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LIST OF STANDARDS

- B-5 06-01-1994
- C-1 01-03-2000
- C-2B 01-03-2000
- C-3A 02-02-2004
- D-2 06-01-1994
- D-4 06-01-1994
- D-8 01-03-2000
- D-9 06-01-1994
- D-11 06-01-1994
- D-13 01-03-2000
- D-15 06-01-1994
- E-100 01-02-2004
- E-101 05-30-2003
- E-102 06-30-2003
- E-102A 08-08-1995
- E-106 03-01-2004
- E-107 06-30-2003
- E-107A 08-08-1995
- E-121 08-08-1995
- E-160 05-20-1999
- E-191 02-01-1999
- E-193 08-18-1995
- G-4 06-01-1994
- G-18 06-01-1994

STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT SAFETY PROJECT TOWN OF SPRINGFIELD COUNTY OF WINDSOR

ROUTE NOS : TH 1/VT 11 (RIVER ST.) AND TH 325 (NORTH MAIN ST.)

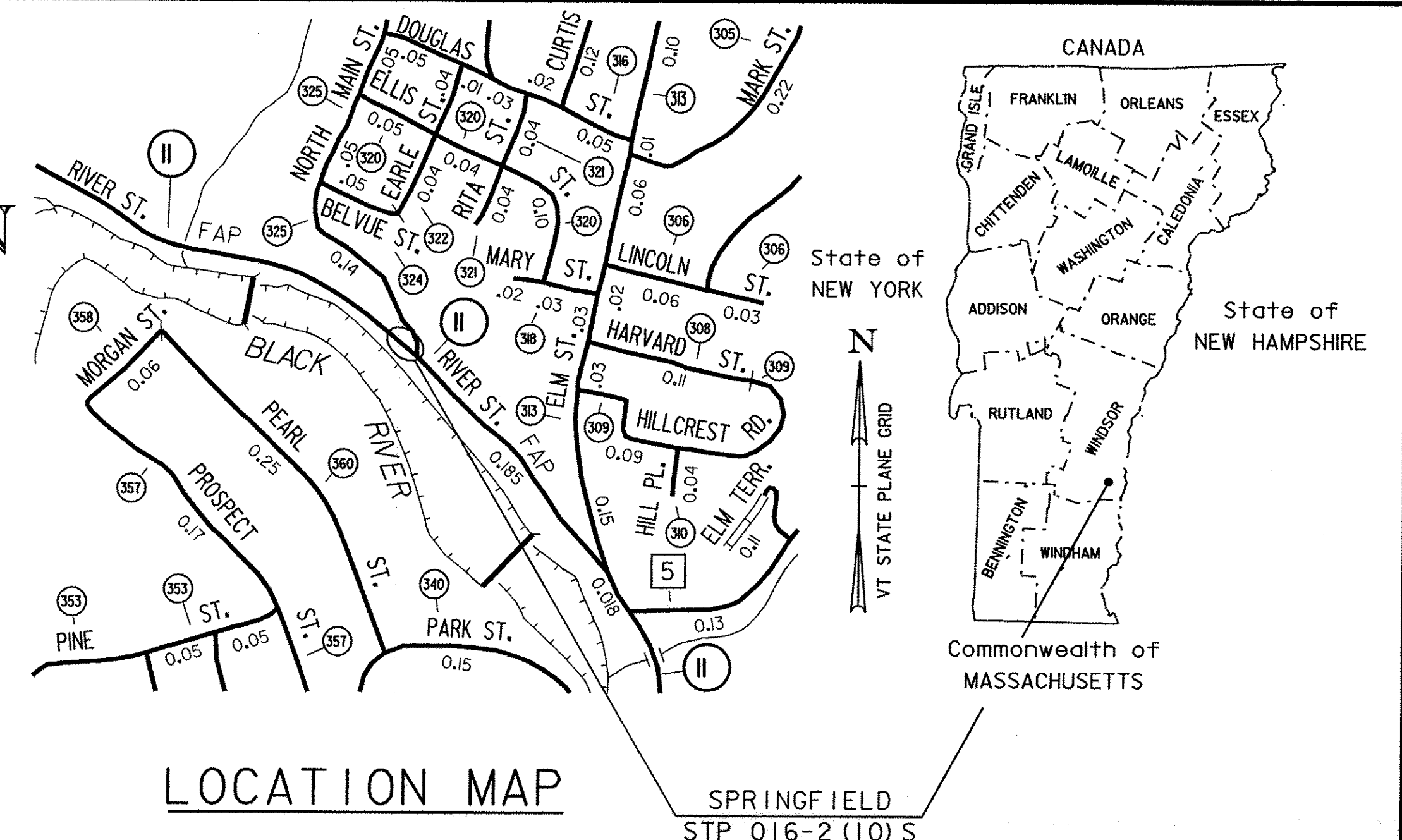
PROJECT LOCATION: ALONG THE NORTH SIDE OF TH 1, BEGINNING APPROXIMATELY AT MM 4.234 AND EXTENDING SOUTHEASTERLY TO THE INTERSECTION OF NORTH MAIN STREET, ALSO ALONG NORTH MAIN STREET BEGINNING AT THE INTERSECTION OF TH 1 AND EXTENDING NORTHWESTERLY APPROXIMATELY 387 FEET.

PROJECT DESCRIPTION: PARTICIPATION: REPAIR AND REHABILITATION OF EXISTING METAL BINWALL ALONG LEFT SIDE OF TH 1, INSTALLATION OF NEW DRAINAGE AND SIDEWALK ALONG LEFT SIDE OF TH 325, COLD PLANING AND PLACING NEW BITUMINOUS CONC. PAVEMENT ON TH 325 .

NON-PARTICIPATION: REMOVAL AND DISPOSAL OF EXISTING METAL BINWALL, CONSTRUCTING STONE LINED DITCH AND REGRADING OF SIDE SLOPE ALONG RIGHT SIDE OF TH 325.

LENGTH OF PARTICIPATION PROJECT ALONG TH 1/VT 11: 713.50 FEET.
LENGTH OF PARTICIPATION PROJECT ALONG TH 325: 386.44 FEET.

LENGTH OF NON-PARTICIPATION PROJECT ALONG TH 325: 170.00 FEET.



RECORD PLANS

CONTRACTOR: MILLER CONSTRUCTION, INC. - WINDSOR, VT

RESIDENT ENGINEER: BUTCH COLBY

CONSTRUCTION BEGAN: APRIL 11, 2005

CONSTRUCTION COMPLETE: SEPTEMBER 22, 2006

RECORD PLANS BY: BUTCH COLBY & AMOS KEMPTON

I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.

BY: *[Signature]* RESIDENT ENGINEER

DATE: 9/20/11

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.

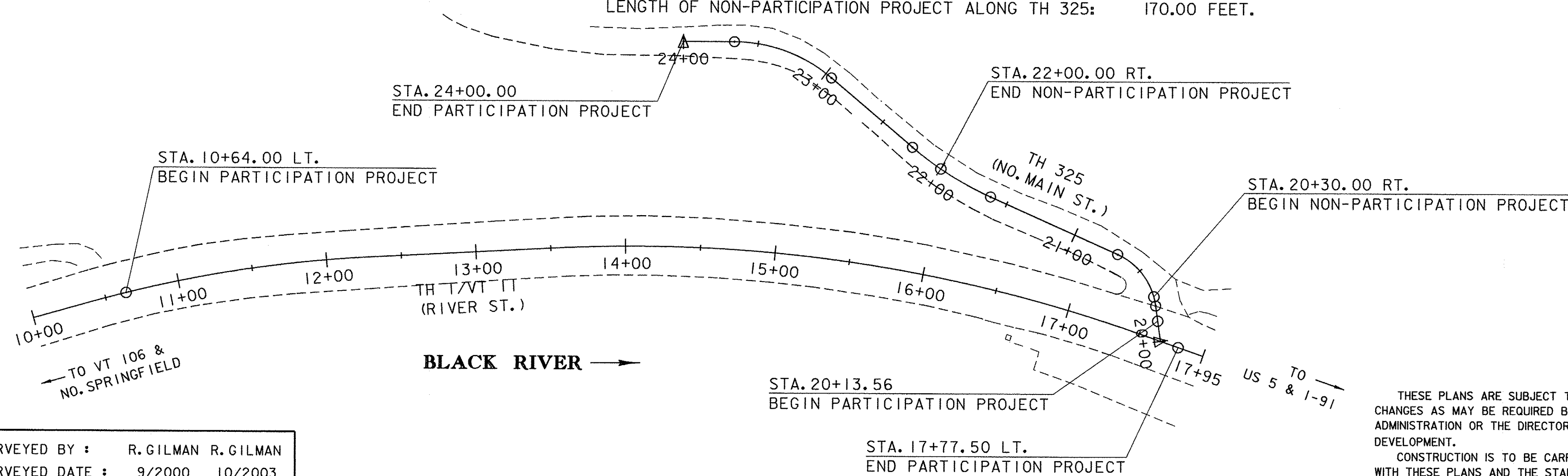
TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT
2004	12,300	1300	51	5	600
2024	16,500	1700	51	7	1200

18 Kip ESAL for flexible pavement from 2004 to 2024: 5,146,000
18 Kip ESAL for flexible pavement from 2004 to 2044: 13,383,000
Design speed: 35 mph

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



SURVEYED BY : R. GILMAN R. GILMAN
SURVEYED DATE : 9/2000 10/2003

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD83 (96)

SCALE: 1" = 50'-0"
50 0 50

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 2001, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JANUARY 4, 2001 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

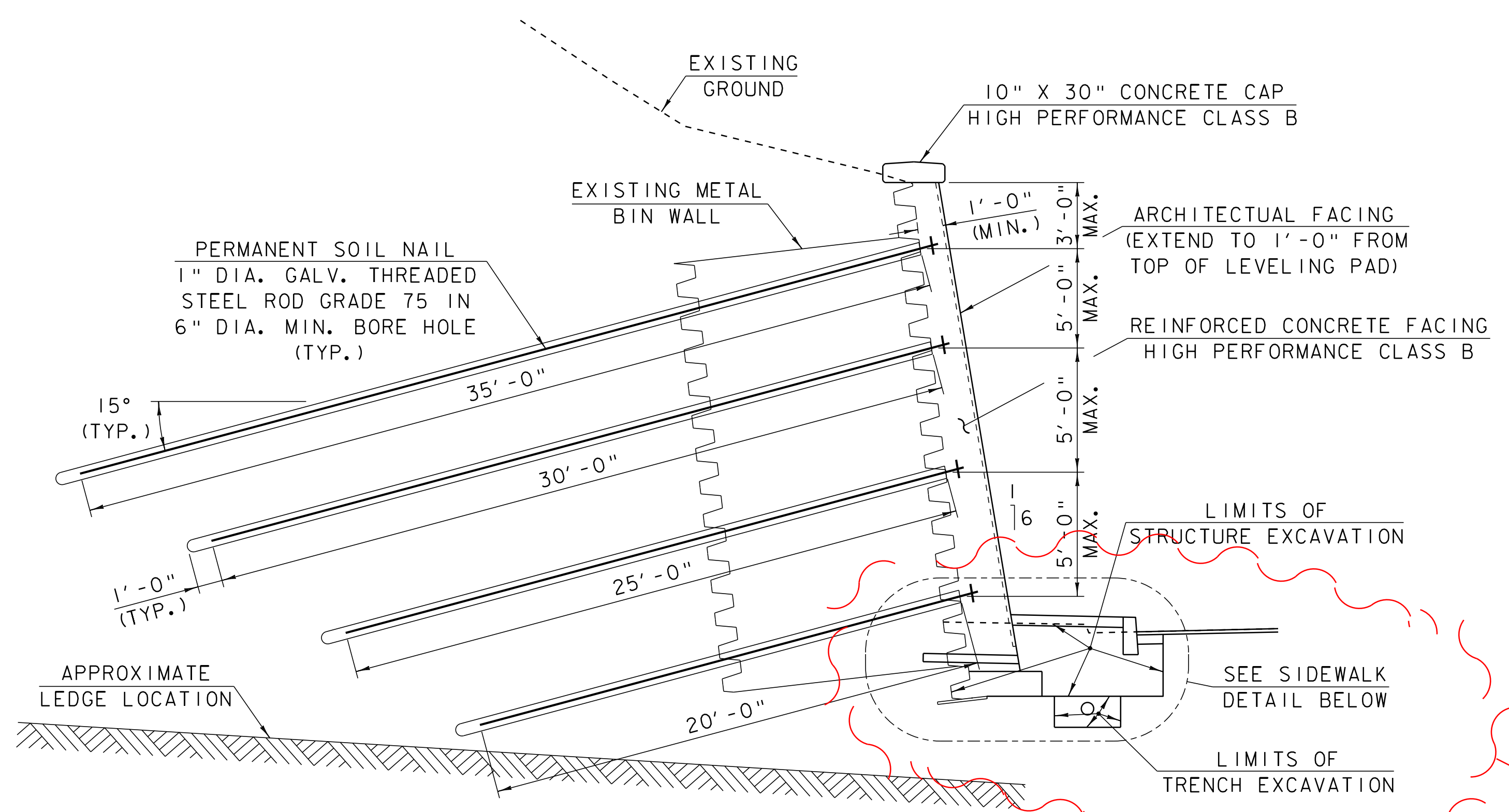
DIRECTOR OF PROGRAM DEVELOPMENT

APPROVED: *[Signature]* DATE: 8/4/09

PROJECT MANAGER : R. WHITCOMB

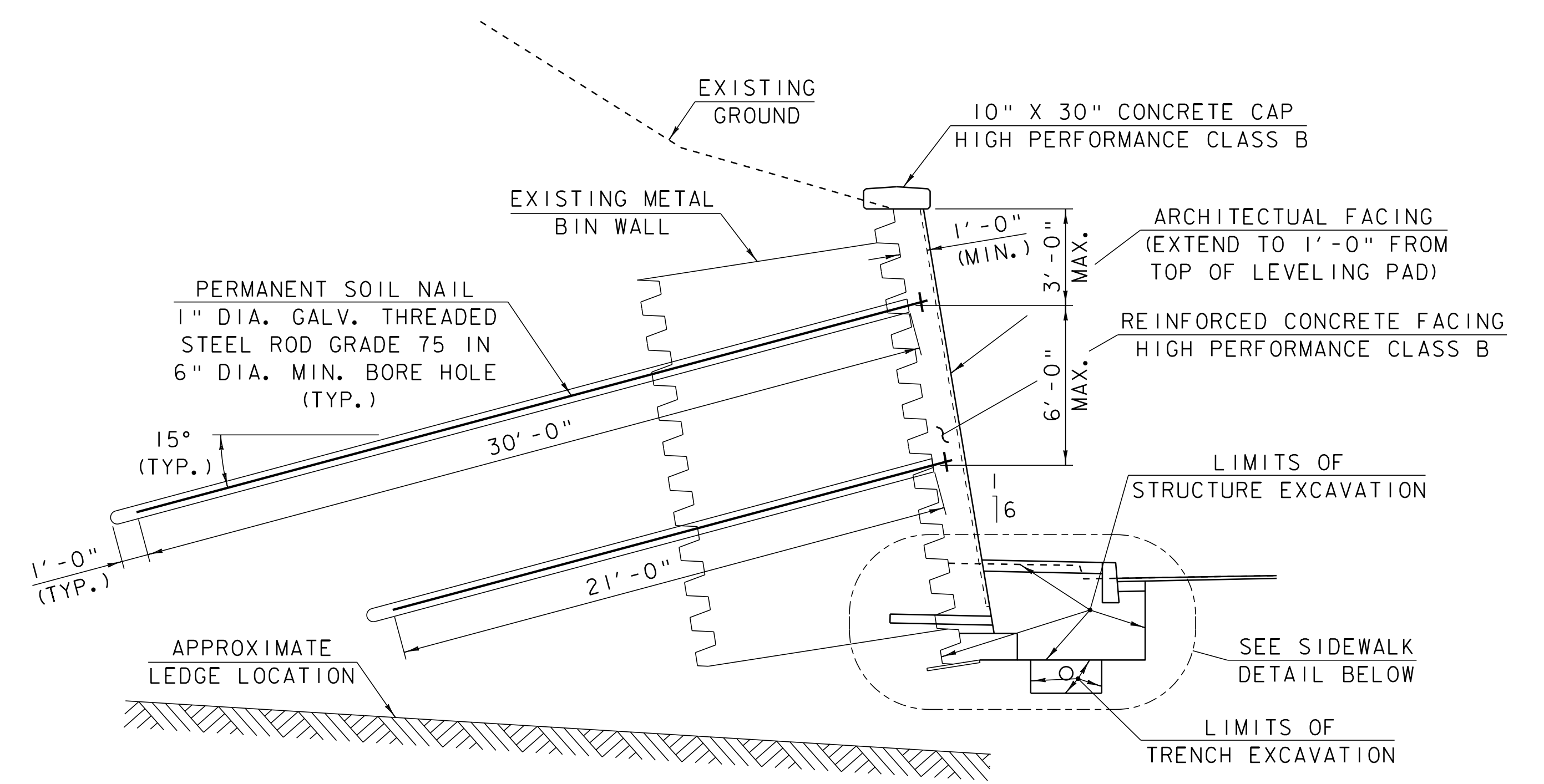
PROJECT NAME : SPRINGFIELD
PROJECT NUMBER : STP 016-2 (10) S

SHEET 1 OF 72 SHEETS



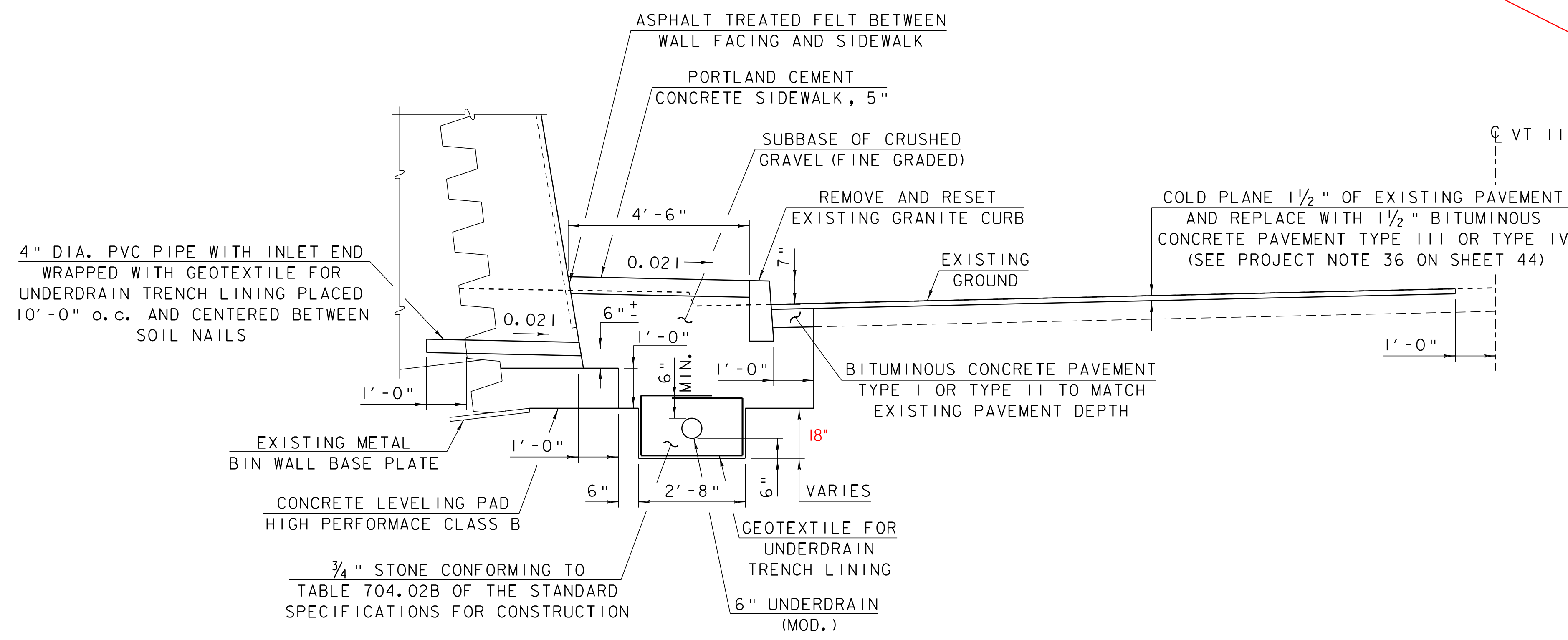
**TYPICAL SOIL NAIL WALL SECTION
TALLER THAN 15'-0"**

1 0 1 2 3 4 5 6
SCALE: 1/4" = 1'-0"



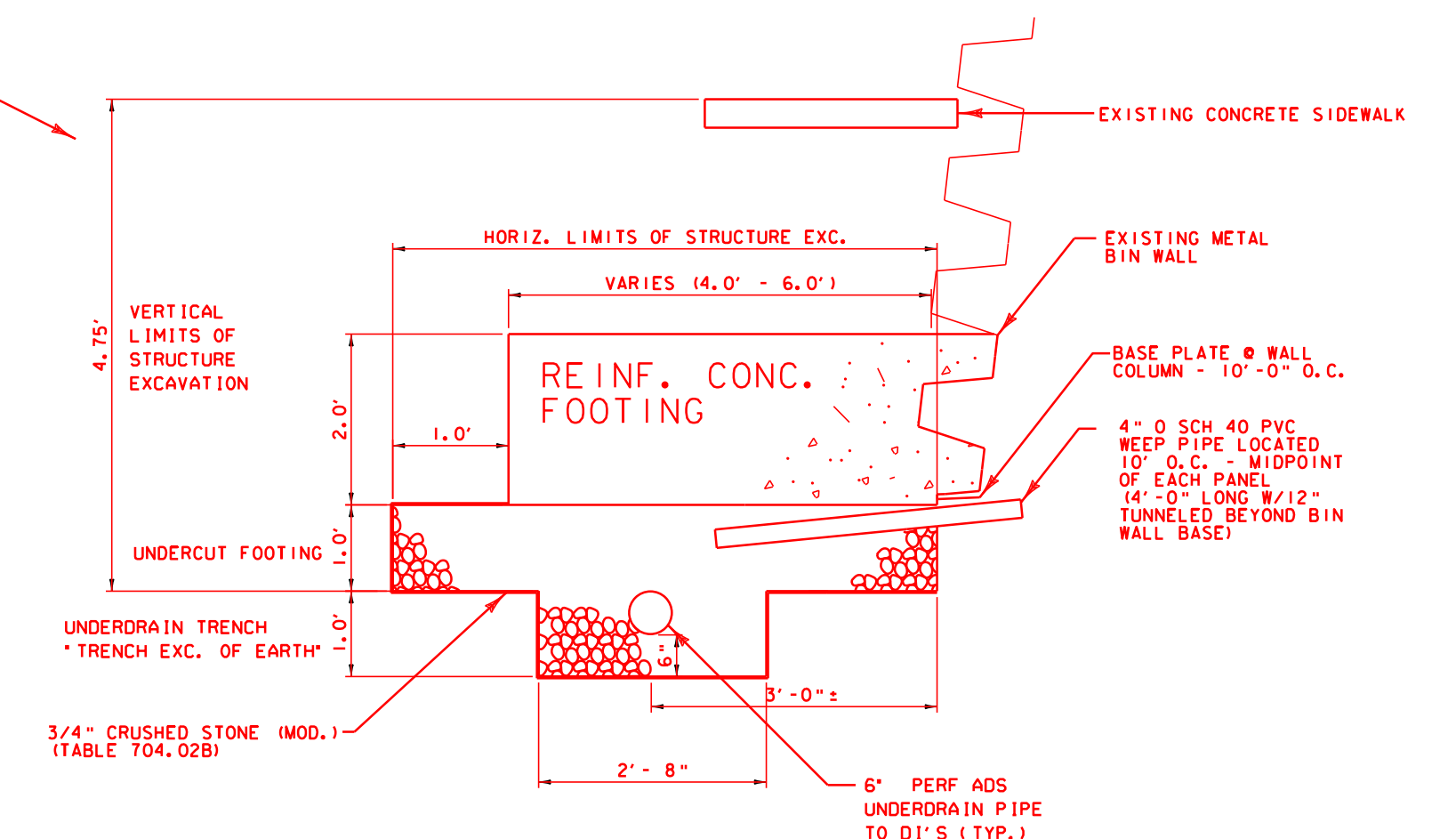
**TYPICAL SOIL NAIL WALL SECTION
15'-0" OR SHORTER**

1 0 1 2 3 4 5 6
SCALE: 1/4" = 1'-0"



SIDEWALK DETAIL

1 0 1 2 3 4
SCALE: 1/2" = 1'-0"

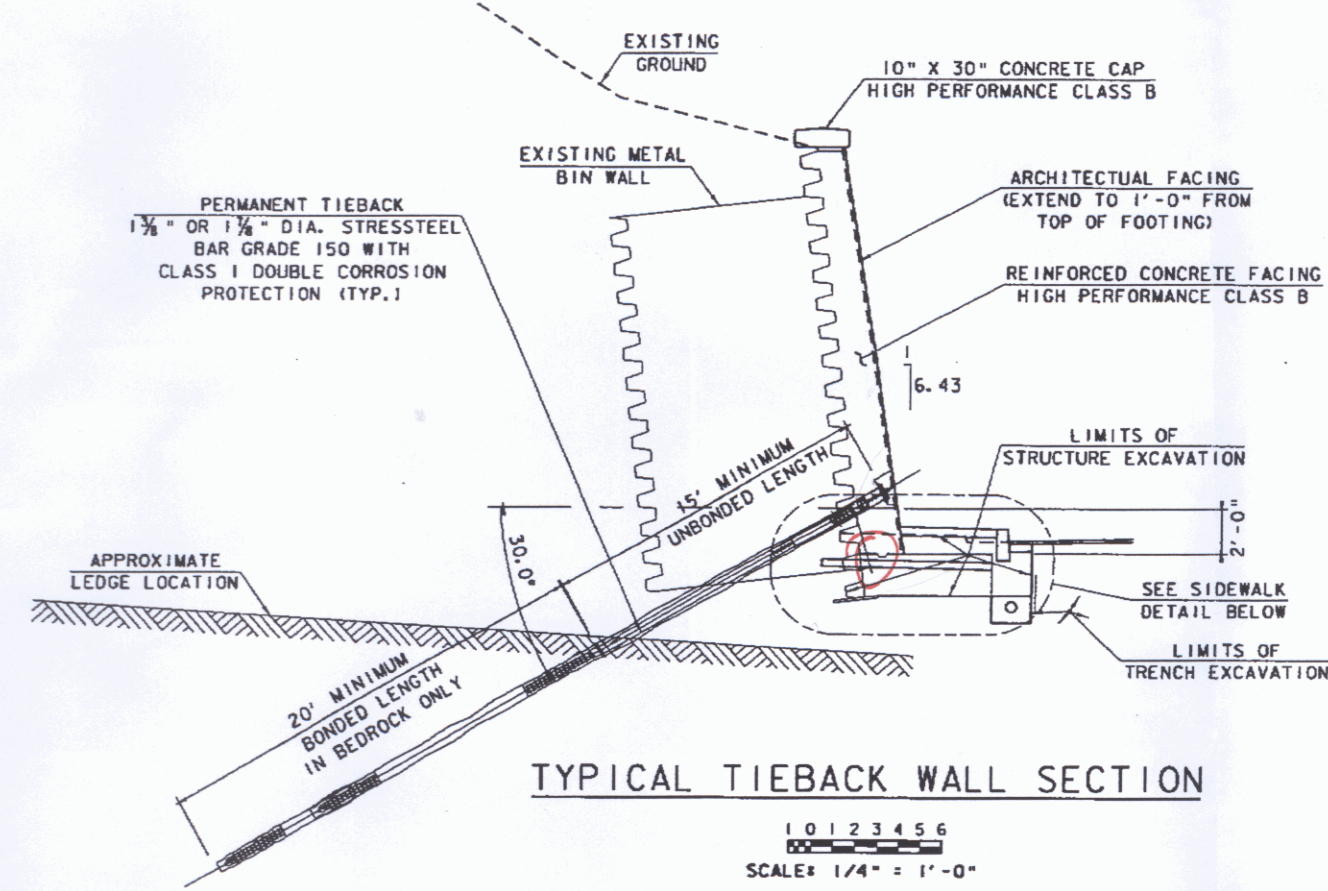


**AS-BUILT FOOTING & UNDERDRAIN DETAIL
REHAB EXISTING METAL BINWALL (RTE 11)**

N. T. S.

**SOIL NAIL WALL
TYPICAL SECTIONS**

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124\structures\sb124typ1.i	PLOT DATE:	14-SEP-2011 08:52
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB	SHEET	2 OF 72

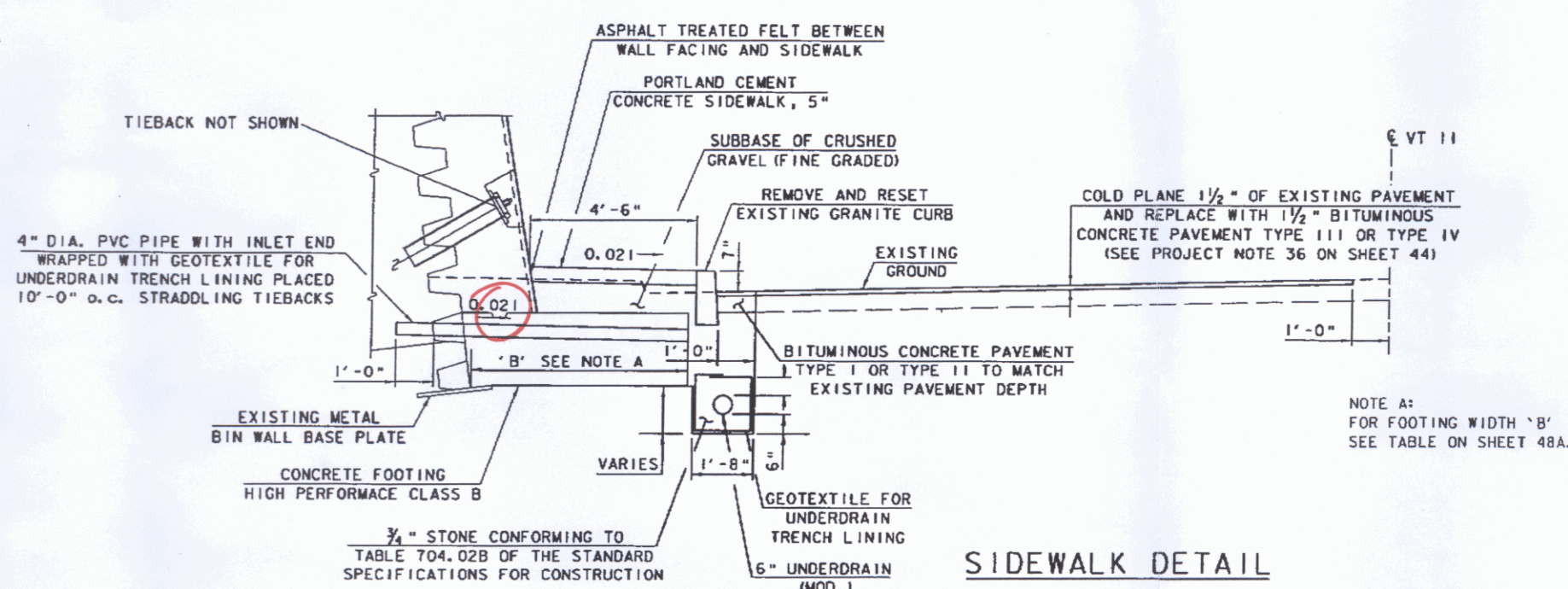


TYPICAL TIEBACK WALL SECTION

SCALE: 1/4" = 1'-0"

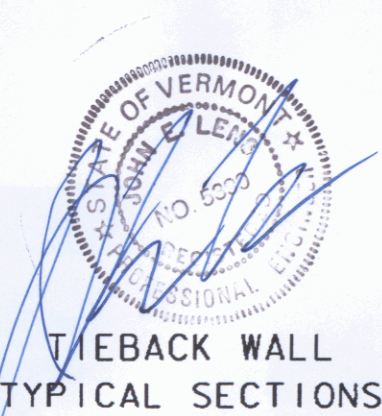
TIEBACK WALL CONSTRUCTION SEQUENCE

1. ESTABLISH LANE CLOSURE PER CONTRACT PLANS.
2. SAWCUT EXISTING PAVEMENT, REMOVE EXISTING SIDEWALK, EXCAVATE AND INSTALL UNDERDRAIN.
3. CUT HOLES IN EXISTING BIN WALL AND INSTALL PVC PIPE WEEPHOLES.
4. CONSTRUCT NEW CONCRETE WALL FOOTING.
5. CONSTRUCT WALL STEM WITH POCKETS TO INSTALL TIEBACKS.
6. INSTALL TIEBACKS.
7. AFTER TIEBACK GROUT AND WALL PANELS HAVE REACHED DESIGN STRENGTH, PERFORM PROOF AND PERFORMANCE TESTS ON TIEBACKS.
8. COMPLETE GROUTING ANNULAR SPACE BETWEEN TIEBACKS AND PVC SLEEVES JUST UNDER THE ANCHOR PLATES.
9. GROUT POCKETS IN WALL FACE AT TIEBACKS TO ENCASE TIEBACK HEADS AND COMPLETE ARCHITECTURAL STAINING OF WALL FACE.
10. COMPLETE CONSTRUCTION PER CONTRACT PLANS.



SIDEWALK DETAIL

SCALE: 1/2" = 1'-0"

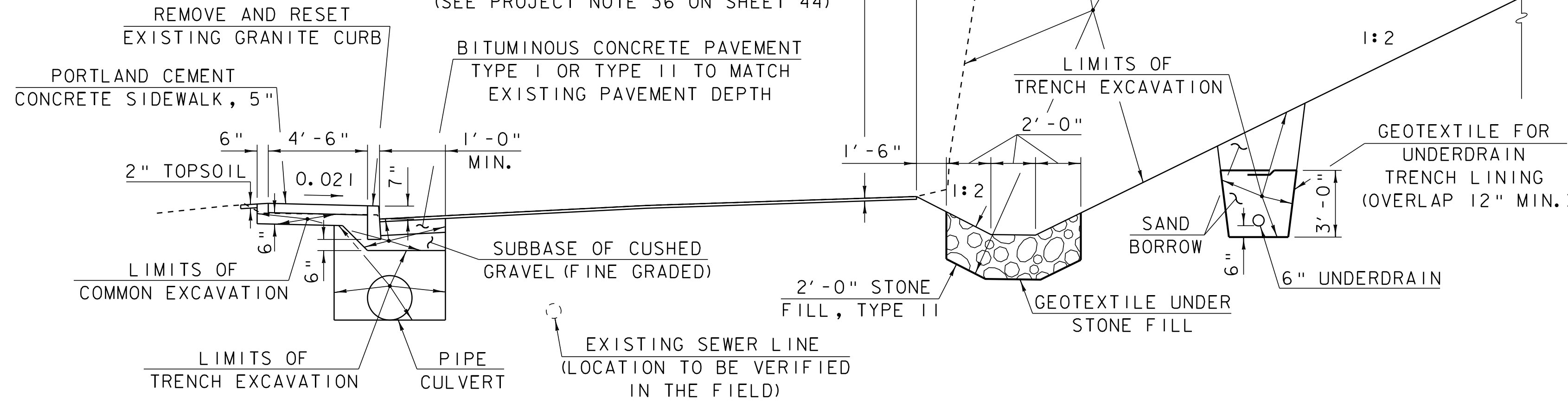


TIEBACK WALL TYPICAL SECTIONS

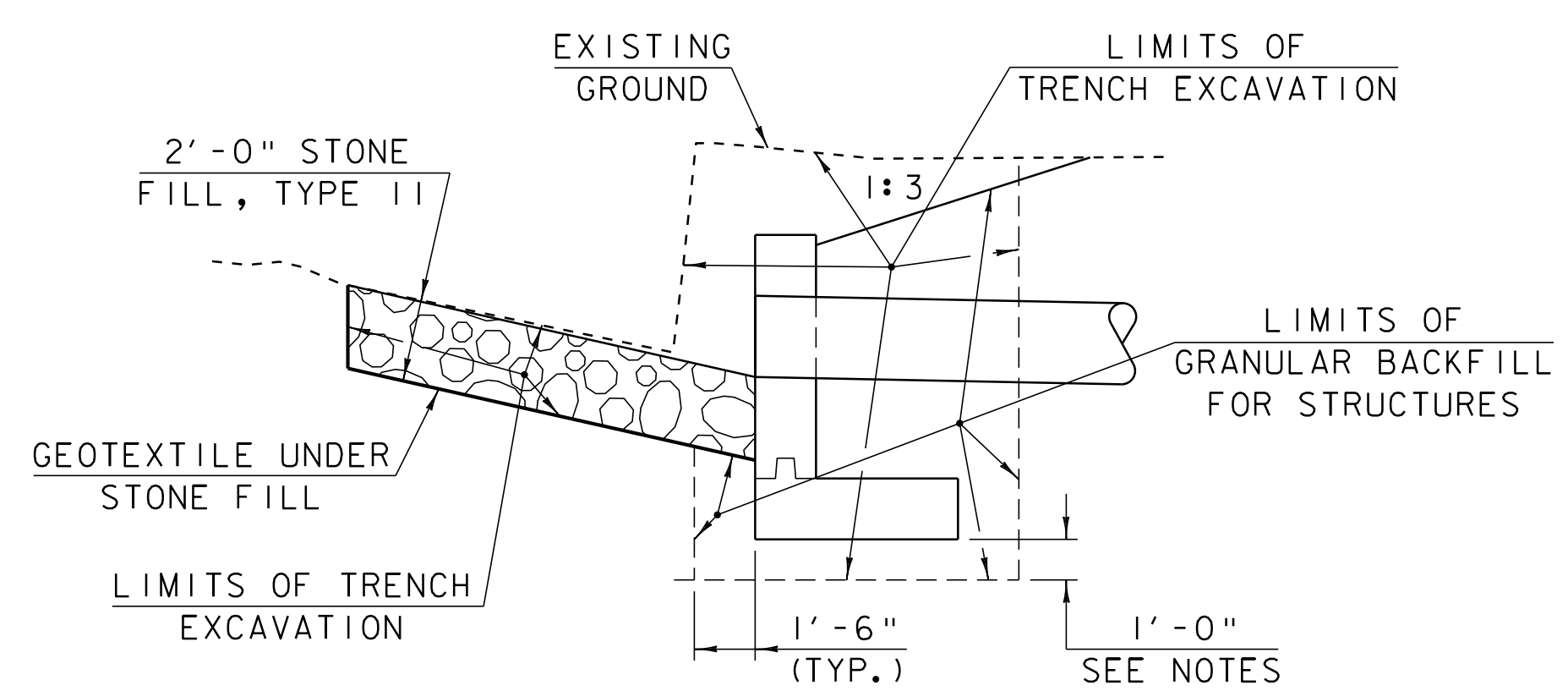
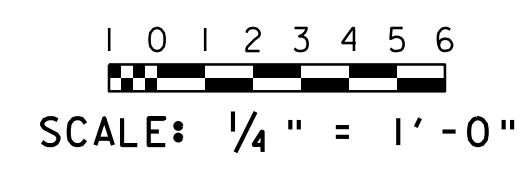


STA 20+25 - STA 23+0 (LT&RT)
 REMOVE EXIST. PAVEMENT
 INSTALL 6" SUBBASE
 3" TYPE I BASE &
 2" TYPE III TOP

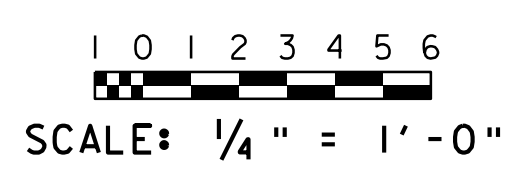
STA. 23+60 TO STA 24+12 ONLY
 COLD PLANE 1 1/2" OF EXISTING PAVEMENT
 AND REPLACE WITH 1 1/2" BITUMINOUS
 CONCRETE PAVEMENT TYPE III OR TYPE IV
 (SEE PROJECT NOTE 36 ON SHEET 44)



TYPICAL ROADWAY SECTION NORTH MAIN ST.

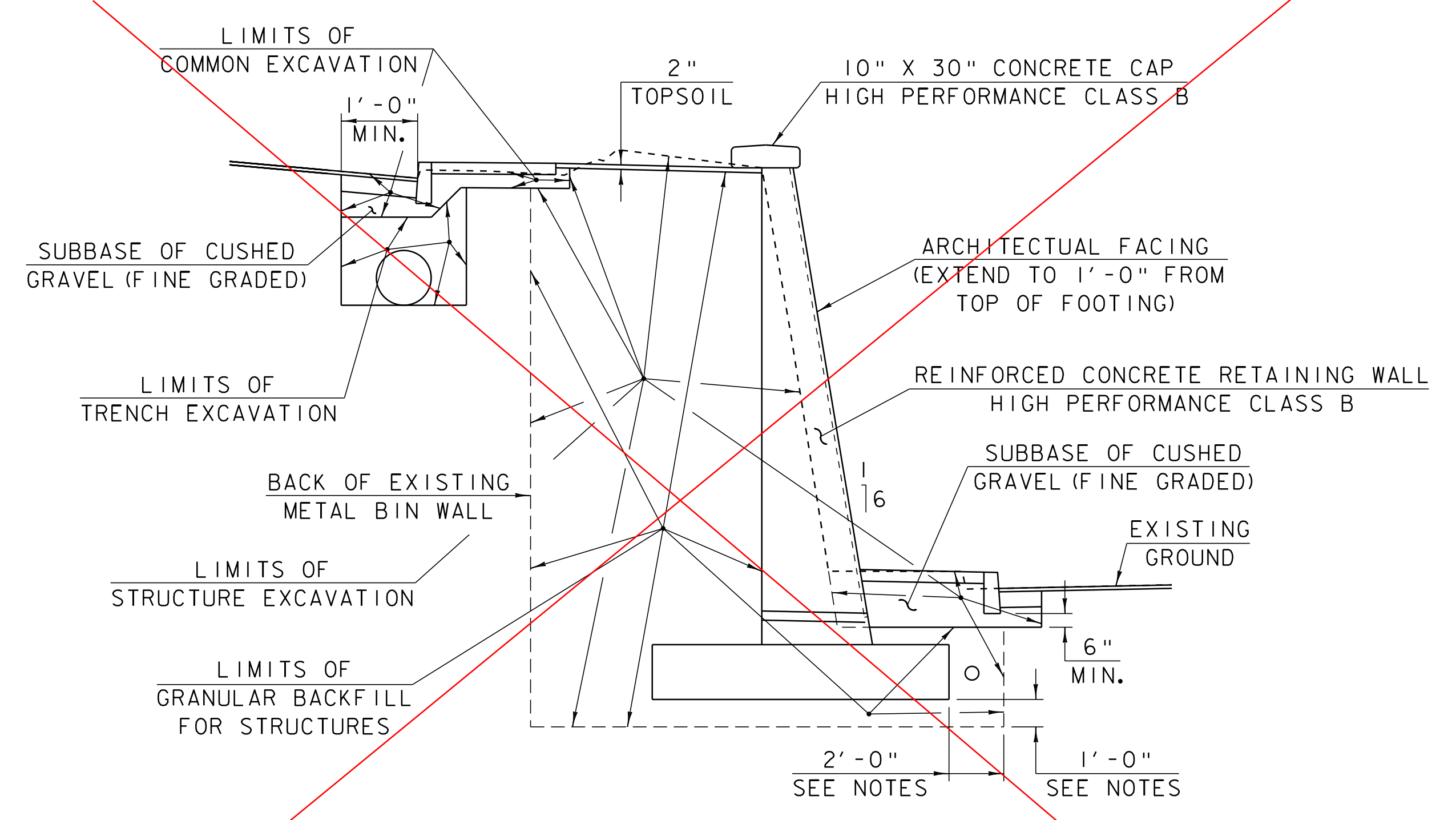
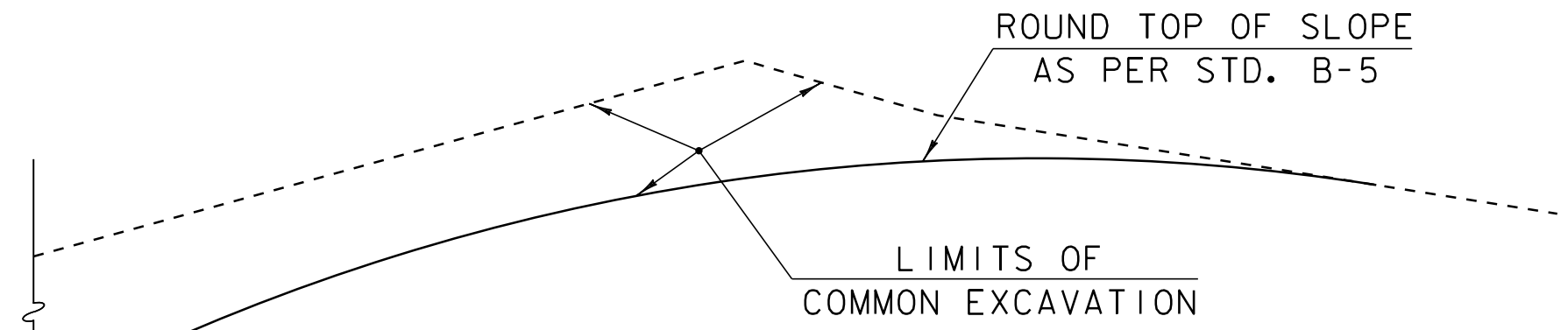


TYPICAL HEADWALL SECTION AT 23+49 RT.

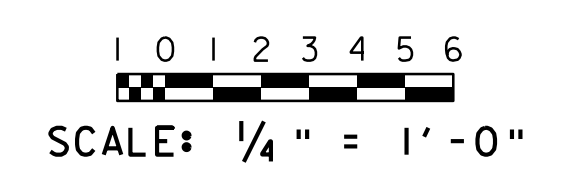


NOTES:

1. THE PAY LIMITS OF "STRUCTURE EXCAVATION" SHALL BE 2'-0" OUTSIDE THE PERIMETER OF THE FOOTING OR AS SHOWN IN THE PLANS AND UP TO EXISTING GROUND OR BOTTOM OF SUBBASE, WHICHEVER IS LOWER.
2. 1'-0" UNDERCUT AS DETERMINED NECESSARY BY THE RESIDENT ENGINEER.



TYPICAL NEW RETAINING WALL SECTION



SEE SIDEWALK DETAIL FOR OTHER INFORMATION
 NOT USED
 SEE REVISED VALUE ENGINEERING PLANS

PROJECT TYPICAL SECTIONS

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124\structures\sb124typ2.i	PLOT DATE:	14-SEP-2011 08:53
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	3 OF 72

QUANTITY SHEET

SUMMARY OF ESTIMATED QUANTITIES

TOTALS

DESCRIPTIONS

DETAILED SUMMARY OF QUANTITIES

SUMMARY OF ESTIMATED QUANTITIES										TOTALS			DESCRIPTIONS			DETAILED SUMMARY OF QUANTITIES		
NON-PARTICIPATION					PARTICIPATION					NON-PARTICIPATION	PARTICIPATION	FINAL	UNIT	ITEMS	ITEM NUMBER	QUANTITIES	UNIT	ITEMS
EROSION CONTROL	ROADWAY	FULL C.E. ITEMS	EROSION CONTROL	ROADWAY	RETAINING WALL	EROSION CONTROL	ROADWAY	RETAINING WALL										
	1								1		LS	CLEARING AND GRUBBING (INCLUDING INDIVIDUAL TREES AND STUMPS)	201.10					
				0.60					0.60		ACRE	THINNING AND TRIMMING	201.30					
	3060			210					3060	210	CY	COMMON EXCAVATION	203.15					
	260			510					260	510	CY	TRENCH EXCAVATION OF EARTH	204.20					
				30					30		CY	TRENCH EXCAVATION OF ROCK	204.21					
						720			720		CY	STRUCTURE EXCAVATION	204.25					
				30	130				160		CY	GRANULAR BACKFILL FOR STRUCTURES	204.30					
				2450					2450		SY	COLD PLANING-BIT PAVEMENT	210.10					
				470					470		CY	SUBBASE OF CRUSHED GRAVEL (FINE GRADED)	301.26					
				5					5		CWT	EMULSIFIED ASPHALT	404.65					
				280					280		TON	BITUMINOUS CONCRETE PAVEMENT (PG 64-28)	406.25					
				44					44		CY	CONCRETE, CLASS B	501.25					
				7	798				805		CY	CONCRETE, HIGH PERFORMANCE CLASS B	501.34					
				4330	36230				40560		LB	REINFORCING STEEL	507.15					
					70				70		LF	DRILLING AND GROUTING DOWELS	507.16					
				2	101				103		GAL	WATER REPELLENT	514.10					
				25					25		LF	REMOVAL OF EXISTING RAILING	525.10					
				23					23		LF	METAL HAND RAILING	525.15					
	1								1		EACH	REMOVAL OF STRUCTURE (METAL BIN WALLS ON NO. MAN ST. RT.)	529.15					
						8620			8620		LF	PERMANENT SOIL NAILS (GALVANIZED)	535.16					
						4			4		EACH	VERIFICATION TEST NAILS	535.20					
												*** BEGIN PIPE OPTIONS ***						
				310					310		LF	24" CAAP .105 (2-2/3 X 1/2)	601.0227					
				310					310		LF	24" PCCSP .109 (2-2/3 X 1/2)	601.0427					
				310					310		LF	24" RCP CLASS III	601.0825					
				310					310		LF	24" CPEP	601.0920					
				40					40		LF	30" CAAP .105 (2-2/3 X 1/2)	601.0237					
				40					40		LF	30" PCCSP .109 (2-2/3 X 1/2)	601.0437					
				40					40		LF	30" CPEP	601.0925					
				82					82		LF	48" CAAP .105 (2-2/3 X 1/2)	601.0257					
				82					82		LF	48" PCCSP .109 (2-2/3 X 1/2)	601.0457					
				82					82		LF	48" RCP CLASS III	601.0855					
												*** END PIPE OPTIONS ***						
						1090			1090		SY	STONE MASONRY FACNG (MOD. FORM LINER)	602.25					
				2					2		EACH	CHANGING ELEVATION OF SEWER MANHOLE	604.42					
				6					6		EACH	CAST IRON GRATE WITH FRAME, TYPE D	604.47					
				5					5		EACH	CAST IRON GRATE WITH FRAME, TYPE E	604.48					
				1					1		EACH	CAST IRON COVER WITH FRAME	604.55					
	600								600		LF	6" UNDERDRAIN	605.10					
				430					430		LF	6" UNDERDRAIN (MOD. 3/4" STONE GRADED ACCORDING TO TABLE 704.02B)	605.10					
	40								40		LF	6" UNDERDRAIN CARRIER PIPE	605.20					
	6								6		EACH	UNDERDRAIN FLUSHING BASINS	605.95					
	10								10		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25					
	50						10		50	10	CY	STONE FILL, TYPE I	613.10					

PROJECT NAME: **SPRINGFIELD**
PROJECT NUMBER: **STP 016-2 (10)S**
FILE NAME: \00B124\structures\sb124qty.xls PLOT DATE: 08/03/2004
PROJECT MANAGER: R. R. WHITCOMB DRAWN BY: G. ROY
DESIGNED BY: G. ROY CHECKED BY: R. R. WHITCOMB
QUANTITY SHEET #1 SHEET 4 OF 72

QUANTITY SHEET

SUMMARY OF ESTIMATED QUANTITIES

TOTALS

DESCRIPTIONS

DETAILED SUMMARY OF QUANTITIES

SUMMARY OF ESTIMATED QUANTITIES										TOTALS			DESCRIPTIONS			DETAILED SUMMARY OF QUANTITIES		
NON-PARTICIPATION					PARTICIPATION					NON-PARTICIPATION	PARTICIPATION	FINAL	UNIT	ITEMS	ITEM NUMBER	QUANTITIES	UNIT	ITEMS
EROSION CONTROL	ROADWAY	FULL C.E. ITEMS	EROSION CONTROL	ROADWAY	RETAINING WALL	EROSION CONTROL	ROADWAY	RETAINING WALL										
60										60		CY	STONE FILL, TYPE II	613.11				
				50							50	LF	VERTICAL GRANITE CURB - 964.6 LF PER STATIONING	616.21				
				1040							1040	LF	REMOVING AND RESETTING CURB	616.40				
				500							500	SY	PORTLAND CEMENT CONCRETE SIDEWALK, 5 NCH	618.10				
	380			735						380	735	LF	SNOW FENCE (MOD. PDF)	620.70				
				3							3	EACH	ENERGY ABSORPTION ATTENUATOR (SAND FILLED BARRELS)	621.56				
				270							270	LF	REMOVING AND RESET GUARD RAIL	621.75				
				620							620	LF	TEMPORARY TRAFFIC BARRIER	621.90				
				80							80	HR	UNIFORMED TRAFFIC OFFICERS	630.10				
				200							200	HR	FLAGGERS	630.15				
			1								1	LS	FIELD OFFICE-ENGINEERS	631.10				
			1								1	LS	TESTING EQUIPMENT - CONCRETE	631.16				
			1								1	LS	TESTING EQUIPMENT - BITUMINOUS (MOD.)	631.17				
			1								1	LU	FIELD OFFICE - TELEPHONE (N.A.B.I.)	631.25				
				1							1	LS	MOBILIZATION	635.10				
				1							1	LS	TRAFFIC CONTROL	641.10				
				1530							1530	LF	DURABLE 4" WHITE LINE	646.40				
				1440							1440	LF	DURABLE 4" YELLOW LINE	646.41				
				13							13	LF	DURABLE 24" STOP BAR	646.46				
				8							8	EACH	DURABLE LETTER OR SYMBOL	646.50				
				50							50	LF	DURABLE CROSSWALK MARKING W/DIAGONAL LINES	646.51				
				1400							1400	LF	TEMPORARY 4" WHITE LINE	646.60				
				1340							1340	LF	TEMPORARY 4" YELLOW LINE	646.61				
				84							84	LF	TEMPORARY CROSSWALK MARKING W/DIAGONAL LINES	646.71				
				900							900	SF	REMOVAL OF EXISTING PAVEMENT MARKINGS	646.85				
	160										160	SY	GEOTEXTILE UNDER STONE FILL	649.31				
	950						410				950	410	SY	GEOTEXTILE FOR UNDERDRAIN TRENCH LINING	649.41			
280						150					280	150	SY	GEOTEXTILE FOR SILT FENCE	649.51			
25						6					25	6	LB	SEED	651.15			
25						6					25	6	LB	SEED-WINTER RYE	651.17			
160						40					160	40	LB	FERTILIZER	651.18			
0.7						0.15					0.7	0.15	TON	AGRICULTURAL LIMESTONE	651.20			
0.7						0.15					0.7	0.15	TON	HAY MULCH	651.25			
40						20					40	20	CY	TOPSOIL	651.35			
0.5						0.5					0.5	0.5	LS	EROSION PREVENTION & SEDIMENT CONTROL PLAN	652.10			
20						20					20	20	HR	MONITORING EROSION PREVENTION & SEDIMENT CONTROL PLAN	652.20			
0.5						0.5					0.5	0.5	LU	MAINTENANCE OF EROSION PREVENTION & SEDIMENT CONTROL PLAN (N.A.B.I.)	652.30			
1300											1300		SY	EROSION MATTING	654.10			
							14					14	LF	FLANGED CHANNEL SIGN POST	675.301			
							6					6	EACH	REMOVING SIGNS	675.50			
							6					6	EACH	ERECTING SALVAGED SIGNS	675.60			
							4					4	EACH	SETTING SALVAGED POSTS	675.61			

PROJECT NAME: **SPRINGFIELD**
 PROJECT NUMBER: **STP 016-2 (10)S**
 FILE NAME: \00B124\structures\sb124qty.xls PLOT DATE: 07/12/2004
 PROJECT MANAGER: R. R. WHITCOMB DRAWN BY: G. ROY
 DESIGNED BY: G. ROY CHECKED BY: R. R. WHITCOMB
 QUANTITY SHEET #2 SHEET 5 OF 72

REMOVING AND RESETTING CURB
10+64.5 LT. - 14+00.0 LT.

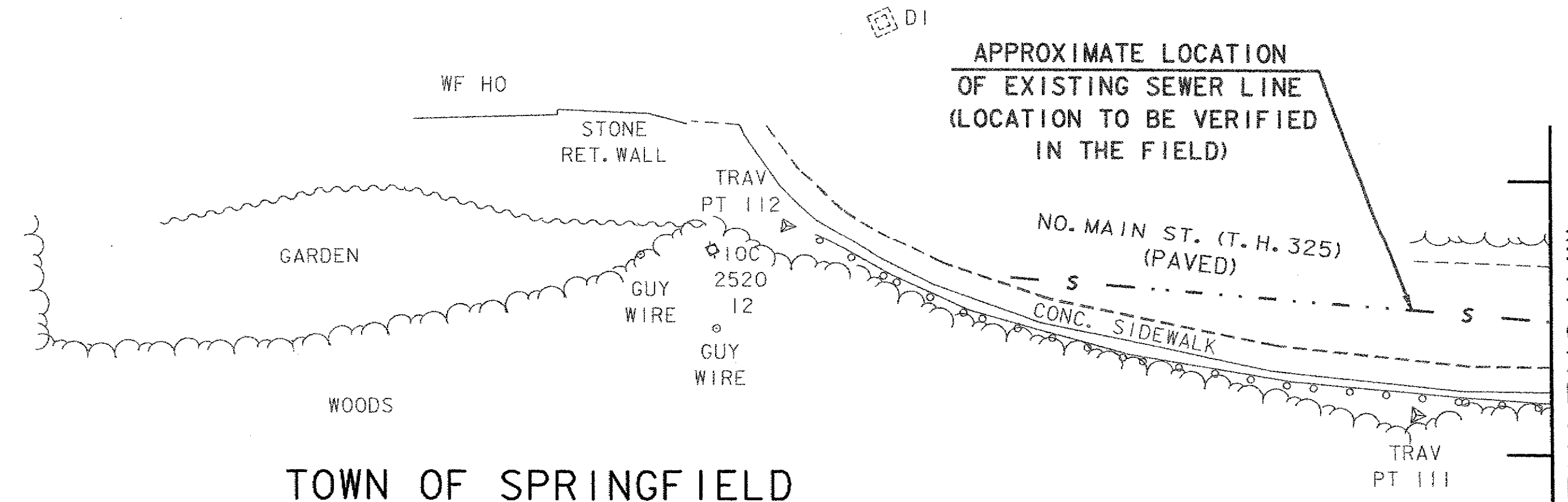
PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
10+64.5 LT. - 14+00.0 LT.

CONCRETE FACE EXISTING CONCRETE RETAINING WALL
10+72.0 LT. - 10+90.0 LT.

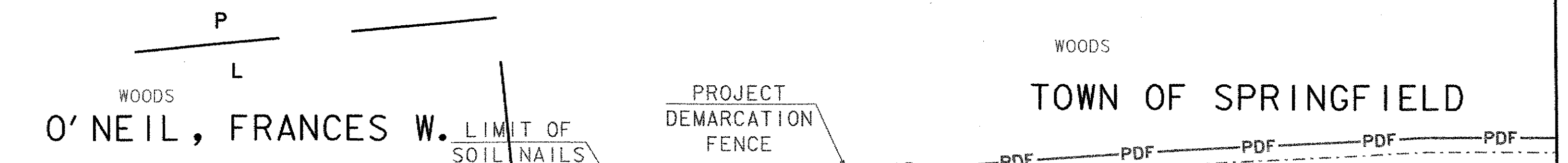
CONCRETE FACE EXISTING METAL BIN RETAINING WALL
10+90.0 LT. - 14+00.0 LT.

BEGIN R. O. W. PROJECT

STP 016-2(10) S STA. 10+59.682 RT.
26.0' LT.



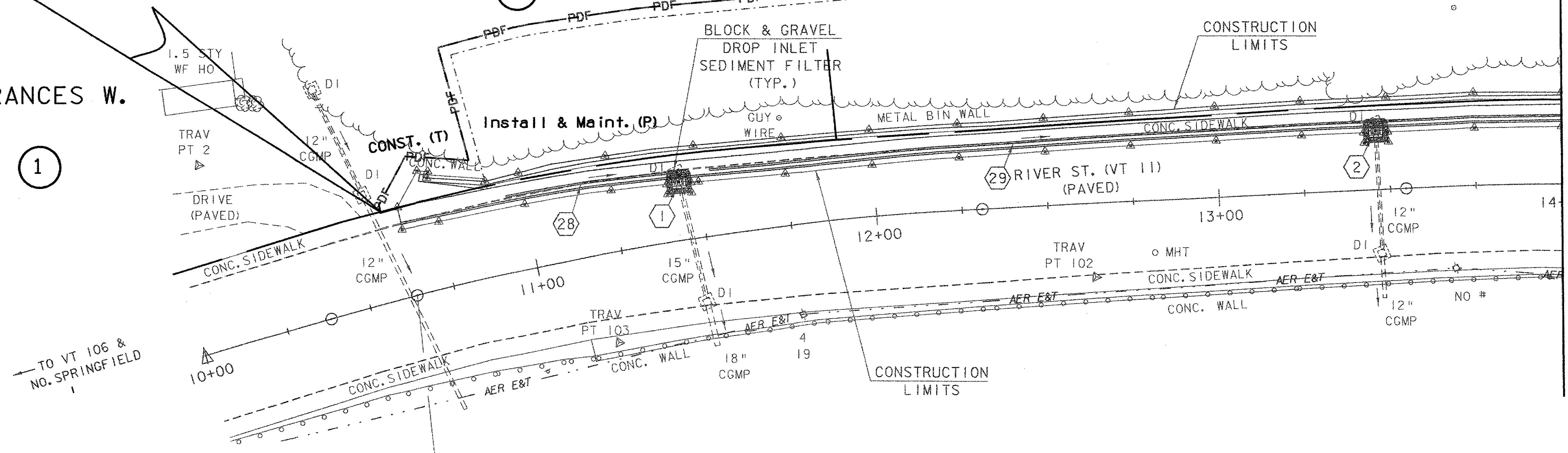
TOWN OF SPRINGFIELD



O'NEIL, FRANCES W.

TOWN OF SPRINGFIELD

O'NEIL, FRANCES W.



TO VT 106 &
NO. SPRINGFIELD

STA. 10+64.00 LT.
BEGIN PARTICIPATION PROJECT

MATCHLINE A-A TO R.O.W. SHEET 15 OF 15
STA. 14+00

THIS SHEET IS FOR
R.O.W. PURPOSES ONLY.

FOR DRAINAGE DETAILS:
SEE R.O.W. SHEET 6,9,10,11 OF 15

FOR EROSION CONTROL DETAILS:
SEE R.O.W. SHEET 11 OF 15

LINES SHOWN ON THIS PLAN AS EXISTING
PROPERTY LINES P/L ARE BELIEVED TO
BE ACCURATE BUT SHOULD NOT BE RELIED
UPON FOR PURPOSES UNRELATED TO THE
TOWN OF SPRINGFIELD'S ACQUISITION OF LAND
AND RIGHTS FOR THIS PROJECT.

SEE DRAINAGE DETAIL SHEET
FOR DRAINAGE PIPE INFORMATION

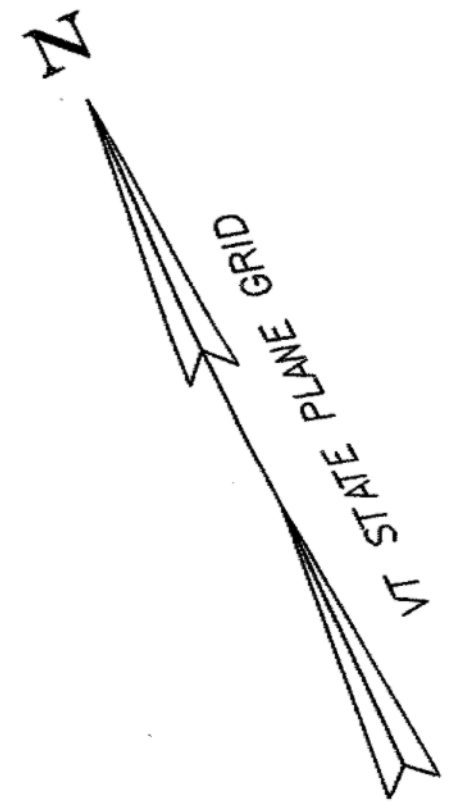
NOTE:
UNDERGROUND UTILITIES ARE NOT SHOWN.

SCALE: 1" = 20'-0"
20 0 20

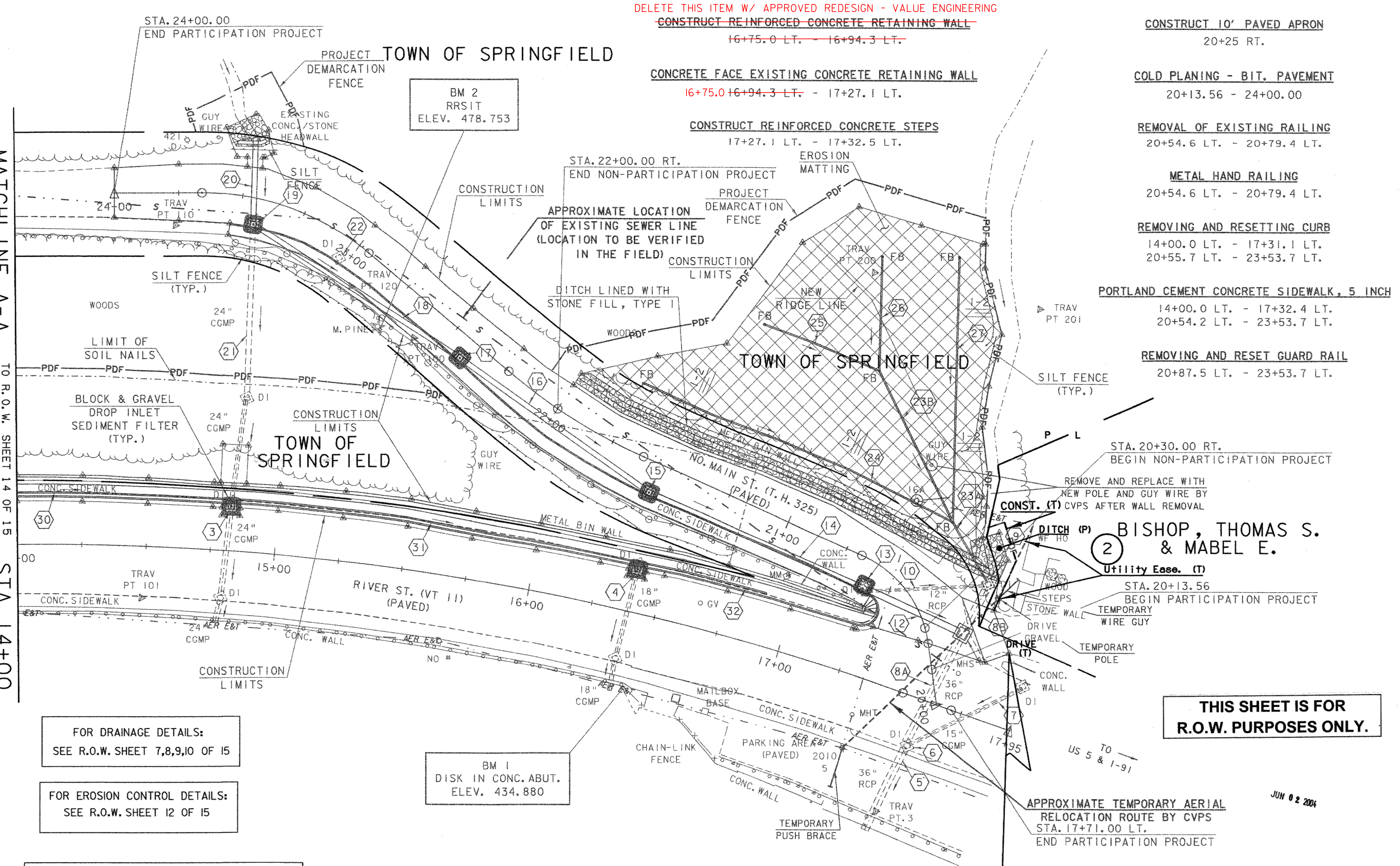
JUN 02 2004

LAYOUT SHEET (1)

PROJECT NAME:	SPRINGFIELD	PLOT DATE:	01-JUN-2004
PROJECT NUMBER:	STP 016-2 (10) S	DRAWN BY:	G. ROY
FILE NAME:	00b124\Structures\sbl24101	CHECKED BY:	
PROJECT MANAGER:	R. WHITCOMB		
DESIGNED BY:	G. ROY		
		SHEET 7 OF 72 SHEETS	



MATCHLINE A-A TO R.O.W. SHEET 14 OF 15 STA. 14+00



FOR DRAINAGE DETAILS:
SEE R.O.W. SHEET 7,8,9,10 OF 15

FOR EROSION CONTROL DETAILS:
SEE R.O.W. SHEET 12 OF 15

LINES SHOWN ON THIS PLAN AS EXISTING PROPERTY LINES P/L ARE BELIEVED TO BE ACCURATE BUT SHOULD NOT BE RELIED UPON FOR PURPOSES UNRELATED TO THE TOWN OF SPRINGFIELD'S ACQUISITION OF LAND AND RIGHTS FOR THIS PROJECT.

SEE DRAINAGE DETAIL SHEET FOR DRAINAGE PIPE INFORMATION
NOTE: UNDERGROUND UTILITIES ARE NOT SHOWN.

BM 1
DISK IN CONC. ABUT.
ELEV. 434.880

END R. O. W. PROJECT
STP 016-2(10) S STA. 17+85.079
29.9' LT.

SCALE: 1" = 20'-0"
20 0 20

THIS SHEET IS FOR R.O.W. PURPOSES ONLY.

LAYOUT SHEET (2)

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124\Structures\sb124102.i	PLOT DATE:	01-JUN-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
DESIGNED BY:	G. ROY	CHECKED BY:		SHEET 8 OF 72 SHEETS	

JUN 02 2004

GPS CONTROL POINTS

HVCTRL # 1

STANDARD DISK STAMPED
HANDLY (NOT STAMPED)

N = 291658.068
E = 1644850.660
ELEV. = 0.000

TO REACH FROM THE INTERSECTION OF VT ROUTES 11 AND 106 IN SPRINGFIELD GO SOUTHEAST ALONG VT ROUTE 11 FOR 0.5 MI (0.8 KM) TO A CONCRETE SPILLWAY CARRYING THE BLACK RIVER AND THE MARK ON THE RIGHT.

THE STATION IS LOCATED 17.5 M (57.4 FT) WEST SOUTHWEST OF AND 2 M (6.6 FT) LOWER THAN THE SOUTHWEST EDGE OF PAVEMENT OF VT ROUTE 11, 7.2 M (23.6 FT) SOUTHWEST OF POLE 5A, 0.9 M (3.0 FT) WEST SOUTHWEST OF THE NORTHWEST CORNER OF A SINGLE STORY BUILDING, AND 1.2 M (3.9 FT) EAST OF THE WEST EDGE OF THE CONCRETE SPILLWAY FOR THE BLACK RIVER.

- DESCRIPTION PROVIDED BY VERMONT AGENCY OF TRANSPORTATION GEODETIC SURVEY UNIT
- TO ALLOW THE STATE PLANE COORDINATES TO FIT THE AGENCY DESIGN PLANE, SUBTRACT 200,000 FROM THE NORthing AND 1,600,000 FROM THE EASTING

HVCTRL # 2

STANDARD DISK STAMPED
ONEILL

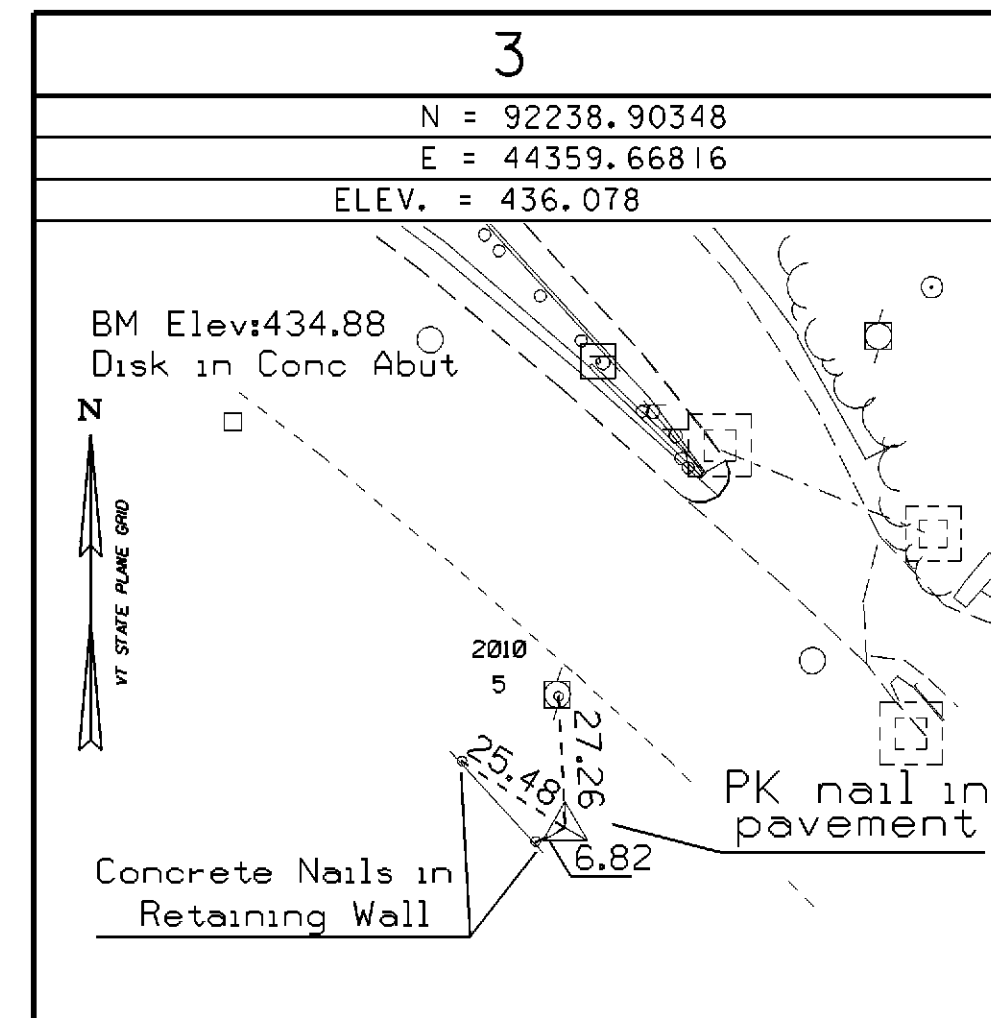
N = 292646.170
E = 1643742.513
ELEV. = 450.245

TO REACH FROM THE INTERSECTION OF VT ROUTES 11 AND 106 IN SPRINGFIELD GO SOUTHEAST ALONG VT ROUTE 11 FOR 0.25 MI (0.40 KM) TO THE MARK ON THE LEFT.

OWNERSHIP - FRANCES W. ONEILL 108 VT RT 11 RIVER STREET, SPRINGFIELD, VT

THE STATION IS LOCATED 10.0 M (32.8 FT) NORTH NORTHEAST OF AND 1.0 M (3.3 FT) HIGHER THAN THE NORTHEAST EDGE OF PAVEMENT OF VT ROUTE 11, 8.3 M (27.2 FT) EAST SOUTHEAST OF THE CENTERLINE OF A PAVED DRIVE, 5.5 METERS (18.0 FT) SOUTH OF THE SOUTHWEST CORNER OF A 1½ STORY HOUSE (#108) AND 6.2 M (20.3 FT) WEST SOUTHWEST OF THE SOUTHEAST CORNER OF HOUSE #108

TRAVERSE TIES



• MAIN TRAVERSE COMPLETED 9/29/00 surveyed by R. Gilman (P.C.) R. Bullock

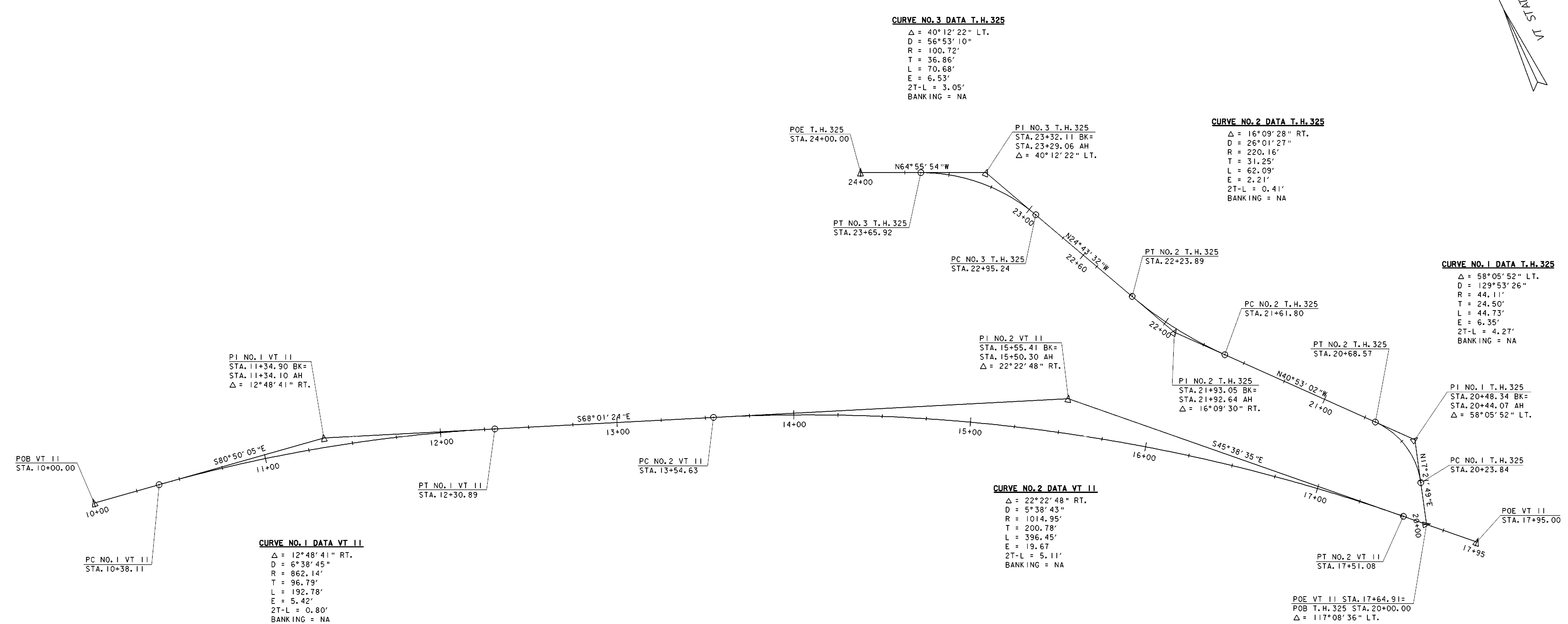
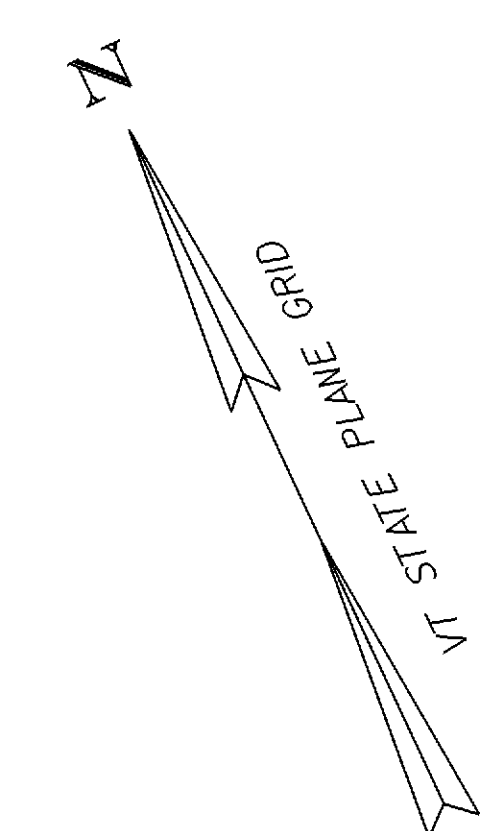
ALIGNMENT TIES

VT 11 POB	VT 11 PC NO. 1	VT 11 PT NO. 1	VT 11 PC NO. 2	VT 11 PT NO. 2	VT 11 POE		
STA. 10+00.00 N = 92595.4953 E = 43721.0857	STA. 10+38.11 N = 92589.4251 E = 43758.7085	STA. 12+30.89 N = 92537.7853 E = 43944.0225	STA. 13+54.63 N = 92491.4761 E = 44058.7760	STA. 17+51.08 N = 92275.9648 E = 44388.5286	STA. 17+95.00 N = 92245.2574 E = 44419.9332		
T. H. 325 POB	T. H. 325 PC NO. 1	T. H. 325 PT NO. 1	T. H. 325 PC NO. 2	T. H. 325 PT NO. 2	T. H. 325 PC NO. 3	T. H. 325 PT NO. 3	T. H. 325 POE
STA. 20+00.00 N = 92266.2962 E = 44398.4168	STA. 20+23.84 N = 92289.0690 E = 44405.4722	STA. 20+68.57 N = 92330.9949 E = 44396.6866	STA. 21+61.80 N = 92401.4787 E = 44335.6660	STA. 22+23.89 N = 92453.4941 E = 44302.1383	STA. 22+95.24 N = 92518.3064 E = 44272.2929	STA. 23+65.92 N = 92567.4105 E = 44223.4816	STA. 24+00.00 N = 92581.8504 E = 44192.6113

TIE SHEET

DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83/96
ADJUSTMENT	NONE

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124\Structures\sbl24tie.i	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	R. BULLOCK
		DESIGNED BY:	G. ROY	CHECKED BY:	G. ROY
				SHEET	9 OF 72



ALIGNMENT SHEET

SCALE: 1" = 30'-0"
 30 0 30

PROJECT NAME: SPRINGFIELD	PLOT DATE: 17-AUG-2004
PROJECT NUMBER: STP 016-2 (10)S	DRAWN BY: G. ROY
FILE NAME: 00b124\Structures\sbl24all.i	CHECKED BY: R. WHITCOMB
DESIGNED BY: G. ROY	SHEET 10 OF 72

COLD PLANING - BIT. CONC. PAVEMENT

10+64.5 LT. - 14+00.0 LT.

