

STATE OF NORTH CAROLINA

COUNTY OF UNION

AMENDMENT #2

This Amendment, made and entered into as of the \_\_\_\_\_, by and between UNION COUNTY, with principal offices at 500 N. Main St., Monroe, North Carolina, 28112, hereinafter referred to as "Union County" or "OWNER," and WK DICKSON & CO., INC., with offices at 1213 W. Morehead St., Suite 300, Charlotte, NC 28208, hereinafter referred to as "ENGINEER," shall modify as indicated that Task Order 2021-05 (the "Task Order"), dated March 8, 2022, and Task Order 2021-05 Amendment 1, dated July 27, 2022, of the Agreement between OWNER and ENGINEER for Professional Engineering Services dated January 7, 2021 (the "Agreement").

WITNESSETH:

WHEREAS, the parties entered into the Task Order, pursuant to which ENGINEER agreed to provide OWNER with professional engineering services associated with the design and bidding of a project to rehabilitate seven existing submersible wastewater pump stations.

WHEREAS, it has been determined that services outside the scope of the original Task Order are needed related to additional professional design services, as outlined herein; and

WHEREAS, the parties agree to the services set forth below should be added to the Task Order related to this project.

NOW, THEREFORE, in consideration of the parties' continuing obligations under the Agreement and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto do each contract and agree with the other as follows:

1. In Part 2.0 SCOPE OF BASIC SERVICES TO BE PERFORMED BY ENGINEER ON THE PROJECT, add the following phases and tasks to the end of the section:
  - 2.34. In addition to Project Management services outlined in Items 2.1 through 2.4, ENGINEER will coordinate with OWNER's SCADA Professional Services Consultant and documents/requirements outlined thereby for each Pump Station.
  - 2.35. Survey subconsultant will perform physical/as-built/utility locate and topographic survey, complete with elevation data, at the following locations:
    - 2.35.1. Suburban Estates No. 1 pump station – Stream cross sections for floodplain modeling and ground shots for perimeter fence expansion.
    - 2.35.2. Old Hickory pump station – Ground shots for clearing limits and design of grading improvements and perimeter fence expansion.
    - 2.35.3. Magnolia Ridge pump station – Ground shots for clearing limits and design of grading improvements and perimeter fence expansion.
  - 2.36. ENGINEER will perform "No-Rise" study and submittal for floodplain modeling and provide report deliverable associated with improvements at Suburban Estates No. 1 Pump

Station. ENGINEER will prepare and submit “No-Rise” package including the sealed “No-Rise” certification, as follows:

- 2.36.1. Obtain and review the FEMA effective hydraulic model for South Fork Crooked Creek (Panel 5418 – Effective date: October 16, 2008). This involves verifying the Duplicate Effective Model.
- 2.36.2. Develop the Corrected Effective/Existing (Pre-Project) Conditions Model to incorporate more detailed topographic information from project survey. Up to three (3) cross sections will be added or modified to accurately reflect the project area. The cross sections will be developed from a combination of project survey and Union County LiDAR data.
  - 2.36.2.1. Survey services associated with stream crossing are addressed in Item 2.35.1 above.
- 2.36.3. Develop Proposed (post-project) Conditions models to incorporate proposed floodplain changes per the project design.
- 2.36.4. Create sealed topographic work map showing the following:
  - 2.36.4.1. Existing and proposed topography;
  - 2.36.4.2. Proposed project location including proposed structures;
  - 2.36.4.3. FEMA published and project developed cross sections used in the HEC-RAS models;
  - 2.36.4.4. FEMA Effective 100-year floodplain, and;
  - 2.36.4.5. FEMA effective floodway.
- 2.36.5. Topographic mapping will be based on Union County’s 2-foot topographic mapping, project survey, and proposed grading, if any.
- 2.36.6. Prepare report/narrative summarizing the scope of the proposed project, hydraulic modeling results, and engineering assumption and conclusions.
- 2.36.7. Submit “No-Rise” package to Town of Indian Trail and/or Union County floodplain administrator(s) for review. If required, the package will be forwarded to the North Carolina Department of Public Safety, Division of Emergency Management.
- 2.36.8. Address review comments and resubmit. ENGINEER assumes one round of agency review comments, implementation thereof, and one resubmittal to the governing agency for final review/approval.
- 2.36.9. \*\*NOTE: A “No-Rise” is not guaranteed as part of this scope. If the project does not meet the “No-Rise” requirements following the completion of the proposed (post-project) modeling, then an Additional Services scope will be required to proceed with a Conditional Letter of Map Revision (CLOMR) effort, and all efforts and fees associated therewith.
- 2.37. Electrical Engineering Subconsultant shall provide the following:
  - 2.37.1. Revise site plans for the following pump station sites:
    - 2.37.1.1. Suburban Estates No. 1
    - 2.37.1.2. Old Hickory
    - 2.37.1.3. Magnolia Ridge
  - 2.37.2. Design and integration considerations and documents for incorporating OWNER provided generator at Suburban Estates No. 1 pump station.
    - 2.37.2.1. NOTE: Generator will be OWNER provided equipment. ENGINEER will provide coordination/integration services associated therewith. Generator selection and associated specifications are not included herein.
  - 2.37.3. Pump Control panel specifications based on documents provided by ENGINEER and/or OWNER’s SCADA/I&C Consultant.

