

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

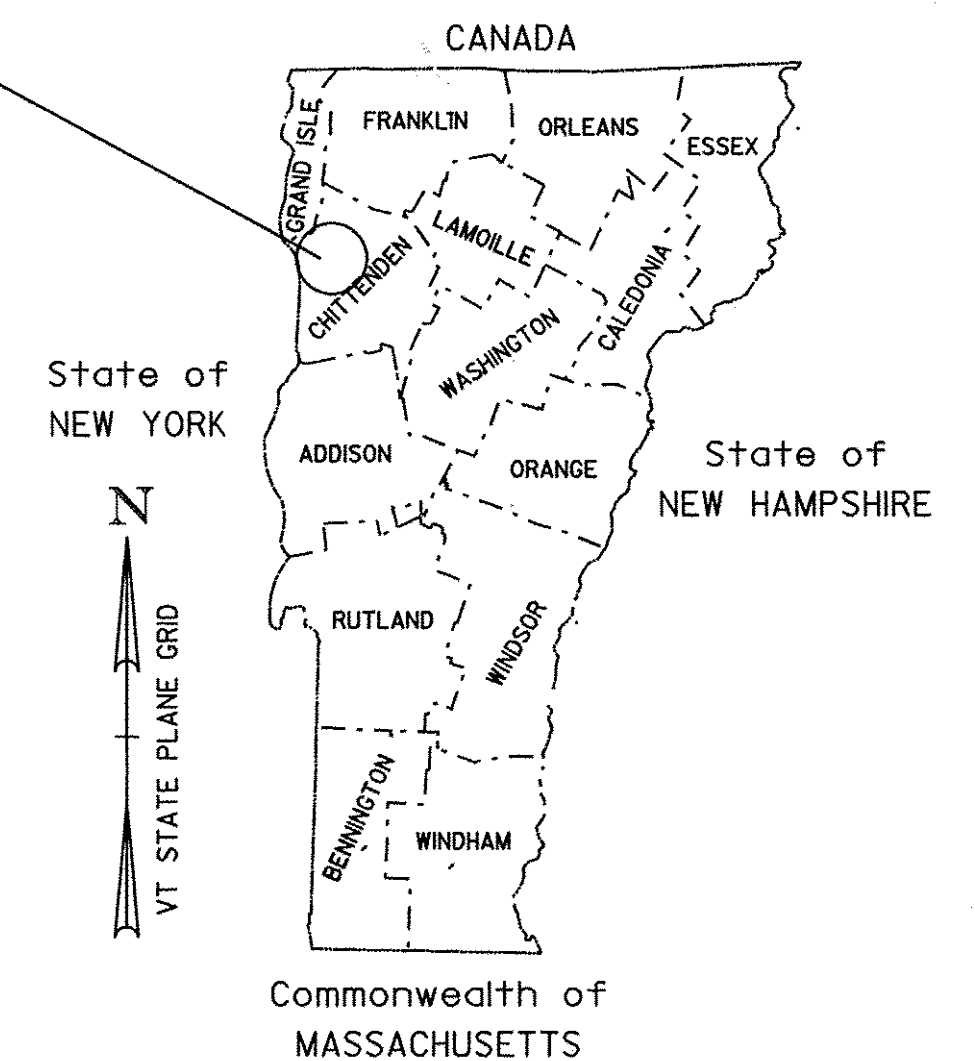
NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives.

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 (4.11 MILES) TO AN ENDING POINT AT MILE MARKER 91.880 = STA. 4851+26.40

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)

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

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, 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.

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.

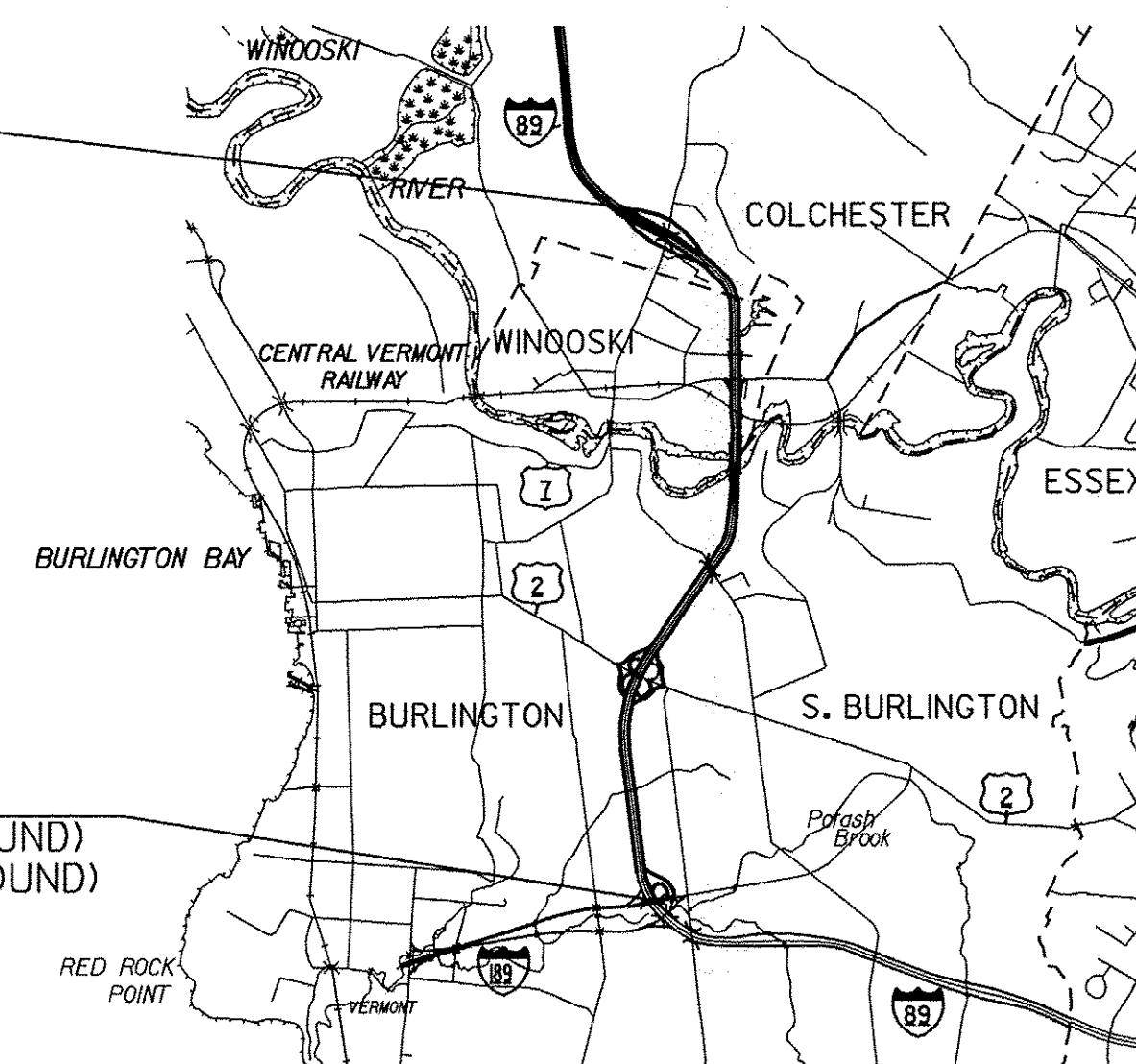
CONVENTIONAL SYMBOLS

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	

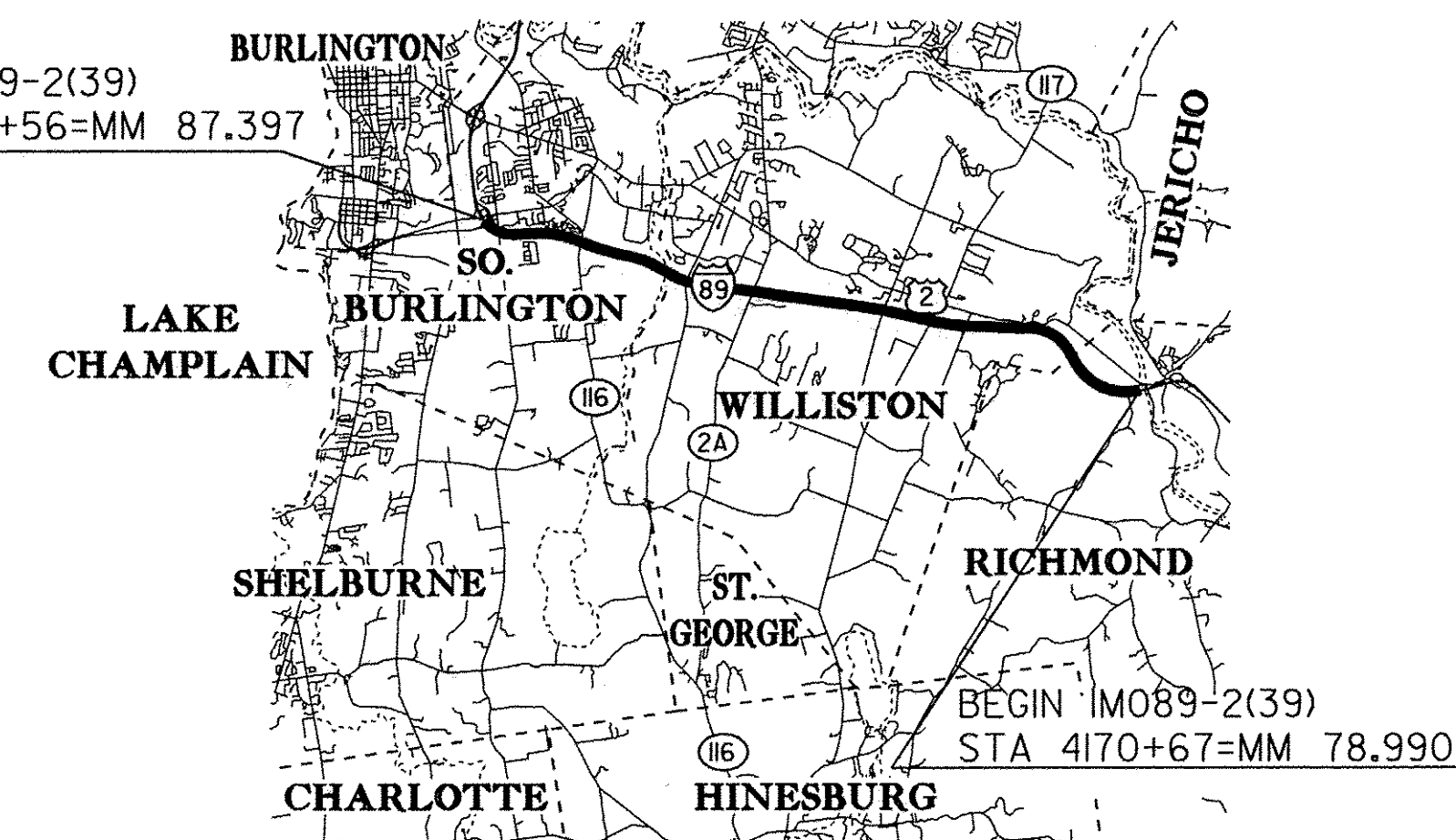
END IM 089-3(60)
 MM 91.880 = STA. 4851+26.40
 (NORTHBOUND AND SOUTHBOUND)

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



END IM 089-2(39)
 STA 4614+56=MM 87.397



PLOTTED: 20-FEB-2008

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>[Signature]</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

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

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VAOT STANDARDS

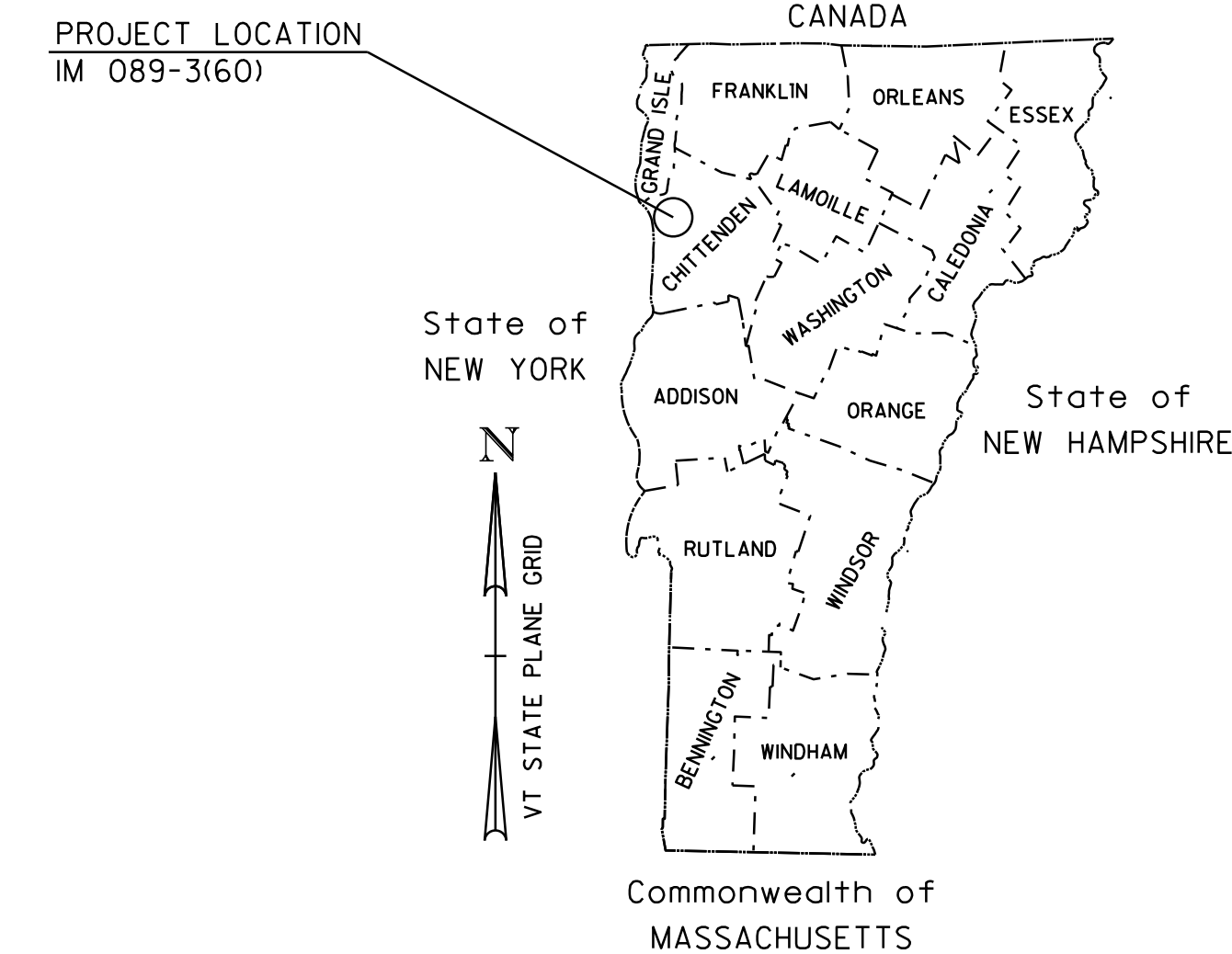
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C-3A	09-01-04
C-3B	09-01-04
D-3	06-01-94
D-6	06-01-94
D-8	01-03-00
D-9	06-01-94
D-10	06-01-94
D-15	06-01-94
D-30	08-13-07
E-100	01-02-04
E-100A	01-02-04
E-101	05-30-03
E-102	06-30-03
E-102A	05-01-04
E-103	03-01-04
E-105	05-01-04
E-106	03-01-04
E-107	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 DESIGNED BY: LOCKE PLOT FILE: p05a012cis.i	DRAWN BY: LOCKE CHECKED BY: PAVT MGMT SHEET 2 OF 91

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 (4.111 MILES) TO AN ENDING POINT AT MILE MARKER 91.880 = STA. 4851+26.40

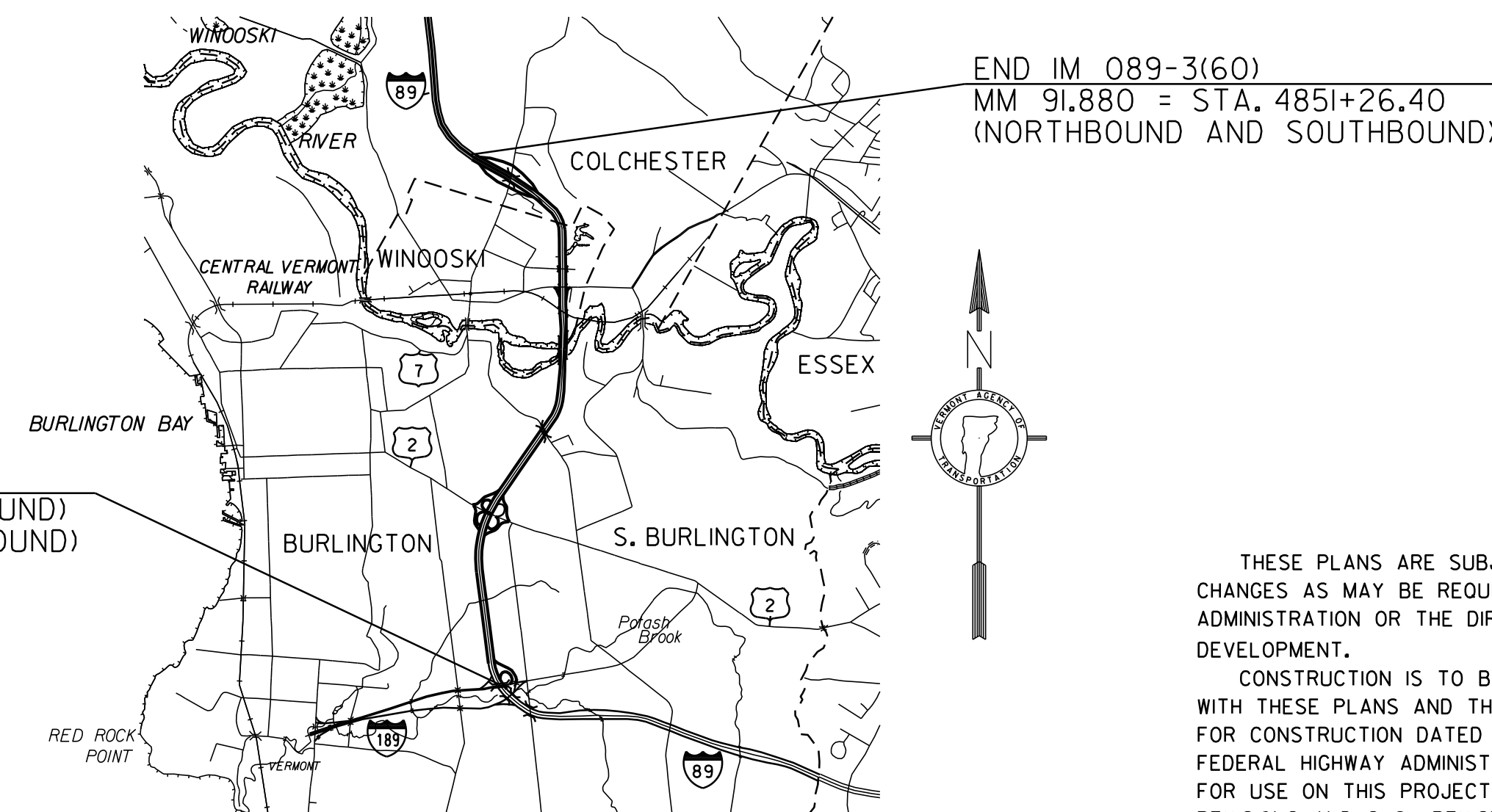
BITUMINOUS CONCRETE PAVEMENT SUPERPAVE MIXTURE DESIGN CRITERIA		
	NORTHBOUND	SOUTHBOUND
DESIGN LANE / DESIGN LIFE ESAL	15,790,000	19,047,600
DESIGN NUMBER OF GYRATIONS	100	100
PERFORMANCE GRADE ASPHALT BINDER	64-28	64-28

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	4.111
PROJECT TOTALS	45,371.04	8.593

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

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.



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

CONVENTIONAL SYMBOLS

COUNTY LINE	
TOWN LINE	
LIMITS OF ACCESS	
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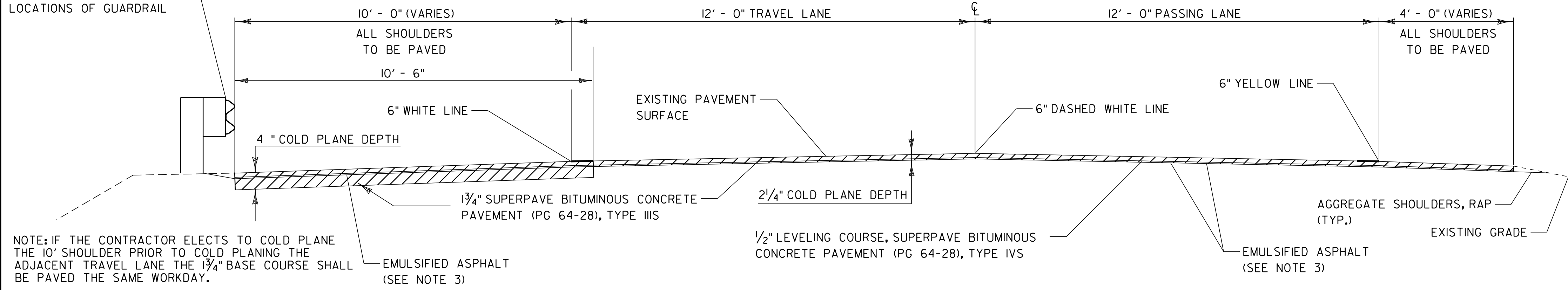
engineering planning management development

DATUM

VERTICAL	N/A
HORIZONTAL	N/A

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



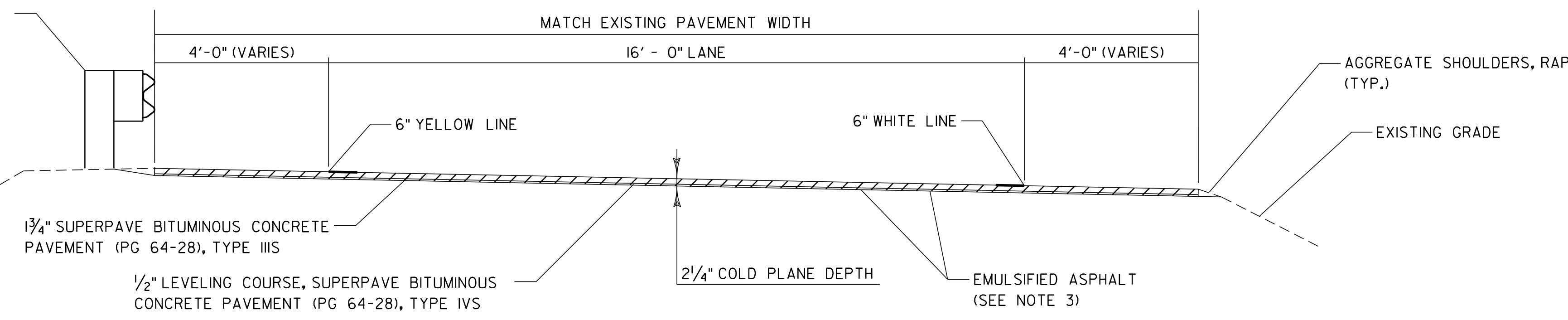
NOTE: IF THE CONTRACTOR ELECTS TO COLD PLANE THE 10' SHOULDER PRIOR TO COLD PLANING THE ADJACENT TRAVEL LANE THE 1 3/4\"/>

IF THE CONTRACTOR CHOOSES TO COLD PLANE THE 4\"/>

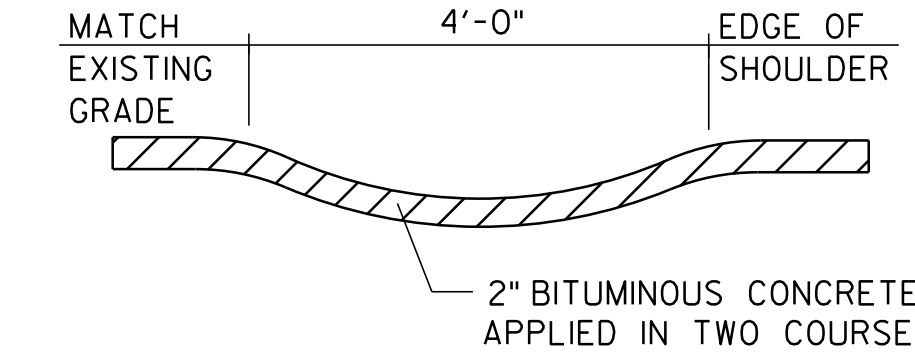
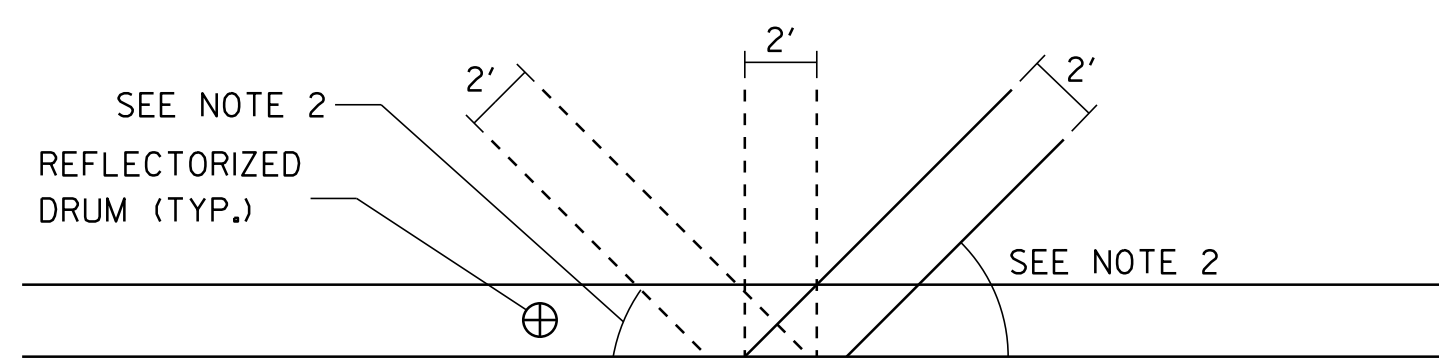
MAINLINE TYPICAL SECTION

(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\"/>

SEE ITEM DETAIL SHEETS AND RAMP LAYOUTS FOR LOCATIONS OF GUARDRAIL



RAMP TYPICAL SECTION

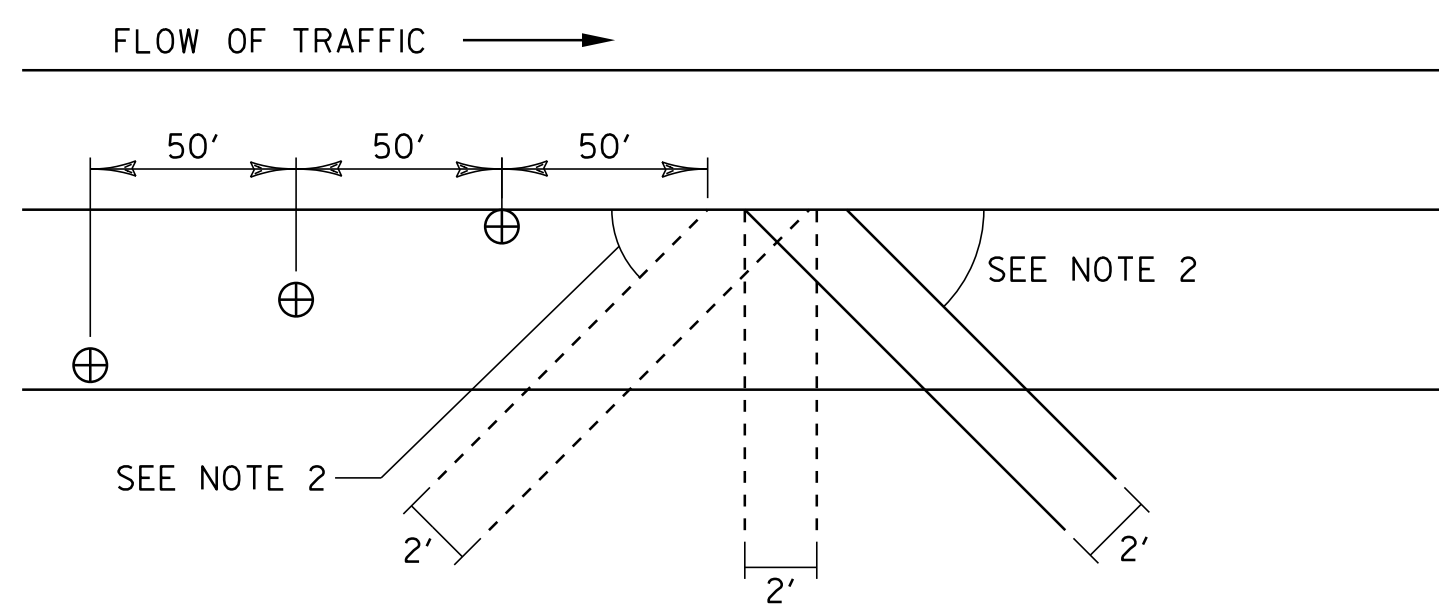


SEEDING FORMULA RURAL AREAS

% 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.



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 604.42, "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.

BITUMINOUS CONCRETE GUTTER LOCATIONS

NORTHBOUND STA. 4620+23 RT	EXIT 13 STA. 9+82 LT RAMP D	EXIT 14 STA. 9+15 RT RAMP B	EXIT 14 STA. 9+26 RT RAMP E
NORTHBOUND STA. 4681+80 RT	EXIT 14 STA. 1+55 - 10+00 RT RAMP A	EXIT 14 STA. 3+49 RT RAMP D	EXIT 14 STA. 1+63 RT RAMP F
NORTHBOUND STA. 4775+81 RT	EXIT 14 STA. 1+55 RT RAMP A	EXIT 14 STA. 5+16 RT RAMP D	EXIT 14 STA. 3+15 RT RAMP F
NORTHBOUND STA. 4783+23 RT	EXIT 14 STA. 5+25 RT RAMP A	EXIT 14 STA. 6+91 RT RAMP D	EXIT 14 STA. 3+15 RT RAMP F
NORTHBOUND STA. 4799+09 RT	EXIT 14 STA. 6+25 RT RAMP A	EXIT 14 STA. 8+59 RT RAMP D	EXIT 14 STA. 4+63 RT RAMP F
EXIT 13 STA. 1+00 RT RAMP C	EXIT 14 STA. 12+50 RT RAMP A	EXIT 14 STA. 5+16 - 10+00 RT RAMP D	EXIT 14 STA. 2+75 RT RAMP G
EXIT 13 STA. 2+46 RT RAMP C	EXIT 14 STA. 2+76 RT RAMP B	EXIT 14 STA. 1+50 RT RAMP E	EXIT 14 STA. 3+75 - 7+50 LT RAMP G
EXIT 13 STA. 4+54 RT RAMP C	EXIT 14 STA. 4+42 RT RAMP B	EXIT 14 STA. 2+89 RT RAMP E	EXIT 14 STA. 8+25 RT RAMP G
EXIT 13 STA. 7+24 RT RAMP C	EXIT 14 STA. 6+01 RT RAMP B	EXIT 14 STA. 4+51 RT RAMP E	EXIT 14 STA. 9+40 RT RAMP G
EXIT 13 STA. 4+22 LT RAMP D	EXIT 14 STA. 7+57 RT RAMP B	EXIT 14 STA. 6+08 RT RAMP E	EXIT 15 STA. 3+50 - STA. 4+50 LT RAMP B
EXIT 13 STA. 7+19 LT RAMP D	EXIT 14 STA. 4+42 - 6+68 LT RAMP B	EXIT 14 STA. 7+66 RT RAMP E	EXIT 16 STA. 12+70 LT RAMP A

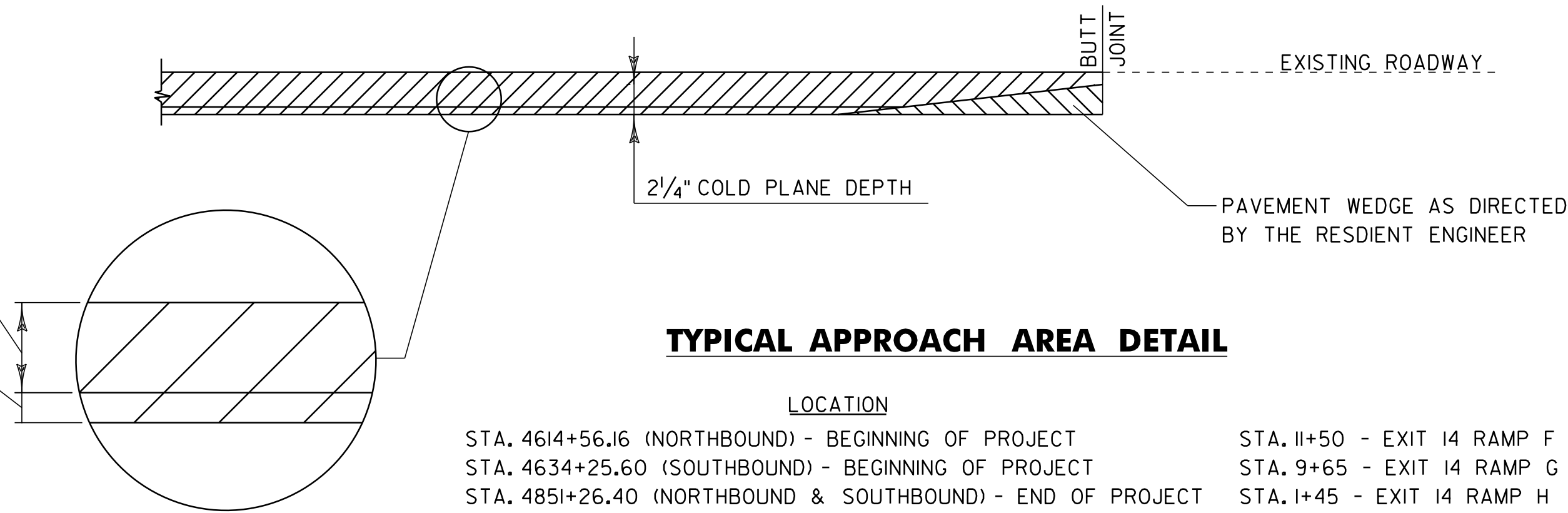
PROJECT TYPICAL SHEET

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:	p05a012typ.i	SHEET 8 OF 91

DETAILS ARE NOT TO SCALE

1 3/4" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (PG 64-28), TYPE III S

1/2" LEVELING COURSE, SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (PG 64-28), TYPE IV S



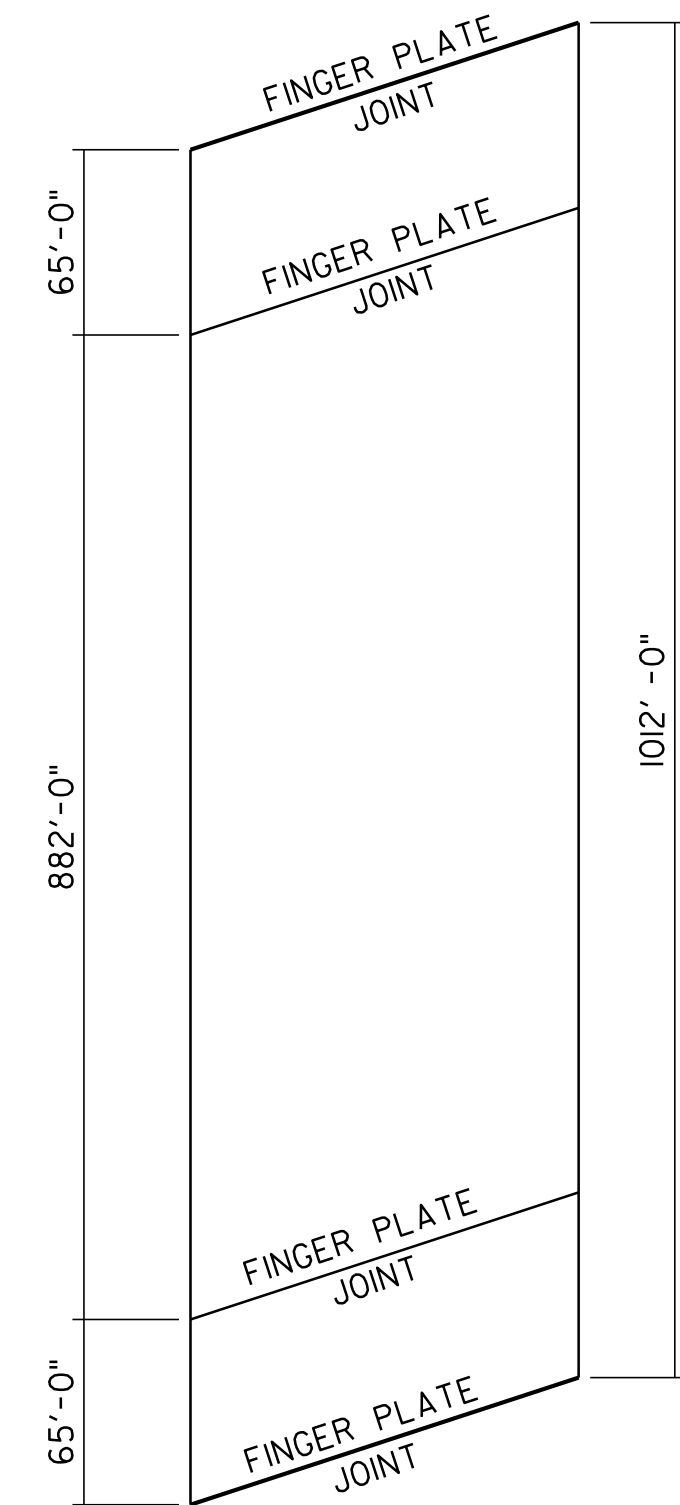
TYPICAL APPROACH AREA DETAIL

LOCATION

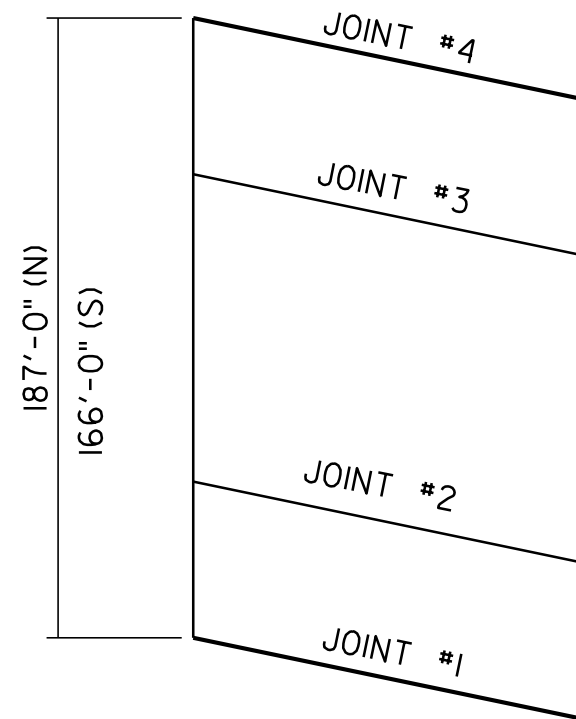
STA. 4614+56.16 (NORTHBOUND) - BEGINNING OF PROJECT
 STA. 4634+25.60 (SOUTHBOUND) - BEGINNING OF PROJECT
 STA. 4851+26.40 (NORTHBOUND & SOUTHBOUND) - END OF PROJECT
 STA. 11+25 - EXIT 13 RAMP C
 STA. 2+60 - EXIT 13 RAMP D
 STA. 1+50 - EXIT 14 RAMP A
 STA. 11+15 - EXIT 14 RAMP B
 EXIT 14 RAMP C (SEE SHEET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

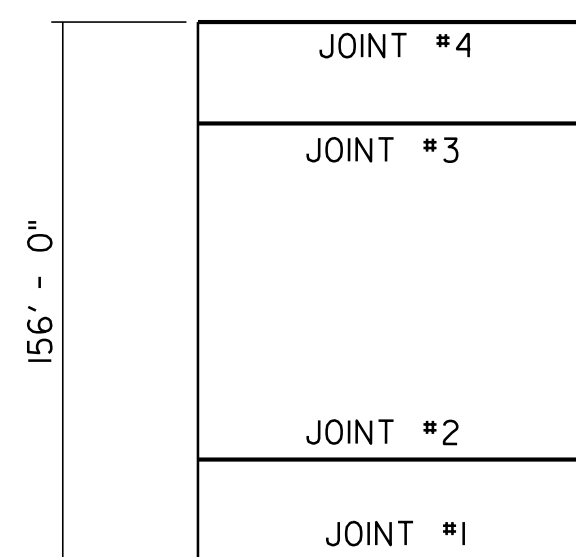
JOINT	TYPE	STATION	LENGTH
1	PLUG	4765+97	50' - 0"
2	FINGER		
3	FINGER		
4	PLUG	4767+59	50' - 0"
BRIDGE #71N			100' - 0"

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

BRIDGE #72N

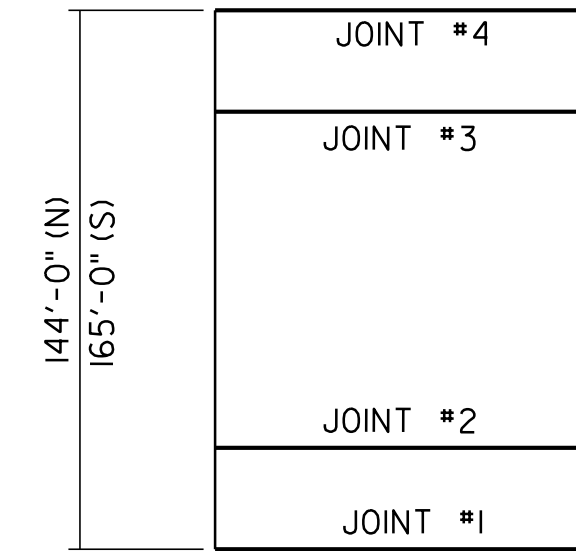
JOINT	TYPE	STATION	LENGTH
1	FINGER		
2	PLUG	4776+41	38' - 0"
3	PLUG	4777+31	38' - 0"
4	FINGER		
BRIDGE #72N			76' - 0"

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 #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"

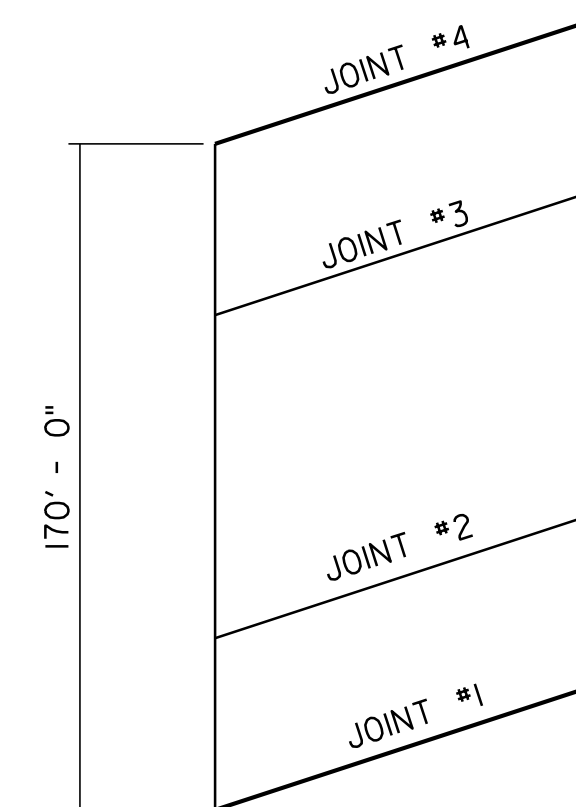
TOTAL LENGTH OF JOINT

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

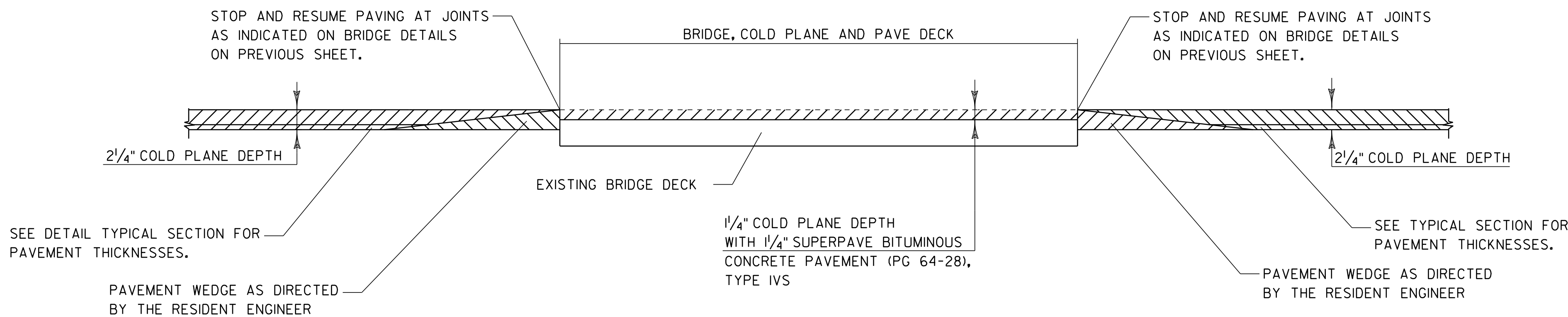
BRIDGE #74N & #74S
STA. 4830+59.00 (MM 91.488)
COLD PLANE AND PAVE

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 EXPANSION 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.

DETAILS ARE NOT TO SCALE

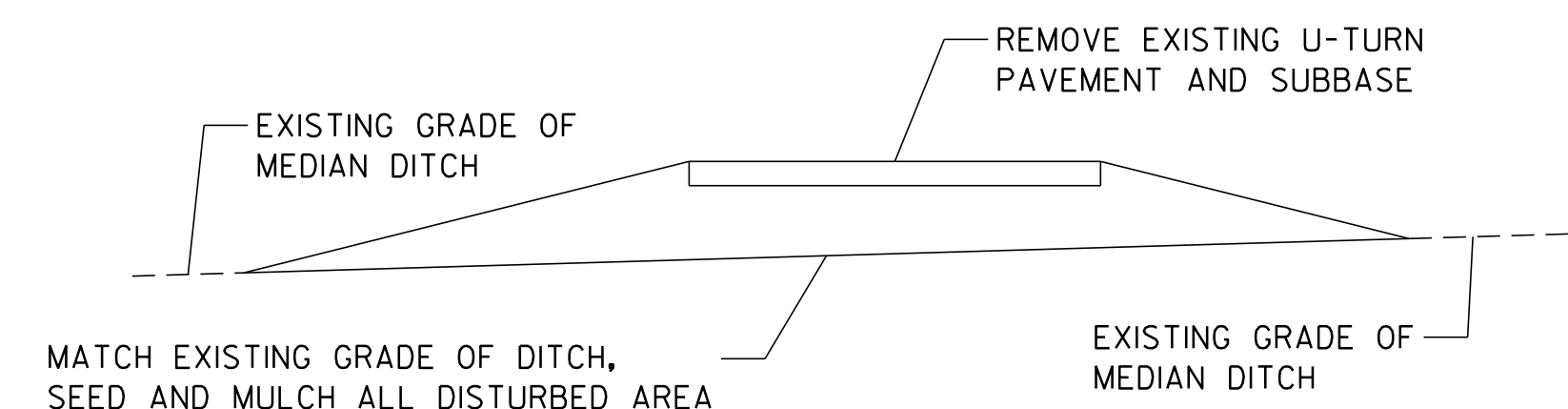
BRIDGE LOCATION AND DETAIL SHEET 1	PROJECT NAME: SO. BURLINGTON - COLCHESTER	
	PROJECT NUMBER: IM 089-3(60)	
	FILE NAME: p05a012.dgn	PLOT DATE: \$\$\$\$\$\$DATE\$\$\$\$
	PROJECT LEADER: EPD	DRAWN BY: JAR/SJB
DESIGNED BY: JDA	CHECKED BY: EPD	
PLOT FILE: p05a012bids1	SHEET 9 OF 91	



BRIDGE COLD PLANE DETAIL

NOTE:

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

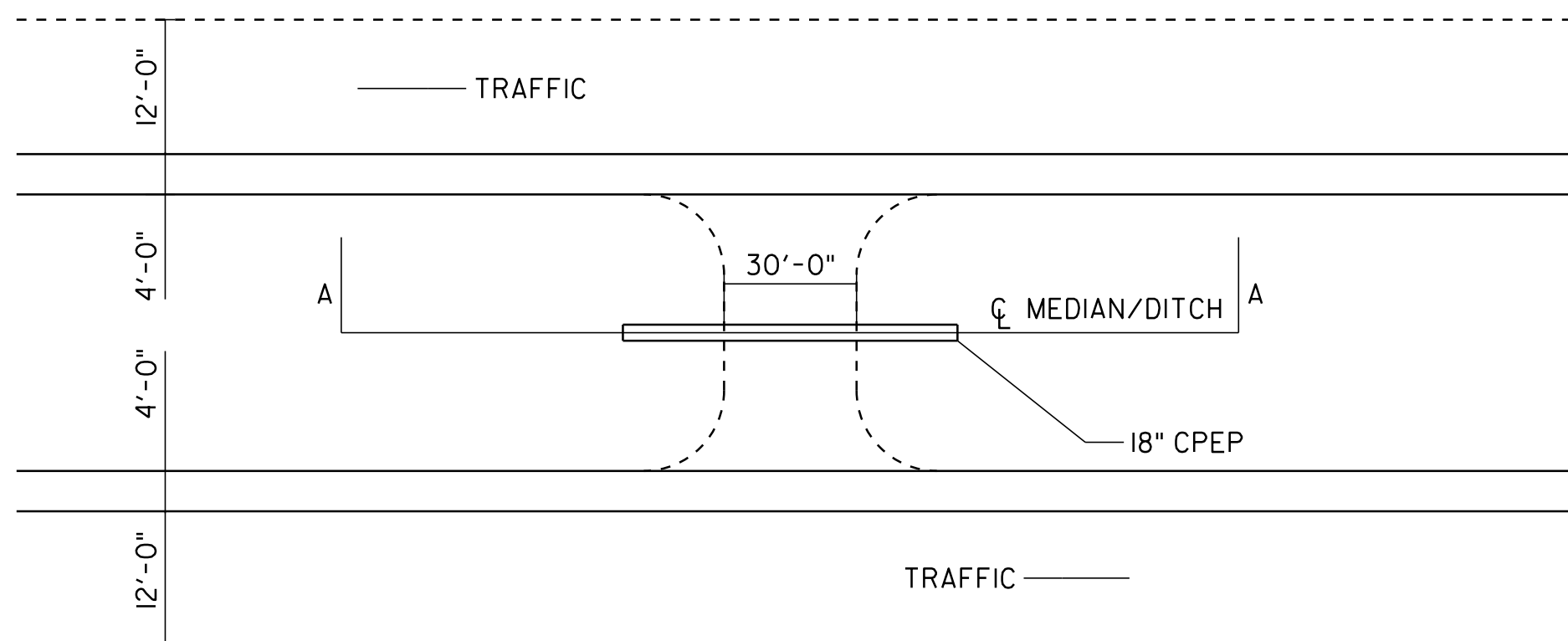


U-TURN REMOVAL DETAIL

LOCATION
MM 89.875
MM 90.131

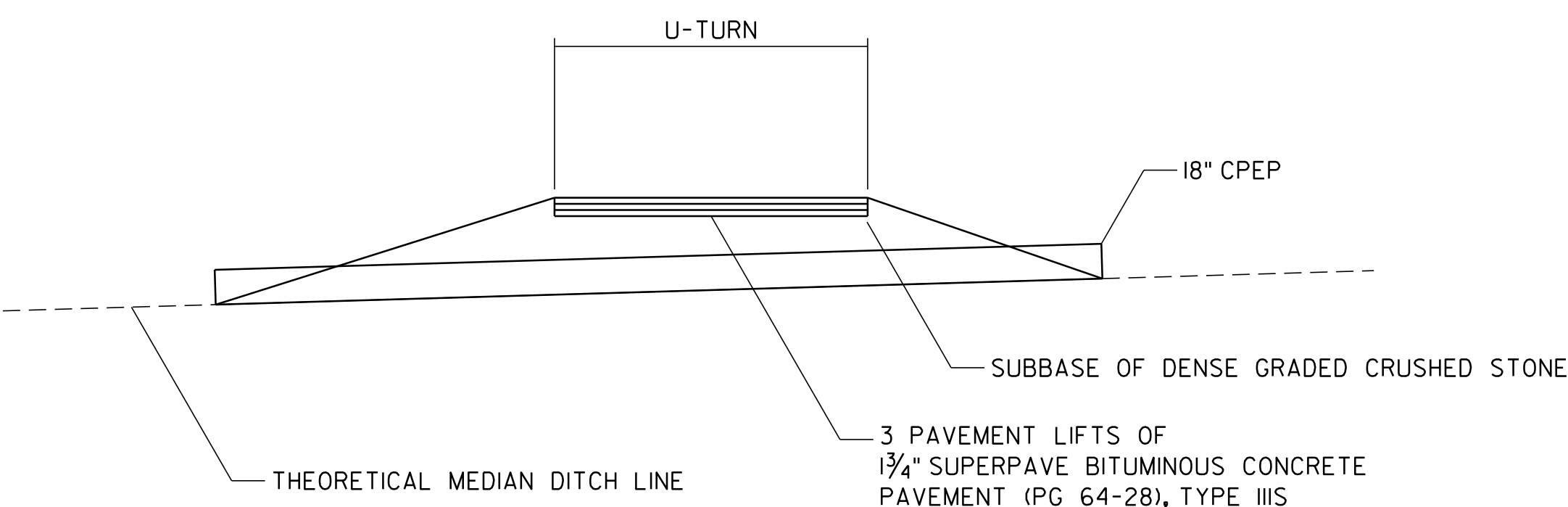
U-TURN NOTES:

- 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".
- 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.
- AT U-TURNS THAT ARE BEING REMOVED, ITEM 651.35, "TOPSOIL", WILL BE SPREAD 6" THICK AFTER A U-TURN IS EXCAVATED.
- 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.
- REFER TO PAVING PROJECT LAYOUT SHEET FOR ADDITIONAL U-TURN NOTES.
- SEE VTRANS STANDARD B-17 FOR U-TURN DETAILS.



U-TURN CONSTRUCTION DETAIL

MM 89.739
MM 90.179

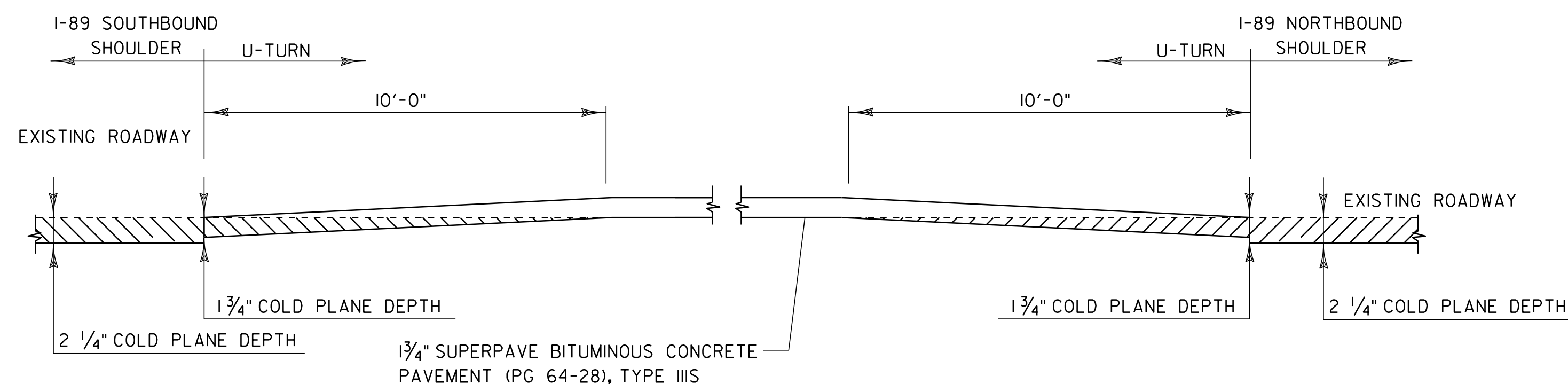


U-TURN CONSTRUCTION DETAIL - SECTION A-A

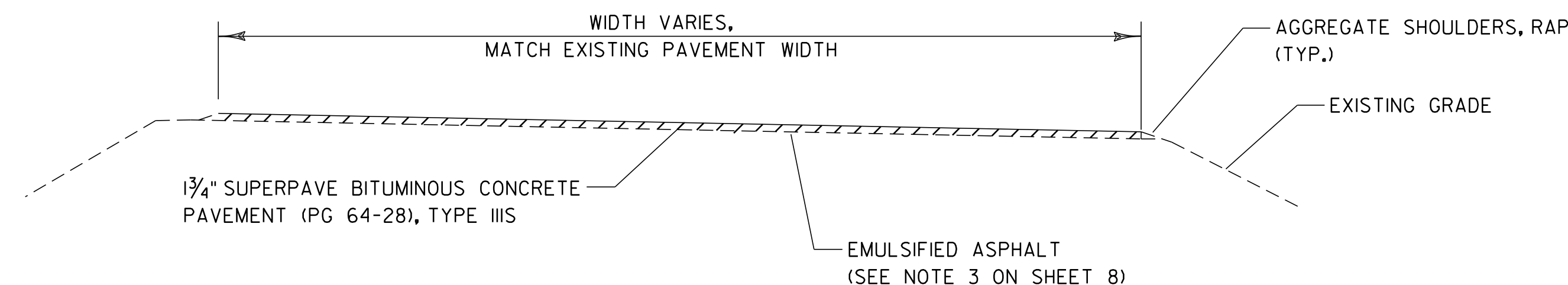
LOCATION
MM 89.739
MM 90.179

U-TURN LOCATIONS:

- MM 87.934
- MM 88.363
- MM 89.084
- MM 89.739 (NEW U-TURN)
- MM 89.875 (TO BE REMOVED)
- MM 90.131 (TO BE REMOVED)
- MM 90.179 (NEW U-TURN)
- MM 90.902
- MM 91.184
- MM 91.880



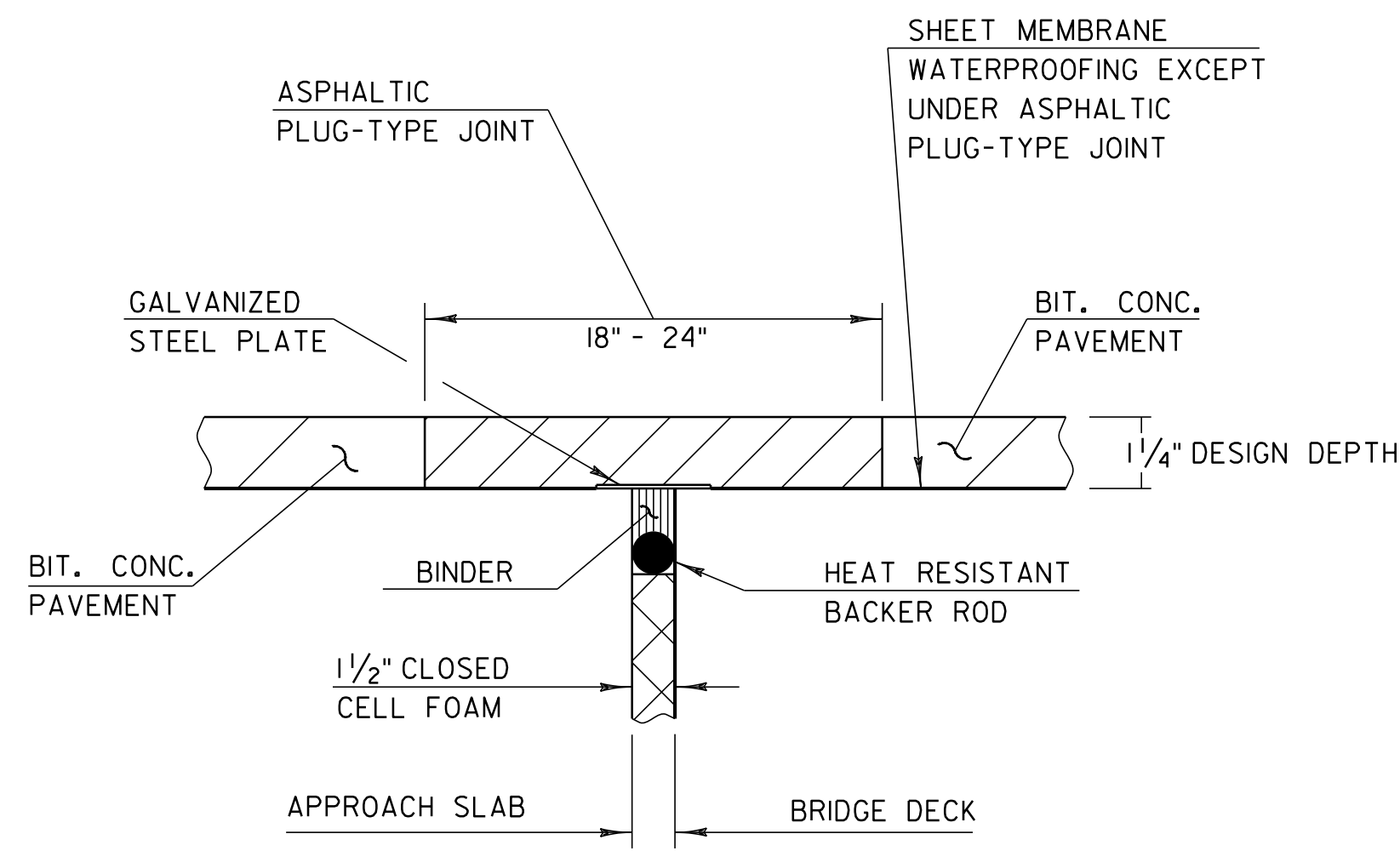
U-TURN MILLING



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	



ASPHALTIC PLUG TYPE JOINT DETAIL

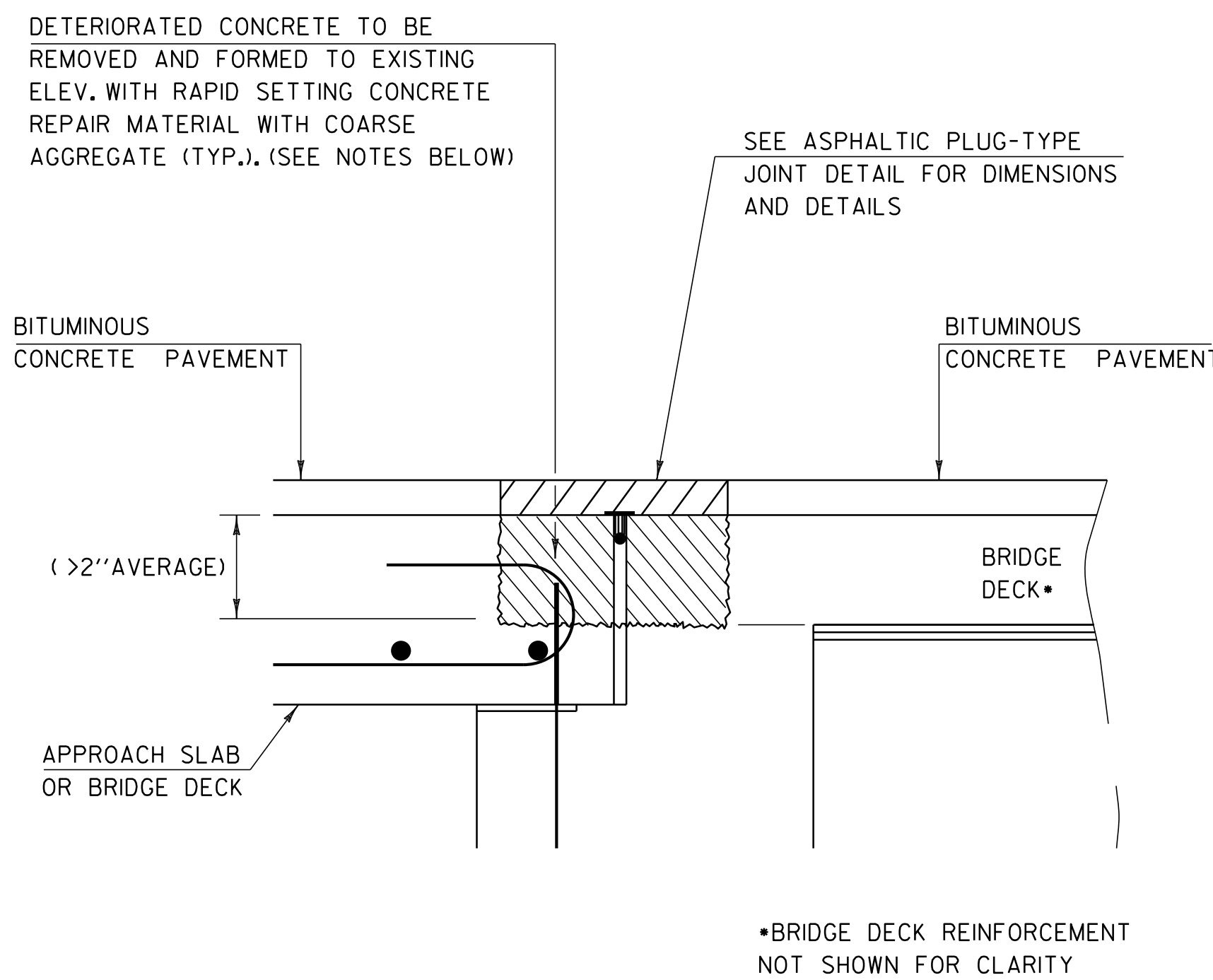
INSTALLATION:

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 +/-.

WEATHER LIMITATIONS:

BINDER MATERIAL SHALL BE APPLIED ONLY WHEN THE FOLLOWING CONDITIONS PREVAIL:

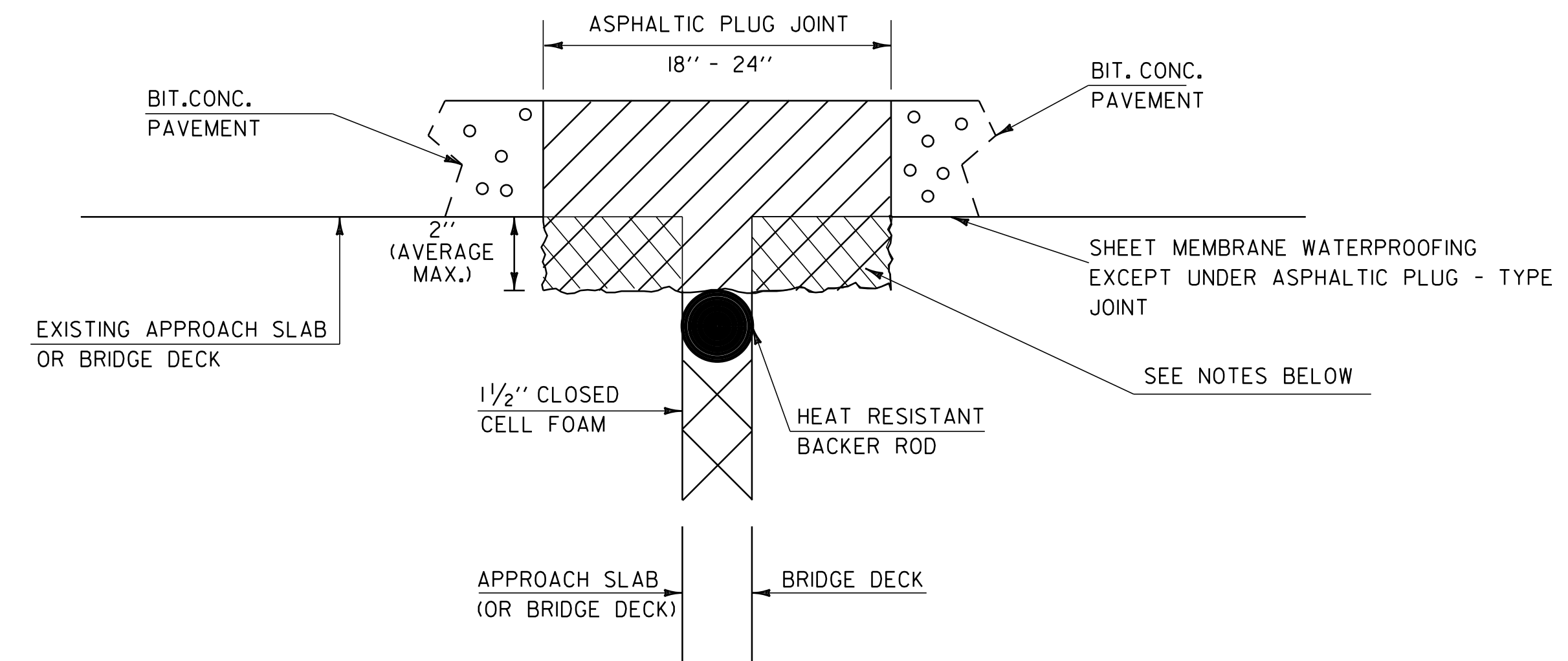
- (A) THE AMBIENT AIR TEMPERATURE IS AT LEAST 50° F AND RISING.
- (B) THE ROAD SURFACE IS SUFFICIENTLY DRY.
- (C) WEATHER CONDITIONS OR OTHER CONDITIONS ARE FAVORABLE AND ARE EXPECTED TO REMAIN SO FOR THE PERFORMANCE OF THE SATISFACTORY WORK.



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

NOTES:

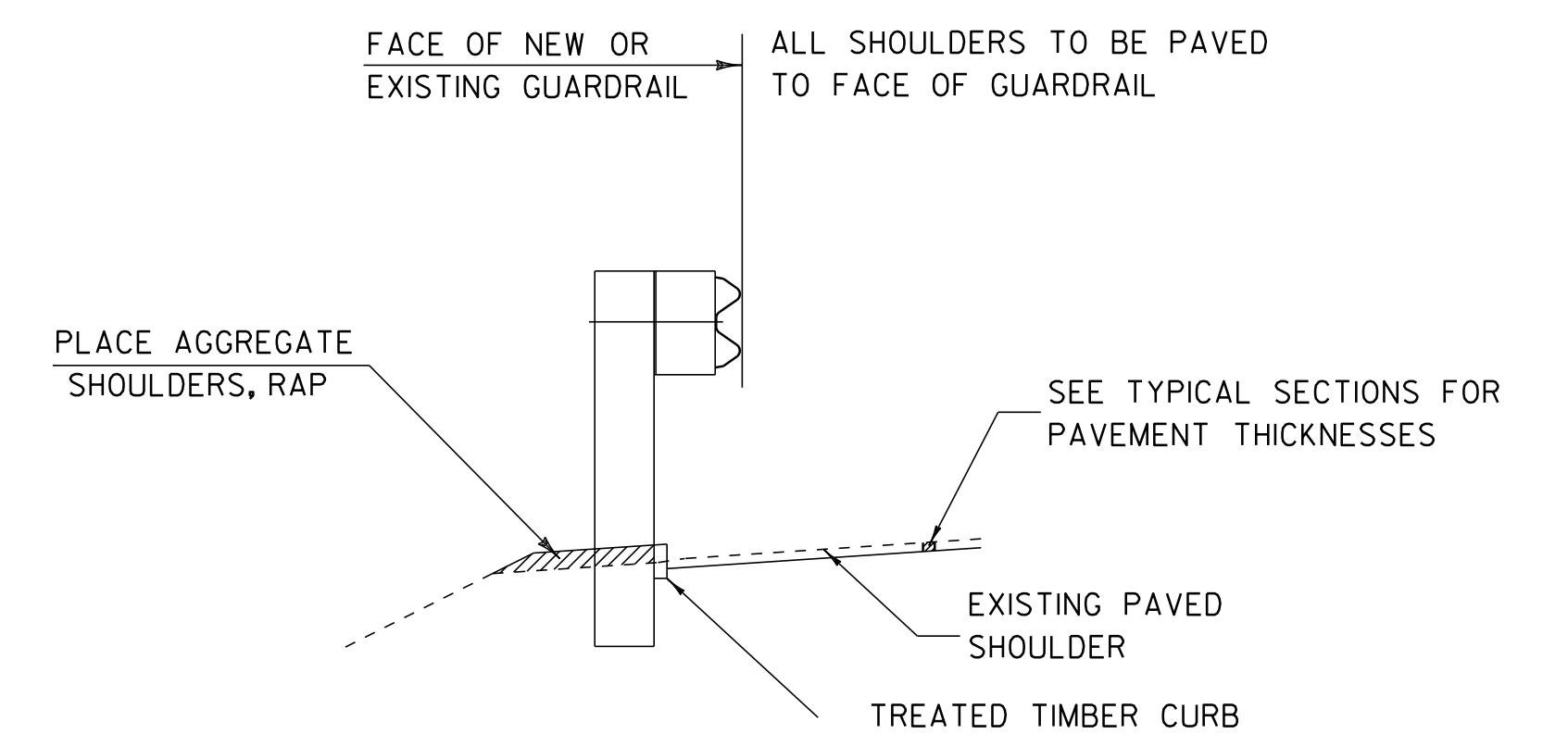
1. UPON ENCOUNTERING GREATER THAN 2" AVERAGE OF DETERIORATED CONCRETE, THE CONTRACTOR SHALL REMOVE THE DETERIORATED MATERIAL AND REPLACE IT WITH RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE.
2. REMOVAL OF THE DETERIORATED CONCRETE WILL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 580.20 "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.



**ASPHALTIC PLUG-TYPE JOINT DETAIL
REMOVAL OF UP TO 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, "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.



