

From: edover@lowerchurchillproject.ca
To: stevegoulding@lowerchurchillproject.ca
Cc: johnmulcahy@lowerchurchillproject.ca
Subject: Fw: CH0009 Barnard-Pennecon Revised Proposal Documents
Date: Thursday, July 30, 2015 6:41:24 PM
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[Appendix A2.1 Schedule Price Breakdown - Option 1 7-29-15.pdf](#)
[Appendix A2.1 Schedule of Price Breakdown Native 7-29-15.xlsx](#)
[Appendix A2.5 Equipment Rate Schedule 7-29-15.pdf](#)
[Appendix A2.7 Estimated Trade Person-Hour Schedule 7-29-15.pdf](#)
[Appendix A2.2 Monthly Payment-Cash Flow OP1 7-29-15.pdf](#)
[Appendix A2.4 Personnel Rate Schedule 7-29-15.pdf](#)

Please check rates.

Ed

Ed Over

Sr. Advisor-Commercial Strategies

PROJECT DELIVERY TEAM

Lower Churchill Project

t. **416-252-5315 Ext. 53675**

e. EdOver@lowerchurchillproject.ca

w. musktratfalls.nalcorenergy.com

----- Forwarded by Ed Over/LCP/NLHydro on 07/30/2015 05:10 PM -----

From: "Derek Tisdell" <derek.tisdell@barnard-inc.com>

To: <EdOver@lowerchurchillproject.ca>,

Date: 07/29/2015 06:30 PM

Subject: CH0009 Barnard-Pennecon Revised Proposal Documents

Hi Ed,

Attached are Barnard-Pennecon's revised proposal documents per your request. Documents requested and included are as follows:

1. Appendix A2.1 Schedule Price Breakdown - Attached in pdf and native format
2. Appendix A2.2 Monthly Payment-Cash Flow – Attached
3. Appendix A2.4 Personnel Rate Schedule – Attached

4. Appendix A2.5 Equipment Rate Schedule – Attached

5. Appendix A2.7 Estimated Trade Person-Hour Schedule – Attached

Other documents discussed:

- Contract Articles – Barnard-Pennecon agrees with the latest revision of the Contract, including the addition of the Retention language.
- Barnard will send our 2014 Financial Statements to Scott Pelley and Andrew Sinnott per your request.
- Pennecon will also send their 2014 Financial Statements directly to Scott and Andrew.
- Barnard will utilize either RBC or CIBC Bank to provide our Letter of Credit

Thanks, Derek

BARNARD

People building for People.

Derek Tisdel

Vice President & Operations Manager

derek.tisdel@barnard-inc.com

Phone: (406) 586-1995 | **Cell:** (406) 579-4231

701 Gold Avenue | Bozeman, MT 59715 | barnard-inc.com



Appendix A2.1 Schedule Price Breakdown - Option 1 7-29-15.pdf



Appendix A2.1 Schedule of Price Breakdown_Native 7-29-15.xlsx



Appendix A2.5 Equipment Rate Schedule 7-29-15.pdf



Appendix A2.7 Estimated Trade Person-Hour Schedule 7-29-15.pdf



Appendix A2.2 Monthly Payment-Cash Flow OP1 7-29-15.pdf



Appendix A2.4 Personnel Rate Schedule 7-29-15.pdf

CIMFP Exhibit P-02848
SCHEDULE OF PRICE BREAKDOWN

LOWER CHURCHILL PROJECT
MUSKRAT FALLS
CH0009 - CONSTRUCTION OF NORTH AND
SOUTH DAMS

ISSUED FOR: BID

DATE: 29 - Jul - 2015

PRICE ITEM		WBS CODE		PRICE ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY A	MAN HOURS (AT SITE) PER UNIT	MANPOWER COST/UNIT (\$ CAN) B	STAFF, MATERIAL, EQUIPMENT & SUBCONTRACT COST/UNIT (\$ CAN)	UNIT PRICE (\$ CAN) F= (B+C+D+E)	TOTAL PRICE (\$ CAN) G= A x F
No	REFERENCE Exhibit 2 - ATT 1	CODE	SUBCODE								
	2	0000		INDIRECT COSTS							
1	2.1		0000.01	Mobilization	LS	1	112,942	\$ 12,833,132.79	\$ 44,166,867.21	\$ 57,000,000.00	\$ 57,000,000.00
2	2.2		0000.02	Site Installation	LS	1	59,814	\$ 5,701,660.11	\$ 32,548,339.89	\$ 38,250,000.00	\$ 38,250,000.00
3	2.3		0000.03	Management, Staff, employees and Consultants	LS	1	236,717	\$ -	\$ 45,000,000.00	\$ 45,000,000.00	\$ 45,000,000.00
4	2.4		0000.04	Health and Safety, Environmental and Quality Requirements	LS	1	4,503	\$ 1,139,570.04	\$ 1,860,429.96	\$ 3,000,000.00	\$ 3,000,000.00
5	2.5		0000.05	Credit, Guarantee and Insurance	LS	1	-	\$ -	\$ 5,000,000.00	\$ 5,000,000.00	\$ 5,000,000.00
6	2.6		0000.06	Warranty, per Article 17 of the Agreement	LS	1	-	\$ -	\$ 300,000.00	\$ 300,000.00	\$ 300,000.00
7	2.7		0000.07	Demobilization	LS	1	1,600	\$ 146,560.56	\$ 768,439.44	\$ 915,000.00	\$ 915,000.00
SUB-TOTAL INDIRECT COSTS											\$ 149,465,000.00
	3	1100		GENERAL							
	3.1		1110	DEWATERING OF STRUCTURE AREAS							
8	3.1.1		1110.01	Dewatering of Structure Areas	LS	1	3,450	\$ 313,809.38	\$ 1,836,190.62	\$ 2,150,000.00	\$ 2,150,000.00
	3.2		1111	EXCAVATION OF EXISTING COFFERDAMS							
9	3.2.1		1111.01	Excavation of Existing Embankment cofferdams 1, 2 and 3, and Existing Ramps	m ³	177,000	0.02	\$ 1.87	\$ 8.89	\$ 10.76	\$ 1,904,520.00
10	3.2.2		1111.02	Excavation of Downstream section of RCC riverside cofferdam	m ³	20,000	0.05	\$ 4.63	\$ 17.06	\$ 21.69	\$ 433,800.00
	3.3		1112	PERMANENT ROADS AND PARKING AREA							
11	3.3.1		1112.01	Overburden Excavation	m ³	8,000	0.03	\$ 2.54	\$ 6.21	\$ 8.75	\$ 70,000.00
12	3.3.2		1112.02	Other Material or Rockfill	m ³	44,000	0.02	\$ 1.99	\$ 1.76	\$ 3.75	\$ 165,000.00
13	3.3.3		1112.03	Maintenance Grade 3 material	m ³	6,000	0.08	\$ 6.95	\$ 56.05	\$ 63.00	\$ 378,000.00
14	3.3.6		1112.04	CSP culvert, dia. 900 mm	m	48	2.50	\$ 228.85	\$ 271.15	\$ 500.00	\$ 24,000.00
15	3.3.7		1112.05	Guide Rails	m	400	1.24	\$ 113.54	\$ 76.46	\$ 190.00	\$ 76,000.00
16	3.3.8		1112.06	Gate Type 1	unit	2	60.00	\$ 5,563.68	\$ 2,436.32	\$ 8,000.00	\$ 16,000.00
	3.5		1114	DITCHES							
17	3.5.1		1114.01	Overburden Excavation	m ³	2,000	0.24	\$ 21.97	\$ 20.03	\$ 42.00	\$ 84,000.00
18	3.5.2		1114.02	Non-woven Geotextile, min 300 g/m ²	m ²	2,500	0.03	\$ 2.93	\$ 4.07	\$ 7.00	\$ 17,500.00
19	3.5.3		1114.03	Rockfill Protection, 100 - 250 mm	m ³	1,000	0.12	\$ 10.88	\$ 66.12	\$ 77.00	\$ 77,000.00
	3.6		1115	SLOPE PROTECTION							
20	3.6.1		1115.01	Rockfill Protection, Zone 3E Material	m ³	2,500	0.13	\$ 11.91	\$ 74.09	\$ 86.00	\$ 215,000.00
21	3.6.2		1115.02	Non-woven Geotextile, min 530 g/m ²	m ²	4,500	0.04	\$ 3.64	\$ 4.86	\$ 8.50	\$ 38,250.00
	3.7		1116	CHAIN LINK FENCES AND GATES							
22	3.7.1		1116.01	Chain Link Fence and Gates	m	720	2.95	\$ 278.67	\$ 41.33	\$ 320.00	\$ 230,400.00
	3.8		1150	TEMPORARY UPSTREAM BRIDGE OVER SPILLWAY APPROACH CHANNEL							
23	3.8.1		1150.01	Engineering of Temporary Upstream Bridge	LS	1	-	\$ -	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00
24	3.8.2		1150.02	Supply of Temporary Upstream Bridge	LS	1	-	\$ -	\$ 7,500,000.00	\$ 7,500,000.00	\$ 7,500,000.00
25	3.8.3		1150.03	Installation, removal and handover of Temporary Upstream Bridge	LS	1	16,250	\$ 1,527,505.01	\$ 1,197,494.99	\$ 2,725,000.00	\$ 2,725,000.00
SUB-TOTAL GENERAL											\$ 16,154,470.00

