RESOLUTION NO. 21397

Background

It is necessary and in the best interest of The Illinois State Toll Highway Authority (the "Tollway") to obtain Design Services for Roadway Reconstruction and Widening, on the Tri-State Tollway (I-294) from Milepost 30.5 (Roosevelt Road) to Milepost 32.3 (St. Charles Road), on Contract No. I-17-4300. Jacobs Engineering Group, Inc. has submitted a proposal to provide the services for an upper limit of compensation not to exceed $38,500,000.00. The proposal is for professional services and the services were procured pursuant to 30 ILCS 500/30-15 of the Illinois Procurement Code.

Resolution

The Chief Engineering Officer is authorized to negotiate an agreement with Jacobs Engineering Group, Inc., to obtain Design Services, for Contract No. I-17-4300 with an upper limit of compensation not to exceed $38,500,000.00, subject to review and 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.

[redacted]

Approved by: ______________________
Chairman

December 6, 2017

Mr. Brad Simmons, General Manager
Jacobs Engineering Group, Inc.
525 West Monroe Street, Suite 1600
Chicago, IL 60661

Re: Contract I-17-4300
Tri-State Tollway, Roadway Reconstruction
Roosevelt Road (Mile Post 30.5) to
St. Charles Road (Mile Post 32.3)
Design Section Engineering Services

NOTICE TO PROCEED

Dear Mr. Simmons:

We are pleased to notify you that the Tollway's Board of Directors has approved your proposal dated October 10, 2017, for Design Section Engineering Services for Contract I-17-4300. You are hereby authorized to commence with the work as of December 6, 2017, and as defined in Exhibit "F" Scope of Work contained in your proposal. A duplicate original of the contract will follow shortly by mail.

In advance of your first billing, the prime and subconsultants (if any) must submit a certified payroll with a signed affidavit for all employees that are listed on the Exhibit C-3 in your contract. The certified payroll should have an effective date after, but within three weeks the effective date of this Notice to Proceed. This document may be submitted by U.S. Mail, other delivery services or by e-mail. Hard copies should be addressed to the attention of **Disbursement Control Supervisor**. The envelope containing the document should be clearly marked "Certified Payroll". The required Certified Payroll may also be delivered electronically to the following address: accountspayable@getipass.com. Please send either hard copy or electronic copy, but not both. We request the certified payroll in advance so that upon receipt of your first invoice, any associated issues regarding payroll have an opportunity to be resolved.

This contract is subject to the Illinois Procurement Code 30 ILCS 500. This code requires the General Contractor to submit certification/disclosure forms from the prime contractor and subcontractors of **all** tiers, known at the time of bid or offer whose contract value exceeds $50,000. Failure to submit certification/disclosures in an acceptable format could result in a delay in notice to proceed or a conditional notice to proceed. Contractors who have not submitted certifications/disclosures in an acceptable format will not be allowed to start work.

Upon request, a copy of the sub-contract agreement must be submitted within fifteen (15) days after execution of the contract, or after execution of the sub-contract, whichever is later, for those sub-contracts with an annual value of more than $50,000.

ILLINOIS TOLLWAY
2700 Ogden Avenue | Downers Grove, IL 60515 | p. 630.241.6800 | TTY 630.241.6988
www.illinoistollway.com

In accordance with Design Section Engineer's Manual, Section 7.0 – Quality Assurance, we are requesting submittal of your Consultant Quality Plan, via Tollway's Web-Based Project Management System, within 14 days of receiving this Notice to Proceed, for approval by the Chief Engineering Officer.

Please contact Mike Wicks at 630-241-6800 extension 3927 for further information.

Sincerely,

[redacted]

Paul D. Kovacs, P.E.
Chief Engineering Officer
PDK: cmhg

cc: Greg Stukel
Mike Wicks
John Donato
Contract Services
Program Controls
Lane Closures
Dorothy Jablonski
Sue Biggs
Victoria Santiago

File: 02.4300.01.04 LT_Tollway_PDK_4300Jacobs-NTP_12062017

1-17-4300

1.4.5 Item 5. I-17-4300, Tri-State Tollway, Roadway Reconstruction, Roosevelt Road (M.P. 30.5) to St Charles Road (M.P. 32.3)

This project has a 24% D/M/WBE participation goal and 2% VOS/SDVOSBE participation goal.

Phase II engineering services are required for the preparation of contract plans and specifications for the proposed roadway reconstruction and improvements as determined by the Tollway, including, but not limited to, reconstruction of the Tri State Tollway between 95th Street (M.P. 17.8) and Balmoral Avenue (M.P. 40.0). This project is for the limits of the Tri-State Tollway between Roosevelt Road (M.P. 30.5) to St Charles Road (M.P. 32.3). The Tollway is finalizing design and construction limits; therefore the Tollway may modify project limits and scope at the time of negotiations.

This contract may develop up to six construction packages as follows:

1. Mainline contract for I-294 / I-290 / I-88 interchange
2. I-294 / I-290 / I-88 Interchange – NB Ramp / CD road and bridge construction.
3. I-294 / I-290 / I-88 interchange – SB I-294 Ramps F&H and EB I-290 Ramp G road and bridge construction.
4. I-294 / I-290 / I-88 interchange – St Charles Road / I-290 Improvements from Electric Avenue to Lake Street
5. I-294 / I-290 / I-88 interchange – Rehabilitation of NB Ramp / CD road bridge over I-88 and underpass structure under I-88.

The work generally encompasses roadway and bridge design and shall include but not be limited to the following:

1. Roadway design.
2. Reconstruction / rehabilitation of bridges.
3. New drainage structures and modification of existing drainage system.
4. Provide erosion control for all construction zones.
5. Provide design of appropriate landscape and soil erosion/sedimentation control measures as necessary in accordance with the Tollway's Environmental Studies manual.
6. Provide pavement markings, delineators and signage for the contract limits.
7. Provide barrier warrant analysis for all necessary locations and installation of guardrail, anchors and terminals to conform to the current AASHTO Guidelines and Illinois Tollway criteria.
8. Update roadway lighting as required.
9. Provide maintenance of traffic plans including those for impacts to local facilities.
10. Protection and / or relocation of utilities.
11. All other appurtenant and miscellaneous items.

The following structures are included in this project:

- Bridges 205/ 206: IL 38 Roosevelt Road: two mainline structures
- Bridges 207/ 208: Ramp A: two ramp structures
- Bridges 209/ 210/ 209CD: E-W Tollway: three mainline structures
- Bridges 211/ 211CD: Butterfield Road: two mainline structures
- Bridges 212/ 212CD: Butterfield Road: two mainline structures
- Bridges 219/219CD/220: CN Railroad: four mainline structures
- Bridges 221CD/221/222/222CD: I-290: three mainline structures
- Bridges 225/ 226: Electric Ave.: two mainline structures
- Bridge 223: Ramp H over I-290: one mainline structure
- Bridge 227: St Charles Road over I-294: one crossroad structure
- Bridge 016-1134: EB I-290 over Electric Avenue

- Bridge 016-1135: WB I-290 over Electric Avenue
- Bridge 016-1136: St. Charles over I-290
- Bridge 210T: I-88 over Ramps E and D

Construction estimate: Category F.

Firms must be prequalified by IDOT in the following categories:

Highways (Freeways)
Structures (Highway Bridges: Complex)
Structures (Railroad Bridges)
Special Plans (Lighting: Complex)
Special Services (Surveying)
Special Services (Subsurface Utility Engineering)

The Tollway will allow a prime firm to meet the prequalifications for Structures (Railroad Bridges), Special Plans (Lighting: Complex), Special Services (Surveying) and Special Services (Subsurface Utility Engineering) through a subconsultant.

Key personnel listed in Exhibit A for this project must include:
- The person who will assume the duties of the Project Manager for all aspects of the work documents (must be an Illinois Licensed Professional Engineer).
- The person who will perform the duties of the Project Engineer, that individual in charge who is directly involved in the development of the contract documents (must be an Illinois Licensed Professional Engineer).
- The person who will be responsible for roadway design related issues (must be an Illinois Licensed Professional Engineer).
- The person who will be responsible for structural design related issues (must be an Illinois Licensed Structural Engineer).
- The person(s) who will perform the QC/QA review work of all milestone submittals, who must be an Illinois Licensed Professional Engineer for roadway elements and an Illinois Licensed Structural Engineer for structural elements.

Schedule: Design for this project is scheduled to start in 2017. Construction of this project is not scheduled.

The Consultant must have MicroStation capabilities. All final documents shall be submitted in hard copy and electronic format and follow the CADD STANDARDS Manual.

This project will be managed through the Tollway's web-based project management system. The Consultant will be required to participate in these procedures and will receive training on the system.

The Tollway will furnish the Consultant with guidelines for the Consultant's Quality Program (CQP). The CQP is due fourteen (14) days after Notice to Proceed.

The Consultant who is selected for this project will be notified and scheduled to attend a scope briefing at the Tollway Central Administration office building in Downers Grove.

PSB 17-3 SOI Project Team: Prime and Sub-Consultant REQUIRED INFORMATION

Note: This instruction will disappear when all data is complete

Item # 5 I-17-4300 Tri-State Tollway, Roadway Reconstruction, Roosevelt Road (M.P. 30.5) to St Charles Road (M.P. 32.3). Phase II Engineering Services.

Prime Consultant Information		Prime Contact Information (ONLY "1")			Diversity Information				NOTE: Provide only One (1) Person under Key Personnel		ISTHA		IDOT		OTHER	
Prime Consultant Firm Name	Prime FEIN Number	Contact Name (1)	Contact Phone Number (1)	Contact Email (1)	Is Firm a D/M/WBE Yes / No	Does Proposal Contain Mentor Protégé Proposal Yes / No	Percentage Commitment of D/M/WBE on Project, INCLUDING PRIME, IF DBE	Percentage Commitment of VOSB on Project, INCLUDING PRIME, IF VOSB	Key Personnel Project Manager (1)	Key Personnel Project Engineer / Resident Engineer (1)	Total Fee all Projects	Total Fee Remaining all Projects	Total Fee all Projects	Total Fee Remaining all Projects	Total Fee all Projects	Total Fee Remaining all Projects
JACENG	[redacted]	Mohammad Hassan	312.612.7270	mohammad.hassan@jacobs.com	No	Yes	37.00%	3.00%	Matt Hempfer, PE, PTOE	Tom Ives, PE	$ 18,099	$ 4,501	$ 7,504	$ 1,103	$ 7,946	$ 1,412

Sub-Contractor Diversity Information: The below table represents the proposer's draft "Plan to Achieve Diversity Goal." The awarded consultant will finalize this Plan during negotiations based on the negotiated scope of work. The proposer's total DBE goal and proposed subconsultants shall not change, but the work category and percentage of work for each subconsultant may be adjusted, if necessary, during negotiations. NOTE: Review Instructions Tab

Sub-Consultant Information			Sub Contact Information (ONLY "1")				Sub Role and % of Work									Intentionally Left Blank
For Each Sub-Consultant Enter Prime Consultant Firm Name	Sub-Consultant Firm Name	FEIN Number	Provide "1" Project Manager for Sub-Consultant	Role (brief) of Sub-Consultant	Contact Phone Number (1)	Contact Email (1)	Percentage (%) of work to be Performed by Sub-Consultant	IL UCP, City of Chgo or N/A	City of Chicago, Cook County or N/A	City of Chicago, Cook County or N/A	Yes or No	Yes or No	Choose from the dropdown menu below	Male or Female	Yes or No	
								DBE	WBE	MBE	SBA 8(a)	VOSB / SDVOSB	Ethnicity	Gender	M/P	
Jacobs Engineering (	Aqua Vitae Engineering, LL	[redacted]	Gary Paradoski, PE	Erosion & Sediment (	847.239.4512	gparadoski@aqua-vi	3.00%	N/A	N/A	N/A	No	Yes	Caucasian	Male	No	
Jacobs Engineering (	Stanley Consultants, Inc.		Bruce Worthington	Roadway and Structu	773.693.9624	WorthingtonBruce@s	15.00%	N/A	N/A	N/A	No	No	Caucasian	Male	No	
Jacobs Engineering (	ABNA Engineering, Inc.		Abe Adewale	Construction Inspecti	773.881.4788	aadewale@abnacorp	6.00%	N/A	N/A	City of Chicago	No	No	African American	Male	No	
Jacobs Engineering (	Fontas Group		Joseph McKenna	Civil Support	708.235.5250 x. 204	joem@fontasgroup.c	3.00%	N/A	City of Chicago	N/A	No	No	Caucasian	Female	Yes	
Jacobs Engineering (	GSG Consultants, Inc.		Ala Sassila, PhD, PE	Geotechnical Engine	312.733.6262	asassila@gsg-consu	6.00%	IL UCP	N/A	City of Chicago	No	No	Hispanic	Male	No	
Jacobs Engineering (	Primera Engineers, LTD.		Ted Lachus, PE	Roadway/Civil Suppo	312.242.6438	tlachus@primeraeng.	8.00%	N/A	City of Chicago	N/A	No	No	Caucasian	Female	No	
Jacobs Engineering (	SDIENGR Corp.		Olufemi Oladeinde	Drainage & Construc	312.551.9780	ooladeinde@sdiengr.	6.00%	IL UCP	N/A	City of Chicago	Yes	No	African American	Male	No	
Jacobs Engineering (	TERRA Engineering. LTD.		Jamil Bou-Saab, PE	Structure Support	312.467.0123	jbousaab@terraengir	6.00%	N/A	City of Chicago	N/A	No	No	Caucasian	Female	No	
Jacobs Engineering (	DB Sterlin Consultants, Inc.		Anthony Wiedmann,	Subsurface Utility En	312.857.1006	awiedmann@dbsterli	2.00%	N/A	N/A	City of Chicago	No	No	African American	Female	No	

Vendor Information

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HELP

1-17-4300

Vendor Information

Business Name	**ABNA Of Illinois, Inc., DBA ABNA**
Owner	**Rashid O Adewale**
Address > Map This Address	**9901 South Western Avenue, Suite 001 Chicago, IL 60643-1800**
Phone	**773-881-4788 Ext. 1101**
Fax	**773-239-3728**
Email	**abna1@abnacorp.com**

Certification Information

Certifying Agency	**City of Chicago**
Certification Type	**MBE - Minority Business Enterprise**
Certification Date	**7/5/2017**
Renewal Date	**7/31/2018**
Certified Business Description	**NAICS 541330 Engineering services NAICS 541340 Drafting services NAICS 541360 Geophysical mapping services NAICS 541360 Geophysical surveying services NAICS 541370 Surveying and mapping services (except geophysical) NAICS 541380 Geotechnical testing laboratories or services**

Commodity Codes

Code	Description
NAICS 541330	Engineering services
NAICS 541340	Drafting services
NAICS 541360	Geophysical mapping services
NAICS 541360	Geophysical surveying services
NAICS 541370	Surveying and mapping services (except geophysical)
NAICS 541380	Geotechnical testing laboratories or services

Additional Information

Service-Disabled Veteran Business	**No**

Customer Support Print This Page

Vendor Information

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HELP

1-17-4300

Vendor Information

Business Name	**D B Sterlin Consultants, Inc., DBA N/A**
Owner	**Reynold Sterlin**
Address > Map This Address	**123 N. Wacker Dr., Ste. 2000 Chicago, IL 60606**
Phone	**312-857-1006**
Fax	**312-857-1056**
Email	**rjeune@dbsterlin.com**
Website	**http://www.dbsterlin.com**

Certification Information

Certifying Agency	**City of Chicago**
Certification Type	**MBE - Minority Business Enterprise**
Certification Date	**2/28/2017**
Renewal Date	**4/15/2018**
Certified Business Description	**NAICS 541330 Engineering services NAICS 541370 Surveying and mapping services (except geophysical) NAICS 541611 Administrative Management and General Management Consulting Services NAICS 541620 Environmental Consulting Services NAICS 237310 Construction management, highway, road, street and bridge NAICS 237990 Construction management, dam NAICS 237990 Construction management, marine structure NAICS 237990 Construction management , mass transit NAICS 237990 Construction management, outdoor recreation facility NAICS 237990 Construction management, tunnel**

Commodity Codes

Code	Description
NAICS 237310	Construction management, highway, road, street and bridge
NAICS 237990	Construction management, dam
NAICS 237990	Construction management, marine structure
NAICS 237990	Construction management, mass transit
NAICS 237990	Construction management, outdoor recreation facility
NAICS 237990	Construction management, tunnel
NAICS 541330	Engineering services
NAICS 541370	Surveying and Mapping (except Geophysical) Services
NAICS 541611	Administrative Management and General Management Consulting Services
NAICS 541620	Environmental consulting services

Additional Information

Service-Disabled Veteran Business	**No**

Vendor Information

CLOSE WINDOW

HELP

1-17-4300

Vendor Information

Business Name	**Fontas Group, Inc.**
Owner	**Ms. Julie Hayes**
Address > Map This Address	**1160 Hamilton Ave** **University Park, IL 60484**
Phone	**708-235-5250**
Fax	**708-235-5233**
Email	**julieh@fontasgroup.com**
Website	**www.fontasgroup.com**

Certification Information

Certifying Agency	**City of Chicago**
Certification Type	**WBE - Women Business Enterprise**
Certification Date	**3/1/2017**
Renewal Date	**2/15/2018**
Certified Business Description	**NAICS 541611 General management consulting services**

Commodity Codes

Code	Description
NAICS 541611	General management consulting services

Additional Information

Service-Disabled Veteran Business	**No**

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Vendor Information

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HELP

1-17-4300

Vendor Information

Business Name	GSG Consultants, Inc.
Owner	Mr. Guillermo Garcia
Address > Map This Address	855 West Adams Street Suite 200 Chicago, IL 60607-3019
Phone	312-733-6262
Fax	312-733-5612
Email	ggarcia@gsg-consultants.com
Website	http://www.gsg-consultants.com

Certification Information

Certifying Agency	City of Chicago
Certification Type	MBE - Minority Business Enterprise
Certification Date	12/21/2016
Renewal Date	12/15/2017
Certified Business Description	Lead Abatement Services;Lead and Asbestos Inspection Services;Air Flow Meters;Environmental Consulting

Commodity Codes

Code	Description
NAICS 236220	Construction management, commercial and institutional building
NAICS 237310	Construction management, highway, road, street and bridge
NAICS 238910	Soil test drilling
NAICS 541330	Civil engineering services
NAICS 541380	Geotechnical testing laboratories or services
NAICS 541620	Environmental consulting services
NAICS 541620	Sanitation consulting services
NAICS 541690	Safety consulting services

Additional Information

Service-Disabled Veteran Business	No

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Vendor Information

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HELP

1-17-4300

Vendor Information

Business Name	**Primera Engineers, Ltd.**
Owner	**Ms Erin Inman**
Address > Map This Address	**100 S. WACKER DR., SUITE 700 CHICAGO, IL 60606**
Phone	**312-606-0910**
Fax	**312-606-0415**
Email	**einman@primeraeng.com**
Website	**http://www.PrimeraEng.com**

Certification Information

Certifying Agency	**City of Chicago**
Certification Type	**WBE - Women Business Enterprise**
Certification Date	**3/7/2017**
Renewal Date	**3/1/2018**
Certified Business Description	**236220 Construction management, commercial and institutional building 541310 Architectural Services 541330 Engineering services 541611 Administrative Management and General Management Consulting Services**

Commodity Codes

Code	Description
NAICS 236220	Construction management, commercial and institutional building
NAICS 541310	Architectural Services
NAICS 541330	Engineering services
NAICS 541611	Administrative Management and General Management Consulting Services

Additional Information

Service-Disabled Veteran Business	**No**

Customer Support Print This Page

Vendor Information

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HELP

1-17-4300

Vendor Information

Business Name	Structure Designs, Inc., DBA SDIENGR Corp.
Owner	Mr. Olufemi A. Oladeinde
Address > Map This Address	309 W Washington Street Suite 325 Chicago, IL 60606
Phone	312-551-9780
Fax	312-551-9784
Email	ooladeinde@sdiengr.com
Website	http://www.sdiengr.com

Certification Information

Certifying Agency	City of Chicago
Certification Type	MBE - Minority Business Enterprise
Certification Date	1/20/2017
Renewal Date	1/31/2018
Certified Business Description	NAICS 541330 Civil engineering services NAICS 541330 Electrical engineering services NAICS 541330 Engineering services NAICS 541330 Environmental engineering services NAICS 541330 Mechanical engineering services NAICS 541340 Blueprint drafting services NAICS 541350 Inspection services, building or home

Commodity Codes

Code	Description
NAICS 541330	Civil engineering services
NAICS 541330	Electrical engineering services
NAICS 541330	Engineering services
NAICS 541330	Environmental engineering services
NAICS 541330	Mechanical engineering services
NAICS 541340	Blueprint drafting services
NAICS 541350	Inspection services, building or home

Additional Information

Service-Disabled Veteran Business	No

Customer Support Print This Page

Vendor Information

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HELP

1-17-4300

Vendor Information

Business Name	Terra Engineering, Ltd.
Owner	Karen Steingraber
Address > Map This Address	225 W. Ohio St., 4th Floor Chicago, IL 60654
Phone	312-467-0123
Fax	312-467-0220
Email	ksteingraber@terraengineering.com
Website	http://www.terraengineering.com

Certification Information

Certifying Agency	City of Chicago
Certification Type	WBE - Women Business Enterprise
Certification Date	2/17/2017
Renewal Date	4/1/2018
Certified Business Description	NAICS 541320 Landscape architectural services NAICS 541330 Engineering services NAICS 541370 Surveying and mapping services (except geophysical)

Commodity Codes

Code	Description
NAICS 541320	Landscape architectural services
NAICS 541330	Engineering services
NAICS 541370	Surveying and mapping services (except geophysical)

Additional Information

Service-Disabled Veteran Business	No

Customer Support Print This Page

1-17-4300

EXHIBIT F - Letter of Intent

Instructions: The Prime Vendor is required to submit a separate, signed Letter of Intent (LOI) from each VOSB certified vendor. **LOIs must be submitted with the Statement of Interest and must be signed by both parties.** The Prime Vendor shall not prohibit or otherwise limit the VOSB certified vendor(s) from providing subconsultant proposals to other potential vendors. Each LOI must include the negotiated contract percentage and a detailed scope of work to be performed by each identified VOSB certified vendor. All LOI's shall be subject to Agency approval. Any changes involving or affecting the identified VOSB certified vendor may not be permitted without written approval of the procuring Agency.

