RESOLUTION NO. 21538

Background

The Illinois State Toll Highway Authority (the "Tollway"), pursuant to Resolution No. 20761 approved July 23, 2015, entered into an Agreement with Bowman, Barrett & Associates, Inc. on Contract RR-14-4222 for Supplemental Design Services, on the Tri-State Tollway (I-294) at Milepost 26.6 (Burlington Northern Santa Fe (BNSF) Railroad Bridge).

Per Tollway request, Bowman, Barrett & Associates, Inc. has submitted a proposal to provide Supplemental Design Services for Contract RR-14-4222, increasing the contract upper limit by \$1,200,503.73, from \$5,690,617.78 to \$6,891,121.51. It is necessary and in the best interest of the Tollway to accept the proposal from Bowman, Barrett & Associates, Inc.

Resolution

The Chief Engineering Officer is authorized to negotiate a Supplemental Agreement with Bowman, Barrett & Associates, Inc. consistent with the aforementioned proposal to increase the contract upper limit by \$1,200,503.73, subject to the approval of the Acting General Counsel. The Chairman or the Executive Director is authorized to execute the Agreement and the Chief Financial Officer is authorized to issue warrants in payment thereof.

Approved by: _______ Chairman



BOWMAN, BARRETT & ASSOCIATES INC.

CONSCITING ENGINEERS

April 1, 2018

Paul D. Kovacs, PE Chief Engineering Officer Illinois State Toll Highway Authority 2700 Ogden Avenue Downers Grove, Illinois 60515

RE: Contract RR-14-4222

Bridge Rehabilitation/Reconstruction on the Tri-State Tollway (I-294) Mile Post 26.6 Burlington Northern Santa Fe (BNSF) Railroad Bridge First Supplemental Agreement

Attn: Mohamad Faraj, P.E.

Project Manager

Dear Mr. Kovacs:

This letter requests approval of the First Supplement Agreement for Tollway Contract RR-14-4222 with Bowman, Barrett & Associates Inc in the amount of \$ 1,200,503.73. This supplement will increase the upper limit of compensation on this contract from \$ 5,690,617.78 by \$ 1,200,503.73 to \$ 6,891,121.51.

The Move Illinois Capital Program included the preparation of Project Master Plan, Concept, and Phase II design services for the proposed rehabilitation\reconstruction of the BNSF Railroad Bridge (BN 261) over the Tri-State Tollway at Mile Post 26.6 for the Illinois State Toll Highway Authority (Tollway). Bowman, Barrett and Associates was selected from Professional Service Bulletin (PSB) 14-3, Item 2.

Tasks within the Master Plan, Concept and Design phases have resulted in changes in the character or complexity of the scope of work for designated items described in the First Supplemental Agreement documents. In addition, the Central Tri-State Corridor project schedule has been extended to accommodate the additional effort; including administration/management, meetings and coordination.

Sincerely,

Daniel Filice, PE, SE Project Manager



Business & Contact Information

Business Name

Frega Associates, Ltd.

Owner

Mr. Paul Krutulis

Address

411 S. Wells Street

> Map This Address

5th Floor

Chicago, IL 60607-3924

Phone

312-663-0640

Fax

312-663-0834

Email

bamato@fregaarchitects.com

Website

http://www.fregaarchitects.com

Ethnicity

Caucasian

Gender

Male

County

Cook (IL)

Certification Information

Certifying Agency

State of Illinois Central Management Services

Certification Type

VOSB - Veteran Owned Small Business

Renewal Date

9/18/2018

Expiration Date

9/18/2022

Certified Business

Description

Architectural Services, Professional

Commodity Codes

Code

Description

NIGP 906

Architectural Services, Professional

NIGP 90600

ARCHITECTURAL SERVICES, PROFESSIONAL

Additional Information

Region

Metro Chicago

Unified Certification Program - Search

Contractor Details

Browse F.A.Q. Sheet (/UCP/Search/Help)

Print

EFK Moen, LLC

Linda Moen

303 Fountains Pkwy., Ste. 240 13523

Barrett Parkway Dr., Ste. 250

Fairview Heights, IL 62208

Categories: Architecture\Engineering

NAICS

541330-Engineering Services

541370-Surveying & Mapping (except

Geophysical) Serv.

District: 10

Phone: (618) 206-4250

Fax: (618) 206-4253

Email: Ilmoen@efkmoen.com

Location: 1,2,3,4,5,6,7,8,9

Speciality

541330- WATERWAYS: TYPICAL

FREEWAYS

REHABILITATION

STUDIES: FEASIBILITY

STUDIES: SAFETY

STUDIES: TRAFFIC

ROADS AND STREETS

HIGHWAY STRUCTURE: TYPICAL

NEW CONSTRUCTION/MAJOR RECONSTRUCTION

TRAFFIC SIGNALS

CONSTRUCTION INSPECTION

LOCATION DRAINAGE

SUBSURFACE UTILITY ENGINEERING

RECONSTRUCTION/MAJOR REHABILITATION

HIGHWAY STRUCTURE: SIMPLE

541370- SURVEYING

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Version: 1.1.27.5458

CLOSE WINDOW Print

Business & Contact Information

Business Name

Sanchez & Associates, P.C.

Contact Person

Gerardo P Sanchez

Address

8604 W Catalpa Ave

> Map This Address

Suite 912

Chicago, IL 60656

Phone

773-444-0601

Fax

847-232-3104

Email

gpsanchez@sanchezsurveying.com

Website

http://www.sanchezsurveying.com

System Vendor Number

20060674

Next Renewal

4/16/2019

Classifications

Small Business Set-Aside

Yes

Program (SBSP) Registered

Registering as a

Prime & Subcontractor

NIGP Codes

NIGP Code

Description

NIGP 96460

Land Surveying



Business & Contact Information

Business Name

Wang Engineering, Inc.

Contact Person

Paul Wang

Address

1145 N. Main St.

> Map This Address

Lombard, IL 60148

Phone

630-953-9928

Email

pwang@wangeng.com

Website

http://www.wangeng.com

System Vendor Number

20061509

Next Renewal

11/30/2018

Classifications

Small Business Set-Aside

No

Program (SBSP) Registered

Registering as a

Prime & Subcontractor

NIGP Codes

NIGP Code

Description

NIGP 92517

Civil Engineering

NIGP 92533

Engineer Services, Professional (Inactive, effective January 1, 2016)

NIGP 92545

Geological Engineering

NIGP 92546

Geotechnical Engineering

NIGP 92555

Inspecting, General/Engineering



Business & Contact Information

Business Name

Christopher B. Burke Engineering, Ltd.

Contact Person

Sherry Sporina

Address

9575 W. Higgins Road, Suite 600

> Map This Address

Rosemont, IL 60018

Phone

847-823-0500

Fax

847-823-0520

Email

ssporina@cbbel.com

System Vendor Number

20316284

Next Renewal

5/19/2018

Classifications

Small Business Set-Aside Program (SBSP) Registered No

Registering as a

Prime & Subcontractor

NIGP Codes

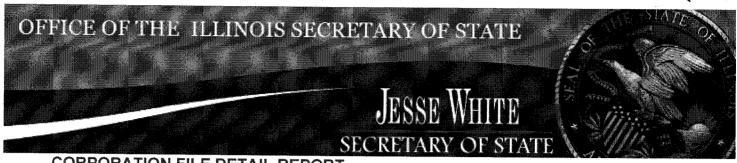
NIGP Code

Description

NIGP 925

Engineering Services, Professional

RR-14-4222



CORPORATION FILE DETAIL REPORT

File Number	55761213		
Entity Name	BOWMAN BARRETT & ASSO	CIATES, INC.	
Status	ACTIVE		
Entity Type	CORPORATION	Type of Corp	DOMESTIC BCA
Incorporation Date (Domestic)	12/08/1989	State	ILLINOIS
Agent Name	TERRY L ENGEL	Agent Change Date	01/28/1999
Agent Street Address	225 W WASHINGTON ST SUITE 1700	President Name & Address	JAMES DAUM 130 E RANDOLPH ST CHICAGO 60601
Agent City	CHICAGO	Secretary Name & Address	LOUIS BOWMAN 130 E RANDOLPH ST CHICAGO 60601
Agent Zip	60606	Duration Date	PERPETUAL
Annual Report Filing Date	12/01/2017	For Year	2017

Return to the Search Screen

Purchase Certificate of Good Standing

(One Certificate per Transaction)

OTHER SERVICES

File Annual Report

Adopting Assumed Name

Articles of Amendment Effecting A Name Change

Change of Registered Agent and/or Registered Office Address

BACK TO CYBERDRIVEILLINOIS.COM HOME PAGE

From:

Gomez, Graciela

Sent:

Monday, April 16, 2018 10:55 AM

To:

Gomez, Graciela

Subject:

Bowman, Barrett & Associates, Inc. FEIN

Contract No RR-14-4222

OCIS CICIOCP1

OFFSET CONTRACT INQUIRY

10:53 04/16/18

ACTION: S

VENDOR NUMBER= ***

OFFSET: 00 OF 00

VENDOR NAME: * CLAIMING AGENCY NUMBER: *

CLAIMING AGENCY NAME: *

CLAIMING AGENCY PHONE NUMBER: *

DISCLAIMER:

AS OF 04/16/18 AT 10:53 OUR INVOLUNTARY WITHHOLDING SYSTEM DOES NOT HAVE AN ACTIVE CLAIM AGAINST VENDOR NUMBER **** PLEASE BE ADVISED THAT OUR SYSTEM ONLY CONTAINS CLAIMS FILED BY STATE AGENCIES PURSUANT TO 15 ILCS 405/ 10.05. A VENDOR MAY BE DELIQUENT IN A DEBT TO THE STATE OF ILLINOIS, BUT THE DEBT MAY NOT BE RECORDED ON OUR INVOLUNTARY WITHHOLDING SYSTEM.

ENTER=PROCESS, PF3=IOCM. PF12=REFRESH

From:

Gomez, Graciela

Sent:

Monday, April 16, 2018 10:49 AM

To:

Gomez, Graciela

Subject:

Christopher B. Burke, Engineering, Ltd. _ FEIN

Contract No RR-14-4222

OCIS CICIOCP1 OFFSET CONTRACT INQUIRY

10:48 04/16/18

ACTION: S

VENDOR NUMBER= ** VENDOR NAME: *

OFFSET: 00 OF 00

CLAIMING AGENCY NUMBER: *

CLAIMING AGENCY NAME: *

CLAIMING AGENCY PHONE NUMBER: *

DISCLAIMER:

AS OF 04/16/18 AT 10:48 OUR INVOLUNTARY WITHHOLDING SYSTEM DOES NOT HAVE AN ACTIVE CLAIM AGAINST VENDOR NUMBER *** PLEASE BE ADVISED THAT OUR SYSTEM ONLY CONTAINS CLAIMS FILED BY STATE AGENCIES PURSUANT TO 15 ILCS 405/ 10.05. A VENDOR MAY BE DELIQUENT IN A DEBT TO THE STATE OF ILLINOIS, BUT THE DEBT MAY NOT BE RECORDED ON OUR INVOLUNTARY WITHHOLDING SYSTEM.

ENTER=PROCESS, PF3 = IOCM, PF12=REFRESH

From:

Gomez, Graciela

Sent:

Monday, April 16, 2018 10:51 AM

To:

Gomez, Graciela

Subject:

EFK Moen, LLC_FEIN

Contract No RR-17-4222

OCIS CICIOCP1 OFFSET CONTRACT INQUIRY

10:50 04/16/18

ACTION: S

VENDOR NUMBER= **** VENDOR NAME: *

OFFSET: 00 OF 00

CLAIMING AGENCY NUMBER: *

CLAIMING AGENCY NAME: *

CLAIMING AGENCY PHONE NUMBER: *

DISCLAIMER:

AS OF 04/16/18 AT 10:50 OUR INVOLUNTARY WITHHOLDING SYSTEM DOES NOT HAVE AN ACTIVE CLAIM AGAINST VENDOR NUMBER *** PLEASE BE ADVISED THAT OUR SYSTEM ONLY CONTAINS CLAIMS FILED BY STATE AGENCIES PURSUANT TO 15 ILCS 405/ 10.05. A VENDOR MAY BE DELIQUENT IN A DEBT TO THE STATE OF ILLINOIS, BUT THE DEBT MAY NOT BE RECORDED ON OUR INVOLUNTARY WITHHOLDING SYSTEM.

ENTER=PROCESS. PF3 = IOCM, PF12=REFRESH

From:

Gomez, Graciela

Sent:

Monday, April 16, 2018 10:52 AM

To:

Gomez, Graciela

Subject:

Frega Associates _ FEIN

Contract No 36-2734512

OCIS CICIOCP1

OFFSET CONTRACT INQUIRY

10:51 04/16/18

ACTION: S

VENDOR NUMBER= *

VENDOR NAME: *

CLAIMING AGENCY NUMBER: *

CLAIMING AGENCY NAME: *

CLAIMING AGENCY PHONE NUMBER: *

OFFSET: 00 OF 00

DISCLAIMER:

AS OF 04/16/18 AT 10:51 OUR INVOLUNTARY WITHHOLDING SYSTEM DOES NOT HAVE AN ACTIVE CLAIM AGAINST VENDOR NUMBER ** PLEASE BE ADVISED THAT OUR SYSTEM ONLY CONTAINS CLAIMS FILED BY STATE AGENCIES PURSUANT TO 15 ILCS 405/10.05. A VENDOR MAY BE DELIQUENT IN A DEBT TO THE STATE OF ILLINOIS, BUT THE DEBT MAY NOT BE RECORDED ON OUR INVOLUNTARY WITHHOLDING SYSTEM.

ENTER=PROCESS, PF3=IOCM, PF12=REFRESH

From:

Gomez, Graciela

Sent:

Monday, April 16, 2018 10:53 AM

To:

Gomez, Graciela

Subject:

Sanchez & Associates, PC - FEIN

Contract No 20-2703329

OCIS CICIOCP1

OFFSET CONTRACT INQUIRY

10:52 04/16/18

ACTION: S

VENDOR NUMBER= **

VENDOR NAME: *

OFFSET: 00 OF 00

CLAIMING AGENCY NUMBER:

CLAIMING AGENCY NAME: *

CLAIMING AGENCY PHONE NUMBER: *

DISCLAIMER:

AS OF 04/16/18 AT 10:52 OUR INVOLUNTARY WITHHOLDING SYSTEM DOES NOT HAVE AN ACTIVE CLAIM AGAINST VENDOR NUMBER *** PLEASE BE ADVISED THAT OUR SYSTEM ONLY CONTAINS CLAIMS FILED BY STATE AGENCIES PURSUANT TO 15 ILCS 405/ 10.05. A VENDOR MAY BE DELIQUENT IN A DEBT TO THE STATE OF ILLINOIS, BUT THE DEBT MAY NOT BE RECORDED ON OUR INVOLUNTARY WITHHOLDING SYSTEM.

ENTER=PROCESS, PF3 = IOCM, PF12=REFRESH

From:

Gomez, Graciela

Sent:

Monday, April 16, 2018 10:50 AM

To:

Gomez, Graciela

Subject:

Wang Engineering, Inc. _ FEIN

Contract No RR-14-4222

OCIS CICIOCP1

OFFSET CONTRACT INQUIRY

10:49 04/16/18

ACTION: S

VENDOR NUMBER=

OFFSET: 00 OF 00

VENDOR NAME:

CLAIMING AGENCY NUMBER:

CLAIMING AGENCY NAME: *

CLAIMING AGENCY PHONE NUMBER: *

DISCLAIMER:

AS OF 04/16/18 AT 10:49 OUR INVOLUNTARY WITHHOLDING SYSTEM DOES NOT HAVE AN ACTIVE CLAIM AGAINST VENDOR NUMBER * PLEASE BE ADVISED THAT OUR SYSTEM ONLY CONTAINS CLAIMS FILED BY STATE AGENCIES PURSUANT TO 15 ILCS 405/ 10.05. A VENDOR MAY BE DELIQUENT IN A DEBT TO THE STATE OF ILLINOIS, BUT THE DEBT MAY NOT BE RECORDED ON OUR INVOLUNTARY WITHHOLDING SYSTEM.

ENTER=PROCESS, PF3 = IOCM, PF12=REFRESH

DESIGN SECTION ENGINEER FIRST SUPPLEMENTAL AGREEMENT

The Board of Directors, on the 26th day of April, 2018, authorized this FIRST SUPPLEMENTAL AGREEMENT to be entered into by and between THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY, an instrumentality and administrative agency of the State of Illinois, hereinafter sometimes referred to as "TOLLWAY", and BOWMAN, BARRETT & ASSOCIATES, INC., a corporation authorized and existing within the laws of the State of Illinois, hereinafter sometimes referred to as "DESIGN SECTION ENGINEER".

WITNESSETH:

WHEREAS, the TOLLWAY selected the DESIGN SECTION ENGINEER from PSB 14-3, Item 2, and DESIGN SECTION ENGINEER entered into an agreement on July 23, 2015, to provide design section engineering services (hereinafter "Services"") for Contract No. RR-14-4222 for Bridge Rehabilitation/Reconstruction on the Tri-State Tollway (I-294) mile Post 26.6 (Burlington Northern Santa Fe (BNSF) Railroad Bridge); and

WHEREAS, additional supplemental Services are necessary due to the increased scope of the work; and

WHEREAS, DESIGN SECTION ENGINEER has submitted a proposal dated **April 1, 2018**, a copy of which is attached hereto as Exhibit "1", to provide said additional Services, and it is in the best interest of the TOLLWAY to accept said proposal.

NOW, THEREFORE, in consideration of the mutual covenants hereinafter contained, the parties hereto mutually covenant and agree as follows:

ARTICLE I

General Provisions

Except as modified or changed herein, all terms, provisions and conditions contained in the original agreement between the TOLLWAY and the DESIGN SECTION ENGINEER dated **July 23, 2015** ("Original Agreement") and commonly referred to as Contract No. **RR-14-4222**, shall govern this agreement and be in full force and effect, however, any changes to multipliers, unit costs, prices and/or rates of compensation shall only be applied to Services rendered solely under this Supplement pursuant to changes in the scope of work. The supplemental proposal attached as Exhibit "1" is hereby made a part of this Supplemental Agreement.

ARTICLE II

Time of Performance

Rev. 3/27/2018 Page 1 of 5

The DESIGN SECTION ENGINEER shall perform the services herein in accordance with the schedule included at Exhibit "A" in the attached proposal.

ARTICLE III

Reaffirmation of Original Agreement

All covenants and agreements contained in the Original Agreement made and entered into by and between the TOLLWAY and DESIGN SECTION ENGINEER and all prior Supplemental Agreements, if any, to provide Services for Contract No. RR-14-4222 for Bridge Rehabilitation/Reconstruction on the Tri-State Tollway (I-294) mile Post 26.6 (Burlington Northern Santa Fe (BNSF) Railroad Bridge) are reaffirmed and shall govern this Agreement as if fully set forth herein, it being the intent that this Agreement shall be a supplement to said agreement(s).

ARTICLE IV

Record Retention and Audit

In compliance with the Illinois Procurement Code (30 Ill. Comp. Stat. 500/20-65) and rules promulgated thereunder, every CONTRACT for goods and services shall provide that the contractor shall maintain certain records, books and documents.

The DESIGN SECTION ENGINEER shall maintain in the State of Illinois, for a minimum of five years from the latter of the date of completion of the CONTRACT or the date of final payment under the CONTRACT, adequate books, records, and supporting documents from an accounting system maintained in accordance with generally accepted accounting principles to verify the amounts, recipients, uses and methods of all disbursements of funds passing in conjunction with the CONTRACT. The five year record maintenance period shall be extended for the duration of any audit in progress at the time of that period's expiration. The DESIGN SECTION ENGINEER shall at its own expense make such records available in a timely manner for inspection and audit (including copies and extracts of records) as required by the Auditor General and other State Auditors, the Chief Procurement Officer for General Services, the Illinois Department of Transportation, and the TOLLWAY's Inspector General, Internal Audit or other TOLLWAY agents at all reasonable times and without prior notice. For purposes of this section, "timeliness" will be considered production within the time period specified by the Auditor General and other State Auditors, the Chief Procurement Officer for General Services, the Illinois Department of Transportation and the TOLLWAY's Inspector General, Internal Audit or other TOLLWAY agents, but no later than thirty days after a request for records being made unless otherwise agreed to by the parties. The DESIGN SECTION ENGINEER agrees to cooperate fully with any audit conducted by the Auditor General and other State Auditors, the Chief Procurement Officer for General Services, the Illinois Department of Transportation and the TOLLWAY's Inspector General, Internal Audit or other TOLLWAY agents, and to provide full access to all relevant materials. The auditors reserve the right to enter the DESIGN SECTION ENGINEER's place of business in order to audit the records. If they are not produced in a timely manner by the DESIGN SECTION ENGINEER, then the DESIGN SECTION ENGINEER shall reimburse the TOLLWAY or other State agency for the travel

Rev. 3/27/2018 Page 2 of 5 Contract RR-14-4222

expenses of its auditors in the event that this right is invoked.

The obligations of this Section shall be explicitly included in any subcontracts or agreements formed between the DESIGN SECTION ENGINEER and any subcontractors or suppliers of goods and services to the extent that those subcontracts or agreements relate to fulfillment of the DESIGN SECTION ENGINEER's obligations to the TOLLWAY. Such subcontractor shall be required to comply with the terms and conditions of this Section and the TOLLWAY shall be entitled to enforce a breach of that contract.

Any audit adjustment will be submitted on a final invoice for any underpayment or overpayment to the DESIGN SECTION ENGINEER or its subcontractors. The DESIGN SECTION ENGINEER shall promptly reimburse the TOLLWAY for any overpayment, or the TOLLWAY at its option may deduct any overpayment from any funds due the DESIGN SECTION ENGINEER, whether those funds are due under this contract or other contracts to which the DESIGN SECTION ENGINEER is a party either directly with the TOLLWAY or as a subcontractor. In the event the DESIGN SECTION ENGINEER fails or refuses to reimburse the TOLLWAY for an overpayment, the DESIGN SECTION ENGINEER shall be responsible for all costs, including attorney fees, incurred by the TOLLWAY to collect such overpayment.

Failure to maintain or make available the books, records, and supporting documents required by this Section shall establish a presumption in favor of the TOLLWAY for recovery of any funds paid by the TOLLWAY under the contract for which adequate books, records and supporting documentation are not available to support their purported disbursement.

The DESIGN SECTION ENGINEER shall reimburse the TOLLWAY for the total costs of an audit that identifies significant findings that would benefit the TOLLWAY, including but not limited to reasonable attorney's fees and other expenses. Significant findings for the purposes of this provision shall be identified as an amount in excess of \$50,000 in aggregate of the audit report or findings of material performance or compliance deficiencies.

If the DESIGN SECTION ENGINEER fails to comply with these requirements, the DESIGN SECTION ENGINEER may be disqualified or suspended from bidding on or working on future contracts.

ARTICLE V

Compensation

The upper limit of compensation for said supplemental Services for Contract No. RR-14-4222 for Bridge Rehabilitation/Reconstruction on the Tri-State Tollway (I-294) mile Post 26.6 (Burlington Northern Santa Fe (BNSF) Railroad Bridge) performed by the DESIGN SECTION ENGINEER under the Original Agreement and including the services set forth herein, is hereby increased from \$5,690,617.75 by \$1,200,503.73 to \$6,891,121.51.

Rev. 3/27/2018 Page 3 of 5 Contract RR-14-4222

ARTICLE VI

Report of a Change in Circumstances

The DESIGN SECTION ENGINEER agrees to report to the TOLLWAY as soon as practically possible, but no later than 21 days following any change in facts or circumstances that might impact the DESIGN SECTION ENGINEER's ability to satisfy its legal or contractual responsibilities and obligations under this contract. Required reports include, but are not limited to changes in the DESIGN SECTION ENGINEER's Certification/Disclosure Forms, the DESIGN SECTION ENGINEER's IDOT prequalification, or any certification or licensing required for this project. Additionally, the DESIGN SECTION ENGINEER agrees to report to the Tollway within the above timeframe any arrests, indictments, convictions or other matters involving the DESIGN SECTION ENGINEER, or any of its principals, that might occur while this contract is in effect. This reporting requirement does not apply to common offenses, including but not limited to minor traffic/vehicle offenses.

Further, the DESIGN SECTION ENGINEER agrees to incorporate substantially similar reporting requirements into the terms of any and all subcontracts relating to work performed under this agreement. The DESIGN SECTION ENGINEER agrees to forward or relay to the Tollway any reports received from subcontractors pursuant to this paragraph within 21 days.

Finally, the DESIGN SECTION ENGINEER acknowledges and agrees that the failure of the DESIGN SECTION ENGINEER to comply with this reporting requirement shall constitute a material breach of contract which may result in this contract being declared void.

ARTICLE VII

EXPATRIATED ENTITIES

Except in limited circumstances, no business or member of a unitary business group, as defined in the Illinois Income Tax Act, shall submit a bid for or enter into a contract with a State agency if that business or any member of the unitary business group is an expatriated entity.

Rev. 3/27/2018

IN WITNESS WHEREOF, the parties hereto have executed this FIRST SUPPLEMENTAL AGREEMENT for RR-14-4222 the day and year first above written.

THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY	BOWMAN, BARRETT & ASSOCIATES. INC.
By	President-Signature Date
APPROVED 5/22/12 Chief Financial Officer - Signature Date Michael Colsch	Printed Name as Signed Above
APPROVED:	
Acting General Counsel – Signature Date Elizabeth Oplawski	

Approved as to Form and Constitutionality

Attorney General, State of Illinois – Robert Lane - Signature Date

PROPOSAL TO THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY FOR SUPPLEMENTAL DESIGN SECTION ENGINEER SERVICES

FOR CONTRACT NUMBER RR-14-4222

This proposal, dated April 1, 2018, is submitted by Bowman, Barrett & Associates Inc. of Chicago, IL for Design Section Engineer's Service.

DESCRIPTION/LOCATION OF DESIGN SECTION

The location of the construction Contract RR-14-4222 for which we propose to provide Design Section Engineering Services is M.P. 26.6 of the Tri-State (I-294) Tollway, in Cook County (Counties), Illinois.

REAFFIRMATION OF ORIGINAL AGREEMENT

All terms of the original agreement and any amendments thereto are hereby reaffirmed except as herein modified.

SCOPE OF SUPPLEMENTAL DESIGN ENGINEERING SERVICES

The Supplemental Engineering Services, more fully detailed in *Exhibit F*, attached hereto, will be executed in conformance with the terms contained in the original agreement for DESIGN SECTION ENGINEER's Services except where herein modified.

FEE PROPOSAL

The DESIGN SECTION ENGINEER shall be compensated for these Supplemental Engineering Services on the following basis:

PAYROLL COST TIMES A MULTIPLIER, PLUS REIMBURSEMENT OF CERTAIN DIRECT EXPENSES, WITH AN UPPER LIMIT OF COMPENSATION.

<u>PAYROLL COSTS AND MULTIPLIER</u> - During the course of the project, compensation shall be equal to Actual Direct Labor Costs (less overtime premium) multiplied by a factor of 2.80 to compensate for **Payroll Burden and Fringe Costs**, **Overhead and Miscellaneous Indirect Costs**, **and Profit**. This factor shall be used for periodic invoicing during the project.

Rev. 3/1/2017

Page 1 of 5

EXHIBIT "1"

EXHIBIT "1"

PAGE ____OFPage 1 of 190

AGREEMENT LIMITS

The following limits contained in the existing agreement are amended as follows:

The Upper Limit Compensation shall be increased

from $\frac{5,690,617.78}{1,200,503.73}$ to $\frac{6,891,121.51}{1,200,503.73}$.

RECORD RETENTION AND AUDIT - In compliance with the Illinois Procurement Code (30 Ill. Comp. Stat. 500/20-65) and rules promulgated thereunder, every CONTRACT for goods and services shall provide that the contractor shall maintain certain records, books and documents.

The DESIGN SECTION ENGINEER shall maintain in the State of Illinois, for a minimum of five years from the latter of the date of completion of the CONTRACT or the date of final payment under the CONTRACT, adequate books, records, and supporting documents from an accounting system maintained in accordance with generally accepted accounting principles to verify the amounts, recipients, uses and methods of all disbursements of funds passing in conjunction with the CONTRACT. The five year record maintenance period shall be extended for the duration of any audit in progress at the time of that period's expiration. The DESIGN SECTION ENGINEER shall at its own expense make such records available in a timely manner for inspection and audit (including copies and extracts of records) as required by the Auditor General and other State Auditors, Chief Procurement Officer, the Illinois Department of Transportation, and the TOLLWAY's Inspector General, Internal Audit or other TOLLWAY agents at all reasonable times and without prior notice. For purposes of this section, "timeliness" will be considered production within the time period specified by the Auditor General and other State Auditors, Chief Procurement Officer, the Illinois Department of Transportation and the TOLLWAY's Inspector General, Internal Audit or other TOLLWAY agents, but no later than thirty days after a request for records being made unless otherwise agreed to by the parties. The DESIGN SECTION ENGINEER agrees to cooperate fully with any audit conducted by the Auditor General and other State Auditors, Chief Procurement Officer, the Illinois Department of Transportation and the TOLLWAY's Inspector General, Internal Audit or other TOLLWAY agents, and to provide full access to all relevant materials. The auditors reserve the right to enter the DESIGN SECTION ENGINEER's place of business in order to audit the records. If they are not produced in a timely manner by the DESIGN SECTION ENGINEER, then the DESIGN SECTION ENGINEER shall reimburse the TOLLWAY or other State agency for the travel expenses of its auditors in the event that this right is invoked.

The obligations of this Section shall be explicitly included in any subcontracts or agreements formed between the DESIGN SECTION ENGINEER and any subcontractors or suppliers of goods and services to the extent that those subcontracts or agreements relate to fulfillment of the DESIGN SECTION ENGINEER's obligations to the TOLLWAY. Such subcontractor shall be required to comply with the terms and conditions of this

Rev. 3/1/2017

Page 2 of 5

EXHIBIT "1"

EXHIBIT "1"

PAGE ____OFpage 2 of 190

Section and the TOLLWAY shall be entitled to enforce a breach of that contract.

Any audit adjustment will be submitted on a final invoice for any underpayment or overpayment to the DESIGN SECTION ENGINEER or its subcontractors. The DESIGN SECTION ENGINEER shall promptly reimburse the TOLLWAY for any overpayment, or the TOLLWAY at its option may deduct any overpayment from any funds due the DESIGN SECTION ENGINEER, whether those funds are due under this contract or other contracts to which the DESIGN SECTION ENGINEER is a party either directly with the TOLLWAY or as a subcontractor. In the event the DESIGN SECTION ENGINEER fails or refuses to reimburse the TOLLWAY for an overpayment, the DESIGN SECTION ENGINEER shall be responsible for all costs, including attorney fees, incurred by the TOLLWAY to collect such overpayment.

Failure to maintain or make available the books, records, and supporting documents required by this Section shall establish a presumption in favor of the TOLLWAY for recovery of any funds paid by the TOLLWAY under the contract for which adequate books, records and supporting documentation are not available to support their purported disbursement.

The DESIGN SECTION ENGINEER shall reimburse the TOLLWAY for the total costs of an audit that identifies significant findings that would benefit the TOLLWAY, including but not limited to reasonable attorney's fees and other expenses. Significant findings for the purposes of this provision shall be identified as an amount in excess of \$50,000 in aggregate of the audit report or findings of material performance or compliance deficiencies.

If the DESIGN SECTION ENGINEER fails to comply with these requirements, the DESIGN SECTION ENGINEER may be disqualified or suspended from bidding on or working on future contracts.

<u>INVOICES</u> - INVOICES will be submitted monthly on forms provided to the DESIGN SECTION ENGINEER at the start of the project. The invoice cutoff date will coincide with the Monthly Progress Report. All payroll documentation and costs relating to this project will be available for audit by the TOLLWAY upon request.

INVOICES for services performed and expenses incurred through December 31st must be submitted to the TOLLWAY no later than February 28th of the subsequent year. The DESIGN SECTION ENGINEER expressly acknowledges that the TOLLWAY, at its discretion, reserves the right not to honor any delinquent INVOICE if the DESIGN SECTION ENGINEER fails to obtain prior written approval from the Chief Engineering Officer for an alternative INVOICE submission date. DESIGN SECTION ENGINEER will request such approval or an INVOICE submittal extension no later than February 15th.

PARTIAL PAYMENTS

Partial payments to the DESIGN SECTION ENGINEER shall be made in accordance with

Rev. 3/1/2017

Page 3 of 5

EXHIBIT "1"

EXHIBIT "1"

PAGE ____OF_{Page 3} of 190

the terms of the original agreement except that reference to the Total Estimated Fee and Upper Limit of Compensation, shall be interpreted to be the Amended Total Estimated Fee and Amended Upper Limit of Compensation.

REVISIONS TO SUPPLEMENTAL SCOPE OF WORK

The scope of supplemental work shall be as detailed in *Exhibit F*. All requirements of the SCOPE OF WORK contained in the original agreement for services shall apply to this supplemental work as well.

Rev. 3/1/2017

Page 4 of 5

EXHIBIT "1"
EXHIBIT "1"
PAGE ____OF Page 4 of 190

THIS PROPOSAL FOR SUPPLEMENTAL DESIGN SECTION ENGINEERING SERVICES FOR

CONTRACT RR-14-4222

SUBMITTED BY:

FIRM NAME:

Bowman, Barrett & Associates Inc.

