ORANGE COUNTY
OC PublicWorks
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DATE: August 15, 2012

TO: All Prospective Bidders

FROM: Ignacio Ochoa, Interim Director/Chief Engineer, OC Public Works

SUBJECT: Bulletin No. 3 - Plans and Special Provisions for the Construction of the East Garden Grove – Wintersburg Channel (Facility C05) Improvement Project from the Tide Gates to Warner Avenue

Supplement to Bulletin No. 2, the bidder's attention is directed to the following changes of the Special Provisions:

SPECIAL PROVISIONS

1. **Section F, Page F-41**
   - Amend 1st paragraph under Section F-23 BUTTRESS FILL to read:
     ".....or ninety **five** percent **(95%)** compaction utilizing CTM 231 methods employed in Section F-20, "EARTHWORK," as directed/approved by OC Inspection/Materials Lab."
   - See Attachment 1

2. **Section F, Page F-58**
   - Amend 3rd paragraph under Section F-36 RIPRAP REVETMENT to read:
     "The riprap material shall be placed to form an approximate **one (1)** vertical to one **and one-half (1.5)** horizontal slope with a minimum revetment thickness of twenty four (24) inches **unless shown otherwise on the PLANS**."
   - See Attachment 2

3. **Section F, Subsection F-73, Supplemental Addendum, Bulletin No. 2**
   - Replace previously issued Section F-73 REMOVAL OF UNFORESEEN OBSTRUCTION in its entirety.
   - See attachment 3

QUESTIONS & ANSWERS

REFER TO Supplement to **QUESTIONS & ANSWERS (Q&A)** per this bulletin as Attachment 4

END OF BULLETIN NO. 3

BIDDERS SHALL ACKNOWLEDGE RECEIPT OF THIS BULLETIN AS PROVIDED FOR IN THE BID PROPOSAL.

APPROVED:

IGNACIO G. OCHOA, P.E.
INTERIM DIRECTOR/CHIEF ENGINEER
OC PUBLIC WORKS

Attachments
Attachment 1: Section F, Page F-41
Attachment 2: Section F, Page F-58
Attachment 3: Section F, Subsection F-73, Supplemental Addendum
Attachment 4: C05 Bulletin #3 Q&A v1

PDF file of this Bulletin No. 3 is also available for download at the website below.
http://www.ocflood.com/NFC_Design_EastGarden.aspx

Distribution:
All Prospective Bidders (via email and certified mail)
Project Stakeholders and Design and Construction Management Team
Octavio Rivas, OC Inspection
K. Onuma, OC Flood Control
Phil Jones, OC Flood Control Design
Ali Fayad, OC Flood Control Design
Clerk of the Board of the Board of Supervisors of Orange County

5. All additional testing and/or removal of deleterious materials required,

shall be considered as included in the CONTRACT unit price bid per CUBIC YARD and no additional compensation will be allowed therefor.

F-23 BUTTRESS FILL

Except as otherwise indicated on plans or these Special Provisions, Buttress Fill shall apply to the embankment area from Station 34+00 to 53+28 (Access Ramp). The widened embankment area shall be backfilled and compacted to required compaction of ninety five percent (95%) minimum to the required sub base grade as shown on plans in accordance with Sand Cone Method (ASTM D1556), the Nuclear Method (ASTM D2922 and D3017) or ninety ***five*** *percent* ***(95%)*** *compaction utilizing CTM 231 methods employed in Section F-20, "EARTHWORK," as directed/approved by OC Inspection/Materials Lab.*

Buttress Fill shall conform to Section 300-4 of the STANDARD SPECIFICATIONS.

Buttress Fill shall include all fill required to construct finished lines and grades within the payline limits shown on the plans for Buttress *backfill* or as directed by the ENGINEER. No payment shall be made for placing material excavated as part of, or in place of, a shoring operation including material excavated for sloping or placement of shoring.

Full compensation for transporting *imported borrow material used* and placing it as compacted fill shall be considered as being included in the CONTRACT bid price per *CUBIC YARD* for Buttress Fill compacted in place; and no adjustment for shrinkage, subsidence or any other allowance will be made therefor.

