From: <a href="mailto:edover@lowerchurchillproject.ca">edover@lowerchurchillproject.ca</a>
To: <a href="mailto:Nolan Jenkins">Nolan Jenkins</a>; <a href="mailto:lknox@hjoc.com">lknox@hjoc.com</a>

**Cc:** <u>scottobrien@lowerchurchillproject.ca</u>; <u>kenmcclintock@lowerchurchillproject.ca</u>;

johnmulcahy@lowerchurchillproject.ca

**Subject:** CH0009 Bidder 3 Minutes of Meeting and LCP Deliverables

**Date:** Friday, May 29, 2015 7:26:37 PM

Attachments: \_\_png \_\_png

B-3 APPENDIX A17 Technical Response 150529.docx

CH0009 Exhibit 9 (Milestone) - mods 29May15.docx

#### Gentlemen,

Please find attached two documents; the first is our effort to document the status of each of the technical exceptions and the second is a revised milestone schedule.

We have reviewed the technical exceptions with the engineering team to confirm our position. Please review.

With respect to the revised milestone schedule, there are a number of dates that are still being reviewed. We wanted to get this document to you today (as promised) and I will follow-up Monday to replace the TBDs with dates.

The following summarizes our discussions yesterday:

- 1. LCP Project Team Change We advised that Ken McClintock has assume the role of package lead as Mark Turpin is currently assisting at site.
- 2. Revised Milestone Schedule -We discussed the revised milestone schedule (schedule attached)
- 3. River Diversion Timeline We explained the current need to have flexibility built into the contract to accommodate possible project delays, resulting in a delay to the availability of the spillway. Such as delay in spillway availability would likely impact River Diversion. We request the bidder to provide their suggestions for structuring the contract to account for impacts related to notification by Company post award that the River Diversion timeline has shifted from 2016 to 2017.
- 4. RCC Design Mix –We advised that the design mix will be ultimately owned by the Contractor. LCP (Ed) to propose a price adjustment formula.
- 5. LCP Path Forward to Award We advised that the objective is to notify the successful bidder by 30 June 2015. This date may be adjusted depending on the amount of time required by the bidders to update their proposals.
- 6. Bidder Price and Schedule validation Bidder was advised that their Alternate Bid is technically acceptable. Bidder was also advised that the proposed target price model as proposed was not attractive for the reason discussed.
- 7. Bidder to advise how much time they will need to update their proposal.

Please let me know if there is anything I've missed. Please acknowledge receipt.

Thanks,

Ed



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CH0009 Exhibit 9 (Milestone) - mods 29May15.docx

## **APPENDIX A17**

# **EXCEPTIONS**

Category:	
Category: _	2. TECHNICAL

Number	Reference	Description	Proposed Wording	Reason	Company Response May 29, 2015	Change in exception approve Compa	on is ed by any
						Increase	Decre ase
1.	Civil Works Agreement	2.1 Design, Drawings and Specifications	Wording to be agreed with the Client	The Company is responsible for the design of all aspects of the permanent works. Detailed drawings and specifications will be provided to the Contractor in a timely manner to allow for planning as noted in the proposal schedule.	Agreed	TBD	TBD
2.	Civil Works Agreement	2.2 River Closure	Wording to be agreed with the Client	The water flow considered for the closure of the river is 2560 m3/s. According to Company study it will be at the end of May. Our proposal schedule is based on this premise.	Withdrawn by Bidder	TBD	TBD

3.	Exhibit 12	2.3 Company Supplied Power	Wording to be agreed with the Client	All temporary power is to be supplied by the Company for the Contractors use including but not limited to crushing and screening plants, CVC and RCC batch plants, lights, offices, etc. The use of generators would be additional to our proposal.	1. Company will only provide power at locations as specified in Exhibit 12, Section 2.1 (Electrical Power). Bidder is responsible for distribution beyond those points.	TBD	TBD
3. (cont'd.)	Exhibit 12	2.3 Company Supplied Power	Wording to be agreed with the Client	All temporary power is to be supplied by the Company for the Contractors use including but not limited to crushing and screening plants, CVC and RCC batch plants, lights, offices, etc. The use of generators would be additional to our proposal.	2. Clarify this comment by providing the elements of additional cost included in "the use of generators".		
4.		2.4 Existing Conditions — Power Poles & Cables	Wording to be agreed with the Client	Company shall relocate poles and electrical cables on the tailrace rock plug at no cost to the Contractor and in a timely manner to allow excavation to proceed as per the proposal schedule.	Bidder to advise milestone requirement and associated date.	TBD	TBD
5.		2.5 Existing Conditions — Access Road Speed Limits	Wording to be agreed with the Client	Contractor has not considered speed limit reductions on the access roads beyond the existing posted limits.	Withdrawn by Bidder	TBD	TBD

