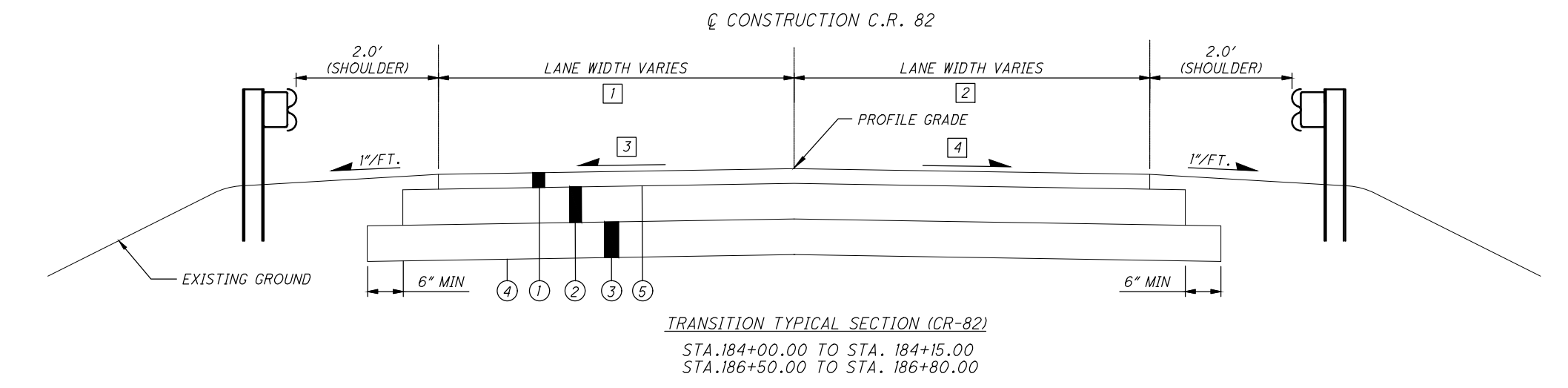


LEFT LANE WIDTH [1]

FROM STATION	WIDTH	TO STATION	WIDTH
184+00.00	9.30'	184+15.00	10.00'
184+15.00	10.00'	185+72.87	10.00'
185+72.87 - 186+41.84 (VARIES - INTERSECTION)			
186+41.84	10.00'	186+50.00	10.00'
186+50.00	10.00'	186+80.00	8.40'

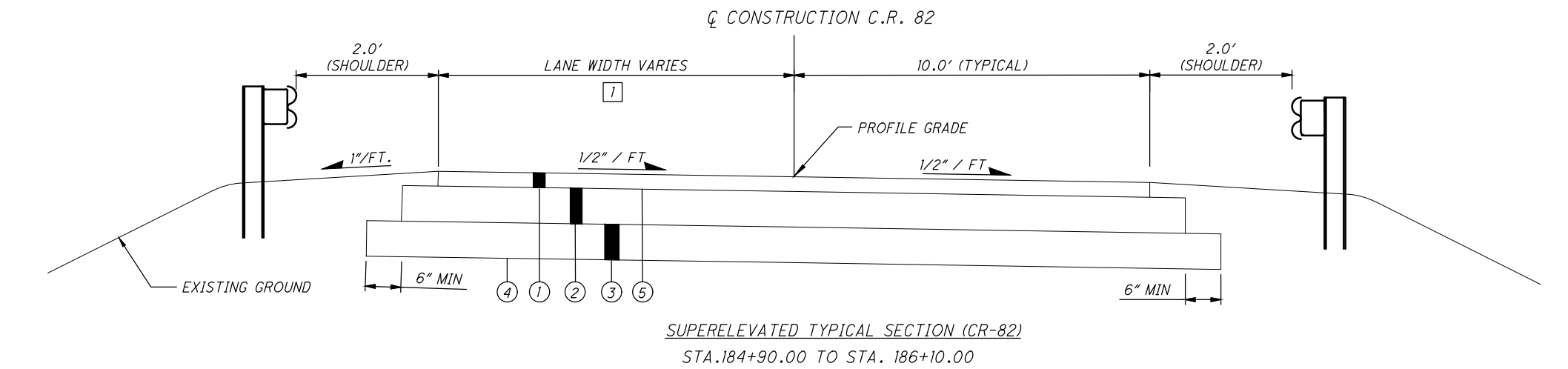


RIGHT LANE WIDTH [2]

FROM STATION	WIDTH	TO STATION	WIDTH
184+00.00	9.30'	184+15.00	10.00'
184+15.00	10.00'	186+50.00	10.00'
186+50.00	10.00'	186+80.00	10.00'

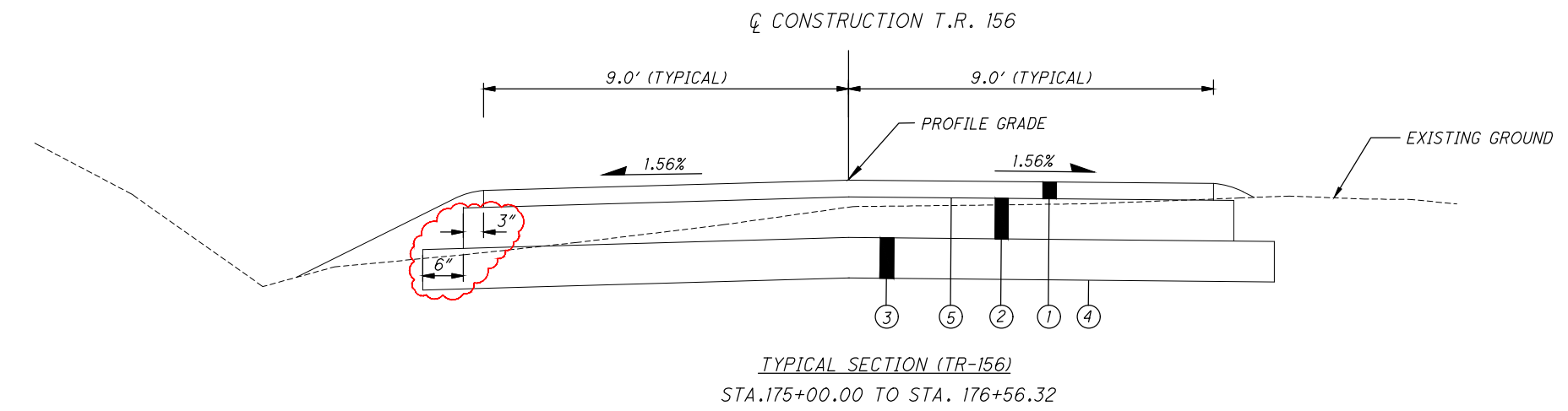
LEFT SLOPE [3]

FROM STATION	SLOPE	TO STATION	SLOPE
184+00.00	EXIST	184+25.00	-1.56%
184+25.00	-1.56%	184+40.00	-1.56%
184+40.00	-1.56%	184+90.00	+4.17%
184+90.00	+4.17%	186+10.00	+4.17%
186+10.00	+4.17%	186+65.00	-1.56%
186+65.00	-1.56%	186+80.00	EXIST



RIGHT SLOPE [4]

FROM STATION	SLOPE	TO STATION	SLOPE
184+00.00	EXIST	184+25.00	-1.56%
184+25.00	-1.56%	184+40.00	-1.56%
184+40.00	-1.56%	184+90.00	-4.17%
184+90.00	-4.17%	186+25.00	-4.17%
186+25.00	-4.17%	186+65.00	-1.56%
186+65.00	-1.56%	186+80.00	EXIST



- LEGEND
- (1) ITEM 441 - 2 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
 - (2) ITEM 301 - 6" ASPHALT CONCRETE BASE, PG64-22, (449)
 - (3) ITEM 304 - 6" AGGREGATE BASE
 - (4) ITEM 204 - SUBGRADE COMPACTION
 - (5) ITEM 407 - TACK COAT
 - (6) ITEM 606 - GUARDRAIL, TYPE 5, AS PER PLAN
 - (A) SUBGRADE
 - (B) ASPHALT ROADSURFACE-UNKNOWN DEPTH