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No	REFERENCE Exhibit 2 - ATT 1	CODE	SUBCODE								
	4	2300		DAMS AND COFFERDAMS - GENERAL							
	4.1	2340	2341	UPSTREAM COFFERDAM							
				CIVIL WORK							
				Excavation							
26	4.1.1		2341.01	Overburden excavation	m ³	2,500	0.03	\$ 2.57	\$ 2.03	\$ 4.60	\$ 11,500.00
				Foundation Preparation in dry condition							
27	4.1.2		2341.02	Foundation Cleaning (water/air jets and Vacuum trucks)	m ²	1,200	0.28	\$ 25.84	\$ 12.16	\$ 38.00	\$ 45,600.00
28	4.1.3		2341.03	Rock Excavation including dental excavation and Scaling	m ³	500	0.52	\$ 47.45	\$ 77.55	\$ 125.00	\$ 62,500.00
29	4.1.4		2341.04	Dental Concrete	m ³	800	2.29	\$ 179.88	\$ 390.12	\$ 570.00	\$ 456,000.00
30	4.1.5		2341.05	Slush Grout	m ²	1,200	0.42	\$ 38.14	\$ 9.86	\$ 48.00	\$ 57,600.00
31	4.1.6		2341.06	Dry Pack	m ³	6	39.25	\$ 3,598.54	\$ 801.46	\$ 4,400.00	\$ 26,400.00
				Embankment Materials							
32	4.1.7		2341.07	Compacted Till - Zones 1 and 1C Materials	m ³	19,000	0.16	\$ 14.90	\$ 26.21	\$ 41.11	\$ 781,090.00
33	4.1.8		2341.08	Dumped Till - Zone 1A Material	m ³	134,000	0.10	\$ 8.65	\$ 20.35	\$ 29.00	\$ 3,886,000.00
34	4.1.9		2341.09	Compacted Granular - Zone 2A Material	m ³	20,700	0.17	\$ 15.40	\$ 42.60	\$ 58.00	\$ 1,200,600.00
35	4.1.10		2341.10	Compacted Granular - Zone 2C Material	m ³	8,700	0.18	\$ 15.11	\$ 42.89	\$ 58.00	\$ 504,600.00
36	4.1.11		2341.11	Dumped Granular - Zone 2E Material	m ³	26,300	0.13	\$ 11.53	\$ 37.47	\$ 49.00	\$ 1,288,700.00
37	4.1.12		2341.12	Dumped Rockfill- Zone 3 Material	m ³	143,000	0.02	\$ 1.98	\$ 9.02	\$ 11.00	\$ 1,573,000.00
38	4.1.13		2341.13	Dumped Large Blocks (300-1000 mm) - Zone 3 Class 1	m ³	37,000	0.02	\$ 1.98	\$ 9.02	\$ 11.00	\$ 407,000.00
39	4.1.14		2341.14	Dumped Large Blocks (≥1000 mm) - Zone 3 Class 2	m ³	65,000	0.05	\$ 4.89	\$ 22.11	\$ 27.00	\$ 1,755,000.00
40	4.1.15		2341.15	Dumped Large Blocks (≥1300 mm) - Zone 3 Class 3	m ³	15,000	0.05	\$ 4.48	\$ 22.52	\$ 27.00	\$ 405,000.00
41	4.1.16		2341.16	Compacted Crushed Stone - Zone 3A Material	m ³	10,950	0.18	\$ 15.22	\$ 42.78	\$ 58.00	\$ 635,100.00
42	4.1.17		2341.17	Compacted Rockfill - Zone 3C Material	m ³	33,740	0.11	\$ 6.23	\$ 21.77	\$ 28.00	\$ 944,720.00
43	4.1.18		2341.18	Compacted Rockfill - Zone 3D Material	m ³	33,900	0.05	\$ 4.18	\$ 11.82	\$ 16.00	\$ 542,400.00
44	4.1.19		2341.19	Dumped Crushed Stone- Zone 3F Material	m ³	21,000	0.13	\$ 11.53	\$ 37.47	\$ 49.00	\$ 1,029,000.00
				SUB-TOTAL UPSTREAM COFFERDAM							\$ 15,611,810.00
	4.2	2340	2342	DOWNSTREAM COFFERDAM							
				CIVIL WORK							
				Excavation							
48	4.2.1		2342.01	Overburden excavation	m ³	500	0.08	\$ 7.26	\$ 13.74	\$ 21.00	\$ 10,500.00
				Foundation Preparation							
49	4.2.2		2342.02	Foundation cleaning (water/ait jets and Vacuum trucks)	m ²	1,250	0.28	\$ 25.84	\$ 12.16	\$ 38.00	\$ 47,500.00
50	4.2.3		2342.03	Rock excavation including dental excavation and scaling	m ³	500	0.52	\$ 47.45	\$ 77.55	\$ 125.00	\$ 62,500.00
51	4.2.4		2342.04	Dental Concrete	m ³	200	2.29	\$ 209.56	\$ 390.44	\$ 600.00	\$ 120,000.00
52	4.2.5		2342.05	Slush Grout	m ²	1,250	0.42	\$ 38.14	\$ 9.86	\$ 48.00	\$ 60,000.00

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SCHEDULE OF PRICE BREAKDOWN

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No	REFERENCE Exhibit 2 - ATT 1	CODE	SUBCODE								
77	4.4.10		2330.10	Percussion Drilling Check holes	m	60	-	\$ -	\$ 175.00	\$ 175.00	\$ 10,500.00
78	4.4.11		2330.11	Grouting - Successful connections	unit	250	-	\$ -	\$ 156.00	\$ 156.00	\$ 39,000.00
79	4.4.12		2330.12	Water pressure test (Lugeon - 5 Stages)	hour	8	-	\$ -	\$ 855.00	\$ 855.00	\$ 6,840.00
80	4.4.13		2330.13	Water test - Successful connections	unit	18	-	\$ -	\$ 380.00	\$ 380.00	\$ 6,840.00
81	4.4.14		2330.14	Uplift gauges	m	20	-	\$ -	\$ 788.00	\$ 788.00	\$ 15,760.00
82	4.4.15		2330.15	Thermistors (measure rock temperature in grout holes)	unit	1	-	\$ -	\$ 13,000.00	\$ 13,000.00	\$ 13,000.00
				Embankment Materials							
83	4.4.16		2330.16	Compacted Till - Zones 1 and 1C	m ³	26,000	0.15	\$ 13.91	\$ 21.09	\$ 35.00	\$ 910,000.00
84	4.4.17		2330.17	Compacted Granular - Zone 2A	m ³	28,000	0.19	\$ 16.92	\$ 45.08	\$ 62.00	\$ 1,736,000.00
85	4.4.18		2330.18	Compacted Crushed Stone - Zone 3A	m ³	12,000	0.19	\$ 16.92	\$ 45.08	\$ 62.00	\$ 744,000.00
86	4.4.19		2330.19	Compacted Crushed Stone - Zone 3B	m ³	16,000	0.19	\$ 16.92	\$ 45.08	\$ 62.00	\$ 992,000.00
87	4.4.20		2330.20	Compacted Rockfill - Zone 3C	m ³	21,000	0.10	\$ 5.58	\$ 20.42	\$ 26.00	\$ 546,000.00
88	4.4.21		2330.21	Compacted Rockfill - Zone 3D	m ³	46,000	0.04	\$ 3.55	\$ 14.45	\$ 18.00	\$ 828,000.00
89	4.4.22		2330.22	Riprap - Zone 4	m ³	6,000	0.11	\$ 10.39	\$ 65.61	\$ 76.00	\$ 456,000.00
90	4.4.23		2330.23	Compacted Crushed Stone - Zone 5	m ³	310	0.24	\$ 22.04	\$ 69.96	\$ 92.00	\$ 28,520.00
91	4.4.24		2330.24	Jersey Barrier	m	600	0.08	\$ 7.60	\$ 7.40	\$ 15.00	\$ 9,000.00
				Geotechnical Instrumentation							
92	4.4.25		2330.25	V-Notch Weirs, excluding Shelters	unit	2	134	\$ 12,297.14	\$ 23,702.86	\$ 36,000.00	\$ 72,000.00
93	4.4.26		2330.26	Shelters for V-Notch Weirs	unit	2	20	\$ 1,905.85	\$ 15,094.15	\$ 17,000.00	\$ 34,000.00
94	4.4.27		2330.27	Survey Monuments at South Dam Crest	unit	3	-	\$ -	\$ 2,000.00	\$ 2,000.00	\$ 6,000.00
				SUB-TOTAL SOUTH DAM							\$ 9,144,260.00

