DAVCAR ENGINEERING

PROJECT MANAGEMENT • CIVIL ENGINEERING • CONSTRUCTION ENGINEERING

December 15, 2011

Ms. Jules Parrish
City of Austin
Public Works Department
One Texas Center, Ninth Floor
505 Barton Springs Road
Austin, Texas 78704

RE: Clarifications and Answers to Contractors Questions
Harold Court East Regional Services Center Improvements CIP Number: 5700.012

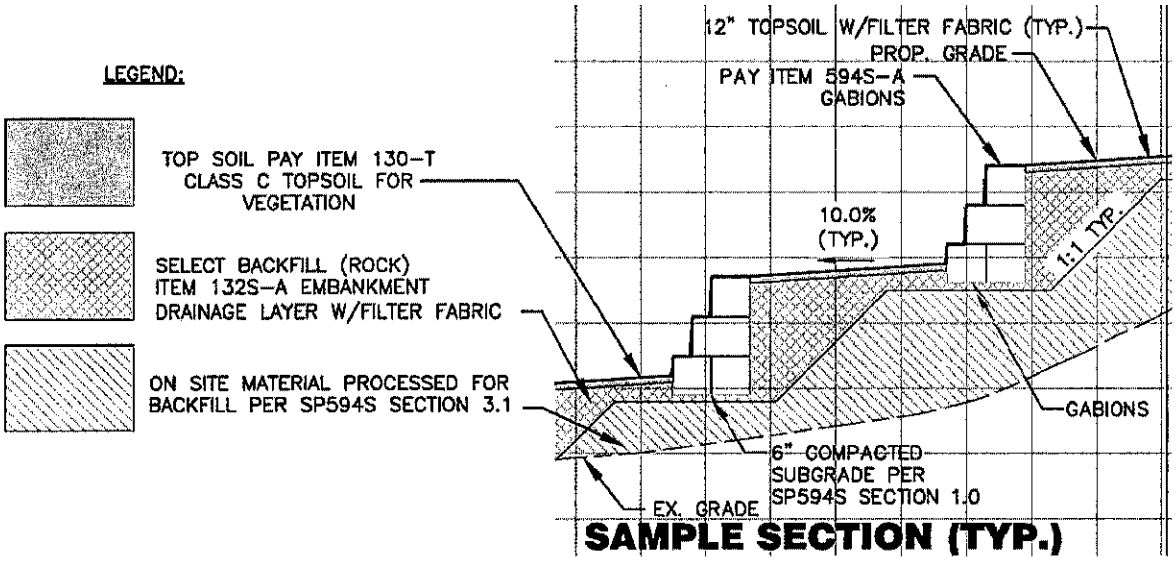
Dear Ms. Parrish,

In response to the known contractors questions to date, below please find answers and clarifications:

1. *We are to provide ADA crosswalk and two HC parking spots with symbols shown on sheet 32of 49 is this the extent of the pavement makings and will there be reserved HC parking signs . There is not a bid item for this items.*

   The proposed ADA crosswalk and two HC parking spots with symbols are the only areas with proposed pavement markings. Any existing pavement markings damaged during construction will have to be replaced at the contractor's expense. Addendum 3 Section 300U includes line items for the construction of the ADA crosswalk.

2. *The Embankment and Excavation unit quantities on the bid form are they to bring the site to the benched sloped condition before the installation of the gabions? Do these quantities include the select fill shown on the draws as embankment even if the cross section shows the existing grade to finish face of wall to be in a cut section? My takeoff shows there is more select fill which is noted on drawing to be embankment typ. Then the total quantity for embankment on the bid form and this does not include the quantity for the embankment labeled as In-situ material on section views. Likewise dose the excavation quantity on the bid form include the excavation for the gabions and the select fill (noted embankment typ.) to get it to the sloped benched condition prior to installing the gabions and select fill? Should or could there be a bid item for the select fill and will you adjust the quantities for the excavation behind the face of gabion wall to the sloped construction line for the select fill?*



1010 LAND CREEK COVE, SUITE 200 • AUSTIN, TEXAS 78746 • T 512.328.4428 • F 512.306.8330
WWW.DAVCAR.COM

The inserted image provides labels to correlate the bid items to the placement of the materials behind the gabion walls. The relocating of the on-site in-situ materials is considered subsidiary to the installation of the gabion walls per Standard Specification 594S, Section 594S.6 Payment:

"Excavation and all subgrade preparation required for shaping the foundation for the wire containers shall be included in the unit price for "Gabions and Revet Mattresses".

For informational purposes the AutoCAD earthwork analysis indicates the required amount on-site material to be processed and relocated on site for the backfill shown behind the drainage layer in the inserted image, in accordance with Special Specification SP594S Section 3.1 is approximately 41,000 cubic yards. Additionally the Section 300U pay item 111S-A "Excavation" is the amount of this on-site material that must be hauled off-site and disposed of properly.

3. *There is a note on the drawings sheet 2 of 49 Construction Sequencing 1A to pre fertilize the existing trees , is there an quantity of these trees and which bid item should this cost be place? Could this be an allowance?*

   All trees shown with in the Limits of Construction in the area of the gabion wall construction are to be removed.

