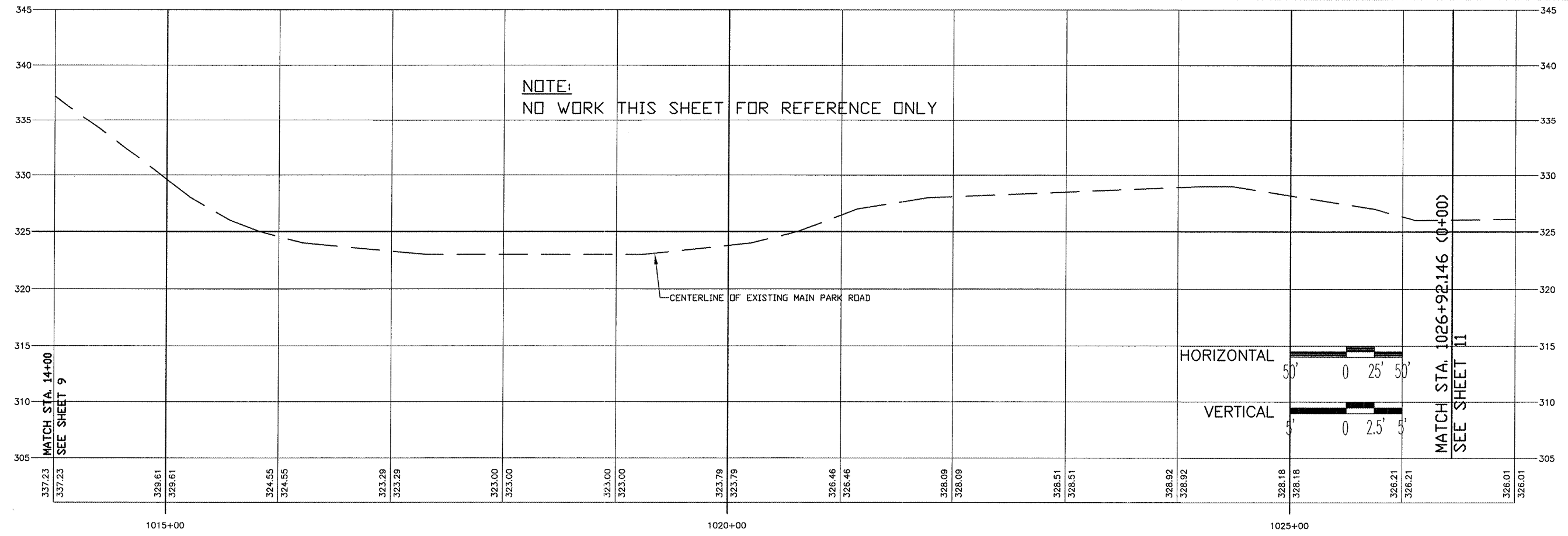
FROM STA. 999+98 TO 1014+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT09-00038-00-BT		MASSAC	55	10
FROM STA. 1014+00 TO STA. 1026+92				
FEDERAL PROJECT NO. ARA-5048(009) CONTRACT NO. 99417				



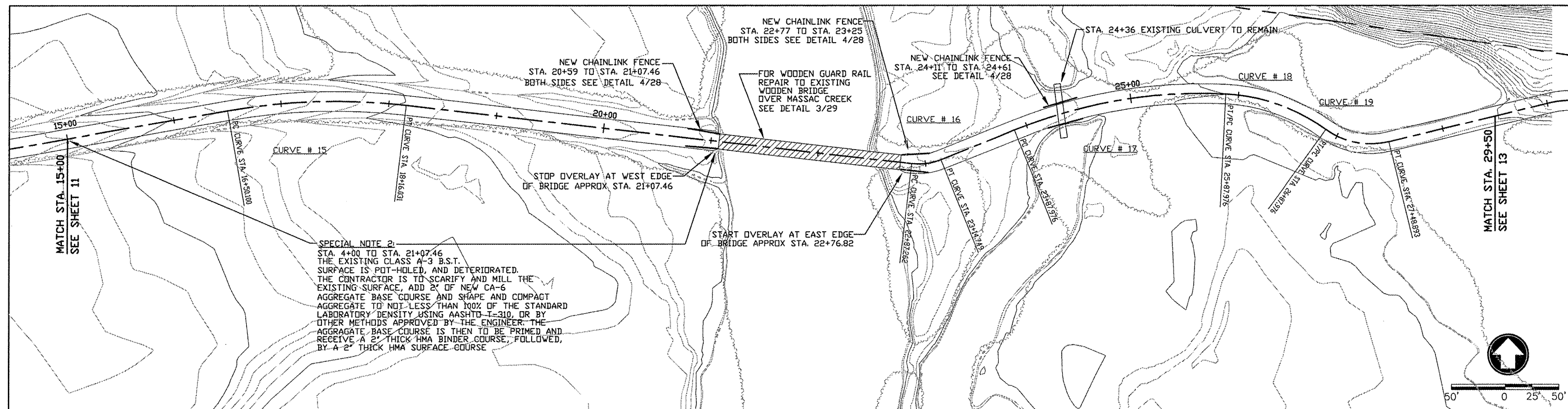
HORIZONTAL CURVE # 10 DATA	HORIZONTAL CURVE # 11 DATA	HORIZONTAL CURVE # 12 DATA
PI STA. = 1014+85.558 R = 397.494	PI STA. = 1020+06.436 R = 839.963	PI STA. = 1026+25.695 R = 204.584
PC STA. = 1012+76.700 T = 208.857	PC STA. = 1016+81.486 T = 324.950	PC STA. = 1025+53.708 T = 71.987
PT STA. = 1016+61.306 L = 384.606	PT STA. = 1023+01.596 L = 620.111	PT STA. = 1026+92.146 L = 138.438
DELTA = 55°26'17" E = 51.530	DELTA = 42°17'57" E = 60.665	DELTA = 38°46'15" E = 12.296

MAIN PARK ROAD



FROM STA. 1014+00 TO 1026+92

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT09-00038-00-BT		MASSAC	55	12
FROM STA. 15+00		TO STA. 29+50		
FEDERAL PROJECT NO. ARA-5045(009)		CONTRACT NO. 99417		



SPECIAL NOTE 2:
 STA. 4+00 TO STA. 21+07.46
 THE EXISTING CLASS A-3 B.S.T. SURFACE IS POT-HOLED, AND DETERIORATED. THE CONTRACTOR IS TO SCARIFY AND MILL THE EXISTING SURFACE, ADD 2" OF NEW CA-6 AGGREGATE BASE COURSE AND SHAPE AND COMPACT AGGREGATE TO NOT LESS THAN 100% OF THE STANDARD LABORATORY DENSITY USING AASHTO-T-310, OR BY OTHER METHODS APPROVED BY THE ENGINEER. THE AGGREGATE BASE COURSE IS THEN TO BE PRIMED AND RECEIVE A 2" THICK HMA BINDER COURSE, FOLLOWED, BY A 2" THICK HMA SURFACE COURSE.

HORIZONTAL CURVE # 15 DATA

PI STA.	= 17+33.650	R =	572.987
PC STA.	= 16+50.100	T =	83.550
PT STA.	= 18+16.031	L =	165.931
DELTA	= 16°35'32"	E =	6.059

HORIZONTAL CURVE # 16 DATA

PI STA.	= 23+01.298	R =	55.000
PC STA.	= 22+87.262	T =	14.037
PT STA.	= 23+14.749	L =	27.487
DELTA	= 28°38'04"	E =	1.763

HORIZONTAL CURVE # 17 DATA

PI STA.	= 24+89.558	R =	463.403
PC STA.	= 23+87.976	T =	101.582
PT STA.	= 25+87.976	L =	200.000
DELTA	= 24°43'42"	E =	11.003

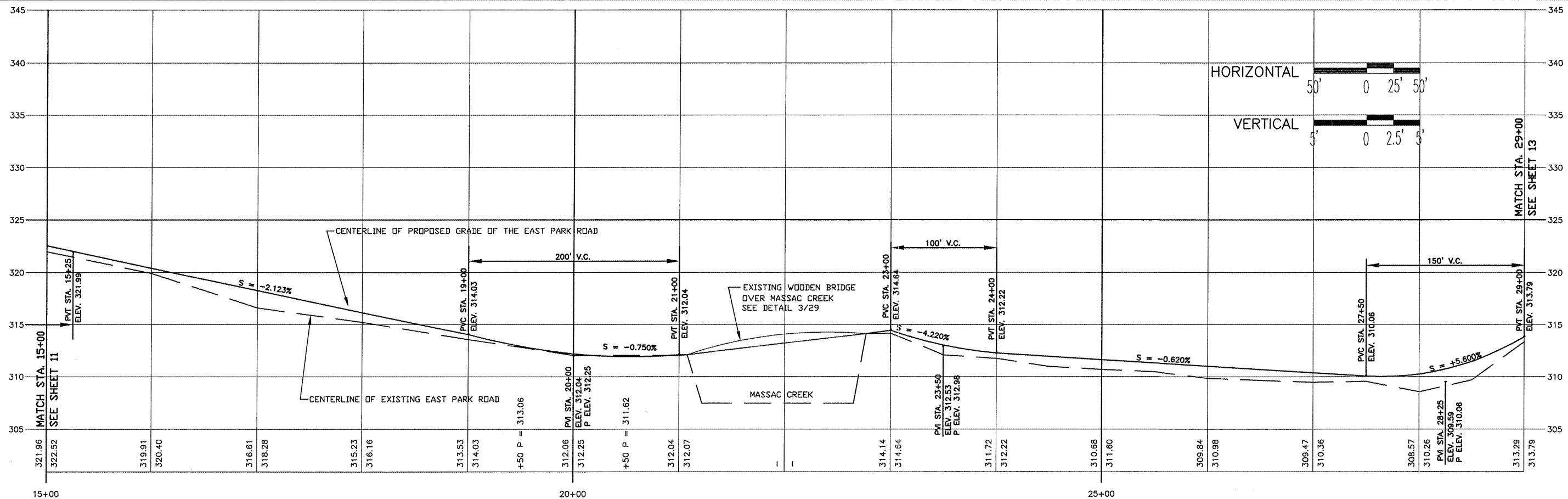
HORIZONTAL CURVE # 18 DATA

PI STA.	= 26+39.421	R =	172.743
PC STA.	= 25+87.976	T =	51.445
PT STA.	= 25+87.976	L =	100.000
DELTA	= 33°10'05"	E =	7.498

HORIZONTAL CURVE # 19 DATA

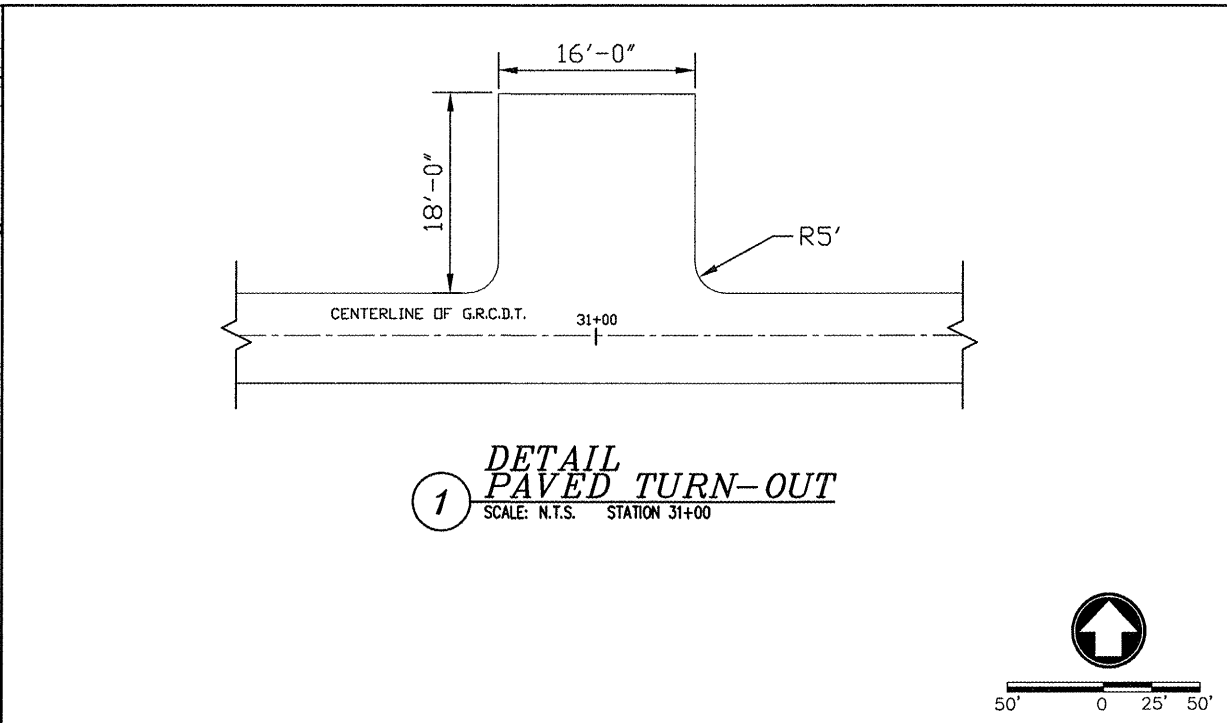
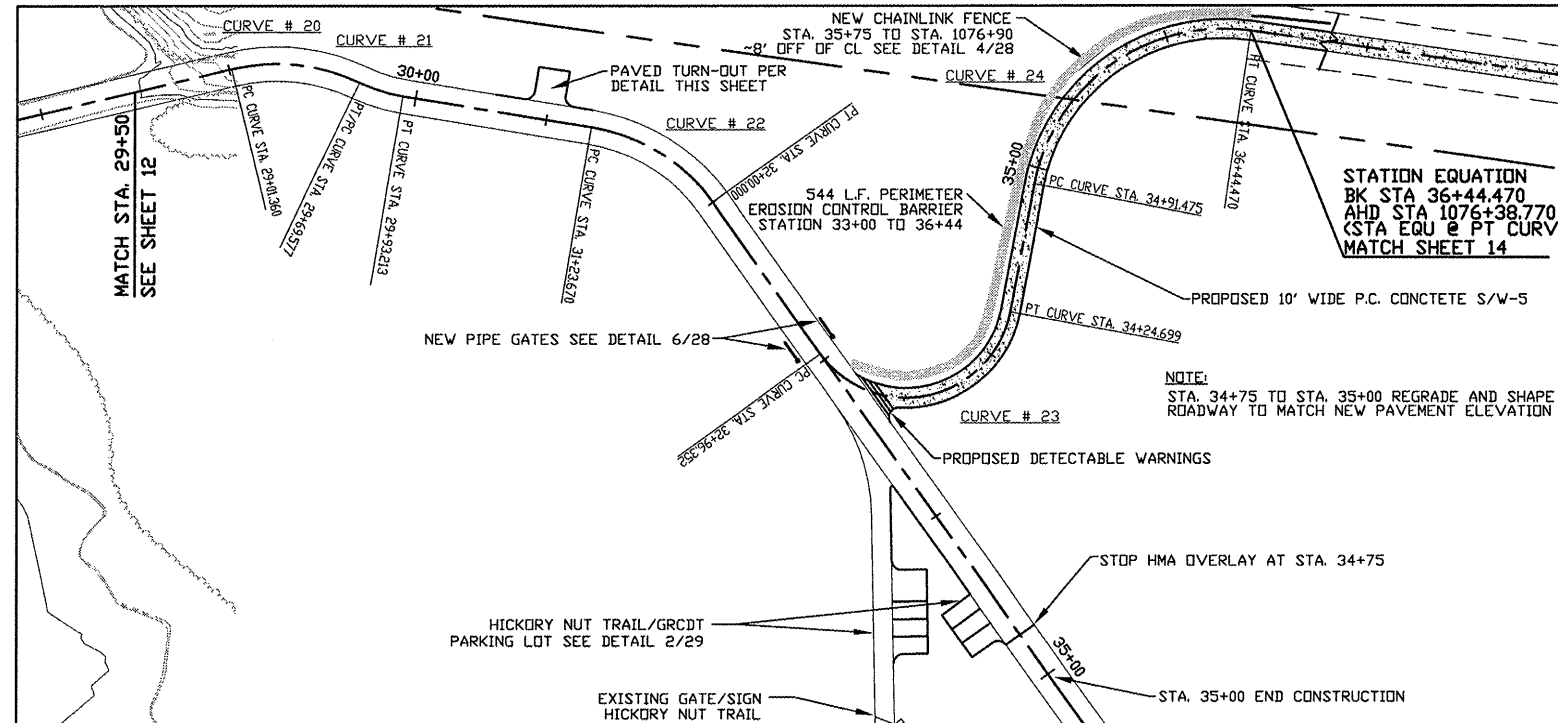
PI STA.	= 27+20.490	R =	70.393
PC STA.	= 26+87.976	T =	32.514
PT STA.	= 27+48.893	L =	60.917
DELTA	= 49°34'59"	E =	7.146

EAST PARK ROAD



FROM STA. 15+00 TO 29+50

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	13
FROM STA. 29+50		TO STA. 36+45		
FEDERAL PROJECT NO. ARA-5045(009)		CONTRACT NO. 99417		



HORIZONTAL CURVE # 20 DATA

PI STA. = 29+36.586	R = 100.000
PC STA. = 29+01.360	T = 35.496
PT STA. = 29+69.577	L = 68.218
DELTA = 39°05'09"	E = 6.113

HORIZONTAL CURVE # 21 DATA

PI STA. = 29+81.474	R = 84.099
PC STA. = 29+69.577	T = 11.896
PT STA. = 29+93.213	L = 23.636
DELTA = 16°06'11"	E = 0.837

HORIZONTAL CURVE # 22 DATA

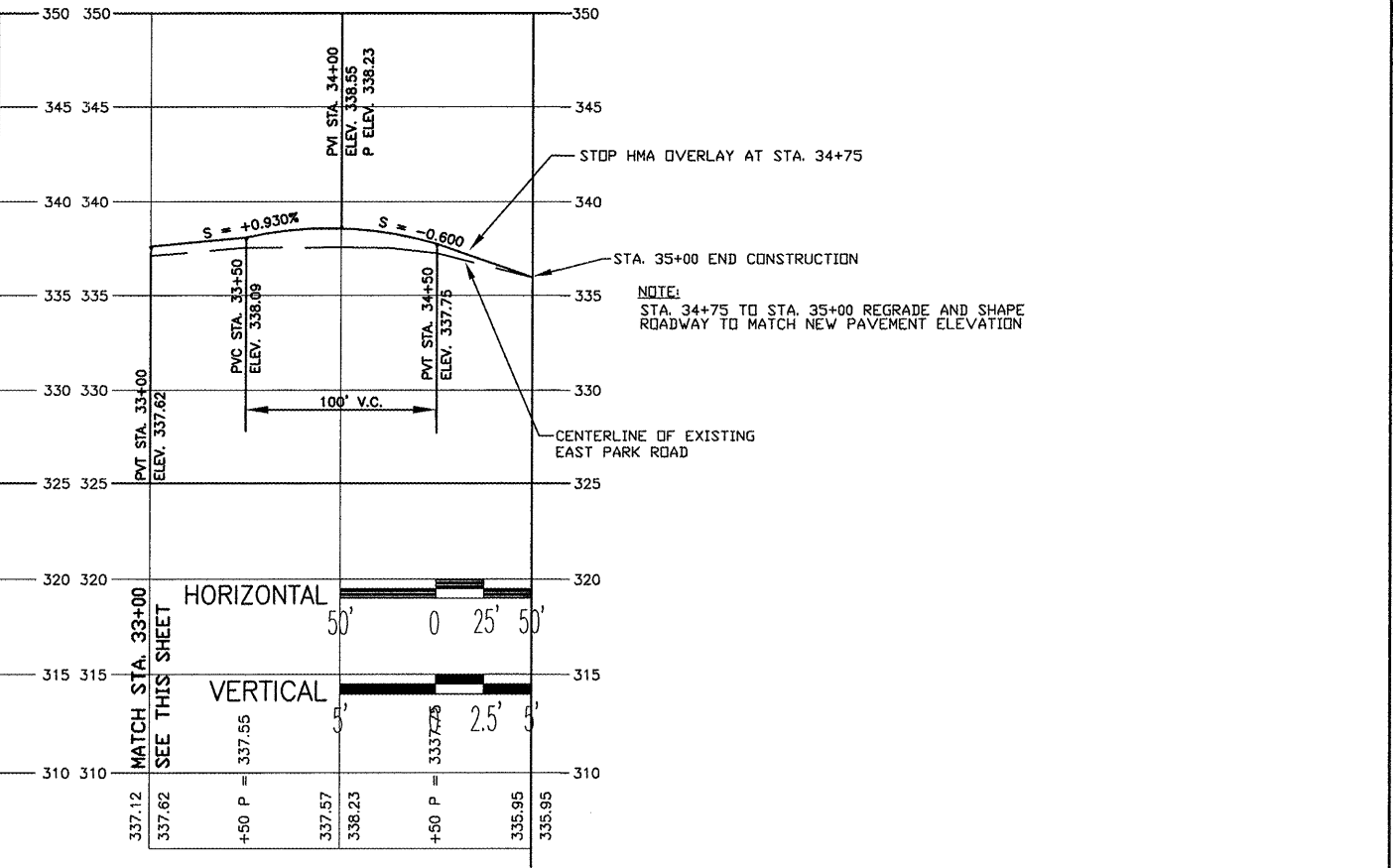
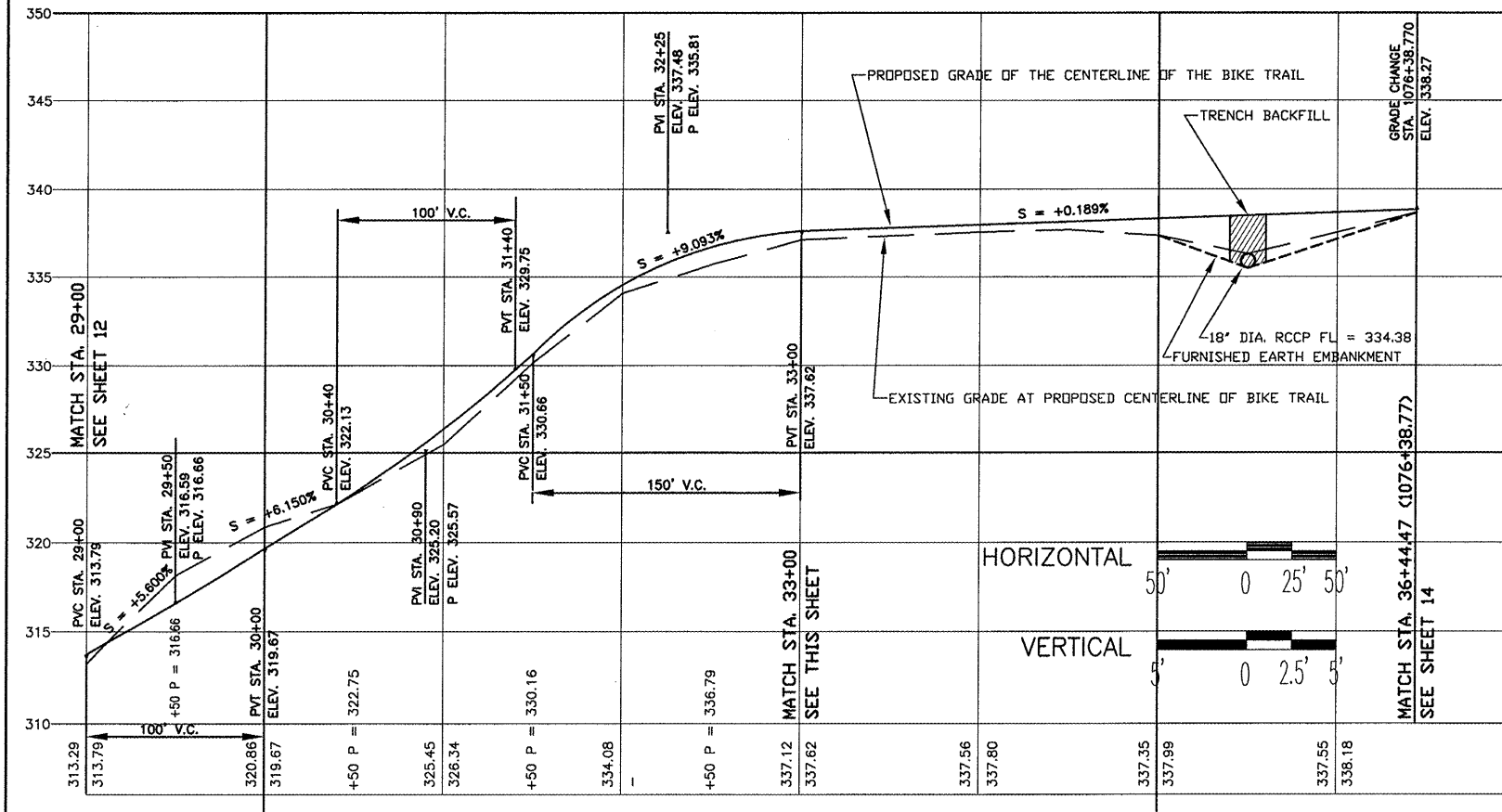
PI STA. = 31+59.771	R = 97.784
PC STA. = 31+23.670	T = 40.229
PT STA. = 32+00.000	L = 76.330
DELTA = 44°43'30"	E = 7.952

HORIZONTAL CURVE # 23 DATA

PI STA. = 34+24.958	R = 55.000
PC STA. = 32+96.352	T = 128.648
PT STA. = 34+24.699	L = 128.347
DELTA = 133°42'15"	E = 84.912

HORIZONTAL CURVE # 24 DATA

PI STA. = 35+87.471	R = 100.000
PC STA. = 34+91.475	T = 95.996
PT STA. = 36+44.470	L = 152.994
DELTA = 87°39'33"	E = 38.619



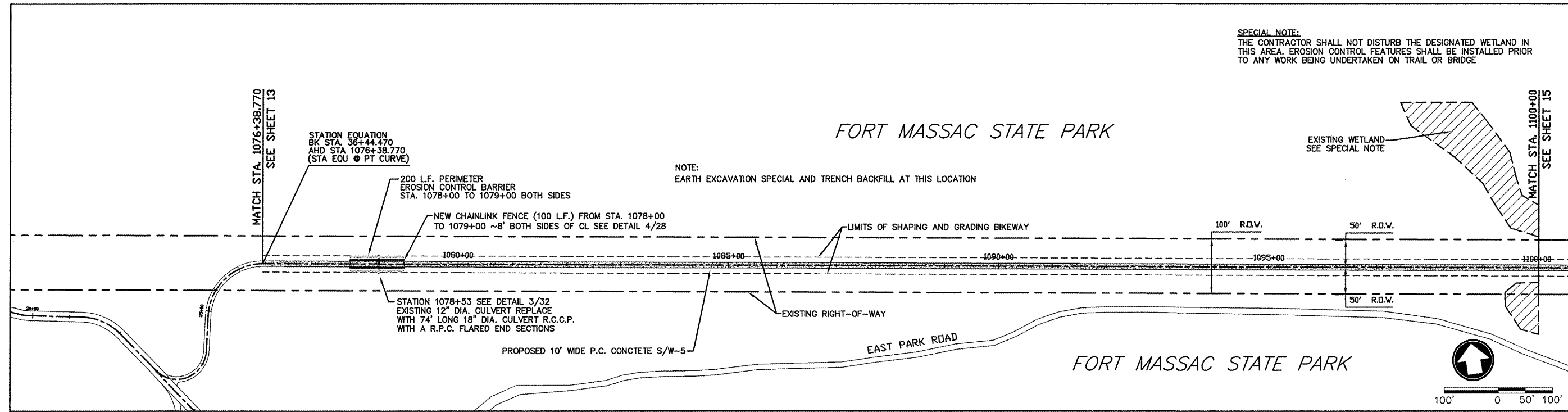
(BIKE TRAIL)

(EAST PARK ROAD)

FROM STA. 29+50 TO 36+45

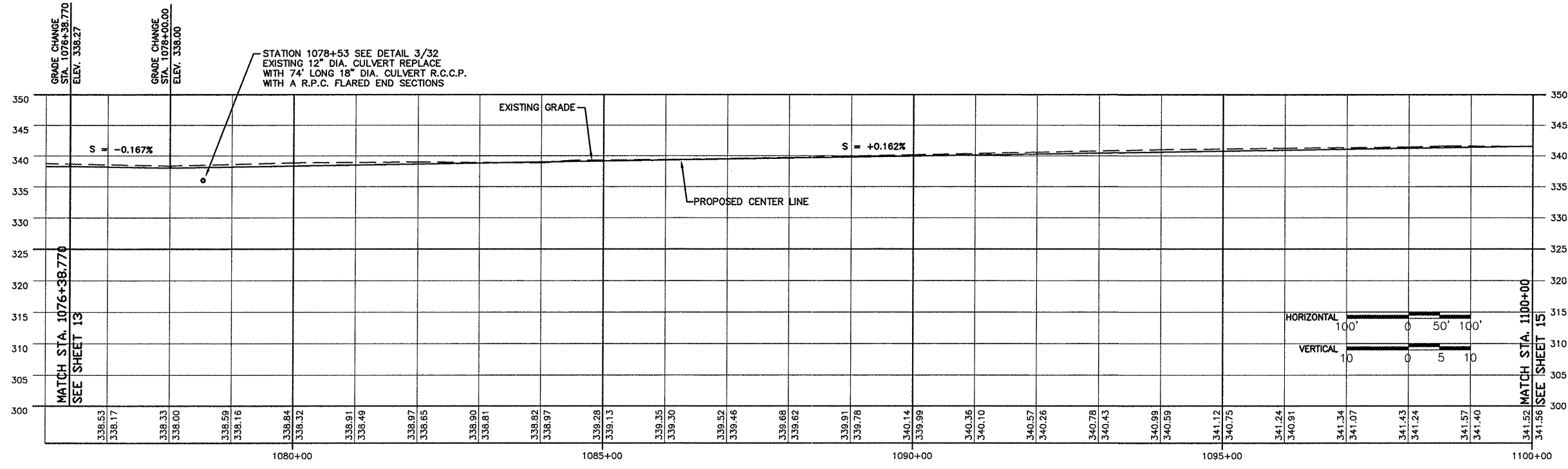
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	14
FROM STA. 1073+00 TO STA. 1100+00				
FEDERAL PROJECT NO. ARA-5045(009) CONTRACT NO. 99417				

SPECIAL NOTE:
 THE CONTRACTOR SHALL NOT DISTURB THE DESIGNATED WETLAND IN THIS AREA. EROSION CONTROL FEATURES SHALL BE INSTALLED PRIOR TO ANY WORK BEING UNDERTAKEN ON TRAIL OR BRIDGE



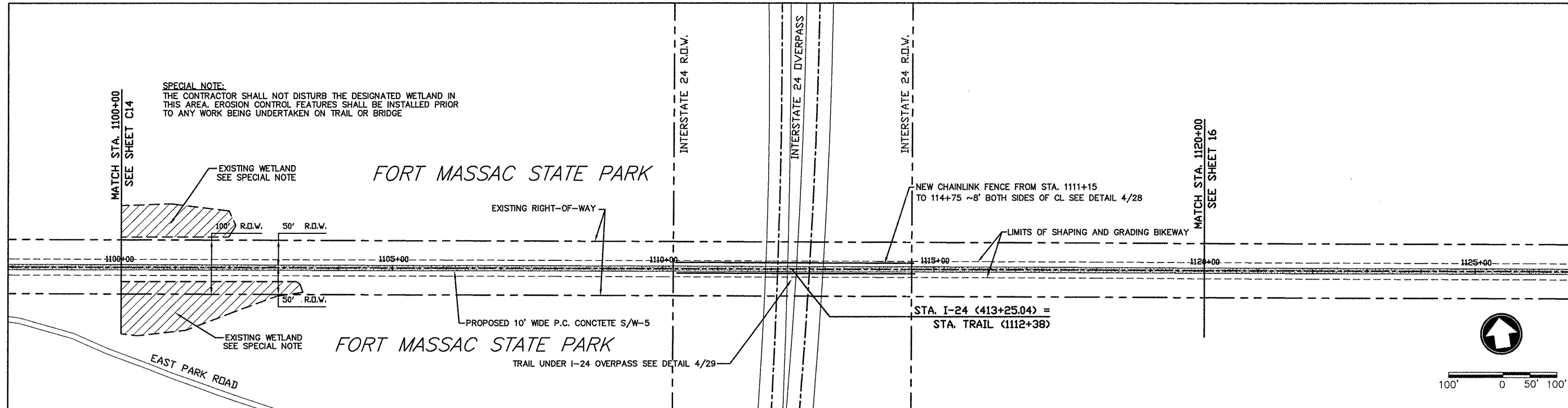
MASSAC CREEK BRIDGE (BM #26) DESCRIPTION:
 1/2" X 24" REBAR, WITH PLASTIC SURVEY CAP MARKED "CITY OF METROPOLIS", C.P. # 26. ELEV. 337.57. LOCATED 575' LEFT OF CENTERLINE OF EAST PARK ROAD AT STA. 9+50

ALONG OLD R.R. R.O.W.



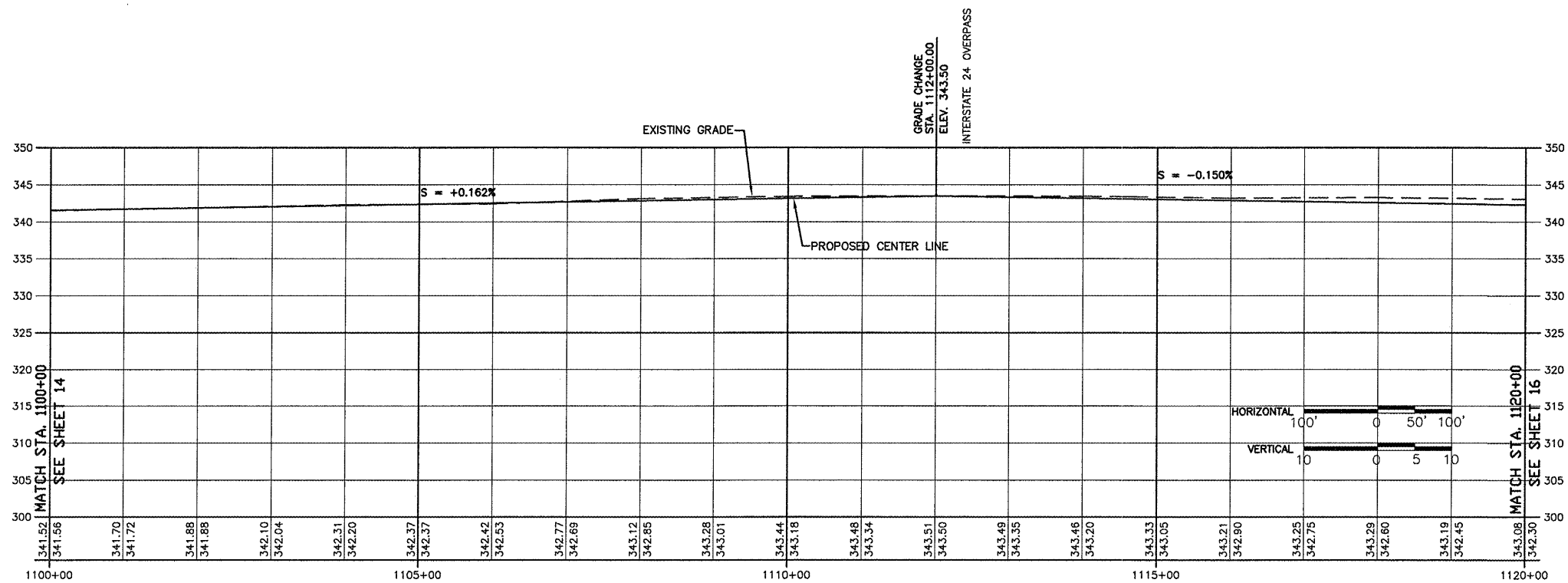
FROM STA. 1076+38 TO 1100+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	15
FROM STA. 1100+00 TO STA. 1120+00				
FEDERAL PROJECT NO. ARA-5045(009) CONTRACT NO. 99417				



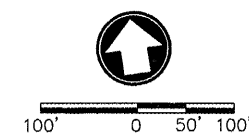
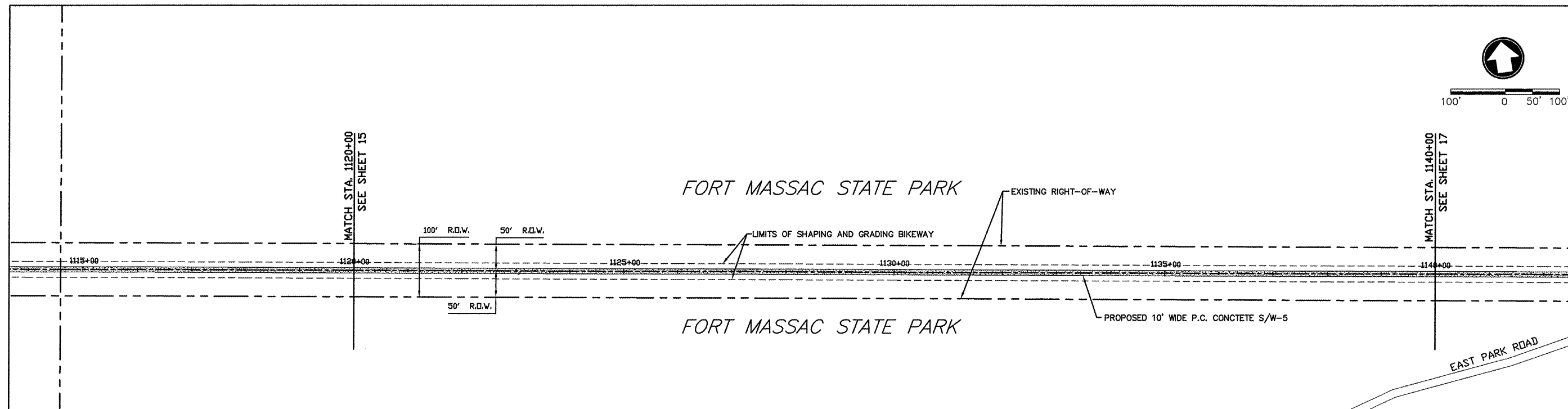
FOUR MILE CREEK BRIDGE (BM #44) DESCRIPTION:
 1/2" X 24" REBAR, WITH PLASTIC SURVEY CAP MARKED "CITY OF METROPOLIS". C.P. # 44. ELEV. 339.12. LOCATED 2' RIGHT OF CENTERLINE OF RAILROAD BED AT STA. 1059+73.16.

ALONG OLD R.R. R.O.W.



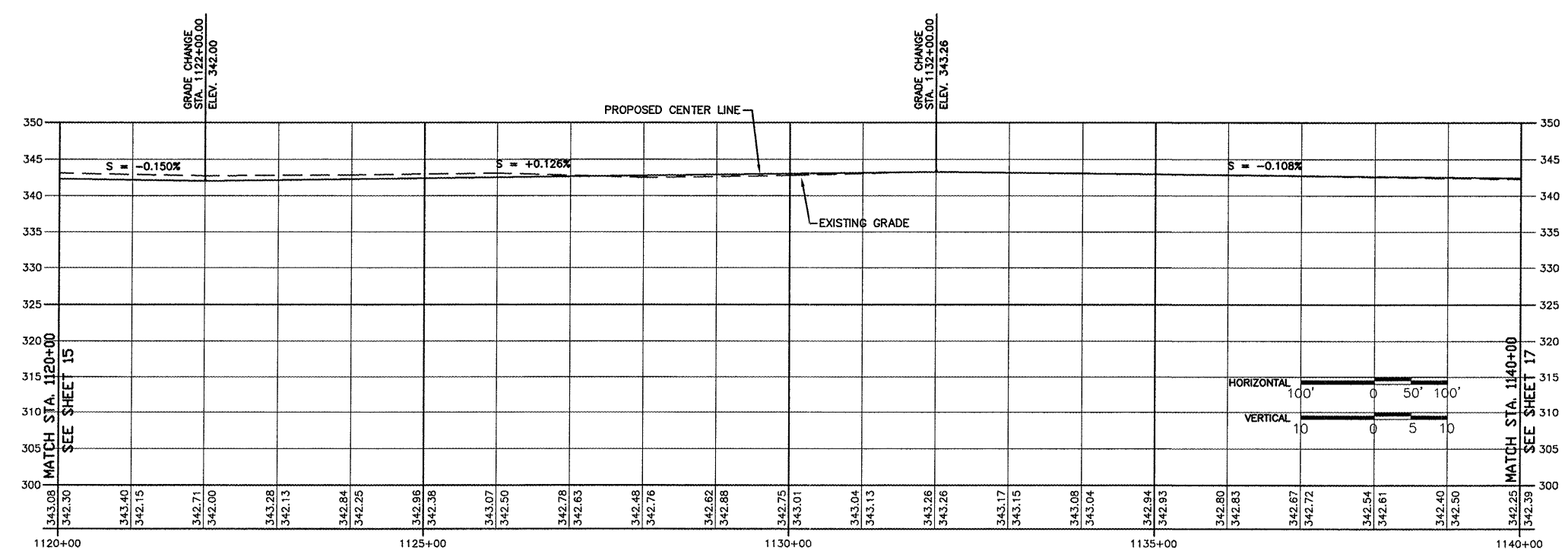
FROM STA. 1100+00 TO 1120+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	16
FROM STA. 1120+00 TO STA. 1140+00				
FEDERAL PROJECT NO. ARA-5045(009) CONTRACT NO. 99417				



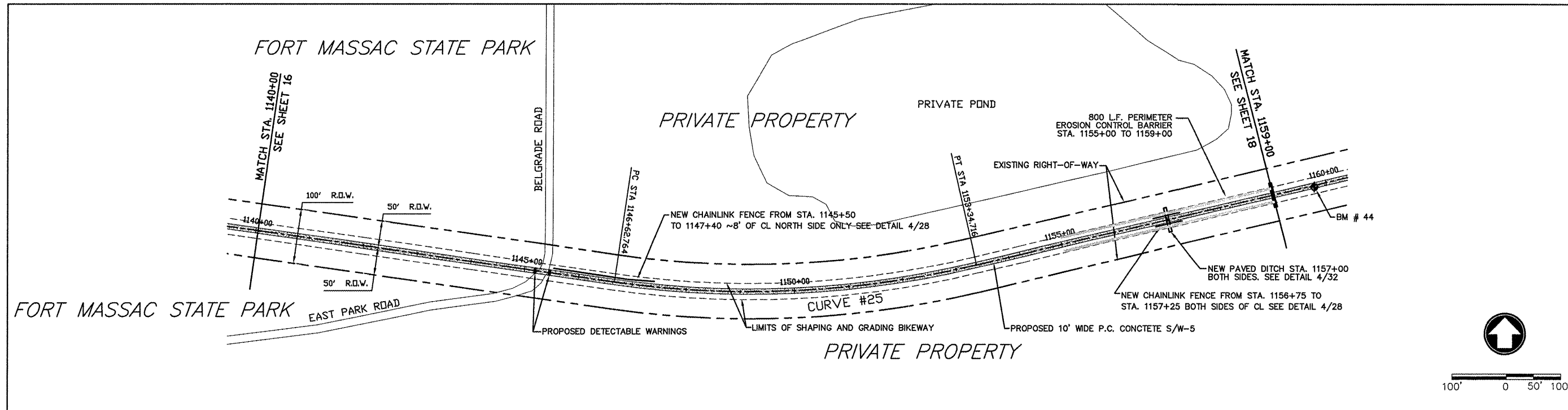
FOUR MILE CREEK BRIDGE (BM #44) DESCRIPTION:
 1/2" X 24" REBAR, WITH PLASTIC SURVEY CAP MARKED "CITY OF METROPOLIS", C.P. # 44. ELEV. 339.12. LOCATED 2' RIGHT OF CENTERLINE OF RAILROAD BED AT STA. 1059+73.16.

ALONG OLD R.R. R.O.W.



FROM STA. 1120+00 TO 1140+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT09-00038-00-BT	MASSAC	MASSAC	55	17
FROM STA. 1140+00 TO STA. 1159+00				
FEDERAL PROJECT NO. ARA-5045(009) CONTRACT NO. 99417				



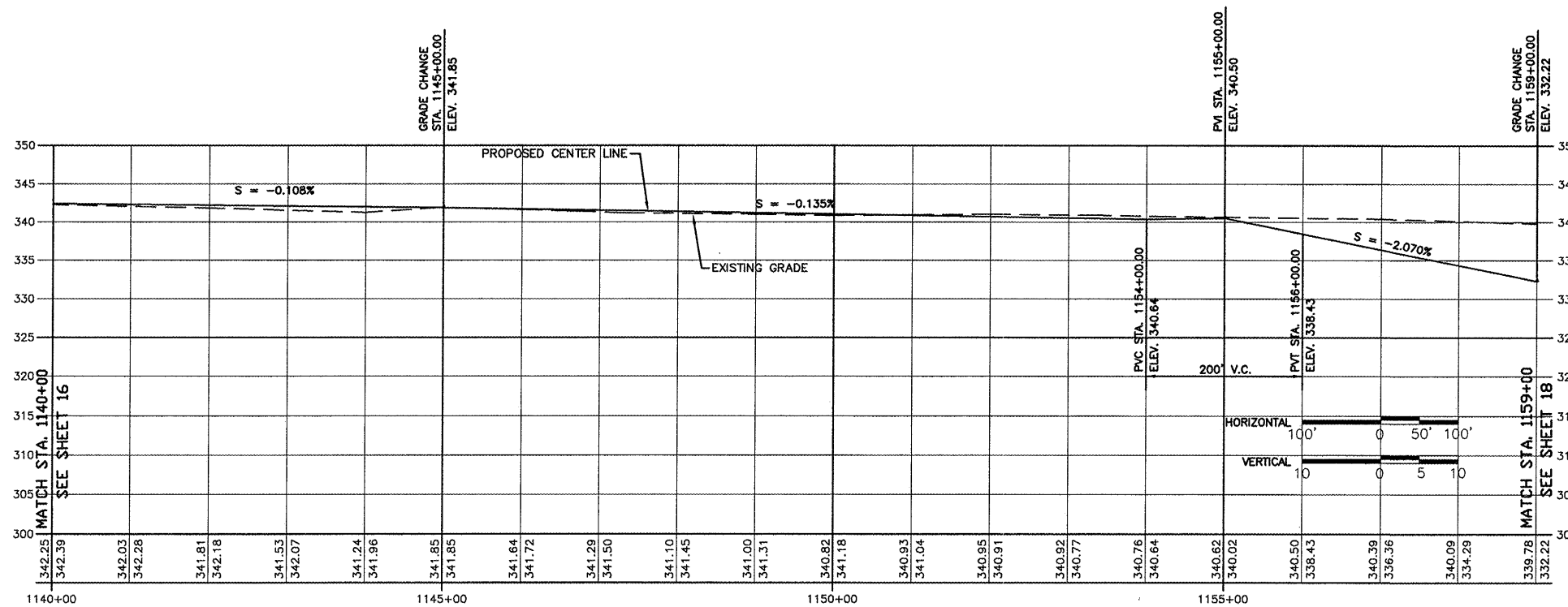
HORIZONTAL CURVE # 25 DATA

PI STA. = 1150+02.764 R = 1785.163
 PC STA. = 1146+62.764 T = 340.00
 PT STA. = 1153+34.716 L = 671.952
 DELTA = 21°34'00" E = 32.090

FOUR MILE CREEK BRIDGE (BM #44) DESCRIPTION:

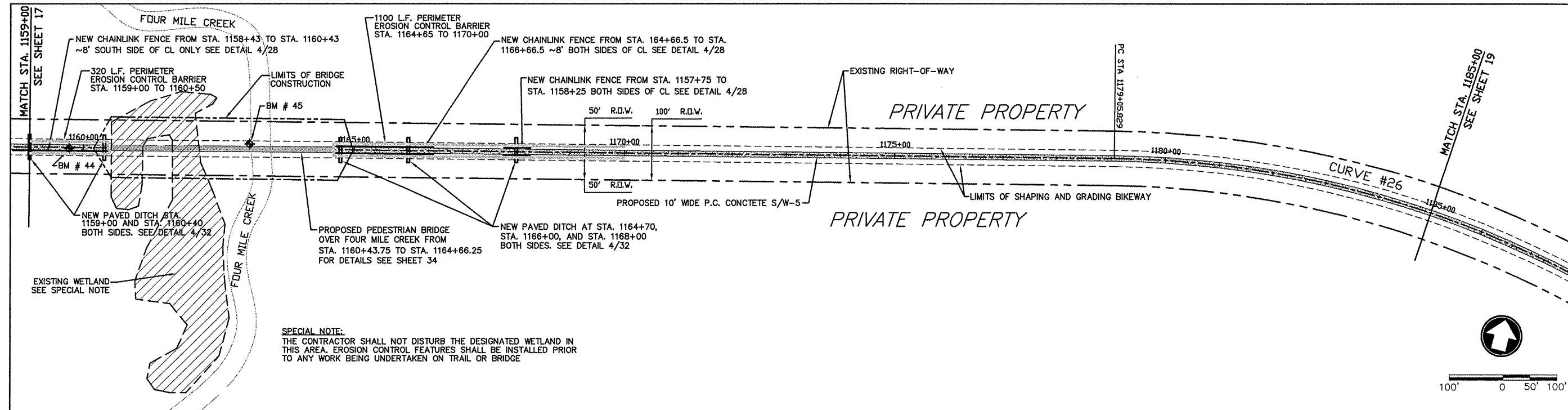
1/2" X 24" REBAR, WITH PLASTIC SURVEY CAP MARKED "CITY OF METROPOLIS", C.P. # 44. ELEV. 339.12. LOCATED 2' RIGHT OF CENTERLINE OF RAILROAD BED AT STA. 1059+73.16.

ALONG OLD R.R. R.O.W.



FROM STA. 1140+00 TO 1159+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	18
FROM STA. 1159+00 TO STA. 1185+00				
FEDERAL PROJECT NO. ARA-5045(009) CONTRACT NO. 99417				

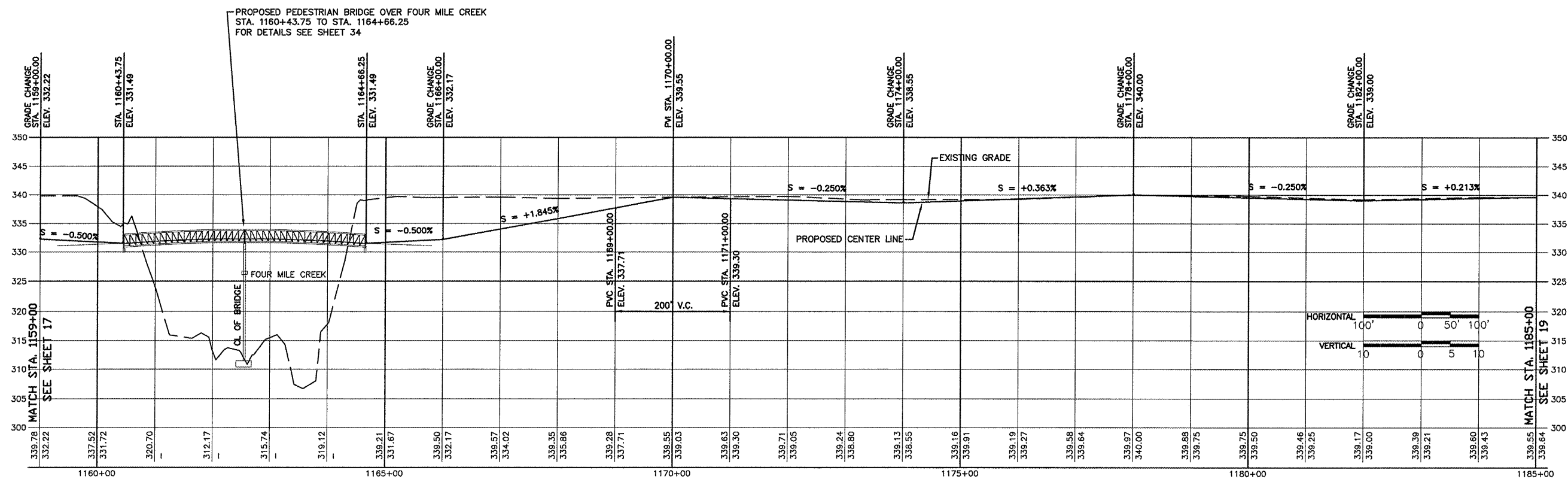


FOUR MILE CREEK BRIDGE (BM #44) DESCRIPTION:
 1/2" X 24" REBAR, WITH PLASTIC SURVEY CAP MARKED "CITY OF METROPOLIS", C.P. # 44. ELEV. 339.12. LOCATED 2' RIGHT OF CENTERLINE OF RAILROAD BED AT STA. 1059+73.16.

FOUR MILE CREEK BRIDGE (BM #45) DESCRIPTION:
 1/2" X 24" REBAR, WITH PLASTIC SURVEY CAP MARKED "CITY OF METROPOLIS", C.P. # 45. ELEV. 315.86. LOCATED 9' LEFT OF CENTERLINE OF RAILROAD BED AT STA. 1063+06.27.

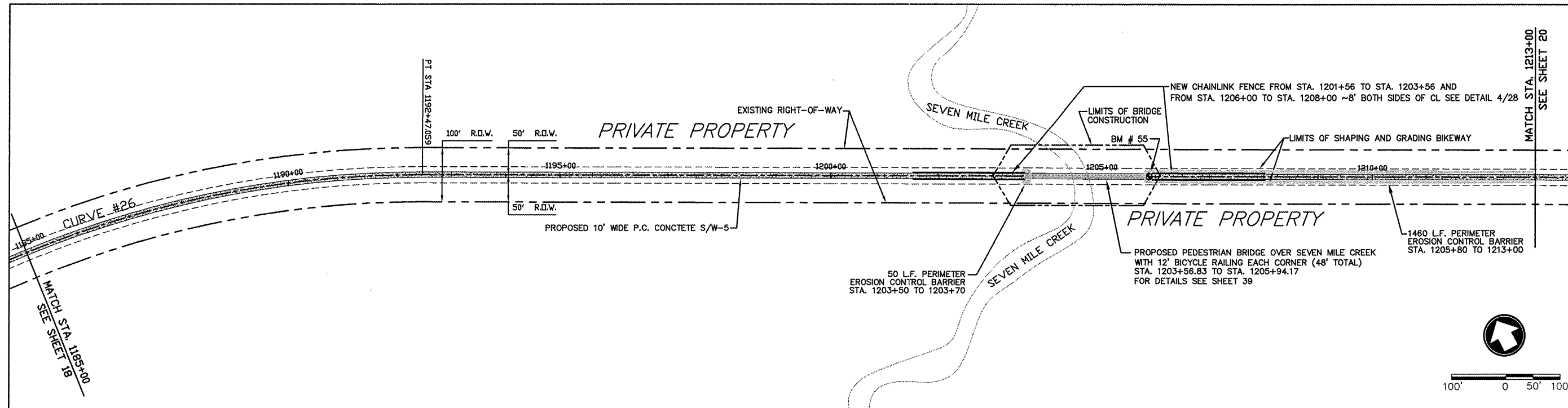
HORIZONTAL CURVE # 26 DATA
 PI STA. = 1186+05.829 R = 1897.672
 PC STA. = 1179+05.829 T = 700.000
 PT STA. = 1192+47.059 L = 1341.230
 DELTA = 40°29'43" E = 124.989

ALONG OLD R.R. R.O.W.