**TYPICAL SECTION AT GUARDRAIL
(EXISTING STEEL BEAM WITH CURBING)**

DETAILS ARE NOT TO SCALE

BRIDGE LOCATION AND DETAIL SHEET 3	PROJECT NAME: SO. BURLINGTON - COLCHESTER	
	PROJECT NUMBER: IM 089-3(60)	
	FILE NAME: p05a012.dgn	PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
	DESIGNED BY: JDA	CHECKED BY: EPD
	PLOT FILE: p05a012blds3.l	SHEET 11 OF 91

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

ITEM DETAIL SUMMARY SHEET #2

SOUTHBOUND	BEG IN STATION	END STATION	POS.	SPECIAL PROVISIONS																				REMARKS					
				203.15 COMMON EXC. CY	203.30 EARTH BORROW CY	203.40 SHOULDER BERM REMOVAL LF	204.22 TRENCH EXCAV. OF EARTH CY	WASTE DITCH, MAT'L CY	301.35 SUB. DENSE GRADED CRUSHED STONE CY	402.13 AGG. SHOULD. RAP T	604.40 CHANGE ELEV. D. I. EA	604.41 REHAB. D. I. CLASS I EA	616.35 TREATED TIMBER CURB LF	616.41 REMOVAL OF EXIST. CURB LF	621.20 STEEL BEAM G. R., GALV. LF	621.50 MANUF. TERMINAL SECTION, FLARED EA	621.60 ANCHOR FOR S. B. RAIL EA	621.70 G. R. APP. SECTION, GALV. TYPE I EA	621.71 G. R. APP. SECTION, GALV. TYPE II EA	621.76 REPLACE G. R. POST ASSEMB. EA	621.77 REPLACE G. R. BEAM UNIT EA	621.80 REMOVE & DISP. OF G. R. LF	676.10 DEL INE. WITH STEEL POST EA		676.12 REMOV. OF EXIST. DEL INE. EA	900.620 CABLE G. R. SPLICE UNIT EA	900.620 CABLE G. R. J-BOLT GALV. EA	900.640 REPLACE G. R. CABLE LF	
	4634+25.60	4851+26.40	LT, RT		70	4000	0.5	200				550							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																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																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																7	5	25	1	1						REPLACE TEXAS TWIST W/ G.R. AND ANCHOR.
	4746+28.5	4746+91	RT																		175	1	1						ATTACH TO EXISTING GUARDRAIL.
	4757+15	4761+02.5	RT																										INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4760+65.
	4757+15	4766+35	LT																14	10									
	4765+72.5	4766+35	RT																										ATTACH TO EXISTING GUARDRAIL.
	4768+01	4769+38.5	LT																		2	4							
	4768+01	4773+01	RT																										ATTACH TO EXISTING APPROACH RAIL. INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4772+63.5.
	4773+62.5	4776+00	LT																										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																										ATTACH TO EXISTING APPROACH RAIL.
	4777+83	4783+12.5	RT																										ATTACH TO EXISTING APPROACH RAIL.
	4777+83	4783+12.5	LT																		8	2							
	4784+90	4789+90	RT																										INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4789+52.5
	4784+90	4790+40	LT																										INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4790+02.5
	4824+22.5	4829+10	LT																										REPLACE TEXAS TWIST W/ G.R. AND ANCHOR, REPLACE EXISTING GUARDRAIL.
	4828+47.5	4829+10	RT																										
	4830+80	4835+80	RT																										ATTACH TO BR.#74S APPROACH RAIL. INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4835+42.5.
	4830+80	4836+55	LT																										ATTACH TO BR.#74S APPROACH RAIL. INSTALL NEW MANUFACTURED TERMINAL SECTION, FLARED AT STA. 4836+17.5.
	SUBTOTAL				70	4000	0.5	200				595				9	9	1	2	98	92	2125	127	127			4		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.

**ITEM
DETAIL
SUMMARY
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: p05a012idss2.i
PLOT DATE: \$\$\$\$\$\$DATE\$\$\$\$
DRAWN BY: JAR/SJB
CHECKED BY: EPD
SHEET 16 OF 91

STATE OF VERMONT
AGENCY OF TRANSPORTATION

ITEM DETAIL SUMMARY SHEET #3

BEGIN STATION	END STATION	POS.	SPECIAL PROVISIONS																							REMARKS		
			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.	604.41 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	
			CY	CY	LF	CY	CY	T	EA	EA	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
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
SUBTOTAL THIS SHEET			325	70	2300	-	1000	60	450	1	13	100	100	254.5	3	0	-	-	27	31	125	401	401	0	15	0		
ITEM DETAIL SHEET 1 SUBTOTAL			-	70	6200	0.5	1000	-	655	0	10	100	100	3082.5	11	8	1	2	142	123	2385	140	140	2	14	20		
ITEM DETAIL SHEET 2 SUBTOTAL			-	70	4000	0.5	200	-	595	0	9	100	100	3297.5	9	9	1	2	98	92	2125	127	127	0	4	0		
ROUNDING			-	-	-	-	-	-	50	-	-	-	-	65.5	-	-	-	-	-	-	45	-	-	-	-	5		
TOTAL			325	210	12500	1	2200	60	1750	1	32	300	300	6700	23	17	2	4	267	246	4680	668	668	2	33	25		

ITEM DETAIL SUMMARY 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: p05a012idss3.i SHEET 17 OF 91

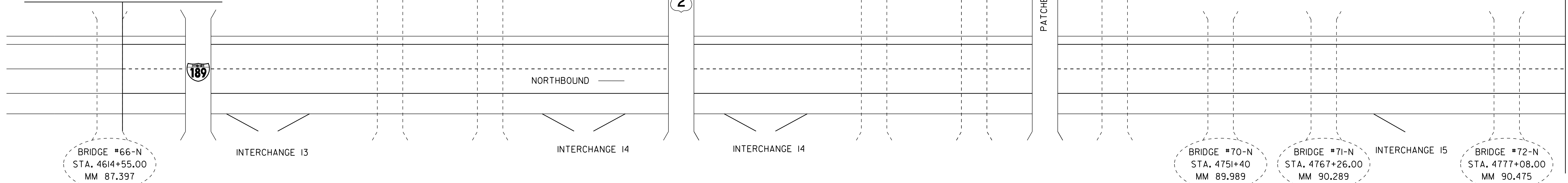
NOTE:
ESTIMATED QUANTITIES TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER. SEE LAYOUT SHEETS FOR CONSTRUCTION NOTES RELATED TO PAY ITEMS 604.40 AND 604.412.

**INTERSTATE ROUTE 89
SOUTHBOUND STA. 4634+25.60
(MM 87.77)
BEGIN PROJECT IM 089-3(60)**

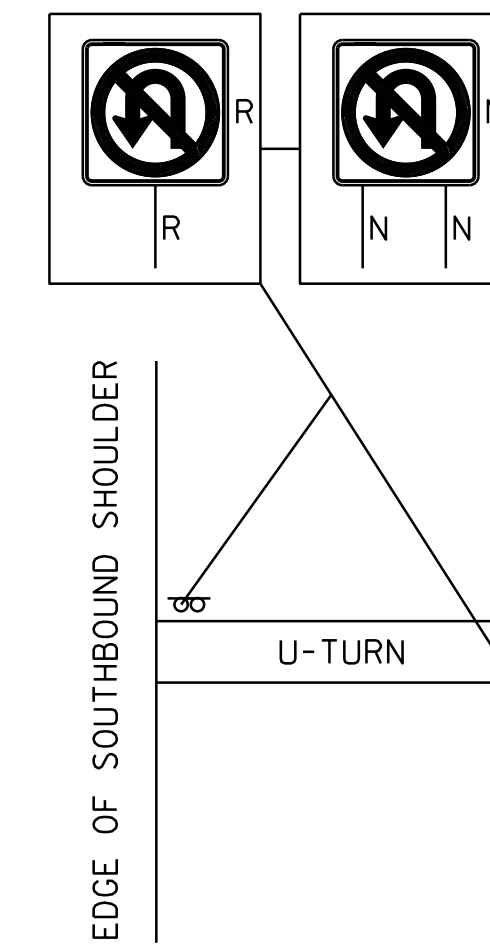
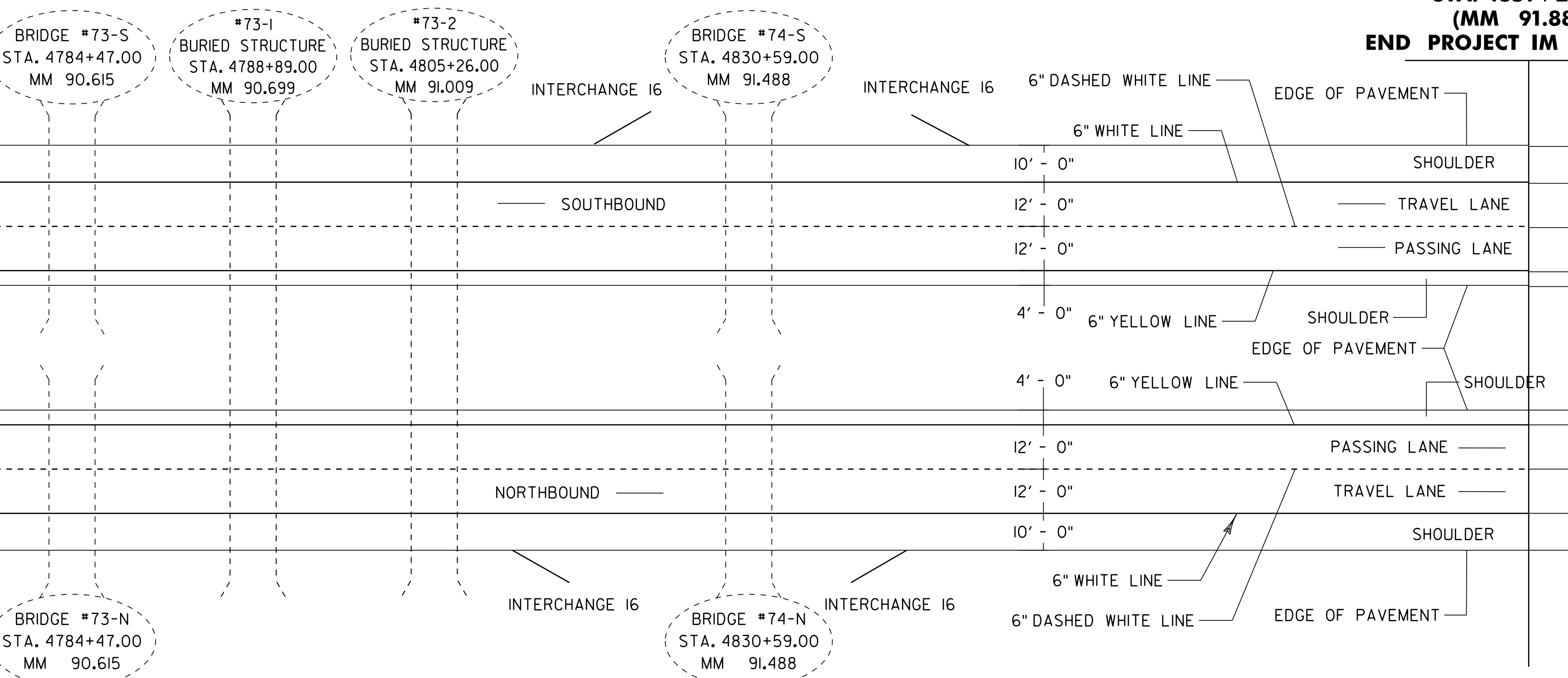
646.426 DURABLE 6 INCH WHITE LINE, RECESSED
 STA. 4614+56.16 - STA. 4851+26.40 NORTHBOUND RT (SOLID)
 STA. 4614+56.16 - STA. 4851+26.40 NORTHBOUND CENTERLINE (DASHED)
 STA. 4634+25.60 - STA. 4851+26.40 SOUTHBOUND LT (SOLID)
 STA. 4634+25.60 - STA. 4851+26.40 SOUTHBOUND CENTERLINE (DASHED)
 646.436 DURABLE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

646.622 TEMPORARY 6 INCH WHITE LINE, PAINT
 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)
 646.632 TEMPORARY 6 INCH YELLOW LINE, PAINT
 STA. 4614+56.16 - STA. 4851+26.40 NORTHBOUND LT (SOLID)
 STA. 4634+25.60 - STA. 4851+26.40 SOUTHBOUND RT (SOLID)

**INTERSTATE ROUTE 89
NORTHBOUND STA. 4614+56.16
(MM 87.397)
BEGIN PROJECT IM 089-3(60)**



**INTERSTATE ROUTE 89
NORTHBOUND & SOUTHBOUND
STA. 4851+26.40
(MM 91.880)
END PROJECT IM 089-3(60)**



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 - 4181

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 FOR 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: p05a012ppis.i	SHEET 19 OF 91

TRAFFIC SIGN SUMMARY SHEET 1

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST	NO. OF POSTS	NEW SIGN POSTS																	REMARKS	SIGN DETAIL	
		E A	WIDTH (in)	HEIGHT (in)	"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
													1.12	2.0	3.0	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																														
NORTHBOUND & SOUTHBOUND U-TURNS		16	36	36	144.00						32			X 448'		X													R3-4	E-143
NORTHBOUND & SOUTHBOUND MILEMARKERS		8	12	36	24.00						8	X 78'		X														DIO-2 MILEMARKER SIGNS 88, 89, 90 AND 91 ARE TO BE REPLACED FOR BOTH NORTHBOUND AND SOUTHBOUND.	E-139	
EXIT 13 RAMP C		10	24	30	50.00						10		X 140'		X													WI-8R USE FLUORESCENT YELLOW SHEETING TYPE IX SEE STANDARD E-126 FOR PLACEMENT LOCATION	E-150	
STA. 1+45 LT EXIT 13 RAMP C		1	18	18	2.25						1	X 8'		X														OMI-1	E-150	
STA. 1+64 LT EXIT 13 RAMP C		1	72	60		30.00					2																	2	182.4 X	E-131
STA. 8+5IRT EXIT 13 RAMP C		1	36	36	9.00						2		X 28'		X													W4-6R	43	
EXIT 13 RAMP D		7	24	30	35.00						7		X 98'		X													WI-8R USE FLUORESCENT YELLOW SHEETING TYPE IX SEE STANDARD E-126 FOR PLACEMENT LOCATION	E-150	
STA. 19+04 RT EXIT 13 RAMP D		1	30	30	6.25						1		X 14'		X													R3-2	E-143	
STA. 1+94 LT EXIT 14 RAMP A		1	36	36	9.00						2		X 32'		X													VR-046	E-142	
		1	36	36	9.00																							VR-002	E-142	

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										
												93 86	80 760	93	80										228 182.4						
												FT	FT											EA.	LB	EA.	EA.	LB			
TOTALS					SF	SF	EA.	SF				FT	FT											EA.	EA.	LB					
					288.50	30.00						903 846	903					2							228 182.4						

TRAFFIC SIGN SUMMARY 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: p05a012tsssl.i SHEET 20 OF 91

TRAFFIC SIGN SUMMARY SHEET 2

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS		NEW & SALVAGED SIGNS				EXIST. POST	NO. OF POSTS	NEW SIGN POSTS															REMARKS	SIGN DETAIL										
		E A	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN			SALV TIS	FLANGED CHANNEL			SQUARE STEEL (in)			TUBULAR ALUMINUM Ø (in)			TUBULAR STEEL Ø (in)				W-SHAPE STEEL		DETAIL ON SHEET NUMBER	STD. SHEET NUMBER									
											1.12	2.0	3.0	1.75	2.0	2.5	3.0	4.0	4.0	4.0 MOD	FOUND-ATION	3.0	3.5	4.0				5.0	24"	30"	WEIGHT	POST SIZE				
																																	lb/ft	lb/ft	lb/ft	lb/ft
STA 14+00 LT EXIT 14 RAMP A		1	36	12	3.00				2			21																								
STA. 1+05 RT EXIT 14 RAMP B		1	36	48	12.00				2			X 31'																					W13-3	E-150		
STA. 1+63 LT EXIT 14 RAMP B		1	18	18	2.25				1	X 8'		X																					OMI-1	E-150		
STA. 1+75 LT EXIT 14 RAMP B		1	90	60		37.50			2																									24' X 182.4	E-131	
STA. 9+02 RT EXIT 14 RAMP B		1	36	36	9.00				2			X 36'		X																				W11-2	E-152	
		1	36	36	9.00																														W11-1	E-153B
STA 9+50 LT EXIT 14 RAMP B		1	36	12	3.00				2			24'																								
STA. 10+32 RT EXIT 14 RAMP B		1	36	36	9.00				2			X 30'		X																					W4-6R	43
STA. 11+13 RT EXIT 14 RAMP B		1	36	36	9.00				2			X 32'		X																					W11-1	E-153B
		1	30	18	3.75																														W16-7	E-153B

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	EA	LB	LB	LB	LB	EA	EA	EA	EA	EA
13 8'	90 174'	13	90									456 182.4				
TOTALS	SF 54.00 60.00	SF 37.50	EA.	SF	FT 103 182'	FT 103	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.

TRAFFIC SIGN SUMMARY 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: p05a012tsss2.i SHEET 21 OF 91

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					
		EA	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN			SALV TIS	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	FOUND-ATION			3.0	3.5	4.0	5.0				FTG. SIZE		WEIGHT	POST SIZE
																			1.12	2.0	3.0								1.88	2.16		
STA. 5+80 RT EXIT 14 RAMP E		1	36	36	9.00				2			X 30'		X													W3-2A	E-150				
STA. 8+83 RT EXIT 14 RAMP E		1	36	36	4.50				2			X 14'		X													RI-2	E-146				
STA 9+55 LT EXIT 14 RAMP E	ONE WAY	1	36	12	3.00				2			24																				
STA. 1+95 LT EXIT 14 RAMP F		1	18	18	2.25				1		X 8'		X														OMI-1	E-150				
STA. 2+02 LT EXIT 14 RAMP F		1	90	60		37.50			2												2	24' X 182.4						E-131				
STA. 8+65 RT EXIT 14 RAMP F		1	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		1	18	18	2.25				1		X		X 8'														OMI-1	E-150				
STA. 1+73 LT EXIT 14 RAMP G		1	90	60		37.50			2												2	24' X 182.4						E-131				

FT	FT	FT	FT	FT	FT	EA	LB	LB	LB	LB	LB	EA	EA	LB
26 16'	225 222'	26	225								456 364.8			
TOTALS	SF 72.00 75.00	SF 75.00	EA.	SF	FT 251 238'	FT 251	LB	EA.	4	LB 456 364.8	EA.	EA.	LB	

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."

TRAFFIC SIGN SUMMARY SHEET 4

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: p05a012tsss4.i SHEET 23 OF 91

TRAFFIC SIGN SUMMARY SHEET 8

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			FLANGED CHANNEL				TUBULAR ALUMINUM Ø (in)			TUBULAR STEEL Ø (in)				W-SHAPE STEEL				DETAIL ON SHEET NUMBER	STD. SHEET NUMBER				
		lb/ft						lb/ft		3.0	4.0	4.0 MOD	FOUND-ATION	3.0	3.5	4.0	5.0	FTG. SIZE		WEIGHT	POST SIZE									
		1.12	2.0	3.0	1.88	2.16	3.35				1.3	1.7		1.7					24"			30"								
STA. 8+46 RT EXIT 16 RAMP A		24	12	2.00					2								2	31' X 235.6										M3-1 M3-3	E-136A E-136A	
		24	24	4.00																								MI-4 MI-4	E-136A E-136A	
		24	12	2.00																								M3-4 M3-2	E-136A E-136A	
		24	24	4.00																								MI-4 MI-4	E-136A E-136A	
		21	15	2.19																								M6-1 M6-1	E-136A E-136A	
STA. 10+46 RT EXIT 16 RAMP A		72	12	6.00					2								2	29' X 220.4										DI-1	E-123	
		24	12	2.00																								M4-5	E-136B	
		24	24	4.00																									E-136B	
		21	15	2.19																								M6-1	E-136B	
STA. 2+59 RT EXIT 16 RAMP B		36	36	9.00					2		X																		VR-046	E-142
		36	36	9.00																									VR-002	E-142
STA. 8+86 RT EXIT 16 RAMP B		30	30	6.25					1		X																		R3-2	E-143
STA. 1+55 RT EXIT 16 RAMP C		36	36	9.00					2		X																		VR-046	E-142
		36	36	9.00																									VR-002	E-142
STA. 4+97 RT EXIT 16 RAMP C		30	30	6.25					1		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."

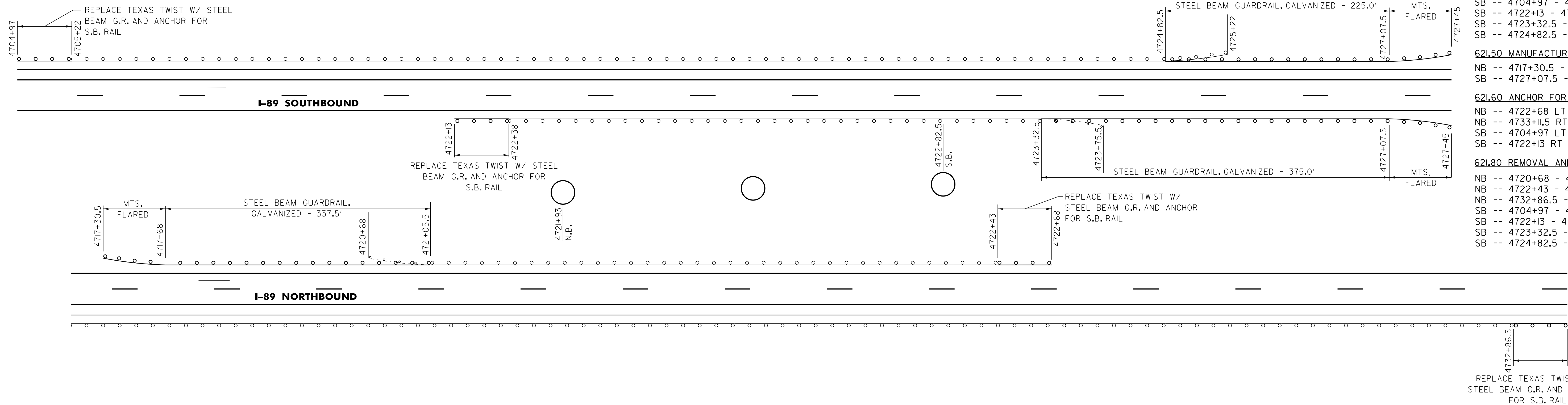
								FT	FT	FT	FT	FT	FT	EA	LB	LB	LB	LB	LB	LB	EA.	EA.	LB
TOTALS																							

TRAFFIC SIGN SUMMARY SHEET 8	PROJECT NAME: SO. BURLINGTON - COLCHESTER	PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
	PROJECT NUMBER: IM 089-3(60)	DRAWN BY: JAR/SJB
	FILE NAME: p05a012.dgn	CHECKED BY: EPD
	DESIGNED BY: JDA	SHEET 27 OF 91
	PLOT FILE: p05a012tsss8.i	

LOCATION:

BR. 69 PATCHEN ROAD OVER INTERSTATE 89
 NB MM 89,442
 SB MM 89,442

GUARDRAIL LOCATIONS—OVERPASSES



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

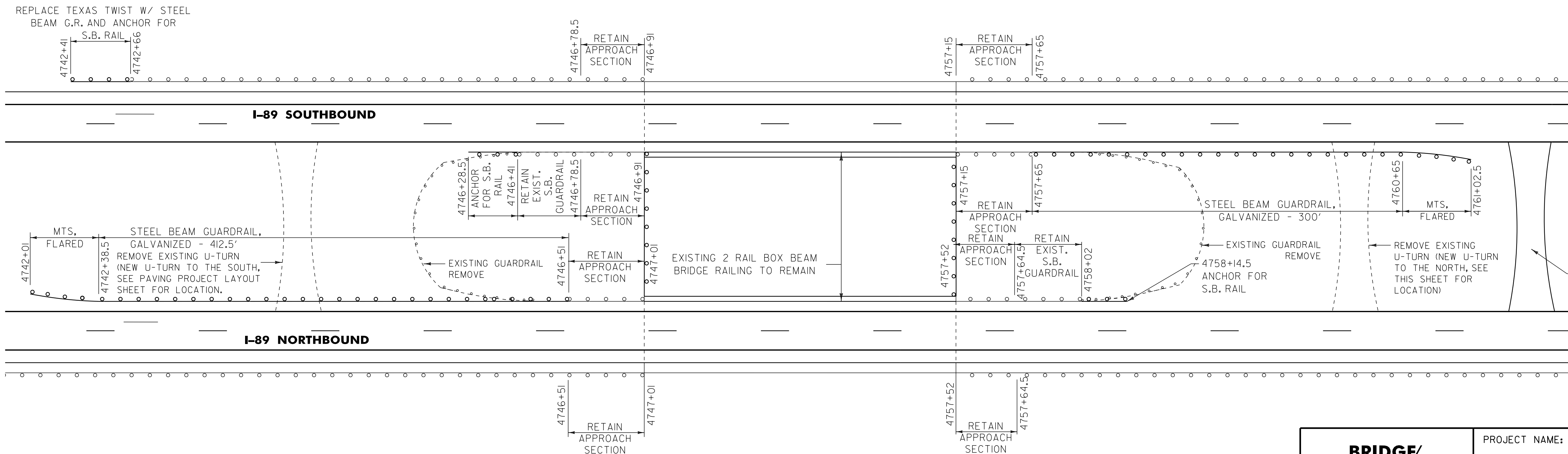
621.80 REMOVAL AND DISPOSAL OF GUARDRAIL

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.

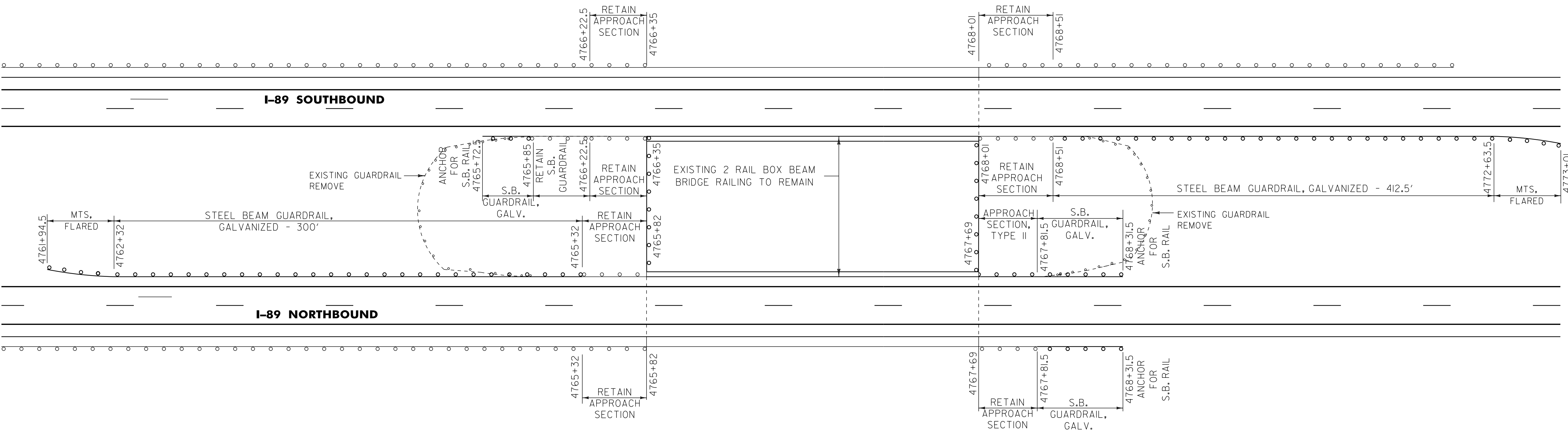
DETAILS ARE NOT TO SCALE

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+ds1.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+01 SB (40 LF)

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

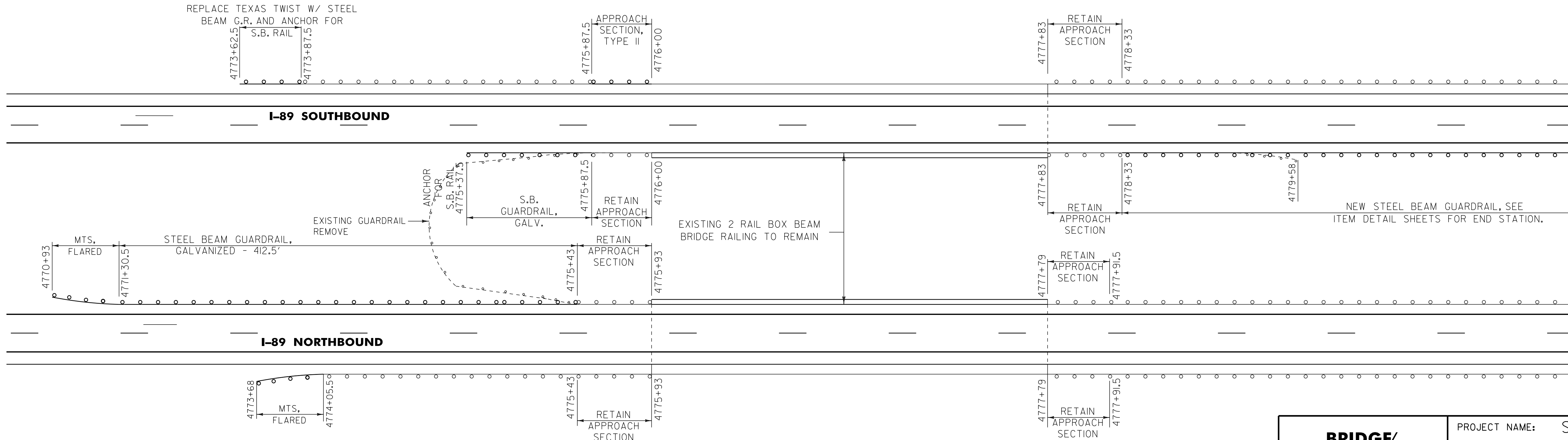
621.60 ANCHOR FOR STEEL BEAM RAIL
 NB -- 4768+31.5 LT & RT
 SB -- 4765+72.5 RT

621.71 GUARDRAIL 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

621.71 GUARDRAIL 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

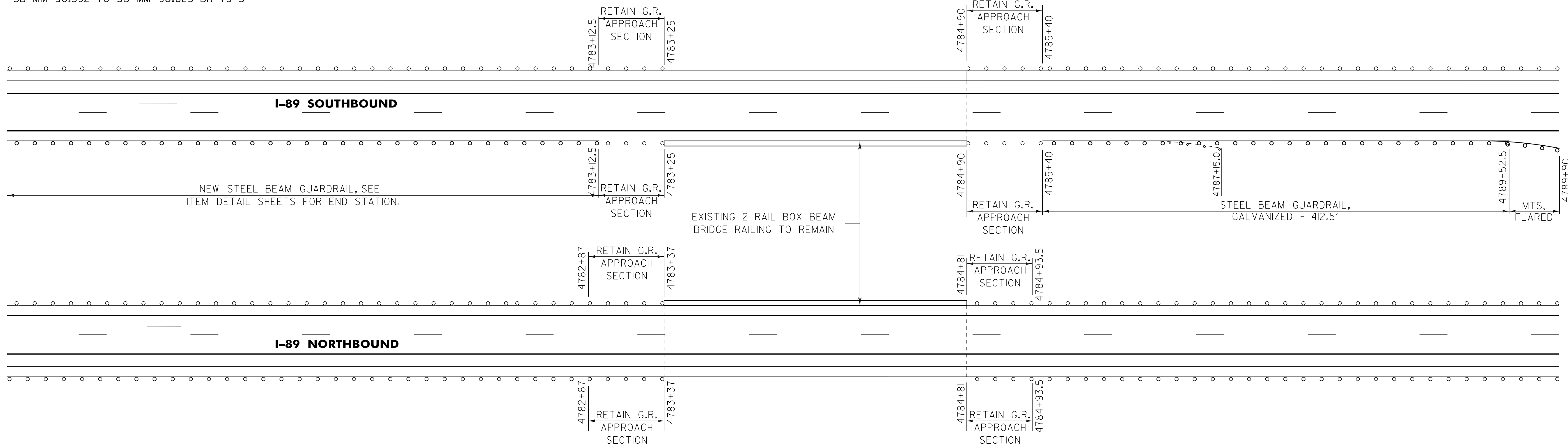
THE CONTRACTOR SHALL WIDEN WITH EARTH BORROW ADJACENT TO THE 4.0' SHOULDER TO PROVIDE BACKING FOR THE NEW GUARDRAIL AND TO CONSTRUCT A FLARE FOR THE END TERMINAL. CONSTRUCTION OF THE WIDENING AND TERMINAL FLARE SHALL BE COMPLETED IN ACCORDANCE WITH STANDARD G-19.

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 90.621 BR 73 N
 SB MM 90.592 TO SB MM 90.623 BR 73 S

GUARDRAIL TREATMENT AT BULLNOSE LOCATIONS - BRIDGES



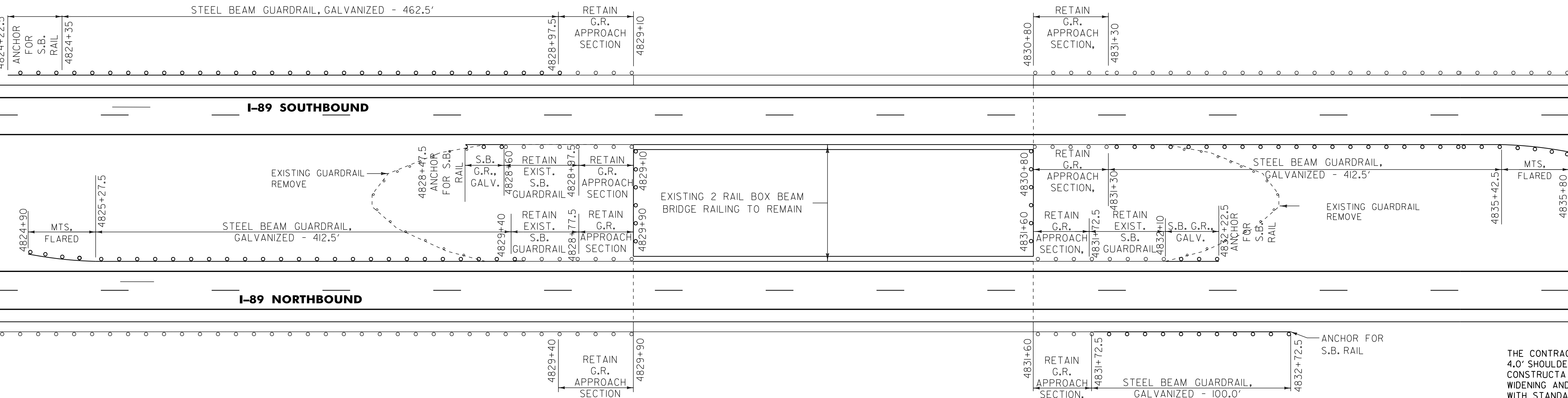
621.20 STEEL BEAM GUARDRAIL, GALVANIZED
 SB -- 4785+40 - 4789+52.5 RT

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

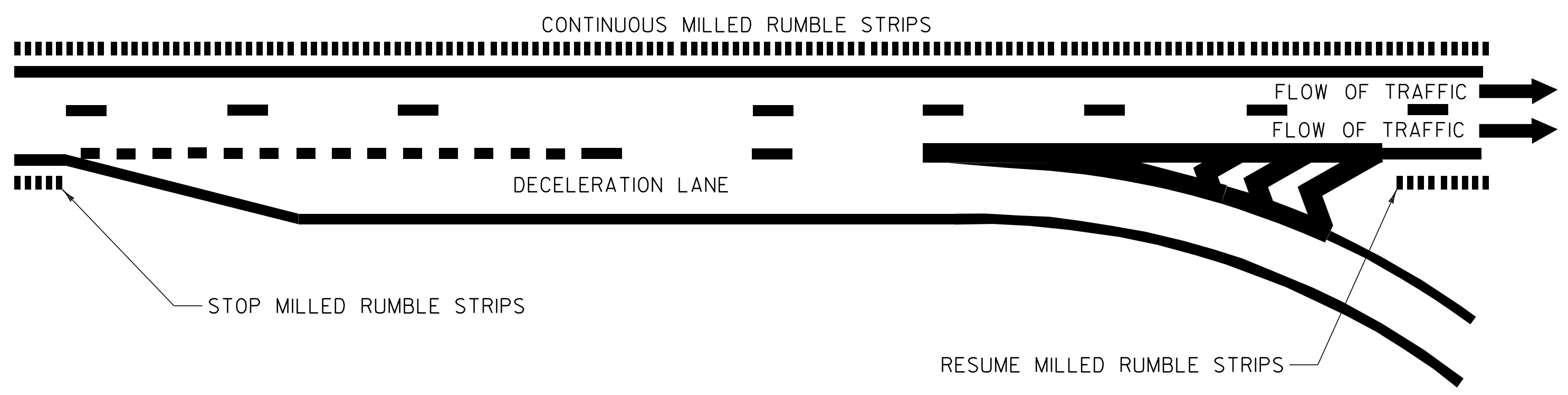
621.80 REMOVAL AND DISPOSAL OF GUARDRAIL
 NB -- 4831+72.5 - 4832+72.5 RT
 SB -- 4824+22.5 - 4829+97.5 LT
 MEDIAN SOUTH OF BRIDGE - 300 LF
 MEDIAN NORTH OF BRIDGE - 300 LF

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

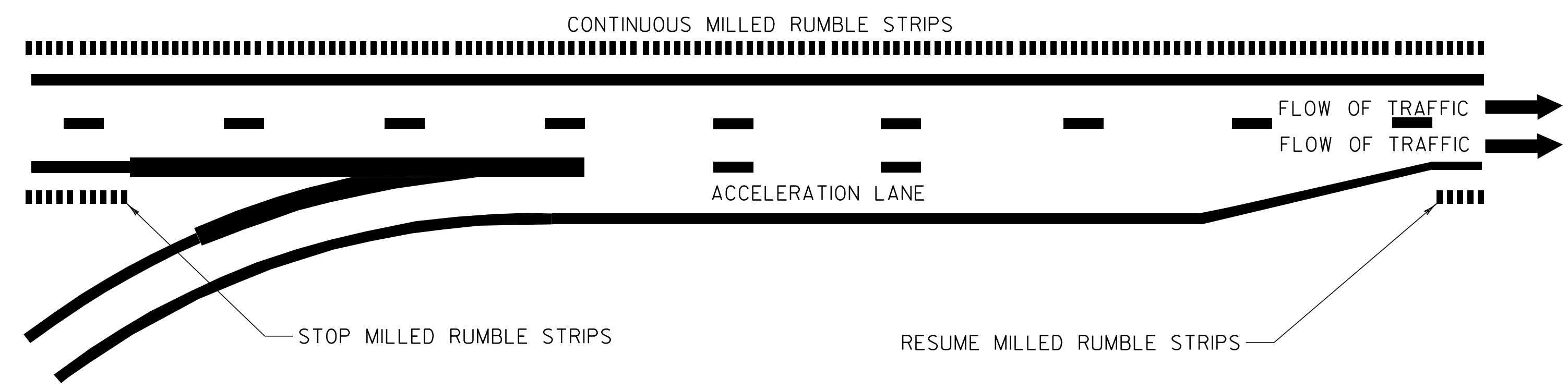
DETAILS ARE NOT TO SCALE

**BRIDGE/
 GUARDRAIL
 TREATMENT
 DETAIL SHEET 3**

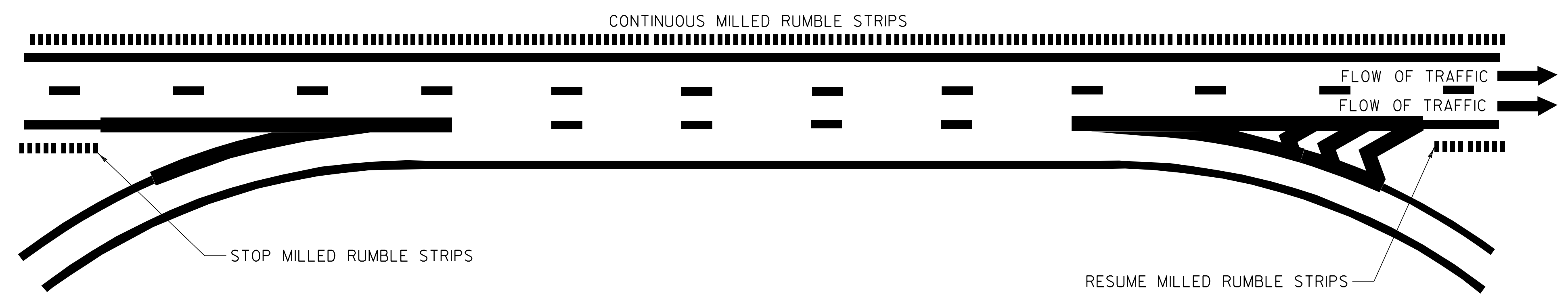
PROJECT NAME: SO. BURLINGTON - COLCHESTER
 PROJECT NUMBER: IM 089-3(60)
 FILE NAME: p05a012.dgn PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
 PROJECT LEADER: EPD DRAWN BY: RHB/SJB
 DESIGNED BY: JDA CHECKED BY: EPD
 PLOT FILE: p05a012bg+ds3.i SHEET 32 OF 91



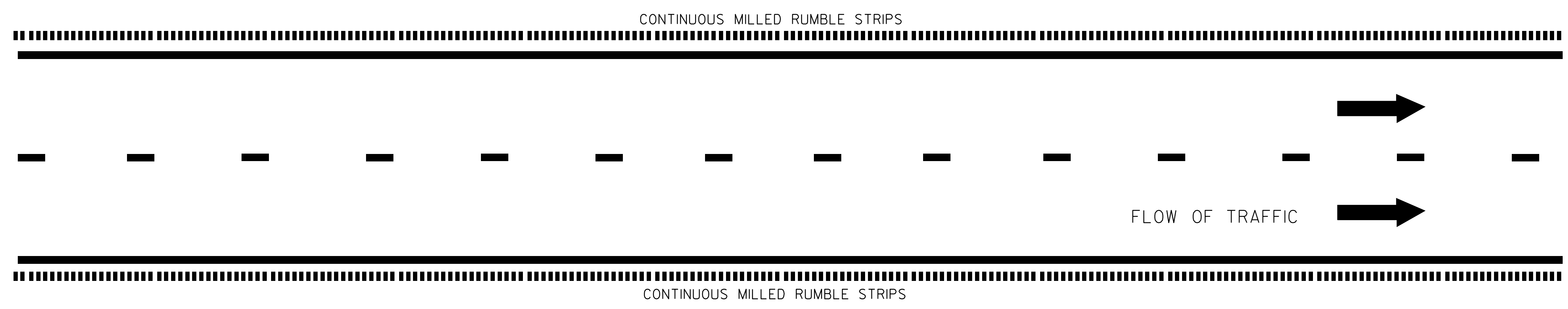
INTERCHANGE 13 EXIT RAMP C
INTERCHANGE 14 EXIT RAMPS C AND F
INTERCHANGE 15 EXIT RAMP B
INTERCHANGE 16 EXIT RAMP A AND D



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





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



INTERSTATE 89 NORTHBOUND AND SOUTHBOUND

LEGEND

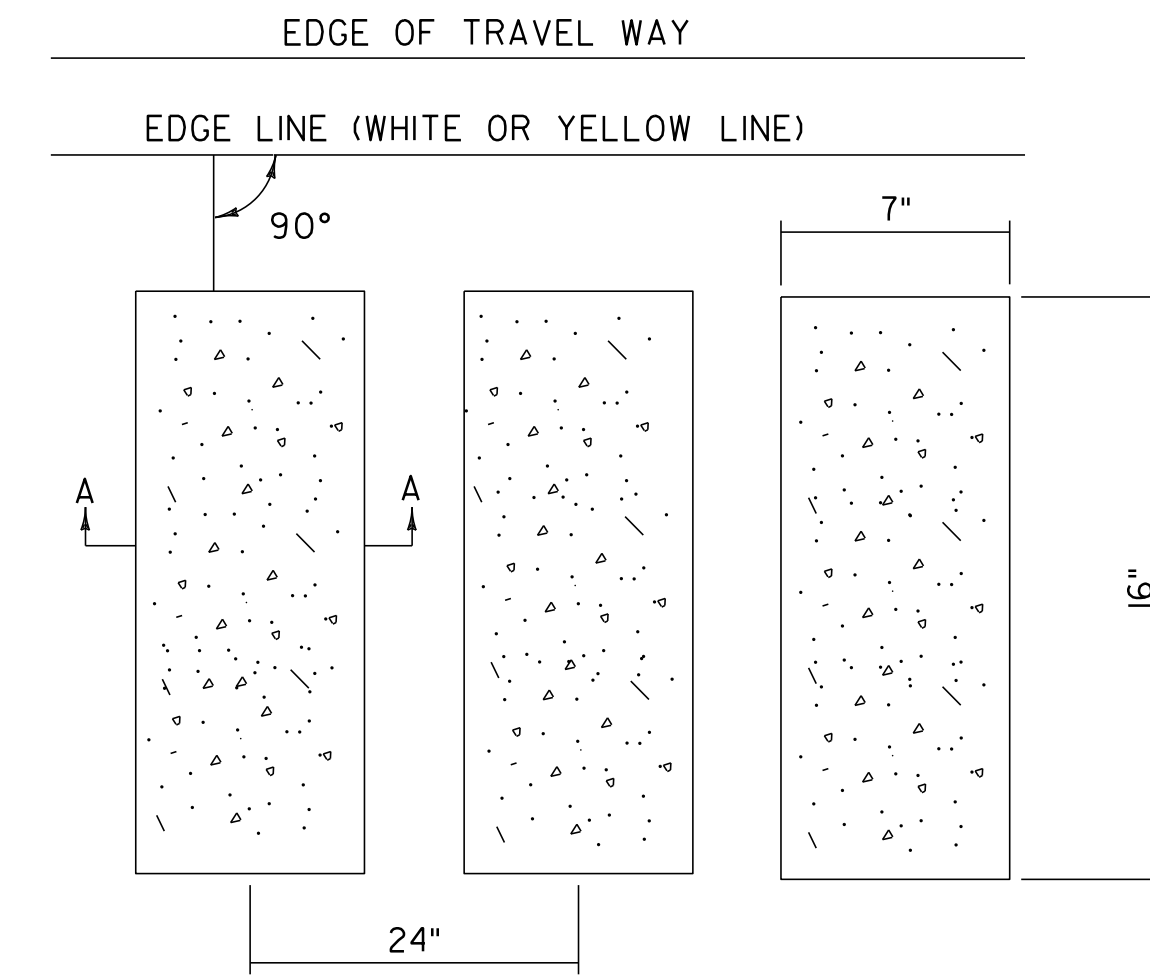
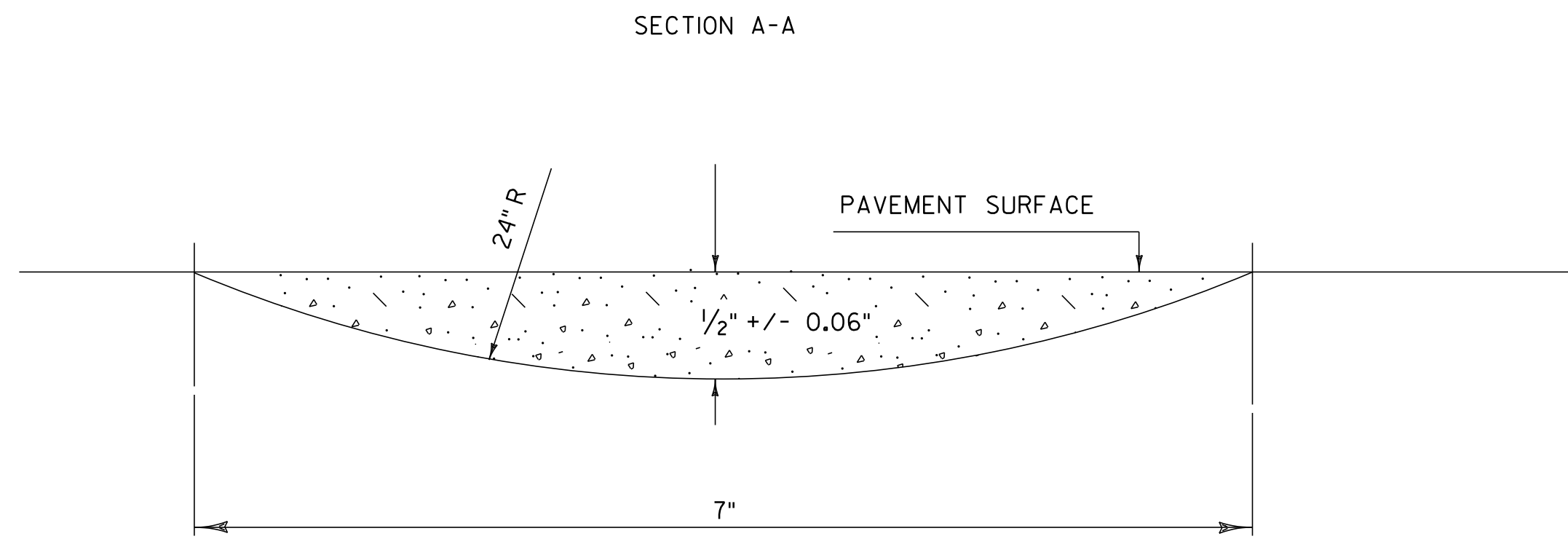
 DIRECTION OF TRAFFIC FLOW

 MILLED RUMBLE STRIPS

DETAILS ARE NOT TO SCALE

MILLED RUMBLE STRIP DETAILS 1

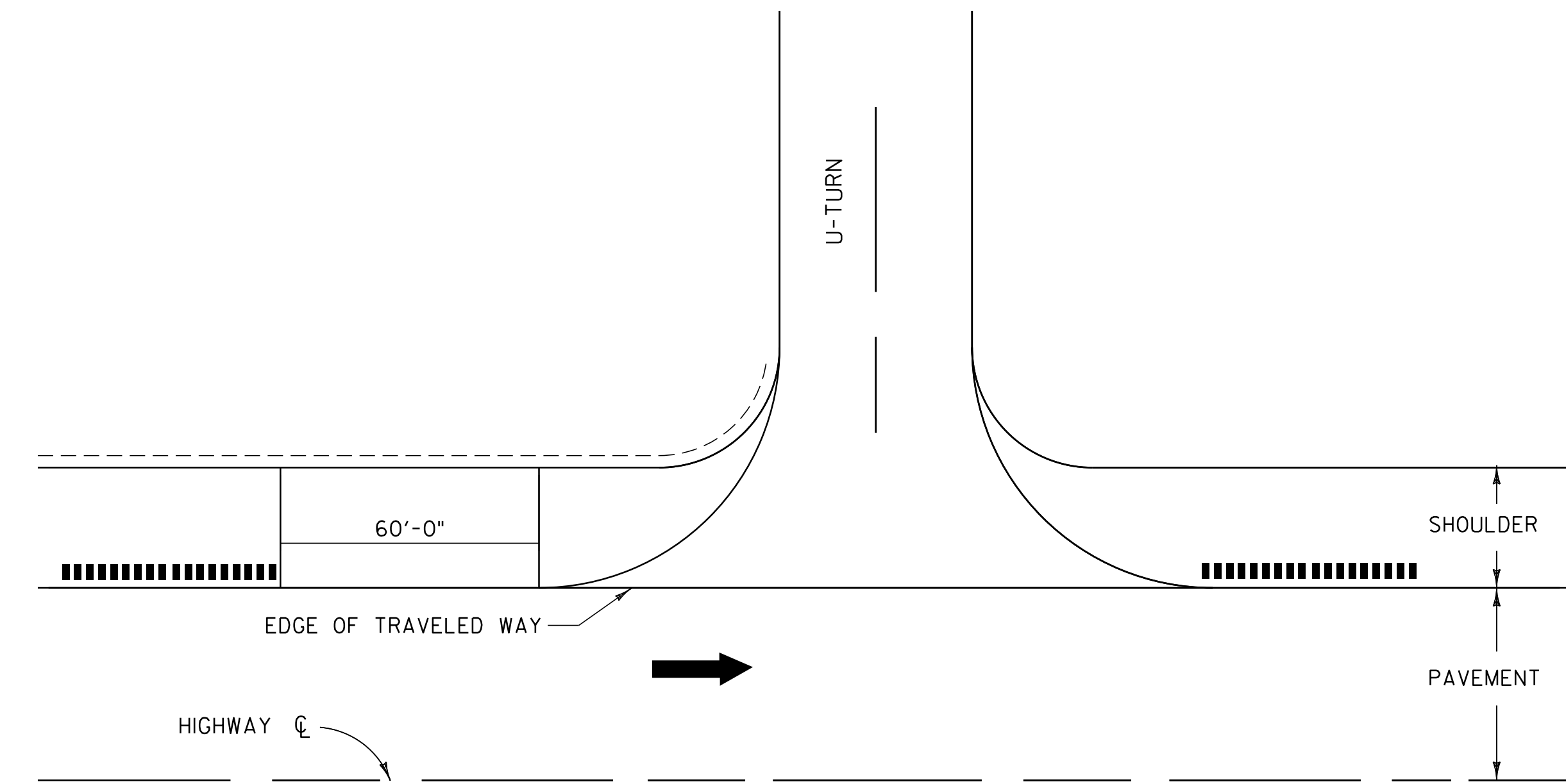
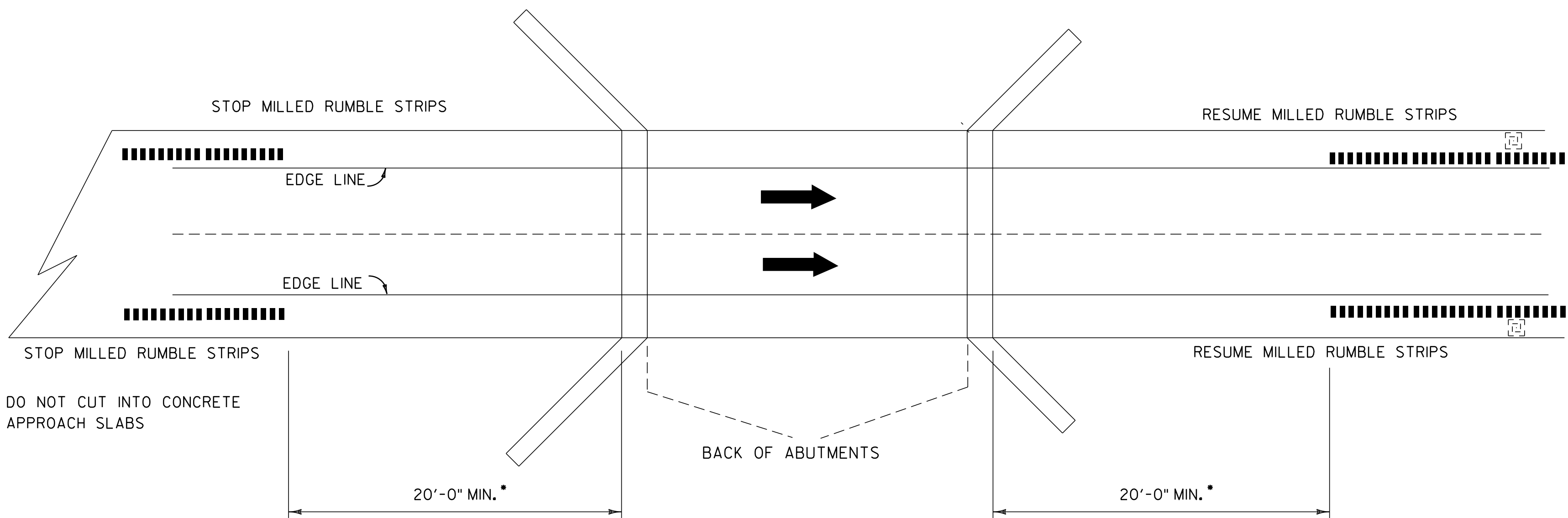
PROJECT NAME: SO. BURLINGTON - COLCHESTER	
PROJECT NUMBER: IM 089-3(60)	
FILE NAME: p05a012.dgn	PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
PROJECT LEADER: EPD	DRAWN BY: JAR/SJB
DESIGNED BY: JDA	CHECKED BY: EPD
PLOT FILE: p05a012mr.sdl.i	SHEET 33 OF 91



TYPICAL RUMBLE STRIP MILLING DETAIL

NOTES:

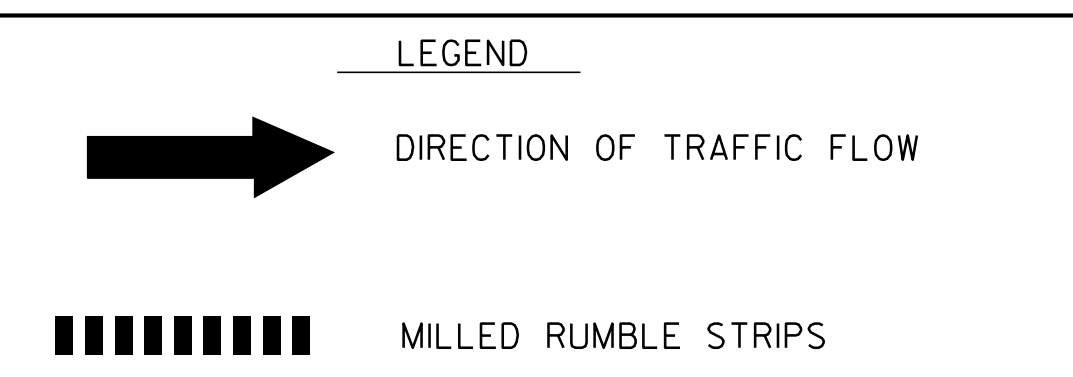
1. PLACE RUMBLE STRIPS 30" FROM EDGE LINE (WHITE OR YELLOW) FOR ALL SHOULDERS 6'-0" OR WIDER. PLACE RUMBLE STRIPS 6" FROM EDGE LINE (WHITE OR YELLOW) FOR ALL SHOULDERS LESS THAN 6'-0" WIDE WITH NO GUARDRAIL.
2. STOP MILLED RUMBLE STRIPS WITH GUARDRAIL WITHIN 4'-0" OF TRAVEL WAY.



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

MILLED RUMBLE STRIPS U TURN DETAIL

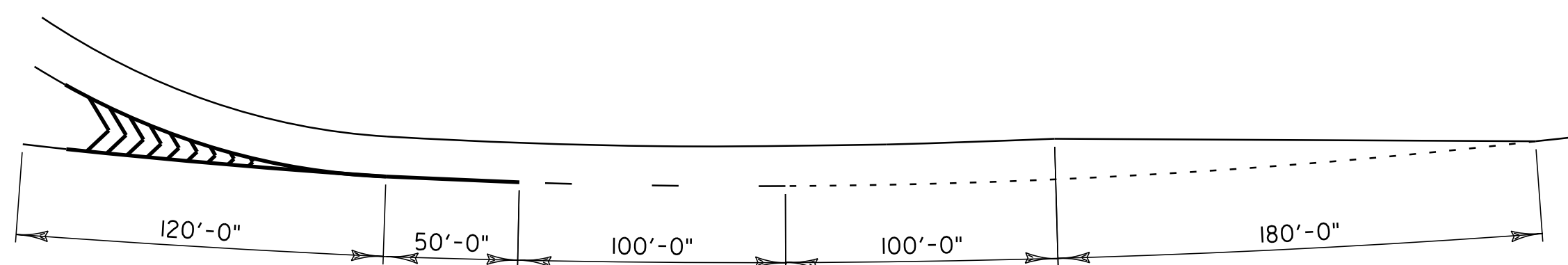
RUMBLE STRIP AT BRIDGE DETAIL



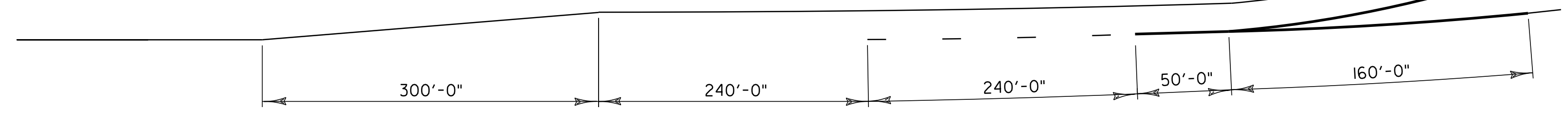
DETAILS ARE NOT TO SCALE

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:	p05a012mr\$sd2.i	SHEET 34 OF 91



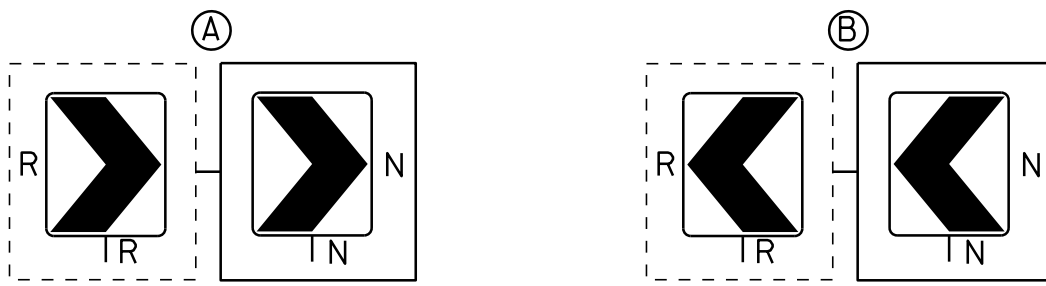
INSET A - GORE DETAIL AT EXIT 13 RAMP C



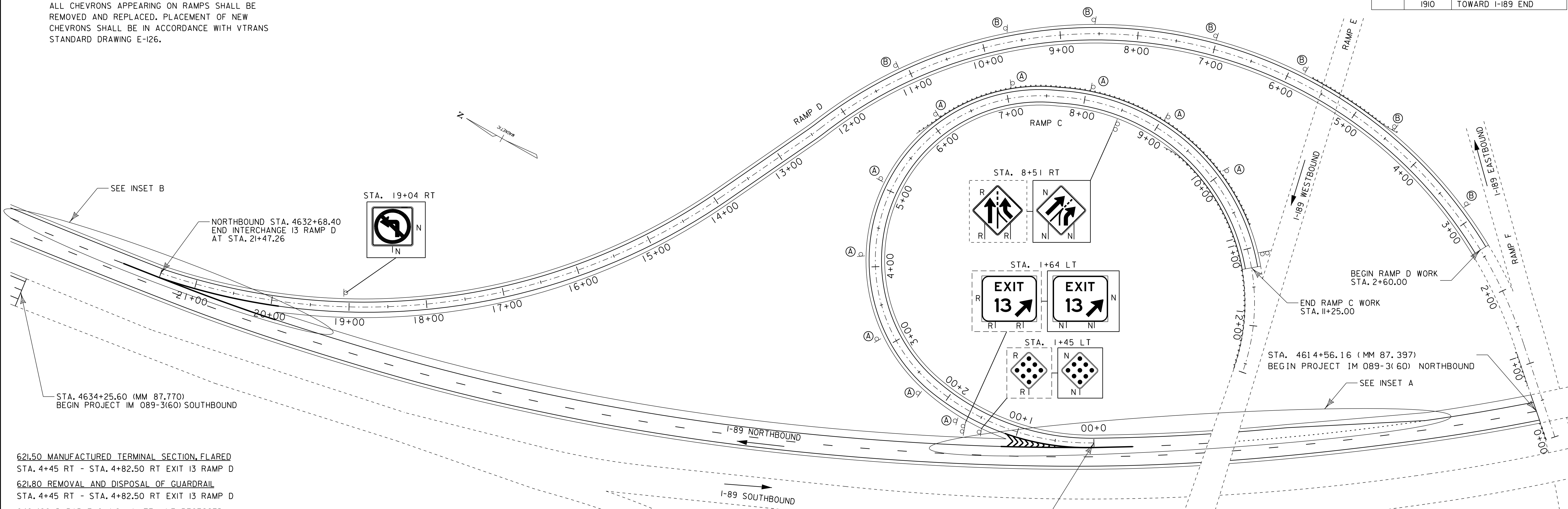
INSET B - GORE DETAIL AT EXIT 13 RAMP D

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



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.



- 621.50 MANUFACTURED TERMINAL SECTION, FLARED
STA. 4+45 RT - STA. 4+82.50 RT EXIT 13 RAMP D
- 621.80 REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 4+45 RT - STA. 4+82.50 RT EXIT 13 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 13 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)

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	PLOT DATE: \$\$\$\$\$\$DATE\$\$\$\$
PROJECT LEADER:	EPD	DRAWN BY: SJB
DESIGNED BY:	JDA	CHECKED BY: EPD
PLOT FILE:	p05a012rds11.dgn	SHEET 35 OF 91

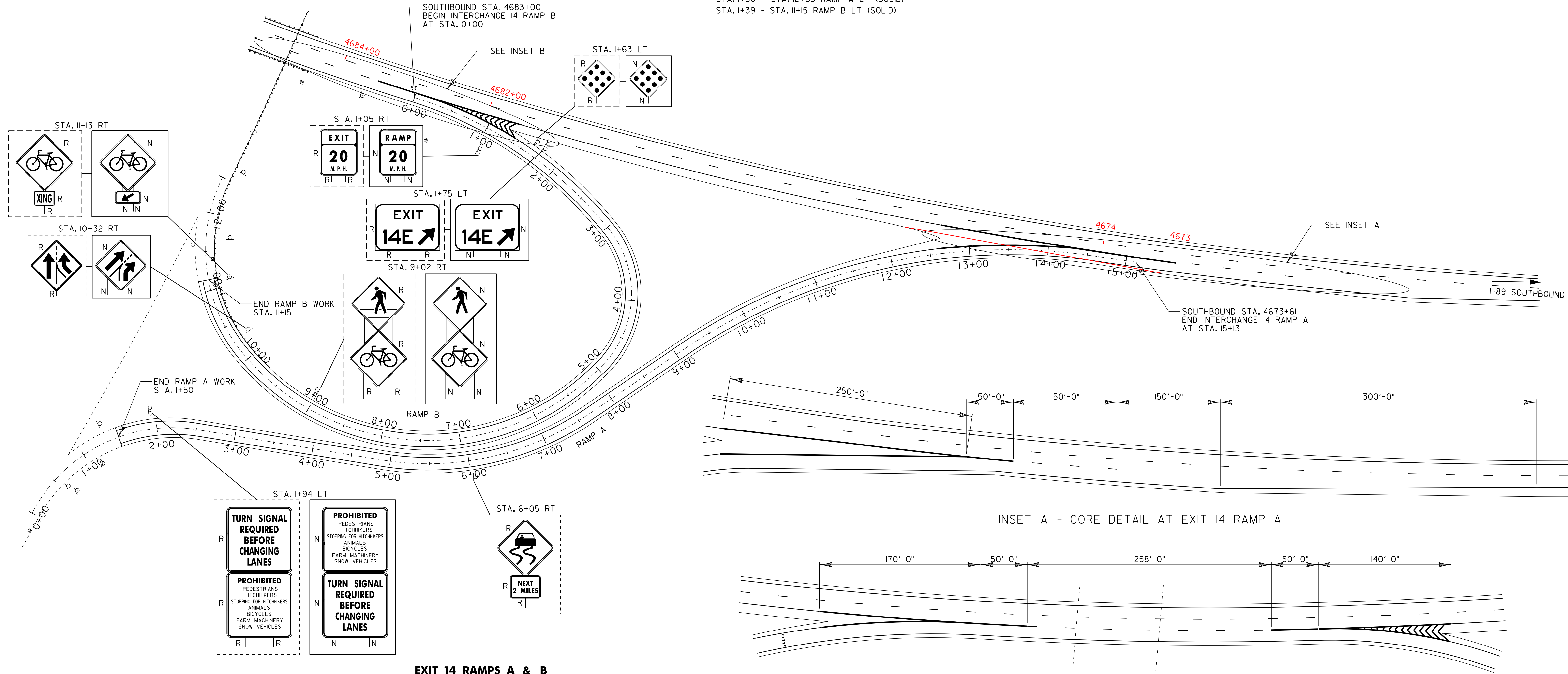
646.622 TEMPORARY 6 INCH WHITE LINE, PAINT
 STA. I+50 - STA. I5+13 RAMP A RT (SOLID)
 STA. 467I+6I - STA. 4673+II SOUTHBOUND LT (DASHED)
 STA. 0+00 - STA. II+I5 RAMP B RT (SOLID)
 STA. 4683+5I - STA. 4686+09 SOUTHBOUND LT (DASHED)
 646.632 TEMPORARY 6 INCH YELLOW LINE, PAINT
 STA. I+50 - STA. I2+65 RAMP A LT (SOLID)
 STA. I+39 - STA. II+I5 RAMP B LT (SOLID)

646.466 DURABLE 12 INCH WHITE LINE, RECESSED
 STA. I+50 - STA. I5+13 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+13 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 12 INCH WHITE LINE, PAINT
 STA. 4673+II - STA. 4676+II SOUTHBOUND LT (SOLID)
 STA. I2+65 - STA. I5+13 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	521	NEAR I-89 END
	358	ALONG MIDDLE OF RAMP
	249	NEAR US2 END
B	302	NEAR I-89 END
	151	ALONG MIDDLE OF RAMP
	302	ALONG MIDDLE OF RAMP
	212	NEAR US2 END

NOTE:

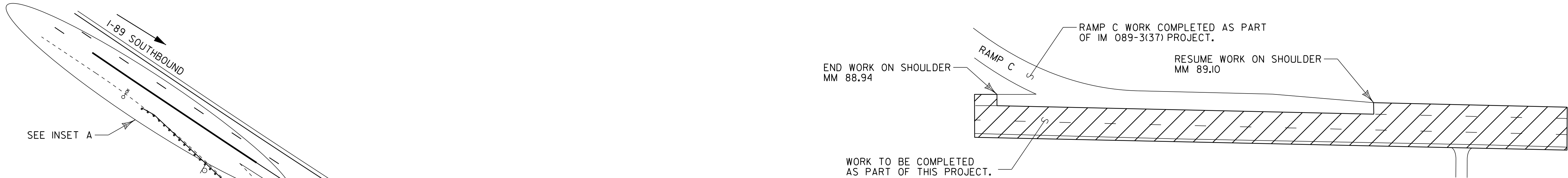
I. ONLY SIGNS BEING REMOVED/REPLACED OR NEW SIGNS ARE SHOWN. SIGNS BEING RETAINED ARE NOT SHOWN.

LEGEND

N = NEW
 R = REMOVE
 B-B = BACK TO BACK
 RET = RETAIN
 REFER TO STANDARDS E-191 & E-192 FOR ADDITIONAL DETAILS.

RAMP DETAIL SHEET 1 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:	p05a012rds12.dgn	SHEET 36 OF 91



INSET A - RAMP C WORK COMPLETED UNDER PREVIOUS CONTRACT

NOTES:

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

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

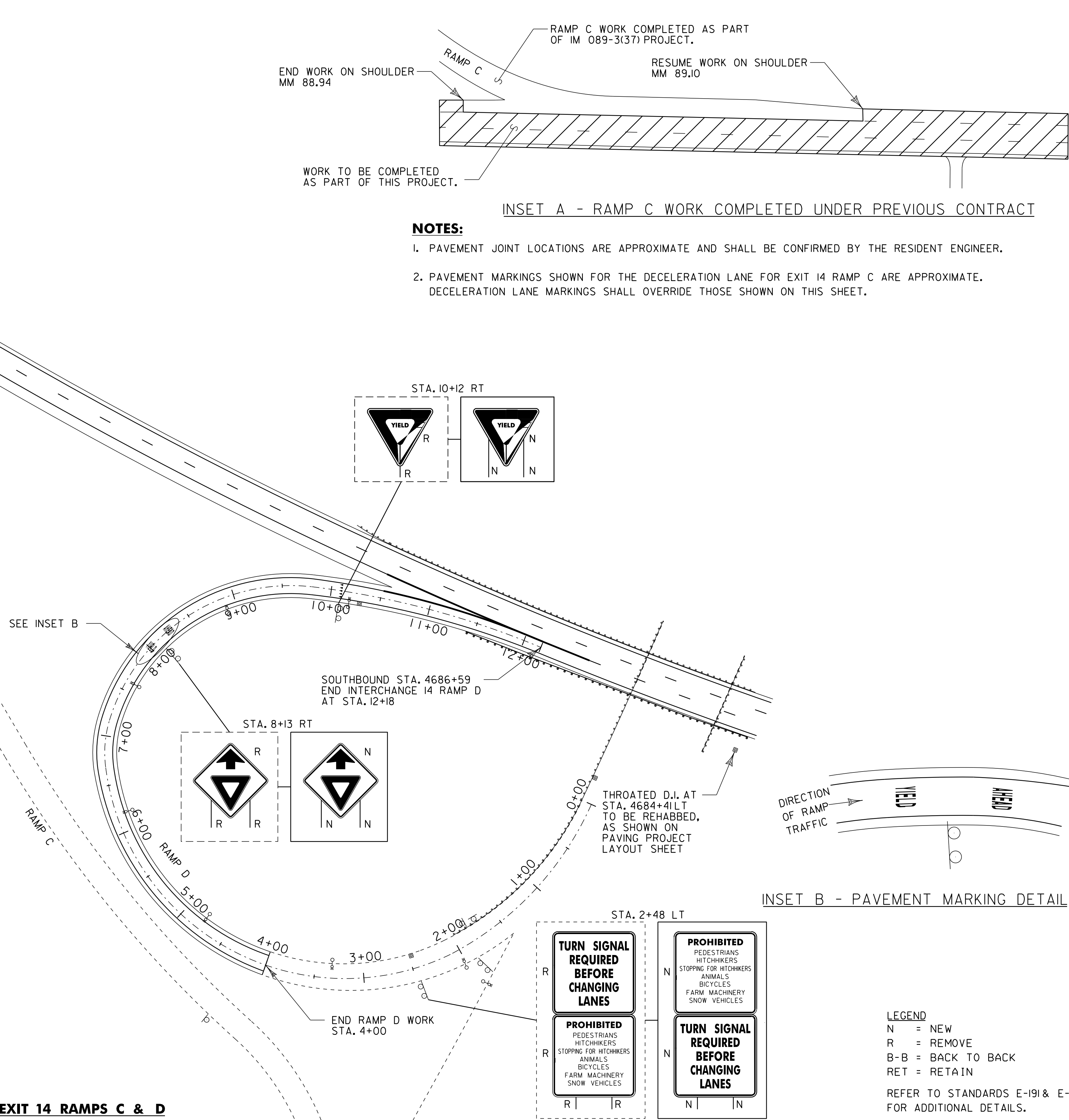
- STA. 7+93 RAMP D "YIELD"
- STA. 8+33 RAMP D "AHEAD"
- STA. 10+12 RAMP D "YIELD TRIANGLE" (5)

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



INSET B - PAVEMENT MARKING DETAIL

EXIT 14 RAMPS C & D

NOTE:

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

RAMP RADII INFORMATION

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

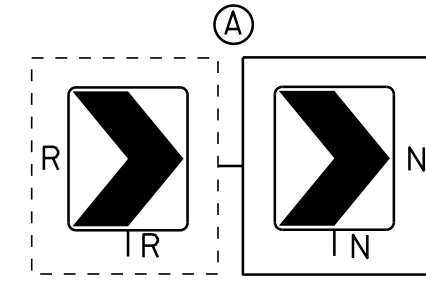
RAMP DETAIL SHEET 2 INTERCHANGE #14

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

LEGEND

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

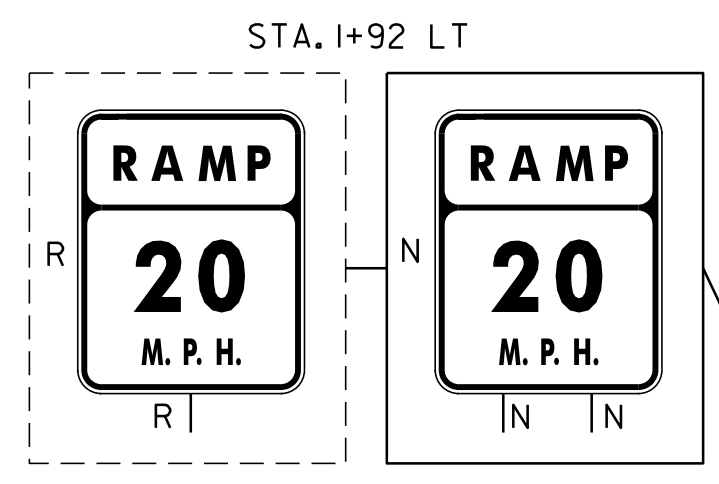
REFER TO STANDARDS E-191 & E-192 FOR ADDITIONAL DETAILS.



