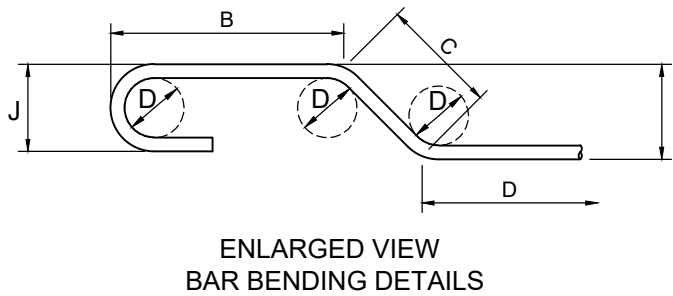


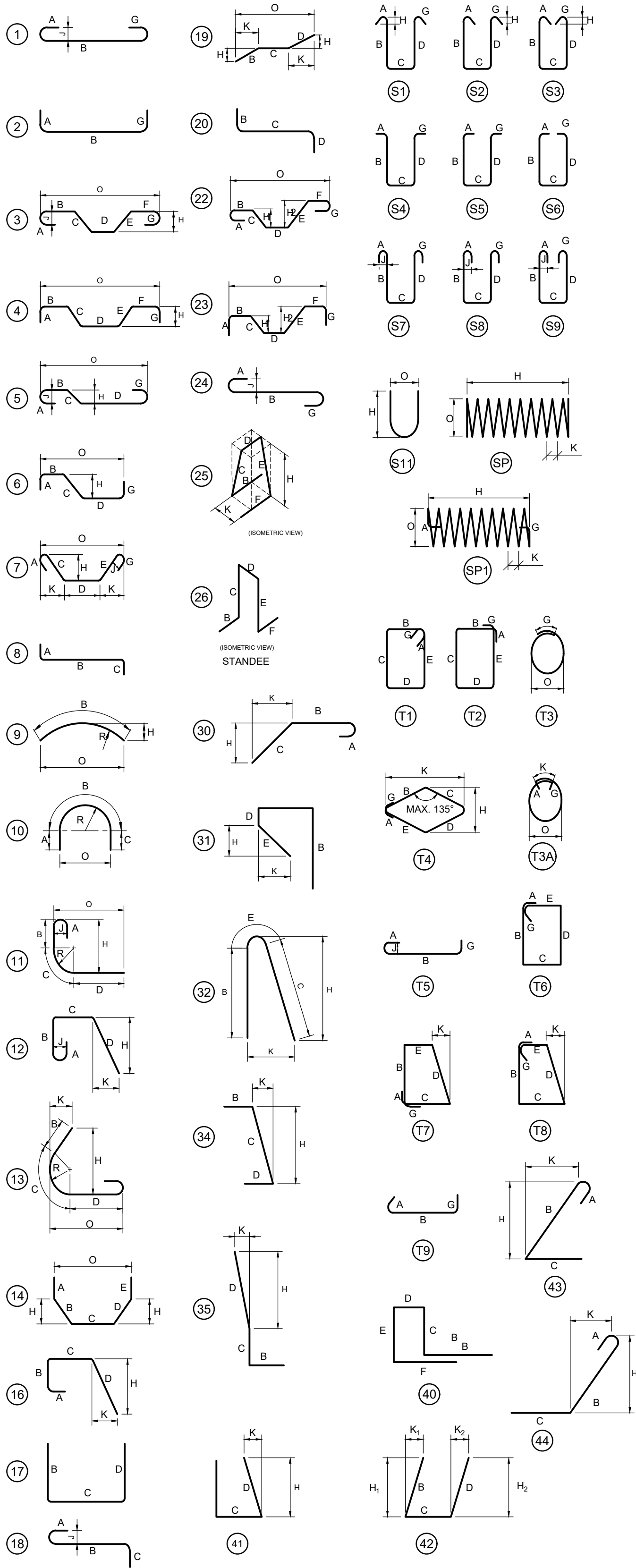
BILL OF REINFORCING - STAINLESS STEEL BARS																				
	MARK	NO. BARS	SIZE	LENGTH	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	TOTAL (m)	MASS (kg)	
NORTH APPROACH SLAB	S1601SS	18	16	7 160	STR													128.88	202.99	
	S1602SS	64	16	770	16		250	265	255				250		55			49.28	77.62	
	S1608SS	1	16	790	16		250	285	255				250		65			0.79	1.24	
	S1609SS	1	16	820	16		250	315	255				250		50			0.82	1.29	
	S1610SS	1	16	855	16		250	350	255				250		30			0.86	1.35	
	S1611SS	1	16	885	16		250	380	255				250		15			0.89	1.39	
	S1612SS	7	16	910	17		250	410	250									6.37	10.03	
	S1613SS	1	16	5 595	5													5.60	8.81	
	S1614SS	1	16	6 765	5			1080	1145				108		1075			6.77	10.65	
	S1615SS	1	16	5 655	5													5.66	8.91	
	S1616SS	1	16	7 045	19													7.05	11.10	
	S1617SS	2	16	7 545	19			1645	5900				145		1640			15.09	23.77	
	S1618SS	2	16	3 195	19			1645	1550				145		1640			6.39	10.06	
	S1901SS	41	19	7 160	STR														293.56	659.92
	S1902SS	7	19	5 050	1	200	4850												35.35	79.47
	S1903SS	24	19	8 725	1	200	8525												209.40	470.73
	S1904SS	42	19	1 370	6	250	200	320	600				225		225				57.54	129.35
	S1905SS	66	19	1 900	16			1000	900				880		185				125.40	281.90
	S1906SS	77	19	1 200	17		900	300											92.40	207.72
	S1907SS	9	19	5 620	1	200	5420												50.58	113.70
	S1908SS	1	19	1 900	16		900	1000					895		75				1.90	4.27
	S1909SS	1	19	1 900	16		900	1000					890		113				1.90	4.27
	S1910SS	1	19	1 900	16		900	1000					885		150				1.90	4.27
	S1911SS	1	19	1 900	16		900	1000					880		185				1.90	4.27
	S1912SS	7	19	1 900	17		900	1000											13.30	29.90
	S1913SS	1	19	7 540	19		1640	5900					515		5880				7.54	16.95
	S1914SS	1	19	2 720	STR														2.72	6.11
	S1915SS	1	19	5 350	STR														5.35	12.03
	S1916SS	8	19	5 340	1	200	5140												42.72	96.03
	S1917SS	66	19	2 525	16		1040	415	1070				1040		235				166.65	374.63
	S1918SS	1	19	2 490	41		1040	395	1055				1040		215				2.49	5.60
	S1919SS	1	19	2 490	41		1040	400	1050				1040		175				2.49	5.60
	S1920SS	1	19	2 490	41		1040	405	1045				1040		130				2.49	5.60
	S1921SS	1	19	2 485	41		1040	405	1040				1040		90				2.49	5.59
	S1922SS	1	19	2 490	41		1040	410	1040										2.49	5.60
	S1923SS	1	19	2 390	17		990	410	990										2.39	5.37
	S1924SS	1	19	2 310	17		950	410	950										2.31	5.19
	S1925SS	1	19	2 200	17		895	410	895										2.20	4.95
	S1926SS	1	19	2 160	17		875	410	875										2.16	4.86
	S1927SS	1	19	2 080	17		835	410	835										2.08	4.68
	S1928SS	1	19	2 000	17		795	410	795										2.00	4.50
TOTAL STAINLESS STEEL MASS - 2 922.27 kg																				

