

REINFORCED
MAY 11 1984

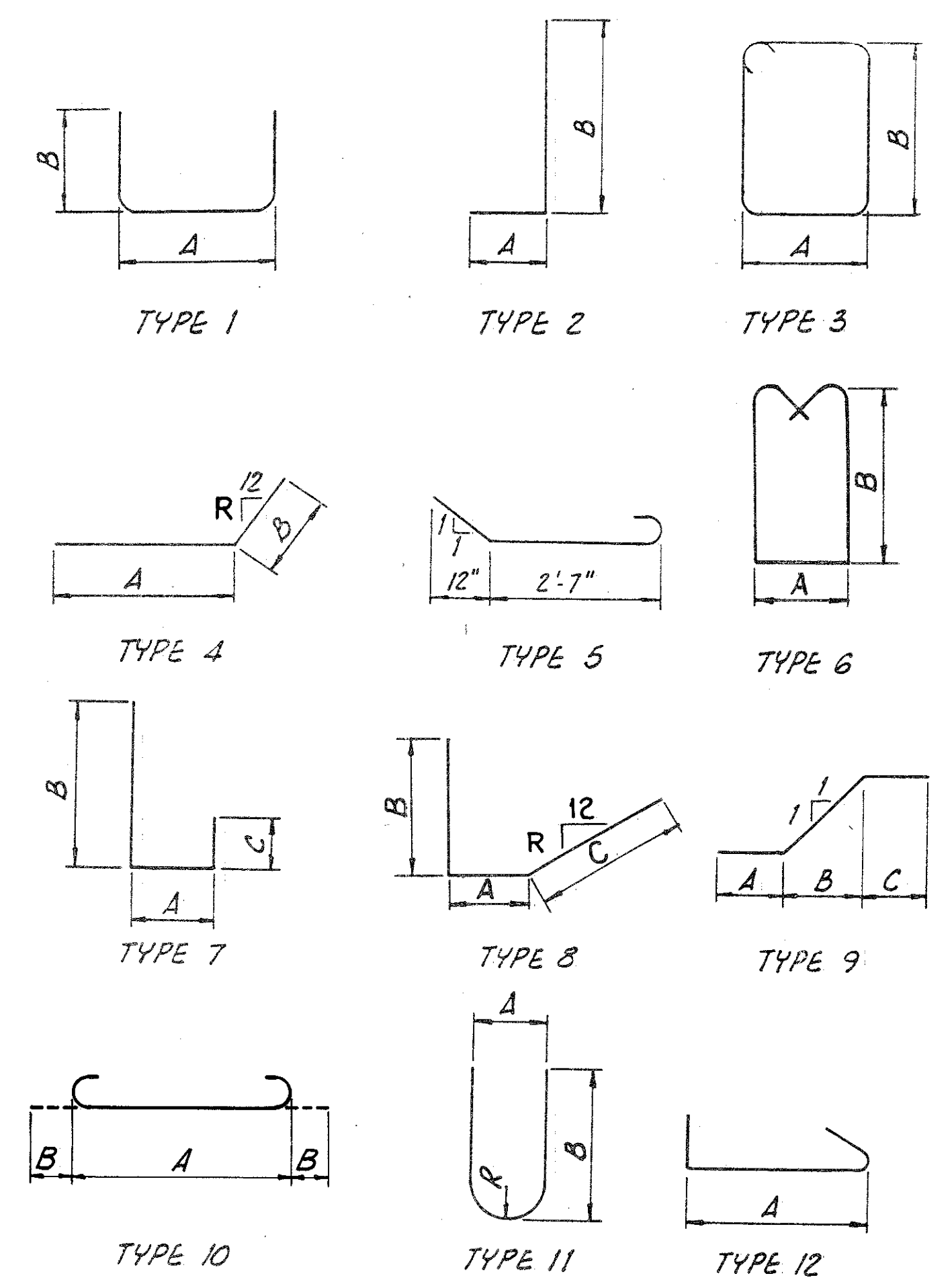
QUANTITY CALCULATIONS
BY C.E.R. DATE 8-84
CHKD. I.M. DATE 9-84
WOODRUFF, INC.