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.

END RAMP F WORK
 STA. II+50



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"

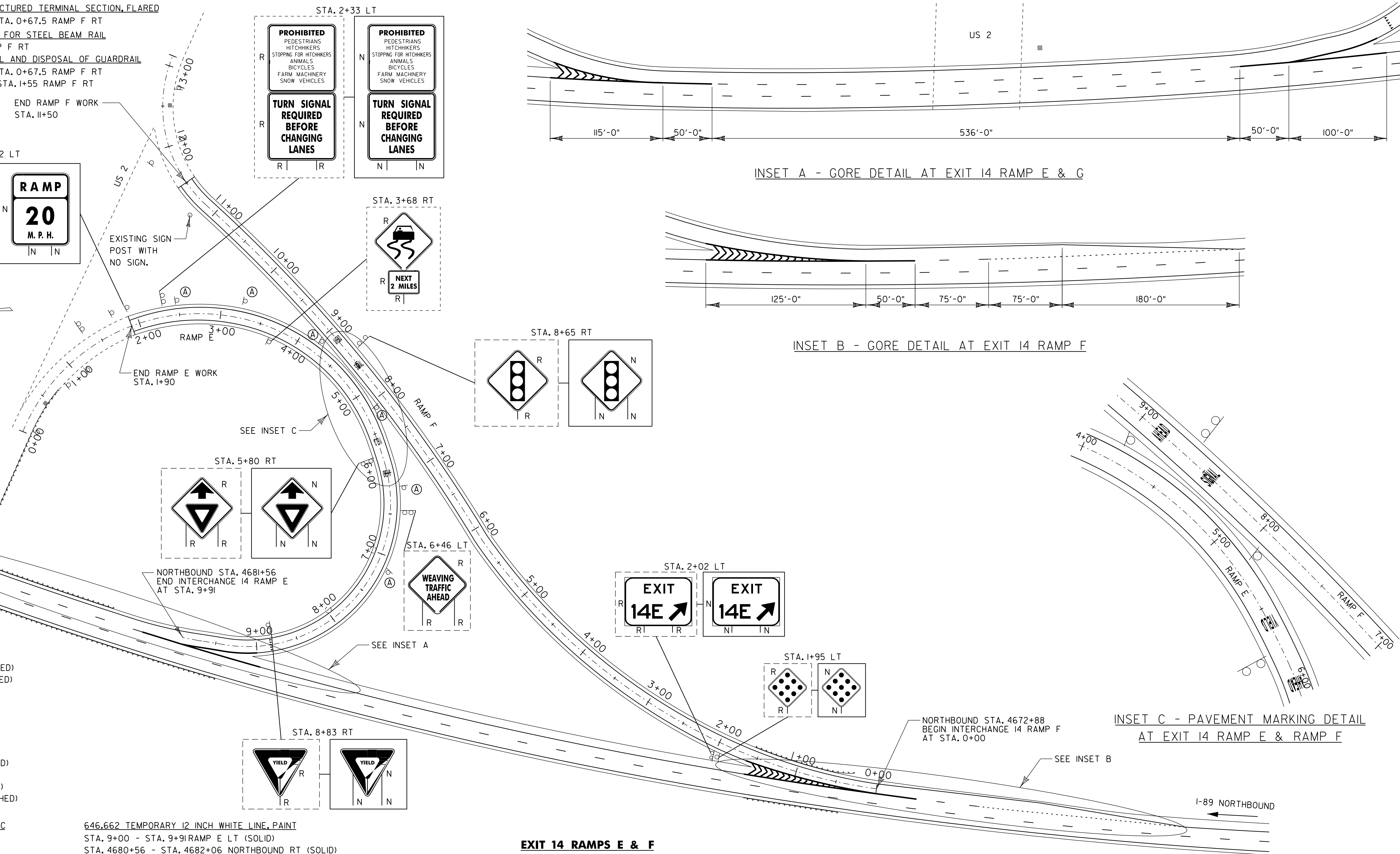
646.622 TEMPORARY 6 INCH WHITE LINE, PAINT
 STA. I+90 - STA. 9+91 RAMP E RT (SOLID)
 STA. 0+00 - STA. II+50 RAMP F RT (SOLID)
 STA. 4669+08 - STA. 4671+63 NORTHBOUND RT (DOTTED)
 STA. 4671+63 - STA. 4672+38 NORTHBOUND RT (DASHED)

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"

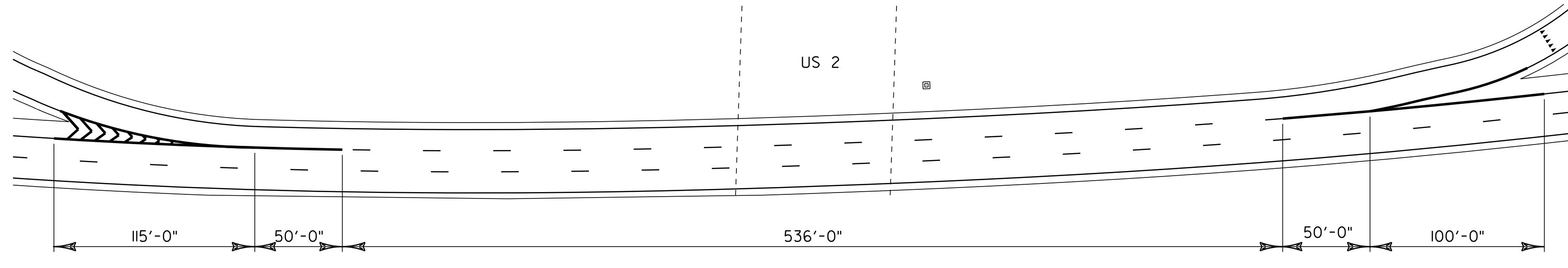
675.50 REMOVING SIGNS
 AS SHOWN - 17



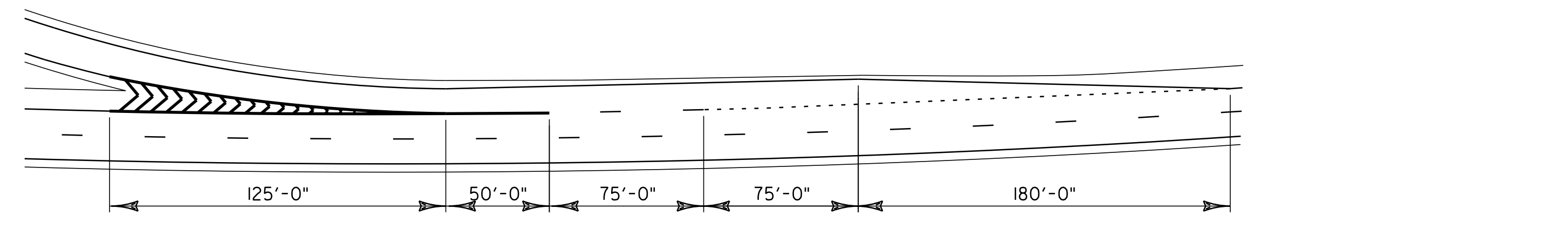
EXIT 14 RAMPS E & F

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

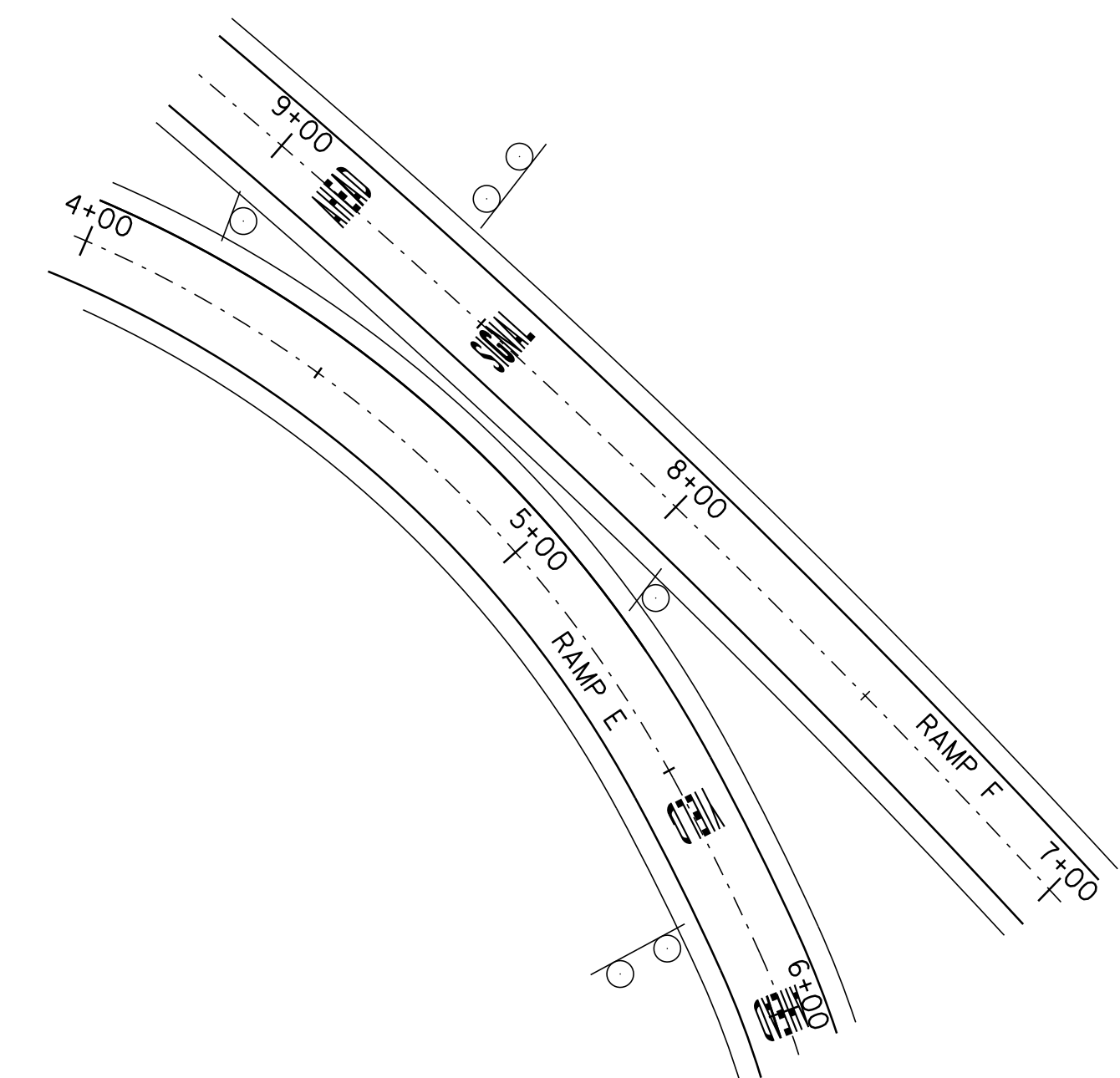
LEGEND
 N = NEW
 R = REMOVE
 B-B = BACK TO BACK
 RET = RETAIN
 REFER TO STANDARDS E-191 & E-192 FOR ADDITIONAL DETAILS.



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



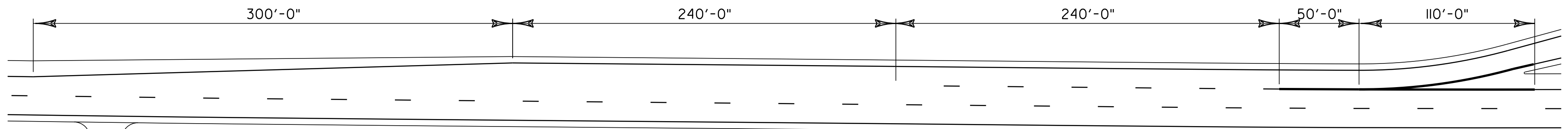
INSET B - GORE DETAIL AT EXIT 14 RAMP F



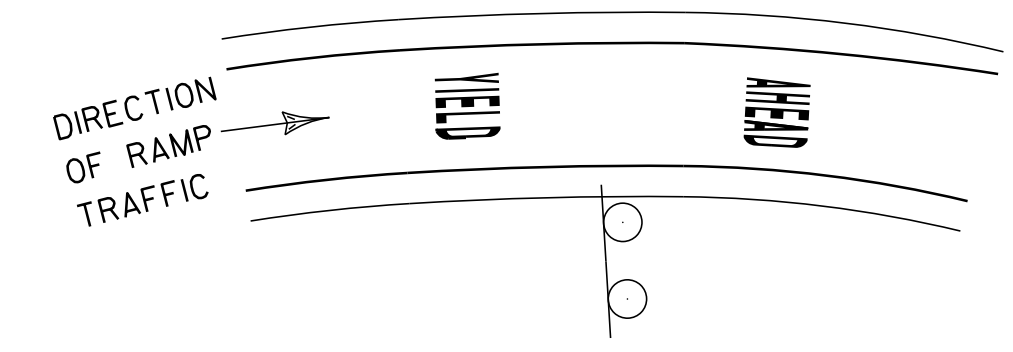
INSET C - PAVEMENT MARKING DETAIL AT EXIT 14 RAMP E & RAMP F

RAMP DETAIL SHEET 3 INTERCHANGE #14

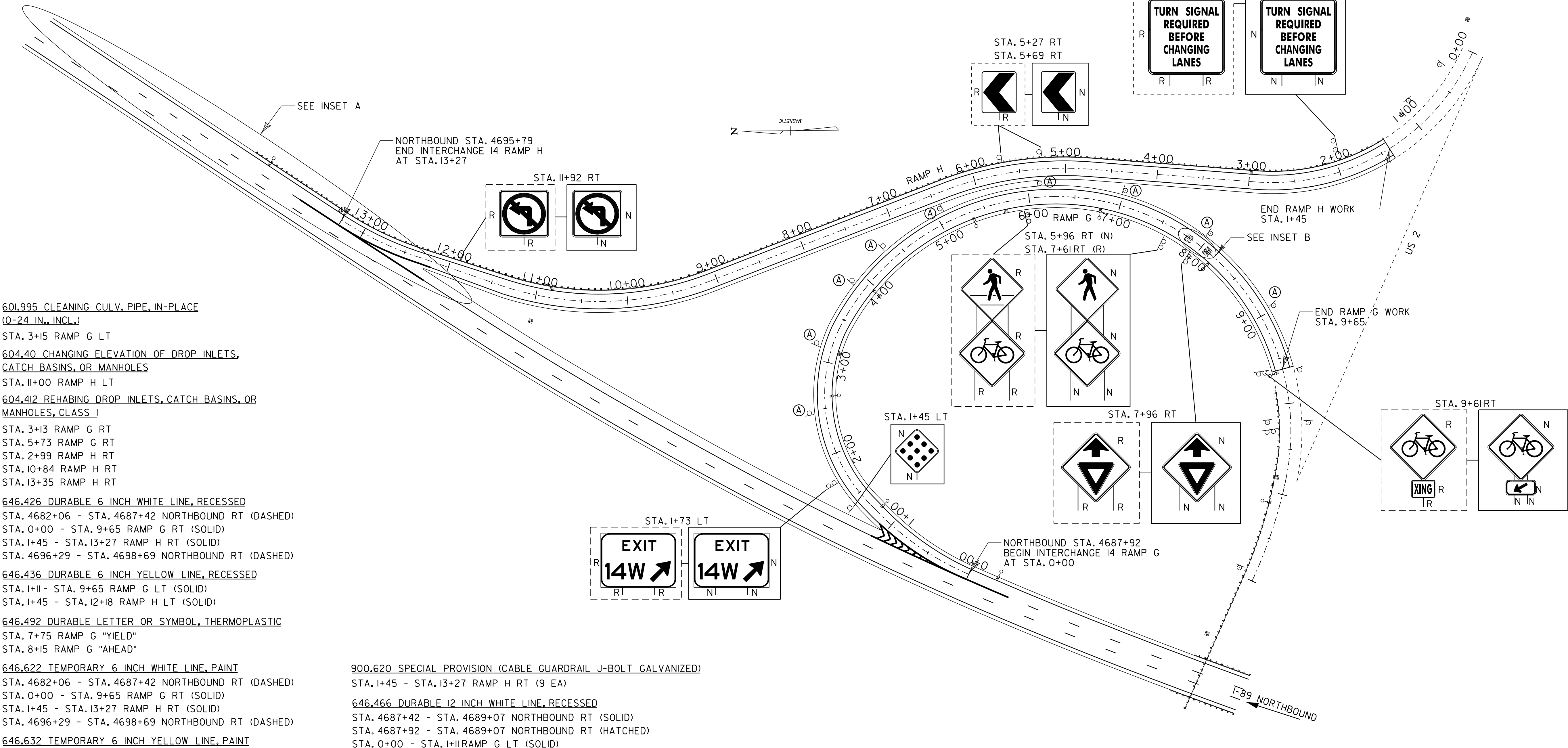
PROJECT NAME: SO. BURLINGTON - COLCHESTER
 PROJECT NUMBER: IM 089-3(60)
 FILE NAME: p05a012.dgn
 PROJECT LEADER: EPD
 DESIGNED BY: JDA
 PLOT FILE: p05a012rds14.dgn
 PLOT DATE: \$\$\$\$\$\$DATE\$\$\$\$\$\$
 DRAWN BY: SJB
 CHECKED BY: EPD
 SHEET 38 OF 91



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:

1. ONLY SIGNS BEING REMOVED/ REPLACED OR NEW SIGNS ARE SHOWN, SIGNS BEING RETAINED ARE NOT SHOWN
2. 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.

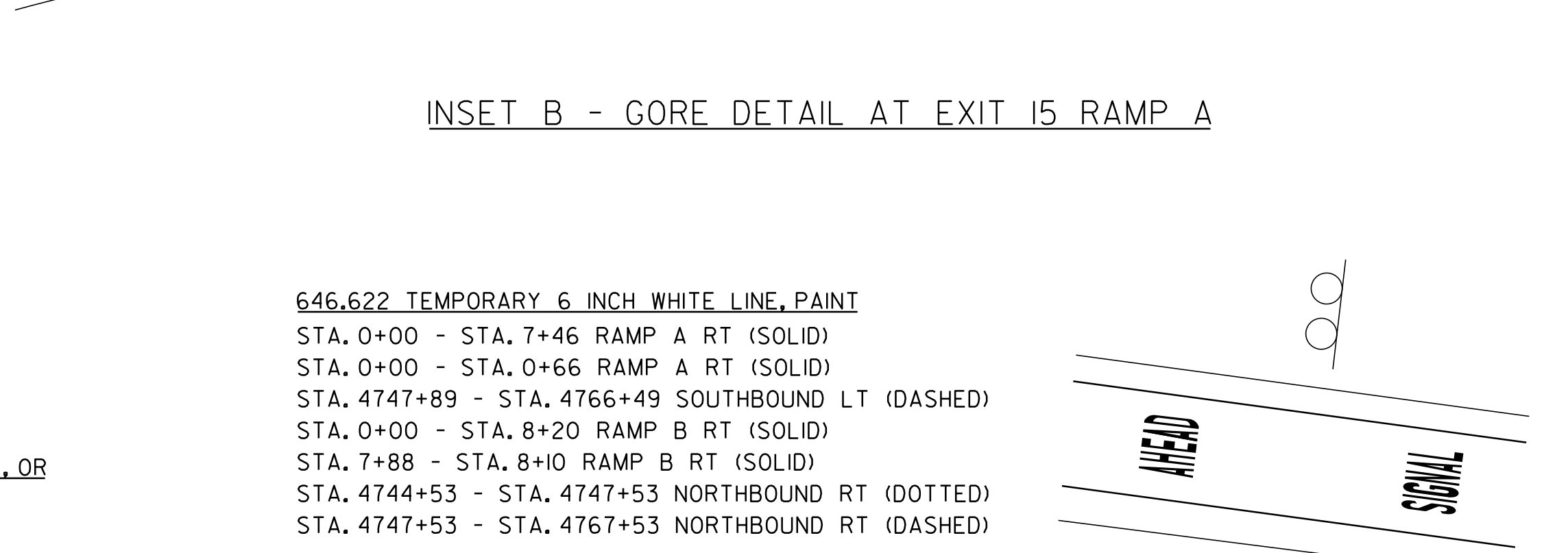
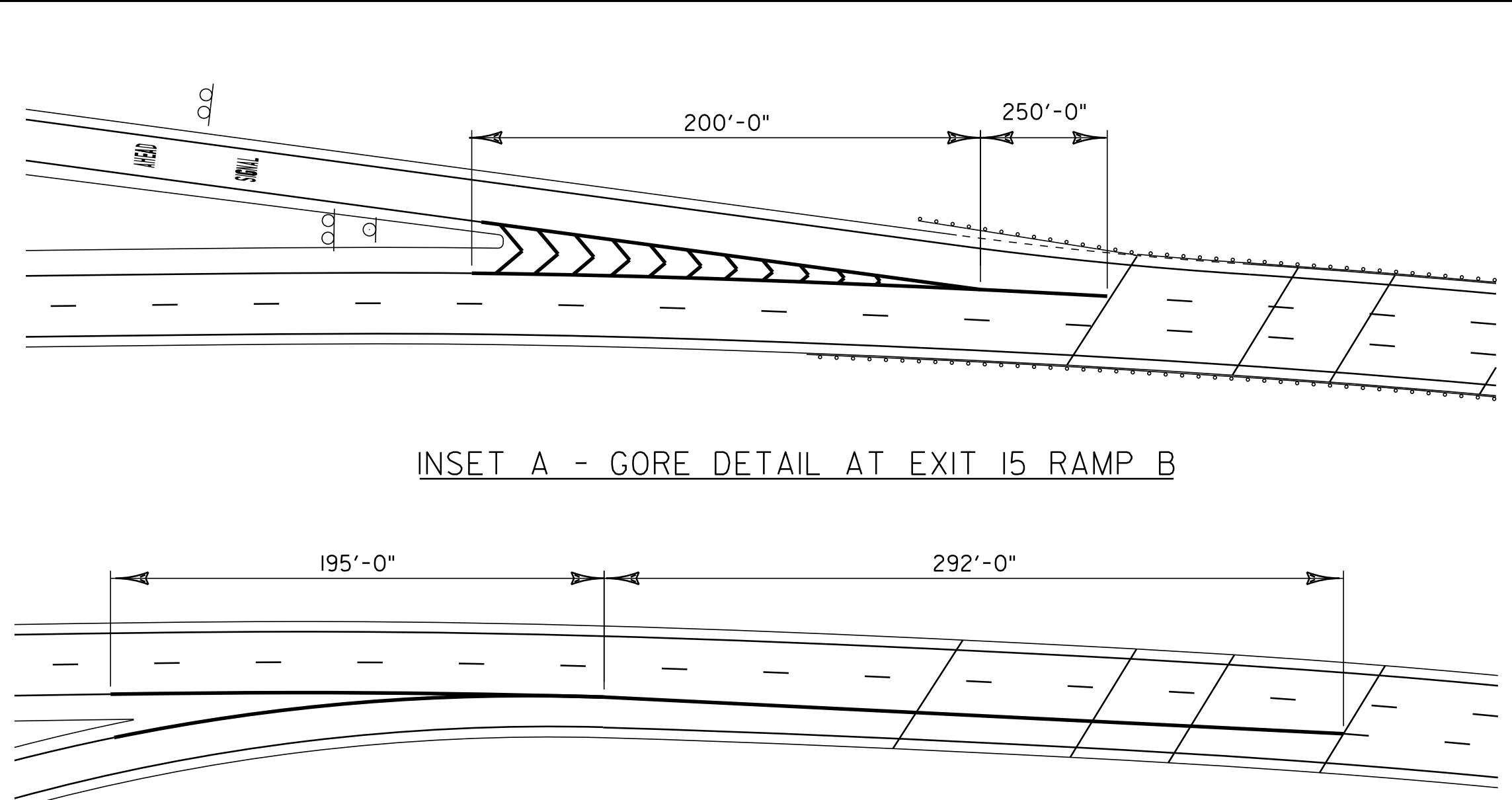
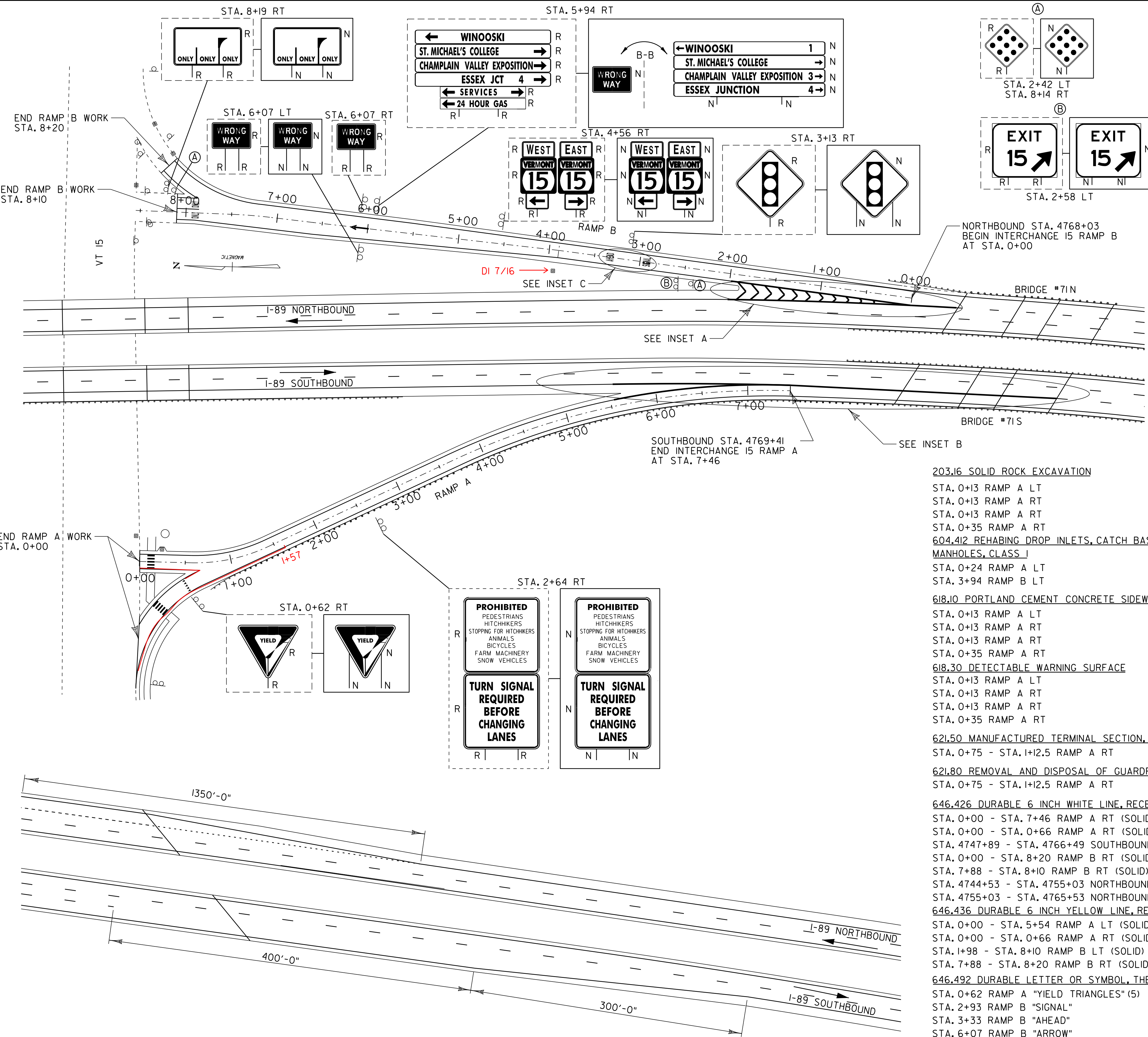
NOTE:
ALL CHEVRONS APPEARING ON RAMPS SHALL BE REMOVED AND REPLACED. PLACEMENT OF NEW CHEVRONS SHALL BE IN ACCORDANCE WITH VTRANS STANDARD DRAWING E-126.

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 4 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: p05a012rds15.dgn	SHEET 39 OF 91



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.

ACCEL/DECEL LANE DETAIL, EXIT 15

RAMP RADII INFORMATION

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

- 203.16 SOLID ROCK EXCAVATION
 STA. 0+13 RAMP A LT
 STA. 0+13 RAMP A RT
 STA. 0+13 RAMP A RT
 STA. 0+35 RAMP A RT
- 604.412 REHABING DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I
 STA. 0+24 RAMP A LT
 STA. 3+94 RAMP B LT
- 618.10 PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
 STA. 0+13 RAMP A LT
 STA. 0+13 RAMP A RT
 STA. 0+13 RAMP A RT
 STA. 0+35 RAMP A RT
- 618.30 DETECTABLE WARNING SURFACE
 STA. 0+13 RAMP A LT
 STA. 0+13 RAMP A RT
 STA. 0+13 RAMP A RT
 STA. 0+35 RAMP A RT
- 621.50 MANUFACTURED TERMINAL SECTION, FLARED
 STA. 0+75 - STA. 1+12.5 RAMP A RT
- 621.80 REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 0+75 - STA. 1+12.5 RAMP A RT
- 646.426 DURABLE 6 INCH WHITE LINE, RECESSED
 STA. 0+00 - STA. 7+46 RAMP A RT (SOLID)
 STA. 0+00 - STA. 0+66 RAMP A RT (SOLID)
 STA. 4747+89 - STA. 4766+49 SOUTHBOUND LT (DASHED)
 STA. 0+00 - STA. 8+20 RAMP B RT (SOLID)
 STA. 7+88 - STA. 8+10 RAMP B RT (SOLID)
 STA. 4744+53 - STA. 4755+03 NORTHBOUND RT (DOTTED)
 STA. 4755+03 - STA. 4765+53 NORTHBOUND RT (DASHED)
- 646.436 DURABLE 6 INCH YELLOW LINE, RECESSED
 STA. 0+00 - STA. 5+54 RAMP A LT (SOLID)
 STA. 0+00 - STA. 0+66 RAMP A RT (SOLID)
 STA. 1+98 - STA. 8+10 RAMP B LT (SOLID)
 STA. 7+88 - STA. 8+20 RAMP B RT (SOLID)
- 646.492 DURABLE LETTER OR SYMBOL, THERMOPLASTIC
 STA. 0+62 RAMP A "YIELD TRIANGLES" (5)
 STA. 2+93 RAMP B "SIGNAL"
 STA. 3+33 RAMP B "AHEAD"
 STA. 6+07 RAMP B "ARROW"
 STA. 7+89 RAMP B LT "ONLY"
 STA. 7+89 RAMP B RT "ONLY"
- 646.502 DURABLE CROSSWALK MARKING, THERMOPLASTIC
 STA. 0+13 RAMP A LT TO RT
 STA. 0+35 RAMP A RT

- 646.622 TEMPORARY 6 INCH WHITE LINE, PAINT
 STA. 0+00 - STA. 7+46 RAMP A RT (SOLID)
 STA. 0+00 - STA. 0+66 RAMP A RT (SOLID)
 STA. 4747+89 - STA. 4766+49 SOUTHBOUND LT (DASHED)
 STA. 0+00 - STA. 8+20 RAMP B RT (SOLID)
 STA. 7+88 - STA. 8+10 RAMP B RT (SOLID)
 STA. 4744+53 - STA. 4747+53 NORTHBOUND RT (DOTTED)
 STA. 4747+53 - STA. 4767+53 NORTHBOUND RT (DASHED)
- 646.632 TEMPORARY 6 INCH YELLOW LINE, PAINT
 STA. 0+00 - STA. 5+54 RAMP A LT (SOLID)
 STA. 0+00 - STA. 0+66 RAMP A RT (SOLID)
 STA. 1+98 - STA. 8+10 RAMP B LT (SOLID)
 STA. 7+88 - STA. 8+20 RAMP B RT (SOLID)
- 646.662 TEMPORARY 12 INCH WHITE LINE, PAINT
 STA. 5+54 - STA. 7+46 RAMP A LT (SOLID)
 STA. 4766+49 - STA. 4771+36 SOUTHBOUND LT (SOLID)
 STA. 4767+53 - STA. 4770+03 NORTHBOUND RT (SOLID)
 STA. 4768+03 - STA. 4770+03 NORTHBOUND RT (HATCHED)
 STA. 0+00 - STA. 1+98 RAMP B LT (SOLID)
- 646.692 TEMPORARY LETTER OR SYMBOL, PAINT
 STA. 0+62 RAMP A "YIELD TRIANGLES" (5)
 STA. 2+93 RAMP B "SIGNAL"
 STA. 3+33 RAMP B "AHEAD"
 STA. 6+07 RAMP B "ARROW"
 STA. 7+89 RAMP B LT "ONLY"
 STA. 7+89 RAMP B RT "ONLY"
- 646.702 TEMPORARY CROSSWALK MARKING, PAINT
 STA. 0+13 RAMP A LT TO RT
 STA. 0+35 RAMP A RT
- 675.50 REMOVING SIGNS
 AS SHOWN - 22
- 646.466 DURABLE 12 INCH WHITE LINE, RECESSED
 STA. 5+54 - STA. 7+46 RAMP A LT (SOLID)
 STA. 4766+49 - STA. 4771+36 SOUTHBOUND LT (SOLID)
 STA. 4767+53 - STA. 4770+03 NORTHBOUND RT (SOLID)
 STA. 4768+03 - STA. 4770+03 NORTHBOUND RT (HATCHED)
 STA. 0+00 - STA. 1+98 RAMP B LT (SOLID)

NOTE:

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

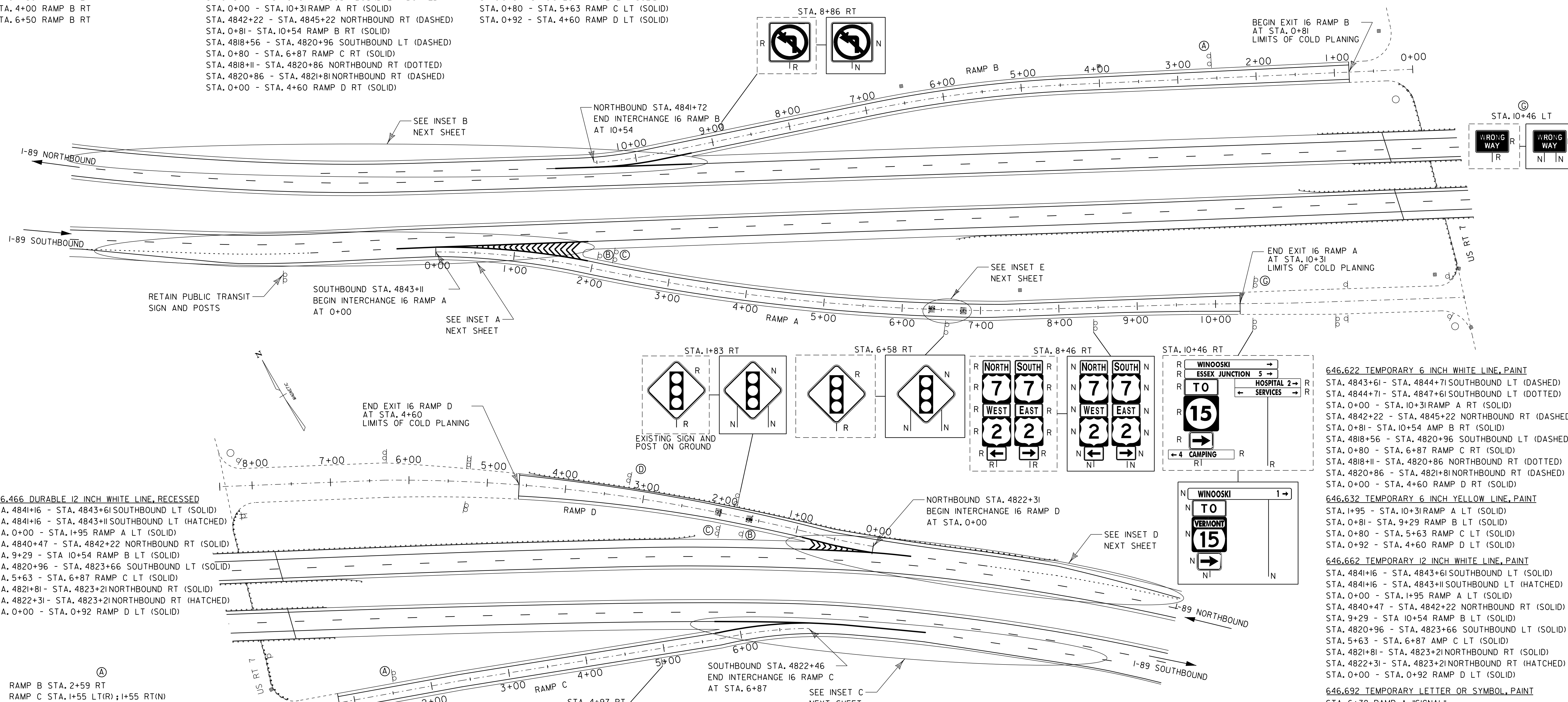
RAMP DETAIL SHEET INTERCHANGE #15

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:	p05a012rds16.dgn	SHEET 40 OF 91

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)

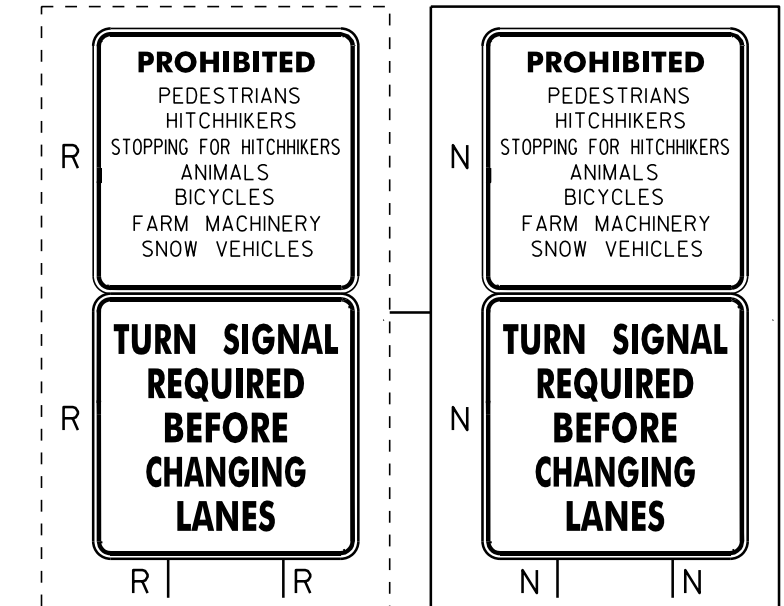
646.632 TEMPORARY 6 INCH YELLOW LINE, PAINT
 STA. 1+95 - STA. 10+31 RAMP A LT (SOLID)
 STA. 0+81 - STA. 9+29 RAMP B LT (SOLID)
 STA. 0+80 - STA. 5+63 RAMP C LT (SOLID)
 STA. 0+92 - STA. 4+60 RAMP D LT (SOLID)

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"

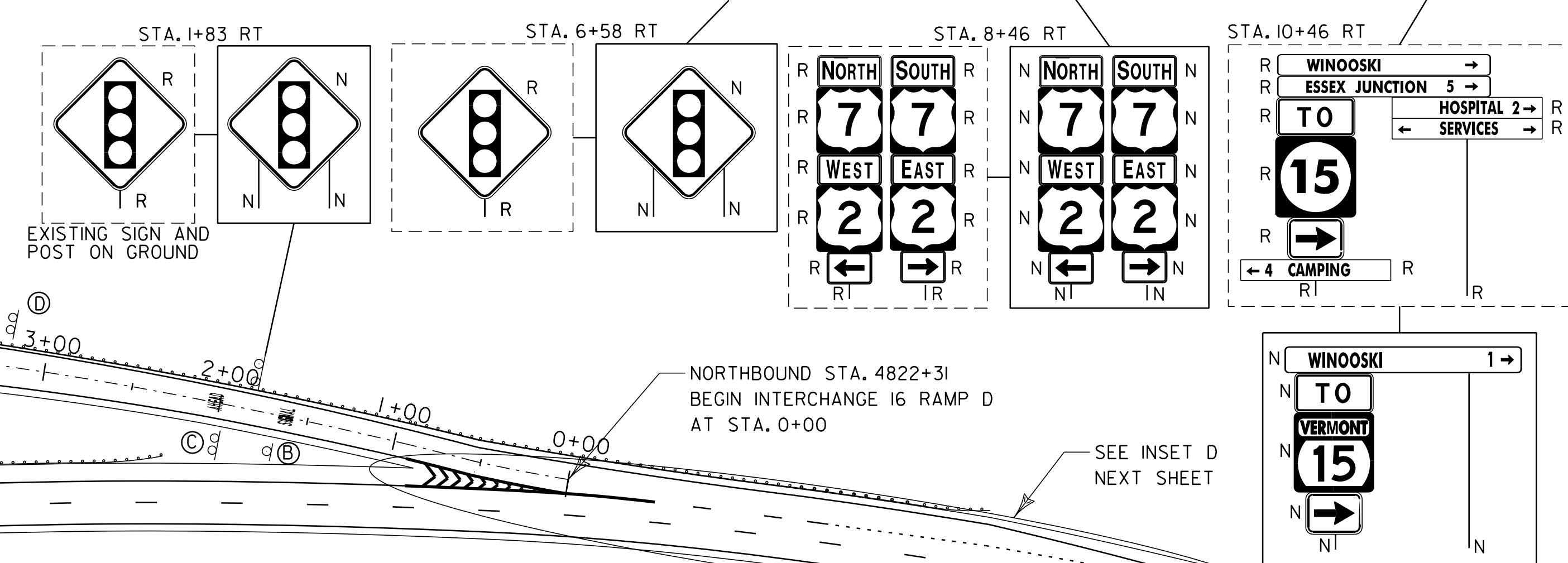
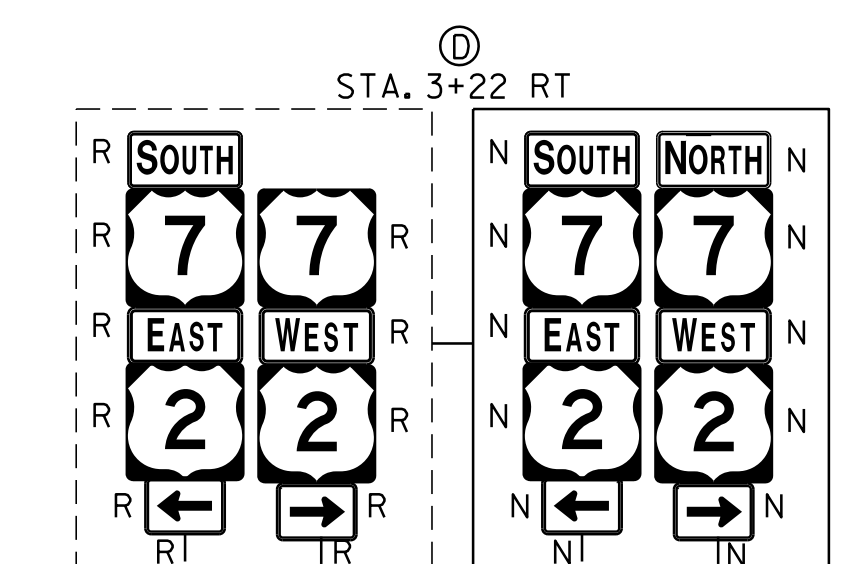
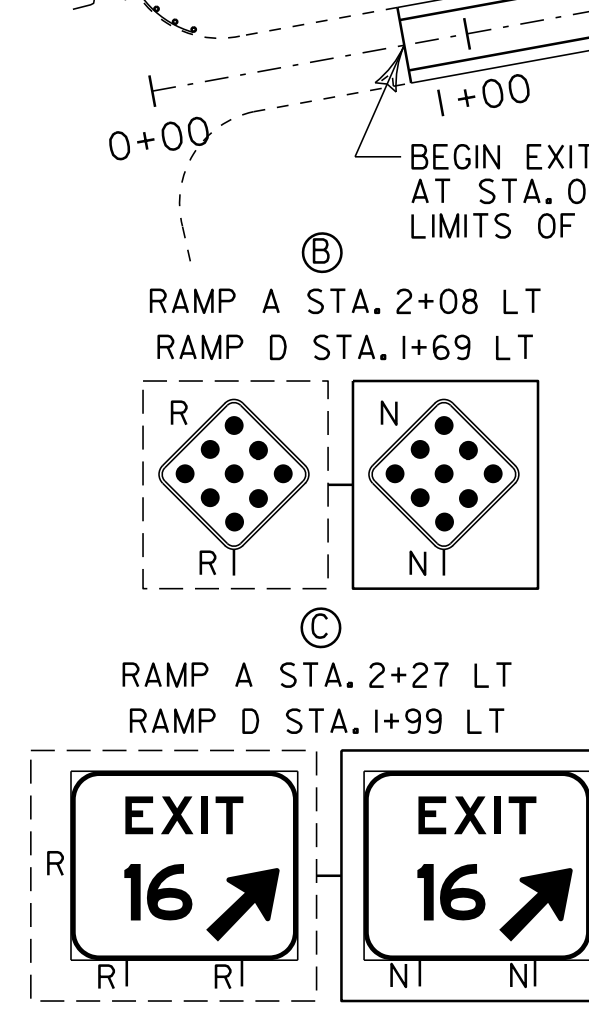
646.492 DURABLE LETTER OR SYMBOL, THERMOPLASTIC
 STA. 6+38 RAMP A "SIGNAL"
 STA. 6+78 RAMP A "AHEAD"
 STA. 1+63 RAMP D "SIGNAL"
 STA. 2+03 RAMP D "AHEAD"

RAMP B STA. 2+59 RT
 RAMP C STA. 1+55 LT(R); 1+55 RT(N)



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.

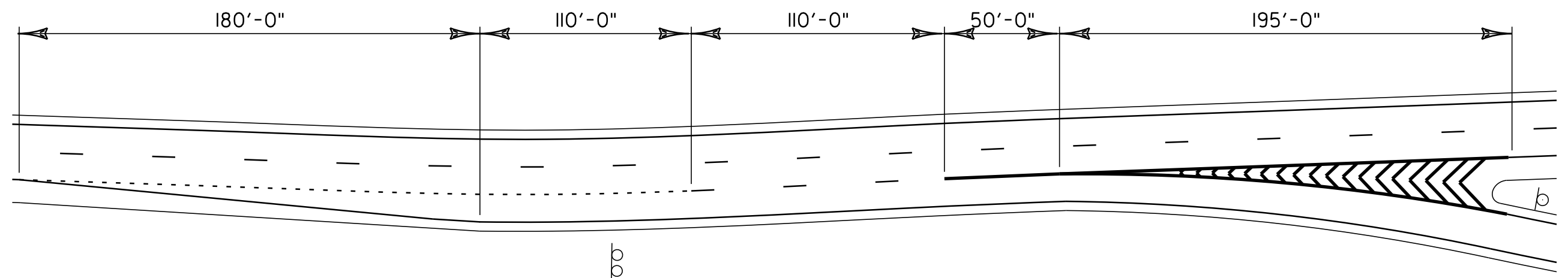
675.50 REMOVING SIGNS
 AS SHOWN - 40

RAMP DETAIL SHEET 1 INTERCHANGE #16

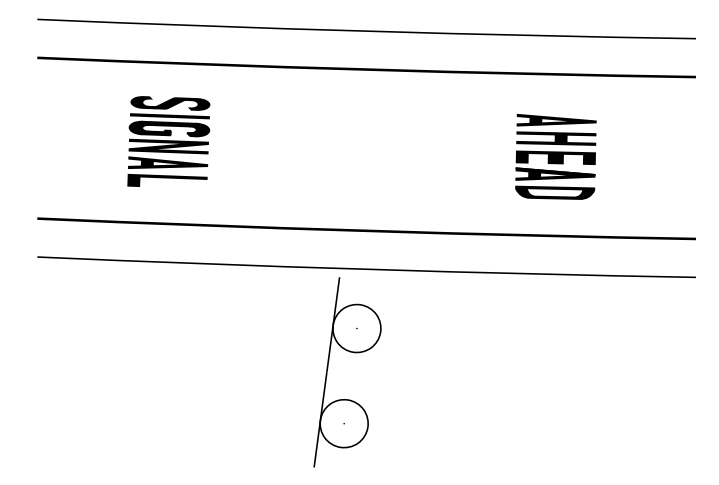
PROJECT NAME: SO. BURLINGTON - COLCHESTER
 PROJECT NUMBER: IM 089-3(60)

FILE NAME: p05a012.dgn
 PROJECT LEADER: EPD
 DESIGNED BY: JDA
 PLOT FILE: p05a012rds17.dgn

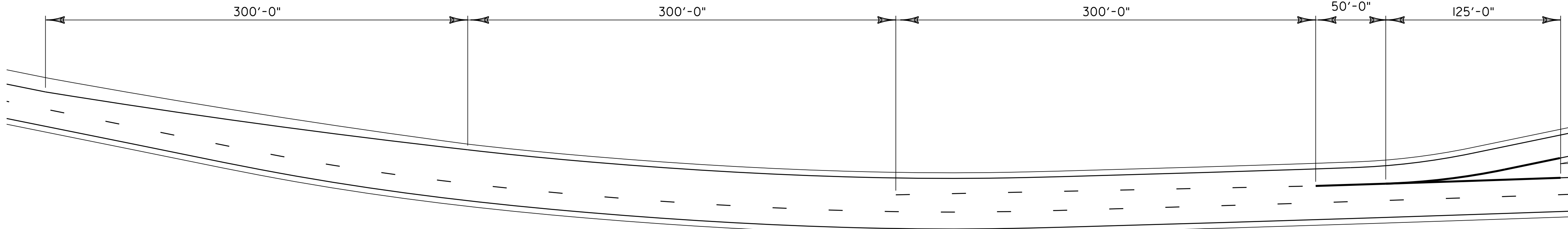
PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
 DRAWN BY: SJB
 CHECKED BY: EPD
 SHEET 41 OF 91



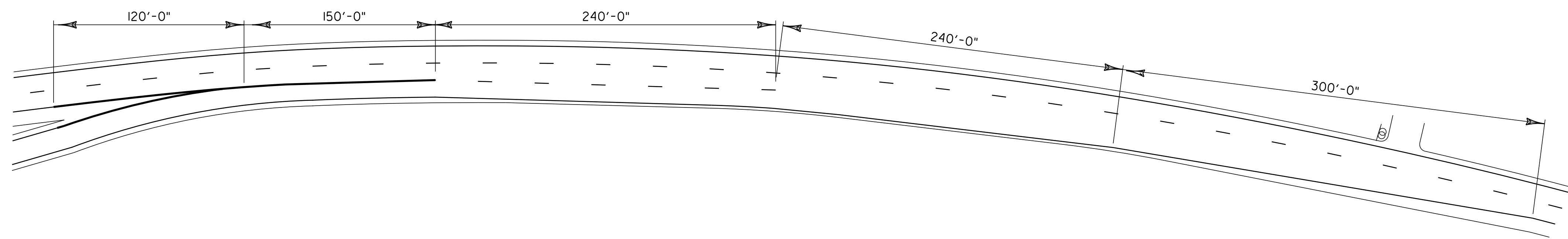
INSET A - GORE DETAIL AT EXIT 16 RAMP A



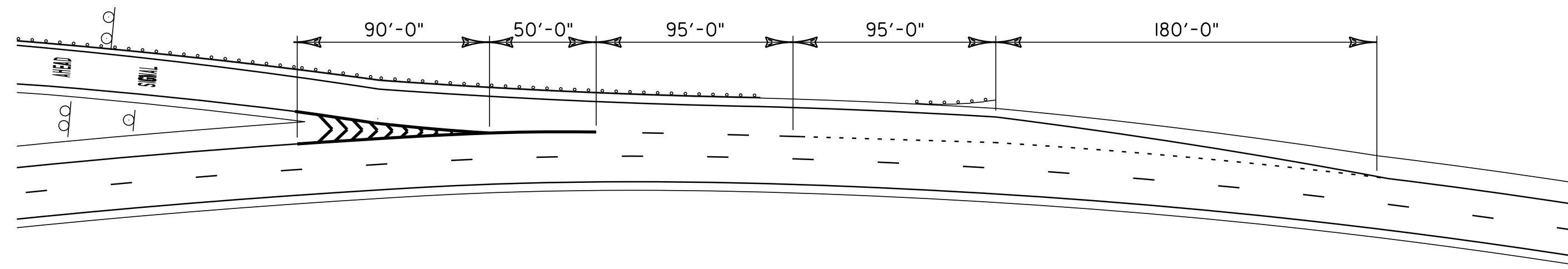
INSET E - EXIT 16 RAMP A



INSET B - GORE DETAIL AT EXIT 16 RAMP B



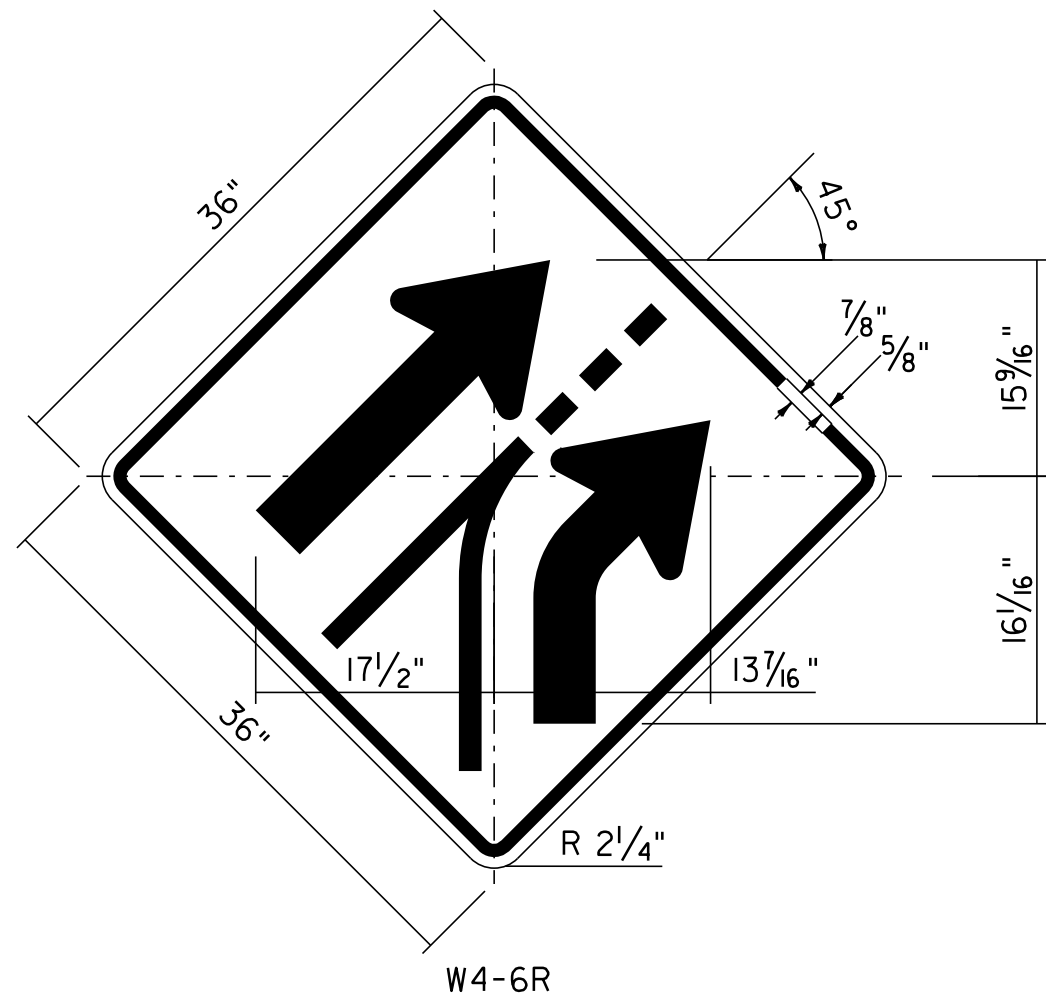
INSET C - GORE DETAIL AT EXIT 16 RAMP C



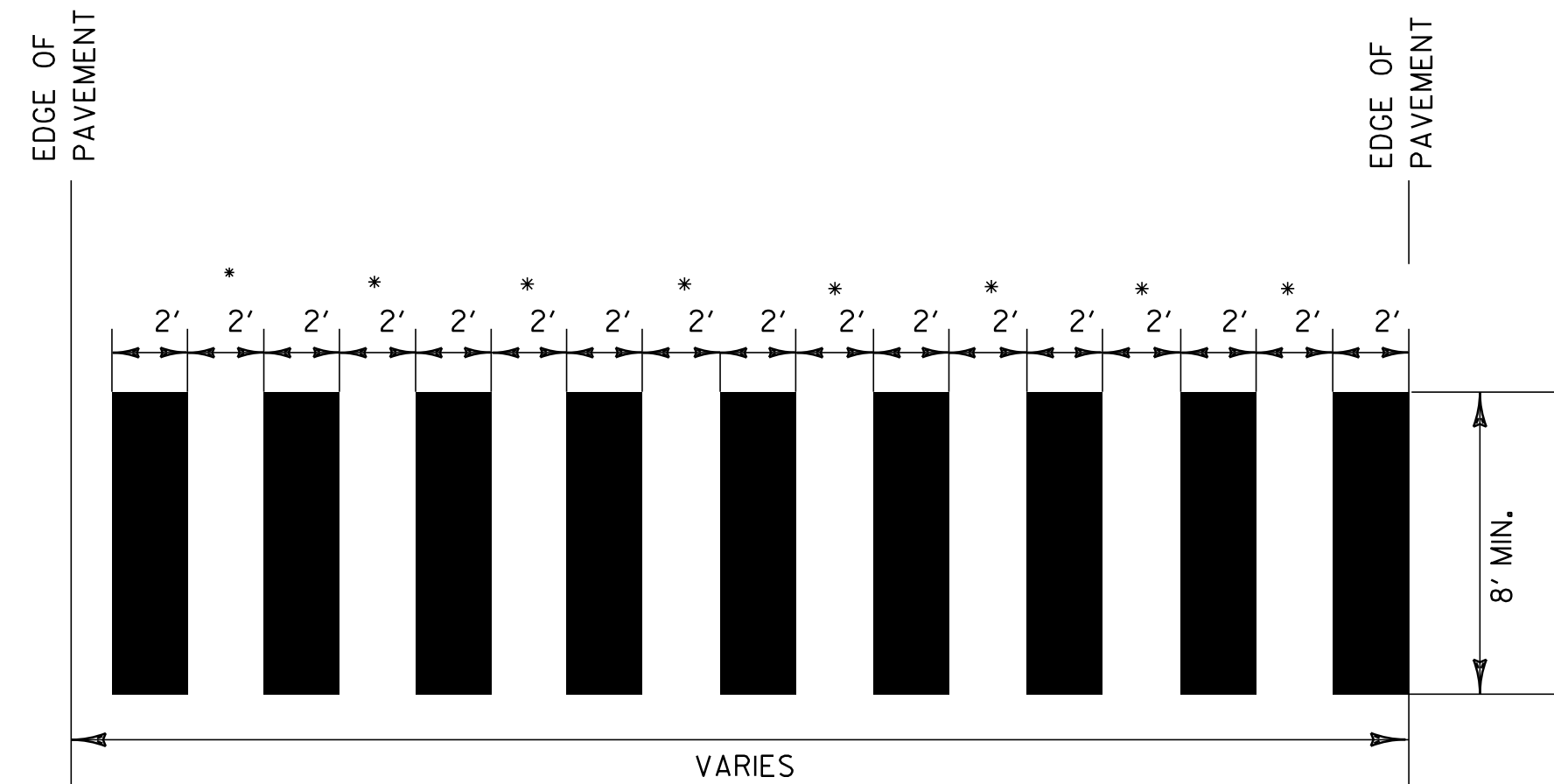
INSET D - GORE DETAIL AT EXIT 16 RAMP D

**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

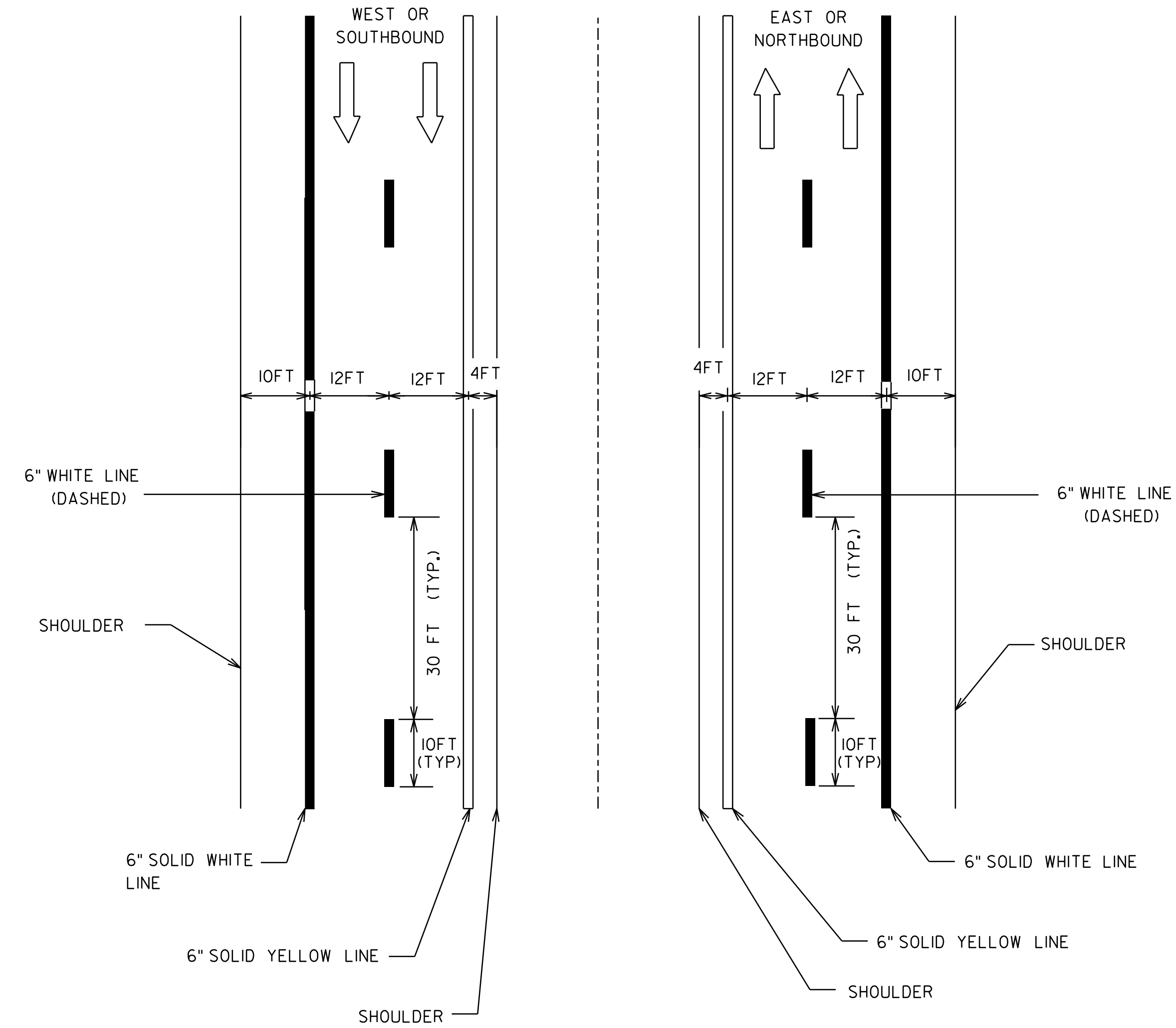


W4-6R
 BORDER & ARROW - BLACK
 BACKGROUND - YELLOW (RETROREFLECTIVE)

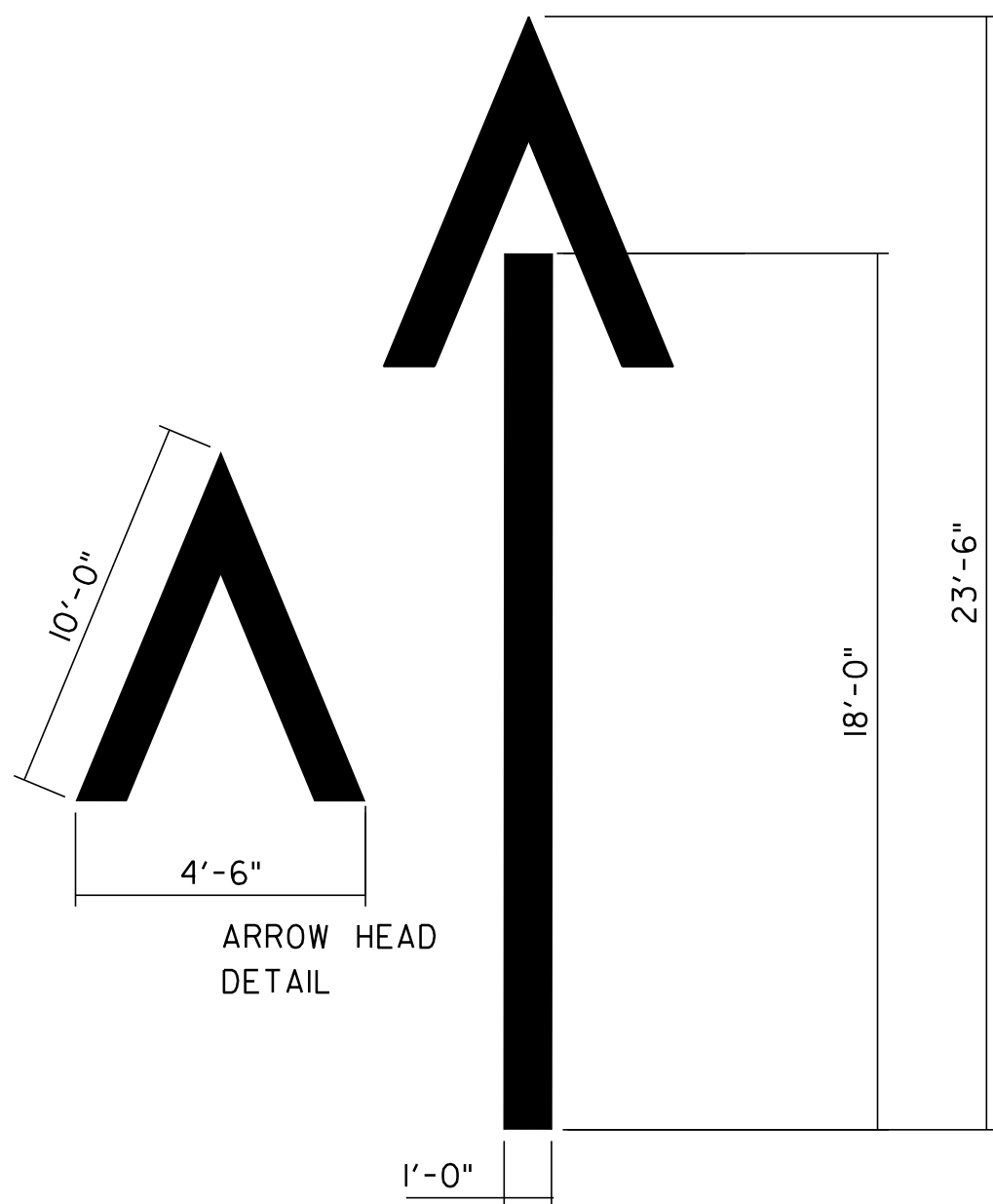


• ADJUST SPACING (12'-24') TO AVOID WHEEL PATHS

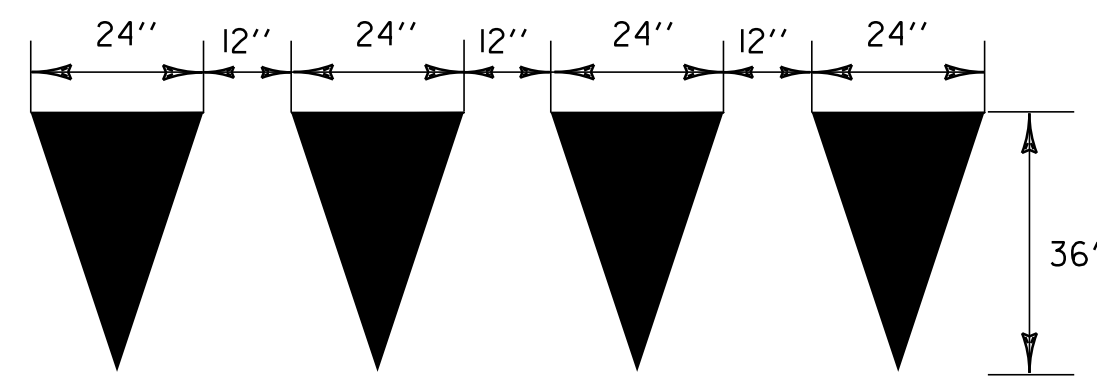
BLOCK PATTERN CROSSWALK DETAIL



TYPICAL MAINLINE MARKING PLAN



WRONG WAY ARROW

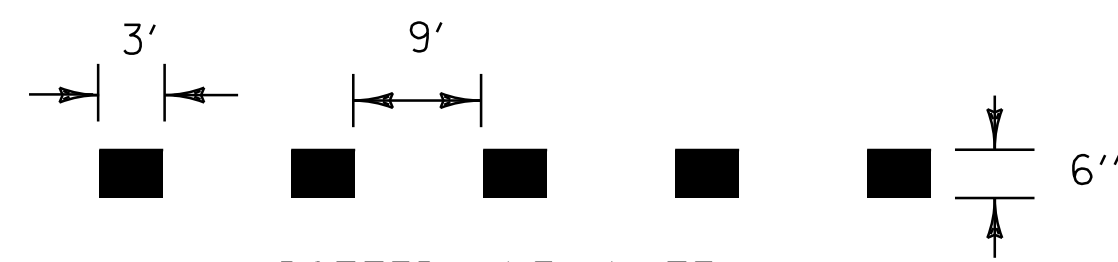


YIELD TRIANGLES DETAILS

TO BE PAID AS ONE LETTER OR SYMBOL PER TRIANGLE.

