

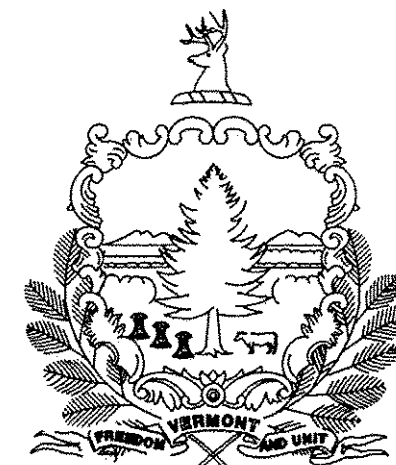
INDEX OF SHEETS
SEE SHEET 2

RECORD PLANS

CONTRACTOR: PIKE INDUSTRIES, INC. - BERLIN, VT
RESIDENT ENGINEER: BOB SUCKERT
CONSTRUCTION BEGAN: MAY 12, 2008
CONSTRUCTION COMPLETE: NOVEMBER 22, 2010
RECORD PLANS BY: BOB SUCKERT & C. PIERCE
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.
BY [Signature] RESIDENT ENGINEER
DATE 5-8-12

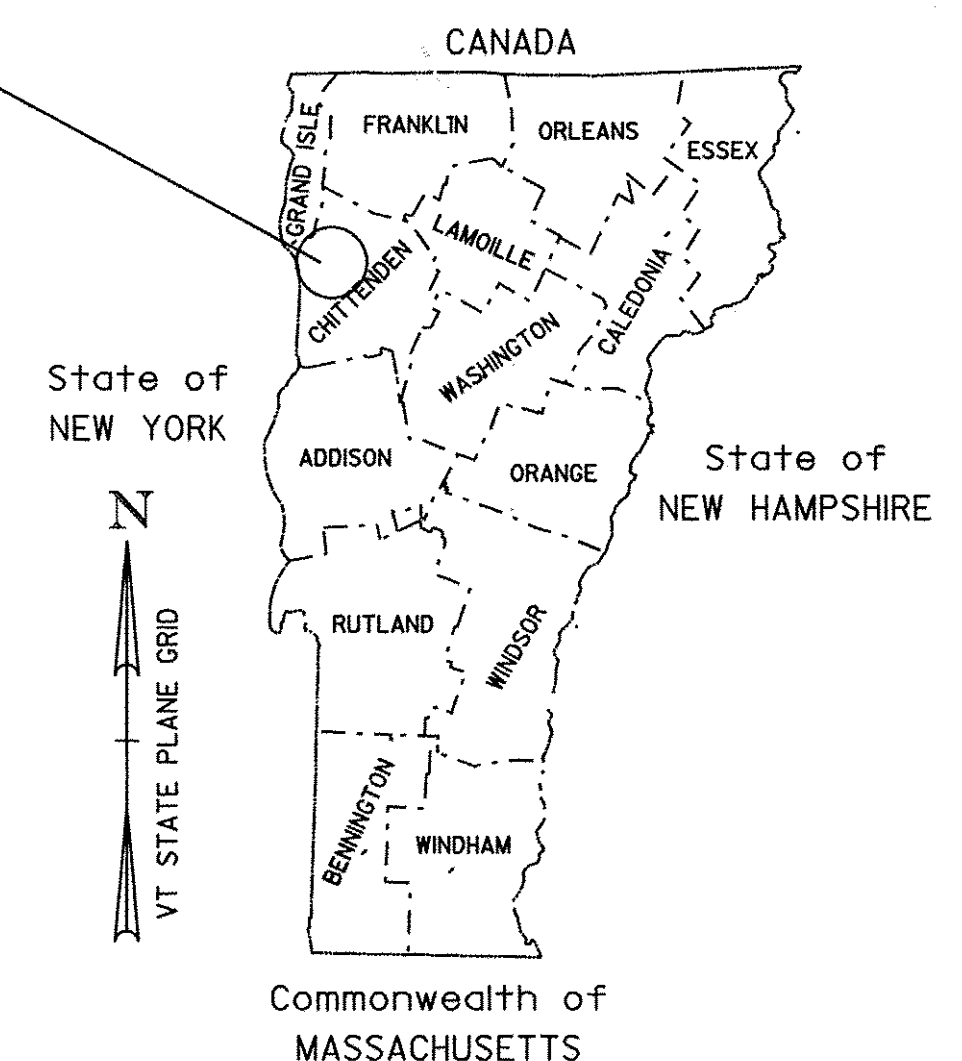
NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives.

STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT TOWNS OF RICHMOND, WILLISTON, CITIES OF SO. BURLINGTON, BURLINGTON, WINOOSKI, AND TOWN OF COLCHESTER CHITTENDEN COUNTY INTERSTATE ROUTE 89 (NB & SB)

PROJECT LOCATION
IM 089-3(60)
IM 089-2(39)



SO. BURLINGTON - COLCHESTER IM 089-3(60) (SEE SHEET 7 FOR FURTHER INFORMATION)
NORTHBOUND: BEGINNING IN THE TOWN OF SO. BURLINGTON AT MILE MARKER 87.397 = STA. 4614+56.16 AND EXTENDING
NORTHERLY ALONG INTERSTATE ROUTE 89 FOR A DISTANCE OF 23,670.24 FT (4.483 MILES) TO AN ENDING POINT AT MILE
MARKER 91.880 = STA. 4851+26.40

SOUTHBOUND: BEGINNING IN THE TOWN OF SO. BURLINGTON AT MILE MARKER 87.770 = STA. 4634+25.60 AND EXTENDING
NORTHERLY ALONG INTERSTATE ROUTE 89 FOR A DISTANCE OF 21,700.80 FT (4.110 MILES) TO AN ENDING POINT AT MILE
MARKER 91.880 = STA. 4851+26.40

STATION TO STATION DATA	FEET	MILES
NORTHBOUND STA. 4614+56.16 TO STA. 4851+26.40 (MM 87.397 TO MM 91.880)	23,670.24	4.483
SOUTHBOUND STA. 4634+25.60 TO STA. 4851+26.40 (MM 87.770 TO MM 91.880)	21,700.80	4.110
PROJECT TOTALS	45,371.04	8.593

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES COLD PLANING, RESURFACING WITH A LEVELING COURSE
AND WEARING COURSE; NEW PAVEMENT MARKINGS; NEW SIGNS; GUARDRAIL IMPROVEMENTS; DRAINAGE
IMPROVEMENTS AND INCIDENTAL ITEMS. WORK INCLUDES NORTHBOUND AND SOUTHBOUND MAINLINE AND U-TURN
IMPROVEMENTS AS WELL AS THE EXIT 13 RAMP C AND D, AND ALL RAMP ASSOCIATED WITH EXITS 14, 15 AND 16,
WITH THE EXCEPTION OF EXIT 14 RAMP C. NO WORK IS TO BE DONE ON EXIT 14 RAMP C.

RICHMOND - SO. BURLINGTON IM 089-2(39) (SEE SHEET 50 FOR FURTHER INFORMATION)
BEGINNING AT STATION 4170+67 (MM 78.990) IN THE TOWN OF RICHMOND, AND EXTENDING NORTHERLY ALONG INTERSTATE 89
(NORTHBOUND LANES ONLY) THROUGH THE TOWN OF WILLISTON FOR APPROXIMATELY 44,389 FEET, (8.407 MILES) INTO THE
TOWN OF SOUTH BURLINGTON TO STATION 4614+56 (MM 87.397)

PROJECT DATA	FEET	MILES
NORTHBOUND STA. 4170+67 TO STA. 4614+56 (MM 78.990 TO MM 87.397)	44,389	8.407
LENGTH OF ROADWAY	44,389	8.407
LENGTH OF PROJECT	44,389	8.407

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES COLD PLANING AND RESURFACING OF THE NORTHBOUND TRAVEL
LANES, SHOULDERS, AND INTERCHANGE 12, NEW PAVEMENT MARKINGS, GUARDRAIL IMPROVEMENTS AND INCIDENTAL ITEMS.
ALSO INCLUDED IS THE RECONSTRUCTION OF I-89 BETWEEN MM 79.95 TO MM 80.02 (FRENCH HILL SETTLEMENT AREA) AND
ASSOCIATED DRAINAGE WORK.

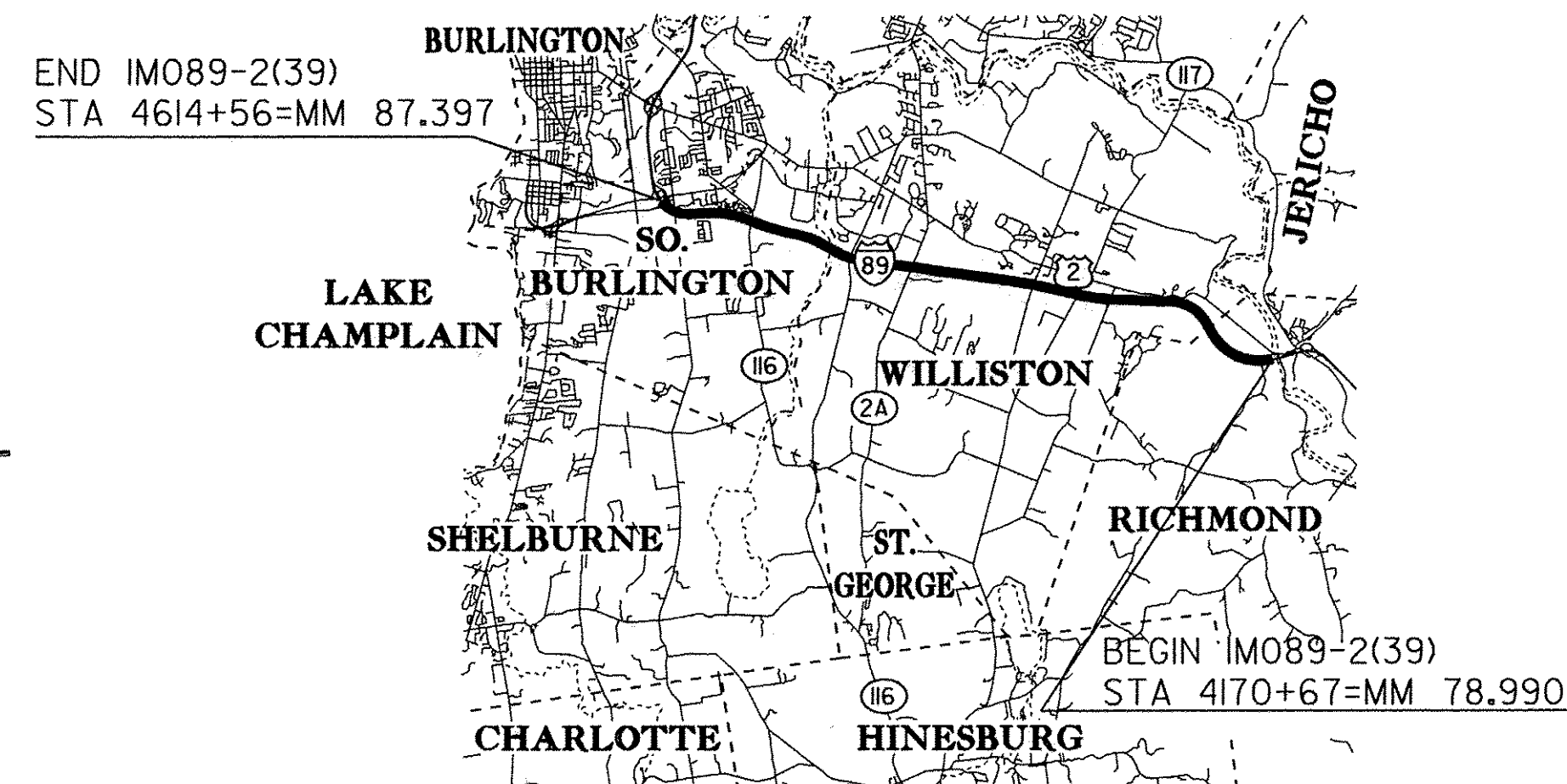
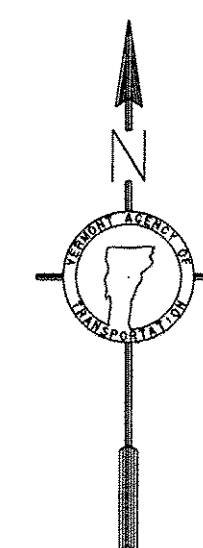
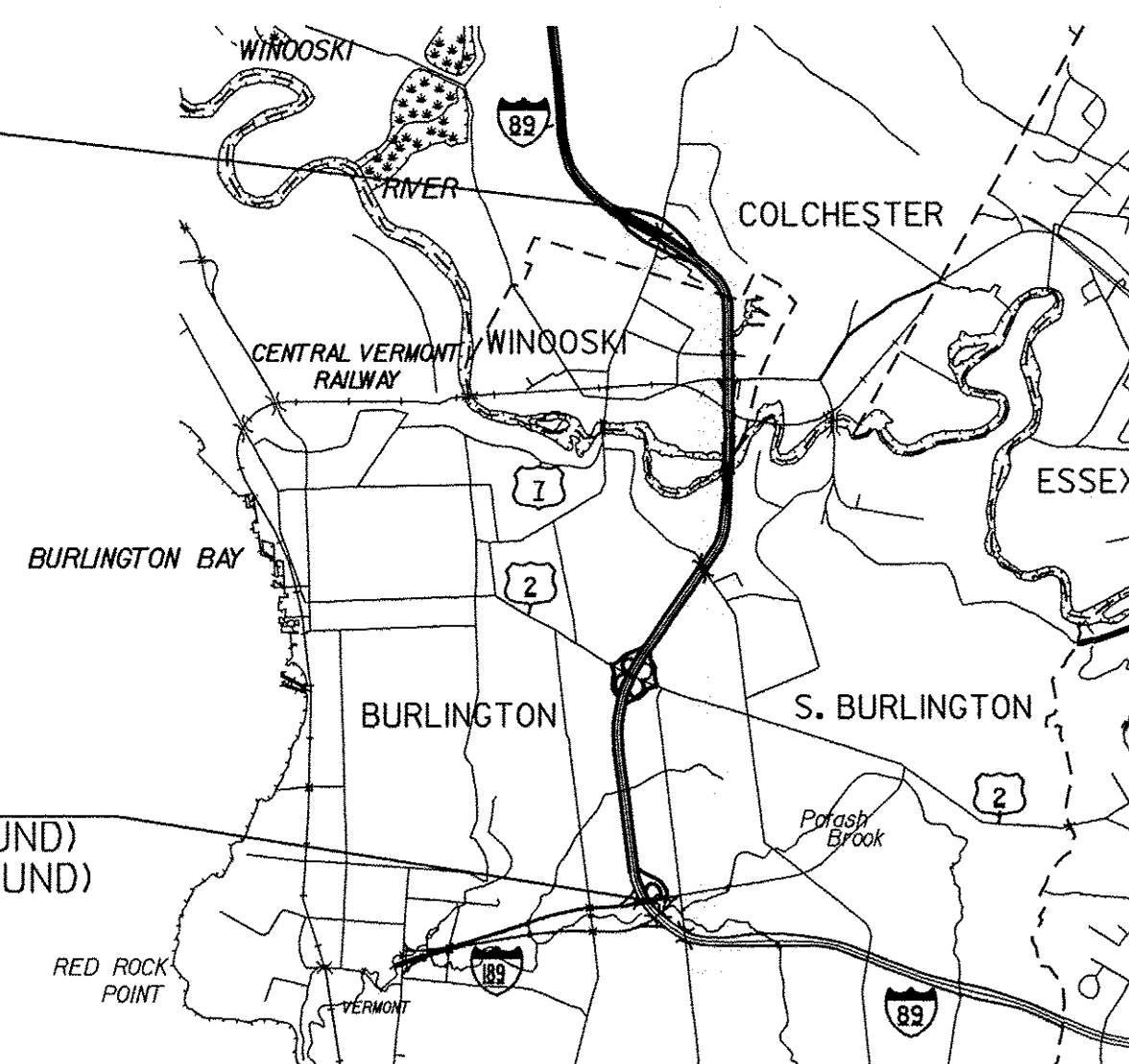
CONVENTIONAL SYMBOLS

COUNTY LINE	
TOWN LINE	
LIMITS OF ACCESS	
POINT OF ACCESS	
FENCE LINE	
STONE WALL	
TRAVELED WAY	
GUARD RAIL	
RAILROAD	
SURVEY LINE	
CULVERT	
POWER POLE	
TELEPHONE POLE	
TREES	
CONTROL OF ACCESS	
PROPERTY LINE	
R.O.W. TAKING LINE	
SLOPE RIGHTS	
TOP OF CUT	
TOE OF SLOPE	

END IM 089-3(60)
MM 91.880 = STA. 4851+26.40
(NORTHBOUND AND SOUTHBOUND)

BEGIN IM 089-3(60)
MM 87.397 = STA. 4614+56.16 (NORTHBOUND)
MM 87.770 = STA. 4634+25.60 (SOUTHBOUND)

DATUM
VERTICAL N/A
HORIZONTAL N/A



THESE PLANS ARE SUBJECT TO SUCH ENGINEERING
CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY
ADMINISTRATION OR THE DIRECTOR OF PROGRAM
DEVELOPMENT.
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE
WITH THESE PLANS AND THE STANDARD SPECIFICATIONS
FOR CONSTRUCTION DATED 2006, AS APPROVED BY THE
FEDERAL HIGHWAY ADMINISTRATION ON JUNE 15, 2006
FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT
REVISIONS AND SUCH REVISED SPECIFICATIONS AND
SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE
PLANS.

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION APPROVED <u>Mark D. Kuntz</u> DATE <u>3-18-08</u> DIRECTOR OF PROGRAM DEVELOPMENT APPROVED <u>[Signature]</u> DATE <u>2-20-08</u> PROJECT MANAGER : TED DOMEY PROJECT NAME : SO. BURLINGTON - COLCHESTER RICHMOND - SO. BURLINGTON PROJECT NUMBER : IM 089-3 (60) IM 089-2 (39) SHEET 1 OF 91 SHEETS
--

PLOTTED: 20-FEB-2008

INDEX OF SHEETS

- 1 COMPOSITE TITLE SHEET
- 2 COMPOSITE INDEX OF SHEETS
- 3-6 COMPOSITE QUANTITY SHEETS

SO. BURLINGTON - COLCHESTER IM 089-3 (60)

- 7 TITLE SHEET
- 8 PROJECT TYPICAL SHEET
- 9-11 BRIDGE LOCATION AND DETAIL SHEETS
- 12-14 QUANTITY SHEETS
- 15-17 ITEM DETAIL SUMMARY SHEETS
- 18 DITCH CLEANING DETAIL SHEET
- 19 PAVING PROJECT LAYOUT SHEET
- 20-29 TRAFFIC SIGN SUMMARY SHEETS
- 30-32 BRIDGE/GUARDRAIL TREATMENT DETAIL SHEETS
- 33-34 MILLED RUMBLE STRIP DETAILS
- 35 RAMP DETAIL SHEET INTERCHANGE #13
- 36-39 RAMP DETAIL SHEETS INTERCHANGE #14
- 40 RAMP DETAIL SHEET INTERCHANGE #15
- 41-42 RAMP DETAIL SHEETS INTERCHANGE #16
- 43 DETAILS SHEET
- 44-45 GUARDRAIL APPROACH SECTION DETAIL SHEETS
- 46-49 CONSTRUCTION APPROACH SIGNING SHEETS

RICHMOND - SO. BURLINGTON IM 089-2 (39)

- 50 TITLE SHEET
- 51-53 PROJECT TYPICAL SHEETS
- 54-56 QUANTITY SHEETS
- 57-58 ITEM DETAIL SUMMARY SHEETS
- 59 DITCH CLEANING DETAIL SHEET
- 60 PAVING PROJECT LAYOUT (NORTHBOUND)
- 61 REST AREA DETAIL SHEET
- 62 INTERCHANGE #12 DETAIL SHEET
- 63 PAVEMENT MARKING DETAIL SHEET
- 64-65 MILLED RUMBLE STRIP DETAIL SHEETS
- 66 TRAFFIC SIGN LAYOUT SHEET
- 67 TRAFFIC SIGN SUMMARY SHEET
- 68 CONSTRUCTION APPROACH SIGNING AND THINNING AND TRIMMING FOR SIGNS DETAIL SHEET
- 69 ROADWAY/DITCH PLAN & PROFILE
- 70 TYPICAL SECTIONS
- 71 UNDERDRAIN TYPICAL SECTIONS
- 72 DRAINAGE MITIGATION SHEET
- 73-75 RECONSTRUCTION CROSS SECTIONS
- 76 EROSION CONTROL NARRATIVE
- 77-79 EROSION CONTROL PLAN SHEETS 1-3
- 80 EROSION CONTROL DETAILS
- 81 CONSTRUCTION APPROACH SIGNING SHEET
- 82 CROSSOVER AT MM 79.00
- 83 CROSSOVER TYPICALS SHEET
- 84-86 CROSS SECTION SHEETS CROSSOVER (MM 79.00)
- 87 CROSSOVER AT MM 81.58
- 88-91 CROSS SECTION SHEETS CROSSOVER (MM 81.58)

VAOT STANDARDS

- | | |
|--------|----------|
| B-17 | 02-23-95 |
| C-1 | 01-03-00 |
| C-3A | 09-01-04 |
| C-3B | 09-01-04 |
| D-3 | 06-01-94 |
| D-6 | 06-01-94 |
| D-8 | 01-03-00 |
| D-9 | 06-01-94 |
| D-10 | 06-01-94 |
| D-15 | 06-01-94 |
| D-30 | 08-13-07 |
| E-100 | 01-02-04 |
| E-100A | 01-02-04 |
| E-101 | 05-30-03 |
| E-102 | 06-30-03 |
| E-102A | 05-01-04 |
| E-103 | 03-01-04 |
| E-105 | 05-01-04 |
| E-106 | 03-01-04 |
| E-107 | 06-30-03 |
| E-107A | 08-08-95 |
| E-108 | 08-18-95 |
| E-110 | 08-08-95 |
| E-111 | 03-11-97 |
| E-120 | 08-08-95 |
| E-121 | 08-08-95 |
| E-123 | 03-16-04 |
| E-126 | 02-01-00 |
| E-131 | 08-08-95 |
| E-136A | 08-08-95 |
| E-136B | 08-08-95 |
| E-139 | 05-01-04 |
| E-140 | 08-30-96 |
| E-142 | 09-20-95 |
| E-143 | 06-15-04 |
| E-145A | 12-23-94 |
| E-145B | 12-23-94 |
| E-146 | 09-20-95 |
| E-150 | 05-01-04 |
| E-152 | 05-01-04 |
| E-153B | 05-30-03 |
| E-154 | 05-01-04 |
| E-160 | 05-20-99 |
| E-163 | 05-20-99 |
| E-164 | 05-20-99 |
| E-191 | 02-01-99 |
| E-192 | 10-12-00 |
| E-193 | 08-18-95 |
| E-197 | 04-01-05 |
| E-198 | 04-01-05 |
| E-199 | 04-01-05 |
| G-1 | 01-03-00 |
| G-1D | 01-03-00 |
| G-4 | 06-01-94 |
| G-6 | 06-01-94 |
| G-18 | 06-01-94 |
| G-19 | 11-15-02 |

COMPOSITE
INDEX
OF
SHEETS

PROJECT NAME: SO. BURLINGTON - COLCHESTER RICHMOND - SO. BURLINGTON	
PROJECT NUMBER: IM 089-3(60) IM 089-2(39)	
FILE NAME: p05a012.dgn	PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
PROJECT LEADER: DOMEY	DRAWN BY: LOCKE
DESIGNED BY: LOCKE	CHECKED BY: PAVT MGMT
PLOT FILE: p05a012cis.i	SHEET 2 OF 91

STATE OF VERMONT
AGENCY OF TRANSPORTATION

[illegible][illegible]

COMPOSITE QUANTITY SHEET 2

STATE OF VERMONT
AGENCY OF TRANSPORTATION

SUMMARY OF ESTIMATED QUANTITIES											
RICH. - SO. BURL. IM 089-2(39)			SO. BURLINGTON - COLCHESTER IM 089-3(60)			QUANTITIES	UNIT	ITEMS	ITEM NO.	ROUNDING	
FULL CE	BRIDGE	ROADWAY	FULL CE	TRAINING	BRIDGE	ROADWAY					GRAND TOTAL
		445				290	735	CY	STONE FILL , TYPE I	613.10	-
		100				300	400	LF	TREATED TIMBER CURB	616.35	-
						300	300	LF	REMOVAL OF EXISTING CURB	616.41	-
						90	90	TON	BITUMINOUS CONCRETE GUTTERS AND TRAFFIC ISLANDS	616.47	-
						12	12	SY	PORTLAND CEMENT CONCRETE SIDEWALK , 5 INCH	618.10	-
						45	45	SF	DETECTABLE WARNING SURFACE	618.30	-
		10				50	60	EA	YIELDING MARKER POSTS	619.17	-
		975				6700	7675	LF	STEEL BEAM GUARDRAIL , GALVANIZED	621.20	-
		13				23	36	EA	MANUFACTURED TERMINAL SECTION , FLARED	621.50	-
		3				17	20	EA	ANCHOR FOR STEEL BEAM RAIL	621.60	-
		1					1	EA	ANCHOR FOR CABLE RAIL	621.65	-
						2	2	EA	GUARDRAIL APPROACH SECTION , GALVANIZED TYPE I	621.70	-
						4	4	EA	GUARDRAIL APPROACH SECTION , GALVANIZED TYPE II	621.71	-
		325					325	LF	REMOVING AND RESETTING GUARDRAIL	621.75	-
		220				267	487	EA	REPLACE GUARDRAIL POST ASSEMBLY	621.76	-
		90				246	336	EA	REPLACE GUARDRAIL BEAM UNIT	621.77	-
		550					550	LF	ADJUST HEIGHT OF GUARDRAIL	621.79	-
		850				4680	5530	LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80	-
		1700				3000	4700	HR	UNIFORMED TRAFFIC OFFICERS	630.10	-
		3000				1000	4000	HR	FLAGGERS	630.15	-
0.5			0.5				1	LS	FIELD OFFICE , ENGINEERS	631.10	-
1							1	LS	TESTING EQUIPMENT , CONCRETE	631.16	-
0.5			0.5				1	LS	TESTING EQUIPMENT , BITUMINOUS	631.17	-
0.5			0.5				1	LU	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.25	-
				520			520	HR	EMPLOYEE TRAINEESHIP	634.10	-
		0.5				0.5	1	LS	MOBILIZATION/DEMObILIZATION	635.11	-
		0.5				0.5	1	LS	PUBLIC RELATIONS OFFICER	641.12	-
		4				8	12	EA	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-
		57900				74500	132400	LF	DURABLE 6 INCH WHITE LINE , RECESSED	646.426	-
		46500				58800	105300	LF	DURABLE 6 INCH YELLOW LINE , RECESSED	646.436	-
		1750				7260	9010	LF	DURABLE 12 INCH WHITE LINE , RECESSED	646.466	-
		30					30	LF	DURABLE 24 INCH STOP BAR , THERMOPLASTIC	646.482	-
		22				98	120	EA	DURABLE LETTER OR SYMBOL , THERMOPLASTIC	646.492	-
						50	50	LF	DURABLE CROSSWALK MARKING , THERMOPLASTIC	646.502	-
		115800				149000	264800	LF	TEMPORARY 6 INCH WHITE LINE , PAINT	646.622	-
		93000				117600	210600	LF	TEMPORARY 6 INCH YELLOW LINE , PAINT	646.632	-
		3500				14520	18020	LF	TEMPORARY 12 INCH WHITE LINE , PAINT	646.662	-
		60					60	LF	TEMPORARY 24 IN STOP BAR , PAINT	646.682	-

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

[illegible][illegible]

COMPOSITE QUANTITY SHEET 4

STATE OF VERMONT
AGENCY OF TRANSPORTATION

[illegible][illegible][illegible]

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
CITIES OF SO. BURLINGTON, BURLINGTON,
WINOOSKI, AND TOWN OF COLCHESTER
CHITTENDEN COUNTY
INTERSTATE ROUTE 89 (NB & SB)

NORTHBOUND: BEGINNING IN THE TOWN OF SO. BURLINGTON AT MILE MARKER 87.397 = STA. 4614+56.16 AND EXTENDING
NORTHERLY ALONG INTERSTATE ROUTE 89 FOR A DISTANCE OF 23,670.24 FT (4.483 MILES) TO AN ENDING POINT AT MILE
MARKER 91.880 = STA. 4851+26.40

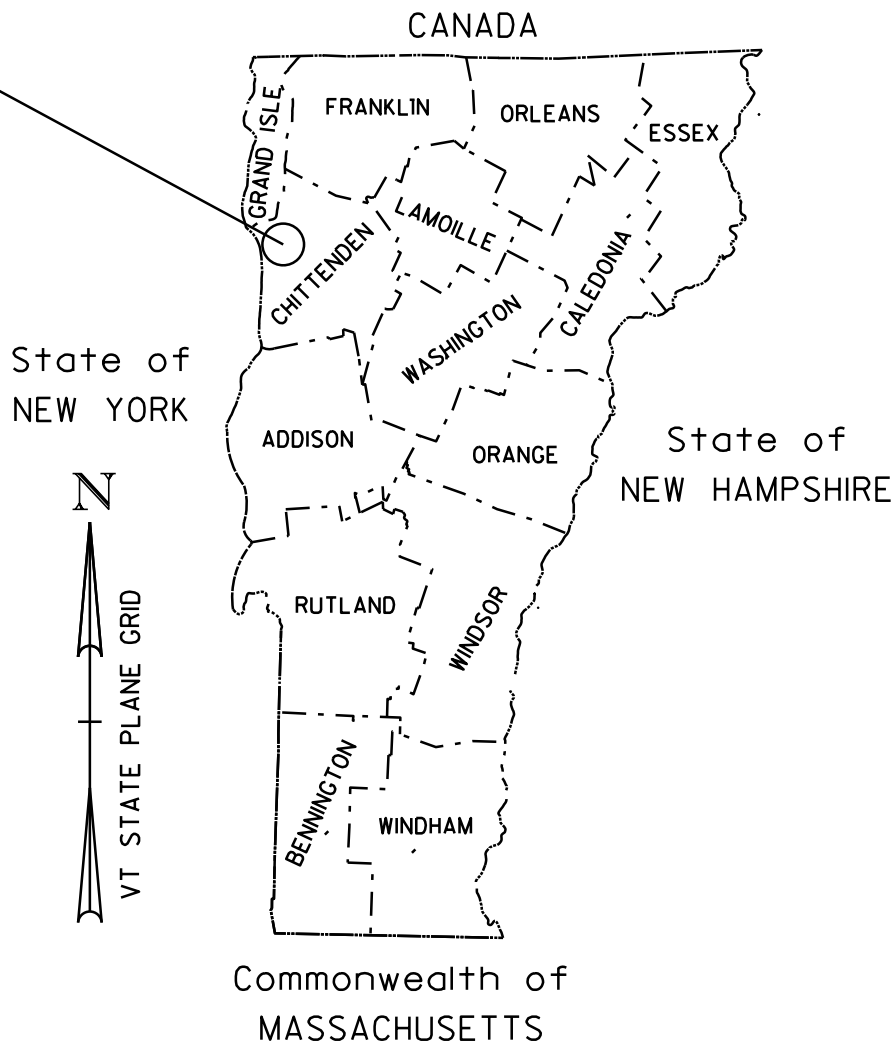
SOUTHBOUND: BEGINNING IN THE TOWN OF SO. BURLINGTON AT MILE MARKER 87.770 = STA. 4634+25.60 AND EXTENDING
NORTHERLY ALONG INTERSTATE ROUTE 89 FOR A DISTANCE OF 21,700.80 FT (4.11 MILES) TO AN ENDING POINT AT MILE
MARKER 91.880 = STA. 4851+26.40

STATION TO STATION DATA

	FEET	MILES
NORTHBOUND STA. 4614+56.16 TO STA. 4851+26.40 (MM 87.397 TO MM 91.880)	23,670.24	4.483
SOUTHBOUND STA. 4634+25.60 TO STA. 4851+26.40 (MM 87.770 TO MM 91.880)	21,700.80	4.110
PROJECT TOTALS	45,371.04	8.593

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES COLD PLANING, RESURFACING WITH A LEVELING COURSE
AND WEARING COURSE; NEW PAVEMENT MARKINGS; NEW SIGNS; GUARDRAIL IMPROVEMENTS; DRAINAGE
IMPROVEMENTS AND INCIDENTAL ITEMS. WORK INCLUDES NORTHBOUND AND SOUTHBOUND MAINLINE AND U-TURN
IMPROVEMENTS AS WELL AS THE EXIT 13 RAMPS C AND D, AND ALL RAMPS ASSOCIATED WITH EXITS 14, 15 AND 16,
WITH THE EXCEPTION OF EXIT 14 RAMP C. NO WORK IS TO BE DONE ON EXIT 14 RAMP C.

PROJECT LOCATION
IM 089-3(60)



BITUMINOUS CONCRETE PAVEMENT SUPERPAVE MIXTURE DESIGN CRITERIA		
	NORTHBOUND	SOUTHBOUND
DESIGN LANE / DESIGN LIFE ESAL	15,790,000	19,047,600
DESIGN NUMBER OF GYRATIONS	100	100
PERFORMANCE GRADE ASPHALT BINDER	64-28	64-28

TRAFFIC DATA

SECTION	ADT (NB & SB)		DHV (NB & SB)		FLEXIBLE ESAL'S (NB)		FLEXIBLE ESAL'S (SB)	
	2007	2017	2007	2017	2007-2017	2007-2027	2007-2017	2007-2027
START OF PROJECT TO EXIT #14	21700	26500	2300	2800	7,991,000	22,366,000	8,628,000	24,455,000
EXIT #14 TO EXIT #15	28700	35200	3000	3700	9,508,000	26,317,000	11,204,000	31,746,000
EXIT #15 TO EXIT #16	20200	24900	2200	2700	9,216,000	26,214,000	7,183,000	20,078,000
EXIT #16 TO END OF PROJECT	16400	20400	1900	2300	7,526,000	21,505,000	5,865,000	16,470,000

CONVENTIONAL SYMBOLS

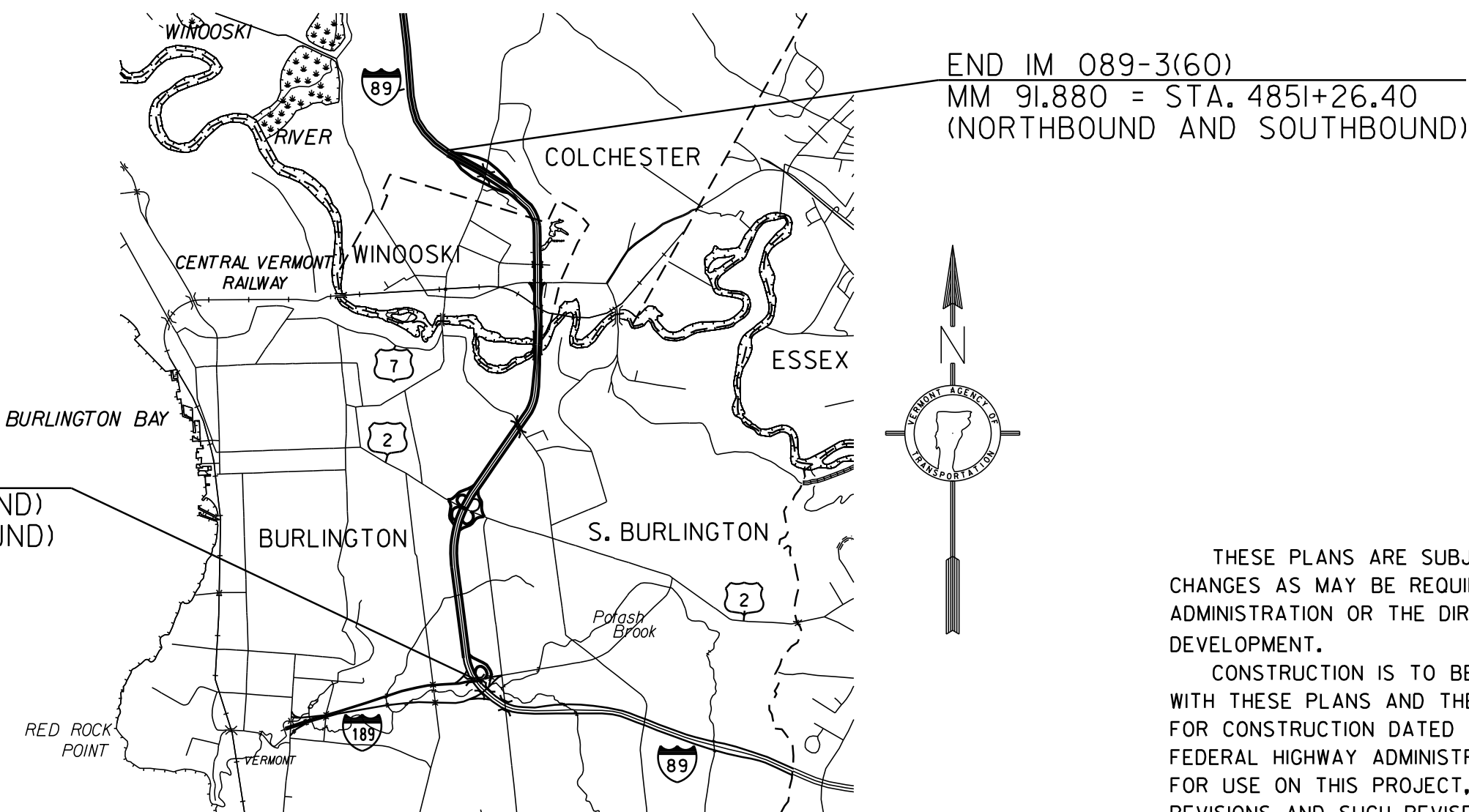
COUNTY LINE		COUNTY LINE
TOWN LINE		TOWN LINE
LIMITS OF ACCESS		
POINT OF ACCESS		
FENCE LINE		
STONE WALL		
TRAVELED WAY		
GUARD RAIL		
RAILROAD		
SURVEY LINE		
CULVERT		
POWER POLE		
TELEPHONE POLE		
TREES		
CONTROL OF ACCESS		
PROPERTY LINE		
R.O.W. TAKING LINE		
SLOPE RIGHTS		
TOP OF CUT		
TOE OF SLOPE		

DuBois
& King
inc.

engineering planning management development

DATUM

VERTICAL N/A
HORIZONTAL N/A



BEGIN IM 089-3(60)
MM 87.397 = STA. 4614+56.16 (NORTHBOUND)
MM 87.770 = STA. 4634+25.60 (SOUTHBOUND)

END IM 089-3(60)
MM 91.880 = STA. 4851+26.40
(NORTHBOUND AND SOUTHBOUND)

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING
CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY
ADMINISTRATION OR THE DIRECTOR OF PROGRAM
DEVELOPMENT.
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE
WITH THESE PLANS AND THE STANDARD SPECIFICATIONS
FOR CONSTRUCTION DATED 2006, AS APPROVED BY THE
FEDERAL HIGHWAY ADMINISTRATION ON JUNE 15, 2006
FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT
REVISIONS AND SUCH REVISED SPECIFICATIONS AND
SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE
PLANS.

PLOTTED: \$\$\$\$\$\$DATE\$\$\$\$\$

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____ DATE _____

DIRECTOR OF PROGRAM DEVELOPMENT

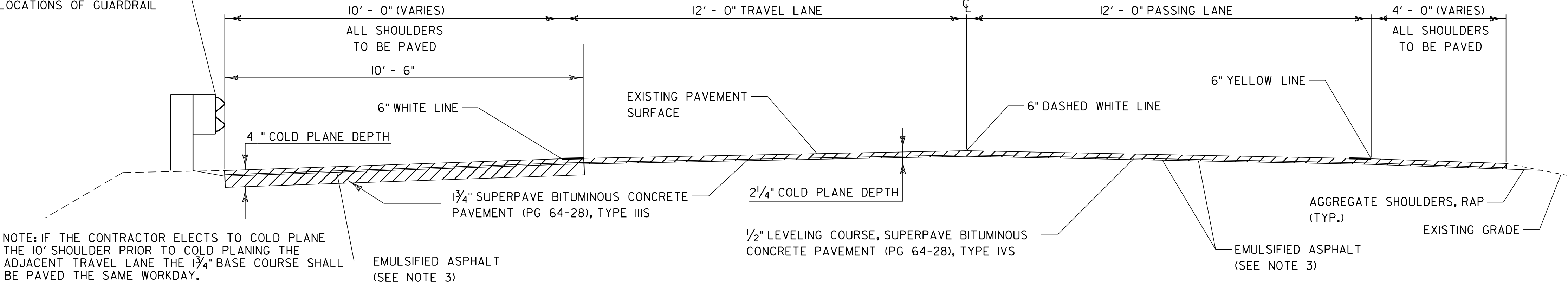
APPROVED _____ DATE _____

PROJECT MANAGER : TED DOMEY

PROJECT NAME : SO. BURLINGTON - COLCHESTER
PROJECT NUMBER : IM 089-3 (60)

SHEET 7 OF 91 SHEETS

SEE ITEM DETAIL SHEETS
AND RAMP LAYOUTS FOR
LOCATIONS OF GUARDRAIL

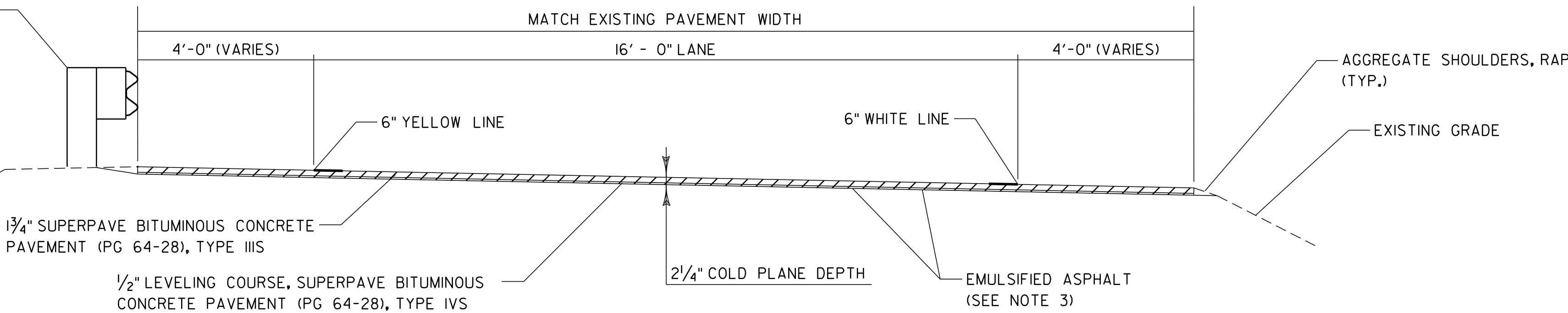


MAINLINE TYPICAL SECTION

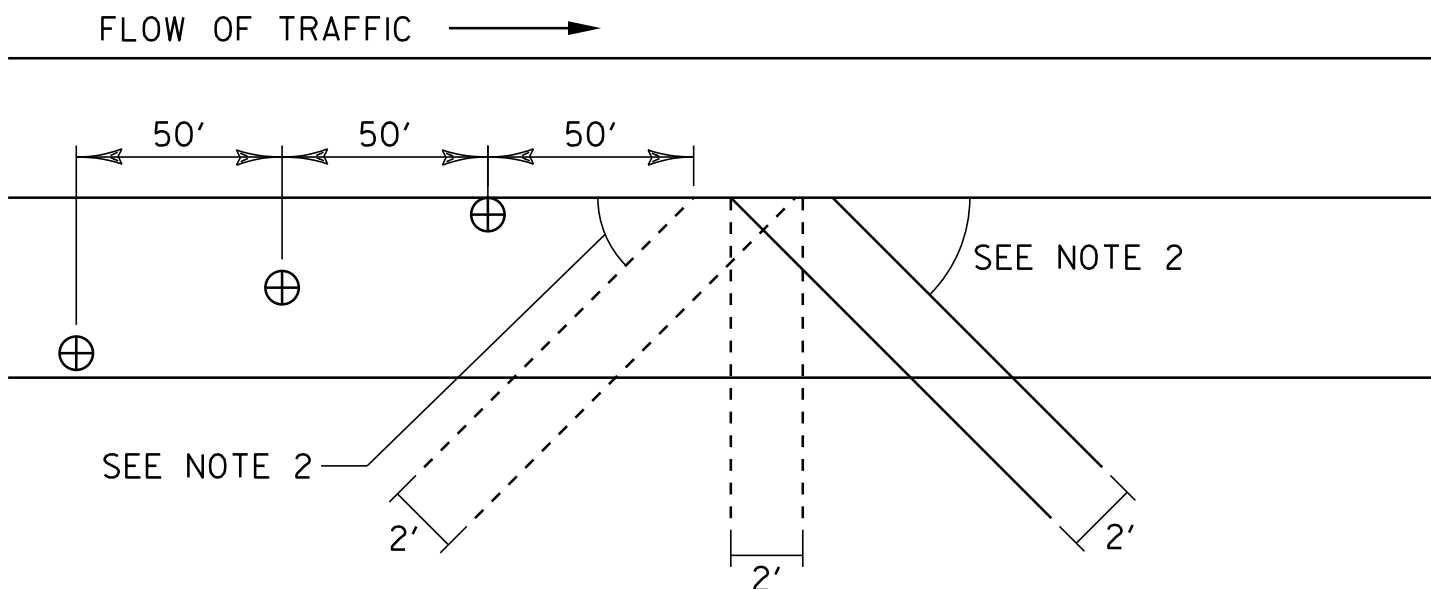
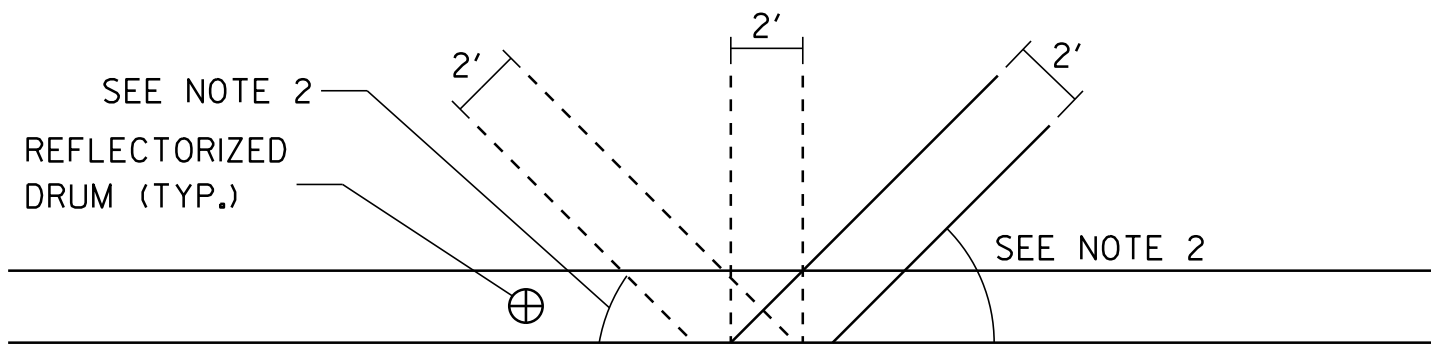
(SOUTHBOUND BARREL SHOWN; MIRROR IMAGE FOR NORTHBOUND BARREL)

DURING THE CONSTRUCTION OF SO. BURLINGTON AC IM CULV(9) BETWEEN MM 87.35 AND MM 88.30 NB AND SB THE TRAVEL AND PASSING LANES WERE SHIMMED WITH 1" - 1 1/2" OF PAVEMENT. THE 10 FT SHOULDERS WERE SHIMMED WITH 1" - 1 1/2" OF PAVEMENT AT THE EDGE LINE TO 6" - 8" OF PAVEMENT AT THE OUTSIDE EDGE OF SHOULDER. THE CONTRACTOR SHALL ADJUST THE DEPTH OF COLD PLANING ACCORDINGLY TO ACHIEVE THE ORIGINAL FINISHED GRADE. NO EXTRA PAYMENT WILL BE GIVEN FOR THIS WORK. IT WILL BE CONSIDERED INCIDENTAL TO ITEM 210.10 COLD PLANING BITUMINOUS PAVEMENT.

SEE ITEM DETAIL SHEETS
AND RAMP LAYOUTS FOR
LOCATIONS OF GUARDRAIL



RAMP TYPICAL SECTION



BLEEDER DETAIL

BLEEDER DETAIL NOTES:

- BLEEDERS ARE TO BE CUT WHILE COLD PLANING, AT LOCATIONS SPECIFIED BY THE RESIDENT ENGINEER.
- ANGLE BLEEDERS TO BEST ACCEPT WATER FLOW.
- CUT ALL BLEEDERS TO THE DEPTH OF COLD PLANING AND GRADE TO DRAIN. PAYMENT INCIDENTAL TO ITEM 210.10, "COLD PLANING BITUMINOUS PAVEMENT".
- BLEEDERS ARE TO BE FILLED DURING PAVING WITH ITEM 490.30, "SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (PG 64-28)," OR AS DESIGNATED BY THE RESIDENT ENGINEER.
- REFLECTORIZED DRUMS MUST BE PLACED AS SHOWN TO WARN MOTORISTS OF THE GAP IN THE SHOULDER.
- BLEEDERS ARE NOT REQUIRED IF THE COLD PLANED AREAS ARE PAVED BACK THE SAME DAY.

NOTES:

- COLD PLANING TO BE COMPLETED ACCORDING TO THE TYPICAL SECTION OR AS NOTED OTHERWISE ON THE PLANS. A FULL DEPTH BUTT JOINT SHALL BE CONSTRUCTED AT THE PROJECT BEGINNING/END AND AT ALL RAMP APPROACHES AS DENOTED ON THE PROJECT PLANS OR AS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER.
- THE CONTRACTOR SHALL USE CAUTION WHEN COLD PLANING AND PAVING OPERATIONS OCCUR ADJACENT TO EXISTING DROP INLETS, CATCH BASINS OR SCUPPERS. ANY DAMAGE WHICH OCCURS TO THESE DRAINAGE STRUCTURES OR CLEANING OF DEBRIS REQUIRED AS A RESULT OF THESE OPERATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED OR CLEANED BY THE CONTRACTOR AT THE CONTRACTORS EXPENSE IN ACCORDANCE WITH SUBSECTION 104.07.
- EMULSIFIED ASPHALT SHALL BE APPLIED ON ALL EXISTING PAVEMENT SURFACES, ON ALL COLD PLANED SURFACES AND BETWEEN ALL COURSES OF PAVEMENT AT A RATE OF 0.025 GAL / SY OR AS DIRECTED BY THE RESIDENT ENGINEER.
- SUPERPAVE BITUMINOUS CONCRETE PAVEMENT TOLERANCE = +/- 1/4 INCH (TOTAL PAVEMENT THICKNESS EXCLUDING LEVELING).
- ALL EDGES OF PAVEMENT SHALL BE BACKED UP FULL HEIGHT WITH COLD PLANE GRINDINGS AS DIRECTED BY THE RESIDENT ENGINEER AND WILL BE PAID FOR UNDER ITEM 402.13, "AGGREGATE SHOULDERS, RAP".
- ITEMS 604.40, "CHANGING ELEVATION OF DROP INLETS, CATCH BASINS, OR MANHOLES" AND ITEM 604.412, "REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I", ARE ESTIMATED QUANTITIES AND SHALL BE PERFORMED AT LOCATIONS INDICATED ON THE LAYOUT SHEETS AND AS DIRECTED BY THE RESIDENT ENGINEER. ALL DROP INLETS AND CATCH BASINS SHALL BE RAISED OR REHABILITATED SUCH THAT THE NEW GRATE ELEVATION IS LEVEL WITH THE SURROUNDING TERRAIN.
- ITEM 616.35 "TREATED TIMBER CURB" AND ITEM 616.41 "REMOVAL OF EXISTING CURB" HAVE BEEN INCLUDED TO REMOVE AND REPLACE EXISTING CURBING AS CALLED FOR IN THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER.
- ESTIMATED QUANTITIES OF ITEM 608.25, "ALL PURPOSE EXCAVATOR RENTAL, TYPE I", 608.37, "TRUCK RENTAL", AND 608.40, "LOADER RENTAL, TYPE I" HAVE BEEN INCLUDED FOR THE PROVISION OF CONSTRUCTING GUARDRAIL END SECTIONS WITH DITCHING MATERIAL. IF SUFFICIENT DITCHING MATERIAL IS NOT AVAILABLE, ITEM 203.30, "EARTH BORROW" SHALL BE USED. AN ESTIMATED QUANTITY FOR EARTH BORROW IS INCLUDED IN THE QUANTITIES FOR THIS PURPOSE. THE GUARDRAIL END SECTIONS SHALL BE CAPPED WITH AN ESTIMATED 3-INCH DEPTH OF "AGGREGATE SHOULDERS, RAP" UNLESS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER. THE QUANTITIES INCLUDED REFLECT 5 TONS OF ITEM 402.13, "AGGREGATE SHOULDERS, RAP" FOR EACH GUARDRAIL TERMINAL.
- BITUMINOUS CONCRETE PAVEMENT WORK WHICH COULD INVOLVE SOME HAND-WORK (SUCH AS DRIVEWAYS AND AROUND DROP INLETS, ETC.) SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR ITEM 616.47, "BITUMINOUS CONCRETE GUTTERS AND TRAFFIC ISLANDS".
- AREAS ADJACENT TO THE SHOULDER, WHERE EXISTING GUARDRAIL IS BEING RETAINED, THAT HAVE BUILT UP EXCESS MATERIAL ARE TO BE GRADED IN ORDER TO ALLOW THE SHOULDER TO DRAIN. PAYMENT IS TO BE INCLUDED UNDER ITEM 203.40, "SHOULDER BERM REMOVAL". THE PLAN QUANTITY REPRESENTS BERM REMOVAL FOR 80% OF THE RETAINED GUARDRAIL LENGTH.
- ALL DELINEATORS WITHIN THE PROJECT AREA ARE TO BE REPLACED. THESE ARE TO BE PAID FOR UNDER ITEM 676.10, "DELINEATOR WITH STEEL POST". REMOVAL OF EXISTING DELINEATORS IS TO BE PAID FOR UNDER ITEM 676.12, "REMOVAL OF EXISTING DELINEATOR".
- QUANTITIES HAVE BEEN INCLUDED FOR REMOVAL OF THE EXISTING AND PLACEMENT OF NEW SIDEWALK AT THE LOCATIONS OF THE DETECTABLE WARNING SURFACES. THIS WORK IS TO BE PAID FOR UNDER ITEMS 203.16, "SOLID ROCK EXCAVATION" AND 618.10, "PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH". QUANTITIES INCLUDE REPLACEMENT OF 5' OF THE EXISTING SIDEWALK AT LOCATIONS INDICATED ON THE INTERCHANGE LAYOUT SHEETS.
- ITEM 601.0915, "18" CPEP", HAS BEEN INCLUDED TO BE USED IN CONJUNCTION WITH STANDARD DRAWING B-17 TO FACILITATE DRAINAGE UNDER THE PROPOSED U-TURNS.
- YIELDING MARKER POSTS ARE TO BE PLACED AS INDICATED OR AS DIRECTED BY THE ENGINEER.

SEEDING FORMULA RURAL AREAS

% WT.	LBS./A.	NAME	PUR %	GERM %
37.5	22.5	CREEPING RED FESCUE	98	85
37.5	22.5	TALL FESCUE	95	90
5.0	3.0	RED TOP	95	90
15.0	9.0	BIRDSFOOT TREFOIL	98	85
5.0	3.0	ANNUAL RYEGRASS	95	85
100.0	60.0			

GENERAL NOTES

SEED MIXTURE: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.

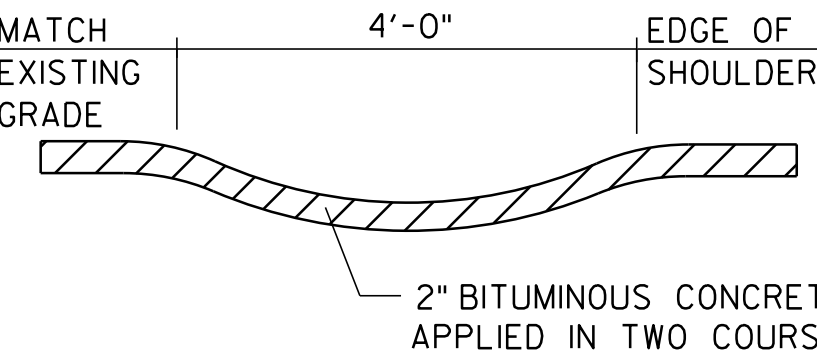
SEED: TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.

FERTILIZER: FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 500 LBS./ACRE. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA).

AGRICULTURAL LIMESTONE: TO BE APPLIED AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.

HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.

TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.



BITUMINOUS CONCRETE GUTTER DETAIL (ITEM 616.47)

BITUMINOUS CONCRETE GUTTER LOCATIONS

NORTHBOUND STA. 4620+23 RT
EXIT 14 STA. 4681+80 RT
NORTHBOUND STA. 4775+81 RT
NORTHBOUND STA. 4783+23 RT
NORTHBOUND STA. 4799+09 RT
EXIT 13 STA. 1+00 RT RAMP C
EXIT 13 STA. 2+46 RT RAMP C
EXIT 13 STA. 4+54 RT RAMP C
EXIT 13 STA. 7+24 RT RAMP C
EXIT 13 STA. 4+22 LT RAMP D
EXIT 13 STA. 7+19 LT RAMP D

EXIT 13 STA. 9+82 LT RAMP D
EXIT 14 STA. 1+55 - 10+00 RT RAMP A
EXIT 14 STA. 1+55 RT RAMP A
EXIT 14 STA. 5+25 RT RAMP A
EXIT 14 STA. 6+25 RT RAMP A
EXIT 14 STA. 12+50 RT RAMP A
EXIT 14 STA. 2+76 RT RAMP B
EXIT 14 STA. 4+42 RT RAMP B
EXIT 14 STA. 6+01 RT RAMP B
EXIT 14 STA. 7+57 RT RAMP B
EXIT 14 STA. 4+42 - 6+68 LT RAMP B

EXIT 14 STA. 9+15 RT RAMP B
EXIT 14 STA. 3+49 RT RAMP D
EXIT 14 STA. 5+16 RT RAMP D
EXIT 14 STA. 6+91 RT RAMP D
EXIT 14 STA. 8+59 RT RAMP D
EXIT 14 STA. 5+16 - 10+00 RT RAMP D
EXIT 14 STA. 1+50 RT RAMP E
EXIT 14 STA. 2+89 RT RAMP E
EXIT 14 STA. 4+51 RT RAMP E
EXIT 14 STA. 6+08 RT RAMP E
EXIT 14 STA. 7+66 RT RAMP E

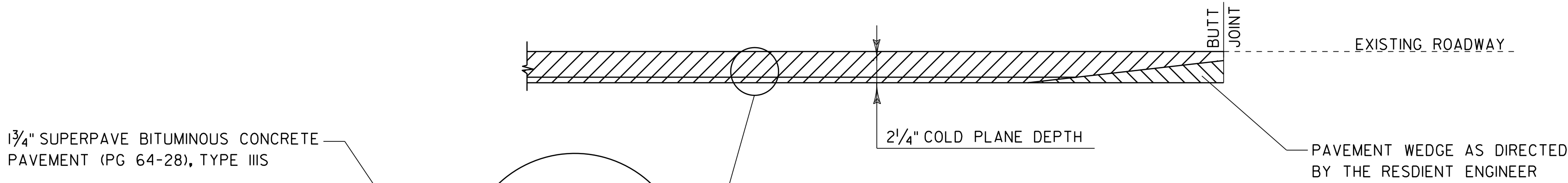
EXIT 14 STA. 9+26 RT RAMP E
EXIT 14 STA. 1+63 RT RAMP F
EXIT 14 STA. 3+15 RT RAMP F
EXIT 14 STA. 4+63 RT RAMP F
EXIT 14 STA. 2+75 RT RAMP G
EXIT 14 STA. 3+75 - 7+50 LT RAMP G
EXIT 14 STA. 8+25 RT RAMP G
EXIT 14 STA. 9+40 RT RAMP G
EXIT 15 STA. 3+50 - STA. 4+50 LT RAMP B
EXIT 16 STA. 12+70 LT RAMP A

PROJECT TYPICAL SHEET

DETAILS ARE NOT TO SCALE

PROJECT NAME: SO. BURLINGTON - COLCHESTER
PROJECT NUMBER: IM 089-3(60)

FILE NAME: p05a012.dgn
PROJECT LEADER: EPD
DESIGNED BY: JDA
PLOT FILE: p05a012typ.i
PLOT DATE: \$\$\$\$\$\$DATE\$\$\$\$\$
DRAWN BY: JAR/SJB
CHECKED BY: EPD
SHEET 8 OF 91

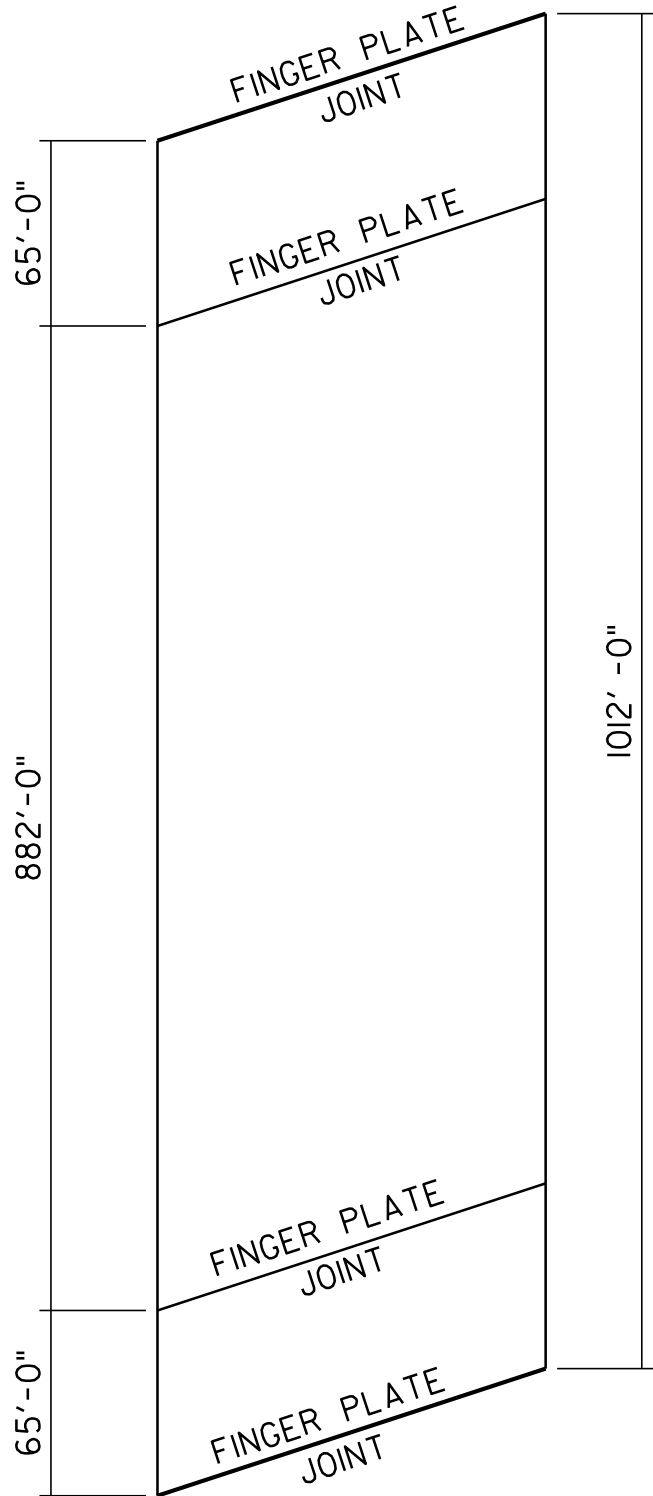


TYPICAL APPROACH AREA DETAIL

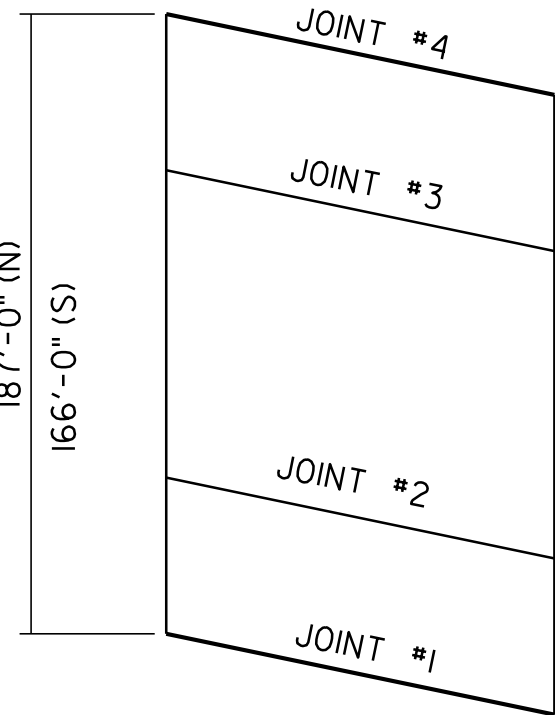
LOCATION

STA. 4614+56.16 (NORTHBOUND) - BEGINNING OF PROJECT
STA. 4634+25.60 (SOUTHBOUND) - BEGINNING OF PROJECT
STA. 4851+26.40 (NORTHBOUND & SOUTHBOUND) - END OF PROJECT
STA. 11+25 - EXIT 13 RAMP C
STA. 2+60 - EXIT 13 RAMP D
STA. 1+50 - EXIT 14 RAMP A
STA. 11+15 - EXIT 14 RAMP B
EXIT 14 RAMP C (SEE SHEET 32 FOR DETAIL)
STA. 4+00 - EXIT 14 RAMP D
STA. 1+90 - EXIT 14 RAMP E

STA. 11+50 - EXIT 14 RAMP F
STA. 9+65 - EXIT 14 RAMP G
STA. 1+45 - EXIT 14 RAMP H
STA. 0+00 - EXIT 15 RAMP A
STA. 8+10 - EXIT 15 RAMP B
STA. 8+20 - EXIT 15 RAMP B
STA. 10+31 - EXIT 16 RAMP A
STA. 0+81 - EXIT 16 RAMP B
STA. 0+80 - EXIT 16 RAMP C
STA. 4+60 - EXIT 16 RAMP D



BRIDGE #70N & #70S
STA. 4751+40.00 (MM 89.989) N
STA. 4745+23.00 (MM 89.872) S
COLD PLANE AND PAVE



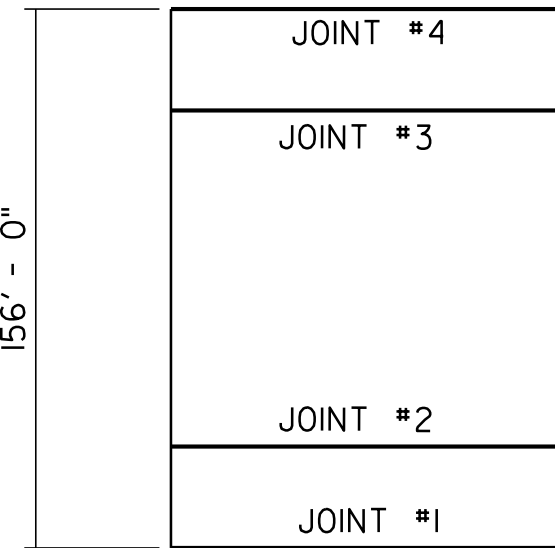
BRIDGE #71N & #71S
STA. 4767+26.00 (MM 90.289)
COLD PLANE AND PAVE

BRIDGE #71N			
JOINT	TYPE	STATION	LENGTH
1	PLUG	4765+97	50' - 0"
2	FINGER		
3	FINGER		
4	PLUG	4767+59	50' - 0"
BRIDGE #71N		100' - 0"	

TOTAL LENGTH OF JOINT

BRIDGE #71S			
JOINT	TYPE	STATION	LENGTH
1	PLUG	4766+43	50' - 0"
2	FINGER		
3	FINGER		
4	PLUG	4768+10	50' - 0"
BRIDGE #71S		100' - 0"	

TOTAL LENGTH OF JOINT



BRIDGE #72N			
JOINT	TYPE	STATION	LENGTH
1	FINGER		
2	PLUG	4776+41	38' - 0"
3	PLUG	4777+31	38' - 0"
4	FINGER		
BRIDGE #72N		76' - 0"	

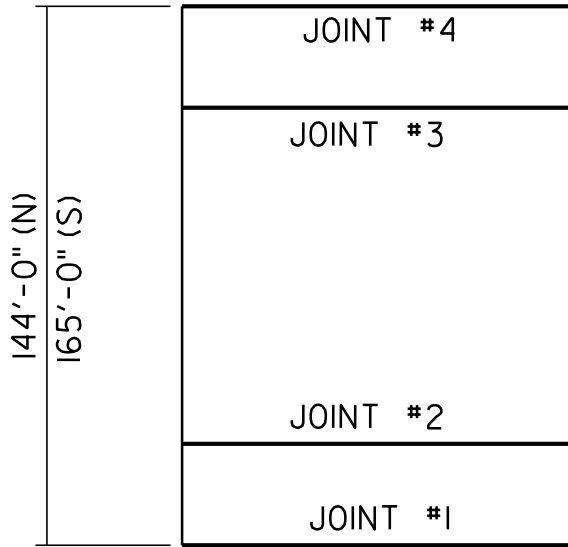
TOTAL LENGTH OF JOINT

BRIDGE #72S			
JOINT	TYPE	STATION	LENGTH
1	FINGER		
2	PLUG	4776+46	38' - 0"
3	PLUG	4777+37	38' - 0"
4	FINGER		
BRIDGE #72S		76' - 0"	

TOTAL LENGTH OF JOINT

BRIDGE #72N & #72S
STA. 4777+08.00 (MM 90.475)
COLD PLANE AND PAVE

BRIDGE	TREATMENT	REQUIRED PLUG JOINTS
70N	MILL AND FILL EXCEPT IN AREAS OF 2 FINGER PLATE JOINT SETS	-
70S	MILL AND FILL EXCEPT IN AREAS OF 2 FINGER PLATE JOINT SETS	-
71N	MILL AND FILL EXCEPT IN AREAS OF 2 FINGER PLATE JOINTS	2 AT ABUTMENTS
71S	MILL AND FILL EXCEPT IN AREAS OF 2 FINGER PLATE JOINTS	2 AT ABUTMENTS
72N	MILL AND FILL	2 AT PIERS
72S	MILL AND FILL	2 AT PIERS
73N	MILL AND FILL EXCEPT IN AREAS OF 2 VERTICAL PLATE JOINTS	2 AT ABUTMENTS
73S	MILL AND FILL EXCEPT IN AREAS OF 2 VERTICAL PLATE JOINTS	2 AT ABUTMENTS
74N	MILL AND FILL EXCEPT IN AREAS OF 2 VERTICAL PLATE JOINTS	2 AT ABUTMENTS
74S	MILL AND FILL EXCEPT IN AREAS OF 2 VERTICAL PLATE JOINTS	2 AT ABUTMENTS



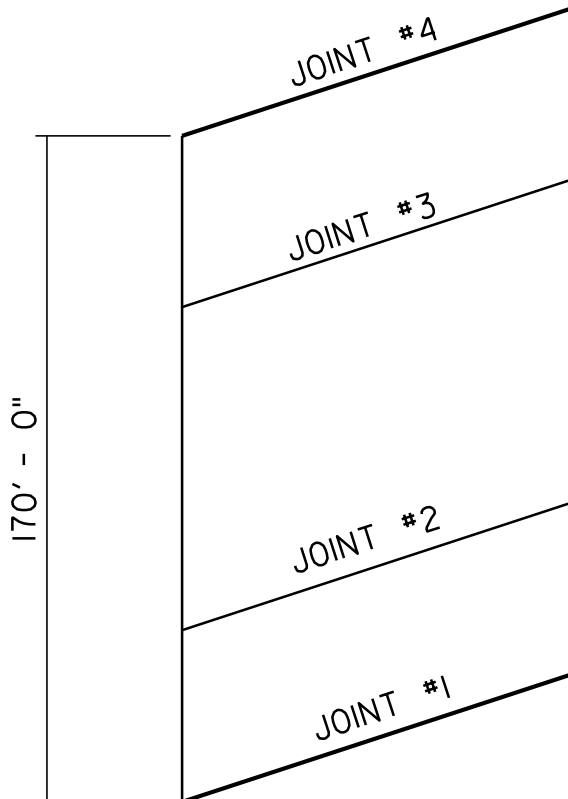
BRIDGE #73N			
JOINT	TYPE	STATION	LENGTH
1	PLUG	4783+37	38' - 0"
2	VERTICAL		
3	VERTICAL		
4	PLUG	4784+81	38' - 0"
BRIDGE #73N		76' - 0"	

TOTAL LENGTH OF JOINT

BRIDGE #73S			
JOINT	TYPE	STATION	LENGTH
1	PLUG	4783+51	38' - 0"
2	VERTICAL		
3	VERTICAL		
4	PLUG	4784+90	38' - 0"
BRIDGE #73S		76' - 0"	

TOTAL LENGTH OF JOINT

BRIDGE #73N & #73S
STA. 4784+47.00 (MM 90.615)
COLD PLANE AND PAVE



BRIDGE #74N			
JOINT	TYPE	STATION	LENGTH
1	PLUG	4829+87	39' - 0"
2	VERTICAL		
3	VERTICAL		
4	PLUG	4831+60	39' - 0"
BRIDGE #74N		78' - 0"	

TOTAL LENGTH OF JOINT

BRIDGE #74S			
JOINT	TYPE	STATION	LENGTH
1	PLUG	4829+07	39' - 0"
2	VERTICAL		
3	VERTICAL		
4	PLUG	4830+81	39' - 0"
BRIDGE #74S		78' - 0"	

TOTAL LENGTH OF JOINT

BRIDGE #74N & #74S
STA. 4830+59.00 (MM 91.488)
COLD PLANE AND PAVE

DETAILS ARE NOT TO SCALE

BRIDGE
LOCATION
AND DETAIL
SHEET 1

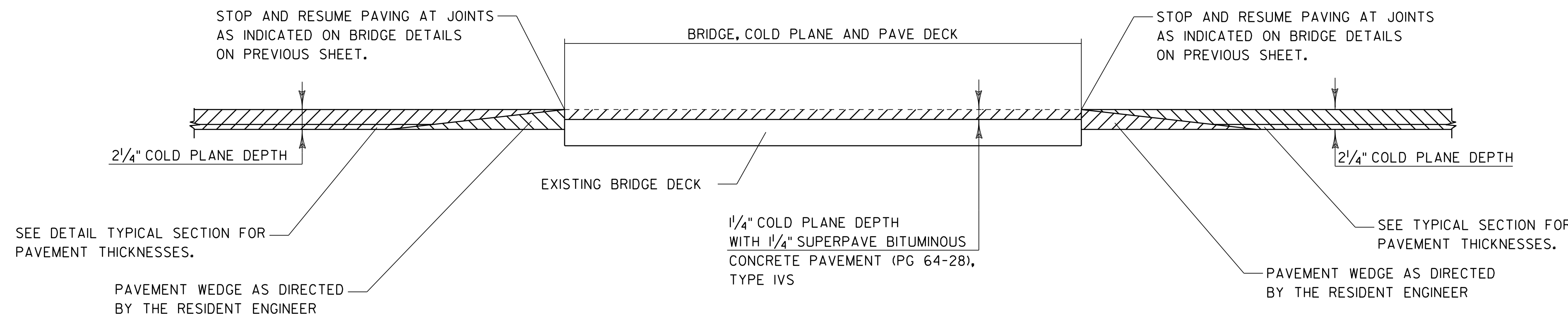
PROJECT NAME: SO. BURLINGTON - COLCHESTER
PROJECT NUMBER: IM 089-3(60)

FILE NAME: p05a012.dgn
PROJECT LEADER: EPD
DESIGNED BY: JDA
PLOT FILE: p05a012bldsl.i

PLOT DATE: \$\$\$\$\$\$DATE\$\$\$\$
DRAWN BY: JAR/SJB
CHECKED BY: EPD
SHEET 9 OF 91

NOTES:

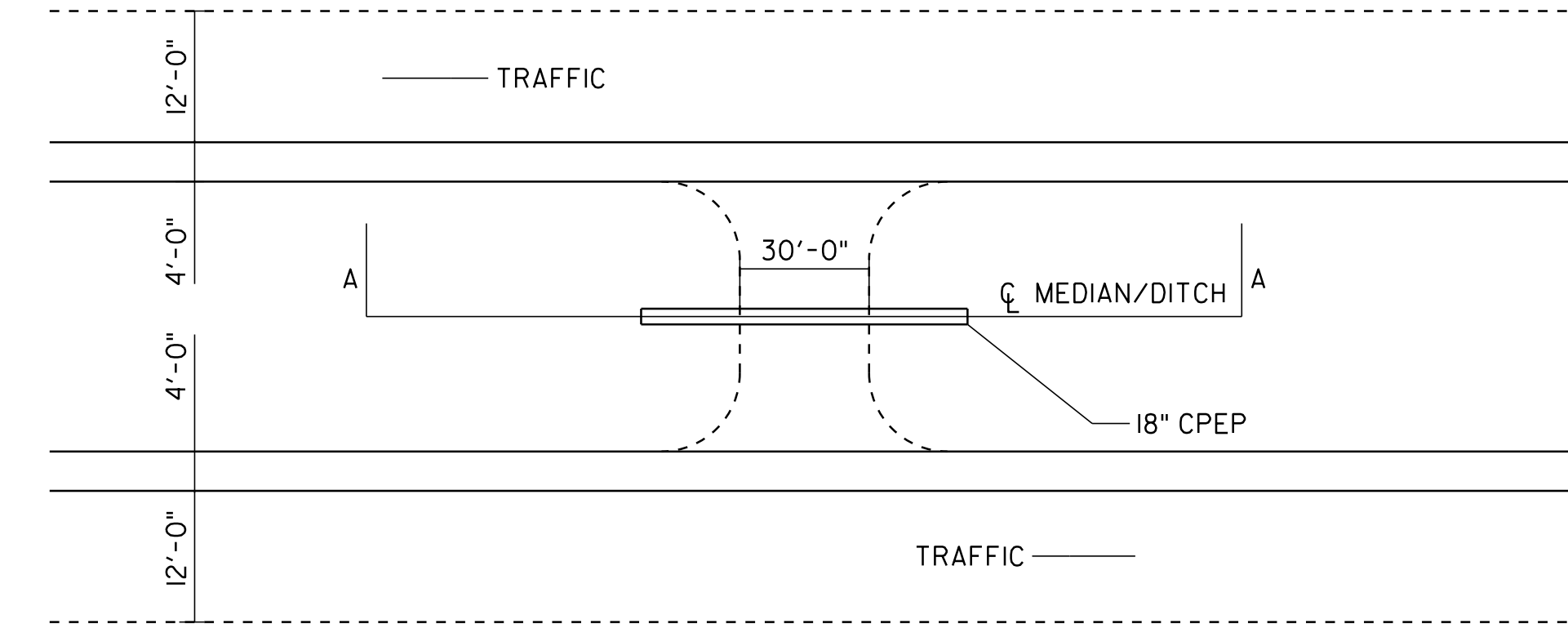
- REFER TO SHEET IIFOR ASPHALTIC PLUG JOINT DETAILS. ALL NEW JOINTS TO BE PAID FOR UNDER ITEM 516.10, "BRIDGE EXPANSION JOINT, ASPHALTIC PLUG".
- THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID DAMAGING DRAINAGE STRUCTURES AND EXPANSIONS JOINTS. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID THE ACCUMULATION OF DEBRIS IN THE DRAINAGE STRUCTURES LOCATED AT CURB LINE AND IN THE EXPANSION JOINTS. THE CONTRACTOR SHALL EXAMINE THESE BRIDGE FEATURES ON A REGULAR BASIS TO ENSURE THAT DEBRIS HAS NOT ACCUMULATED. ANY DEBRIS WHICH IS PRESENT SHALL BE REMOVED BY THE CONTRACTOR AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR SHALL PERFORM COLD PLANING WITH CAUTION. ANY DAMAGE WHICH OCCURS TO MEMBRANES AS A RESULT OF COLD PLANE OPERATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THE MEMBRANE WILL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR.



BRIDGE COLD PLANE DETAIL

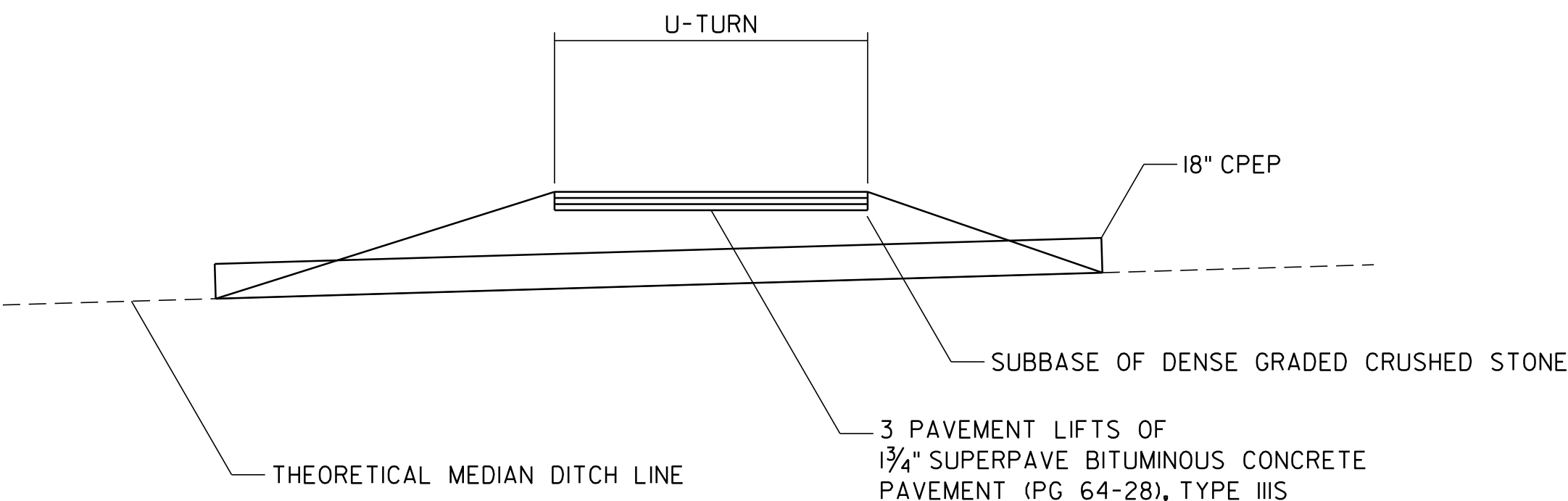
NOTE:

1. SEE BRIDGE DETAILS FOR SPECIFICS ON EACH BRIDGE WITHIN THE PROJECT AREA, INCLUDING STATIONING, JOINTS TO REPLACE AND JOINTS TO REMAIN AS IS.