FROM STA. 1159+00 TO 1185+00

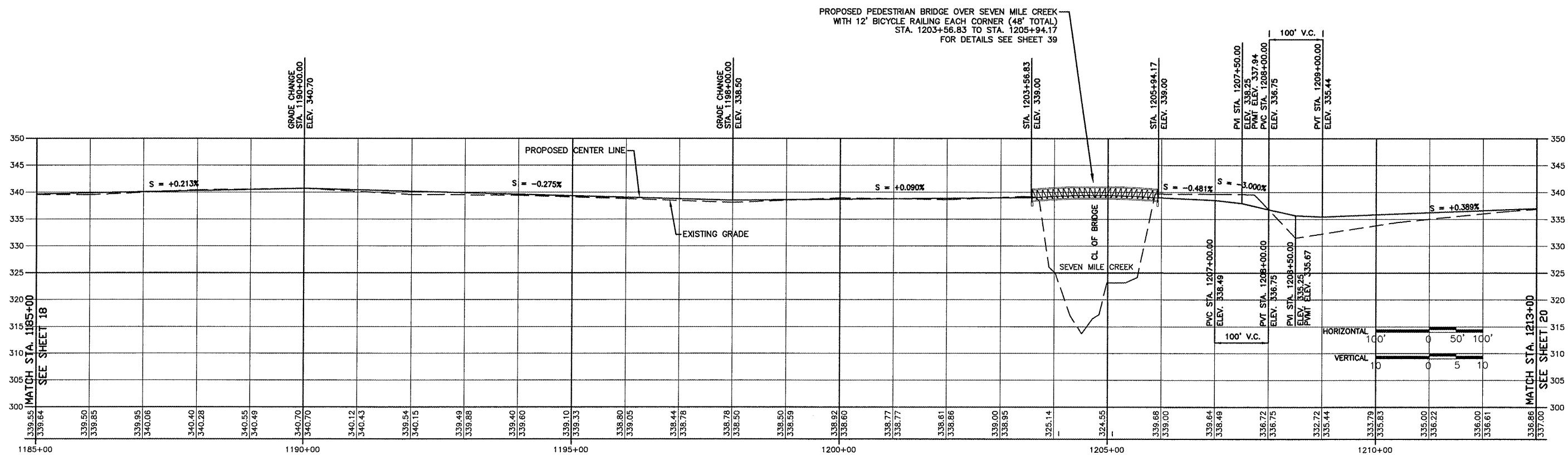
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	19
FROM STA. 1185+00 TO STA. 1213+00				
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	



HORIZONTAL CURVE # 26 DATA
 PI STA = 1186+05.829 R = 1897.672
 PC STA = 1179+05.829 T = 700.000
 PT STA = 1192+47.059 L = 1341.230
 DELTA = 40°29'43" E = 124.989

SEVEN MILE CREEK BRIDGE (BM #55) DESCRIPTION:
 1/2" X 24" REBAR, WITH PLASTIC SURVEY CAP MARKED "CITY OF METROPOLIS", C.P. (3-7) # 55, ELEV. 339.68, LOCATED ON CENTERLINE OF RAILROAD BED AT STA. 1205+87.88

ALONG OLD R.R. R.O.W.



FROM STA. 1185+00 TO 1213+00

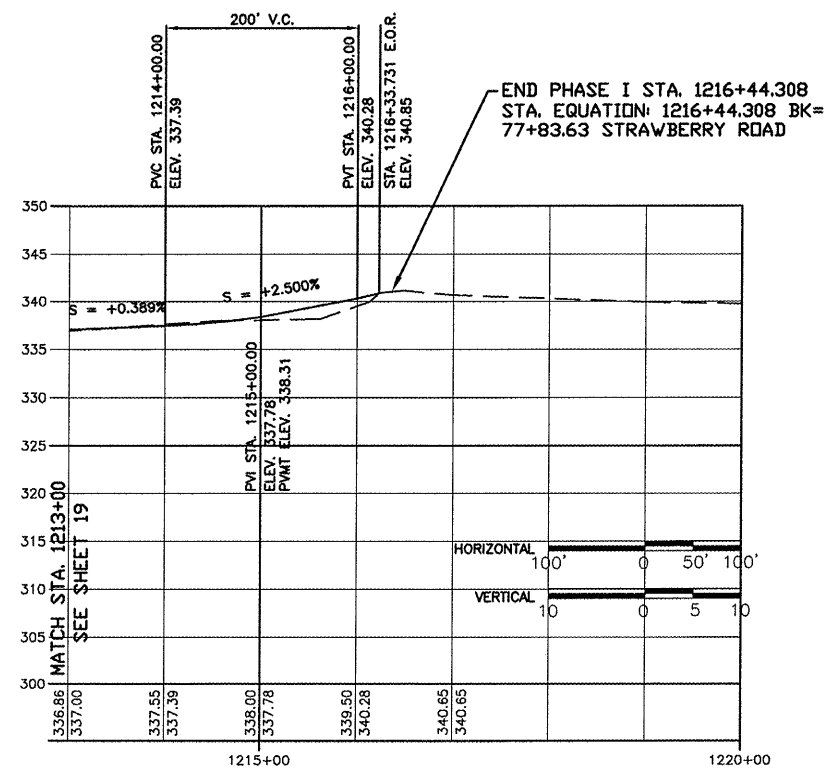
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	20
FROM STA. 1213+00 TO STA. 1216+44.308				
FEDERAL PROJECT NO. ARA-5045(009) CONTRACT NO. 99417				



HORIZONTAL CURVE # 27 DATA				HORIZONTAL CURVE # 28 DATA			
PT STA. = 1214+56.758	R = 55.000	PC STA. = 1214+41.881	T = 14.878	PT STA. = 1214+85.818	R = 55.000	PC STA. = 1214+70.940	T = 14.878
PT STA. = 1214+70.940	L = 29.060	DELTA = 30°16'22"	E = 1.977	PT STA. = 1215+00.000	L = 29.060	DELTA = 30°16'22"	E = 1.977

SEVEN MILE CREEK BRIDGE (BM #55) DESCRIPTION:
 1/2" X 24" REBAR, WITH PLASTIC SURVEY CAP MARKED "CITY OF METROPOLIS". C.P. (3-7)# 55. ELEV. 339.88. LOCATED ON CENTERLINE OF RAILROAD BED AT STA. 1205+87.88

STRAWBERRY ROAD (SOUTH)



FROM STA. 1213+00 TO 1216+44.308

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT09-00038-00-BT		MASSAC	55	21
FROM STA.		TO STA.		
FEDERAL PROJECT NO. ARA-5045(009)		CONTRACT NO. 99417		

STORM WATER POLLUTION PREVENTION PLAN

THE FOLLOWING PLAN IS ESTABLISHED AND INCORPORATED IN THE PROJECT TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE UNDER NPDES.

THE PURPOSE OF THIS PLAN IS TO MINIMIZE EROSION WITHIN THE CONSTRUCTION ZONE SITE AND TO LIMIT SEDIMENTS LEAVING THE CONSTRUCTION SITE BY UTILIZING PROPER TEMPORARY EROSION CONTROL SYSTEMS AND PROVIDING GROUND COVER WITHIN A REASONABLE AMOUNT OF TIME.

CERTAIN EROSION CONTROL FACILITIES SHALL BE INSTALLED BY THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION. OTHER ITEMS SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER ON A CASE BY CASE SITUATION DEPENDING ON THE CONTRACTORS SEQUENCE OF ACTIVITIES, TIME OF YEAR AND EXPECTED WEATHER CONDITIONS.

THE CONTRACTOR SHALL CONSTRUCT PERMANENT EROSION CONTROL SYSTEMS AND SEEDING WITHIN A TIME FRAME SPECIFIED HEREIN AND AS DIRECTED BY THE ENGINEER, THEREFORE MINIMIZING THE AMOUNT OF AREA SUSCEPTIBLE TO EROSION AND REDUCING THE AMOUNT OF TEMPORARY SEEDING. THE ENGINEER WILL DETERMINE IF ANY TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLANS CAN BE DELETED AND IF ANY ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS, WHICH ARE NOT INCLUDED IN THE PLANS, SHALL BE ADDED. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN IN STANDARD 280001.

SECTION 280, TEMPORARY EROSION CONTROL, OF THE STANDARD SPECIFICATIONS ADDITIONALLY SUPPLEMENTS THIS PLAN.

DESCRIPTION OF CONSTRUCTION ACTIVITIES

1. TEMPORARY DITCH CHECKS SHALL BE LOCATED AT EVERY 1.5 FEET OF FALL/RISE IN DITCH GRADE.

INDENTED SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES

1. SELECTED CLEARING AND TREE REMOVAL. TREES TO REMAIN WILL BE PROTECTED AGAINST DAMAGE.
2. STORM SEWERS, CATCH BASINS, CULVERTS AND DRAINAGE STRUCTURES.
3. EXCAVATION AND GRADING.
4. CONSTRUCTION OF PEDESTRIAN BRIDGES/MODIFICATIONS TO EXISTING BRIDGE.
5. PLACEMENT OF AGGREGATE COURSE.
6. PLACEMENT OF HMA OVERLAYS AND PAVEMENTS
7. PLACEMENT OF P.C. CONCRETE PAVEMENTS.
8. FINAL CLEANUP, LANDSCAPING, SEEDING AND PERMANENT EROSION CONTROL SYSTEMS.

AREA OF CONSTRUCTION SITE

1. THE TOTAL AREA OF CONSTRUCTION SITE IS ESTIMATED TO BE 14 ACRES OF WHICH APPROXIMATELY 7.5 ACRES WILL BE DISTURBED.

OTHER REPORTS, STUDIES, AND PLANS WHICH AID IN THE DEVELOPMENT OF THE SWPPP AS REFERENCED DOCUMENTS

1. INFORMATION OF THE TERRAIN WAS OBTAINED FROM THE TOPOGRAPHIC MAPS.
2. PROJECT PLAN DOCUMENTS, SPECIFICATIONS, AND SPECIAL PROVISIONS AND PLAN DRAWINGS INDICATING THE DRAINAGE PATTERNS AND LOCATION OF EXISTING DRAINAGE FEATURES WERE UTILIZED IN THE PREPARATION OF THE PROPOSED PLACEMENT OF TEMPORARY EROSION SYSTEMS.

DRAINAGE TRIBUTARIES AND SENSITIVE AREAS RECEIVING RUNOFF

1. PROPOSED STORM SEWER OUTLETS ARE TRIBUTARY TO EXISTING ROADSIDE DITCHES. NO NEW DISCHARGE POINTS WILL BE CONSTRUCTED.

CONTROLS – EROSION CONTROLS AND SEDIMENT CONTROLS

1. EXISTING VEGETATION WILL BE PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE WILL BE STABILIZED. STABILIZATION PRACTICES WILL INCLUDE TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, PROTECTION OF TREES, PRESERVATION OF MATURE VEGETATION AND OTHER APPROPRIATE MEASURES AS DIRECTED BY THE ENGINEER. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN THOSE AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE CEASED, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY FOR AN AREA HAS TEMPORARILY OR PERMANENTLY CEASED.
2. AREAS OUTSIDE THE CONSTRUCTION LIMITS SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES.
3. DEAD, DISEASED OF UNSUITABLE VEGETATION WITHIN THE SITE SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
4. AS SOON AS IS REASONABLE, THE TEMPORARY EROSION CONTROL SYSTEM SHALL BE INSTALLED AS INDICATED IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

THIS PLAN HAS BEEN PREPARED WITH THE INTENT TO COMPLY WITH THE PROVISIONS OF THE NPDES PERMIT NUMBER ILR10, ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES.

I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AT MY DIRECTION IN ACCORDANCE WITH A SYSTEM THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBLY OF FINE AND IMPRISONMENT.


 HON. BILLY McDANIEL, CITY OF METROPOLIS

DECEMBER 03, 2009

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	22
FROM STA.		TO STA.		
FEDERAL PROJECT NO. ARA-5045(009)				CONTRACT NO. 99417

DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION

1. DURING CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION LIMITS SHALL BE PROTECTED.
2. WITHIN THE CONSTRUCTION LIMITS, AREAS WHICH MAY BE SUSCEPTIBLE TO EROSION AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY.
3. EARTH STOCKPILES SHALL BE TEMPORARY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN 14 DAYS.
4. AS SOON AS CONSTRUCTION PROCEEDS, THE CONTRACTOR SHALL INSTITUTE THE FOLLOWING AS DIRECTED BY THE ENGINEER:
 - A) PLACE TEMPORARY EROSION CONTROL FACILITIES AT LOCATIONS SHOWN IN THE PLANS.
 - B) TEMPORARY SEED ERODIBLE BARE EARTH ON A WEEKLY BASIS TO MINIMIZE THE AMOUNT OF ERODIBLE SURFACE AREA WITHIN THE CONTRACT LIMITS.
 - C) CONSTRUCT ROADSIDE DITCHES AND PROVIDE TEMPORARY EROSION CONTROL SYSTEMS.
 - D) TEMPORARILY DIVERT WATER AROUND PROPOSED CULVERT LOCATIONS.
5. EXCAVATED AREAS SHALL BE PERMANENTLY SEEDED IMMEDIATELY AFTER FINAL GRADING. IF NOT, THEY SHALL BE TEMPORARILY SEEDED IF NO CONSTRUCTION IN THE AREA IS PLANNED FOR 7 DAYS.
6. ALL NECESSARY MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO CONTAIN FUEL OR POLLUTION IN ACCORDANCE WITH EPA WATER QUALITY REGULATIONS. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.
7. THE RESIDENT ENGINEER SHALL INSPECT THE PROJECT DAILY DURING CONSTRUCTION ACTIVITIES. INSPECTION SHALL ALSO BE DONE WEEKLY AND AFTER RAINS OF 0.5 INCHES OR GREATER OR EQUIVALENT SNOWFALL AND DURING ANY WINTER SHUTDOWN PERIOD.
8. SEDIMENT COLLECTED DURING THE CONSTRUCTION BY THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON SITE ON A REGULAR BASIS AS DIRECTED BY THE RESIDENT ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE CONSIDERED INCIDENTAL TO THE EROSION CONTROL SYSTEM.
9. THE TEMPORARY EROSION CONTROL SYSTEMS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER USE IS NO LONGER NEEDED OR NO LONGER FUNCTIONING. THE COST OF REMOVAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR VARIOUS TEMPORARY EROSION CONTROL PAY ITEMS.

DESCRIPTION OF STRUCTURAL PRACTICES AFTER FINAL GRADING

1. TEMPORARY SEEDING SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL AND ALL PROPOSED TURF AREAS SEEDED AND ESTABLISHED.
2. ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP AND DISTURBED TURF AREAS RESEDED.

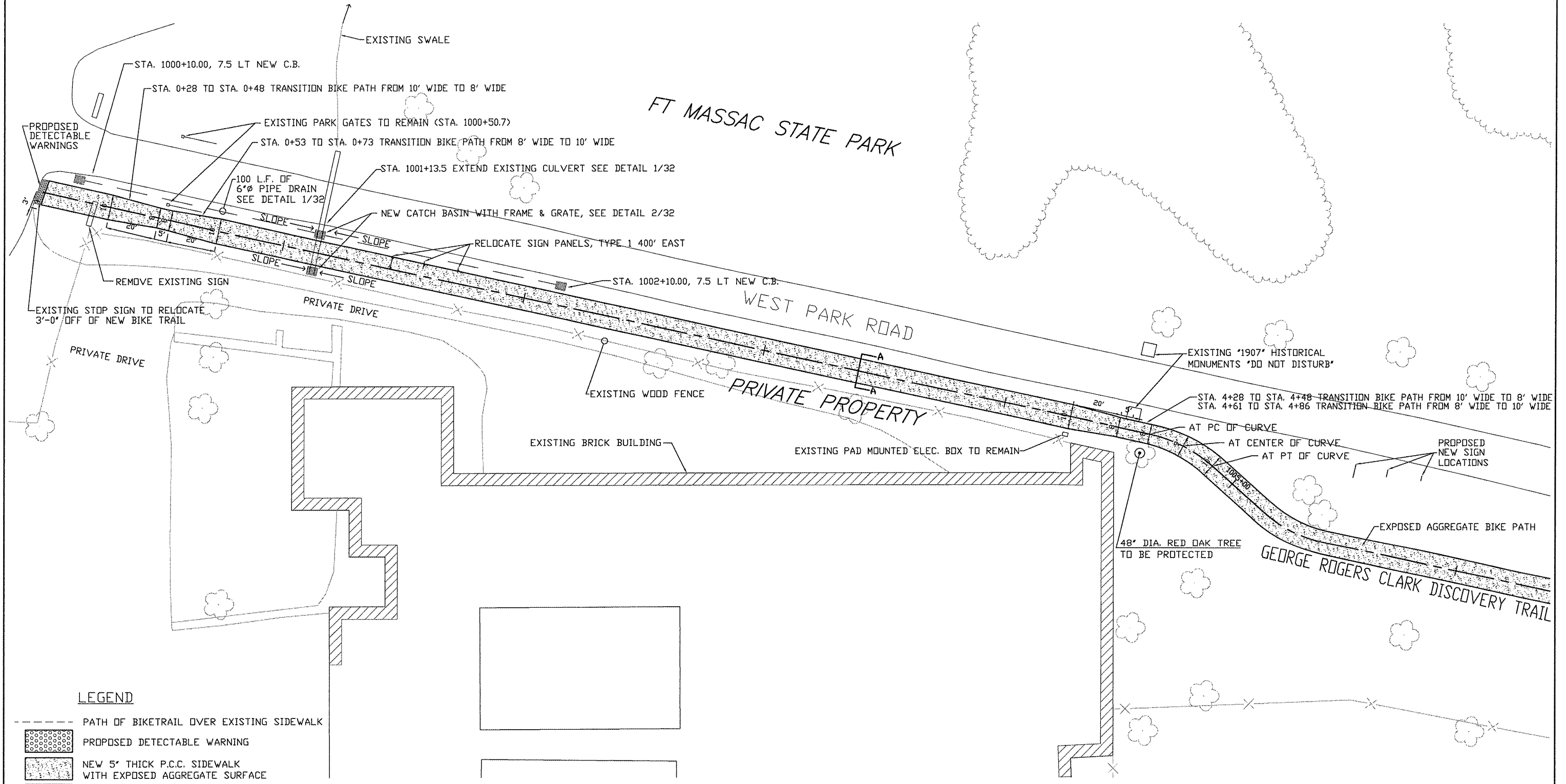
MAINTENANCE AFTER CONSTRUCTION

1. CONTRACTOR IS COMPLETE AFTER FINAL ACCEPTANCE BY I.D.O.T. FINAL INSPECTION. MAINTENANCE UP TO THIS DATE WILL BE BY THE CONTRACTOR.

MISCELLANEOUS

1. TEMPORARY DITCH CHECKS SHALL BE LOCATED AT EVERY 1.5 FEET OF FALL/RISE IN DITCH GRADE.
2. TEMPORARY EROSION CONTROL SEEDING SHALL BE APPLIED AT THE RATE OF 100 LBS/ACRE.
3. STRAW BALES, HAY BALES, PERIMETER EROSION CONTROL BARRIER AND SILT FENCES WILL NOT BE PERMITTED FOR TEMPORARY OR PERMANENT DITCH CHECKS. DITCH CHECKS SHALL BE COMPOSED OR AGGREGATE, SILT PANELS, ROLLED EXCELSIOR, URETHANE FOAM GEOTEXTILE (SILT WEDGES) AND/OR OTHER MATERIAL APPROVED BY THE EROSION AND SEDIMENT CONTROL COORDINATOR.
4. ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLAN. PRIOR TO THE APPROVAL AND USE OF THE PRODUCT. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A NOTARIZED CERTIFICATION BY THE PRODUCER STATING THE INTENDED USE OF THE PRODUCT AND PHYSICAL PROPERTIES REQUIRED FOR THIS APPLICATION ARE MET OR EXCEEDED. THE CONTRACTOR SHALL PROVIDE MANUFACTURER INSTALLED PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.
5. ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER. MAINTENANCE AND CLEANING OF EROSION CONTROL ITEMS SHALL BE CONSIDERED PART OF THE RESPECTIVE EROSION CONTROL PAY ITEM.

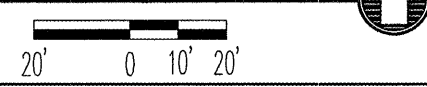
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT09-00038-00-BT		MASSAC	55	23
FROM STA. 999+98 TO STA. 1006+00				
FEDERAL PROJECT NO. ARA-5045(009) CONTRACT NO. 99417				



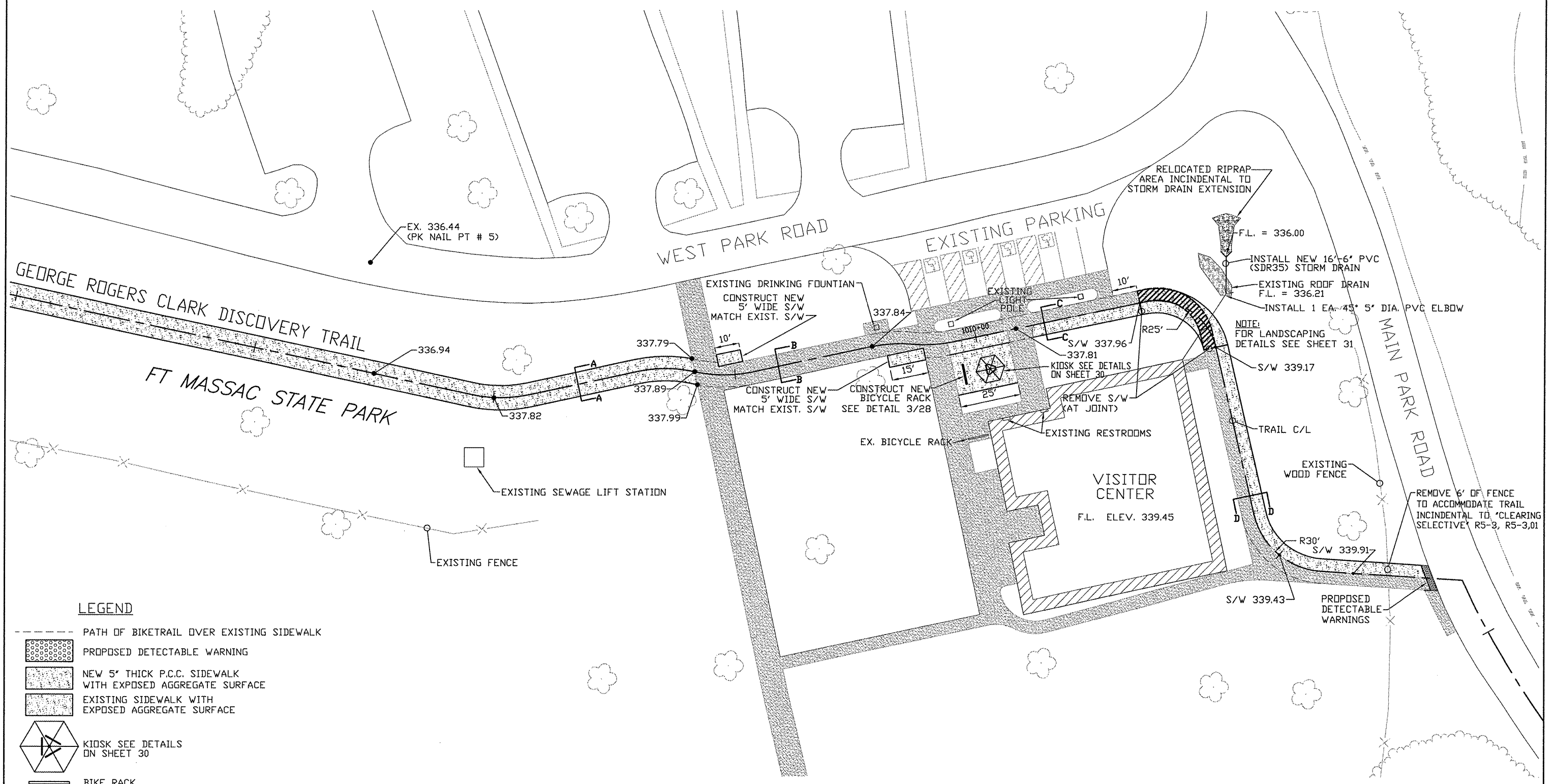
LEGEND

- PATH OF BIKETRAIL OVER EXISTING SIDEWALK
- PROPOSED DETECTABLE WARNING
- NEW 5" THICK P.C.C. SIDEWALK WITH EXPOSED AGGREGATE SURFACE
- EXISTING SIDEWALK WITH EXPOSED AGGREGATE SURFACE
- SECTION, SEE TYPICAL SECTION ON SHEET 4
- EXISTING TREE TO REMAIN

1 FORT MASSAC PARK AT WEST ROAD ENTRANCE DETAIL



ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT09-00038-00-BT	MASSAC	55	24	
FROM STA. 1006+00 TO STA. 1013+00				
FEDERAL PROJECT NO. ARA-5048(009) CONTRACT NO. 99417				



LEGEND

- PATH OF BIKE TRAIL OVER EXISTING SIDEWALK
- PROPOSED DETECTABLE WARNING
- NEW 5" THICK P.C.C. SIDEWALK WITH EXPOSED AGGREGATE SURFACE
- EXISTING SIDEWALK WITH EXPOSED AGGREGATE SURFACE
- KIOSK SEE DETAILS ON SHEET 30
- BIKE RACK
- SECTION, SEE TYPICAL SECTION ON SHEET 4
- EXISTING TREE TO REMAIN

1 FORT MASSAC PARK VISITOR CENTER
1 TRAIL AND KIOSK DETAIL

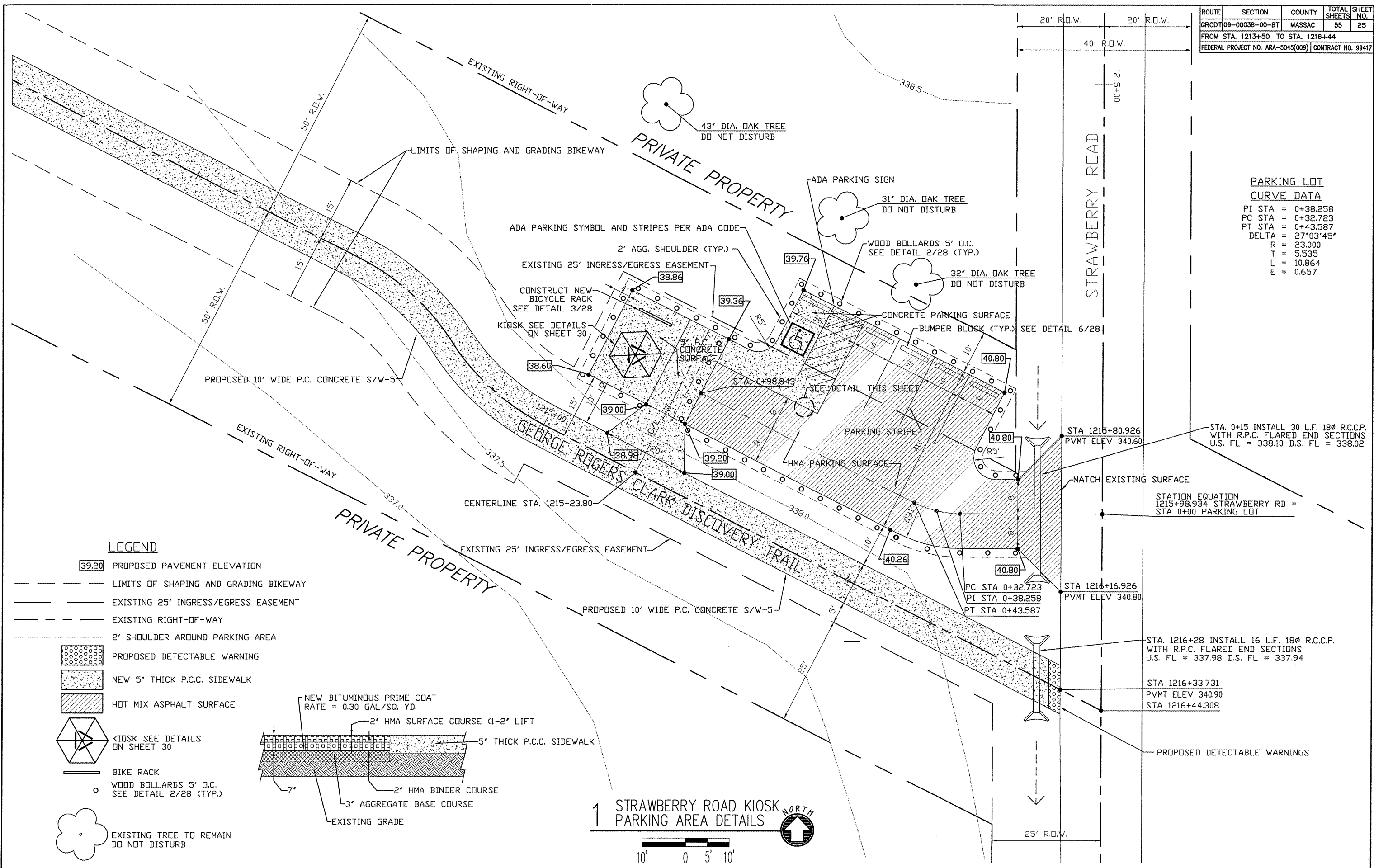
NORTH

20' 0 10' 20'

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT 09-00038-00-BT		MASSAC	55	25
FROM STA. 1213+50 TO STA. 1216+44				
FEDERAL PROJECT NO. ARA-5045(009) CONTRACT NO. 99417				

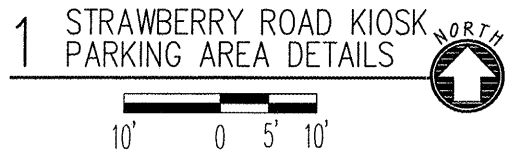
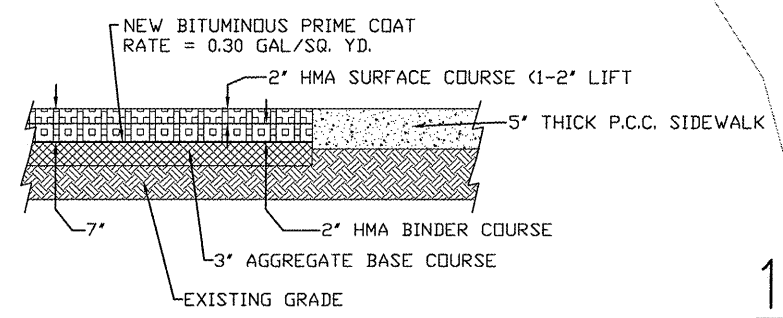
PARKING LOT CURVE DATA

PI STA. = 0+38.258
 PC STA. = 0+32.723
 PT STA. = 0+43.587
 DELTA = 27°03'45"
 R = 23.000
 T = 5.535
 L = 10.864
 E = 0.657



LEGEND

- 39.20 PROPOSED PAVEMENT ELEVATION
- LIMITS OF SHAPING AND GRADING BIKEWAY
- EXISTING 25' INGRESS/EGRESS EASEMENT
- EXISTING RIGHT-OF-WAY
- 2' SHOULDER AROUND PARKING AREA
- PROPOSED DETECTABLE WARNING
- NEW 5" THICK P.C.C. SIDEWALK
- HOT MIX ASPHALT SURFACE
- KIOSK SEE DETAILS ON SHEET 30
- BIKE RACK
- WOOD BOLLARDS 5' O.C. SEE DETAIL 2/28 (TYP.)
- EXISTING TREE TO REMAIN DO NOT DISTURB



STA. 0+15 INSTALL 30 L.F. 18" R.C.C.P. WITH R.P.C. FLARED END SECTIONS U.S. FL = 338.10 D.S. FL = 338.02

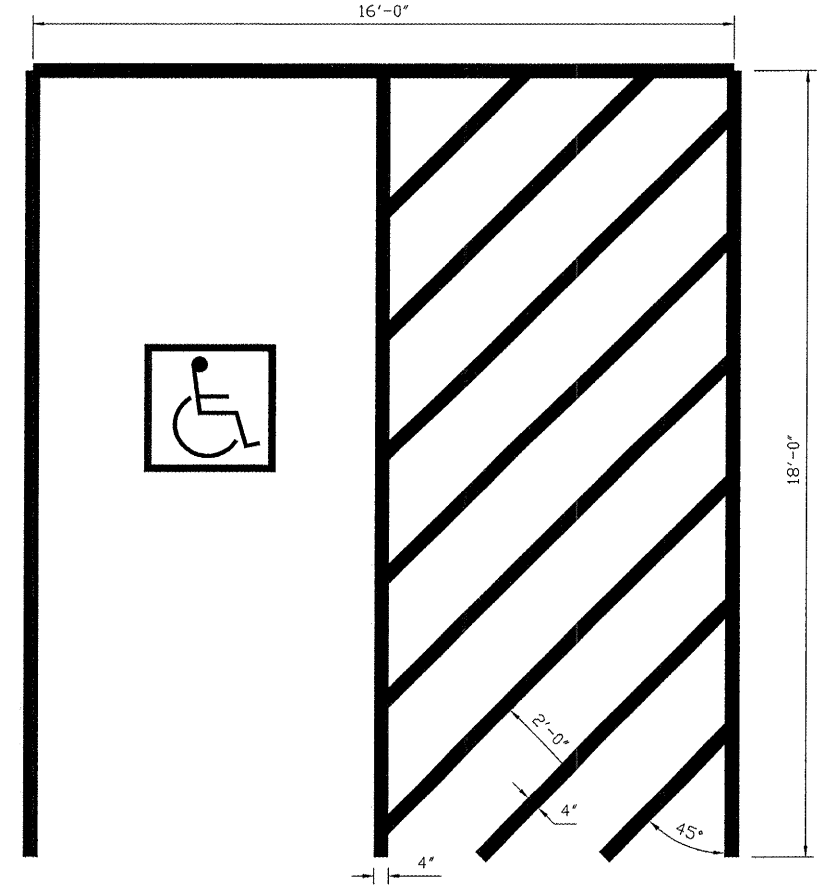
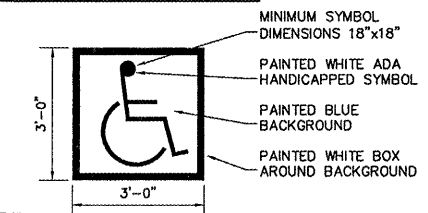
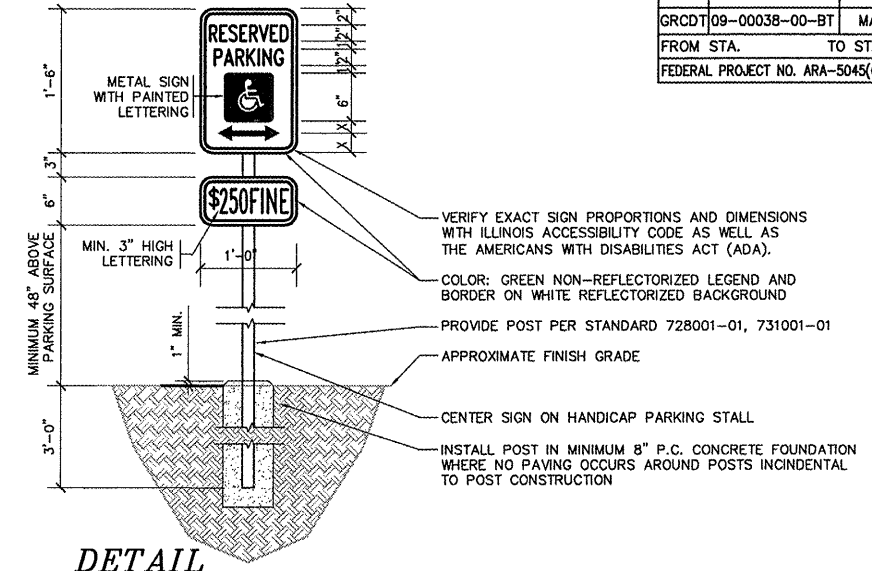
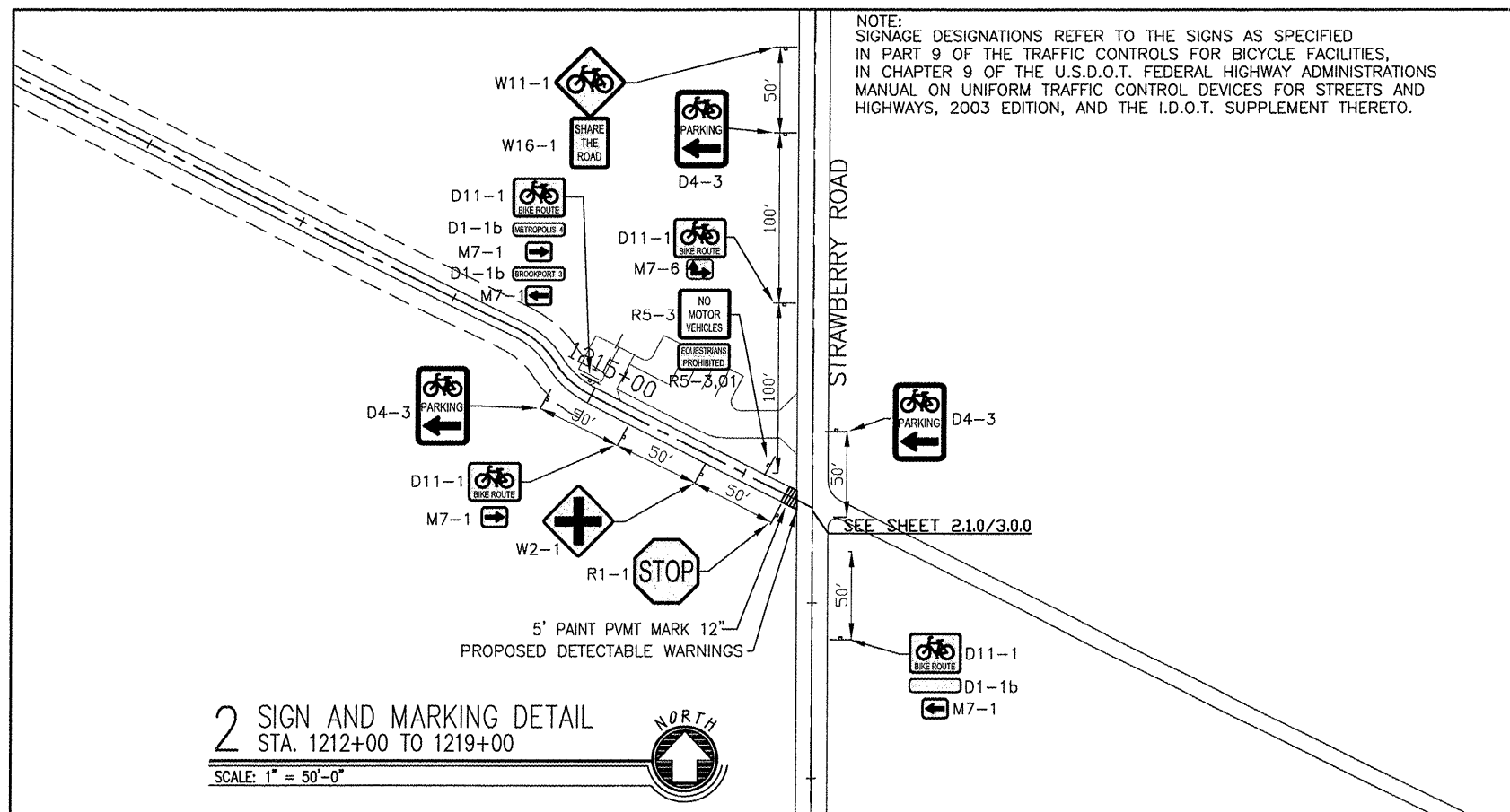
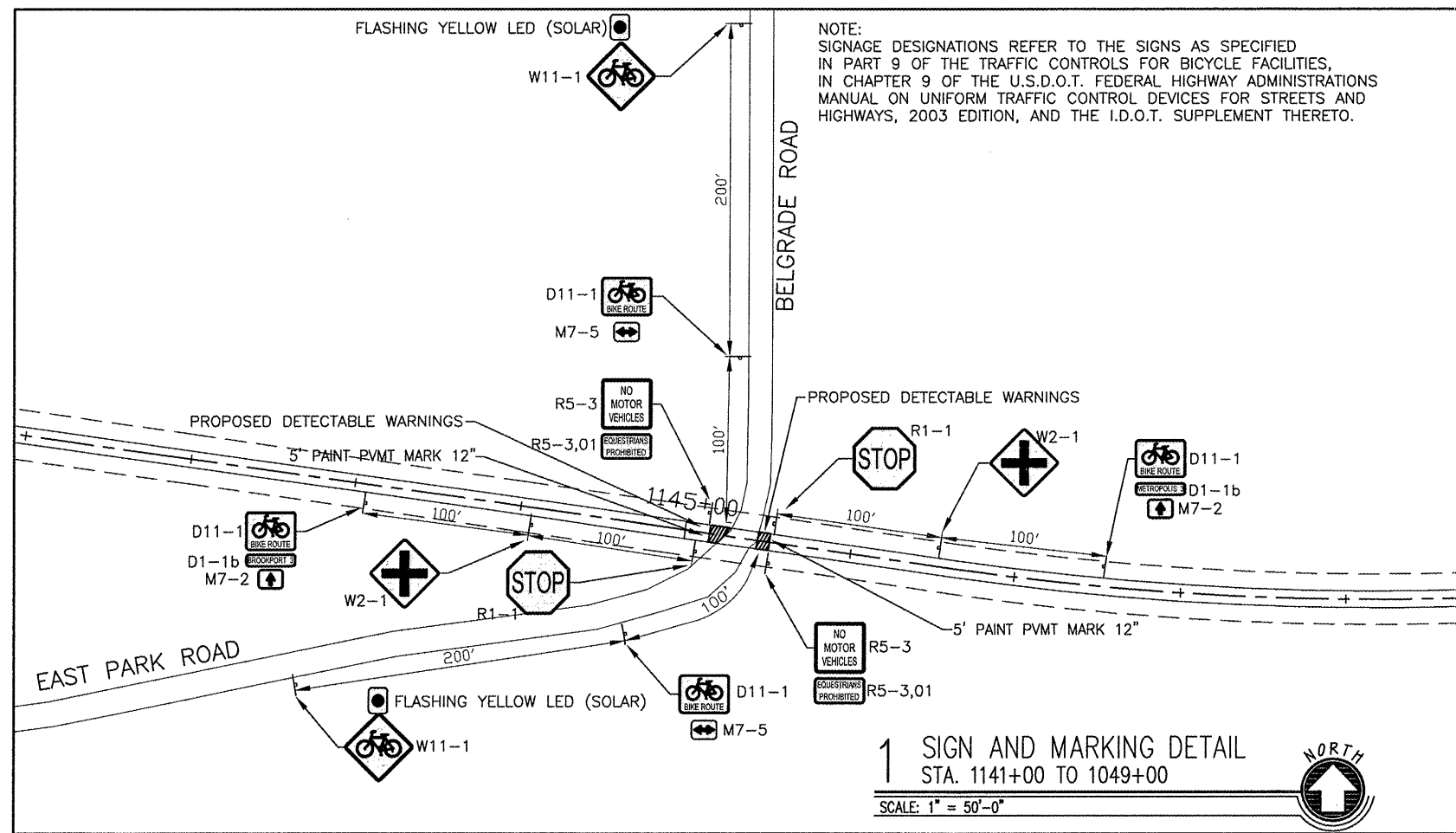
STATION EQUATION
 1215+98.934 STRAWBERRY RD =
 STA 0+00 PARKING LOT

STA. 1216+28 INSTALL 16 L.F. 18" R.C.C.P. WITH R.P.C. FLARED END SECTIONS U.S. FL = 337.98 D.S. FL = 337.94

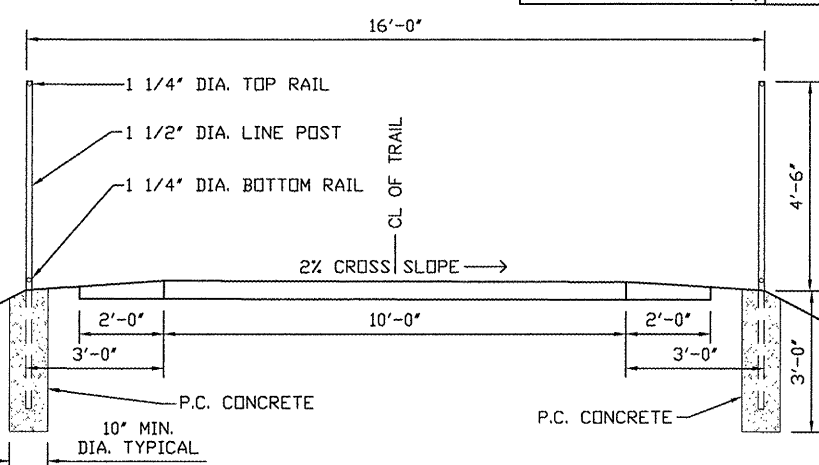
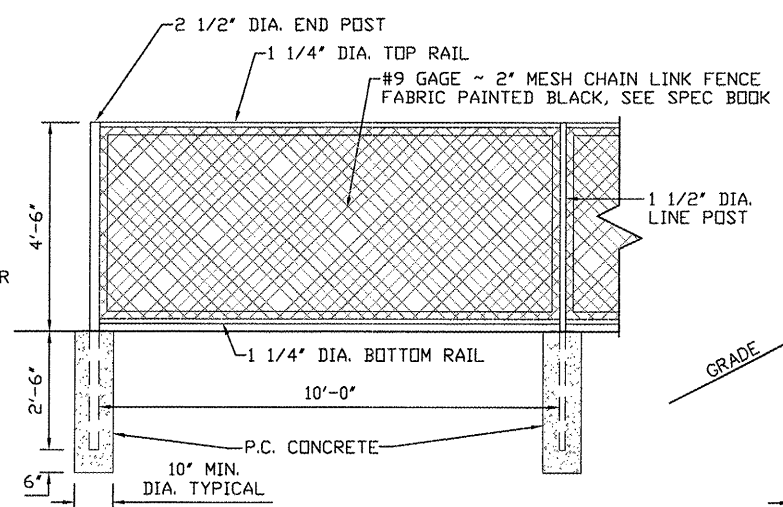
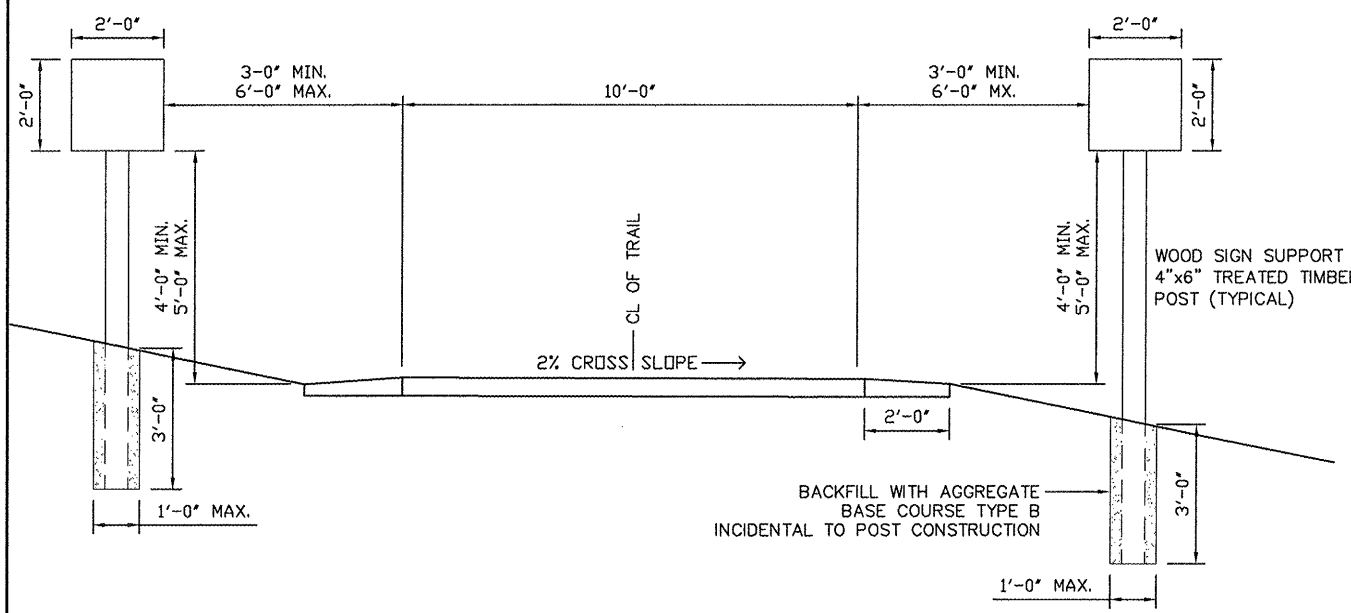
STA 1216+33.731
 PVMT ELEV 340.90
 STA 1216+44.308

PROPOSED DETECTABLE WARNINGS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT09-00038-00-BT		MASSAC	55	27
FROM STA.		TO STA.		
FEDERAL PROJECT NO. ARA-5045(009) CONTRACT NO. 99417				



ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT09-00038-00-BT		MASSAC	55	28
FROM STA.	TO STA.			
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	



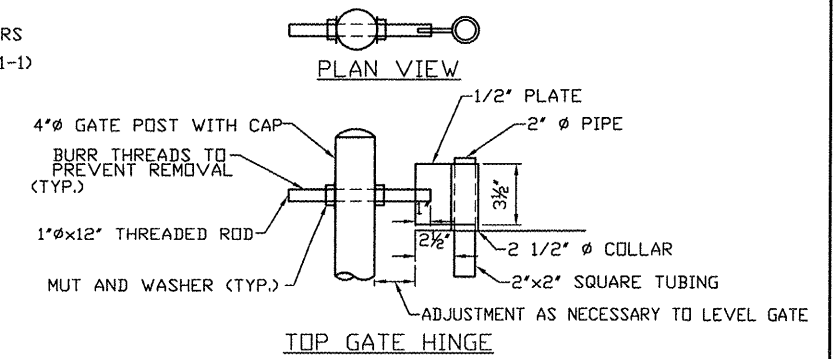
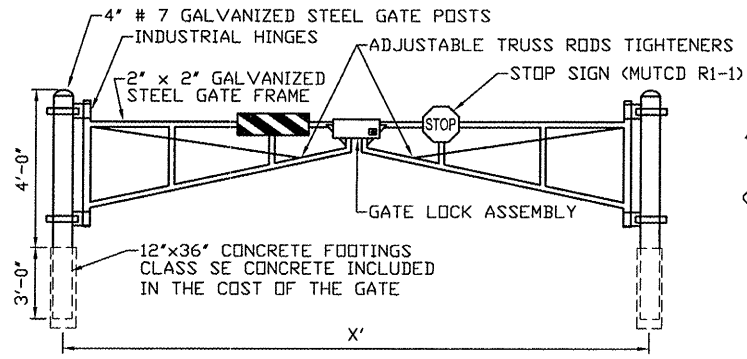
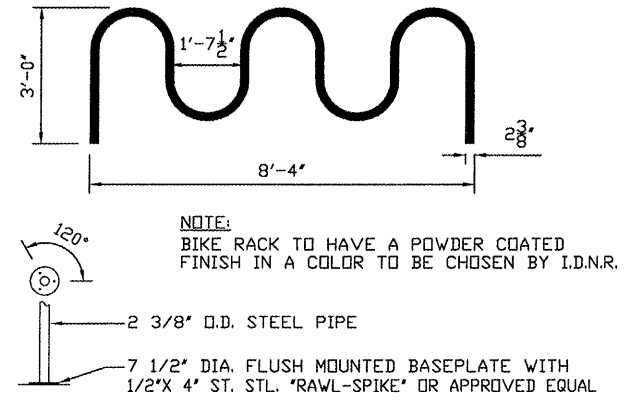
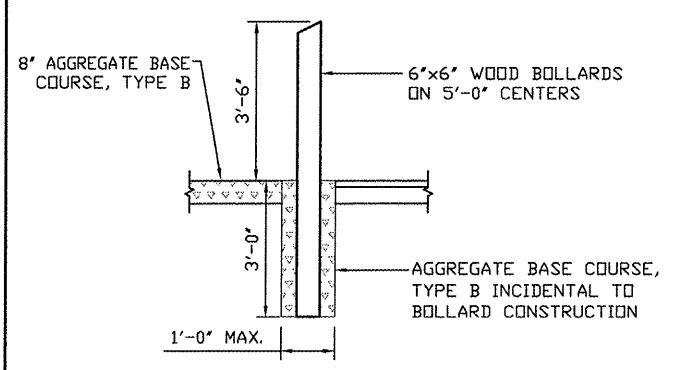
PROFILE **SECTION**

BICYCLE SAFETY FENCING NOTES:

1. ALL CONCRETE SHALL BE CLASS "S1" PER SECTION 1020.
2. FITTINGS SHALL BE HEAVY DUTY.
3. END POSTS SHALL BE 2 1/2" DIA.
4. ALL POSTS SHALL BE CAPPED.
5. CONSTRUCTION AND MATERIALS SHALL CONFORM TO SECTIONS 664, 1006.26, 1006.27, AND 1006.28

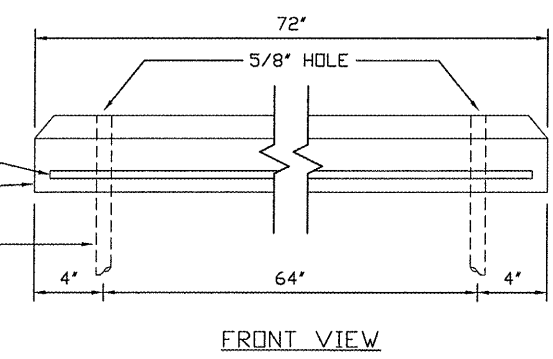
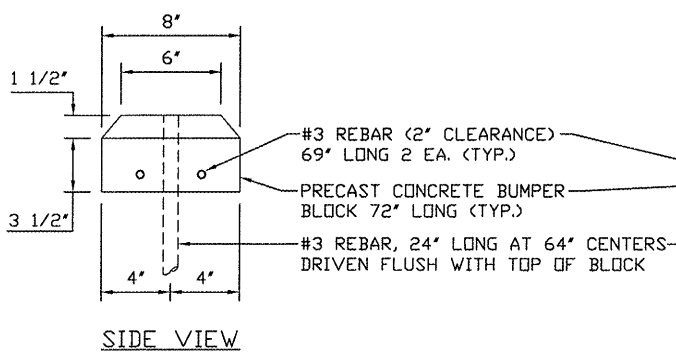
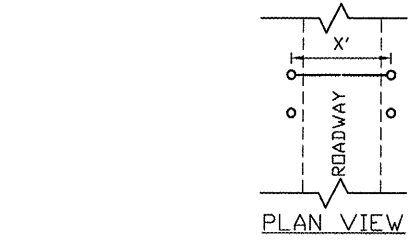
1 **DETAIL SIGN PLACEMENT ON TWO-WAY SHARED USE PATH**
SCALE: N.T.S.