		265111 0 1111 5 1	147 1	16	A 1		TDD
6.		2.6 Existing Conditions - Escorts	Wording to be agreed with the Client	If escorts are required for deliveries to the site, they will be arranged and paid for by the Company. No costs have been included for escorts in our proposal.	Agreed	TBD	TBD
7.	Exhibit 12	2.7 Company Provided Laydown Areas	Wording to be agreed with the Client	We have assumed in our proposal that the existing transmission line right of way will be used for setup of the crushing/screening plant, concrete plants and aggregate stockpiles as required by the Contractor.	The Transmission Line ROW is not available for use by Contractor for any purpose.	TBD	TBD
8.	Appendix A2.1	2.8 Temporary Upstream Bridge (A2.1 – Item 3.8.3)	Wording to be agreed with the Client	We have made provision to transport the Company purchased upstream temporary bridge within the Muskrat Falls Project site; no highway transport costs are considered in our proposal.	Agreed	TBD	TBD
9.	Appendix A2.1	2.9 RCC Cofferdam (A2.1 – Item 3.2.2)	Wording to be agreed with the Client	We have made no special provision for the verticality of the face of the remaining RCC Cofferdam upon completion of demolition activities.	Agreed	TBD	TBD
10.	Specification	2.10 Vehicle Wash Stations	Wording to be agreed with the Client	We have not allowed for vehicle wash stations at site entrance/exit points as this has not been specified.	Withdrawn by Bidder	TBD	TBD

11.	Civil Works Agreement	2.11 Boulders	Wording to be agreed with the Client	We have not allowed for boulders in our price as the borehole logs do not indicate their presence. In the unlikely event that boulders are encountered in the jet grouting operation, then cost of removal, all associated extra costs, schedule delays and impacts, will be extra to our contract.	Understood. Any impacts will require substantiation in accordance with Agreement provisions	TBD	TBD
12.	Civil Works Agreement	2.12 Waste Cement Bentonite Materials	Wording to be agreed with the Client	Disposal of dried cement bentonite waste material will be within the spoil disposal area, in a segregated pile. We have not allowed for additional treatment if required or disposal off-site. There is no requirement in the specifications for special treatment or disposal.	Agreed	TBD	TBD
13.	Exhibit 12	2.13 Sedimentation Ponds	Wording to be agreed with the Client	We have assumed that the existing Sedimentation Ponds are suitable for our dewatering requirements. Construction of additional Sedimentation Ponds or flocculation would be considered an extra to the Contract.  No decommissioning costs are included for Company Sedimentation Ponds.	Agreed, with exception of jet grouting dewatering.	TBD	TBD

14.	Appendix A2.1 and Exhibit 2 – Attachment 1	2.14 Dumped Rockfill Zone 3 (A2.1 – Item 4.1.12) & Dumped Large Blocks Zone 3 (A2.1 - Items 4.1.13 to 4.1.15 inclusive)	Wording to be agreed with the Client	We have assumed that measurement and payment for all Zone 3 materials, Dumped Rockfill and Dumped Large Blocks (i.e. Items 4.1.12 to 4.1.15 inclusive) is achieved by measured tonne from stockpile, not by in place survey as indicated in Exhibit 2. Payment will be by "over the scale" method of measurement.	Measurement of dumped rockfill Zone 3 and dumped large blocks, in water, will be measured from stockpile.	TBD	TBD
15.	Specification	2.15 Aggregate Quality & Quantity	Wording to be agreed with the Client	We have assumed that there is sufficient quantity in the Company identified stockpiles and pits to produce the required aggregates. We have made no special provisions to address quality issues that may arise as a result of poor quality raw materials.	Agreed	TBD	TBD
16.	Appendix A2.1 and Exhibit 2 – Attachment 1	2.16 Approved Compactable Material	Wording to be agreed with the Client	We have assumed Approved Compactable Material is rockfill available from Company stockpiles.	Agreed	TBD	TBD