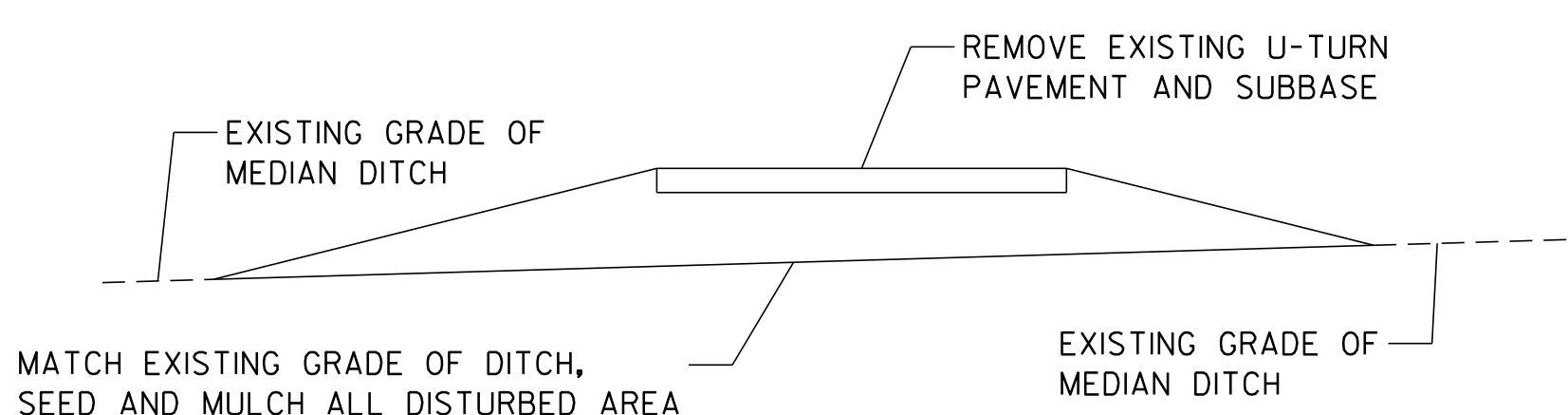
U-TURN CONSTRUCTION DETAIL

MM 89.739
MM 90.179



U-TURN CONSTRUCTION DETAIL - SECTION A-A

LOCATION
MM 89.739
MM 90.179

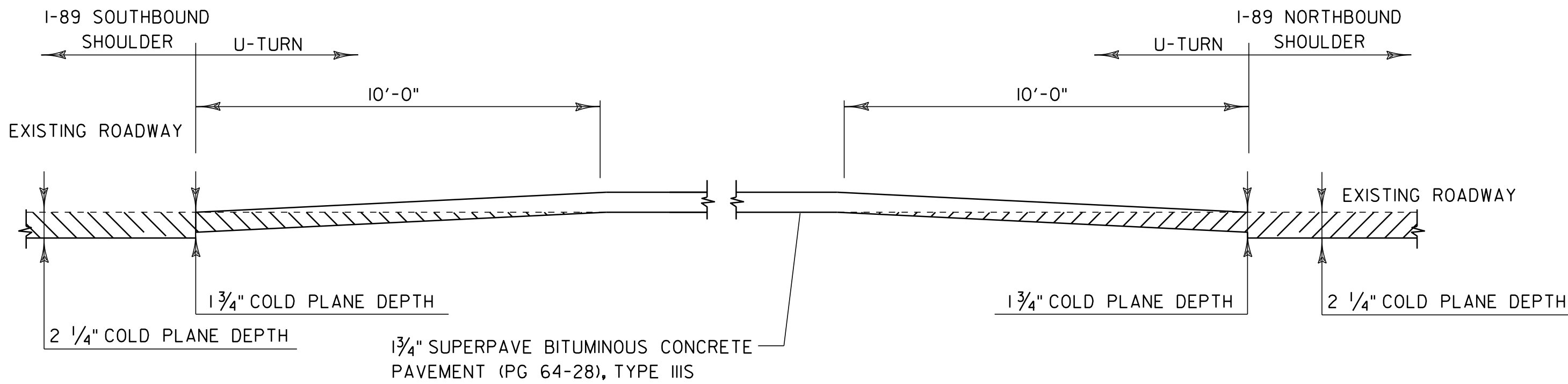


U-TURN REMOVAL DETAIL

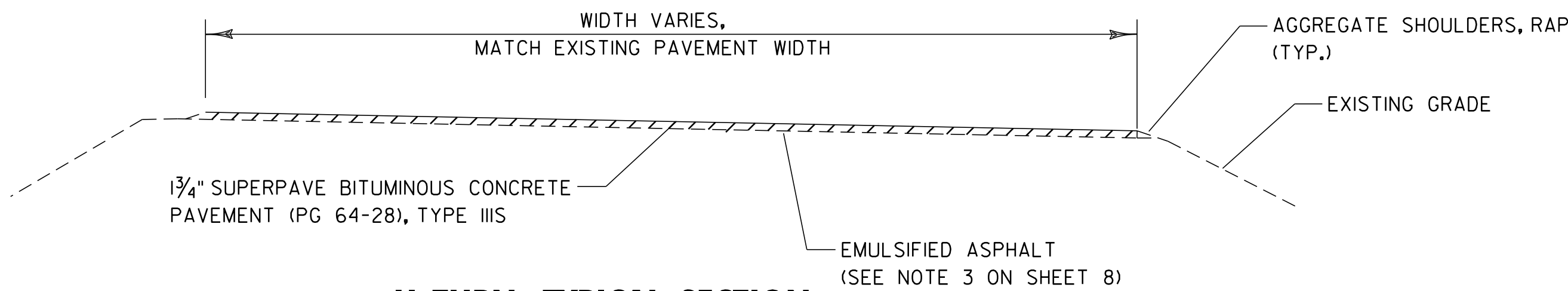
LOCATION
MM 89.875
MM 90.131

U-TURN NOTES:

1. EACH U-TURN AREA LOCATED WITHIN THE PROJECT LIMITS SHALL BE PAVED, EXCEPT FOR THE U-TURNS AT M.M. 89.875 AND 90.131, WHICH SHALL BE REMOVED. SEE THE U-TURN REMOVAL DETAIL ON THIS SHEET FOR DETAILS ON U-TURN REMOVAL. PAYMENT TO REMOVE THE EXISTING PAVEMENT AND SUBBASE SHALL BE MADE UNDER ITEM 203.15, "COMMON EXCAVATION".
2. THE CONTRACTOR SHALL SAW CUT THE PAVEMENT AT THE EDGE OF THE NB AND SB SHOULDERS PRIOR TO EXCAVATING. THE COST OF SAW CUTTING SHALL BE INCIDENTAL TO ITEM 203.15, "COMMON EXCAVATION". EXISTING MATERIAL DEEMED SUITABLE BY THE RESIDENT ENGINEER SHALL BE USED AS SUBBASE MATERIAL TO CONSTRUCT THE NEW U-TURNS AT M.M. 89.739 AND 90.179.
3. AT U-TURNS THAT ARE BEING REMOVED, ITEM 651.35, "TOPSOIL", WILL BE SPREAD 6" THICK AFTER A U-TURN IS EXCAVATED.
4. NEW U-TURNS SHALL BE CONSTRUCTED AT M.M. 89.739 AND 90.179. COSTS ASSOCIATED WITH TRANSPORTING AND PLACING MATERIALS FOR NEW U-TURNS SHALL BE PAID UNDER ITEMS 608.25 AND 608.37. NEW SUBBASE WILL BE DENSE GRADED CRUSHED STONE.
5. REFER TO PAVING PROJECT LAYOUT SHEET FOR ADDITIONAL U-TURN NOTES.
6. SEE VTRANS STANDARD B-17 FOR U-TURN DETAILS.



U-TURN MILLING



U-TURN TYPICAL SECTION

DETAILS ARE NOT TO SCALE

BRIDGE LOCATION AND DETAIL SHEET 2	PROJECT NAME: SO. BURLINGTON - COLCHESTER	
	PROJECT NUMBER: IM 089-3(60)	
	FILE NAME: p05a012.dgn	PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
	PROJECT LEADER: EPD	DRAWN BY: JAR/SJB
	DESIGNED BY: JDA	CHECKED BY: EPD
	PLOT FILE: p05a012blds2.i	SHEET 10 OF 91



1. THE JOINT SHALL BE LOCATED CENTRALLY OVER THE DECK EXPANSION GAP OR FIXED JOINT MARKED OUT TO THE MANUFACTURER'S RECOMMENDED WIDTH.
2. THE JOINT SHALL BE EXCAVATED AS SHOWN ON THE PLANS BY USE OF SAWS AND PNEUMATIC HAMMER OR A HAMMER AND CHISEL.
3. THE JOINT AREA SHALL BE BLAST CLEANED OF DEBRIS AND ASPHALT. THE JOINT AREA SHALL BE THOROUGHLY DRIED USING HOT COMPRESSED AIR PRIOR TO APPLYING BINDER MATERIAL.
4. SPALLED AND DEFECTIVE CONCRETE SHALL BE REPAIRED WITH AN APPROVED MATERIAL AS AGREED UPON BY THE ENGINEER.
5. PROPERLY SIZED HEAT RESISTANT BACKER ROD SHALL BE PLACED IN THE MOVEMENT GAP ALLOWING FOR 1 INCH +/- OF BINDER ABOVE THE ROD.
6. THE BINDER MATERIAL SHALL BE HEATED AND PLACED AS RECOMMENDED BY THE MANUFACTURER.
7. PLACE 1/4 INCH THICK BY 8 INCH WIDE SECTIONS OF STEEL PLATE OVER THE CENTER OF THE MOVEMENT GAP. SECURE PLATES FROM MOVING BY INSERTING LOCATING PINS THROUGH THE PRESTAMPED HOLES INTO BACKER ROD AND COVER WITH HOT BINDER.
 - A. THE STEEL PLATES MAY BE OMITTED WHERE THE APPROACH SLAB IS COVERED WITH A STONE BASE OR BITUMINOUS PAVEMENT, AND VERTICAL MOVEMENT OF THE PLATES MIGHT OCCUR.
8. THE BINDER MATERIAL AND AGGREGATE SHALL BE HEATED AND MIXED AS RECOMMENDED BY THE MANUFACTURER.
9. THE INSTALLATION OF MATERIAL, COMPACTION, AND TOPCOATING SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
10. IMMEDIATELY AFTER TOPCOATING, AN ANTI-SKID MATERIAL SHALL BE CAST OVER THE JOINT TO REDUCE THE RISK OF TRACKING.
11. JOINT SHALL BE PROTECTED FROM TRAFFIC UNTIL THE MATERIAL HAS COOLED TO 125° F +/-.

(C) WEATHER CONDITIONS OR OTHER CONDITIONS ARE FAVORABLE AND ARE EXPECTED TO REMAIN SO FOR THE PERFORMANCE OF THE SATISFACTORY WORK.



1. UPON ENCOUNTERING GREATER THAN 2" AVERAGE OF DETERIORATED CONCRETE, THE CONTRACTOR SHALL REMOVE THE DETERIORATED MATERIAL AND REPLACE IT WITH RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE.
2. REMOVAL OF THE DETERIORATED CONCRETE WILL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 580.20 "RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE".
3. THE STEEL PLATE IN THE ASPHALTIC PLUG JOINT MAY BE OMITTED ONLY IF THE REPAIRED SURFACE IS SO IRREGULAR IT WILL CAUSE VERTICAL MOVEMENT AND IT IS DIRECTED BY THE RESIDENT ENGINEER.



1. UPON ENCOUNTERING UP TO 2" AVERAGE OF DETERIORATED CONCRETE, THE CONTRACTOR SHALL REMOVE THE DETERIORATED MATERIAL AND REPLACE IT WITH THE ASPHALTIC PLUG JOINT MATERIAL AS DIRECTED BY THE RESIDENT ENGINEER.
2. REMOVAL OF THE DETERIORATED CONCRETE WILL NOT BE PAID SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO THE UNIT BID PRICE FOR ITEM 516.10. "BRIDGE EXPANSION JOINT, ASPHALTIC PLUG". THE ADDITIONAL PLUG JOINT MATERIAL BELOW THE DESIGN DEPTH TO REPLACE THE DETERIORATED CONCRETE WILL BE CONSIDERED INCIDENTAL TO THE UNIT BID PRICE FOR ITEM 516.10, "BRIDGE EXPANSION JOINT, ASPHALTIC PLUG".
3. THE STEEL PLATE IN THE ASPHALTIC PLUG JOINT MAY BE OMITTED ONLY IF THE REPAIRED SURFACE IS SO IRREGULAR IT WILL CAUSE VERTICAL MOVEMENT AND IT IS DIRECTED BY THE RESIDENT ENGINEER.



BRIDGE LOCATION AND DETAIL SHEET 3

PROJECT NAME: SO. BURLINGTON - COLCHESTER
PROJECT NUMBER: IM 089-3(60)

FILE NAME:	p05a012.dgn	PLOT DATE:	\$\$\$\$\$DATE\$\$
PROJECT LEADER:	EPD	DRAWN BY:	JAR/SJB
DESIGNED BY:	JDA	CHECKED BY:	EPD
PLOT FILE:	p05a012blds3.i	SHEET	II OF 9I

QUANTITY SHEET 1

STATE OF VERMONT
AGENCY OF TRANSPORTATION

SUMMARY OF ESTIMATED QUANTITIES											
			FULL E&C	TRAINING	BRIDGE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
						325	325	CY	COMMON EXCAVATION	203.15	EST.
						2	2	CY	SOLID ROCK EXCAVATION	203.16	0.44
						210	210	CY	EARTH BORROW	203.30	EST.
						12500	12500	LF	SHOULDER BERM REMOVAL	203.40	EST.
						1	1	CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	EST.
						245400	245400	SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10	83.6
						85700	85700	LF	MILLED RUMBLE STRIPS	213.10	674
						60	60	CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	EST.
						1750	1750	TON	AGGREGATE SHOULDERS, RAP	402.13	50
						1145	1145	CWT	EMULSIFIED ASPHALT	404.65	16.4
						0.5	0.5	LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	-
						35850	35850	TON	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (PG 64-28)	490.30	251
						0.5	0.5	LU	AIR VOIDS PAY ADJUSTMENT (N.A.B.I.)	490.31	-
						0.5	0.5	LU	MAT DENSITY PAY ADJUSTMENT (N.A.B.I.)	490.32	-
						0.5	0.5	LU	SURFACE TOLERANCE PAY ADJUSTMENT (N.A.B.I.)	490.33	-
						0.5	0.5	LU	LONGITUDINAL JOINT COMPACTION PAY ADJUSTMENT (N.A.B.I.)	490.34	-
					665		665	LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10	5
					100		100	CF	RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE	580.20	EST.
						100	100	LF	18" CPEP	601.0915	EST.
						10	10	LF	CLEANING CULV. PIPE, IN PLACE (0-24 IN., INCL)	601.995	-
						1	1	EA	CHANGING ELEVATION OF DROP INLETS, CATCH BASINS, OR MANHOLES	604.40	-
						32	32	EA	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I	604.412	-
						500	500	HR	POWER GRADER RENTAL	608.15	EST.
						400	400	HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	EST.
						200	200	HR	POWER BROOM RENTAL, TYPE I	608.30	EST.
						100	100	HR	POWER BROOM RENTAL,TYPE II	608.31	EST.
						800	800	HR	TRUCK RENTAL	608.37	EST.
						500	500	HR	LOADER RENTAL, TYPE I	608.40	EST.
						290	290	CY	STONE FILL, TYPE I	613.10	12
						300	300	LF	TREATED TIMBER CURB	616.35	EST.
						300	300	LF	REMOVAL OF EXISTING CURB	616.41	EST.
						90	90	TON	BITUMINOUS CONCRETE GUTTERS AND TRAFFIC ISLANDS	616.47	3.6
						12	12	SY	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	618.10	0.9
						45	45	SF	DETECTABLE WARNING SURFACE	618.30	5
						50	50	EA	YIELDING MARKER POSTS	619.17	EST.
						6700	6700	LF	STEEL BEAM GUARDRAIL, GALVANIZED	621.20	65.5
						23	23	EA	MANUFACTURED TERMINAL SECTION, FLARED	621.50	-

[illegible][illegible]

QUANTITY SHEET 2

STATE OF VERMONT
AGENCY OF TRANSPORTATION

[illegible][illegible][illegible]

QUANTITY SHEET 3

STATE OF VERMONT
AGENCY OF TRANSPORTATION

[illegible][illegible][illegible]

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

ITEM DETAIL SUMMARY SHEET #1

SPECIAL PROVISIONS																													
BEGIN STATION	END STATION	POS.	203.15 COMMON EXC.	203.30 EARTH BORROW	203.40 SHOULDER BERM REMOVAL	204.22 TRENCH EXCAV. OF EARTH		301.35 SUB. DENSE GRADED CRUSHED STONE	402.13 AGG. SHOULDER RAP	604.40 CHANGE ELEV. D. I.	604.412 REHAB. D. I. CLASS I	616.35 TREATED TIMBER CURB	616.41 REMOVAL OF EXIST. CURB	621.20 STEEL BEAM G. R., GALV.	621.50 MANUF. TERMINAL SECTION, FLARED	621.60 ANCHOR FOR S.B. RAIL	621.70 G. R. APP. SECTION, GALV. TYPE I	621.71 G. R. APP. SECTION, GALV. TYPE II	621.76 REPLACE G. R. POST ASSEMB.	621.77 REPLACE G. R. BEAM UNIT	621.80 REMOVE & DISP. OF G. R.	676.10 DEL INE. WITH STEEL POST	676.12 REMOV. OF EXIST. DEL INE.	900.620 CABLE G. R. SPLICE UNIT	900.620 CABLE G. R. J-BOLT GALV.	900.640 REPLACE G. R. CABLE	REMARKS		
NORTHBOUND			CY	CY	LF	CY	CY	CY	T	EA	EA	LF	LF	LF	EA	EA	EA	EA	EA	EA	LF	EA	EA	EA	EA	LF			
4614+56.16	4851+26.40	LT, RT		70	6200	0.5	1000		600		10	100	100				1	1				121	121				SEE NOTE BELOW		
4614+56	4619+06	LT												452							450						ATTACH TO BRIDGE #66N APPROACH RAIL.		
4614+56	4619+06	RT												452							450						ATTACH TO BRIDGE #66N APPROACH RAIL.		
4673+30	4674+42.5	LT							5						1				2	2	37.5	1	1				INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4673+30		
4681+04	4685+41.5	LT																	7	4									
4695+79	4696+97	RT																	5					2	3	20	REPAIR EXISTING CABLE GUARDRAIL		
4701+24	4733+11.5	RT							5					27	1	1			50	50	62.5	2	2				INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4701+24, REPLACE TEXAS TWIST W/ STEEL BEAM G.R. & ANCHOR,		
4717+30.5	4722+68	LT							5					364.5	1	1			3	4	62.5	2	2				REPLACE TEXAS TWIST W/ STEEL BEAM G.R. & ANCHOR, INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4717+30.5		
4741+13.5	4747+01	RT							5						1				9	10	37.5	1	1				INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4741+13.5.		
4742+01	4747+01	LT							5					412.5	1						175	1	1				INSTALL NEW M.T.S., FLARED AT STA. 4742+01. ATTACH TO BR. #70N APPROACH RAIL.		
4757+52	4765+82	RT																	13	7									
4757+52	4758+14.5	LT												14.5		1					175	1	1						
4761+94.5	4765+82	LT							5					300	1						150	1	1				INSTALL NEW M.T.S., FLARED AT STA. 4761+94.5.		
4767+69	4768+31.5	LT												52		1		1			150	1	1				ATTACH TO BR.#71N BRIDGE RAIL.		
4767+69	4768+31.5	RT												52		1					50	1					ATTACH TO EXISTING GUARDRAIL AND REMOVE TEXAS TWIST.		
4770+93	4775+93	LT							5					412.5	1						100	1	1				INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4770+93, ATTACH TO BR. #72N APPROACH RAIL.		
4773+68	4775+93	RT							5						1					4	37.5	1	1				INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4773+68, ATTACH TO BR. #72N APPROACH RAIL.		
4777+79	4782+87	RT																	8	10									
4777+79	4782+87	LT																	8	4									
4784+93.5	4792+18.5	RT																	11	10									
4784+93.5	4792+93.5	LT												14.5		1			13	10	12.5	1	1						
4799+05	4804+55	RT																	5						11		REPAIR EXISTING CABLE GUARDRAIL.		
4819+93.5	4822+31	RT							5						1						37.5	1	1				INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4819+93.5. ATTACH TO GUARDRAIL ON EXIT 16 RAMP D AT STA. 0+00		
4824+52.5	4829+90	RT							5						1				8	8	37.5	1	1				INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4824+52.5.		
4824+90	4829+90	LT							5					412.5	1						150	1	1				INSTALL NEW M.T.S., FLARED AT STA. 4824+90.		
4831+60	4832+22.5	LT												14.5		1					150	1	1				NOTE: ESTIMATED QUANTITIES TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER. SEE PAVING PROJECT LAYOUT SHEET FOR CONSTRUCTION NOTES RELATED TO PAY ITEMS 604.40 AND 604.412.		
4831+60	4832+72.5	RT												102		1					60	1	1						
	SUBTOTAL			70	6200	0.5	1000		655		10	100	100	3082.5	11	8	1	2	142	123	2385	140	140	2	14	20			
																											ITEM DETAIL SUMMARY SHEET #1	PROJECT NAME: SO. BURLINGTON - COLCHESTER	
																													PROJECT NUMBER: IM 089-3(60)
																													FILE NAME: p05a0l2.dgn
																													PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
																												DRAWN BY: JAR/SJB	
																												CHECKED BY: EPD	
																												PLOT FILE: p05a0l2idssl.i	
																												SHEET 15 OF 91	

STATE OF VERMONT
AGENCY OF TRANSPORTATION

ITEM DETAIL SUMMARY SHEET #2

AGENCY OF TRANSPORTATION																				SPECIAL PROVISIONS			REMARKS					
BEGIN STATION	END STATION	POS.	203.15 COMMON EXC.	203.30 EARTH BORROW	203.40 SHOULDER BERM REMOVAL	204.22 TRENCH EXCAV. OF EARTH	WASTE DITCH. MAT'L	301.35 SUB. DENSE GRADED CRUSHED STONE	402.13 AGG. SHOULDER RAP	604.40 CHANGE ELEV. D. I.	604.412 REHAB. D. I. CLASS I	616.35 TREATED TIMBER CURB	616.41 REMOVAL OF EXIST. CURB	621.20 STEEL BEAM G.R., GALV.	621.50 MANUF. TERMINAL SECTION, FLARED	621.60 ANCHOR FOR S.B. RAIL	621.70 G.R. APP. SECTION, GALV. TYPE I	621.71 G.R. APP. SECTION, GALV. TYPE II	621.76 REPLACE G.R. POST ASSEMB.	621.77 REPLACE G.R. BEAM UNIT	621.80 REMOVE & DISP. OF G.R.	676.10 DEL INE. WITH STEEL POST		676.12 REMOV. OF EXIST. DEL INE.	900.620 CABLE G.R. SPLICE UNIT	900.620 CABLE G.R. J-BOLT GALV.	900.640 REPLACE G.R. CABLE	
			CY	CY	LF	CY	CY	CY	T	EA	EA	LF	LF	LF	EA	EA	EA	EA	EA	EA	LF	EA		EA	EA	EA	LF	
SOUTHBOUND																												
4634+25.60	4851+26.40	LT, RT		70	4000	0.5	200		550		9	100	100				1	1					109	109				SEE NOTE BELOW
4684+34	4686+59	LT																	4	5								
4684+40.5	4688+78	RT							5						1				7	5	37.5	1	1					INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4688+40.5
4704+97	4727+45	LT							5					252	1	1			32	25	62.5	2	2					REPLACE TEXAS TWIST W/ G.R. AND ANCHOR, LENGTHEN GUARDRAIL AND INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4727+07.5
4722+13	4727+45	RT							5					402	1	1			2	2	62.5	2	2					REPLACE TEXAS TWIST W/ STEEL BEAM G.R. & ANCHOR, INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4727+07.5
4731+12.5	4735+75	LT																							4			REPAIR EXISTING CABLE GUARDRAIL.
4742+41	4746+91	LT												27		1			7	5	25	1	1					REPLACE TEXAS TWIST W/ G.R. AND ANCHOR.
4746+28.5	4746+91	RT												52		1						175	1	1				ATTACH TO EXISTING GUARDRAIL.
4757+15	4761+02.5	RT							5					300	1							175	1	1				INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4760+65.
4757+15	4766+35	LT																	14	10								
4765+72.5	4766+35	RT												14.5		1						100	1	1				ATTACH TO EXISTING GUARDRAIL.
4768+01	4769+38.5	LT																	2	4								
4768+01	4773+01	RT							5					412.5	1							150	1	1				ATTACH TO EXISTING APPROACH RAIL. INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4772+63.5.
4773+62.5	4776+00	LT												27		1		1	3	2	37.5	1	1					REPLACE TEXAS TWIST W/ G.R. AND ANCHOR. INSTALL NEW G.R. APPROACH SECTION, ATTACH TO BR.#72S BRIDGE RAIL.
4775+37.5	4776+00	RT												52		1						100	1	1				ATTACH TO EXISTING APPROACH RAIL.
4777+83	4783+12.5	RT												442														ATTACH TO EXISTING APPROACH RAIL.
4777+83	4783+12.5	LT																	8	2								
4784+90	4789+90	RT							5					412.5	1							175	1	1				INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4789+52.5
4784+90	4790+40	LT							5						1				10	20	37.5	1	1					INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4790+02.5
4824+22.5	4829+10	LT												477		1						475	1	1				REPLACE TEXAS TWIST W/ G.R. AND ANCHOR, REPLACE EXISTING GUARDRAIL.
4828+47.5	4829+10	RT												14.5		1						150	1	1				
4830+80	4835+80	RT							5					412.5	1							150	1	1				ATTACH TO BR.#74S APPROACH RAIL. INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4835+42.5.
4830+80	4836+55	LT							5						1				9	12	87.5	1	1					ATTACH TO BR.#74S APPROACH RAIL. INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4836+17.5.
																												NOTE: ESTIMATED QUANTITIES TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER. SEE PAVING PROJECT LAYOUT SHEET FOR CONSTRUCTION NOTES RELATED TO PAY ITEMS 604.40 AND 604.412.
	SUBTOTAL			70	4000	0.5	200		595		9	100	100	3297.5	9	9	1	2	98	92	2125	127	127		4			

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

ITEM DETAIL SUMMARY SHEET #3

SPECIAL PROVISIONS																											
BEGIN STATION	END STATION	POS.	203.15 COMMON EXC.	203.30 EARTH BORROW	203.40 SHOULDER BERM REMOVAL	204.22 TRENCH EXCAV. OF EARTH	WASTE DITCH MAT'L	301.35 SUB. DENSE GRADED CRUSHED STONE	402.13 AGG. SHOULD., RAP	604.40 CHANGE ELEV. D. I.	604.412 REHAB. D. I. CLASS I	616.35 TREATED TIMBER CURB	616.41 REMOVAL OF EXIST. CURB	621.20 STEEL BEAM G. R., GALV.	621.50 MANUF. TERMINAL SECTION, FLARED	621.60 ANCHOR FOR S.B. G. R.	621.70 G. R. APP. SECTION, GALV. TYPE I	621.71 G. R. APP. SECTION, GALV. TYPE II	621.76 REPLACE G. R. POST ASSEMB.	621.77 REPLACE G. R. BEAM UNIT	621.80 REMOVE & DISP. OF G. R.	676.10 DEL INE. WITH STEEL POST	676.12 REMOV. OF EXIST. DEL INE.	900.620 CABLE G. R. SPLICE UNIT	900.620 CABLE G. R. J-BOLT GALV.	900.640 REPLACE G. R. CABLE	REMARKS
			CY	CY	LF	CY	CY	CY	T	EA	EA	LF	LF	LF	EA	EA	EA	EA	EA	EA	LF	EA	EA	EA	EA	LF	
RAMPS & MEDIAN			325	20	2300		1000	60	425	1	13	100	100									398	398				
4747+01 NB	4746+91 SB	MED												40													
4757+52 NB	4757+15 SB	MED												40													
4765+82 NB	4766+35 SB	MED												40													
4767+69 NB	4768+01 SB	MED												40													
4829+90 NB	4829+10 SB	MED												40													
4831+60 NB	4830+80 SB	MED												40													
EXIT 13 RAMP C																											
5+77	10+77	LT							5										1						6		REPAIR EXISTING CABLE GUARDRAIL
9+23	12+62	RT																									RETAIN EXISTING GUARDRAIL
EXIT 13 RAMP D																											
4+45	5+70	RT							5						1						37.5	1	1				INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4+45
EXIT 14 RAMP F																											
0+30	1+55	RT							5				14.5	1					2	1	50.0	1	1				INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 0+30.
EXIT 14 RAMP G & H																											
(SEE NOTE 2 ON SHEET 34)				50																							
EXIT 14 RAMP H																											
1+45	13+27	RT							5										6						9		REPAIR EXISTING CABLE GUARDRAIL (CONTINUES AS MAINLINE GUARDRAIL AT STA. 13+27).
EXIT 15 RAMP A																											
0+75	7+46	RT							5					1					11	25	37.5	1	1				INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 0+75. CONNECT TO MAINLINE GUARDRAIL.
EXIT 16 RAMP D																											
0+00	4+52	RT																	7	5							REPAIR AND ATTACH TO MAINLINE GUARDRAIL

LOCATION				FEET OF DITCHING			MISC. ITEMS			REMARKS	LOCATION				FEET OF DITCHING			MISC. ITEMS			REMARKS	
SITE	STATION	STATION	POS.	PERCENT GRADE			653.20 TEMP. EROS. MATT.	613.10 STONE FILL TYP. I	649.31 GEOT. UNDER STONE FILL SY		SITE	STATION	STATION	POS.	PERCENT GRADE			653.20 TEMP. EROS. MATT.	613.10 STONE FILL TYP. I	649.31 GEOT. UNDER STONE FILL SY		
				0-1	1-2.5	2.5-10									0-1	1-2.5	2.5-10					
				SY	CY	SY									SY	CY	SY					
SO. BURLINGTON - COLCHESTER I-89 NORTHBOUND											SO. BURLINGTON - COLCHESTER I-89 MEDIAN (CONT'D)											
1	4622+64	4627+50	RT	222	264		117				41	4762+31	4762+81		50							
2	4633+84	4643+00	RT	916							42	4767+59	4768+09		50		22					
3	4635+66	4643+00	RT	734							43	4770+23	4770+73		50		22					
4	4672+80		RT	100						ESTABLISH FLOWLINE	44	4778+15	4778+65		50		22					
5	4676+00	4678+00	RT	200							45	4780+79	4781+29		50		22					
6	4681+00	4684+00	RT		300		133				46	4786+07	4786+57		50							
7	4686+00	4687+75	RT		175		78	60		STONE FILL NEEDED FOR WASHOUT	47	4791+35	4791+85		50							
8	4687+10		RT					15		STONE FILL NEEDED FOR WASHOUT	48	4801+91	4802+41		50							
9	4692+75	4693+25	RT			50		8	22		49	4804+55	4805+05		50							
10	4770+23	4770+73	RT		50		22				50	4807+19	4807+69		50							
11	4778+40	4783+68	RT		528		235			24" LAFOUNTAIN STREET OUTLET	51	4812+47	4812+97		50							
12	4799+40	4823+40	RT	2400						FLOWLINE FOR 36" CULVERT	52	4817+75	4818+25		50							
13	4815+00	4818+00	RT	300							53	4820+64			50							
14	4824+25	4830+00	RT			575		85	256		54	4831+20			300							
15	4825+92		RT	300						ROW EXTENDS 100' FROM OUTLET	55	4836+23	4841+76		553				REESTABLISH SWALES			
		SUBTOTAL		5172	1317	625	585	168	278		56	4849+43	4849+93		50							
SO. BURLINGTON - COLCHESTER I-89 SOUTHBOUND													SUBTOTAL		1653	725	0	320	0	0		
16	4638+48		LT	400																		
17	4658+00	4662+00	LT	400						EXISTING OUTLET AT MM 88.25 STA. 4659+60 IS SUBMERGED	SO. BURLINGTON - COLCHESTER EXIT I3 RAMP C											
18	4672+75	4674+50	LT		175		78				57	0+00	7+25	RT		725		322				
19	4683+00	4684+50	LT			150		23	67		58	2+15	5+75	LT		360		160				
20	4704+48		LT					10		STONE FILL NEEDED FOR WASHOUT	59	6+50	9+25	LT		275		122				
21	4762+56		LT			20		3	9	20' TO WEST	RAMP D											
22	4822+28	4824+28	LT	200							60	5+75	8+50	RT		275		122				
23	4828+56		LT	40							61	12+50	17+00	RT		450		200				
24	4833+84		LT	75									SUBTOTAL		0	2085	0	926	0	0		
25	4844+40		LT	100							SO. BURLINGTON - COLCHESTER EXIT I4 RAMP A											
		SUBTOTAL		1215	175	170	78	36	76		62	11+00	14+00	RT		300		133				
SO. BURLINGTON - COLCHESTER I-89 MEDIAN											RAMP B											
26	4619+75	4621+00			125		56				63	0+00	7+50	RT	50	700		311				
27	4635+59	4636+09		50							64	10+50		LT	50							
28	4638+23	4638+73		50							RAMP E											
29	4661+99	4662+49			50		22				65	2+75	9+50	RT		675		300				
30	4664+63	4665+13			50		22				RAMP G											
31	4667+27	4667+77			50		22				66	0+00	3+20	RT		320		142				
32	4683+75	4684+25		50							67	8+00	9+25	RT		125		56				
33	4696+56			50							RAMP H											
34	4698+95	4699+45		50							68	9+00	11+50	LT			250		37	111		
													SUBTOTAL		100	2120	250	942	37	111		
SO. BURLINGTON - COLCHESTER EXIT I6 RAMP A											SO. BURLINGTON - COLCHESTER EXIT I6 RAMP A											
35	4709+51	4710+01			50		22				69	5+00	7+50	LT			250		37	111		
36	4712+15	4712+65			50		22						SUBTOTAL		0	0	250	0	37	111		
37	4725+35	4725+85			50		22															
38	4730+63	4731+13			50		22						SUBTOTAL		8140	6422	1295	2851	278	576		
39	4735+91	4736+41			50		22						ROUNDING		-	-	-	39	12	14		
40	4741+19	4741+69		50									TOTAL		8140	6422	1295	2890	290	590		

WIDTH VARIES
(GENERALLY 4 FEET)

EXIST. DITCH

VARIES

VARIES

GEOTEXTILE UNDER
STONE FILL

STONE FILL
TYPE I

DITCH DETAIL
NOT TO SCALE

NOTES:

1. PIPE INLET AND OUTLET AREAS, AND DITCH CLEANING THROUGHOUT PROJECT, SHALL BE PERFORMED AT LOCATIONS IDENTIFIED ON THIS SHEET AND AS DIRECTED BY THE RESIDENT ENGINEER. PAYMENT WILL BE UNDER THE APPLICABLE EQUIPMENT RENTAL ITEMS).

2. ESTIMATED QUANTITIES OF TEMPORARY EROSION MATTING, SEED, AND STONE FILL TYPE I HAVE BEEN INCLUDED. DITCHES WITH A GRADE LESS THAN 1 PERCENT SHALL BE SEED. TEMPORARY EROSION MATTING SHALL BE USED IN ALL DITCHES WITH A GRADE BETWEEN 1 AND 2.5 PERCENT. STONE FILL TYPE I SHALL BE USED IN ALL DITCHES WITH A GRADE GREATER THAN 2.5 PERCENT, OR AS DIRECTED BY THE RESIDENT ENGINEER.

DITCH DETAIL
NOT TO SCALE

NOTES:

- PIPE INLET AND OUTLET AREAS, AND DITCH CLEANING THROUGHOUT PROJECT, SHALL BE PERFORMED AT LOCATIONS IDENTIFIED ON THIS SHEET AND AS DIRECTED BY THE RESIDENT ENGINEER. PAYMENT WILL BE UNDER THE APPLICABLE EQUIPMENT RENTAL ITEM(S).
- ESTIMATED QUANTITIES OF TEMPORARY EROSION MATTING, SEED, AND STONE FILL TYPE I HAVE BEEN INCLUDED. DITCHES WITH A GRADE LESS THAN 1 PERCENT SHALL BE SEEDED. TEMPORARY EROSION MATTING SHALL BE USED IN ALL DITCHES WITH A GRADE BETWEEN 1 AND 2.5 PERCENT. STONE FILL TYPE I SHALL BE USED IN ALL DITCHES WITH A GRADE GREATER THAN 2.5 PERCENT, OR AS DIRECTED BY THE RESIDENT ENGINEER.

646.426 DURABLE 6 INCH WHITE LINE, RECESSED
STA. 4614+56.16 - STA. 4851+26.40 NORTHBOUND RT (SOLID)
STA. 4614+56.16 - STA. 4851+26.40 NORTHBOUND CENTERLINE (DASHED)
STA. 4634+25.60 - STA. 4851+26.40 SOUTHBOUND LT (SOLID)
STA. 4634+25.60 - STA. 4851+26.40 SOUTHBOUND CENTERLINE (DASHED)
646.436 DURABLE 6 INCH YELLOW LINE, RECESSED
STA. 4614+56.16 - STA. 4851+26.40 NORTHBOUND LT (SOLID)
STA. 4634+25.60 - STA. 4851+26.40 SOUTHBOUND RT (SOLID)

The diagram illustrates the bridge structures and approaches for Bridges #70, #71, and #72. It is divided into two sections: the top section for southbound travel and the bottom section for northbound travel. Each section shows three bridges with their respective stationing and bridge mile markers (MM).

Southbound Approach (Top Section):

- BRIDGE #70-S:** STA. 4745+23.00, MM 89.872
- BRIDGE #71-S:** STA. 4767+26.00, MM 90.289
- BRIDGE #72-S:** STA. 4777+08.00, MM 90.475

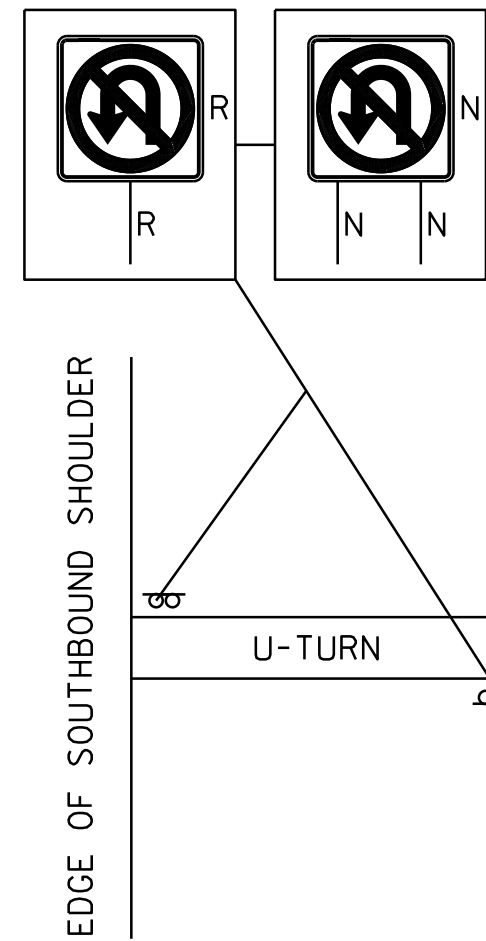
Interchange 15: Indicated by a diagonal line between the southbound and northbound sections.

Northbound Approach (Bottom Section):

- BRIDGE #70-N:** STA. 4751+40, MM 89.989
- BRIDGE #71-N:** STA. 4767+26.00, MM 90.289
- BRIDGE #72-N:** STA. 4777+08.00, MM 90.475

Interchange 15: Indicated by a diagonal line between the northbound and southbound sections.

Diagram illustrating the plan view of the bridge and interchange area. The bridge is labeled "BRIDGE #66-N" and "STA. 4614+55.00 MM 87.397". The interchange is labeled "INTERCHANGE 13" and "INTERCHANGE 14". The diagram shows the bridge crossing over the highway, with the interchange area to the right. The bridge is labeled "NORTHBOUND" and "189".

[illegible]

REMOVE AND REPLACE U-TURN SIGNS
AT THE LOCATIONS INDICATED BELOW:

MM	87.934	(R & N)	(2 EA)
MM	88.363	(R & N)	(2 EA)
MM	89.084	(R & N)	(2 EA)
MM	89.739	(N)	(2 EA)
MM	89.875	(R)	(2 EA)
MM	90.131	(R)	(2 EA)
MM	90.179	(N)	(2 EA)
MM	90.902	(R & N)	(2 EA)
MM	91.184	(R & N)	(2 EA)
MM	91.880	(R & N)	(2 EA)

604.412 REHABING DROP INLETS, CATCH BASINS,
OR MANHOLES, CLASS I

NORTHBOUND	SOUTHBOUND	RAMPS
STA. 4614+56 RT	STA. 4684+41 LT	EXIT 13 RAMPS: 0
STA. 4610+55 RT	STA. 4689+70 LT	EXIT 14 RAMPS: 8
STA. 4684+08 RT	STA. 4737+27 LT	EXIT 15 RAMPS: 2
STA. 4685+26 RT	STA. 4750+00 LT	EXIT 16 RAMPS: 3
STA. 4695+85 RT	STA. 4753+06 LT	
STA. 4742+50 RT	STA. 4768+37 LT	
STA. 4744+34 RT	STA. 4783+37 LT	
STA. 4758+84 RT	STA. 4829+14 LT	
STA. 4829+62 RT	STA. 4831+04 LT	
STA. 4831+65 RT		

621.50 MANUFACTURED TERMINAL SECTIONS, FLARED

SEE ITEM DETAIL SUMMARY SHEET

646.76 LINE STRIPING TARGETS

ALONG MAINLINE AND RAMPS - 418

675.50 REMOVING SIGNS

SEE U-TURN SIGNS SHOWN AT LEFT - 16

900.620 SPECIAL PROVISION (CABLE GUARDRAIL SPLICE UNIT)

SEE ITEM DETAIL SUMMARY SHEET

900.620 SPECIAL PROVISION (CABLE GUARDRAIL J-BOLT GALVANIZED

SEE ITEM DETAIL SUMMARY SHEET

900.640 SPECIAL PROVISION (REPLACEMENT OF GUARDRAIL CABLE)

SEE ITEM DETAIL SUMMARY SHEET

NOTE:

BITUMINOUS CONCRETE GUTTERS ARE TO BE REPAVED
SEE PROJECT TYPICAL SHEET FOR LOCATIONS AND
DETAILS OF THIS WORK. THIS WORK IS TO BE PAID FO
UNDER ITEM 616.47, "BITUMINOUS CONCRETE GUTTERS
AND TRAFFIC ISLANDS".

NOTES:

1. REFER TO COLD PLANE/PAVING DETAIL FOR BRIDGE APPROACHES AND BRIDGE JOINT DETAILS ON SHEETS 9-II.
2. REFER TO SHEETS 35-42 FOR INTERCHANGE DETAILS.
3. MILEMARKER SIGNS 88, 89, 90 AND 91 ARE TO BE REPLACED FOR BOTH NORTHBOUND AND SOUTHBOUND.

PAVING PROJECT LAYOUT SHEET

DETAILS ARE NOT TO SCALE

PROJECT NAME: SO. BURLINGTON - COLCHESTER
PROJECT NUMBER: IM 089-3(60)

FILE NAME:	p05a012.dgn	PLOT DATE:	\$\$\$\$\$DATE
PROJECT LEADER:	EPD	DRAWN BY:	JAR/SJB
DESIGNED BY:	JDA	CHECKED BY:	EPD
PLOT FILE:	p05a012ppls.i	SHEET	19 OF 91

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

TRAFFIC SIGN SUMMARY SHEET 1

[illegible]

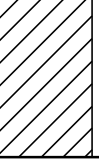
TRAFFIC SIGN SUMMARY SHEET 2

[illegible]

TRAFFIC SIGN SUMMARY SHEET 3

[illegible]

STATE OF VERMONT AGENCY OF TRANSPORTATION										TRAFFIC SIGN SUMMARY SHEET 4																											
MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NO. OF POSTS	NEW SIGN POSTS										REMARKS	SIGN DETAIL														
					"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE		FLANGED CHANNEL			SQUARE STEEL (in)			TUBULAR ALUMINUM Ø (in)			TUBULAR STEEL Ø (in)				W-SHAPE STEEL			DETAIL ON SHEET NUMBER	STD. SHEET NUMBER								
		lb/ft	lb/ft	lb/ft								1.75	2.0	2.5	ANCHOR	SLEEVE	3.0	4.0	4.0 MOD	FOUND- ATION	3.0		3.5	4.0	5.0	FTG. SIZE				WEIGHT	POST SIZE						
																										1.2	2.0					3.0	1.88	2.16	3.35	1.3	1.7
OPTION ITEMS																																					
STA. 5+80 RT EXIT 14 RAMP E		I	36	36	9.00						2			X 30'		X																W3-2A		E-150			
STA. 8+83 RT EXIT 14 RAMP E		I	36	36	4.50						2			X 14'		X																RI-2		E-146			
STA 9+55 LT EXIT 14 RAMP E		I	36	12	3.00						2			24																							
STA. 1+95 LT EXIT 14 RAMP F		I	18	18	2.25						1	X 8'			X																	OMI-1		E-150			
STA. 2+02 LT EXIT 14 RAMP F		I	90	60		37.50					2											2		24' X 182.4									E-131				
STA. 8+65 RT EXIT 14 RAMP F		I	36	36	9.00						2			X		X 28'																W3-3		E-152			
EXIT 14 RAMP G		9	24	30	45.00						9			X		X 126'																WI-8R USE FLUORESCENT YELLOW SHEETING TYPE IX SEE STANDARD E-126 FOR PLACEMENT LOCATION		E-150			
STA. 1+45 LT EXIT 14 RAMP G		I	18	18	2.25						1	X			X 8'																	OMI-1		E-150			
STA. 1+73 LT EXIT 14 RAMP G		I	90	60		37.50					2											2		24' X 182.4									E-131				
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE ROADWAY, TRAFFIC & SAFETY SECTION'S "SIGN POST DESIGN GUIDELINE."												FT	FT	FT	FT	FT	FT		EA	LB	LB	LB		LB	LB	LB	LB										
												~~-26-~~ 16'		~~-225-~~ 222'	26	225							~~-456-~~ 364.8														

STATE OF VERMONT AGENCY OF TRANSPORTATION										TRAFFIC SIGN SUMMARY SHEET 5																											
MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST	S ALV AGE	NO. OF POSTS	NEW SIGN POSTS																				REMARKS	SIGN DETAIL				
												FLANGED CHANNEL			SQUARE STEEL (in)				TUBULAR ALUMINUM Ø (in)			TUBULAR STEEL Ø (in)				W-SHAPE STEEL											
		E A	WIDTH (in)	HEIGHT (in)	“A”	“B”	SALV SIGN	SALV TIS				RETAIN	S ALV AGE	NO. OF POSTS	lb/ft			lb/ft			ANCHOR	S LEEVE	3.0 4.0 4.0 MOD			FOUND- ATION	3.0 3.5 4.0 5.0				FTG. SIZE		WEIGHT	POST SIZE	S CALE 1/8"=1'-0"		
															1.2	2.0	3.0	1.75	2.0	2.5			1.3	1.7	1.7		3.0	3.5	4.0	5.0	24"					30"	
															1.2	2.0	3.0	1.88	2.16	3.35			1.3	1.7	1.7		7.6	9.0	10.8	14.6	24"					30"	
OPTION ITEMS																																					
STA. 5+96 RT EXIT 14 RAMP G		I	36	36	9.00						2			X 36'		X															W11-2		E-152				
		I	36	36	9.00																									W11-1		E-153B					
STA. 7+96 RT EXIT 14 RAMP G		I	36	36	9.00						2			X 30'		X															W3-2A		E-150				
STA. 9+61RT EXIT 14 RAMP G		I	36	36	9.00						2			X 32'		X															W11-1		E-153B				
		I	30	18	3.75																										W16-7		E-153B				
EXIT 14 RAMP H		2	24	30	10.00						2			X 28'		X															W1-8R USE FLUORESCENT YELLOW SHEETING TYPE IX SEE STANDARD E-126 FOR PLACEMENT LOCATION		E-150				
STA. 1+96 RT EXIT 14 RAMP H		I	36	36	9.00						2			X 32'		X															VR-046		E-142				
		I	36	36	9.00																										VR-002		E-142				
STA. 11+92 RT EXIT 14 RAMP H		I	30	30	6.25						1			X 14'		X															R3-2		E-143				
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE ROADWAY, TRAFFIC & SAFETY SECTION'S "SIGN POST DESIGN GUIDELINE."												FT	FT	FT 165	FT	FT	FT 165	FT		EA	LB	LB	LB		LB	LB	LB	LB									
																												EA.									
																												EA.									
																												EA.	EA.	LB							

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

TRAFFIC SIGN SUMMARY SHEET 6

[illegible]

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 7

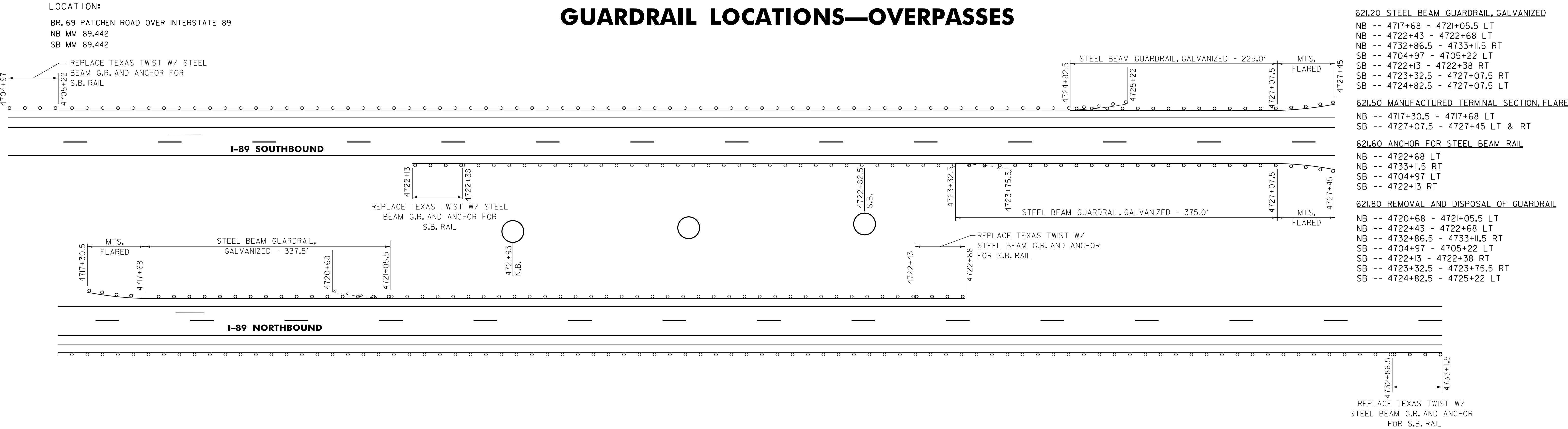
MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS								EXIST POST RETAIN SALVAGE	NO. OF POSTS	NEW SIGN POSTS										REMARKS						SIGN DETAIL	
															FLANGED CHANNEL			SQUARE STEEL (in)				TUBULAR ALUMINUM Ø (in)										
		E A	WIDTH (in)	HEIGHT (in)	“A”	“B”	SALV SIGN	SALV TIS	ANCHOR	SLANT E	lb/f†				FOUND- ATION	lb/f†				FTG. SIZE		WEIGHT	POST SIZE	SCAFFOLD REQUIRED								
											1.75	2.0				2.5	3.0	4.0	4.0 MOD	3.0	3.5				4.0	5.0	24"	30"				
												OPTION ITEMS																				
STA. 6+07 LT EXIT I5 RAMP B		I	36	24	6.00							2			X 28'		X													R5-IA		E-I43
STA. 8+I4 RT EXIT I5 RAMP B		I	I8	I8	2.25							I	X 8'		X															OMI-I		E-I50
STA. 8+I9 RT EXIT I5 RAMP B		I	54	30	II.25							2			X 28'		X													VR-936M		E-I45B
STA. 2+08 LT EXIT I6 RAMP A		I	I8	I8	2.25							I	X 8'		X															OMI-I		E-I50
STA. 2+27 LT EXIT I6 RAMP A		I	72	60		30.00						2						2	27.5' X 209.0												E-I3I	
STA. 6+58 RT EXIT I6 RAMP A		I	36	36	9.00							2			X 28'		X													W3-3		E-I52
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE ROADWAY, TRAFFIC & SAFETY SECTION'S "SIGN POST DESIGN GUIDELINE."												FT ~~-26-~~ I6	FT	FT ~~-90-~~ 84	26	90		EA	LB	LB	LB		LB ~~-228-~~ 209	LB	LB	LB	LB					
					TOTALS	SF 30.75	SF 30.00	EA.	SF		FT ~~-116-~~ 100'	FT ~~-116-~~				LB			EA. 2	LB ~~-228-~~ 209				EA.	EA.	LB	TRAFFIC SIGN SUMMARY SHEET 7			PROJECT NAME: SO. BURLINGTON - COLCHESTER PROJECT NUMBER: IM 089-3(60) FILE NAME: p05a0I2.dgn PLOT DATE: \$\$\$\$\$\$DATE\$\$\$ PROJECT LEADER: EPD DRAWN BY: JAR/SJB DESIGNED BY: JDA CHECKED BY: EPD PLOT FILE: p05a0I2tsss7.i SHEET 26 OF 9I		

STATE OF VERMONT AGENCY OF TRANSPORTATION										TRAFFIC SIGN SUMMARY SHEET 9																										
MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																REMARKS	SIGN DETAIL								
					"A"	"B"	SALV SIGN	SALV TIS	RE TAIN	S ALV AGE	NO. OF P OST S	FLANGED CHANNEL			SQUARE STEEL (in)				TUBULAR ALUMINUM Ø (in)			TUBULAR STEEL Ø (in)				W-SHAPE STEEL				SC RIP T C O U N D	DETAIL ON SHEET NUMBER	STD. SHEET NUMBER				
		lb/ft	2.0	3.0								1.75	2.0	2.5	ANCHOR	SLEEVE	3.0	4.0	4.0 MOD	FOUND- ATION	3.0	3.5	4.0	5.0	FTG. SIZE			WEIGHT	POST SIZE							
																									1.2	2.0							3.0	1.88	2.16	3.35
OPTION ITEMS																																				
STA. I+69 LT EXIT I6 RAMP D		I	18	18	2.25						I	X 8'			X																			OMI-I		E-I50
STA. I+83 RT EXIT I6 RAMP D		I	36	36	9.00						2			X 28'		X																		W3-3		E-I52
STA. I+99 LT EXIT I6 RAMP D		I	72	60		30.00					2									2	27.75' X 210.9														E-I31	
STA. 3+22 RT EXIT I6 RAMP D		I	24	12	2.00						2									2	35' X 266.0											X	M3-3 M3-I		E-I36A E-I36A	
		I	24	24	4.00																													MI-4 MI-4		E-I36A E-I36A
		I	24	12	2.00																													M3-2 M3-4		E-I36A E-I36A
		I	24	24	4.00																													MI-4 MI-4		E-I36A E-I36A
		I	21	15	2.19																													M6-I M6-I		E-I36A E-I36A
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE ROADWAY, TRAFFIC & SAFETY SECTION'S "SIGN POST DESIGN GUIDELINE."											FT -43- 8	FT -30- 28	FT 13	FT 30	FT EA	LB	LB	LB	LB -456- 476.9	LB	LB	LB	LB	EA	EA	LB	TRAFFIC SIGN SUMMARY SHEET 9		PROJECT NAME: SO. BURLINGTON - COLCHESTER PROJECT NUMBER: IM 089-3(60) FILE NAME: p05a012.dgn PROJECT LEADER: EPD DESIGNED BY: JDA PLOT FILE: p05a012+sss9.i			PLOT DATE: \$\$\$\$\$\$DATE\$\$\$ DRAWN BY: JAR/SJB CHECKED BY: EPD SHEET 28 OF 91				
TOTALS					SF 39.63	SF 30.00	EA.	SF		FT -43- 36	FT 43				LB	EA. 4	LB -456- 476.9				EA.	EA.	LB													

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 10

[illegible]



621.20 STEEL BEAM GUARDRAIL, GALVANIZED

NB -- 4717+68 - 4721+05.5 LT

NB -- 4722+43 - 4722+68 LT

NB -- 4732+86.5 - 4733+11.5 RT

SB -- 4704+97 - 4705+22 LT

SB -- 4722+13 - 4722+38 RT

SB -- 4723+32.5 - 4727+07.5 RT

SB -- 4724+82.5 - 4727+07.5 LT

621.50 MANUFACTURED TERMINAL SECTION, FLARED

NB -- 4717+30.5 - 4717+68 LT

SB -- 4727+07.5 - 4727+45 LT & RT

621.60 ANCHOR FOR STEEL BEAM RAIL

NB -- 4722+68 LT

NB -- 4733+11.5 RT

SB -- 4704+97 LT

SB -- 4722+13 RT

621.80 REMOVAL AND DISPOSAL OF GUARDRAIL

NB -- 4720+68 - 4721+05.5 LT

NB -- 4722+43 - 4722+68 LT

NB -- 4732+86.5 - 4733+11.5 RT

SB -- 4704+97 - 4705+22 LT

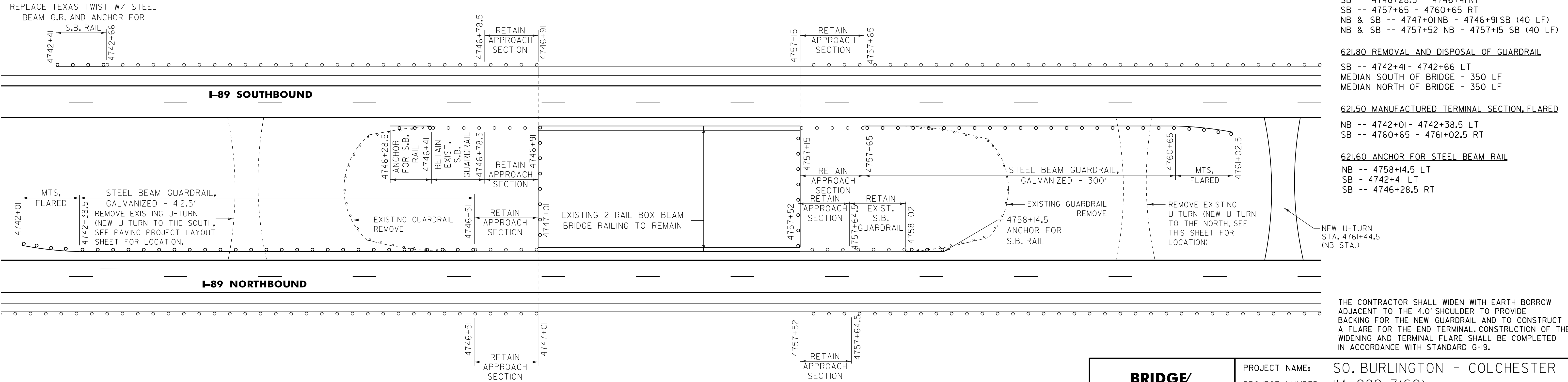
SB -- 4722+13 - 4722+38 RT

SB -- 4723+32.5 - 4723+75.5 RT

SB -- 4724+82.5 - 4725+22 LT

LOCATIONS:
BR. 70 INTERSTATE 89 OVER WINOOSKIRIVER
NB MM 89,905 TO NB MM 90,104 BR 70 N
SB MM 89,903 TO SB MM 90,097 BR 70 S

GUARDRAIL TREATMENT AT BULLNOSE LOCATIONS – BRIDGES



621.20 STEEL BEAM GUARDRAIL, GALVANIZED

NB -- 4742+38.5 - 4746+51 LT

NB -- 4758+02 - 4758+14.5 LT

SB -- 4742+41 - 4742+66 LT

SB -- 4746+28.5 - 4746+41 RT

SB -- 4757+65 - 4760+65 RT

NB & SB -- 4747+01 NB - 4746+91 SB (40 LF)

NB & SB -- 4757+52 NB - 4757+15 SB (40 LF)

621.80 REMOVAL AND DISPOSAL OF GUARDRAIL

SB -- 4742+41 - 4742+66 LT

MEDIAN SOUTH OF BRIDGE - 350 LF

MEDIAN NORTH OF BRIDGE - 350 LF

621.50 MANUFACTURED TERMINAL SECTION, FLARED

NB -- 4742+01 - 4742+38.5 LT

SB -- 4760+65 - 4761+02.5 RT

621.60 ANCHOR FOR STEEL BEAM RAIL

NB -- 4758+14.5 LT

SB - 4742+41 LT

SB -- 4746+28.5 RT

THE CONTRACTOR SHALL WIDEN WITH EARTH BORROW ADJACENT TO THE 4.0' SHOULDER TO PROVIDE BACKING FOR THE NEW GUARDRAIL AND TO CONSTRUCT A FLARE FOR THE END TERMINAL. CONSTRUCTION OF THE WIDENING AND TERMINAL FLARE SHALL BE COMPLETED IN ACCORDANCE WITH STANDARD G-19.

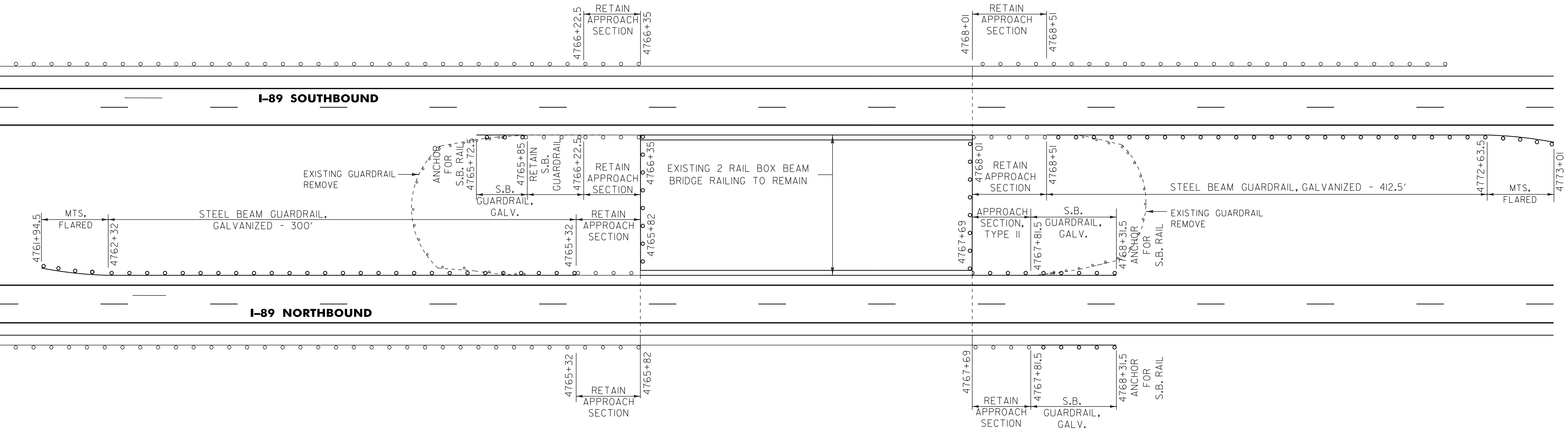
DETAILS ARE NOT TO SCALE

BRIDGE/ GUARDRAIL TREATMENT DETAIL SHEET 1

PROJECT NAME: SO. BURLINGTON - COLCHESTER		
PROJECT NUMBER: IM 089-3(60)		
FILE NAME:	p05a012.dgn	PLOT DATE: \$\$\$\$DATE\$\$\$
PROJECT LEADER:	EPD	DRAWN BY: JAR/SJB
DESIGNED BY:	JDA	CHECKED BY: EPD
PLOT FILE:	p05a012bg+dsl.i	SHEET 30 OF 91

LOCATIONS:
BR. 71 INTERSTATE 89 OVER CENTRAL VERMONT RAILROAD
NB MM 90.266 TO NB MM 90.297 BR 71N
SB MM 90.272 TO SB MM 90.303 BR 71S

GUARDRAIL TREATMENT AT BULLNOSE LOCATIONS – BRIDGES



621.20 STEEL BEAM GUARDRAIL, GALVANIZED
NB -- 4762+32 - 4765+32 LT
NB -- 4767+81.5 - 4768+31.5 LT & RT
SB -- 4765+72.5 - 4765+85 RT
SB -- 4768+51- 4772+63.5 RT
NB & SB -- 4765+82 NB - 4766+35 SB (40 LF)
NB & SB -- 4767+69 NB - 4768+01SB (40 LF)

621.50 MANUFACTURED TERMINAL SECTION, FLARED
NB -- 4761+94.5 - 4762+32 LT
SB -- 4772+63.5 - 4773+01RT

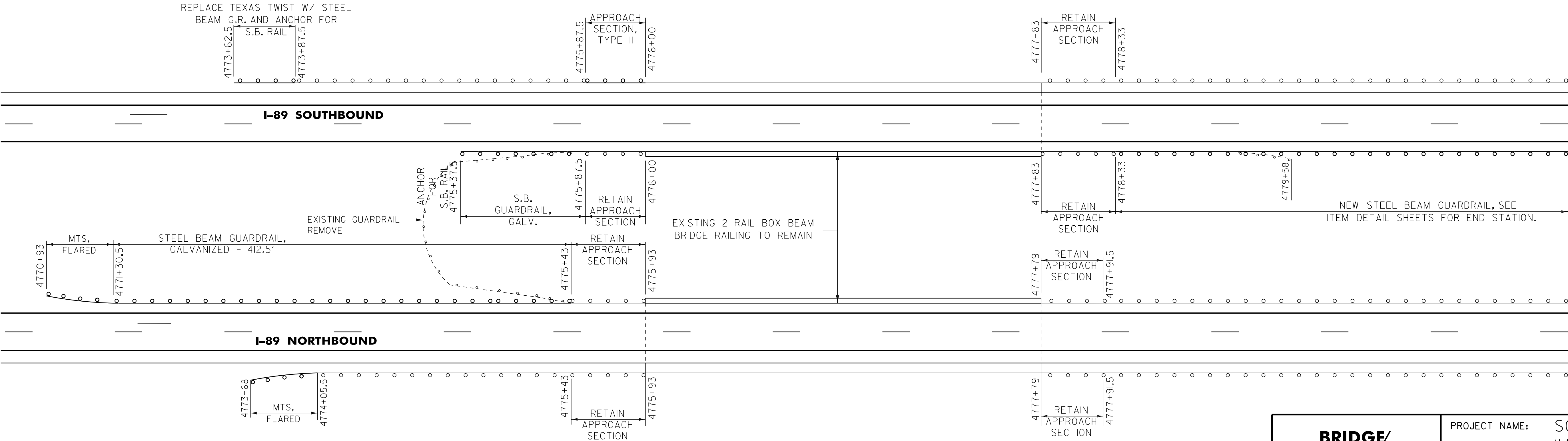
621.60 ANCHOR FOR STEEL BEAM RAIL
NB -- 4768+31.5 LT & RT
SB -- 4765+72.5 RT

621.71GUARDRAIL APPROACH SECTION, GALVANIZED TYPE II
NB -- 4767+69 - 4767+81.5 LT

621.80 REMOVAL AND DISPOSAL OF GUARDRAIL
NB -- 4767+69 - 4768+31.5 LT
MEDIAN SOUTH OF BRIDGE - 300 LF
MEDIAN NORTH OF BRIDGE - 300 LF

LOCATIONS:
BR. 72 INTERSTATE 89 OVER VERMONT ROUTE 15
NB MM 90.453 TO NB MM 90.488 BR 72 N
SB MM 90.454 TO SB MM 90.489 BR 72 S

GUARDRAIL TREATMENT AT BULLNOSE LOCATIONS – BRIDGES



621.20 STEEL BEAM GUARDRAIL, GALVANIZED
NB -- 4771+30.5 - 4775+43 LT
SB -- 4773+62.5 - 4773+87.5 LT
SB -- 4775+37.5 - 4775+87.5 RT

621.50 MANUFACTURED TERMINAL SECTION, FLARED
NB -- 4770+93 - 4771+30.5 LT
NB -- 4773+68 - 4774+05.5 RT

621.60 ANCHOR FOR STEEL BEAM RAIL
SB -- 4773+62.5 LT
SB -- 4775+37.5 RT

621.71GUARDRAIL APPROACH SECTION, GALVANIZED TYPE II
SB -- 4775+87.5 - 4776+00 LT

621.80 REMOVAL AND DISPOSAL OF GUARDRAIL
NB -- 4773+68 - 4774+05.5 RT
SB -- 4773+62.5 - 4773+87.5 LT
SB -- 4778+33 - 4779+58 RT
MEDIAN SOUTH OF BRIDGE - 200 LF

THE CONTRACTOR SHALL WIDEN WITH EARTH BORROW ADJACENT TO THE 4.0' SHOULDER TO PROVIDE BACKING FOR THE NEW GUARDRAIL AND TO CONSTRUCT A FLARE FOR THE END TERMINAL. CONSTRUCTION OF THE WIDENING AND TERMINAL FLARE SHALL BE COMPLETED IN ACCORDANCE WITH STANDARD G-19.

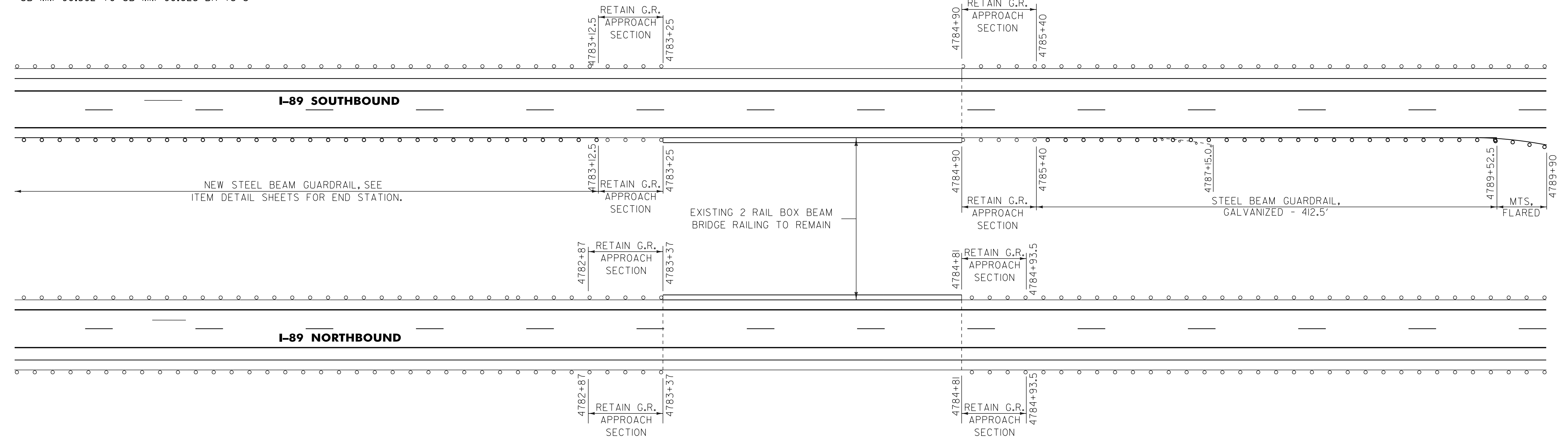
DETAILS ARE NOT TO SCALE

BRIDGE/ GUARDRAIL TREATMENT DETAIL SHEET 2

PROJECT NAME: SO. BURLINGTON - COLCHESTER		
PROJECT NUMBER: IM 089-3(60)		
FILE NAME:	p05a012.dgn	PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
PROJECT LEADER:	EPD	DRAWN BY: RHB/SJB
DESIGNED BY:	JDA	CHECKED BY: EPD
PLOT FILE:	p05a012bg+ds2.i	SHEET 31 OF 91

LOCATIONS:
BR. 73 INTERSTATE 89 OVER LA FOUNTAIN STREET
NB MM 90.594 TO NB MM 90.621BR 73 N
SB MM 90.592 TO SB MM 90.623 BR 73 S

GUARDRAIL TREATMENT AT BULLNOSE LOCATIONS – BRIDGES



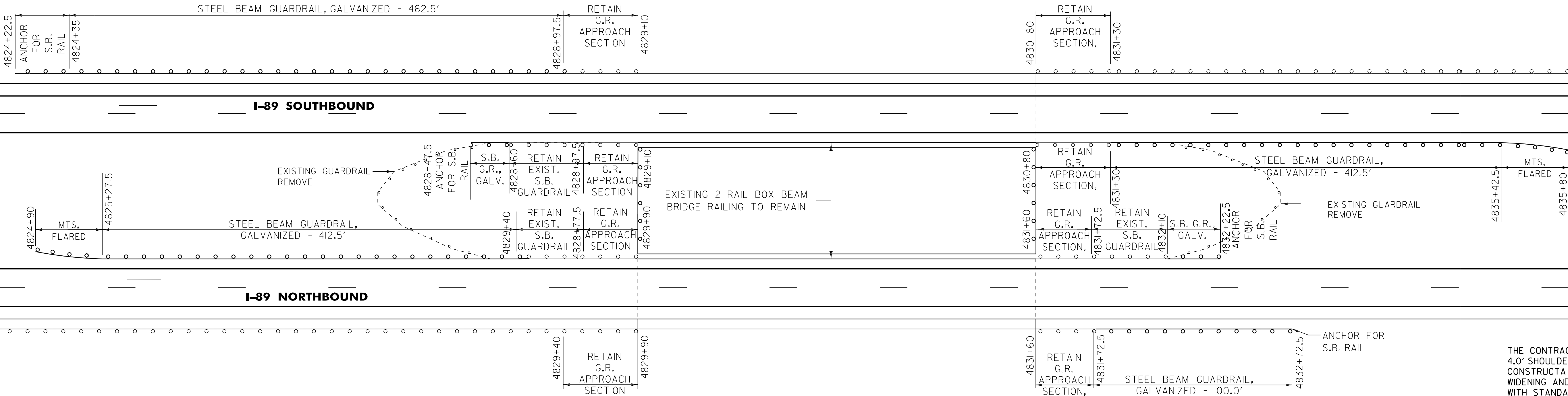
621.20 STEEL BEAM GUARDRAIL, GALVANIZED
SB -- 4785+40 - 4789+52.5 RT

621.50 MANUFACTURED TERMINAL SECTION, FLARED
SB -- 4789+52.5 - 4789+90 RT

621.80 REMOVAL AND DISPOSAL OF GUARDRAIL
SB -- 4785+40 - 4787+15 RT

LOCATIONS:
BR. 74 INTERSTATE 89 OVER U.S. ROUTE 7
NB MM 91.460 TO NB MM 91.492 BR 74 N
SB MM 91.476 TO SB MM 91.507 BR 74 S

GUARDRAIL TREATMENT AT BULLNOSE LOCATIONS – BRIDGES



621.20 STEEL BEAM GUARDRAIL, GALVANIZED

NB -- 4825+27.5 - 4829+40 LT
NB -- 4832+10 - 4832+22.5 LT
NB-- 4831+72.5 - 4832+72.5 RT
SB -- 4824+35 - 4828+97.5 LT
SB -- 4828+47.5 - 4828+60 RT
SB -- 4831+30 - 4835+42.5 RT
NB & SB -- 4829+90 NB - 4829+10 SB (40 LF)
NB & SB -- 4831+60 NB - 4830+80 SB (40 LF)

621.50 MANUFACTURED TERMINAL SECTION, FLARED

NB -- 4824+90 - 4825+27.5 LT
SB -- 4835+42.5 - 4835+80 RT

621.60 ANCHOR FOR STEEL BEAM RAIL

NB -- 4832+22.5 LT
NB -- 4832+72.5 RT
SB -- 4824+22.5 LT
SB -- 4828+47.5 RT

621.80 REMOVAL AND DISPOSAL OF GUARDRAIL

NB -- 4831+72.5- 4832+72.5 RT
SB -- 4824+22.5 - 4829+97.5 LT
MEDIAN SOUTH OF BRIDGE - 300 LF
MEDIAN NORTH OF BRIDGE - 300 LF

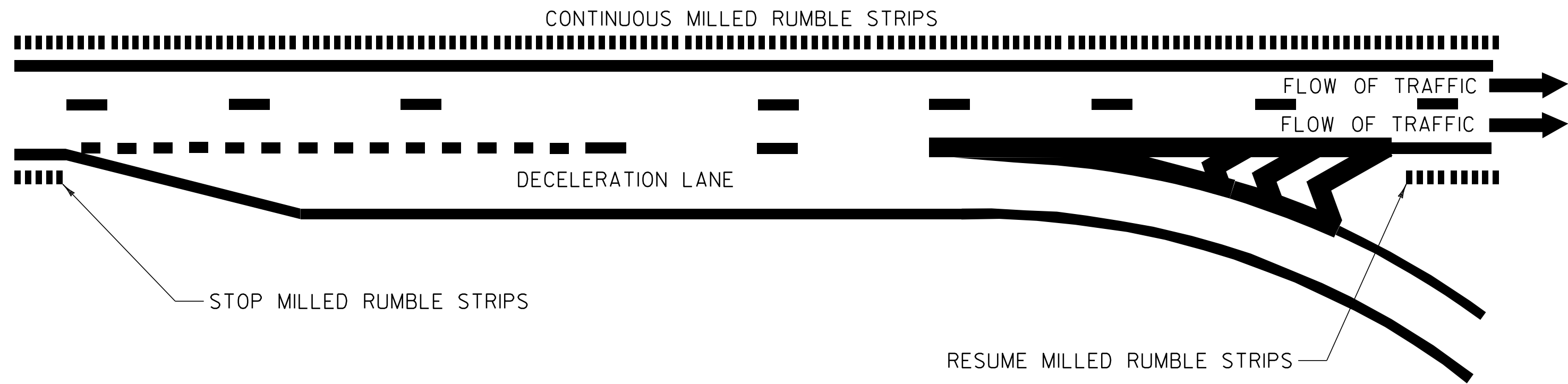
THE CONTRACTOR SHALL WIDEN WITH EARTH BORROW ADJACENT TO THE 4.0' SHOULDER TO PROVIDE BACKING FOR THE NEW GUARDRAIL AND TO CONSTRUCTA FLARE FOR THE END TERMINAL. CONSTRUCTION OF THE WIDENING AND TERMINAL FLARE SHALL BE COMPLETEDIN ACCORDANCE WITH STANDARD G-19.

DETAILS ARE NOT TO SCALE

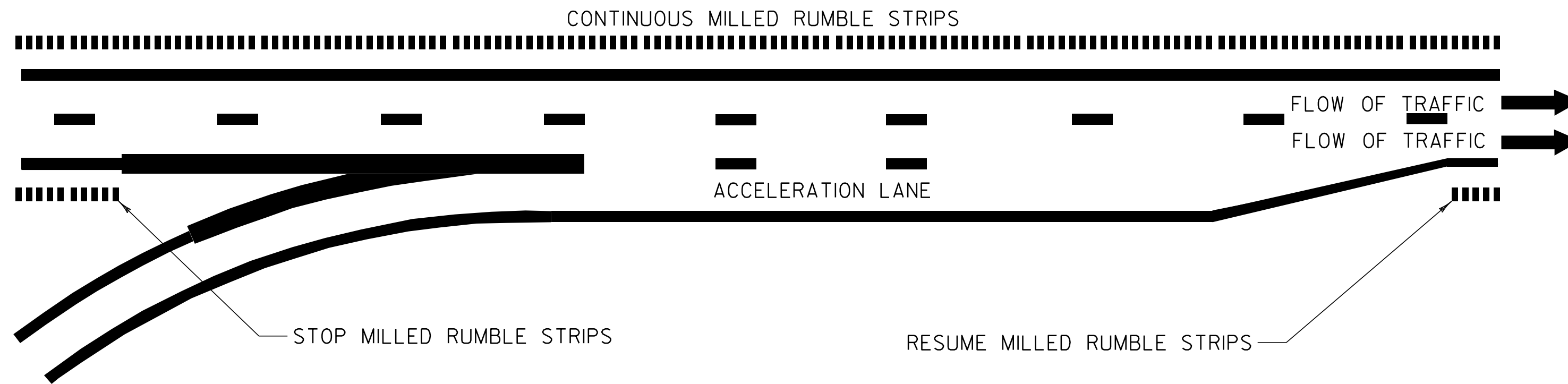
**BRIDGE/
GUARDRAIL
TREATMENT
DETAIL SHEET 3**

PROJECT NAME: SO. BURLINGTON - COLCHESTER
PROJECT NUMBER: IM 089-3(60)

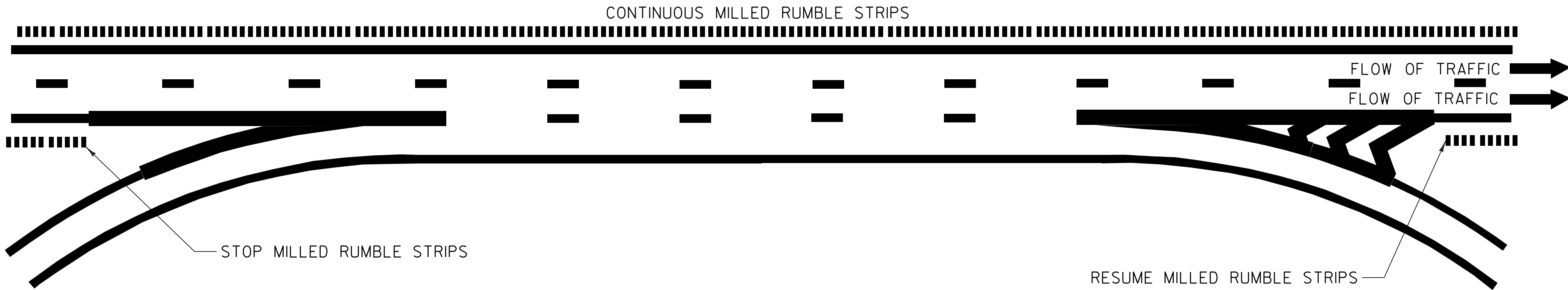
FILE NAME:	p05a012.dgn	PLOT DATE:	\$\$\$\$\$\$DATE\$\$\$
PROJECT LEADER:	EPD	DRAWN BY:	RHB/SJB
DESIGNED BY:	JDA	CHECKED BY:	EPD
PLOT FILE:	p05a012bg+ds3.i	SHEET	32 OF 91



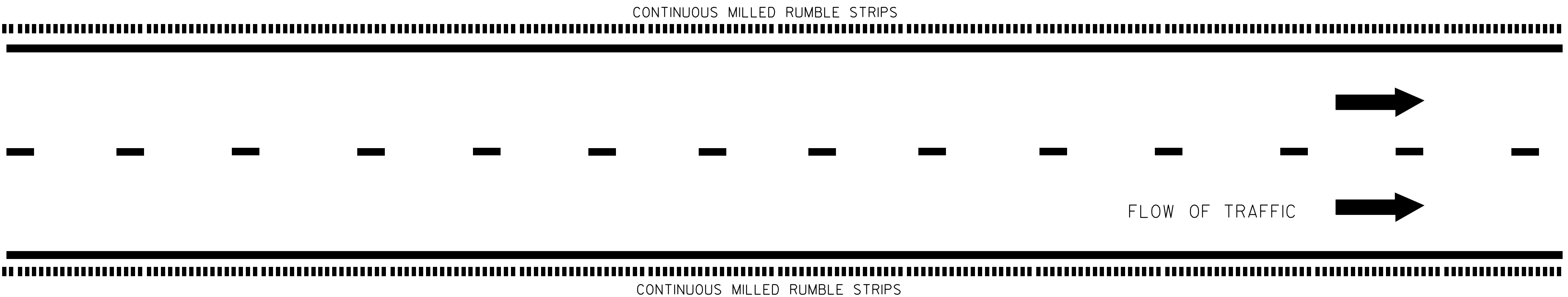
INTERCHANGE 13 EXIT RAMP C
INTERCHANGE 14 EXIT RAMP C AND F
INTERCHANGE 15 EXIT RAMP B
INTERCHANGE 16 EXIT RAMP A AND D



INTERCHANGE 13 ON RAMP D
INTERCHANGE 14 ON RAMP A AND H
INTERCHANGE 15 ON RAMP A
INTERCHANGE 16 ON RAMP B AND C



INTERCHANGE 14 RAMP E /G
INTERCHANGE 14 RAMP B /D



INTERSTATE 89 NORTHBOUND AND SOUTHBOUND

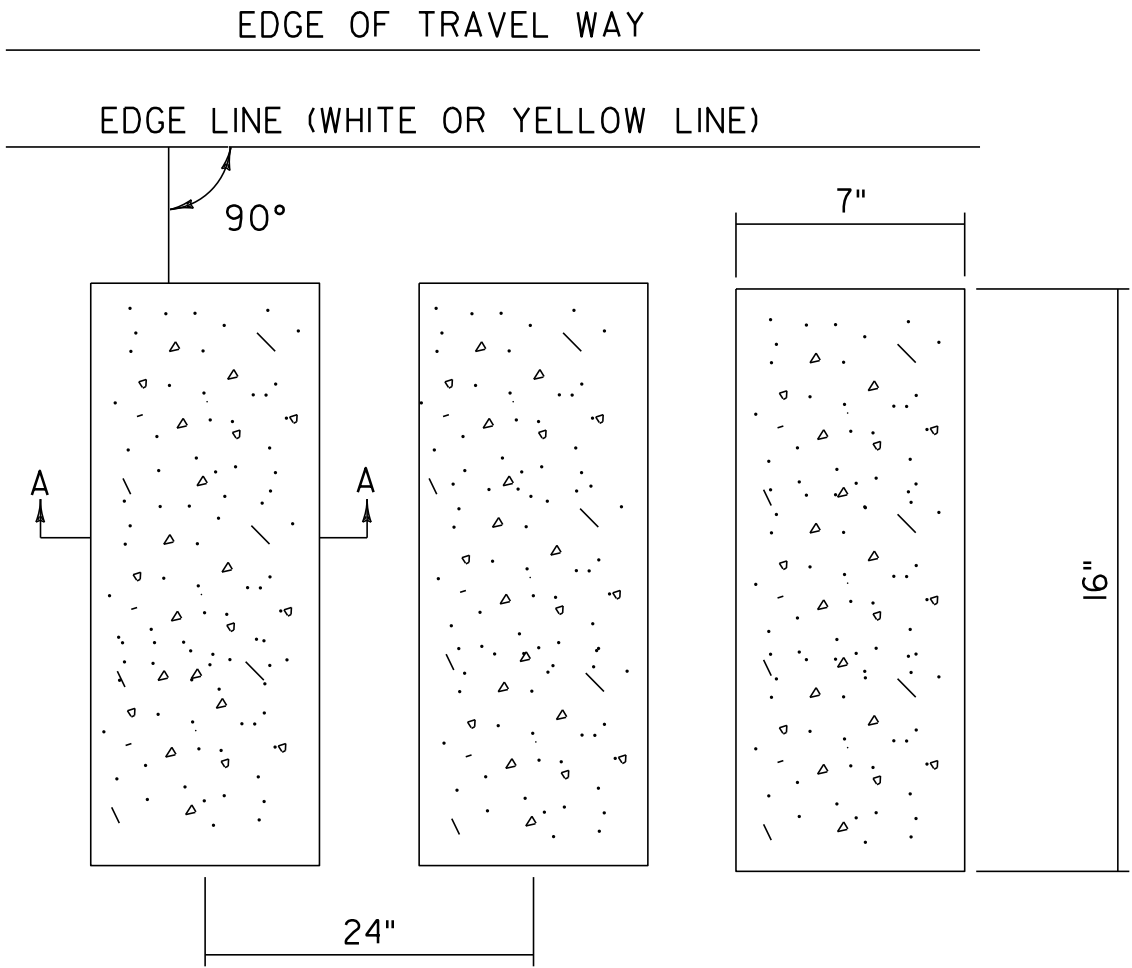
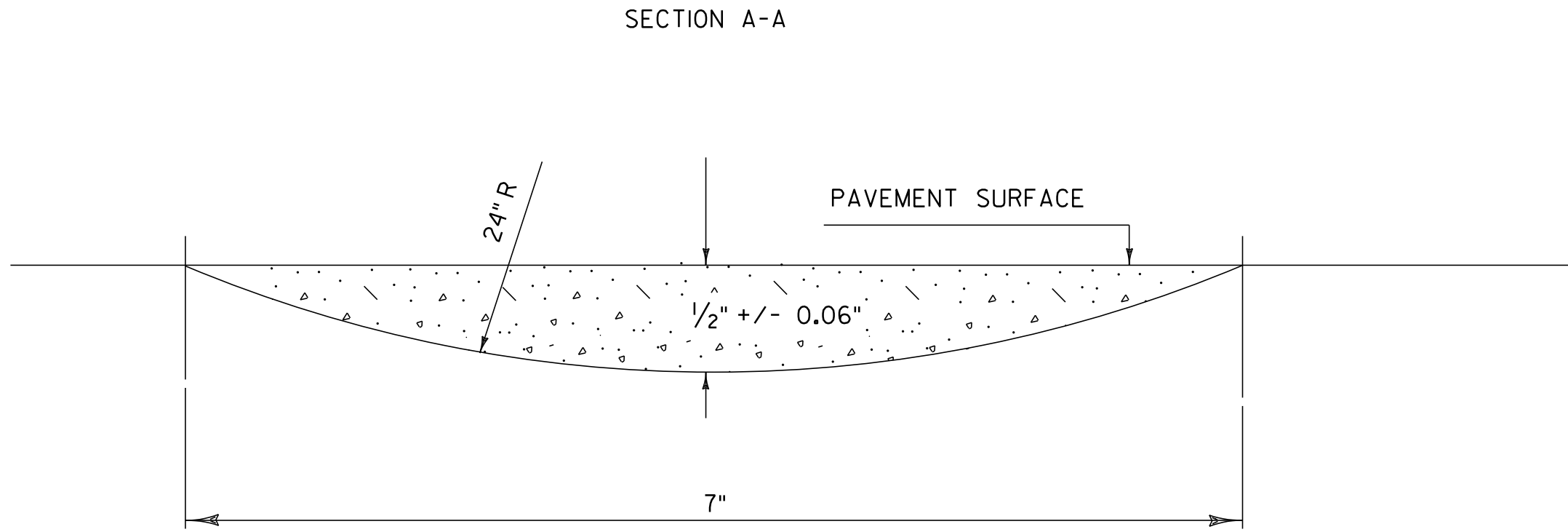
LEGEND

 DIRECTION OF TRAFFIC FLOW

 MILLED RUMBLE STRIPS

DETAILS ARE NOT TO SCALE

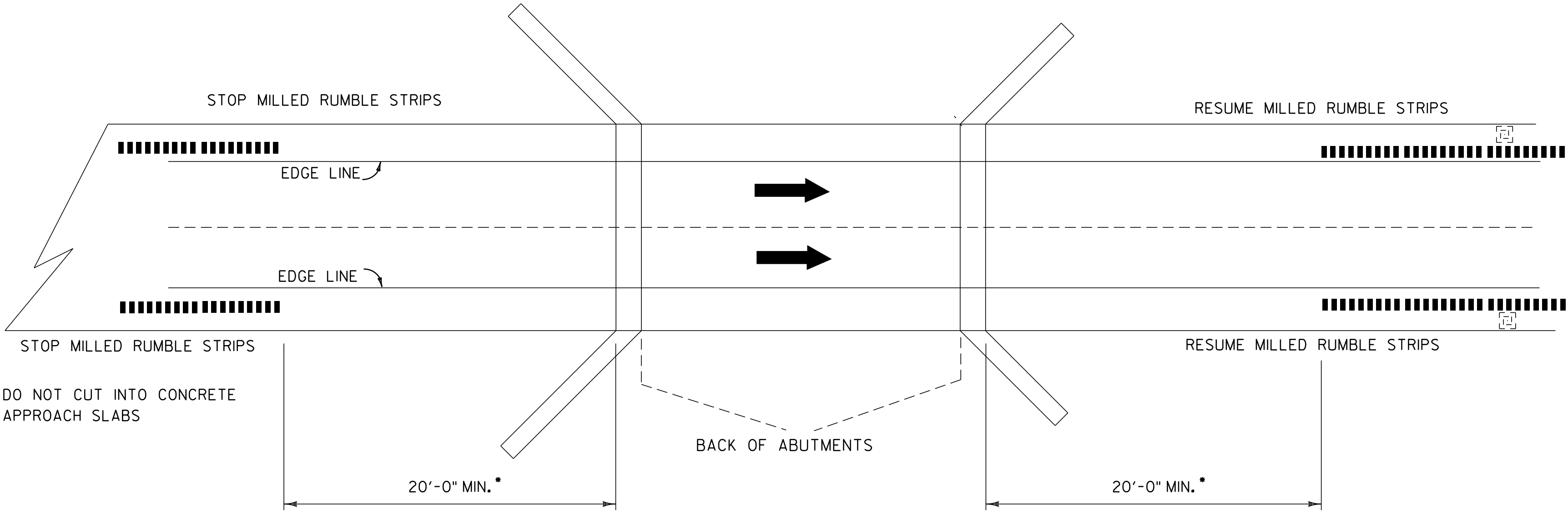
MILLED RUMBLE STRIP DETAILS 1		
PROJECT NAME: SO. BURLINGTON - COLCHESTER		
PROJECT NUMBER: IM 089-3(60)		
FILE NAME:	p05a012.dgn	PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
PROJECT LEADER:	EPD	DRAWN BY: JAR/SJB
DESIGNED BY:	JDA	CHECKED BY: EPD
PLOT FILE:	p05a012mrsdl.i	SHEET 33 OF 91



TYPICAL RUMBLE STRIP MILLING DETAIL

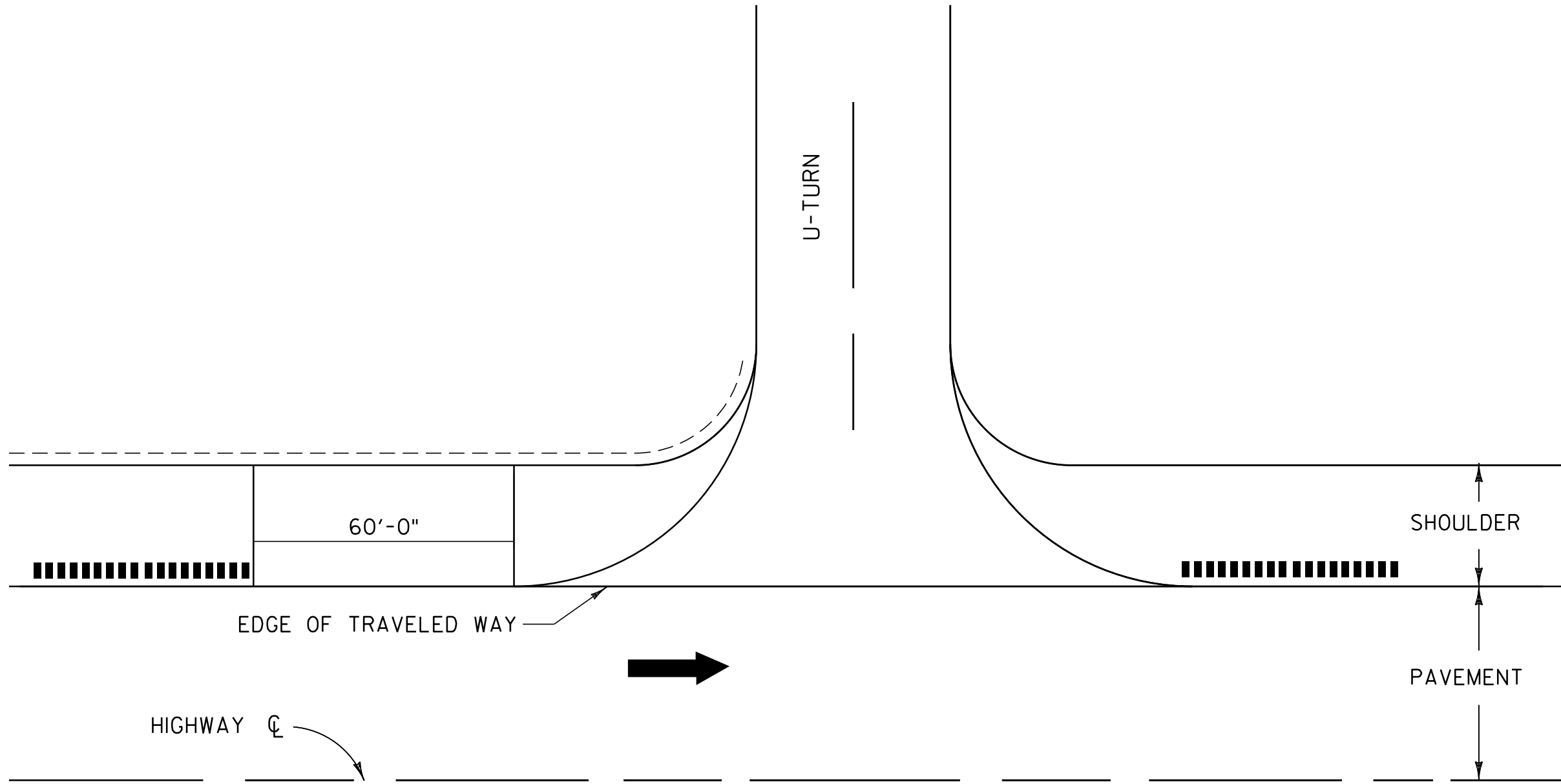
NOTES:

1. PLACE RUMBLE STRIPS 30" FROM EDGE LINE (WHITE OR YELLOW) FOR ALL SHOULDERS 6'-0" OR WIDER. PLACE RUMBLE STRIPS 6" FROM EDGE LINE (WHITE OR YELLOW) FOR ALL SHOULDERS LESS THAN 6'-0" WIDE WITH NO GUARDRAIL.
2. STOP MILLED RUMBLE STRIPS WITH GUARDRAIL WITHIN 4'-0" OF TRAVEL WAY.



