

SHEET NUM.											PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
6	15	16	17	18	76	OFFICE CALCCS	01/STR/PV	EXT	TOTAL								
											<b>DRAINAGE</b>						
	2.6						2.6	602	20000	2.6	CY	CONCRETE MASONRY					
		1,789					1,789	605	06000	1,789	FT	4" BASE PIPE UNDERDRAINS					
1,098							1,098	605	31100	1,098	FT	AGGREGATE DRAINS					
		39					39	611	00406	39	FT	4" CONDUIT, TYPE F					
50							50	611	00900	50	FT	6" CONDUIT, TYPE B					
	50						50	611	01400	50	FT	6" CONDUIT, TYPE E					
	50						50	611	01500	50	FT	6" CONDUIT, TYPE F					
		44					44	611	04400	44	FT	12" CONDUIT, TYPE B					
		30					30	611	04900	30	FT	12" CONDUIT, TYPE D					
		94					94	611	05700	94	FT	15" CONDUIT, TYPE A, 706.02, 707.01 (ALUMINIZED), 707.04, 707.05 (0.138 GALVANIZED), 707.33					
		85					85	611	05900	85	FT	15" CONDUIT, TYPE B					
		63					63	611	06100	63	FT	15" CONDUIT, TYPE C					
		70					70	611	06400	70	FT	15" CONDUIT, TYPE D					
		120					120	611	07900	120	FT	18" CONDUIT, TYPE D					
		54					54	611	11700	54	FT	27" CONDUIT, TYPE A, 706.02, 707.01 (ALUMINIZED), 707.04, 707.05 (0.138 GALVANIZED), 707.33					
		3					3	611	98180	3	EACH	CATCH BASIN, NO. 3A					
		1					1	611	99574	1	EACH	MANHOLE, NO. 3					
		2					2	611	99710	2	EACH	PRECAST REINFORCED CONCRETE OUTLET					
											<b>PAVEMENT</b>						
							4,535	4,535	254	01000	4,535	SY	PAVEMENT PLANING, ASPHALT CONCRETE				
							1,030	1,030	301	46000	1,030	CY	ASPHALT CONCRETE BASE, PG64-22				
							1,325	1,462	304	20000	1,462	CY	AGGREGATE BASE				
					137		1,016	1,016	407	10000	1,016	GAL	TACK COAT				
					17		17	408	10000	17	GAL	PRIME COAT					
							732	732	411	10000	732	CY	STABILIZED CRUSHED AGGREGATE				
					3		398	401	441	50000	401	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22				
							557	557	441	50300	557	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)				
	992						992	609	26000	992	FT	CURB, TYPE 6					
											<b>TRAFFIC CONTROL</b>						
							37	626	00110	37	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL					
							47	630	02100	47	FT	GROUND MOUNTED SUPPORT, NO. 2 POST					
							115	630	03100	115	FT	GROUND MOUNTED SUPPORT, NO. 3 POST					
							52	630	80100	52	SF	SIGN, FLAT SHEET					
					35		35	630	84901	35	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, AS PER PLAN					
							8	630	85100	8	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION					
					5		27	630	86003	27	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL, AS PER PLAN					
					1.74		1.74	644	00100	1.74	MILE	EDGE LINE, 4"					
					0.87		0.87	644	00300	0.87	MILE	CENTER LINE					
					3		3	644	00700	3	FT	TRANSVERSE/DIAGONAL LINE					

