

ITEM 653, TOPSOIL FURNISHED AND PLACED, AS PER PLAN

ON-SITE TOPSOIL MEETING THE REQUIREMENTS OF **CMS 659.05** IS ALLOWED FOR USE ON THIS PROJECT, AS DIRECTED BY THE ENGINEER.

TOPSOIL SHALL BE USED THROUGHOUT PROJECT LIMITS, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

ITEM 659, SOIL ANALYSIS TEST: 2 EACH

ITEM 653, TOPSOIL FURNISHED AND PLACED, AS PER PLAN: 581 CY

ITEM 659, SEEDING AND MULCHING, CLASS 1: SEE SHEET 54

ITEM 659, REPAIR SEEDING AND MULCHING: 262 SY

ITEM 659, INTER-SEEDING: 262 SY

ITEM 659, COMMERCIAL FERTILIZER: 0.73 TON

ITEM 659, LIME: 1.08 ACRE

ITEM 659, WATER: 29 MGAL

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

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

VEGETATED BIOFILTER

THIS PLAN UTILIZES VEGETATED BIOFILTER(S) FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AS SHOWN IN THE PLANS TO ANY DISTURBED AREA ON THE SHOULDER AND FORESLOPE DRAINING TO A VEGETATED BIOFILTER. THE DITCH FOR EACH VEGETATED BIOFILTER SHALL BE TRAPEZOIDAL, AS SHOWN IN THE PLAN CROSS SECTIONS. PROVIDE ITEM 670 AS SPECIFIED IN THE PLANS.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

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

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

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

UNRECORDED DRAINAGE

FURNISH NO CONTINUANCE FOR ANY UNRECORDED UNTREATED NON-STORM WATER DRAINAGE SUCH AS UNTREATED SEPTIC, UNTREATED WASTEWATER, UNTREATED CURTAIN/GRADIENT DRAINS, AND UNTREATED FOUNDATION FLOOR DRAINS DISTURBED BY THE WORK. PLUG ANY UNRECORDED UNTREATED NON-STORM WATER DRAINAGE WITH CLASS C CONCRETE AT THE RIGHT OF WAY LINE. PAYMENT FOR PLUGGING SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 OR 203 ITEM. **NOTIFY THE PROJECT ENGINEER PRIOR TO PLUGGING ANY CONDUITS.**

FURNISH A CONTINUANCE FOR ALL UNRECORDED TREATED STORM WATER DRAINAGE, SUCH AS ROOF DRAINS, FOOTER DRAINS, OR YARD DRAINS, DISTURBED BY THE WORK. FURNISH EITHER AN OPEN CONTINUANCE OR AN UNOBSTRUCTED CONTINUANCE BY CONNECTING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE. THE LOCATION, TYPE, SIZE, AND GRADE OF THE NEEDED CONDUIT TO REPLACE OR EXTEND AN EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER. ALL SUCH CONTINUANCE REQUIRES A RIGHT OF WAY USE PERMIT. THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, 707.52 SDR35.

FURNISH A CONTINUANCE FOR ALL UNRECORDED ACTIVE SANITARY SEWER CONNECTIONS SUCH AS SANITARY, WASTEWATER, CURTAIN/GRADIENT DRAINS, AND FOUNDATION FLOOR DRAINS DISTURBED BY THE WORK. FURNISH AN UNOBSTRUCTED CONTINUANCE OF THE UNRECORDED ACTIVE SANITARY SEWER CONNECTIONS TO THE SATISFACTION OF THE ENGINEER. ALL SUCH CONTINUANCE REQUIRES A RIGHT OF WAY USE PERMIT. ALL SANITARY AND SANITARY WASTEWATER CONTINUANCE MAY ALSO REQUIRE A NPDES PERMIT FROM THE OHIO ENVIRONMENTAL PROTECTION AGENCY. REPORT ALL CONTINUANCE TO THE LOCAL HEALTH DEPARTMENT. THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.42, 707.43, 707.44, 707.45, 707.46, 707.47, 707.51, 707.52 SDR35, 706.01, 706.02, OR 706.08 WITH JOINTS AS PER 706.11 OR 706.12.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY, **AS DIRECTED BY THE ENGINEER**, FOR THE ABOVE-DESCRIBED PURPOSE:

ITEM 611, 4" CONDUIT, TYPE D: 20 FT

GENERAL NOTES

LIC-13-0.42

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DESIGN AGENCY



DESIGNER

RMA

REVIEWER

JSL 10/01/23

PROJECT ID


111614

SHEET TOTAL

P.9 63

SHEET NUMBERS							PLAN SPLIT	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
8	9	20	21	22	23	24	01/SAF/21						
				1.7			1.7	602	20000	1.7	CY	CONCRETE MASONRY	
75							75	605	31100	75	FT	AGGREGATE DRAINS	
	20						20	611	00300	20	FT	4" CONDUIT, TYPE D	
				24			24	611	04900	24	FT	12" CONDUIT, TYPE D	
				82			82	611	05700	82	FT	15" CONDUIT, TYPE A	
				18			18	611	10200	18	FT	24" CONDUIT, TYPE A	
				1			1	611	98470	1	EACH	CATCH BASIN, NO. 2-2B	
		1,956					1,956	252	01500	1,956	FT	FULL DEPTH PAVEMENT SAWING	
			2,574				2,574	254	01000	2,574	SY	PAVEMENT PLANING, ASPHALT CONCRETE, VARIABLE (1.00 MIN, 3.50" MAX)	
		309					309	301	56000	309	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
				18			18	301	56100	18	CY	ASPHALT CONCRETE BASE, PG64-22, (449), (DRIVEWAYS)	
		328					328	304	20000	328	CY	AGGREGATE BASE	
			566	11			577	407	20000	577	GAL	NON-TRACKING TACK COAT	
			174				174	408	10001	174	GAL	PRIME COAT, AS PER PLAN	8
				4			4	411	10000	4	CY	STABILIZED CRUSHED AGGREGATE	
			152				152	441	70100	152	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M	
			249				249	441	70300	249	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)	
				7			7	441	70500	7	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)	
						13	13	617	10101	13	CY	COMPACTED AGGREGATE, AS PER PLAN	8
					32		32	621	00100	32	EACH	RPM	
					12		12	621	54000	12	EACH	RAISED PAVEMENT MARKER REMOVED	
				6			6	626	00110	6	EACH	BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL)	
						197.0	197.0	630	03100	197.0	FT	GROUND MOUNTED SUPPORT, NO. 3 POST (TYPE S W/ ANCHOR BASE)	
						4	4	630	08600	4	EACH	SIGN POST REFLECTOR	
						111.6	111.6	630	80100	111.6	SF	SIGN, FLAT SHEET	
						15	15	630	84900	15	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
						3	3	630	85100	3	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
						14	14	630	86002	14	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	

GENERAL SUMMARY

DESIGN AGENCY

 DESIGNER
 RMA
 REVIEWER
 JSL 10/01/23
 PROJECT ID
 111614
 SHEET TOTAL
 P.18 | 63

REF NO.	LOCATION (STATION TO STATION)	SIDE	202		606		626	
			ANCHOR ASSEMBLY REMOVED, TYPE A	GUARDRAIL REMOVED	GUARDRAIL, TYPE MGS	ANCHOR ASSEMBLY, MGS TYPE E	BARRIER REFLECTOR, TYPE 2 (BIDIRECTIONAL)	
			EACH	FT	FT	EACH	EACH	
GR-1	EDGEWATER BEACH BLVD	LT			25.0			
GR-2	199+45.00* TO 184+75.00	LT	2	225.0	350.0	2	6	
*CRISTLAND HILL RD. STATIONING								
TOTALS (CARRIED TO THE GENERAL SUMMARY)			2	225.0	375.0	2	6	

