Date: May 31, 2018

ADDENDUM NO. 1

TO

PLANS AND SPECIFICATIONS FOR PROJECT NO. ENG1802321631/E020098

DESCRIPTION OF PROJECT: Crosley Lake Dam Improvements Project

LOCATION: Crosley Fish & Wildlife Area; North Vernon, Indiana

ISSUE DATE: May 31, 2018

INDIANA STATE AGENCY: Department of Natural Resources

The information contained in this Addendum shall become a part of the basic plans and specifications the same as if originally incorporated therein. The original plans and specifications shall remain in their entirety, except as modified by this Addendum. The items herein shall supersede information in the specifications and on the plans.

ITEM #1: Pre-Bid Meeting. The attached May 23, 2018 Pre-Bid Meeting Summary with sign-in sheet, comments and responses shall become part of the bid documents.

ITEM # 2: Specifications.

- In Part C, Detailed Specifications, Section 09 Articulated Concrete Block
 Mats, insert the following requirement: "For ACB system testing and
 analysis, current standards for ACB systems include ASTM D7276 & ASTM
 D7277 for testing and data interpretation. These design standards are intended
 to be coupled with ASTM D6684 and D6884 which speak to manufacturing
 and construction for all ACB systems. The ASTM design/analysis protocol
 shall be utilized."
- 2. In Part C, Detailed Specifications, Section 09 Articulated Concrete Block Mats, insert the following requirement: "In lieu of the Factor-of-Safety design methodology as described in the original specifications, the accepted design methodology, as defined by the NRCS standards, is the use of the CSU/Cox method for ACB hydraulic stability. The CSU/Cox method will be required."

- 3. In Part C, Detailed Specifications, Section 10 Concrete Armor Units, insert the following requirement: "Critical testing requirements for concrete armor units shall be provided. These tests shall include Dynamic Impact testing and Lateral Load testing, to ensure the units meet the necessary structural demand they will encounter for use as dissipaters at the toe of a spillway. A Dynamic Impact Factor of 1.75 (min.) shall be used to ensure the proper units are specified in order to avoid failure of the units."
- 4. In Part C, Detailed Specifications, Section 15 Large Precast Block Retaining Wall, under Part 2.01 M, Preapproved Manufacturers, insert the following: "Conditionally Approved: ReCon Retaining Wall Systems by Reading Rock Inc., 3370 Port Union Road, Fairfield, OH 45014 USA; telephone (513) 860-3593; website www.readingrock.com. Also, telephone (317) 913-9442."
- 5. In Part C, Detailed Specifications, Section 15 Large Precast Block Retaining Wall, under Part 2.01 M, Preapproved Manufacturers, insert the following: "The design, plans and specifications are based on the use of (18 in. nominal height) Redi-Rock type/size block. The use of the (16 in. nominal height) ReCon block will be considered under the submittal process, but the wall and structural foundation design shall require a professional engineer that will visit the site and provide complete structural re-designs as part of the submittal process. The design shall also consider impacts on the backfill behind the wall and proper drainage of the adjacent dam embankment.
- 6. Required Installation Meetings: For articulated concrete block, concrete armor units (A-Jacks), large precast block retaining wall, and HydroTurf. At least seven (7) days prior to any placement of the above noted components on this project, a technical representative (not a sales rep.) from each manufacturer shall visit the site prior to the installation to ensure Contractor shall install the above components within strict conformance of manufacturer's recommendations. Additional site visit(s) shall be made by the technical representatives during installation as needed, and each technical rep. shall provide a written report for each material installed prior to final payment. Allow for a minimum of five (5) days.
- 7. A pre-pour meeting shall be scheduled with the Owner, Contractor, Testing Company and the Engineer at least seven (7) days prior to any placement of concrete on this project.