**GENERAL SUMMARY**

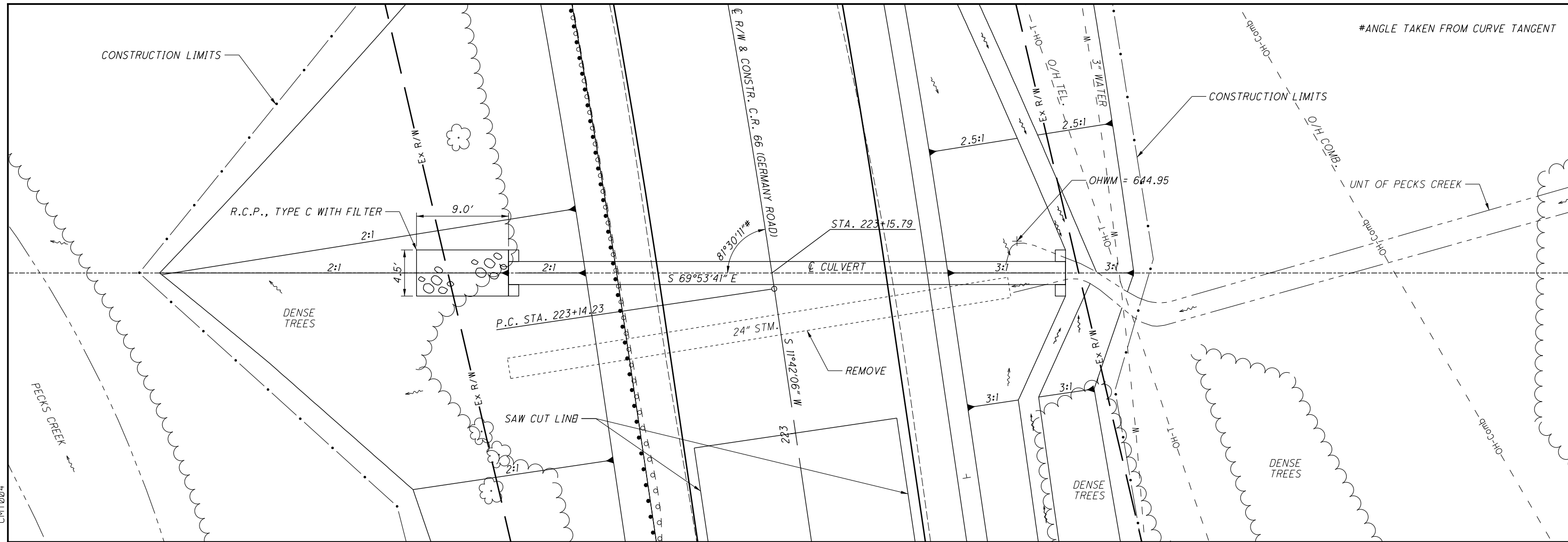
P:\PIK\TR\PIKTR0026\_Germany\99204\roadway\sheet\99204GG003.dgn Sheet 3/8/2021 9:06:17 AM CMT026