REF NO.	LOCATION (STATION TO STATION)	SIDE	202		601	602	611			
			HEADWALL REMOVED	PIPE REMOVED, 24" AND UNDER	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	CONCRETE MASONRY	CATCH BASIN, NO. 2-2B	12" CONDUIT, TYPE D	15" CONDUIT, TYPE A	24" CONDUIT, TYPE A
			EACH	FT	SY	CY	EACH	FT	FT	FT
D-1	174+70.00 TO 174+94.00	RT		21	3.6	0.42		24		
D-2	178+74.00 TO 179+14.00	LT		40						
D-3	181+02.00 TO 181+08.00	RT	1		1.8	0.46				13
D-4	181+59.00 TO 181+61.00	LT	1		1.8	0.46				5
D-5	183+25.00	CL	2	75	3.6	0.27	1		82	
TOTALS (CARRIED TO THE GENERAL SUMMARY)			4	136	10.7	1.61	1	24	82	18

REF NO.	LOCATION (STATION)	SIDE	TYPE	BUILDUP	PR. DRIVE AREA (*CADD AREA)	202	203	204	301	407	411	441	SPECIAL
						PAVEMENT REMOVED (EX. DRIVEWAY AREA)	EXCAVATION	SUBGRADE COMPACTION	ASPHALT CONCRETE BASE, PG64-22 (DRIVEWAYS) D=3.50"	NON-TRACKING TACK COAT	STABILIZED CRUSHED AGGREGATE D=6.00"	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449) D=1.25"	MAILBOX REMOVED AND RESET
						SY	CY	SY	CY	GAL	CY	CY	EACH
DR-1	174+82.25	RT	FIELD	AGGREGATE	22.9*		3.8	22.9			3.8		
DR-2	175+87.57	LT	RESIDENTIAL	ASPHALT	35.5*	29.3	0.9	35.5	3.5	2.1		1.2	1
DR-3	176+24.08	LT	RESIDENTIAL	ASPHALT	51.1*	38.1	1.6	51.1	5.0	3.1		1.8	1
DR-4	177+11.77	RT	RESIDENTIAL	ASPHALT	34.2*	25.1	1.2	34.2	3.3	2.1		1.2	1
DR-5	177+43.93	LT	RESIDENTIAL	ASPHALT	55.2*	26.6	3.8	55.2	5.4	3.3		1.9	2
DR-6	180+17.39	RT	RESIDENTIAL	ASPHALT		50.0							
TOTALS (CARRIED TO THE GENERAL SUMMARY)						169.1	11.3	198.8	17.1	10.6	3.8	6.1	5

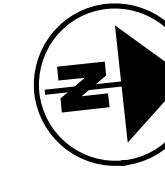
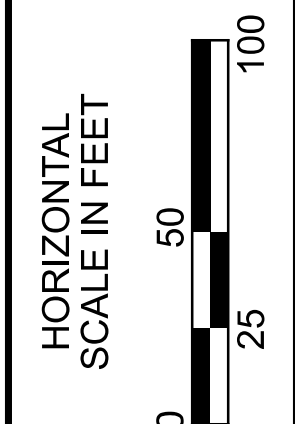