ADDRESS:

130 East Randolph Street, Suite 2650

CITY, STATE &

ZIP CODE:

Chicago, IL 60601

TELEPHONE:

312-228-0100

FACSIMILE:

312-228-0706

SIGNED BY:

PRINTED NAME:

James M. Daum

TITLE:

President

Rev. 3/1/2017

Page 5 of 5

EXHIBIT "1"

PAGE OF EXHIBIT "1"
Page 5 of 190



CERTIFICATE OF LIABILITY INSURANCE

BOWMBAR-01 MPRAXMARER

DATE (MM/DD/YYYY) 5/18/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER. IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(les) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s). CONTACT NAME: PHONE (A/G. No, Ext): (312) 595-6200 E-MAIL ADDRESS: Mesirow Insurance Services, Inc. FAX 353 N. Clark St Chicago, IL 60654 INSURER(S) AFFORDING COVERAGE NAIC# INSURER A : ACE American Insurance Company 22667 INSURED INSURER B : Bowman, Barrett & Assoc. INSURER C: 130 East Randolph INSURER D : Suite 2650 Chicago, IL 60601 INSURER E : INSURER E COVERAGES CERTIFICATE NUMBER: **REVISION NUMBER:** THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOWHAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. ADDL SUBR POLICY EFF POLICY EXP TYPE OF INSURANCE POLICY NUMBER LIMITS COMMERCIAL GENERAL LIABILITY EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) CLAIMS-MADE OCCUR MED EXP (Any one person) PERSONAL & ADVINJURY Ś GEN'L AGGREGATE LIMIT APPLIES PER: GENERAL AGGREGATE s PRO-POLICY PRODUCTS - COMP/OP AGG OTHER AUTOMOBILE LIABILITY COMBINED SINGLE LIMIT (Ea accident) ANY AUTO BODILY INJURY (Per person) ALL OWNED SCHEDULED AUTOS NON-OWNED BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) HIRED AUTOS s s UMBRELLA LIAB EACH OCCURRENCE ŝ EXCESSION CLAIMS-MADE AGGREGATE RETENTION \$ DED S WORKERS COMPENSATION AND EMPLOYERS' LIABILITY STATUTE ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE \$ If yes, describe under DESCRIPTION OF OPERATIONS below E.L. DISEASE - POLICY LIMIT S Professional Liab EONG24575743009 05/25/2017 05/25/2018 Claims Made 5,000,000 DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required) Re: Tollway contract #4222 (BB&A #1303) CERTIFICATE HOLDER CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. Illinois State Toll Highway Authority 2700 Ogden Avenue Downers Grove, IL 60515 **AUTHORIZED REPRESENTATIVE**

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

ATE (MM/DD/YYYY 12/15/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

NAME: Megan Jolly								
PHONE (A/C, No, Ext): (312) 595-6000 FAX (A/C, No):								
E-MAIL ADDRESS: Megan.Jolly@alliant.com								
INSURER(S) AFFORDING COVERAGE	NAIC#							
INSURER A: Travelers Property Casualty Company of America	25674							
INSURER B : Travelers Indemnity Company 25658								
INSURER C:								
INSURER D:								
INSURER E :								
INSURER F:	l							
-	(A/C, No, Ext): (512) 595-6000 (A/C, No): E-MAIL ADDRESS; Megan.Jolly@alliant.com INSURER(s) AFFORDING COVERAGE INSURER A: Travelers Property Casualty Company of America INSURER B: Travelers Indemnity Company INSURER C: INSURER C: INSURER D: INSURER E:							

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

	KOLOGICING AND CONDITIONS OF SUCH				REDUCED BY	PAID CLAIMS			
INSR LTR		ADDL	SUBR	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP	LIMIT	s	
Α	X COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	s	1,000,00
	CLAIMS-MADE X OCCUR			6608938M214TIL17	12/14/2017	12/14/2018	DAMAGE TO RENTED PREMISES (Ea occurrence)	5	300,00
							MED EXP (Any one person)	\$	10,00
		[PERSONAL & ADV INJURY	\$	1,000,00
	GEN'L AGGREGATE LIMIT APPLIES PER:			**			GENERAL AGGREGATE	\$	2,000,000
l.	POLICY X PRO-						PRODUCTS - COMP/OP AGG	\$	2,000,000
1	OTHER:							\$	
В	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	\$	1,000,000
В	ANY AUTO ALL OWNED SCHEDULED			BA8938M214IND17	12/14/2017	12/14/2018	BODILY INJURY (Per person)	ş	
	AUTOS AUTOS						BODILY INJURY (Per accident)	\$,
	X HIRED AUTOS X NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	\$	
								\$	
	X UMBRELLA LIAB X OCCUR						EACH OCCURRENCE	\$	13,000,000
A	EXCESS LIAB CLAIMS-MADE			CUP4K570132TIL17	12/14/2017	12/14/2018	AGGREGATE	\$	13,000,000
	DED X RETENTIONS 0							\$	
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N						X PER STATUTE ER		
Α	OFFICER/MEMBER EXCLUDED?	N/A		UM4K57035317	12/14/2017	12/14/2018	E.L. EACH ACCIDENT	s	1,000,000
	(Mandatory in NH)						E.L. DISEASE - EA EMPLOYEE	\$	1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	\$	1,000,000
Α	Property - Special			6608938M214TIL17	12/14/2017	12/14/2018	Contents/ Ded \$2,500		1,600,000
			1						
DESC	RIPTION OF OPERATIONS / LOCATIONS / VEGICE	PT-01 F W		And Market and American and Ame					

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Re: BB&A Job 1303, Illinois Tollway Contract No. RR-14-4222, Tri State Tollway, Bridge Rehabilitation/Reconstruction, Burlington Northern Santa Fe (BNSF)
Railroad Bridge (MP 26.6). Certificate Holder is additional insured on the General Liability and Auto Liability on a primary/Non Contributory basis as required
by written contract per forms CGD414 4/08/CAT474 02/12

CERTIFICATE HOLDER	CANCELLATION
Illinois State Toll Highway Authority 2700 Ogden Avenue Downers Grove, IL 60515	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

© 1988-2014 ACORD CORPORATION XHIP HIS regerved.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 12/15/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER, THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

PR	certificate holder in lieu of such endo DDUCER				ONTACT Megan	Jolly		William C.	· · · · · · · · · · · · · · · · · · ·
Me	sirow Insurance Services, Inc. 3 N. Clark St 11th fi			P	HONE A/C, No, Ext): (312)	595-6000	FAX	····	
	icago, IL 60654			l g	MAIL DDRESS: Megan.	lolly@allia	nt com		
				-			RDING COVERAGE		1
				<u></u>			Casualty Company of An	erica	NAIC# 25674
INS	URED				SURER B : Travel				25658
	Bowman, Barrett & Associa	atos			SURER C:		ity Company		20000
	130 E. Randolph Street	ateg			SURER D :	,			
	Chicago, IL 60601				ISURER E :				
					ISURER F :				
				NUMBER:			REVISION NUMBER:		
Ö	THIS IS TO CERTIFY THAT THE POLICI NDICATED. NOTWITHSTANDING ANY IN PERTIFICATE MAY BE ISSUED OR MAY EXCLUSIONS AND CONDITIONS OF SUCH	REQUI	TAIN, CIES.	THE INSURANCE AFFORDE LIMITS SHOWN MAY HAVE BE	OF ANY CONTRA D BY THE POLIC EN REDUCED BY	CT OR OTHER IES DESCRIB PAID CLAIMS	R DOCUMENT WITH RESPE SED HEREIN IS SUBJECT T	OT TO	MARION TO DO
A	TYPE OF INSURANCE X COMMERCIAL GENERAL LIABILITY	INSD	WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMIT	S	
^							EACH OCCURRENCE	\$	1,000,000
	CLAIMS-MADE X OCCUR			6608938M214TIL17	12/14/2017	12/14/2018	DAMAGE TO RENTED PREMISES (Ea occurrence)	\$	300,000
							MED EXP (Any one person)	\$	10,000
	GEN'L AGGREGATE LIMIT APPLIES PER:	1 1					PERSONAL & ADV INJURY	\$	1,000,000
	POLICY X PRO- LOC						GENERAL AGGREGATE	\$	2,000,000
ζ.	OTHER:			-			PRODUCTS - COMP/OP AGG	\$	2,000,000
,)	AUTOMOBILE LIABILITY	-					COMBINED SINGLE LIMIT	\$ S	4 000 000
В	X ANY AUTO			BA8938M214IND17	12/14/2017	12/14/2018	(Ea accident) BODILY (NJURY (Per person)	\$	1,000,000
	ALL OWNED SCHEDULED AUTOS			,	12.14.2017	12/14/2010	BODILY INJURY (Per accident)	<u>\$</u>	
	X HIRED AUTOS X NON-OWNED AUTOS						PROPERTY DAMAGE	Š	-
							(Per accident)	s	
	X UMBRELLA LIAB X OCCUR						EACH OCCURRENCE	\$	13,000,000
Α	EXCESS LIAB CLAIMS-MADE			CUP4K570132TIL17	12/14/2017	12/14/2018		\$	13,000,000
	DED X RETENTION\$ 0							\$	
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						X PER OTH-	·	
Α	ANY PROPRIETOR/PARTNER/EXECUTIVE N	NIA		UM4K57035317	12/14/2017	12/14/2018		\$	1,000,000
	(Mandatory in NH)	1				ĺ	E.L. DISEASE - EA EMPLOYEE	\$	1,000,000
_	if yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	s	1,000,000
A	Property - Special		l	6608938M214TIL17	12/14/2017	12/14/2018	Contents/ Ded \$2,500		1,600,000
(e:	CRIPTION OF OPERATIONS / LOCATIONS / VEHICE Collway constret #4222 BB&A #1303. The ral liability as required by written contr	ie villa	CORD ige o	101, Additional Remarks Schedule, n f Hinsdale, Village of Western	nay be attached if more n Springs and We	space is require stern Springs	ed) s Park District are addition	al insu	red on the
					*				
CEI	RTIFICATE HOLDER			C/	ANCELLATION				
. Media	Illinois State Toll Highway A 2700 Ogden Avenue Downers Grove, IL 60515	uthori	ty	1	SHOULD ANY OF T THE EXPIRATION ACCORDANCE WIT	DATE THE	SCRIBED POLICIES BE CA EREOF, NOTICE WILL B Y PROVISIONS.	NCELLE E DEL	ED BEFORE IVERED IN
	DOWNERS Grove, IL 60515			ALI	THORIZED REPRESEN	TATIVE			

Contract Information Sheet

Complete the folio	wing information and it will be populated on every exhibit.	
Consultant Name:	Bowman, Barrett & Associates Inc.	
Contract Number:	RR-14-4222	
Proposal Date:	4/1/2018	
Exhibit Pointers	Editable cells in each exhibit are underlined in red	
	Notes and guidance for each exhibit are on the right of the ex	hibits in yellow text boxes
	A full set of instructions to complete the exhibits is available of	n the Tollway's website

Contract Number:

RR-14-4222

ŏ

Consultant: Bo

Bowman, Barrett & Associates Inc.

5,201

Grand Total Exhibit A Hours

TOTAL

EXHIBIT A: ESTIMATED TASK WORK HOURS

1684 204 150 3760 1722 HOURS 24 42 Dec 100 80 20 200 ۸ ک 200 74 20 200 494 ö 200 420 200 20 Sep 220 240 20 480 Aug **MONTHS of YEAR 2018** 220 20 20 20 240 550 Jul 220 440 200 20 Jun 220 60 20 200 500 May 300 300 604 Apr Mar Feb Jan Meetings, Coordination, Concept Plans (30%) Admin/Management General Activities QA/QC Phase II Plans Master Plan TOTALS TASK

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Contract Number:	RR-14-4222	-4222				Con	Consultant:		Bowm	an, Barre	Bowman, Barrett & Associates Inc.	iates Inc.	
				EXHIB	IT A: ES	TIMATE	TASK	EXHIBIT A: ESTIMATED TASK WORK HOURS	OURS				
													TOTAL
					Š	MONTHS of YEAR 2019	of YEAR	2019					HOURS
TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Master Plan					-								
Concept Plans (30%)								-					
Phase II Plans	116	100	100	100	100	100	100	100 001				-	816
Meetings, Coordination,		Č		Č	Č	Č	Č		**************************************	***************************************		-	
General Activities	20	00	00	09	09	09	0.9	45	-				465
Name of the second	C	C	· ·		8						-		
Admin/Management	07	02	707	22	707	50	20	20	***************************************				160
										***************************************	***************************************	**	
		, , , , , , , , , , , , , , , , , , , ,			-								
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TOTALS	196	180	180	180	180	180	180	165	,				1441
	200	20.	25	2	3	20	00-	202					+++

Contract No.: RR-14-4222	Consultant:	Bowman, Barrett & A	SSOC	iates Inc
		,		
	EXHIBIT B: FEE CALCUL	ATIONS		
A. DIRECT LABOR (without overtime)				
5,201.(Total Work Hours from Exhibit C-2)	(Average Hourly	TOTAL DIRECT SALARY	\$	230,404.30
Multiplier to be used on this p	rolant			0.00
	DSE) (2.5 or 2.8 CM) (2.5 PMO)			2.80
DIR	ECT REGULAR SALARY	TIMES MULTIPLIER	\$	645,132.04
B. REIMBURSABLE DIRECT COSTS (For Prime Consultant listed a		OFIT		
		TOTAL DIRECT COSTS		\$45,000.00
C. SERVICES BY OTHERS	·			
Total Allowable Fee DBE/MBB	E/WBE Subconsultant (from Exhibi	t H) \$ 382,332.28		
Total Allowable Fee Non-DBE/MBE/WBE	Subconsultant (from Exhibit H (co	nt)) \$ 128,039.41		
	т. Т	OTAL SERVICES BY OTHERS	\$	510,371.69
D 4001101111 0001111				
D. ADDITIONAL SERVICES (Prime Con	•	prior authorization before use)		
ADDITIONAL SERVICES (Subconsult	tants)	prior authorization before use)		
	тс	TAL ADDITIONAL SERVICES	\$	
E. MAXIMUM ALLOWABLE FEE (Upp		prior authorization before use)	\$	1,200,503.73

									••••								
Bowman, Barrett & Associates Inc.								1	Date Date	17.0	Escalation Factor Fifth Period		1	Date Date	17.0	Escalation Factor Tenth Period	
		SCALATION TABLE	No. OF MONTHS				hrough 5	1	Date Date	17.0	Escalation Factor Fourth Period	irough 10		Date Date	17.0	Escalation Factor Ninth Period	
Consultant:		EXHIBIT C-1: PAYROLL CLASSIFICATION ESCALATION TABLE	17	4/1/2018	1/1/2019	%0	ESCALATION PER YEAR Year 1 through 5		Date Date	17.0	Escalation Factor Third Period	ESCALATION PER YEAR Year 6 through 10		Date Date	17.0	Escalation Factor Eighth Period	100.00%
4-4222	4/1/2018	EXHIBIT C-1: P.	CONTRACT TERM:	SCHEDULED START DATE:	RAISE DATE:	PERCENT OF RAISE:	ESCALAI	1/1/2019 - 8/31/2019	Date Date	8.0	47.06% Escalation Factor Second Period	ESCALATI	T	Date Date	17.0	Escalation Factor Seventh Period	The escalation factor for this project is:
Contract No.: RR-14-4	Date: 4/1/							4/1/2018 - 12/31/2018	Date Date	9.0	52.94% Factor First Period		1	Date Date	17.0	Escalation Factor Sixth Period	The escal

Contract No.:

RR-14-4222

4/1/2018

Date:

Consultant:

Escalation Factor:

(From Exhibit C-1)

Bowman, Barrett & Associates Inc.

100.00%

DIRECT COST OVERTIME PREMIUM	Total Estimated O/T Hours:	Average Premium O/T Hourly Rate:	Total Overtime Premium:	Escalated Average Overtime Premium (Overtime Hourly Rate Hours Only) (See Note C to (See Note D to Right)	· ·		And the second s		· ·	AND THE PROPERTY OF THE PROPER							
	5,201.00	\$44.30	\$230,404.30	Estimated Work Hours (Including Overtime)	160.00	410.00	705.00	950.00	1,100.00	866.00	290.00	300.00				80.00	40.00
RATES	Total Estimated Work Hours:	Average Hourly Rate:	Total Direct Labor	Average Average Hourly Rate Hourly Rate for Classification Classification (See Note B to Right)	\$70.00	\$70.00	\$56.50	\$47.33	\$39.83	\$30.75	\$34.00	\$41.64				\$20.00	\$27.50
HOURS AND				Average Hourly Rate for Classification (See Note A to Right)	\$70.00	\$70.00	\$56.50	\$47.33	\$39.83	\$30.75	\$34.00	\$41.64				\$20.00	\$27.50
TION MAN-				Tollway MAXIMUM Hourly Rate for Classification	\$70.00	\$70.00	\$70.00	\$70.00	\$60.00	\$40.00	\$60.00	\$60.00	\$50.00	\$70.00	\$70.00	\$20.00	\$40.00
CLASSIFICA				Tollway MINIMUM Hourly Rate for Classification	\$50.00	\$40.00	\$40.00	\$40.00	\$25.00	\$20.00	\$20.00	\$25.00	\$15.00	\$30.00	\$20.00	\$8.25	\$8.25
EXHIBIT C-2: DIRECT LABOR CLASSIFICATION MAN-HOURS AND RATES				Tollway Classification	Principal	Project Manager	Senior Engineer/Planner	Resident Engineer	Project Engineer/Planner	Staff Engineer/Planner	Engineer /Accountant	Senior Technical Specialist	Technical Specialist	Architect	Realty Specialists	Intern	Admin/Clerical
				Classification Eligible for Premium Overtime?	No	No	No	No	No	No	No	ջ EX	₽ HI	. 1	% "1' 19	ON ,	No

Version 16

Contract No.: RR-14-4222

Consultant: Bowman, Barrett & Associates Inc.

Date: 4/1/2018

Tollway Classification	Consultant Classification (specific to each company)	Consultant Employee Name (SEE NOTE 1 TO RIGHT)	Range per Hour
Principal	Engineer VIII	Anderson, Ross	\$50 - \$70
	Engineer VIII	Daum, James	
Project Manager	Engineer VII	Brescia, Donato	\$40 - \$70
	Engineer VII	Filice, Daniel	
	Engineer VII	Hessenthaler, E.G.	
	Engineer VII	Hosanna, Joseph	
	Engineer VII	Loo, Jason	
	Engineer VII	Moses, D. David	
Senior Engineer/Planner	Engineer VI	Leary, John	\$40 - \$70
Outros Engineer/ Idinici		Rose, Robert	
	Engineer VI		
	Engineer VI	Rudnicki, Richard	
Decident Facilities			
Resident Engineer	Engineer V	Christensen, Jordan	\$40 - \$70
	Engineer V	Coronado, Oscar	
	Engineer V	Kibbons, James	
Project Engineer/Planner	Engineer IV	Adan, Rosalva	\$25 - \$60
	Engineer IV	Crader, Bryan	
	Engineer IV	Cross, Jacob	
	Engineer IV	Issa, Samaan	
	Engineer IV	Lopez, Octavio	
	Engineer IV	Austiff, Calvin	
Staff Engineer/Planner	Engineer IIII	Davidus Davidus	000 040
	Engineer I/II	Darckus, Domantas	\$20 - \$40
	Engineer I/II	Starzyk, Josua	
Engineer /Accountant	Engineer III	Kay, Emma	\$20 - \$60
	Engineer III	Rhoades, Christine	
Senior Technical Specialist	CADD Technician III	Davis, Raymond	\$25 - \$60
	CADD Technician III	Panganiban, Eugenie	
	CADD Technician III	Reglos, Marinela	
	Arch/Eng Technicain III	Dersch, C. Edward	

Contract No.: RR-14-4222 Consultant: Bowman, Barrett & Associates Inc.

Date: 4/1/2018

Tollway Classification	Consultant Classification (specific to each company)	Consultant Employee Name (SEE NOTE 1 TO RIGHT)	Range per Hour
	Arch/Eng Technicain III	Mueller, Laura	
	Arch/Eng Technicain II	Kacmarek, Michael	
	Arch/Eng Technicain II	Kalinin, Igor	
	Inspector II	Barrett, Thomas	
	Inspector II	Heide Christian	
Technical Specialist			\$15 - \$50
Architect			\$30 - \$70
Realty Specialists			\$20 - \$70
ntern	Intern	TBD	\$8.25 - \$20
Admin/Clerical	Administrative Assistant	Mott, Margaret	\$8.25 - \$40

TOTAL DIRECT COSTS (Vehicles, Allowable and Itemized)

\$ 45,000.00

ALLOWABLE DIRECT COSTS

10.01.2013

Effective for contracts awarded on or after October 1, 2013, the following costs are allowable when requested by the Department and included in the contract. The costs are allowable when it is customary for the firm to bill for the cost and it can be itemized in the firm's billing and accounting systems.

Per Diem	
Lodging	State Rate (Maximum)
Air Fare	State Rate (Maximum)
	Coach Rate with 2 weeks advance
Vehicles	purchase
Mileage	5 - 6
Vehicle Rental	State Rate* (Maximum)
Leased / Company-Owned Vehicles (does not include	\$55/day (Maximum)
personal vehicles, not owned by the company)	•
Vehicle Half-day Rate	\$65/day
Parking	\$32.50/half day
Tolls	Actual Cost
Overtime	Actual Cost
Film and Film Processing**	Premium portion
Overnight Delivery/Postage Courier Service	Actual Cost
Copies of Deliverables and Mylars	Actual Cost
Specific Insurance – required for project	Actual Cost
CADD	Actual Cost
Monuments – Permanent	Actual Costs (Maximum of \$15.00/Hr)
Payment for Newspaper Ads	Actual Cost
Web Site	Actual Cost
Facility Rental for Public Meetings & Exhibits/Rendering	Actual Cost
& AV Equipment/Transcriptions	
Recording Fees	Actual Cost
Courthouse Fees	Actual Cost
Testing of Soil Samples	Actual Cost
Lab Services (excluding Phase III normal construction	Actual Cost
inspection such as beam breaks, cylinder breaks,	
pavement cores)	•
Equipment rental specific for project (snooper for bridge	Actual Cost
inspection, noise meter, etc.)	
Specialized equipment – on an as needed basis with prior	Actual Cost
approval	
Traffic Systems	Actual Cost
Storm sewer cleaning and televising	Actual Cost
Traffic control and protection	Actual Cost
Aerial photography and mapping	Actual Cost
Utility exploratory trenching	Actual Cost
	Actual Cost

ALLOWABLE DIRECT COSTS

- *website for State Reimbursement Rates http://www2.illinois.gov/cms/Employees/travel/Pages/TravelReimbursement.aspx
- **Use of digital cameras verses film cameras is encouraged when firms own digital cameras and the discussion of their use will be part of the negotiations. Film & copies will be reimbursed at
- On all agreements authorization after January 1, 2005, GPS Equipment is considered a "tool of

Contract No.	: <u>RR-14-4222</u>	Consultant:	Bowman, Barrett & Associates Inc.
	<u> </u>	EXHIBIT E - KEY PROJECT I	PERSONNEL
Project Princ	ipal:	James Daum, PE	
Project Mana	ıger:	Daniel Filice, PE, SE	
Project Engir	neer:	D. David Moses, PE	
Resident Eng	gineer:		
Documentati	on Engineer:		
Project Civil	Engineer:	James Kibbons, PE	
Project Struc	tural Engineer:	John Leary, PE, SE	
Project Drain	age Engineer:		
Senior Engin	eer:		
Others:	Name:	Ross Anderson, PE	
	Classification:	Engineer VIII	
	Name:	Joseph Hosanna, SE	
	Classification:	Engineer VII	
	Name:		
	Classification:		
	Name:		
	Classification:		

Ross Anderson, PE Senior Vice President



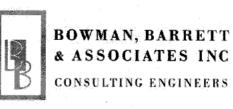
BOWMAN, BARRETT & ASSOCIATES INC

CONSULTING ENGINEERS

Ross Anderson, PE Senior Vice President



James Daum, PE Project Principal



James Daum, PE Project Principal



BOWMAN, BARRETT & ASSOCIATES INC

CONSULTING ENGINEERS

Daniel Filice, PE, SE Project Manager



Daniel Filice, PE, SE Project Manager



Joseph J. Hosanna, SE Vice President



Joseph J. Hosanna, SE Vice President



James Kibbons, PE Project Civil Engineer



James Kibbons, PE Project Civil Engineer



John Leary, PE, SE Project Structural Engineer



BOWMAN, BARRETT & ASSOCIATES INC

CONSULTING ENGINEERS

John Leary, PE, SE Project Structural Engineer



D. David Moses, PE Project Engineer



D. David Moses, PE Project Engineer



EXHIBIT F

Contract No. RR-14-4222 Bowman, Barrett & Associates Inc. SCOPE OF SERVICES

See attachment.

CHANGE ORDER NO. 1 EXHIBIT F

CONTRACT RR-14-4222 TRI-STATE TOLLWAY (INTERSTATE 294)

SCOPE OF SERVICES

PROJECT MASTER PLAN AND PHASE II DESIGN SERVICES FOR BRIDGE REHABILITATION/RECONSTRUCTION OF THE BURLINGTON NORTHERN SANTA FE (BNSF) RAILROAD (M.P. 26.6)

COOK COUNTY, ILLINOIS LYONS TOWNSHIP

Tasks with in the Master Plan, Concept and Design phases have resulted in changes in the character or complexity of the scope of work. In addition, the CTS corridor project schedule has been extended requiring additional effort for administration/management, meetings and coordination. The items include the following:

I. PROJECT MASTER PLAN

The detailed scope of services and various tasks are described below:

Item 2.5 Plat of Highways / Existing Railroad Right-of-Way

Tollway ROW. The Tollway Right-of-Way requirements for RR-14-4223 corridor improvements was to be provided by the mainline DSE. The 4222 DSE schedule was advanced from the mainline Master Plan schedule and developed and computed the Tollway Right-of-Way for the 4222 project limits.

Item 2.6 Preparation of Plats and Legal Descriptions for Right-of-Way Acquisition

- Plat of Acquisitions. Due to the advancement of the RR-14-4222 contract schedule, plat
 of acquisitions need to be revised to include portions of parcel acquisitions included in
 Contract RR-14-4223. Additional field survey to locate property corners and occupation
 within the new limits of the parcels is required, as well as boundary analysis, review of
 record documents and drafting plats.
- Update Plats of Survey to new Standards. Plats of Survey were modified to accommodate to the new CAD Standards and parcel naming convention. The

standards required to re-accommodate the lay-out of the parcels sheets to include all "Total Holdings" for any contiguous property owned by the Village.

- Additional field work. Additional field work to survey existing improvements within 200-ft of the temporary and proposed easements is required as this information is needed to be shown on the plat of acquisitions for property appraisals. In addition, field staking of the South RR Right-of-Way line was performed. Additionally, this task includes staking the North RR ROW line, fiber optic locates, and proposed abutment staking.
- BNSF Railroad Temporary Easements. The BNSF RR requested that plats identifying
 temporary easements be developed for areas within Tollway Right-of-Way that requires
 railroad elements; and for the Tollway to request temporary easements to work on BNSF
 RR property. These were initially assumed to be incorporated in the C&M agreement and
 were not included in the scope of work. This includes the preparation of Plats of Survey
 for proposed temporary easements, and minor field work.
- Item 10. Location Drainage Study. Flagg Creek Hydraulic Modeling. Additional effort and coordination is required for the cross culvert hydraulic modeling between 4222/4223 DSE to investigate proposed mainline profile and ditch grading needed to reduce the 500-year WSL. In addition, assistance was provided to the DCM regarding corridor watersheds.
- Item 11. Geotechnical Investigation. The field data determined unsuitable soils exist within the project area and additional investigation is required to determine the limits of this soil. The presence of the unsuitable soil represents an unforeseen field condition and were not anticipated. The additional information will determine the proper soil strengthening techniques required such that the proposed elements can be properly designed. This additional effort includes additional field explorations and laboratory testing and analysis. (See attached proposal by Wang Engineering)

Special Waste. Additional soil investigation and testing is required to determine if Special Waste provisions should be included in the contract documents. The BNSF RR environmental unit also requires that soils within their right of way be tested and properly disposed from their property limits. Additional testing includes areas within the railroad embankment, the Village of Western Springs Public Works yard, and the proposed detention area within Veeck Park. (See attached proposal by Wang Engineering).

Item 20. Master Plan Report.

- Master Plan Report. Tollway has requested that the Master Plan Report be combined into one corridor wide report. Additional effort will be required to merge the report from a standalone document, as well as additional coordination with the DCM and other DSEs.
- Value Management Study (VMS) Participation. The Tollway requested participation and collaboration in a VMS team, and provide comment and input as necessary. A presentation was developed to provide the team an overview of the project design details. Additional effort to review and study alternatives presented and provide a disposition to comments.

Item 21. Master Plan Presentation.

- Incorporation of Mainline Elements. The draft Master Plan presentation was modified
 to incorporate the mainline portion in addition to the 4222 study limits. The change in
 character or complexity of work includes additional coordination effort with Tollway/DCM
 staff, development of presentation material and preparation efforts relating to the mainline
 profile and box culvert analysis and design deviations.
- Presentation for Advancement of Concept Plans. A request to advance the concept plans independently from the mainline corridor schedule was requested, such that the 4222 project schedule will be maintained due to long-lead time coordination associated with the railroad.

Item 22. Conceptual Design Plans.

- Concept Reports. The scope does not include a Concept Report, as it was anticipated
 the Master Plan Report would suffice in addition to development of Concept Level Plan
 details. The development of a separate Concept Report is required.
- Village of Western Springs requested the Tollway to investigate lowering the invert of the cross culvert under the mainline on the north side of the railroad. Several alternatives were investigated, including installation of a pipe culvert jacked beneath the railroad embankment to assist the Village to alleviate the outfall elevation which is restricted by the Flagg Creek culvert elevation. This new pipe will allow the Village to reroute storm sewer and allow continuation to separate their combined sewer/storm water facilities. Study includes alternatives to route the pipe, invert elevation and potential outfall locations. Items of work include coordination meetings, investigation and exhibit, railroad coordination and permit.

II. PHASE II ENGINEERING

Burlington Northern Santa Fe (BNSF) Railroad Bridge Reconstruction (M.P. 26.6)

BNSF RR Bridge Reconstruction Contract:

Item23. Plan Sheets.

- Additional Embankment Stabilization. As a result of the additional geotechnical
 investigation, unsuitable soils exist (peat material) beneath the proposed temporary
 embankment supporting the railroad shoofly tracks. Ground improvements are necessary
 to mitigate settlement of the unsuitable material due to the increased embankment
 loading. Plan and details are required to reinforce the embankment due to the weak soils
 encountered.
- Additional Plan Effort. Level of effort to complete contract plans is greater than originally
 anticipated for the progress schedule, railroad staging, and railroad cross sections.

- Development of 3D Plan Deliverables. (New Item). The Illinois Tollway is requesting RR-14-4222 to assist in the implementation of 3-D engineered modeling including earthwork, paving operations, utilities, and structures. Additional effort will be required to provide a new format for the Contract deliverables.
- Incorporate 4223 Mainline Elements. Incorporate mainline design plans into Construction Contract 4222 for elements adjacent to pierce park and mainline cross culvert.
- Local Agency Utility Relocation Plans. The Village of Western Springs existing watermain and storm sewer facilities are located within proposed temporary easements requested by the Tollway to complete this project. From coordination with the Village, access to these facilities will be required throughout construction. Providing access results in additional retaining wall requirements which increases costs drastically. Therefore, the relocation for portions of their existing facility beneath Hillgrove Avenue is required. Likewise, existing brick storm sewer existing within proposed temporary easements within the Village of Hinsdale. After coordination with the Village, the temporary embankment loads that are proposed over the existing facilities are greater than the pipe can support, therefore replacement of the bridge sewer with concrete pipe is required.
- Village of Western Springs Generator at Well. The Village of Western Springs Well is
 within the vicinity of the project and they have requested a power generator be installed
 as a back-up to operate the well pump in case of a power failure. Additional plan details
 and design is required for this work.

Item 29. DCM Coordination. Additional submittal is required for DCM review prior to submittal of contract documents to the Tollway. Additional coordination and disposition of comments is required.

Item 31. Permit Application Submittals

- **IEPA Watermain Relocation Permit Application.** The proposed watermain relocation in the Village of Western Springs requires an IEPA permit application package for the relocation work.
- Special Waste Assessment Review. A Preliminary Site Investigation (PSI) will be performed based on the need for evaluation of two areas of Recognized Environmental Concern (REC) within the project limits. Review of the PSI documentation and further special waste processing and coordination will be evaluated.
- 42" Combined Sewer Reconstruction in Village of Hinsdale. Replacement of the existing 42" brick sewer with RCP located in Veeck Park requires local permits, including a permit from the Metropolitan Water Reclamation District of Greater Chicago (MWRD).
- Engine Generator for Village of Western Springs Well #4. The Village of Western Springs requested a standby engine generator and automatic transfer switch to supply standby electrical service to an existing municipal potable water well #4 be in place during construction in order to minimize risks of a power outage which would disrupt the Village's water supply. Local building permit from the Village will be applied for and incorporated into the specifications.

III. GENERAL PROJECT ACTIVITIES

Item 33. Coordination.

• The level of effort regarding coordination between the railroad, local agency coordination, and the adjacent mainline DSE is a greater than anticipated. Additional meetings include recurring railroad coordination meetings, monthly DSE coordination meetings, project status book meetings, and additional meetings with local agencies are a result of the CTS project extension schedule. A summary of meetings including the original versus the anticipated meetings required for this contract is shown in the following table. Note the total meeting amount is anticipated to occur at the contract completion.

Meeting Description	Number of Meetings included in Contract	Anticipated Total at Contract Completion	Additional Meetings included in Supplement 1	Comments
Railroad Coordination	12	40	28	23 Coord Meetings held thru Feb 2018. Additional Meetings from March 2018 thru May 2019 + 3 other meetings.
Monthly DSE Coord	24	38	14	Additional Meetings to May 2019
Project Status Book	24	39	15	Additional Meetings to May 2019
Local Agencies	8	21	13	Meeting with Village of Hinsdale, Western Springs, and Wester Springs Park District, FCWRD, and MWRD. To Date, 11 meetings held and two additional meeting with each entity is anticipated (+10).

- Railroad Investigation. Additional effort is to comply with requests from the railroad, including:
 - Investigation of embankment limits due to a fourth superstructure beyond the bridge,
 - Site access and railroad work zone requirements requiring additional investigation, grading modifications, and temporary retaining walls. Grading modifications include development of earth ramps providing access at each quadrant of the structure, mainline access, vehicle storage, and work platforms for track cut overs.
 - o Investigation for BNSF access from Burlington Avenue.

- Additional investigation and details required for railroad inspection access and platform to be constructed integrally with the bridge substructure. Also requires investigation and plan details or stair access from track level to abutment seat level.
- Study developed for a two stage, two track construction staging to eliminate the need for a shoo-fly structure.

Utility Coordination.

- The Village of Western Springs water well is located near the project improvements. Additional meetings and coordination is required to comply with IEPA requirements.
- The Village of Western Springs requested vibration monitoring be installed within the project limits because of the proposed pile driving work. Additional special provisions and plan details will be required for this work.
- Review of S.U.E. data provided by DUR DSE. Several attempts to locate existing FCWRD and MWRD facilities were made within the project area requiring additional coordination and review of field data.
- o NOI forms were submitted and need to be revised to match new format.
- Additional utility coordination and development of DUR are needed due to project extension.

Other Coordination

- Coordination with local municipalities to review intergovernmental agreements.
 Additional effort to define scope of work and preparation of construction cost estimates and construction durations for the Village of Hinsdale, Village of Western Springs and the Western Springs Park District.
- Design and construction assessment as alternative to right-of-way acquisition.
 Study and assessment may include:
 - Analysis of design impacts:
 - Constructability assessment, contractor access, and schedule impacts;
 - Modified drainage and grading plan;
 - Preliminary retaining wall design and plans (TS&L level) (2 new walls and 2 modified walls):
 - Meetings and coordination with the BNSF RR and local agencies;
- Item 36. Quality Assurance/Quality Control. Additional quality assurance and quality control as a result of additional plan development and project extension.
- **Item 37.** Administration/Management. Additional project management and planning is required as a result of the project extension.

EXHIBIT G

Contract No. RR-14-4222

Bowman, Barrett & Associates Inc.

