

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE NORTH EAST TEXAS
REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 16-98

WHEREAS, the North East Texas Regional Mobility Authority ("NET RMA") was created pursuant to the request of Gregg and Smith Counties and in accordance with provisions of the Transportation Code and the petition and approval process established in 43 Tex. Admin. Code § 26.1, *et seq.* (the "RMA Rules"); and

WHEREAS, the Board of Directors of the NET RMA has been constituted in accordance with the Transportation Code and the RMA Rules; and

WHEREAS, subsequent to the initial formation of the NET RMA the Counties of Cherokee, Rusk, Harrison, Upshur, Bowie, Panola, Titus, Van Zandt, Wood, and Kaufman joined the Authority and are represented on the Board of Directors; and

WHEREAS, on March 26, 2013, in Resolution 13-13, the NET RMA Board of Directors approved the selection of RS&H to serve as one of the general engineering consultants ("GEC") to the NET RMA and authorized the Chairman to execute an agreement with RS&H for the provision of general consulting civil engineering services; and

WHEREAS, RS&H has developed a proposed scope of services and a budget of \$112,360.63 for design services for the widening and restriping of Segment 3B of Toll 49; and

WHEREAS, a copy of that proposed scope of services and budget is contained in Work Authorization No. 14, attached hereto as Attachment "A"; and

WHEREAS, the Board of Directors must approve Work Authorization No. 14 before RS&H may proceed to work thereunder; and

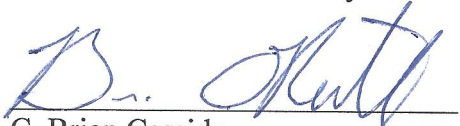
WHEREAS, RS&H has represented to the Board of Directors that the work reflected in Work Authorization No. 14 is necessary and appropriate.

NOW THEREFORE, BE IT RESOLVED, that the Board of Directors approves Work Authorization No. 14 in the form attached hereto as Attachment "A", for an amount not to exceed \$112,360.63; and

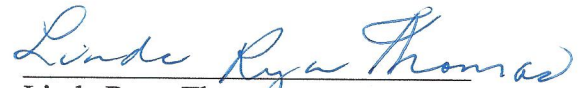
BE IT FURTHER RESOLVED, that all work performed under Work Authorization No. 14 shall be subject to the Agreement for General Consulting Civil Engineering Services between the NET RMA and RS&H and that no additional work may be undertaken without the specific approval of the Board of Directors.

Adopted by the Board of Directors of the North East Texas Regional Mobility Authority on the 9th day of November, 2016.

Submitted and reviewed by:


C. Brian Cassidy
General Counsel for the North East
Texas Regional Mobility Authority

Approved:


Linda Ryan Thomas
Chair, Board of Directors
Date Passed 11/09/16

APPENDIX D

WORK AUTHORIZATION

WORK AUTHORIZATION NO. 14

This Work Authorization is made as of this 9th day of November, 2016, under the terms and conditions established in the AGREEMENT FOR GENERAL CONSULTING ENGINEERING SERVICES, dated as of July 9th, 2013 (the "Agreement"), between the North East Texas Regional Mobility Authority ("Authority") RS&H, Inc. ("GEC"). This Work Authorization is made for the following purpose, consistent with the services defined in the Agreement:

Design services for the widening and re-striping of Toll 49 Segment 3B

Section A. - Scope of Services

A.1. GEC shall perform the following Services:

As described in Attachment A

A.2. The following Services are not included in this Work Authorization, but shall be provided as Additional Services if authorized or confirmed in writing by the Authority:

N/A

A.3. In conjunction with the performance of the foregoing Services, GEC shall provide the following submittals/deliverables (Documents) to the Authority:

A maintenance change order consisting of widening and re-striping plans for Toll 49 Segment 3B.

Section B. - Schedule

GEC shall perform the Services and deliver the related Documents (if any) according to the following schedule:

To be determined as part of the 30% design process.

Section C. - Compensation

C.1. In return for the performance of the foregoing obligations, the Authority shall pay to the GEC the Lump Sum amount of \$112,360.63 based on the actual rates times the contract multiplier for the staff utilized to perform the required tasks. Compensation shall be in accordance with the Agreement.

C.2. Compensation for Additional Services (if any) shall be paid by the Authority to the GEC according to the terms of a future Work Authorization.

Section D. - Authority's Responsibilities

The Authority shall perform and/or provide the following in a timely manner so as not to delay the Services of the GEC. Unless otherwise provided in this Work Authorization, the Authority shall bear all costs incident to compliance with the following:

To be determined once specific assignments are made under A.3.