PROJECT DESCRIPTION

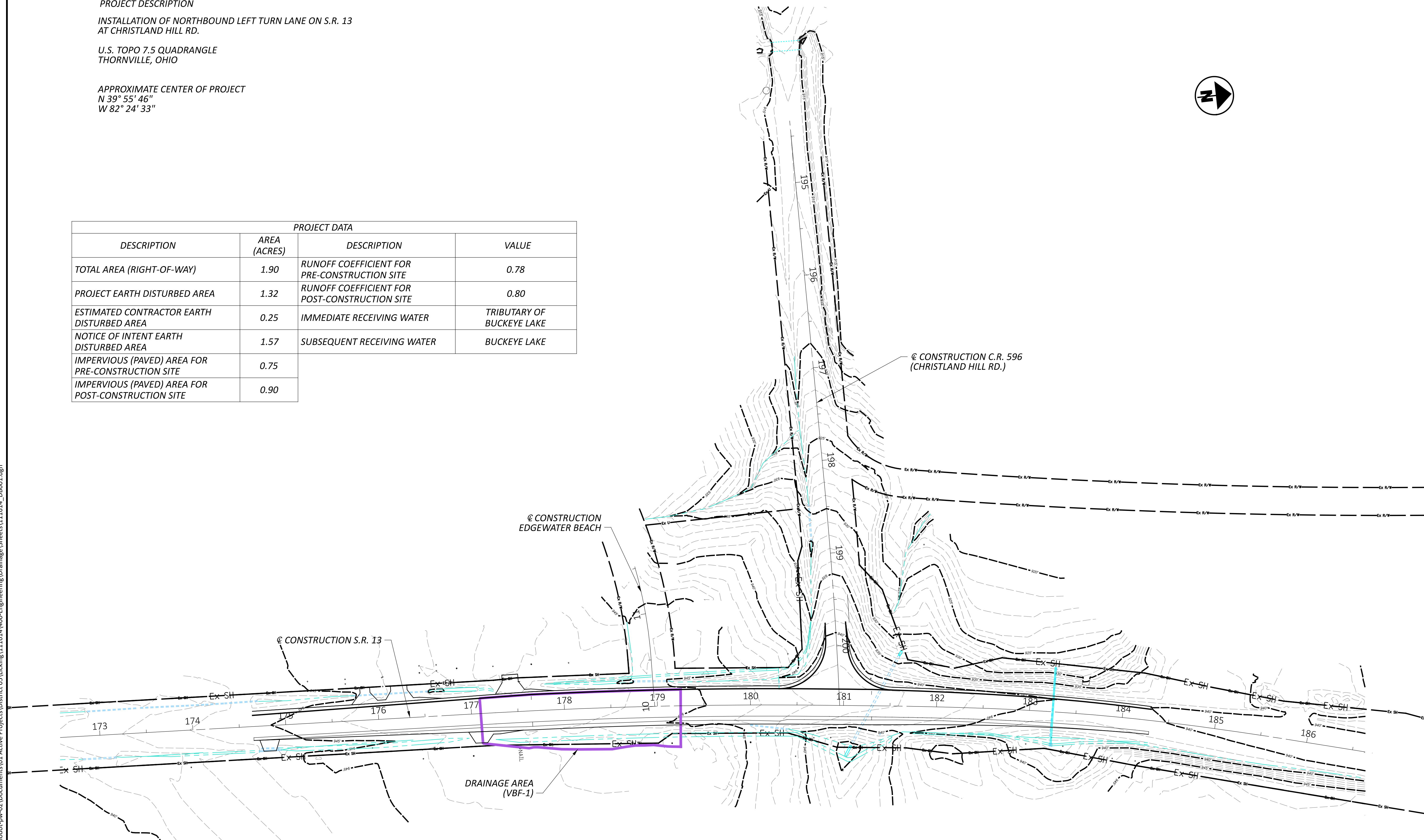
INSTALLATION OF NORTHBOUND LEFT TURN LANE ON S.R. 13
AT CHRISTLAND HILL RD.

U.S. TOPO 7.5 QUADRANGLE
THORNVILLE, OHIO

APPROXIMATE CENTER OF PROJECT
N 39° 55' 46"
W 82° 24' 33"



PROJECT DATA			
DESCRIPTION	AREA (ACRES)	DESCRIPTION	VALUE
TOTAL AREA (RIGHT-OF-WAY)	1.90	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.78
PROJECT EARTH DISTURBED AREA	1.32	RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE	0.80
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	0.25	IMMEDIATE RECEIVING WATER	TRIBUTARY OF BUCKEYE LAKE
NOTICE OF INTENT EARTH DISTURBED AREA	1.57	SUBSEQUENT RECEIVING WATER	BUCKEYE LAKE
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE	0.75		
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION SITE	0.90		



PROJECT SITE PLAN

BMP	SIDE	BEGIN			END			LENGTH FEET	WIDTH FEET	EDA TREATMENT CREDIT ACRES
		STATION	LATITUDE	LONGITUDE	STATION	LATITUDE	LONGITUDE			
VBF-1	RT	177+50	39.928741	-82.409020	179+25	39.929325	-82.408947	175	4	0.29
TREATMENT PROVIDED										0.29
TREATMENT REQUIRED										0.26