Project Name: Tri-State Tollway, Roadway Reconstruction, Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3) Project/Solicitation Number: I-17-4300

Name of Prime Vendor: Jacobs Engineering Group Inc. VOSB Compliance Contact: Mohammad Hassan

Address: 525 W. Monroe, Suite 1600

City: Chicago State: IL Zip Code: 60661

Telephone: 312.251.3000 Fax: 312.251.3015 Email: mohammad.hassan@jacobs.com

Name of Certified VOSB Vendor: Aqua Vitae Engineering, LLC

Address: 125 S. Burton Place VOSB Compliance Contact: Gary D. Paradoski, PE

City: Arlington Heights State: IL Zip Code: 60005

Telephone: 847.239.4512 Fax: N/A Email: gparadoski@aqua-vitaegroup.com

Type of agreement: ☒ Services

Anticipated start date of the Certified VOSB Vendor: October 2017

Proposed 3.00 % of Contract to be performed by the VOSB Vendor.

NOTE: The Prime Vendor must indicate the percentage of the estimated contract award that will be subcontracted to the certified VOSB Vendor.

Detailed description of work to be performed by the VOSB Vendor:

Erosion and Sediment Control

The Vendor and the certified vendor above hereby agree that upon the execution of a contract for the above-named project between the Vendor and the State of Illinois, the Certified VOSB Vendor will perform the scope of work in the percentage as indicated above.

Vendor (Company Name and D/B/A):	Certified VOSB Vendor (Company Name and D/B/A):
[redacted]	[redacted]
Signature	Signature
Print Name: Mohammad Hassan, PE, SE	Print Name: Gary D. Paradoski, PE
Title: Division Vice President	Title: President
Date: May 2, 2017	Date: May 2, 2017

Vendor Information

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Print

Business & Contact Information

Business Name	**Aqua Vitae Engineering LLC**
Owner	**Mr Gary Paradoski**
Address > Map This Address	[redacted]
Phone	**847-239-4512**
Fax	**847-577-0744**
Email	GPARADOSKI@AQUA-VITAEGROUP.COM
Website	http://WWW.AQUA-VITAEGROUP.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	**1/23/2018**
Expiration Date	**1/23/2020**
Certified Business Description	**92517 Civil Engineering**

Commodity Codes

Code	Description
NIGP 92517	Civil Engineering

Additional Information

Region	**Metro Chicago**

1-17-4300

OFFICE OF THE ILLINOIS SECRETARY OF STATE

JESSE WHITE
SECRETARY OF STATE

CORPORATION FILE DETAIL REPORT

File Number	54553668		
Entity Name	JACOBS ENGINEERING GROUP INC.		
Status	ACTIVE		
Entity Type	CORPORATION	Type of Corp	FOREIGN BCA
Qualification Date (Foreign)	02/17/1987	State	DELAWARE
Agent Name	C T CORPORATION SYSTEM	Agent Change Date	02/17/1987
Agent Street Address	208 SO LASALLE ST, SUITE 814	President Name & Address	STEVE J DEMETRIOU 1999 BRYAN ST DALLAS TX 75201
Agent City	CHICAGO	Secretary Name & Address	MICHAEL R TYLER 600 WILSHIRE BLVD #1000 LOS ANGELES CA 900
Agent Zip	60604	Duration Date	PERPETUAL
Annual Report Filing Date	02/15/2017	For Year	2017
Assumed Name	INACTIVE - JACOBS-SIRRINE ENGINEERS		
Old Corp Name	02/16/1989 - JEC ACQUISITION CO.		

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

 Jacobs Eng. 1-17-4300

OCIS CICIOCP1 OFFSET CONTRACT INQUIRY 07:43 10/13/17

ACTION: S

VENDOR NUMBER= *****[redacted] OFFSET: 00 OF 00
VENDOR NAME: *
CLAIMING AGENCY NUMBER: *
CLAIMING AGENCY NAME: *
CLAIMING AGENCY PHONE NUMBER: *

DISCLAIMER:
AS OF 10/13/17 AT 08:20 OUR INVOLUNTARY WITHHOLDING SYSTEM DOES NOT HAVE AN ACTIVE CLAIM AGAINST VENDOR NUMBER ****[redacted] 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

 ABNA of IL 1-17-4300

OCIS CICIOCP1 OFFSET CONTRACT INQUIRY 07:43 10/13/17

ACTION: S

VENDOR NUMBER= **[redacted] OFFSET: 00 OF 00
VENDOR NAME: *
CLAIMING AGENCY NUMBER: *
CLAIMING AGENCY NAME: *
CLAIMING AGENCY PHONE NUMBER: *

DISCLAIMER:
AS OF 10/13/17 AT 08:21 OUR INVOLUNTARY WITHHOLDING SYSTEM DOES NOT HAVE AN ACTIVE CLAIM AGAINST VENDOR NUMBER ***[redacted]. 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

 Aqua Vitae Eng 1-17-4300

OCIS CICIOCP1 OFFSET CONTRACT INQUIRY 07:43 10/13/17

ACTION: S

VENDOR NUMBER= ***[redacted] OFFSET: 00 OF 00
VENDOR NAME: *
CLAIMING AGENCY NUMBER: *
CLAIMING AGENCY NAME: *
CLAIMING AGENCY PHONE NUMBER: *

DISCLAIMER:
AS OF 10/13/17 AT 08:20 OUR INVOLUNTARY WITHHOLDING SYSTEM DOES NOT HAVE AN ACTIVE CLAIM AGAINST VENDOR NUMBER ***[redacted] 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

 DB Sterlin Consultants 1-17-4300

OCIS CICIOCP1 OFFSET CONTRACT INQUIRY 07:43 10/13/17

ACTION: S

VENDOR NUMBER= ***[redacted] OFFSET: 00 OF 00
VENDOR NAME: *
CLAIMING AGENCY NUMBER: *
CLAIMING AGENCY NAME: *
CLAIMING AGENCY PHONE NUMBER: *

DISCLAIMER:
AS OF 10/13/17 AT 08:24 OUR INVOLUNTARY WITHHOLDING SYSTEM DOES NOT HAVE AN ACTIVE CLAIM AGAINST VENDOR NUMBER ***[redacted] 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

 Fontus Group 1-17-4300

OCIS CICIOCP1 OFFSET CONTRACT INQUIRY 07:43 10/13/17

ACTION: S

VENDOR NUMBER= **[redacted] OFFSET: 00 OF 00
VENDOR NAME: *
CLAIMING AGENCY NUMBER: *
CLAIMING AGENCY NAME: *
CLAIMING AGENCY PHONE NUMBER: *

DISCLAIMER:
AS OF 10/13/17 AT 08:22 OUR INVOLUNTARY WITHHOLDING SYSTEM DOES NOT HAVE AN ACTIVE CLAIM AGAINST VENDOR NUMBER ****[redacted] 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

 GSG Consultants 1-17-4300

OCIS CICIOCP1 OFFSET CONTRACT INQUIRY 07:43 10/13/17

ACTION: S

VENDOR NUMBER= ****[redacted] OFFSET: 00 OF 00
VENDOR NAME: *
CLAIMING AGENCY NUMBER: *
CLAIMING AGENCY NAME: *
CLAIMING AGENCY PHONE NUMBER: *

DISCLAIMER:
AS OF 10/13/17 AT 08:22 OUR INVOLUNTARY WITHHOLDING SYSTEM DOES NOT HAVE AN ACTIVE CLAIM AGAINST VENDOR NUMBER *****[redacted] 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

 Primera Eng 1-17-4300

OCIS CICIOCP1 OFFSET CONTRACT INQUIRY 07:43 10/13/17

ACTION: S

VENDOR NUMBER= ****[redacted] OFFSET: 00 OF 00
VENDOR NAME: *
CLAIMING AGENCY NUMBER: *
CLAIMING AGENCY NAME: *
CLAIMING AGENCY PHONE NUMBER: *

DISCLAIMER:
AS OF 10/13/17 AT 08:25 OUR INVOLUNTARY WITHHOLDING SYSTEM DOES NOT HAVE AN ACTIVE CLAIM AGAINST VENDOR NUMBER ****[redacted] 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

 SDIENGR Corp 1-17-4300

OCIS CICIOCP1 OFFSET CONTRACT INQUIRY 07:43 10/13/17

ACTION: S

VENDOR NUMBER= ****[redacted] OFFSET: 00 OF 00
VENDOR NAME: *
CLAIMING AGENCY NUMBER: *
CLAIMING AGENCY NAME: *
CLAIMING AGENCY PHONE NUMBER: *

DISCLAIMER:
AS OF 10/13/17 AT 08:23 OUR INVOLUNTARY WITHHOLDING SYSTEM DOES NOT HAVE AN ACTIVE CLAIM AGAINST VENDOR NUMBER ****[redacted] 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

 Stanley Consultants 1-17-4300

OCIS CICIOCP1 OFFSET CONTRACT INQUIRY 07:43 10/13/17

ACTION: S

VENDOR NUMBER= ****[redacted] OFFSET: 00 OF 00
VENDOR NAME: *
CLAIMING AGENCY NUMBER: *
CLAIMING AGENCY NAME: *
CLAIMING AGENCY PHONE NUMBER: *

DISCLAIMER:
AS OF 10/13/17 AT 08:21 OUR INVOLUNTARY WITHHOLDING SYSTEM DOES NOT HAVE AN ACTIVE CLAIM AGAINST VENDOR NUMBER ****[redacted]. 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

 Terra Eng 1-17-4300

OCIS CICIOCP1 OFFSET CONTRACT INQUIRY 07:43 10/13/17

ACTION: S

VENDOR NUMBER= *****[redacted] OFFSET: 00 OF 00
VENDOR NAME: *
CLAIMING AGENCY NUMBER: *
CLAIMING AGENCY NAME: *
CLAIMING AGENCY PHONE NUMBER: *

DISCLAIMER:
AS OF 10/13/17 AT 08:23 OUR INVOLUNTARY WITHHOLDING SYSTEM DOES NOT HAVE AN ACTIVE CLAIM AGAINST VENDOR NUMBER ****[redacted] 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

1-17-4300

EXHIBIT E - DBE

PARTNERING FOR GROWTH PROGRAM

FOR

DISADVANTAGED BUSINESS ENTERPRISES (DBEs)

PSB: 17-3 **ITEM:** 5

MEMORANDUM OF UNDERSTANDING

BETWEEN:

THE MENTOR:	FIRM NAME ADDRESS		THE PROTÉGÉ:	FIRM NAME ADDRESS
Jacobs Engineering Group Inc.	525 W. Monroe, Ste. 1600 Chicago, IL 60661	AND	Fontas Group	1160 Hamilton Ave University Park, IL 60484

Note: The Partnering for Growth Program was formerly known as the Partnership-Mentor/Protégé Program.

Note: The DBE goal is separate and distinct from the VOSB goal. A single firm may not be utilized to achieve credit toward both DBE and VOSB goals on a single project. Therefore, the protégé participation must match the goal for which the protégé is being utilized.

I. PROGRAM PURPOSE

The Mentor and the Protégé commit to entering into a Partnering for Growth Agreement in accordance with the current guidelines of the Tollway's Partnering for Growth (formerly known as Partnership Mentor/Protégé) Program for DBEs. The purpose of the Program is to facilitate the Tollway's professional services consultants with:

A. Meeting Disadvantaged Business Enterprise/Minority Business Enterprise/Women Business Enterprise (DBE) participation goals,
B. Establishing new partnerships with DBE firms that have no prior experience providing professional services to the Tollway,
C. Continuing technical and nontechnical support for DBE firms that have limited experience providing professional services to the Tollway, and
D. Assisting DBE firms with building their capacity and becoming and/or remaining self-sufficient, competitive, and profitable business enterprises.

A **DBE** means a business certified by the Illinois Unified Certification Program as a DBE, or certified by the City of Chicago or Cook County as an M/WBE, or certified by the U.S. Small Business Administration (SBA) as an 8(a) business.

Professional Services shall be defined as Architecture, Landscape Architecture, Professional Engineering and Professional Land Surveying.

II. CONFORMANCE TO PROGRAM GOALS

A. Participation in this project by the Protégé.
   1. In area(s) being mentored:
      - Technical work covered by Mentor's prequalification category(ies) 2.5 %

        Scope:

        Preparation of PS&E, Roads & Streets
      - Work not applicable to prequalification category(ies) 0.5 %

        Scope:

        3D CADD

        Note: Protégé must participate in either one or both of these areas

2. In area(s) not being mentored:
   - Work the Protégé will self-perform 2.00 %

     Note: *Protégé participation in this area is optional*

3. Total participation by the Protégé (Sum of 1. and 2.) 3.00 **%**

B. Briefly describe an assessment of the Protégé's needs *(one-half page maximum).*

Fontas Group brings experience in the management, design and construction of oil & gas, private utility, municipal and civil engineering projects. This experience includes oil & gas engineering, utility improvements, transportation engineering, storm water management, wastewater pumping and conveyances systems, water supply and distribution systems, and recreational facilities.

Fontas Group currently serves municipal clients and has not been involved in Tollway design and construction projects, due to lack of specific prequalification areas.

C. Briefly describe specific assistance the Mentor will provide to support the Protégé's needs *(one-half page maximum).*

Jacobs Engineering Group, Inc., Mentor, will provide the following guidance and oversight approach that will enable Fontas Group to obtain experience in the areas of need described above:

• Mentor/Protege monthly project team coordination meetings will be scheduled.
• Mentor will provide space in Mentor's office for two Protege staff to work alongside Mentor designers.
• Mentor will work with Protégé to develop a sound Project Management Plan.
• Mentor will provide guidance and oversight to the Protégé in developing CQP.
• Mentor will familiarize and review with Protégé applicable laws, regulations and rules.
• Mentor will provide assistance in preparation of change orders, claim filing

III. MENTOR EXPERIENCE WITH THE PROGRAM

A. Has the Prime consultant served as a Mentor on a Tollway project completed within the last five years? If yes, list Contract #(s): ■ YES ☐ NO

Reverse mentoring on Contract #RR-13-1950

Indicate Phase(s) of Work: ☐MP ☐DSE ▣CM ☐Other

Areas of Assistance:

Project startup, closeout and administrative procedures

B. Is the Prime consultant currently serving as a Mentor on a Tollway project? If yes, list Contract #(s): ■ YES ☐ NO

Contract # RR-14-4224

Indicate Phase(s) of Work: ☐MP ☐DSE ☐CM ☐Other

Areas of Assistance:

Various - DBE University

C. Has the Prime consultant mentored the Protégé on another Tollway project within the last five years? If yes, list Contract #(s): ☐ YES ■ NO

Indicate Phase(s) of Work: ☐MP ☐DSE ☐CM ☐Other

Areas of Assistance:

IV. PROTÉGÉ EXPERIENCE WITH THE PROGRAM

A. Has the DBE firm ever been contracted by the Tollway as a Prime consultant? If yes, list date, Contract #, and description of scope for each project(s): ☐ YES ■ NO

Date	Contract #	Description of Scope

B. Has the DBE firm participated in a Mentor/Protégé relationship on a Tollway project completed within the last five years? If yes, list the following for each project(s).

☐ YES ☒ NO

Contract #	Protégé Award $	Mentored by	Area of Assistance

C. Is the DBE firm currently participating in a Mentor/Protégé relationship on a Tollway project? If yes, list the following for each project(s).

☐ YES ☒ NO

Contract #	Protégé Award $	Mentored by	Area of Assistance

D. Has the DBE firm participated in a Mentor/Protégé relationship on an Illinois Department of Transportation project completed within the last five years? If yes, list the following for each project(s).

☐ YES ☒ NO

PTB No/Item	Protégé Award $	Mentored by	Area of Assistance

E. If the Protégé has been mentored in the same Area of Assistance proposed on this project for a Tollway and/or IDOT project a combined total of more than three times, provide explanation supporting need for additional mentoring.

V. STATEMENT OF COMMITMENT

The purpose of this statement is to confirm a commitment between the Mentor and Protégé, that upon notice of selection from the Illinois Tollway for this PSB Item, a formal Partnering for Growth Agreement for DBEs will be prepared in accordance with the current guidelines of the Tollway's Partnering for Growth Program.

Should the proposer, after contract negotiation, wish to modify the 'Plan to Achieve Diversity Goal', the awarded consultant is requested to submit to the General Manager of Diversity a detailed explanation of the work category changes that were not known at the time of the SOI submittal.

[redacted]	[redacted]
SIGNATURE (Mentor Representative)	SIGNATURE (Protégé Representative)
May 3, 2017	4/21/2017
(Date)	(Date)

1-17-4300

Gomez, Graciela

From: Robinson, Lynnette
Sent: Wednesday, October 11, 2017 4:11 PM
To: Gomez, Graciela
Subject: FW: 4300 Jacob Eng Group Inc. - Exhibit E- DBE

Approved

From: Cerpa, Paul
Sent: Wednesday, October 11, 2017 4:10 PM
To: Robinson, Lynnette
Subject: RE: 4300 Jacob Eng Group Inc. - Exhibit E- DBE

Approved.

Paul H. Cerpa
Executive Manager
Diversity and Strategic Development
Illinois State Toll Highway Authority
2700 Ogden Avenue
Downers Grove, IL 60515
(630) 241-6800 ext. 3228

From: Robinson, Lynnette
Sent: Wednesday, October 11, 2017 1:39 PM
To: Cerpa, Paul
Subject: FW: 4300 Jacob Eng Group Inc. - Exhibit E- DBE

Paul,

I have reviewed and I approve of the attached Partnering for Growth Agreement between Jacobs Engineering Group, Inc. and Fontas Group. Please review and approve if you are in acceptance of this agreement.

Regards,

Lynnette Robinson

Lynnette Robinson

Consultant for Diversity and Engineering
Illinois State Toll Highway Authority
2700 Ogden Ave.
Downers Grove, IL 60515
630.241.6800 x 3208
lrobinson@getipass.com

From: Gomez, Graciela
Sent: Wednesday, October 11, 2017 1:21 PM
To: Robinson, Lynnette
Subject: 4300 Jacob Eng Group Inc. - Exhibit E- DBE

Hi Lynnette,

Please see attached Exhibit E- DBE for Jacob Engineering Group, for review and approval.

Thank you.
Grace
Ext. 3836

1-17-4300

A. Key Project Personnel

Exhibit A – Proposed Staff
PSB 17-3

Please provide the information for the following Key Project Personnel, (Key Project Personnel are defined as those specific positions identified in each PSB Item, and are subject to approval by the Tollway if they change during contract performance), including the staff from the Sub-Consultants. **The personnel named in Exhibit A must also be listed on Exhibit D**: Availability of Key Project Personnel

Project Manager (Items 1–15, 17–27 & 30–33)

Name:	Matthew Rempfer, PE, PTOE		
Firm:	Jacobs Engineering Group		
Category:	IL Licensed Professional Engineer		
License #:	062-054553		
Year Registered:	2001	State:	IL
Office Address:	525 W. Monroe, Ste. 1600		
City:	Chicago	State:	IL

Project Manager (Item 29)

Name:			
Firm:			
Category:	IL Licensed Professional Engineer, Experience: Infrastructure/Pavement		
License #:			
Year Registered:		State:	
Office Address:			
City:		State:	

Project Engineer (Items 1–15 & 30–33)

Name:	Thomas Ives, PE		
Firm:	Jacobs Engineering Group		
Category:	IL Licensed Professional Engineer		
License #:	062-059139		
Year Registered:	2006	State:	IL
Office Address:	525 W. Monroe, Ste. 1600		
City:	Chicago	State:	IL

Roadway Engineer (Items 1–9, 14, 15, 23, 30–33)

Name:	Rob Koss, PE, PTOE		
Firm:	Stanley Consultants, Inc.		
Category:	IL Licensed Professional Engineer		
License #:	062-040978		
Year Registered:	1997	State:	IL
Office Address:	8501 W. Higgins Rd, Ste 730		
City:	Chicago	State:	IL

Structural Engineer (Items 1–11, 23, 30–33)

Name:	Brian Malone, PhD, SE		
Firm:	Jacobs Engineering Group		
Category:	IL Licensed Structural Engineer		
License #:	081-006002		
Year Registered:	2003	State:	IL
Office Address:	525 W. Monroe, Ste. 1600		
City:	Chicago	State:	IL

Roadway QC/QA (Items 1–15 & 31–33)

Name:	Mark Lucas, PE		
Firm:	Jacobs Engineering Group		
Category:	IL Licensed Professional Engineer		
License #:	062-039838		
Year Registered:	1997	State:	IL
Office Address:	525 W. Monroe, Ste. 1600		
City:	Chicago	State:	IL

Structures QC/QA (Items 1–15 & 31–33)

Name:	Scott Eshleman, PE, SE		
Firm:	Stanley Consultants		
Category:	IL Licensed Structural Engineer		
License #:	081-005155		
Year Registered:	1994	State:	IL
Office Address:	8501 W. Higgins Rd, St 730		
City:	Chicago	State:	IL

Electrical Engineer (Items 12 & 13)

Name:			
Firm:			
Category:	IL Licensed Professional Engineer		
License #:			
Year Registered:		State:	
Office Address:			
City:		State:	

DESIGN SECTION ENGINEER AGREEMENT

The Board of Directors, on the **26th** day of **October**, **2017**, authorized this 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 **JACOBS ENGINEERING GROUP, INC.**, a **corporation** authorized and existing within the laws of the State of Illinois, hereinafter referred to as "DESIGN SECTION ENGINEER".

