

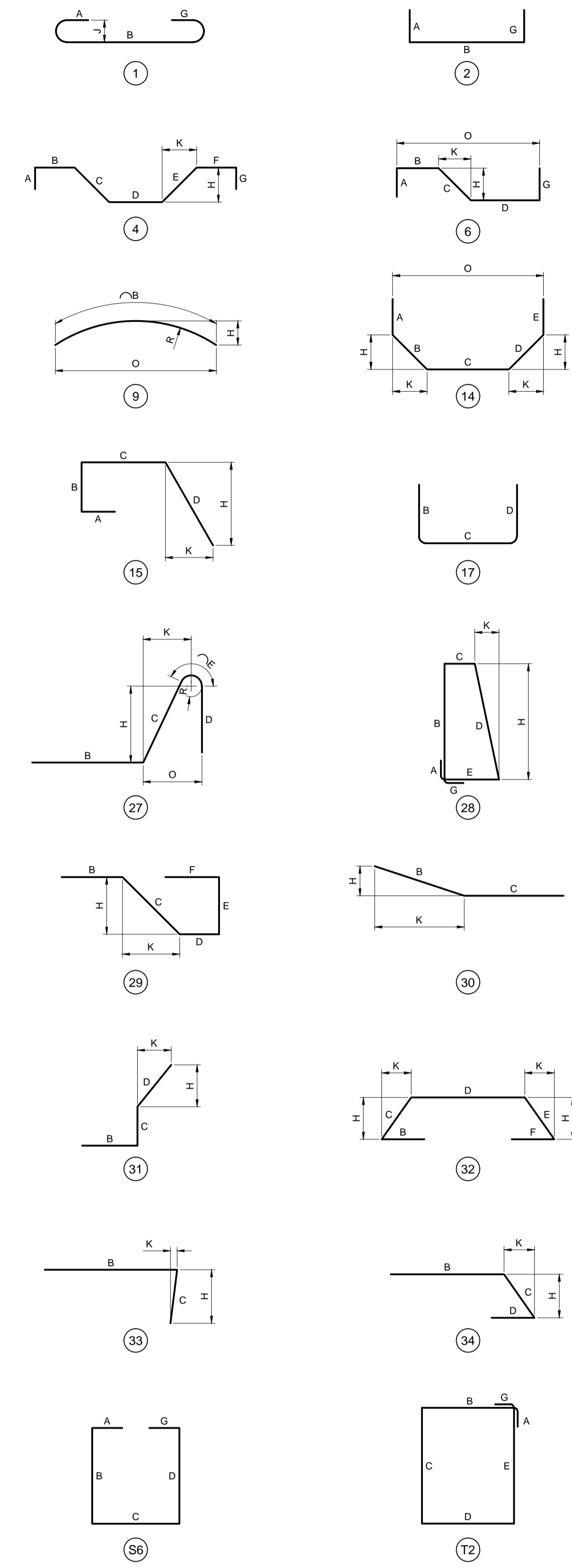
BILL OF STEEL REINFORCING

	MARK	NO BARS	SIZE	LENGTH	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	MASS
APPROACH SLAB	A1501	84	15	9450	STR													1246.27
	A1502	120	15	5875	STR													1106.85
	A1503	84	15	8500	STR													1120.98
	A1504	132	15	1125	31		300	250	575					475		330		233.15
	A1505	44	15	1000	2	300	700											69.08
	A2501	236	25	5875	STR													5442.01
SUB-TOTAL = 9218.34																		
ROADWAY SLAB	R1501	56	15	9150	STR													804.47
	R1502	56	15	8600	STR													756.11
	R1503	236	15	3850	STR													1426.50
	R1504	60	15	740	1	330	330							50				69.71
	R1001	4	10	3875	STR													12.17
SUB-TOTAL = 3068.96																		
EXPANSION SLAB	E1501	120	15	3100	T2	100	150	1300	150									584.04
	E1502	20	15	9140	STR													287.00
	E1503	20	15	8600	STR													270.04
	E1504	120	15	2665	29		450	625	550	440	600			440		440		502.09
	E1505	120	15	3880	6		3325	305	250					50				731.00
	E1506	120	15	3875	STR													730.05
	E1507	56	15	9140	STR													803.59
	E1508	56	15	8600	STR													756.11
	E1509	56	15	650	2	300	350											57.15
	E1510	4	15	3875	STR													24.34
SUB-TOTAL = 4745.41																		
BACKWALL	W1501	120	15	1000	2	500	500											188.40
	W1502	24	15	10580	STR													398.65
	W1503	24	15	8865	STR													334.03
	W1504	70	15	2260	2	1040	180					1040						248.37
	W1505	70	15	3060	2	1440	180					1440						336.29
	W1506	120	15	1495	15	300	480	175	540					380		380		281.66
	W1507	120	15	1380	2	600	180						600					260.00
SUB-TOTAL = 2047.40																		
SIDEWALK	S1001	36	10	3875	STR													109.51
	S1002	56	10	2000	STR													87.92
	S1003	28	10	800	2	300	200							300				17.58
	S1501	20	15	500	STR													15.70
SUB-TOTAL = 230.71																		
BARRIERS	B1501	150	15	1560	4			705	150	705								367.38
	B1502	32	15	3850	STR													193.43
	B1503	32	15	6150	STR													308.98
	B1504	16	15	5000	STR													125.60
	B1505	50	15	1570	17		700	170	700									123.25
SUB-TOTAL = 1118.64																		
EXPANSION DAM	E1501	4	15	11270	STR													70.78
	E1502	4	15	8940	STR													56.14
SUB-TOTAL = 126.92																		
BLACK TOTAL = 1,599 kg GALVANIZED TOTAL = 18,957 kg TOTAL = 20,556 kg																		