SHEET NUM.													PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
8	9	16	85	01/STR/ PV	EXT	TOTAL													
													<b>RETAINING WALLS</b>						
							15	15	203	35150	15	CY	GRANULAR MATERIAL, TYPE F						
							LS	LS	503	21300	LS		UNCLASSIFIED EXCAVATION						
							1,895	1,895	507	00400	1,895	FT	STEEL PILES, MISC.: SOLDIER PILES HP14X73	84					
							876	876	507	00400	876	FT	STEEL PILES, MISC.: SOLDIER PILES HP14X89	84					
							1,578	1,578	507	00400	1,578	FT	STEEL PILES, MISC.: SOLDIER PILES HP14X117	84					
							3,267	3,267	507	00400	3,267	FT	STEEL PILES, MISC.: SOLDIER PILES W27X84	84					
							32,440	32,440	509	10000	32,440	LB	EPOXY COATED REINFORCING STEEL						
							406	406	511	46010	406	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING						
							63	63	511	81300	63	EACH	CONCRETE, MISC.: 8" X 24" X 69" PRECAST CONCRETE LAGGING	84					
							69	69	511	81300	69	EACH	CONCRETE, MISC.: 8" X 36" X 69" PRECAST CONCRETE LAGGING	84					
							30	30	511	81300	30	EACH	CONCRETE, MISC.: 8" X 24" X 69" PRECAST CONCRETE LAGGING WITH OPENING	84					
							30	30	511	81300	30	EACH	CONCRETE, MISC.: 8" X 36" X 69" PRECAST CONCRETE LAGGING WITH OPENING	84					
							41	41	511	81300	41	EACH	CONCRETE, MISC.: 8" X 24" X 93" PRECAST CONCRETE LAGGING	84					
							94	94	511	81300	94	EACH	CONCRETE, MISC.: 8" X 36" X 93" PRECAST CONCRETE LAGGING	84					
							47	47	511	81300	47	EACH	CONCRETE, MISC.: 8" X 24" X 93" PRECAST CONCRETE LAGGING WITH OPENING	84					
							959	959	512	10100	959	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)						
							16	16	512	33000	16	SY	TYPE 2 WATERPROOFING						
							118	118	516	13600	118	SF	1" PREFORMED EXPANSION JOINT FILLER						
							1,521	1,521	517	70000	1,521	FT	RAILING (TWIN STEEL TUBE)						
							300	300	524	94603	300	FT	DRILLED SHAFTS, 30" DIAMETER, ABOVE BEDROCK, AS PER PLAN	84					
							420	420	524	94605	420	FT	DRILLED SHAFTS, 30" DIAMETER INTO BEDROCK, AS PER PLAN	84					
							4,280	4,280	524	94703	4,280	FT	DRILLED SHAFTS, 36" DIAMETER, ABOVE BEDROCK, AS PER PLAN	84					
							2,620	2,620	524	94705	2,620	FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK, AS PER PLAN	84					
							1,750	1,750	524	95000	1,750	FT	DRILLED SHAFTS, MISC.: PLUG SHAFT, 42" DIAMETER, UNREINFORCED	84					
							3,537	3,537	SPECIAL	53000600	3,537	SF	STRUCTURES: PREFABRICATED GEOCOMPOSITE DRAIN	84					
													<b>MAINTENANCE OF TRAFFIC</b>						
							175		175	410	12000	175	CY	TRAFFIC COMPACTED SURFACE, TYPE A OR B					
								16	16	614	11110	16	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE					
								2	2	614	12384	2	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)					
							LS		LS	614	12420	LS		DETOUR SIGNING					
								21	21	614	13310	21	EACH	BARRIER REFLECTOR, TYPE 1, BIDIRECTIONAL					
								21	21	614	13360	21	EACH	OBJECT MARKER, TWO WAY					
							46		46	616	10000	46	MGAL	WATER					
								990	990	622	41100	990	FT	PORTABLE BARRIER, UNANCHORED					
													<b>INCIDENTALS</b>						
							LS		LS	614	11000	LS		MAINTAINING TRAFFIC					
								6	6	619	16000	6	MNTH	FIELD OFFICE, TYPE A					
									LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING					
									LS	624	10000	LS		MOBILIZATION					

GENERAL SUMMARY

PIK-C.R. 66-(3.95)(4.47)

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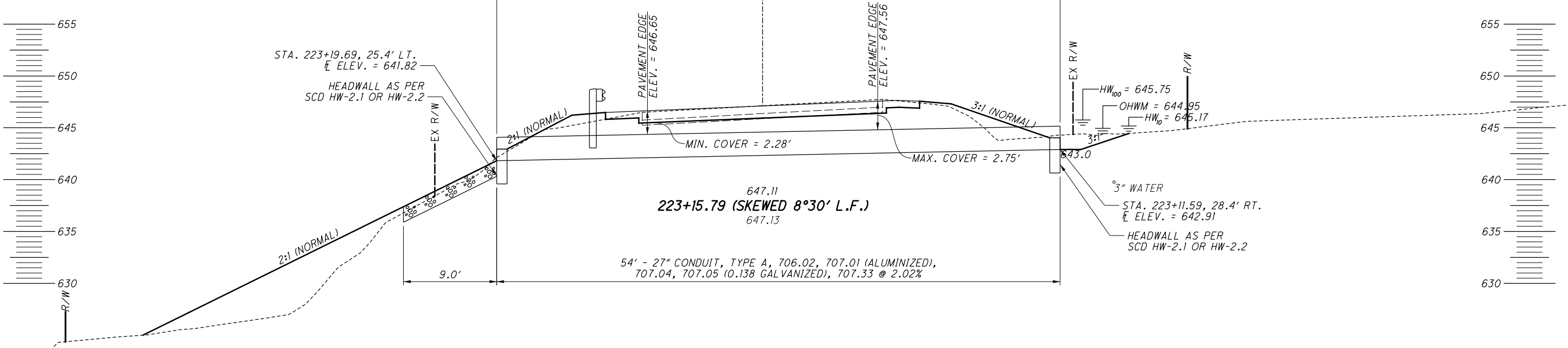
#ANGLE TAKEN FROM CURVE TANGENT