- 2.37.4. Coordination with OWNER's SCADA/I&C consultant regarding electrical requirements for panels, rack sizing/spacing, etc.
- 2.37.5. Site plans and electrical panel configuration will be in accordance with NFPA 820 requirements.
- 2.38. Structural Engineering Subconsultant shall provide the following:
  - 2.38.1. Structural design of an elevated galvanized structural steel wet well platform, stairs, guardrails, and foundations. Design shall include structural construction plans, details, and specifications, as necessary.
  - 2.38.2. Structural design of a self-supporting galvanized structural steel frame for the electrical panels. The electrical panels will be serviced from the wet well platform. This task includes the foundation for the electrical panel frame preparation of structural construction plans associated therewith, including coordination with the electrical engineer's design/documents.
  - 2.38.3. Structural design of an elevated generator platform. The platform will be tall enough to elevate the generator a minimum of two (2) feet above the 100-year flood elevation. The generator platform will be accessed from the wet well platform and will be either galvanized structural steel framing or an elevated concrete platform.
    - 2.38.3.1. Final design/type of generator support platform shall be based upon Opinions of Probable Construction Cost (OPC) for each alternative, and/or OWNER preference, as directed by OWNER.
    - 2.38.3.2. NOTE: Generator will be OWNER provided equipment. ENGINEER will provide coordination/integration services associated therewith. Generator selection and associated specifications are not included herein.
  - 2.38.4. ENGINEER's structural subconsultant will coordinate the design of the wet well platform with the wet well geometry and requirements, the MEP designs and the electrical panel frame.
  - 2.38.5. Structural subconsultant will coordinate the design of the electrical panel frame with the specific requirements of the electrical panels. The electrical panel frame will also be designed to allow additional electrical panels to be installed in the future.
  - 2.38.6. Structural subconsultant will coordinate the design of the generator platform with the specific loads, geometry, service platform requirements, and other requirements of the specific generator which is to be provided by OWNER. Subconsultant will provide coordination with generator manufacturer/subcontractor, vendor, and/or OWNER to ensure design meets the requirements of the specific equipment and OWNER.
- 2.39. ENGINEER shall provide design services, as follows:
  - 2.39.1. Document review and coordination with OWNER's SCADA/I&C consultant.
  - 2.39.2. Design of air/vacuum release valves (ARV) at each pump station, including vendor coordination, specifications, site/location selection, and associated site plan revisions.
  - 2.39.3. Electrical rack/panel canopy and concrete pad design/specifications for each pump station site, and interdisciplinary coordination as needed.
  - 2.39.4. Inclusion/specification for radar type level sensor at each pump station site, including specification, vendor coordination, and electrical/I&C coordination.
  - 2.39.5. Vendor coordination and specification development for wet well discharge piping and structure/valve vault coatings, per OWNER standards.
  - 2.39.6. Coordination with OWNER regarding current upgrades and new pumps at

Suburban Estates No. 1. Accommodation of OWNER provided equipment.

2.39.7. Design document/site plan modifications, as follows:

2.39.7.1. Suburban Estates No. 1 pump station site plan improvements, fence expansion, and wet well riser sections.

2.39.7.2. Old Hickory pump station wet well riser section (custom cast-in-place concrete), site plan updates, perimeter fencing, and proposed grading/contours for site and driveway improvements.