NOTES:

- ALL DIMENSIONS GIVEN IN THE BENDING DIAGRAM ARE OUT TO OUT, EXCEPT RADII AND EXTENSIONS ON 90°, 135° & 180° HOOKS. EXTENSIONS ON 90°, 135° & 180° HOOKS ARE THE "A" OR "G" DIMENSIONS FOR THE STANDARD 90°, 135° & 180° HOOKS REFERENCED FROM THE RSIC "MANUAL OF STANDARD PRACTICE". RADII ARE INSIDE DIMENSIONS. ALL REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF CAN/CSA-S6 CLAUSE 8.14 "DETAILS OF REINFORCEMENT AND SPECIAL DETAILING PROVISIONS", UNLESS NOTED OTHERWISE IN BILL OF REINFORCING STEEL.
- ALL REINFORCING SHALL BE DEFORMED STEEL, UNLESS NOTED OTHERWISE IN BILL OF REINFORCING STEEL.
- ALL STAINLESS STEEL REINFORCING SHALL CONFORM TO ASTM A995M, 300 SERIES, MINIMUM GRADE 520, UNLESS NOTED OTHERWISE IN THE BILL OF REINFORCING STEEL.
- LIKE BARS SHALL BE BUNDLED, SECURELY TIED AND IDENTIFIED AS TO MARK AND SITE NUMBER BY APPROPRIATE MEANS. ALL OTHER ITEMS TO BE IDENTIFIED IN A SIMILAR FASHION.
- UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME ALL HOOKS AND BENDS ON A BAR. THERE SLOPE DIFFERS FROM 45° DIMESIONS "H" AND "K" MUST BE SHOWN.



BENDING DIAGRAMS:



Certificate of Authorization
Tetra Tech Canada Inc.
No. 6499



DESIGNED BY	RL	REVIEWED BY	SA
DRAWN BY	AM	APPROVED BY	KA
SCALE:	AS NOTED	ACCEPTED BY	DATE
		CAM WARD, P.ENG.	25.08.07
DATE	25.08.07		

CONSULTANT DRAWING NO.
704-INF-MBI03007.01-DWG-S2248



THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

LAGIMODIERE TWIN OVERPASSES
OVER CPKC KEEWATIN
REHABILITATION AND RELATED WORKS

NORTHBOUND STRUCTURE
BILL OF REINFORCING
SHEET 4 OF 4

CITY DRAWING NUMBER

B123-25-2248

SHEET 48 OF 48

2248