4 **DETAIL CHAINLINK FENCE 4'-0"**
SCALE: N.T.S.

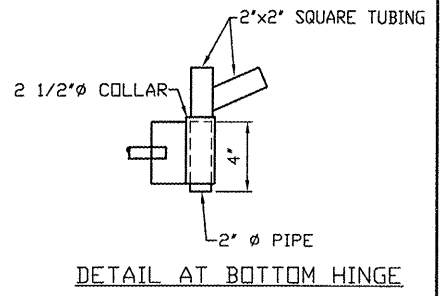
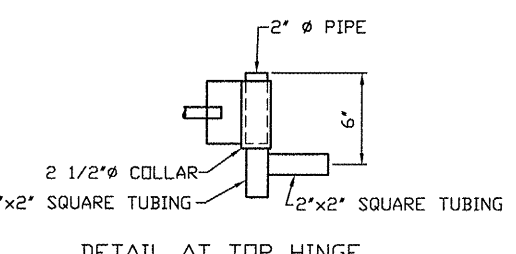
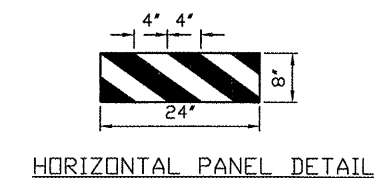
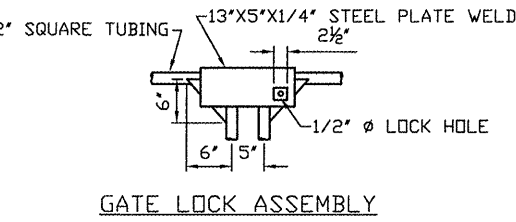
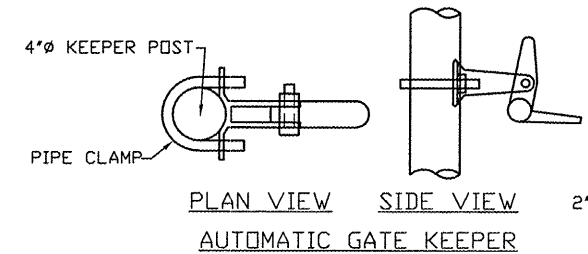


2 **DETAIL WOOD BOLLARD**
SCALE: N.T.S.

3 **DETAIL BIKE RACK**
SCALE: N.T.S.



5 **DETAIL- PRECAST CONC. BUMPER BLOCK**
SCALE: N.T.S.

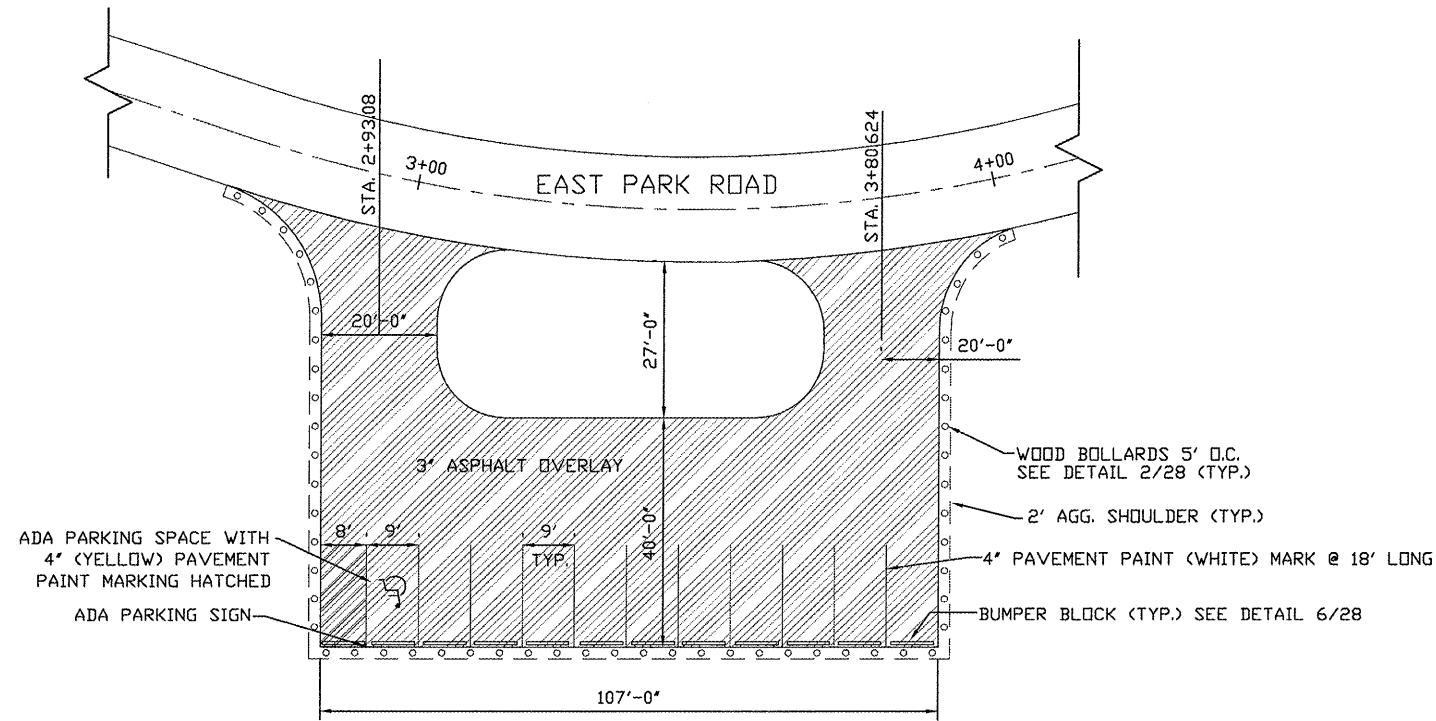


6 **DETAIL PIPE GATE**
SCALE: N.T.S.

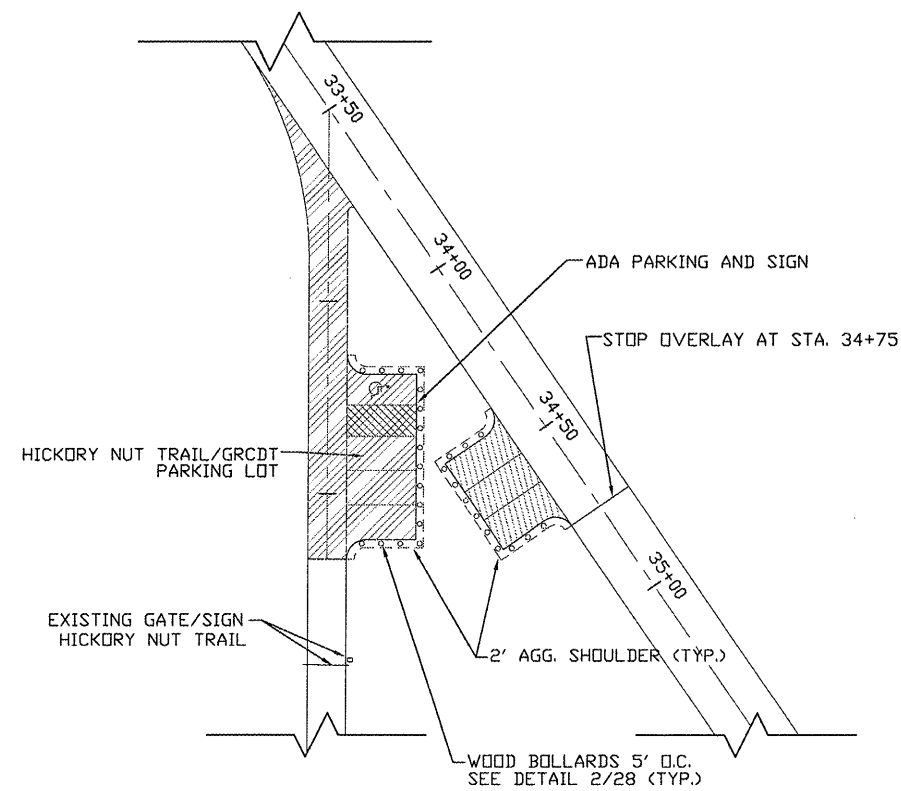
NOTE:

1. DIMENSIONAL AND REINFORCEMENT CHANGES WILL BE PERMITTED UPON PRIOR WRITTEN APPROVAL OF THE ENGINEER.
2. UNLESS OTHERWISE NOTED, CONCRETE SHALL BE PER THE STANDARD SPECIFICATIONS.

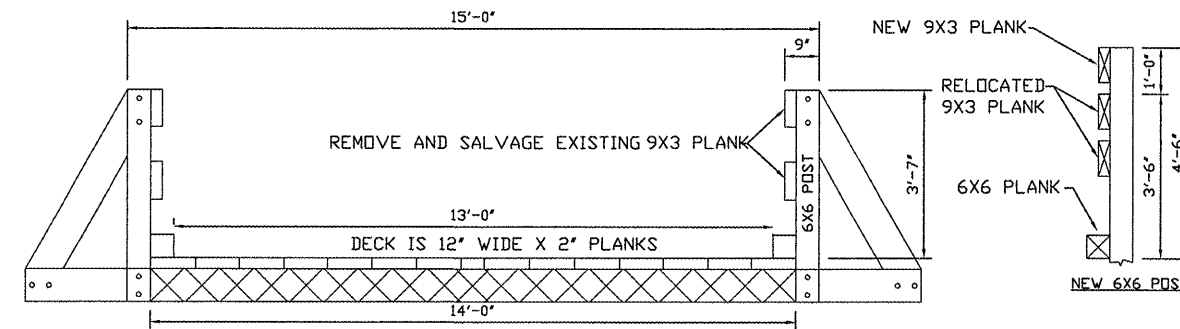
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	29
FROM STA.		TO STA.		
FEDERAL PROJECT NO. ARA-5045(009)		CONTRACT NO. 99417		



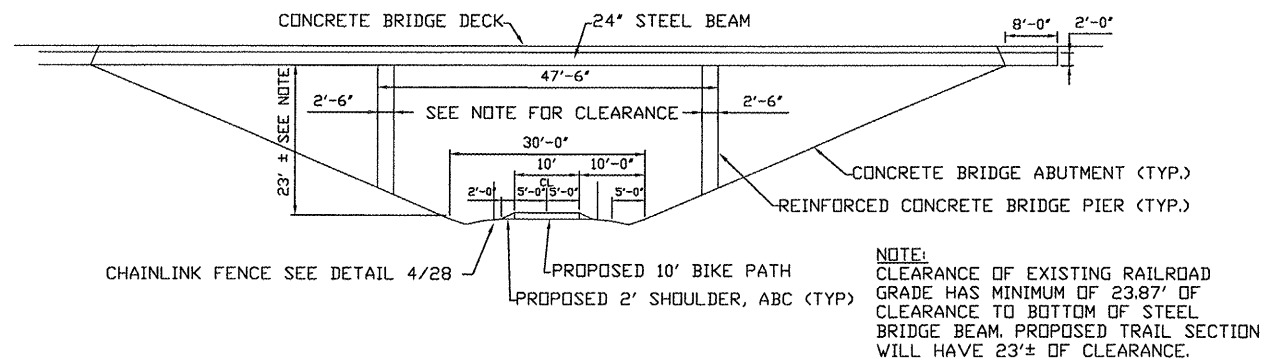
1 DETAIL EAST PARK ROAD PARKING LOT RESURFACING
SCALE: N.T.S.



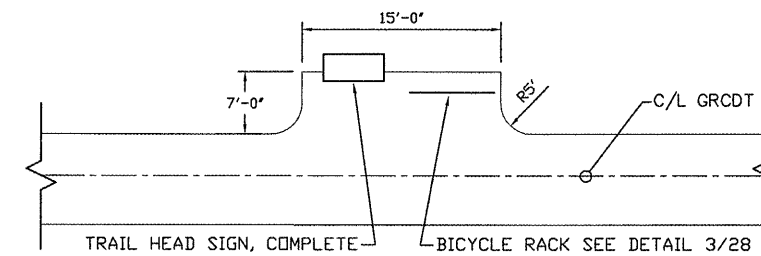
2 DETAIL HICKORY NUT TRAIL PARKING LOT
SCALE: N.T.S.



3 DETAIL-WOODEN GUARDRAIL REPAIR FOR EXISTING BRIDGE OVER MASSAC CREEK
SCALE: N.T.S.



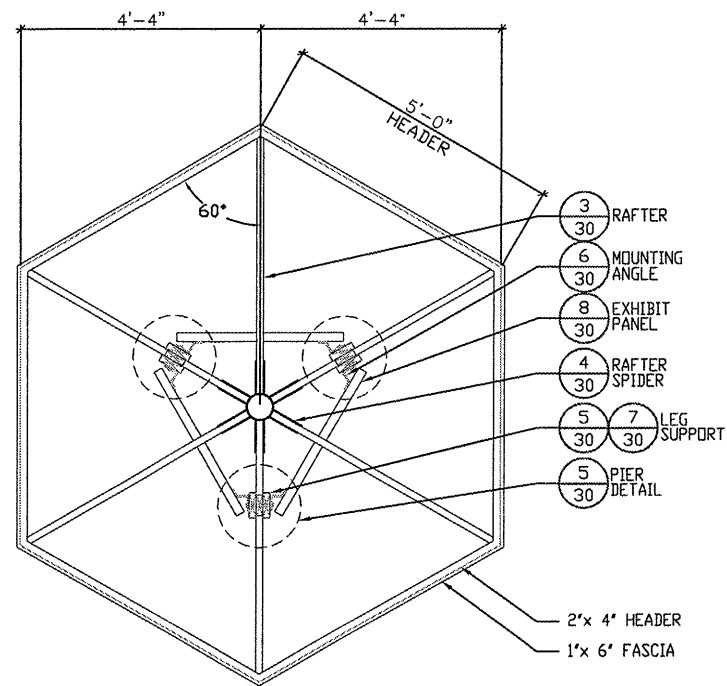
4 DETAIL TRAIL UNDER EXISTING I-24 OVERPASS
SCALE: N.T.S.



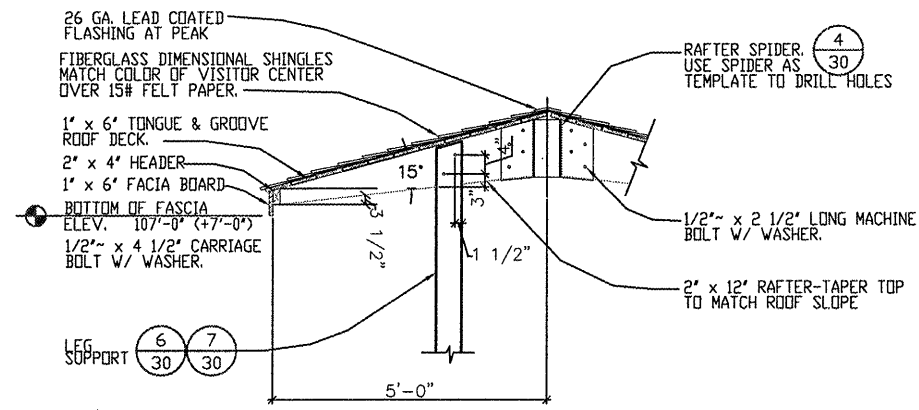
- NOTE:**
- CONSTRUCTION OF A SMALL CONCRETE SURFACED BIKE TRAIL INTERPRETIVE TURN-OUT AT THE SIGN LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER, WITH INPUT FROM I.D.N.R.
 - A BICYCLE RACK WILL BE CONSTRUCTED AT THE LOCATION OF THE INTERPRETIVE TURN-OUT AS SHOWN IN THE DETAIL.

5 DETAIL PAVED INTERPRETIVE TURN-OUT
SCALE: N.T.S. (TWO LOCATIONS ALONG TRAIL)

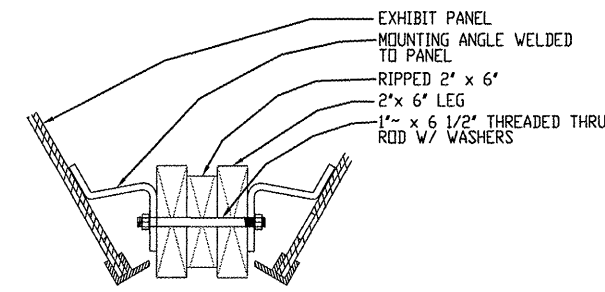
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT09-00038-00-BT		MASSAC	55	30
FROM STA.	TO STA.			
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	



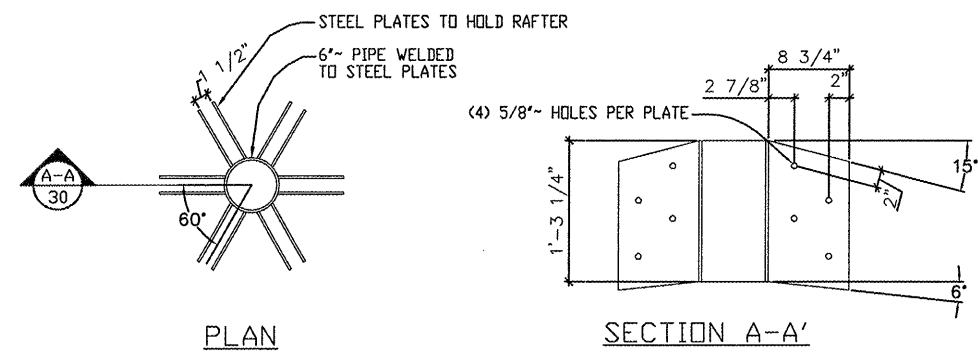
1 DETAIL FRAMING PLAN
SCALE: N.T.S.



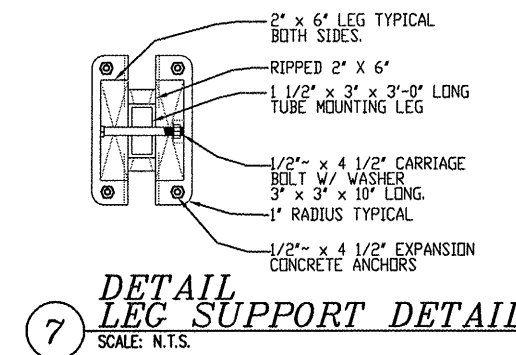
3 DETAIL ROOF SECTION
SCALE: N.T.S.



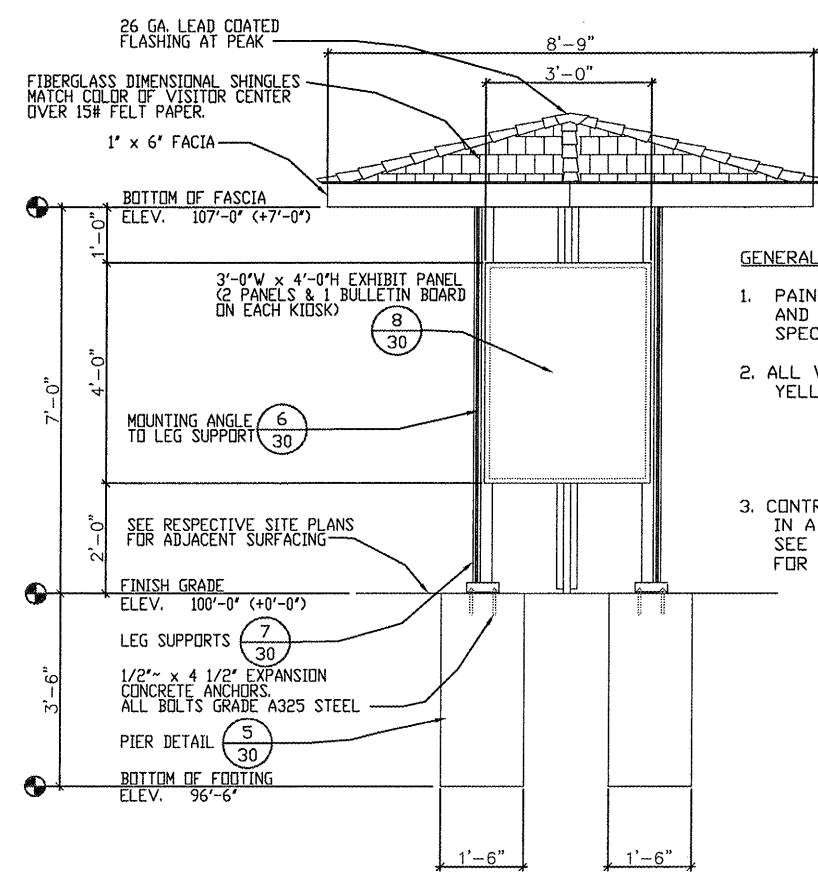
6 DETAIL - MOUNTING ANGLE TO LEG SUPPORT
SCALE: N.T.S.



4 DETAIL RAFTER SPIDER
SCALE: N.T.S.

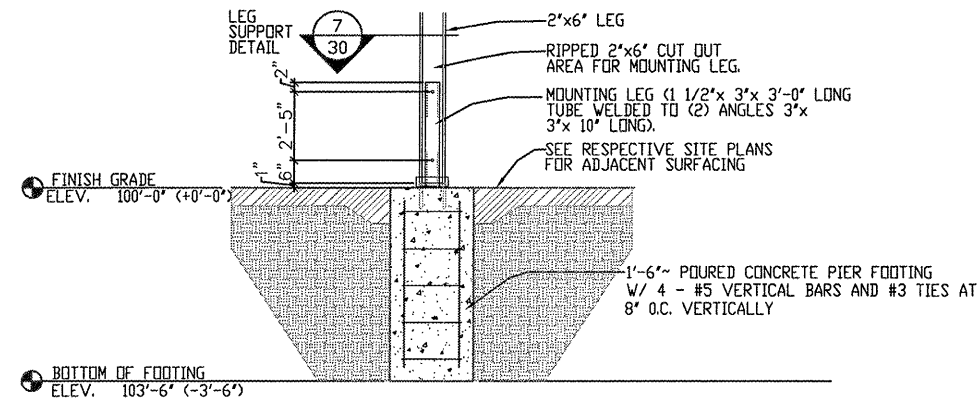


7 DETAIL LEG SUPPORT DETAIL
SCALE: N.T.S.

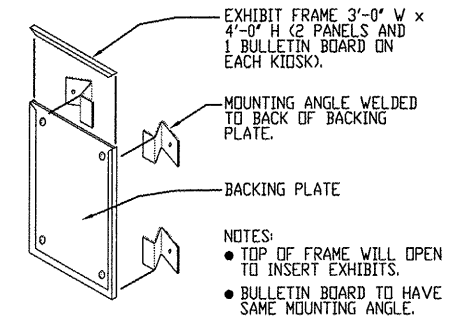


2 DETAIL ELEVATION
SCALE: N.T.S.

- GENERAL NOTES:**
1. PAINT ALL EXPOSED METAL PIECES AND STAIN ALL EXPOSED WOOD SEE SPECIAL PROVISIONS FOR FINISHES
 2. ALL WOOD #1 CCA TREATED SOUTHERN YELLOW PINE, EXCEPT AS NOTED.
BF = 1650#
CFPARA = 1750#
CFPERP = 565#
 3. CONTRACTOR MAY OBTAIN METAL COMPONENTS IN A KIT OR FABRICATE FROM SHEET STOCK. SEE SPECIFICATION SPECIAL PROVISIONS FOR COMPONENT DESCRIPTION.



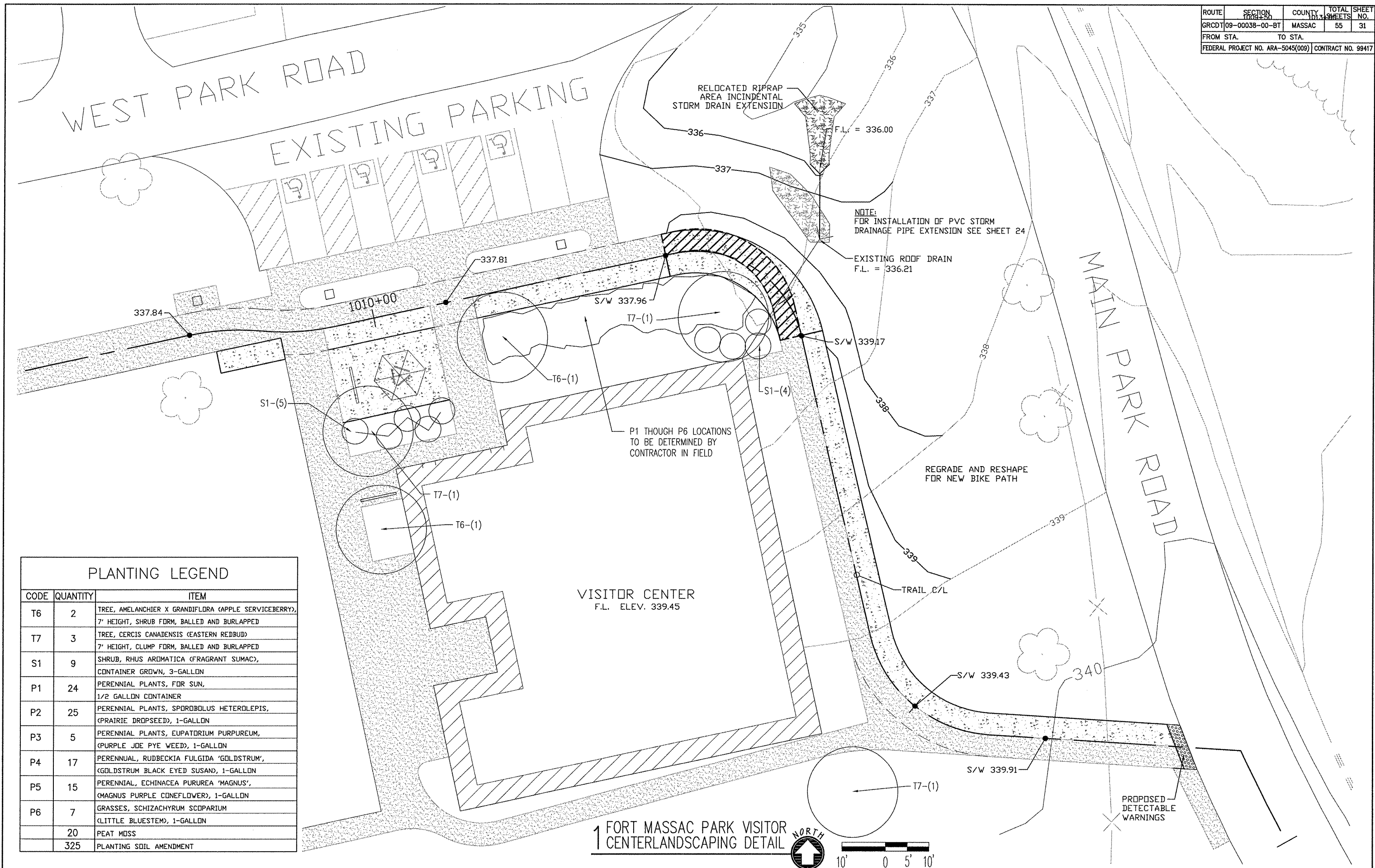
5 DETAIL PIER
SCALE: N.T.S.



8 DETAIL EXHIBIT PANEL DETAIL
SCALE: N.T.S.

NOTE: CONTRACTOR SHALL OBTAIN AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND BE FULLY RESPONSIBLE FOR SAME.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT 09-00038-00-BT	100E-30	MASSAC	55	31
FROM STA.	TO STA.			
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	

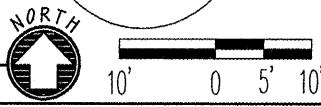


PLANTING LEGEND

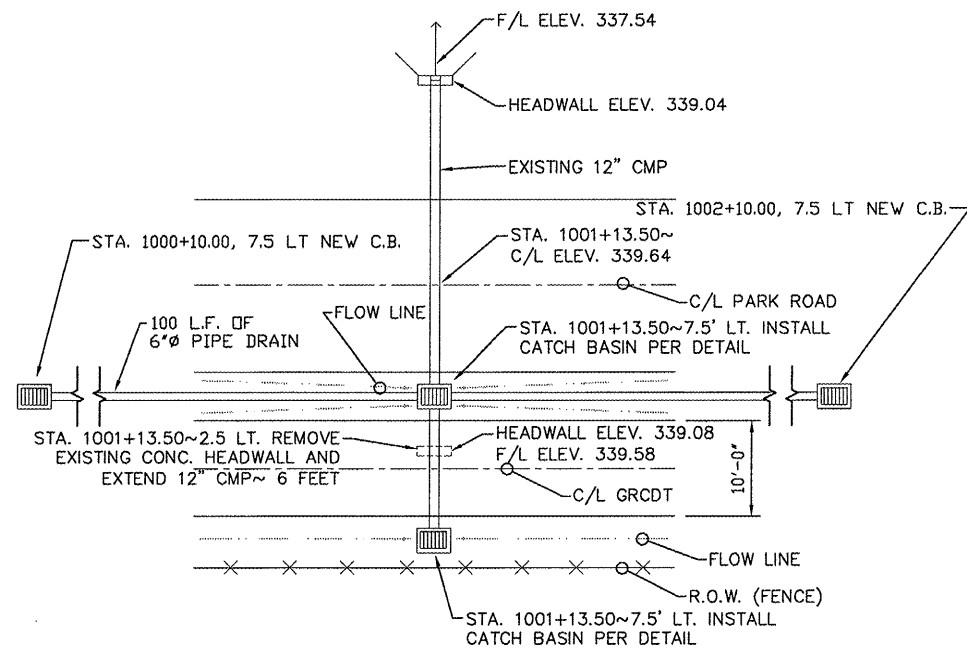
CODE	QUANTITY	ITEM
T6	2	TREE, AMELANCHIER X GRANDIFLORA (APPLE SERVICEBERRY), 7' HEIGHT, SHRUB FORM, BALLED AND BURLAPPED
T7	3	TREE, CERCIS CANADENSIS (EASTERN REDBUD), 7' HEIGHT, CLUMP FORM, BALLED AND BURLAPPED
S1	9	SHRUB, RHUS AROMATICA (FRAGRANT SUMAC), CONTAINER GROWN, 3-GALLON
P1	24	PERENNIAL PLANTS, FOR SUN, 1/2 GALLON CONTAINER
P2	25	PERENNIAL PLANTS, SPOROBOLUS HETEROLEPIS, (PRAIRIE DROPSEED), 1-GALLON
P3	5	PERENNIAL PLANTS, EUPATORIUM PURPUREUM, (PURPLE JOE PYE WEED), 1-GALLON
P4	17	PERENNIAL, RUDBECKIA FULGIDA 'GOLDSTRUM', (GOLDSTRUM BLACK EYED SUSAN), 1-GALLON
P5	15	PERENNIAL, ECHINACEA PURPUREA 'MAGNUS', (MAGNUS PURPLE CONEFLOWER), 1-GALLON
P6	7	GRASSES, SCHIZACHYRUM SCOPARIUM (LITTLE BLUESTEM), 1-GALLON
	20	PEAT MOSS
	325	PLANTING SOIL AMENDMENT

VISITOR CENTER
F.L. ELEV. 339.45

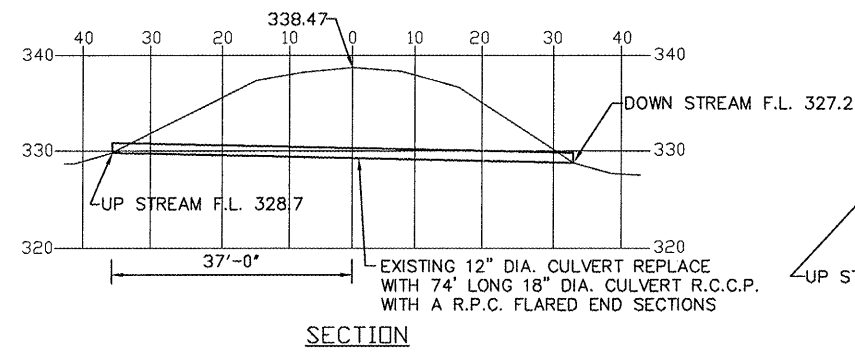
1 FORT MASSAC PARK VISITOR CENTERLANDSCAPING DETAIL



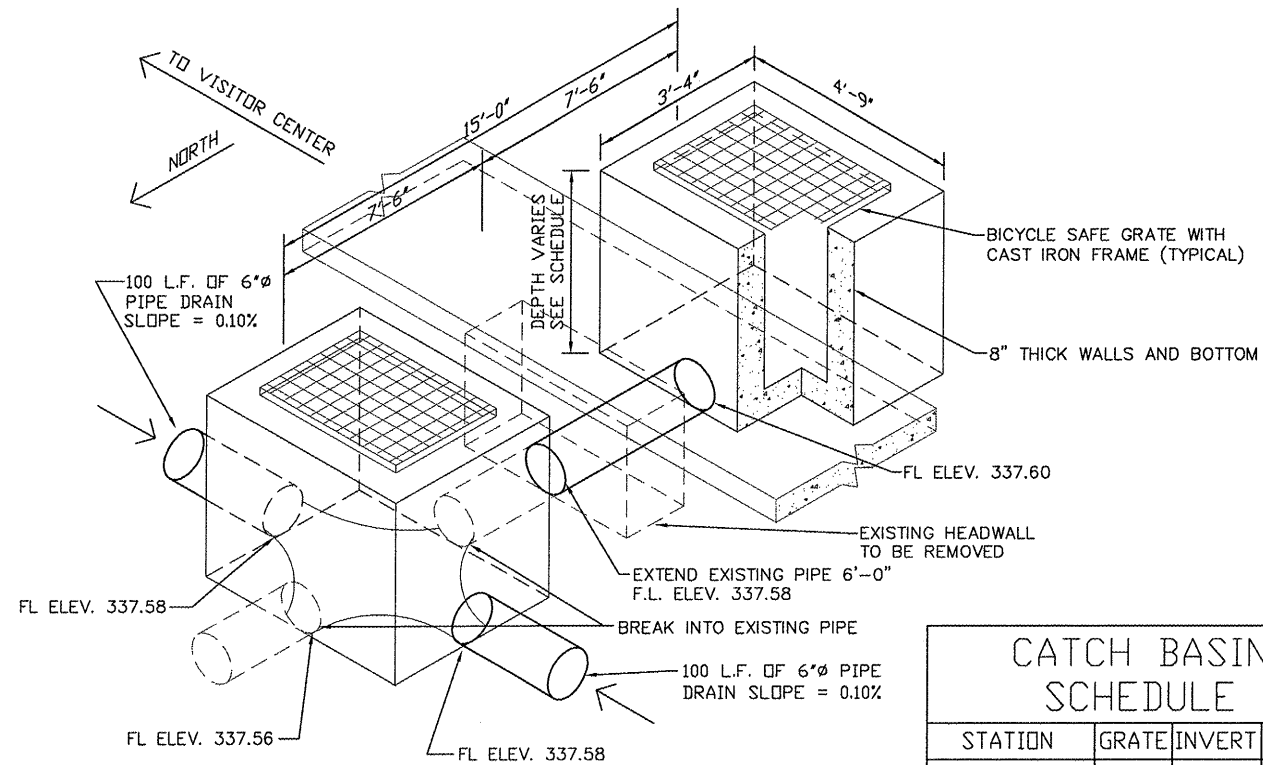
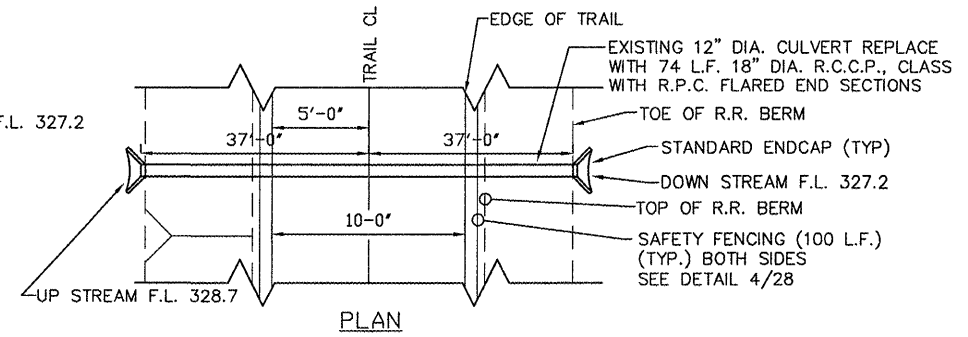
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	32
FROM STA.	TO STA.			
FEDERAL PROJECT NO. ARA-5045(009)		CONTRACT NO. 99417		



1 DETAIL CULVERT AT STA. 1001+13.50~
SCALE: N.T.S.

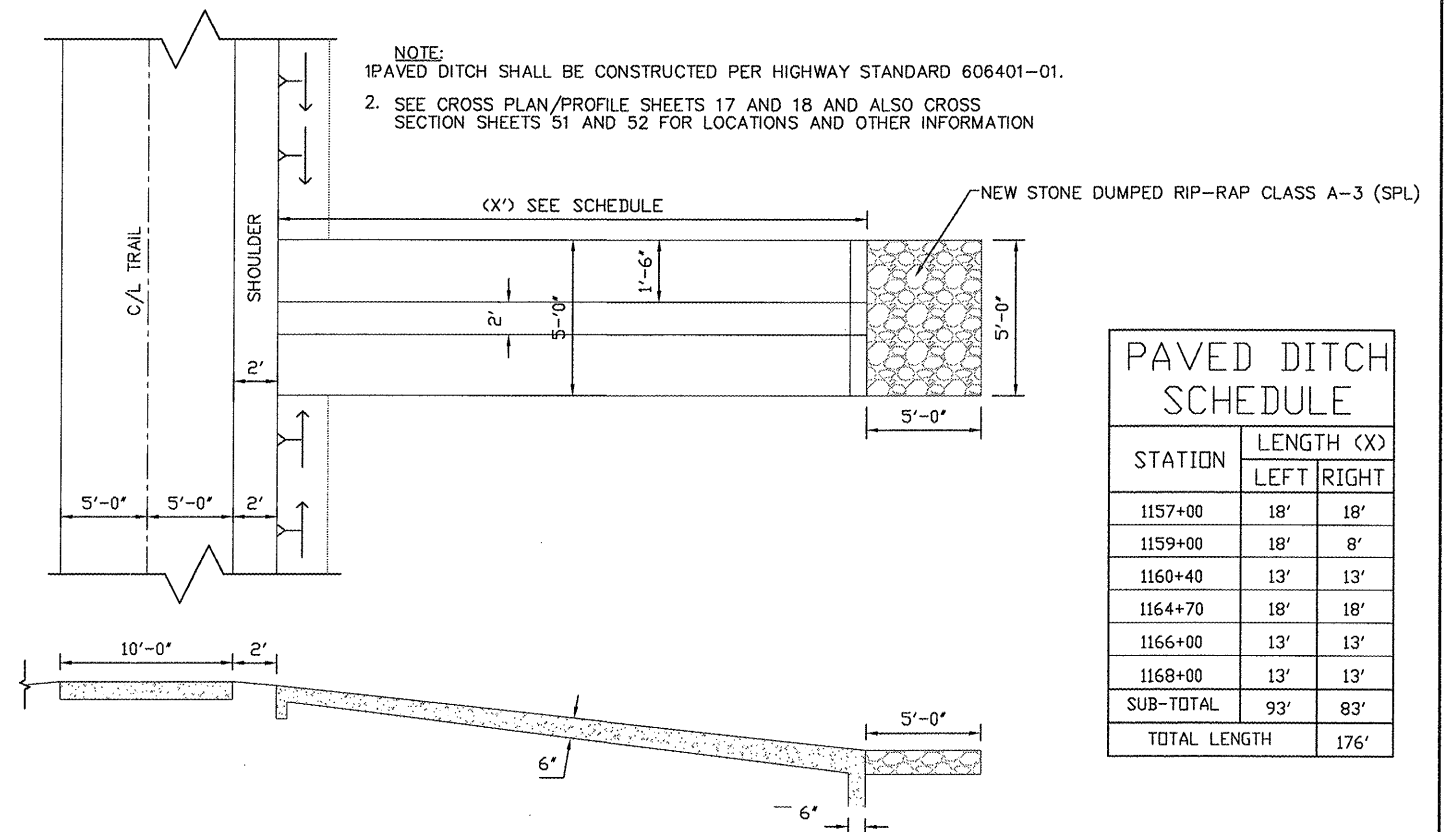


3 DETAIL CULVERT AT STA. 1078+53
SCALE: N.T.S.



STATION	GRATE	INVERT	DEPTH
1000+10.00 7.5' LT	339.00'	337.70'	1.30'
1001+13.50 7.5' LT	339.00'	337.58	1.42'
1001+13.50 7.5' RT	339.00'	337.60	1.40'
1002+10.00 7.5' LT	339.00'	337.70	1.30'

2 DETAIL STORM DRAIN CATCH BASIN WITH FRAME AND GRATE
SCALE: N.T.S.



STATION	LENGTH (X)	
	LEFT	RIGHT
1157+00	18'	18'
1159+00	18'	8'
1160+40	13'	13'
1164+70	18'	18'
1166+00	13'	13'
1168+00	13'	13'
SUB-TOTAL	93'	83'
TOTAL LENGTH	176'	

4 DETAIL NEW PAVED DITCH (BOTH SIDES) TYPE A-15
SCALE: N.T.S.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	33
Index of Sheets, Highway Standards, General Notes and Summary of Quantities				
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
33	Index of Sheets, Highway Standards, General Notes, and Summary of Quantities
34	General Plan & Elevation
35	Abutments
36	Pier
37	Details

HIGHWAY STANDARDS

515001-03 NAME PLATE FOR BRIDGES

LETTERING FOR NAME PLATE:

STATION 1163+57.50
FOURMILE CREEK
SEC. 09-00038-00-BT - BUILT 2010
MASSAC COUNTY
LOADING H10
STR. NO. 064-9918

LOCATE NAME PLATE ACCORDING TO STD. 515001-03.

GENERAL NOTES

The pedestrian truss super structure shall meet the requirements of Guide Bridge Special Provision GBSP 33.

The proposed bridge is within the 100-year flood plain. The pedestrian truss superstructure fabricator must maintain the low beam elevations and profile grade as shown on the drawings. The design of the truss shall include lateral forces caused by ice and debris. Ice and debris loadings shall be based on the requirements found in Section 3.18 of the 2002 Edition of the AASHTO Standard Specifications and the following information.

VAVG = see waterway information table for 100-year flood velocity
Cn = 0.5
p = 100 psi
t = 1 inch

Reinforcing bars shall conform to the requirements of ATM A706 Gr. 60 (IL Modified). See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

Filter Fabric and Bedding Material required for slope protection shall be considered incidental to stone dumped rip-rap, class A4. Filter Fabric and Bedding Material will not be measured for payment.

The Steel H-Piles shall be according to AASHTO M270 Grade 50.

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of the piles. Test piles shall be incidental to Fur. Steel Piles, HP12x74.

The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources (OWR) for any temporary construction activity placed in the water except cofferdams. This shall include placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to IDNR permit number as shown in the contract plans.

All proposed construction activity shall be in accordance with Statewide Permit No. 2 of the Illinois Department of Natural Resources - Office of Water Resources.

The Contractor has sole responsibility for means, methods, techniques, sequences and procedures of construction.

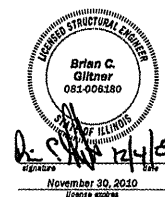
The Contractor has sole responsibility to comply with all OSHA regulations.

The abutment and piers as shown on the drawings have been designed for the Contech Bridge Solutions Pedestrian Truss Superstructure. Contractor will be responsible for modifications to plans and engineering for alternate truss superstructure supplier. The contractor shall retain the services of a State of Illinois licensed structural engineer for the design of alternations or modifications of the abutments and piers as required to accommodate an alternate truss superstructure supplier.

All miscellaneous items and incidentals are not specified on these drawings. Contractor is responsible for obtaining and installing all materials, miscellaneous items and incidentals for completion of the bridges to a functional and acceptable state. Miscellaneous items and incidentals will not be measured for payment.

COMMITMENTS

No commitments have been made for this project.



BRIDGE REACTIONS (FOR EACH BRIDGE SPAN)		+ DOWNWARD LOAD	- UPWARD LOAD	THE ABUTMENTS AND PIER WERE DESIGNED BASED ON THE FOLLOWING LOADINGS PROVIDED BY CONTECH BRIDGE SOLUTIONS
		P (LBS)	H (LBS)	L (LBS)
Dead Load		37,800		
Uniform Live Load		49,090		
Vehicle Load		5,000		
Wind Uplift (20 PSF)	WINDWARD LEEWARD	- 20,475 - 6,825		
Wind		± 20,255	42,265	
Thermal				5,670

P - Vertical Load Each Base Plate (4 per SPAN)
H - Horizontal Load Each Footing (2 per SPAN)
L - Longitudinal Load Each Base Plate (4 per SPAN)

LOAD COMBINATIONS ARE IN ACCORDANCE WITH THE 2002 AASHTO STANDARD SPECIFICATION.

TOTAL BILL OF MATERIAL

Code No.	Item	Unit	Super	Sub.		Total
				Piers	Abuts.	
28100807	Stone Dumped Rip-Rap, Class A4	TON	---	---	96	96
50200100	Structure Excavation	Cu. Yd.	---	65.6	93.8	159.4
50300225	Concrete Structure	Cu. Yd.	---	60.7	25.0	85.7
50800105	Reinforcement Bars	Pound	---	---	2,182	2,182
50800205	Reinforcement, Epoxy Coated	Pound	---	13,473	---	13,473
51201600	Fur. Steel Piles, HP12x53	Foot	---	744	---	744
51201700	Fur. Steel Piles, HP12x74	Foot	---	---	400	400
51202305	Driving Piles	Foot	---	744	400	1,144
51500100	Name Plates	Each	---	---	1.0	1.0
59300100	Controlled Low-Strength Mat'l.	Cu. Yd.	---	---	29.6	29.6
X0322508 *	Pedestrian Truss Super Structure	Sq. Ft.	4,620	---	---	4,620

* Specialty Item

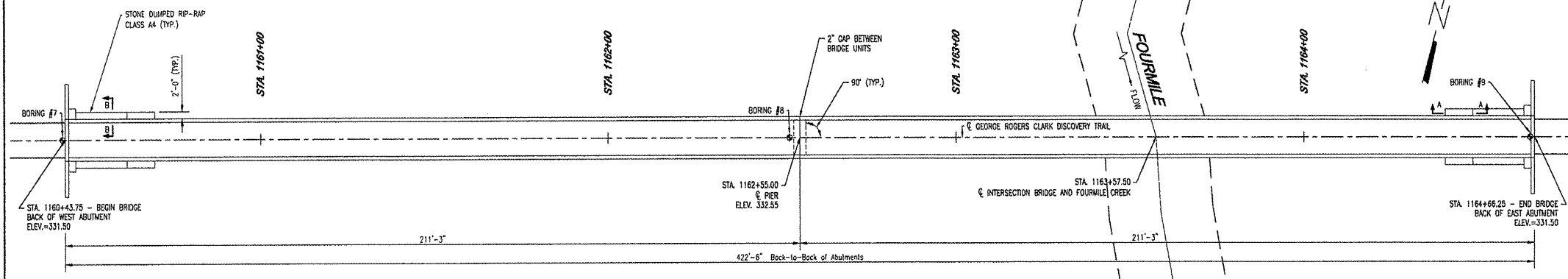


**GEORGE ROGERS CLARK DISCOVERY TRAIL
OVER FOURMILE CREEK
SECTION 09-00038-00-BT
MASSAC COUNTY
STATION 1163+57.50
STRUCTURE NUMBER 064-9918**

BENCH MARK

1/2" DIA. X 24" REBAR, WITH PLASTIC SURVEY CAP MARKED "CITY OF METROPOLIS." C.P. #44, ELEV. = 339.12, LOCATED 2.0' RIGHT OF STATION 1059+73.16.

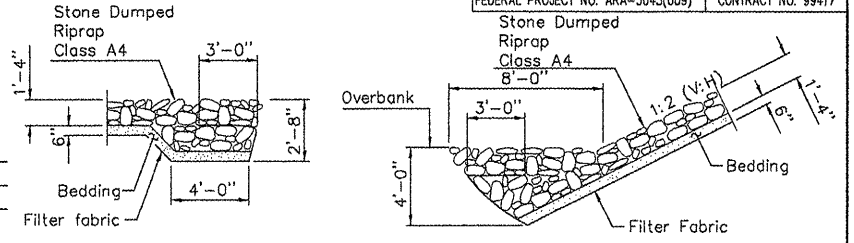
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	34
General Plan and Elevation				
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	



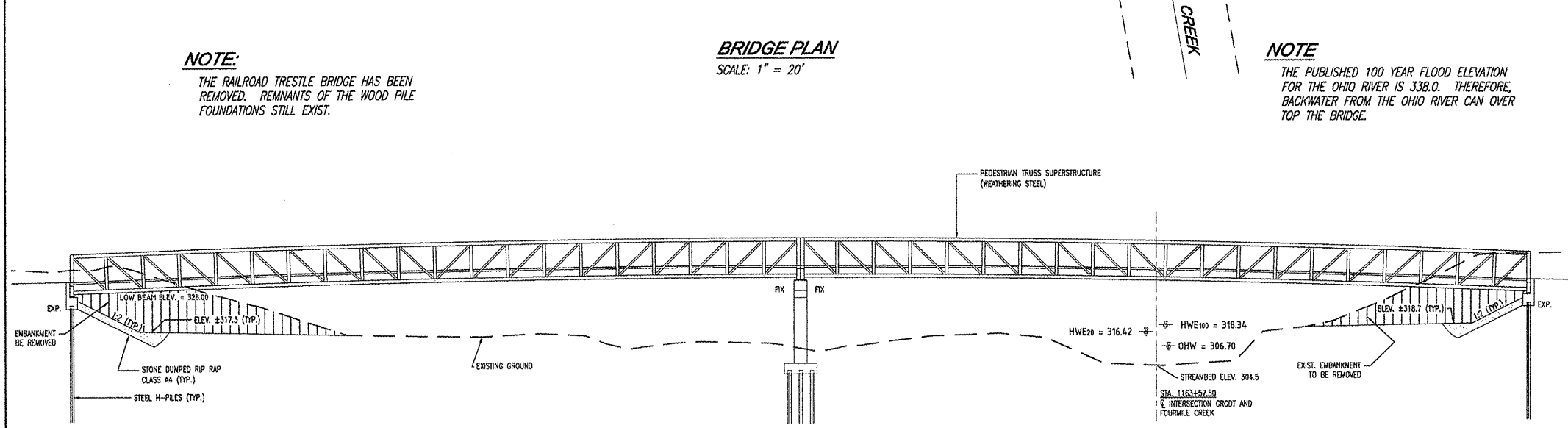
BRIDGE PLAN
SCALE: 1" = 20'

NOTE:
THE RAILROAD TRESTLE BRIDGE HAS BEEN REMOVED. REMNANTS OF THE WOOD PILE FOUNDATIONS STILL EXIST.

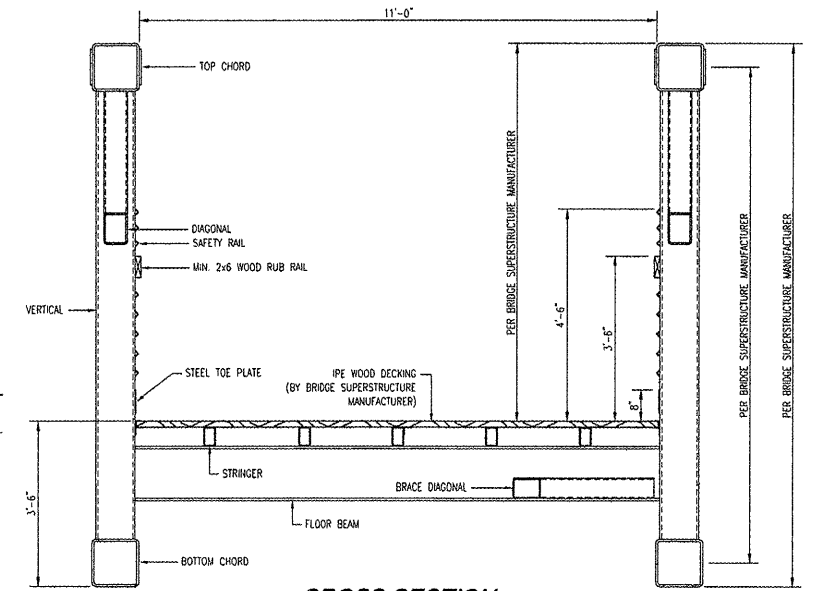
NOTE:
THE PUBLISHED 100 YEAR FLOOD ELEVATION FOR THE OHIO RIVER IS 338.0. THEREFORE, BACKWATER FROM THE OHIO RIVER CAN OVER TOP THE BRIDGE.



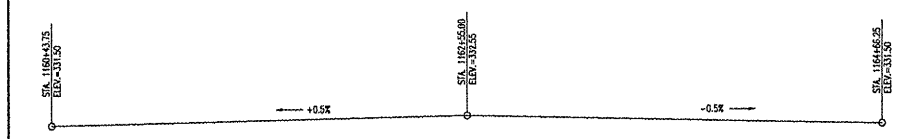
SECTION B-B **SECTION A-A**



BRIDGE ELEVATION
SCALE: 1" = 20' (HORIZONTAL AND VERTICAL)
OHW = ORDINARY HIGH WATER



CROSS SECTION



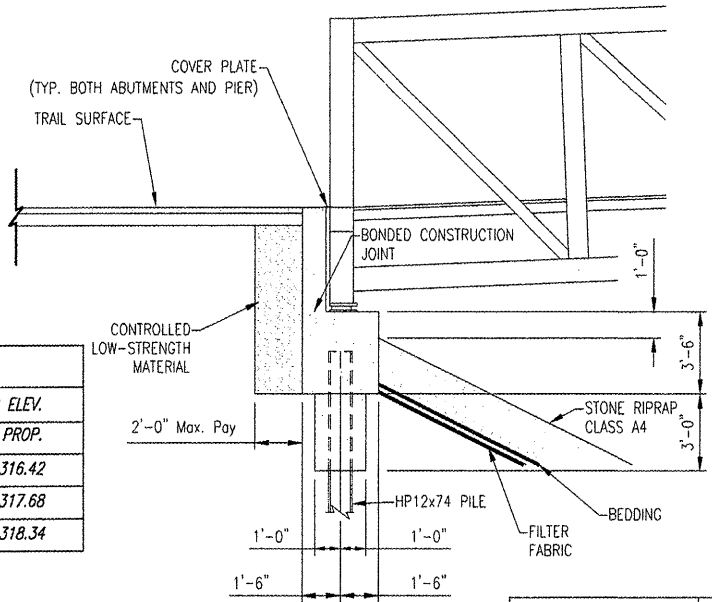
(Along & Bike Path)
PROFILE GRADE

WATERWAY INFORMATION

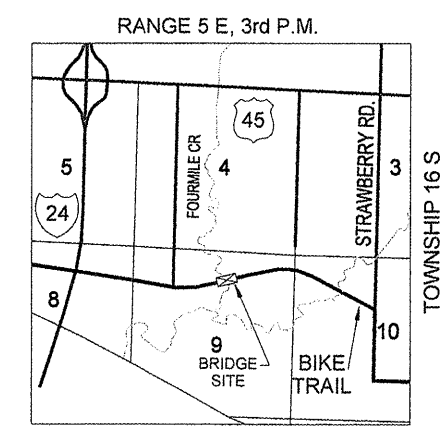
DRAINAGE AREA = 10.376 SQ. MI.