WITNESSETH:

WHEREAS, the DESIGN SECTION ENGINEER has submitted a proposal dated **October 10, 2017,** to provide design section engineering services for Contract No. **I-17-4300** for **Tri-State Tollway, Roadway Reconstruction, Roosevelt Road (Mile Post 30.5) to St. Charles Road (Mile Post 32.3)**; and

WHEREAS, DESIGN SECTION ENGINEER represents itself to be a professional engineering firm meeting the stated pre-qualification criteria for selection from **PSB 17-3, Item 5,** staffed with professional licensed engineers, experienced and able to perform the engineering design services required for said contract, and it is in the best interest of the TOLLWAY to accept said proposal.

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

ARTICLE I

General Provisions

A. The DESIGN SECTION ENGINEER shall perform all design section engineering services for Contract No. **I-17-4300** for **Tri-State Tollway, Roadway Reconstruction, Roosevelt Road (Mile Post 30.5) to St. Charles Road (Mile Post 32.3)** in accordance with the requirements and terms of this Agreement and the proposal from the DESIGN SECTION ENGINEER of **October 10, 2017**, attached hereto and made a part hereof as Exhibit "1". With respect to any inconsistency or conflict between the terms of this Agreement and the proposal (Exhibit "1"), the term or terms of this Agreement shall govern and prevail.

B. All services performed by DESIGN SECTION ENGINEER shall be performed according to professional standards and in accordance with the Design Section Engineer's Manual for The Illinois State Toll Highway Authority in effect at the date of contract execution, and as revised thereafter.

C. The DESIGN SECTION ENGINEER shall perform its services hereunder with the same degree of care, skill and diligence as is ordinarily possessed and exercised by a member of the same profession, currently practicing under similar circumstances.

ARTICLE II

Time of Performance

Upon receipt of Notice to Proceed authorized by the Chief Engineering Officer of the TOLLWAY, the DESIGN SECTION ENGINEER shall perform the services herein during the period commencing on the latter of either **execution of the Agreement or October 27, 2017** and ending **October 26, 2027**, in accordance with the schedule included in the attached proposal.

Notwithstanding anything in this Agreement, the DESIGN SECTION ENGINEER, including the DESIGN SECTION ENGINEER's subcontractors, if any, shall not be responsible hereunder for any delay, default or nonperformance of this Agreement, if and to the extent that such delay, default or nonperformance is caused by an act of God, weather, accident, labor strike or shortage, fire, explosion, riot, war, rebellion, terrorist activity, sabotage, flood, epidemic, or any other cause beyond the reasonable control of such party.

ARTICLE III

Compensation

MGR 11/3/17

The DESIGN SECTION ENGINEER shall perform all engineering design services as required herein, and the TOLLWAY shall pay the DESIGN SECTION ENGINEER as compensation therefor, the DESIGN SECTION ENGINEER'S actual payroll cost times a multiplier of **2.8000** and certain direct expenses (as shown in Exhibit "1") with an upper limit of compensation of **Thirty Eight Million, Five Hundred Thousand Dollars and No Cents ($38,500,000.00)**. If, in the opinion of the DESIGN SECTION ENGINEER, additional fees or expenses in excess of the upper limit of compensation agreed herein are required, the DESIGN SECTION ENGINEER shall promptly notify the Chief Engineering Officer of the TOLLWAY thereof and shall not incur or charge any such fees or expenses without prior written approval of the Chief Engineering Officer. The DESIGN SECTION ENGINEER shall ensure that its subcontractors (if applicable) submit bills and invoices in a manner consistent with the terms of this Agreement and shall include language in its subcontractor agreements whereby the subcontractors expressly agree to be bound by the terms of this Agreement, including but not limited to the Inspector General Provision at Article XIX.

ARTICLE IV

Scope of the Service

The DESIGN SECTION ENGINEER represents that it has examined the project site, met with representatives of the TOLLWAY, and had an opportunity to ascertain the extent and the scope of services required to complete this project and is knowledgeable of the services to be performed within the time set forth in the Project Schedule indicated in Exhibit "1" hereof. The DESIGN SECTION ENGINEER further understands and agrees that all the services required to properly complete the services will be at or below the total estimated fee (Upper Limit of Compensation) established for this contract, and that only upon receipt of correspondence modifying the established scope of services for this contract from the Chief Engineering Officer, will any portion of the contingency provision of the said proposal be utilized. The DESIGN SECTION ENGINEER shall not be entitled to additional compensation due to errors in estimating the time, costs or expertise required to complete this design project.

ARTICLE V

Compliance with State and Other Laws

The DESIGN SECTION ENGINEER specifically agrees that in the performance of the services herein enumerated, the DESIGN SECTION ENGINEER, its associates, subcontractors, agents and employees will comply with all applicable Federal laws, State statutes, local ordinances, rules and regulations.

Governing Law; Exclusive Jurisdiction

This Agreement, and all the rights and duties of the parties arising from or relating in any way to the subject matter of this Agreement or the transaction(s) contemplated by it, shall be governed by, construed and enforced only in accordance with the laws of the United States and the State of Illinois (excluding any conflict of laws provisions that would refer to and apply the substantive laws of another jurisdiction). Any suit or proceeding relating to this Agreement, including arbitration proceedings, shall be brought only in DuPage County, Illinois. ***Jacobs Engineering Group, Inc.*** consents to the exclusive jurisdiction and venue of the courts located in DuPage County, State of Illinois.

Confidentiality

DESIGN SECTION ENGINEER, including its agents and subconsultants, to this AGREEMENT may have or gain access to confidential data or information owned or maintained by the TOLLWAY in the course of carrying out its responsibilities under this AGREEMENT. The DESIGN SECTION ENGINEER shall presume all information received from the TOLLWAY or to which it gains access pursuant to this AGREEMENT is confidential. No confidential data collected, maintained, or used in the course of DESIGN SECTION ENGINEER's performance of this contract shall be disseminated except as authorized by law and with the written consent of the TOLLWAY, either during the period of the AGREEMENT or thereafter. The DESIGN SECTION ENGINEER must return any and all data collected, maintained, created or used in the course of the performance of the AGREEMENT, in whatever form it is maintained, promptly at the end of the AGREEMENT, or earlier at the request of the TOLLWAY, or notify the TOLLWAY in writing of its destruction with prior TOLLWAY approval only.

The foregoing obligations shall not apply to confidential data or information lawfully in the DESIGN SECTION ENGINEER's possession prior to its acquisition from the TOLLWAY; received in good faith from a third-party not subject to any confidentiality obligation to the disclosing Party; or independently developed by the DESIGN

SECTION ENGINEER without the use or benefit of the TOLLWAY's confidential information.

ARTICLE VI

Responsibility for Injuries and Damages

The DESIGN SECTION ENGINEER shall be responsible for all injuries to persons and damages to property due to the activities of the DESIGN SECTION ENGINEER, its associates, agents or employees, in connection with an error, omission, intentional, willful, wanton or negligent act(s), and shall be responsible for all parts of its work, both temporary and permanent, relating to the performance of any services under this Agreement or in connection therewith. It is expressly understood that the DESIGN SECTION ENGINEER shall indemnify and save harmless the TOLLWAY, its Directors and employees from claims, suits, actions, damages, costs and fees arising from, growing out of an error, omission, intentional, willful, wanton or negligent act(s) of the DESIGN SECTION ENGINEER under this Agreement, to the maximum extent permitted by law, and such indemnity shall not be limited by reason of the enumeration of any insurance coverage hereinafter provided. Nothing herein contained shall be construed as prohibiting the TOLLWAY, its Directors or the employees from defending any actions and suits brought against them or any of them or from employing their own counsel in defense of all such actions and suits. It is understood and agreed that the DESIGN SECTION ENGINEER is an independent contractor and as such is solely responsible for all of its activities hereunder.

ARTICLE VII

Insurance

The DESIGN SECTION ENGINEER agrees to procure and maintain during the entire term of this contract and any extensions thereto, at its own expense and without additional expense to the TOLLWAY, adequate insurance for claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work by the DESIGN SECTION ENGINEER, his agents, representatives, employees or subcontractors. Work shall not commence until all insurance required by this section has been obtained and acceptable documentation provided to the TOLLWAY. Acceptable insurance companies shall be authorized or approved to transact business under the laws of the State of Illinois, shall be rated by A.M. Best and Company with a financial strength rating of "A-" or better and a financial size category of not less than "VII".

The DESIGN SECTION ENGINEER shall obtain for the term of the contract, and any extensions thereto, insurance in the following kinds and minimum limits:

a. Worker's Compensation Insurance as required by state statute, and Employer's Liability insurance covering all the DESIGN SECTION ENGINEER's employees acting within the course and scope of their employment.

b. Commercial General Liability Insurance written on Insurance Services Office (ISO) occurrence form CG 00 01 10/03 or equivalent, covering premises operations, independent contractors, blanket contractual liability, and personal injury with minimum limits of $1,000,000.00 (One Millions Dollars) each occurrence and $2,000,000.00 (Two Million Dollars) annual general aggregate.

   If any aggregate limit is reduced below $2,000,000.00 because of claims made or paid, the DESIGN SECTION ENGINEER shall obtain additional insurance to restore the full aggregate limit and furnish documentation to the TOLLWAY.

c. Automobile Liability Insurance covering any auto, including owned, hired and non-owned autos, with a minimum limit of $1,000,000.00 (One million Dollars) each occurrence, combined single limit.

d. Excess / Umbrella Liability Insurance providing excess coverage over commercial general liability, automobile liability and employer's liability with a minimum limit of $2,000,000.00 (Two Million Dollars) per occurrence and in aggregate.

e. Engineering Professional Errors and Omissions Liability providing coverage for claims, damages, losses or expenses arising out of or resulting from the performance of Professional Services contemplated in this contract. Limits of liability shall be a minimum of $2,000,000 (Two Million Dollars) per occurrence and in aggregate. The policy, including claims made forms, shall remain in effect for the duration of the contract and then have a three-year discovery period or longer as required by State Statue.

All deductible or self-insured retentions must be declared and are the sole responsibility of the DESIGN SECTION ENGINEER. The Illinois State Toll Highway Authority shall be named an "additional insured" for the commercial general liability and automobile liability coverage. These policies shall be primary for the additional insured and not contributing with any other insurance or similar protection available to the additional insured. Copies of the applicable "additional insured" endorsements will be provided to the TOLLWAY with the insurance documentation.

The DESIGN SECTION ENGINEER shall submit insurance documentation prior to the commencement of any contract work and will provide documentation of renewals of said policies as they occur. Any failure of the TOLLWAY to request proof of insurance will not waive the requirement of maintenance of protection as specified herein.

ARTICLE VIII

Ownership of Documents

All documents, including tracings, drawings, estimates, specifications, field notes, investigations, studies and all documents, memoranda and information relating to services to be furnished and performed pursuant to this Agreement are the property of the TOLLWAY. During the performance of the engineering services herein provided for, the DESIGN SECTION ENGINEER shall be responsible for any loss or damage to the documents herein enumerated while they are in its possession, and any such documents shall be restored at its expense. Full access to the work during the preparation of the plans shall be available to the TOLLWAY and such other agencies as may be approved by the TOLLWAY. It is agreed and understood by the parties that any plans, drawings, blueprints or other similar documents ("plans") provided under this Contract which are reused by the TOLLWAY, on other projects, shall be at the TOLLWAY's own risk. Any person or entity reusing any plans shall be solely responsible for such reuse. Should the DESIGN SECTION ENGINEER reuse any plans, it agrees to indemnify all persons or entities for any claims or actions resulting from its reuse to the extent that said claim or action results from such reuse. The TOLLWAY agrees to require any person (including the TOLLWAY itself) reusing the plans provided by the DESIGN SECTION ENGINEER to abide by the terms and conditions set forth in this paragraph.

ARTICLE IX

Financial Statement

The DESIGN SECTION ENGINEER shall, within ten (10) days after requested by the TOLLWAY, furnish the TOLLWAY with a current statement of the financial condition of the DESIGN SECTION ENGINEER and any other financial information requested by the TOLLWAY.

ARTICLE X

Successors and Assigns

The TOLLWAY and DESIGN SECTION ENGINEER each bind themselves, their successors and assigns to the other party of this Agreement and to the successors and assigns of such other party with respect to all covenants of this Agreement. Except as this Agreement provides, neither the TOLLWAY nor the DESIGN SECTION ENGINEER shall assign, sublet or transfer its interest in this Agreement without the written consent of the other.

ARTICLE XI

Subcontractors

The DESIGN SECTION ENGINEER shall not subcontract or assign services to be performed under this Agreement without prior written approval of the TOLLWAY, except that the DESIGN SECTION ENGINEER may without such prior approval, contract with others for photogrammetric maps, equipment and supplies, printed matter, and other reproductions and stenographic, clerical or any other non-technical services.

ARTICLE XII

Suspension

The TOLLWAY may, from time to time, suspend and halt the services of DESIGN SECTION ENGINEER pursuant to this Agreement at its sole discretion effective five (5) days after delivery of written notice thereof for any period of time or times not exceeding a total of twelve (12) months. In the event of such suspension not occasioned by violation of the Agreement by the DESIGN SECTION ENGINEER, the DESIGN SECTION ENGINEER shall be paid for authorized services performed prior to the effective date of the suspension, including any reimbursable expenses then due, in accord with this Agreement.

ARTICLE XIII

Termination

A. Termination Without Cause

1. The TOLLWAY reserves the right, at its sole discretion, to terminate this Agreement without cause at any time. In the event of such termination, the TOLLWAY will promptly deliver a written Notice of Termination Without Cause to the DESIGN SECTION ENGINEER. Upon termination and within ten (10) days of said termination, the DESIGN SECTION ENGINEER shall prepare a detailed Progress Report, in form satisfactory to the Chief Engineering Officer of the TOLLWAY, including information as to all the services performed by the DESIGN SECTION ENGINEER and the status of the services as of the date of the termination, and provide all other information and documents developed under the terms of this Agreement as requested by the Chief Engineering Officer of the TOLLWAY. The TOLLWAY will review the Progress Report and services and determine the percentage of the work required to be performed under this Agreement that has been completed by the DESIGN SECTION ENGINEER. In case of dispute between the TOLLWAY and the DESIGN SECTION ENGINEER, the decision of the Chief Engineering Officer shall be final. At the request and direction of the Chief Engineering Officer of the TOLLWAY, the DESIGN SECTION ENGINEER shall, additionally, within ten (10) days after the date of termination, furnish the TOLLWAY with two (2) sets of prints of plans, two (2) sets of Special Provisions and two (2) sets of calculations with respect to the services performed to date of termination in accordance with the requirements of the Design Section Engineer's Manual in effect at the date of contract execution, and as revised thereafter.

In the event the Chief Engineering Officer of the TOLLWAY requires additional services to be performed by the DESIGN SECTION ENGINEER to complete certain elements of the engineering services, the DESIGN SECTION ENGINEER shall prepare a final Progress Report on completion of the additional services. The TOLLWAY will review the final Progress Report and determine the percentage of completed services performed under the Agreement by the DESIGN SECTION ENGINEER.

2. The total compensation due to the DESIGN SECTION ENGINEER, in the event of termination without cause, shall be limited to the following, less all previous payments to the DESIGN SECTION ENGINEER and any credits or set-offs due to the TOLLWAY:

a. Actual payroll cost for services properly performed prior to the effective date of termination, times a multiplier of **2.8000;**

b. Actual reimbursable direct expenses incurred prior to the effective date of termination;

c. Actual payroll cost times a multiplier of **2.8000** for any wind-up services after the effective date of termination as directed to be performed by the Chief Engineering Officer of the TOLLWAY;

d. Actual reimbursable direct expenses incurred for any wind-up services after the effective date of termination as directed to be performed by the Chief Engineering Officer of the TOLLWAY;

B. Termination for Cause

1. In the event the DESIGN SECTION ENGINEER fails to meet any of its contractual obligations, as set forth in this Agreement including the proposal, then the TOLLWAY, at its option, may consider the Agreement as canceled effective upon the delivery of written Notice of Termination for Cause to the DESIGN SECTION ENGINEER, and the DESIGN SECTION ENGINEER shall have no further claims or rights against the TOLLWAY except as set forth herein. The TOLLWAY may, as additional remedies, and without prejudice to or waiver of any other right or remedy which it possesses hereunder or as a matter of law, complete the performance of the engineering services with its own forces, or secure services from any other available source and any difference in cost shall be charged back to the DESIGN SECTION ENGINEER, or at the option of the TOLLWAY the DESIGN SECTION ENGINEER shall promptly pay for or reimburse the TOLLWAY for any such difference in cost, or the TOLLWAY may deduct any such cost from any payments due or to become due the DESIGN SECTION ENGINEER, if any. In addition to any difference in cost for services incurred by the TOLLWAY, the DESIGN SECTION ENGINEER shall reimburse the TOLLWAY for any costs, fees, or expenses, including administrative, engineering and legal expenses incurred by the TOLLWAY due to the failure of the DESIGN SECTION ENGINEER to meet such obligations. The foregoing costs, fees and expenses, may, at the direction of the TOLLWAY, be deducted from any sums remaining due for services properly performed prior to the effective date of the cancellation and termination.

2. The conditions for termination for cause are as follows:

a. If DESIGN SECTION ENGINEER becomes insolvent, commits any act of bankruptcy, makes a general assignment for the benefit of creditors, or becomes the subject of any proceeding commenced under any statute or law established for the relief of debtors;

b. If a receiver, trustee or liquidator of any of the property or income of DESIGN SECTION ENGINEER shall be appointed;

c. If DESIGN SECTION ENGINEER shall fail to perform the scope of services, or any part thereof, with the diligence necessary to maintain its progress and compete the scope of services as prescribed by the time schedule and shall fail to take such steps as directed by the TOLLWAY to remedy delays within five (5) days after written notice thereof from TOLLWAY;

d. If DESIGN SECTION ENGINEER shall violate any of the terms, provisions, conditions, covenants, or Certifications contained in this Agreement and shall fail to take such steps as directed by the TOLLWAY to remedy such default within five (5) days after written notice thereof from TOLLWAY.

3. Upon termination for cause, and within ten (10) days of such notice, the DESIGN SECTION ENGINEER shall prepare a detailed Progress Report in a form satisfactory to the Chief Engineering Officer of the TOLLWAY, including information as to all services performed by the DESIGN SECTION ENGINEER and the status of the services as of the date of the termination, and provide all other information and documents developed under the terms of this Agreement as requested by the Chief Engineering Officer of the TOLLWAY. The TOLLWAY will review the Progress Report and determine the percentage of services that have been performed under this Agreement by the DESIGN SECTION ENGINEER. In the case of dispute between the TOLLWAY and the DESIGN SECTION ENGINEER, the decision of the Chief Engineering Officer shall be final. At the request and direction of the Chief Engineering Officer of the TOLLWAY, the DESIGN SECTION ENGINEER shall additionally, within ten (10) days after the date of termination, furnish the TOLLWAY with two (2) sets of prints of plans, two (2) sets of Special Provisions and two (2) sets of calculations with respect to the services performed to the date of termination in accordance with the requirements of the Design Section Engineer's Manual in effect at the date of contract execution, and as revised thereafter.

4. The total compensation due to the DESIGN SECTION ENGINEER in the event of Termination for Cause shall be the following, less all previous payments to the DESIGN SECTION ENGINEER, and any credits or set-offs due to the TOLLWAY:

a. Actual payroll cost for services properly performed prior to the effective date of termination, times a multiplier of **2.8000**;

b. Actual reimbursable direct expenses incurred prior to the effective date of termination;

C. Termination due to Lack of an Appropriation

This Agreement is subject to termination and cancellation in any year for which the General Assembly fails to make an appropriation (if such an appropriation is required) to make payments under the terms of the Agreement. Currently, the TOLLWAY is not required to obtain a yearly appropriation of its funds. However, the TOLLWAY cannot and does not make any representation or warranties concerning future appropriation requirements.