17.	2.17 Borrow Pits	Wording to be agreed with the	For borrow pit development,	Agreed	TBD	TBD
		Client	we have assumed all grubbing			
			(if required) is pushed to the			
			side rather than trucked to the			
			Spoil Disposal site. This			
			grubbing is leveled and spread			
			during pit reclamation efforts			
			which include sloping and			
			leveling only, no hydroseeding			
			has been included.			
18.	2.18 Material Availability	Wording to be agreed with the Client	We have assumed there is sufficient blasted rockfill for all permanent and temporary	Agreed	TBD	TBD
			items, including those of the			
			Contractor, such as, but not			
			limited to, laydowns, roads,			
			etc. Any blasting outside of			
			the items in the Schedule of			
			Price Breakdown is additional			
			to our proposal.			

19.		2.19 Aggregate Production	Wording to be agreed with the Client	We have included provision to crush/screen aggregates for the quantities indicated in Appendix A2.1 Schedule of Price Breakdown, including provision for an additional 11% to the theoretical volume to account for losses, handling and provisions for fabrication in 2015. We have made no provision to process additional aggregates should the quantities increase beyond those listed in A2.1. Company should consider processing	Company no longer has a requirement to complete crushing activities in one season. Accordingly, Bidder is responsible for aggregate volume requirements.	TBD	TBD
				additional aggregates to avoid additional payment of processing plant mobilization & set-up.			
20.	Specification	2.20 Blasting	Wording to be agreed with the Client	Our methodology does not require the use of electronic detonators; therefore none have been included in our proposal. If their use is mandated, this would be additional to our proposal.	Company has not specified/mandated electronic detonators. Should electronic detonators be required to meet established regulations, they will be to Contractors account.	TBD	TBD

21.	Exhibit 2 – Attachment 1	2.21 Foundation Cleaning and Dental Concrete	Wording to be agreed with the Client	We have assumed a standard level of foundation cleaning for the North Dam. In order to enhance the schedule and ensure efficient operations, it is assumed the Company will approve the use of dental concrete to create a nominal level, safe base from which to start the RCC placement operations. Refer to provided photos in the Execution Plan for our expectations.	Company does not see value in the use of dental concrete for leveling purposes. Bidder should not make stated assumption without further discussion and agreement by Company. See Item 22. below.	TBD	TBD
22.	Exhibit 2 – Attachment 1	2.22 Dental Concrete	Wording to be agreed with the Client	Any leveling concrete required for the North Dam is measured and paid as Dental Concrete.  We have not included for formwork for the dental concrete activity. If required, it will be will paid on a cost reimbursable basis.	Provide a unit rate (per M3) for Leveling Concrete, to be paid on the basis of actual measured quantities in place. The rate will include any associated formwork.	TBD	TBD

23.	Appendix	2.23 Rock Excavation (A2.1 - Items	Wording to be agreed with the	Since the quantity of dental	Company requires a single	TBD	TBD
	A2.1	4.1.3, 4.2.3, 4.3.3, 4.4.3 & 4.5.4)	Client	excavation and handwork within these pay items is unknown and provisional, we have made a reasonable allowance in our pricing of this item for 10% of our cost submitted to apply to hand work and 90% to apply to machine work. In the event the value of hand work required will vary from the 10% allowed, we will require any variation to be adjusted on a time and material payment basis.	unit rate for dental excavation and handwork.		
24.	Specification	2.24 Contact Grouting	Wording to be agreed with the Client	We have not included for contact grouting for the grouting activities since the specification indicates it "may be required". If required, it will be additional to our proposal.	Agreed	TBD	TBD
25.	Appendix A2.1	2.25 RCC Formwork Costs	Wording to be agreed with the Client	In our proposal we have included <i>all</i> RCC formwork costs in Item 4.5.28 Roller Compacted Concrete (RCC).	Withdrawn by Bidder	TBD	TBD