	FREQ. (YR.)	Q (C.F.S.)	OPENING (SQ. FT.)	NATURAL	HEAD (FT.)	HEADWATER ELEV.			
		(C.F.S.)	EXIST. PROP.	H.W.E.	EXIST. PROP.	EXIST. PROP.			
FLOOD	20	3,027	N/A	890	316.33	0	0.09	316.33	316.42
DESIGN	50	3,830	N/A	1,291	317.52	0	0.16	317.52	317.68
CHECK	100	4,380	N/A	1,521	318.20	0	0.14	318.20	318.34
BASE									

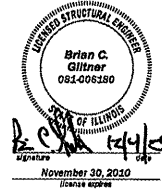
100 YEAR VELOCITY THROUGH PROP. BRIDGE = 4.33 fps



SECTION THRU ABUTMENT



LOCATION SKETCH



HIGHWAY CLASSIFICATION
CLASS: BIKE PATH
A.D.T.: N/A
D.H.V.: N/A
DESIGN SPEED: 20 MPH
POSTED SPEED: N/A

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (reinforcement)
fy = 50,000 psi (M270 GRADE 50W)
fy = 36,000 psi (A36)

DESIGN SPECIFICATIONS
2002 AASHTO STANDARD SPECIFICATIONS
1997 AASHTO GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES

SEISMIC DATA
SEISMIC PERFORMANCE CATEGORY (SPC) = B
BEDROCK ACCELERATION COEFFICIENT (A) = 0.15g
SITE COEFFICIENT = 1.2

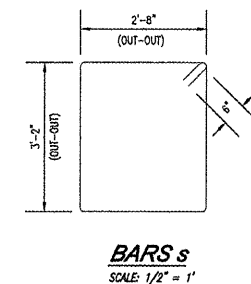
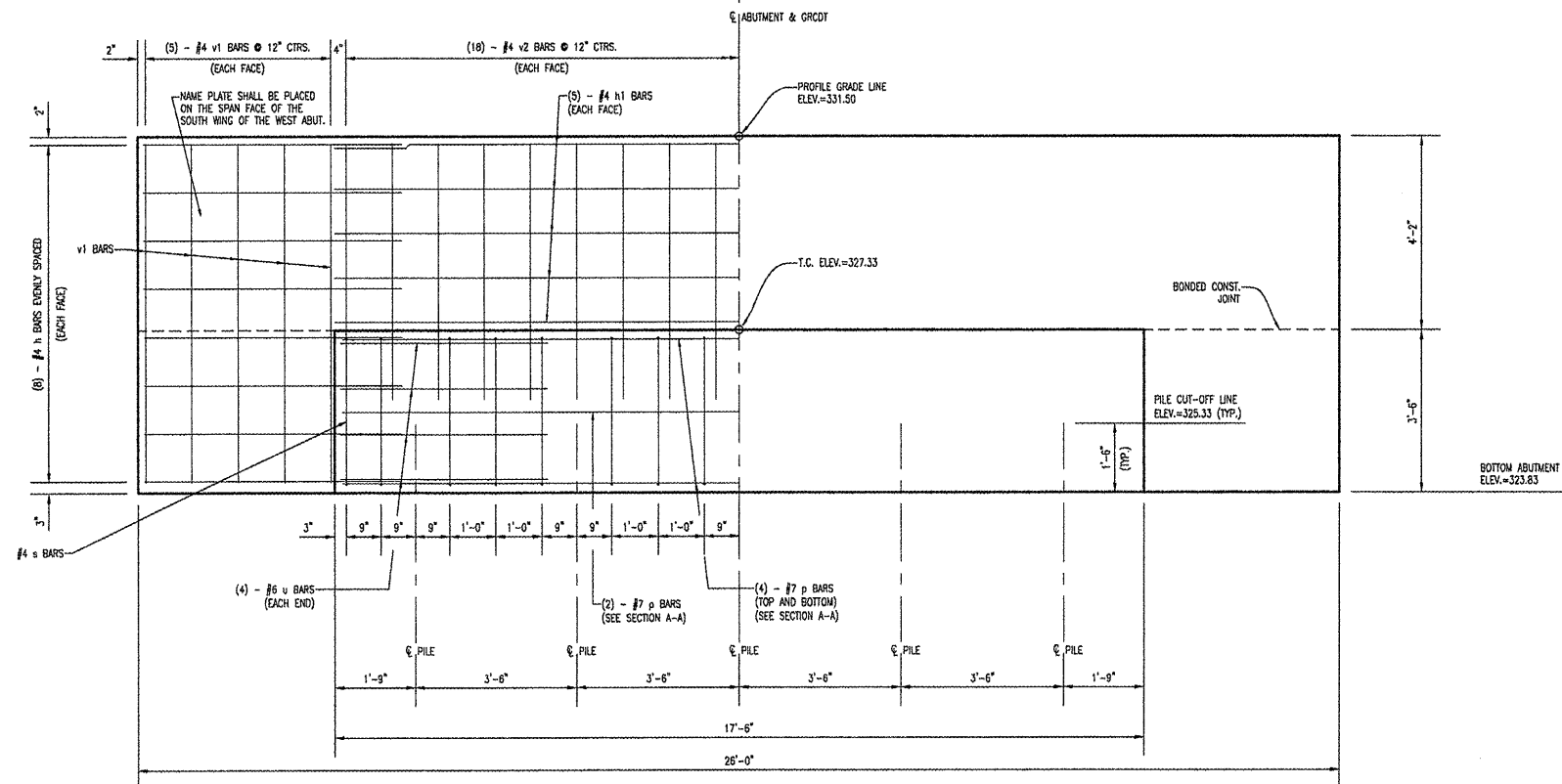
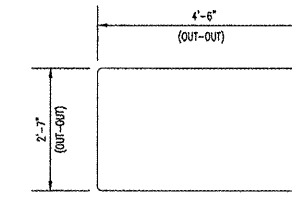
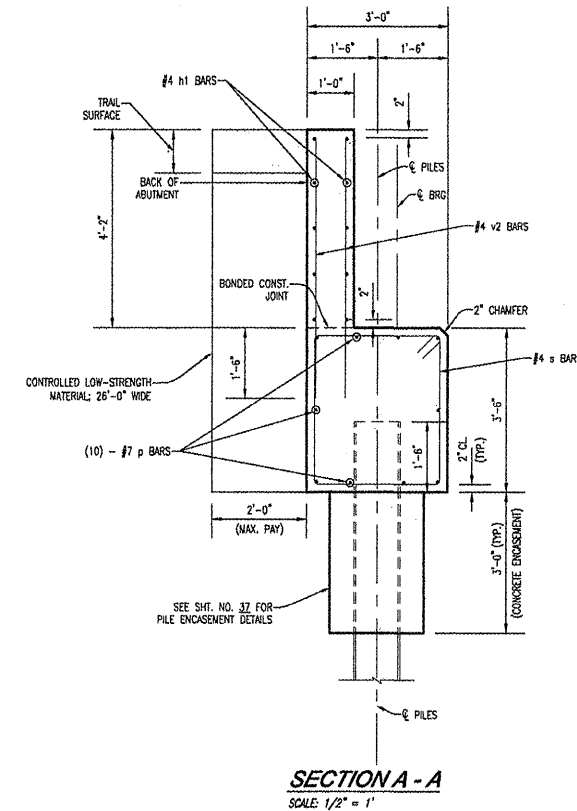
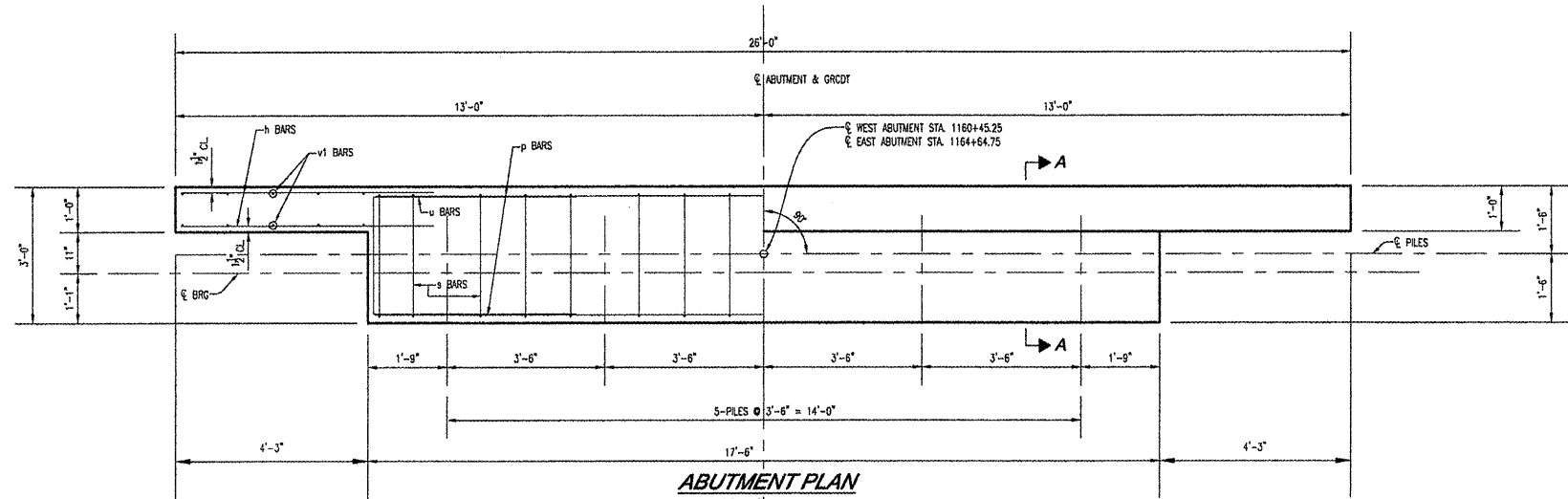
LOADING H-10
85 PSF MIN. LIVE LOAD

DESIGN SCOUR ELEVATION TABLE

DESIGN SCOUR ELEVATION (ft.)	W. ABUTMENT	PIER NO. 1	E. ABUTMENT
	307.3	310.8	315.0



GEORGE ROGERS CLARK DISCOVERY TRAIL OVER FOURMILE CREEK
SECTION 09-00038-00-BT
STATION 1163+57.50
MASSAC COUNTY
STRUCTURE NUMBER 064-9918



BILL OF MATERIAL FOR ONE ABUTMENT

Bar	No.	Size	Length	Shape
h	32	#4	5'-7"	—
h1	10	#4	17'-6"	—
p	10	#7	17'-2"	—
s	16	#4	12'-8"	□
u	8	#6	11'-7"	□
v1	20	#4	7'-4"	—
v2	36	#4	5'-6"	—
Concrete Structures *		12.5 Cu. Yd.		
Reinforcement Bars		1,091 Lb.		
Structure Excavation		46.9 Cu. Yd.		
Furnishing Steel Piles, HP 12x74		200 FL.		
Driving Piles		200 FL.		
Controlled Low Strength Mat ¹		74.8 Cu. Yd.		

* Concrete for Pile Encasement is included in this quantity



DESIGN STRESSES

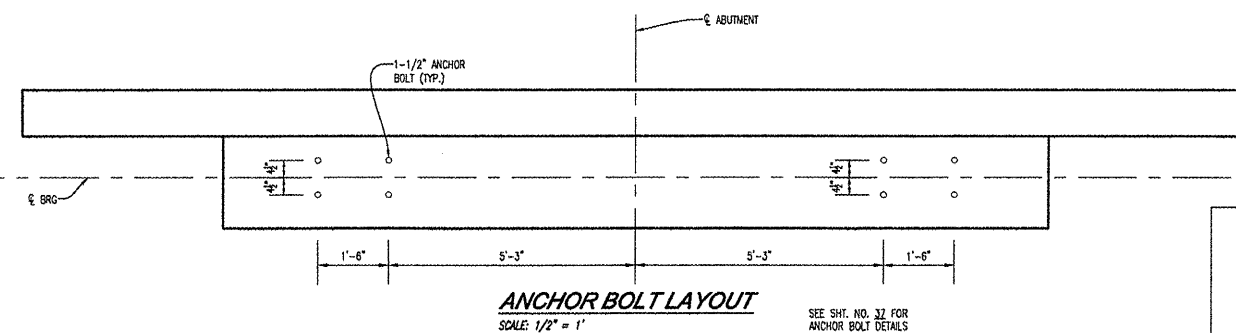
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Steel Reinforcement)

PILE DATA

Type HP 12x74 (Grade 50)
No. Required 10 (for 2 Abutments)
Allowable Resistance Available 54 kips per pile (West Abutment)
..... 84 kips per pile (East Abutment)
Nominal Required Bearing 162 kips per pile (West Abutment)
..... 252 kips per pile (East Abutment)
Estimated Length 40 feet per pile

NOTES

1. Reinforcement bars shall conform to the requirements of A.A.S.H.T.O. M-31 or M-32, Grade 60.
2. Reinforcement shall be spaced in cap to miss anchor bolts.

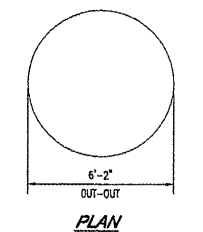
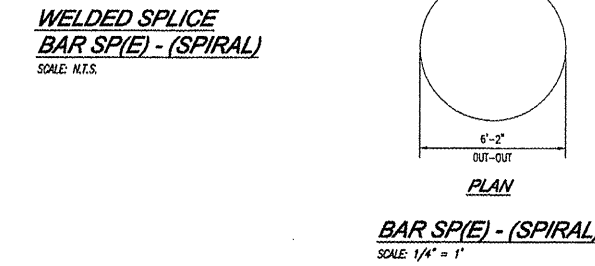
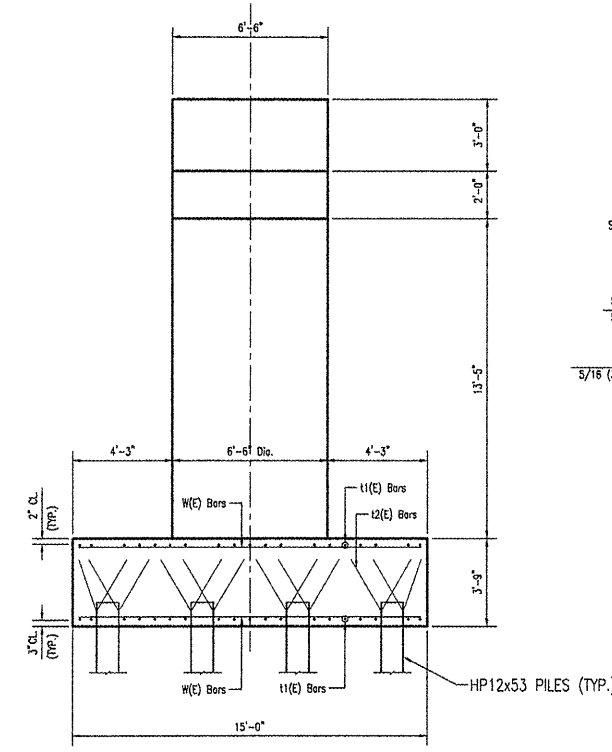
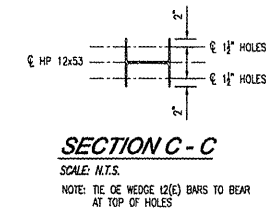
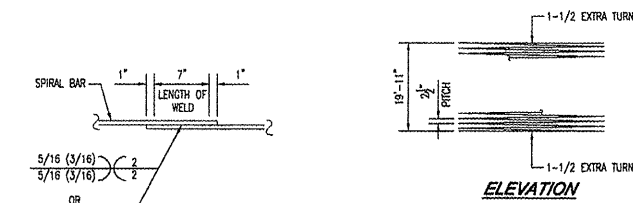
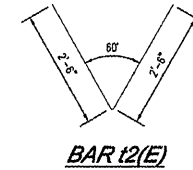
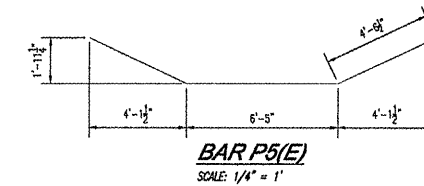
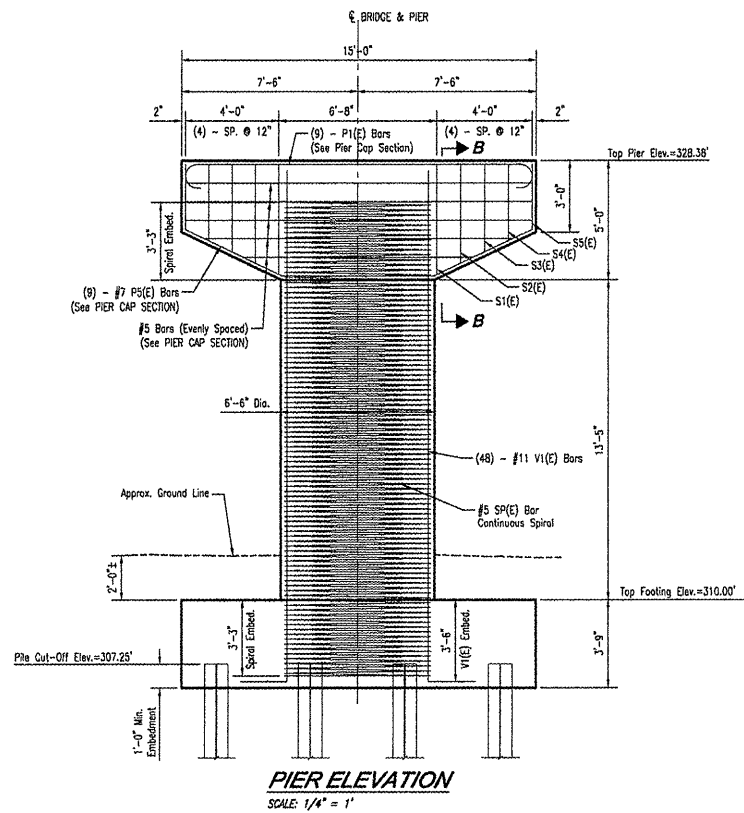
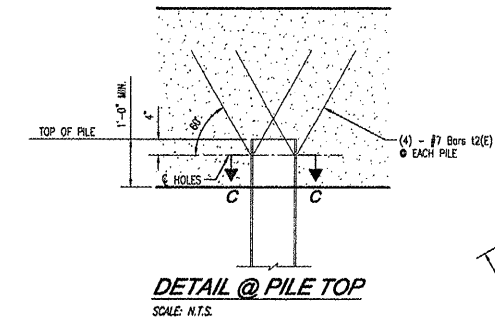
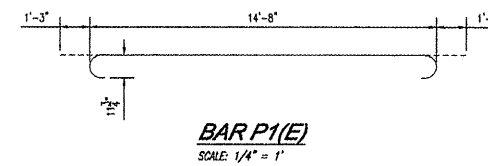
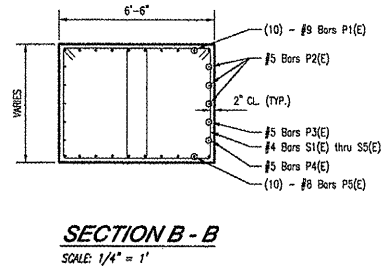
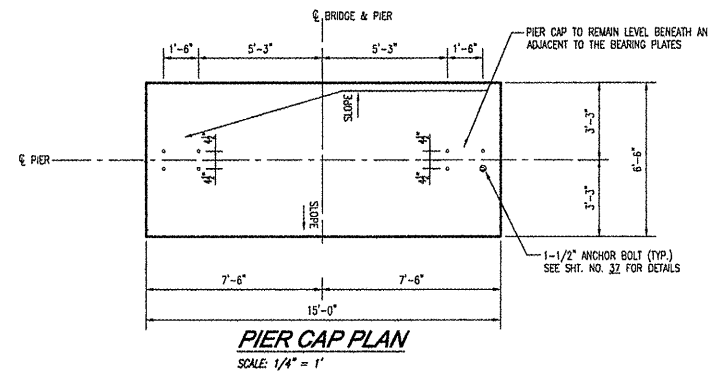


SEE SHEET NO. 32 FOR ANCHOR BOLT DETAILS



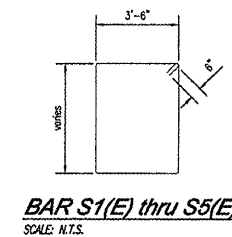
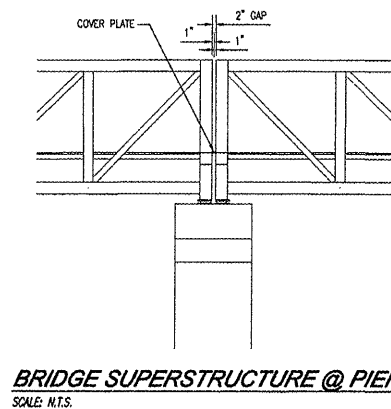
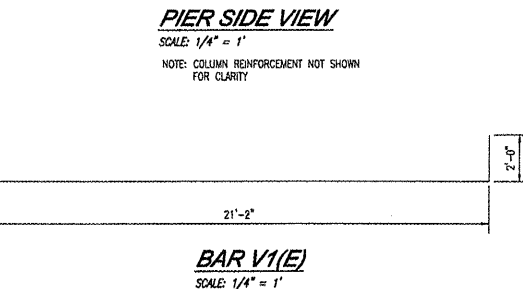
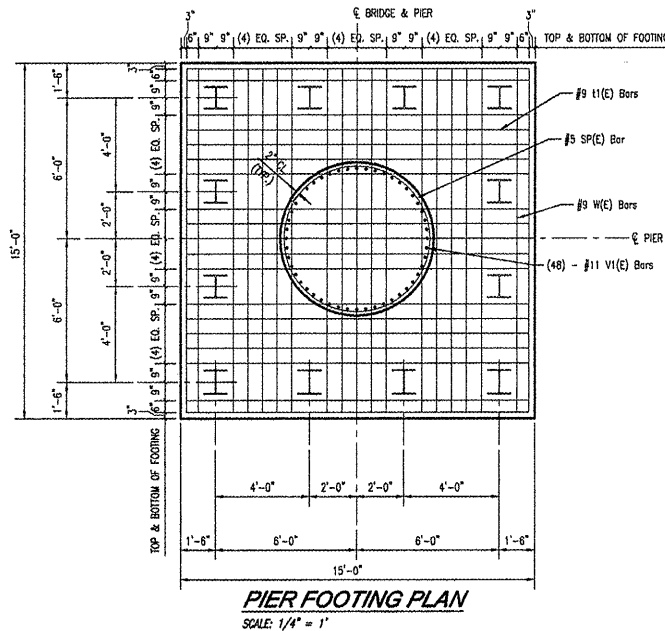
**GEORGE ROGERS CLARK DISCOVERY TRAIL
OVER FOURMILE CREEK
SECTION 09-00038-00-BT
MASSAC COUNTY
STATION 1163+57.50
STRUCTURE NUMBER 064-9918**

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	36
Pier				
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	



BILL OF MATERIAL FOR ONE PIER

Bar	No.	Size	Length	Shape
P1(E)	10	#9	17'-2"	—
P2(E)	6	#5	14'-8"	—
P3(E)	2	#5	13'-0"	—
P4(E)	2	#5	9'-9"	—
P5(E)	10	#9	15'-8"	—
S1(E)	4	#4	17'-5"	□
S2(E)	4	#4	16'-4"	□
S3(E)	4	#4	15'-5"	□
S4(E)	4	#4	14'-5"	□
S5(E)	4	#4	13'-6"	□
SP(E)**	1	#5	1901'-10"	SPIRAL
I1(E)	38	#9	14'-6"	—
I2(E)	48	#7	5'-0"	▽
V1(E)	48	#11	23'-2"	—
W(E)	38	#9	14'-6"	—
Structure Excavation 65.6 Cu. Yd.				
Concrete Structures 60.7 Cu. Yd.				
Reinforcement Bars 13,473 Lb.				
Epoxy Coated				
Furnishing Steel Piles 744 FL.				
HP12x53				
Driving Piles 744 FL.				



DESIGN STRESSES
 $f_c = 3,500$ psi
 $f_y = 60,000$ psi (Steel Reinforcement)

PILE DATA

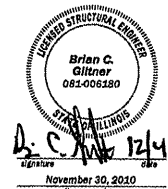
Type	HP 12x53 (Grade 50)
No. Required	12 (for 1 Pier)
Allowable Resistance Available	53 kips per pile
Nominal Required Bearing	280 kips per pile
Estimated Length	62 feet per pile

NOTES

- Reinforcement bars shall conform to the requirements of A.A.S.H.T.O. M-31 or M-322, Grade 60.
- Reinforcement shall be spaced in cap to miss anchor bolts.
- Longitudinal steel reinforcement in column shall NOT be lap-spliced.
- Spiral Reinforcement SP(E) shall only be weld-spliced.

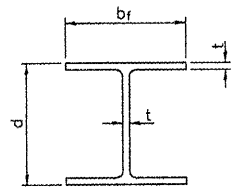


**GEORGE ROGERS CLARK DISCOVERY TRAIL
OVER FOURMILE CREEK
SECTION 09-00038-00-BT
MASSAC COUNTY
STATION 1163+57.50
STRUCTURE NUMBER 064-9918**



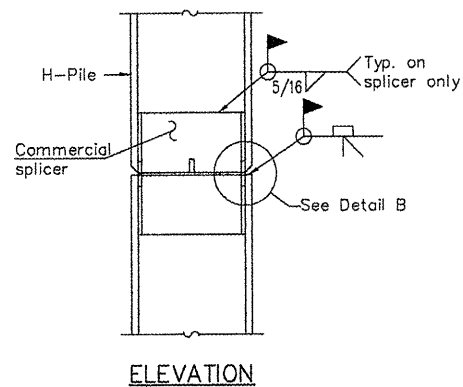
** Length of Spiral does not include welded splice length. Length of welded splice shall be considered incidental to bar SP(E).

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	37
Details				
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	

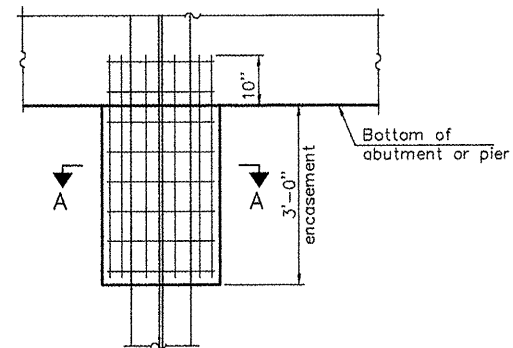


STEEL PILE TABLE

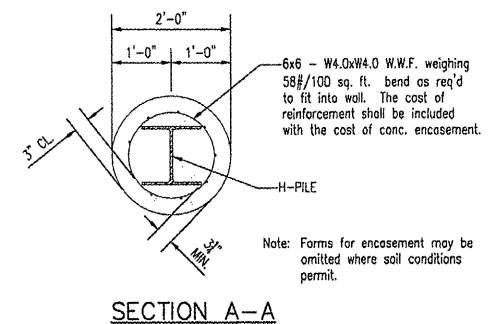
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14-1/4"	14-7/8"	13/16"	30"
x102	14"	14-3/4"	11/16"	30"
x89	13-7/8"	14-3/4"	5/8"	30"
x73	13-5/8"	14-5/8"	1/2"	30"
HP 12x84	12-1/4"	12-1/4"	11/16"	24"
x74	12-1/8"	12-1/4"	5/8"	24"
x63	12"	12-1/8"	1/2"	24"
x53	11-3/4"	12"	7/16"	24"
HP 10x57	10"	10-1/4"	9/16"	24"
x42	9-3/4"	10-1/8"	7/16"	24"
HP 8x36	8"	8-1/8"	7/16"	18"



ELEVATION

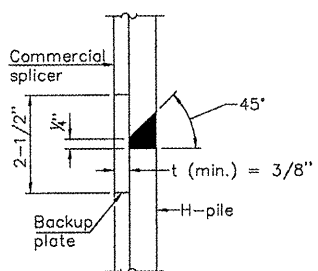


ELEVATION

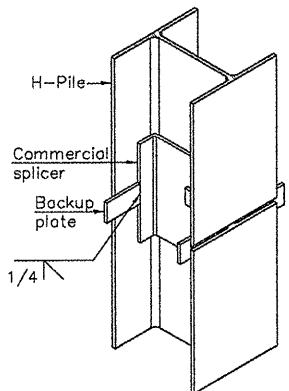


SECTION A-A

Note: Forms for encasement may be omitted where soil conditions permit.

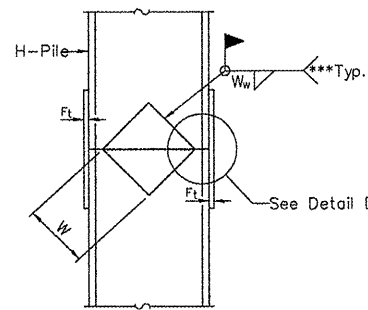


DETAIL "B"

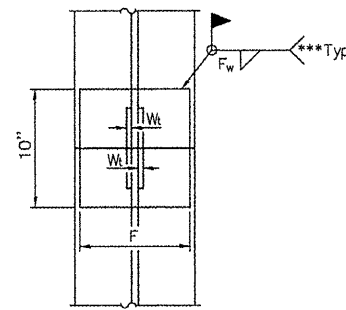


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE

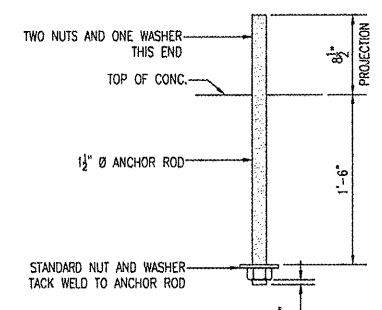


ELEVATION

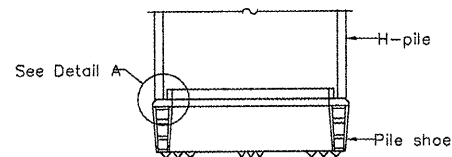


END VIEW

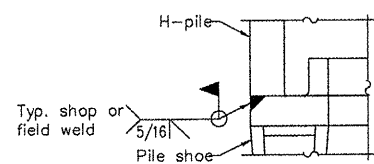
NOTE: ANCHOR ROD SHALL MEET THE REQUIREMENTS OF ASTM F1554 GRADE 36 AND SHALL BE GALVANIZED.



ANCHOR ROD

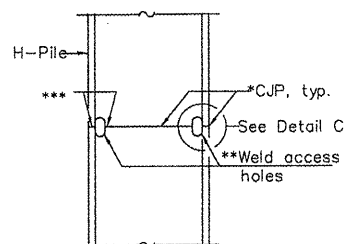


ELEVATION

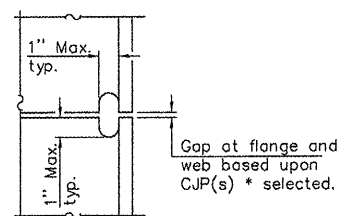


DETAIL A

H-PILE SHOE ATTACHMENT

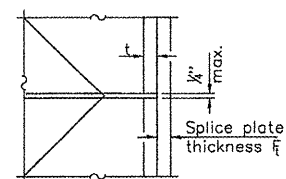


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12-1/2"	1"	7/8"	7-3/4"	5/8"	1/2"
x102	12-1/2"	7/8"	3/4"	7-3/4"	5/8"	1/2"
x89	12-1/2"	3/4"	11/16"	7-3/4"	5/8"	1/2"
x73	12-1/2"	5/8"	9/16"	7-3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6-1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6-1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6-1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6-1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5-1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5-1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4-1/4"	1/2"	3/8"

*Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
 **Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
 ***interrupt welds 1/4" from end of each pile.

Note:
 The steel H-piles shall be according to AASHTO M270 Grade 50.



GEORGE ROGERS CLARK DISCOVERY TRAIL
OVER FOURMILE CREEK
 SECTION 09-00038-00-BT
 MASSAC COUNTY
 STATION 1163+57.50
 STRUCTURE NUMBER 064-9918

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GR007	09-00038-00-BT	MASSAC	55	38
Index of Sheets, Highway Standards, General Notes and Summary of Quantities				
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
38	Index of Sheets, Highway Standards, General Notes, and Summary of Quantities
39	General Plan & Elevation
40	Abutments
41	Details

HIGHWAY STANDARDS

515001-03 NAME PLATE FOR BRIDGES

LETTERING FOR NAME PLATE:

STATION 1204+52.00
SEVENMILE CREEK
SEC. 09-00038-00-BT - BUILT 2010
MASSAC COUNTY
LOADING H10
STR. NO. 064-9919

LOCATE NAME PLATE ACCORDING TO STD. 515001-03.

GENERAL NOTES

The pedestrian truss super structure shall meet the requirements of Guide Bridge Special Provision GBSP 33.

The proposed bridge is within the 100-year flood plain. The pedestrian truss superstructure fabricator must maintain the low beam elevations and profile grade as shown on the drawings. The design of the truss shall include lateral forces caused by ice and debris. Ice and debris loadings shall be based on the requirements found in Section 3.18 of the 2002 Edition of the AASHTO Standard Specifications and the following information.

VAVG = see waterway information table for 100-year flood velocity
Cn = 0.5
p = 100 psi
t = 1 inch

Reinforcing bars shall conform to the requirements of ATM A706 Gr. 60 (IL Modified). See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

Filter Fabric and Bedding Material required for slope protection shall be considered incidental to stone dumped rip-rap, class A4. Filter Fabric and Bedding Material will not be measured for payment.

The Steel H-Piles shall be according to AASHTO M270 Grade 50.

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of the piles. Test piles shall be incidental to Fur. Steel Piles, HP12x63.

The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources (OWR) for any temporary construction activity placed in the water except cofferdams. This shall include placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to IDNR permit number as shown in the contract plans.

All proposed construction activity shall be in accordance with Statewide Permit No. 2 of the Illinois Department of Natural Resources - Office of Water Resources.

The Contractor has sole responsibility for means, methods, techniques, sequences and procedures of construction.

The Contractor has sole responsibility to comply with all OSHA regulations.

The abutment and piers as shown on the drawings have been designed for the Contech Bridge Solutions Pedestrian Truss Superstructure. Contractor will be responsible for modifications to plans and engineering for alternate truss superstructure supplier. The contractor shall retain the services of a State of Illinois licensed structural engineer for the design of alternations or modifications of the abutments and piers as required to accommodate an alternate truss superstructure supplier.

All miscellaneous items and incidentals are not specified on these drawings. Contractor is responsible for obtaining and installing all materials, miscellaneous items and incidentals for completion of the bridges to a functional and acceptable state. Miscellaneous items and incidentals will not be measured for payment.

COMMITMENTS

No commitments have been made for this project.



BRIDGE REACTIONS (FOR EACH BRIDGE SPAN)		THE ABUTMENTS AND PIER WERE DESIGNED BASED ON THE FOLLOWING LOADINGS PROVIDED BY CONTECH BRIDGE SOLUTIONS	
		P (LBS)	H (LBS)
Dead Load		44,750	
Uniform Live Load		54,935	
Vehicle Load		5,000	
Wind Uplift (20 PSF)	WINDWARD LEEWARD	- 22,915 - 7,640	
Wind		± 22,665	47,295
Thermal			6,715

LOAD COMBINATIONS ARE IN ACCORDANCE WITH THE 2002 AASHTO STANDARD SPECIFICATION.

TOTAL BILL OF MATERIAL

Code No.	Item	Unit	Super	Sub.		Total
				Piers	Abuts.	
28100807	Stone Dumped Rip-Rap, Class A4	TON	---	---	96	96
50200100	Structure Excavation	Cu. Yd.	---	---	93.8	93.8
50300225	Concrete Structure	Cu. Yd.	---	---	25.0	25.0
50800105	Reinforcement Bars	Pound	---	---	2,182	2,182
51201610	Fur. Steel Piles, HP12x63	Foot	---	---	400	400
51202305	Driving Piles	Foot	---	---	400	400
51500100	Name Plates	Each	---	---	1.0	1.0
59300100	Controlled Low-Strength Mat'l.	Cu. Yd.	---	---	29.6	29.6
X0322508 *	Pedestrian Truss Super Structure	Sq. Ft.	2,585	---	---	2,585

* Specialty Item



engineering, inc.
501 N. WASHINGTON STREET
METROPOLIS, ILLINOIS 60660
DR/PERM (616) 525-1000
HOURS: 9:00 AM - 5:00 PM
IL LICENSE NO. 164-004406

**GEORGE ROGERS CLARK DISCOVERY TRAIL
OVER SEVENMILE CREEK**
SECTION 09-00038-00-BT
MASSAC COUNTY
STATION 1204+52.00
STRUCTURE NUMBER 064-9919

BENCH MARK

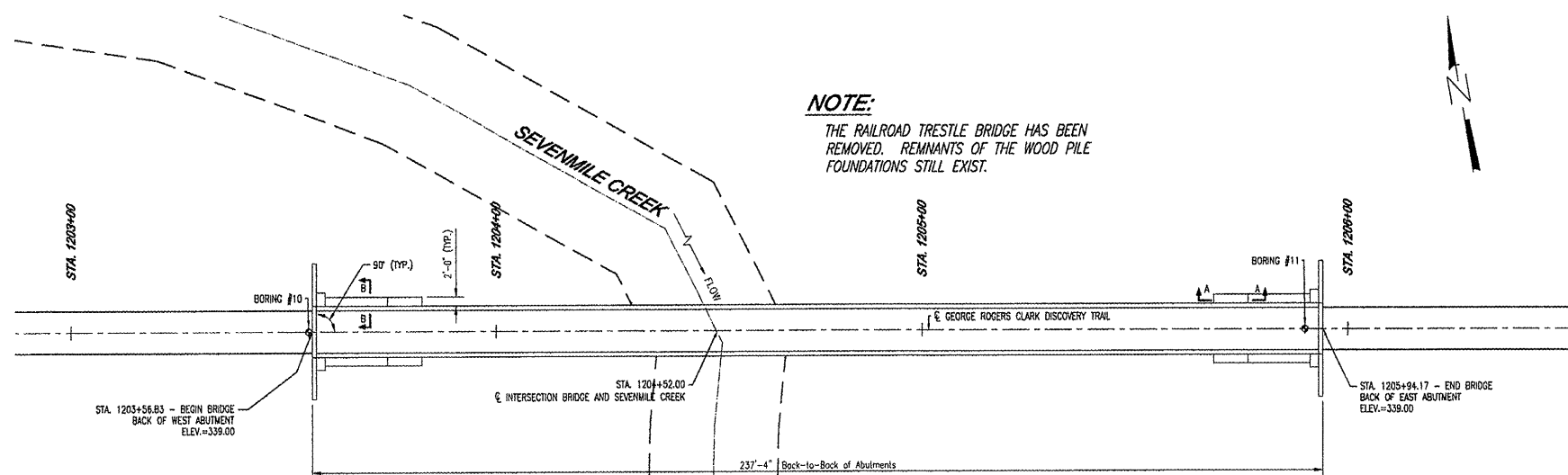
1/2" DIA. X 24" REBAR, WITH PLASTIC SURVEY CAP MARKED "CITY OF METROPOLIS." C.P. (3-7) #55, ELEV. = 339.68, LOCATED ON CENTERLINE OF RAILROAD BED AT STATION 1205+87.88.

NOTE:

THE PUBLISHED 100yr FLOOD ELEVATION FOR THE OHIO RIVER IS 338.0 THEREFORE, BACKWATER FROM THE OHIO RIVER CAN ENCROACH ON THE BRIDGE SUPERSTRUCTURE.

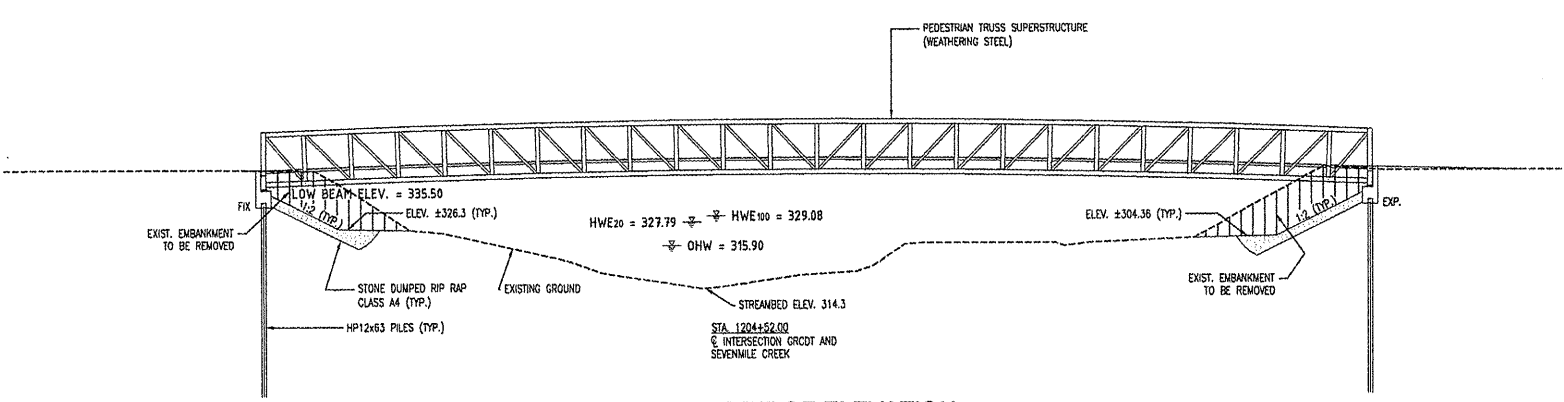
NOTE:

THE RAILROAD TRESTLE BRIDGE HAS BEEN REMOVED. REMNANTS OF THE WOOD PILE FOUNDATIONS STILL EXIST.



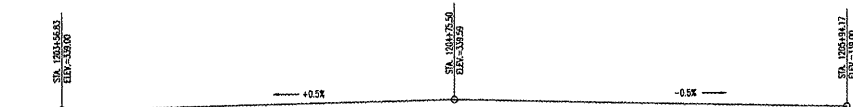
BRIDGE PLAN

SCALE: 1" = 20'



BRIDGE ELEVATION

SCALE: 1" = 20' (HORIZONTAL AND VERTICAL)
OHW = ORDINARY HIGH WATER



PROFILE GRADE

(Along & Bike Path)

HIGHWAY CLASSIFICATION

CLASS: BIKE PATH
A.D.T.: N/A
D.H.V.: N/A
DESIGN SPEED: 20 MPH
POSTED SPEED: N/A

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (reinforcement)
fy = 50,000 psi (M270 GRADE 50W)
fy = 36,000 psi (A36)

DESIGN SPECIFICATIONS

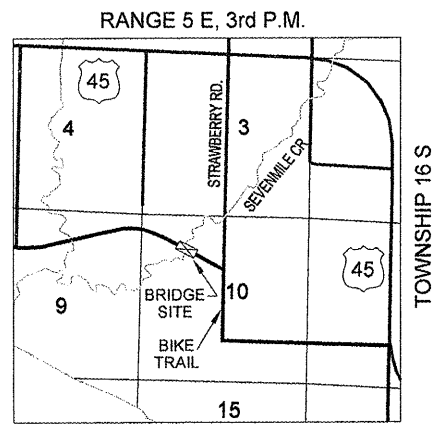
2002 AASHTO STANDARD SPECIFICATIONS
1997 AASHTO GUIDE SPECIFICATIONS FOR DESIGN
F PEDESTRIAN BRIDGES

SEISMIC DATA

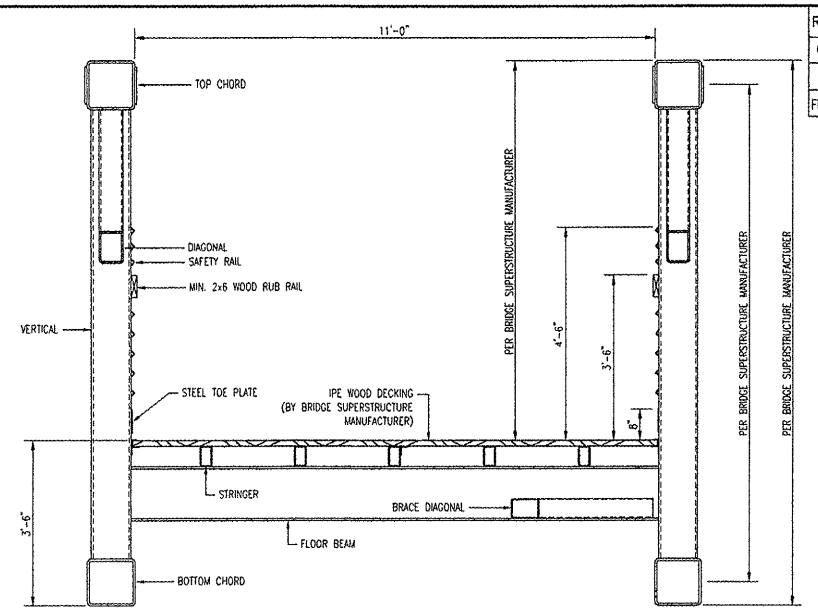
SEISMIC PERFORMANCE CATEGORY (SPC) = B
BEDROCK ACCELERATION COEFFICIENT (A) = 0.15g
SITE COEFFICIENT = 1.2

LOADING H-10

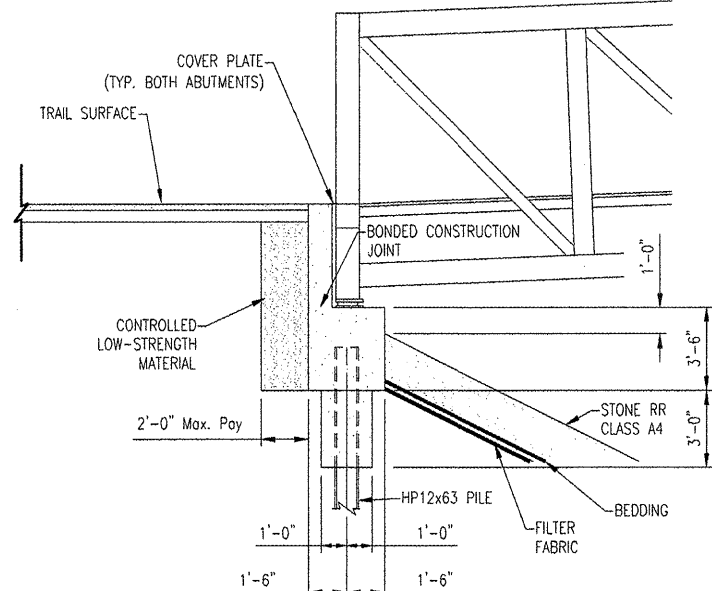
85 PSF MIN. LIVE LOAD



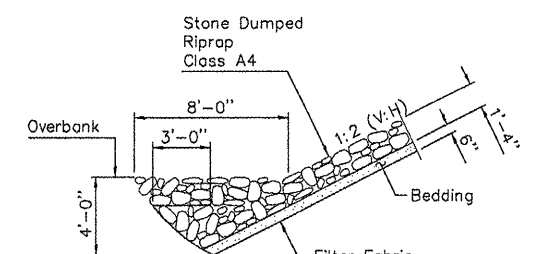
LOCATION SKETCH



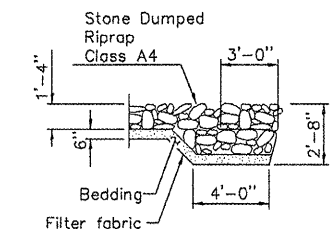
CROSS SECTION



SECTION THRU ABUTMENT



SECTION A-A



SECTION B-B

WATERWAY INFORMATION

DRAINAGE AREA = 14.635 SQ. MI.

FLOOD	FREQ. (YR.)	Q (C.F.S.)	OPENING (SQ. FT.)		NATURAL HEAD (FT.)		HEADWATER ELEV.		
			EXIST.	PROP.	H.W.E. EXIST.	PROP.	EXIST.	PROP.	
DESIGN	20	4,073	N/A	1,322	327.76	0	0.03	327.76	327.79
CHECK	50	5,160	N/A	1,495	328.58	0	0.05	328.58	328.63
BASE	100	5,910	N/A	1,588	328.99	0	0.09	328.99	329.08

100 YEAR VELOCITY THROUGH PROP. BRIDGE = 3.62 fps



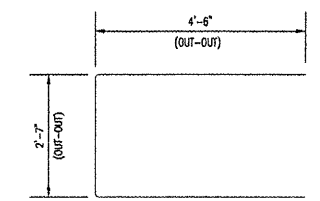
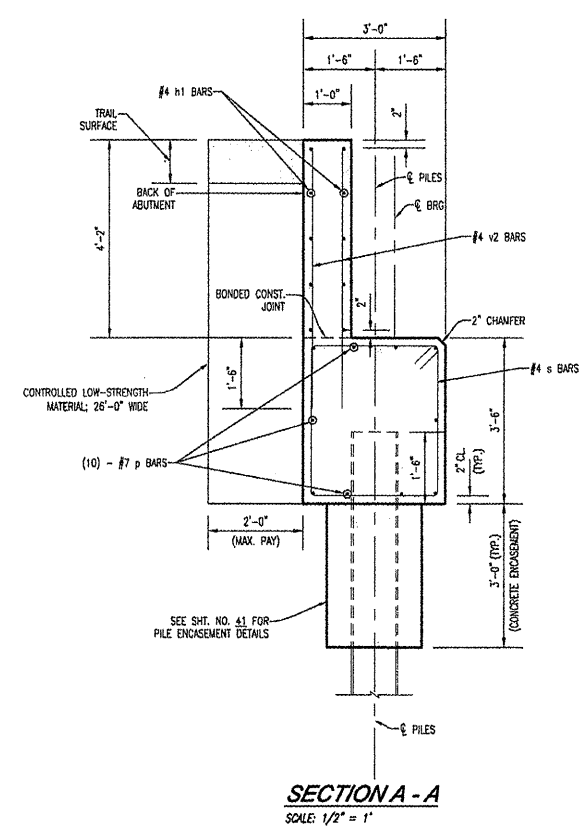
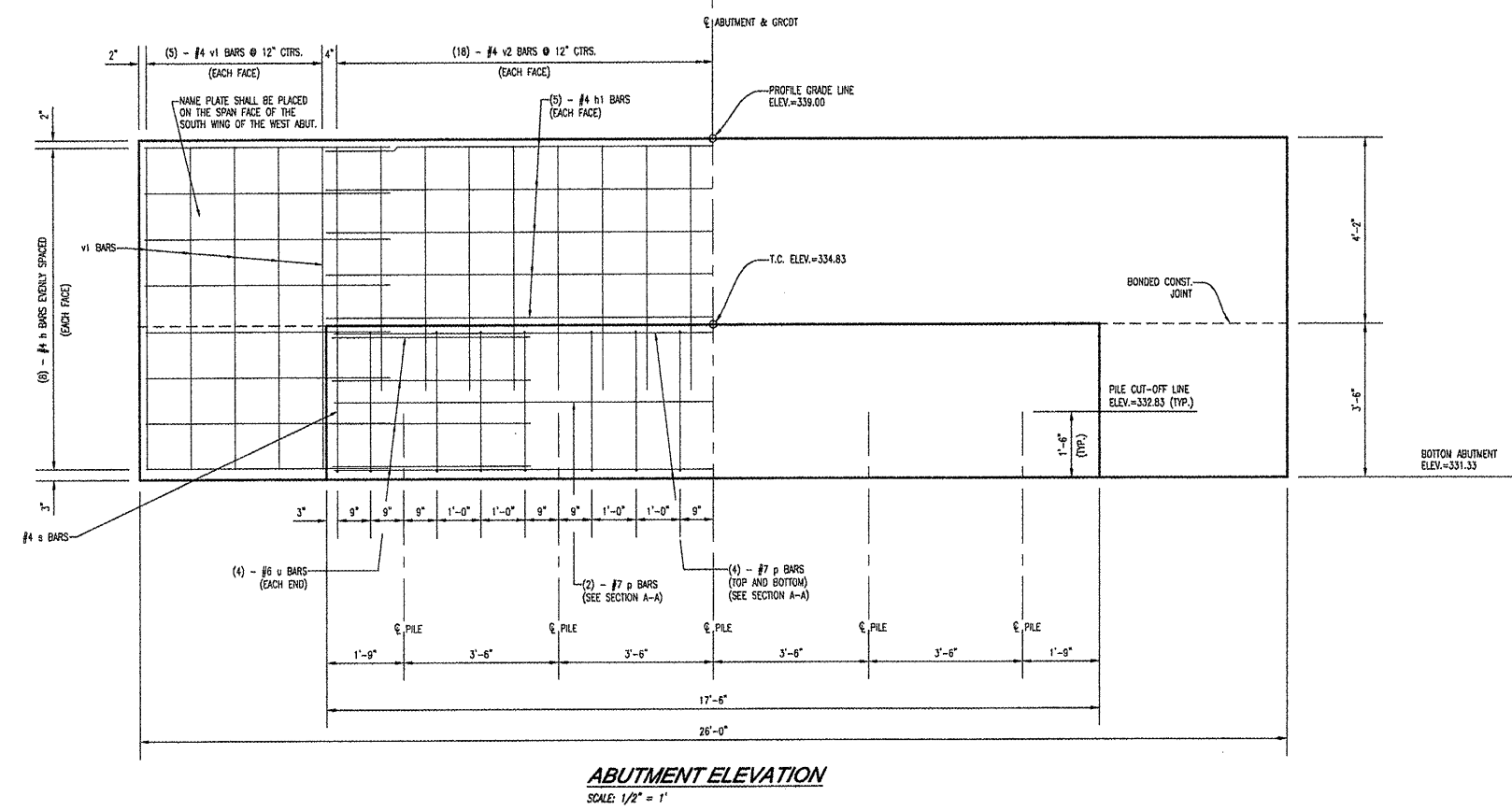
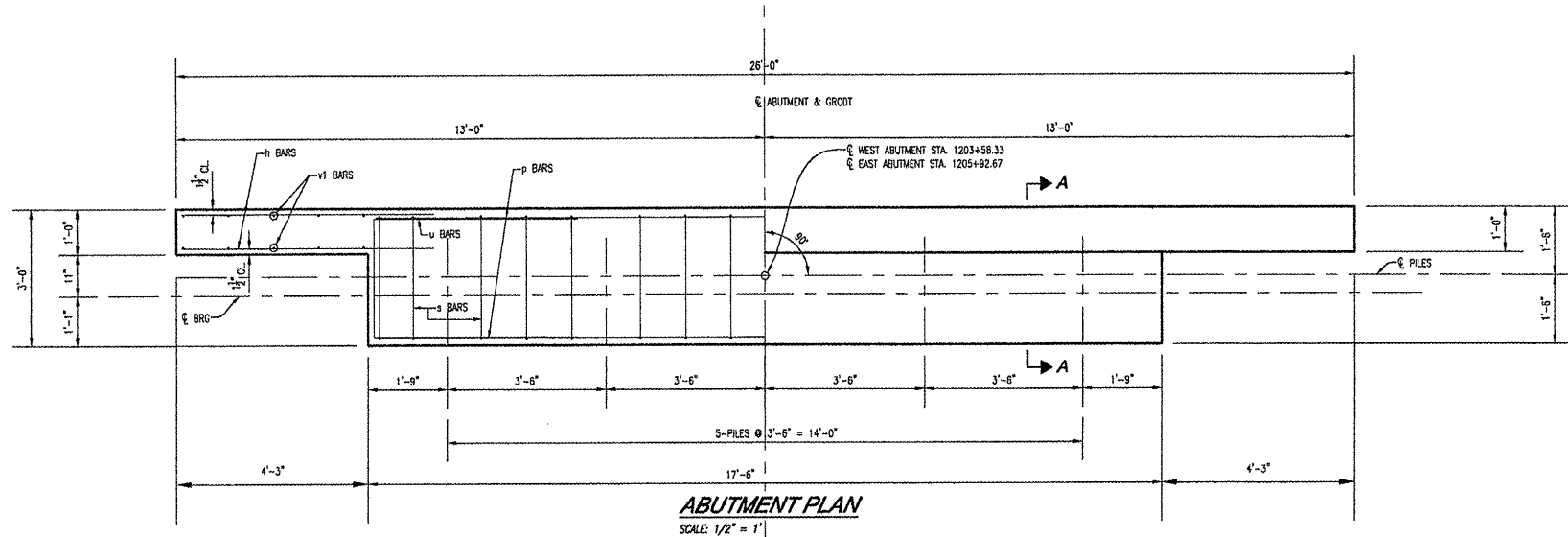
engineering, inc.
804 N. MAIN ST. STE. 200
MARIETTA, OHIO 45750
PH/FAX: (614) 851-1000
WWW.ENGI-INC.COM
IL LICENSE NO. 100-004008

**GEORGE ROGERS CLARK DISCOVERY TRAIL
OVER SEVENMILE CREEK**
SECTION 09-00038-00-BT
MASSAC COUNTY
STATION 1204+52.00
STRUCTURE NUMBER 064-9919



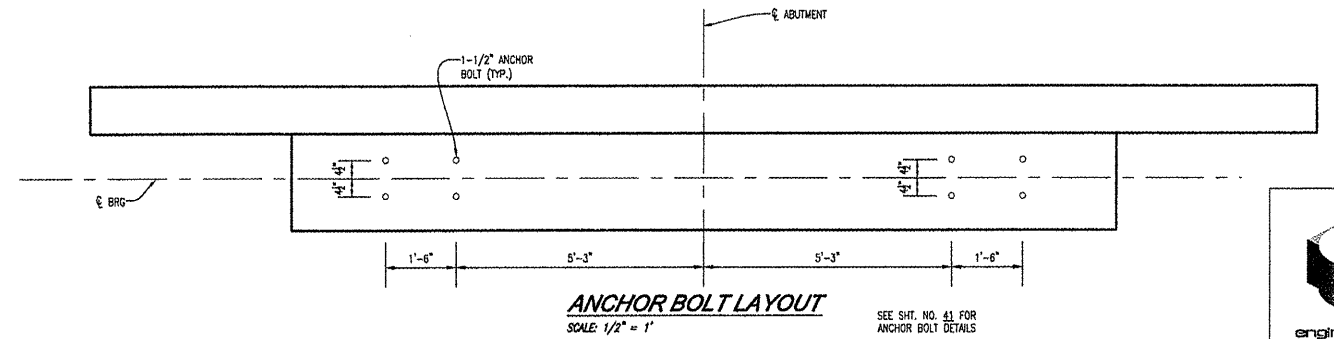
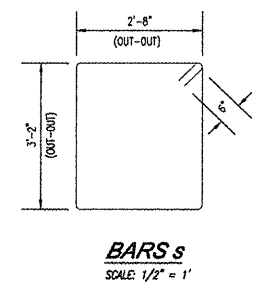
November 20, 2010

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	40
Abutments				
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	



BILL OF MATERIAL FOR ONE ABUTMENT

Bar	No.	Size	Length	Shape
h	32	#4	5'-7"	—
h1	10	#4	17'-6"	—
p	10	#7	17'-2"	—
s	16	#4	12'-8"	□
u	8	#6	11'-7"	□
v1	20	#4	7'-4"	—
v2	36	#4	5'-6"	—
Concrete Structures *		12.5 Cu. Yd.		
Reinforcement Bars		1,091 Lb.		
Structure Excavation		46.9 Cu. Yd.		
Furnishing Steel Piles, HP 12x63		200 Fl.		
Driving Piles		200 Fl.		
Controlled Low Strength Mat ¹		14.8 Cu. Yd.		



