

**MINUTES OF
SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY-EAST
OPERATIONS COMMITTEE MEETING
HELD ON JANUARY 7, 2009**

PRESENT: Louis Wittie, Chair
Timothy Doody, Committee Member
Stephen Estopinal, Committee Member
Stevan Spencer, Orleans Levee District
Fran Campbell, East Jefferson Levee District
Jason McCrossen
Jerry Colletti, U.S. Army Corps of Engineers

The Operations Committee met on January 7, 2009 in the Second Floor Hall of the Lake Vista Community Center, 6500 Spanish Fort Blvd., New Orleans, LA. Chairman Wittie called the meeting to order at 1:25 p.m.

Opening Comments: Jason McCrossen clarified that he was present at today's meeting to assist the Lake Borgne Basin Levee District and not as an official representative of the District.

Adoption of Agenda: The agenda was adopted.

Public Comments: None.

New Business:

B. 17th Street Canal Seepage Study presentation by Dr. Ray Martin. (O.L.D.)

Ray Martin, Ph.D., P.E., provided an outline of the presentation, which included site photos, subsurface conditions, T-wall repair, piezometer data and preliminary recommendations. He explained that he and Robert Bachus, Ph.D., P.E., were asked to do the following:

- Review the existing data and stratigraphy.
- Determine the appropriate method to locate the cause of the seepage problem. The installation of piezometers was recommended.
- Evaluate the seepage and come up with recommendations.

Photographs of the seepage area in the vicinity of the new T-wall were viewed.

Dr. Martin explained that in examining subsurface conditions, he and Dr. Bachus looked at the IPET report, which included all the data that IPET reviewed in the evaluation of the failure, and the boring logs for levee repair Borings B-1 through B-7, which were taken in preparation for the new T-wall construction, and several with other available borings. Dr. Martin showed slides of the stratigraphy (marsh, clay, sand, clay and Pleistocene layers) resulting from cross sections developed by IPET at stations 8+50, 10+00 and 11+50. He explained that from his and Dr. Bachus' interpretation of the

borings, the marsh at station 8+50 (the northernmost cross section) is a little deeper in the area towards the canal. He stated, however, that this difference is not significant. There is a slight difference between the two interpretations at station 10+00 (the middle cross section), and he and Dr. Bachus agreed with the cross section developed by IPET at station 11+50 (the southernmost cross section). A cross section running parallel to the levee on the center line of the T-wall was also viewed. The preliminary conclusion was that the subsurface conditions defined in the IPET report reasonably represent subsurface conditions at the site with only minor variations.

Dr. Martin stated that in the area of the T-wall repair, the depth of sheetpiling was significantly increased, the foundation is very robust in comparison to the I-wall, and water stops are included to reduce seepage through the wall at the joints. The sheetpiling extends to elevation -55 to -67, in comparison to the I-wall at elevation -17. He commented that the horizontal and vertical water stops seem to be well designed and what would be expected for this type of a facility.

Dr. Martin explained that the only concerns were those typical of any facility such as this; i.e., (1) seepage at the water stops, and (2) seepage at the ends of the sheetpiling at the points where the old sheetpilings are shorter. He commented that there is the assumption that there will be leakage somewhere with any sheetpile wall.

Dr. Martin stated that their preliminary conclusions are:

- The new T-wall is a robust structure and a significant improvement compared to the I-wall.
- The most likely area for seepage to pass through the wall is:
 - Over the top of the sheetpiling and below the horizontal water stop,
 - Around the end of the new deeper sheetpiling where it joins the existing I-wall sheetpiling, or
 - Through T-wall sheetpiling interlocks.

Dr. Martin clarified that these are preliminary conclusions and that he and Dr. Bachus would confer further and issue a final report.

Dr. Martin reviewed the location plan for the 17 piezometers that were installed and the piezometer water level data. Graphs showed a comparison of the ground surface elevation, estimated average groundwater elevation, and estimated maximum ground water elevation at three locations: nearest the canal, the center area where the area was re-graded after the failure, and along the road. He explained that the flow of the seepage is in the same direction as the slope of the ground. He pointed out that this is not a unique situation and that seepage can be found anywhere along the 17th Street Canal or any other canal with sheetpile.