CURRENT OBLIGATIONS FOR PROJECT

Route & Job No.	Work Scope & Description of Project	Fee (Including all Supplementals and Extra Work Orders)	Fee Remaining To Be Earned	Estimated Date of Completion
PTB 152-004	4I-80 from Grundy County Line to US 30	\$4,943,821.00	\$490,000.00	12/31/2019
PTB 165-008	8 US 20 at IL 59	\$1,445,502.00	\$5,000.00	12/31/2018
PTB 168-012	2 Circle Interchange Phase III	\$5,120,399.00	\$25,000.00	1/31/2018
I-14-4190	I-90, Roadway Retaining Wall and Bridge	\$2,712,242.00	\$5,000.00	12/31/2018
PSB 14-1,	Reconstruction and Widening, West of			
Item 5	Higgins Road to Roselle Road			
RR-16-	I-88, Roadway and Bridge Rehabilitation,	\$2,115,681.00	\$2,100.00	12/31/2018
4254,	Design, MP 91.41 (Annie Glidden Rd) to			
PSB 16-1,	MP 113.3 (IL 56) Phase II Engineering		v	
Item 7	· · · · · · · · · · · · · · · · · · ·			
I-17-4303	Tri-State Tollway, Roadway	\$6,700,000.00	\$5,600,000.00	11/30/2022
PSB 17-3,	Reconstruction and Bridge Rehabilitation,			
Item 8	O'Hare Oasis (MP 37.8) to Balmoral			*
	Avenue (MP 40.0)			*
RR-14-	Tri-State Bridge	\$5,690,618.00	\$1,844,000.00	12/31/2019
4222,	Rehabilitation/Reconstruction, Burlington		, , ,	
PSB 14-3,	Northern Santa Fe (BNSF) Railroad Bridge			
Item 2	(MP 26.6)			

Contract	No.:	RR-1

RR-14-4222

Co	ne	u	ta	nt.
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Bowman, Barrett & Associates Inc.

EXHIBIT H - SERVICES BY OTHERS

Exhibits A-G must be submitted for each subconsultant listed below. If a subconsultant requires "Services by Others", they must include Exhibit H and attach Exhibits A-G for second tier subconsultants.

DBE/MBE/WBE SUBCONSULTANTS

1	Sanchez & Associates, P.C.			6				
	Direct Labor	\$ 62,665.34			Direct Labor		•	
	Direct Costs	\$ 500.00			Direct Costs	\$ -		
	Services by Others	\$	···		Services by Others	\$ -		
	Additional Services **		<u>.</u>		Additional Services **	\$ -		
	Total this Subconsultant (ULC)		\$ 63,165.34		Total this Subconsultant (ULC)		\$	<u> </u>
2	Wang Engineering, Ltd.			7				
	Direct Labor	\$ 80,988.74			Direct Labor		•••	
	Direct Costs	\$ 178,440.20			Direct Costs	\$ -		
	Services by Others	<u> </u>			Services by Others	\$ -	***	
	Additional Services **		-		Additional Services **	\$ -		
	Total this Subconsultant (ULC)		\$ 259,428.94		Total this Subconsultant (ULC)		\$	
3	ABNA			8				
	Direct Labor	\$ <u>-</u>			Direct Labor		-	
	Direct Costs	\$ -	•		Direct Costs	\$ -	_	
	Services by Others	<u> </u>	-		Services by Others	\$ -		
	Additional Services **	_\$ -			Additional Services **	\$ -	_	
	Total this Subconsultant (ULC)		\$ -		Total this Subconsultant (ULC)		_ _\$	<u> </u>
4	EFK Moen			9				
	Direct Labor	\$ 59,738.00		Macadanana	Direct Labor		•	
	Direct Costs				Direct Costs	\$ -		
	Services by Others	\$ -			Services by Others	\$ -		•
	Additional Services **	\$ -			Additional Services **	\$ -	•	
	Total this Subconsultant (ULC)		\$ 59,738.00		Total this Subconsultant (ULC)		_\$	
5			•	10		· · · · · · · · · · · · · · · · · · ·	•	
	Direct Labor		•		Direct Labor			
	Direct Costs	\$ -	•		Direct Costs	\$	~	
	Services by Others	\$ -			Services by Others	\$ -	-	
	Additional Services **	\$ -			Additional Services **	\$ -	-	
	Total this Subconsultant (ULC)		\$ -		Total this Subconsultant (ULC)		\$	

** /	Additional	services	funds	require	prior	authorization	before	use
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OTAL DBE/MBE/WBE	Subconsu	tants:	<u> \$ </u>
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302,332.20

TOTAL Additional Services DBE/MBE/WBE Subconsultants: \$

TOTAL Allowable Fee DBE/MBE/WBE Subconsultants: \$ 382,332.28

DBE/MBE/WBE Percentage of Total Fee (includes Additional Services): ___

31.85% 31.85%

DBE/MBE/WBE Percentage of Total Fee (does not include Additional Services):

		•
Consultant: _	<u> </u>	Bowman, Barrett & Associates Inc

EXHIBIT H - SERVICES BY OTHERS (continued)

Exhibits A-G must be submitted for each subconsultant listed below. If a subconsultant requires "Services by Others", they must include Exhibit H and attach Exhibits A-G for second tier subconsultants.

OTHER SUBCONSULTANTS	(NOT	DBE/MBE/WBE	۱
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1	Christopher B. Burke Engineering, Ltd.				6				
	Direct Labor	\$ 108,920.00			• -	Direct Labor			
	Direct Costs	\$ -	· ·			Direct Costs	\$ -		
	Services by Others	\$ -	••••			Services by Others		••••	
	Additional Services **					Additional Services **			
	Total this Subconsultant (ULC)		- \$	108,920.00			\$ -	_	
				100,020.00		Total this Subconsultant (ULC)		_\$	-
2	Frega		•••		7				
	Direct Labor	\$ 19,119.41				Direct Labor	<u> </u>	·····	
	Direct Costs	<u> </u>	•••			Direct Costs		·····	
	Services by Others		•••			Services by Others			
	Additional Services **		-			Additional Services **	\$ -	_	
	Total this Subconsultant (ULC)		_\$	19,119.41		Total this Subconsultant (ULC)		\$	-
3					8				
	Direct Labor	\$ -	-			Direct Labor	\$ -		
	Direct Costs	\$ -	•			Direct Costs	\$ -	_	
	Services by Others	\$ -				Services by Others	\$ -		
	Additional Services **	\$ -				Additional Services **	\$ -	_	
	Total this Subconsultant (ULC)		- \$	_		Total this Subconsultant (ULC)	Ψ -	– \$	
			<u> </u>			roun and Oubconsumant (OEC)		Φ	 ;
4			-		9 _				
	Direct Labor	\$ -	•			Direct Labor	\$ -	_	
	Direct Costs	\$ -	-			Direct Costs	\$ -		
	Services by Others	\$ -				Services by Others	\$ -	 .	
	Additional Services **		-			Additional Services **	\$ -	_	
	Total this Subconsultant (ULC)		\$	-		Total this Subconsultant (ULC)		\$	
5					10				
	Direct Labor	\$ -				Direct Labor	\$ -	Mana	
	Direct Costs	\$ -	•			Direct Costs	\$ -	_	
	Services by Others	\$ -	•			Services by Others			
	Additional Services **	\$ -				Additional Services **	\$ <u>-</u>	_	
	Total this Subconsultant (ULC)		\$			Total this Subconsultant (ULC)	\$		
						rotal tills Subconsultant (ULC)		_\$	

e

TOTAL Non-DBE/MBE/WBE Subconsultants:	\$ 128,039.4	11
		_

TOTAL Additional Services Non-DBE/MBE/WBE Subconsultants: \$

TOTAL Allowable Fee Non-DBE/MBE/WBE Subconsultants: \$ 128,039.41

Contract Information Sheet

Complete the following information and it will be populated on every exhibit.

Consultant Name:	Christopher B. Burke Engineering, Ltd.	
Contract Number:	RR-14-4222	
Proposal Date:	4/1/2018	
Exhibit Pointers	Editable cells in each exhibit are underlined in red	
	Notes and guidance for each exhibit are on the right of the exhi	bits in yellow text boxes
	A full set of instructions to complete the exhibits is available on	the Tollway's website

Contract Number:

RR-14-4222

Consultant:

Christopher B. Burke Engineering, Ltd.

EXHIBIT A: ESTIMATED TASK WORK HOURS

Grand Total Exhibit A Hours

									;				2
					Σ	MONTHS of YEAR 2018	of YEAR	2018					TOTAL
TASK	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Master Plan				72									72
Concept Plans (30%)													
Phase II Plans				50	50	50	50	50	50	50	50	50	450
Meetings/ Coordination,													
General Activities				10	10	10	10	10	10	10	10	10	06
QC/QA				2	2	2	2	2	2	2	2	2	18
Admin/Management					_	_	_	1	-	_	1	1	8
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			-								-		
										-			
TOTALS	-			134	63	63	63	63	63	63	63	63	638

	•	TOTAL	HOURS			,	82	30	9	22											140	
ering, Ltd.	•		\dashv	Dec									-									
Christopher B. Burke Engineering, Ltd.				Nov						***************************************		-				-						
ner B. Bur				Oct						-												
Christopl	ours			Sep	-										-							
	VORK HO		2019	Aug		·		က		2											5	
Consultant:	EXHIBIT A: ESTIMATED TASK WORK HOURS		MONTHS of YEAR 2019	Jul		<u> </u>		က		2											5	
Con	TIMATEE		ONTHS	Jun				4	1	3											8	
	IIT A: ES			Мау				4	-	3											8	
	EXHIB		ľ	Apr			***************************************	4	1	က											8	-
				Mar				4	_	က										***************************************	8	
-4222			Ī	Feb			41	4	1	3											49	
RR-14-4222				Jan			41	4	1	3								-			49	
Contract Number:	-		````	TASK	Master Plan	Concept Plans (30%)	Phase II Plans	Meetings/ Coordination, General Activities	QC/QA	Admin/Management				-							TOTALS	

C	ontract No.:	RR-14-4222	Consultant:	Christopher B. Burke E	nginee	ring, Ltd.
		EXHIE	BIT B: FEE CALCU	<u>LATIONS</u>		
Α.	DIRECT LA	ABOR (without overtime)				
		778.00 X	\$ 50.00 (Average Hourly	= TOTAL DIRECT SALARY	\$	38,900.00
		from Exhibit C-2)	Rate from Exhibit C-2)			
		Multiplier to be used on this project:				2.80
		Allowable Multiplier = (2.8 DSE) (2	.5 or 2.8 CM) (2.5 PMO)			
		DIRECT I	REGULAR SALAR	TIMES MULTIPLIER	\$	108,920.00
В.	REIMBURS	SABLE DIRECT COSTS NOT (For Prime Consultant listed above.)	Γ ELIGIBLE FOR P	ROFIT		
				TOTAL DIRECT COSTS		
C.	SERVICES	BY OTHERS				
		Total Allowable Fee DBE/MBE/WBE	Subconsultant (from Exh	bit H) \$ -		
	Total Allov	wable Fee Non-DBE/MBE/WBE Subco	nsultant (from Exhibit H (cont))_\$		
				TOTAL SERVICES BY OTHERS	\$	
D.	ADDITION	AL SERVICES (Prime Consultant	t)			
	ADDITIONA	L CEDVICEO	(Require	es prior authorization before use)		
	ADDITIONA	AL SERVICES (Subconsultants)	(Require	es prior authorization before use)	•	
				TOTAL ADDITIONAL SERVICES	\$	
				es prior authorization before use)		
E.	MAXIMUM	ALLOWABLE FEE (Upper Lim	it of Compensation)		\$	108,920.00
		(-pp-			Ψ	100,020.00

Escalation Factor Tenth Period Escalation Factor Fifth Period Date Date Christopher B. Burke Engineering, Ltd. 17.0 Date Date Escalation Factor Fourth Period Escalation Factor Ninth Period Date Date EXHIBIT C-1: PAYROLL CLASSIFICATION ESCALATION TABLE No. OF MONTHS 17.0 17.0 **ESCALATION PER YEAR Year 6 through 10 ESCALATION PER YEAR Year 1 through 5** Date Date Consultant: 100.00% Escalation Factor Eighth Period **Escalation Factor Third Period** Date Date 4/1/2018 1/1/2019 17.0 17.0 % 17 Date Date The escalation factor for this project is: CONTRACT TERM: SCHEDULED START DATE: RAISE DATE: PERCENT OF RAISE: 8/31/2019 Escalation Factor Seventh Period 47.06% Escalation Factor Second Period Date Date 17.0 8.0 1/1/2019 Date Date 4/1/2018 - 12/31/2018 Escalation Factor Sixth Period Date Date 52.94% Factor First Period 17.0 17.0 9.0 Contract No.: 4/1/2018 Date Date

RR-14-4222

Contract No.: RR-14-4222

Consultant:

Christopher B. Burke Engineering, Ltd.

4/1/2018

Date:

Escalation Factor:

100.00% (From Exhibit C-1)

	EXHIBIT C-2: DIRECT LABOR CLASSI		TION MAN-H	FICATION MAN-HOURS AND RATES	RATES		DIRECT COST OVERTIME PREM	DIRECT COST OVERTIME PREMIUM
					Total Estimated Work Hours:	778.00	Total Estimated O/T Hours:	
					Average Hourly Rate:	\$50.00	Average Premium O/T Hourly Rate:	
					Total Direct Labor	\$38,900.00	Total Overtime Premium:	
Classification Eligible for Premium Overtime?	Tollway Classification	Tollway MINIMUM Hourly Rate for Classification	Tollway MAXIMUM Hourly Rate for Classification	Average Hourly Rate for Classification (See Note A to Right)	Escalated Average Hourly Rate for Classification (See Note B to Right)	Estimated Work Hours (Including Overtime)	Escalated Average Premium Overtime Hourly Rate (See Note C to	Estimated Overtime Hours (Overtime Hours Only) (See Note D to Right)
No	Principal	\$50.00	\$70.00	\$70.00	\$70.00	00.09		
No	Project Manager	\$40.00	\$70.00	\$61.20	\$61.20	180.00		
No	Senior Engineer/Planner	\$40.00	\$70.00	\$52.58	\$52.58	175.00		
No	Resident Engineer	\$40.00	\$70.00			-		
No	Project Engineer/Planner□	\$25.00	\$60.00	\$45.18	\$45.18	140.00		
No	Staff Engineer/Planner	\$20.00	\$40.00					
No	Engineer /Accountant	\$20.00	\$60.00	\$30.29	\$30.29	100.00		
oN No	Senior Technical Specialist	\$25.00	\$60.00	\$49.21	\$49.21	63.00		
운 EXI	Technical Specialist	\$15.00	\$50.00	\$35.25	\$35.25	30.00		
₽ HB	Architect	\$30.00	\$70.00	\$50.00	\$50.00	10.00	,	
₽ IT	Realty Specialists	\$20.00	\$70.00					
ջ "1"	Intern	\$8.25	\$20.00	\$15.00	\$15.00	10.00		
Š	Admin/Clerical	\$8.25	\$40.00	\$31 93	\$31.93	10.00		

Rev. 6/2016

Contract	No.:	RR-14-4222

Consultant: Christopher B. Burke Engineering, Ltd.

Date: 4/1/2018

EXHIBIT C-3: DIRECT LABOR EMPLOYEE CLASSIFICATION LIST

Tollway Classification	Consultant Classification (specific to each company)	Consultant Employee Name (SEE NOTE 1 TO RIGHT)	Range per Hour
Principal	Engineer VI	Donald Dressel	\$50 - \$70
	Engineer VI	Michael Kerr	Ψ00 Ψ10
	Engineer VI	Jason Souden	· · · · · · · · · · · · · · · · · · ·
Project Manager	Environmental Res Spec V	Jedd Anderson	\$40 - \$70
	Environmental Res Spec V	Julie Gangloff	
	Environmental Res Spec V	Perte Knysz	
	Environmental Res Spec V	Thomas McArdle	
	Engineer V	John Caruso	
	Engineer V	Lee Fell	
	Engineer V	Bryan Luke	
	Engineer V	Majid Mobasseri	
	Engineer V	Jonathan O'Connell	
	Engineer V	Val Racich	
	Engineer V	Gary Rozwadowski	
	Engineer V	Gerald Robinson	
	Engineer V	Stephen Sugg	
	Engineer V	Bryan Welch	
Senior Engineer/Planner	Engineer IV	James Amelio	\$40 - \$70
	Engineer IV	Katrina Ballado	
	Engineer IV	Kevin Baldwin	
	Engineer IV	Michael Cothard	
	Engineer IV	llene Dailey	
	Engineer IV	Anthony DeRicco	
	Engineer IV	Martin Michalowicz	
	Engineer IV	Andrew Pufundt	
weekler .	Survey V	John Murphy	
	Engineering Tech V	Mark Wrzeszcz	
. Divale	Survey IV	Kenneth Rasmussen	
			4
Resident Engineer			\$40 - \$70
Project Engineer/Planner□	Engineer III	Miroslaw Antas	\$25 - \$60
	Engineer III	James Barbee	
	Engineer III	David Kleinwachter	
	Engineer III	Nicholas Morel	
	Engineer III	Mark Thomas	
	Engineer III	Muhammad Younus	
:	Engineer III	Jeffrey Williams	
	Survey III	Brian Gillett	

Date: 4/1/2018

EXHIBIT C-3: DIRECT LABOR EMPLOYEE CLASSIFICATION LIST

Tollway Classification	Consultant Classification (specific to each company)	Consultant Employee Name (SEE NOTE 1 TO RIGHT)	Range per Hour
Staff Engineer/Planner			\$20 - \$40
Engineer /Accountant	Engineer I/II	Ryan Billings	\$20 - \$60
	Engineer I/II	Edmund Burke	
· .	Engineer I/II	Michael Gratzke	
	Engineer I/II	Brady Hall	
	Engineer I/II	Richard Jezierny	
	Engineer I/II	John LaPaglia	
	Engineer I/II	William Loftus IV	
	Engineer I/II	Fancisco Martinez	
	Engineer I/II	John Miller	
	Engineer I/II	Joshua Sitrick	
	Engineer I/II	Sanae Yasroubdoust	
Senior Technical Specialist	Environmental Resource Spec IV	Angela Force	\$25 - \$60
	Environmental Resource Spec IV	Eric Japsen	
	Environmental Resource Spec IV	Thomas Kehoe	
	Environmental Resource Spec IV	Casey Perry	:
	Engineering Technician IV	Gerald Hennelly	
	Engineering Technician IV	Thomas Szabo	
	CAD Manager	Alexie Karavakis	
	CAD Manager	Peter Magnelli	
	CAD Manager	Paul Najarro Jr.	
	Asst CAD Manager	Michael Goldenberg	
	Asst CAD Manager	Elmo Toda	
	CAD Technician II	Fidel Bariso	·
	CAD Technician II	Primo Razalan	
	CAD Technician II	Eduardo Toda	
Technical Specialist	Environmental Res Spec III	Megan Briggs	\$15 - \$50
	Environmental Res Spec III	Robert Sliwinski	
	Environmental Res Spec III	Amber Kowal	
100	Environmental Res Spec I/II	Kurt Hansen	
	Engineering Technician III		
	Engineering Technician I/II	Ella Sidorczuk	
	GIS Specialist III	David Walters	
	GIS Specialist I/II	Matthew Hayes	
	Survey II	Thomas Wilk	
100	Survey I	Alberto Torres	

Contract No.:	RR-14-4222	Consultant: _	Christopher B. Burke Engineering, Ltd.
			3,

Date: 4/1/2018

EXHIBIT C-3: DIRECT LABOR EMPLOYEE CLASSIFICATION LIST

-	Consultant Classification	Consultant Employee Name	
Tollway Classification	(specific to each company)	(SEE NOTE 1 TO RIGHT)	Range per Hour
	Environmental Res Technician	Kenneth Kopija	
	CAD Technician I		
Architect	Landscape Architect	Douglas Gotham	\$30 - \$70
Realty Specialists			\$20 - \$70
Intern	Engineering Intern	Garret Matchen	\$8.25 - \$20
	Engineering Intern	John Mazza	
	Engineering Intern	Thomas Souden	
	Engineering Intern	Calvin Krathovil	
	Survey Intern		
Admin/Clerical	Administratvie	Paula Bassett	\$8.25 - \$40
	Administratvie	Julie Cahill	
	Administratvie	Heidi Cothard	
	Administratvie	Mercy Lamourt	
	Administratvie	Sharon Lennstrom	
	Administratvie	Kimberly Rocha	
	Administratvie	Mary Veit	
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	F.A.L.		

Consultant:

EXHIBIT D

REIMBURSABLE DIRECT COSTS - WOR	RKSHEET ESTIN	MATES	
VEHICLE REIMBURSEMENT - rate based on link http://www2.illinois.gov/cms/Employees/travel/Pages.		ment.aspx	
ALLOWABLE DIRECT COSTS - based on link below https://www.illinoistollway.com/documents/20184/2384423844444444444444444444444444444	3673/LG TOL		
ITEMIZED DIRECT COSTS - For any expense not Allowable Direct Costs list, written permission me from the Chief Engineer prior to its inclusion. List	ust be received		
DIRECT COST CATEGORY			

ALLOWABLE DIRECT COSTS

10.01.2013

Effective for contracts awarded on or after October 1, 2013, the following costs are allowable when requested by the Department and included in the contract. The costs are allowable when it is customary for the firm to bill for the cost and it can be itemized in the firm's billing and accounting systems.

Per Diem	
Lodging	State Rate (Maximum)
Air Fare	State Rate (Maximum)
	Coach Rate with 2 weeks advance
Vehicles	purchase purchase
Mileage	
Vehicle Rental	State Rate* (Maximum)
Leased / Company-Owned Vehicles (does not include	\$55/day (Maximum)
personal vehicles, not owned by the company)	, and the same of
Vehicle Half-day Rate	\$65/day
Parking	\$32.50/half day
Tolls	Actual Cost
Overtime	Actual Cost
Film and Film Processing**	Premium portion
Overnight Delivery/Postage Courier Service	Actual Cost
Copies of Deliverables and Mylars	Actual Cost
Specific Insurance – required for project	Actual Cost
CADD	Actual Cost
Monuments – Permanent	Actual Costs (Maximum of \$15.00/Hr)
Payment for Newspaper Ads	Actual Cost
web Site	Actual Cost
Facility Rental for Public Meetings & Exhibits/Rendering & AV Equipment/Transcriptions	Actual Cost
& AV Equipment/Transcriptions	
Recording Fees	Actual Cost
Courthouse Fees	Actual Cost
Testing of Soil Samples	Actual Cost
Lab Services (excluding Phase III	Actual Cost
inspection such as beam breaks, cylinder breaks,	
1 = 1 = 11 = 11 = 1 = 1 = 1 = 1 = 1 = 1	
Equipment rental specific for project (see	Actual Cost
Specialized equipment – on an as needed basis with prior approval	Actual Cost
approval	
Traffic Systems	Actual Cost
Storm sewer cleaning and televising	Actual Cost
riging control and protection	Actual Cost
Aerial photography and mapping	Actual Cost
Utility exploratory trenching	Actual Cost
o timely exploit atory trenching	, ictaa, C02f

ALLOWABLE DIRECT COSTS

- *website for State Reimbursement Rates http://www2.illinois.gov/cms/Employees/travel/Pages/TravelReimbursement.aspx
- **Use of digital cameras verses film cameras is encouraged when firms own digital cameras and the discussion of their use will be part of the negotiations. Film & copies will be reimbursed at
- On all agreements authorization after January 1, 2005, GPS Equipment is considered a "tool of

Contract No.:

RR-14-4222

Consultant: Christopher B. Burke Engineering, Ltd.

EXHIBIT E - KEY PROJECT PERSONNEL

Project Principal: Engineer VI		Michael Kerr			
Environmental Lead Env Res Spec V		Jedd Anderson			
Drainage Lea Engineer V	d	Jonathan O'Connell			**************************************
Hydualic Lea Engineer IV	d	Ilene Dailey			
Civil Lead Engineer V		Val Racich			
Project Civil Engineer: Project Structural Engineer: Project Drainage Engineer:			-		
Senior Engin	eer:				
Others:	Name:				
	Classification:			:	
	Name:				
	Classification:				
	Name:				
	Classification:			-	
	Name:				
	Classification:				

JEDD ANDERSON, PWS, CWS, CPESC Vice President, Head, Environmental Resources Department

ILENE DAILEY, PE, CFM Assistant Department Head, Drainage

MICHAEL KERR, PE Executive Vice President, Head, Civil Engineering Department

Page 2 of 2

JONATHAN O'CONNELL, PE Head, Drainage Department

Page 2 of 2

EXHIBIT F

Contract No. RR-14-4222

Christopher B. Burke Engineering, Ltd.

SCOPE OF SERVICES

Each firm will be bound to the Tollway's Exhibit F Scope of Work as prepared by the Tollway. Each firm will perform only work they are qualified to perform to the professional Standard of Care level required by the Tollway. Work tasks will be assigned by the management team of Bowman, Barrett & Associates Inc., as required to meet the expectations of the Tollway for this project.

CHANGE ORDER NO. 1 EXHIBIT F

CONTRACT RR-14-4222 TRI-STATE TOLLWAY (INTERSTATE 294)

SCOPE OF SERVICES

PROJECT MASTER PLAN AND PHASE II DESIGN SERVICES FOR BRIDGE REHABILITATION/RECONSTRUCTION OF THE BURLINGTON NORTHERN SANTA FE (BNSF) RAILROAD (M.P. 26.6)

COOK COUNTY, ILLINOIS LYONS TOWNSHIP

Tasks with in the Master Plan, Concept and Design phases have resulted in changes in the character or complexity of the scope of work. In addition, the CTS corridor project schedule has been extended requiring additional effort for administration/management, meetings and coordination. The items include the following:

I. PROJECT MASTER PLAN

The detailed scope of services and various tasks are described below:

Item 2.5 Plat of Highways / Existing Railroad Right-of-Way

Tollway ROW. The Tollway Right-of-Way requirements for RR-14-4223 corridor improvements was to be provided by the mainline DSE. The 4222 DSE schedule was advanced from the mainline Master Plan schedule and developed and computed the Tollway Right-of-Way for the 4222 project limits.

Item 2.6 Preparation of Plats and Legal Descriptions for Right-of-Way Acquisition

- Plat of Acquisitions. Due to the advancement of the RR-14-4222 contract schedule, plat
 of acquisitions need to be revised to include portions of parcel acquisitions included in
 Contract RR-14-4223. Additional field survey to locate property corners and occupation
 within the new limits of the parcels is required, as well as boundary analysis, review of
 record documents and drafting plats.
- Update Plats of Survey to new Standards. Plats of Survey were modified to accommodate to the new CAD Standards and parcel naming convention. The

standards required to re-accommodate the lay-out of the parcels sheets to include all "Total Holdings" for any contiguous property owned by the Village.

- Additional field work. Additional field work to survey existing improvements within 200-ft of the temporary and proposed easements is required as this information is needed to be shown on the plat of acquisitions for property appraisals. In addition, field staking of the South RR Right-of-Way line was performed. Additionally, this task includes staking the North RR ROW line, fiber optic locates, and proposed abutment staking.
- BNSF Railroad Temporary Easements. The BNSF RR requested that plats identifying temporary easements be developed for areas within Tollway Right-of-Way that requires railroad elements; and for the Tollway to request temporary easements to work on BNSF RR property. These were initially assumed to be incorporated in the C&M agreement and were not included in the scope of work. This includes the preparation of Plats of Survey for proposed temporary easements, and minor field work.
- Item 10. Location Drainage Study. Flagg Creek Hydraulic Modeling. Additional effort and coordination is required for the cross culvert hydraulic modeling between 4222/4223 DSE to investigate proposed mainline profile and ditch grading needed to reduce the 500-year WSL. In addition, assistance was provided to the DCM regarding corridor watersheds.
- Item 11. Geotechnical Investigation. The field data determined unsuitable soils exist within the project area and additional investigation is required to determine the limits of this soil. The presence of the unsuitable soil represents an unforeseen field condition and were not anticipated. The additional information will determine the proper soil strengthening techniques required such that the proposed elements can be properly designed. This additional effort includes additional field explorations and laboratory testing and analysis. (See attached proposal by Wang Engineering)

Special Waste. Additional soil investigation and testing is required to determine if Special Waste provisions should be included in the contract documents. The BNSF RR environmental unit also requires that soils within their right of way be tested and properly disposed from their property limits. Additional testing includes areas within the railroad embankment, the Village of Western Springs Public Works yard, and the proposed detention area within Veeck Park. (See attached proposal by Wang Engineering).

Item 20. Master Plan Report.

- Master Plan Report. Tollway has requested that the Master Plan Report be combined into one corridor wide report. Additional effort will be required to merge the report from a standalone document, as well as additional coordination with the DCM and other DSEs.
- Value Management Study (VMS) Participation. The Tollway requested participation
 and collaboration in a VMS team, and provide comment and input as necessary. A
 presentation was developed to provide the team an overview of the project design details.
 Additional effort to review and study alternatives presented and provide a disposition to
 comments.

Item 21. Master Plan Presentation.

- Incorporation of Mainline Elements. The draft Master Plan presentation was modified
 to incorporate the mainline portion in addition to the 4222 study limits. The change in
 character or complexity of work includes additional coordination effort with Tollway/DCM
 staff, development of presentation material and preparation efforts relating to the mainline
 profile and box culvert analysis and design deviations.
- Presentation for Advancement of Concept Plans. A request to advance the concept plans independently from the mainline corridor schedule was requested, such that the 4222 project schedule will be maintained due to long-lead time coordination associated with the railroad.

Item 22. Conceptual Design Plans.

- Concept Reports. The scope does not include a Concept Report, as it was anticipated the Master Plan Report would suffice in addition to development of Concept Level Plan details. The development of a separate Concept Report is required.
- Village of Western Springs requested the Tollway to investigate lowering the invert of the cross culvert under the mainline on the north side of the railroad. Several alternatives were investigated, including installation of a pipe culvert jacked beneath the railroad embankment to assist the Village to alleviate the outfall elevation which is restricted by the Flagg Creek culvert elevation. This new pipe will allow the Village to reroute storm sewer and allow continuation to separate their combined sewer/storm water facilities. Study includes alternatives to route the pipe, invert elevation and potential outfall locations. Items of work include coordination meetings, investigation and exhibit, railroad coordination and permit.

II. PHASE II ENGINEERING

Burlington Northern Santa Fe (BNSF) Railroad Bridge Reconstruction (M.P. 26.6)

BNSF RR Bridge Reconstruction Contract:

Item23. Plan Sheets.

- Additional Embankment Stabilization. As a result of the additional geotechnical
 investigation, unsuitable soils exist (peat material) beneath the proposed temporary
 embankment supporting the railroad shoofly tracks. Ground improvements are necessary
 to mitigate settlement of the unsuitable material due to the increased embankment
 loading. Plan and details are required to reinforce the embankment due to the weak soils
 encountered.
- Additional Plan Effort. Level of effort to complete contract plans is greater than originally anticipated for the progress schedule, railroad staging, and railroad cross sections.

- **Development of 3D Plan Deliverables**. (New Item). The Illinois Tollway is requesting RR-14-4222 to assist in the implementation of 3-D engineered modeling including earthwork, paving operations, utilities, and structures. Additional effort will be required to provide a new format for the Contract deliverables.
- Incorporate 4223 Mainline Elements. Incorporate mainline design plans into Construction Contract 4222 for elements adjacent to pierce park and mainline cross culvert.
- Local Agency Utility Relocation Plans. The Village of Western Springs existing watermain and storm sewer facilities are located within proposed temporary easements requested by the Tollway to complete this project. From coordination with the Village, access to these facilities will be required throughout construction. Providing access results in additional retaining wall requirements which increases costs drastically. Therefore, the relocation for portions of their existing facility beneath Hillgrove Avenue is required. Likewise, existing brick storm sewer existing within proposed temporary easements within the Village of Hinsdale. After coordination with the Village, the temporary embankment loads that are proposed over the existing facilities are greater than the pipe can support, therefore replacement of the bridge sewer with concrete pipe is required.
- Village of Western Springs Generator at Well. The Village of Western Springs Well is
 within the vicinity of the project and they have requested a power generator be installed
 as a back-up to operate the well pump in case of a power failure. Additional plan details
 and design is required for this work.

Item 29. DCM Coordination. Additional submittal is required for DCM review prior to submittal of contract documents to the Tollway. Additional coordination and disposition of comments is required.

Item 31. Permit Application Submittals

- **IEPA Watermain Relocation Permit Application.** The proposed watermain relocation in the Village of Western Springs requires an IEPA permit application package for the relocation work.
- Special Waste Assessment Review. A Preliminary Site Investigation (PSI) will be performed based on the need for evaluation of two areas of Recognized Environmental Concern (REC) within the project limits. Review of the PSI documentation and further special waste processing and coordination will be evaluated.
- 42" Combined Sewer Reconstruction in Village of Hinsdale. Replacement of the existing 42" brick sewer with RCP located in Veeck Park requires local permits, including a permit from the Metropolitan Water Reclamation District of Greater Chicago (MWRD).
- Engine Generator for Village of Western Springs Well #4. The Village of Western Springs requested a standby engine generator and automatic transfer switch to supply standby electrical service to an existing municipal potable water well #4 be in place during construction in order to minimize risks of a power outage which would disrupt the Village's water supply. Local building permit from the Village will be applied for and incorporated into the specifications.

III. GENERAL PROJECT ACTIVITIES

Item 33. Coordination.

• The level of effort regarding coordination between the railroad, local agency coordination, and the adjacent mainline DSE is a greater than anticipated. Additional meetings include recurring railroad coordination meetings, monthly DSE coordination meetings, project status book meetings, and additional meetings with local agencies are a result of the CTS project extension schedule. A summary of meetings including the original versus the anticipated meetings required for this contract is shown in the following table. Note the total meeting amount is anticipated to occur at the contract completion.

Meeting Description	Number of Meetings included in Contract	Anticipated Total at Contract Completion	Additional Meetings included in Supplement 1	Comments
Railroad Coordination	12	40	28	23 Coord Meetings held thru Feb 2018. Additional Meetings from March 2018 thru May 2019 + 3 other meetings.
Monthly DSE Coord	24	. 38	14	Additional Meetings to May 2019
Project Status Book	24	39	15	Additional Meetings to May 2019
Local Agencies	8	21	13	Meeting with Village of Hinsdale, Western Springs, and Wester Springs Park District, FCWRD, and MWRD. To Date, 11 meetings held and two additional meeting with each entity is anticipated (+10).

- Railroad Investigation. Additional effort is to comply with requests from the railroad, including:
 - Investigation of embankment limits due to a fourth superstructure beyond the bridge,
 - Site access and railroad work zone requirements requiring additional investigation, grading modifications, and temporary retaining walls. Grading modifications include development of earth ramps providing access at each quadrant of the structure, mainline access, vehicle storage, and work platforms for track cut overs.
 - Investigation for BNSF access from Burlington Avenue.

- Additional investigation and details required for railroad inspection access and platform to be constructed integrally with the bridge substructure. Also requires investigation and plan details or stair access from track level to abutment seat level.
- Study developed for a two stage, two track construction staging to eliminate the need for a shoo-fly structure.

Utility Coordination.

- The Village of Western Springs water well is located near the project improvements. Additional meetings and coordination is required to comply with IEPA requirements.
- The Village of Western Springs requested vibration monitoring be installed within the project limits because of the proposed pile driving work. Additional special provisions and plan details will be required for this work.
- Review of S.U.E. data provided by DUR DSE. Several attempts to locate existing FCWRD and MWRD facilities were made within the project area requiring additional coordination and review of field data.
- o NOI forms were submitted and need to be revised to match new format.
- Additional utility coordination and development of DUR are needed due to project extension.