END OF ADDENUM NO. 1

Crosley Lake Dam / IDNR

Wednesday May 23, 2018 10:00 AM ET Crosley Fish & Wildlife Area North Vernon, IN

ENG1802321631/E020098

Type of meeting: **PRE-BID MEETING** Meeting called by: IDNR/CEI

MINUTES

(Comments/Meeting Summary)

- Sign Attendance Sheet: List to be Provided via Addendum (See Attached)
- B. Introduction of Responsible Personnel
 - 1. State of Indiana / Department of Natural Resources Owner:

Present a.	Property Manager	Chad Springer	(812) 346-5596			
Present	Assistant Property	Krysten Dick	(812) 216-4088			
	Manager		*.			
Not Present b.	Div. Of Engineering	Dale Gick, P.E.	(317) 232-4148			
Present c.	Div. Of Engineering	Joe Soughers	(317) 232-4157			
Not Present d.	Div. Of Engineering	Larry Wayland, P.E.	(317) 232-4156			

2. Commonwealth Engineers, Inc. Engineer:

Ph: (317) 888-1177 Fax (317) 887-8641

Present a. **Project Manager** Present b. **Project Engineer**

Roger M. Kottlowski, P.E. 🔾

Present c. **Project Engineer** Drew Flamion, P.E. Dustin Jennings, P.E.

C. **Project Overview**

Mr. Flamion introduced the project and addressed the following items.

- **General Comments** D.
 - 1. Specifications Overview
 - Bid Date and Time: June 7, 2018 at 1:31 PM ET. (No Electronic Bids) a. (Bid Desk, Department of Administration, Public Works Division, 402 W. Washington St., Room W467, Indianapolis, Indiana, 46204)
 - Project Schedule & Time for Completion (180 Consecutive Calendar Days to b. Substantial Completion).
 - MBE/WBE Goal (7% MBE / 5% WBE) See listing on IDOA website C. (Mr. Soughers reiterated that this is a goal.)
 - Permits: IDNR, IDEM, USACE, and Rule 5 (Provided in Appendix B of the d. Detailed Specifications. (The contractor must pay special attention to the

Rule 5 permit and complete the required weekly inspections and inspections after every ½" rain event.)

- d. Utilities: The contractor is responsible for locating and contacting 811 IUPPS.
- e. Traffic Control/Public Access: The contractor shall secure the site and barricade lake access drive (location subject to Owner's approval).

 (Mr. Springer suggested the use of temporary chain link fence gate with padlock; the location discussed was after the archery range. This location is not expected to require a concrete barrier.)
- g. Safety and Health Requirements: It is the contractor's responsibility to comply with all OSHA requirements.
- h. Workmanship and Detailed Specs: The Detailed Specifications are specific to each project and may reference the Workmanship and Materials for additional material and installation details. Where a conflict may exist, the Detailed Specifications shall be used over Workmanship and Materials.

Addenda

a. Pre-Bid meeting attendees list and summary will be provided via Addendum. (Mr. Soughers said that to expedite the project timeline, he would like to have only one addendum for this project.)

3. Unique Issues

a. The grout filled spillway pipe (abandoned), may be encountered in the emergency spillway area. (Note that the plans require a 3 ft clearance between the abandoned, metal spillway pipe, near the new emergency spillway and the HydroTurf or alternate articulated concrete block.)

According to record plans, a previously installed plastic liner may exist on the left, upstream slope near the above noted abandoned spillway pipe. The liner was to have been covered under 2 ft of clay soil, but its extent could not be confirmed. Care shall be used to prevent damage to the liner if it is encountered during construction. The approximate location of the liner is shown on the plans.

The uniformity of the upstream slope below normal pool elevation could not be confirmed. The final upstream slope shall have a uniform 2:1 side slope. Uneven areas shall be filled with riprap.

4. Bid Proposal Documents

- a. Lump Sum
- b. Alternates (Note that the IDNR shall have the final decision whether or not to select an alternate. Alternates are shown on Plan Sheet 4 and is further discussed in the detailed specifications sections.
 - Alt 1. 42" Min. Thickness Class II Grouted in Place Riprap
 - Alt 2. Pressure Grouting
 - Alt 3. Articulated Concrete Block Emergency Spillway

Please Note, the plans show the (Alternate 3) articulated concrete block on the plan sheets for the new emergency spillway. However, HydroTurf is the base bid design for the emergency spillway material. The HydroTurf has installation drawings, specific to this project, included in Detailed Specification Section 19.

Also note that the HydroTurf shall extend 10 feet horizontally beyond the toe of the spillway up to the precast modular block, A-Jacks. So, less riprap will be required in this area when HydroTurf is used; and more as shown on the plans if the Articulated Concrete Block is used. The end of the 42 in. thickness of Class II Riprap shall remain at Station 32+15 as shown on Plan sheet 09. Percussion anchors are not to be used for the HydroTurf, according to the manufacturer. Refer to Detailed Specification Section 19 for additional details.