* NOTE: APPROACH RAIL WILL DETERMINE MINIMUM DISTANCE IN SOME CASES.

RUMBLE STRIP AT BRIDGE DETAIL



THIS DETAIL MAY BE MODIFIED AT THE RESIDENT ENGINEER'S DISCRETION IF ACTUAL FIELD CONDITIONS NECESSITATE SUCH ACTIONS.

MILLED RUMBLE STRIPS U TURN DETAIL

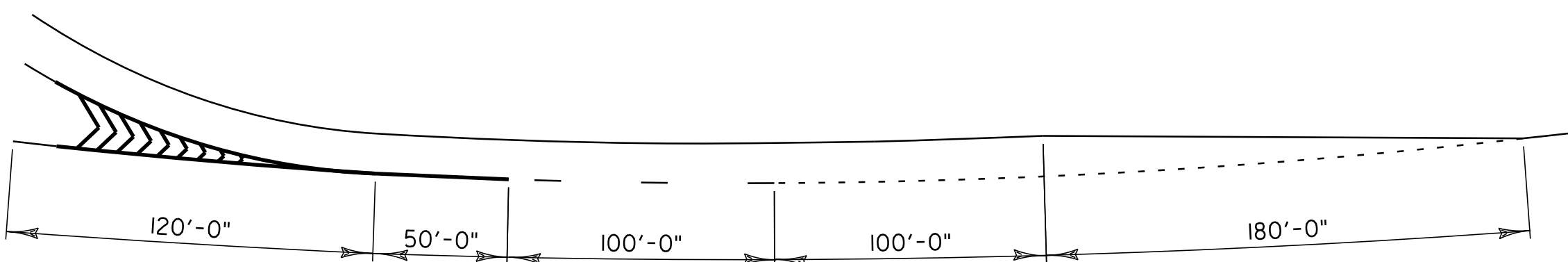
LEGEND

DIRECTION OF TRAFFIC FLOW

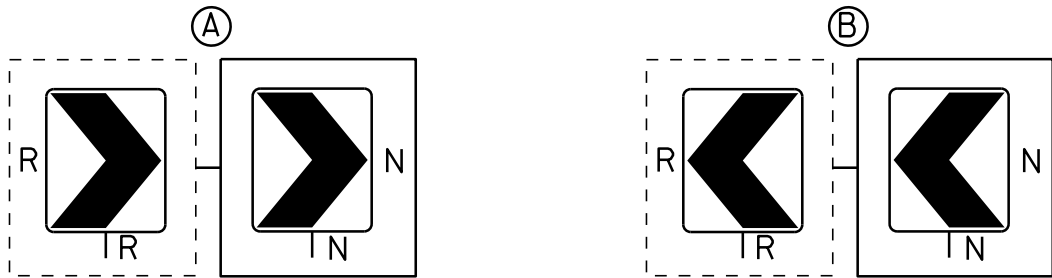
MILLED RUMBLE STRIPS

DETAILS ARE NOT TO SCALE

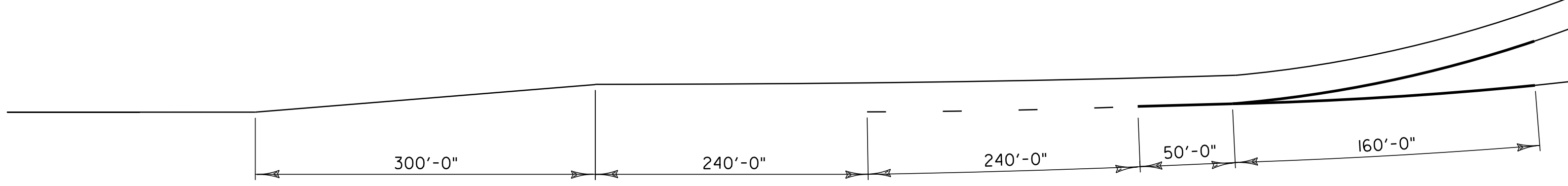
MILLED RUMBLE STRIP DETAILS 2	PROJECT NAME: SO. BURLINGTON - COLCHESTER	
	PROJECT NUMBER: IM 089-3(60)	
	FILE NAME: p05a012.dgn	PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
	PROJECT LEADER: EPD	DRAWN BY: JAR/SJB
	DESIGNED BY: JDA	CHECKED BY: EPD
	PLOT FILE: p05a012mrsd2.i	SHEET 34 OF 91



INSET A - GORE DETAIL AT EXIT I3 RAMP C



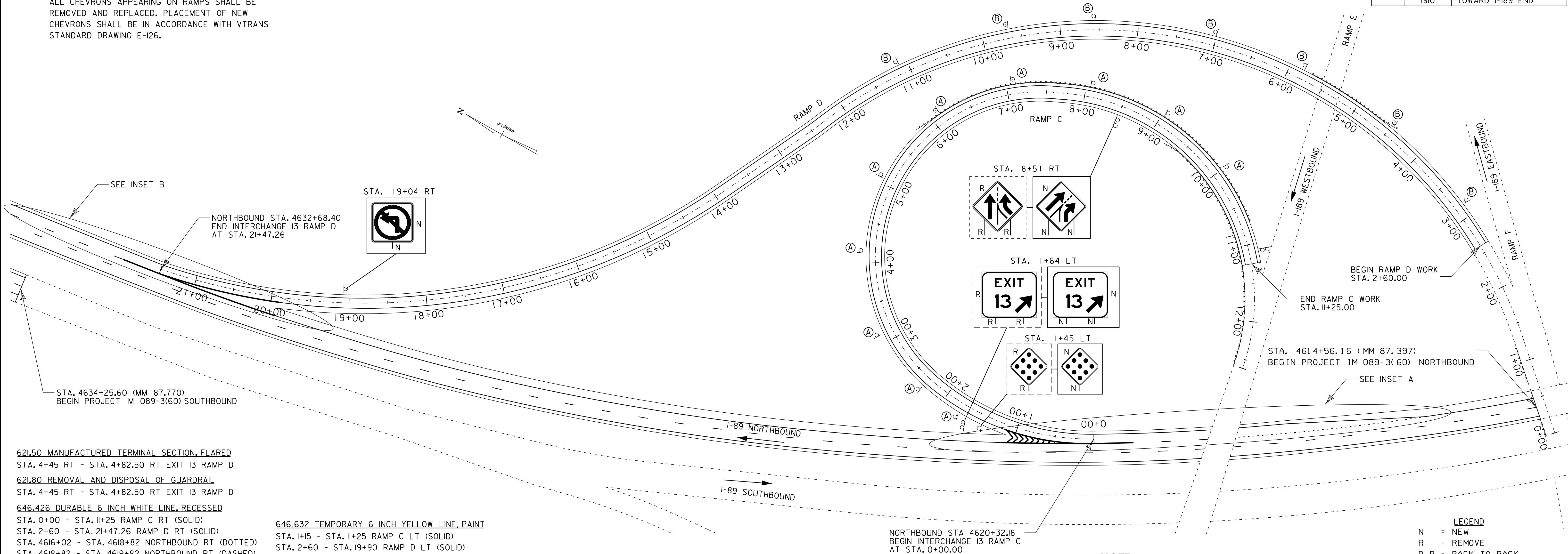
NOTE:
ALL CHEVRONS APPEARING ON RAMPS SHALL BE REMOVED AND REPLACED. PLACEMENT OF NEW CHEVRONS SHALL BE IN ACCORDANCE WITH VTRANS STANDARD DRAWING E-126.



INSET B - GORE DETAIL AT EXIT I3 RAMP D

RAMP RADII INFORMATION

RAMP	RADII, FT	DESCRIPTION
C	358	NEAR I-89 END
	239	ALONG MIDDLE OF RAMP
	249	TOWARD I-189 END
D	840	NEAR I-89 END
	637	ALONG MIDDLE OF RAMP
	1910	TOWARD I-189 END



621.50 MANUFACTURED TERMINAL SECTION, FLARED

STA. 4+45 RT - STA. 4+82.50 RT EXIT I3 RAMP D

621.80 REMOVAL AND DISPOSAL OF GUARDRAIL

STA. 4+45 RT - STA. 4+82.50 RT EXIT I3 RAMP D

646.426 DURABLE 6 INCH WHITE LINE, RECESSED

STA. 0+00 - STA. 11+25 RAMP C RT (SOLID)

STA. 2+60 - STA. 21+47.26 RAMP D RT (SOLID)

STA. 4616+02 - STA. 4618+82 NORTHBOUND RT (DOTTED)

STA. 4618+82 - STA. 4619+82 NORTHBOUND RT (DASHED)

STA. 4633+18 - STA. 4635+58 NORTHBOUND RT (DASHED)

646.436 DURABLE 6 INCH YELLOW LINE, RECESSED

STA. 1+15 - STA. 11+25 RAMP C LT (SOLID)

STA. 2+60 - STA. 19+90 RAMP D LT (SOLID)

646.622 TEMPORARY 6 INCH WHITE LINE, PAINT

STA. 0+00 - STA. 11+25 RAMP C RT (SOLID)

STA. 2+60 - STA. 21+47.26 RAMP D RT (SOLID)

STA. 4616+02 - STA. 4618+82 NORTHBOUND RT (DOTTED)

STA. 4618+82 - STA. 4619+82 NORTHBOUND RT (DASHED)

STA. 4633+18 - STA. 4635+58 NORTHBOUND RT (DASHED)

646.632 TEMPORARY 6 INCH YELLOW LINE, PAINT

STA. 1+15 - STA. 11+25 RAMP C LT (SOLID)

STA. 2+60 - STA. 19+90 RAMP D LT (SOLID)

646.662 TEMPORARY 12 INCH WHITE LINE, PAINT

STA. 4619+82 - STA. 4621+52 NORTHBOUND RT (SOLID)

STA. 4620+32 - STA. 4621+52 NORTHBOUND RT (HATCHED)

STA. 0+00 - STA. 1+15 RAMP C LT (SOLID)

STA. 19+90 - STA. 21+47.26 RAMP D LT (SOLID)

STA. 4631+08 - STA. 4633+18 NORTHBOUND RT (SOLID)

675.50 REMOVING SIGNS

AS SHOWN - 20

900.620 SPECIAL PROVISION (CABLE GUARDRAIL J-BOLT GALVANIZED)

STA. 5+77 LT - STA. 10+77 LT EXIT I3 RAMP C (6 EA)

646.466 DURABLE 12 INCH WHITE LINE, RECESSED

STA. 4619+82 - STA. 4621+52 NORTHBOUND RT (SOLID)

STA. 4620+32 - STA. 4621+52 NORTHBOUND RT (HATCHED)

STA. 0+00 - STA. 1+15 RAMP C LT (SOLID)

STA. 19+90 - STA. 21+47.26 RAMP D LT (SOLID)

STA. 4631+08 - STA. 4633+18 NORTHBOUND RT (SOLID)

NORTHBOUND STA 4620+32.18
BEGIN INTERCHANGE I3 RAMP C
AT STA. 0+00.00

NOTE:

1. ONLY SIGNS BEING REMOVED/REPLACED OR
NEW SIGNS ARE SHOWN. SIGNS BEING RETAINED
ARE NOT SHOWN.

LEGEND

N = NEW

R = REMOVE

B-B = BACK TO BACK

RET = RETAIN

REFER TO STANDARDS E-191 & E-192
FOR ADDITIONAL DETAILS.

RAMP DETAIL
SHEET
INTERCHANGE
#13

PROJECT NAME: SO. BURLINGTON - COLCHESTER

PROJECT NUMBER: IM 089-3(60)

FILE NAME: p05a012.dgn

PROJECT LEADER: EPD

DESIGNED BY: JDA

PLOT FILE: p05a012rdsil.dgn

PLOT DATE: \$\$\$\$\$\$DATE\$\$\$

DRAWN BY: SJB

CHECKED BY: EPD

SHEET 35 OF 91

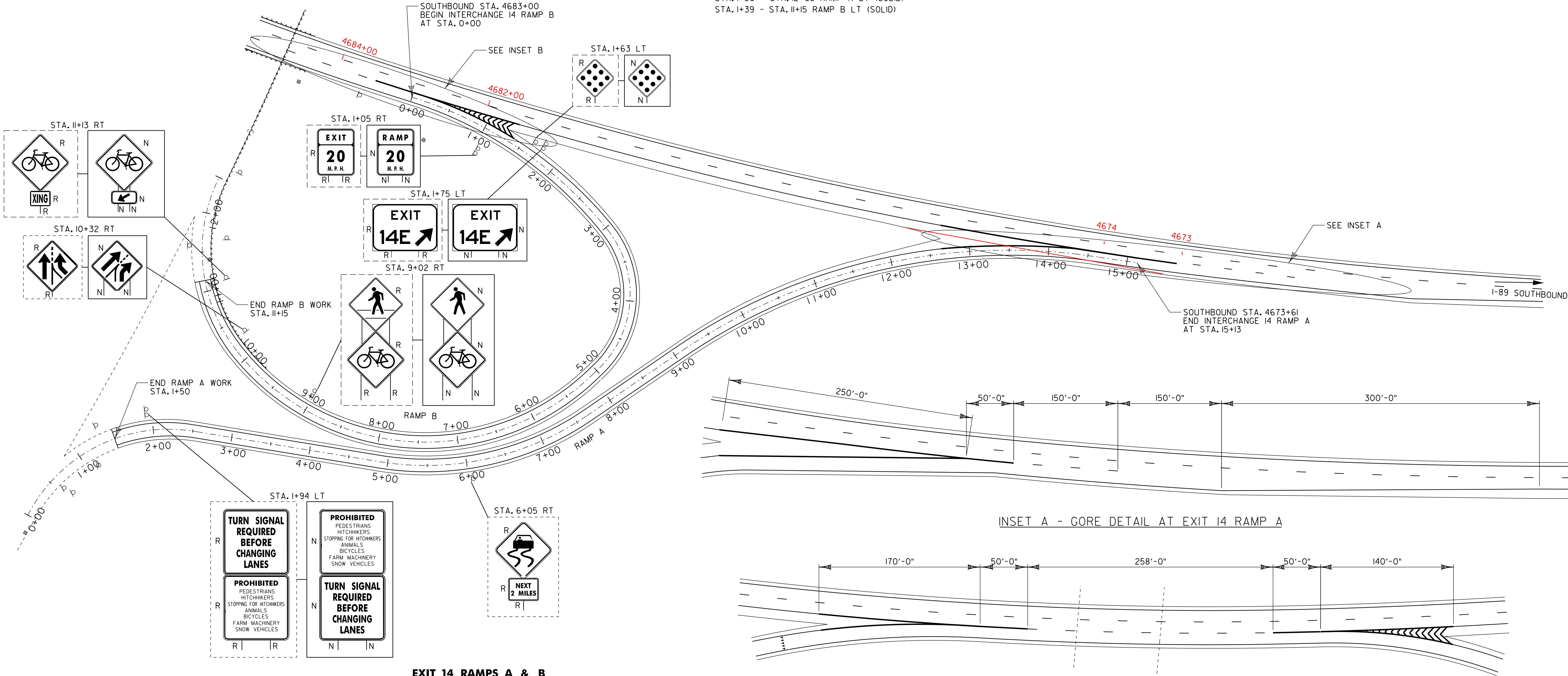
646.622 TEMPORARY 6 INCH WHITE LINE, PAINT
STA. I+50 - STA. I5+I3 RAMP A RT (SOLID)
STA. 467I+6I - STA. 4673+II SOUTHBOUND LT (DASHED)
STA. 0+00 - STA. II+I5 RAMP B RT (SOLID)
STA. 4683+5I - STA. 4686+09 SOUTHBOUND LT (DASHED)
646.632 TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. I+50 - STA. I2+65 RAMP A LT (SOLID)
STA. I+39 - STA. II+I5 RAMP B LT (SOLID)

646.466 DURABLE I2 INCH WHITE LINE, RECESSED
STA. I+50 - STA. I5+I3 RAMP A RT (SOLID)
STA. 467I+6I - STA. 4673+II SOUTHBOUND LT (DASHED)
STA. 0+00 - STA. II+I5 RAMP B RT (SOLID)
STA. 4683+5I - STA. 4686+09 SOUTHBOUND LT (DASHED)
STA. 4673+II - STA. 4676+II SOUTHBOUND LT (SOLID)
STA. I2+65 - STA. I5+I3 RAMP A LT (SOLID)
STA. 468I+6I - STA. 4683+5I SOUTHBOUND LT (SOLID)
STA. 468I+6I - STA. 4683+0I SOUTHBOUND LT (HATCHED)
STA. 0+00 - STA. I+39 RAMP B LT (SOLID)

646.662 TEMPORARY I2 INCH WHITE LINE, PAINT
STA. 4673+II - STA. 4676+II SOUTHBOUND LT (SOLID)
STA. I2+65 - STA. I5+I3 RAMP A LT (SOLID)
STA. 468I+6I - STA. 4683+5I SOUTHBOUND LT (SOLID)
STA. 468I+6I - STA. 4683+0I SOUTHBOUND LT (HATCHED)
STA. 0+00 - STA. I+39 RAMP B LT (SOLID)

675.50 REMOVING SIGNS
AS SHOWN - I2

646.436 DURABLE 6 INCH YELLOW LINE, RECESSED
STA. I+50 - STA. I2+65 RAMP A LT (SOLID)
STA. I+39 - STA. II+I5 RAMP B LT (SOLID)



EXIT 14 RAMPS A & B

RAMP RADII INFORMATION

RAMP	RADII, FT	DESCRIPTION
A	52I	NEAR I-89 END
	358	ALONG MIDDLE OF RAMP
	249	NEAR US2 END
B	302	NEAR I-89 END
	I5I	ALONG MIDDLE OF RAMP
	302	ALONG MIDDLE OF RAMP
	2I2	NEAR US2 END

NOTE:

I, ONLY SIGNS BEING REMOVED/REPLACED OR
NEW SIGNS ARE SHOWN. SIGNS BEING RETAINED
ARE NOT SHOWN.

LEGEND

N = NEW
R = REMOVE
B-B = BACK TO BACK
RET = RETAIN

REFER TO STANDARDS E-I9I & E-I92
FOR ADDITIONAL DETAILS.

RAMP DETAIL
SHEET I
INTERCHANGE
#I4

PROJECT NAME: SO. BURLINGTON - COLCHESTER
PROJECT NUMBER: IM 089-3(60)

FILE NAME: p05a0I2.dgn PLOT DATE: \$\$\$\$DATE\$\$\$
PROJECT LEADER: EPD DRAWN BY: SJB
DESIGNED BY: JDA CHECKED BY: EPD
PLOT FILE: p05a0I2rdsI2.dgn SHEET 36 OF 9I

604.412 REHABING DROP INLETS, CATCH BASINS, OR MANHOLES,
CLASS I

STA. 10+30 RAMP D RT

646.426 DURABLE 6 INCH WHITE LINE, RECESSED

STA. 4+00 - STA. 12+18 RAMP D RT (SOLID)

STA. 4698+54 - STA. 4699+64 SOUTHBOUND LT (DASHED)

STA. 4699+64 - STA. 4702+64 SOUTHBOUND LT (DOTTED)

646.436 DURABLE 6 INCH YELLOW LINE, RECESSED

STA. 4+00 - STA. 10+52 RAMP D LT (SOLID)

646.466 DURABLE 12 INCH WHITE LINE, RECESSED

STA. 10+52 - STA. 12+18 RAMP D LT (SOLID)

STA. 4686+09 - STA. 4688+29 SOUTHBOUND LT (SOLID)

STA. 4696+44 - STA. 4698+54 SOUTHBOUND LT (SOLID)

646.492 DURABLE LETTER OR SYMBOL, THERMOPLASTIC

STA. 7+93 RAMP D "YIELD"

STA. 8+33 RAMP D "AHEAD"

STA. 10+12 RAMP D "YIELD TRIANGLE" (5)

646.622 TEMPORARY 6 INCH WHITE LINE, PAINT

STA. 4+00 - STA. 12+18 RAMP D RT (SOLID)

STA. 4698+54 - STA. 4699+64 SOUTHBOUND LT (DASHED)

STA. 4699+64 - STA. 4702+64 SOUTHBOUND LT (DOTTED)

646.692 TEMPORARY LETTER OR SYMBOL, PAINT

STA. 7+93 RAMP D "YIELD"

STA. 8+33 RAMP D "AHEAD"

STA. 10+12 RAMP D "YIELD TRIANGLE" (5)

646.632 TEMPORARY 6 INCH YELLOW LINE, PAINT

STA. 4+00 - STA. 10+52 RAMP D LT (SOLID)

675.50 REMOVING SIGNS

AS SHOWN - 4

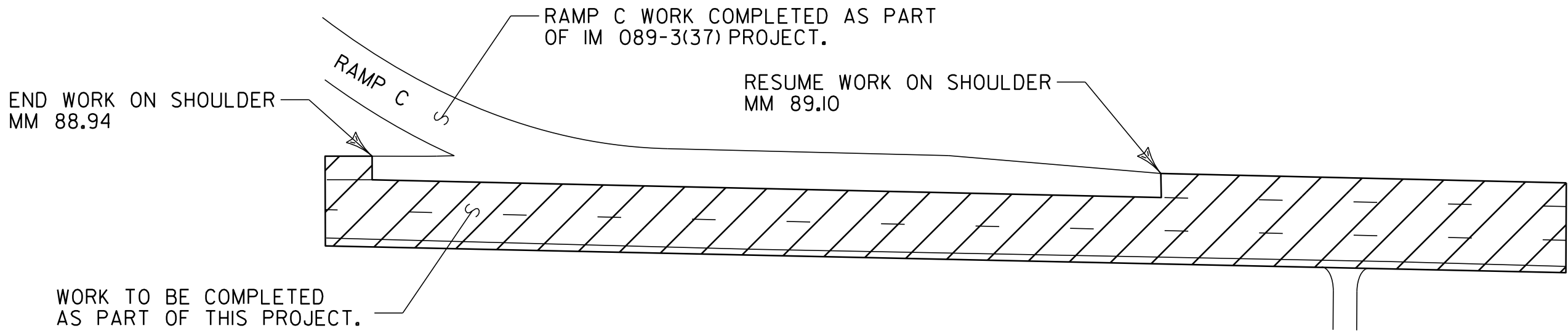
RAMP RADII INFORMATION

RAMP	RADII, FT	DESCRIPTION
D	302	NEAR I-89 END
	151	ALONG MIDDLE OF RAMP
	249	NEAR US2 END

EXIT 14 RAMPS C & D

NOTE:

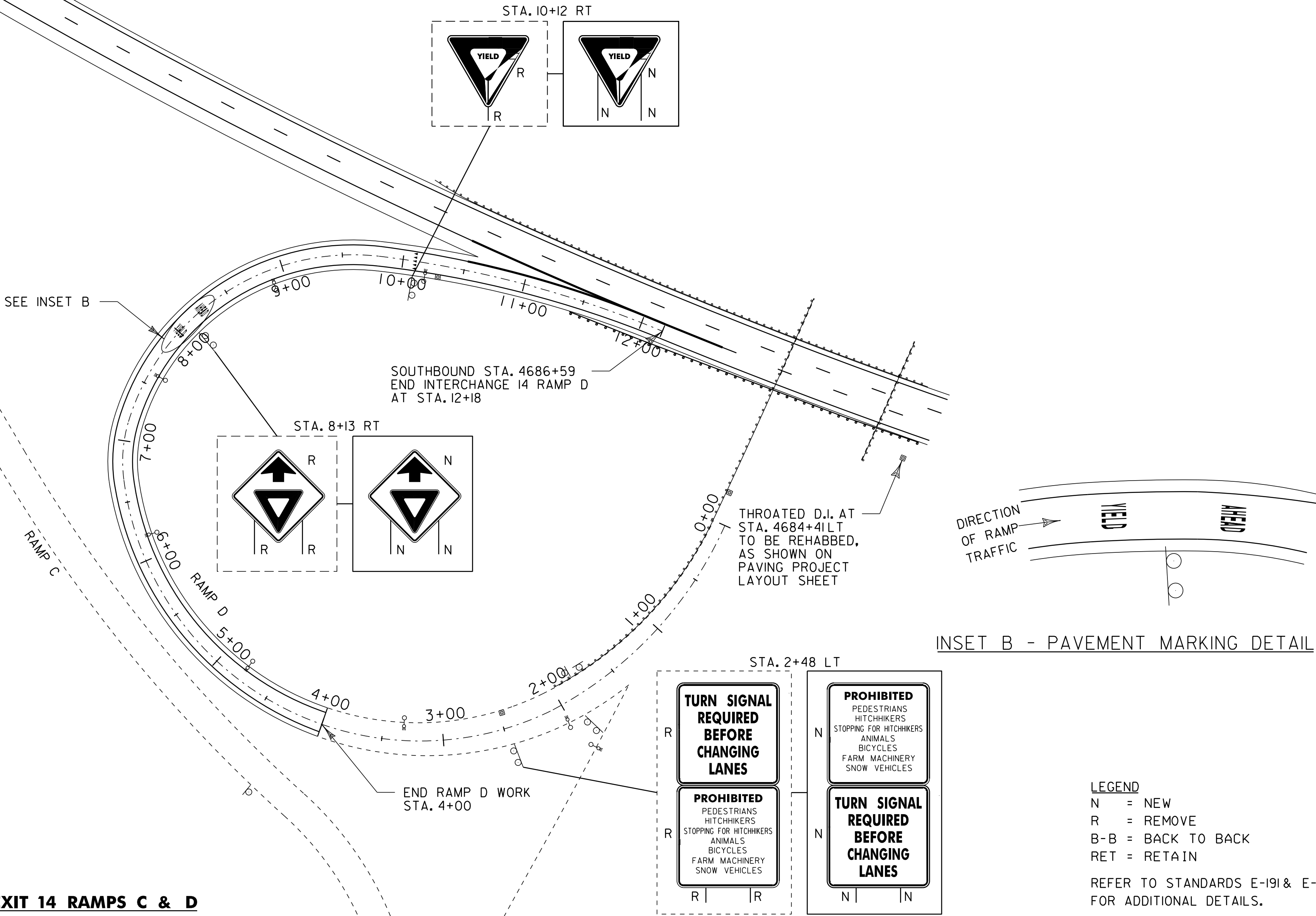
I. ONLY SIGNS BEING REMOVED/REPLACED OR
NEW SIGNS ARE SHOWN. SIGNS BEING RETAINED
ARE NOT SHOWN.



INSET A - RAMP C WORK COMPLETED UNDER PREVIOUS CONTRACT

NOTES:

- PAVEMENT JOINT LOCATIONS ARE APPROXIMATE AND SHALL BE CONFIRMED BY THE RESIDENT ENGINEER.
- PAVEMENT MARKINGS SHOWN FOR THE DECELERATION LANE FOR EXIT 14 RAMP C ARE APPROXIMATE. DECELERATION LANE MARKINGS SHALL OVERRIDE THOSE SHOWN ON THIS SHEET.



INSET B - PAVEMENT MARKING DETAIL

LEGEND

N = NEW
R = REMOVE
B-B = BACK TO BACK
RET = RETAIN

REFER TO STANDARDS E-191 & E-192
FOR ADDITIONAL DETAILS.

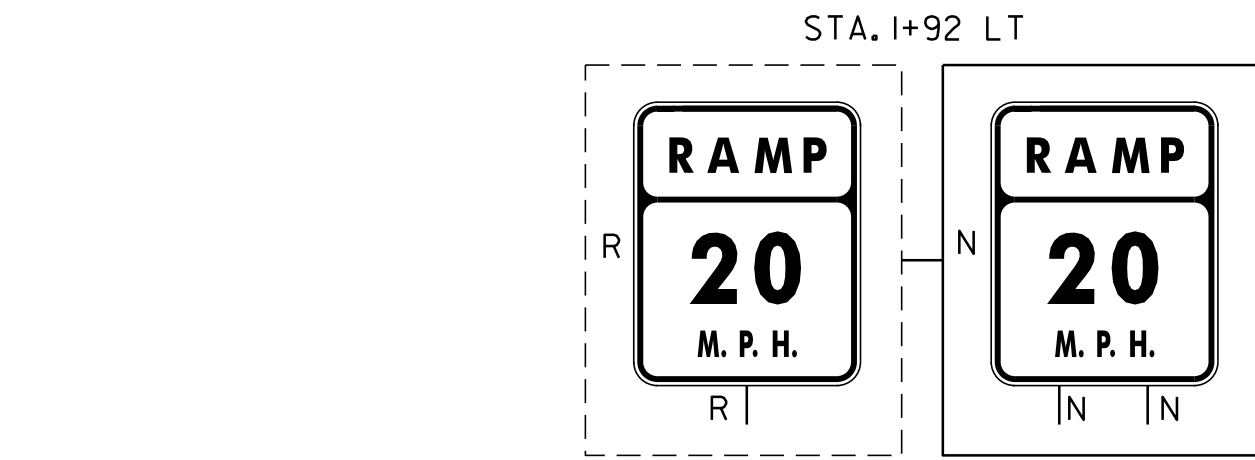
RAMP DETAIL
SHEET 2
INTERCHANGE
#14

PROJECT NAME: SO. BURLINGTON - COLCHESTER
PROJECT NUMBER: IM 089-3(60)

FILE NAME: p05a012.dgn	PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
PROJECT LEADER: EPD	DRAWN BY: SJB
DESIGNED BY: JDA	CHECKED BY: EPD
PLOT FILE: p05a012rdsi3.dgn	SHEET 37 OF 91

621.20 STEEL BEAM GUARDRAIL, GALVANIZED
STA. I+42.5 - STA. I+55 RAMP F RT
621.50 MANUFACTURED TERMINAL SECTION, FLARED
STA. 0+30 - STA. 0+67.5 RAMP F RT
621.60 ANCHOR FOR STEEL BEAM RAIL
STA. I+55 RAMP F RT
621.80 REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 0+30 - STA. 0+67.5 RAMP F RT
STA. I+42.5 - STA. I+55 RAMP F RT

NOTE:
ALL CHEVRONS APPEARING ON RAMPS SHALL BE
REMOVED AND REPLACED. PLACEMENT OF NEW
CHEVRONS SHALL BE IN ACCORDANCE WITH VTRANS
STANDARD DRAWING E-126.



604.412 REHABING DROP INLETS, CATCH BASINS, OR
MANHOLES, CLASS I
STA. 4682+47 RT
STA. 4683+73 RT

RAMP RADII INFORMATION

RAMP	RADII, FT	DESCRIPTION
E	302	NEAR I-89 END
	151	ALONG MIDDLE OF RAMP
	229	NEAR US2 END
F	716	NEAR I-89 END
	637	ALONG MIDDLE OF RAMP
	198	NEAR US2 END

THROATED DI'S TO BE
REHABBED. SEE PAVING
PROJECT LAYOUT SHEET
FOR STATIONS.

646.426 DURABLE 6 INCH WHITE LINE, RECESSED
STA. I+90 - STA. 9+91 RAMP E RT (SOLID)
STA. 0+00 - STA. II+50 RAMP F RT (SOLID)
STA. 4669+08 - STA. 4671+63 NORTHBOUND RT (DOTTED)
STA. 4671+63 - STA. 4672+38 NORTHBOUND RT (DASHED)

646.436 DURABLE 6 INCH YELLOW LINE, RECESSED
STA. I+90 - STA. 9+00 RAMP E LT (SOLID)
STA. I+62 - STA. II+50 RAMP F LT (SOLID)

646.466 DURABLE 12 INCH WHITE LINE, RECESSED
STA. 9+00 - STA. 9+91 RAMP E LT (SOLID)
STA. 4680+56 - STA. 4682+06 NORTHBOUND RT (SOLID)
STA. 0+37 - STA. I+62 RAMP F LT (SOLID)
STA. 4672+38 - STA. 4674+13 NORTHBOUND RT (SOLID)
STA. 4672+88 - STA. 4674+13 NORTHBOUND RT (HATCHED)

646.492 DURABLE LETTER OR SYMBOL, THERMOPLASTIC
STA. 5+60 RAMP E "YIELD"
STA. 6+00 RAMP E "AHEAD"
STA. 8+83 RAMP E "YIELD TRIANGLE" (5)
STA. 8+45 RAMP F "SIGNAL"
STA. 8+85 RAMP F "AHEAD"

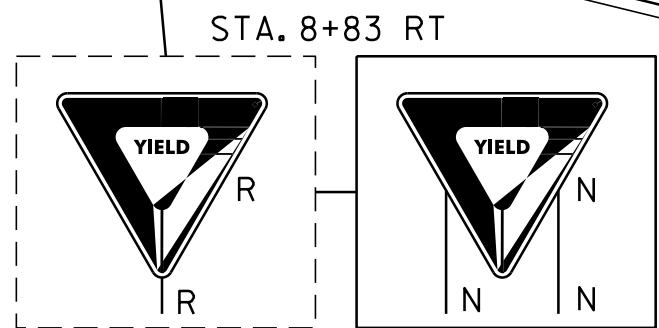
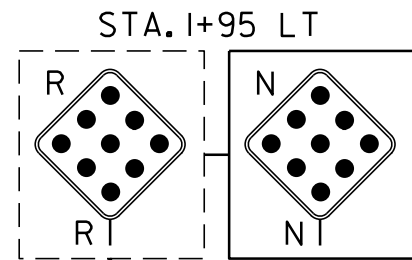
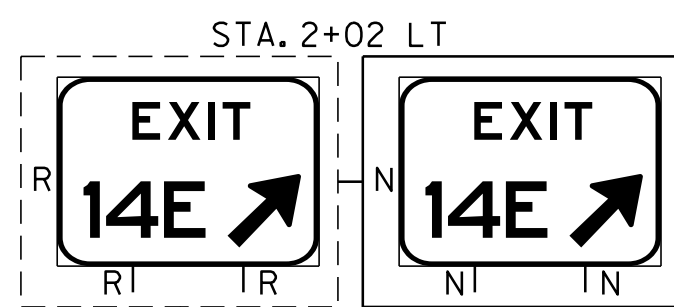
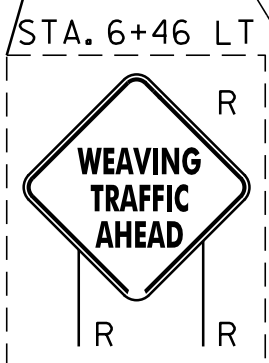
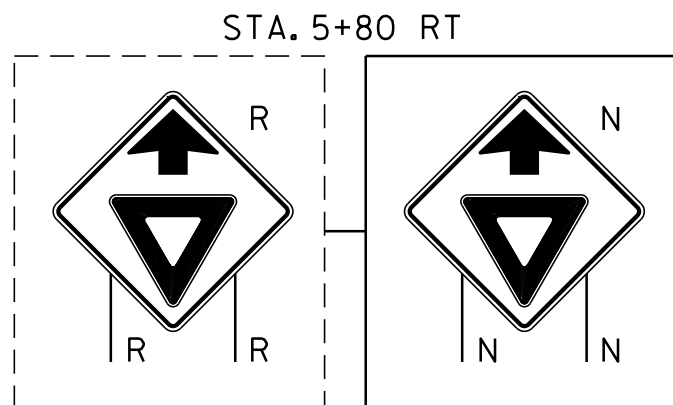
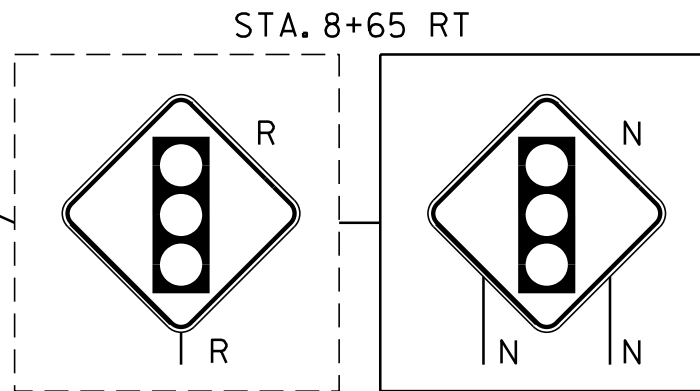
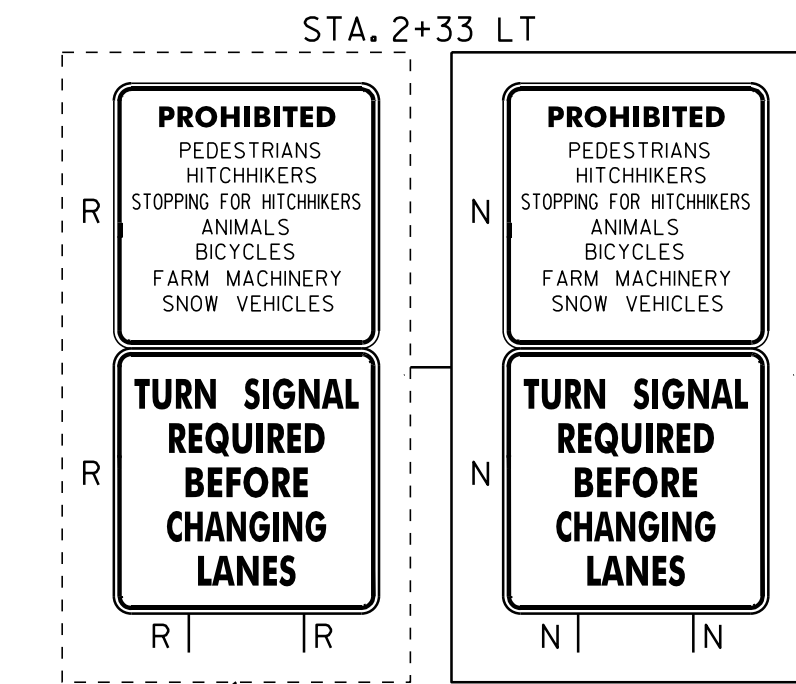
646.622 TEMPORARY 6 INCH WHITE LINE, PAINT
STA. I+90 - STA. 9+91 RAMP E RT (SOLID)
STA. 0+00 - STA. II+50 RAMP F RT (SOLID)
STA. 4669+08 - STA. 4671+63 NORTHBOUND RT (DOTTED)
STA. 4671+63 - STA. 4672+38 NORTHBOUND RT (DASHED)

646.632 TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. I+90 - STA. 9+00 RAMP E LT (SOLID)
STA. I+62 - STA. II+50 RAMP F LT (SOLID)

646.662 TEMPORARY 12 INCH WHITE LINE, PAINT
STA. 9+00 - STA. 9+91 RAMP E LT (SOLID)
STA. 4680+56 - STA. 4682+06 NORTHBOUND RT (SOLID)
STA. 0+37 - STA. I+62 RAMP F LT (SOLID)
STA. 4672+38 - STA. 4674+13 NORTHBOUND RT (SOLID)
STA. 4672+88 - STA. 4674+13 NORTHBOUND RT (HATCHED)

646.692 TEMPORARY LETTER OR SYMBOL, PAINT
STA. 5+60 RAMP E "YIELD"
STA. 6+00 RAMP E "AHEAD"
STA. 8+83 RAMP E "YIELD TRIANGLE" (5)
STA. 8+45 RAMP F "SIGNAL"
STA. 8+85 RAMP F "AHEAD"

675.50 REMOVING SIGNS
AS SHOWN - 17



EXIT 14 RAMPS E & F

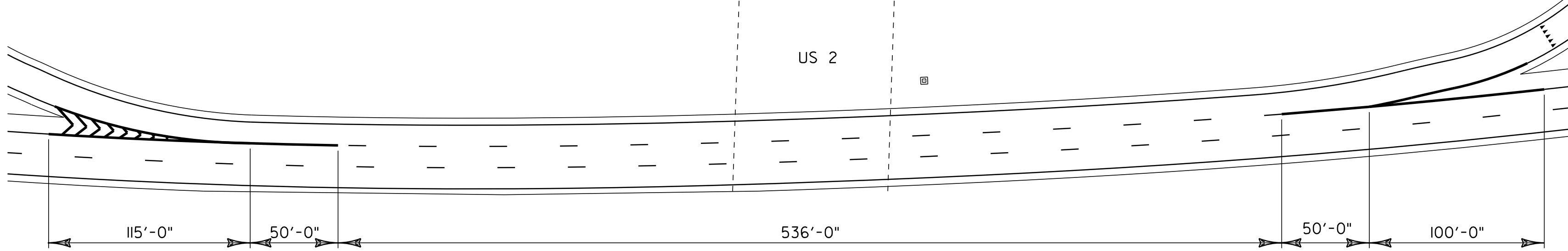
NOTE:

I. ONLY SIGNS BEING REMOVED/REPLACED OR
NEW SIGNS ARE SHOWN. SIGNS BEING RETAINED
ARE NOT SHOWN.

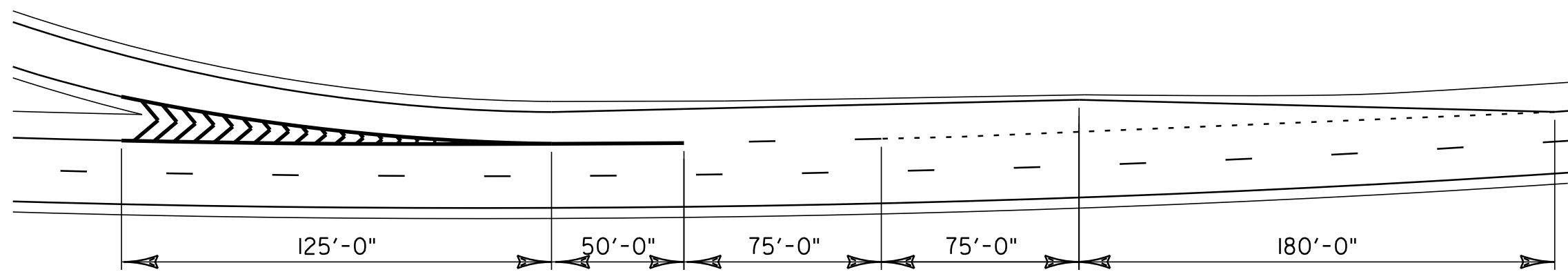
LEGEND

N = NEW
R = REMOVE
B-B = BACK TO BACK
RET = RETAIN

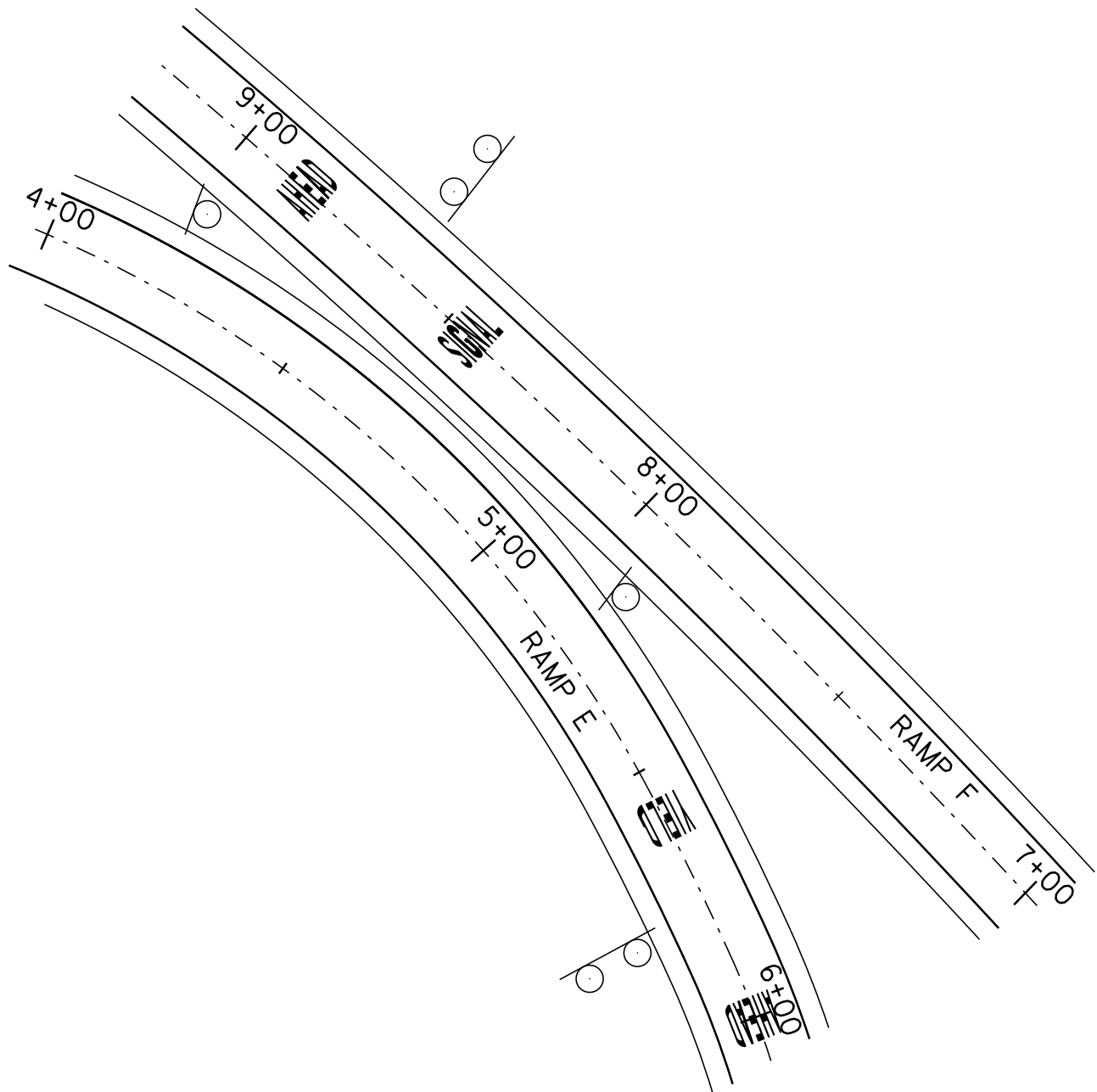
REFER TO STANDARDS E-191 & E-192
FOR ADDITIONAL DETAILS.



INSET A - GORE DETAIL AT EXIT 14 RAMP E & G



INSET B - GORE DETAIL AT EXIT 14 RAMP F

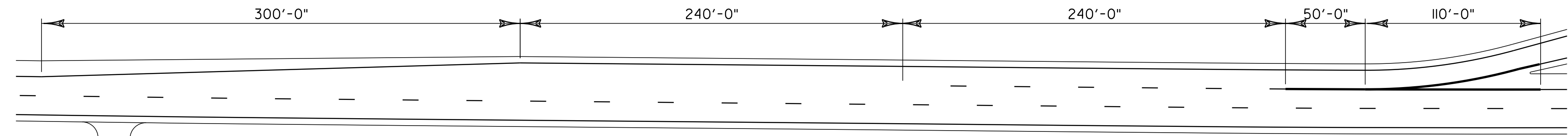


INSET C - PAVEMENT MARKING DETAIL
AT EXIT 14 RAMP E & RAMP F

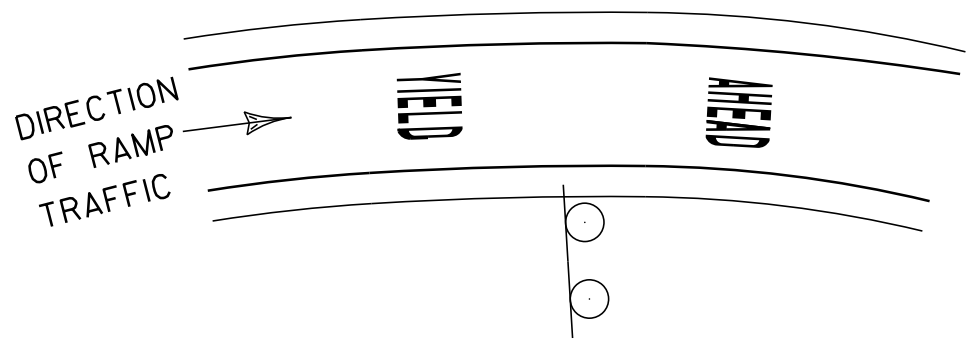
RAMP DETAIL
SHEET 3
INTERCHANGE
#14

PROJECT NAME: SO. BURLINGTON - COLCHESTER
PROJECT NUMBER: IM 089-3(60)

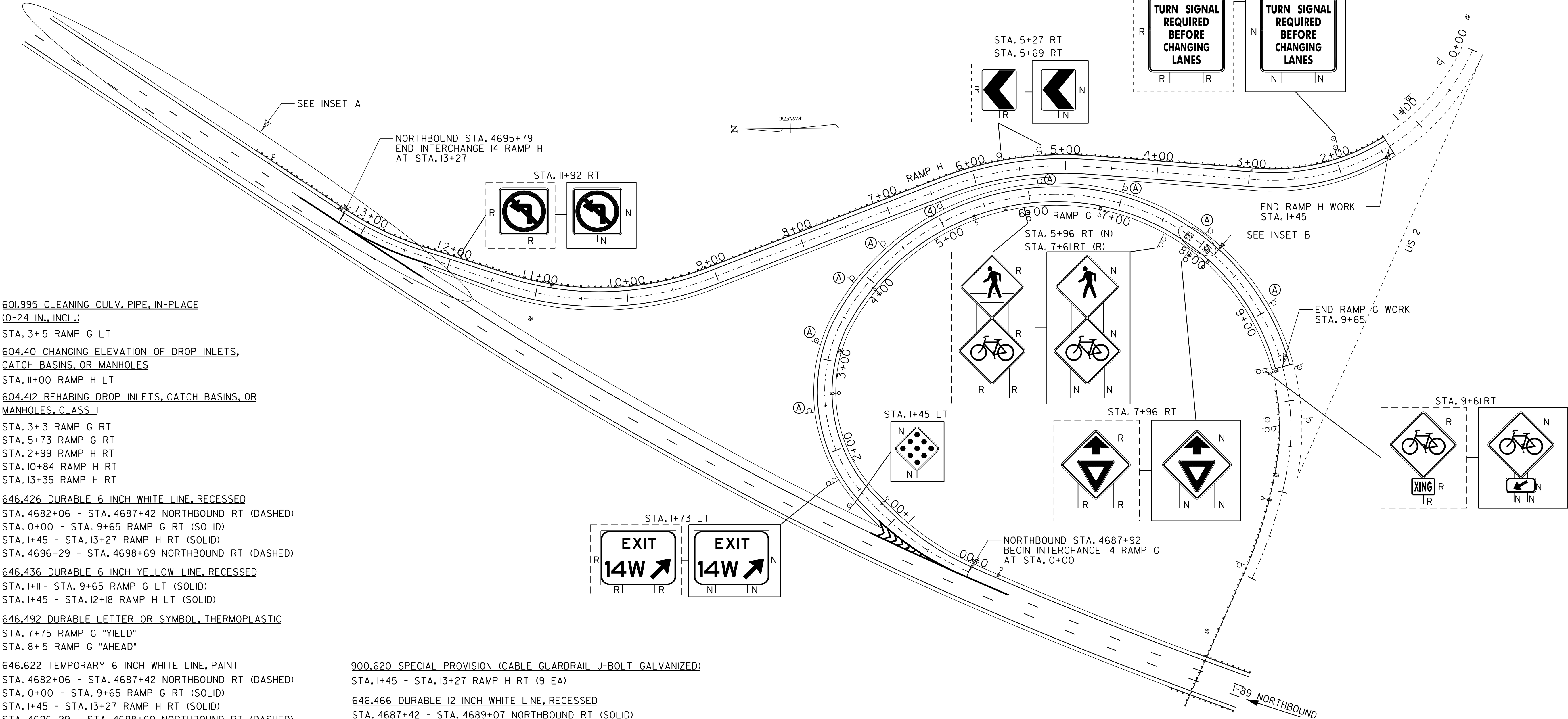
FILE NAME: p05a012.dgn
PROJECT LEADER: EPD
DESIGNED BY: JDA
PLOT FILE: p05a012rdsi4.dgn
PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
DRAWN BY: SJB
CHECKED BY: EPD
SHEET 38 OF 91



INSET A - GORE DETAIL AT EXIT 14 RAMP H



INSET B - PAVEMENT MARKING DETAIL



- 601.995 CLEANING CULV. PIPE, IN-PLACE
(0-24 IN., INCL.)
STA. 3+15 RAMP G LT
- 604.40 CHANGING ELEVATION OF DROP INLETS,
CATCH BASINS, OR MANHOLES
STA. 11+00 RAMP H LT
- 604.412 REHABING DROP INLETS, CATCH BASINS, OR
MANHOLES, CLASS I
STA. 3+13 RAMP G RT
STA. 5+73 RAMP G RT
STA. 2+99 RAMP H RT
STA. 10+84 RAMP H RT
STA. 13+35 RAMP H RT
- 646.426 DURABLE 6 INCH WHITE LINE, RECESSED
STA. 4682+06 - STA. 4687+42 NORTHBOUND RT (DASHED)
STA. 0+00 - STA. 9+65 RAMP G RT (SOLID)
STA. 1+45 - STA. 13+27 RAMP H RT (SOLID)
STA. 4696+29 - STA. 4698+69 NORTHBOUND RT (DASHED)
- 646.436 DURABLE 6 INCH YELLOW LINE, RECESSED
STA. 1+11 - STA. 9+65 RAMP G LT (SOLID)
STA. 1+45 - STA. 12+18 RAMP H LT (SOLID)
- 646.492 DURABLE LETTER OR SYMBOL, THERMOPLASTIC
STA. 7+75 RAMP G "YIELD"
STA. 8+15 RAMP G "AHEAD"

- 646.622 TEMPORARY 6 INCH WHITE LINE, PAINT
STA. 4682+06 - STA. 4687+42 NORTHBOUND RT (DASHED)
STA. 0+00 - STA. 9+65 RAMP G RT (SOLID)
STA. 1+45 - STA. 13+27 RAMP H RT (SOLID)
STA. 4696+29 - STA. 4698+69 NORTHBOUND RT (DASHED)
- 646.632 TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. 1+11 - STA. 9+65 RAMP G LT (SOLID)
STA. 1+45 - STA. 12+18 RAMP H LT (SOLID)
- 646.662 TEMPORARY 12 INCH WHITE LINE, PAINT
STA. 4687+42 - STA. 4689+07 NORTHBOUND RT (SOLID)
STA. 4687+92 - STA. 4689+07 NORTHBOUND RT (HATCHED)
STA. 0+00 - STA. 1+11 RAMP G LT (SOLID)
STA. 12+18 - STA. 13+27 RAMP H LT (SOLID)
STA. 4694+69 - STA. 4696+29 NORTHBOUND RT (SOLID)

- 646.692 TEMPORARY LETTER OR SYMBOL, PAINT
STA. 7+75 RAMP G "YIELD"
STA. 8+15 RAMP G "AHEAD"

- 675.50 REMOVING SIGNS
AS SHOWN - 20

- 900.620 SPECIAL PROVISION (CABLE GUARDRAIL J-BOLT GALVANIZED)
STA. 1+45 - STA. 13+27 RAMP H RT (9 EA)
- 646.466 DURABLE 12 INCH WHITE LINE, RECESSED
STA. 4687+42 - STA. 4689+07 NORTHBOUND RT (SOLID)
STA. 4687+92 - STA. 4689+07 NORTHBOUND RT (HATCHED)
STA. 0+00 - STA. 1+11 RAMP G LT (SOLID)
STA. 12+18 - STA. 13+27 RAMP H LT (SOLID)
STA. 4694+69 - STA. 4696+29 NORTHBOUND RT (SOLID)

RAMP RADII INFORMATION

RAMP	RADII, FT	DESCRIPTION
G	302	NEAR I-89 END
	151	ALONG MIDDLE OF RAMP
	249	NEAR US2 END
H	521	NEAR I-89 END
	302	ALONG MIDDLE OF RAMP
	521	NEAR US2 END

EXIT 14 RAMPS G & H

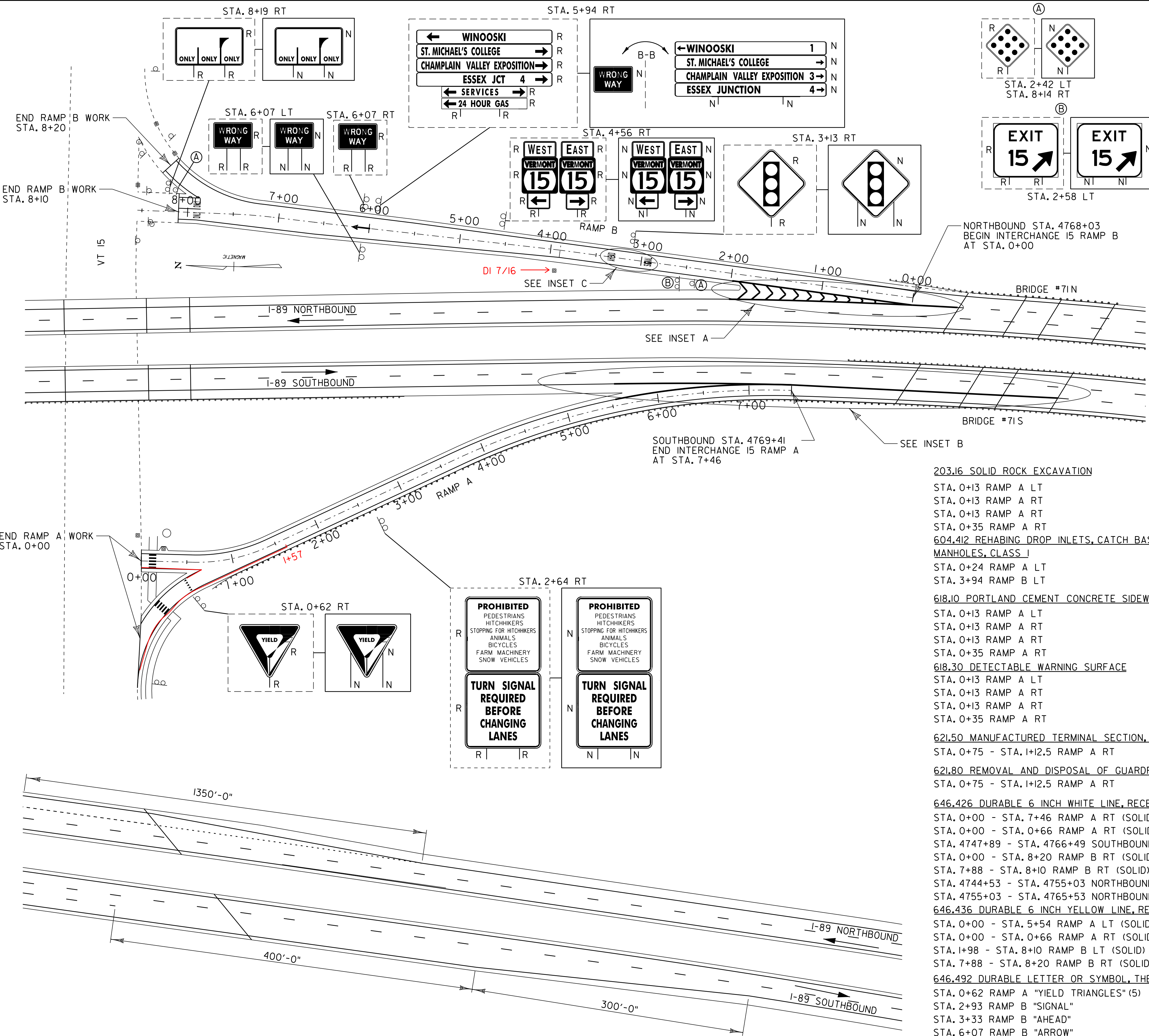
NOTES:

- ONLY SIGNS BEING REMOVED/ REPLACED OR NEW SIGNS ARE SHOWN, SIGNS BEING RETAINED ARE NOT SHOWN
- SINKHOLES EXIST ON THE RIGHT SIDE OF RAMP G SOUTH OF THE RAMP (RIGHT SIDE OF I-89) TO APPROXIMATE STA. 4+00 ALONG RAMP G. IN ADDITION, AN EROSION PROBLEM EXISTS IN THE AREA BETWEEN RAMP G, RAMP H, AND I-89. PLACE FILL IN THESE AREAS USING WASTED DITCHING MATERIAL. IF NEEDED, EARTH BORROW MAY BE USED IN THESE AREAS. AN ESTIMATED QUANTITY OF 50 CUBIC YARDS HAS BEEN INCLUDED IN THE QUANTITIES TO BE USED AS NEEDED IN THESE AREAS. FILL SHALL BE PLACED IN THESE AREAS SUCH THAT POSITIVE DRAINAGE IS ACHIEVED.

RAMP DETAIL
SHEET 4
INTERCHANGE
#14

PROJECT NAME: SO. BURLINGTON - COLCHESTER
PROJECT NUMBER: IM 089-3(60)

FILE NAME: p05a012.dgn
PROJECT LEADER: EPD
DESIGNED BY: JDA
PLOT FILE: p05a012rds15.dgn
PLOT DATE: \$\$\$\$\$\$DATE\$\$\$\$
DRAWN BY: SJB
CHECKED BY: EPD
SHEET 39 OF 91

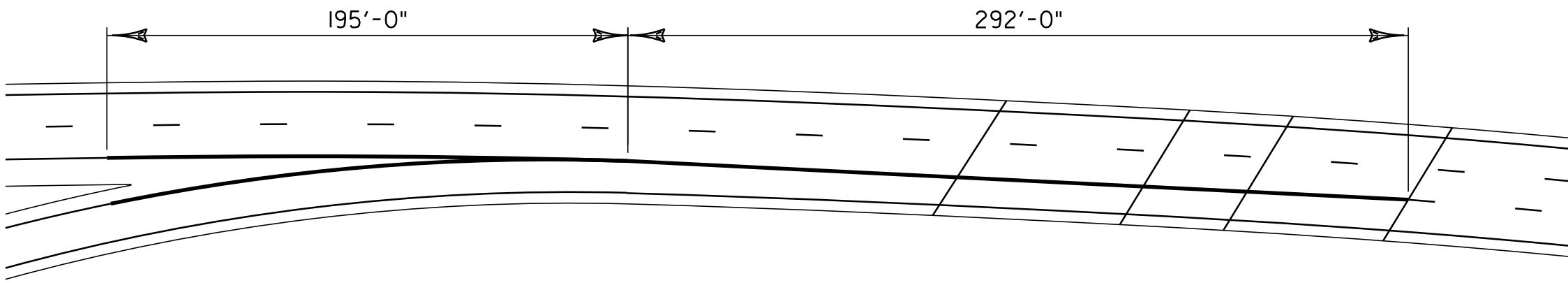


RAMP RADII INFORMATION

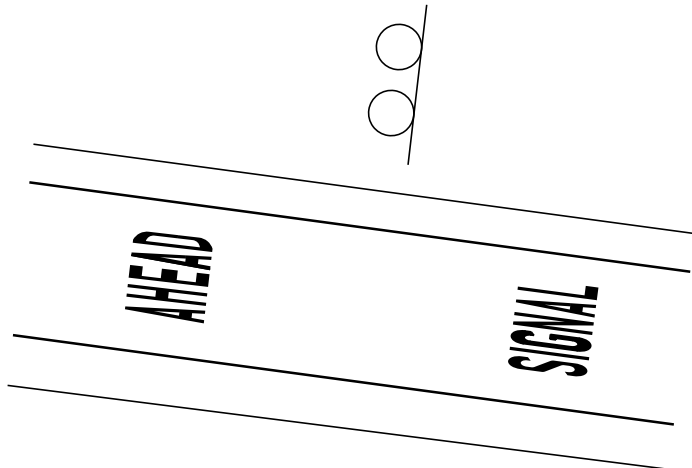
RAMP	RADII, FT	DESCRIPTION
A	810	NEAR I-89 END
	190	NEAR VT15 END

ACCEL/DECEL LANE DETAIL, EXIT 15

INSET A - GORE DETAIL AT EXIT 15 RAMP B



INSET B - GORE DETAIL AT EXIT 15 RAMP A



INSET C - EXIT 15 RAMP B

LEGEND

N = NEW
R = REMOVE
B-B = BACK TO BACK
RET = RETAIN
S = SALVAGE

REFER TO STANDARDS E-191 & E-192 FOR ADDITIONAL DETAILS.

RAMP DETAIL SHEET INTERCHANGE #15

PROJECT NAME: SO. BURLINGTON - COLCHESTER
PROJECT NUMBER: IM 089-3(60)

FILE NAME: p05a012.dgn
PROJECT LEADER: EPD
DESIGNED BY: JDA
PLOT FILE: p05a012rdsi6.dgn
PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
DRAWN BY: SJB
CHECKED BY: EPD
SHEET 40 OF 91

NOTE:

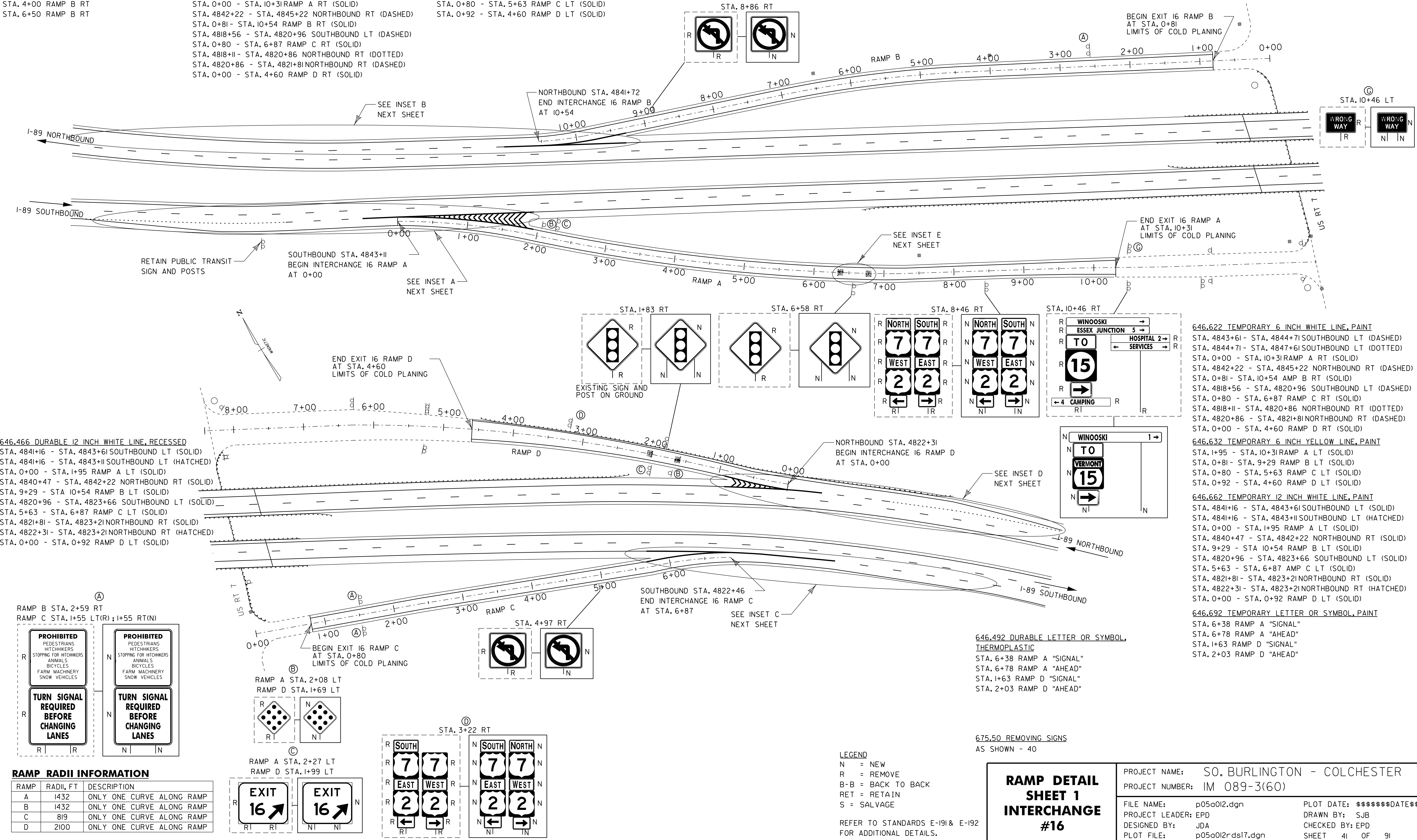
1. CONSTRUCTION NOTES FOR ITEMS 203.16, 618.10, AND 618.30 ARE STATIONED TO THE CENTER OF THE GIVEN ITEM.

604.412 REHABING DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I

STA. 7+50 RAMP A LT
STA. 4+00 RAMP B RT
STA. 6+50 RAMP B RT

646.426 DURABLE 6 INCH WHITE LINE, RECESSED
STA. 4843+61 - STA. 4844+71 SOUTHBOUND LT (DASHED)
STA. 4844+71 - STA. 4847+61 SOUTHBOUND LT (DOTTED)
STA. 0+00 - STA. 10+31 RAMP A RT (SOLID)
STA. 4842+22 - STA. 4845+22 NORTHBOUND RT (DASHED)
STA. 0+81 - STA. 10+54 RAMP B RT (SOLID)
STA. 4818+56 - STA. 4820+96 SOUTHBOUND LT (DASHED)
STA. 0+80 - STA. 6+87 RAMP C RT (SOLID)
STA. 4818+11 - STA. 4820+86 NORTHBOUND RT (DOTTED)
STA. 4820+86 - STA. 4821+81 NORTHBOUND RT (DASHED)
STA. 0+00 - STA. 4+60 RAMP D RT (SOLID)

646.436 DURABLE 6 INCH YELLOW LINE, RECESSED
STA. 1+95 - STA. 10+31 RAMP A LT (SOLID)
STA. 0+81 - STA. 9+29 RAMP B LT (SOLID)
STA. 0+80 - STA. 5+63 RAMP C LT (SOLID)
STA. 0+92 - STA. 4+60 RAMP D LT (SOLID)



646.466 DURABLE 12 INCH WHITE LINE, RECESSED

STA. 4841+16 - STA. 4843+61 SOUTHBOUND LT (SOLID)
STA. 4841+16 - STA. 4843+11 SOUTHBOUND LT (HATCHED)
STA. 0+00 - STA. 1+95 RAMP A LT (SOLID)
STA. 4840+47 - STA. 4842+22 NORTHBOUND RT (SOLID)
STA. 9+29 - STA. 10+54 RAMP B LT (SOLID)
STA. 4820+96 - STA. 4823+66 SOUTHBOUND LT (SOLID)
STA. 5+63 - STA. 6+87 RAMP C LT (SOLID)
STA. 4821+81 - STA. 4823+21 NORTHBOUND RT (SOLID)
STA. 4822+31 - STA. 4823+21 NORTHBOUND RT (HATCHED)
STA. 0+00 - STA. 0+92 RAMP D LT (SOLID)

646.622 TEMPORARY 6 INCH WHITE LINE, PAINT
STA. 4843+61 - STA. 4844+71 SOUTHBOUND LT (DASHED)
STA. 4844+71 - STA. 4847+61 SOUTHBOUND LT (DOTTED)
STA. 0+00 - STA. 10+31 RAMP A RT (SOLID)
STA. 4842+22 - STA. 4845+22 NORTHBOUND RT (DASHED)
STA. 0+81 - STA. 10+54 AMP B RT (SOLID)
STA. 4818+56 - STA. 4820+96 SOUTHBOUND LT (DASHED)
STA. 0+80 - STA. 6+87 RAMP C RT (SOLID)
STA. 4818+11 - STA. 4820+86 NORTHBOUND RT (DOTTED)
STA. 4820+86 - STA. 4821+81 NORTHBOUND RT (DASHED)
STA. 0+00 - STA. 4+60 RAMP D RT (SOLID)

646.632 TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. 1+95 - STA. 10+31 RAMP A LT (SOLID)
STA. 0+81 - STA. 9+29 RAMP B LT (SOLID)
STA. 0+80 - STA. 5+63 RAMP C LT (SOLID)
STA. 0+92 - STA. 4+60 RAMP D LT (SOLID)

646.662 TEMPORARY 12 INCH WHITE LINE, PAINT
STA. 4841+16 - STA. 4843+61 SOUTHBOUND LT (SOLID)
STA. 4841+16 - STA. 4843+11 SOUTHBOUND LT (HATCHED)
STA. 0+00 - STA. 1+95 RAMP A LT (SOLID)
STA. 4840+47 - STA. 4842+22 NORTHBOUND RT (SOLID)
STA. 9+29 - STA. 10+54 RAMP B LT (SOLID)
STA. 4820+96 - STA. 4823+66 SOUTHBOUND LT (SOLID)
STA. 5+63 - STA. 6+87 AMP C LT (SOLID)
STA. 4821+81 - STA. 4823+21 NORTHBOUND RT (SOLID)
STA. 4822+31 - STA. 4823+21 NORTHBOUND RT (HATCHED)
STA. 0+00 - STA. 0+92 RAMP D LT (SOLID)

646.692 TEMPORARY LETTER OR SYMBOL, PAINT
STA. 6+38 RAMP A "SIGNAL"
STA. 6+78 RAMP A "AHEAD"
STA. 1+63 RAMP D "SIGNAL"
STA. 2+03 RAMP D "AHEAD"

646.492 DURABLE LETTER OR SYMBOL, THERMOPLASTIC

STA. 6+38 RAMP A "SIGNAL"
STA. 6+78 RAMP A "AHEAD"
STA. 1+63 RAMP D "SIGNAL"
STA. 2+03 RAMP D "AHEAD"

675.50 REMOVING SIGNS
AS SHOWN - 40

RAMP RADII INFORMATION

RAMP	RADII, FT	DESCRIPTION
A	1432	ONLY ONE CURVE ALONG RAMP
B	1432	ONLY ONE CURVE ALONG RAMP
C	819	ONLY ONE CURVE ALONG RAMP
D	2100	ONLY ONE CURVE ALONG RAMP

LEGEND

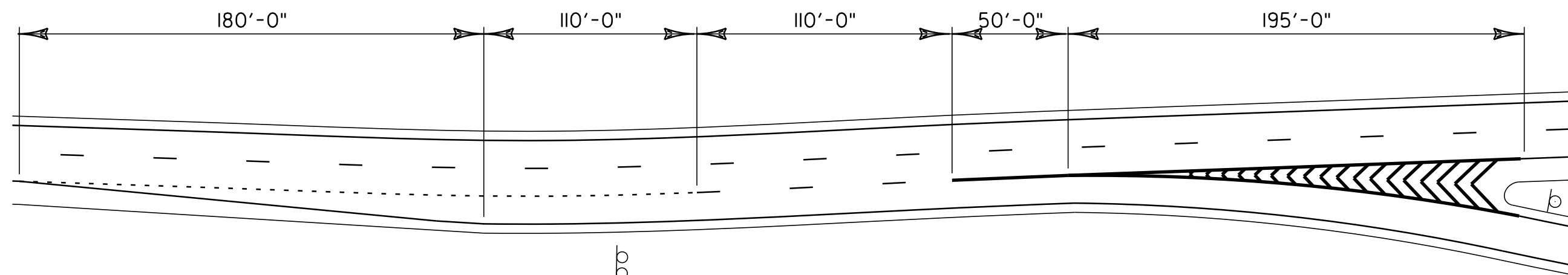
N = NEW
R = REMOVE
B-B = BACK TO BACK
RET = RETAIN
S = SALVAGE

REFER TO STANDARDS E-191& E-192 FOR ADDITIONAL DETAILS.