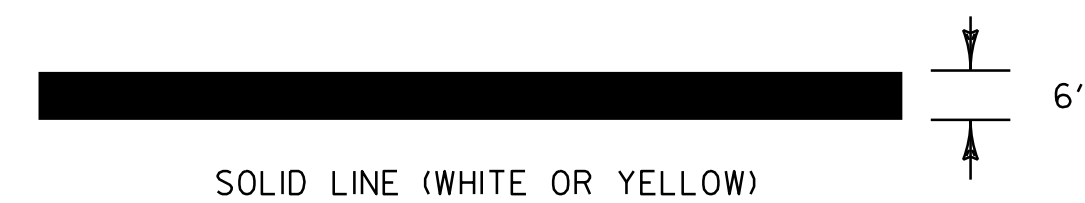


STOP BAR DETAIL



DOTTED LINE (WHITE) *

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



SOLID LINE (WHITE OR YELLOW)



CHANNELIZING LINE (WHITE)

LEGEND

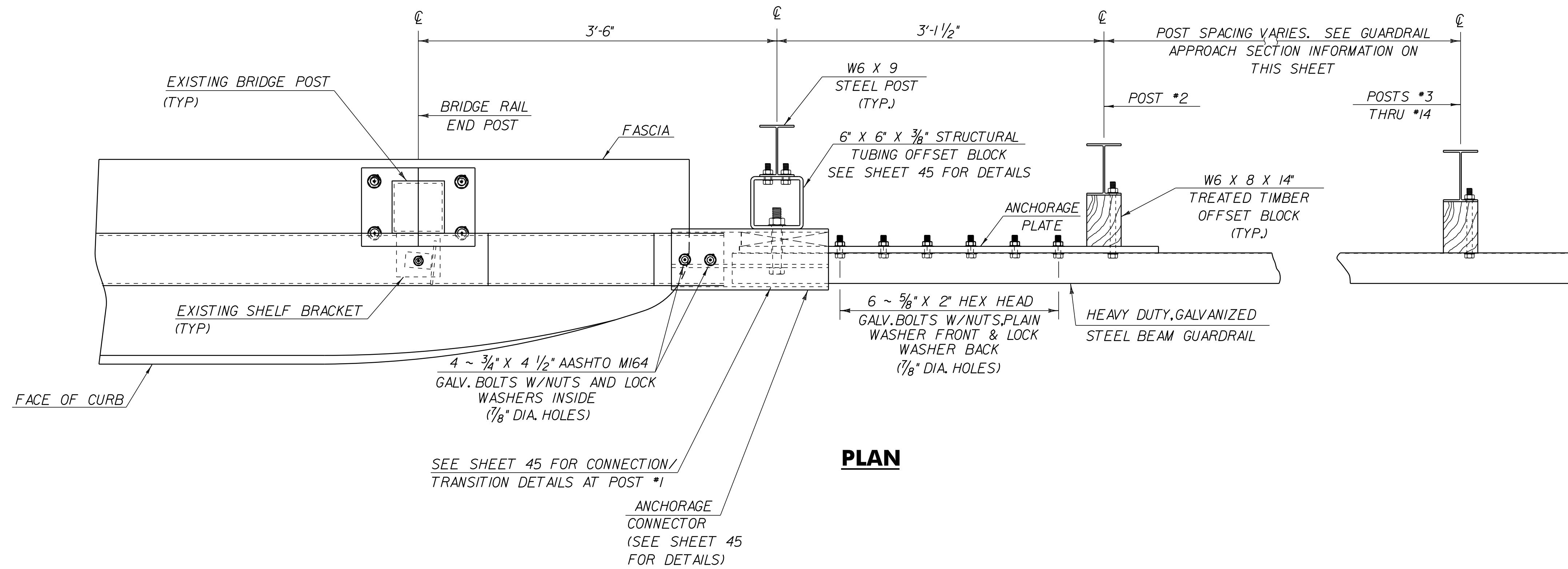
- 6" WHITE LINES
- 6" YELLOW LINES
- DIRECTION OF TRAFFIC FLOW

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

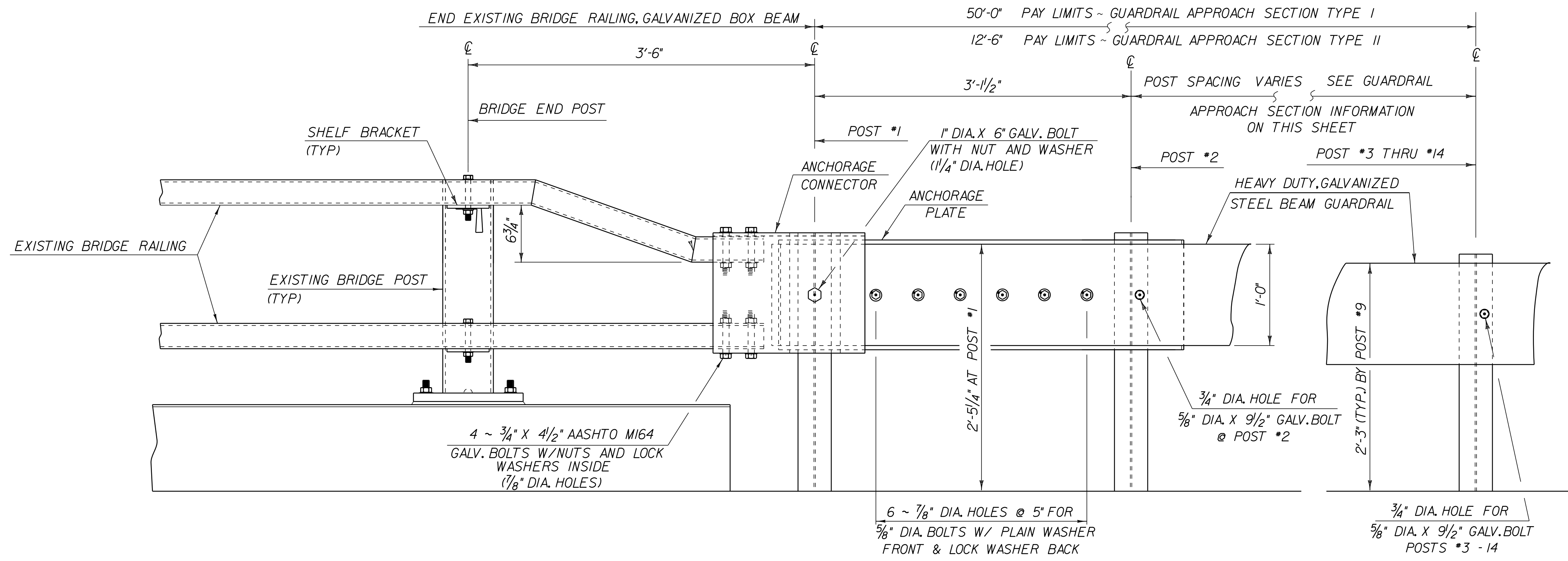


PLAN

**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"

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

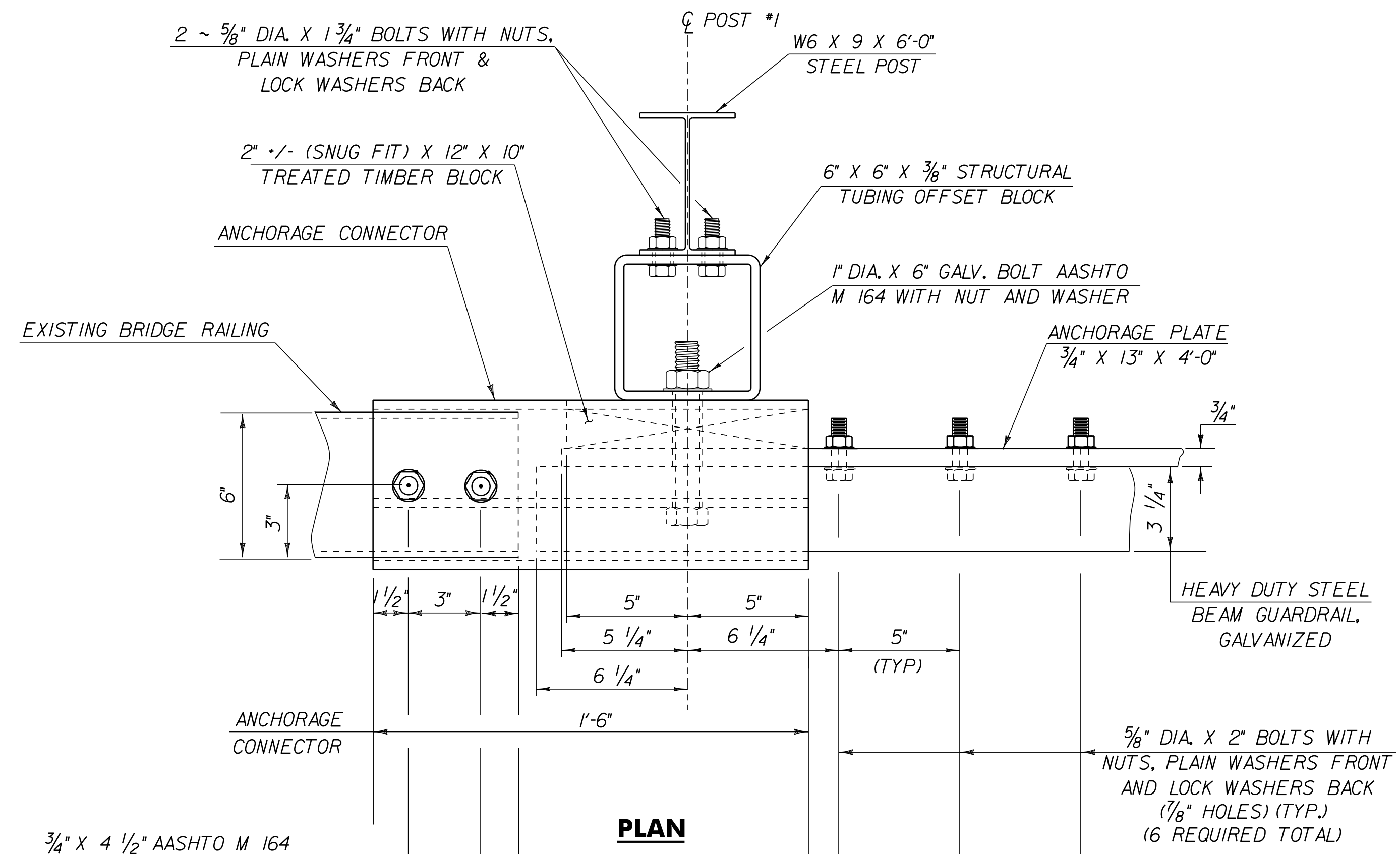
GUARDRAIL APPROACH SECTION DETAIL

DETAILS ARE NOT TO SCALE

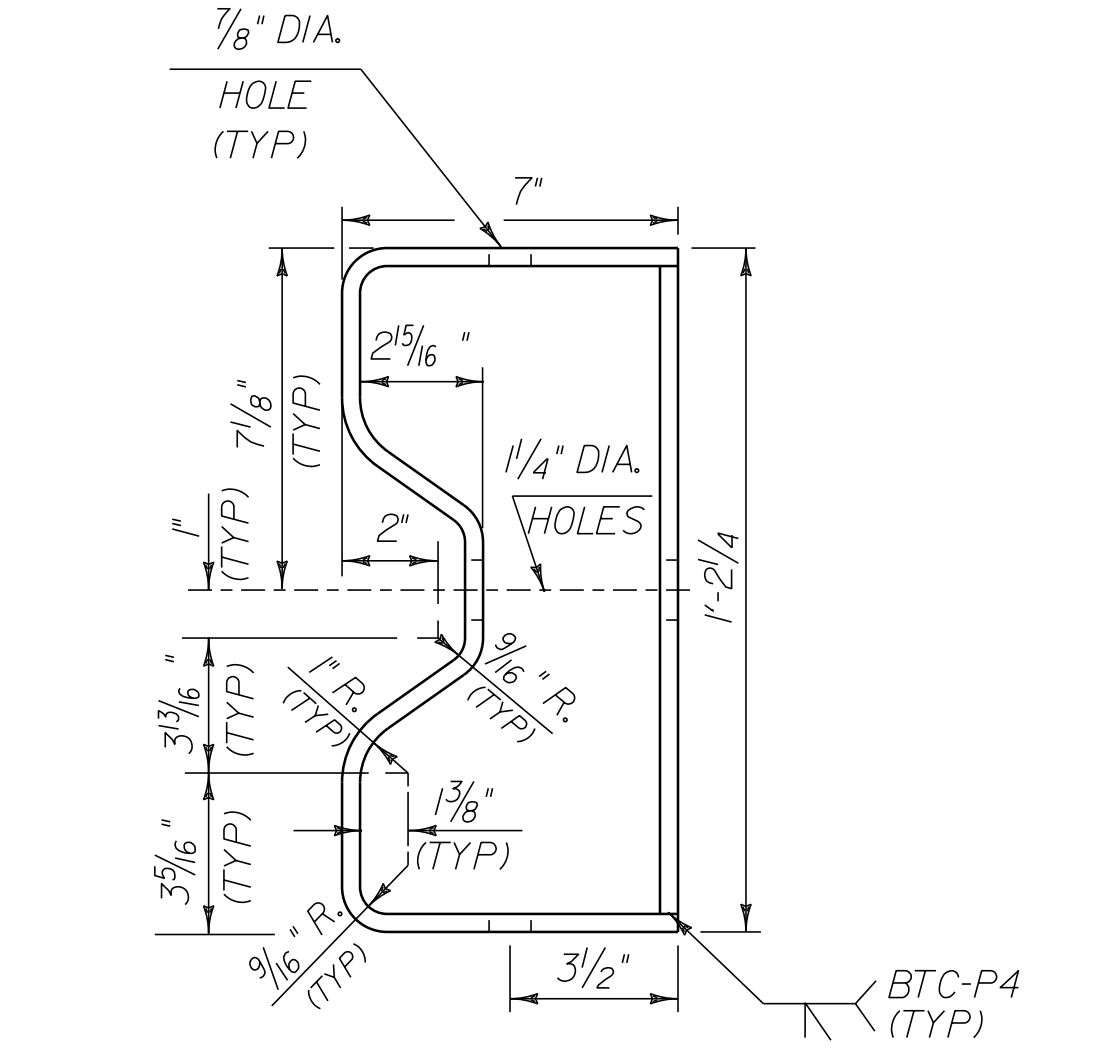
GUARDRAIL APPROACH SECTION DETAIL SHEET 1	PROJECT NAME: SO. BURLINGTON - COLCHESTER	PLOT DATE: \$\$\$\$\$\$DATE\$\$\$\$
	PROJECT NUMBER: IM 089-3(60)	DRAWN BY: SANZ
	FILE NAME: p05a012.dgn	CHECKED BY: EPD
	DESIGNED BY: JDA	SHEET 44 OF 91
	PLOT FILE: p05a012gasdsl.i	

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.

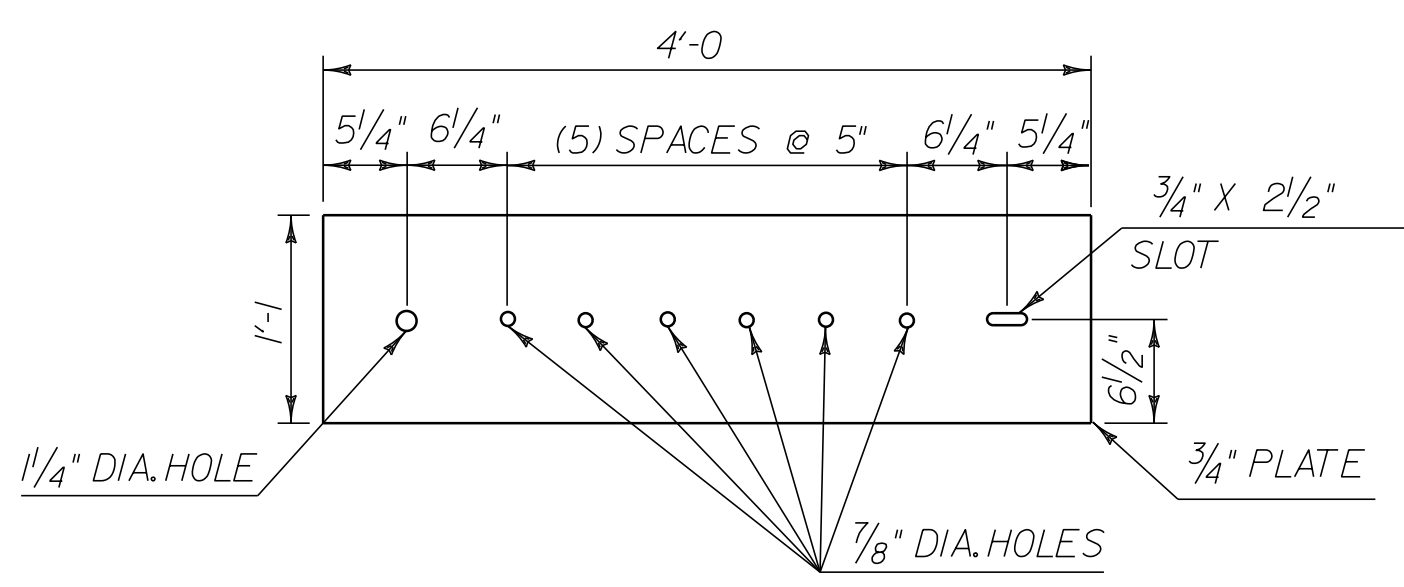


PLAN

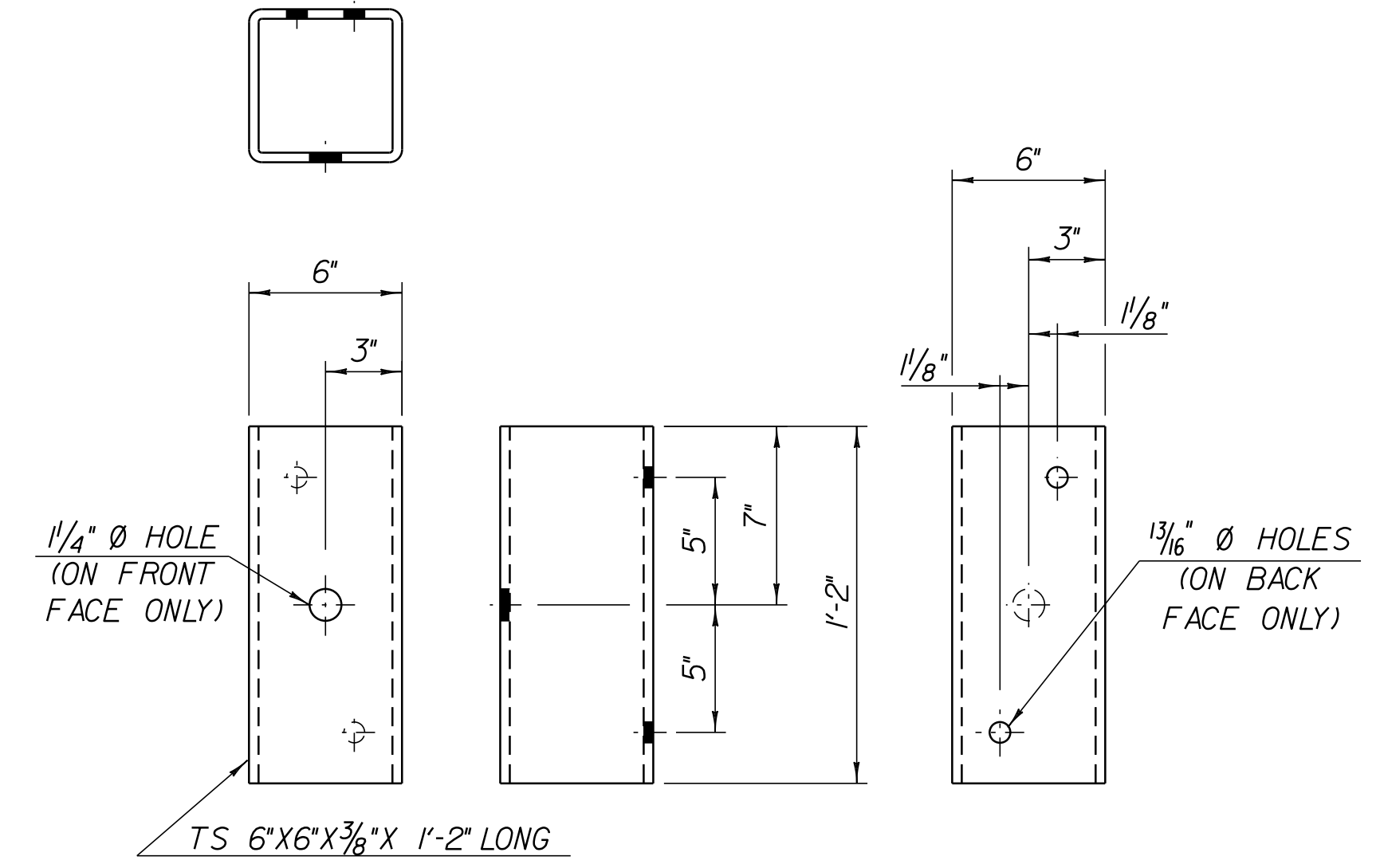


ANCHORAGE CONNECTOR DETAIL

(SEE NOTE 8)

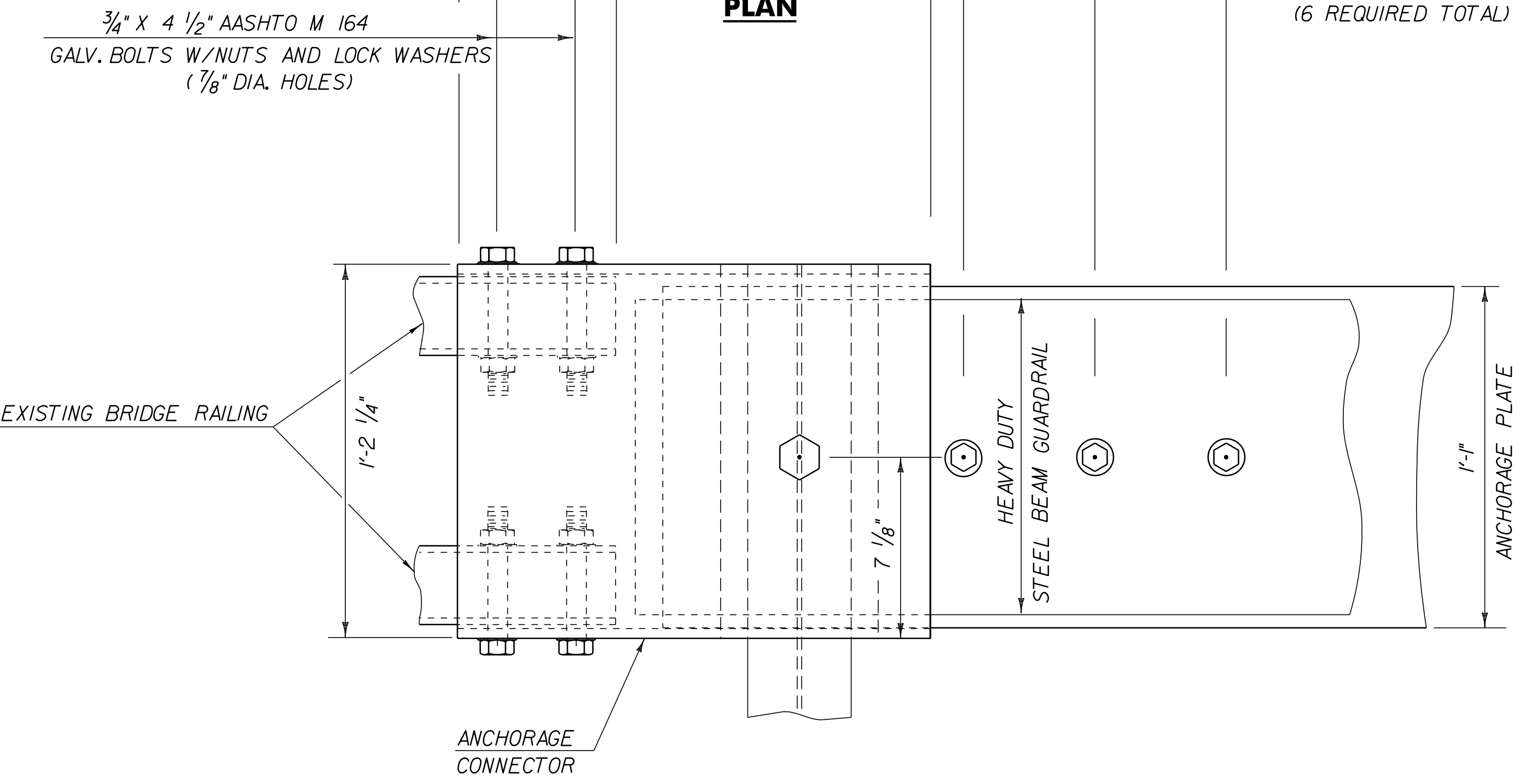


ANCHOR PLATE DETAIL



STRUCTURAL TUBING OFFSET BLOCK DETAILS

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



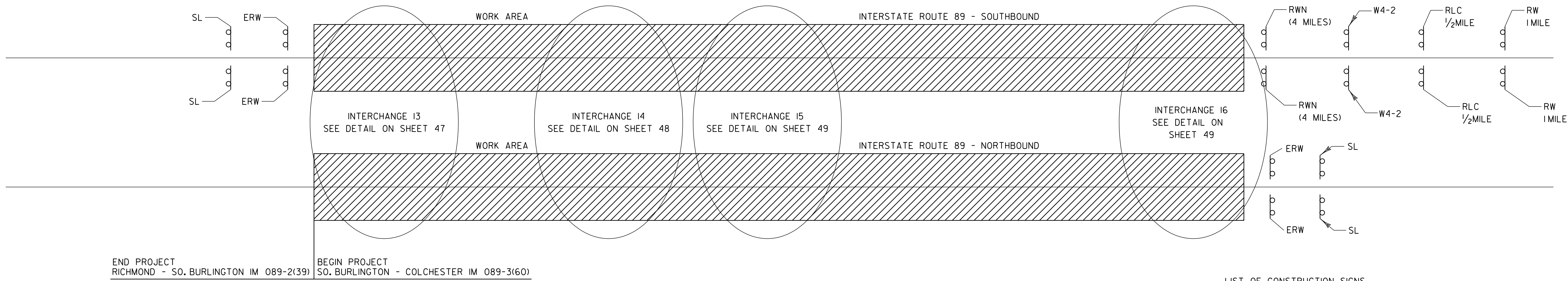
ELEVATION

CONNECTION/TRANSITION DETAILS AT POST NO. 1

DETAILS ARE NOT TO SCALE

GUARDRAIL APPROACH SECTION 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: SANZ
DESIGNED BY:	JDA	CHECKED BY: EPD
PLOT FILE:	p05a012gasds2.i	SHEET 45 OF 91



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".

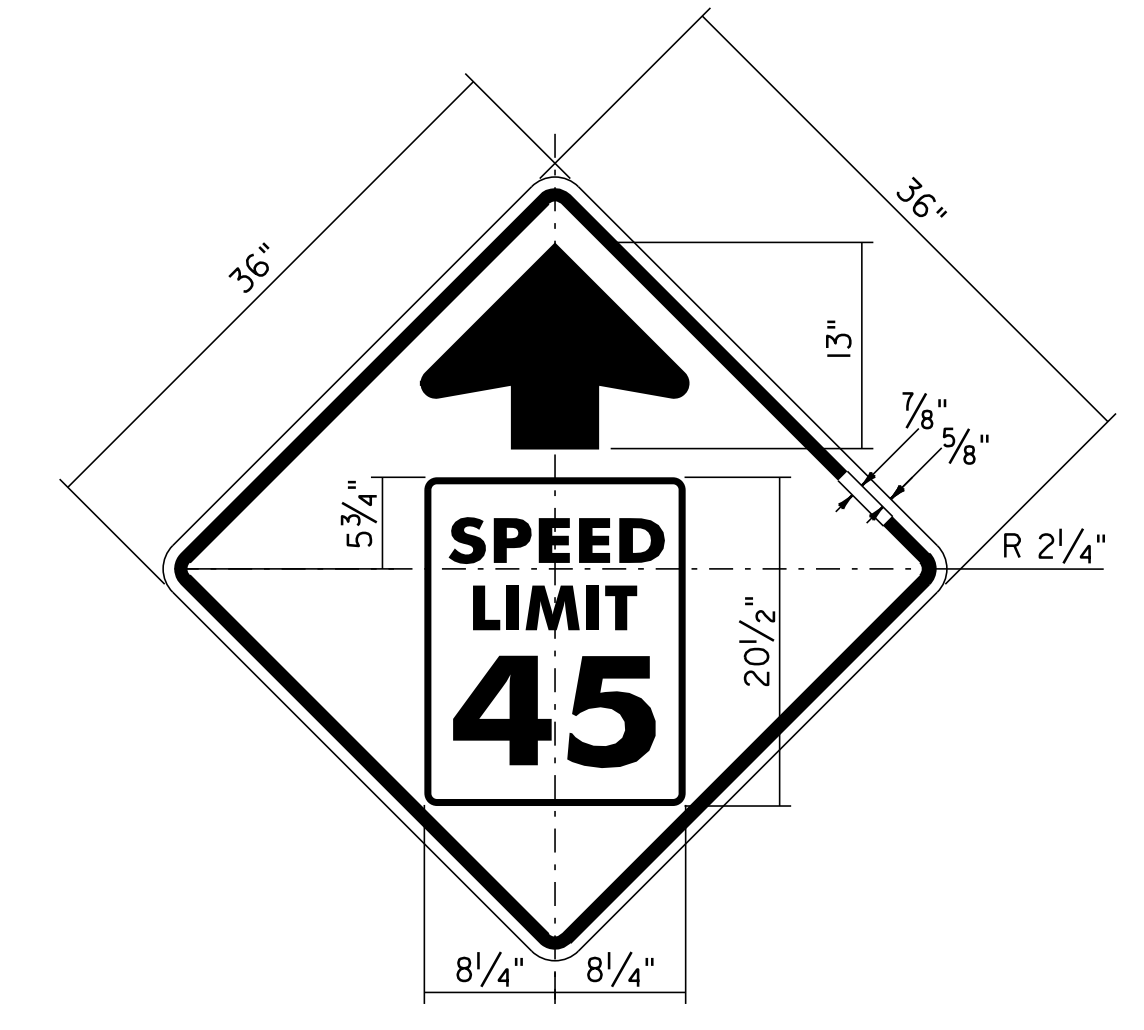
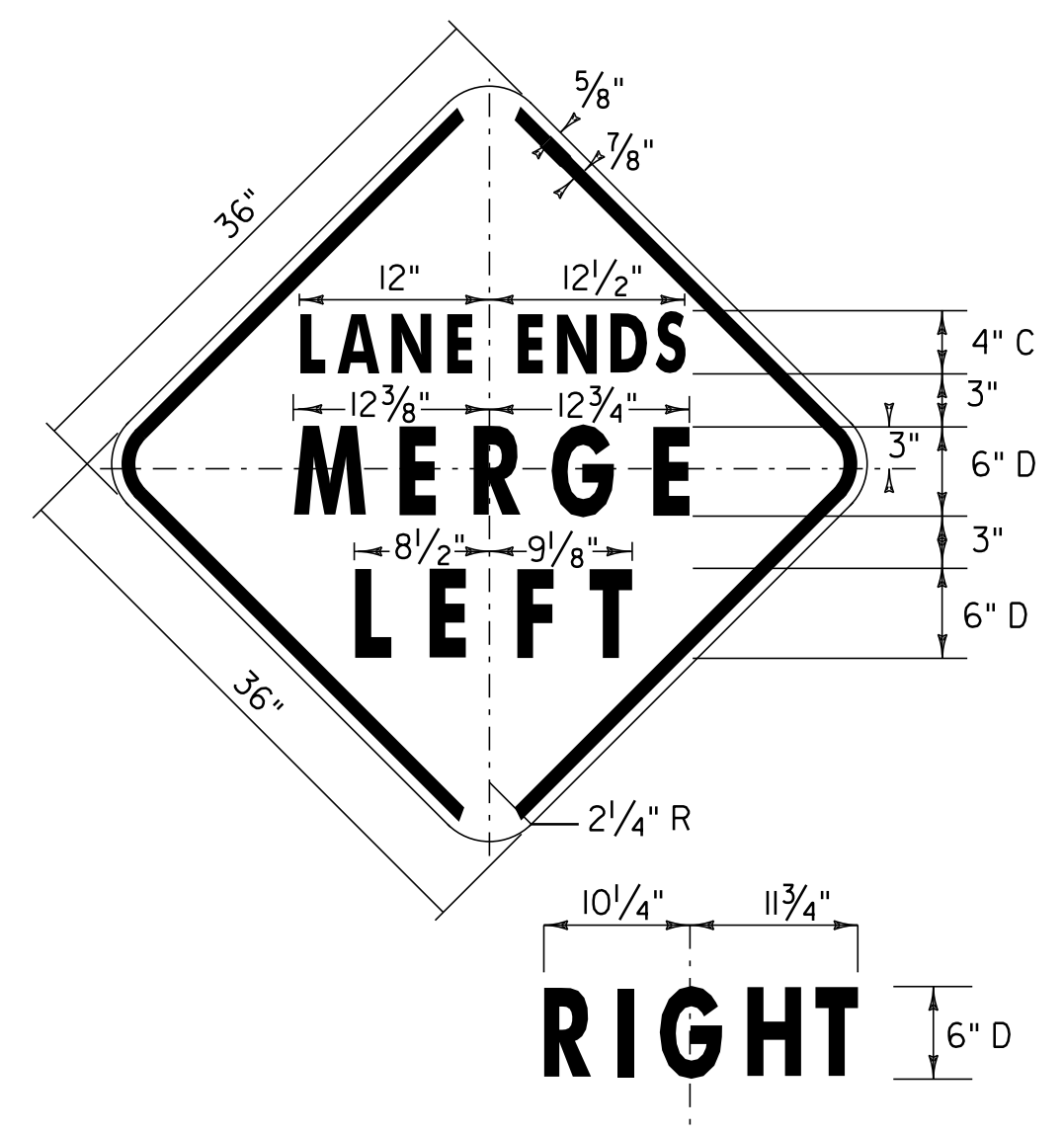
PCMS SHOULD NOT REPLACE ANY OF THE SIGNING DETAILED IN THE MUTCD AND SHOULD NOT BE USED IF STANDARD TRAFFIC CONTROL DEVICES ADEQUATELY PROVIDE THE INFORMATION THE MOTORISTS NEED TO TRAVEL SAFELY.

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:

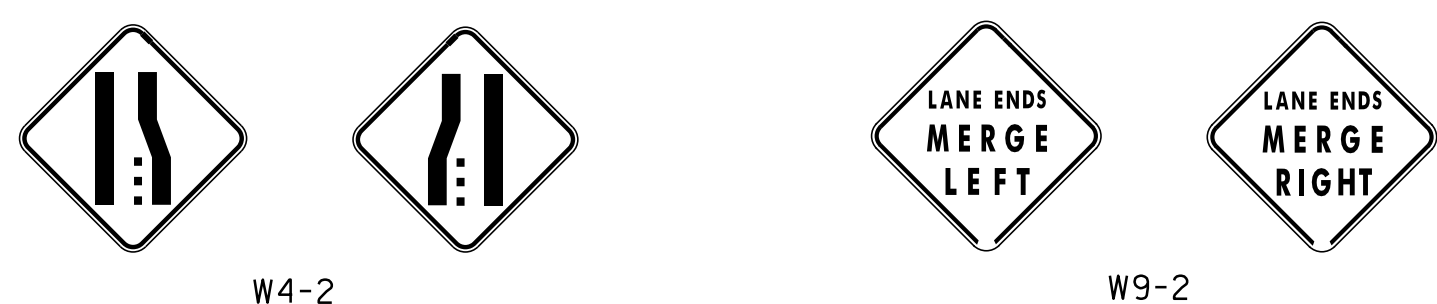
LIST OF CONSTRUCTION SIGNS
SEE STD. E-100 AND E-103 FOR SIGN PLACEMENT.

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



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

NOTE:
1. "MERGE" - D (101% SPACING)

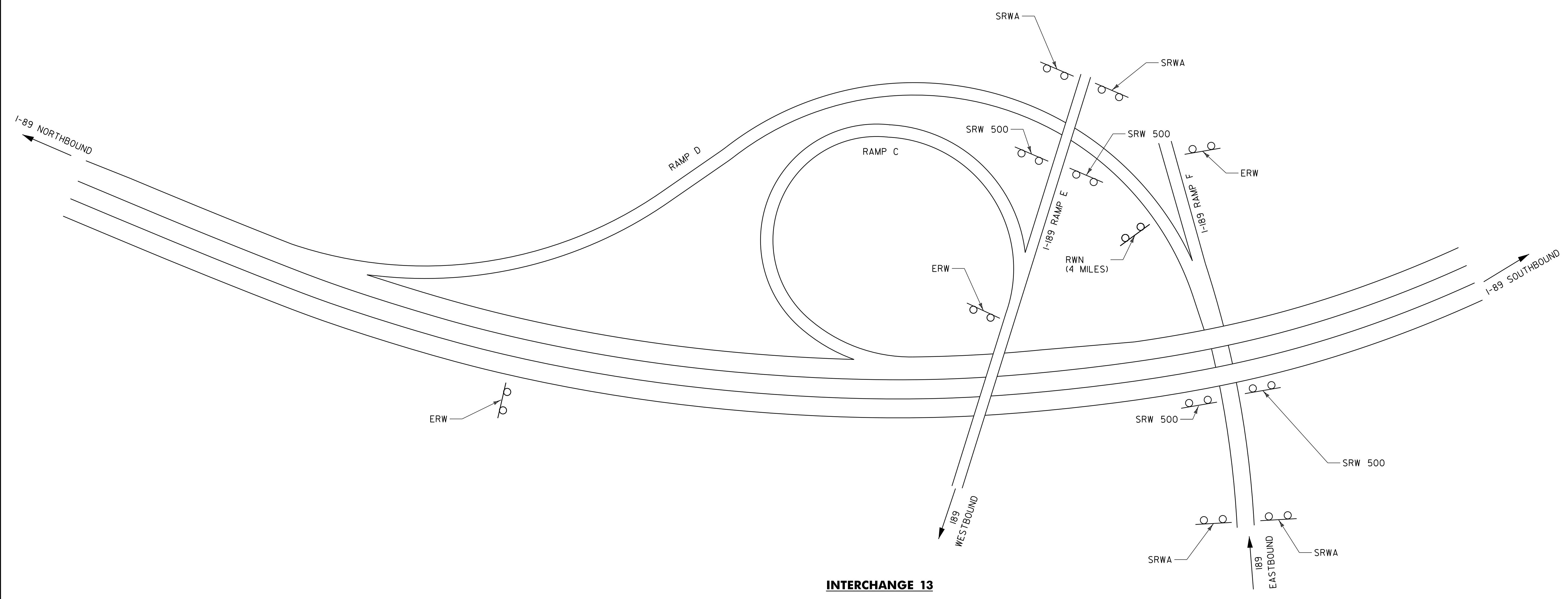


LEGEND
RW 1 MILE = ROAD WORK 1 MILE
RLC 1/2 MILE = RIGHT LANE CLOSED 1/2 MILE
RWN = ROAD WORK NEXT (X MILES)
RW 1000 = ROAD WORK 1000 FT
ERW = END ROAD WORK
SRWA = SIDE ROAD WORK AHEAD
SRW 500 = SIDE ROAD WORK 500 FT
SL = SPEED LIMIT

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

CONSTRUCTION APPROACH SIGNING	PROJECT NAME: SO. BURLINGTON - COLCHESTER	PLOT DATE: \$\$\$\$\$\$DATE\$\$\$
	PROJECT NUMBER: IM 089-3(60)	DRAWN BY: JAR/SJB
	FILE NAME: p05a012.dgn	CHECKED BY: EPD
	DESIGNED BY: JDA	SHEET 46 OF 91
	PLOT FILE: p05a012casl.i	

DETAILS ARE NOT TO SCALE



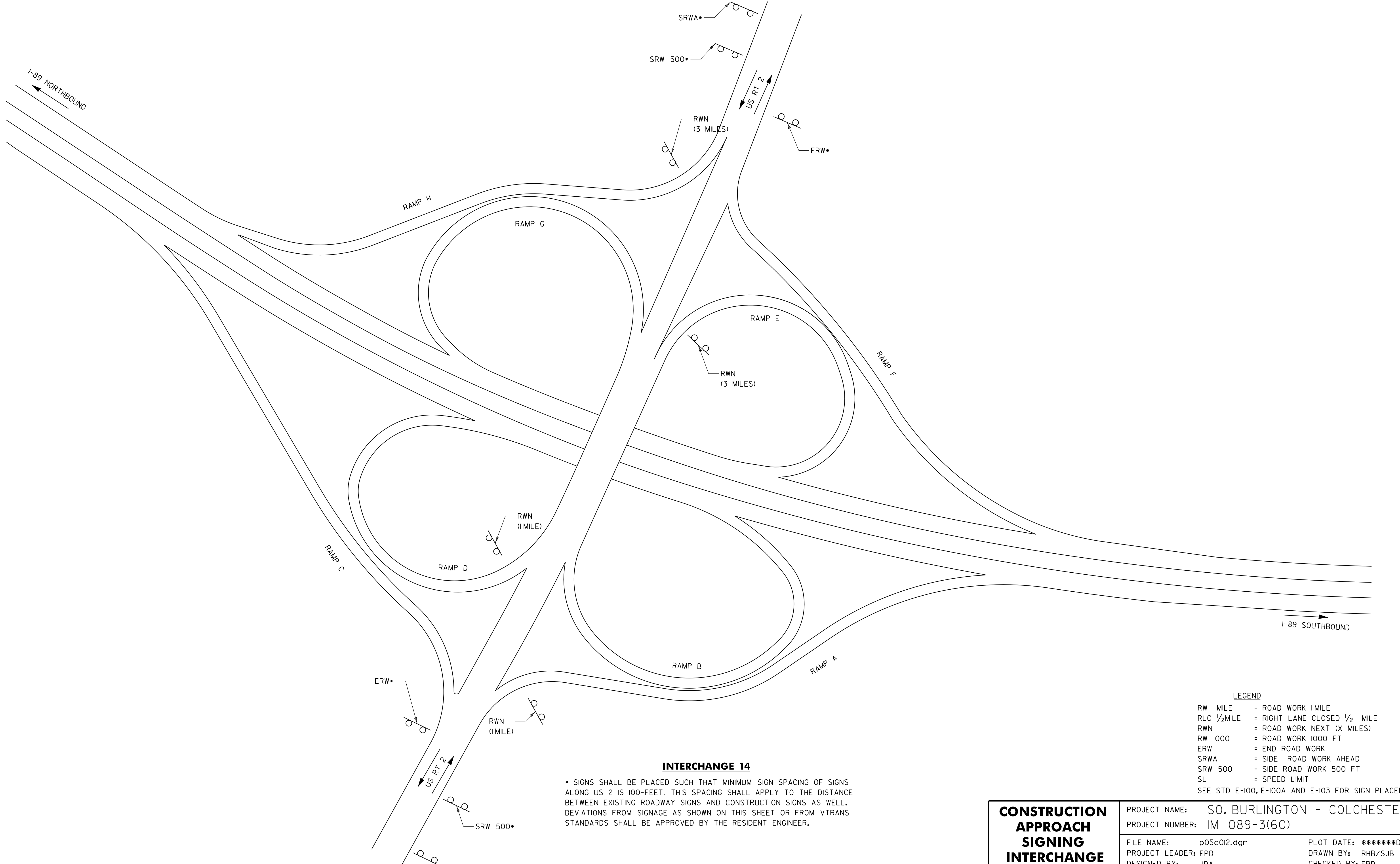
INTERCHANGE 13

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



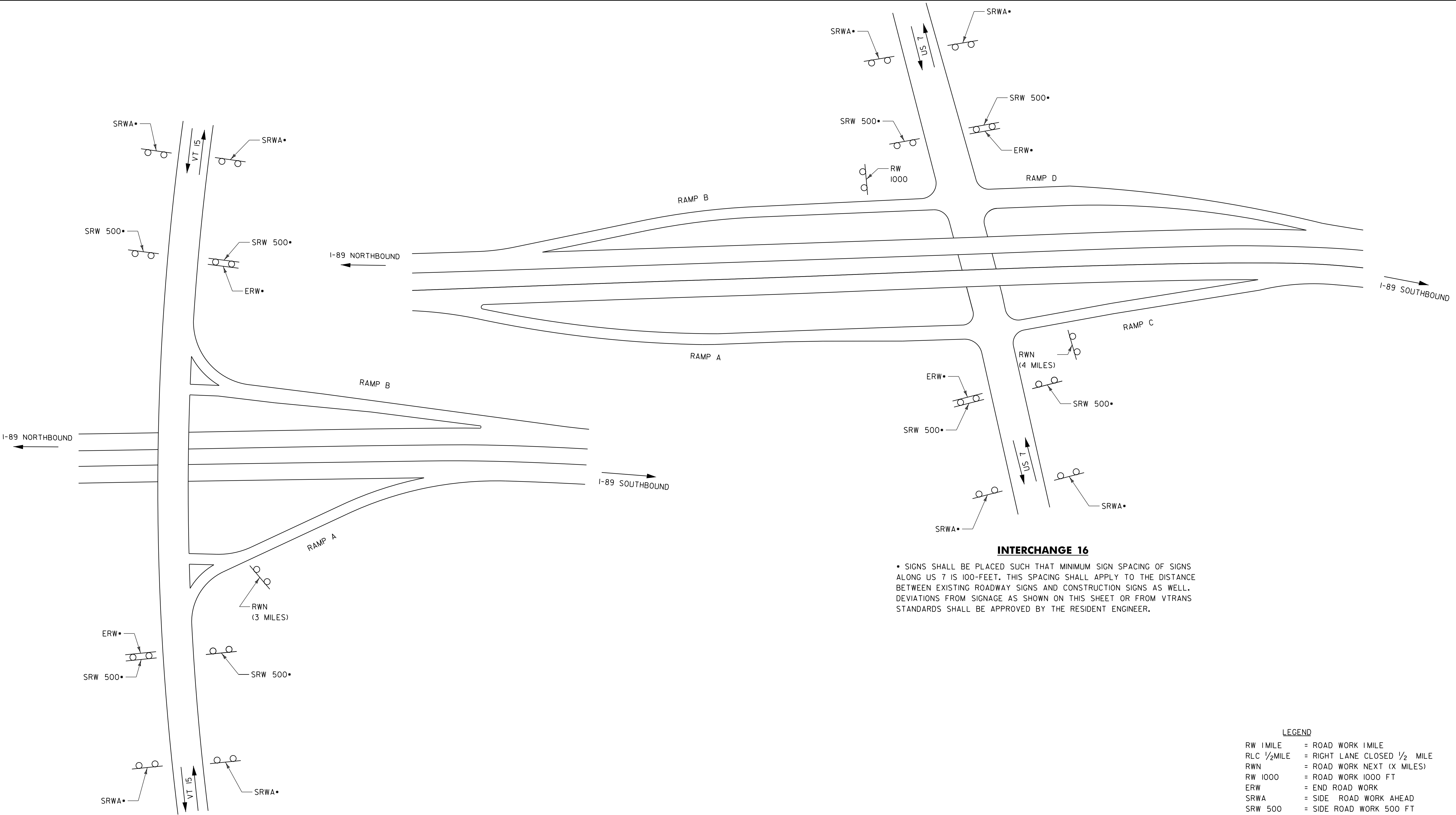
INTERCHANGE 14

• 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

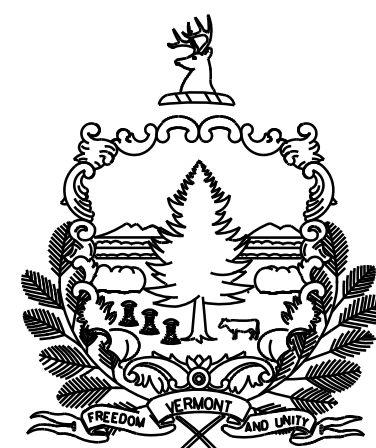
- RW 1 MILE = ROAD WORK 1 MILE
 - RLC 1/2 MILE = RIGHT LANE CLOSED 1/2 MILE
 - RWN = ROAD WORK NEXT (X MILES)
 - RW 1000 = ROAD WORK 1000 FT
 - ERW = END ROAD WORK
 - SRWA = SIDE ROAD WORK AHEAD
 - SRW 500 = SIDE ROAD WORK 500 FT
 - SL = SPEED LIMIT
- SEE STD E-100, E-100A AND E-103 FOR SIGN PLACEMENT.

**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)

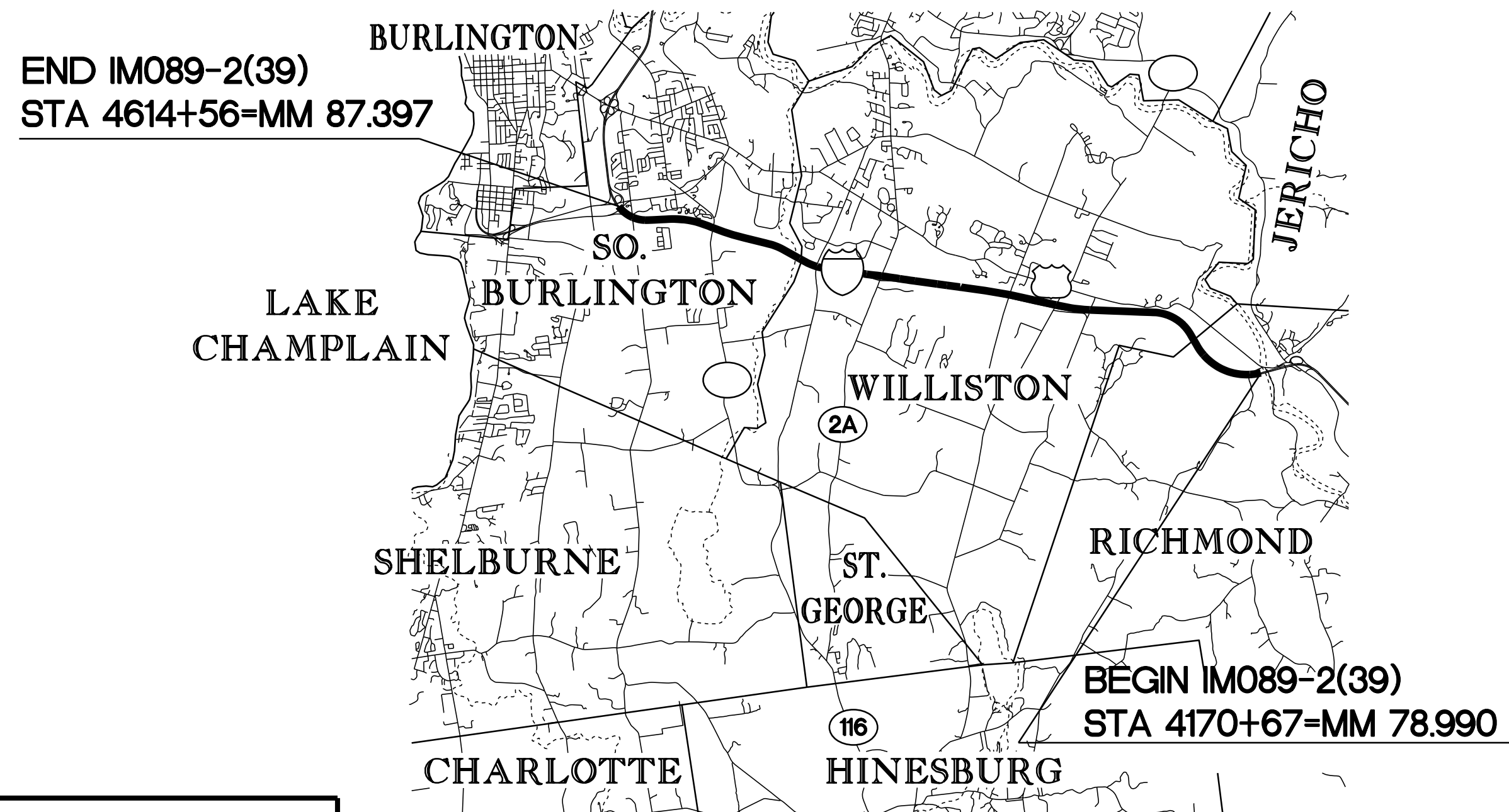
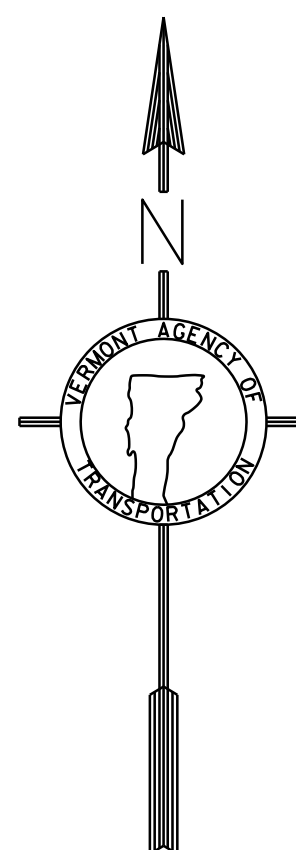
BEGINNING AT STATION 4170+67 (MM 78.990) IN THE TOWN OF RICHMOND, AND EXTENDING NORTHERLY
ALONG INTERSTATE 89 (NORTHBOUND LANES ONLY) THROUGH THE TOWN OF WILLISTON FOR APPROXIMATELY
44,389 FEET, (8.407 MILES) INTO THE TOWN OF SOUTH BURLINGTON TO STATION 4614+56 (MM 87.397)

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 12	15,300	18,900	22,300	1,700	2,100	7,717,000	21,393,000
INTERCHANGE 12 TO END OF PROJECT	18,500	22,300	26,300	1,900	2,300	8,172,000	22,811,000

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES COLD PLANING AND
RESURFACING OF THE NORTHBOUND TRAVEL LANES, SHOULDERS, AND INTERCHANGE 12,
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.



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	○—○—○—○
POINT OF ACCESS	X
FENCE LINE	—x—x—x—
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	—+—+—+— SR
SLOPE RIGHTS	△
TOP OF CUT	△
TOE OF SLOPE	○

DATUM	
VERTICAL	N/A
HORIZONTAL	N/A

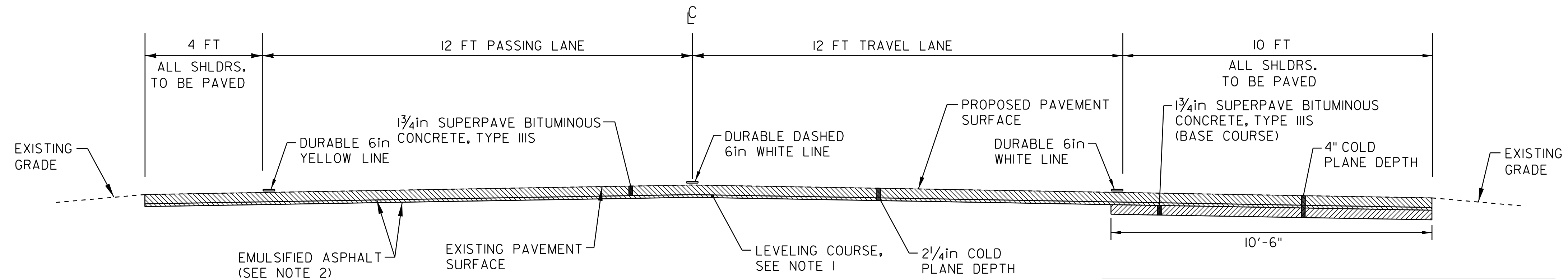
BY: **CIVIL ENGINEERING ASSOCIATES, INC.**
P.O. BOX 485 SHELBURNE, VT 05482
802-985-2323 FAX: 802-985-2271 web: www.cea-vt.com

NOTES

- 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.
- 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.
- SUPERPAVE BITUMINOUS CONCRETE PAVEMENT TOLERANCE = +/- 1/4in (TOTAL THICKNESS EXCLUDING LEVELING).
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- POWER BROOM RENTAL, TYPE II, SHALL BE USED TO CLEAN THE MATERIAL FROM IN FRONT OF THE EXISTING TREATED TIMBER CURB.
- 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 OCCURRED, THE CONTRACTOR SHALL RE-ESTABLISH THE ORIGINAL CLEAR HEIGHT AT NO ADDITIONAL EXPENSE TO THE STATE.
- 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.
- 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.
- IN AREAS OF RUTTING THE COLD PLANE DEPTH SHOULD BE MEASURED FROM THE HIGH POINTS OF THE ROADWAY SECTION.
- 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

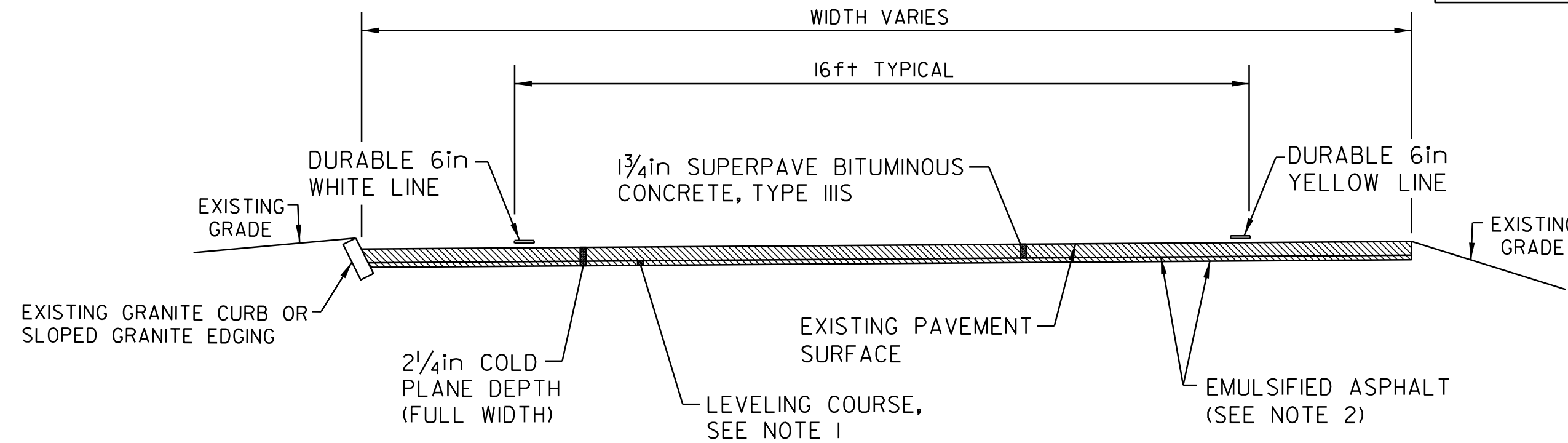
NORTHBOUND

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

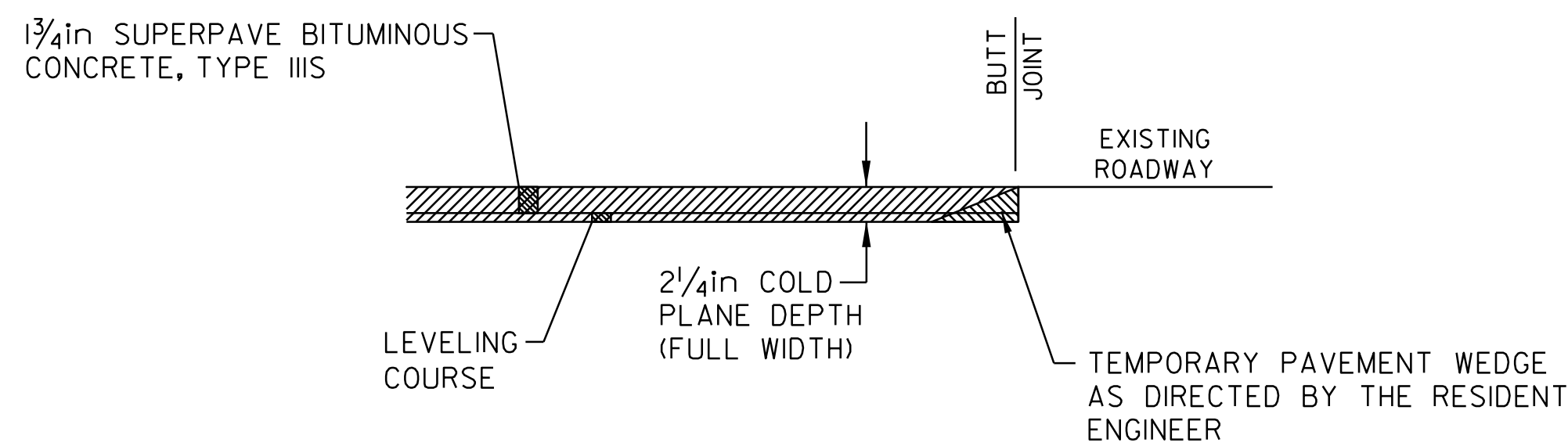
INTERCHANGE 12
ON & OFF RAMPS - SEE DETAILS, SHEET 62

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

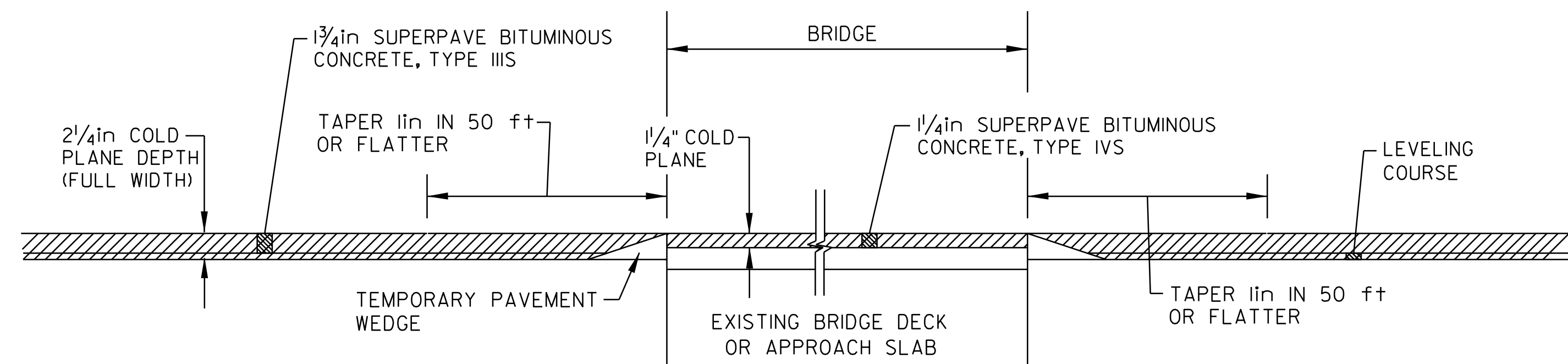
PROJECT TYPICAL SHEET #1

DESIGNED BY BCE/PJM DATE 6-07
 DRAWN BY C.E.A., INC. DATE 6-07
 DESIGN FILE NO. p01a030.dgn
 PRF FILE p01a030+yp1.i DATE PLOTTED *****DATE*
 PROJ. NAME **RICHMOND-SO. BURLINGTON**
 PROJ. NO. **IM089-2(39)**
 SHEET **51** OF **91** SHEETS



**MAINLINE APPROACH AREA DETAIL
LOCATION**

STA 4170+67 - BEGINNING OF PROJECT



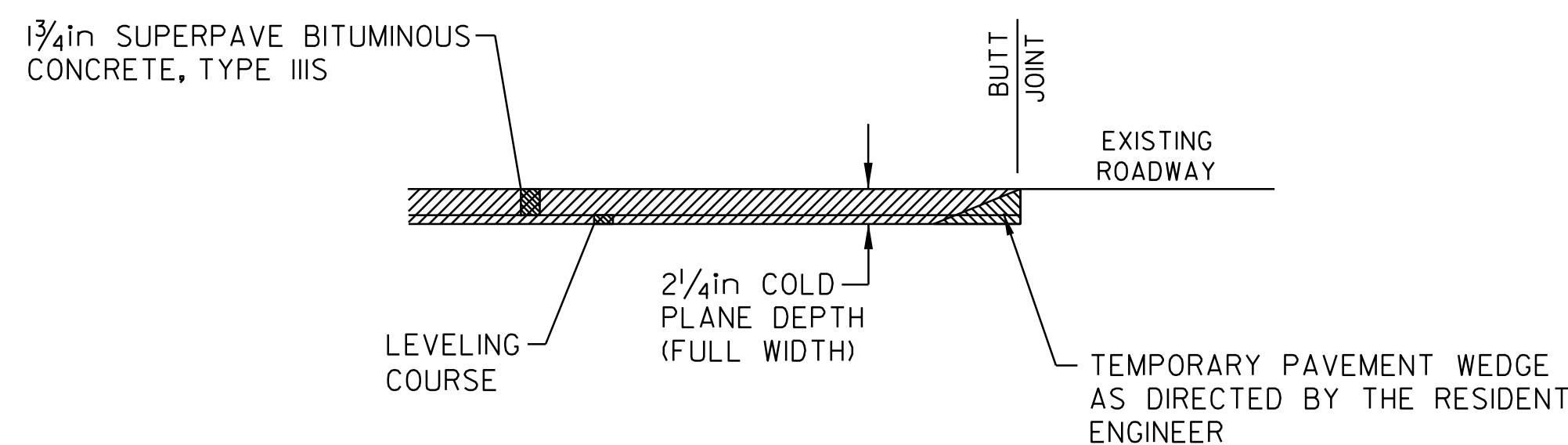
COLD PLANE DETAIL BRIDGE

**LOCATION
NORTHBOUND**

- BRIDGE #61-N, STA 4432+98
- BRIDGE #63-N, STA 4487+52
- BRIDGE #65-N, STA 4604+45
- BRIDGE #66-N, STA 4614+56

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.

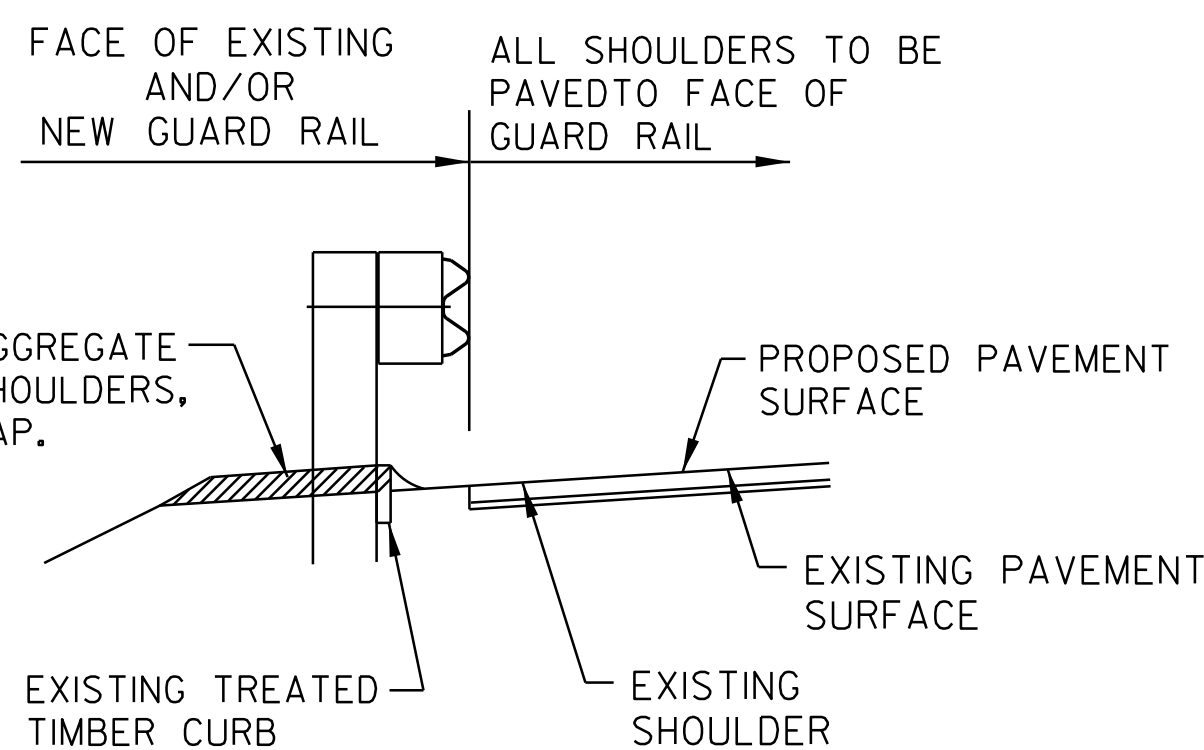


**RAMP APPROACH AREA DETAIL
LOCATION**

INTERCHANGE 12 - NORTHBOUND OFF RAMP
INTERCHANGE 12 - NORTHBOUND ON RAMP

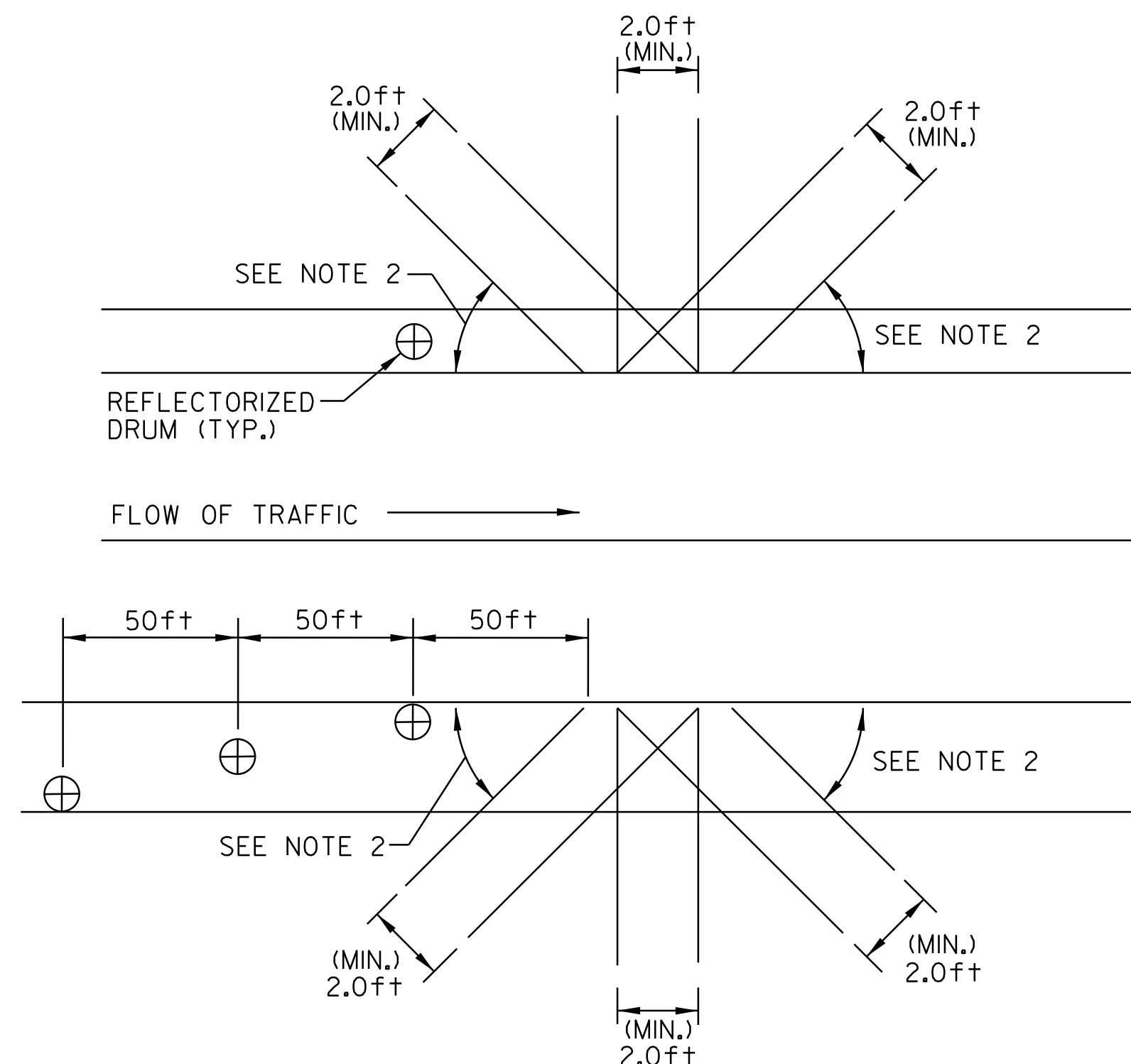
NOTES:

1. PROVIDE TEMPORARY PAVEMENT WEDGES AS DIRECTED BY THE RESIDENT ENGINEER (TAPER 1 in 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



**- TYPICAL SECTION AT GUARD RAIL -
(@ EXISTING STEEL BEAM W/TREATED TIMBER CURBING)**

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.



BLEEDER DETAIL

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.

**SEEDING FORMULA
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)

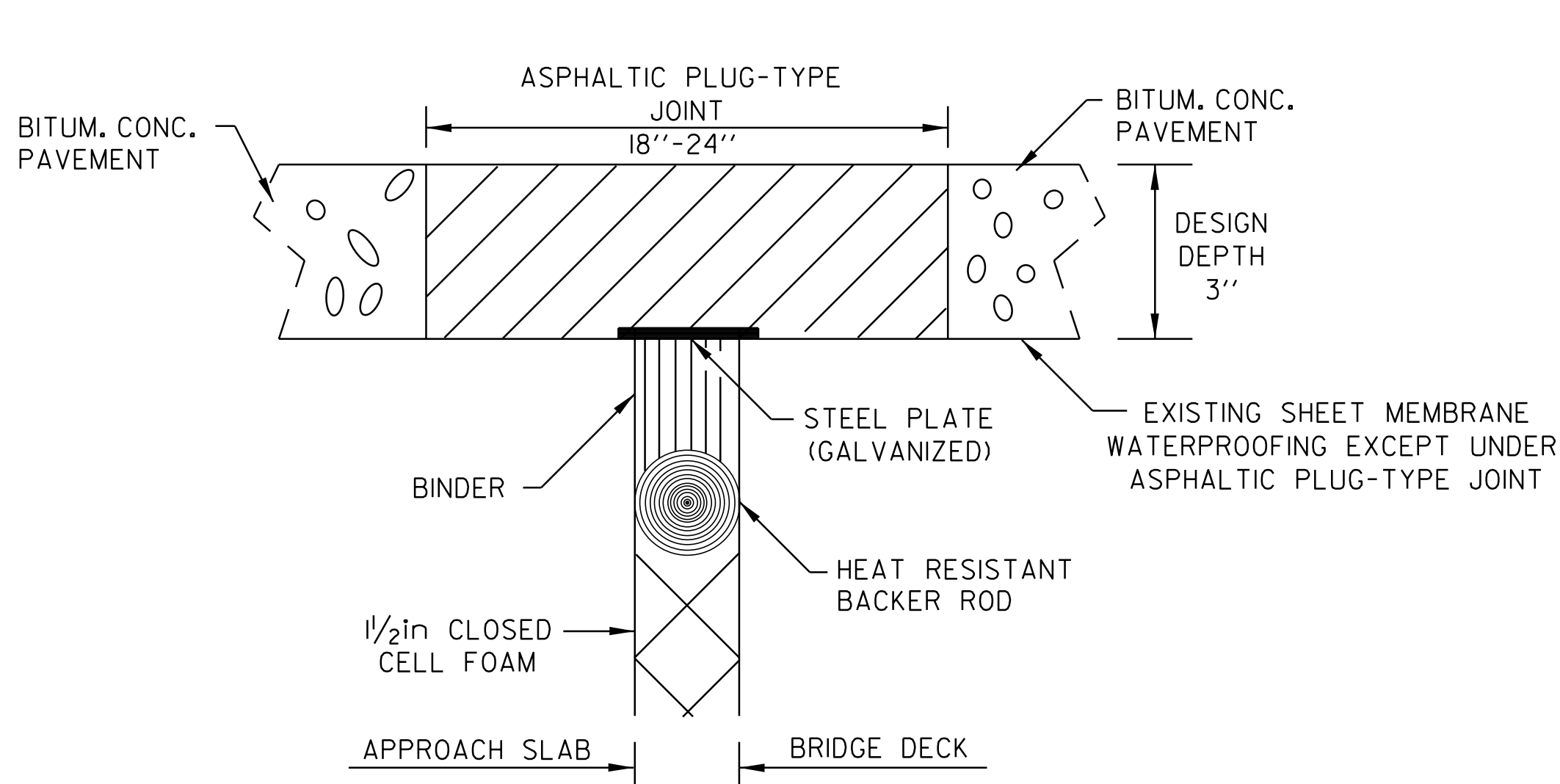
AGRICULTURAL LIMESTONE:
TO BE APPLIED AT THE RATE OF 2.0 TONS/ACRE, OR AS DIRECTED BY THE RESIDENT ENGINEER.

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.	p01a030.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

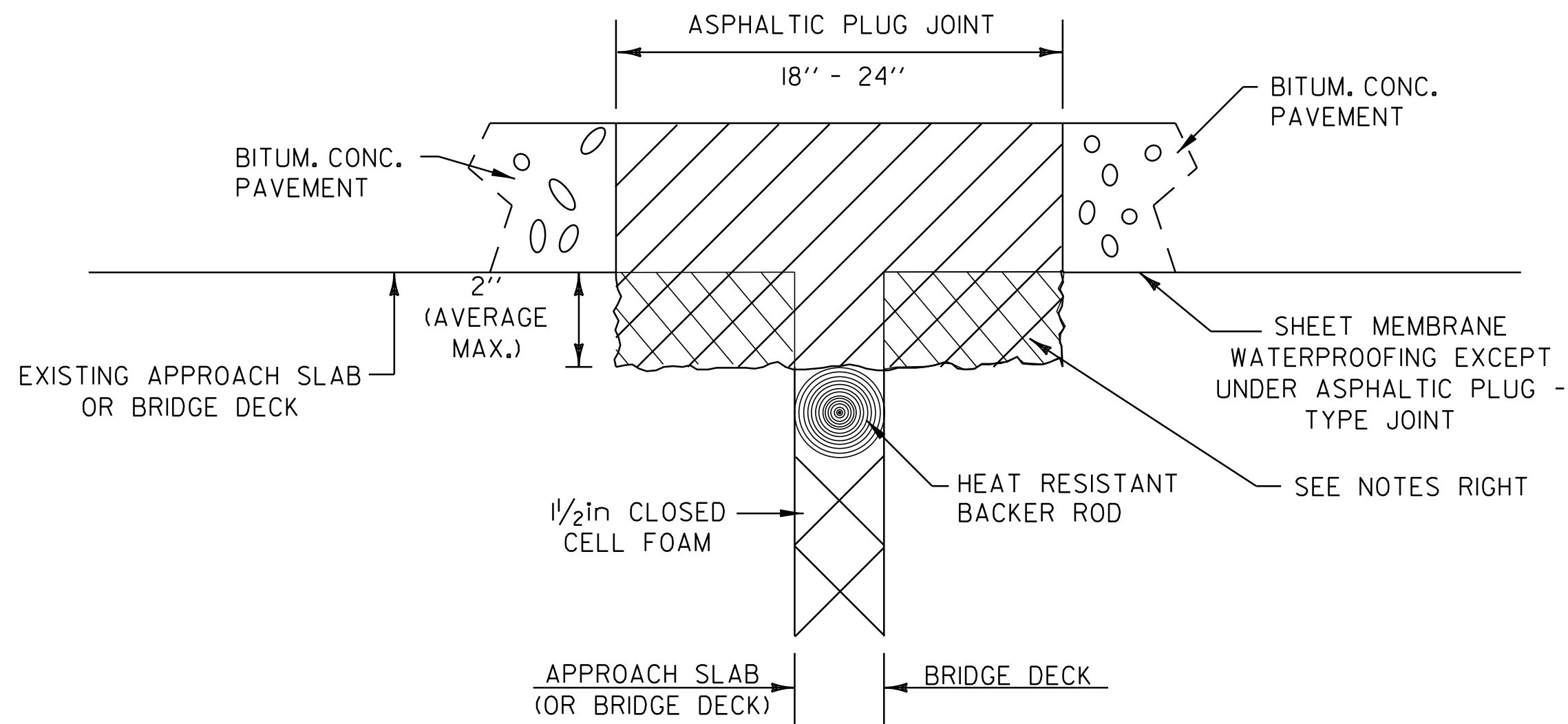
- ASPHALTIC PLUG BRIDGE JOINT - GENERAL NOTES

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 +/-.

