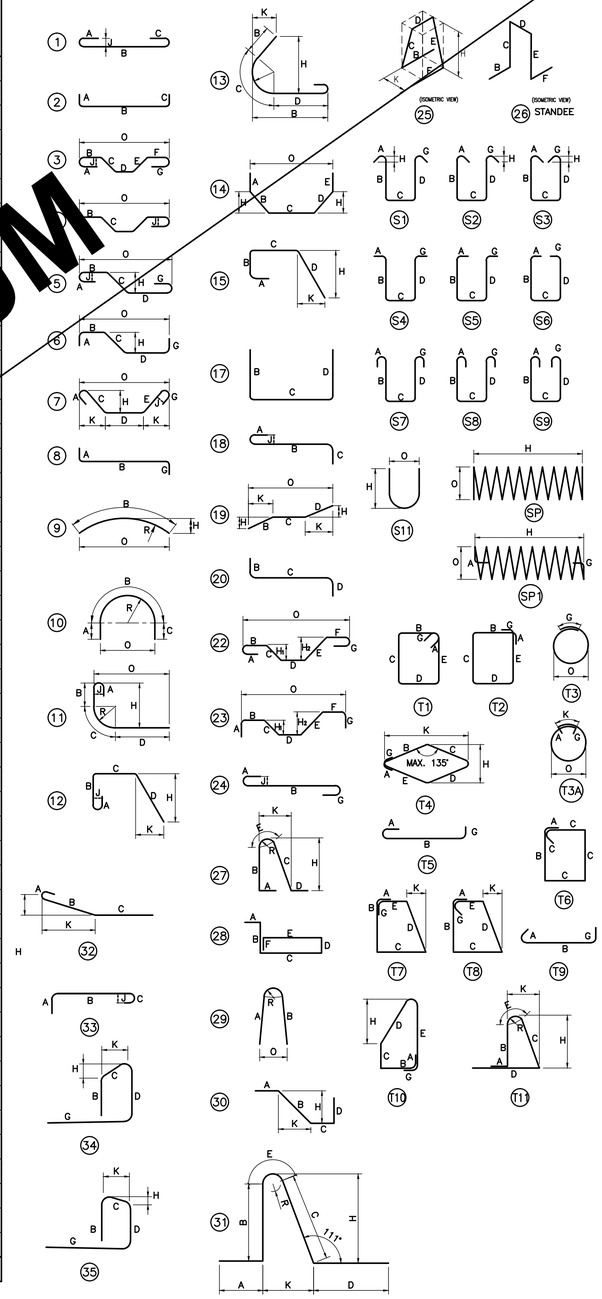
BILL OF REINFORCING – BLACK STEEL

MARK	NO. BARS	SIZE	LENGTH	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	TOTAL (m)	MASS (kg)

MARK	NO. BARS	SIZE	LENGTH	TYPE	A	B	C	D	E	F	G	H	J	K	O	R	TOTAL	MASS
TOTAL MASS																		kg

TO BE ISSUED FOR ADDENDUM

BENDING DIAGRAMS:



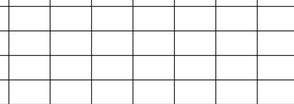
STAINLESS STEEL REINFORCING SHALL BE FABRICATED IN ACCORDANCE WITH THE LATEST EDITION OF THE REINFORCEMENT STEEL MANUAL OF STANDARD PRACTICE BY THE REINFORCING STEEL INSTITUTE OF CANADA (RSIC), TO THE LENGTHS AND SHAPES AS SHOWN ON THE DRAWINGS.

NOTES:

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

UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME ALL HOOKS AND BENDS ON A BAR.

WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN



ENLARGED VIEW BAR BENDING DETAILS

APEGM
Certificate of Authorization
Wardrop Engineering Inc.
No. 195 Date: April 30, 2011

B.M. ELEV.		F.B.			
NO.	REVISIONS	DATE	BY		

WARDROP
A TETRA TECH COMPANY

DESIGNED BY	V.B.	CHECKED BY	V.B.
DRAWN BY	E.M.M./B.M.	APPROVED BY	R.H.W.
HOR. SCALE: / VERTICAL:	AS NOTED	RELEASED FOR CONSTRUCTION	DATE
DATE	10.12.03	MATT CHISLETT, P.ENG. BRIDGE PROJECT'S ENGINEER	

CONSULTANT DRAWING NO.
0900070502-DWG-S0112

Winnipeg

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

OSBORNE STREET BRIDGE
REHABILITATION & RELATED WORKS

CITY DRAWING NUMBER
B109-11-117

SHEET 112 OF 131

REINFORCING SCHEDULE

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