DESIGN STRESSES

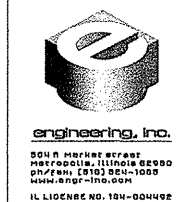
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Steel Reinforcement)

PILE DATA

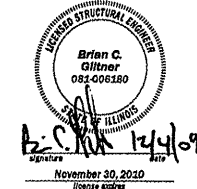
Type HP 12x63 (Grade 50)
 No. Required 10 (for 2 Abutments)
 Allowable Resistance Available 89 kips per pile (West Abutment)
 80 kips per pile (East Abutment)
 Nominal Required Bearing 206 kips per pile (West Abutment)
 264 kips per pile (East Abutment)
 Estimated Length 40 feet per pile

NOTES

1. Reinforcement bars shall conform to the requirements of A.A.S.H.T.O. M-31 or M-322, Grade 60.
2. Reinforcement shall be spaced in cap to miss anchor bolts.

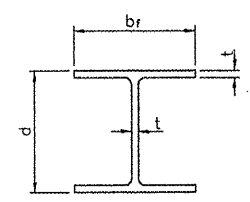


**GEORGE ROGERS CLARK DISCOVERY TRAIL
 OVER SEVENMILE CREEK
 SECTION 09-00038-00-BT
 MASSAC COUNTY
 STATION 1204+52.00
 STRUCTURE NUMBER 064-9919**



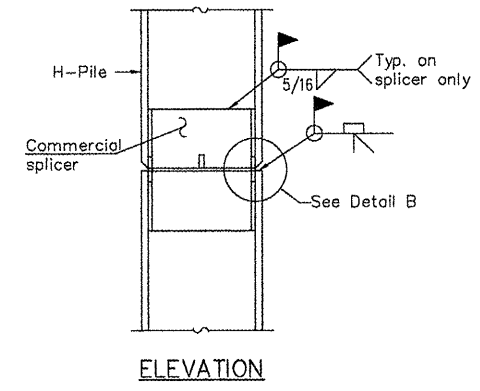
* Concrete for Pile Encasement is included in this quantity.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	41
Details				
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	

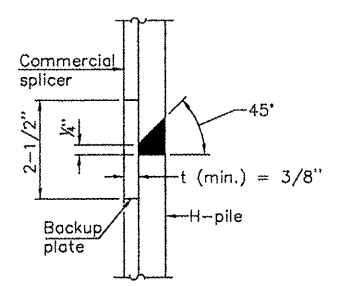


STEEL PILE TABLE

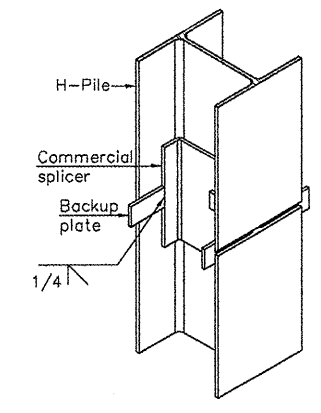
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14-1/4"	14-7/8"	13/16"	30"
x102	14"	14-3/4"	11/16"	30"
x89	13-7/8"	14-3/4"	5/8"	30"
x73	13-5/8"	14-5/8"	1/2"	30"
HP 12x84	12-1/4"	12-1/4"	11/16"	24"
x74	12-1/8"	12-1/4"	5/8"	24"
x63	12"	12-1/8"	1/2"	24"
x53	11-3/4"	12"	7/16"	24"
HP 10x57	10"	10-1/4"	9/16"	24"
x42	9-3/4"	10-1/8"	7/16"	24"
HP 8x36	8"	8-1/8"	7/16"	18"



ELEVATION

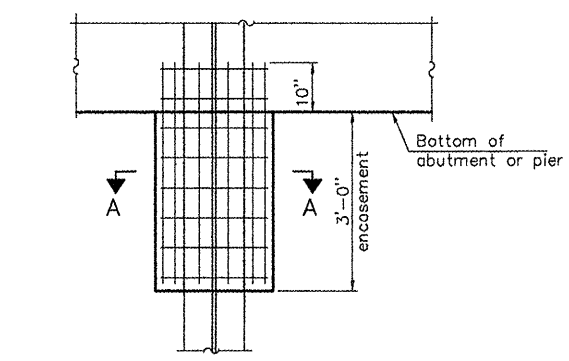


DETAIL "B"



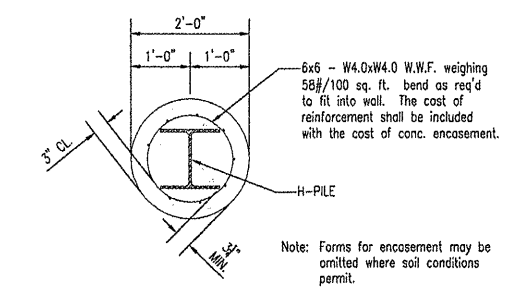
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



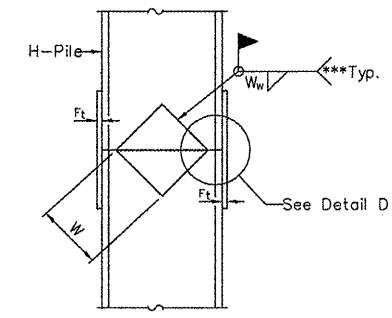
ELEVATION

PILE ENCASEMENT

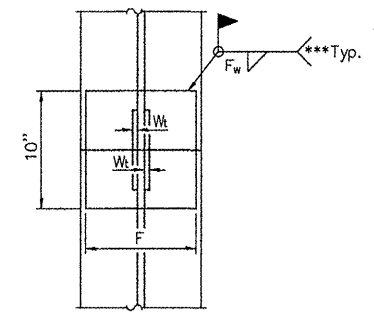


SECTION A-A

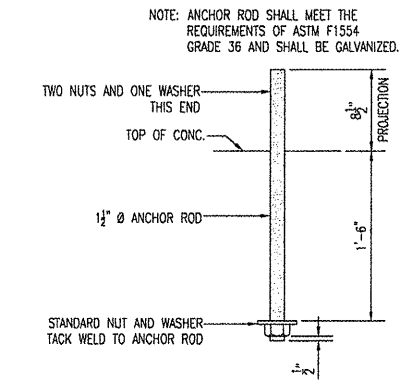
Note: Forms for encasement may be omitted where soil conditions permit.



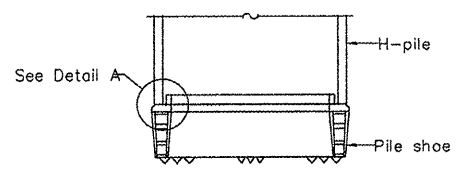
ELEVATION



END VIEW

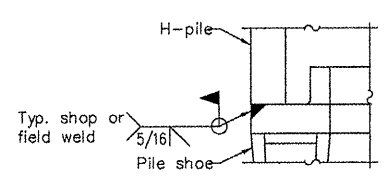


ANCHOR ROD

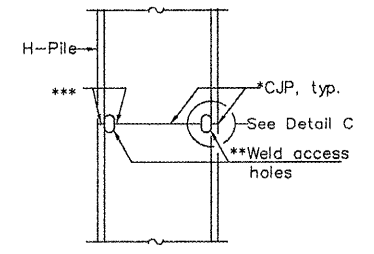


ELEVATION

H-PILE SHOE ATTACHMENT

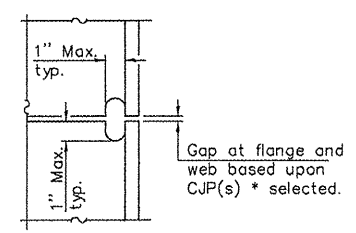


DETAIL A

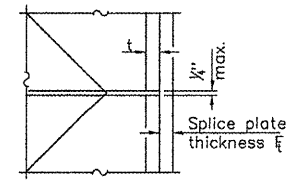


ELEVATION

COMPLETE PENETRATION WELD SPLICE



DETAIL C



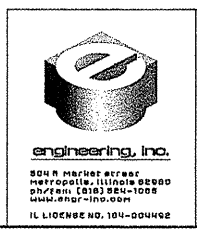
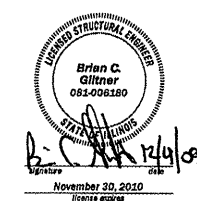
DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12-1/2"	1"	7/8"	7-3/4"	5/8"	1/2"
x102	12-1/2"	7/8"	3/4"	7-3/4"	5/8"	1/2"
x89	12-1/2"	3/4"	11/16"	7-3/4"	5/8"	1/2"
x73	12-1/2"	5/8"	9/16"	7-3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6-1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6-1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6-1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6-1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5-1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5-1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4-1/4"	1/2"	3/8"

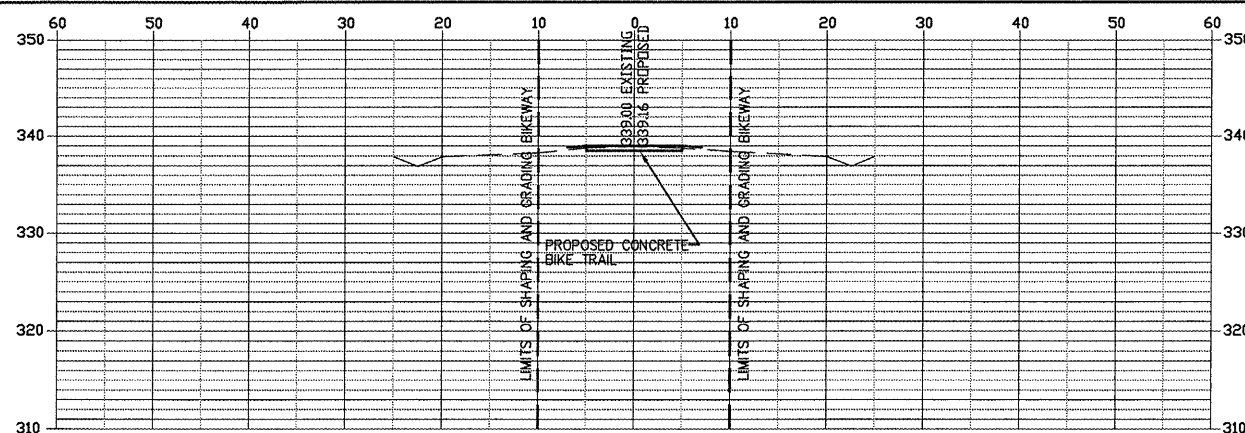
*Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
 **Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
 ***Interrupt welds 1/4" from end of each pile.

Note:
 The steel H-piles shall be according to AASHTO M270 Grade 50.

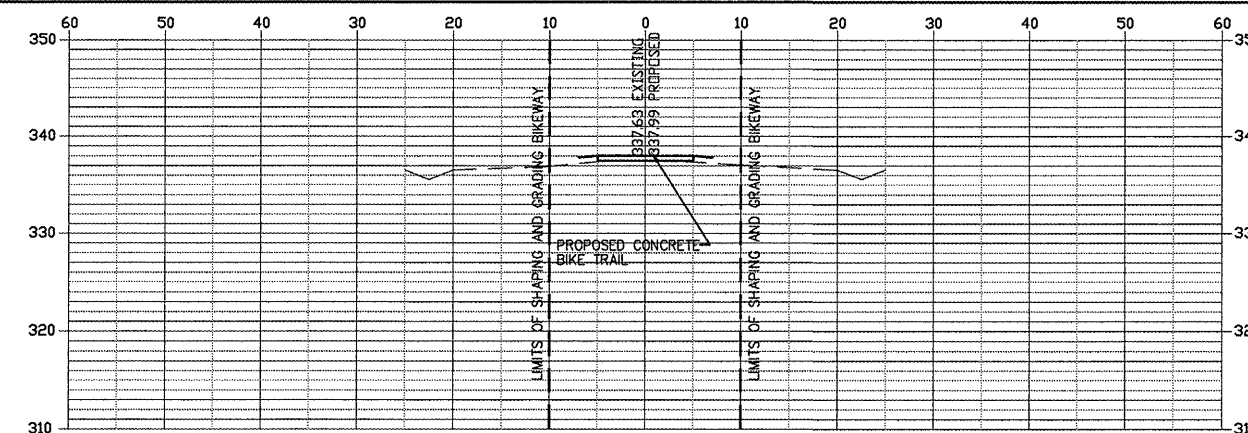


**GEORGE ROGERS CLARK DISCOVERY TRAIL
 OVER SEVENMILE CREEK
 SECTION 09-00038-00-BT
 MASSAC COUNTY
 STATION 1204+52.00
 STRUCTURE NUMBER 064-9919**

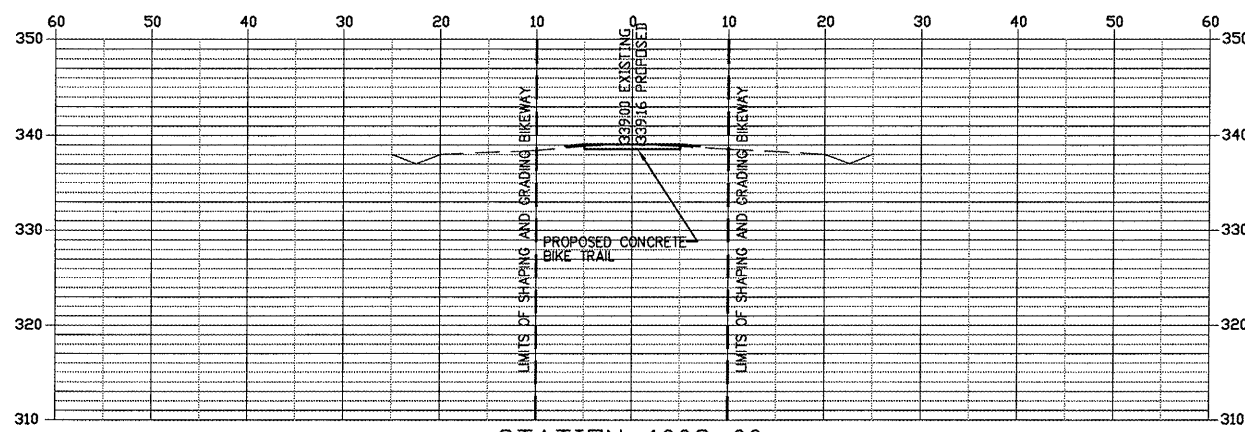
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT09-00038-00-BT		MASSAC	55	42
FROM STA. 999+98 TO STA. 1014+00				
FEDERAL PROJECT NO. ARA-5045(009) CONTRACT NO. 99417				



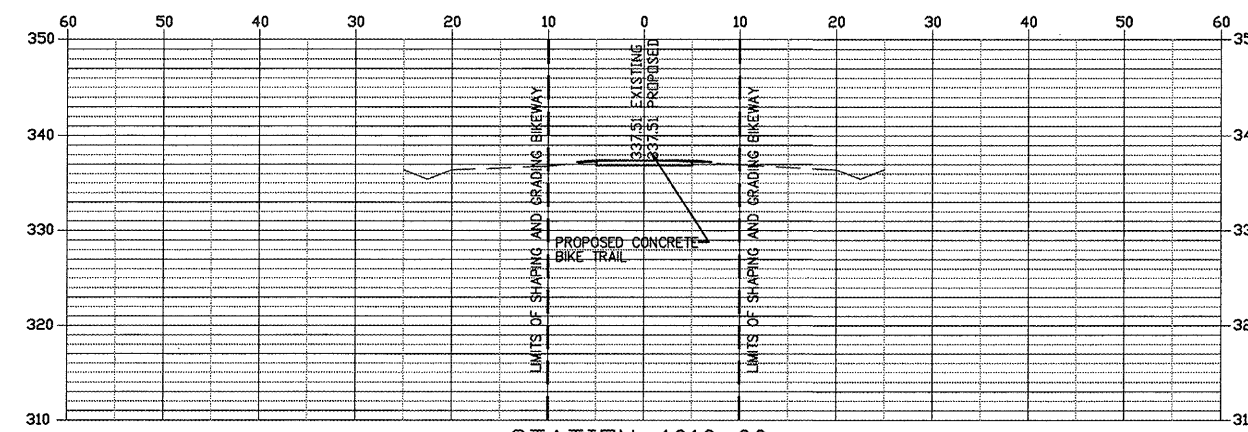
STATION 999+98



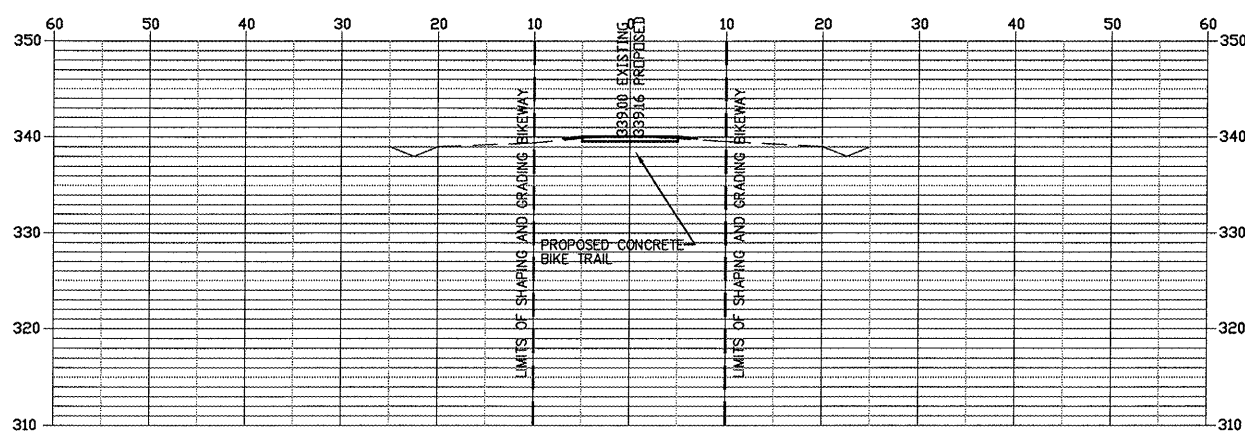
STATION 1008+00



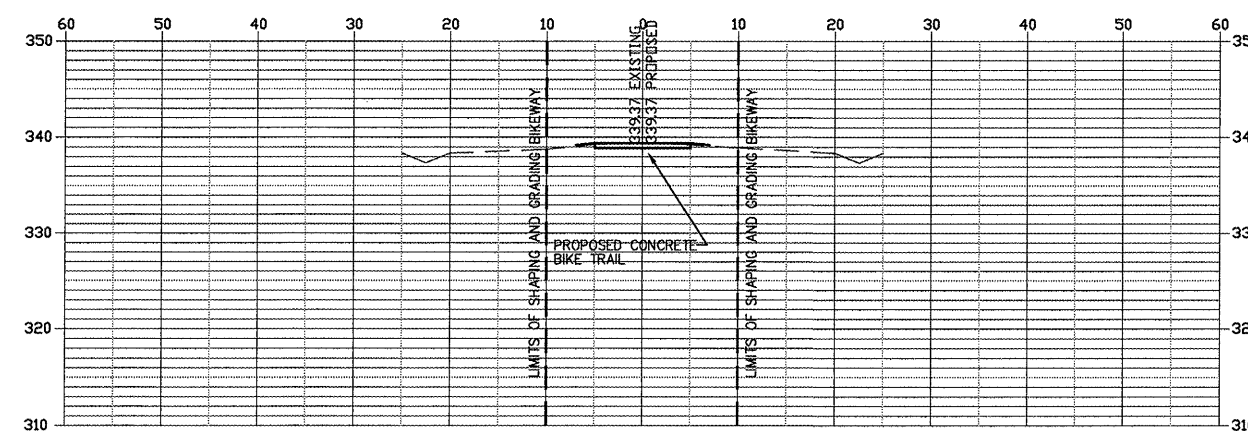
STATION 1002+00



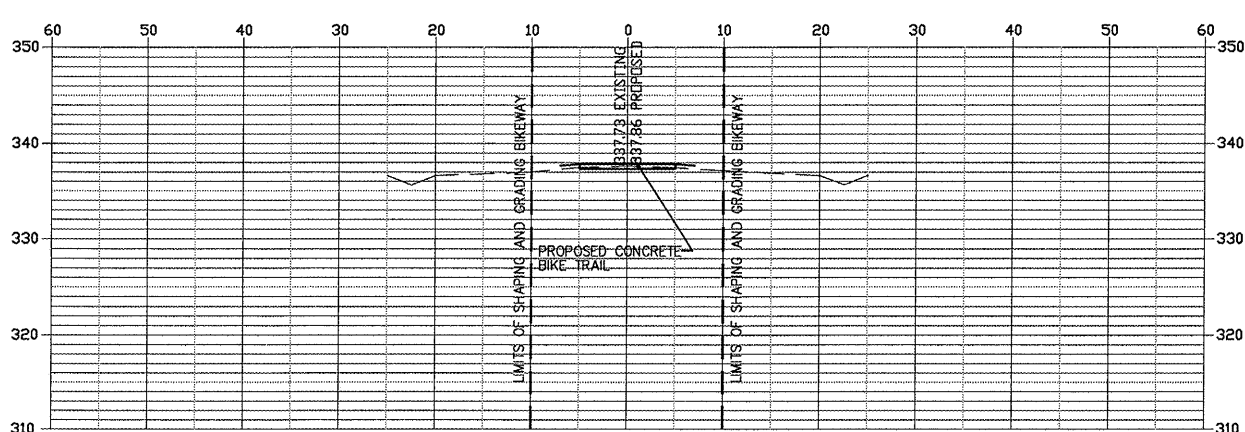
STATION 1010+00



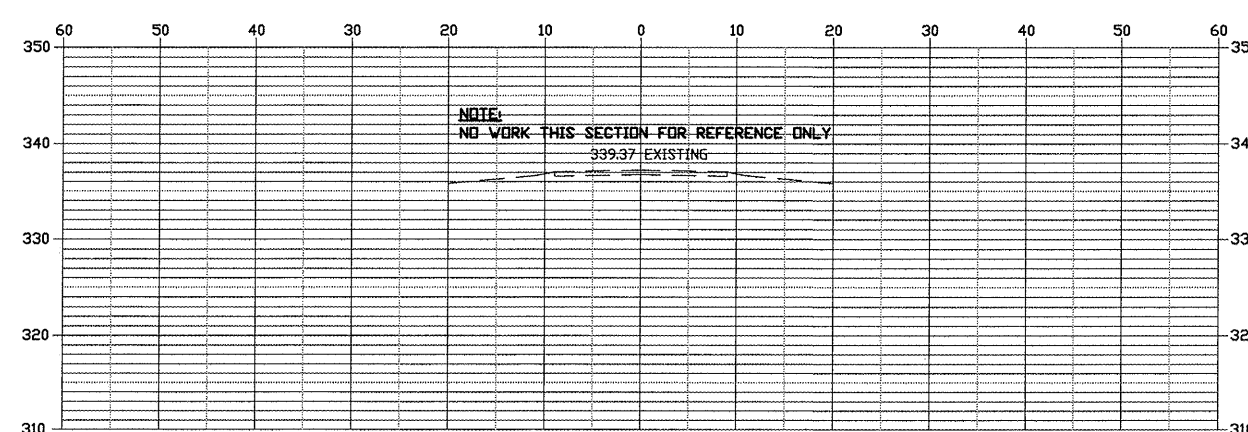
STATION 1004+00



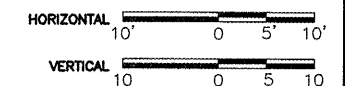
STATION 1012+00



STATION 1006+00

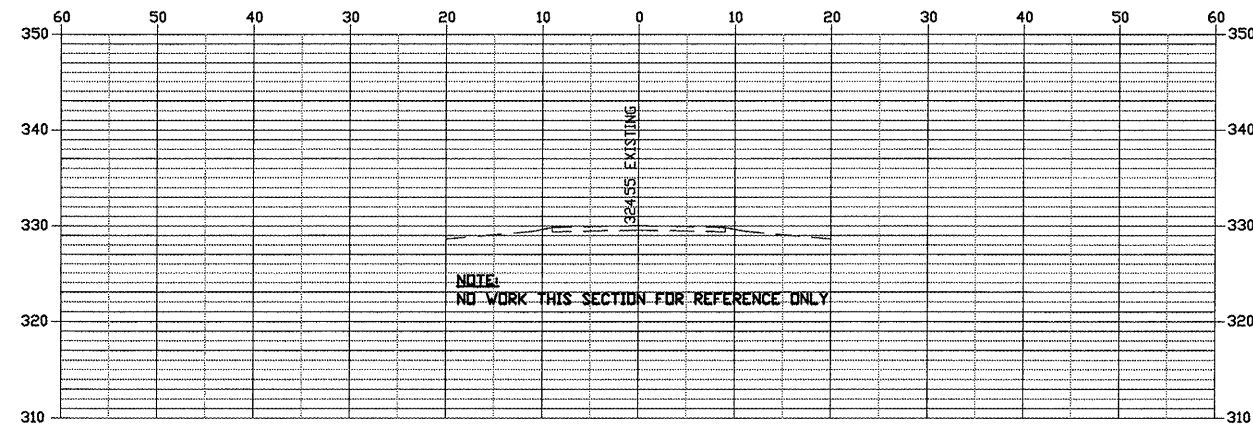


STATION 1014+00

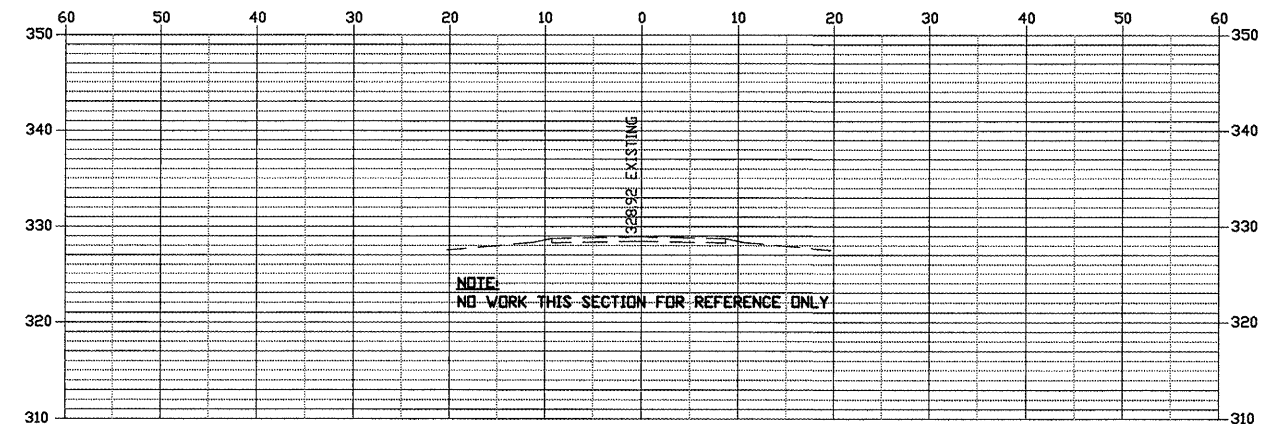


FROM STA. 999+98 TO 1014+00

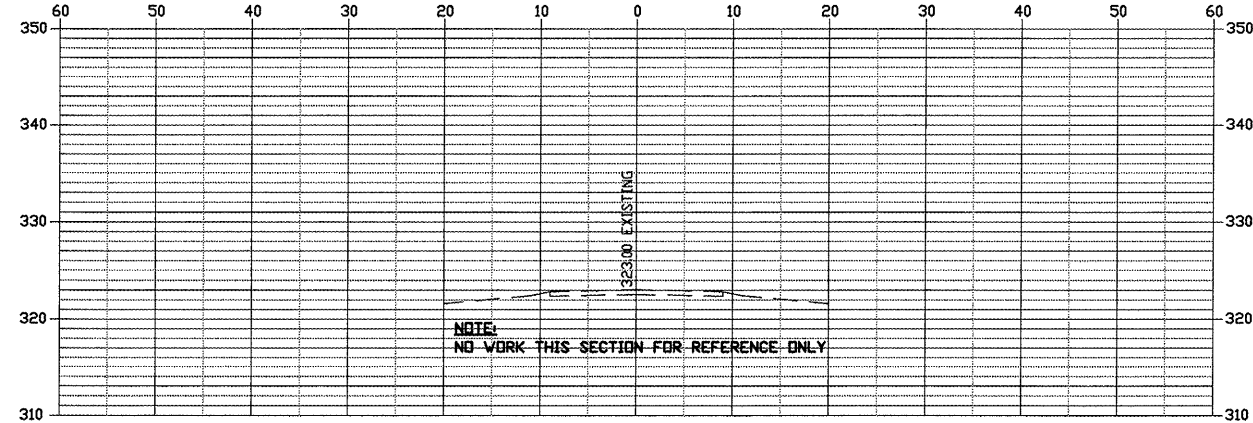
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	43
FROM STA. 1016+00 TO STA. 2+00				
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	



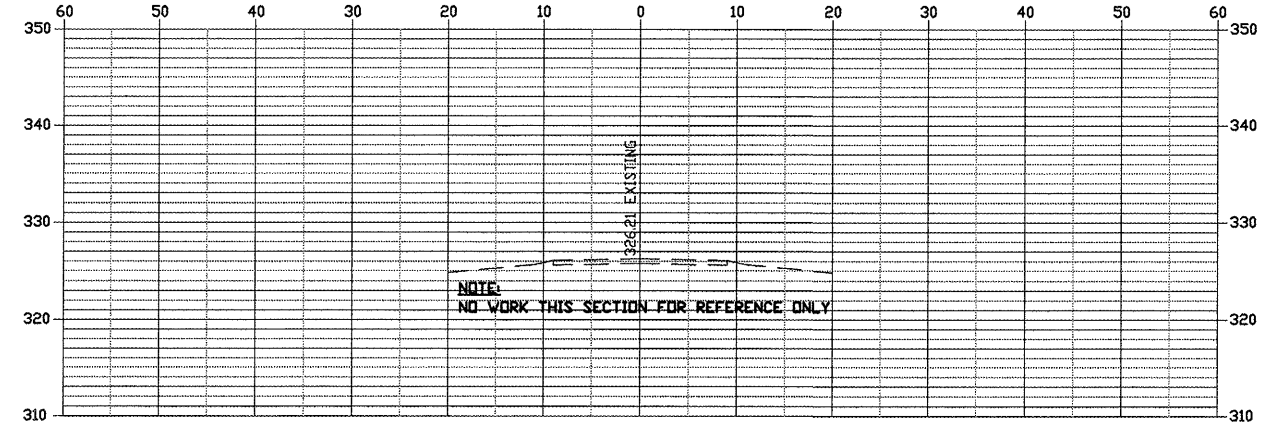
STATION 1016+00



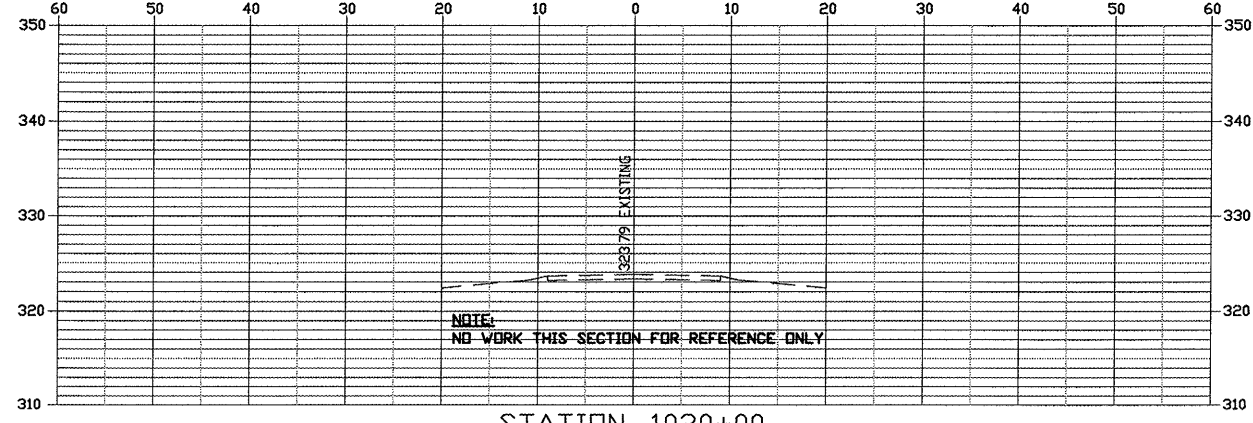
STATION 1024+00



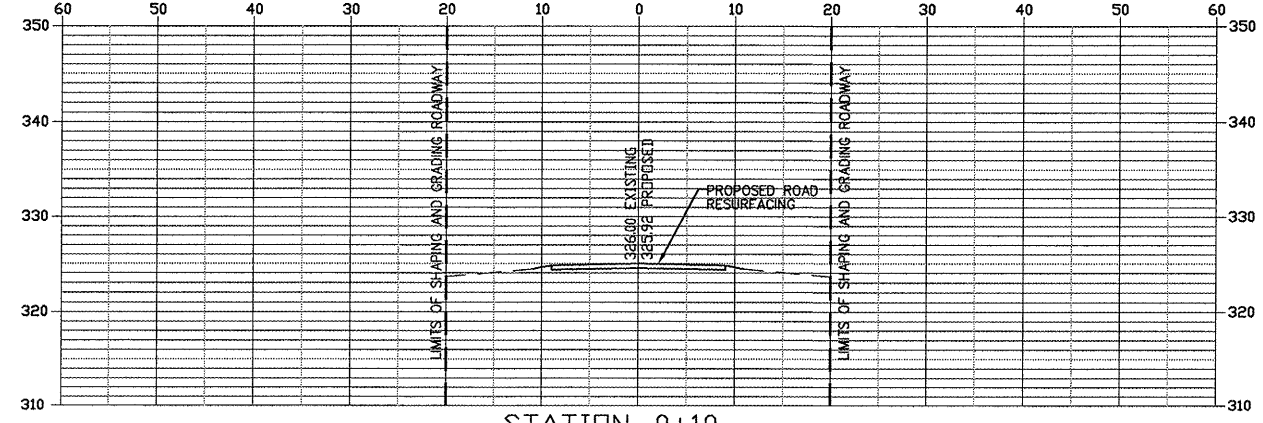
STATION 1018+00



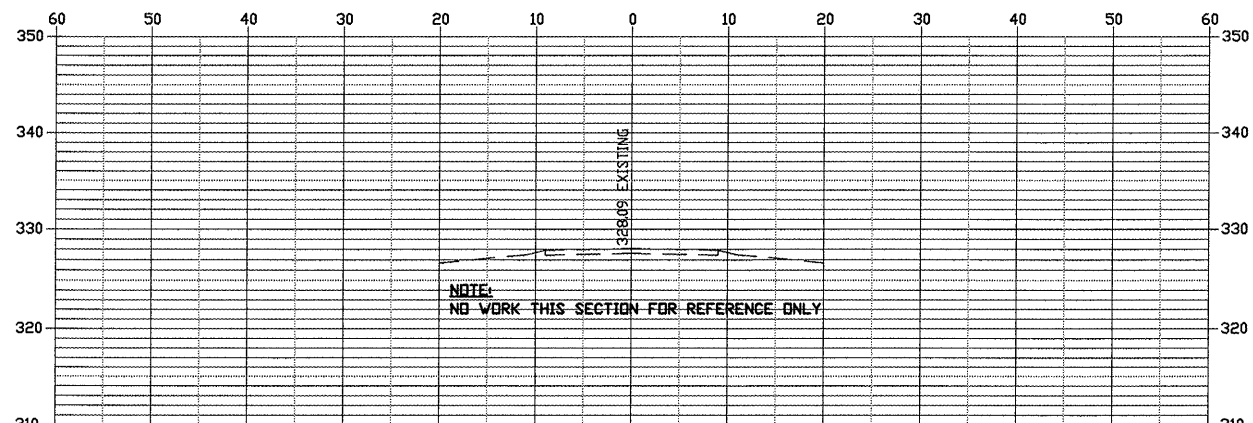
STATION 1026+00



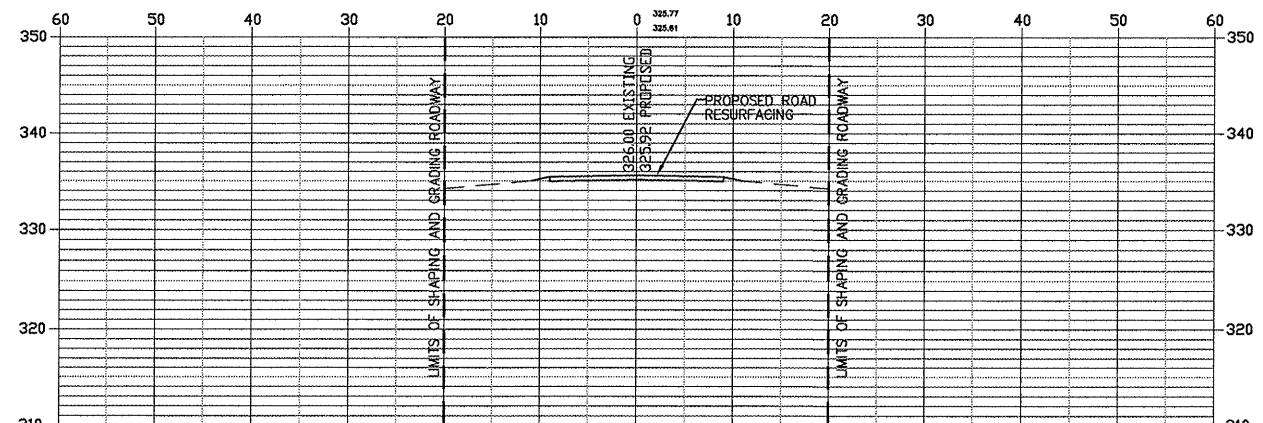
STATION 1020+00



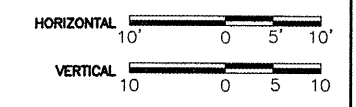
STATION 0+10



STATION 1022+00

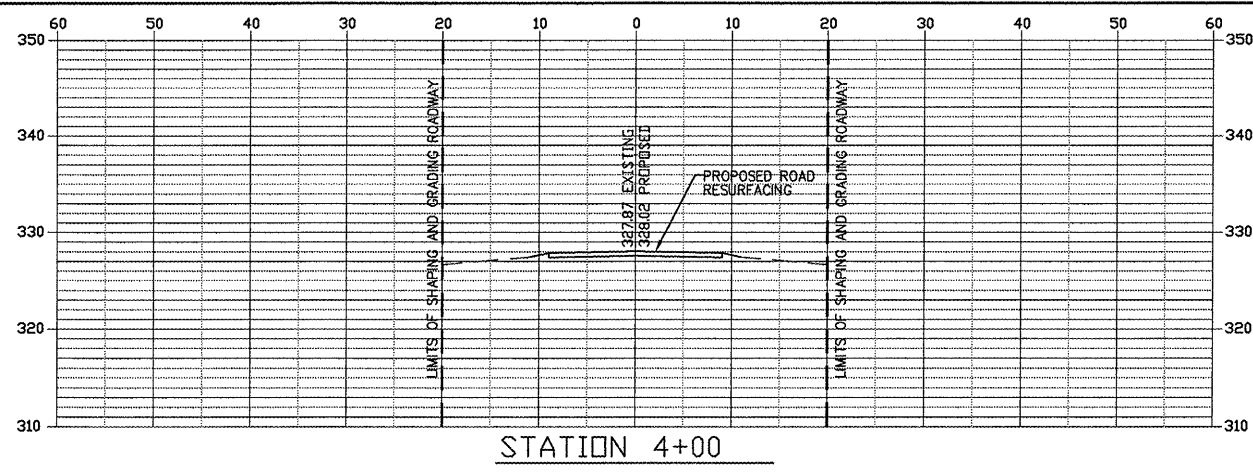


STATION 2+00

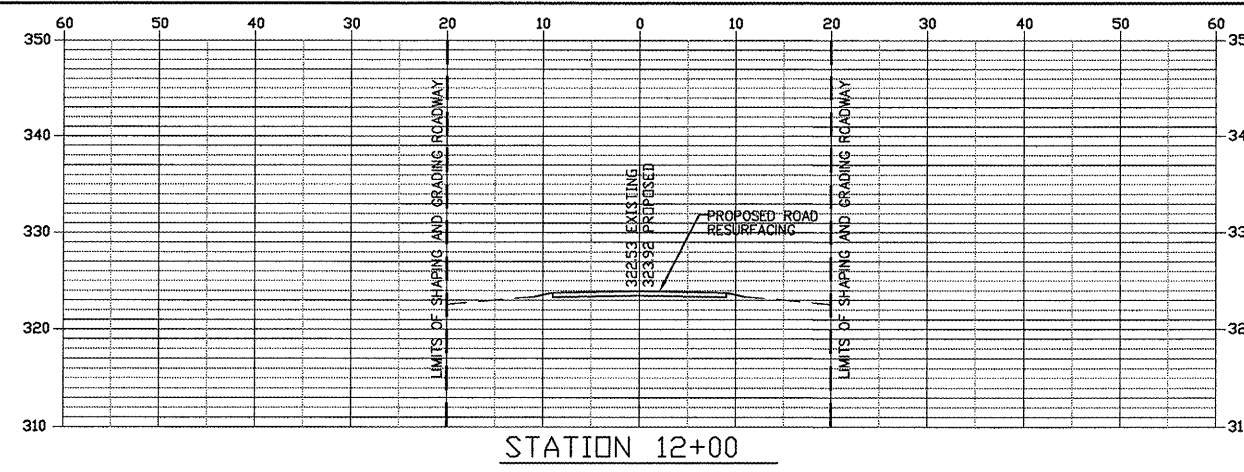


FROM STA. 1016+00 TO 2+00

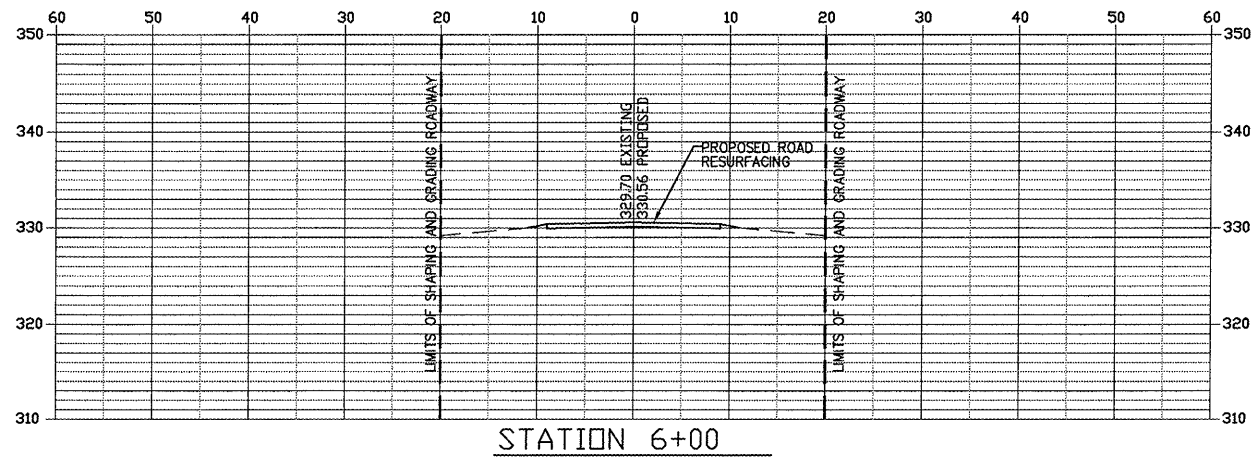
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	44
FROM STA. 4+00		TO STA. 18+00		
FEDERAL PROJECT NO. ARA-5045(009)		CONTRACT NO. 99417		