NOTES:

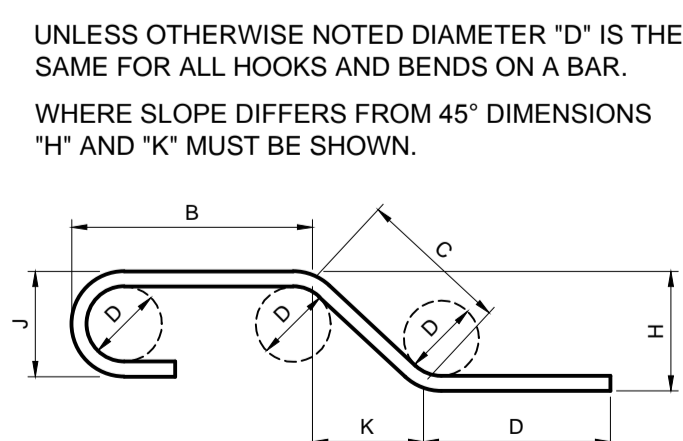
- * DENOTES BLACK BARS, ALL OTHER BARS ARE HOT-DIPPED GALVANIZED.
- W1501 & W1507 SHALL HAVE EPOXY COATING APPLIED AS DETAILED ON THE DRAWING.

BENDING DIAGRAMS

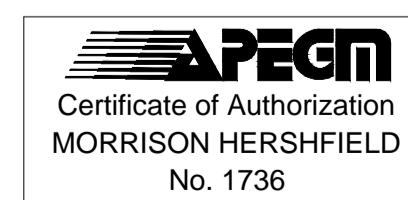


NOTES:

- ALL DIMENSIONS ARE OUT-TO-OUT OF A BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
- "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE STANDARD HOOKS TO BE USED.
- ON TRUSS BARS "J" WILL BE KEPT EQUAL TO OR LESS THAN "H". WHERE "J" CAN EXCEED "H" IT SHOULD BE SHOWN.
- ON STIRRUPS "H" DIMENSION SHOULD BE SHOWN ONLY WHERE NECESSARY TO FIT WITHIN CONCRETE.
- CRITICAL DIMENSIONS ARE TO BE WHERE BARS ARE TO BE BENT MORE ACCURATELY THAN STANDARD BENDING TOLERANCE.
- ON TYPE T3 "G" IS EQUAL TO CLASS B SPLICE.
- FIGURES SHOWN IN CIRCLES SHOW TYPES.
- ALL BAR BENDS OTHER THAN THE TYPES SHOWN MUST BE DESIGNATED AS TYPE "X".



ENLARGED VIEW BAR BENDING DETAILS



METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

BM ELEV	DESIGNED BY	CHECKED BY	DRAWN BY	APPROVED BY	HOR. SCALE	VERT. SCALE	DATE
	BE	BE, KEL	DML	BWB			14/02/28
0	ISSUED FOR TENDER	14/03/07	BE				
No.	REVISIONS	YYMMDD	BY				

MORRISON HERSHFELD

DESIGNED BY: BE
CHECKED BY: BE, KEL
DRAWN BY: DML
APPROVED BY: BWB

HOR. SCALE: _____
VERT. SCALE: _____
DATE: 14/02/28

PROFESSIONAL'S SEAL

ORIGINAL DRAWING REV No. 0

SEALED BY:
B. EBENSPANGER
MAR 7, 2014

CONSULTANT DRAWING No.
W130027-DET-07.dwg

BID OPPORTUNITY No. 1051-2013

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

WINNIPEG

NAIRN AVENUE OVERPASS MAINTENANCE WORKS

CITY DRAWING NUMBER B121-14-11

SHEET 11 OF 11

DRAWING No. REV

11 0

REINFORCING STEEL SCHEDULE