F.H.W.A. REGION	STATE	PROJECT
5	OHIO	LAKE COUNTY LAK-20-17.14

66
86

MARK	NUMBER	LENGTH	TYPE	SER. INCR.	WEIGHT (LBS)	A	B	C	R
WEST ABUTMENT									
AW501	31	7'-9"	1		251	5'-4"	1'-4"		
AW502	2	5'-11"	1		12	3'-6"	1'-4"		
AW503	14	11'-9"	3		172	3'-0"	2'-7"		
AW504	14	11'-3"	3		164	3'-0"	2'-4"		
AW505	35	7'-3"	2		265	10"	6'-6"		
EAW506	31	6'-4"	1		205	3'-5"	1'-7"		
AW507	12	21'-9"	STR.		272				
EAW508	10	22'-0"	STR.		229				
AW509	4	3'-4"	8		14	9"	1'-4"	1'-4"	4 ³ / ₈
AW510	10	5'-8"	STR.		59				
AW511	10	8'-0"	STR.		83				
EAW512	2	5'-5"	STR.		11				
EAW513	2	6'-0"	STR.		13				
AW514	18	7'-11"	STR.		149				
AW515	2 SER 6	7'-1" 3'-8"	STR.	8 ³ / ₁₆ "	67				
AW516	2 SER 6	6'-7" 3'-2"	STR.	8 ³ / ₁₆ "	61				
AW517	24	4'-1"	1		102	1'-2"	1'-7"		
EAW518	28	6'-3"	6		183	8"	2'-6"		
AW519	4	13'-9"	STR.		57				
AW520	4	8'-8"	STR.		36				
AW521	4	13'-5"	STR.		56				
AW522	4	9'-1"	STR.		38				
AW523	2 SER 3	11'-8" 17'-5"	STR.	2'-10 ¹ / ₂ "	91				
AW524	2 SER 3	9'-5" 15'-2"	STR.	2'-10 ¹ / ₂ "	77				
AW525	18	19'-8"	STR.		369				
AW526	12	17'-5"	STR.		218				
AW527	4	10'-0"	4		42	8'-9"	1'-3"		6
EAW529	24	21'-9"	STR.		544				
AW601	29	14'-3"	7		621	5'-4"	6'-6"	2'-9"	
AW602	3	8'-8"	1		39	3'-6"	2'-9"		
EAW603	61	7'-9"	1		710	1'-5"	3'-4"		
EAW604	14	16'-1"	1		338	1'-5"	7'-6"		
EAW605	14	4'-5"	1		93	11"	1'-11"		
EAW606	47	12'-9"	1		900	1'-5"	5'-10"		
EAW607	47	5'-11"	1		418	11"	2'-8"		
AW608	3	9'-11"	2		45	1'-0"	9'-3"		
AW609	6	19'-4"	1		174	1'-2"	9'-3"		
AW610	3	9'-6"	2		43	1'-0"	8'-10"		
AW611	6	18'-6"	1		167	1'-2"	8'-10"		
AW612	12	7'-5"	STR.		134				

MARK	NUMBER	LENGTH	TYPE	SER. INCR.	WEIGHT (LBS)	A	B	C	R
AW801	12	24'-5"	STR.		782				
AW802	2	24'-4"	4		130	22'-11"	1'-5"		4 ⁵ / ₈
AW803	2	16'-10"	STR.		90				
AW804	4	13'-5"	STR.		143				
AW805	2	16'-0"	STR.		85				
AW806	4	13'-1"	STR.		140				
AW807	4	6'-8"	STR.		71				
AW808	20	4'-11"	5		263	2'-7"	1'-0"		
TOTAL UNCOATED BARS					5,765				
TOTAL EPOXY COATED BARS					3,644				
EAST ABUTMENT									
AE501	31	8'-6"	1		275	6'-1"	1'-4"		
AE502	1	6'-8"	1		7	4'-3"	1'-4"		
AE503	17	11'-1"	3		197	3'-0"	2'-4"		
AE504	17	11'-7"	3		205	3'-0"	2'-7"		
AE505	32	7'-3"	2		242	10"	6'-6"		
EAE506	30	9'-11"	1		310	4'-2"	3'-0"		
AE507	12	23'-3"	STR.		291				
AE508	4	3'-4"	8		14	9"	1'-4"	1'-4"	4 ³ / ₈
EAE509	10	23'-6"	STR.		245				
AE510	9	6'-6"	STR.		61				
AE511	9	7'-6"	STR.		70				
EAE512	2	5'-3"	STR.		11				
EAE513	2	5'-9"	STR.		12				
AE514	13	8'-2"	STR.		111				
AE515	2 SER 6	8'-2" 3'-8"	STR.	10 ³ / ₄ "	74				
AE516	2 SER 6	7'-8" 3'-2"	STR.	10 ³ / ₄ "	68				
AE517	32	3'-7"	1		120	1'-2"	1'-4"		
EAE518	38	6'-3"	6		248	8"	2'-6"		
AE519	4	20'-8"	STR.		86				
AE520	9	16'-9"	STR.		157				
AE521	2 SER 4	24'-0" 18'-2"	STR.	1-11 ³ / ₈	176				
AE522	2 SER 4	22'-1" 16'-4"	STR.	1-11	160				
AE523	10	26'-2"	STR.		273				
AE524	8	23'-4"	STR.		195				
AE525	4	10'-4"	4		43	9'-4"	1'-0"		8
AE526	2	8'-10"	2		18	10"	8'-1"		
AE527	5	20'-5"	STR.		106				
EAE529	24	23'-3"	STR.		582				



BAR BENDING DIAGRAMS

REINFORCING STEEL SAMPLES
REFER TO CMS SECTIONS 106.03, 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL, SPLICED IN ACCORDANCE WITH 509.08.

WOODRUFF, INC. CONSULTING ENGINEERS CLEVELAND, OHIO			
REINFORCING STEEL LIST			
U.S. ROUTE 20 OVER THE GRAND RIVER			
BR. NO. LAK-20-1723		FROM STA. 18+91.00 TO STA. 22+89.56	
LAKE COUNTY		OHIO	
MADE BY RAG	TRACED BY MAG	CHECKED BY PG	REVIEWED BY AJM
DATE 8-84	DATE 9-84	DATE 10-84	DATE 10/84
			REVIS SHEET 19/22

U.S. 20 OVER GRAND RIVER