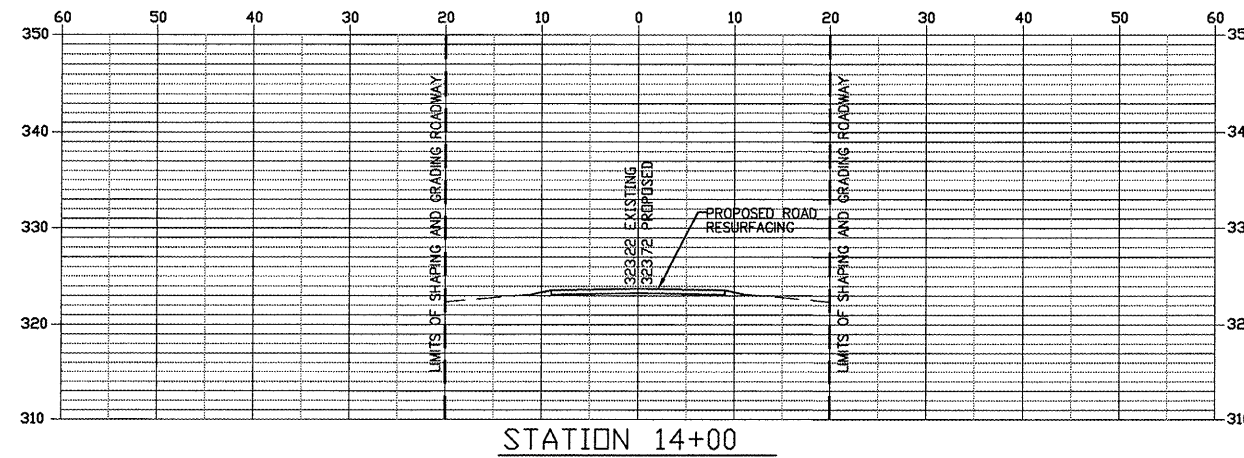
STATION 4+00



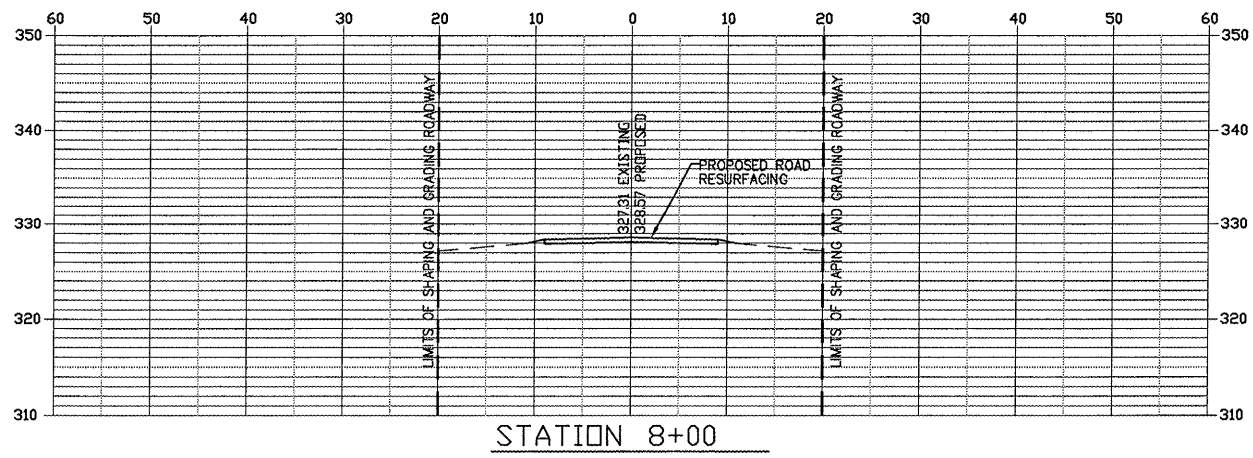
STATION 12+00



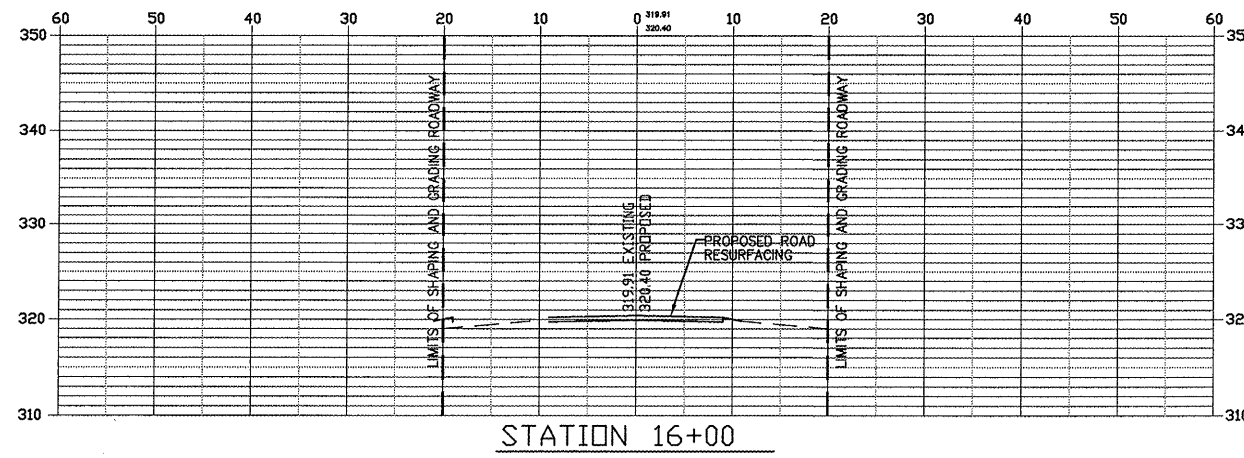
STATION 6+00



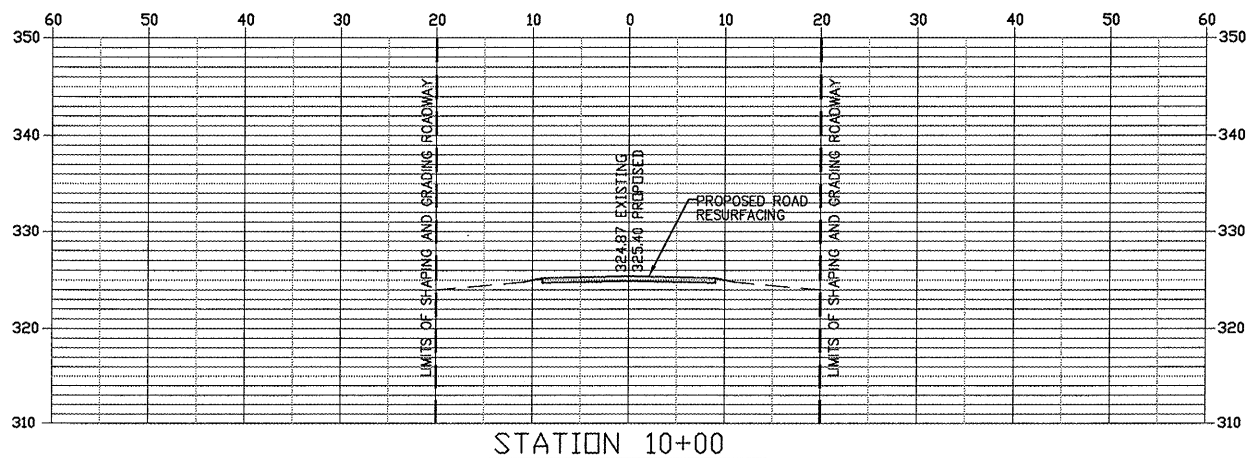
STATION 14+00



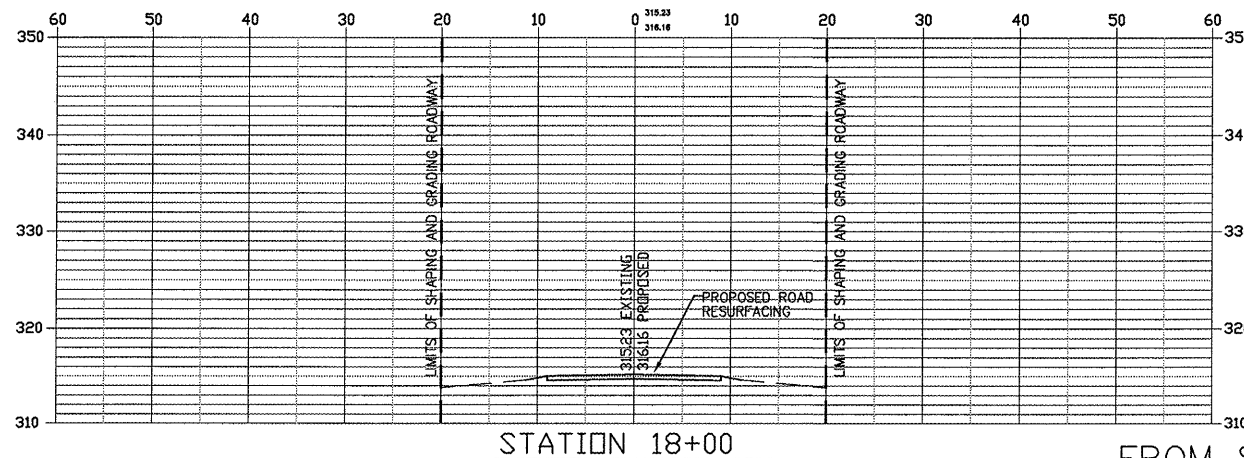
STATION 8+00



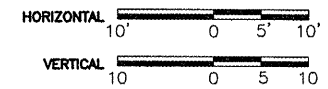
STATION 16+00



STATION 10+00

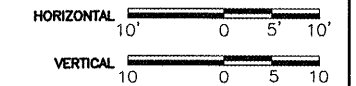
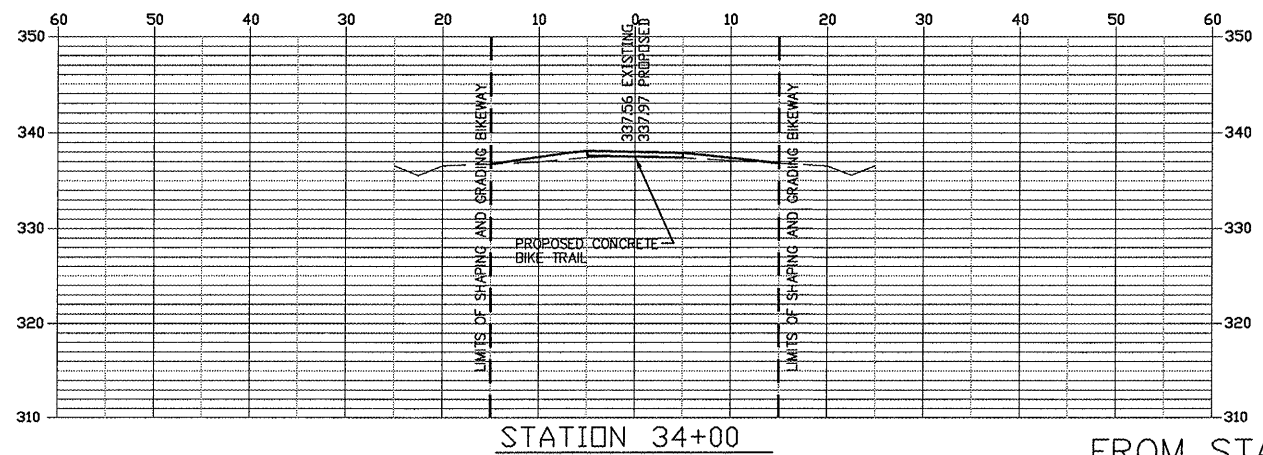
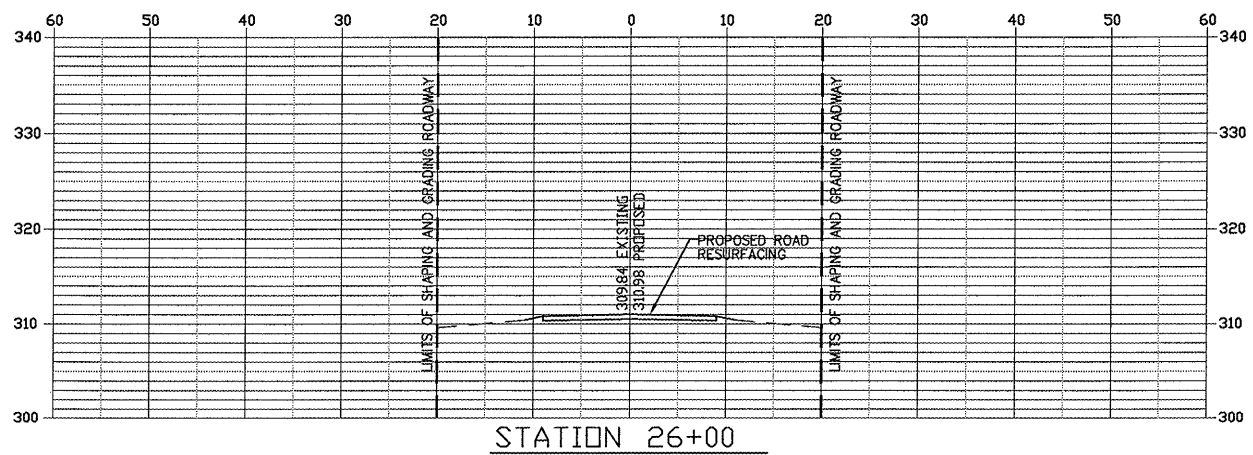
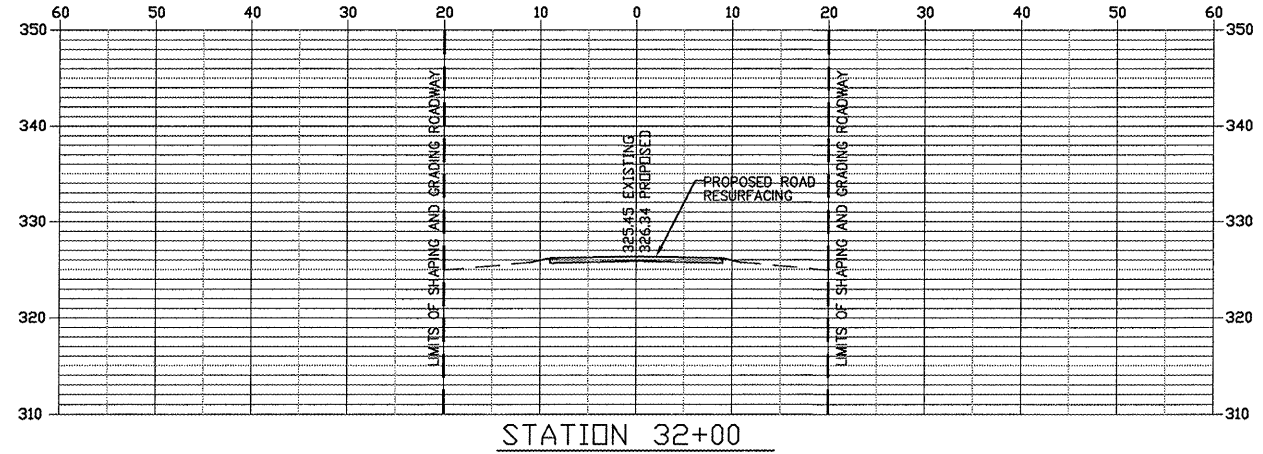
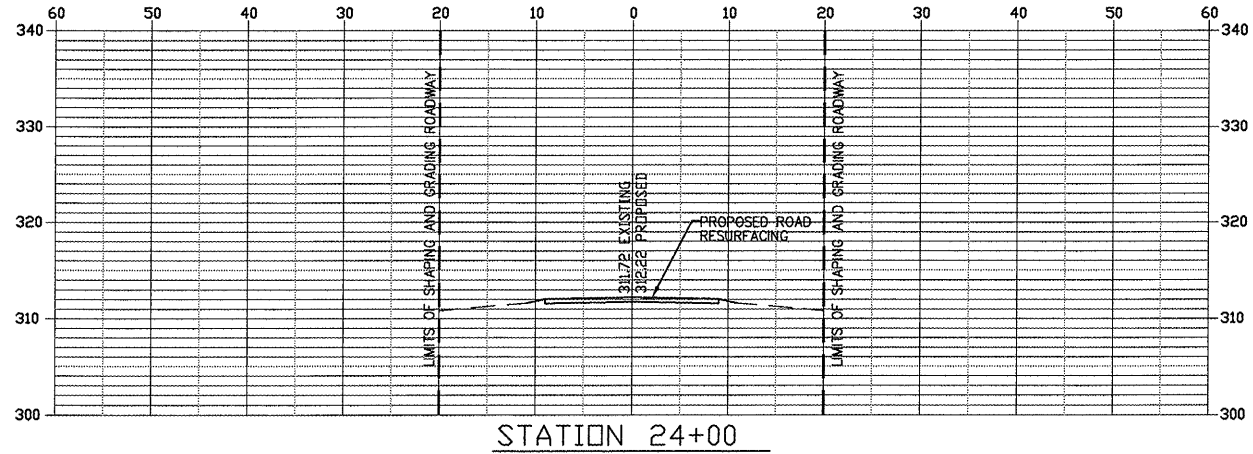
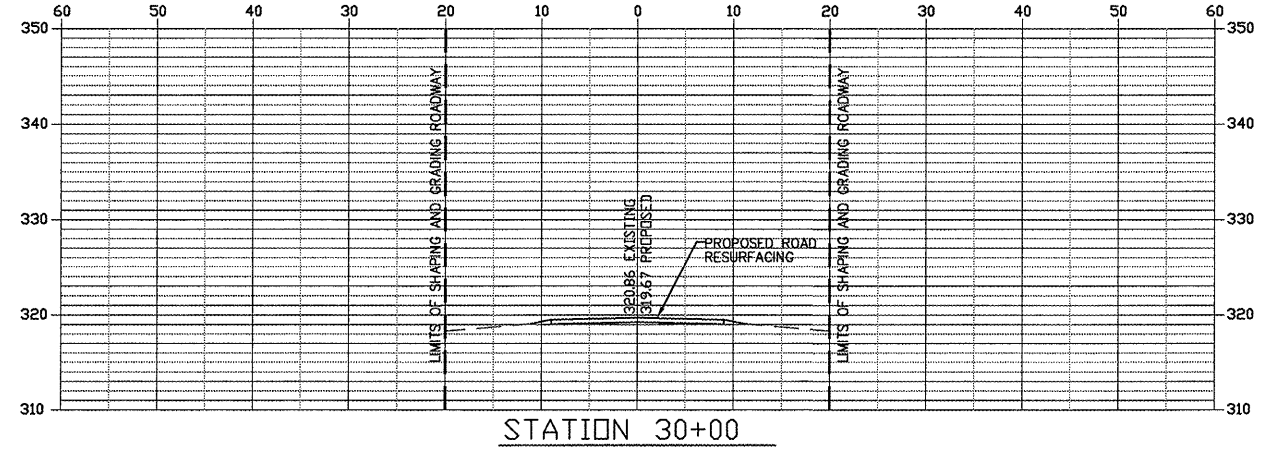
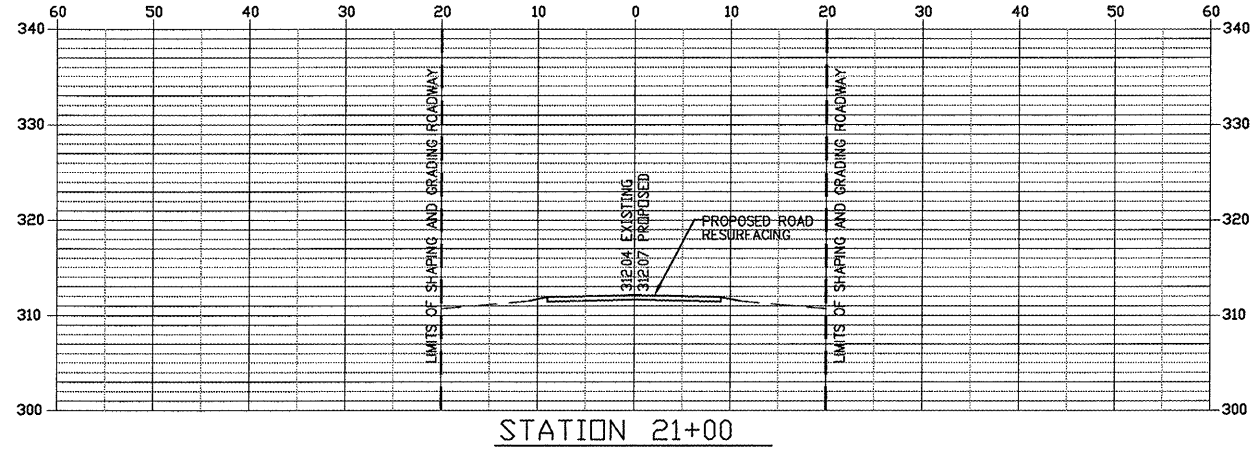
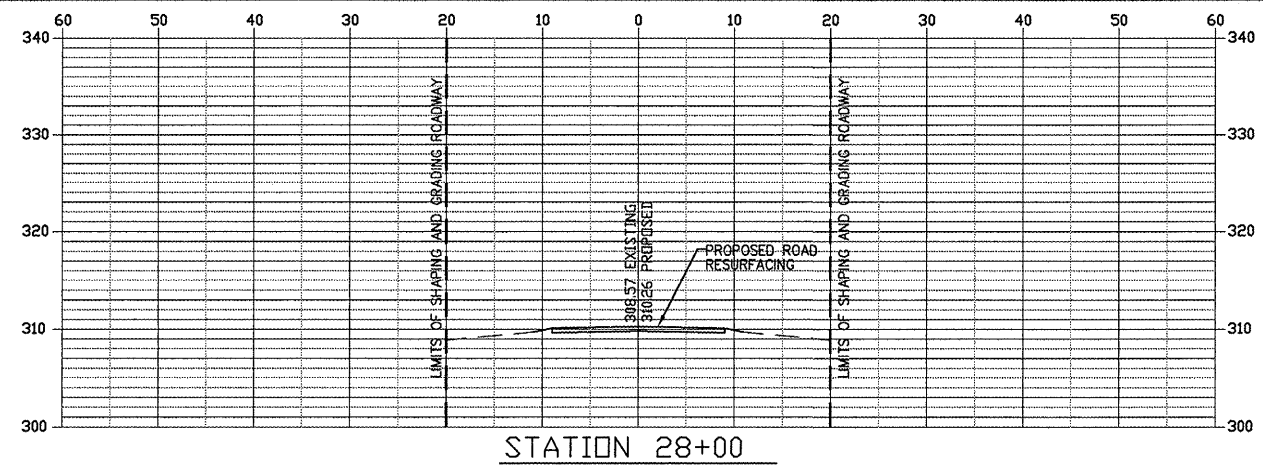
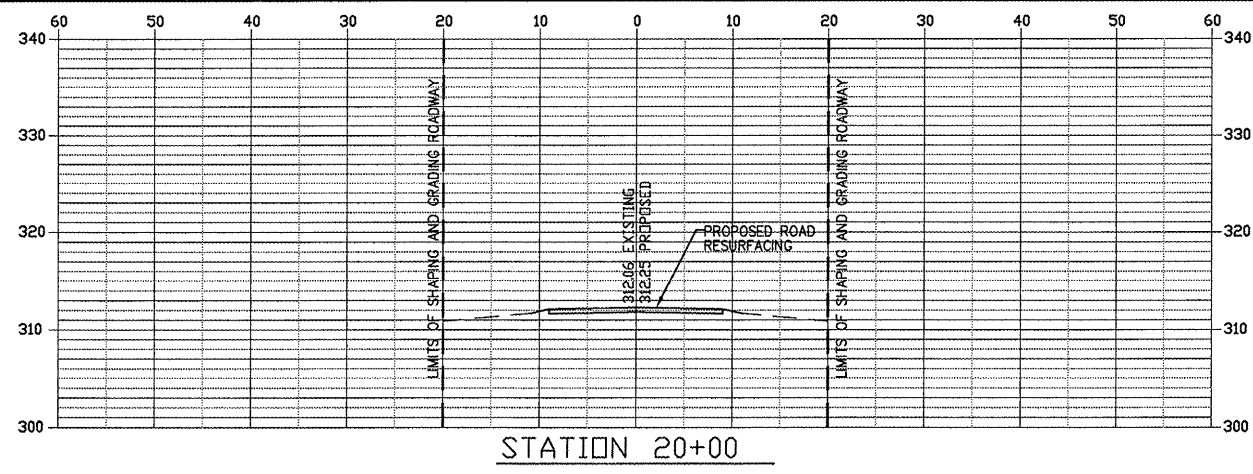


STATION 18+00



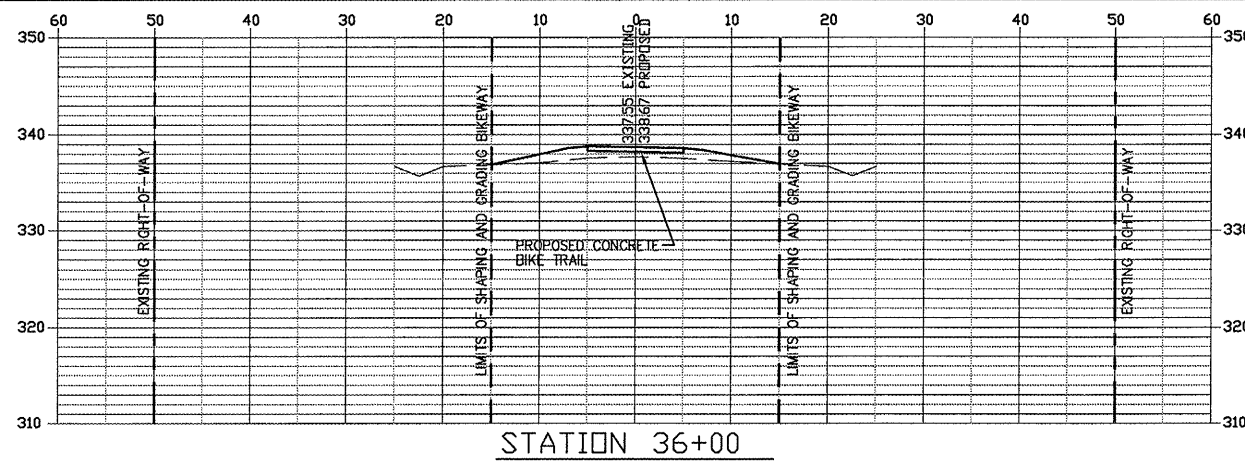
FROM STA. 4+00 TO 18+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	45
FROM STA. 20+00		TO STA. 34+00		
FEDERAL PROJECT NO. ARA-5045(009)		CONTRACT NO. 99417		

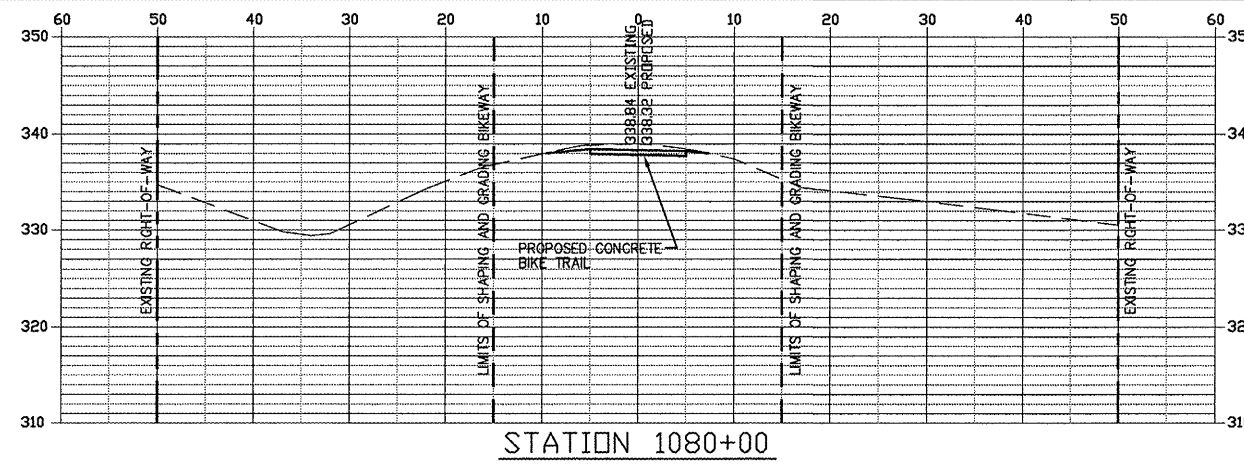


FROM STA. 20+00 TO 34+00

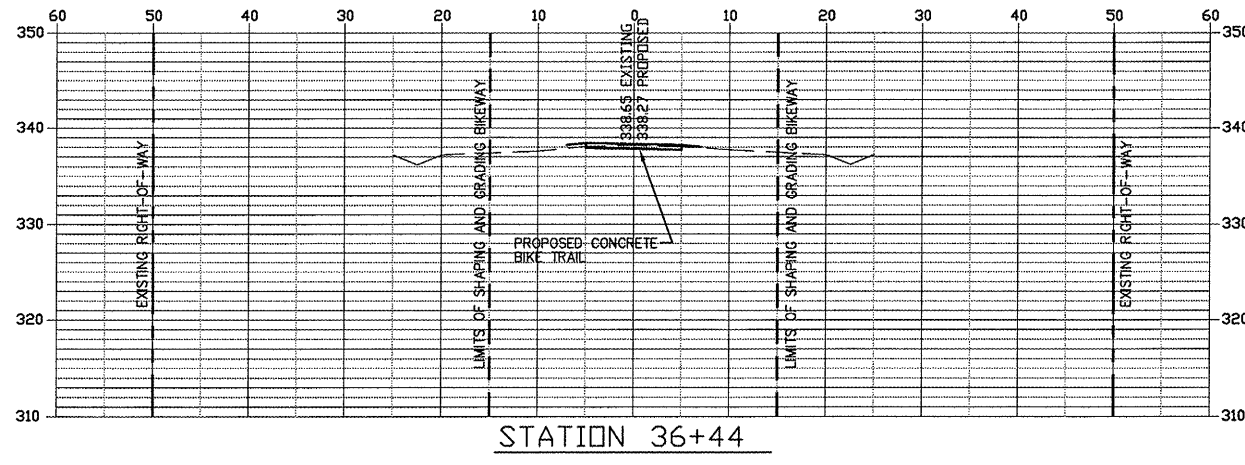
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	46
FROM STA. 36+00		TO STA. 1086+00		
FEDERAL PROJECT NO. ARA-5045(009)		CONTRACT NO. 99417		



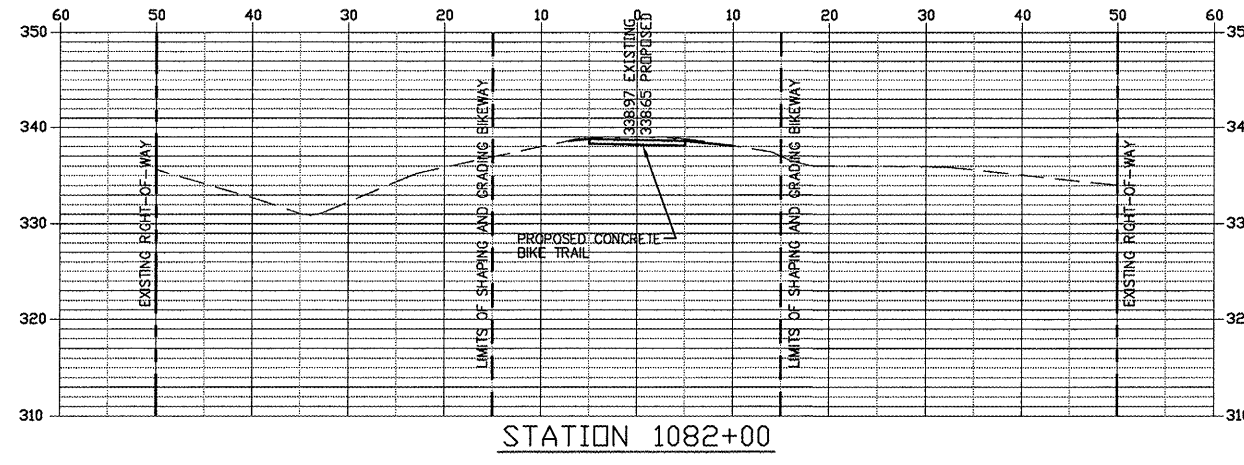
STATION 36+00



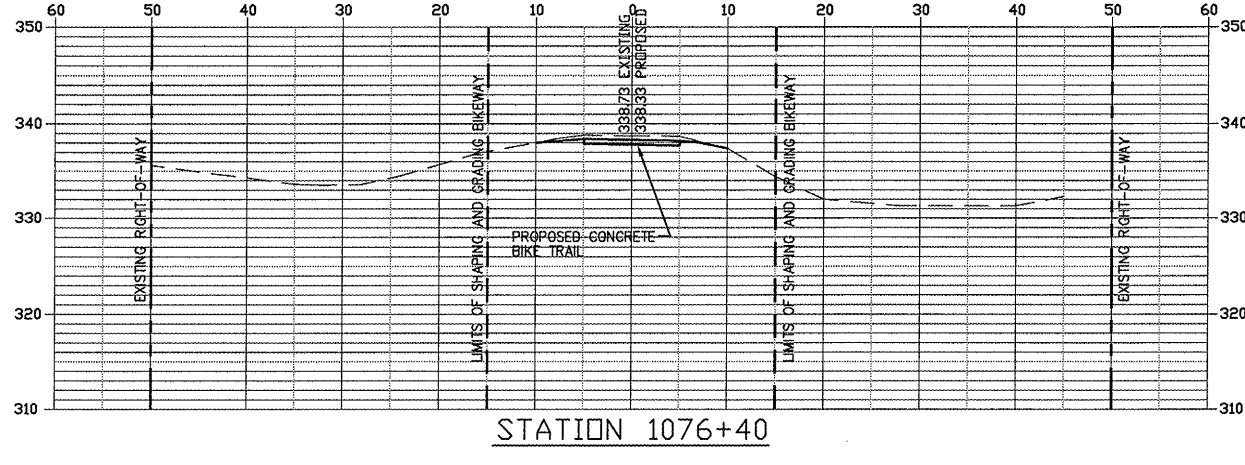
STATION 1080+00



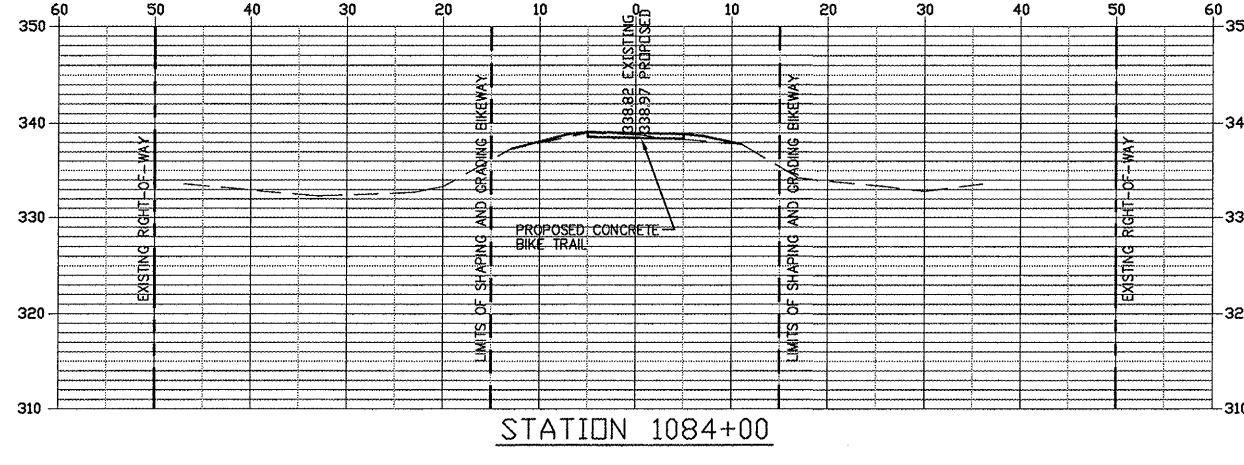
STATION 36+44



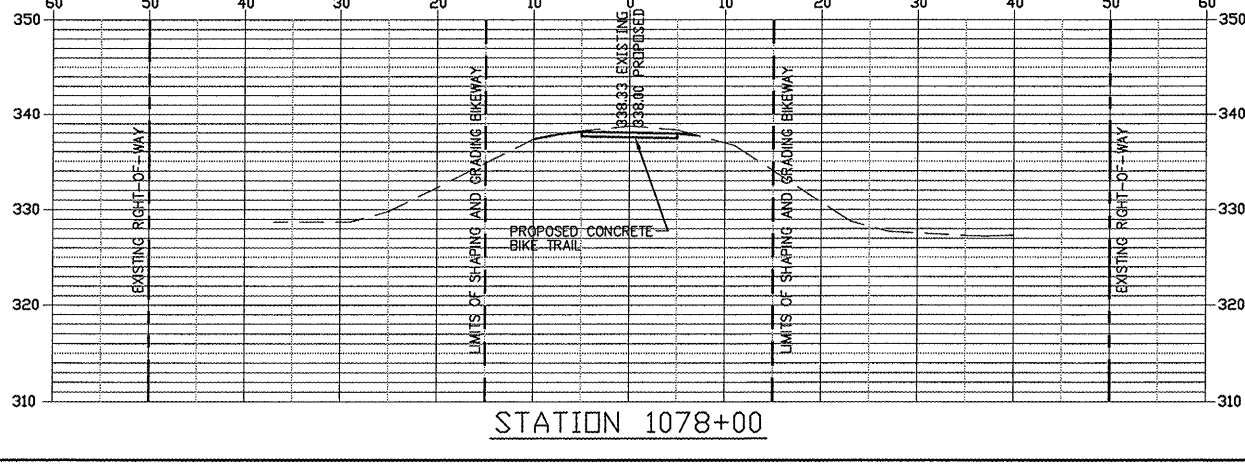
STATION 1082+00



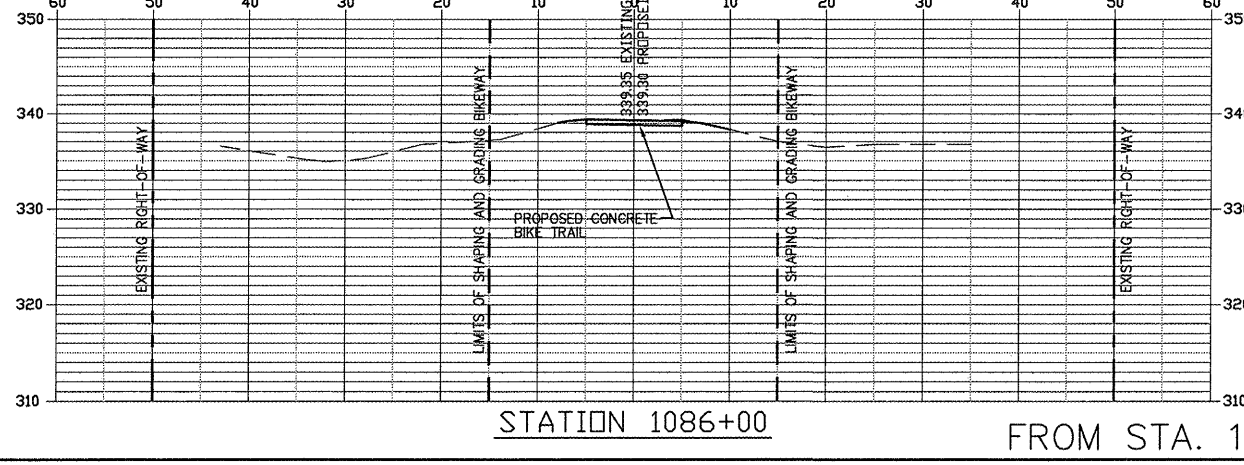
STATION 1076+40



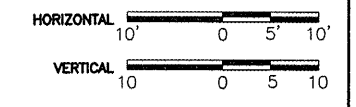
STATION 1084+00



STATION 1078+00

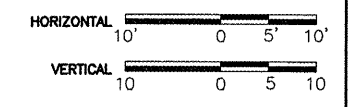
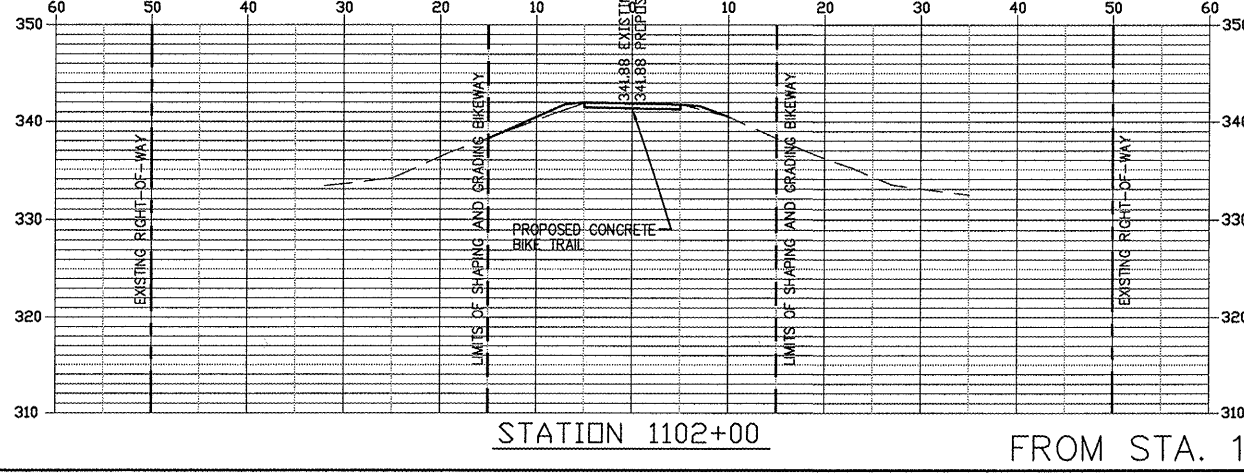
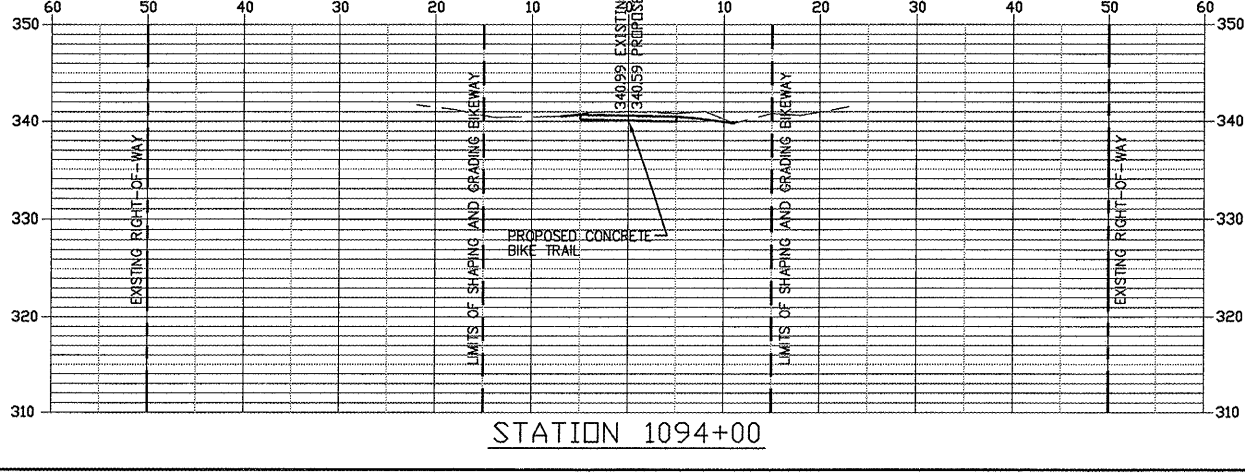
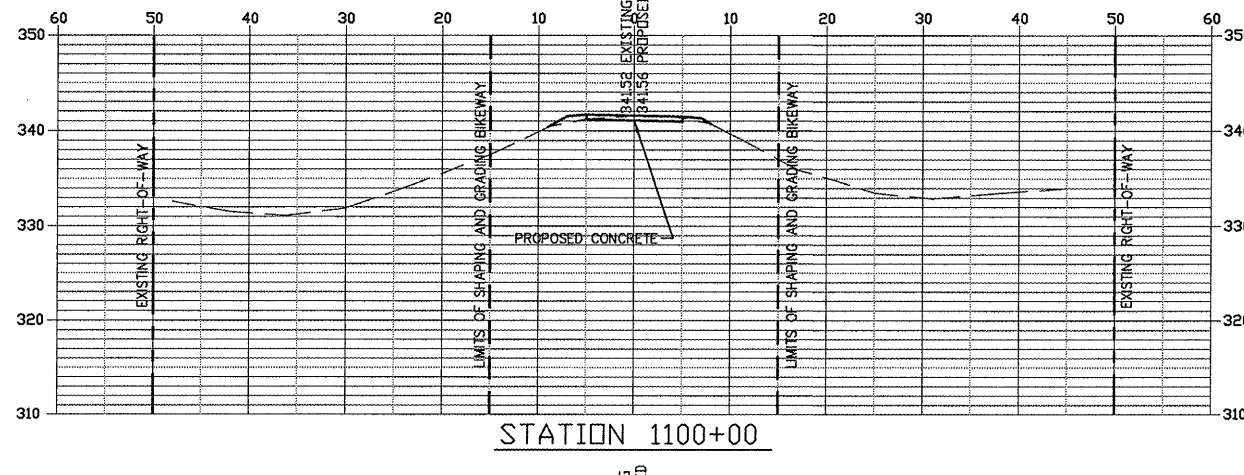
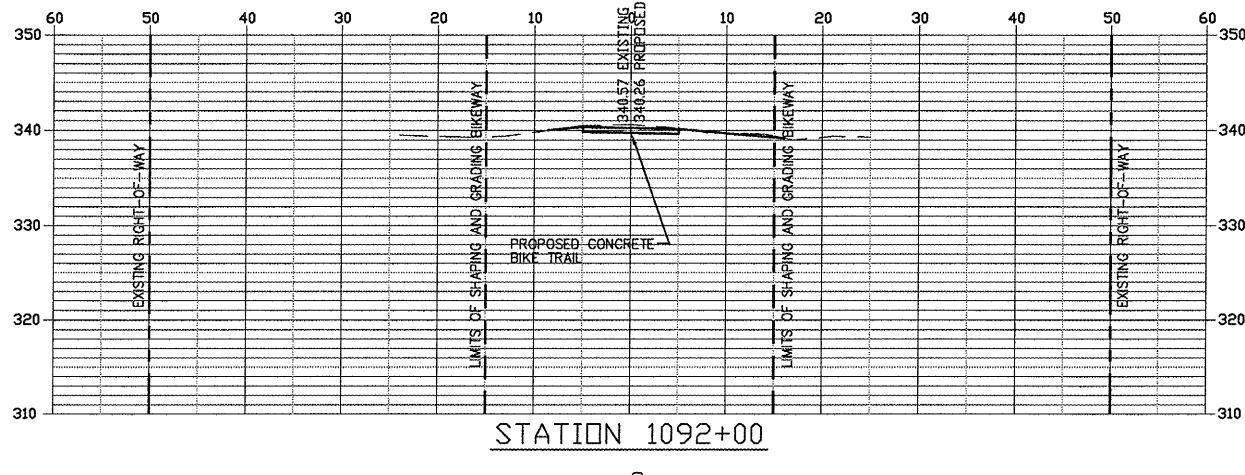
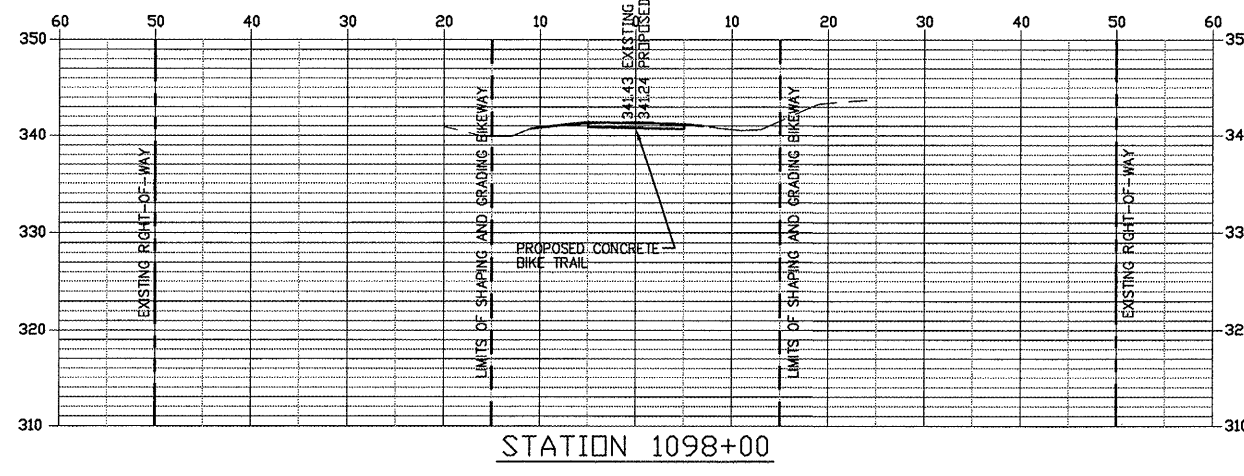
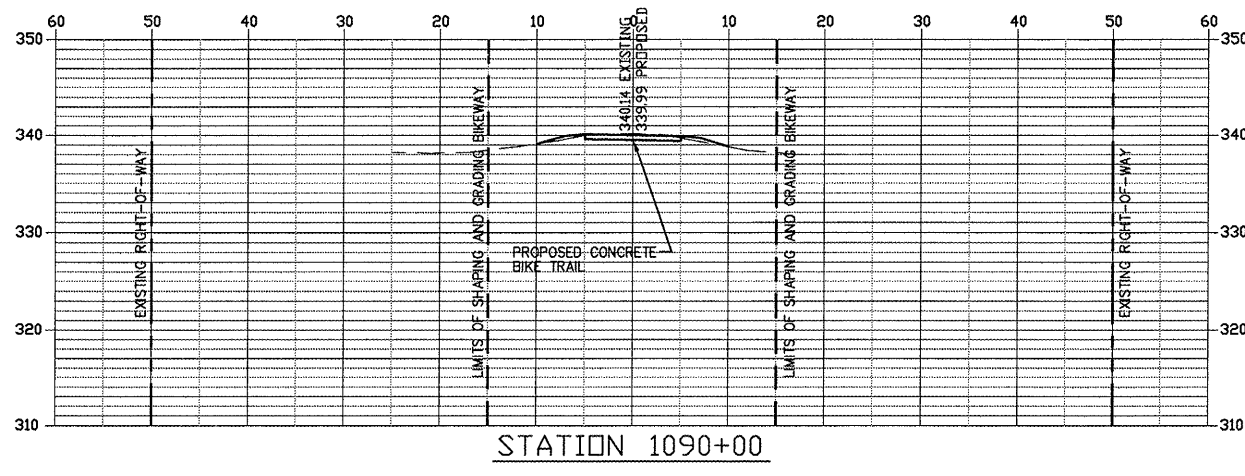
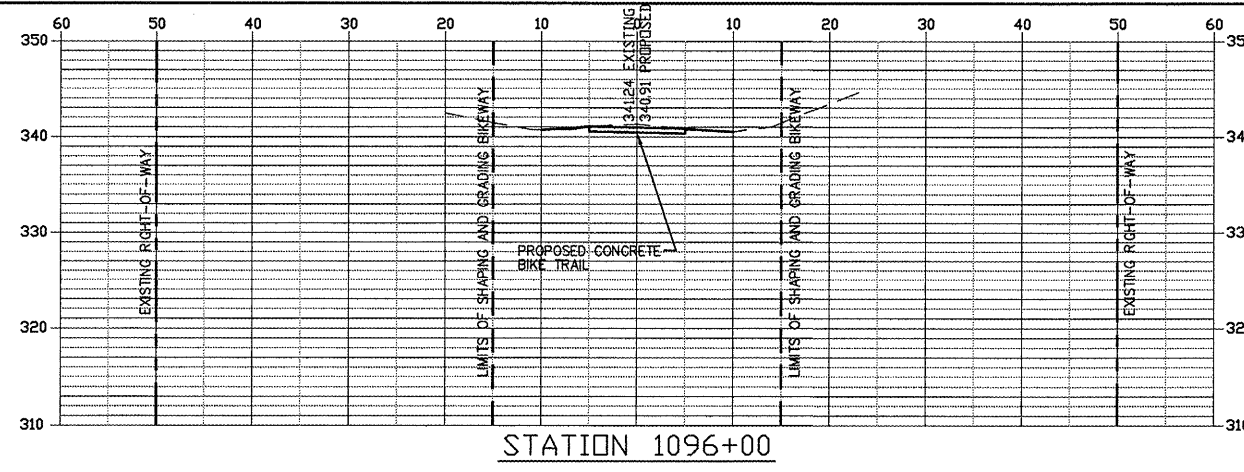
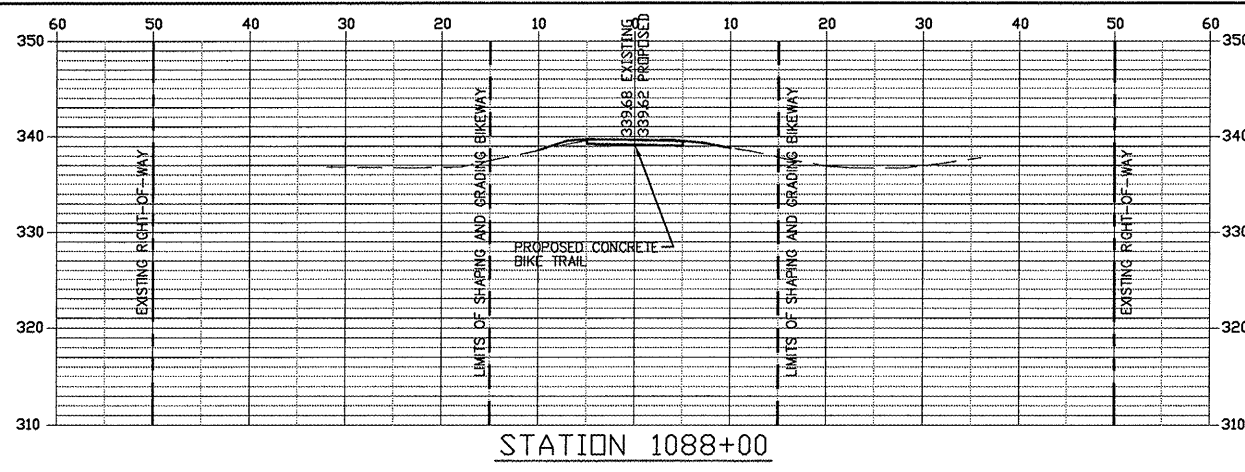


STATION 1086+00



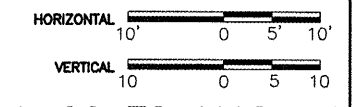
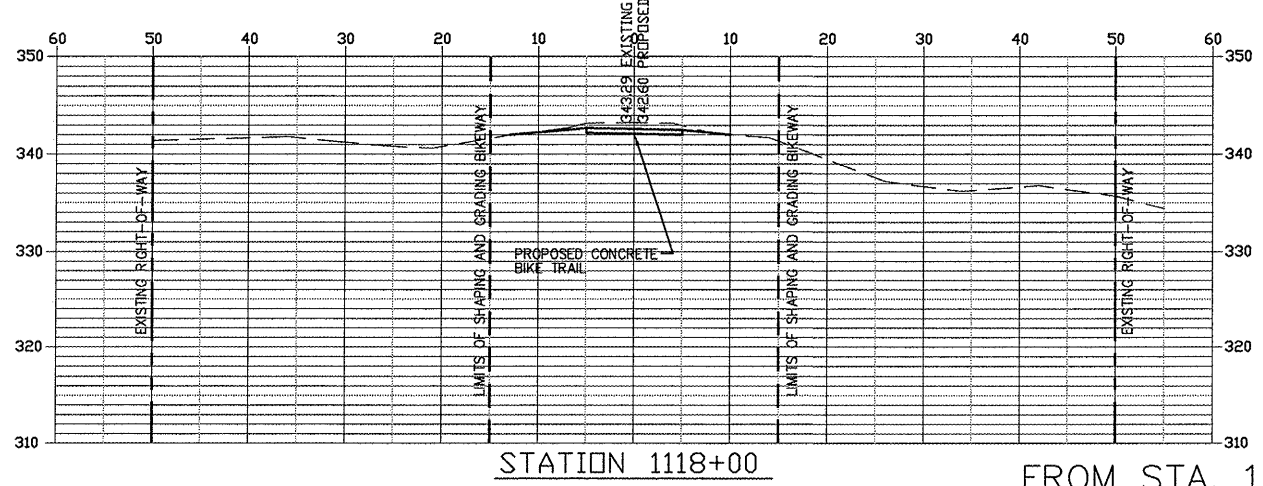
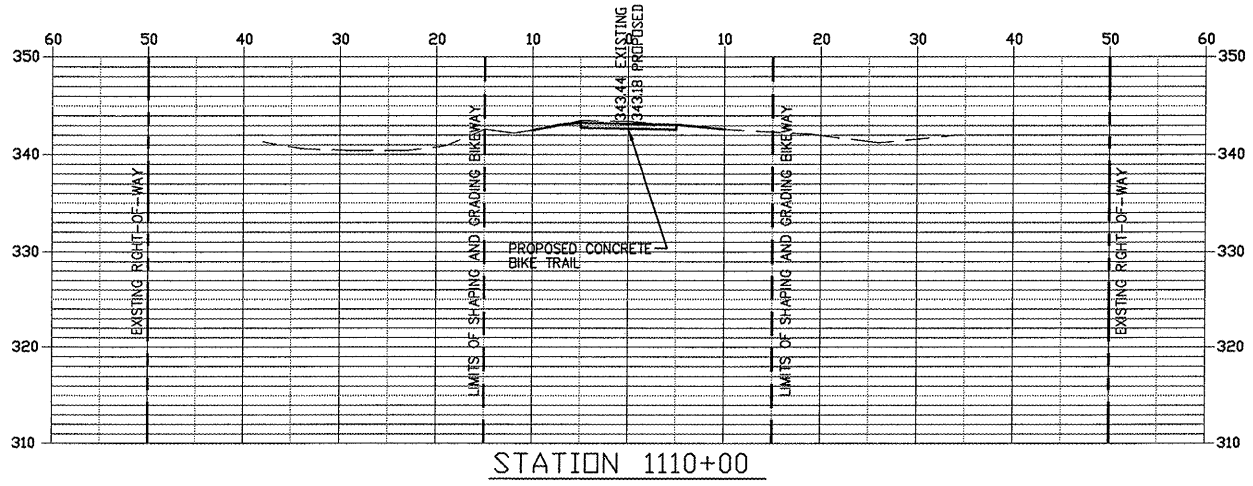
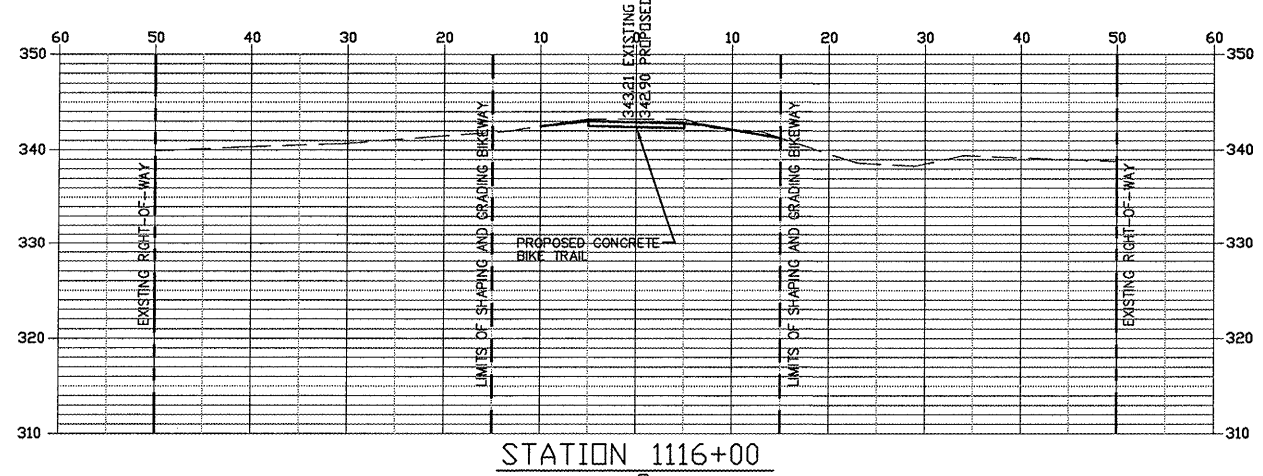
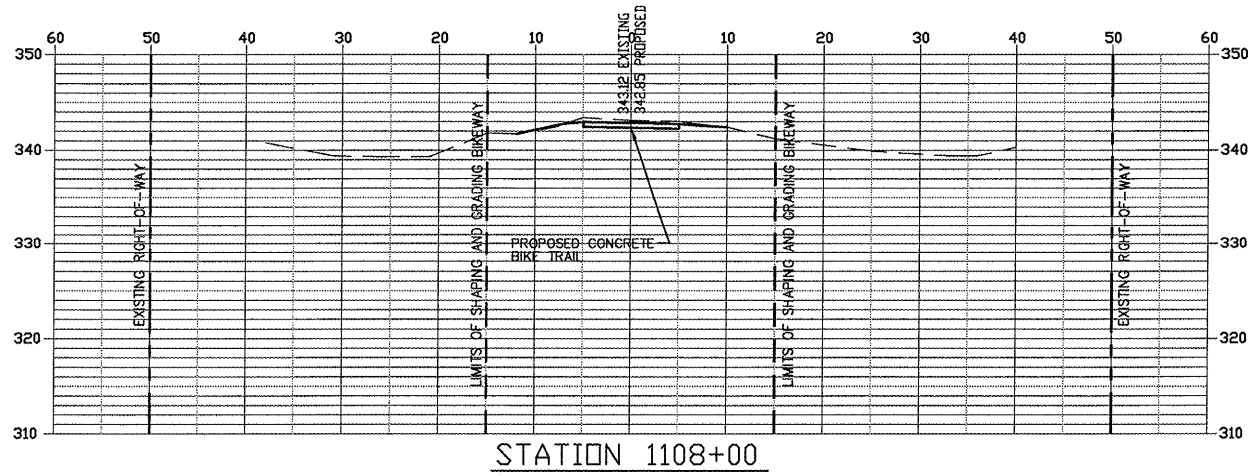
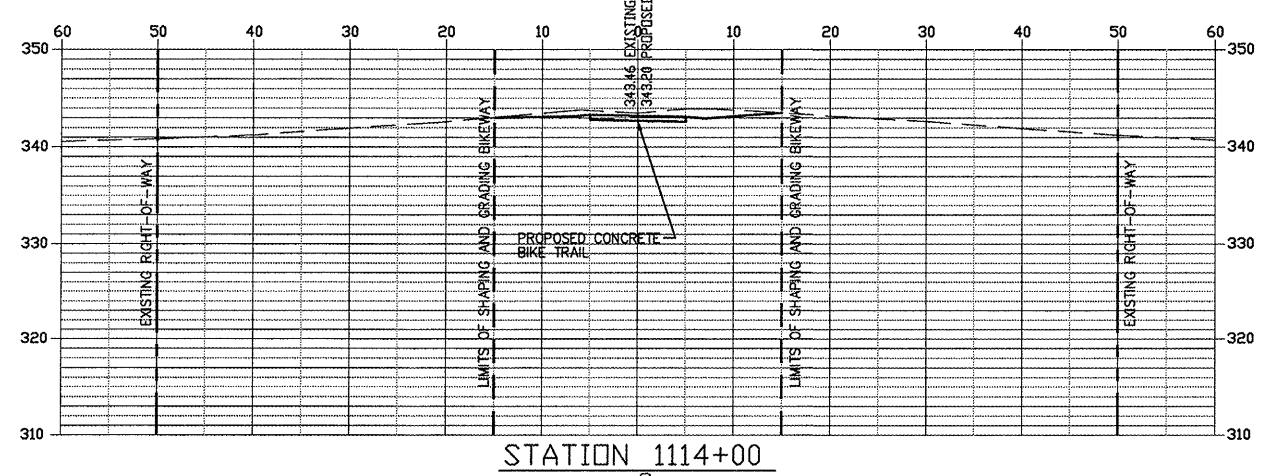
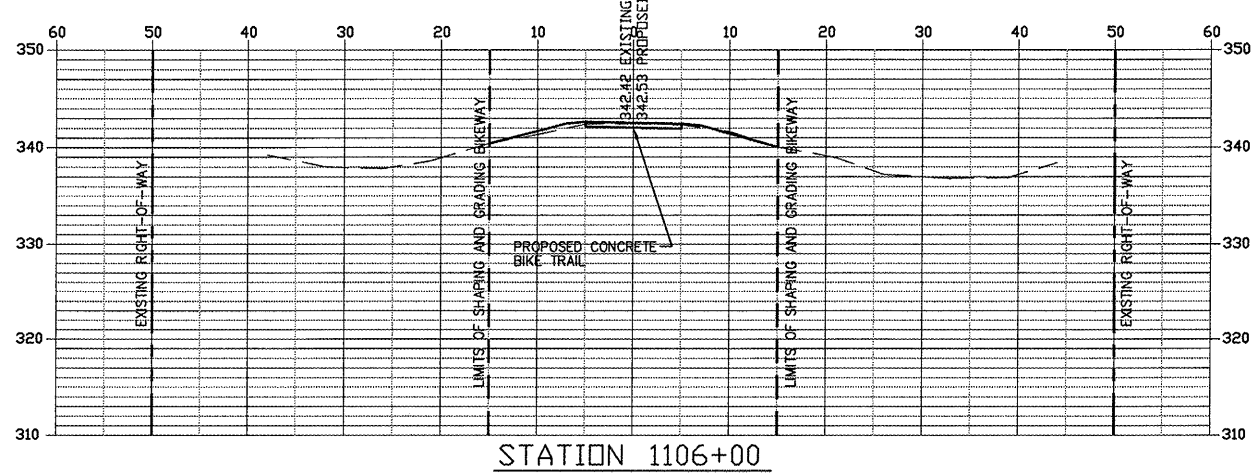
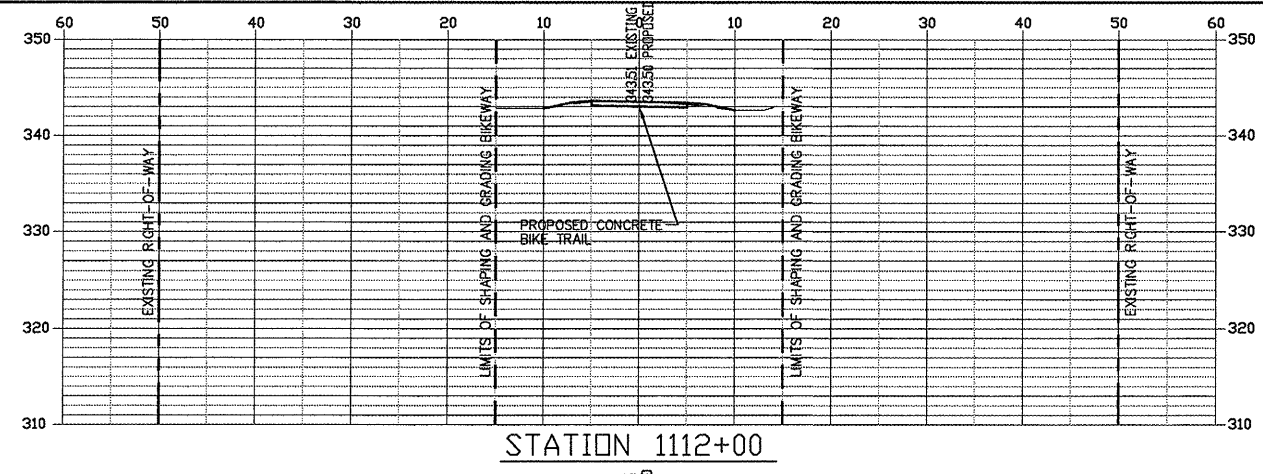
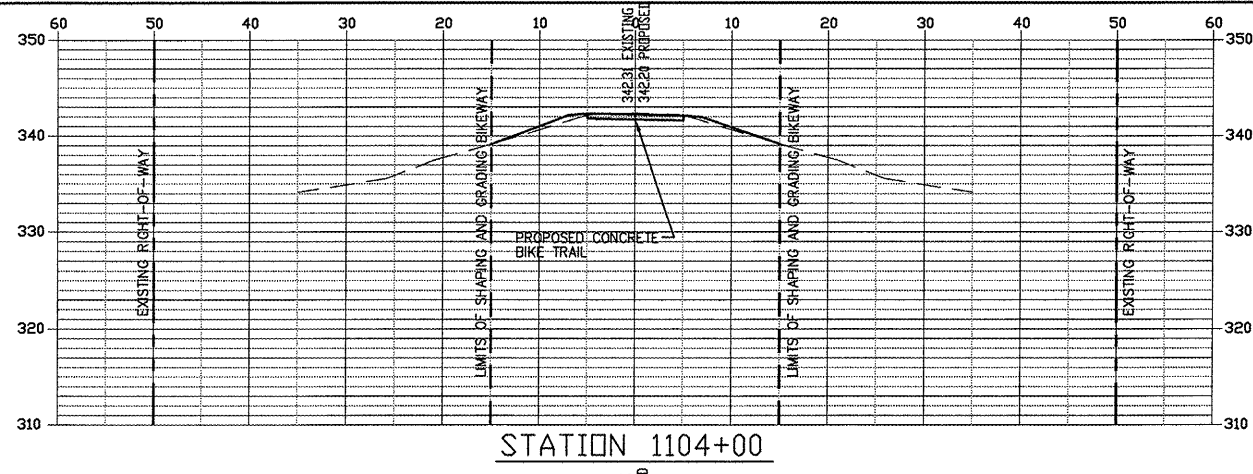
FROM STA. 1073+00 TO 1086+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	47
FROM STA. 1088+00 TO STA. 1102+00				
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 09417	