Other Coordination

- Coordination with local municipalities to review intergovernmental agreements.
 Additional effort to define scope of work and preparation of construction cost estimates and construction durations for the Village of Hinsdale, Village of Western Springs and the Western Springs Park District.
- Design and construction assessment as alternative to right-of-way acquisition.
 Study and assessment may include:
 - Analysis of design impacts:
 - Constructability assessment, contractor access, and schedule impacts;
 - Modified drainage and grading plan;
 - Preliminary retaining wall design and plans (TS&L level) (2 new walls and 2 modified walls);
 - Meetings and coordination with the BNSF RR and local agencies;
- Item 36. Quality Assurance/Quality Control. Additional quality assurance and quality control as a result of additional plan development and project extension.
- **Item 37. Administration/Management.** Additional project management and planning is required as a result of the project extension.

EXHIBIT G

Contract No. RR-14-4222

Christopher B. Burke Engineering, Ltd.

CURRENT OBLIGATIONS FOR PROJECT

Route & Job No.	Work Scope & Description of Project	Fee (Including all Supplementals and Extra Work Orders)	Fee Remaining To Be Earned	Estimated Date of Completion
Prime				
RR-11-4032 Sub	Environmental Services Upon Request	\$5,000,000.00	\$25,000.00	5/1/2018
I-11-4014	Elgin O'Hare Bypass Sub to CH2M Hill	\$574,365.00	\$308,674.00	3/1/2018
I-12-4080	Illinois 53 Extension Sub to Transystems	\$800,000.00	\$357,900.00	4/1/2019
RR-14-4221	Tri State Tollway- Mile Long Bridge Sub to Locher, HDR, Quiggg	\$1,326,200.00	\$450,000.00	3/1/2020
I-14-4190	Jane Adams Memorial Tollway (I-90) JV with Bowman Barrett	\$2,176,971.36	\$0.00	12/1/2017
I-15-4656	EOWA I-294 to I-290 Trio Sub Benesch/CBBEL/Lin JV	\$2,392,203.00	\$950,000.00	5/1/2019
I-17-4303	Tri-State O'hare Oasis to Balmoral Ave	JV=9,499,523 CBBEL=\$1,816,284	\$1,373,000.00	11/1/2022
IDOT				
	Various Saftey Assessments	\$600,000.00	\$43,000.00	1/28/2018
P-91-007-09	IL 47 doe US 14 to Charles Road Sub to Strand	\$435,000.00	\$145,000.00	3/21/2017
P-91-388-10	US 45 (form IL 132 to IL 173)	\$1,609,487.00	\$8,000.00	12/6/2017
P-91-003-11	Phase I Various Studies	\$2,400,000.00	\$34,000.00	6/30/2020
P-91-597-10	I-290West of US 12/20/45 Sub to Parsons Brinckerhoff	\$1,489,117.00	\$56,000.00	12/1/2017

EXHIBIT G

Contract No. RR-14-4222

Christopher B. Burke Engineering, Ltd.

CURRENT OBLIGATIONS FOR PROJECT

Route & Job No.	Work Scope & Description of Project	Fee (Including all Supplementals and Extra Work Orders)	Fee Remaining To Be Earned	Estimated Date of Completion
P-91-762-10	I-55 from I-355 to I-94 -Sub to Stantec	1,844,933.00	595,000.00	3/21/2018
C-91-75-13	Construction Inspection at I-90 and Cumberland	2,091,291.00	195,000.00	11/01/15
D-91-01-14	Il 47 from US 14 to South of IL 176 Phase II Sub to Strand	244,927.00	Still in Negotiation	
D-91-467-14	FAU 2857 Wood Street from North of Little Calumet River to South of US6	229,168.00	38,000.00	07/03/17
	Sub to Infrastructure			
P-91-119-14	Various Phase I Contracts	1,200,000.00	478,000.00	02/01/19
D-60-031-15	Various Scat Projects	400,000.00	79,000.00	03/01/17
P-91-224-16	Various Phase I Contracts	1,200,000.00	772,000.00	08/30/19
P-91-05-18	Interstate 90 from Interstate 94 to South of Ohio Street	t		
	Sub to Lochner	Still in Negotiation	Still in Negotiation	ı
D-60-001-18	Various Scat Projects	300,000.00	300,000.00	01/01/20
P-91-014-18	Phase I IL 53 from IL 62 to US 12			,
	Sub to RS+H	Still in Negotiation	Still in Negotiation	1
City of Chicago	2 Various Contracts	40,000,000.00	2,000.00	Various
_	Various Contracts	45,300,000.00	11,311,000.00	Various

Contract No.:	RR-14-4222	Consultant:	Christopher B.	Burke Engineering, Ltd.

EXHIBIT H - SERVICES BY OTHERS

Exhibits A-G must be submitted for each subconsultant listed below. If a subconsultant requires "Services by Others", they must include Exhibit H and attach Exhibits A-G for second tier subconsultants.

DBE/MBE/V	VRF	SURC	HIZMO	PANTS
	,,,	JUDU.	UNOUL	_IANIO

					Iditional Services DBE/MBE/WB AL Allowable Fee DBE/MBE/WB			-
				TOTAL A				
dditior	nal services funds require prior author	rization before use			TOTAL DBE/MBE/WB	F Subconsultante:	•	
	(OLO)		<u> </u>	-	iotal tille Subcollstillatil (OLC)		φ	-
	Total this Subconsultant (ULC)	Ψ			Total this Subconsultant (ULC)		\$	
	Additional Services **	\$ -			Services by Others Additional Services **	\$ <u>-</u>		
	Services by Others	\$ -			Direct Costs	\$ - e		
	Direct Costs	\$ -			Direct Labor	•		
	Direct Labor			10	Direct Labor			
	Total this Subconsultant (ULC)		\$ -	_	Total this Subconsultant (ULC)		\$	
	Additional Services **	\$ -	_		Additional Services **	\$ -		
	Services by Others	\$ -			Services by Others	\$ <u>-</u>		
	Direct Costs	\$ -			Direct Costs	\$ -		
	Direct Labor		******		Direct Labor			
				9				
	Total this Subconsultant (ULC)		\$ -		Total this Subconsultant (ULC)		\$	
	Additional Services **	\$ -	_		Additional Services **	\$ -		
	Services by Others	\$ -			Services by Others	\$		
	Direct Costs	\$			Direct Costs	\$ -	ı	
	Direct Labor		_		Direct Labor			
				8 _				
	Total this Subconsultant (ULC)		<u>\$ -</u>	-	Total this Subconsultant (ULC)		\$	
	Additional Services **				Additional Services **	\$ -		
	Services by Others				Services by Others	\$ -		
	Direct Costs				Direct Costs	\$ -		
	Direct Labor				Direct Labor			
!				7				
	Total this Subconsultant (ULC)	agencie.	\$ -	-	Total this Subconsultant (ULC)		\$	-
	Additional Services **				Additional Services **	\$ -		
	Services by Others	***************************************			Services by Others	\$ -		
	Direct Costs				Direct Costs	\$ -	<u>.</u>	
	Direct Labor	***************************************			Direct Labor			

DBE/MBE/WBE Percentage of Total Fee (does not include Additional Services):

EXHIBIT "1"

DBE/MBE/WBE Percentage of Total Fee (includes Additional Services):

Duniont N	_
Project N	"

D	D_1	4-4	22	2
	π-1	4-4	22	_

OTHER SUBCONSULTANTS (NOT DBE/MBE/WBE)

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	т		HI	121	n -

Christopher B. Burke Engineering, Ltd.

EXHIBIT H - SERVICES BY OTHERS (continued)

Exhibits A-G must be submitted for each subconsultant listed below. If a subconsultant requires "Services by Others", they must include Exhibit H and attach Exhibits A-G for second tier subconsultants.

1				6				
	Direct Labor			*******	Direct Labor		***	
	Direct Costs				Direct Costs	\$ -	_	
	Services by Others				Services by Others	\$ -		
	Additional Services **		_		Additional Services **	\$ -	_	
	Total this Subconsultant (ULC)		\$ -		Total this Subconsultant (ULC)		\$	
2				7				
	Direct Labor				Direct Labor	\$ -	···	
	Direct Costs				Direct Costs	<u> </u>		
	Services by Others				Services by Others	<u> </u>	•••	
	Additional Services **		_		Additional Services **	\$ -	_	
	Total this Subconsultant (ULC)		\$ -		Total this Subconsultant (ULC)		\$	
3			_	8		,	- .	
	Direct Labor	\$			Direct Labor	\$ -	_	
	Direct Costs	\$ -	_		Direct Costs	\$ -		
	Services by Others	\$			Services by Others	_\$	_	
	Additional Services **	\$ -	_		Additional Services **	\$ -	_	
	Total this Subconsultant (ULC)		\$ -		Total this Subconsultant (ULC)		\$	_
4	-			9			_	
	Direct Labor	\$ -	10000N		Direct Labor	\$	_	
	Direct Costs	\$ -			Direct Costs	<u> </u>	-	
	Services by Others	\$ -			Services by Others	<u> </u>	_	
	Additional Services **	\$ -	_		Additional Services **	\$	-	
	Total this Subconsultant (ULC)		<u> </u>		Total this Subconsultant (ULC)		_\$	
5			-	10			_	
	Direct Labor	\$ -	-		Direct Labor	_\$	-	
	Direct Costs	\$			Direct Costs	\$ -	-	
	Services by Others	_\$ -			Services by Others	\$ -	-	
	Additional Services **	\$ -	_		Additional Services **	\$ -	_	
	Total this Subconsultant (ULC)		\$ -		Total this Subconsultant (ULC)		\$	
Addition	al services funds require prior author	rization before use			TOTAL Non-DBE/MBE/V	VBE Subconsultants:	\$	-
			ī	OTAL Addit	ional Services Non-DBE/MBE/V	VBE Subconsultants:	\$	-
				TOTAL	Allowable Fee Non-DBE/MBE/V	VBE Subconsultants:	\$	-

Contract Information Sheet

Complete the follo	wing information and it will be populated on every exhibit.	
Consultant Name:	EFK Moen	
Contract Number:	RR-14-4222	·
Proposal Date:	4/1/2018	
Fabilité Daintean		
Exhibit Pointers	Editable cells in each exhibit are underlined in red	***************************************
	Notes and guidance for each exhibit are on the right of the	exhibits in yellow text boxes
	A full set of instructions to complete the exhibits is available	e on the Tollway's website

RR-14-4222	
Contract Number:	

Consultant:

EFK Moen

TOTAL TOTA					EXHIE	3IT A: ES	TIMATE	EXHIBIT A: ESTIMATED TASK WORK HOURS	NORK H	ours	70 F	7. 1. 1. 1. 1.		
in Relocation						A	ONTHS	of YEAR	2018	<u>פ</u>	ind lotal	EXHIBIT	A HOULS	TOTAL HOURS
in Relocation	TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
	Watermain Relocation				10	20	40	40	09	09	09	09	52	402
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	TOTALS				10	20	40	40	9	9	9	9	52	402

Rev. 6/2016

			TOTAL HOURS		100													100
				Dec						-			-		***************************************			
EFK Moen				Nov														
FFK				Oct														
	ours			Sep														
	JORK HC		2019	Aug	4													4
Consultant:	TASK W		f YEAR	Jul	4													4
Con	EXHIBIT A: ESTIMATED TASK WORK HOURS		MONTHS of YEAR 2019	Jun	4				,									4
	IT A: ES		M	May	4			-										4
	EXHIB		·	Apr	4													4
				Mar	10									-				10
4222				Feb	10		-											10
RR-14-4222				Jan	09													. 60
Contract Number:	-		•	X	-	****						-				-		ILS
Conf				TASK														TOTALS

EVUIDIT D. FEE CALCUL ATIONS	
EVHIDIT D. EEE CALCULATIONS	
EXHIBIT B: FEE CALCULATIONS	
A. DIRECT LABOR (without overtime)	
Total Work Hours from Exhibit C-2) X \$ 42.50 = TOTAL DIRECT SALARY (Average Hourly Rate from Exhibit C-2)	\$ 21,335.00
Multiplier to be used on this project:	2.80
Allowable Multiplier = (2.8 DSE) (2.5 or 2.8 CM) (2.5 PMO)	2.00
DIRECT REGULAR SALARY TIMES MULTIPLIER	\$ 59,738.00
B. REIMBURSABLE DIRECT COSTS NOT ELIGIBLE FOR PROFIT (For Prime Consultant listed above.)	
TOTAL DIRECT COSTS _	
C. SERVICES BY OTHERS	
Total Allowable Fee DBE/MBE/WBE Subconsultant (from Exhibit H) _ \$	
Total Allowable Fee Non-DBE/MBE/WBE Subconsultant (from Exhibit H (cont))	
TOTAL SERVICES BY OTHERS _	\$ -
D. ADDITIONAL SERVICES (Disco Construct)	
D. ADDITIONAL SERVICES (Prime Consultant) (Requires prior authorization before use)	
ADDITIONAL SERVICES (Subconsultants) (Requires prior authorization before use)	
	\$ -
E. MAXIMUM ALLOWABLE FEE (Upper Limit of Compensation)	\$ 59,738.00

EXHIBIT "1" Page **84** of **190**

The escalation factor for this project is:

EFK Moen			Date Date	Escalation Factor Fifth Period	Date Date	17.0 Escalation Factor Tenth Period
	SCALATION TABLE	No. OF MONTHS	Date Date	Escalation Factor Fourth Period	Date	17.0 Escalation Factor Ninth Period
Consultant:	EXHIBIT C-1: PAYROLL CLASSIFICATION ESCALATION TABLE	T TERM: 17 No. OF N TTERM: 4/1/2018 E DATE: 6/1/2018 F RAISE: 0% ESCALATION PER YEAR Year 1 through 5	6/1/2019 - 8/31/2019 Date Date 3.0	T7.65% Escalation Factor Third Period Escalation ESCALATION PER YEAR Year 6 through 10	- Date Date	17.0 Escalation Factor Eighth Period
14-4222		CONTRACT TERM: SCHEDULED START DATE: RAISE DATE: PERCENT OF RAISE: ESCALA	Date Date 12.0	70.59% Escalation Factor Second Period ESCALA1	Date Date	17.0 Escalation Factor Seventh Period
R .	Date: 4/1/2018		A/1/2018 - 5/31/2018 Date Date 2.0 17.0	11.76% Factor First Period	Date Date	17.0 Escalation Factor Sixth Period

Rev. 6/2016

Version 16

Consultant:

EFK Moen

RR-14-4222 Contract No.: Date:

4/1/2018

100.00% Escalation Factor:

(From Exhibit C-1)

<u></u>		EXHIBIT C-2: DIRECT LABOR CL.	CLASSIFICA	TION MAN-	ASSIFICATION MAN-HOURS AND RATES	RATES		DIRECT COST OVERTIME PREMIUM	COST
						Total Estimated Work Hours:	502.00	Total Estimated O/T Hours:	
						Average Hourly Rate:	\$42.50	Average Premium O/T Hourly Rate:	
						Total Direct Labor	\$21,335.00	Total Overtime Premium:	
<u>I</u>	Classification Eligible for Premium Overtime?	Tollway Classification	Tollway MINIMUM Hourly Rate for Classification	Tollway MAXIMUM Hourly Rate for Classification	Average Hourly Rate for Classification (See Note A	Escalated Average Hourly Rate for Classification (See Note B to Right)	Estimated Work Hours (Including	Escalated Average Premium Overtime Hourly Rate (See Note C to	Estimated Overtime Hours (Overtime Hours Only) (See Note D to
	No	Principal	\$50.00	\$70.00	\$70.00	\$70.00	54.00		
	No	Project Manager	\$40.00	\$70.00	\$64.00	\$64.00	98.00		
	No	Senior Engineer/Planner	\$40.00	\$70.00	\$50.00	\$50.00	87.00		
	No	Resident Engineer	\$40.00	\$70.00					
	No	Project Engineer/Planner	\$25.00	\$60.00	\$33.00	\$33.00	46.00		-
- 1	No	Staff Engineer/Planner	\$20.00	\$40.00	-		-		
	ON	Engineer /Accountant	\$20.00	\$60.00	\$33.00	\$33.00	20.00		
XH	ν.	Senior Technical Specialist	\$25.00	\$60.00	\$34.00	\$34.00	70.00		
	o N	Technical Specialist	\$15.00	\$50.00	\$19.00	\$19.00	59.00		
	°Z	Architect	\$30.00	\$70.00					
1 190	0N '1"	Realty Specialists	\$20.00	\$70.00		-			
	No	Intern	\$8.25	\$20.00	\$16.00	\$16.00	44.00		

Contract No.:	RR-14-4222		- ·	Consultant:		EFK	EFK Moen	
Date:	4/1/2018			Escalat	Escalation Factor:	100.00% (From Exhibit C-1)		
	EXHIBIT C-2: DIRECT LABOR CLASSIFICATION MAN-HOURS AND RATES	CLASSIFICA	TION MAN-	HOURS AND	RATES		DIRECT COST OVERTIME PREMIUM	COST
					Total Estimated Work Hours:	502.00	Total Estimated O/T Hours:	
					Average Hourly Rate:	\$42.50	Average Premium O/T Hourly Rate:	
					Total Direct Labor	\$21,335.00	Total Overtime Premium:	
Classification Eligible for Premium Overtime?	Tollway Classification	Tollway Tollway MINIMUM MAXIMUM Hourly Rate Hourly Rate for for	Tollway MAXIMUM Hourly Rate for Classification	Average Average Hourly Rate Hourly Rate for Classification (See Note A (See Note B to Right)	Escalated Average Hourly Rate for Classification (See Note B to Right)	Estimated Work Hours (Including Overtime)	Escalated Estimated Average Overtime Premium (Overtime Hourly Rate Hours Only) (See Note C to (See Note D to Right) Right)	Estimated Overtime Hours (Overtime Hours Only) (See Note D to Right)
N _O	Admin/Clerical	\$8.25	\$40.00	\$23.00	\$23.00	24.00		
				-				

Contract	No ·	RR-14
Contract	140	KK-14

RR-14-4222

Consultant:

EFK Moen

Date: 4/1/2018

EXHIBIT C-3: DIRECT LABOR EMPLOYEE CLASSIFICATION LIST

Tollway Classification	Consultant Classification (specific to each company)	Consultant Employee Name (SEE NOTE 1 TO RIGHT)	Range per Hour
Principal	Project Principal	Darrell Eilers	\$50 - \$70
	Project Principal	Paul J. (PJ) Kronlage	
	Project Principal	Linda Moen	
Project Manager	Project Manager	Jeff Church	\$40 - \$70
	Project Manager	Shelley Dintelman	
	Project Manager	Chris Ferrante	
	Project Manager	Joe Havel	
	Project Manager	Chris Linneman	
	Project Manager	Robert (Bob) Orange	
	Project Manager	Chris Williams	
Senior Engineer/Planner	Senior Project Engineer	Joanna Dardeen	\$40 - \$70
	Senior Project Engineer	Ryan Gall	
	Senior Project Engineer	Michelle Spillers	
Resident Engineer			\$40 - \$70
Project Engineer/Planner□	Project Engineer	Chris Chastain	\$25 - \$60
	Project Engineer	Steve Furrow	
	Project Engineer	Margaret Burns	
	Project Engineer	Mike Tobiason	
	Project Engineer	Shirley Havel	
	Project Engineer	John Huebbe	
	Project Engineer	Mark Huebbe	
	Project Engineer	Angela Ng	
	Project Engineer	Jessy Rojas	
	Project Engineer	Lori Swank	
	Project Engineer	Maria Slick	
	Project Engineer	Kimberly White	
	Project Engineer	Alex Benz	
	Project Engineer	Alison MacNair	
Staff Engineer/Planner			\$20 - \$40
Engineer /Accountant	Accountant	Theresa DeBarry	\$20 - \$60
Senior Technical Specialist	Senior Design Technician	Jennifer Archibald	\$25 - \$60
	Senior Design Technician	Dennis Brown	
	Senior Design Technician	Mike Kirchner	
	IT Manager	Terry Moen	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Professional Land Surveyor	Randall Brickey	
	Professional Land Surveyor	James Bube	
Technical Specialist	Design Technician	Matthew Beahan	\$15 - \$50
	Surveyor	Kevin Decker	
	Surveyor	Adam McFall	

Contract No.:	RR-14-4222	Consultant:	EFK Moen	
				_

Date: 4/1/2018

EXHIBIT C-3: DIRECT LABOR EMPLOYEE CLASSIFICATION LIST

Tollway Classification	Consultant Classification (specific to each company)	Consultant Employee Name (SEE NOTE 1 TO RIGHT)	Range per Hour
	Surveyor	Neil Schaeffer	
	Surveyor	Paul Schaeffer	
	Surveyor	Lee Wiley	
	Surveyor	Matt Wiley	
Architect			\$30 - \$70
Realty Specialists			\$20 - \$70
Intern	Intern	Sarah Anderson	\$8.25 - \$20
	Intern	Lauren Werkmeister	
Admin/Clerical	Administrative	Jennifer Roeder	\$8.25 - \$40
	Administrative	Patti Williams	

ract No.	: RR-14-4222 Consultant: EFK	Moen
	EXHIBIT D	
	REIMBURSABLE DIRECT COSTS - WORKSHEET ESTIMATES	
A.	VEHICLE REIMBURSEMENT - rate based on link below http://www2.illinois.gov/cms/Employees/travel/Pages/TravelReimbursement.aspx	<u>\(\) \(\) \(\) \(\)</u>
В.	ALLOWABLE DIRECT COSTS - based on link below https://www.illinoistollway.com/documents/20184/238673/LG_TOL LWAY_XX_ALLOWABLEDIRECTCOSTS_12132013.PDF/b3dab3	
c.	ITEMIZED DIRECT COSTS - For any expense not included in the Allowable Direct Costs list, written permission must be received from the Chief Engineer prior to its inclusion. List those below:	
	DIRECT COST CATEGORY	

TOTAL DIRECT COSTS (Vehicles, Allowable and Itemized)

\$ -

ALLOWABLE DIRECT COSTS

10.01.2013

Effective for contracts awarded on or after October 1, 2013, the following costs are allowable when requested by the Department and included in the contract. The costs are allowable when it is customary for the firm to bill for the cost and it can be itemized in the firm's billing and accounting systems.

Lodging State Rate (Maximum) Air Fare State Rate (Maximum) Coach Rate with 2 weeks advance
Air Fare State Rate (Maximum) Coach Rate with 2 weeks advance
Coach Rate with 2 weeks advance
The state of the s
Vehicles purchase
Mileage
Vehicle Rental State Rate* (Maximum)
Leased / Company-Owned Vehicles (does not include \$55/day (Maximum)
personal vehicles, not owned by the company) Set/day Set/day
Vehicle Half-day Rate \$65/day
Parking \$32.50/half day
Tolls Actual Cost
Overtime Actual Cost
Film and Film Processing** Premium portion
Overnight Delivery/Postage Courier Service Actual Cost Actual Cost
Copies of Deliverables and Mylars Actual Cost
Specific Insurance – required for project Actual Cost Actual Cost
CADD Actual Cost
Monuments – Permanent Actual Costs (Maximum of \$15.00/Hr
Payment for Newspaper Ads Actual Cost Actual Cost
web Site Actual Cost
Facility Rental for Public Meetings & Exhibits/Rendering Actual Cost Actual Cost
Recording Fees Actual Cost
Courthouse Fees Actual Cost
Testing of Soil Samples Actual Cost
Lab Services (excluding Phase III manual Actual Cost
The state of the s
1 amout colesi
Equipment rental specific for project (snooper for bridge Actual Cost inspection, noise meter, etc.)
Specialized equipment – on an as peopled back and Actual Cost
Traffic Systems Actual Cost
Storm sewer cleaning and televising Actual Cost
rame control and protection Actual Cost
Aerial photography and manning Actual Cost
Othity exploratory trenching Actual Cost
Actual Cost

ALLOWABLE DIRECT COSTS

- *website for State Reimbursement Rates http://www2.illinois.gov/cms/Employees/travel/Pages/TravelReimbursement.aspx
- **Use of digital cameras verses film cameras is encouraged when firms own digital cameras and the discussion of their use will be part of the negotiations. Film & copies will be reimbursed at
- On all agreements authorization after January 1, 2005, GPS Equipment is considered a "tool of

Contract No	.: <u>RR-14-4222</u>	_ Consultant:	EFK Moen
	Ē	XHIBIT E - KEY PROJECT PERSO	<u>ONNEL</u>
Project Princ	cipal:	Paul J. (PJ) Kronlage	
Project Mana	ager:	loe Havel	
Project Engi	neer:		
Resident En	gineer:		
Documentat	ion Engineer:		
Project Civil	Engineer:		
Project Struc	ctural Engineer:		
Project Drain	nage Engineer:		
Senior Engir	neer:		
Others:	Name:		
	Classification:		
•	Name:		
•	Classification:		
	Name:		
	Classification:		
	Name:		

Classification:

JOE HAVEL, PE

Vice President, Chicago Office Manager



PAUL (PJ) KRONLAGE, PE

Principal & Vice President



APPENDIX TO EXHIBIT F

Contract No. RR-14-4222

EFK Moen

SCOPE OF SERIVICES

Each firm will be bound to the Tollway's Exhibit F Scope of Work as prepared by the Tollway. Each firm will perform only work they are qualified to perform to the professional Standard of Care level required by the Tollway. Work tasks will be assigned by the management team of Bowman, Barrett & Associates Inc., as required to meet the expectations of the Tollway for this project.

CHANGE ORDER NO. 1 EXHIBIT F

CONTRACT RR-14-4222 TRI-STATE TOLLWAY (INTERSTATE 294)

SCOPE OF SERVICES

PROJECT MASTER PLAN AND PHASE II DESIGN SERVICES FOR BRIDGE REHABILITATION/RECONSTRUCTION OF THE BURLINGTON NORTHERN SANTA FE (BNSF) RAILROAD (M.P. 26.6)

COOK COUNTY, ILLINOIS LYONS TOWNSHIP

Tasks with in the Master Plan, Concept and Design phases have resulted in changes in the character or complexity of the scope of work. In addition, the CTS corridor project schedule has been extended requiring additional effort for administration/management, meetings and coordination. The items include the following:

I. PROJECT MASTER PLAN

The detailed scope of services and various tasks are described below:

Item 2.5 Plat of Highways / Existing Railroad Right-of-Way

Tollway ROW. The Tollway Right-of-Way requirements for RR-14-4223 corridor improvements was to be provided by the mainline DSE. The 4222 DSE schedule was advanced from the mainline Master Plan schedule and developed and computed the Tollway Right-of-Way for the 4222 project limits.

Item 2.6 Preparation of Plats and Legal Descriptions for Right-of-Way Acquisition

- Plat of Acquisitions. Due to the advancement of the RR-14-4222 contract schedule, plat
 of acquisitions need to be revised to include portions of parcel acquisitions included in
 Contract RR-14-4223. Additional field survey to locate property corners and occupation
 within the new limits of the parcels is required, as well as boundary analysis, review of
 record documents and drafting plats.
- Update Plats of Survey to new Standards. Plats of Survey were modified to accommodate to the new CAD Standards and parcel naming convention. The

standards required to re-accommodate the lay-out of the parcels sheets to include all "Total Holdings" for any contiguous property owned by the Village.

- Additional field work. Additional field work to survey existing improvements within 200-ft of the temporary and proposed easements is required as this information is needed to be shown on the plat of acquisitions for property appraisals. In addition, field staking of the South RR Right-of-Way line was performed. Additionally, this task includes staking the North RR ROW line, fiber optic locates, and proposed abutment staking.
- BNSF Railroad Temporary Easements. The BNSF RR requested that plats identifying
 temporary easements be developed for areas within Tollway Right-of-Way that requires
 railroad elements; and for the Tollway to request temporary easements to work on BNSF
 RR property. These were initially assumed to be incorporated in the C&M agreement and
 were not included in the scope of work. This includes the preparation of Plats of Survey
 for proposed temporary easements, and minor field work.

Item 10. Location Drainage Study. Flagg Creek Hydraulic Modeling. Additional effort and coordination is required for the cross culvert hydraulic modeling between 4222/4223 DSE to investigate proposed mainline profile and ditch grading needed to reduce the 500-year WSL. In addition, assistance was provided to the DCM regarding corridor watersheds.

Item 11. Geotechnical Investigation. The field data determined unsuitable soils exist within the project area and additional investigation is required to determine the limits of this soil. The presence of the unsuitable soil represents an unforeseen field condition and were not anticipated. The additional information will determine the proper soil strengthening techniques required such that the proposed elements can be properly designed. This additional effort includes additional field explorations and laboratory testing and analysis. (See attached proposal by Wang Engineering)

Special Waste. Additional soil investigation and testing is required to determine if Special Waste provisions should be included in the contract documents. The BNSF RR environmental unit also requires that soils within their right of way be tested and properly disposed from their property limits. Additional testing includes areas within the railroad embankment, the Village of Western Springs Public Works yard, and the proposed detention area within Veeck Park. (See attached proposal by Wang Engineering).

Item 20. Master Plan Report.

- Master Plan Report. Tollway has requested that the Master Plan Report be combined into one corridor wide report. Additional effort will be required to merge the report from a standalone document, as well as additional coordination with the DCM and other DSEs.
- Value Management Study (VMS) Participation. The Tollway requested participation
 and collaboration in a VMS team, and provide comment and input as necessary. A
 presentation was developed to provide the team an overview of the project design details.
 Additional effort to review and study alternatives presented and provide a disposition to
 comments.

Item 21. Master Plan Presentation.

- Incorporation of Mainline Elements. The draft Master Plan presentation was modified
 to incorporate the mainline portion in addition to the 4222 study limits. The change in
 character or complexity of work includes additional coordination effort with Tollway/DCM
 staff, development of presentation material and preparation efforts relating to the mainline
 profile and box culvert analysis and design deviations.
- Presentation for Advancement of Concept Plans. A request to advance the concept plans independently from the mainline corridor schedule was requested, such that the 4222 project schedule will be maintained due to long-lead time coordination associated with the railroad.

Item 22. Conceptual Design Plans.

- Concept Reports. The scope does not include a Concept Report, as it was anticipated the Master Plan Report would suffice in addition to development of Concept Level Plan details. The development of a separate Concept Report is required.
- Village of Western Springs requested the Tollway to investigate lowering the invert of the cross culvert under the mainline on the north side of the railroad. Several alternatives were investigated, including installation of a pipe culvert jacked beneath the railroad embankment to assist the Village to alleviate the outfall elevation which is restricted by the Flagg Creek culvert elevation. This new pipe will allow the Village to reroute storm sewer and allow continuation to separate their combined sewer/storm water facilities. Study includes alternatives to route the pipe, invert elevation and potential outfall locations. Items of work include coordination meetings, investigation and exhibit, railroad coordination and permit.

II. PHASE II ENGINEERING

Burlington Northern Santa Fe (BNSF) Railroad Bridge Reconstruction (M.P. 26.6)

BNSF RR Bridge Reconstruction Contract:

Item23. Plan Sheets.

- Additional Embankment Stabilization. As a result of the additional geotechnical
 investigation, unsuitable soils exist (peat material) beneath the proposed temporary
 embankment supporting the railroad shoofly tracks. Ground improvements are necessary
 to mitigate settlement of the unsuitable material due to the increased embankment
 loading. Plan and details are required to reinforce the embankment due to the weak soils
 encountered.
- Additional Plan Effort. Level of effort to complete contract plans is greater than originally anticipated for the progress schedule, railroad staging, and railroad cross sections.

- **Development of 3D Plan Deliverables**. (New Item). The Illinois Tollway is requesting RR-14-4222 to assist in the implementation of 3-D engineered modeling including earthwork, paving operations, utilities, and structures. Additional effort will be required to provide a new format for the Contract deliverables.
- Incorporate 4223 Mainline Elements. Incorporate mainline design plans into Construction Contract 4222 for elements adjacent to pierce park and mainline cross culvert.
- Local Agency Utility Relocation Plans. The Village of Western Springs existing watermain and storm sewer facilities are located within proposed temporary easements requested by the Tollway to complete this project. From coordination with the Village, access to these facilities will be required throughout construction. Providing access results in additional retaining wall requirements which increases costs drastically. Therefore, the relocation for portions of their existing facility beneath Hillgrove Avenue is required. Likewise, existing brick storm sewer existing within proposed temporary easements within the Village of Hinsdale. After coordination with the Village, the temporary embankment loads that are proposed over the existing facilities are greater than the pipe can support, therefore replacement of the bridge sewer with concrete pipe is required.
- Village of Western Springs Generator at Well. The Village of Western Springs Well is
 within the vicinity of the project and they have requested a power generator be installed
 as a back-up to operate the well pump in case of a power failure. Additional plan details
 and design is required for this work.

Item 29. DCM Coordination. Additional submittal is required for DCM review prior to submittal of contract documents to the Tollway. Additional coordination and disposition of comments is required.

Item 31. Permit Application Submittals

- IEPA Watermain Relocation Permit Application. The proposed watermain relocation in the Village of Western Springs requires an IEPA permit application package for the relocation work.
- Special Waste Assessment Review. A Preliminary Site Investigation (PSI) will be performed based on the need for evaluation of two areas of Recognized Environmental Concern (REC) within the project limits. Review of the PSI documentation and further special waste processing and coordination will be evaluated.
- 42" Combined Sewer Reconstruction in Village of Hinsdale. Replacement of the
 existing 42" brick sewer with RCP located in Veeck Park requires local permits, including
 a permit from the Metropolitan Water Reclamation District of Greater Chicago (MWRD).
- Engine Generator for Village of Western Springs Well #4. The Village of Western Springs requested a standby engine generator and automatic transfer switch to supply standby electrical service to an existing municipal potable water well #4 be in place during construction in order to minimize risks of a power outage which would disrupt the Village's water supply. Local building permit from the Village will be applied for and incorporated into the specifications.

III. GENERAL PROJECT ACTIVITIES

Item 33. Coordination.

• The level of effort regarding coordination between the railroad, local agency coordination, and the adjacent mainline DSE is a greater than anticipated. Additional meetings include recurring railroad coordination meetings, monthly DSE coordination meetings, project status book meetings, and additional meetings with local agencies are a result of the CTS project extension schedule. A summary of meetings including the original versus the anticipated meetings required for this contract is shown in the following table. Note the total meeting amount is anticipated to occur at the contract completion.

Meeting Description	Number of Meetings included in Contract	Anticipated Total at Contract Completion	Additional Meetings included in Supplement 1	Comments
Railroad Coordination	12	40	28	23 Coord Meetings held thru Feb 2018. Additional Meetings from March 2018 thru May 2019 + 3 other meetings.
Monthly DSE Coord	24	38	14	Additional Meetings to May 2019
Project Status Book	24	39	15	Additional Meetings to May 2019
Local Agencies	8	21	13	Meeting with Village of Hinsdale, Western Springs, and Wester Springs Park District, FCWRD, and MWRD. To Date, 11 meetings held and two additional meeting with each entity is anticipated (+10).

- Railroad Investigation. Additional effort is to comply with requests from the railroad, including:
 - Investigation of embankment limits due to a fourth superstructure beyond the bridge,
 - Site access and railroad work zone requirements requiring additional investigation, grading modifications, and temporary retaining walls. Grading modifications include development of earth ramps providing access at each quadrant of the structure, mainline access, vehicle storage, and work platforms for track cut overs.
 - Investigation for BNSF access from Burlington Avenue.

- Additional investigation and details required for railroad inspection access and platform to be constructed integrally with the bridge substructure. Also requires investigation and plan details or stair access from track level to abutment seat level.
- Study developed for a two stage, two track construction staging to eliminate the need for a shoo-fly structure.

• Utility Coordination.