NOTE: A portion of the rehabilitation items will be removed from the scope of work because of a planned NCDOT project to widen Providence Road, which will require the relocation or abandonment of the pump station by NCDOT at a later date.

2.39.7.3. Magnolia Ridge pump station site improvements/plan, perimeter fence expansion, and grading improvements as needed for reconfiguration.

NOTE: Recent or current work by OWNER at Magnolia Ridge pump station will result in some rehabilitation items being removed from the scope of work, including, but not limited to, guiderails, new pumps, base elbows, pump discharge piping, and wet well coating.

2.40. ENGINEER will visit each pump station site for final review of drawings, rehabilitation action list, and specifications.

3. In Part 5.0 PERIODS OF SERVICE, add the following below item 5.2 *Design*:

5.2 Design

5.2.1 Field Survey & Mapping July 15, 2024, through July 26, 2024

5.2.2 No-Rise Study & Submittal July 29 through August 9

5.2.3 Electrical Engineering Month 1 from NTP

5.2.4 Structural Engineering Month 1 – 3 from NTP

5.2.5 Finalize Engineering Design Month 3 from NTP

5.3 Bidding Immediately upon completion of Item 5.2 above and upon OWNER approval

4. In Part 6.0. PAYMENTS TO ENGINEER, 6.1 *Payment for Basic Services* 6.1.1, increase the lump sum and hourly basis, not to exceed amount by \$91,300.00, by deleting the phrase "a lump sum and hourly basis, not to exceed \$160,450.00" and replacing it with the phrase "a lump sum and hourly basis, not to exceed \$251,750.00."

5. In Part 6.0. PAYMENTS TO ENGINEER, 6.1 *Payment for Basic Services 6.1.1*, delete phase/cost table and replace with the below table at the end of the section:

| Phase/Task Description             | Terms | Current Fee      | Fee Adjustment  | Amended Fee      |
|------------------------------------|-------|------------------|-----------------|------------------|
| Project Management                 | LS    | \$21,100         | \$11,370        | \$ 32,470        |
| Field Survey & Mapping             | NTE   | \$12,900         | \$16,170        | \$29,070         |
| Engineer's Site Visit & Assessment | NTE   | \$15,250         |                 | \$15,250         |
| Electrical Site Visit & Documents  | NTE   | \$44,100         | \$7,030         | \$51,130         |
| Engineering Design                 | LS    | \$53,800         | \$20,970        | \$74,770         |
| Bidding Services                   | NTE   | \$13,300         |                 | \$13,300         |
| "No-Rise" Study & Memo             | LS    |                  | \$18,220        | \$18,220         |
| Structural Design (SE No. 1)       | NTE   |                  | \$17,540        | \$17,540         |
| <b>TOTAL:</b>                      |       | <b>\$160,450</b> | <b>\$91,300</b> | <b>\$251,750</b> |

6. In Part 6.0. PAYMENTS TO ENGINEER, 6.1 *Payment for Basic Services 6.1.1*, add the following at the end of this section and include the referenced attachments at the end of the Task Order:  
The hourly fee estimate is included in Attachment D, which is attached and incorporated herein by reference. Attachment D is in addition to Attachment B in Task Order 2021-05 (the "Task Order"), and Attachment C in Task Order 2021-05 Amendment No. 1.
7. Except as herein amended, the terms and provisions of the Task Order shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto, acting under authority of their respective governing bodies, have caused this Amendment to be duly executed, this the day and year first above written.

WITNESS:

UNION COUNTY

By: \_\_\_\_\_  
Lynn G. West  
Clerk to the Board

By: \_\_\_\_\_  
Brian Matthews  
County Manager

WITNESS:

WK DICKSON & CO., INC.

