

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

RESOLUTION NO. 16-99

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 \$168,344.45 for design services for the lane restriping, addition of signage, and limited application of one course surface treatment of Segments 1, 2, 3A, and 5 of Toll 49; and

WHEREAS, a copy of that proposed scope of services and budget is contained in Work Authorization No. 15, attached hereto as Attachment "A"; and

WHEREAS, the Board of Directors must approve Work Authorization No. 15 before RS&H may proceed to work thereunder; and

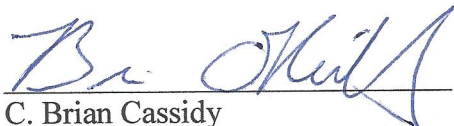
WHEREAS, RS&H has represented to the Board of Directors that the work reflected in Work Authorization No. 15 is necessary and appropriate.

NOW THEREFORE, BE IT RESOLVED, that the Board of Directors approves Work Authorization No. 15 in the form attached hereto as Attachment "A", for an amount not to exceed \$168,344.45; and

BE IT FURTHER RESOLVED, that all work performed under Work Authorization No. 15 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.

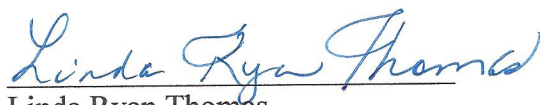
Adopted by the Board of Directors of the North East Texas Regional Mobility Authority on the 9th day of November, 2016.

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. 15

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 re-striping, addition of signage, and limited application of one course surface treatment of Toll 49 Segments 3A, 1, 2, and 5.

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:

Plans, specifications, and estimates (PS&E) for the re-striping, addition of signage, and limited application of one course surface treatment of Toll 49 Segments 3A, 1, 2, and 5.

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 \$168,344.45 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:

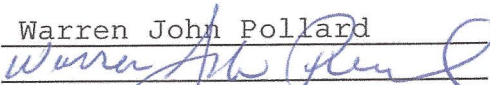
N/A

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 Miller
Signature: 
Title: Executive Director
Date: 11/9/16

By: Warren John Pollard
Signature: 
Title: Vice President
Date: November 8, 2016

ATTACHMENT A
SCOPE OF SERVICES

SERVICES TO BE PROVIDED BY THE NETRMA

Highway: TOLL 49 – Segments 1, 2, 3A and 5 – Restriping

Segment 3A: SH 31 to SH 155 - approximately 6.0 miles

Segment 1: SH 155 to US 69 - approximately 5.0 miles

Segment 2: US 69 to FM 759 - approximately 2.0 miles

Segment 5: FM 756 to SH 110 - approximately 2.5 miles

The North East Regional Mobility Authority (hereinafter referred to as the NETRMA) has commissioned RS&H, Inc. (hereinafter referred to as Engineer) to prepare plans, specifications, and estimates (PS&E) for approximately 15.5 miles of TOLL 49 from SH 31 to SH 110 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 geometry. If unavailable, the Engineer will use the same alignment used in the original or as-built plans.
3. Available 2D existing planimetric MicroStation file. If unavailable, the Engineer will use the files used by the engineering consultants to generate the plans to construct the original facility.
4. Available existing traffic counts and design year traffic projections necessary to develop the traffic control plans.
5. Applicable NETRMA special specifications, special provisions, and master general notes if available.
6. 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.
7. Assistance will be provided to the Engineer to obtain the required data and information from other local, regional, TxDOT and federal agencies if needed.
8. Timely review and decisions necessary for the Engineer to maintain the contracted project schedule.
9. Sample schedules, templates, and formats for design scheduling using Primavera if available.