DESIGN AGENCY

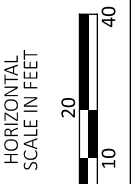
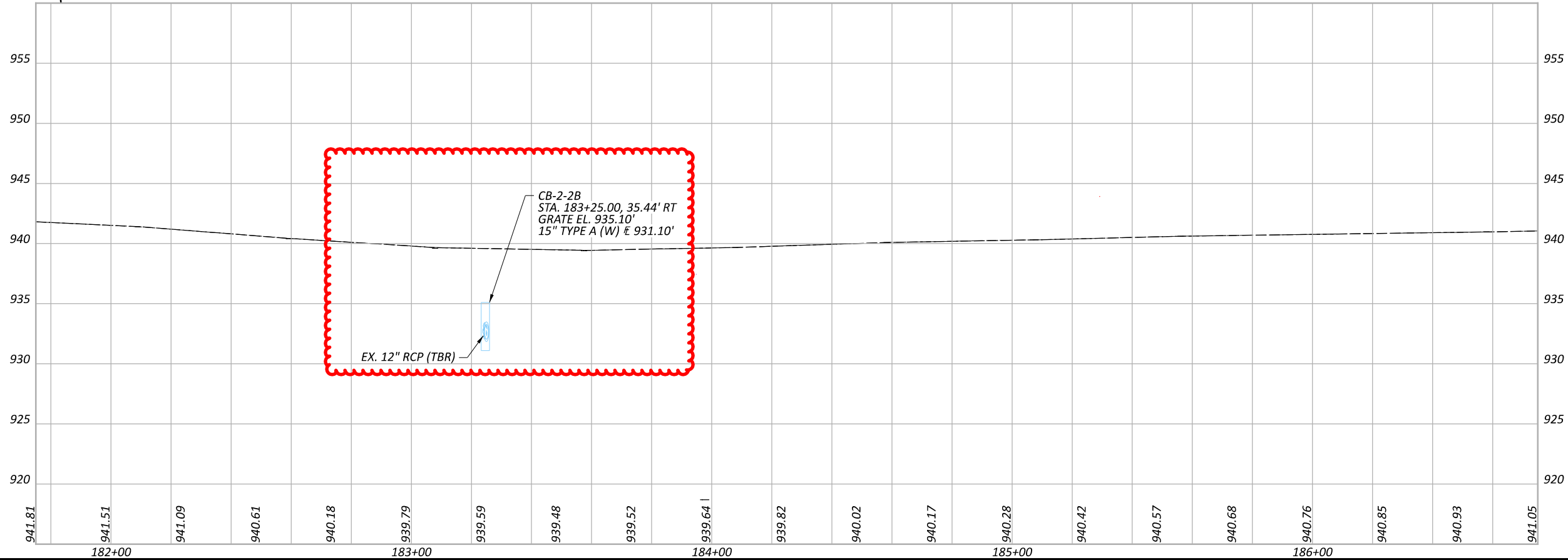
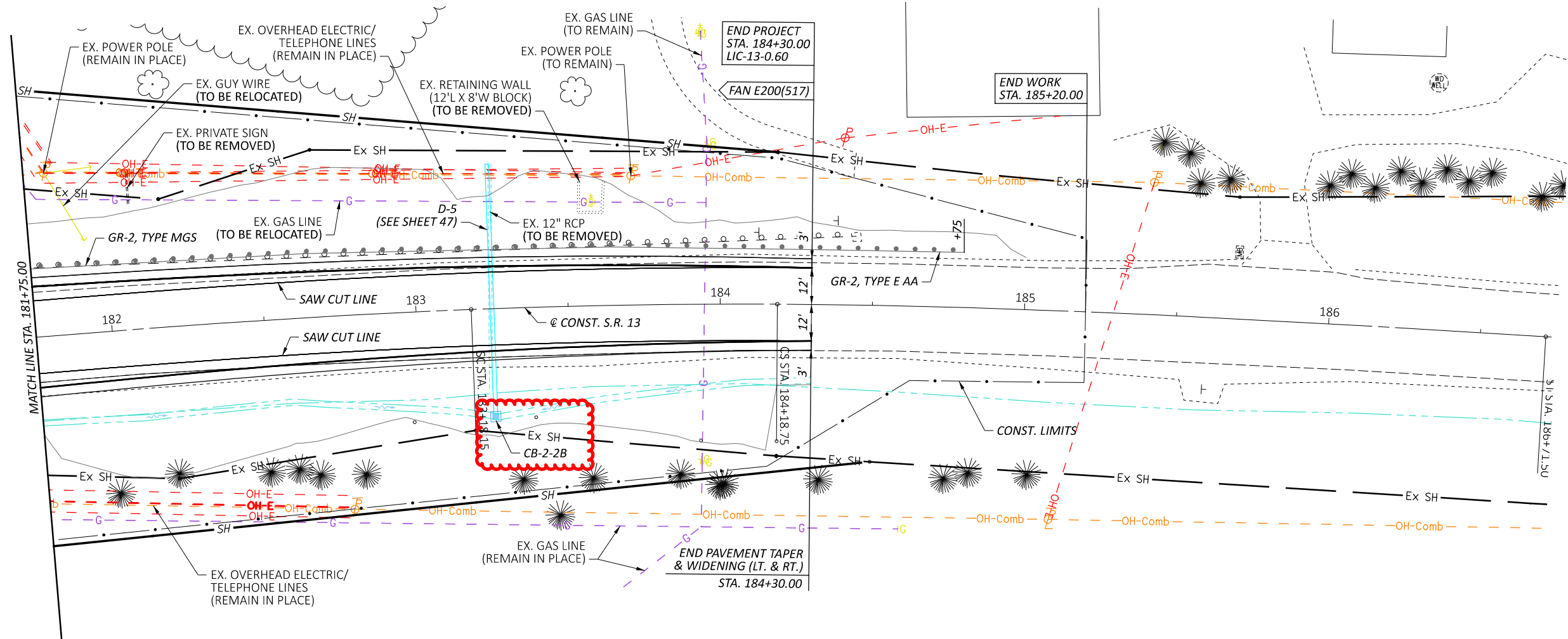