0 5 10  
2.5'  
HORIZONTAL SCALE IN FEET

CALCULATED  
KAM  
CHECKED  
MDW

**HYDRAULIC DESIGN DATA**

DRAINAGE AREA = 21.304 ACRES  
 $Q_{10} = 18.12$  CFS  
 $Q_{100} = 24.86$  CFS  
 $HW_{10} = 645.17$   
 $HW_{100} = 645.75$   
 $V_{10} = 10.64$  FPS  
 $V_{100} = 11.52$  FPS  
 $pH = 7.6$   
 ABRASION LEVEL = 1  
 DESIGN SERVICE LIFE = 50 YRS.

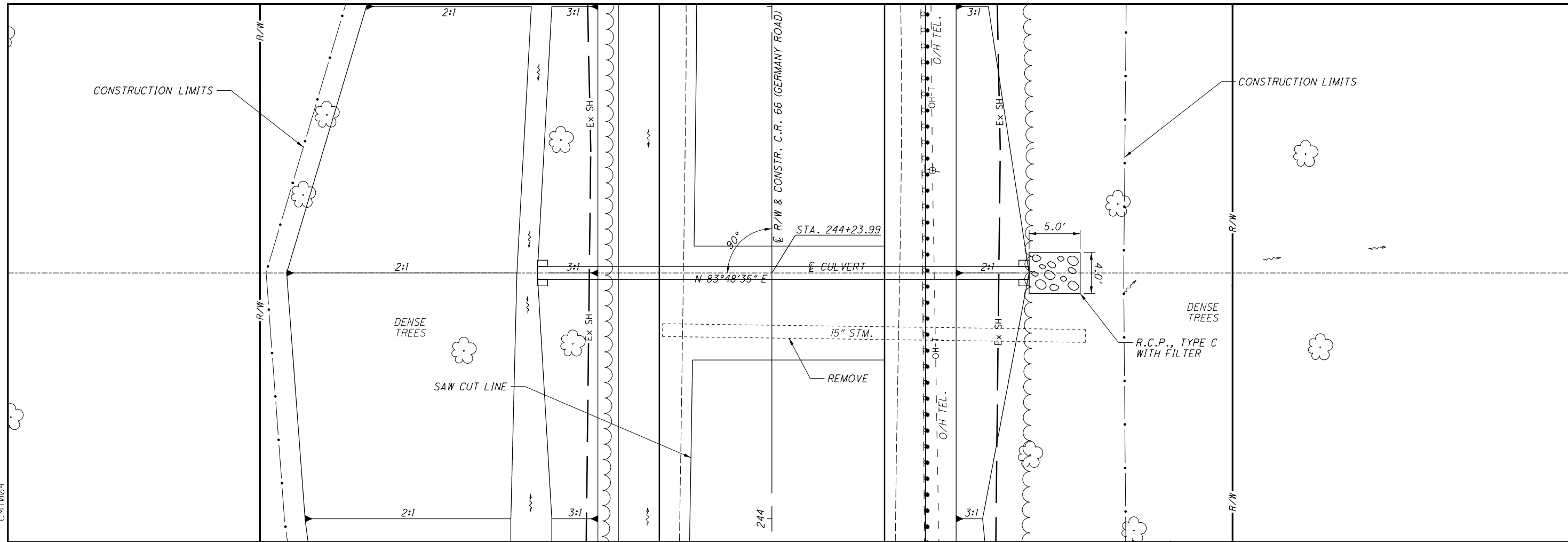


**CULVERT DETAILS**  
**STA. 223+15.79**

**PIK-C.R. 66-(3.95)(4.47)**

**NOTE**  
 1. FOR QUANTITIES SEE SHEET 15.

P:\PIK\TR\PIKTR0026\_Germany\99204\roadway\sheet\99204DD002.dgn Sheet 2/23/2021 3:17:32 PM CMT004