26.	Specification	2.26 RCC Warm Joints	Wording to be agreed with the Client	We have assumed that in the specs., section 4.11.4 (page 51 of 79) in the Table 5 Joint Classifications, only the right part of the Table (the one for > 1500 m3) will apply for all layer volumes, > 1500 and < 1500 m3.	The exposure times indicated in Table 5 are indicative only (refer to clause 4.11.4.1 of specification section 03 37 23). The actual exposure times will be determined during the trials dependent on the actual mixes. No compensation will be made for variances from the exposure times assumed during the bid and those determined for the selected RCC product following RCC mix development.	TBD	TBD
27.		2.27 Ammonia	Wording to be agreed with the Client	We have assumed that no special disposal (any Environmental regulation) is needed for the ammonia obtained when the cooling system is demobilized.	Bidder must comply with hazardous materials disposal requirements set out in the Project Wide Environmental Protection Plan. These requirements include the disposal of ammonia.	TBD	TBD

Category:	3. QUALITY ASSURANCE
Category.	3. QUALITI ASSUNAIVEL

Numbe r	Reference	Description	Proposed Wording	Reason	Company Response May 29, 2015	Change in I exceptio approved Compa	n is d by
						Increase	Decrea se
1.	Civil Works Agreement	3.1 Quality Control Testing	Wording to be agreed with the Client	We have assumed the Company will provide and operate an on-site laboratory thus we have not included costs related to independent third party Quality Control inspection and testing including, but not limited to, the following:  • Compaction testing of all fills • Concrete testing • RCC testing	Company operates a materials laboratory on site and will perform QC activities to validate that concrete and aggregates conform to technical specifications, including fill compaction testing.	TBD	TBD

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### 4. COMPANY IDENTIFIED ITEMS (May 29, 2015)

Number	Reference	Description	Bidder Response (date)	Change in Price if exception is approved by Company	
				Increase	Decrease
1.	General	Provide confirmation of your proposed Project Team. Provide CV's for any key personnel not previously supplied.		TBD	TBD
3.	General	Provide a unit rate (per M3) for RCC Trail Test Sections.			
4.	Bidder's	Crane pad and any temporary works			
	Execution Plan	must be removed from area downstream of North Dam.			
5.	General	Provide a unit rate for using facing concrete instead of GERCC/GEVR, on upstream face of RCC, below water level.			

6.	General	Is the cost of installing a pre-cast concrete box culvert, below the North Dam, included in Bidder's proposal?		
7.	Bidder's Execution Plan	Company confirms that the specification requirement for		
	Execution Plan	installation of bubble curtain remains. Please confirm compliance.		
8.	Bidder's Execution Plan 34. NORTH DAM (2016)	Company will only provide power at locations as specified in Exhibit 12, Section 2.1 (Electrical Power). Bidder is responsible for distribution beyond those points. See Item 3. Above.		

# CIMFP Exhibit P-02780

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Schedule

Agreement Number: CH0009

**EXHIBIT 9** 

**SCHEDULE** 

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Schedule

Agreement Number: CH0009

## Schedule

Item:	Interface	Description	Date		
	GENERAL				
M1		Contract Award	<mark>TBD</mark>		
M2		Substantial Completion of the work	31-Nov-2017		
M3		Completion of the construction road to Laydown Area C1	31-Dec-2015		
DIVERSION AND RIVER CLOSURE (UPSTREAM COFFERDAM)					
	I1	Spillway Ready for River Diversion, which includes:	15-Jul-2016		
		- Completion of the North Transition Dam	13-101-2010		
M4		Completion of upstream cofferdam (to El. 26m) and	31-Oct-2016		
		downstream cofferdam	31-001-2010		
		SOUTH DAM			
	12	South Dam area available for Foundation Work	Contract		
			Award		
	13	South Transition Dam Completed (for construction of South	<mark>TBD</mark>		
		Dam Fill)			
M5		South Dam Completed	TBD TBD		
	IMPOUNDMENT				
	I4 Other Structures Ready for Site Impoundment, wl		<mark>TBD</mark>		
		includes:			
		- Intake completed;			
		- South Transition Dam Completed;			
		- Centre Transition Dam Completed			
M6		Temporary Spillway Bridge and Intake Cofferdam Removed	14 + 2 weeks		
M7		North Dam Completed	31-Oct-2017		
	TAILRACE				
	15	Powerhouse Ready for Tailrace Impoundment	TBD TBD		
M8		Tailrace Rock Plug Removed	15 + 2 weeks		