ARTICLE XIV

Solicitations

The DESIGN SECTION ENGINEER warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage or contingent fee. For breach or violation of this warranty, the TOLLWAY shall have the right to annul this Agreement without liability or in its discretion to deduct from the contract price or consideration the full amount of such commission, percentage, brokerage or contingent fee.

ARTICLE XV

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 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 XVI

Notices

Notices to be given hereunder or documents to be delivered shall be deemed sufficient if delivered personally or mailed by certified mail to the DESIGN SECTION ENGINEER at **Jacobs Engineering Group, Inc., 525 West Monroe Street, Suite 1600, Chicago, Illinois 60661,** or to the Chief Engineering Officer at 2700 Ogden Avenue, Downers Grove, Illinois 60515. Either party may change the place to which notices hereunder may be addressed by written notice to the other party at any time or times.

ARTICLE XVII

Quality Assurance and Quality Control (QA/QC) Plan

The DESIGN SECTION ENGINEER'S QA/QC PLAN for this PROJECT must be presented by the DESIGN SECTION ENGINEER fourteen (14) days after receiving the signed contract. After acceptance by the TOLLWAY, the DESIGN SECTION ENGINEER must adhere to this QA/QC Plan and will be required to periodically confirm, in writing, that they have complied with the approved plan. The statement of compliance must be submitted to the TOLLWAY Project Manager with each milestone submittal (preliminary plans, draft reports, soil report, drainage study, etc.).

The QA/QC Plan must follow the GUIDELINES FOR the DESIGN SECTION ENGINEER'S QUALITY PROGRAM, which will be provided by the TOLLWAY.

ARTICLE XVIII

Miscellaneous

This Agreement, when executed by the DESIGN SECTION ENGINEER, shall be an offer by the DESIGN SECTION ENGINEER to the TOLLWAY and shall not be construed as an offer by the TOLLWAY to the DESIGN SECTION ENGINEER. All Agreements are subject to the statutes, rules, regulations and policies governing the TOLLWAY and are expressly subject to the approval of the TOLLWAY's Board of Directors, the Procurement Policy Board, the Chief Procurement Officer for General Services, and the Attorney General of the State of Illinois.

ARTICLE XIX

Inspector General

The Vendor/Contractor hereby acknowledges that pursuant to Section 8.5 of the Toll Highway Act (605 ILCS 10/8.5) the Inspector General of the Illinois State Toll Highway Authority has the authority to conduct investigations into certain matters including but not limited to allegations of fraud, waste and abuse, and to conduct reviews. The Vendor/Contractor will fully cooperate in any OIG investigation or review.

Cooperation includes providing access to all information and documentation related to the goods/services described in this Agreement, and disclosing and making available all personnel involved or connected with these goods/services or having knowledge of these goods/services. All subcontracts must inform Subcontractors of this provision and their duty to comply.

ARTICLE XX

Engineer Selection Process

The TOLLWAY and the DESIGN SECTION ENGINEER hereby certify that they are in compliance with the provisions of the Architectural, Engineering and Land Surveying Qualifications Based Selection Act (30 ILCS 535) with respect to the procurement of the services covered in this Agreement.

ARTICLE XXI

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 pre-qualification, 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.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement for CONTRACT **I-17-4300** the day and year first above written.

THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY

By [redacted] 12/4/17

Chair/Executive Director-Signature Date

Robert Schillerstrom/Greg Bedalov

JACOBS ENGINEERING GROUP, INC.

[redacted] 30 OCT 17

Vice President-Signature Date

AFEA V.P. & G.M.

Brad Simmons

Printed Name as Signed Above

APPROVED:

[redacted] 12-1-17

Chief Financial Officer - Signature Date

Michael Colsch

APPROVED:

[redacted] 12/1/17

Acting General Counsel – Signature Date

Elizabeth Oplawski

Approved as to Form and Constitutionality

[redacted] AAG 11/30/17

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

Tiffany Schafer

DESIGN SECTION ENGINEER PROPOSAL

FOR CONTRACT NUMBER I-17-4300

This proposal, dated October 10, 2017, is submitted by JACOBS ENGINEERING GROUP, INC. of Chicago, IL for Design Section Engineer's Service.

DESCRIPTION/LOCATION OF DESIGN SECTION

The location of the construction Contract I-17-4300 for which we propose to provide Design Section Engineering Services is Tri-State Tollway, Roadway Reconstruction, Roosevelt Road (M.P. 30.5) to St Charles Road (M.P. 32.3), in Cook/DuPage County (Counties), Illinois.

SCOPE OF DESIGN SECTION ENGINEERING SERVICES

Design Engineering Services following selection from PSB 17-3, more fully detailed in Exhibit F, attached hereto, will be executed in full compliance with the Illinois State Toll Highway Authority's *Design Section Engineer's Manual*, in effect at the date the contract is awarded, and as revised thereafter, and with the Illinois State Toll Highway Authority's (hereinafter referred to as "TOLLWAY") current practices. These services shall include preparation of contract plans, special provisions, construction schedule and review of bids; all field surveys, investigations, designs and analyses required to complete the work; checking of shop drawings and consultation during the construction period. Four copies of all design notes, quantity calculations and field books shall be submitted to the TOLLWAY with the final plans. These documents will be indexed and cross referenced in a manner which can be easily referenced by the Construction Manager.

RESPONSIBILITY

The DESIGN SECTION ENGINEER acknowledges the fact that neither interim nor final reviews by the TOLLWAY or its Consulting Engineer relieve the DESIGN SECTION ENGINEER of its responsibility for the accuracy and adequacy of the contract documents for this project.

FEE PROPOSAL

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

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

The compensation elements and their limits are more fully detailed as follows:

PAYROLL COSTS AND MULTIPLIER - 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.

"Actual Direct Labor" shall be reimbursed only for actual payroll costs paid to individuals employed directly by the DESIGN SECTION ENGINEER, independent contractors and contract employees shall be treated as "reimbursable direct costs" and not "actual direct salary." Subcontractors shall be treated as "Services by Others."

Exhibit C-1 (Payroll Classification Escalation Table) shall identify the direct labor escalation for the duration of the project. Pay rate increases shall be limited to one per calendar year. Cumulative labor increases for the DESIGN SECTION ENGINEER may not exceed the direct labor escalation rate listed in Exhibit C-1 for any twelve month period.

Exhibit C-2 (Direct Labor Classification Man-Hours and Rates)
This exhibit establishes employee classifications and rate ranges and determines the Total Direct Labor for the project.

Exhibit C-3 (Company Employee Classification List) shall establish the classifications, of the company's staff. Classifications must be included on Exhibit C-3 to be reimbursable.

The direct labor rate allowable for any individual at the outset of the project for invoicing purposes will be the rate listed on a "Certified Payroll Summary" to be submitted by the DESIGN SECTION ENGINEER at the start of the project. A revised "Certified Payroll Summary" must be submitted at the time of annual labor rate increases and when a newly hired employee is added to the TOLLWAY project.

A "normal work week" can be negotiated up to 45 hours per week. Overtime (straight time) for salaried positions cannot be invoiced beyond the number of hours in the "normal work week" unless pre-approved, in writing, by the project manager. These positions will be determined during negotiations of the contract or as the salaried position is added to the project.

Promotions resulting in labor rate increases will only be permitted if the promotion occurs on this project to a pre-approved contract position. Employees promoted within the company will not be entitled to a rate increase on this project beyond the rate appropriate for the services being performed by the employee. Any increase will be at the date of the approved promotion.

Timesheets for each employee billed to the contract must be submitted with the invoice. The timesheets must be signed by both the employee and the employee's supervisor. The timesheets must include all hours paid to the employee, including non-billable time and time worked on other projects.

<u>REIMBURSABLE DIRECT COSTS</u> - The Reimbursable Direct Costs Worksheet determines the total dollar amount of Direct costs for the project. See Exhibit D. The DESIGN SECTION ENGINEER is responsible for managing the Direct Costs expended so the total Reimbursable Direct Cost amount is not exceeded. All Direct Costs presented for reimbursement must be included on the Allowable Direct Costs list made available in the Professional Service Bulletin (attached to Exhibit D). Direct Costs not identified on the Allowable Direct Costs list must be approved in writing by the Chief Engineering Officer of the TOLLWAY prior to reimbursement. Premium portions of overtime and Reimbursable Direct Costs will be reimbursed upon presentation of appropriate documentation.

Reimbursement for the use of automotive vehicles furnished by the DESIGN SECTION ENGINEER will be in accordance with the State of Illinois Government Rate in effect on the date of this proposal (see Exhibit D).

Such rate of reimbursement will be considered full payment for all costs including, but not limited to: the furnishing, insuring, operating, and maintaining the automotive vehicles. The term "automotive vehicle" includes automobiles, pick-up trucks, station wagons, vans, and the like. The DESIGN SECTION ENGINEER shall maintain itemized vehicle usage records for all vehicles billed to the contract. Said records shall contain at a minimum the individual who used the vehicle, the date of usage, and the purpose or destination.

No surcharge for handling or processing will be charged or approved. No profit will be paid for Direct Costs.

<u>SERVICES BY OTHERS</u> (Exhibit H) - The fees for services provided by all subcontractors shall be summarized on Exhibit H and Exhibit H (Cont). All subcontractors are required to submit Exhibits A-H (Cont).

The DESIGN SECTION ENGINEER understands that the contract is between the TOLLWAY and the DESIGN SECTION ENGINEER. The DESIGN SECTION ENGINEER is responsible for monitoring and managing the work and budget of all subcontractors.

<u>The ADDITIONAL SERVICES PROVISION</u> (if any) included in this proposal (see *Exhibit B*) will be for the sole purpose of funding increases in the Scope of Work, which have been identified as potential extra services prior to the start of work. The additional

services funds will not be used to cover costs for items included in the original Scope of Design Engineering Services. The authorization for the use of the Additional Services Funds must be in writing from the Chief Engineering Officer of the TOLLWAY.

MAXIMUM ALLOWABLE FEE - The upper limit of compensation to the DESIGN SECTION ENGINEER, for all costs, shall be $ 38,500,000.00 (see *Exhibit B*), which limit may not be exceeded unless authorized by a Supplemental Contract and approved by the TOLLWAY's Board of Directors. This sum represents the maximum compensation limit for completion of all Engineering Services for all items of work included in the Scope of Design Section Engineering Services (Exhibit F). If potential additional services have been identified in the scope of work (Exhibit F), it is understood that these services may not be requested by the TOLLWAY. If these services are requested by the TOLLWAY to be performed by the DESIGN SECTION ENGINEER, Exhibits A-H (Cont) must be submitted by the DESIGN SECTION ENGINEER for the TOLLWAY's approval prior to commencement of the work.

REVISIONS TO THE SCOPE OF WORK - If at any time during the execution of the work the DESIGN SECTION ENGINEER feels that he/she is being directed to perform services not included in the Scope Of Work, he/she will give immediate written notice to the Chief Engineering Officer of the TOLLWAY requesting a change in the Scope Of Work. This notification shall include the following:

A. Definition of the revision to the scope.
B. Documentation of the facts leading to or requiring the revision to the Scope of Work.
C. Scheduling impact.
D. Construction cost impact.
E. Design fee impact including:

    1. Labor
    2. Direct Cost
    3. Other

The Chief Engineering Officer of the TOLLWAY shall review and respond to the notification in a timely manner.

The DESIGN SECTION ENGINEER shall not proceed with any of the items of work which he/she believes are not included in the Scope Of Work until he/she submits the above notification and receives the written Authorization To Proceed from the Chief Engineering Officer of the TOLLWAY. If additional funds are required for the supplemental work, this Authorization to Proceed must receive the required TOLLWAY approvals authorizing the funds for the supplemental work.

PROGRESS REPORTS - The DESIGN SECTION ENGINEER will submit monthly progress and staffing reports including a narrative report and providing a brief discussion of the status of the design. These reports must be submitted with the invoice covering the same period, and must be received by the TOLLWAY within 20 calendar days following the reporting period.

PROJECT STATUS EVALUATION - It will be the DESIGN SECTION ENGINEER's responsibility, when the total monies due the DESIGN SECTION ENGINEER approach 50% of the Total Contract Fee, to review the work accomplished and the work remaining, as well as the project schedule. The DESIGN SECTION ENGINEER shall then furnish the Chief Engineering Officer of the TOLLWAY with a written copy of his evaluation. If the project progress is determined to be unsatisfactory by the TOLLWAY, the DESIGN SECTION ENGINEER may be required to do the same review prior to the point in time that the costs incurred reach 70% and 90% of the Total Contract Amount.

KEY PERSONNEL - Exhibit E is a list of the Key Personnel who will be assigned to this project, should this proposal be accepted, together with a brief resume for each. It is understood that the TOLLWAY reserves the right to review the performance of assigned personnel at any time and the DESIGN SECTION ENGINEER agrees to replace or re-assign personnel who are deemed by the TOLLWAY to not be suited to the task to which they are assigned. The DESIGN SECTION ENGINEER further agrees to assign employees to this project in a manner which will minimize engineering design expenses to the TOLLWAY.

CURRENT WORK LOAD - Attached hereto is Exhibit G, a Statement of Active and Pending Transportation Related Projects.

TERMS AND CONDITIONS - This document hereby incorporates by reference the "Contract" attached hereto and made a part hereof. The DESIGN SECTION ENGINEER understands and agrees that it shall be bound by the terms and conditions contained in the attached Contract including but not limited to those items contained in the Article titled "Insurance". The DESIGN SECTION ENGINEER shall provide a copy of a Certificate of Insurance as Exhibit I. In the event there is a conflict between the terms of this proposal and the terms of the attached Contract, the terms contained in the Contract shall control. The DESIGN SECTION ENGINEER also agrees that it shall be required to procure and maintain additional insurance, if any is listed below, under the same terms and conditions specified in the Agreement. Specialized, project specific insurance, namely Railroad Protective Liability Insurance, may be considered for reimbursement as a direct cost.

Said additional insurance shall be in addition to any and all insurance required by the Contract.

INVOICES - 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.

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 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.

THIS PROPOSAL FOR DESIGN SECTION ENGINEERING SERVICES FOR

CONTRACT I-17-4300

SUBMITTED BY:

FIRM NAME: JACOBS ENGINEERING GROUP, INC.

ADDRESS: 525 WEST MONROE STREET, SUITE 1600

CITY, STATE & ZIP CODE: CHICAGO, IL 60661

TELEPHONE: (312) 251-3000

FACSIMILE: (312) 251-3015

SIGNED BY: [redacted]

PRINTED NAME: MOHAMMAD HASSAN, P.E., S.E.

TITLE: DIVISION VICE PRESIDENT

1. PAYMENT TERMS AND CONDITIONS:

1.1 Minority Contractor Initiative: Any Vendor awarded a contract under Section 20-10, 20-15, 20-25 or 20-30 of the Illinois Procurement Code (30 ILCS 500) of $1,000 or more is required to pay a fee of $15. The Comptroller shall deduct the fee from the first check issued to the Vendor under the contract and deposit the fee in the Comptroller's Administrative Fund. 15 ILCS 405/23.9.

1.2 Expenses: The State will not pay for supplies provided or services rendered, including related expenses, incurred prior to the execution of this contract by the Parties even if the effective date of the contract is prior to execution.

1.3 Prevailing Wage: As a condition of receiving payment Vendor must (i) be in compliance with the contract, (ii) pay its employees prevailing wages when required by law, (iii) pay its suppliers and subcontractors according to the terms of their respective contracts, and (iv) provide lien waivers to the State upon request. Examples of prevailing wage categories include public works, printing, janitorial, window washing, building and grounds services, site technician services, natural resource services, security guard and food services. The prevailing wages are revised by the Department of Labor and are available on the Department's official website, which shall be deemed proper notification of any rate changes under this subsection. Vendor is responsible for contacting the Illinois Department of Labor to ensure understanding of prevailing wage requirements at 217-782-6206 or (http://www.state.il.us/agency/idol/index.htm).

1.4 Federal Funding: This contract may be partially or totally funded with Federal funds. If federal funds are expected to be used, then the percentage of the good/service paid using Federal funds and the total Federal funds expected to be used will be provided in the award notice.

1.5 Invoicing: By submitting an invoice, Vendor certifies that the supplies or services provided meet all requirements of the contract, and the amount billed and expenses incurred are as allowed in the contract. Invoices for supplies purchased, services performed and expenses incurred through December 31 of any year must be submitted to the State no later than February 28 of the following year; otherwise Vendor may have to seek payment through the Illinois Court of Claims. 30 ILCS 105/25. All invoices are subject to statutory offset. 30 ILCS 210.

1.5.1 Vendor shall not bill for any taxes unless accompanied by proof that the State is subject to the tax. If necessary, Vendor may request the applicable Agency/University state tax exemption number and federal tax exemption information.

1.5.2 Vendor shall invoice at the completion of the contract unless invoicing is tied in the contract to milestones, deliverables, or other invoicing requirements agreed to in the contract.

2. **ASSIGNMENT**: This contract may not be assigned, transferred in whole or in part by Vendor without the prior written consent of the State.

3. **AUDIT/RETENTION OF RECORDS:** Vendor and its subcontractors shall maintain books and records relating to the performance of the contract or subcontract and necessary to support amounts charged to the State pursuant to the contract or subcontract. Books and records, including information stored in databases or other computer systems, shall be maintained by the Vendor for a period of five years from the later of the date of final

payment under the contract or completion of the contract, and by the subcontractor for a period of five years from the later of final payment under the term or completion of the subcontract. Books and records required to be maintained under this section shall be available for review or audit by representatives of: the procuring Agency/University, the Auditor General, the Executive Inspector General, the Chief Procurement Officer, the Tollway Inspector General, State of Illinois internal auditors or other governmental entities with monitoring authority, upon reasonable notice and during normal business hours. Vendor and its subcontractors shall cooperate fully with any such audit and with any investigation conducted by any of these entities. Failure to maintain books and records required by this section shall establish a presumption in favor of the State for the recovery of any funds paid by the State under the contract for which adequate books and records are not available to support the purported disbursement. The Vendor or subcontractors shall not impose a charge for audit or examination of the Vendor's books and records. 30 ILCS 500/20-65.

4. **TIME IS OF THE ESSENCE:** Time is of the essence with respect to Vendor's performance of this contract. Vendor shall continue to perform its obligations while any dispute concerning the contract is being resolved unless otherwise directed by the State.

5. **NO WAIVER OF RIGHTS:** Except as specifically waived in writing, failure by a Party to exercise or enforce a right does not waive that Party's right to exercise or enforce that or other rights in the future.

6. **FORCE MAJEURE:** Failure by either Party to perform its duties and obligations will be excused by unforeseeable circumstances beyond its reasonable control and not due to its negligence, including acts of nature, acts of terrorism, riots, labor disputes, fire, flood, explosion, and governmental prohibition. The non-declaring Party may cancel the contract without penalty if performance does not resume within 30 days of the declaration.

7. **CONFIDENTIAL INFORMATION:** Each Party, including its agents and subcontractors, to this contract may have or gain access to confidential data or information owned or maintained by the other Party in the course of carrying out its responsibilities under this contract. Vendor shall presume all information received from the State or to which it gains access pursuant to this contract is confidential. Vendor information, unless clearly marked as confidential and exempt from disclosure under the Illinois Freedom of Information Act, shall be considered public. No confidential data collected, maintained, or used in the course of performance of the contract shall be disseminated except as authorized by law and with the written consent of the disclosing Party, either during the period of the contract or thereafter. The receiving Party must return any and all data collected, maintained, created or used in the course of the performance of the contract, in whatever form it is maintained, promptly at the end of the contract, or earlier at the request of the disclosing Party, or notify the disclosing Party in writing of its destruction. The foregoing obligations shall not apply to confidential data or information lawfully in the receiving Party's possession prior to its acquisition from the disclosing Party; received in good faith from a third Party not subject to any confidentiality obligation to the disclosing Party; now is or later becomes publicly known through no breach of confidentiality obligation by the receiving Party; or is independently developed by the receiving Party without the use or benefit of the disclosing Party's confidential information.

8. **USE AND OWNERSHIP:** All work performed or supplies created by Vendor under this contract, whether written documents or data, goods or deliverables of any kind, shall be deemed work for hire under copyright law and all intellectual property and other laws, and the State of Illinois is granted sole and exclusive ownership to all such work, unless otherwise agreed in writing. Vendor hereby assigns to the State all right, title, and interest in and to such work including any related intellectual property rights, and/or waives any and all claims that Vendor may have to such work including any so-called "moral rights" in connection with the work. Vendor acknowledges the State may use the work product for any purpose. Confidential data or information contained in such work shall be subject to confidentiality provisions of this contract.

9. **INDEMNIFICATION AND LIABILITY:** The Vendor shall indemnify and hold harmless the Tollway and State of Illinois, their directors, agencies, officers, employees, agents and volunteers from any and all costs, demands,

expenses, losses, claims, damages, liabilities, settlements and judgments, including in-house and contracted attorneys' fees and expenses, arising out of: (a) any breach or violation by Vendor of any of its certifications, representations, warranties, covenants or agreements; (b) any actual or alleged death or injury to any person, damage to any property or any other damage or loss claimed to result in whole or in part from Vendor's negligent performance; or (c) any negligent act, activity or omission of Vendor or any of its employees, representatives, subcontractors or agents. Neither Party shall be liable for incidental, special, consequential or punitive damages.

10. **INDEPENDENT CONTRACTOR:** Vendor shall act as an independent contractor and not an agent or employee of, or joint venture with the State. All payments by the State shall be made on that basis.