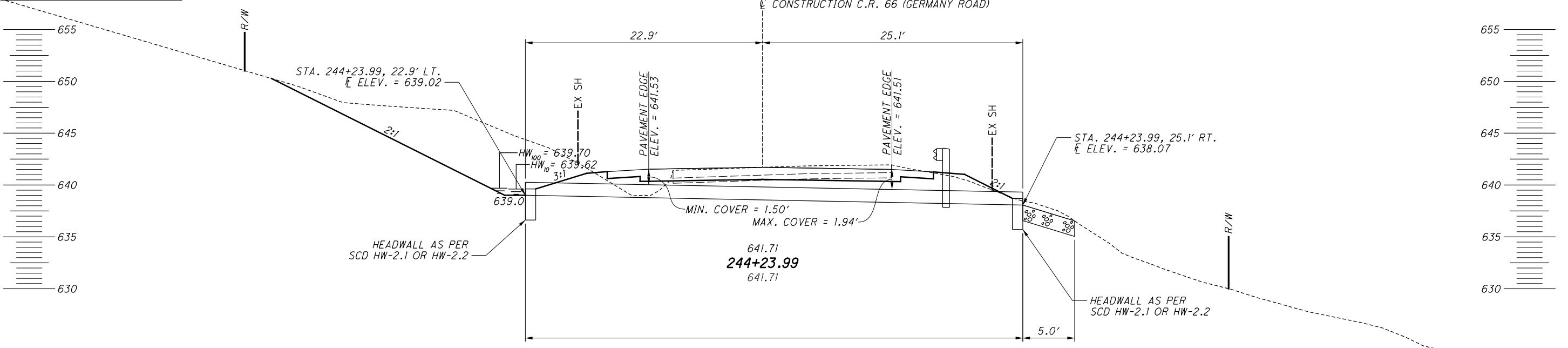


CALCULATED  
KAM  
CHECKED  
MDW

0 5 10  
2.5  
HORIZONTAL  
SCALE IN FEET

**HYDRAULIC DESIGN DATA**

DRAINAGE AREA = 0.52 ACRES  
 $Q_{10} = 0.73$  CFS  
 $Q_{100} = 0.98$  CFS  
 $HW_{10} = 639.62$   
 $HW_{100} = 639.70$   
 $V_{10} = 4.71$  FPS  
 $V_{100} = 5.11$  FPS  
 $pH = 7.6$   
 ABRASION LEVEL = 1  
 DESIGN SERVICE LIFE = 50 YRS.