REMOVING AND RESETTING CURB INSTALLED NEW GRANITE CURB PER CO #4

10+13.5 RT. - 10+28.5 RT.
10+13.5 LT. - 10+28.5 LT.
10+64.5 LT. - 14+00.0 LT.

PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH

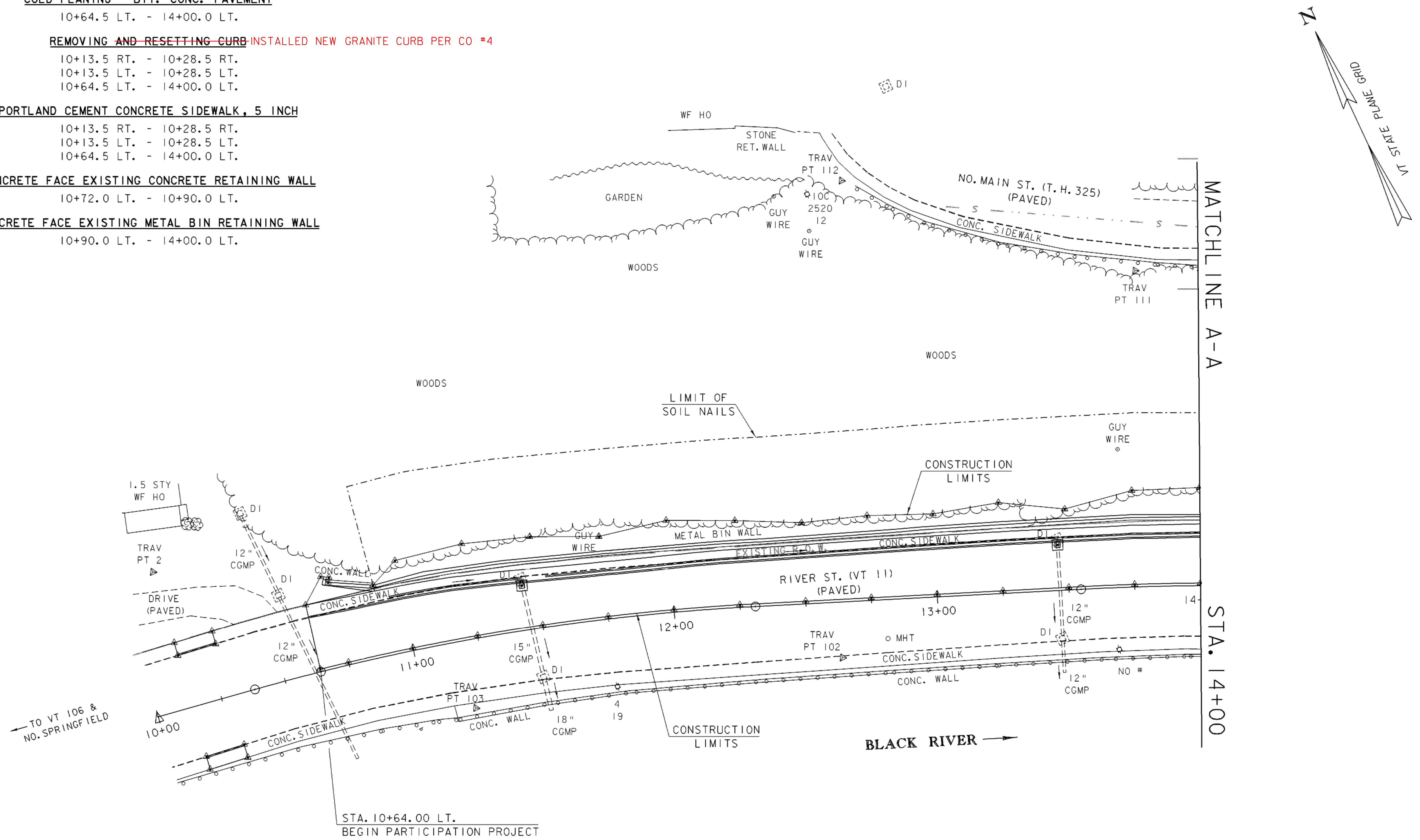
10+13.5 RT. - 10+28.5 RT.
10+13.5 LT. - 10+28.5 LT.
10+64.5 LT. - 14+00.0 LT.

CONCRETE FACE EXISTING CONCRETE RETAINING WALL

10+72.0 LT. - 10+90.0 LT.

CONCRETE FACE EXISTING METAL BIN RETAINING WALL

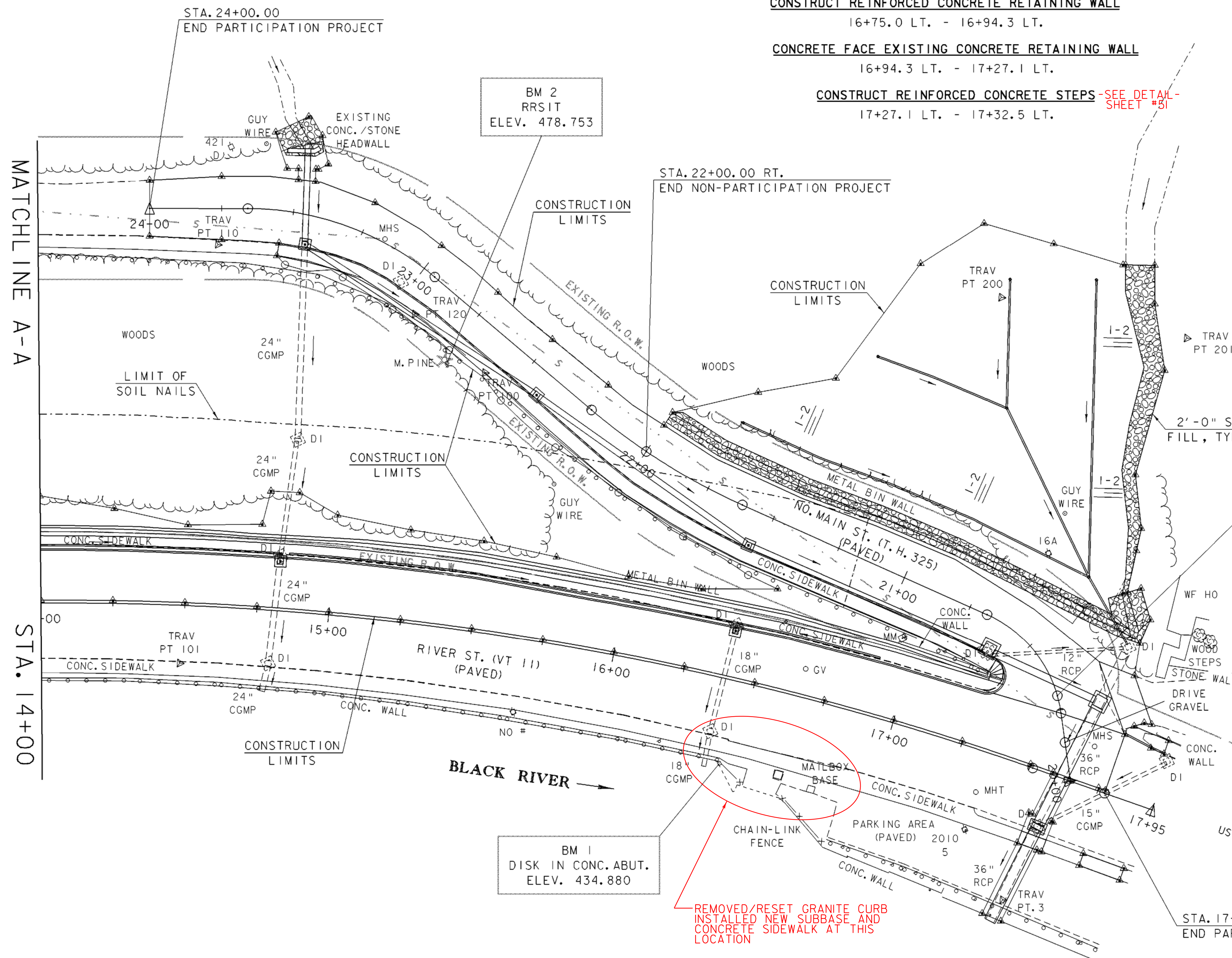
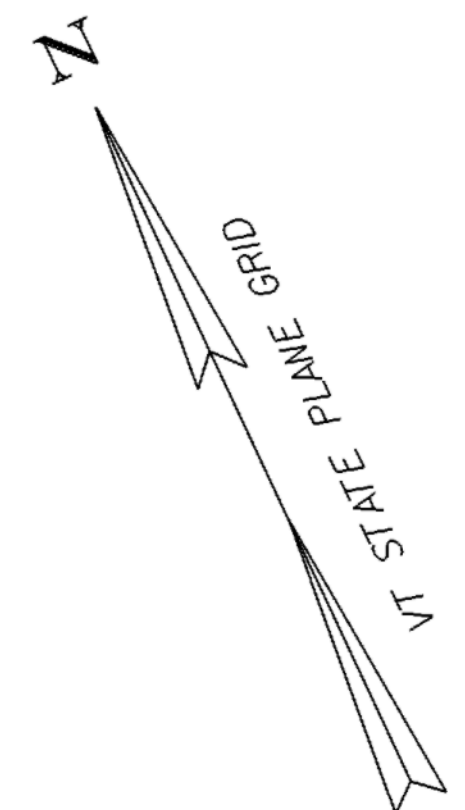
10+90.0 LT. - 14+00.0 LT.



LAYOUT SHEET (1)

SCALE: 1" = 20'-0"
20 0 20

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124\Structures\sbl24101.I	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	11 OF 72

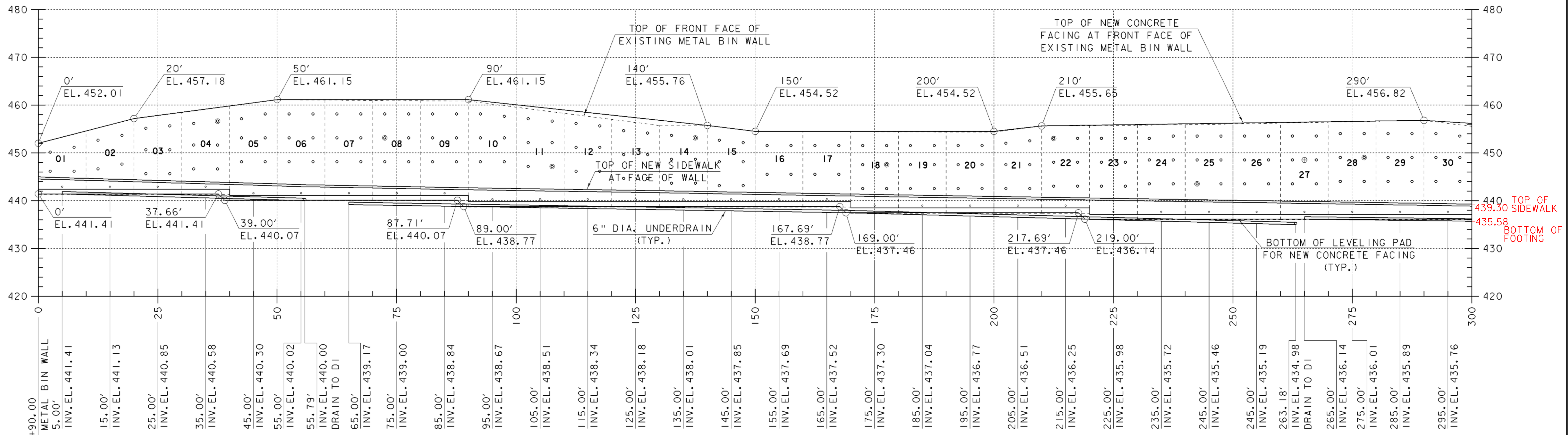


- THIS IS STATIONING FOR TYPE I STONE FILL
 @ DITCH ALONG NO. MAIN STREET - SHEET #8
 CONSTRUCT DITCH WITH STONE FILL, TYPE II
 20+35.6 RT. - 22+00.0 RT. ?
- CONSTRUCT 10' PAVED APRON**
 20+25 RT.
- COLD PLANING - BIT. CONC. PAVEMENT**
 14+00.0 LT. - 17+77.5 LT.
 20+23.0 - 24+00.0
- REMOVAL OF EXISTING RAILING**
 20+54.6 LT. - 20+79.4 LT.
- METAL HAND RAILING - SEE DETAIL - SHEET #51**
 20+54.6 LT. - 20+79.4 LT.
- REMOVING AND RESET CURB**
 14+00.0 LT. - 17+31.1 LT.
 17+54.7 RT. - 17+63.8 RT.
 17+77.5 LT. - 17+92.5 LT.
 17+77.5 RT. - 17+92.5 RT.
 20+55.7 LT. - 23+53.7 LT.
- PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH**
 14+00.0 LT. - 17+32.4 LT.
 17+54.7 RT. - 17+63.8 RT.
 17+77.5 LT. - 17+92.5 LT.
 17+77.5 RT. - 17+92.5 RT.
 20+54.2 LT. - 23+53.7 LT.
- REMOVING AND RESET GUARD RAIL**
 20+87.5 LT. - 23+53.7 LT.

LAYOUT SHEET (2)

SCALE: 1" = 20'-0"
 20 0 20

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124\Structures\sb124102.1	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	12 OF 72



LEGEND

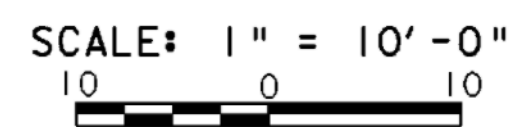
- INDICATES SOIL NAIL
- ⊙ INDICATES SOIL NAIL TO BE PROOF TESTED
- ⊕ INDICATES LOCATION OF VERIFICATION TEST OF SACRIFICIAL SOIL NAIL

NOTES:

1. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND GIVEN TO THE FRONT FACE OF EXISTING METAL BIN WALLS UNLESS OTHERWISE NOTED ON THE PLANS.
2. INVERT ELEVATIONS ARE SHOWN FOR THE 6" DIA. PVC PIPE AT THE 4" DIA. PVC PIPE LOCATIONS.

VT II BIN WALL PROFILE (1)

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124/Structures/sb124pfl1	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	13 OF 72



HOLE NO.	DISTANCE	ELEVATION	NAIL LENGTH	TEST HOLE
01A1	2.5	450.15	30	
01A2	2.5	446.15	21	
01B1	7.5	451.15	30	
01B2	7.5	446.15	21	
02A1	12.5	452.65	30	
02A2	12.5	446.65	21	
02B1	17.5	453.65	30	
02B2	17.5	447.65	21	
03A1	22.5	455.15	30	
03A2	22.5	450.65	25	
03A3	22.5	445.65	20	
03B1	27.5	455.65	30	
03B2	27.5	450.65	25	
03B3	27.5	445.65	20	
04A1	32.5	456.15	30	
04A2	32.5	451.65	25	
04A3	32.5	446.65	20	
04B1	37.5	456.65	30	X
04B2	37.5	451.65	25	
04B3	37.5	446.65	20	
05A1	42.5	457.15	30	
05A2	42.5	453.15	25	
05A3	42.5	448.15	20	
05B1	47.5	458.15	30	
05B2	47.5	453.15	25	
05B3	47.5	448.15	20	
06A1	52.5	458.15	30	
06A2	52.5	453.15	25	
06A3	52.5	448.15	20	
06B1	57.5	458.15	30	
06B2	57.5	453.15	25	
06B3	57.5	448.15	20	
07A1	62.5	458.15	30	
07A2	62.5	453.15	25	
07A3	62.5	448.15	20	
07B1	67.5	458.15	30	
07B2	67.5	453.15	25	
07B3	67.5	448.15	20	
08A1	72.5	458.15	30	
08A2	72.5	453.15	25	X
08A3	72.5	448.15	20	
08B1	77.5	458.15	30	
08B2	77.5	453.15	25	
08B3	77.5	448.15	20	
09A1	82.5	458.15	30	
09A2	82.5	453.15	25	
09A3	82.5	448.15	20	
09B1	87.5	458.15	30	
09B2	87.5	453.15	25	
09B3	87.5	448.15	20	
10A1	92.5	458.15	30	
10A2	92.5	453.15	25	
10A3	92.5	448.15	20	
10B1	97.5	457.65	30	
10B2	97.5	453.15	25	
10B3	97.5	448.15	20	
11A1	102.5	457.15	30	
11A2	102.5	452.15	25	
11A3	102.5	447.15	20	
11B1	107.5	456.65	30	
11B2	107.5	452.15	25	
11B3	107.5	447.15	20	X

HOLE NO.	DISTANCE	ELEVATION	NAIL LENGTH	TEST HOLE
12A1	112.5	456.15	30	
12A2	112.5	451.15	25	
12A3	112.5	446.15	20	
12B1	117.5	455.65	30	
12B2	117.5	451.15	25	
12B3	117.5	446.15	20	
13A1	122.5	454.65	30	
13A2	122.5	449.65	25	
13A3	122.5	444.65	20	
13B1	127.5	454.15	30	
13B2	127.5	449.65	25	
13B3	127.5	444.65	20	
14A1	132.5	453.65	30	
14A2	132.5	448.65	25	
14A3	132.5	443.65	20	
14B1	137.5	453.15	30	X
14B2	137.5	448.65	25	
14B3	137.5	443.65	20	
15A1	142.5	452.65	30	
15A2	142.5	448.15	25	
15A3	142.5	443.15	20	
15B1	147.5	452.15	30	
15B2	147.5	448.15	25	
15B3	147.5	443.15	20	
16A1	152.5	451.52	30	
16A2	152.5	445.52	21	
16B1	157.5	451.52	30	
16B2	157.5	445.52	21	
17A1	162.5	451.52	30	
17A2	162.5	445.52	21	
17B1	167.5	451.52	30	
17B2	167.5	445.52	21	
18A1	172.5	451.52	30	
18A2	172.5	447.52	25	
18A3	172.5	442.52	20	
18B1	177.5	451.52	30	
18B2	177.5	447.52	25	X
18B3	177.5	442.52	20	
19A1	182.5	451.52	30	
19A2	182.5	447.52	25	
19A3	182.5	442.52	20	
19B1	187.5	451.52	30	
19B2	187.5	447.52	25	
19B3	187.5	442.52	20	
20A1	192.5	451.52	30	
20A2	192.5	447.52	25	
20A3	192.5	442.52	20	
20B1	197.5	451.52	30	
20B2	197.5	447.52	25	
20B3	197.5	442.52	20	
21A1	202.5	452.02	30	
21A2	202.5	447.52	25	
21A3	202.5	442.52	20	
21B1	207.5	452.52	30	
21B2	207.5	447.52	25	
21B3	207.5	442.52	20	
22A1	212.5	453.02	30	X
22A2	212.5	448.02	25	
22A3	212.5	443.02	20	
22B1	217.5	453.02	30	
22B2	217.5	448.02	25	
22B3	217.5	443.02	20	

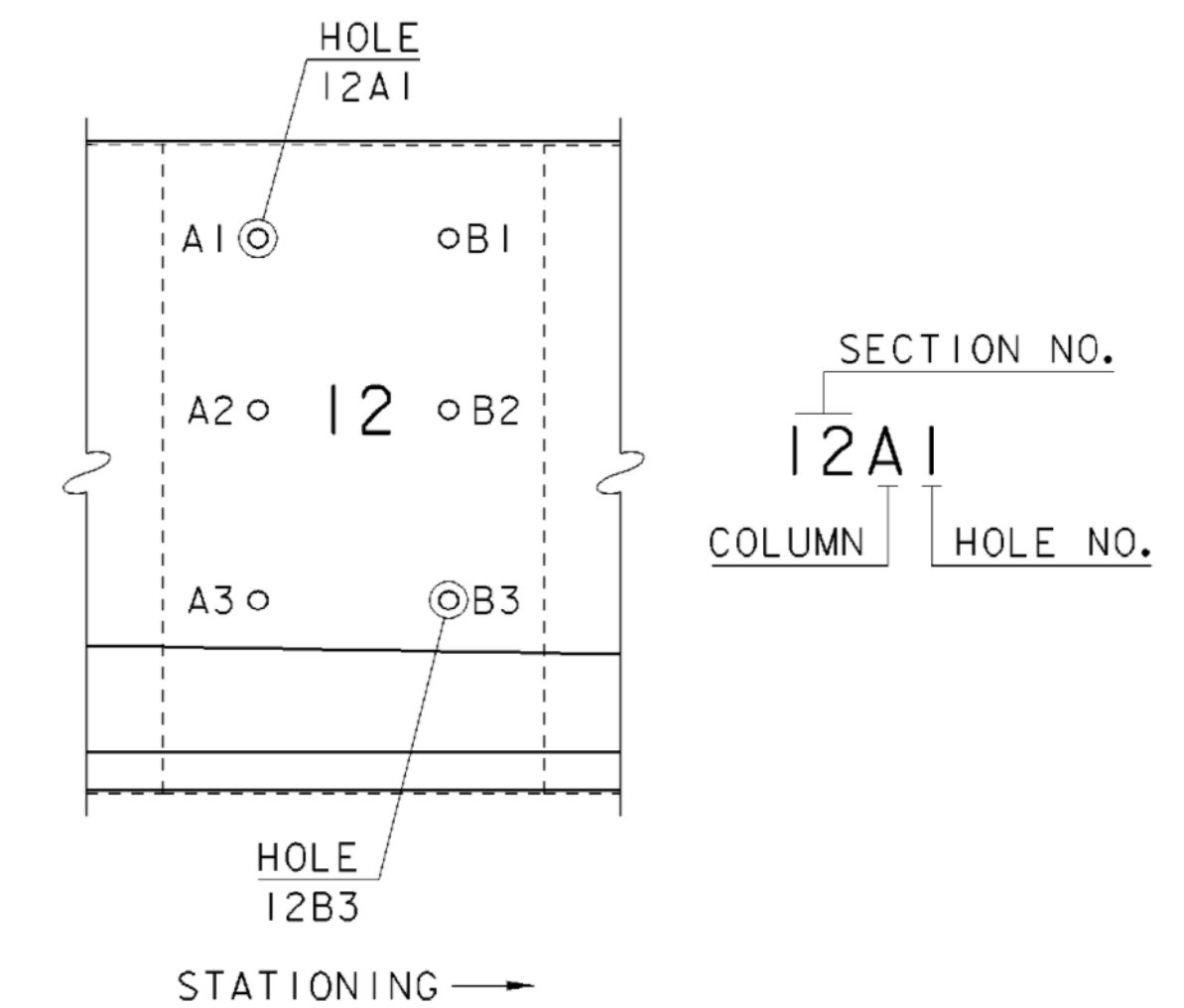
HOLE NO.	DISTANCE	ELEVATION	NAIL LENGTH	TEST HOLE
23A1	222.5	453.02	30	
23A2	222.5	448.02	25	
23A3	222.5	443.02	20	
23B1	227.5	453.02	30	
23B2	227.5	448.02	25	
23B3	227.5	443.02	20	
24A1	232.5	453.02	30	
24A2	232.5	448.52	25	
24A3	232.5	443.52	20	
24B1	237.5	453.52	30	
24B2	237.5	448.52	25	
24B3	237.5	443.52	20	
25A1	242.5	453.52	30	
25A2	242.5	448.52	25	
25A3	242.5	443.52	20	X
25B1	247.5	453.52	30	
25B2	247.5	448.52	25	
25B3	247.5	443.52	20	
26A1	252.5	453.52	30	
26A2	252.5	448.52	25	
26A3	252.5	443.52	20	
26B1	257.5	453.52	30	
26B2	257.5	448.52	25	
26B3	257.5	443.52	20	
27A1	262.5	453.52	30	
27A2	262.5	448.52	25	
27A3	262.5	443.52	20	
27B1	267.5	453.52	30	
27B2	267.5	448.52	25	
27B3	267.5	443.52	20	
28A1	272.5	454.02	30	
28A2	272.5	449.02	25	
28A3	272.5	444.02	20	
28B1	277.5	454.02	30	
28B2	277.5	449.02	25	X
28B3	277.5	444.02	20	
29A1	282.5	454.02	30	
29A2	282.5	449.02	25	
29A3	282.5	444.02	20	
29B1	287.5	454.02	30	
29B2	287.5	449.02	25	
29B3	287.5	444.02	20	
30A1	292.5	454.02	30	
30A2	292.5	449.02	25	
30A3	292.5	444.02	20	
30B1	297.5	453.52	30	
30B2	297.5	449.02	25	
30B3	297.5	444.02	20	
31A1	302.5	453.02	30	
31A2	302.5	448.02	25	
31A3	302.5	443.02	20	
31B1	307.5	453.02	30	
31B2	307.5	448.02	25	
31B3	307.5	443.02	20	
32A1	312.5	452.52	30	X
32A2	312.5	447.52	25	
32A3	312.5	442.52	20	
32B1	317.5	452.52	30	
32B2	317.5	447.52	25	
32B3	317.5	442.52	20	

HOLE NO.	DISTANCE	ELEVATION	NAIL LENGTH	TEST HOLE
33A1	322.5	452.02	30	
33A2	322.5	447.02	25	
33A3	322.5	442.02	20	
33B1	327.5	452.02	30	
33B2	327.5	447.02	25	
33B3	327.5	442.02	20	
34A1	332.5	451.52	30	
34A2	332.5	446.52	25	
34A3	332.5	441.52	20	
34B1	337.5	451.52	30	
34B2	337.5	446.52	25	
34B3	337.5	441.52	20	
35A1	342.5	450.52	30	
35A2	342.5	445.52	25	
35A3	342.5	440.52	20	X
35B1	347.5	450.52	30	
35B2	347.5	445.52	25	
35B3	347.5	440.52	20	
36A1	352.5	450.02	30	
36A2	352.5	445.02	25	
36A3	352.5	440.02	20	
36B1	357.5	450.02	30	
36B2	357.5	445.02	25	
36B3	357.5	440.02	20	
37A1	362.5	449.52	30	
37A2	362.5	444.52	25	
37A3	362.5	439.52	20	
37B1	367.5	449.52	30	
37B2	367.5	444.52	25	
37B3	367.5	439.52	20	
38A1	372.5	449.02	30	
38A2	372.5	444.52	25	
38A3	372.5	439.52	20	
38B1	377.5	448.17	30	
38B2	377.5	442.17	21	X
39A1	382.5	447.17	30	
39A2	382.5	441.17	21	
39B1	387.5	446.17	30	
39B2	387.5	440.17	21	
40A1	392.5	446.17	30	
40A2	392.5	440.17	21	
40B1	397.5	446.17	30	
40B2	397.5	440.17	21	
41A1	402.5	446.17	30	
41A2	402.5	440.17	21	
41B1	407.5	446.17	30	
41B2	407.5	440.17	21	
42A1	412.5	446.17	30	
42A2	412.5	440.17	21	
42B1	417.5	447.75	30	
42B2	417.5	443.75	25	
42B3	417.5	438.75	20	
43A1	422.5	448.25	30	
43A2	422.5	443.75	25	X
43A3	422.5	438.75	20	
43B1	427.5	448.75	30	
43B2	427.5	443.75	25	
43B3	427.5	438.75	20	
44A1	432.5	449.75	30	
44A2	432.5	444.75	25	
44A3	432.5	439.75	20	
44B1	437.5	449.75	30	
44B2	437.5	444.75	25	
44B3	437.5	439.75	20	

HOLE NO.	DISTANCE	ELEVATION	NAIL LENGTH	TEST HOLE
45A1	442.5	450.25	30	
45A2	442.5	445.25	25	
45A3	442.5	440.25	20	
45B1	447.5	450.25	30	
45B2	447.5	445.25	25	
45B3	447.5	440.25	20	
46A1	452.5	450.75	30	
46A2	452.5	445.75	25	
46A3	452.5	440.75	20	
46B1	457.5	450.75	30	
46B2	457.5	445.75	25	
46B3	457.			

HOLE NO.	DISTANCE	ELEVATION	NAIL LENGTH	TEST HOLE
49A1	482.5	451.25	30	
49A2	482.5	446.25	25	
49A3	482.5	441.25	20	
49B1	487.5	451.25	30	X
49B2	487.5	446.25	25	
49B3	487.5	441.25	20	
50A1	492.5	451.25	30	
50A2	492.5	446.25	25	
50A3	492.5	441.25	20	
50B1	497.5	451.25	30	
50B2	497.5	446.25	25	
50B3	497.5	441.25	20	
51A1	502.5	451.25	30	
51A2	502.5	446.25	25	
51A3	502.5	441.25	20	
51B1	507.5	451.25	30	
51B2	507.5	446.25	25	
51B3	507.5	441.25	20	
52A1	512.5	451.25	30	
52A2	512.5	446.25	25	
52A3	512.5	441.25	20	
52B1	517.5	451.25	30	
52B2	517.5	446.25	25	
52B3	517.5	441.25	20	
53A1	522.5	451.25	30	
53A2	522.5	446.25	25	X
53A3	522.5	441.25	20	
53B1	527.5	451.25	30	
53B2	527.5	446.25	25	
53B3	527.5	441.25	20	
54A1	532.5	451.25	30	
54A2	532.5	446.25	25	
54A3	532.5	441.25	20	
54B1	537.5	451.25	30	
54B2	537.5	446.25	25	
54B3	537.5	441.25	20	
55A1	542.5	451.25	30	
55A2	542.5	446.25	25	
55A3	542.5	441.25	20	
55B1	547.5	451.25	30	
55B2	547.5	446.25	25	
55B3	547.5	441.25	20	
56A1	552.5	450.75	30	
56A2	552.5	445.75	25	
56A3	552.5	440.75	20	
56B1	557.5	450.75	30	
56B2	557.5	445.75	25	
56B3	557.5	440.75	20	X
57A1	562.5	450.75	30	
57A2	562.5	445.75	25	
57A3	562.5	440.75	20	
57B1	567.5	450.75	30	
57B2	567.5	445.75	25	
57B3	567.5	440.75	20	
58A1	572.5	450.75	30	
58A2	572.5	445.75	25	
58A3	572.5	440.75	20	
58B1	577.5	450.75	30	
58B2	577.5	445.75	25	
58B3	577.5	440.75	20	

HOLE NO.	DISTANCE	ELEVATION	NAIL LENGTH	TEST HOLE
59A1	582.5	450.25	30	
59A2	582.5	445.25	25	
59A3	582.5	440.25	20	
59B1	587.5	449.75	30	X
59B2	587.5	444.75	25	
59B3	587.5	439.75	20	
60A1	592.5	448.75	30	
60A2	592.5	443.75	25	
60A3	592.5	438.75	20	
60B1	597.5	448.25	30	
60B2	597.5	443.25	25	
60B3	597.5	438.25	20	



HOLE NOMENCLATURE

NOTES:

DISTANCES ARE MEASURED FROM BEGINNING OF EXISTING METAL BIN WALL AT STATION 10+90.0 LT.

ELEVATIONS GIVEN ARE AT CENTER OF SOIL NAIL AT FRONT FACE OF EXISTING METAL BIN WALL.

HOLE STATIONS & ELEVATIONS (2)

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124/Structures/sb124hse2.1	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	16 OF 72

SEE NOTE ON PREVIOUS PAGE REGARDING SOIL NAILS

ENERGY ABSORPTION ATTENUATOR (SAND FILLED BARRELS)

10+79.7 LT. - 10+93.1 LT.

TEMPORARY TRAFFIC BARRIER

10+93.7 LT. - 14+00.0 LT.

TEMPORARY 4" YELLOW LINE

10+63.6 RT. - 14+00.0 RT. (DOUBLE)

TEMPORARY 4" WHITE LINE

10+59.4 LT. - 14+00.0 LT.
10+68.1 RT. - 14+00.0 RT.

TEMPORARY CROSSWALK WITH DIAGONAL LINES

10+21.0 LT. - 10+21.0 RT.

REMOVAL OF EXISTING PAVEMENT MARKINGS

10+17.0 LT. 10+25.0 LT. EDGELINE
10+17.0 CL. - 10+25.0 CL. CENTERLINE
10+17.0 RT. - 10+25.0 RT. EDGELINE
10+59.0 LT. 10+95.0 RT. EDGELINE
10+63.6 CL. - 14+00.0 CL. CENTERLINE
10+63.6 RT. - 14+00.0 RT. EDGELINE

PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH

10+13.5 LT. - 10+28.5 LT. & RT.

SIDEWALK RAMP, TYPE 6

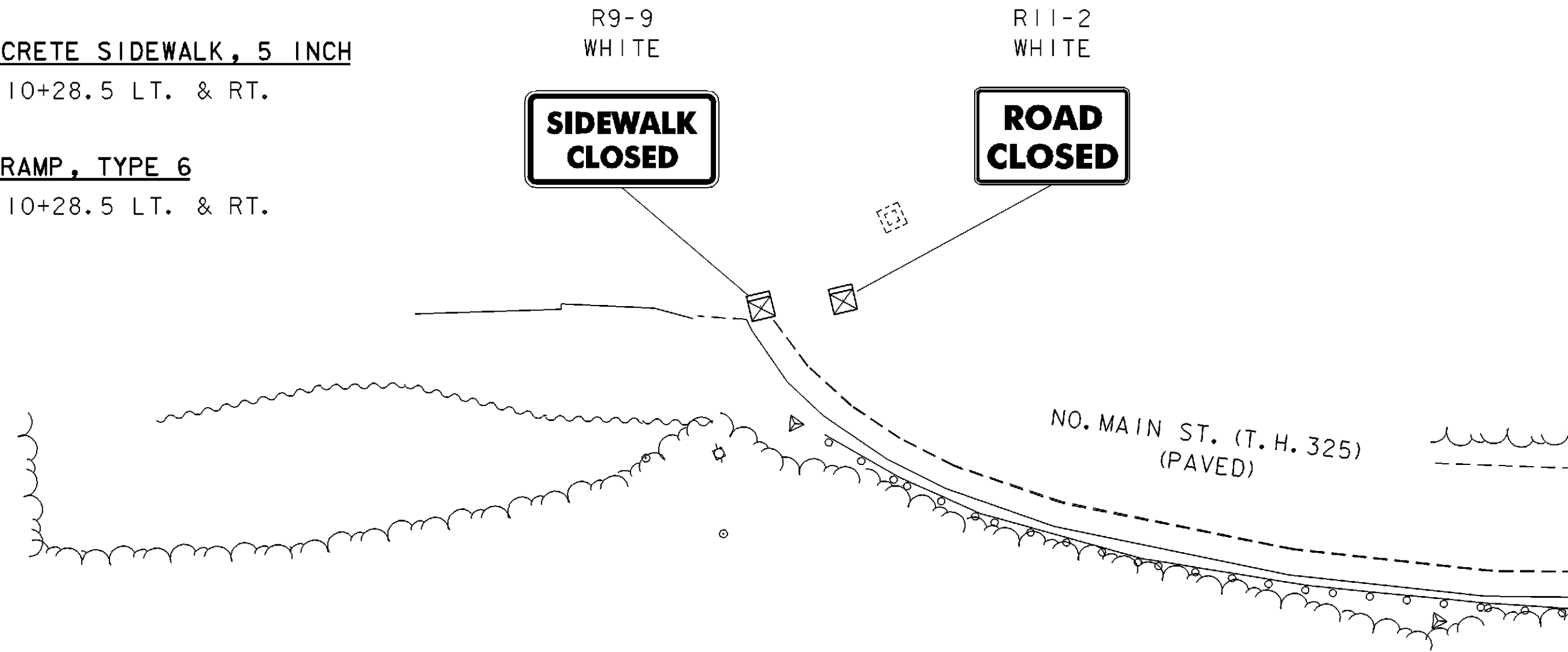
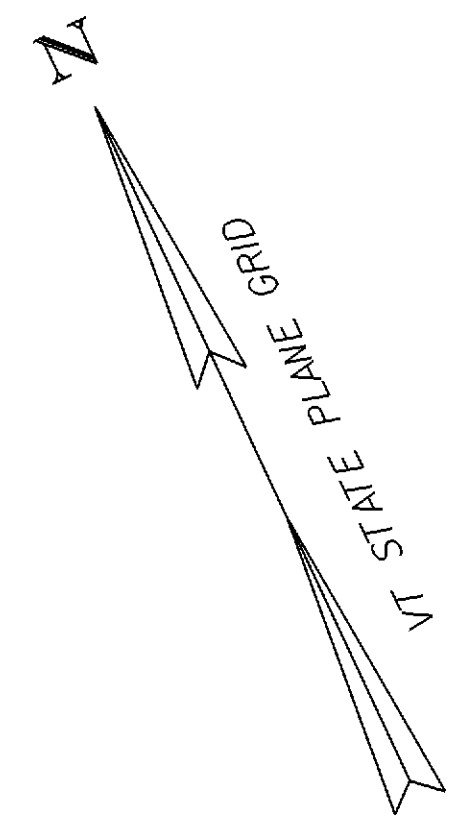
10+13.5 LT. - 10+28.5 LT. & RT.

R9-9
WHITE

**SIDEWALK
CLOSED**

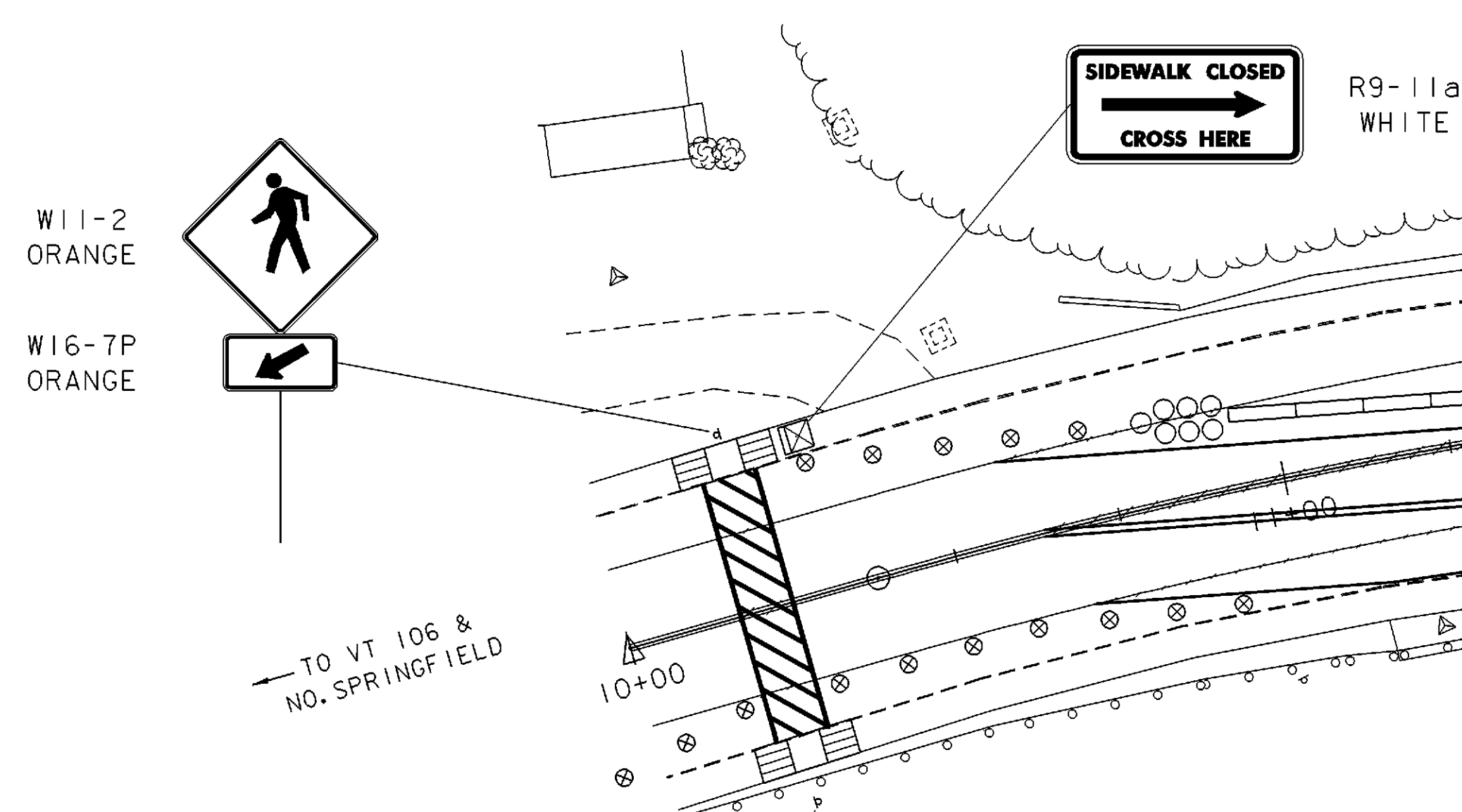
R11-2
WHITE

**ROAD
CLOSED**



MATCHLINE A-A

STA. 14+00

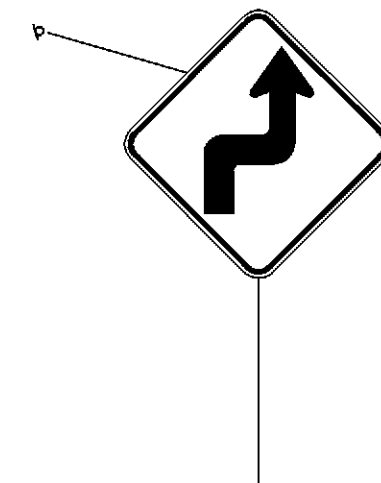


W11-2
ORANGE
W16-7P
ORANGE



TO VT 106 &
NO. SPRINGFIELD

W11-2
ORANGE
W16-7P
ORANGE



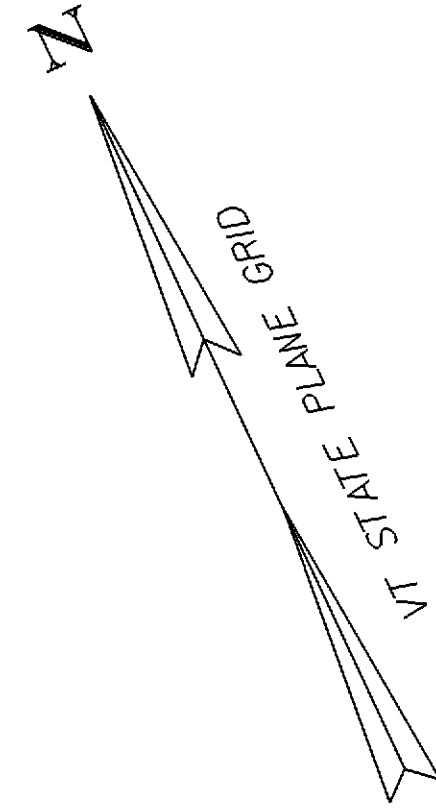
W1-3R
ORANGE

- LEGEND**
- ⊗ — REFLECTORIZED PLASTIC DRUMS (SEE STD.E-106)
 - ⊠ — TYPE III BARRICADES (MOD.) (SEE STD.E-107A)
 - ▬ — TEMPORARY TRAFFIC BARRIER (SEE STD.G-18)
 - ⊙ — ENERGY ABSORPTION ATTENUATOR FOR 35mph DESIGN SPEED
 - — PAVEMENT MARKING REMOVAL
 - R&S — REMOVE AND SALVAGE
 - R — REMOVE

SCALE: 1" = 20'-0"
20 0 20

TRAFFIC DETOUR SHEET (1)

PROJECT NAME: SPRINGFIELD	PLOT DATE: 17-AUG-2004
PROJECT NUMBER: STP 016-2 (10)S	DRAWN BY: G. ROY
FILE NAME: 00b124\Structures\sbl24+d1.i	CHECKED BY: R. WHITCOMB
DESIGNED BY: G. ROY	SHEET 17 OF 72



ENERGY ABSORPTION ATTENUATOR (SAND FILLED BARRELS)
17+12.1 LT. - 17+25.6 LT.

TEMPORARY TRAFFIC BARRIER
14+00.0 LT. - 17+11.5 LT.

TEMPORARY 4" YELLOW LINE
14+00.0 RT. - 17+31.3 RT. (DOUBLE)

TEMPORARY 4" WHITE LINE
14+00.0 LT. - 17+31.3 LT.
14+00.0 RT. - 17+36.5 RT.

TEMPORARY CROSSWALK WITH DIAGONAL LINES
17+85.0 LT. - 17+85.0 RT.

REMOVAL OF EXISTING PAVEMENT MARKINGS
14+00.0 CL. - 17+31.3 CL. CENTERLINE
14+00.0 RT. - 17+31.3 RT. EDGELINE
17+28.4 LT. - 17+78.9 LT. CROSSWALK
17+81.0 RT. - 17+89.0 RT. EDGELINE
16+19.0 RT. BICYCLE SYMBOL
16+27.0 RT. ARROW SYMBOL

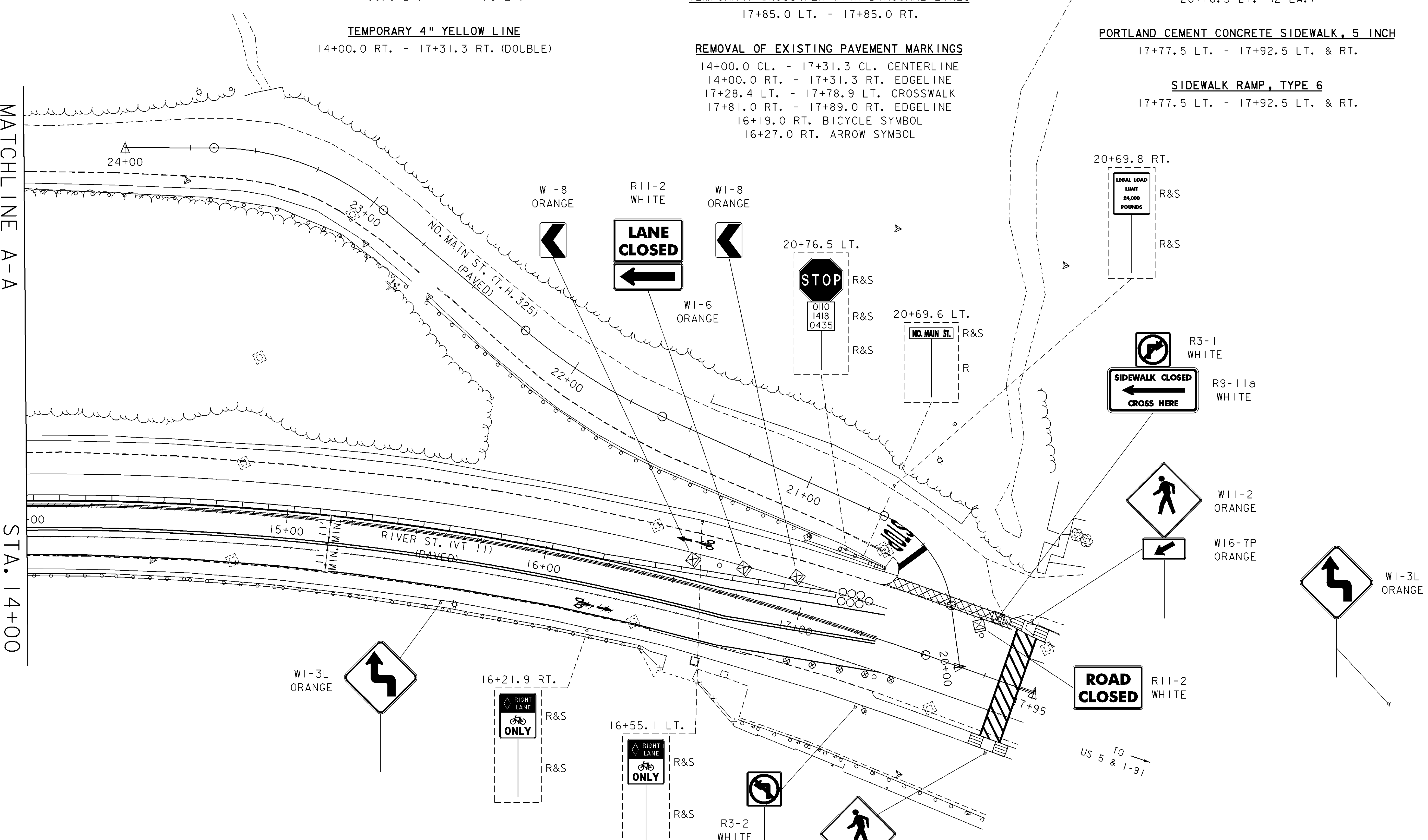
REMOVING SIGNS
16+21.9 RT. (1 EA.)
16+55.1 LT. (1 EA.)
20+69.6 LT. (1 EA.)
20+69.8 RT. (1 EA.)
20+76.5 LT. (2 EA.)

PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
17+77.5 LT. - 17+92.5 LT. & RT.

SIDEWALK RAMP, TYPE 6
17+77.5 LT. - 17+92.5 LT. & RT.

MATCHLINE A-A

STA. 14+00

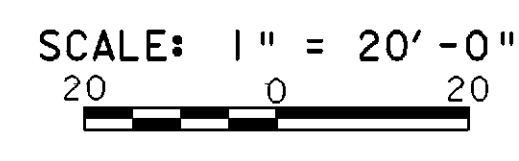


ROAD CLOSED R11-2 WHITE

TO
US 5 & I-91

TRAFFIC DETOUR SHEET (2)

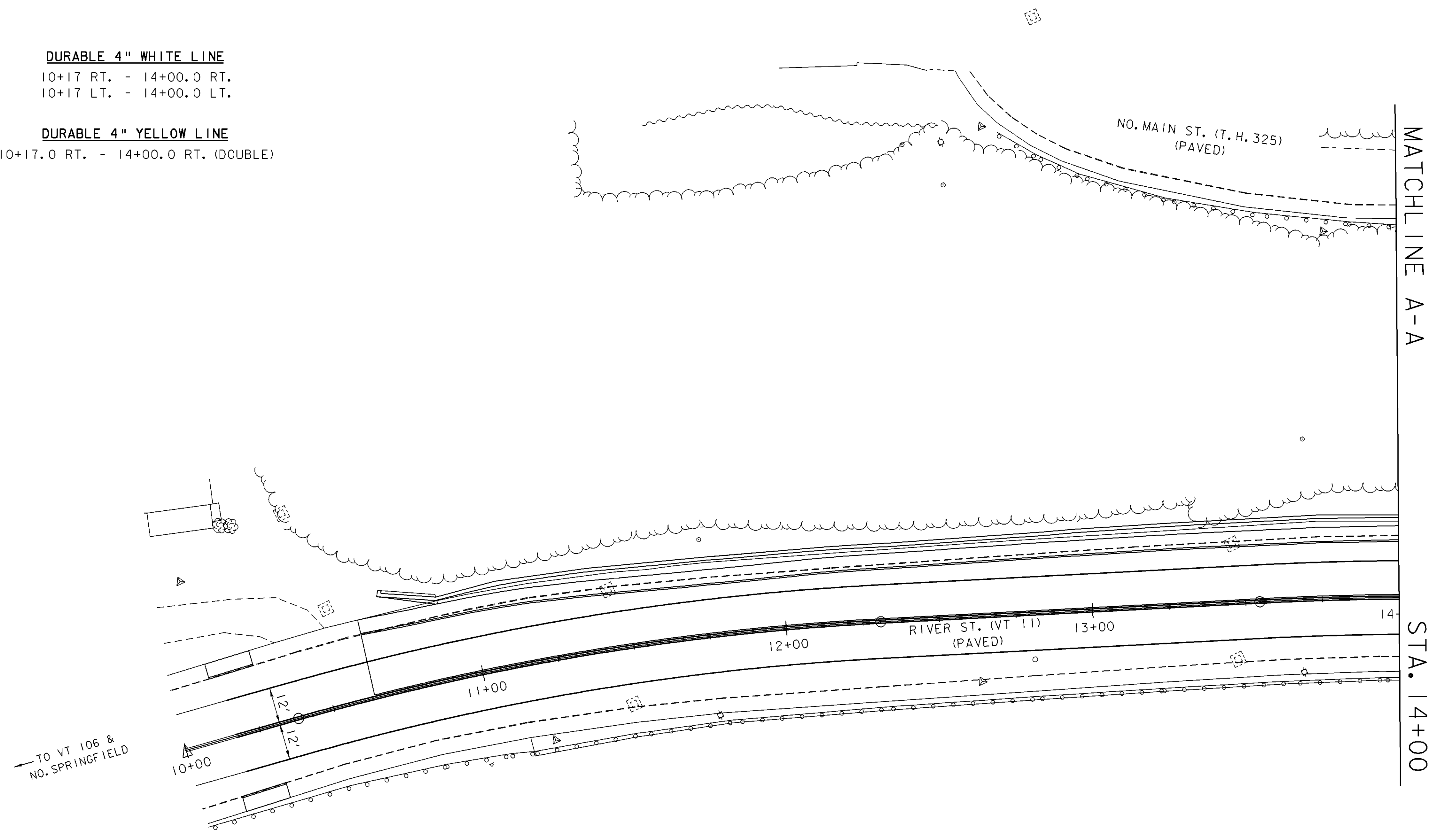
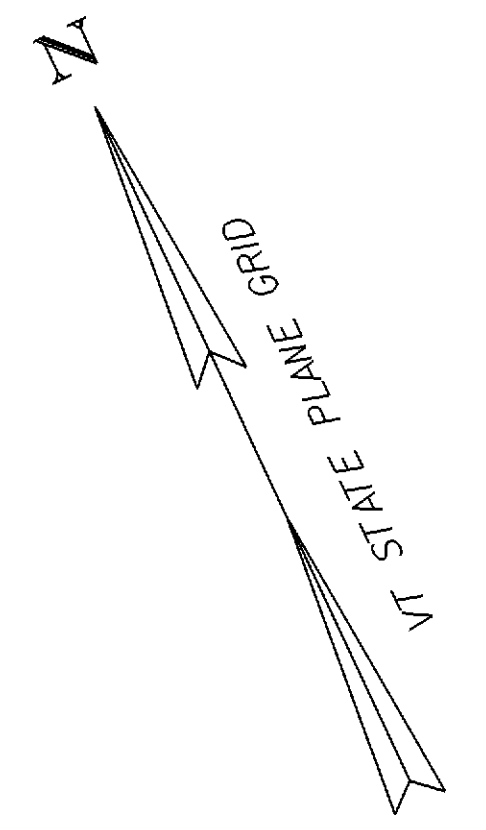
PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124\Structures\sbl24td21	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	18 OF 72



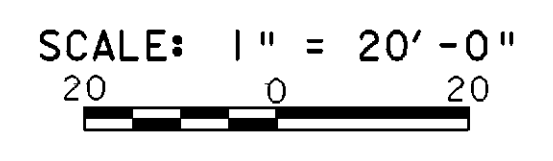
LEGEND
 S — SALVAGE
 N — NEW

DURABLE 4" WHITE LINE
 10+17 RT. - 14+00.0 RT.
 10+17 LT. - 14+00.0 LT.

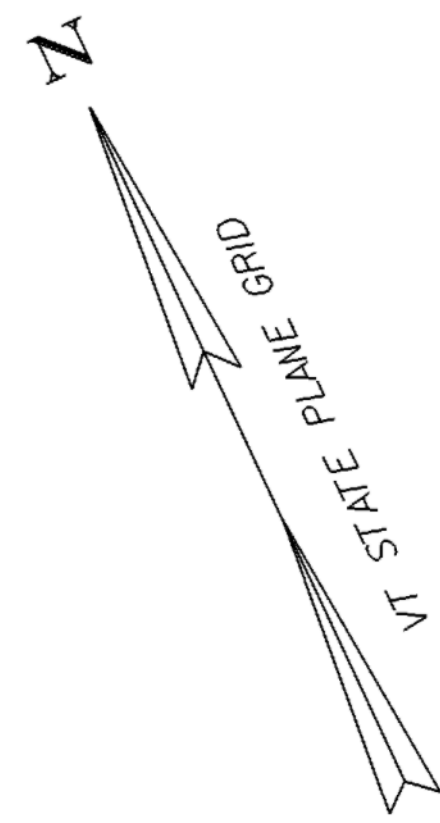
DURABLE 4" YELLOW LINE
 10+17.0 RT. - 14+00.0 RT. (DOUBLE)



TRAFFIC CONTROL SHEET (1)

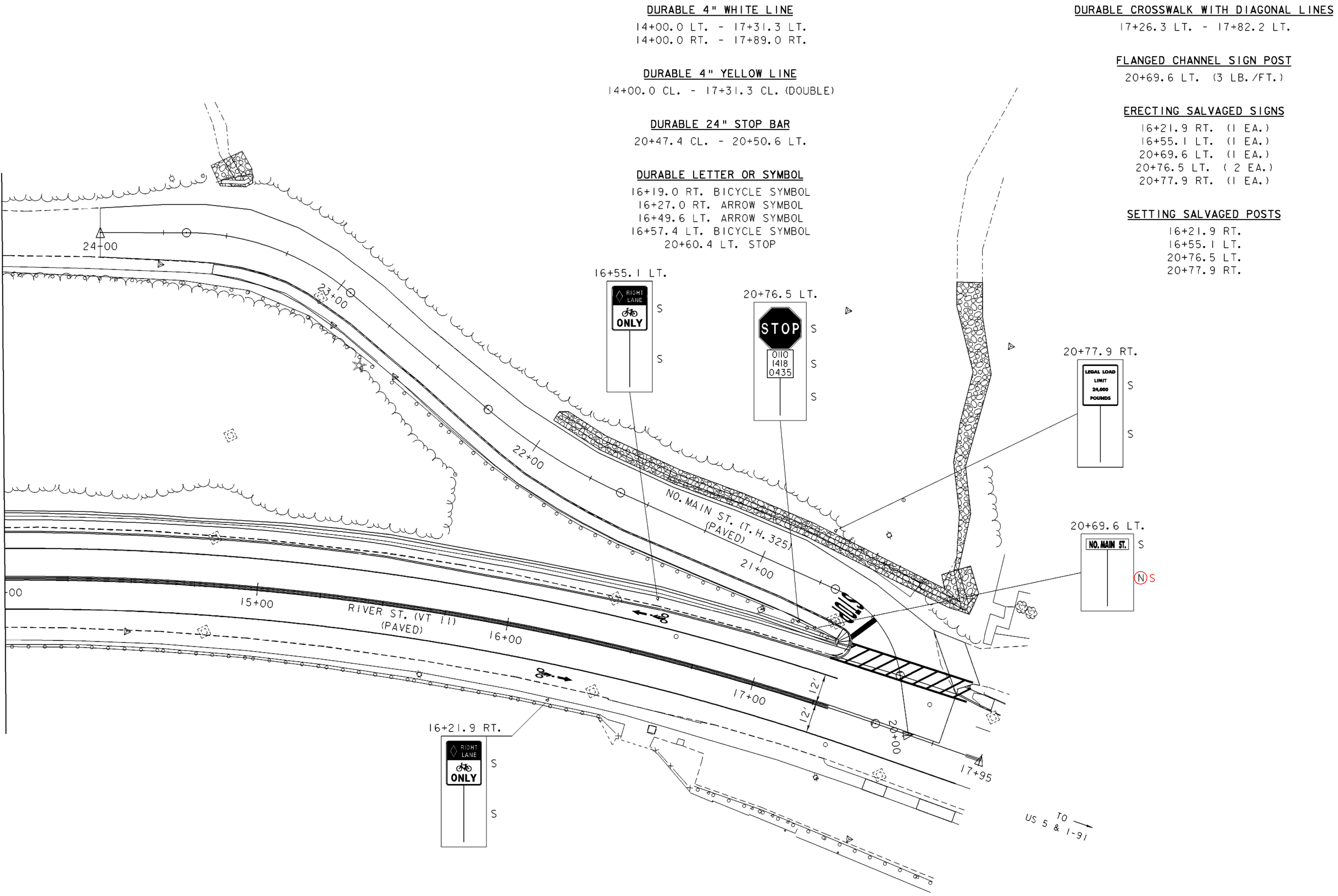


PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124\Structures\sb124+01.i	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	19 OF 72



MATCHLINE A-A

STA. 14+00



DURABLE 4" WHITE LINE
 14+00.0 LT. - 17+31.3 LT.
 14+00.0 RT. - 17+89.0 RT.

DURABLE CROSSWALK WITH DIAGONAL LINES
 17+26.3 LT. - 17+82.2 LT.

DURABLE 4" YELLOW LINE
 14+00.0 CL. - 17+31.3 CL. (DOUBLE)

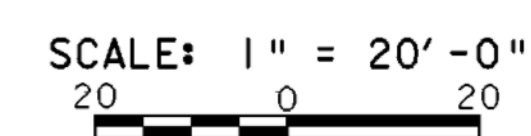
FLANGED CHANNEL SIGN POST
 20+69.6 LT. (3 LB./FT.)

DURABLE 24" STOP BAR
 20+47.4 CL. - 20+50.6 LT.

ERECTING SALVAGED SIGNS
 16+21.9 RT. (1 EA.)
 16+55.1 LT. (1 EA.)
 20+69.6 LT. (1 EA.)
 20+76.5 LT. (2 EA.)
 20+77.9 RT. (1 EA.)

DURABLE LETTER OR SYMBOL
 16+19.0 RT. BICYCLE SYMBOL
 16+27.0 RT. ARROW SYMBOL
 16+49.6 LT. ARROW SYMBOL
 16+57.4 LT. BICYCLE SYMBOL
 20+60.4 LT. STOP

SETTING SALVAGED POSTS
 16+21.9 RT.
 16+55.1 LT.
 20+76.5 LT.
 20+77.9 RT.

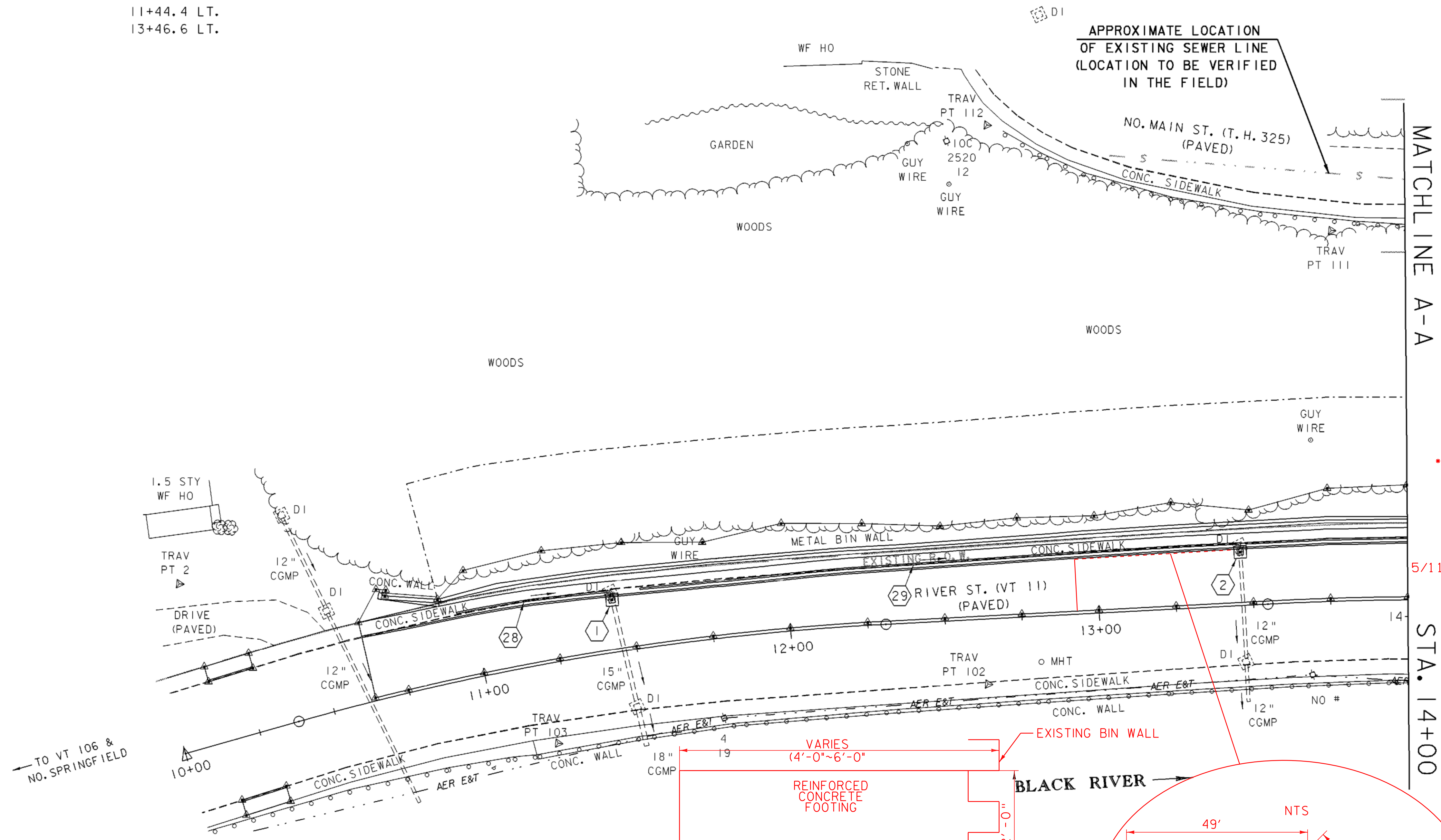
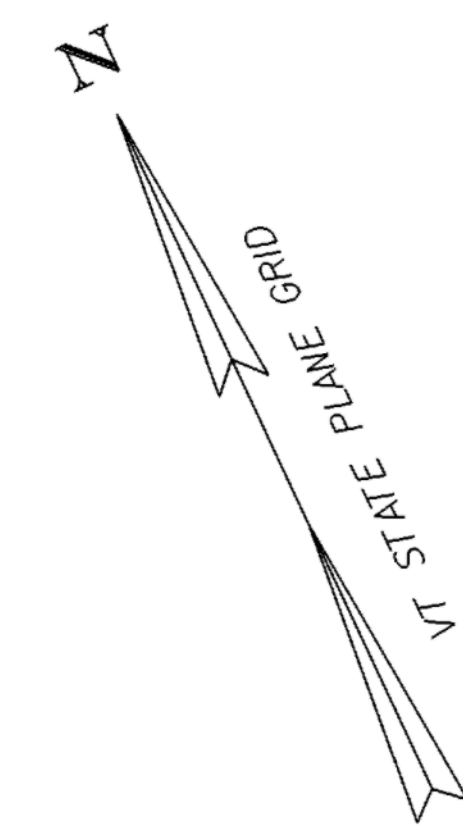


TRAFFIC CONTROL SHEET (2)

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124\Structures\sb124+02.1	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	20 OF 72

**REINFORCED CONCRETE DROP INLET
WITH CAST IRON GRATE, TYPE D**

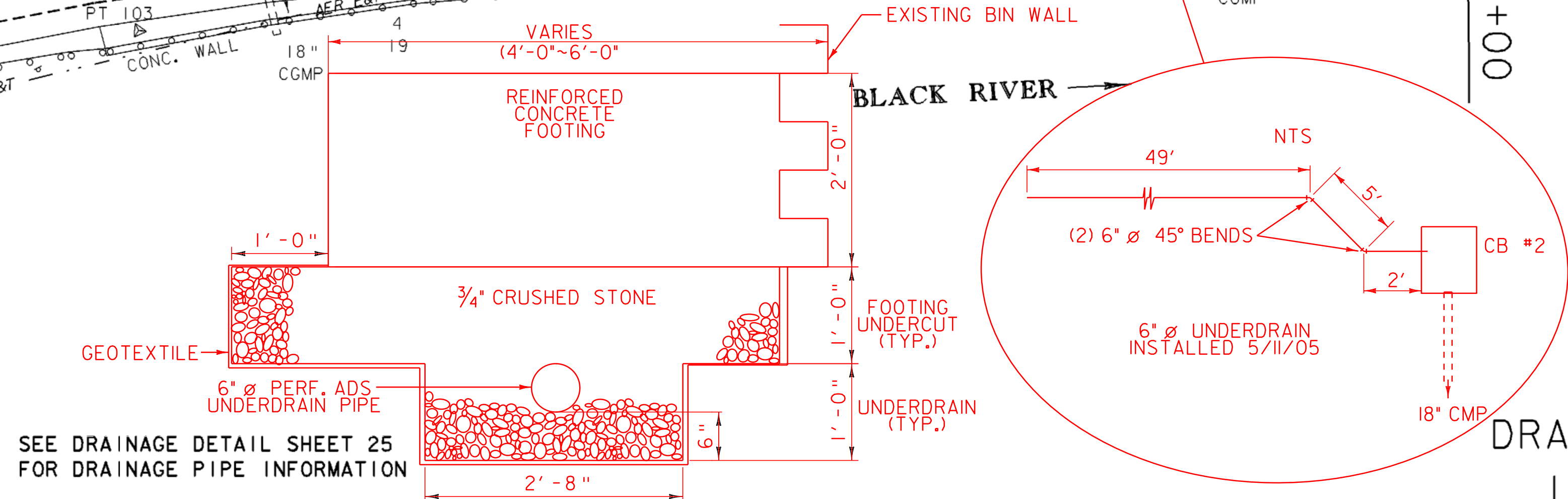
11+44.4 LT.
13+46.6 LT.



CB #2 - REMOVED EXISTING CB 4/28/05
- OLD BASE SITTING ON LEDGE
- 15' CMP 100% FULL OF DEBRIS

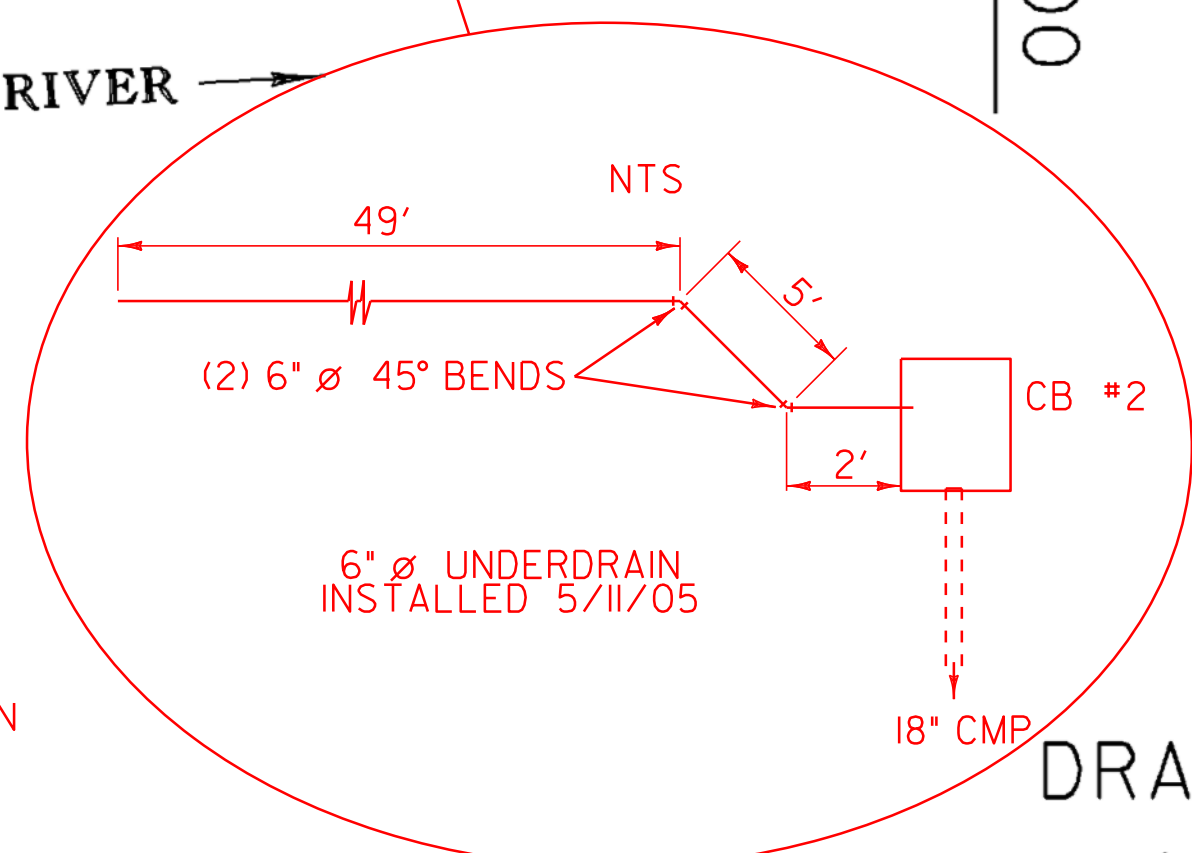
EXISTING CULVERT CROSSING PIPES @ CB #1-3
CLEANED BY JETTING/VAC. TRUCK ON 4/29/05
CHANGE ORDER TO FOLLOW

6" UNDERDRAIN INSTALLATION - MILLER
5/11/05 CB #2 (STA 13+46) TO STA 12+93 LT. = 56 LF
(SEE AS BUILT SKETCH)



SEE DRAINAGE DETAIL SHEET 25
FOR DRAINAGE PIPE INFORMATION

NOTE:
UNDERGROUND UTILITIES ARE NOT SHOWN.