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No	REFERENCE Exhibit 2 - ATT 1	CODE	SUBCODE								
	4.5		2320	NORTH DAM							
				CIVIL WORK							
				Clearing							
95	4.5.1		2320.01	Clearing of the North Abutment	Ha	3	267	\$ 24,466.26	\$ 50,533.74	\$ 75,000.00	\$ 225,000.00
				Excavation							
96	4.5.2		2320.02	Overburden Excavation	m ³	72,000	0.03	\$ 3.02	\$ 6.98	\$ 10.00	\$ 720,000.00
				Foundation Preparation							
97	4.5.3		2320.03	Foundation Cleaning (water/air jets and vacuum)	m ²	13,500	0.35	\$ 32.29	\$ 17.71	\$ 50.00	\$ 675,000.00
98	4.5.4		2320.04	Rock Excavation including Dental Excavation and Scaling	m ³	6,000	0.52	\$ 47.45	\$ 71.55	\$ 119.00	\$ 714,000.00
99	4.5.5		2320.05	Dental Concrete	m ³	500	2.29	\$ 179.77	\$ 390.23	\$ 570.00	\$ 285,000.00
99A				Leveling CVC	m ³	3,500	0.99	\$ 81.12	\$ 384.88	\$ 466.00	\$ 1,631,000.00
100	4.5.6		2320.06	Slush Grout	m ²	13,500	0.42	\$ 38.14	\$ 9.86	\$ 48.00	\$ 648,000.00
101	4.5.7		2320.07	Dry Pack	m ³	70	39.24	\$ 3,597.66	\$ 802.34	\$ 4,400.00	\$ 308,000.00
102	4.5.8		2320.08	Drilling Holes in RCC and Bedrock for Grouting	m	4,200	0.31	\$ 28.69	\$ 272.31	\$ 301.00	\$ 1,264,200.00
103	4.5.9		2320.09	Grouting - Successful Connections	unit	720	-	\$ -	\$ 126.00	\$ 126.00	\$ 90,720.00
104	4.5.10		2320.10	Dry Cement incorporated in the grout	kg	126,000	-	\$ -	\$ 5.00	\$ 5.00	\$ 630,000.00
105	4.5.11		2320.11	Cored Drill Check Holes	m	60	-	\$ -	\$ 450.00	\$ 450.00	\$ 27,000.00
106	4.5.12		2320.12	Percussion Drilling Check Holes	m	120	-	\$ -	\$ 336.00	\$ 336.00	\$ 40,320.00
107	4.5.13		2320.13	Water pressure test (lugeon - 5 Stages)	hour	15	-	\$ -	\$ 778.00	\$ 778.00	\$ 11,670.00
108	4.5.14		2320.14	Water Pressure Test - Successful connections	unit	36	-	\$ -	\$ 325.00	\$ 325.00	\$ 11,700.00
109	4.5.15		2320.15	Uplift gauges	m	60	-	\$ -	\$ 665.00	\$ 665.00	\$ 39,900.00
110	4.5.16		2320.16	Thermistor (measure temperature in grout holes)	unit	1	-	\$ -	\$ 11,800.00	\$ 11,800.00	\$ 11,800.00
				Drainage Holes							
111	4.5.17		2320.17	Drilling Holes for Drainage in Foundation from Drainage Gallery, Φ76 mm	m	3,200	-	\$ -	\$ 267.00	\$ 267.00	\$ 854,400.00
112	4.5.18		2320.18	PVC Caps for Drainage Holes	unit	125	-	\$ -	\$ 28.00	\$ 28.00	\$ 3,500.00
113	4.5.19		2320.19	Drilling Holes Upward for Drainage from Drainage Gallery into RCC, Φ76 mm	m	3,200	-	\$ -	\$ 375.00	\$ 375.00	\$ 1,200,000.00
				Instrumentation							
114	4.5.20		2320.20	Drilling Holes for piezometers	m	100	-	\$ -	\$ 296.00	\$ 296.00	\$ 29,600.00
115	4.5.21		2320.21	Vibrating Wire and Standpipe Piezometers TYPE - 1, excluding Cables	unit	8	-	\$ -	\$ 13,600.00	\$ 13,600.00	\$ 108,800.00
116	4.5.22		2320.22	Vibrating Wire and Standpipe Piezometers TYPE - 2, excluding Cables	unit	2	-	\$ -	\$ 3,000.00	\$ 3,000.00	\$ 6,000.00
117	4.5.23		2320.23	Instrument Cable including PVC Conduits and Pull Boxes	m	2,700	-	\$ -	\$ 28.00	\$ 28.00	\$ 75,600.00
118	4.5.24		2320.24	Thermistors Cable in RCC	unit	8	-	\$ -	\$ 5,000.00	\$ 5,000.00	\$ 40,000.00
119	4.5.25		2320.25	V-notch Weirs	unit	4	-	\$ -	\$ 14,243.00	\$ 14,243.00	\$ 56,972.00
120	4.5.26		2320.26	Vibrating Wire Weir Monitors.	unit	4	-	\$ -	\$ 16,000.00	\$ 16,000.00	\$ 64,000.00
121	4.5.27		2320.27	Data logger, Terminal Box, Barometer Box including Grounding	LS	1	-	\$ -	\$ 150,000.00	\$ 150,000.00	\$ 150,000.00
122	4.5.28		2320.28	Crest Survey Monuments	unit	4	-	\$ -	\$ 2,000.00	\$ 2,000.00	\$ 8,000.00
				Concrete and RCC operations							
123	4.5.29		2320.29	Roller Compacted Concrete (RCC)	m ³	192,869	0.90	\$ 75.56	\$ 190.44	\$ 266.00	\$ 51,303,154.00
123A				Trial Demonstration Sections	m ³	4,612	0.36	\$ 32.99	\$ 257.01	\$ 290.00	\$ 1,337,480.00
124	4.5.30		2320.30	Conventional Vibrated Concrete (CVC) (Crest and Flip Bucket)	m ³	11,100	2.46	\$ 213.28	\$ 370.72	\$ 584.00	\$ 6,482,400.00