WEATHER LIMITATIONS:

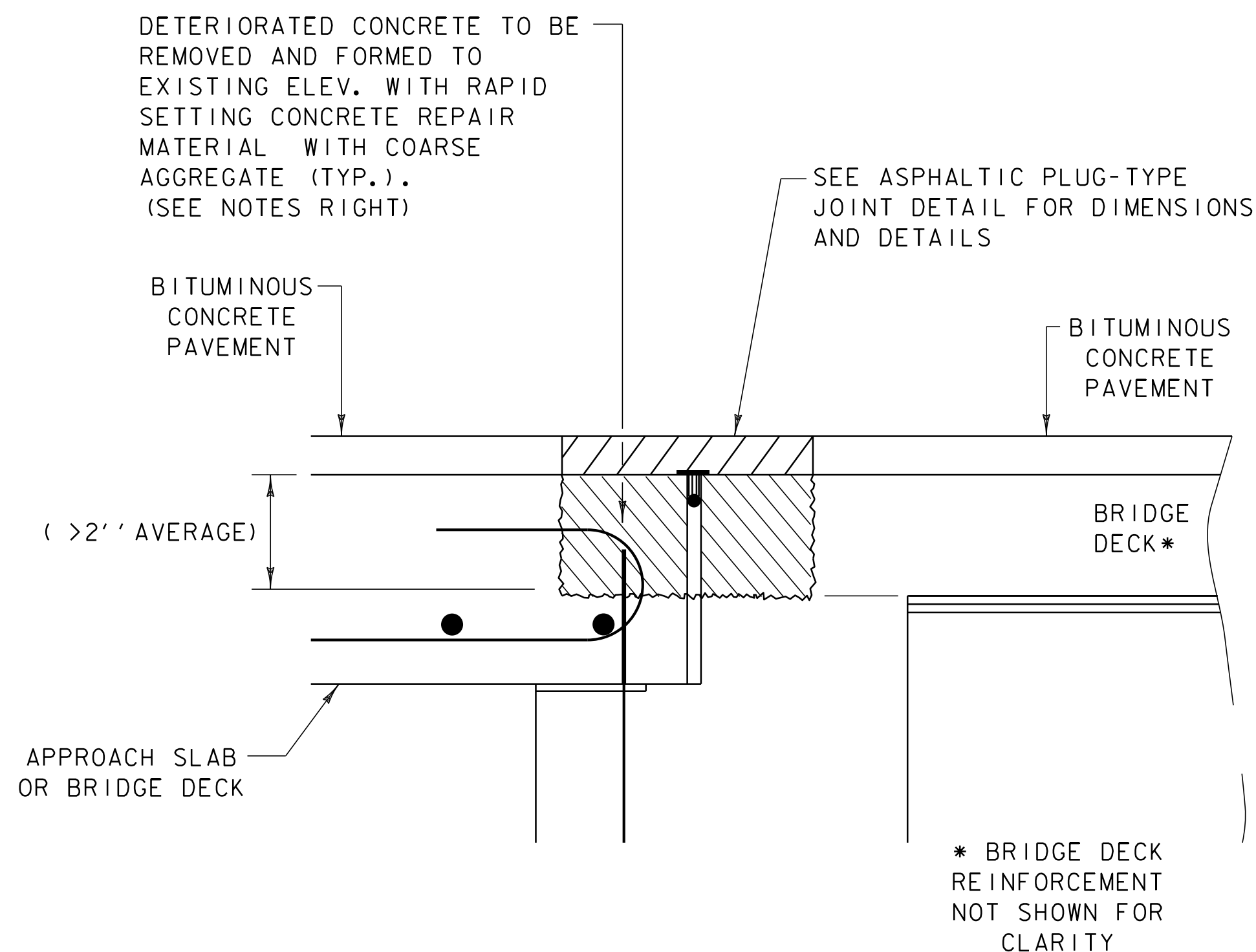
- I. BINDER MATERIAL SHALL BE APPLIED ONLY WHEN THE FOLLOWING CONDITIONS PREVAIL:
 - a. THE AMBIENT AIR TEMPERATURE IS AT LEAST 50 DEGREES F AND RISING.
 - b. THE ROAD SURFACE IS SUFFICIENTLY DRY.
 - c. WEATHER CONDITIONS OR OTHER CONDITIONS ARE FAVORABLE AND ARE EXPECTED TO REMAIN SO FOR THE PERFORMANCE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



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.

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



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.

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

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	p01a030typ3.i	DATE PLOTTED	*****DATE*
	PROJ. NAME	RICHMOND-SO. BURLINGTON		
PROJ. NO.	IM089-2(39)			
SHEET	53	OF	91	SHEETS

ITEM DETAIL SUMMARY SHEET #1

LOCATION			MISCELLANEOUS ITEMS					DRAINAGE ITEMS					GUARDRAIL ITEMS											DELINEATORS						REMARKS			
STA	STA	POS.	201.31 THIN & TRIM FOR SIGNS	203.30 EARTH BORROW	203.40 SHOULDER BERM REMOVAL	402.13 AGG. SHOULDER (RAP)	653.20 TEMP. EROSION MATTING	604.412 REHAB. D.I. CLASS I	NEW PIPE				616.35 TREATED TIMBER CURB	619.17 YIELD. MARKER POSTS	621.20 STEEL BEAM G.R.	621.50 MANUF. TERMINAL SECTION, FLARED	621.60 ANCHOR FOR S.B. RAIL	621.65 ANCHOR FOR CABLE RAIL	621.75 REMOVE & RESET GUARD RAIL	621.76 REPLACE G.R. POST ASSEM.	621.77 REPLACE G.R. BEAM UNIT	621.79 ADJUST HEIGHT OF GUARD RAIL	621.80 REMOVE & DISP. OF GUARD RAIL	900.620 SPECIAL PROVIS. (CABLE G.R. SPLICE)	900.620 SPECIAL PROVIS. (CABLE G.R. J-BOLT)	900.640 SPECIAL PROVIS. (REPLACE G.R. CABLE)	676.10					676.12 REMOVAL OF EXISTING DELIN.	
			EA	CY	LF	TON	SY	EA	in	LF	LF	LF	LF	EA	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	
RICHMOND																																	
4170+67	4199+89	LT&RT			1, 210							25										20	12	62			10				10	10	
4173+32		RT						1				10																					
4193+08	4193+45	RT		25		5	25																				1						
WILLISTON																																	
4199+89	4488+13	LT&RT	1		11,000							25	10																		63	60	
4205+98	4206+35	RT		25		5	25								1												1						
4220+40		LT						1																									
4224+41		LT						1																									
4235+37	4249+95	RT																															
4303+60	4309+06	RT																															
4303+60	4309+60	LT																															
4311+41	4312+66	LT		25		5	25							87.5	1												1						
4311+90	4314+40	RT		25		5	25							212.5	1												1						
4343+04	4343+41	RT		25		5	25								1												1						
4347+78	4348+15	LT		25		5	25								1												1						
4371+98	4372+35	RT		25		5	25								1												1						
4424+26	4424+63	RT		25		5	25								1												1						
4454+64	4463+66	RT																															
4474+91	4476+91	RT		25		5	50							162.5	1	1											2						
4484+98	4485+35	RT		25		5	25								1												1						
WILL. SO. BURL.																																	
4488+06	4488+31	RT					25							25		1											1						
SO. BURLINGTON																																	
4488+13	4614+56	LT&RT	1		1,630							25																			45	45	
4534+59	4540+21	RT																															
4545+60	4550+72	RT		25		5	50																										
4593+42	4597+09	RT																															
4599+96	4600+33	RT		25		5	25								1												1						
4606+30		RT																															
4610+56		RT																															
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	

133

ITEM DETAIL SUMMARY 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 p01a030idsl.i DATE PLOTTED *****DATE**

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

PROJ. NO.: **IM089-2(39)**

SHEET **57** OF **91** SHEETS

ITEM DETAIL SUMMARY SHEET #2

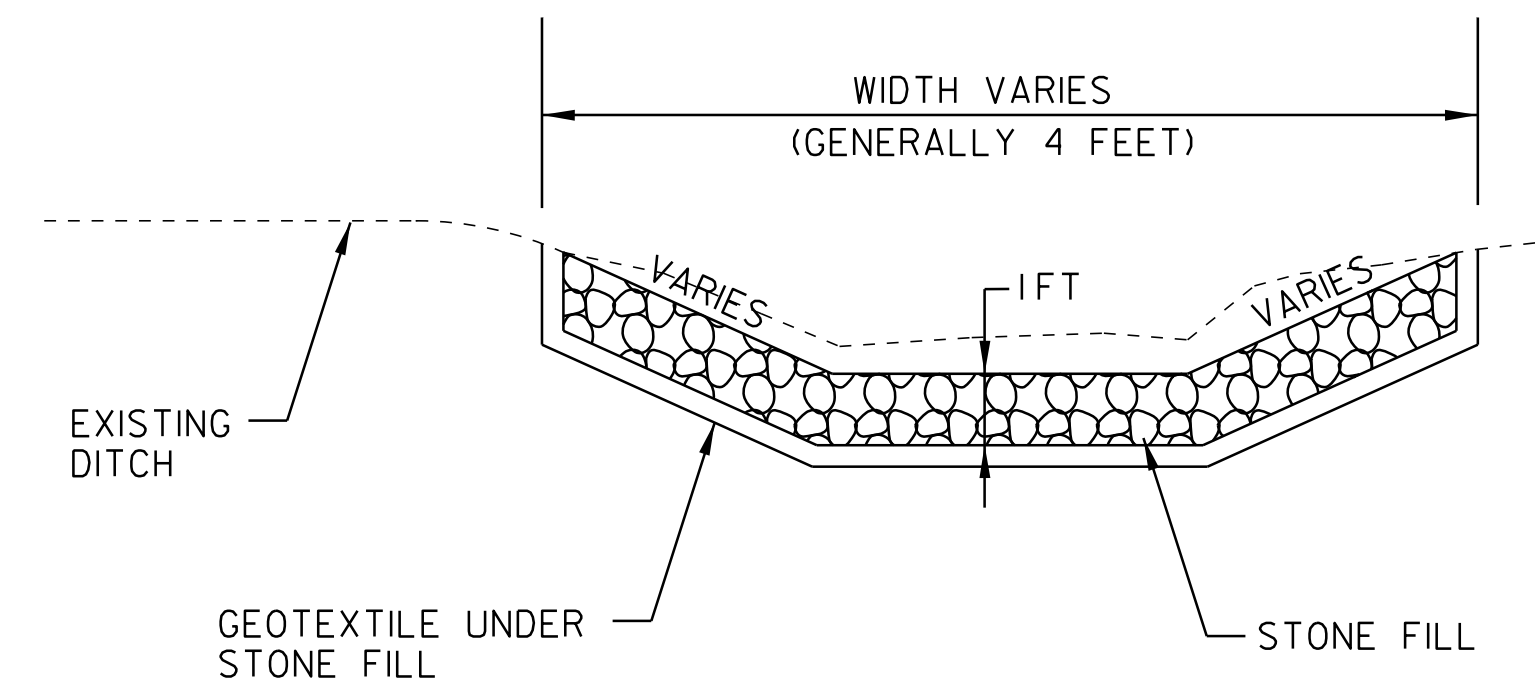
LOCATION			MISCELLANEOUS ITEMS					DRAINAGE ITEMS					GUARDRAIL ITEMS											DELINEATORS						REMARKS				
STA	STA	POS.	201.31 THIN & TRIM FOR SIGNS	203.30 EARTH BORROW	203.40 SHOULDER BERM REMOVAL	402.13 AGG. SHOULDER (RAP)	653.20 TEMP. EROSION MATTING	604.412 REHAB. D.I. CLASS I	NEW PIPE				616.35 TREATED TIMBER CURB	619.17 YIELD. MARKER POSTS	621.20 STEEL BEAM G.R.	621.50 MANUF. TERMINAL SECTION, FLARED	621.60 ANCHOR FOR S.B. RAIL	621.65 ANCHOR FOR CABLE RAIL	621.75 REMOVE & RESET GUARD RAIL	621.76 REPLACE G.R. POST ASSEM.	621.77 REPLACE G.R. BEAM UNIT	621.79 ADJUST HEIGHT OF GUARD RAIL	621.80 REMOVE & DISP. OF GUARD RAIL	900.620 SPECIAL PROVIS. (CABLE G.R. SPLICE)	900.620 SPECIAL PROVIS. (CABLE G.R. J-BOLT)	900.640 SPECIAL PROVIS. (REPLACE G.R. CABLE)	676.10				676.12 REMOVAL OF EXISTING DELIN.			
			EA	CY	LF	TON	SY	EA	in	LF	LF	LF	LF	EA	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	
WILL. -REST AREA																																		
ACCEL./DECEL.		RT																																
WILL ISTON-RAMP A																																		
0+00	9+70	LT&RT																																
WILL ISTON-RAMP D																																		
0+00	8+00	LT&RT																																
1+60	1+97	RT		25		5	25							1																				
1+60		LT						1																										
SHEET 58 SUB-TOTALS			--	25	--	5	25	1					--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	15	36	5	--	50	
SHEET 57 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		
PROJECT SUB-TOTALS			2	325	13,840	65	400	6					95	10	962.5	13	3	1	325	220	90	550	837.5	3	105	25						165		
PROJECT ROUNDING			--	--	60	--	--	--					5	--	12.5	--	--	--	--	--	--	--	--	--	--	--						--		
PROJECT TOTALS			2	325	13,900	65	400	6					100	10	975	13	3	1	325	220	90	550	850	3	105	25						165		

ITEM DETAIL SUMMARY SHEET #2

DESIGNED BY BCE/PJM DATE 6-07
 DRAWN BY C.E.A., INC. DATE 6-07
 DESIGN FILE NO. p01a030.dgn
 PRF FILE p01a030ids2.i DATE PLOTTED *****DATE*

PROJ. NAME: **RICHMOND-SO. BURLINGTON**
 PROJ. NO.: **IM089-2(39)**
 SHEET **58** OF **91** SHEETS

LOCATION				FEET OF DITCHING				MISC. ITEMS			REMARKS	LOCATION				FEET OF DITCHING				MISC. ITEMS			REMARKS		
SITE	STATION	STATION	POS.	PERCENT GRADE				653.20	613.10	649.31		SITE	STATION	STATION	POS.	PERCENT GRADE				653.20	613.10	649.31			
				0-1	1-2.5	2.5-10	>10	TEMP. EROS. MATT.	STONE FILL TYP. I	GEOT. UNDER STONE FILL						0-1	1-2.5	2.5-10	>10	TEMP. EROS. MATT.	STONE FILL TYP. I	GEOT. UNDER STONE FILL			
INTERSTATE 89 NB DISTRICT #5								SY	CY	SY									SY	CY	SY				
1	4181+76		RT			100																			
2	4184+92	4186+92	RT			200			30	133															
3	4189+68		LT			50				22															
4	4192+32		RT	50																					
5	4224+00	4234+00	LT&RT		1,000	1,000		444	148	667															
6	4261+00	4265+00	LT		200	200		89	30	133															
7	4282+10	4284+60	LT		250			111																	
8	4285+20		LT			75			11	50															
9	4292+60	4293+60	RT	100																					
10	4319+00	4322+00	RT	300																					
11	4361+30	4363+80	LT		150	100		67	15	67															
12	4366+50	4369+00	LT			250			37	167															
13	4387+70	4388+70	RT			100			15	67															
14	4403+50		LT			100			15	67															
15	4425+00	4440+00	LT&RT		150	200		67	30	133															
16	4509+10	4511+60	LT&RT	500																					
17	4544+00	4547+15	RT			315			47	210															
PROJECT SUBTOTALS				950	1,800	2,640		800	378	1,694															
ROUNDING				10	20	10		10	7	16															
PROJECT TOTALS				960	1,820	2,650		810	385	1,710															



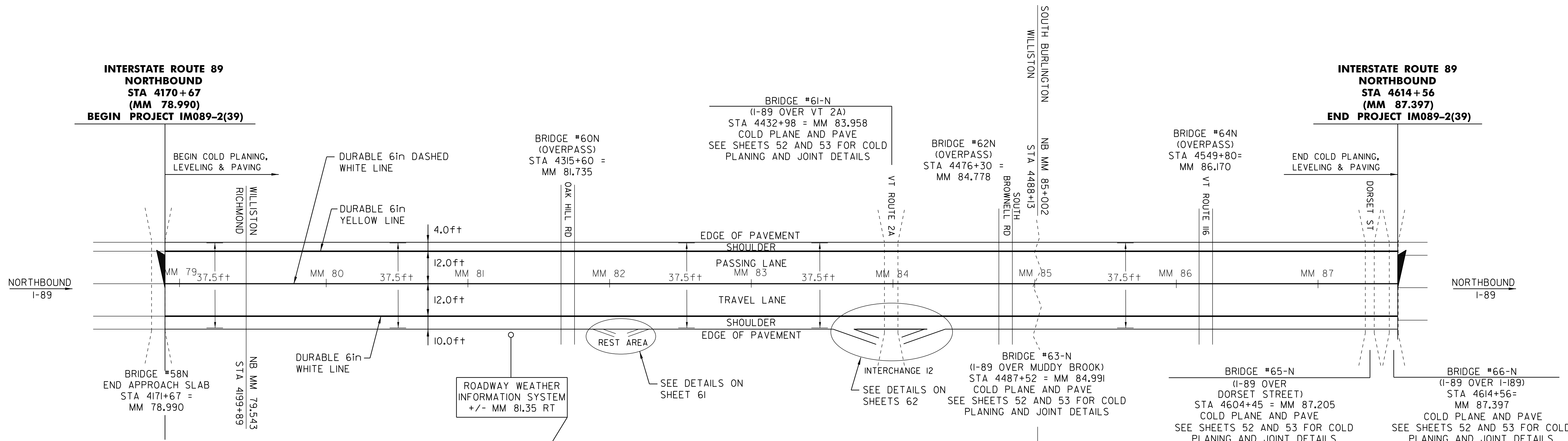
DITCH DETAIL
NOT TO SCALE

NOTES:

PIPE INLET AND OUTLET AREAS, AND DITCH CLEANING THROUGHOUT THE PROJECT, SHALL BE PERFORMED AT LOCATIONS AS INDICATED 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, AND STONE FILL TYPE I HAVE BEEN INCLUDED. DITCHES WITH A SLOPE LESS THAN 1 PERCENT SHALL BE SEEDED, TEMPORARY EROSION MATTING SHALL BE USED IN ALL DITCHES WITH A GRADE BETWEEN 1 AND 2½ PERCENT, AND STONE FILL TYPE I SHALL BE USED IN ALL DITCHES WITH A GRADE BETWEEN 2½ AND 10 PERCENT.

DITCH CLEANING DETAIL SHEET	PROJECT : RICHMOND-SO. BURLINGTON	PROJECT NO. : IM089-3(29)
	DESIGN FILE NAME: p01a030.dgn	
	IPARM FILE NAME: p01a030dcs.i	PLOT DATE: \$\$\$\$\$\$DATE\$
	SURVEYED BY: BCE/PJM	SURVEY DATE: 6-07
	SQUAD LEADER: BCE	DRAWN BY: C.E.A., INC.
	SHEET: 59 OF 91	



1. THE FOUR SURFACE SENSORS AND ONE SUBSURFACE SENSOR WILL NEED TO BE REPLACED DUE TO THE PAVING OPERATIONS.
2. THE CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ENGINEER AND VTRANS R.W.I.S. VENDOR PRIOR TO THE START OF CONSTRUCTION FOR ACCESS REQUIREMENTS FOR DISCONNECTION AND REPLACEMENT OF THE SENSORS THAT WILL BE REMOVED DURING COLD PLANING.
3. THE REPLACEMENT OF THE SENSORS WILL BE PERFORMED BY THE AGENCY'S R.W.I.S. EQUIPMENT VENDOR.
4. SEE THE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

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.

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

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

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

604.412 REHABILITATION OF D.I., C.B., OR M.H.
 STA 4173+32 RT
 STA 4606+30 RT
 STA 4610+56 RT
 STA I+60 LT, INTERCHANGE I2-RAMP D (THROAT D.I.)

<h2>PAVING PROJECT LAYOUT (NORTHBOUND)</h2>	DESIGNED BY	BCE/PJM	DATE	6-07
	DRAWN BY	C.E.A., INC.	DATE	6-07
	DESIGN FILE NO.	p01a030.dgn		
	PRF FILE	p01a030i1	DATE PLOTTED	#####DATE
	PROJ. NAME	RICHMOND-SO. BURLINGTON		
PROJ. NO.	IM089-2(39)			
SHEET	60	OF	91	SHEETS

TEMPORARY (PAINT) AND
DURABLE (RECESSED) 6in WHITE LINE

MAINLINE
STA 4323+00 TO 4328+50
STA 4328+50 TO 4330+90
STA 4343+25 TO 4346+35

DOTTED RT
DASHED RT
DASHED RT

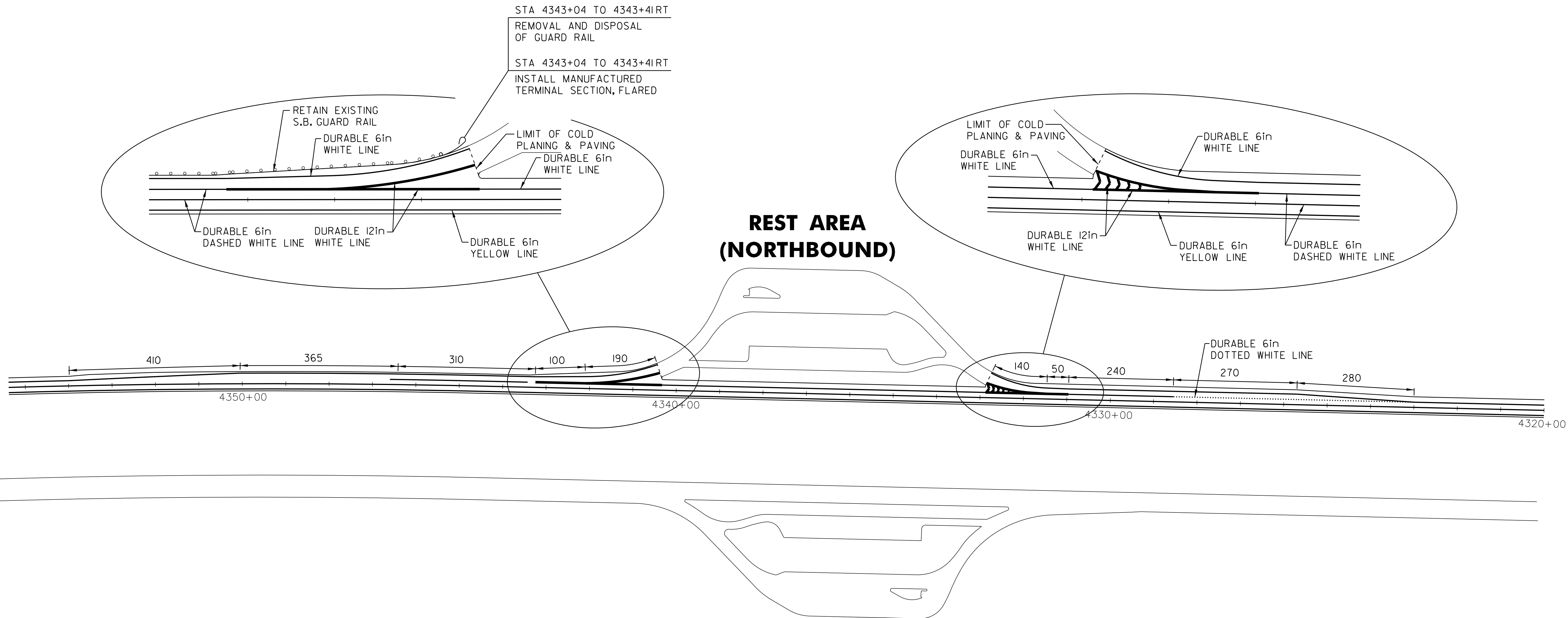
TEMPORARY (PAINT) AND
DURABLE (RECESSED) 12in WHITE LINE

MAINLINE
STA 4330+90 TO 4332+80
STA 4340+35 TO 4343+25

GORE MARKINGS
GORE MARKINGS

REMOVAL AND DISPOSAL OF GUARD RAIL
STA 4343+04 TO 4343+41RT

MANUFACTURED TERMINAL SECTION, FLARED
STA 4343+04 TO 4343+41RT

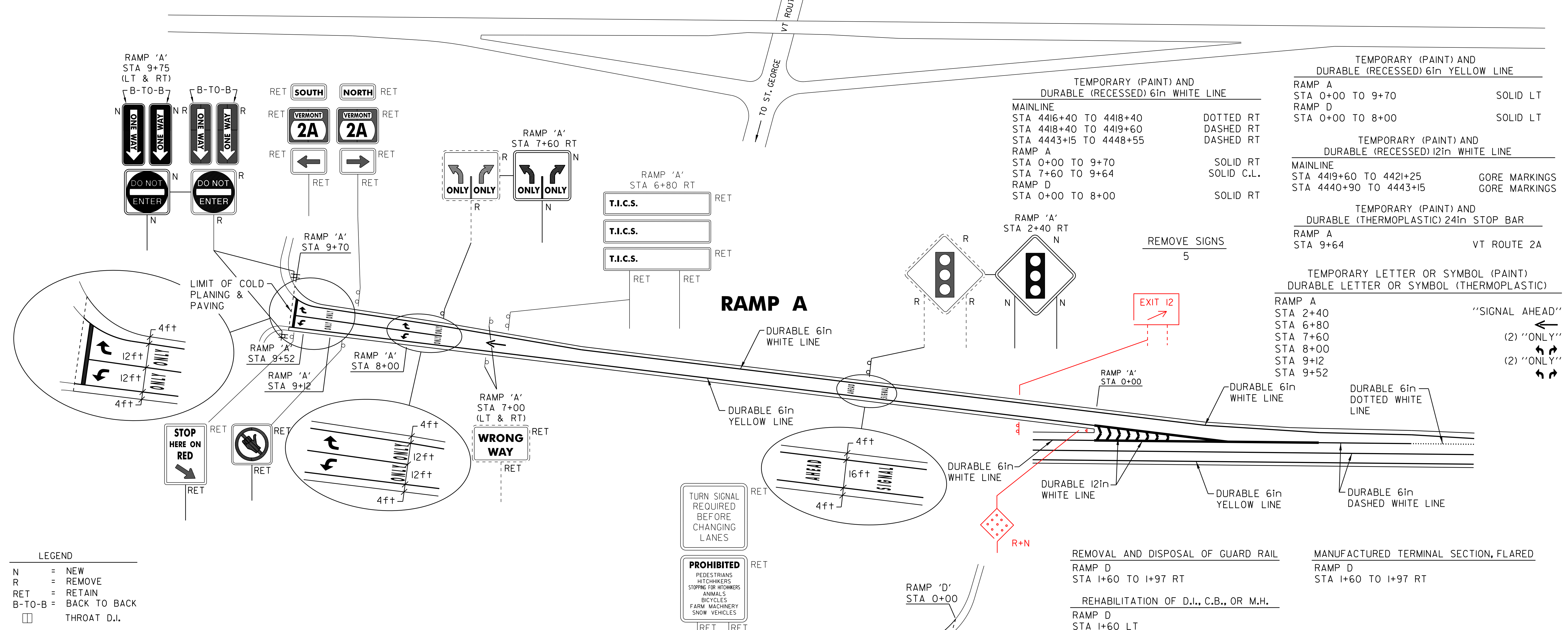
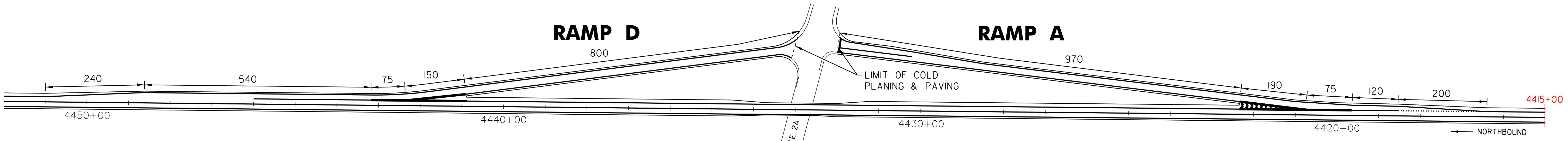


NOTE: ALL DIMENSIONS IN FEET UNLESS OTHERWISE NOTED.
REFER TO STANDARDS E-191, E-192, & E-193
FOR ADDITIONAL DETAILS.

**REST AREA
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 p01a030rad.i DATE PLOTTED #####DATE
PROJ. NAME **RICHMOND-SO. BURLINGTON**
PROJ. NO. **IM089-2(39)**
SHEET **61** OF **91** SHEETS

INTERCHANGE #12 (NORTHBOUND)

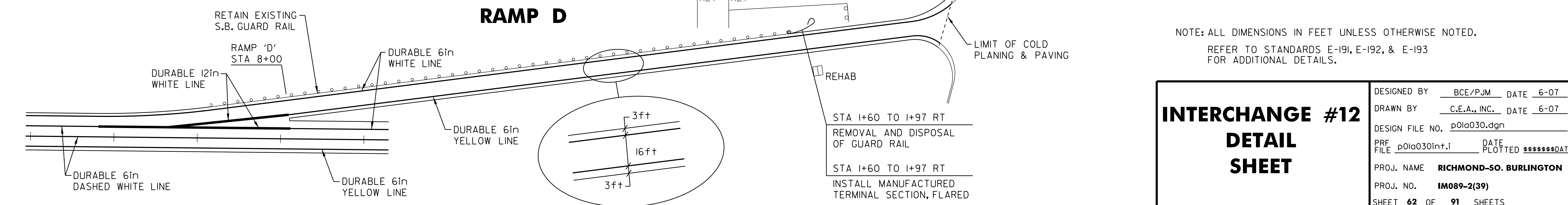


TEMPORARY (PAINT) AND DURABLE (RECESSED) 6in YELLOW LINE	
RAMP A STA 0+00 TO 9+70	SOLID LT
RAMP D STA 0+00 TO 8+00	SOLID LT
TEMPORARY (PAINT) AND DURABLE (RECESSED) 12in WHITE LINE	
MAINLINE STA 4416+40 TO 4418+40	DOTTED RT
STA 4418+40 TO 4419+60	DASHED RT
STA 4443+15 TO 4448+55	DASHED RT
RAMP A STA 0+00 TO 9+70	SOLID RT
STA 7+60 TO 9+64	SOLID C.L.
RAMP D STA 0+00 TO 8+00	SOLID RT
TEMPORARY (PAINT) AND DURABLE (THERMOPLASTIC) 24in STOP BAR	
RAMP A STA 9+64	VT ROUTE 2A

TEMPORARY LETTER OR SYMBOL (PAINT) DURABLE LETTER OR SYMBOL (THERMOPLASTIC)	
RAMP A STA 2+40	"SIGNAL AHEAD"
STA 6+80	(2) "ONLY"
STA 7+60	(2) "ONLY"
STA 8+00	(2) "ONLY"
STA 9+12	(2) "ONLY"
STA 9+52	(2) "ONLY"

LEGEND

- N = NEW
- R = REMOVE
- RET = RETAIN
- B-TO-B = BACK TO BACK
- = THROAT D.I.

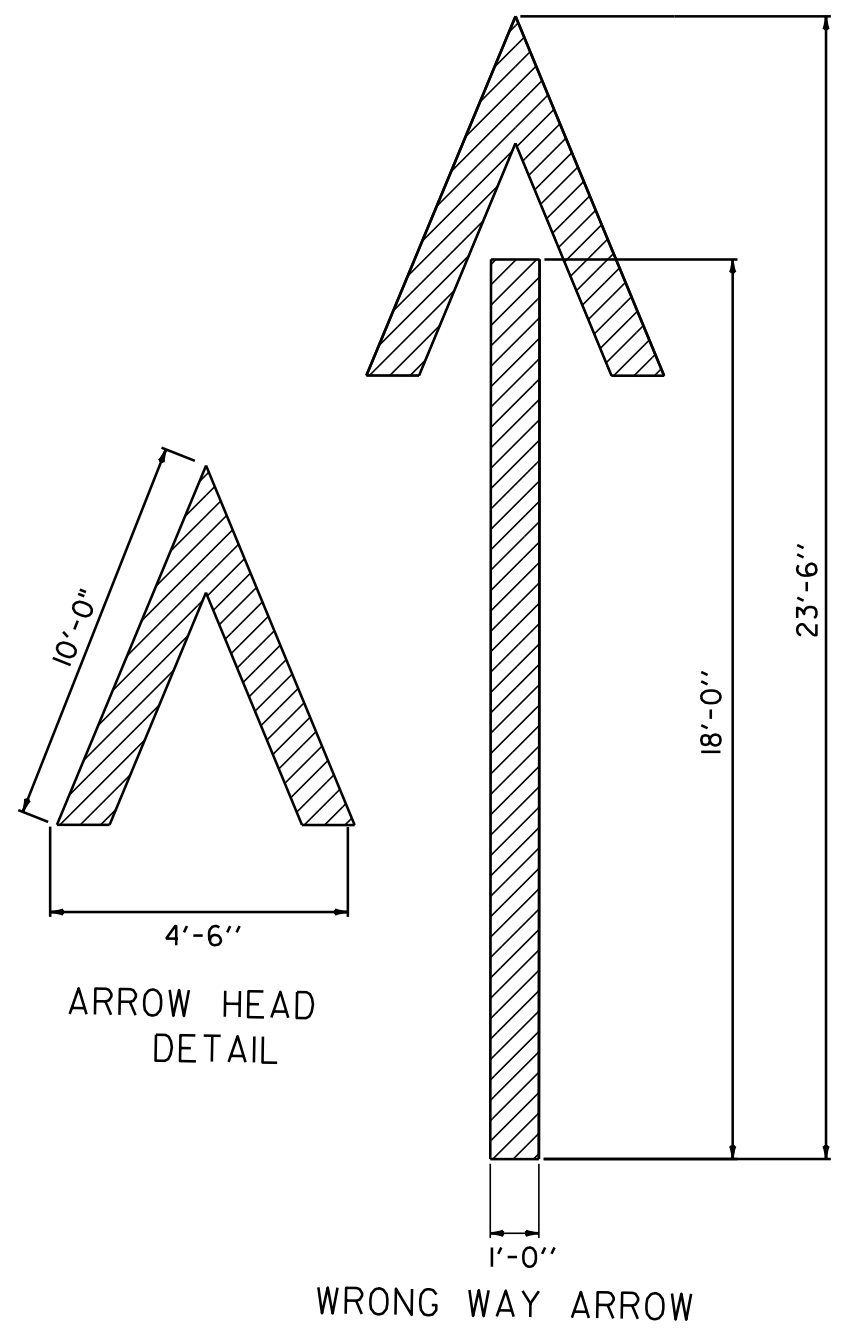
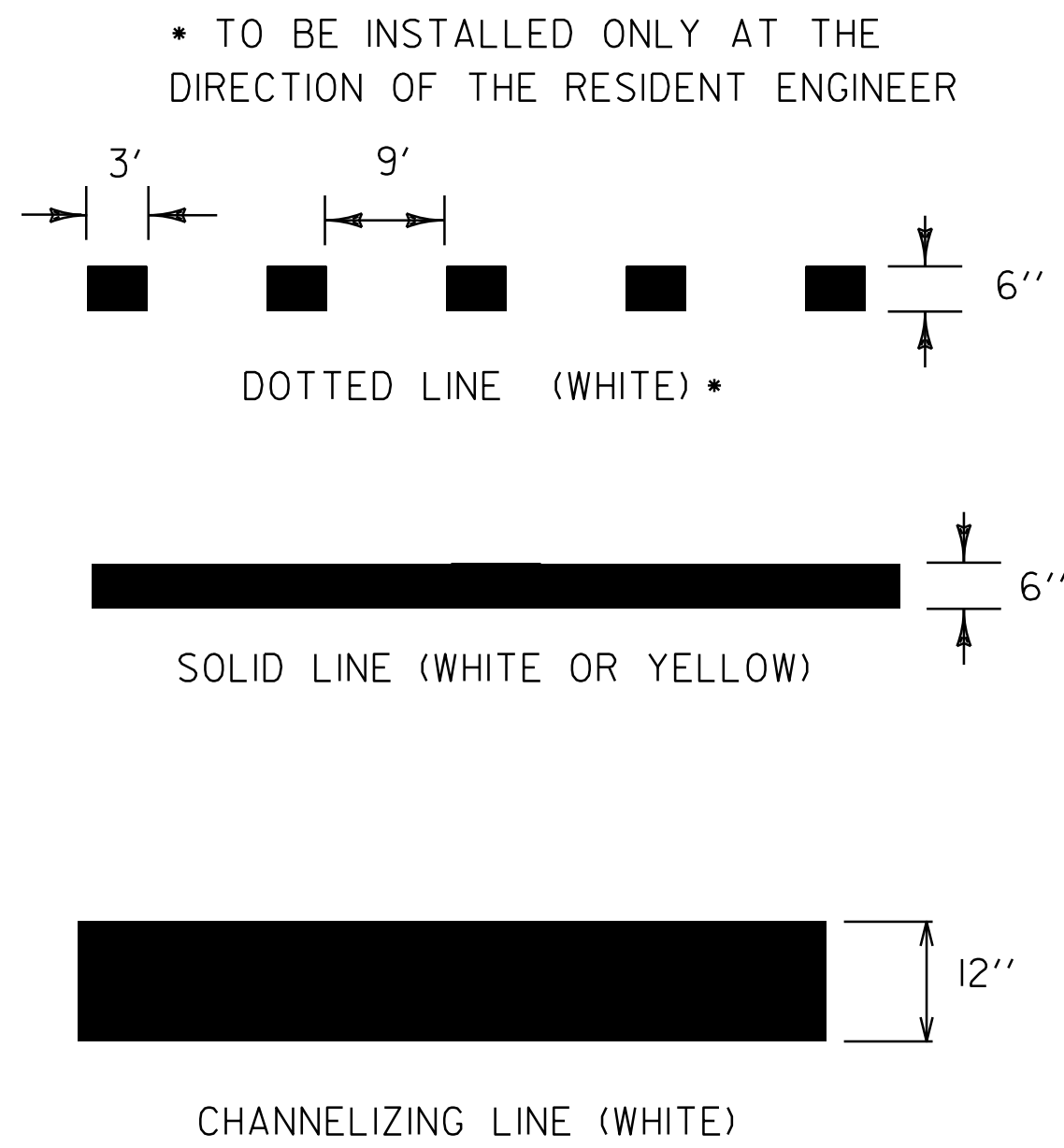


REMOVAL AND DISPOSAL OF GUARD RAIL	MANUFACTURED TERMINAL SECTION, FLARED
RAMP D STA 1+60 TO 1+97 RT	RAMP D STA 1+60 TO 1+97 RT
REHABILITATION OF D.I., C.B., OR M.H.	
RAMP D STA 1+60 LT	

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

INTERCHANGE #12 DETAIL SHEET

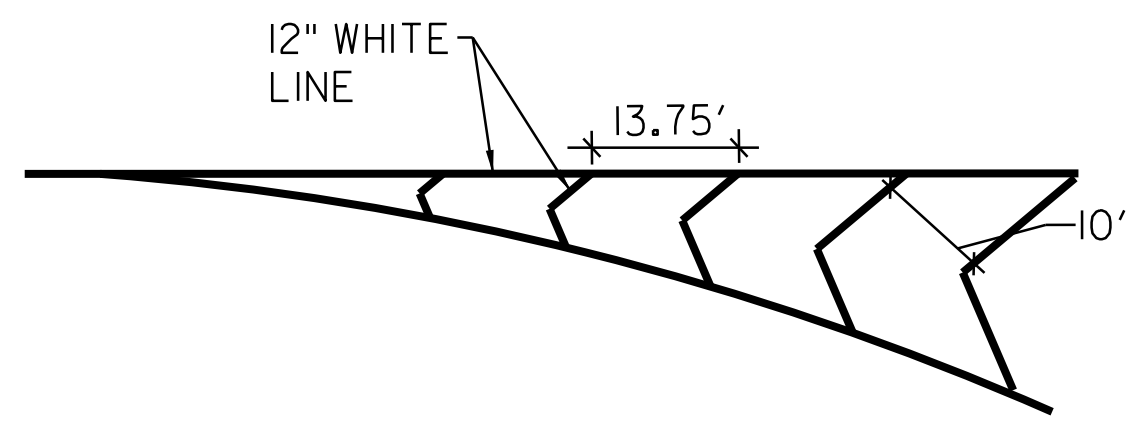
DESIGNED BY	BCE/PJM	DATE	6-07
DRAWN BY	C.E.A., INC.	DATE	6-07
DESIGN FILE NO.	p01a030.dgn		
PRF FILE	p01a030int.i	DATE PLOTTED	#####DATE
PROJ. NAME	RICHMOND-SO. BURLINGTON		
PROJ. NO.	IM089-2(39)		
SHEET	62	OF	91 SHEETS



PAVEMENT MARKING LINE DETAILS

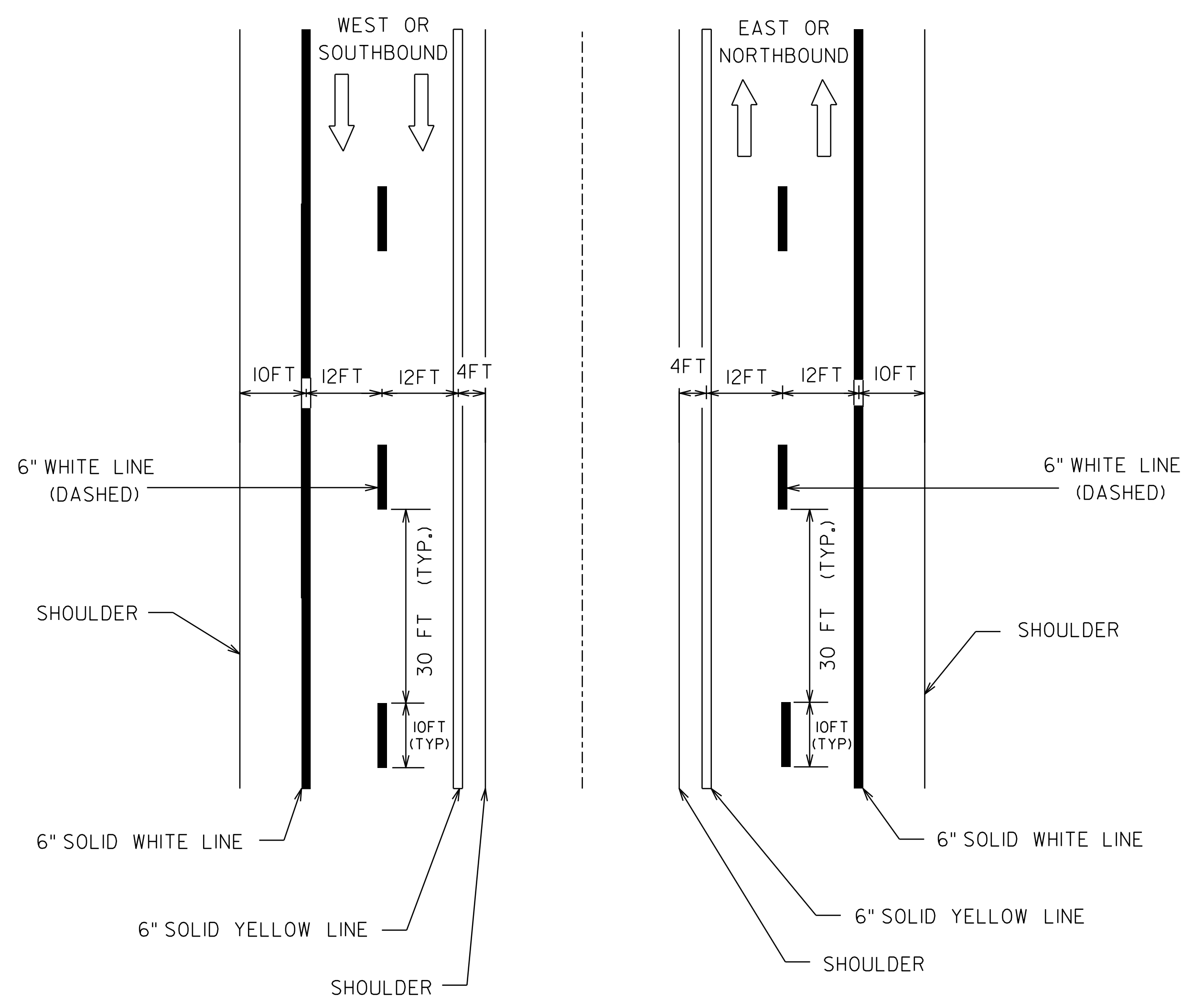


STOP BAR DETAIL



GORE MARKING DETAIL

NOT TO SCALE



TYPICAL MAINLINE MARKING PLAN

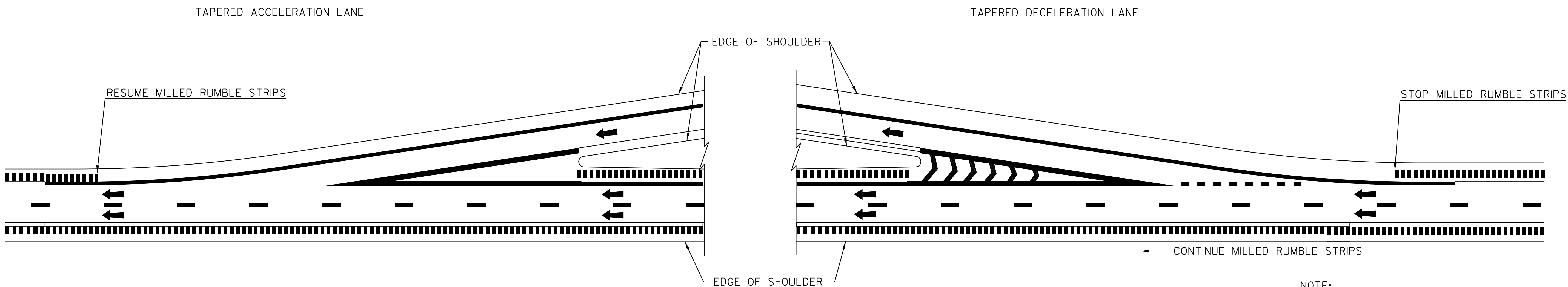
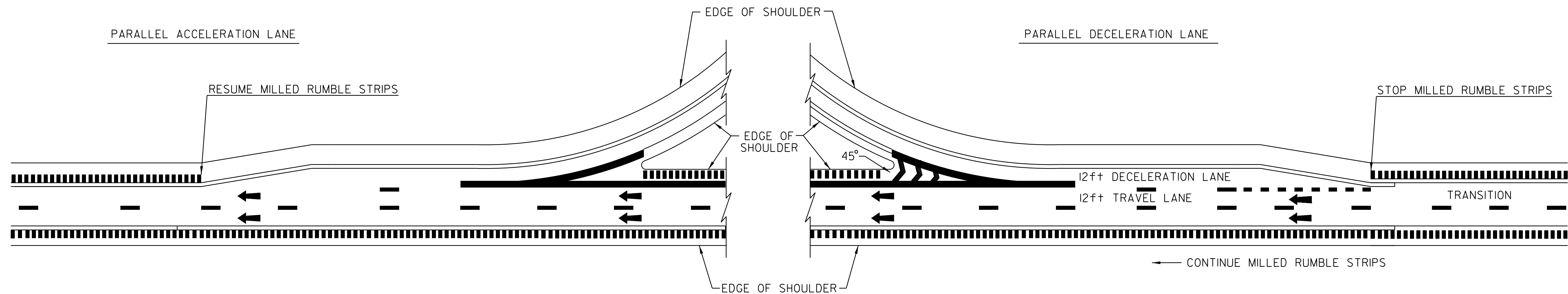
LEGEND

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

PAVEMENT MARKING DETAIL SHEET

DESIGNED BY _____	DATE 6-07
DRAWN BY _____	DATE 6-07
DESIGN FILE NO. p01a030.dgn	
PRF FILE p01a030pmd.i	DATE PLOTTED \$\$\$\$\$\$DATE\$\$\$
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

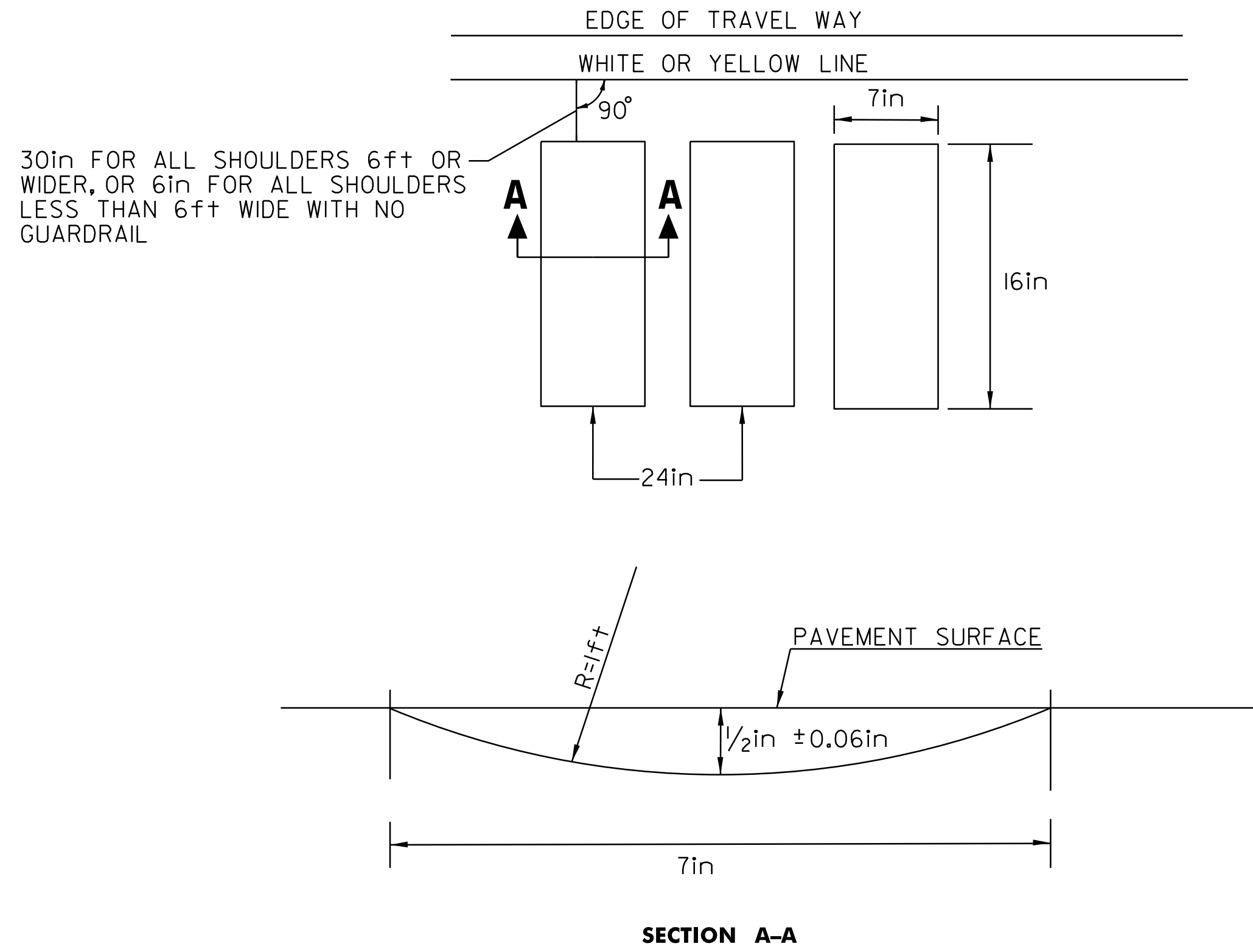
- DIRECTION OF TRAFFIC FLOW
- MILLED RUMBLE STRIPS

DATUM	
VERTICAL	N/A
HORIZONTAL	N/A

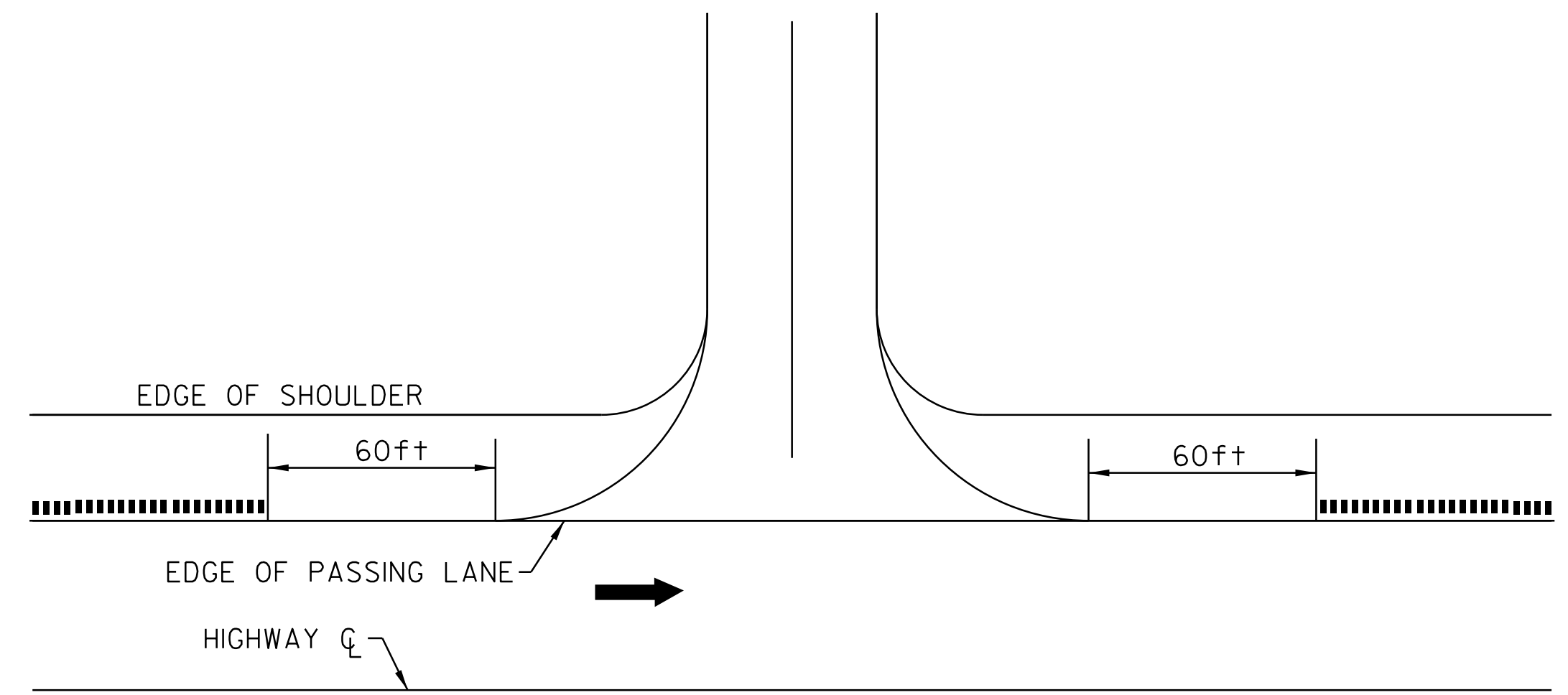
MILLED RUMBLE STRIP DETAIL SHEET #1

DESIGNED BY _____	DATE 6-07
DRAWN BY _____	DATE 6-07
DESIGN FILE NO. p01a030.dgn	
PRF FILE p01a030r.sl.i	DATE PLOTTED \$\$\$\$\$\$DATE\$\$\$\$\$
PROJ. NAME RICHMOND-SO. BURLINGTON	
PROJ. NO. IM089-2(39)	
SHEET 64 OF 91 SHEETS	

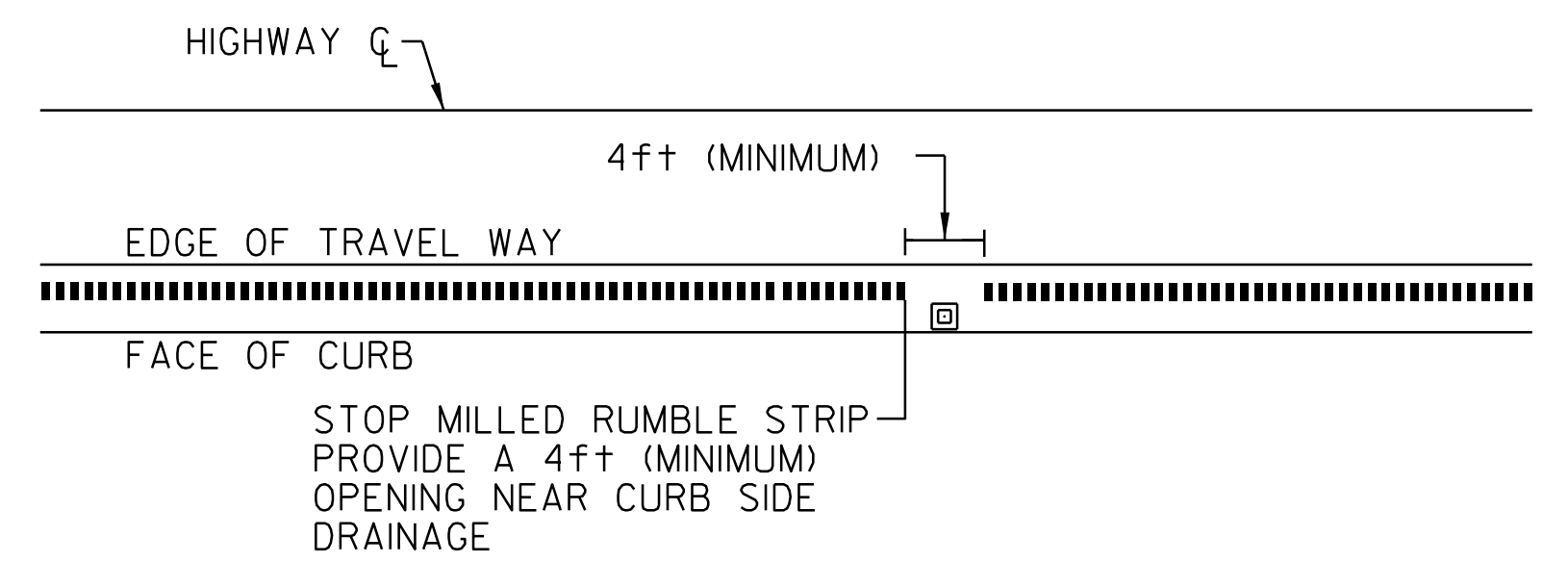
TYPICAL MILLING DETAIL



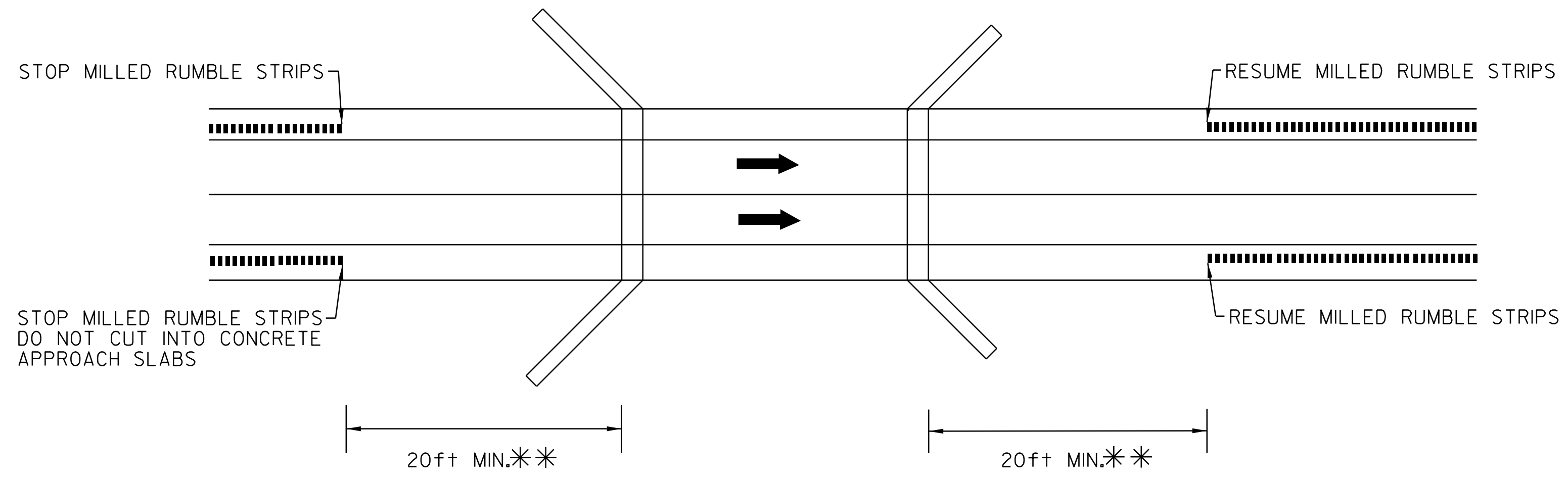
U-TURN DETAIL



DRAINAGE DETAIL



BRIDGE DETAIL



** BRIDGE RAIL WILL DETERMINE MINIMUM DISTANCE IN SOME CASES.

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. p01a030.dgn	
PRF FILE p01a030r.s2.i	DATE PLOTTED \$\$\$\$\$\$DATE\$\$\$\$
PROJ. NAME	RICHMOND-SO. BURLINGTON
PROJ. NO.	IM089-2(39)
SHEET	65 OF 91 SHEETS

LEGEND

- DIRECTION OF TRAFFIC FLOW
- MILLED RUMBLE STRIPS

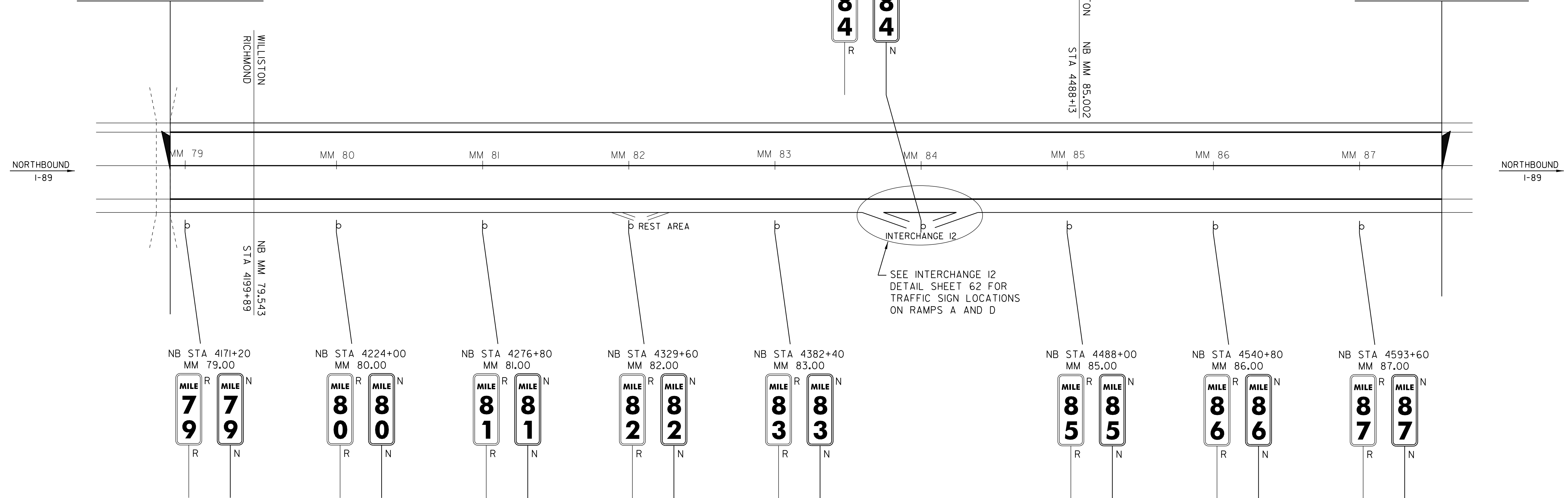
DATUM	
VERTICAL	N/A
HORIZONTAL	N/A

**INTERSTATE ROUTE 89
NORTHBOUND
STA 4170+67
(MM 78.990)
BEGIN PROJECT IM089-2(39)**

REMOVE SIGNS
9

NB STA 4435+20
MM 84.00

**INTERSTATE ROUTE 89
NORTHBOUND
STA 4614+56
(MM 87.397)
END PROJECT IM089-2(39)**

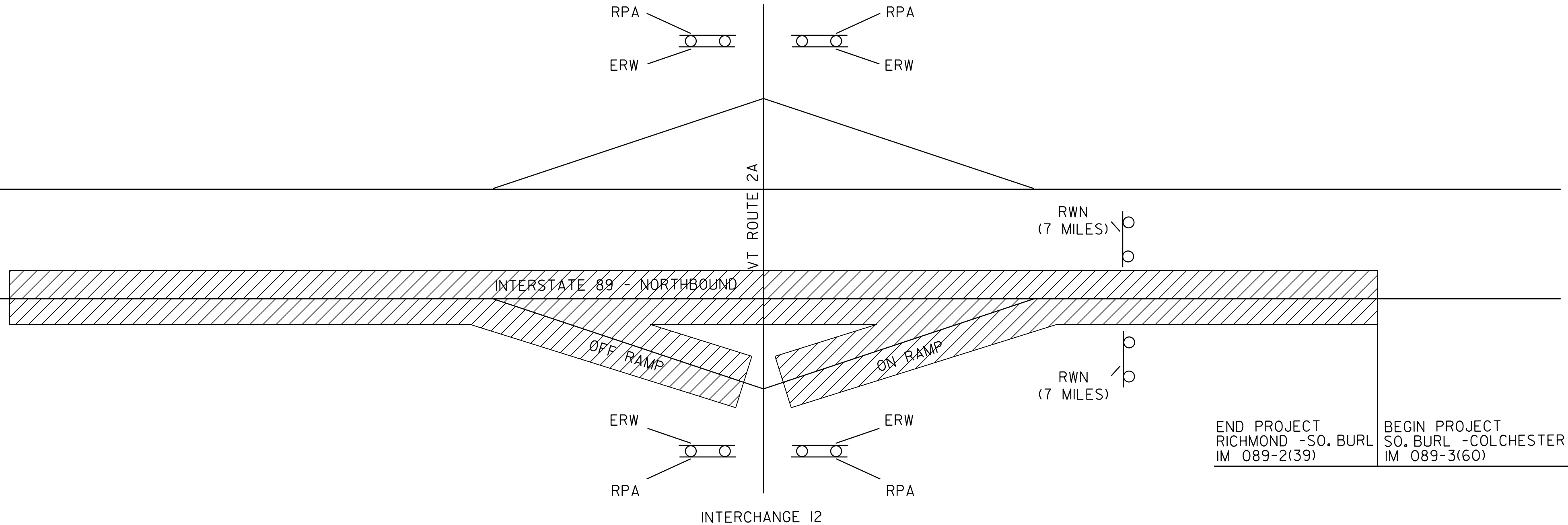
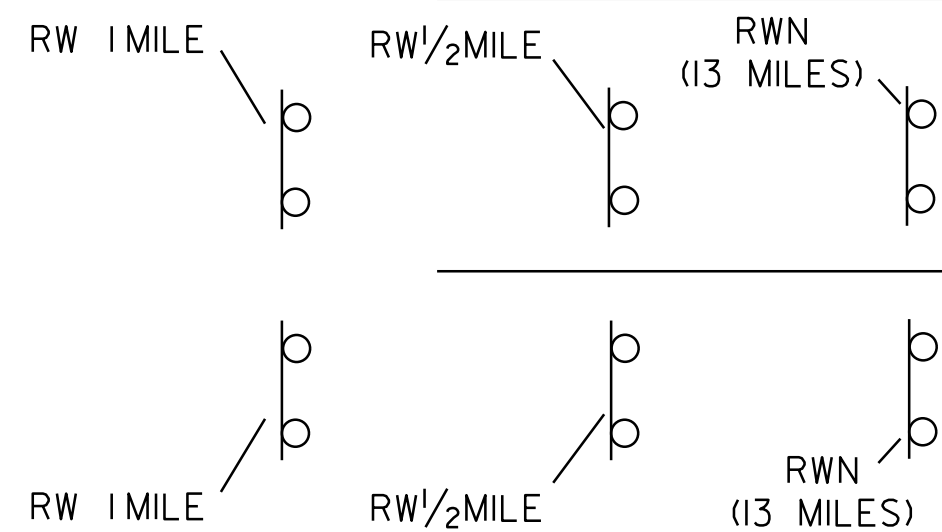


**TRAFFIC
SIGN
LAYOUT
SHEET**

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

LEGEND

- RW 1MILE = ROAD WORK 1 MILE
- RW 1/2MILE = ROAD WORK 1/2 MILE
- 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

CONSTRUCTION APPROACH SIGNING

SEE STD. E-100 FOR SIGN PLACEMENT

NOTES:

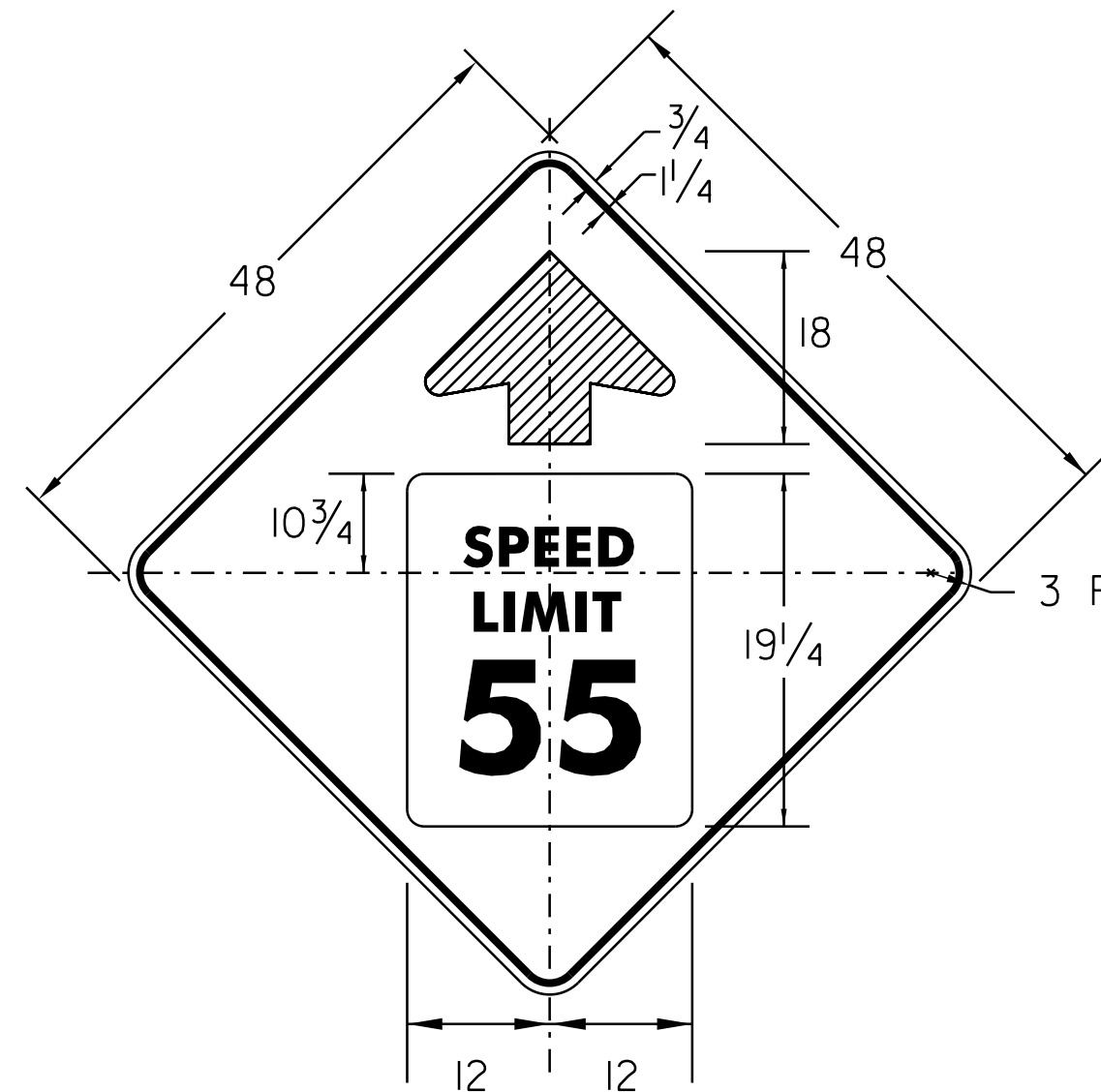
- THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) SHALL NOT BE PAID SEPARATELY BUT SHALL BE INCIDENTAL TO THE CONTRACT SECTION 900 TRAFFIC CONTROL ITEM.
- THE CONTRACTOR SHALL INCLUDE 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.