GENERAL SUMMARY

SHEET NUM.									PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
6	7	8	9	10	13	14	15	17	01 / NFA / 10	EXT	TOTAL				
														ROADWAY	
									LS	201	11000	LS		CLEARING AND GRUBBING	
	551								551	202	23000	551	SY	PAVEMENT REMOVED	7
		91	119	53					263	203	10000	263	CY	EXCAVATION	8,9,10
		21	43	15					79	203	20000	79	CY	EMBANKMENT	8,9,10
	845								845	204	10000	845	SY	SUBGRADE COMPACTION	7
	0.08								0.08	209	60500	0.08	MILE	LINEAR GRADING	7
	37								37	252	01500	37	FT	FULL DEPTH PAVEMENT SAWING	7
	4								4	606	25001	4	EACH	ANCHOR ASSEMBLY, TYPE A, AS PER PLAN	7
	100								100	606	13001	100	FT	GUARDRAIL, TYPE 5, AS PER PLAN	7
	4								4	606	35141	4	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4, AS PER PLAN	7
														EROSION CONTROL	
	120								120	601	32100	120	CY	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	7
									3,000	832	30000	3,000	EACH	EROSION CONTROL	
	0.11								0.11	659	31000	0.11	ACRE	LIME	6
	511								511	659	10000	511	SY	SEEDING AND MULCHING	6
	0.05								0.05	659	20000	0.05	TON	COMMERCIAL FERTILIZER	6
	4.14								4.14	659	35000	4.14	MGAL	WATER	
														PAVEMENT	
	141								141	304	20000	141	CY	AGGREGATE BASE	7
	78								78	407	10000	78	GAL	TACK COAT	7
	54								54	441	50000	54	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	7
	135								135	301	56000	135	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	7
														STRUCTURE OVER 20 FOOT SPAN (MEG-CR82-3.510)	
									LS	202	11003	LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	13
					220				220	507	00200	220	FT	STEEL PILES HP12X53, FURNISHED	13
					200				200	507	92200	200	FT	PREBORED HOLES	13
								10,299	10,299	509	10000	10,299	LB	EPOXY COATED STEEL REINFORCEMENT	17
	48								48	511	45711	48	CY	CLASS QC1 CONCRETE, ABUTMENT, AS PER PLAN	6
	47								47	511	31611	47	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN	6
	86								86	512	10050	86	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	6
							6		6	515	12090	6	EACH	PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, CB33-48(75'-0")	15
								24	24	516	43100	24	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE)(1.875" x 8" x 12")	17
								24	24	516	41100	24	EACH	1/8" PREFORMED BEARING PAD, TYPE CDP	17
							162.5		162.5	517	72300	162.5	FT	RAILING (DEEP BEAM RAIL WITH STEEL TUBULAR BACKUP AND TYPE 2 STEEL POSTS AND ANCHOR BOLTS)	15
							182		182	SPECIAL	51822300	182	FT	STEEL DRIP STRIP	15
							83		83	613	41200	83	CY	LOW STRENGTH MORTAR BACKFILL	15
									LS	503	21300	LS		UNCLASSIFIED EXCAVATION	
					16.5				16.5	512	33000	16.5	SY	TYPE 2 WATERPROOFING	14
					29				29	516	13600	29	SF	1" PREFORMED EXPANSION JOINT FILLER	14
														INCIDENTALS	
									LS	614	11001	LS		MAINTAINING TRAFFIC, AS PER PLAN	4
									LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
									LS	624	10000	LS		MOBILIZATION	

PID NO. 118733

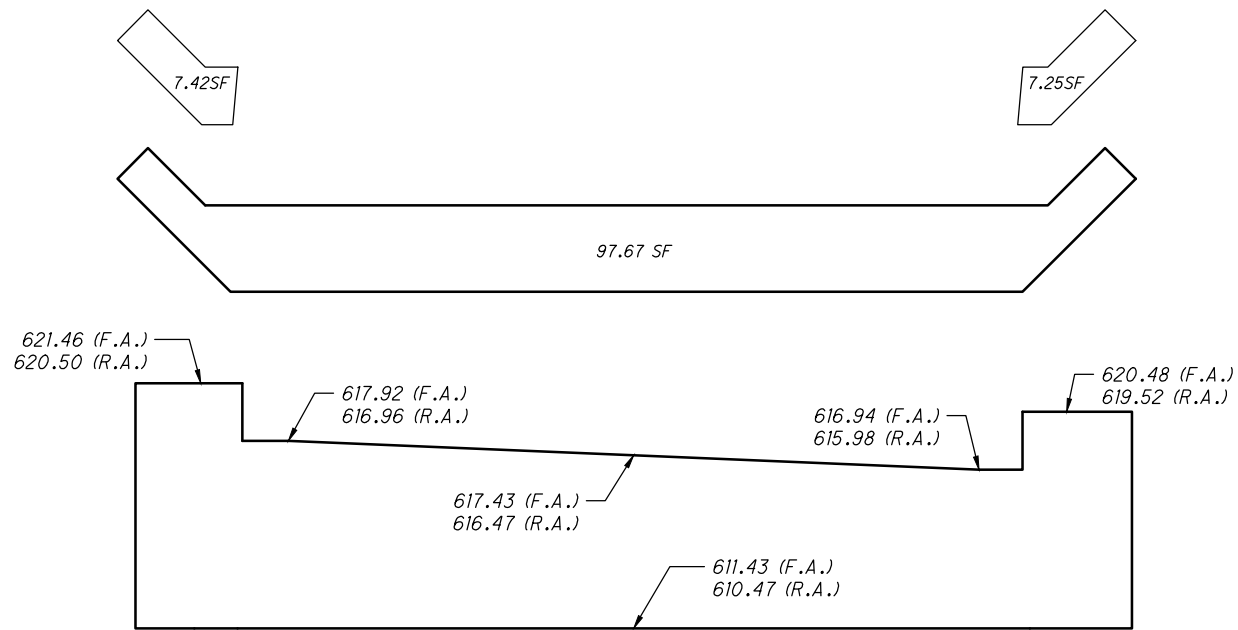
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STRUCTURE FILE NUMBER
5332117

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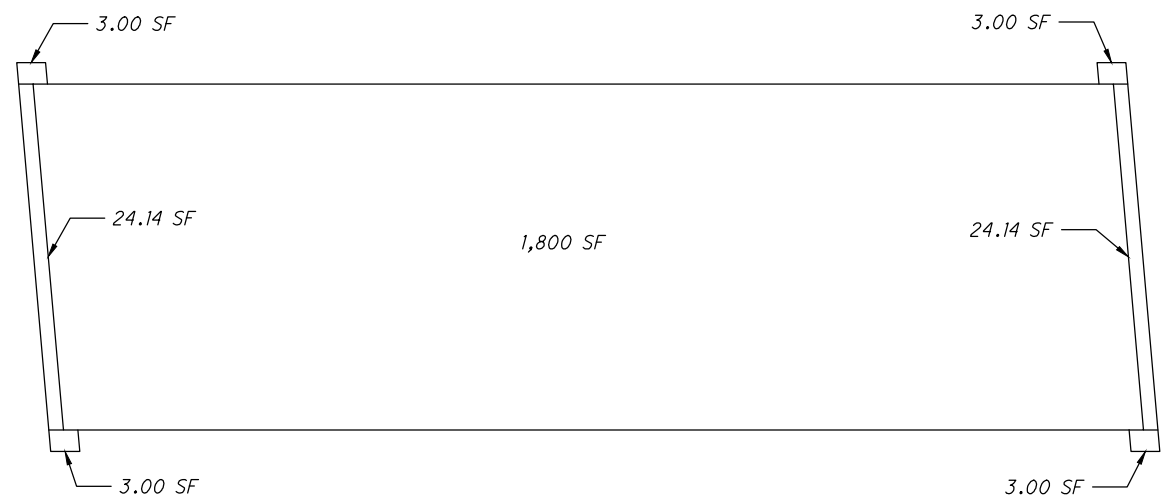
DESIGNED
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GENERAL SUMMARY

MEG - C.R. 82 - 3.51



ABUTMENT AREAS / ELEVATIONS FOR CALCULATIONS.



SLAB AREAS / ELEVATIONS FOR DECK CALCULATIONS.

ITEM 659 - SEEDING AND MULCHING

AREA TO BE USED: 511 SQ. YD.

ITEM 659 - COMMERCIAL FERTILIZER

AREA TO BE USED: 511 SQ. YD.
 $511 \times 9 \times 20 / 1000 / 2000 = 0.046$ TON

A TOTAL OF 0.05 TON TO BE CARRIED TO THE GENERAL SUMMARY

ITEM 659 - LIME

AREA TO BE USED: 511 SQ. YD.
 $511 \times 9 / 43560 = 0.106$ ACRES

A TOTAL OF 0.11 ACRES TO BE CARRIED TO THE GENERAL SUMMARY

ITEM 659 - WATER

AREA TO BE USED: 511 SQ. YD.
 $(511 \times 9 \times (900 / 1000) / 1000) = 4.14$ MGAL

A TOTAL OF 4.14 MGAL TO BE CARRIED TO THE GENERAL SUMMARY

ITEM 204 - SUBGRADE COMPACTION

TEXAS RD.

STA. 184+00 TO STA. 184+15
 $325.21 \text{ SQ. FT} / 9 = 36.13$ SY

STA. 184+15 TO STA. 184+94
 $1,703.07 \text{ SQ. FT} / 9 = 189.23$ SY

STA. 185+68 TO STA. 186+50
 $1,807.07 \text{ SQ. FT} / 9 = 200.79$ SY

STA. 186+50 TO STA. 186+80
 $632.21 \text{ SQ. FT} / 9 = 70.25$ SY

W. SHADE RD.

STA. 175+00 TO STA. 175+40
 $800.20 \text{ SQ. FT} / 9 = 88.91$ SY

STA. 175+40 TO STA. 176+00
 $1,169.71 \text{ SQ. FT} / 9 = 129.97$ SY

STA. 176+00 TO STA. 176+56
 $1,167.65 \text{ SQ. FT} / 9 = 129.74$ SY

A TOTAL OF 845 SY TO BE CARRIED TO THE GENERAL SUMMARY.