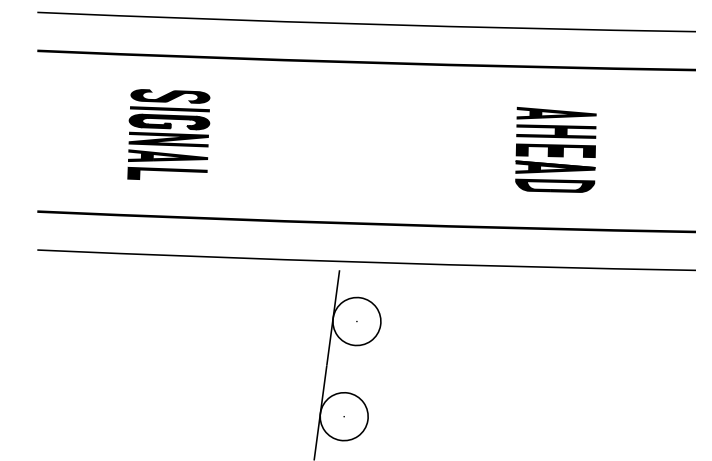
RAMP DETAIL SHEET 1 INTERCHANGE #16

PROJECT NAME: SO. BURLINGTON - COLCHESTER
PROJECT NUMBER: IM 089-3(60)

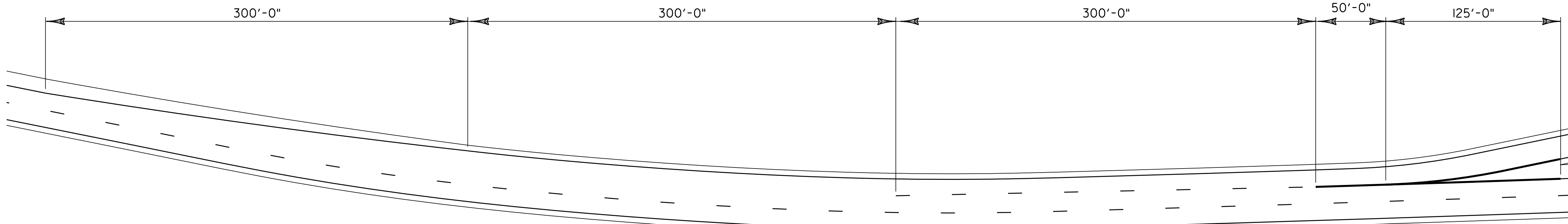
FILE NAME: p05a012.dgn
PROJECT LEADER: EPD
DESIGNED BY: JDA
PLOT FILE: p05a012rdsi7.dgn
PLOT DATE: \$\$\$\$DATE\$\$\$
DRAWN BY: SJB
CHECKED BY: EPD
SHEET 41 OF 91



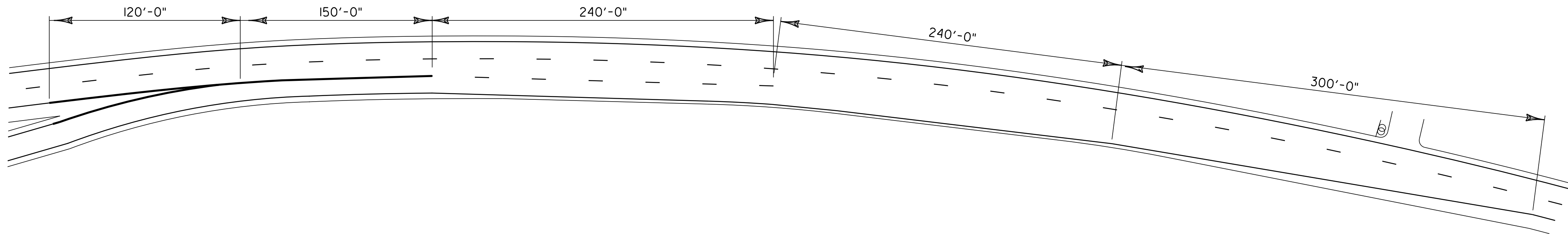
INSET A - GORE DETAIL AT EXIT 16 RAMP A



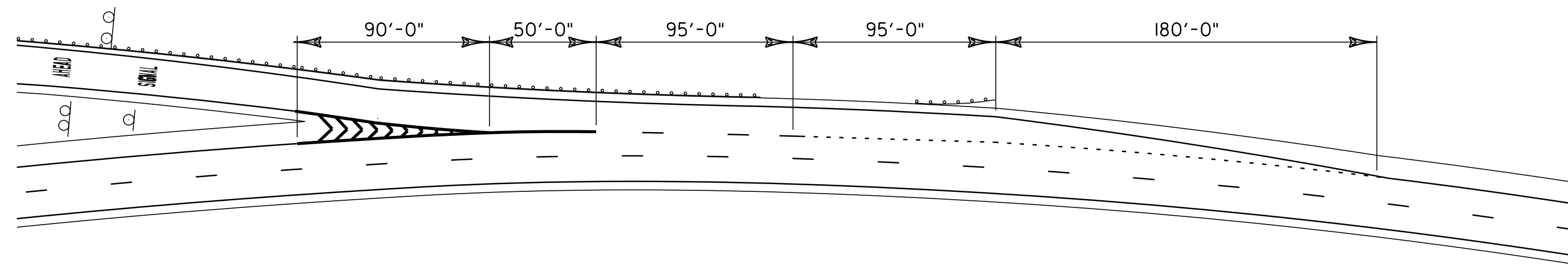
INSET E - EXIT 16 RAMP A



INSET B - GORE DETAIL AT EXIT 16 RAMP B



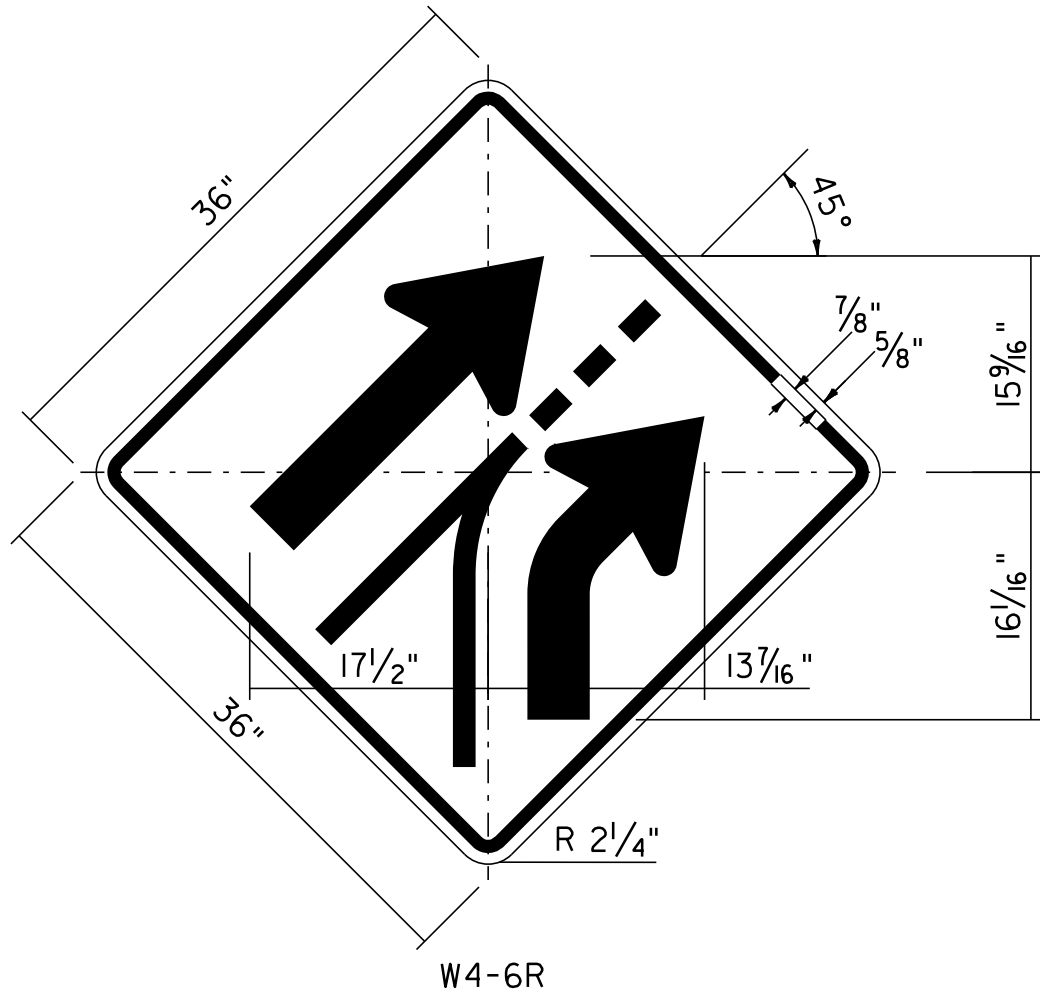
INSET C - GORE DETAIL AT EXIT 16 RAMP C



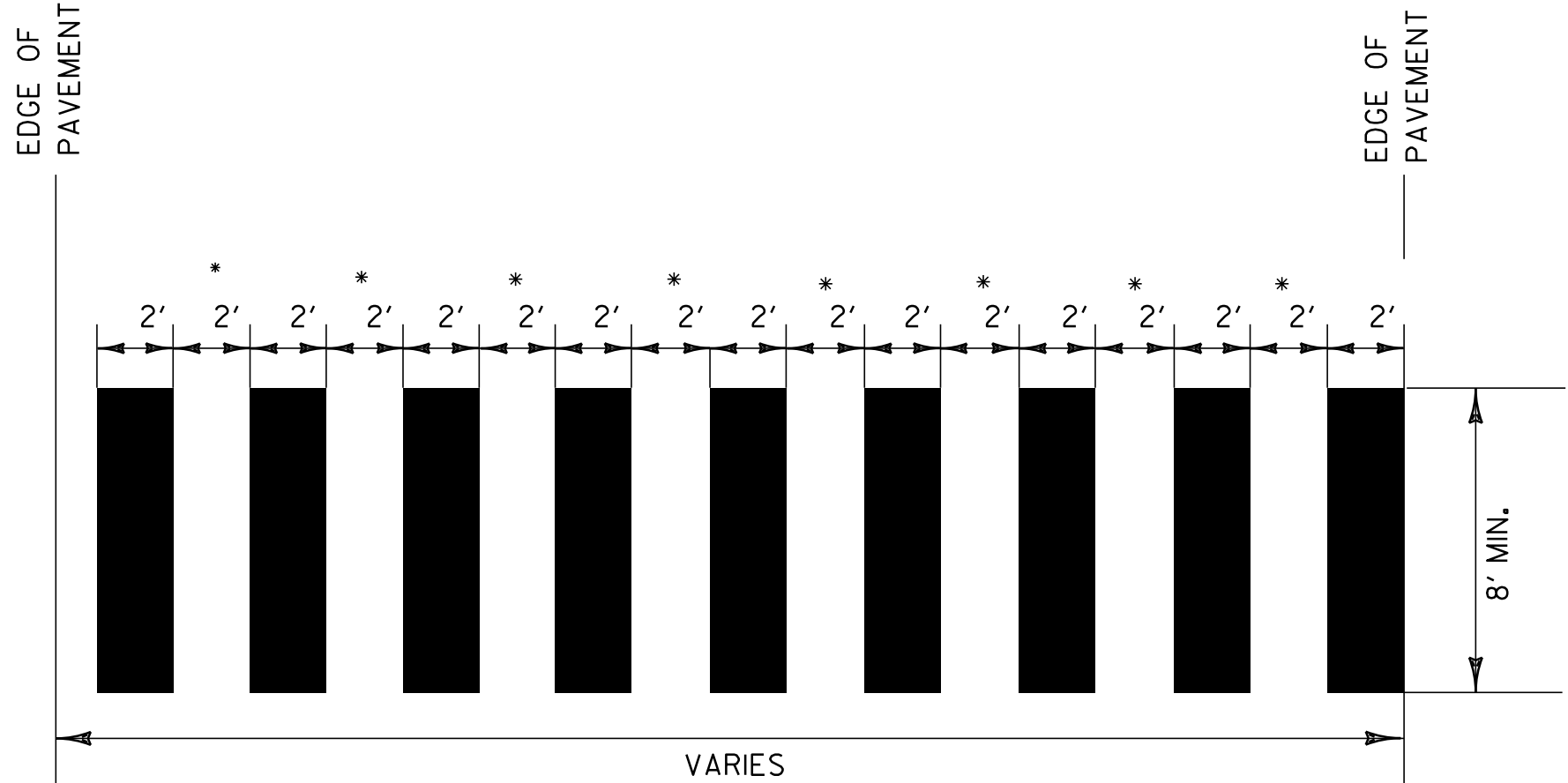
INSET D - GORE DETAIL AT EXIT 16 RAMP D

**RAMP DETAIL
SHEET 2
INTERCHANGE
#16**

PROJECT NAME: SO. BURLINGTON - COLCHESTER	
PROJECT NUMBER: IM 089-3(60)	
FILE NAME: p05a012.dgn	PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
PROJECT LEADER: EPD	DRAWN BY: RHB/SJB
DESIGNED BY: JDA	CHECKED BY: EPD
PLOT FILE: p05a012rdsi8.dgn	SHEET 42 OF 91

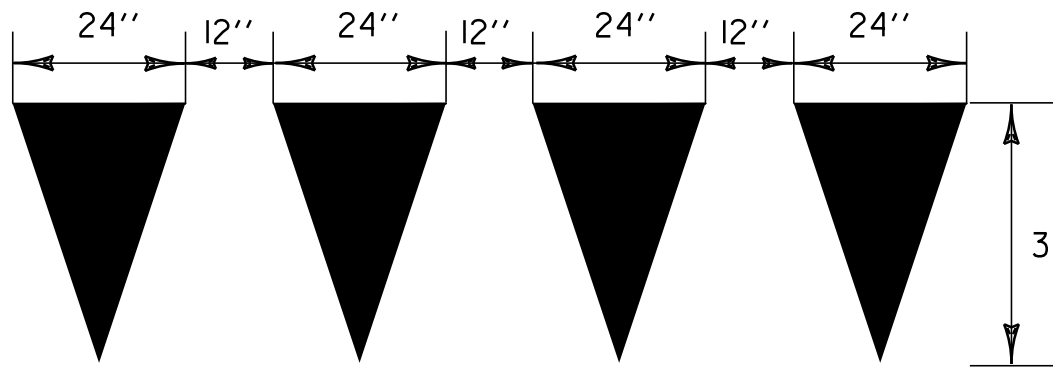


BORDER & ARROW - BLACK
BACKGROUND - YELLOW (RETROREFLECTIVE)



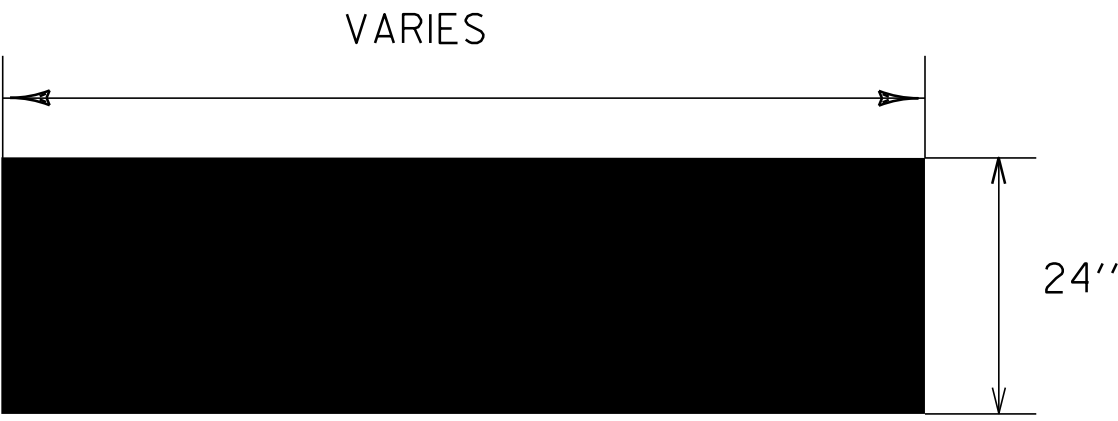
• ADJUST SPACING (12'-24') TO AVOID WHEEL PATHS

BLOCK PATTERN CROSSWALK DETAIL

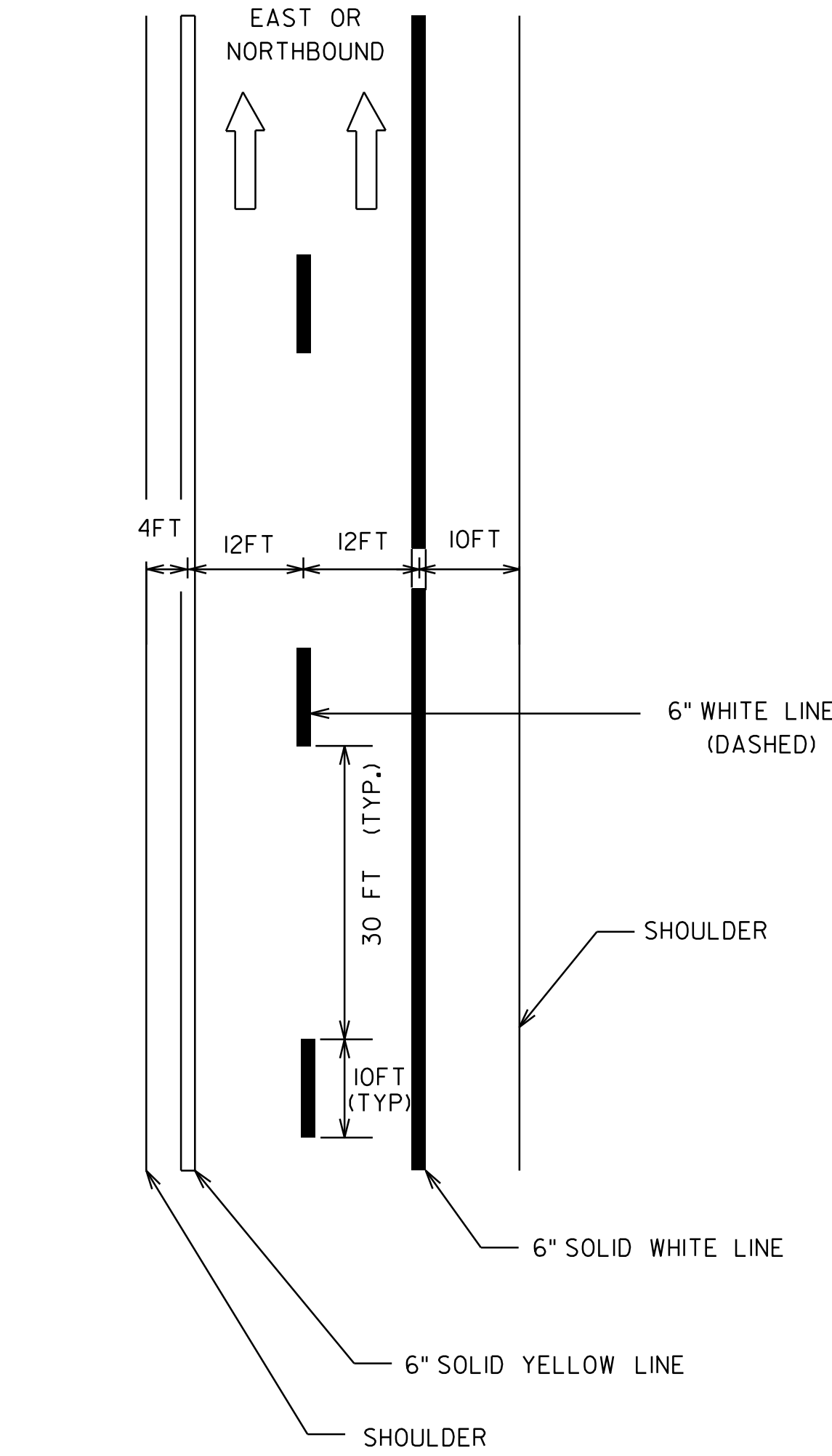
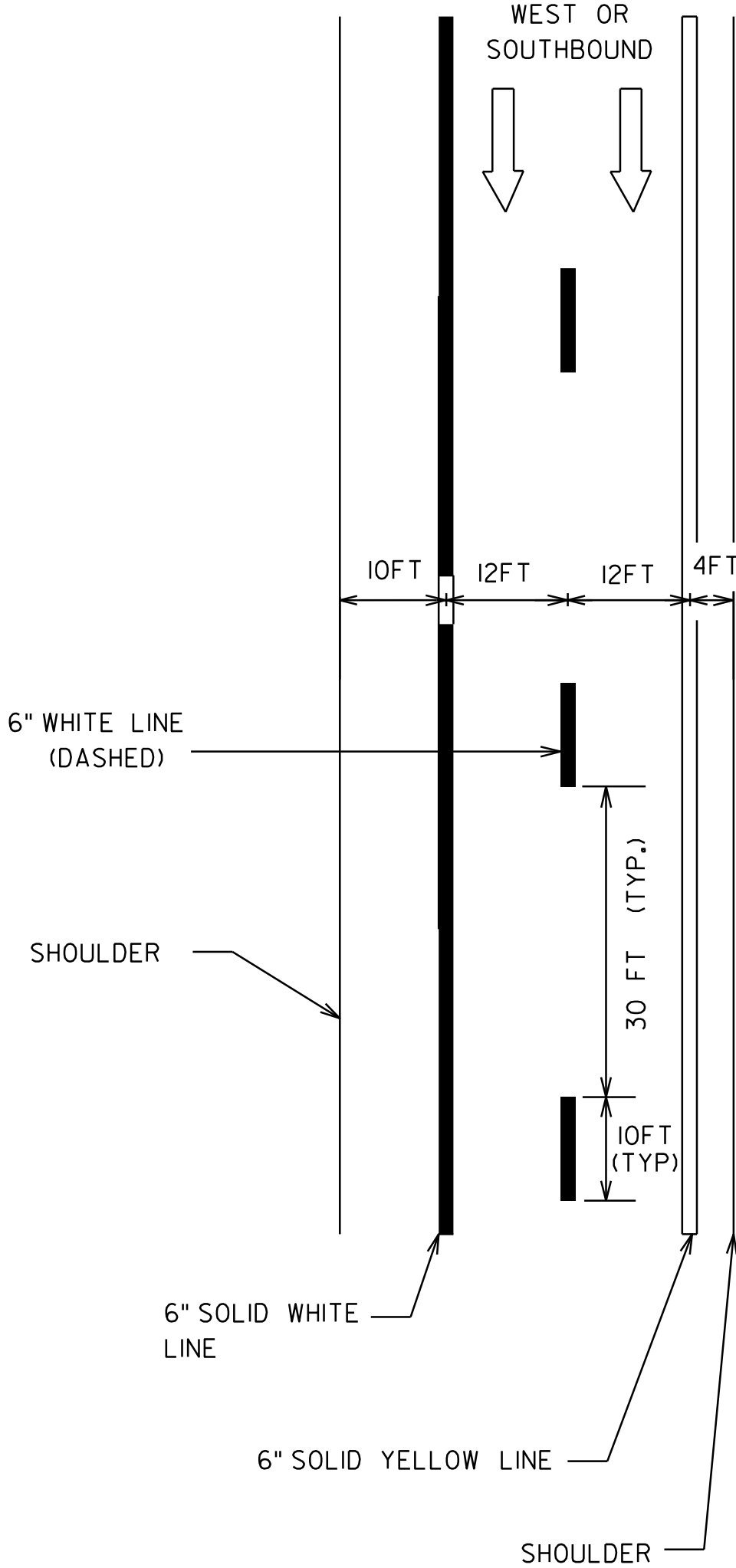


YIELD TRIANGLES DETAILS

TO BE PAID AS ONE LETTER OR SYMBOL
PER TRIANGLE.



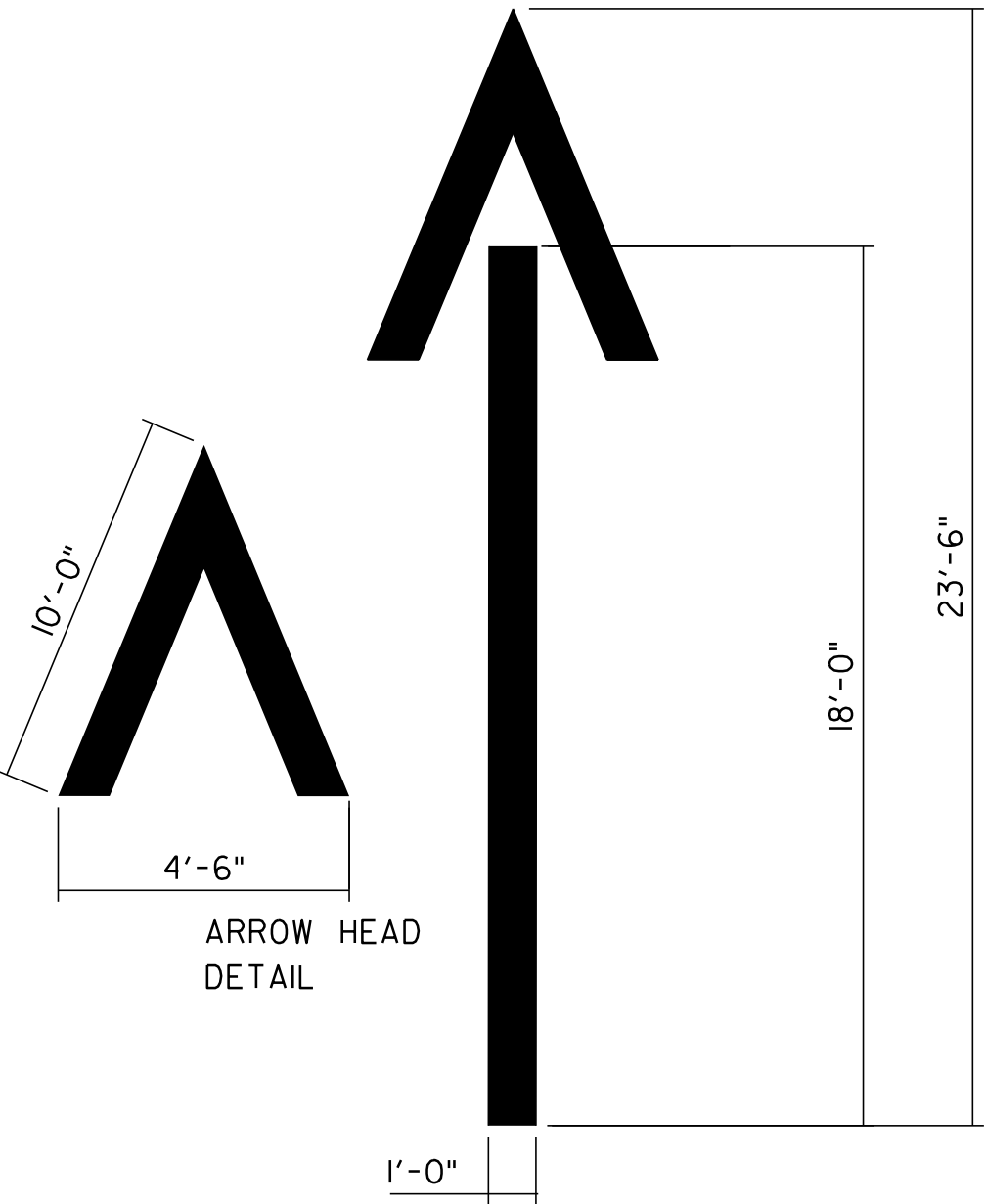
STOP BAR DETAIL



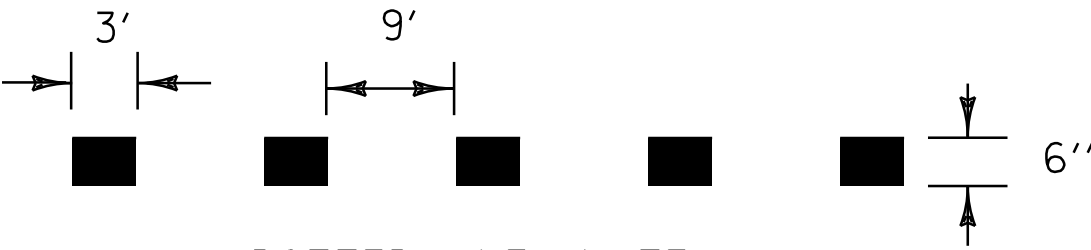
TYPICAL MAINLINE MARKING PLAN

LEGEND

- 6" WHITE LINES
- 6" YELLOW LINES
- DIRECTION OF TRAFFIC FLOW

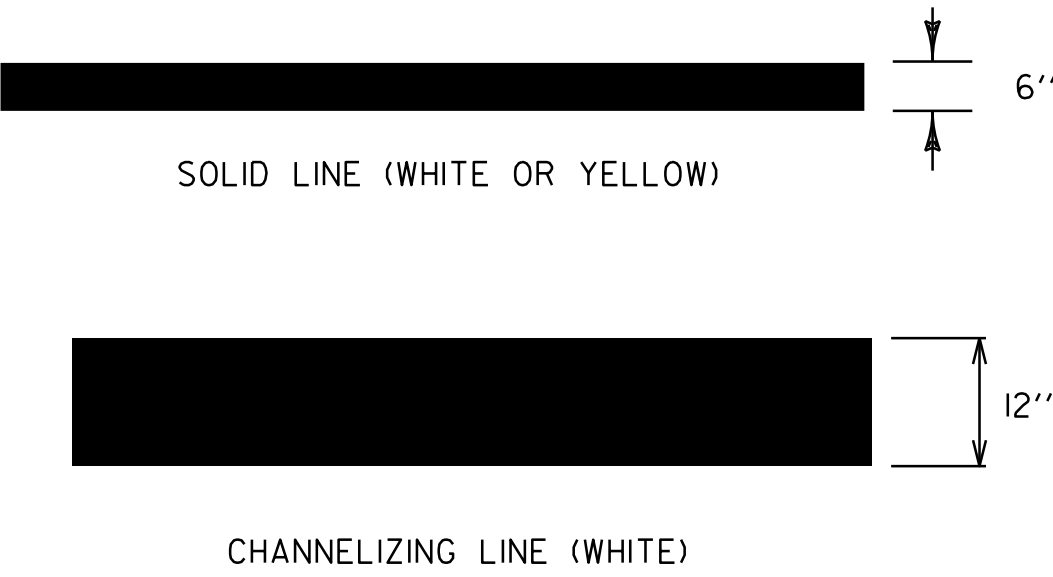


WRONG WAY ARROW



• TO BE INSTALLED ONLY AT THE
DIRECTION OF THE RESIDENT ENGINEER

PAVEMENT MARKING LINE DETAILS

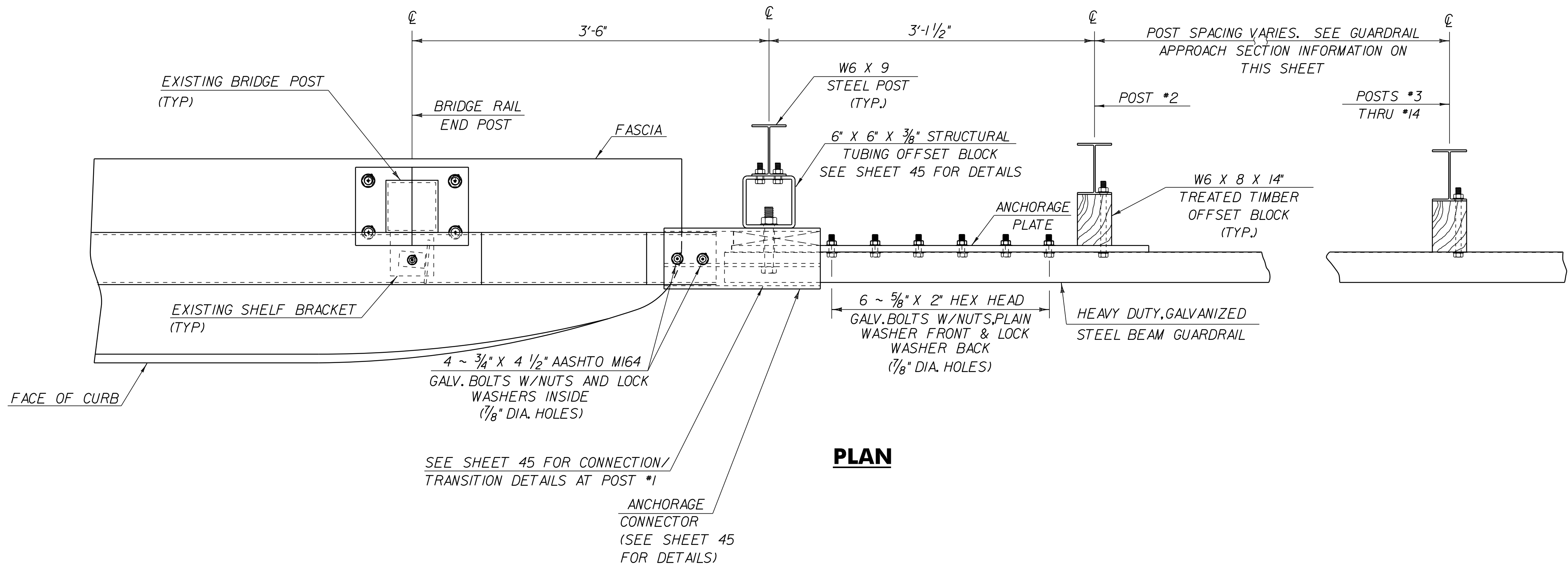


DETAILS ARE NOT TO SCALE

DETAILS SHEET

PROJECT NAME: SO. BURLINGTON - COLCHESTER
PROJECT NUMBER: IM 089-3(60)

FILE NAME: p05a012.dgn
PROJECT LEADER: EPD
DESIGNED BY: JDA
PLOT FILE: p05a012ds.i
PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
DRAWN BY: JAR/SJB
CHECKED BY: EPD
SHEET 43 OF 91

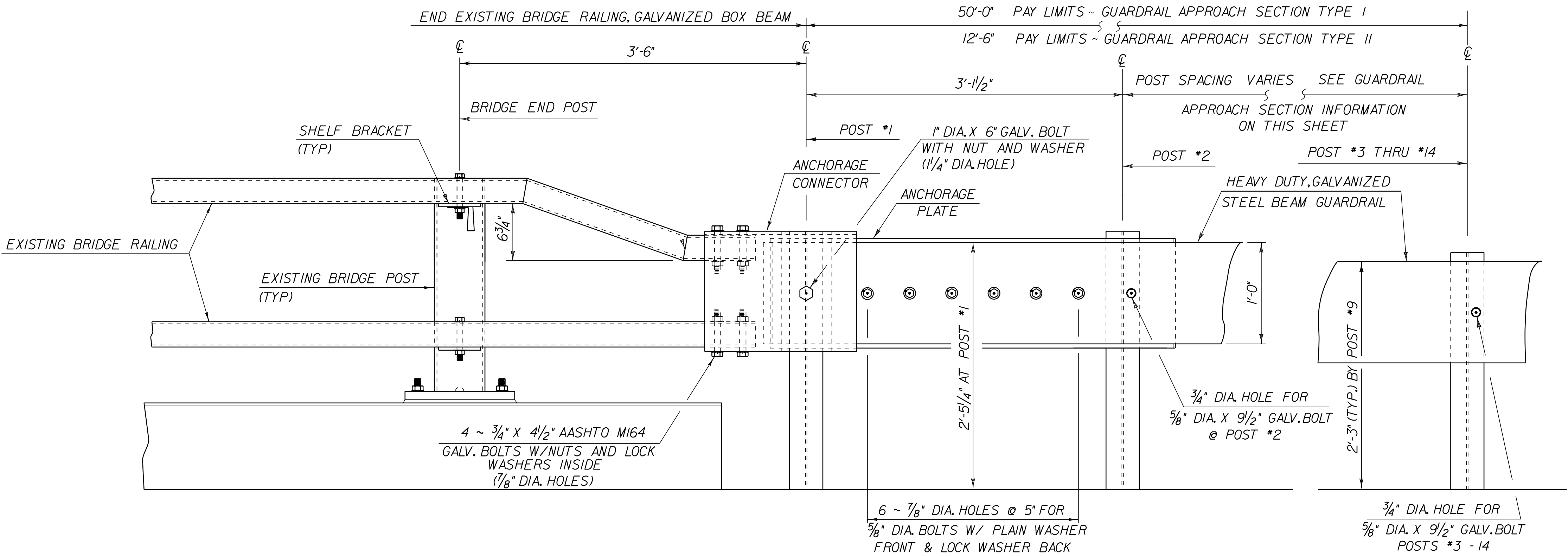


PLAN

**GUARDRAIL
APPROACH SECTION
TYPE I**

POST NO.	SPACING
1	3'-1 1/2"
2	3'-1 1/2"
3	3'-1 1/2"
4	3'-1 1/2"
5	3'-1 1/2"
6	3'-1 1/2"
7	3'-1 1/2"
8	3'-1 1/2"
9	3'-1 1/2"
10	4'-2"
11	4'-2"
12	4'-2"
13	6'-3"
14	6'-3"

50'-0" PAY LIMIT GUARDRAIL
APPROACH SECTION, TYPE I



ELEVATION

**GUARDRAIL
APPROACH SECTION
TYPE II**

POST NO.	SPACING
1	3'-1 1/2"
2	4'-8 1/4"
3	4'-8 1/4"
4	

12'-6" PAY LIMIT
GUARDRAIL
APPROACH SECTION
TYPE II

GUARDRAIL APPROACH SECTION DETAIL

**GUARDRAIL
APPROACH
SECTION
DETAIL SHEET 1**

PROJECT NAME: SO. BURLINGTON - COLCHESTER
PROJECT NUMBER: IM 089-3(60)

FILE NAME: p05a012.dgn
PROJECT LEADER: EPD
DESIGNED BY: JDA
PLOT FILE: p05a012gasdsl.i
PLOT DATE: \$\$\$\$\$\$DATE\$\$\$\$\$
DRAWN BY: SANZ
CHECKED BY: EPD
SHEET 44 OF 91

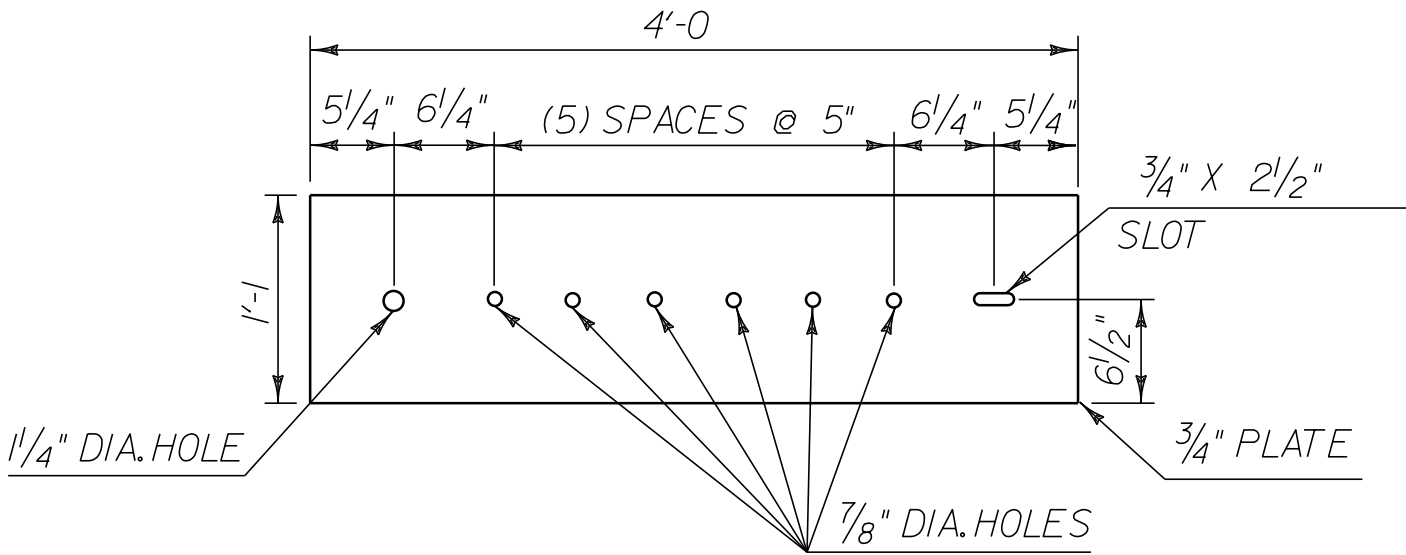
DETAILS ARE NOT TO SCALE

APPROACH RAIL NOTES:

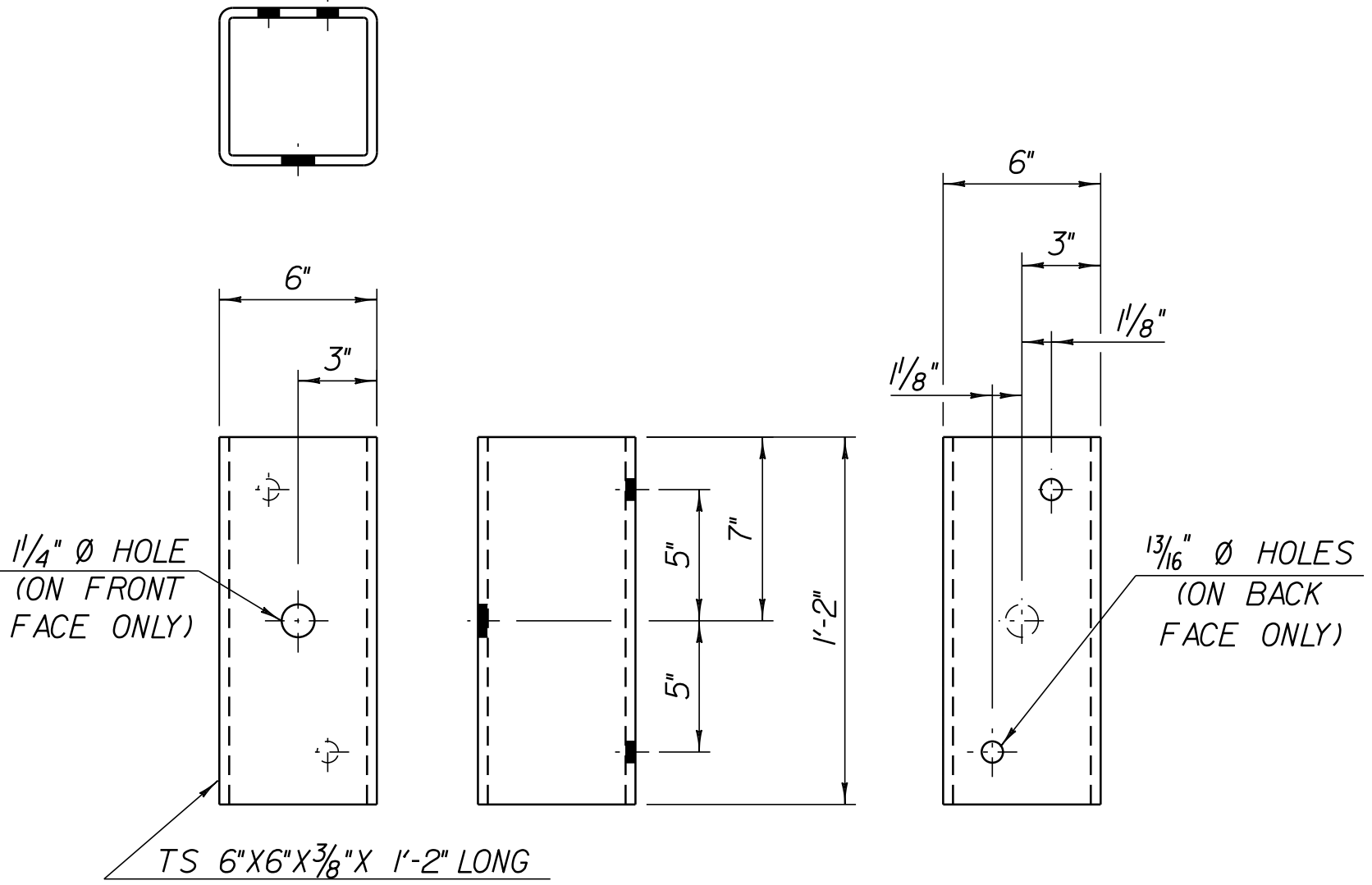
- 1. REFER TO STANDARD G-1 FOR ADDITIONAL RAIL DETAILS.
- 2. ALL POSTS FOR HEAVY DUTY STEEL BEAM GUARDRAIL SHALL BE STEEL, IN ACCORDANCE WITH SECTION 728 "GUARD RAIL, GUIDE POST AND BARRIERS" UNLESS OTHERWISE SPECIFIED IN THE CONTRACT.
- 3. APPROACH RAIL SPLICES SHALL LAP IN DIRECTION OF TRAFFIC FLOW.
- 4. ANCHORAGE CONNECTOR AND ANCHORAGE PLATE SHALL BE AASHTO M 270, GRADE 250 GALVANIZED TO AASHTO M III AFTER FABRICATION.
- 5. ALL BOLTS, NUTS AND WASHERS SHALL BE AASHTO M 164 GALVANIZED TO AASHTO M 232 AFTER FABRICATION.
- 6. STRUCTURAL TUBING OFFSET BLOCK SHALL BE AASHTO M 183 GALVANIZED TO AASHTO M III AFTER FABRICATION.
- 7. APPROACH RAILING SHALL BE HEAVY DUTY STEEL BEAM FOR 50'-0" FROM THE CL OF POST #1 FOR TYPE I AND 12'-6" FROM THE CL OF POST #1 FOR TYPE II.
- 8. ALLOWABLE DIMENSIONAL TOLERANCE FOR BENT SECTIONS IS +/- 1/16 OF AN INCH.
- 9. THE UNIT PRICES BID FOR EITHER TYPE OF GUARDRAIL APPROACH SECTION SHALL INCLUDE ANCHORAGE CONNECTOR, ANCHORAGE PLATE, HEAVY DUTY STEEL BEAM GUARDRAIL, POSTS, OFFSET BLOCKS, BLOCKING, BOLTS, AND ALL NECESSARY HARDWARE.

ANCHORAGE CONNECTOR DETAIL

(SEE NOTE 8)



ANCHOR PLATE DETAIL



STRUCTURAL TUBING OFFSET BLOCK DETAILS

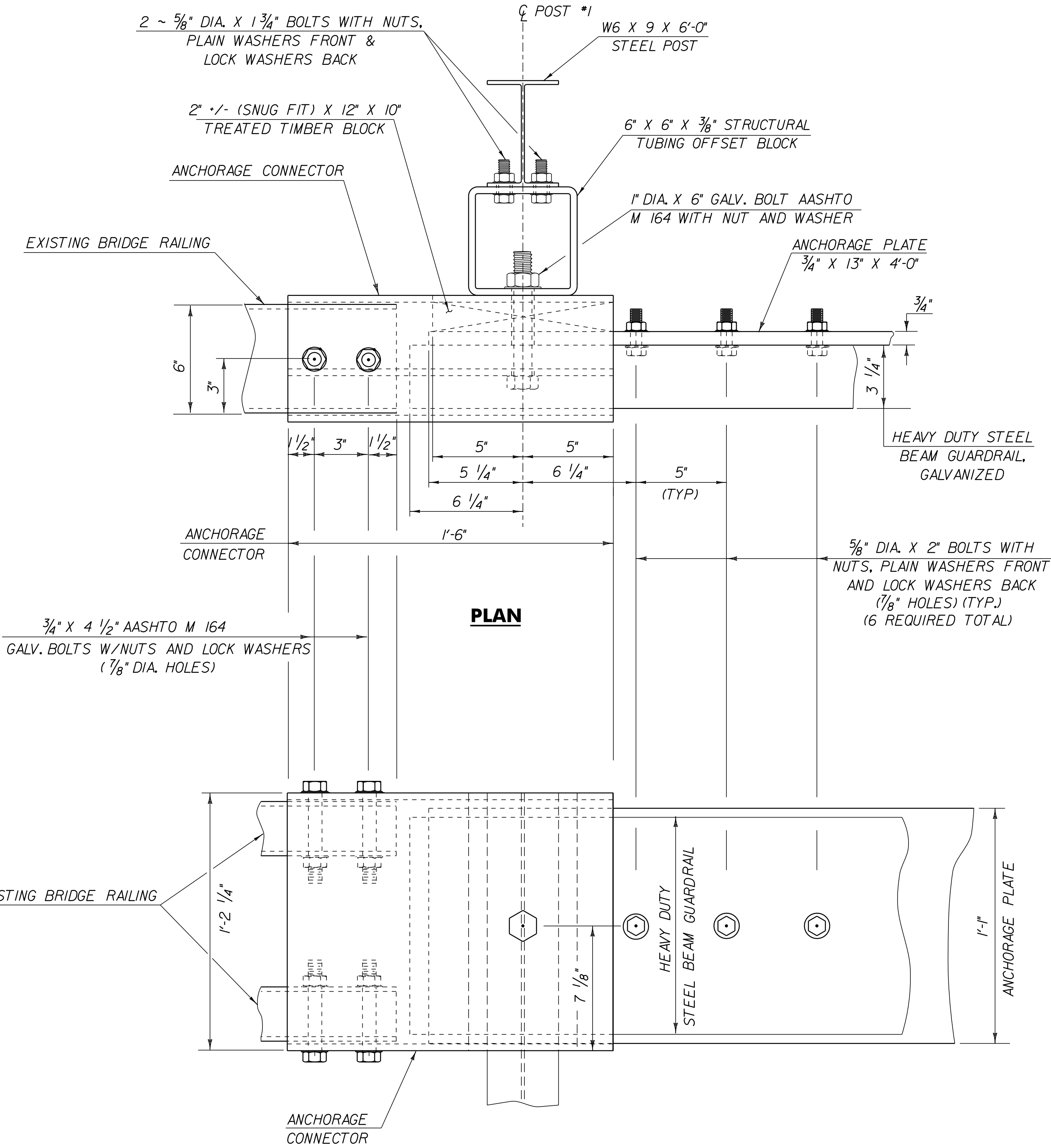
(OCCURS AT POST #1 WHEN USING APPROACH RAIL UTILIZING STEEL POSTS.)

GUARDRAIL
APPROACH
SECTION
DETAIL SHEET 2

PROJECT NAME: SO. BURLINGTON - COLCHESTER
PROJECT NUMBER: IM 089-3(60)

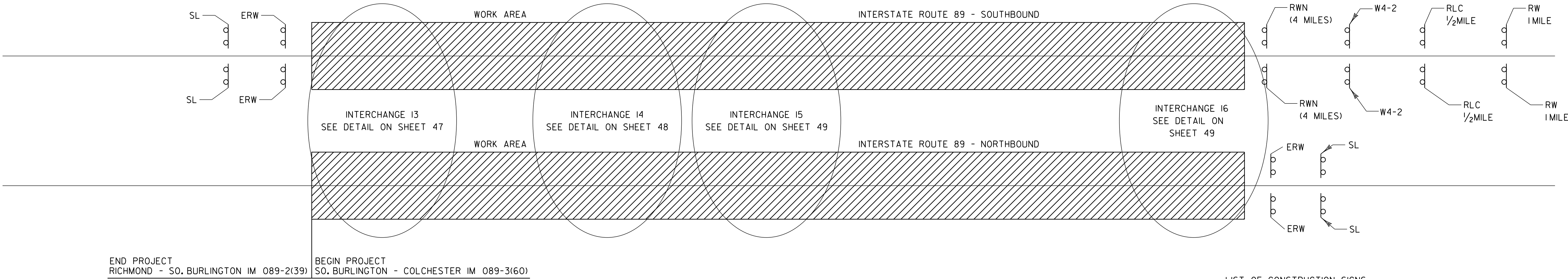
FILE NAME: p05a012.dgn
PROJECT LEADER: EPD
DESIGNED BY: JDA
PLOT FILE: p05a012gasds2.i
PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
DRAWN BY: SANZ
CHECKED BY: EPD
SHEET 45 OF 91

DETAILS ARE NOT TO SCALE



ELEVATION

CONNECTION/TRANSITION DETAILS AT POST NO. 1



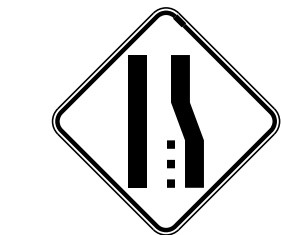
NOTES:

- THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) SHALL NOT BE PAID SEPARATELY BUT SHALL BE INCIDENTAL TO THE CONTRACT SECTION 900 TRAFFIC CONTROL ITEM.
- THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN APPROACH PACKAGE FOR EXPECTED LANE CLOSURES AND WORK ZONE SPEED REDUCTIONS IN COMPLIANCE WITH VTRANS STANDARD E-103. PAYMENT FOR PROVIDING THIS PACKAGE SHALL BE INCIDENTAL TO THE CONTRACT SECTION 900 TRAFFIC CONTROL ITEM.
- ADDITIONAL RAMP SIGNING MAY BE REQUIRED AS DIRECTED BY THE RESIDENT ENGINEER.
- THE BID PRICE FOR THE CONTRACT SECTION 900 TRAFFIC CONTROL ITEM, SHALL INCLUDE ALL APPROACH AND ON-PROJECT CONSTRUCTION SIGNING, PORTABLE ARROW BOARDS, BARRIERS, BARRELS, CONES, BARRICADES, TEMPORARY REGULATORY AND WARNING SIGNS, AND POSTS AS DETAILED IN VTRANS STANDARDS. ALL ADJUSTING, RELOCATING, AND REMOVING OF THESE DEVICES AS DIRECTED BY THE RESIDENT ENGINEER SHALL ALSO BE INCLUDED. THE FOLLOWING ITEMS WILL BE PAID FOR SEPARATELY:
646.622, 646.632, 646.662, 646.692, AND 646.702 - TEMPORARY PAVEMENT MARKINGS
630.10 AND 630.15 - UNIFORMED TRAFFIC OFFICERS AND FLAGGERS
- PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE PROVIDED BY THE CONTRACTOR FOR USE ALONG THIS PROJECT. THE PLACEMENT OF THESE UNITS AS WELL AS THE MESSAGE WILL BE APPROVED BY THE RESIDENT ENGINEER. THESE SIGNS WILL BE PAID FOR UNDER ITEM 641.15, "PORTABLE CHANGEABLE MESSAGE SIGN".

PCMS SHOULD NOT REPLACE ANY OF THE SIGNING DETAILED IN THE MUTCD AND SHOULD NOT BE USED IF STANDARD TRAFFIC CONTROL DEVICES ADEQUATELY PROVIDE THE INFORMATION THE MOTORISTS NEED TO TRAVEL SAFELY.

THE PCMS SHALL CONSIST OF EITHER ONE OR TWO PHASES. TYPICALLY, A PHASE SHALL CONSIST OF UP TO THREE LINES OF EIGHT CHARACTERS PER LINE. THE PCMS SHOULD BE USED AS A SUPPLEMENT AND NOT AS A SUBSTITUTE FOR CONVENTIONAL SIGNS AND PAVEMENT MARKINGS.

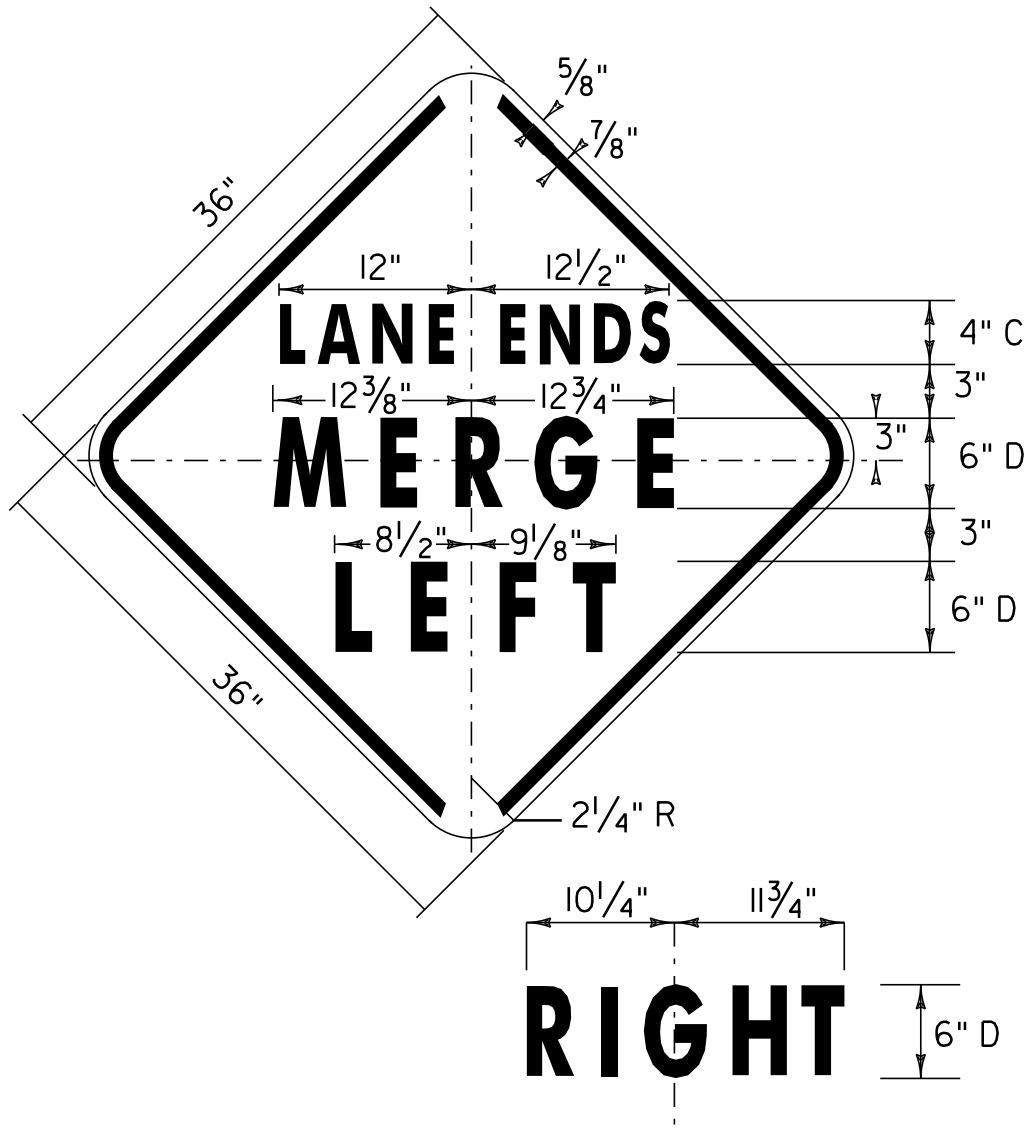
THE PCMS SHOULD COMMUNICATE WHAT INFORMATION MOTORISTS NEED TO KNOW. UNNECESSARY INFORMATION SHOULD BE AVOIDED. MESSAGES SHOULD BE UPDATED PERIODICALLY TO DESCRIBE THE WORK ACTIVITY OCCURRING SO THAT THE PCMS CONTINUES TO COMMAND THE ATTENTION OF MOTORISTS.
- THE MUTCD 2003 SHALL BE THE STANDARD FOR ALL TRAFFIC CONTROL DEVICES. EXISTING SIGNS, SIGNALS AND MARKINGS SHALL BE VALID UNTIL SUCH TIME AS THEY ARE REPLACED OR RECONSTRUCTED. WHEN NEW TRAFFIC CONTROL DEVICES ARE ERECTED OR PLACED OR EXISTING TRAFFIC CONTROL DEVICES ARE REPLACED OR REPAIRED THE EQUIPMENT, DESIGN, METHOD OF INSTALLATION, PLACEMENT OR REPAIR SHALL CONFORM WITH SUCH STANDARDS.
- NO CONSTRUCTION SIGNS SHALL BE INSTALLED SO AS TO INTERFERE OR OBSTRUCT THE VIEW OF EXISTING TRAFFIC CONTROL DEVICES, STOPPING SIGHT DISTANCE, AND CORNER SIGHT DISTANCE FROM DRIVES AND TOWN HIGHWAYS. TRAFFIC CONTROL DEVICES SHALL BE SPACED ACCORDING TO THE 2003 MUTCD AND/OR VTRANS STANDARDS.
- ALL SIGNS THAT ARE NOT BEING USED SHALL BE COVERED APPROPRIATELY.
- ON VTRANS STANDARD E-103, SIGN W4-2 MAY BE REPLACED WITH W9-2:



W4-2



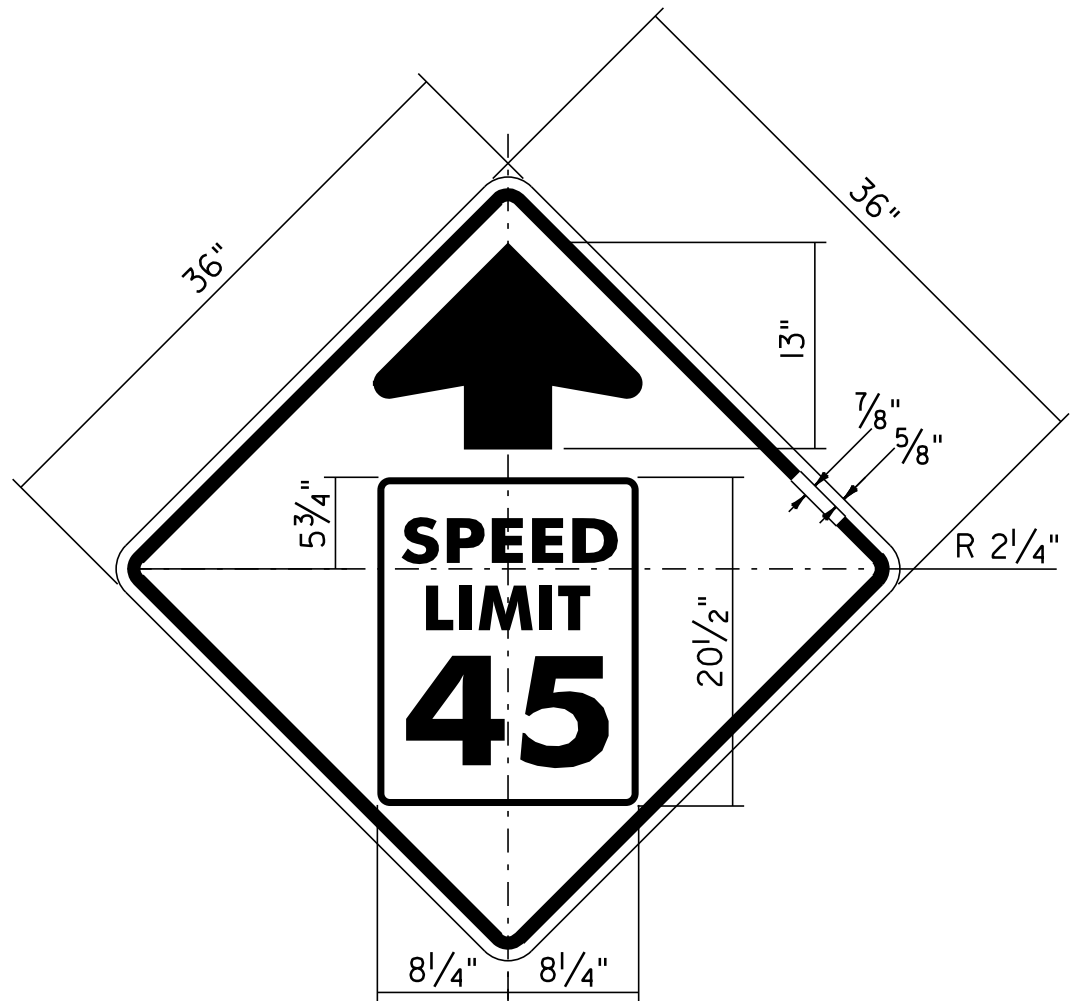
W9-2



W9-2

NOTE:

- "MERGE" - D (101% SPACING)



W3-5

- BORDER & ARROW - BLACK
SYMBOL - INSERT R2-1
BACKGROUND - YELLOW (RETROREFLECTIVE)

LIST OF CONSTRUCTION SIGNS
SEE STD. E-100 AND E-103 FOR SIGN PLACEMENT.

LOCATION	RW 1 MILE	RLC 1/2 MILE	W4-2	RWN	ERW	SRWA	SRW 500	SL	RW 1000
INTERSTATE 89 NB					2			2	
INTERSTATE 89 SB	2	2	2	2	2			2	
EXIT 13 RAMP D				1					
INTERSTATE 189 EB RAMP F					1	2	2		
INTERSTATE 189 WB RAMP E					1	2	2		
US RT 2					2	2	2		
EXIT 14 RAMP A				1					
EXIT 14 RAMP D				1					
EXIT 14 RAMP E				1					
EXIT 14 RAMP H				1					
VT RT 15					2	4	4		
EXIT 15 RAMP A				1					
US RT 7					2	4	4		
EXIT 16 RAMP B									1
EXIT 16 RAMP C				1					
TOTALS	2	2	2	9	12	14	14	4	1

LEGEND

- RW 1 MILE = ROAD WORK 1 MILE
RLC 1/2 MILE = RIGHT LANE CLOSED 1/2 MILE
RWN = ROAD WORK NEXT (X MILES)
RW 1000 = ROAD WORK 1000 FT
ERW = END ROAD WORK
SRWA = SIDE ROAD WORK AHEAD
SRW 500 = SIDE ROAD WORK 500 FT
SL = SPEED LIMIT

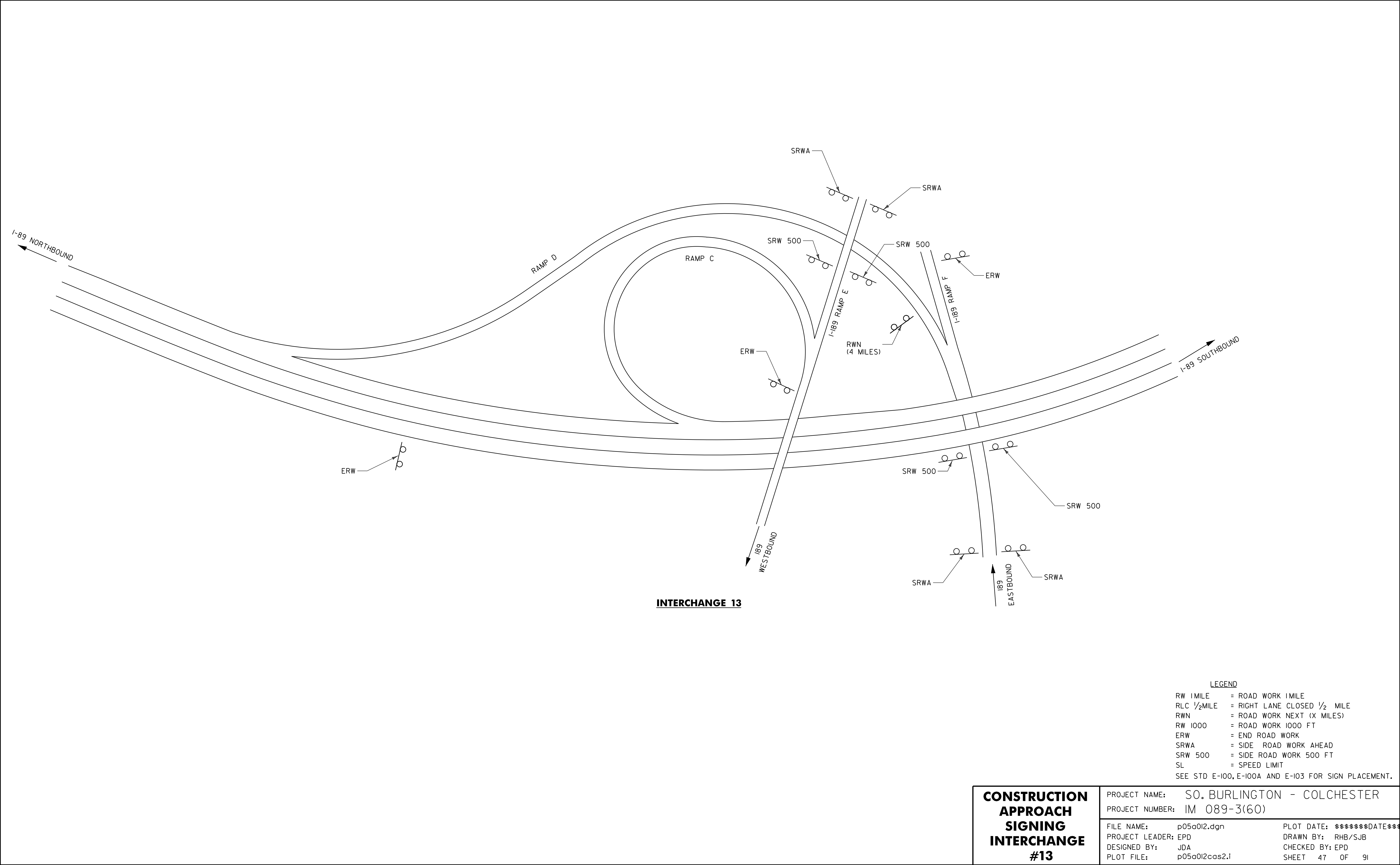
SEE STD E-100 AND E-103 FOR SIGN PLACEMENT.

CONSTRUCTION
APPROACH
SIGNING

PROJECT NAME: SO. BURLINGTON - COLCHESTER
PROJECT NUMBER: IM 089-3(60)

FILE NAME: p05a012.dgn PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
PROJECT LEADER: EPD DRAWN BY: JAR/SJB
DESIGNED BY: JDA CHECKED BY: EPD
PLOT FILE: p05a012casl.i SHEET 46 OF 91

DETAILS ARE NOT TO SCALE

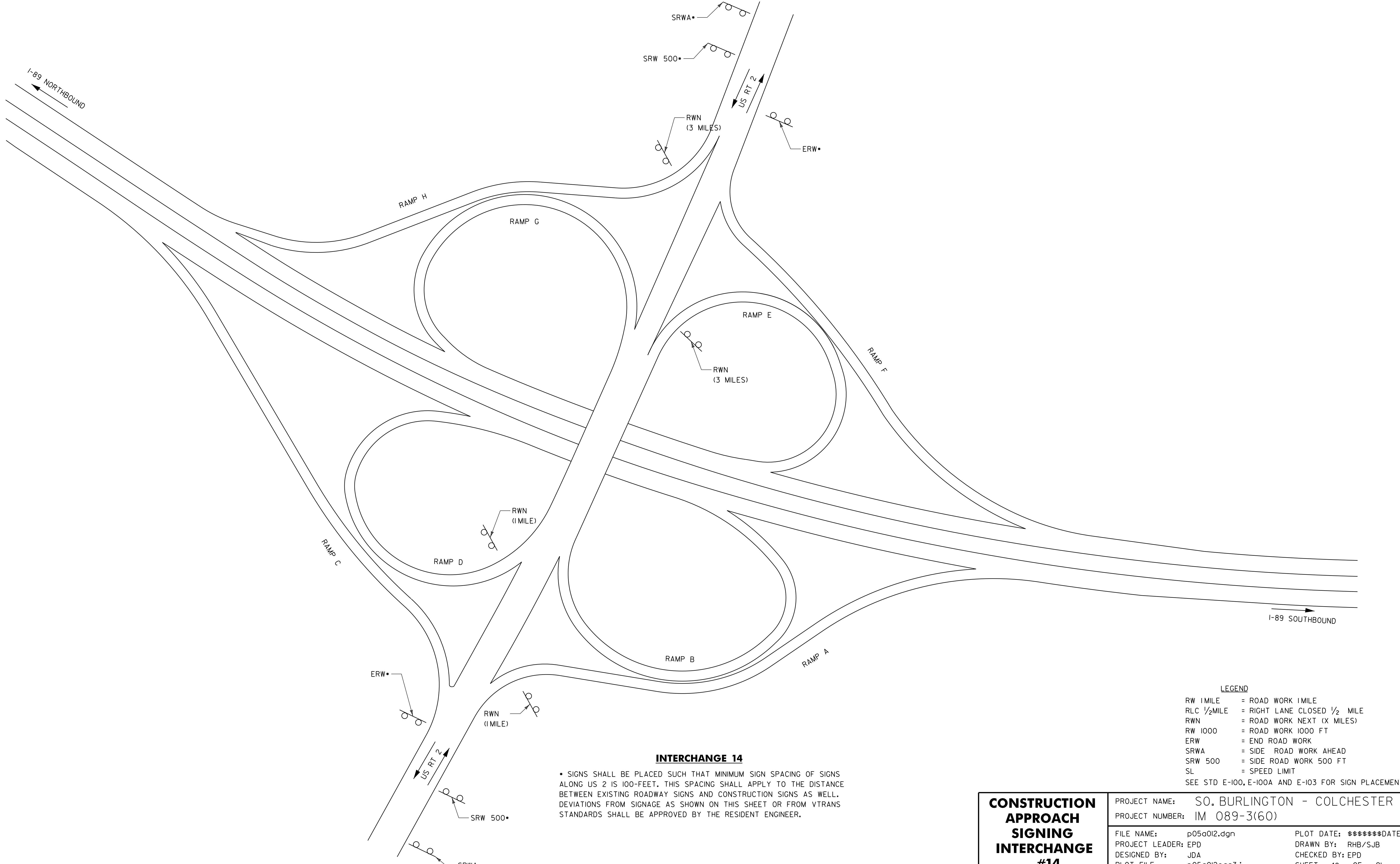


LEGEND

- RW 1 MILE = ROAD WORK 1 MILE
- RLC 1/2 MILE = RIGHT LANE CLOSED 1/2 MILE
- RWN = ROAD WORK NEXT (X MILES)
- RW 1000 = ROAD WORK 1000 FT
- ERW = END ROAD WORK
- SRWA = SIDE ROAD WORK AHEAD
- SRW 500 = SIDE ROAD WORK 500 FT
- SL = SPEED LIMIT
- SEE STD E-100, E-100A AND E-103 FOR SIGN PLACEMENT.

CONSTRUCTION
APPROACH
SIGNING
INTERCHANGE
#13

PROJECT NAME: SO. BURLINGTON - COLCHESTER		
PROJECT NUMBER: IM 089-3(60)		
FILE NAME:	p05a012.dgn	PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
PROJECT LEADER:	EPD	DRAWN BY: RHB/SJB
DESIGNED BY:	JDA	CHECKED BY: EPD
PLOT FILE:	p05a012cas2.i	SHEET 47 OF 91



INTERCHANGE 14

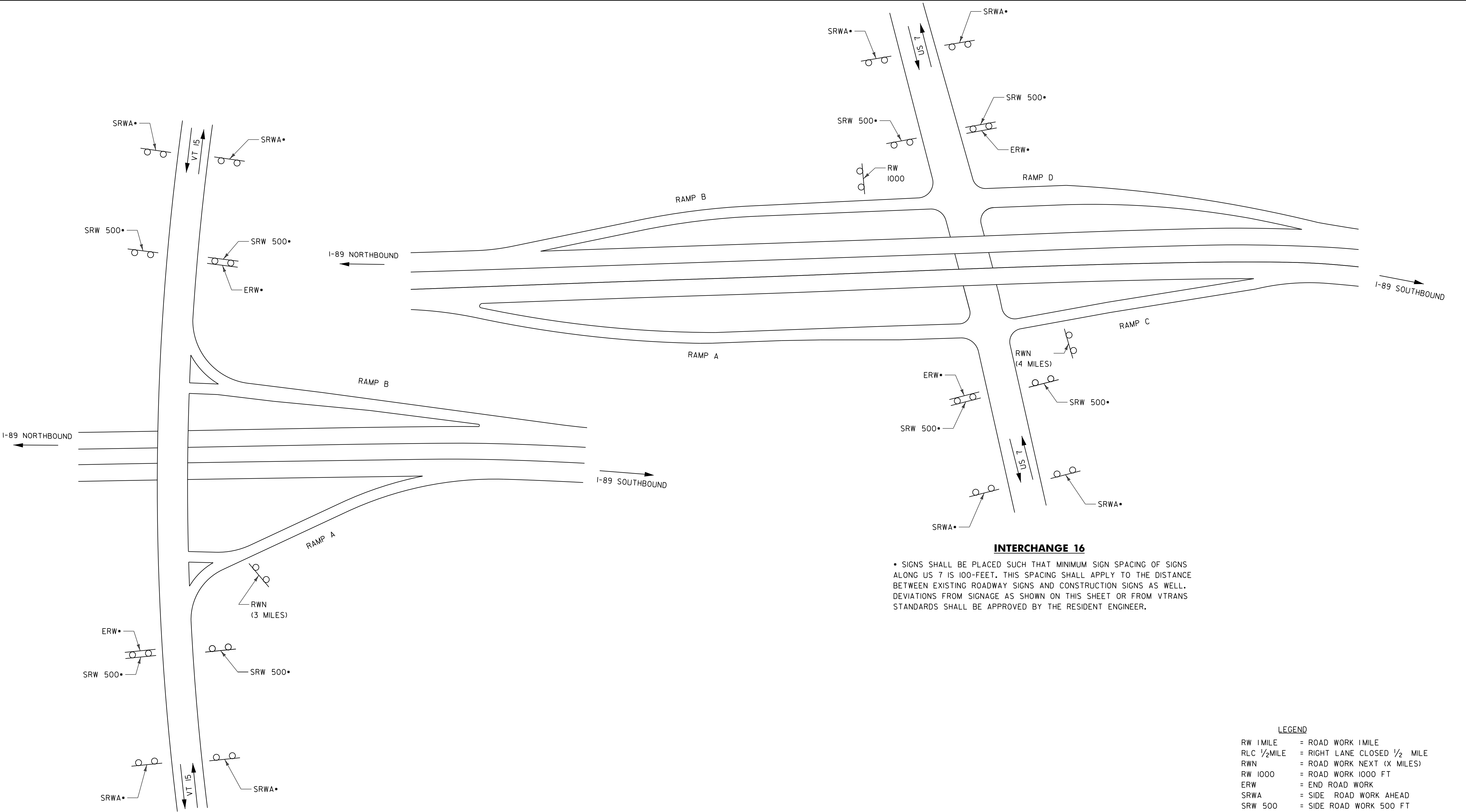
• SIGNS SHALL BE PLACED SUCH THAT MINIMUM SIGN SPACING OF SIGNS ALONG US 2 IS 100-FEET. THIS SPACING SHALL APPLY TO THE DISTANCE BETWEEN EXISTING ROADWAY SIGNS AND CONSTRUCTION SIGNS AS WELL. DEVIATIONS FROM SIGNAGE AS SHOWN ON THIS SHEET OR FROM VTRANS STANDARDS SHALL BE APPROVED BY THE RESIDENT ENGINEER.

LEGEND

- RW 1MILE = ROAD WORK 1 MILE
 - RLC 1/2MILE = RIGHT LANE CLOSED 1/2 MILE
 - RWN = ROAD WORK NEXT (X MILES)
 - RW 1000 = ROAD WORK 1000 FT
 - ERW = END ROAD WORK
 - SRWA = SIDE ROAD WORK AHEAD
 - SRW 500 = SIDE ROAD WORK 500 FT
 - SL = SPEED LIMIT
- SEE STD E-100, E-100A AND E-103 FOR SIGN PLACEMENT.

**CONSTRUCTION
APPROACH
SIGNING
INTERCHANGE
#14**

PROJECT NAME: SO. BURLINGTON - COLCHESTER		
PROJECT NUMBER: IM 089-3(60)		
FILE NAME:	p05a012.dgn	PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
PROJECT LEADER:	EPD	DRAWN BY: RHB/SJB
DESIGNED BY:	JDA	CHECKED BY: EPD
PLOT FILE:	p05a012cas3.i	SHEET 48 OF 91



INTERCHANGE 15

• SIGNS SHALL BE PLACED SUCH THAT MINIMUM SIGN SPACING OF SIGNS ALONG VT 15 IS 100-FEET. THIS SPACING SHALL APPLY TO THE DISTANCE BETWEEN EXISTING ROADWAY SIGNS AND CONSTRUCTION SIGNS AS WELL. DEVIATIONS FROM SIGNAGE AS SHOWN ON THIS SHEET OR FROM VTRANS STANDARDS SHALL BE APPROVED BY THE RESIDENT ENGINEER.

INTERCHANGE 16

• SIGNS SHALL BE PLACED SUCH THAT MINIMUM SIGN SPACING OF SIGNS ALONG US 7 IS 100-FEET. THIS SPACING SHALL APPLY TO THE DISTANCE BETWEEN EXISTING ROADWAY SIGNS AND CONSTRUCTION SIGNS AS WELL. DEVIATIONS FROM SIGNAGE AS SHOWN ON THIS SHEET OR FROM VTRANS STANDARDS SHALL BE APPROVED BY THE RESIDENT ENGINEER.

LEGEND

- RW 1 MILE = ROAD WORK 1 MILE
 - RLC 1/2 MILE = RIGHT LANE CLOSED 1/2 MILE
 - RWN = ROAD WORK NEXT (X MILES)
 - RW 1000 = ROAD WORK 1000 FT
 - ERW = END ROAD WORK
 - SRWA = SIDE ROAD WORK AHEAD
 - SRW 500 = SIDE ROAD WORK 500 FT
 - SL = SPEED LIMIT
- SEE STD E-100, E-100A AND E-103 FOR SIGN PLACEMENT.

**CONSTRUCTION
APPROACH
SIGNING
INTERCHANGES
#15 & #16**

PROJECT NAME: SO. BURLINGTON - COLCHESTER		
PROJECT NUMBER: IM 089-3(60)		
FILE NAME:	p05a012.dgn	PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
PROJECT LEADER:	EPD	DRAWN BY: RHB/SJB
DESIGNED BY:	JDA	CHECKED BY: EPD
PLOT FILE:	p05a012cas4.i	SHEET 49 OF 91

INDEX OF SHEETS
REFER TO SHEET 2

STATE OF VERMONT
AGENCY OF TRANSPORTATION

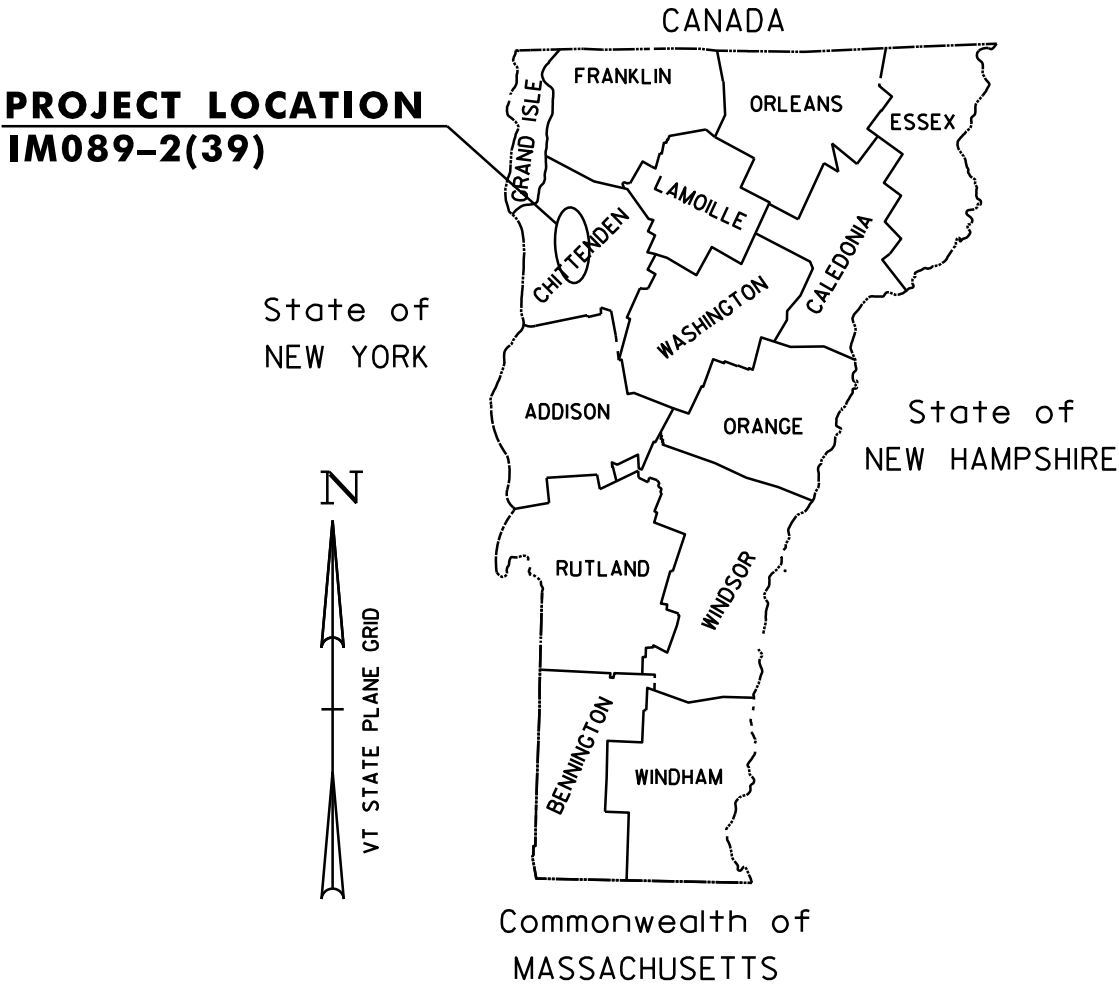


PROPOSED IMPROVEMENTS
TOWNS OF RICHMOND, WILLISTON,
and SOUTH BURLINGTON
COUNTY OF CHITTENDEN
INTERSTATE ROUTE 89 (NB)

BEGINNING AT STATION 4170+67 (MM 78.990) IN THE TOWN OF RICHMOND, AND EXTENDING NORTHERLY
ALONG INTERSTATE 89 (NORTHBOUND LANES ONLY) THROUGH THE TOWN OF WILLISTON FOR APPROXIMATELY
44,389 FEET, (8.407 MILES) INTO THE TOWN OF SOUTH BURLINGTON TO STATION 4614+56 (MM 87.397)

PROJECT DATA	LENGTH	
	(FEET)	(MILES)
NORTHBOUND		
STA 4170+67 TO STA 4614+56 (MM 78.990 TO MM 87.397)	44,389	8.407
LENGTH OF ROADWAY	44,389	8.407
LENGTH OF PROJECT	44,389	8.407

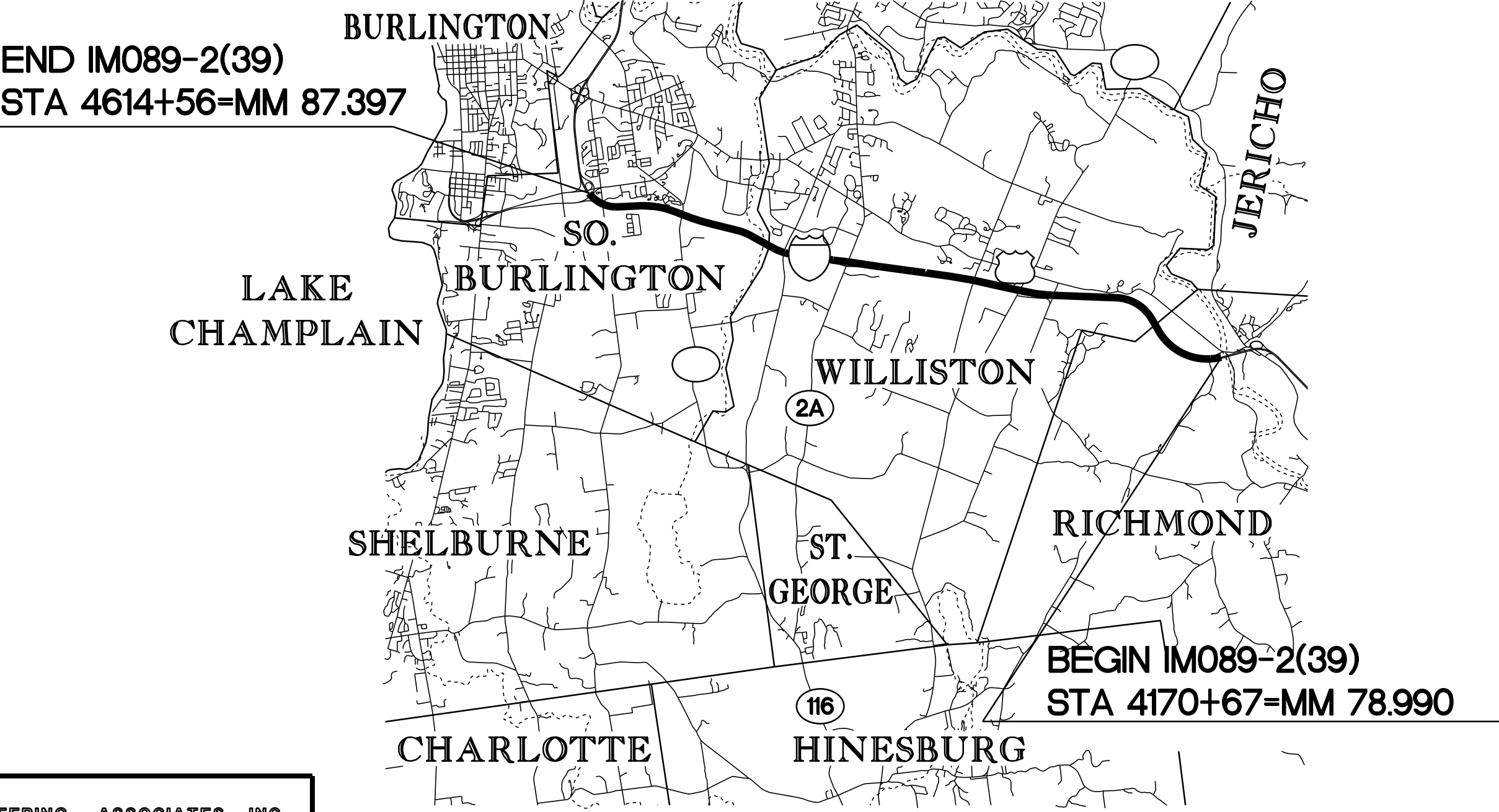
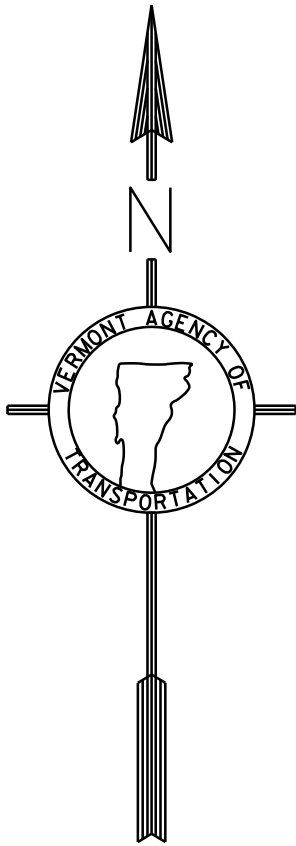
WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES COLD PLANING AND
RESURFACING OF THE NORTHBOUND TRAVEL LANES, SHOULDERS, AND INTERCHANGE I2,
NEW PAVEMENT MARKINGS, GUARD RAIL IMPROVEMENTS AND INCIDENTAL ITEMS.
ALSO INCLUDED IS THE RECONSTRUCTION OF I-89 BETWEEN MM 79.95 TO MM 80.02 (FRENCH HILL SETTLEMENT AREA)
AND ASSOCIATED DRAINAGE WORK.