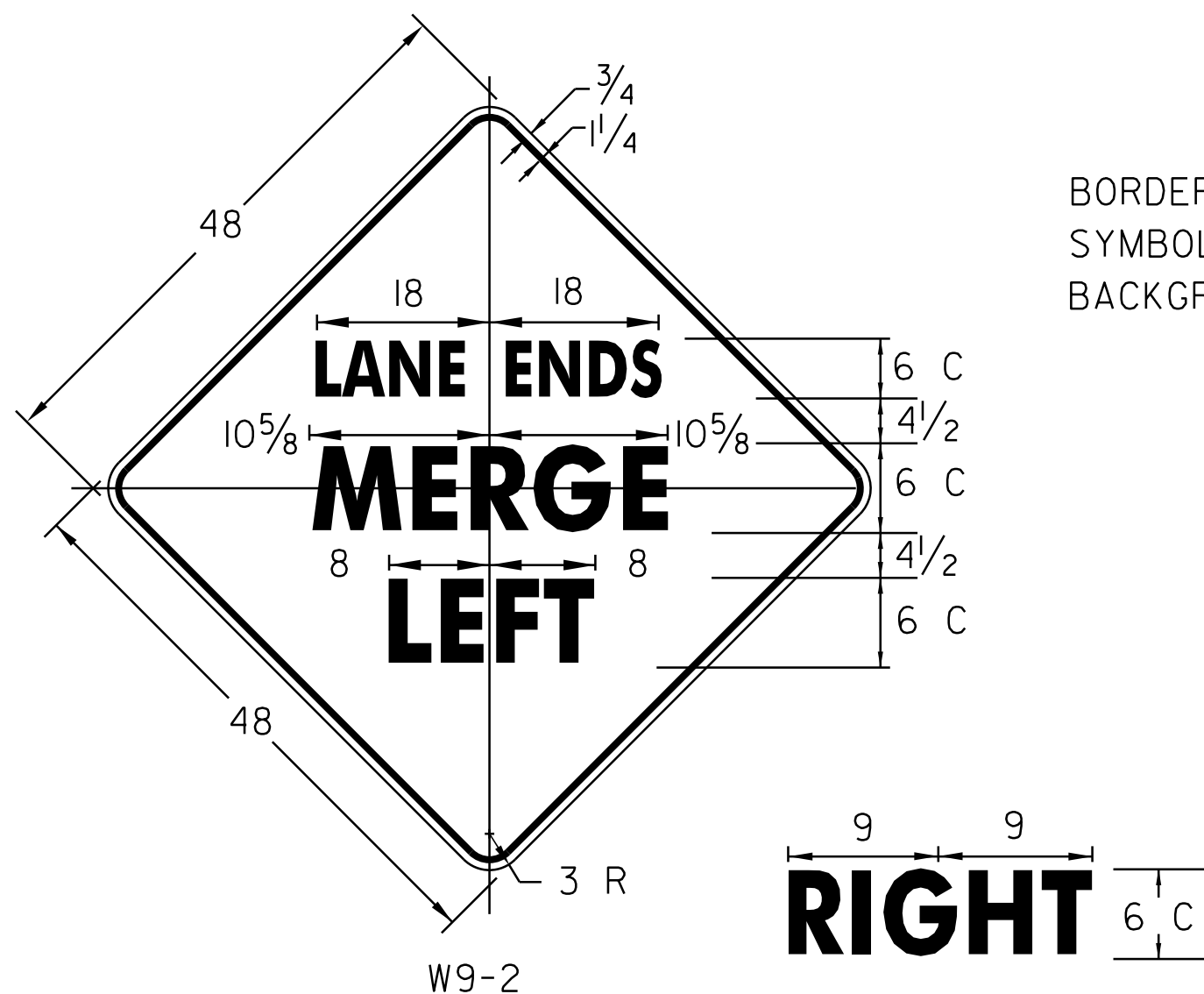
THE PCMS SHALL CONSIST OF EITHER ONE OR TWO PHASES. TYPICALLY, A PHASE SHALL CONSIST OF UP TO THREE LINES OF EIGHT CHARACTERS PER LINE. THE PCMS SHOULD BE USED TO SUPPLEMENT AND NOT AS A SUBSTITUTE FOR CONVENTIONAL SIGNS AND PAVEMENT MARKINGS.

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.

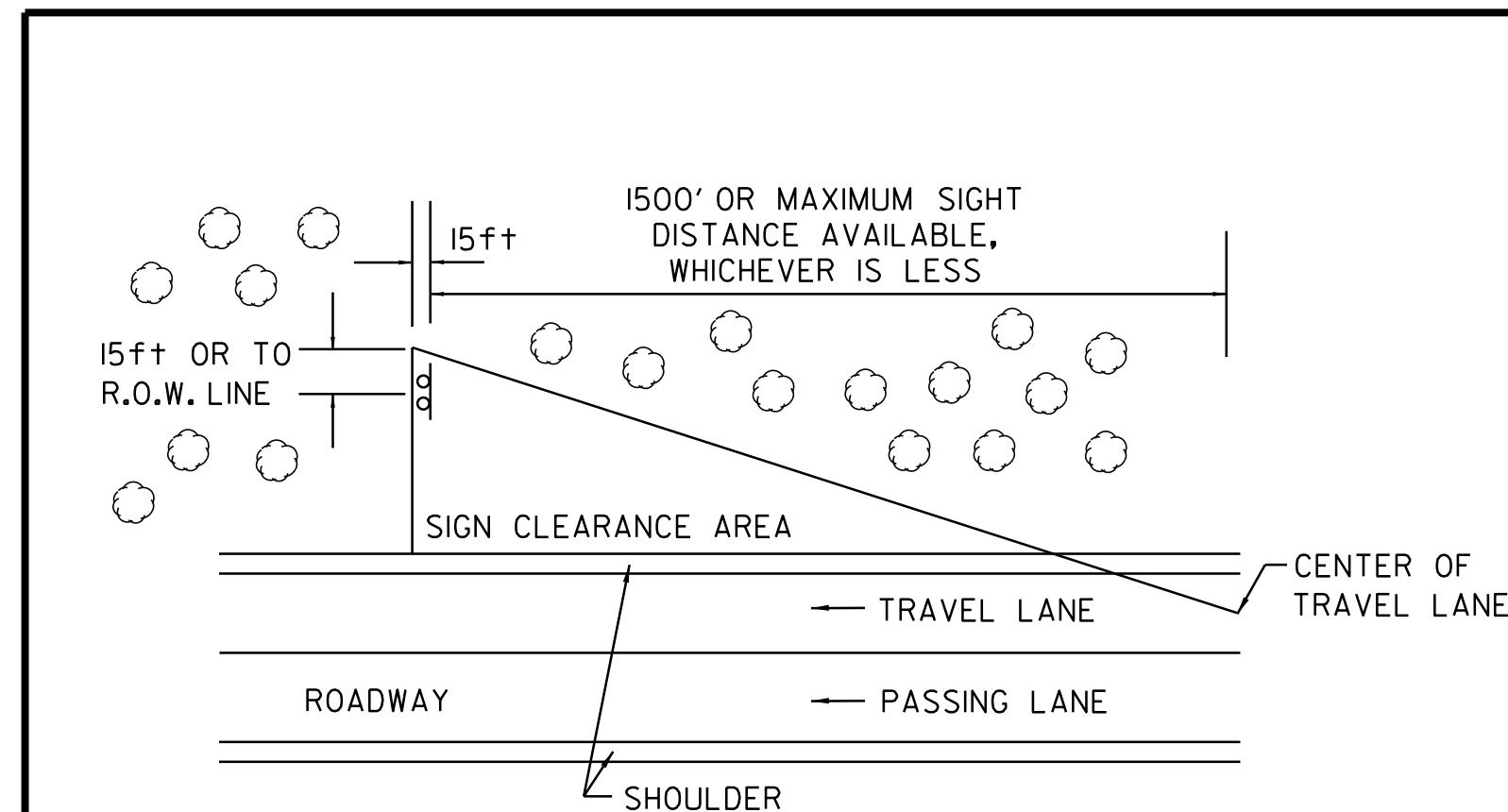
- THE MUTCD 2003 SHALL BE THE STANDARD FOR ALL TRAFFIC CONTROL DEVICES. EXISTING SIGNS, SIGNALS AND MARKINGS SHALL BE VALID UNTIL SUCH TIME AS THEY ARE REPLACED OR RECONSTRUCTED. WHEN NEW TRAFFIC CONTROL DEVICES ARE ERECTED OR PLACED OR EXISTING TRAFFIC CONTROL DEVICES ARE REPLACED OR REPAIRED THE EQUIPMENT, 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)

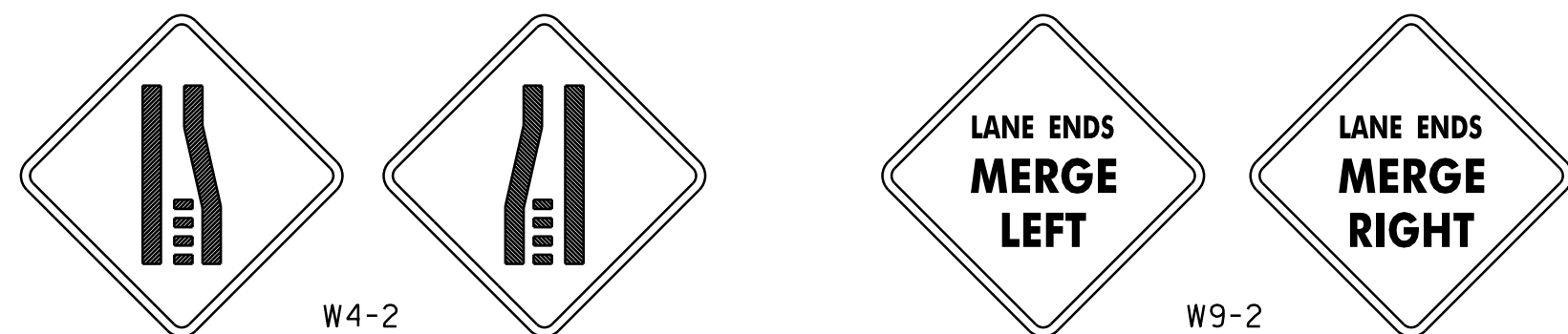


MATERIALS & COLORS:
PER VAOT STANDARD E-154



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

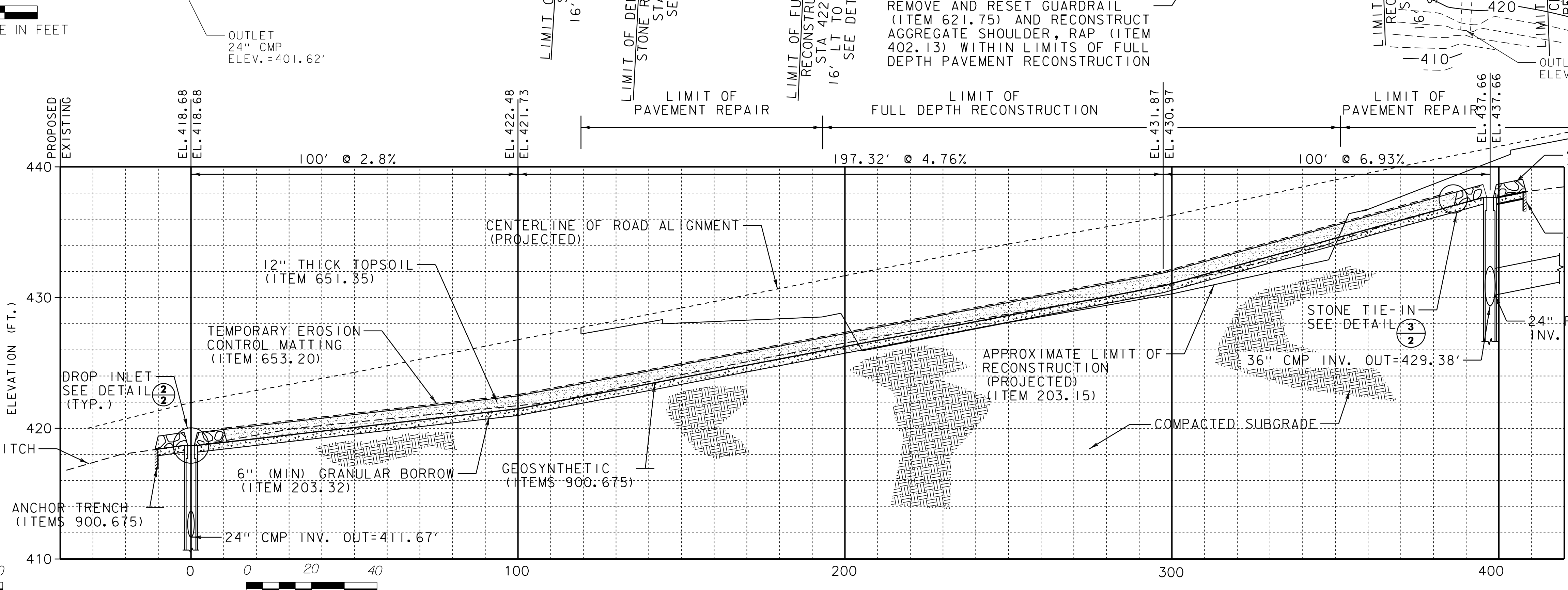
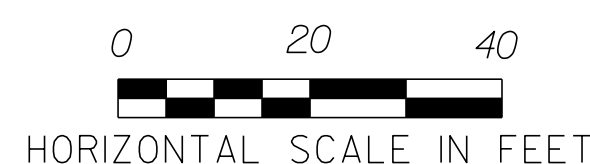
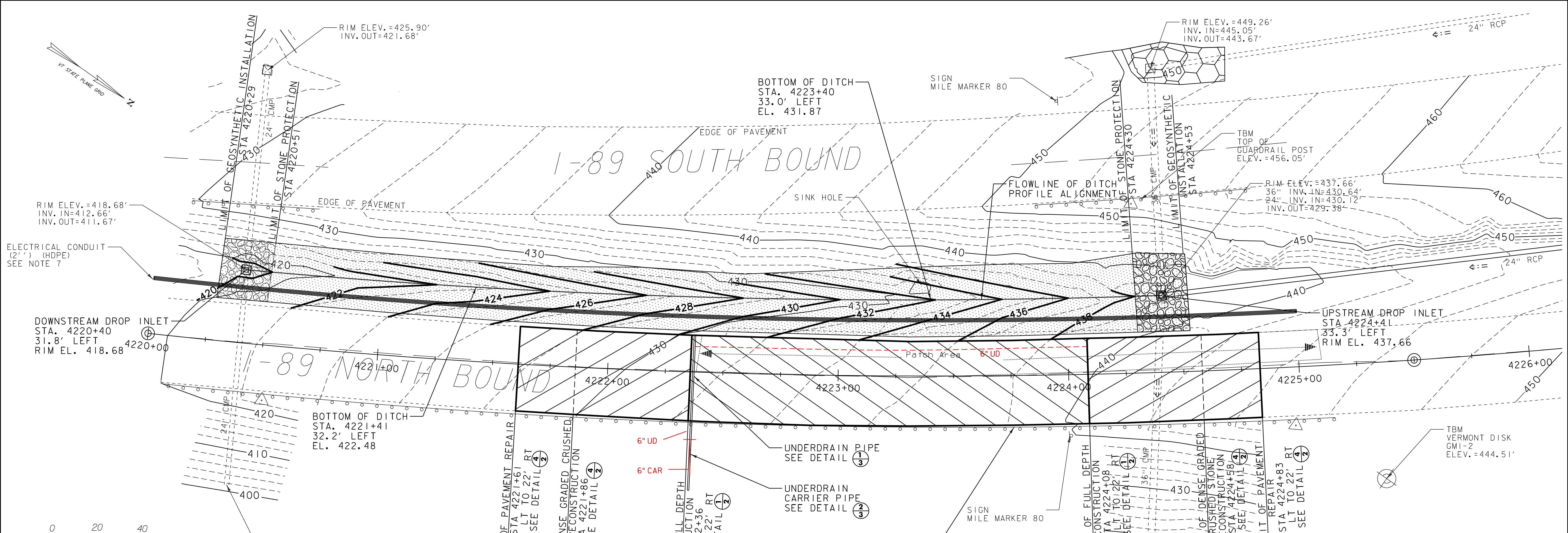


CONSTRUCTION APPROACH SIGNING and THINNING AND TRIMMING FOR SIGNS DETAIL SHEET

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

ALL DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED

DATUM	
VERTICAL	N/A
HORIZONTAL	N/A



PROPOSED DITCH PROFILE (FT.)

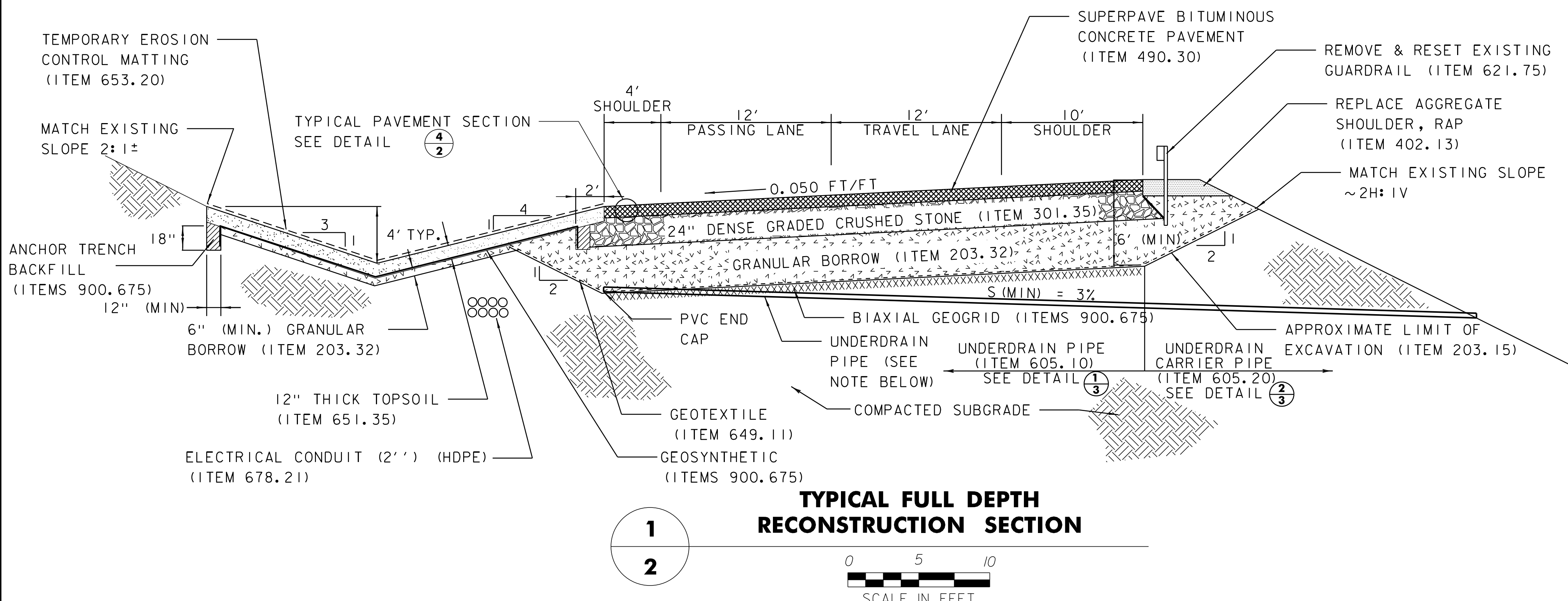
- NOTES:**
1. THE INTENT OF THIS PLAN IS TO SHOW EXISTING CONDITIONS, PROPOSED IMPROVEMENTS TO THE DITCH, AND PROPOSED LIMIT OF PAVEMENT RECONSTRUCTION.
 2. THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY PERFORMED ON THE GROUND BETWEEN SEPTEMBER 25 AND OCTOBER 10, 2007 BY CLD CONSULTING ENGINEERS.
 3. SURVEY IS BASED ON THE VERMONT STATE PLAN COORDINATE SYSTEM. HORIZONTAL DATUM IS NAD83/92 AND VERTICAL DATUM IS NAVD 88.
 4. CONTRACTOR SHALL REMOVE VEGETATION AND FULL DEPTH TOPSOIL WITHIN THE LIMITS OF GEOSYNTHETIC INSTALLATION. (ITEM 203.15)
 5. CONTRACTOR SHALL PROOF ROLL EXISTING SUBGRADE PRIOR TO PLACEMENT OF GRANULAR BORROW BELOW THE FULL DEPTH PAVEMENT RECONSTRUCTION AND GEOSYNTHETIC INSTALLATION. (SUBSECTION 203.12, INCIDENTAL TO ITEM 203.32)
 6. CONTRACTOR TO VERIFY CONDITION OF EXISTING DROP INLET APRON PRIOR TO INSTALLATION OF BATTEN STRIPS. CONTRACTOR MAY BE REQUIRED TO REHAB EXISTING CONCRETE D.I. PRIOR TO INSTALLATION. (ITEM 604.412)
 7. INSTALL EIGHT (8) 2 INCH HIGH DENSITY POLY-ETHYLENE ELECTRICAL CONDUITS FROM STA. 4220+00 TO STA. 4225+00, 25 FEET LEFT OF CENTERLINE. CONDUIT SHOULD BE BURIED AT A DEPTH OF FOUR (4) FEET. WARNING TAPE SHALL BE BURIED DIRECTLY OVER THE CONDUIT AT A DEPTH OF 12 INCHES. BOTH ENDS OF ALL 8 CONDUITS SHALL BE CAPPED AND A MARKER INSTALLED ABOVE GRADE TO INDICATE THE LOCATIONS OF BOTH ENDS OF THE CONDUITS. PAYMENT FOR CAPPING AND WARNING TAPE SHALL BE INCIDENTAL TO ITEM 678.21 ELECTRICAL CONDUIT (2'') (HDPE).

ROADWAY/DITCH PLAN & PROFILE

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

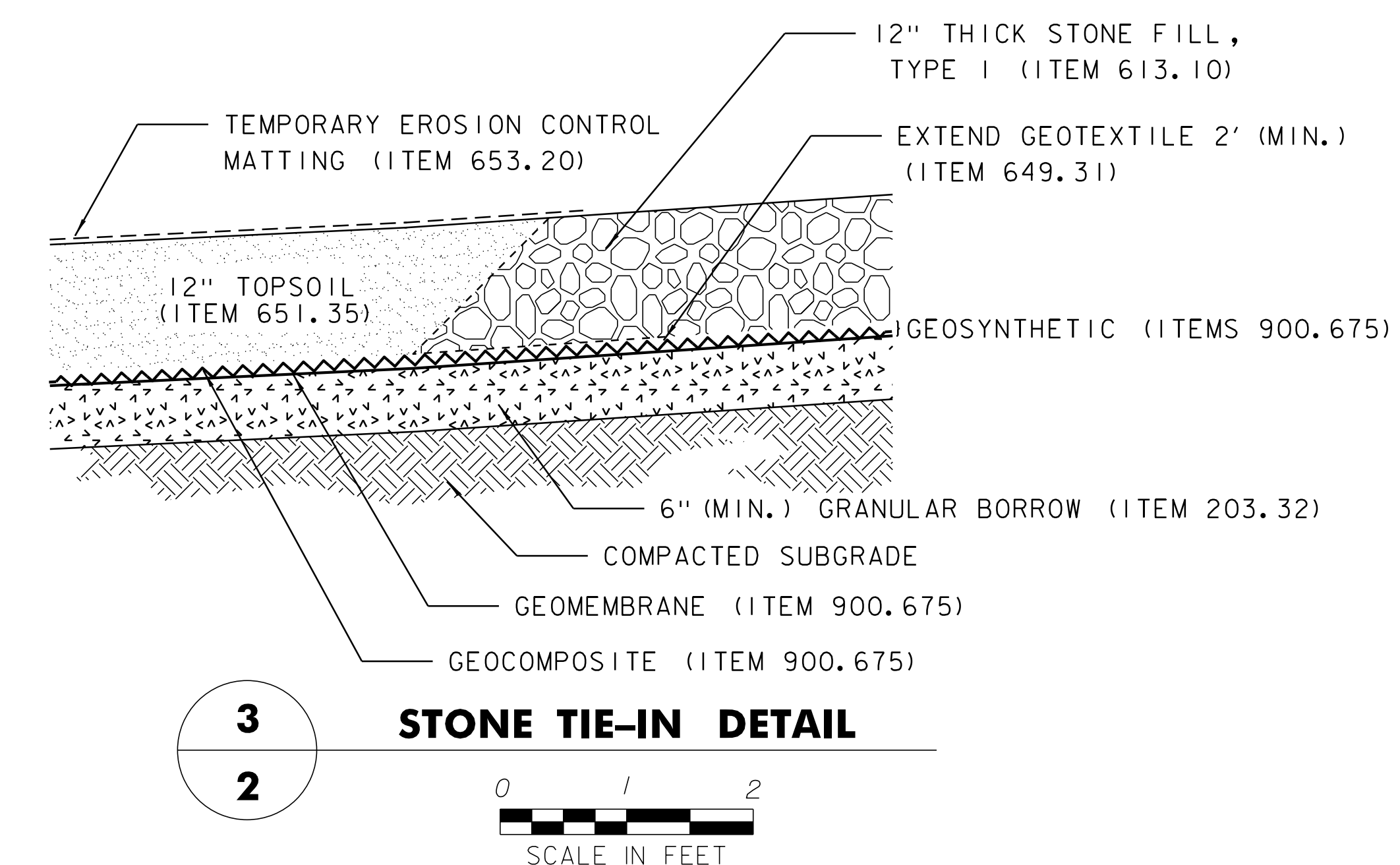
FILE NAME: p05a012.dgn
 PROJECT LEADER: PCI
 DESIGNED BY: MMC
 GOLDER ASSOCIATES INC.

PLOT DATE: 02-OCT-2012 16:5
 DRAWN BY: MPB
 CHECKED BY: RAW
 SHEET 69 OF 91



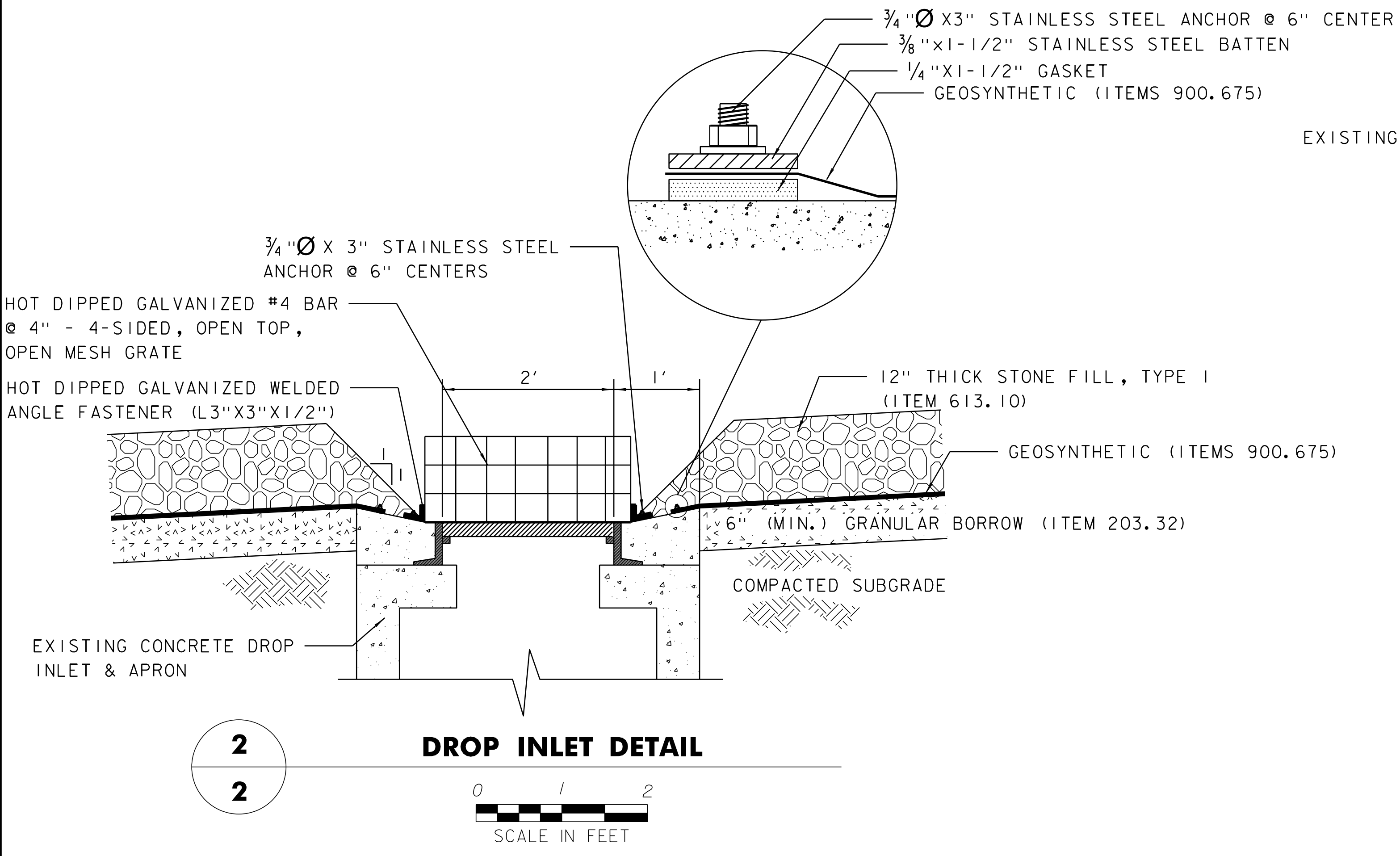
TYPICAL FULL DEPTH RECONSTRUCTION SECTION

NOTE: SEE SHEET 69 FOR LOCATION OF UNDERDRAIN



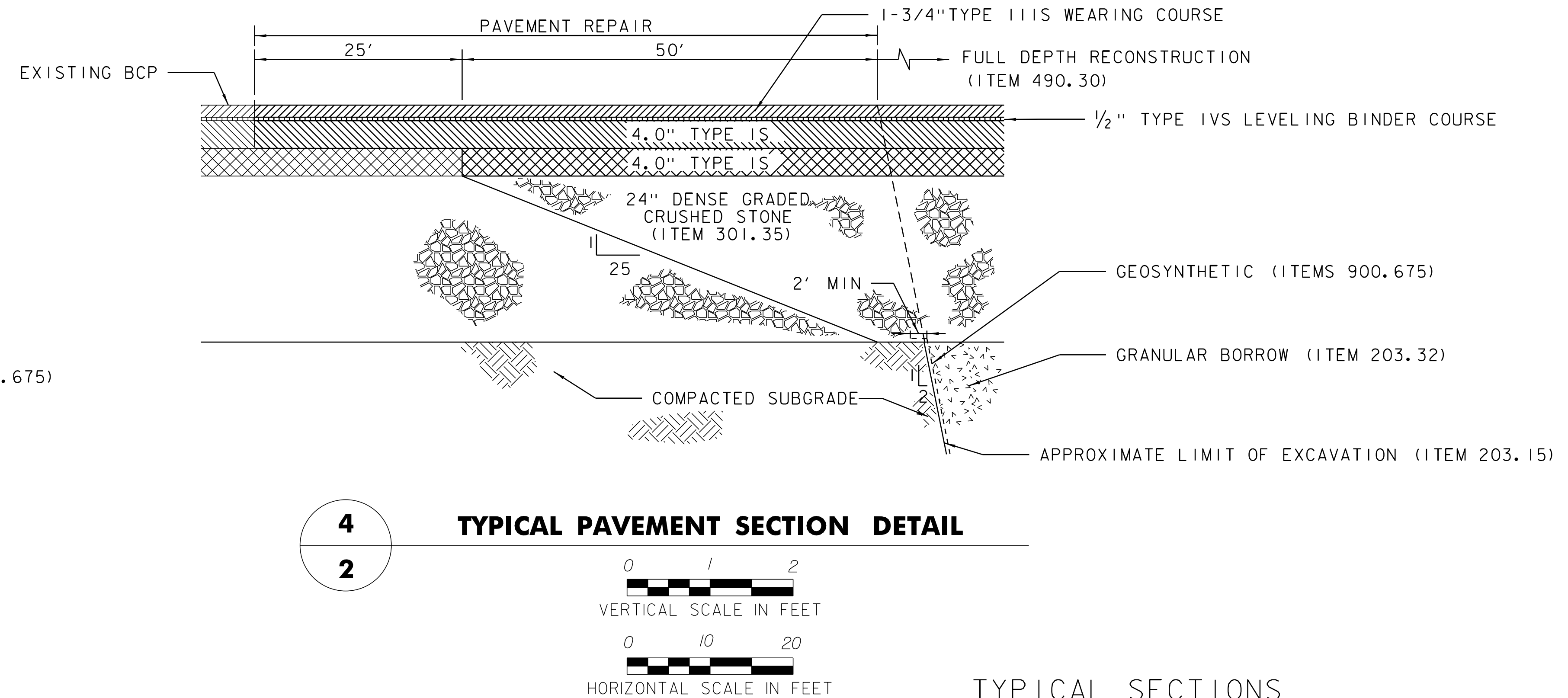
STONE TIE-IN DETAIL

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



DROP INLET DETAIL

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.

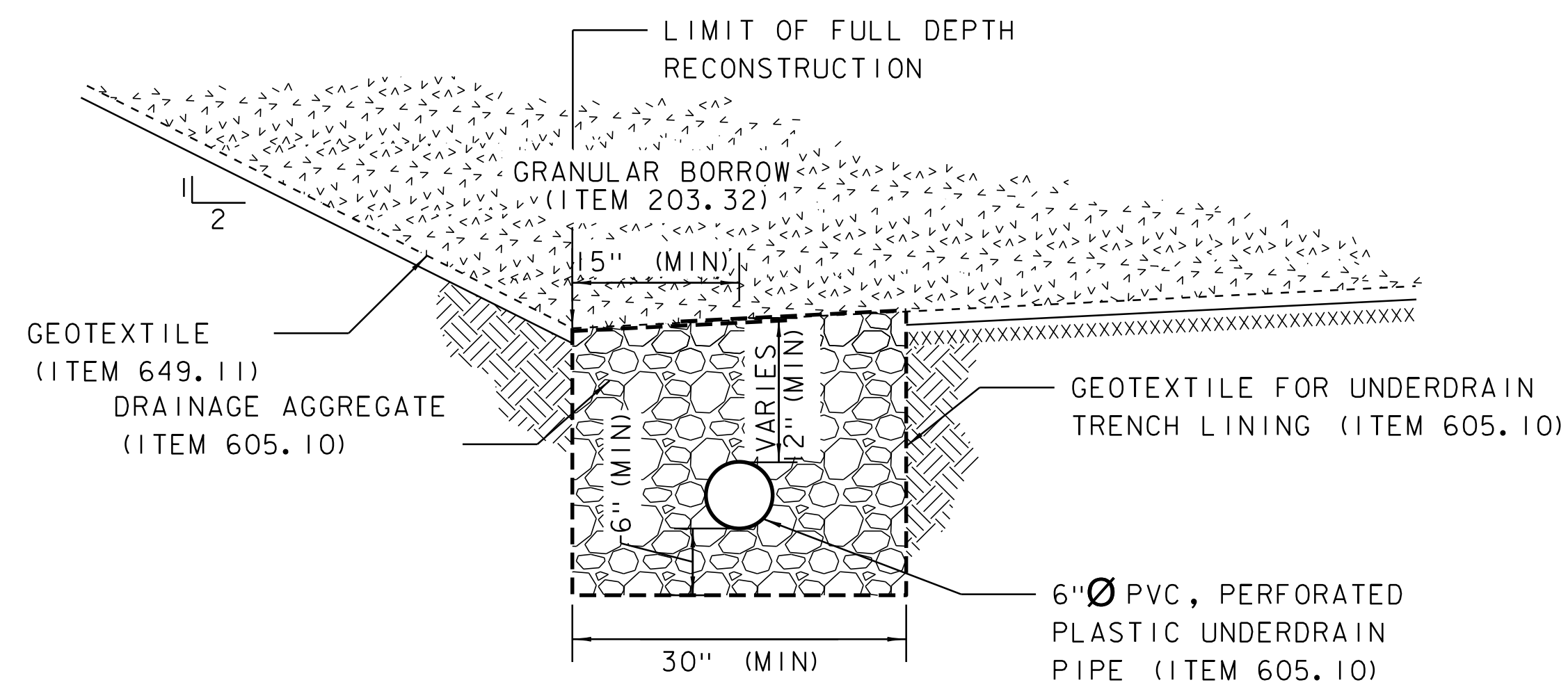


TYPICAL PAVEMENT SECTION DETAIL

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

TYPICAL SECTIONS

PROJECT NAME: RICHMOND-SOUTH BURLINGTON	PLOT DATE: 02-OCT-2012 16:5
PROJECT NUMBER: IM 089-2(39)	DRAWN BY: MPB
FILE NAME: p05a012.dgn	DESIGNED BY: MMC
GOLDER ASSOCIATES INC.	CHECKED BY: RAW
	SHEET 70 OF 91

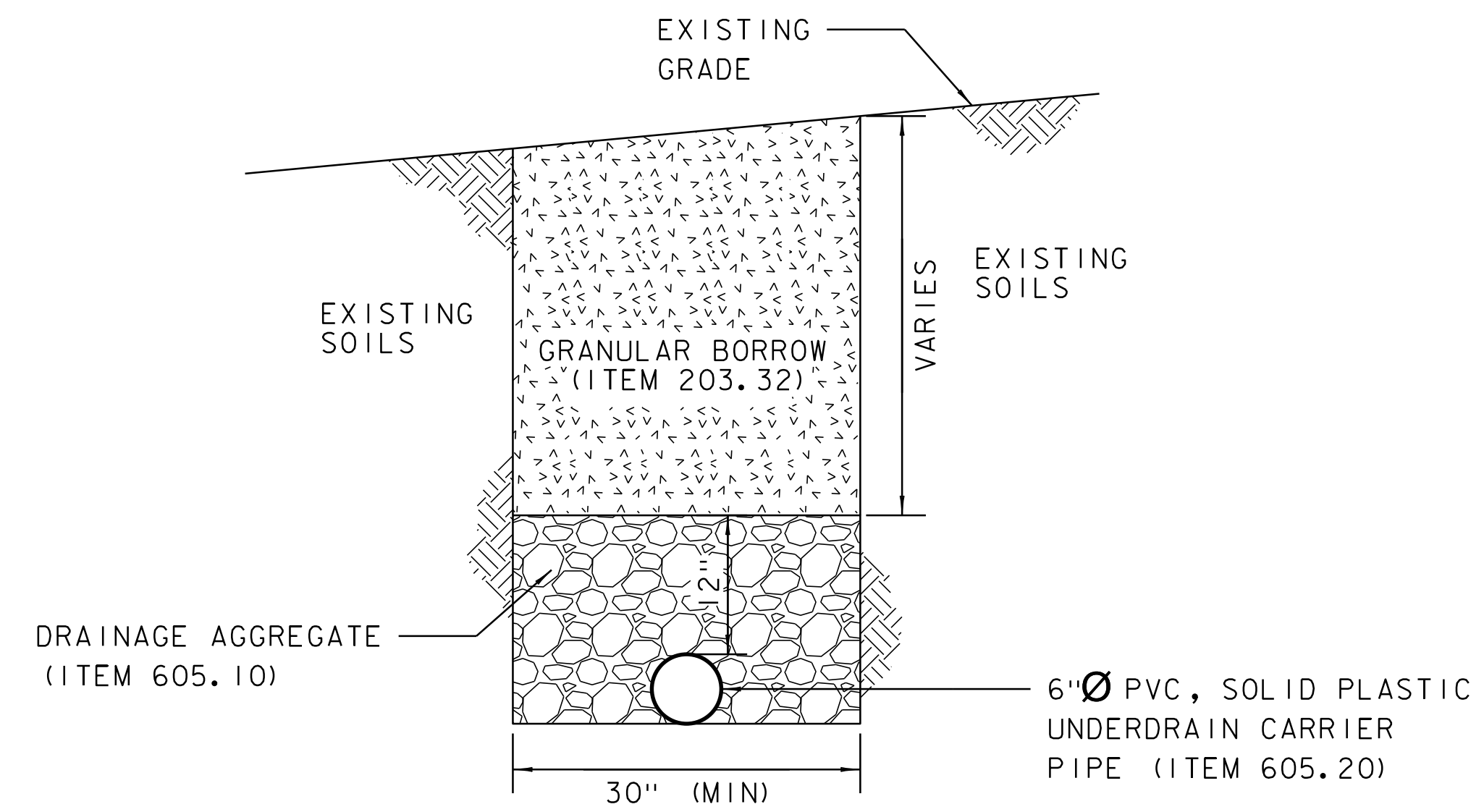


TYPICAL UNDERDRAIN PIPE

1
3



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



TYPICAL UNDERDRAIN CARRIER PIPE

2
3



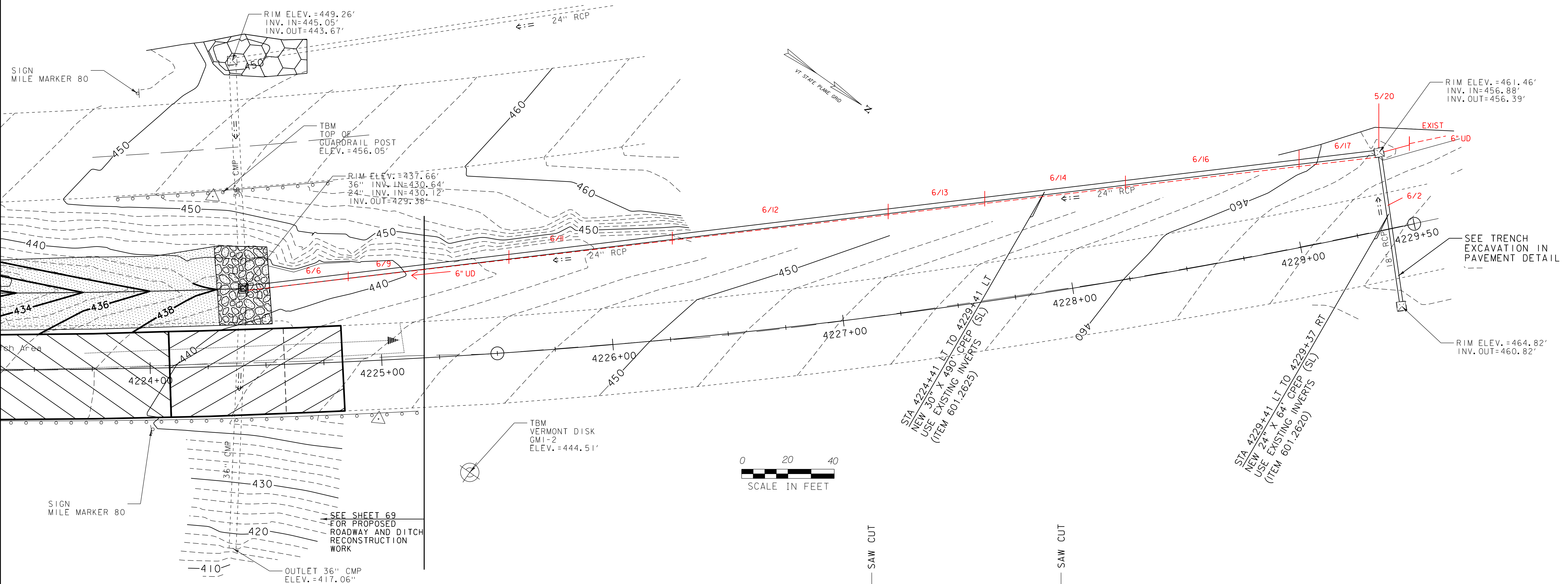
NOTE: TRENCH EXCAVATION SHALL BE PAID FOR UNDER ITEM 204.20.

UNDERDRAIN TYPICAL SECTIONS

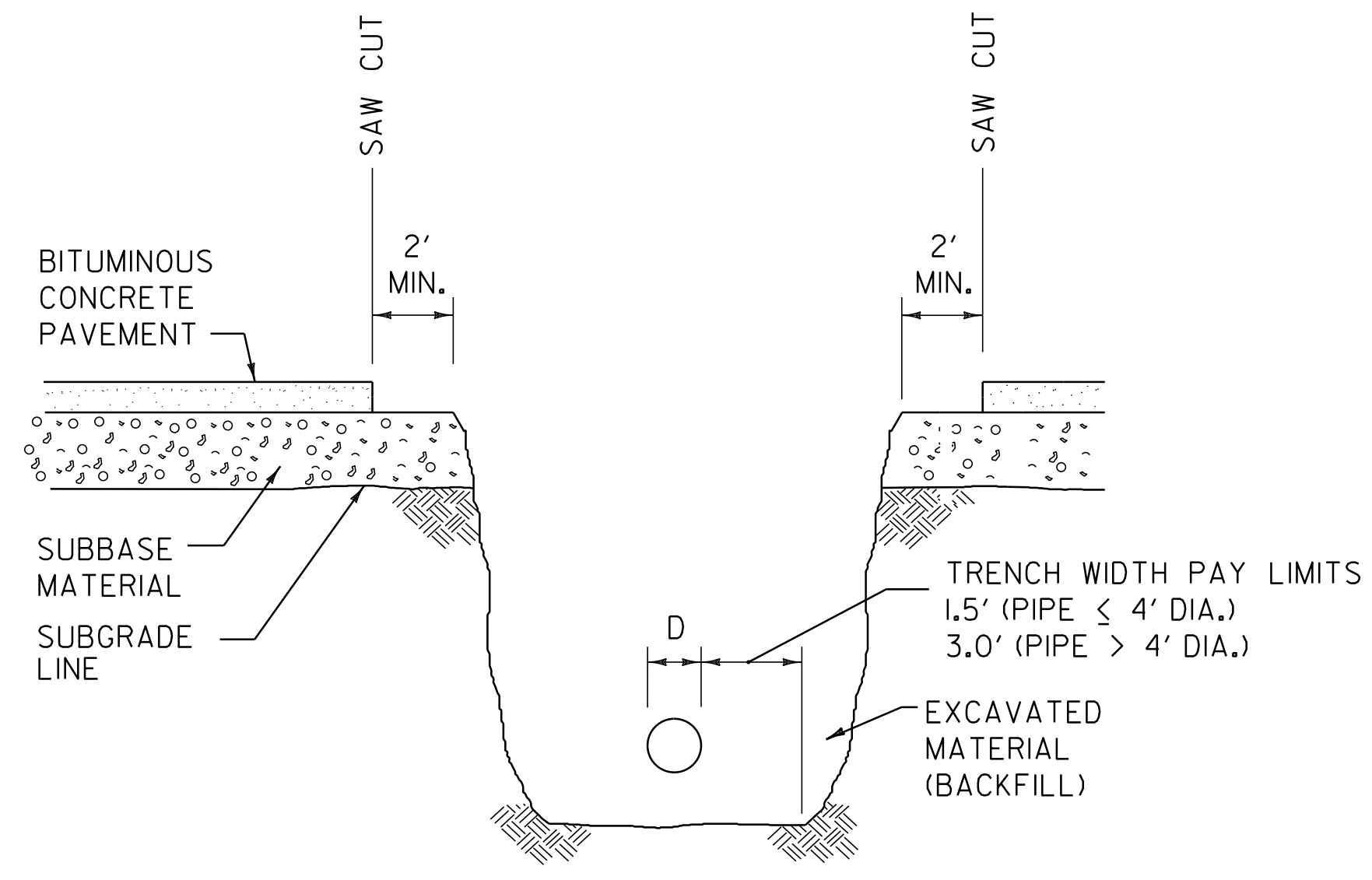
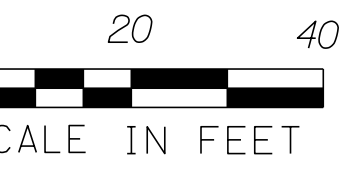
PROJECT NAME: RICHMOND-SOUTH BURLINGTON
PROJECT NUMBER: IM 089-2(39)

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.



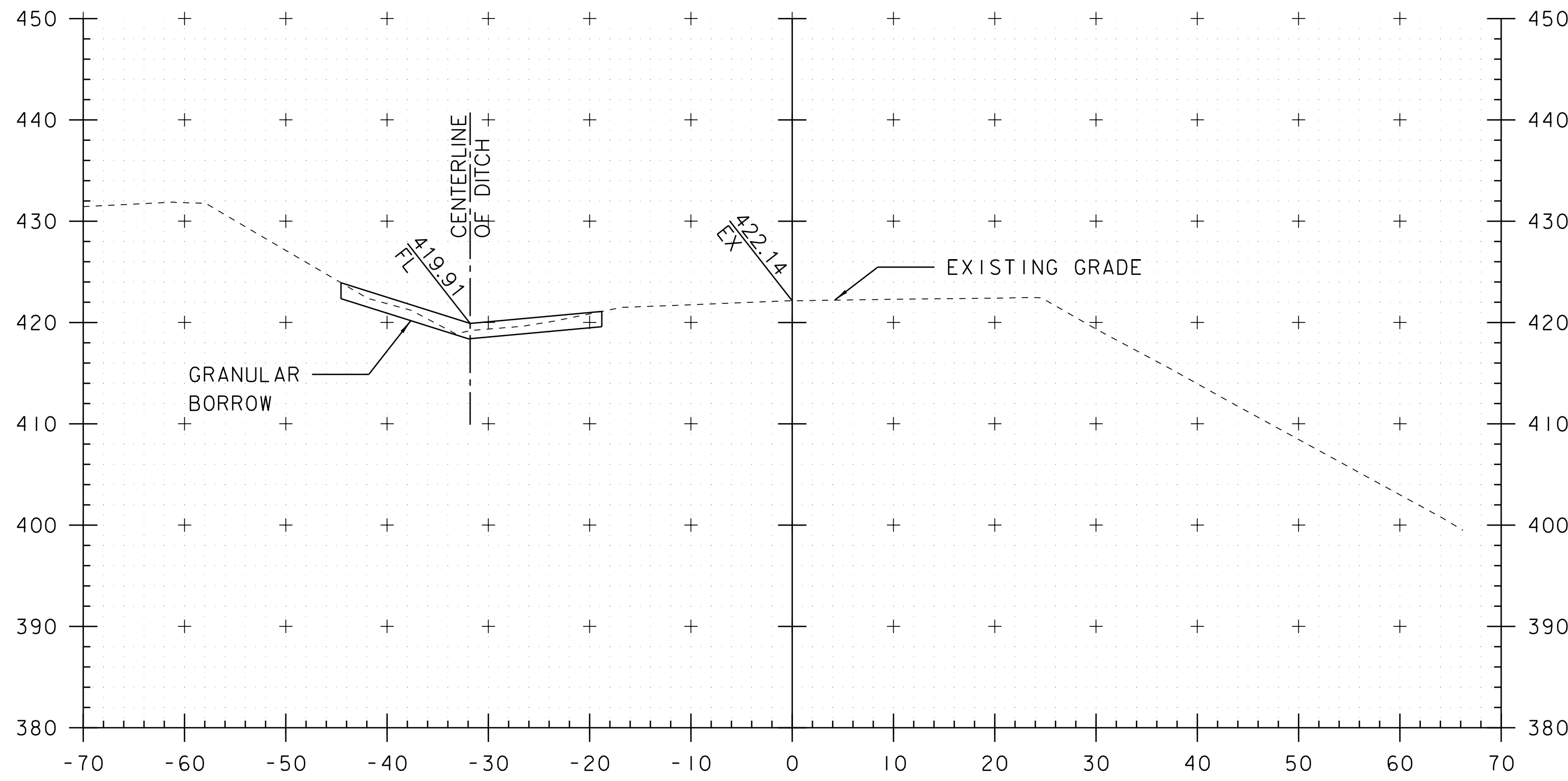
TRENCH EXCAVATION IN PAVEMENT

(NOT TO SCALE)

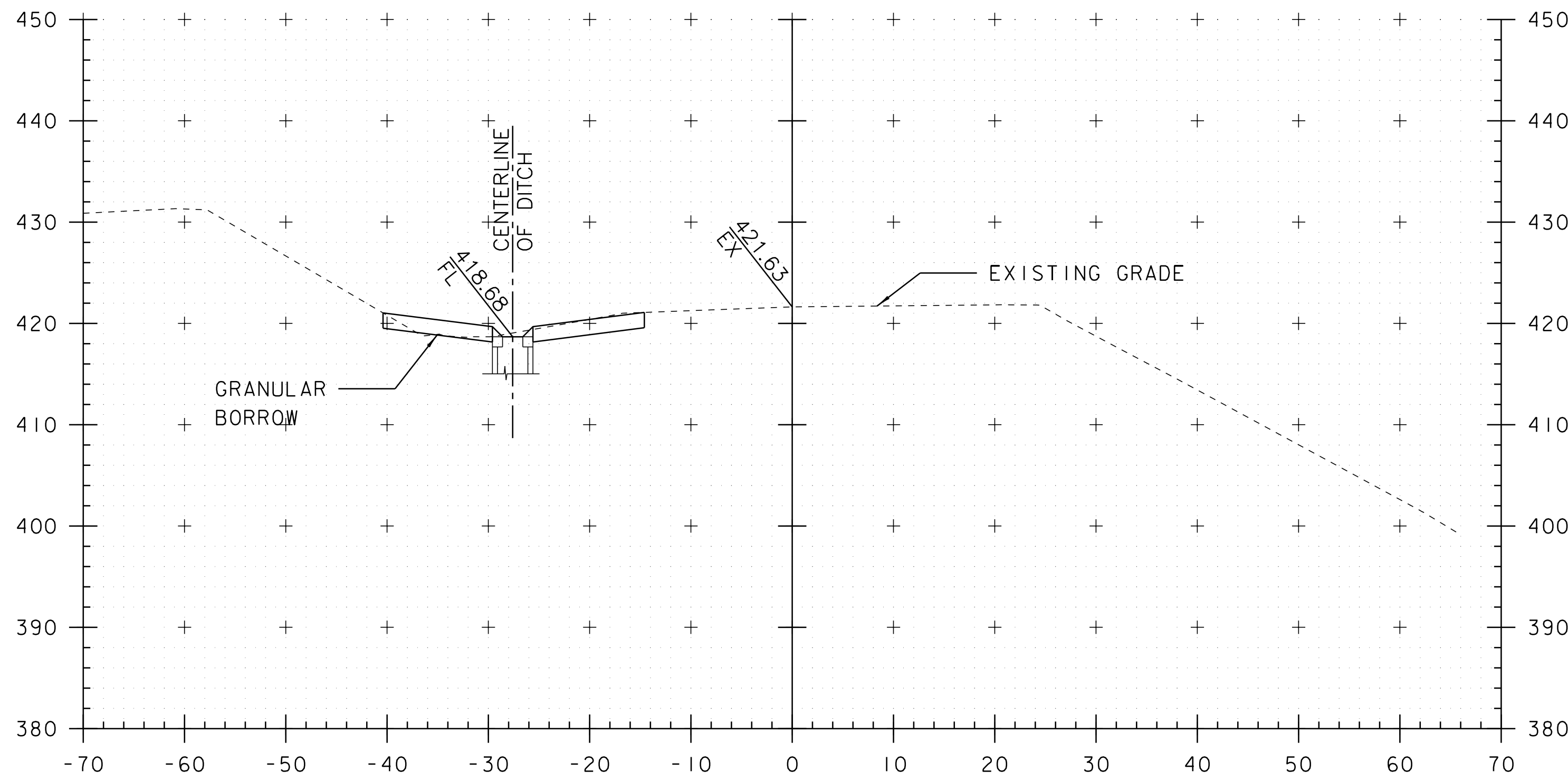
- NOTES:**
1. THE INTENT OF THIS PLAN IS TO SHOW EXISTING CONDITIONS AND PROPOSED IMPROVEMENTS TO THE DRAINAGE.
 2. THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY PERFORMED ON THE GROUND BETWEEN SEPTEMBER 25 AND OCTOBER 10, 2007 BY CLD CONSULTING ENGINEERS.
 3. SURVEY IS BASED ON THE VERMONT STATE PLAN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

DRAINAGE MITIGATION SHEET

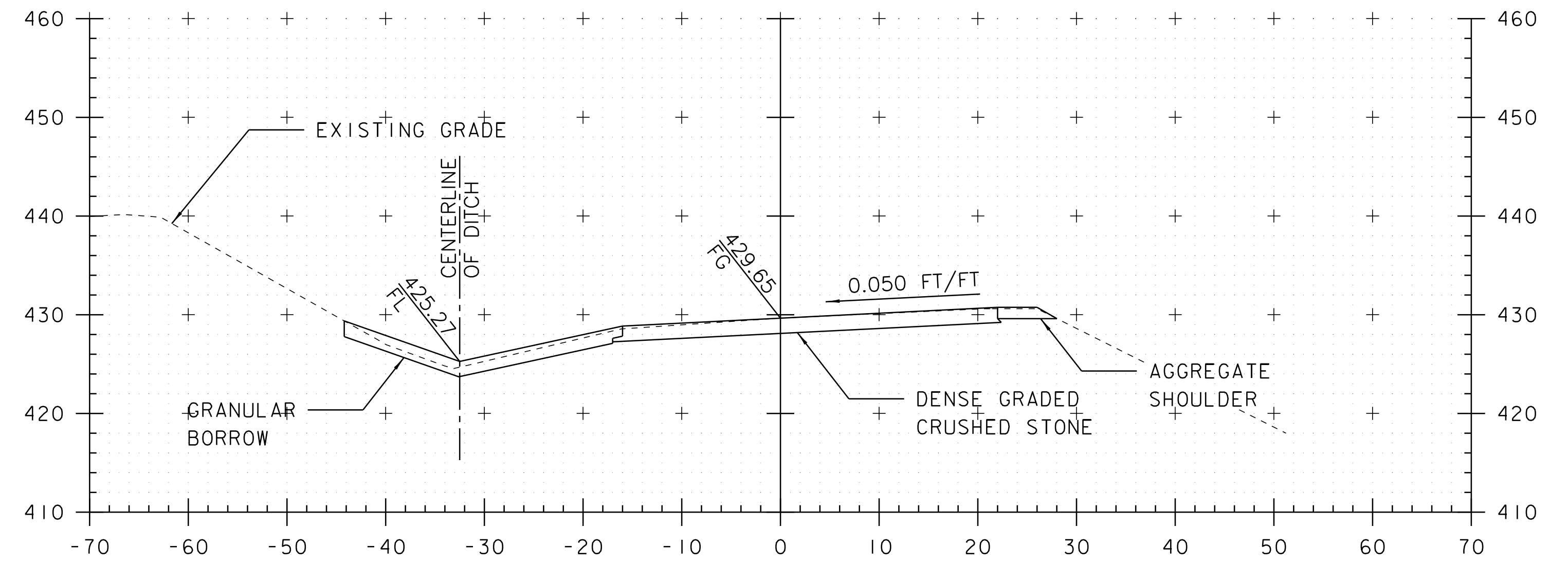
PROJECT NAME:	RICHMOND-SOUTH BURLINGTON	FILE NAME:	IM 089-2(39).dgn	PLOT DATE:	02-OCT-2012 16:5
PROJECT NUMBER:	IM 089-2(39)	PROJECT LEADER:	CRB	DRAWN BY:	JJB
		DESIGNED BY:	JJB	CHECKED BY:	DH
		CLD 07-0313			SHEET 72 OF 91



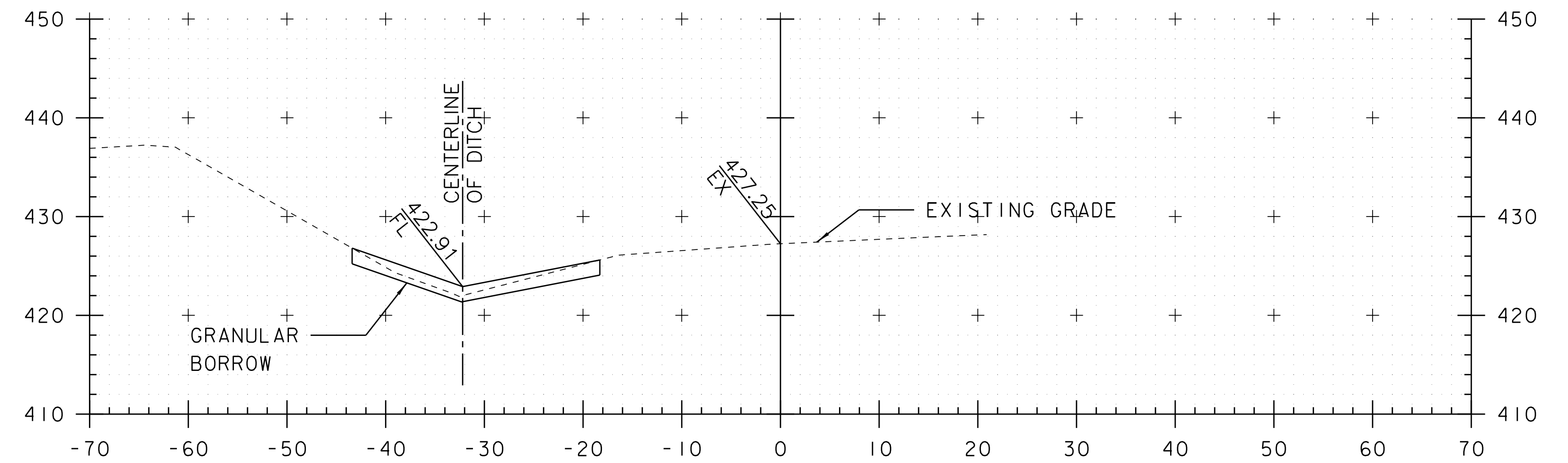
4220+50



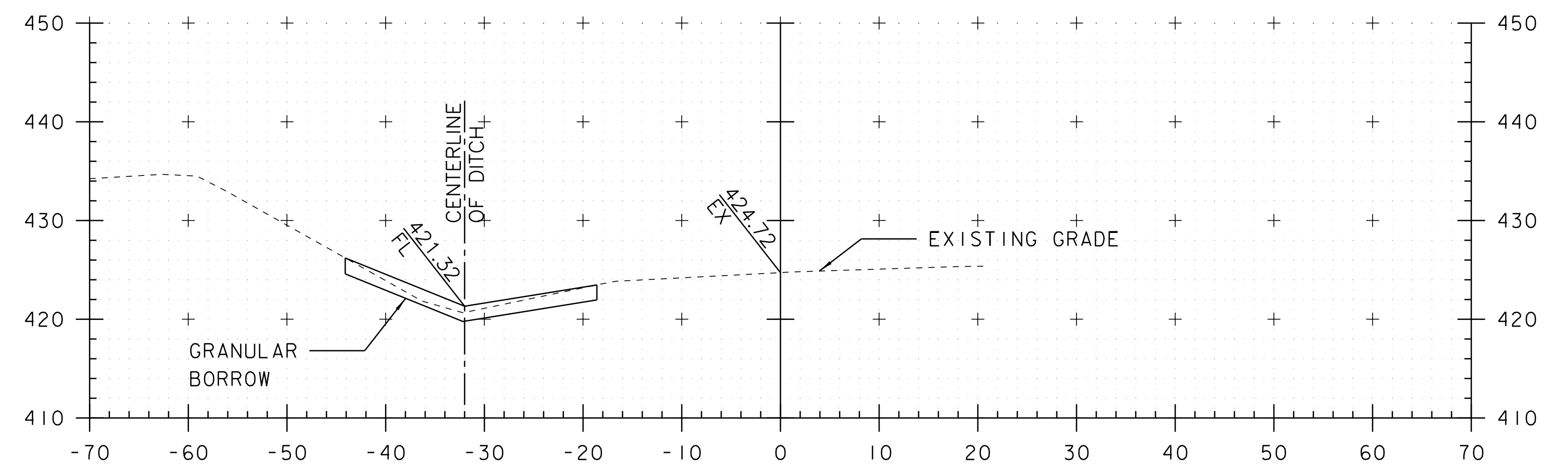
4220+40



4222+00



4221+50



4221+00

RECONSTRUCTION CROSS SECTIONS

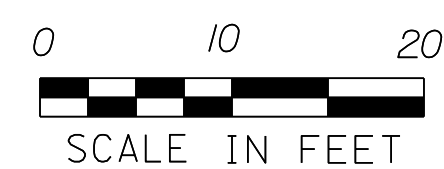
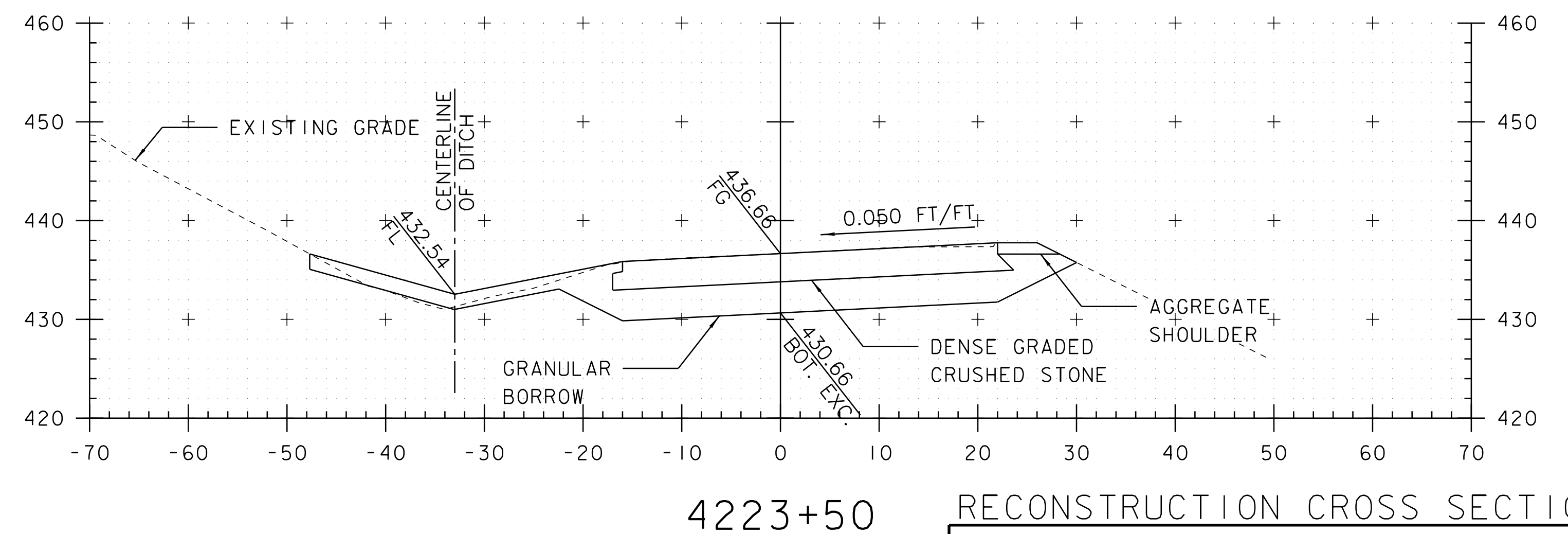
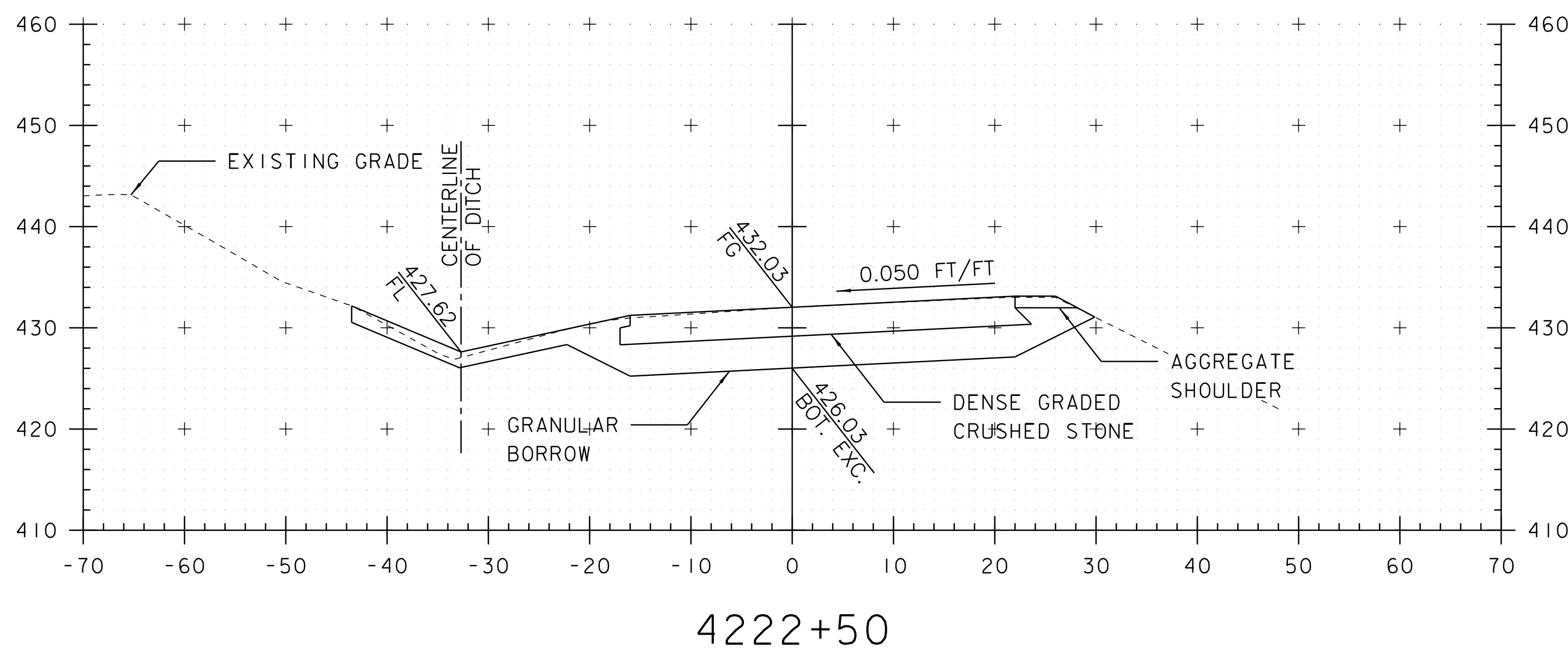
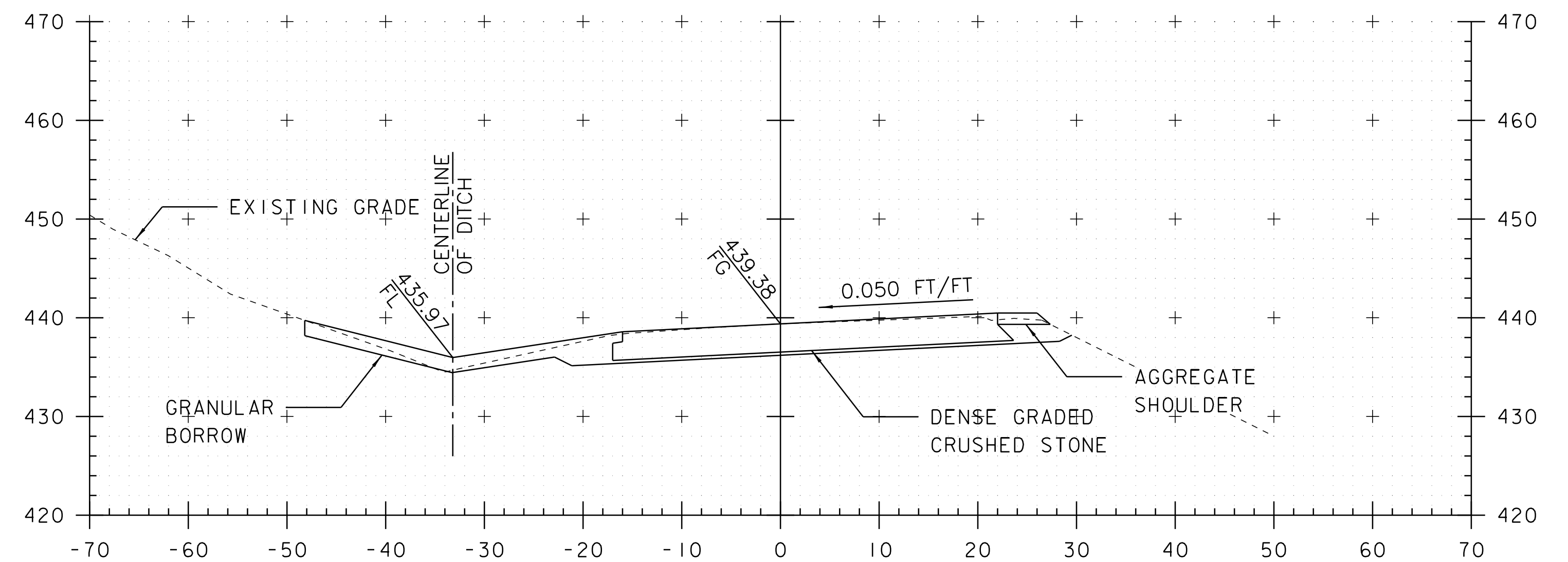
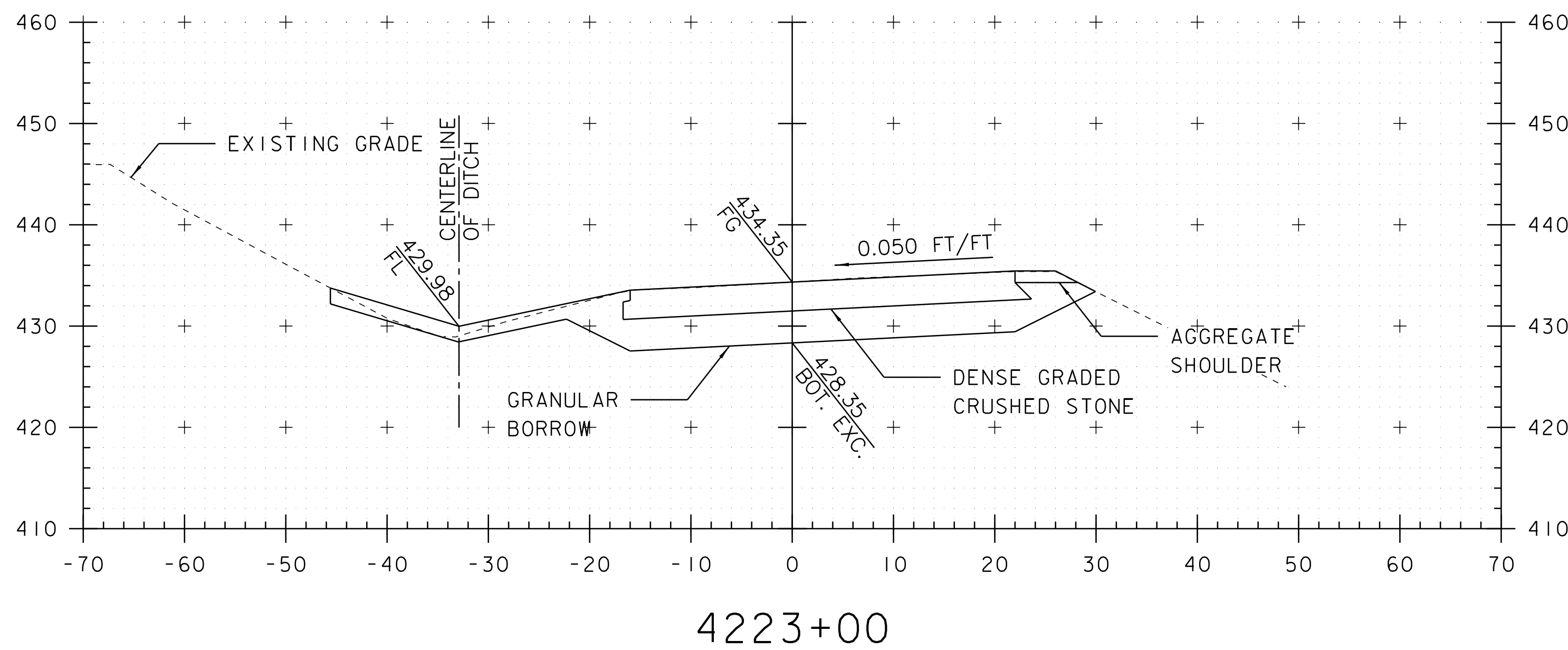
PROJECT NAME: RICHMOND-SOUTH BURLINGTON
 PROJECT NUMBER: IM 089-2(39)

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

PLOT DATE: 02-OCT-2012 16:5
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STA. 4220+40 TO STA. 4222+00



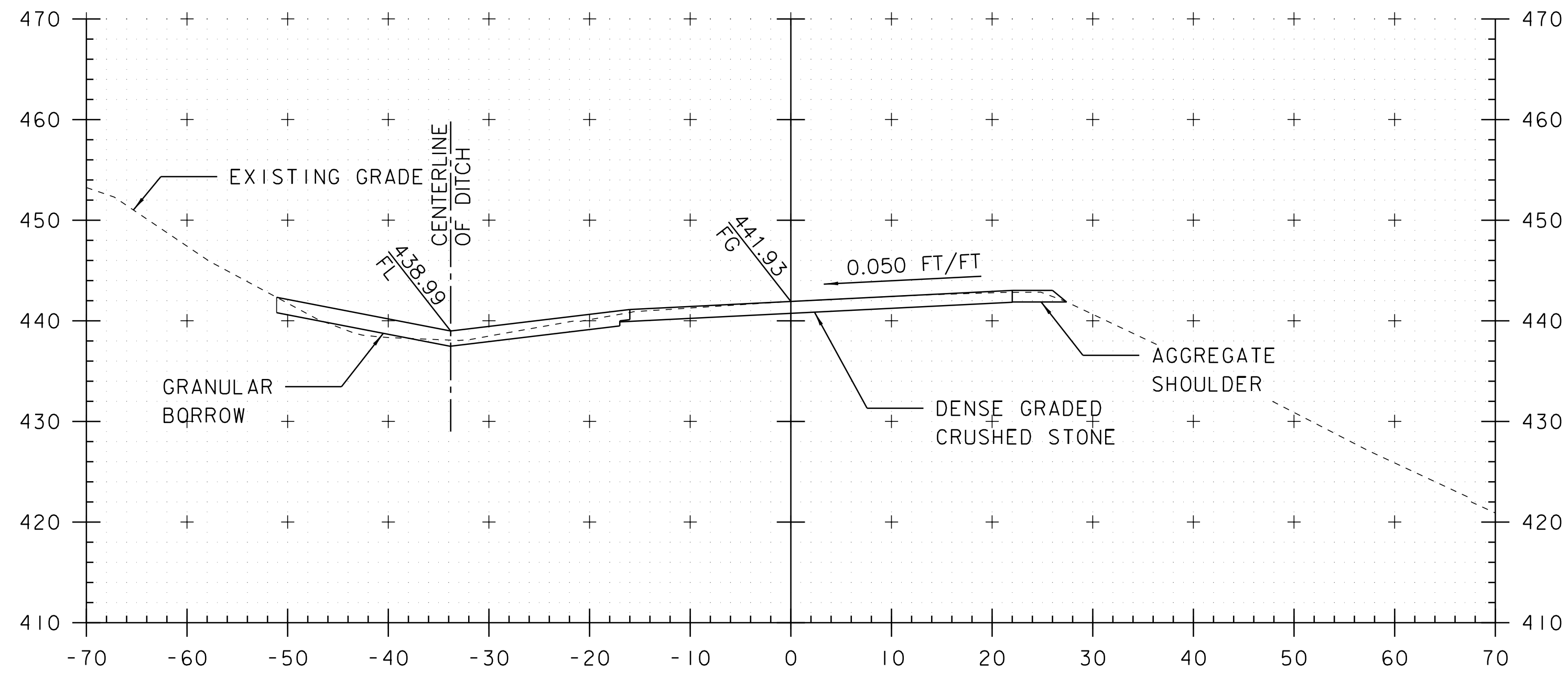
STA. 4222+50 TO STA. 4224+00

RECONSTRUCTION CROSS SECTIONS

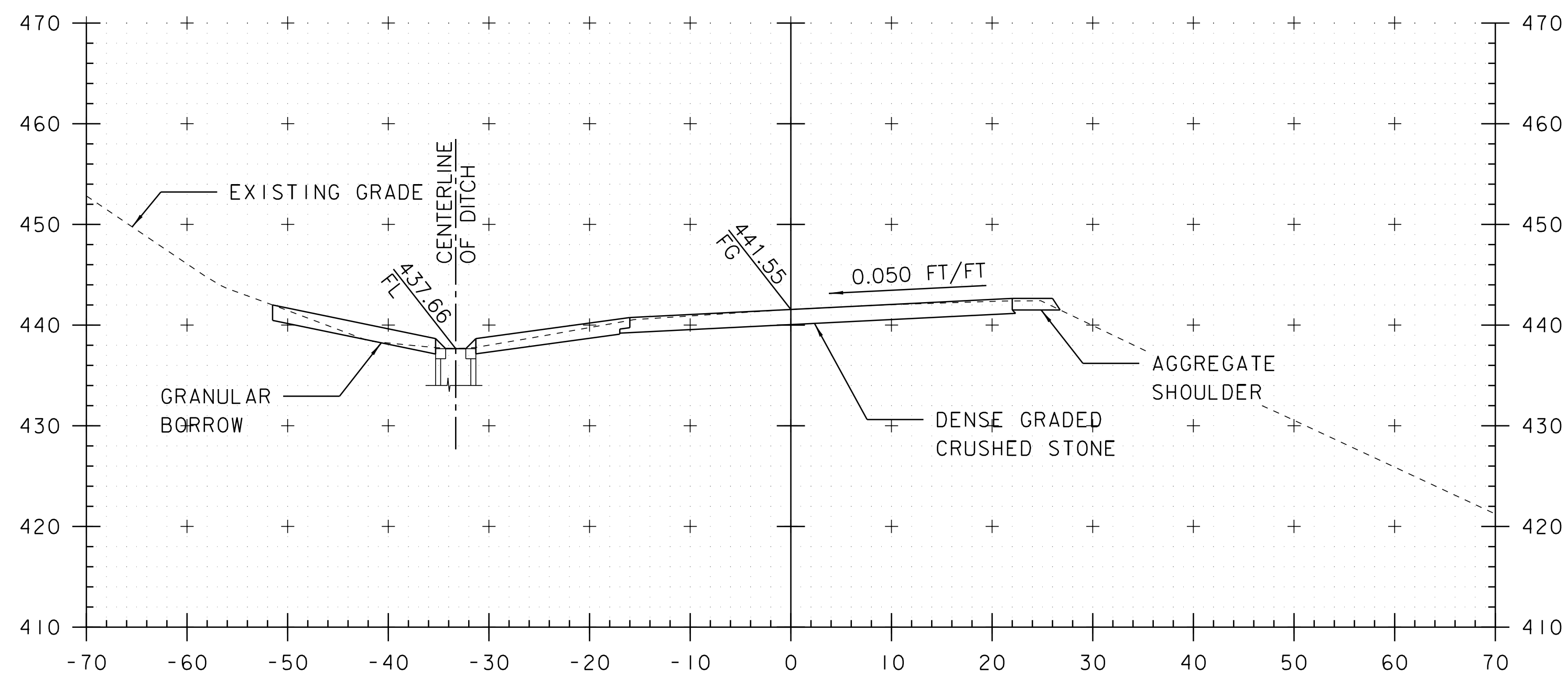
PROJECT NAME: RICHMOND-SOUTH BURLINGTON
PROJECT NUMBER: IM 089-2(39)

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

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 16:5
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% TO 6% 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: p05a012.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

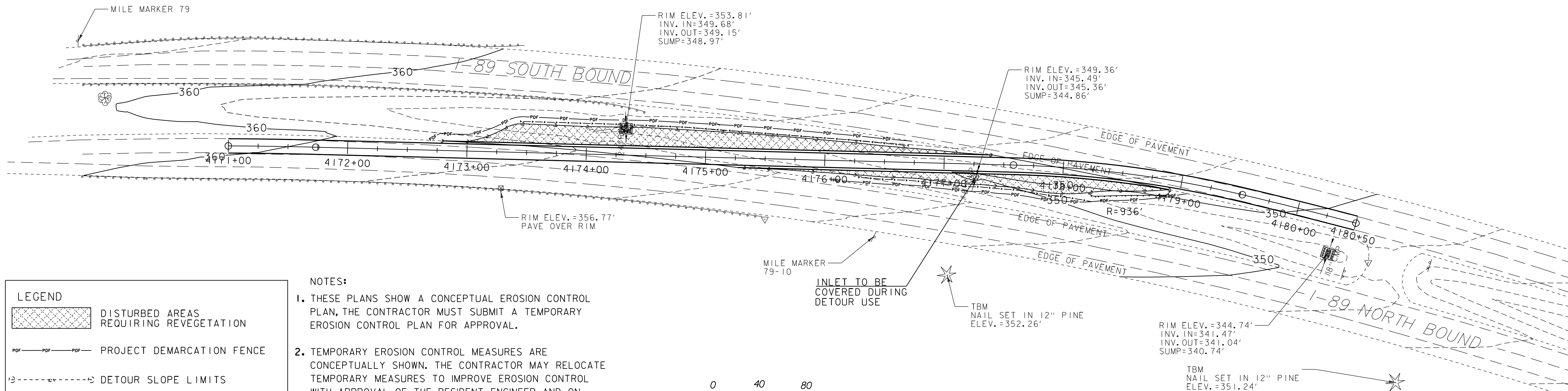
STA 4174+34 LT
STA 4180+35 RT

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

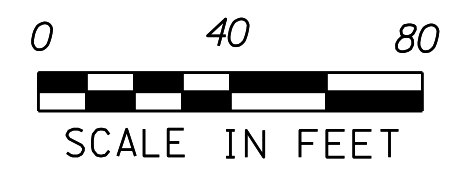
STA 4173+45 - STA 4176+75 LT
STA 4176+25 - STA 4178+25 RT



LEGEND

- DISTURBED AREAS REQUIRING REVEGETATION
- PROJECT DEMARCATION FENCE
- DETOUR SLOPE LIMITS
- PERMANENT SLOPE LIMITS
- TEMPORARY STONE CHECK DAM, TYPE I
- GEOTEXTILE FOR SILT FENCE
- INLET PROTECTION DEVICE, TYPE I

- 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.