Dr. Martin reviewed the preliminary conclusions:

- Canal water appears to be seeping through the T-wall section or around the north end of the T-wall sheetpiling where it joins the I-wall section.
- The quantity of seepage appears to be limited.
- The seepage does not appear to pose any danger related to the stability of the wall or to “piping” below the wall.

Dr. Martin presented the preliminary recommendation:

- Raise the ground surface grade in the area in front of the T-wall to prevent the seepage from discharging to the surface.
- Include a sand drainage blanket below the fill with discharge to a trench connected to a storm drain along Bellaire Drive.
- The drainage blanket will provide an avenue for discharge of the seepage.

Dr. Martin was asked whether he recommended further study of this matter. He responded that additional information will be received and reviewed concerning the piezometers borings. Since this is not a safety issue, he felt that enough information has been obtained.

C. U.S. Army Corps of Engineers (USACE) presentation on floodwall stabilization of west bank of the Inner Harbor Navigation Canal (IHNC), along the protected side of France Road. (O.L.D.)

Eric Stricklin, USACE Hurricane Protection Office Project Manager, advised that one of the projects that he manages is the restoration work on Reach 3 on the west side of the IHNC. This area is in northern part of the IHNC extending from station 220 to 238. He explained that new design criteria was developed, which increased the required factor of safety. An analysis was done on the walls and this area was identified as needing soil stability improvement. Hesco baskets were installed during the 2008 Hurricane Season to protect against surge; however, this was a temporary fix. As a permanent fix the USACE will do deep soil mixing, which consists of boring down and placing panels approximately 14 ft. wide about three feet underground from the surface and about 3 feet from the wall. The panels will go down about 30 feet from stations 220 to 233 and about 18 feet from stations 233 to 238. Mr. Stricklin explained the soil/cement mixing process. The panels are estimated to be placed about 8 feet apart; however, part of the design calculations will include the actual panel spacing. He advised that there is no seepage concern at this location. The work is expected to be completed by June 1, 2009.

Mr. Stricklin was asked about the area on the east side of the IHNC, where there is a seepage issue, but not a stability issue. He explained that during Task Force Guardian the USACE put in relief wells. The USACE will re-analyze this area using the new criteria and put in additional relief wells from stations 16 to 32 and at station 56. This work is expected to be completed by June 1, 2009.

A. Recommendation for Safehouse Design Consultant for the Orleans Levee District (O.L.D.).

Stevan Spencer, O.L.D. Executive Director, explained that a resolution of the Board authorized the District to advertise a Request for Qualifications (RFQ) for a consultant to design the build out of a safehouse in the Franklin Warehouse facility. Three firms responded: Murray Architects, Inc., Lambert Engineers, LLC, and ECM Consultants. The Regional Director, Robert Turner, created a panel consisting of himself, Gerry Gillen, O.L.D. Chief Engineer, and Mr. Spencer, to review and rate the respondents.

The panel recommended the award of the contract to Murray Architects, Inc. Murray Architects has indicated that plans and specifications can be prepared for bid in 30 days. The safehouse build out will be constructed in a building that has been rated for 180 mph winds. The cost estimate for design is \$110,000.

Mr. Estopinal offered a motion, which was seconded by Mr. Doody and unanimously approved by the Committee, to recommend that the Board authorize the award of the contract for the design of the O.L.D. safehouse to Murray Architects, Inc.

Mr. Wittie requested that a committee be set up to review the responses to the RFQ due on January 23rd for the Lake Borgne Basin Levee District (LBBLD) safehouse design so that the results can be brought to the next Operations Committee meeting.