10. Design criteria and standard drawings for architectural finishes, landscaping, signing, and architectural details for structures and retaining walls, if required.
11. Traffic accident data necessary for any design exceptions or waivers.
12. 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.
13. 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 1, 2, 3A and 5 – Restriping

Segment 3A: SH 31 to SH 155 - approximately 6.0 miles

Segment 1: SH 155 to US 69 - approximately 5.0 miles

Segment 2: US 69 to FM 759 - approximately 2.0 miles

Segment 5: FM 756 to SH 110 - approximately 2.5 miles

The work to be performed by the Engineer under this contract consists of providing engineering services required for the preparation of PS&E for the restriping of TOLL 49, approximately 15.5 miles. The Engineer will be responsible for the following activities on the constructed facility:

1. Perform final design and prepare PS&E for applying one-course surface treatment to the existing pavement as follows:
 - a. Segment 1: apply one-course surface treatment to the entire pavement length and width of TOLL 49.
 - b. Segments 2, 3A and 5: apply one-course surface treatment to the entire pavement width of the proposed Super 2 sections.
2. Perform final design and prepare PS&E 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.
3. Perform final design and prepare PS&E for the proposed supplemental safety signing and signing necessary to accommodate the above improvements.

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 roadway design and paving required to accommodate the improvements. The Engineer will prepare specification and cost estimates for this work.

The Engineer shall collect, review and evaluate the available existing data pertaining to the project and prepare the PS&E 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.

The Engineer shall develop cost estimates for the proposed improvements.

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 PS&E 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.

PS&E 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 PS&E. 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 PS&E 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 PS&E 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 surface treatment options, Super 2 limits, 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 determine the location and limits of the additional passing lanes.
- B. **Typical Sections.** The Engineer shall prepare typical sections showing the proposed surface treatment. The typical section shall include at a minimum the existing roadway section, proposed surface treatment, and station limits.
- C. **Plan Preparation.** The Engineer shall prepare title sheet, horizontal alignment data sheets, summaries, standard details, and special details in addition to the typical sections for the proposed improvements as mentioned above.

DRAINAGE DESIGN (Function Code 161)

- A. **Storm Water Pollution Prevention Plans (SWP3).** The Engineer shall develop typical SWP3 layouts showing temporary erosion control devices. The Engineer shall also use standard details where practical.

SIGNING, MARKINGS, AND SIGNALIZATION (Function Code 162)

- A. **Signing.** The Engineer shall design and prepare PS&E for the refined supplemental safety signing and signing 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.
- B. **Pavement Markings.** The Engineer shall design and prepare PS&E 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. Estimate.** The Engineer shall independently develop and report quantities at the 95%, and final PS&E submittals.
- C. 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. The Engineer shall prepare all the special specifications and special provision to be included in the Project Manual. The Engineer shall prepare the Project Manual.
- D. Construction Time Determination.** The Engineer shall prepare a construction schedule.
- E. Miscellaneous Plans.** The Engineer shall prepare the title sheet and the index of sheets for the 95% and final submittals.

RS&H SUBCONTRACT 2.0

ATKINS NORTH AMERICA, INC.

ATTACHMENT A – SCOPE OF WORK

TOLL 49 Segs 1, 2, 3A, 5 – Sign, Sign Layout and Foundation Designs

GENERAL PROJECT OVERVIEW

The Scope of Services for this subcontract shall include engineering services for the design of new signs, sign layouts and large sign foundations for Toll 49 Segments 1, 2, 3A and 5.

Engineering plans for new signs correlating to the planned restriping of Toll 49 will be included, as well as replacements / upgrades of existing signs that are worn and/or have poor reflectivity, upgrade of guide signs to better serve the traveling public and upgrade of bridge clearance signs where needed due to associated paving operations (if necessary). The Scope of Services shall include work tasks for: (1) Coordination with NET RMA and RS&H regarding design and implementation of signs to support the proposed paving and striping plans for Toll 49; (2) Design of signs, sign layouts and large sign foundations as required for the project; and (3) Coordination of technical CADD graphics base sheets, layers and graphics standards to produce an adequate, uniform final set of design plans for the improvements to Toll 49.

1) COORDINATION WITH NET RMA and RS&H

This task will involve coordination activities between the Engineer's management staff and NET RMA / RS&H to ensure that the final signs and sign layouts match the striping plans, widening plans and associated items in the RS&H planned improvements for Toll 49, Segments 1, 2, 3A and 5. Tasks to be conducted by the Engineer will include:

- Coordination between the NET RMA Project Director, RS&H Project Management staff and the Engineer's PIC and staff to establish the goals and engineering details for the project, and to ensure that the final sign layouts provide everything needed for the Toll 49 paving, striping and signing project.
- Coordination of activities with the NET RMA's Pavement Consultants, Balcones Geotech, to ensure the goals and details of the Pavement Management Plan are complied with.
- Input to project schedules and details to ensure that all required parts of the Toll 49 paving, striping and signing plans are produced in accordance with the needs of NET RMA.
- The Engineer shall attend meetings and phone conferences as required to support the above activities.