11. **SOLICITATION AND EMPLOYMENT:** Vendor shall not employ any person employed by the State during the term of this contract to perform any work under this contract. Vendor shall give notice immediately to the Agency's director if Vendor solicits or intends to solicit State employees to perform any work under this contract.

12. **COMPLIANCE WITH THE LAW:** The Vendor, its employees, agents, and subcontractors shall comply with all applicable federal, state, and local laws, rules, ordinances, regulations, orders, federal circulars and all license and permit requirements in the performance of this contract. Vendor shall be in compliance with applicable tax requirements and shall be current in payment of such taxes. Vendor shall obtain at its own expense, all licenses and permissions necessary for the performance of this contract.

13. **BACKGROUND CHECK:** Whenever the State deems it reasonably necessary for security reasons, the State may conduct, at its expense, criminal and driver history background checks of Vendor's and subcontractors officers, employees or agents. Vendor or subcontractor shall reassign immediately any such individual who, in the opinion of the State, does not pass the background check.

14. **APPLICABLE LAW:** This contract shall be construed in accordance with and is subject to the laws and rules of the State of Illinois. The Department of Human Rights' Equal Opportunity requirements (44 Ill. Adm. Code 750) are incorporated by reference. Any claim against the State arising out of this contract must be filed exclusively with the Illinois Court of Claims. 705 ILCS 505/1. The State shall not enter into binding arbitration to resolve any contract dispute. The State of Illinois does not waive sovereign immunity by entering into this contract. The official text of cited statutes is incorporated by reference. An unofficial version can be viewed at http://www.ilga.gov/legislation/ilcs/ilcs.asp.

15. **ANTI-TRUST ASSIGNMENT:** If Vendor does not pursue any claim or cause of action it has arising under federal or state antitrust laws relating to the subject matter of the contract, then upon request of the Illinois Attorney General, Vendor shall assign to the State rights, title and interest in and to the claim or cause of action.

16. **CONTRACTUAL AUTHORITY:** The Agency that signs for the State of Illinois shall be the only State entity responsible for performance and payment under the contract. When the Chief Procurement Officer or authorized designee signs in addition to an Agency, they do so as approving officer and shall have no liability to Vendor. When the Chief Procurement Officer or authorized designee, or State Purchasing Officer signs a master contract on behalf of State agencies, only the Agency that places an order with the Vendor shall have any liability to Vendor for that order.

17. **NOTICES:** Notices and other communications provided for herein shall be given in writing by registered or certified mail, return receipt requested, by receipted hand delivery, by courier (UPS, Federal Express or other similar and reliable carrier), by e-mail, or by fax showing the date and time of successful receipt. Notices shall be sent to the individuals who signed the contract using the contact information following the signatures. Each such notice shall be deemed to have been provided at the time it is actually received. By giving notice, either Party may change the contact information.

18. **MODIFICATIONS AND SURVIVAL:** Amendments, modifications and waivers must be in writing and signed by authorized representatives of the Parties. Any provision of this contract officially declared void, unenforceable, or against public policy, shall be ignored and the remaining provisions shall be interpreted, as far as possible, to give effect to the Parties' intent. All provisions that by their nature would be expected to survive, shall survive termination. In the event of a conflict between the State's and the Vendor's terms, conditions and attachments, the State's terms, conditions and attachments shall prevail.

19. **PERFORMANCE RECORD / SUSPENSION:** Upon request of the State, Vendor shall meet to discuss performance or provide contract performance updates to help ensure proper performance of the contract. The State may consider Vendor's performance under this contract and compliance with law and rule to determine whether to continue the contract, suspend Vendor from doing future business with the State for a specified period of time, or to determine whether Vendor can be considered responsible on specific future contract opportunities.

20. **FREEDOM OF INFORMATION ACT:** This contract and all related public records maintained by, provided to or required to be provided to the State are subject to the Illinois Freedom of Information Act (FOIA) (50 ILCS 140) notwithstanding any provision to the contrary that may be found in this contract.

21. **SCHEDULE OF WORK:** Any work performed on State premises shall be done during the hours designated by the State and performed in a manner that does not interfere with the State and its personnel.

22. **WARRANTIES FOR SUPPLIES AND SERVICES:**

22.1 Vendor warrants that the supplies furnished under this contract will: (a) conform to the standards, specifications, drawing, samples or descriptions furnished by the State or furnished by the Vendor and agreed to by the State, including but not limited to all specifications attached as exhibits hereto; (b) be merchantable, of good quality and workmanship, and free from defects for a period of twelve months or longer if so specified in writing, and fit and sufficient for the intended use; (c) comply with all federal and state laws, regulations and ordinances pertaining to the manufacturing, packing, labeling, sale and delivery of the supplies; (d) be of good title and be free and clear of all liens and encumbrances and; (e) not infringe any patent, copyright or other intellectual property rights of any third party. Vendor agrees to reimburse the State for any losses, costs, damages or expenses, including without limitations, reasonable attorney's fees and expenses, arising from failure of the supplies to meet such warranties.

22.2 Vendor shall insure that all manufacturers' warranties are transferred to the State and shall provide a copy of the warranty. These warranties shall be in addition to all other warranties, express, implied or statutory, and shall survive the State's payment, acceptance, inspection or failure to inspect the supplies.

22.3 Vendor warrants that all services will be performed to meet the requirements of the contract in an efficient and effective manner by trained and competent personnel. Vendor shall monitor performances of each individual and shall reassign immediately any individual who is not performing in accordance with the contract, who is disruptive or not respectful of others in the workplace, or who in any way violates the contract or State policies.

23. **REPORTING, STATUS AND MONITORING SPECIFICATIONS:**

23.1 Vendor shall immediately notify the State of any event that may have a material impact on Vendor's ability to perform the contract.

23.2 By August 31 of each year, Vendor shall report to the Agency or University the number of qualified veterans and certain ex-offenders hired during Vendor's last completed fiscal year. Vendor may be entitled to employment tax credit for hiring individuals in those groups. 35 ILCS 5/216, 5/217.

24. EMPLOYMENT TAX CREDIT: Vendors who hire qualified veterans and certain ex-offenders may be eligible for tax credits. 30 ILCS 500/45-67 and 45-70. Please contact the Illinois Department of Revenue (telephone #: 217-524-4772) for information about tax credits.

25. SUPPLEMENTAL PROVISIONS

25.1 TOLLWAY SUPPLEMENTAL PROVISIONS

25.1.1 Agents and Employees:
Vendor shall be responsible for the negligent acts and omissions of its agents, employees and **subcontractors in their performance of Vendor's duties under this Contract. Vendor represents that it shall** utilize the services of individuals skilled in the profession for which they will be used in performing services or supplying goods hereunder. In the event that the Tollway determines that any individual performing services or supplying goods for Vendor hereunder is not providing such skilled services or delivery of goods, it shall promptly notify the Vendor and the Vendor shall replace that individual.

25.1.2 Publicity:
Vendor shall not, in any advertisement or any other type of solicitation for business, state, indicate or otherwise imply that it is under contract to the Tollway nor shall the Tollway's name be used in any such advertisement or solicitation without prior written approval except as required by law.

25.1.3 Third Party Beneficiaries:
There are no third party beneficiaries to this Contract. This Contract is intended only to benefit the Tollway/Buyer and the Vendor.

25.1.4 Successors In Interest:
All the terms, provisions, and conditions of the Contract shall be binding upon and inure to the benefit of the parties hereto and their respective successors, assigns and legal representatives.

25.1.5 Venue:
Any claim against the Tollway arising out of this contract must be filed exclusively with Circuit Court for the Eighteenth Judicial Circuit, DuPage County, Illinois for State claims and the U.S. District Court for the Northern District of Illinois for Federal claims.

25.1.5.1 Whenever "State" is used or referenced in this Contract, it shall be interpreted to mean "Tollway".

25.1.5.2 The State Prompt Payment Act (30 ILCS 40) does not apply to the Tollway.

25.1.5.3 The Tollway is not currently an appropriated agency.

25.2 Report of a Change in Circumstances: The Vendor 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 Vendor'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 Vendor's Certification/Disclosure Forms, the Vendor's IDOT pre-qualification, or any certification or licensing required for this project. Additionally, Vendor agrees to report to the Tollway within the above timeframe any arrests, indictments, convictions or other matters involving the Vendor, 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 Vendor agrees to incorporate substantially similar reporting requirements into the terms of any and all subcontracts relating to work performed under this agreement. The Vendor agrees to forward or relay to the Tollway any reports received from subconsultants pursuant to this paragraph within 21 days.

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

25.3 VENDOR SUPPLEMENTAL PROVISIONS

☐ Vendor Supplemental Provisions:

STATE OF ILLINOIS

SOLICITATION AND CONTRACT TERMS AND CONDITIONS EXCEPTIONS

Jacobs Engineering Group Inc. agrees with the terms and conditions set forth in the Professional Services Bulletin, including the standard terms and conditions, the Agency/University supplemental provisions, certifications, and disclosures, with the following exceptions:

	Excluding certifications required by statute to be made by the Vendor, both Parties agree that all of the duties and obligations that the Vendor owes to the Agency/University for the work performed shall be pursuant to the solicitation and resulting contract, and Vendor's exceptions accepted by the State thereto as set forth below.
	STANDARD TERMS AND CONDITIONS
Section/ Subsection #	State the exception such as "add," "replace," and/or "delete."
22.1(b)	Replace with "Conform with the Standard of Care exercised by licensed Illinois Engineers."
	ADDITIONAL TERMS AND CONDITIONS
New Provision(s), # et. seq.	**Section/Subsection New Number, Title of New Subsection**: State the new additional term or condition.

The Illinois State Toll Highway Authority hereby agrees to the exceptions provided by **Jacobs Engineering Group Inc.** and to the Additional Terms and Conditions provided by **Jacobs Engineering Group Inc.**

Agreed: Jacobs Engineering Group Inc.	Agreed: The Illinois State Toll Highway Authority
By: Mohammad Hassan	By: Paul D. Kovacs, PE
Signed: [redacted]	Signed: [redacted]
Position: Vice President	Position: Chief Engineering Officer
Date: October 12, 2017	Date: 10/19/17

Subcontractor Information/Delinquent Debt Review
Contractor/Consultant
Sub Contractor/Consultant
FEIN

Illinois Tollway

Date: October 12, 2017 **Project Number:** Item 5: I-17-4300

Project Name: Tri-State Tollway, Roadway Reconstruction, Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3)

DELINQUENT DEBT REVIEW

Sub Contractor/Consultant Disclosure.
Will you be using any sub-consultants/contractors? ☒ Yes ☐ No

If yes, you must identify below, to the extent the information is known, regardless of the subcontract value, the names, addresses and type of work all Sub-Contractors/Consultants that will be utilized in the performance of this Contract, together with the anticipated dollar value (Contractors) or percentage (Consultants) each is expected to receive pursuant to this Contract. The list of subcontractors should include but not be limited to subcontractors, suppliers and truckers proposed to achieve disadvantaged business enterprise and veteran owned business goals. The State may request updated information at any time. For purposes of this section Sub-Contractors/Consultants are those specifically hired to perform part of the work of this contract. Non-DBE suppliers and truckers do not need to be included.

Upon request, our firm agrees to provide a copy of the subcontract, if required, within fifteen (15) days after execution of the contract if selected, or after execution of the subcontract, whichever is later, for those subcontracts with an annual value of more than $50,000. All subcontracts over $50,000 must include the same certifications that the Vendor must make as a condition of the contract. The vendor shall include in each subcontract the subcontractor certifications as shown on the Standard Subcontractor Certification form available from the State.

Delinquent Payment. The Contractor/Consultant certifies that it, or any affiliate, is not barred from being awarded a contract under 30 ILCS 500. Section 50-11 prohibits a person from entering into a contract with a State agency if it knows or should know that it, or any affiliate, is delinquent in the payment of any debt to the State as defined by the Debt Collection Board. Section 50-12 prohibits a person from entering into a contract with the State agency if it, or any affiliate, has failed to collect and remit Illinois Use Tax on all sales of tangible personal property into the State of Illinois in accordance with the provisions of the Illinois Use Tax Act. The Contractor/Consultant further acknowledges that the contracting State agency may declare the contract void if this certification is false or if the Contractor/Consultant or any affiliate is determined to be delinquent in the payment of any debt to the State during the term of the contract.

CONTRACTOR/ CONSULTANT

Contractor/Consultant: Jacobs Engineering Group Inc.
525 W. Monroe, Ste. 1600, Chicago, IL 60661

Federal Employment Identification Number (FEIN) [redacted]

E-Mail: mohammad.hassan@jacobs.com

Include an attachment if more space is needed to provide the below information. The attachment must provide the requested information.

NOTE for Construction Contracts: List all known subcontractors including those identified in the Bid Package on DBE Form 2025 and VOSB Form 2025, and include any name listed in the "Under Contract To" section of these forms.

Sub-Contractor(s)	Sub-Contractor FEIN	Address	General Type of Work	Anticipated Amount to be Paid (to extent known)
Aqua Vitae Engineering, LLC	[redacted]	[redacted]	Erosion & Sediment Control	2.00%
Stanley Consultants, Inc.		[redacted] Des Moines, IA 50309	Roadway and Structural Design	15.00%
ABNA Engineering, Inc.		9901 S. Western Ave., Ste. 001, Chicago, IL 60643	Construction Inspection	4.00%
Fontas Group		1160 Hamilton Avenue University park, IL. 60484	Civil Support	3.00%
GSG Consultants, Inc.		855 West Adams, Suite 200, Chicago, IL 60607	Geotechnical Engineer	6.00%

Primera Engineers, LTD.	[redacted]	00 S. Wacker Drive uite 700 hicago, Illinois 60606	Roadway/Civil Support	8.00%
SDIENGR Corp.	[redacted]	09 W. Washington St. uite 325 hicago, IL 60606	Drainage & Constructability Support	6.00%
DB Sterlin Consultants	[redacted]	23 N. Wacker Dr., Ste. 2000, hicago, IL 60606	Subsurface Utility Engineering	2.00%
Terra Engineering. LTD.	[redacted]	25 W. Ohio St., 4th Floor hicago, IL 60654	Structure Support	6.00%

Signature: [redacted] **Date:** October 12, 2017

Printed Name: Mohammad Hassan

STATE OF ILLINOIS
TAXPAYER IDENTIFICATION NUMBER

I certify that:

The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and

I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and

I am a U.S. person (including a U.S. resident alien).

- If you are an individual, enter your name and SSN as it appears on your Social Security Card.
- If you are a sole proprietor, enter the owner's name on the name line followed by the name of the business and the owner's SSN or EIN.
- If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's name on the name line and the D/B/A on the business name line and enter the owner's SSN or EIN.
- If the LLC is a corporation or partnership, enter the entity's business name and EIN and for corporations, attach IRS acceptance letter (CP261 or CP277).
- For all other entities, enter the name of the entity as used to apply for the entity's EIN and the EIN.

Name: Click here to enter text.

Business Name: Jacobs Engineering Group Inc.

Taxpayer Identification Number:

Social Security Number: Click here to enter text.

or

Employer Identification Number: [redacted]

Legal Status (check one):

- ☐ Individual
- ☐ Sole Proprietor
- ☐ Partnership
- ☐ Legal Services Corporation
- ☐ Tax-exempt
- ☐ Corporation providing or billing medical and/or health care services
- ☒ Corporation NOT providing or billing medical and/or health care services
- ☐ Governmental
- ☐ Nonresident alien
- ☐ Estate or trust
- ☐ Pharmacy (Non-Corp.)
- ☐ Pharmacy/Funeral Home/Cemetery (Corp.)
- ☐ Limited Liability Company (select applicable tax classification)
  - ☐ C = corporation
  - ☐ P = partnership

Signature of Authorized Representative [redacted]

Date: October 12, 2017

STATE OF ILLINOIS
FORMS A

A vendor responding to a solicitation by the State of Illinois must return the information requested within this section with their bid or offer if they are not registered in the Illinois Procurement Gateway (IPG). Failure to do so may render their bid or offer non-responsive and result in disqualification.

Please read this entire Forms A and provide the requested information as applicable and per the instructions. All forms and signature areas contained in this Forms A must be completed in full and submitted along with the bid in an Invitation for Bid; and completed in full and submitted along with the technical response and price proposal, which combined will constitute the Offer, in a Request for Proposal.

Vendor Name: Jacobs Engineering Group Inc.	Phone: 312.251.3000
Street Address: 525 W. Monroe, Suite 1600	Email: mohammad.hassan@jacobs.com
City, State Zip: Chicago, IL 60661	Vendor Contact: Mohammad Hassan

OUTLINE

FORMS A

Complete this section if you are <u>not</u> using an IPG (Illinois Procurement Gateway) Registration #

Part

Business and Directory Information .... 1.

Illinois Department of Human Rights Public Contracts Number .... 2.

Authorized to Do Business in Illinois .... 3.

Standard Certifications .... 4.

State Board of Elections .... 5.

Disclosure of Business Operations in Iran .... 6.

Financial Disclosures and Conflicts of Interest .... 7.

Taxpayer Identification Number .... 8.

STATE OF ILLINOIS
BUSINESS AND DIRECTORY INFORMATION

1.1. Name of Business (official name and DBA)

Jacobs Engineering Group Inc.

1.2. Business Headquarters (address, phone and fax)

1999 Bryan Street, Suite 1200, Dallas, TX 75201

1.3. If a Division or Subsidiary of another organization provide the name and address of the parent

N/A

1.4. Billing Address

1.5. Name of Chief Executive Officer

Steven J. Demetriou

1.6. Company Web Site Address

www.jacobs.com

1.7. Type of Organization (sole proprietor, corporation, etc.--should be same as on Taxpayer ID form below)

Corporation

1.8. Length of time in business

70 years

1.9. Annual Sales for Offeror's most recently completed fiscal year

$11 billion

1.10. Show number of full-time employees, on average, during the most recent fiscal year

54,000

1.11. Is your company at least 51% owned and controlled by individuals in one of the following categories? If "Yes," please check the category that applies:

1.11.1. Minority (30 ILCS 575/2(A)(1) & (3)) ☐ Yes

1.11.2. Female (30 ILCS 575/2(A)(2) & (4)) ☐ Yes

1.11.3. Person with Disability (30 ILCS 575/2(A)(2.05) & (2.1)) ☐ Yes

1.11.4. Disadvantaged (49 CFR 26) ☐ Yes

1.11.5. Veteran (30 ILCS 500/45-57) ☐ Yes

STATE OF ILLINOIS
ILLINOIS DEPARTMENT OF HUMAN RIGHTS PUBLIC CONTRACT NUMBER

2.1. If Offeror employed fifteen or more full-time employees at the time of submission of their response to this solicitation or any time during the previous 365-day period leading up to submission, it must have a current IDHR Public Contract Number or have proof of having submitted a completed application for one **prior** to the solicitation opening date. 775 ILCS 5/2-101. If the Agency/University cannot confirm compliance, it will not be able to consider a Vendor's bid or offer. Please complete the appropriate sections below:

Name of Company (and DBA): Jacobs Engineering Group Inc.

☐ (check if applicable) The number is not required as the company has not met or exceeded the number of employees that makes registration necessary under the requirements of the Human Rights Act described above.

IDHR Public Contracts Number: 130658-02 Expiration Date: 8/29/2019.

2.2. If number has not yet been issued, provide the date a completed application for the number was submitted to IDHR: .

2.3. Upon expiration and until their Contractor Identification Number is renewed, companies will not be eligible to be awarded contracts by the State of Illinois or other jurisdictions that require a current IDHR number as a condition of contract eligibility. 44 ILL. ADM. CODE 750.210(a).

2.4. Numbers issued by the Department of Human Rights (or its predecessor agency, the Illinois Fair Employment Practices Commission) prior to July 1, 1998 are no longer valid. This affects numbers below 89999-00-0. Valid numbers begin with 900000-00-0.

2.5. If Offeror's organization holds an expired number, it must re-register with the Department of Human Rights.

2.6. Offeror may obtain an application form by:

2.6.1. Telephone: Call the IDHR Public Contracts Unit at (312) 814-2431 between Monday and Friday, 8:30 AM - 5:00 PM, CST. (TDD (312) 263-1579).

2.6.2. Internet: You may download the form from the Department of Human Rights' website at (http://www2.illinois.gov/dhr/PublicContracts/Pages/default.aspx).