Backfill material shall include imported clayey sand with minimum cohesion of 200 psf and a minimum friction angle of 34 degrees. Plasticity Index of the borrow materials should be in the order of 6, passing No. 200 sieve at around 15%. Fill materials should be placed in lifts of no thicker than 8 inches, loose measurement with water content of fill slightly above optimum moisture content.

Measurement of all Buttress Fill will be based only on the volume it occupies in its final position after compaction. Any disagreement over volume measurements requiring verification by survey will be submitted in writing for review by the ENGINEER.

Before placing material for compacted *buttress* fill, the surfaces shall be cleared of all existing obstructions, vegetation, and debris.

Unsuitable material shall be removed as directed by the ENGINEER and the existing surfaces scarified to a depth of 6 inches before placing the *buttress fill*. *Buttress Fill* material shall be

F-36 RIPRAP REVETMENT

This work shall consist of placing riprap protection to the lines and grades as shown on the Plans, conforming to the requirements OC Public Works (RDMD) Standard Plan 1809 and as described in these Special Provisions.

Where the rock (revetment) thickness and rock gradation differs between the Plans, Special Provisions and Standard Plan 1809, the revetment thickness and gradations as specified on the Plans and then in the Special Provisions shall prevail. The revetment thickness and gradations as specified by Standard Plan 1809 shall only be referenced if no thickness and gradations are furnished on the Plans or within the Special Provisions.

The riprap material shall be placed to form an approximate *one (1)* vertical to one *and one-half* (*1.5*) horizontal slope with a minimum revetment thickness of twenty four (24) inches *unless shown otherwise on the PLANS.* Local surface irregularities of the slope protection shall not vary from the proposed finished grade by more than six (6) inches measured at right angles to the slope.

Riprap toe revetment on the newly constructed reinforced concrete L-walls must be installed by the CONTRACTOR as soon as practicable in order to protect from potential damage due to storm run-off that may occur during the construction period.

Broken concrete, asphalt pavement, and other non-rock materials may not be used as riprap unless otherwise directed by the ENGINEER.

Rocks shall be of such shape as to form a stable protection structure of the required section. Flat or needle shapes will not be accepted unless thickness of the individual pieces is greater than 1/3 the length.

Saturated surface dry (as described in ASTM C 127, 5.1.2, "Bulk Specific Gravity"), specific weight or unit weight of stone for riprap material shall be a minimum of 165 pounds per cubic foot.

Riprap material shall be placed directly on top of the filter fabric material in such a manner that damage to or displacement of fabric shall not occur. Any damage or displacement to the filter fabric material shall be replaced or repaired by the CONTRACTOR, shall conform to the overlap and pinning provisions as set forth in these Special Provisions, and shall be completed at the CONTRACTOR's expense.

All filter fabric material required to fulfill the requirements of the plans, typical section, and Standard Plan 1808 and 1809 shall conform to Section F-38 “Filter Fabric, Type I, Type II, and Type III" of these Special Provisions and shall be included in the unit price bid for FILTER FABRIC TYPE I, TYPE II, AND TYPE III, and no additional compensation will be allowed therefor.

Riprap material, cleared and grubbed by the CONTRACTOR, may be salvaged, cleaned of all earth, debris, and deleterious material and, if so approved by the OC Public Works, Materials

F-73 REMOVAL OF UNFORESEEN OBSTRUCTION

DISTRICT has endeavored to locate all underground/abandoned structures and identify subsurface materials based on available data and field survey. However, CONTRACTOR may encounter unforeseen obstruction or underground materials during the course of sheet pile installation and/or soil-cement mix columns construction. The CONTRACTOR should include in its bid the cost of clearing subsurface materials, to include but not limited to, concrete blocks, riprap rock, cobbles, stones, *buried pipes, etc.* which may lead to refusal during pile driving operations and soil-cement mix columns drilling shall be considered as an UNFORESEEN condition and the following shall apply.