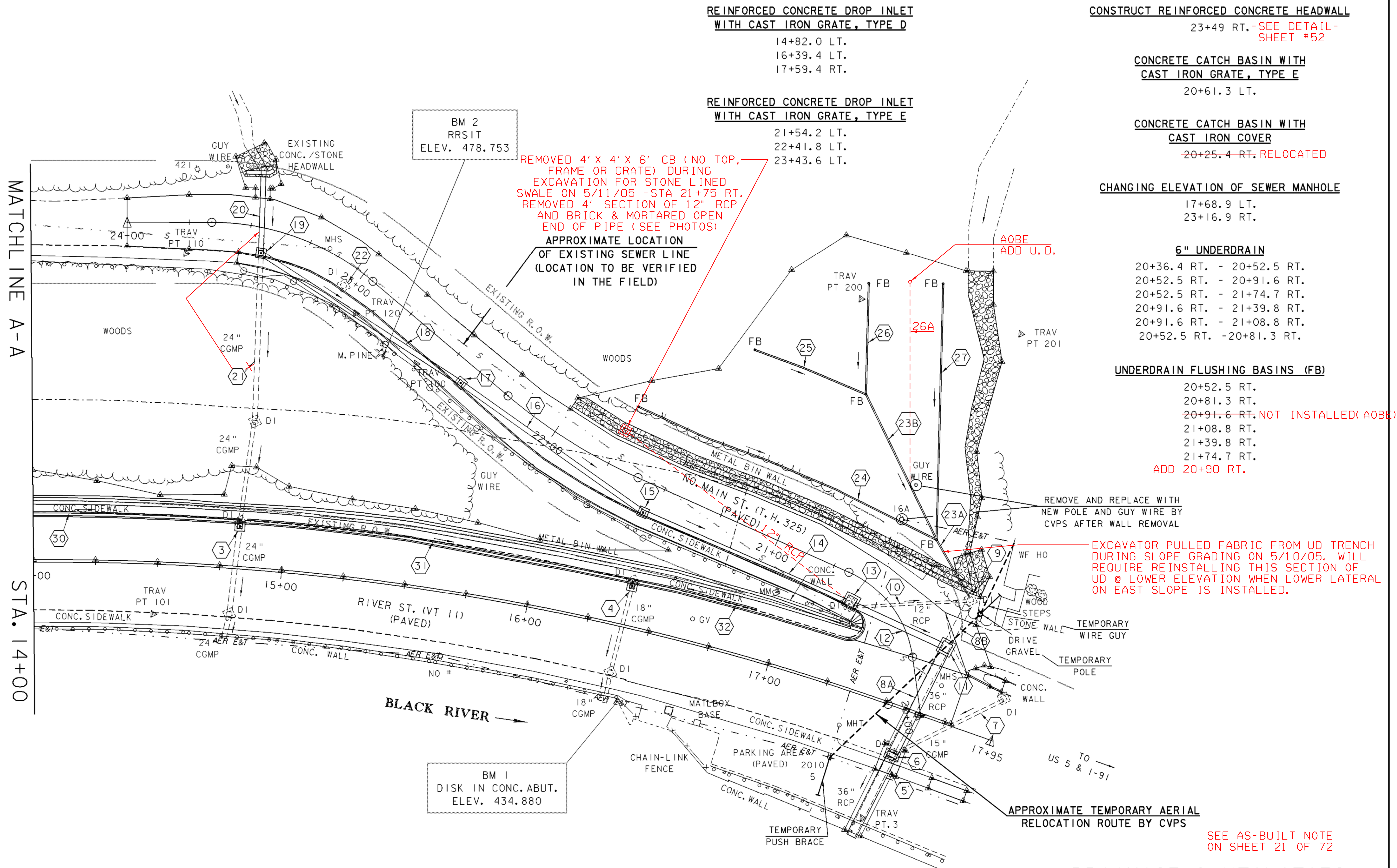
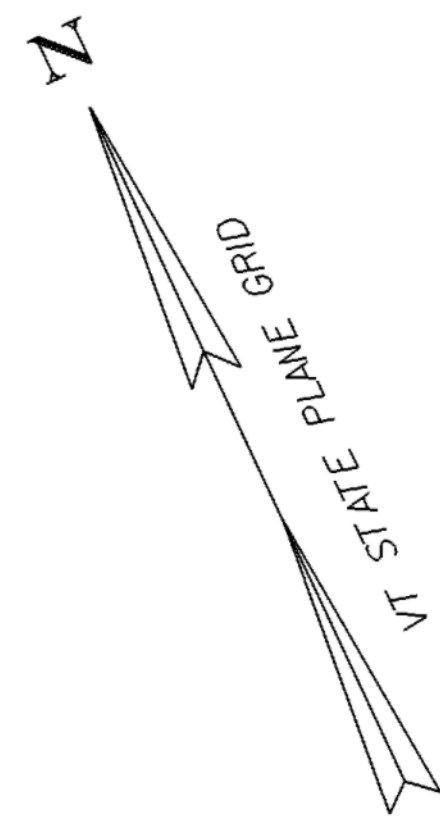


NOTE: SEE AS-BUILT SKETCHES
WITH ELEVATIONS IN FINALS
COMPUTATION BINDER FOR
ALL DRAINAGE STRUCTURES

**DRAINAGE & UTILITIES
LAYOUT SHEET (1)**

SCALE: 1" = 20'-0"
20 0 20

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124/Structures/sb124d11.1	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	21 OF 72



REINFORCED CONCRETE DROP INLET
WITH CAST IRON GRATE, TYPE D

14+82.0 LT.
16+39.4 LT.
17+59.4 RT.

CONSTRUCT REINFORCED CONCRETE HEADWALL

23+49 RT. - SEE DETAIL-SHEET #52

CONCRETE CATCH BASIN WITH
CAST IRON GRATE, TYPE E

20+61.3 LT.

CONCRETE CATCH BASIN WITH
CAST IRON COVER

-20+25.4 RT. RELOCATED

CHANGING ELEVATION OF SEWER MANHOLE

17+68.9 LT.
23+16.9 RT.

6" UNDERDRAIN

20+36.4 RT. - 20+52.5 RT.
20+52.5 RT. - 20+91.6 RT.
20+52.5 RT. - 21+74.7 RT.
20+91.6 RT. - 21+39.8 RT.
20+91.6 RT. - 21+08.8 RT.
20+52.5 RT. - 20+81.3 RT.

UNDERDRAIN FLUSHING BASINS (FB)

20+52.5 RT.
20+81.3 RT.
20+91.6 RT. NOT INSTALLED (AOBE)
21+08.8 RT.
21+39.8 RT.
21+74.7 RT.

ADD 20+90 RT.

REMOVED 4' X 4' X 6' CB (NO TOP,
FRAME OR GRATE) DURING
EXCAVATION FOR STONE LINED
SWALE ON 5/11/05 - STA 21+75 RT.
REMOVED 4' SECTION OF 12" RCP
AND BRICK & MORTARED OPEN
END OF PIPE (SEE PHOTOS)

APPROXIMATE LOCATION
OF EXISTING SEWER LINE
(LOCATION TO BE VERIFIED
IN THE FIELD)

EXCAVATOR PULLED FABRIC FROM UD TRENCH
DURING SLOPE GRADING ON 5/10/05. WILL
REQUIRE REINSTALLING THIS SECTION OF
UD @ LOWER ELEVATION WHEN LOWER LATERAL
ON EAST SLOPE IS INSTALLED.

SEE DRAINAGE DETAIL SHEET 25
FOR DRAINAGE PIPE INFORMATION

NOTE:
UNDERGROUND UTILITIES ARE NOT SHOWN.

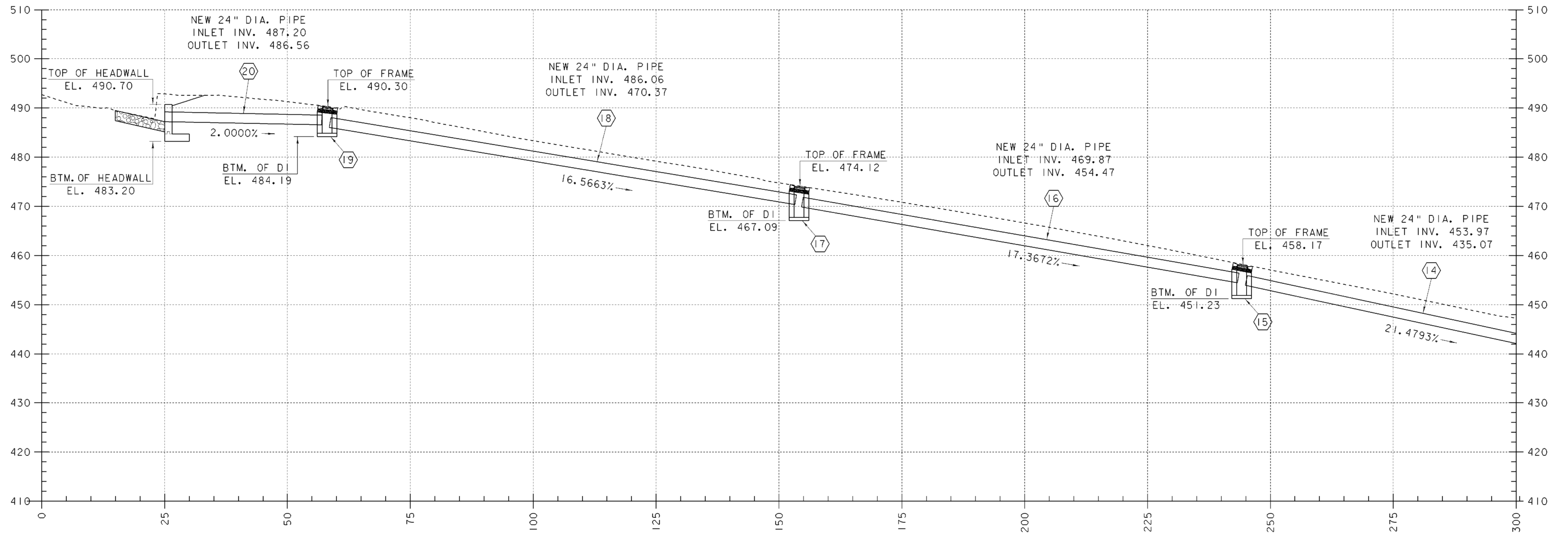
SCALE: 1" = 20'-0"
20 0 20

DRAINAGE & UTILITIES LAYOUT SHEET (2)

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124/Structures/sb124d1.1	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	22 OF 72

SEE AS-BUILT NOTE
ON SHEET 21 OF 72

DRAINAGE PROFILE ALONG T.H. 325 (NORTH MAIN ST.)



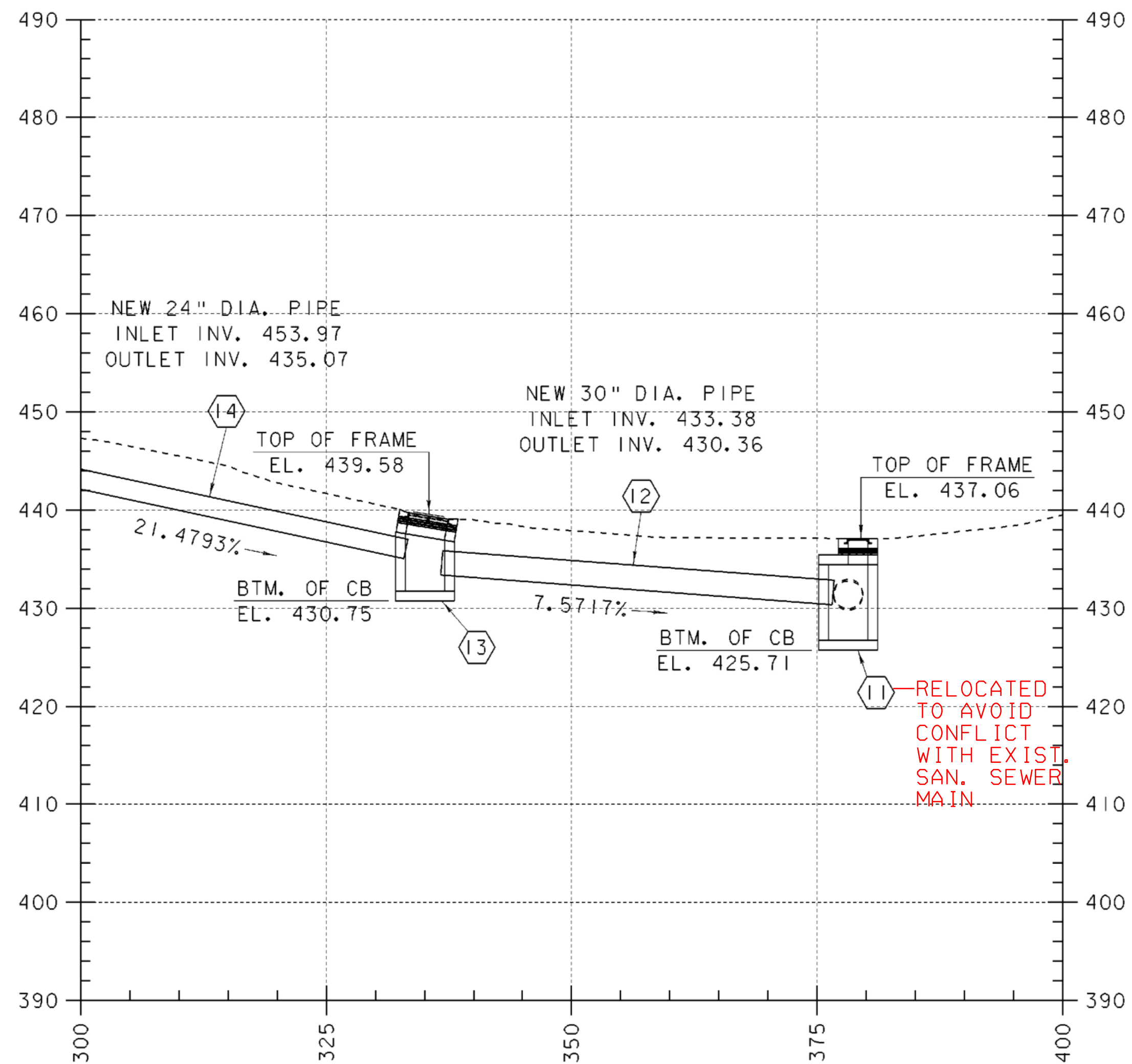
SEE AS-BUILT NOTE
ON SHEET 21 OF 72
SEE DRAINAGE DETAIL SHEET 25
FOR DRAINAGE PIPE INFORMATION

DRAINAGE PIPE PROFILES (1)

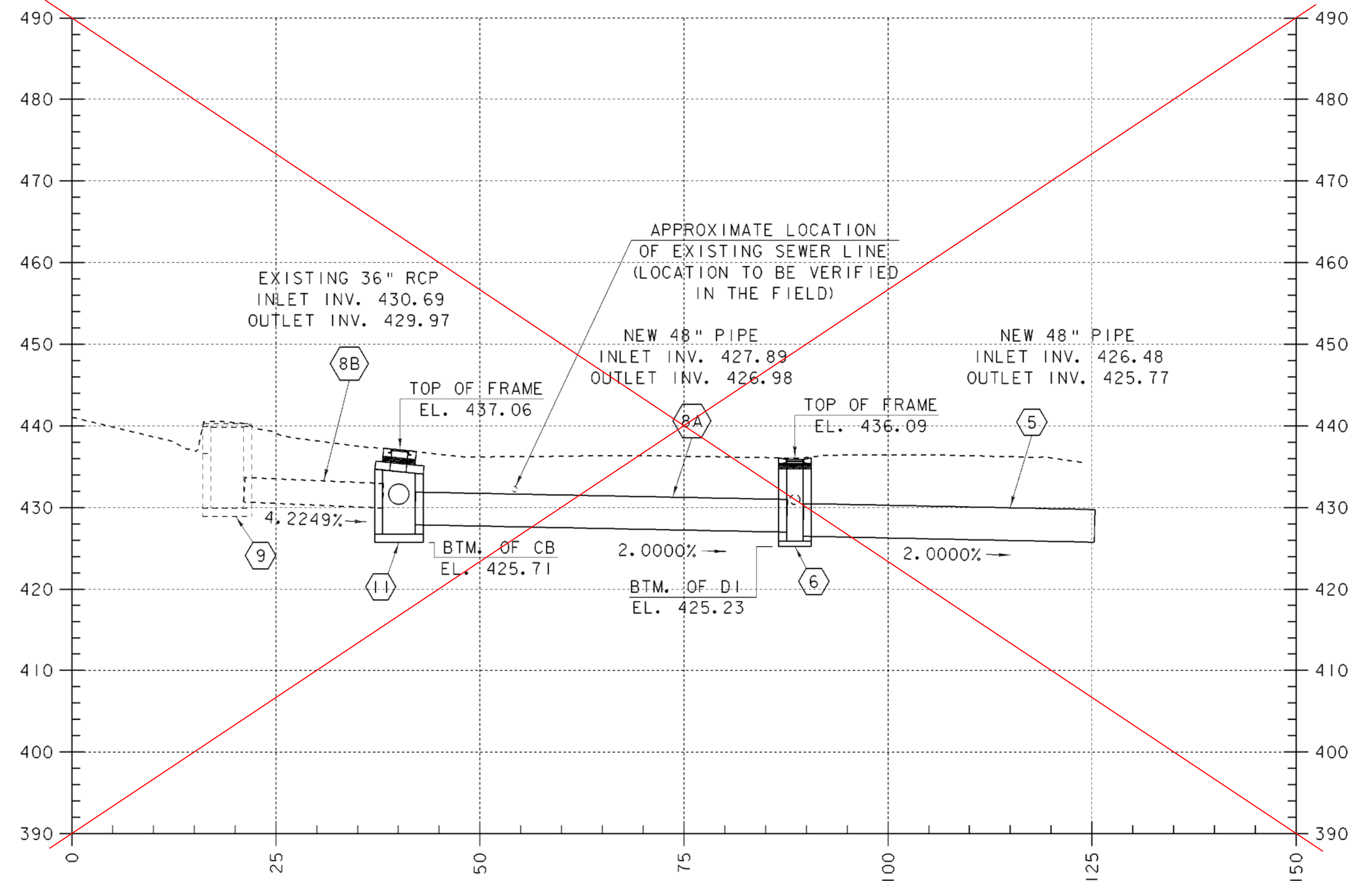
10 0 10
SCALE: 1" = 10'-0"

PROJECT NAME: SPRINGFIELD	
PROJECT NUMBER: STP 016-2 (10)S	
FILE NAME: 00b124/Structures/sb124dpl1	PLOT DATE: 17-AUG-2004
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: G. ROY
DESIGNED BY: G. ROY	CHECKED BY: R. WHITCOMB
SHEET 23 OF 72	

DRAINAGE PROFILE ALONG T.H. 325 (NORTH MAIN ST.)



DRAINAGE PROFILE ACROSS VT. 11 (RIVER ST.)



- NEW 48" Ø RCP NOT INSTALLED AS DIRECTED BY TOWN OF SPRINGFIELD DPW DUE TO POTENTIAL CONFLICTS WITH 12" SANITARY FORCE MAIN LOCATED ADJACENT TO EXISTING CONCRETE SIDEWALK ON SOUTH SIDE OF RIVER RD (RTE 11).
- SEE SKETCH ON 5/9/05 DWR - TEST HOLE DATA.
- SEE LETTER DATED 5/10/05, FROM ROBERT FORQUITES (TOWN MANAGER) DIRECTING VAOT TO LEAVE THE EXISTING 36" Ø RCP IN-PLACE.

SEE AS-BUILT NOTE
ON SHEET 21 OF 72
SEE DRAINAGE DETAIL SHEET 25
FOR DRAINAGE PIPE INFORMATION

DRAINAGE PIPE PROFILES (2)



PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124/Structures/sb124dp2.1	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
					SHEET 24 OF 72

SOIL CLASSIFICATION

AASHTO

A1	Gravel and Sand
A3	Fine Sand
A2	Silty or Clayey Gravel and Sand
A4	Silty Soil - Low Compressibility
A5	Silty Soil - Highly Compressible
A6	Clayey Soil - Low Compressibility
A7	Clayey Soil - Highly Compressible

ROCK QUALITY DESIGNATION

R.O.D. (%)	ROCK DESCRIPTION
<25	Very Poor
25 to 50	Poor
51 to 75	Fair
76 to 90	Good
>90	Excellent

SHEAR STRENGTH

UNDRAINED SHEAR STRENGTH IN P.S.F.	CONSISTENCY
<250	Very Soft
250-500	Soft
500-1000	Med. Stiff
1000-2000	Stiff
2000-4000	Very Stiff
>4000	Hard

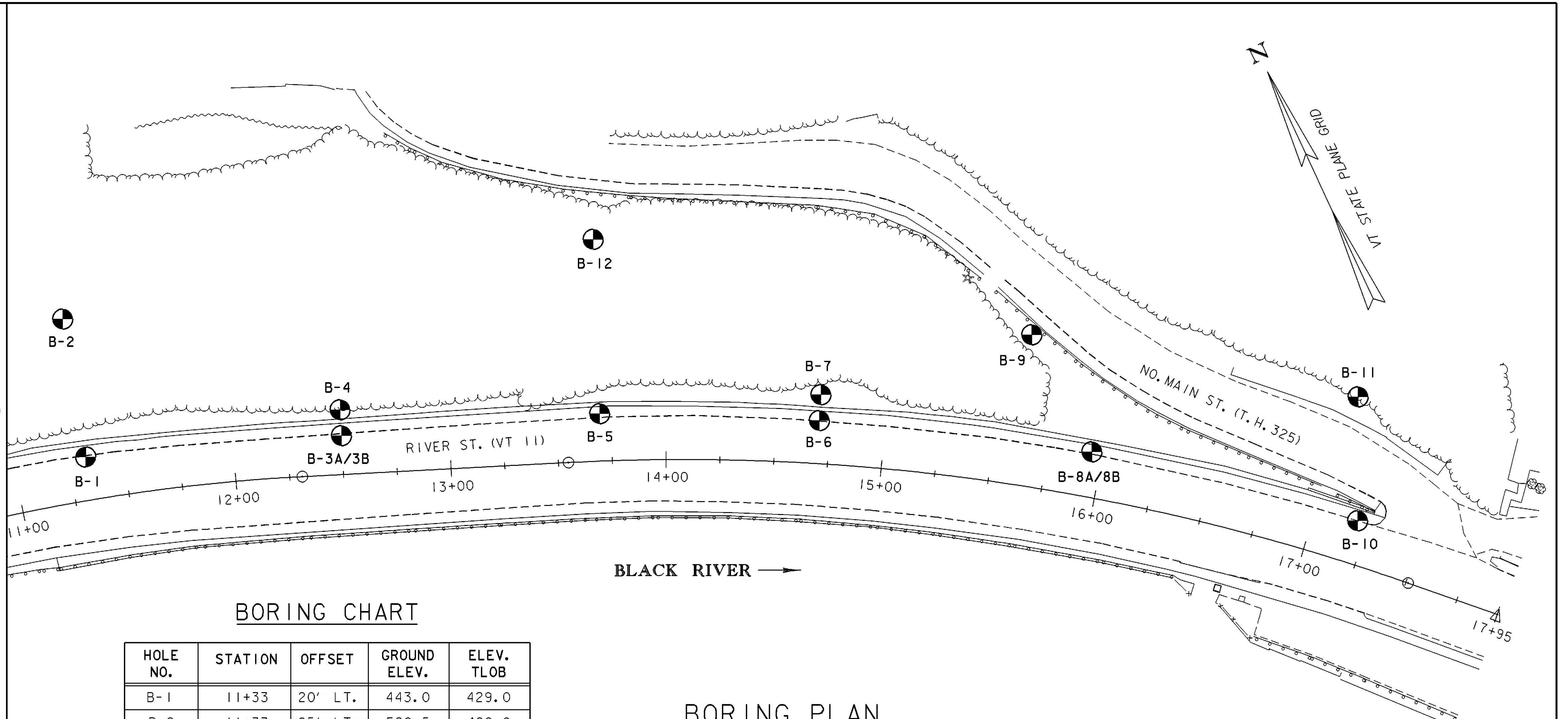
CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

DENSITY (GRANULAR SOILS)		CONSISTENCY (COHESIVE SOILS)	
N	DESCRIPTIVE TERM	N	DESCRIPTIVE TERM
<5	Very Loose	<2	Very Soft
5-10	Loose	2-4	Soft
11-24	Med. Dense	5-8	Med. Stiff
25-50	Dense	9-15	Stiff
>50	Very Dense	16-30	Very Stiff
		31-60	Hard
		>60	Very Hard

COMMONLY USED SYMBOLS

- ▼ Water Elevation
- ⊕ Standard Penetration Boring
- ⊕ Auger Boring
- ⊕ Rod Sounding
- S Sample
- N Standard Penetration Test
- Blow Count Per Foot For:
- 2" O.D. Sampler
- 1 3/8" I.D. Sampler
- Hammer Weight Of 140 Lbs.
- Hammer Fall Of 30"
- VS Field Vane Shear Test
- US Undisturbed Soil Sample
- B Blast
- DC Diamond Core
- MD Mud Drill
- WA Wash Ahead
- HSA Hollow Stem Auger
- AX Core Size 1 1/8"
- BX Core Size 1 3/8"
- NX Core Size 2 1/8"
- M Double Tube Core Barrel Used
- LL Liquid Limit
- PL Plastic Limit
- PI Plasticity Index
- NP Non Plastic
- w Moisture Content (Dry Wgt. Basis)
- D Dry
- M Moist
- MTW Moist To Wet
- W Wet
- Sat Saturated
- Bo Boulder
- Gr Gravel
- Sa Sand
- Sl Silt
- Cl Clay
- HP Hardpan
- Le Ledge
- NLTD No Ledge To Depth
- CNPF Can Not Penetrate Further
- TLOB To Ledge Or Boulder
- NR No Recovery
- Rec. Recovery
- %Rec. Percent Recovery
- ROD Rock Quality Designation
- CBR California Bearing Ratio
- < Less Than
- > Greater Than
- R Refusal (N > 100)

COLOR	
blk	Black
bl	Blue
brn	Brown
dk	Dark
gry	Gray
gn	Green
lt	Light
or	Orange
pnk	Pink
pu	Purple
rd	Red
tn	Tan
wh	White
yel	Yellow
mitc	Multicolored



BORING CHART

HOLE NO.	STATION	OFFSET	GROUND ELEV.	ELEV. TLOB
B-1	11+33	20' LT.	443.0	429.0
B-2	11+33	85' LT.	529.5	429.9
B-3A/3B	12+50	18' LT.	441.0	422.5
B-4	12+50	30' LT.	458.0	427.0
B-5	13+70	22' LT.	439.0	432.5
B-6	14+70	20' LT.	437.0	422.0
B-7	14+70	32' LT.	451.0	433.0
B-8A/8B	15+95	21' LT.	435.5	431.0
B-9	15+60	70' LT.	473.7	422.2
B-10	17+20	20' LT.	435.0	414.6
B-11	17+04	75' LT.	463.7	423.2
B-12	13+70	103' LT.	506.5	437.5

BORING PLAN

SCALE: 1" = 30'-0"

DEFINITIONS (AASHTO)

- BEDROCK (LEDGE)** - Rock in its native location of indefinite thickness.
- BOULDER** - A rock fragment with an average dimension > 12 inches.
- COBBLE** - Rock fragments with an average dimension between 3 and 12 inches.
- GRAVEL** - Rounded particles of rock < 3" and > 0.075" (#10 sieve).
- SAND** - Particles of rock < 0.075" (#10 sieve) and > 0.0025" (#200 sieve).
- SILT** - Soil < 0.0025" (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.
- CLAY** - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.

- VARVED** - Alternate layers of silt and clay.
- HARDPAN** - Extremely dense soil, cemented layer, not softened when wet.
- MUCK** - Soft organic soil (containing > 10% organic material).
- MOISTURE CONTENT** - Weight of water divided by dry weight of soil.
- FLOWING SAND** - Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.
- STRIKE** - Angle from magnetic north to line of intersection of bed with a horizontal plane.
- DIP** - Inclination of bed with a horizontal plane.

GENERAL NOTES

- The subsurface explorations shown herein were made between 04/18/2001 and 05/05/2001 by M & W Soils Engineering.
- Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by GeoDesign Inc. and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.
- Observed water levels and/or conditions indicated are as recorded at the time of exploration and may vary according to the prevailing rainfall, methods of exploration and other factors.
- Engineering judgement was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for Agency design and estimating purposes. Presentation of the information in the Contract is intended to provide the Contractor access to the same data available to the Agency. The subsurface information is presented in good faith and is not intended as a substitute for personal investigation, independent interpretation, independent analysis or judgement by the Contractor.
- Pictorial structure details shown on the boring plan layout or soils profile are for illustrative purposes only and may not accurately portray final contract details.
- Terminology used on boring logs to describe the hardness, degree of weathering, and spacing of fractures, joints and other discontinuities in the bedrock is defined in the AASHTO Manual on Subsurface Investigations, 1988.

BORING INFORMATION SHEET (1)

PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: STP 016-2 (10)S

FILE NAME: 00b124/Structures/sbl24b01.i PLOT DATE: 17-AUG-2004
PROJECT MANAGER: R. WHITCOMB DRAWN BY: G. ROY
DESIGNED BY: G. ROY CHECKED BY: R. WHITCOMB
SHEET 26 OF 72

BORING LOG INFORMATION

BORING LOG		Boring No.:	B-1																																																				
Project Name		Page No.:	1 of 1																																																				
Springfield STP 016-2 (10)S		File No.:	750-03.3																																																				
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<p>44 Main Street Windsor, Vermont, 05089 GeoDesign, Inc. Telephone: 802-674-2033 Fax: 802-674-5943</p>																																																							
Boring Company: M and W Sals Engineering		Client: State of Vermont																																																					
Foreman: Mike Hitchcock		Date and Time: 4/18/01 9:30 AM																																																					
GeoDesign Rep.: Andrew Sims		Depth (ft): 5.0																																																					
Date Started: April 18, 2001		Elevation (ft): 438.0																																																					
Date Finished: April 18, 01		Notes: Drilling																																																					
N. Coordinate: 712021.830 AM		E. Coordinate: 33.5																																																					
Ground Surface Elevation (ft): 443.0		Rig Type: Acier Truck Mount																																																					
Station: 0		Other: 0																																																					
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Boring Company: M and W Sals Engineering		Client: State of Vermont																									
Foreman: Mike Hitchcock		Date and Time: 4/18/01 10:00 AM																									
GeoDesign Rep.: Andrew Sims		Depth (ft): 30.0																									
Date Started: May 3, 2001		Elevation (ft): 499.0																									
Date Finished: May 8, 01		Notes: Drilling																									
N. Coordinate: 712021.830 AM		E. Coordinate: 33.5																									
Ground Surface Elevation (ft): 529.5		Rig Type: Mobile D18 B-47 Truck																									
Station: 0		Other: 0																									
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<p>(0): Ground surface elevation was determined by survey. Location is estimated from topographic base plan based on locations taped from existing features and plotted by GeoDesign. (0-43): HSA augered (3.25" I.D.) to 43' prior to installing NW casing. (43-67): Slight drilling resistance on possible cobble or boulder.</p>																											
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GeoDesign Rep.: Andrew Sims		Depth (ft): 2.0																									
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Date Started: May 3, 2001		Elevation (ft): 499.0																					
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N. Coordinate: 712021.830 AM		E. Coordinate: 33.5																					
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BORING LOG		Boring No. B-2										
Project Name Springfield STP 016-2 (10)S		Page No. 4 of 5										
Location Springfield, VT		File No. 750-03.3										
Checked By: RSA												
<p>Geodesign Incorporated 54 Main Street Windsor, Vermont, 05089 Telephone: 802-674-2033 Fax: 802-674-5943</p>												
<p>Boring Company: M and W Soils Engineering Foreman: Mike Hitchcock GeoDesign Rep.: Andrew Elms Date Started: May 3, 2001 Date Finished: May 8, 01 N. Coordinate: E. Coordinate: 771201 8.00 AM Ground Surface Elevation (feet): 529.5 Station: Other: n</p>												
<p>Casing: 1.5" I.D. 3.0 ft Sampler: SS Date and Time: 5/03/01 12:00 AM Depth (ft): 60.0 Elevation (ft): 499.5 Notes: Drilling</p>												
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<p>Sample Description</p> <p>Classification System: Barometer</p>												
<p>Strata Description</p> <p>Symbol: [Hatched Pattern]</p> <p>Elevation & Depth (feet): 429.9</p> <p>Well Log: [Vertical Scale]</p>												
<p>Glacial Till (Continued)</p>												
<p>(89-94): Hard drilling resistance on possible bedrock. Rock cored using BX (1.42" diameter). Core was Quartzite boulders to 94.1' with little Glacial Till between boulders. (95-97): Hard drilling resistance on probably bedrock. (98-109.8'): Rock cored using BX (1.42" diameter) core barrel sampler.</p>												
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Boring No.: B-2												

BORING LOG		Boring No. B-2										
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Location Springfield, VT		File No. 750-03.3										
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<p>Groundwater Observations Type: NW SS Date and Time: 5/03/01 12:00 AM Depth (ft): 60.0 Elevation (ft): 499.5 Notes: Drilling</p>												
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<p>Sample Description</p> <p>Classification System: Barometer</p>												
<p>Strata Description</p> <p>Symbol: [Hatched Pattern]</p> <p>Elevation & Depth (feet): 419.5</p> <p>Well Log: [Vertical Scale]</p>												
<p>Bedrock (Quartzite and Schist) (Continued)</p>												
<p>C1 Hard, light to dark gray, moderate fractures, quartz veins 1" thick, slight weathering.</p>												
<p>C2 Similar rock type to above, no quartz veining.</p>												
<p>419.5 Bottom of Borehole at 109.5 ft</p>												
<p>(17): Ground surface elevation is estimated from topographic base plan based on locations taped from existing features and plotted by GeoDesign. Elevation data should be considered accurate only to the degree implied by the method used. (18.6'): HSA augered (5.25" I.D.) to 18.6' prior to installing NW casing. (4.0'): Very hard obstruction observed during HSA auger advance. HSA refusal at 4.0' on possible boulder. Boring B-3A moved approximately 3' west and continued. HSA to 4' at B-3B and continued sampling. (14.5-18.5'): Obstructions on possible cobbles between 4.5' and 18.5' depth. Obstruction at 6' SS sample.</p>												
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Boring No.: B-2												

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Project Name Springfield STP 016-2 (10)S		Page No. 1 of 2										
Location Springfield, VT		File No. 750-03.3										
Checked By: RSA												
<p>Geodesign Incorporated 54 Main Street Windsor, Vermont, 05089 Telephone: 802-674-2033 Fax: 802-674-5943</p>												
<p>Boring Company: M and W Soils Engineering Foreman: Mike Hitchcock GeoDesign Rep.: Jason Gaudette Date Started: April 19, 2001 Date Finished: Apr 19, 01 N. Coordinate: E. Coordinate: 414651 8:15 AM Ground Surface Elevation (feet): 441.0 Station: Other: n</p>												
<p>Casing: 1.5" I.D. 3.0 ft Sampler: SS Date and Time: 4/19/01 8:15 AM Depth (ft): 8.0 Elevation (ft): 433.0 Notes: Drilling</p>												
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<p>Strata Description</p> <p>Symbol: [Hatched Pattern]</p> <p>Elevation & Depth (feet): 422.5</p> <p>Well Log: [Vertical Scale]</p>												
<p>422.5 Bedrock (Quartzite-Schist)</p>												
<p>420.5 Asphalt</p>												
<p>418.5 Sandy Fill</p>												
<p>417.5 Boulder Fill</p>												
<p>415.5 Glacial Till with Cobbles/Boulders</p>												
<p>412.5 Bottom of Borehole at 28.6 ft</p>												
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BORING LOG INFORMATION

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<p>(31): High drilling resistance on probable bedrock. (31.1): 30' of 2" I.D. inclinometer casing installed. 20 gallons of bentonite/cement (7:2 ratio) grout tremied from bottom of hole to a depth of 3'. Bentonite chips poured into hole from 3' depth to surface.</p>																																																													
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<table border="1"> <thead> <tr> <th colspan="2">Sample Information</th> <th>Sample Description</th> <th>Strata Description</th> </tr> <tr> <th>Depth (ft)</th> <th>Blows / 6 inch Interval</th> <th></th> <th></th> </tr> <tr> <th>0-6</th> <th>6-12</th> <th>12-18</th> <th>18-24</th> </tr> </thead> <tbody> <tr> <td>0-1</td> <td>2</td> <td>2</td> <td>2</td> <td rowspan="11"> 436.5 Asphalt 0.5 Sandy Fill 435.0 2.0 Layered Sands 3.0 Glacial Till 432.5 6.5 Bedrock (Phyllite-Schist) 426.0 12.0 Glacial Till 422.0 15.0 Bedrock (Phyllite-Schist and Quartzite) Bottom of Borehole at 25.8 ft </td> </tr> <tr> <td>1-2</td> <td>2</td> <td>3</td> <td>1</td> </tr> <tr> <td>2-3</td> <td>3</td> <td>4</td> <td>3</td> </tr> <tr> <td>3-4</td> <td>3</td> <td>4</td> <td>3</td> </tr> <tr> <td>4-5</td> <td>8</td> <td>11</td> <td>11</td> </tr> <tr> <td>5-6</td> <td>8</td> <td>6</td> <td>10</td> </tr> <tr> <td>6-7</td> <td>15</td> <td>15</td> <td>11</td> </tr> <tr> <td>7-8</td> <td>13</td> <td>8</td> <td>15</td> </tr> <tr> <td>8-9</td> <td>15</td> <td>20</td> <td>12</td> </tr> <tr> <td>9-10</td> <td>20</td> <td>17</td> <td>14</td> </tr> <tr> <td>10-11</td> <td>40</td> <td>59*</td> <td>-</td> </tr> </tbody> </table>					Sample Information		Sample Description	Strata Description	Depth (ft)	Blows / 6 inch Interval			0-6	6-12	12-18	18-24	0-1	2	2	2	436.5 Asphalt 0.5 Sandy Fill 435.0 2.0 Layered Sands 3.0 Glacial Till 432.5 6.5 Bedrock (Phyllite-Schist) 426.0 12.0 Glacial Till 422.0 15.0 Bedrock (Phyllite-Schist and Quartzite) Bottom of Borehole at 25.8 ft	1-2	2	3	1	2-3	3	4	3	3-4	3	4	3	4-5	8	11	11	5-6	8	6	10	6-7	15	15	11	7-8	13	8	15	8-9	15	20	12	9-10	20	17	14	10-11	40	59*	-
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<p>(7): Ground surface elevation is estimated from topographic base plan based on locations taped from existing features and plotted by GeoDesign. Elevation data should be considered accurate only to the degree implied by the method used. (15.7): HSA augered (3.25" I.D.) to 15.7' prior to installing NW casing. (15): Hard Grinding resistance observed during HSA auger advance on possible bedrock. HSA advanced to 15.7' prior to NW casing installation. Roller bit used to clean/flush out hole to 15.7' prior to installing casing. (15.8-23.8): Rock cored using BX (1.42" diameter) core barrel sampler. C1 sample stopped at 3' due to plugged bit.</p>																																																													
<p>Notes: 1) Stratification Lines Represent Approximate Boundary Between Material Types. Transitions May Be Gradual. 2) Water Level Readings Have Been Made At Times And Under Conditions Stated. Fluctuations Of Groundwater May Occur Due To Other Factors Than Those Present At The Time Measurements Were Made. 3) Sample Type Coding: A = Auger, C = Core, P = Piston Sampler, S = Split Barrel (split Spoon), S = Shelby Tube, V = Vane 4) Proportions Used: Trace = 1-10%, Little = 10-20%, Some = 20-30%, And = 35-50%</p>																																																													

PROJECT NAME: **SPRINGFIELD**
PROJECT NUMBER: **STP 016-2 (10)S**
FILE NAME: **00b124structuresb124bor.xls** PLOT DATE: **6/18/2004**
PROJECT MANAGER: **R. R. WHITCOMB** DRAWN BY: **L. ASHWORTH**
DESIGNED BY: **G. ROY** CHECKED BY: **G. ROY**
BORING LOG INFORMATION SHEET #3 SHEET **29** OF **72**

BORING LOG INFORMATION

BORING LOG		Boring No. B-6
Project Name Springfield STP 016-2 (10)S Springfield, VT		Page No. 2 of 2 File No. 750-03.3 Checked By: RSA
Boring Company: M and W Soil Engineers Former: Mike Haddock GeoDesign Rep: James Gaudette Date Started: April 20, 2001 Date Finished: April 20, 01 N Coordinate: 1177.0 E Coordinate: 307.0 Ground Surface Elevation (feet): 417.0 Rig Type: Actar Soil Mix Truck		
Casing: 3.25 in. 20 ft Sampler: SS Date and Time: 4/20/01 7:15 AM Depth (ft): 5.0 Elevation (ft): 412.0		
Sample Information Classification System: Standard Sample Description: with quartz veining, fresh Strata Description: 417.2 25.8		
Notes: 1) Stratification Lines Represent Approximate Boundary Between Material Types. Transitions May Be Gradual. 2) Water Level Readings Have Been Made At Times And Under Conditions Stated. Fluctuations Of Groundwater May Occur Due To Other Factors Than Those Present At The Time Measurements Were Made. 3) Sample Type Coding: A = Auger; C = Core; P = Probe Sampler; S = Split Barrel (split Spoon); St = Shelby Tube; V = Vane 4) Proportion Used: Trace = 1-10%; Ledge = 10-20%; Stone = 20-35%; Sand = 35-60%		

BORING LOG		Boring No. B-7
Project Name Springfield STP 016-2 (10)S Springfield, VT		Page No. 1 of 1 File No. 750-03.3 Checked By: RSA
Boring Company: M and W Soil Engineers Former: Mike Haddock GeoDesign Rep: James Gaudette Date Started: May 2, 2001 Date Finished: May 4, 01 N Coordinate: 1177.0 E Coordinate: 307.0 Ground Surface Elevation (feet): 417.0 Rig Type: Actar Soil		
Casing: 3.25 in. 20 ft Sampler: SS Date and Time: 5/02/01 10:38 AM Depth (ft): 19.3 Elevation (ft): 412.0		
Sample Information Classification System: Standard Sample Description: S1 Loose, no recovery Strata Description: 417.2 0.5 448.0 3.0 445.0 8.0 430.0 16.0 431.7 19.3		
Notes: (7): Ground surface elevation is estimated from topographic base plan based on locations taped from existing features and plotted by GeoDesign. Elevation data should be considered accurate only to the degree implied by the method used. (2.5): SS sampler "bouncing" on possible tree roots/wood fill material. (4.5): Observed difficult advance of casing through possible wood. Roller bit used to advance hole temporarily past casing to clear debris. (19.4): 19' of 2" I.D. inclinometer casing installed. 80 gallons of bentonite/cement (7:2 ratio) grout tremied from bottom of hole to a depth of 5'. Bentonite slugs poured at hole from 5' depth to surface.		

BORING LOG		Boring No. B-8A
Project Name Springfield STP 016-2 (10)S Springfield, VT		Page No. 1 of 1 File No. 750-03.3 Checked By: RSA
Boring Company: M and W Soil Engineers Former: Mike Haddock GeoDesign Rep: James Gaudette Date Started: April 20, 2001 Date Finished: April 20, 01 N Coordinate: 1177.0 E Coordinate: 307.0 Ground Surface Elevation (feet): 417.0 Rig Type: Actar Soil Mix Truck		
Casing: 3.25 in. 20 ft Sampler: SS Date and Time: 4/20/01 10:38 AM Depth (ft): 19.3 Elevation (ft): 412.0		
Sample Information Classification System: Standard Sample Description: S1 Refusal, brown gray, fine to medium SAND, little SIL, trace fine Gravel Strata Description: 431.5 4.0 430.0 5.5		
Notes: (7): Ground surface elevation is estimated from topographic base plan based on locations taped from existing features and plotted by GeoDesign. Elevation data should be considered accurate only to the degree implied by the method used. (4.5): Hard obstruction observed during HSA auger advance (boulder estimated min. 6" diameter). (15.0): Hard obstruction observed during HSA auger advance (boulder or possible bedrock). HSA refusal at 5.5'. Moved approximately 3' east along roadway to B-8B after HSA refusal at B-8A. (15.0): Groundwater was not encountered during drilling.		

BORING LOG		Boring No. B-8B
Project Name Springfield STP 016-2 (10)S Springfield, VT		Page No. 1 of 1 File No. 750-03.3 Checked By: RSA
Boring Company: M and W Soil Engineers Former: Mike Haddock GeoDesign Rep: James Gaudette Date Started: April 20, 2001 Date Finished: April 20, 01 N Coordinate: 1177.0 E Coordinate: 307.0 Ground Surface Elevation (feet): 417.0 Rig Type: Actar Soil Mix Truck		
Casing: 3.25 in. 20 ft Sampler: SS Date and Time: 4/20/01 10:38 AM Depth (ft): 14.9 Elevation (ft): 420.6		
Sample Information Classification System: Standard Sample Description: C1 Moderately hard, dark gray (fresh) to light gray (slightly weathered) slightly foliated with quartz veinlets, slight HCl reaction. Possible contact at 8.0' with Phyllite. Strata Description: 431.0 4.9 420.6		
Notes: (7): Ground surface elevation is estimated from topographic base plan based on locations taped from existing features and plotted by GeoDesign. Elevation data should be considered accurate only to the degree implied by the method used. (0-4.9) Boring moved 3' east along after HSA refusal at B-8A. HSA augered (3.25" I.D.) to 4.5' prior to installing NW casing. (4.5-8.0): Observed very difficult drilling resistance on possible cobbles and boulders. (4.5): Hard obstruction observed possible bedrock. Installed NW casing. Groundwater was not encountered during drilling. (4.5-14.9): Rock cored using BX (1.42" diameter) core barrel sampler.		

BORING LOG INFORMATION

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Project Name		B-9																																												
Springfield STP 016-2 (10)S		Page No.: 1 of 3																																												
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Boring Company: M and W Soils Engineering Foreman: Mike Hitchcock GeoDesign Rep: Jason Gaudette Date Started: April 25, 2001 Date Finished: Apr 25, 01 Hammer: NA 140 lbs 42501 10:45 AM 13.0 480.7 0.0 Hammer Fall: NA 30 in 71201 8:15 AM 16.3 467.4 0.0 Ground Surface Elevation (feet): 423.7 Station: 0+00.0		Casing: SS Sampler: SS Date and Time: 4/25/01 10:45 AM Depth (ft): 13.0 Elevation (ft): 480.7 Notes: 0.0 Date and Time: 4/25/01 8:15 AM Depth (ft): 16.3 Elevation (ft): 467.4 Notes: 0.0 Rig Type: Mobile Drill B-47 Track Other:																																												
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(7): Ground surface elevation was determined by survey. Location is estimated from topographic base plan based on locations tapped from existing features and plotted by GeoDesign. (8-15): HSA augered (3.25" I.D.) to 15' prior to installing NW casing. (14-15): Observed slight grinding resistance through possible gravel/cobbles during HSA auger advance. (14-15): Gravel/cobble obstruction. SS sample taken at 15'. Installed NW casing to 16'. (24-25.5'): Hard grinding observed through boulders estimated 6-12" diameter at 24' and 25'. SS sample taken at 25.5'.																																														

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(27.5-28.5'): Roller bit advance through 1' diameter boulder. Advanced hole to 30' and continued SS sampling. (30.8'): Hard resistance observed during roller bit advance. Boulder estimated 6" diameter. (50-51.5'): High resistance observed probable bedrock. Roller bit refusal on probable bedrock.																										

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GEODESIGN INCORPORATED 54 Main Street Windsor, Vermont, 05089 Telephone: 802-674-2033 Fax: 802-674-5943																																		
Boring Company: M and W Soils Engineering Foreman: Mike Hitchcock GeoDesign Rep: Jason Gaudette Date Started: April 23, 2001 Date Finished: Apr 23, 01 Hammer: NA 140 lbs 42501 11:45 AM 4.0 431.0 0.0 Hammer Fall: NA 30 in Ground Surface Elevation (feet): 455.0 Station: 0+00.0		Casing: NW Sampler: SS Date and Time: 4/23/01 11:45 AM Depth (ft): 2.0 Elevation (ft): 431.0 Notes: 0.0 Date and Time: 4/23/01 11:45 AM Depth (ft): 4.0 Elevation (ft): 431.0 Notes: 0.0 Rig Type: Mobile Drill B-47 Track Other:																																
<table border="1"> <thead> <tr> <th colspan="2">Sample Information</th> <th>Sample Description</th> <th>Strata Description</th> </tr> <tr> <th>Depth (ft)</th> <th>Classification System: Borner</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>0.0</td> <td>S1 SS 18.0 6.0 0.0 10 6 14 30</td> <td>S1 Top 12" Medium dense, orange brown, fine to coarse SAND, little Silt, trace Gravel and Wood Splinters.</td> <td>433.0 2.0 Topsoil</td> </tr> <tr> <td>2.0</td> <td>S2 SS 11.0 6.0 2.0 20 19 20</td> <td>S2 Very dense, similar to bottom of SS sample S1 with decomposed schistose Rock Fragments</td> <td>430.5 4.5 Glacial Till</td> </tr> <tr> <td>3.0</td> <td>S3 SS 10.0 6.0 3.0 8 1 3 2</td> <td>S3 Very dense, similar to SS sample S2 except little Gravel</td> <td></td> </tr> <tr> <td>4.0</td> <td>S4 SS 15.0 6.0 4.0 45 30 1</td> <td>S4 Very dense, similar to SS sample S3</td> <td></td> </tr> <tr> <td>5.0</td> <td>S5 SS 10.0 6.0 5.0 11 11 1</td> <td>S5 Very dense, similar to SS sample S4 except trace to little fine Gravel</td> <td></td> </tr> <tr> <td>6.0</td> <td>C1 C 60.0 40.0 20.0 8 8 8 8</td> <td>C1 Moderately hard, light to dark steel gray, very close to moderate fracturing, slight weathering.</td> <td>414.6 20.4 Bedrock (Phyllite/Schist/Quartzite)</td> </tr> </tbody> </table>		Sample Information		Sample Description	Strata Description	Depth (ft)	Classification System: Borner			0.0	S1 SS 18.0 6.0 0.0 10 6 14 30	S1 Top 12" Medium dense, orange brown, fine to coarse SAND, little Silt, trace Gravel and Wood Splinters.	433.0 2.0 Topsoil	2.0	S2 SS 11.0 6.0 2.0 20 19 20	S2 Very dense, similar to bottom of SS sample S1 with decomposed schistose Rock Fragments	430.5 4.5 Glacial Till	3.0	S3 SS 10.0 6.0 3.0 8 1 3 2	S3 Very dense, similar to SS sample S2 except little Gravel		4.0	S4 SS 15.0 6.0 4.0 45 30 1	S4 Very dense, similar to SS sample S3		5.0	S5 SS 10.0 6.0 5.0 11 11 1	S5 Very dense, similar to SS sample S4 except trace to little fine Gravel		6.0	C1 C 60.0 40.0 20.0 8 8 8 8	C1 Moderately hard, light to dark steel gray, very close to moderate fracturing, slight weathering.	414.6 20.4 Bedrock (Phyllite/Schist/Quartzite)	
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(7): Ground surface elevation is estimated from topographic base plan based on locations tapped from existing features and plotted by GeoDesign. Elevation data should be considered accurate only to the degree implied by the method used. (8-9): SS auger (4" O.D.) used to advance hole through asphalt to 3' depth. Hard obstruction observed at 1.5' depth. (10-11): HSA augered (3.25" I.D.) to 20.4' prior to installing NW casing. (5-6.1'): Obstructions observed through 5-6' depth and 7.9-8.1' during HSA auger advance. (20.4'): HSA refusal on probable bedrock. Installed NW casing to 20.4' depth. Roller bit used to flush out hole prior to rock coring.																																		

BORING LOG INFORMATION

BORING LOG		Boring No.:	B-12
Project Name:		Page No.:	2 of 4
Springfield STP 016-2 (10)S		File No.:	750-03.3
Springfield, VT		Checked By:	RSA
<p>GEODESIGN INCORPORATED 54 Main Street Windsor, Vermont, 05089 Tel: 802-674-2033 Fax: 802-674-5943</p>			
<p>Boring Company: M and W Soil Engineers</p>		<p>Date: 05/11/04</p>	
<p>Location: Site History</p>		<p>Type: NW SS</p>	
<p>Geologic Ref: Atter Bins</p>		<p>Drill Date: 05/11/04</p>	
<p>Date Started: May 1, 2004</p>		<p>Drill Time: 12:00 AM</p>	
<p>N. Coordinates: E. Coordinates:</p>		<p>Drill Depth: 30.0</p>	
<p>Ground Surface Elevation (ft): 528.5</p>		<p>Drill Type: Mobile Drill</p>	
<p>Other: None</p>			
Sample Information		Sample Description	Strata Description
Depth (ft)	Classification	Symbol	Elevation & Depth (ft)
0-6	SS		475.5
6-12	SS		475.5
12-18	SS		475.5
18-24	SS		475.5
24-30	SS		475.5
30-36	SS		475.5
36-42	SS		475.5
42-48	SS		475.5
48-54	SS		475.5
54-60	SS		475.5
60-66	SS		475.5
66-72	SS		475.5
72-78	SS		475.5
78-84	SS		475.5
84-90	SS		475.5
90-96	SS		475.5
96-102	SS		475.5
102-108	SS		475.5
108-114	SS		475.5
114-120	SS		475.5
120-126	SS		475.5
126-132	SS		475.5
132-138	SS		475.5
138-144	SS		475.5
144-150	SS		475.5
150-156	SS		475.5
156-162	SS		475.5
162-168	SS		475.5
168-174	SS		475.5
174-180	SS		475.5
180-186	SS		475.5
186-192	SS		475.5
192-198	SS		475.5
198-204	SS		475.5
204-210	SS		475.5
210-216	SS		475.5
216-222	SS		475.5
222-228	SS		475.5
228-234	SS		475.5
234-240	SS		475.5
240-246	SS		475.5
246-252	SS		475.5
252-258	SS		475.5
258-264	SS		475.5
264-270	SS		475.5
270-276	SS		475.5
276-282	SS		475.5
282-288	SS		475.5
288-294	SS		475.5
294-300	SS		475.5
300-306	SS		475.5
306-312	SS		475.5
312-318	SS		475.5
318-324	SS		475.5
324-330	SS		475.5
330-336	SS		475.5
336-342	SS		475.5
342-348	SS		475.5
348-354	SS		475.5
354-360	SS		475.5
360-366	SS		475.5
366-372	SS		475.5
372-378	SS		475.5
378-384	SS		475.5
384-390	SS		475.5
390-396	SS		475.5
396-402	SS		475.5
402-408	SS		475.5
408-414	SS		475.5
414-420	SS		475.5
420-426	SS		475.5
426-432	SS		475.5
432-438	SS		475.5
438-444	SS		475.5
444-450	SS		475.5
450-456	SS		475.5
456-462	SS		475.5
462-468	SS		475.5
468-474	SS		475.5
474-480	SS		475.5
480-486	SS		475.5
486-492	SS		475.5
492-498	SS		475.5
498-504	SS		475.5
504-510	SS		475.5
510-516	SS		475.5
516-522	SS		475.5
522-528	SS		475.5
528-534	SS		475.5
534-540	SS		475.5
540-546	SS		475.5
546-552	SS		475.5
552-558	SS		475.5
558-564	SS		475.5
564-570	SS		475.5
570-576	SS		475.5
576-582	SS		475.5
582-588	SS		475.5
588-594	SS		475.5
594-600	SS		475.5
600-606	SS		475.5
606-612	SS		475.5
612-618	SS		475.5
618-624	SS		475.5
624-630	SS		475.5
630-636	SS		475.5
636-642	SS		475.5
642-648	SS		475.5
648-654	SS		475.5
654-660	SS		475.5
660-666	SS		475.5
666-672	SS		475.5
672-678	SS		475.5
678-684	SS		475.5
684-690	SS		475.5
690-696	SS		475.5
696-702	SS		475.5
702-708	SS		475.5
708-714	SS		475.5
714-720	SS		475.5
720-726	SS		475.5
726-732	SS		475.5
732-738	SS		475.5
738-744	SS		475.5
744-750	SS		475.5
750-756	SS		475.5
756-762	SS		475.5
762-768	SS		475.5
768-774	SS		475.5
774-780	SS		475.5
780-786	SS		475.5
786-792	SS		475.5
792-798	SS		475.5
798-804	SS		475.5
804-810	SS		475.5
810-816	SS		475.5
816-822	SS		475.5
822-828	SS		475.5
828-834	SS		475.5
834-840	SS		475.5
840-846	SS		475.5
846-852	SS		475.5
852-858	SS		475.5
858-864	SS		475.5
864-870	SS		475.5
870-876	SS		475.5
876-882	SS		475.5
882-888	SS		475.5
888-894	SS		475.5
894-900	SS		475.5
900-906	SS		475.5
906-912	SS		475.5
912-918	SS		475.5
918-924	SS		475.5
924-930	SS		475.5
930-936	SS		475.5
936-942	SS		475.5
942-948	SS		475.5
948-954	SS		475.5
954-960	SS		475.5
960-966	SS		475.5
966-972	SS		475.5
972-978	SS		475.5
978-984	SS		475.5
984-990	SS		475.5
990-996	SS		475.5
996-1002	SS		475.5
1002-1008	SS		475.5
1008-1014	SS		475.5
1014-1020	SS		475.5
1020-1026	SS		475.5
1026-1032	SS		475.5
1032-1038	SS		475.5
1038-1044	SS		475.5
1044-1050	SS		475.5
1050-1056	SS		475.5
1056-1062	SS		475.5
1062-1068	SS		475.5
1068-1074	SS		475.5
1074-1080	SS		475.5
1080-1086	SS		475.5
1086-1092	SS		475.5
1092-1098	SS		475.5
1098-1104	SS		475.5
1104-1110	SS		475.5
1110-1116	SS		475.5
1116-1122	SS		475.5
1122-1128	SS		475.5
1128-1134	SS		475.5
1134-1140	SS		475.5
1140-1146	SS		475.5
1146-1152	SS		475.5
1152-1158	SS		475.5
1158-1164	SS		475.5
1164-1170	SS		475.5
1170-1176	SS		475.5
1176-1182	SS		475.5
1182-1188	SS		475.5
1188-1194	SS		475.5
1194-1200	SS		475.5
1200-1206	SS		475.5
1206-1212	SS		475.5
1212-1218	SS		475.5
1218-1224	SS		475.5
1224-1230	SS		475.5
1230-1236	SS		475.5
1236-1242	SS		475.5
1242-1248	SS		475.5
1248-1254	SS		475.5
1254-1260	SS		475.5
1260-1266	SS		475.5
1266-1272	SS		475.5
1272-1278	SS		475.5
1278-1284	SS		475.5
1284-1290	SS		475.5
1290-1296	SS		475.5
1296-1302	SS		475.5
1302-1308	SS		475.5
1308-1314	SS		475.5
1314-1320	SS		475.5
1320-1326	SS		475.5
1326-1332	SS		475.5
1332-1338	SS		475.5
1338-1344	SS		475.5
1344-1350	SS		475.5
1350-1356	SS		475.5
1356-1362	SS		475.5
1362-1368	SS		475.5
1368-1374	SS		475.5
1374-1380	SS		475.5
1380-1386	SS		475.5
1386-1392	SS		475.5
1392-1398	SS		475.5
1398-1404	SS		475.5
1404-1410	SS		475.5
1410-1416	SS		475.5
1416-1422	SS		475.5
1422-1428	SS		475.5
1428-1434	SS		475.5
1434-1440	SS		475.5
1440-1446	SS		475.5
1446-1452	SS		475.5
1452-1458	SS		475.5
1458-1464	SS		475.5
1464-1470	SS		475.5
1470-1476	SS		475.5
1476-1482	SS		475.5
1482-1488	SS		475.5
1488-1494	SS		475.5
1494-1500	SS		475.5
1500-1506	SS		475.5
1506-1512	SS		475.5
1512-1518	SS		475.5
1518-1524	SS		475.5
1524-1530	SS		475.5
1530-1536	SS		475.5
1536-1542	SS		475.5
1542-1548	SS		475.5
1548-1554	SS		475.5
1554-1560	SS		475.5
1560-1566	SS		475.5
1566-1572	SS		475.5
1572-1578	SS		475.5
1578-1584	SS		

EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REPAIR AND REHABILITATION OF AN EXISTING METAL BIN WALL AND THE INSTALLATION OF NEW DRAINAGE AND SIDEWALK. THE LIMITS OF CONSTRUCTION DO NOT APPROACH ANY BUILDINGS OR OTHER STRUCTURES. NATURAL RESOURCES WITHIN THE PROJECT AREA HAVE BEEN CLEARLY IDENTIFIED AND SHOWN IN THE EXISTING CONDITIONS.

IT IS ANTICIPATED THAT THIS WORK WILL START IN THE FALL OF 2004 AND BE COMPLETED IN THE FALL OF 2005.

TOTAL DISTURBED AREA (EXCLUDING WASTE, BORROW AND STAGING AREAS): 0.98 ACRES. IT HAS BEEN DETERMINED THAT THE PROJECT WILL DISTURB UNDER 5 ACRES OF LAND INCLUDING BOTH ON & OFF-SITE WASTE, BORROW, STAGING, HAUL ROADS, ETC. SHOULD THIS CHANGE AND RESULT IN 5 ACRES OR MORE OF EARTH DISTURBANCE, THEN ADDITIONAL PERMITTING WITH THE AGENCY OF NATURAL RESOURCES VIA THE FILING OF A NOTICE OF INTENT FOR COVERAGE UNDER THE APPROPRIATE GENERAL PERMIT OR INDIVIDUAL PERMIT WILL BE REQUIRED PRIOR TO INITIATING CONSTRUCTION. ALL WASTE, BORROW AND STAGING AREAS NEED PRIOR REVIEW AND APPROVAL PURSUANT TO VAOT STANDARD SPECIFICATIONS, SECTION 105.25.

SITE INVENTORY & ANALYSIS

OFF SITE DRAINAGE CHARACTERISTICS:

THE AREA SURROUNDING THE PROJECT CONSISTS MOSTLY OF MATURE DECIDUOUS TREES ON STEEP GRADE IN THE NORTHERN HALF OF THE PROJECT. THE SOUTHERN HALF OF THE PROJECT CONSISTS OF PAVED ROADWAYS THAT ARE GENERALLY FLAT IN GRADE.

DRAINAGE, WATERWAYS, BODIES OF WATER:

THERE ARE TWO INTERMITTENT STREAMS THAT RUN THROUGH THE PROJECT. THE BANKS ARE VERY STEEP AND THERE IS SOME EROSION ALONG THE BANKS OF THE EASTERLY STREAM. THERE IS ALSO MAN MADE DRAINAGE WITHIN THE AREA THAT WILL BE PROTECTED FROM SEDIMENT TRANSPORT DURING CONSTRUCTION. THE BLACK RIVER IS WITHIN THE VICINITY OF THE CONSTRUCTION LIMITS BUT WILL NOT BE DIRECTLY AFFECTED BY THE PROJECT.

TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES:

THE TOPOGRAPHY OF THE SITE IS VERY STEEP AND HEAVILY VEGETATED. THE MAJOR RECONSTRUCTION OF THE METAL BIN WALL WILL TAKE PLACE ALONG VT 11, A PAVED HIGHWAY. A PAVED SIDE ROAD BISECTS THE PROJECT WHICH IS VEGETATED ALONG BOTH SIDES FOR THE LENGTH OF THE PROJECT.

VEGETATION:

THE VEGETATION WITHIN THE PROJECT AREA CONSISTS PRIMARILY OF MATURE DECIDUOUS TREES. THE VEGETATION RESIDES COMPLETELY WITHIN THE NORTHERN HALF OF THE PROJECT AREA.

SOILS:

THE SOIL WITHIN THE AREA IS CLASSIFIED AS WINDSOR FINE LOAMY SAND. IT OCCURS ON 25 TO 60% SLOPES AND IS CONSIDERED HIGHLY ERODIBLE. THE SOIL CONSISTS OF VERY DEEP, EXCESSIVELY DRAINED SOILS ON TERRACES ALONG ALLUVIAL STREAMS VALLEYS. THEY WERE FORMED IN SANDY GLACIOFLUVIAL DEPOSITS.

TYPICAL K-VALUE FOR THIS CLASSIFICATION: 0.32

SENSITIVE RESOURCE AREAS:

THERE ARE NO SENSITIVE RESOURCE AREAS IDENTIFIED WITHIN THE PROJECT AREA.

PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES:

THE BLACK RIVER IS WITHIN THE VICINITY OF THE PROJECT AREA BUT WILL NOT BE DIRECTLY AFFECTED BY CONSTRUCTION.

TEMPORARY EROSION PREVENTION & SEDIMENT CONTROL

TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL MEASURES TO BE UTILIZED INCLUDE:

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

TRACKING OF ALL SLOPES, COMBINED WITH TEMPORARY MULCHING, WILL ALSO BE UTILIZED ON A REGULAR BASIS. ANY SLOPES TO BE EXPOSED FOR SEVERAL DAYS PRIOR TO FINAL GRADING SHALL BE TRACKED AND MULCHED.

SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF FORECASTED RAIN.

SEEDING MULCHING AND BIODEGRADABLE EROSION CONTROL MATTING, OR AN EQUIVALENT, SHALL BE USED TO STABILIZE ALL SLOPES GREATER THAN 1:3. THESE SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE OR DURING INTERMITTENT PHASES OF CONSTRUCTION.

SILT FENCE WILL BE INSTALLED ALONG SLOPES SO AS TO PREVENT SEDIMENT TRANSPORT TO DOWN GRADIENT AREAS. EACH LINE OF SILT FENCE WILL BE PLACED ALONG THE CONTOUR WITH THE LOWER EDGE BURIED 6 IN. TO PREVENT UNDERFLOW AND ENDS TURNED SLIGHTLY UP GRADE TO CREATE A PONDING EFFECT SHOULD WATER TRY TO RUN ALONG THE FENCING AND AROUND THE ENDS. SILT FENCE SHALL BE PLACED PRIOR TO ANY UPSLOPE EARTHWORK.

SAND BAGS FILLED WITH CLEAN, SMALL DIAMETER STONE, OR AN EQUIVALENT BARRIER WILL BE UTILIZED AROUND THE DROP INLET TO CREATE A TEMPORARY PONDING AREA FOR PARTICLES TO SETTLE OUT AS WATER DRAINS THROUGH BARRIER. INLET PROTECTION SHALL BE INSTALLED AS SOON AS THERE IS THE POSSIBILITY OF WATER FLOWING TO THE STRUCTURE. THE HEIGHT OF THE BARRIER SHALL BE LIMITED SUCH THAT THE PONDING AREA DOES NOT PRESENT A HAZARD TO THE TRAVELING PUBLIC. ALTERNATIVE INLET CONTROL MEASURES SHALL BE APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION.

TO MINIMIZE SEDIMENT TRANSFER TO THE BLACK RIVER, THE INSTALLATION OF DRAINAGE STRUCTURES SHOULD PROCEED FROM ITS FINAL OUTLET AT MAINLINE STA.17+60 RT. TO THE INLET AT NORTH MAIN ST. STA.23+49 RT. ADDITIONAL SUMP DEPTH HAS BEEN ADDED TO EACH DROP INLET AND CATCH BASIN TO HELP COLLECT ANY SEDIMENT THAT ESCAPES SURFACE CONTROLS. THE SEQUENCE OF THE DRAINAGE INSTALLATION AND FREQUENCY OF CLEANING OF THE SUMPS SHALL BE INCORPORATED INTO THE CONTRACTOR'S EROSION PREVENTION AND SEDIMENT CONTROL PLAN.

STABILIZED CONSTRUCTION ENTRANCES TO THE PROJECT SITE, STAGING AREAS, AS WELL AS TO WASTE AND BORROW AREAS SHALL BE ESTABLISHED. THE MINIMUM SIZE OF A STABILIZED CONSTRUCTION ENTRANCE IS 12' X 50'. ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARDS A CONSTRUCTION ENTRANCE SHALL BE PIPED UNDER THE STONE. PIPES SHALL BE APPROPRIATELY SIZED FOR THE CONTRIBUTING AREA, HOWEVER, NO PIPES SMALLER THAN 6 IN. DIAMETER SHALL BE USED. SEE TYPICAL DETAIL ON 'EROSION & SEDIMENT CONTROL PLAN' SHEET FOR MATERIALS AND CONSTRUCTION METHOD TO BE UTILIZED WHEN CONSTRUCTING A STABILIZED ENTRANCE.

PERMANENT EROSION CONTROL MEASURES

PERMANENT EROSION CONTROL MEASURES TO BE UTILIZED:

STONE LINING OF DITCHES WITH CLEAN, ANGULAR, STONE FILL, TYPE II WILL BE USED TO PREVENT EROSION DURING STORM EVENTS. STONE LINED DITCHES WILL BE CONSTRUCTED IMMEDIATELY FOLLOWING REMOVAL OF THE EXISTING WALL AND PRIOR TO ANY OTHER EXCAVATION OR CONSTRUCTION. SEE 'EROSION CONTROL DETAILS' SHEET FOR TYPICAL DITCH SECTION.

STONE FILL, TYPE I WILL BE UTILIZED AT THE EXISTING HEADWALL TO REDUCE FLOW VELOCITIES THEREFORE REDUCING EROSION POTENTIAL.

ALL DISTURBED AREAS WILL BE SEEDED AND MULCHED. SLOPES GREATER THAN 1:3 WILL UTILIZE EROSION CONTROL MATTING TO ALLOW VEGETATION TO BE ESTABLISHED.

GENERAL EROSION & SEDIMENT CONTROL GUIDELINES

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 TO CONTROL EROSION AND MINIMIZE THE SEDIMENTATION OF RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION CONTROLS.

COORDINATE THE INSTALLATION, USE, AND REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES WITH CONSTRUCTION ACTIVITIES TO ENSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS EROSION AND SEDIMENT CONTROL. EMPLOY TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES AS CONSTRUCTION PROCEEDS. THE CONTRACTOR WILL USE ADDITIONAL EROSION CONTROL MEASURES AS NECESSITATED BY THE SEQUENCE OF CONSTRUCTION AND AS DIRECTED BY THE ENGINEER. SEE SECTION 105.23 OF THE VERMONT AOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2001.

INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN IN THE EROSION CONTROL PLAN OR AS DIRECTED BY THE ENGINEER. DO NOT

MODIFY THE TYPE, SIZE OR LOCATION OF ANY CONTROL OR PRACTICE WITHOUT APPROVAL OF THE ENGINEER. ANY CHANGES SHALL BE NOTED ON THE PLANS, IN THE WEEKLY INSPECTION REPORT, AND REPORTED TO THE APPROPRIATE AUTHORITY IN A TIMELY MANNER. INSPECT ALL CONTROL MEASURES WEEKLY AND AFTER EACH RAINFALL EVENT. REPAIR MEASURES PROMPTLY ONCE DAMAGE IS DISCOVERED.

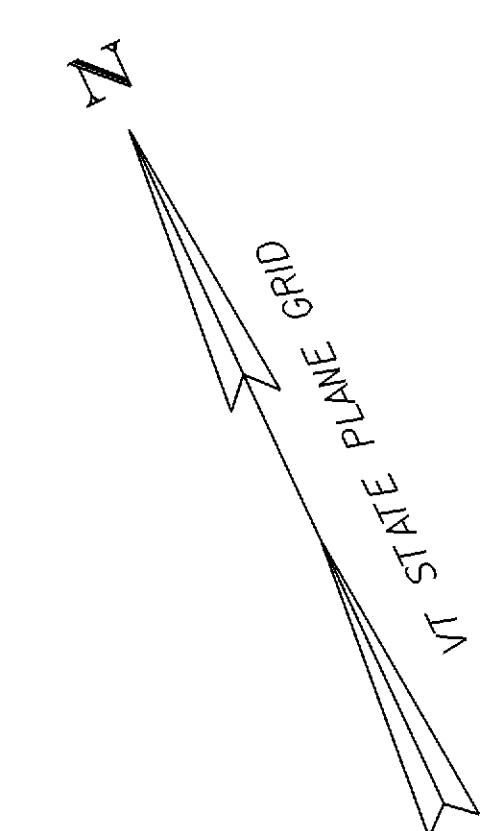
PREVENTING INITIAL SOIL EROSION IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. THEREFORE, STABILIZE ALL DISTURBED AREAS PROMPTLY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY VEGETATION SHALL BE ESTABLISHED IF THE AREA TO BE WITHOUT CONSTRUCTION ACTIVITY FOR A PERIOD OF 14 DAYS. PERIMETER CONTROL MEASURES SHALL BE INSTALLED FOLLOWING CLEARING, BUT PRIOR TO THE START OF ANY GRUBBING OR GRADING ACTIVITY. INSTALL OTHER TEMPORARY CONTROLS IN INCREMENTAL STAGES AS CONSTRUCTION PROCEEDS.

MAINTAINING VEGETATED BUFFERS ALONG THE STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE.

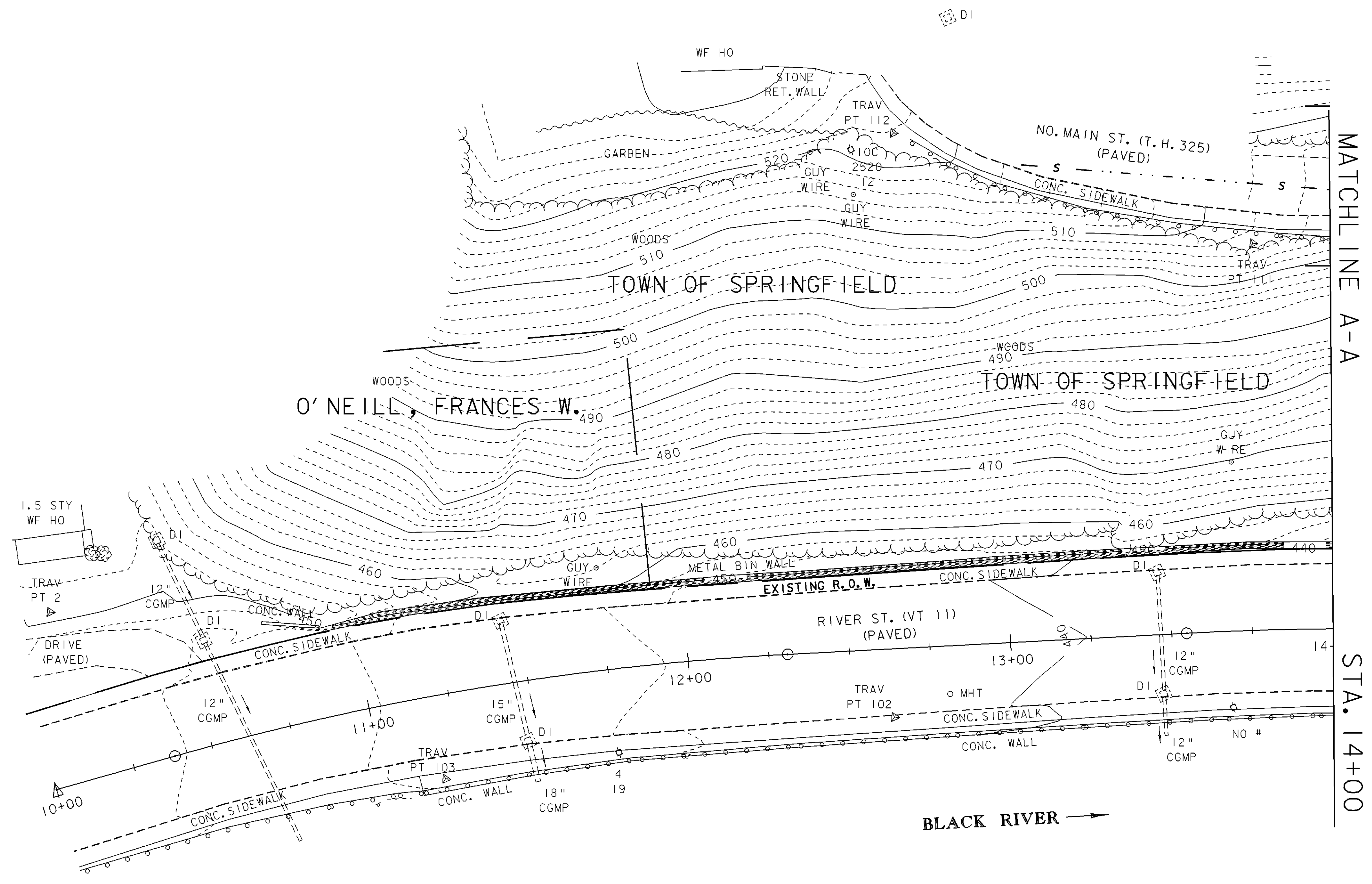
CONTROL ONLY SEDIMENT-LADEN RUNOFF GENERATED BY THE PROJECT SITE. COLLECT AND ROUTE CLEAN OFFSITE RUNOFF AROUND OR THROUGH THE PROJECT SITE USING DIVERSION BERMS, DIVERSION CHANNELS, CULVERTS AND/OR TEMPORARY PIPES.

DO NOT ALLOW CONSTRUCTION EQUIPMENT TO OPERATE ON THE DOWN SLOPE SIDE OF PERIMETER CONTROL MEASURES.

PROJECT NAME:	SPRINGFIELD
PROJECT NUMBER:	STP 016-2 (10)S
FILE NAME:	/00b124/Structures/sb124ecn.xls
PROJECT LEADER:	R.R. WHITCOMB
DESIGNED BY:	R.R. WHITCOMB
EROSION CONTROL NARRATIVE	
PLOT DATE:	07/28/2004
DRAWN BY:	J. PERRIGO
CHECKED BY:	G. ROY
SHEET	34 OF 72



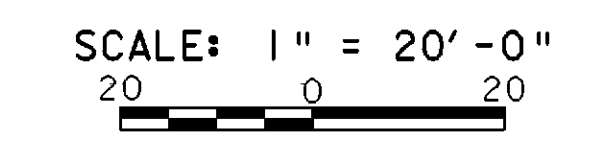
O' NEILL, FRANCES W.



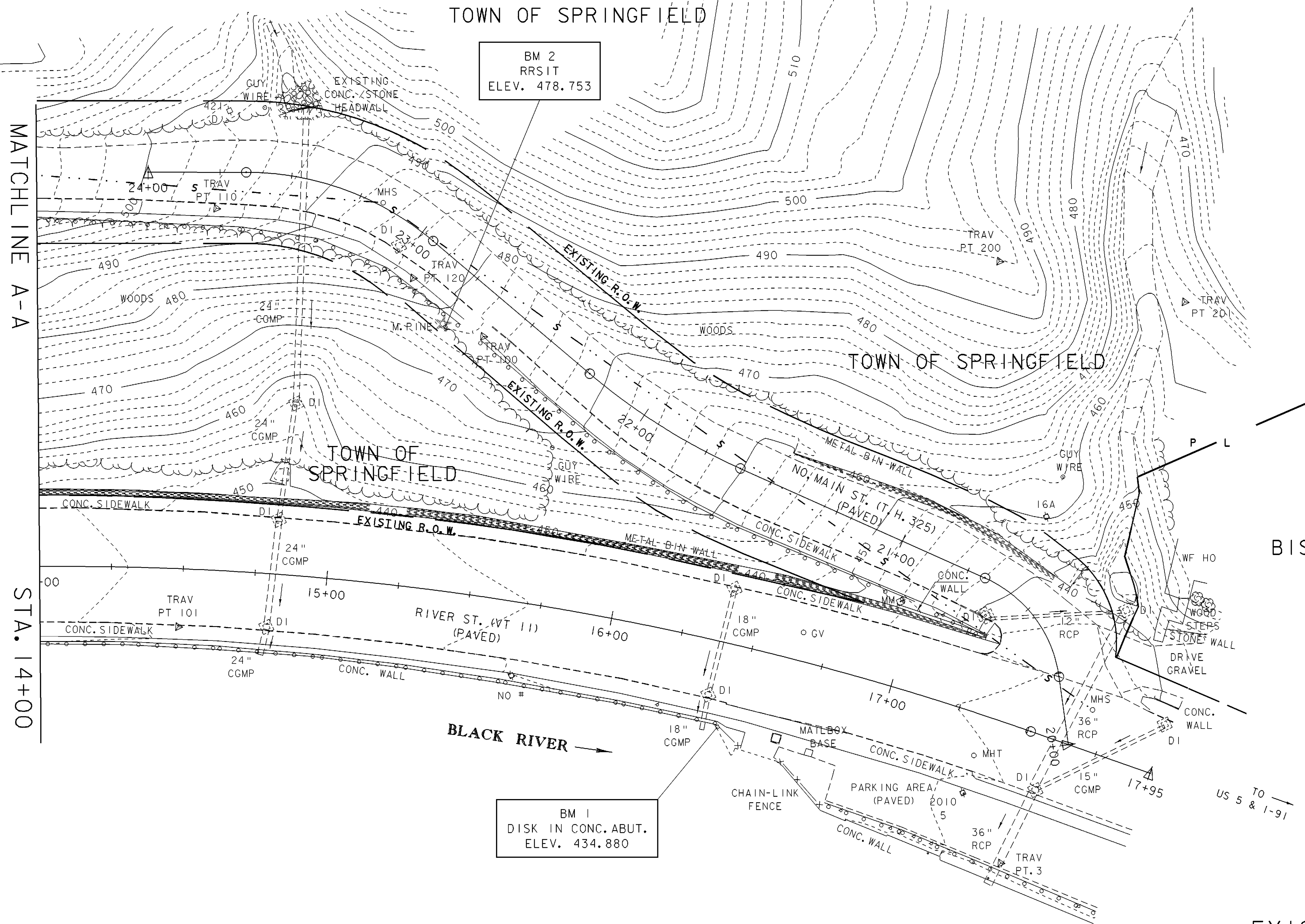
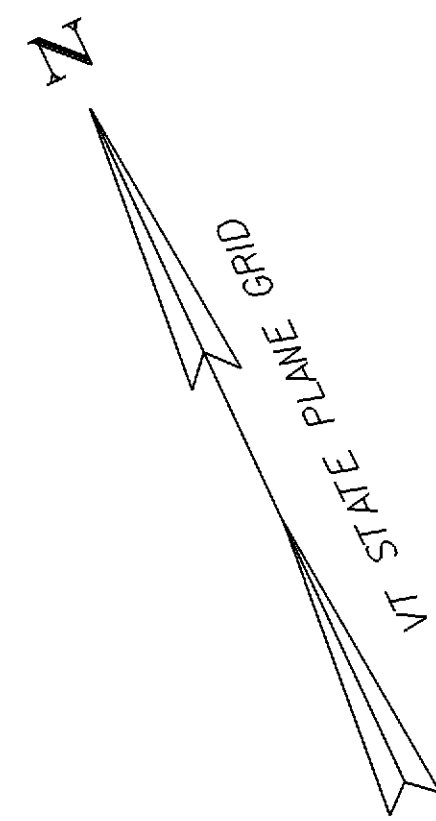
MATCHLINE A-A

STA. 14+00

EXISTING CONDITIONS
SITE PLAN (1)



PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124\Structures\sbl24ec1.i	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	35 OF 72



TOWN OF SPRINGFIELD

BM 2
RRSIT
ELEV. 478.753

TOWN OF SPRINGFIELD

TOWN OF SPRINGFIELD

BISHOP, THOMAS S.
& MABEL E.