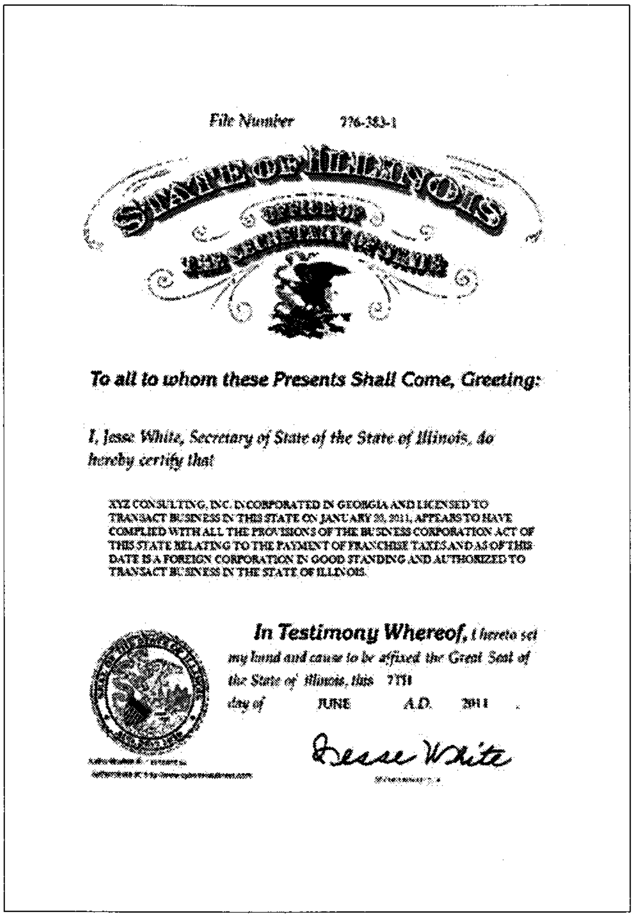
2.6.3. Mail: Write to the Department of Human Rights, Public Contracts Unit, 100 West Randolph Street, Suite 10-100, Chicago, IL 60601.

3. A person, other than an individual acting as a sole proprietor, must be a duly constituted legal entity and authorized to transact business or conduct affairs in Illinois prior to submitting an offer. 30 ILCS 500/20-43. Offerors must review and complete certification #4.32 in the Standard Certifications found in Forms A, Part 4.

   Certification #4.32 requires Vendor to check one of two boxes representing its status. The State may request evidence from a vendor that certifies it is authorized to do business in Illinois proving such authorization. Failure to produce evidence in a timely manner may be considered grounds for determining Vendor non-responsive or not responsible.

   For information on registering to transact business or conduct affairs in Illinois, please visit the Illinois Secretary of State's Department of Business Services at their website at (http://cyberdriveillinois.com/departments/business_services/home.html) or your home county clerk.

EVIDENCE OF BEING AUTHORIZED TO TRANSACT BUSINESS OR CONDUCT AFFAIRS IS THE SECRETARY OF STATE'S CERTIFICATE OF GOOD STANDING



File Number 776-383-1

To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that

XYZ CONSULTING, INC. INCORPORATED IN GEORGIA AND LICENSED TO TRANSACT BUSINESS IN THIS STATE ON JANUARY [illegible], 2011, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE BUSINESS CORPORATION ACT OF THIS STATE RELATING TO THE PAYMENT OF FRANCHISE TAXES AND AS OF THIS DATE IS A FOREIGN CORPORATION IN GOOD STANDING AND AUTHORIZED TO TRANSACT BUSINESS IN THE STATE OF ILLINOIS.

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 7TH *day of* JUNE A.D. 2011 .

Jesse White

File Number 5455-366-8

STATE OF ILLINOIS
OFFICE OF THE SECRETARY OF STATE

To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

JACOBS ENGINEERING GROUP INC., INCORPORATED IN DELAWARE AND LICENSED TO TRANSACT BUSINESS IN THIS STATE ON FEBRUARY 17, 1987, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE BUSINESS CORPORATION ACT OF THIS STATE RELATING TO THE PAYMENT OF FRANCHISE TAXES, AND AS OF THIS DATE, IS A FOREIGN CORPORATION IN GOOD STANDING AND AUTHORIZED TO TRANSACT BUSINESS IN THE STATE OF ILLINOIS.

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 21ST *day of* FEBRUARY *A.D.* 2017 .

SEAL OF THE STATE OF ILLINOIS AUG. 26TH 1818

Authentication #: 1705200654 verifiable until 02/21/2018
Authenticate at: http://www.cyberdriveillinois.com

Jesse White

SECRETARY OF STATE

EXHIBIT "1"

Vendor acknowledges and agrees that compliance with this subsection in its entirety for the term of the contract and any renewals is a material requirement and condition of this contract. By executing this contract Vendor certifies compliance with this subsection in its entirety, and is under a continuing obligation to remain in compliance and report any non-compliance.

This subsection, in its entirety, applies to subcontractors used on this contract. Vendor shall include these Standard Certifications in any subcontract used in the performance of the contract using the Standard Certification form provided by the State.

If this contract extends over multiple fiscal years, including the initial term and all renewals, Vendor and its subcontractors shall confirm compliance with this section in the manner and format determined by the State by the date specified by the State and in no event later than July 1 of each year that this contract remains in effect.

If the Parties determine that any certification in this section is not applicable to this contract it may be stricken without affecting the remaining subsections.

4.1. As part of each certification, Vendor acknowledges and agrees that should Vendor or its subcontractors provide false information, or fail to be or remain in compliance with the Standard Certification requirements, one or more of the following sanctions will apply:

- the contract may be void by operation of law,
- the State may void the contract, and
- the Vendor and it subcontractors may be subject to one or more of the following: suspension, debarment, denial of payment, civil fine, or criminal penalty.

Identifying a sanction or failing to identify a sanction in relation to any of the specific certifications does not waive imposition of other sanctions or preclude application of sanctions not specifically identified.

4.2. Vendor certifies it and its employees will comply with applicable provisions of the United States Civil Rights Act, Section 504 of the Federal Rehabilitation Act, the Americans with Disabilities Act, and applicable rules in performance of this contract.

4.3. Vendor, if an individual, sole proprietor, partner or an individual as member of a LLC, certifies he/she is not in default on an educational loan. 5 ILCS 385/3.

4.4. Vendor, if an individual, sole proprietor, partner or an individual as member of a LLC, certifies it he/she has not received (i) an early retirement incentive prior to 1993 under Section 14-108.3 or 16-133.3 of the Illinois Pension Code or (ii) an early retirement incentive on or after 2002 under Section 14-108.3 or 16-133.3 of the Illinois Pension Code. 30 ILCS 105/15a; 40 ILCS 5/14-108.3; 40 ILCS 5/16-133.

4.5. Vendor certifies that it is a legal entity authorized to do business in Illinois prior to submission of a bid, offer, or proposal. 30 ILCS 500/1-15.80, 20-43.

4.6. To the extent there was a current Vendor providing the services covered by this contract and the employees of that Vendor who provided those services are covered by a collective bargaining agreement, Vendor certifies (i) that it will offer to assume the collective bargaining obligations of the prior employer, including any existing collective bargaining agreement with the bargaining representative of any existing collective bargaining unit or units performing substantially similar work to the services covered by the contract subject to its bid or offer; and (ii) that it shall offer employment to all employees currently employed in any existing bargaining unit who perform substantially similar work to the work that will be performed pursuant to this contract. This does not apply to heating, air conditioning, plumbing and electrical service contracts. 30 ILCS 500/25-80. **See Attachment A.**

4.7. Vendor certifies it has neither been convicted of bribing or attempting to bribe an officer or employee of the State of Illinois or any other State, nor made an admission of guilt of such conduct that is a matter of record. 30 ILCS 500/50-5.

4.8. If Vendor has been convicted of a felony, Vendor certifies at least five years have passed after the date of completion of the sentence for such felony, unless no person held responsible by a prosecutor's office for the facts upon which the conviction was based continues to have any involvement with the business. 30 ILCS 500/50-10.

4.9. If Vendor or any officer, director, partner, or other managerial agent of Vendor has been convicted of a felony under the Sarbanes-Oxley Act of 2002, or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953, Vendor certifies at least five years have passed since the date of the conviction. Vendor further certifies that it is not barred from being awarded a contract and acknowledges that the State shall declare the contract void if this certification is false. 30 ILCS 500/50-10.5.

4.10. Vendor certifies it is not barred from having a contract with the State based upon violating the prohibitions related to either submitting/writing specifications or providing assistance to an employee of the State of Illinois by reviewing, drafting, directing, or preparing any invitation for bids, a request for proposal, or request of information, or similar assistance (except as part of a public request for such information). 30 ILCS 500/50-10.5(e), *amended* by Pub. Act No. 97-0895 (August 3, 2012).

4.11. Vendor certifies that it and its affiliates are not delinquent in the payment of any debt to the State (or if delinquent has entered into a deferred payment plan to pay the debt), and Vendor and its affiliates acknowledge the State may declare the contract void if this certification is false or if Vendor or an affiliate later becomes delinquent and has not entered into a deferred payment plan to pay off the debt. 30 ILCS 500/50-11, 50-60.

4.12. Vendor certifies that it and all affiliates shall collect and remit Illinois Use Tax on all sales of tangible personal property into the State of Illinois in accordance with provisions of the Illinois Use Tax Act and acknowledges that failure to comply may result in the contract being declared void. 30 ILCS 500/50-12.

4.13. Vendor certifies that it has not been found by a court or the Pollution Control Board to have committed a willful or knowing violation of the Environmental Protection Act within the last five years, and is therefore not barred from being awarded a contract. 30 ILCS 500/50-14.

4.14. Vendor certifies it has neither paid any money or valuable thing to induce any person to refrain from bidding on a State contract, nor accepted any money or other valuable thing, or acted upon the promise of same, for not bidding on a State contract. 30 ILCS 500/50-25.

4.15. Vendor certifies it is not in violation of the "Revolving Door" provisions of the Illinois Procurement Code. 30 ILCS 500/50-30.

4.16. Vendor certifies that it has not retained a person or entity to attempt to influence the outcome of a procurement decision for compensation contingent in whole or in part upon the decision or procurement. 30 ILCS 500/50-38.

4.17. Vendor certifies that if it has hired a person required to register under the Lobbyist Registration Act to assist in obtaining any State contract, that none of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration were billed to the State. 30 ILCS 500\50-38.

4.18. Vendor certifies it will report to the Illinois Attorney General and the Chief Procurement Officer any suspected collusion or other anti-competitive practice among any bidders, offerors, contractors, proposers, or employees of the State. 30 ILCS 500/50-40, 50-45, 50-50.

4.19. Vendor certifies steel products used or supplied in the performance of a contract for public works shall be manufactured or produced in the United States, unless the executive head of the procuring Agency/University grants an exception. 30 ILCS 565.

4.20. Drug Free Workplace

4.20.1. If Vendor employs 25 or more employees and this contract is worth more than $5,000, Vendor certifies it will provide a drug free workplace pursuant to the Drug Free Workplace Act.

4.20.2. If Vendor is an individual and this contract is worth more than $5000, Vendor certifies it shall not engage in the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance during the performance of the contract. 30 ILCS 580.

4.21. Vendor certifies that neither Vendor nor any substantially owned affiliate is participating or shall participate in an international boycott in violation of the U.S. Export Administration Act of 1979 or the applicable regulations of the United States. Department of Commerce. 30 ILCS 582.

4.22. Vendor certifies it has not been convicted of the offense of bid rigging or bid rotating or any similar offense of any state or of the United States. 720 ILCS 5/33 E-3, E-4.

4.23. Vendor certifies it complies with the Illinois Department of Human Rights Act and rules applicable to public contracts, which include providing equal employment opportunity, refraining from unlawful discrimination, and having written sexual harassment policies. 775 ILCS 5/2-105.

4.24. Vendor certifies it does not pay dues to or reimburse or subsidize payments by its employees for any dues or fees to any "discriminatory club." 775 ILCS 25/2.

4.25. Vendor certifies that no foreign-made equipment, materials, or supplies furnished to the State under the contract have been or will be produced in whole or in part by forced labor or indentured labor under penal sanction. 30 ILCS 583.

4.26. Vendor certifies that no foreign-made equipment, materials, or supplies furnished to the State under the contract have been produced in whole or in part by the labor of any child under the age of 12. 30 ILCS 584.

4.27. Vendor certifies that any violation of the Lead Poisoning Prevention Act, as it applies to owners of residential buildings, has been mitigated. 410 ILCS 45.

4.28. Vendor warrants and certifies that it and, to the best of its knowledge, its subcontractors have and will comply with Executive Order No. 1 (2007). The Order generally prohibits Vendors and subcontractors from hiring the then-serving Governor's family members to lobby procurement activities of the State, or any other unit of government in Illinois including local governments if that procurement may result in a contract valued at over $25,000. This prohibition also applies to hiring for that same purpose any former State employee who had procurement authority at any time during the one-year period preceding the procurement lobbying activity.

4.29. Vendor certifies that information technology, including electronic information, software, systems and equipment, developed or provided under this contract comply with the applicable requirements of the Illinois Information Technology Accessibility Act Standards as published at (www.dhs.state.il.us/iitaa) 30 ILCS 587.

4.30. Vendor certifies that it has read, understands, and is in compliance with the registration requirements of the Elections Code (10 ILCS 5/9-35) and the restrictions on making political contributions and related requirements of the Illinois Procurement Code. 30 ILCS 500/20-160 and 50-37. Vendor will not make a political contribution that will violate these requirements.

In accordance with section 20-160 of the Illinois Procurement Code, Vendor certifies as applicable:

☐ Vendor is not required to register as a business entity with the State Board of Elections.

or

☒ Vendor has registered with the State Board of Elections. As a registered business entity, Vendor acknowledges a continuing duty to update the registration as required by the Act.

4.31. Vendor certifies that if it is awarded a contract through the use of the preference required by the Procurement of Domestic Products Act, then it shall provide products pursuant to the contract or a subcontract that are manufactured in the United States. 30 ILCS 517.

4.32. A person (other than an individual acting as a sole proprietor) must be a duly constituted legal entity and authorized to transact business or conduct affairs in Illinois prior to submitting a bid or offer. 30 ILCS 500/20-43. If you do not meet these criteria, then your bid or offer will be disqualified.

Vendor must make one of the following two certifications by checking the appropriate box.

A. ☐ Vendor certifies it is an individual acting as a sole proprietorand is therefore not subject to the requirements of section 20-43 of the Procurement Code.

B. ☒ Vendor certifies that it is a legal entity, and was authorized to transact business or conduct affairs in Illinois as of the date for submitting this bid or offer. The State may require Vendor to provide evidence of compliance before award.

4.33. Vendor certifies that, for the duration of this contract it will:

- post its employment vacancies in Illinois and border states on the Department of Employment Security's IllinoisJobLink.com website or its successor system; or
- will provide an online link to these employment vacancies so that this link is accessible through the IllinoisJobLink.com website it successor system; or
- is exempt from 20 ILCS 1005/1005-47 because the contract is for construction-related services as that term is defined in section 1-15.20 of the Procurement Code; or the contract is for construction and vendor is a party to a contract with a bona fide labor organization and performs construction. (20 ILCS 1005/1005-47).

5. Section 50-37 of the Illinois Procurement Code prohibits political contributions of certain vendors, bidders and offerors. Additionally, section 9-35 of the Illinois Election Code governs provisions relating to reporting and making contributions to state officeholders, declared candidates for State offices and covered political organizations that promote the candidacy of an officeholder or declared candidate for office. The State may declare any resultant contract void if these Acts are violated.

Generally, if a vendor, bidder, or offeror is an entity doing business for profit (i.e. sole proprietorship, partnership, corporation, limited liability company or partnership, or otherwise) and has contracts with State agencies that annually total more than $50,000 or whose aggregate pending bids or proposals and current State contracts that total more than $50,000, the vendor, bidder, or offeror is prohibited from making political contributions and must register with the State Board of Elections. 30 ILCS 500/20-160.

EVIDENCE OF REGISTRATION WITH THE STATE BOARD OF ELECTIONS
IS THE CERTIFICATE OF REGISTRATION

Certificate of Registration

STATE BOARD OF ELECTIONS

Registration No. 15828

Jacobs Engineering Group Inc.

600 Wilshire Boulevard
Suite 1000 -Legal
Los Angeles CA 90017

Information for this business last updated on:

Thursday, February 9, 2017

Certificate produced on Thursday, February 09, 2017 at 5:03 PM

STATE OF ILLINOIS
DISCLOSURE OF BUSINESS OPERATIONS WITH IRAN

6. In accordance with 30 ILCS 500/50-36, each bid, offer, or proposal submitted for a State contract, other than a small purchase defined in Section 20-20 of the Illinois Procurement Code, will include a disclosure of whether or not the bidder, offeror, or proposing entity, or any of its corporate parents or subsidiaries, within the 24 months before submission of the bid, offer, or proposal had business operations that involved contracts with or provision of supplies or services to the Government of Iran, companies in which the Government of Iran has any direct or indirect equity share, consortiums or projects commissioned by the Government of Iran and:

- more than 10% of the company's revenues produced in or assets located in Iran involve oil-related activities or mineral-extraction activities; less than 75% of the company's revenues produced in or assets located in Iran involve contracts with or provision of oil-related or mineral – extraction products or services to the Government of Iran or a project or consortium created exclusively by that Government; and the company has failed to take substantial action; or

- the company has, on or after August 5, 1996, made an investment of $20 million or more, or any combination of investments of at least $10 million each that in the aggregate equals or exceeds $20 million in any 12- month period that directly or significantly contributes to the enhancement of Iran's ability to develop petroleum resources of Iran.

A bid or offer that does not include this disclosure may be given a period after the bid or offer is submitted to cure non-disclosure. A chief procurement officer may consider the disclosure when evaluating the bid or offer or awarding the contract.

☒ There are no business operations that must be disclosed to comply with the above cited law.

☐ The following business operations are disclosed to comply with the above cited law:

STATE OF ILLINOIS
FINANCIAL DISCLOSURES AND CONFLICTS OF INTEREST

The Financial Disclosures and Conflicts of Interest form ("form") must be accurately completed and submitted by the vendor, parent entity(ies), and subcontractors. There are **nine** steps to this form and each must be completed as instructed in the step heading and within the step. A bid or offer that does not include this form shall be considered non-responsive. The Agency/University will consider this form when evaluating the bid or offer or awarding the contract.

The requirement of disclosure of financial interests and conflicts of interest is a continuing obligation. If circumstances change and the disclosure is no longer accurate, then disclosing entities must provide an updated form.

Separate forms are required for the vendor, parent entity(ies), and subcontractors.

This disclosure is submitted for:

- ☒ Vendor
- ☐ Vendor's Parent Entity(ies) (100% ownership)
- ☐ Subcontractor(s) >$50,000 (annual value)
- ☐ Subcontractor's Parent Entity(ies) (100% ownership) > $50,000 (annual value)

Project Name	Tri-State Tollway, Roadway Reconstruction, Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3)
Illinois Procurement Bulletin Number	22040490
Contract Number	I-17-4300
Vendor Name	Jacobs Engineering Group Inc.
Doing Business As (DBA)	N/A
Disclosing Entity	Jacobs Engineering Group Inc.
Disclosing Entity's Parent Entity	N/A
Subcontractor	N/A
Instrument of Ownership or Beneficial Interest	Corporate Stock (C-Corporation, S-Corporation, Professional Corporation, Service Corporation) ☐ If you selected Other, please describe:

STEP 1
SUPPORTING DOCUMENTATION SUBMITTAL

(All vendors complete regardless of annual bid, offer, or contract value)
(Subcontractors with subcontract annual value of more than $50,000 must complete)

You must select one of the six options below and select the documentation you are submitting. You must provide the documentation that the applicable section requires with this form.

☒ Option 1 – Publicly Traded Entities

1.A. ☐ Complete Step 2, Option A for each qualifying individual or entity holding any ownership or distributive income share in excess of 5% or an amount greater than 60% ($106,447.20) of the annual salary of the Governor.

OR

1.B. ☒ Attach a copy of the Federal 10-K or provide a web address of an electronic copy of the Federal 10-K, and skip to Step 3.

☐ Option 2 – Privately Held Entities with more than 100 Shareholders

2.A. ☐ Complete Step 2, Option A for each qualifying individual or entity holding any ownership or distributive income share in excess of 5% or an amount greater than 60% ($106,447.20) of the annual salary of the Governor.

OR

2.B. ☐ Complete Step 2, Option A for each qualifying individual or entity holding any ownership share in excess of 5% and attach the information Federal 10-K reporting companies are required to report under 17 CFR 229.401.

☐ Option 3 – All other Privately Held Entities, not including Sole Proprietorships

3.A. ☐ Complete Step 2, Option A for each qualifying individual or entity holding any ownership or distributive income share in excess of 5% or an amount greater than 60% ($106,447.20) of the annual salary of the Governor.

☐ Option 4 – Foreign Entities

4.A. ☐ Complete Step 2, Option A for each qualifying individual or entity holding any ownership or distributive income share in excess of 5% or an amount greater than 60% ($106,447.20) of the annual salary of the Governor.

OR

4.B. ☐ Attach a copy of the Securities Exchange Commission Form 20-F or 40-F and skip to Step 3.

☐ Option 5 – Not-for-Profit Entities

☐ Complete Step 2, Option B.

☐ Option 6 – Sole Proprietorships

☐ Skip to Step 3.

STEP 2
DISCLOSURE OF FINANCIAL INTEREST OR BOARD OF DIRECTORS

(All vendors, except sole proprietorships, must complete regardless of annual bid, offer, or contract value)
(Subcontractors with subcontract annual value of more than $50,000 must complete)

Complete **either** Option A (for all entities other than not-for-profits) or Option B (for not-for-profits). Additional rows may be inserted into the tables or an attachment may be provided if needed.

OPTION A – Ownership Share and Distributive Income

Ownership Share – If you selected Option 1.A., 2.A., 2.B., 3.A., or 4.A. in Step 1, provide the name and address of each individual or entity and their percentage of ownership if said percentage exceeds 5%, or the dollar value of their ownership if said dollar value exceeds $106,447.20.