**CULVERT DETAILS**  
**STA. 244+23.99**

**PIK-C.R. 66-(3.95)(4.47)**

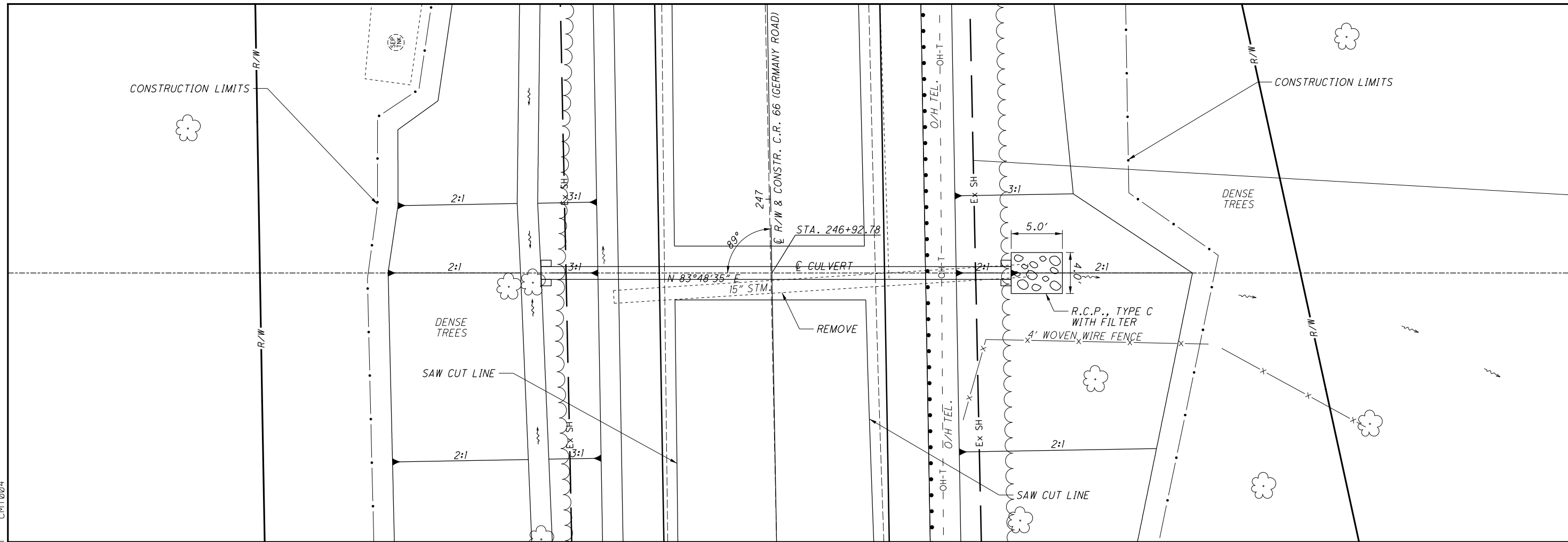
**NOTE**  
1. FOR QUANTITIES SEE SHEET 15.

CMT004

P:\PIK\TR\PIKTR0026\_Germany\99204\roadway\sheets\99204DD003.dgn Sheet 2/23/2021 3:20:02 PM

CALCULATED  
KAM  
CHECKED  
MDW

0 5 10  
2.5' SCALE  
HORIZONTAL  
SCALE IN FEET



**HYDRAULIC DESIGN DATA**

DRAINAGE AREA = 0.61 ACRES

$Q_{10} = 0.90$  CFS

$Q_{100} = 1.21$  CFS

$HW_{10} = 637.19$

$HW_{100} = 637.29$

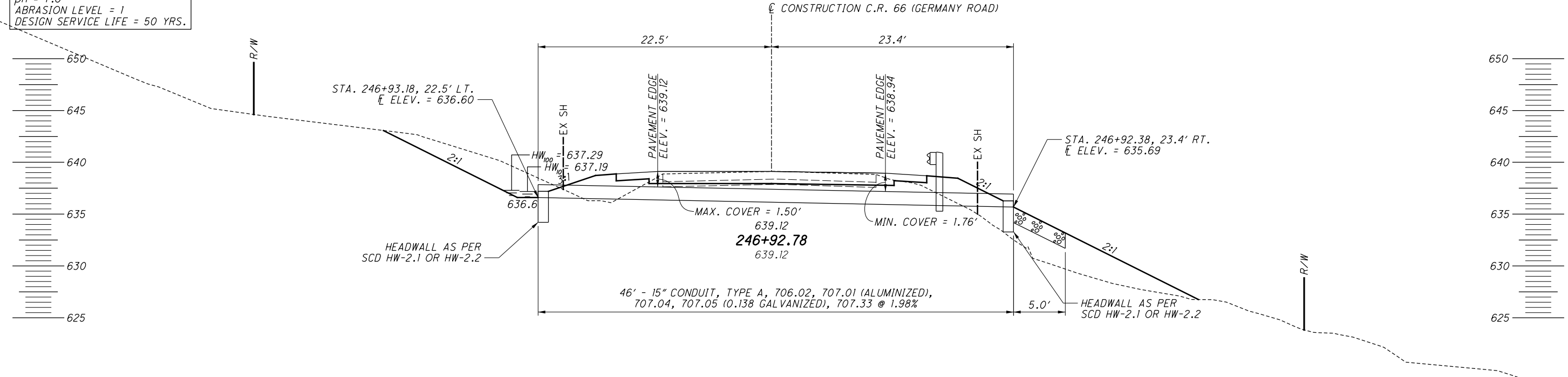
$V_{10} = 5.02$  FPS

$V_{100} = 5.48$  FPS

pH = 7.6

ABRASION LEVEL = 1

DESIGN SERVICE LIFE = 50 YRS.