RICHMOND - SO. BURLINGTON IM 089-3, MM 78.990 TO MM 87.397	
BITUMINOUS CONCRETE PAVEMENT SUPERPAVE MIXTURE DESIGN CRITERIA	
DESIGN LANE/DESIGN LIFE ESAL	22,811,000
DESIGN NUMBER OF GYRATIONS	100
PERFORMANCE GRADED ASPHALT BINDER	PG 64-28

TRAFFIC DATA

	ADT			DHV		FLEXIBLE ESAL'S	
	2008	2018	2028	2008	2018	(2008-2018)	(2008-2028)
BEGINNING OF PROJECT TO INTERCHANGE I2	15,300	18,900	22,300	1,700	2,100	7,717,000	21,393,000
INTERCHANGE I2 TO END OF PROJECT	18,500	22,300	26,300	1,900	2,300	8,172,000	22,811,000



RIGHT-OF-WAY LIMITS, IF APPLICABLE, ARE PROVIDED
SOLELY FOR THE CONVENIENCE OF THE STATE AND ITS
CONTRACTOR DURING THE COURSE OF THIS PAVING
PROJECT. ANY REFERENCES TO OFFSETS ON THESE
PLANS ARE APPROXIMATE AND SHOULD NOT BE RELIED
UPON FOR ANY OTHER PURPOSES.

UNLESS OTHERWISE NOTED, ALL DRAWINGS AND DETAILS
ON THESE PLANS ARE DRAWN "NOT TO SCALE".

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING
CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY
ADMINISTRATION OR THE DIRECTOR OF PROGRAM
DEVELOPMENT.
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE
WITH THESE PLANS AND THE STANDARD SPECIFICATIONS
FOR CONSTRUCTION DATED 2006, AS APPROVED BY THE
FEDERAL HIGHWAY ADMINISTRATION ON JUNE 15, 2006
FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT
REVISIONS AND SUCH REVISED SPECIFICATIONS AND
SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE
PLANS.

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
APPROVED _____ DATE _____
DIRECTOR OF PROGRAM DEVELOPMENT
APPROVED _____ DATE _____
PROJECT MANAGER : TED DOMEY
PROJECT NAME : RICHMOND-SO. BURLINGTON PROJECT NUMBER : IM089-2(39)
SHEET 50 OF 91 SHEETS

CONVENTIONAL SYMBOLS	
COUNTY LINE	----
TOWN LINE	----
LIMITS OF ACCESS	—o—o—o—
POINT OF ACCESS	X
FENCE LINE	—x—x—
STONE WALL	=====
TRAVELED WAY	=====
GUARD RAIL	—o—o—o—
RAILROAD	=====
SURVEY LINE	—+—+—
CULVERT	—+—+—
POWER POLE	Ø
TELEPHONE POLE	φ
TREES	⊗ ⊛
CONTROL OF ACCESS	—///—
PROPERTY LINE	—
R.O.W. TAKING LINE	—SR—
SLOPE RIGHTS	—o—o—o—
TOP OF CUT	—△—△—△—
TOE OF SLOPE	—o—o—o—

DATUM	
VERTICAL	N/A
HORIZONTAL	N/A

BY:

CIVIL ENGINEERING ASSOCIATES, INC.
P.O. BOX 485 SHELBURNE, VT 05482
802-985-2323 FAX: 802-985-2271 web: www.ceo-vt.com

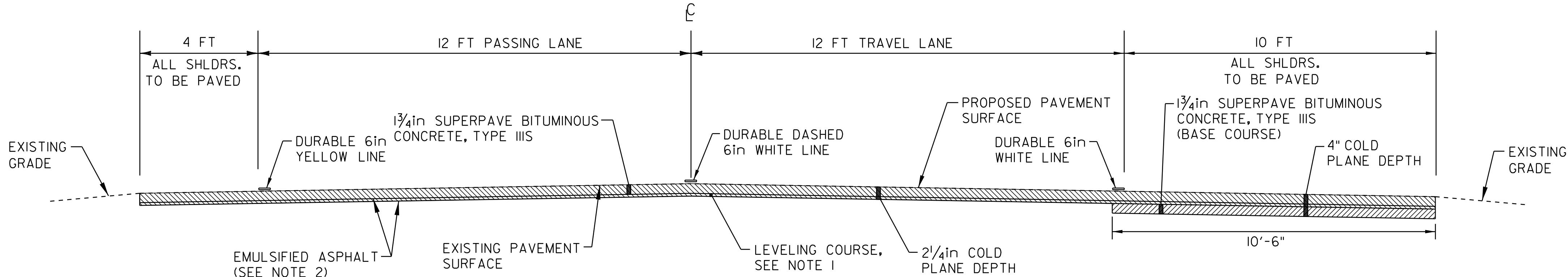
NOTES

1. THE PAVEMENT WEARING COURSE SHALL BE TYPE IIIS ON THE ROADWAY SURFACES AND TYPE IVS ON THE BRIDGE SURFACES, ITEM 490.30 AS SHOWN ON THE TYPICALS, UNLESS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER.

THE LEVELING COURSE SHALL BE TYPE IVS UNLESS OTHERWISE SHOWN IN THE PLANS OR DIRECTED BY THE RESIDENT ENGINEER. LEVELING HAS BEEN INCLUDED TO RESHAPE THE ROADWAY PRIOR TO PAVING THE TOP COURSE ALONG THE COLD PLANE TYPICAL SECTION. AN ESTIMATED THICKNESS OF 1/2in. OF ITEM 490.30 HAS BEEN INCLUDED TO COVER THIS PROVISION.

ALL ASPHALT CEMENT USED IN THE BITUMINOUS CONCRETE PAVEMENT SHALL BE PG 64-28.

2. EMULSIFIED ASPHALT SHALL BE APPLIED ON EXISTING PAVEMENT SURFACES, BETWEEN ALL COURSES OF PAVEMENT AND ON COLD PLANED SURFACES AT THE RATE OF 0.025 GAL/SY OR AS DIRECTED BY THE RESIDENT ENGINEER.
3. SUPERPAVE BITUMINOUS CONCRETE PAVEMENT TOLERANCE = +/- 1/4in (TOTAL THICKNESS EXCLUDING LEVELING).
4. COLD PLANING TO BE COMPLETED ACCORDING TO THE TYPICAL OR AS NOTED OTHERWISE ON THE PLANS. A FULL DEPTH BUTT JOINT SHALL BE CONSTRUCTED AT THE PROJECT BEGIN/END AND AT ALL RAMP APPROACHES AS DENOTED ON THE PROJECT PLANS OR AS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER. ALL BUTT JOINTS SHALL BE SAW CUT, INCIDENTAL TO ITEM 210.10.
5. ITEM 604.412 IS AN ESTIMATED QUANTITY AND SHALL BE PERFORMED AT LOCATIONS INDICATED ON THE LAYOUT SHEETS AND AS DIRECTED BY THE RESIDENT ENGINEER. ALL D.I.'S SHALL BE RAISED OR REHABILITATED SUCH THAT THE NEW GRATE ELEVATION IS LEVEL WITH THE SURROUNDING TERRAIN.
6. AREAS ADJACENT TO THE SHOULDER, WHERE EXISTING GUARD RAIL IS BEING RETAINED, THAT HAVE BUILT UP EXCESS MATERIAL ARE TO BE GRADED IN ORDER TO ALLOW THE SHOULDER TO DRAIN AS DIRECTED BY THE RESIDENT ENGINEER. PAYMENT WILL BE MADE UNDER ITEM 203.40, SHOULDER BERM REMOVAL.
7. AREAS ADJACENT TO THE SHOULDER THAT HAVE BUILT UP EXCESS MATERIAL ARE TO BE GRADED IN ORDER TO ALLOW THE SHOULDER TO DRAIN AS DIRECTED BY THE RESIDENT ENGINEER. PAYMENT WILL BE MADE UNDER ITEM 608.15, GRADER RENTAL.
8. ALL EDGES OF PAVEMENT, AND CURB AT GUARD RAIL, SHALL BE BACKED UP FULL HEIGHT WITH COLD PLANE GRINDINGS AS DIRECTED BY THE RESIDENT ENGINEER AND WILL BE PAID FOR UNDER ITEM 402.13, AGGREGATE SHOULDERS, RAP.
9. ESTIMATED QUANTITIES OF ITEM 608.25, EXCAVATOR RENTAL, TYPE I AND 608.37, TRUCK RENTAL, AND 608.40 LOADER RENTAL, TYPE I HAVE BEEN INCLUDED FOR CONSTRUCTING GUARD RAIL FLARES. QUANTITIES OF EARTH BORROW AND AGGREGATE SHOULDERS, RAP HAVE ALSO BEEN INCLUDED FOR CONSTRUCTING AND RESHAPING THE MANUFACTURED TERMINAL SECTION FLARES WHICH SHALL BE CAPPED WITH AN ESTIMATED 3" DEPTH OF AGGREGATE SHOULDERS, RAP AS DIRECTED BY THE RESIDENT ENGINEER. THE QUANTITIES INCLUDED REFLECT 25 CUBIC YARDS OF EARTH BORROW AND 5 TONS OF AGGREGATE SHOULDERS, RAP FOR EACH GUARD RAIL TERMINAL. ITEM 653.20 TEMPORARY EROSION MATTING SHALL BE PLACED ON SLOPES GREATER THAN 1:6 CREATED BY THE GUARDRAIL FLARE. THE QUANTITIES INCLUDED REFLECT 25 SY OF ITEM 653.20, TEMPORARY EROSION MATTING FOR EACH NEW GUARD RAIL FLARE.
10. POWER BROOM RENTAL, TYPE II, SHALL BE USED TO CLEAN THE MATERIAL FROM IN FRONT OF THE EXISTING TREATED TIMBER CURB.
11. THE CONTRACTOR SHALL MAINTAIN COLD PLANE AND PAVING DEPTHS THAT DO NOT REDUCE THE CLEARANCE HEIGHTS OF THE ROADWAY OR SHOULDERS UNDER THE OVERPASS BRIDGES (*60, *62 & *64). THESE HEIGHTS SHALL BE RECORDED BY THE RESIDENT ENGINEER PRIOR TO THE START OF CONSTRUCTION AND SHALL BE REMEASURED AFTER PAVING OPERATIONS ARE COMPLETE. IF IT IS DETERMINED THAT A REDUCTION IN CLEAR HEIGHT HAS OCCURED, THE CONTRACTOR SHALL RE-ESTABLISH THE ORIGINAL CLEAR HEIGHT AT NO ADDITIONAL EXPENSE TO THE STATE.
12. COMPACTION, GRADING, AND CLEAN UP OF ITEM 402.13, AGGREGATE SHOULDERS, RAP AND ITEM 651.35, TOPSOIL IS TO BE INCLUDED IN THE CONTRACT UNIT PRICE OF EACH ITEM.
13. AN ESTIMATED QUANTITY OF ITEM 619.17, YIELDING MARKER POSTS HAS BEEN INCLUDED TO DELINEATE CULVERT ENDS AND DROP INLETS LOCATED OUTSIDE OF THE PAVEMENT SURFACE OR AS DIRECTED BY THE RESIDENT ENGINEER.
14. IN AREAS OF RUTTING THE COLD PLANE DEPTH SHOULD BE MEASURED FROM THE HIGH POINTS OF THE ROADWAY SECTION.
15. ALL DELINEATORS WITHIN THE PROJECT ARE TO BE REPLACED AS DIRECTED BY THE RESIDENT ENGINEER. PAYMENT WILL BE MADE UNDER ITEM 676.10, DELINEATOR WITH STEEL POST.



MAINLINE TYPICAL SECTION

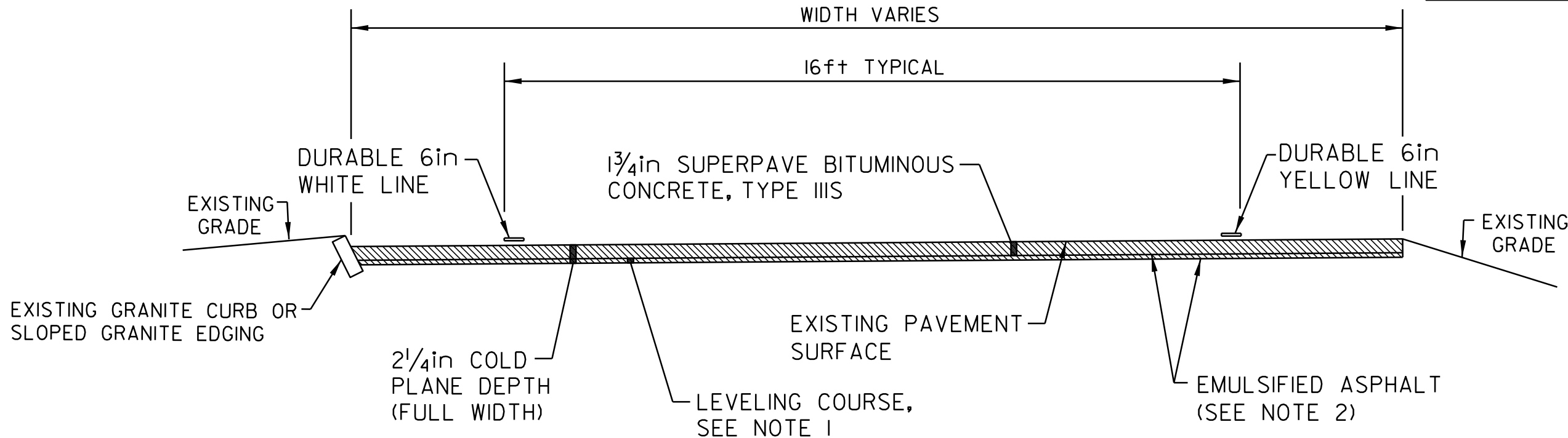
NORTHBOUND

STA 4170+67 TO 4221+61
STA 4224+83 TO 4614+56
FOR BRIDGES SEE SHEET 52

NOTE: IF THE CONTRACTOR ELECTS TO COLD PLANE THE 10' SHOULDER PRIOR TO COLD PLANING THE ADJACENT TRAVEL LANE THE 1 3/4" BASE COURSE SHALL BE PAVED THE SAME WORKDAY.

IF THE CONTRACTOR CHOOSES TO COLD PLANE THE 4" DEPTH ON THE 10' SHOULDER IN TWO PASSES, PAYMENT WILL ONLY BE MADE FOR THE FIRST PASS.

FINAL GRADING OF THE EXPOSED SHOULDER SUBBASE MATERIAL SHALL BE COMPLETED AS DIRECTED BY THE RESIDENT ENGINEER. AN ESTIMATED QUANTITY OF 608.15, POWER GRADER RENTAL, HAS BEEN INCLUDED TO COMPLETE THIS GRADING.



RAMP PAVEMENT TYPICAL

LOCATION

INTERCHANGE 12
ON & OFF RAMPS – SEE DETAILS, SHEET 62

PROJECT PAVING LIMITS

TOWN & ROUTE	BEGIN STATION	END STATION	LANE TYPICAL	WEARING DEPTH	LEVELING Tons	NOTES
RICHMOND - INTERSTATE 89 NB	4170+67	4199+89	4-12-12-10	1 3/4 in	360	COLD PLANE 2 1/4", LEVEL & PAVE WITH 1 3/4" TYPE IIIS COLD PLANE 10' SHOULDER 4", 1 3/4" BASE COURSE, LEVEL & OVERLAY
WILLISTON - INTERSTATE 89 NB	4199+89	4221+61	4-12-12-10	1 3/4 in	310	COLD PLANE 2 1/4", LEVEL & PAVE WITH 1 3/4" TYPE IIIS COLD PLANE 10' SHOULDER 4", 1 3/4" BASE COURSE, LEVEL & OVERLAY
WILLISTON - INTERSTATE 89 NB	4221+61	4224+83	4-12-12-10	1 3/4 in	-	FRENCH HILL SETTLEMENT AREA SEE SHEET 70 FOR TYPICAL
WILLISTON - INTERSTATE 89 NB	4224+83	4488+13	4-12-12-10	1 3/4 in	3,240	COLD PLANE 2 1/4", LEVEL & PAVE WITH 1 3/4" TYPE IIIS COLD PLANE 10' SHOULDER 4", 1 3/4" BASE COURSE, LEVEL & OVERLAY
SO. BURLINGTON - INTERSTATE 89 NB	4488+13	4614+56	4-12-12-10	1 3/4 in	1,560	COLD PLANE 2 1/4", LEVEL & PAVE WITH 1 3/4" TYPE IIIS COLD PLANE 10' SHOULDER 4", 1 3/4" BASE COURSE, LEVEL & OVERLAY

PROJECT
TYPICAL
SHEET #1

DESIGNED BY	BCE/PJM	DATE	6-07
DRAWN BY	C.E.A., INC.	DATE	6-07
DESIGN FILE NO.	p01a030.dgn		
PRF FILE	p01a030+typ.i	DATE PLOTTED	*****DATE*
PROJ. NAME	RICHMOND-SO. BURLINGTON		
PROJ. NO.	IM089-2(39)		
SHEET	51	OF	91 SHEETS



NOTE:

THE CONTRACTOR SHALL PERFORM COLD PLANING WITH CAUTION. ANY DAMAGE WHICH OCCURS TO MEMBRANES AS A RESULT OF COLD PLANE OPERATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THE MEMBRANE WILL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR.



NOTES:

1. PROVIDE TEMPORARY PAVEMENT WEDGES AS DIRECTED BY THE RESIDENT ENGINEER (TAPER 1in IN 50 ft MIN.)
2. BRIDGE #61N
 - 3" +/- OF EXISTING PAVEMENT
 - HAS MEMBRANE
 - 2 STEEL EXPANSION JOINTS, 2 ASPHALTIC PLUG JOINTS
3. BRIDGE #63N
 - 3" +/- OF EXISTING PAVEMENT
 - HAS MEMBRANE
 - 2 ASPHALTIC PLUG JOINTS
4. BRIDGE #65N
 - 3" +/- OF EXISTING PAVEMENT
 - HAS MEMBRANE
 - 2 STEEL EXPANSION JOINTS, 2 ASPHALTIC PLUG JOINTS
5. BRIDGE #66N
 - 3" +/- OF EXISTING PAVEMENT
 - HAS MEMBRANE
 - 2 STEEL EXPANSION JOINTS, 2 ASPHALTIC PLUG JOINTS



ALL GUARDRAIL SHALL BE STEEL BEAM WITH STEEL POSTS
AND WOOD BLOCKOUTS (OR APPROVED ALTERNATIVE MATERIAL). NEW
GUARDRAIL SHALL BE INSTALLED IN COMPLIANCE WITH STANDARD G-1.



NOTES:

1. BLEEDERS ARE TO BE CUT WHILE COLD PLANING, AT LOCATIONS SPECIFIED BY THE RESIDENT ENGINEER.
2. ANGLE BLEEDERS TO BEST ACCEPT WATER FLOW.
3. CUT ALL BLEEDERS TO THE DEPTH OF COLD PLANING AND GRADE TO DRAIN. PAYMENT INCIDENTAL TO ITEM 210.10.
4. BLEEDERS ARE TO BE FILLED DURING PAVING WITH ITEM 490.30 OR AS DESIGNATED BY THE RESIDENT ENGINEER.
5. REFLECTORIZED DRUMS MUST BE PLACED AS SHOWN TO WARN MOTORISTS OF THE GAP IN THE SHOULDER.
6. BLEEDERS ARE NOT REQUIRED IF THE COLD PLANED AREAS ARE PAVED BACK THE SAME DAY.

RURAL AREAS

% WT.	lbs./ACRE	NAME	PUR%	GERM%
37.5	22.5	CREEPING RED FESCUE	98	85
37.5	22.5	TALL FESCUE	95	90
5.0	3	RED TOP	95	90
15.0	9	BIRDSFOOT TREFOIL	98	85
5.0	3	ANNUAL RYEGRASS	95	85
100.0	60			

SEED MIXTURE:
SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT
AND SHALL BE FREE OF ALL NOXIOUS SEED.

SEED:
TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE
RESIDENT ENGINEER.

FERTILIZER:
FORMULA 10-20-10, TO BE USED WITH SEED , APPLIED AT THE
RATE OF 500 LBS/ACRE. (HYDRO SEEDERS MAY USE 19-19-19
FORMULA)

AGRICULTURAL LIMESTONE:
TO BE APPLIED AT THE RATE OF 2.0 TONS/ACRE, OR AS DIRECTED
BY THE RESIDENT ENGINEER.

HAY MULCH:
TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2.0 TONS/ACRE,
OR AS DIRECTED BY THE RESIDENT ENGINEER.

TOPSOIL:
TO BE USED AS INDICATED ON THE PLANS, OR AS DIRECTED BY
THE RESIDENT ENGINEER.

PROJECT TYPICAL SHEET #2

DESIGNED BY BCE/PJM DATE 6-07

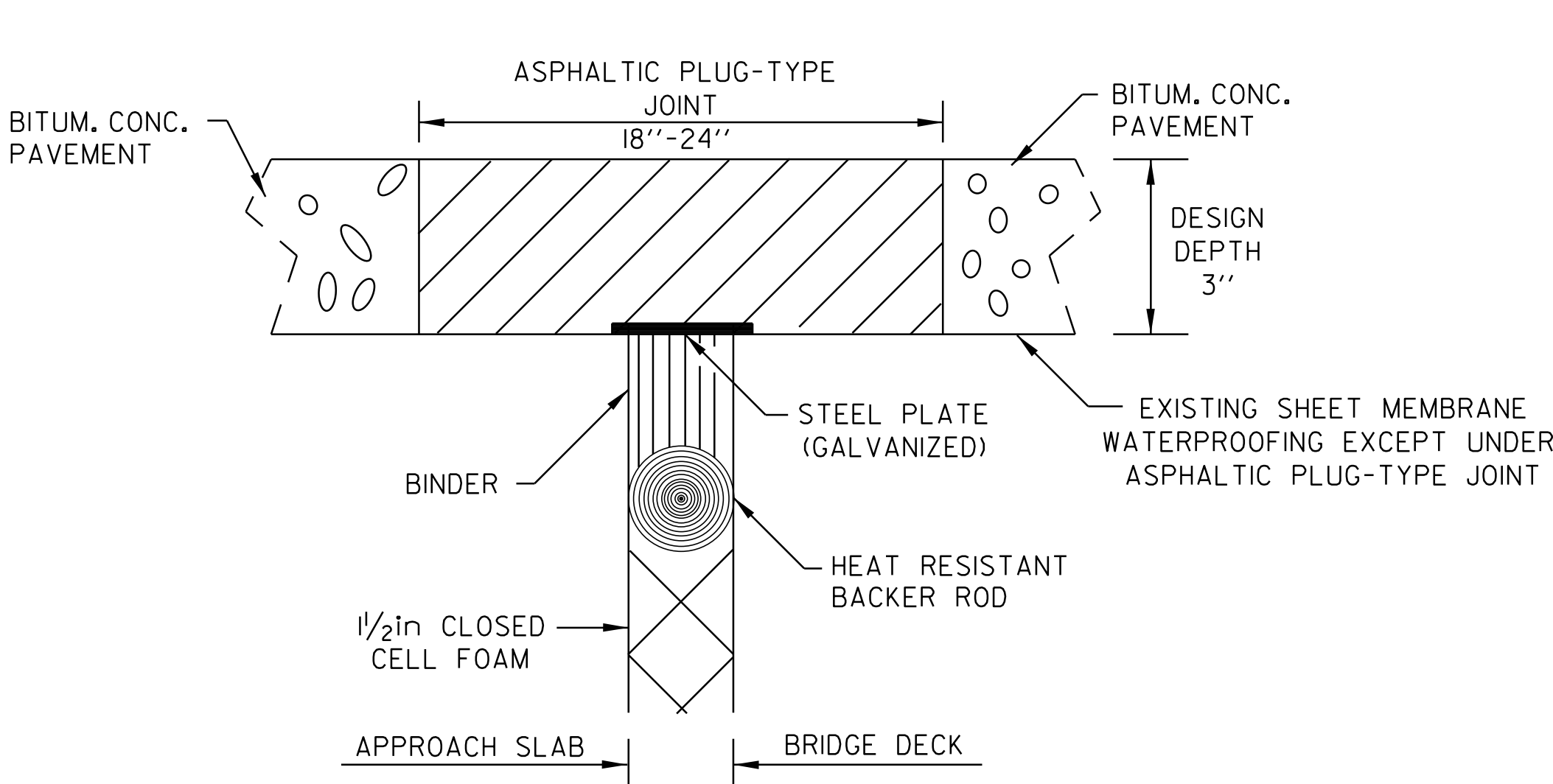
DRAWN BY C.E.A., INC. DATE 6-07

DESIGN FILE NO. p0la030.dgn

PRF FILE p01a030+yp2.i DATE PLOTTED \$\$\$\$\$\$DATE

PROJ. NAME **RICHMOND-SO. BURLINGTON**

PROJ. NO. **IM089-2(39)**SHEET **52** OF **91** SHEETS



* REFER TO SPECIAL PROVISIONS
FOR BASIS OF PAYMENT

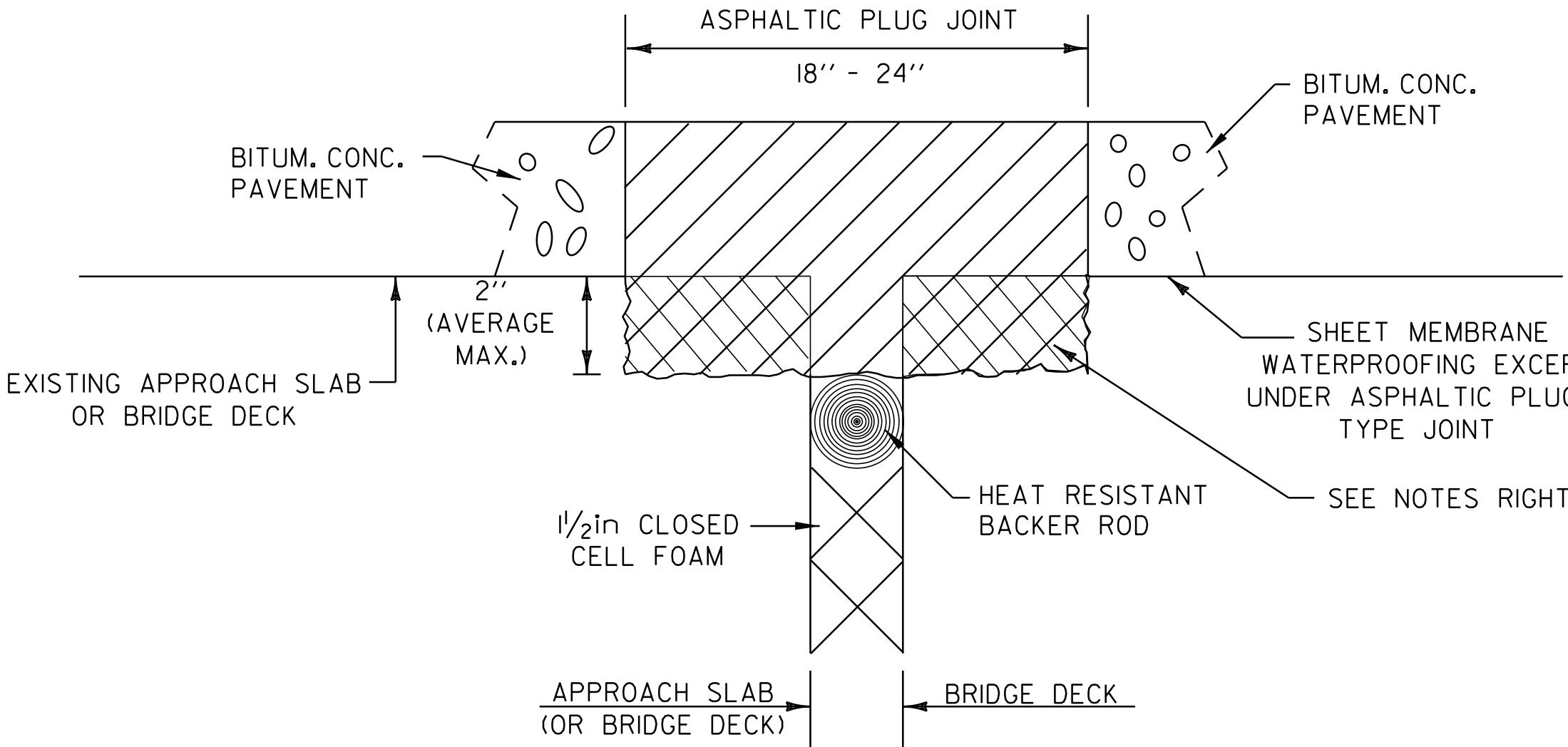
**- ASPHALTIC PLUG TYPE JOINT DETAIL -
LOCATION**

BRIDGE #61N (30ft+) STA 4432+05
BRIDGE #61N (30ft+) STA 4433+65
BRIDGE #63N (38ft+) - STA 4487+24
BRIDGE #63N (38ft+) - STA 4487+87
BRIDGE #65N (36ft+) - STA 4603+40
BRIDGE #65N (36ft+) - STA 4605+25
BRIDGE #66N (34ft+) - STA 4613+15
BRIDGE #66N (34ft+) - STA 4615+05

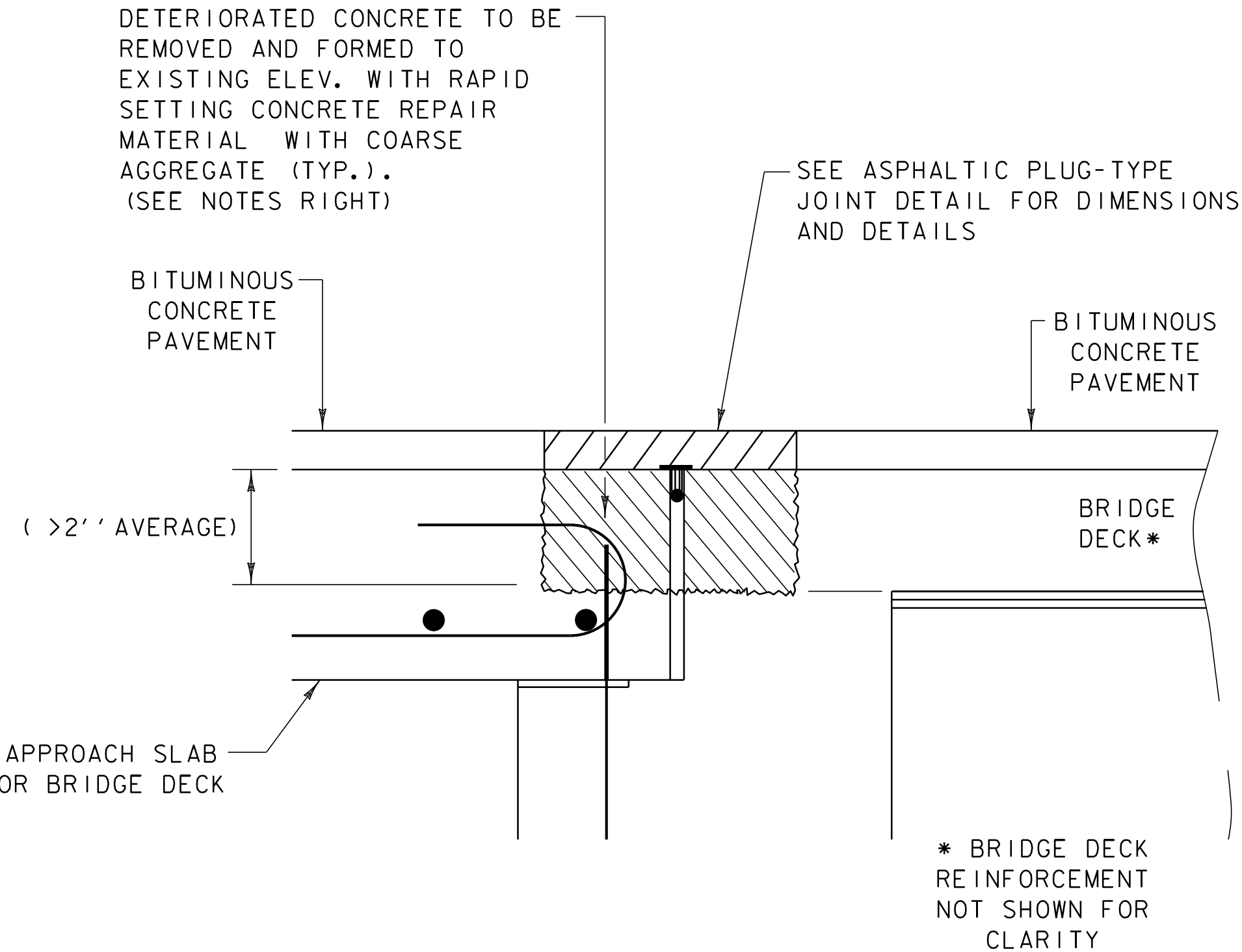
**- ASPHALTIC PLUG BRIDGE JOINT -
GENERAL NOTES**

INSTALLATION:

1. THE JOINT SHALL BE LOCATED CENTRALLY OVER THE DECK EXPANSION GAP OR FIXED JOINT MARKED OUT TO THE MANUFACTURERS RECOMMENDED WIDTH.
2. THE JOINT SHALL BE EXCAVATED AS SHOWN ON THE PLANS BY USE OF SAWS AND PNEUMATIC HAMMER OR A HAMMER AND CHISEL.
3. THE JOINT SHALL BE BLAST CLEANED OF DEBRIS AND ASPHALT. THE JOINT AREA SHALL BE THOROUGHLY DRIED USING HOT COMPRESSED AIR PRIOR TO APPLYING BINDER MATERIAL.
4. SPALLED AND DEFECTIVE CONCRETE SHALL BE REPAIRED WITH AN APPROVED MATERIAL AS AGREED UPON BY THE RESIDENT ENGINEER.
5. PROPERLY SIZED HEAT RESISTANT BACKER ROD SHALL BE PLACED IN THE MOVEMENT GAP ALLOWING FOR 1 INCH +/- OF BINDER ABOVE THE ROD.
6. THE BINDER MATERIAL SHALL BE HEATED AND PLACED AS RECOMMENDED BY THE MANUFACTURER.
7. PLACE 1/4 INCH THICK BY 8 INCH WIDE SECTIONS OF STEEL PLATE OVER THE CENTER OF THE MOVEMENT GAP. SECURE PLATES FROM MOVING BY INSERTING LOCATING PINS THROUGH THE PRESTAMPED HOLES INTO THE BACKER ROD AND COVER WITH HOT BINDER.
 - a. THE STEEL PLATES MAY BE OMITTED WHERE THE APPROACH SLAB IS COVERED WITH A STONE BASE OR BITUMINOUS PAVEMENT, AND VERTICAL MOVEMENT OF THE PLATES MIGHT OCCUR.
8. THE BINDER MATERIAL AND AGGREGATE SHALL BE HEATED AND MIXED AS RECOMMENDED BY THE MANUFACTURER.
9. THE INSTALLATION OF MATERIAL, COMPACTION AND TOPCOATING SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
10. IMMEDIATELY AFTER TOPCOATING, AN ANTI-SKID MATERIAL SHALL BE CAST OVER THE JOINT TO REDUCE THE RISK OF TRACKING.
11. JOINT SHALL BE PROTECTED FROM TRAFFIC UNTIL THE MATERIAL HAS COOLED TO 125 DEGREES F +/-.



**ASPHALTIC PLUG-TYPE
JOINT DETAIL
REMOVAL OF UP TO
2" DETERIORATED CONCRETE**



**ASPHALTIC PLUG-TYPE
JOINT DETAIL
REMOVAL OF >2"
DETERIORATED CONCRETE**

NOTES:

1. UPON ENCOUNTERING UP TO 2" AVERAGE OF DETERIORATED CONCRETE, THE CONTRACTOR SHALL REMOVE THE DETERIORATED MATERIAL AND REPLACE IT WITH THE ASPHALTIC PLUG JOINT MATERIAL AS DIRECTED BY THE RESIDENT ENGINEER.
2. REMOVAL OF THE DETERIORATED CONCRETE WILL NOT BE PAID SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO THE UNIT BID PRICE FOR ITEM 516.10. THE ADDITIONAL PLUG JOINT MATERIAL BELOW THE DESIGN DEPTH TO REPLACE THE DETERIORATED CONCRETE WILL BE CONSIDERED INCIDENTAL TO THE UNIT BID PRICE FOR ITEM 516.10.
3. THE STEEL PLATE IN THE ASPHALTIC PLUG JOINT MAY BE OMITTED ONLY IF THE REPAIRED SURFACE IS SO IRREGULAR IT WILL CAUSE VERTICAL MOVEMENT AND IT IS DIRECTED BY THE RESIDENT ENGINEER.

NOTES:

1. UPON ENCOUNTERING GREATER THAN 2" AVERAGE OF DETERIORATED CONCRETE, THE CONTRACTOR SHALL REMOVE THE DETERIORATED MATERIAL AND REPLACE IT WITH RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE.
2. REMOVAL OF THE DETERIORATED CONCRETE WILL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 580.20 "RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE".
3. THE STEEL PLATE IN THE ASPHALTIC PLUG JOINT MAY BE OMITTED ONLY IF THE REPAIRED SURFACE IS SO IRREGULAR IT WILL CAUSE VERTICAL MOVEMENT AND IT IS DIRECTED BY THE RESIDENT ENGINEER.

WEATHER LIMITATIONS:

1. BINDER MATERIAL SHALL BE APPLIED ONLY WHEN THE FOLLOWING CONDITIONS PREVAIL:
 - a. THE AMBIENT AIR TEMPERATURE IS AT LEAST 50 DEGREES F AND RISING.
 - b. THE ROAD SURFACE IS SUFFICIENTLY DRY.
 - c. WEATHER CONDITIONS OR OTHER CONDITIONS ARE FAVORABLE AND ARE EXPECTED TO REMAIN SO FOR THE PERFORMANCE OF THE SATISFACTORY WORK.

**PROJECT
TYPICAL
SHEET #3**

DESIGNED BY	BCE/PJM	DATE	6-07
DRAWN BY	C.E.A., INC.	DATE	6-07
DESIGN FILE NO.	p01a030.dgn		
PRF FILE	p01a030+yp3.i	DATE PLOTTED	*****DATE*
PROJ. NAME	RICHMOND-SO. BURLINGTON		
PROJ. NO.	IM089-2(39)		
SHEET	53	OF	91 SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET #1

APPROXIMATE SUMMARY OF QUANTITIES									
EMPLOYEE TRAINEESHIP	FULL CE	NON GOV'T PARTICIPATING	GOV'T PARTICIPATING		QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
			BRIDGE	ROADWAY					
				2	2	EA	THINNING AND TRIMMING FOR SIGNS	201.31	EST
				3,200	3,200	CY	COMMON EXCAVATION	203.15	
				325	325	CY	EARTH BORROW	203.30	EST
				1,600	1,600	CY	GRANULAR BORROW	203.32	
				13,900	13,900	LF	SHOULDER BERM REMOVAL	203.40	60
				775	775	CY	TRENCH EXCAVATION OF EARTH	204.20	
				1	1	CY	TRENCH EXCAV. OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	EST
				197,000	197,000	SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10	1,210
				77,000	77,000	LF	MILLED RUMBLE STRIPS	213.10	EST
				725	725	CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	
				1,900	1,900	TON	AGGREGATE SHOULDERS, RAP	402.13	EST
				830	830	CWT	EMULSIFIED ASPHALT	404.65	EST
				0.5	0.5	LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	--
				32,300	32,300	TON	SUPERPAVE BIT. CONCRETE PAVEMENT (PG 64-28)	490.30	350
				0.5	0.5	LU	AIR VOIDS PAY ADJUSTMENT (N.A.B.I.)	490.31	--
				0.5	0.5	LU	MAT DENSITY PAY ADJUSTMENT (N.A.B.I.)	490.32	--
				0.5	0.5	LU	SURFACE TOLERANCE PAY ADJUSTMENT (N.A.B.I.)	490.33	--
				0.5	0.5	LU	LONG. JOINT COMPACTION PAY ADJUST. (N.A.B.I.)	490.34	--
				1	1	CY	CONCRETE, HIGH PERFORMANCE CLASS B	501.34	
			280		280	LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10	4
			100		100	CF	RAPID SETTING CONC. REPAIR MAT. W/COARSE AGG.	580.20	EST
				64	64	LF	24" CPEP (SL)	601.2620	
				490	490	LF	30" CPEP (SL)	601.2625	
				6	6	EA	REHABILITATION OF D.I., C.B. OR M.H. CLASS I	604.412	EST
				40	40	LF	6 INCH UNDERDRAIN PIPE	605.10	
				25	25	LF	6 INCH UNDERDRAIN CARRIER PIPE	605.20	
				150	150	HR	POWER GRADER RENTAL	608.15	EST
				120	120	HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	EST
				90	90	HR	POWER BROOM RENTAL, TYPE I	608.30	EST
				10	10	HR	POWER BROOM RENTAL, TYPE II	608.31	EST
				240	240	HR	TRUCK RENTAL	608.37	EST
				130	130	HR	LOADER RENTAL, TYPE I	608.40	EST
				445	445	CY	STONE FILL, TYPE I	613.10	--
				100	100	LF	TREATED TIMBER CURB	616.35	5
				10	10	EA	YIELDING MARKER POSTS	619.17	EST
				975	975	LF	STEEL BEAM GUARD RAIL, GALVANIZED	621.20	12.5
				13	13	EA	MANUFACTURED TERMINAL SECTION, FLARED	621.50	--
				3	3	EA	ANCHOR FOR STEEL BEAM RAIL	621.60	--
				1	1	EA	ANCHOR FOR CABLE RAIL	621.65	--
				325	325	LF	REMOVING AND RESETTNG GUARDRAIL	621.75	EST

DETAILED SUMMARY OF QUANTITIES		
QUANTITIES	UNIT	ITEMS
		COLD PLANING - BITUMINOUS PAVEMENT
187,260	SY	INTERSTATE 89 NB TRAVEL LANE, SHOULDERS, BRIDGES
2,530	SY	REST AREA DECEL. AND ACCEL. LANES
3,200	SY	INTERCHANGE #12 OFF RAMP 'A', AND DECEL. LANE
2,800	SY	INTERCHANGE #12 ON RAMP 'D', AND ACCEL. LANE
1,210	SY	ROUNDING
197,000	SY	TOTAL
		SUPERPAVE BIT. CONCRETE PAVEMENT (PG 64-28)
		TYPE IYS (LEVELING)
5,470	TON	INTERSTATE 89 NB TRAVEL LANES AND SHOULDERS
80	TON	REST AREA DECEL. AND ACCEL. LANES
240	TON	BRIDGES (WEARING COURSE)
100	TON	INTERCHANGE #12, OFF RAMP 'A' AND DECEL. LANE
90	TON	INTERCHANGE #12 ON RAMP 'D', AND ACCEL. LANE
		TYPE IIIS (BASE)
5,290	TON	MAINLINE SHOULDER
		TYPE IIIS (WEARING)
19,120	TON	INTERSTATE 89 NB TRAVEL LANES AND SHOULDERS
260	TON	REST AREA DECEL. AND ACCEL. LANES
330	TON	INTERCHANGE #12, OFF RAMP 'A' AND DECEL. LANE
290	TON	INTERCHANGE #12 ON RAMP 'D', AND ACCEL. LANE
		TYPE IS (BASE)
680	TON	FRENCH HILL SETTLEMENT AREA
350	TON	ROUNDING
32,300	TON	TOTAL
		AGGREGATE SHOULDERS, RAP
1,675	TON	INTERSTATE 89 NB SHOULDERS AND RAMPS
65	TON	ITEM DETAIL SHEET QUANTITY
10	TON	BACKUP TREATED TIMBER CURB
150	TON	FRENCH HILL SETTLEMENT AREA
1,900	TON	ESTIMATED TOTALS
		STONE FILL, TYPE I
385	CY	FROM DITCH CLEANING DETAIL SHEET
60	CY	FRENCH HILL SETTLEMENT AREA WORK
445	CY	ESTIMATED TOTALS

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TOTALS			
QUANTITY SHEET #1	PROJECT NAME	RICHMOND-SO. BURLINGTON	p0la030.dgn
	PROJECT NUMBER	IM089-2(39)	p0la030qsl.i
			DATE PLOTTED
			SHEET 54 OF

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET #2

APPROXIMATE SUMMARY OF QUANTITIES									
EMPLOYEE TRAINEESHIP	FULL CE	NON GOV'T PARTICIPATING	GOV'T PARTICIPATING		QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
			BRIDGE	ROADWAY					
				220	220	EA	REPLACE GUARD RAIL POST ASSEMBLY	621.76	
				90	90	EA	REPLACE GUARD RAIL BEAM UNIT	621.77	EST
				550	550	LF	ADJUST HEIGHT OF GUARD RAIL	621.79	EST
				850	850	LF	REMOVAL AND DISPOSAL OF GUARD RAIL	621.80	12.5
				1,700	1,700	HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST
				3,000	3,000	HR	FLAGGERS	630.15	EST
	0.5				0.5	LS	FIELD OFFICE, ENGINEERS	631.10	--
	1				1	LS	TESTING EQUIPMENT, CONCRETE	631.16	--
	0.5				0.5	LS	TESTING EQUIPMENT, BITUMINOUS	631.17	--
	0.5				0.5	LU	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.25	EST
				0.5	0.5	LS	MOBILIZATION/DEMOBILIZATION	635.11	EST
				0.5	0.5	LS	PUBLIC RELATIONS OFFICER	641.12	EST
				4	4	EA	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	EST
				57,900	57,900	LF	DURABLE 6IN WHITE LINE, RECESSED	646.426	--
				46,500	46,500	LF	DURABLE 6IN YELLOW LINE, RECESSED	646.436	--
				1,750	1,750	LF	DURABLE 12IN WHITE LINE, RECESSED	646.466	--
				30	30	LF	DURABLE 24 IN STOP BAR, THERMOPLASTIC	646.482	--
				22	22	EA	DURABLE LETTER OR SYMBOL, THERMOPLASTIC	646.492	--
				115,800	115,800	LF	TEMPORARY 6IN WHITE LINE, PAINT	646.622	EST
				93,000	93,000	LF	TEMPORARY 6IN YELLOW LINE, PAINT	646.632	EST
				3,500	3,500	LF	TEMPORARY 12IN WHITE LINE, PAINT	646.662	EST
				60	60	LF	TEMPORARY 24IN STOP BAR, PAINT	646.682	EST
				44	44	EA	TEMPORARY LETTER OR SYMBOL, PAINT	646.692	--
				3,500	3,500	EA	LINE STRIPING TARGETS	646.76	EST
				1,510	1,510	SY	GEOTEXTILE FOR ROADBED SEPARATOR	649.11	
				1,750	1,750	SY	GEOTEXTILE UNDER STONE FILL	649.31	16
				3,515	3,515	SY	GEOTEXTILE FOR SILT FENCE	649.51	
				220	220	LB	SEED	651.15	EST
				915	915	LB	FERTILIZER	651.18	EST
				1	1	TON	AGRICULTURAL LIMESTONE	651.20	EST
				3	3	TON	HAY MULCH	651.25	EST
				905	905	CY	TOPSOIL	651.35	EST
				1	1	LS	EPSC PLAN	652.10	EST
				100	100	HR	MONITORING EPSC PLAN	652.20	EST
				1	1	LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	652.30	EST
				2,110	2,110	SY	TEMPORARY EROSION MATTING	653.20	10
				65	65	CY	TEMPORARY STONE CHECK DAM, TYPE I	653.25	
				4	4	EA	INLET PROTECTION DEVICE, TYPE I	653.40	
				2,225	2,225	LF	PROJECT DEMARCATION FENCE	653.55	
				68	68	SF	TRAFFIC SIGNS, TYPE A	675.20	0

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QUANTITY SHEET #2	PROJECT NAME	RICHMOND-SO.BURLINGTON	p0la030.dgn	DATE PLOTTED	
	PROJECT NUMBER	IM089-2(39)	p0la030qs2.i	SHEET	55 OF

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET #3

[illegible][illegible][illegible][illegible]

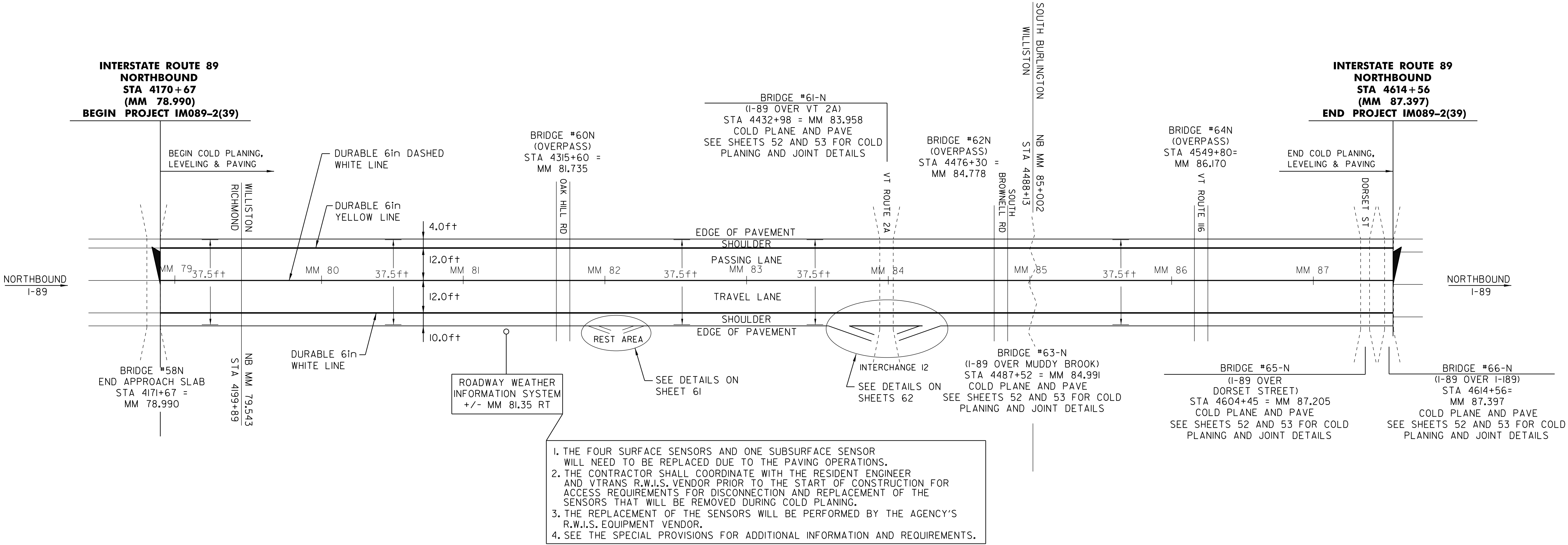
QUANTITY SHEET #3	PROJECT NAME	RICHMOND-SO.BURLINGTON	p0la030.dgn	DATE PLOTTED
	PROJECT NUMBER	IM089-2(39)	p0la030qs3.i	SHEET 56 OF

ITEM DETAIL SUMMARY SHEET #1

LOCATION			MISCELLANEOUS ITEMS					DRAINAGE ITEMS					GUARDRAIL ITEMS												DELINEATORS							REMARKS			
STA	STA	POS.	201.31	203.30	203.40	402.13	653.20		604.412	NEW PIPE					616.35	619.17	621.20	621.50	621.60	621.65	621.75	621.76	621.77	621.79	621.80	900.620	900.620	900.640	676.10					676.12	
			THIN & TRIM FOR SIGNS	EARTH BORROW	SHOULDER BERM REMOVAL	AGG. SHOULD. (RAP)	TEMP. EROSION MATTING		REHAB. D.I. CLASS I	DIA.	CSP (0.064)	RCP	CPEP	TREATED TIMBER CURB	YIELD. MARKER POSTS	STEEL BEAM G.R.	MANUF. TERMINAL SECTION, FLARED	ANCHOR FOR S.B. RAIL	ANCHOR FOR CABLE RAIL	REMOVE & RESET GUARD RAIL	REPLACE G.R. POST ASSEM.	REPLACE G.R. BEAM UNIT	ADJUST HEIGHT OF GUARD RAIL	REMOVE & DISP. OF GUARD RAIL	SPECIAL PROVIS. (CABLE G.R. SPLICE)	SPECIAL PROVIS. (CABLE G.R. J-BOLT)	SPECIAL PROVIS. (REPLACE G.R. CABLE)	TYPE I GUARD RAIL ENDS	TYPE I RAMPS	TYPE II	TYPE III		TYPE I MILE POSTS	REMOVAL OF EXISTING DELIN.	
			EA	CY	LF	TON	SY		EA	in	LF	LF	LF	LF	EA	LF	EA	EA	EA	LF	EA	EA	LF	LF	EA	EA	LF	EA	EA	EA	EA	EA	EA		
RICHMOND																																			
4170+67	4199+89	LT&RT			1, 210									25							20	12	62				10				10	10	ESTIMATED QUANTITIES TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER.		
4173+32		RT							1					10																			REHAB D. I.		
4193+08	4193+45	RT		25		5	25								1								37.5				1						REPLACE EXISTING END SECTION WITH NEW MANUFACTURED TERMINAL SECTION..		
WILLISTON																																			
4199+89	4488+13	LT&RT	1		11,000								25	10					325	142	70	450					15				63	60	ESTIMATED QUANTITIES TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER.		
4205+98	4206+35	RT		25		5	25								1								37.5				1						REPLACE EXISTING END SECTION WITH NEW MANUFACTURED TERMINAL SECTION..		
4220+40		LT							1																								REHAB D. I.		
4224+41		LT							1																								REHAB D. I.		
4235+37	4249+95	RT															1		5						45								ESTIMATED QUANTITIES FOR REPAIRS TO CABLE RAIL, TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER.		
4303+60	4309+06	RT																	8						12								ESTIMATED QUANTITIES FOR REPAIRS TO CABLE RAIL, TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER.		
4303+60	4309+60	LT																	8						12								ESTIMATED QUANTITIES FOR REPAIRS TO CABLE RAIL, TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER.		
4311+41	4312+66	LT		25		5	25							87.5	1								37.5			1							REPLACE EXISTING END SECTION WITH NEW MANUFACTURED TERMINAL SECTION, GUARDRAIL EXTENDED TO MEET LENGTH OF NEED REQUIREMENTS.		
4311+90	4314+40	RT		25		5	25							212.5	1								37.5			1							REPLACE EXISTING END SECTION WITH NEW MANUFACTURED TERMINAL SECTION, GUARDRAIL EXTENDED TO MEET LENGTH OF NEED REQUIREMENTS.		
4343+04	4343+41	RT		25		5	25								1								37.5			1							REPLACE EXISTING END SECTION WITH NEW MANUFACTURED TERMINAL SECTION..		
4347+78	4348+15	LT		25		5	25								1								37.5			1							REPLACE EXISTING END SECTION WITH NEW MANUFACTURED TERMINAL SECTION..		
4371+98	4372+35	RT		25		5	25								1								37.5			1							REPLACE EXISTING END SECTION WITH NEW MANUFACTURED TERMINAL SECTION..		
4424+26	4424+63	RT		25		5	25								1								37.5			1							REPLACE EXISTING END SECTION WITH NEW MANUFACTURED TERMINAL SECTION..		
4454+64	4463+66	RT																	5						18								ESTIMATED QUANTITIES FOR REPAIRS TO CABLE RAIL, TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER.		
4474+91	4476+91	RT		25		5	50							162.5	1	1						200				2							REPLACE EXISTING STEEL BEAM GUARDRAIL.		
4484+98	4485+35	RT		25		5	25								1								37.5			1							REPLACE EXISTING END SECTION WITH NEW MANUFACTURED TERMINAL SECTION..		
WILL. SO. BURL.																																			
4488+06	4488+31	RT					25							25		1						25				1							REPLACE EXISTING TWISTED END TERMINAL, INSTALL NEW RAIL WITH ANCHOR.		
SO. BURLINGTON																																			
4488+13	4614+56	LT&RT	1		1,630								25							13	8	38								45	45	ESTIMATED QUANTITIES TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER.			
4534+59	4540+21	RT																	4					3	12								ESTIMATED QUANTITIES FOR REPAIRS TO CABLE RAIL, TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER.		
4545+60	4550+72	RT		25		5	50						475	1	1							200				2							REPLACE EXISTING END SECTION WITH NEW MANUFACTURED TERMINAL SECTION, GUARDRAIL EXTENDED TO MEET LENGTH OF NEED REQUIREMENTS.		
4593+42	4597+09	RT																	15						6								ESTIMATED QUANTITIES FOR REPAIRS TO CABLE RAIL, TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER.		
4599+96	4600+33	RT		25		5	25							1								37.5				1							REPLACE EXISTING END SECTION WITH NEW MANUFACTURED TERMINAL SECTION..		
4606+30		RT							1																								REHAB D. I.		
4610+56		RT							1				10																				REHAB D. I.		
SHEET SUB-TOTALS			2	300	13,840	60	375		5					95	10	962.5	12	3	1	325	220	90	550	800	3	105	25	15	--	--	--	118	115		

ITEM DETAIL SUMMARY SHEET #2

[illegible]



646.622 & 646.426 TEMPORARY (PAINT) AND
DURABLE (RECESSED) 6in WHITE LINE
STA 4170+67 TO 4614+56 SOLID RT
STA 4170+67 TO 4614+56 DASHED C.L.

646.632 & 646.436 TEMPORARY (PAINT) AND
DURABLE (RECESSED) 6in YELLOW LINE
STA 4170+67 TO 4614+56 SOLID LT

604.412 REHABILITATION OF D.I., C.B., OR M.H.
STA 4173+32 RT
STA 4606+30 RT
STA 4610+56 RT
STA 1+60 LT, INTERCHANGE 12-RAMP D (THROAT D.I.)

621.20 STEEL BEAM GUARD RAIL, GALVANIZED
SEE ITEM DETAIL SHEET FOR LOCATIONS

621.80 REMOVAL AND DISPOSAL OF GUARD RAIL
SEE ITEM DETAIL SHEET FOR LOCATIONS

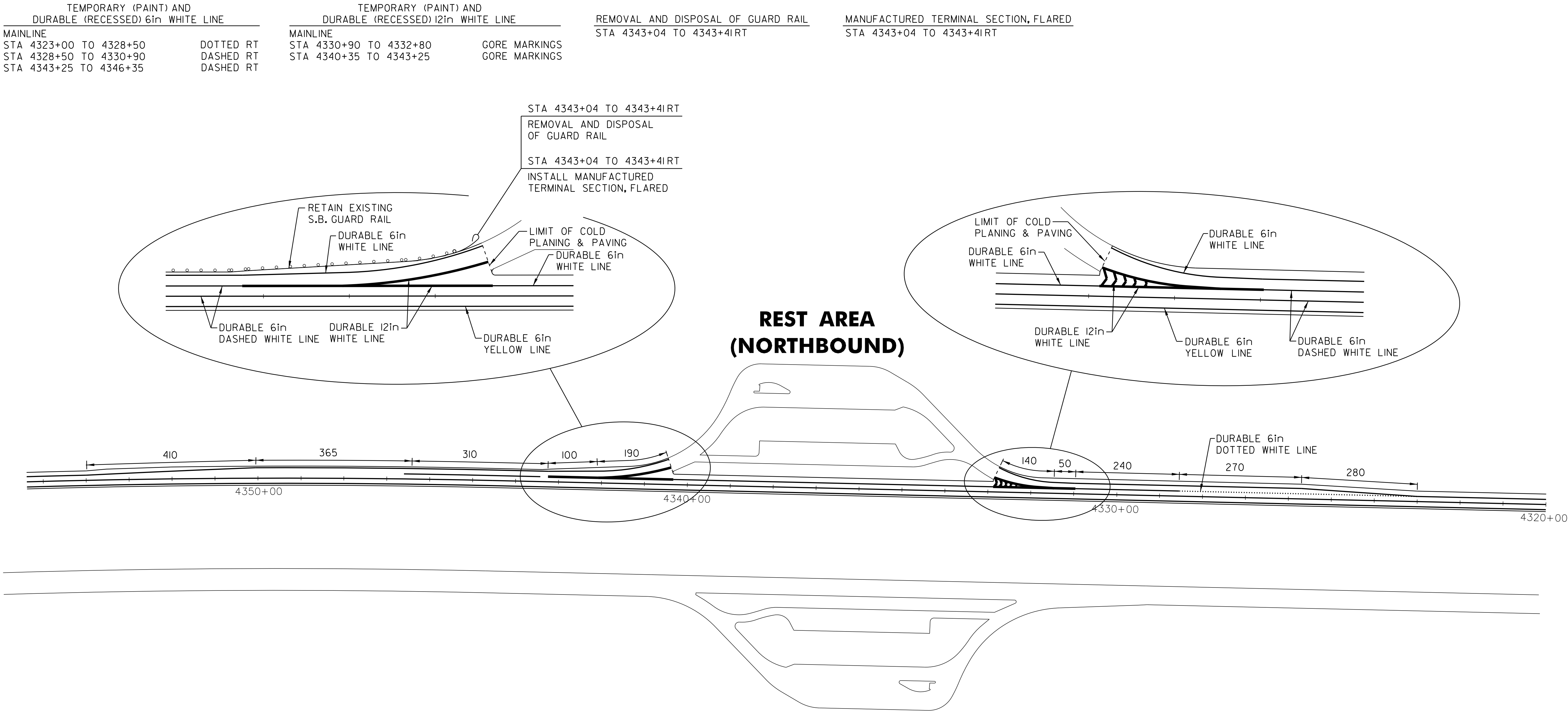
621.60 ANCHOR FOR GUARD RAIL
SEE ITEM DETAIL SHEET
FOR LOCATIONS

621.50 MANUFACTURED TERMINAL SECTION, FLARED
SEE ITEM DETAIL SHEET FOR LOCATIONS

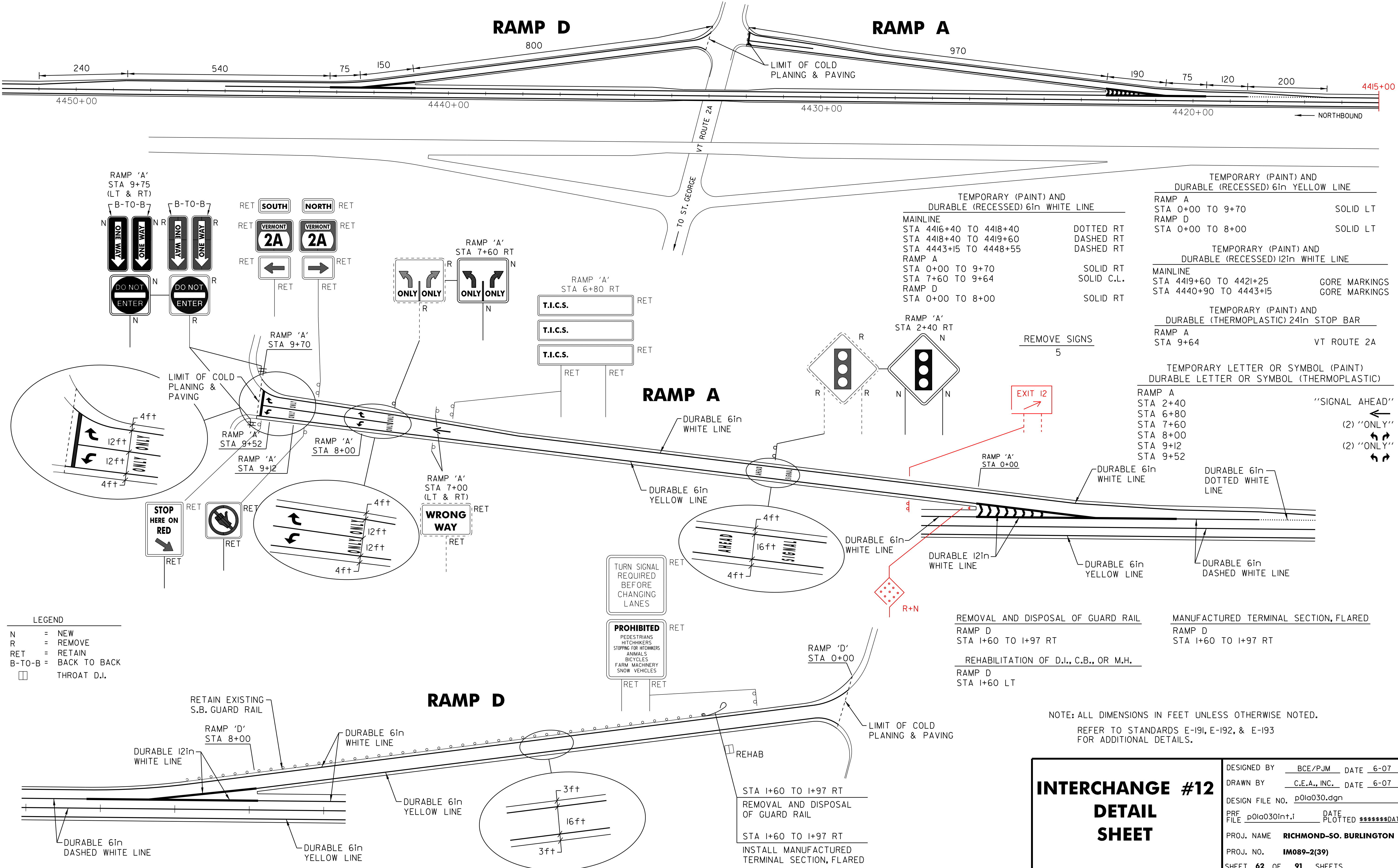
621.76 REPLACE GUARD RAIL POST ASSEMBLY
SEE ITEM DETAIL SHEET FOR LOCATIONS

621.77 REPLACE GUARD RAIL BEAM UNIT
SEE ITEM DETAIL SHEET FOR LOCATIONS

PAVING PROJECT LAYOUT (NORTHBOUND)	DESIGNED BY	BCE/PJM	DATE	6-07
	DRAWN BY	C.E.A., INC.	DATE	6-07
	DESIGN FILE NO.	p01a030.dgn		
	PRF FILE	p01a030il.i	DATE PLOTTED	#####DATE\$
	PROJ. NAME	RICHMOND-SO. BURLINGTON		
	PROJ. NO.	IM089-2(39)		
	SHEET	60	OF	91 SHEETS



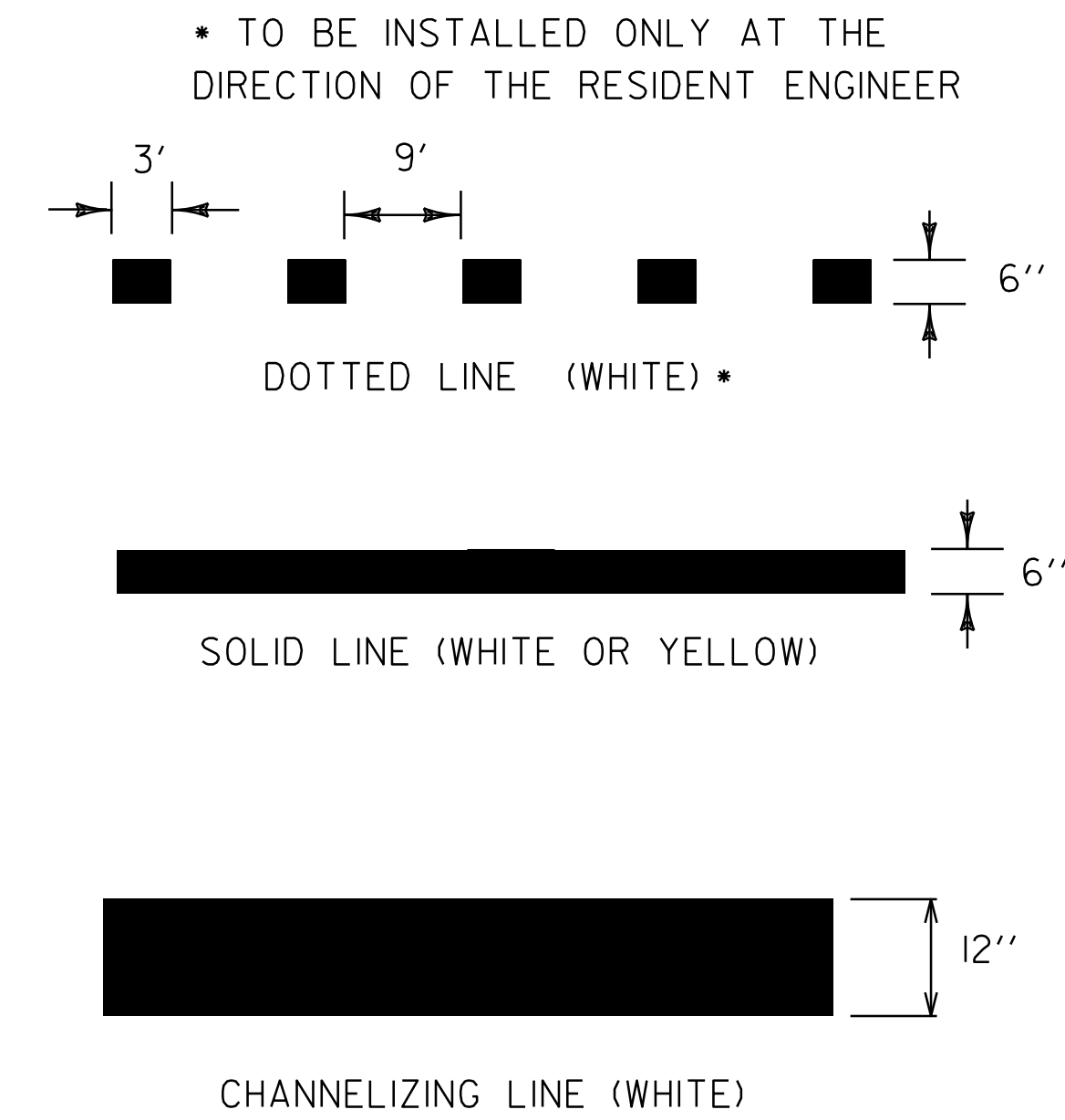
INTERCHANGE #12
(NORTHBOUND)



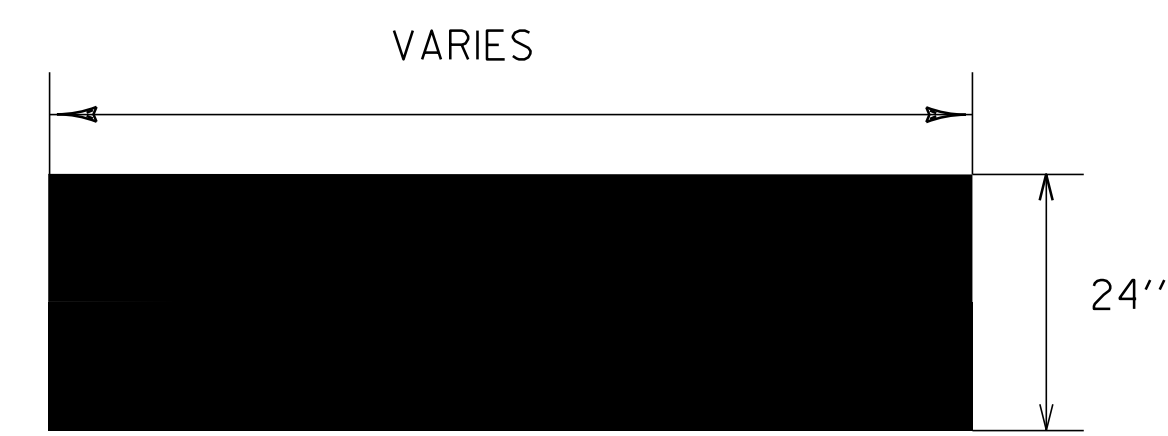
NOTE: ALL DIMENSIONS IN FEET UNLESS OTHERWISE NOTED.
REFER TO STANDARDS E-191, E-192, & E-193
FOR ADDITIONAL DETAILS.

INTERCHANGE #12
DETAIL
SHEET

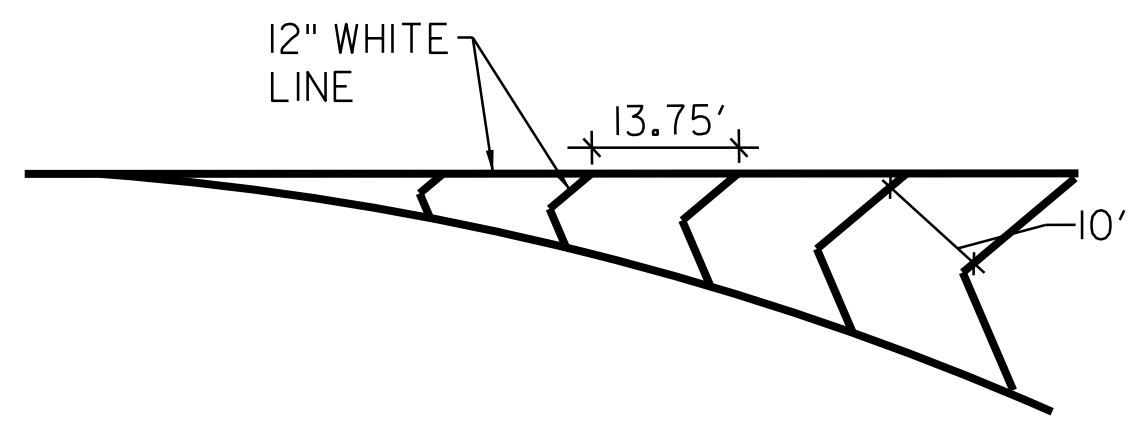
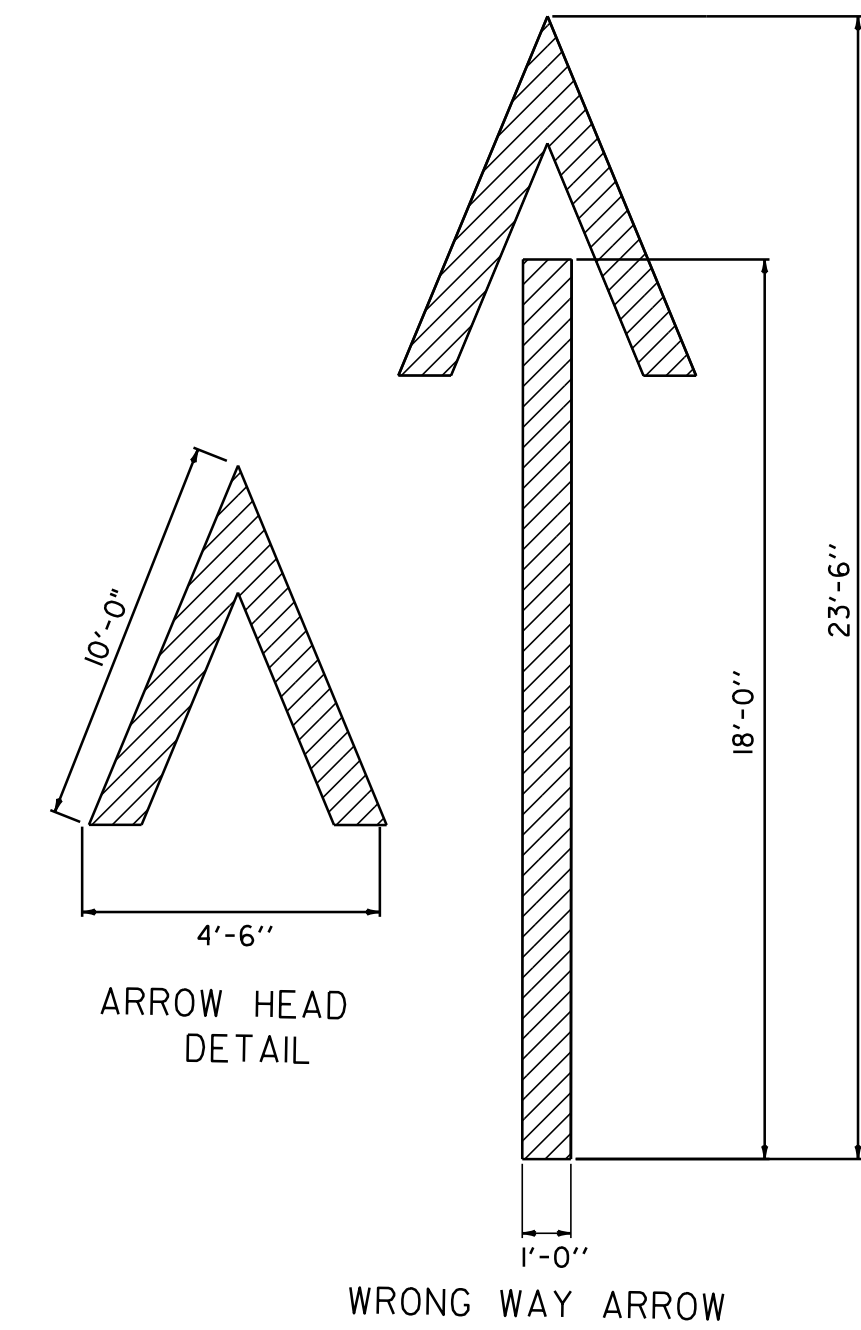
DESIGNED BY	BCE/PJM	DATE	6-07
DRAWN BY	C.E.A., INC.	DATE	6-07
DESIGN FILE NO.	p01a030.dgn		
PRF FILE	p01a030int.i	DATE PLOTTED	#####DATE
PROJ. NAME	RICHMOND-SO. BURLINGTON		
PROJ. NO.	IM089-2(39)		
SHEET	62	OF	91 SHEETS



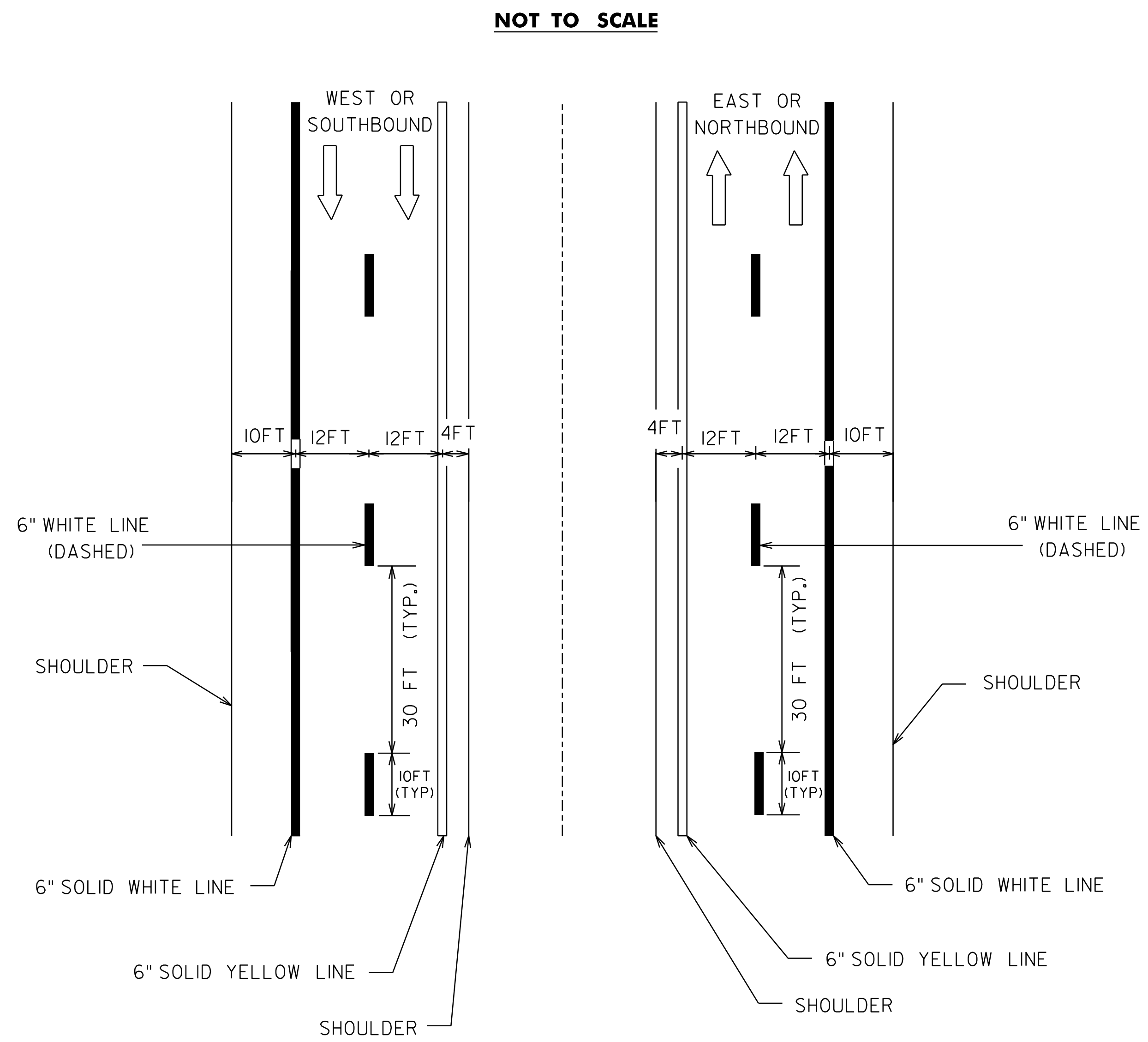
PAVEMENT MARKING LINE DETAILS



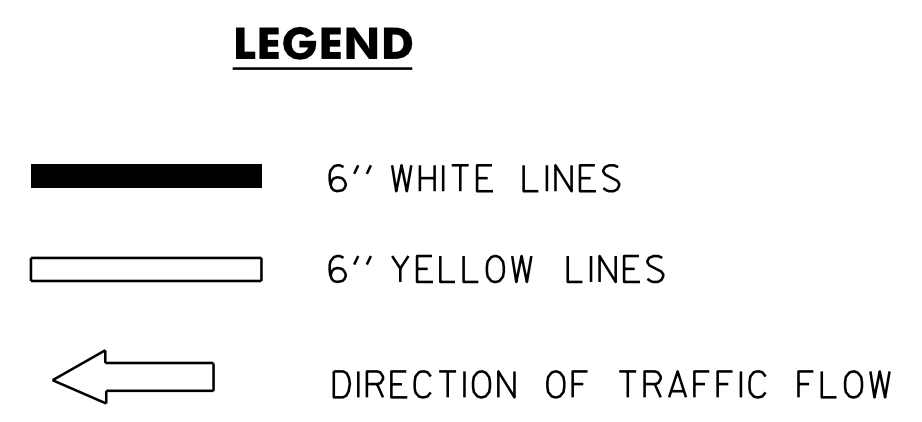
STOP BAR DETAIL



GORE MARKING DETAIL



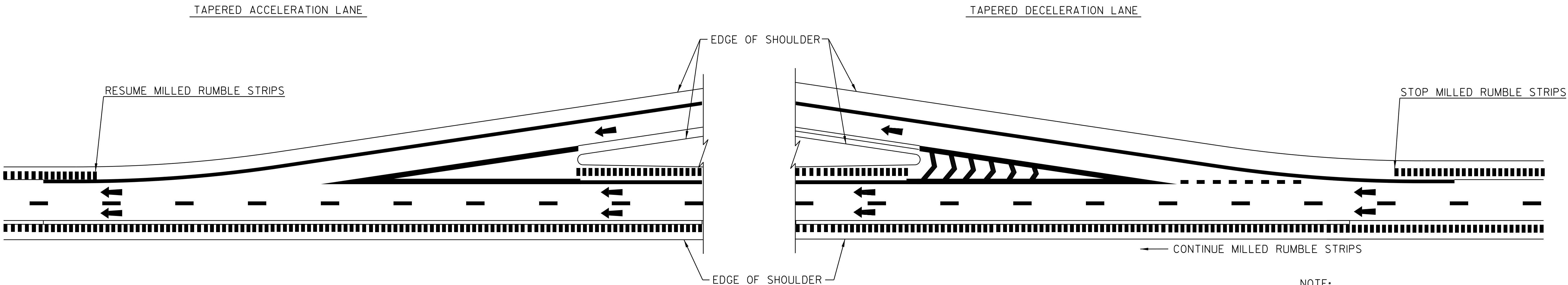
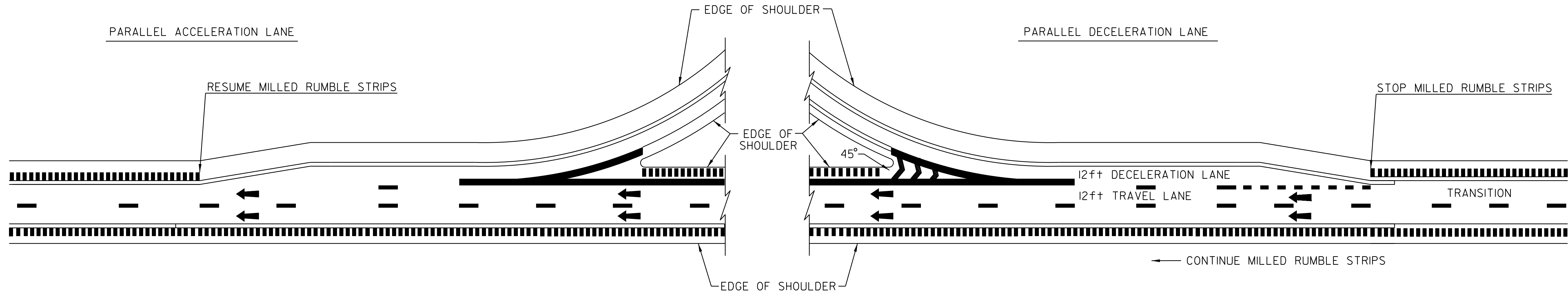
TYPICAL MAINLINE MARKING PLAN



PAVEMENT MARKING
DETAIL SHEET

DESIGNED BY	_____	DATE	6-07
DRAWN BY	_____	DATE	6-07
DESIGN FILE NO.	p0la030.dgn		
PRF FILE	p0la030pmd.i	DATE PLOTTED	6-07
PROJ. NAME	RICHMOND-SO. BURLINGTON		
PROJ. NO.	IM089-2(39)		
SHEET	63	OF	91 SHEETS

TYPICAL MILLING AT INTERCHANGES & REST AREAS



NOTE:
1. THIS TYPICAL MAY BE MODIFIED AT THE DISCRETION OF THE RESIDENT ENGINEER IF ACTUAL FIELD CONDITIONS NECESSITATE SUCH ACTIONS.