- The Village of Western Springs water well is located near the project improvements. Additional meetings and coordination is required to comply with IEPA requirements.
- The Village of Western Springs requested vibration monitoring be installed within the project limits because of the proposed pile driving work. Additional special provisions and plan details will be required for this work.
- Review of S.U.E. data provided by DUR DSE. Several attempts to locate existing FCWRD and MWRD facilities were made within the project area requiring additional coordination and review of field data.
- o NOI forms were submitted and need to be revised to match new format.
- Additional utility coordination and development of DUR are needed due to project extension.

• Other Coordination

- Coordination with local municipalities to review intergovernmental agreements.
 Additional effort to define scope of work and preparation of construction cost estimates and construction durations for the Village of Hinsdale, Village of Western Springs and the Western Springs Park District.
- Design and construction assessment as alternative to right-of-way acquisition.
 Study and assessment may include:
 - Analysis of design impacts;
 - Constructability assessment, contractor access, and schedule impacts;
 - Modified drainage and grading plan;
 - Preliminary retaining wall design and plans (TS&L level) (2 new walls and 2 modified walls);
 - Meetings and coordination with the BNSF RR and local agencies;
- **Item 36.** Quality Assurance/Quality Control. Additional quality assurance and quality control as a result of additional plan development and project extension.
- **Item 37. Administration/Management.** Additional project management and planning is required as a result of the project extension.

EXHIBIT G

Contract No. RR-14-4222

EFK Moen

CURRENT OBLIGATIONS FOR PROJECT

Route & Job No.	Work Scope & Description of Project	Fee (Including all Supplementals and Extra Work Orders)	Fee Remaining To Be Earned	Estimated Date of Completion
PTB149-019	US 67 North of Monmouth	\$2,124,307	\$1,398,000	6/1/2019
PTB156-033	II 19 over Vermillion River	\$375,167	\$111,000	6/1/2019
PTB158-022	I-74/CH 9	\$350,402	\$2,000	8/1/2018
PTB161-030	District 6 Various Work Orders	\$222,276	\$14,000	6/1/2019
PTB163-008	District 1 Various Work Orders	\$1,000,000	\$8,474	6/30/2018
PTB170-012	District 6 Various Work Orders	\$243,488	\$38,000	6/1/2019
PTB174-013	Poplar Street Complex Traffic Control	\$11,087	\$3,000	6/1/2019
PTB181-004	District 1 Various Work Orders	\$1,459,861	\$306,939	9/30/2018
PSB 14-3	RR-14-4224 – I-294 MP	\$3,748,053	\$386,467	6/30/2018
PSB 14-3	RR-14-4222 - BNSF over I-294	\$227,040	\$91,583	6/30/2018
PSB 17-3	I-17-4296	\$818,185	\$731,488	6/30/2020
PSB	l-17-4297	\$793,655	\$640,217	6/30/2020

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Contract No.:	RR-14-4222	Consultant:	EFK Moen

EXHIBIT H - SERVICES BY OTHERS

Exhibits A-G must be submitted for each subconsultant listed below. If a subconsultant requires "Services by Others", they must include Exhibit H and attach Exhibits A-G for second tier subconsultants.

DBE/MBE/WBE SUBCONSULTANTS

			6			
Direct Labor	•	AAAAAAAA		Direct Labor		•
Direct Costs				Direct Costs	\$ -	•
Services by Others				Services by Others	\$ -	
Additional Services **		_		Additional Services **	_\$ -	_
Total this Subconsultant (ULC)		\$ -		Total this Subconsultant (ULC)		\$
			7			
Direct Labor				Direct Labor		•
Direct Costs		•	•	Direct Costs	\$ -	
Services by Others				Services by Others	\$ -	
Additional Services **				Additional Services **	\$ -	
Total this Subconsultant (ULC)		<u> </u>		Total this Subconsultant (ULC)		 \$
Direct Labor		_	8	Blood Labor		·········
Direct Costs	\$ -			Direct Labor		
Services by Others	_			Direct Costs	<u>\$ -</u>	
Additional Services **	\$ - \$ -			Services by Others	<u> </u>	
Total this Subconsultant (ULC)	<u> </u>	 \$ -		Additional Services **	<u> </u>	_
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Direct Labor		mananao.		Direct Labor	***************************************	
Direct Costs	\$ -			Direct Costs	\$ -	
Services by Others	\$ -			Services by Others	\$ -	-
Additional Services **	\$ -			Additional Services **	_\$	_
Total this Subconsultant (ULC)		<u> </u>		Total this Subconsultant (ULC)		\$
			10			
Direct Labor				Direct Labor		-
Direct Costs	\$ -			Direct Costs	\$ -	
Services by Others	\$ -			Services by Others	<u>s -</u>	
	\$ -	· .		Additional Services **	\$ -	_
Additional Services **						

**	Additional	services	funds	require	prior	authorization	before	use
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TOTAL	DBE/MBE/WBE	Subconsultants:	\$ -

TOTAL Additional Services DBE/MBE/WBE Subconsultants: \$

TOTAL Allowable Fee DBE/MBE/WBE Subconsultants: _\$ ____

DBE/MBE/WBE Percentage of Total Fee (includes Additional Services): DBE/MBE/WBE Percentage of Total Fee (does not include Additional Services):

EXHIBIT "1"

Project No	`

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_		4.	
\sim	200	ulta	mt.

EFK Moen

EXHIBIT H - SERVICES BY OTHERS (continued)

Exhibits A-G must be submitted for each subconsultant listed below. If a subconsultant requires "Services by Others", they must include Exhibit H and attach Exhibits A-G for second tier subconsultants.

			6			
Direct Labor			٠	Direct Labor	- 5	
Direct Costs		•••		Direct Costs	\$ -	••••
Services by Others		•		Services by Others	\$	
Additional Services **		,		Additional Services **	\$ -	
Total this Subconsultant (ULC)		- \$ -		Total this Subconsultant (ULC)	<u> </u>	_ \$
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Direct Labor				Direct Labor	\$ -	
Direct Costs		•••		Direct Costs	\$ -	
Services by Others				Services by Others	<u> </u>	***
Additional Services **		-		Additional Services **	\$ -	_
Total this Subconsultant (ULC)		_\$		Total this Subconsultant (ULC)		_\$
			8			
Direct Labor	\$ -	doors.		Direct Labor	\$ -	_
Direct Costs	\$ -			Direct Costs	\$ -	_
Services by Others	\$ -	_		Services by Others	\$ -	
Additional Services **	\$ -	-		Additional Services **	\$ -	
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		-	9 _			_
Direct Labor	\$ -	_		Direct Labor	\$ -	1989
Direct Costs	\$ -	-		Direct Costs	<u> </u>	
Services by Others	\$	_		Services by Others	\$ -	
Additional Services **	\$ -	_		Additional Services **	\$	_
Total this Subconsultant (ULC)		\$ -		Total this Subconsultant (ULC)		\$
		_	10			
Direct Labor	\$ -	_	_	Direct Labor	\$ -	
Direct Costs	\$ -	_		Direct Costs	\$ -	-
Services by Others	\$	_		Services by Others	\$ -	
Additional Services **	\$ -	-		Additional Services **	\$ -	
Total this Subconsultant (ULC)		- \$ -		Total this Subconsultant (ULC)		_ _\$
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al services funds require prior authori	ization before use			TOTAL Non-DBE/MBE/M	/BE Subconsultants	:_\$
		т/)TAL A44:	tional Services Non-DBE/MBE/M	/RE Subscarultat-	. •

Contract Information Sheet

Complete the folic	wing information and it will be populated on every exhibit.	
Consultant Name	Frega Associates, Ltd.	
Contract Number:	RR-14-4222	<u> </u>
Proposal Date:	4/1/2018	_
Exhibit Pointers	Editable cells in each exhibit are underlined in red	
	Notes and guidance for each exhibit are on the right of the	exhibits in yellow text boxe
	A full set of instructions to complete the exhibits is available	e on the Tollway's website

Contract Number: RR-14-4222

Consultant:

Frega Associates, Ltd.

EXHIBIT A: ESTIMATED TASK WORK HOURS

									Gra	ınd Iotal	Grand Total Exhibit A Hours	A Hours	132
													TOTAL
					Σ	MONTHS of YEAR 2018	of YEAR	2018					HOURS
TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Master Plan													
Concept Plans (30%)										•			
Phase II Plans				16	16	24	24	20	8	8			116
Mtgs/Coordination					4		-	4	-	2			10
Admin/Management							2	2			2	0	9
													٠
	***************************************										***************************************		
											-		
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									-				
TOTALS				16	20	24	26	26	8	10	2		132

EXHIBIT "1"
Page **106** of **190**

							-						
			· :		Σ	MONTHS of YEAR 2019	of YEAR	2019					TOTAL HOURS
TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
		***************************************	-	**************************************	***************************************						***************************************		
Master Plan	A CONTRACTOR OF THE PARTY OF TH	di etambanabandi dapatahan dahan dalah		V DOLLANDER CONTROLLER CONTROLLER CONTROL	TROPPER PROPERTY OF THE PROPER								
Concept Plans (30%)													
Phase II Plans	0	0	0	0	0	0	0	0					
Meetings, Coordination,								/ -					
General Activities													
QAVQC		***************************************	***************************************							***************************************		***************************************	
Admin/Management			-										
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TOTALS			l										

Frega Associates, Ltd.

Consultant:

RR-14-4222

Contract Number:

Version 16

Co	ontract No.:	RR-14-4222	Consultant: _	Frega Associat	es, Ltd.
		<u>EXHIBI</u>	T B: FEE CALC	<u>ULATIONS</u>	
A.	DIRECT LA	ABOR (without overtime)			
		Total Work Hours from Exhibit C-2)	\$ 51.73 (Average Hourly Rate from Exhibit C-2)	= TOTAL DIRECT SALARY	\$ 6,828.36
		Multiplier to be used on this project: Allowable Multiplier = (2.8 DSE) (2.5	5 or 2.8 CM) (2.5 PMO)		2.80
	,	DIRECT R	EGULAR SALA	RY TIMES MULTIPLIER	\$ 19,119.41
B.	REIMBURS	SABLE DIRECT COSTS NOT (For Prime Consultant listed above.)	ELIGIBLE FOR	PROFIT TOTAL DIRECT COSTS	
C.	SERVICES	BY OTHERS			
		Total Allowable Fee DBE/MBE/WBE S	ubconsultant (from E	xhibit H) _\$	
	Total Allov	wable Fee Non-DBE/MBE/WBE Subcon	sultant (from Exhibit l	H (cont)) _\$ -	
				TOTAL SERVICES BY OTHERS	\$ -
D.	ADDITION	AL SERVICES (Prime Consultant)			
	ADDITIONA	AL SERVICES (Subconsultants)		ires prior authorization before use) \$ - ires prior authorization before use)	
			(Requ	TOTAL ADDITIONAL SERVICES ires prior authorization before use)	\$ -
E.	MAXIMUM	ALLOWABLE FEE (Upper Limit	of Compensation)		\$ 19,119.41

rrega Associates, Ltd.								1	Date Date	17.0	Escalation Factor Fifth Period		Date Date	17.0	Escalation Factor Tenth Period		
		SCALATION TABLE	No. OF MONTHS				hrough 5	1	Date Date	17.0	Escalation Factor Fourth Period	ırough 10	- Date	17.0	Escalation Factor Ninth Period		
Consultant		EXHIBIT C-1: PAYROLL CLASSIFICATION ESCALATION TABLE	17	4/1/2018	1/1/2019	%0	ESCALATION PER YEAR Year 1 through 5	ı	Date Date	17.0	Escalation Factor Third Period	ESCALATION PER YEAR Year 6 through 10	- Date Date	17.0	Escalation Factor Eighth Period	400 00%	
-4-477	4/1/2018	EXHIBIT C-1:	CONTRACT TERM:	SCHEDULED START DATE:	RAISE DATE:	PERCENT OF RAISE:	ESCALA	1/1/2019 - 8/31/2019	Date B.0	17.0	47.06% Escalation Factor Second Period	ESCALA	- Date Date	17.0	Escalation Factor Seventh Period	The escalation factor for this project is:	
Collidati NO.	Date: 4/1/							4/1/2018 - 12/31/2018	Date Date 9.0	17.0	52.94% Factor First Period		- Date Date	17.0	Escalation Factor Sixth Period	The east	1000 DEL

Rev. 6/2016

Contract No.:	RR-14-4222	۸.	Consultant:	Frega Associates, Ltd.	
Date	4/4/2040		Escalation Escator	400 0004	

						(From Exhibit C-1)		
	EXHIBIT C-2: DIRECT LABOR	CLASSIFICA	TION MAN-H	IOURS AND	RATES		DIRECT OVERTIME	COST PREMIUM
					Total Estimated Work Hours:	132.00	Total Estimated O/T Hours: Average	
					Average Hourly Rate:	\$51.73	Premium O/T Hourly Rate:	
					Total Direct Labor	\$6,828.36	Total Overtime Premium:	·
Classification Eligible for		Tollway MINIMUM Hourly Rate	Tollway MAXIMUM Hourly Rate	Average Hourly Rate for Classification	Escalated Average Hourly Rate for Classification	Estimated Work Hours	Escalated Average Premium Overtime Hourly Rate	Estimated Overtime Hours (Overtime Hours Only)
Premium Overtime?	Tollway Classification	for Classification	for Classification	(See Note A to Right)	(See Note B to Right)	(Including Overtime)	(See Note C to Right)	(See Note D to Right)
	Tollway Classification Principal	}					1,	
Overtime?		Classification	Classification		Right)		1,	
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Overtime? No No No	Principal Project Manager Senior Engineer/Planner	\$50.00 \$40.00 \$40.00	\$70.00 \$70.00 \$70.00 \$70.00	Right) \$70.00	Right)	Overtime)	1,	
Overtime? No No No No No	Principal Project Manager Senior Engineer/Planner Resident Engineer	\$50.00 \$40.00 \$40.00 \$40.00	\$70.00 \$70.00 \$70.00 \$70.00	Right) \$70.00	Right)	Overtime)	1,	
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No	Principal Project Manager Senior Engineer/Planner Resident Engineer Project Engineer/Planner Staff Engineer/Planner	\$50.00 \$40.00 \$40.00 \$40.00 \$25.00	\$70.00 \$70.00 \$70.00 \$70.00 \$70.00 \$60.00	\$70.00	Right)	Overtime)	1,	
No	Principal Project Manager Senior Engineer/Planner Resident Engineer Project Engineer/Planner Staff Engineer/Planner Engineer /Accountant	\$50.00 \$40.00 \$40.00 \$40.00 \$25.00 \$20.00	\$70.00 \$70.00 \$70.00 \$70.00 \$70.00 \$60.00 \$40.00	\$70.00	\$70.00	Overtime)	1,	
No N	Principal Project Manager Senior Engineer/Planner Resident Engineer Project Engineer/Planner Staff Engineer/Planner Engineer /Accountant Senior Technical Specialist	\$50.00 \$40.00 \$40.00 \$25.00 \$20.00 \$25.00	\$70.00 \$70.00 \$70.00 \$70.00 \$70.00 \$60.00 \$40.00 \$60.00	\$70.00 \$39.00	\$70.00	Overtime) 14.00	1,	
No N	Principal Project Manager Senior Engineer/Planner Resident Engineer Project Engineer/Planner Staff Engineer/Planner Engineer /Accountant Senior Technical Specialist Technical Specialist	\$50.00 \$40.00 \$40.00 \$25.00 \$25.00 \$25.00 \$15.00	\$70.00 \$70.00 \$70.00 \$70.00 \$70.00 \$60.00 \$60.00 \$60.00 \$50.00	\$70.00 \$39.00	\$70.00 \$70.00 \$39.00	Overtime) 14.00 30.00	1,	
No N	Principal Project Manager Senior Engineer/Planner Resident Engineer Project Engineer/Planner Staff Engineer/Planner Engineer / Accountant Senior Technical Specialist Technical Specialist Architect	\$50.00 \$40.00 \$40.00 \$40.00 \$25.00 \$20.00 \$25.00 \$25.00 \$30.00	Classification \$70.00 \$70.00 \$70.00 \$70.00 \$60.00 \$60.00 \$60.00 \$50.00	\$70.00 \$70.00 \$39.00 \$53.17	\$70.00 \$70.00 \$39.00	Overtime) 14.00 30.00	1,	
Overtime? No No No No No No No No No N	Principal Project Manager Senior Engineer/Planner Resident Engineer Project Engineer/Planner Staff Engineer/Planner Engineer /Accountant Senior Technical Specialist Technical Specialist Architect Realty Specialists	\$50.00 \$40.00 \$40.00 \$25.00 \$22.00 \$15.00 \$30.00 \$20.00	Classification \$70.00 \$70.00 \$70.00 \$70.00 \$60.00 \$40.00 \$60.00 \$50.00 \$70.00	\$70.00 \$70.00 \$39.00 \$53.17	\$70.00 \$70.00 \$39.00	Overtime) 14.00 30.00	1,	

Contract No.:	RR-14-4222	Consultant:	Frega Associates, Ltd.

Date: 4/1/2018

EXHIBIT C-3: DIRECT LABOR EMPLOYEE CLASSIFICATION LIST

Tollway Classification	Consultant Classification (specific to each company)	Consultant Employee Name (SEE NOTE 1 TO RIGHT)	Range per Hour
Principal			\$50 - \$70
Project Manager	Project Manager	John V. Frega, LEED AP	\$40 - \$70
Senior Engineer/Planner			\$40 - \$70
Resident Engineer	·		\$40 - \$70
Project Engineer/Planner□			\$25 - \$60
Staff Engineer/Planner			\$20 - \$40
Engineer /Accountant			\$20 - \$60
Senior Technical Specialist			\$25 - \$60
Technical Specialist	Technical Specialist	Raul Alcomendras	\$15 - \$50
Architect	Architect I	Rodolfo N Cuasay, ALA	\$30 - \$70
			,
			· · · · · · · · · · · · · · · · · · ·
Realty Specialists			\$20 - \$70
Intern			\$8.25 - \$20
Admin/Clerical	·		
Adminiciencai			\$8.25 - \$40
100			

794			
198			
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Contract N	o.:RR-14-4222	Consultant: _	Frega Associa	tes, Ltd.
		EXHIBIT D		
	REIMBURSABLE	DIRECT COSTS - WORKSH	EET ESTIMATES	
A.		ENT - rate based on link below s/Employees/travel/Pages/Trave		
B.	https://www.illinoistollway.c	DSTS - based on link below com/documents/20184/238673/L DIRECTCOSTS 12132013.PDF		
C.	Allowable Direct Costs lis	S - For any expense not inclusest, written permission must be prior to its inclusion. List the	e received	
	DIRECT COST CATEGOR	RY		
	·.	·		
	-			
		7 A A A A A A A A A A A A A A A A A A A		

TOTAL DIRECT COSTS (Vehicles, Allowable and Itemized)

\$ -

Contract No.:	<u> </u>	Consultant:	Frega Associates, Ltd.	•
		EXHIBIT E - KEY PROJECT PERS	SONNEL	
Project Princip	al:		The state of the s	
Project Manage	er:	John V. Frega, LEED-AP		
Project Engine	er:			>>>>>>>>
Resident Engir	neer:	minute to provide the second s		······································
Documentation	Engineer:			
Project Civil Er	ngineer:			
Project Structu	ral Engineer:			
Project Drainaç	ge Engineer:			
Senior Enginee	er:			
Others:	Name:	Raul Alcomendras		
	Classification:	Technical Specialist		·
	Name:	Rodolfo N Cuasay, ALA		
	Classification:	Architect I		
	Name:			
	Classification:		·	
	Name:			
	Classification:			



Fregs Associates, Ltd. 411 South Wells Street Chicago, Illinois 60607 312 663 0640 FAX: 312.663 0834 Architects Engineers Planners John V. Frega, LEED AP

EXHIBIT "I"



FREGA ASSOCIATES



APPENDIX TO EXHIBIT F

Contract No. RR-14-4222

Frega Associates, Ltd.

SCOPE OF SERIVICES

Each firm will be bound to the Tollway's Exhibit F Scope of Work as prepared by the Tollway. Each firm will perform only work they are qualified to perform to the professional Standard of Care level required by the Tollway. Work tasks will be assigned by the management team of Bowman, Barrett & Associates Inc., as required to meet the expectations of the Tollway for this project.

CHANGE ORDER NO. 1 EXHIBIT F

CONTRACT RR-14-4222 TRI-STATE TOLLWAY (INTERSTATE 294)

SCOPE OF SERVICES

PROJECT MASTER PLAN AND PHASE II DESIGN SERVICES FOR BRIDGE REHABILITATION/RECONSTRUCTION OF THE BURLINGTON NORTHERN SANTA FE (BNSF) RAILROAD (M.P. 26.6)

COOK COUNTY, ILLINOIS LYONS TOWNSHIP

Tasks with in the Master Plan, Concept and Design phases have resulted in changes in the character or complexity of the scope of work. In addition, the CTS corridor project schedule has been extended requiring additional effort for administration/management, meetings and coordination. The items include the following:

I. PROJECT MASTER PLAN

The detailed scope of services and various tasks are described below:

Item 2.5 Plat of Highways / Existing Railroad Right-of-Way

• Tollway ROW. The Tollway Right-of-Way requirements for RR-14-4223 corridor improvements was to be provided by the mainline DSE. The 4222 DSE schedule was advanced from the mainline Master Plan schedule and developed and computed the Tollway Right-of-Way for the 4222 project limits.

Item 2.6 Preparation of Plats and Legal Descriptions for Right-of-Way Acquisition

- Plat of Acquisitions. Due to the advancement of the RR-14-4222 contract schedule, plat
 of acquisitions need to be revised to include portions of parcel acquisitions included in
 Contract RR-14-4223. Additional field survey to locate property corners and occupation
 within the new limits of the parcels is required, as well as boundary analysis, review of
 record documents and drafting plats.
- Update Plats of Survey to new Standards. Plats of Survey were modified to accommodate to the new CAD Standards and parcel naming convention. The

standards required to re-accommodate the lay-out of the parcels sheets to include all "Total Holdings" for any contiguous property owned by the Village.

- Additional field work. Additional field work to survey existing improvements within 200-ft of the temporary and proposed easements is required as this information is needed to be shown on the plat of acquisitions for property appraisals. In addition, field staking of the South RR Right-of-Way line was performed. Additionally, this task includes staking the North RR ROW line, fiber optic locates, and proposed abutment staking.
- BNSF Railroad Temporary Easements. The BNSF RR requested that plats identifying temporary easements be developed for areas within Tollway Right-of-Way that requires railroad elements; and for the Tollway to request temporary easements to work on BNSF RR property. These were initially assumed to be incorporated in the C&M agreement and were not included in the scope of work. This includes the preparation of Plats of Survey for proposed temporary easements, and minor field work.

Item 10. Location Drainage Study. Flagg Creek Hydraulic Modeling. Additional effort and coordination is required for the cross culvert hydraulic modeling between 4222/4223 DSE to investigate proposed mainline profile and ditch grading needed to reduce the 500-year WSL. In addition, assistance was provided to the DCM regarding corridor watersheds.

Item 11. Geotechnical Investigation. The field data determined unsuitable soils exist within the project area and additional investigation is required to determine the limits of this soil. The presence of the unsuitable soil represents an unforeseen field condition and were not anticipated. The additional information will determine the proper soil strengthening techniques required such that the proposed elements can be properly designed. This additional effort includes additional field explorations and laboratory testing and analysis. (See attached proposal by Wang Engineering)

Special Waste. Additional soil investigation and testing is required to determine if Special Waste provisions should be included in the contract documents. The BNSF RR environmental unit also requires that soils within their right of way be tested and properly disposed from their property limits. Additional testing includes areas within the railroad embankment, the Village of Western Springs Public Works yard, and the proposed detention area within Veeck Park. (See attached proposal by Wang Engineering).

Item 20. Master Plan Report.

- Master Plan Report. Tollway has requested that the Master Plan Report be combined into one corridor wide report. Additional effort will be required to merge the report from a standalone document, as well as additional coordination with the DCM and other DSEs.
- Value Management Study (VMS) Participation. The Tollway requested participation
 and collaboration in a VMS team, and provide comment and input as necessary. A
 presentation was developed to provide the team an overview of the project design details.
 Additional effort to review and study alternatives presented and provide a disposition to
 comments.

Item 21. Master Plan Presentation.

- Incorporation of Mainline Elements. The draft Master Plan presentation was modified
 to incorporate the mainline portion in addition to the 4222 study limits. The change in
 character or complexity of work includes additional coordination effort with Tollway/DCM
 staff, development of presentation material and preparation efforts relating to the mainline
 profile and box culvert analysis and design deviations.
- Presentation for Advancement of Concept Plans. A request to advance the concept plans independently from the mainline corridor schedule was requested, such that the 4222 project schedule will be maintained due to long-lead time coordination associated with the railroad.

Item 22. Conceptual Design Plans.

- Concept Reports. The scope does not include a Concept Report, as it was anticipated
 the Master Plan Report would suffice in addition to development of Concept Level Plan
 details. The development of a separate Concept Report is required.
- Village of Western Springs requested the Tollway to investigate lowering the invert of the cross culvert under the mainline on the north side of the railroad. Several alternatives were investigated, including installation of a pipe culvert jacked beneath the railroad embankment to assist the Village to alleviate the outfall elevation which is restricted by the Flagg Creek culvert elevation. This new pipe will allow the Village to reroute storm sewer and allow continuation to separate their combined sewer/storm water facilities. Study includes alternatives to route the pipe, invert elevation and potential outfall locations. Items of work include coordination meetings, investigation and exhibit, railroad coordination and permit.

II. PHASE II ENGINEERING Burlington Northern Santa Fe (BNSF) Railroad Bridge Reconstruction (M.P. 26.6) BNSF RR Bridge Reconstruction Contract:

Item23. Plan Sheets.

- Additional Embankment Stabilization. As a result of the additional geotechnical
 investigation, unsuitable soils exist (peat material) beneath the proposed temporary
 embankment supporting the railroad shoofly tracks. Ground improvements are necessary
 to mitigate settlement of the unsuitable material due to the increased embankment
 loading. Plan and details are required to reinforce the embankment due to the weak soils
 encountered.
- Additional Plan Effort. Level of effort to complete contract plans is greater than originally anticipated for the progress schedule, railroad staging, and railroad cross sections.

- **Development of 3D Plan Deliverables**. (New Item). The Illinois Tollway is requesting RR-14-4222 to assist in the implementation of 3-D engineered modeling including earthwork, paving operations, utilities, and structures. Additional effort will be required to provide a new format for the Contract deliverables.
- Incorporate 4223 Mainline Elements. Incorporate mainline design plans into Construction Contract 4222 for elements adjacent to pierce park and mainline cross culvert.
- Local Agency Utility Relocation Plans. The Village of Western Springs existing watermain and storm sewer facilities are located within proposed temporary easements requested by the Tollway to complete this project. From coordination with the Village, access to these facilities will be required throughout construction. Providing access results in additional retaining wall requirements which increases costs drastically. Therefore, the relocation for portions of their existing facility beneath Hillgrove Avenue is required. Likewise, existing brick storm sewer existing within proposed temporary easements within the Village of Hinsdale. After coordination with the Village, the temporary embankment loads that are proposed over the existing facilities are greater than the pipe can support, therefore replacement of the bridge sewer with concrete pipe is required.
- Village of Western Springs Generator at Well. The Village of Western Springs Well is within the vicinity of the project and they have requested a power generator be installed as a back-up to operate the well pump in case of a power failure. Additional plan details and design is required for this work.

Item 29. DCM Coordination. Additional submittal is required for DCM review prior to submittal of contract documents to the Tollway. Additional coordination and disposition of comments is required.

Item 31. Permit Application Submittals

- IEPA Watermain Relocation Permit Application. The proposed watermain relocation in the Village of Western Springs requires an IEPA permit application package for the relocation work.
- Special Waste Assessment Review. A Preliminary Site Investigation (PSI) will be performed based on the need for evaluation of two areas of Recognized Environmental Concern (REC) within the project limits. Review of the PSI documentation and further special waste processing and coordination will be evaluated.
- 42" Combined Sewer Reconstruction in Village of Hinsdale. Replacement of the existing 42" brick sewer with RCP located in Veeck Park requires local permits, including a permit from the Metropolitan Water Reclamation District of Greater Chicago (MWRD).
- Engine Generator for Village of Western Springs Well #4. The Village of Western Springs requested a standby engine generator and automatic transfer switch to supply standby electrical service to an existing municipal potable water well #4 be in place during construction in order to minimize risks of a power outage which would disrupt the Village's water supply. Local building permit from the Village will be applied for and incorporated into the specifications.

III. GENERAL PROJECT ACTIVITIES

Item 33. Coordination.

• The level of effort regarding coordination between the railroad, local agency coordination, and the adjacent mainline DSE is a greater than anticipated. Additional meetings include recurring railroad coordination meetings, monthly DSE coordination meetings, project status book meetings, and additional meetings with local agencies are a result of the CTS project extension schedule. A summary of meetings including the original versus the anticipated meetings required for this contract is shown in the following table. Note the total meeting amount is anticipated to occur at the contract completion.

Meeting Description	Number of Meetings included in Contract	Anticipated Total at Contract Completion	Additional Meetings included in Supplement 1	Comments
Railroad Coordination	12	40	28	23 Coord Meetings held thru Feb 2018. Additional Meetings from March 2018 thru May 2019 + 3 other meetings.
Monthly DSE Coord	24	38	14	Additional Meetings to May 2019
Project Status Book	24	39	15	Additional Meetings to May 2019
Local Agencies	8	21	13	Meeting with Village of Hinsdale, Western Springs, and Wester Springs Park District, FCWRD, and MWRD. To Date, 11 meetings held and two additional meeting with each entity is anticipated (+10).

- Railroad Investigation. Additional effort is to comply with requests from the railroad, including:
 - Investigation of embankment limits due to a fourth superstructure beyond the bridge,
 - Site access and railroad work zone requirements requiring additional investigation, grading modifications, and temporary retaining walls. Grading modifications include development of earth ramps providing access at each quadrant of the structure, mainline access, vehicle storage, and work platforms for track cut overs.
 - o Investigation for BNSF access from Burlington Avenue.

- Additional investigation and details required for railroad inspection access and platform to be constructed integrally with the bridge substructure. Also requires investigation and plan details or stair access from track level to abutment seat level.
- Study developed for a two stage, two track construction staging to eliminate the need for a shoo-fly structure.

Utility Coordination.

- The Village of Western Springs water well is located near the project improvements. Additional meetings and coordination is required to comply with IEPA requirements.
- The Village of Western Springs requested vibration monitoring be installed within the project limits because of the proposed pile driving work. Additional special provisions and plan details will be required for this work.
- Review of S.U.E. data provided by DUR DSE. Several attempts to locate existing FCWRD and MWRD facilities were made within the project area requiring additional coordination and review of field data.
- o NOI forms were submitted and need to be revised to match new format.
- Additional utility coordination and development of DUR are needed due to project extension.

• Other Coordination

- Coordination with local municipalities to review intergovernmental agreements.
 Additional effort to define scope of work and preparation of construction cost estimates and construction durations for the Village of Hinsdale, Village of Western Springs and the Western Springs Park District.
- Design and construction assessment as alternative to right-of-way acquisition.
 Study and assessment may include:
 - Analysis of design impacts:
 - Constructability assessment, contractor access, and schedule impacts;
 - Modified drainage and grading plan:
 - Preliminary retaining wall design and plans (TS&L level) (2 new walls and 2 modified walls);
 - Meetings and coordination with the BNSF RR and local agencies;
- **Item 36.** Quality Assurance/Quality Control. Additional quality assurance and quality control as a result of additional plan development and project extension.
- **Item 37.** Administration/Management. Additional project management and planning is required as a result of the project extension.

EXHIBIT G

Contract No. RR-14-4222

Frega Associates, Ltd.

CURRENT OBLIGATIONS FOR PROJECT

Route & Job No.	Work Scope & Description of Project	Fee (Including all Supplementals and Extra Work Orders)	Fee Remaining To Be Earned	Estimated Date of Completion
PSSU 14088	UIUC Everitt Laboratory Renovation	\$115,800.00	\$5,625.00	7/1/2018
RR-14-4222	ISTHA - TriState Tollway, Bridge Rehabilitation/Reconstruction, BNSF Railroad Bridge (MP 26.6)	\$67,458.00	\$10,730.69	12/31/2018
RR-16-4627	Tollway EDI	\$110,092.03	\$97,212.02	5/1/2019
RR-4265	Tollway AECOM	\$164,967.50	\$164,967.50	7/1/2019

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Frega Associates, Ltd.

EXHIBIT H - SERVICES BY OTHERS

E/WBE SUBCONSULTAN						
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Direct Labor				Direct Labor	***************************************	
Direct Costs				Direct Costs	\$	*
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Additional Services **				Additional Services **	\$	<u> </u>
Total this Subconsultant (ULC)		\$		Total this Subconsultant (ULC)		\$
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Direct Labor			-	Direct Labor		
Direct Costs		***********		Direct Costs	\$	_
Services by Others				Services by Others	\$	
Additional Services **	·			Additional Services **	\$	<u>. </u>
Total this Subconsultant (ULC)		\$		Total this Subconsultant (ULC)		\$
			8			
Direct Labor				Direct Labor		
Direct Costs	<u>\$</u>			Direct Costs	\$	<u>. </u>
Services by Others	\$ -			Services by Others	\$	<u>. </u>
Additional Services **	\$ -	_		Additional Services **	\$	<u>-</u>
Total this Subconsultant (ULC)		\$		Total this Subconsultant (ULC)		_\$
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Direct Labor				Direct Labor		
Direct Costs	\$			Direct Costs	\$	
Services by Others	\$ -		-	Services by Others	\$	-
Additional Services **	\$ -	_		Additional Services **	\$	<u>- </u>
Total this Subconsultant (ULC)		_\$		Total this Subconsultant (ULC)		\$
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Direct Labor			***************************************	Direct Labor		
Direct Costs	\$ -	•••••		Direct Costs	\$	
Services by Others	\$ -			Services by Others	\$	-
Additional Services **	\$ -	·		Additional Services **	\$	<u> </u>
Total this Subconsultant (ULC)		\$		Total this Subconsultant (ULC)		\$

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TOTAL DBE/MBE/WBE Subconsultants:	\$ -

TOTAL Additional Services DBE/MBE/WBE Subconsultants: \$

TOTAL Allowable Fee DBE/MBE/WBE Subconsultants: \$

DBE/MBE/WBE Percentage of Total Fee (includes Additional Services):

DBE/MBE/WBE Percentage of Total Fee (does not include Additional Services):

EXHIBIT "1"

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Frega Associates, Ltd.

EXHIBIT H - SERVICES BY OTHERS (continued)

Exhibits A-G must be submitted for each subconsultant listed below. If a subconsultant requires "Services by Others", they must include Exhibit H and attach Exhibits A-G for second tier subconsultants.