CLASS QC1 CONCRETE, ABUTMENTS

FORWARD ABUTMENT SEAT:

$(617.92' + 617.43' + 616.94') / 3 - 611.43' \times 97.67 \text{ SQ. FT} / 27 = 21.71$ CY

FORWARD ABUTMENT WINGWALL #1:

$7.42 \text{ SQ. FT} \times 3.54' / 27 = 0.98$ CY

FORWARD ABUTMENT WINGWALL #2:

$7.25 \text{ SQ. FT} \times 3.54' / 27 = 0.95$ CY

REAR ABUTMENT SEAT:

$(616.96' + 616.47' + 615.98') / 3 - 610.47' \times 97.67 \text{ SQ. FT} / 27 = 21.71$ CY

REAR ABUTMENT WINGWALL #1:

$7.42 \text{ SQ. FT} \times 3.54' / 27 = 0.98$ CY

REAR ABUTMENT WINGWALL #2:

$7.25 \text{ SQ. FT} \times 3.54' / 27 = 0.95$ CY

A TOTAL OF 48 CU. YD TO BE CARRIED TO THE GENERAL SUMMARY

ITEM 512 - SEALING OF CONCRETE SURFACES (NON-EPOXY)

SUPERSTRUCTURE:

$(2.75' + 0.583' + 0.5') \times 75' \times 2 / 9 = 63.89$ SY

ABUTMENT:

$97.67 \text{ SQ. FT} / 9 \times 2 = 21.71$ SY

A TOTAL OF 86 SQ. YD TO BE CARRIED TO THE GENERAL SUMMARY

ITEM 618 - LOW STRENGTH MORTAR BACKFILL

$(4' + (4' + 5.33')) / 2 \times 5.33' \times 31.25' \times 2 / 27 = 82.28$ CY

A TOTAL OF 83 CY TO BE CARRIED TO THE GENERAL SUMMARY

CLASS QC2 CONCRETE, SUPERSTRUCTURE (INCL. 1" MONOLITHIC WEARING SURFACE)

DECK:

$0.583' \times 1800 \text{ SQ. FT} / 27 = 38.89$ CY

BEAM ENDS:

$3.33' \times 24.14 \text{ SQ. FT} \times 2 \text{ ENDS} / 27 = 5.96$ CY

CORNERS:

$3.33' \times 3.00 \text{ SQ. FT} \times 4 \text{ CORNERS} / 27 = 1.48$ CY

A TOTAL OF 47 CY WILL BE CARRIED TO THE GENERAL SUMMARY

ITEM 304 - AGGREGATE BASE (6" THICK)

TEXAS RD.

STA. 184+00 TO STA. 184+15
 $325.21 \text{ SQ. FT} \times 0.50' / 27 = 6.02$ CY

STA. 184+15 TO STA. 184+94
 $1,703.07 \text{ SQ. FT} \times 0.50' / 27 = 31.54$ CY

STA. 185+68 TO STA. 186+50
 $1,807.07 \text{ SQ. FT} \times 0.50' / 27 = 33.46$ CY

STA. 186+50 TO STA. 186+80
 $632.21 \text{ SQ. FT} \times 0.50' / 27 = 11.71$ CY

W. SHADE RD.

STA. 175+00 TO STA. 175+40
 $800.20 \text{ SQ. FT} \times 0.50' / 27 = 14.82$ CY

STA. 175+40 TO STA. 176+00
 $1,169.71 \text{ SQ. FT} \times 0.50' / 27 = 21.66$ CY

STA. 176+00 TO STA. 176+56
 $1,167.65 \text{ SQ. FT} \times 0.50' / 27 = 21.62$ CY

A TOTAL OF 141 CY TO BE CARRIED TO THE GENERAL SUMMARY.

ITEM 407 - NON-TRACKING TACK COAT (0.10 GAL/SY APPLICATION RATE)

TEXAS RD.

STA. 184+00 TO STA. 184+15
 $290.39 \text{ SQ. FT} / 9 \times 0.10 = 3.23$ GAL

STA. 184+15 TO STA. 184+94
 $1,548.03 \text{ SQ. FT} / 9 \times 0.10 = 17.20$ GAL

STA. 185+68 TO STA. 186+50
 $1,609.58 \text{ SQ. FT} / 9 \times 0.10 = 17.88$ GAL

STA. 186+50 TO STA. 186+80
 $573.75 \text{ SQ. FT} / 9 \times 0.10 = 6.38$ GAL

W. SHADE RD.

STA. 175+00 TO STA. 175+40
 $742.13 \text{ SQ. FT} / 9 \times 0.10 = 8.25$ GAL

STA. 175+40 TO STA. 176+00
 $1,078.64 \text{ SQ. FT} / 9 \times 0.10 = 11.98$ GAL

STA. 176+00 TO STA. 176+56
 $1,153.55 \text{ SQ. FT} / 9 \times 0.10 = 12.82$ GAL

A TOTAL OF 78 GAL TO BE CARRIED TO THE GENERAL SUMMARY.

ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, PG64-22 (2.5" THICK)

TEXAS RD.

STA. 184+00 TO STA. 184+15
 $290.39 \text{ SQ. FT} \times (2.5"/12"/\text{FT}) / 27 = 2.24$ CY

STA. 184+15 TO STA. 184+94
 $1,548.03 \text{ SQ. FT} \times (2.5"/12"/\text{PER FT}) / 27 = 11.94$ CY

STA. 185+68 TO STA. 186+50
 $1,609.58 \text{ SQ. FT} \times (2.5"/12"/\text{PER FT}) / 27 = 12.42$ CY

STA. 186+50 TO STA. 186+80
 $573.75 \text{ SQ. FT} \times (2.5"/12"/\text{PER FT}) / 27 = 4.43$ CY

W. SHADE RD.

STA. 175+00 TO STA. 175+40
 $742.13 \text{ SQ. FT} \times (2.5"/12"/\text{PER FT}) / 27 = 5.73$ CY

STA. 175+40 TO STA. 176+00
 $1,078.64 \text{ SQ. FT} \times (2.5"/12"/\text{PER FT}) / 27 = 8.32$ CY

STA. 176+00 TO STA. 176+56
 $1,153.55 \text{ SQ. FT} \times (2.5"/12"/\text{PER FT}) / 27 = 8.90$ CY

A TOTAL OF 54 CY TO BE CARRIED TO THE GENERAL SUMMARY

ITEM 301 - ASPHALT CONCRETE BASE (6" THICK)

TEXAS RD.

STA. 184+00 TO STA. 184+15
 $309.98 \text{ SQ. FT} \times (6"/12"/\text{PER FT}) / 27 = 5.74$ CY

STA. 184+15 TO STA. 184+94
 $1624.92 \text{ SQ. FT} \times (6"/12"/\text{PER FT}) / 27 = 30.09$ CY

STA. 185+68 TO STA. 186+50
 $1724.89 \text{ SQ. FT} \times (6"/12"/\text{PER FT}) / 27 = 31.94$ CY

STA. 186+50 TO STA. 186+80
 $602.81 \text{ SQ. FT} \times (6"/12"/\text{PER FT}) / 27 = 11.16$ CY

W. SHADE RD.

STA. 175+00 TO STA. 175+40
 $760.28 \text{ SQ. FT} \times (6"/12"/\text{PER FT}) / 27 = 14.08$ CY

STA. 175+40 TO STA. 176+00
 $1,109.70 \text{ SQ. FT} \times (6"/12"/\text{PER FT}) / 27 = 20.55$ CY

STA. 176+00 TO STA. 176+56
 $1,116.60 \text{ SQ. FT} \times (6"/12"/\text{PER FT}) / 27 = 20.68$ CY

A TOTAL OF 135 CY TO BE CARRIED TO THE GENERAL SUMMARY

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OR 177 P699
37137 TEXAS ROAD
POMEROY, OHIO 45769

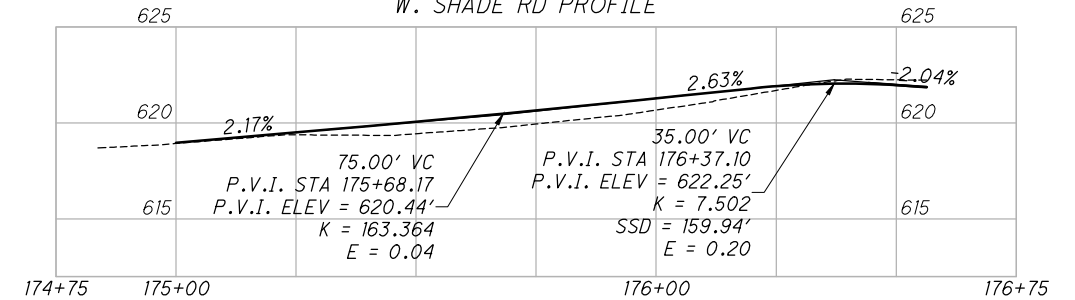
NOTES

- EXISTING UTILITIES ARE TO REMAIN UNLESS NOTED OTHERWISE.
- CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES FOR GUARDRAIL INSTALLATION. IF THE EVENT OF A CONFLICT, CONTRACTOR SHALL ADJUST GUARDRAIL LOCATION TO MINIMIZE IMPACT.
- FOR PLAN ABBREVIATIONS, SEE SHEET 3 OF 26.