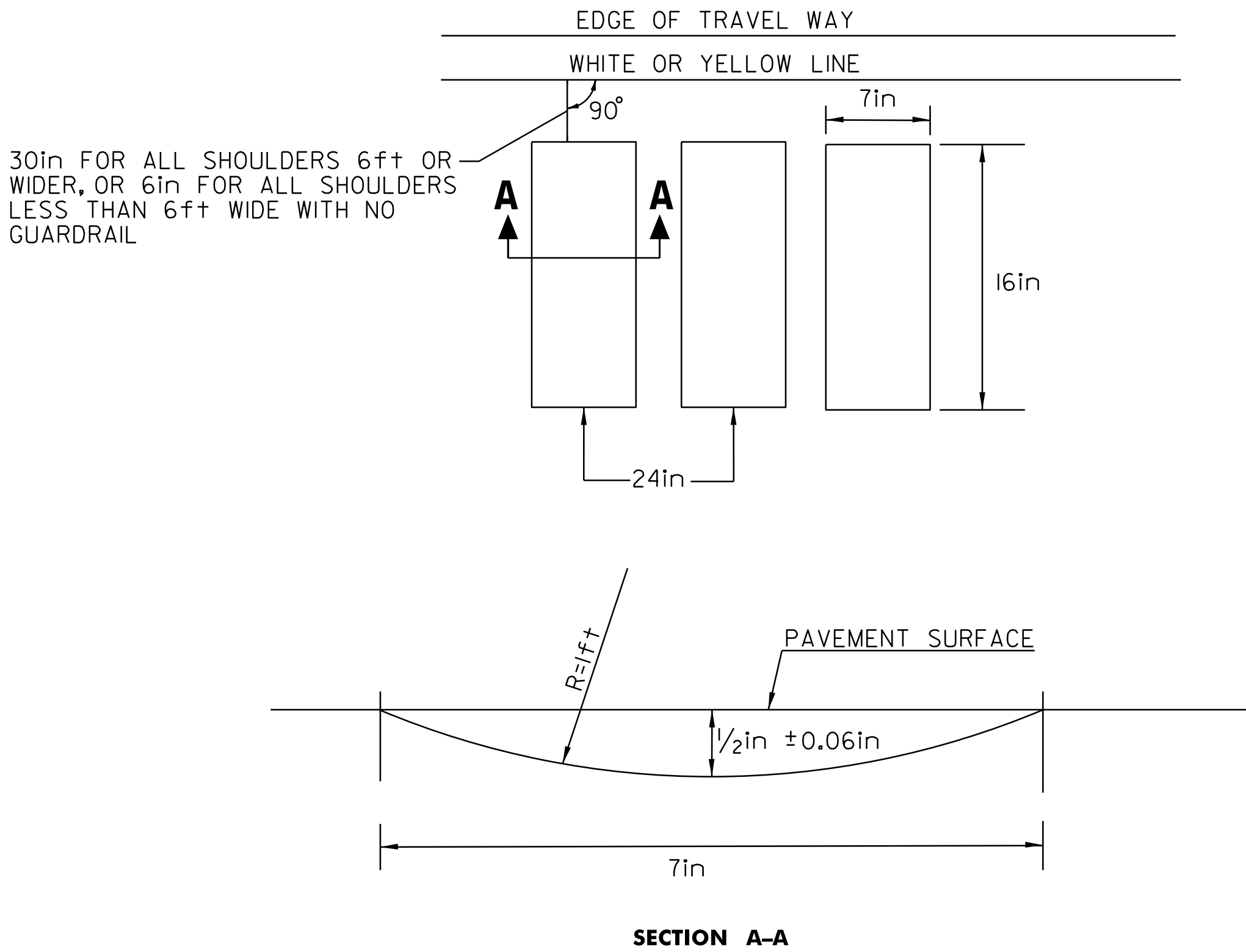
LEGEND

- ← DIRECTION OF TRAFFIC FLOW
- MILLED RUMBLE STRIPS

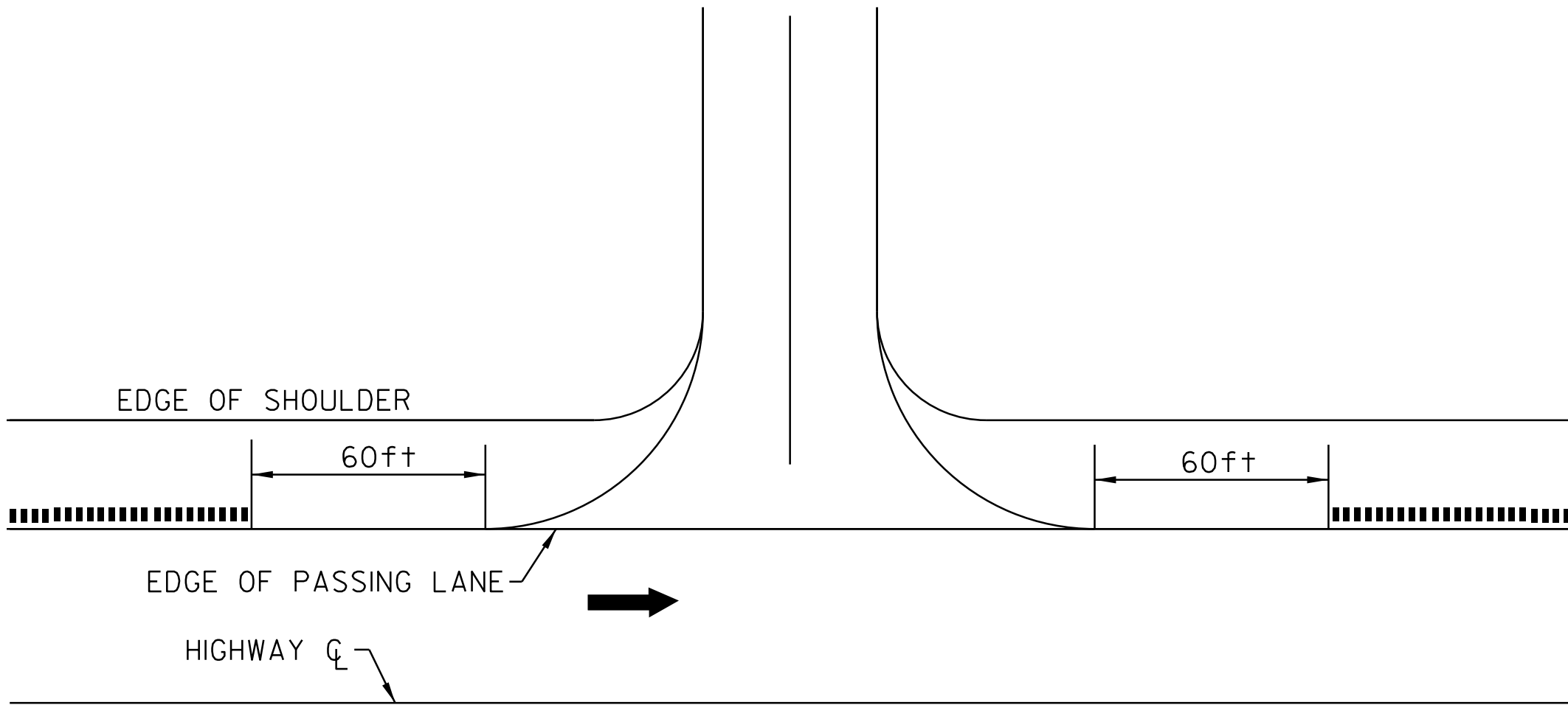
MILLED RUMBLE STRIP DETAIL SHEET #1

DESIGNED BY	_____	DATE	6-07
DRAWN BY	_____	DATE	6-07
DESIGN FILE NO.	p01a030.dgn		
PRF FILE	p01a030rsl.i	DATE PLOTTED	6-07
PROJ. NAME	RICHMOND-SO. BURLINGTON		
PROJ. NO.	IM089-2(39)		
SHEET	64	OF	91 SHEETS

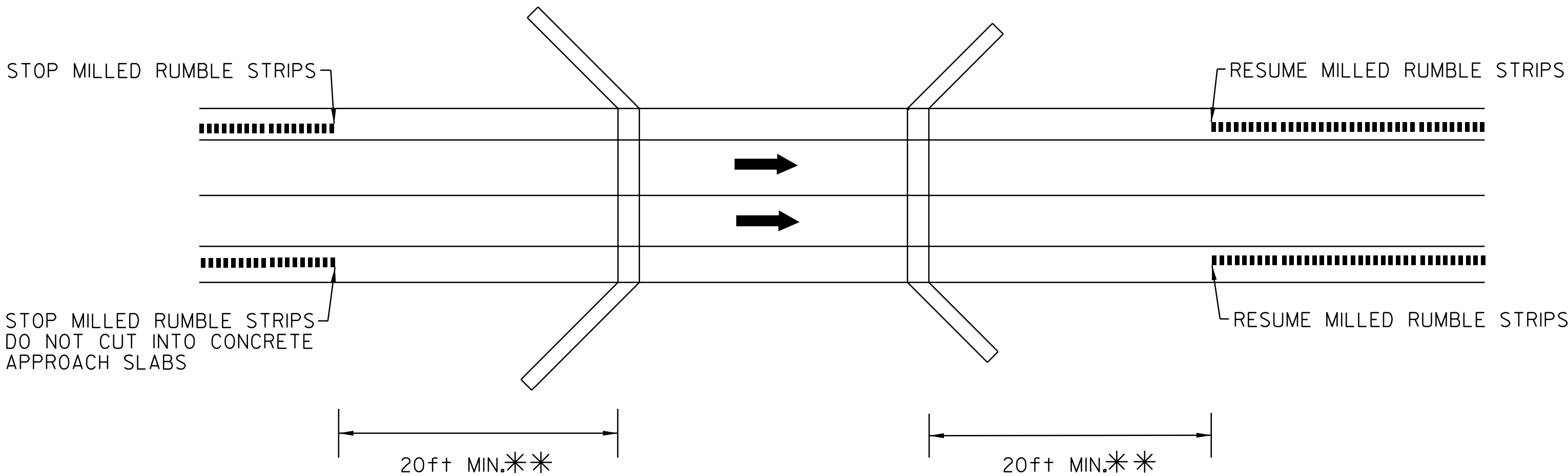
TYPICAL MILLING DETAIL



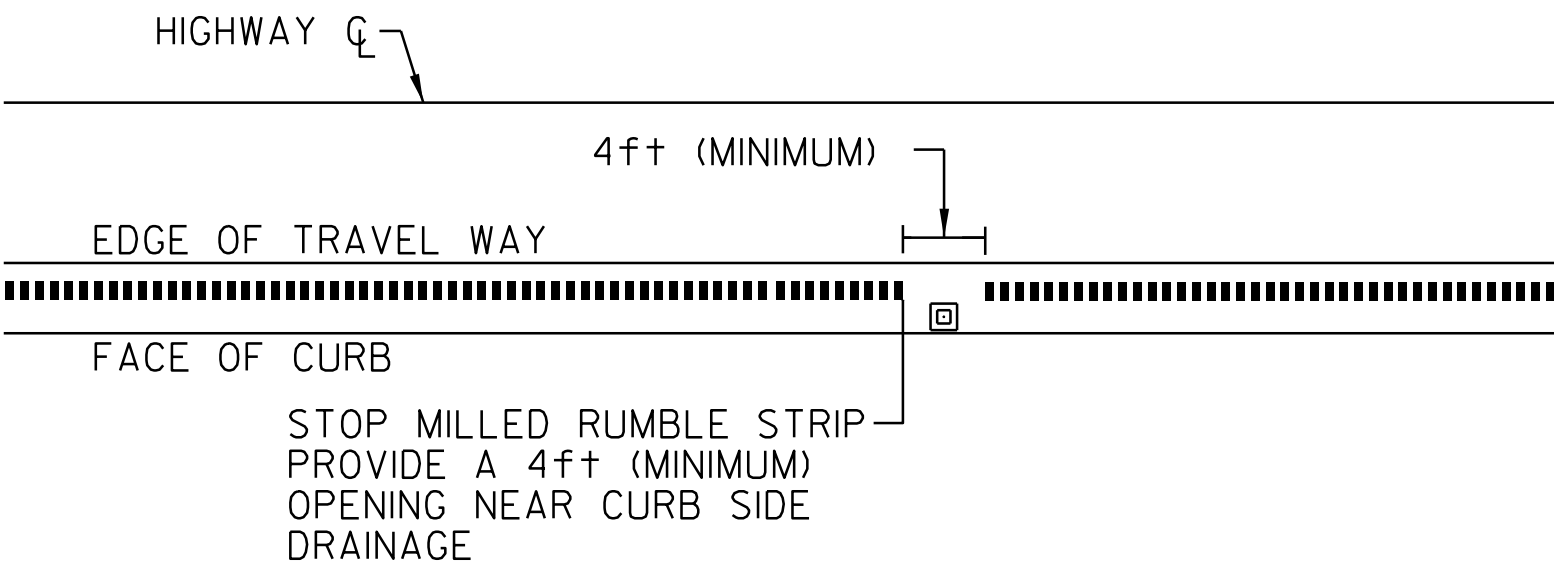
U-TURN DETAIL



BRIDGE DETAIL



DRAINAGE DETAIL



NOTE:

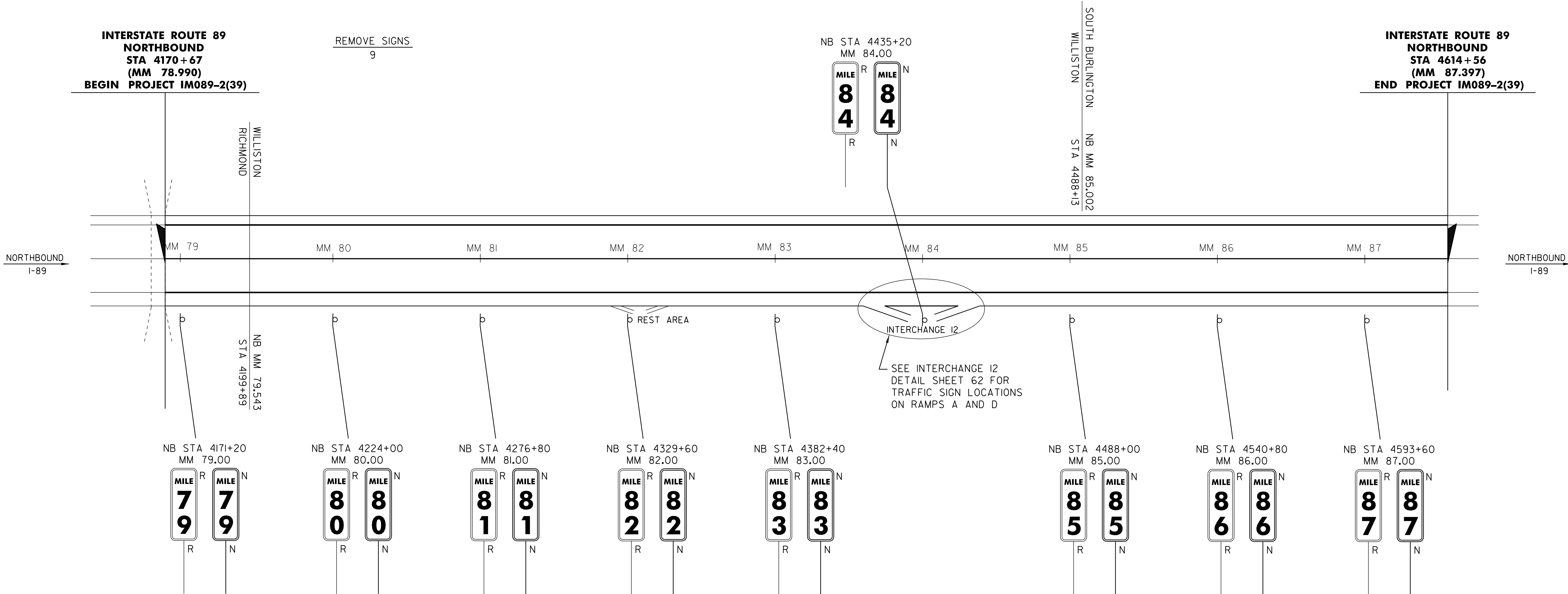
MILLED RUMBLE STRIPS WILL NOT BE REQUIRED IN GUARDRAIL AREAS ADJACENT TO THE 4ft+ SHOULDER.

MILLED RUMBLE STRIP DETAIL SHEET #2

DESIGNED BY	_____	DATE	6-07
DRAWN BY	_____	DATE	6-07
DESIGN FILE NO.	p0la030.dgn		
PRF FILE	p0la030rs2.i	DATE PLOTTED	6-07
PROJ. NAME	RICHMOND-SO. BURLINGTON		
PROJ. NO.	IM089-2(39)		
SHEET	65	OF	91 SHEETS

DATUM	
VERTICAL	N/A
HORIZONTAL	N/A

LEGEND	
	DIRECTION OF TRAFFIC FLOW
	MILLED RUMBLE STRIPS

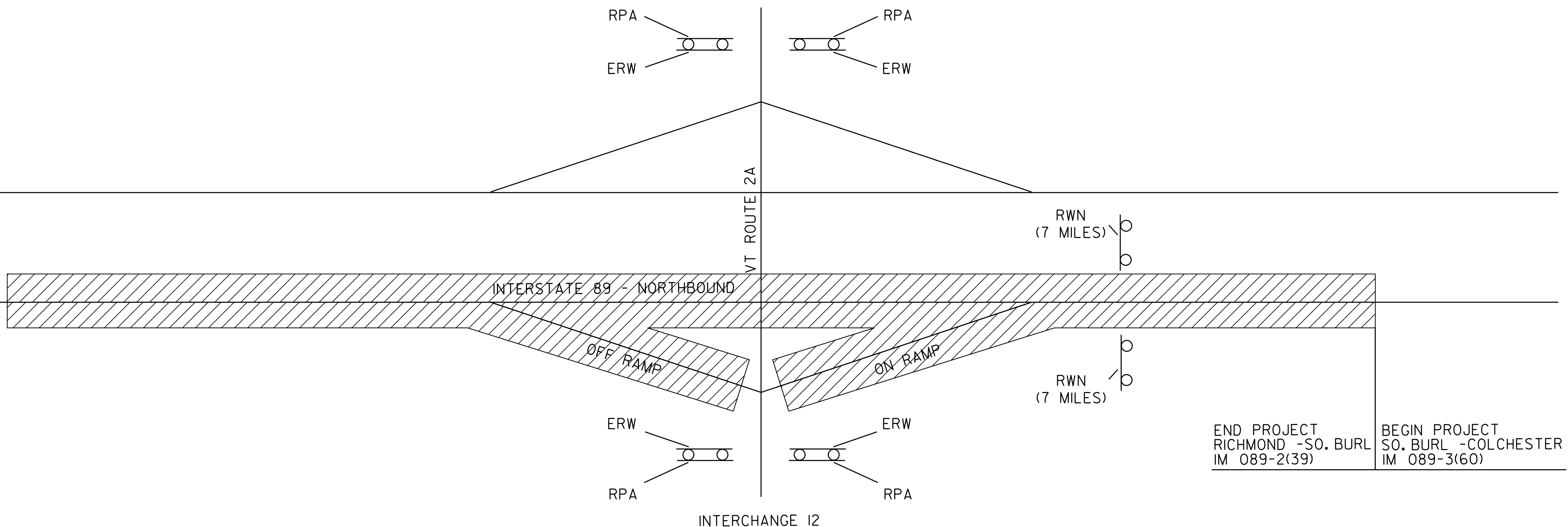
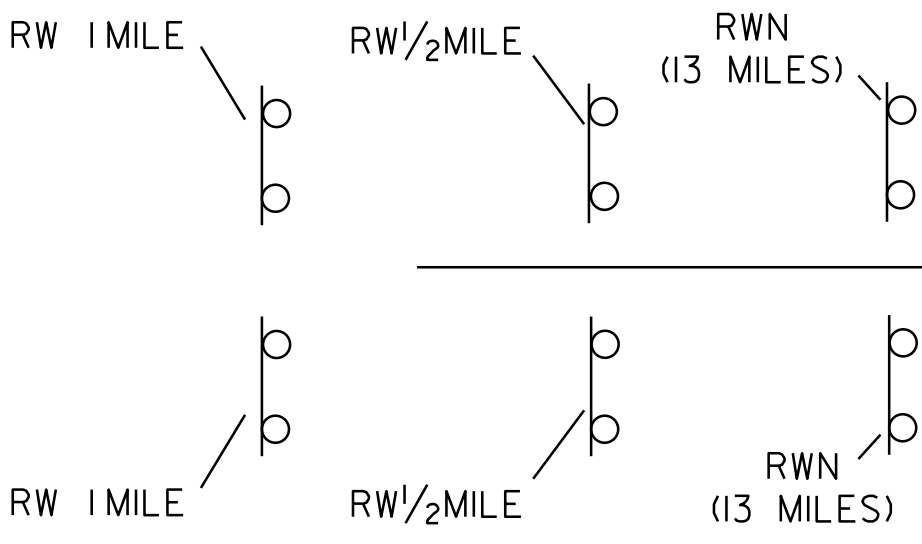


TRAFFIC
SIGN
LAYOUT
SHEET

DESIGNED BY BCE/PJM DATE 6-07
DRAWN BY C.E.A., INC. DATE 6-07
DESIGN FILE NO. p01a030.dgn
PRF FILE p01a030+sl.i DATE PLOTTED \$\$\$\$\$\$DATE\$
PROJ. NAME RICHMOND-SO. BURLINGTON
PROJ. NO. IM089-2(39)
SHEET 66 OF 91 SHEETS

KILOMETER MARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST REMAIN	NO. OF POSTS	NEW SIGN POSTS														REMARKS								SIGN DETAIL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
											FLANGED CHANNEL			SQUARE STEEL (in)			TUBULAR ALUMINUM Ø (in)			TUBULAR STEEL Ø (in)				W-SHAPE STEEL									DETAIL ON SHEET NUMBER	STD. SHEET NUMBER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		EA	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS			lb/ft	1.75	2.0	2.5	ANCHOR ROD	S MOUNTING S	3.0	4.0	4.0 MOD.	FOUND- ATION	3.0	3.5	4.0	5.0											FTG. SIZE		WEIGHT	POST SIZE	SCREWS PLATE	ROUNDER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
												1.12	2.0	3.0			1.88	2.16	3.35		1.3	1.7	1.7	7.6											9.0	10.8					14.6	24"	30"																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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I-89 NB STA 4171+20 (MM 79.00) STA 4224+00 (MM 80.00) STA 4276+80 (MM 81.00) STA 4329+60 (MM 82.00) STA 4382+40 (MM 83.00) STA 4435+20 (MM 84.00) STA 4488+00 (MM 85.00) STA 4540+80 (MM 86.00) STA 4593+60 (MM 87.00)		9	12	36	27.0					9			X 86.0		X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															</

LEGEND
RW 1MILE = ROAD WORK 1MILE
RW 1/2MILE = ROAD WORK 1/2MILE
ERW = END ROAD WORK
RWN = ROAD WORK NEXT () MILES
RPA = RAMP PAVING AHEAD (PORTABLE SIGN STAND)



LIST OF CONSTRUCTION SIGNS

LOCATION	RW 1MILE	RW 1/2MILE	ERW	RWN	RPA
I-89 NORTHBOUND					
BEGIN PROJECT	2	2		2	
INTERCHANGE 12 INTERCHANGE			4	2	4
END PROJECT					
TOTALS	2	2	4	4	4

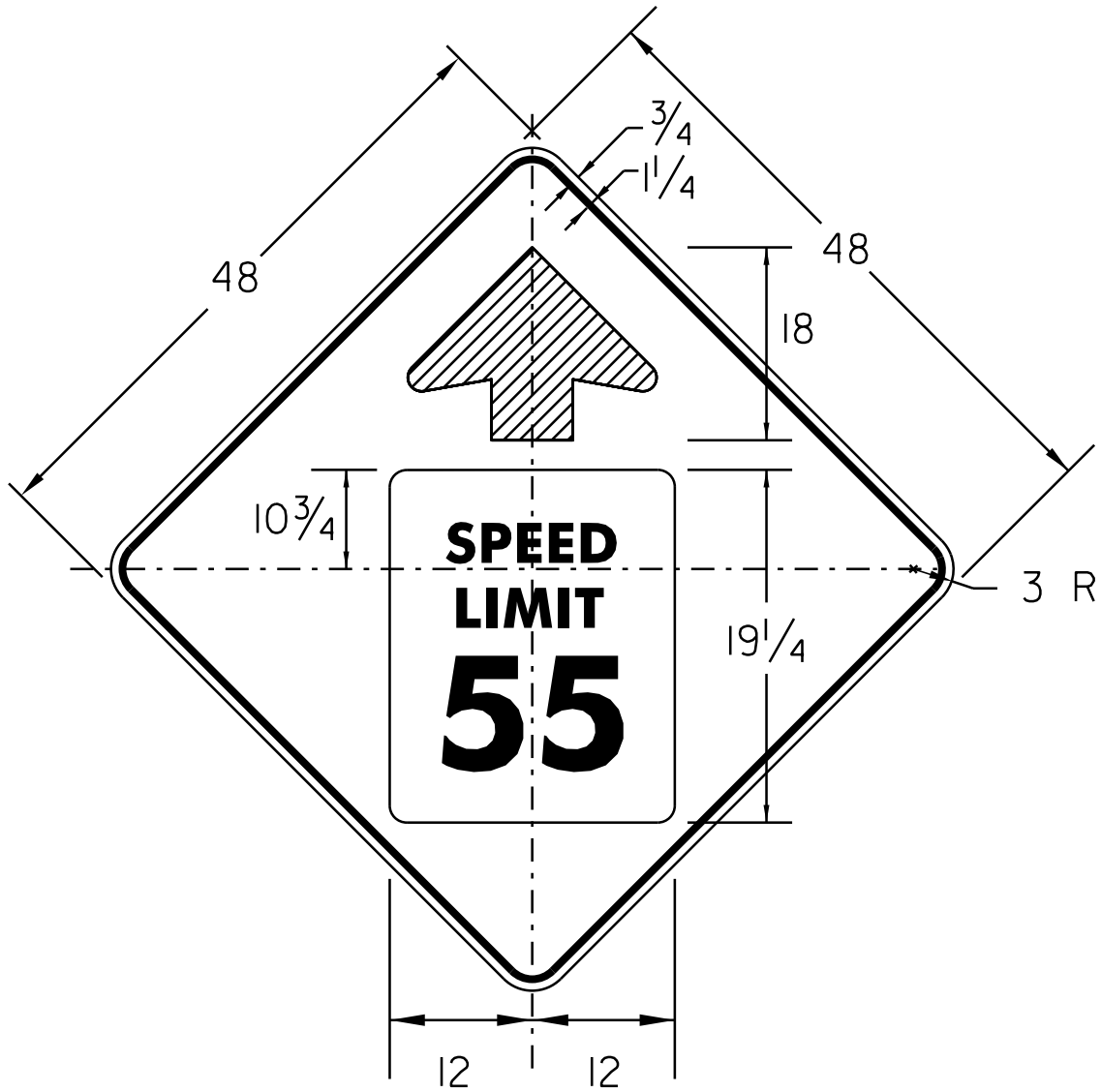
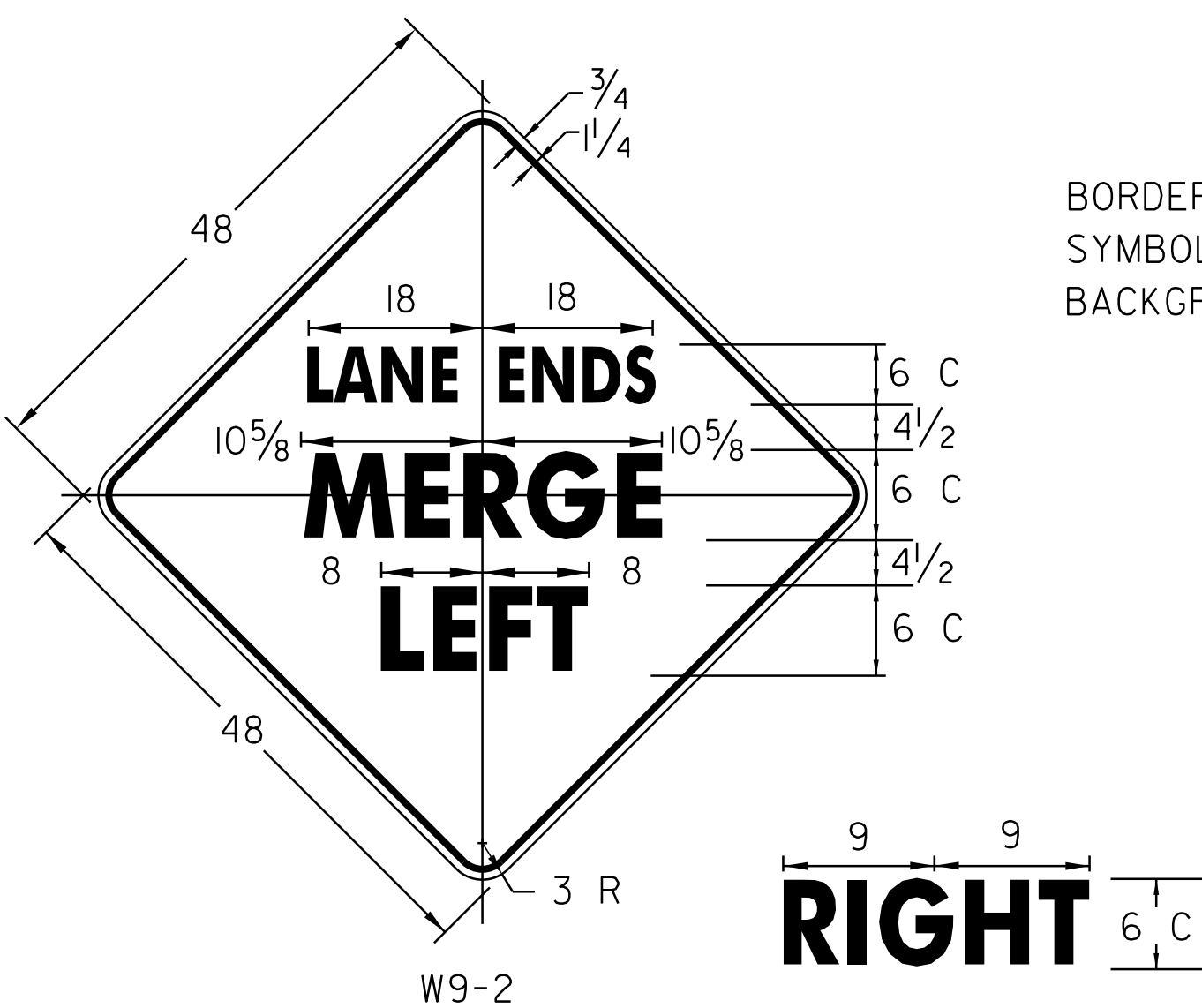
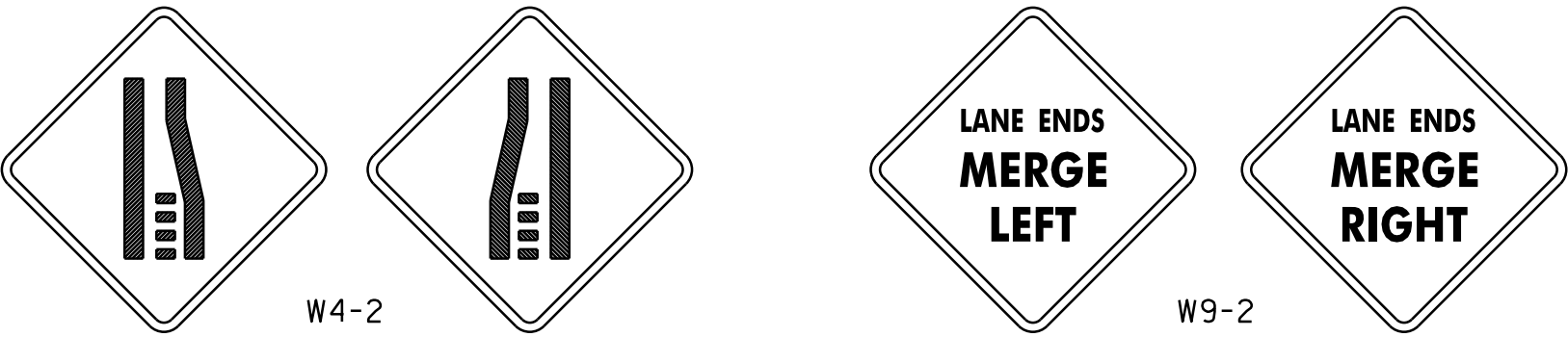
- NOTES:
- THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION, THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) SHALL NOT BE PAID SEPARATELY BUT SHALL BE INCIDENTAL TO THE CONTRACT SECTION 900 TRAFFIC CONTROL ITEM.
 - THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN APPROACH PACKAGE FOR EXPECTED LANE CLOSURES AND WORK ZONE SPEED REDUCTIONS IN COMPLIANCE WITH VTRANS STANDARD E-103. PAYMENT FOR PROVIDING THIS PACKAGE SHALL BE INCIDENTAL TO THE CONTRACT SECTION 900 TRAFFIC CONTROL ITEM.
 - ADDITIONAL RAMP SIGNING MAY BE REQUIRED AS DIRECTED BY THE RESIDENT ENGINEER.
 - PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) WILL BE PROVIDED FOR USE ALONG THIS PROJECT. THE PLACEMENT OF THESE UNITS AS WELL AS THE MESSAGE WILL BE APPROVED BY THE RESIDENT ENGINEER. THESE SIGNS WILL BE PAID FOR UNDER ITEM 641.15, "PORTABLE CHANGEABLE MESSAGE SIGN".

PCMS SHOULD NOT REPLACE ANY OF THE SIGNING DETAILED IN THE MUTCD AND SHOULD NOT BE USED IF STANDARD TRAFFIC CONTROL DEVICES ADEQUATELY PROVIDE THE INFORMATION THE MOTORISTS NEED TO TRAVEL SAFELY.

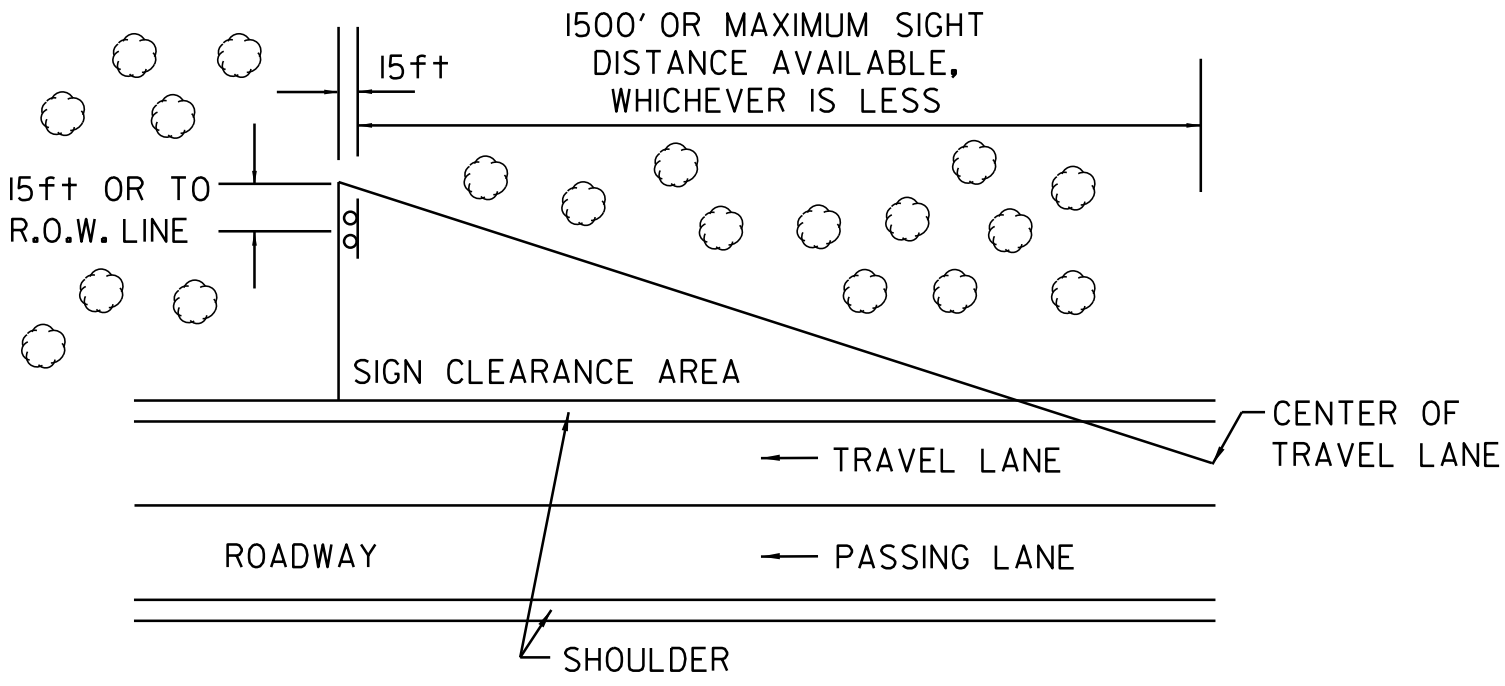
THE PCMS SHALL CONSIST OF EITHER ONE OR TWO PHASES. TYPICALLY, A PHASE SHALL CONSIST OF UP TO THREE LINES OF EIGHT CHARACTERS PER LINE. THE PCMS SHOULD BE USED TO SUPPLEMENT AND NOT AS A SUBSTITUTE FOR CONVENTIONAL SIGNS AND PAVEMENT MARKINGS.

THE PCMS SHOULD COMMUNICATE WHAT INFORMATION MOTORISTS NEED TO KNOW. UNNECESSARY INFORMATION SHOULD BE AVOIDED. MESSAGES SHOULD BE UPDATED PERIODICALLY TO DESCRIBE THE WORK ACTIVITY OCCURRING SO THAT THE PCMS CONTINUES TO COMMAND THE ATTENTION OF MOTORISTS.

- THE MUTCD 2003 SHALL BE THE STANDARD FOR ALL TRAFFIC CONTROL DEVICES. EXISTING SIGNS, SIGNALS AND MARKINGS SHALL BE VALID UNTIL SUCH TIME AS THEY ARE REPLACED OR RECONSTRUCTED. WHEN NEW TRAFFIC CONTROL DEVICES ARE ERECTED OR PLACED OR EXISTING TRAFFIC CONTROL DEVICES ARE REPLACED OR REPAIRED THE EQUIPMENT, DESIGN, METHOD OF INSTALLATION, PLACEMENT OR REPAIR SHALL CONFORM WITH SUCH STANDARDS.
- NO CONSTRUCTION SIGNS SHALL BE INSTALLED AS TO INTERFERE OR OBSTRUCT THE VIEW OF EXISTING TRAFFIC CONTROL DEVICES. TRAFFIC CONTROL DEVICES SHALL BE PLACED ACCORDING TO THE 2003 MUTCD AND/OR VTRANS STANDARDS.
- ON VTRANS STANDARDS E-103, SIGN W4-2 MAY BE REPLACED WITH W9-2:



BORDER & ARROW - BLACK
SYMBOL - INSERT R2-1
BACKGROUND - YELLOW (RETROREFLECTIVE)

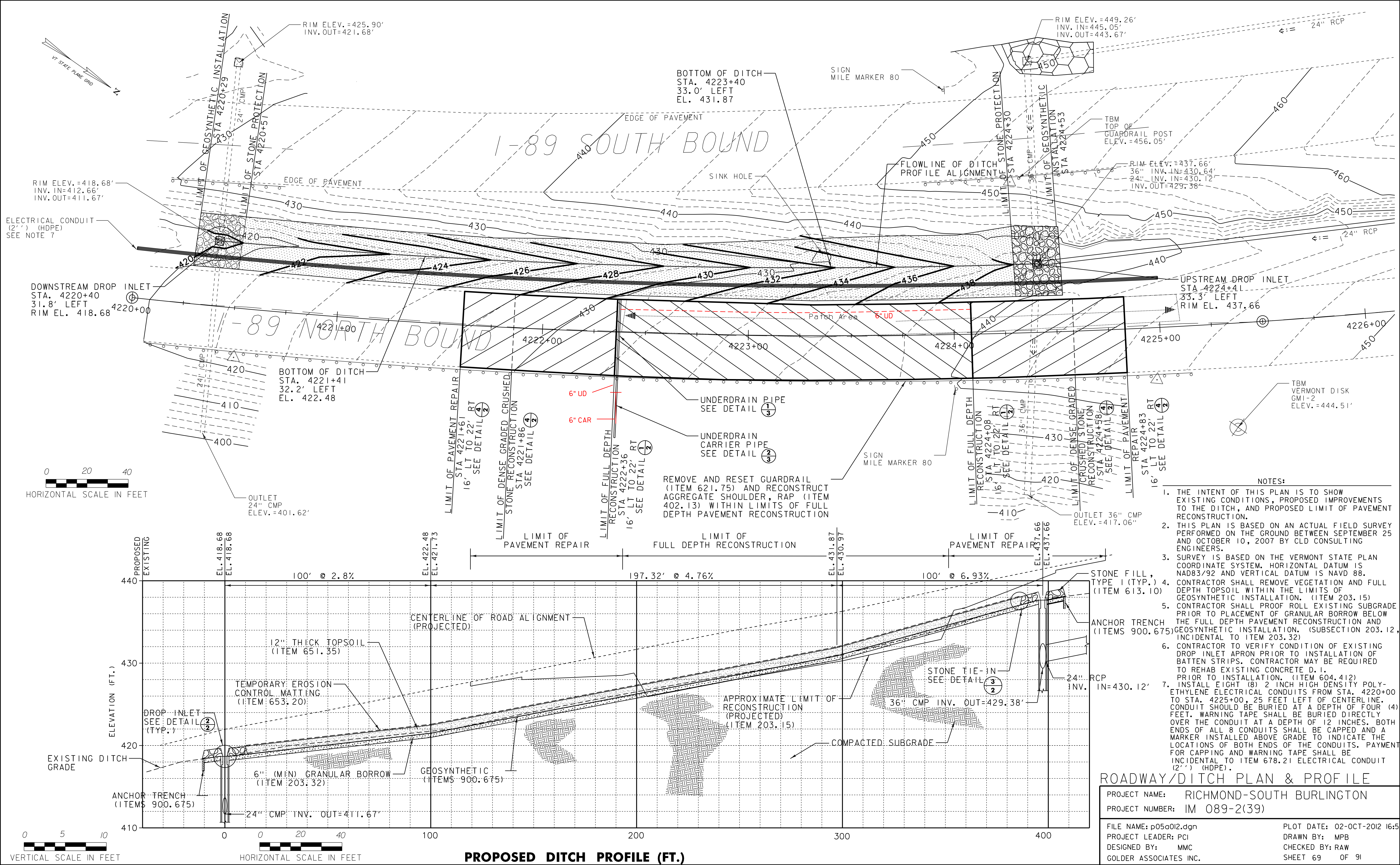


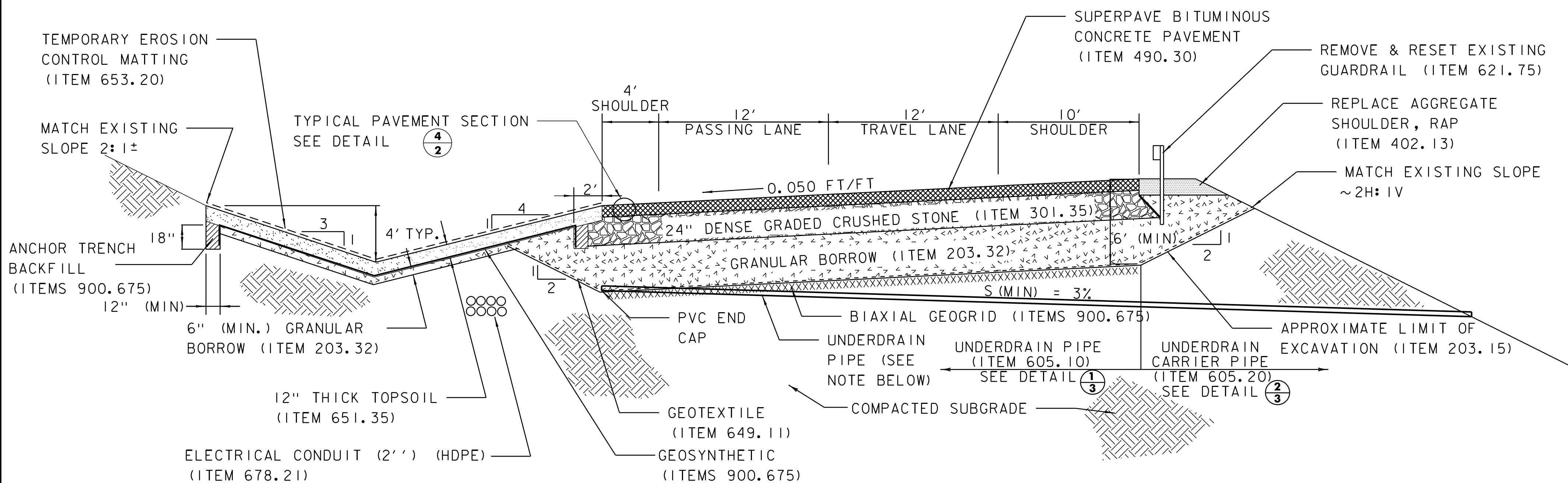
THE CONTRACTOR SHALL REMOVE ALL WOODY STEMMED GROWTH INCLUDING BRUSH, SAPLINGS, TREE LIMBS, GROWING WITHIN OR PROJECTING INTO THE CLEARANCE AREA AND DOWN TO GROUND LEVEL OR AT LEAST 10 FEET BELOW THE BOTTOM OF THE SIGN, WHICHEVER IS LESS. PAYMENT WILL BE FOR THINNING AND TRIMMING, ITEM 201.31, AND PAID FOR PER EACH. NO CHEMICALS (POISONS, OR DEFOLIANTS) ALLOWED.

THINNING AND TRIMMING DETAIL

CONSTRUCTION APPROACH SIGNING and THINNING AND TRIMMING FOR SIGNS DETAIL SHEET

DESIGNED BY	BCE/PJM	DATE	6-07
DRAWN BY	C.E.A., INC.	DATE	6-07
DESIGN FILE NO.	p01a030.dgn		
PRF FILE	p01a030cgs.i	DATE PLOTTED	*****DATE**
PROJ. NAME	RICHMOND-SO. BURLINGTON		
PROJ. NO.	IM089-2(39)		
SHEET	68	OF	91 SHEETS



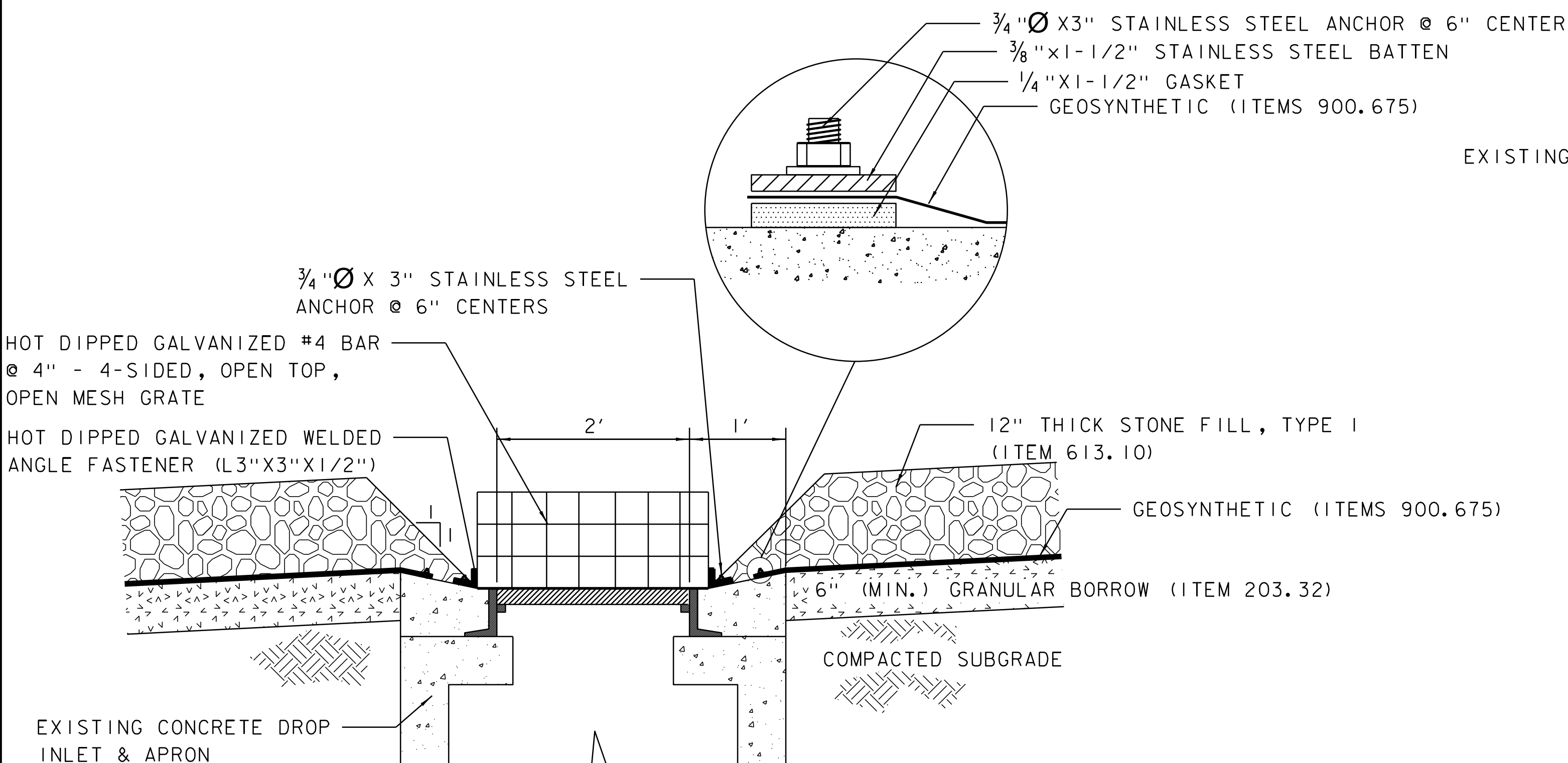


1
2

TYPICAL FULL DEPTH RECONSTRUCTION SECTION

0 5 10
SCALE IN FEET

NOTE: SEE SHEET 69 FOR LOCATION OF UNDERDRAIN

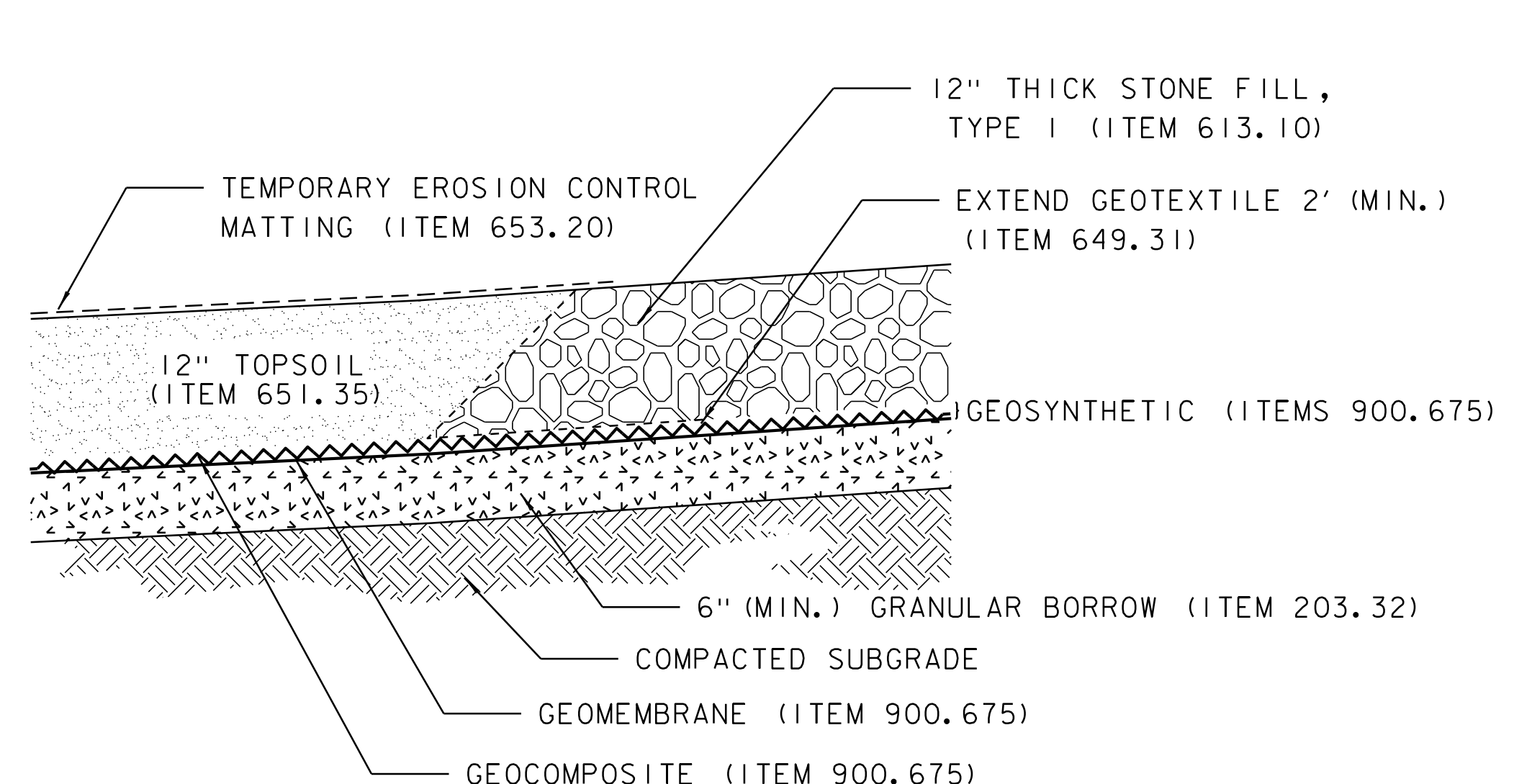


2
2

DROP INLET DETAIL

0 1 2
SCALE IN FEET

NOTE: EXTEND RIPRAP PROTECTION A MINIMUM OF 10 FEET BEYOND DROP INLET OPENING. OPEN MESH GRATE AND FASTENERS WILL BE PAID FOR UNDER ITEM 604.412.

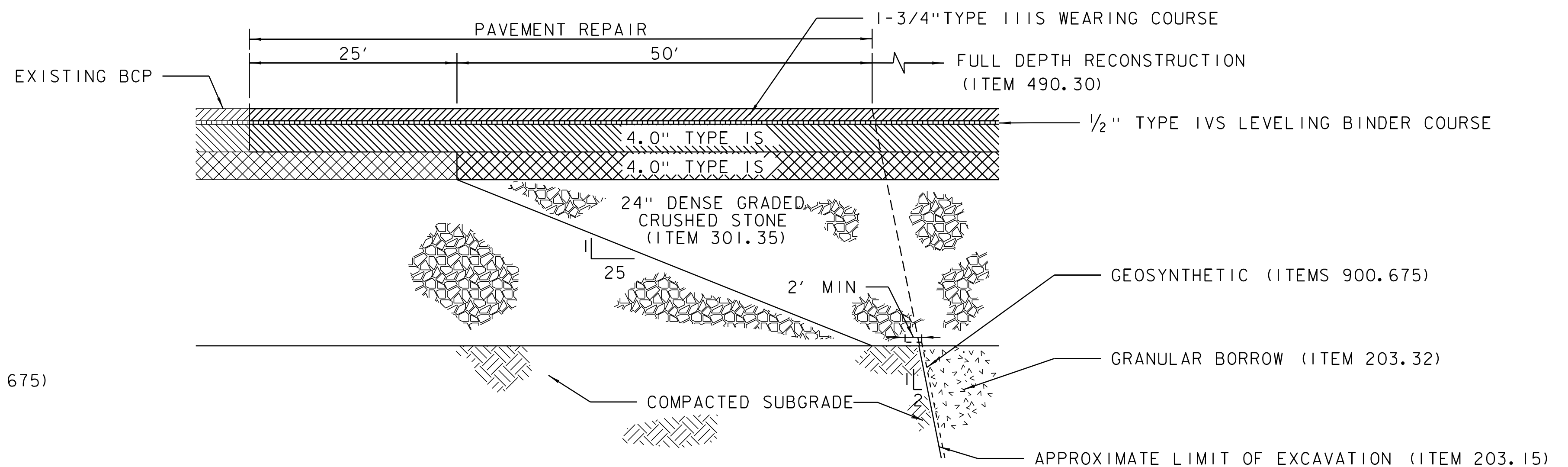


3
2

STONE TIE-IN DETAIL

0 1 2
SCALE IN FEET

NOTE: CONTRACTOR SHALL SEED, MULCH AND FERTILIZE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 651.



4
2

TYPICAL PAVEMENT SECTION DETAIL

0 1 2
VERTICAL SCALE IN FEET

0 10 20
HORIZONTAL SCALE IN FEET

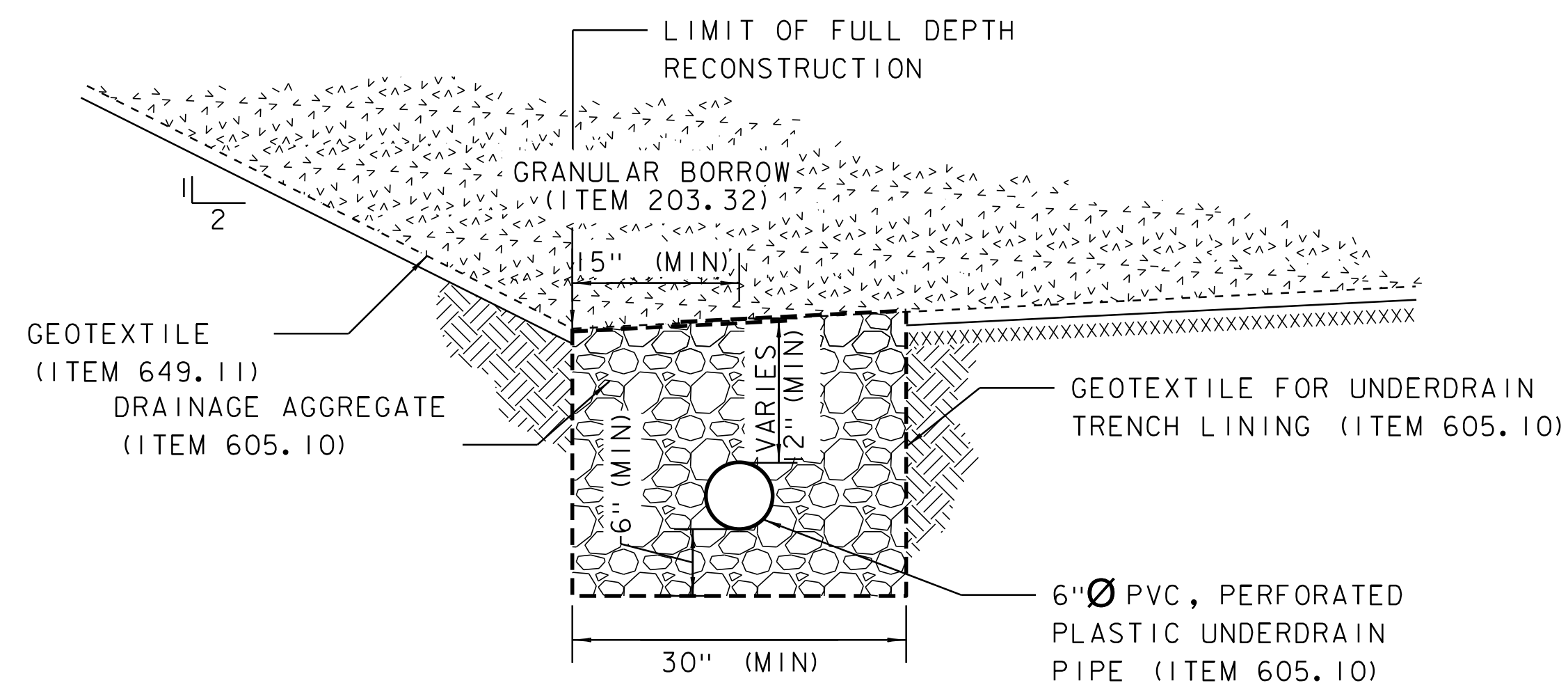
NOTE: MIX SHALL BE 100 GYRATION AND PG 64-28 BINDER.

TYPICAL SECTIONS

PROJECT NAME: RICHMOND-SOUTH BURLINGTON
PROJECT NUMBER: IM 089-2(39)

FILE NAME: p05a012.dgn
PROJECT LEADER: PCI
DESIGNED BY: MMC
GOLDER ASSOCIATES INC.

PLOT DATE: 02-OCT-2012 16:5
DRAWN BY: MPB
CHECKED BY: RAW
SHEET 70 OF 91

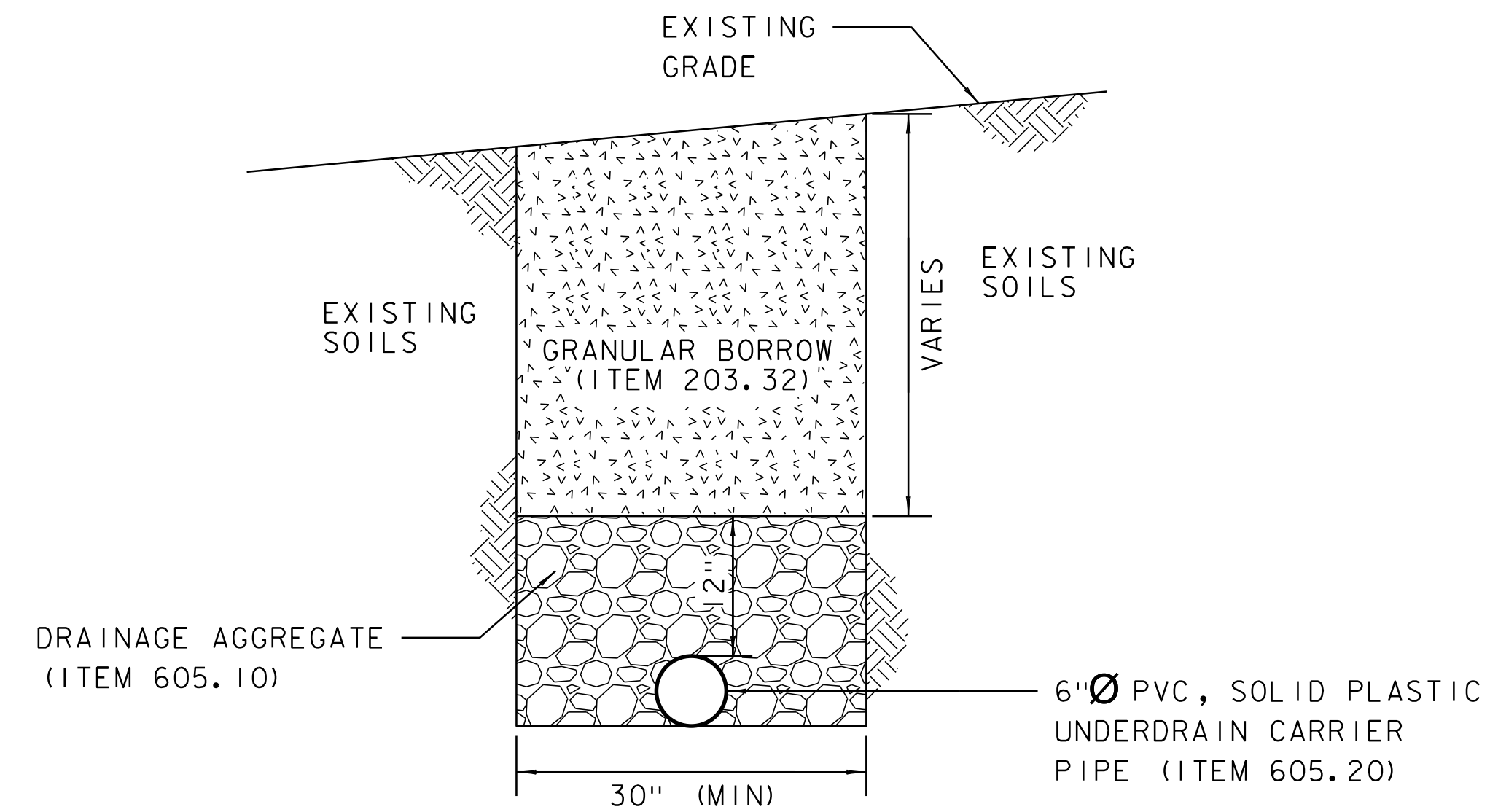


TYPICAL UNDERDRAIN PIPE

1
3



NOTE: TRENCH EXCAVATION SHALL
BE PAID FOR UNDER ITEM 204.20.



TYPICAL UNDERDRAIN CARRIER PIPE

2
3



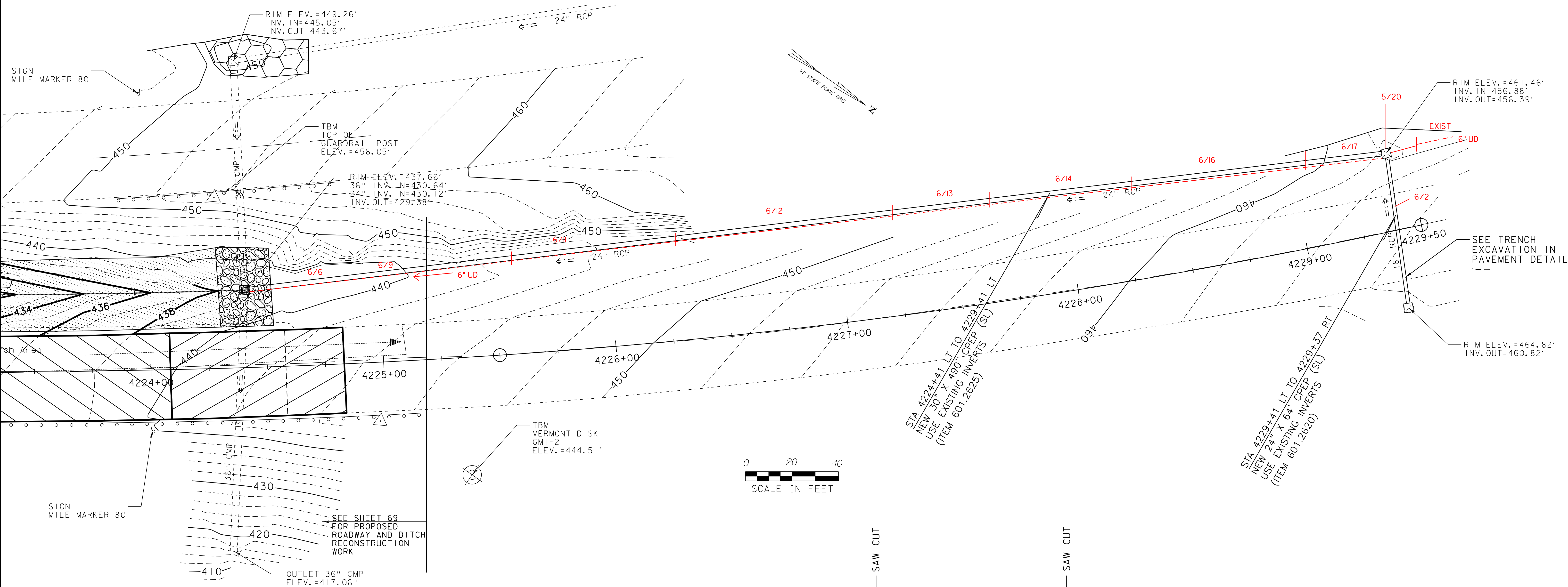
NOTE: TRENCH EXCAVATION SHALL
BE PAID FOR UNDER ITEM 204.20.

UNDERDRAIN TYPICAL SECTIONS

PROJECT NAME: RICHMOND-SOUTH BURLINGTON
PROJECT NUMBER: IM 089-2(39)

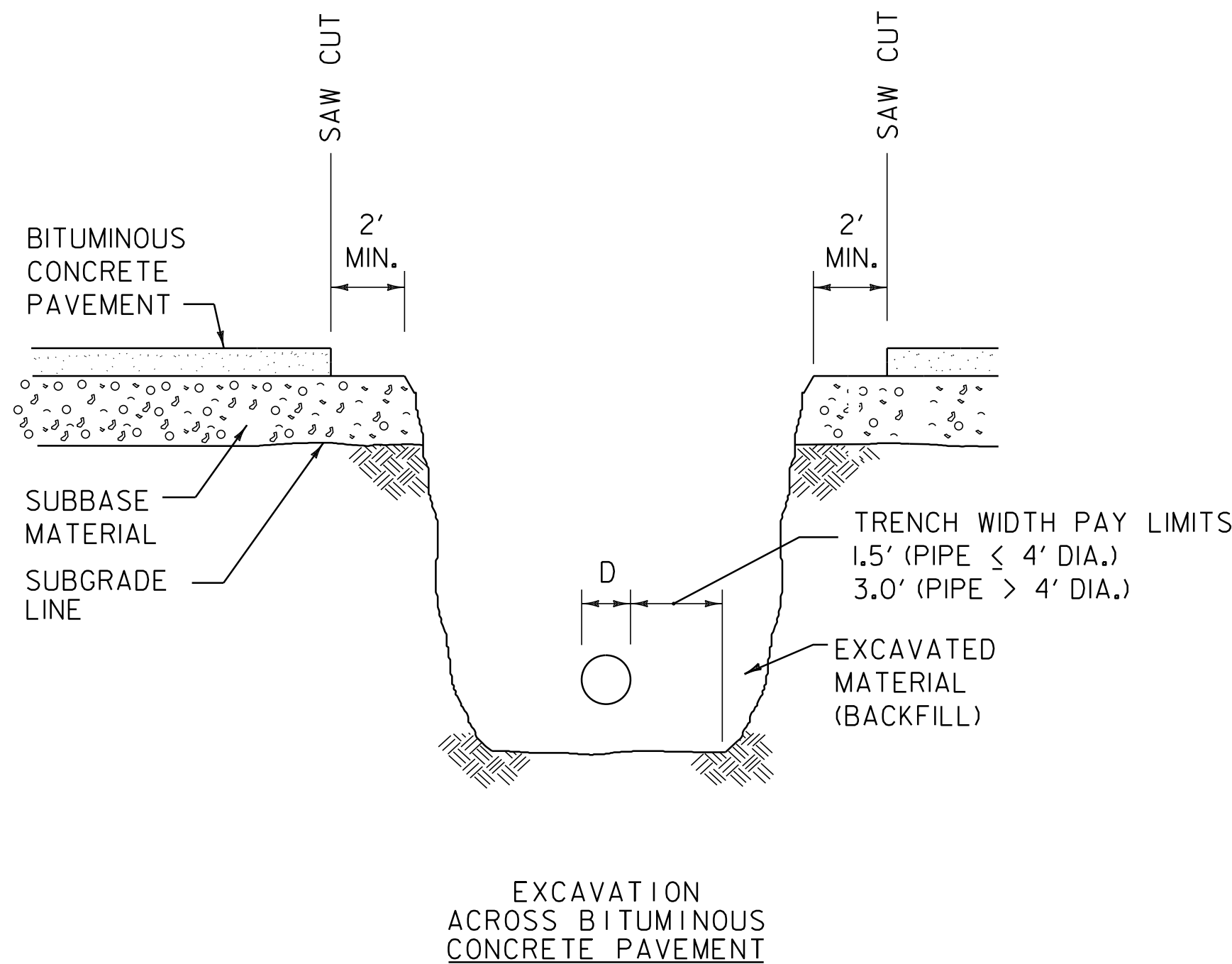
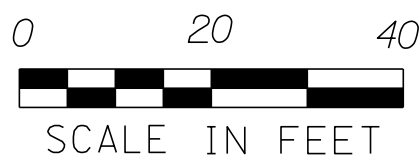
FILE NAME: p05a012.dgn
PROJECT LEADER: PCI
DESIGNED BY: MMC
GOLDER ASSOCIATES INC.

PLOT DATE: 02-OCT-2012 16:5
DRAWN BY: MPB
CHECKED BY: RAW
SHEET 71 OF 91



NOTES

1. THIS DETAIL APPLIES TO RESTORATION OF PAVED AREAS WITH TRENCH EXCAVATION NECESSARY TO INSTALL DRAINAGE PIPES AND STRUCTURES IN COLD PLANE AND OVERLAY AREAS OR OUTSIDE THE GENERAL LIMIT OF WORK AS SHOWN ON THE DRAINAGE PLANS.
2. PAYMENT FOR SAW CUTTING IS INCIDENTAL TO ITEM 204.20 TRENCH EXCAVATION OF EARTH.
3. SUBBASE OF DENSE GRADED CRUSHED STONE SHALL BE PLACED TO MATCH THE DEPTH OF THE EXISTING SUBBASE.
4. BITUMINOUS CONCRETE PAVEMENT DEPTH SHALL MATCH THE DEPTH OF EXISTING PAVEMENT OR 4" WHICHEVER IS GREATER.
5. PAYMENT FOR EXCAVATION, BACKFILL, DISPOSAL OF ALL SURPLUS MATERIAL, RESTORATION OF THE SITE FOLLOWING THE COMPLETION OF CONSTRUCTION, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCIDENTAL TO ITEM 204.20, TRENCH EXCAVATION OF EARTH.



NOTES:

1. THE INTENT OF THIS PLAN IS TO SHOW EXISTING CONDITIONS AND PROPOSED IMPROVEMENTS TO THE DRAINAGE.
2. THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY PERFORMED ON THE GROUND BETWEEN SEPTEMBER 25 AND OCTOBER 10, 2007 BY CLD CONSULTING ENGINEERS.
3. SURVEY IS BASED ON THE VERMONT STATE PLAN COORDINATE SYSTEM. HORIZONTAL DATUM IS NAD83/92 AND VERTICAL DATUM IS NAVD 88.