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Direct Labor					Direct Labor		
Direct Costs					Direct Costs	\$	
Services by Others		······································			Services by Others	\$	-
Additional Services **					Additional Services **	\$	<u>-</u>
Total this Subconsultant (ULC)		_\$	 		Total this Subconsultant (ULC)		\$
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Direct Labor					Direct Labor	\$	
Direct Costs					Direct Costs	\$	-
Services by Others					Services by Others	\$	-
Additional Services **					Additional Services **	\$	-
Total this Subconsultant (ULC)			 -		Total this Subconsultant (ULC)		\$
		******		8 _			·
Direct Labor	\$				Direct Labor	\$	-
Direct Costs	\$	-			Direct Costs	\$	-
Services by Others	\$	-			Services by Others	\$	
Additional Services **	\$				Additional Services **	\$	<u>-</u>
Total this Subconsultant (ULC)		_\$	-		Total this Subconsultant (ULC)		\$
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Direct Labor	\$				Direct Labor	\$	-
Direct Costs	_\$				Direct Costs	\$	- .
Services by Others	\$	-			Services by Others	\$	-
Additional Services **	_\$				Additional Services **	\$	<u>-</u>
Total this Subconsultant (ULC)	Þ	<u>\$</u>	-		Total this Subconsultant (ULC)		\$
				10			
Direct Labor	\$	-			Direct Labor	\$	
Direct Costs	\$	-			Direct Costs	_\$	
Services by Others	\$	-			Services by Others	_\$	
Additional Services **	\$				Additional Services **	\$	<u>-</u>
Total this Subconsultant (ULC)		_\$	 		Total this Subconsultant (ULC)		\$

TOTAL Allowable Fee Non-DBE/MBE/WBE Subconsultants: _\$

Contract Information Sheet

complete the folio	wing information and it will be populated on every exhibit.	
Consultant Name:	Sanchez & Associates, P.C.	
Contract Number:	RR-14-4222	·
Proposal Date:	4/1/2018	
Exhibit Pointers	Editable cells in each exhibit are underlined in red	
	Notes and guidance for each exhibit are on the right of the e	xhibits in yellow text boxes
	A full set of instructions to complete the exhibits is available	on the Tollway's website

Contract Number:

RR-14-4222

Consultant:

Sanchez & Associates, P.C.

EXHIBIT A: ESTIMATED TASK WORK HOURS

Jan Feb			¥	Ė		•		-			TOTAL
Feb			¥	FILE							7
Feb				SHING	MONTHS of YEAR 2018	2018					HOURS
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Sanchez & Associates, P.C.		·	Oct					***************************************	***************************************				-						***************************************	
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	EXHIBIT A: ESTIMATED TASK WORK HOURS	2019	Aug		-			***************************************												+
Consultant:) TASK	of YEAR	lnf		7														-	_
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			Mar		10															10
RR-14-4222			Feb		10															10
RR-14			Jan		15													AND DESCRIPTION OF THE PROPERTY OF THE PROPERT	***************************************	15
Contract Number:			TASK	Additional Survey Services in Support of	the Design for the BNSF RR Bridge		-						-					***************************************	***************************************	TOTALS

Contract No.:	RR-14-4222	Consultant	t:	Sanchez & Assoc	iates, P.	C.
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	EXTII	BIT B: FEE CA	ALCULAT	IUNS		
A. DIRECT LAB	OR (without overtime)					
	684.00)	K \$ 32.7	72 =	TOTAL DIRECT SALARY	· ¢	22,380.48
	(Total Work Hours from Exhibit C-2)	(Average Hour Rate from Exhi C-2)	rly	TOTAL BIRLOT GALAKY	Ψ	22,300.40
	ltiplier to be used on this project: Allowable Multiplier = (2.8 DSE) (PMO)			2.80
				MES MULTIPLIER	œ.	60.005.04
	DIRECT	REGULAR SA	ALAKT II	WIES WICLIPLIER	\$	62,665.34
	BLE DIRECT COSTS NO		OR PRO	FIT		
(Fo	or Prime Consultant listed above.)					
				TOTAL DIRECT COSTS		\$500.00
				TOTAL DIRECT COSTS		φ300.00
C. SERVICES B	Y OTHERS					
To	otal Allowable Fee DBE/MBE/WBE	Subconsultant (fro	om Exhibit H		-	
Total Allowab	ole Fee Non-DBE/MBE/WBE Subc	onsultant (from Exl	hibit H (cont)	· · · · · · · · · · · · · · · · · · ·		
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D ADDITIONAL	SERVICES (Prime Consultar					
D. ADDITIONAL	SERVICES (Prime Consultar		(Requires pri	ior authorization before use)	•	
ADDITIONAL	SERVICES (Subconsultants)					
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				AL ADDITIONAL SERVICES	\$	4
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E. MAXIMUM AL	LOWABLE FEE (Upper Lin	nit of Compensatio	n)		\$	63,165.34
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E	XHIB	IT	"1"
Page	131	of	190

Contract No.: RA	KK-14-4222	Consultant:		Sanchez & Associates, P.C.
Date: 4/1/	1/2018			
	EXHIBIT C-1:	EXHIBIT C-1: PAYROLL CLASSIFICATION ESCALATION TABLE	SCALATION TABLE	
	CONTRACT TERM:	17	No. OF MONTHS	
	SCHEDULED START DATE:	4/1/2018		
	RAISE DATE:	12/31/2018		
	PERCENT OF RAISE:	%0		
	ESCALA	ESCALATION PER YEAR Year 1 through 5	rough 5	
4/1/2018 - 12/31/2018	1/1/2019 - 8/31/2019			
Date Date	Date Date	Date Date	Date Date	Date Date
17.0	17.0	17.0	17.0	17.0
52.94% Factor First Period	47.06% Escalation Factor Second Period	Escalation Factor Third Period	Escalation Factor Fourth Period	Escalation Factor Fifth Period
	ESCALA	ESCALATION PER YEAR Year 6 through 10	rough 10	
1				
Date Date	Date Date	Date Date	Date Date	Date Date
17.0	17.0	17.0	17.0	17.0
Escalation Factor Sixth Period	Escalation Factor Seventh Period	Escalation Factor Eighth Parlod	Escalation Factor Ninth Period	Escalation Factor Tenth Period
The esc	The escalation factor for this project is:	100.00%		

RR-14-4222 Contract No.:

Consultant:

Sanchez & Associates, P.C.

	COST				Estimated Overtime Hours (Overtime Hours Only) (See Note D to												
	DIRECT COST OVERTIME PREMIUM	Total Estimated O/T Hours:	Average Premium O/T Hourly Rate:	Total Overtime Premium:	Escalated Average Premium Overtime Hourly Rate (See Note C to (
100.00% (From Exhibit C-1)		684.00	\$32.72	\$22,380.48	Estimated Work Hours (Including Overtime)	29.00			202.00	57.00	190.00		103.00	103.00		-	
Escalation Factor:	RATES	Total Estimated Work Hours:	Average Hourly Rate:	Total Direct Labor	Escalated Average Hourly Rate for Classification (See Note B to Right)	\$70.00			\$38.25	\$30.90	\$26.40		\$32.78	\$24.00			
Escalat	SSIFICATION MAN-HOURS AND RATES				Average Hourly Rate for Classification (See Note A to Right)	\$70.00			\$38.25	\$30.90	\$26.40		\$32.78	\$24.00		·	
	TION MAN-I				Tollway MAXIMUM Hourly Rate for Classification	\$70.00	\$70.00	\$70.00	\$70.00	\$60.00	\$40.00	\$60.00	\$60.00	\$50.00	\$70.00	\$70.00	\$20.00
					Tollway MINIMUM Hourly Rate for Classification	\$50.00	\$40.00	\$40.00	\$40.00	\$25.00	\$20.00	\$20.00	\$25.00	\$15.00	\$30.00	\$20.00	\$8.25
4/1/2018	EXHIBIT C-2: DIRECT LABOR CLA				Tollway Classification	Principal	Project Manager	Senior Engineer/Planner	Resident Engineer	Project Engineer/Planner	Staff Engineer/Planner	Engineer /Accountant	Senior Technical Specialist	Technical Specialist	Architect	Realty Specialists	Intern
Date:			· · · · · ·		Classification Eligible for Premium Overtime?	No	N _O	ON	No	No	No	No	∾ EX	No	No	°2	ON ,

Rev. 6/2016

Contract No.:	RR-14-4222	Consultant:

Sanchez & Associates, P.C.

Date: 4/1/2018

EXHIBIT C-3: DIRECT LABOR EMPLOYEE CLASSIFICATION LIST

Tollway Classification	Consultant Classification (specific to each company)	Consultant Employee Name (SEE NOTE 1 TO RIGHT)	Range per Hour
Principal	Principal	Sanchez, Gerardo P.	\$50 - \$70
Project Manager			\$40 - \$70
Senior Engineer/Planner			\$40 - \$70
Resident Engineer	Survey Manager	Brazas, Jefferson J.	\$40 - \$70
Project Engineer/Planner	CAD Manager	Gwizdak, Walter J.	\$25 - \$60
Staff Engineer/Planner	CAD Technician	Cernetig, George R.	\$20 - \$40
Engineer /Accountant			\$20 - \$60
Senior Technical Specialist	Survey Crew Chief	Stewart, Michael P.	\$25 - \$60
Technical Specialist	Survey Inst. Person	Moen, Brian J.	\$15 - \$50
Architect			\$30 - \$70
Realty Specialists			\$20 - \$70
Intern			\$8.25 - \$20
Admin/Clerical			\$8.25 - \$40
		-	
		· · · · · · · · · · · · · · · · · · ·	

Contract No.:	RR-14-4222	Consultant: _	Sanchez & Associates, P.C.	
		EXHIBIT D		
	REIMBURSABLE DIR	ECT COSTS - WORKSH	IEET ESTIMATES	
А.	VEHICLE REIMBURSEMENT http://www2.illinois.gov/cms/E			
В.	ALLOWABLE DIRECT COST https://www.illinoistollway.com LWAY_XX_ALLOWABLEDIRE	/documents/20184/238673/		
C.	ITEMIZED DIRECT COSTS - Allowable Direct Costs list, v from the Chief Engineer price	written permission must b	pe received	
	DIRECT COST CATEGORY			
		Militar is the contract of the		

TOTAL DIRECT COSTS (Vehicles, Allowable and Itemized)

\$ 500.00

ALLOWABLE DIRECT COSTS

10.01.2013

Effective for contracts awarded on or after October 1, 2013, the following costs are allowable when requested by the Department and included in the contract. The costs are allowable when it is customary for the firm to bill for the cost and it can be itemized in the firm's billing and accounting systems.

Per Diem	
Lodging	State Rate (Maximum)
Air Fare	State Rate (Maximum)
	Coach Rate with 2 weeks advance
Vehicles	purchase
Mileage	*
Vehicle Rental	State Rate* (Maximum)
Leased / Company-Owned Vehicles (does not include	\$55/day (Maximum)
personal vehicles, not owned by the company)	, , , , , , , , , , , , , , , , , , , ,
Vehicle Half-day Rate	\$65/day
Parking	\$32.50/half day
Tolls	Actual Cost
Overtime	Actual Cost
Film and Film Processing**	Premium portion
Overnight Delivery/Postage Courier Sand	Actual Cost
Copies of Deliverables and Mylare	Actual Cost
Specific Insurance – required for project	Actual Cost
CADD	Actual Cost
Monuments – Permanent	Actual Costs (Maximum of \$15.00/Hr)
Payment for Newspaper Ads	Actual COST
web Site	Actuál Cost
Facility Rental for Public Meetings & Exhibits/Rendering & AV Equipment/Transcriptions	Actual Cost
Recording Fees	Actual Cost
Courthouse Fees	Actual Cost
Testing of Soil Samples	Actual Cost
Lab Services (excluding Phase III normal construction inspection such as heart hand to the services of the ser	Actual Cost
and a neall Diesks Willings Parel	
1	
Equipment rental specific for project (snooper for bridge inspection, noise meter, etc.)	Actual Cost
Specialized equipment - on an as peopled bank and	Actual Cost
Traffic Systems	Actual Cost
Storm sewer cleaning and televising	Actual Cost
riginic control and protection	Actual Cost
Aerial photography and manning	Actual Cost
Utility exploratory trenching	Actual Cost
•	Actual Cost

Actual Cost

ALLOWABLE DIRECT COSTS

- *website for State Reimbursement Rates http://www2.illinois.gov/cms/Employees/travel/Pages/TravelReimbursement.aspx
- **Use of digital cameras verses film cameras is encouraged when firms own digital cameras and the discussion of their use will be part of the negotiations. Film & copies will be reimbursed at
- On all agreements authorization after January 1, 2005, GPS Equipment is considered a "tool of

O		
Contract No.: RR-14-4222	_ Consultant:	Sanchez & Associates, P.C.
<u>E</u>	XHIBIT E - KEY PROJECT PE	RSONNEL
Project Principal:	Sanchez, Gerardo P.	
Project Manager:		
Project Engineer:		
Resident Engineer:		
Documentation Engineer:		
Project Civil Engineer:		
Project Structural Engineer:		
Project Drainage Engineer:		
Senior Engineer:		
Others: Name:	Brazas, Jefferson J.	
Classification:	Survey Manager	
Name:	Gwizdak, Walter J.	

Classification: CAD Manager

Classification: Survey Crew Chief

Stewart, Michael P.

Name:

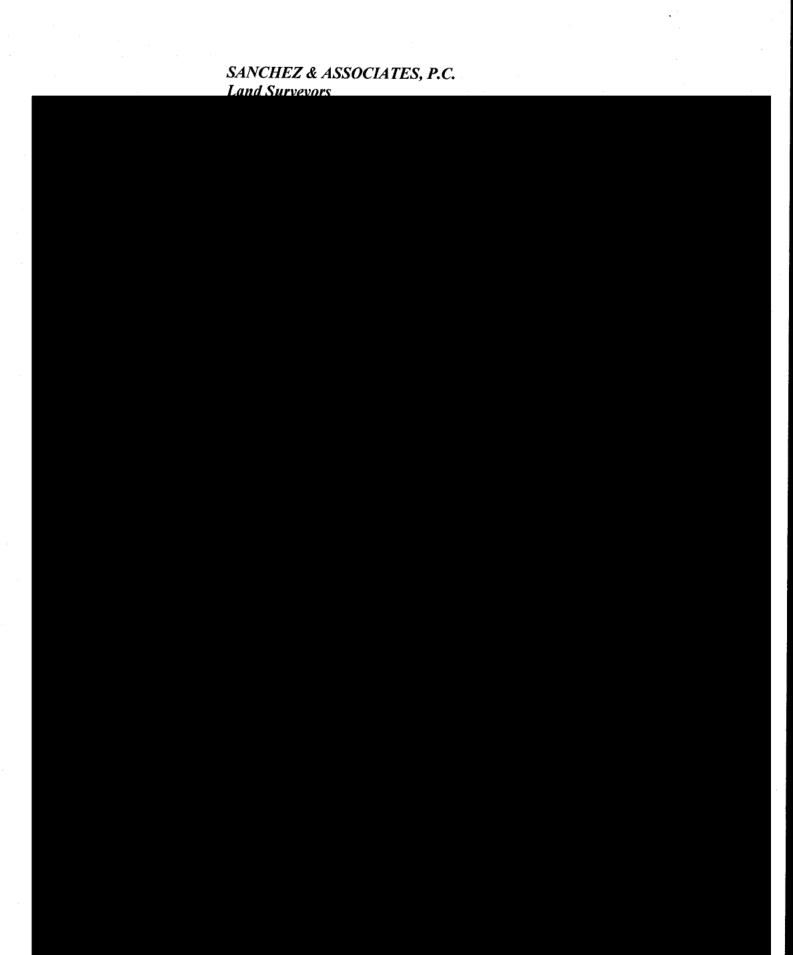
Name:

Classification:

SANCHEZ & ASSOCIATES, P.C. Land Surveyors

Gerardo P. Sanchez, P.L.S. Project Principal Résumés

EXHIBIT "1"
G. Sanchez



SANCHEZ & ASSOCIATES, P.C. Land Surveyors

EXHIBIT "1"

Jefferson J. Brazas

Page **140** of **190**

EXHIBIT "1"
Jefferson J. Brazas
Page **141** of **190**

SANCHEZ & ASSOCIATES, P.C. Land Surveyors

Résumés

Michael P. Stewart Survey Crew Chief

EXHIBIT Pu Stewart
Page **142** of **190**

Résumés

EXHIBIT "1" Page **143** of **190**

SANCHEZ & ASSOCIATES, P.C. Land Surveyors

Walter Gwizdak CAD Manager		Kesumes

EXHIBIT "1"
Walter Gwizdak
Page **144** of **190**

EXHIBIT F

Contract No. RR-14-4222

Sanchez & Associates, P.C.

SCOPE OF SERVICES

Additional Survey tasks as miscellaneous survey and preparation of Plats of Surveys in Support of the Design for the BNSF Railroad Bridge Improvement.

CHANGE ORDER NO. 1 EXHIBIT F

CONTRACT RR-14-4222 TRI-STATE TOLLWAY (INTERSTATE 294)

SCOPE OF SERVICES

PROJECT MASTER PLAN AND PHASE II DESIGN SERVICES FOR BRIDGE REHABILITATION/RECONSTRUCTION OF THE BURLINGTON NORTHERN SANTA FE (BNSF) RAILROAD (M.P. 26.6)

COOK COUNTY, ILLINOIS LYONS TOWNSHIP

Tasks with in the Master Plan, Concept and Design phases have resulted in changes in the character or complexity of the scope of work. In addition, the CTS corridor project schedule has been extended requiring additional effort for administration/management, meetings and coordination. The items include the following:

I. PROJECT MASTER PLAN

The detailed scope of services and various tasks are described below:

Item 2.5 Plat of Highways / Existing Railroad Right-of-Way

• Tollway ROW. The Tollway Right-of-Way requirements for RR-14-4223 corridor improvements was to be provided by the mainline DSE. The 4222 DSE schedule was advanced from the mainline Master Plan schedule and developed and computed the Tollway Right-of-Way for the 4222 project limits.

Item 2.6 Preparation of Plats and Legal Descriptions for Right-of-Way Acquisition

- Plat of Acquisitions. Due to the advancement of the RR-14-4222 contract schedule, plat
 of acquisitions need to be revised to include portions of parcel acquisitions included in
 Contract RR-14-4223. Additional field survey to locate property corners and occupation
 within the new limits of the parcels is required, as well as boundary analysis, review of
 record documents and drafting plats.
- Update Plats of Survey to new Standards. Plats of Survey were modified to accommodate to the new CAD Standards and parcel naming convention. The

standards required to re-accommodate the lay-out of the parcels sheets to include all "Total Holdings" for any contiguous property owned by the Village.

- Additional field work. Additional field work to survey existing improvements within 200-ft of the temporary and proposed easements is required as this information is needed to be shown on the plat of acquisitions for property appraisals. In addition, field staking of the South RR Right-of-Way line was performed. Additionally, this task includes staking the North RR ROW line, fiber optic locates, and proposed abutment staking.
- BNSF Railroad Temporary Easements. The BNSF RR requested that plats identifying temporary easements be developed for areas within Tollway Right-of-Way that requires railroad elements; and for the Tollway to request temporary easements to work on BNSF RR property. These were initially assumed to be incorporated in the C&M agreement and were not included in the scope of work. This includes the preparation of Plats of Survey for proposed temporary easements, and minor field work.

Item 10. Location Drainage Study. Flagg Creek Hydraulic Modeling. Additional effort and coordination is required for the cross culvert hydraulic modeling between 4222/4223 DSE to investigate proposed mainline profile and ditch grading needed to reduce the 500-year WSL. In addition, assistance was provided to the DCM regarding corridor watersheds.

Item 11. Geotechnical Investigation. The field data determined unsuitable soils exist within the project area and additional investigation is required to determine the limits of this soil. The presence of the unsuitable soil represents an unforeseen field condition and were not anticipated. The additional information will determine the proper soil strengthening techniques required such that the proposed elements can be properly designed. This additional effort includes additional field explorations and laboratory testing and analysis. (See attached proposal by Wang Engineering)

Special Waste. Additional soil investigation and testing is required to determine if Special Waste provisions should be included in the contract documents. The BNSF RR environmental unit also requires that soils within their right of way be tested and properly disposed from their property limits. Additional testing includes areas within the railroad embankment, the Village of Western Springs Public Works yard, and the proposed detention area within Veeck Park. (See attached proposal by Wang Engineering).

Item 20. Master Plan Report.

- Master Plan Report. Tollway has requested that the Master Plan Report be combined into one corridor wide report. Additional effort will be required to merge the report from a standalone document, as well as additional coordination with the DCM and other DSEs.
- Value Management Study (VMS) Participation. The Tollway requested participation
 and collaboration in a VMS team, and provide comment and input as necessary. A
 presentation was developed to provide the team an overview of the project design details.
 Additional effort to review and study alternatives presented and provide a disposition to
 comments.

Item 21. Master Plan Presentation.

- Incorporation of Mainline Elements. The draft Master Plan presentation was modified
 to incorporate the mainline portion in addition to the 4222 study limits. The change in
 character or complexity of work includes additional coordination effort with Tollway/DCM
 staff, development of presentation material and preparation efforts relating to the mainline
 profile and box culvert analysis and design deviations.
- Presentation for Advancement of Concept Plans. A request to advance the concept plans independently from the mainline corridor schedule was requested, such that the 4222 project schedule will be maintained due to long-lead time coordination associated with the railroad.

Item 22. Conceptual Design Plans.

- Concept Reports. The scope does not include a Concept Report, as it was anticipated the Master Plan Report would suffice in addition to development of Concept Level Plan details. The development of a separate Concept Report is required.
- Village of Western Springs requested the Tollway to investigate lowering the invert of the
 cross culvert under the mainline on the north side of the railroad. Several alternatives
 were investigated, including installation of a pipe culvert jacked beneath the railroad
 embankment to assist the Village to alleviate the outfall elevation which is restricted by the
 Flagg Creek culvert elevation. This new pipe will allow the Village to reroute storm sewer
 and allow continuation to separate their combined sewer/storm water facilities. Study
 includes alternatives to route the pipe, invert elevation and potential outfall locations.
 Items of work include coordination meetings, investigation and exhibit, railroad
 coordination and permit.

II. PHASE II ENGINEERING

Burlington Northern Santa Fe (BNSF) Railroad Bridge Reconstruction (M.P. 26.6)

BNSF RR Bridge Reconstruction Contract:

Item23. Plan Sheets.

- Additional Embankment Stabilization. As a result of the additional geotechnical
 investigation, unsuitable soils exist (peat material) beneath the proposed temporary
 embankment supporting the railroad shoofly tracks. Ground improvements are necessary
 to mitigate settlement of the unsuitable material due to the increased embankment
 loading. Plan and details are required to reinforce the embankment due to the weak soils
 encountered.
- Additional Plan Effort. Level of effort to complete contract plans is greater than originally anticipated for the progress schedule, railroad staging, and railroad cross sections.

- **Development of 3D Plan Deliverables**. (New Item). The Illinois Tollway is requesting RR-14-4222 to assist in the implementation of 3-D engineered modeling including earthwork, paving operations, utilities, and structures. Additional effort will be required to provide a new format for the Contract deliverables.
- Incorporate 4223 Mainline Elements. Incorporate mainline design plans into Construction Contract 4222 for elements adjacent to pierce park and mainline cross culvert.
- Local Agency Utility Relocation Plans. The Village of Western Springs existing watermain and storm sewer facilities are located within proposed temporary easements requested by the Tollway to complete this project. From coordination with the Village, access to these facilities will be required throughout construction. Providing access results in additional retaining wall requirements which increases costs drastically. Therefore, the relocation for portions of their existing facility beneath Hillgrove Avenue is required. Likewise, existing brick storm sewer existing within proposed temporary easements within the Village of Hinsdale. After coordination with the Village, the temporary embankment loads that are proposed over the existing facilities are greater than the pipe can support, therefore replacement of the bridge sewer with concrete pipe is required.
- Village of Western Springs Generator at Well. The Village of Western Springs Well is
 within the vicinity of the project and they have requested a power generator be installed
 as a back-up to operate the well pump in case of a power failure. Additional plan details
 and design is required for this work.

Item 29. DCM Coordination. Additional submittal is required for DCM review prior to submittal of contract documents to the Tollway. Additional coordination and disposition of comments is required.

Item 31. Permit Application Submittals

- IEPA Watermain Relocation Permit Application. The proposed watermain relocation in the Village of Western Springs requires an IEPA permit application package for the relocation work.
- Special Waste Assessment Review. A Preliminary Site Investigation (PSI) will be performed based on the need for evaluation of two areas of Recognized Environmental Concern (REC) within the project limits. Review of the PSI documentation and further special waste processing and coordination will be evaluated.
- 42" Combined Sewer Reconstruction in Village of Hinsdale. Replacement of the existing 42" brick sewer with RCP located in Veeck Park requires local permits, including a permit from the Metropolitan Water Reclamation District of Greater Chicago (MWRD).
- Engine Generator for Village of Western Springs Well #4. The Village of Western Springs requested a standby engine generator and automatic transfer switch to supply standby electrical service to an existing municipal potable water well #4 be in place during construction in order to minimize risks of a power outage which would disrupt the Village's water supply. Local building permit from the Village will be applied for and incorporated into the specifications.

III. GENERAL PROJECT ACTIVITIES

Item 33. Coordination.

• The level of effort regarding coordination between the railroad, local agency coordination, and the adjacent mainline DSE is a greater than anticipated. Additional meetings include recurring railroad coordination meetings, monthly DSE coordination meetings, project status book meetings, and additional meetings with local agencies are a result of the CTS project extension schedule. A summary of meetings including the original versus the anticipated meetings required for this contract is shown in the following table. Note the total meeting amount is anticipated to occur at the contract completion.

Meeting Description	Number of Meetings included in Contract	Anticipated Total at Contract Completion	Additional Meetings included in Supplement 1	Comments
Railroad Coordination	12	40	28	23 Coord Meetings held thru Feb 2018. Additional Meetings from March 2018 thru May 2019 + 3 other meetings.
Monthly DSE Coord	24	38	14	Additional Meetings to May 2019
Project Status Book	24	39	15	Additional Meetings to May 2019
Local Agencies	8	21	13	Meeting with Village of Hinsdale, Western Springs, and Wester Springs Park District, FCWRD, and MWRD. To Date, 11 meetings held and two additional meeting with each entity is anticipated (+10).

- Railroad Investigation. Additional effort is to comply with requests from the railroad, including:
 - Investigation of embankment limits due to a fourth superstructure beyond the bridge,
 - Site access and railroad work zone requirements requiring additional investigation, grading modifications, and temporary retaining walls. Grading modifications include development of earth ramps providing access at each quadrant of the structure, mainline access, vehicle storage, and work platforms for track cut overs.
 - o Investigation for BNSF access from Burlington Avenue.

- Additional investigation and details required for railroad inspection access and platform to be constructed integrally with the bridge substructure. Also requires investigation and plan details or stair access from track level to abutment seat level.
- Study developed for a two stage, two track construction staging to eliminate the need for a shoo-fly structure.

• Utility Coordination.

- The Village of Western Springs water well is located near the project improvements. Additional meetings and coordination is required to comply with IEPA requirements.
- The Village of Western Springs requested vibration monitoring be installed within the project limits because of the proposed pile driving work. Additional special provisions and plan details will be required for this work.
- Review of S.U.E. data provided by DUR DSE. Several attempts to locate existing FCWRD and MWRD facilities were made within the project area requiring additional coordination and review of field data.
- o NOI forms were submitted and need to be revised to match new format.
- Additional utility coordination and development of DUR are needed due to project extension.

• Other Coordination

- Coordination with local municipalities to review intergovernmental agreements.
 Additional effort to define scope of work and preparation of construction cost estimates and construction durations for the Village of Hinsdale, Village of Western Springs and the Western Springs Park District.
- Design and construction assessment as alternative to right-of-way acquisition.
 Study and assessment may include:
 - Analysis of design impacts;
 - Constructability assessment, contractor access, and schedule impacts;
 - Modified drainage and grading plan;
 - Preliminary retaining wall design and plans (TS&L level) (2 new walls and 2 modified walls):
 - Meetings and coordination with the BNSF RR and local agencies;
- Item 36. Quality Assurance/Quality Control. Additional quality assurance and quality control as a result of additional plan development and project extension.
- **Item 37.** Administration/Management. Additional project management and planning is required as a result of the project extension.

EXHIBIT G

Contract No. RR-14-4222

Sanchez & Associates, P.C.

CURRENT OBLIGATIONS FOR PROJECT

Route & Job No.	Work Scope & Description of Project	Sup	e (Including all oplementals and ra Work Orders)	e Remaining o Be Earned	Estimated Date of Completion
RR-14-4222	Maintenance Facilities, Site Plans and Design	\$	7,300.00	\$ 5,240.00	12/31/2018
RR-14-4222	IL Tollway - Bridge Rehabilitation / Reconstruction on the Tri-State Tollway (I- 294) M.P. 26.6	\$	265,413.07	\$ 2,785.83	5/31/2018
RR-14-4224	IL Tollway - Roadway Study on the Tri-State Tollway (I-294) M.P. 29.5 to M.P. 40.0	\$	1,134,059.68	\$ 18,348.20	5/31/2018
	IL Tollway - Design Upon Request- Systemwide	\$	135,000.00	\$ 63,012.18	12/31/2018
RR-14-5705	IL Tollway - Bridge Reconstruction & Interchange Improvements Fransworth Avenue over Reagan Memorial Tollway (I-88) M.P. 114.35 to M.P. 122.10	\$	151,124.11	\$ 56,542.28	12/31/2018
RR-16-4255	IL Tollway - Roadway and Bridge Rehabilitation – Design, Veterans Memorial Tollway M.P. 12.3 (I-55) to M.P. 22.3 (STA 11260+00, Butterfield Road), Phase II Engineering	\$	165,349.60	\$ 409.95	12/31/2018
RR-17-4277	I-94, Pavement and Structural Preservation and Rehabilitation, M.P 21.85 (Half Day Road) to M.P. 25.2 (Lake Cook Road). Phase II Engineering	\$	121,038.00	\$ 11.89	3/31/2018
RR-15- 9975RR	Consulting Engineer Services	\$	1,572,144.41	\$ 1,085,569.09	5/31/2022
RR-17-4314	Tri-State Tollway I-294 from M.P. 40.0 to M.P. 52.9 (Balmoral Avenue to Lake Cook Road) Phase II Engineering	\$	70,634.00	\$ 37,231.71	5/31/2018
RR-17-4313	Reagan Memorial Tollway (I-88) East of Washington Street to York Road MP 126.9 to MP 139.1	\$	90,900.00	\$ 66,366.20	5/31/2018

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Sanchez & Associates, P.C.

EXHIBIT H - SERVICES BY OTHERS

Exhibits A-G must be submitted for each subconsultant listed below. If a subconsultant requires "Services by Others", they must include Exhibit H and attach Exhibits A-G for second tier subconsultants.

DBE/MBE/WBE	SUBCONSUL	TANTS
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•	Direct Labor			6			_
					Direct Labor		
	Direct Costs				Direct Costs	\$ -	<u> </u>
	Services by Others				Services by Others	\$ -	_
	Additional Services **		_		Additional Services **	\$ -	-
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	Direct Labor		<u> </u>		Direct Labor		
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	Services by Others				Services by Others	\$ -	· -
	Additional Services **		_		Additional Services **	\$ -	
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** Additional services funds require prior authorization before use

TOTAL DBE/MBE/WBE Subconsultants: \$

TOTAL Additional Services DBE/MBE/WBE Subconsultants: _\$

TOTAL Allowable Fee DBE/MBE/WBE Subconsultants: \$ EXH BIT
DBE/MBE/WBE Percentage of Total Fee (includes Additional Services):

DBE/MBE/WBE Percentage of Total Fee (does not include Additional & Grant State of 190

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Sanchez & Associates, P.C.

EXHIBIT H - SERVICES BY OTHERS (continued)

Exhibits A-G must be submitted for each subconsultant listed below. If a subconsultant requires "Services by Others", they must include Exhibit H and attach Exhibits A-G for second tier subconsultants.

OTHER SUBCONSULTANTS	(NOT	DBE/MBE/WBE)
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	Direct Labor		. ^		Direct Labor		
	Direct Costs				Direct Costs	\$ -	<u> </u>
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 Additional	services	tunas	require	prior	authorizatio	n before	use

TOTAL Non-DBE/MBE/WBE Subconsultants: _\$	

TOTAL Additional Services Non-DBE/MBE/WBE Subconsultants: _\$

TOTAL Allowable Fee Non-DBE/MBE/WBE Subconsultants: \$

Contract Information Sheet

Complete the folic	wing information and it will be populated on every exhibit.	
Consultant Name	Wang Engineering, Inc.	· ·
Contract Number:	RR-14-4222	.
Proposal Date:	4/1/2018	_
Exhibit Pointers	Editable cells in each exhibit are underlined in red	•
	Notes and guidance for each exhibit are on the right of the e	xhibits in yellow text boxes
	A full set of instructions to complete the exhibits is available	on the Tollway's website

RR-14-4222
Number:
Contract

Consultant:

Wang Engineering, Inc.

									פֿבּ	and lotal	Grand Total Exhibit A Hours	A Hours	775
					Ž	MONTHS of YEAR 2018	of YEAR	2018					TOTAL HOURS
TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
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E	XHIB	IT '	"1"
Page	157	of	190

TOTAL HOURS Dec Wang Engineering, Inc. Nov Oct Sep **EXHIBIT A: ESTIMATED TASK WORK HOURS** Aug MONTHS of YEAR 2019 Consultant: Jul Jun May Apr Mar Feb RR-14-4222 Jan Contract Number: TOTALS TASK

Contract No.:	RR-14-4222	Consultant:	Wang Engineer	ing, Inc.
	EXH	IIBIT B: FEE CALC	ULATIONS	
A. DIRECT LA	BOR (without overtime)			
	775.00 (Total Work Hours from Exhibit C-2)	X \$ 37.32 (Average Hourly Rate from Exhibit C-2)	= TOTAL DIRECT SALARY	\$ 28,923.00
	Multiplier to be used on this projection Allowable Multiplier = (2.8 DSE		·))	2.80
	DIREC	T REGULAR SALA	RY TIMES MULTIPLIER	\$ 80,984.40
	ABLE DIRECT COSTS No.		RPROFIT	
			TOTAL DIRECT COSTS	\$178,444.54
C. SERVICES	BY OTHERS			
	Total Allowable Fee DBE/MBE/WE	BE Subconsultant (from I	Exhibit H) \$ -	
Total Allow	vable Fee Non-DBE/MBE/WBE Sub	consultant (from Exhibit	H (cont)) \$ -	
			TOTAL SERVICES BY OTHERS	\$ -
D. ADDITIONA	AL SERVICES (Prime Consult	ant)		
	L SERVICES (Subconsultant	(Req	uires prior authorization before use)	
			uires prior authorization before use) TOTAL ADDITIONAL SERVICES uires prior authorization before use)	\$
E. MAXIMUM	ALLOWABLE FEE (Upper L	imit of Compensation)		\$ 259,428.94

wang Engineering, Inc.								Date Date	17.0	Escalation Factor Fifth Period		- Date Date	17.0	Escalation Factor Tenth Period	
			SCALATION TABLE	No. OF MONTHS		hrough 5		Date Date	17.0	Escalation Factor Fourth Period	rough 10	- Date Date	17.0	Escalation Factor Ninth Period	
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Contract No.: RK-14-4222	Date: 4/1/2018						4/1/2018 - 12/31/2018	Date Date		52.94% Factor First Period		- Date Date	17.0	Escalation Factor Sixth Period	The escalati

Contract No.: RR-14-4222

Consultant:

Wang Engineering, Inc.