BM 1
DISK IN CONC. ABUT.
ELEV. 434.880

MATCHLINE A-A

STA. 14+00

EXISTING CONDITIONS
SITE PLAN (2)

SCALE: 1" = 20'-0"
20 0 20

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124\Structures\sbl24ec2.i	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB	SHEET	36 OF 72

**SEEDING FORMULA
URBAN AREAS**

% WT.	LBS./A.	NAME	PUR %	GERM %
42.5	34.0	CREeping RED FESCUE	98	85
10.0	8.0	PERENNIAL RYE GRASS	95	90
42.5	34.0	KENTUCKY BLUE GRASS	85	85
5.0	4.0	ANNUAL RYE GRASS	95	85
100.00	80.0			

GENERAL NOTES

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

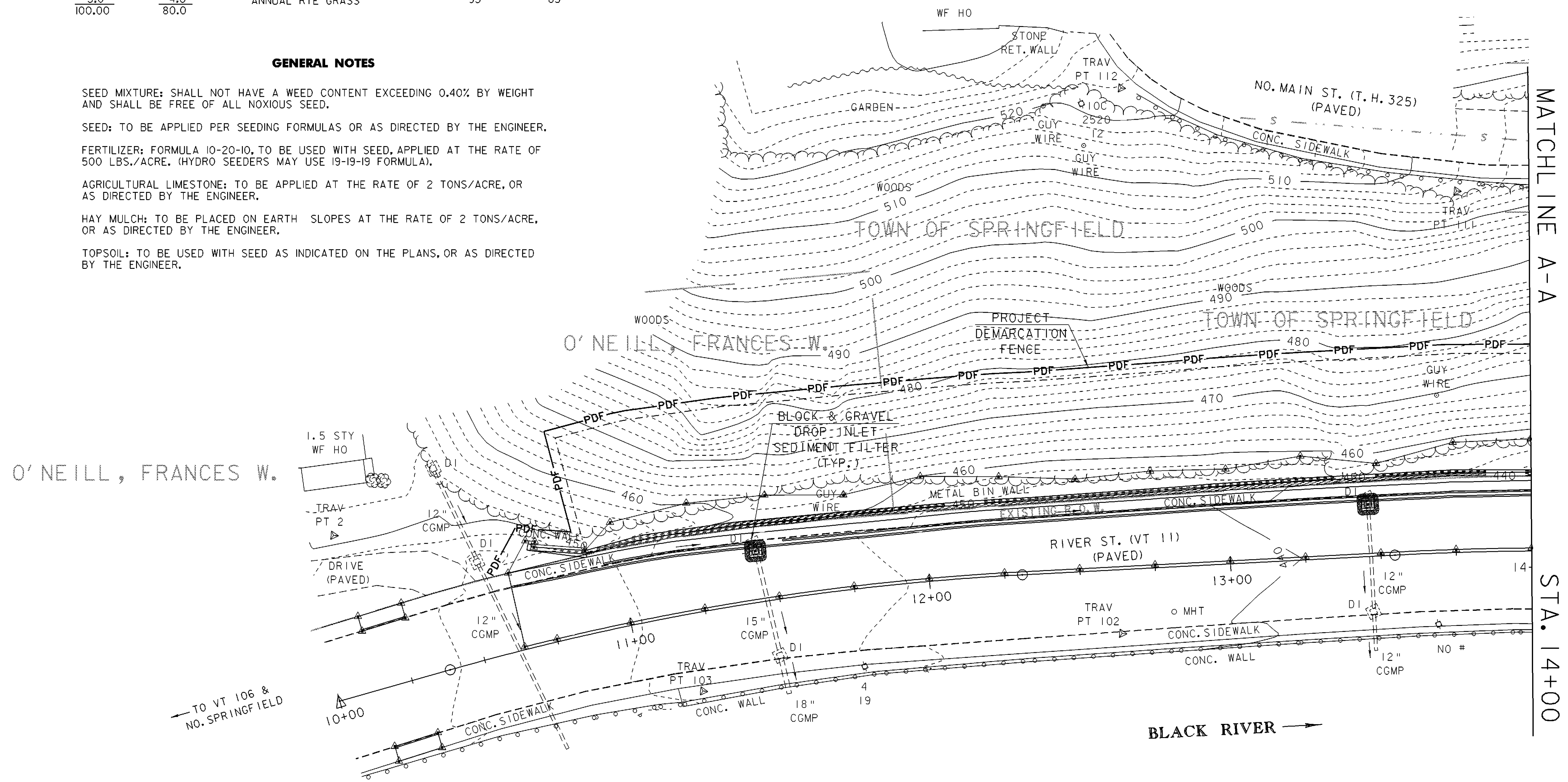
SEED: TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.

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.

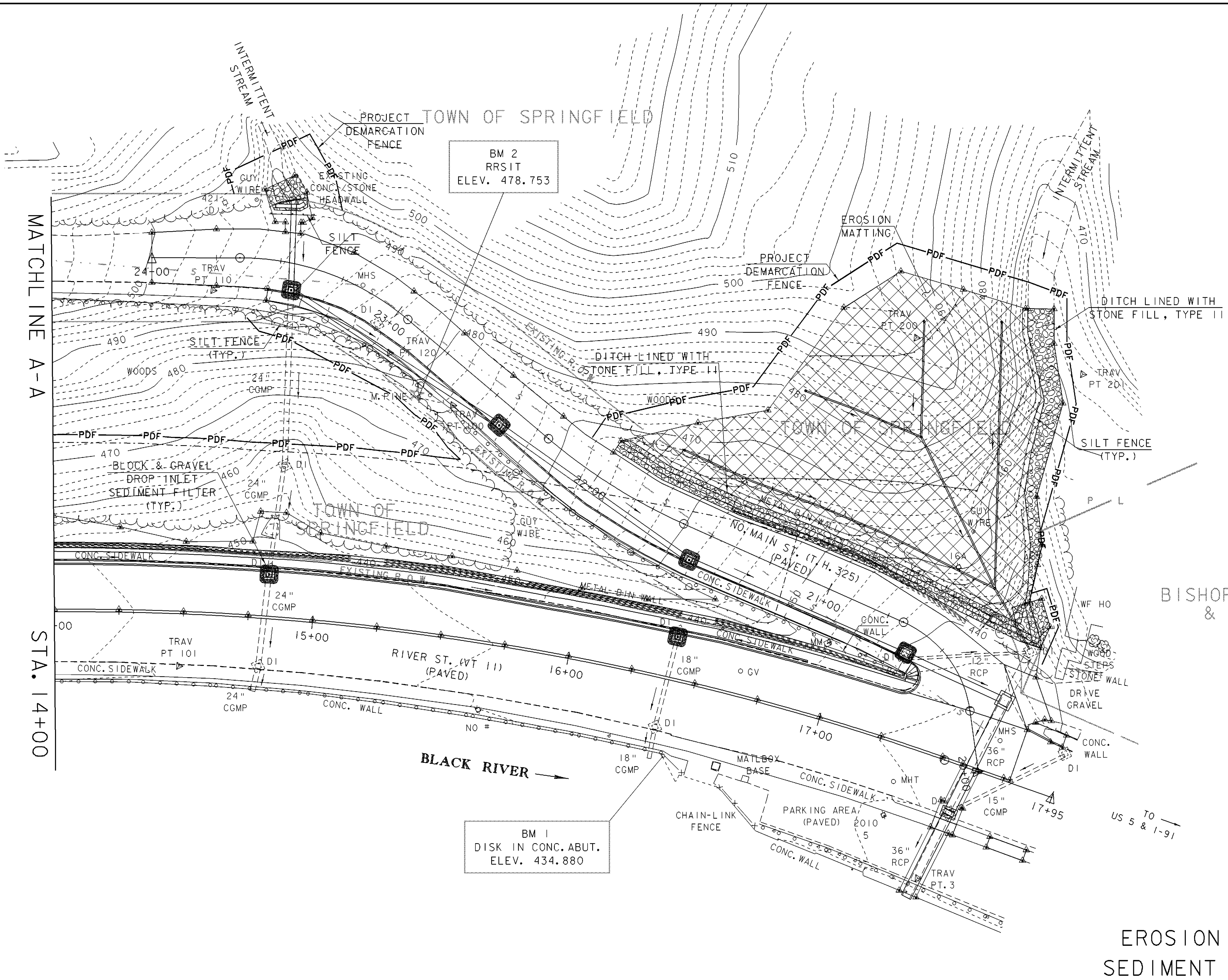
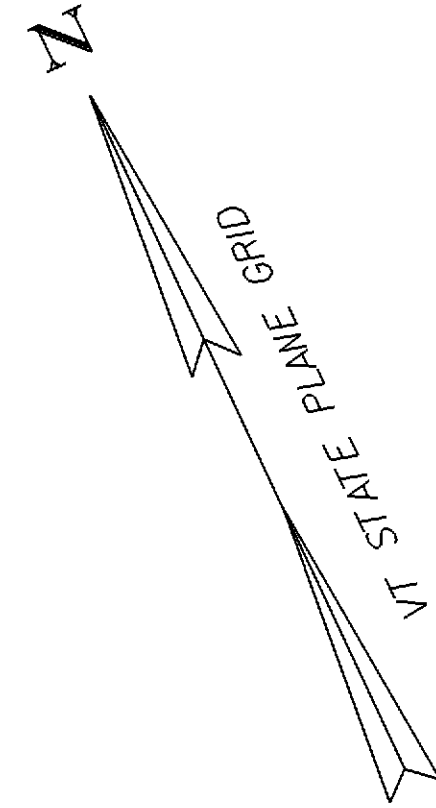
TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.



**EROSION PREVENTION AND
SEDIMENT CONTROL PLAN (1)**

SCALE: 1" = 20'-0"
20 0 20

PROJECT NAME: SPRINGFIELD	PLOT DATE: 17-AUG-2004
PROJECT NUMBER: STP 016-2 (10)S	DRAWN BY: G. ROY
FILE NAME: 00b124\Structures\sbl24e01.i	CHECKED BY: R. WHITCOMB
DESIGNED BY: G. ROY	SHEET 37 OF 72



MATCHLINE A-A

STA. 14+00

BM 2
RRSIT
ELEV. 478.753

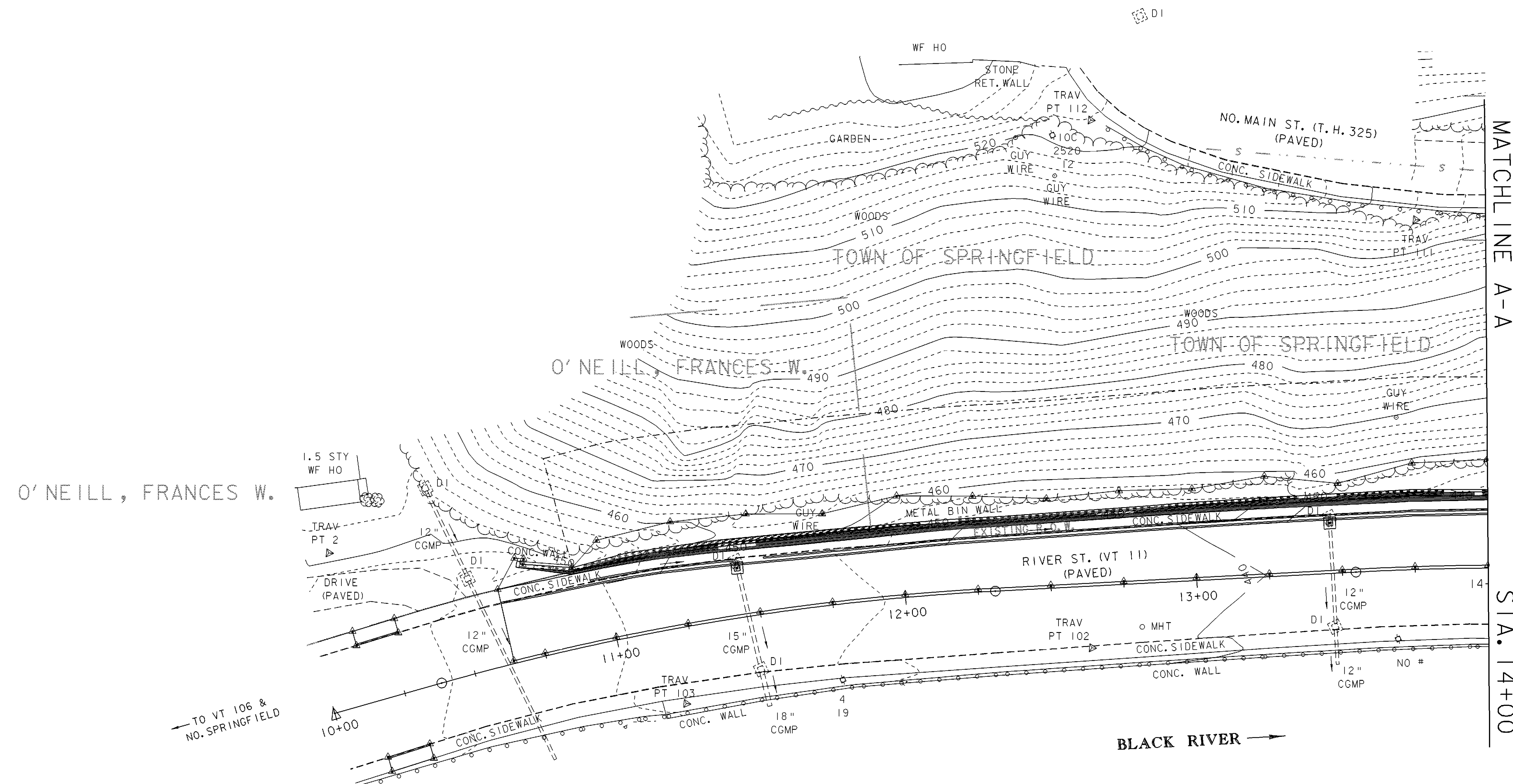
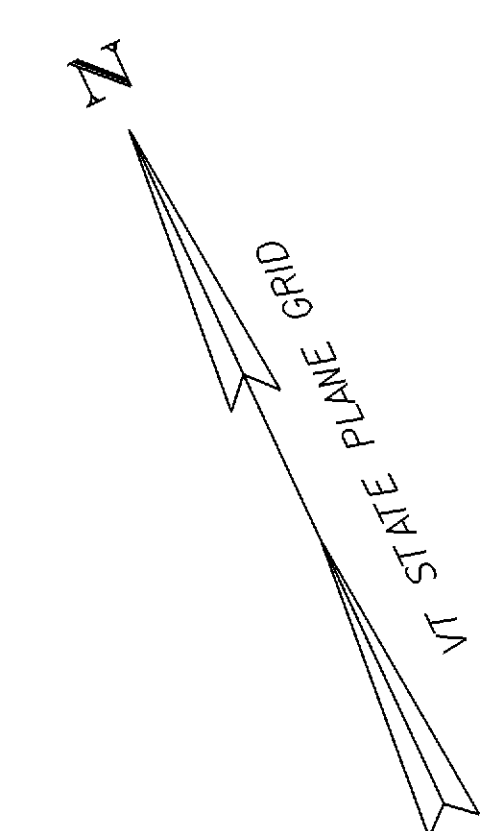
BM 1
DISK IN CONC. ABUT.
ELEV. 434.880

BISHOP, THOMAS S.
& MABEL E.

EROSION PREVENTION AND
SEDIMENT CONTROL PLAN (2)

SCALE: 1" = 20'-0"
20 0 20

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b24\Structures\sbl24e02.1	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	38 OF 72



O'NEILL, FRANCES W.

TO VT 106 & NO. SPRINGFIELD

MATCHLINE A-A

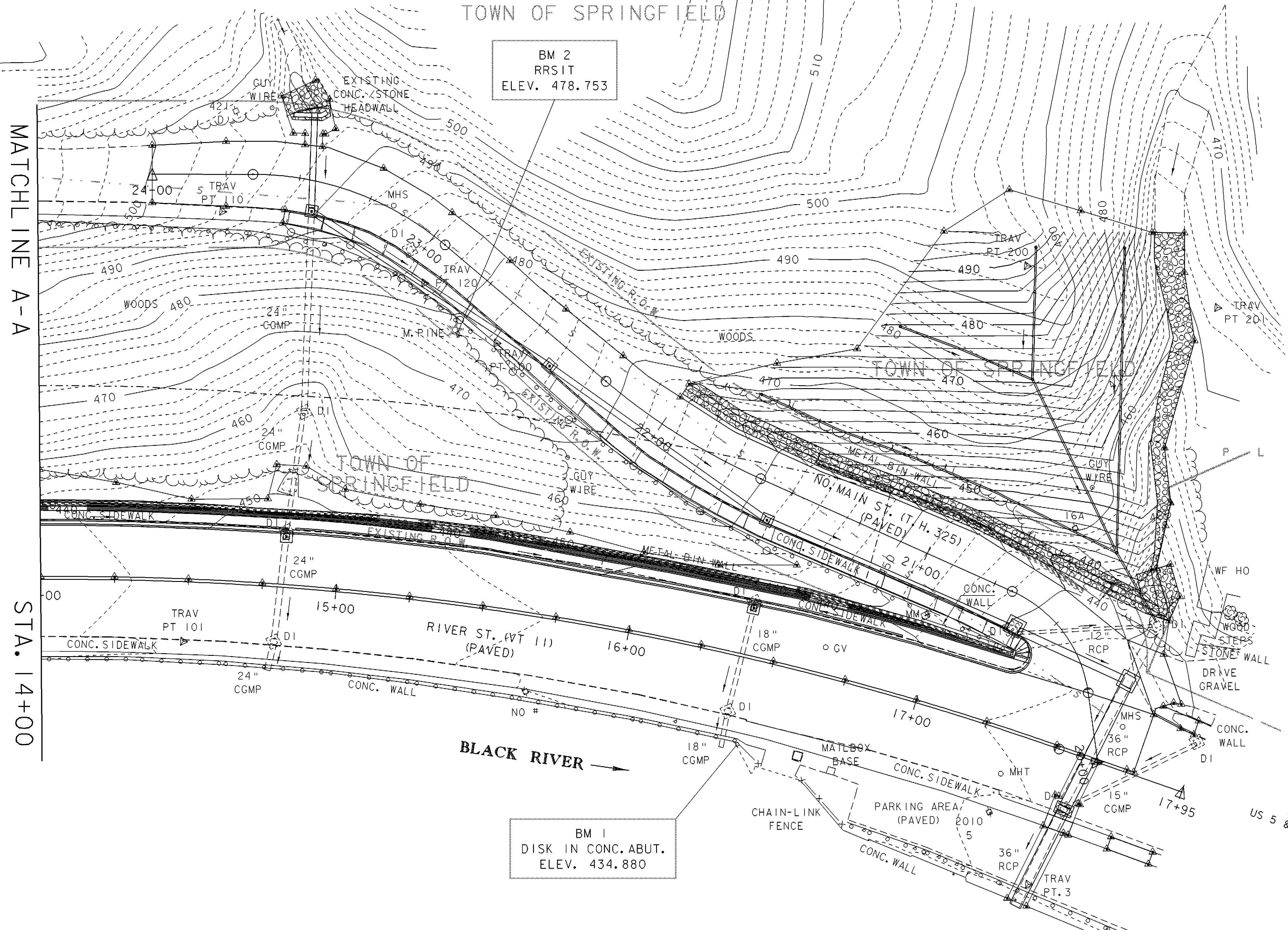
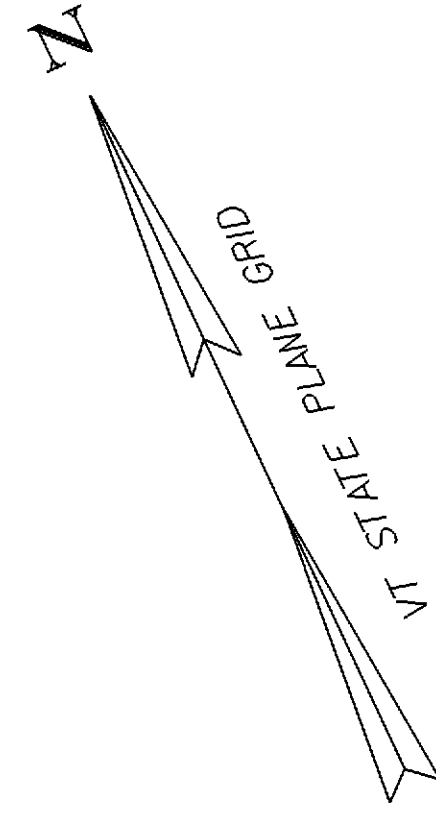
STA. 14+00

BLACK RIVER →

FINAL CONDITIONS
SITE PLAN (1)

SCALE: 1" = 20'-0"
20 0 20

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124\Structures\sbl24fcl	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB	SHEET	39 OF 72



MATCHLINE A-A

STA. 14+00

BM 2
RRSIT
ELEV. 478.753

BM 1
DISK IN CONC. ABUT.
ELEV. 434.880

BISHOP, THOMAS S.
& MABEL E.

FINAL CONDITIONS
SITE PLAN (2)

SCALE: 1" = 20'-0"
20 0 20

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124\Structures\sbl24fc2.i	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	40 OF 72

SILT FENCE

APPLICATION NOTES:

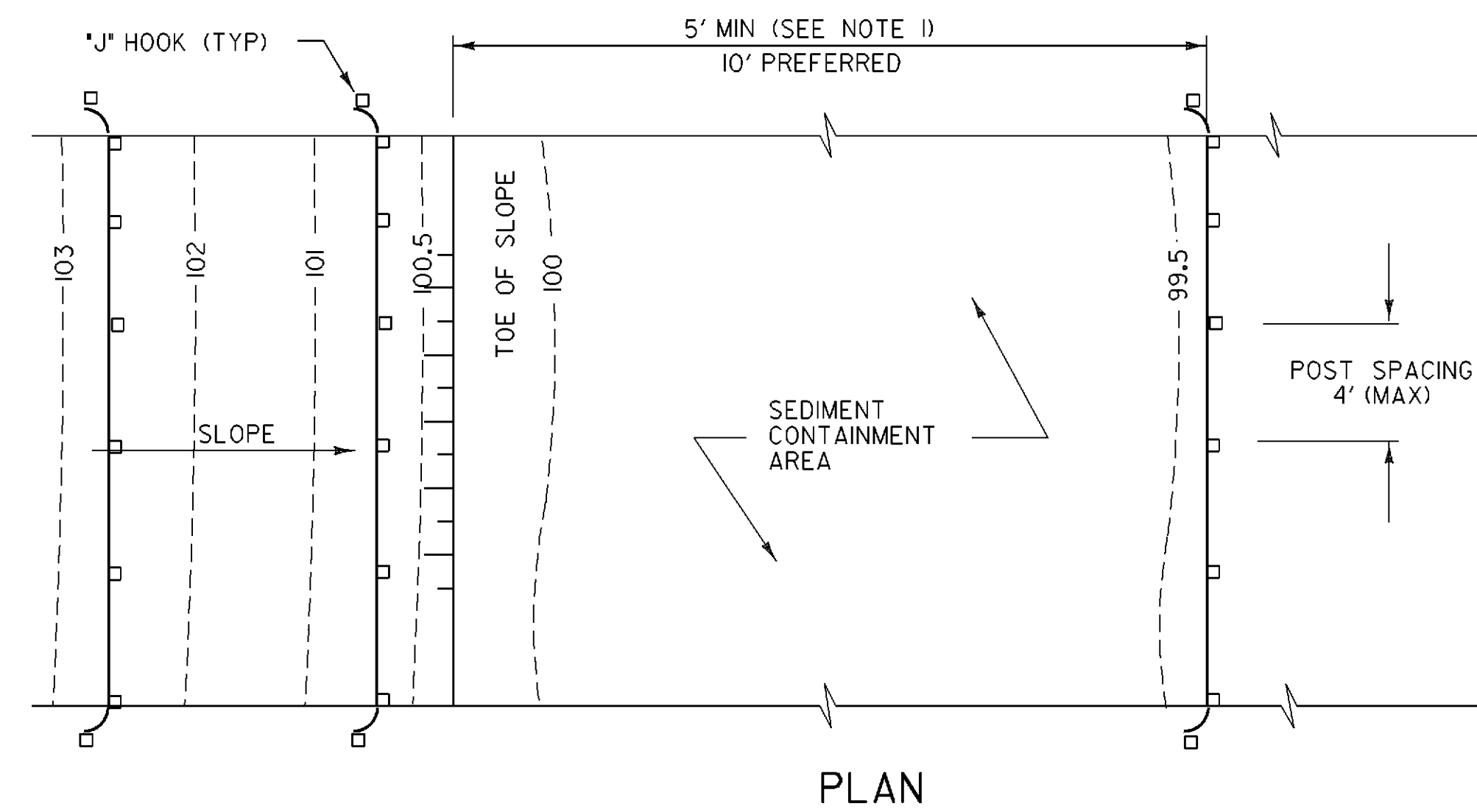
- THE PRIMARY PURPOSE OF SILT FENCE IS TO REDUCE RUNOFF VELOCITY AND TRAP SEDIMENT. VELOCITY IS REDUCED, WATER IS IMPOUNDED BEHIND THE MEASURE, AND SEDIMENT FALLS OUT OF SUSPENSION.
- SILT FENCE SHALL BE INSTALLED ON A LINE OF EQUAL ELEVATION (CONTOUR). IT MAY BE INSTALLED AT INTERMEDIATE POINTS UP SLOPES AS WELL AS AT THE BOTTOM, AS SHOWN IN THE DETAIL.
- SILT FENCE SHALL NOT BE USED ACROSS CONCENTRATED FLOW.

GENERAL NOTES:

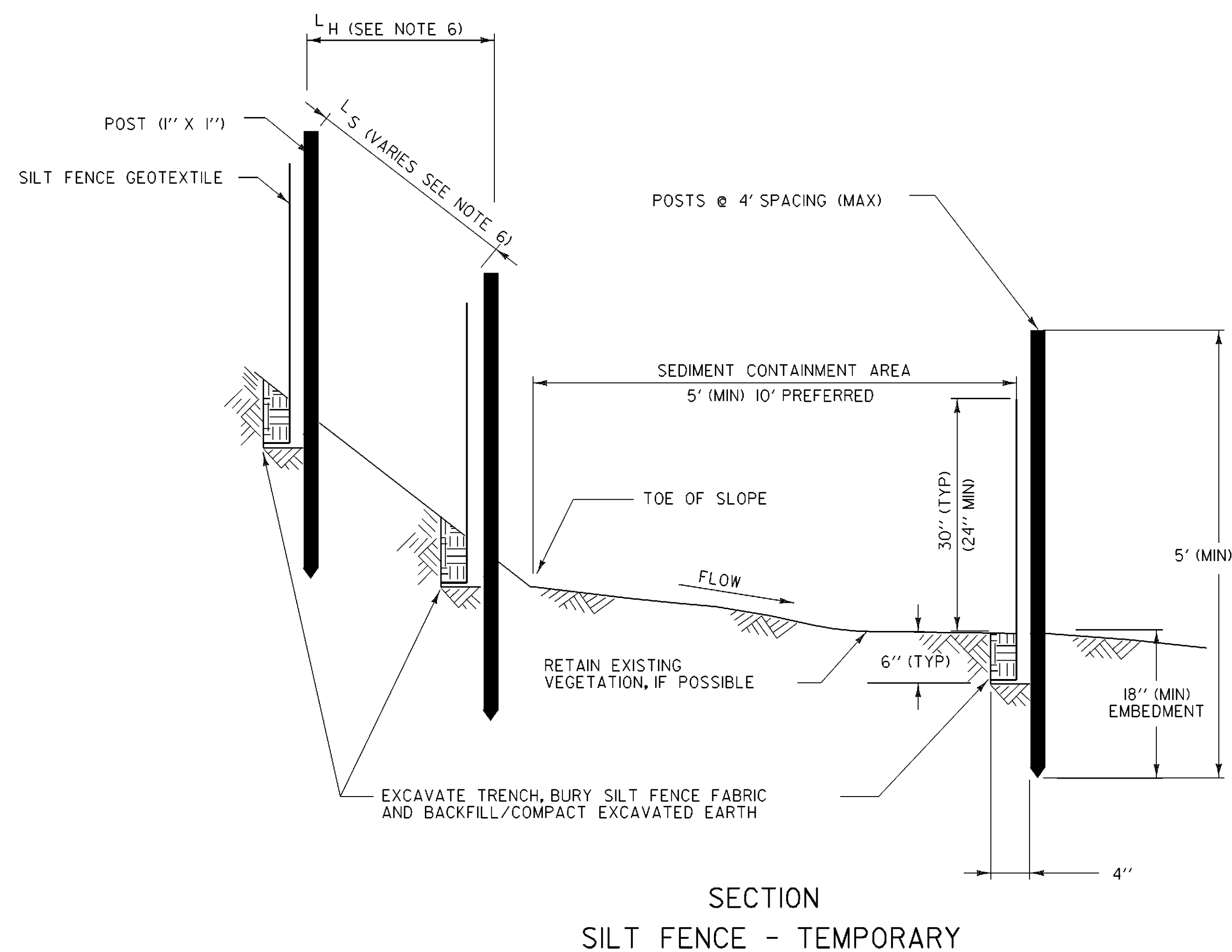
- SILT FENCE SHALL GENERALLY BE PLACED A MINIMUM OF 5 FEET BEYOND TOE OF SLOPE, 10 FEET PREFERRED, TO PROVIDE ADEQUATE AREA FOR SEDIMENT STORAGE AND FACILITATE MAINTENANCE OF SEDIMENT CONTAINMENT AREA.
- ALL ENDS SHALL BE "J" HOOKED TO TRAP SEDIMENT.
- IN AREAS WITH TWO SLOPES, SILT FENCE SHALL BE USED TO ERECT A DAM AND TRAP SEDIMENT AT THE BASE OF THE STEEPER SLOPE.
- THE BOTTOM EDGE OF SILT FENCE SHALL BE BURIED A MINIMUM OF 6 INCHES BELOW GROUND, AND KEYS IN 4 INCHES. THE FENCE SHALL BE INSTALLED WITH THE POSTS ON THE DOWNSTREAM SIDE OF THE FABRIC.
- MAXIMUM DRAINAGE AREA TRIBUTARY TO 100 FEET OF SILT FENCE SHALL BE 0.25 ACRES.
- THE FOLLOWING ARE MAXIMUM SLOPE LENGTHS FOR THESE MEASURES:

CONSTRUCTED SLOPE	SLOPE LENGTH (LS) FT	HORIZONTAL LENGTH (LH) FT
3 : 1	80	75
4 : 1	130	125
5 : 1	200	200
> 5 : 1	250	250

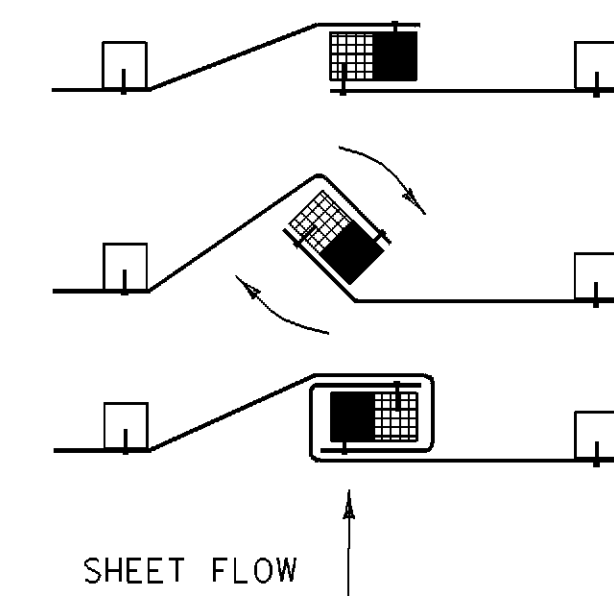
- MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
- MEASURES SHALL BE CLEANED AND REPAIRED AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.
- SILT FENCE SHALL BE REMOVED WHEN THE AREA HAS BEEN STABILIZED. AT TIME OF REMOVAL OF THE SILT FENCE, THE DISTURBED AREA SHALL BE REPAIRED AND STABILIZED.
- PAYMENT FOR INSTALLATION AND REMOVAL OF SILT FENCE SHALL BE MADE UNDER THE GEOTEXTILE FOR SILT FENCE ITEM.
- PAYMENT FOR MONITORING SILT FENCE SHALL BE MADE UNDER THE MONITORING EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM.
- PAYMENT FOR MAINTAINING SILT FENCE SHALL BE MADE UNDER THE MAINTENANCE OF EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.



PLAN



SECTION
SILT FENCE - TEMPORARY



SPlicing DETAIL

- PLACE THE END POST OF ONE FENCE INSIDE THE END POST OF THE OTHER FENCE.
- ROTATE BOTH POSTS AT LEAST 180 DEGREES IN A CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL.
- DRIVE BOTH POSTS 18 INCHES INTO THE GROUND AND BURY THE FLAP IN THE TRENCH.

EROSION PREVENTION & SEDIMENT CONTROL DETAILS SILT FENCE

PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: STP 016-2 (10)S

FILE NAME: 00b124\Structures\sbl24ecd.l PLOT DATE: 17-AUG-2004
PROJECT MANAGER: R. WHITCOMB DRAWN BY: G. ROY
DESIGNED BY: G. ROY CHECKED BY: R. WHITCOMB
SHEET 41 OF 72

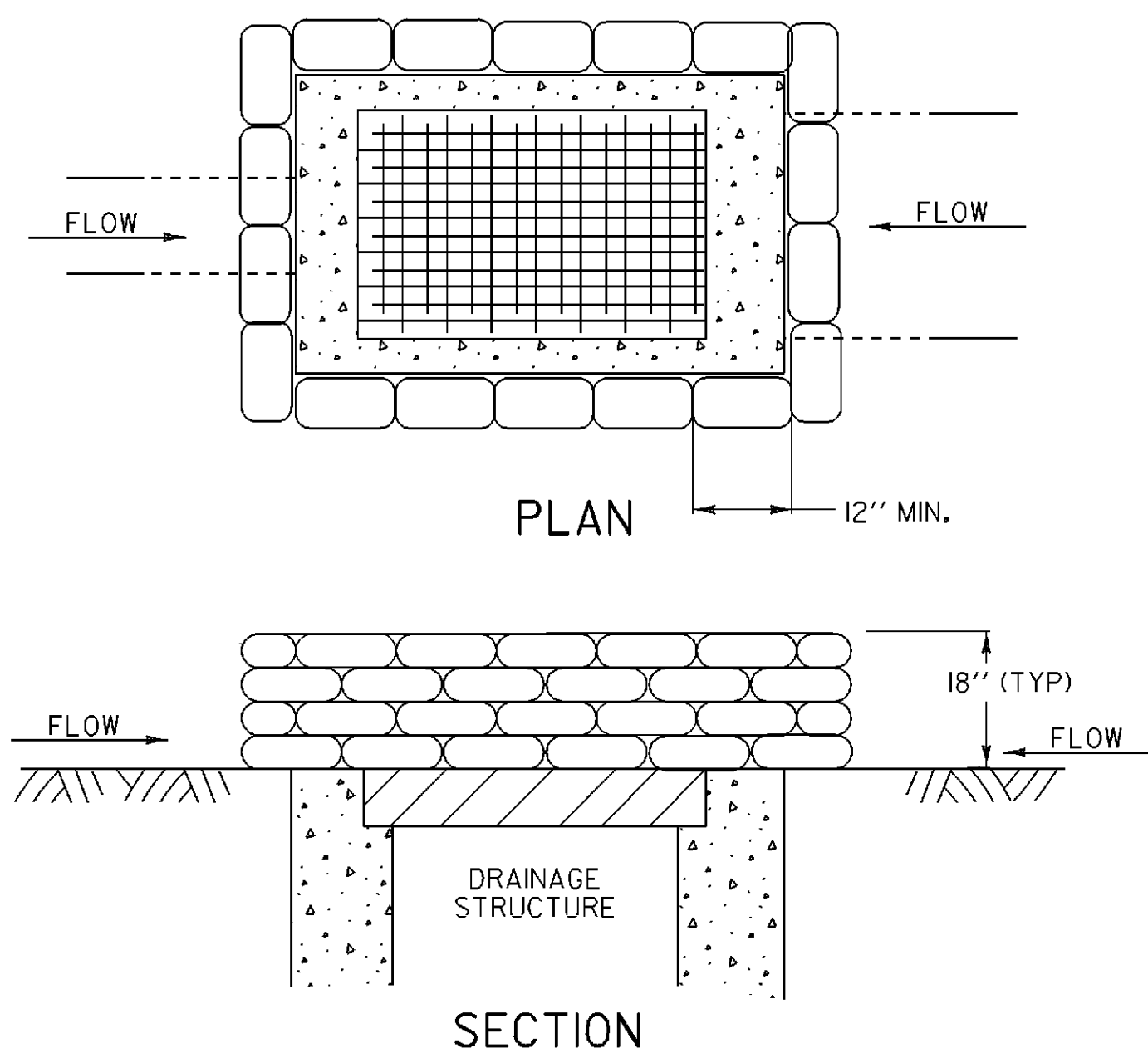
DROP INLET PROTECTION

APPLICATION NOTES:

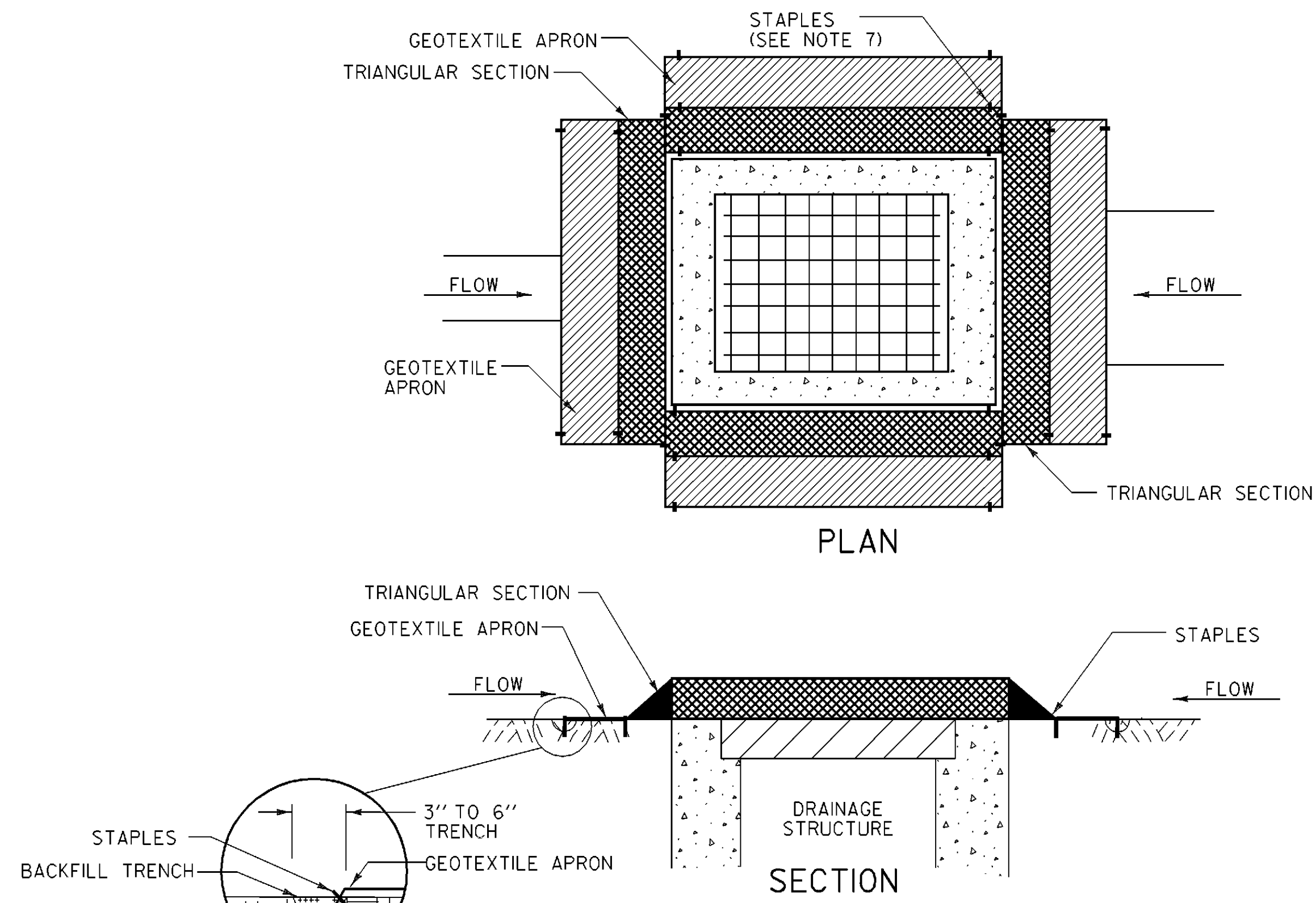
- THE PRIMARY PURPOSE OF DRAINAGE STRUCTURE INLET PROTECTION IS TO PREVENT SEDIMENT FROM ENTERING A DRAINAGE SYSTEM BY PONDING WATER WHICH ALLOWS SEDIMENT TO FALL OUT OF SUSPENSION.
- THESE EXAMPLES OF DROP INLET PROTECTION ARE NOT INTENDED FOR USE ON GRADES. ON GRADE THEY MAY CAUSE WATER TO BYPASS THE STRUCTURE, CREATING ADDITIONAL EROSION OR FLOODING.
- POSSIBLE MODIFICATIONS FOR USE ON GRADE INCLUDE ADDING A BERM DOWNSTREAM OF THE INLET TO CREATE PONDING. CHECK DAMS MAY ALSO BE USED UPSTREAM OF THE INLET TO SLOW VELOCITIES.
- PREFABRICATED DROP INLET PROTECTION SPECIFICATIONS SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL PRIOR TO USE.

GENERAL NOTES:

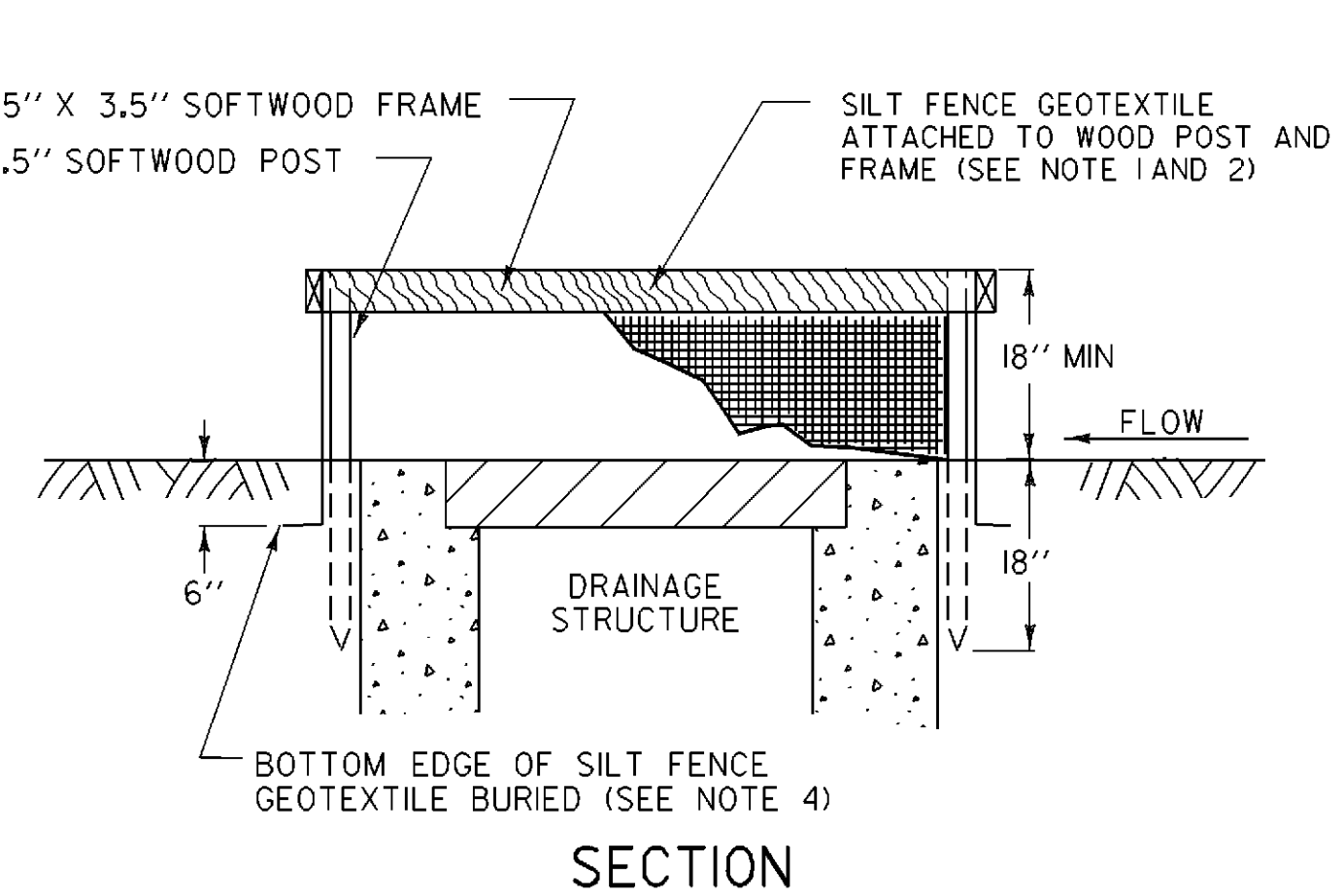
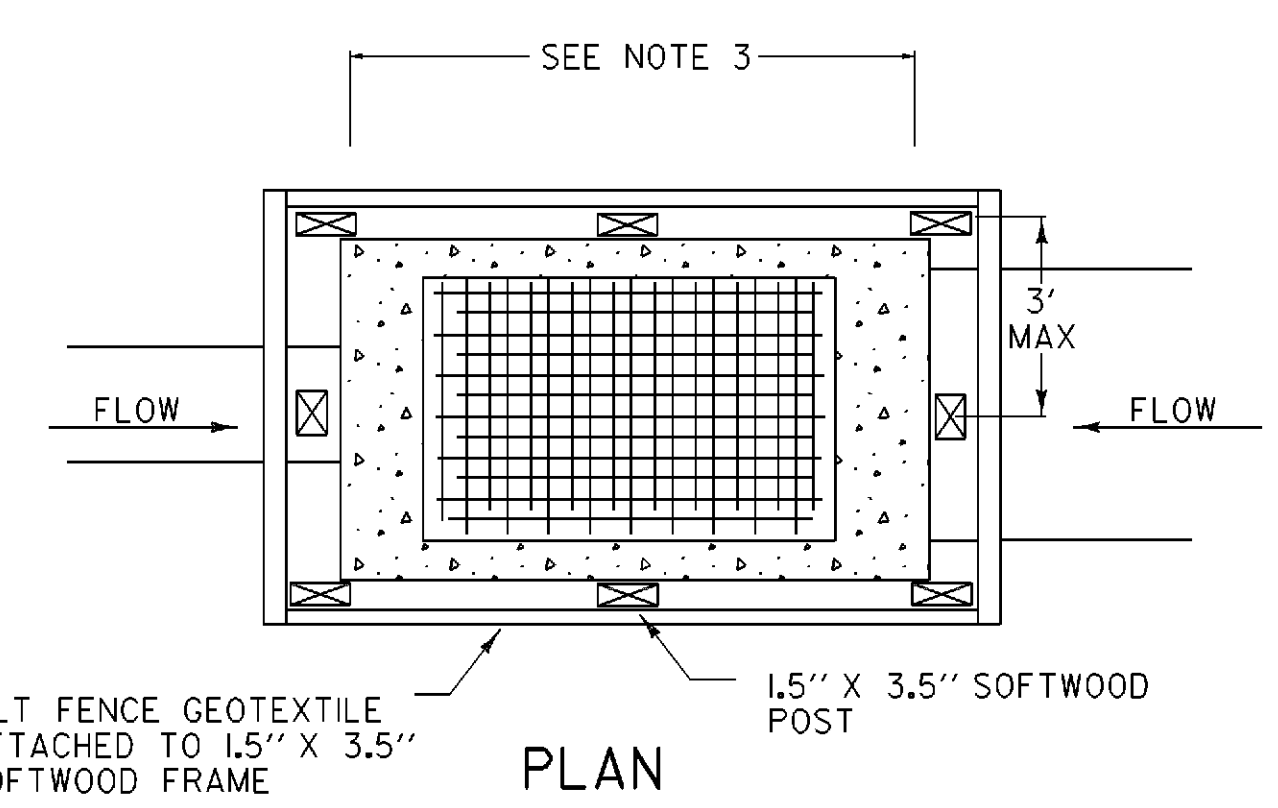
- THE TOP OF THE INLET PROTECTION SHALL BE SET AT THE MAXIMUM DESIRED WATER LEVEL, BASED ON FIELD LOCATION AND CONDITIONS.
- SILT FENCE GEOTEXTILE SHALL BE A SINGLE CONTINUOUS PIECE TO ELIMINATE JOINTS.
- SPACE SILT FENCE POSTS EVENLY AROUND INLET WITH A MAXIMUM SPACING OF 3 FEET. DRIVE POSTS A MINIMUM OF 18 INCHES INTO GROUND. WIRE MESH MAY BE REQUIRED BEHIND GEOTEXTILE TO PROVIDE SUPPORT.
- SILT FENCE GEOTEXTILE SHALL BE EMBEDDED A MINIMUM OF 6 INCHES AND BACKFILLED. GEOTEXTILE SHALL BE SECURELY FASTENED TO POSTS AND FRAME.
- GRAVEL BAGS SHALL BE FILLED WITH CLEAN STONE, RATHER THAN SAND, TO PREVENT SEDIMENT FROM ENTERING A DRAINAGE SYSTEM IF BAGS ARE DAMAGED DURING USE.
- GRAVEL BAGS SHALL BE INDIVIDUALLY TIED, DOUBLE BAGGED AND INVERSELY INSERTED. GRAVEL BAGS SHALL LAP THE JOINTS BETWEEN THE BAGS IN THE LAYER BELOW.
- SECURE THE ENDS OF THE APRON FOR THE PREFABRICATED DRAINAGE STRUCTURE INLET PROTECTION WITH STAPLES AS DETAILED IN THE PLAN VIEW OR AS RECOMMENDED BY THE MANUFACTURERS LITERATURE.
- MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
- MEASURES SHALL BE CLEANED AND REPAIRED AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.
- PAYMENT OF INLET PROTECTION SHALL BE MADE UNDER APPLICABLE ITEMS INCLUDED IN THE CONTRACT PLANS OR UNDER THE MAINTENANCE OF EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM.
- PAYMENT FOR MONITORING INLET PROTECTION SHALL BE MADE UNDER THE MONITORING EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM.
- PAYMENT FOR MAINTAINING INLET PROTECTION SHALL BE MADE UNDER THE MAINTENANCE OF EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.



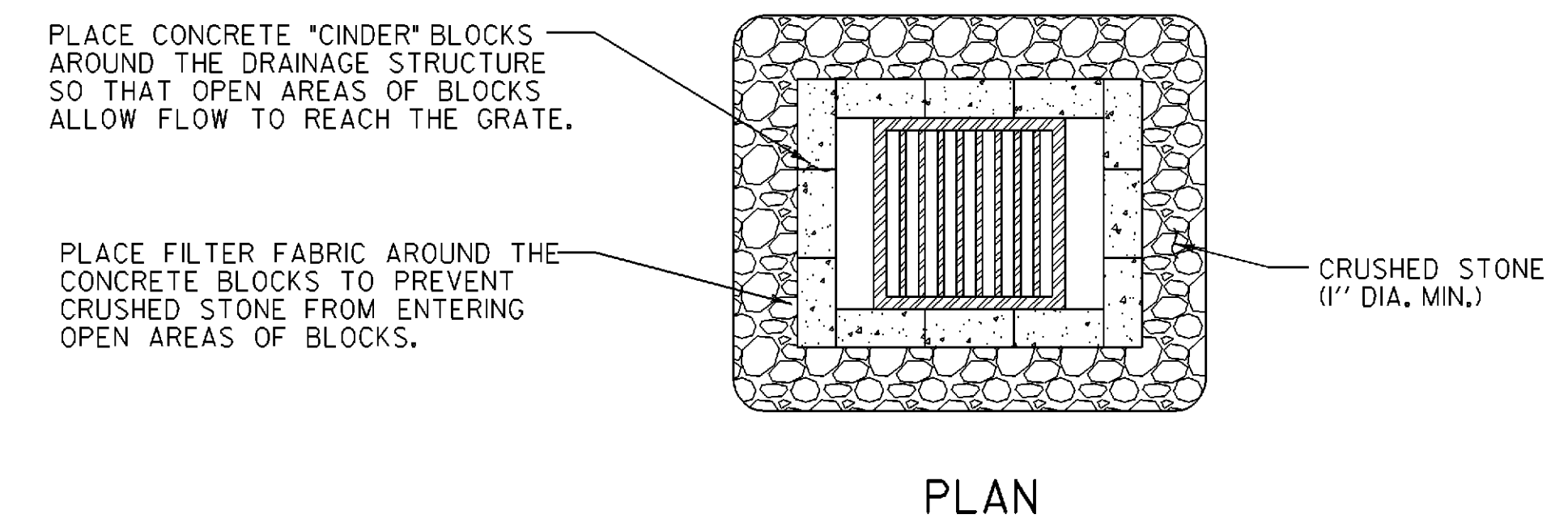
GRAVEL BAG DROP INLET PROTECTION



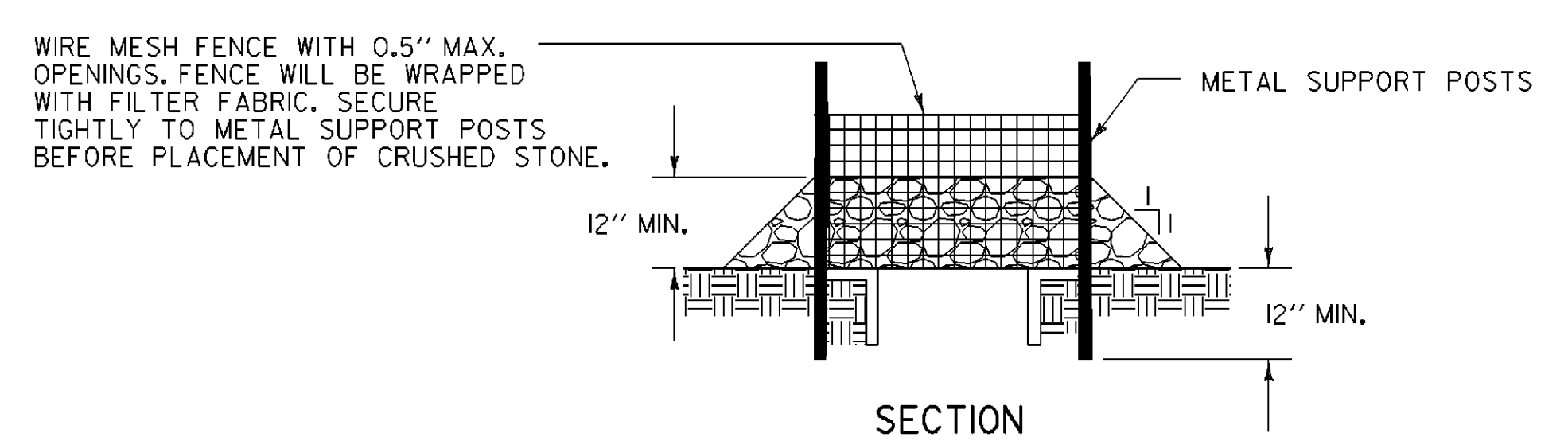
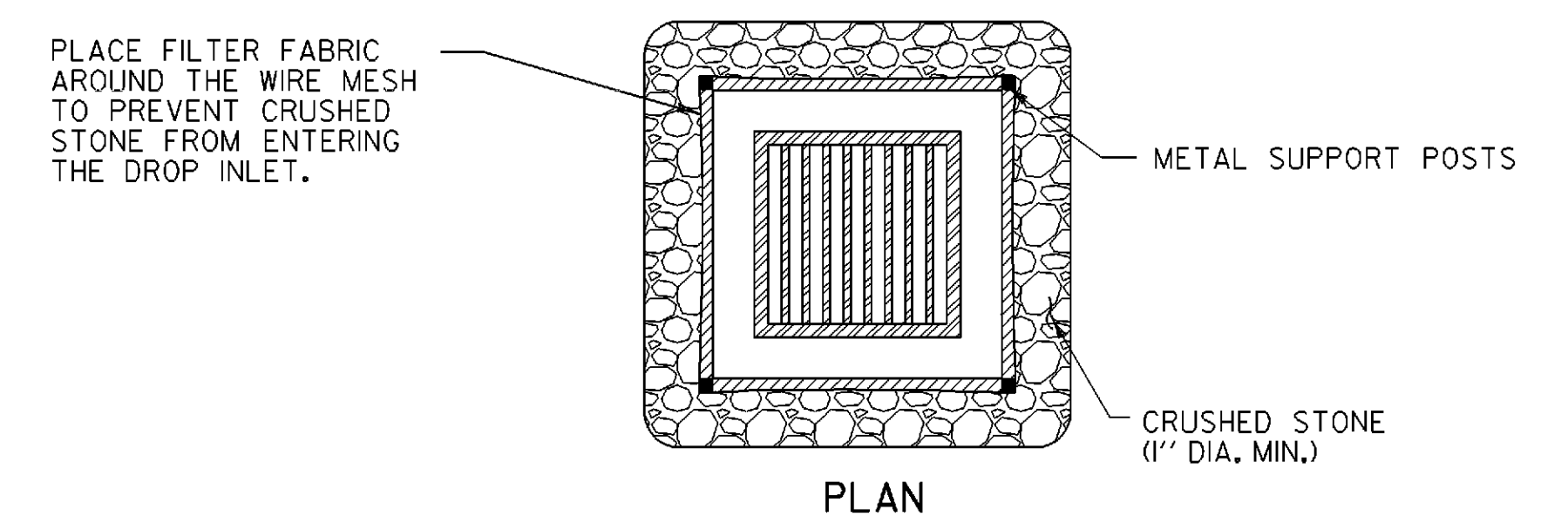
PREFABRICATED DROP INLET PROTECTION



SILT FENCE DROP INLET PROTECTION



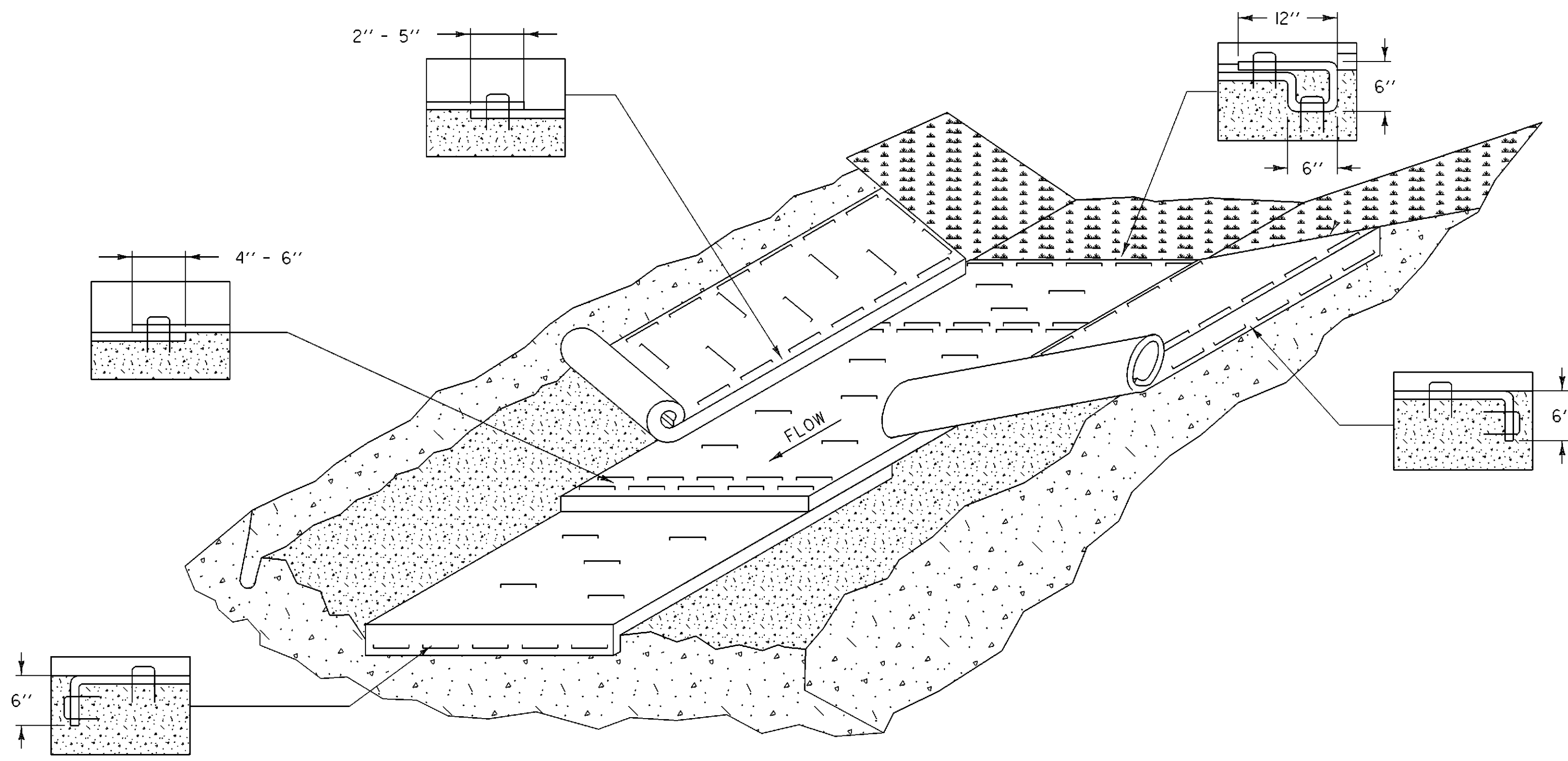
ROCK BARRIER DROP INLET PROTECTION
TEMPORARY PAVED AREAS



ROCK BARRIER INLET PROTECTION
TEMPORARY UNPAVED AREAS

EROSION PREVENTION & SEDIMENT CONTROL DETAILS DROP INLET PROTECTION

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124\Structures\sb124ecd2.1	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	42 OF 72



EROSION PROTECTION FOR DITCHES

APPLICATION NOTES:

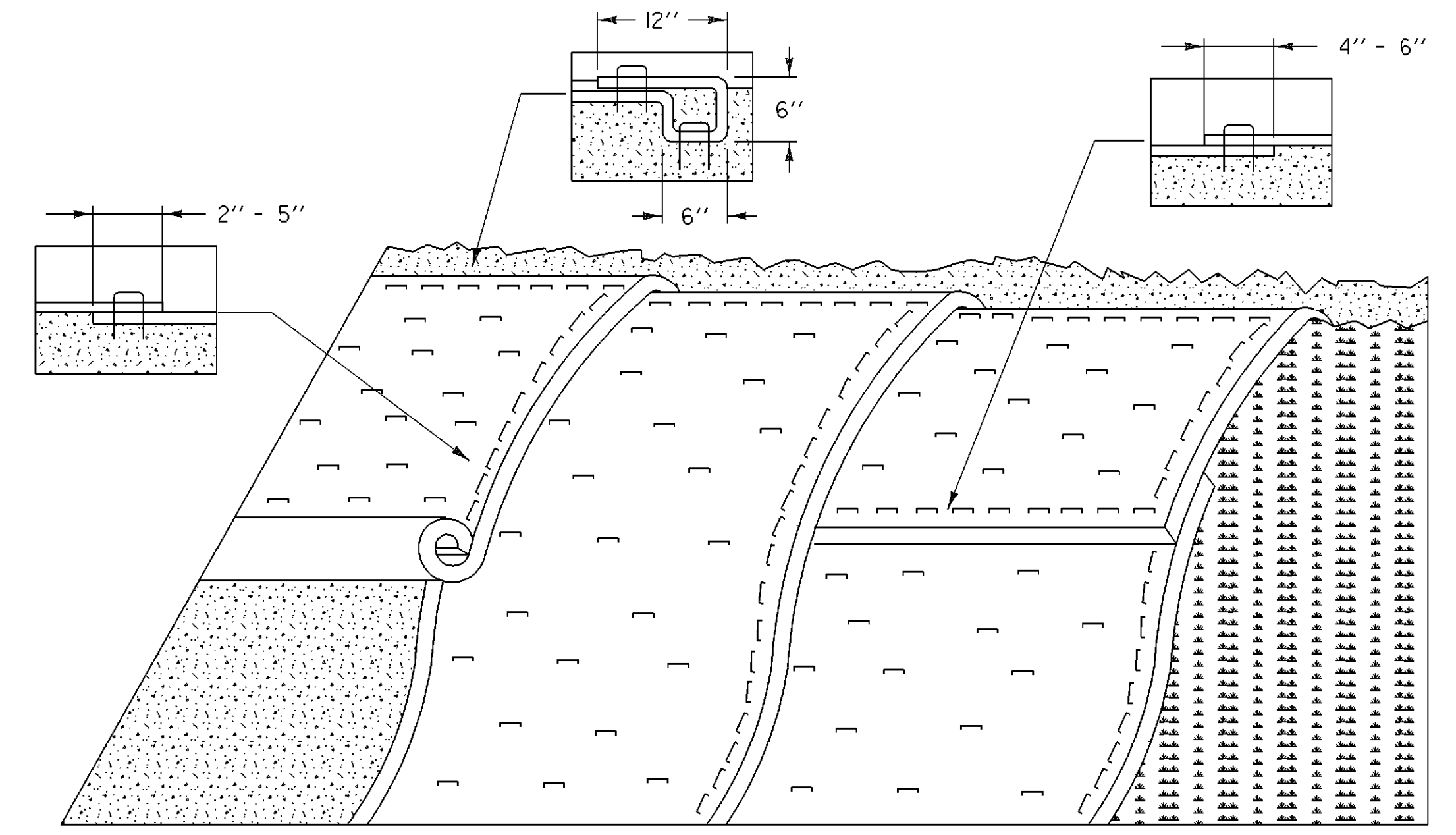
- A. THE PURPOSE OF LINING THE DITCH WITH EROSION MATTING IS TO REDUCE EROSION AND AID THE ESTABLISHMENT OF VEGETATION AT LOW VELOCITIES.
- B. THE FOLLOWING CHARTS SHALL BE USED TO DETERMINE THE APPROPRIATE EROSION CONTROL MEASURE:

DITCH AND CHANNEL PROTECTION	
SLOPE	LINING
< 1%	GRASS
1% TO 4%	EROSION MATTING
4% TO 10%	STONE FILL, TYPE I
> 10%	STONE FILL, TYPE II

STONE FILL THICKNESS	
STONE FILL TYPE	THICKNESS
TYPE I	1 FT
TYPE II	2 FT

GENERAL NOTES:

1. WATER MAY NEED TO BE DIVERTED TO ALLOW PROPER MATTING INSTALLATION.
2. GRADE AND SMOOTH CHANNEL TO PROVIDE GOOD MATTING TO SOIL SURFACE CONTACT.
3. APPLY FERTILIZER, LIME, AND SEED PRIOR TO PLACING MATTING.
4. INSTALL MATTING IN THE CENTER OF THE CHANNEL, IN THE DIRECTION OF THE WATER FLOW.
5. INSTALL MATTING ON THE SIDE SLOPES OF THE CHANNEL, OVERLAPPING THE CENTER MAT.
6. ANCHOR MATTING AS SHOWN, UTILIZING ANCHOR STAPLES. STAPLE PLACEMENT SHALL BE DETERMINED BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
7. MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
8. MEASURES SHALL BE REPAIRED AND RESTAPLED AS NECESSARY TO ENSURE PROPER FUNCTION.
9. PAYMENT FOR INSTALLATION OF MATTING SHALL BE MADE UNDER THE EROSION CONTROL WITH MATTING ITEM.
10. PAYMENT FOR MONITORING EROSION CONTROL MATTING SHALL BE MADE UNDER THE MONITORING EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM.
11. PAYMENT FOR MAINTAINING DITCH PROTECTION SHALL BE MADE UNDER THE MAINTENANCE OF EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.



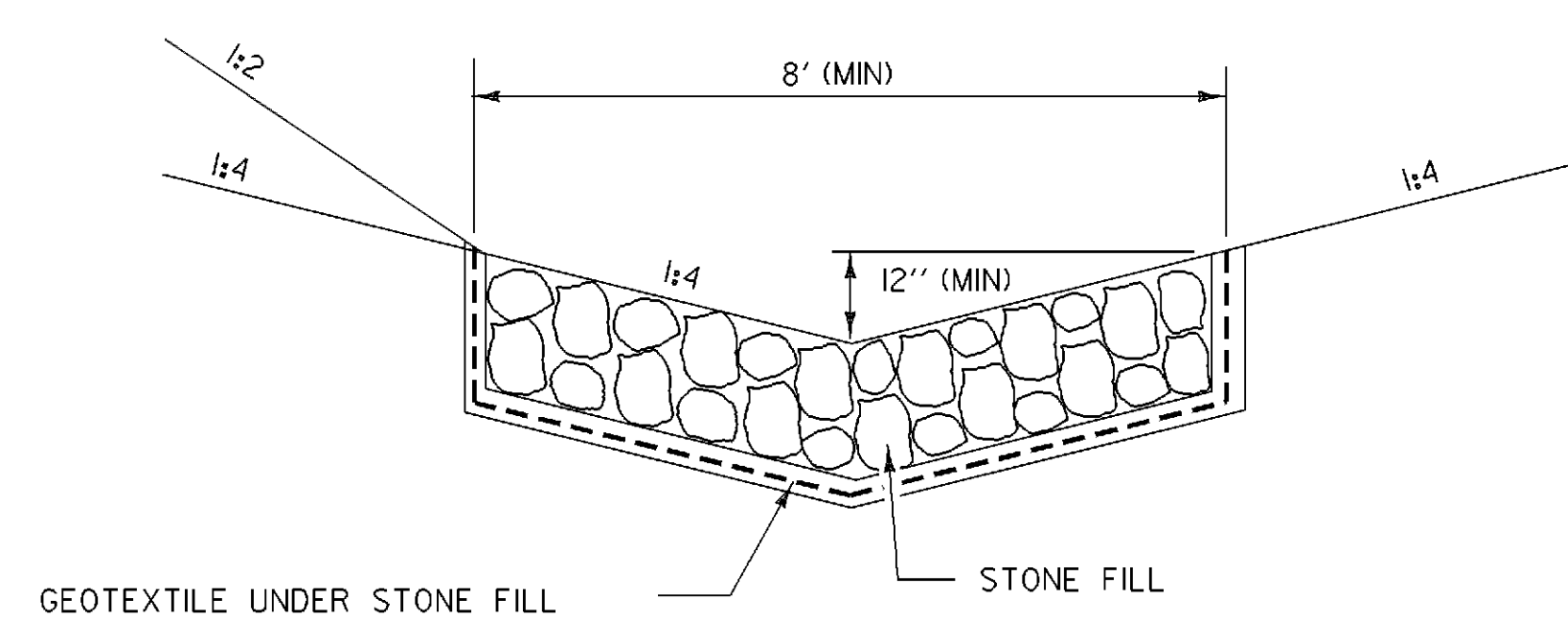
EROSION PREVENTION FOR SIDE SLOPES

APPLICATION NOTES:

- A. THE PURPOSE OF MATTING ON SIDE SLOPES IS TO REDUCE EROSION AND AID THE ESTABLISHMENT OF VEGETATION
- B. EROSION CONTROL MATTING SHALL BE USED FOR THE FOLLOWING REASONS:
 - SIDE SLOPES > 3:1 (H:V)
 - AREAS WHERE SEED AND MULCH WILL NOT STAY IN PLACE ALONE
 - WHERE SEEDING IS OUTSIDE THE GROWING SEASON.

GENERAL NOTES:

1. GRADE AND SMOOTH THE SLOPE TO PROVIDE GOOD MATTING TO SOIL SURFACE CONTACT.
2. APPLY FERTILIZER, LIME, AND SEED PRIOR TO PLACING MATTING.
3. ANCHOR MATTING AS SHOWN, UTILIZING ANCHOR STAPLES. STAPLE PLACEMENT SHALL BE DETERMINED BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
4. UNROLL MATTING VERTICALLY DOWN SLOPE IN THE DIRECTION OF WATER FLOW.
5. OVERLAP UPPER MATTING OVER LOWER MATTING AS SHOWN.
6. OVERLAP ADJACENT MATTING AS SHOWN.
7. CUT EXCESS MATTING AT END OF SLOPE AND ANCHOR THE END.
8. MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
9. MATTING SHALL BE REPAIRED AND RESTAPLED AS NECESSARY TO ENSURE PROPER FUNCTION.
10. PAYMENT FOR INSTALLATION OF MATTING SHALL BE MADE UNDER THE EROSION CONTROL WITH MATTING ITEM.
11. PAYMENT FOR MONITORING EROSION CONTROL MATTING SHALL BE MADE UNDER THE MONITORING EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM.
12. PAYMENT FOR MAINTAINING SLOPE PROTECTION SHALL BE MADE UNDER THE MAINTENANCE OF EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.



TEMPORARY STONE LINED DITCH

**EROSION PREVENTION & SEDIMENT CONTROL DETAILS
DITCH AND SLOPE PROTECTION**

PROJECT NAME:	SPRINGFIELD
PROJECT NUMBER:	STP 016-2 (10)S
FILE NAME:	00b124\Structures\sbl24ecd3.1
PROJECT MANAGER:	R. WHITCOMB
DESIGNED BY:	G. ROY
PLOT DATE:	17-AUG-2004
DRAWN BY:	G. ROY
CHECKED BY:	R. WHITCOMB
SHEET	43 OF 72

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2001, AND ITS LATEST REVISIONS, AND THE 17TH EDITION OF AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 2002, AND ITS LATEST REVISIONS.
2. THIS PROJECT INCLUDES ITEMS THAT ARE LISTED AS NON-PARTICIPATING. THESE DESIGNATE WORK IN WHICH THE COST IS NOT SHARED BY FEDERAL OR STATE GOVERNMENTS AND WILL BE BORNE ENTIRELY BY THE TOWN OF SPRINGFIELD.
3. THE CONTRACTOR IS CAUTIONED THAT WATER AND SEWER LINES ARE PRESENT WITHIN THE PROJECT AREA. THE PLANS SHOW THE APPROXIMATE LOCATION OF THE SEWER LINE ON NO. MAIN STREET. THE EXACT LOCATION AND ELEVATION OF THE LINE IS NOT KNOWN. THE SECTION OF NEW RETAINING WALL BETWEEN STA. 16+75 & 16+94 WAS ADDED SO SOIL NAILS WOULD NOT DAMAGE THE SEWER LINE. IT WAS ASSUMED THAT SOIL NAILS USED IN WALL FACING SECTIONS BEFORE STA. 16+75 WOULD PASS BENEATH THE SEWER LINE. IF IT IS DETERMINED IN THE FIELD THAT THE LOCATION OF THE LINE COULD STILL BE DAMAGED BY THE PRESENT DESIGN, THE PROJECT MANAGER SHALL BE CONTACTED ABOUT A POSSIBLE CHANGE IN DESIGN. IF A CHANGE IN DESIGN IS REQUIRED, THE CONTRACTOR SHALL ANTICIPATE A TWO WEEK TURN-A-ROUND TIME.
4. DURING CONSTRUCTION, TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON RIVER STREET AND SHALL BE CONTROLLED AS SHOWN ON THE TRAFFIC DETOUR SHEETS. CONCRETE BARRIER PLACED ON RIVER STREET IN THE FALL OF 2004 MUST BE REMOVED ONCE SNOW REMOVAL OPERATIONS COMMENCE. RE-INSTALLATION WILL NOT BE ALLOWED UNTIL THE CONTRACTOR IS GIVEN WRITTEN PERMISSION BY THE SPRINGFIELD PUBLIC WORKS DIRECTOR.
5. WHILE SLOPE EXCAVATION, DRAINAGE OR PAVING OPERATIONS ARE BEING CONDUCTED ON TH 325 (NORTH MAIN ST.), THE STREET MAY BE CLOSED TO THRU TRAFFIC. THE PUBLIC WORKS DIRECTOR SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO ANY CLOSING. THE STREET MUST BE PROPERLY BARRICADED AND SIGNED EACH TIME IT IS CLOSED. THE CONTRACTOR SHALL ERECT AND MAINTAIN ALL TEMPORARY ON AND OFF-PROJECT SIGNS AND BARRICADES AS SHOWN IN THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER. PAYMENT FOR THIS WORK, EXCLUDING CONCRETE BARRIER, SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 641.10, "TRAFFIC CONTROL".
6. CONCRETE BARRIER SHALL BE PAID FOR UNDER ITEM 621.90, "TEMPORARY TRAFFIC BARRIER". SEE SPECIAL PROVISIONS FOR ITEM 621 FOR FURTHER INFORMATION ON TRAFFIC CONTROL AND PAYMENT FOR CONCRETE BARRIER.
7. EXISTING SIGNS NOT RE-USED SHALL REMAIN THE PROPERTY OF THE TOWN OF SPRINGFIELD. THE CONTRACTOR SHALL STOCKPILE THESE SIGNS AT THE PROJECT SITE FOR REMOVAL BY TOWN FORCES. THE CONTRACTOR SHALL CONTACT THE PUBLIC WORKS DIRECTOR AT (802) 886-2208 WHEN THE SIGNS ARE READY FOR REMOVAL FROM THE PROJECT SITE.
8. REFERENCE SHEETS FROM THE RECORD PLANS FOR THE EXISTING METAL BIN WALLS ARE INCLUDED IN THE PLANS FOR THE CONTRACTOR'S USE (SHEETS 68 - 72). WHERE NEEDED, THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING IN THE FIELD ANY DIMENSIONS OF EXISTING MATERIAL INCLUDED IN THESE REFERENCE SHEETS.
9. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT SILTATION OR POLLUTION OF ALL WATERWAYS IN THE PROJECT AREA AS DIRECTED BY THE RESIDENT ENGINEER AND STANDARD SPECIFICATION SECTION 105.
10. FOR INFORMATION REGARDING UTILITIES, SEE THE SPECIAL PROVISIONS.
11. ALL DIMENSIONS SHOWN IN THE PLANS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES FAHRENHEIT.