CONTROL POINTS
(ALL ELEVATIONS ARE BASED ON NAVD88 DATUM)

CP#301	CP#302	BM#1	BM#2
REBAR	REBAR	REBAR	REBAR
N 401441.29	N 401630.93	N ---	N ---
E 2128113.79	E 2128641.14	E ---	E ---
ELEV 619.25	ELEV 635.92	ELEV 622.97	ELEV 620.94

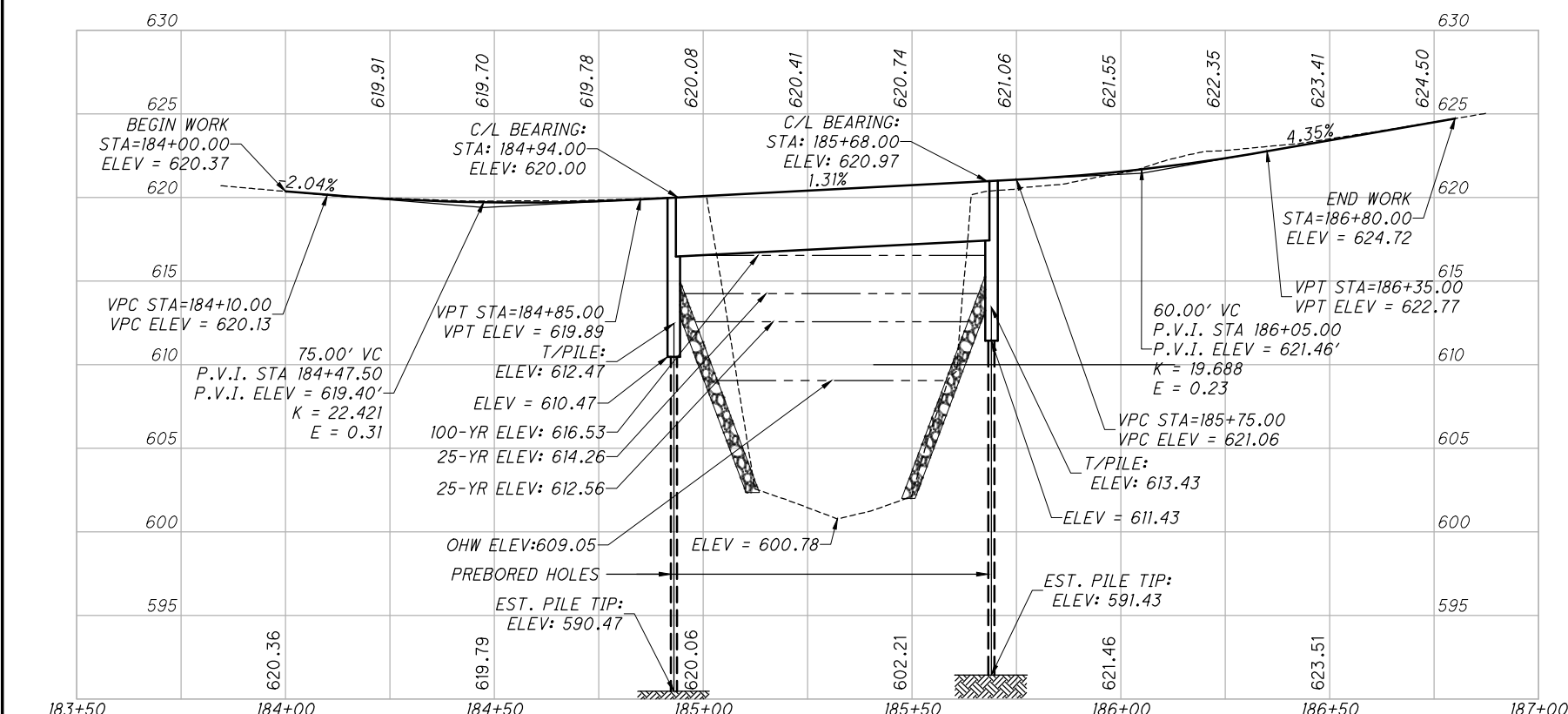
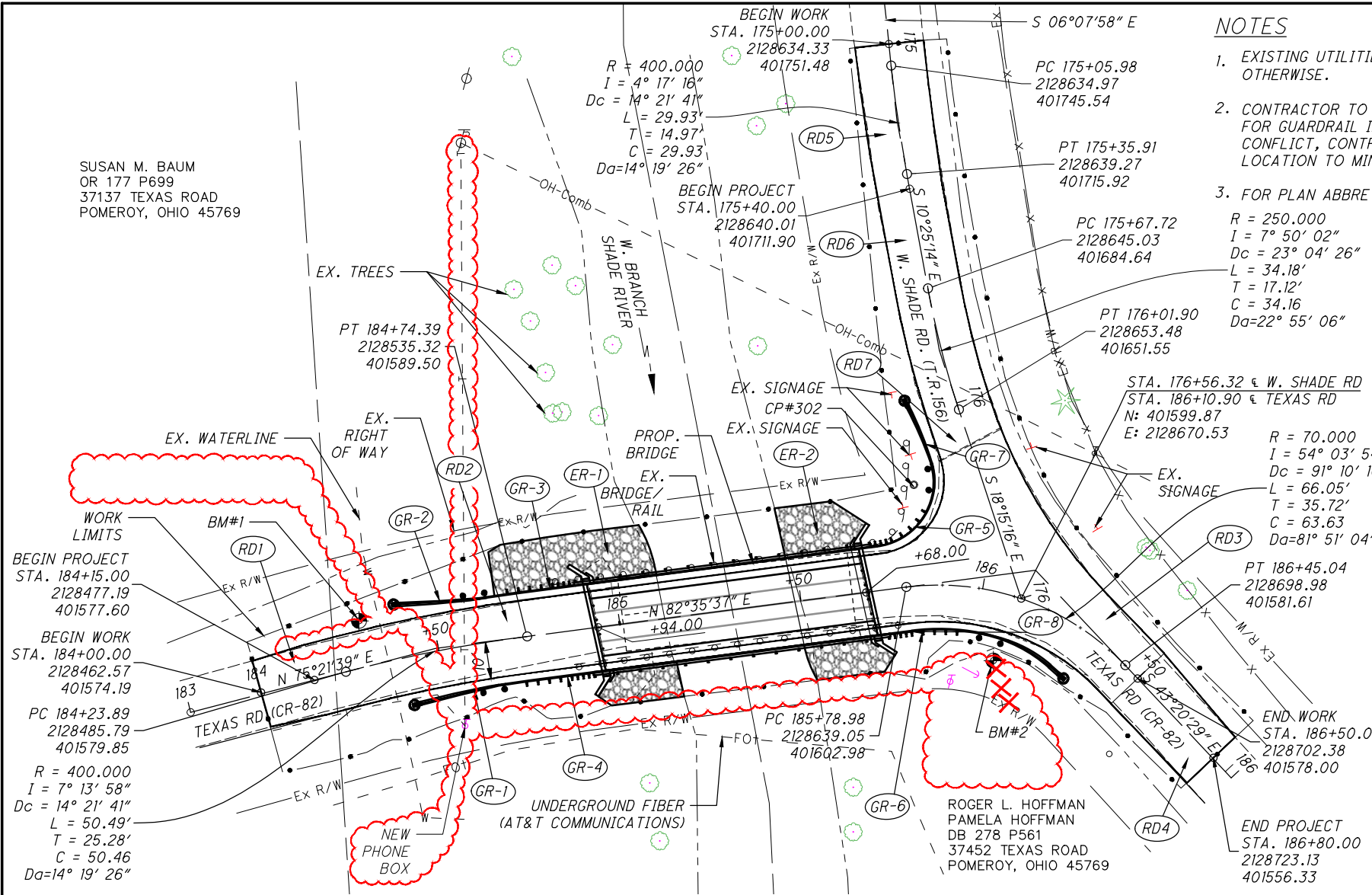
W. SHADE RD PROFILE



REF NO	STATION		SIDE	202	204	255	304	407	441	301
	FROM	TO		PAVEMENT REMOVED (AS PER PLAN) SY	SUBGRADE COMPACTION SY	FULL DEPTH PAVEMENT SAWING FT	6" AGGREGATE BASE CY	TACK COAT (0.10 GAL/SY) GAL	2.5" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 CY	6" ASPHALT CONCRETE BASE, PG64-22, (449) CY
RD1	184+00	184+15		32.00	36.13	18.7	6.02	3.23	2.24	5.74
RD2	184+15	184+94		172.00	189.23		31.54	17.20	11.94	30.09
RD3	185+68	186+50		178.00	200.79		33.46	17.88	12.42	31.94
RD4	186+50	186+80		61.00	70.25	18.2	11.71	6.38	4.43	11.16
RD5	175+00	175+40			88.91		14.82	8.25	5.73	14.08
RD6	175+40	176+00			129.97		21.66	11.98	8.32	20.55
RD7	176+00	176+56		108.00	129.74		21.62	12.82	8.90	20.68
TOTAL				551	845	37	141	78	54	135

REF NO	STATION		SIDE	606	606	606
	FROM	TO		ANCHOR ASSEMBLY, TYPE A, AS PER PLAN EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4, AS PER PLAN EACH	GUARDRAIL TYPE 5, AS PER PLAN LF
GR1	184+40	184+66	RT	1		
GR2	184+41	184+65	LT	1		
GR3	184+65	184+89	LT		1	25
GR4	184+66	184+91	RT		1	25
GR5	185+71		LT		1	25
GR6	185+73	186+02	RT		1	
GR7	185+86		LT	1		25
GR8	186+02	186+34	RT	1		
TOTAL				4	4	100

REF NO	STATION		SIDE	601
	FROM	TO		ROCK CHANNEL PROTECTION TYPE 'B' WITH FABRIC LINER CY
ER1	184+67	185+15		68
ER2	185+47	185+73		52
TOTAL				120