2) DESIGN OF SIGNS, SIGN LAYOUTS AND LARGE SIGN FOUNDATIONS

The Engineer shall design and prepare drawings, specifications, and details for the refined supplemental safety signing and other signing 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. Tasks to be conducted by the Engineer will include:

- Preparation of sign layouts for all new and replacement signs required on Toll 49 in support of the associated paving and striping project.
- Design of new large guidance signs to provide more acceptable wording regarding cross road exits and identification of the cross roads (i.e., using road names as well as state and local number designations).
- Design of large guide sign foundation supports as needed, if existing supports are not adequate for the new signs.
- Notation on the sign plans of all existing signs to remain and/or to be removed or relocated will be labeled accordingly.
- All proposed signs shall be illustrated and numbered on plan sheets to correlate with sign details and quantity summaries.
- Sign foundations shall be selected from TxDOT standards where possible for both small and large signs in order to minimize the amount of sign foundation designs required for the project.
- Sign detail sheets shall be prepared for large guide signs showing dimensions, lettering, shields, borders, corner radii and other details, and shall provide a summary of large and small signs.
- The Engineer shall also designate the shields to be attached to guide signs, in order to provide for a uniform signing project throughout Toll 49.
- The Engineer shall provide final signing plans to RS&H for incorporation into their overall set of plans for paving, striping and signing on Toll 49.
- The Engineer shall attend meetings and phone conferences as required to support the above activities.

3) COORDINATION OF CADD GRAPHICS, LAYERS AND STANDARDS

This task will involve technical coordination between the Engineer and RS&H regarding Graphics Base Sheets, Layers and Standards to produce a uniform set of plans for the paving, striping and signing of Toll 49 Segments 1, 2, 3A and 5. Tasks to be conducted by the Engineer will include:

- Preparation of initial signing layouts on Toll 49 base sheets from the original segment designs.
- Coordination of plan sheet graphics layers and standards between the Engineer and RS&H to produce a uniform appearance of all plan sheets.

This will include line widths, text fonts, and other CADD items contained on the plan sheets.

- Obtaining a set of the RS&H striping plans when available, and adjusting the sign layouts to ensure the placement of all signs matches the locations and details of the RS&H striping plan.
- The Engineer will provide a draft final signing layer to RS&H for incorporation into their set of final paving, striping and signing plans for Toll 49.
- The Engineer will make changes and corrections as needed based on NET RMA and RS&H review of the draft final Toll 49 improvement plans.
- The Engineer shall submit a final sign design in MicroStation electronic CADD format to RS&H for preparation of their final plans for the project.
- The Engineer shall attend meetings and phone conferences as required to support the above activities.

**ATTACHMENT B
FEE SCHEDULE (RS&H)**

PRIME PROVIDER NAME: RS&H, INC.
PROJECT NAME: TOLL 49 Segments 1, 2, 3A and 5 Restriping
PROJECT CS-1