DESIGNER: RMA
REVIEWER: JSL
PROJECT ID: 111614
SHEET: P.26 TOTAL: 63

LIC-13-0.42

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SEE SHEETS 20-22 FOR QUANTITIES



PLAN AND PROFILE - S.R. 13
 STA. 181+75 TO STA. 186+75

DESIGN AGENCY

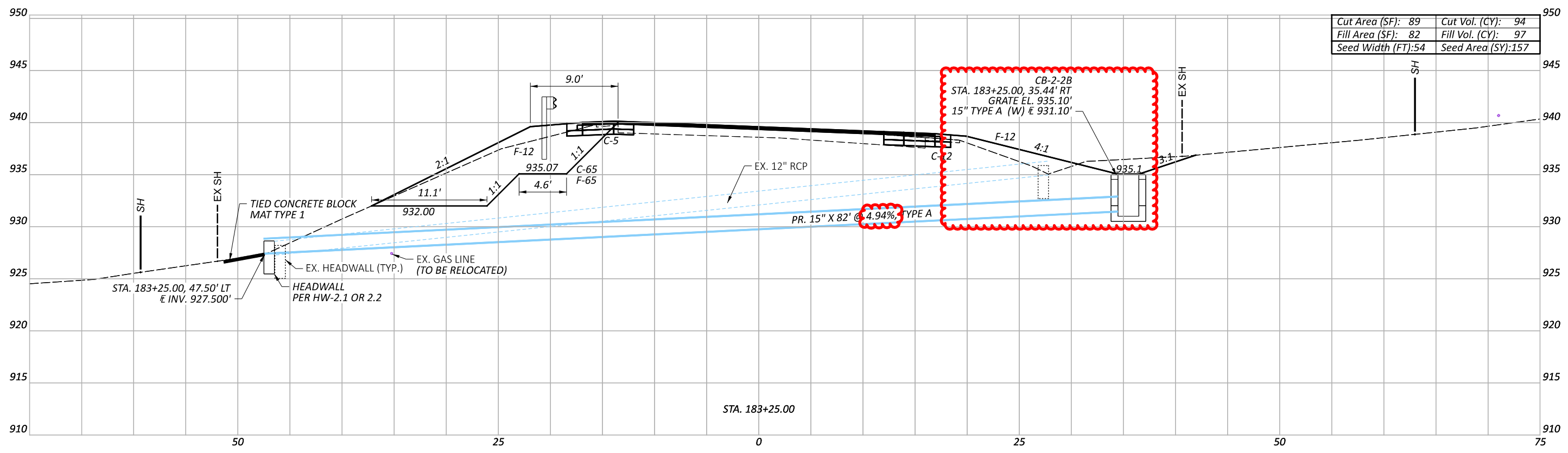
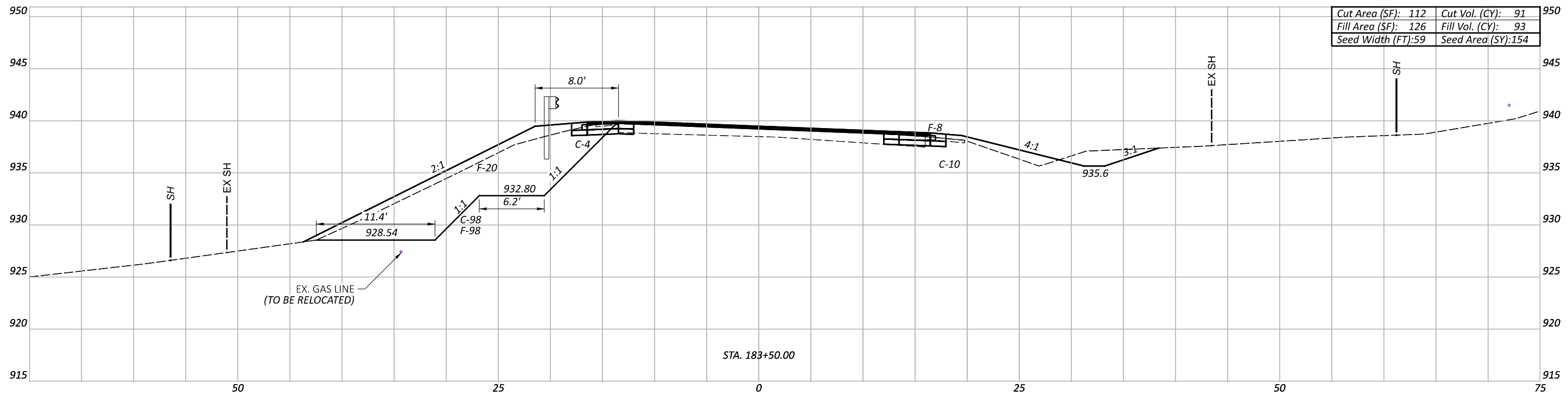


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CROSS SECTIONS - S.R. 13
 STA. 183+25 TO STA. 183+50