**CULVERT DETAILS**  
**STA. 246+92.78**

**PIK-C.R. 66-(3.95)(4.47)**

**NOTE**  
1. FOR QUANTITIES SEE SHEET 15.

P:\PIK\TR\PIKTR0026\_Germany\99204\structures\Wall\_001\sheets\99204\_001W0001.dgn\_Sheet 3/8/2021 8:39:30 AM CMT026

ESTIMATED QUANTITIES							DESIGNED:ERK DATE: 11/1/2018	CHECKED:GDJ DATE:11/1/2018
ITEM	EXTENSION	WALL 1	WALL 2	WALL 3	TOTAL	UNIT	DESCRIPTION	SHEET #
203	35150			15	15	CY	GRANULAR MATERIAL, TYPE F	
503	21300	LS	LS		LS	-	UNCLASSIFIED EXCAVATION	
507	00400			1895	1895	FT	STEEL PILES, MISC.: SOLDIER PILES HPI4X73	84
507	00400	876			876	FT	STEEL PILES, MISC.: SOLDIER PILES HPI4X89	84
507	00400	1578			1578	FT	STEEL PILES, MISC.: SOLDIER PILES HPI4X117	84
507	00400		3267		3267	FT	STEEL PILES, MISC.: SOLDIER PILES W27X84	84
509	10000	12638	19802		32440	LB	EPOXY COATED REINFORCING STEEL	
511	46010	197	209		406	CY	CLASS OCI CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING	
511	81300	63			63	EACH	CONCRETE, MISC.: 8" X 24" X 69" PRECAST CONCRETE LAGGING	84
511	81300	69			69	EACH	CONCRETE, MISC.: 8" X 36" X 69" PRECAST CONCRETE LAGGING	84
511	81300	30			30	EACH	CONCRETE, MISC.: 8" X 24" X 69" PRECAST CONCRETE LAGGING WITH OPENING	84
511	81300	30			30	EACH	CONCRETE, MISC.: 8" X 36" X 69" PRECAST CONCRETE LAGGING WITH OPENING	84
511	81300			41	41	EACH	CONCRETE, MISC.: 8" X 24" X 93" PRECAST CONCRETE LAGGING	84
511	81300			94	94	EACH	CONCRETE, MISC.: 8" X 36" X 93" PRECAST CONCRETE LAGGING	84
511	81300			47	47	EACH	CONCRETE, MISC.: 8" X 24" X 93" PRECAST CONCRETE LAGGING WITH OPENING	84
512	10100	469	490		959	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
512	33000	7	9		16	SY	TYPE 2 WATERPROOFING	
516	13600	58	60		118	SF	1" PREFORMED EXPANSION JOINT FILLER	
517	70000	658	863		1521	FT	RAILING (TWIN STEEL TUBE)	
524	94603	300			300	FT	DRILLED SHAFTS, 30" DIAMETER, ABOVE BEDROCK, AS PER PLAN	84
524	94605	420			420	FT	DRILLED SHAFTS, 30" DIAMETER, INTO BEDROCK, AS PER PLAN	84
524	94703	782	2150	1348	4280	FT	DRILLED SHAFTS, 36" DIAMETER, ABOVE BEDROCK, AS PER PLAN	84
524	94705	680	1440	500	2620	FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK, AS PER PLAN	84
524	95000	330	1420		1750	FT	DRILLED SHAFTS, MISC.: PLUG SHAFT, 42" DIAMETER, UNREINFORCED	84
SPECIAL	53000600	1049		2488	3537	SF	STRUCTURES: PREFABRICATED GEOCOMPOSITE DRAIN	84

CALCULATED  
ERK  
CHECKED  
GDJ

RETAINING WALL ESTIMATED QUANTITIES

PIK-C.R. 66-(3.95)(4.47)

