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Sent: Monday, March 2, 2015 12:17 PM

To: Claire Marie Turner <turner@mbkengineers.com>; Don Babbitt <donbabbitt@sbcglobal.net>; David Williams (david@dtwassoc.com) <david@dtwassoc.com>

Cc: Larry Dacus <Dacus@mbkengineers.com>

Subject: RE: WPIC 200-Year Project - 65% Design Package

Claire Marie:

In response to your letter of January 30, 2015, requesting review of the 65% Basis of Design Report and plans and specifications, the Independent Expert Panel (Panel), provides its review comments in the attached spreadsheet. In the same letter you requested the Panel's response to a set of seven questions. This same set of questions have been included in previous requests for review, and the Panel has responded to a number of the questions in earlier letters, but deferred response to others until final design documents were completed and reviewed.

Thanks and regards,

Faiz Makdisi,

On behalf of Don Babbitt and David Williams.

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65% Submittal - Specifications

Three Rivers Levee Improvement Authority
WPIC West Levee Improvement Project STA 0+00 to 310+00

INDEPENDENT EXTERNAL PEER REVIEW

COMMENT ID	LOCATION IN REPORT/DOC	ORIGINAL REVIEW COMMENT	RESPONSE	CONCUR	NON-CONCUR	FIO	CARRY FORWARD
EXT/65%PLANS-001	C-116	In the upper right, ACCESS ROAD 6 should be ACCESS ROAD 5.	ACCESS ROAD 6 refers to Construction Note 6 which refers to "SEE TYPICAL DETAIL ON SHEET C-303". That is the correct sheet this typical cross section is at on the plans.			X	
EXT/65%PLANS-002	C-301	C-302, Note 6 allows the contractor to adjust the working surface. Should the same note be added to this drawing?	Due to the proximity of the UPRR toe, HDR would like to maintain the working platform in the location as shown.		X	X	
EXT/65%PLANS-003	C-305	Title should read "TYPICAL KEY AND EXCAVATION AND BENCHING DETAILS". Levee sections do not show any geometry corrections to the landside slope, so where are these details used? Are these for the construction of the stability berms and the access road?	TYPICAL KEY AND BENCHING DETAIL has been modified to illustrate the proper benching for the seepage berms.	X		X	
EXT/65%PLANS-004	C-306	Are settlement plates necessary for DMM walls? The DMM specs don't mention them.	Settlement plates are not necessary for DMM Walls.			X	
EXT/65%PLANS-005	C-307	Title should read: "Settlement Plate Details"	Title of Sheet C-307 has been updated accordingly.	X			
EXT/65%SPECS-001	01 11 00, 1.3.1	State that the improvements are at certain specified locations within the 5.9 miles.	Station range for the different remediations has been added to 1.3.1.	X			
EXT/65%SPECS-002	01 11 00, 1.3.1	Add DMM wall to the list of work to be done. DMM walls are not "slurry" walls. See 31 62 4.3.	"Slurry" in the project description has been changed to "cutoff".	X			
EXT/65%SPECS-003	01 11 00, 1.3.1	Remove "levee geometry corrections", as there are none on the drawings, and Section 6.6 of the BODR indicates no levee geometry corrections.	"Levee Geometry Corrections" has been deleted from 1.3.1.	X			
EXT/65%SPECS-004	01 11 00, 1.3.1	In the 2 nd par., correct "c". The wall types aren't optional. The open trench method can't be used adjacent to the UPRR tracks. A similar comments applies to 31 62 41, 1.1, par.4.	Wall types have been specified further with the station ranges added to C. in the "work includes" section. Section 31 62 41 1.1 has been updated to include station range for each cutoff wall method.	X			