TH1/VT 11 WALL DESIGN AND CONSTRUCTION

12. THE EXISTING METAL BIN WALL SHALL BE REHABILITATED WITHIN THE LIMITS SHOWN ON THE PLANS. SEE SECTION 535 OF THE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS REGARDING THIS PORTION OF THE WORK.
13. AS SHOWN IN THE PLANS, THE REHABILITATED WALL SYSTEM SHALL CONSIST OF A CAST-IN-PLACE, REINFORCED CONCRETE WALL FACING PLACED DIRECTLY IN FRONT OF THE EXISTING METAL BIN WALL SECTIONS, SECURED TO THE EXISTING EMBANKMENT WITH SOIL NAILS DRILLED THROUGH THE EXISTING WALL. SOIL NAIL LENGTHS, SPACING AND INCLINATION SHALL BE AS SHOWN IN THE PLANS.

14. THE FOLLOWING PARAMETERS WERE USED IN DESIGN:

FRICTION ANGLE (EXISTING SLOPE MATERIAL)	34°
UNIT WEIGHT OF SOIL BEHIND EXISTING BINWALLS	125 PCF
COHESION	100 PCF
GLOBAL SLOPE STABILITY SAFETY FACTOR	1.35
INTERNAL STABILITY SAFETY FACTOR	1.35
FACING FLEXURE FACTOR OF SAFETY	1.5
FACING PUNCHING SHEAR FACTOR OF SAFETY	1.5
PULLOUT RESISTANCE FACTOR OF SAFETY	2.0
ULTIMATE BOND STRENGTH (GROUT AND SOIL)	1,220 PSF
BOREHOLE DIA. SIZE	6 IN
ULTIMATE BOND STRENGTH FOR 6 INCH HOLE	1,900 LB/FT
ALLOWABLE NAIL PULLOUT RESISTANCE=OD = 1900 LB/FT / 2.0 (FS) = 950 LB/FT	
ALLOWABLE STRESS (STEEL NAIL BAR)	0.6FY
(FY = YIELD STRESS = 75 KSI MIN.)	
CONCRETE F' C	3,500 PSI
NAIL GROUT F' C	3,000 PSI
ULTIMATE PLATE CAPACITY	33,000 LBS

15. SOIL NAILING MAY BE DONE DURING WINTER MONTHS PROVIDED ADEQUATE MEASURES ARE TAKEN TO PREVENT FREEZING OF THE GROUT. HOWEVER, COLD WEATHER CONCRETE OPERATIONS WILL NOT BE ALLOWED ON ANY PORTION OF THE REINFORCED CONCRETE FACING, NEW RETAINING WALL, SIDEWALKS OR STEPS.
16. FOR DESIGN PURPOSES, ANY POTENTIAL CONTRIBUTION OF THE EXISTING METAL BIN WALL TO PERMANENT WALL SUPPORT HAS BEEN IGNORED. FOR SOIL CHARACTERISTICS USED IN DESIGN, SEE NOTE 12 AND PROJECT BORINGS ON SHEETS 27 - 33 OF THE PLANS.
17. PROOF AND VERIFICATION TESTS WILL BE REQUIRED ON SOIL NAILS. A MINIMUM OF TWO SACRIFICIAL NAILS SHALL BE INSTALLED FOR VERIFICATION TESTS AT LOCATIONS AGREED UPON BY THE CONTRACTOR AND ENGINEER. THE LOCATIONS MUST BE SELECTED TO APPROXIMATE THE SAME SOIL CONDITIONS INTO WHICH THE PRODUCTION NAILS WILL BE INSERTED. APPROXIMATELY 5% OF THE PERMANENT NAILS SHALL BE PROOF LOAD TESTED TO 1.5 TIMES THE DESIGN LOAD. NAILS FAILING TO MEET THE REQUIRED PROOF LOADING SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. SEE SPECIAL PROVISION FOR ITEM 535 FOR INFORMATION ON THIS TESTING.
18. FORM LINERS SHALL BE USED FOR ALL EXPOSED WALL FACINGS TO SIMULATE A CEMENT RUBBLE MASONRY APPEARANCE. THE SIMULATED COLUMNS AT CONSTRUCTION AND EXPANSION JOINTS MAY HAVE THE HORIZONTAL SCORE MARKS PROVIDED BY CONVENTIONAL FORMING METHODS OR BY A FORM LINER PROCESS. THE METHOD SHALL BE INCLUDED IN THE PACKAGE SUBMITTED FOR APPROVAL AS DESCRIBED IN THE SPECIAL PROVISIONS. THE PAYMENT FOR ALL FORM LINER WORK SHALL BE UNDER ITEM 602.25, STONE MASONRY FACING (MODIFIED FORM LINER). SEE SPECIAL PROVISIONS FOR DETAILS CONCERNING THIS ITEM.
19. THE FORM LINER PATTERN SHALL BE "MINNEHAHA BLEND", CUSTOM ROCK DURA FORM PATTERN #12010, OR AN APPROVED EQUIVALENT. ANY PROPOSED SUBSTITUTIONS MUST BE APPROVED IN WRITING BY THE PROJECT MANAGER.
20. HORIZONTAL CONSTRUCTION JOINTS HAVE NOT BEEN SHOWN IN THE FACING DETAILS. THE CONTRACTOR MAY PROPOSE THE USE OF HORIZONTAL JOINTS BUT THE FORM LINER PATTERN SHALL BE CONTINUOUS THROUGH AND ACROSS ALL HORIZONTAL CONSTRUCTION JOINTS.
21. THE 1" PREMOULDED EXPANSION MATERIAL USED IN VERTICAL EXPANSION JOINTS SHALL BE A COLOR CLOSELY MATCHING THAT OF THE ADJACENT CONCRETE. PAYMENT FOR THE EXPANSION MATERIAL SHALL BE INCIDENTAL TO THE CONCRETE PAY ITEM.
22. ALL CONCRETE FORMED WITH LINERS SHALL BE COLORED. THE PIGMENT COLOR SHALL BE BAYFERROX 330 APPLIED AT 2 LBS. PER 94 LB. BAG OF CEMENT. THE CONCRETE CAP SHALL NOT BE COLORED.
23. PRIOR TO PLACING ANY PERMANENT FORM LINERS, THE CONTRACTOR SHALL CONSTRUCT A TEST PANEL UTILIZING THE FORM LINER SYSTEM. THE SIZE OF THE TEST PANEL SHALL BE AS ORDERED BY THE RESIDENT ENGINEER BUT SHALL BE A MINIMUM FACE SIZE OF 4' BY 8'. THE CONTRACTOR SHALL DEMONSTRATE FORM LINER APPLICATION AND COLORING OF CONCRETE FOR THE APPROVAL OF THE RESIDENT ENGINEER PRIOR TO PERFORMING ANY PERMANENT WORK ON THE WALL. ALL COSTS INVOLVED IN THE TEST PANEL SHALL BE INCIDENTAL TO ITEM 602.25, STONE MASONRY FACING (MODIFIED FORM LINER).
24. CONCRETE FOR WALL FACING AND FACING PAD SHALL BE HIGH PERFORMANCE CLASS B AND SHALL BE PAID FOR UNDER ITEM 501.34, "CONCRETE, HIGH PERFORMANCE CLASS B".
25. MINIMUM COVER FOR REINFORCING STEEL SHALL BE AS INDICATED IN THE PLANS.
26. REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE:
SPACING: +/- ONE INCH
CLEARANCE: +/- ONE QUARTER INCH

TH 325 WALL REMOVAL

27. THE EXISTING METAL BIN WALL SHALL BE REMOVED. THE EXISTING SLOPE SHALL BE CUT BACK AND GRADED AS SHOWN IN THE PLANS.
28. REMOVAL AND DISPOSAL OF ALL METAL PORTIONS OF THE EXISTING BIN WALL SHALL BE PAID FOR UNDER ITEM 529.15, "REMOVAL OF STRUCTURE".

EARTHWORK AND RELATED ITEMS

29. TO HELP PREVENT SOIL EROSION, THE STONE LINED DITCHES SHOWN PERPENDICULAR TO AND ALONG NORTH MAIN STREET SHALL BE CONSTRUCTED IMMEDIATELY AFTER THE BIN-WALL REMOVAL AND BEFORE ANY ADDITIONAL SLOPE EXCAVATION.
30. UNIT PRICE BID FOR ITEM 201.10, CLEARING AND GRUBBING, SHALL BE FULL PAYMENT FOR ALL CLEARING AND GRUBBING REQUIRED FOR SLOPE AND DRAINAGE WORK DONE ON THE RIGHT SIDE OF NORTH MAIN ST.
31. SUITABLE TOPSOIL FROM NORTH MAIN ST. SLOPE EXCAVATION SHALL BE STOCKPILED FOR USE ON AREAS DESIGNATED IN THE PLANS. PAYMENT FOR TRANSPORTING FROM STOCKPILES AND PLACING TOPSOIL WILL BE MADE UNDER ITEM 651.35, "TOPSOIL."
32. AREAS SEEDED AND MULCHED AFTER OCTOBER 15TH SHALL RECEIVE AN APPLICATION OF WINTER RYE SEED AT THE RATE OF 60 LBS/ACRE. IN ADDITION, THE URBAN SEED FORMULA SHALL BE APPLIED AS SPECIFIED IN THE PLANS AFTER MAY 1ST.
33. UNIT PRICE BID FOR ITEM 201.30, THINNING AND TRIMMING, SHALL BE FULL PAYMENT FOR REMOVING ALL TREES, STUMPS AND BRUSH WITHIN THE LIMITS DEFINED BY THE BACK OF BIN WALL ALONG TH 1 (VT 11) LEFT UP TO THE PDF LINE OR, IN AREAS WHERE PDF LINE IS NOT SHOWN, TO THE BACK OF SIDEWALK ON NO. MAIN STREET.
34. EXISTING SIDEWALK AND CURB SHALL BE REMOVED WITHIN THE LIMITS SHOWN ON THE PLANS. PAYMENT FOR SIDEWALK REMOVAL AND DISPOSAL SHALL BE MADE UNDER ITEM 204.25, STRUCTURE EXCAVATION. PAYMENT FOR REMOVAL OF EXISTING CURB SHALL BE MADE UNDER ITEM 616.40, REMOVING AND RESETTING CURB.
35. NEW CAST-IN-PLACE SIDEWALK SHALL BE CONSTRUCTED WITHIN THE LIMITS SHOWN ON THE PLANS. PAYMENT FOR NEW SIDEWALK SHALL BE MADE UNDER ITEM 618.10, PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH.
36. AFTER THE GRANITE CURBING ALONG VT 11 LEFT AND NORTH MAIN STREET LEFT IS RESET, THE EXCAVATED AREA ADJACENT TO THE CURB SHALL BE BACKFILLED WITH SUBBASE MATERIAL TO THE BOTTOM OF THE EXISTING PAVEMENT DEPTH AND NEW BITUMINOUS CONCRETE PAVEMENT PLACED AND COMPACTED IN APPROPRIATE LIFTS TO MATCH THE EXISTING PAVEMENT SURFACE. UPON COMPLETION OF ALL WORK THAT WOULD CAUSE DAMAGE TO PAVED SURFACES, THE FULL WIDTH OF NORTH MAIN STREET AND THE LEFT SIDE OF VT 11 SHALL BE COLD PLANED AND RESURFACED.

PROJECT NOTES

PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: STP 016-2 (10)S

FILE NAME: 00b124\structures\sbl24pn.l PLOT DATE: 17-AUG-2004
PROJECT MANAGER: R. WHITCOMB DRAWN BY: G. ROY
DESIGNED BY: G. ROY CHECKED BY: R. WHITCOMB
SHEET 44 OF 72

14. THE FOLLOWING PARAMETERS WERE USED IN DESIGN:

FRICTION ANGLE (EXISTING SLOPE MATERIAL)	34°
UNIT WEIGHT OF SOIL BEHIND EXISTING BINWALLS	125 PCF
COHESION	100 PCF
GLOBAL SLOPE STABILITY SAFETY FACTOR	1.35
OVERTURNING STABILITY SAFETY FACTOR	2.0
SLIDING STABILITY FACTOR OF SAFETY	1.5
FACING FLEXURE FACTOR OF SAFETY	1.5
FACING PUNCHING SHEAR FACTOR OF SAFETY	1.5
ULTIMATE BOND STRENGTH (GROUT AND ROCK)	300 PSI
BONDHOLE DIA. SIZE	5 IN
ULTIMATE BOND STRENGTH FOR 5 INCH HOLE	56,550 LB/FT
ALLOWABLE TIEBACK PULLOUT RESISTANCE-UD	$= 56,550 \text{ LB/FT} / 3.0 \text{ (FS)} = 18,850 \text{ LB/FT}$
ALLOWABLE STRESS (STEEL BAR)	0.6 F_{pu}
(F _y = YIELD STRESS = 150 KSI)	
CONCRETE F'c	3,500 PSI
TIEBACK GROUT F'c	3,000 PSI MIN

15. TIEBACK INSTALLATION MAY BE DONE DURING WINTER MONTHS PROVIDED ADEQUATE MEASURES ARE TAKEN TO PREVENT FREEZING OF THE GROUT. HOWEVER, COLD WEATHER CONCRETE OPERATIONS WILL NOT BE ALLOWED ON ANY PORTION OF THE REINFORCED CONCRETE FACING, NEW RETAINING WALL, SIDEWALKS OR STEPS.

17. PROOF AND/OR PERFORMANCE TESTS WILL BE REQUIRED ON ALL TIEBACKS AND SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITION OF "RECOMMENDATIONS FOR PRESTRESSED ROCK AND SOIL ANCHORS" AS PUBLISHED BY PTI (POST TENSIONING INSTITUTE). LOAD TESTING PROCEDURES SHALL BE SHOWN ON THE TIEBACK SHOP DRAWING. A MINIMUM OF TWO TIEBACKS SHALL BE PERFORMANCE TESTED. AT LEAST ONE TEST SHALL BE PERFORMED AT THE START OF THE PROJECT. TEST LOCATION SHALL BE SELECTED IN CONSULTATION WITH THE ENGINEER TO EVALUATE CONDITIONS ALONG THE LENGTH OF THE WALL. ALL REMAINING TIEBACKS SHALL BE PROOF LOAD TESTED TO 1.33 TIMES THE DESIGN LOAD. TIEBACKS FAILING TO MEET THE REQUIRED PROOF LOADING SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

THI/CVT 11 WALL DESIGN AND CONSTRUCTION

12. THE EXISTING METAL BIN WALL SHALL BE REHABILITATED WITHIN THE LIMITS SHOWN ON THE PLANS.

13. AS SHOWN IN THE PLANS, THE REHABILITATED WALL SYSTEM SHALL CONSIST OF A CAST-IN-PLACE, REINFORCED CONCRETE WALL FACING PLACED DIRECTLY IN FRONT OF THE EXISTING METAL BIN WALL SECTIONS, SECURED TO THE EXISTING EMBANKMENT WITH PERMANENT TIEBACKS DRILLED THROUGH THE EXISTING WALL. TIEBACK LENGTHS, SPACING AND INCLINATION SHALL BE AS SHOWN IN THE PLANS.

24. CONCRETE FOR WALL FACING AND FOOTING SHALL BE HIGH PERFORMANCE CLASS B AND SHALL BE PAID FOR UNDER ITEM 501.34, "CONCRETE, HIGH PERFORMANCE CLASS B".

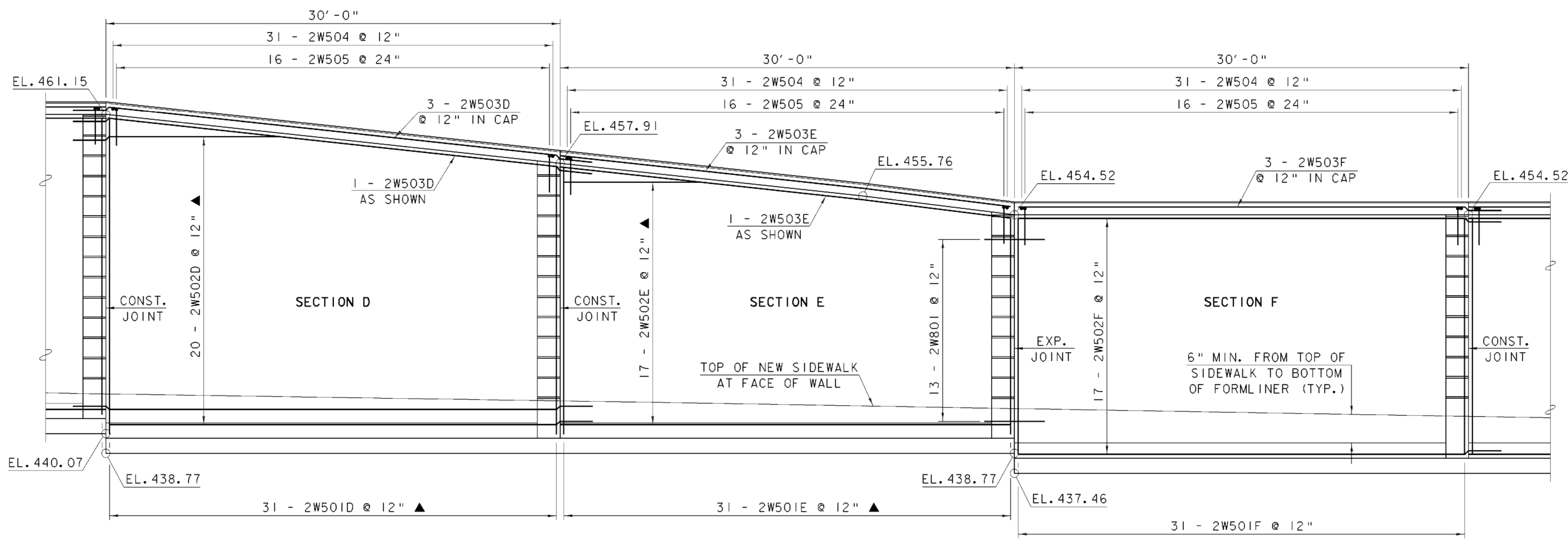
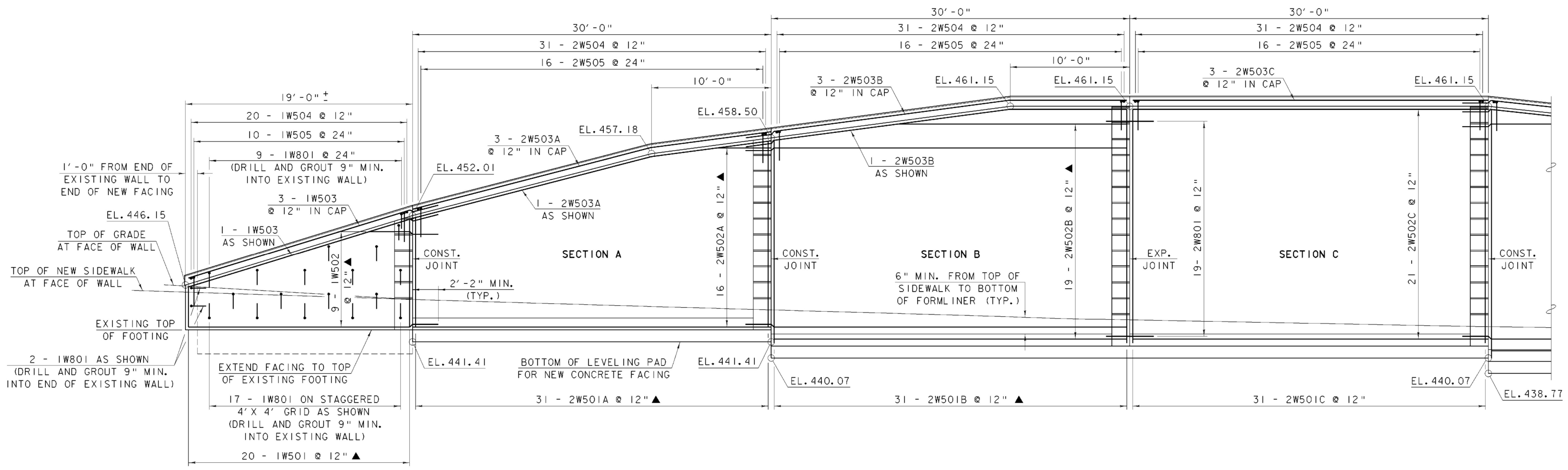


TIEBACK NOTES

VALUE ENGINEERING REDESIGN
OF WALL 2 PREPARED BY
GEODESIGN, INC. 3-16-05



PROJECT NAME	SPRINGFIELD
PROJECT NUMBER	STP 016-2 (1015)
FILE NAME	090624\structure\stps016\stps016.dwg
PROJECT MANAGER	M. FRANK
DESIGNED BY	M. HATHARAN
DRAWN BY	D. FRANK
CHECKED BY	M. FRANK
	SHEET 444 OF 72

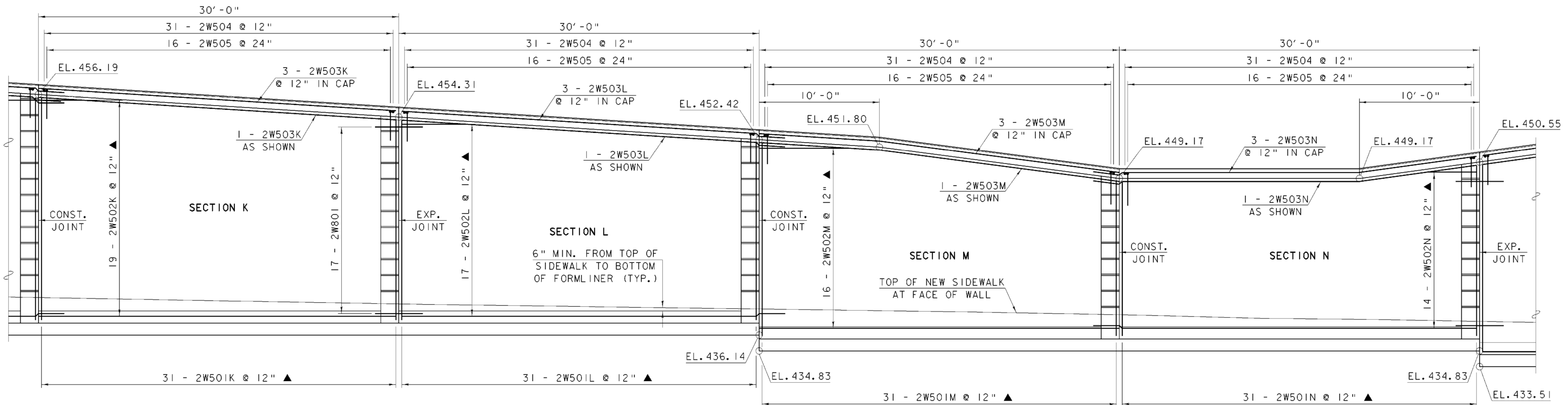
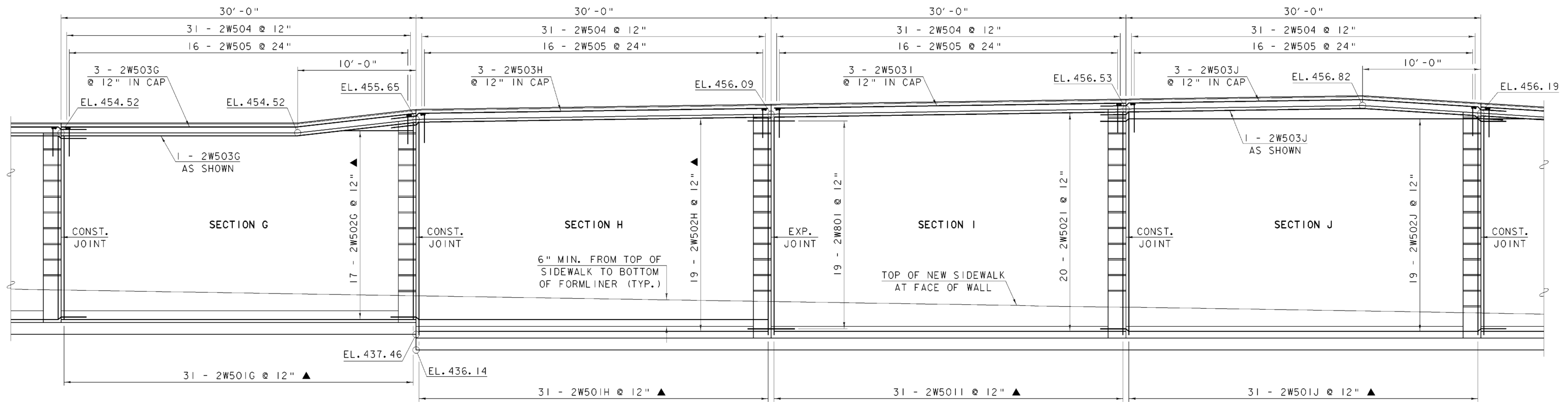


1 0 1 2 3 4 5 6
 SCALE: 1/4" = 1'-0"

SEE REVISED ELEVATIONS IN
 VALUE ENGINEERING PLAN SET.

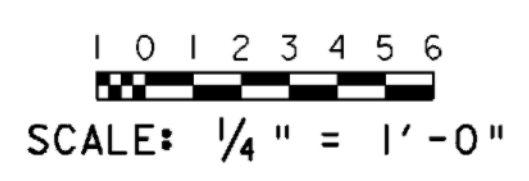
WALL ELEVATION (1)

PROJECT NAME:	SPRINGFIELD	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	DRAWN BY:	G. ROY
FILE NAME:	00b124\structures\sb124wel.1	CHECKED BY:	R. WHITCOMB
DESIGNED BY:	G. ROY	SHEET	45 OF 72

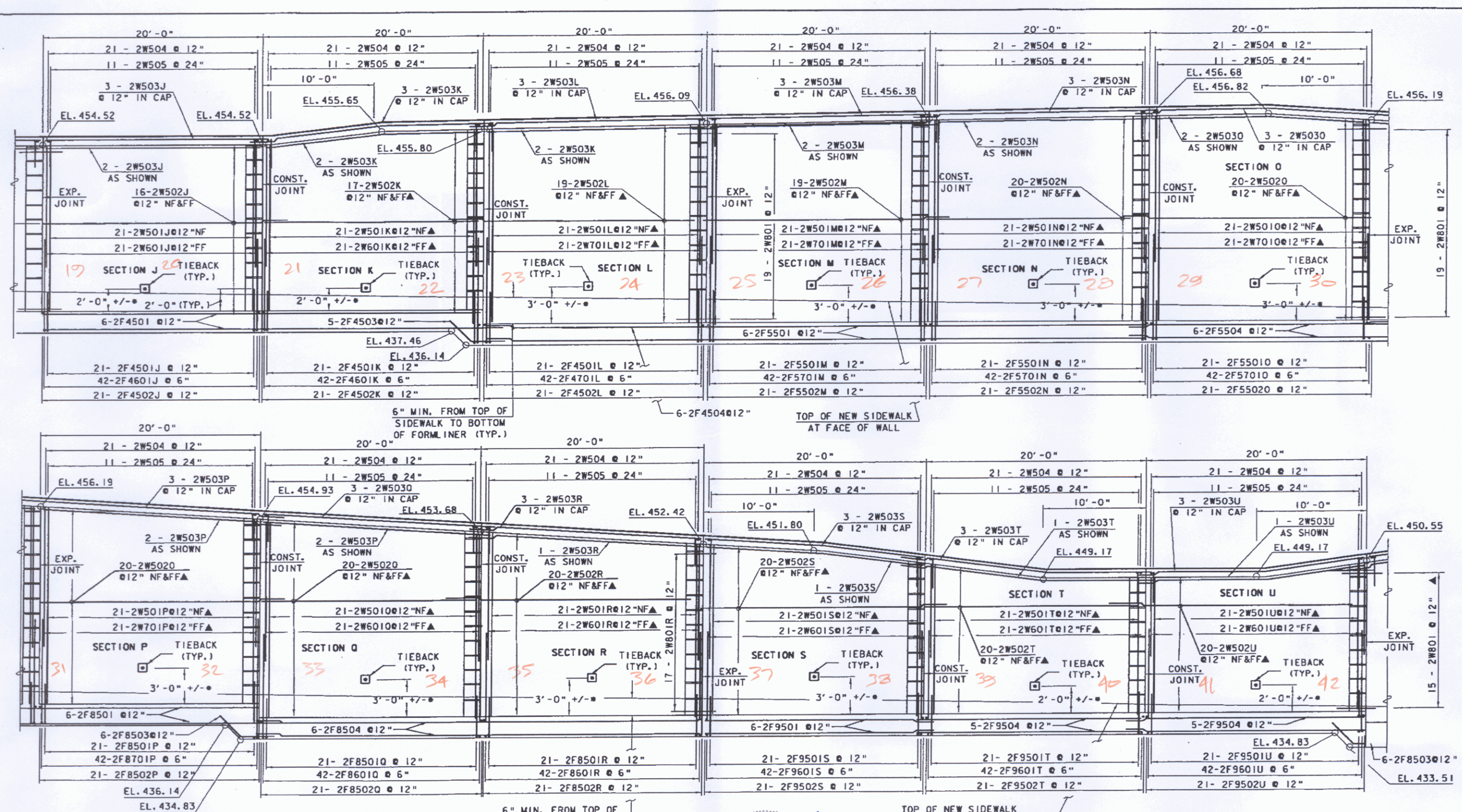


SEE REVISED ELEVATIONS IN VALUE ENGINEERING PLAN SET.

WALL ELEVATION (2)



PROJECT NAME:	SPRINGFIELD	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	DRAWN BY:	G. ROY
FILE NAME:	00b124\structures\sb124we2.1	CHECKED BY:	R. WHITCOMB
DESIGNED BY:	G. ROY	SHEET	46 OF 72



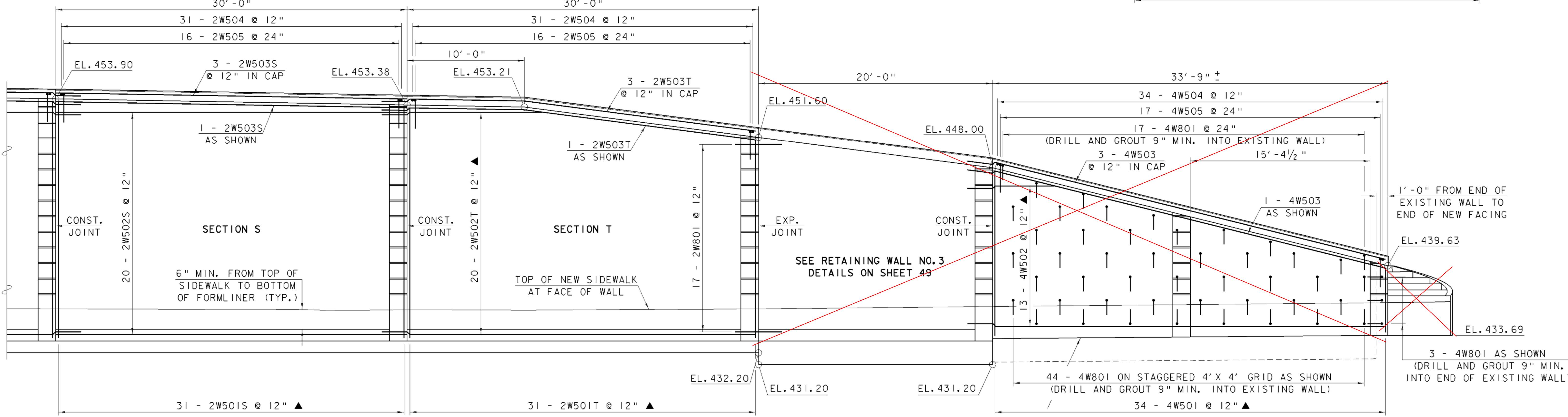
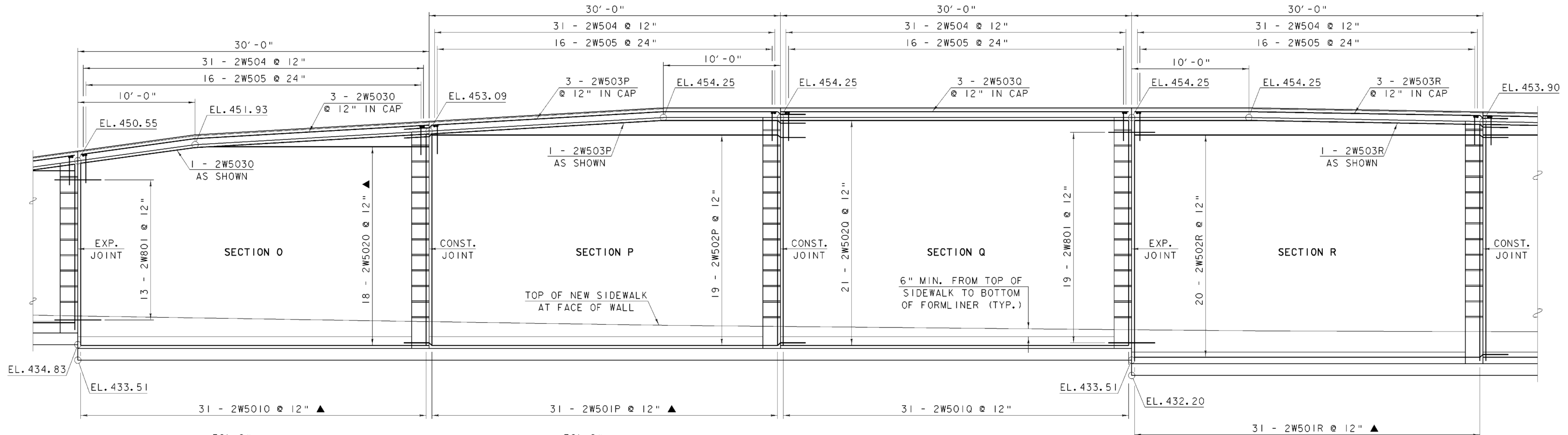
WALL ELEVATION (2)

VALUE ENGINEERING REDESIGN
OF WALL 2 PREPARED BY
GEODESIGN, INC. 3-16-05

NOTE:
SEE SHEET 488 FOR ADDITIONAL
PUNCHING SHEAR REINFORCEMENT
AROUND EACH TIEBACK BOXOUT.



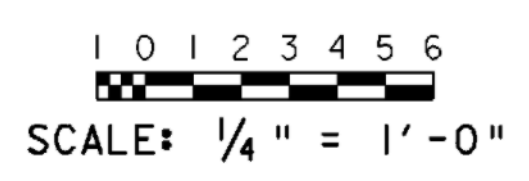
PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: STP 016-2 (015)
FILE NAME: 00241stucture\stp016\015.dwg PLOT DATE: 3-16-05
PROJECT MANAGER: R. FRANK DRAWN BY: S. CATECCIO
RECORDED BY: M. HARSHAN CHECKED BY: R. FRANK
SHEET 46A OF 72



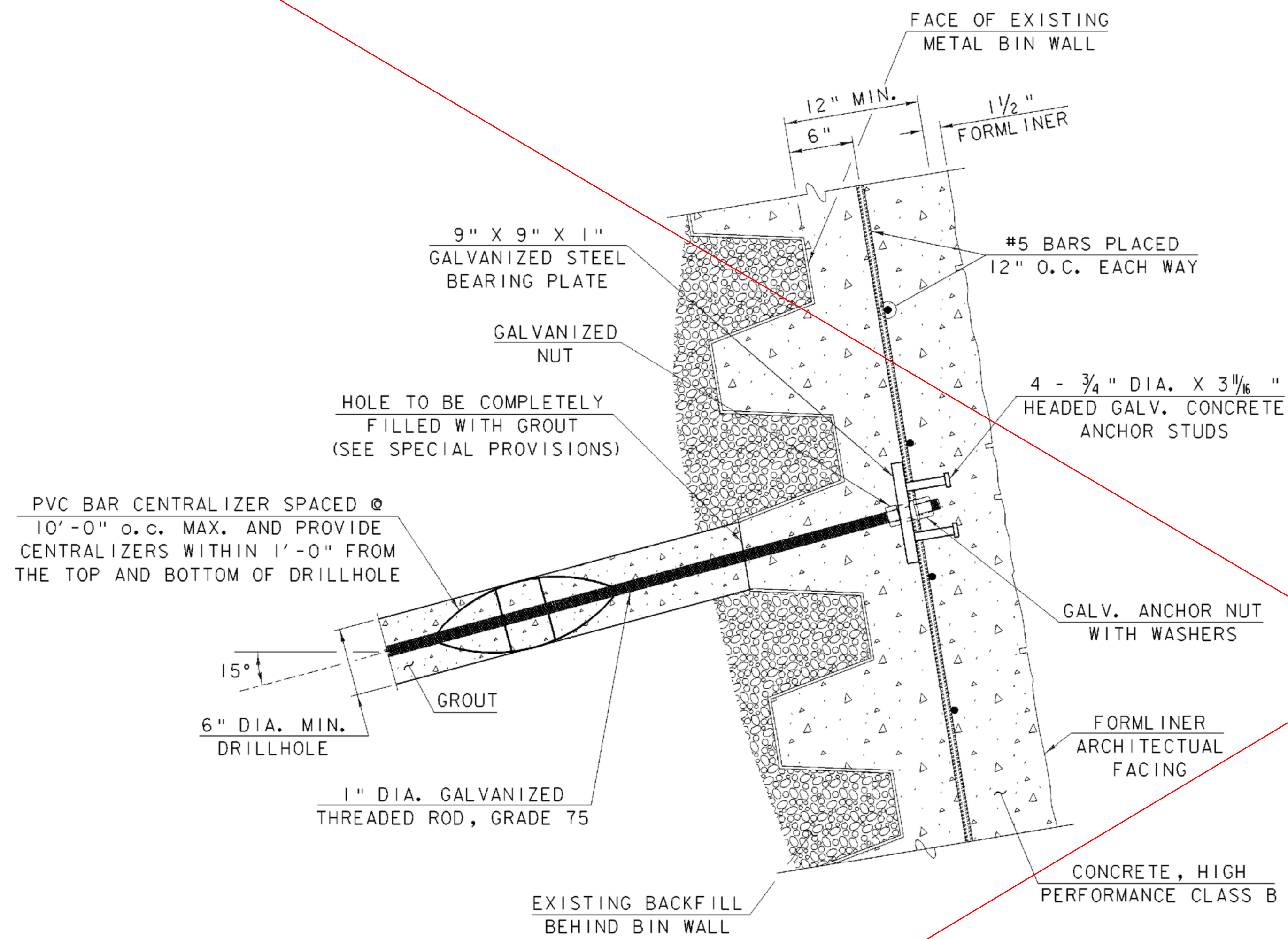
EXTEND FACING TO TOP OF EXISTING FOOTING

SEE REVISED ELEVATIONS IN VALUE ENGINEERING PLAN SET.

WALL ELEVATION (3)

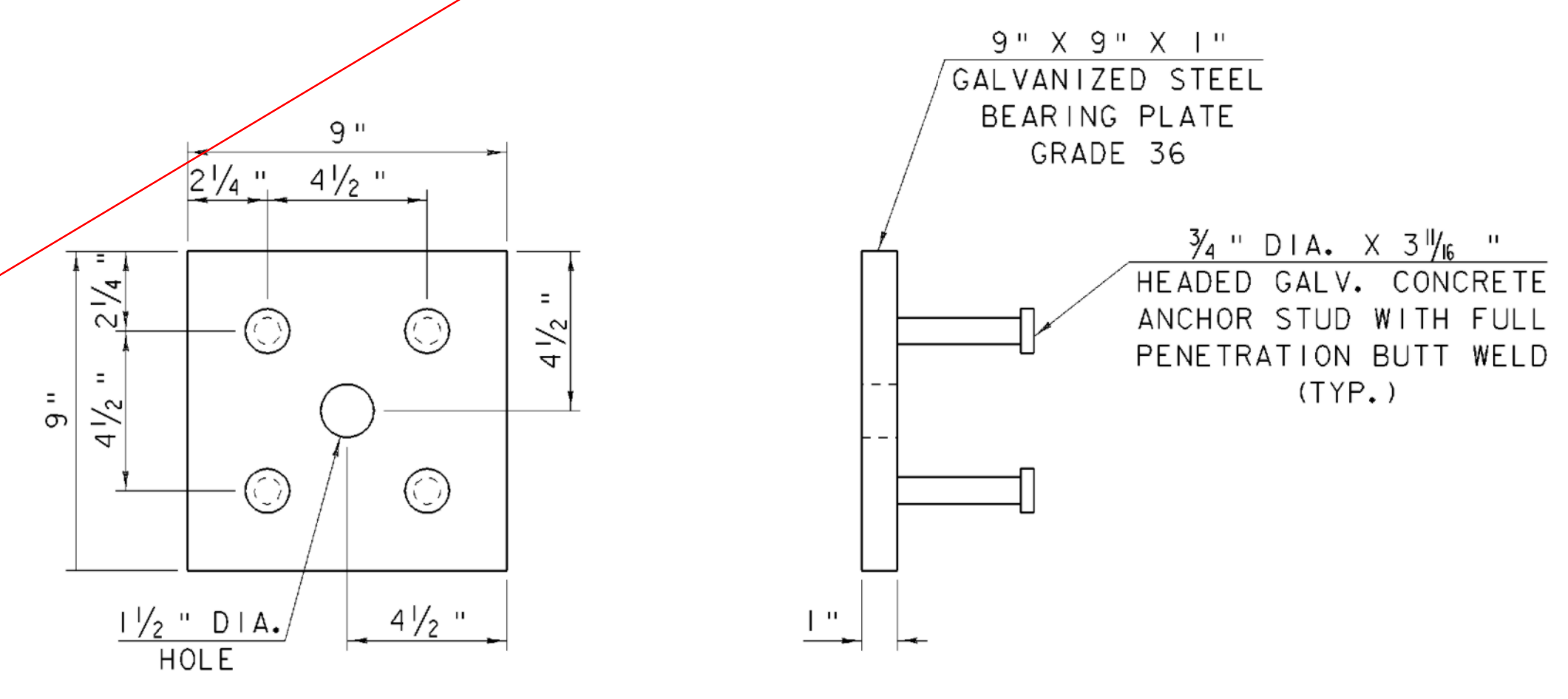


PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124\structures\sb124we3.1	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
					SHEET 47 OF 72



**SOIL NAIL HEAD AND
BIN WALL FACING DETAIL**
SCALE: 1/2" = 1'-0"

NOTES:
BEARING PLATE IS TO BE INSTALLED DIRECTLY
BEHIND REBAR AND HELD IN PLACE BY A NUT
LOCATED ON EACH SIDE OF THE BEARING PLATE.

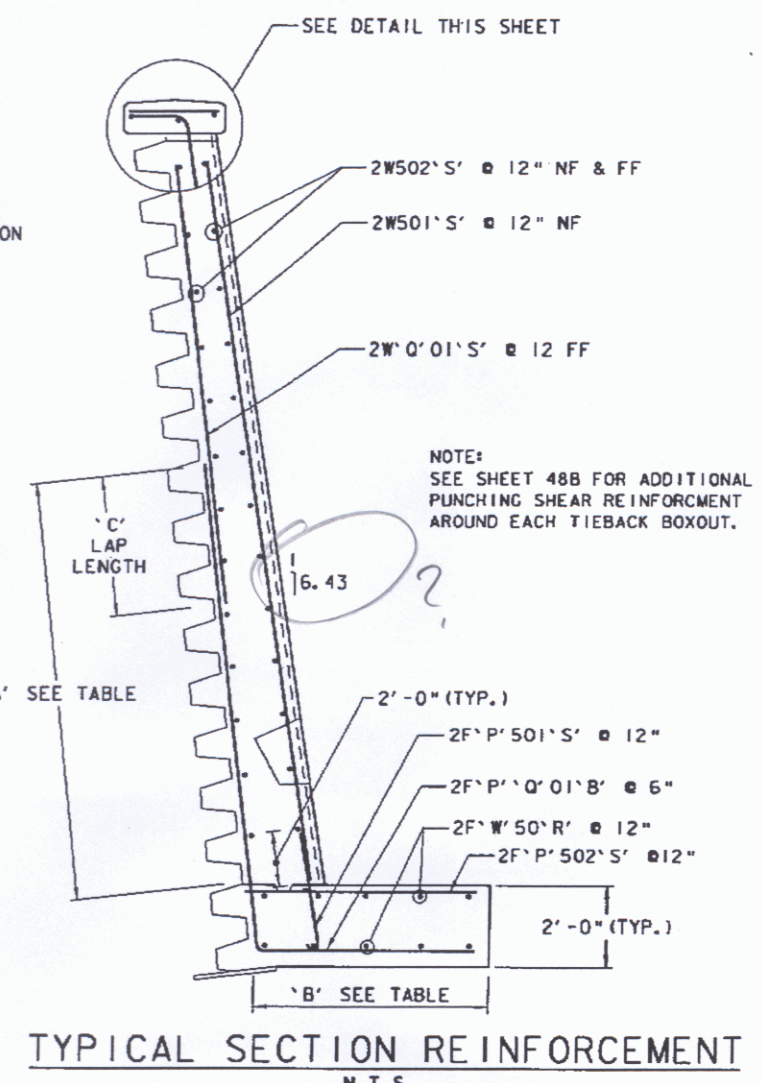


GALVANIZED BEARING PLATE DETAIL
SCALE: 3" = 1'-0"

SOIL NAIL WALL DETAILS

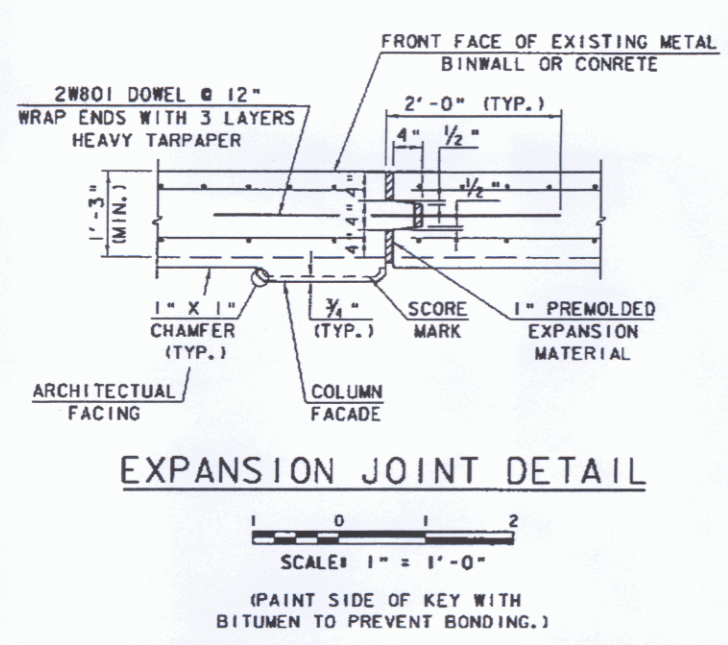
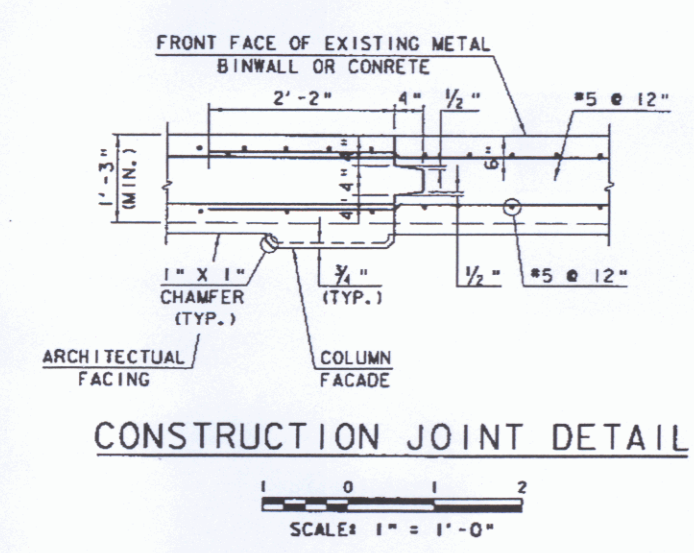
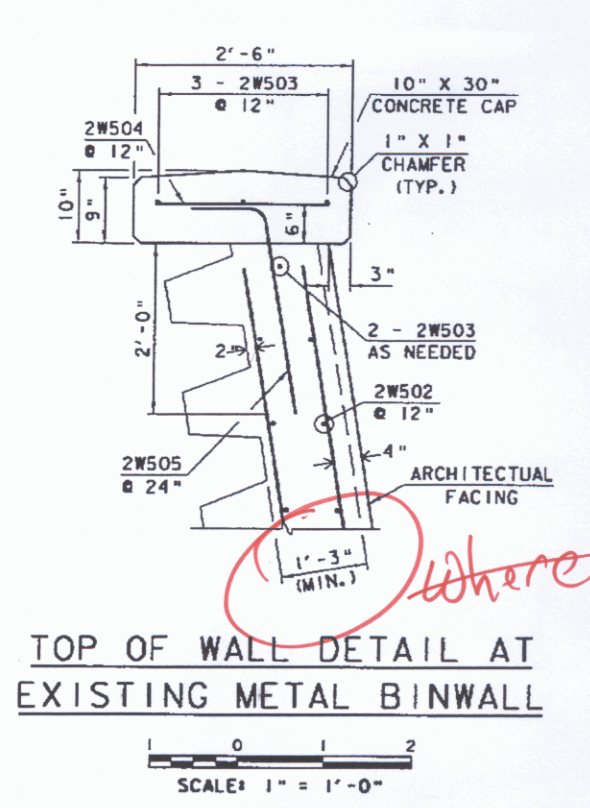
PROJECT NAME:	SPRINGFIELD	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	DRAWN BY:	G. ROY
FILE NAME:	00b124\structures\sb124snwd.i	CHECKED BY:	R. WHITCOMB
DESIGNED BY:	G. ROY	SHEET	48 OF 72

LEGEND
 *P: FOOTING SECTION (1 THRU 10)
 *D: BAR SIZE (#6, 7 OR 8)
 *R: BAR MARK
 *S: WALL SECTION (A THRU DD)
 *NF: NEAR FACE
 *FF: FAR FACE
 *C: LAP LENGTH



WALL SECTION	FOOTING WIDTH 'B'	TIEBACK DESIGN LOAD (KIPS)	TIEBACK BAR SIZE GRADE ISO	DESIGN WALL HEIGHT (FT)	BAR LENGTH 'A'
A, T, U	4'-0"	124	1 3/8"	16	3'-6"
G, H, I, J, K, Q, R, S, V	5'-0"	151	1 3/8"	18	4'-0"
B, L, M, N, O, P, W, DD	5'-0"	238	1 3/8"	20	4'-8"
C, D, E, F, X, Y, Z, AA, BB, CC	6'-0"	238	1 3/8"	22	5'-4"

15 bottom of wall set @ 2'?

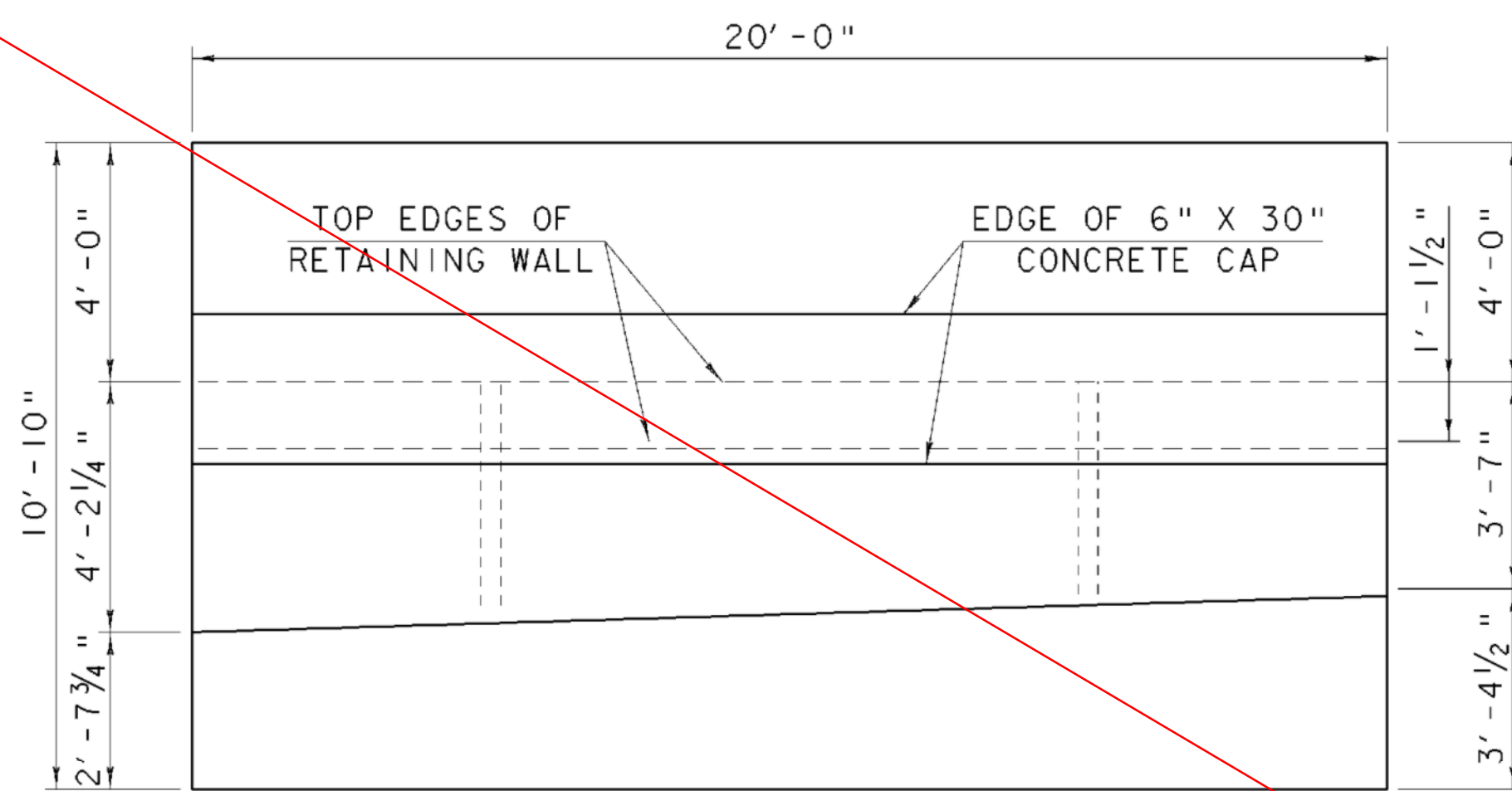


TIEBACK WALL DETAILS

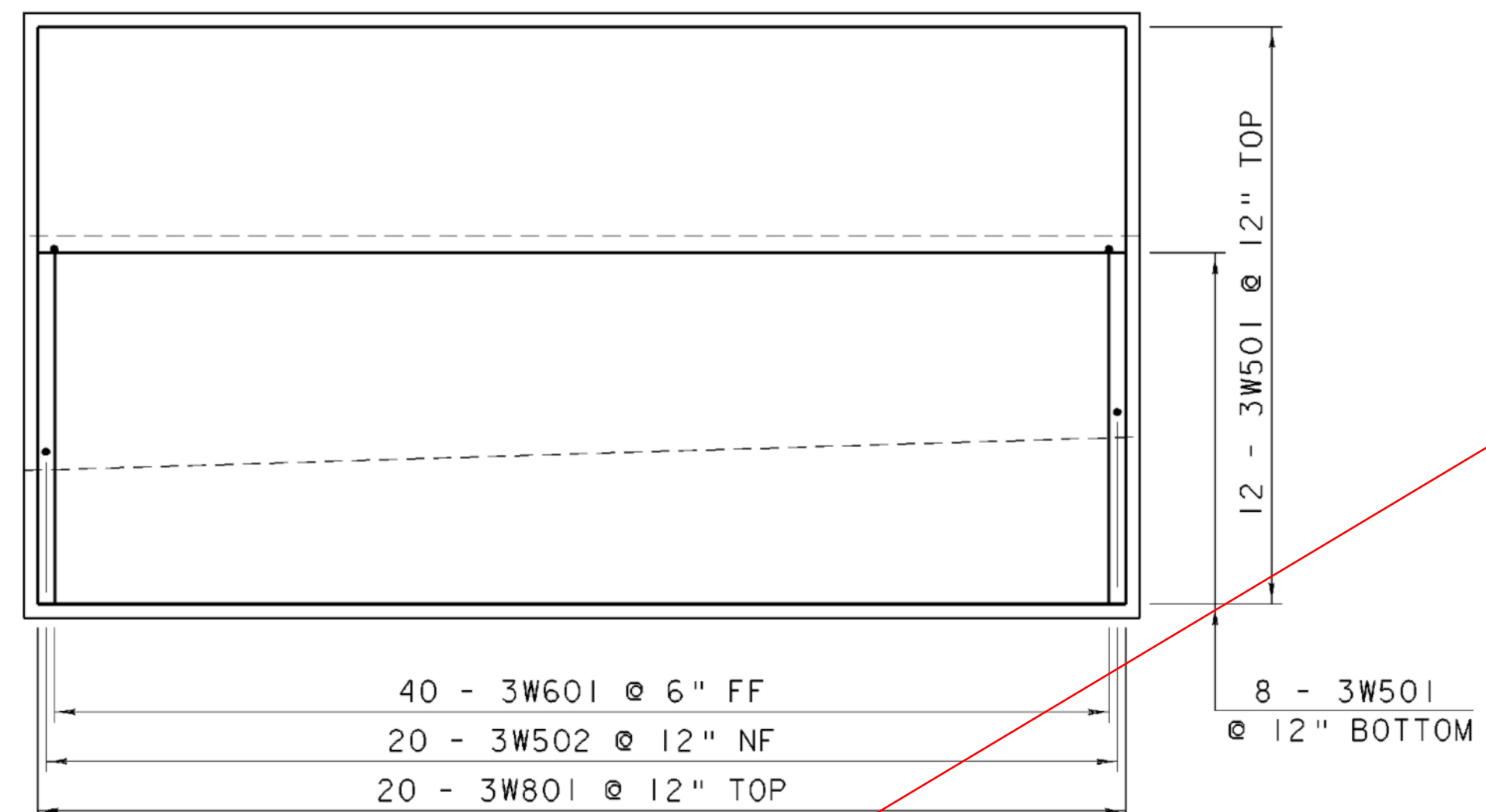
VALUE ENGINEERING REDESIGN OF WALL 2 PREPARED BY GEODESIGN, INC. 3-16-05



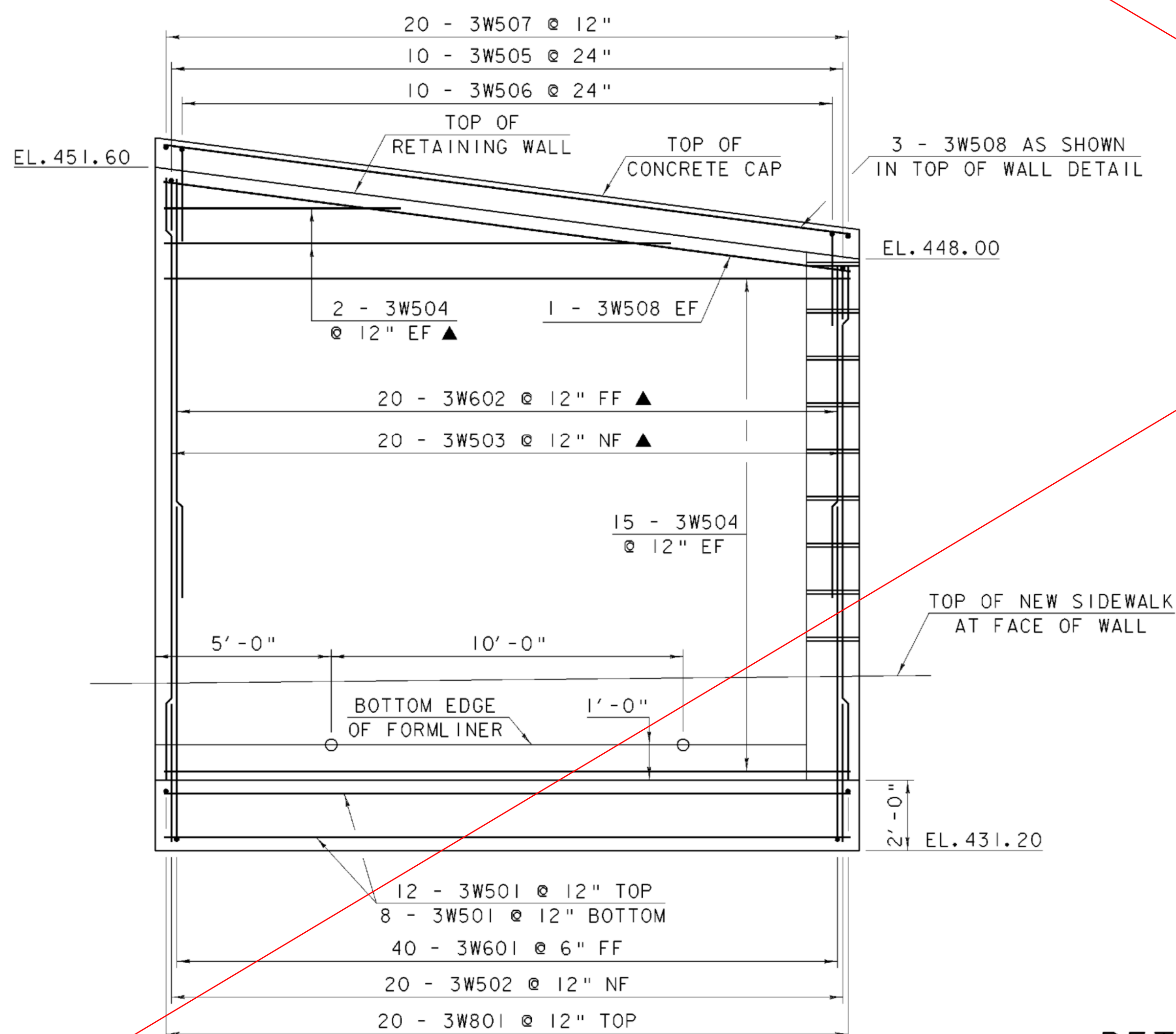
PROJECT NAME: SPRINGFIELD
 PROJECT NUMBER: STP 016-2 (01S)
 FILE NAME: 0002\FRANK\PROJECTS\016-2\01S.dwg PLOT DATE: 3/16/05
 PROJECT MANAGER: G. FRANK DRAWN BY: G. FRANK/S.M.C.
 DESIGNED BY: G. FRANK CHECKED BY: G. FRANK
 SHEET 48A OF 72



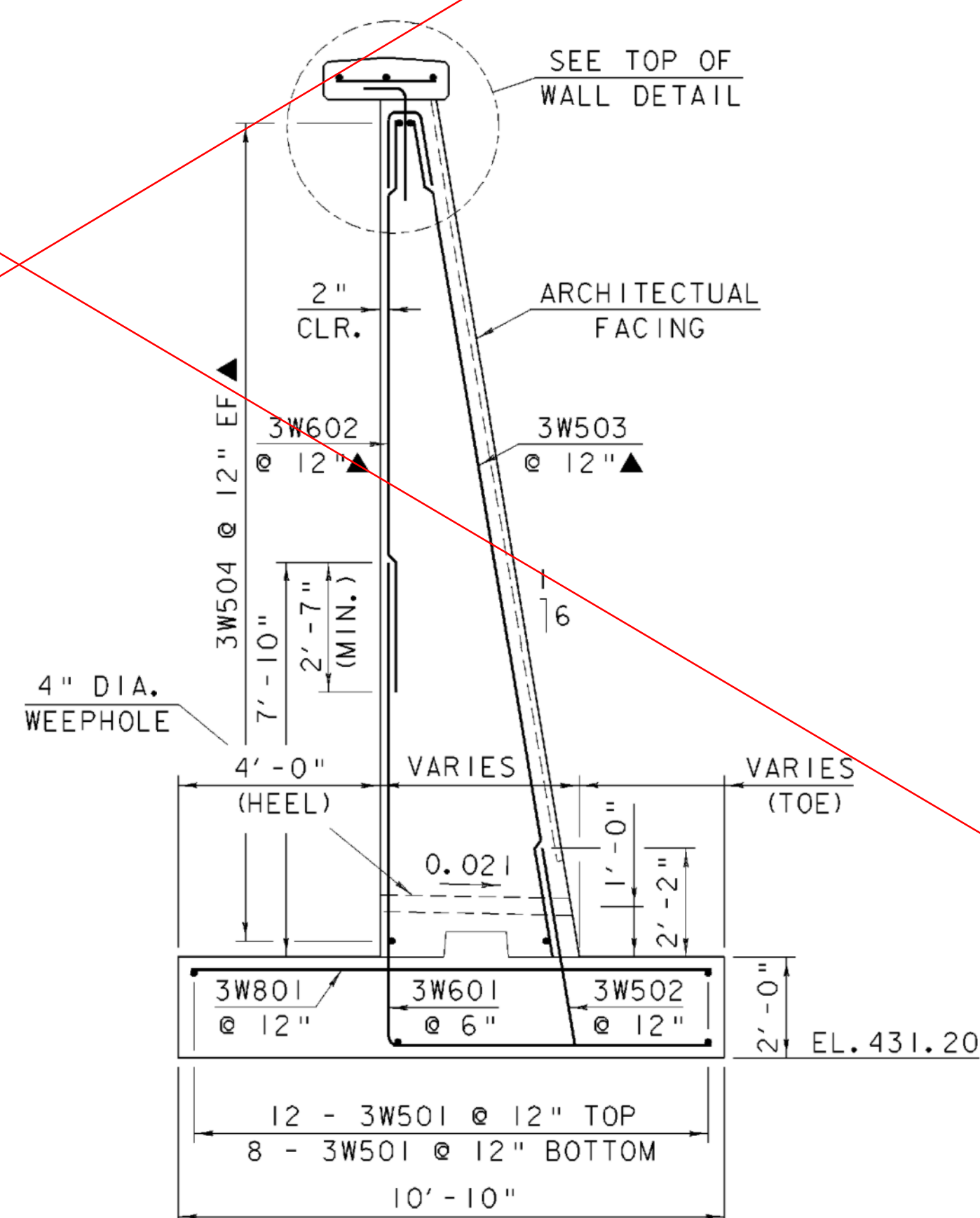
PLAN



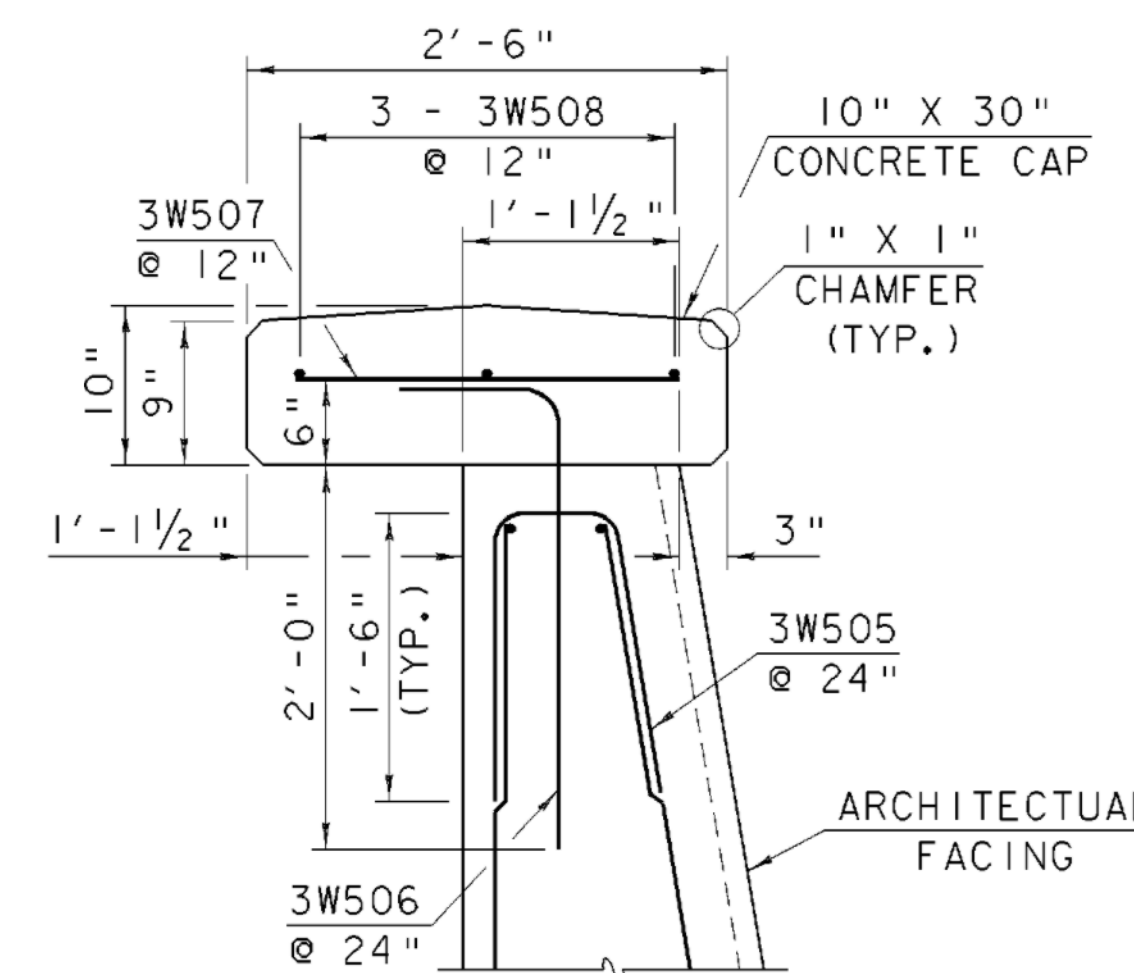
FOOTING REINFORCING



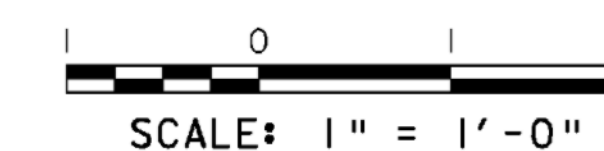
ELEVATION



TYPICAL SECTION

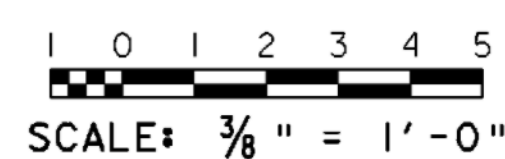


TOP OF WALL DETAIL



NOTE:
 NF = NEAR FACE
 FF = FAR FACE
 EF = EACH FACE
 ▲ = CUT TO FIT IN FIELD
 3" CLR. UNLESS OTHERWISE NOTED
 2'-2" BAR LAP UNLESS OTHERWISE NOTED

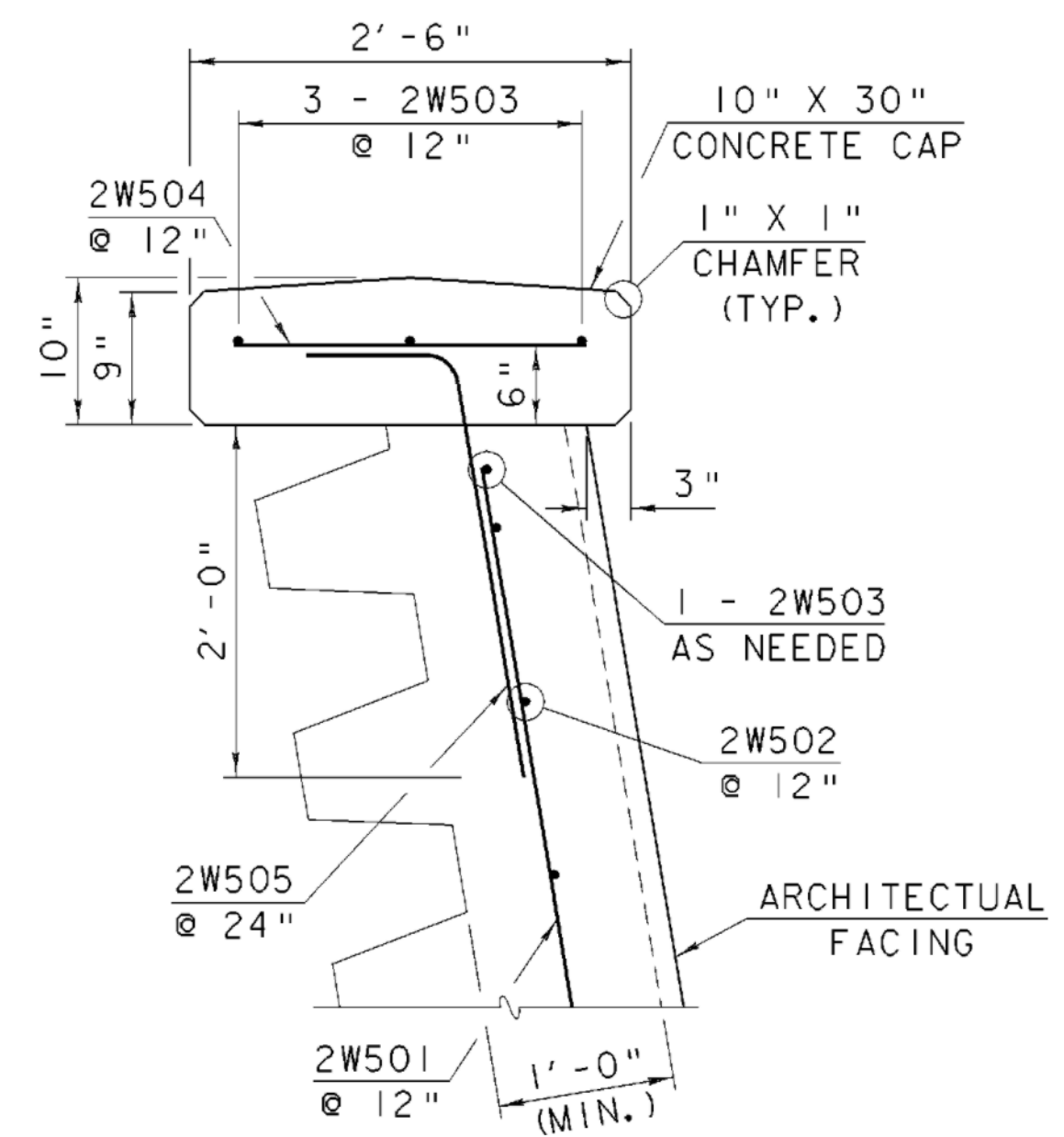
DETAILS FOR RETAINING WALL NO.3
 STA. 16+75.0 LT. - STA. 16+94.3 LT.