If the CONTRACTOR encounters *an* UNFORESEEN OBSTRUCTION or conditions that interfere with *and/or cause refusal of* pile driving and soil-cement mixing operations as described above, the CONTRACTOR shall be required to clear, remove, and/or dispose of any interfering conditions, materials, and or items on a TIME and MATERIALS basis as described in section 3-4, "CHANGED CONDITIONS," of the STANDARD SPECIFICATIONS, or as directed by the ENGINEER in order to facilitate sheet pile driving and/or soil-cement mix columns drilling to the required depth and alignment as shown on plans.

The requirements of Section 3-4, "CHANGED CONDITION," of the STANDARD SPECIFICATIONS are amended as follows:

3-4 CHANGED CONDITIONS. The CONTRACTOR shall notify the ENGINEER of the following work site conditions (hereinafter called "changed conditions"), in writing, upon their discovery and before they are disturbed, when possible:

1. Subsurface or latent physical conditions differing materially from those represented in the Contract Documents;

2. Unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in work of the character being performed; and

3. Material differing from that represented in the Contract Documents which the CONTRACTOR believes may be hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with the provisions of existing law.

The ENGINEER will investigate conditions which appear to be changed conditions. If the ENGINEER determines that the conditions are changed conditions and will materially affect costs, the CONTRACTOR shall proceed upon written authorization from the ENGINEER on a TIME and MATERIALS basis for such portion of the work in accordance with the provisions of Section3-3 of the STANDARD SPECIFICATIONS. If the ENGINEER determines that conditions are changed conditions and will affect performance time, the CONTRACTOR, upon written request will be granted a non-compensable time extension and any costs incurred including labor, overhead, and equipment costs will not be subject to additional compensation. Only pile driving equipment or soil-cement drilling rig that can not

be practically demobilized and can be judiciously used elsewhere as means of mitigating cost will be compensated for in accordance with Sections 3-4 and 6-6 of the STANDARD SPECIFICATIONS and as authorized by the ENGINEER.

If the ENGINEER determines that conditions do not justify an adjustment in compensation, the CONTRACTOR will be notified so in writing. This notice will also advise the CONTRACTOR of its obligation to notify the ENGINEER in writing if the CONTRACTOR disagrees.

If the CONTRACTOR disagrees with the decision, he may submit a written notice of potential claim to the ENGINEER commencing the disputed work. In the event of such dispute, the CONTRACTOR shall not be excused from any scheduled completion date provided by the CONTRACT and shall proceed with all work to be performed under the CONTRACT. However, the CONTRACTOR shall retain any and all rights provided by either the CONTRACT or by law which pertains to the resolution of disputes and protest between the contracting parties. The CONTRACTOR shall proceed in accordance with Section 3-5 of the STANDARD SPECIFICITIONS.

The CONTRACTOR's failure to give notice of changed conditions promptly [within two (2) business days] upon their discovery and before they are disturbed shall constitute a waiver of all claims in connection therewith."

F-73.1 PAYMENT

The ENGINEER, based on precedent set by a past improvement in the same area of the PROJECT, and based on the geotechnical reports for the PROJECT, and based on the ENGINEER's familiarity with the site, has set a LUMP SUM price listed in Section C, "PAYMENTS, for the CONTRACTOR as an estimate for bidding purposes. Full compensation for conforming to the requirements of REMOVAL OF UNFORESEEN OBSTRUCTION will be paid on a TIME and MATERIALS basis. *In the unlikely event that the LUMP SUM price listed in Section C, "PAYMENTS," of these Special Provisions is exceeded, and pile refusal is reached and it is determined by the ENGINEER to remove the obstruction, CONTRACTOR shall be paid for the obstruction removal work on a TIME and MATERIALS basis,*and no additional compensation will be allowed therefor.

NOTE: REMOVAL OF UNFORESEEN OBSTRUCTION shall be bid as Deletable and Mandatory bid item.

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Attachment 4

SUBJECT: EAST GARDEN GROVE WINTERSBURG CHANNEL IMPROVEMENT PROJECT (FACILITY C05), FROM TIDE GATES TO WARNER AVENUE

BULLETIN #3: QUESTIONS & ANSWERS

QUESTION 1: Are there any Small Business / Minority Business Entrepreneurship goals for this project?
ANSWER 1: There is no federal funding on this project; hence no Small Business/Minority Business Entrepreneurship mandate requirement.