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EXT/65%SPECS-005	01 11 00, 1.3.1	In the 2 nd par., delete the second sentence of "f".	The 2nd sentence in f. has been deleted.	X			
EXT/65%SPECS-006	01 22 00.00, 1.4.6.1	Delete "abandonment of wells ... on the plans".	Line has been deleted from section.	X			
EXT/65%SPECS-007	01 22 00.00, 1.4.12.1	In the 4 th line, change "san" to "sand".	"Sand" spelling has been updated.	X			
EXT/65%SPECS-008	01 22 00.00, 1.4.16.1	In the next to last line, delete "structures and/or".	"Structure and/or" has been deleted.	X			
EXT/65%SPECS-009	01 22 00.00, 1.4.17.1	In the next to last line, delete "drainage structures".	"Drainage structure" has been deleted.	X			
EXT/65%SPECS-010	02 32 00 - 1.2.2	Add provisions for CPTs.	We have not added provisions for CPTs in the past because contractors typically perform the additional explorations to not only further define the nature of the soils but to also obtain samples for the cutoff wall mix design, which they can't do with CPTs. We do not see issues with allowing CPTs though and will investigate further prior to preparing the 100% designs.			X	X
EXT/65%SPECS-011	02 32 10, 1.2.7	First paragraph of this section refers to providing data prior to commencement of construction of cutoff wall and toe berm. The remainder of the section seems to focus on drilling into an existing SCB wall. Revise them to fit the rest of the section.	Paragraph '1.2.7 Order of Work' has been deleted.	X			
EXT/65%SPECS-012	31 00 00, 1.4 - SD 01	Under Material Distribution and Stockpiling Plan, add stability berm. This comment also applies to the Flood Stage Contingency Plan.	Added "stability berm, drain berm, landside fill and toe road" to "Material Distribution and Stockpile Plan" and "Flood Stage Contingency Plan".	X			

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EXT/65%SPECS-013	31 00 00, 1.5.3	01 22 00.00 10, 1.4.15 provides payment for hauling DMM cutoff wall spoils, which contain cement, offsite. Exclude them from reuse in fills. Similar comment on 31 62 43 3.4.10.	Paragraph 1.5.3 "Fill Materials" has been updated to state: "Excess material generated by the cutoff wall construction operations, excluding materials containing cement , shall be used for levee embankment fill provided...."	X			
EXT/65%SPECS-014	31 00 00, 1.5.4	Reconcile the different requirements in 1.5.6 for not blocking water courses.	We have read through paragraph 1.5.4 and 1.5.6 to confirm requirements are consistent and made some modifications to 1.5.6.	X			
EXT/65%SPECS-015	31 00 00, 2.1.1	In the 1st sentence, provide for use of imported materials like Type 1 and sand layer material.	First sentence has been modified to add "and borrow sites" to the end of the sentence.	X			
EXT/65%SPECS-016	31 00 00, 2.1.1	In the 2 nd par., delete the discussion of OH or OL soils; suitable materials are defined in 1.2.1.	Agreed. Paragraph 1.2.1 identifies suitable materials. Based on past experience, designers feel OH and OL is needed as stated in specifications.	X		X	
EXT/65%SPECS-017	31 00 00, 2.1.1	In the 2 nd par., delete the references to the borrow site. The same comment applies to 2.2.1 and 2.2.2.	Based on past experience with contractors, designers feel that the additional detail where soil type 1 material comes from may be obtained is needed.			X	
EXT/65%SPECS-018	31 00 00, 2.2.1	Type 1 fill is stated to be used for drain berm fill when the plans call for Type 2 soil for drain berm (delete reference to drain berm). In the paragraph following the table, the LL requirement is the same as in the table.	Drain Berm has been deleted out of Type 1 material in 2.2.1. The requirements of Liquid Limit in Type 1 have been updated therefor the last paragraph of 2.2.1 has been kept.	X			
EXT/65%SPECS-019	31 00 00, 2.2.3	Consider deleting the stationing. Dimensions are traditionally given on plans.	Stationing in 2.2.3 has been deleted.	X			
EXT/65%SPECS-020	31 00 00, 2.3	Delete the second paragraph; it doesn't apply to this project.	The 2nd sentence in 2.3 has been deleted.	X			
EXT/65%SPECS-021	31 00 00, 3.2.2	Edit the 2 nd paragraph to remove redundancies in scarifying requirements.	Paragraph has been re-written to eliminate redundancy.	X			