Section E. - Other Provisions

The parties agree to the following provisions with respect to this specific Work Authorization:

N/A

Except to the extent expressly modified herein, all terms and conditions of the Agreement shall continue in full force and effect.

Authority: North East Texas Regional
Mobility Authority

GEC: RS&H, INC.

By: Chris M. Miller

By: Warren John Pollard

Signature: [Signature]

Signature: [Signature]

Title: Executive Director

Title: Vice President

Date: 11/9/16

Date: November 8, 2016

ATTACHMENT A

SCOPE OF SERVICES

SERVICES TO BE PROVIDED BY THE NETRMA

Highway: TOLL 49 – Segment 3B – Widening and Restriping

Limits: IH 20 to SH 31

The North East Regional Mobility Authority (hereinafter referred to as the NETRMA) has commissioned RS&H, Inc. (hereinafter referred to as Engineer) to prepare a Change Order (CO) to the current maintenance construction contract for a segment of the TOLL 49 between IH 20 and SH 31 in Smith County.

The NETRMA will furnish the Engineer the following items:

1. As-built plans and corresponding electronic files (MicroStation and GEOPAK) of the originally constructed facility including all improvements planned or constructed. If unavailable, the Engineer will use the files used by the engineering consultants to generate the plans to construct the original facility.
2. Available horizontal control points. If unavailable, the Engineer will use the same control used in the original or as-built plans.
3. Available benchmark vertical control benchmarks. If unavailable, the Engineer will use the same control used in the original or as-built plans.
4. Available horizontal geometry. If unavailable, the Engineer will use the same alignment used in the original or as-built plans.
5. Available 2D existing planimetric MicroStation file and 3D Digital Terrain Mapping (DTM) MicroStation file. If unavailable, the Engineer will use the files used by the engineering consultants to generate the plans to construct the original facility.
6. Available existing traffic counts and design year traffic projections necessary to develop the traffic control plans and pavement design for the widening.
7. Applicable NETRMA special specifications, special provisions, and master general notes if available.
8. Available approved design standard drawings and standard summary and border sheets (i.e., blank summary tables, blank plan and profile sheets with title blocks, etc.) if available.
9. Assistance will be provided to the Engineer to obtain the required data and information from other local, regional, TxDOT and federal agencies if needed.
10. Timely review and decisions necessary for the Engineer to maintain the contracted project schedule.

11. Sample schedules, templates, and formats for design scheduling using Primavera if available.
12. Available hydrologic and hydraulic analysis, studies and reports including hydraulic design calculations for all drainage structures.
13. Planimetric layout identifying underground utility locations and as-builts provided by utility companies, if available.
14. Design criteria and standard drawings for architectural finishes, landscaping, signing, and architectural details for structures and retaining walls, if required.
15. Design criteria for roadway, structures, drainage, and hydraulics.
16. Traffic accident data necessary for any design exceptions or waivers.
17. Electronic Files: Provide graphic file data, standard font libraries and MicroStation cell libraries, standard documents etc. as required to maintain consistent program electronic files if available.
18. Available preliminary or final design plans and corresponding electronic files for the approved ultimate facility including roadway, bridges, walls, drainage, detention, water quality, signing, pavement marking, signals, ITS and tolling.

SERVICES TO BE PROVIDED BY THE ENGINEER

Highway: TOLL 49 – Segments 3B – Widening and Restriping

Limits: IH 20 to SH 31

The work to be performed by the Engineer under this contract consists of providing engineering services required for the preparation of a Change Order (CO) to the current maintenance construction contract for the widening and restriping of TOLL 49, approximately 10 miles from Sta. 102+50 to Sta. 623+00. The Engineer will be responsible for the following activities on the constructed facility:

1. Perform final design and prepare a CO for pavement widening of 4 feet along TOLL 49 sections that are 40 feet wide. Current Super 2 sections having 44 feet or more and bridges will not be widened. The Engineer will consider the option of reducing the shoulder width, instead of widening, for the roadway section at the toll gantry and along roadway sections where widening would create significant impacts or require additional permits (i.e. USACE).
2. Perform final design and prepare a CO for restriping TOLL 49 to reflect the additional Super 2; a flush 4-foot median along the 2-lane sections or a flush 2-foot median along the Super 2 sections; and rumble strips in the median and on outside shoulders.

The Engineer will use the original design files and plans to show the above improvements. The Engineer will prepare plans and compute quantities to reflect any demolition, roadway design, grading, paving, drainage, storm water pollution prevention required to accommodate the improvements.