PID NO.
118733

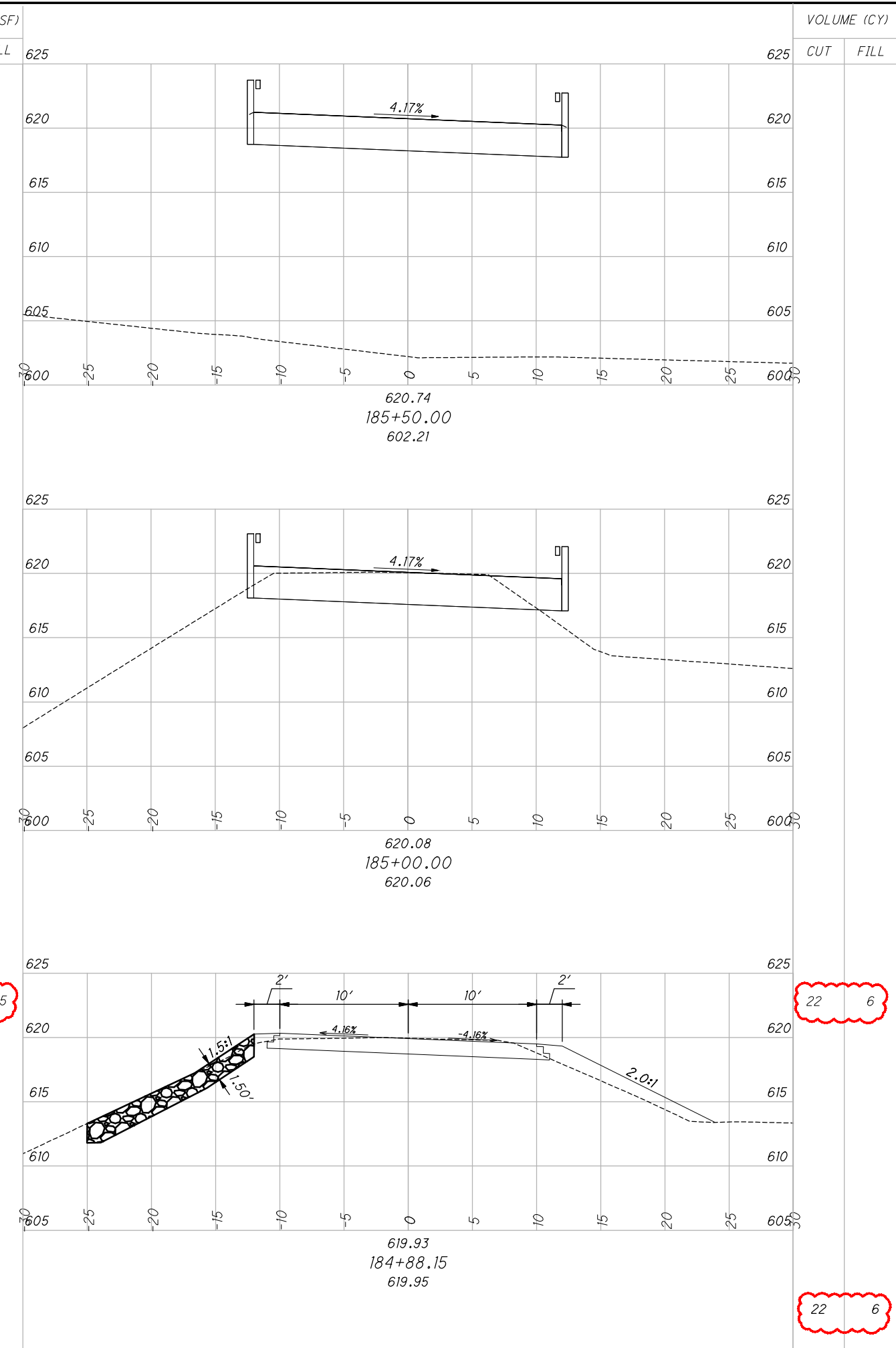
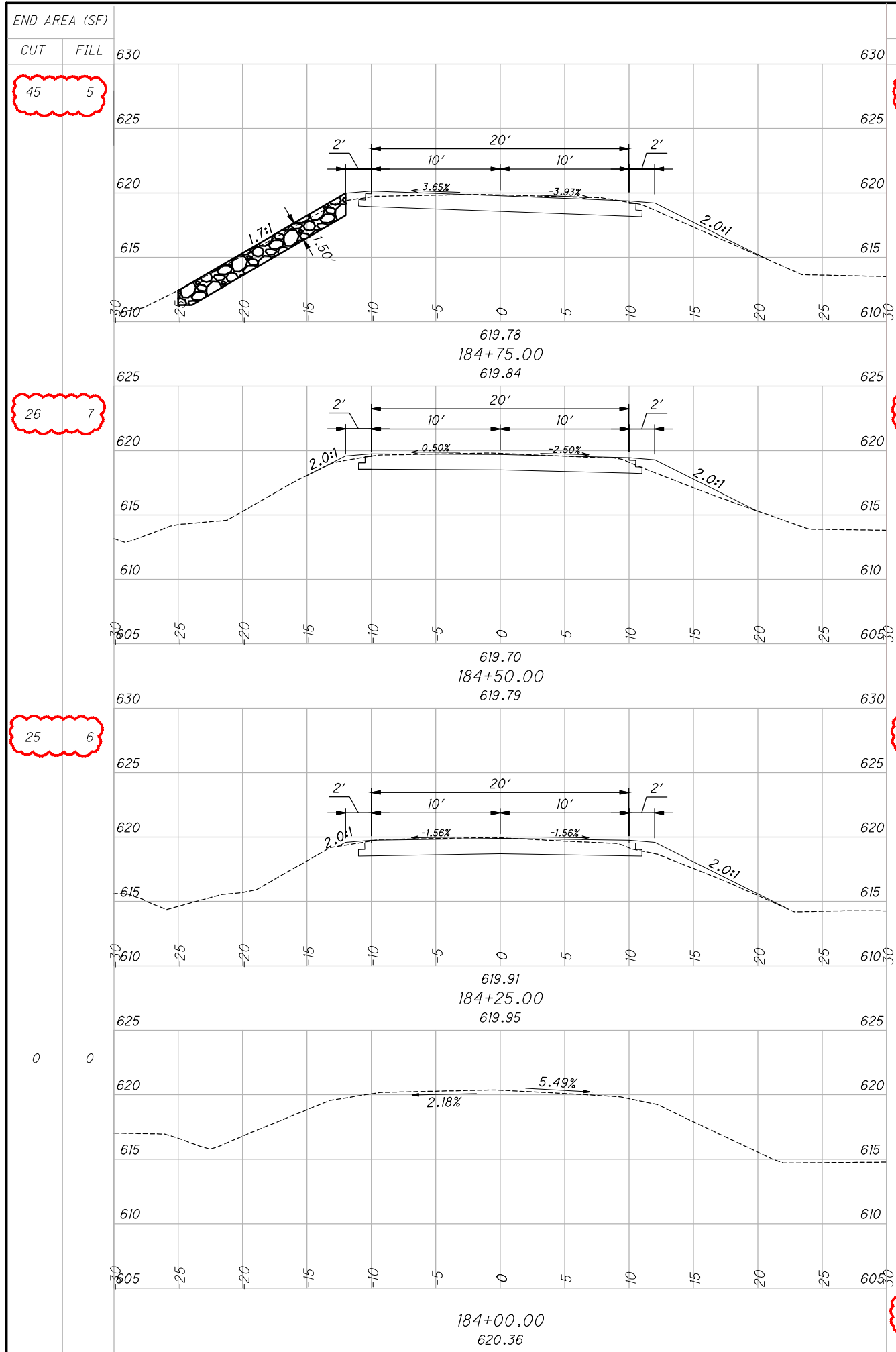
DATE
REVIEWED
STRUCTURE FILE NUMBER
5332117

DRAWN
REVISIONS

DESIGNED
CHECKED

PLAN AND PROFILE
(MEG - C.R. 82 - 3.51)

MEG - C.R. 82 - 3.51



CROSS-SECTIONS - TEXAS RD
(BRIDGE NO. MEG - C.R. 82 - 3.51)

MEG - C.R. 82 - 3.51

PID NO. 118733

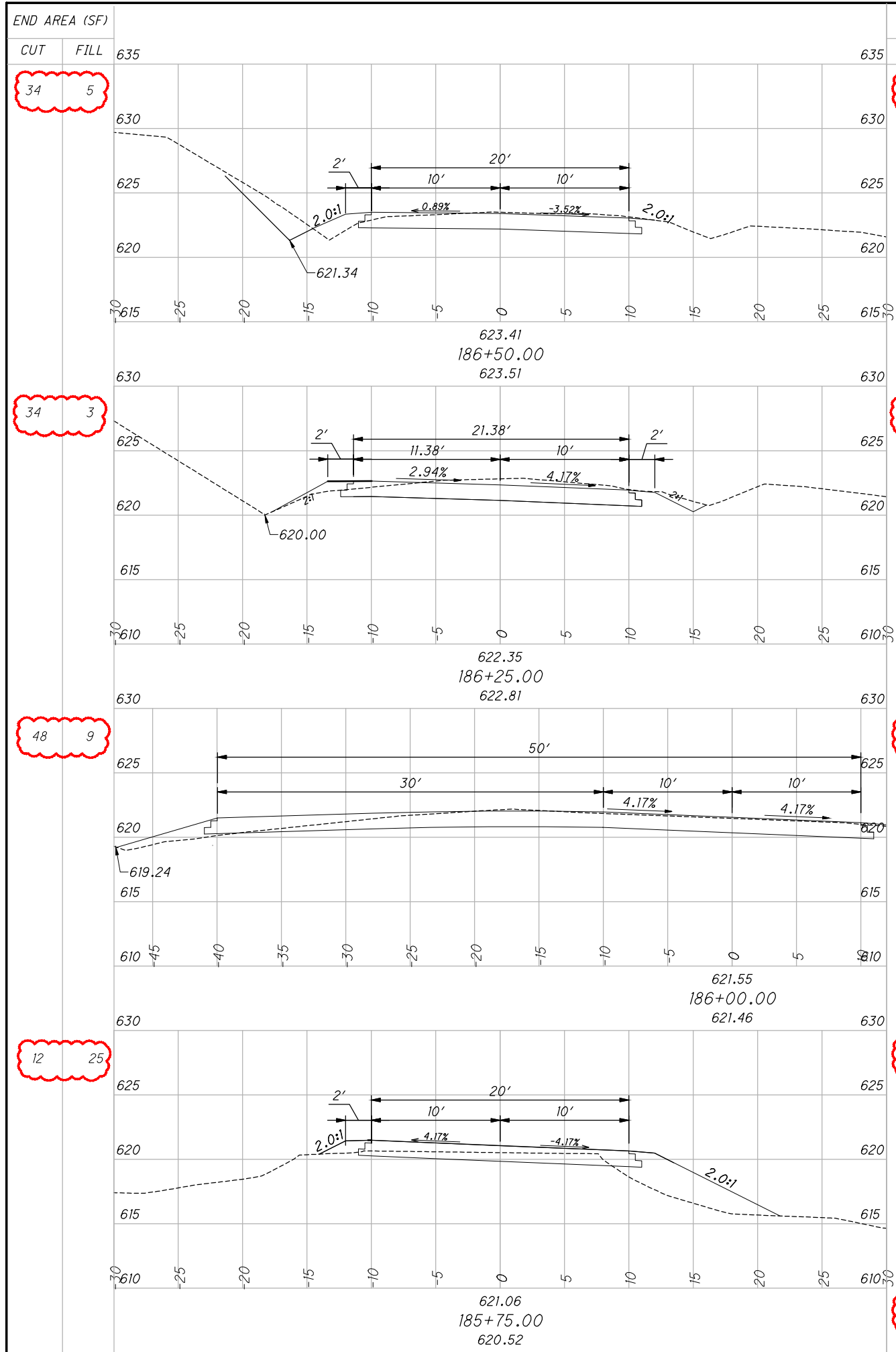
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STRUCTURE FILE NUMBER 5332117

