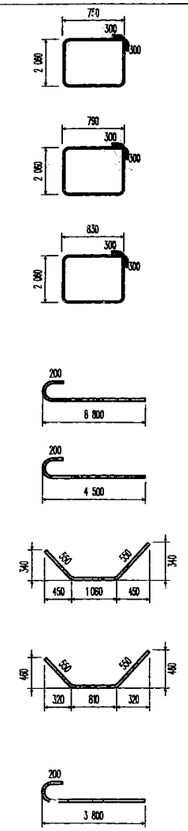
BILL OF REINFORCING STEEL FOR TWO ABUTMENTS — 693-02

MARK	TYPE	PIN DIAMETER	LENGTH	No.	MASS
20 01	BENT	100	6 220	28	410.15
20 02	BENT	100	6 300	28	415.42
20 03	BENT	100	6 380	24	360.60
20 04	STR		2 780	72	471.38
20 05	STR		4 150	18	175.92
20 06	BENT	100	9 000	26	551.07
20 07	BENT	100	4 700	26	287.78
20 08	BENT	100	2 160	10	50.87
20 09	BENT	100	1 900	10	44.74
20 10-1	STR		2 750	2	12.95
20 10-2	STR		3 210	2	15.12
20 11-1	BENT	100	4 000	2	18.84

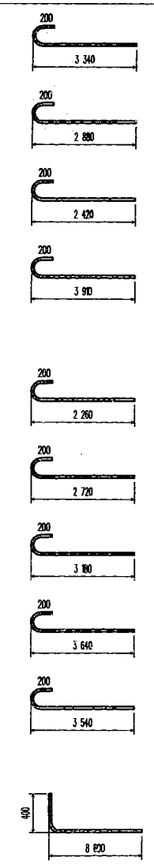
BENDING DIAGRAM



BILL OF REINFORCING STEEL FOR TWO ABUTMENTS — 693-02

MARK	TYPE	PIN DIAMETER	LENGTH	No.	MASS
20 11-2	BENT	100	3 540	2	16.67
20 11-3	BENT	100	3 080	2	14.51
20 11-4	BENT	100	2 620	2	12.34
20 12	BENT	100	4 110	4	38.72
20 13	STR		3 880	6	54.82
20 14-1	STR		2 590	2	12.20
20 14-2	STR		3 050	2	14.37
20 15-1	BENT	100	2 460	2	11.59
20 15-2	BENT	100	2 920	2	13.75
20 15-3	BENT	100	3 380	2	15.92
20 15-4	BENT	100	3 840	2	18.09
20 16	BENT	100	3 740	4	35.23
20 17	STR		3 610	6	51.01
25 01	BENT	150	9 000	18	635.85

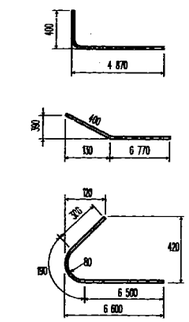
BENDING DIAGRAM



BILL OF REINFORCING STEEL FOR TWO ABUTMENTS — 693-02

MARK	TYPE	PIN DIAMETER	LENGTH	No.	MASS
25 02	BENT	150	5 270	18	372.33
25 03	BENT	150	7 170	8	225.14
25 04	BENT		6 990	8	219.19

BENDING DIAGRAM



Total mass of reinforcing steel	7 009.86 kg
Total volume of structural concrete	79.41 m³

NOTES:

1. All dimensions given in bending diagram are out to out, except radiuses. Radiuses are inside dimensions. All reinforcing steel shall conform to CAN/CSA-S6-00 Clause 8.14 "Details of Reinforcement and Special Detailing Provisions", unless noted otherwise in the BILL OF REINFORCING STEEL.
2. All reinforcing steel shall be deformed steel, unless noted otherwise in the BILL OF REINFORCING STEEL.
3. All reinforcing steel shall conform to CAN/CSA G30.18-M92 "Billet Steel Bars for Concrete Reinforcement" Grade 400W, unless noted otherwise in the BILL OF REINFORCING STEEL.
4. Like bars shall be bundled, securely tied and identified as to Mark and Site No. by appropriate means. All other items to identified in a similar fashion.

REVISIONS

DATE	BY	DESCRIPTION
OCT31/07	R.A	AS BUILT

PROVINCE OF MANITOBA — A.H. PANKRATZ — OCT 16, 2015 — REGISTERED PROFESSIONAL ENGINEER

ABUTMENT REINFORCING DETAILS

FOR PROPOSED 69 714 LONG R.C. BRIDGE
OVER SEINE RIVER DIVERSION
ON P.T.H. No. 59 SOUTH BOUND LANES, 10 900 ROADWAY
IN SEC. 28-8-4E

R.M. OF RITCHOT

Manitoba Transportation and Government Services
Bridges and Structures Branch

RELEASED FOR CONSTRUCTION BY:

DIRECTOR OF BRIDGES AND STRUCTURES — DATE

DESIGN	BY: A.H.P.	
	CHECKED: J.R.L.	
DETAILS	BY: D.P.W.	
	CHECKED: A.H.P.	

SCALE: Not To Scale — SHEET No. 13 — SITE No. 693-02

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