The Engineer shall collect, review and evaluate the available existing data pertaining to the project and prepare the CO in accordance with the requirements and policies of the NETRMA. The design will be based on TxDOT's 3R design criteria.

The Engineer shall identify, and complete all necessary forms for design exceptions and/or waivers within project limits prior to the 30% submittal. These exceptions shall be provided to the NETRMA for coordination and processing of approvals. If subsequent changes require additional exceptions, the Engineer shall notify the NETRMA as soon as possible after identification.

The Engineer shall prepare traffic control typical layouts for the construction of the above improvements utilizing TxDOT standard details.

Public meetings and exhibit preparation for such meetings are not anticipated.

The Engineer shall design drainage modifications necessary to accommodate the above improvements including ditches and drainage structures.

The Engineer shall prepare typical layouts for storm water pollution prevention plans (SWP3), including details and pay quantities. The Engineer shall use CADD to fully

develop all drawings. The CADD drawings developed shall be compatible with the NETRMA's latest version of MicroStation (V08.05.02.35).

The Engineer shall provide earthwork cross-section data files in a Geopak format as an evolving electronic data file.

The CO shall be developed in English units using the 2004 specifications and provisions. The final plan sheets shall be 4 mil standard mylars, size 11"x17", signed (in blue ink), sealed, and dated by a Professional Engineer registered in the State of Texas.

The CO for the above work shall be prepared in accordance with the applicable requirements of the State's specifications, standards, and manuals (latest revision). Whenever possible, the State's and/or NETRMA standard drawings, standard specifications, or previously approved special provisions and/or special specifications shall be used. If a special provision or a special specification must be developed or modified for this project, it shall be in the NETRMA's format and, to the extent possible, incorporate references to approved NETRMA test procedures. Any specifications developed by the Engineer shall be submitted to the NETRMA for approval prior to inclusion in the CO. The Engineer shall sign, seal, and date all project specific modifications to standard drawings.

The Engineer shall make 30% (conceptual roll plot), 95% and Final submittals. The 95% and Final submittals shall consist of 3 copies of 11"x17" paper sets. The Engineer shall reply to each comment either within the plan set or by separate cover letter. The Engineer shall make all agreed upon changes to the submitted documents before the next scheduled submittal.

The work under this contract is generally outlined in two documents: *Services to be Provided by the Engineer* and *Work Outline*. The Engineer shall furnish equipment, materials, supplies, and incidentals required to perform the work described in the above referenced documents, except as otherwise specified in *Services to be Provided by the NETRMA* section.

The Engineer shall invoice monthly.

Submit a written progress report with each invoice. The written progress report shall describe activities during the reporting period; activities planned for the following period; problems encountered and actions taken to remedy them; list of meetings attended; and overall status, including a percent complete.

Once the project goes to letting all electronic files shall be delivered to the NETRMA within 30 days of written request.

The final invoice for this work authorization may be approved once the project lets but final payment is contingent upon the NETRMA's receipt that the electronic files run.

Milestone submittals shall be at 30%, 95%, and final. The Engineer shall advise the NETRMA in writing if the scheduled milestone review date(s) cannot be met.

The project's engineering work may be inspected by the NETRMA in the offices of the Engineer, except for the fieldwork that shall be performed on-site, and the sub-consultant work that will be performed in the office of the sub-consultant. After notice to proceed is given in writing, the CO for the work outlined above shall be completed and submitted to the NETRMA within the negotiated contract period per the identified milestones in the schedule.

The Engineer shall designate one Texas Registered Professional Engineer to be responsible throughout the project for project management and all communications, including billing, with the NETRMA. The NETRMA must be advised in writing and approve any replacement to the Engineer's designated Project Manager or major task leaders.

The Engineer shall prepare and execute contracts with sub-consultants, monitor sub-consultant activities (staff and schedule), and review and recommend approval of sub-consultant invoices. Any subsequent amendment to the Engineer's contract with the NETRMA by supplemental agreement requiring services to be performed by a sub-consultant will require an amendment to the sub-consultant contract as well.

The Engineer shall implement their quality assurance/quality control program prior to submitting plans for each milestone.

The Engineer shall submit all quantity take-off calculations as evidence that a quality control review has taken place at the 95% and final milestone submittals. Evidence may be in the form of hand calculations, Excel spreadsheets, or other approved electronic templates.

The Engineer shall meet with the NETRMA monthly or as needed to discuss progress of work and resolve any questions of design during the CO preparation.

