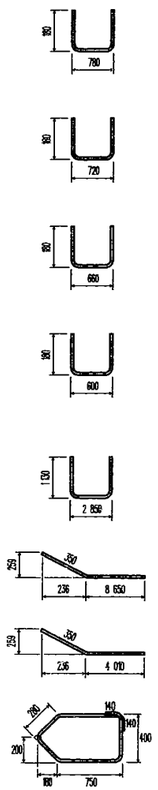
BILL OF REINFORCING STEEL FOR PIERS SU.2 & SU.3 — 693-02

MARK	TYPE	PIN DIAMETER	LENGTH	No.	MASS
P10 01	BENT	45	1 140	24	21.48
P10 02	BENT	45	1 080	24	20.35
P10 03	BENT	45	1 020	24	19.22
P10 04	BENT	45	960	24	18.09
P15 01	BENT	65	5 110	94	754.13
P15 02	BENT	65	9 000	72	1017.36
P15 03	BENT	65	4 360	72	492.85
P15 04	BENT	65	2 740	128	550.63

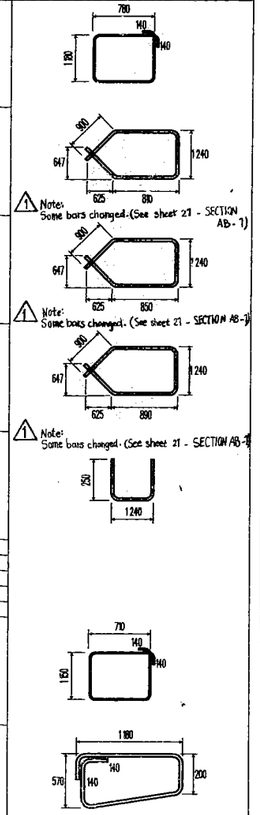
BENDING DIAGRAM



BILL OF REINFORCING STEEL FOR PIERS SU.2 & SU.3 — 693-02

MARK	TYPE	PIN DIAMETER	LENGTH	No.	MASS
P15 05	BENT	65	4 200	4	26.38
P15 06	BENT	65	4 560	44	321.91
P15 07	BENT	65	4 740	52	386.97
P15 08	BENT	65	4 820	52	393.50
P15 09	BENT	65	1 740	48	131.13
P15 10	STR		9 000	12	169.56
P15 11	STR		4 230	12	79.69
P15 12	STR		4 110	16	103.24
P15 13	STR		2 660	32	133.64
P15 14	STR		2 910	32	146.20
P15 15	BENT	65	4 000	16	100.48
P15 16	BENT	65	3 460	8	43.46

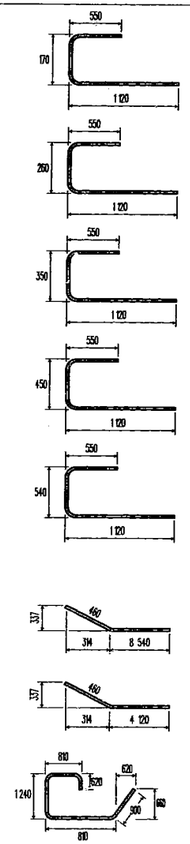
BENDING DIAGRAM



BILL OF REINFORCING STEEL FOR PIERS SU.2 & SU.3 — 693-02

MARK	TYPE	PIN DIAMETER	LENGTH	No.	MASS
P1517-1	BENT	65	1 840	4	11.56
P1517-2	BENT	65	1 930	4	12.12
P1517-3	BENT	65	2 020	4	12.69
P1517-4	BENT	65	2 120	4	13.31
P1517-5	BENT	65	2 210	4	13.88
P15 18	STR		1 180	4	7.41
P15 19	STR		670	4	4.21
P15 20	STR		1 050	48	79.13
P15 21	BENT	65	9 000	56	791.28
P15 22	BENT	65	4 580	56	402.67
P15 23	BENT	65	4 380	1	6.88

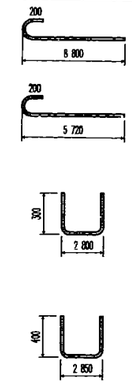
BENDING DIAGRAM



BILL OF REINFORCING STEEL FOR PIERS SU.2 & SU.3 — 693-02

MARK	TYPE	PIN DIAMETER	LENGTH	No.	MASS
P20 01	BENT	100	9 000	54	1144.53
P20 02	BENT	100	5 920	54	752.85
P20 03	STR		700	32	52.75
P20 04	BENT	100	3 400	8	64.06
P25 01	BENT	150	3 650	142	2034.33
P25 02	STR		2 100	256	2110.08
P25 03	STR		8 330	264	8631.55

BENDING DIAGRAM



Total mass of reinforcing steel	21 096.19 kg
Total volume of structural concrete	288.20 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
OCT 31/07	R.A	AS BUILT

PROVINCE OF MANITOBA — S.L. DONACHUK — Oct 11/05 — REGISTERED ENGINEER

PIER 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:

Oct. 13/05
DIRECTOR OF BRIDGES AND STRUCTURES — DATE

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

SCALE: Not To Scale
SHEET No. 24
SITE No. 693-02

Rs_sec\08302\009002\ms.dgn 10/11/2005 9:03:32 AM