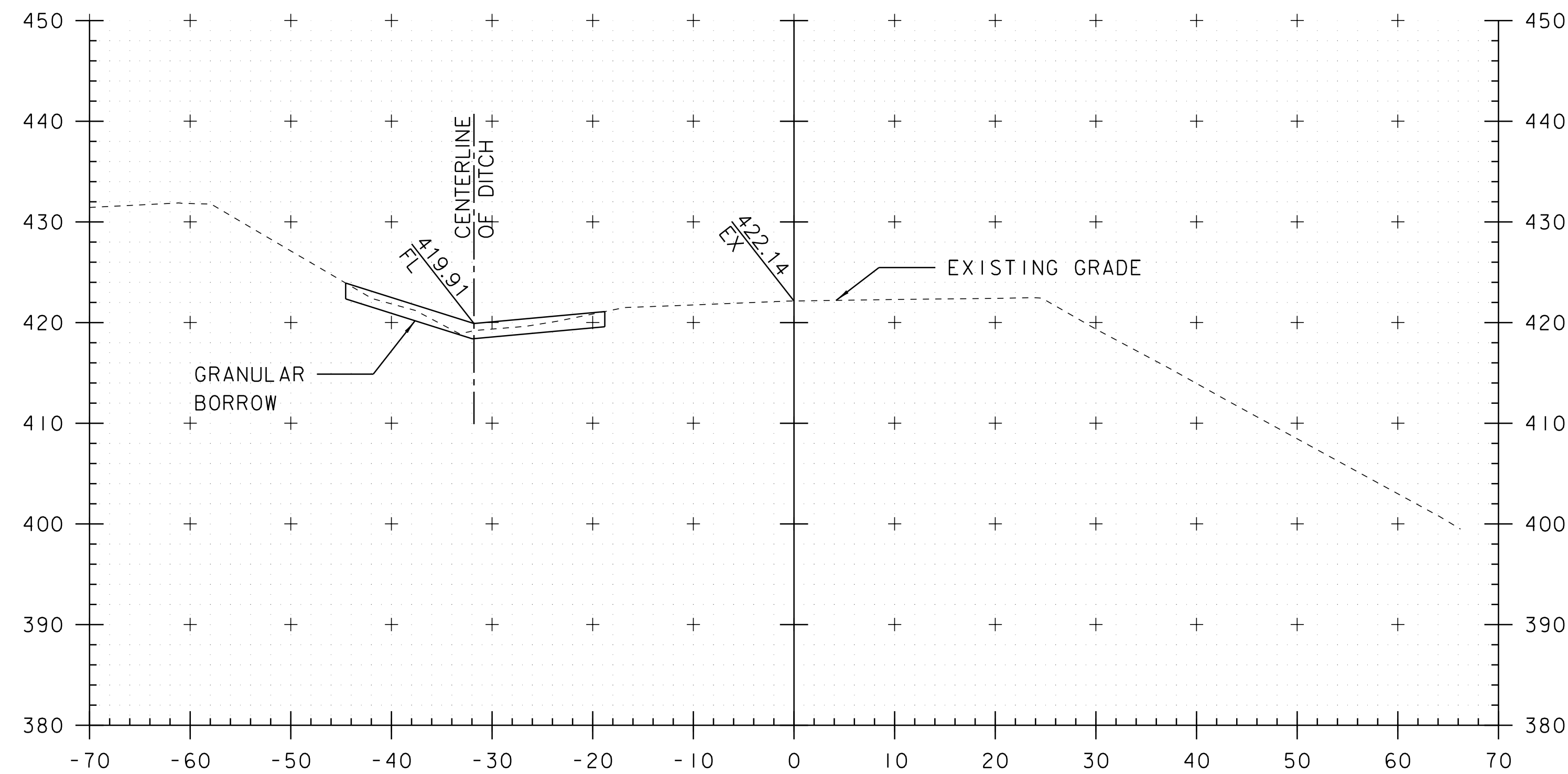
DRAINAGE MITIGATION SHEET

PROJECT NAME: RICHMOND-SOUTH BURLINGTON
PROJECT NUMBER: IM 089-2(39)

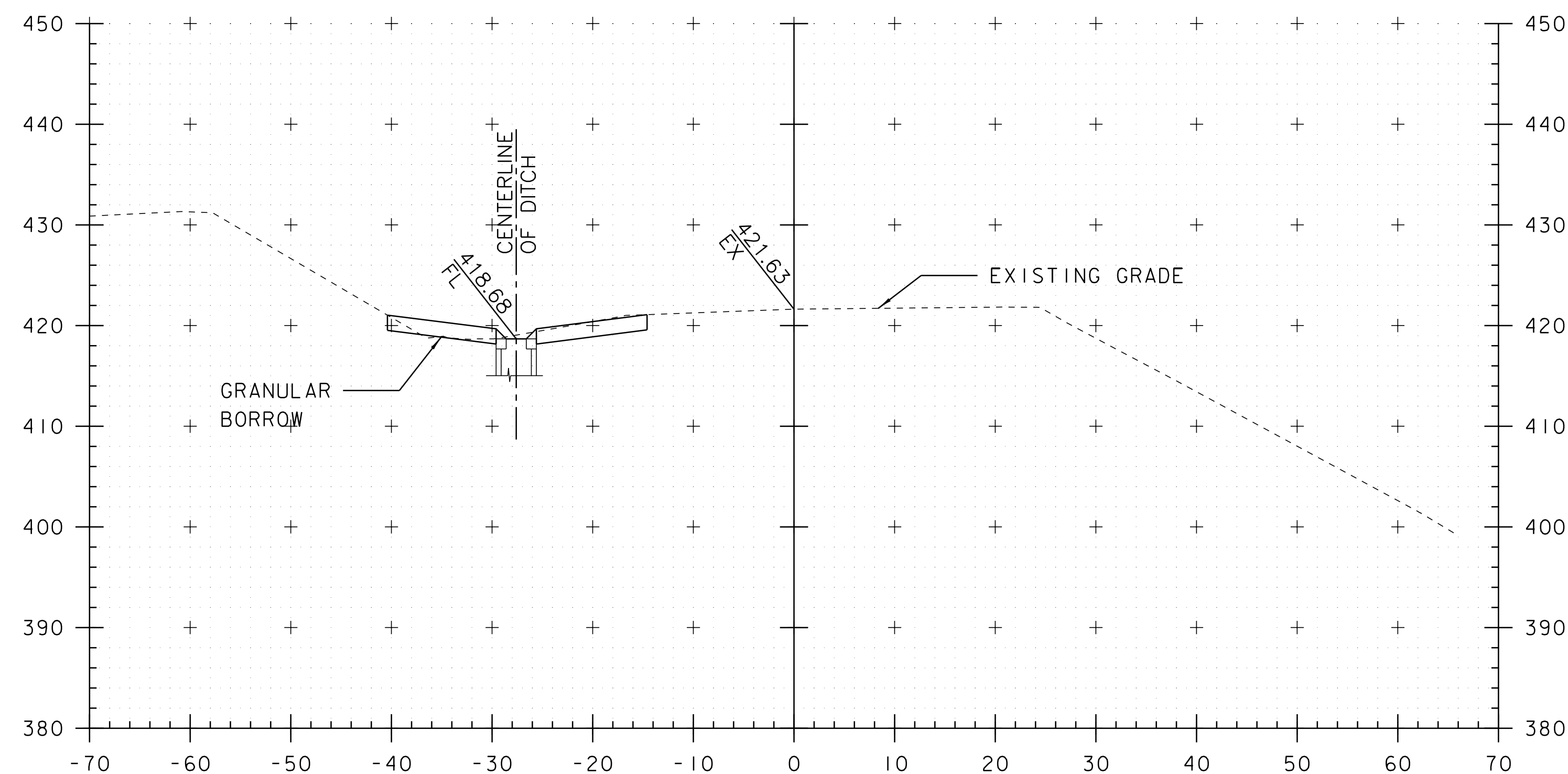
FILE NAME: IM 089-2(39).dgn
PROJECT LEADER: CRB
DESIGNED BY: JJB
CLD 07-0313
PLOT DATE: 02-OCT-2012 16:5
DRAWN BY: JJB
CHECKED BY: DH
SHEET 72 OF 91

TRENCH EXCAVATION IN PAVEMENT

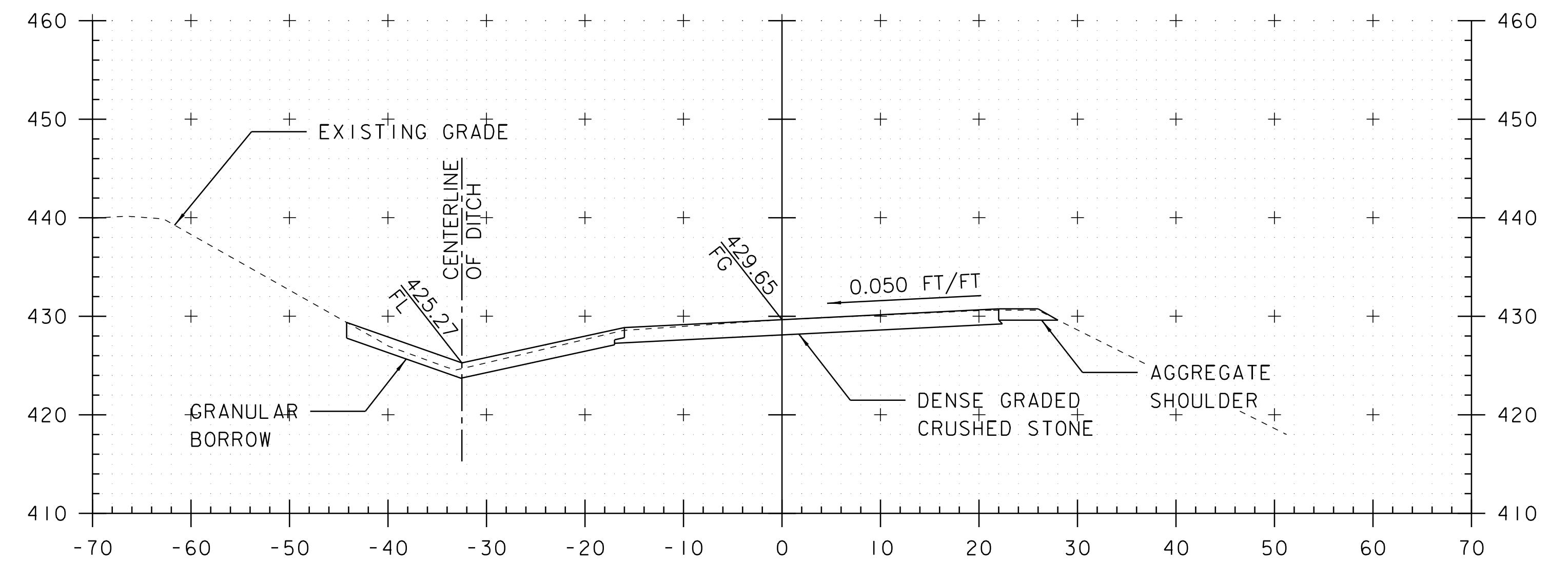
(NOT TO SCALE)



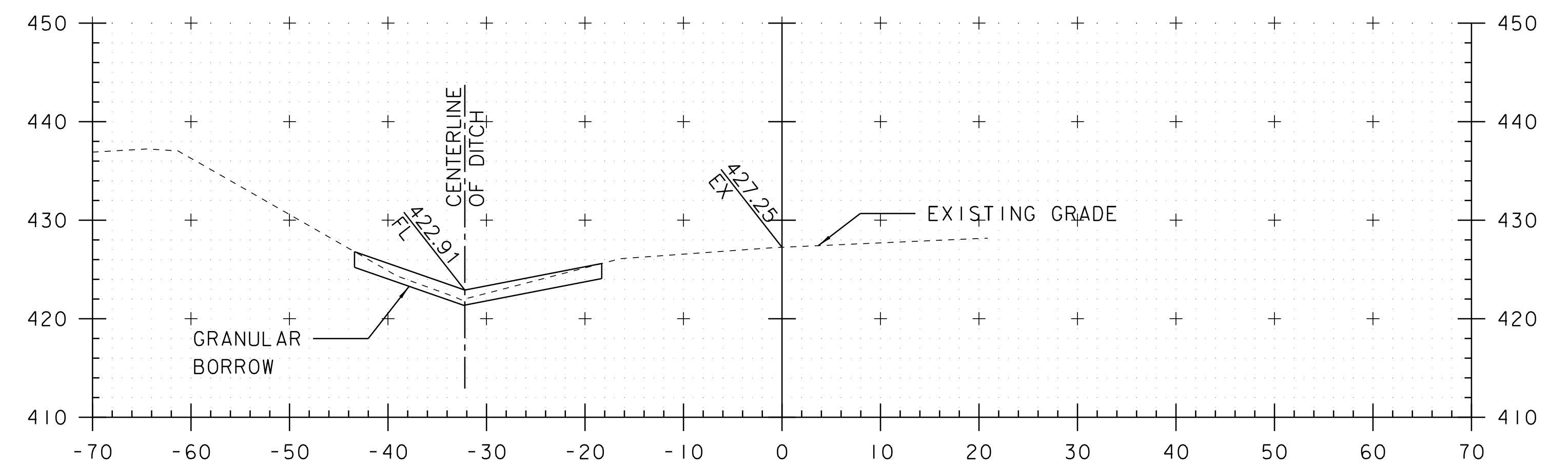
4220+50



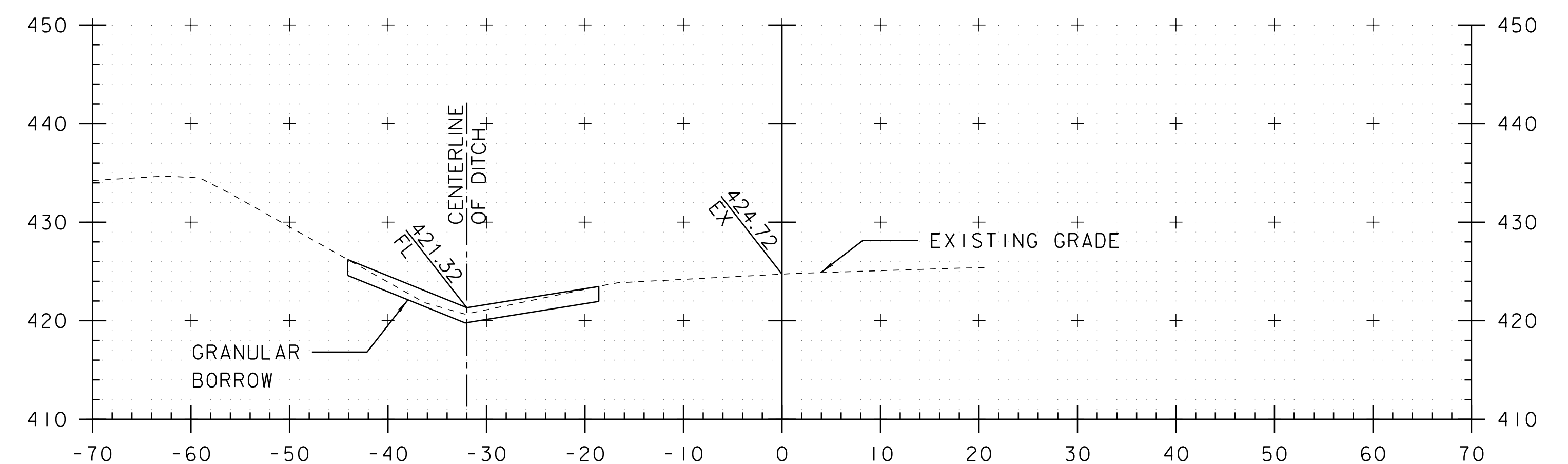
4220+40



4222+00



4221+50



4221+00

RECONSTRUCTION CROSS SECTIONS

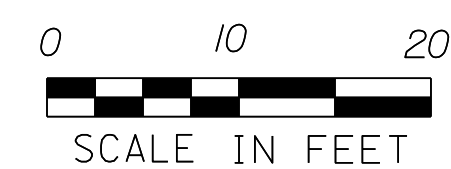
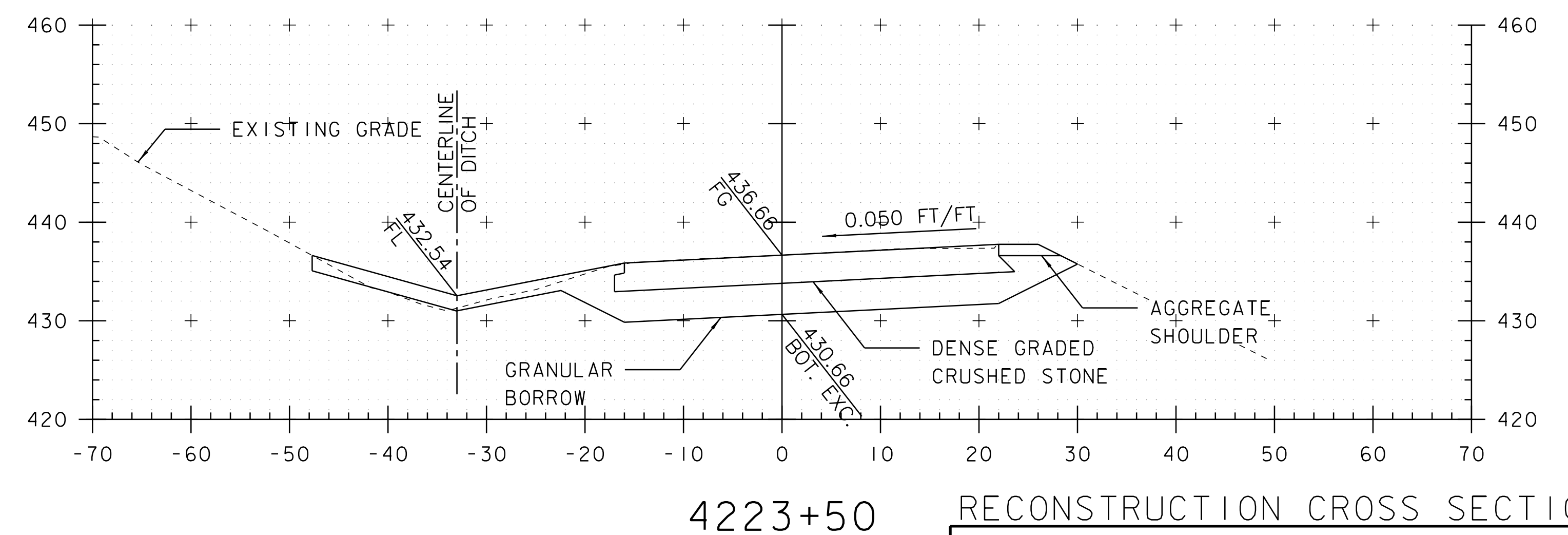
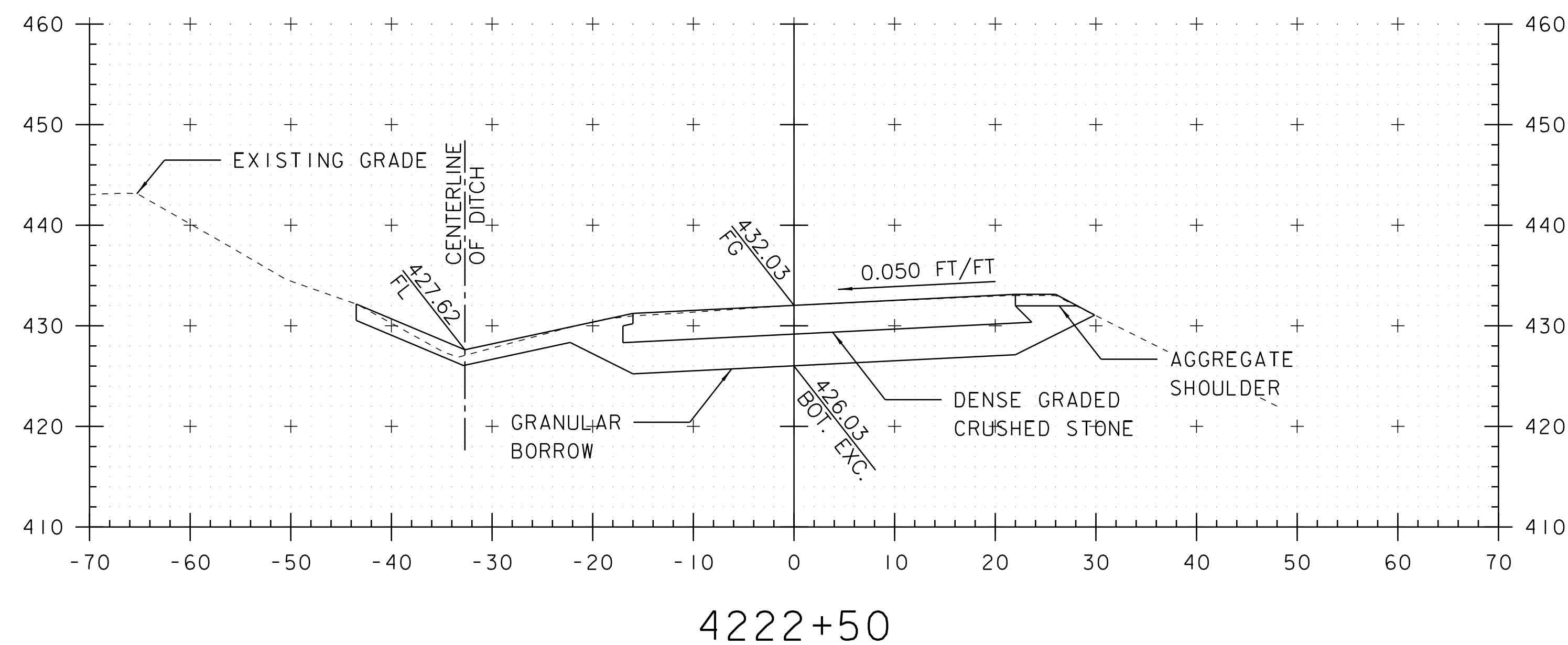
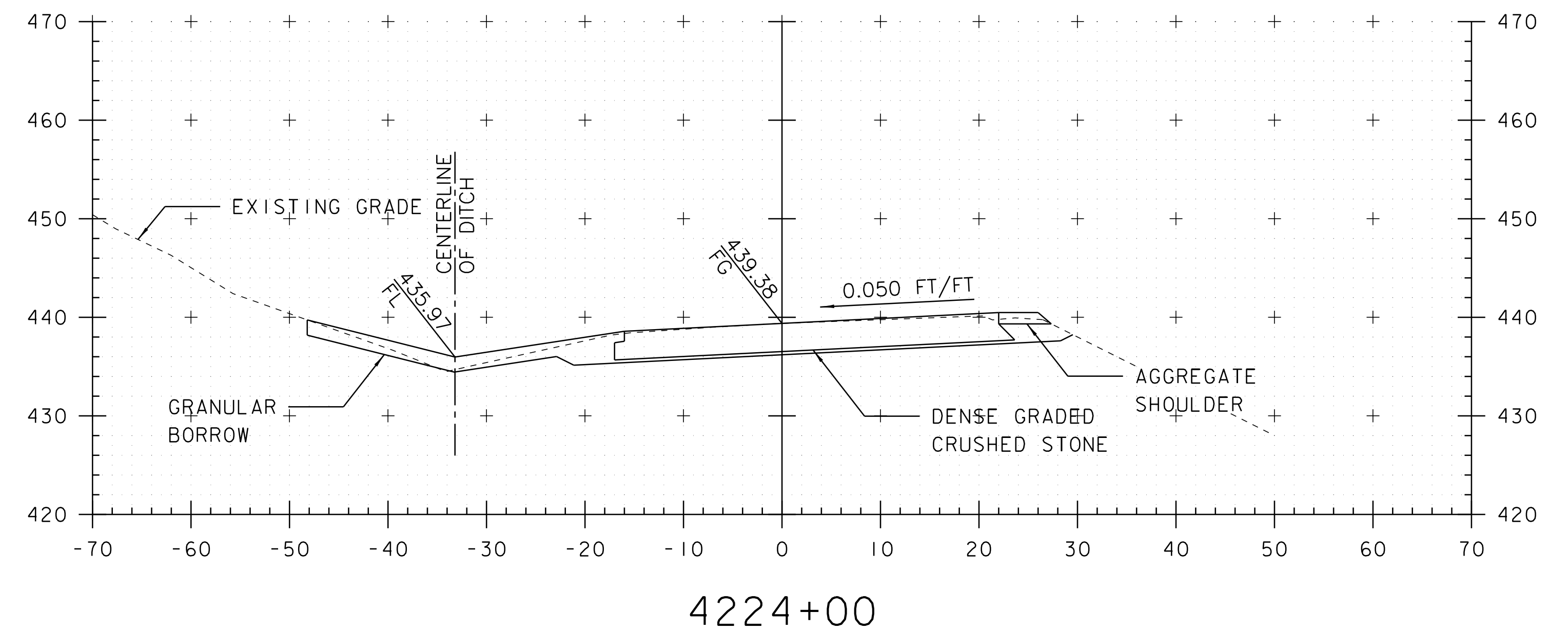
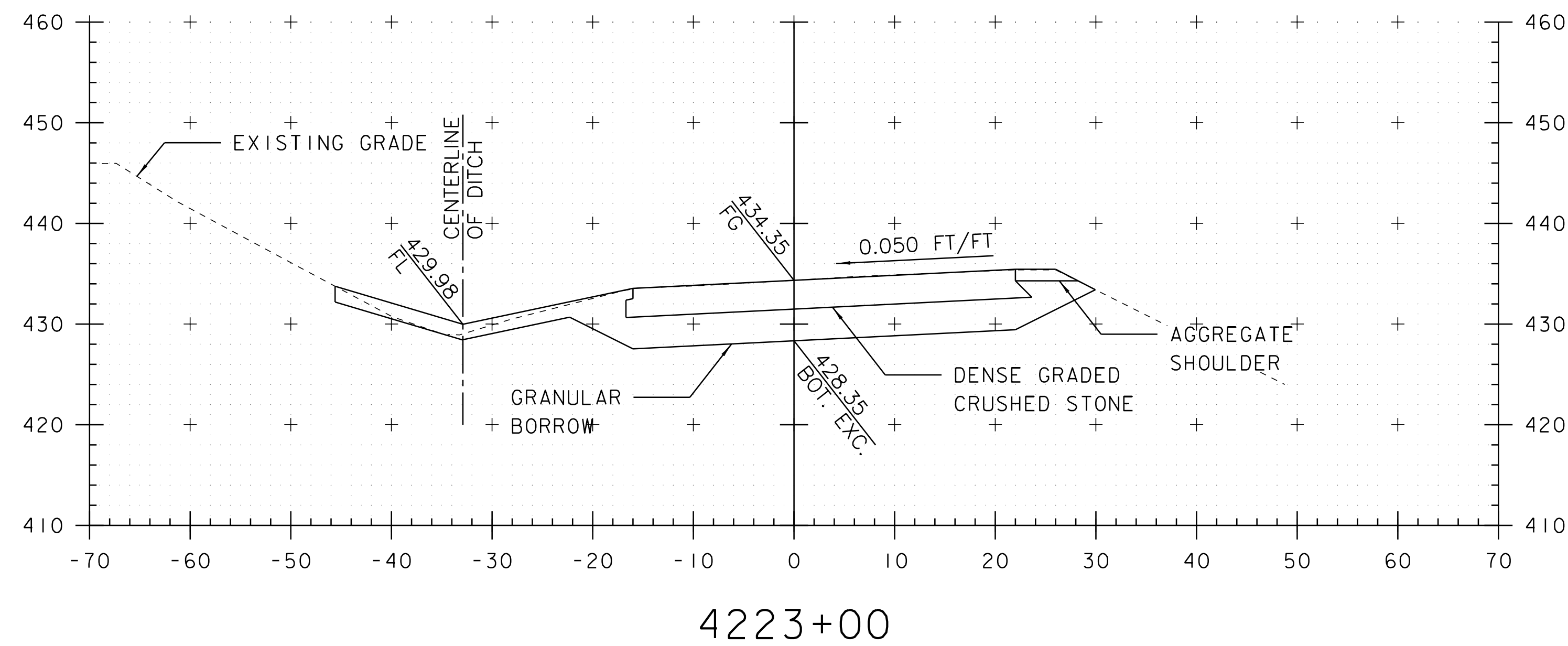
PROJECT NAME: RICHMOND-SOUTH BURLINGTON
PROJECT NUMBER: IM 089-2(39)

FILE NAME: p05a012.dgn
PROJECT LEADER: PCI
DESIGNED BY: MMC
GOLDER ASSOCIATES INC.

PLOT DATE: 02-OCT-2012 16:5
DRAWN BY: MPB
CHECKED BY: RAW
SHEET 73 OF 91



STA. 4220+40 TO STA. 4222+00



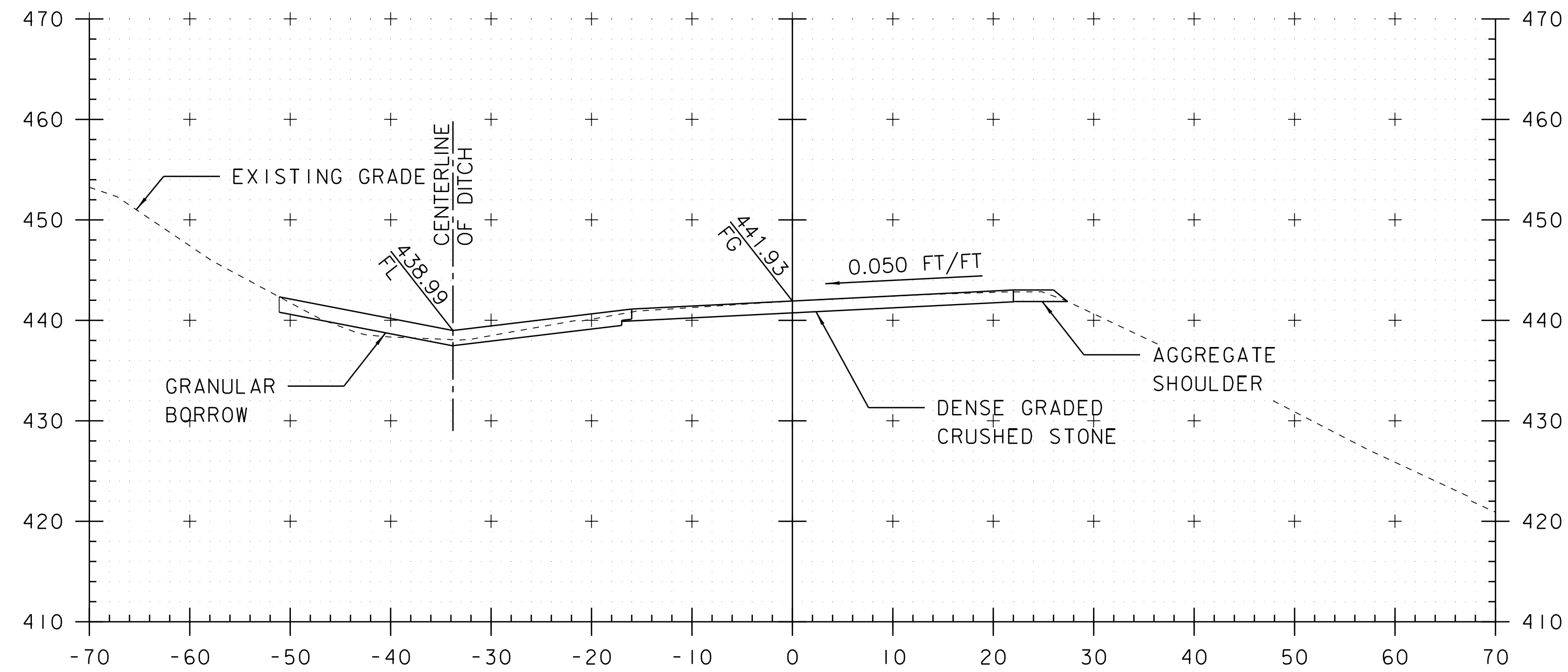
STA. 4222+50 TO STA. 4224+00

RECONSTRUCTION CROSS SECTIONS

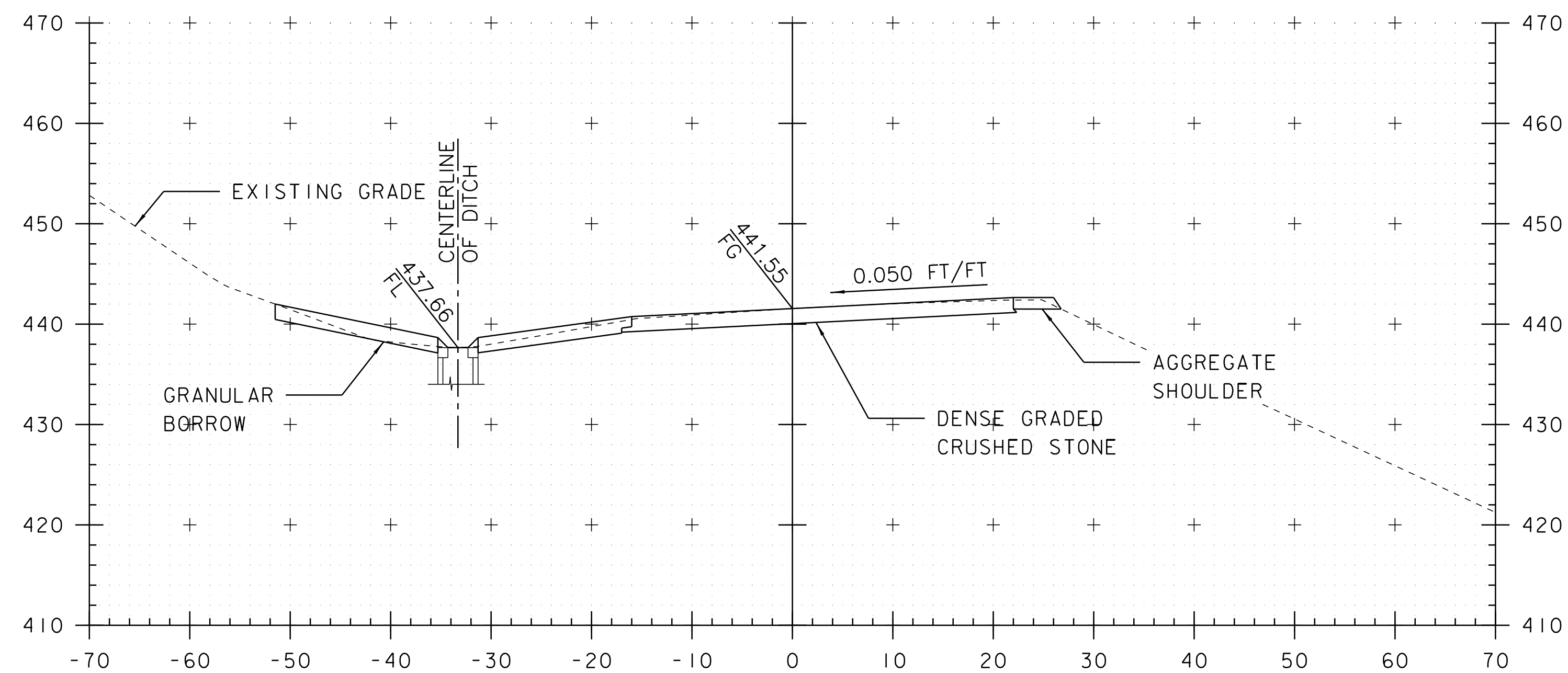
PROJECT NAME: RICHMOND-SOUTH BURLINGTON
PROJECT NUMBER: IM 089-2(39)

FILE NAME: p05a012.dgn
PROJECT LEADER: PCI
DESIGNED BY: MMC
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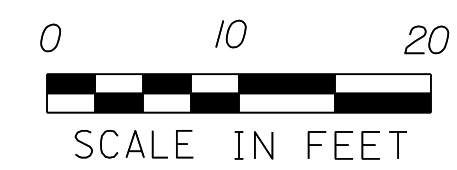
PLOT DATE: 02-OCT-2012 16:5
DRAWN BY: MPB
CHECKED BY: RAW
SHEET 74 OF 91



4224+50



4224+42



STA. 4224+42 TO STA. 4224+50

RECONSTRUCTION CROSS SECTIONS

PROJECT NAME: RICHMOND-SOUTH BURLINGTON
PROJECT NUMBER: IM 089-2(39)

FILE NAME: p05a012.dgn
PROJECT LEADER: PCI
DESIGNED BY: MMC
GOLDER ASSOCIATES INC.

PLOT DATE: 02-OCT-2012 16:51
DRAWN BY: MPB
CHECKED BY: RAW
SHEET 75 OF 91

EROSION CONTROL NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT IS LOCATED ON I-89 IN RICHMOND AND WILLISTON, VERMONT BETWEEN MILE MARKERS 79.00 AND 81.80. THE SCOPE OF THE PROJECT INCLUDES THE RECONSTRUCTION OF APPROXIMATELY 350' ROADWAY AND SUB-BASE AND APPROXIMATELY 450' OF MEDIAN DITCH LINE ON THE NORTHBOUND BARREL AT MILE MARKER 80.00. TWO TEMPORARY Crossover DETOURS WILL BE CONSTRUCTED NORTH (MM 81.80) AND SOUTH (MM 79.00) OF THE ROADWAY RECONSTRUCTION AREA TO SHIFT TRAFFIC FROM THE NORTHBOUND BARREL ONTO THE SOUTHBOUND BARREL DURING THE ROADWAY RECONSTRUCTION EFFORTS. THE LOCATIONS OF THESE Crossovers ARE WELL REMOVED FROM THE ROADWAY RECONSTRUCTION SITE AND FROM EACH OTHER; THEREFORE THE PROJECT WILL INCLUDE THREE SEPARATE AREAS OF DISTURBANCE.

NOTE: AREA OF DISTURBANCE SHALL INCLUDE LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA, INCLUDING ANY WASTE, STAGING AND BORROW AREAS WITHIN OR DIRECTLY ADJACENT TO THE PROJECT LIMITS.

TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 1.70 ACRES.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST APPROXIMATELY ONE MONTH.

1.2 SITE INVENTORY

1.2.1 OFF SITE DRAINAGE CHARACTERISTICS (UP AND DOWN-GRADIENT)

ALL PROPOSED WORK IS WITHIN THE EXISTING I-89 ROADWAY AND MEDIAN, THEREFORE SURROUNDING PROPERTY CONSISTS OF PAVED ROADWAY, GRASS MEDIAN, AND LEDGE CUT. AREAS OUTSIDE OF THE ROADWAY CORRIDOR ARE PRIMARILY WELL ESTABLISHED FOREST WITH MODERATE TO STEEP SLOPES. RUNOFF ENTERS THE CORRIDOR FROM THE WEST VIA SMALL STREAMS AND SHEET FLOW AND IS COLLECTED AND CONVEYED ACROSS THE CORRIDOR TO THE EAST VIA CLOSED DRAINAGE SYSTEMS AND CULVERTS.

1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

THERE ARE NO WATERWAYS IN CLOSE PROXIMITY TO THE THREE AREAS OF PROPOSED DISTURBANCE. THE WINOOSKI RIVER IS LOCATED APPROXIMATELY 1,400' TO THE SOUTH OF THE SOUTHERN Crossover. ALLEN BROOK, A STORMWATER-IMPAIRED WATERSHED ON THE 303(d) LIST, IS LOCATED APPROXIMATELY 400' SOUTH OF THE NORTHERN Crossover.

1.2.3 TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES

THE TOPOGRAPHY OF THE AREA IS RELATIVELY FLAT IN THE Crossover AREAS AND ON A HILL IN THE

RECONSTRUCTION AREA. THE TOPOGRAPHY IS TYPICAL OF INTERSTATE HIGHWAYS WITH PAVED ROADWAYS, MOWED GRASS MEDIANS, LEDGE CUTS, ROCK FILLS, AND DRAINAGE STRUCTURES AND SYSTEMS. THERE ARE NO BUILDINGS OR UTILITIES WITHIN THE PROJECT AREA.

1.2.4 VEGETATION

VEGETATION IN THE PROJECT AREA CONSISTS OF MOWED GRASS IN THE MEDIANS AND HARDWOOD TREES AND UNDERGROWTH OUTSIDE OF THE ROADWAY CORRIDOR. THE IMPACT TO VEGETATION WILL BE LIMITED TO THAT WHICH IS DIRECTLY AFFECTED BY THE MEDIAN RECONSTRUCTION AND CONSTRUCTION OF THE Crossovers. AS PROPOSED SLOPE ARE RELATIVELY FLAT (4:1 TYPICAL) VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES. SILT FENCE AND STONE CHECK DAMS WILL BE USED TO CONTAIN SEDIMENT PRIOR TO REVEGETATION.

1.2.5 SOILS

SOIL DATA FROM THE NATIONAL RESOURCES CONSERVATION SERVICE (NRCS) INDICATES THAT THE AREAS OF PROPOSED DISTURBANCE CONTAIN THE FOLLOWING SOILS:

NORTHERN Crossover: COLTON GRAVELLY LOAMY SAND (CoA, 5% SLOPES, K-FACTOR=0.15), MUNSON AND RAYNHAM SILT LOAMS (MyC, 6% TO 12%, K FACTOR=0.49), AND SCANTIC SILT LOAM (ScB, 2% TO 6%, K-FACTOR=0.32)

RECONSTRUCTION AREA: ADAMS AND WINDSOR LOAMY SANDS (AdE, 30% TO 60% SLOPES, K-FACTOR=0.17), AGAWAM FINE SANDY LOAM (AgD, 12% TO 30% SLOPES, K-FACTOR=0.28), AND TERRACE ESCARPMENTS SILTY AND CLAYEY (TeE, SLOPE=NA, K-FACTOR=NA).

SOUTHERN Crossover: HARTLAND VERY FINE SANDY LOAM (HIE, 25% TO 60% SLOPES, K-FACTOR=0.49), MUNSON AND BELGRADE SILT LOAMS (MuD, 12%TO 25% SLOPES, K-FACTOR=0.49), AND MUNSON AND RAYNHAM SILT LOAMS (MyB, 2% TO6% SLOPES, K-FACTOR=0.49).

HOWEVER, IT IS IMPORTANT TO NOTE THAT ALL AREAS OF PROPOSED DISTURBANCE HAVE BEEN PREVIOUSLY DISTURBED AS PART OF THE ORIGINAL I-89 CONSTRUCTION. THEREFORE, THE ABOVE NRCS SOIL DATA MAY NOT BE INDICATIVE OF EXISTING CONDITIONS. EXISTING SOILS ARE LIKELY ROCK, GRAVEL, SAND, AND LOAM PLACED AS PART OF THE ORIGINAL CONSTRUCTION.

NOTE: K-VALUES GENERALLY INDICATE THE FOLLOWING: 0.0-0.23 = LOW EROSION POTENTIAL; 0.24-0.36 = MODERATE EROSION POTENTIAL: 0.37 AND HIGHER = HIGH EROSION POTENTIAL.

1.2.6 SENSITIVE RESOURCE AREAS

THERE IS NO SIGNIFICANT IMPACT TO ANY “THREATENED & ENDANGERED SPECIES”, PRIME AGRICULTURAL LANDS, JURISDICTIONAL WETLANDS, OR CRITICAL HABITATS WITHIN THE PROPOSED AREAS OF DISTURBANCE.

1.3 RISK EVALUATION

A DETAILED RISK EVALUATION HAS LED TO THE DETERMINATION THAT THIS PROJECT IS LOW RISK. THEREFORE, THE LOW RISK HANDBOOK MUST BE ON SITE AND COMPLIED WITH DURING CONSTRUCTION.

SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN A POTENTIAL CHANGE IN THE RISK THEN THE SELECTED CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL PERMITTING WITH VANR VIA FILING OF THE APPROPRIATE NOTICE OF INTENT UNDER THE CONSTRUCTION PERMIT PROCESS.

NOTE: THIS NARRATIVE AND THE EPSC PLANS AND DETAILS INCLUDED IN THESE PLANS HAVE BEEN DEVELOPED FOR THE Crossover TRAFFIC CONTROL ALTERNATE. SHOULD THE CONTRACTOR CONSTRUCT THE PROJECT UNDER ONE OF THE OTHER TRAFFIC CONTROL ALTERNATES, THEN THE CONTRACTOR WILL BE RESPONSIBLE FOR WORKING WITH ANR IN DETERMINING THE PERMITTING REQUIREMENTS UNDER CONSTRUCTION GENERAL PERMIT 3-9020 (2006).

1.4 EROSION PREVENTION AND SEDIMENT CONTROL

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE WORK OUTLINED IN THIS NARRATIVE CONSISTS OF APPLYING MEASURES THROUGHOUT THE LIFE OF THE PROJECT MINIMIZING SEDIMENT TRANSPORT TO THE RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION CONTROLS.

PREVENTING INITIAL SOIL EROSION IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE.

ALL MEASURES SHALL BE REGULARLY MAINTAINED AND SHALL BE CHECKED FOR SEDIMENT BUILD-UP. SEDIMENT SHALL BE DISPOSED AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.

REFER TO THE LOW RISK SITE HANDBOOK AND APPROPRIATE DETAIL SHEETS FOR EACH PRACTICE REQUIRED ON THE PROJECT TO INCLUDE BUT NOT LIMITED TO THOSE NOTED BELOW.

1.4.1 MARK SITE BOUNDARIES

PROJECT DEMARCATION FENCING, DENOTED PDF- ON THE PLANS, IS USED TO DELINEATE THE LIMITS THE CONTRACTOR CAN ACCESS WITH CONSTRUCTION EQUIPMENT. THIS MEASURE LIMITS THE AREA THAT CAN BE DISTURBED AND EXPOSED TO EROSION.

1.4.2 LIMIT DISTURBANCE AREA

EMPLOY TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES (PHASING) AS CONSTRUCTION PROCEEDS. ADDITIONAL MEASURES MAY BE NEEDED DUE TO THE PHASING OF THE PROJECT AND AS DIRECTED BY THE ENGINEER.

1.4.3 STABILIZE CONSTRUCTION EXIT

CONSTRUCTION WILL BE PRIMARILY FROM THE ROADWAY THEREFORE NO CONSTRUCTION ENTRANCE WILL BE UTILIZED.

1.4.4 INSTALL SILT FENCE

SILT FENCE SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK AS SHOWN ON THE PLANS OR AS NECESSARY.

1.4.5 DIVERT UPLAND RUNOFF

NOT REQUIRED

1.4.6 SLOW DOWN CHANNELIZED RUNOFF

CHECK DAMS IN DITCHES

1.4.7 CONSTRUCT PERMANENT CONTROLS

DRAINAGE INLETS AND PIPES
SEED AND MULCH

1.4.8 STABILIZE EXPOSED SOILS

SEED AND MULCH

1.4.9 WINTER STABILIZATION

VARIOUS MEASURES SPECIFIC TO WINTER (SEE LOW RISK HANDBOOK)

1.4.10 STABILIZE SOIL AT FINAL GRADE

SEED AND MULCH

1.4.11 DE-WATERING ACTIVITIES

NONE

1.4.12 INSPECT YOUR SITE

INSPECT SITE BASED ON PERMIT AUTHORIZATION REQUIREMENTS.

EROSION CONTROL NARRATIVE

PROJECT NAME: RICHMOND-SOUTH BURLINGTON	
PROJECT NUMBER: IM 089-2(39)	
FILE NAME: p05a0l2.dgn	PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
PROJECT LEADER: CRB	DRAWN BY: JJB/MRS
DESIGNED BY: JJB	CHECKED BY: DH
CLD 07-0313	SHEET 76 OF 91



653.40 INLET PROTECTION DEVICE, TYPE I

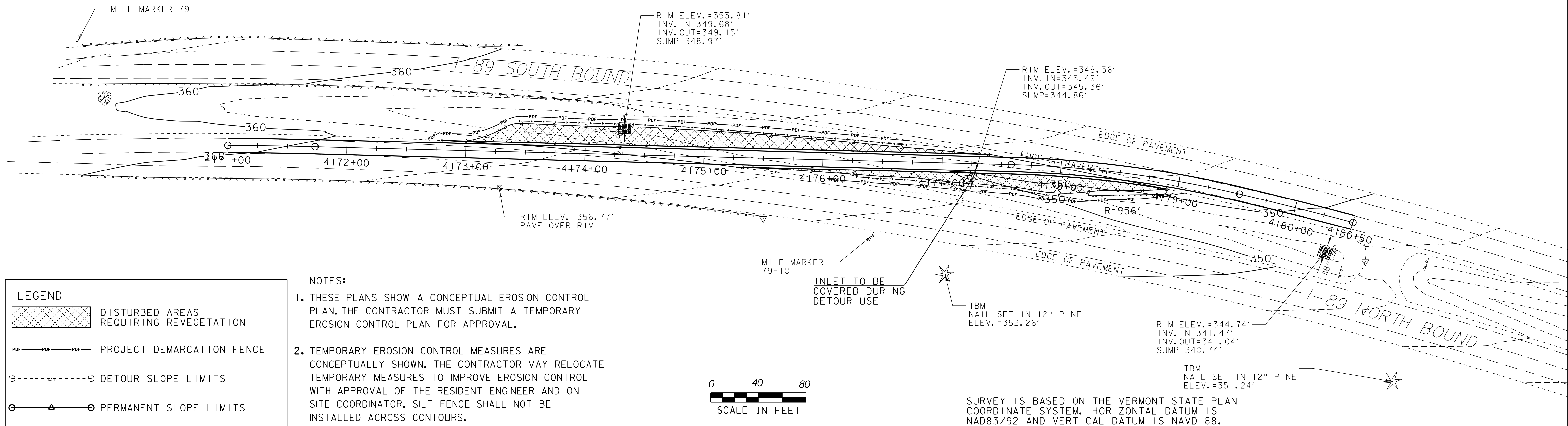
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STA 4180+35 RT

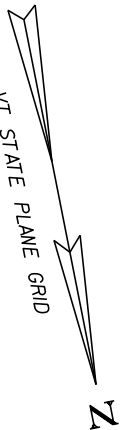
653.55 PROJECT DEMARCATION FENCE

STA 4172+70 - STA 4176+75 LT
STA 4146+00 - STA 4179+00 RT

653.25 TEMPORARY STONE CHECK DAM, TYPE I

STA 4173+45 - STA 4176+75 LT
STA 4176+25 - STA 4178+25 RT



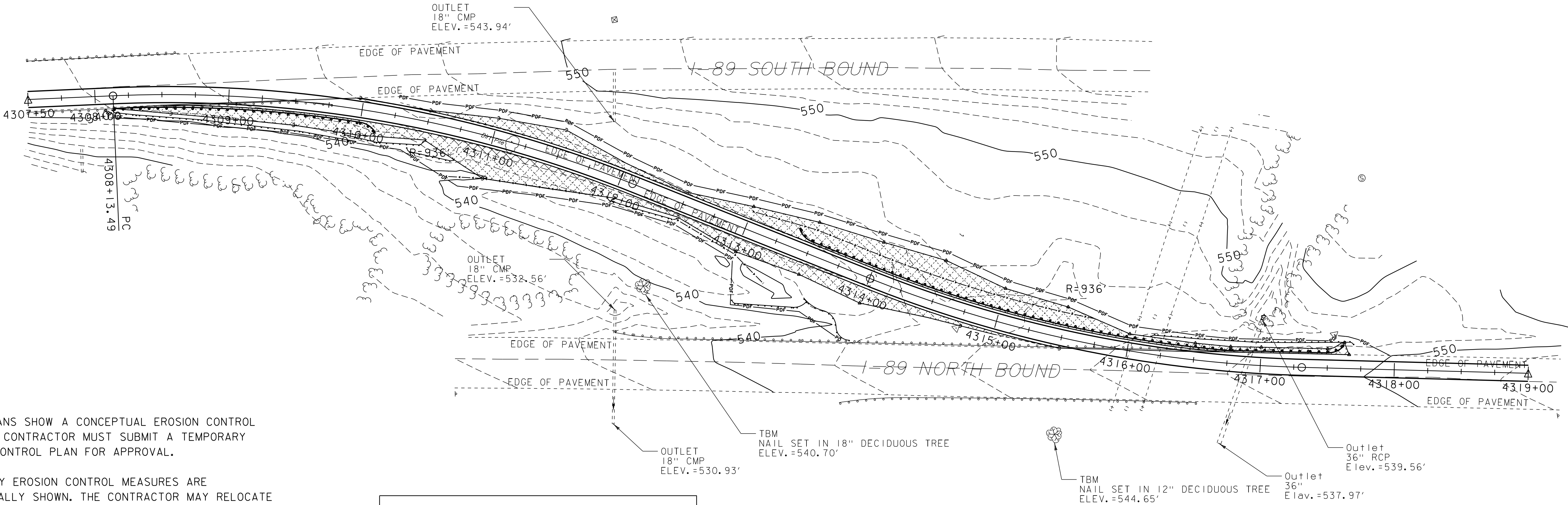


653.55 PROJECT DEMARCATION FENCE

STA 4308+10 - STA 4314+00 RT
STA 4310+25 - STA 4318+00 LT

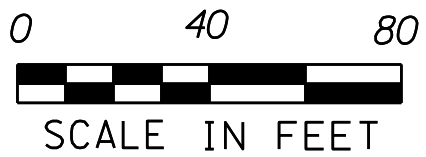
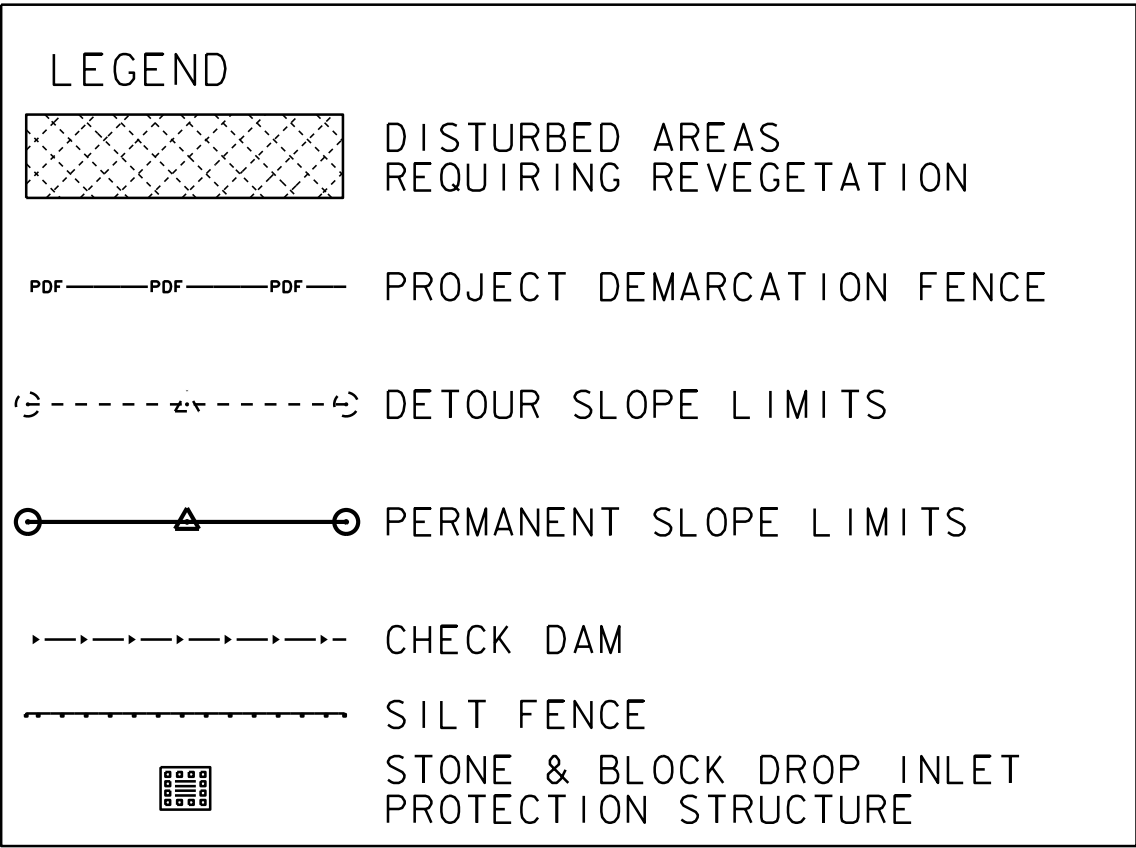
653.25 TEMPORARY STONE CHECK DAM, TYPE I

STA 4310+75 - STA 4311+85 RT
STA 4312+50 - STA 4313+25 RT
STA 4313+00 - STA 4315+75 LT



NOTES:

1. THESE PLANS SHOW A CONCEPTUAL EROSION CONTROL PLAN, THE CONTRACTOR MUST SUBMIT A TEMPORARY EROSION CONTROL PLAN FOR APPROVAL.
2. TEMPORARY EROSION CONTROL MEASURES ARE CONCEPTUALLY SHOWN. THE CONTRACTOR MAY RELOCATE TEMPORARY MEASURES TO IMPROVE EROSION CONTROL WITH APPROVAL OF THE RESIDENT ENGINEER AND ON SITE COORDINATOR. SILT FENCE SHALL NOT BE INSTALLED ACROSS CONTOURS.
3. THE CONTRACTOR SHALL USE OTHER TEMPORARY EROSION CONTROL MEASURES AS NECESSITATED BY THE SEQUENCE OF CONSTRUCTION OR AS DIRECTED BY THE RESIDENT ENGINEER AND ON SITE COORDINATOR.
4. REFER TO TEMPORARY EROSION CONTROL DETAIL SHEETS FOR ADDITIONAL DETAILS.
5. WHERE LEDGE IS EXPOSED, GRAVEL BAGS MAY BE USED INSTEAD OF FILTER CURTAIN. PAYMENT FOR THIS ITEM SHALL BE INCIDENTAL TO ITEM 649.51 "GEOTEXTILE FOR SILT FENCE".
6. ALL DISTURBED AREAS REQUIRING REVEGETATION TO BE SEEDED AND MULCHED AND STABILIZED IN WINTER IN ACCORDANCE WITH THE LOW RISK HANDBOOK.



SURVEY IS BASED ON THE VERMONT STATE PLAN COORDINATE SYSTEM. HORIZONTAL DATUM IS NAD83/92 AND VERTICAL DATUM IS NAVD 88.

NOTE: THE STATIONING ON THIS SHEET IS INDEPENDENT OF THE STATIONING ON SHEET 69.

EROSION CONTROL PLAN SHEET 3

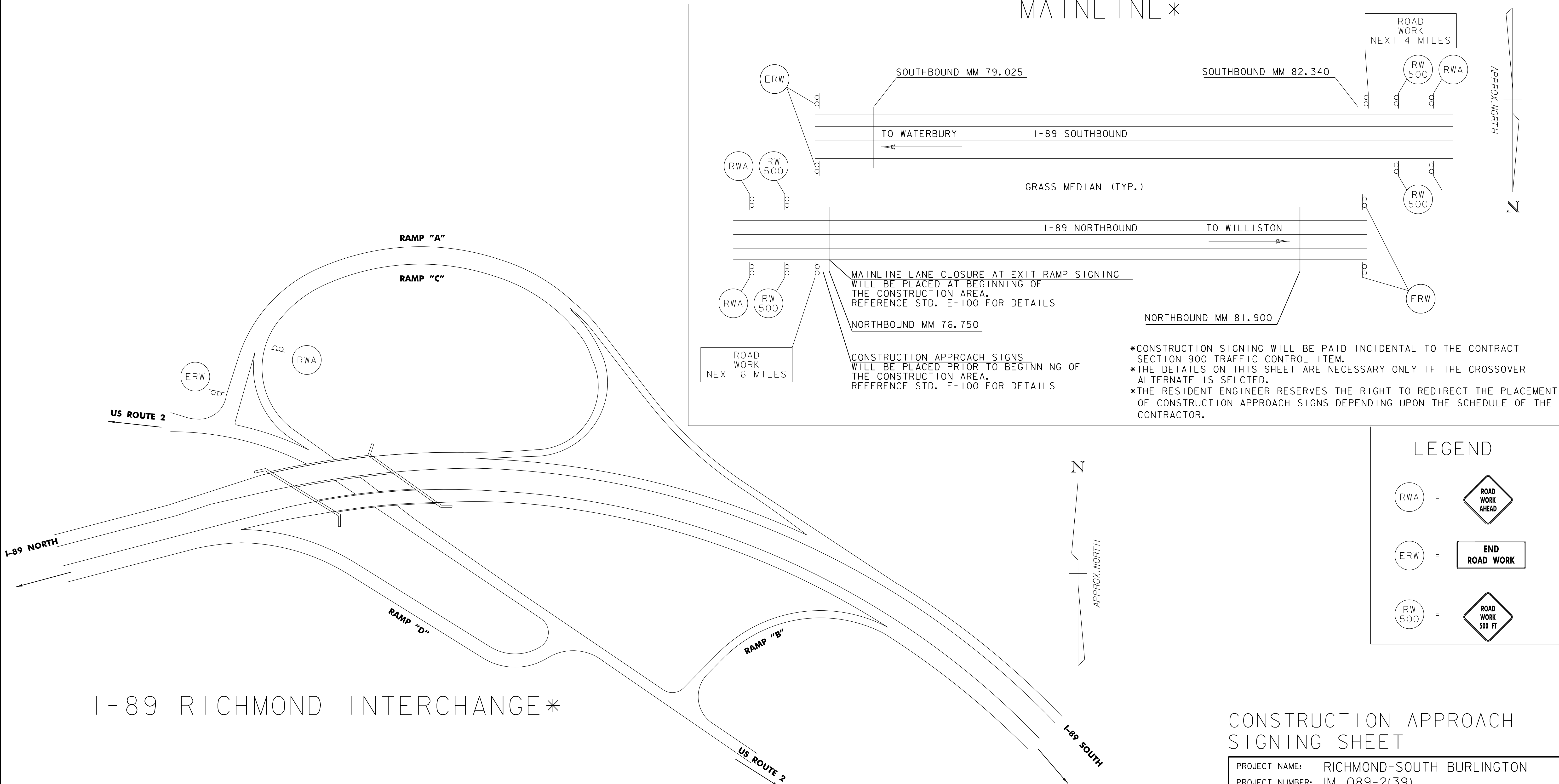
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PROJECT NUMBER: IM 089-2(39)

FILE NAME: p05a012.dgn
PROJECT LEADER: CRB
DESIGNED BY: JJB
CLD 07-0313

PLOT DATE: 02-OCT-2012 16:5
DRAWN BY: JJB/MRS
CHECKED BY: DH
SHEET 79 OF 91

CONSTRUCTION APPROACH SIGNING

MAINLINE*



I-89 RICHMOND INTERCHANGE*

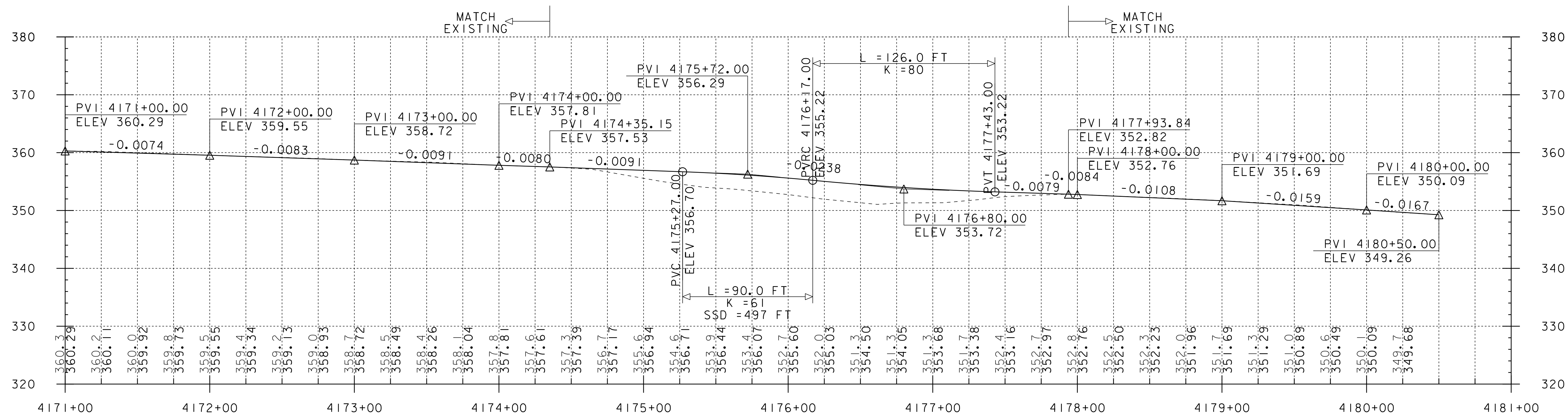
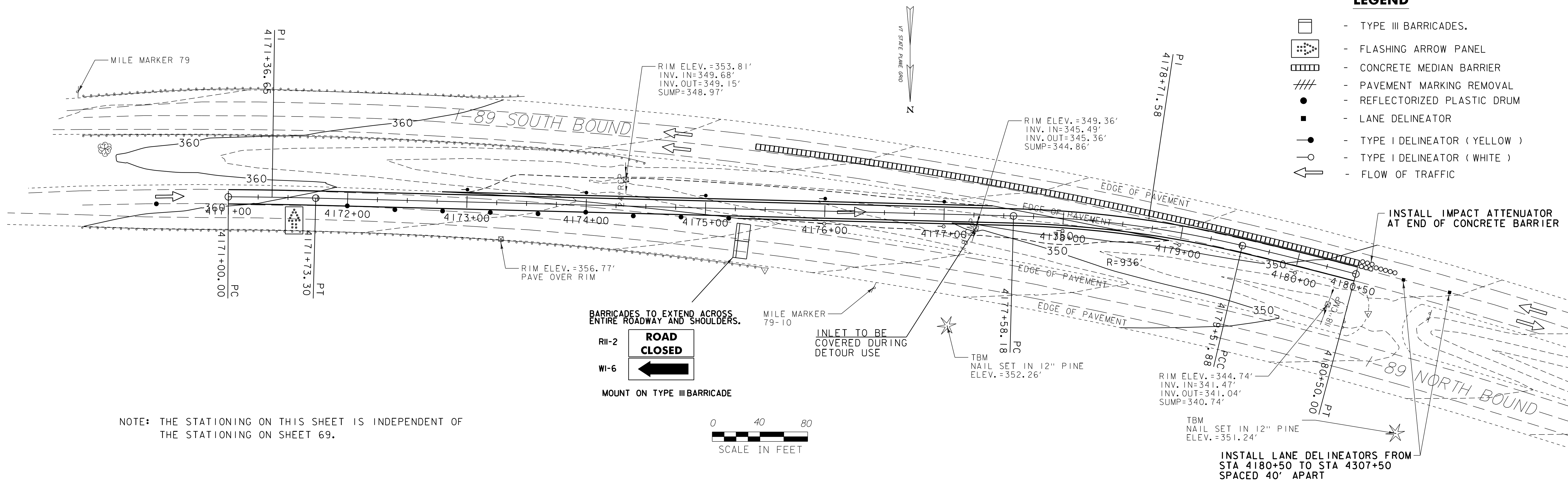
*REFER TO STANDARD E-100 NOTE: EXACT LOCATIONS TO BE DETERMINED BY ENGINEER

N. T. S.

CONSTRUCTION APPROACH
SIGNING SHEET

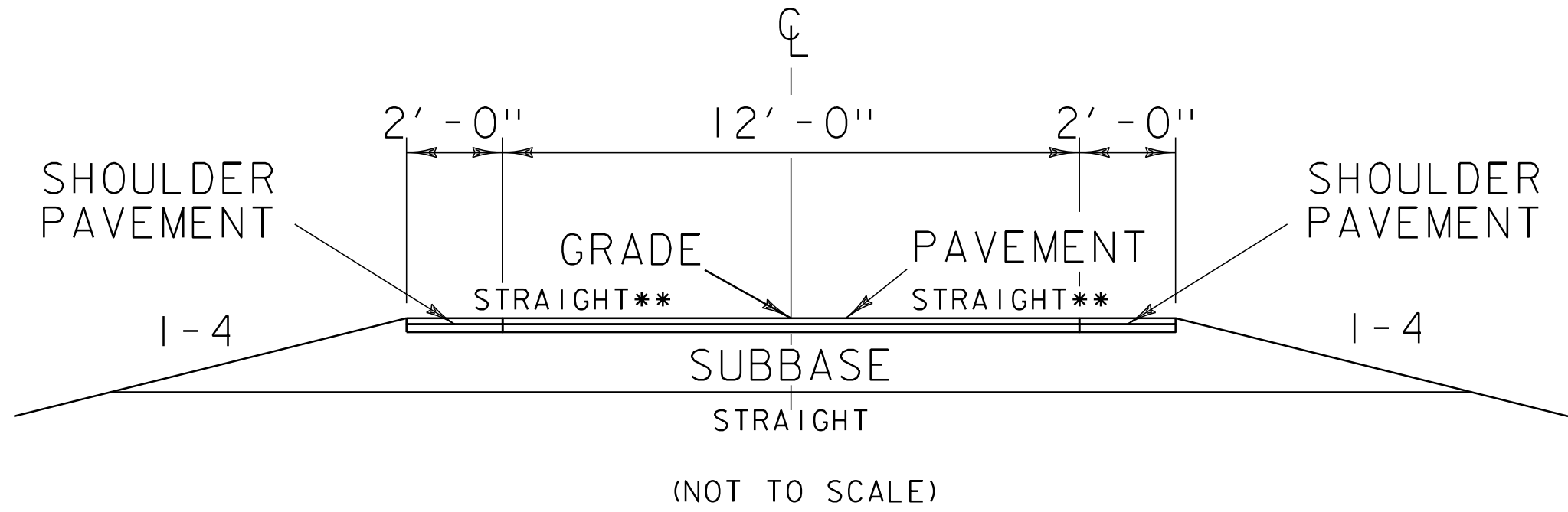
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PROJECT NUMBER: IM 089-2(39)

FILE NAME: p05a012.dgn
PROJECT LEADER: CRB
DESIGNED BY: JJB
CHECKED BY: DH
CLD 07-0313
PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
DRAWN BY: JJB/MRS
SHEET 81 OF 91



CROSSOVER TYPICAL SECTION

3 1/2" BITUMINOUS CONCRETE PAVEMENT (1 3/4" TYPE III OVER 1 3/4" TYPE III S) (PG 64-28)
15" SUBBASE OF DENSE GRADED CRUSHED STONE
SHOULDERS: 3 1/2" BITUMINOUS CONCRETE PAVEMENT (1 3/4" TYPE III OVER 1 3/4" TYPE III S) (PG 64-28)



**CROSS SLOPE VARIES ACCORDING TO BANKING

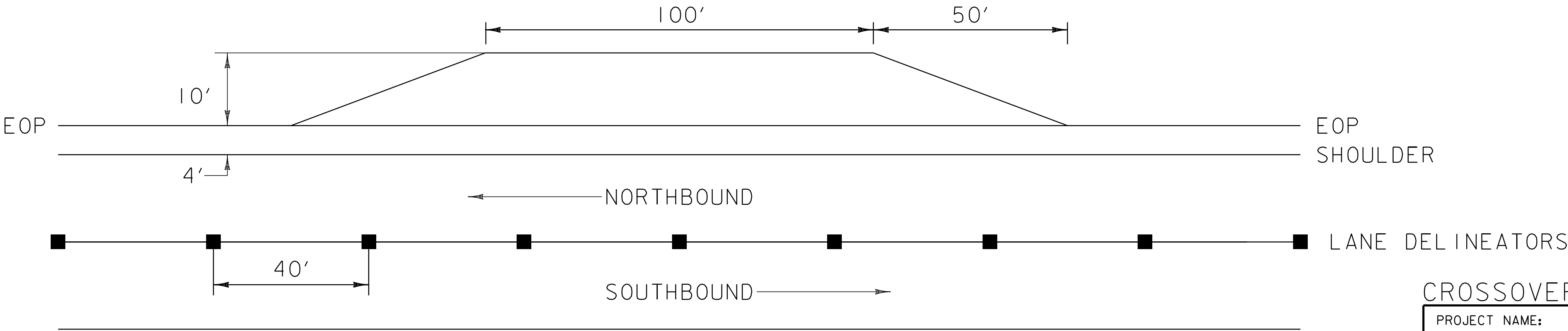
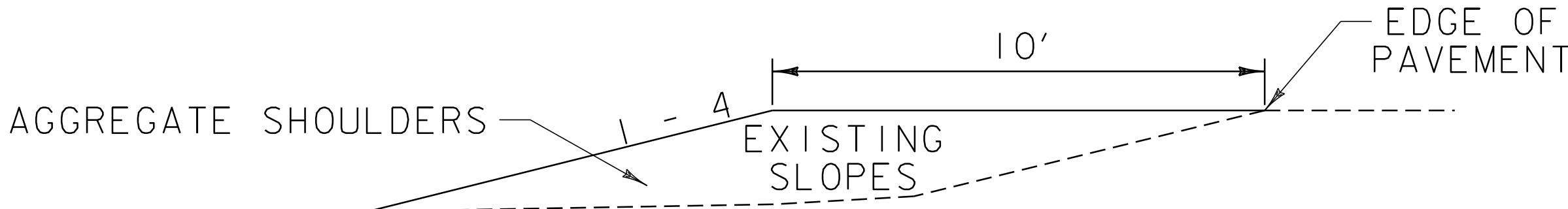
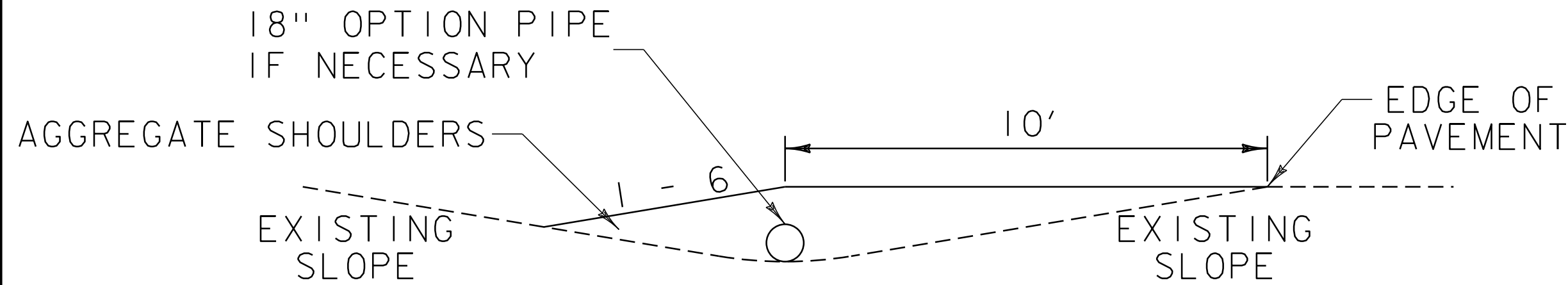
NOTE:
THE FOLLOWING ITEMS AND QUANTITIES ARE NOT INCLUDED IN THE PROJECT QUANTITIES BUT ARE ASSOCIATED WITH ALTERNATE A ITEM 900.645 SPECIAL PROVISION (TRAFFIC CONTROL, CROSSOVER). THIS LIST SHALL NOT BE CONSIDERED ALL INCLUSIVE FOR IMPLEMENTATION OF THE TRAFFIC CONTROL PLAN BUT ARE INCLUDED FOR INFORMATIONAL AND COST ESTIMATING PURPOSES ONLY. DEVIATIONS FROM THESE QUANTITIES WILL NOT RESULT IN ANY EXTRA COMPENSATION TO THE CONTRACTOR.

203.15 COMMON EXCAVATION 1000 CY
203.30 EARTH BORROW 415 CY
301.35 SUBBASE OF DENSE GRADED CRUSHED STONE 1040 CY
402.12 AGGREGATE SHOULDERS 2050 TON
404.65 EMULSIFIED ASPHALT 6 CWT
490.30 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (PG 64-28) 455 TON
621.20 STEEL BEAM GUARDRAIL, GALVANIZED 625 LF
621.57 ENERGY ABSORPTION ATTENUATOR, SAND-FILLED PLASTIC BARREL 22 EACH
621.58 ENERGY ABSORPTION ATTENUATOR, QUADGUARD 1 EACH
621.75 REMOVE AND RESET GUARDRAIL 400 LF
621.90 TEMPORARY TRAFFIC BARRIER 13250 LF
641.15 PORTABLE CHANGEABLE MESSAGE SIGN 4 EACH
641.16 PORTABLE ARROW BOARD 6 EACH
646.621 TEMPORARY 6 INCH WHITE LINE, TYPE II TAPE 2120 LF
646.631 TEMPORARY 6 INCH YELLOW LINE, TYPE II TAPE 2120 LF
646.85 REMOVAL OF EXISTING PAVEMENT MARKINGS 745 SF
646.86 PAVEMENT MARKING MASK 1000 SF
676.10 DELINEATOR WITH STEEL POST 25 EACH
676.20 DELINEATOR WITH FLEXIBLE POST 300 EACH

EMERGENCY TURNOUT TYPICAL SECTIONS
ALONG MAINLINE

(NOT TO SCALE)

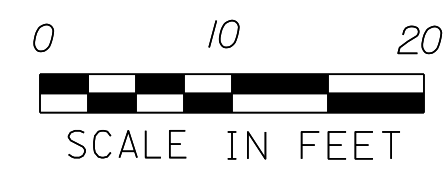
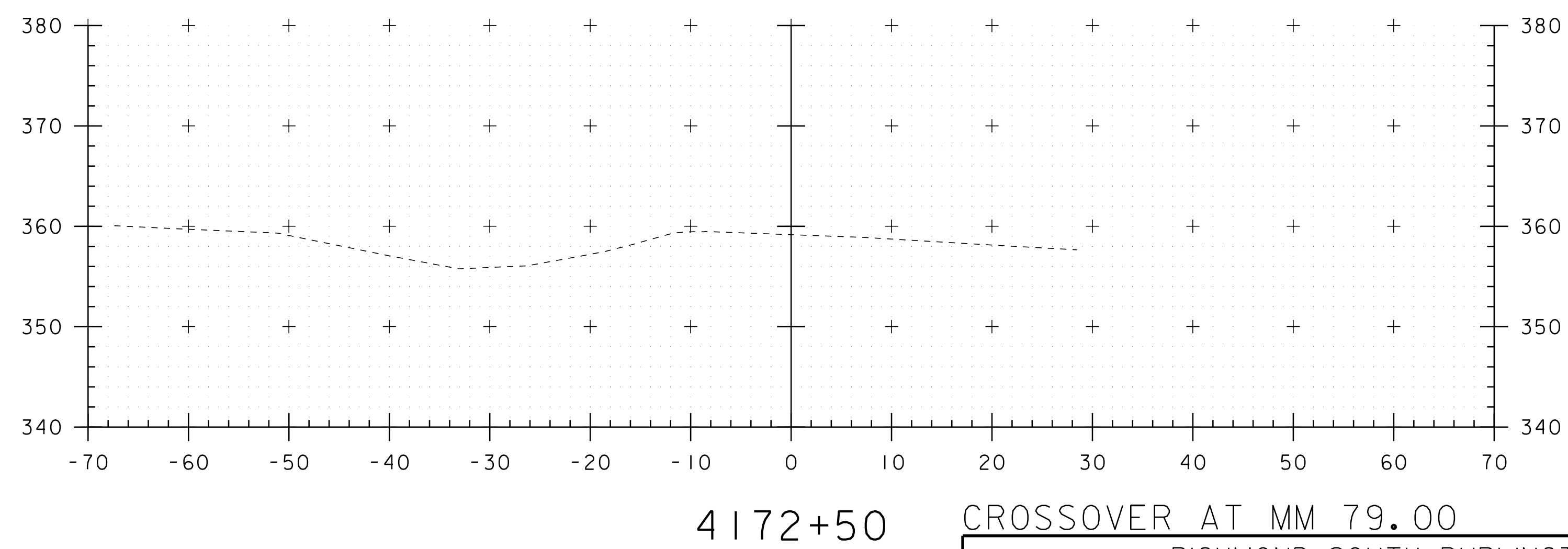
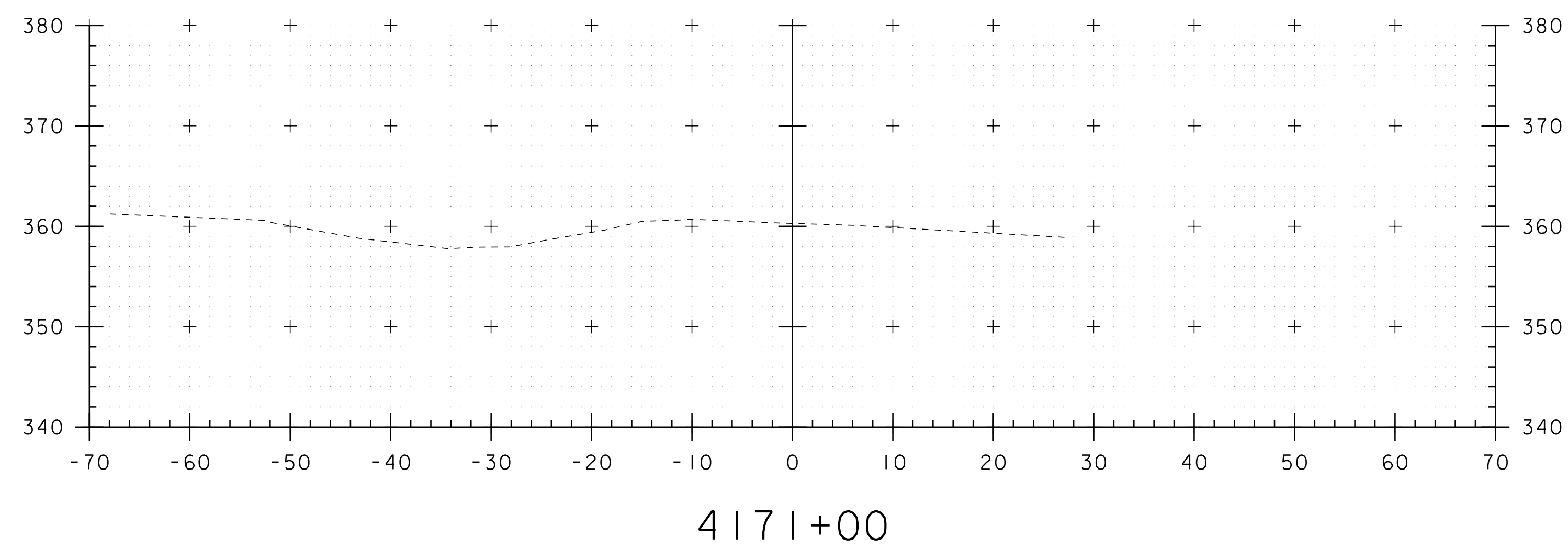
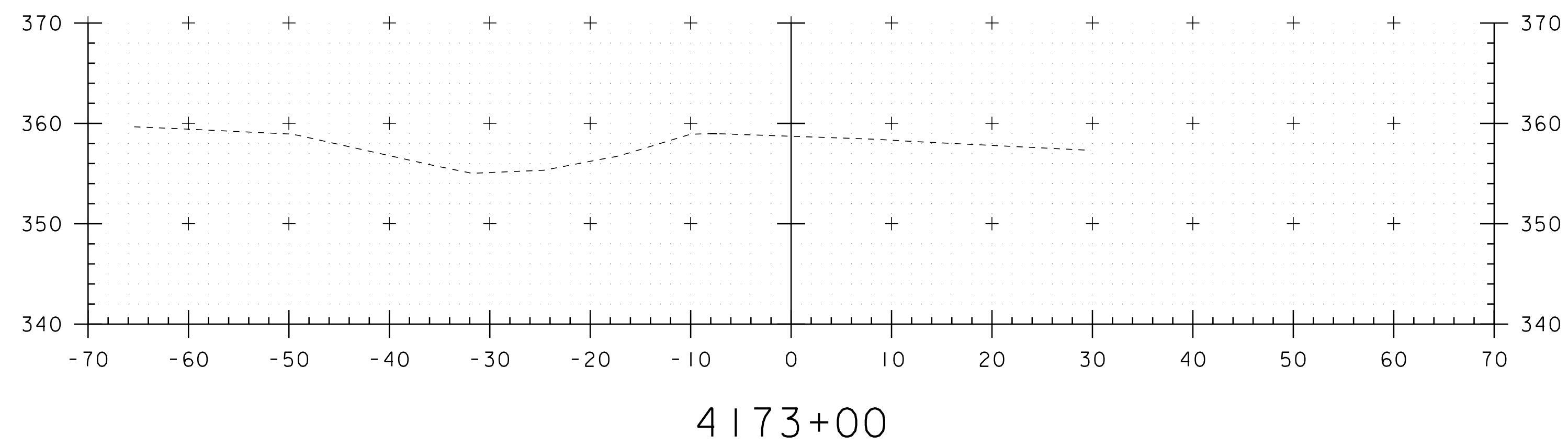
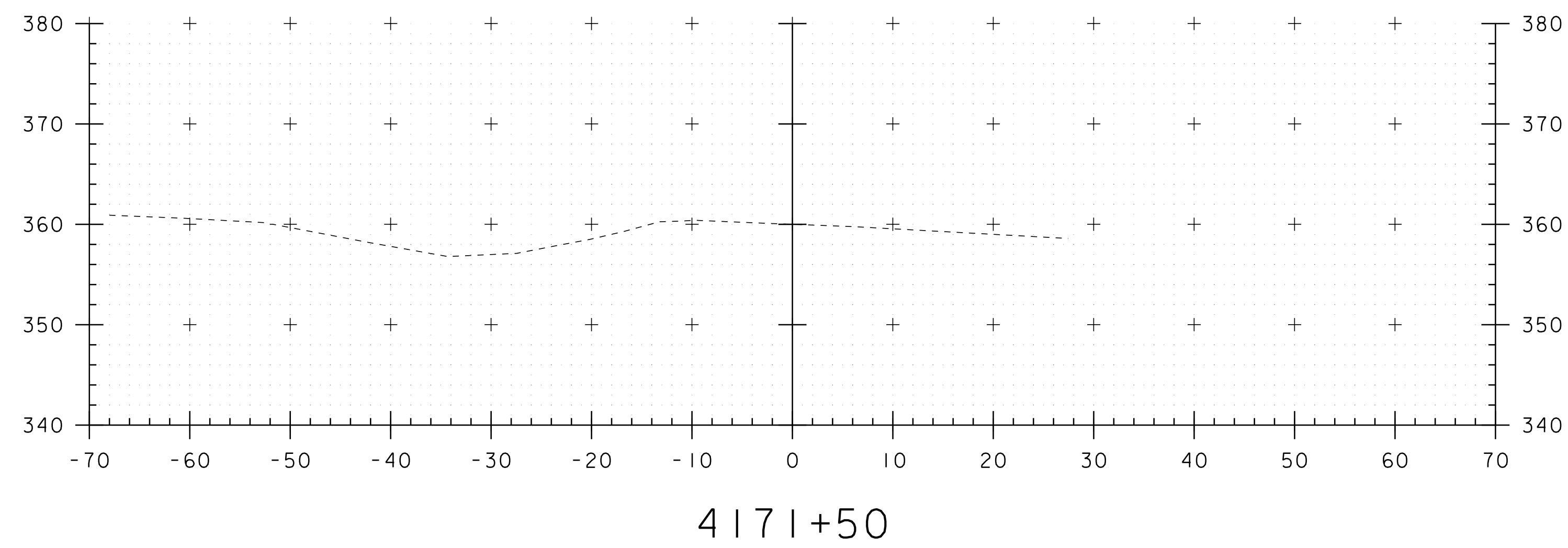
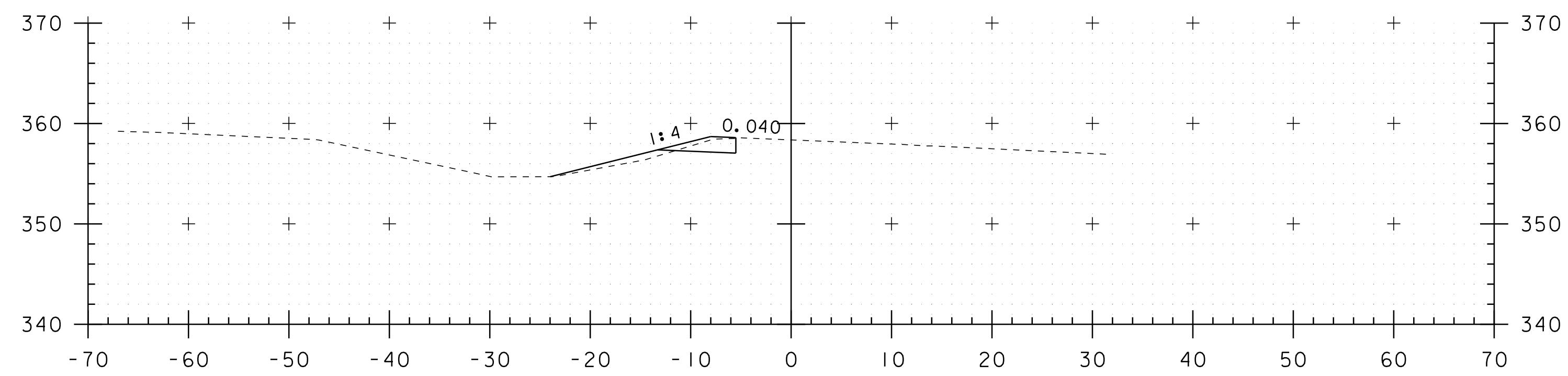
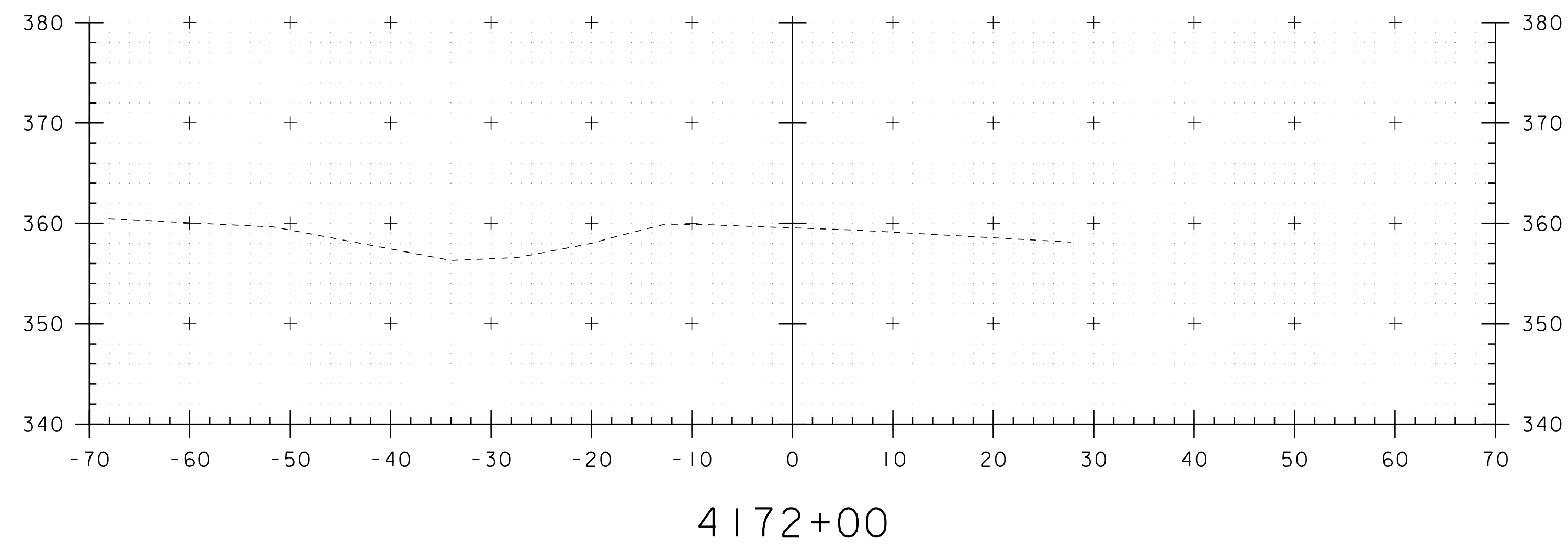
APPROXIMATE MILEMARKS*
MM 79.70
MM 80.10
MM 80.50
MM 81.00



CROSSOVER TYPICALS SHEET

PROJECT NAME: RICHMOND-SOUTH BURLINGTON	
PROJECT NUMBER: IM 089-2(39)	
FILE NAME: p05a012.dgn	PLOT DATE: 02-OCT-2012 16:5
PROJECT LEADER: CRB	DRAWN BY: JJB
DESIGNED BY: JJB	CHECKED BY: DH
CLD 07-0313	SHEET 83 OF 91

