

MEETING NOTES

Construction Documents Meeting 1 (CD 1)

Project:

FCPS – ES Prototype: Waverley ES (WAVES)

GWWO Project #18045

Meeting Date: October 17, 2019

Report Date: October 21, 2019

In Attendance:

| Name | Initials | Organization | Email |
|---------------------|----------|-----------------|--|
| Paul Lebo | PL | FCPS | Paul.lebo@fcps.org |
| Adnan Mamoon | AM | FCPS | Adnan.mamoon@fcps.org |
| Bob Wilkinson | BW | FCPS | Robert.wilkinson@fcps.org |
| Curtis Orndorff | CO | FCPS | Curtis.orndorff@fcps.org |
| Michelle Concepcion | MC | FCPS | Michelle.concepcion@fcps.org |
| Dave Toth | DT | Oak Contracting | dtoth@oakcontracting.com |
| Jason Hearn | JH | GWWO | jhearn@gwwoinc.com |

The purpose of this meeting was to discuss open action items needing resolution as the Construction Documents phase commences.

- JH informed the group that GWWO is in the process of converting the metal panel wall system included in the DD package to masonry.
 - PL confirmed metal panel installation is OK at penthouse locations.
 - PL confirmed that gutters and downspouts are OK for draining penthouse roofs.
- JH offered a value engineering approach for secondary/overflow roof drainage that includes utilizing scuppers.
 - JH acknowledged the agreement to use internal drains for all primary roof drainage. Overflow scuppers would eliminate the network of “primary-plus” sized piping throughout the building. If the seismic site classification remains category “D,” associated bracing would be eliminated as well.
 - PL and CO confirmed that the maintenance department were interested in the approach.

- DT expressed concerns with scuppers that have been relayed by roofers, one being Cole Roofing:
 - o Interruption of the thermal envelope
 - o Additional components and flashing
 - o Overflow water dumping to the ground
- JH questioned the concerns.
 - o Internal overflow drainage would also result in an interruption of the thermal envelope. However, instead of penetrating the parapet well above conditioned space, an open pipe passes through conditioned space and terminates at an open air “cow-tongue” approximately 24” above grade.
 - o Heat welded TPO roof flashing would seal the interior side of the parapet seamlessly while use of fully welded metal scuppers set in a two-stage seal would prevent infiltration from the outside.
 - o Overflow scuppers are set a prescribed height, determined by the structural engineer, above the roof plane so general drainage does not spill over to the exterior. In the event of a clogged drain or extreme weather event, ponding would occur and then spill over to the exterior.
- GWWO has no problem with either approach but felt it was important to highlight the cost savings that would likely be incurred by utilizing scuppers.
- DT will circulate a cut-sheet for the dual function roof drain that contains an internal overflow pipe within a larger primary sump. JH will discuss this approach with Alban.
- JH reviewed the current site plan from ADTEK.
 - PL, in an earlier e-mail, requested two vehicular gates, one at each end of the building. After discussion that included egress and loading dock access, the group decided on a gate located just west of the bus loop and a second gate just north of the loading dock.
 - With the addition of the diagonal sidewalk connecting the new building and Schaffer Drive (added in a separate meeting with Brian Staiger and ADTEK), PL questioned the need for the larger sidewalk running parallel to the City lot.
 - o JH stated the purpose of the sidewalk in question was to act a connection for Schaffer Drive. Functionally, it is no longer necessary with the added pathway. JH to cross-check with ADTEK to confirm it is not required by the City.
 - JH confirmed that the Specialty Programs area will be documented as an Add/Alternate. Grading should remain the same regardless of how it is documented.

- PL confirmed that all canopies at secondary entrances are to be omitted. The Judy Center entrance is an exception and should have a canopy.
- PL questioned why a chevron stacking arrangement was not provided at the bus loop.
 - JH recalls it being a hold-over from early phasing exercises. Ultimately, stacking was maintained for consistency between WAVES and BHES, as well as the fact that only a few (2-3) buses are expected at WAVES when the facility opens.
 - Chevron parking would require additional hardscape paving surface and affect stormwater management locations.
 - PL has concerns about safety, especially if buses need to reverse.
 - JH will look back through the SD meeting minutes to confirm why the loop arrangement was pursued. JH clarified that a modification would need to happen now before the site plan is submitted. JH will confirm with ADTEK to see if a modification is feasible before the 10/28 submission.
- JH asked DT how much documentation GWWO should include re: phasing of construction. DT prefers an open approach that gives Oak the flexibility to scope as needed. JH agreed and prefers said approach as well.
- JH asked DT if Oak was familiar with GreenGirt, a composite z-girt furring system. DT acknowledged that he was and had no issues with the system.
 - JH explained the benefits of the system to the group in terms of energy/envelope performance. Because the metal panel system is being replaced, the system is likely not necessary beyond the penthouse locations. GWWO will conference with ECS (envelope commissioner) to determine applicability.
- JH asked the group about issues experienced with Solatubes at other FCPS facilities.
 - PL emphasized the poor quality of light and the need to utilize artificial lighting as a supplement. The results were not worth the investment.
 - JH agreed to remove the fixtures from WAVES completely. If the technologies evolve, GWWO will continue to evaluate the fixtures for use on future facilities.
- JH explained the respective structural and MEP design differences between a “C” and “D” seismic site classification.
 - Seismic concerns are primarily focused around load-bearing conditions at the gym/cafeteria volume. However, at this site, wind factors have a greater effect on the design.

- MEP fixtures, including pipes, ducts and conduits, are assigned importance factors that govern whether they require bracing. Because the design is still being developed, an immediate understanding of the monetary impact is relatively obscure.
 - JH recommended getting a proposal from Hillis-Carnes for the additional testing recommended in the final Geotechnical report. From there, the design team could work with Oak to assign a unit cost for analysis.
 - Per an e-mail sent as a follow-up to the previous design meeting, Hillis-Carnes sees changing to a “C” site classification unlikely. DT recommended maintaining the “D” designation to avoid delaying design. PL agreed. GWWO and consultants will continue to develop the design based on a “D” site classification.
- DT asked about the comments on the ECS commissioning plan. JH and DT will follow-up with Brian Staiger to see if revisions have been made.

The foregoing represents the writer’s interpretations of what transpired at the meeting. Please forward any changes or corrections within five (5) days to jhearn@gwwoinc.com. Otherwise these notes will stand as the final record of the meeting.

Respectfully submitted,
GWWO, Inc./Architects



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CC: All Attendees
Brian Staiger
Tammie Smith
Paul Hume