By: \_\_\_\_\_

By: \_\_\_\_\_

This Instrument Has Been Preaudited In The  
Manner Required By The Local Government  
Budget And Fiscal Control Act

Approved as to Legal Form: BTI

\_\_\_\_\_  
Deputy Finance Officer

# Attachment D - Hourly Fee Estimate

**Budget Table**  
**W.K. Dickson & Co., Inc.**  
 Pump Station Rehabilitation Project - Amend 02



| ALL                    | ALL   | Totals           |            |             | \$ 91,300  | \$ 55,985        | \$ 35,315 | 320         | \$ 174.95             | Labor Category             |           |           |           |           |           |           |          |
|------------------------|---|------------------|------------|-------------|------------|------------------|-----------|-------------|-----------------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
| Phase and/or Task Code | Task Description  | Task Manager     | Start Date | Finish Date | Total Cost | Total Labor Cost | Total ODC | Total Hours | Labor Ave Hourly Rate | Principal                  | PM        | Sr PE     | PE        | Sr Dsgnr  | Dsgnr     | GIS Tech  | Admin    |
|                        |   |                  | 1-Jul-24   | 31-Dec-24   | \$         | \$               | \$        |             | \$                    | \$ 275.00                  | \$ 220.00 | \$ 190.00 | \$ 175.00 | \$ 155.00 | \$ 145.00 | \$ 120.00 | \$ 90.00 |
|                        |   |                  |            |             |            |                  |           |             |                       | Enter hours (not \$) below |           |           |           |           |           |           |          |
| 01                     | _Project Management, Planning & Meetings  |                  |            |             |            |                  |           |             |                       |                            |           |           |           |           |           |           |          |
| 01                     | Project Development, Mgmt., etc.  | Berkshire        |            |             | 3,160      | 3,095            | 65        | 15          | 206.33                | 1                          | 10        |           |           | 4         |           |           |          |
| 01                     | Monthly invoicing & budget tracking   | Berkshire        |            |             | 1,150      | 1,150            |           | 7           | 164.29                |                            | 4         |           |           |           |           |           | 3        |
| 01                     | Review existing, ID add. Info, & data request   | Berkshire        |            |             | 1,320      | 1,320            |           | 6           | 220.00                |                            | 6         |           |           |           |           |           |          |
| 01                     | HDR Doc review & Coord.   | Berkshire        |            |             | 5,740      | 5,740            |           | 32          | 179.38                |                            | 12        |           |           | 20        |           |           |          |
| 02                     | _Field Survey and Mapping   |                  |            |             |            |                  |           |             |                       |                            |           |           |           |           |           |           |          |
| 02                     | Survey deliverable review/comment, processing   | Berkshire        |            |             | 2,560      | 2,560            |           | 14          | 182.86                |                            | 10        |           |           |           |           |           | 4        |
| 02                     | SUE sub   |                  |            |             | 1,820      |                  | 1,820     |             |                       |                            |           |           |           |           |           |           |          |
| 02                     | Survey sub  |                  |            |             | 11,790     |                  | 11,790    |             |                       |                            |           |           |           |           |           |           |          |
| 03                     | _No Rise Study & Submittal  |                  |            |             | 180        | 180              |           | 2           | 90.00                 |                            |           |           |           |           |           |           | 2        |
| 03                     | Phase Project Management & Coord.   | Berkshire/Hagans |            |             | 3,300      | 3,300            |           | 15          | 220.00                |                            | 15        |           |           |           |           |           |          |
| 03                     | Obtain and Review FEMA Effective Hydraulic Model for South Fork Crooked Creek (Panel 5418 - Effective Date: 10/16/2008) | Ebony Hagans     |            |             | 380        | 380              |           | 2           | 190.00                |                            |           | 2         |           |           |           |           |          |
| 03                     | Develop Corrected Effective/Existing (Pre-Project) Conditions Models based on Survey                                    | Ebony Hagans     |            |             | 2,320      | 2,320            |           | 16          | 145.00                |                            |           |           |           |           | 16        |           |          |
| 03                     | Develop Proposed (Post-Project) Conditions Model based on Design Plans  | Ebony Hagans     |            |             | 2,320      | 2,320            |           | 16          | 145.00                |                            |           |           |           |           | 16        |           |          |
| 03                     | Develop Certified Topographic Work Map  | Ebony Hagans     |            |             | 2,320      | 2,320            |           | 16          | 145.00                |                            |           |           |           |           | 16        |           |          |
| 03                     | Prepare Certified No-Rise Report  | Ebony Hagans     |            |             | 3,480      | 3,480            |           | 24          | 145.00                |                            |           |           |           |           | 24        |           |          |
| 03                     | Coordination with Town of Indian Trail, Union County, and   | Ebony Hagans     |            |             | 1,520      | 1,520            |           | 8           | 190.00                |                            |           |           | 8         |           |           |           |          |