* LOCATIONS ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED BY THE RESIDENT PRIOR TO CONSTRUCTION



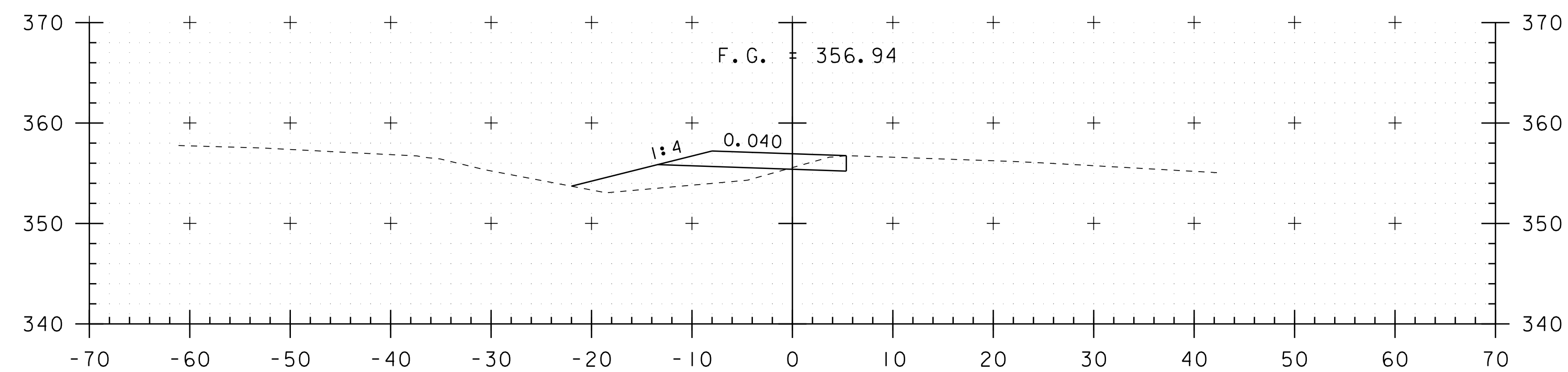
STA. 4171+00 TO STA. 4173+50

CROSSOVER AT MM 79.00

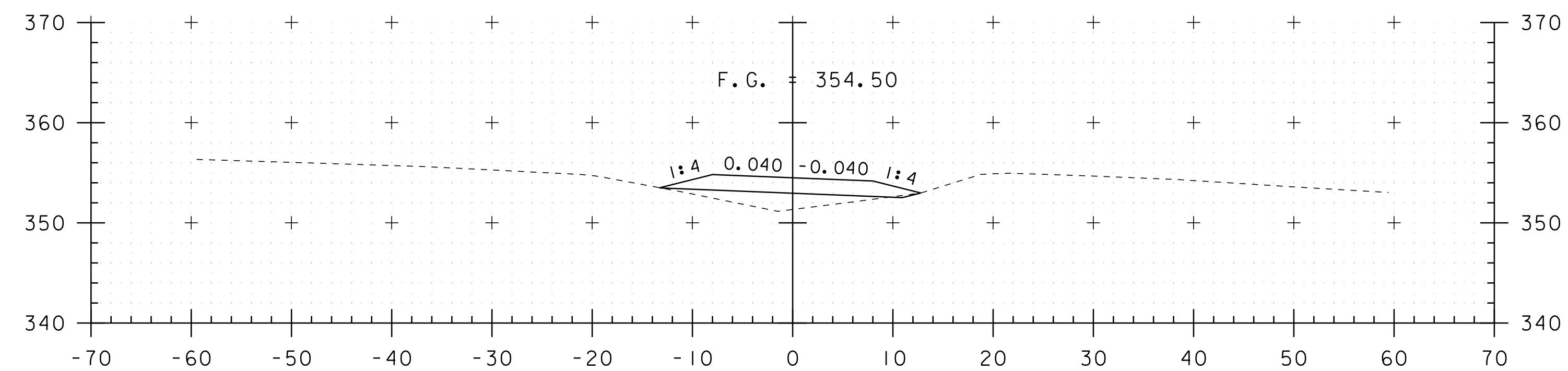
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PROJECT NUMBER: IM 089-2(39)

FILE NAME: p05a012.dgn
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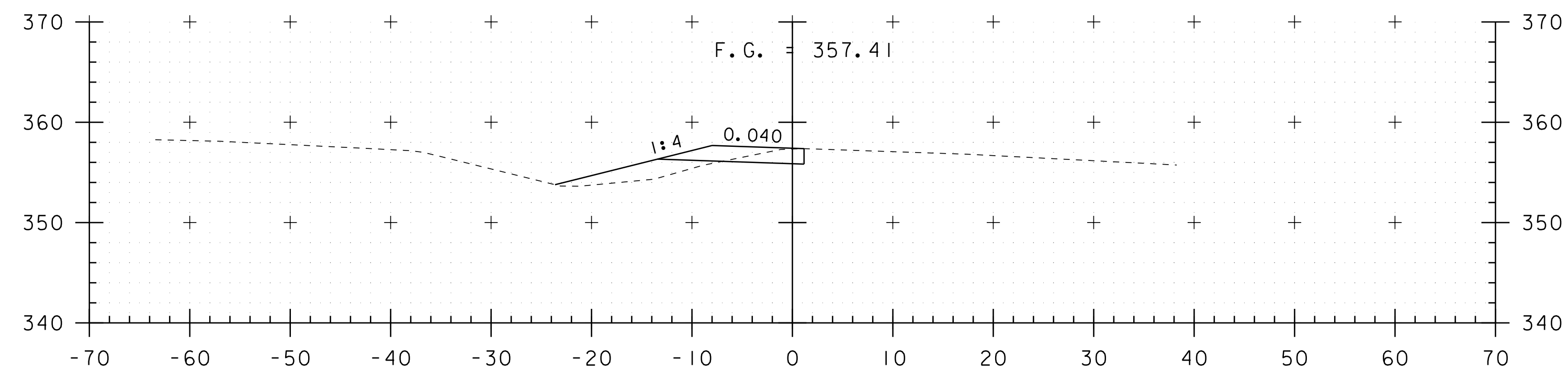
PLOT DATE: 02-OCT-2012 16:5
DRAWN BY: JJB/MRS
CHECKED BY: DH
SHEET 84 OF 91



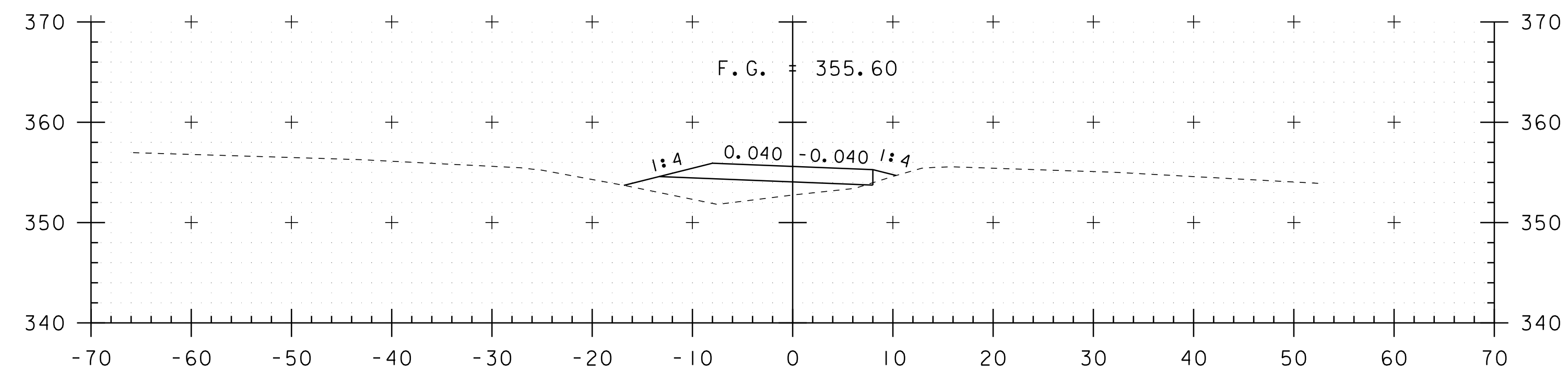
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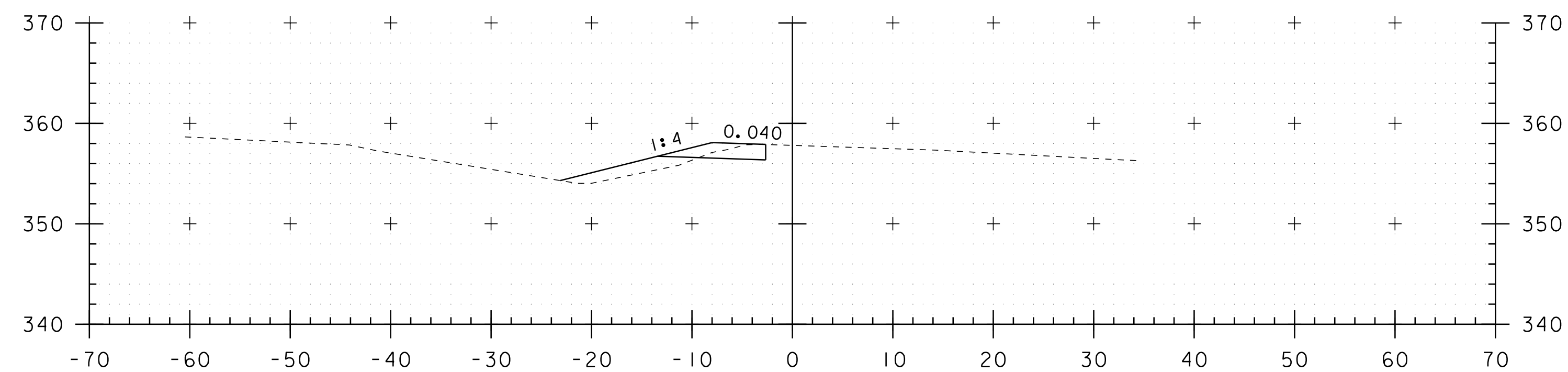
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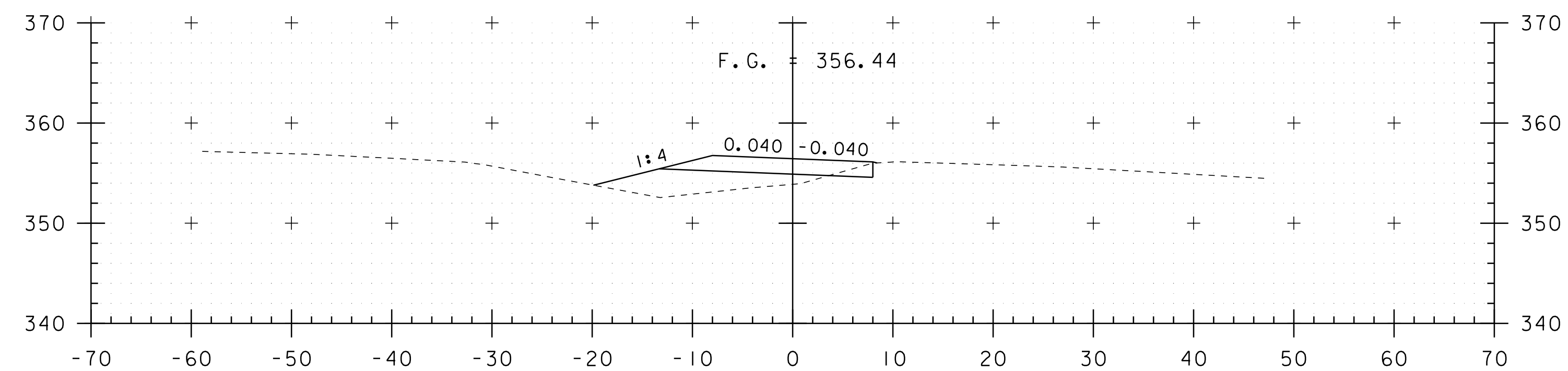
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4176+00



4174+00



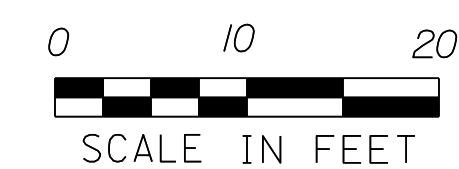
4175+50

CROSSOVER AT MM 79.00

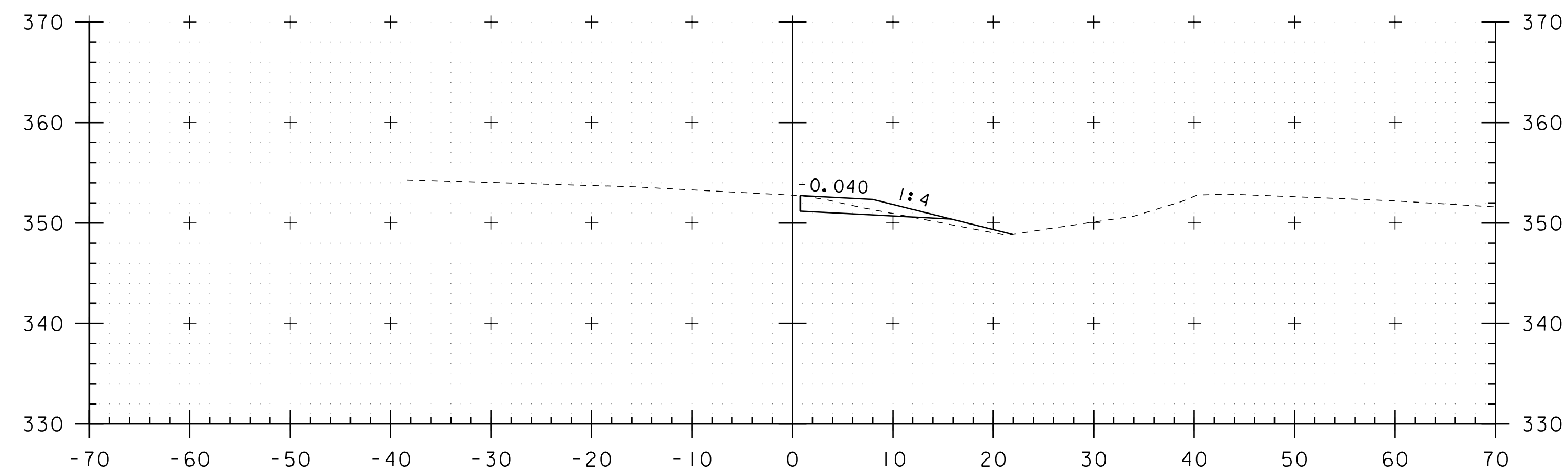
PROJECT NAME: RICHMOND-SOUTH BURLINGTON
PROJECT NUMBER: IM 089-2(39)

FILE NAME: p05a012.dgn
PROJECT LEADER: CRB
DESIGNED BY: JJB
CLD 07-0313

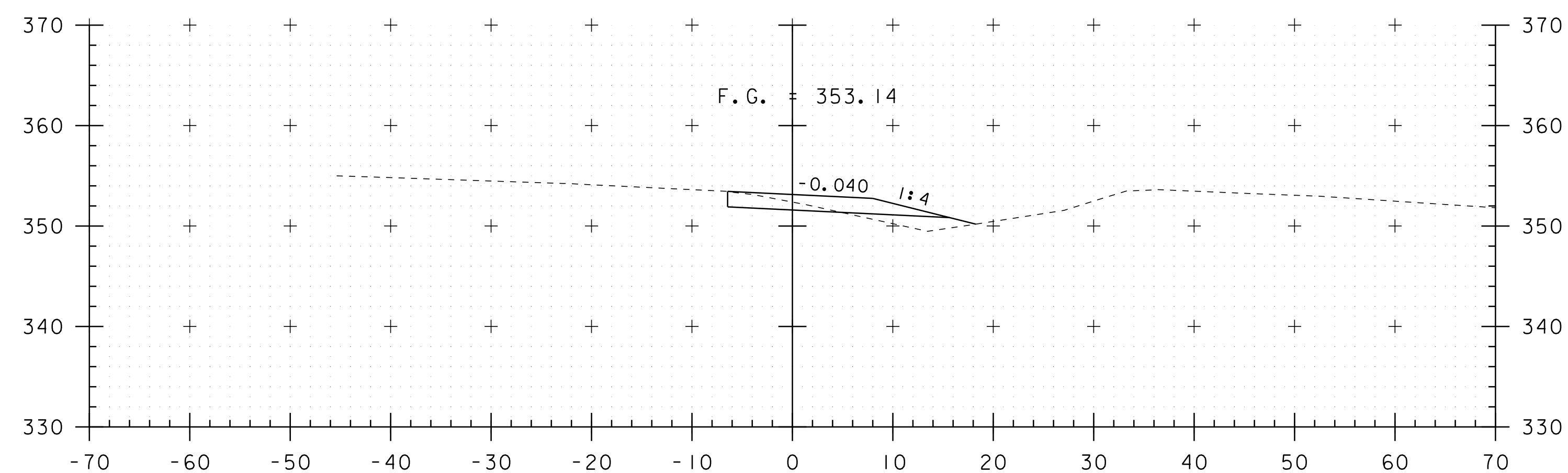
PLOT DATE: 02-OCT-2012 16:5
DRAWN BY: JJB/MRS
CHECKED BY: DH
SHEET 85 OF 91



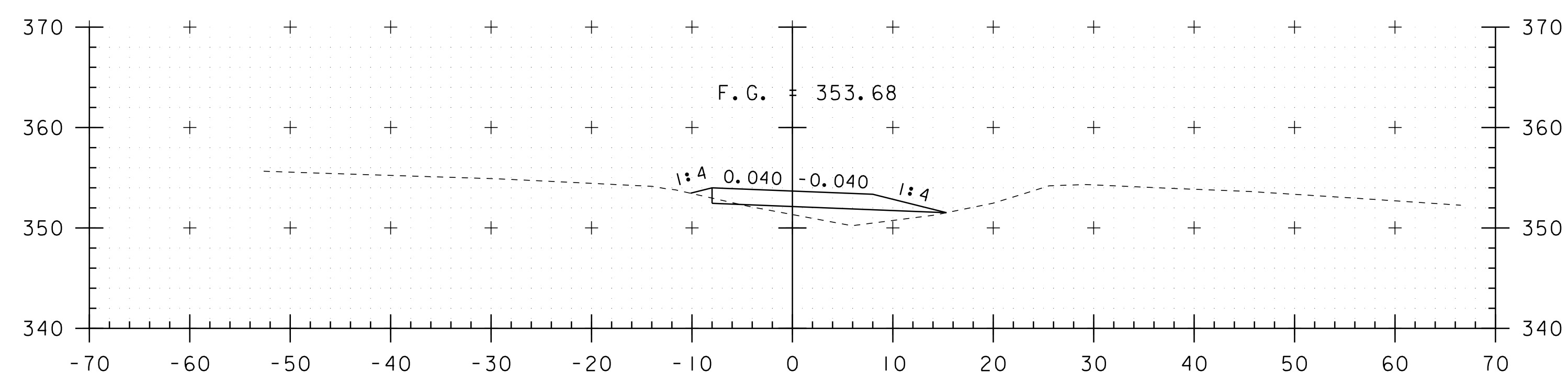
STA. 4174+00 TO STA. 4176+50



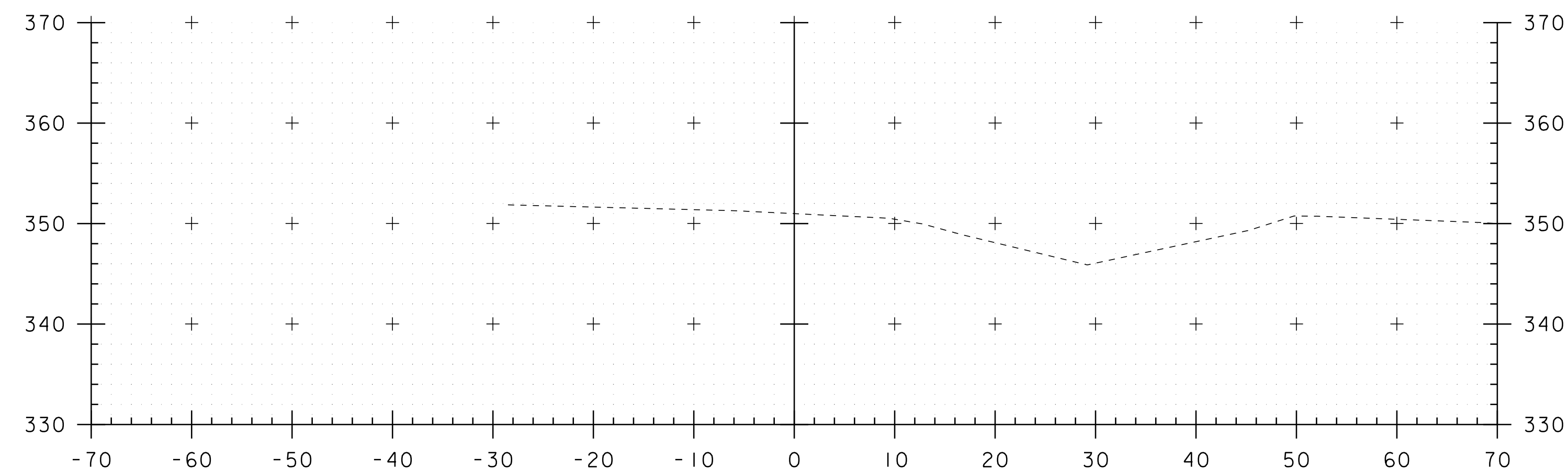
4178+00



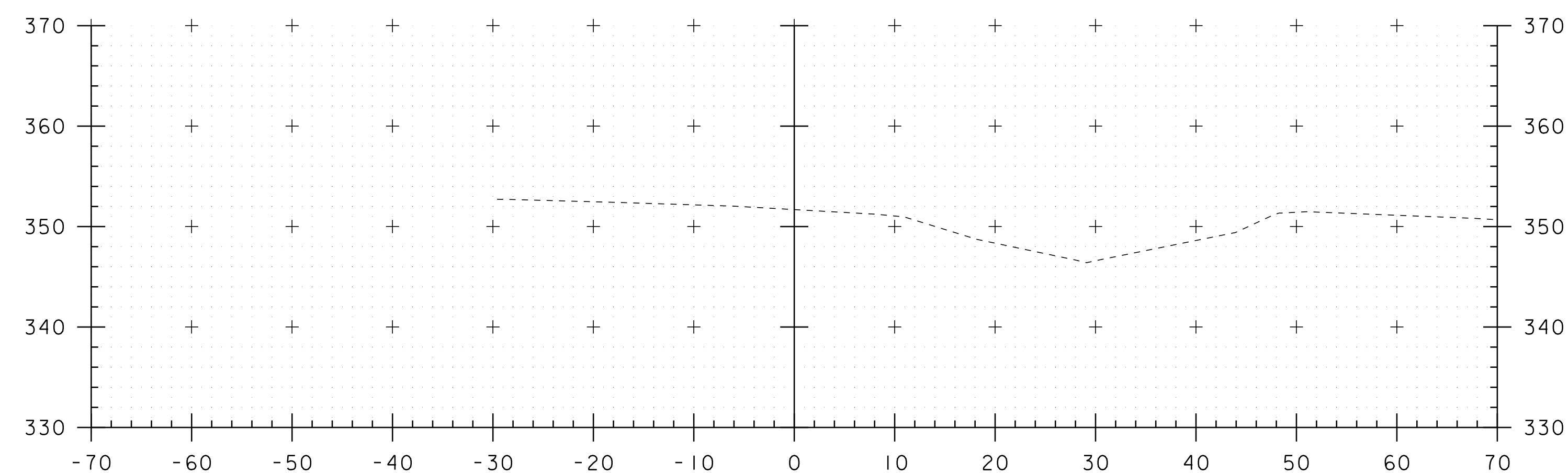
4177+50



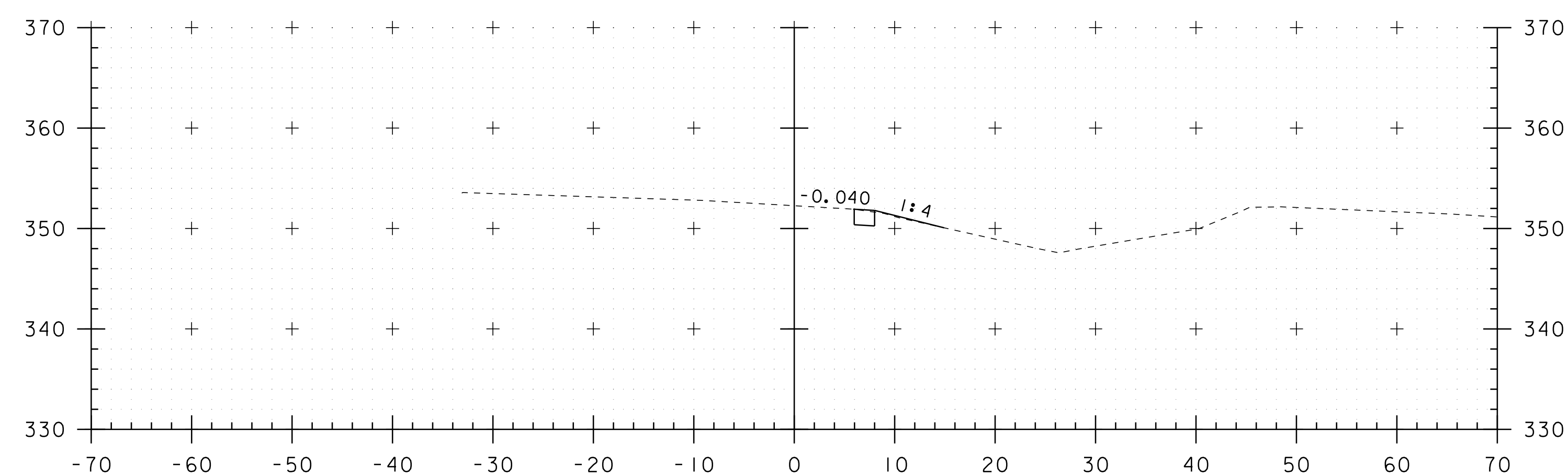
4177+00



4179+50



4179+00



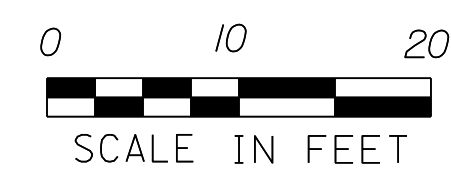
4178+50

CROSSOVER AT MM 79.00

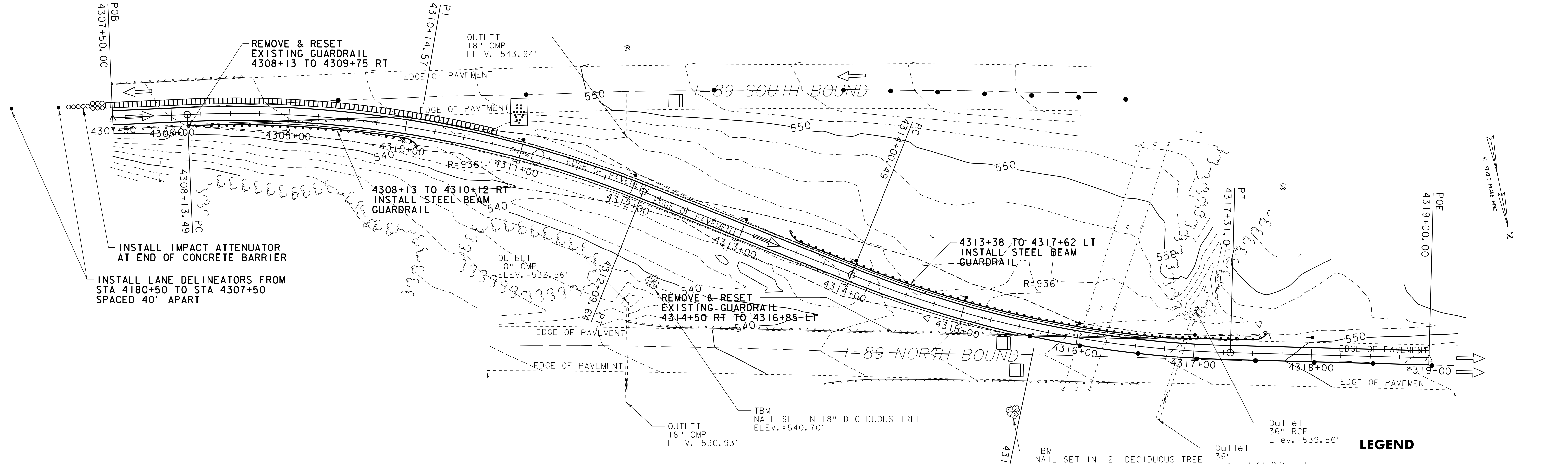
PROJECT NAME: RICHMOND-SOUTH BURLINGTON
PROJECT NUMBER: IM 089-2(39)

FILE NAME: p05a012.dgn
PROJECT LEADER: CRB
DESIGNED BY: JJB
CLD 07-0313

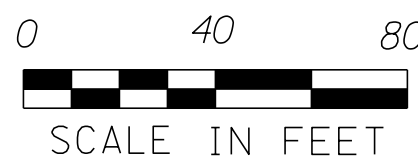
PLOT DATE: 02-OCT-2012 16:5
DRAWN BY: JJB/MRS
CHECKED BY: DH
SHEET 86 OF 91



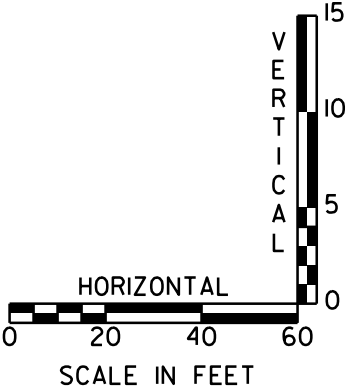
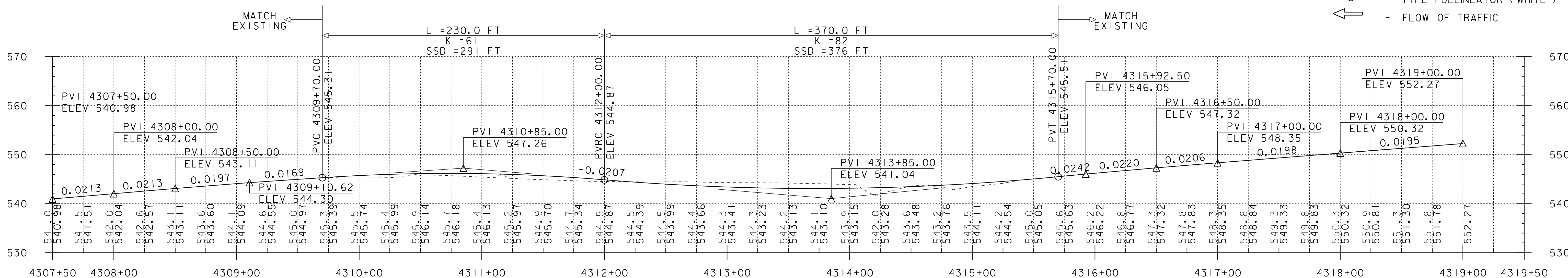
STA. 4177+00 TO STA. 4179+50



NOTE: THE STATIONING ON THIS SHEET IS INDEPENDENT OF THE STATIONING ON SHEET 69.

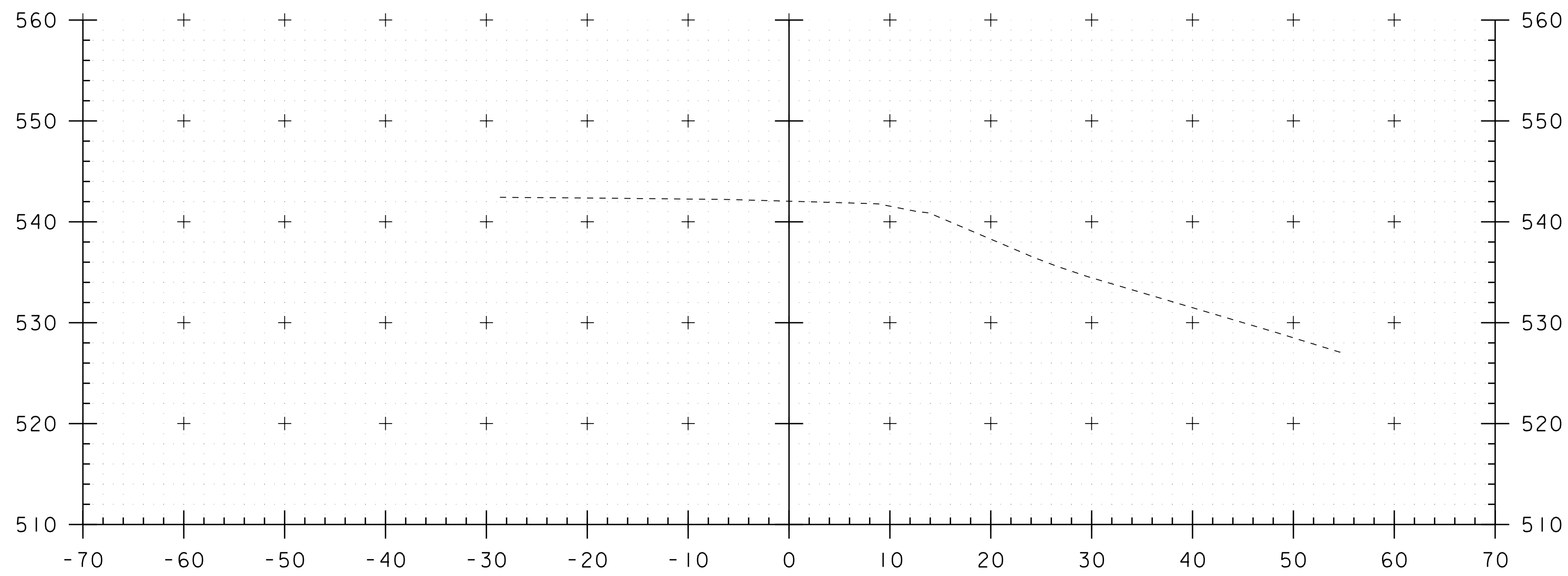


- LEGEND**
- TYPE III BARRICADES.
 - FLASHING ARROW PANEL
 - CONCRETE MEDIAN BARRIER
 - PAVEMENT MARKING REMOVAL
 - REFLECTORIZED PLASTIC DRUM
 - LANE DELINEATOR
 - TYPE I DELINEATOR (YELLOW)
 - TYPE I DELINEATOR (WHITE)
 - FLOW OF TRAFFIC

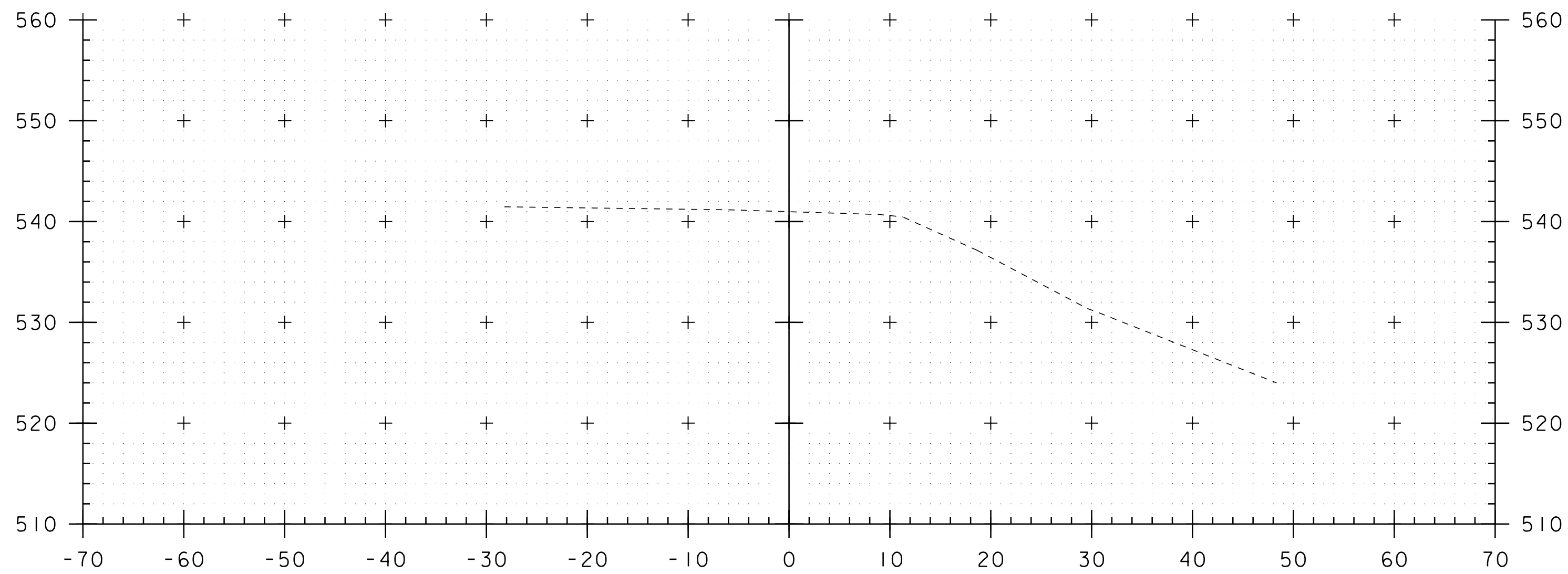


CROSSOVER AT MM 81.58

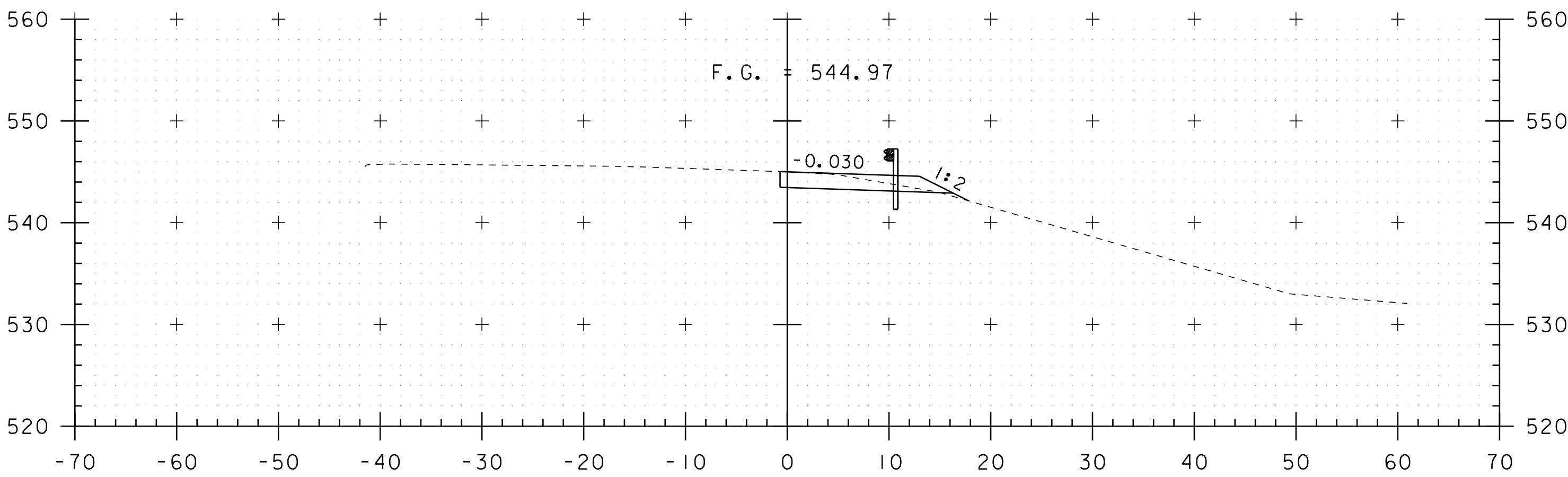
PROJECT NAME: RICHMOND-SOUTH BURLINGTON	
PROJECT NUMBER: IM 089-2(39)	
FILE NAME: p05a012.dgn	PLOT DATE: 02-OCT-2012 16:5
PROJECT LEADER: CRB	DRAWN BY: JJB/MRS
DESIGNED BY: JJB	CHECKED BY: DH
CLD 07-0313	SHEET 87 OF 91



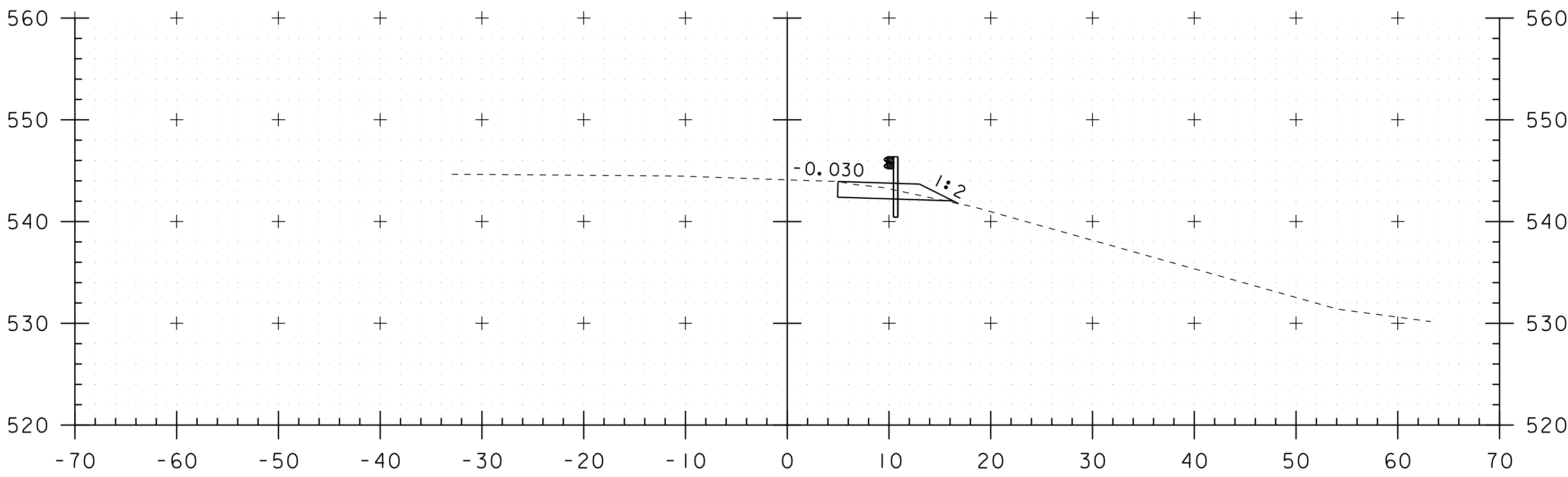
4308+00



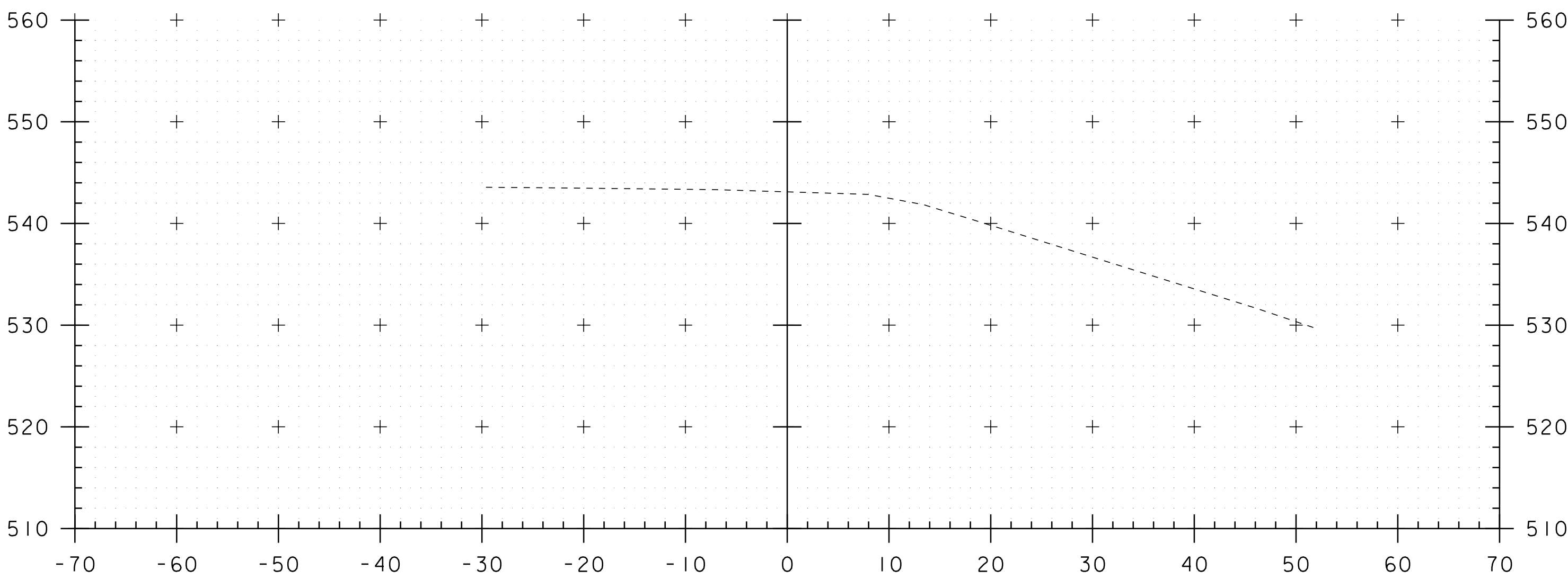
4307+50



4309+50



4309+00



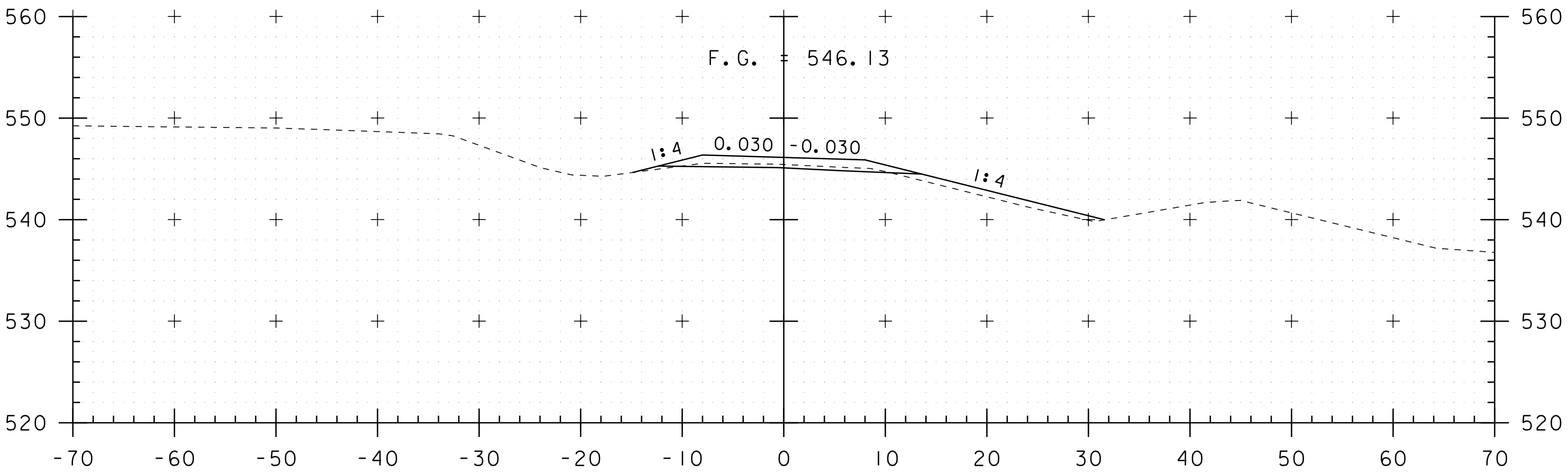
4308+50

CROSSOVER AT MM 81.58

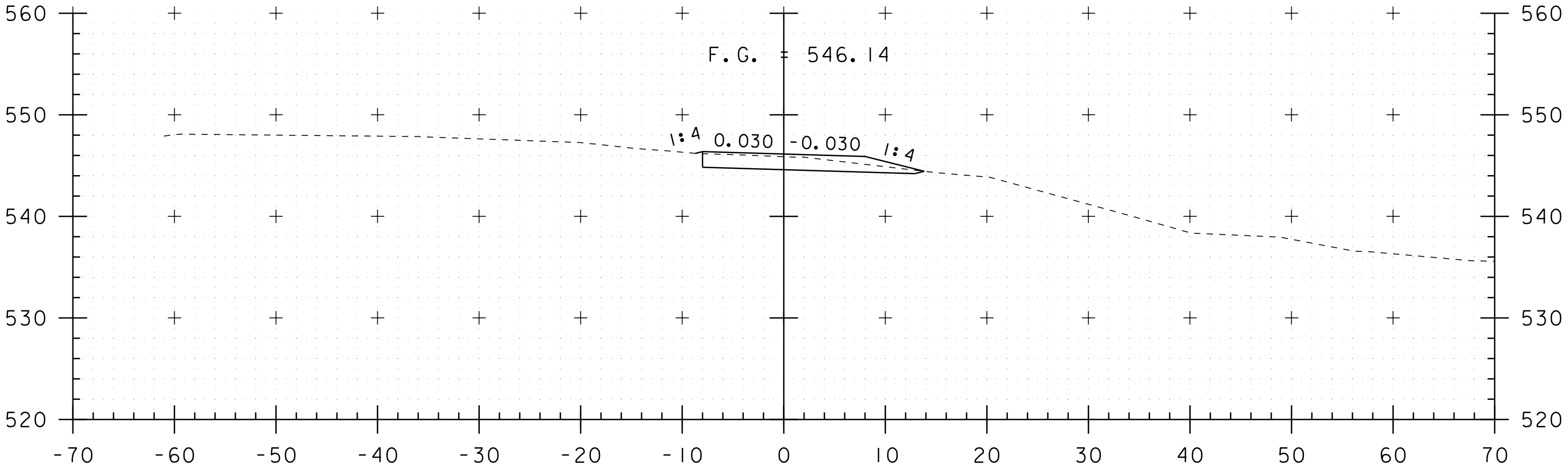
PROJECT NAME: RICHMOND-SOUTH BURLINGTON	
PROJECT NUMBER: IM 089-2(39)	
FILE NAME: p05a0l2.dgn	PLOT DATE: 02-OCT-2012 16:5
PROJECT LEADER: CRB	DRAWN BY: JJB/MRS
DESIGNED BY: JJB	CHECKED BY: DH
CLD 07-0313	SHEET 88 OF 91



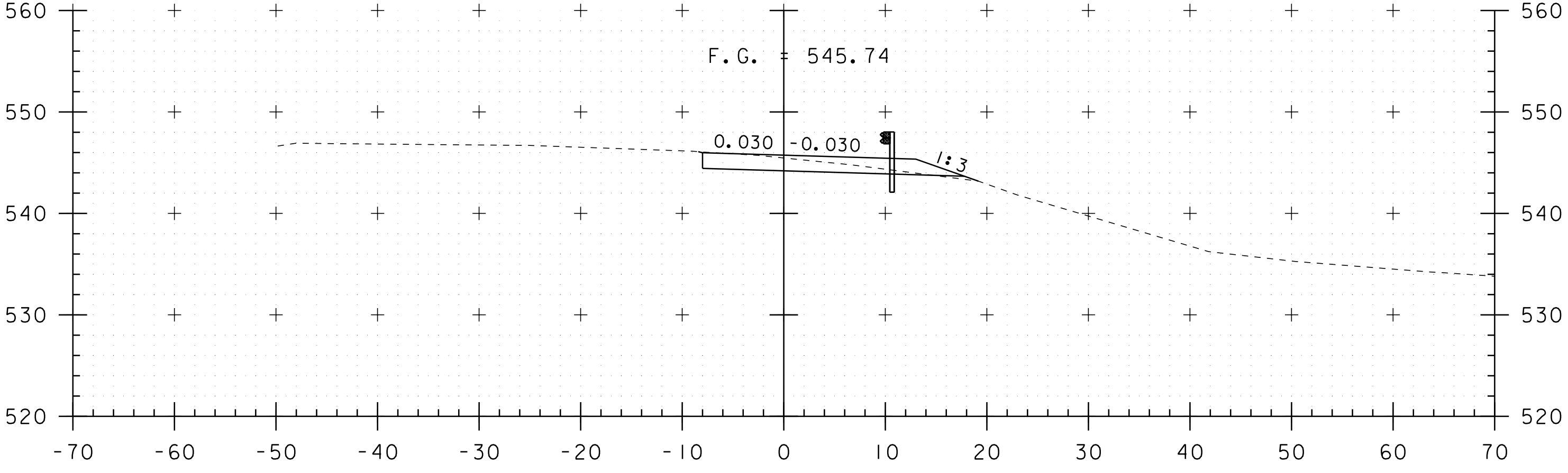
STA. 4307+50 TO STA. 4309+50



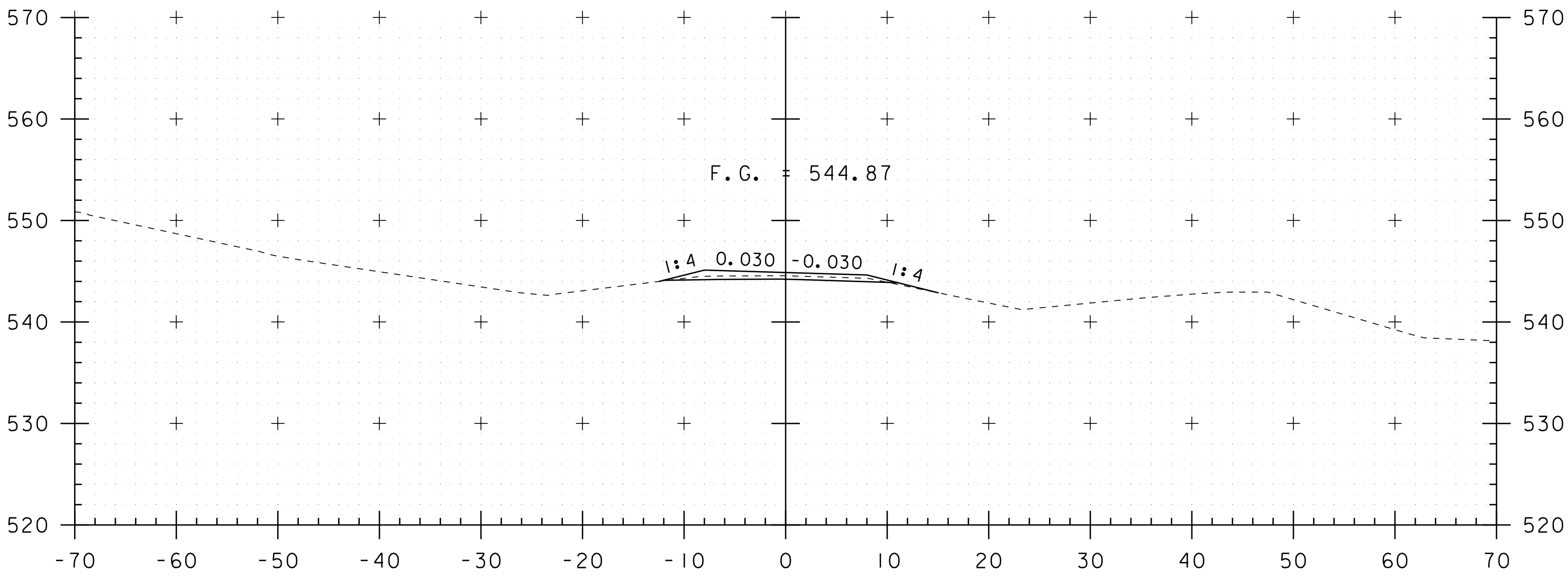
4311+00



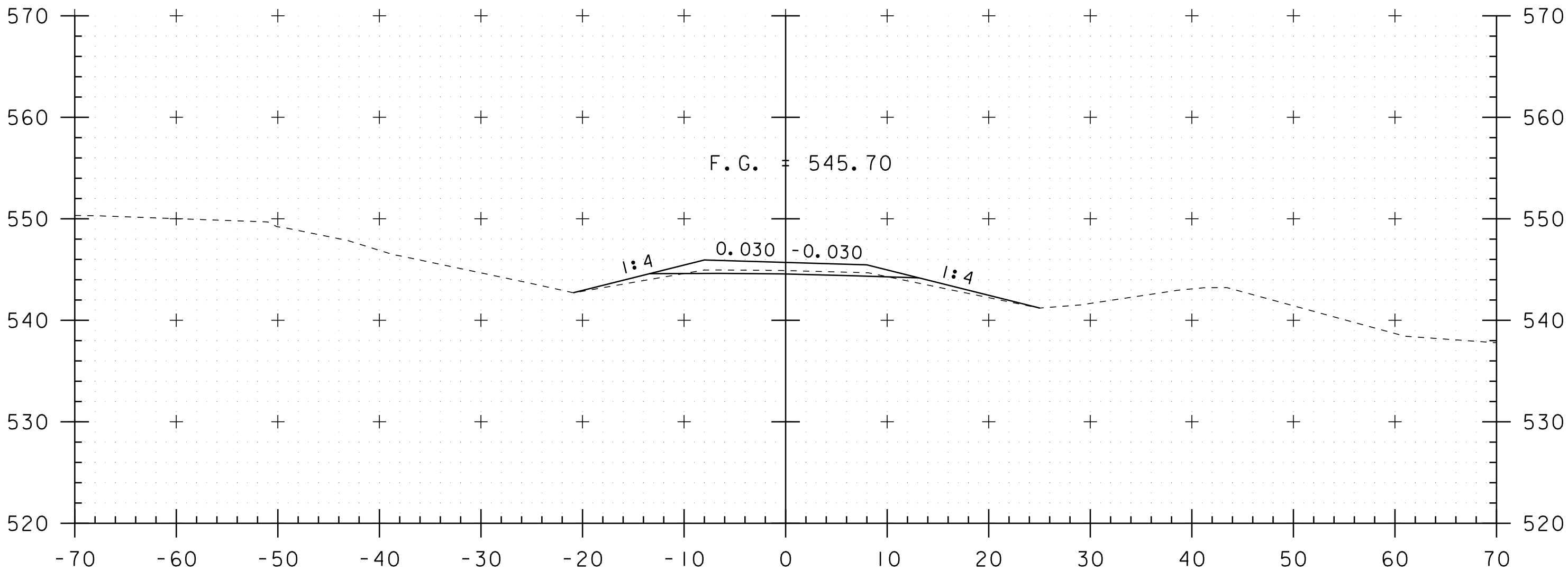
4310+50



4310+00



4312+00

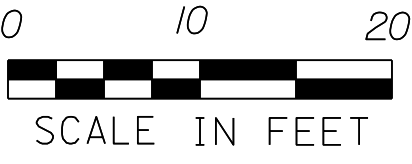


4311+50

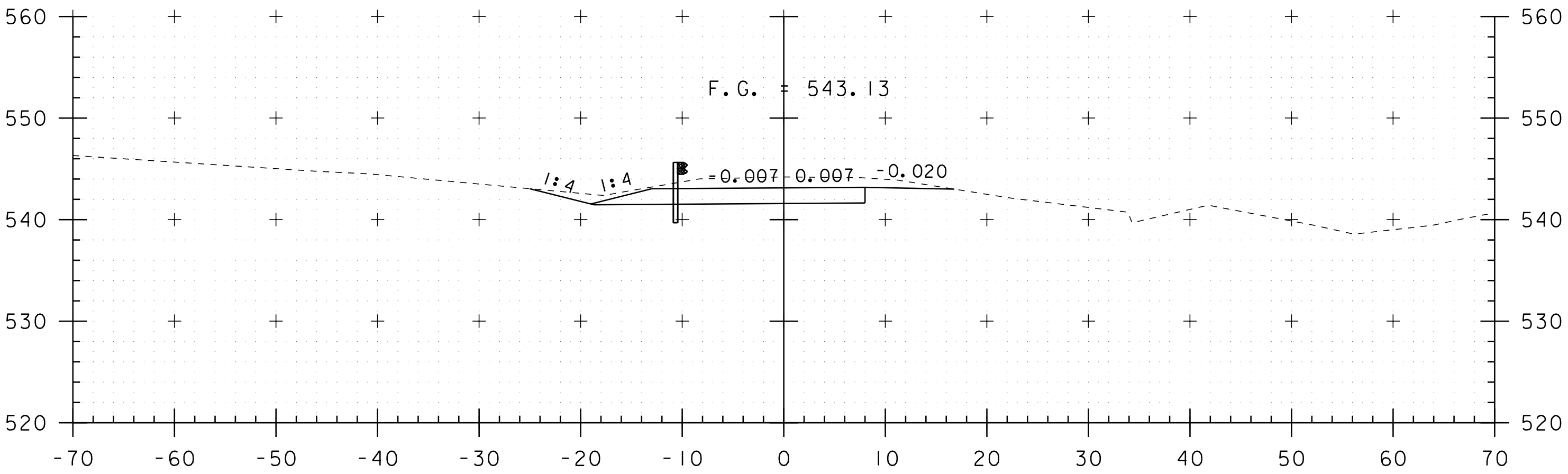
CROSSOVER AT MM 81.58

PROJECT NAME: RICHMOND-SOUTH BURLINGTON
PROJECT NUMBER: IM 089-2(39)

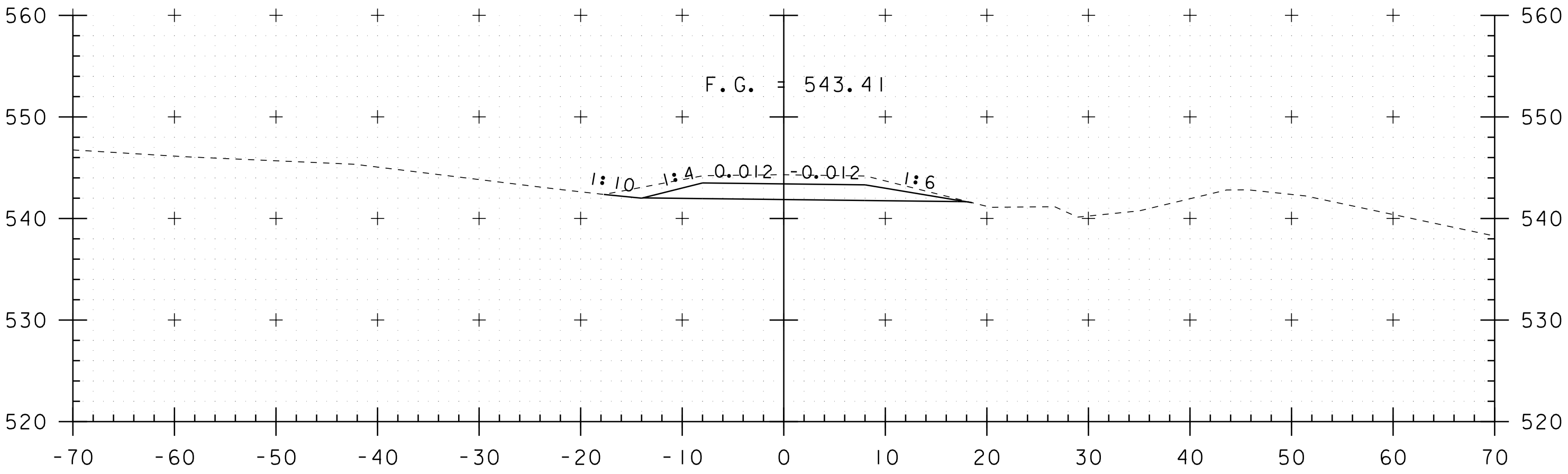
FILE NAME: p05a012.dgn
PROJECT LEADER: CRB
DESIGNED BY: JJB
CLD 07-0313
PLOT DATE: 02-OCT-2012 16:55
DRAWN BY: JJB/MRS
CHECKED BY: DH
SHEET 89 OF 91



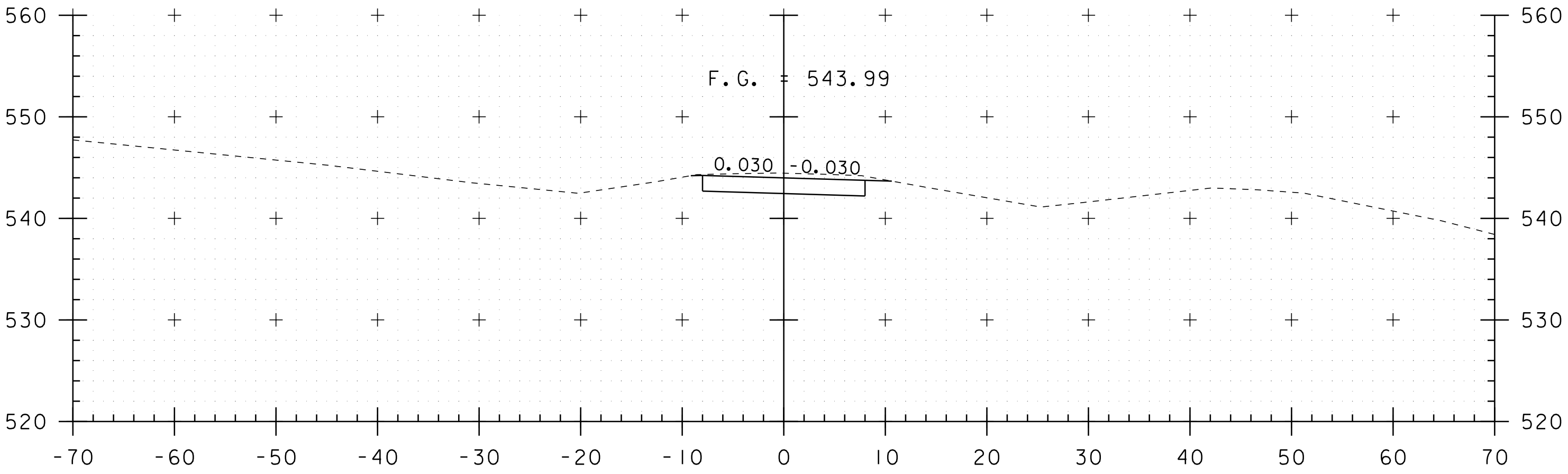
STA. 4310+00 TO STA. 4312+00



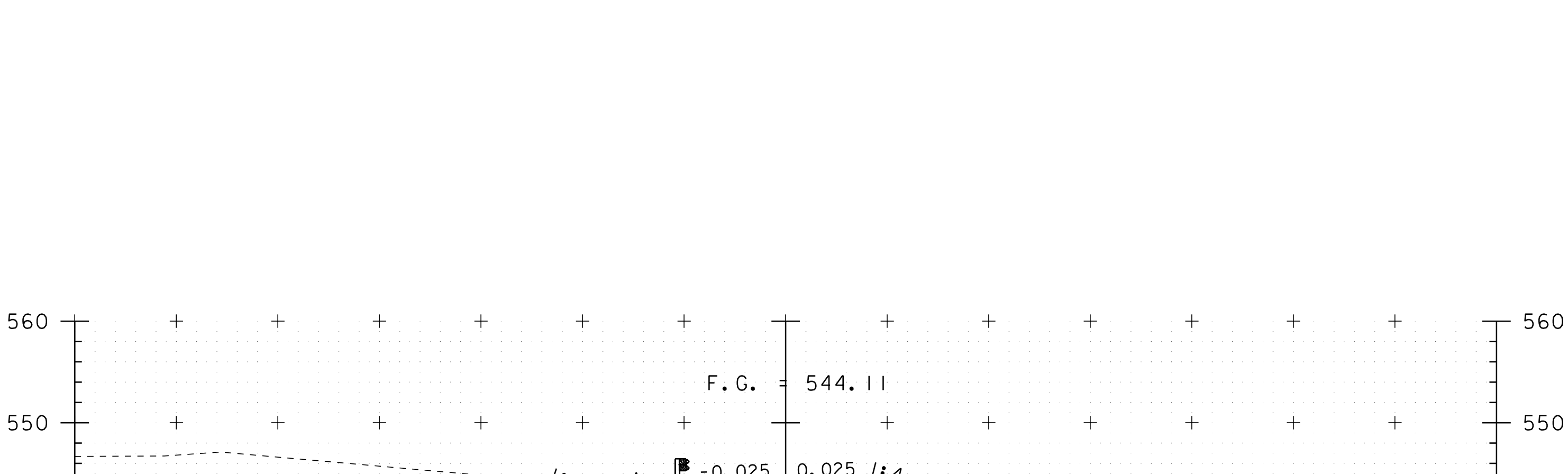
4313+50



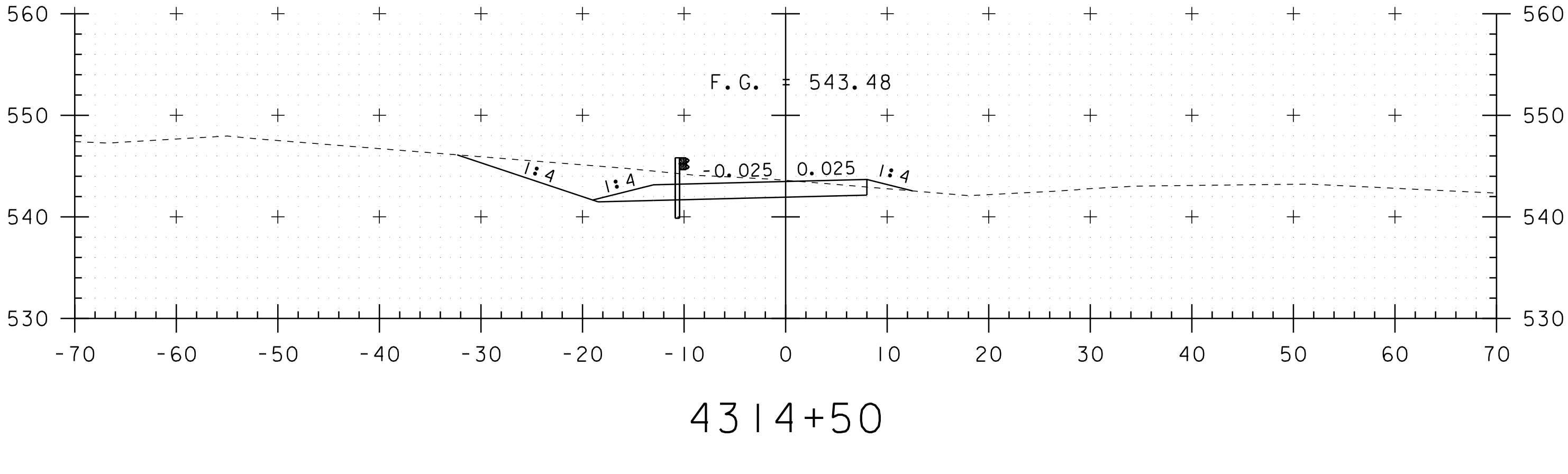
4313+00



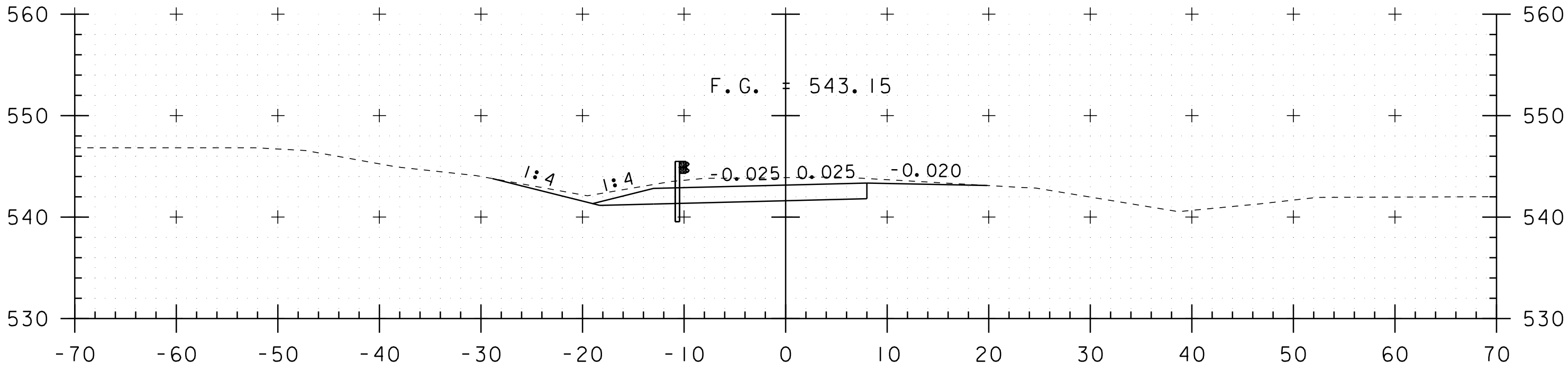
4312+50



4315+00



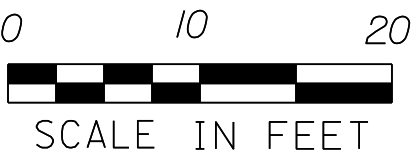
4314+50



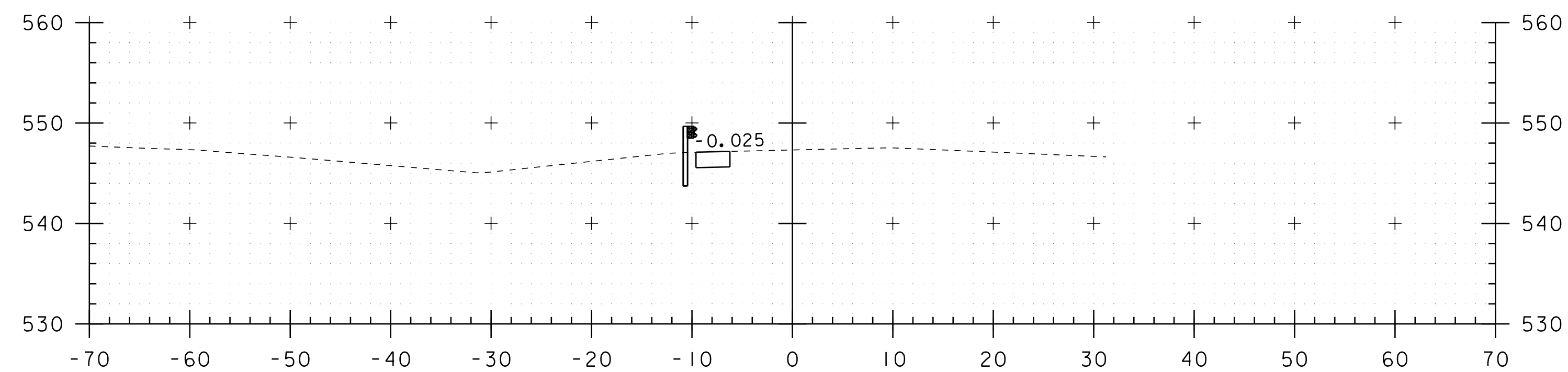
4314+00

CROSSOVER AT MM 81.58

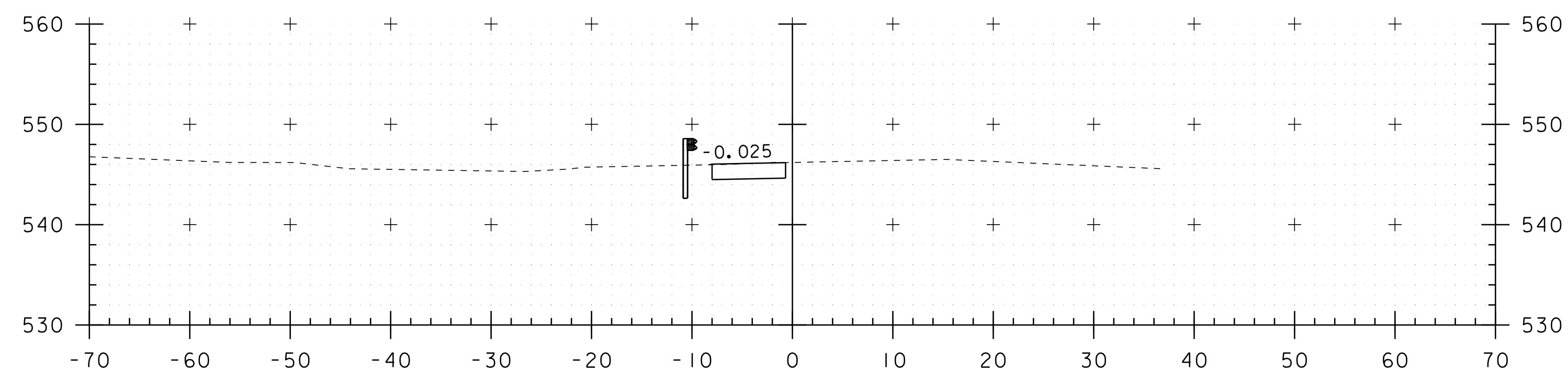
PROJECT NAME: RICHMOND-SOUTH BURLINGTON	
PROJECT NUMBER: IM 089-2(39)	
FILE NAME: p05a012.dgn	PLOT DATE: 02-OCT-2012 16:55
PROJECT LEADER: CRB	DRAWN BY: JJB/MRS
DESIGNED BY: JJB	CHECKED BY: DH
CLD 07-0313	SHEET 90 OF 91



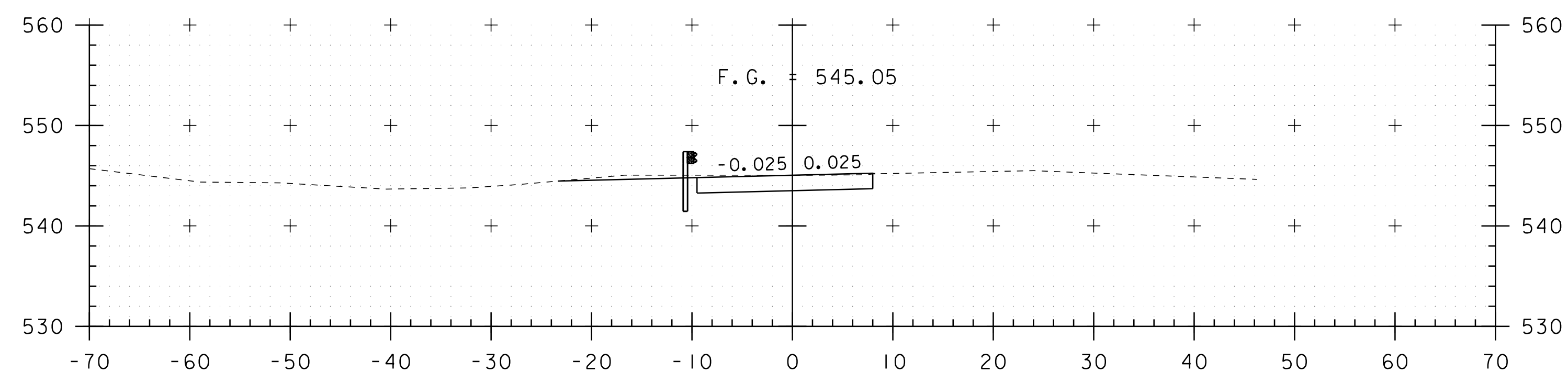
STA. 4312+50 TO STA. 4315+00



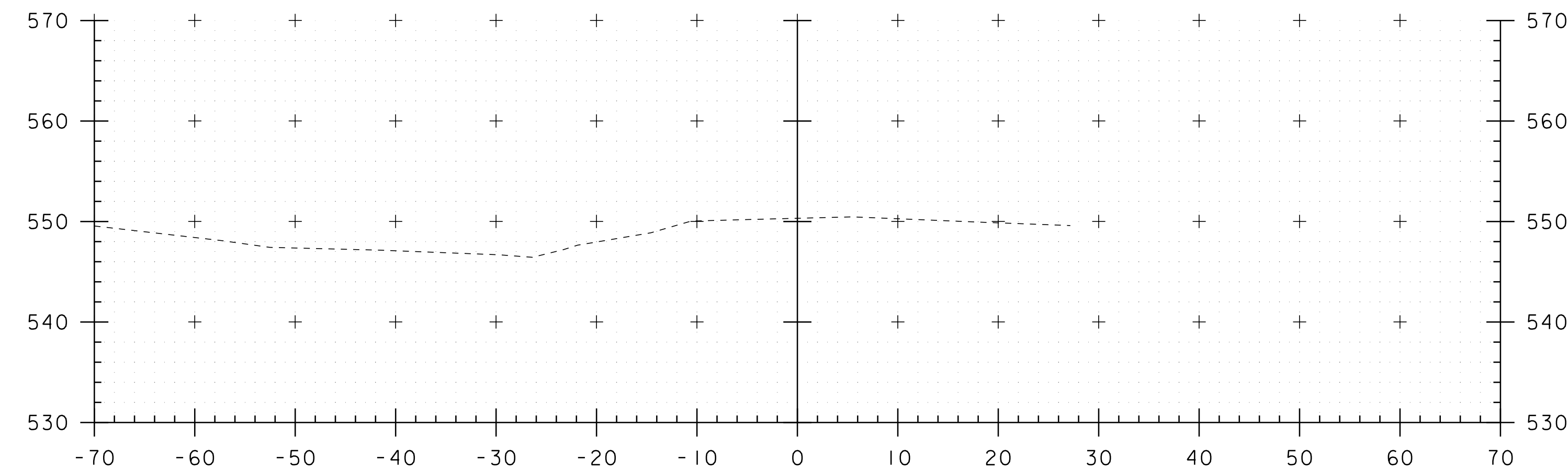
4316+50



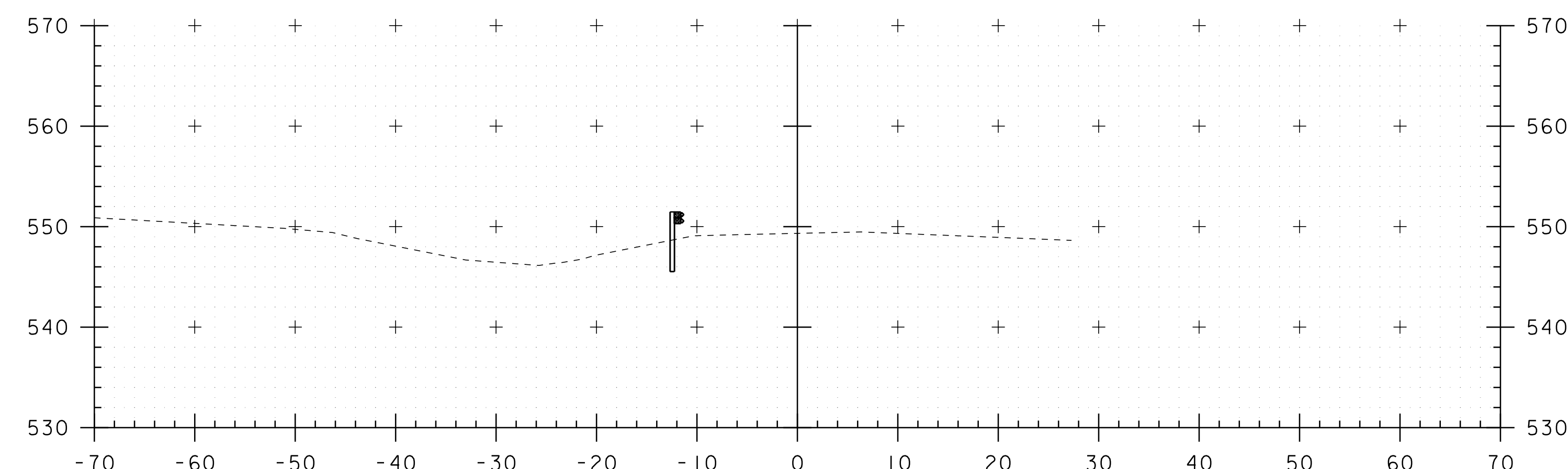
4316+00



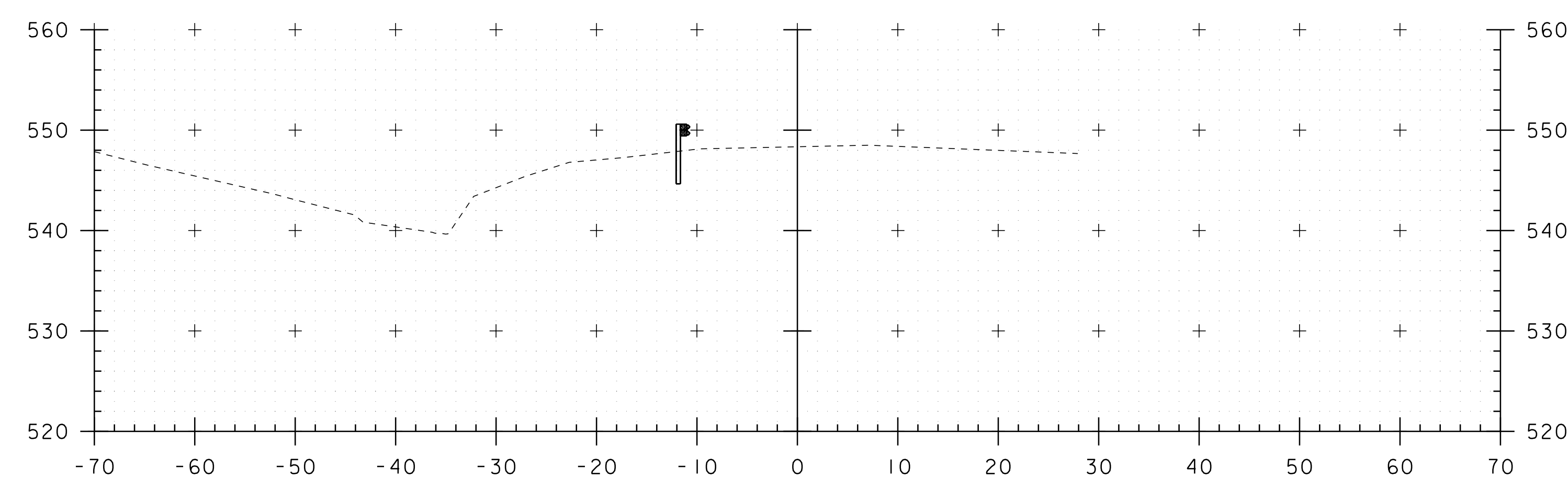
4315+50



4318+00



4317+50



4317+00

CROSSOVER AT MM 81.58

PROJECT NAME: RICHMOND-SOUTH BURLINGTON
PROJECT NUMBER: IM 089-2(39)

FILE NAME: p05a012.dgn
PROJECT LEADER: CRB
DESIGNED BY: JJB
CLD 07-0313

PLOT DATE: 02-OCT-2012 16:5
DRAWN BY: JJB/MRS
CHECKED BY: DH
SHEET 91 OF 91



STA. 4315+50 TO STA. 4318+00