TASK DESCRIPTION	ESTIMATED PLAN SHEET REQUIREMENTS UNITS /SCALE	ESTIMATE HOURS/UNIT	TOTAL MHS	Prin. %	PRINCIPAL	PROJECT MANAGER	PRINCIPAL ENGINEER	SENIOR ESTIMATOR/SCHEDULER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER-IN TRAINING	SENIOR CADD/DESIGNER	CADD TECH/CHDR	SENIOR ENVR/SCIENTIST	ENVR SCIENTIST	SENIOR ADMIN/CLERICAL	ADMIN/CLERICAL	TOTAL LABOR HRS.
ROUTE 6 DESIGN STUDIES (FC 110)																			
A. Design/Concept Conference	1 N/A	16	16	0															16
B. Design/Concept Conference	1 N/A	8	8	0															8
HOURS SUB-TOTALS			24																24
CONTRACT RATE PER HOUR					\$246.13	\$177.16	\$201.85	\$193.06	\$193.11	\$177.20	\$183.66	\$191.71	\$193.54	\$91.00	\$193.53	\$85.03	\$45.79	\$43.97	\$2,653.34
TOTAL LABOR COSTS					\$2,653.34	\$1,771.56	\$2,018.50	\$1,930.59	\$1,931.00	\$1,772.00	\$1,836.66	\$1,917.21	\$1,935.44	\$819.00	\$1,935.33	\$7,250.19	\$2,071.92	\$1,917.21	\$2,653.34
SUB-TOTAL (FC 110)																			\$2,653.34
ROADWAY DESIGN CONTROL (FC 160)																			
A. Roadway Design	1 N/A	130	130	0															130
B. Temporary Lanes & Widening Conceptual Design	1 N/A	8	8	0															8
C. Plan Submittals	4 N/A	8	32	0															32
D. 11th St Surface Treatment - Typical Sections	1 N/A	4	4	0															4
E. 11th Street / End of Streets	1 N/A	4	4	0															4
F. Horizontal Alignment	4 N/A	2	8	0															8
G. Vertical Alignment	1 N/A	8	8	0															8
H. Roadway Summaries	1 N/A	8	8	0															8
I. Standards	2 N/A	2	4	0															4
J. 20% Submittal	1 N/A	20	20	0															20
K. Final	1 N/A	20	20	0															20
L. M/Maps	1 N/A	20	20	0															20
HOURS SUB-TOTALS			268																268
CONTRACT RATE PER HOUR					\$248.13	\$177.16	\$201.85	\$193.06	\$193.11	\$177.20	\$183.66	\$191.71	\$193.54	\$91.00	\$193.53	\$85.03	\$45.79	\$43.97	\$3,119.00
TOTAL LABOR COSTS					\$3,119.00	\$1,771.56	\$2,018.50	\$1,930.59	\$1,931.00	\$1,772.00	\$1,836.66	\$1,917.21	\$1,935.44	\$819.00	\$1,935.33	\$7,250.19	\$2,071.92	\$1,917.21	\$3,119.00
SUB-TOTAL (FC 160)																			\$3,119.00

TASK DESCRIPTION	ESTIMATED PLAN SHEET REQUIREMENTS UNITS /SCALE	ESTIMATE HOURS/UNIT	TOTAL MHS	Prin. %	PRINCIPAL	PROJECT MANAGER	PRINCIPAL ENGINEER	SENIOR ESTIMATOR/SCHEDULER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER-IN TRAINING	SENIOR CADD/DESIGNER	CADD TECH/CHDR	SENIOR ENVR/SCIENTIST	ENVR SCIENTIST	SENIOR ADMIN/CLERICAL	ADMIN/CLERICAL	TOTAL LABOR HRS.
ROADWAY (FC 160)																			
A. Signal	1 N/A	0	0	0															0
B. Typical Layouts	1 N/A	8	8	0															8
C. Standards	2 N/A	2	4	0															4
HOURS SUB-TOTALS			12																12
CONTRACT RATE PER HOUR					\$248.13	\$177.16	\$201.85	\$193.06	\$193.11	\$177.20	\$183.66	\$191.71	\$193.54	\$91.00	\$193.53	\$85.03	\$45.79	\$43.97	\$1,874.08
TOTAL LABOR COSTS					\$1,874.08	\$1,771.56	\$2,018.50	\$1,930.59	\$1,931.00	\$1,772.00	\$1,836.66	\$1,917.21	\$1,935.44	\$819.00	\$1,935.33	\$7,250.19	\$2,071.92	\$1,917.21	\$1,874.08
SUB-TOTAL (FC 160)																			\$1,874.08

