

October 28, 2020

Mr. Cody Maberry, Director of Community Services
City of Keller
P.O. Box 770
Keller, Texas 76244

Reference: Proposed Engineering Agreement for Professional Services – Keller Sports Park Lot E Refurbishment, Shady Lane Road and Parking Reclamation and Maintenance Building Parking Lot Overlay or Reconstruction.

Dear Mr. Maberry:

Neel-Schaffer, Inc. (Engineer) is pleased to offer Professional Services to the City of Keller (City).

Introduction: The City desires the Engineer to provide design for improvements to three different sites. First is Parking Lot E at Keller Sports Park, the second is Shady Lane North roadway, from Roy Lane, northeasterly approximately 550 feet to a gated access point and includes approximately 350 feet of angled parking on the northwesterly side of the roadway, and the third site being the maintenance building parking lot at 400 Bear Creek Parkway. Proposed improvement varies for each site and are as described below.

The first site, as depicted on the attached overall layout of the Keller Sports Park, has existing bounding concrete curb and gutter, with and without adjoining concrete sidewalk, and existing concrete roadways in the middle and all curb and gutter, sidewalk and concrete roadway segments are to remain in place as are the existing drainage inlets and grading characteristics of the various sections of the existing parking lot.

According to the Geotechnical Report prepared by CMJ Engineering, Inc. dated April 15, 2019 one boring was taken on Lot E for the pavement evaluation report Neel-Schaffer provided to the City in 2019. The boring shows four inches of asphalt on existing clay soils. No crushed stone base was encountered.

We are proposing to refurbish the parking lot by working the refurbishment in two segments of the lot. Basically, the west half and the east half. We propose removing and recycling the four inches of asphalt off of the west side and stockpiling this material onto the east half of the lot. Remove and haul off four inches of existing clay material, then

spread the four inches of reclaimed asphalt back onto the west half, mixing with six to eleven percent cement to a depth of eleven inches. Then move these same processes and procedures over to the east half of the lot. Once all mixing, shaping and compaction has taken place microcrack the entire lot, apply prime coat and install four inches (two lifts at two inches each) of PG 70-22 HMA Type D Surface Course. No RAS or RAP will be allowed. Based on the prior submitted Geotechnical report and recommendation this should provide for a seven to ten-year design life. We shall also provide for striping within the refurbished lot.

The estimated conceptual stage construction cost is \$520,000 (five hundred twenty thousand dollars).

The Shady Lane North roadway and adjoining parking described above is an asphalt pavement area in poor condition with a total area of about two thousand two hundred square yards. The roadway has a slight parabolic crown section to it with the southerly half of the roadway draining into an existing borrow ditch and the northerly segment of the roadway and adjoining parking sloping to drain into Bear Creek. We are proposing to remove the existing bollards with cable along the northerly side of Shady Lane North only in the areas with existing parking and perform a full depth reclamation of the roadway and parking areas to a depth of eleven inches. A haul-off of three inches of mixed material from roadway and parking area will be required.

By mixing six to eleven percent cement into the recycled material, grading and shaping and allowing for cure time, then microcracking while maintaining a minimum eighteen foot wide roadway with parabolic crown section, installing a thirty inch wide curb (seven inch height minimum) and gutter section along the northerly side of the parking area only with sawtooth curb sections for drainage every eighty to one hundred foot increments and eighteen inch by eighteen inch flush or ribbon curb along the entire length of the southeasterly side of the roadway.

A decision to install flush curb along the northwesterly side of the roadway separate from the parking area will be made before final design which may require removal and installation of new similar bollard and cable along the non-parking area.

Prime coat will be required before installation of the final surface course of three inches of PG 70-22 HMA Type D Surface Coarse (2 lifts at 1-1/2") (No RAS or RAP). Parking striping will be provided for, but no roadway striping is being provided.

The estimated conceptual stage construction cost for the Shady Lane North site as described above is \$165,000 (one hundred sixty-five thousand dollars).

The third site, the maintenance building parking lot is approximately sixty feet wide by ninety feet deep with additional area for turnout to Bear Creek Parkway totaling approximately seven hundred eighty square yards of area to be addressed. Two design scenarios will be provided for. The first will be for a one-inch mill of existing asphalt pavement with a two-inch asphalt surface course overlay. The second design will be to provide for an alternate bid for a six-inch thick Portland Cement Concrete (3,600 psi) on a six-inch thick lime or cement stabilized subgrade. The existing lot sheet flows into an existing drainage swale along Bear Creek Park Road or south and southeasterly into Bear Creek Park. No drainage improvements nor change in existing drainage characteristics are included.

The estimated conceptual stage construction cost for the maintenance building parking lot with mill and asphalt overlay is \$30,000 (thirty thousand dollars) and the estimated conceptual stage construction cost for six-inch thick concrete is \$82,000.00 (eighty-two thousand dollars).