MILE MARKER 79-10
INLET TO BE COVERED DURING DETOUR USE
TBM NAIL SET IN 12" PINE
ELEV. = 352.26'

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.

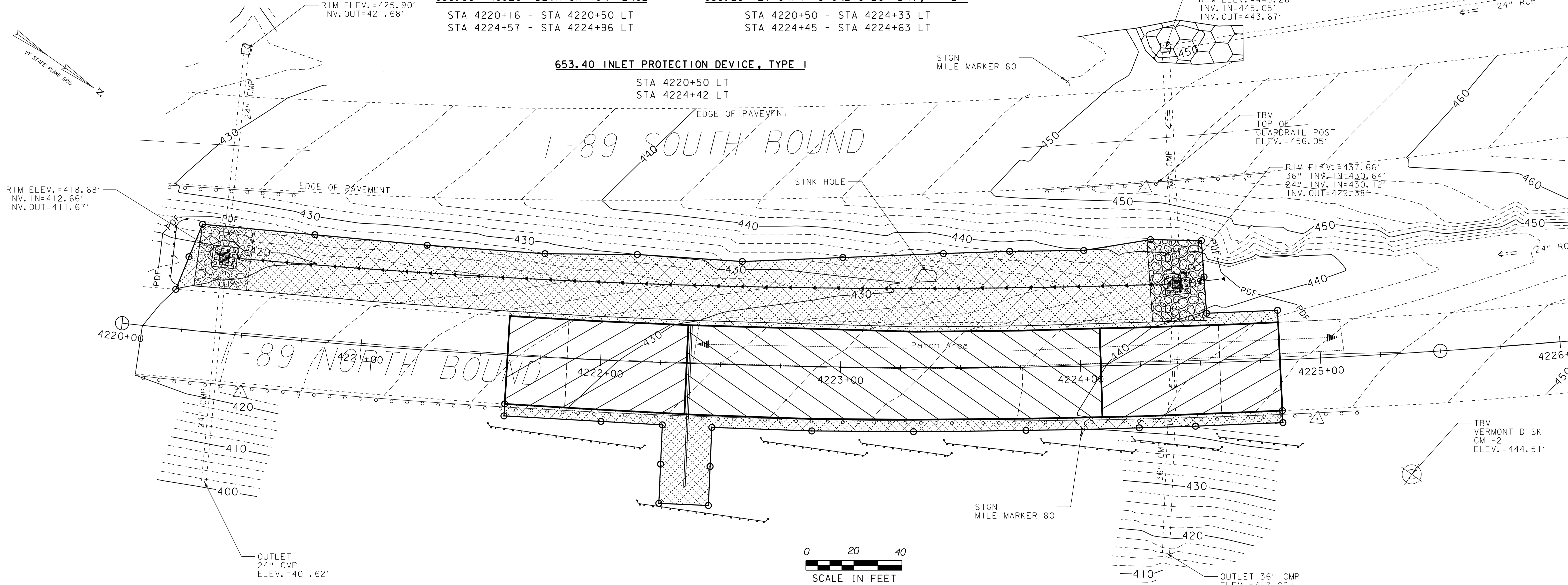
EROSION CONTROL PLAN SHEET 1

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 77 OF 91

653.55 PROJECT DEMARCATION FENCE
 STA 4220+16 - STA 4220+50 LT
 STA 4224+57 - STA 4224+96 LT

653.25 TEMPORARY STONE CHECK DAM, TYPE I
 STA 4220+50 - STA 4224+33 LT
 STA 4224+45 - STA 4224+63 LT

653.40 INLET PROTECTION DEVICE, TYPE I
 STA 4220+50 LT
 STA 4224+42 LT



LEGEND	
	DISTURBED AREAS REQUIRING REVEGETATION
PDF — PDF	PROJECT DEMARCATION FENCE
	DETOUR SLOPE LIMITS
	PERMANENT SLOPE LIMITS
	TEMPORARY STONE CHECK DAM, TYPE I
	GEOTEXTILE FOR SILT FENCE
	INLET PROTECTION DEVICE, TYPE I



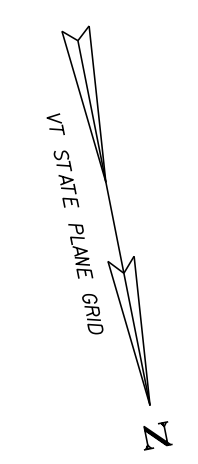
- NOTES:
1. THESE PLANS SHOW A CONCEPTUAL EROSION CONTROL PLAN, THE CONTRACTOR MUST SUBMIT A TEMPORARY EROSION CONTROL PLAN FOR APPROVAL.
 2. TEMPORARY EROSION CONTROL MEASURES ARE CONCEPTUALLY SHOWN, THE CONTRACTOR MAY RELOCATE TEMPORARY MEASURES TO IMPROVE EROSION CONTROL WITH APPROVAL OF THE RESIDENT 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 2

PROJECT NAME: RICHMOND-SOUTH BURLINGTON	PLOT DATE: 02-OCT-2012 16:5
PROJECT NUMBER: IM 089-2(39)	DRAWN BY: JJB/MRS
FILE NAME: p05a012.dgn	CHECKED BY: DH
DESIGNED BY: JJB	SHEET 78 OF 91
CLD 07-0313	

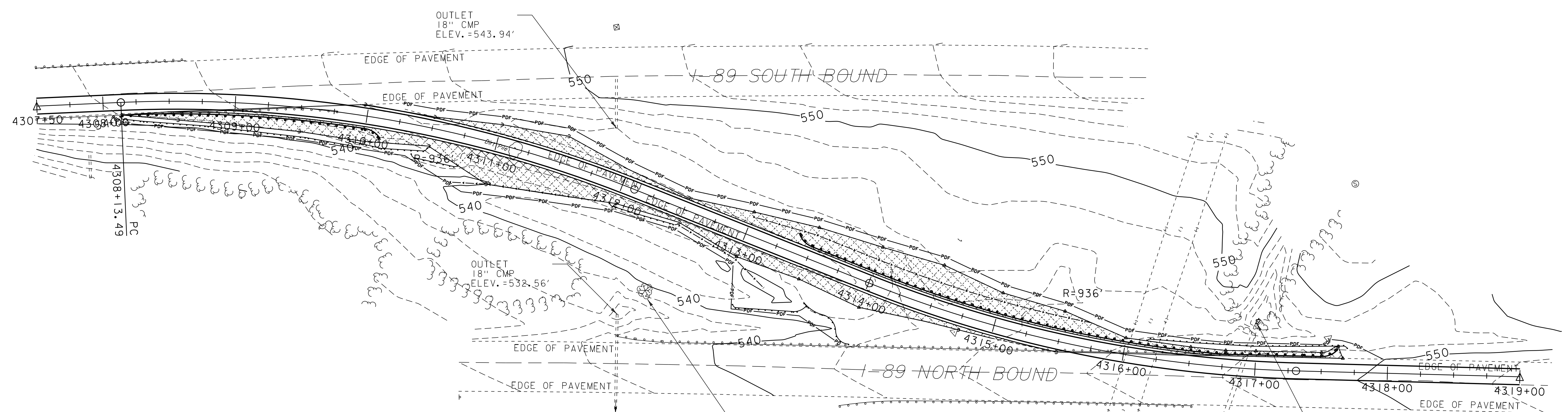


653.55 PROJECT DEMARCATION FENCE

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:**
- THESE PLANS SHOW A CONCEPTUAL EROSION CONTROL PLAN, THE CONTRACTOR MUST SUBMIT A TEMPORARY EROSION CONTROL PLAN FOR APPROVAL.
 - 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.
 - 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.
 - REFER TO TEMPORARY EROSION CONTROL DETAIL SHEETS FOR ADDITIONAL DETAILS.
 - 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".
 - ALL DISTURBED AREAS REQUIRING REVEGETATION TO BE SEEDED AND MULCHED AND STABILIZED IN WINTER IN ACCORDANCE WITH THE LOW RISK HANDBOOK.

LEGEND	
	DISTURBED AREAS REQUIRING REVEGETATION
	PROJECT DEMARCATION FENCE
	DETOUR SLOPE LIMITS
	PERMANENT SLOPE LIMITS
	CHECK DAM
	SILT FENCE
	STONE & BLOCK DROP INLET PROTECTION STRUCTURE

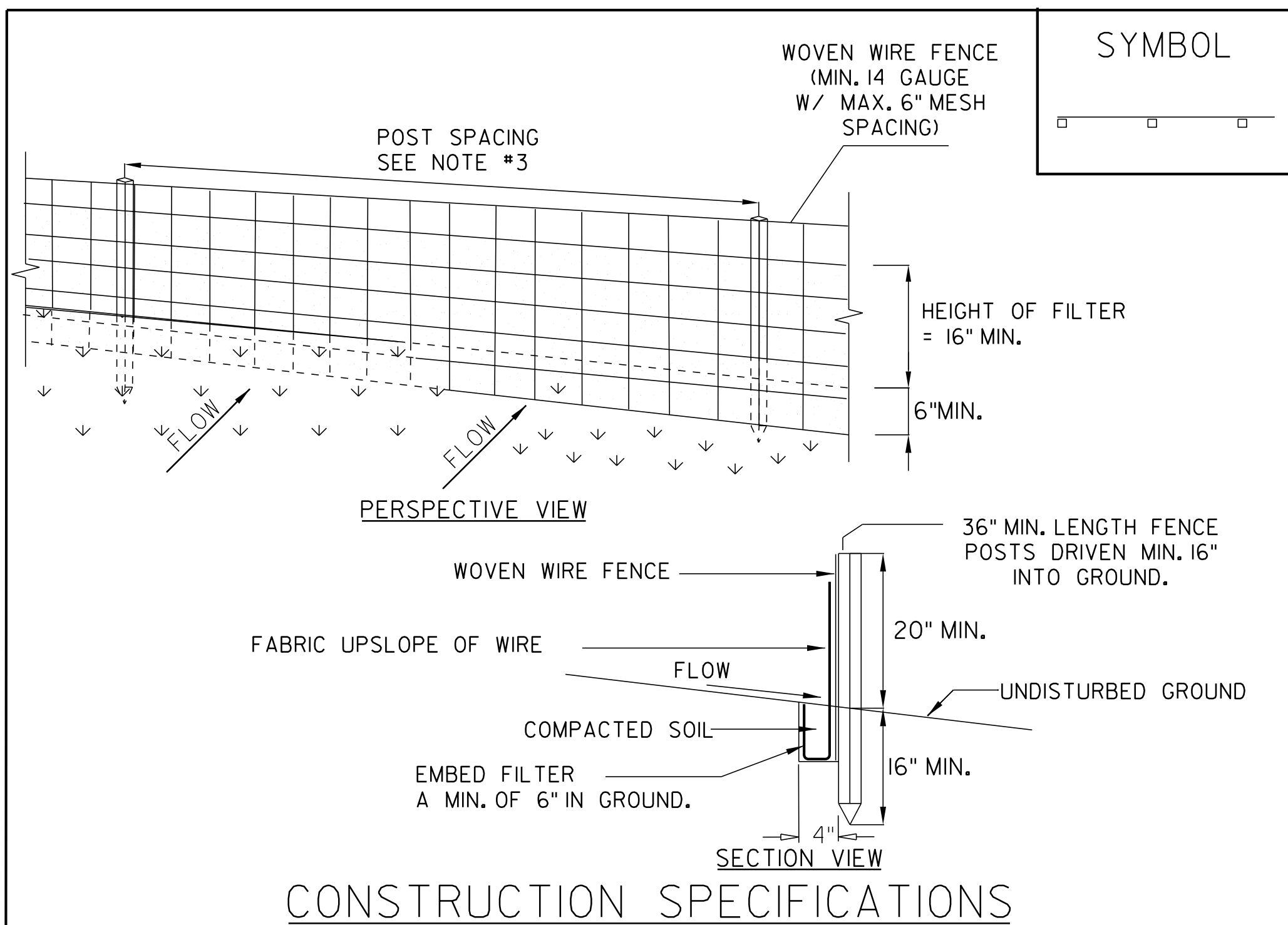


SURVEY IS BASED ON THE VERMONT STATE PLAN COORDINATE SYSTEM. HORIZONTAL DATUM IS NAD83/92 AND VERTICAL DATUM IS NAVD 88.

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

EROSION CONTROL PLAN SHEET 3

PROJECT NAME: RICHMOND-SOUTH BURLINGTON	PLOT DATE: 02-OCT-2012 16:5
PROJECT NUMBER: IM 089-2(39)	DRAWN BY: JJB/MRS
FILE NAME: p05a012.dgn	CHECKED BY: DH
PROJECT LEADER: CRB	SHEET 79 OF 91
DESIGNED BY: JJB	
CLD 07-0313	



CONSTRUCTION SPECIFICATIONS

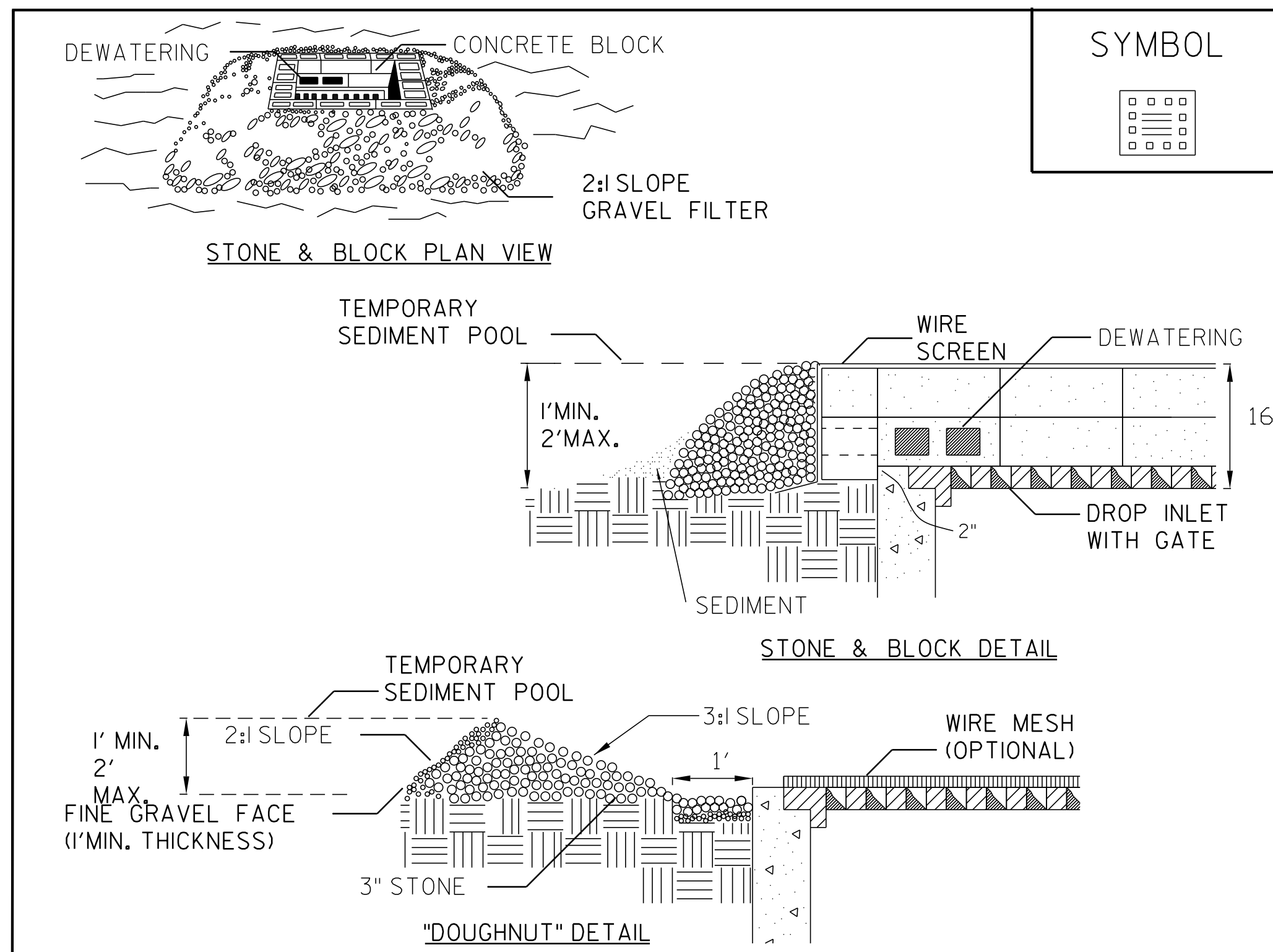
1. WOVEN WIRE FENCE REINFORCEMENT IS ONLY REQUIRED WITHIN 100 FT UPSLOPE OF RECEIVING WATERS.
2. WHERE REQUIRED FENCE SHALL BE WOVEN WIRE, MIN. 14 GAUGE WITH A 6" MAXIMUM MESH OPENING. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAF1100X, STABILINKA T140N OR APPROVED EQUIVALENT.
3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4'. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.
4. WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED.
6. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
7. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SILT FENCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER ITEM
649.51 GEOTEXTILE FOR SILT FENCE (FILTER FABRIC ONLY FENCE)



CONSTRUCTION SPECIFICATIONS

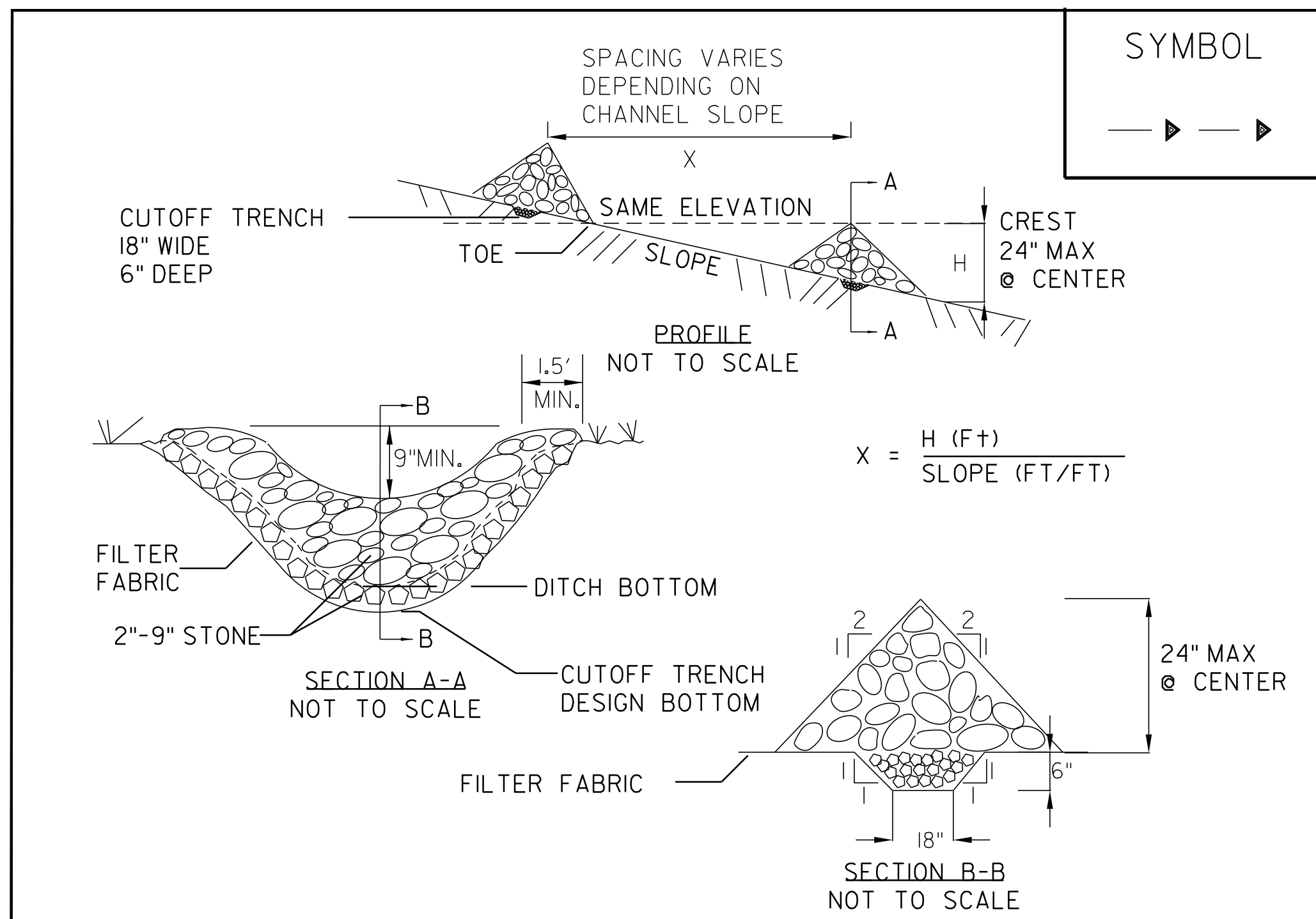
1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL 1/2- 3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS. MAXIMUM DRAINAGE AREA 1 ACRE

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

STONE & BLOCK DROP INLET PROTECTION

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER ITEM
653.40 INLET PROTECTION DEVICE, TYPE I



CONSTRUCTION SPECIFICATIONS

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION.
2. SET SPACING OF CHECK DAMS SO THAT THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE. MAXIMUM DRAINAGE AREA 2 ACRES.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CHECK DAM

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER ITEM
653.25 TEMPORARY STONE CHECK DAM, TYPE I

REVISIONS	
MARCH 8, 2007	JMF

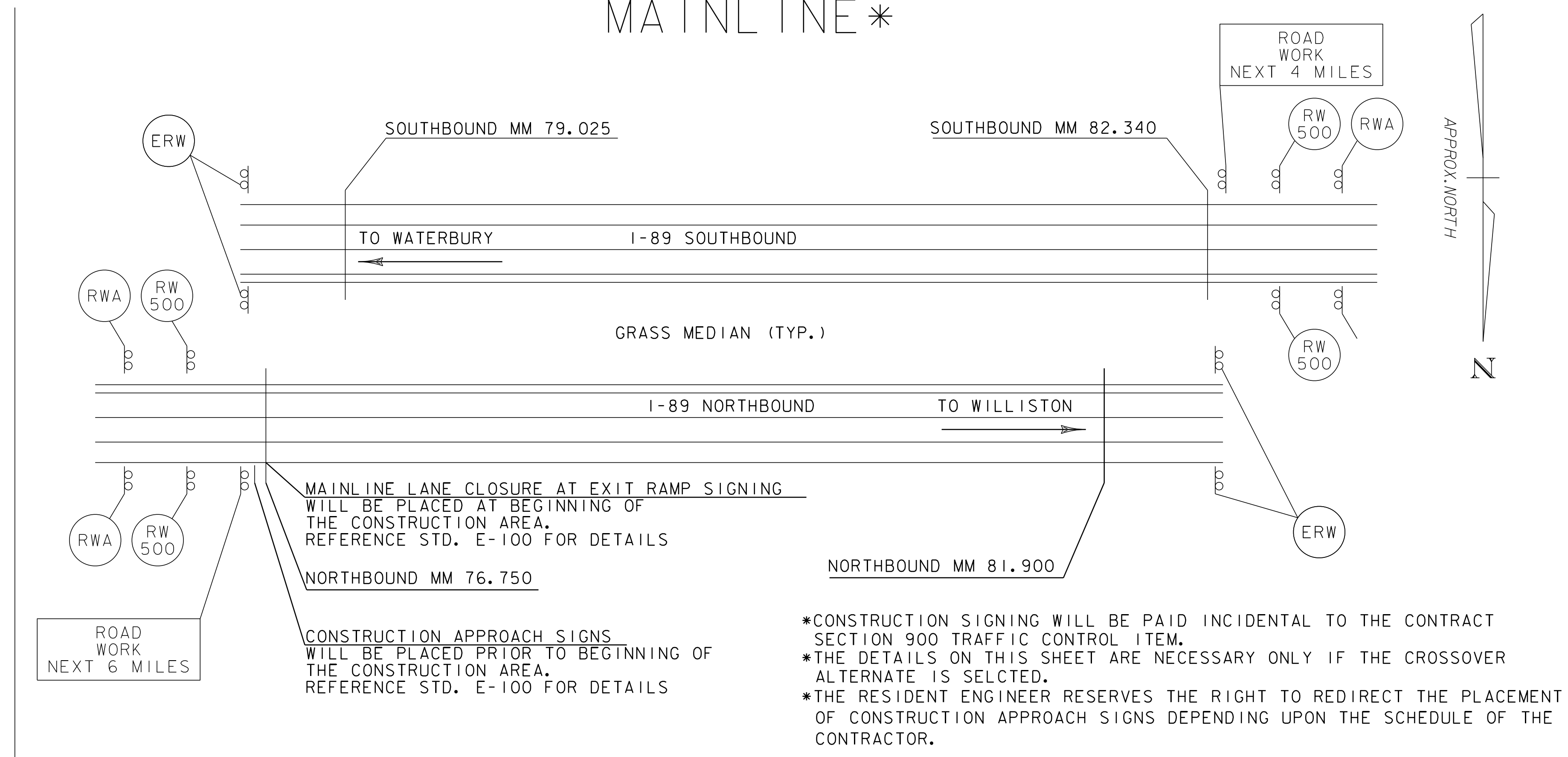
EROSION CONTROL DETAILS

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

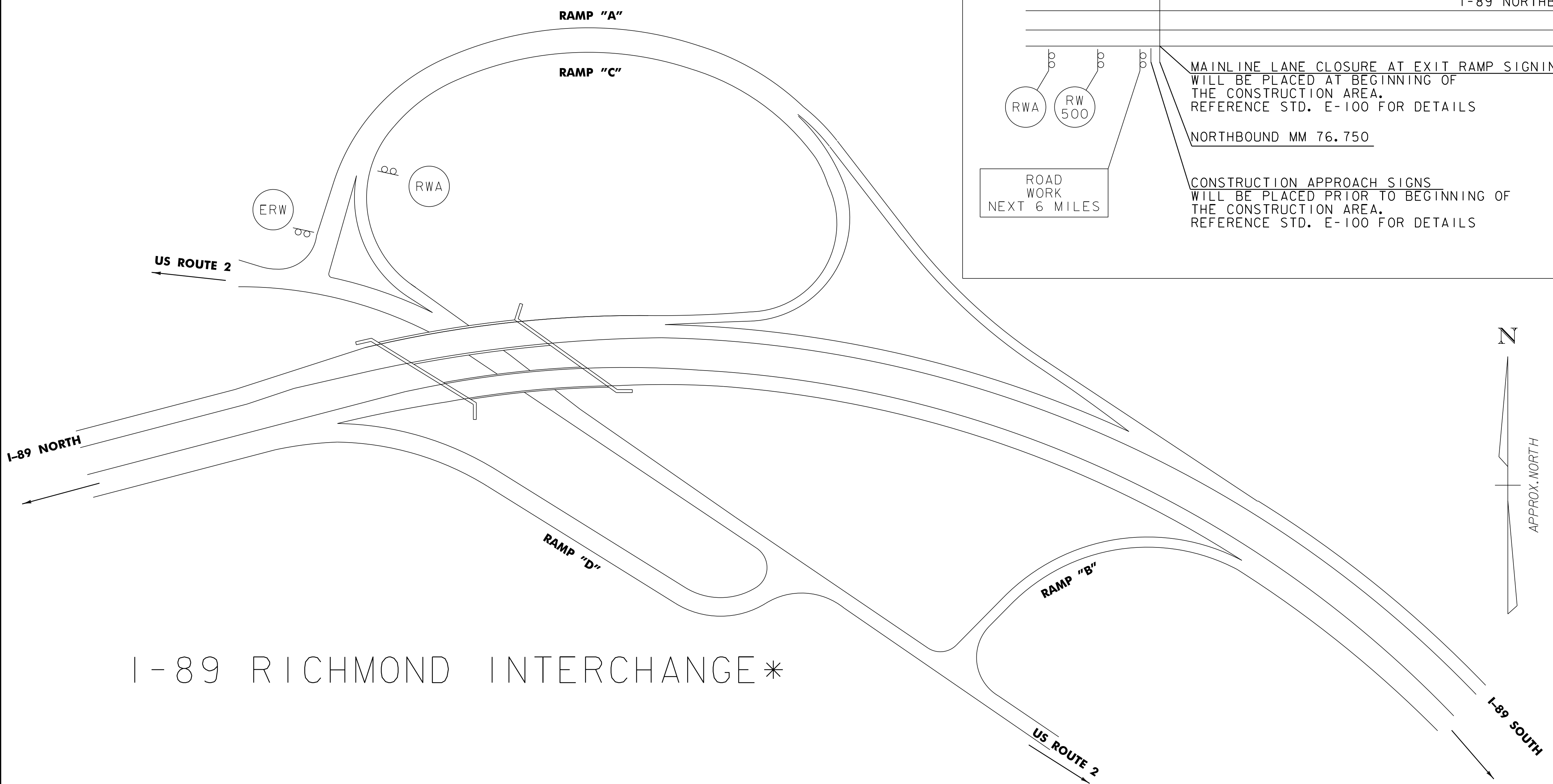
FILE NAME: p05a012.dgn	PLOT DATE: 02-OCT-2012 16:5
PROJECT LEADER: CRB	DRAWN BY: JJB
DESIGNED BY: JJB	CHECKED BY: DH
CLD 07-0313	SHEET 80 OF 91

CONSTRUCTION APPROACH SIGNING

MAINLINE*



*CONSTRUCTION SIGNING WILL BE PAID INCIDENTAL TO THE CONTRACT SECTION 900 TRAFFIC CONTROL ITEM.
 *THE DETAILS ON THIS SHEET ARE NECESSARY ONLY IF THE CROSSOVER ALTERNATE IS SELECTED.
 *THE RESIDENT ENGINEER RESERVES THE RIGHT TO REDIRECT THE PLACEMENT OF CONSTRUCTION APPROACH SIGNS DEPENDING UPON THE SCHEDULE OF THE CONTRACTOR.



I-89 RICHMOND INTERCHANGE*

LEGEND

- RWA =
- ERW =
- RW 500 =

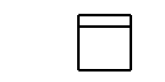
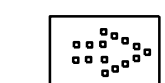
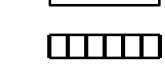
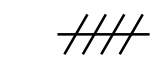



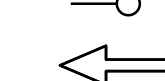

CONSTRUCTION APPROACH SIGNING SHEET

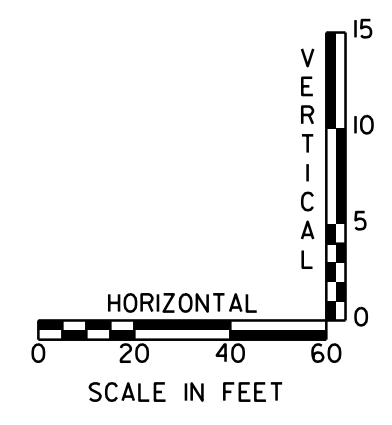
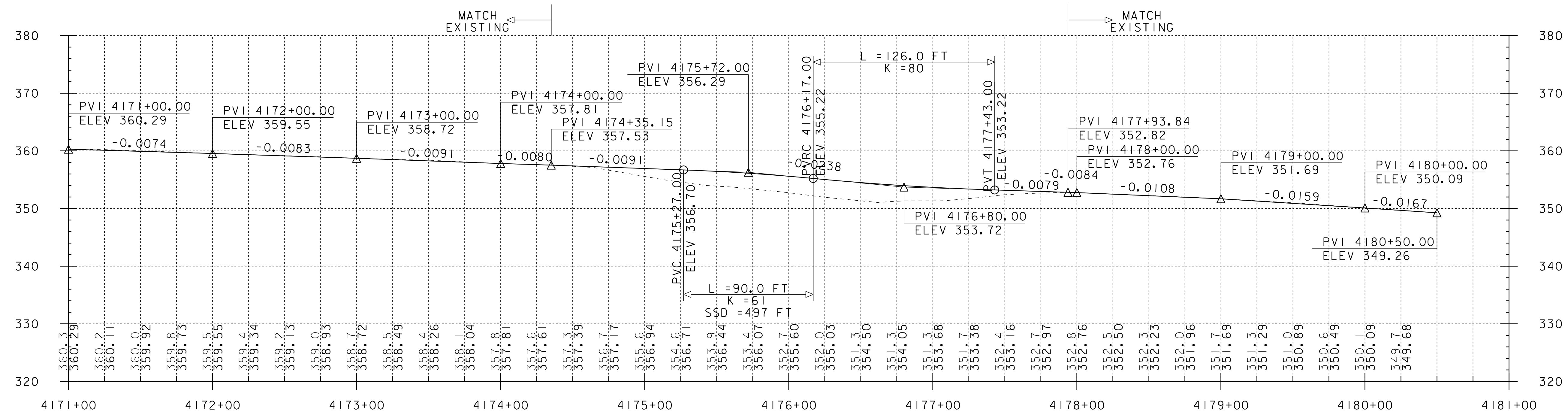
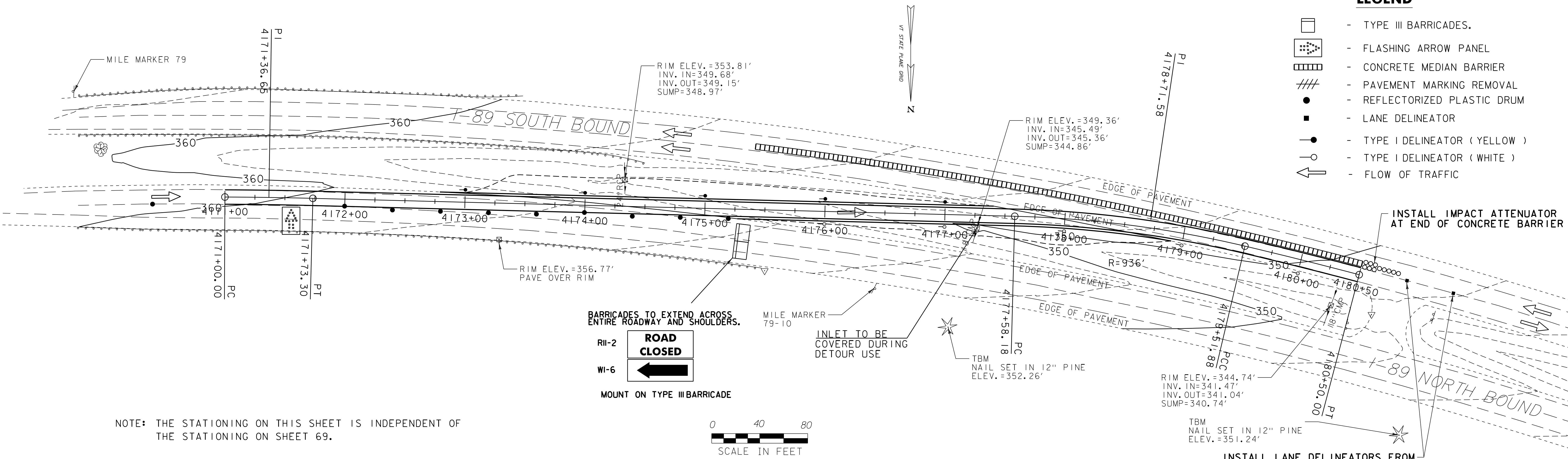
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PROJECT NUMBER: IM 089-2(39)	DRAWN BY: JJB/MRS
FILE NAME: p05a012.dgn	CHECKED BY: DH
PROJECT LEADER: CRB	SHEET 81 OF 91
DESIGNED BY: JJB	
CLD 07-0313	

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

N. T. S.

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 79.00

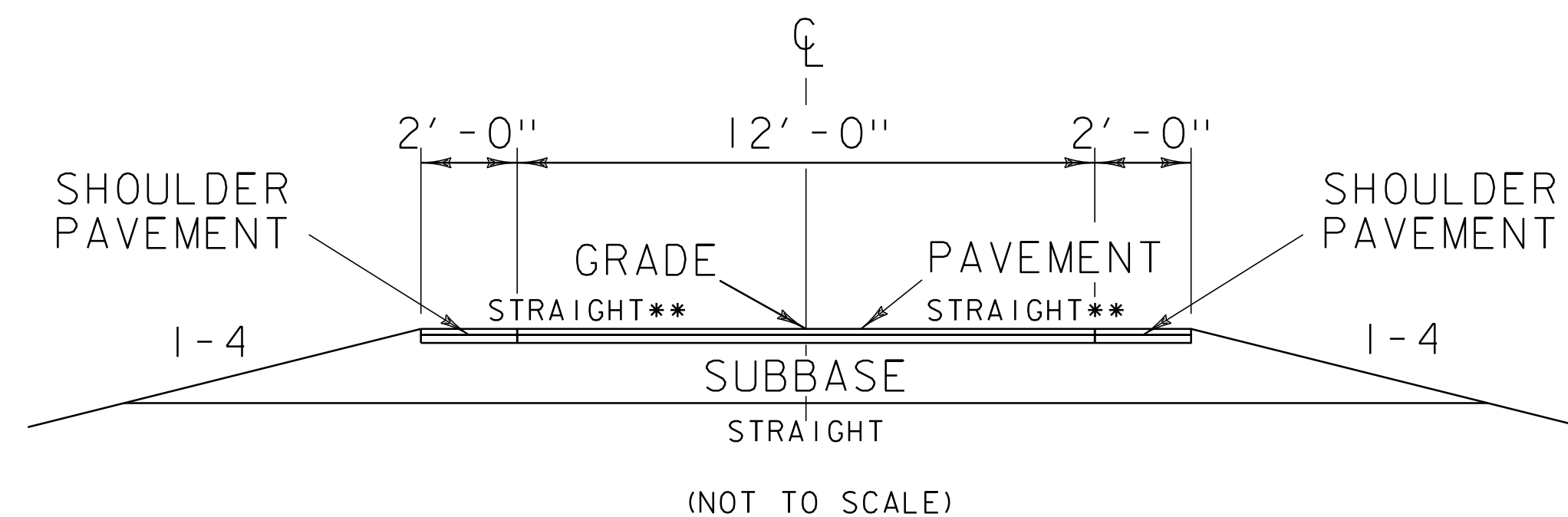
PROJECT NAME: RICHMOND-SOUTH BURLINGTON
 PROJECT NUMBER: IM 089-2(39)

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 82 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

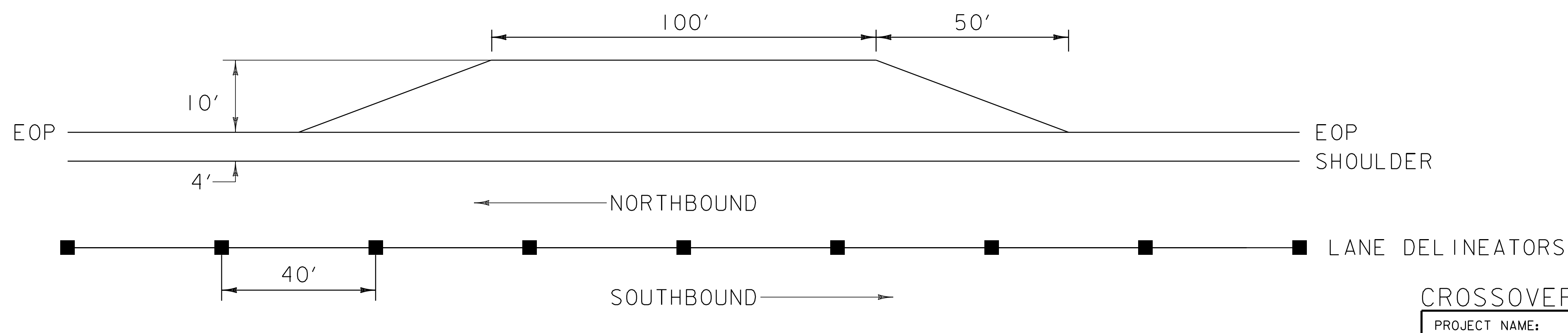
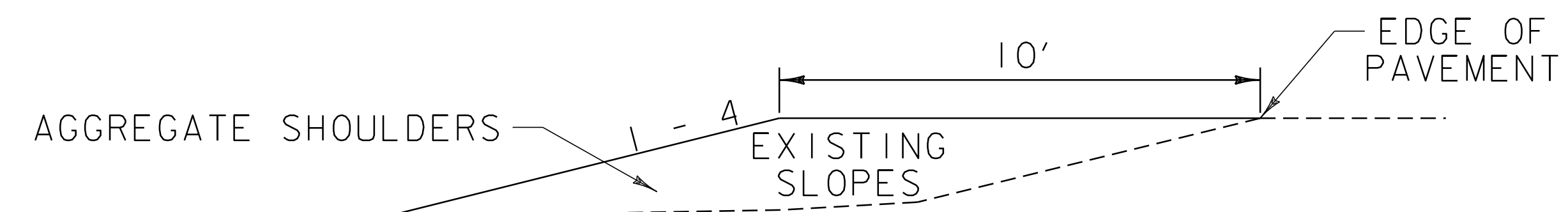
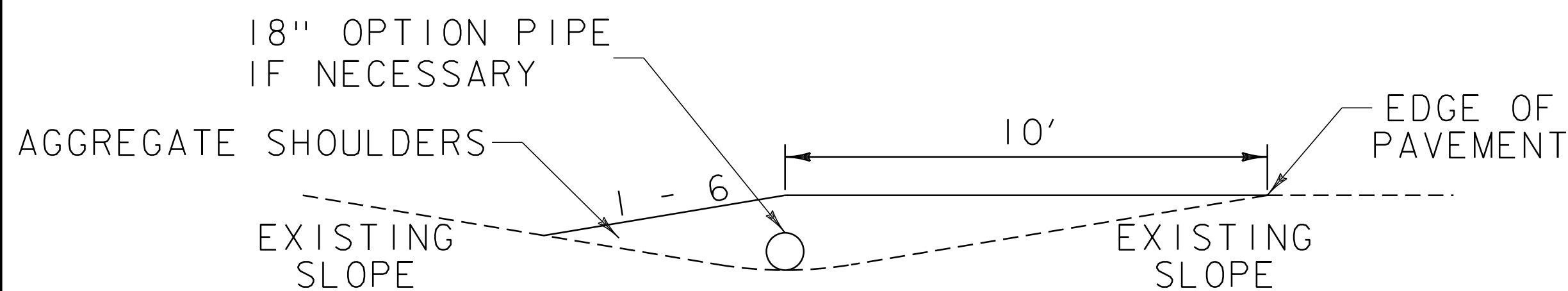
NOTE:
 THE FOLLOWING ITEMS AND QUANTITIES ARE NOT INCLUDED IN THE PROJECT QUANTITIES BUT ARE ASSOCIATED WITH ALTERNATE A ITEM 900.645 SPECIAL PROVISION (TRAFFIC CONTROL, CROSSOVER). THIS LIST SHALL NOT BE CONSIDERED ALL INCLUSIVE FOR IMPLEMENTATION OF THE TRAFFIC CONTROL PLAN BUT ARE INCLUDED FOR INFORMATIONAL 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

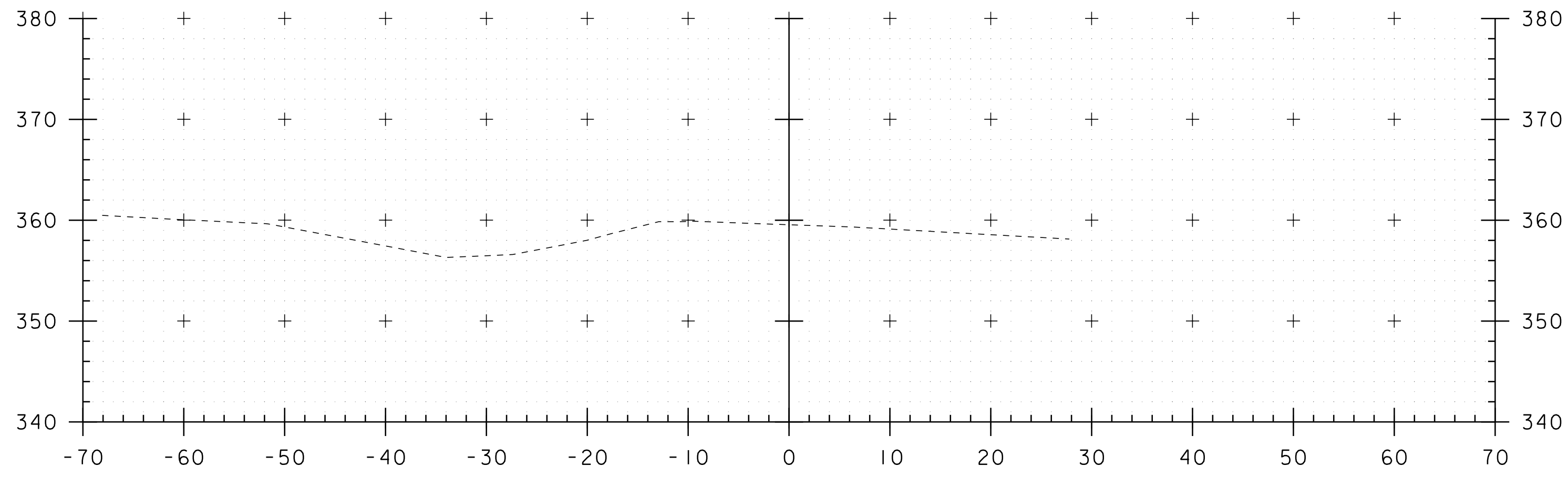


CROSSOVER TYPICALS SHEET

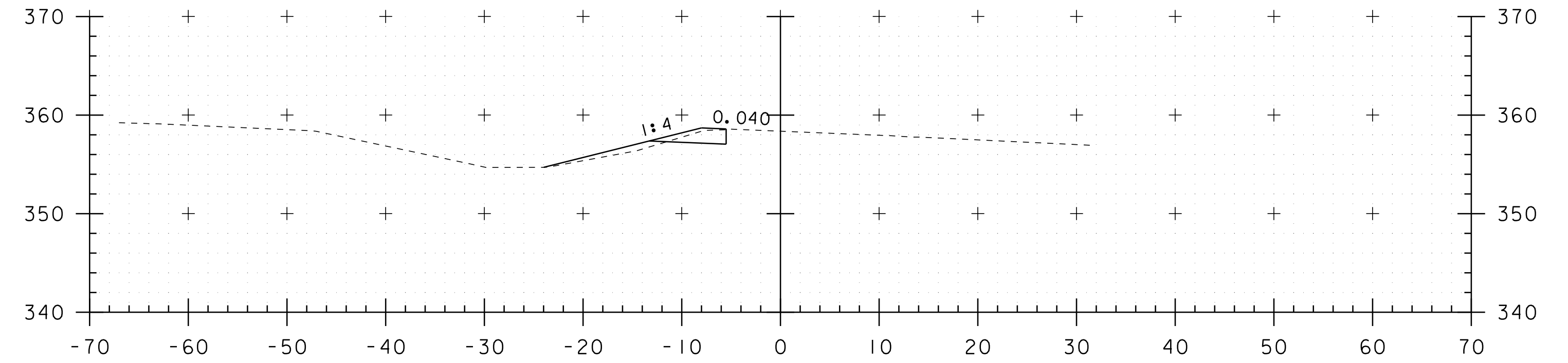
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 PROJECT NUMBER: IM 089-2(39)

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

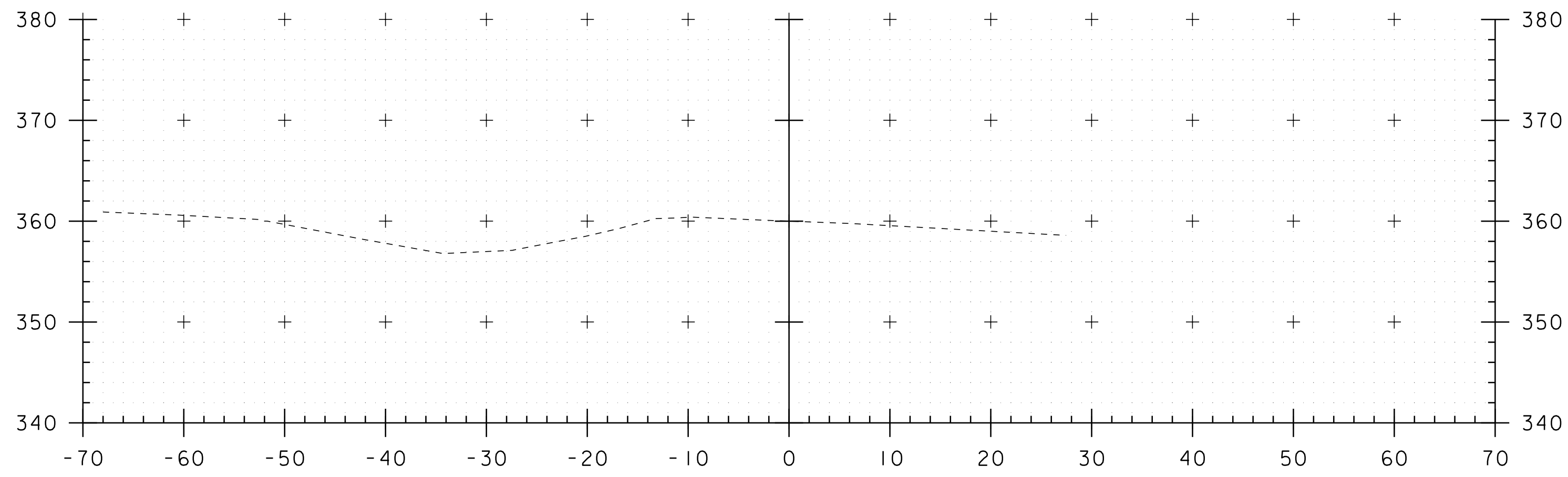
* LOCATIONS ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED BY THE RESIDENT PRIOR TO CONSTRUCTION



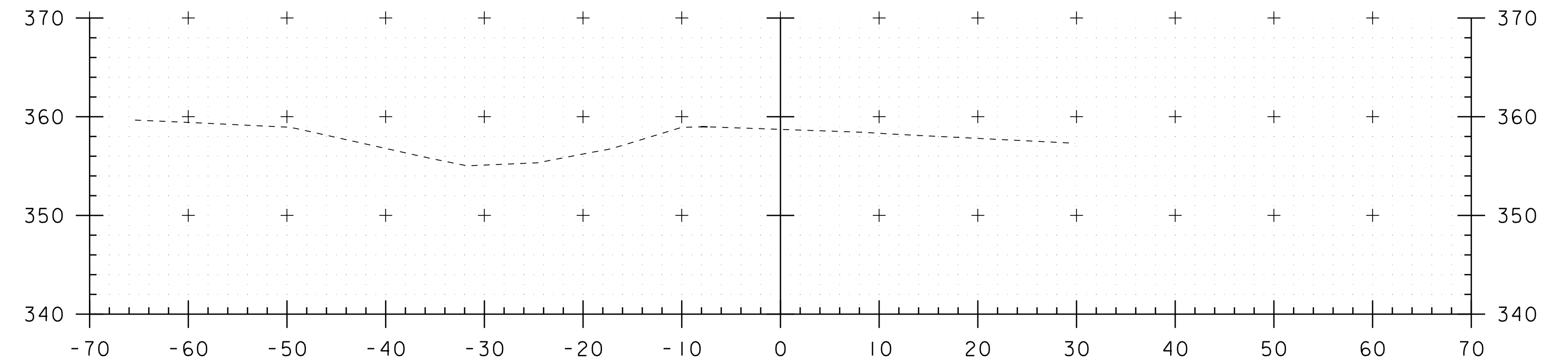
4172+00



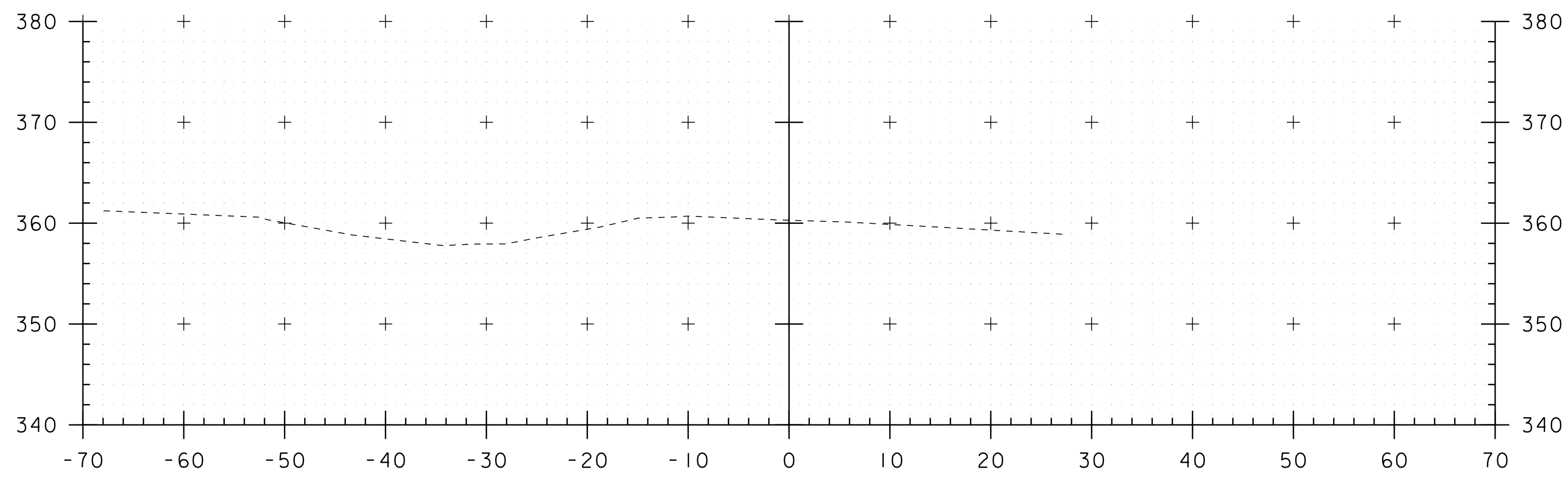
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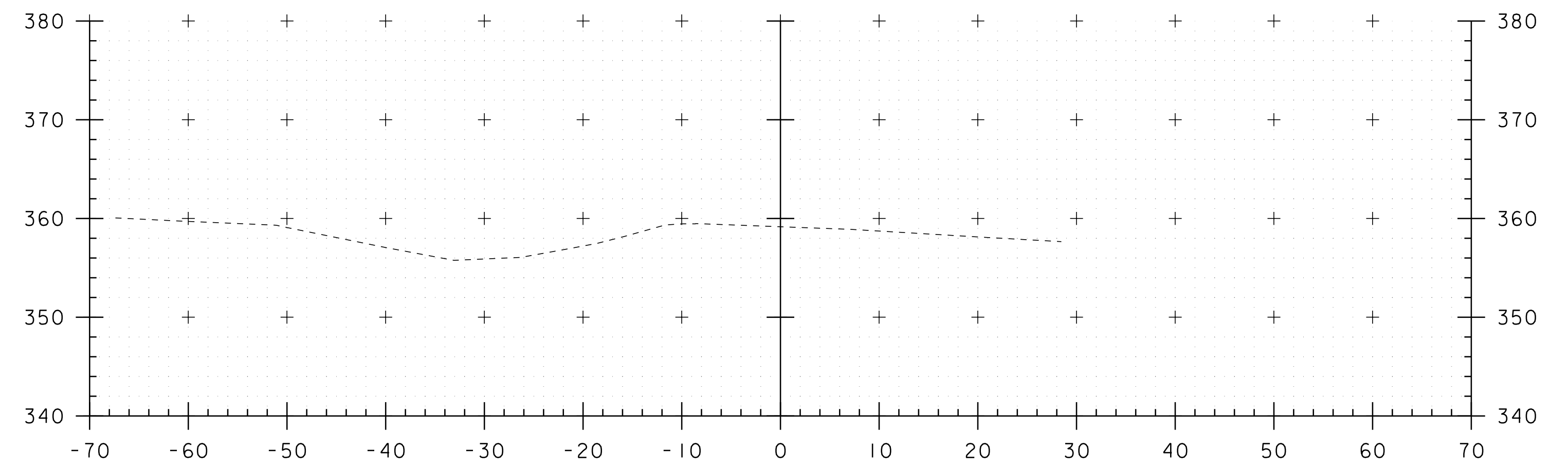
4171+50



4173+00



4171+00



4172+50

CROSSOVER AT MM 79.00

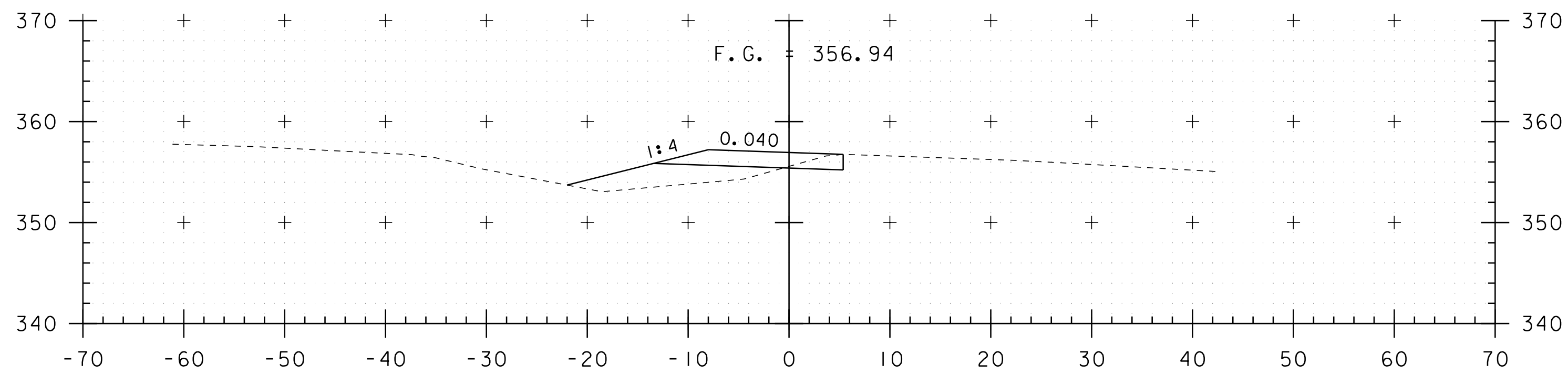
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 PROJECT NUMBER: IM 089-2(39)