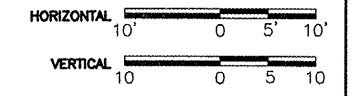
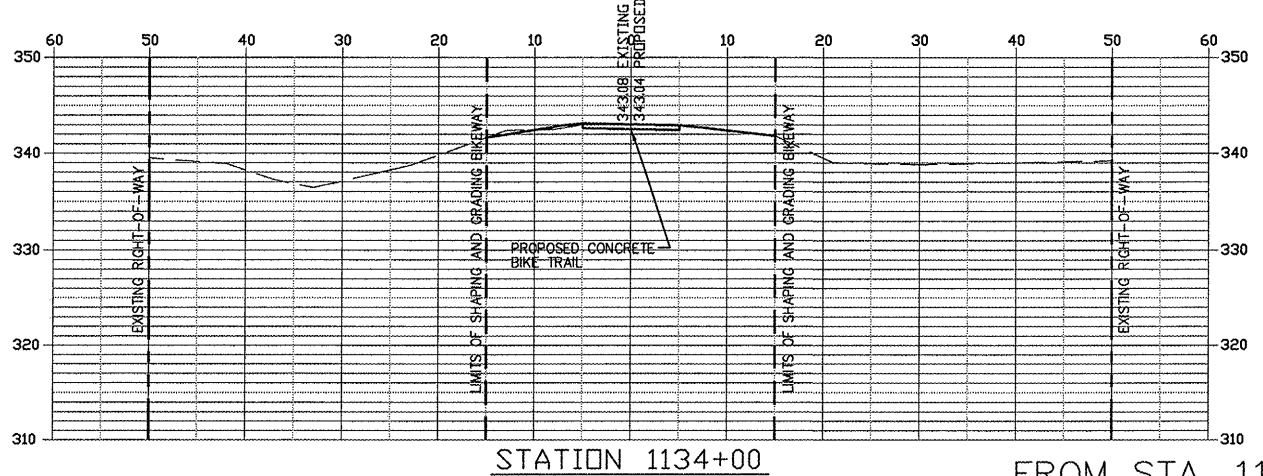
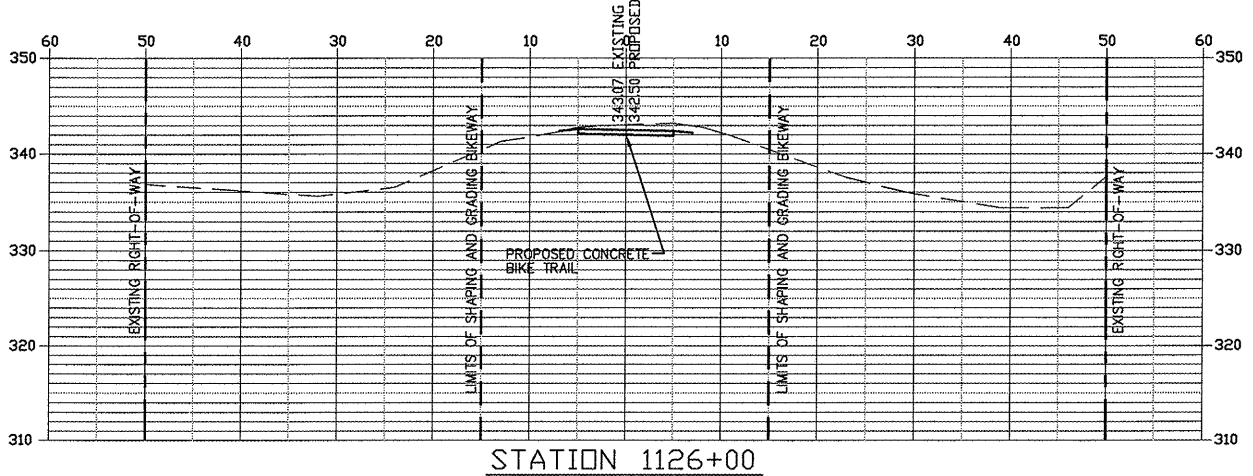
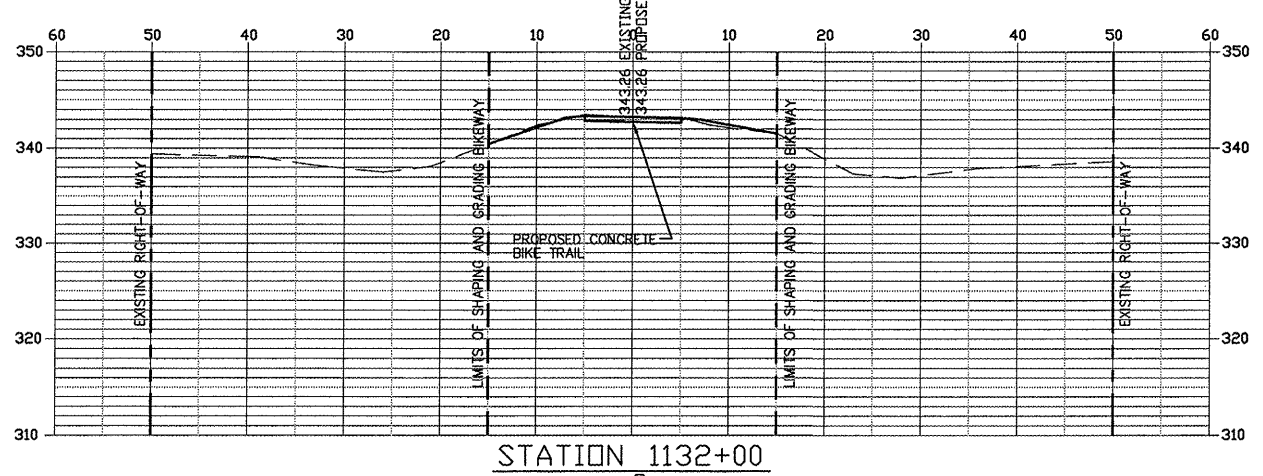
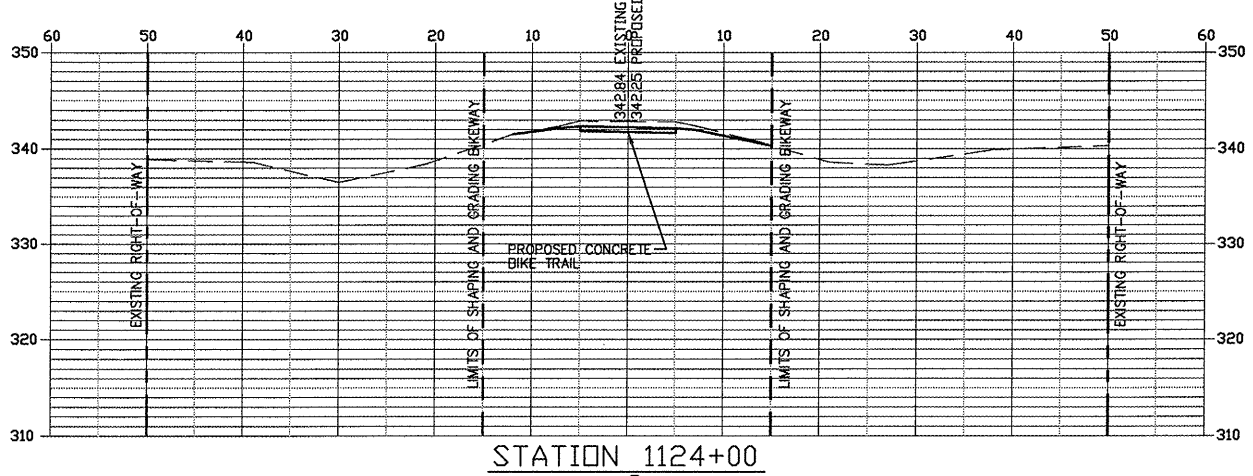
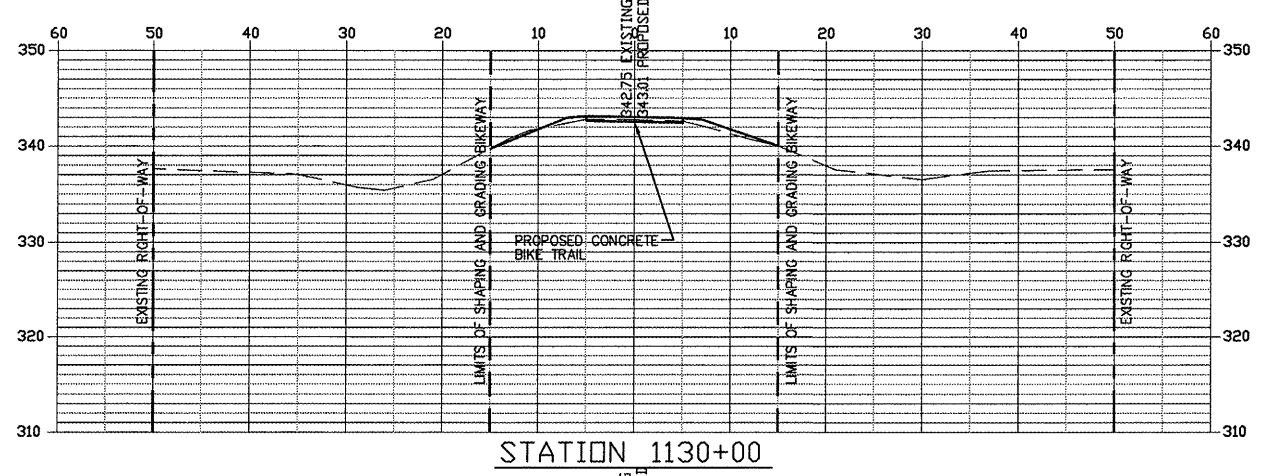
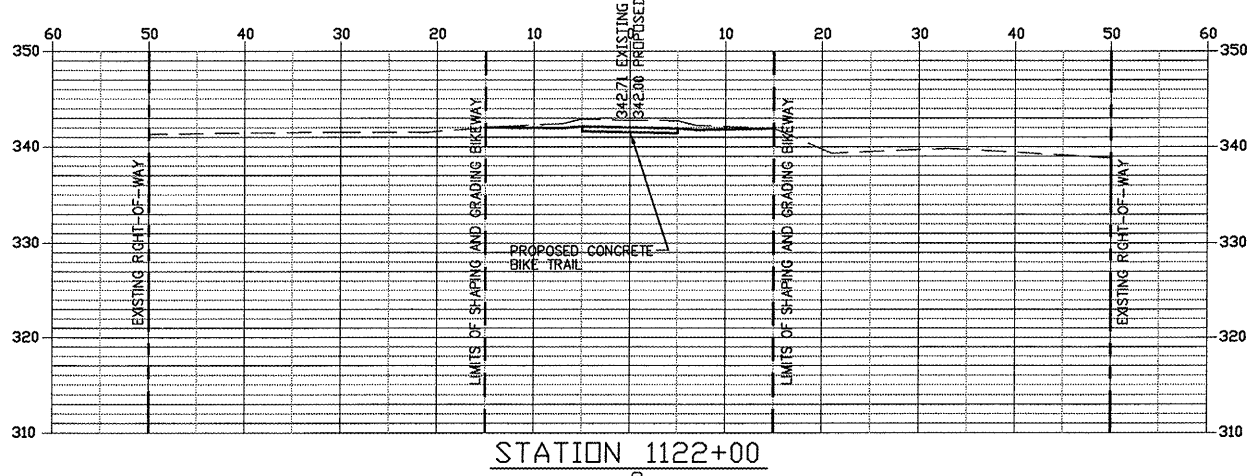
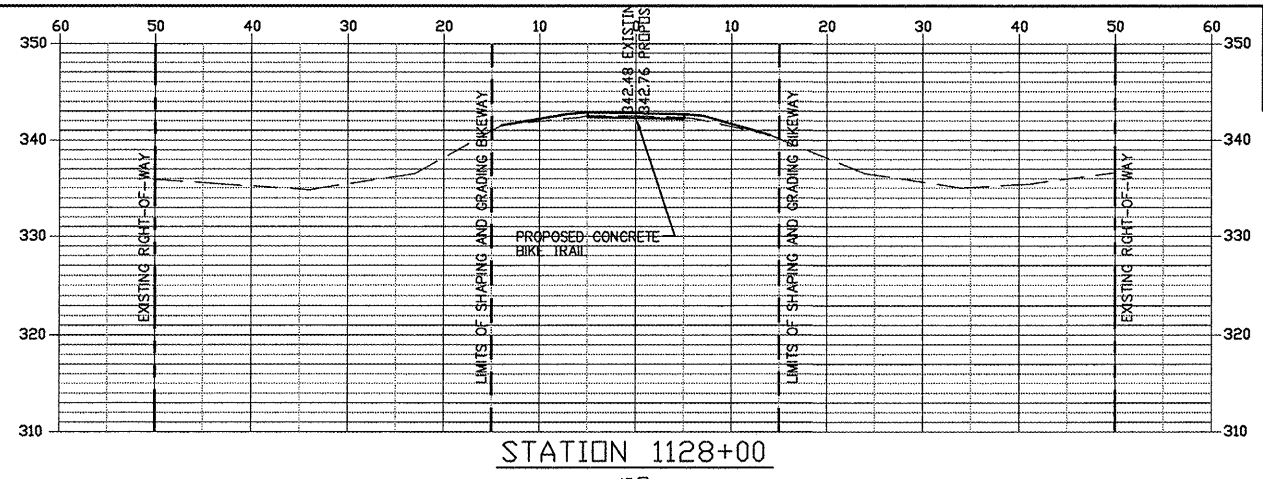
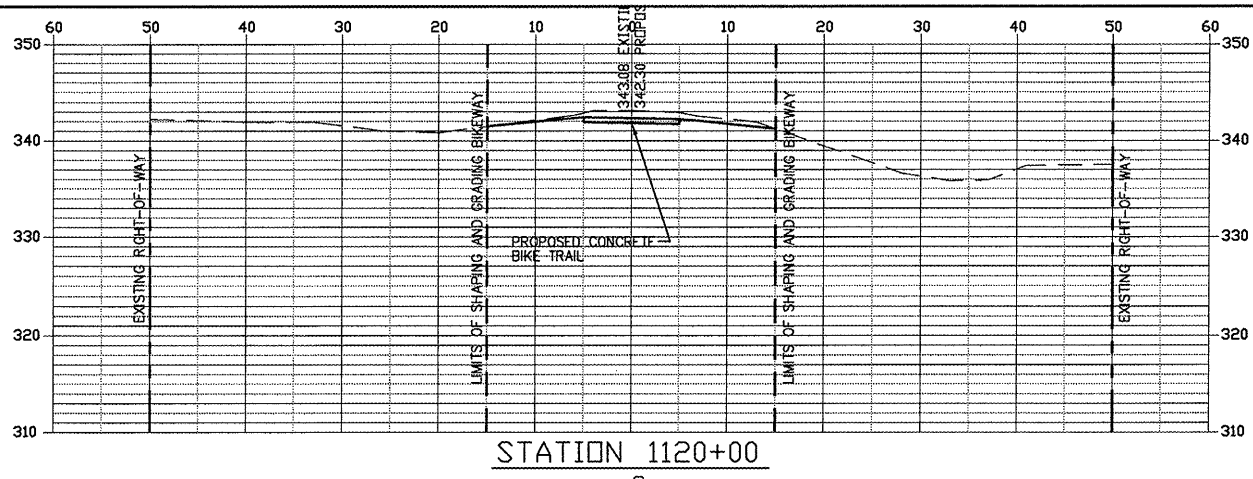
FROM STA. 1088+00 TO 1102+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT09-0003B-00-BT		MASSAC	55	48
FROM STA. 1104+00 TO STA. 1118+00				
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	



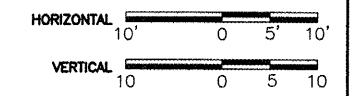
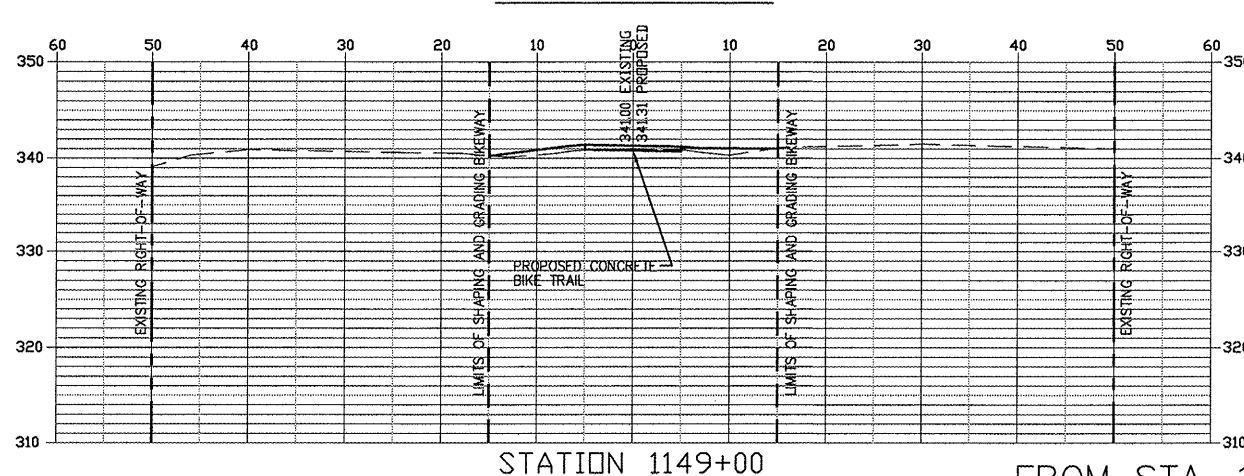
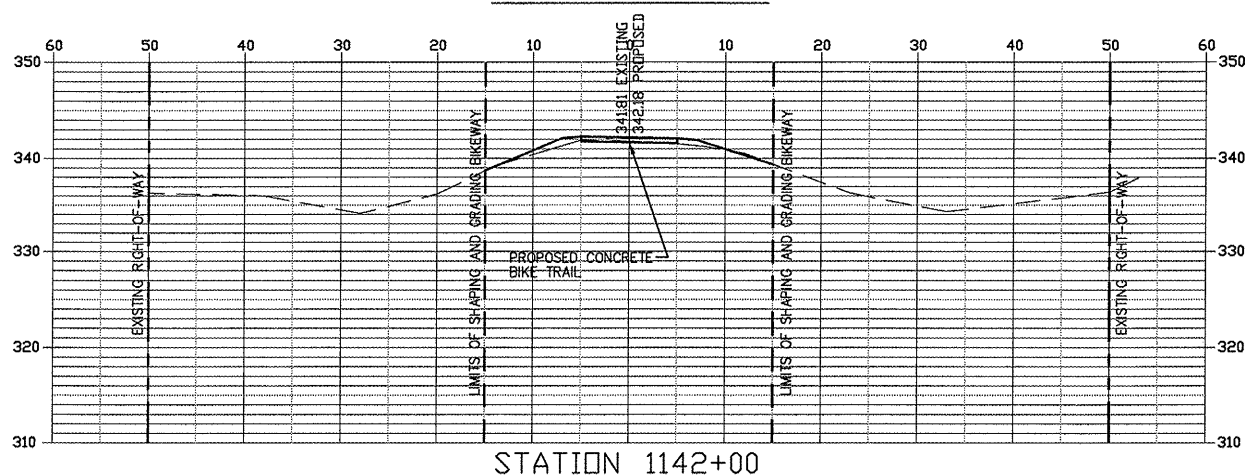
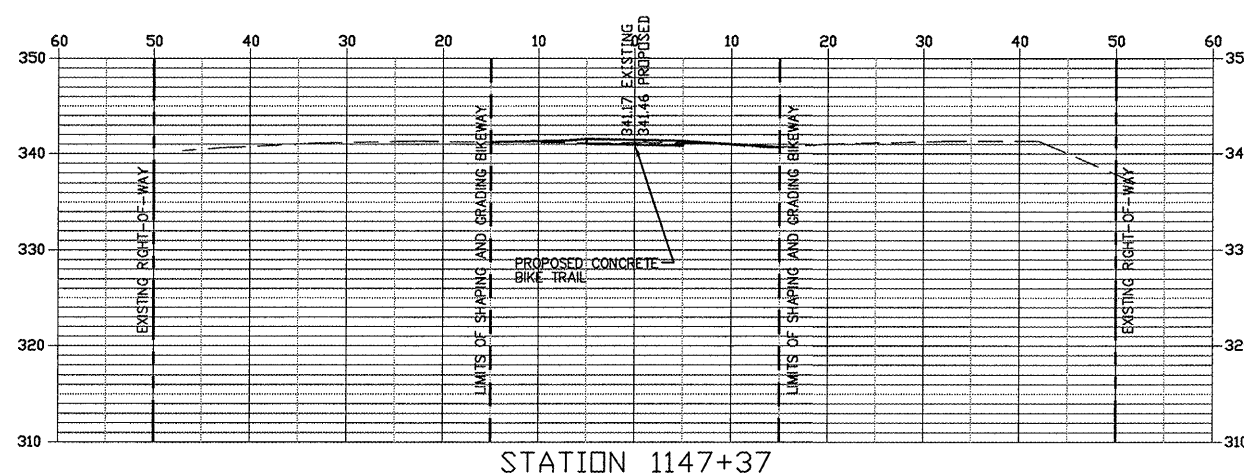
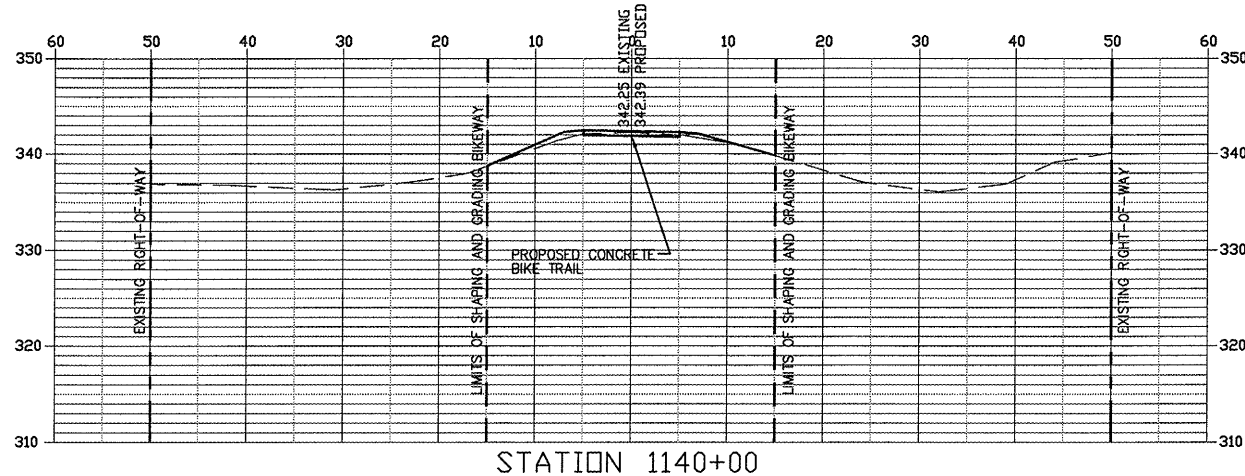
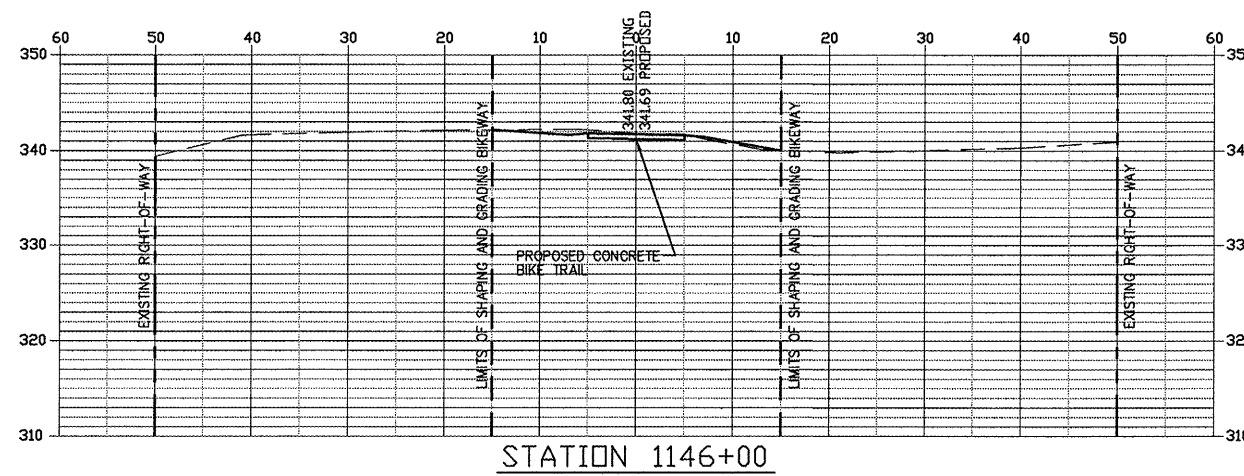
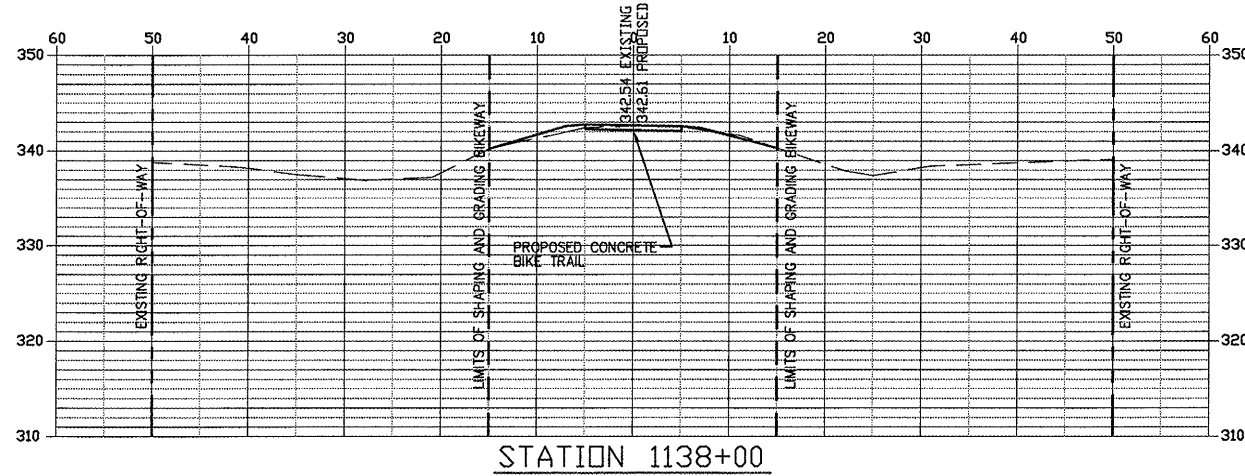
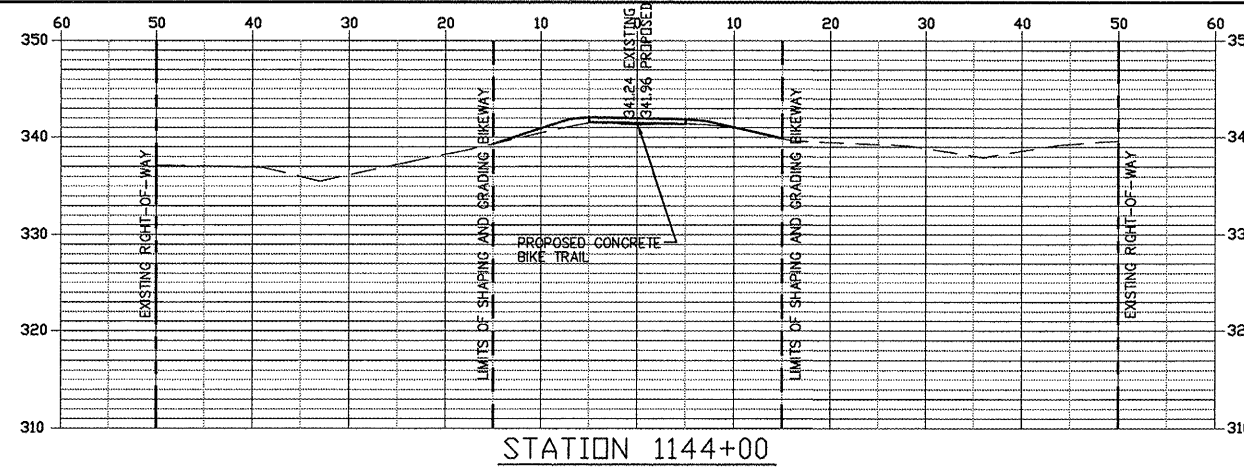
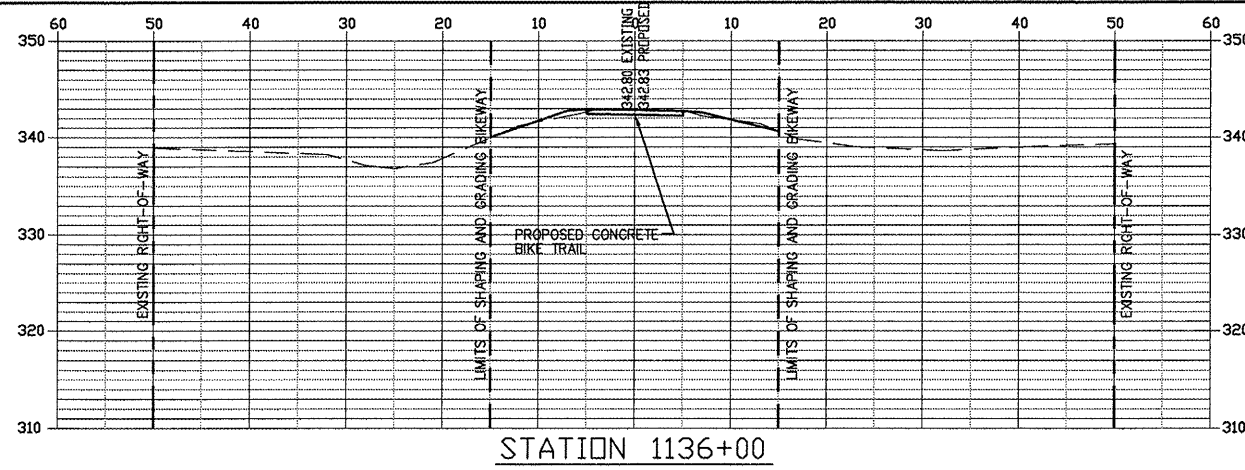
FROM STA. 1104+00 TO 1118+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	49
FROM STA. 1120+00 TO STA. 1134+00				
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	



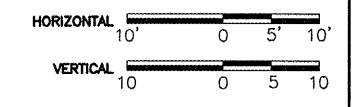
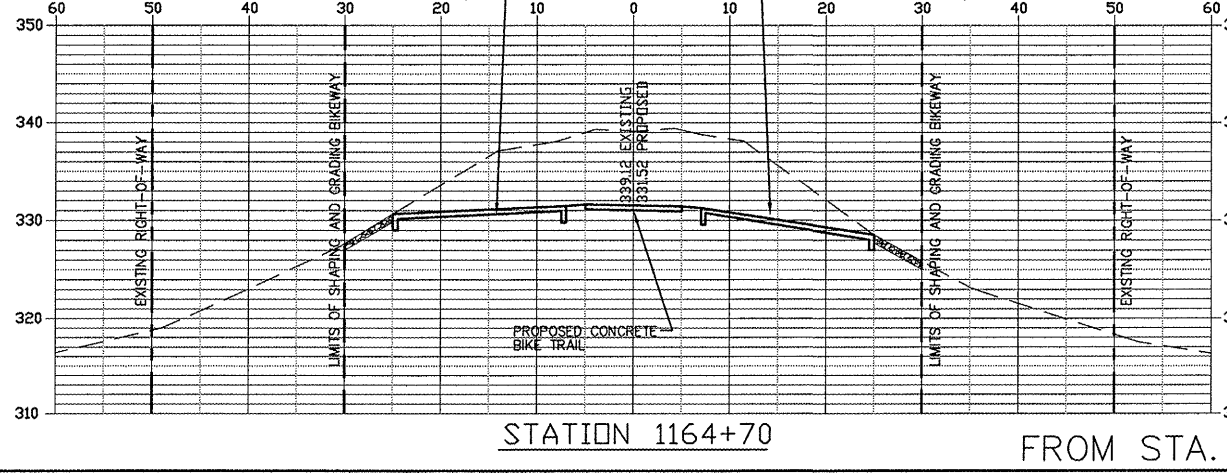
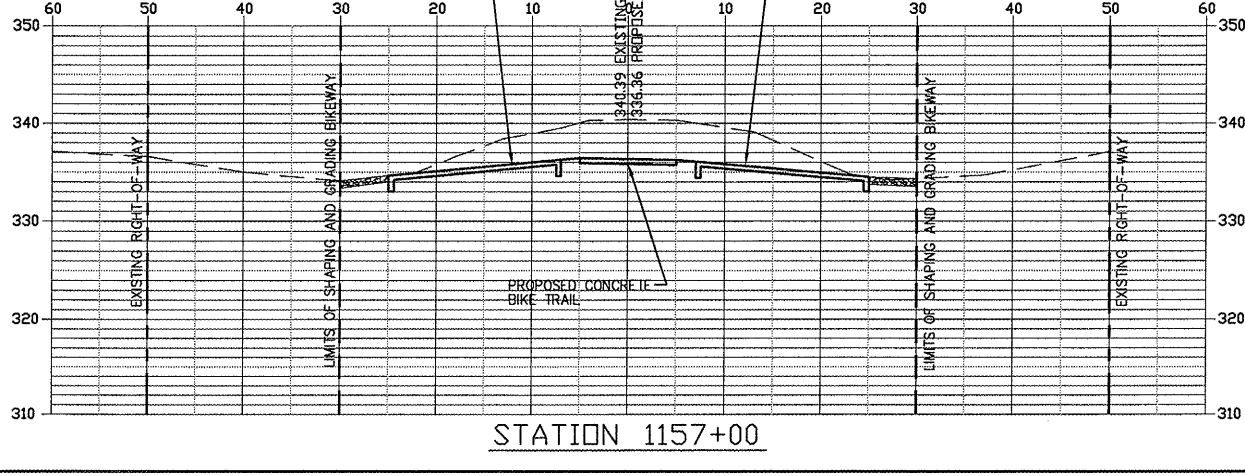
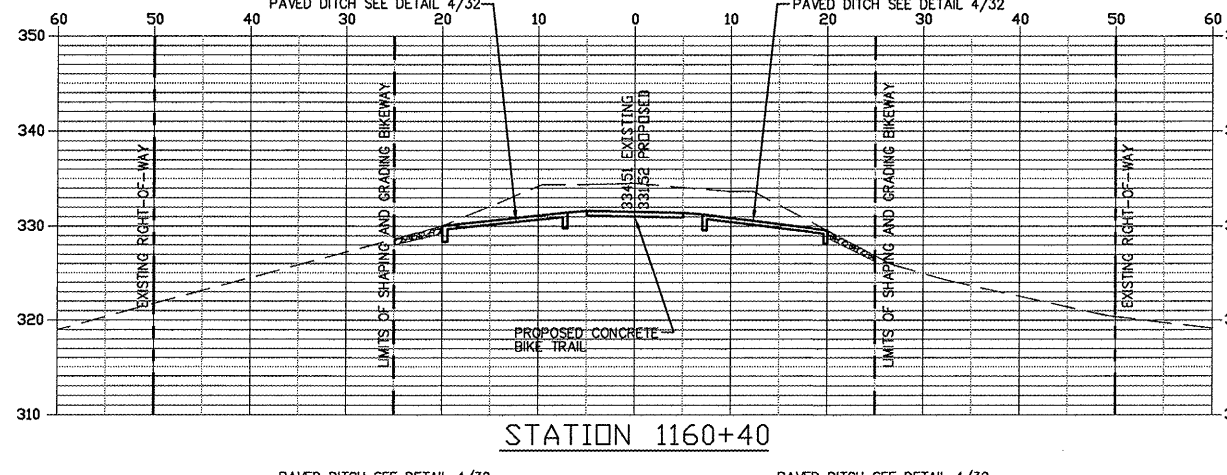
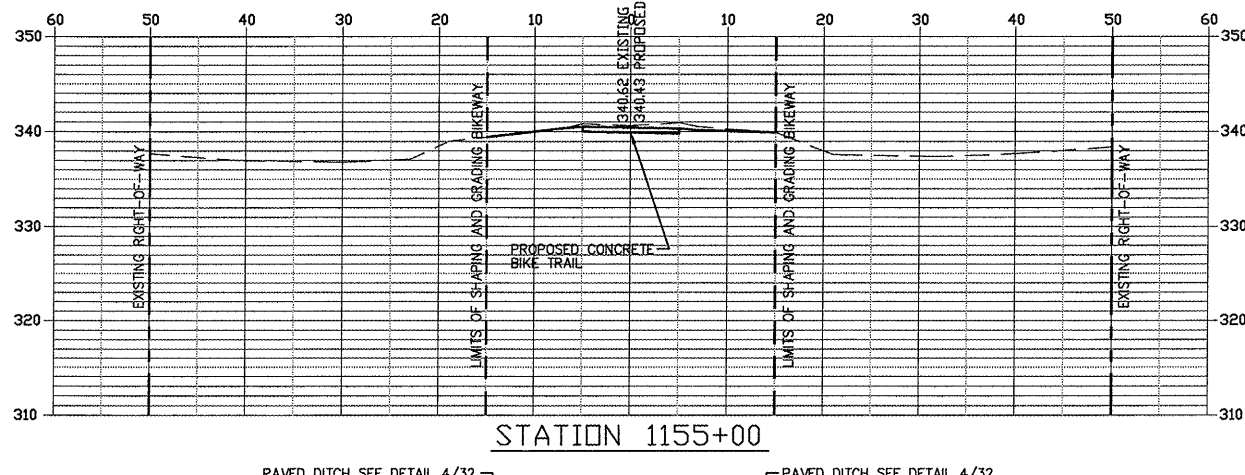
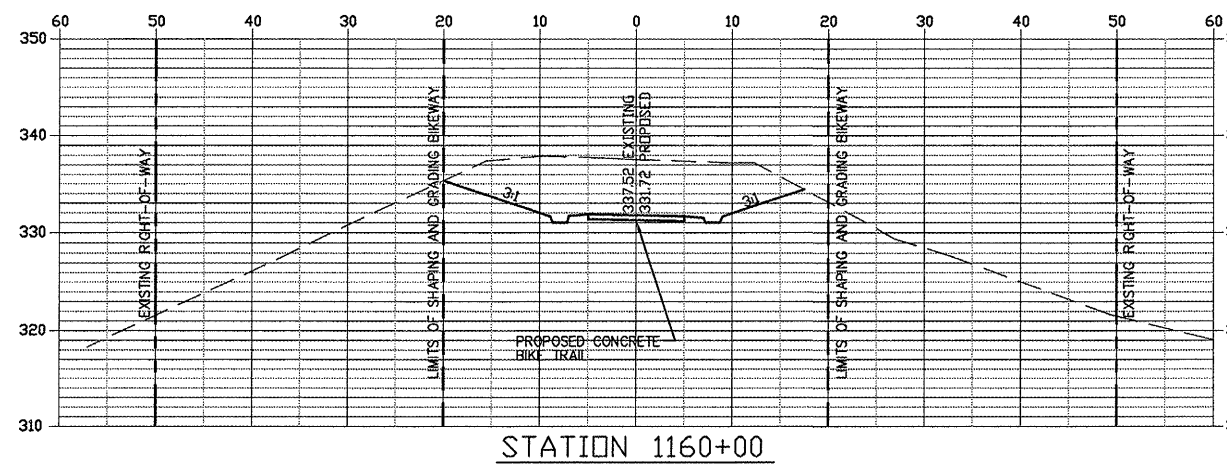
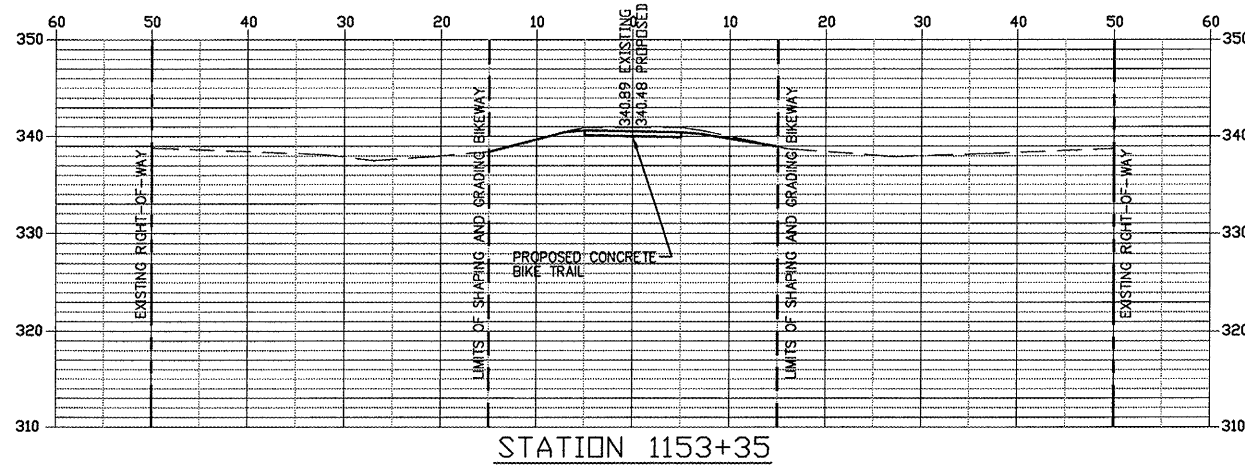
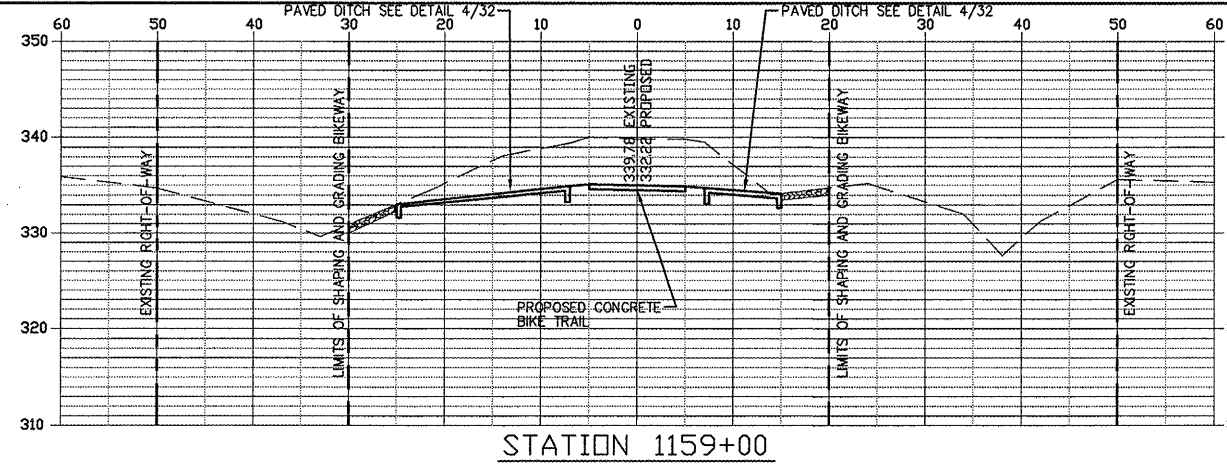
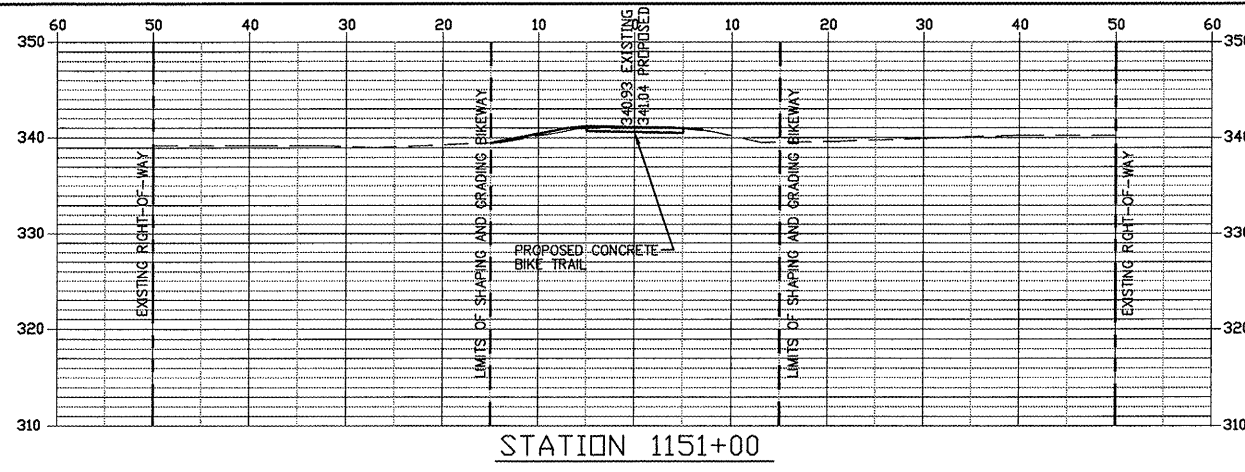
FROM STA. 1120+00 TO 1134+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT09-00038-00-BT	MASSAC		55	50
FROM STA. 1136+00 TO STA. 1149+00				
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	