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No	REFERENCE Exhibit 2 - ATT 1	CODE	SUBCODE								
	7	1100		Optional Pricing for Temporary Access Road and Quarry							
	7.1		1113	ACCESS ROAD TO LAYDOWN AREA C1, If required							
152	7.1.1		1113.01	Other Material or Rockfill	m ³	28,000	0.04	\$ 3.80	\$ 8.70	\$ 12.50	\$ 350,000.00
153	7.1.2		1113.02	Maintenance Grade No 3	m ³	4,000	0.08	\$ 7.19	\$ 67.81	\$ 75.00	\$ 300,000.00
	7.2		1118	Quarry Q5							
154	7.2.1		1118.01	Production of blasted rockfill from the quarry Q5	m ³	50,000	0.04	\$ 3.28	\$ 11.72	\$ 15.00	\$ 750,000.00
	8	2300		Optional Pricing for Temporary Access Road and Quarry							
	8.1	2340	2341	UPSTREAM COFFERDAM - Cut Off Wall							
				Jet Grouting cut off wall, If required							
155	8.1.1		2341.23	Mobilization and demobilization	LS	1	-	\$ -	\$ -	\$ 1,100,000.00	\$ 1,100,000.00
156	8.1.2		2341.24	Drilling Holes for Jet Grouting in embankment, river sediments and bedrock	m	9,600	-	\$ -	\$ -	\$ 160.00	\$ 1,536,000.00
157	8.1.3		2341.25	Jet Grouted Cut-off wall	m ²	2,800	0.47	\$ 43.04	\$ -	\$ 1,053.00	\$ 2,948,400.00
				Bedrock Grouting beneath the Jet Grouted Cut-off Wall, if required							
158	8.1.4		2341.26	Drilling Holes for Grouting in embankment , jet grouting cut-off wall and bedrock, if required	m	1,300	-	\$ -	\$ -	\$ 23.00	\$ 29,900.00
159	8.1.5		2341.27	Dry cement incorporated in the grout, if required	kg	11,000	-	\$ -	\$ -	\$ 1.00	\$ 11,000.00
160	8.1.6		2341.28	Grouting - Successful connections, if required	unit	60	-	\$ -	\$ 845.00	\$ 845.00	\$ 50,700.00
				Investigation for Jet Grouted Cut-off Wall and Bedrock Grouting							
45	4.1.20		2341.20	Percussion Drill Holes in embankments, river sediments and bedrock	m	1,000	-	\$ -	\$ 126.00	\$ 126.00	\$ 126,000.00
46	4.1.21		2341.21	Verification Core Drilling in jet grouting cut-off wall and bedrock	m	200	-	\$ -	\$ 469.00	\$ 469.00	\$ 93,800.00
47	4.1.22		2341.22	Core Diamond Drill Rig in Standby	hour	140	-	\$ -	\$ 132.00	\$ 132.00	\$ 18,480.00

NOTES

Note 1: If there has been an error in the calculation to establish the total of Column G (Total Price) or Column F (UNIT PRICE), then the figures of column A (Estimated Quantity of Units), column B (Man Hours), column C (Manpower), column D (Equipment) and column E (Profits) will prevail.

Note 2: This Document is provided to the bidders in Native Excel File format. It is the bidders responsibility to verify cell formats and formulas.

Note 3: Bidders shall not include any HST/GST from any source (whether from Bidder, subcontractor, vendors or suppliers) in the unit and lump sum prices in this Schedule of Price Breakdown. Bidders shall claim input tax credits on taxable supplies received from vendors, suppliers and subcontractors and thereof Bidders shall exclude HST/GST payable to the vendors, suppliers and subcontractors from the unit and lump sum prices in the Schedule. Bidders shall exclude HST/GST on the total listed in Row A.

Note 4: Items 152 to 160 are optional and will not be included in the total Bid price. However, Bidders shall provide price for each item as if they are included in the Scope. The work will be included in the contract, if required.

FOR THE LOWER CHURCHILL PROJECT - MUSKRAT FALLS

This Appendix forms part of the Proposal submitted by:

Name of Bidder: Barnard-Pennecon JV

Request For Proposal, Package No: CH0009 - Schedule Delay Option 1 (Spillway Ready for Diversion July 15, 2016)

CIMFP Exhibit P-02848
SCHEDULE OF PRICE BREAKDOWN

LOWER CHURCHILL PROJECT
MUSKRAT FALLS
CH0009 - CONSTRUCTION OF NORTH AND
SOUTH DAMS

ISSUED FOR: BID

DATE: 29 - Jul - 2015

PRICE ITEM		WBS CODE		PRICE ITEM DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY A	MAN HOURS (AT SITE) PER UNIT	MANPOWER COST/UNIT (\$ CAN) B	STAFF, MATERIAL, EQUIPMENT & SUBCONTRACT COST/UNIT (\$ CAN)	UNIT PRICE (\$ CAN) F= (B+C+D+E)	TOTAL PRICE (\$ CAN) G= A x F
No	REFERENCE Exhibit 2 - ATT 1	CODE	SUBCODE								

Signature:

Date of Proposal: 29-JUL-2015

Equipment	Manufacturer & Model Number	Size	First Shift				Second Shift			
			Hour \$CAD	Day \$CAD	Week \$CAD	Month \$CAD	Hour \$CAD	Day \$CAD	Week \$CAD	Month \$CAD
Articulated Truck	Cat 740	40T	\$230	\$2,300	\$11,500	\$40,480	\$196	\$1,955	\$9,775	\$34,408
Boom Truck	International	30 Ton	\$190	\$1,900	\$9,500	\$33,440	\$162	\$1,615	\$8,075	\$28,424
Compressor	TBD	185 CFM	\$45	\$450	\$2,250	\$7,920	\$38	\$383	\$1,913	\$6,732
Concrete Mixer Truck	TBD		\$140	\$1,400	\$7,000	\$24,640	\$119	\$1,190	\$5,950	\$20,944
Crane	TBD	250 Ton	\$425	\$4,250	\$21,250	\$74,800	\$361	\$3,613	\$18,063	\$63,580
Crane	TBD	275 Ton	\$445	\$4,450	\$22,250	\$78,320	\$378	\$3,783	\$18,913	\$66,572
Crane	TBD	60 Ton	\$220	\$2,200	\$11,000	\$38,720	\$187	\$1,870	\$9,350	\$32,912
Crane	TBD	90 Ton	\$300	\$3,000	\$15,000	\$52,800	\$255	\$2,550	\$12,750	\$44,880
Aggregate Processing Plant	TBD		\$3,600	\$36,000	\$180,000	\$633,600	\$3,060	\$30,600	\$153,000	\$538,560
Dozer	Cat D5		\$185	\$1,850	\$9,250	\$32,560	\$157	\$1,573	\$7,863	\$27,676
Dozer	Cat D6	20T	\$214	\$2,140	\$10,700	\$37,664	\$182	\$1,819	\$9,095	\$32,014
Dozer	Cat D8/Kom 155	40T	\$350	\$3,500	\$17,500	\$61,600	\$298	\$2,975	\$14,875	\$52,360
Dozer	Cat D9		\$450	\$4,500	\$22,500	\$79,200	\$383	\$3,825	\$19,125	\$67,320
Excavator	Takeuchi	3T	\$72	\$720	\$3,600	\$12,672	\$61	\$612	\$3,060	\$10,771
Excavator	Cat 308	8T	\$100	\$1,000	\$5,000	\$17,600	\$85	\$850	\$4,250	\$14,960
Excavator	Cat 315		\$160	\$1,600	\$8,000	\$28,160	\$136	\$1,360	\$6,800	\$23,936
Excavator	Cat 320	20T	\$180	\$1,800	\$9,000	\$31,680	\$153	\$1,530	\$7,650	\$26,928
Excavator	Cat 330/336		\$230	\$2,300	\$11,500	\$40,480	\$196	\$1,955	\$9,775	\$34,408
Excavator	John Deere	30T	\$230	\$2,300	\$11,500	\$40,480	\$196	\$1,955	\$9,775	\$34,408
Excavator	Cat 345	45T	\$350	\$3,500	\$17,500	\$61,600	\$298	\$2,975	\$14,875	\$52,360
Excavator	Cat 365/374		\$380	\$3,800	\$19,000	\$66,880	\$323	\$3,230	\$16,150	\$56,848
Excavator	Cat 385/390		\$500	\$5,000	\$25,000	\$88,000	\$425	\$4,250	\$21,250	\$74,800
Excavator	Cat 430		\$100	\$1,000	\$5,000	\$17,600	\$85	\$850	\$4,250	\$14,960
Excavator	Komatsu PC600	65T	\$380	\$3,800	\$19,000	\$66,880	\$323	\$3,230	\$16,150	\$56,848
Excavator	Komatsu PC1250		\$600	\$6,000	\$30,000	\$105,600	\$510	\$5,100	\$25,500	\$89,760
Forklift Variable Reach	TBD	varies	\$125	\$1,250	\$6,250	\$22,000	\$106	\$1,063	\$5,313	\$18,700
Front End Loader 216Hp	Cat 950	2.68	\$165	\$1,650	\$8,250	\$29,040	\$140	\$1,403	\$7,013	\$24,684
Front End Loader 283Hp	Cat 966	3.6	\$200	\$2,000	\$10,000	\$35,200	\$170	\$1,700	\$8,500	\$29,920
Front End Loader 392Hp	Cat 980	4.2	\$350	\$3,500	\$17,500	\$61,600	\$298	\$2,975	\$14,875	\$52,360
Front End Loader 555Hp	Cat 988	6	\$390	\$3,900	\$19,500	\$68,640	\$332	\$3,315	\$16,575	\$58,344
Generator	TBD	10 KW	\$20	\$200	\$1,000	\$3,520	\$17	\$170	\$850	\$2,992
Generator	TBD	15 KW	\$29	\$290	\$1,450	\$5,104	\$25	\$247	\$1,233	\$4,338
Generator	TBD	25 KW	\$33	\$330	\$1,650	\$5,808	\$28	\$281	\$1,403	\$4,937
Generator	TBD	45 KW	\$45	\$450	\$2,250	\$7,920	\$38	\$383	\$1,913	\$6,732
Generator	TBD	185 KW	\$150	\$1,500	\$7,500	\$26,400	\$128	\$1,275	\$6,375	\$22,440
Heater	TBD	350,000 BTU	\$32	\$320	\$1,600	\$5,632	\$27	\$272	\$1,360	\$4,787
Heater	TBD	400,000 BTU	\$32	\$320	\$1,600	\$5,632	\$27	\$272	\$1,360	\$4,787
Heater	TBD	500,000 BTU	\$33	\$330	\$1,650	\$5,808	\$28	\$281	\$1,403	\$4,937
Haul Truck	Cat 773	60 Ton	\$310	\$3,100	\$15,500	\$54,560	\$264	\$2,635	\$13,175	\$46,376
Haul Truck	Cat 775	70 Ton	\$350	\$3,500	\$17,500	\$61,600	\$298	\$2,975	\$14,875	\$52,360
Hydraulic Breaker for 330 Exc.	Cat	H-140	\$155	\$1,550	\$7,750	\$27,280	\$132	\$1,318	\$6,588	\$23,188
Hydraulic Breaker for 345 Exc.	Cat		\$200	\$2,000	\$10,000	\$35,200	\$170	\$1,700	\$8,500	\$29,920
JLG (Boom Lift)	TBD	60 ft.	\$60	\$600	\$3,000	\$10,560	\$51	\$510	\$2,550	\$8,976
JLG (Boom Lift)	TBD	80 ft.	\$128	\$1,280	\$6,400	\$22,528	\$109	\$1,088	\$5,440	\$19,149
Light Towers	TBD	4000W	\$34	\$340	\$1,700	\$5,984	\$29	\$289	\$1,445	\$5,086
Motor Grader	Cat 14H	14H	\$120	\$1,200	\$6,000	\$21,120	\$102	\$1,020	\$5,100	\$17,952
Oil/Fuel Truck	TBD		\$220	\$2,200	\$11,000	\$38,720	\$187	\$1,870	\$9,350	\$32,912
Pickup	Ford F-150	3/4 T	\$25	\$250	\$1,250	\$4,400	\$21	\$213	\$1,063	\$3,740