TASK DESCRIPTION	ESTIMATED PLAN SHEET REQUIREMENTS UNITS /SCALE	ESTIMATE HOURS/UNIT	TOTAL MHS	Prin. %	PRINCIPAL	PROJECT MANAGER	PRINCIPAL ENGINEER	SENIOR ESTIMATOR/SCHEDULER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER-IN TRAINING	SENIOR CADD/DESIGNER	CADD TECH/CHDR	SENIOR ENVR/SCIENTIST	ENVR SCIENTIST	SENIOR ADMIN/CLERICAL	ADMIN/CLERICAL	TOTAL LABOR HRS.
ROADWAY (FC 160)																			
A. Signal	1 N/A	0	0	0															0
B. Temporary Lanes & Widening Conceptual Design	1 N/A	8	8	0															8
C. Plan Submittals	4 N/A	8	32	0															32
D. 11th St Surface Treatment - Typical Sections	1 N/A	4	4	0															4
E. 11th Street / End of Streets	1 N/A	4	4	0															4
F. Horizontal Alignment	4 N/A	2	8	0															8
G. Vertical Alignment	1 N/A	8	8	0															8
H. Roadway Summaries	1 N/A	8	8	0															8
I. Standards	2 N/A	2	4	0															4
J. 20% Submittal	1 N/A	20	20	0															20
K. Final	1 N/A	20	20	0															20
L. M/Maps	1 N/A	20	20	0															20
HOURS SUB-TOTALS			68																68
CONTRACT RATE PER HOUR					\$248.13	\$177.16	\$201.85	\$193.06	\$193.11	\$177.20	\$183.66	\$191.71	\$193.54	\$91.00	\$193.53	\$85.03	\$45.79	\$43.97	\$2,811.52
TOTAL LABOR COSTS					\$2,811.52	\$1,771.56	\$2,018.50	\$1,930.59	\$1,931.00	\$1,772.00	\$1,836.66	\$1,917.21	\$1,935.44	\$819.00	\$1,935.33	\$7,250.19	\$2,071.92	\$1,917.21	\$2,811.52
SUB-TOTAL (FC 160)																			\$2,811.52

**ATTACHMENT B
FEE SCHEDULE (RS&H)**

PRIME PROVIDER NAME: RS&H, INC.
PROJECT NAME: TOLL 49 Segments 1, 2, 3A and 5 Restriping
PROJECT CSI:

TASK DESCRIPTION	ESTIMATED PLAN SHEET REQUIREMENTS UNITS	SCALE	BASIS OF MAN-HOUR ESTIMATE HOURS/UNIT	TOTAL MHS	P/Hr. %	PRINCIPAL	PROJECT MANAGER	PRINCIPAL ENGINEER	SENIOR ESTIMATOR/SCHEDULER	SENIOR ENGINEER	PROJECT ENGINEER	DESIGN ENGINEER	ENGINEER-IN-TRAINING	SENIOR CAD/DRAWER	CADD TECH/NOVR	SENIOR ENVIR SCIENTIST	ENVIR SCIENTIST	SENIOR ADMIN/CLERICAL	ADMIN/CLERICAL	TOTAL LABOR HRS. & COSTS
MISCELLANEOUS (ROADWAY) (FC 16B)																				
1. TOLL 49 Segment 1 and 5 Construction	4	1:00	10	40	0															
2. Advance Warning Sign/Land	1	1:00	8	8	0															
3. Signposts	20	N/A	10	20	0															
4. Clearances & Surmounts	1	N/A	10	10	0															
5. Final Estimate	1	N/A	16	16	0															
6. Specifications	1	N/A	16	16	0															
7. Special Provisions	1	N/A	8	8	0															
8. General Notes & Project Manual	1	N/A	24	24	0															
9. Construction Schedule	1	N/A	8	8	0															
SUBTOTAL (FC 16B)																				
CONTRACT RATE PER HOUR	\$248.13		\$177.16	\$201.55																
TOTAL LABOR COSTS	\$0.00	\$177,201.15	\$0.00	\$4,087.59																
SUBTOTAL (FC 16A)																				
MANAGING CONTRACTED PER SERVICES & SURVEY CONTRACTS (FC 16A)																				
A. COORDINATION SIGN	1	N/A	0	0	0															
B. PROJECT ADMINISTRATION	1	N/A	12	12	0															
C. DESIGN SCHEDULE	1	N/A	6	6	0															
SUBTOTAL (FC 16A)																				
CONTRACT RATE PER HOUR	\$248.13		\$177.16	\$201.55																
TOTAL LABOR COSTS	\$0.00	\$177,150.00	\$0.00	\$910.30																
SUBTOTAL (FC 16A)																				
DESCRIPTION																				
ROUTE AND DESIGN STUDIES (FC 17)																				
ROUTE AND DESIGN STUDIES (FC 17)	24																			
ROADWAY DESIGN CONTRACTS (FC 16)	288																			
ROADWAY DESIGN CONTRACTS (FC 16)	18																			
SIGNING, PAINT, MARK & SIGNALS (FC 16)	159																			
WISCELLANEOUS (ROADWAY) (FC 16)	20																			
MANAGING CONTRACTED PER SERVICES & SURVEY CONTRACTS (FC 16A)	0																			
BRIDGE DESIGN (FC 17)	0																			
COLE DESIGN (FC 18)	0																			
SUBTOTAL LABOR EXPENSES																				
OTHER DIRECT EXPENSES																				
Logarithmic (Travel/fee not included)	2		6,951.00																	
Missile (overnight stay, supplies)	4		4,450.00																	
Rental Car (Travel/fee not included)	0		\$0.00																	
Air Travel - Out of State - 2x (Miss Notes Consult)	2		\$50.00																	
Printing fee	0		\$120.00																	
Overnight Meal - Hotel also	0		\$0.41																	
Overnight Meal - overnight box	1		\$20.00																	
Course Services (Delivered)	0		\$50.00																	
Photocopies BW (11 X 17)	80		\$0.10																	
Photocopies Color (11 X 17)	600		\$0.20																	
Digital Color Printing	0		\$300.00																	
Post (Color, not Book)	0		\$2.00																	
Mail (11 X 17)	150		\$2.00																	
CD Acquire	0		\$0.00																	
SUBTOTAL DIRECT EXPENSES																				
SUBCONTRACTS:																				
AMHS																				
SUB-TOTAL																				
SUMMARY																				
TOTAL COSTS FOR PRIME ONLY (Includes multipliers)																				
NON-SURRY (OTHER DIRECT EXPENSES)																				
SUBCONTRACTS (Includes labor rates and overhead)																				
GRAND TOTAL																				