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EXT/65%SPECS-022	31 00 00, 3.2.4	Add requirements for moisture conditioning, scarifying and compacting.	3.2.4 has been updated to reference 3.2.2 Foundation Preparation.	X			
EXT/65%SPECS-023	31 00 00, 3.3.2.1	Expand to cover over-excavation into the levee.	3.3.2.1 has been updated to refer to levee and levee foundation.	X			
EXT/65%SPECS-024	31 00 00, 3.4.3	Shouldn't the subsection be called Layer Thickness?	"Thickness" added to 3.4.3 title.	X			
EXT/65%SPECS-025	31 00 00, 3.6.2	Increase Subgrade to Receive Engineered Fill from 90 to 95%.	Per the Final Geotechnical Basis of Design Report, the subgrade to receive fill should be compacted to 90%.		X		
EXT/65%SPECS-026	31 11 00, 1.1	Replace "2011" with "1-2010; Changes 1-3 2010; Changes 4-6 2011; Change 7 2012". The same comment applies to 31 62 41, 1.2 and 31 62 41, 1.2.	The current version of the document will be reported correctly.	X			
EXT/65%SPECS-027	31 11 00, 1.2	In SD-01 c., delete "removal".	SD-01 c. and d. have been deleted.	X			
EXT/65%SPECS-028	31 11 00, 3.1.4	Compare with 3.2.2 and remove inconsistencies and redundancies.	3.2.2 has been updated to be more consistent with 3.1.4.	X			
EXT/65%SPECS-029	31 11 00, 3.2.2	There isn't a tree removal plan on the plans. Add one if it is needed.	Last sentence of 3.2.2 has been deleted.	X			
EXT/65%SPECS-030	31 11 00, 3.2.2	Add the Landside Access Road.	"Fill areas" has been added to 3.2.2.	X			

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EXT/65%SPECS-031	31 62 41, 1.1	Revise the 2 nd par. to indicate that there are no obstructions or utilities shown on the plans that would affect cutoff wall construction. A similar comment applies to 1.3.4; 31 62 43, 1.1, 3 rd paragraph and 31 62 43, 1.3.4.	Paragraph 2 has been deleted from Section 31 62 41 1.1. Section 31 62 43 1.1 3rd paragraph has been deleted. Section 31 62 43 1.3.4 has been updated.	X			
EXT/65%SPECS-032	31 62 41, 1.7.2.1	First line: Delete "trench"	"Trench" has been changed to "wall".	X			
EXT/65%SPECS-033	31 62 41, 1.8.1	1st Paragraph, second line: Delete "the nature of seepage and"	"The nature of seepage and" has been deleted.	X			
EXT/65%SPECS-034	31 62 43, 1.4.7	Reduce the redundancies and eliminate any conflicts with 1.64.	Paragraph has been revised to eliminate redundancy.	X			
EXT/65%SPECS-035	31 62 43, 1.5	SD-01: Paragraph on "Results of Cutoff Wall Backfill Trial Mix Design and Testing" may not apply here to the DMM soil mixing method.	Paragraph on "Results of cutoff wall backfill trial mix design and testing" has been updated.	X			
EXT/65%SPECS-036	31 62 43, 1.6.2	The contents of the subsection aren't "qualifications". Do they need to be moved to another subsection?	A new subsection has been created, 1.7.	X			
EXT/65%SPECS-037	31 62 43, 3.4.2.1	Delete the subsection as there are no existing DMM walls.	Subsection 3.4.2.1 has been deleted.	X			
EXT/65%SPECS-038	31 62 43, 3.4.8	Reduce the redundancies and eliminate any conflicts with 3.4.12.	Paragraph has been re-written to eliminate redundancy.				
EXT/65%SPECS-039	31 62 43, 3.4.13	Why isn't this reporting part of 3.8?	Agreed. Paragraph 3.4.13 has been moved to paragraph 3.8.3.				