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1/2

26



END AREA (SF)		VOLUME (CY)		END AREA (SF)		VOLUME (CY)	
CUT	FILL	CUT	FILL	CUT	FILL	CUT	FILL
34	5	635	635	32	4		
34	3	630	630	38	6		
48	9	625	625	28	17		
12	25	620	620	2	13		
		615	615	100	40		
		610	610				
		635	635			19	3
		630	630				
		625	625				
		620	620				
		615	615				
		635	635			19	3
		630	630				
		625	625				
		620	620				
		615	615				

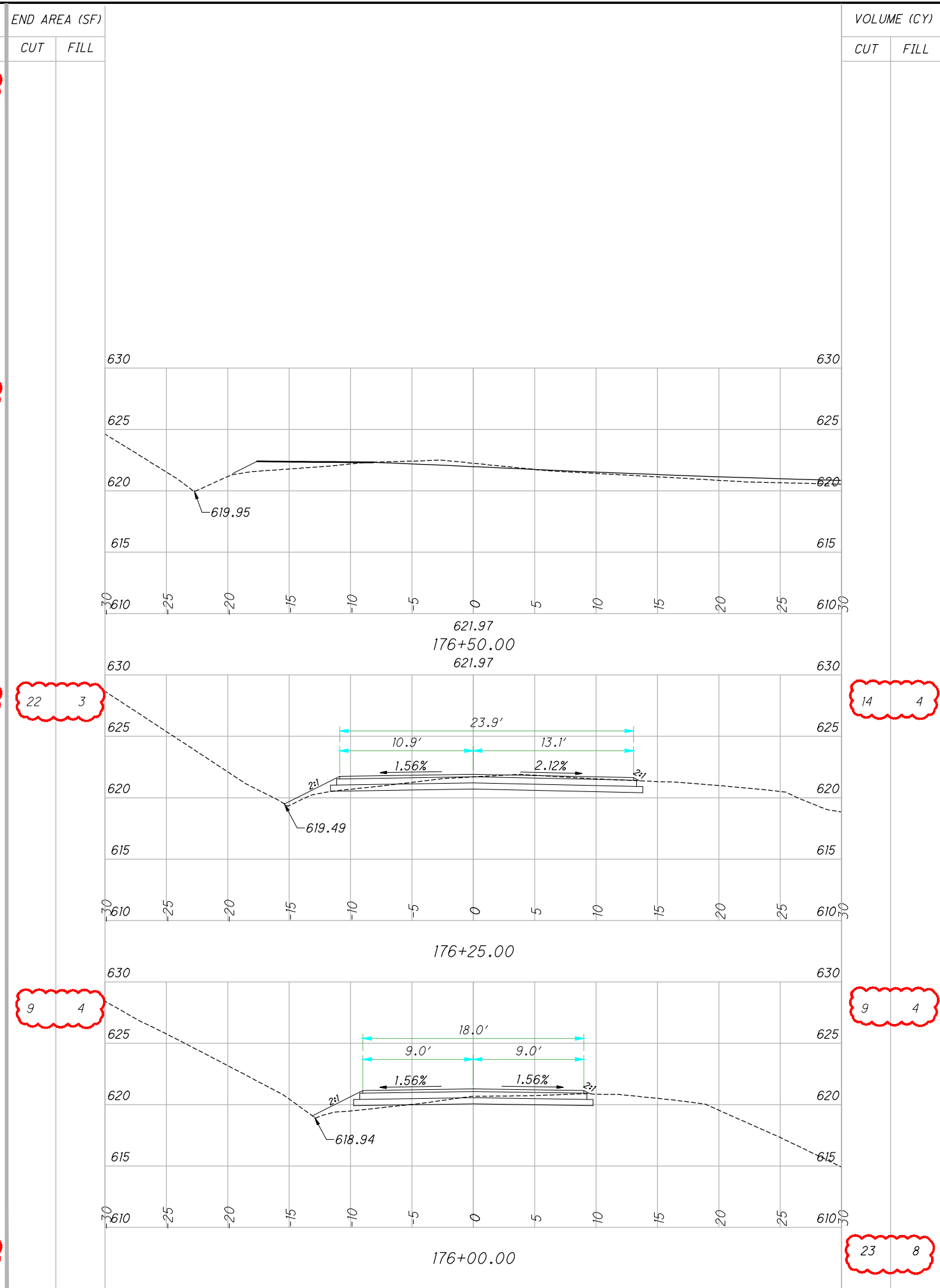
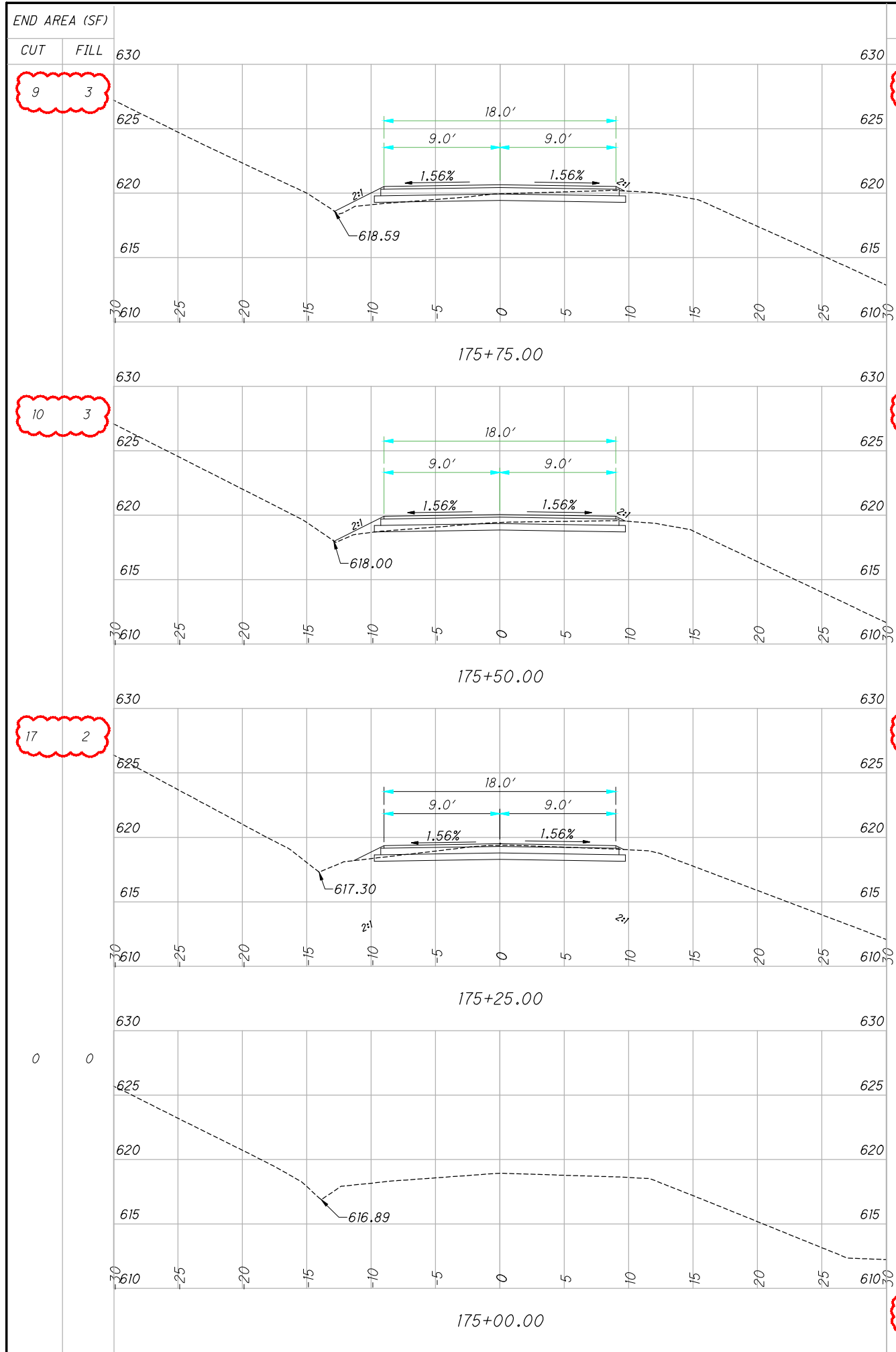
PID NO.
118733