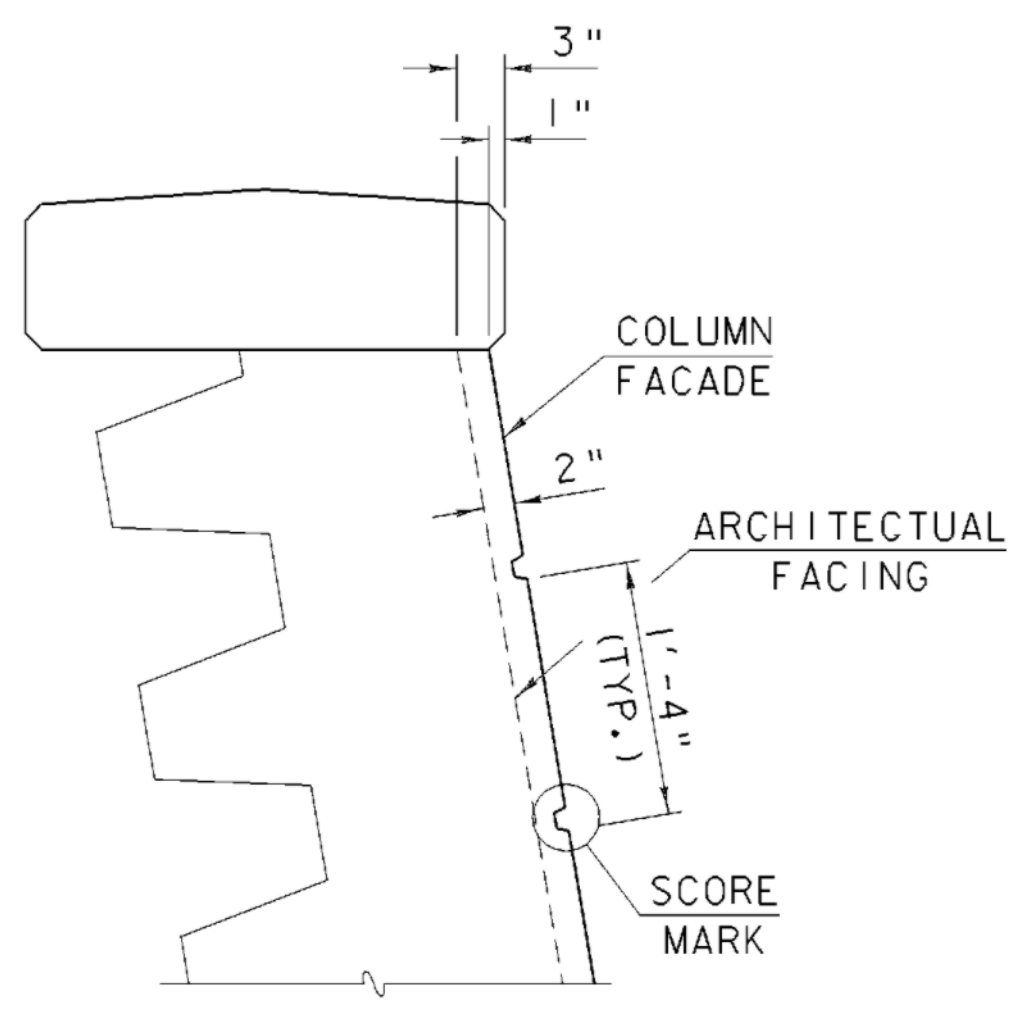
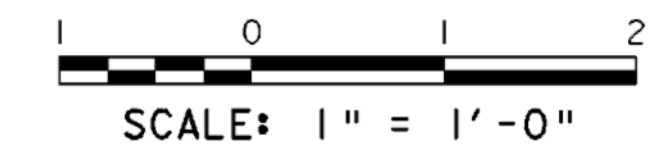
RETAINING WALL NO.3 DETAILS

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124\structures\sb124rwd.i	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
					SHEET 49 OF 72

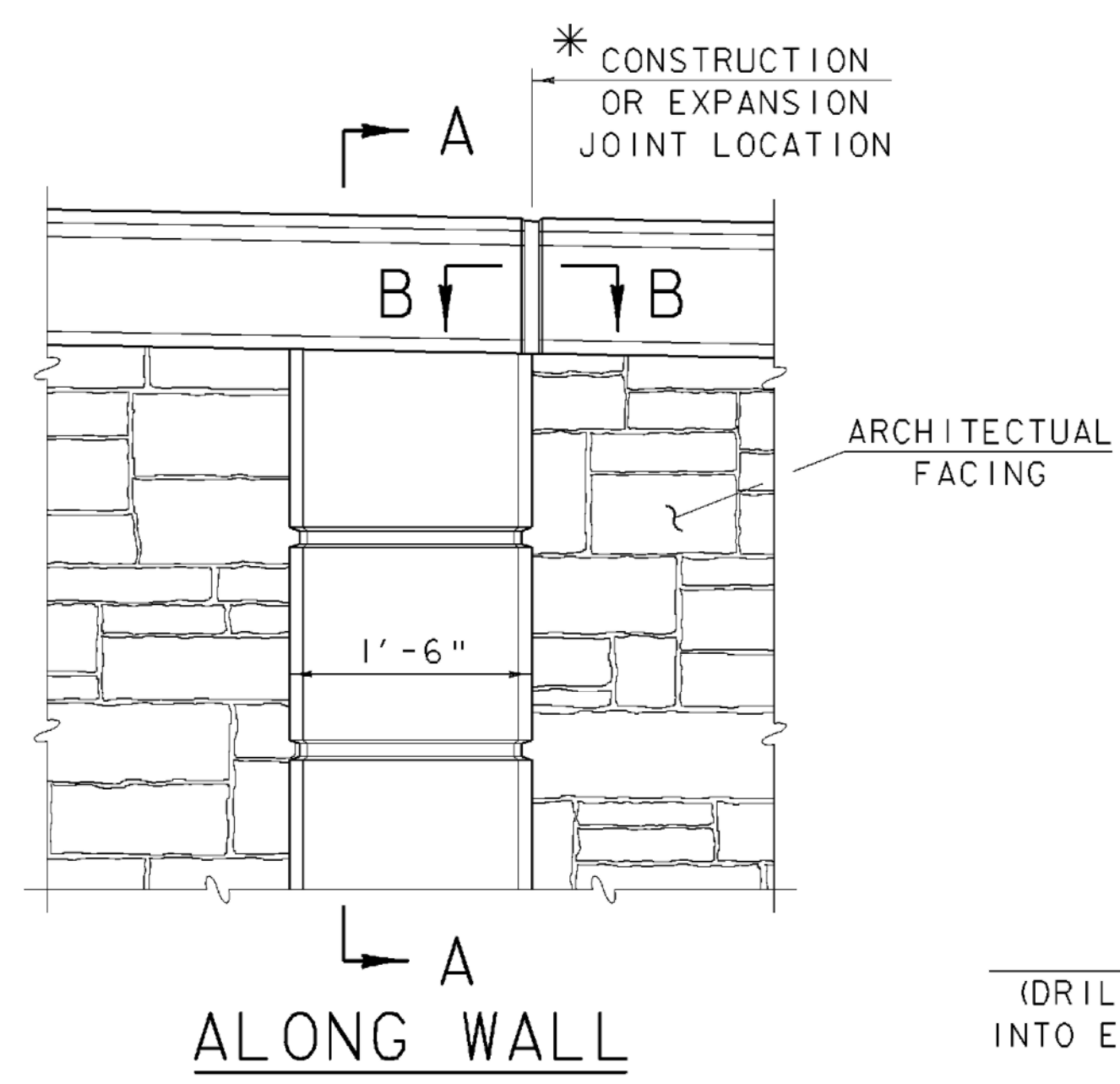
* SEE NOTES BELOW



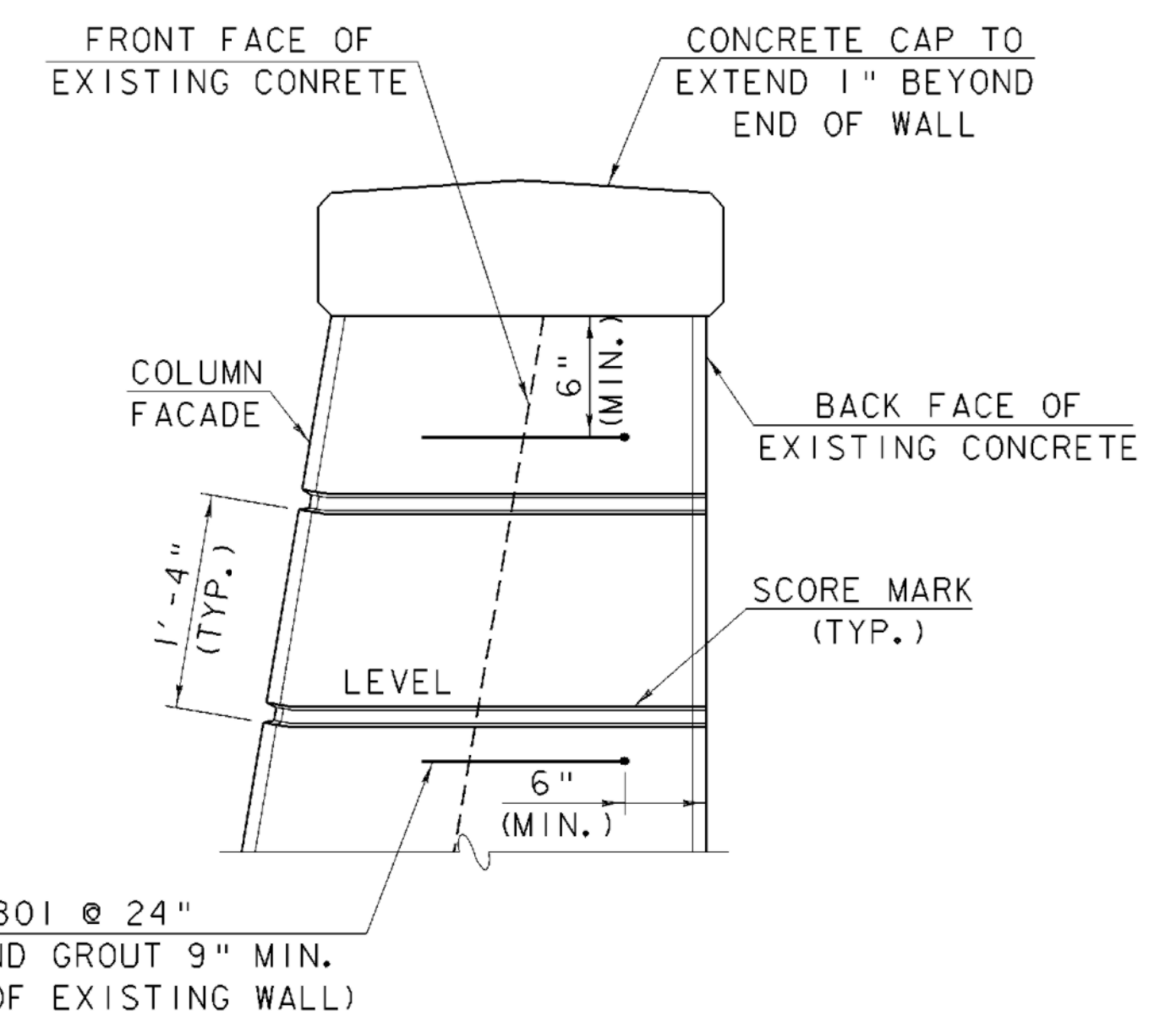
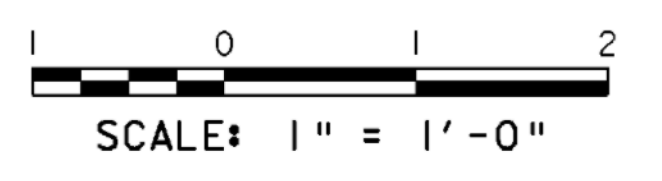
TOP OF WALL DETAIL AT EXISTING METAL BINWALL



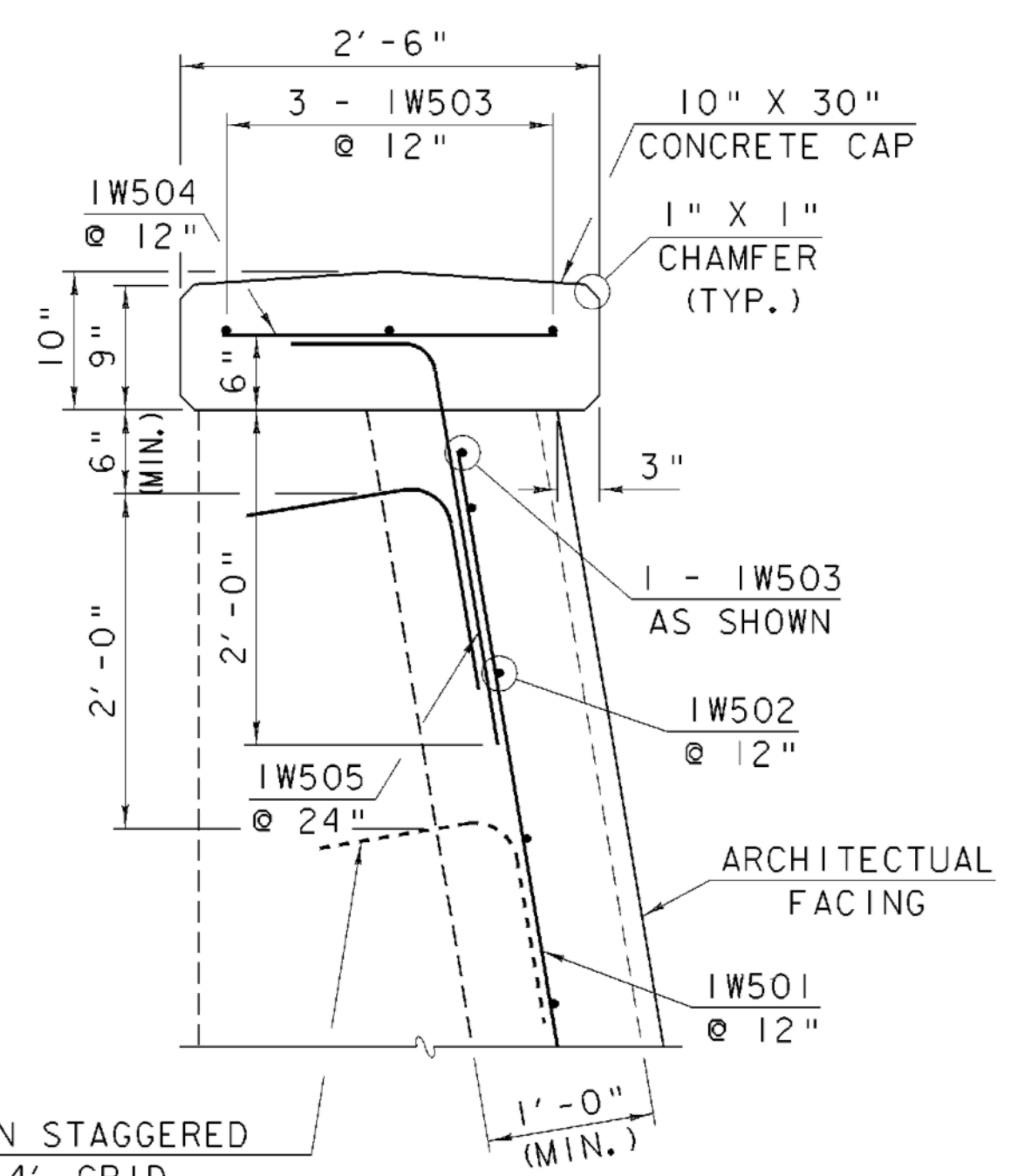
SECTION A-A



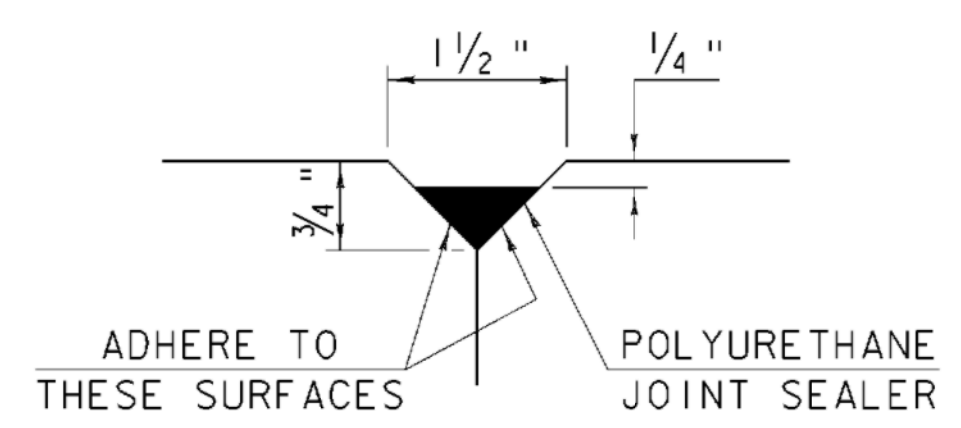
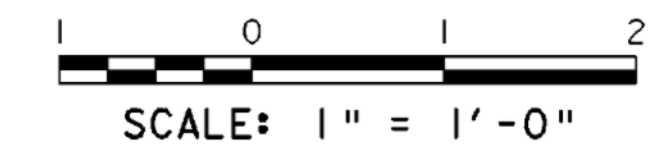
COLUMN FACADE DETAIL



AT END OF WALL

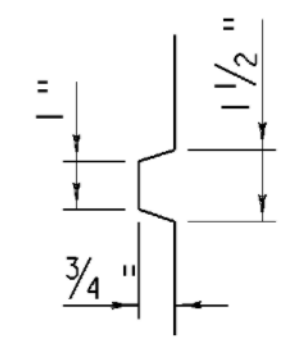


TOP OF WALL DETAIL AT EXISTING CONCRETE WALL

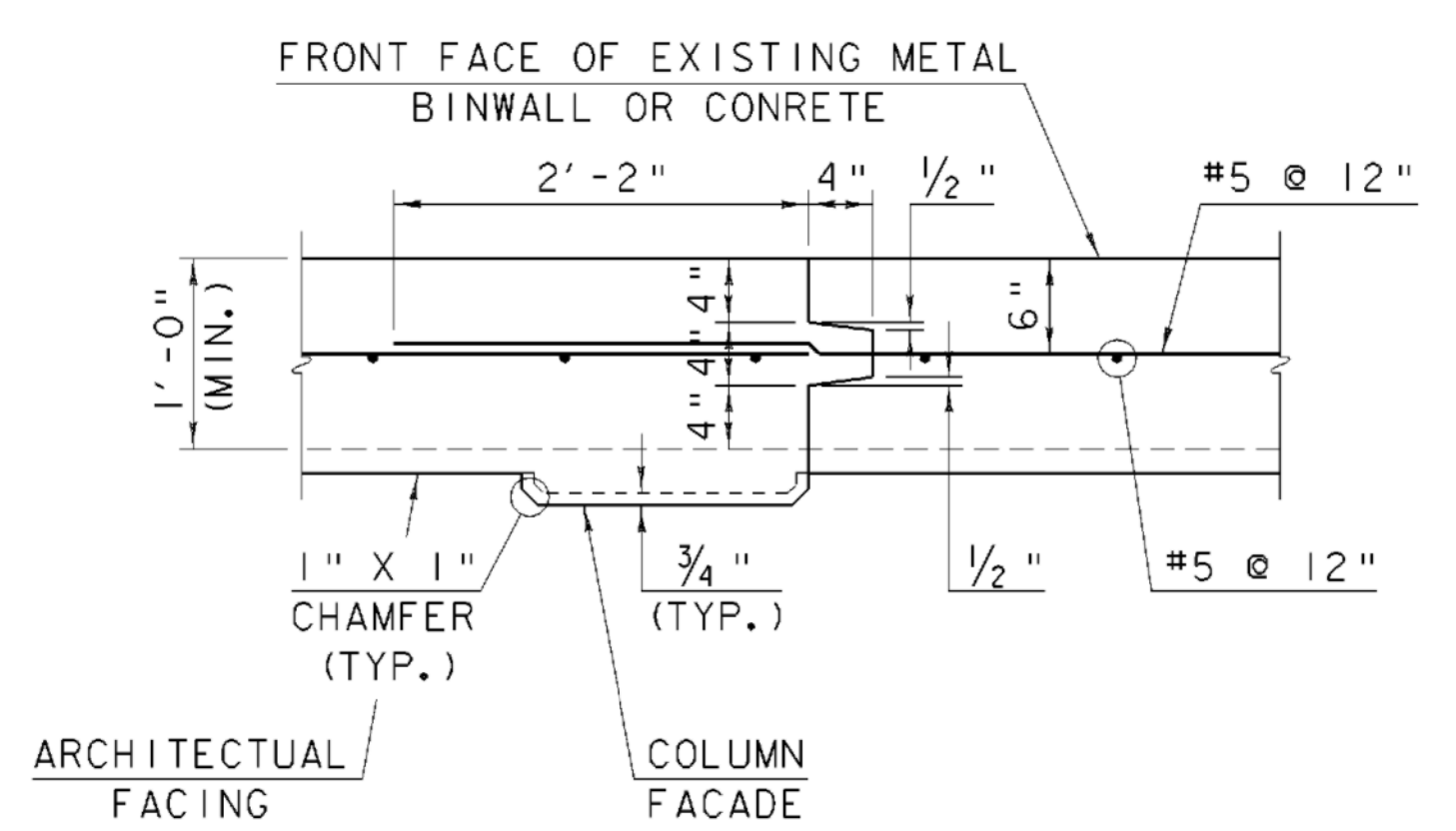
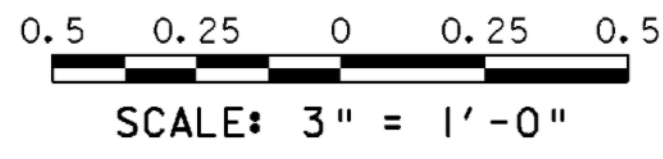


SECTION B-B NOT TO SCALE

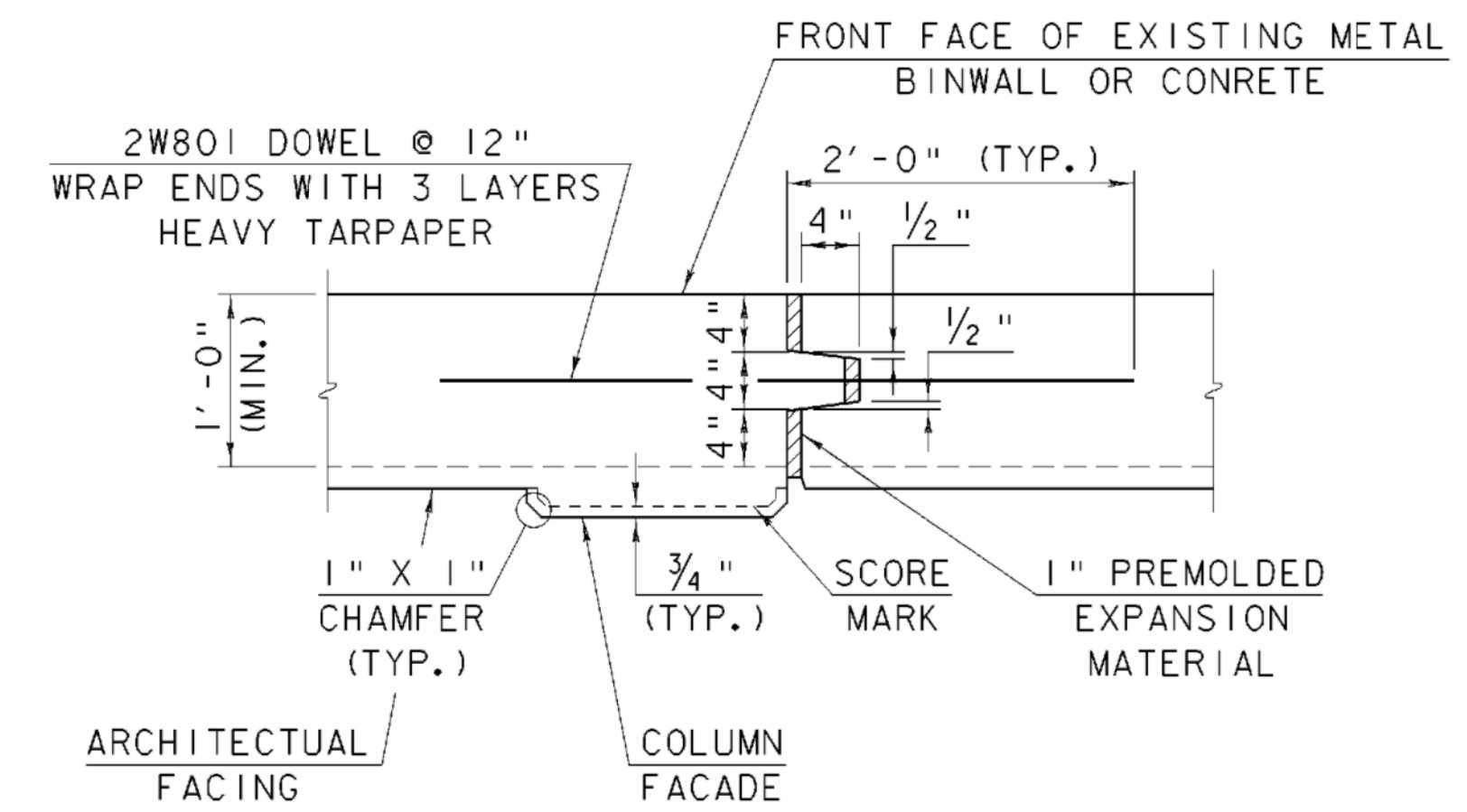
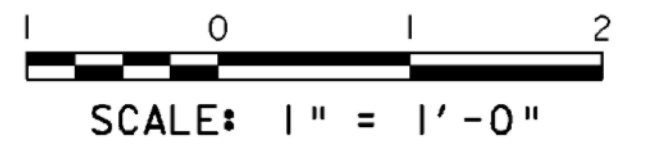
NOTE: POLYURETHANE JOINT SEALER SHALL MEET THE REQUIREMENTS OF SUBSECTIONS 524.06 (c) AND 707.05 OF THE STANDARD SPECIFICATIONS. COLOR TO MATCH CONCRETE. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 501.34, "CONCRETE, HIGH PERFORMANCE CLASS B".



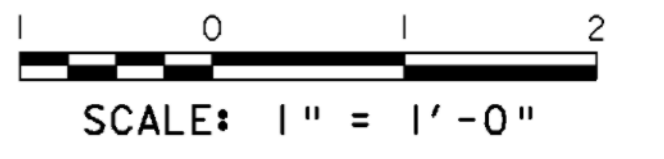
SCORE MARK DETAIL



CONSTRUCTION JOINT DETAIL



EXPANSION JOINT DETAIL



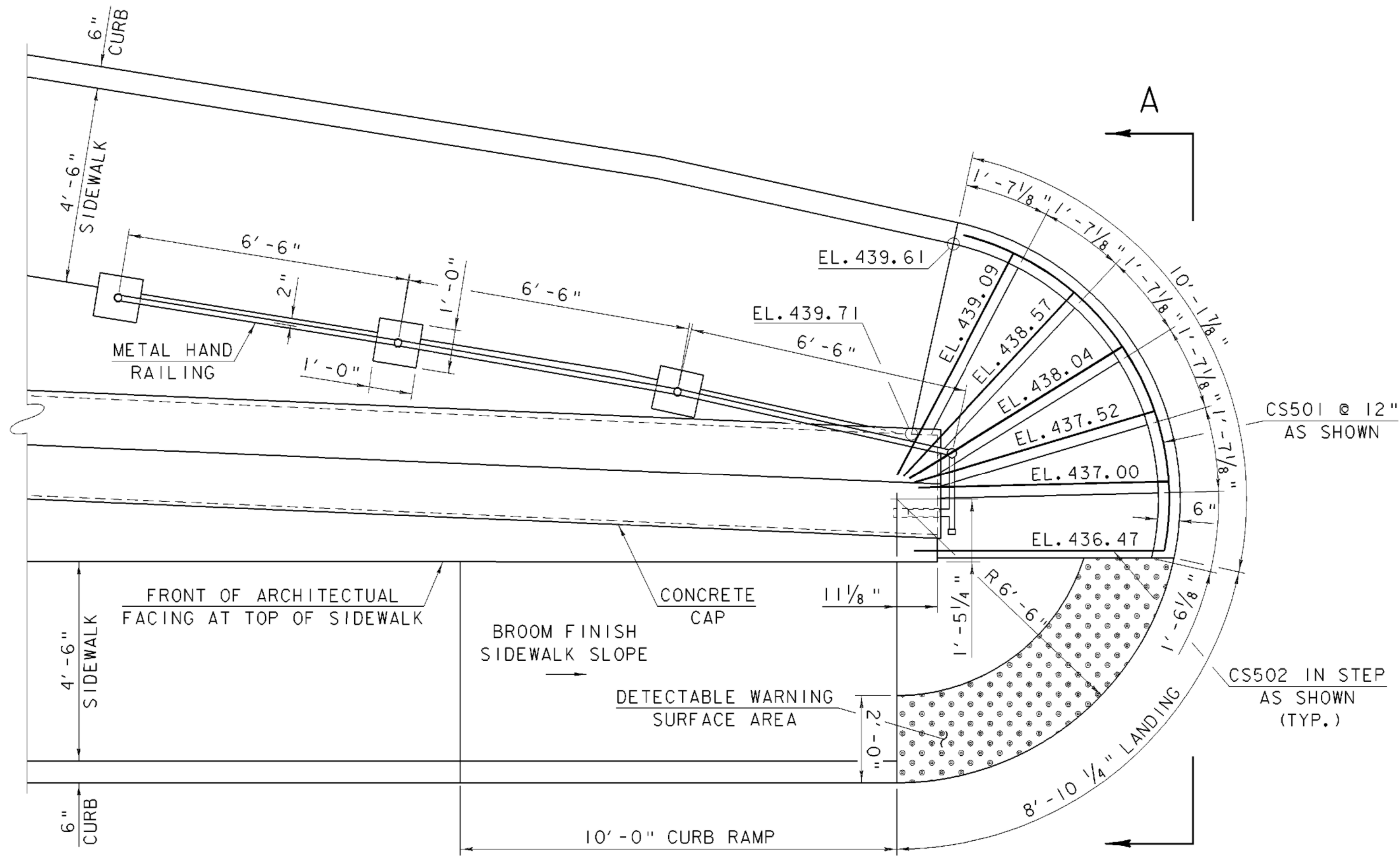
(PAINT SIDE OF KEY WITH BITUMEN TO PREVENT BONDING.)

NOTES:

- CONSTRUCTION JOINT FOR CONCRETE CAP SHALL BE SPACED ~~15'-0"~~ ^{20'-0"} CENTER TO CENTER. CONCRETE SHALL BE PLACED IN ALTERNATING SECTIONS WITH A MINIMUM OF 48 HOURS DELAY BETWEEN ADJACENT POURS.
- LONGITUDINAL REINFORCING SHALL PASS THROUGH CONCRETE CAP CONSTRUCTION JOINTS.
- EXPANSION JOINTS SHALL BE LOCATED AS SHOWN IN THE PLANS EXCEPT NO KEY AS SHOWN IN SECTION B-B, JUST EXPANSION JOINT MATERIAL.

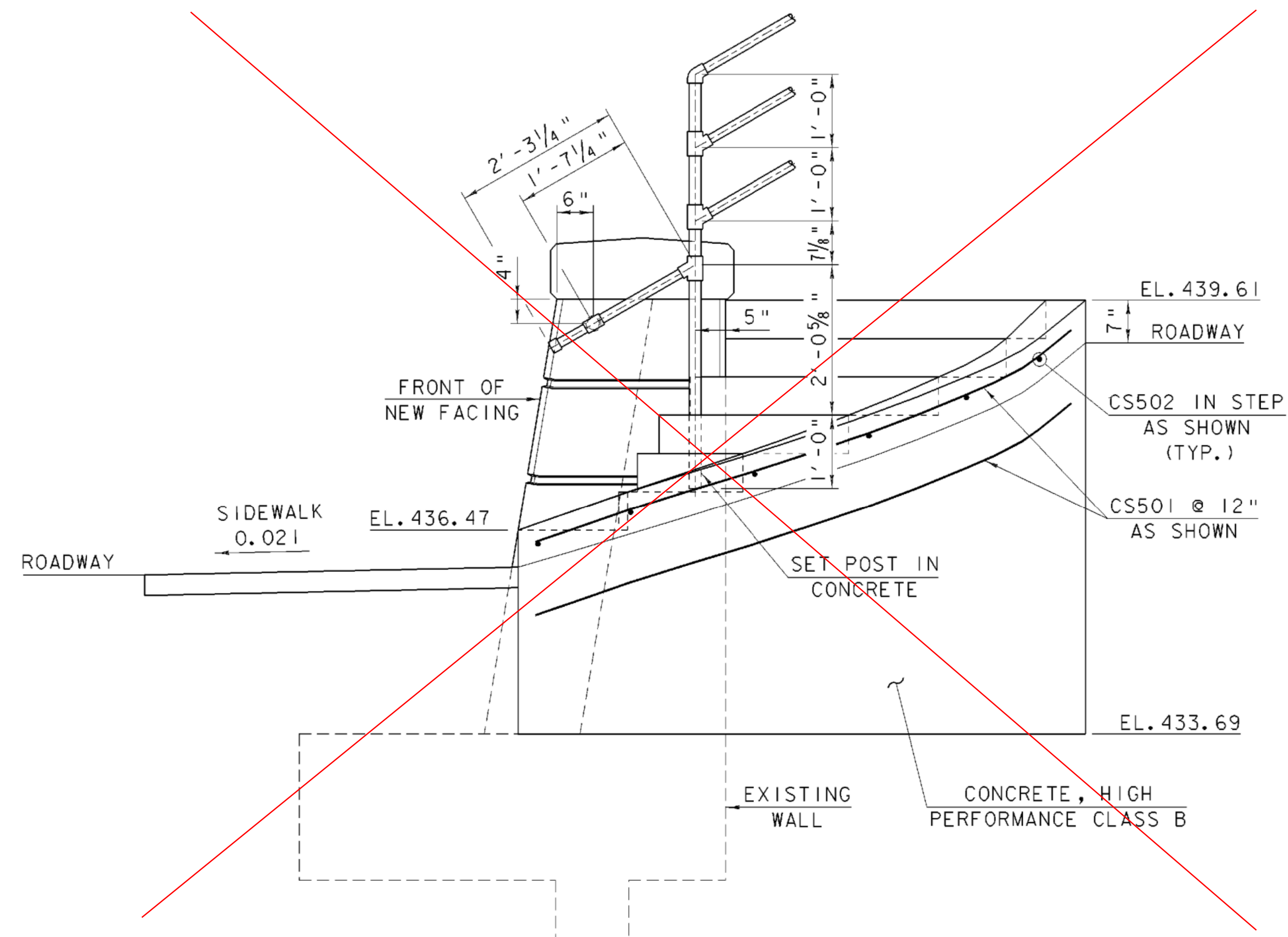
SEE REVISED DETAILS IN VALUE ENGINEERING PLAN SET
WALL DETAILS

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124\structures\sb124wd.1	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
					SHEET 50 OF 72



~~CONCRETE STEPS AND HAND RAILING PLAN~~

1 0 1 2 3 4
SCALE: 1/2" = 1'-0"



VIEW A-A

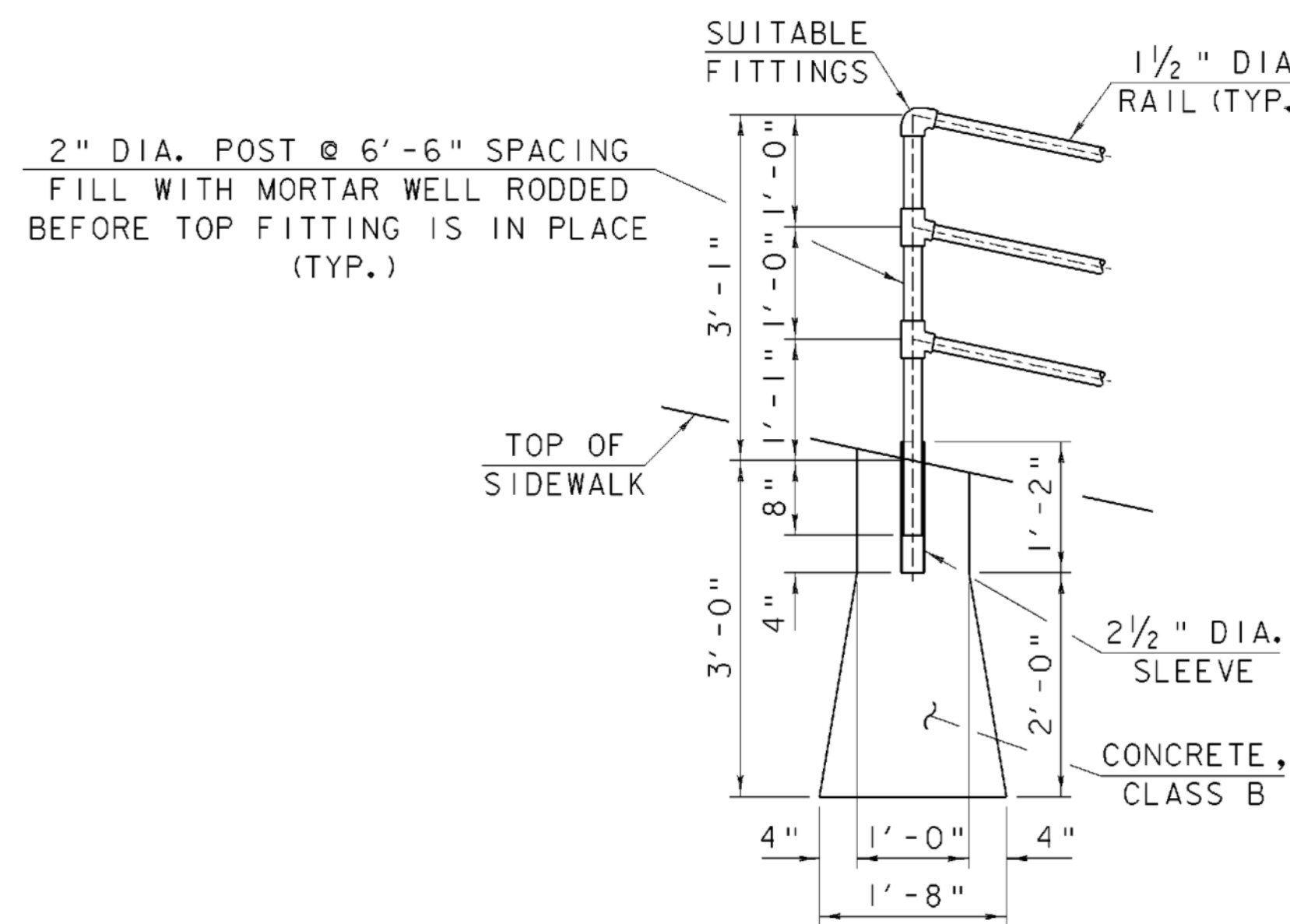
1 0 1 2 3
SCALE: 3/4" = 1'-0"

METAL HAND RAILING NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE PROVISIONS OF SECTION 525 - RAILINGS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.
2. METAL HAND RAILING SHALL MEET THE REQUIREMENTS OF SECTION 732 - RAILING MATERIALS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.
3. RAIL POSTS SHALL BE SET PLUMB.
4. ALL RAILING PARTS SHALL BE GALVANIZED. NO PAINTING IS REQUIRED.
5. ITEM 525.15, "METAL HAND RAILING" SHALL INCLUDE RAILS, POSTS, FITTINGS, CAP, SLEEVES AND CONCRETE FOR POST ANCHORS.

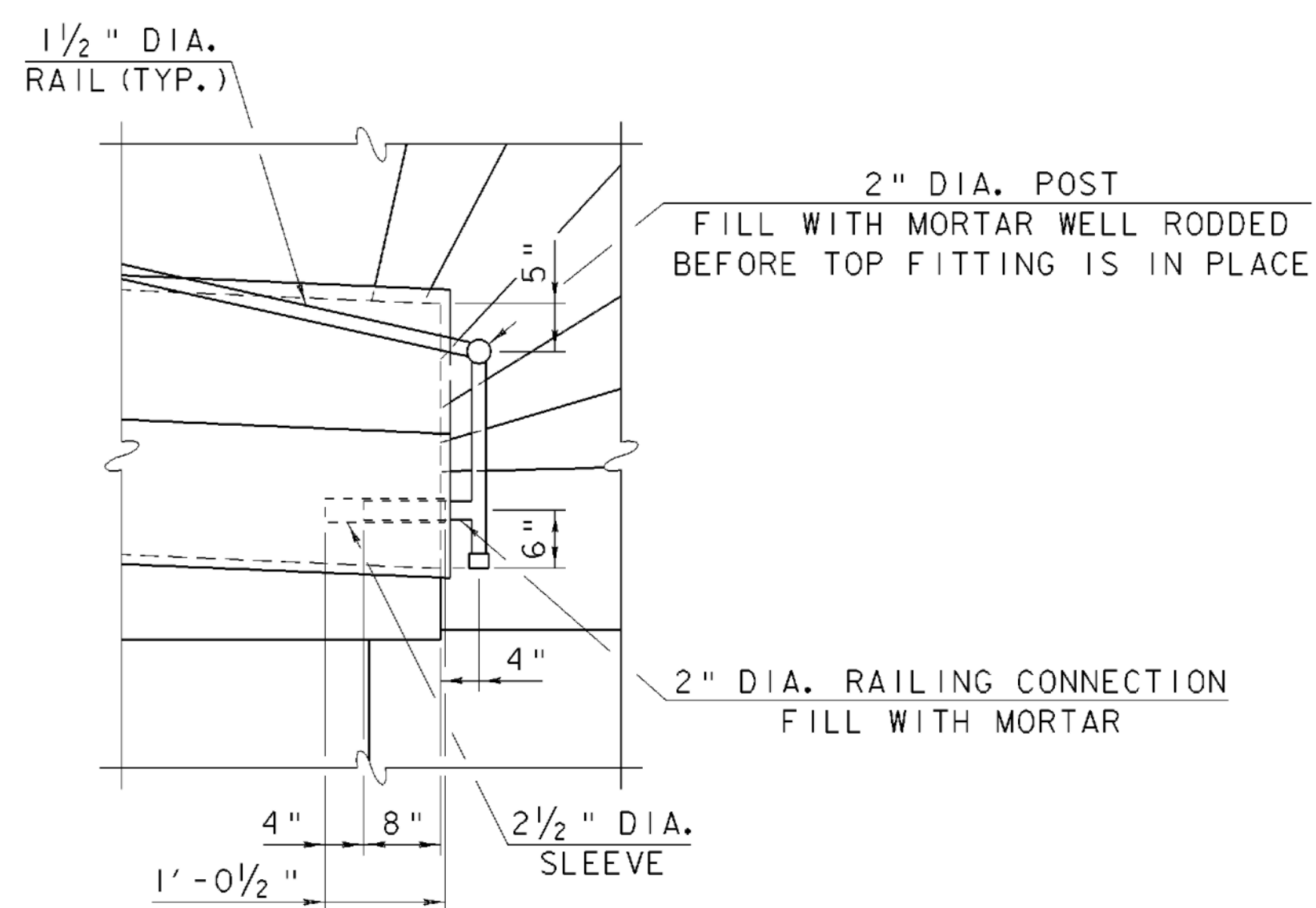
NOTE: CONCRETE STEPS NOT BUILT DUE TO CONFLICT WITH EXISTING SANITARY SEWER MAIN. THE HANDRAIL WAS INSTALLED ALONG THE TOP OF THE WALL CAP.

~~CONCRETE STEPS AND METAL HAND RAILING DETAILS~~



POST ANCHOR DETAIL

1 0 1 2 3
SCALE: 3/4" = 1'-0"

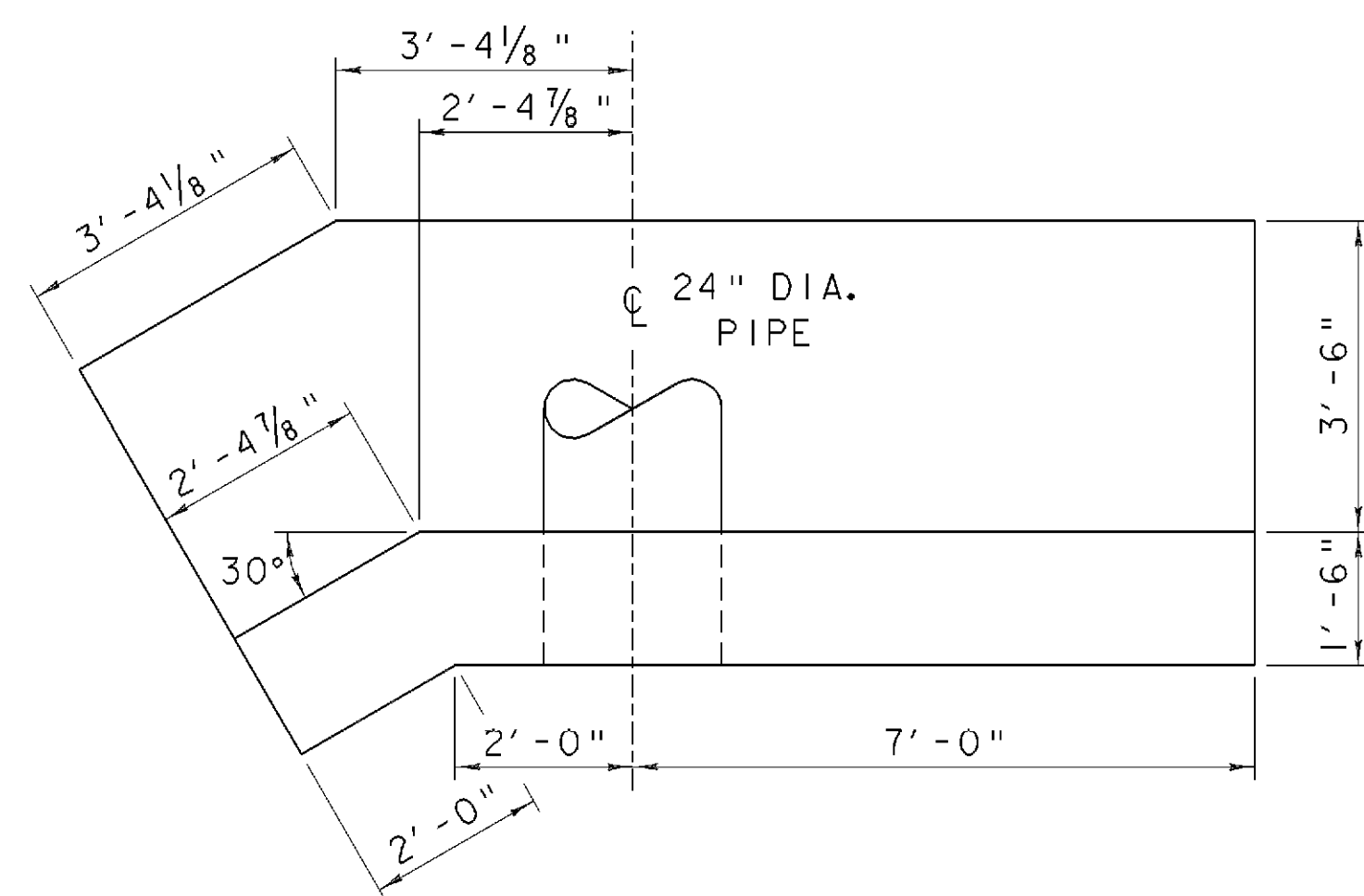


END CONNECTION DETAIL

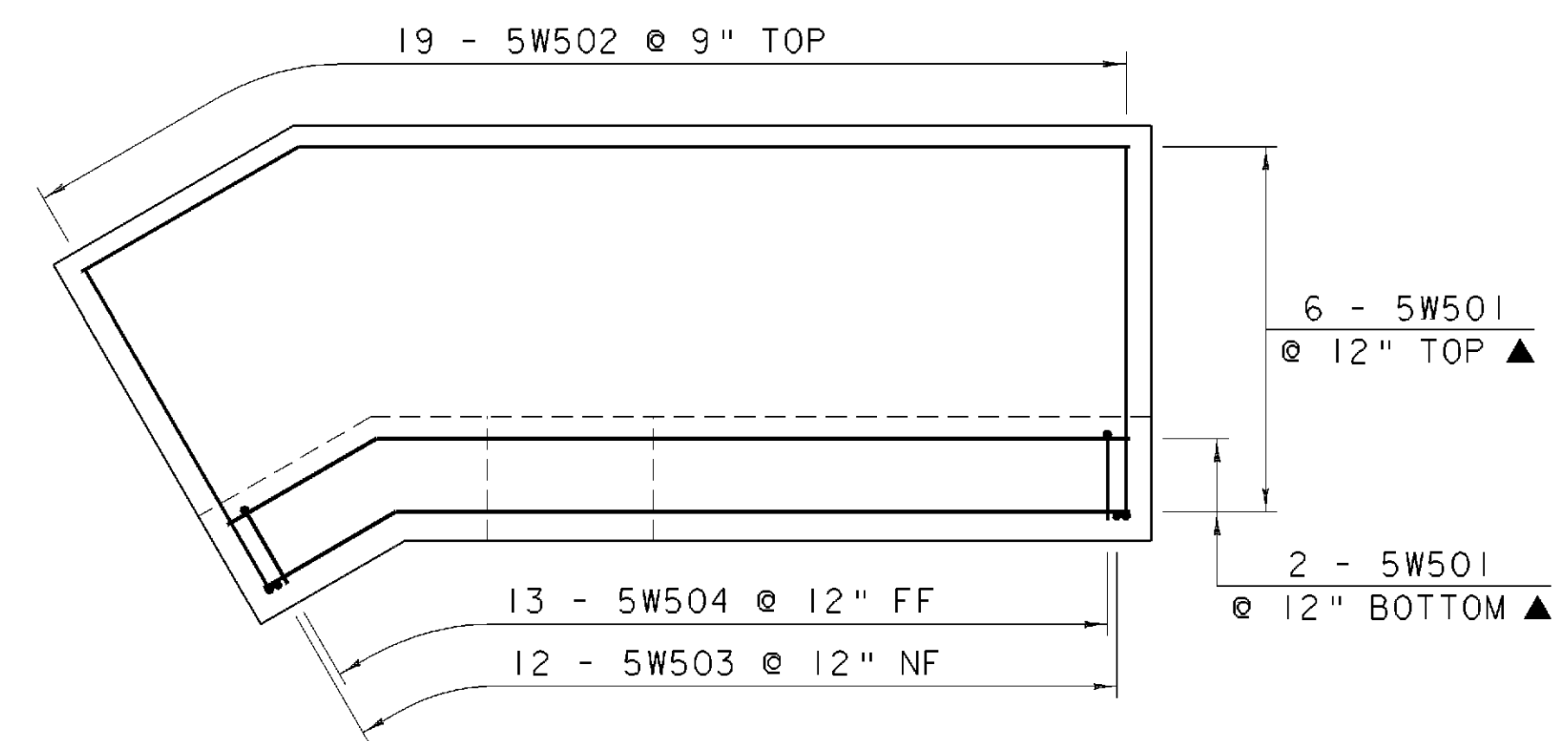
1 0 1 2 3
SCALE: 3/4" = 1'-0"

PROJECT NAME: SPRINGFIELD
PROJECT NUMBER: STP 016-2 (10)S

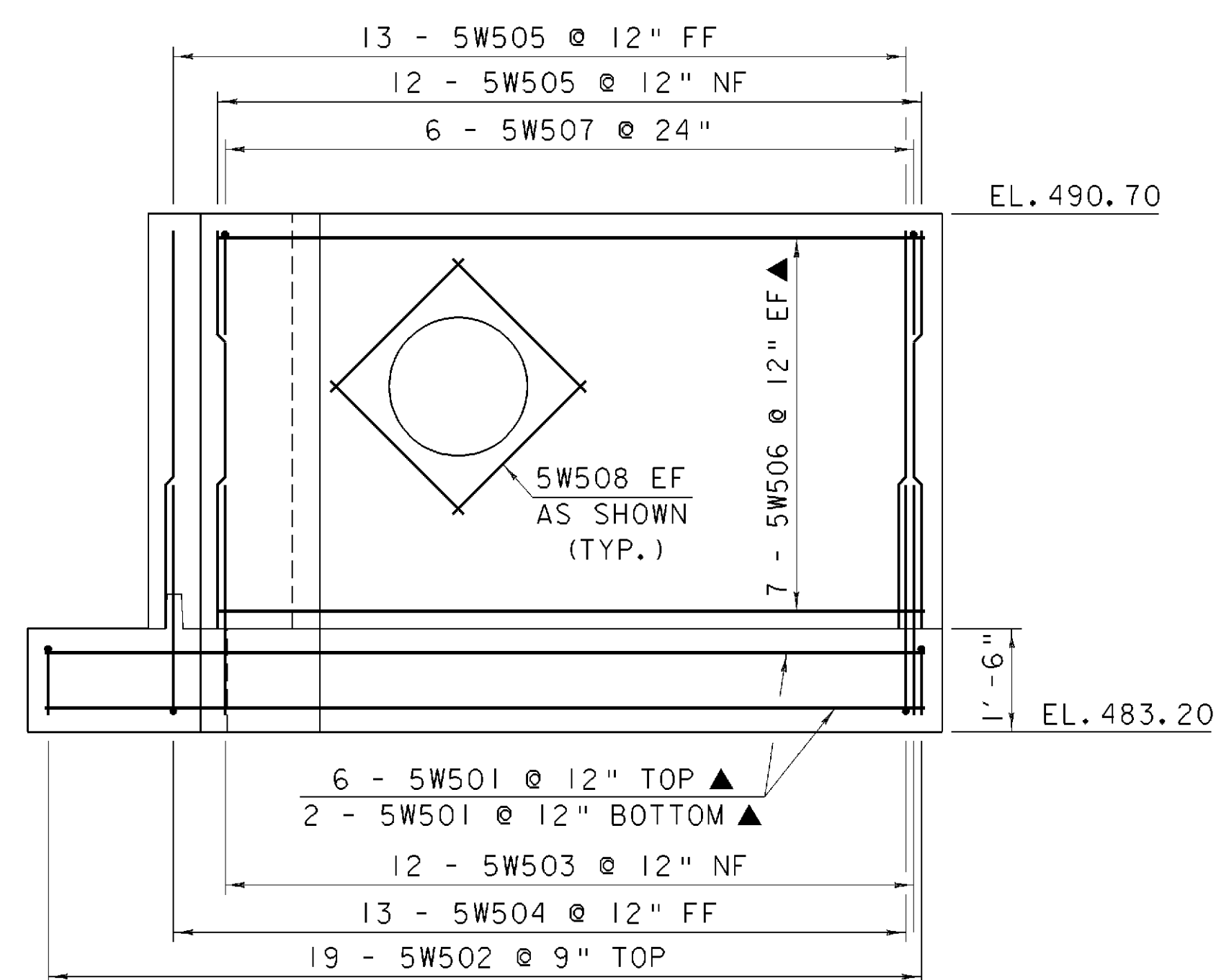
FILE NAME: 00b124\structures\sb124smrd.1 PLOT DATE: 17-AUG-2004
PROJECT MANAGER: R. WHITCOMB DRAWN BY: G. ROY
DESIGNED BY: G. ROY CHECKED BY: R. WHITCOMB
SHEET 51 OF 72



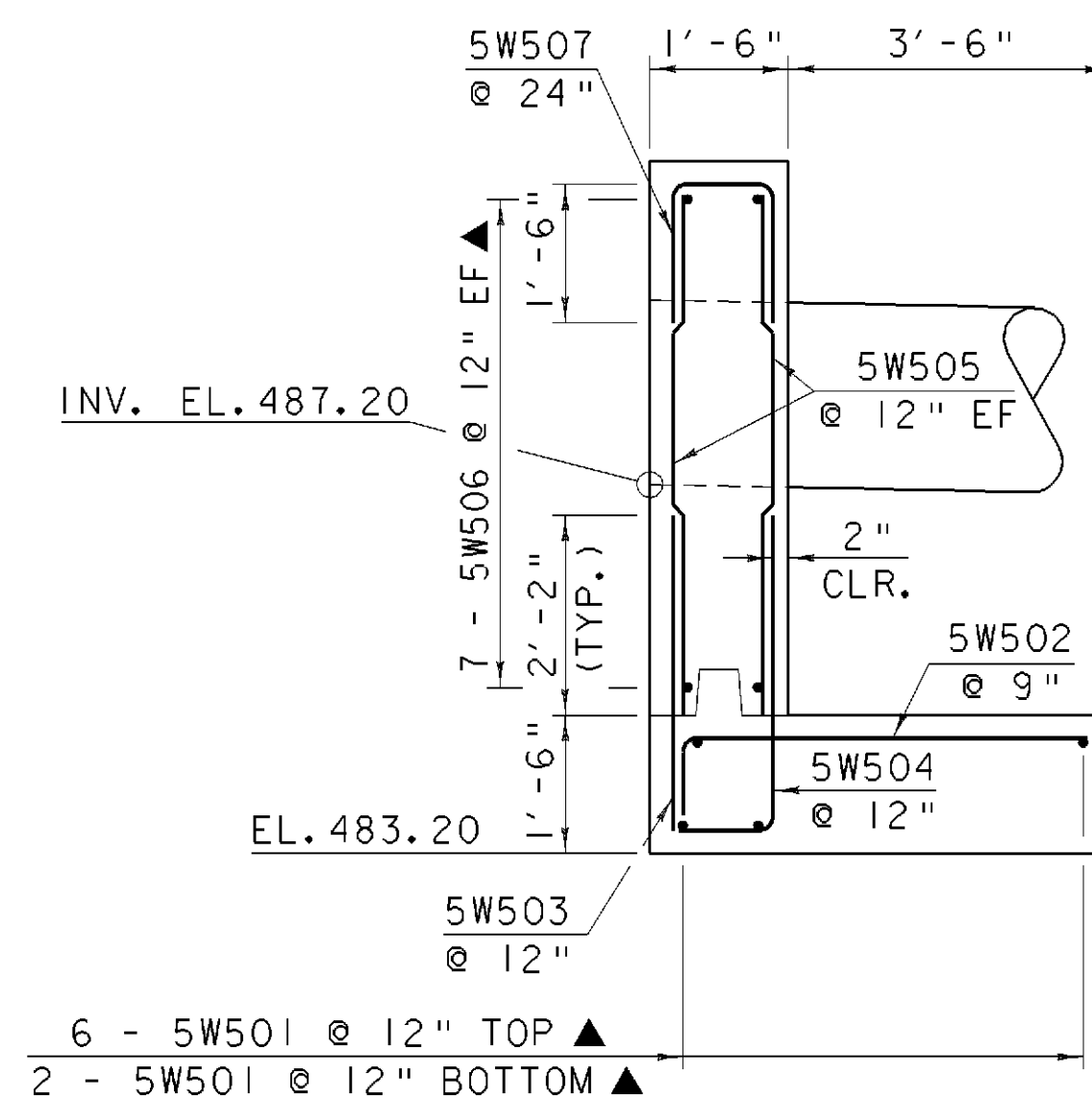
PLAN



FOOTING REINFORCING



ELEVATION



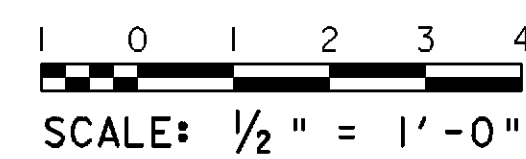
TYPICAL SECTION

NOTE:
 NF = NEAR FACE
 FF = FAR FACE
 EF = EACH FACE
 ▲ = CUT TO FIT IN FIELD
 3" CLR. UNLESS OTHERWISE NOTED
 2'-2" BAR LAP UNLESS OTHERWISE NOTED

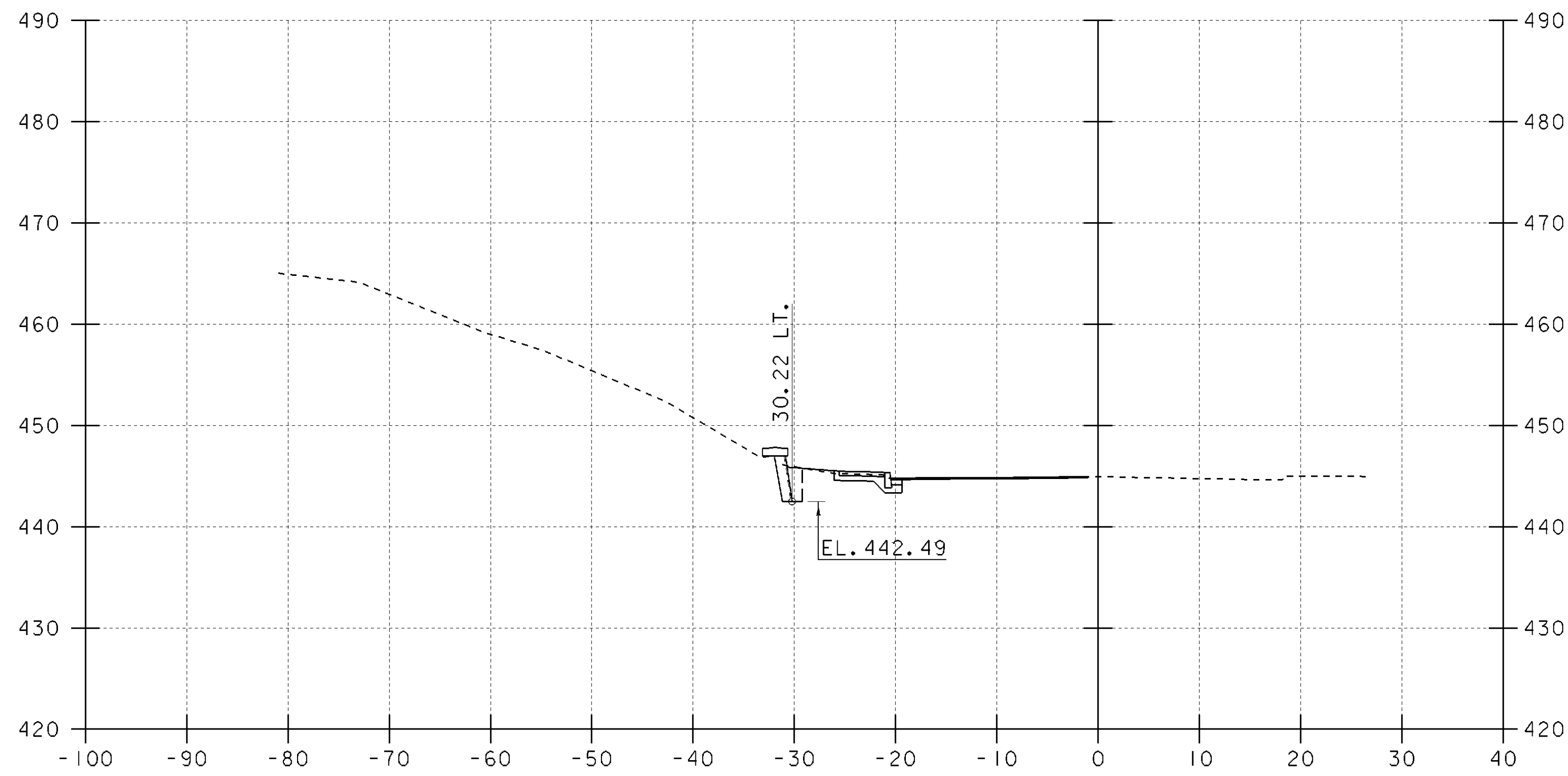
CONCRETE IN HEADWALL SHALL BE HIGH PERFORMANCE CLASS B

HEADWALL DETAILS

DETAILS FOR HEADWALL AT 23+49 RT.



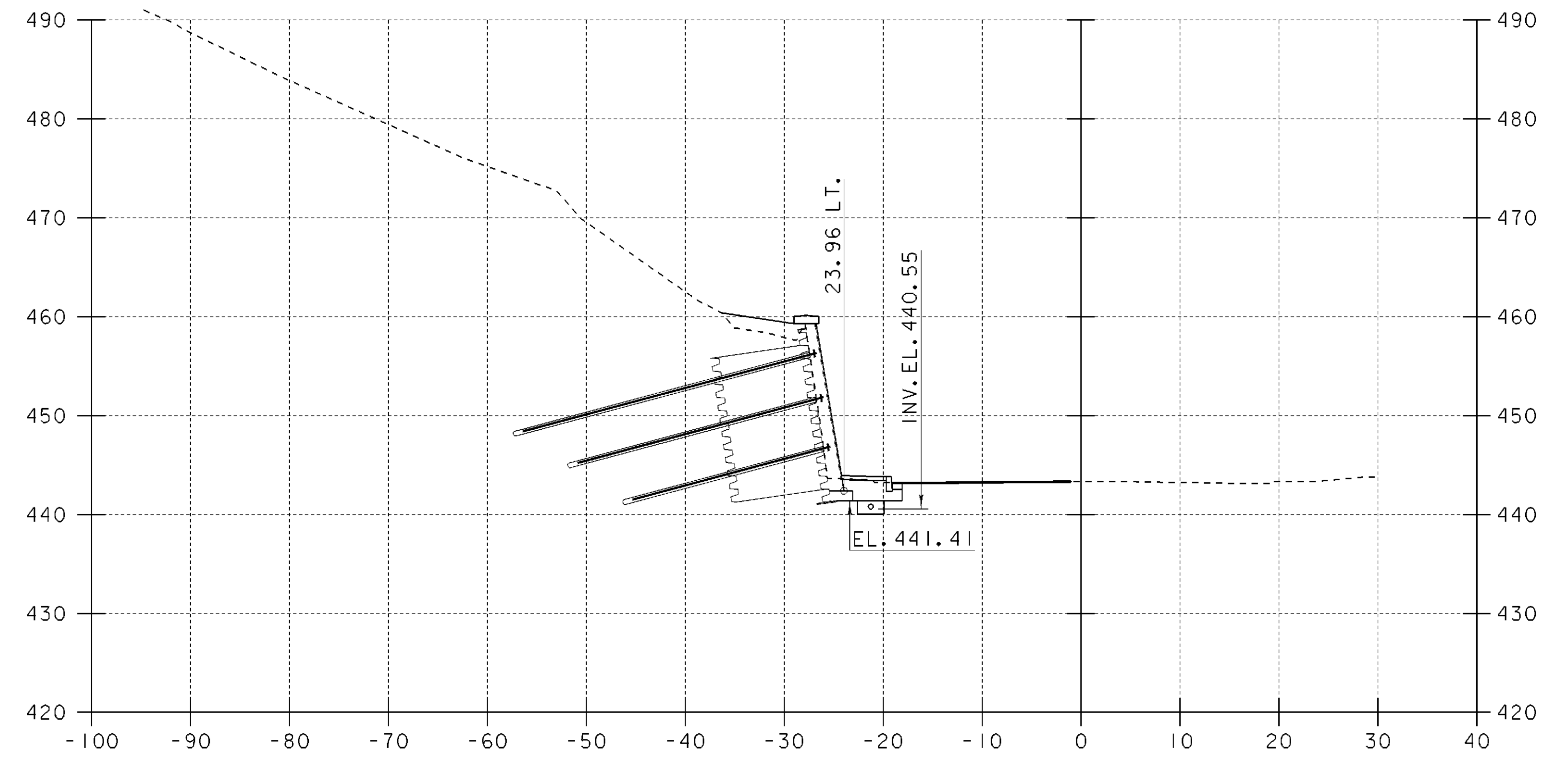
PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124\structures\sbl24hwd.l	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	52 OF 72



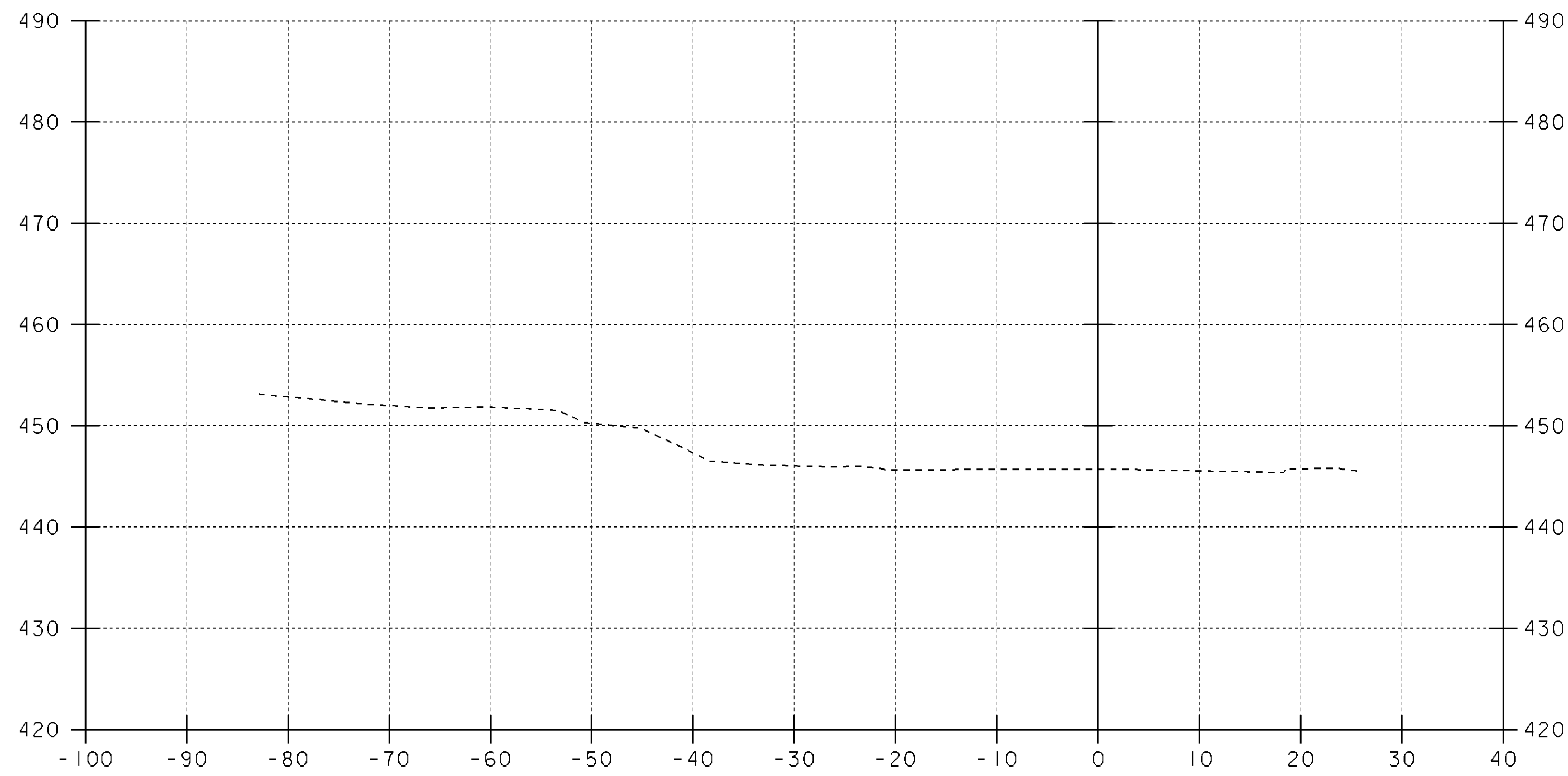
STA. 10+72.00 LT.
BEGIN PARTICIPATION PROJECT

10+75

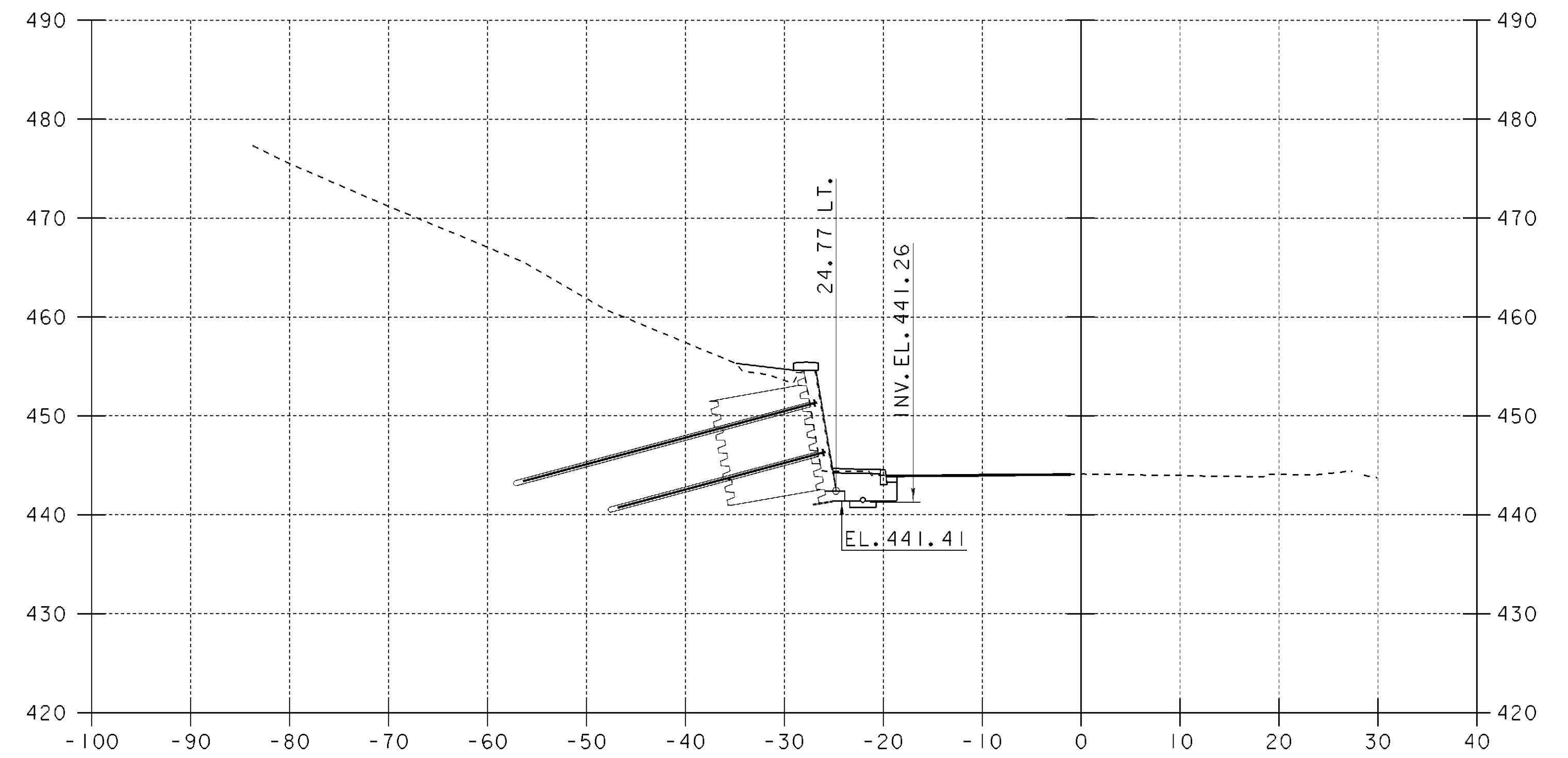
10+72.0 LT. - 10+90.0 LT.
CONCRETE FACE EXISTING CONCRETE
RETAINING WALL



11+25



10+50



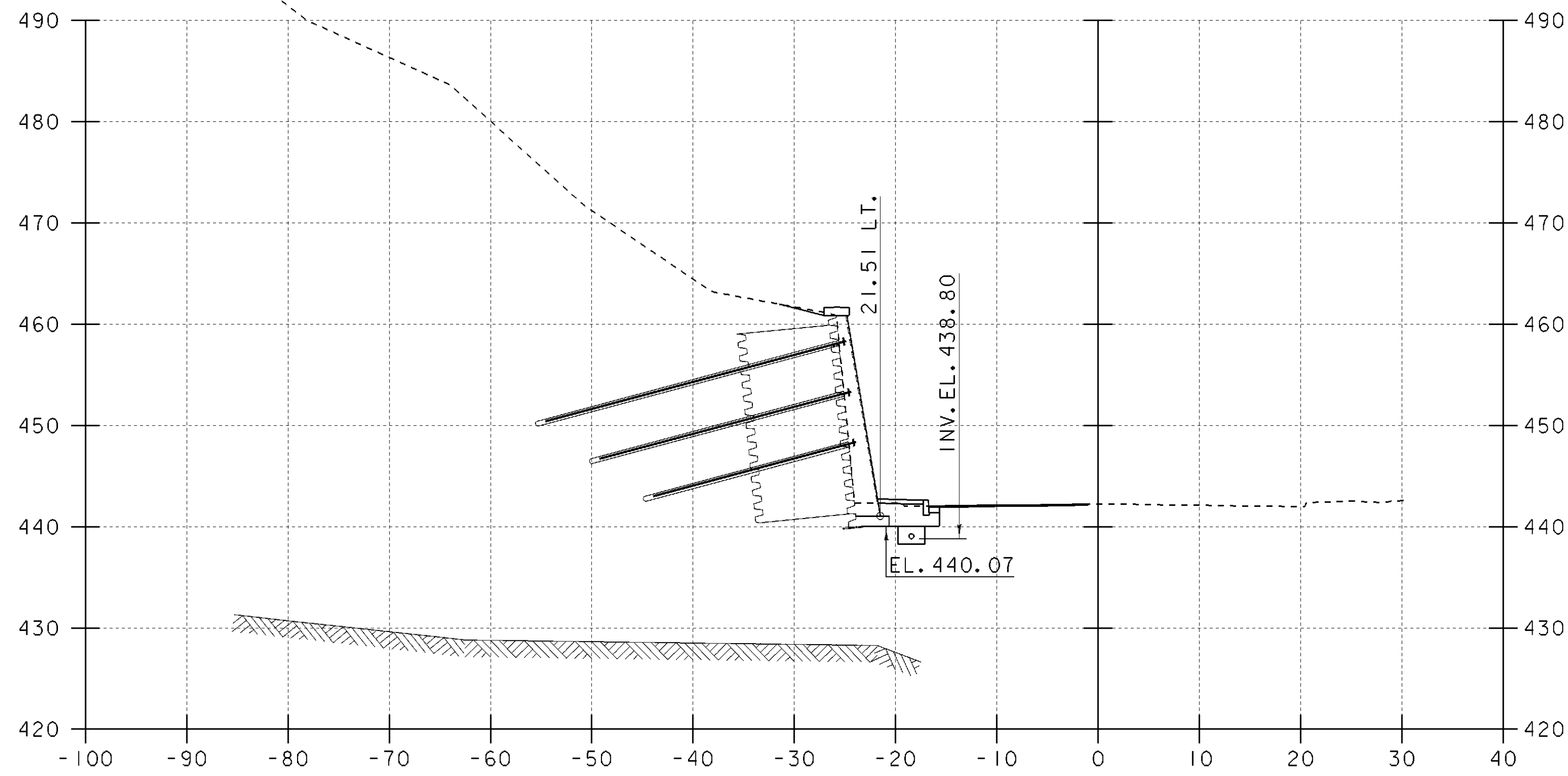
11+00

10+90.0 LT. - 16+75.0 LT.
CONCRETE FACE EXISTING METAL BIN
RETAINING WALL

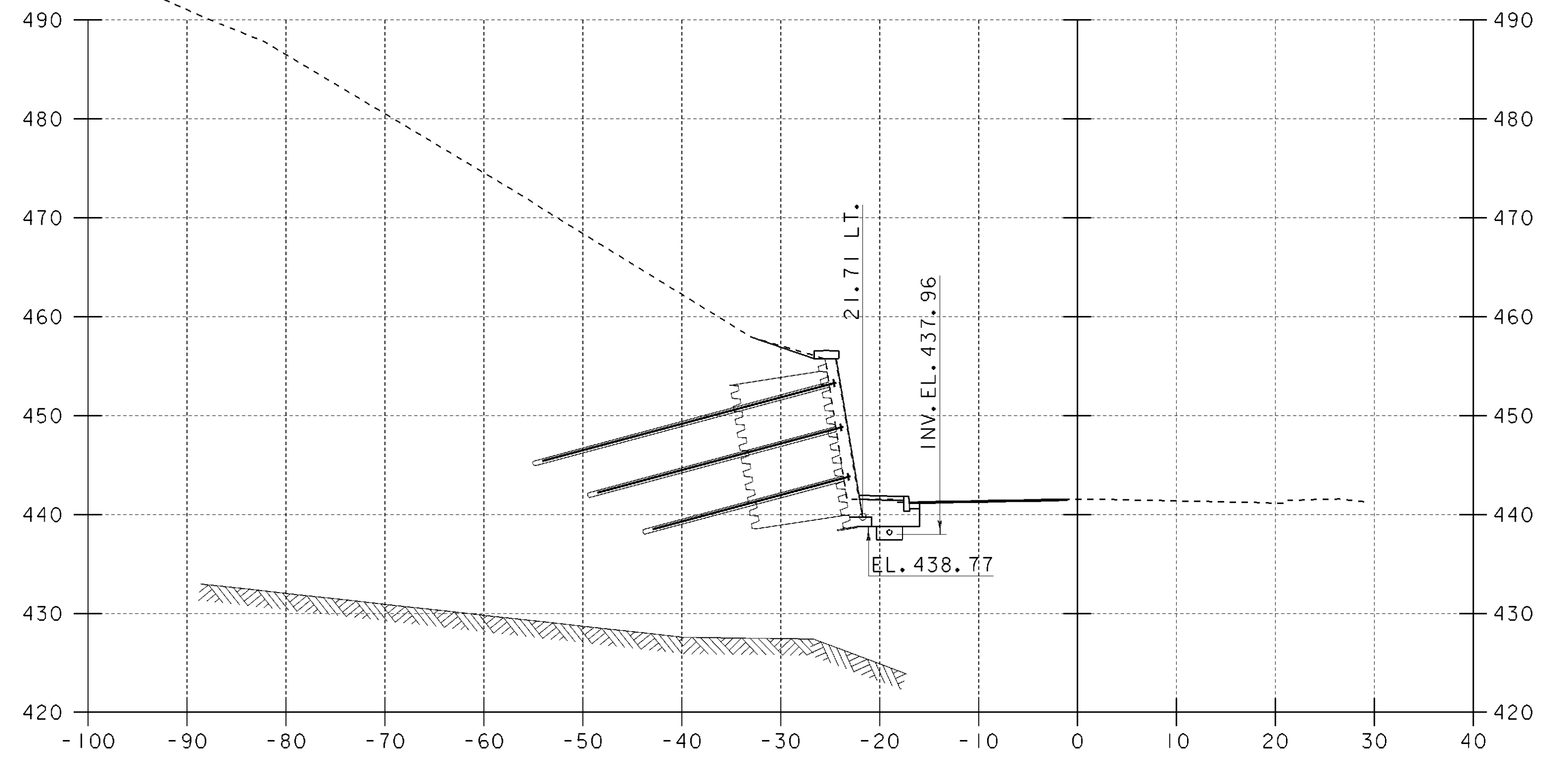
VT 11 CROSS SECTIONS (1)