Equipment	Manufacturer & Model Number	Size	Hour \$CAD	Day \$CAD	Week \$CAD	Month \$CAD	Hour \$CAD	Day \$CAD	Week \$CAD	Month \$CAD
Pressure Washer	TBD	10,000 PSI	\$75	\$750	\$3,750	\$13,200	\$64	\$638	\$3,188	\$11,220
Pump	TBD	4"	\$20	\$200	\$1,000	\$3,520	\$17	\$170	\$850	\$2,992
Pump	TBD	6"	\$28	\$280	\$1,400	\$4,928	\$24	\$238	\$1,190	\$4,189
RCC Batch Plant Only	TBD		\$2,000	\$20,000	\$100,000	\$352,000	\$1,700	\$17,000	\$85,000	\$299,200
Rock Drill	TBD		\$220	\$2,200	\$11,000	\$38,720	\$187	\$1,870	\$9,350	\$32,912
Shuttle Bus (20 Passenger)	TBD	TBD	\$50	\$500	\$2,500	\$8,800	\$43	\$425	\$2,125	\$7,480
Skid Steer Loader	Cat	279	\$45	\$450	\$2,250	\$7,920	\$38	\$383	\$1,913	\$6,732
Tandem	Various	15T	\$150	\$1,500	\$7,500	\$26,400	\$128	\$1,275	\$6,375	\$22,440
Tandem Tandem	Various	20T	\$175	\$1,750	\$8,750	\$30,800	\$149	\$1,488	\$7,438	\$26,180
Telebelt	Putzmeister		\$250	\$2,500	\$12,500	\$44,000	\$213	\$2,125	\$10,625	\$37,400
Tractor	John Deere	9520	\$150	\$1,500	\$7,500	\$26,400	\$128	\$1,275	\$6,375	\$22,440
Tractor/Trailer	TBD	TBD	\$175	\$1,750	\$8,750	\$30,800	\$149	\$1,488	\$7,438	\$26,180
Van (12 Passenger)	TBD	TBD	\$28	\$280	\$1,400	\$4,928	\$24	\$238	\$1,190	\$4,189
Vacuum Truck	TBD		\$160	\$1,600	\$8,000	\$28,160	\$136	\$1,360	\$6,800	\$23,936
Vibratory Roller	Cat CS56	12T	\$92	\$920	\$4,600	\$16,192	\$78	\$782	\$3,910	\$13,763
Vibratory Roller	Cat CS583		\$140	\$1,400	\$7,000	\$24,640	\$119	\$1,190	\$5,950	\$20,944
Water Truck	International	TBD	\$80	\$800	\$4,000	\$14,080	\$68	\$680	\$3,400	\$11,968

Notes:

1. The rates include:
 - Cost of equipment rental
 - fuel and lubricants
 - labour & equipment for fueling
 - spare parts and installation
 - transportation and handling of equipment
 - general overhead, mark-up and profit
 - insurance
2. The rates exclude operator's labour costs
3. Daily Rates are based on 10 hours
4. Weekly Rates are based on 50 hours
5. Standby rates to be negotiated upon award

Trade Type	Trade Classification	Number of LOA Person-Days	Travel KMs	Regular Time Person-Hours	Overtime (1.5x) Person- Hours	Overtime (2.0x) Person- Hours	Second Shift Person-Hours	Third Shift Person-Hours	Travel Time Hours	Total Person-Hours
Elevator Constructors	Mechanic									
	Mechanic in-charge (4 or more)									
	Mechanic in-charge (30 or more)									
	Probationary Helper I									
	Probationary Helper II									
	Helper I									
	Helper II									
	Improver Helper									

*LOA = Living Out Allowance.

MONTHLY PAYMENT FORECAST SCHEDULE
 Schedule Delay Option 1 (Spillway Ready for Diversion July 15, 2016)

Month	Estimated Monthly Payment	Percentage of Work	Description of Work associated with Payment
1	\$ 5,000,000.00	1.75%	EQ Procurement / Submittals / Mobilization
2	\$ 5,000,000.00	1.75%	Mobilization / Submittals / Setup Crusher / Procurement
3	\$ 8,700,000.00	3.05%	Setup Crusher / Screen Aggregates
4	\$ 6,656,520.00	2.34%	Screen Crush AG / Starter Groin / Intake Cofferdam / RCC Stage 2 Trials
5	\$ 2,500,000.00	0.88%	F/P/S Bridge Abutments / RCC Stage 2 Trials
6	\$ 2,000,000.00	0.70%	Winter Shutdown / RCC Stage 2 Trials
7	\$ 2,000,000.00	0.70%	Winter Shutdown
8	\$ 2,000,000.00	0.70%	Winter Shutdown
9	\$ 4,000,000.00	1.40%	Winter Shutdown / RCC Batch Plant Delivery
10	\$ 4,600,000.00	1.61%	Excavate South Dam Footprint
11	\$ 9,000,000.00	3.16%	Crush AG/ Install Temp Bridge / Setup Batch Plant
12	\$ 10,000,000.00	3.51%	Crush AG/ Install Temp Bridge / Setup Batch Plant / South Dam / Rock Plug Ex
13	\$ 10,500,000.00	3.68%	Crush AG/ Setup Batch Plant / Rock Plug Ex / Remove Cofferdams
14	\$ 11,000,000.00	3.86%	Crush AG/ Remove Cofferdams / Upstream CD / Setup Batch Plant
15	\$ 11,900,000.00	4.18%	Crush AG/ Upstream CD / Setup Batch Plant / Clear and Grub N. Abutment
16	\$ 13,187,231.00	4.63%	Crush AG/ Upstream CD / Downstream CD / South Dam / Foundation Cleaning
17	\$ 4,500,000.00	1.58%	Foundation Cleaning
18	\$ 2,000,000.00	0.70%	Winter Shutdown
19	\$ 2,000,000.00	0.70%	Winter Shutdown
20	\$ 2,000,000.00	0.70%	Winter Shutdown
21	\$ 2,000,000.00	0.70%	Winter Shutdown
22	\$ 4,000,000.00	1.40%	Spring Mob
23	\$ 11,500,000.00	4.04%	South Dam / RCC Proof Demonstration / Foundation Cleaning / Leveling Concrete
24	\$ 11,627,998.00	4.08%	South Dam / Leveling Concrete / RCC
25	\$ 11,500,000.00	4.04%	RCC
26	\$ 12,500,000.00	4.39%	RCC / Flip Bucket / Grout Curtain
27	\$ 15,600,000.00	5.47%	RCC / Flip Bucket / Grout Curtain
28	\$ 14,000,000.00	4.91%	RCC / Flip Bucket / Grout Curtain
29	\$ 7,000,000.00	2.46%	Winter Shutdown
30	\$ 2,000,000.00	0.70%	Winter Shutdown
31	\$ 2,000,000.00	0.70%	Winter Shutdown
32	\$ 2,000,000.00	0.70%	Winter Shutdown
33	\$ 2,000,000.00	0.70%	Winter Shutdown
34	\$ 2,000,000.00	0.70%	Winter Shutdown
35	\$ 15,100,000.00	5.30%	RCC / Flip Bucket / Grout Curtain / Drain Holes
36	\$ 14,000,000.00	4.91%	RCC / Drain Holes / Ogee Crest
37	\$ 13,000,000.00	4.56%	Drain Holes / Ogee Crest / Gallery Floor / Rock Plug
38	\$ 13,068,266.00	4.59%	Ogee Crest / Rock Plug / Remove Temp Bridge & Intake CD
39	\$ 5,557,765.00	1.95%	Remove Temp Bridge & Intake CD / Demob
40	\$ 5,982,045.00	2.10%	Demob
	\$ 284,979,825.00		