DESIGNED	CHECKED	DRAWN	REVISED	REVIEWED	DATE
				STRUCTURE FILE NUMBER	5332117

CROSS-SECTIONS - TEXAS RD
 (BRIDGE NO. MEG - C.R. 82 - 3.51)

MEG - C.R. 82 - 3.51

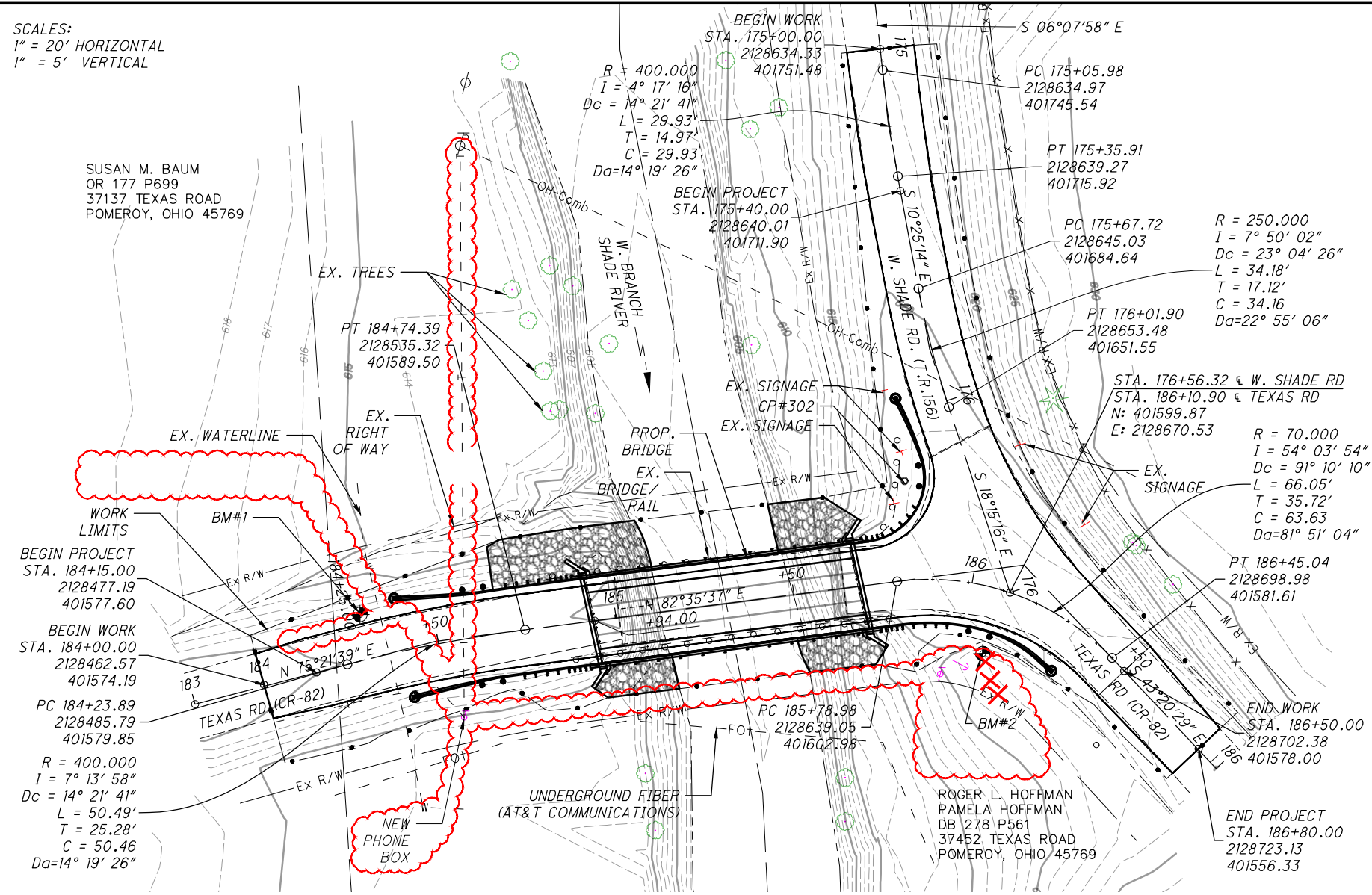
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9	26



DESIGNED: _____ CHECKED: _____
 DRAWN: _____ REVISED: _____
 REVIEWED: _____ DATE: _____
 STRUCTURE FILE NUMBER: 5332117
 PID NO. 118733
 CROSS-SECTIONS - W SHADE RD.
 (BRIDGE NO. MEG - C.R. 82 - 3.51)
 MEG - C.R. 82 - 3.51
 10 / 26

SCALES:
1" = 20' HORIZONTAL
1" = 5' VERTICAL

SUSAN M. BAUM
OR 177 P699
37137 TEXAS ROAD
POMEROY, OHIO 45769



NOTES

- EXISTING UTILITIES ARE TO REMAIN UNLESS NOTED OTHERWISE.
- ALL ELEVATIONS ARE BASED ON NAVD88 DATUM.
- FOR PLAN ABBREVIATIONS, SEE SHEET 3 OF 26.

HYDRAULIC DATA

DRAINAGE AREA = 65.64 SQ. MI.
 $Q_{OHW} = 2,140$ CFS $V_{OHW} = 6.55$ FPS $HW_{OHW} = 609.05$
 $Q_{10} = 4,310$ CFS $V_{10} = 8.01$ FPS $HW_{10} = 612.56$
 $Q_{25} = 5,620$ CFS $V_{25} = 8.63$ FPS $HW_{25} = 614.26$
 $Q_{100} = 7,800$ CFS $V_{100} = 9.54$ FPS $HW_{100} = 616.53$

TRAFFIC DATA

ADT (2023) = 290
 ADT (2043) = 370
 DIRECTIONAL DISTRIBUTION = 50%

ESTIMATED PILE LENGTHS		
LOCATION	PILE TYPE	LENGTH
REAR ABUTMENT	HPI2x53	22'
FORWARD ABUTMENT	HPI2x53	22'