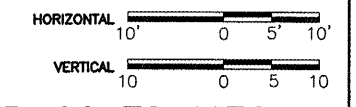
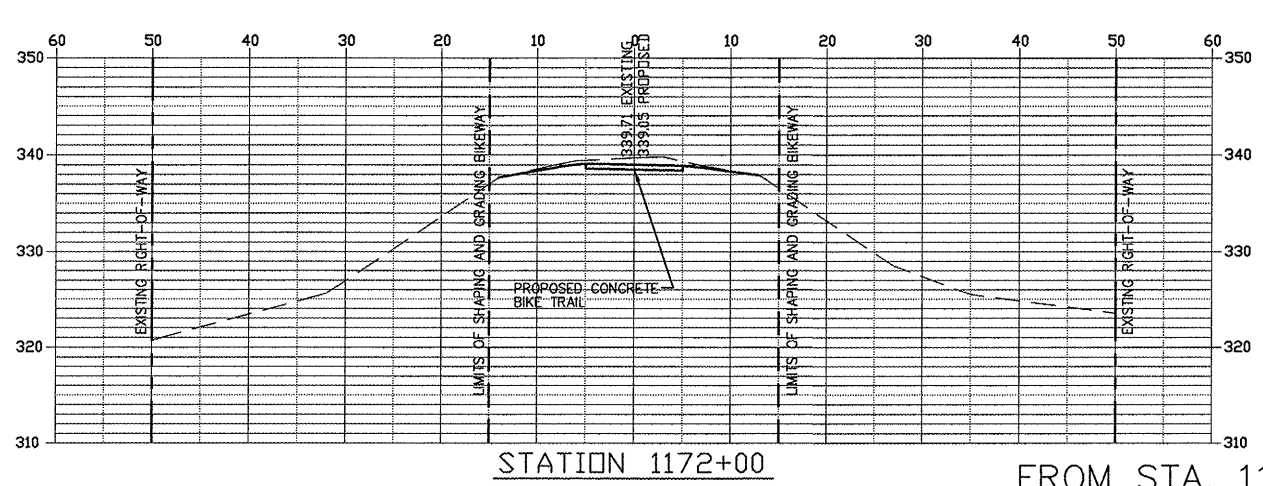
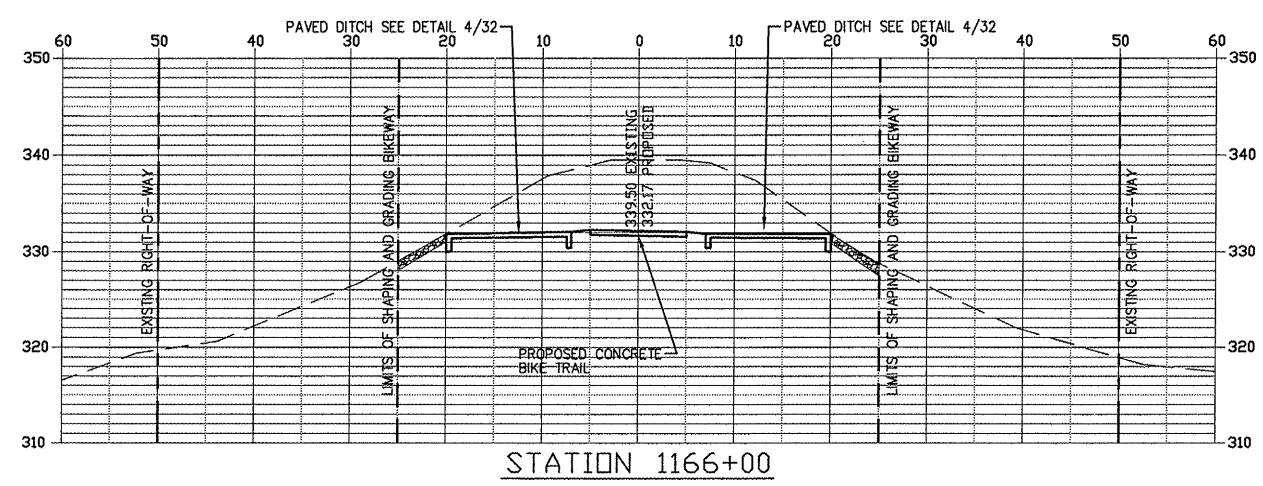
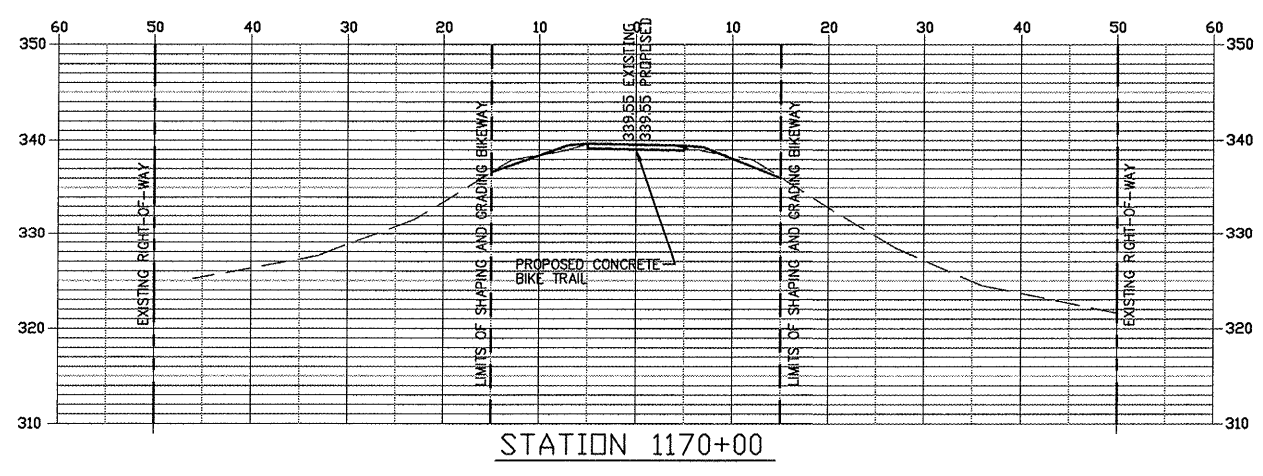
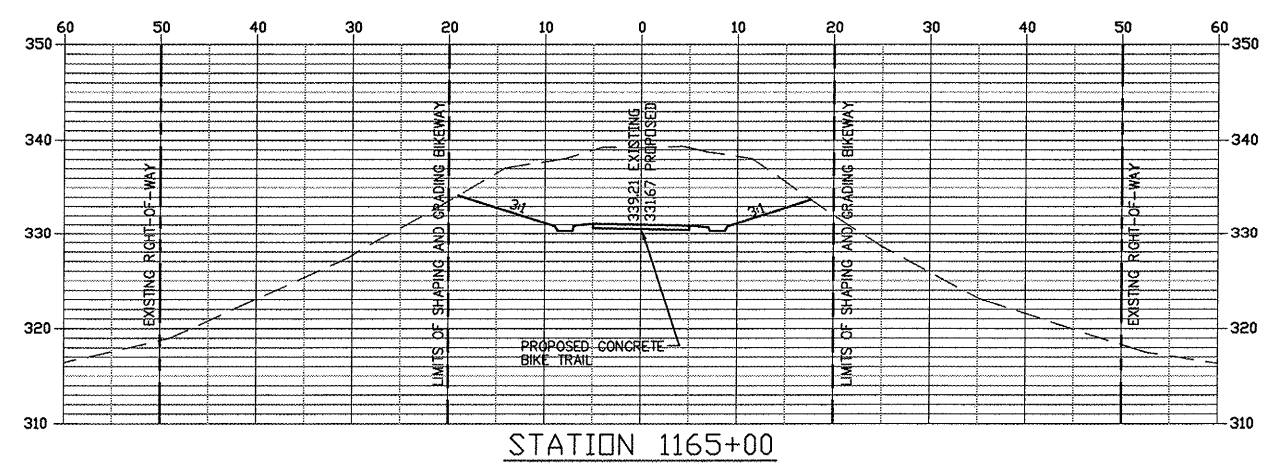
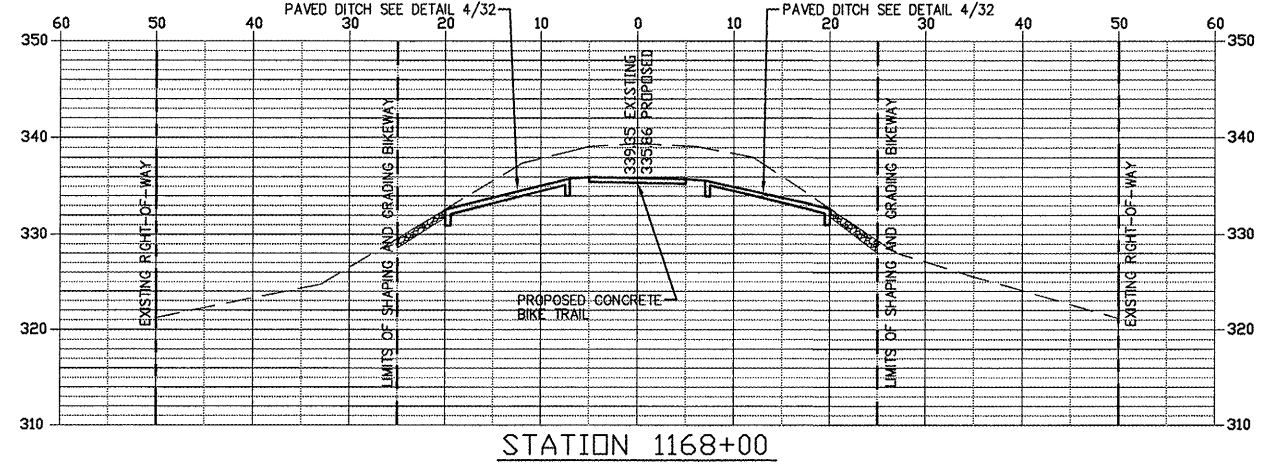
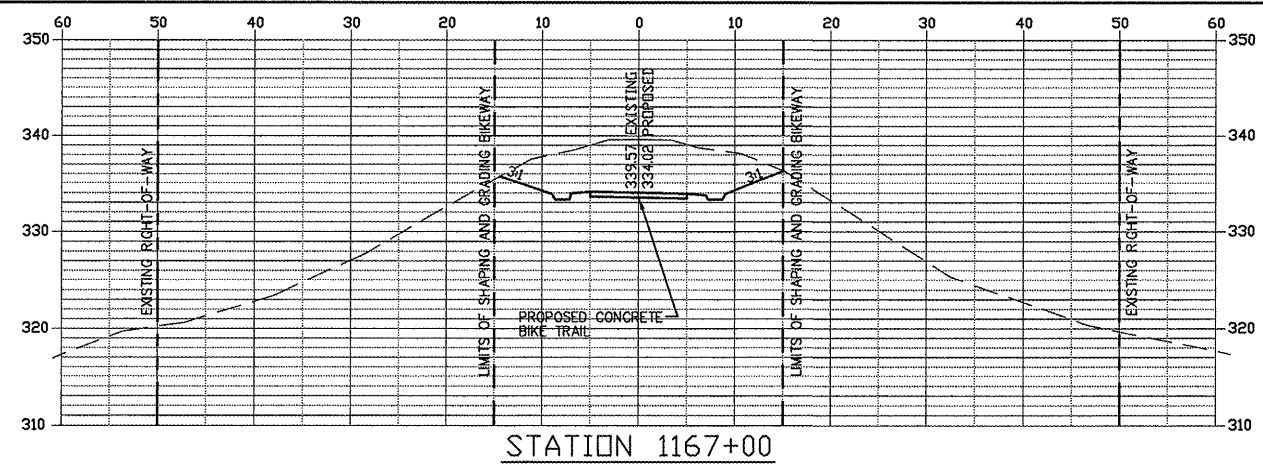
FROM STA. 1136+00 TO 1149+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	51
FROM STA. 1151+00 TO STA. 1164+70				
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	



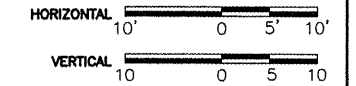
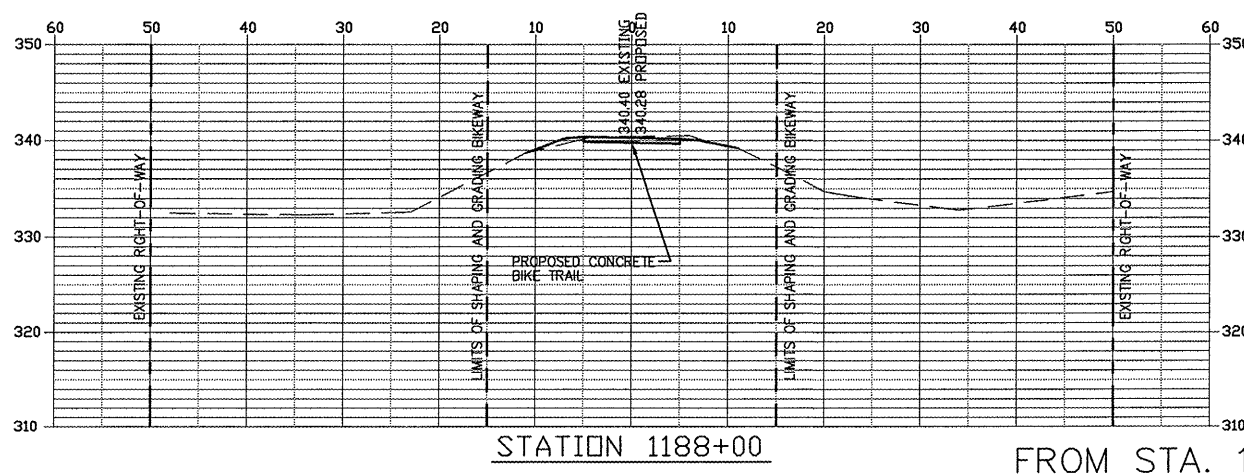
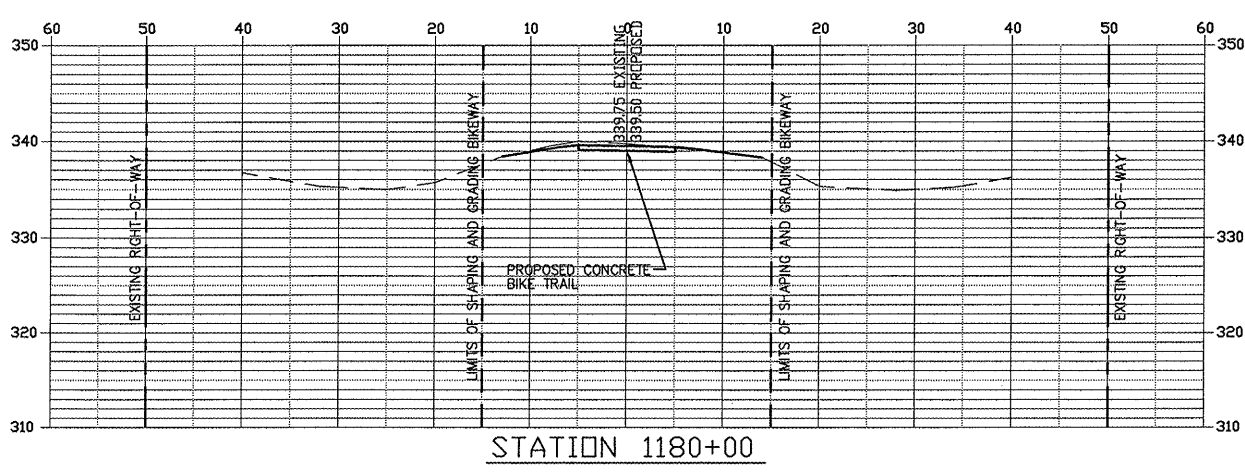
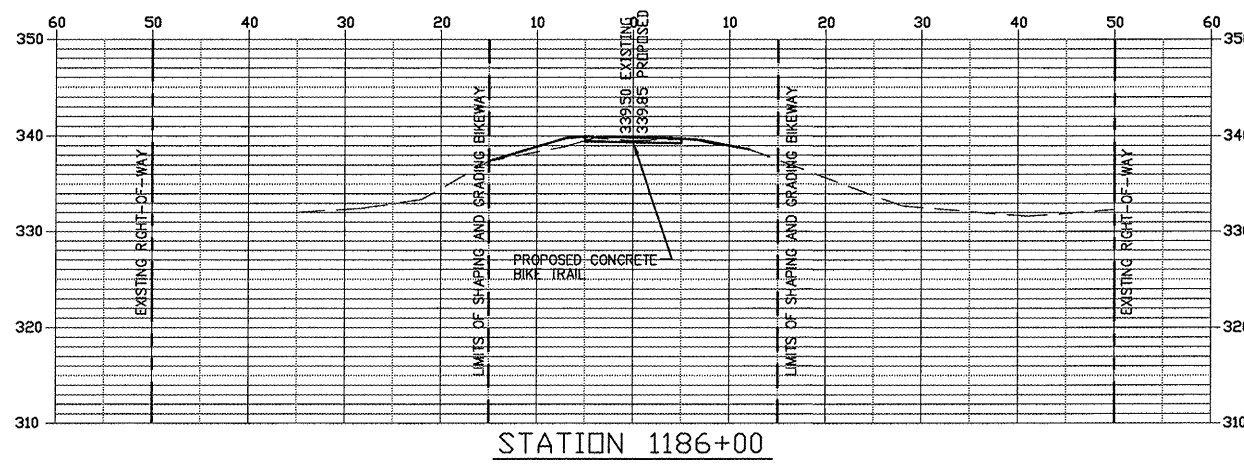
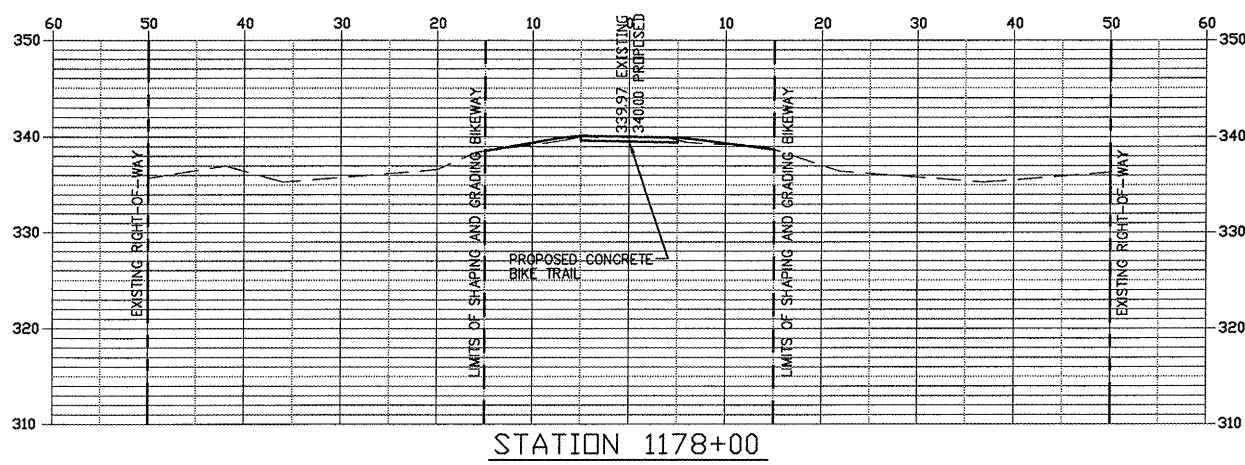
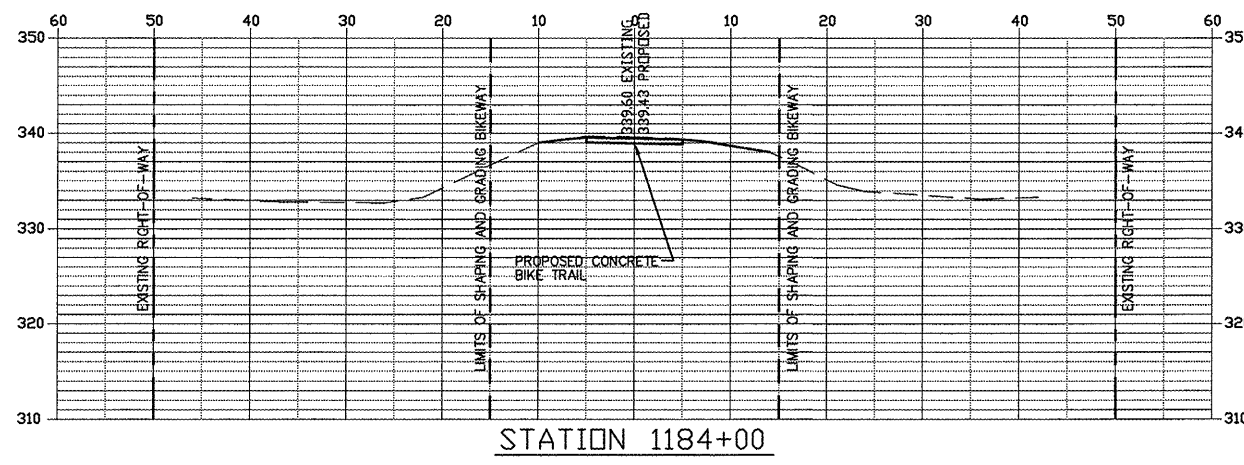
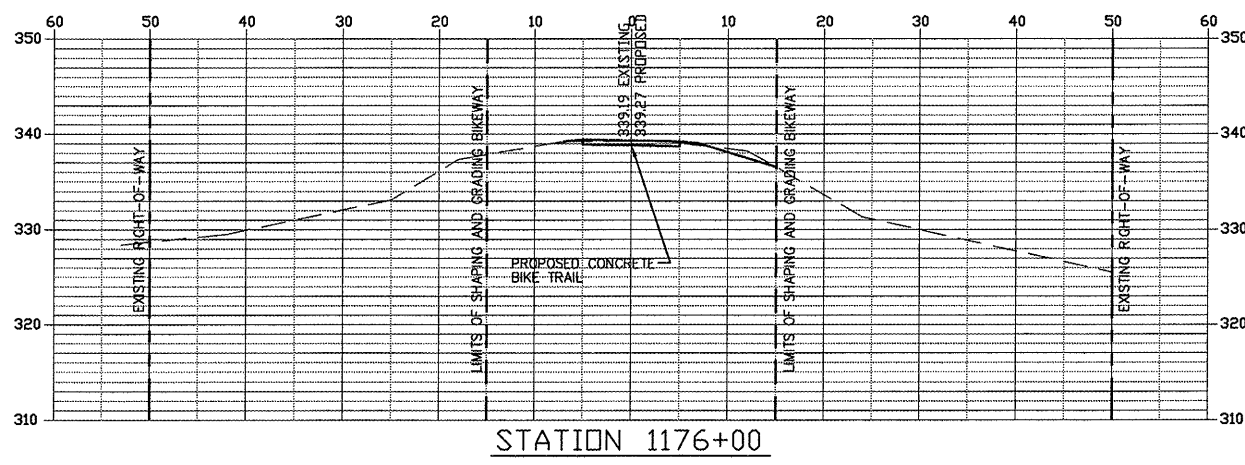
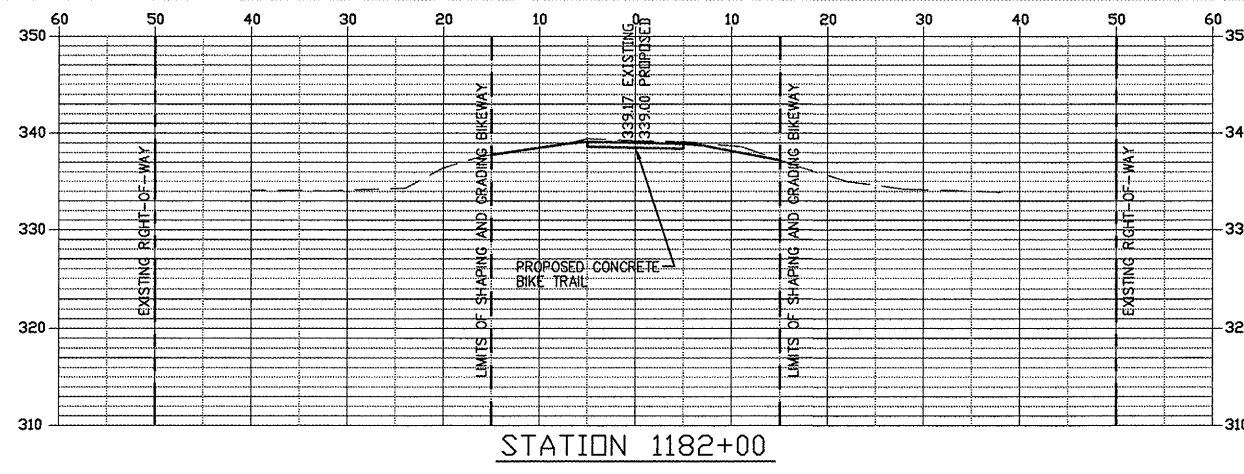
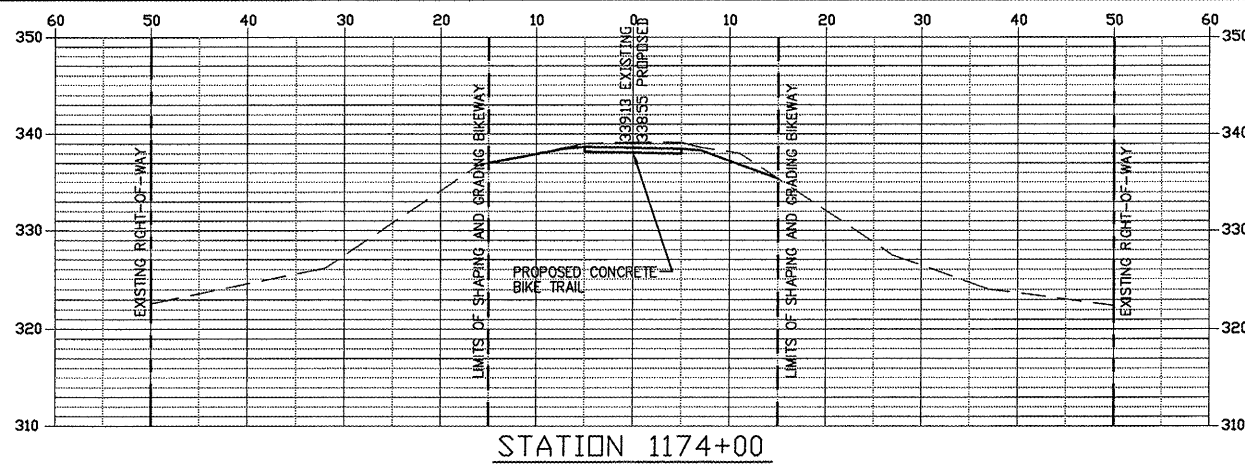
FROM STA. 1151+00 TO 1164+70

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	52
FROM STA. 1165+00 TO STA. 1172+00				
FEDERAL PROJECT NO. ARA-5045(009) CONTRACT NO. 99417				



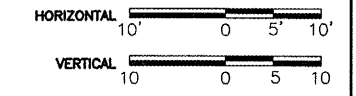
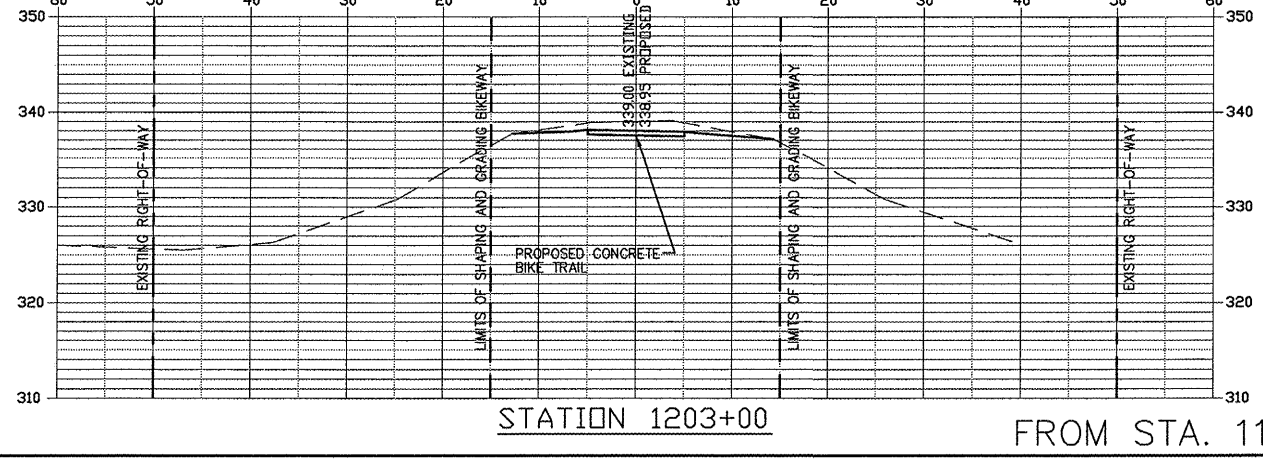
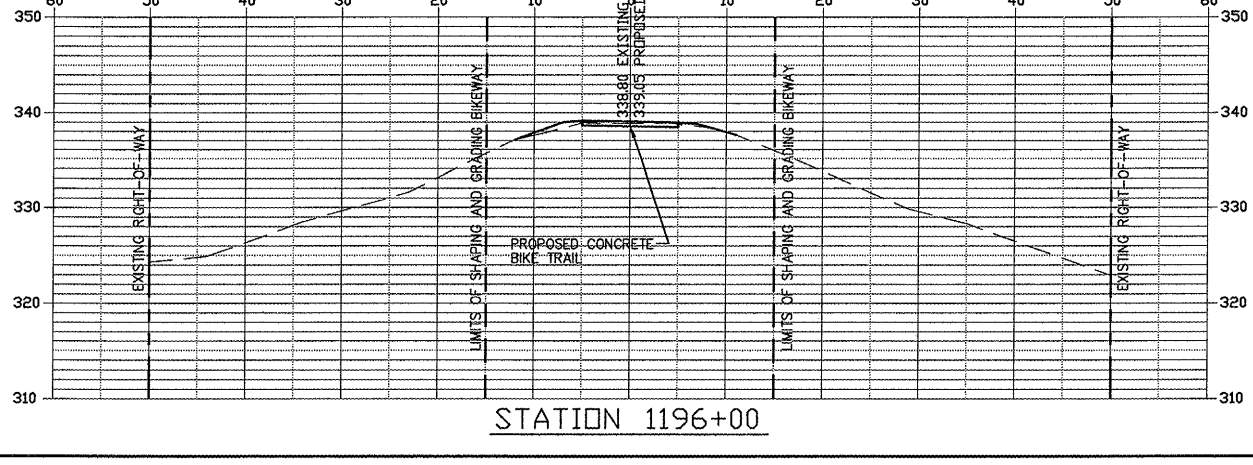
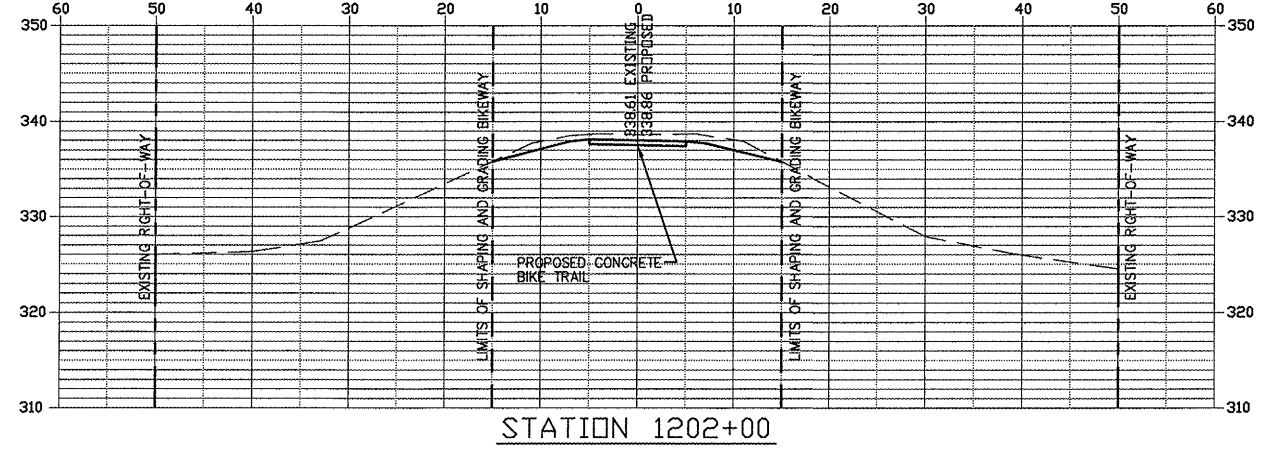
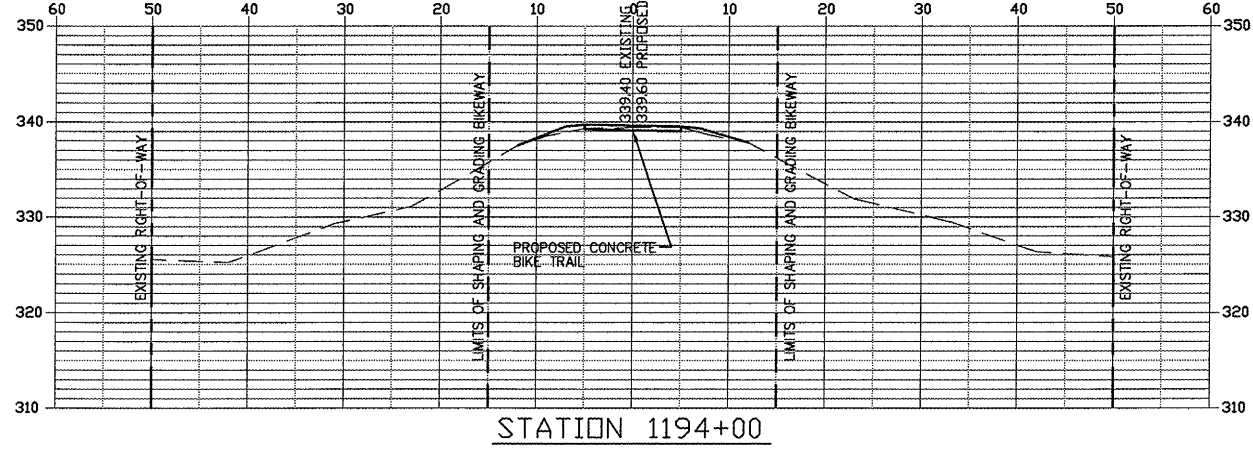
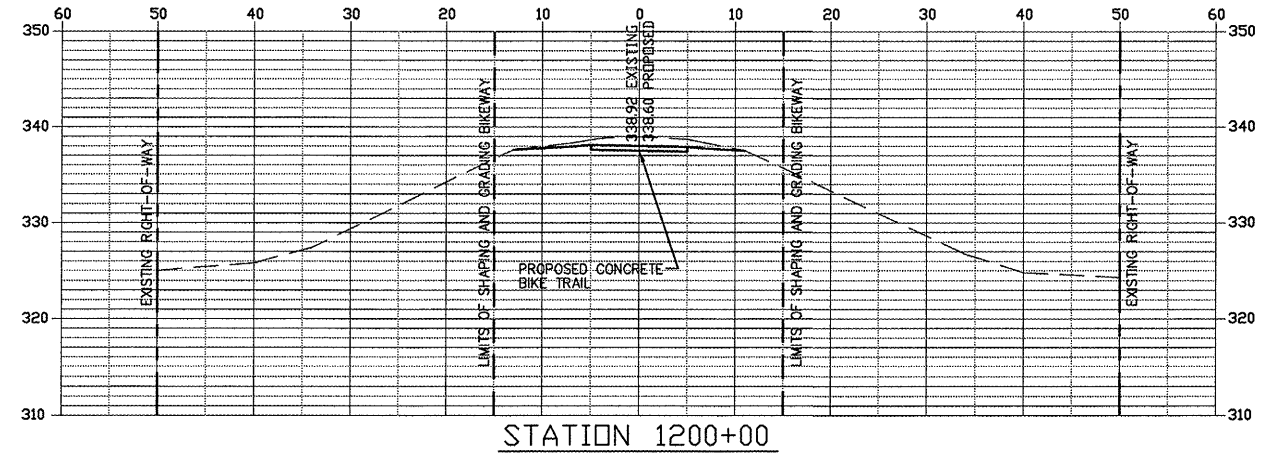
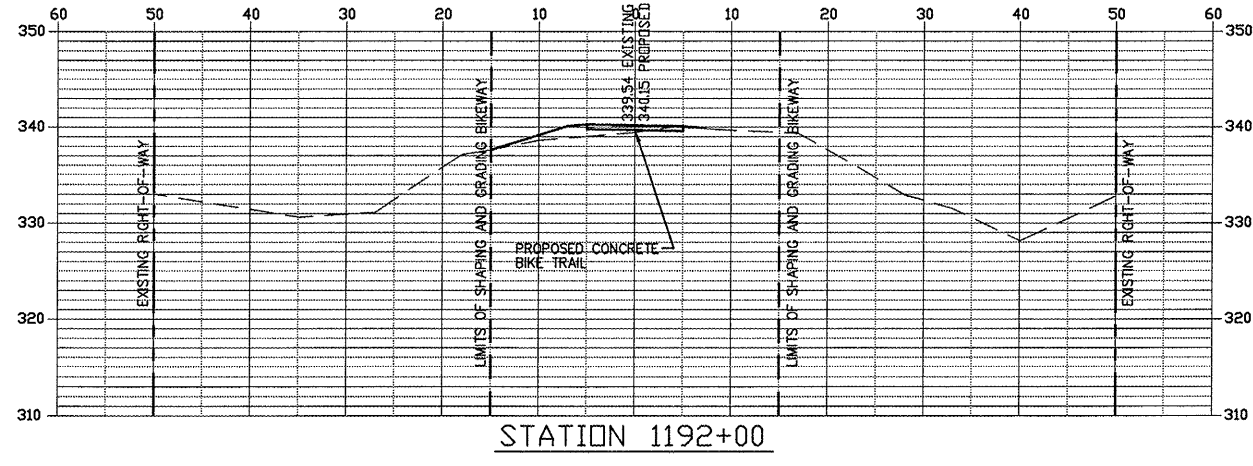
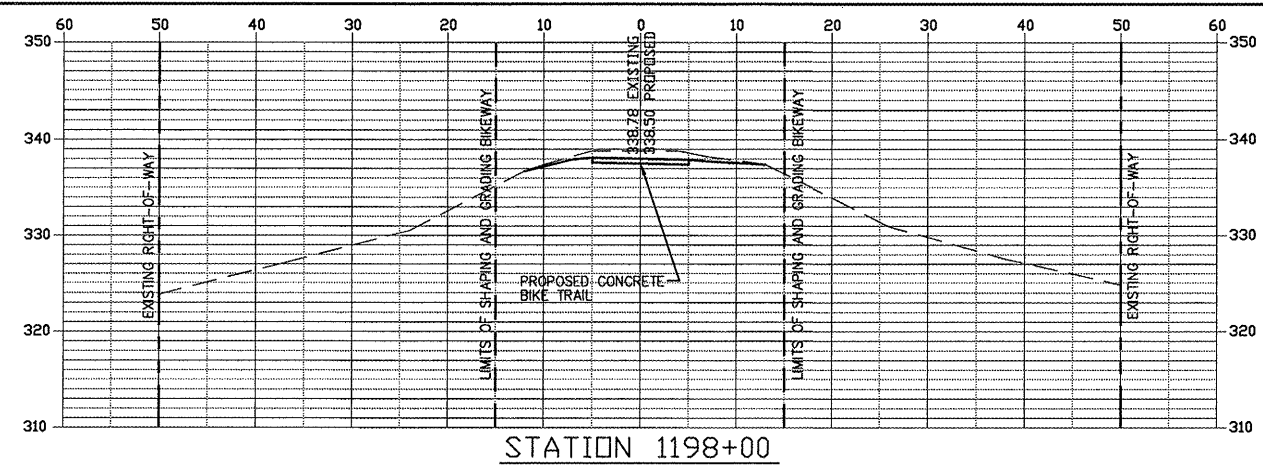
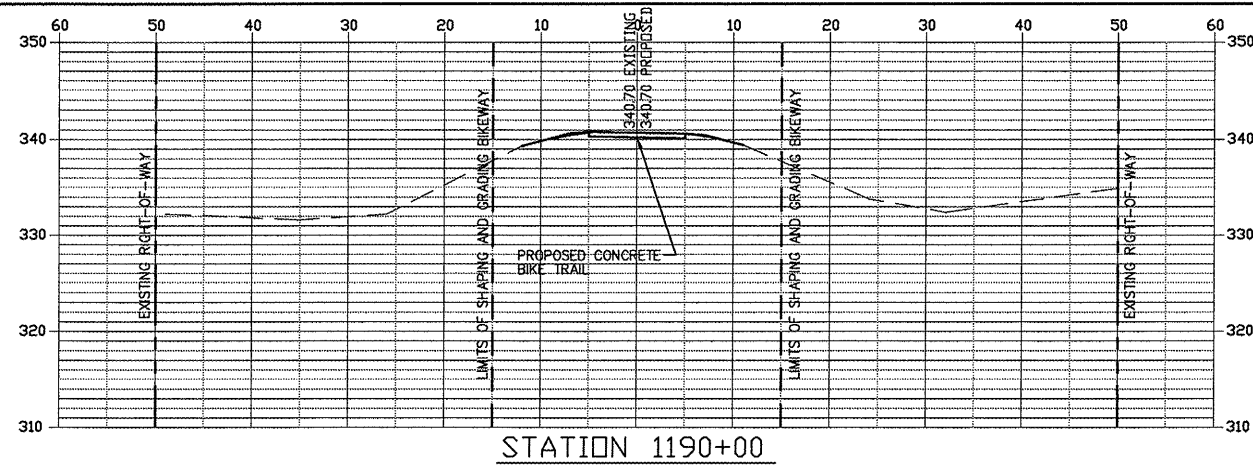
FROM STA. 1165+00 TO 1172+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	53
FROM STA. 1174+00 TO STA. 1188+00				
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	



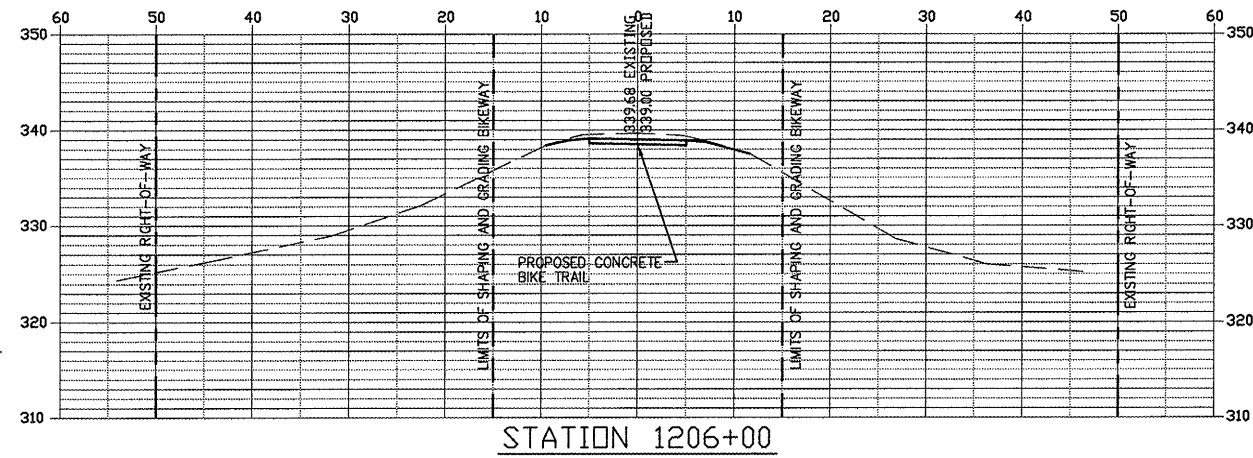
FROM STA. 1174+00 TO 1188+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	54
FROM STA. 1190+00 TO STA. 1203+00				
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	

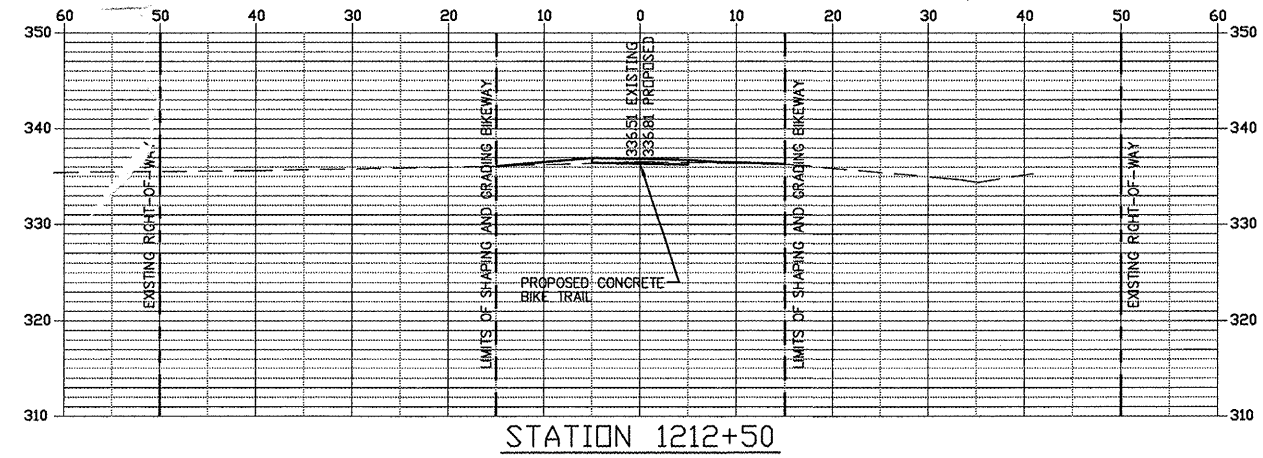


FROM STA. 1190+00 TO 1203+00

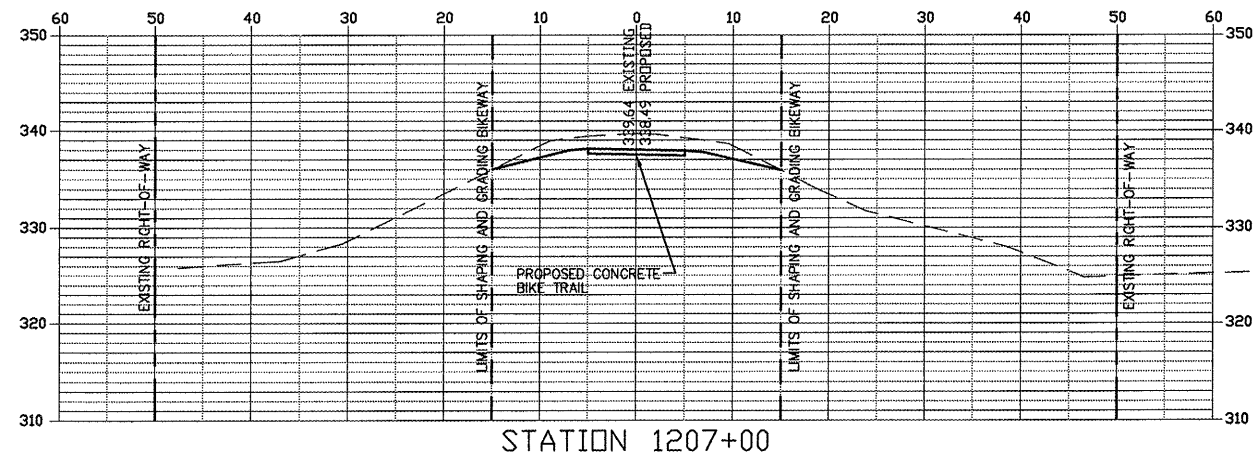
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GRCDT	09-00038-00-BT	MASSAC	55	55
FROM STA. 1206+00 TO STA. 1216+44				
FEDERAL PROJECT NO. ARA-5045(009)			CONTRACT NO. 99417	



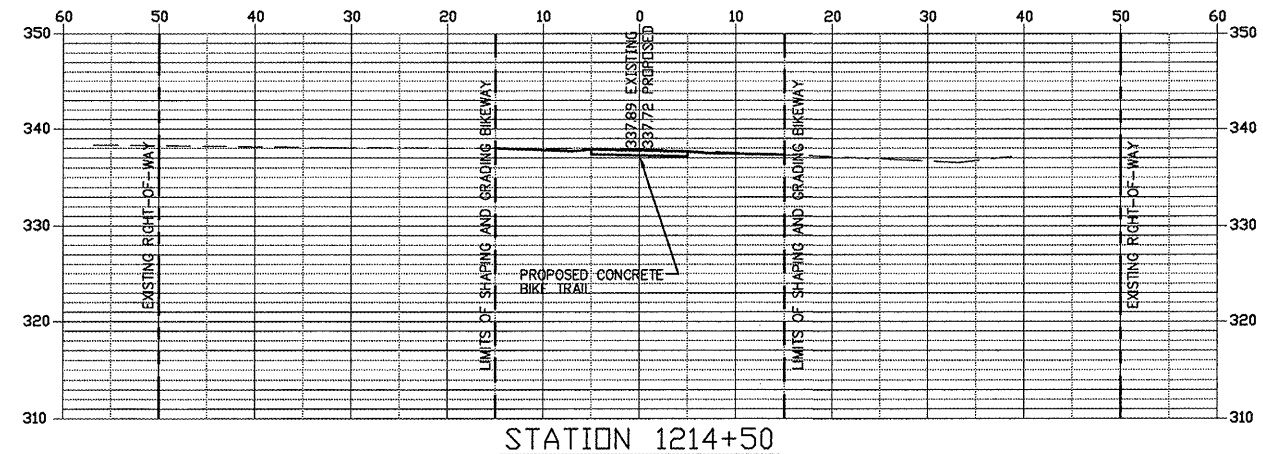
STATION 1206+00



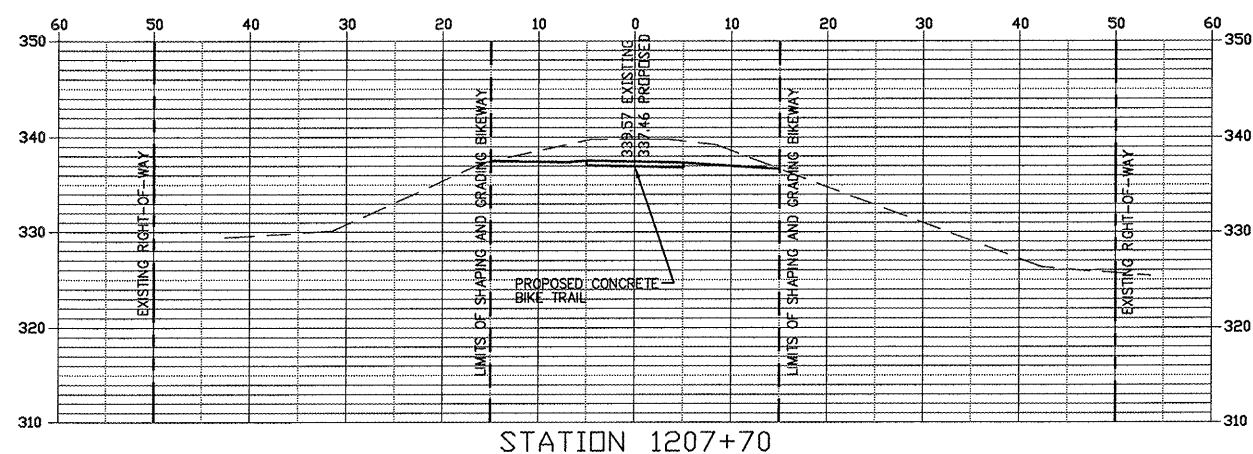
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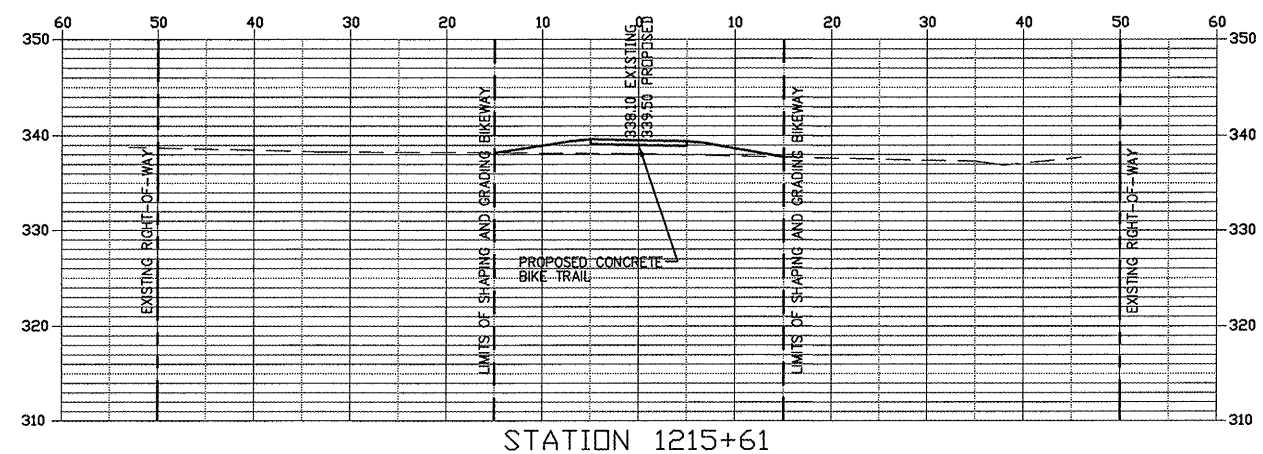
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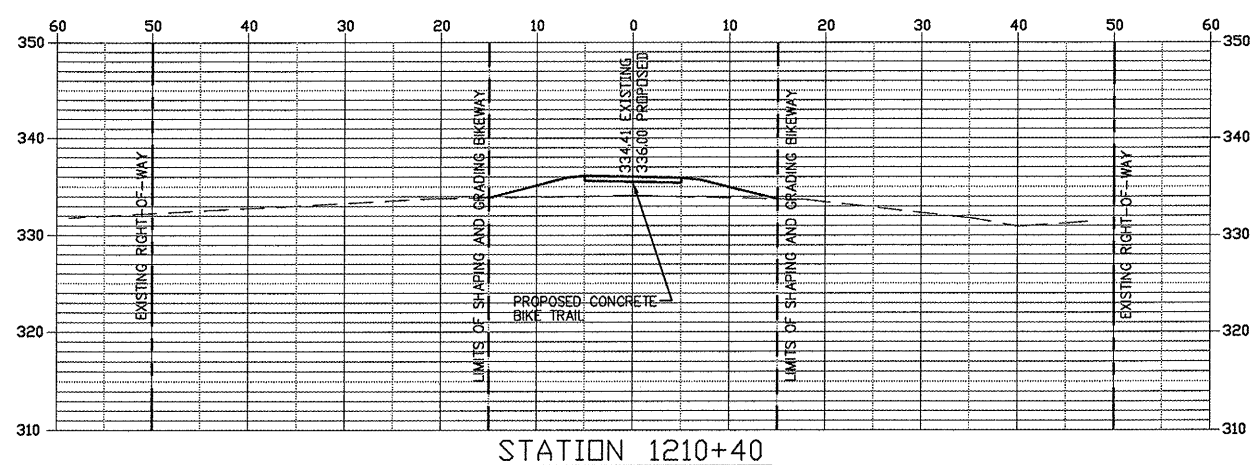
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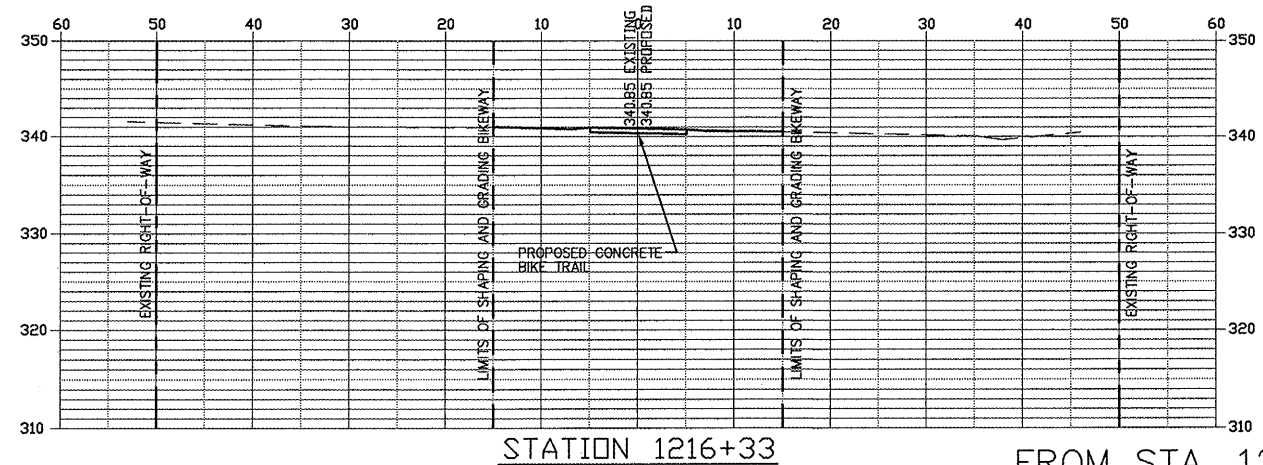
STATION 1207+70



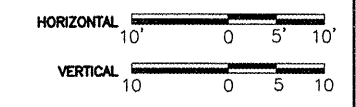
STATION 1215+61



STATION 1210+40



STATION 1216+33



FROM STA. 1206+00 TO 1216+44