QUESTION 2: Can the specified Pilepro connectors be supplied in conformance with ASTM A572 Grade 50 in lieu of the ASTM A690 specification?
ANSWER 2: The design of the Accordion-sheet pile calls for unpainted A690 steel. The idea of mixing A572 grade with A690 grade at the T-joint-piles is an invitation for galvanic corrosion throughout the length of the joint-pile at the most critical points of the sheet pile. The CONTRACTOR shall note that, a T-joint pile (Bullhead and Joker combination) in the A690 grade matching the PilePro specifications (with a 20 degree swing angle away from the longitudinal axis of the wall in either direction), and extending the length of the sheet pile, shall be considered an approved equal to the PilePro joint connector by the ENGINEER. Within the Buttress sheet pile (Sta. 34+00 to Sta. 53+16), there are no exclusions on the use of the PZC26 or the PZ35 once a guaranteed section swing angle of five (5) degrees is provided and ENGINEER approved A690 connectors are used.

QUESTION 3: Bulletin No. 2 includes an entirely new Section, F-73 Removal of Unforeseen Obstruction. This provision for Removal of Unforeseen Obstructions essentially states 1) the contractor is to include in its bid "the cost of clearing subsurface materials, to include but not limited to, concrete blocks, riprap rock, cobbles, and stones up to twenty four (24) inches in diameter; and 2) removal of obstructions greater than 24" will be paid by the District on a time and material basis, but only up to a not to exceed price of $200,000.
This provision identifies obstructions, whether smaller than 24" or greater than 24", as unforeseen conditions. This is consistent with the subsurface data provided by the District in that these conditions are not readily or reasonably ascertained by the information provided by the District. Yet, the District wants bidders to include a cost in its bid for work that is, by the District's own definition, unascertainable because it cannot be seen or known before it is encountered. This is a curious and self-defeating rationale and provision.
How much should the contractor include in its to remove obstructions, that even if much smaller than 24", will affect the press installation of sheet piles and the soil mixing - $500k, $1 mil, more? In any event, the District will not recover any of these amounts if there are no obstructions because there is no pay item for it. The Unforeseen item is only for the Time & Material (T&M) costs to remove 24" or greater obstructions up to a maximum of $200k. More importantly, the whole purpose of an unforeseen condition clause is to relieve the contractor from unknown conditions that are impossible to predict and, at the same time, have the owner avoid unnecessary inflated bids to cover unpredictable conditions. If

the District conforms its unforeseen condition clause to standard language it only pays for whatever actual costs are incurred, and rightfully and equitably so; it also avoids significant unnecessary contingencies in its bids.
This is an unreasonable specification that disclaims the Owner's responsibility relative to conditions that are not supported by subsurface data. Please either:

1) remove the language in the unforeseen clause associated with the contractor having responsibility for clearing subsurface obstructions of any kind other than on a time and material basis or;
2) clarify the location and extent of the obstructions the Contractor should include in its bid for clearing subsurface materials listed above.

ANSWER 3: If pile refusal is reached and the District/Engineer makes the call to remove the obstruction rather than trim the pile, contractor will be paid for the obstruction removal work on a Time & Materials basis. The $200,000 is a target value for all contractors for bidding purposes. If we found that actual work exceeded this amount, the District would pay the actual Time & Materials amount to get the job done. Given the soil type in the area of the project, we feel $200,000 is a reasonably conservative estimate for our budgetary needs.

QUESTION 4: Can you provide full sheet cross-sections with a consistent horizontal and vertical scale?
ANSWER 4: No, the horizontal and vertical scale provided are a standard OC Flood Design issue and will not be changed.

QUESTION 5: Materials at and beyond a depth of approximately 40 ft from the top of the levee increases in density such that predrilling may be required to get sheet pile to depth. Is it your intent that predrilling would be required to achieve sheet pile depths specified?
ANSWER 5: Based on the precedent set by the 2008 C05 Emergency Sheet pile, and based on the geotechnical reports for the PROJECT indicating a prevalent loose sand layer, and based on the boring logs for the site, the ENGINEER does not anticipate a need for pre-drilling. The aforementioned shall neither be construed as a guarantee by the ENGINEER of the absence of the need for predrilling nor as absolving the CONTRACTOR from duties called for in the Plans and Specification including but not limited to installing the sheet piles and soil mixing to lines and grades shown on the plans. It simply informs the CONTRACTOR of the ENGINEER's good-faith assessment of the project's needs.