   The six (6) trees along Harold Court in the area of the sidewalk construction will require fertilizer prior to construction activities in accordance with Sequencing Note 1A. Addendum 3 Section 300U includes a pay item 606S "Fertilizer" for these trees.

4. *Please confirm that the vertical steel reinforcement can be one piece extending from the key through the footing and up to the top of the wall. Please confirm that a value engineering option to construct the biofiltration out of limestone block can be submitted.*

   The structural engineer for this project offered the following response to these questions:

   "If the contractor prefers to provide full length dowels in the footing pour to eliminate the need for a splice, that is OK with me ***(and subject to submittal approval)****. Regarding limestone blocks, my experience has been that it is only cost effective up to about 4'. We have some walls in this project that are 8' tall, and for those trying to go with limestone block would likely be more expensive than the concrete wall."*

5. *In the City of Austin Special Provisions SP594S.3 Construction specifically state that material has to meet ASTM Standards A974-A975. In your Special Provisions only the lids for the mattresses may be in rolls (this is correct to the current ASTM). However, the engineer is interpreting this to mean that using roll material to build the gabion is allowed which in fact is not and is not ASTM standard (please refer to ASTM A-974 Item 6.5).*

   ASTM A974 and A975 cover standard gabions and gabion mattresses up to 12 Ft. in length. Oversized or specially configured gabions and gabion mattresses, while frequently used, are not covered by ASTM A 974 or A975 and therefore require special addendums in job specifications to require these nonstandard gabions use the same mesh and fastening systems as those gabions and gabion mattresses meeting ASTM A974 and A 975. The City of Austin Special Provision SP594S.3 "Construction" allows for rolls for on-site assembly only for special and oversized gabions. The special addendums covering non-standard gabions will insure that all gabions and gabion mattresses used in the project will be of uniform strength and durability equal to the standard size units.

6. *At the walk thru it was my understanding that the select backfill was to be on site material under 6". In the gabion spec under special provision SP594S, the select fill behind the gabions has to be screened to less than 2 1/2". Which is it?*

   Special Provision SP594S, Section 3.1, provides for the usage of processed on-site material up to six (6) inches as fill, and was included by the geotechnical engineer to provide for the maximum usage of the is-situ material. SP594S, Section 3.2 screening requirement is for imported select fill.

7. *Special provision SP594S has taking density every 100 ft every 8" lift will require numerous proctors due to the wide range of materials that have been dumped on site. This will obviously slow down the back fill process. Will the city be paying for testing?*

   Special Provision SP594S also states "The Owner reserves the right to increase or decrease the testing frequency as jobsite conditions and soil conditions dictate... If the variability of the fill material results in an excessive amount of laboratory moisture-density compaction curves then the representative of the testing laboratory may visually monitor (including proof-rolling and number of passes) portion of the backfill to verify that compaction procedures used by the contractor are similar to compaction procedures that result in passing density tests in other places." The geotechnical engineer's response to this question was: *"I would suspect the testing will be more time consuming the first week or two until compaction procedures and material variability are*

determined. Then it should speed up. The compaction spec should be fairly easy to meet. It is lower than backfill for roads or buildings."

The contractor is responsible for compliance with the testing requirements set for in the construction documents.

8. *At the walk thru you and the Engineer mentioned that the site was designed to balance and lessen the environmental carbon foot print. Due to the questions above and the need to sift, process and or crush material if it is found more economical would it be allowed to haul off the volume of excavation for the select fill and bring in select fill from off site?*

   If the selected contractor finds it more economical to haul off on-site materials and replace with imported select fill in lieu of on-site material usage, the requirement stated in the Special Provision SP111S that "Waste" shall be hauled to a Type IV Landfill will apply.

   Not sure which bid item these go in or if you need to add some bid items?

9. *12' concrete access ramp to sedimentation and biofiltration basins on 26 of 49.*

   This item is priced with the pond walls.

10. *3' wide concrete splash pad at biofiltration wall on 26 of 49*

    This item is included under 403-SY-6, "6-Inch Reinforced Concrete Pad".

11. *Concrete flume at top of access drive on 11of 49*

    This item is included under 403-SY-6, "6-Inch Reinforced Concrete Pad".

12. *3' x 22' concrete flume with dissipaters onto existing 18" HDPE pipe next to Harold Court on 11 of 49*

    This item is included under 403-SY-6, '6-Inch Reinforced Concrete Pad".

13. *Addenda 2 shows as 3"x3" tubular steel double gate on 26 of 49 bid item is for chain link*

    The pricing of a chain link double swing gate should be comparable to the tubular steel double gate shown in the plans. Under Standard Specification 701S there is not a pay item for a tubular steel gate, it is included in the plans as an option. A chain link double swing gate will be acceptable at the entrance to the water quality pond access drive.

14. *Are the 7' x 7' junction boxes to be constructed according to Detail 506S-5 or is there supposed to be a separate detail that shows a square Junction Box all the way to the surface?*

    The box culverts shall be installed per Standard Specification 559S and all other applicable Standard Specifications all the way to the surface. The City of Austin Standard Detail 506S-5 will apply.