All work is considered maintenance activities. Therefore, drainage calculations (drainage area maps; street, inlet, storm drain or culvert calculations) are not required. Similarly permitting (Section 404, FEMA, etc.) is not required. Also attached is a FEMA National Flood Hazard FIRMette of the project site being a portion of Flood Insurance Rate Map 48439C0070K with an effective date of 9/25/2009 for the Parking Lot E site one, and FIRMette 48439C0090K with an effective date of 3/21/2019 for the Shady Lane North, site two area.

The drawings will be prepared in AutoCAD Civil 3D, version 2018 (or Microstation Open Roads format) on full-size, 22" x 34" sheets.

The work will be accomplished using one construction contract. Construction administration (not daily representation) is included (respond to submittals and requests for information, review pay requests and produce record drawings in PDF format). Throughout the project periodic e-mail updates will be supplied. The contractor will provide his own traffic control plan, storm water pollution prevention plan and other documents not explicitly included in this scope. It is anticipated the Contractor will also provide for a Laboratory, acceptable to the City, for materials testing.

Scope of Services: The design project will include the following tasks:

1. Attend one coordination meeting to discuss the project constraints
2. Site reconnaissance and video project limits of all three sites

3. Data collection from the City for existing information (aerial topography; existing utility, pavement and drainage information)
4. Provide topographic survey for all three sites extending approximately 25 feet beyond the back of anticipated improvements and establishing horizontal and vertical control for future construction use
5. Prepare periodic progress updates
6. Prepare cover sheet
7. Prepare general notes and quantities sheet (three separate quantity tables – one per site)
8. Prepare typical sections (one sheet) and grading detail sheets (two or three)
9. Prepare up to five existing conditions sheets depicting topographic mapping and horizontal and vertical control used in mapping and for construction use
10. Prepare an overall grading sheet (@ 1" = 40') and two proposed grading sheets (@ 1" = 20') of the Lot E for contractor use. All grading sheets will be in plan view only. No profile views will be provided. Prepare two plan and profile sheets for the Shady Lane North roadway, and prepare one grading plan sheet for the maintenance building parking lot
11. Provide standard details (from City and NCTGOC))
12. Prepare special details, if needed
13. Prepare contract documents booklet using the 4th Edition of the NCTCOG Public Works Construction Standards (Standard Specifications) and front-end documents to be provided by the City
14. Submit pdf file of the preliminary design to City for review
15. Attend virtual or live meeting with City to discuss comments
16. Make revisions as appropriate to move to final design submittal
17. Submit pdf files of final design construction documents to City for City to review
18. Attend virtual or live meeting with City to discuss comments
19. Revisions as appropriate to move to bid set submittal
20. Supply pdf file of drawings to a maximum of five City provided franchise utility contacts for coordination (no utility meeting is included in this scope)
21. Prepare sealed documents
22. Provide a maximum of ten sets of drawings and specifications for bidding and construction
23. Upload files and bid on CivCast
24. Attend pre-bid meeting if requested
25. Prepare and distribute addenda (as needed)
26. Attend bid opening and prepare bid tabulation with letter of bid evaluation
27. Attend pre-construction meeting
28. Respond to submittals and requests for information

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29. Make a maximum of seven periodic site visits and/or progress meetings
30. Review contractor pay estimates
31. Attend and document final inspection
32. Produce record drawings in PDF format (based on City inspector and/or contractor redlines)

Schedule: The projected schedule includes three weeks total for survey of all three sites, four weeks for preliminary design, one week for City review, three weeks for final design, one week for City review, two weeks for bidding documents, eight weeks for bidding and award, and fourteen weeks for construction.

City Provided Items: The City will provide the following:

1. Electronic base map information (GIS shapefiles and Orthophotography)
2. Related construction drawings from previous projects
3. Project sign details (if wanted)
4. City adopted construction standards including general notes, details and specifications
5. Electronic samples of Notice to Bidders, Instructions to Bidders, Proposal, Contract, General Provisions, Special Provisions, Wage Rates, Maintenance Bond, Performance Bond, Payment Bond, and other items typically used by City for bidding
6. Bid advertisement and award of contract

Compensation: This work will be accomplished using the lump sum method of compensation. The above services can be provided for a lump sum of \$79,800 (seventy-nine thousand eight hundred dollars).

Extra Work: The following items, if needed, will be considered extra work:

1. Subsurface Utility Engineering
2. Public meeting(s)
3. Additional Geotechnical investigation

This Agreement, consisting of six pages (and five attachments), and Exhibit A (Terms and Conditions), consisting of four pages, represents the entire agreement between the City of Keller and Neel-Schaffer, Inc. If the terms of this Agreement are acceptable, please execute the original and the copy and return the copy to our office.

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Neel-Schaffer appreciates the opportunity to provide services to you and looks forward to working with you. If you have any questions, or if we may be of further service to you in any way, please call me at 817/870-2422.

Sincerely,

NEEL-SCHAFFER, INC.
TBPE Firm Reg. No. F-2697
TBPLS Firm Reg. No. 10027200

Agreed to by: City of Keller

Richard E. "Rick" Simpson, RPLS
Sr. Project Manager

SIGNATURE: _____

TITLE: _____

DATE: _____