- 5. Items to Be Submitted with Bid:
 - See Instructions to Bidders Page 5 of 6
 - b. If a contractor is not pre-qualified in one of the categories on the Notice to Bidders, then they will need to request a special meeting and reference the project number and bid opening date. There is no guarantee that their request will be reviewed prior to the bid opening.
 - i. Note: The Contractor must submit an employee drug testing plan in accordance with the Instructions to Bidders; otherwise the bid will be rejected. (*This includes all subcontractors.*)
 - c. Contractor and subcontractors shall be enrolled and verified in E-verify program, Contractor to provide form with bid.

E. Other Comments

- 1. Questions shall be received by the end of the business day of May 30th to allow for Addendum to be sent out on May 31st.
- 2. A technical representative (not a sales rep.) from the manufacturer shall be onsite during installation to ensure Contractor is installing within strict conformance of manufacturer's recommendations. This includes: articulated concrete block, large precast block walls, concrete armor units, and HydroTurf.
- 3. The lake level may be dropped to as much as 12 ft below normal pool elevation.
- 4. If the Contractor requires a time extension from the times listed in the contract, due to weather limitations, the Owner shall be given at least 30 days advanced notice. Note that the DOA has authority for extension approvals.
- 5. Project is expected to have a net waste of soil. Soil can be placed on the downstream embankment, near toe of dam between Str. 104 Headwall and spillway wall. Benching and compaction of soils shall be required to tie soil into dam embankment. Owner may also be able to utilize excess soil at the archery range. Intent is to keep soil within confines of the property.
- 6. Rock required to be removed from the existing spillway channel may be used as riprap, as long as rock is broken to the approximate gradation required.

 Acceptable locations may include the emergency spillway or outlet channel or principal spillway overflow area. Work shall be subject to Owner and Engineer review and approval.
- 7. Within the existing rock principal spillway channel, the large rock fissure shall be filled with lean concrete per the location shown on plan sheet 5 as Item F.

	8.	 In addition, on plan sheet 5, fissure channel E shall be filled with concrete. Thin surface cracks shall be filled, as part of Alternate 2: Pressure Grouting. Limits of construction: a. The erosion control plan, plan sheet 12, shows the disturbed limits (clear limits) for construction. b. Note that the Owner has cut all large trees within the specified clear limits.
	9.	No additional large diameter trees are anticipated to be cut. No further removal of trees between April 1 to September 30 shall be allowed, subject to Indiana bat habitat restrictions. Contractor shall remove and dispose of all downed trees, brush, stumps and root balls. All voids created by the removal of root balls shall be appropriately filled with compacted clay or as approved by the Engineer/Owner. It is acceptable to entirely haul material offsite or chip material to be utilized for silt
	10.	fence (not check dams). Burning of material onsite is prohibited. The existing parking areas may be expanded with compacted crushed stone into existing open areas as approved by the Property Manager for access and staging.
F.	Ques	stions
	10	

INDIANA DEPARTMENT OF NATURAL RESOURCES PROJECT NO. ENG1802321631/E020098 CROSLEY LAKE DAM IMPROVEMENTS PROJECT Wednesday May 23, 2018 | 10:00 a.m. ET

SIGN-IN SHEET

Phone Number/E-Mail	812-572-9375 tanow made some a	812 454 8281 Bushes@ waters Ten, con	- K	812-497-2400 Travis @ rust construction.com	812-522-6467 Nad-dava Jamice extaustion and	812 - 525-2491 Cblevins @ mitchell stack. con	King's Trucking Fire, Inc. 818-522-6975 Travis @ King strocking net	812.525.7185 Cell icha brace @ concil com	DYR-ENGINEERING 317-232-4157 15040 Max (a) 401	812-346-5596 LSpringer @ dar in . sou		7	317-188-1177 (Cottlemen in faction in con-	LEU 512-285-0802 DJEHMUDOM CONTACTORI COM		
Representing	mre O'mara	WB KOESTER	LAWISK EXCAVINATION	Rust Construction		Mitchell + stark	King's Trucking Fire. Inc.	R.L. Vuckson	DYR-ENGINEERING	DNR - Crosley	DNR- Crosley		(E)	LEi		
Printed Name	MIKE Hosuna	BRIAN LUICOS	alem hauyer	Travis Quillen	Nad Day	Charton Bleving	Travis Bode	John Shuce	JOE Soughers	Chad Springer	Krysten Dick	Drew Flamion	Sogy Kattlowski	Dugar JENNNGS		