QUESTION 6: It was discussed at the pre-bid meeting that closing the trails along the work area was allowed so as to insure public safety. Please confirm this is the case.
ANSWER 6: A public trail in the area does not exist and will not be officially sanctioned until after the project is completed. Currently, any pedestrian traffic in the PROJECT's area is trespassing. The PROJECT is permitted by a California Coastal Commission coastal development permit which is included in Appendix D-2. Item E, on page 4 of 9 of said Permit, makes allowance for access restrictions as it states: "…temporary gates and access restrictions as necessary for construction purposes to complete the proposed project are allowed". The process of construction typically creates a hazardous condition for the public, and when it does; the ENGINEER and the CONTRACTOR are obliged to restrict access to the area to qualified personnel (with hard hats and construction gear) to safeguard the public.

QUESTION 7: Per Appendix D-3, Item 13: this item notes that project construction shall occur outside the active breeding season of the Belding's savannah sparrow (March 25th – July 4th) but has an exception if "avoidance of the avian breeding season is not feasible…" does the DISTRICT consider the avoidance of the avian breeding season feasible? Also, if controlling operations are halted as a result of

complying with this restriction or any other outside the control of the contractor, will an extension of time and corresponding equitable cost be granted to the contractor?
ANSWER 7: The DISTRICT has invested a premium in the unique construction method encompassed by the dual sheet piles, via the use of the "silent" Press-In Piler, and in other measures all aimed at mitigating impacts to the wildlife and the fauna and the flora. Furthermore, the 2nd paragraph on Page 5-22 of IP09-311 states: "The project site (area where work will be conducted) only provides suitable foraging habitat for these species. No direct impacts to nesting birds are expected from the proposed project due to a lack of suitable nesting habitat on the project site." In relying on the aforementioned, and other information in IP09-311, the ENGINEER deemed the construction of this project to be necessarily unavoidable during the March 25th to July 4th within the allotted number of working days. Notwithstanding, in the event that controlling operations are halted as a result of complying with this qualified restriction, as with other restrictions beyond the CONTRACTOR's control, the CONTRACTOR shall submit a claim for an Extension of Time which will be reviewed on a case by case basis.

QUESTION 8: There was significant discussion during the job walk regarding the roles and responsibilities of the "soil mix inspector" and the "soil mix testing inspector". It is our understanding that the soil mix inspector's role is envisioned as eyes and ears of the District on site during soil mixing. The soil mix testing inspectors responsibility is envisioned as monitoring of field sampling of material and observations of testing in the contractor's laboratory. The majority of the soil mix testing inspector's time will be in the laboratory. Clarify the roles of these two personnel.
ANSWER 8: The roles and duties of the "Soil Mix Inspector" (field personnel) and the duties of the "Soil Mix Testing Inspector" (laboratory personnel) have been adequately defined in the PROJECT documents. Had the aforementioned individuals been employees of OC Public Works, the "Soil Mix Inspector" would be similar to a construction inspector with special knowledge, skills and experience in the operation and appurtenances of a soil mix drill rig; the "Soil Mix Testing Inspector" would have been a staff member of OC Materials Lab with special knowledge, skills and experience in the testing of Deep-Soil-Cement-Mix samples.

QUESTION 9: The specifications for experience for the soil mix inspector in section F-52 refer back to the qualifications for the Soil Mix Contractor in section F-51.3.1. The qualifications for the contractor in this section discuss items such as planning and directing SCM work. These are functions which would not typically be undertaken by personnel in an inspection role. Clarify the proposed experience requirements for soil mix testing inspector.
ANSWER 9: The CONTRACTOR's SM Specialist is tasked by the CONTRACTOR to plan and direct the work. The SM Inspector is tasked with observing the SM process. Although their **experience and qualifications** may be almost identical, their **functions and authorities** are quite distinct. In view of the statement, "The SM INSPECTOR shall report exclusively to the ENGINEER", in Section F-52, the presumption that they share the same authority or role is arbitrary and lacks a foundation in the specification. The simplest way to distinguish between them is that: had the CONTRACTOR's SM Specialist not been hired by the CONTRACTOR to supervise the soil mixing work (as an agent of the CONTRACTOR), the SM Specialist would have been fully qualified (ready and able) to be the SM Inspector working as the ENGINEER's observer at the site (an agent on behalf of the DISTRICT).