Date: 4/

4/1/2018

Escalation Factor:

100.00% (From Exhibit C-1)

DIRECT COST OVERTIME PREMIUM	Total ted O/T Hours:	rage O/T tate:	time ium:	d Estimated Overtime Hours (Overtime Hours Only) C to (See Note D to		en ing day and account of the accoun							**************************************	CONTRACTOR OF THE PROPERTY OF			
OVERT	Total Estimated O/T Hours:	Average Premium O/T Hourly Rate:	Total Overtime Premium:	Escalated Average Premium Overtime Hourly Rate (See Note C to													
,	775.00	\$37.32	\$28,923.00	Estimated Work Hours (Including Overtime)	30.00	170.00		270.00	260.00		25.00	5.00	-	-		15.00	
RATES	Total Estimated Work Hours:	Average Hourly Rate:	Total Direct Labor	Average Average Hourly Rate for for Classification (See Note A to (See Note B to Right)	\$56.85	\$56.85		\$34.73	\$24.25		\$54.76	\$21.43				\$26.31	
HOURS AND				Average Hourly Rate for Classification (See Note A to Right)	\$56.85	\$56.85		\$34.73	\$24.25		\$54.76	\$21.43				\$26.31	
TION MAN-				Tollway MAXIMUM Hourly Rate for Classification	\$70.00	\$70.00	\$70.00	\$60.00	\$40.00	\$60.00	\$60.00	\$50.00	\$70.00	\$70.00	\$20.00	\$40.00	
CLASSIFICA				Tollway MINIMUM Hourly Rate for Classification	\$40.00	\$40.00	\$40.00	\$25.00	\$20.00	\$20.00	\$25.00	\$15.00	\$30.00	\$20.00	\$8.25	\$8.25	
ECT LABOR				cation				·						ų.			
EXHIBIT C-2: DIRECT LABOR CLASSIFICATION MAN-HOURS AND RATES				Tollway Classification	Project Manager	Senior Engineer/Planner	Resident Engineer	Project Engineer/Planner□	Staff Engineer/Planner	Engineer /Accountant	Senior Technical Specialist	Technical Specialist	Architect	Realty Specialists	Intern	Admin/Clerical	-
				Classification Eligible for Premium Overtime?	No	No	No	No	No	N _O	2 Pag		≗ HIE L 60		% "1	1	

Contract No.:	RR-14-4222	Consultant:	Wang Engineering, Inc.
		·	

Date: 4/1/2018

EXHIBIT C-3: DIRECT LABOR EMPLOYEE CLASSIFICATION LIST

Tollway Classification	Consultant Classification (specific to each company)	Consultant Employee Name (SEE NOTE 1 TO RIGHT)	Range per Hour
Project Manager	Project Manager	Liviu lordache	\$40 - \$70
		Mickey Snider	
Senior Engineer/Planner	Senior Engineer	Andri Kurnia	\$40 - \$70
		Mohammed Kothawala	
<u> </u>		Gregory Syfert	
Resident Engineer			\$40 - \$70
Project Engineer/Planner□	Project Engineer/Project Geologist	Nesam Balakumaran	\$25 - \$60
		Eric Datz	
		Nathan Davis	
		Ravi Gorlagunta	
		Azza Hamad	
		Ramesh KC	
		Cornelia Marin	
Staff Engineer/Planner	Assistant Engineer/Assistant Geolog	Francisc Bozga	\$20 - \$40
		Matt Chiapas	
		Tyler Rothschild	
		Jessica Rowells	
		Michael Schmelzel	,
		Anthony Tomaras	
Engineer /Accountant			\$20 - \$60
Senior Technical Specialist	QC/QA Reviewer	Metin Seyhun	\$25 - \$60
Technical Specialist	Laboratory Technician	Corina lordache	\$15 - \$50
		Asifuddin Mohammed	
Architect			\$30 - \$70
Realty Specialists			\$20 - \$70
Intern			\$8.25 - \$20
Admin/Clerical	Administrative Assistant	Chad Davis	\$8.25 - \$40
		Dan Toner	·
			·
	·		

Contract No.:	RR-14-4222	Consultant:	Wang Engine	ering, Inc.
		EXHIBIT D		
	REIMBURSABLE DIR	ECT COSTS - WORKS	SHEET ESTIMATES	
A.	VEHICLE REIMBURSEMENT http://www2.illinois.gov/cms/Er			
B.	ALLOWABLE DIRECT COST https://www.illinoistollway.com/	documents/20184/23867	3/LG_TOL	
c.	ITEMIZED DIRECT COSTS - Allowable Direct Costs list, v from the Chief Engineer prio	vritten permission must	be received	
	DIRECT COST CATEGORY			
	GPNA Reporting (V3 IEPA Re	eporting)		

TOTAL DIRECT COSTS (Vehicles, Allowable and Itemized)

\$ 178,444.54





Name: BNSF over I-294 (Special Waste investigation including PSI Report)

RFP/PTB/PSB/Item: 14-3/002 Contract/Job: RR-14-4222 Date: 04/01/2018 Wang No.: P180205

Task Description	Units	Unit Price	Extended Cost
DRILLING, SAMPLING & INS	······································		
Drilling Coordination	5.0 Hours	\$97.00 /Hour	•
Utilities Clearance, Site Access, Permitting	0.0 Hours	\$97.00 /Hour	
Mobilization (Truck-mounted Drill Rig)	0.0	\$790.00 /Each	
Drilling Crew Daily Travel & Support Vehicle	0.0 Days	\$165.00 /Day	
Stand-by Hourly Rate - Truck-mounted Drill Rig	0.0 Hours	\$350.00 /Hour	
(Two-Man Crew & Equipment)			
Mobilization (ATV-mounted Drill Rig)	1.0	\$1,350.00 /Each	
ATV-mounted Drill Rig Daily Charge	0.0 Days	\$305.00 /Day	
Drilling Crew Daily Travel & Support Vehicle	0.0 Days	\$165.00 /Day	
Stand-by Hourly Rate - ATV-Mounted Drill Rig	0.0 Hours	\$350.00 /Hour	
(Two-Man Crew & Equipment)			
Portable Water Tank	0.0 Days	\$155.00 /Day	
Lighting for Night Field Activities	0.0 Nights	\$115.00 /Night	
Drilling and Sampling			
Structure Borings	•		
Drilling including split spoon sampling at 2.5-foot intervals to 30 fe	et and at 5-foot intervals the	praction	
(SPT, Penetrometer, Rimac, Visual Classification Included)	ei ana ai 5-jooi iniervais ine	reujier	
Between 0 and 75 Feet			
Normal Working Hours	0.0 Feet	\$32.00 /Foot	
Restricted Hours		\$36.00 /Foot	
	0.0 Feet		
Night Work Between 75 and 100 Feet	0.0 Feet	\$34.00 /Foot	
	0.0 5	624.00 (5)	
Normal Working Hours	0.0 Feet	\$34.00 /Foot	
Restricted Hours	0.0 Feet	\$40.00 /Foot	
Night Work	0.0 Feet	\$35.00 /Foot	
Between 100 and 125 Feet	0.0.7		
Normal Working Hours	0.0 Feet	\$40.00 /Foot	
Restricted Hours	0.0 Feet	\$51.00 /Foot	
Night Work	0.0 Feet	\$46.00 /Foot	
Between 125 and 150 Feet	*	•	
Normal Working Hours	0.0 Feet	\$46.00 /Foot	
Restricted Hours	0.0 Feet	\$60.00 /Foot	
Night Work	0.0 Feet	\$56.00 /Foot	
Additional Split-Spoon Sample	0.0 Samples	\$45.00 /Sample	
Roadway Borings			
Drilling including continuous split spoon sampling to 10 feet			
(SPT, Penetrometer, Visual Classification Included)			
Continuous Sampling			
Normal Hours	0.0 Feet	\$32.00 /Foot	
Restricted Hours	0.0 Feet	\$36.00 /Foot	
Night Hours	0.0 Feet	\$34.00 /Foot	
1.0010	0.0 1 000		•
Shelby Tube Borings			
Blind drilling and Shelby tube sampling at selected depths			
Drill without sampling		600 00 T	
Normal Working Hours	0.0 Feet	\$22.00 /Foot	
Restricted Hours	0.0 Feet	\$27.00 /Foot	
Night Work	0.0 Feet	\$25.00 /Foot	
Shelby Tube Samples			
Normal Working Hours	0.0 Samples	\$61.00 /Sample	
Restricted Hours	0.0 Samples	\$71.00 /Sample	
Night Work	0.0 Samples	\$67.00 /Sample	
Rock Coring			
Rock Coring Setup	0.0 Setups	\$367.00 /Setup	
Set Casing Below 40 Feet			
Normal Working Hours	0.0 Feet	\$14.00 /Foot	
Restricted Hours	0.0 Feet	\$16.00 /Foot	
Night Work	0.0 Feet	\$15.00 /Foot	
Rock Coring			
Normal Working Hours	0.0 Feet	\$61.00 /Foot	
Restricted Hours	0.0 Feet	\$75.00 /Foot	
Night Work	0.0 Feet	\$67.00 /Foot	

Night Work

0.0 Feet

\$67.00 /Foot





Name: BNSF over I-294 (Special Waste investigation including PSI Report)

RFP/PTB/PSB/Item: 14-3/002 Contract/Job: RR-14-4222 Date: 04/01/2018 Wang No.: P180205

Task Description	Units	Unit Price	Extended Cost
Drilling & Sampling - Hourly - two-man crew			
Two-Man Crew - normal working hrs	16.0 Hours	\$352.00 /Hour	
Two-Man Crew - overtime	4.0 Hours	\$439.00 /Hour	
Drilling & Sampling - Hourly - three-man crew			
Two-Man Crew and Field Supervisor- normal working hrs	0.0 Hours	\$475.00 /Hour	
Two-Man Crew and Field Supervisor - overtime	0.0 Hours	\$520.00 /Hour	
<u>Pavement/ Deck Coring & Testing</u> For 2-inch, 4-inch, and 6-inch diameter cores			
Pavement/Deck Coring (Two-Man Crew and Equipment)			
Normal Working Hours	0.0 Hours	\$284.00 /Hour	
Restricted Hours	0.0 Hours	\$326.00 /Hour	
Night Work	0.0 Hours	\$306.00 /Hour	
Asbestos Content Testing			
On Deck Cores	0.0 Tests	\$169.00 /Test	
Hand Augering (Two-Man Crew and Equipment)			
Hand augering and soil sampling to 10 feet			*
Hand Augering			
Normal Working Hours	48.0 Hours	\$284.00 /Hour	
Restricted Hours	0.0 Hours	\$326.00 /Hour	
Night Work	0.0 Hours	\$306.00 /Hour	
Piezometer/Monitoring Well Installation			
2.0-inch Wells			
2" x 5' PVC Screen, .010 slot, sch 40	0.0 Pipes	\$30.00 /Pipe	
2" x 10' PVC Screen, .010 slot, sch 40	0.0 Pipes	\$36.00 /Pipe	
2" x 5' PVC Riser, sch 40	0.0 Pipes	\$19.00 /Pipe	
2" x 10' PVC Riser, sch 40	0.0 Pipes	\$27.00 /Pipe	
2" PVC Female Points	0.0 Points	\$10.00 /Point	
2" PVC Slip Caps	0.0 Caps	\$3.00 /Cap	
4" Manhole Cast Iron w/Twist Lock Lid	0.0 Lids	\$50.00 /Lid	
2" x 5' Green Steel Standups	0.0 Standups	\$82.00 /Standup	
4.0-inch Wells			
4" x 5' PVC Screen, .010 slot, sch 40	0.0 Pipes	\$48.00 /Pipe	
4" x 10' PVC Screen, .010 slot, sch 40	0.0 Pipes	\$68.00 /Pipe	
4" x 5' PVC Riser, sch 40	0.0 Pipes	\$36.00 /Pipe	
4" x 10' PVC Riser, sch 40	0.0 Pipes	\$51.00 /Pipe	
4" PVC Female Points	0.0 Points	\$15.00 /Point	
4" PVC Slip Caps	0.0 Caps	\$15.00 /Cap	
6.0-inch Wells			
6" x 5' PVC Screen, .010 slot, sch 40	0.0 Pipes	\$113.00 /Pipe	
6" x 10' PVC Screen, .010 slot, sch 40	0.0 Pipes	\$167.00 /Pipe	
6" x 5' PVC Riser, sch 40	0.0 Pipes	\$88.00 /Pipe	
6" x 10' PVC Riser, sch 40	0.0 Pipes	\$138.00 /Pipe	
6" PVC Female Points	0.0 Points	\$47.00 /Point	
6" PVC Slip Caps	0.0 Caps	\$16.00 /Cap	
Other Items			
#1B008 Masterlock, 130D	0.0 Locks	\$7.00 /Lock	
55 gallon DOT Containment Drums	0.0 Drums	\$37.00 /Drum	
ConcreteQuickcrete 5000	0.0 Bags	\$16.00 /Bag	
3/8" Coated Bentonite Pellets, 5 Gal Bucket	0.0 Buckets	\$57.00 /Bucket	
10/20 Silica Sand, 50 lb plastic bag	0.0 Bags	\$9.00 /Bag	
Digital Datalogger and Barometer	0.0 Dataloggers	\$1,224.00 /Each	
<u>Labor - Hourly</u>			
Two Man Drilling Crew - normal working hours	0.0 Hours	\$352.00 /Hour	
Two Man Drilling Crew - overtime	0.0 Hours	\$439.00 /Hour	





Name: BNSF over I-294 (Special Waste investigation including PSI Report)

RFP/PTB/PSB/Item: 14-3/002

Contract/Job: RR-14-4222

Date: 04/01/2018 Wang No.: P180205

Prize may vary dupending on size and extent of waterway	Task Description	Units	Unit Price	Extended Cost
Barge and Crane Mobilization	Barge Drilling on a Navigable Waterway			
Barge and Crane Demobilization	Price may vary depending on size and extent of waterway			
Pressuremeter Testing	Barge and Crane Mobilization	At Cost		
Pressuremeter Testing	Barge and Crane Daily Charge	At Cost		
Pressuremeter Testing Mobilization 0.0 \$525.00 /Each Testing 0.0 Days \$2,150.00 /Day \$31x (6) Vibration Monitoring 0.0 Units/32 months \$500.00 /Unit \$550.00 /Unit \$100.00 \$100.00 \$2,000.00 /Each \$100.00 \$	Barge and Crane Demobilization	At Cost		
Pressuremeter Testing Mobilization 0.0 \$525.00 /Each Testing 0.0 Days \$2,150.00 /Day \$31x (6) Vibration Monitoring 0.0 Units/32 months \$500.00 /Unit \$550.00 /Unit \$100.00 \$100.00 \$2,000.00 /Each \$100.00 \$	Specialized Testing, Monitoring, & Assessment			
Mobilization				
Testing	e e e e e e e e e e e e e e e e e e e	0.0	\$525.00 /Fach	
Six (6) Vibration Monitoring				
Piezometric Cone Penetrometer Mobilization (Truck Mounted CPT)	•	•		
Mobilization (Truck Mounted CPT)	· ·	0.0 Cints/32 months	\$500.00 /OHR	
CPTU Seismic Wave Measurement O.0 Tests Sist, 00 / Feet Pore Pressure Dissipation Test Pore Pressure Dissipation Test Photoionization Detector (PID) O.0 Tests Sisy9, 00 / Test Photoionization Detector (PID) O.0 Tests Single Ring Infiltrometer Test (ASTM D3385) O.0 Tests Single Ring Infiltrometer Test (Chicago Stormwater Ordinance Note: Drilling crew will be billed as standby for the duration of pressuremeter, vane shear, and dilatometer testing ### Backfilling Borehole Normal Working Hours Restricted Hours O.0 Feet Sy.00 / Foot Night Work O.0 Feet Sy.00 / Foot Pavement/Deck Patching Asphalt Concrete Patching of Full Deck Coring O.0 Patches SiT.00 / Each Concrete Patching of Full Deck Coring O.0 Hours Si20,00 / Hour ### Boring Location Accessibility Private Utility Determination Tree Clearance O.0 Hours Si300.00 / Hour ### Boring Location Accessibility Private Utility Determination At Cost Railroad Fees Permitting & Contract Fee Railroad Protective Insurance Railroad Flagman At Cost Railroad Flagman At Cost State/County/Municipal Fees Pavement Opening Permit Insurance and Bonding #### At Cost Surveving of Boring Locations #### Surveving of Boring Locations #### Surveving of Boring Locations		0.0	\$5,000,00 /Each	
Seismic Wave Measurement Pore Pressure Dissipation Test Pore Pressure Dissipation Test Photoionization Detector (PID) 6.0 Days Water Infiltration/Percolation Test Double Ring Infiltrometer Test (ASTM D3385) Single Ring Infiltrometer Test (Chicago Stormwater Ordinance 0.0 Tests \$1,100.00 /Test Single Ring Infiltrometer Test (Chicago Stormwater Ordinance 0.0 Tests \$600.00 /Test Note: Drilling crew will be billed as standby for the duration of pressuremeter, vane shear, and dilatometer testing **Borehole Abandonment and Surface Restoration** **Backfilling Borehole** Normal Working Hours 0.0 Feet \$9.00 /Foot Restricted Hours 0.0 Feet \$10.00 /Foot Night Work 0.0 Feet \$9.00 /Foot Pavement/Deck Patching Asphalt 0.0 Patches \$17.00 /Each Concrete 0.0 Patches \$17.00 /Each Patching of Full Deck Coring 0.0 Patches \$320.00 /Each Soil Cutting Removal 0.0 Hours \$320.00 /Hour **Boring Location Accessibility** Private Utility Determination At Cost Tree Clearance 0.0 Hours \$300.00 /Hour Guardrail Removal and Replacement At Cost Dozer / Equipment Rental At Cost **Railroad Fees** Permitting & Contract Fee At Cost Railroad Protective Insurance At Cost Railroad Protective Insurance At Cost Railroad Protective Insurance At Cost Railroad Flagman 7.0 Days \$900.00 /Day **State/County/Municipal Fees** Pavement Opening Permit At Cost Insurance and Bonding At Cost Surveying of Boring Locations	,			
Pore Pressure Dissipation Test 0.0 Tests \$579.00 /Test Photoionization Detector (PID) 6.0 Days \$100.00 /Day Water Infiltration/Percolation Test Double Ring Infiltrometer Test (ASTM D3385) 0.0 Tests \$1,100.00 /Test Single Ring Infiltrometer Test (Chicago Stormwater Ordinance 0.0 Tests \$600.00 /Test Single Ring Infiltrometer Test (Chicago Stormwater Ordinance 0.0 Tests \$600.00 /Test Single Ring Infiltrometer Test (Chicago Stormwater Ordinance 0.0 Tests \$600.00 /Test Single Ring Infiltrometer Test (Chicago Stormwater Ordinance 0.0 Tests \$600.00 /Test Single Ring Infiltrometer Test (Chicago Stormwater Ordinance 0.0 Tests \$600.00 /Test Single Ring Infiltrometer Test (Chicago Stormwater Ordinance 0.0 Tests \$600.00 /Test Single Ring Infiltrometer Test (Chicago Stormwater Ordinance 0.0 Tests \$600.00 /Test Single Ring Infiltrometer Test (Chicago Stormwater Ordinance 0.0 Tests \$600.00 /Test Single Ring Infiltrometer Testing Infiltrometer Infiltr				
Photoionization Detector (PID) Water Infiltration/Percolation Test Double Ring Infiltrometer Test (ASTM D3385) Single Ring Infiltrometer Test (Chicago Stormwater Ordinance 0.0 Tests \$1,100.00 /Test \$500.00 /Test \$100.00 /Test				
Water Infiltration/Percolation Test Double Ring Infiltrometer Test (ASTM D3385) Single Ring Infiltrometer Test (Chicago Stormwater Ordinance 0.0 Tests \$600.00 /Test \$600.00 /Test \$600.00 /Test \$1,100.00 /Te	•			
Double Ring Infiltrometer Test (ASTM D3385) 0.0 Tests Single Ring Infiltrometer Test (Chicago Stormwater Ordinance 0.0 Tests S600.00 / Test Single Ring Infiltrometer Test (Chicago Stormwater Ordinance 0.0 Tests S600.00 / Test S600.00 / Test Single Ring Infiltrometer Test (Chicago Stormwater Ordinance 0.0 Test S600.00 / Test S600.00 / Test S600.00 / Test Single Ring Infiltrometer Test (Chicago Stormwater Varies shear, and dilatometer testing S600.00 / Test S600.00 / T	. ,	o.o Days	\$100.00 /Day	
Single Ring Infiltrometer Test (Chicago Stormwater Ordinance Drilling crew will be billed as standby for the duration of pressuremeter, vane shear, and dilatometer testing Borehole Abandonment and Surface Restoration		0.0 T+	#1 100 CO /T	
Note: Drilling crew will be billed as standby for the duration of pressuremeter, vane shear, and dilatometer testing **Backfilling Borehole** Normal Working Hours** Restricted Hours** Night Work** Pavement/Deck Patching* Asphalt** Concrete** Patching of Full Deck Coring** Soil Cutting Removal** **Boring Location Accessibility** Private Utility Determination** Tree Clearance** Guardrail Removal and Replacement At Cost **Cost** **Railroad Fees** Permitting & Contract Fee** Railroad Flagman** **Railroad Flagman** **State/County/Municipal Fees** Pavement Opening Permit** Insurance and Bonding** **Surveying of Boring Locations** **Surveying of Boring Locations** **O.0 Feet** \$9.00 /Foot** \$9.00 /Foot** \$9.00 /Foot** \$9.00 /Foot** \$0.0 Patches** \$17.00 /Each** \$1	` ,		,	
Backfilling Borehole Normal Working Hours Restricted Hours Normal Working Hours Restricted Hours Night Work Normal Work Pavement/Deck Patching Asphalt Concrete Datching On Patches Patching On Patches Si 17.00 /Each Patching of Full Deck Coring On Patches Si 17.00 /Each Patching of Full Deck Coring On Patches Si 20.00 /Each Soil Cutting Removal On Hours Si 20.00 /Hour Boring Location Accessibility Private Utility Determination At Cost Tree Clearance On Hours Si 300.00 /Hour Guardrail Removal and Replacement At Cost Dozer / Equipment Rental At Cost Railroad Fees Permitting & Contract Fee Railroad Protective Insurance Railroad Flagman 7.0 Days Sy 5900.00 /Day State/County/Municipal Fees Pavement Opening Permit At Cost Insurance and Bonding At Cost Surveying of Boring Locations			\$600.00 /Test	
Night Work Pavement/Deck Patching Asphalt Concrete 0.0 Patches Patching of Full Deck Coring Soil Cutting Removal Boring Location Accessibility Private Utility Determination Tree Clearance Guardrail Removal and Replacement Dozer / Equipment Rental Railroad Fees Permitting & Contract Fee Railroad Protective Insurance Railroad Flagman State/County/Municipal Fees Pavement Opening Permit Insurance and Bonding Sun Patches S17.00 /Fach S17.00 /Each S17.00 /Ea	· ·	0.0 Feet	\$9.00 /Foot	
Restricted Hours Night Work 0.0 Feet \$9.00 /Foot Night Work 0.0 Feet \$9.00 /Foot Pavement/Deck Patching Asphalt 0.0 Patches Concrete 0.0 Patches \$17.00 /Each Patching of Full Deck Coring 0.0 Patches S320.00 /Each Soil Cutting Removal 0.0 Hours S320.00 /Hour Boring Location Accessibility Private Utility Determination Tree Clearance 0.0 Hours S300.00 /Hour Guardrail Removal and Replacement Dozer / Equipment Rental At Cost Railroad Fees Permitting & Contract Fee Railroad Protective Insurance Railroad Flagman 7.0 Days Sy00.00 /Day State/County/Municipal Fees Pavement Opening Permit Insurance and Bonding Surveving of Boring Locations	•	0.0 E+	60.00 /E	
Night Work Pavement/Deck Patching Asphalt Concrete 0.0 Patches Patching of Full Deck Coring Soil Cutting Removal Bering Location Accessibility Private Utility Determination Tree Clearance Guardrail Removal and Replacement Dozer / Equipment Rental Railroad Fees Permitting & Contract Fee Railroad Flagman At Cost				
Pavement/Deck Patching Asphalt Concrete 0.0 Patches \$17.00 /Each Concrete 0.0 Patches \$17.00 /Each Patching of Full Deck Coring 0.0 Patches Size on /Each Soil Cutting Removal 0.0 Hours Size on /Hour Boring Location Accessibility Private Utility Determination Tree Clearance 0.0 Hours Size on /Hour Guardrail Removal and Replacement Dozer / Equipment Rental At Cost Railroad Fees Permitting & Contract Fee Railroad Protective Insurance Railroad Flagman 7.0 Days Size /County/Municipal Fees Pavement Opening Permit Insurance and Bonding At Cost Surveying of Boring Locations				
Asphalt Concrete 0.0 Patches S17.00 /Each Concrete 0.0 Patches S17.00 /Each Patching of Full Deck Coring 0.0 Patches S320.00 /Each Soil Cutting Removal 0.0 Hours S320.00 /Hour Boring Location Accessibility Private Utility Determination Tree Clearance 0.0 Hours S300.00 /Hour Guardrail Removal and Replacement Dozer / Equipment Rental At Cost Railroad Fees Permitting & Contract Fee Railroad Protective Insurance Railroad Flagman 7.0 Days State/County/Municipal Fees Pavement Opening Permit Insurance and Bonding At Cost Surveying of Boring Locations		0.0 1 000	Ψ3.00 /1 000	
Concrete Patching of Full Deck Coring O.0 Patches Soil Cutting Removal O.0 Hours S320.00 /Each Soil Cutting Removal O.0 Hours S320.00 /Hour Boring Location Accessibility Private Utility Determination At Cost Tree Clearance O.0 Hours S300.00 /Hour Guardrail Removal and Replacement Dozer / Equipment Rental At Cost Railroad Fees Permitting & Contract Fee Railroad Protective Insurance Railroad Flagman At Cost State/County/Municipal Fees Pavement Opening Permit Insurance and Bonding At Cost Surveying of Boring Locations	3	0.0 Patches	\$17.00 /Fach	
Patching of Full Deck Coring Soil Cutting Removal O. Description Boring Location Accessibility Private Utility Determination At Cost Tree Clearance O. Description Guardrail Removal and Replacement Dozer / Equipment Rental At Cost Railroad Fees Permitting & Contract Fee Railroad Protective Insurance Railroad Flagman At Cost State/County/Municipal Fees Pavement Opening Permit Insurance and Bonding Surveying of Boring Locations	_ *			
Soil Cutting Removal Boring Location Accessibility Private Utility Determination At Cost Tree Clearance O.0 Hours Sand. Moure Guardrail Removal and Replacement Dozer / Equipment Rental At Cost Railroad Fees Permitting & Contract Fee Railroad Protective Insurance Railroad Flagman At Cost Sand. At Cost Railroad Flagman At Cost				
Private Utility Determination At Cost Tree Clearance 0.0 Hours \$300.00 /Hour Guardrail Removal and Replacement At Cost Dozer / Equipment Rental At Cost Railroad Fees Permitting & Contract Fee At Cost Railroad Protective Insurance At Cost Railroad Flagman 7.0 Days \$900.00 /Day State/County/Municipal Fees Pavement Opening Permit At Cost Insurance and Bonding At Cost Surveving of Boring Locations	ž ž			
Private Utility Determination At Cost Tree Clearance 0.0 Hours \$300.00 /Hour Guardrail Removal and Replacement At Cost Dozer / Equipment Rental At Cost Railroad Fees Permitting & Contract Fee At Cost Railroad Protective Insurance At Cost Railroad Flagman 7.0 Days \$900.00 /Day State/County/Municipal Fees Pavement Opening Permit At Cost Insurance and Bonding At Cost Surveving of Boring Locations	Posing Loggian Assessibility			
Tree Clearance 0.0 Hours \$300.00 /Hour Guardrail Removal and Replacement At Cost Dozer / Equipment Rental At Cost Railroad Fees Permitting & Contract Fee At Cost Railroad Protective Insurance At Cost Railroad Flagman 7.0 Days \$900.00 /Day State/County/Municipal Fees Pavement Opening Permit At Cost Insurance and Bonding At Cost Surveving of Boring Locations		A+ Cont		
Guardrail Removal and Replacement Dozer / Equipment Rental Railroad Fees Permitting & Contract Fee Railroad Protective Insurance Railroad Flagman 7.0 Days State/County/Municipal Fees Pavement Opening Permit Insurance and Bonding At Cost Surveving of Boring Locations			\$200.00 MT-	
Dozer / Equipment Rental Railroad Fees Permitting & Contract Fee			\$300.00 /Hour	
Railroad Fees Permitting & Contract Fee At Cost Railroad Protective Insurance At Cost Railroad Flagman 7.0 Days \$900.00 /Day State/County/Municipal Fees Pavement Opening Permit At Cost Insurance and Bonding At Cost Surveying of Boring Locations	-			
Permitting & Contract Fee Railroad Protective Insurance Railroad Flagman 7.0 Days State/County/Municipal Fees Pavement Opening Permit Insurance and Bonding At Cost Surveying of Boring Locations	Dozer / Equipment Kental	At Cost		
Railroad Protective Insurance Railroad Flagman 7.0 Days State/County/Municipal Fees Pavement Opening Permit Insurance and Bonding At Cost Surveying of Boring Locations				
Railroad Flagman 7.0 Days \$900.00 /Day State/County/Municipal Fees Pavement Opening Permit At Cost Insurance and Bonding At Cost Surveying of Boring Locations	5	At Cost		
State/County/Municipal Fees Pavement Opening Permit At Cost Insurance and Bonding At Cost Surveying of Boring Locations	Railroad Protective Insurance	At Cost		
Pavement Opening Permit At Cost Insurance and Bonding At Cost Surveying of Boring Locations	Railroad Flagman	7.0 Days	\$900.00 /Day	
Pavement Opening Permit At Cost Insurance and Bonding At Cost Surveying of Boring Locations	State/County/Municipal Fees			
Insurance and Bonding At Cost Surveying of Boring Locations		At Cost		
Surveying of Boring Locations				
		11.000		
Two-man crew 0.0 Hours \$220.00 /Hour	· · · · · · · · · · · · · · · · · · ·			
	Two-man crew	0.0 Hours	\$220.00 /Hour	





Name: BNSF over I-294 (Special Waste investigation including PSI Report)

RFP/PTB/PSB/Item: 14-3/002 Contract/Job: RR-14-4222 Date: 04/01/2018 Wang No.: P180205

		Task Description	Units	Unit Price	Extended Cost
		LABORATORY TE	STING		
Soil Index T		W. G.			
T265	D2216	Water Content	112.0 Tests	\$9.50 /Test	
 T100	D7263 D854	Unit Weight (Density)	0.0 Tests 0.0 Tests	\$35.00 /Test	
1100	D834	Specific Gravity Void Ratio, Porosity, and Saturation	0.0 Tests	\$64.00 /Test	
	D4972	pH of Soil	0.0 Tests	\$104.00 /Test \$57.00 /Test	
T267	D2974	Organic Content by LOI	0.0 Tests	\$59.00 /Test	
T194		Organic Content by Wet Combustion	0.0 Tests	\$129.00 /Test	
	Distribution		0.0 16818	\$129.00 / Test	
T88	D422	Sieve Analysis	0.0 Tests	\$75.00 /Test	
T88	D422	Hydrometer Analysis	0.0 Tests	\$79.00 /Test	
T88	D422	Combined Sieve and Hydrometer	0.0 Tests	\$119.00 /Test	
	D1140	Percent Finer than No. 200 Sieve	0.0 Tests	\$49.00 /Test	
tterberg Li		2000000	0.0 10313	\$45.00 / Test	
T89, T90	D4318	Liquid and Plastic Limits	0.0 Tests	\$75.00 /Test	
T92	D427	Shrinkage Factors	0.0 Tests	\$88.00 /Test	
Lassificatio			0.0 1000	\$60.00 / Test	
	D2488	Visual Manual	0.0 Samples	\$18.00 /Sample	
	D2487	Unified Soil Classification System	0.0 Samples	\$189.00 /Sample	
M145		AASHTO Classification	0.0 Samples	\$189.00 /Sample	
		USDA Classification	0.0 Samples	\$119.00 /Sample	
oil Settlem	ent, Swellin	g, and Collapse Potential		2225.00 roumple	
T216	D2435	One-Dimensional Consolidation	0.0 Tests	\$540.00 /Test	
	D4546	One-Dimensional Swell	0.0 Tests	\$525.00 /Test	
	D5333	Collapse Potential	0.0 Tests	\$289.00 /Test	
near Stren	gth of Soil	onapoe i otomia	0.0 1030	\$267.00 / Test	
		Hand Penetrometer	0.0 Tests	\$4.50 /Test	
		Rimac Unconfined Compressive Strength	0.0 Tests	\$14.00 /Test	
T208	D2166	Unconfined Compressive Strength	0.0 Tests	\$79.00 /Test	
T236	D3080	Direct Shear of Soils (3 points)	0.0 Tests	\$694.00 /Test	
T296	D2850	UU Triaxial Compression (3 points)	0.0 Tests	\$326.00 /Test	
T297	D4767	CU Triaxial Compression (3 points)	0.0 Tests	\$1,100.00 /Test	
T297	D4767	CD Triaxial Compression (3 points)	0.0 Tests	\$1,100.00 /Test	
	D7012	Peak Uniaxial Compressive Strength of Rock Core	0.0 Tests	\$158.00 /Test	
aboratory (Compaction	•	****	0100.00 / 1000	
T99	D698	Moisture-Density of Soils (Standard Effort)	0.0 Tests	\$194.00 /Test	
T180	D1557	Moisture-Density of Soils (Modified Effort)	0.0 Tests	\$204.00 /Test	
T193		Illinois Bearing Ratio (1 point)	0.0 Tests	\$490.00 /Test	
T193	D1883	California Bearing Ratio (3 points)	0.0 Tests	\$893.00 /Test	
oefficient o	of Permeabi			**************************************	
T215	D2434	Hydraulic Conductivity (Constant Head)	0.0 Tests	\$438.00 /Test	
	D5084	Hydraulic Conductivity (Flexible Wall)	0.0 Tests	\$459.00 /Test	
dditional S	ample Prep	aration Procedures			
		Removal of Organic Matter	0.0 Samples	\$84.00 /Sample	
		Extrusion & Preservation of Undisturbed Samples	0.0 Samples	\$27.00 /Sample	
		Logging & Classification of Undisturbed Samples	0.0 Samples	\$63.00 /Sample	
		Remolding and Trimming of Samples	0.0 Samples	\$60.00 /Sample	
nalytical L	aboratory S	ervices - for CCDD		***************************************	
		Volatile Organic Components (VOC)	2 No	\$117.00 /Each	
		SemiVOC including PNA's	2 No	\$195.00 /Each	
		PCB	0 No	\$135.00 /Each	
		Total Metals (23)	0 No	\$198.90 /Each	
		pH Determination	30 No	\$15.60 /Each	
		SPLP/TCLP Prep	13 No	\$65.00 /Each	
		SPLP/TCLP Metal (1312)	26 No	\$11.70 /Each	
		BTEX and MTBE	1 No	\$67.50 /Each	
		Herbicide (8151)	10 No	\$210.00 /Each	
		Pesticides (8082A, 8081, 8270C)	10 No	\$90.00 /Each	
		Total Metals (8) (6010C/7471B)	13 No	\$50.00 /Each	
		PNA 5035 Sampling Kit	1 No	\$112.50 /Each	
Corrosion T	estino	Jose Sampling Kit	10 No	\$12.00 /Each	
	(Resistivity.	Chlorides, pH, Redox, and Sulfates)	0.0 No	\$280.50 /Each	





Name: BNSF over I-294 (Special Waste investigation including PSI Report)

RFP/PTB/PSB/Item: 14-3/002 Contract/Job: RR-14-4222 Date: 04/01/2018 Wang No.: P180205

	Task Description	Units	Unit Price	Extended Cost
	TRAFFIC CONTROL			
	Traffic Control			
	Shoulder Closure (1/2 mile) - Expressway			
	Daytime	0.0 No.	\$850.00 /Each	
	Night time	0.0 No.	\$950.00 /Each	
	Sunday	0.0 No.	\$1,275.00 /Each	
	Shoulder Closure (1/2 mile) - Arterial			
	Daytime	0.0 No.	\$650.00 /Each	
	Night time	0.0 No.	\$800.00 /Each	
	Sunday	0.0 No.	\$1,275.00 /Each	
	Lane Closure (1 lane) (1/2 mile) - Expressway			
	Daytime	0.0 No.	\$1,750.00 /Each	
	Night time	0.0 No.	\$1,900.00 /Each	
	Sunday	0.0 No.	\$2,200.00 /Each	
	Lane Closure (1 lane) (1/2 mile) - Arterial			
	Daytime	0.0 No.	\$750.00 /Each	
	Night time	0.0 No.	\$900.00 /Each	
	Sunday	0.0 No.	\$1,275.00 /Each	
	Lane Closure (2 lane) - Expressway			
	Daytime	0.0 No.	\$1,900.00 /Each	
	Night time	0.0 No.	\$2,050.00 /Each	
	Sunday	0.0 No.	\$2,375.00 /Each	
	Lane Closure (2 lane) - Arterial		,	
	Daytime	0.0 No.	\$850.00 /Each	
	Night time	0.0 No.	\$1,000.00 /Each	
	Sunday	0.0 No.	\$1,275.00 /Each	
	Each additional 1/2 mile of closure	0.0 No.	\$125.00 /Each	
	Impact Attenuator			
	Straight Time	0.0 Hours	\$200.00 /Hour	•
	OT & Saturday	0.0 Hours	\$225.00 /Hour	
	Sunday	0.0 Hours	\$250.00 /Hour	
	FIELD VEHICLES & MILEA	.GE		
	Field Vehicle			
	Field Vehicle Mileage (>100 Miles per Day)	0.0 Miles	\$0.565 /Mile	
	Field Vehicle Daily (<100 Miles per Day)	11.0 Days	\$65.00 /Day	
	Tolls	0.0 Tolls	\$1.00 /Toll	

	OUT-OF-TOWN EXPENSE	S.		
	Lodging	0.0 Days	\$100.00 /Day	
	Per Diem	0.0 Days	\$50.00 /Day	
				*.
	PRINTING COSTS			
	Printing Costs			
	Black & White, 8.5" X 11"	0.0 No	\$0.20 /Each	
	Color, 8.5" X 11"	0.0 No	\$2.50 /Each	
	Black and White, 24" X 36"	1.0 No	\$4.34 /Each	
	OTHANIBU			
	SUMMARY			

DRILLING, SAMPLING & INSITU TESTING
LABORATORY TESTING
TRAFFIC CONTROL
FIELD VEHICLES & MILEAGE
OUT-OF-TOWN EXPENSES
PRINTING COSTS

ALLOWABLE DIRECT COSTS

10.01.2013

Effective for contracts awarded on or after October 1, 2013, the following costs are allowable when requested by the Department and included in the contract. The costs are allowable when it is customary for the firm to bill for the cost and it can be itemized in the firm's billing and accounting systems.