ESTIMATE OF PROBABLE LABOR FEE AND OTHER DIRECT EXPENSES
Toll 49 Segments 1, 2, 3A and 5 - Design of New Signs, Sign Layouts and Foundations

Atkins North America, Inc.
 October 28, 2016

RSH SUBCONTRACT NO. 2.0

TASK NO.	TASK DESCRIPTION	Labor Category:									Total Hours
		1	2	3	4	5	6	7	8	9	
Labor Description:		PIC	PROJ DIRECTOR	SR. ENG	CADD Tech	Sr Sign Engineer	SignCAD Specialist	QC ENG	ADMIN ASST		
1	Client / RS&H Coordination	16	0	20	0	4	4	0	8	52	
2	Sign Layout Design	4	0	40	16	60	72	16	8	216	
3	Striping / Sign Coord and Delivery	4	0	16	0	16	4	0	4	44	
Total Estimated Hours:		24	0	76	16	80	80	16	20	312	
Total Estimated Labor Fee:		7,269	0	13,153	1,615	17,306	10,384	3,461	2,019	55,206	
% of Total		13.2%	0.0%	23.8%	2.9%	31.3%	18.8%	3.7%		93.7%	

TOTAL ATKINS LABOR:

\$55,200

DIRECT EXPENSES:

	No.	Unit Cost	Totals
Roll Paper Printing (B&W)	0 @	\$10	\$0
Roll Paper Printing (Color)	0 @	\$15	\$0
Airline Costs	0 @	\$800	\$0
Auto Mileage	920 @	\$0.54	\$497
Hotel	2 @	\$91	\$182
Meals	2 @	\$51	\$102
Rental Car	0 @	\$50	\$0
Outside Printing	0 @	\$50	\$0
FedEx / Shipping	4 @	\$15	\$60
Total Direct Expenses:			\$841
Total Direct Expenses (rounded):			\$800

Sub Consultants

(none anticipated)

\$0

TOTAL ESTIMATE OF PROBABLE FEE:

\$56,000