



July 21, 2021

Patricia Strayer, P.E.
Town of Palm Beach Public Works
951 Old Okeechobee Road, Suite A
West Palm Beach, FL 33401

RE: Phase 4 South – GMP Review
KHA Job No. 044063219

Dear Patricia,

The Town of Palm Beach selected Burkhardt Construction (BCI) as the Construction Manager at Risk (CMAR) for the Phase 4 South Undergrounding Conversion and A-6 Lift Station Improvements Projects. On July 12, 2021, BCI submitted a Guaranteed Maximum Price (GMP) for the projects to the Town and Kimley-Horn for review. Because these two projects share a similar project area, there are cost and schedule efficiency gains in constructing them simultaneously under a single project. This approach is similar to that taken for the infrastructure improvements that were constructed during previous phases of the Undergrounding project.

The GMP received for the Phase 4 South Undergrounding project was \$9,010,156.95. The current Engineer's Opinion of Probable Cost for Phase 4 South is \$9,190,000. The Master Plan Opinion of Probable Cost that was updated in November 2019 included a cost opinion of \$6,400,000 for the construction elements that were anticipated to be included in the GMP for Phase 4 South. There are a number of reasons for the difference between the current Engineer's Opinion of Probable Construction Cost for Phase 4 South and the cost opinion that was developed in 2019. These reasons include the following:

1. *Phase 5 South Infrastructure.* There are spare conduits being installed in the Phase 4 South project to avoid installation conflicts during the Phase 5 South construction phase. These conduits exist along the phase boundary and installing them during Phase 4 creates installation and cost efficiencies and prevents disturbing the impacted areas twice. We recommend that the CMAR separate these costs so they can be allocated appropriately to Phase 5.
2. *Schedule Delay.* The easement acquisition process was extremely difficult in Phase 4 South and, while significant progress was made over the last 6 months, the phase is over a year behind schedule. The cost opinion that was updated in 2019 did not include an extra year of cost escalations to account for a 2021 construction start.

3. *Non-ideal equipment placement.* As described in previous phases, the easement acquisition process does not always yield the most efficient equipment locations from a cost perspective. Combining this with the difficulties experienced in this phase with acquiring easements, more creativity was needed in order to bring this design to a point where it can be implemented in the field. This results in the need to relocate existing utilities, modify sidewalks, install curbs and bollards, modify site walls, and perform other site improvements that were at a level far greater than experienced in previous phases. These site improvements and related restoration drove up project costs.
4. *Increased phase area complexity.* The age of the existing infrastructure combined with the urban environment and high power and communication service demands creates a climate of increased complexity in project execution. Phase 4 South is the most complex and difficult phase yet and is potentially the most difficult phase of the entire program.
5. *Increased Communication Infrastructure Intensity.* The Mid-Town area requires a higher amount of communications infrastructure than previous phases largely due to the way the area is served today. The project area consists of a mix of predominantly aerial cables with at-grade equipment cabinets, and some underground cables that will be reused. In order to reuse the existing at-grade cabinets, new underground conduits need to be connected to the cabinets and then routed to the individual properties that are served by those cabinets. In some instances, this requires multiple conduits on one street because each side of the street is served by different cabinets. Additionally, intercepting some of the existing underground infrastructure requires long lengths of conduit because the shortest intercept length was not constructable or there was no ability to access the building in the most convenient location.
6. *Current Construction Industry Climate.* The first half of 2021 has seen some of the sharpest increases in construction costs than have been seen in many years. Supply chain disruption, building material and equipment price increases, and labor shortages, combined with an extremely active construction market have driven project costs significantly higher during the first half of 2021.

The GMP received for the A-6 Lift Station Improvements project was \$1,908,906.99. The Engineer's Opinion of Probable Cost for the A-6 project that was prepared in 2020 is \$1,454,000. The difference can mostly be attributed to the current state of the construction market as described in point #6 above. Metals and equipment have been particularly

impacted by these issues due to recent elimination of tariff credits and the A-6 project includes numerous metal materials and significant electrical equipment.

Kimley-Horn reviewed the GMP to identify any abnormalities in the bid items, CMAR costs, and Exceptions and Clarifications submitted by BCI. The results of our review follow below.

The GMP includes General Conditions and Construction Phase Management Fees that are less on a percentage basis than previous phases. With Phases 2 South and 3 South under active construction, there is now considerable overlap in the project schedules that allows more cost efficiencies to be realized.

The following items are recommended to be reviewed and revised by BCI, as applicable:

- The percentage profit has increased to 8.1% versus the traditional 7.7% we have seen in previous phases.
- The spare conduits that are related to the Phase 5 South project scope should be itemized separately in the GMP, including any associated CMAR costs, as the costs for these improvements should be allocated to Phase 5.
- The cost for installation of 2-3" Comcast conduits should be verified as it is the same as the cost for installation of 3-3" Comcast conduits.
- There are costs related to intercepting Comcast risers and services that should be verified as these are only related to the location of where the conduit should be stubbed up. Comcast will perform the actual intercept.
- There are per foot costs in the bid for gas relocation. This should be verified as FPU will be responsible for the actual relocation.

Additionally, there is one line item that should be considered for elimination from the GMP:

- The line item "Restore Exfiltration Trench" has been eliminated from the project. This item can be eliminated from the GMP.

The Exceptions and Clarifications submitted with the GMP were also reviewed. Our review of these conditions yields the following comments:

- General, Item 2: The note indicates a schedule duration of 30 months but all other documentation in the GMP indicates a schedule of 24 months. This note should be revised.

- General, Item 3: Provides a disclaimer that prices are subject to change based on the volatile construction market and that any material price increases will be passed on to the Town.
- Water / Sewer / Storm Drainage, Item 7: States that BCI/Murray Logan will not be responsible for pumping performance of existing pumps after voltage change. Our expectation is that the pumps will perform similar to their existing pumping condition after the voltage change. The Town should have the right to reject pumps that return from the motor shop in an inoperable condition, have excessive vibrations, pump significantly less volume and/or head, etc.
- Franchise Utilities, Item 7: There is an allowance item in the GMP for concrete restoration after pole removal. The intent of this note should be clarified.
- Franchise Utilities, Item 9: There are no chicanes shown in the plans. The intent of this note should be clarified.
- Franchise Utilities, Item 11: Preliminary FPL Schematic plans were provided in the Bid Documents. The intent of this note should be clarified.
- Franchise Utilities, Item 12: There are costs in Wilco's bid that describe gas main relocation fees. The intent of this note should be clarified.

We recommend that these comments to the GMP Exceptions and Clarifications section be reviewed with BCI so appropriate revisions can be made.

Should you have any questions or comments, please do not hesitate to contact me at (561) 840-0820.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.



Kevin Schanen, P.E.
Sr. Vice President

Attachment: BCI GMP dated July 12, 2021

Cc: File

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