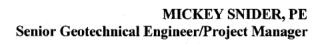
Per Diem	
Lodging	State Rate (Maximum)
Air Fare	State Rate (Maximum)
·······································	Coach Pate with a
Vehicles	Coach Rate with 2 weeks advance purchase
Mileage	purchase
	State Beach (s.
Vehicle Rental	State Rate* (Maximum)
Leased / Company-Owned Vehicles (does not include	\$55/day (Maximum)
Total verifices, flot Owned by the comment	¢cr.u.
A STREET HAIT-GAY VSIE	\$65/day
Parking Tolls	\$32.50/half day
	Actual Cost
Overtime	Actual Cost
Film and Film Processing**	Premium portion
Overnight Delivery/Postage Courier Service	Actual Cost
copies of Deliverables and Mylare	Actual Cost
Specific Insurance – required for project	Actual Cost
CADD	Actual Cost
Monuments – Permanent	Actual Costs (Maximum of \$15.00/Hr)
Payment for Newspaper Ads	Actual Cost
Web Site	Actual Cost
Facility Rental for Public Meetings & Exhibits/Rendering	Actual Cost
- 1 "P'' C'' I GIISCIIDIIONE	Antonia
Recording Fees	Actual Cost
Courthouse Fees	Actual Cost
Testing of Soil Samples	Actual Cost
Lab Services (excluding Phase III normal construction	Actual Cost
The state of the s	
Parement coles	
Equipment rental specific for project (snooper for bridge inspection, noise meter and)	Actual Cost
Specialized equipment – on an as needed basis with	Actual Cost
Traffic Systems	Actual Cost
Storm sewer cleaning and televising	Actual Cost
ridific control and protection	Actual Cost
Aerial photography and manning	Actual Cost
Utility exploratory trenching	Actual Cost
	Actual Cost

ALLOWABLE DIRECT COSTS

- *website for State Reimbursement Rates http://www2.illinois.gov/cms/Employees/travel/Pages/TravelReimbursement.aspx
- **Use of digital cameras verses film cameras is encouraged when firms own digital cameras and the discussion of their use will be part of the negotiations. Film & copies will be reimbursed at
- On all agreements authorization after January 1, 2005, GPS Equipment is considered a "tool of

Contract No.:	RR-14-4222	_ Consultant:	wang Engineering, inc.
	<u> </u>	XHIBIT E - KEY PROJECT PERSO	NNEL .
Project Princip	al:		
Project Manage	er:	Mickey Snider	
Project Engine	er:		
Resident Engir	neer:		
Documentation	n Engineer:		
Project Civil Er	ngineer:		
Project Structu	ıral Engineer:		
Project Drainaç	ge Engineer:		
Senior Enginee	er:	Mohammed Kothawala	
Others:	Name:		
	Classification:		
	Name:		•
	Classification:		
	Name:		
	Classification:	·	· · · · · · · · · · · · · · · · · · ·
• .	Name:		
	Classification:		











APPENDIX TO EXHIBIT F

Contract No. RR-14-4222

Wang Engineering, Inc.

SCOPE OF SERIVICES

Each firm will be bound to the Tollway's Exhibit F Scope of Work as prepared by the Tollway. Each firm will perform only work they are qualified to perform to the professional Standard of Care level required by the Tollway. Work tasks will be assigned by the management team of Bowman, Barrett & Associates Inc., as required to meet the expectations of the Tollway for this project.

CHANGE ORDER NO. 1 EXHIBIT F

CONTRACT RR-14-4222 TRI-STATE TOLLWAY (INTERSTATE 294)

SCOPE OF SERVICES

PROJECT MASTER PLAN AND PHASE II DESIGN SERVICES FOR BRIDGE REHABILITATION/RECONSTRUCTION OF THE BURLINGTON NORTHERN SANTA FE (BNSF) RAILROAD (M.P. 26.6)

COOK COUNTY, ILLINOIS LYONS TOWNSHIP

Tasks with in the Master Plan, Concept and Design phases have resulted in changes in the character or complexity of the scope of work. In addition, the CTS corridor project schedule has been extended requiring additional effort for administration/management, meetings and coordination. The items include the following:

I. PROJECT MASTER PLAN

The detailed scope of services and various tasks are described below:

Item 2.5 Plat of Highways / Existing Railroad Right-of-Way

Tollway ROW. The Tollway Right-of-Way requirements for RR-14-4223 corridor improvements was to be provided by the mainline DSE. The 4222 DSE schedule was advanced from the mainline Master Plan schedule and developed and computed the Tollway Right-of-Way for the 4222 project limits.

Item 2.6 Preparation of Plats and Legal Descriptions for Right-of-Way Acquisition

- Plat of Acquisitions. Due to the advancement of the RR-14-4222 contract schedule, plat
 of acquisitions need to be revised to include portions of parcel acquisitions included in
 Contract RR-14-4223. Additional field survey to locate property corners and occupation
 within the new limits of the parcels is required, as well as boundary analysis, review of
 record documents and drafting plats.
- Update Plats of Survey to new Standards. Plats of Survey were modified to accommodate to the new CAD Standards and parcel naming convention. The

standards required to re-accommodate the lay-out of the parcels sheets to include all "Total Holdings" for any contiguous property owned by the Village.

- Additional field work. Additional field work to survey existing improvements within 200-ft of the temporary and proposed easements is required as this information is needed to be shown on the plat of acquisitions for property appraisals. In addition, field staking of the South RR Right-of-Way line was performed. Additionally, this task includes staking the North RR ROW line, fiber optic locates, and proposed abutment staking.
- BNSF Railroad Temporary Easements. The BNSF RR requested that plats identifying
 temporary easements be developed for areas within Tollway Right-of-Way that requires
 railroad elements; and for the Tollway to request temporary easements to work on BNSF
 RR property. These were initially assumed to be incorporated in the C&M agreement and
 were not included in the scope of work. This includes the preparation of Plats of Survey
 for proposed temporary easements, and minor field work.

Item 10. Location Drainage Study. Flagg Creek Hydraulic Modeling. Additional effort and coordination is required for the cross culvert hydraulic modeling between 4222/4223 DSE to investigate proposed mainline profile and ditch grading needed to reduce the 500-year WSL. In addition, assistance was provided to the DCM regarding corridor watersheds.

Item 11. Geotechnical Investigation. The field data determined unsuitable soils exist within the project area and additional investigation is required to determine the limits of this soil. The presence of the unsuitable soil represents an unforeseen field condition and were not anticipated. The additional information will determine the proper soil strengthening techniques required such that the proposed elements can be properly designed. This additional effort includes additional field explorations and laboratory testing and analysis. (See attached proposal by Wang Engineering)

Special Waste. Additional soil investigation and testing is required to determine if Special Waste provisions should be included in the contract documents. The BNSF RR environmental unit also requires that soils within their right of way be tested and properly disposed from their property limits. Additional testing includes areas within the railroad embankment, the Village of Western Springs Public Works yard, and the proposed detention area within Veeck Park. (See attached proposal by Wang Engineering).

Item 20. Master Plan Report.

- Master Plan Report. Tollway has requested that the Master Plan Report be combined into one corridor wide report. Additional effort will be required to merge the report from a standalone document, as well as additional coordination with the DCM and other DSEs.
- Value Management Study (VMS) Participation. The Tollway requested participation
 and collaboration in a VMS team, and provide comment and input as necessary. A
 presentation was developed to provide the team an overview of the project design details.
 Additional effort to review and study alternatives presented and provide a disposition to
 comments.

Item 21. Master Plan Presentation.

- Incorporation of Mainline Elements. The draft Master Plan presentation was modified
 to incorporate the mainline portion in addition to the 4222 study limits. The change in
 character or complexity of work includes additional coordination effort with Tollway/DCM
 staff, development of presentation material and preparation efforts relating to the mainline
 profile and box culvert analysis and design deviations.
- Presentation for Advancement of Concept Plans. A request to advance the concept plans independently from the mainline corridor schedule was requested, such that the 4222 project schedule will be maintained due to long-lead time coordination associated with the railroad.

Item 22. Conceptual Design Plans.

- Concept Reports. The scope does not include a Concept Report, as it was anticipated the Master Plan Report would suffice in addition to development of Concept Level Plan details. The development of a separate Concept Report is required.
- Village of Western Springs requested the Tollway to investigate lowering the invert of the cross culvert under the mainline on the north side of the railroad. Several alternatives were investigated, including installation of a pipe culvert jacked beneath the railroad embankment to assist the Village to alleviate the outfall elevation which is restricted by the Flagg Creek culvert elevation. This new pipe will allow the Village to reroute storm sewer and allow continuation to separate their combined sewer/storm water facilities. Study includes alternatives to route the pipe, invert elevation and potential outfall locations. Items of work include coordination meetings, investigation and exhibit, railroad coordination and permit.

II. PHASE II ENGINEERING

Burlington Northern Santa Fe (BNSF) Railroad Bridge Reconstruction (M.P. 26.6)

BNSF RR Bridge Reconstruction Contract:

Item23. Plan Sheets.

- Additional Embankment Stabilization. As a result of the additional geotechnical investigation, unsuitable soils exist (peat material) beneath the proposed temporary embankment supporting the railroad shoofly tracks. Ground improvements are necessary to mitigate settlement of the unsuitable material due to the increased embankment loading. Plan and details are required to reinforce the embankment due to the weak soils encountered.
- Additional Plan Effort. Level of effort to complete contract plans is greater than originally anticipated for the progress schedule, railroad staging, and railroad cross sections.

- **Development of 3D Plan Deliverables**. (New Item). The Illinois Tollway is requesting RR-14-4222 to assist in the implementation of 3-D engineered modeling including earthwork, paving operations, utilities, and structures. Additional effort will be required to provide a new format for the Contract deliverables.
- Incorporate 4223 Mainline Elements. Incorporate mainline design plans into Construction Contract 4222 for elements adjacent to pierce park and mainline cross culvert.
- Local Agency Utility Relocation Plans. The Village of Western Springs existing watermain and storm sewer facilities are located within proposed temporary easements requested by the Tollway to complete this project. From coordination with the Village, access to these facilities will be required throughout construction. Providing access results in additional retaining wall requirements which increases costs drastically. Therefore, the relocation for portions of their existing facility beneath Hillgrove Avenue is required. Likewise, existing brick storm sewer existing within proposed temporary easements within the Village of Hinsdale. After coordination with the Village, the temporary embankment loads that are proposed over the existing facilities are greater than the pipe can support, therefore replacement of the bridge sewer with concrete pipe is required.
- Village of Western Springs Generator at Well. The Village of Western Springs Well is
 within the vicinity of the project and they have requested a power generator be installed
 as a back-up to operate the well pump in case of a power failure. Additional plan details
 and design is required for this work.

Item 29. DCM Coordination. Additional submittal is required for DCM review prior to submittal of contract documents to the Tollway. Additional coordination and disposition of comments is required.

Item 31. Permit Application Submittals

- IEPA Watermain Relocation Permit Application. The proposed watermain relocation in the Village of Western Springs requires an IEPA permit application package for the relocation work.
- Special Waste Assessment Review. A Preliminary Site Investigation (PSI) will be performed based on the need for evaluation of two areas of Recognized Environmental Concern (REC) within the project limits. Review of the PSI documentation and further special waste processing and coordination will be evaluated.
- 42" Combined Sewer Reconstruction in Village of Hinsdale. Replacement of the existing 42" brick sewer with RCP located in Veeck Park requires local permits, including a permit from the Metropolitan Water Reclamation District of Greater Chicago (MWRD).
- Engine Generator for Village of Western Springs Well #4. The Village of Western Springs requested a standby engine generator and automatic transfer switch to supply standby electrical service to an existing municipal potable water well #4 be in place during construction in order to minimize risks of a power outage which would disrupt the Village's water supply. Local building permit from the Village will be applied for and incorporated into the specifications.

III. GENERAL PROJECT ACTIVITIES

Item 33. Coordination.

• The level of effort regarding coordination between the railroad, local agency coordination, and the adjacent mainline DSE is a greater than anticipated. Additional meetings include recurring railroad coordination meetings, monthly DSE coordination meetings, project status book meetings, and additional meetings with local agencies are a result of the CTS project extension schedule. A summary of meetings including the original versus the anticipated meetings required for this contract is shown in the following table. Note the total meeting amount is anticipated to occur at the contract completion.

Meeting Description	Number of Meetings included in Contract	Anticipated Total at Contract Completion	Additional Meetings included in Supplement 1	Comments
Railroad Coordination	12	40	28	23 Coord Meetings held thru Feb 2018. Additional Meetings from March 2018 thru May 2019 + 3 other meetings.
Monthly DSE Coord	24	38	14	Additional Meetings to May 2019
Project Status Book	24	39	15	Additional Meetings to May 2019
Local Agencies	8	21	13	Meeting with Village of Hinsdale, Western Springs, and Wester Springs Park District, FCWRD, and MWRD. To Date, 11 meetings held and two additional meeting with each entity is anticipated (+10).

- Railroad Investigation. Additional effort is to comply with requests from the railroad, including:
 - Investigation of embankment limits due to a fourth superstructure beyond the bridge.
 - Site access and railroad work zone requirements requiring additional investigation, grading modifications, and temporary retaining walls. Grading modifications include development of earth ramps providing access at each quadrant of the structure, mainline access, vehicle storage, and work platforms for track cut overs.
 - o Investigation for BNSF access from Burlington Avenue.

- Additional investigation and details required for railroad inspection access and platform to be constructed integrally with the bridge substructure. Also requires investigation and plan details or stair access from track level to abutment seat level.
- Study developed for a two stage, two track construction staging to eliminate the need for a shoo-fly structure.

Utility Coordination.

- The Village of Western Springs water well is located near the project improvements. Additional meetings and coordination is required to comply with IEPA requirements.
- The Village of Western Springs requested vibration monitoring be installed within the project limits because of the proposed pile driving work. Additional special provisions and plan details will be required for this work.
- Review of S.U.E. data provided by DUR DSE. Several attempts to locate existing FCWRD and MWRD facilities were made within the project area requiring additional coordination and review of field data.
- o NOI forms were submitted and need to be revised to match new format.
- Additional utility coordination and development of DUR are needed due to project extension.

Other Coordination

- Coordination with local municipalities to review intergovernmental agreements.
 Additional effort to define scope of work and preparation of construction cost estimates and construction durations for the Village of Hinsdale, Village of Western Springs and the Western Springs Park District.
- Design and construction assessment as alternative to right-of-way acquisition.
 Study and assessment may include:
 - Analysis of design impacts;
 - Constructability assessment, contractor access, and schedule impacts;
 - Modified drainage and grading plan:
 - Preliminary retaining wall design and plans (TS&L level) (2 new walls and 2 modified walls);
 - Meetings and coordination with the BNSF RR and local agencies;
- **Item 36.** Quality Assurance/Quality Control. Additional quality assurance and quality control as a result of additional plan development and project extension.
- **Item 37.** Administration/Management. Additional project management and planning is required as a result of the project extension.

Contract No. RR-14-4222
Wang Engineering, Inc.
SCOPE OF SERVICES

A. Special Waste investigation including PSI Report

Wang Engineering, Inc. (Wang) is pleased to present our proposal to provide (1) a Preliminary Site Investigation (PSI), including field soil sampling and laboratory testing services, and environmentally characterize soils for proper disposal during the construction of the BNSF railroad improvements; (2) vibration monitoring during construction plan and specification; and (3) a Groundwater Protection Needs Assessment (GPNA) for construction activities in the vicinity of Western Spring's Well No. 4. . The following describes our proposed scope of work, cost estimate, and assumptions made in developing the cost estimate.

FIELD WORK COORDINATION, PERMITTING, AND INSURANCE

The execution of the PSI subsurface investigation, vibration monitoring, and GPNA programs will call for utility clearance coordination with JULIE, Tollway, BNSF, Metra, and the Villages of Hinsdale and Western Springs, as well as permitting and insurance agreements.

ANTICIPATED SCOPE OF WORK

We understand the bridge will be lengthened and new abutments constructed behind the existing ones; railroad embankments will be widened; and a new detention basin will be constructed. In this process, excavations, and embankment benching will generate soil waste. Wang will develop environmental sampling plans, coordinate and carr out soil sampling and testing, evaluate soil analytical test results, and prepare a PSI technical memorandum. Drill shaft installation and pile and sheetpile driving activities may induce ground vibrations that could be detrimental to existing nearby structures. Wang will develop a vibration monitoring plan and specification. The Village of Western Springs requested a comprehensive evaluation of the groundwater protection measures necessary in order to assure the supply of potable water within the 200-foot setback area of their Well No. 4 is not susceptible to contamination due to construction activities. In order to accomplish the above tasks, we propose the following:

PSI Soil Sampling Specifications and Investigation: On preparing this proposal, Wang used a sampling frequency of on sample per about 1,000 cubic yards of excavation. The borings will drilled to the anticipated excavation depths presented in the DSE cross-sections. We propose drilling eighteen 4- to 16-foot deep borings at the locations shown in the attached plan. Overall, we will drill and sample 224 feet of soil. Wang will obtain the necessary permits, clear utilities, coordinate railroad flagging, perform field screening activities, and characterize soil samples. A field geologist will monitor drilling activities, maintain daily field notes, log the soil boring, as well as receive, and classify soils and prepare soil samples for laboratory analysis. The field geologist will inspect each soil sample for staining, odor, or othe signs of contamination, and will screen samples for total organic vapors using a calibrated photo-ionization detector (PID). The as-drilled boring locations will be surveyed with a mapping-grade GPS. Soil samples will be selected for analytical testing and evaluation. The collection of the analytical test samples will be performed in accordance with SW 846 Method 5035. Soil samples will be sent with proper chain of custody and required laboratory tests to an IEPA accredited environmental laboratory.

PSI Analytical Investigation: Based on the Illinois State Toll Highway Authority (Tollway) Guidelines for Management o Clean Construction or Demolition Debris (CCDD), Design Bulletin No. 13-01 dated January 18, 2013, soil samples will be tested for contaminants of concern (COC) specific for each area. Soil samples within the PIP area will be analyzed for the following parameters:

Contract No. RR-14-4222 Wang Engineering, Inc. SCOPE OF SERVICES

BTEX;

MTBE;

Polinuclear Aromatic Compounds (PNAs);

Total Lead; and

Synthetic Precipitation Leaching Procedure (SPLP) if Lead exceeds the MAC limits.

Soil samples collected within the detention basin area will be analyzed for

Volatile Organic Compounds (VOCs);

Semi VOCs 0;

Total Metals (8); and

SPLP for the metals exceeding the MAC limits.

Soil samples collected within the remaining areas along the railroad will be analyzed for

Herbicides and Pesticides;

Total Metals (8); and

SPLP for the metals exceeding the MAC limits.

Besides the special environmental testing specific for each area, all the soil samples will be analyzed for pH.

PSI Technical Memorandum: Wang's report will summarize sampling and testing procedures and results and provide recommendations for the proper handling of excavated soils. If the investigation reveals the presence of soils that necessitate special handling and disposal, we will provide a Soil Management Plan. The report will include boring logs and a boring location plan. As needed Wang will draft and/or sign EPA Forms 662/663. A draft technical memorandum will be submitted for review. The final version will address the reviewer's comments.

Vibration Monitoring: Not inlouded in our scope of work.

GPNA Report: The GPNA will delineate a zone of interest to the southwest of the well; compile and assess existing information; develop the geologic framework; develop aquifer characteristics; delineate groundwater recharge areas and capture zones; evaluate results and summarize the investigation and data in a report; address questions or comments from stakeholders, which may include IEPA, Western Springs or others. We assume two meetings with the Village and regulatory persons and/or their consultants will be required.

Estimated Cost: Wang proposes to provide the above tasks on time and expense basis according to the attached cost estimate. The cost estimate was prepared assuming the following conditions:

Traffic control will not be required;

Railroad permiting and flagging will be required; and

Related activities to the soil disposal in state regulated landfills, if necessary, are not included on our scope of work.

Schedule: We anticipate the PSI field investigation will be completed in eight working days. Laboratory testing will be completed in three weeks. A draft report will be submitted for review within two weeks after completion of laboratory testing. The final report will be submitted within one week after receiving comments on the draft version. Vibration monitoring plan and specification will be delivered within three weeks after notince to proceed. The GPNA will require

Contract No. RR-14-4222

Wang Engineering, Inc.

SCOPE OF SERVICES

testing. The final report will be submitted within one week after receiving comments on the draft version. Vibration monitoring plan and specification will be delivered within three weeks after notince to proceed. The GPNA will require about two months to complete and three months to receive and address IEPA comments.

B. Peat Investigation and Ground Improvement Analysis

The subsurface investigation for Contract 4222 revealed soft, compressible organic soils on the north and south sides of the BNSF railroad embankment, east of I-294. We drilled vertical borings from the toe area of the existing rail embankment, between Stations 104+50 and 113+00. The south side of the embankment consists of Burlington Avenue and parking spaces for the Western Springs Metra Station, while the north side of the embankment contains the Western Springs Public Works facility. A 4-foot tall retaining wall runs along the south toe beginning at Station 111+00. The existing slope is graded at 1:1.7 (V:H) and is vegetated. The existing ground surface on both sides of the embankment lies at 644 to 647 feet elevation.

SCOPE OF WORK

The proposed improvements through this area include the construction of large embankments and retaining walls to support temporary widening during construction. A shoofly bridge will be constructed south of the existing mainline structure to carry rail traffic during the mainline reconstruction. The embankment will have a maximum height of about 25 to 30 feet and will be widened out 60 to 70 feet at the base; a surcharge loading equivalent to the Cooper E-90 load will also be applied. Retaining walls will be constructed on both sides of the embankment. A permanent retaining wall along the north side will run between Stations 103+00 and 106+00 with a maximum height of about 12 feet. Along the south embankment, a temporary wall with a maximum height of 24 feet will be constructed between Station 111+00 and 115+00, while a permanent retaining wall will then be constructed between 111+00 and 116+00.

Immediately beneath 5 to 7 feet of fill, the borings encountered 2 to 3-foot thick layer of very soft, black and brown silt to silty loam. At an elevation of 640 feet the borings advanced through 5 to 10 feet of very soft, black and dark brown, non-fibrous peat and muck. The muck and peat is underlain by an additional 5 to 15 feet of soft to medium stiff, organic silty clay loam. These soils will undergo significant deformation during placement and service of the temporary embankment widening. Ground improvement is the most economical solution to mitigate settlement. Additional field investigation is to map the lateral and vertical extent of the compressible soils and define their strength and deformation parameters.

We recommend drilling and sampling 740 feet of soil in 21 additional soil borings between Stations 105+00 and 113+00. The placement of these borings along the embankment will vary based on field conditions, but they will be positioned as close as possible to the toe of the existing embankment. A laboratory testing program will be performed to further assess the strength and deformation properties of the materials.

The vertical and lateral extent of the compressible soils along the toe and potentially beneath the existing embankment will have significant cost implications for construction. If the compressible soils extend beneath the existing embankment, these areas will require improvement and a construction plan will need to be prepared on the necessary shoring and improvement techniques required. The additional information provided from the proposed investigation will allow Wang to make an accurate feasibility assessment of each potential mitigation alternative and provide a much clearer picture on the depth and total area of improvement needed, level of improvement effort, and total cost implication to the project. To accomplish these objectives, Wang will complete the following tasks:

Contract No. RR-14-4222 Wang Engineering, Inc. SCOPE OF SERVICES

implication to the project. To accomplish these objectives, Wang will complete the following tasks:

Geotechnical Drilling Services — Wang will provide equipment, labor, and associated materials to drill and sample ten 30-foot deep SPT borings along the toe of the existing embankment. The soils will be sampled at 2.5-foot intervals to the termination depths will a combination of split-barrel samplers in accordance with AASHTO T 206, "*Penetration Test and Split-Barrel Sampling of Soils*" and Shelby tubes in accordance with T 207, "*Thin-tube Sampling of Soils*." Moreover, to investigate the prevalence and depth of compressible soil deposits beneath the existing embankment we proposed to drilled and sample eleven 40-foot deep, directional Geoprobe® borings from the toe of the existing embankment.

Field Supervision — Prior to drilling, Wang will locate the boring locations in the field and clear utilities through the JULIE one-call system and by contacting the BNSF. A field engineer will monitor drilling activities, maintain daily field notes and boring logs, as well as receive, classify, and prepare soil samples for laboratory analysis. The field engineer will also monitor the groundwater level when encountered. Soil samples will be classified according to the Illinois Textural (IDH) Classification System. As-drilled boring locations will be surveyed by other team members.

Laboratory Testing — Upon completion of the drilling phase, all soil samples will be transported to our in-house laboratory. The soil testing program will include natural moisture content (T 265) determination, LOI (T 267), one-dimensional consolidation (T 216), and consolidated-undrained triaxial (T 297) testing. We recommend performing two, consolidated-undrained triaxial tests and four, one-dimensional consolidation tests on the Shelby tube samples.

Engineering Analysis and Recommendations — The results of the investigation, along with details about the proposed ground improvement options will be included in a Design Memorandum. For ground improvement, we will discuss the feasibility of each option, the effect of each potential improvement on the strength and deformability of the proposed embankments, and provide a recommendation for the most appropriate and cost effective alternative.

The area surrounding the existing embankment has a unique and complicated subsurface condition, both from the natural deposits as well as from previous, generally undocumented construction activities. Several options for improvement will need to be explored to ensure a sound, constructible solution is designed. Boulders and cobbles were not encountered along the eastern embankment investigation in Phase 1; however, if the material closer to the embankment was removed and replaced with large-fraction fill materials, the improvement and design will need to take this into account. The memorandum will provide detailed soil parameters and improvement geometries (depth and plan area) for the applicable technologies, as well as a rough cost estimate for the improvement chosen as most effective. The design will require settlement and global stability analyses at a number of stations, as part of the widening is to be supported by embankment, while the south portion along Burlington Avenue is currently shown supported by a retaining wall.

SCHEDULING

Wang will start the project expediently upon prior authorization to proceed. We anticipate that boring layout and utility clearance will require 3 or 4 days to coordinate. Approximately 15 days will be required to complete the drilling phase of the project. The laboratory testing program will begin shortly following the completion of drilling and we will coordinate with Bowman. Barrett & Associates on a schedule for submittal of the draft report.

Contract No. RR-14-4222
Wang Engineering, Inc.
SCOPE OF SERVICES

COST ESTIMATE

Wang proposes to provide the above tasks on a time and material basis in accordance with the attached cost estimate. This cost estimate was prepared assuming the following conditions:

Drilling unit costs are considered prevailing rate under the Prevailing Wage Act (820 ILCS 130/0.01);

The boring locations are accessible to an ATV- or truck-mounted drill rig;

No hazardous materials are encountered.

Wang Engineering, Inc. appreciates the opportunity to present this proposal and we look forward to working with Bowman, Barrett & Associates on this project. If you have questions, or if you require additional information, please contact us at (630) 953-9928.

EXHIBIT G

Contract No. RR-14-4222

Wang Engineering, Inc.

CURRENT OBLIGATIONS FOR PROJECT

Route & Job No.	Work Scope & Description of Project	Fee (Including all Supplementals and Extra Work Orders)	Fee Remaining To Be Earned	Estimated Date of Completion
D-91-011-14 PTB 169-19 Wang Strand	Geotechnical Engineering Services	TBD	TBD	Dec-19
D-91-020-16 PTB 177-04 AES	Geotechnical Engineering Services	TBD	TBD	Oct-20
D-91-023-14 PTB 169-18 Wang 168-05-01	Geotechnical Engineering Services	\$520,193	\$456,379	Dec-18
D-91-101-15 PTB 174-07 Wang 811-04-00	Geotechnical Engineering Services	\$23,288	\$23,288	Feb-18
D-91-130-12 PTB 162-10 Wang 401-05-xx	Geotechnical Engineering Services	TBD	TBD	Dec-18
D-91-177-13 PTB 167-14 WBK	Geotechnical Engineering Services	TBD	TBD	Dec-18
D-91-227-13 PTB 163-001 Wang 1100-04-01	Geotechnical Engineering Services	\$2,226,189	\$35,011	Dec-20
D-91-459-14 PTB 173-10 Wang 491-02-00	Geotechnical Engineering Services	113863	\$0	Dec-18
P-91-224-15 PTB 175-11 Wang 255-32-00	Geotechnical Engineering Services	TBD	TBD	Dec-18
P-91-225-15 PTB 175-05 Wang 630-10-00	Geotechnical Engineering Services	TBD	TBD	Dec-18
P-91-320-13 PTB 168-09 Ciorba	Geotechnical Engineering Services	TBD	TBD	Dec-19
P-91-495-12 PTB 165-06 Wang 708-06-00	Geotechnical Engineering Services	TBD	TBD	Dec-18
P-92-022-15/D-92-022-15 PTB 176-11 Wang 751-07-01	Geotechnical Engineering Services	\$215,213	\$209,111	Dec-18
P-92-097-10 PTB 157-25 WBK	Geotechnical Engineering Services	TBD	TBD	Dec-19
7-94-004-15 and D-94-036- 15 PTB 176-15 Wang 707-21-01	Geotechnical Engineering Services	TBD	TBD	Oct-20
P-94-018-13 / D-4-018-13 PTB 169-29 Wang 414-09-01	Geotechnical Engineering Services	\$64,865	\$56,342	Dec-18

RR-16-4265 PSB 16-3/001 Wang 1100-09-01	Geotechnical Engineering Services	\$575,680	309,502	May-21
I-17-4297 PSB 17-3/006 Wang 195-14-01	Geotechnical Engineering Services	\$319,962	93,075	Mar-19
RR-14-4223 PSB 14-3/003 Wang 790-83-01	Geotechnical Engineering Services	\$1,754,549	52,490	Mar-17
I-15-4658 PSB 15-2/007 Wang 255-31-01	Geotechnical Engineering Services	\$1,249,286	\$1,220,249	Dec-17
I-11-4014 PSB 11-3/001 Wang 450-03-00	Geotechnical Engineering Services	\$2,258,282	\$273,018	Dec-18
I-17-4675 PSB 17-2/002 Wang 393-15-01	Geotechnical Engineering Services	\$55,860	\$1,579	Sep-20
RR-14-4222 PSB 14-3/002 Wang 314-19-00	Geotechnical Engineering Services	\$466,443	\$44,437	Aug-19
I-13-4622 PSB 13-4/001 Wang 630-09-00	Geotechnical Engineering Services	\$2,950,000	\$1,563,147	Jan-20
RR-17-4277 PSB 17-2/010 Wang 493-02-01	Geotechnical Engineering Services	\$43,515	\$74	Sep-20
RR-16-4276 PSB 17-2/008 Wang 213-04-00	Geotechnical Engineering Services	\$100,000	\$83,589	Sep-19
RR-16-4275 PSB 12-2/007 Wang 775-19-01	Geotechnical Engineering Services	\$1,170,577	\$544,143	Jul-18

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Contract	No.:

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Wang Engineering, Inc.

EXHIBIT H - SERVICES BY OTHERS

Exhibits A-G must be submitted for each subconsultant listed below. If a subconsultant requires "Services by Others", they must include Exhibit H and attach Exhibits A-G for second tier subconsultants.

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Wang Engineering, Inc.

EXHIBIT H - SERVICES BY OTHERS (continued)

Exhibits A-G must be submitted for each subconsultant listed below. If a subconsultant requires "Services by Others", they must include Exhibit H and attach Exhibits A-G for second tier subconsultants.

OTHER SUBCONSULTANTS	(NOT	DBE/MBE/WBE)	
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TOTAL Allowable Fee Non-DBE/MBE/WBE Subconsultants: \$