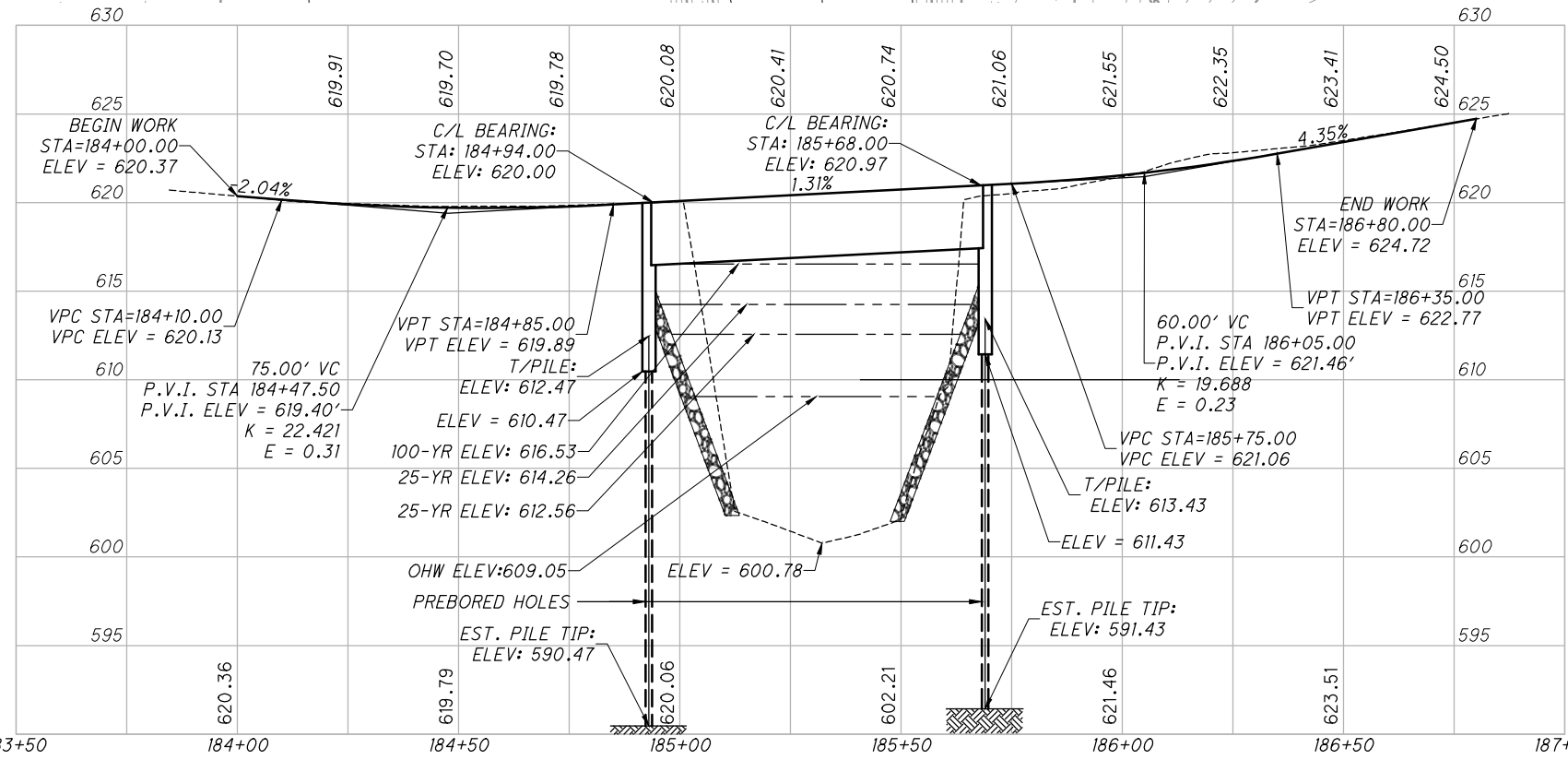
EXISTING STRUCTURE

TYPE: SINGLE SPAN STEEL BEAM ON STONE ABUTMENTS
 SPAN: 60'-0" C/C BEARINGS
 ROADWAY: 20' FACE-TO-FACE OF RAILING,
 LOADING: UNKNOWN
 SKEW: NONE
 DECK TYPE: NON-COMPOSITE CONCRETE
 WEARING SURFACE: 3" ASPHALT
 ALIGNMENT: TANGENT
 CROWN: NONE
 DATE BUILT: UNKNOWN
 STRUCTURE FILE NUMBER: 5332109
 DISPOSITION: TO BE REMOVED - STEEL BEAMS TO BE STORED ON SITE UNTIL REMOVED BY COUNTY FORCES

PROPOSED STRUCTURE

PROPOSED WORK: REMOVE EXISTING SUPER/SUBSTRUCTURE, CONSTRUCT NEW SUPERSTRUCTURE ON NEW CAPPED PILE ABUTMENTS

TYPE: PRESTRESSED CONCRETE BOX BEAMS WITH COMPOSITE CONCRETE DECK AND SUBSTRUCTURE
 SPAN: 74'-0" C/C BEARINGS
 ROADWAY: 24' (PLUS FIT UP) FACE-TO-FACE OF RAILING
 LOADING: HL-93
 FUTURE WEARING SURFACE = 60 PSF
 SKEW: 5° RIGHT FORWARD
 WEARING SURFACE: 1" MONOLITHIC CONCRETE
 APPROACH SLABS: NONE
 ALIGNMENT: TANGENT
 SUPERELEVATED: 0.04167 FT/FT
 COORDINATES: LATITUDE 39° 06' 04" N
 LONGITUDE 81° 56' 09" W
 STRUCTURE FILE NUMBER: 5332117



PID NO.
118733

DATE
REVIEWED
DRAWN
DESIGNED

STRUCTURE FILE NUMBER
5332117

CHECKED
REVISED

SITE PLAN
(BRIDGE NO. MEG - C.R. 82 - 3.51)

MEG - C.R. 82 - 3.51

1/8
12/26

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 9TH EDITION, AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

OPERATIONAL IMPORTANCE:

A LOAD MODIFIER OF 1.00 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

DESIGN LOADING:

HL-93
FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS PER SQUARE FOOT

DESIGN DATA:

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)
CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996, GRADE 60, MINIMUM YIELD STRENGTH 60,000 PSI

CONCRETE FOR PRESTRESSED BEAMS:
COMPRESSIVE STRENGTH (FINAL) = 7.0 KSI
COMPRESSIVE STRENGTH (RELEASE) = 5.0 KSI

PRESTRESSING STRAND:
AREA = 0.167 SQ. IN. PER STRAND
ULTIMATE STRENGTH = 270 KSI
INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

DECK PROTECTION METHOD: SEAL THE DECK ACCORDING TO C&MS 512 USING NON-EPOXY SEALER, ODOT 705.23B.

EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER
STEEL DRIP STRIP

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE OWNER WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

RIGHT-OF-WAY

ALL WORK IS TO BE PERFORMED WITHIN THE EXISTING 60' RIGHT-OF-WAY.

ENDANGERED BAT HABITAT REMOVAL

THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

WATERWAY WORK RESTRICTIONS

W. BRANCH SHADE RIVER FLOWS UNDER THE BRIDGE AT STATION 185+31 AS DEPICTED ON THE PLAN SHEETS. CONTRACTOR SHALL REFER TO ALL SPECIAL PROVISIONS WITHIN ENVIRONMENTAL PERMITTING DOCUMENTATION FOR ANY SPECIFIC WATERWAY RESTRICTIONS, IN ADDITION TO THOSE LISTED BELOW.

NO TEMPORARY FILLS ARE PERMITTED BELOW THE ORDINARY HIGH WATER MARK (OHWM) OF THE WEST BRANCH SHADE RIVER WITHIN CONSTRUCTION LIMITS. ADDITIONALLY, NO PERMANENT OR TEMPORARY FILLS INCLUDING CONSTRUCTION ACTIVITIES OR ANCILLARY CONSTRUCTION (STAGING AREAS, WASTE LOCATIONS, AND/OR BORROW LOCATIONS) ARE PERMITTED BEYOND PROPOSED CONSTRUCTION LIMITS BELOW THE OHWM OF THE WEST BRANCH SHADE RIVER. NO INSTREAM WORK IS PERMITTED TO BE PERFORMED IN THE WEST BRANCH SHADE RIVER BETWEEN APRIL 15 AND JUNE 15.

ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

THIS ITEM SHALL INCLUDE THE REMOVAL OF EXISTING STRUCTURE COMPONENTS AS DETAILED IN THE PLANS AND AS DIRECTED BY THE ENGINEER. THE REMOVALS SHALL INCLUDE BUT NOT NECESSARILY BE LIMITED TO THE FOLLOWING:

1. THE EXISTING SUPERSTRUCTURE IN ITS ENTIRETY, INCLUDING STEEL BEAMS, CONCRETE DECK AND GUARDRAIL.
2. THE EXISTING ABUTMENTS ARE TO BE REMOVED TO BELOW THE NORMAL WATER LEVEL. A NEW CAPPED PILE ABUTMENT IS TO BE CONSTRUCTED BEHIND EXISTING. WITH APPROVAL OF THE ENGINEER, STONE FROM MASONRY ABUTMENT DEMOLITION MAY BE USED FOR TYPE 'B' ROCK CHANNEL PROTECTION.
3. THE USE OF EXPLOSIVES AND/OR HEADACHE BALLS WILL NOT BE PERMITTED.

ITEM 507 - PREBORED HOLES INTO BEDROCK

PREBORED HOLES WILL BE REQUIRED TO THE GRADES SHOWN ON THE ATTACHED PLANS. THE CONTRACTOR WILL ENCOUNTER LAYERS OF WEAK ROCK FORMATIONS (SEE ATTACHED BORE LOGS). A 200 FOOT QUANTITY TO THE GENERAL SUMMARY (20 FOOT PER HOLE AT REAR AND FORWARD ABUTMENTS, ALIKE).

THE TOTAL FACTORED LOAD IS 178 KIPS PER PILE FOR THE ABUTMENT PILES.

ABUTMENT PILES:
HP12x53 - 22LF FURNISHED LENGTH, BOTH ABUTMENTS, 220LF TO GENERAL SUMMARY

ITEM 511 CLASS QC1 CONCRETE, ABUTMENT, AS PER PLAN

FILL THE HORIZONTAL JOINT IN THE BACKWALL CREATED BETWEEN THE EXPANSION SECTION OF THE SEMI-INTEGRAL ABUTMENT AND THE BEAM SEAT WITH EXPANDED POLYSTYRENE SHEET. COSTS ARE TO BE INCLUDED IN THE UNIT PRICE BID FOR ABUTMENT CONCRETE.

ITEM 511 CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN

PROVIDE ADDITIONAL REBAR AND/OR BENT-UP STRANDS AT BEAM ENDS AND ENCASE IN CONCRETE INTEGRAL TO THE DECK PER DETAIL ON PAGE 16.

ESTIMATED QUANTITIES (MEG-CR082 BRIDGE)

ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	ABUT	SUPER	GNRL
202	11003	LUMP		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN			LUMP
503	21300	LUMP		UNCLASSIFIED EXCAVATION			LUMP
507	00200	220	FT	STEEL PILES, HP12X53, FURNISHED	220		
507	92200	200	FT	PREBORED HOLES	200		
509	10000	10299	LB	EPOXY COATED STEEL REINFORCEMENT	3982	6317	
511	31611	47	CU YD	CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN		47	
511	45711	48	CU YD	CLASS QC1 CONCRETE, ABUTMENT, AS PER PLAN	48		
512	10050	86	SQ YD	SEALING OF CONCRETE SURFACES, (NON-EPOXY)	22	64	
515	12090	6	EACH	PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, CB33-48 (75'-0")		6	
516	13600	29	SQ FT	1" PREFORMED EXPANSION JOINT FILLER	29		
516	41100	24	EACH	1/8" PREFORMED BEARING PAD			24
516	43100	24	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE) (1.875"X8"X12")			24
517	72300	162.50	FT	RAILING (DEEP BEAM WITH 3 STEEL TUBULAR BACKUPS AND STEEL POSTS)			162.50
518	22300	150	FT	STEEL DRIP STRIP		182	
613	41200	83	CU YD	LOW STRENGTH MORTAR BACKFILL	83		

PID NO. 118733

DATE
REVIEWED
STRUCTURE FILE NUMBER
5332117

DRAWN
REVISIONS
DESIGNED
CHECKED

STRUCTURE NOTES AND QUANTITIES
(BRIDGE NO. MEG - C.R. 82 - 3.51)

MEG - C.R. 82 - 3.51

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