| 03                     | QA/QC - Models, Report, etc.  | Ebony Hagans     |            |             | 880        | 880              |           | 4           | 220.00                |                            | 4         |           |           |           |           |           |          |
| 03                     | Submit No-Rise/Address Comments/Resubmit  | Ebony Hagans     |            |             | 1,520      | 1,520            |           | 8           | 190.00                |                            |           | 8         |           |           |           |           |          |
| 04                     | _Electrical Engineer SubConsultant  | Berkshire        |            |             |            |                  |           |             |                       |                            |           |           |           |           |           |           |          |
| 04                     | Sub Coord, Mgmt., & Document Review   | Berkshire        |            |             | 1,230      | 1,230            |           | 8           | 153.75                |                            |           |           |           | 6         |           |           | 2        |
| 04                     | Revise site plans for SE No. 1, Old Hickory, & Mag Ridge  | Berkshire        |            |             | 5,800      |                  | 5,800     |             |                       |                            |           |           |           |           |           |           |          |
| 04                     | Pump Control panel specification updates/mods   | Berkshire        |            |             |            |                  |           |             |                       |                            |           |           |           |           |           |           |          |
| 04                     | Generator integration work at SE No. 1  | Berkshire        |            |             |            |                  |           |             |                       |                            |           |           |           |           |           |           |          |
| 04                     | Coordination w/HDR documents  | Berkshire        |            |             |            |                  |           |             |                       |                            |           |           |           |           |           |           |          |
| 05                     | _Structural Engineering at Suburban Estates No. 1   | Berkshire        |            |             |            |                  |           |             |                       |                            |           |           |           |           |           |           |          |
| 05                     | Sub Coord, Mgmt., & Document Review   | Berkshire        |            |             | 1,940      | 1,940            |           | 10          | 194.00                |                            | 8         |           |           |           |           |           | 2        |
| 05                     | Structural Subconsultant Fee  | Berkshire        |            |             | 15,600     |                  | 15,600    |             |                       |                            |           |           |           |           |           |           |          |
| 06                     | _Engineering Design   | Berkshire        |            |             |            |                  |           |             |                       |                            |           |           |           |           |           |           |          |
| 06                     | HDR Docs - Review, Coord, etc.  | Berkshire        |            |             | 880        | 880              |           | 4           | 220.00                |                            | 4         |           |           |           |           |           |          |
| 06                     | Design for Install ARVs at each station   | Berkshire        |            |             | 4,860      | 4,860            |           | 28          | 173.57                |                            | 8         |           |           | 20        |           |           |          |
| 06                     | Canopy & conc at all stations   | Berkshire        |            |             | 2,610      | 2,610            |           | 16          | 163.13                |                            | 2         |           |           | 14        |           |           |          |
| 06                     | Radar Level Sensor at all stations  | Berkshire        |            |             | 1,930      | 1,930            |           | 10          | 193.00                |                            | 4         |           | 6         |           |           |           |          |
| 06                     | WW/Discharge Pipe/Structure coatings & specs  | Berkshire        |            |             | 380        | 380              |           | 2           | 190.00                |                            |           | 2         |           |           |           |           |          |
| 06                     | SE No. 1 - Site improvements, fence expansion, etc.   | Berkshire        |            |             | 870        | 870              |           | 6           | 145.00                |                            |           |           |           |           |           | 6         |          |
| 06                     | Old Hickory - WW, Site improvements   | Berkshire        |            |             | 1,675      | 1,675            |           | 11          | 152.27                |                            |           |           |           | 8         |           | 3         |          |
| 06                     | Magnolia Ridge - Site improvements  | Berkshire        |            |             | 1,220      | 1,220            |           | 8           | 152.50                |                            |           |           |           | 6         |           | 2         |          |
| 06                     | Site Visits for Final Review  | Berkshire        |            |             | 3,525      | 3,285            | 240       | 18          | 182.50                |                            | 9         |           |           |           |           | 9         |          |
| 06                     | QA/QC of Docs for Additional Services   | Berkshire        |            |             | 3,020      | 3,020            |           | 14          | 215.71                | 6                          | 2         |           |           | 6         |           |           |          |
| Total                  |   |                  |            |             | \$ 91,300  | \$ 55,985        | \$ 35,315 | 320         | 174.95                | 7                          | 98        | 20        | 12        | 78        | 92        | -         | 13       |