15. *Does Bid Item 506-EDMSW, for extra vertical footage of manholes, apply to the 7' x 7' junction boxes as well as to the manholes?*

    Yes, Section 300U bid item 506-EDMSW applies to the 7' x 7' junction box also.

16. *The beginning station numbers for both Line E and Line F as shown in the profile on sheet 27 do not match the station numbers shown above the line. If the station numbers as called out at 1+00.00 are used, the footage does not agree with the footage as stated on the plans.*

    The length of box culverts provided in Volume1, Section 300U is correct, and in agreement with the length of box culverts shown on the approved. The profile upstream and downstream elevations provided with Addendum 2 Sheet 27 of 49 are also correct. Both of the profiles begin at 0+00.

17. *Is there a bedding detail for the Box Culverts? If not, can you please provide one?*

As stated in the response to question #14 the City of Austin Standard Detail 506S-5 will apply to the bedding of the box culverts.

18. *Cross Section B-B on Sheet 27 does not show the, "pilot channel fully embedded in the Gabion Mattresses," as called out on sheet 26. Can you please provide a detail of the Pilot Channel and Gabion Mattresses?*

Addendum 2 included Sheet 28 of 49 with a detail showing the pilot channel embedded in the gabion mattress.

19. *Please SPECIFY which gabions, to be used on this project, are SPECIAL and OVERSIZED as all the gabions identified on the plans (i.e. sheet 15 of 49...) are Standard size gabions.*

The gabion baskets shown to be 4.5 feet in width are not found on either ASTM 974-97 Table 1, or ASTM 975-97 Table 4, but are commonly available in both twisted wire and welded wire mesh. Special Provision 594S is intended to insure that all wire used in the construction of any gabion basket conforms to the wire requirements of ASTM 974-97 or ASTM 975-97, and for the contractor to make use of the advancements made in the gabion industry not contemplated at the writing of the standards. Special Provision 594S is to enhance the ASTM specifications not to replace them.

20. *Sheet 31 of 49 (S3), Detail 1 and Detail 2 call out the 6" Perforated PVC Drain as (Sched 60). Should that be Schedule 80?*

Yes, the 6" perforated PVC shown in Detail 1 and Detail 2 on Sheet 31 of 49 is Schedule 80 pipe.

21. *Where are the 6" perforated drains, shown in detail 1 and detail 2 on sheet 31 of 49 (S3), shown in a plan view? Where do the drain pipes begin and where do they end? Are there supposed to be any cleanouts on the drain line?*

The drain piles shown adjacent to the retaining walls is to provide positive drainage away from the wall. The structural engineer's response to this question is: "The perforated drains are required behind all concrete structures at the pond. The perforated drains will have a 1% slope, and will daylight near the outlet structure. No cleanouts are required."

22. *Where is the 10' of 6" Schedule 40 perforated PVC located?*

Addendum 3 Section 300U pay item 510-ASD 6 Dia. SCH 40 has been revised to provide for a perforated eight (8) inch pipe. This section of pipe is for the riser in the sedimentation pond.

23. *Can any more detail be provided for the bicycle parking spaces? The detail for the Class III Type 1 Bike Racks can have either a rack for 2 bikes or a rack for 4 bikes. We must supply 23 bike racks, but it is unclear which size is required. Can you please clarify the size and spacing of the bike racks?*

The contractor is required to provide a minimum of 23 bike racks using the details provided. As long as the required number is met and the racks are installed according the Standard Specification 710S some degree of variability will be allowed.

24. *It looks like the project will be about 150' from the railroad and the railroad right of way is 50' on either side of the railroad. I have spoken to Vincent Sandoval with Capitol Metro (369-6049) and he does not feel we need the liablility policy. I originally contacted him because I was trying to get a description of the railroad right of way so I could answer a question on the Railroad Protective Liabiliy Application about if we would be working within 50' of the railroad right of way.*

Please confirm that we do need this policy.

The limits of construction around the proposed water quality pond are within two feet of the property line of the 74.13 acre tract. The City of Austin owns a strip of land approximately 50 feet in width adjacent to the 74.13 acre

tract that buffers the railroad tracks operated by Capital Metro. The size and scope of this project within the proximity described above warrants the coverage in order to be conservative.

25. *The detail for the pond maintenance access gate indicates that the gate posts are to be installed in the ground but the plans seem to indicate that the entire fence is mounted on top of the retaining wall. Is the fence mounted on top of the retaining wall? Should the access gates be mounted on top of the retaining wall? And are the pond access gates subsidiary to the pond fencing? Meaning that the gates do not have a separate pay item?*

    The fence around the water quality pond is to be mounted on top of the pond retaining walls. Addendum 2 Sheet 31 of 49 provided a structural detail to facilitate the installation of the fence poles. The vehicular access gates to the water quality pond are included under pay item 701S-CD "Chain Link Vehicular Double Swing Gate".

Sincerely,

Adam Wighaman, PE
Project Engineer
DAVCAR Engineering Services