****This table is approximate and will be finalized upon award and a resource loaded schedule is developed.



Effective from 01 May 2017 to 30 April 2018

Trade of Classification	Base Rate	Vacation & Holiday Pay	LCP Premium	Union Burdens	Government Burdens	Small Tools	Consumables & PPE	Overhead & Profit (12.9%)	Straight Time Rate	Overtime Rate	Double Time Rate	Shift Premium (incl Gov't Burdens + Markup)
<i>Operating Engineers (Group 1)</i>												
General Foreman	\$ 48.10	\$ 6.25	\$ 3.50	\$ 11.75	\$ 6.68	\$ 2.50	\$ 2.25	\$ 10.45	\$ 91.48	\$ 134.54	\$ 177.60	\$ 4.24
Operator Foreman (Group 1)	\$ 46.09	\$ 5.99	\$ 3.50	\$ 11.75	\$ 6.42	\$ 2.50	\$ 2.25	\$ 10.13	\$ 88.63	\$ 130.26	\$ 171.90	\$ 4.24
Journeyman	\$ 40.08	\$ 5.21	\$ 3.50	\$ 11.75	\$ 5.64	\$ 2.50	\$ 2.25	\$ 9.15	\$ 80.08	\$ 117.43	\$ 154.79	\$ 4.24
<i>OEs (Group 1) Heavy Lift</i>												
General Foreman	\$ 55.30	\$ 7.19	\$ 3.50	\$ 11.75	\$ 7.62	\$ 2.50	\$ 2.25	\$ 11.62	\$ 101.73	\$ 149.91	\$ 198.10	\$ 4.24
Operator Foreman (Group 1)	\$ 52.99	\$ 6.89	\$ 3.50	\$ 11.75	\$ 7.32	\$ 2.50	\$ 2.25	\$ 11.25	\$ 98.45	\$ 144.99	\$ 191.54	\$ 4.24
Journeyman	\$ 46.08	\$ 5.99	\$ 3.50	\$ 11.75	\$ 6.42	\$ 2.50	\$ 2.25	\$ 10.13	\$ 88.61	\$ 130.24	\$ 171.86	\$ 4.24
<i>OEs (Group 1) Mechanics</i>												
General Foreman	\$ 49.90	\$ 6.49	\$ 3.50	\$ 11.75	\$ 6.92	\$ 2.50	\$ 2.25	\$ 10.75	\$ 94.04	\$ 138.39	\$ 182.73	\$ 4.24
Operator Foreman (Group 1)	\$ 47.82	\$ 6.22	\$ 3.50	\$ 11.75	\$ 6.65	\$ 2.50	\$ 2.25	\$ 10.41	\$ 91.09	\$ 133.95	\$ 176.81	\$ 4.24
Journeyman	\$ 41.58	\$ 5.41	\$ 3.50	\$ 11.75	\$ 5.83	\$ 2.50	\$ 2.25	\$ 9.39	\$ 82.21	\$ 120.63	\$ 159.06	\$ 4.24
<i>Operating Engineers (Group 2)</i>												
General Foreman	\$ 46.90	\$ 6.10	\$ 3.50	\$ 11.75	\$ 6.52	\$ 2.50	\$ 2.25	\$ 10.26	\$ 89.78	\$ 131.98	\$ 174.19	\$ 4.24
Operator Foreman (Group 2)	\$ 44.94	\$ 5.84	\$ 3.50	\$ 11.75	\$ 6.27	\$ 2.50	\$ 2.25	\$ 9.94	\$ 86.99	\$ 127.81	\$ 168.63	\$ 4.24
Journeyman	\$ 39.08	\$ 5.08	\$ 3.50	\$ 11.75	\$ 5.50	\$ 2.50	\$ 2.25	\$ 8.99	\$ 78.65	\$ 115.30	\$ 151.94	\$ 4.24
Apprentice - First Year	\$ 23.45	\$ 3.05	\$ 3.50	\$ 11.75	\$ 3.46	\$ 2.50	\$ 2.25	\$ 6.45	\$ 56.41	\$ 81.93	\$ 107.45	\$ 4.24
Apprentice - Second Year	\$ 25.40	\$ 3.30	\$ 3.50	\$ 11.75	\$ 3.72	\$ 2.50	\$ 2.25	\$ 6.76	\$ 59.18	\$ 86.09	\$ 113.00	\$ 4.24
Apprentice - Third Year	\$ 27.36	\$ 3.56	\$ 3.50	\$ 11.75	\$ 3.98	\$ 2.50	\$ 2.25	\$ 7.08	\$ 61.97	\$ 90.28	\$ 118.58	\$ 4.24
Apprentice - Fourth Year	\$ 29.31	\$ 3.81	\$ 3.50	\$ 11.75	\$ 4.23	\$ 2.50	\$ 2.25	\$ 7.40	\$ 64.75	\$ 94.44	\$ 124.13	\$ 4.24
Apprentice - Fifth Year	\$ 31.26	\$ 4.06	\$ 3.50	\$ 11.75	\$ 4.48	\$ 2.50	\$ 2.25	\$ 7.72	\$ 67.52	\$ 98.60	\$ 129.68	\$ 4.24
Apprentice - Sixth Year	\$ 35.17	\$ 4.57	\$ 3.50	\$ 11.75	\$ 4.99	\$ 2.50	\$ 2.25	\$ 8.35	\$ 73.09	\$ 106.95	\$ 140.81	\$ 4.24
<i>Operating Engineers (Group 3)</i>												
General Foreman	\$ 46.42	\$ 6.03	\$ 3.50	\$ 11.75	\$ 6.46	\$ 2.50	\$ 2.25	\$ 10.18	\$ 89.09	\$ 130.96	\$ 172.82	\$ 4.24
Operator Foreman (Group 3)	\$ 44.48	\$ 5.78	\$ 3.50	\$ 11.75	\$ 6.21	\$ 2.50	\$ 2.25	\$ 9.87	\$ 86.34	\$ 126.83	\$ 167.32	\$ 4.24
Journeyman	\$ 38.68	\$ 5.03	\$ 3.50	\$ 11.75	\$ 5.45	\$ 2.50	\$ 2.25	\$ 8.92	\$ 78.08	\$ 114.44	\$ 150.80	\$ 4.24
<i>Operating Engineers (Group 4)</i>												
General Foreman	\$ 45.23	\$ 5.88	\$ 3.50	\$ 11.75	\$ 6.31	\$ 2.50	\$ 2.25	\$ 9.99	\$ 87.40	\$ 128.42	\$ 169.44	\$ 4.24
Operator Foreman (Group 4)	\$ 43.34	\$ 5.63	\$ 3.50	\$ 11.75	\$ 6.06	\$ 2.50	\$ 2.25	\$ 9.68	\$ 84.72	\$ 124.40	\$ 164.08	\$ 4.24
Journeyman	\$ 37.69	\$ 4.90	\$ 3.50	\$ 11.75	\$ 5.32	\$ 2.50	\$ 2.25	\$ 8.76	\$ 76.67	\$ 112.33	\$ 147.98	\$ 4.24
<i>Operating Engineers (Group 5)</i>												
General Foreman	\$ 44.34	\$ 5.76	\$ 3.50	\$ 11.75	\$ 6.19	\$ 2.50	\$ 2.25	\$ 9.84	\$ 86.14	\$ 126.53	\$ 166.91	\$ 4.24
Operator Foreman (Group 5)	\$ 42.49	\$ 5.52	\$ 3.50	\$ 11.75	\$ 5.95	\$ 2.50	\$ 2.25	\$ 9.54	\$ 83.51	\$ 122.58	\$ 161.65	\$ 4.24
Journeyman	\$ 36.95	\$ 4.80	\$ 3.50	\$ 11.75	\$ 5.23	\$ 2.50	\$ 2.25	\$ 8.64	\$ 75.62	\$ 110.75	\$ 145.88	\$ 4.24
<i>Operating Engineers Clerical</i>												
Group 1	\$ 31.72	\$ 4.12	\$ 3.50	\$ 11.75	\$ 4.54	\$ 2.50	\$ 2.25	\$ 7.79	\$ 68.18	\$ 99.59	\$ 130.99	\$ 4.24
Group 2	\$ 33.94	\$ 4.41	\$ 3.50	\$ 11.75	\$ 4.83	\$ 2.50	\$ 2.25	\$ 8.15	\$ 71.34	\$ 104.32	\$ 137.31	\$ 4.24
Group 3	\$ 35.28	\$ 4.59	\$ 3.50	\$ 11.75	\$ 5.01	\$ 2.50	\$ 2.25	\$ 8.37	\$ 73.24	\$ 107.18	\$ 141.13	\$ 4.24
<i>Electricians Local 2330</i>												
Working Foreman	\$ 44.96	\$ 5.84	\$ 3.50	\$ 9.44	\$ 6.27	\$ 2.50	\$ 2.25	\$ 9.64	\$ 84.41	\$ 123.94	\$ 163.46	\$ 4.24
Non-Working Foreman	\$ 47.10	\$ 6.12	\$ 3.50	\$ 9.44	\$ 6.55	\$ 2.50	\$ 2.25	\$ 9.99	\$ 87.46	\$ 128.50	\$ 169.55	\$ 4.24
General Foreman	\$ 49.24	\$ 6.40	\$ 3.50	\$ 9.44	\$ 6.83	\$ 2.50	\$ 2.25	\$ 10.34	\$ 90.50	\$ 133.07	\$ 175.64	\$ 4.24
Journeyman	\$ 42.82	\$ 5.57	\$ 3.50	\$ 9.44	\$ 5.99	\$ 2.50	\$ 2.25	\$ 9.30	\$ 81.37	\$ 119.37	\$ 157.37	\$ 4.24