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

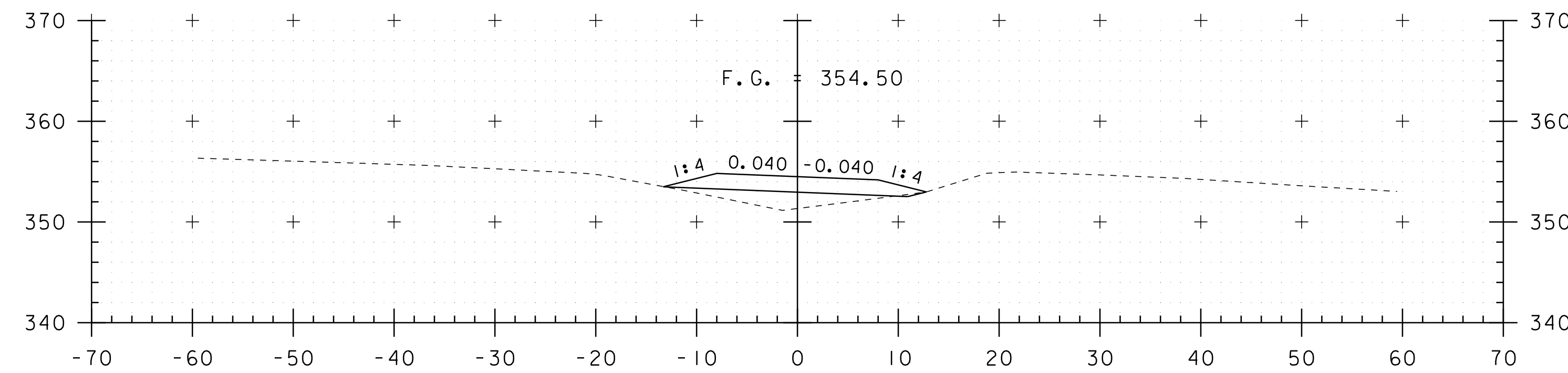
PLOT DATE: 02-OCT-2012 16:5
 DRAWN BY: JJB/MRS
 CHECKED BY: DH
 SHEET 84 OF 91



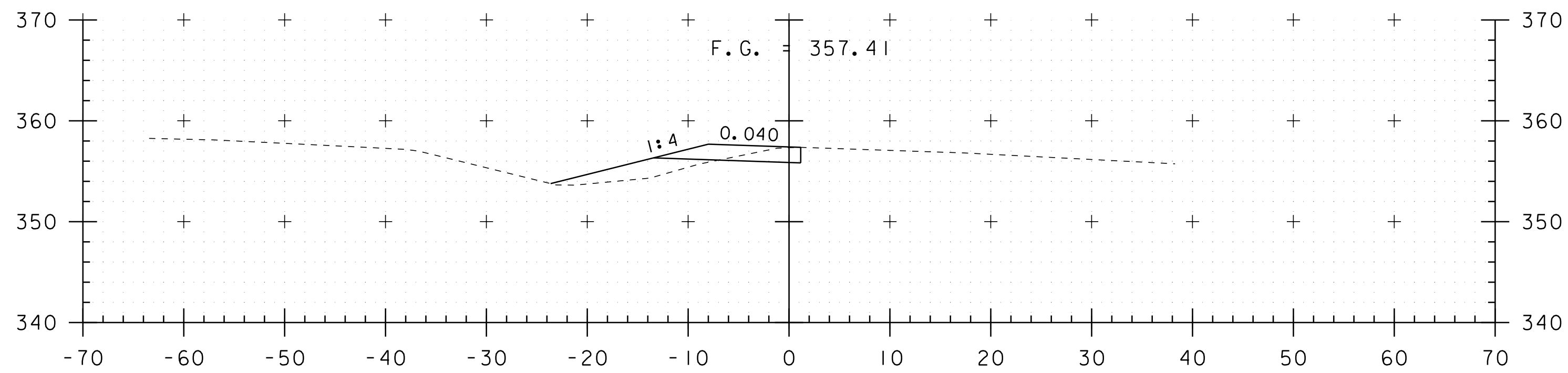
STA. 4171+00 TO STA. 4173+50



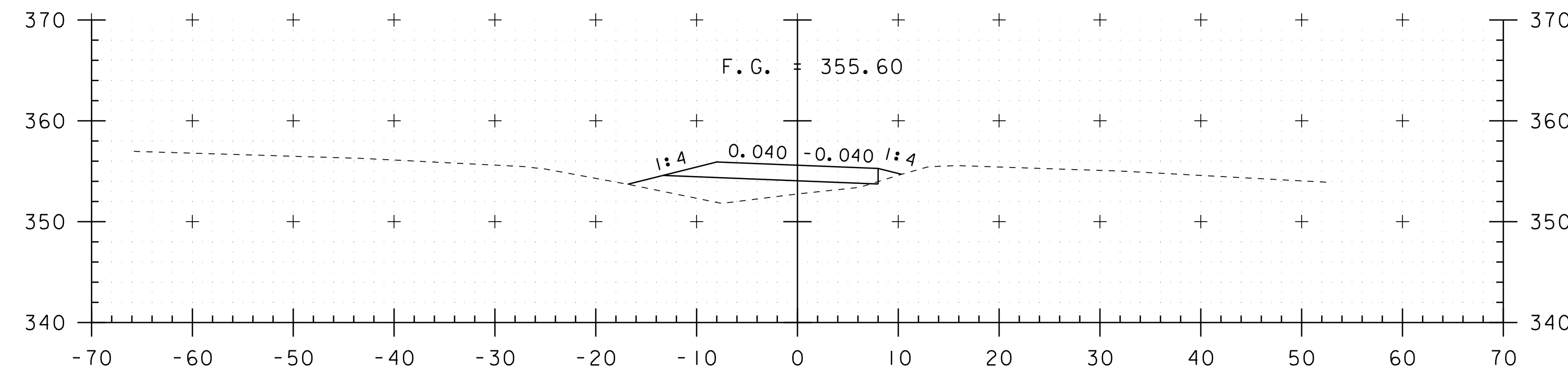
4175+00



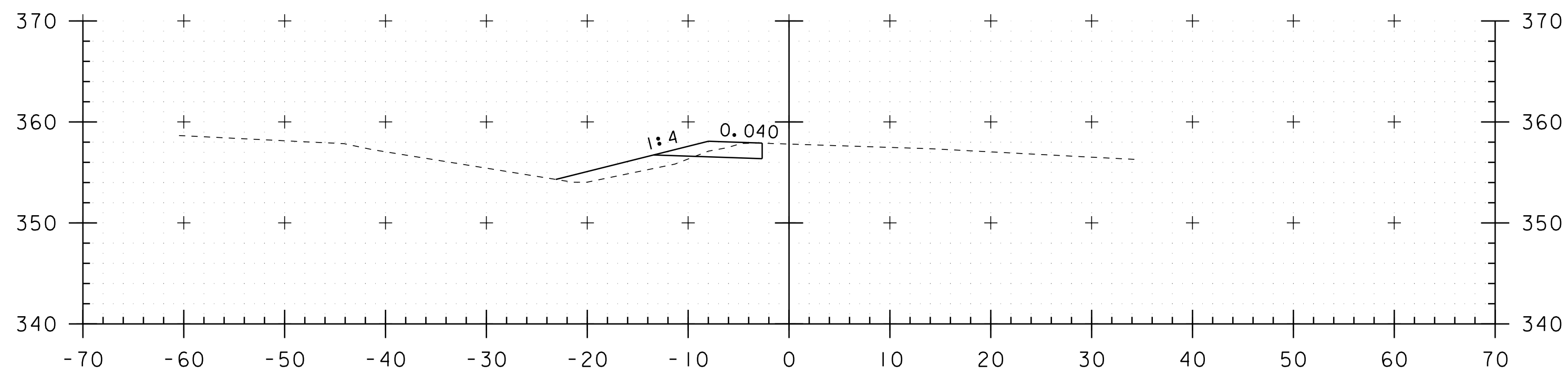
4176+50



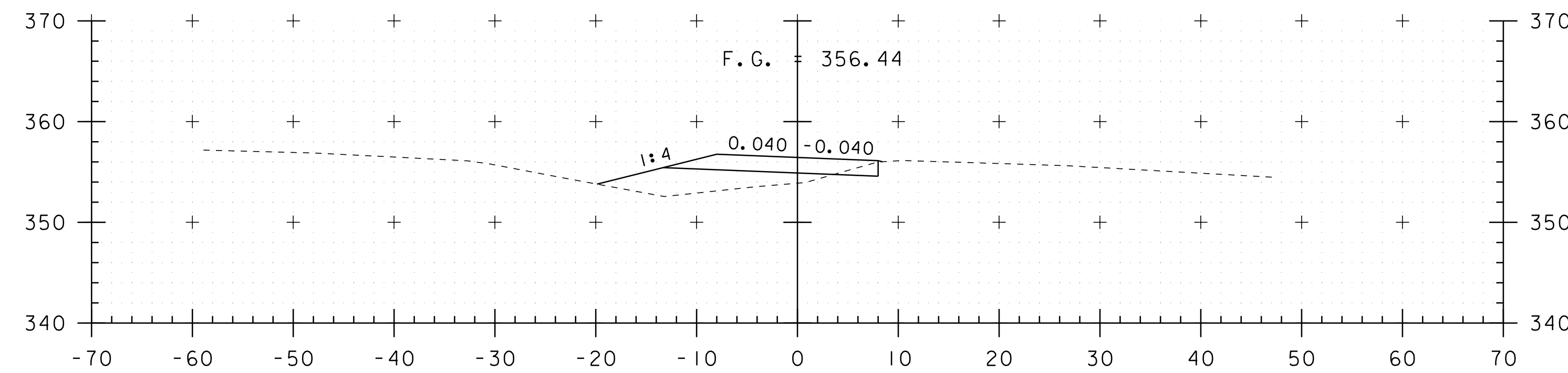
4174+50



4176+00



4174+00



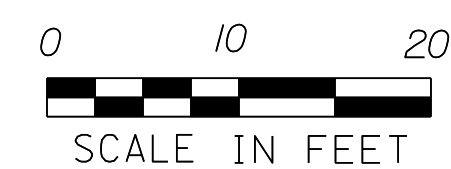
4175+50

CROSSOVER AT MM 79.00

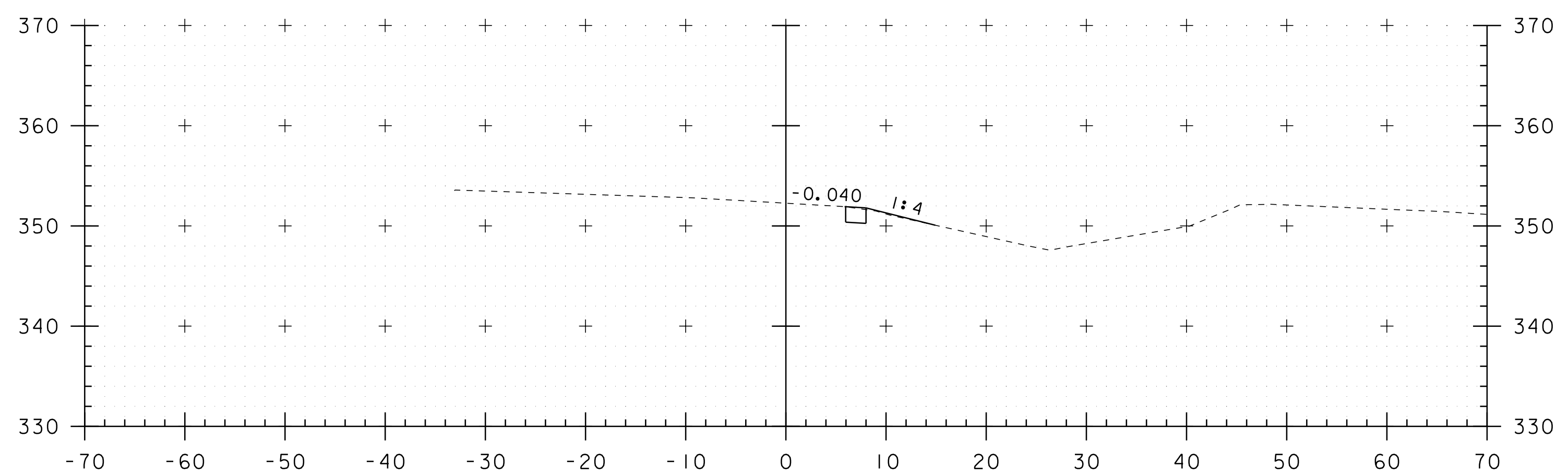
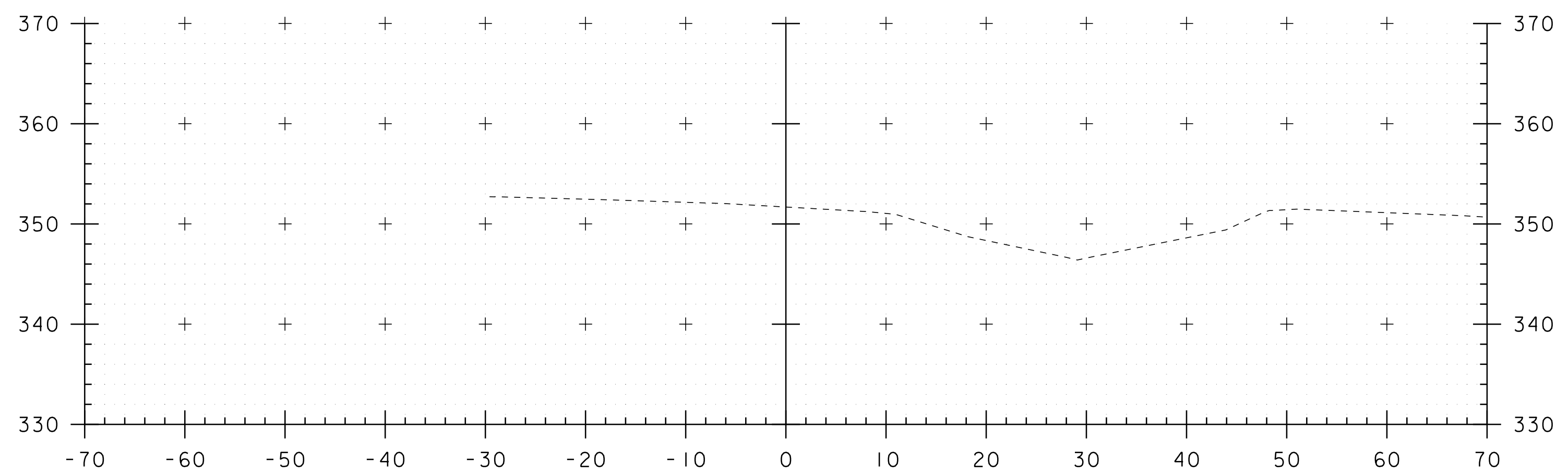
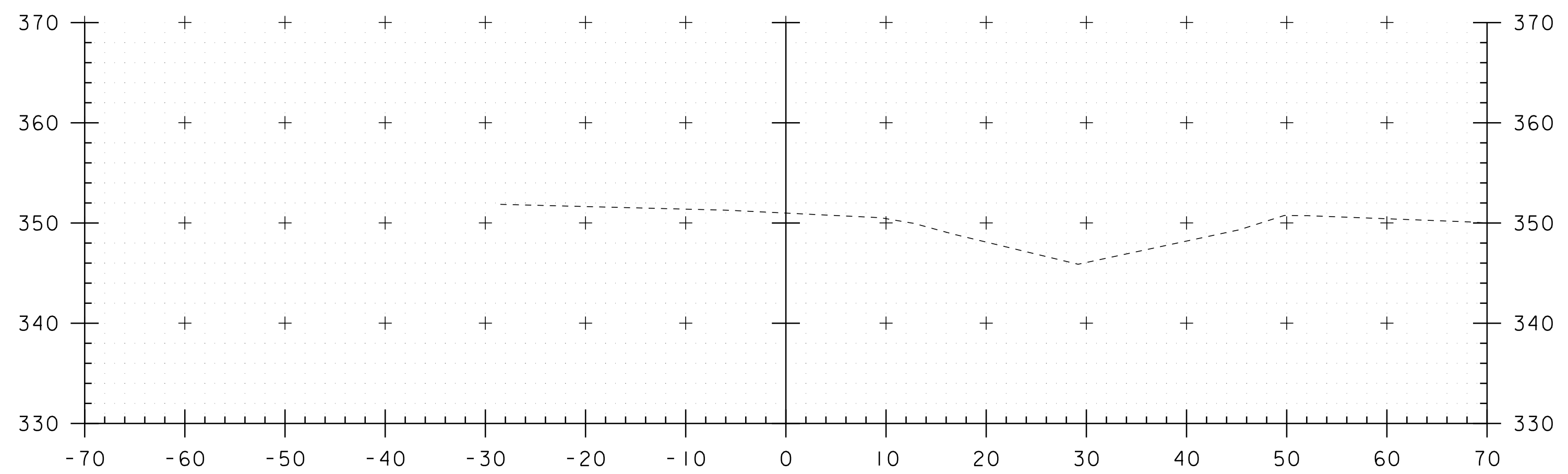
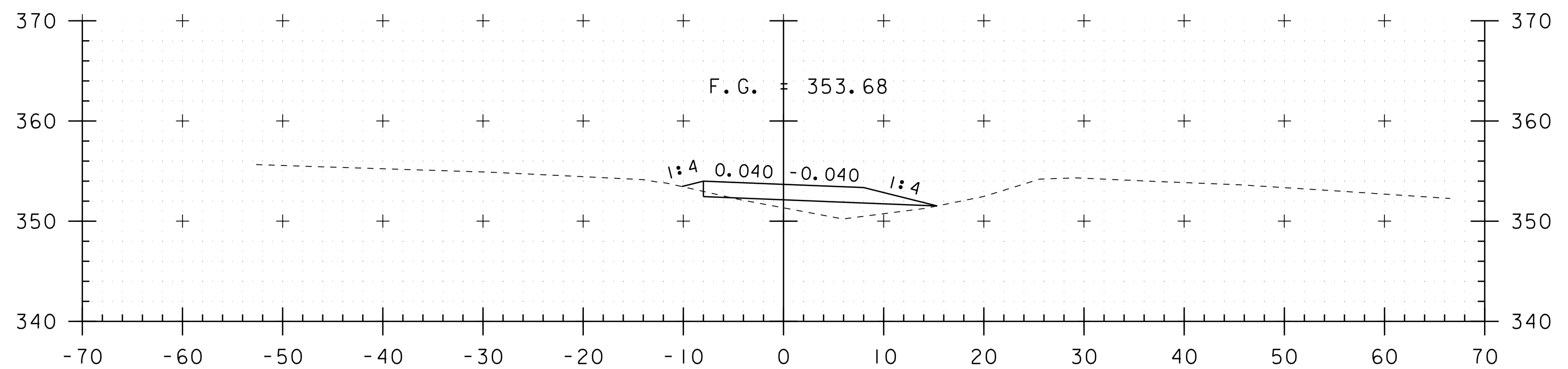
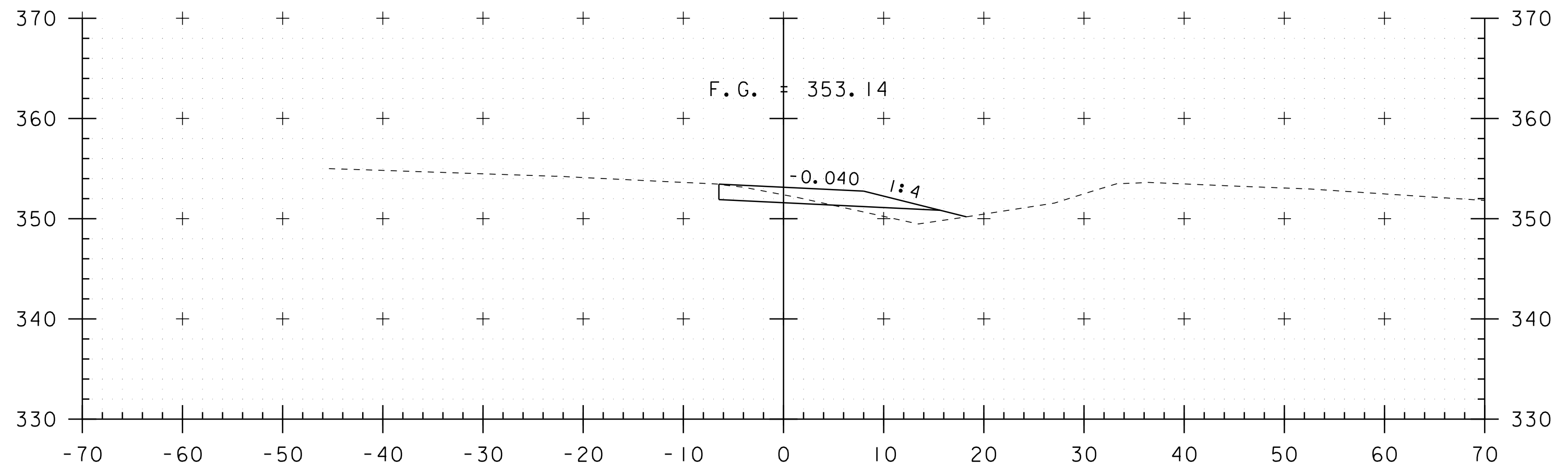
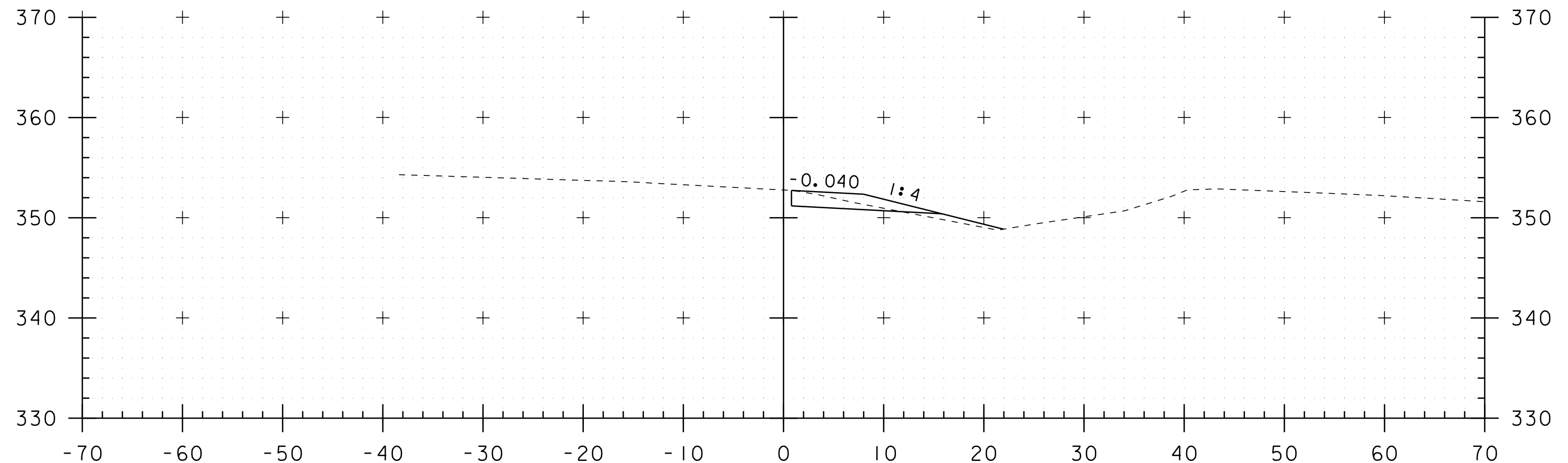
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 PROJECT NUMBER: IM 089-2(39)

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 85 OF 91



STA. 4174+00 TO STA. 4176+50



CROSSOVER AT MM 79.00

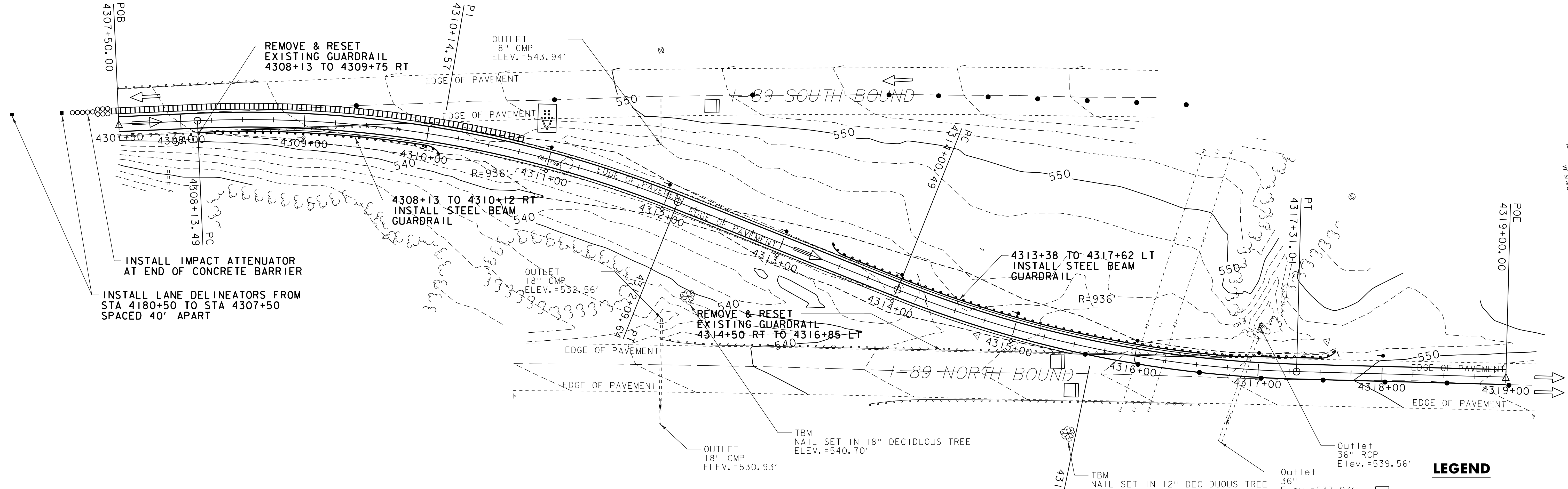
PROJECT NAME: RICHMOND-SOUTH BURLINGTON
 PROJECT NUMBER: IM 089-2(39)

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



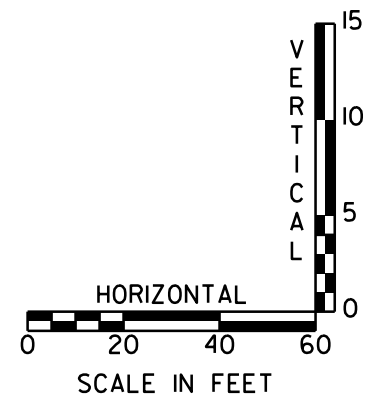
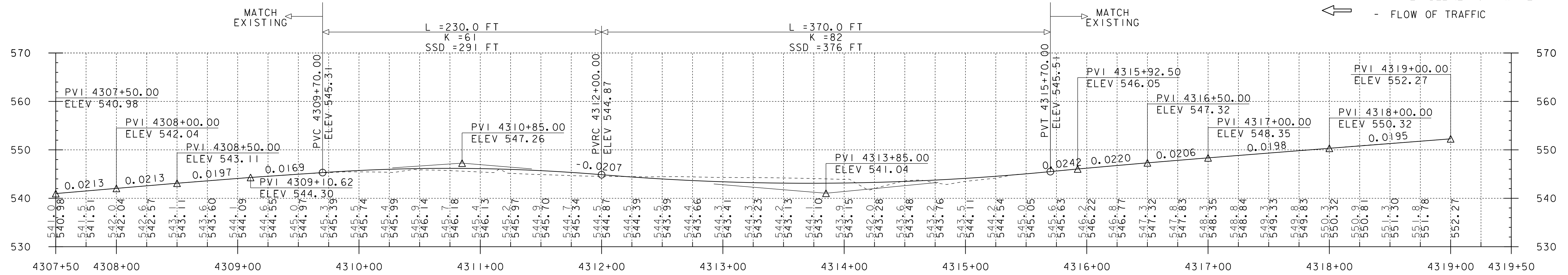
STA. 4177+00 TO STA. 4179+50



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

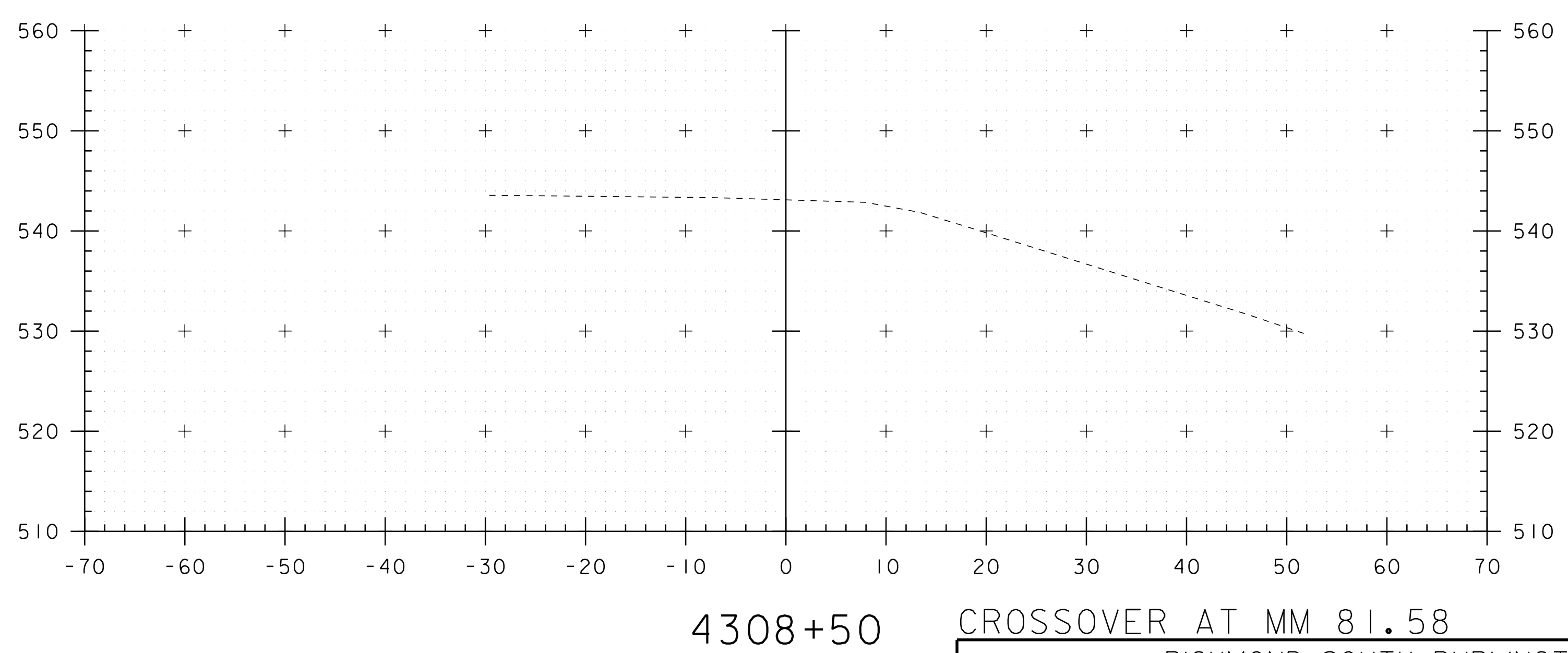
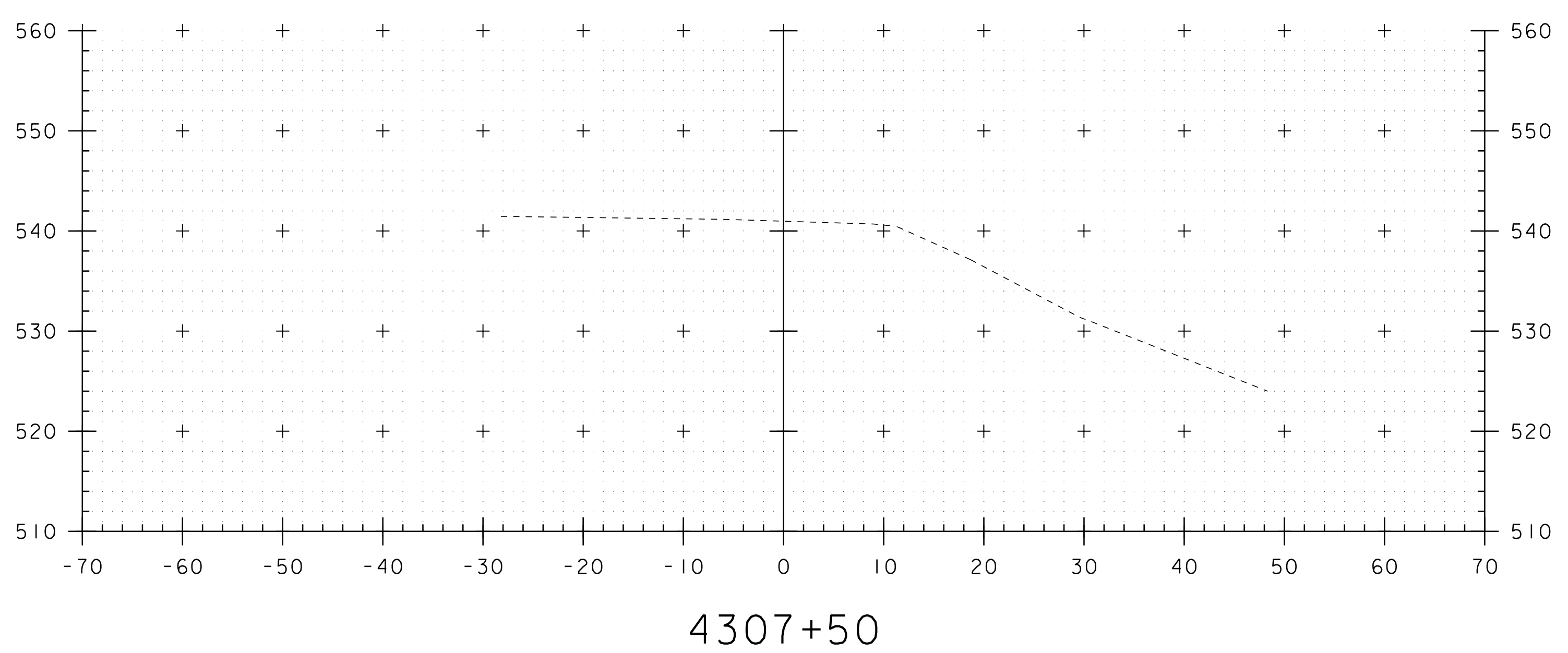
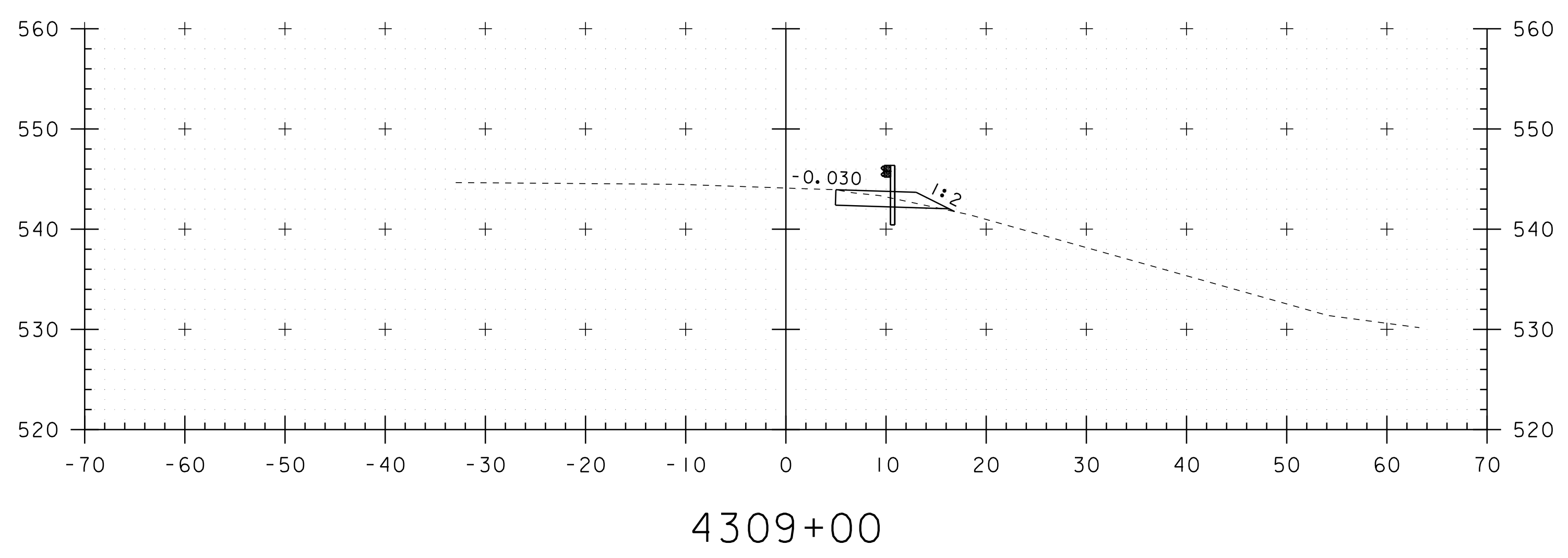
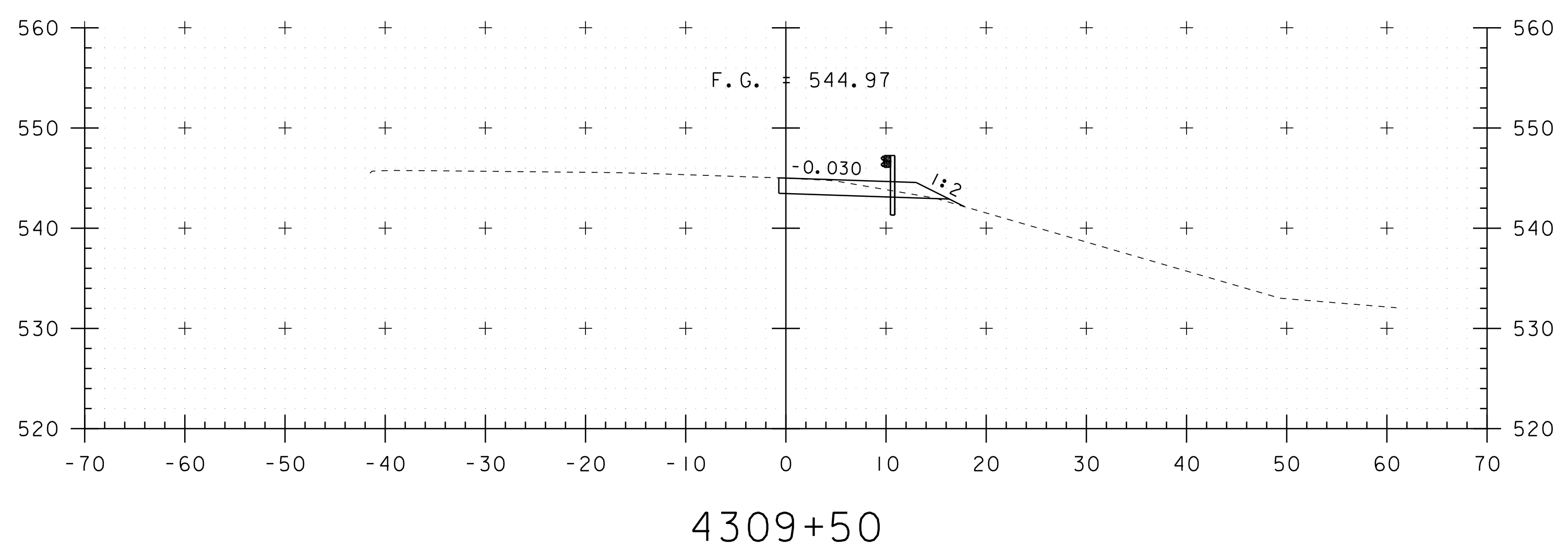
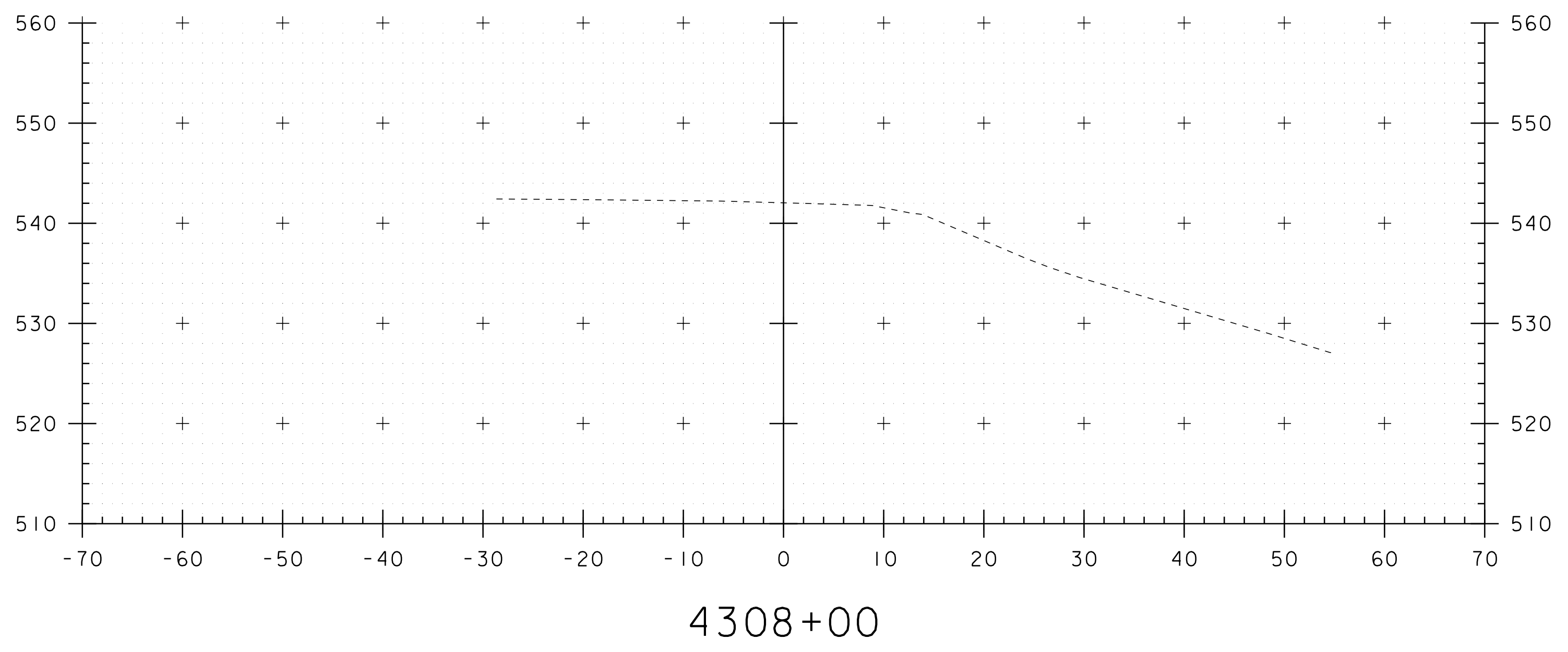


- LEGEND**
- TYPE III BARRICADES.
 - FLASHING ARROW PANEL
 - CONCRETE MEDIAN BARRIER
 - PAVEMENT MARKING REMOVAL
 - REFLECTORIZED PLASTIC DRUM
 - LANE DELINEATOR
 - TYPE I DELINEATOR (YELLOW)
 - TYPE I DELINEATOR (WHITE)
 - FLOW OF TRAFFIC



CROSSOVER AT MM 81.58

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

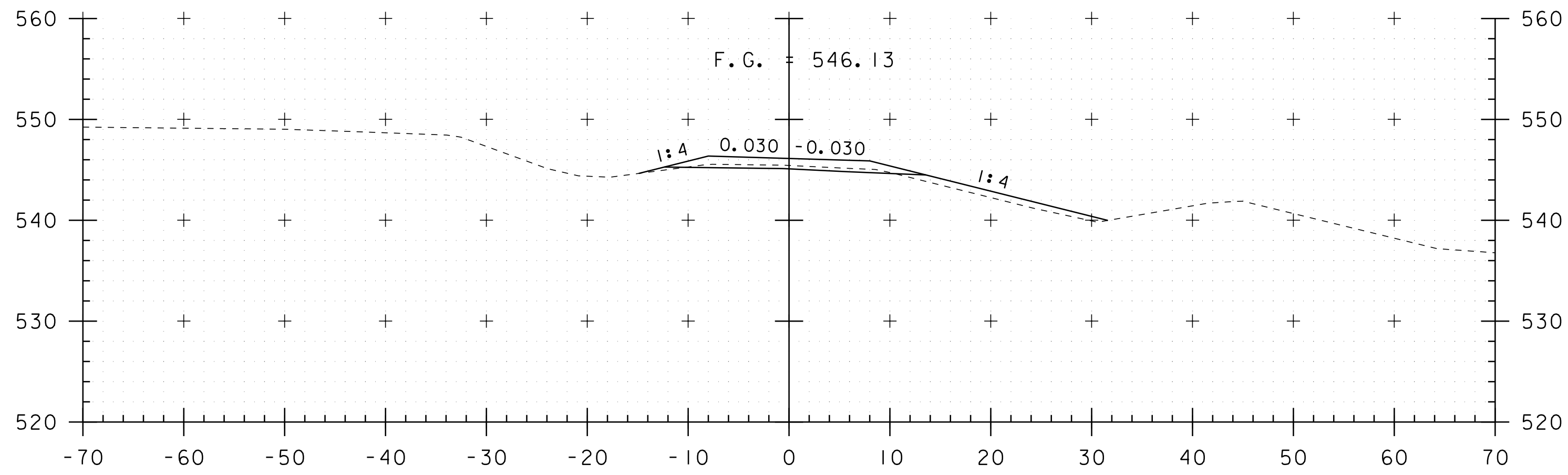


CROSSOVER AT MM 81.58

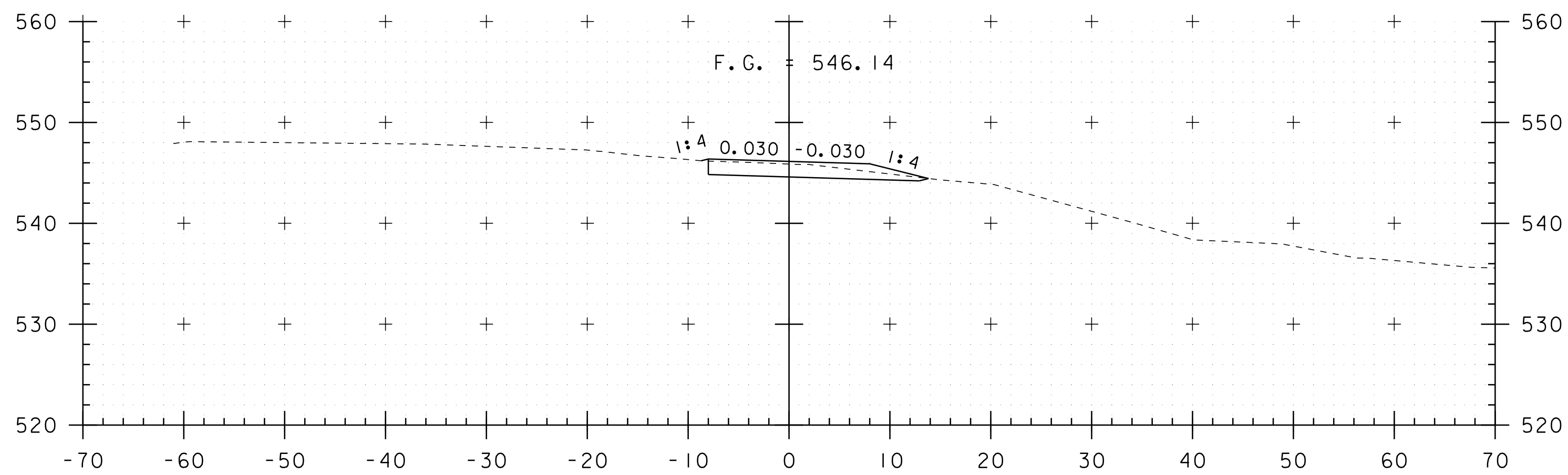
PROJECT NAME:	RICHMOND-SOUTH BURLINGTON	PLOT DATE:	02-OCT-2012 16:5
PROJECT NUMBER:	IM 089-2(39)	DRAWN BY:	JJB/MRS
FILE NAME:	p05a012.dgn	DESIGNED BY:	JJB
PROJECT LEADER:	CRB	CHECKED BY:	DH
CLD 07-0313		SHEET	88 OF 91



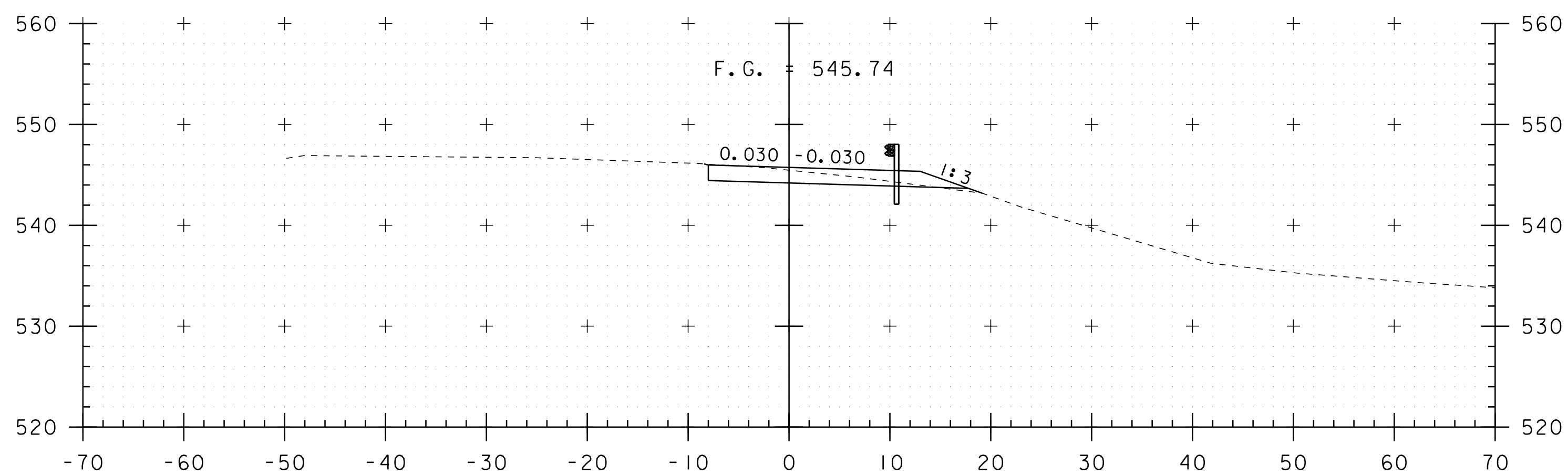
STA. 4307+50 TO STA. 4309+50



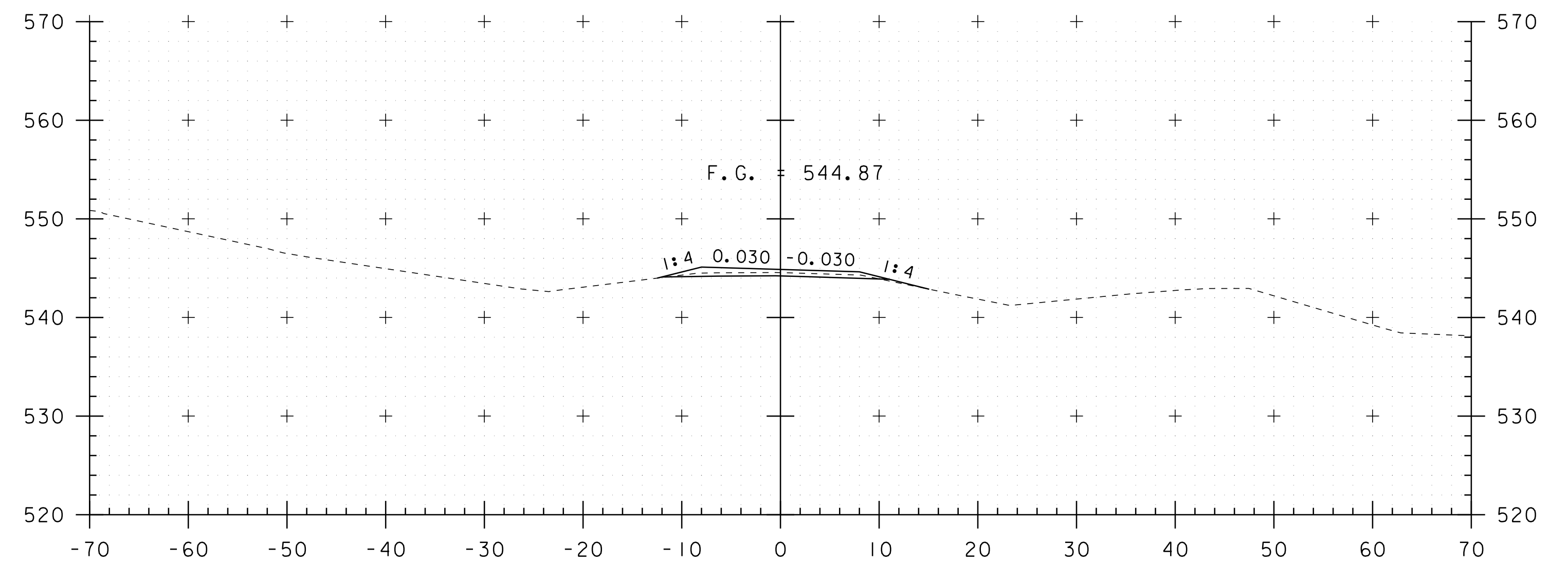
4311+00



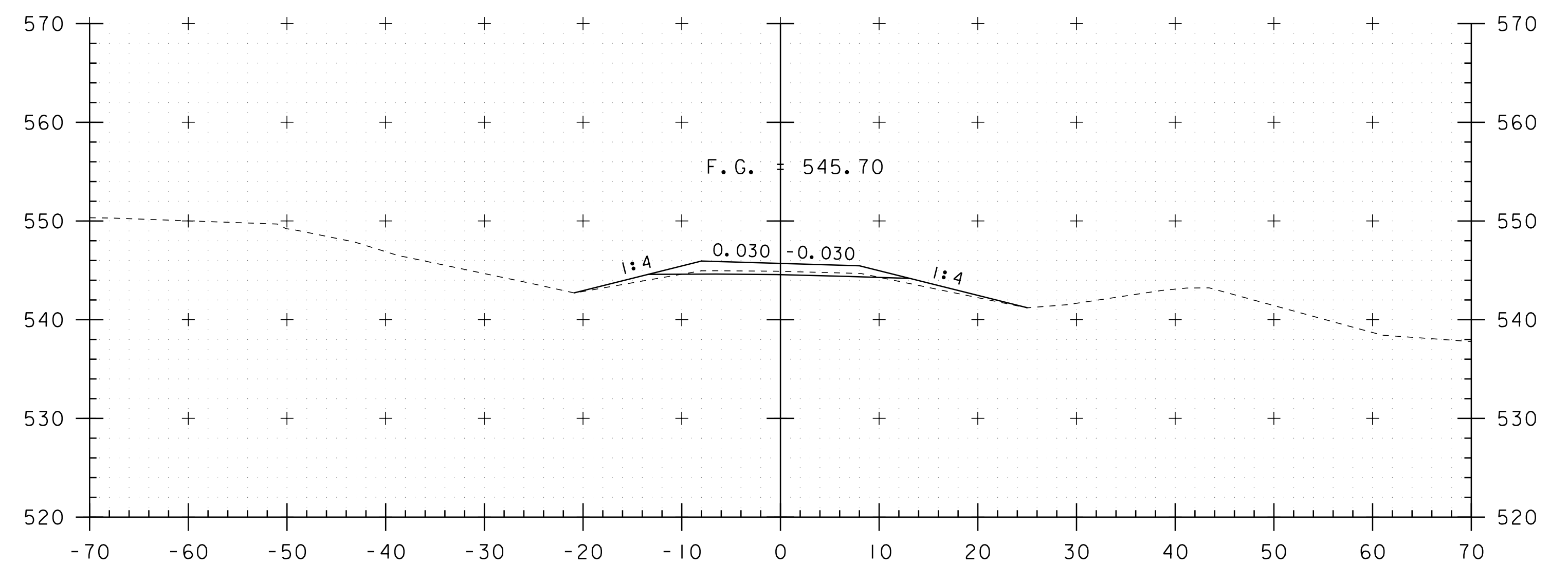
4310+50



4310+00



4312+00



4311+50

CROSSOVER AT MM 81.58

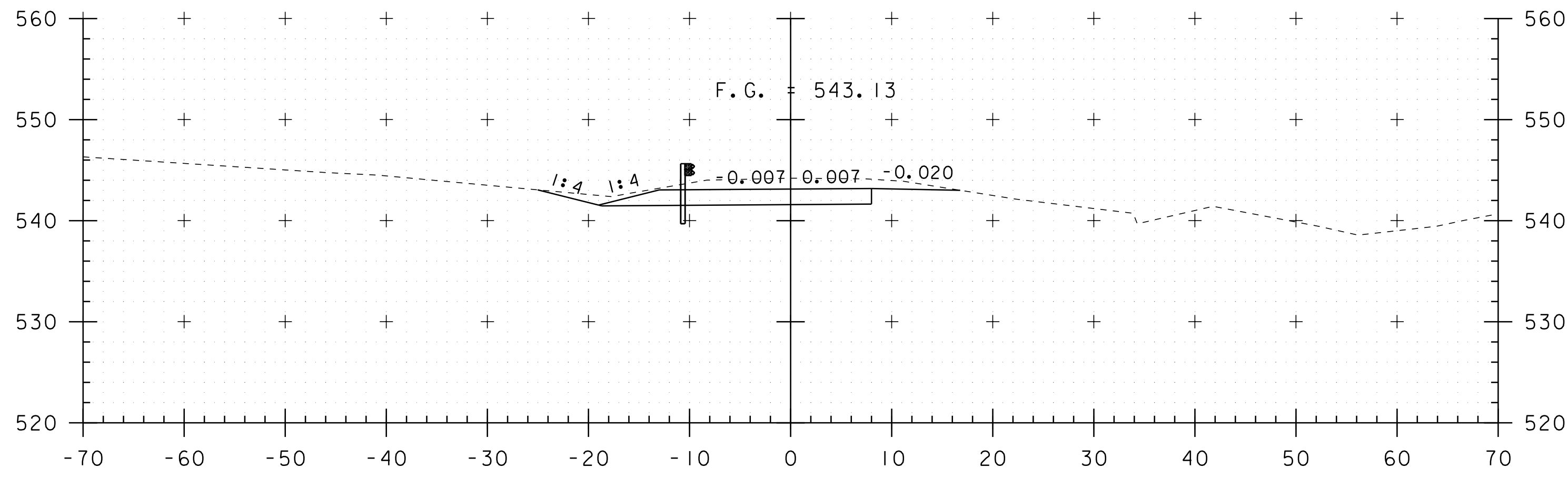
PROJECT NAME: RICHMOND-SOUTH BURLINGTON
PROJECT NUMBER: IM 089-2(39)

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

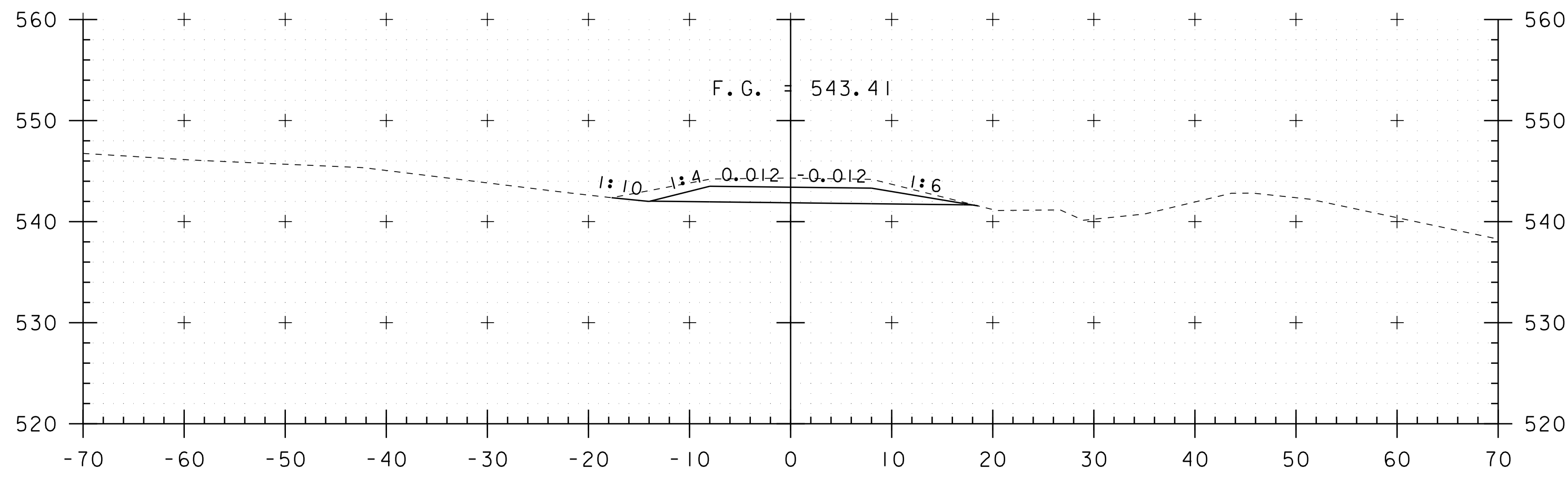
PLOT DATE: 02-OCT-2012 16:5
DRAWN BY: JJB/MRS
CHECKED BY: DH
SHEET 89 OF 91



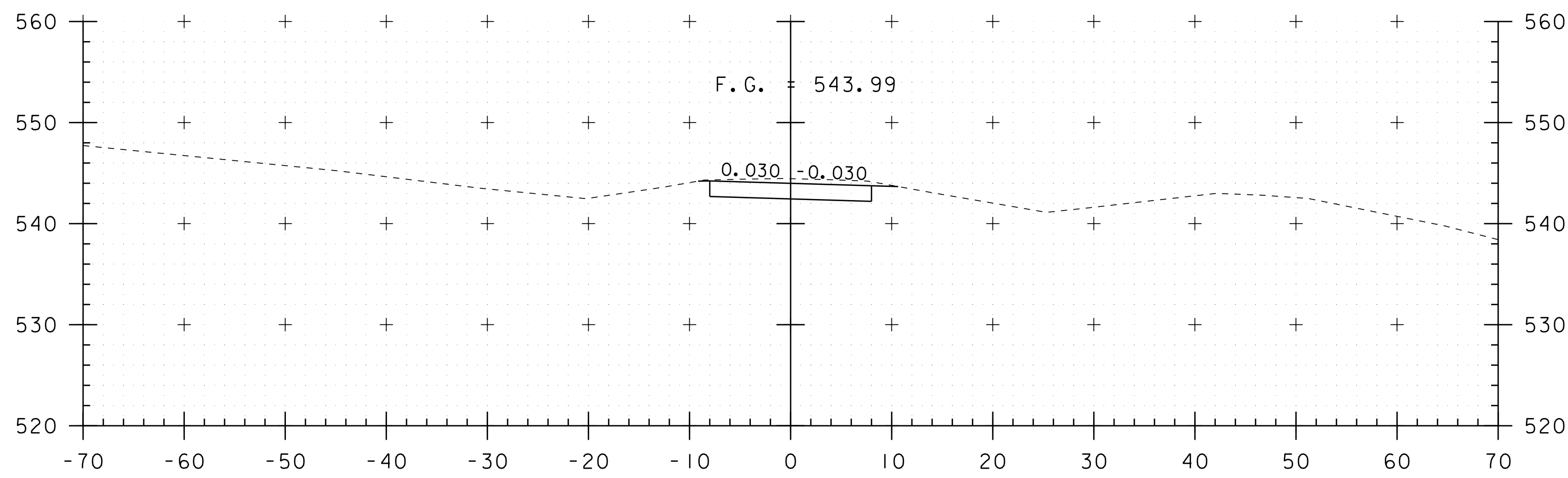
STA. 4310+00 TO STA. 4312+00



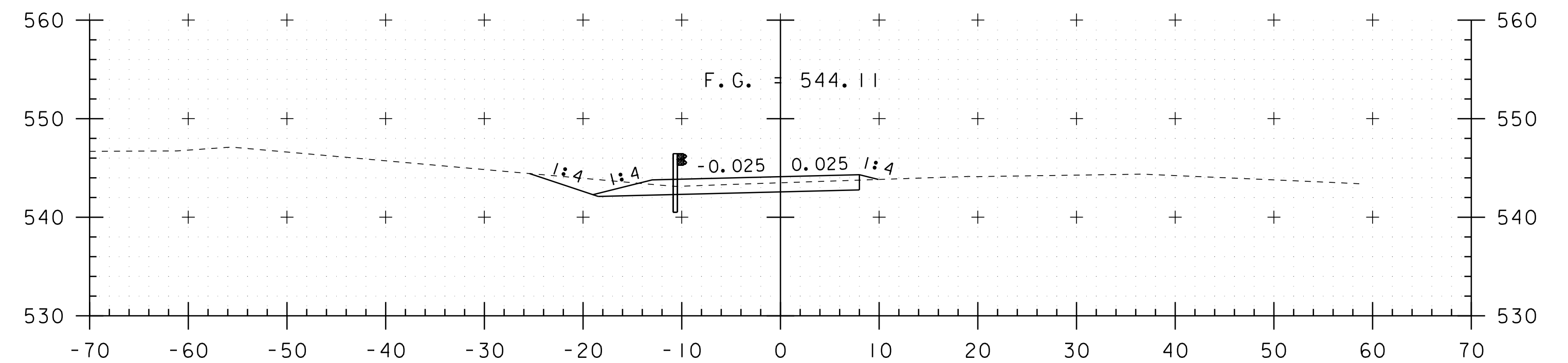
4313+50



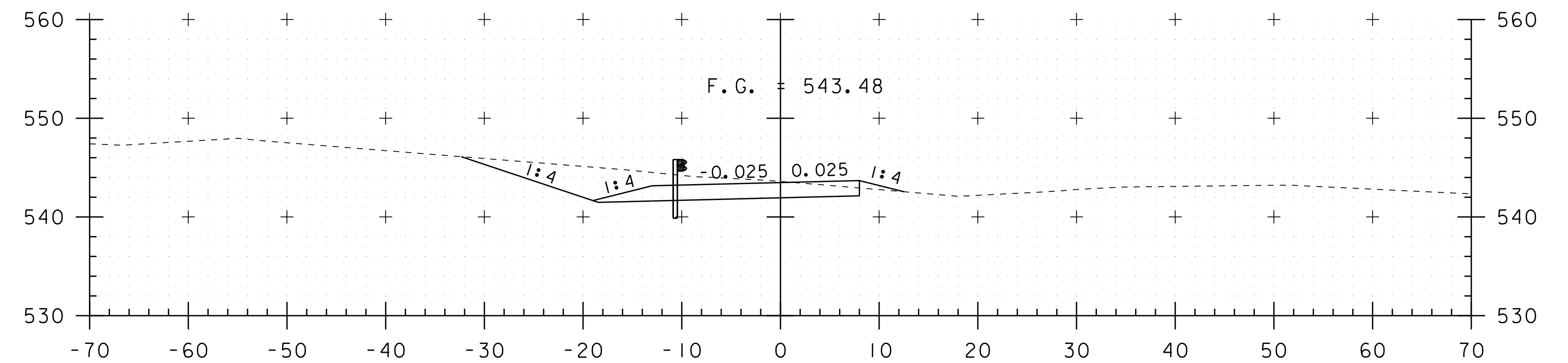
4313+00



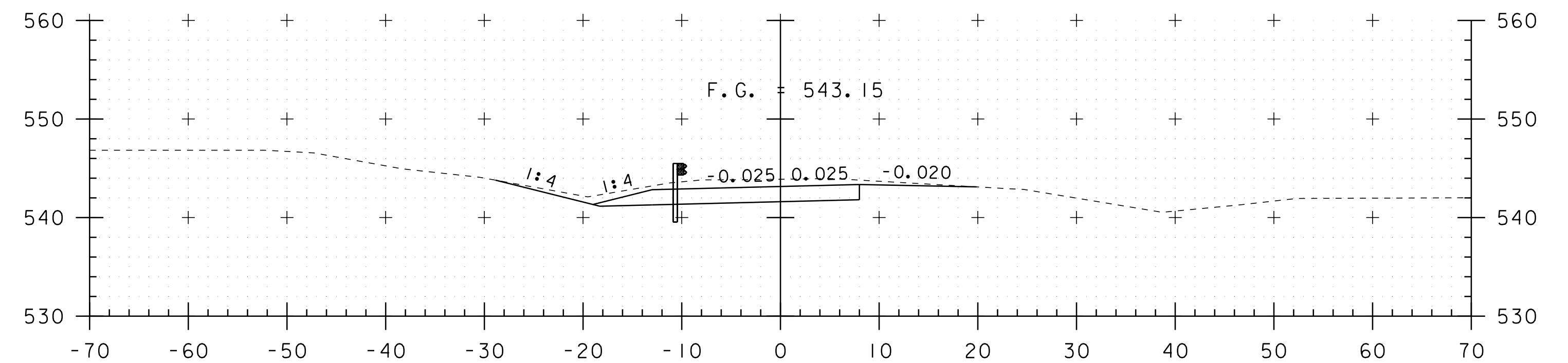
4312+50



4315+00



4314+50



4314+00

CROSSOVER AT MM 81.58

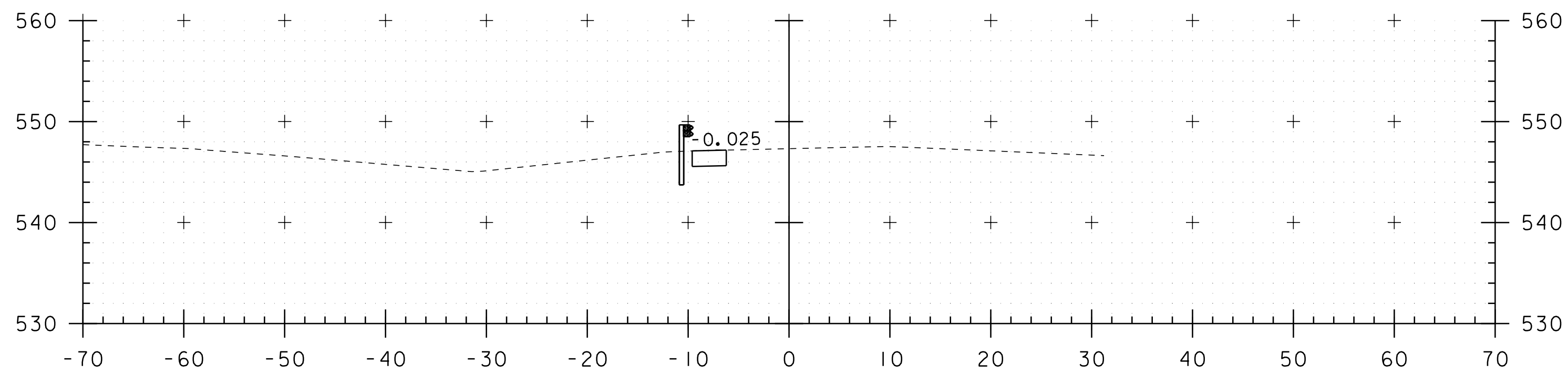
PROJECT NAME: RICHMOND-SOUTH BURLINGTON
PROJECT NUMBER: IM 089-2(39)

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

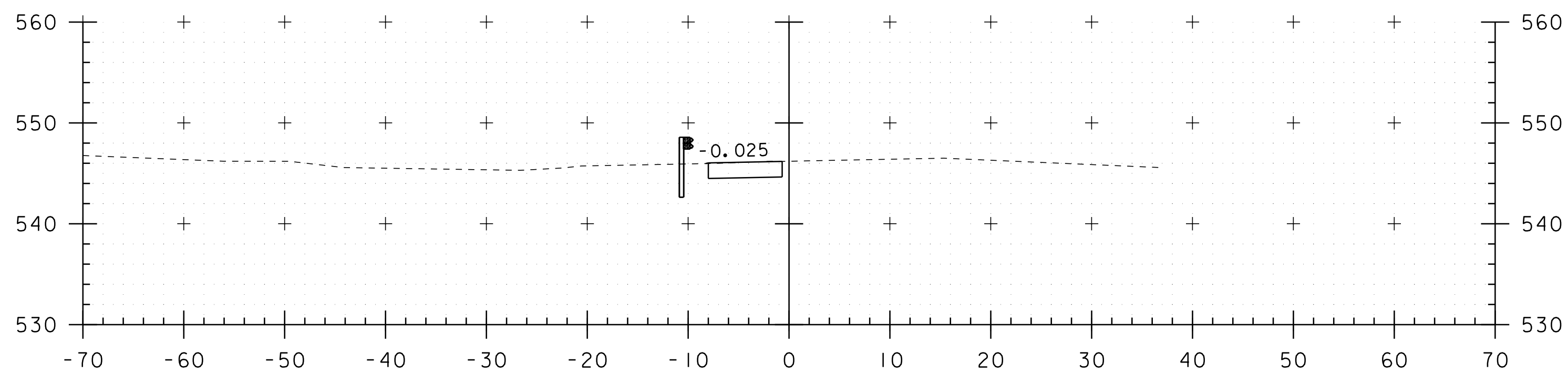
PLOT DATE: 02-OCT-2012 16:5
DRAWN BY: JJB/MRS
CHECKED BY: DH
SHEET 90 OF 91



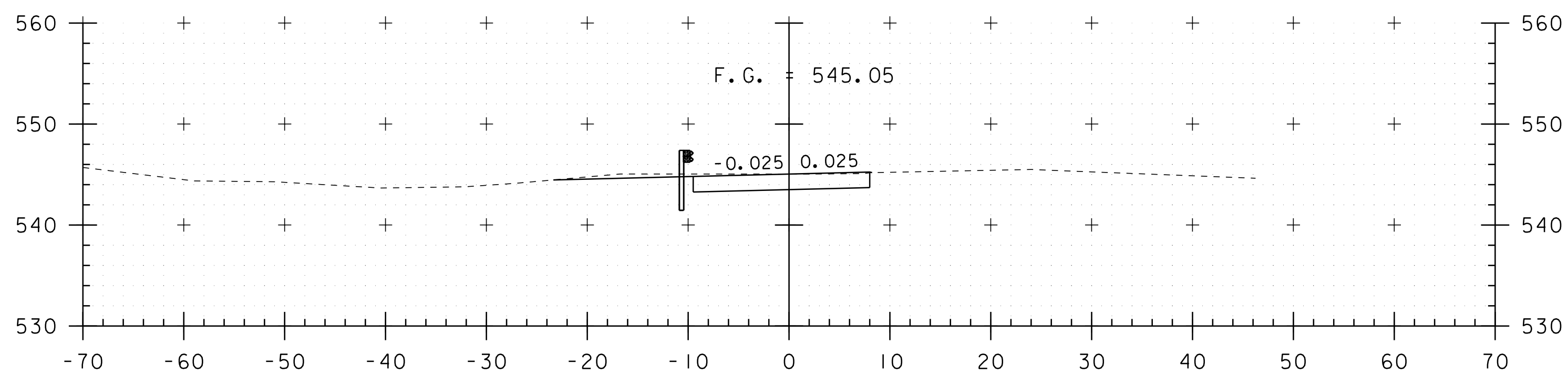
STA. 4312+50 TO STA. 4315+00



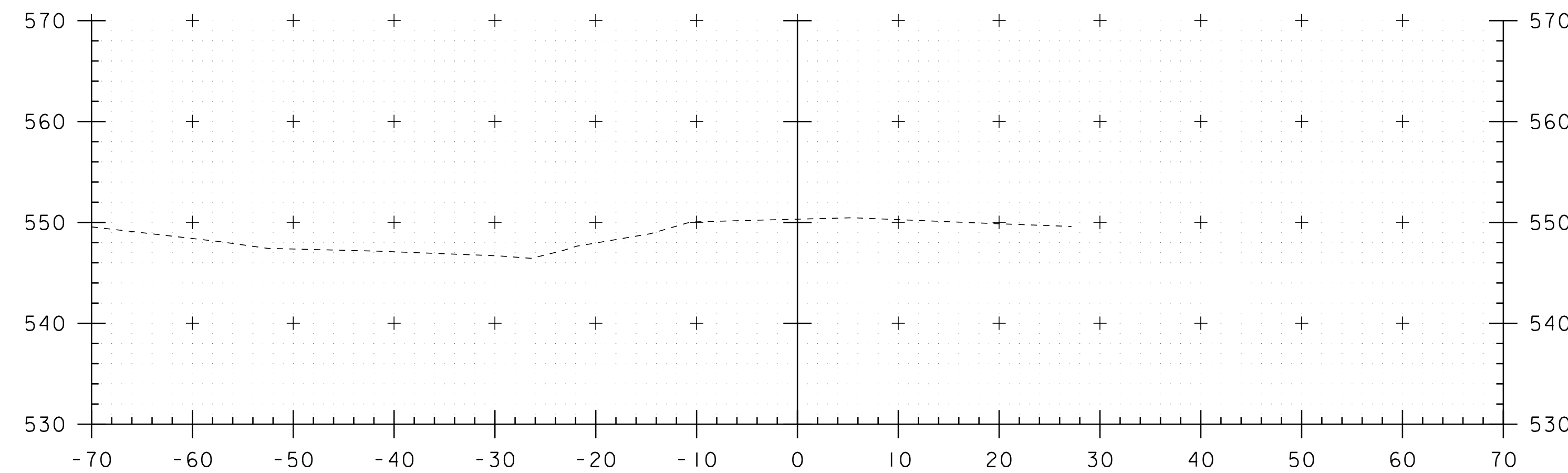
4316+50



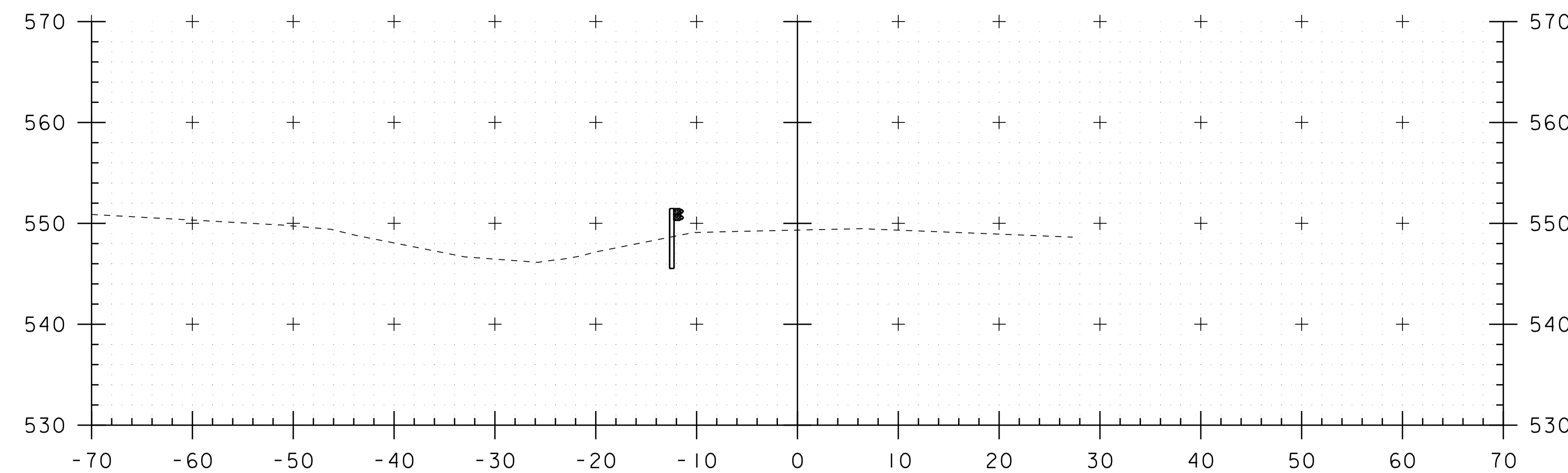
4316+00



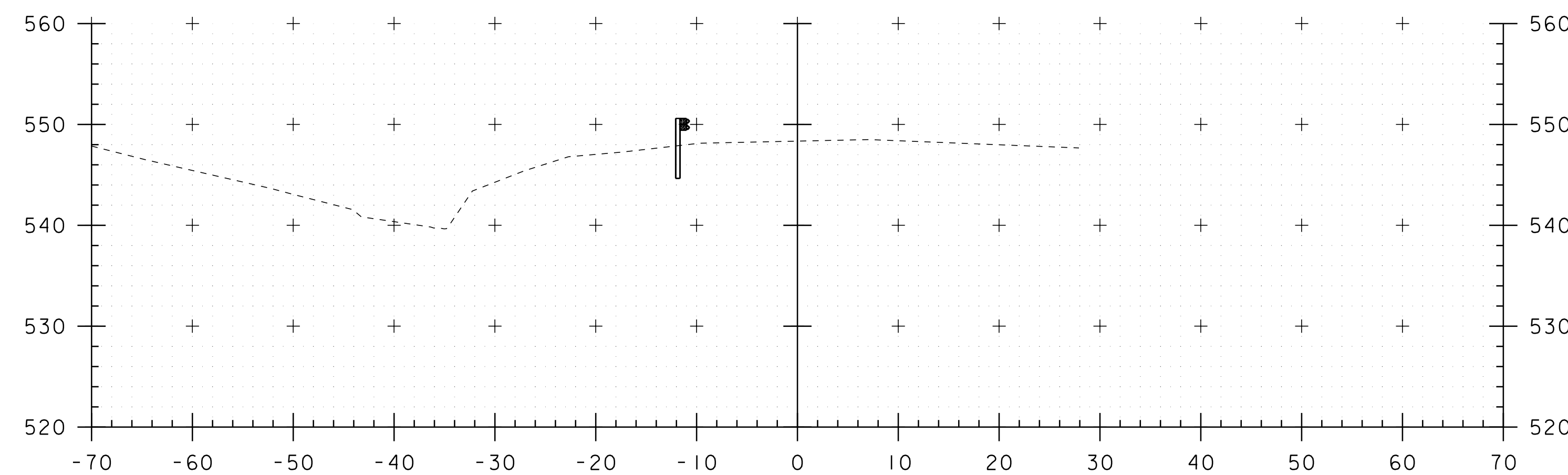
4315+50



4318+00



4317+50



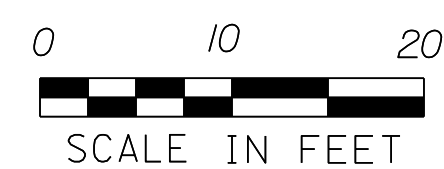
4317+00

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