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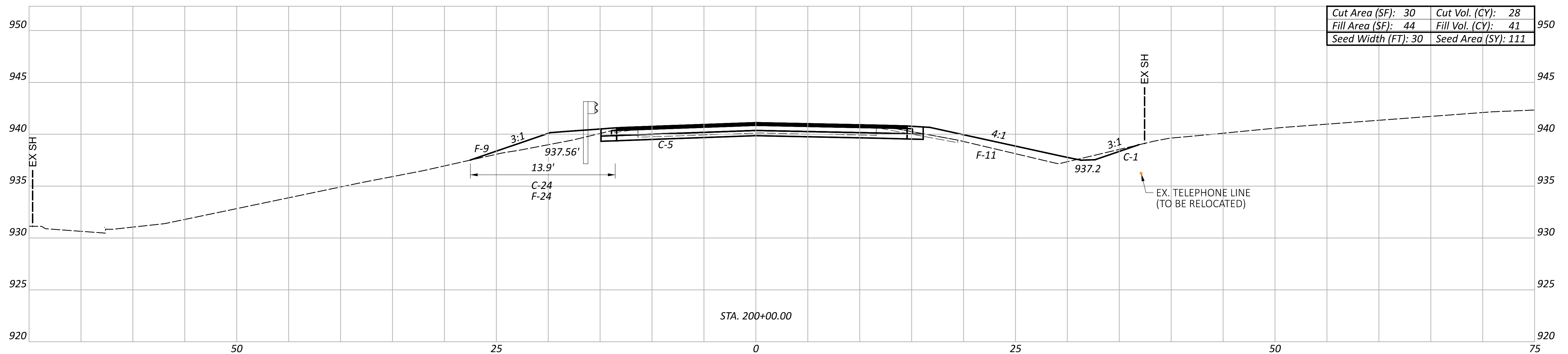
SEE TYPICAL SECTIONS FOR 12" GLOBAL UNDERCUT
 SEE SUPERELEVATION TABLE FOR PAVEMENT SLOPES AND ELEVATIONS

Sheet Totals			111614	
Seeding	Cut	Fill	SHEET	TOTAL
311	185	190	P.46	63

SHEET NO.	LOCATION (STATION TO STATION)	203		659
		EXCAVATION CY	EMBANKMENT CY	SEEDING AND MULCHING, CLASS 1 SY
S.R. 13				
31	173+25.00 TO 173+75.00	3		49
32	174+00.00 TO 174+50.00	24		169
33	174+75.00 TO 175+25.00	40	1	308
34	175+50.00 TO 176+00.00	37	5	236
35	176+25.00 TO 176+75.00	42	3	171
36	177+00.00 TO 177+50.00	53		155
37	177+75.00 TO 178+25.00	155	6	370
38	178+50.00 TO 179+00.00	195	8	415
39	179+25.00 TO 179+75.00	283	30	463
40	180+00.00 TO 180+50.00	94	77	424
41	180+75.00 TO 181+00.00	19	88	285
42	181+25.00 TO 181+50.00	54	89	278
43	181+75.00 TO 182+00.00	123	135	292
44	182+25.00 TO 182+50.00	195	206	340
45	182+75.00 TO 183+00.00	225	226	323
46	183+25.00 TO 183+50.00	185	190	311
47	183+75.00 TO 184+00.00	89	65	255
48	184+25.00 TO 184+50.00	4	8	102
49	184+75.00 TO 185+00.00		1	28
CRISTLAND HILL RD.				
54	199+50.00 TO 199+75.00	42	53	146
55	199+75.00 TO 200+00.00	28	41	111
DRIVE DEDUCTIONS (FROM SHEET 23)		(12)		
TOTALS (CARRIED TO GENERAL SUMMARY)		1,878	1,232	5,231

REF NO.	LOCATION (STATION TO STATION) SEE SHEETS 36-39	SIDE	TOTAL WIDTH (AVG)	670	
			FT	SLOPE EROSION PROTECTION MAT, TYPE B (7.5' WIDTH) (FORESLOPE ONLY) SY	DITCH EROSION PROTECTION MAT, TYPE B (7.5' WIDTH) SY
VBF-1	S.R. 13 177+50.00 TO 179+25.00	RT	20.5	145.8	145.8
CONTINGENCY				71.0	71.0
TOTALS (CARRIED TO THE GENERAL SUMMARY)				216.8	216.8

STA. 200+00.00 TO STA. 200+64.00
 SEE INTERSECTION DETAIL



Sheet Totals			111614	
Seeding	Cut	Fill	SHEET	TOTAL
111	28	41	P.54	63

CROSS SECTIONS - C.R. 596 (CRISTLAND HILL RD.)
 STA. 200+00 TO STA. 200+25

DESIGN AGENCY

 DESIGNER
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