Effective from 01 May 2017 to 30 April 2018

Trade of Classification	Base Rate	Vacation & Holiday Pay	LCP Premium	Union Burdens	Government Burdens	Small Tools	Consumables & PPE	Overhead & Profit (12.9%)	Straight Time Rate	Overtime Rate	Double Time Rate	Shift Premium (incl Gov't Burdens + Markup)
Apprentice - First Year	\$ 23.55	\$ 3.06	\$ 3.50	\$ 9.44	\$ 3.48	\$ 2.50	\$ 2.25	\$ 6.16	\$ 53.94	\$ 78.23	\$ 102.52	\$ 4.24
Apprentice - Second Year	\$ 27.83	\$ 3.62	\$ 3.50	\$ 9.44	\$ 4.04	\$ 2.50	\$ 2.25	\$ 6.86	\$ 60.03	\$ 87.37	\$ 114.71	\$ 4.24
Apprentice - Third Year	\$ 29.97	\$ 3.90	\$ 3.50	\$ 9.44	\$ 4.32	\$ 2.50	\$ 2.25	\$ 7.21	\$ 63.08	\$ 91.94	\$ 120.80	\$ 4.24
Apprentice - Fourth Year	\$ 34.26	\$ 4.45	\$ 3.50	\$ 9.44	\$ 4.88	\$ 2.50	\$ 2.25	\$ 7.91	\$ 69.18	\$ 101.10	\$ 133.01	\$ 4.24
<i>Ironworkers Local 764 Rebar</i>												
General Foreman	\$ 48.01	\$ 6.48	\$ 3.50	\$ 10.28	\$ 6.70	\$ 2.50	\$ 2.25	\$ 10.28	\$ 90.00	\$ 132.32	\$ 174.64	\$ 4.24
Foreman	\$ 46.01	\$ 6.21	\$ 3.50	\$ 10.28	\$ 6.44	\$ 2.50	\$ 2.25	\$ 9.96	\$ 87.14	\$ 128.04	\$ 168.93	\$ 4.24
Journeyman	\$ 40.01	\$ 5.40	\$ 3.50	\$ 10.28	\$ 5.65	\$ 2.50	\$ 2.25	\$ 8.98	\$ 78.57	\$ 115.17	\$ 151.77	\$ 4.24
Apprentice - First Year	\$ 28.01	\$ 3.78	\$ 3.50	\$ 10.28	\$ 4.08	\$ 2.50	\$ 2.25	\$ 7.02	\$ 61.41	\$ 89.44	\$ 117.47	\$ 4.24
Apprentice - Second Year	\$ 32.01	\$ 4.32	\$ 3.50	\$ 10.28	\$ 4.60	\$ 2.50	\$ 2.25	\$ 7.67	\$ 67.13	\$ 98.02	\$ 128.90	\$ 4.24
Apprentice - Third Year	\$ 36.01	\$ 4.86	\$ 3.50	\$ 10.28	\$ 5.12	\$ 2.50	\$ 2.25	\$ 8.32	\$ 72.85	\$ 106.59	\$ 140.34	\$ 4.24
Apprentice - Fourth Year	\$ 38.01	\$ 5.13	\$ 3.50	\$ 10.28	\$ 5.39	\$ 2.50	\$ 2.25	\$ 8.65	\$ 75.71	\$ 110.88	\$ 146.06	\$ 4.24
<i>Carpenters Local 579</i>												
General Foreman	\$ 47.49	\$ 6.17	\$ 3.50	\$ 9.48	\$ 6.60	\$ 2.50	\$ 2.25	\$ 10.06	\$ 88.06	\$ 129.41	\$ 170.75	\$ 4.24
Non-Working Foreman	\$ 45.51	\$ 5.92	\$ 3.50	\$ 9.48	\$ 6.34	\$ 2.50	\$ 2.25	\$ 9.74	\$ 85.24	\$ 125.18	\$ 165.12	\$ 4.24
Journeyman	\$ 39.57	\$ 5.14	\$ 3.50	\$ 9.48	\$ 5.57	\$ 2.50	\$ 2.25	\$ 8.77	\$ 76.79	\$ 112.50	\$ 148.21	\$ 4.24
Apprentice - First Year	\$ 25.72	\$ 3.34	\$ 3.50	\$ 9.48	\$ 3.76	\$ 2.50	\$ 2.25	\$ 6.52	\$ 57.08	\$ 82.93	\$ 108.79	\$ 4.24
Apprentice - Second Year	\$ 27.70	\$ 3.60	\$ 3.50	\$ 9.48	\$ 4.02	\$ 2.50	\$ 2.25	\$ 6.84	\$ 59.89	\$ 87.16	\$ 114.43	\$ 4.24
Apprentice - Third Year	\$ 31.66	\$ 4.12	\$ 3.50	\$ 9.48	\$ 4.54	\$ 2.50	\$ 2.25	\$ 7.49	\$ 65.53	\$ 95.61	\$ 125.70	\$ 4.24
Apprentice - Fourth Year	\$ 35.61	\$ 4.63	\$ 3.50	\$ 9.48	\$ 5.05	\$ 2.50	\$ 2.25	\$ 8.13	\$ 71.15	\$ 104.05	\$ 136.94	\$ 4.24
<i>Labourers - General</i>												
General Foreman Class 1	\$ 39.96	\$ 5.19	\$ 3.50	\$ 10.84	\$ 5.62	\$ 2.50	\$ 2.25	\$ 9.01	\$ 78.88	\$ 115.63	\$ 152.39	\$ 4.24
Non-Working Foreman - Class 1	\$ 39.21	\$ 5.10	\$ 3.50	\$ 10.84	\$ 5.52	\$ 2.50	\$ 2.25	\$ 8.89	\$ 77.81	\$ 114.03	\$ 150.26	\$ 4.24
Journeyman - Class 1	\$ 37.46	\$ 4.87	\$ 3.50	\$ 10.84	\$ 5.29	\$ 2.50	\$ 2.25	\$ 8.61	\$ 75.32	\$ 110.30	\$ 145.28	\$ 4.24
Cement Finishers - Class 10	\$ 38.51	\$ 5.01	\$ 3.50	\$ 10.84	\$ 5.43	\$ 2.50	\$ 2.25	\$ 8.78	\$ 76.81	\$ 112.54	\$ 148.26	\$ 4.24
Vibrator Operators - Class 5	\$ 37.66	\$ 4.90	\$ 3.50	\$ 10.84	\$ 5.32	\$ 2.50	\$ 2.25	\$ 8.64	\$ 75.60	\$ 110.72	\$ 145.84	\$ 4.24
Pipe Layer - Class 7	\$ 37.89	\$ 4.93	\$ 3.50	\$ 10.84	\$ 5.35	\$ 2.50	\$ 2.25	\$ 8.68	\$ 75.93	\$ 111.22	\$ 146.50	\$ 4.24