QUESTION 10: Does the Structural Backfill pay item include the backfill at the Infiltration Cistern?
ANSWER 10: Yes

QUESTION 11: Clarify the requirements of Section F-71.

The first paragraph states: "…and to conduct a minimum of twelve points survey of building pads/floors adjacent to the channel facility; four (4) points west of Graham Street on both north and south of the channel, and four (4) points southwest of Graham Street." Is the intent to survey each and every structure contiguous with the channel?
The second paragraph states: "This plan shall be prepared under the supervision of a California licensed land surveyor or professional engineer experienced in instrumentation and monitoring." Then the following related requirement is stated as: "2. Preparation of the monitoring plan by a professional engineer licensed in California and experienced in instrumentation and monitoring." Can a California licensed land surveyor prepare the plan or is a professional engineer licensed in California required?
ANSWER 11:

- The ENGINEER has required, as a minimum, for the CONTRACTOR via the CAS (see Section F-71) to demonstrate, in at least three representative locations, the absence of consequential differential settlements during the construction process once the ORDER OF WORK is adhered to by the CONTRACTOR (Section F-4). It is not required to survey each and every strcture.
- The ENGINEER intent is for the CONTRACTOR to select 4 points at three of the representative locations, to monitor them, and to document said monitoring with a plan. Nothing in the Specifications bars the CONTRACTOR, at its option and at its cost, from providing itself additional monitoring points if it is unsatisfied with the ENGINEER's plan for mitigation of the potential surface of depression that may form without the filled infiltration cistern.
- The CONTRACTOR, at its option and its cost, may choose every single structure that is in the vicinity of the work for inclusion in the monitoring. In the event that the CONTRACTOR chooses to do so, the CONTRACTOR shall include the information in the monitoring plan and inform the ENGINEER that additional points are being monitored.
- Per Bulletin #2, the monitoring plan basis of compensation is for either of a professional engineer or land surveyor licensed in California.

QUESTION 12: Regarding excess swell, can the thickness of the soil mix excess spoils cap be increased if the top elevation is maintained?
ANSWER 12: The preference is to use the excess swell as structural backfill in the adjacent sections of the work upon ENGINEER'S approval. Proposed alterations to the design dimensions that maintain the top elevation of the levee road will be reviewed by the ENGINEER and approved on a case by case basis (see Section F51.5-SCM Construction).

QUESTION 13: Is the excavation required for the buttress fill paid as part of the buttress item or as unclassified excavation?
ANSWER 13: Buttress excavation is paid as part of Buttress Fill per Section F-23.2.

QUESTION 14: Is there fabric under the existing rip rap?
ANSWER 14: See "C05 Riprap Project Graham to Warner" on the bid-website (http://ocflood.com/NFC_Design_EastGarden.aspx)

QUESTION 15: What agency managed the placement of the existing rip rap and when was it placed?
ANSWER 15: See "C05 Riprap Project Graham to Warner" on the bid-website (http://ocflood.com/NFC_Design_EastGarden.aspx)

QUESTION 16: Our testing indicates that most of the existing riprap will not meet the gradations provided by section 1809 and as a result must be removed as part of clearing and grubbing. This work is

significantly more expensive than the $100,000 maximum pay. Will the district please consider raising the maximum pay allowed under this item?
ANSWER 16: The volume of unclassified excavation included the riprap on the slopes as represented by the survey files for the channel.

QUESTION 17: Does OC Flood have a need for this riprap and if so where could it be transported to for later use by OC Flood?
ANSWER 17: Although this may change, currently, there is no definitively identified need for the riprap by the DISTRICT.

END OF BULLETIN #3: QUESTIONS AND ANSWERS