SCALE: 1" = 10'-0"
10 0 10

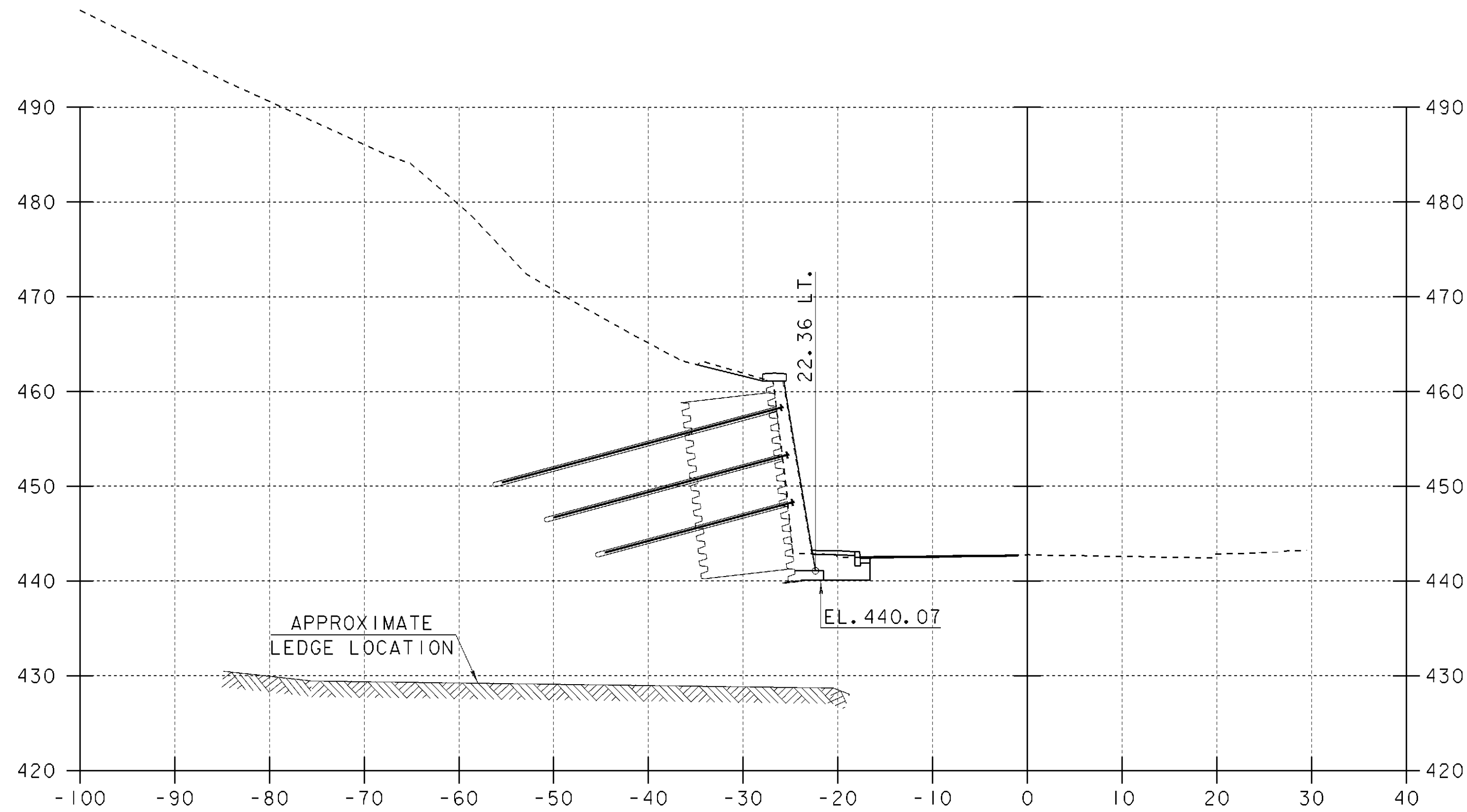
PROJECT NAME:	SPRINGFIELD	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	DRAWN BY:	G. ROY
FILE NAME:	00b124/Structures/sbl24m01.I	CHECKED BY:	R. WHITCOMB
DESIGNED BY:	G. ROY	SHEET	54 OF 72



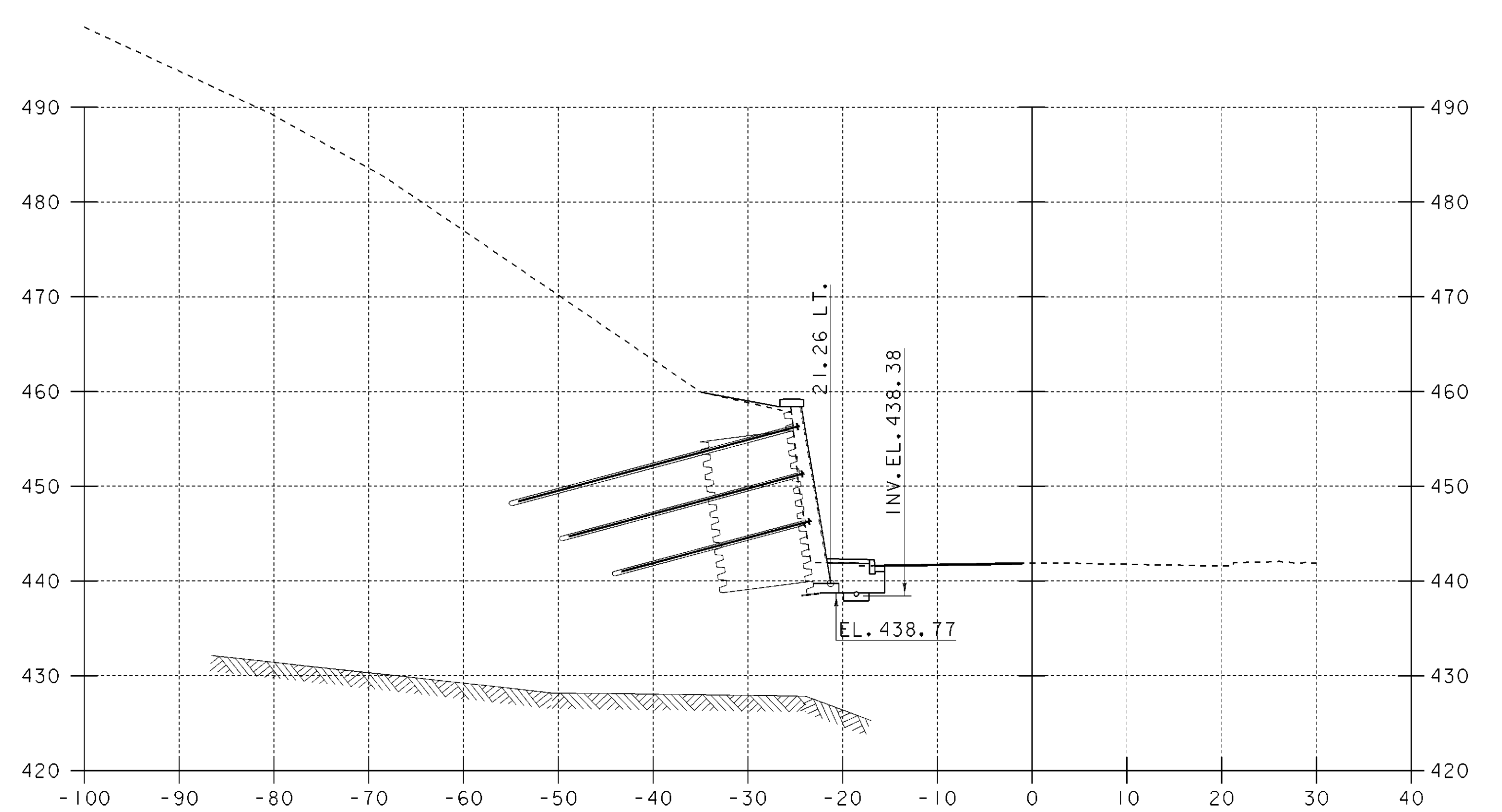
11+75



12+25



11+50

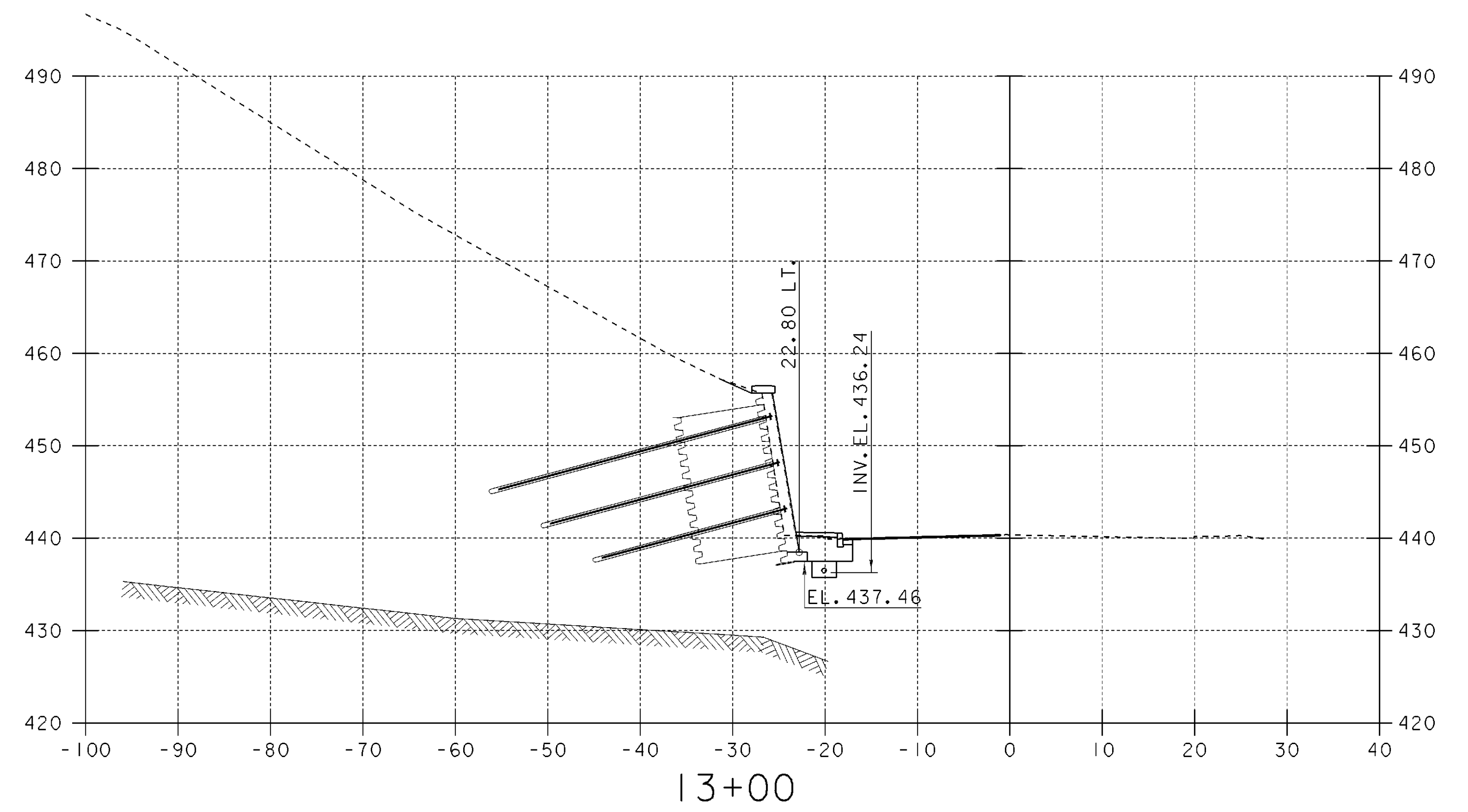
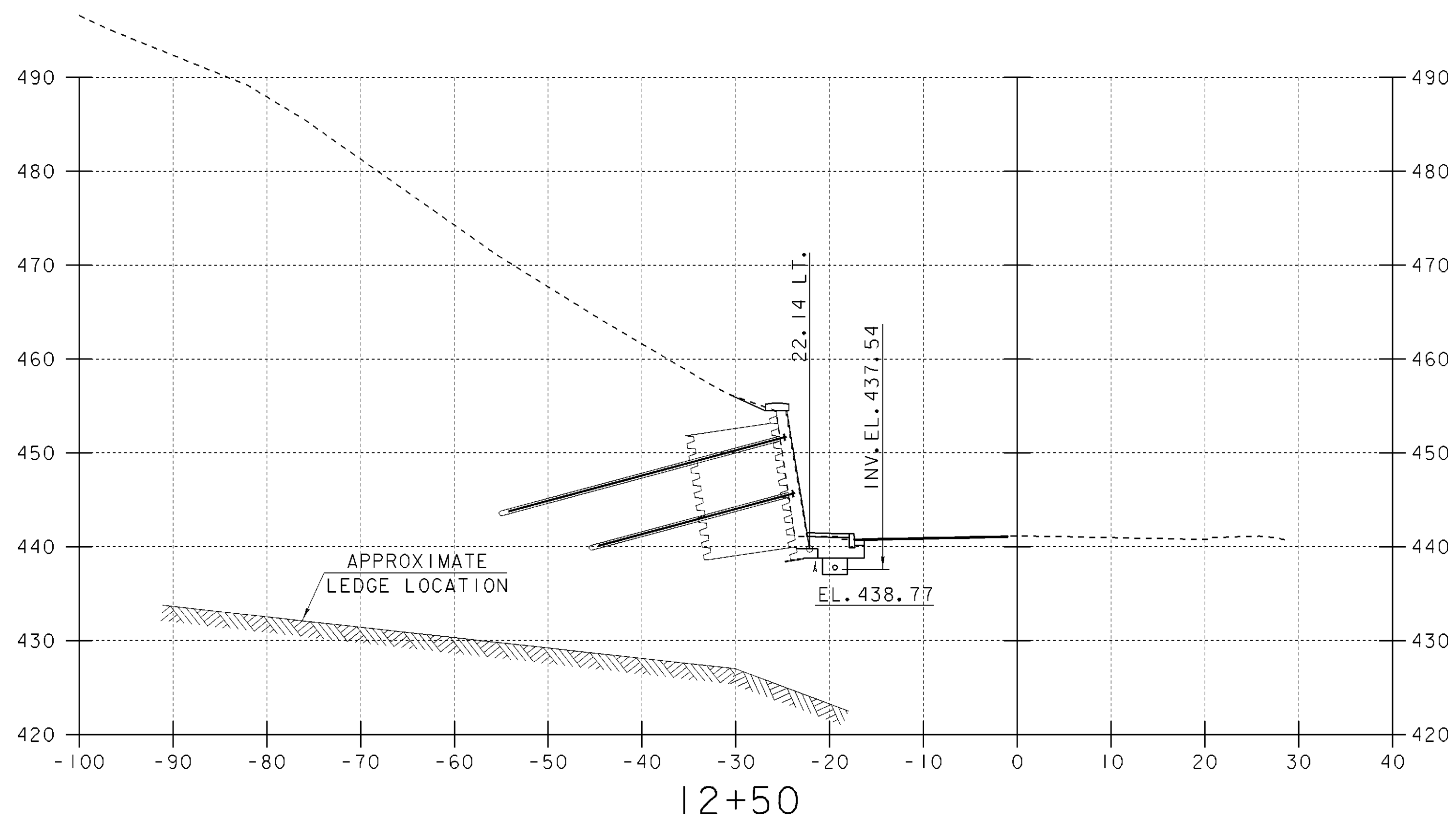
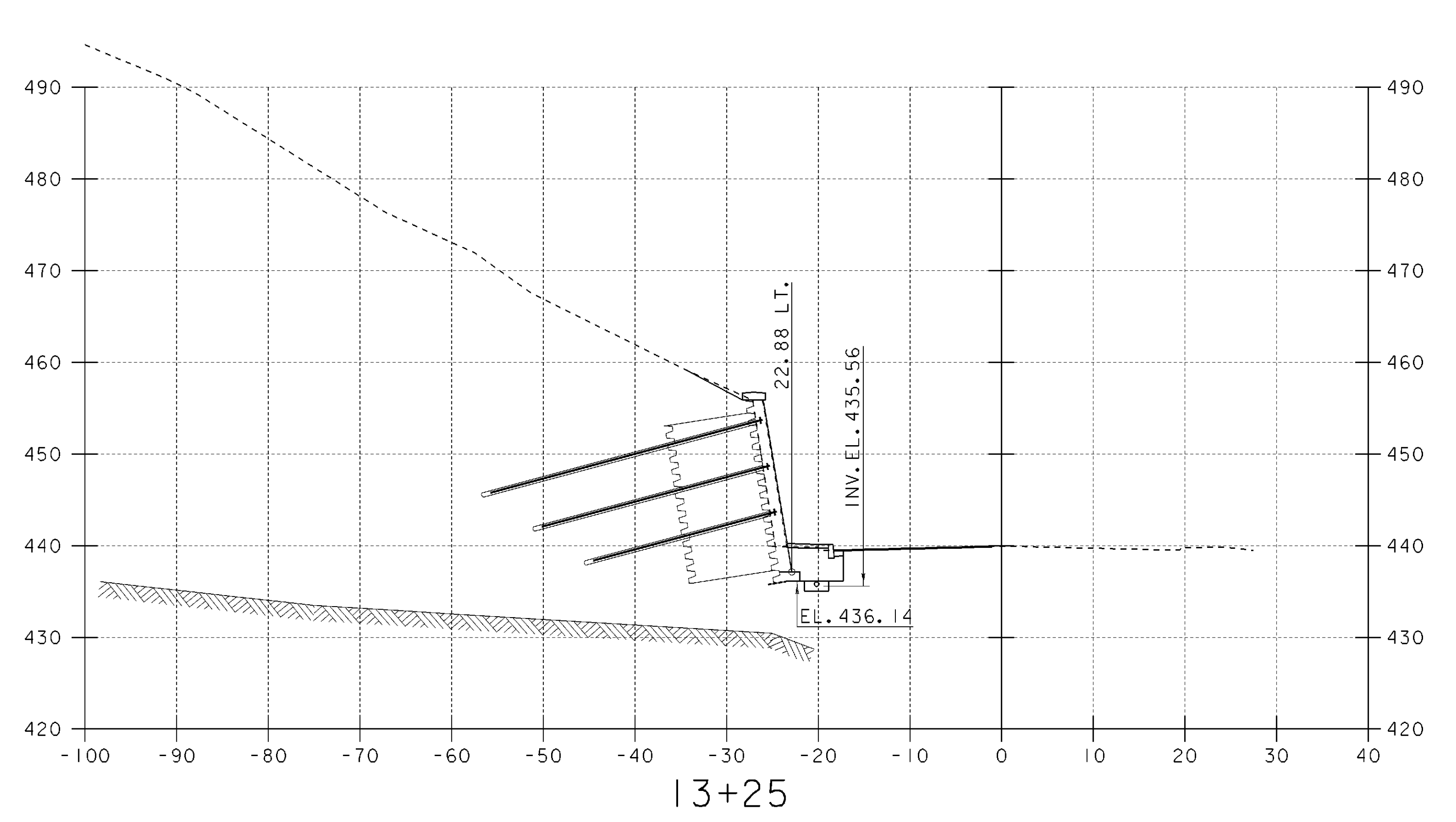
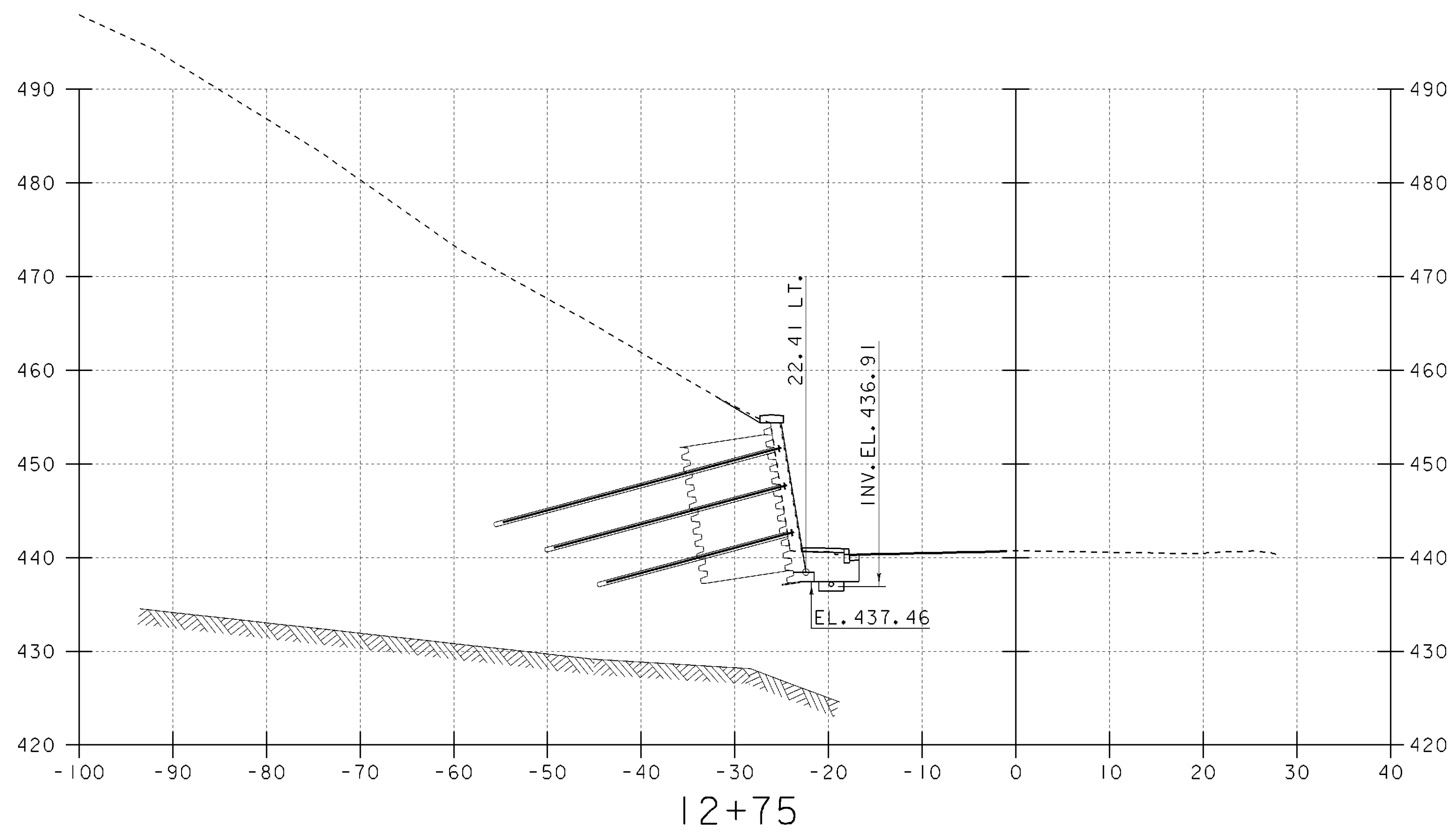


12+00

VT 11 CROSS SECTIONS (2)

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124/Structures/sbl24m02.i	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	55 OF 72

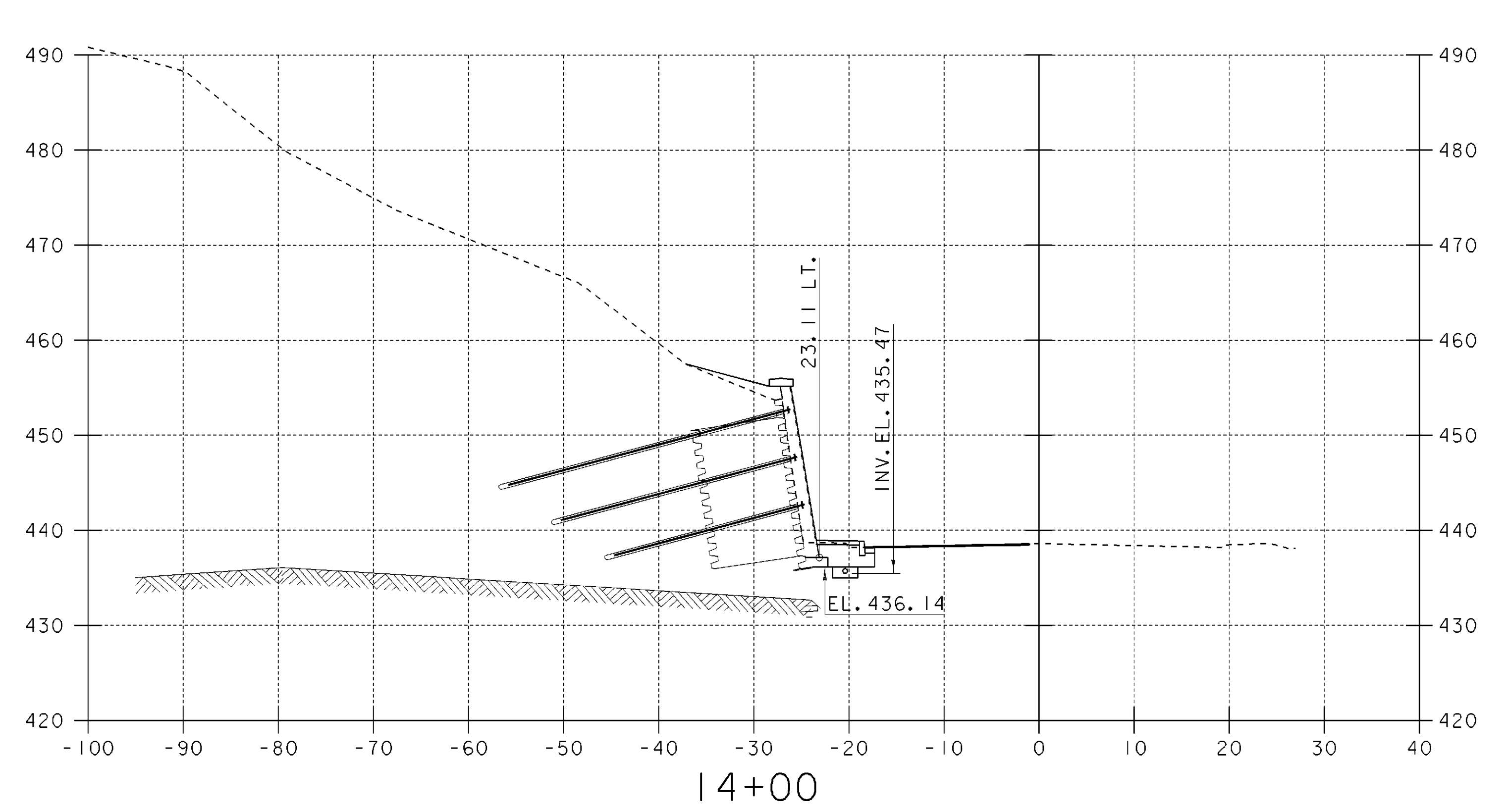
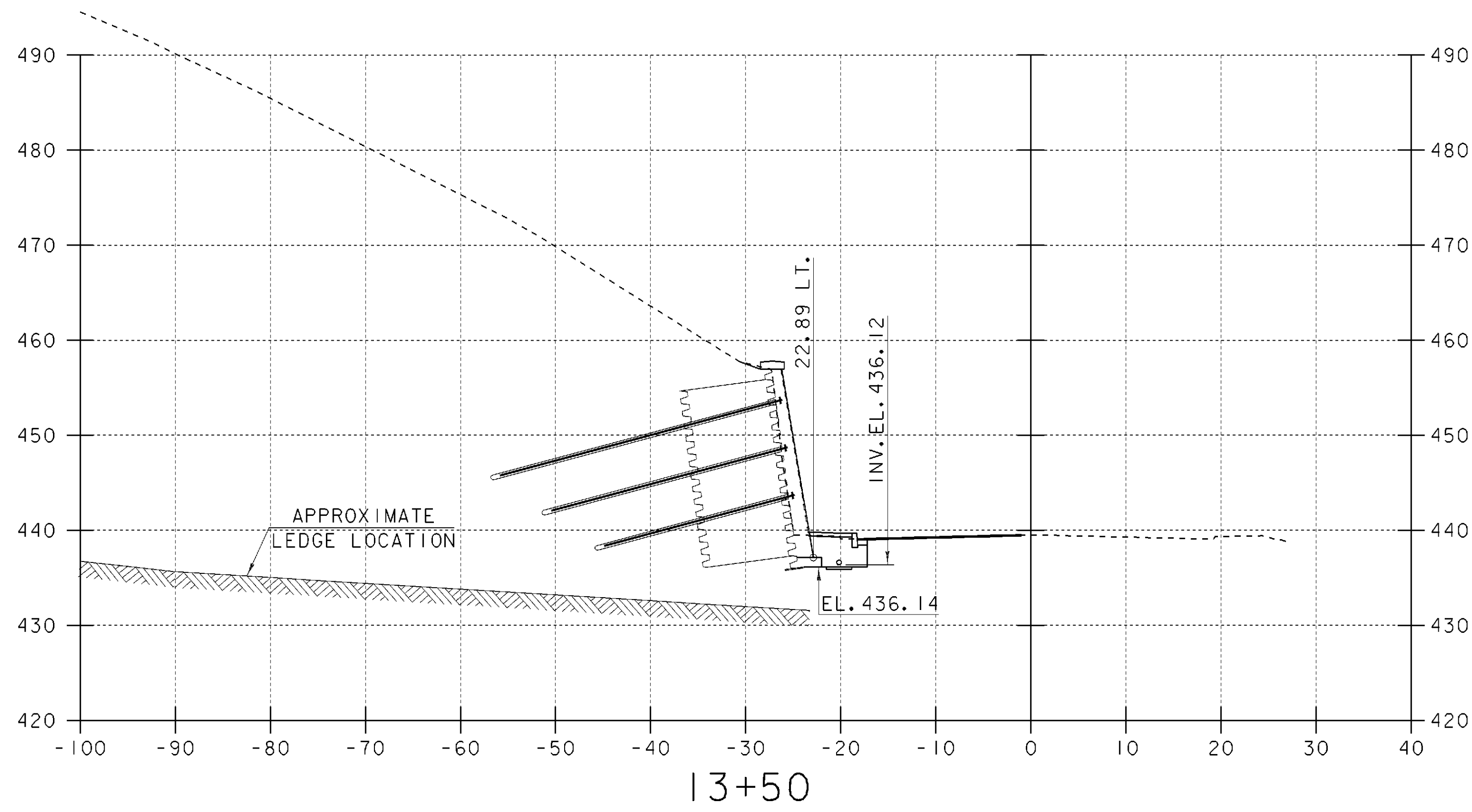
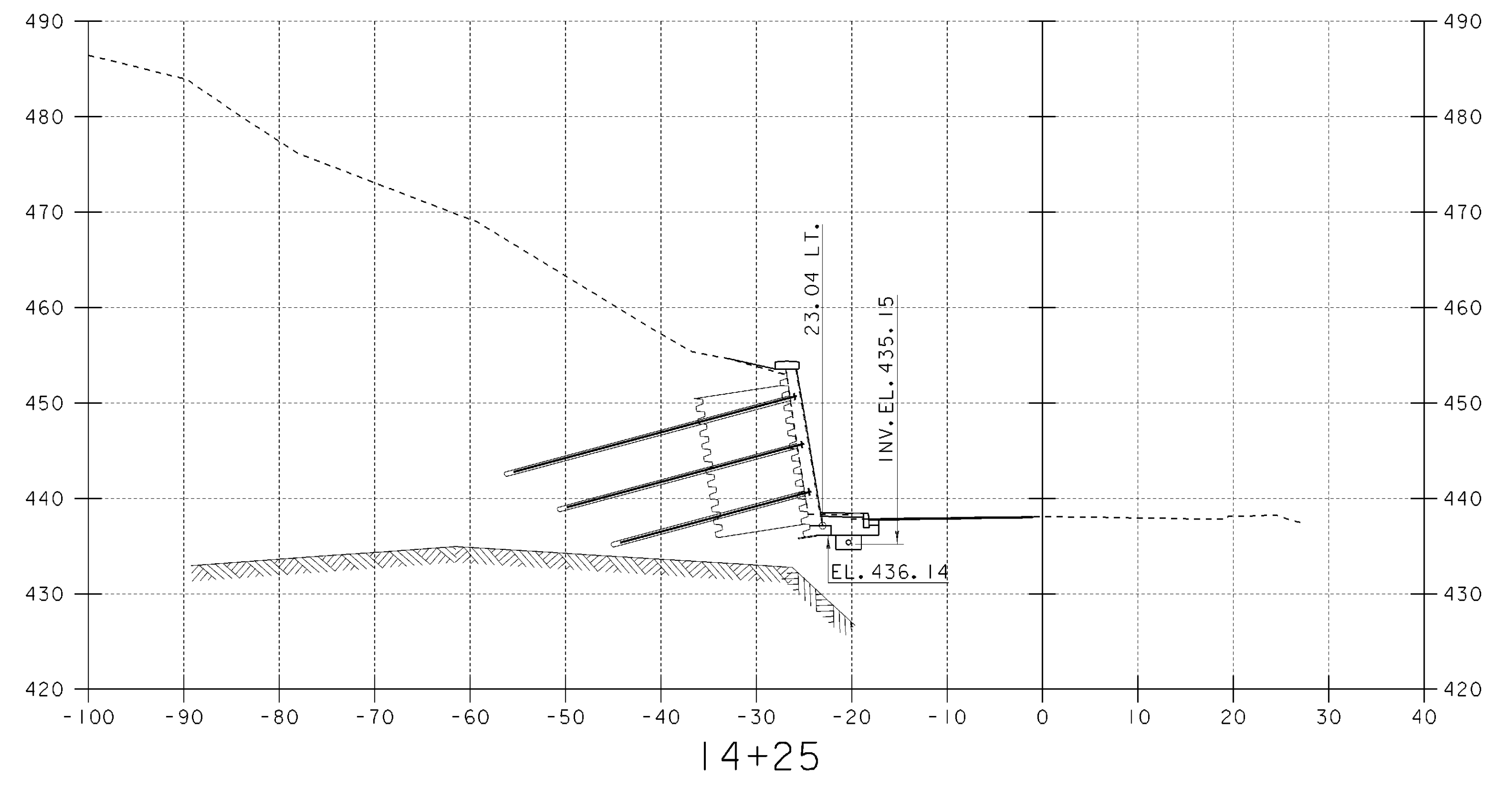
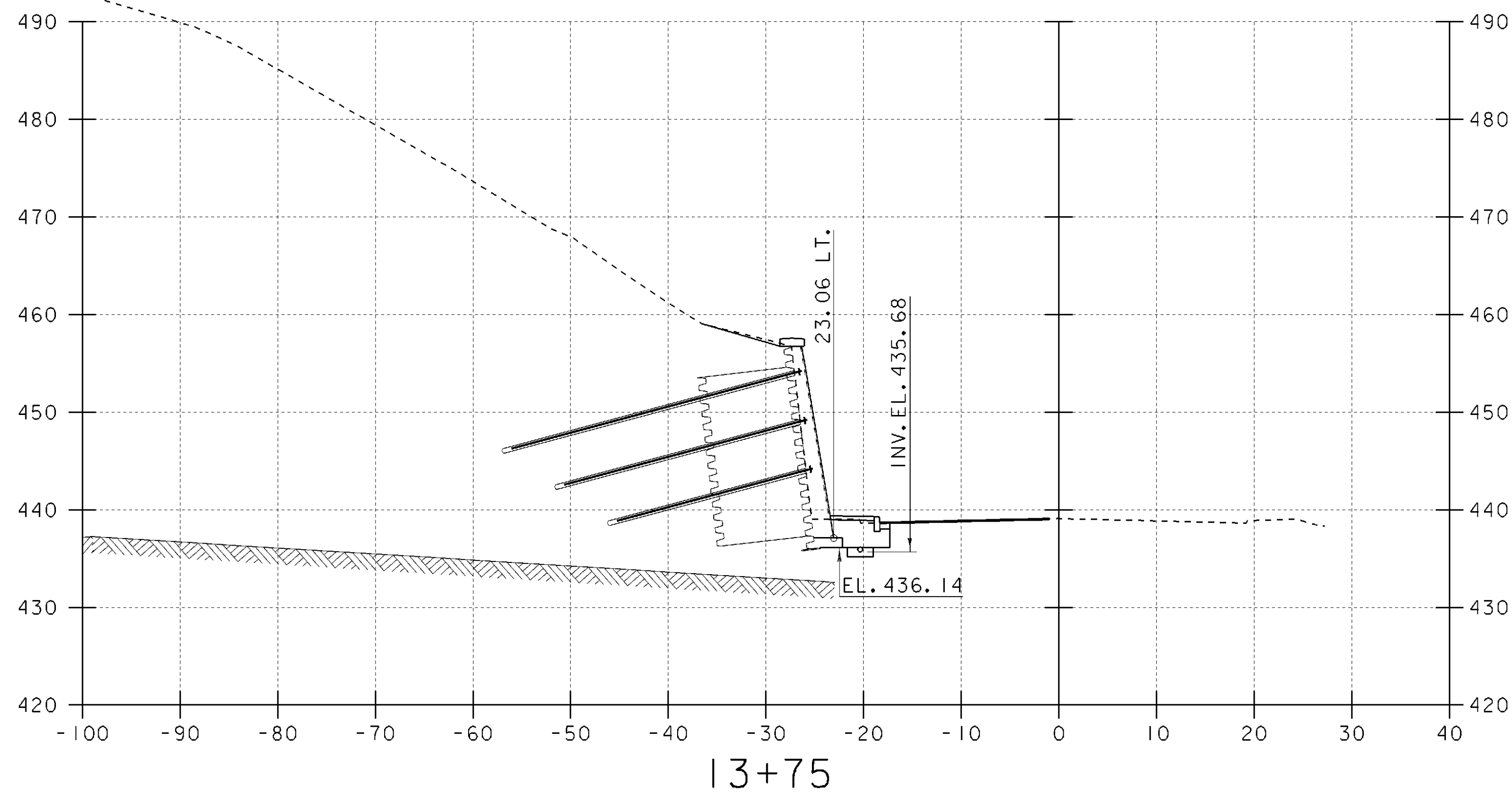
SCALE: 1" = 10'-0"



VT 11 CROSS SECTIONS (3)

SCALE: 1" = 10'-0"

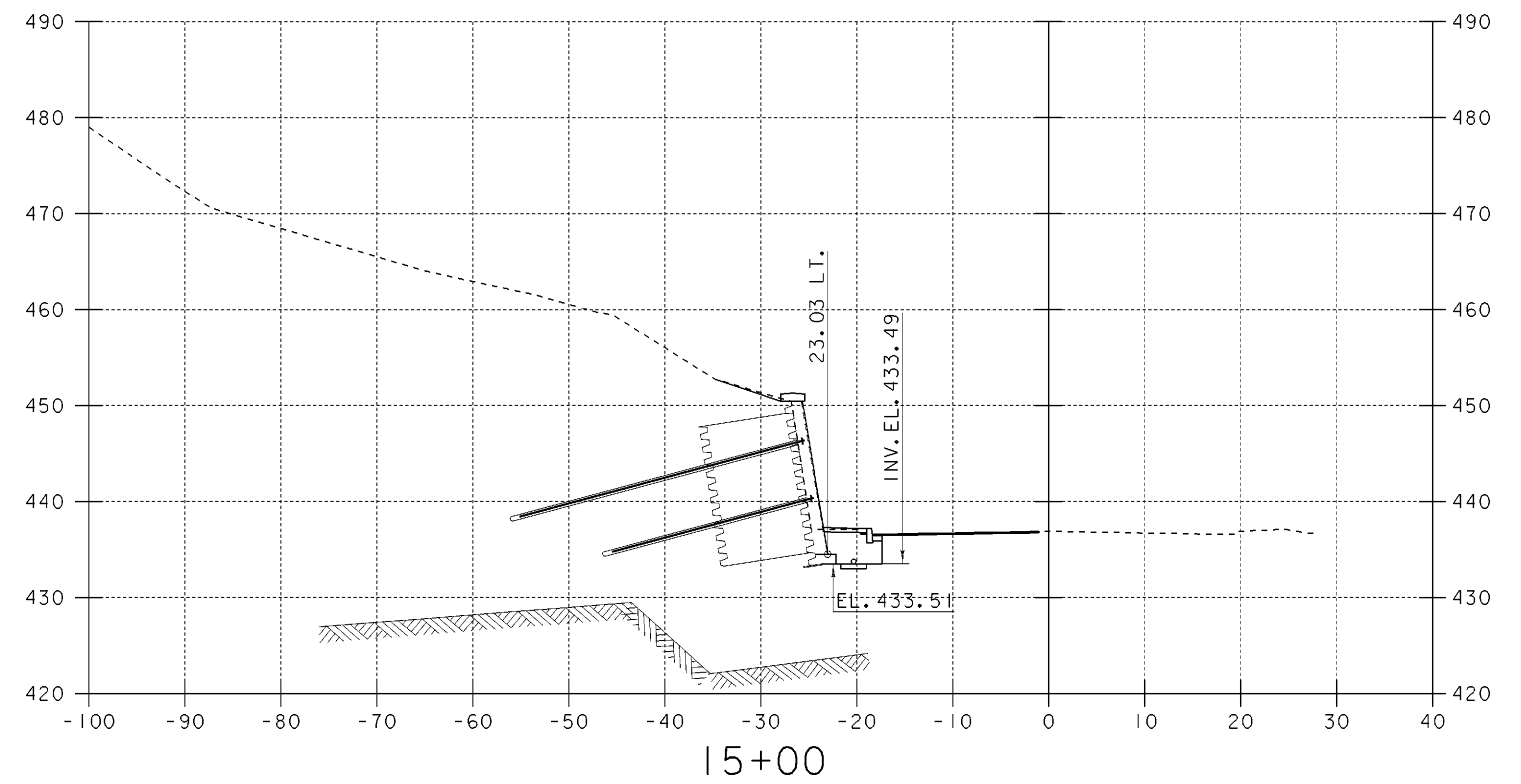
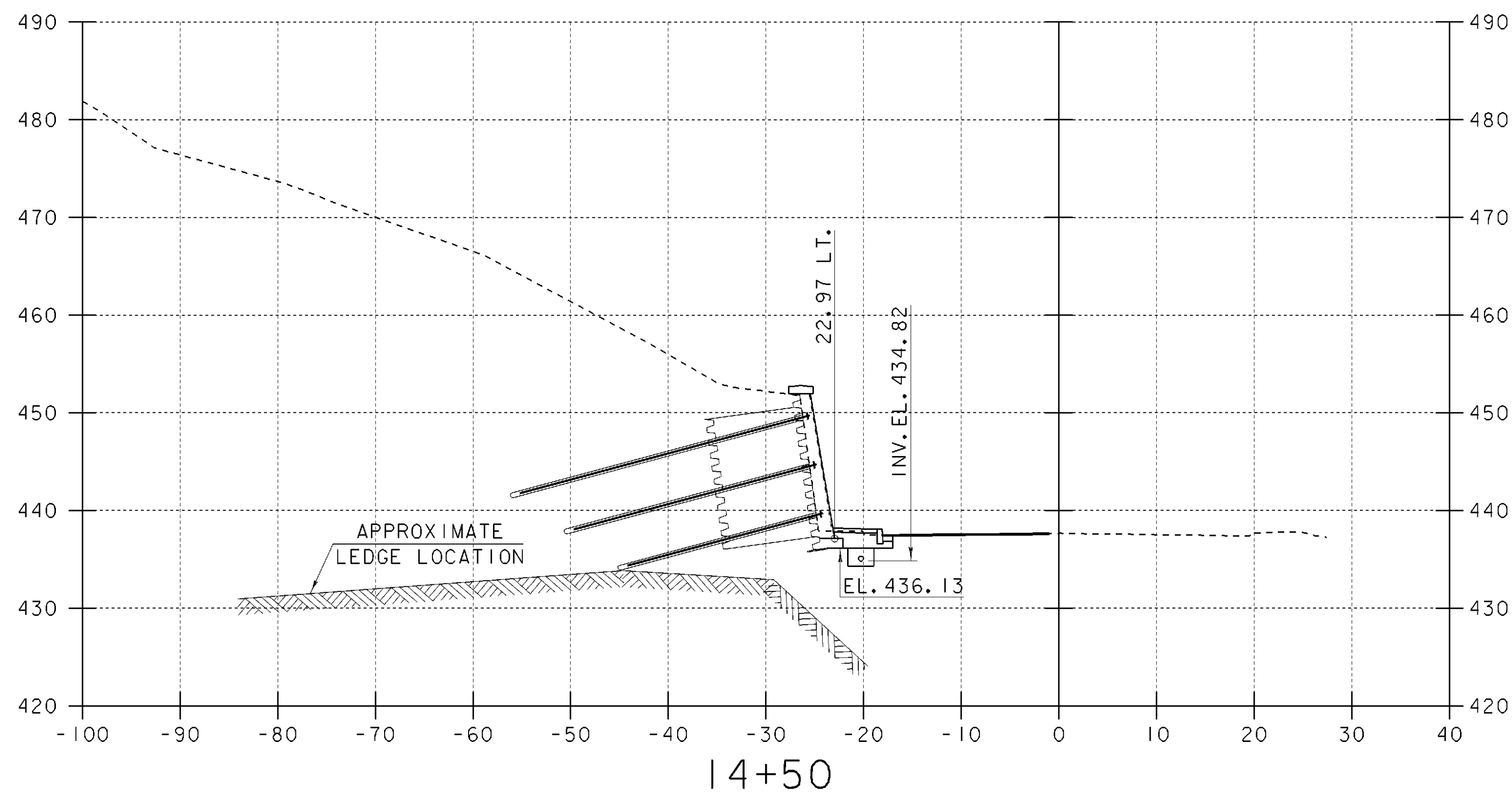
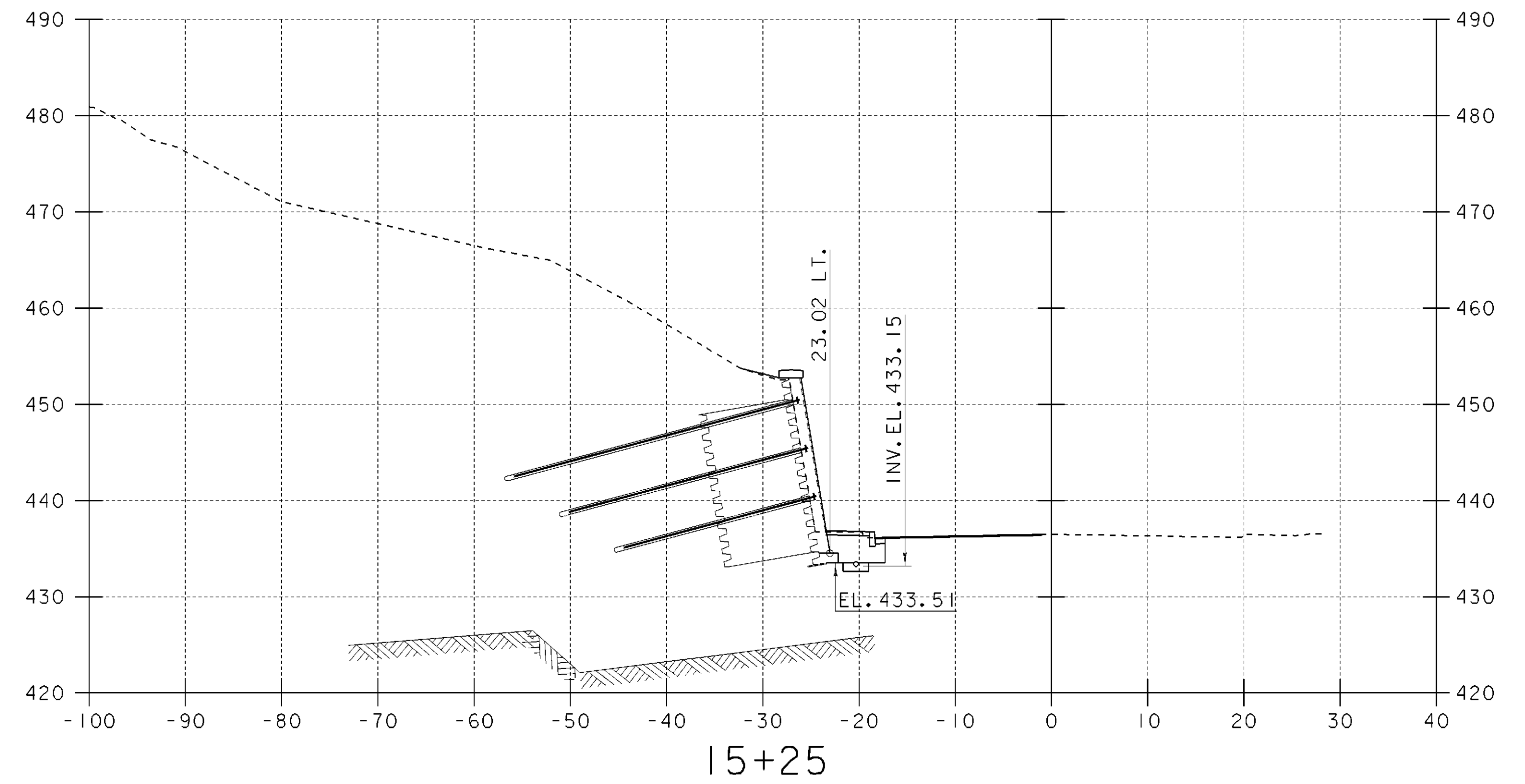
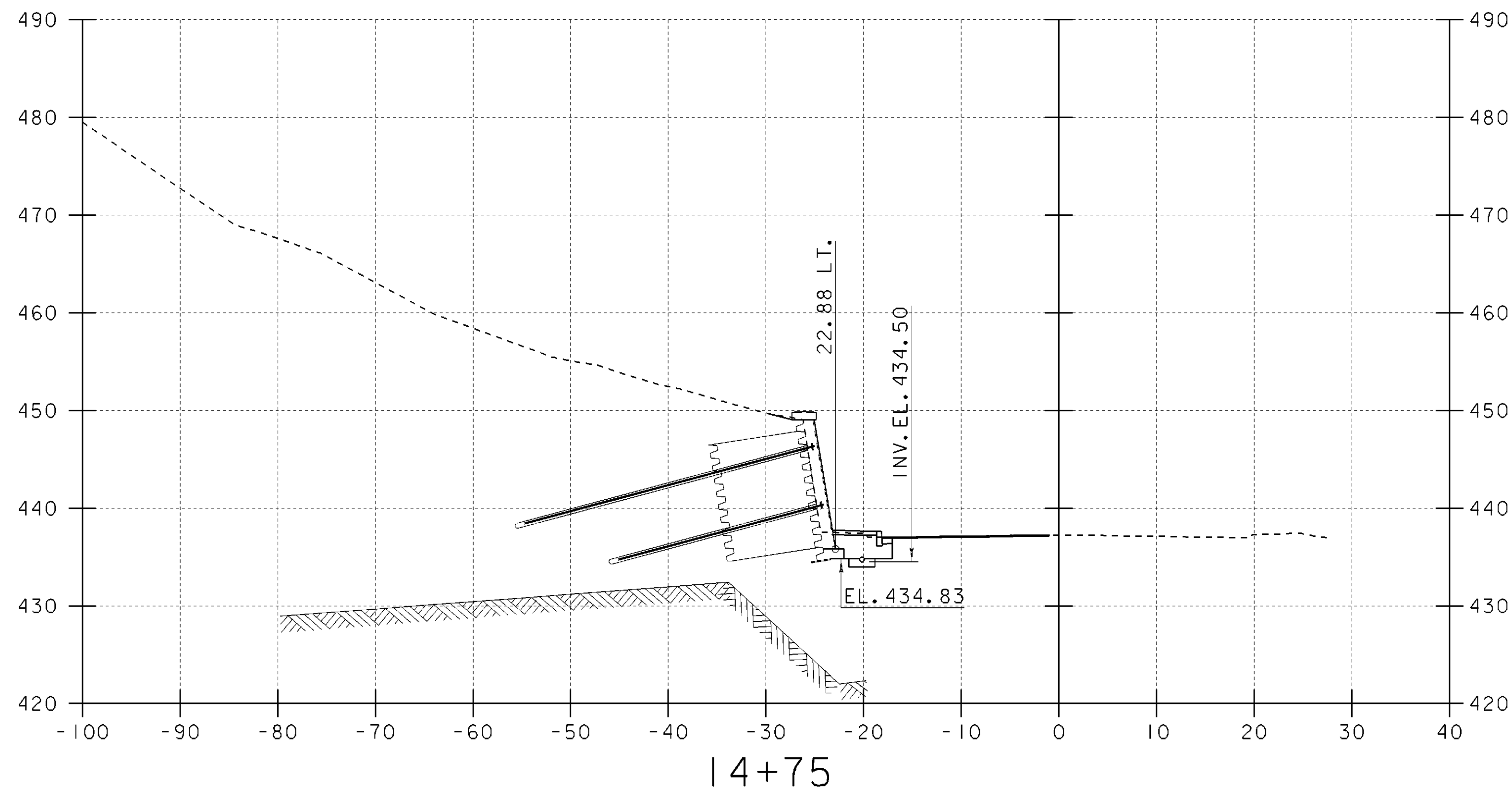
PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124/Structures/sbl24m03.1	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	56 OF 72



VT 11 CROSS SECTIONS (4)

SCALE: 1" = 10'-0"

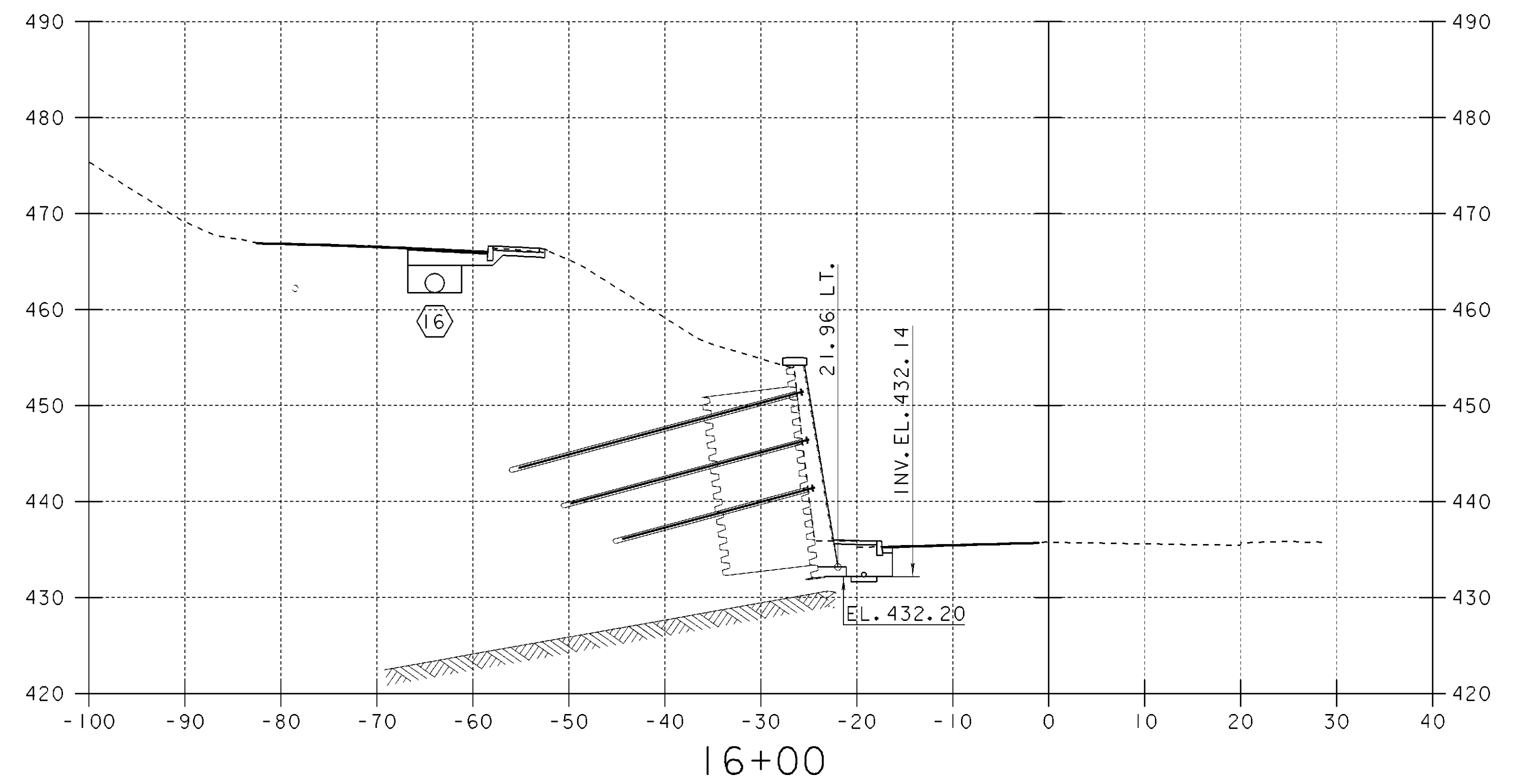
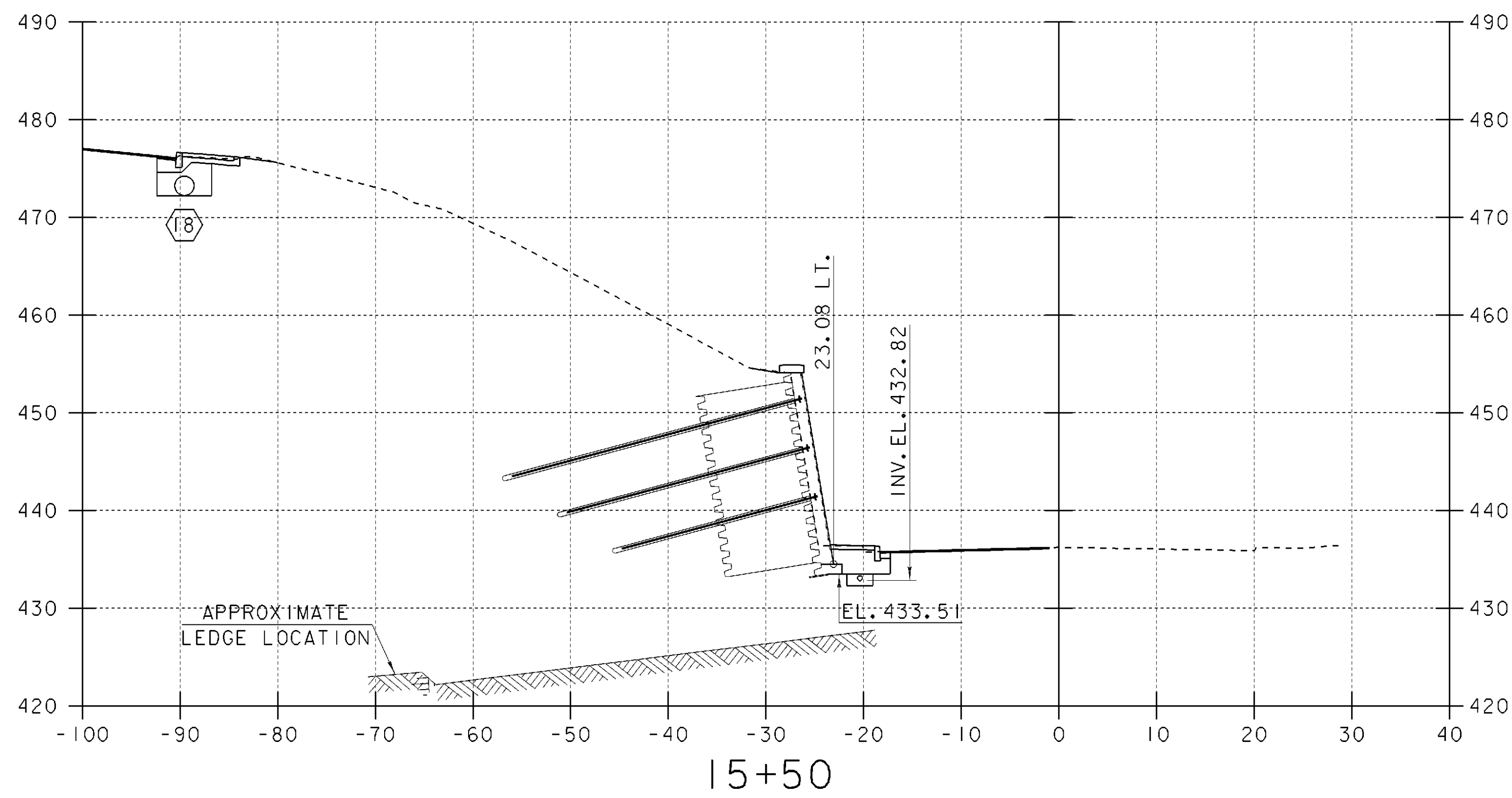
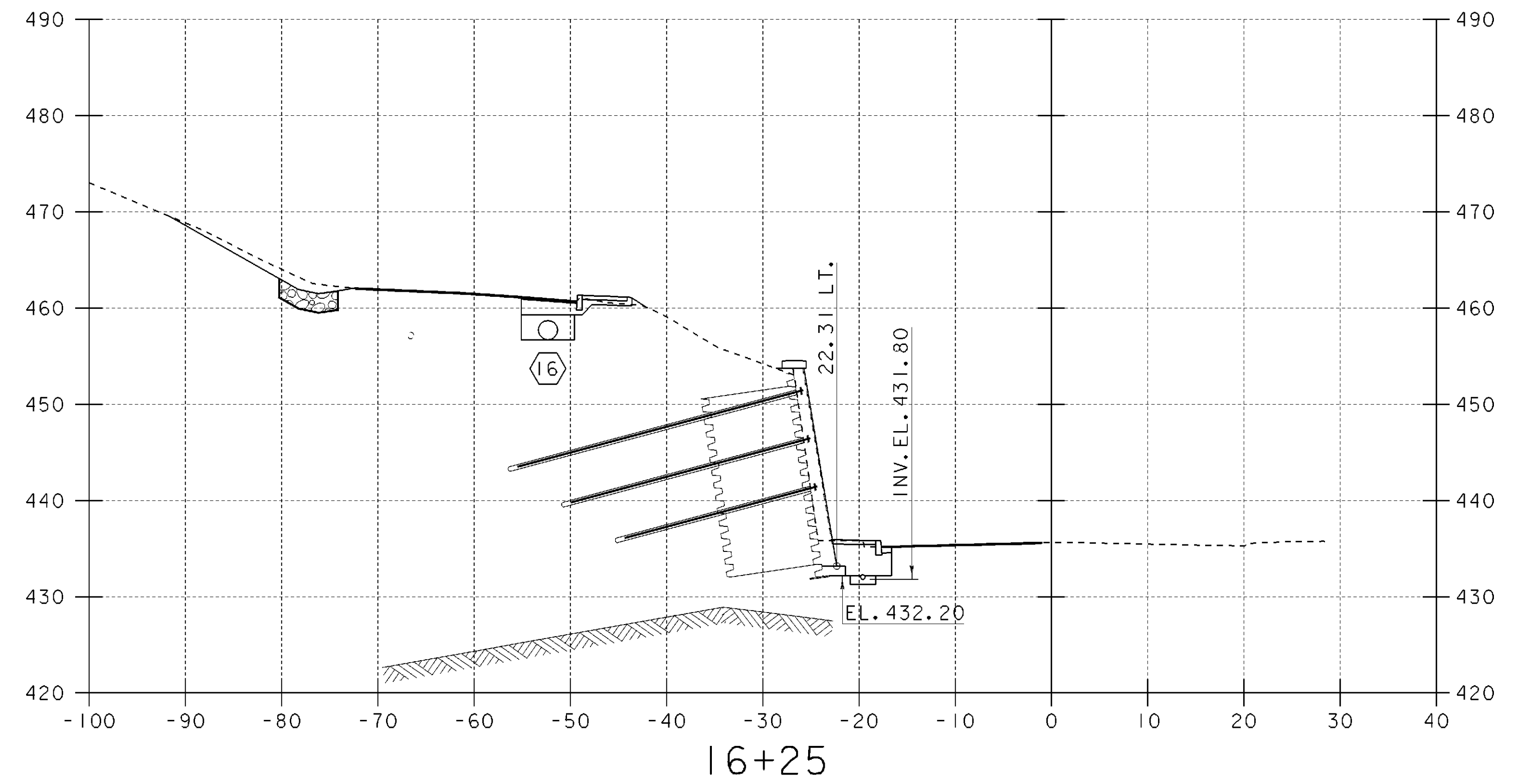
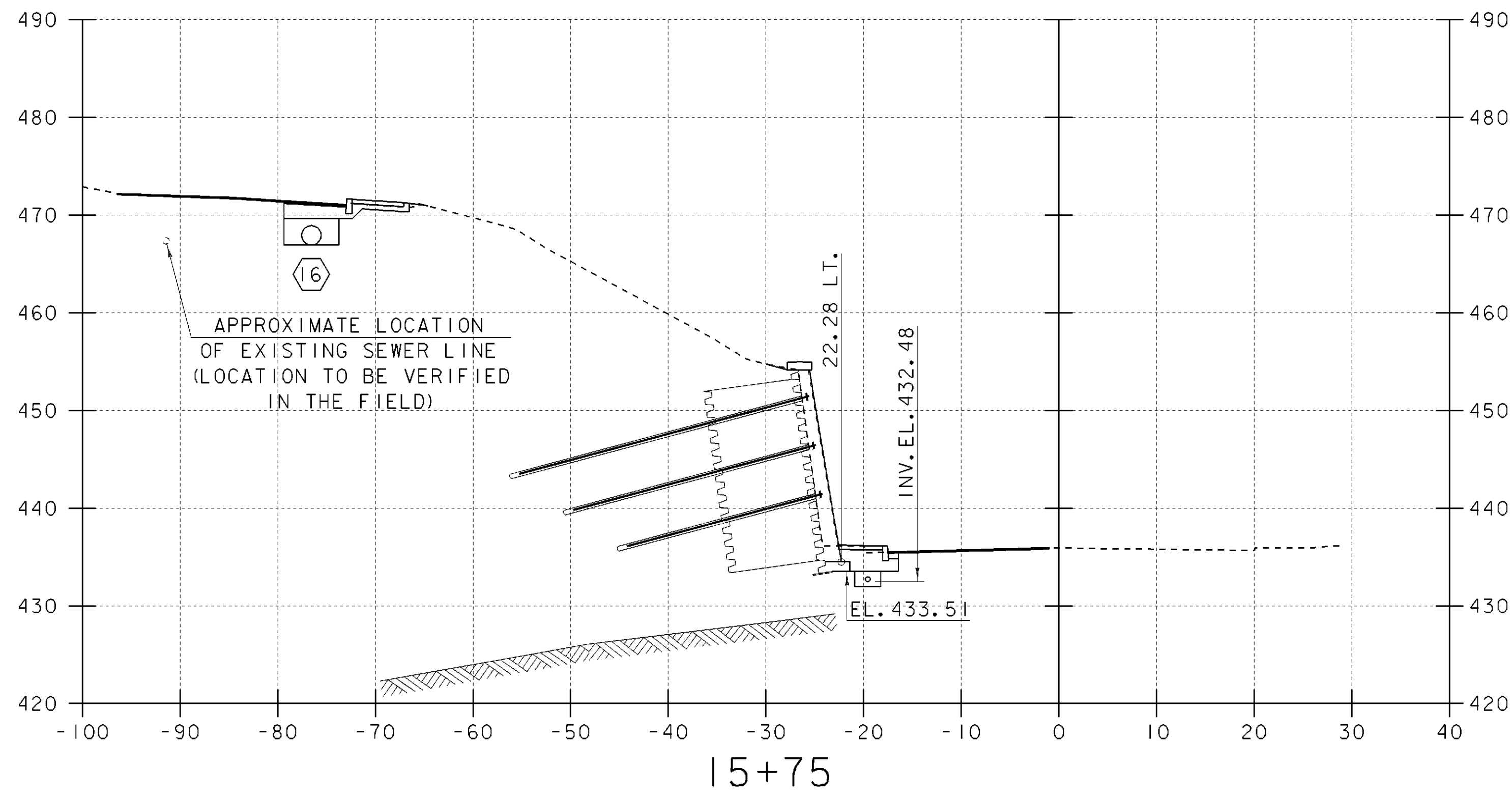
PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124/Structures/sbl24m04.i	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	57 OF 72



VT 11 CROSS SECTIONS (5)

SCALE: 1" = 10'-0"

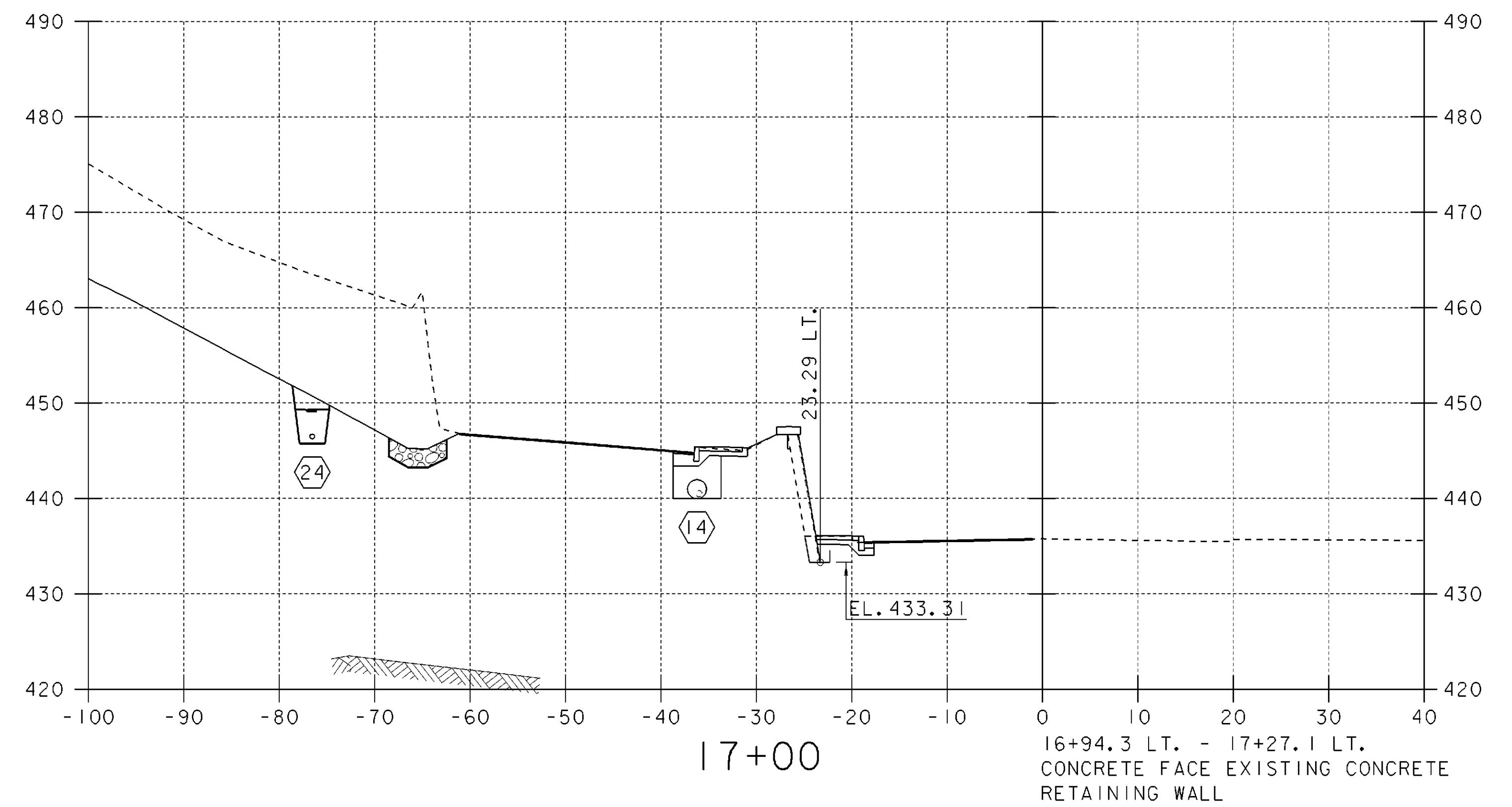
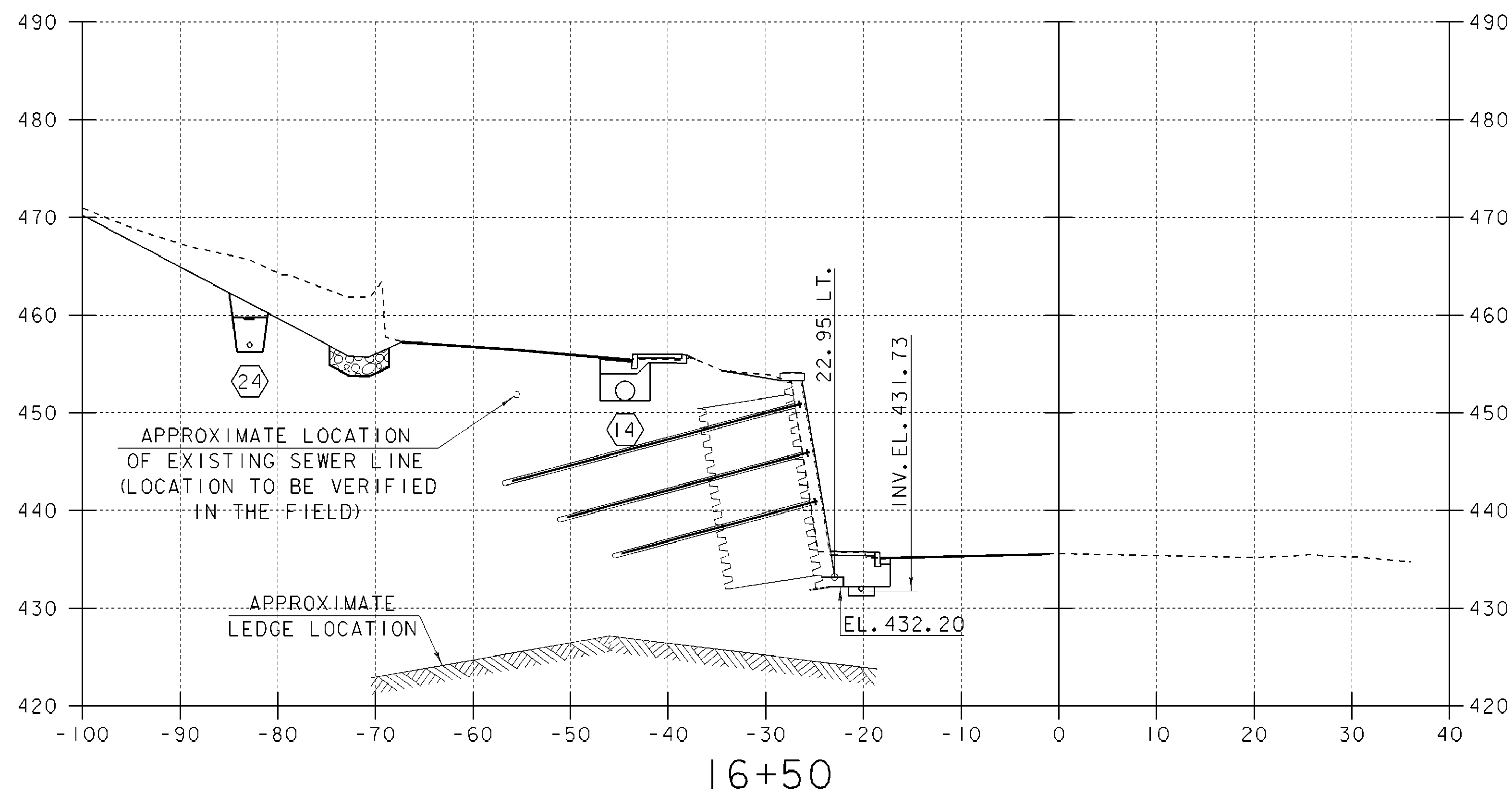
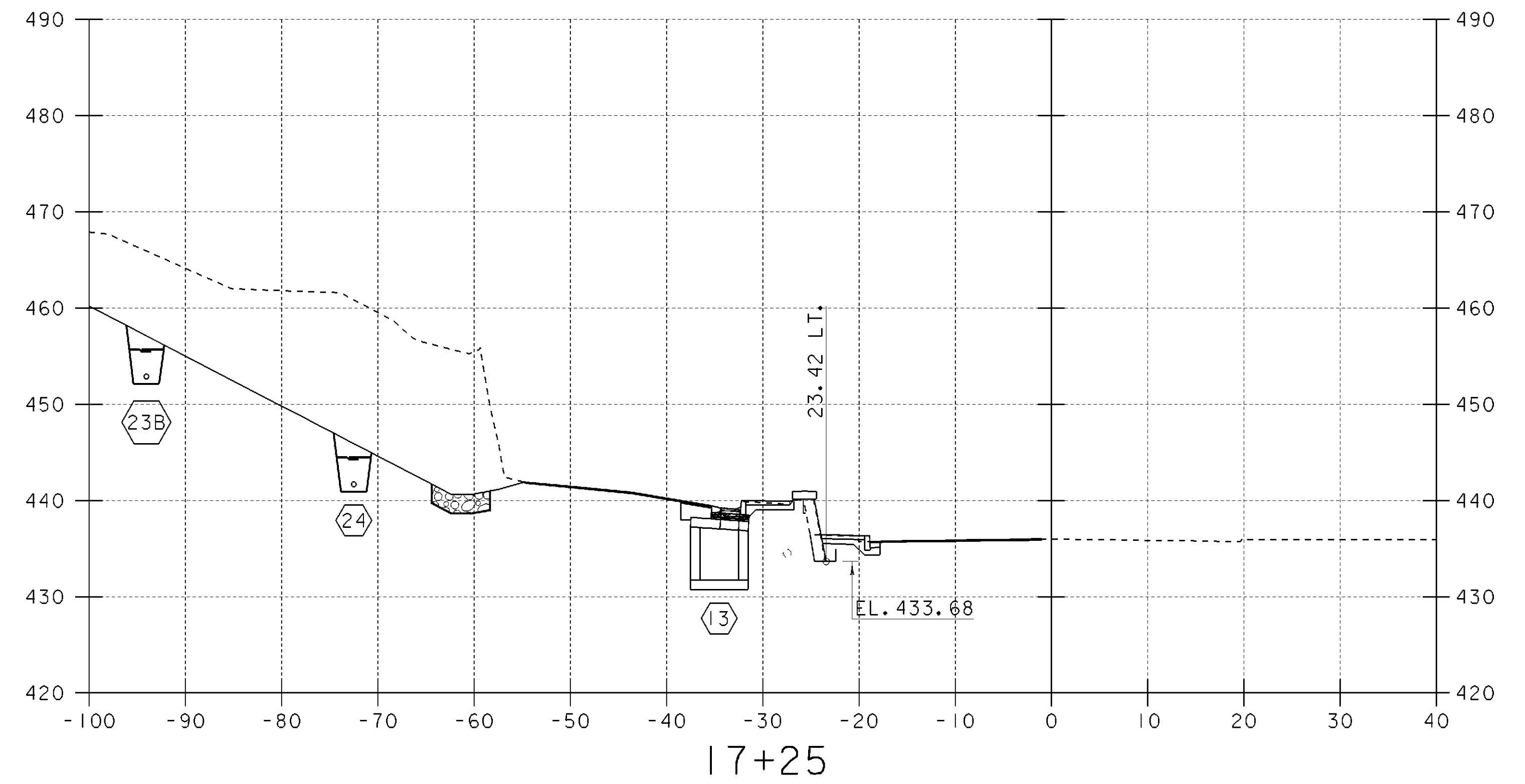
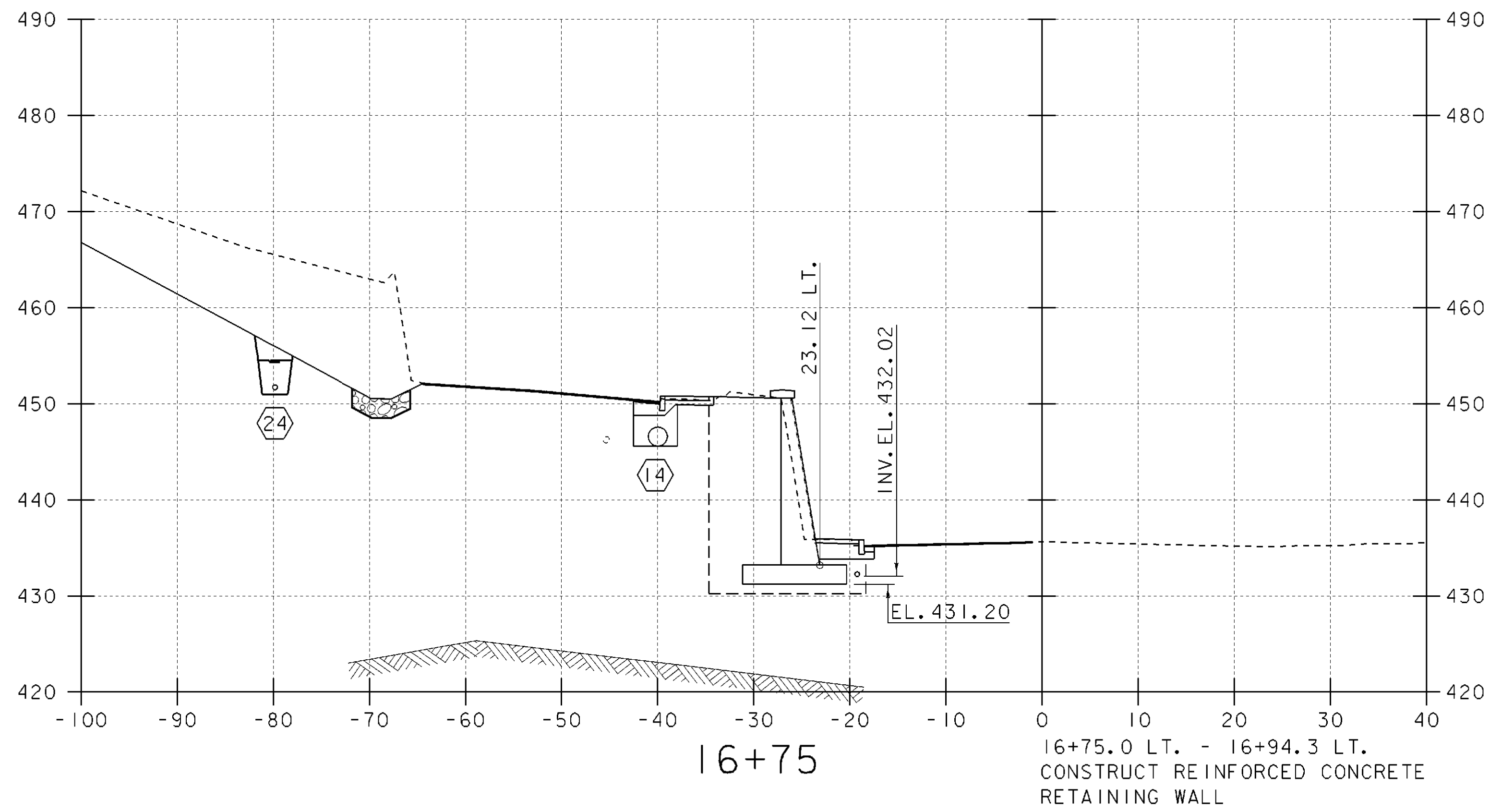
PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124/Structures/sbl24m05.1	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	58 OF 72