Powder man - Class 8	\$ 37.96	\$ 4.93	\$ 3.50	\$ 10.84	\$ 5.36	\$ 2.50	\$ 2.25	\$ 8.69	\$ 76.03	\$ 111.36	\$ 146.70	\$ 4.24
Survey Foreman	\$ 45.26	\$ 5.88	\$ 3.50	\$ 10.84	\$ 6.31	\$ 2.50	\$ 2.25	\$ 9.87	\$ 86.42	\$ 126.95	\$ 167.48	\$ 4.24
Surveyor - Class 11	\$ 43.51	\$ 5.66	\$ 3.50	\$ 10.84	\$ 6.08	\$ 2.50	\$ 2.25	\$ 9.59	\$ 83.93	\$ 123.21	\$ 162.50	\$ 4.24
<i>Teamsters Group 1 & 4</i>												
General Foreman	\$ 42.50	\$ 5.53	\$ 3.50	\$ 7.55	\$ 5.95	\$ 2.50	\$ 2.25	\$ 9.00	\$ 78.78	\$ 115.48	\$ 152.19	\$ 4.24
Non-Working/Working Foreman	\$ 42.00	\$ 5.46	\$ 3.50	\$ 7.55	\$ 5.89	\$ 2.50	\$ 2.25	\$ 8.92	\$ 78.07	\$ 114.42	\$ 150.77	\$ 4.24
Journeyman / Warehousing	\$ 40.50	\$ 5.26	\$ 3.50	\$ 7.55	\$ 5.69	\$ 2.50	\$ 2.25	\$ 8.68	\$ 75.93	\$ 111.22	\$ 146.50	\$ 4.24
<i>Cement Masons - Group 1</i>												
General Foreman	\$ 51.30	\$ 5.13	\$ 3.50	\$ 8.85	\$ 6.92	\$ 2.50	\$ 2.25	\$ 10.38	\$ 90.83	\$ 133.56	\$ 176.30	\$ 4.24
Non-Working Foreman	\$ 49.16	\$ 4.92	\$ 3.50	\$ 8.85	\$ 6.65	\$ 2.50	\$ 2.25	\$ 10.04	\$ 87.87	\$ 129.12	\$ 170.38	\$ 4.24
Journeyman	\$ 42.75	\$ 4.28	\$ 3.50	\$ 8.85	\$ 5.84	\$ 2.50	\$ 2.25	\$ 9.02	\$ 78.99	\$ 115.80	\$ 152.61	\$ 4.24
Apprentice - First Six Months	\$ 23.94	\$ 2.39	\$ 3.50	\$ 8.85	\$ 3.45	\$ 2.50	\$ 2.25	\$ 6.05	\$ 52.93	\$ 76.71	\$ 100.49	\$ 4.24
Apprentice - Second Six Month	\$ 26.51	\$ 2.65	\$ 3.50	\$ 8.85	\$ 3.77	\$ 2.50	\$ 2.25	\$ 6.45	\$ 56.48	\$ 82.04	\$ 107.60	\$ 4.24
Apprentice - Third Six Months	\$ 29.07	\$ 2.91	\$ 3.50	\$ 8.85	\$ 4.10	\$ 2.50	\$ 2.25	\$ 6.86	\$ 60.03	\$ 87.37	\$ 114.71	\$ 4.24
Apprentice - Fourth Six Months	\$ 31.64	\$ 3.16	\$ 3.50	\$ 8.85	\$ 4.42	\$ 2.50	\$ 2.25	\$ 7.27	\$ 63.59	\$ 92.70	\$ 121.81	\$ 4.24
Apprentice - Fifth Six Months	\$ 34.20	\$ 3.42	\$ 3.50	\$ 8.85	\$ 4.75	\$ 2.50	\$ 2.25	\$ 7.67	\$ 67.14	\$ 98.03	\$ 128.92	\$ 4.24



Effective from 01 May 2017 to 30 April 2018

Trade of Classification	Base Rate	Vacation & Holiday Pay	LCP Premium	Union Burdens	Government Burdens	Small Tools	Consumables & PPE	Overhead & Profit (12.9%)	Straight Time Rate	Overtime Rate	Double Time Rate	Shift Premium (incl Gov't Burdens + Markup)
Apprentice - Sixth Six Months	\$ 36.34	\$ 3.63	\$ 3.50	\$ 8.85	\$ 5.02	\$ 2.50	\$ 2.25	\$ 8.01	\$ 70.10	\$ 102.47	\$ 134.84	\$ 4.24
Apprentice - Seventh Six Months	\$ 38.48	\$ 3.85	\$ 3.50	\$ 8.85	\$ 5.29	\$ 2.50	\$ 2.25	\$ 8.35	\$ 73.06	\$ 106.91	\$ 140.76	\$ 4.24
Apprentice - Eight Six Months	\$ 40.61	\$ 4.06	\$ 3.50	\$ 8.85	\$ 5.56	\$ 2.50	\$ 2.25	\$ 8.69	\$ 76.02	\$ 111.36	\$ 146.69	\$ 4.24
<i>Pipefitters Local 740</i>												
General Foreman	\$ 51.77	\$ 5.18	\$ 3.50	\$ 12.08	\$ 6.98	\$ 2.50	\$ 2.25	\$ 10.87	\$ 95.13	\$ 140.01	\$ 184.89	\$ 4.24
Non-Working Foreman	\$ 49.61	\$ 4.96	\$ 3.50	\$ 12.08	\$ 6.71	\$ 2.50	\$ 2.25	\$ 10.53	\$ 92.14	\$ 135.52	\$ 178.91	\$ 4.24
Journeyman	\$ 43.14	\$ 4.31	\$ 3.50	\$ 12.08	\$ 5.89	\$ 2.50	\$ 2.25	\$ 9.50	\$ 83.17	\$ 122.08	\$ 160.98	\$ 4.24
Apprentice - Second Year (65%)	\$ 28.04	\$ 2.80	\$ 3.50	\$ 12.08	\$ 3.97	\$ 2.50	\$ 2.25	\$ 7.11	\$ 62.25	\$ 90.70	\$ 119.15	\$ 4.24
Apprentice - Third Year (75%)	\$ 32.36	\$ 3.24	\$ 3.50	\$ 12.08	\$ 4.52	\$ 2.50	\$ 2.25	\$ 7.80	\$ 68.24	\$ 99.68	\$ 131.11	\$ 4.24
Apprentice - Fourth Year (85%)	\$ 36.67	\$ 3.67	\$ 3.50	\$ 12.08	\$ 5.06	\$ 2.50	\$ 2.25	\$ 8.48	\$ 74.21	\$ 108.63	\$ 143.06	\$ 4.24

1. Room, Board and Travel are not included in the Rates.
2. All Union and Government Burdens are based on hours earned