WORK OUTLINE

ROUTE AND DESIGN STUDIES (Function Code 110)

- A. **Data Collection.** The Engineer shall collect, review, and evaluate data, if available, including “as-built” plans and cross sections, electronic design file sets, traffic counts, accident data, current unit bid price information, current special provisions, special specifications, and standard drawings.
- B. **Design Concept Conference.** The Engineer shall complete known project specific information on the DSR form and submit electronically to NETRMA. The Engineer, in cooperation with the NETRMA shall plan, attend, and document a design concept conference (DCC) to be held prior to the 30% milestone submittal. The conference allows decision makers, stakeholders and technical personnel to discuss and agree on items such as Super 2 limits, location of pavement widening, widening pavement design, drainage impacts, exceptions/waivers, constraints, estimate, schedule and other issues identified by the NETRMA. The Engineer shall update the DCC form to incorporate comments from the conference and shall maintain the form throughout the contract.

ROADWAY DESIGN (Function Code 160)

- A. **Roadway Design.** The Engineer shall provide project layout sheets to show the proposed pavement widening. The Engineer shall use the drawings prepared by others to construct the original facility as the base drawings for the proposed improvements. The proposed pavement widening work will be shown and labeled on the project layout sheets.
- B. **Typical Sections.** Typical sections shall be required for all proposed roadway work. The Engineer shall use the typical sections prepared by others to construct the original facility as the base typical sections for the proposed work.
- C. **Cut and Fill Quantities.** The Engineer shall determine cut and fill quantities using the design cross sections prepared by others to construct the original facility. No cross sheets will be included in the CO.
- D. **Plan Preparation.** The Engineer shall prepare standard details and special details in addition to the project layout and typical sections for the proposed improvements.

DRAINAGE DESIGN (Function Code 161)

- A. **Culvert and Storm Drain Design.** The Engineer shall review all drainage structures along TOLL 49 and perform design and CO preparation for structures requiring modifications due to additional grading associated with the pavement widening. Performing hydraulic analysis of drainage structures is not anticipated for the proposed work and therefore is not included in this scope. The Engineer shall use the drawings prepared by others to construct the original facility as the base drawings for the proposed work. The Engineer shall show and quantify the

proposed work including any required demolition. Anticipated drawings required for the submittals include culvert layouts and standard details.

- B. **Storm Water Pollution Prevention Plans (SWP3).** The Engineer shall develop one typical layout sheet for the SWP3 utilizing standard details where practical.

SIGNING, MARKINGS, AND SIGNALIZATION (Function Code 162)

- A. **Signing.** Services for the final design of supplemental safety signing and signing necessary to accommodate the above improvements will be provided by others under a separate professional services agreement.
- B. **Pavement Markings.** The Engineer shall design and prepare CO for the permanent pavement markings and channelization devices to accommodate the proposed improvements. The Engineer shall use the drawings prepared by others to construct the original facility as the base drawings for the proposed work. The proposed markings and markers shall be illustrated and quantified which include pavement markings, object markings, delineation, delineators and object markers.

MISCELLANEOUS (Function Code 163)

- A. **Traffic Control Plan, Detours, and Sequence of Construction.** The Engineer shall prepare a typical traffic control layout and construction sequence narrative for the proposed improvements. The Engineer is to implement the current barricade and construction (BC) standards as applicable.
- B. **Illumination.** The Engineer shall design illumination system modifications, if necessary, to the existing safety lighting to accommodate the proposed improvements. The Engineer shall minimize the modifications utilizing guard fence to shield the impacted elements. The Engineer shall use the layout plans and details prepared by others to construct the original facility as the base drawings for the proposed modifications.
- C. **Utility Conflicts.** The Engineer shall identify and evaluate utility conflicts with the proposed improvements. Exhibit preparation services are not included.
- D. **Estimate.** The Engineer shall independently develop and report quantities at the 95%, and final CO submittals.
- E. **Specifications.** The Engineer shall develop the list of standard specifications with the appropriate reference items. The Engineer shall also identify the need for any special specifications, and special provisions. The Engineer shall prepare general notes from the NETRMA master list of general notes.
- F. **Construction Time Determination.** The Engineer shall prepare a construction schedule.

PRIME PROVIDER NAME: RS&H, INC.
PROJECT NAME: TOLL 49 Segment 3B Widening and Restriping
PROJECT CSJ:

B-1

PRIME PROVIDER NAME: RS&H, INC.
PROJECT NAME: TOLL 49 Segment 3B Widening and Restriping
PROJECT CSJ:

B-2

PRIME PROVIDER NAME: RS&H, INC.
PROJECT NAME: TOLL 49 Segment 3B Widening and Restriping
PROJECT CSJ:

8-3