☐ Check here if including an attachment with requested information in a format substantially similar to the format below.

TABLE – X

Name	Address	Percentage of Ownership	$ Value of Ownership
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.

Distributive Income – If you selected Option 1.A., 2.A., 3.A., or 4.A. in Step 1, provide the name and address of each individual or entity and their percentage of the disclosing vendor's total distributive income if said percentage exceeds 5% of the total distributive income of the disclosing entity, or the dollar value of their distributive income if said dollar value exceeds $106,447.20.

☐ Check here if including an attachment with requested information in a format substantially similar to the format below.

TABLE – Y

Name	Address	% of Distributive Income	$ Value of Distributive Income
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.

Please certify that the following statements are true.

I have disclosed all individuals or entities that hold an ownership interest of greater than 5% or greater than $106,447.20.

☐ Yes ☐ No

I have disclosed all individuals or entities that were entitled to receive distributive income in an amount greater than $106,447.20 or greater than 5% of the total distributive income of the disclosing entity.

☐ Yes ☐ No

OPTION B – Disclosure of Board of Directors (Not-for-Profits)

If you selected Option 5 in Step 1, list members of your board of directors. Please include an attachment if necessary.

TABLE – Z	
Name	**Address**
Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.

STEP 3
DISCLOSURE OF LOBBYIST OR AGENT
(Complete only if bid, offer, or contract has an annual value over $50,000)
(Subcontractors with subcontract annual value of more than $50,000 must complete)

☐ Yes ☒ No. Is your company represented by or do you employ a lobbyist required to register under the Lobbyist Registration Act (lobbyist must be registered pursuant to the Act with the Secretary of State) or other agent who is not identified through Step 2, Option A above and who has communicated, is communicating, or may communicate with any State/Public University officer or employee concerning the bid or offer? If yes, please identify each lobbyist and agent, including the name and address below.

If you have a lobbyist that does not meet the criteria, then you do not have to disclose the lobbyist's information.

Name	Address	Relationship to Disclosing Entity
Click here to enter text.	Click here to enter text.	Click here to enter text.

Describe all costs/fees/compensation/reimbursements related to the assistance provided by each representative lobbyist or other agent to obtain this Agency/University contract: Click here to enter text.

STEP 4
PROHIBITED CONFLICTS OF INTEREST

(All vendors must complete regardless of annual bid, offer, or contract value)
(Subcontractors with subcontract annual value of more than $50,000 must complete)

Step 4 must be completed for each person disclosed in Step 2, Option A and for sole proprietors identified in Step 1, Option 6 above. Please provide the name of the person for which responses are provided: Click here to enter text.

1. Do you hold or are you the spouse or minor child who holds an elective office in the State of Illinois or hold a seat in the General Assembly? ☐ Yes ☐ No
2. Have you, your spouse, or minor child been appointed to or employed in any offices or agencies of State government and receive compensation for such employment in excess of 60% ($106,447.20) of the salary of the Governor? ☐ Yes ☐ No
3. Are you or are you the spouse or minor child of an officer or employee of the Capital Development Board or the Illinois Toll Highway Authority? ☐ Yes ☐ No
4. Have you, your spouse, or an immediate family member who lives in your residence currently or who lived in your residence within the last 12 months been appointed as a member of a board, commission, authority, or task force authorized or created by State law or by executive order of the Governor? ☐ Yes ☐ No
5. If you answered yes to any question in 1-4 above, please answer the following: Do you, your spouse, or minor child receive from the vendor more than 7.5% of the vendor's total distributable income or an amount of distributable income in excess of the salary of the Governor ($177,412.00)? ☐ Yes ☐ No
6. If you answered yes to any question in 1-4 above, please answer the following: Is there a combined interest of self with spouse or minor child more than 15% in the aggregate of the vendor's distributable income or an amount of distributable income in excess of two times the salary of the Governor ($354,824.00)? ☐ Yes ☐ No

STEP 5
POTENTIAL CONFLICTS OF INTEREST RELATING TO PERSONAL RELATIONSHIPS

(Complete only if bid, offer, or contract has an annual value over $50,000)
(Subcontractors with subcontract annual value of more than $50,000 must complete)

Step 5 must be completed for each person disclosed in Step 2, Option A and for sole proprietors identified in Step 1, Option 6 above.

Please provide the name of the person for which responses are provided: Click here to enter text.

1. Do you currently have, or in the previous 3 years have you had State employment, including contractual employment of services? ☐ Yes ☐ No
2. Has your spouse, father, mother, son, or daughter, had State employment, including contractual employment for services, in the previous 2 years? ☐ Yes ☐ No

3. Do you hold currently or have you held in the previous 3 years elective office of the State of Illinois, the government of the United States, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois? ☐ Yes ☐ No
4. Do you have a relationship to anyone (spouse, father, mother, son, or daughter) holding elective office currently or in the previous 2 years? ☐ Yes ☐ No
5. Do you hold or have you held in the previous 3 years any appointive government office of the State of Illinois, the United States of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of expenses incurred in the discharge of that office? ☐ Yes ☐ No
6. Do you have a relationship to anyone (spouse, father, mother, son, or daughter) holding appointive office currently or in the previous 2 years? ☐ Yes ☐ No
7. Do you currently have or in the previous 3 years had employment as or by any registered lobbyist of the State government? ☐ Yes ☐ No
8. Do you currently have or in the previous 2 years had a relationship to anyone (spouse, father, mother, son, or daughter) that is or was a registered lobbyist? ☐ Yes ☐ No
9. Do you currently have or in the previous 3 years had compensated employment by any registered election or re-election committee registered with the Secretary of State or any county clerk in the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections? ☐ Yes ☐ No
10. Do you currently have or in the previous 2 years had a relationship to anyone (spouse, father, mother, son, or daughter) who is or was a compensated employee of any registered election or reelection committee registered with the Secretary of State or any county clerk in the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections? ☐ Yes ☐ No

STEP 6
EXPLANATION OF AFFIRMATIVE RESPONSES

(All vendors must complete regardless of annual bid, offer, or contract value)
(Subcontractors with subcontract annual value of more than $50,000 must complete)

If you answered "Yes" in Step 4 or Step 5, please provide on an additional page a detailed explanation that includes, but is not limited to the name, salary, State agency or university, and position title of each individual.

STEP 7
POTENTIAL CONFLICTS OF INTEREST
RELATING TO DEBARMENT & LEGAL PROCEEDINGS

(Complete only if bid, offer, or contract has an annual value over $50,000)
(Subcontractors with subcontract annual value of more than $50,000 must complete)

This step must be completed for each person disclosed in Step 2, Option A, Step 3, and for each entity and sole proprietor disclosed in Step 1.

Please provide the name of the person or entity for which responses are provided: Jacobs Engineering Group Inc.

1. Within the previous ten years, have you had debarment from contracting with any governmental entity? ☐ Yes ☒ No
2. Within the previous ten years, have you had any professional licensure discipline? ☐ Yes ☒ No
3. Within the previous ten years, have you had any bankruptcies? ☐ Yes ☒ No
4. Within the previous ten years, have you had any adverse civil judgments and administrative findings? ☒ Yes ☐ No
5. Within the previous ten years, have you had any criminal felony convictions? ☐ Yes ☒ No

If you answered "Yes", please provide a detailed explanation that includes, but is not limited to the name, State agency or university, and position title of each individual. **See Attachment A.**

STEP 8
DISCLOSURE OF CURRENT AND PENDING CONTRACTS

(Complete only if bid, offer, or contract has an annual value over $50,000)
(Subcontractors with subcontract annual value of more than $50,000 must complete)

If you selected Option 1, 2, 3, 4, or 6 in Step 1, do you have any contracts, pending contracts, bids, proposals, subcontracts, leases or other ongoing procurement relationships with units of State of Illinois government?

☒ Yes ☐ No.

If "Yes", please specify below. Additional rows may be inserted into the table or an attachment may be provided if needed. **Please see attached.**

THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY

TO: Victoria Santiago
Sr. State Purchasing Officer

DATE: October 13, 2017

FROM: Paul D. Kovacs, P.E.
Chief Engineering Officer PK

SUBJECT: Contract No. I-17-4300
Jacobs Engineering Group Inc.
Affirmative Response on Forms A Disclosures – Step 7, Question 4

In the Forms A disclosures submitted for Jacobs Engineering Group Inc., the following question was answered Yes: Within the previous ten years, have you had any adverse civil judgments and administrative findings? An explanation was included in Jacobs's disclosures.

By copy of this memo, Engineering confirms our review of the information disclosed and that the Tollway has no issue with this information and recommends proceeding with the contract.

PDK:sb

Attachment A

PSB 17-3

Supplemental response to Item 4.6 of the Standard Certifications

Pursuant to 30 ILCS 500/25-80: "Successor Contractor" a certification regarding collective bargaining obligations is required for any service contract which is subject to this statute. 30 ILCS 500/25-5 states that Article 25 applies to all contracts for supplies and services, "excluding professional or artistic services". The Vendor performs professional services and therefore Article 25 of the 30 ILCS 500 does not apply and Vendor is not required to certify to 30 ILCS 500/25-80.

Supplemental response to Step 7 of the Financial Disclosures & Conflict of Interest Form

The Submitting Firm, Jacobs Engineering Group Inc., and its subsidiaries form an organization that is comprised of approximately 125 operating companies and affiliates, having a total current employment complement of over 50,000 persons and revenues approaching $11 billion. From time to time and in the ordinary course of its business, the Company is subject to various claims, disputes, terminations, arbitrations, and other legal proceedings. It is the Company's practice to vigorously defend itself in such actions, many of which are generally subject to insurance and one of which are expected to have a materially adverse effect on the Company's consolidated financial statements.

Agency/ University	Project Title	Status	Value	Contract Reference/P.O./Illinois Procurement Bulletin #
IDOT	US 20 Phase I Study	Current Contract (Prime)	$1.8M	P-91-004-11 PTB 157 Item 10
IDOT	Statewide Structural Engineering Services	Current Contract (Prime)	$2M	D-30-010-11 PTB 159 Item 31
IDOT	1-90 REVLAC Study	Current Contract (on hold)	$404K	D-91-152-12 PTB 162 Item 6
IDOT	IDOT HSR Vehicle Procurement Support	Current Contract (Subcontractor)	$200K	D-30-001-13 PTB 165 Item 20
IDOT	1-94/US 41 Smart Corridor Study & Design	Current Contract (Prime)	$2.9M	P-91-376-13 PTB 168 Item 6
IDOT	1-474 Bridge Over IL River	Current Contract (Prime)	$537K	P-94-026-12 / D-94-046-12 PTB 171 Item 11
IDOT	Various Lighting and Electrical Phase II Projects	Current Contract (Subcontractor)	$82K	D-91-355-14 PTB 172 Item 9
IDOT	District 1 Sign & Tower Structure Inspections	Current Contractor (Subcontractor)	$20K	D-60-034-15 PTB 172 Item 32
Illinois Tollway	1-90 Construction Corridor Management	Current Contract (Subcontractor)	$5.4M	I-13-4103 PSB 13-1 Item 14
Illinois Tollway	Construction Management Services Upon Request	Pending Contract (Subcontractor)	$375K	RR-13-9150 PSB 13-4 Item 12
Illinois Tollway	1-294 Roadway Study, Cermak Road to Balmoral Avenue	Current Contract (Prime)	$38M	RR-14-4224 PSB 14-3 Item 4
Illinois Tollway	Systemwide, Traffic O&M Performance	Current Contract (Subcontractor)	$310K	RR-14-9172 PSB 14-3 Item 12
Illinois Tollway	Systems Integrator Services	Current Contract (Prime)	$2.4M	13-0082
Illinois Tollway	Technology Professional Services	Current Contract (Subcontractor)	$38K	13-0218

Agency/University	Project Title	Status	Value	Contract Reference/P.O./Illinois Procurement Bulletin #
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.

Please explain the procurement relationship: Vendor/Subcontractor

STEP 9
SIGN THE DISCLOSURE

(All vendors must complete regardless of annual bid, offer, or contract value)
(Subcontractors with subcontract annual value of more than $50,000 must complete)

This disclosure is signed, and made under penalty of perjury for all for-profit entities, by an authorized officer or employee on behalf of the bidder or offeror pursuant to Sections 50-13 and 50-35 of the Illinois Procurement Code. This disclosure information is submitted on behalf of:

Name of Disclosing Entity: Jacobs Engineering Group Inc.

Signature [redacted] Date: October 12, 2017

Printed Name: Mohammad Hassan

Title: Director of Operations

Phone Number: 312.251.3000

Email Address: mohammad.hassan@jacobs.com

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO
SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended September 30, 2016 **Commission File No. 1-7463**

Jacobs Engineering Group Inc.

Delaware State of incorporation	**95-4081636** IRS Employer identification number
1999 Bryan Street, Suite 1200 **Dallas, Texas 75201** Address of principal executive offices	**(214) 583-8500** Telephone number (including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, $1 par value	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check-mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act: ☒ Yes ☐ No

Indicate by check-mark if the Registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. ☐ Yes ☒ No

Indicate by check-mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ☒ Yes ☐ No

Indicate by check-mark whether the Registrant: has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit and post such files). ☒ Yes - ☐ No

Indicate by check-mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of the Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check-mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of "large accelerated filer", "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐

Indicate by check-mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Act) ☐ Yes ☒ No

There were 120,750,218 shares of common stock outstanding as of November 18, 2016. The aggregate market value of the Registrant's common equity held by non-affiliates was approximately $5.3 billion as of April 1, 2016, based upon the last reported sales price on the New York Stock Exchange on that date.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive proxy statement to be issued in connection with its 2017 annual meeting of shareholders are incorporated by reference into Part III of this Annual Report on Form 10-K where indicated.

JACOBS ENGINEERING GROUP INC.

Fiscal 2016 Annual Report on Form 10-K

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PAR T I

FORWARD-LOOKING STATEMENTS

In addition to historical information, this Annual Report on Form 10-K contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are statements that do not directly relate to any historical or current fact. When used herein, words such as "expects," "anticipates," "believes," "seeks," "estimates," "plans," "intends," "future," "will," "would," "could," "can," "may," and similar words are intended to identify forward-looking statements. You should not place undue reliance on these forward-looking statements. Although such statements are based on management's current estimates and expectations and/or currently available competitive, financial, and economic data, forward-looking statements are inherently uncertain and involve risks and uncertainties that could cause our actual results to differ materially from what may be inferred from the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those listed and discussed in Item 1A— *Risk Factors* below. We undertake no obligation to release publicly any revisions or updates to any forward-looking statements. We encourage you to read carefully the risk factors described herein and in other documents we file from time to time with the United States Securities and Exchange Commission (the "SEC").

Unless the context otherwise requires, all references herein to "Jacobs" or the "Registrant" are to Jacobs Engineering Group Inc. and its predecessors, and references to the "Company", "we", "us" or "our" are to Jacobs Engineering Group Inc. and its consolidated subsidiaries.

Item 1. BUSINESS

General Background Information

We are one of the largest technical professional services firms in the world. We provide a diverse range of technical, professional, and construction services to a large number of industrial, commercial, and governmental clients.

We focus our services on clients operating in the following industries and markets:

- Oil and gas exploration, production, and refining;
- Chemicals and polymers;
- Programs for various national governments, including aerospace, defense, and environmental programs;
- Buildings (including specialized buildings for clients operating in the fields of healthcare, education, and high technology; governmental complexes; other specialized civic and mission critical buildings, installations, and laboratories; and retail and commercial buildings);
- Infrastructure and telecommunications;
- Mining and minerals;
- Pharmaceuticals and biotechnology;
- Power;
- Pulp and paper;
- Technology and manufacturing; and,
- Food and consumer products, among others.

We are headquartered in Dallas, Texas, USA, and provide our services through more than 200 offices located around the globe, primarily in North America, South America, Europe, the Middle East, India, Australia, Africa, and Asia.

How We Operate

The relationships we have with our clients drive our business. As a broad-based technical professional services firm, we offer a range of services to help our clients maintain a competitive edge in their respective markets. From feasibility studies to design, to engineering, to construction, to start-up and commissioning, and then to operations and maintenance, we customize our services to meet business and project goals. Our global network of professionals works with a multi-office approach in an effort to provide clients with the best, most economical project or program solutions.

We strive to provide client value through continuous improvement in our performance. We regularly monitor our clients' expectations, our project delivery protocols and system, and our operational performance. Tools such as our Jacobs Value Enhancing Practices, Global Standard Operating Procedures, project reviews, the Jacobs System to Ensure Project Success ("JSTEPS") and Safe Plans of Action ("SPAs") provide added value to our clients' projects. They also allow us to create performance improvement actions during the project execution. Through continuous improvement upon our performance, our tools, and our processes, we believe we can offer our clients superior value when they do business with us.

JacobsValue+ SM ("Value Plus") is an internal tool we use to document and quantify the actual value or savings we provide to our clients and their projects. Some of the benefits achieved through the Value Plus program include lower total installed cost, shorter schedule, and reduced life cycle cost. Value Plus is implemented at project initiation: a project goal is created, and cost-saving ideas are entered into the Value Plus database. When the Value Plus cycle is complete, the project team and client identify unique cost and/or schedule reductions for the project.

The Company's Strategy

During fiscal 2016, we undertook a deep analysis of our current business and markets to determine where we had opportunities to improve and where we would invest our resources in the coming years to maximize our returns. The corporate strategy developed from this analysis is supported by strategies for each line of business, focusing on how we would execute the strategy. These strategies are being finalized, and are expected to be communicated to shareholders and the financial community at the Company's Investor Day, to be held on December 1, 2016.

Employees and Safety

Our employees are our most important and valuable asset and, therefore, the prevention of job-related injuries is given top priority. It is the policy of the Company to provide and maintain a safe and healthy working environment and to follow operating practices that safeguard all employees and result in a more efficient operation. BeyondZero®, the name of our program that promotes our culture of caring, moves beyond efforts to have an incident and injury-free safety performance. We implement a culture of caring where concern for employees' health, safety, and welfare extends outside the office walls, beyond the project site fences and into their homes, cars, and all the places where they interact with family, friends, and fellow employees.

Since Jacobs' founding, the Company has been based on doing business honestly, ethically, and with the utmost integrity. Our culture, and our Code of Conduct which is signed annually by all employees, prescribe that everyone at the Company must adhere to Jacobs' Core Values and ethical code, and comply with the laws that govern the Company's activities worldwide. Our employees and business partners are expected to follow the highest principles of business conduct, integrity, and ethics as they carry out their responsibilities, and are guided by the following principles in carrying out their responsibilities: loyalty, compliance with applicable laws, observance of ethical standards, avoidance of conflicts of interest, and communication. We endeavor to deal fairly with our employees, customers, suppliers, and competitors, and to respect the policies and procedures of those outside the Company.

We strive to present a clear and consistent image of our Company to our clients, employees, shareholders, and business partners - regarding how we behave, how we communicate, how we look, and most importantly, how our promises to our clients are delivered - anywhere in the world.

We accomplish this foremost through our core values, which allow us to behave as one company and unify us worldwide. By keeping our core values as a central focus of our Company, we are able to think the same way and arrive at similar conclusions, regardless of our physical location. Our core values are:

- People are our greatest asset;
- We are relationship-based; and
- Profitable growth is an imperative.

The balance inherent in our core values is also evident in our approach to sustainability, which maintains an even balance among the people, the economics, and the environmental aspects of business. Jacobs is driven to continuously improve efficiency and reduce energy and resource use, practices that driv e down costs and contribute to a lower impact on the environment. The Company adheres to the following seven sustainability principles:

- Sustainable development is a corporate priority;
- We seek broad, deep, differentiated capabilities and services;
- Sustainable development is integrated into our business;
- Training and education are important;
- Our facilities and operations follow sustainable principles;
- We contribute to the common effort for sustainability; and
- We are open and transparent.

Applying the best, most efficient and effective sustainable solutions for clients worldwide, in all major industries in which our clients operate, allows us to make a significant contribution to a safe and sustainable future. Each year we issue a *Sustainability Report* that describes many of our efforts and accomplishments regarding environmental sustainability.

With respect to human resources, our goal is to establish an inclusive, diverse workplace that energizes the people who fuel our Company's growth. Although we are a large company with over 54,000 employees in over 25 countries, our employees are unified in their focus on superior value, safety, and ethical business practices regardless of the country in which they work, and employees frequently move around the system as they grow their careers.

<u>How We Grow</u>

Jacobs has grown significantly since its founding in 1947; both through organic growth and through strategic acquisitions, an important part of the Company's growth strategy. We have acquired and integrated numerous companies over the years that have enhanced our capabilities, geographic reach, and offerings.

In terms of organic growth, our relationship-based business model is central to our sustained growth and profitability. We pursue the development of long-term relationships and alliances with our clients. By working with our clients on their capital programs, we increase our understanding of their overall business needs, as well as the unique technical requirements of their specific projects. This increased understanding enables us, we believe, to provide superior value to our clients. Our approach provides us with opportunities to market the services our clients are expected to need in the pre-design phase, such as master planning, permitting, or project finance options; in the design phase; and in the construction, post-start-up and commissioning phases of a facility, including operations and maintenance services.

Our relationships with clients also present ongoing opportunities to expand into adjacent markets. For example, clients operating in the mining and minerals market often have a need for our infrastructure and buildings capabilities. The same is true for clients operating in other markets.