D. Discussion of Non-flood utility relocation plans and construction for USACE Projects LPV-101 and LPV-105. (O.L.D.)

Mr. Spencer explained that USACE Project LPV-101 is for the replacement of the I-wall in front of the Orleans Marina with a T-wall. Numerous utilities for the marina and rental properties located outside of flood protection on the New Basin Canal run through the floodwall and must be relocated at the expense of the owner. The Orleans Marina and rental properties are under the jurisdiction of the O.L.D. Non-Flood Division. The O.L.D. Non-Flood Division is also the owner of the utilities. A letter was prepared for the O.L.D. Non-Flood Division by the O.L.D. Flood Division to the USACE asking that the plans and construction of the utility relocations be done concurrently with construction by the USACE's contractor. The relocation expense would have to be reimbursed to the USACE. The USACE is still in the process of final determination of ownership of some of the utilities and estimating costs. The O.L.D. Non-Flood Division did not want the responsibility of signing the letter. Mr. Spencer advised the Committee of his intent to sign the letter on behalf of the Orleans Levee District so that the flood protection project will not be held up. The Flood Division would then find funding to reimburse the USACE for this cost when due and then bill the cost to the Non-Flood Division. He commented that an additional problem is that in some cases, the utility entity doing the relocation, such as the Sewerage and Water Board, will only run the relocated line to the levee toe (protected side) and passes the responsibility for location of the utility on the flood side to the owner. The letter to the USACE will be sent to Robert Lacour, SLFPA-E Interim General Counsel, for review to assure that the O.L.D. is not waiving its right to disagree with the USACE's final determination of responsibility.

Mr. Spencer further advised that the same situation could exist with the Lakefront Airport for USACE Project LPV-105. Although the alignment is being changed, some utility relocations may need to be addressed.

E. Request to purchase Case 580 M Tractor Loader Extendahoe off of State Bid Contract (reimbursable by FEMA). (Lake Borgne Basin Levee District)

Jason McCrossen explained that this equipment is on a FEMA Project Worksheet and is reimbursable. Lee Tractor has the equipment on State Contract at a cost of \$65,000, which is the amount allowed by FEMA.

Mr. Estopinal offered a motion, which was seconded by Mr. Doody and unanimously approved by the Committee, to recommend that the Board approve the purchase of the Case 580 M Tractor Loader Extendahoe.

Levee District Reports:

A. East Jefferson Levee District (EJLD)

Fran Campbell, EJLD Executive Director, reviewed the EJLD monthly Status Report.

B. Orleans Levee District (O.L.D.)

Stevan Spencer, O.L.D. Executive Director, reviewed the O.L.D. monthly Status Report.

Mr. Doody advised that one of the items discussed in a meeting with Congressman Cao was the Economic Stimulus Package. Two projects (i.e., storm proofing pump stations in Plaquemines and St. Bernard Parishes and permanent protection for the outfall canals) were submitted to Congressman Cao's office, as well as the other members of the Louisiana Delegation.

Mr. Doody commented concerning the on-going debate about re-designing the GIWW navigation gates and his concern that a re-design to widen the gates could delay the completion of the IHNC Storm Surge Barrier up to two years.

C. Lake Borgne Basin Levee District (LBBLD)

Jason McCrossen reviewed the LBBLD monthly Status Report. Additional items noted were:

- Two 84" culverts recently installed by a St. Bernard Parish contractor at Angelic Street floated up during the storm last Saturday night. Five inches of rain in a 2-1/2 hour period was recorded at Pump Station 6. Mr. McCrossen reported that water was able to drain slowly through the Violet ditch to the 40 Arpent Canal and no homes were flooded. The contractor pulled the two culvers on Sunday and flow was re-established.
- On Friday the LBBLD will attempt to re-open the Violet siphon, which was shut down on the morning of the recent oil spill. A concern is whether residual oil was left from the oil spill. USGS will be on site and Mr. McCrossen described the procedure that will be used for opening the siphon. The party responsible for the oil spill will pick up the costs.
- Entergy has brought electric power to Bayou Dupre. The LBBLD will work on getting shore power to the Bayou Dupre structure and will use the existing generators for backup.
- Mr. McCrossen advised that a letter of thanks was sent to the Pontchartrain Levee District for its donation of used equipment (six tractors and a dozer) to the LBBLD. The letter was read into the minutes of the Pontchartrain Levee District Board meeting.

There was no further business, therefore, the meeting was adjourned at 3:30 p.m.