VT 11 CROSS SECTIONS (6)

SCALE: 1" = 10'-0"

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124/Structures/sbl24m06.i	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	59 OF 72

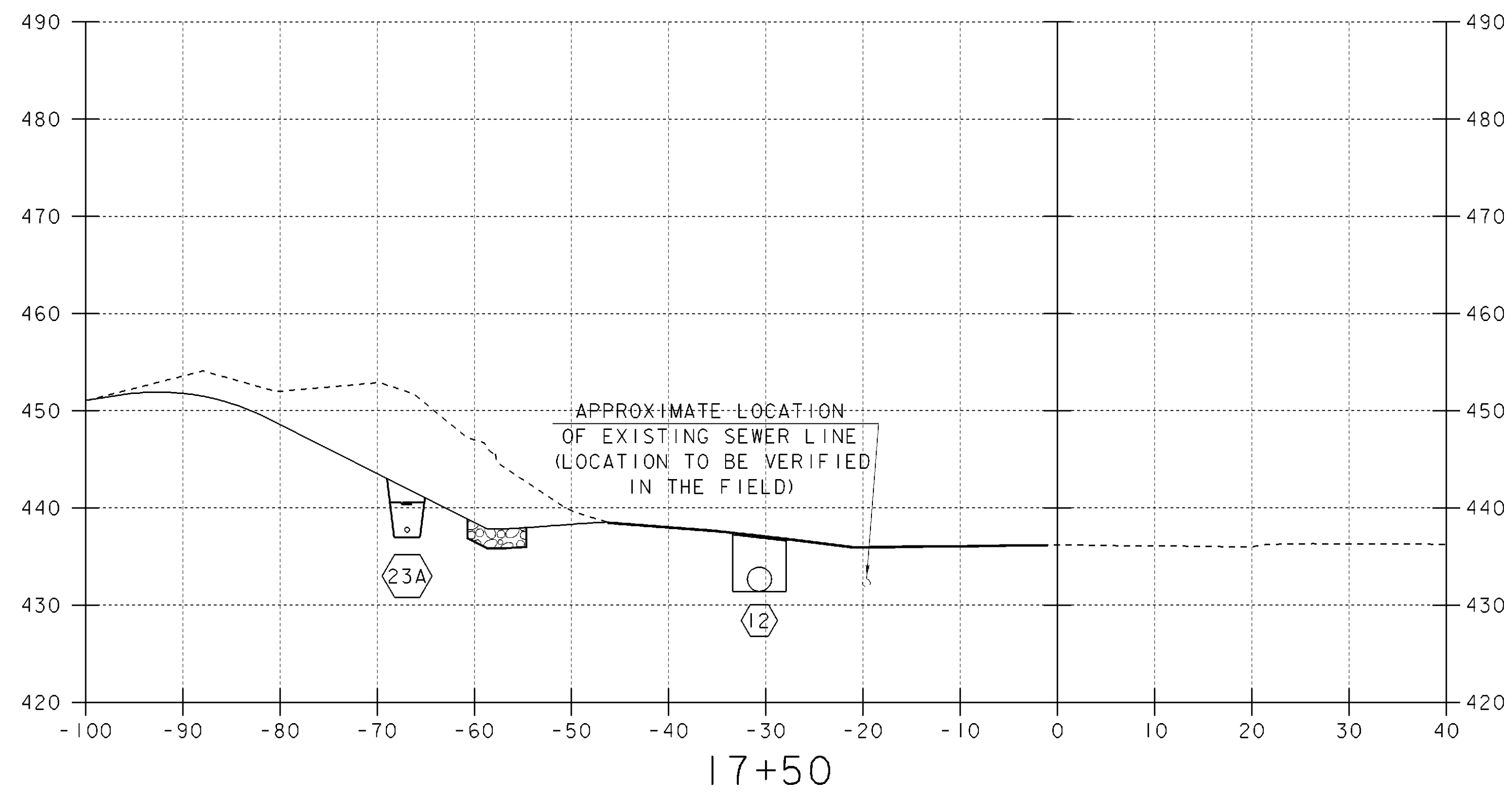


VT 11 CROSS SECTIONS (7)

SCALE: 1" = 10'-0"

PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124/Structures/sbl24m07.1	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	60 OF 72

STA. 17+77.50 LT.
END PARTICIPATION PROJECT

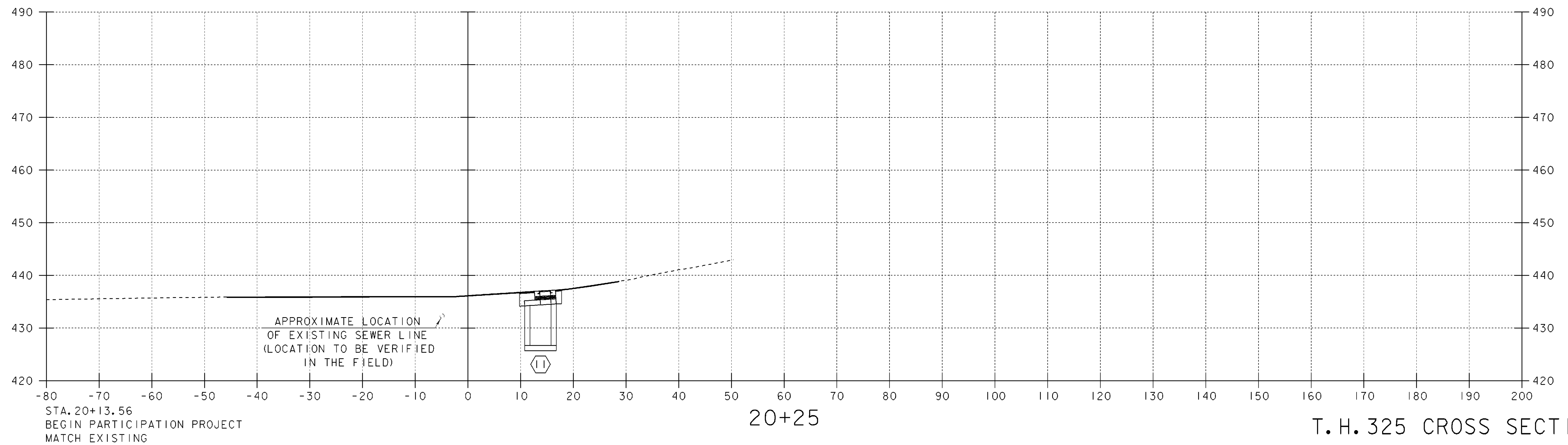
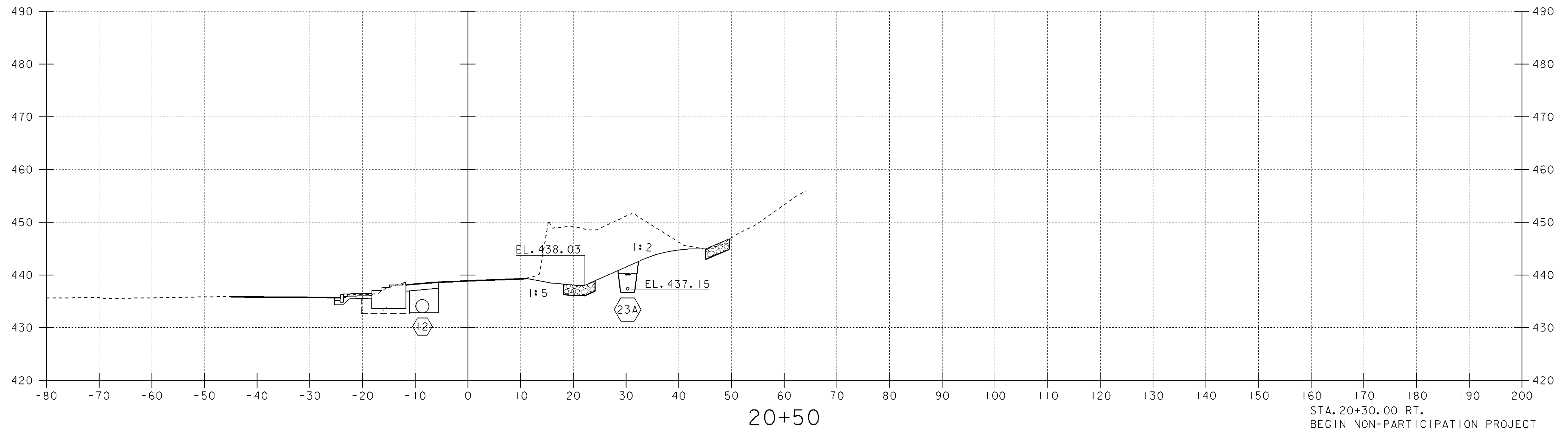


17+50

SCALE: 1" = 10'-0"
10 0 10

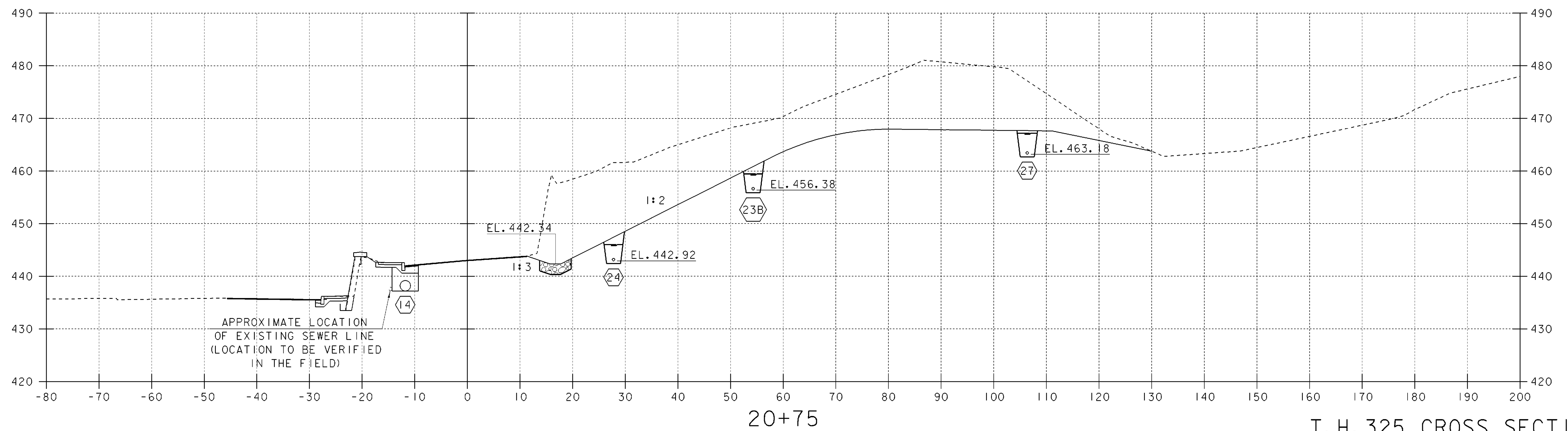
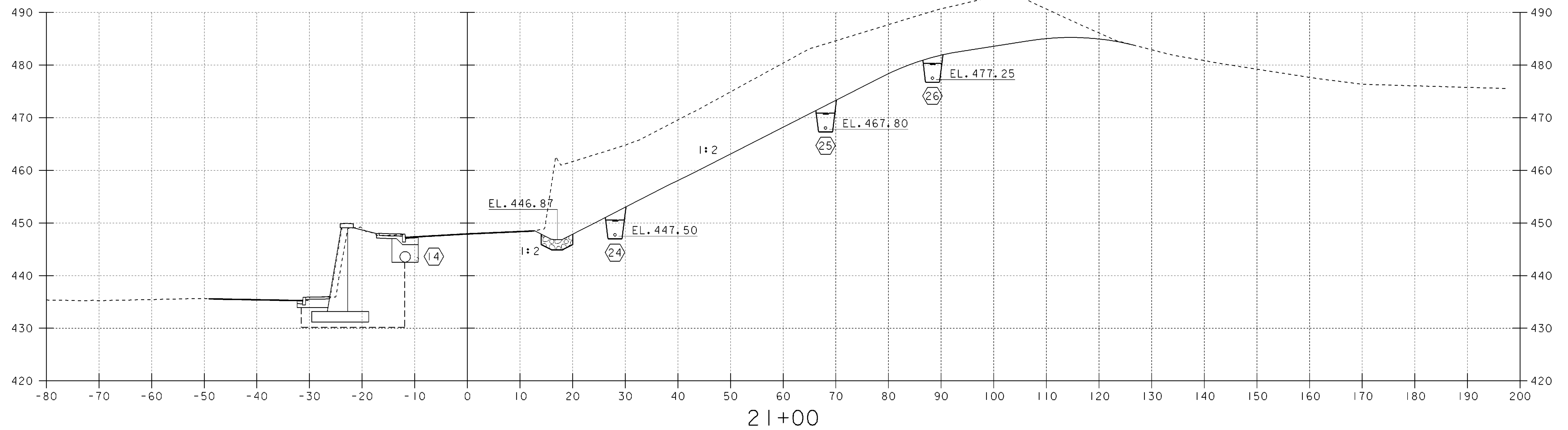
VT 11 CROSS SECTIONS (8)

PROJECT NAME: SPRINGFIELD	PLOT DATE: 17-AUG-2004
PROJECT NUMBER: STP 016-2 (10)S	DRAWN BY: G. ROY
FILE NAME: 00b124/Structures/sbl24m08.1	CHECKED BY: R. WHITCOMB
DESIGNED BY: G. ROY	SHEET 61 OF 72



SCALE: 1" = 10'-0"

PROJECT NAME:	SPRINGFIELD	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	DRAWN BY:	G. ROY
FILE NAME:	00b124/Structures/sbl24s01.i	CHECKED BY:	R. WHITCOMB
DESIGNED BY:	G. ROY	SHEET	62 OF 72

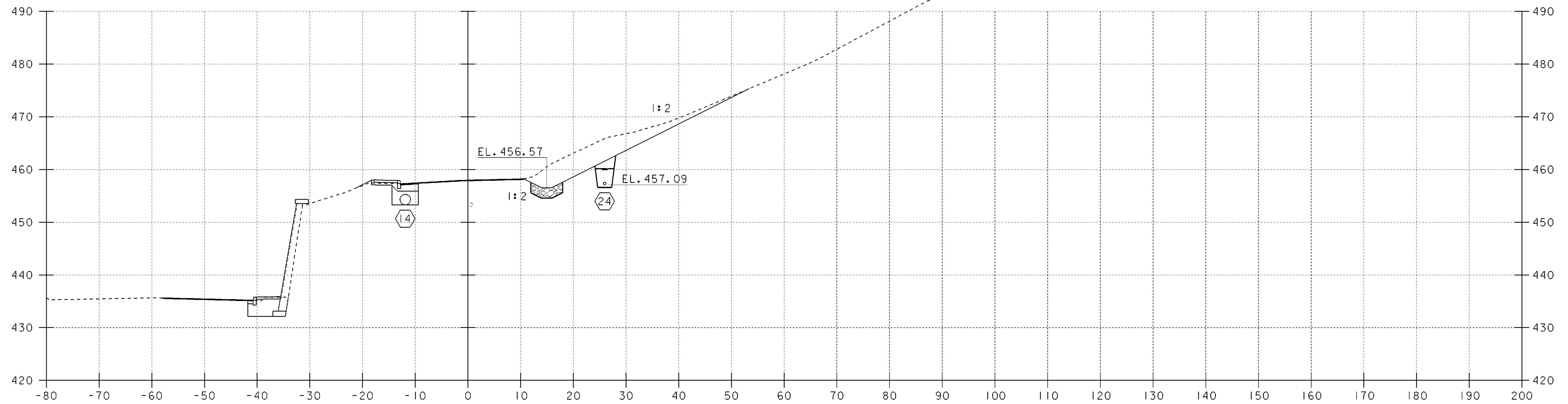


APPROXIMATE LOCATION
OF EXISTING SEWER LINE
(LOCATION TO BE VERIFIED
IN THE FIELD)

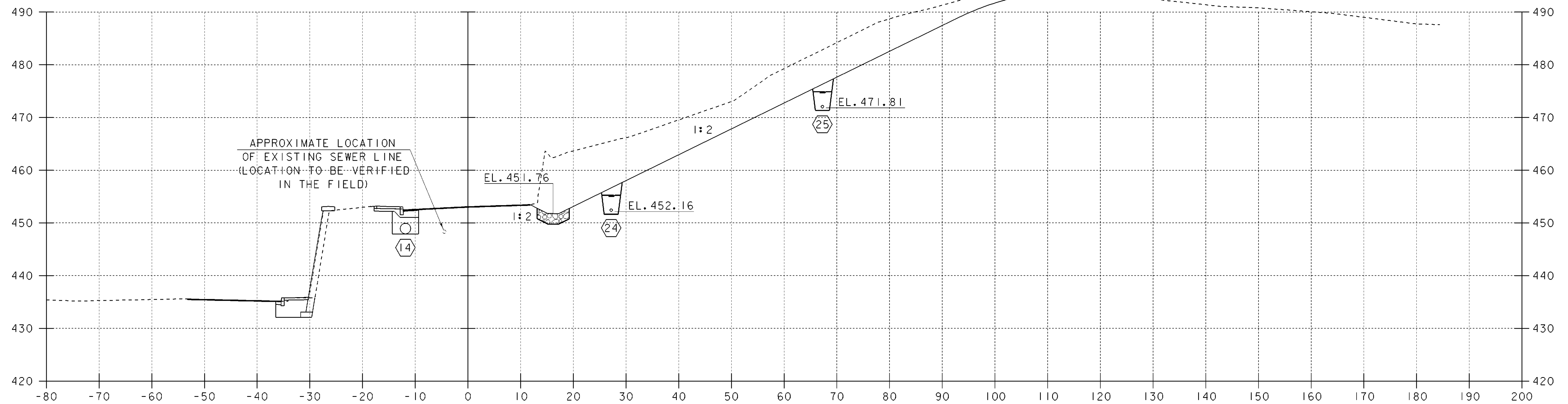
SCALE: 1" = 10'-0"

T.H. 325 CROSS SECTIONS (2)

PROJECT NAME: SPRINGFIELD	PLOT DATE: 17-AUG-2004
PROJECT NUMBER: STP 016-2 (10)S	DRAWN BY: G. ROY
FILE NAME: 00b124/Structures/sbl24s02.i	CHECKED BY: R. WHITCOMB
DESIGNED BY: G. ROY	SHEET 63 OF 72



21+50

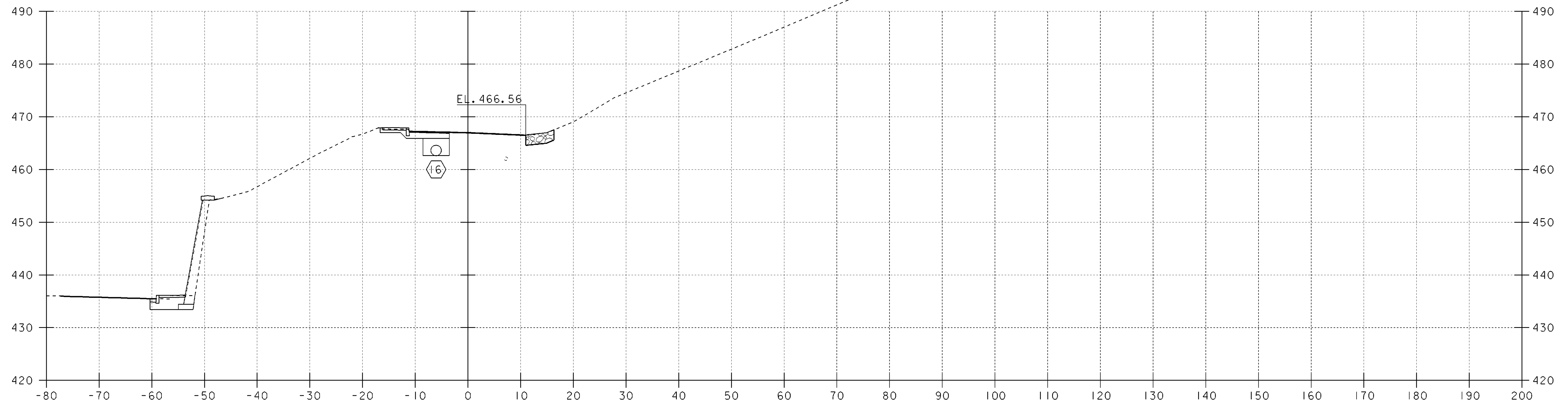


21+25

T.H. 325 CROSS SECTIONS (3)

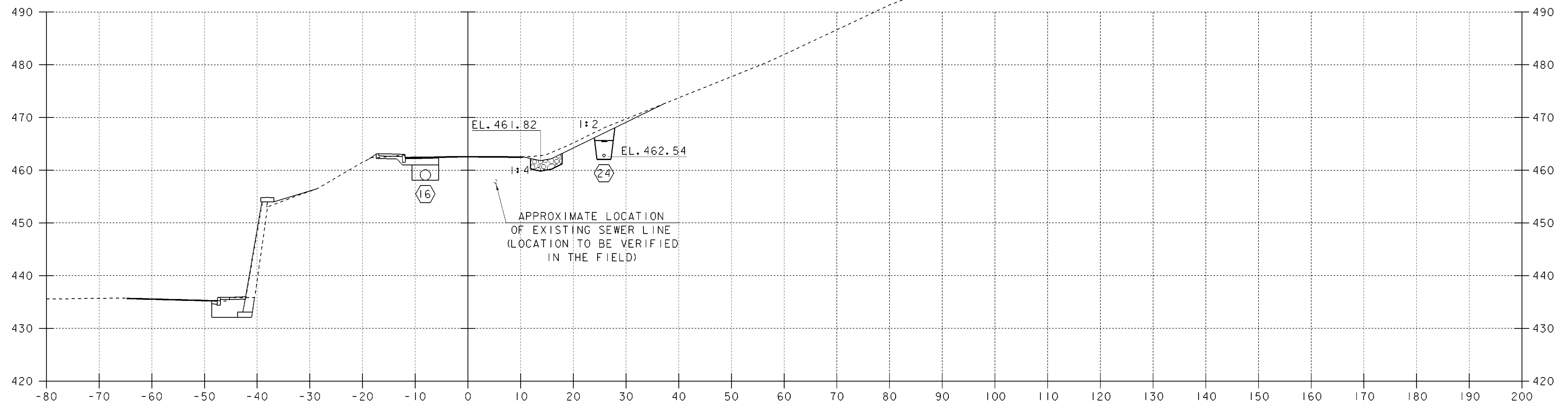
SCALE: 1" = 10'-0"

PROJECT NAME: SPRINGFIELD	PLOT DATE: 17-AUG-2004
PROJECT NUMBER: STP 016-2 (10)S	DRAWN BY: G. ROY
FILE NAME: 00b124/Structures/sbl24s03.i	CHECKED BY: R. WHITCOMB
DESIGNED BY: G. ROY	SHEET 64 OF 72



22+00

STA. 22+00.00 RT.
END NON-PARTICIPATION PROJECT

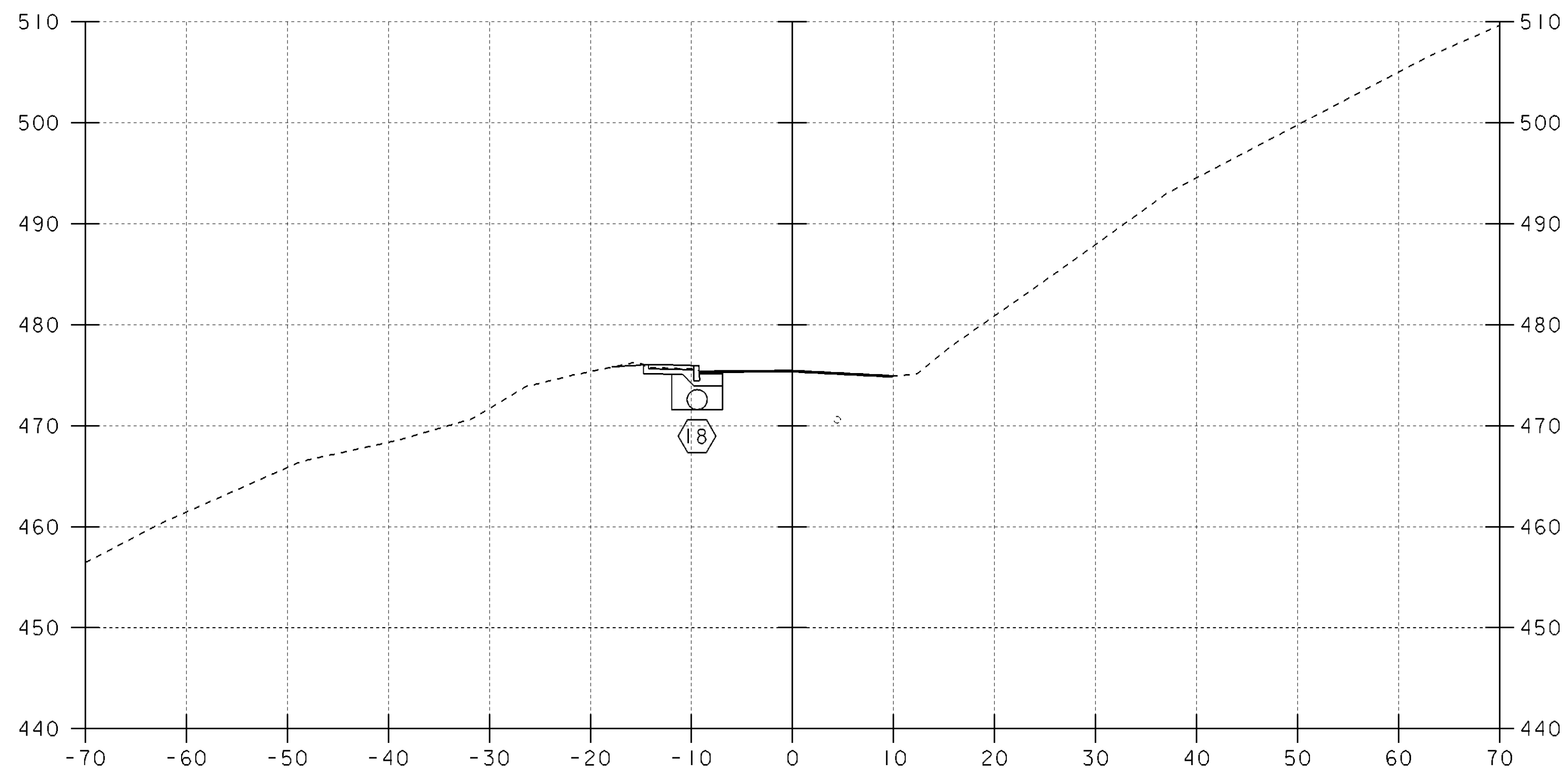


21+75

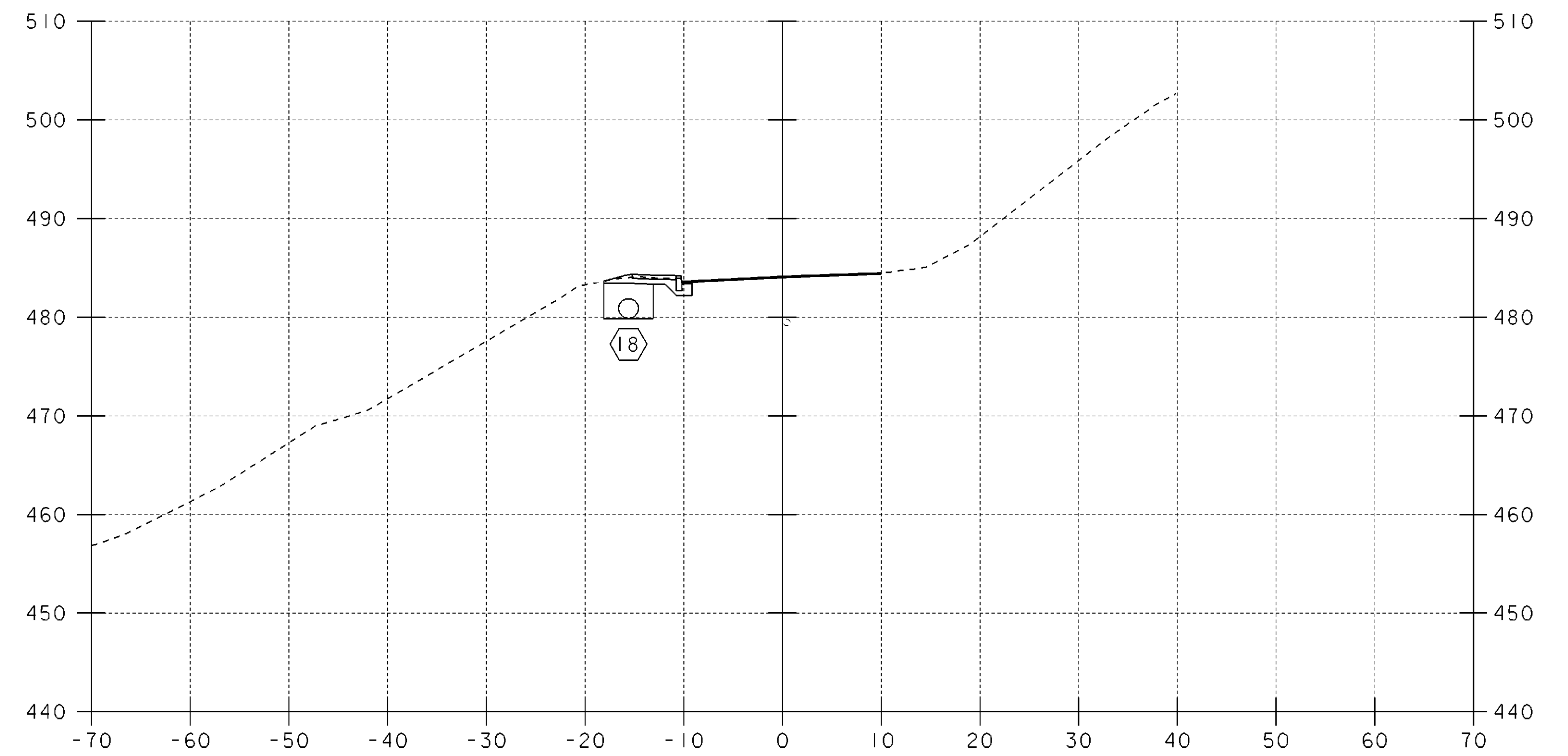
T.H. 325 CROSS SECTIONS (4)

SCALE: 1" = 10'-0"
10 0 10

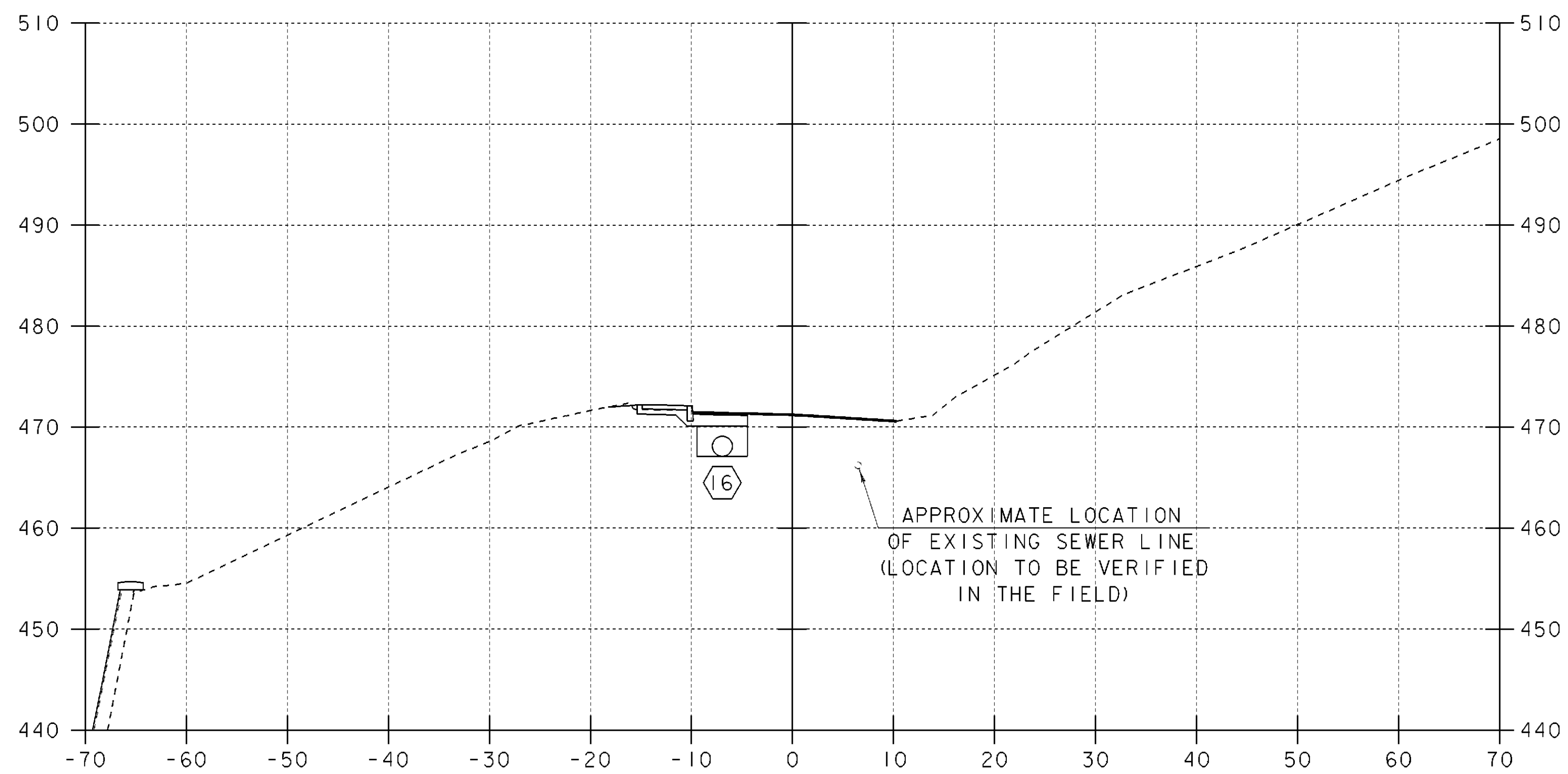
PROJECT NAME:	SPRINGFIELD	FILE NAME:	00b124/Structures/sbl24s04.i	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	G. ROY
		DESIGNED BY:	G. ROY	CHECKED BY:	R. WHITCOMB
				SHEET	65 OF 72



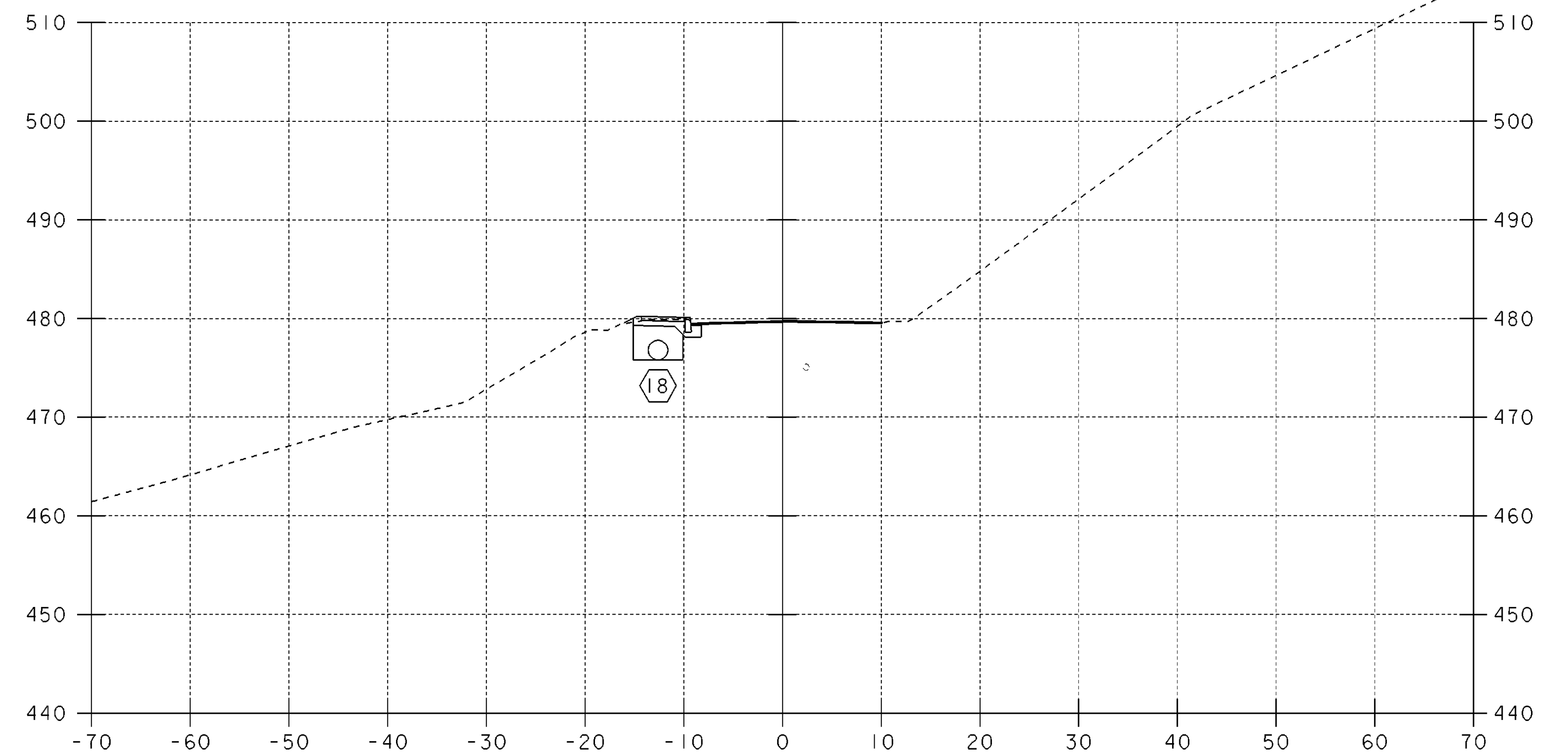
22+50



23+00



22+25

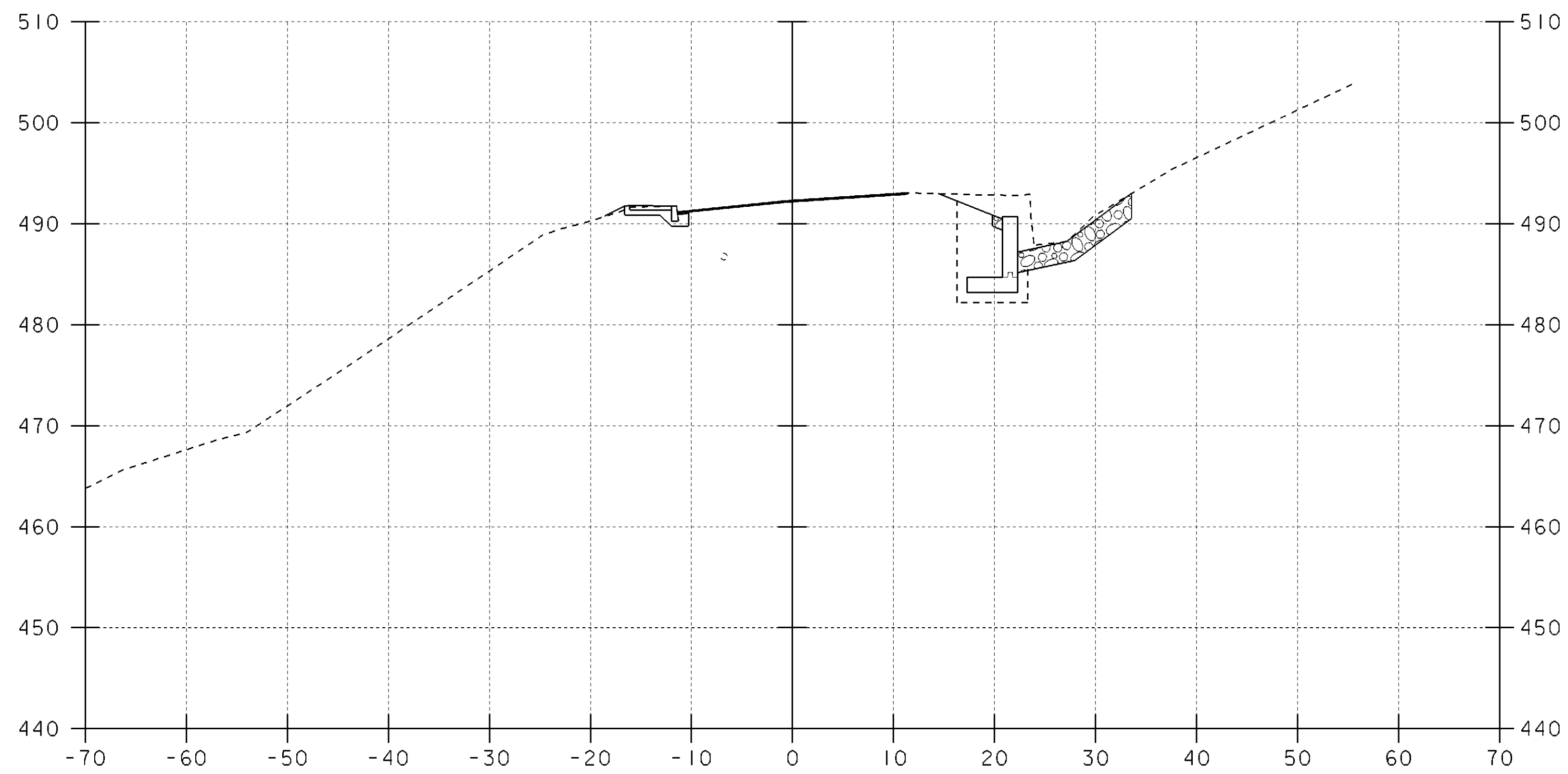


22+75

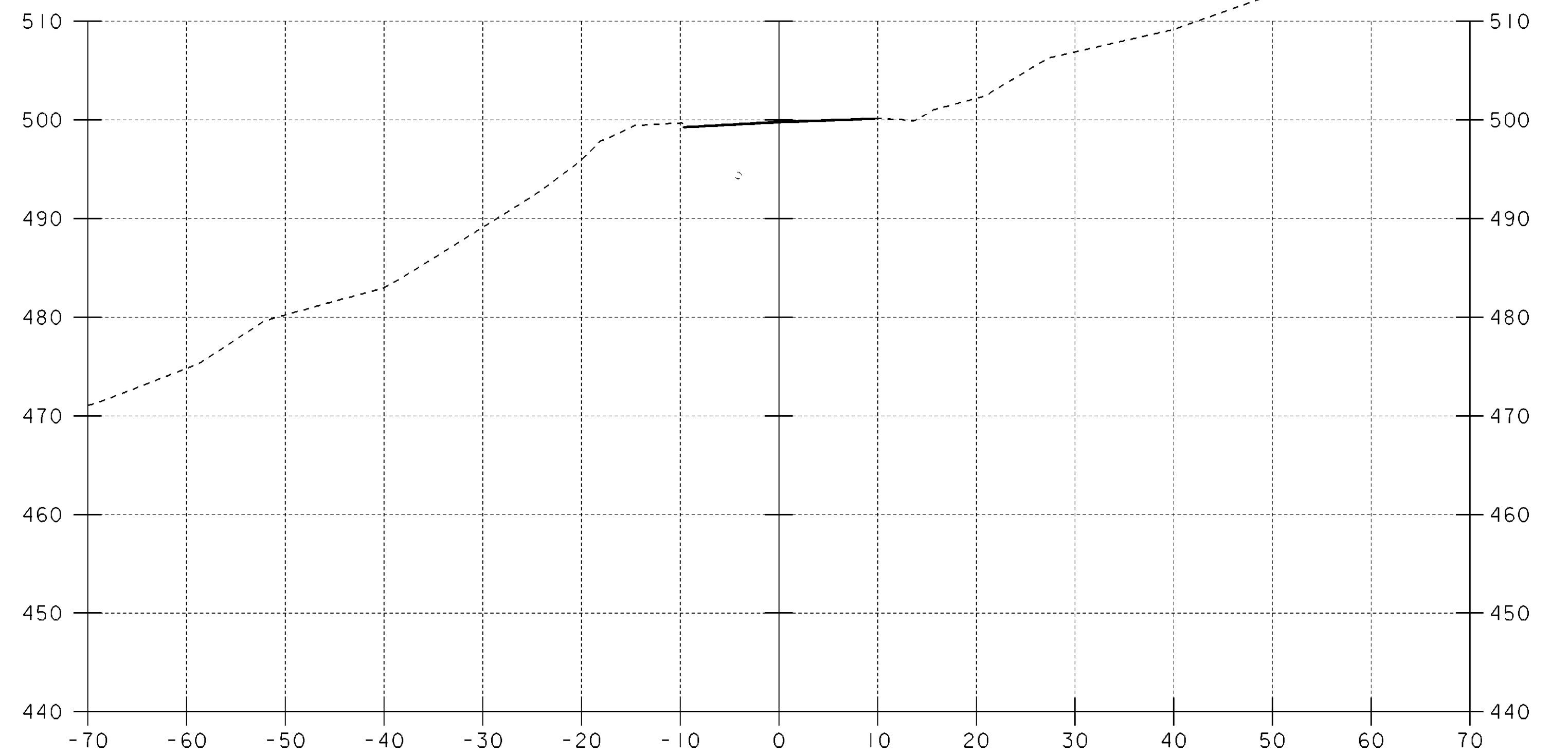
T.H. 325 CROSS SECTIONS (5)

SCALE: 1" = 10'-0"

PROJECT NAME: SPRINGFIELD	PLOT DATE: 17-AUG-2004
PROJECT NUMBER: STP 016-2 (10)S	DRAWN BY: G. ROY
FILE NAME: 00b124/Structures/sbl24s05.i	CHECKED BY: R. WHITCOMB
DESIGNED BY: G. ROY	SHEET 66 OF 72

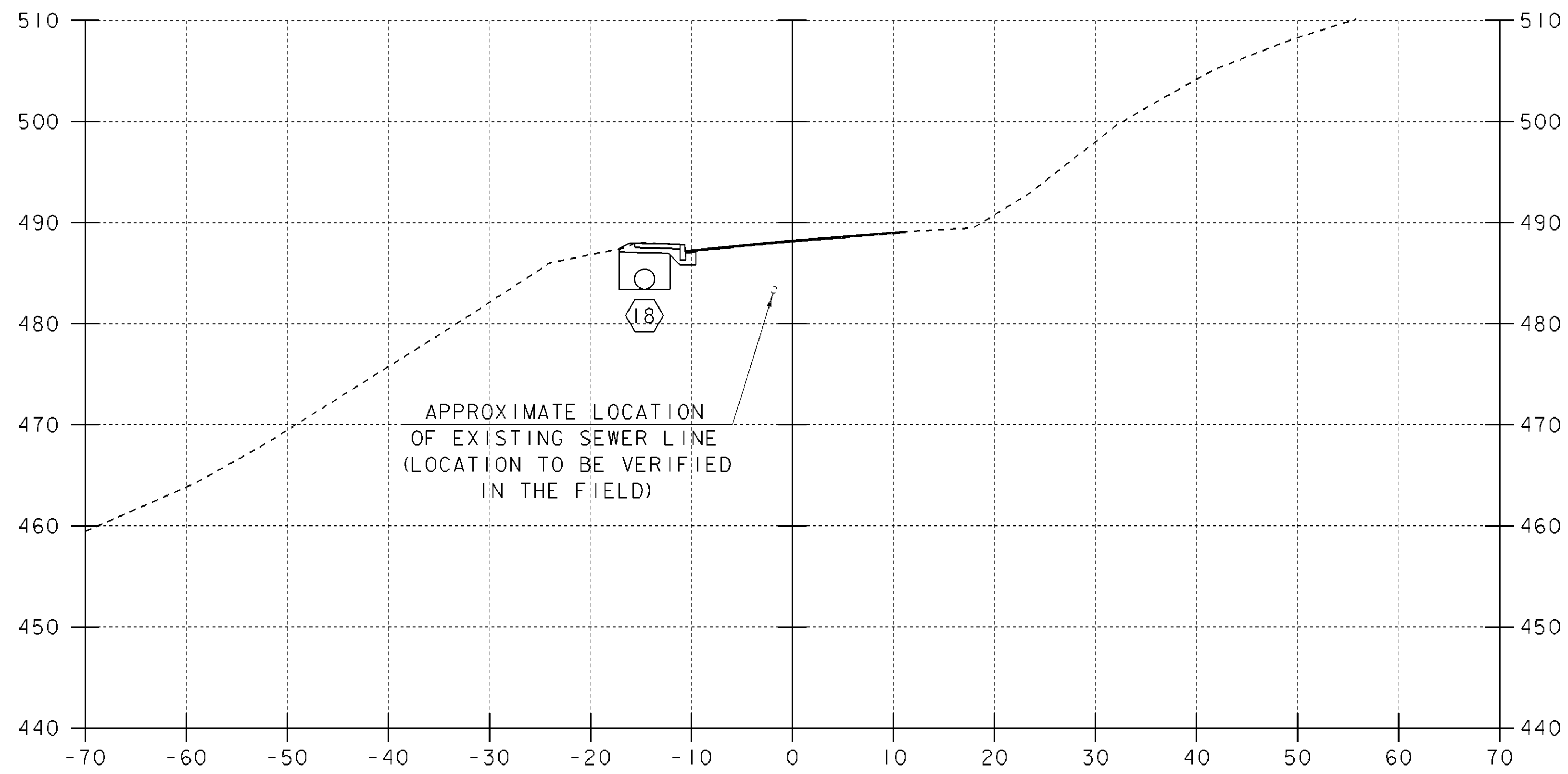


23+50



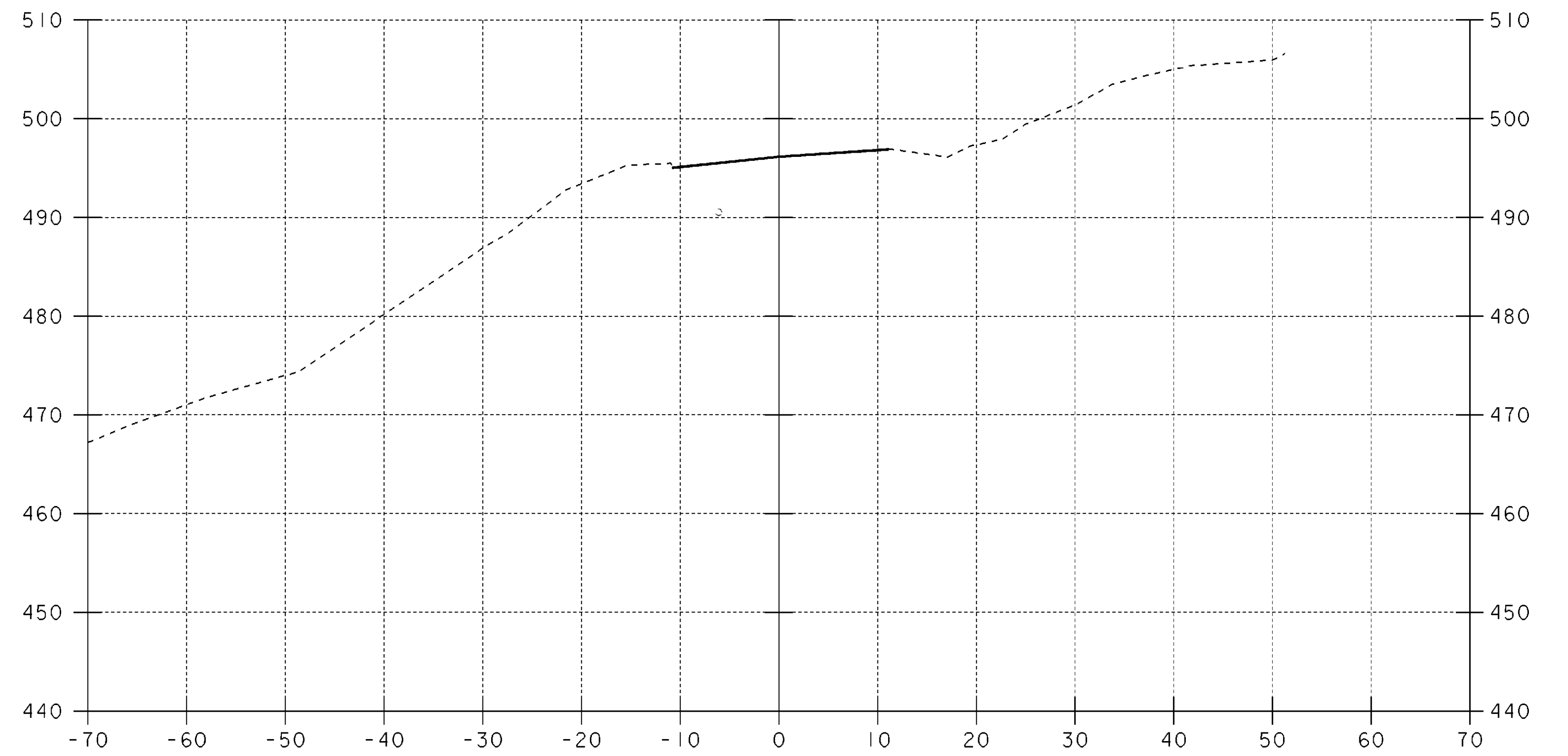
STA. 24+00.00
END PARTICIPATION PROJECT
MATCH EXISTING

24+00



APPROXIMATE LOCATION
OF EXISTING SEWER LINE
(LOCATION TO BE VERIFIED
IN THE FIELD)

23+25

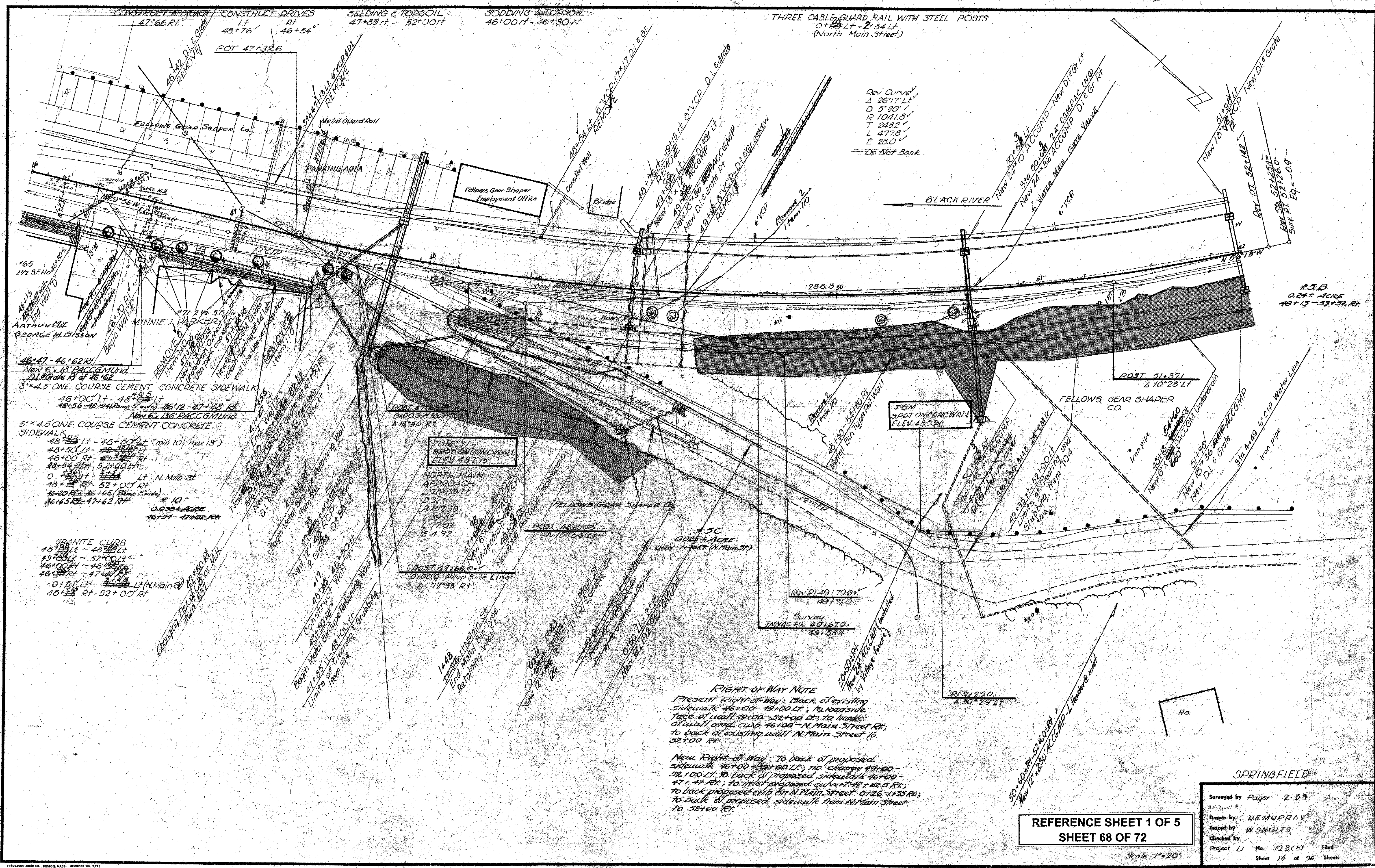


23+75

T.H. 325 CROSS SECTIONS (6)

SCALE: 1" = 10'-0"
10 0 10

PROJECT NAME:	SPRINGFIELD	PLOT DATE:	17-AUG-2004
PROJECT NUMBER:	STP 016-2 (10)S	DRAWN BY:	G. ROY
FILE NAME:	00b124/Structures/sbl24s06.i	CHECKED BY:	R. WHITCOMB
PROJECT MANAGER:	R. WHITCOMB	SHEET	67 OF 72
DESIGNED BY:	G. ROY		



CONSTRUCT APPROACH
47+66 Rt.

CONSTRUCT DRIVES
Lt 48+76 Rt 46+54

SEEDING & TOPSOIL
47+85 Rt - 52+00 Rt

LODGING & TOPSOIL
46+00 Rt - 46+30 Rt

THREE CABLE GUARD RAIL WITH STEEL POSTS
0+50 Lt - 2+54 Lt
(North Main Street)

Rev. Curve
Δ 26°17' Lt
D 5'30' Lt
R 1041.8'
T 2492'
L 4773'
E 28.0'
Do Not Bank

#3.B
0.24± ACRE
48+13 - 53+52 Rt

46+47 - 46+62 Rt
New 6" x 18" PACCGMUND
D.I. Grade Rt of 46+62

3" x 4.5' ONE COURSE CEMENT CONCRETE SIDEWALK
46+00 Lt - 48+50 Lt
48+56 - 48+94 (Ramp 5' wide) 46+12 - 47+48 Rt
New 6" x 18" PACCGMUND

5" x 4.5' ONE COURSE CEMENT CONCRETE SIDEWALK
48+50 Lt - 48+50 Lt (min 10' max 18')

48+50 Lt - 48+50 Lt
48+00 Rt - 48+00 Lt
48+34 Rt - 52+00 Lt
0+50 Lt - 52+00 Lt
48+50 Lt - 52+00 Lt
46+20 Rt - 46+65 (Ramp Sluice)
46+65 Rt - 47+62 Rt

10
0.073± ACRE
46+54 - 47+62 Rt

B.M. 711
SPOT ON CONC. WALL
ELEV. 437.78

NORTH MAIN APPROACH
Δ 22°30' Lt
D 37'
R 67.33
T 78.88
L 77.03
E 4.92

POST 471600
0+000 Prop Side Line
Δ 72°33' Rt

RIGHT OF WAY NOTE
Present Right of Way: Back of existing sidewalk 46+00 - 49+00 Lt; to roadside face of wall 49+00 - 52+00 Lt; to back of wall and curb 46+00 - N Main Street Rt; to back of existing wall N Main Street to 52+00 Rt.

New Right-of-Way: To back of proposed sidewalk 46+00 - 49+00 Lt; to change 49+00 - 52+00 Lt to back of proposed sidewalk 46+00 - 47+47 Rt; to inlet proposed curb 47+82.5 Rt; to back proposed curb on N Main Street 0+26 - 1+35 Rt; to back of proposed sidewalk from N Main Street to 52+00 Rt.

REFERENCE SHEET 1 OF 5
SHEET 68 OF 72

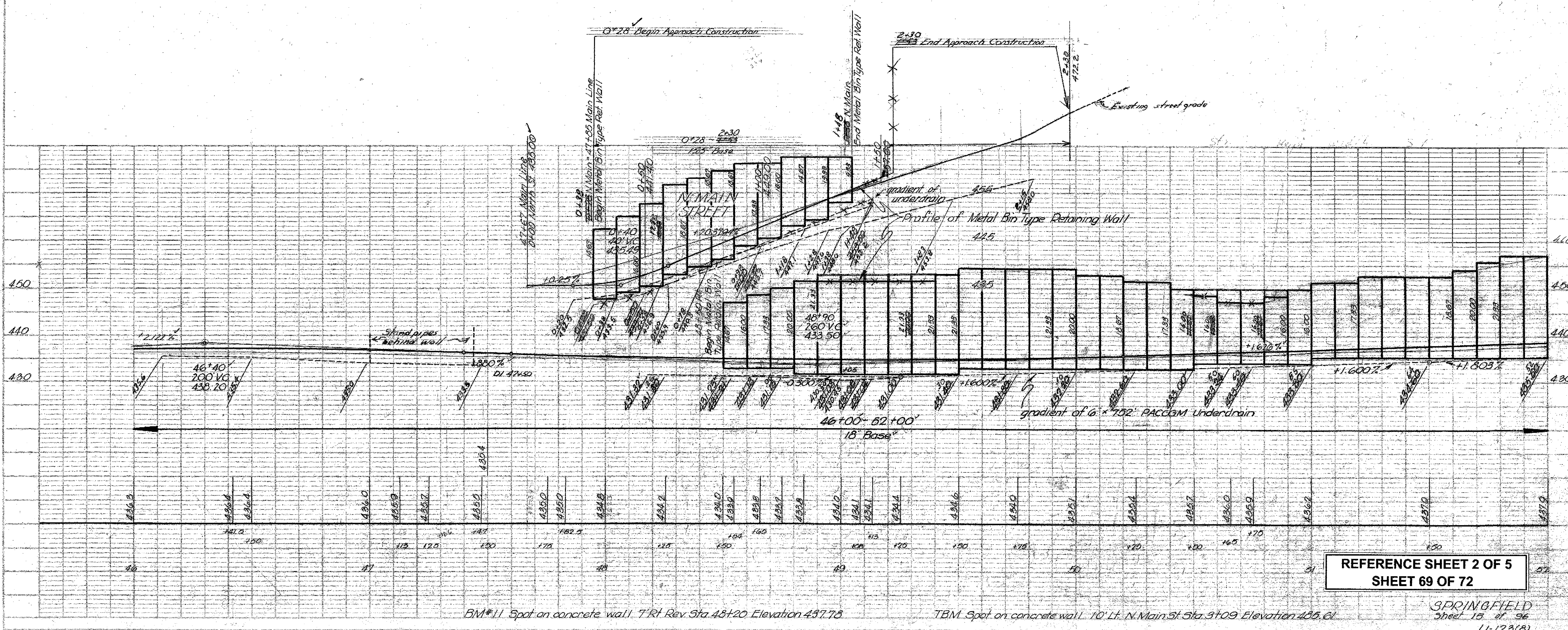
SPRINGFIELD

Surveyed by Pagar 2-53
Designed by NEMURRAY
Traced by W. SHULTS
Checked by
Project LI No. 123(B) Filed
Sheet 14 of 96 Sheets

Scale - 1"=20'

PLAN	DATE	BY
REVISED		
LOCATED		
NOTE BOOK		
NO.		

DATE	2-23
PROJECT	CONCRETE
NOTE BOOK	
NO.	



REFERENCE SHEET 2 OF 5
SHEET 69 OF 72

BM#11 Spot on concrete wall, T.Rt Rev Sta 48+20 Elevation 437.78

TBM Spot on concrete wall, 10' Lt. N. Main St Sta 51+09 Elevation 405.61

SPRINGFIELD
Sheet 15 of 96
U-123(8)

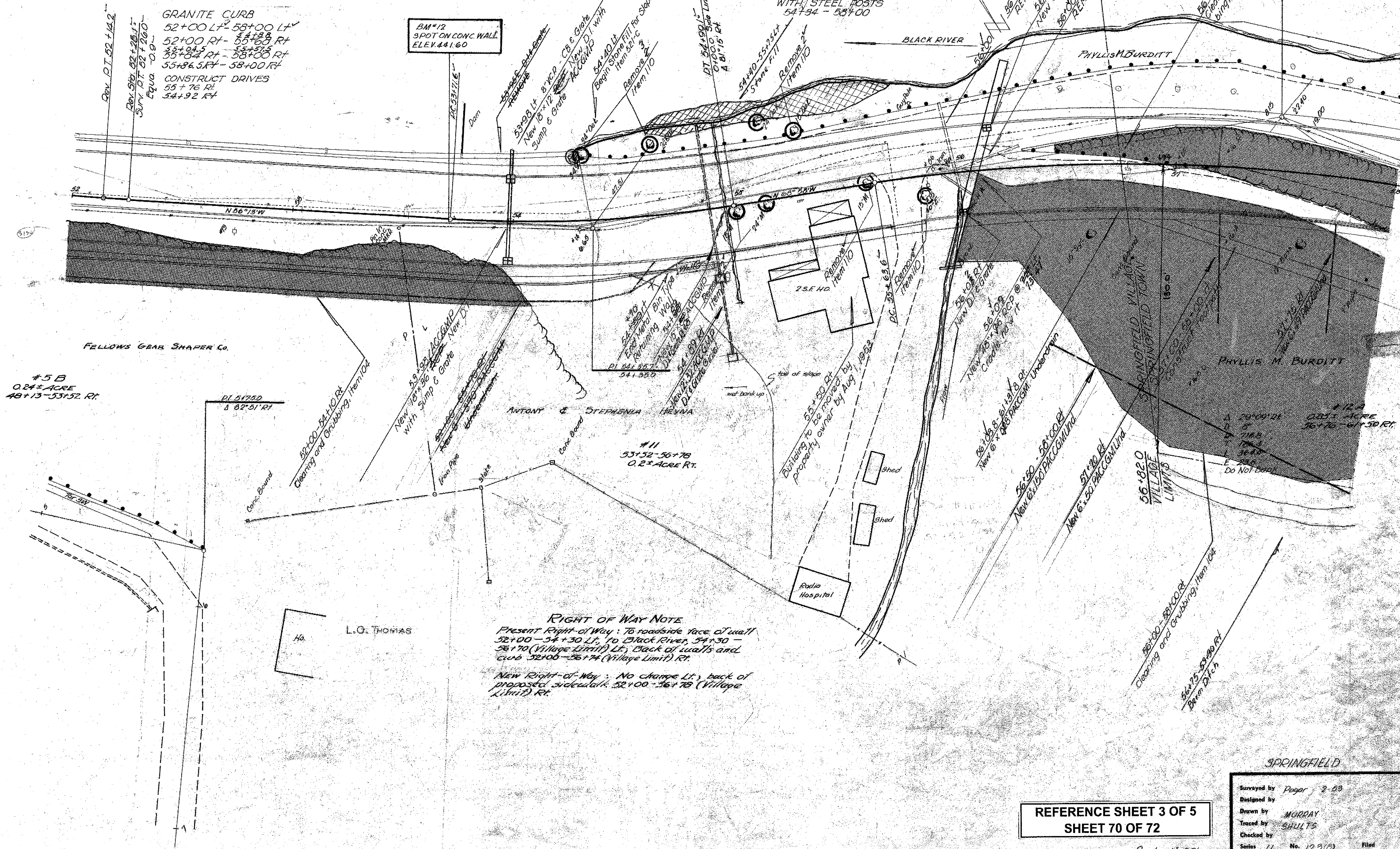
5' x 4.5' ONE COURSE CEMENT CONCRETE SIDEWALK
 52+00 LT - 53+00 LT
 52+00 RT - 53+00 RT
 54+00 RT - 55+04.5 RT (Ramp 5' wide)
 55+04.5 RT - 55+51.5 RT
 55+51.5 RT - 55+86.5 RT (Ramp 5' wide)
 55+86.5 RT - 58+00 RT

Δ 12°45' LT
 D 10'
 D 573.7'
 T 64.1'
 L 127.5'
 E 3.6'
 Do Not Bank

GRANITE CURB
 52+00 LT - 53+00 LT
 52+00 RT - 53+00 RT
 55+04.5 RT - 55+51.5 RT
 55+51.5 RT - 55+86.5 RT
 55+86.5 RT - 58+00 RT
 CONSTRUCT DRIVES
 55+76 RT
 54+92 RT

BM*12
 SPOT ON CONC. WALL
 ELEV. 44.60

SEEDING & TOPSOIL
 LT 56+75 - 58+00
 RT 52+00 - 55+68
 55+68 - 58+00
 THREE CABLE GUARD RAIL WITH STEEL POSTS
 54+34 - 58+00



RIGHT OF WAY NOTE
 Present Right-of-Way: To roadside face of wall 52+00 - 54+30 LT, to Black River, 54+30 - 58+70 (Village Limit) LT, back of walls and curb 52+00 - 56+74 (Village Limit) RT.
 New Right-of-Way: No change LT, back of proposed sidewalk 52+00 - 56+78 (Village Limit) RT.

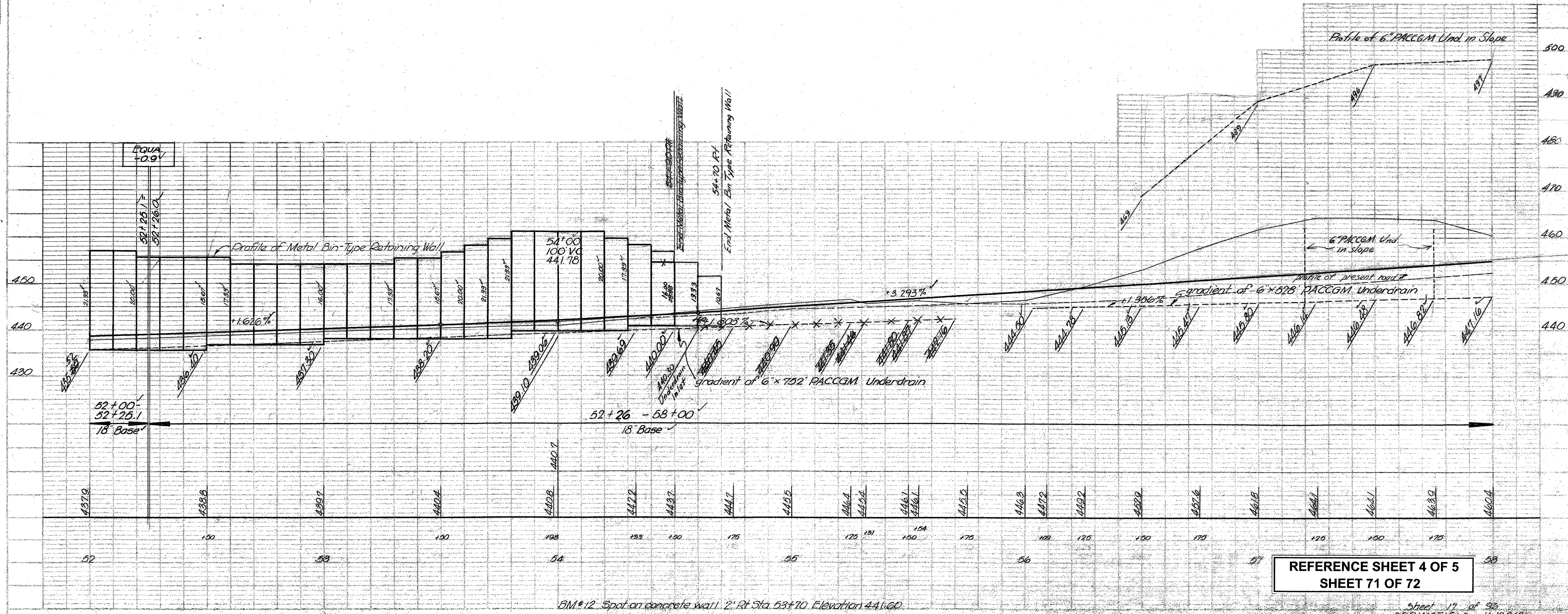
REFERENCE SHEET 3 OF 5
 SHEET 70 OF 72

SPRINGFIELD
 Surveyed by Pagar 2-83
 Designed by
 Drawn by MURRAY
 Traced by SAULTS
 Checked by
 Series U No. 123(5) Filed
 Sheet 16 of 96 Sheets

Scale 1" = 20'

PLAN SURVEYED
 PLOTTED
 NOTE BOOK ALIGNMENT CHECKED
 NO. OF PAGES CHECKED

DATE 2-29-88
 DRAWN BY CHRISTIE
 CHECKED BY
 DATE 2-28-88



REFERENCE SHEET 4 OF 5
 SHEET 71 OF 72

Sheet 17 of 96
 SPRINGFIELD U-123(8)