We market our services to clients in a wide range of public, institutional, process, and industrial markets. We increase our opportunities through focused market diversity, and are able to price contracts competitively and enhance overall profitability while delivering additional value to our clients by integrating and bundling our services. In complex economic times, we have the ability to evolve along with market cycles worldwide. When opportunities decrease in a particular market or geography, other opportunities often increase. Because of our focused market diversity, we believe we are well positioned to address a wide range of opportunities across many markets and geographies, which helps us grow our business.

The Role of Acquisitions and Strategic Investments in the Development Our Business

When we review acquisition targets, we are conscious of the effect the acquisition may have on our client base. We favor acquisitions that are aligned with our growth strategy, which targets enhancements of our market position and adding value to our customers and shareholders. This will be done by (i) expanding into a new client market; (ii) enhancing the range of services we provide existing clients; and/or (iii) accessing new geographic areas in which our clients either already operate or plan to expand. By expanding into new geographic areas and adding to our existing technical and project management capabilities, we strive to position ourselves as a preferred, single-source provider of technical, professional, and construction services to our clients. The following is a brief description of some of our recent key acquisitions (in reverse chronological order):

- On April 12, 2016, we acquired The Van Dyke Technology Group, Inc. ("Van Dyke") headquartered in Columbia, Maryland. Van Dyke provides advanced cybersecurity services and solutions designed to protect sensitive information within classified networks, with a focus on supporting the U.S. Intelligence Community.
- On December 7, 2015, we acquired J.L Patterson & Associates ("JLP") headquartered in Orange, California. JLP is a consulting and professional services engineering firm specializing in rail planning, environmental permitting, design and construction management. It provides services to numerous public transit agencies and is a major provider of professional consulting services to Class 1 railroads across the U.S.
- On March 31, 2015, we acquired Suzhou Hans Chemical Engineering Co. ("SHCE") headquartered in China. SHCE has two specialty Class A design licenses in China's Chemical, Petrochemical and Pharmaceutical industries, which allow the firm to provide engineering design for all types of chemical projects in China irrespective of project size plus procurement and project management services for various projects in China. These combined resources enable Jacobs to offer customers in China a complete spectrum of services for all types of chemical and petrochemical projects.
- On July 1, 2014, we acquired Federal Network Systems ("FNS"), a subsidiary of Verizon Communications headquartered in Ashburn, Virginia. FNS provides systems integration and communication, information technology and data security solutions for the global market, with a particular focus on supporting the Intelligence Community, the U.S. Department of Defense ("DoD"), and federal civilian customers. FNS designs, integrates, secures, operates and maintains highly complex, mission critical voice, data and video networks.
- On February 7, 2014, we acquired Eagleton Engineering, LLC ("Eagleton") headquartered in Houston, Texas. The acquisition enhanced our capabilities in midstream and upstream pipeline engineering, design and field surveying services. Eagleton specializes in pipeline engineering, primarily providing professional services and resources to the oil, gas and petrochemical industries. The firm's services cover the full life cycle of project planning and delivery, from conceptual studies and design to full turnkey engineering, procurement and construction solutions and operational support.
- On December 24, 2014, we acquired the assets of FMHC Corporation ("FMHC"), headquartered in Chicago, Illinois. This acquisition enhances our ability to provide turnkey wireless communications site development, design, network deployment, construction, and related services to clients operating in the wireless telecommunications industry.
- On December 20, 2013, we acquired Stobbarts Limited, a construction firm based in West Cumbria, United Kingdom. The acquisition enhanced our capabilities in nuclear, decommissioning, construction and civil engineering.
- On December 13, 2013, we acquired Sinclair Knight Merz Management Pty Limited and Sinclair Knight Merz Holdings Limited (collectively, "SKM"), a provider of engineering, design, procurement, construction and project management services headquartered in Sydney, Australia. Due to its size and complexities, more information about the SKM acquisition is provided throughout this report.
- On November 22, 2013, we acquired certain assets and liabilities of MARMAC Field Services, Inc. headquartered in Costa Mesa, California. The acquisition enhanced our capabilities in pipeline engineering and design services; both geographically and by adding additional capabilities to serve the utility and gas industries.
- On October 18, 2013, we acquired a 45% interest in Guimar Engenharia, a privately held engineering services and project management/construction management ("PMCM") company based in Rio de Janeiro, Brazil. The acquisition represents Jacobs' first significant investment in Brazil. Guimar has a broad client base and operations throughout Brazil, where it is a leading provider of PMCM services for clients in the pulp and paper, petroleum, chemicals, food and beverage, mining and minerals, building and infrastructure industries.

- On October 14, 2013, we acquired substantially all the ass ets and liabilities of the Trompeter Group headquartered in Detroit, Michigan. This acquisition enhances our capabilities in advanced engineering services, maintenance support, t echnical training services, and contingent workforce services to the automotiv e manufacturing industry.
- On August 30, 2013, our South African joint venture, Jacobs Matasis (Proprietary) Limited, acquired Ilitha Projects and Ilitha Staffing. Ilitha Projects provides management and Engineering, Procurement, Construction and Management ("EPCM") services to clients in a broad range of market sectors, including oil and gas, refining, chemicals, power, nuclear, marine mining, and metals. Ilitha Staffing supplies technical contract staff sourcing and management services with a strong emphasis on integration with the client's culture and business practices.
- Commencing on June 6, 2013, and through the end of fiscal 2015, we acquired further ownership interests in Consulting Engineering Services (India) Private Limited ("CES"), an infrastructure and civil engineering company headquartered in Delhi, India. As of the end of fiscal 2015, the Company's ownership interest in CES is 99.2%. CES provides a range of solutions in infrastructure development, planning, engineering, and construction management.
- On May 28, 2013, we acquired Compass Technology Services, Inc. ("Compass"), headquartered in Atlanta, Georgia. Compass is a provider of telecommunications professional and field services in the Southeastern U.S. and enhances our capabilities in wireless telecommunications infrastructure design and construction.
- In August 2012, we acquired a consulting project management business based in Sydney, Australia. The primary purpose of this acquisition was to expand our geographic presence and grow our infrastructure business in Australia.
- In December 2011, we acquired Unique World Pty Ltd. ("Unique World"), headquartered in Sydney, Australia. Unique World is an information management and knowledge management consultancy specializing in enabling technologies such as collaboration, business process automation, business intelligence, intranets, and portals. Unique World expanded our capabilities in Australia to include such information technology ("IT") services, as well as expanding the client base to which we can offer these services.
- In November 2011, we acquired KlingStubbins, Inc., a 500-person firm headquartered in Philadelphia, Pennsylvania with offices located throughout the U.S. and China. KlingStubbins provides professional services in the areas of architecture, engineering, interiors, planning, and landscape architecture. The markets served by KlingStubbins include corporate/commercial, governmental, science and technology, higher education, mission critical, and interiors.

After we complete an acquisition, we move quickly to integrate the newly acquired operations. We typically assign senior operations personnel to manage the overall integration process with assistance from our sales, accounting, legal, IT, human resources, and risk management departments. Although integrating newly acquired businesses can be very challenging, the assimilation process is critical in order to assure (i) an appropriate return is realized versus the cost of the acquisition (ii) that our global businesses processes and systems are properly deployed throughout the newly-acquired entities and (iii) that we can begin to leverage off the acquired talents, skills, and expertise to grow our business and help our clients execute their capital programs. Newly acquired businesses are generally not left as stand-alone entities within the Company's internal reporting system. The businesses we acquire are typically folded in to existing operational organizations within the Company. For additional information regarding certain issues related to our acquisition strategy, please refer to Item 1A— *Risk Factors* below.

Lines of Business

During the second quarter of fiscal 2016, we reorganized our operations around four global lines of business. This reorganization is intended to better serve our global clients, leverage our workforce, help streamline operations, and provide enhanced growth opportunities. The four global lines of business are: Petroleum & Chemicals, Buildings & Infrastructure, Aerospace & Technology, and Industrial. Each business unit has a president that reports directly to the Company's President & CEO. As part of the reorganization, certain support functions (i.e. Sales), which were managed centrally for many years, have been embedded in the lines of business and report to the respective line of business presidents. The costs of other support functions (e.g., accounting, legal, human resources, and information technology) and certain other activities (e.g., global insurance) are assigned or allocated to each new business unit using a rationale method of assignment/allocation, or will remain an element of corporate general and administrative expenses. In connection with the reorganization, the Company has significantly modified its cash incentive plan utilizing forecasted performanc e metrics aligned along the new lines of business.

Services

Our services fall into four broad categories: project services; process scientific, and systems consulting services; construction services; and operations and maintenance services.

Project Services

We employ the engineering, architecture, interiors, design, planning, and related disciplines necessary to design and engineer modern process plants, buildings, infrastructure projects, technology and manufacturing facilities, consumer products manufacturing facilities, power plants and stations, pulp and paper plants, and other facilities.

We are capable of providing our clients with a variety of value engineering services, including "safety in design". Through safety in design we integrate best practices, hazard analysis, and risk assessment methods early in the design phase of projects, taking those steps necessary to eliminate or mitigate injury and damage during the construction, start-up, testing and commissioning, and operations phases of a project.

In the area of construction management, we provide our clients with a wide range of services as an agent for our clients. We may act as program director, whereby we oversee, on the owner's behalf, the complete planning, design, and construction phases of the project. Alternatively, our services may be limited to providing construction consulting.

Project Services also includes planning, scheduling, procurement, estimating, cost engineering, project accounting, project delivery (quality), safety, and all other key support services needed for complete cradle-to-grave project delivery.

Process, Scientific, and Systems Consulting Services

We employ the professional and technical skills and expertise with respect to a broad range of consulting services, including: performing pricing studies, market analyses, and financial projections necessary in determining the feasibility of a project; performing gasoline reformulation modeling; analyzing and evaluating layout and mechanical designs for complex processing plants; analyzing automation and control systems; analyzing, designing, and executing bio containment strategies; developing and performing process protocols with respect to the U.S. Food and Drug Administration-mandated qualification and validation requirements; and performing geological and metallurgical studies.

Also included in this service category are revenues relating to defense and aerospace-related programs. Such services typically are more technical and scientific in nature than other project services we provide, and may involve such tasks as supporting the development and testing of conventional weapons systems; weapons modeling and simulations; computer systems development, maintenance, and support; evaluation and testing of mission-critical control systems; aerospace, testing, and propulsion systems and facilities; cyber security and IT services; and other highly technical or scientific tasks.

Construction Services

In addition to the construction management services included under Project Services above, we provide traditional field construction services to private and public sector clients. We also provide modular construction consulting services. In the area of environmental remediation and restoration, we also provide environmental remedial construction services for a variety of public and private sector clients.

Historically, our field construction activities have been focused primarily on those construction projects for which we perform much of the related engineering and design work. By focusing our construction efforts in this way, we attempt to minimize the risks associated with constructing complex projects based on designs prepared by third parties. The financial risk to us of constructing complex assets based on designs prepared by third parties may be particularly significant on fixed-price contracts; though we ensure appropriate controls are in place to manage risk. However, we will pursue construction-only projects when we can negotiate pricing and other contract terms we deem acceptable and which we believe can result in a fair return for the degree of risk we assume.

Operations and Maintenance Services

Operations and Maintenance ("O&M") refers to all of the tasks required to operate and maintain large, complex facilities on behalf of clients. We provide key management and support services over all aspects of the operations of a facility, including managing subcontractors and other on-site personnel. O&M also includes process plant maintenance services, which generally involves all tasks required to keep a process plant (typically a refinery or chemical plant) in day-to-day operation.

Within the aerospace and defense areas, O&M often requires us to provide the management and technical support services necessary to operate and maintain such sites as engine test facilities, weapons integration facilities, and high-tech simulation and verification centers. Such O&M contracts also frequently require us to provide facilities management and maintenance services, utilities operations and maintenance services, property management and disposition services, and construction support services.

Within the environmental area, O&M often includes engineering and technical support services as well as program management services necessary to remediate contaminated sites.

Although the gross profit margins we realize from O&M services are generally lower than those associated with the other services we provide, the costs to support maintenance activities are also generally lower. In addition, O&M services offer us an opportunity for long-term relationships with clients. This aspect of O&M services greatly reduces the selling costs in respect of such services.

The following table sets forth our revenues from each of our four service categories for each of the last three fiscal years (in thousands):

	2016	2015	2014
Project Services	$ 5,738,840	$ 6,307,015	$ 6,576,004
Process, Scientific, and Systems Consulting	852,329	1,188,418	758,957
Construction	3,258,890	3,291,823	4,138,729
Operations and Maintenance	1,114,098	1,327,576	1,221,467
Total	$ 10,964,157	$ 12,114,832	$ 12,695,157

Segments

The services we provide fall into the following four lines of business ("LOB"): Aerospace &Technology, Buildings & Infrastructure, Industrial, and Petroleum & Chemicals, which are also the Company's reportable segments.

The following table sets forth our revenues from each LOB. Prior period information has been restated to reflect the current period presentation (in thousands):

	2016	2015	2014
Revenues from External Customers:			
Aerospace & Technology	$ 2,657,433	$ 2,924,753	$ 2,306,453
Buildings & Infrastructure	2,253,512	2,458,379	2,705,197
Industrial	2,793,713	2,517,571	2,956,391
Petroleum & Chemicals	3,259,499	4,214,129	4,727,116
Total	$ 10,964,157	$ 12,114,832	$ 12,695,157

For additional information regarding our segments, including information about our financial results by segment and financial results by geography, see Note 15 — *Segment Information* of Notes to Consolidated Financial Statements beginning on page F-1 of this Annual Report on Form 10-K.

Aerospace and Technology – We provide an in-depth range of scientific, engineering, construction, nuclear and technical support services to the aerospace, defense, technical and automotive industries in several countries. Long-term clients include the Ministry of Defence in the U.K., the UK Nuclear Decommissioning Authority, NASA, the Department of Defense (DoD), the U.S. Special Operations Command ("USSOCOM"), the US Intelligence community, and the Australian D epartment of Defence. Specific to NASA, one of our major government customers in the U.S., is our ability to design, build, operate, and maintain highly complex facilities relating to space systems, including test and evaluation facilities, launch faciliti es, and support infrastructure. We provide environmental characterization and restoration services to commercial and government customers both in the US and UK. This includes designing, building and operating high hazard remediation systems including for radiologically contaminated media.

In addition, we design/build aerodynamic, climatic, altitude and acoustic facilities in support of the automotive industry, and are a provider of a wide range of services in the telecommunications market.

Our experience in the defense sector includes military systems acquisition management and strategic planning; operations and maintenance of test facilities and ranges; test and evaluation services in computer, laboratory, facility, and range environments; test facility computer systems instrumentation and diagnostics; and test facility design and build. We also provide systems engineering and integration of complex weapons and space systems, as well as hardware and software design of complex flight and ground systems.

We have provided advanced technology engineering services to the DoD for more than 50 years, and currently support major defense programs in the U.S. and internationally. We operate and maintain several DoD test centers and provide services and assist in the acquisition and development of systems and equipment for Special Operations Forces, as well as the development of biological, chemical, and nuclear detection and protection systems.

We maintain enterprise information systems for government and commercial clients worldwide, ranging from the operation of complex computational networks to the development and validation of specific software applications. We also support the DoD and the intelligence community in a number of information technology programs, including network design, integration, and support; command and control technology; development and maintenance of databases and customized applications; and cyber security solutions.

Buildings & Infrastructure – We provide services to transit, aviation, built environment, mission critical, rail, and civil construction projects throughout North America, Europe, India, the Middle East, Australia, and Asia. Our representative clients include national government departments/agencies in the U.S., U.K., Australia, and Asia, state and local departments of transportation within the U.S., and private industry freight transport firms.

Typical projects include providing development/rehabilitation plans for highways, bridges, transit, tunnels, airports, railroads, intermodal facilities, and maritime or port projects. Our interdisciplinary teams can work independently or as an extension of the client's staff. We have experience with alternative financing methods, which have been used in Europe through the privatization of public infrastructure systems.

Our water infrastructure group aids emerging economies, which are investing heavily in water and wastewater systems, and governments in North America and Europe, which are addressing the challenges of drought and an aging infrastructure system. We develop or rehabilitate critical water resource systems, water/wastewater conveyance systems, and flood defense projects.

We also plan, design, and construct buildings for a variety of clients and markets. We believe our global presence and understanding of contracting and delivery demands keep us well positioned to provide professional services worldwide. Our diversified client base encompasses both public and private sectors and relates primarily to institutional, commercial, government and corporate buildings, including projects at many of the world's leading medical and research centers, and universities. We focus our efforts and resources in two areas: where capital-spending initiatives drive demand, and where changes and advances in technology require innovative, value-adding solutions. We also provide integrated facility management services (sometimes through joint ventures with third parties) for which we assume responsibility for the ongoing operation and maintenance of entire commercial or industrial complexes on behalf of clients.

We have specific capabilities in energy and power, master planning, and commissioning of office headquarters, aviation facilities, mission-critical facilities, municipal and civic buildings, courts and correctional facilities, mixed-use and commercial centers, healthcare and education campuses, and recreational complexes. For advanced technology clients, who require highly specialized buildings in the fields of medical research, nano science, biotechnology, and laser sciences, we offer total integrated design and construction management solutions. We also have global capabilities in the pharma-bio, data center, government intelligence, corporate headquarters/interiors, and science and technology-base d education markets. Our government building projects include large, multi-year programs in the U.S. and Europe supporting various U.S. and U.K. government agencies.

Industrial – We provide engineering, procurement, project management, construction, and on-site maintenance to our global clients in the Life Sciences, Mining & Minerals, Specialty Chemicals & Manufacturing and Field Services markets. We provide our Life Sciences clients single-point consulting, engineering, procurement, construction management, and validation project delivery, enabling us to execute large capital programs on a single-responsibility basis. Typical projects in the life sciences sector include laboratories, research and development facilities, pilot plants, bulk active pharmaceutical ingredient production facilities, full-scale biotechnology production facilities, and tertiary manufacturing facilities.

We provide services relating to modular construction, as well as other consulting and strategic planning to help our clients complete capital projects faster and more efficiently.

In addition, we offer services in containment, barrier technology, locally controlled environments, building systems automation, and off-the-site design and fabrication of facility modules, as well as vaccine production and purification, and aseptic processing.

Our mining and minerals business targets the non-ferrous and ferrous metal markets, precious metals, energy minerals (uranium, coal, oil sands), and industrial and fertilizer minerals (borates, trona, phosphates and potash). We work with many resource companies undertaking new and existing facility upgrades, process plant and underground and surface material handling and infrastructure developments.

We offer project management, front-end studies, full engineering, procurement and construction management (EPCM) and EPC capabilities, and completions, commissioning and start-up services specializing in new plant construction, brownfield expansions, and sustaining capital and maintenance projects. We are also able to deliver value to our mining clients by providing distinctive adjacent large infrastructure capabilities to support their mining operations.

We provide a wide range of specialty chemicals & manufacturing services and products to our global client base. Our specialty chemicals areas are focused on sulfuric acids, synthetic chemicals, and manufactured equipment. Our manufacturing business areas include the Food & Beverage, Consumer Products, and Pulp & Paper markets.

Our global Field Services unit supports construction and O&M across the company, and performs our direct hire services.

Our construction activities include both construction management services and traditional field construction services to our clients. Historically, our field construction activities focused primarily on those construction projects where we perform much of the related engineering and design work. However, we pursue construction-only projects when we can negotiate pricing and other contract terms we deem acceptable and which we believe can result in a fair return for the degree of risk we assume.

In our O&M business, we perform tasks required to operate and maintain large, complex facilities on behalf of clients. We provide key management and support services over all aspects of the operations of a facility, including managing subcontractors and other on-site personnel. O&M also includes process plant maintenance services, which generally involves all tasks required to keep a process plant (typically a refinery or chemical plant) in day-to-day operation.

Petroleum & Chemicals – We provide integrated delivery of complex projects for our Oil and Gas, Refining, and Petrochemicals clients. Bridging the upstream, midstream and downstream industries, our services encompass consulting, engineering, procurement, construction, maintenance, and project management.

We provide services relating to onshore and offshore oil and gas production facilities, including fixed and floating platforms and subsea tie-backs, as well as full field development solutions, including processing facilities, gathering systems, transmission pipelines and terminals. Our heavy oil experience makes us a leader in upgrading, steam-assisted gravity drainage and in-situ oil sands projects. We have developed modular well pad and central processing facility designs. We also provide fit-for-purpose and standardized designs in the onshore conventional and unconventional space, paying particular attention to water and environmental issues.

In addition, we provide our refining customers with feasibility/economic studie s, technology evaluation and conceptual engineering, front end loading ("FEED"), detailed engineering, procurement, construction, maintenance and commissioning services. We deliver installed EPC solutions as to grass root plants, expansions and revamps of existing units. Our focus is on both the inside the battery limit ("ISBL") processing units as well as utilities and offsites. We have engineering alliances and maintenance programs that span decades with core clients. With the objective of driving our clients' total installed costs down, we endeavor to leverage emerging market sourcing and high value engineering. Our Comprimo Sulfur Solutions® is a significant technology for gas treatment and sulfur recovery plants around the world.

We provide services as to technically complex petrochemical facilities; from new manufacturing complexes, to expansions and modifications and management of plant relocations. We have experience with many licensed technologies, integrated basic petrochemicals, commodity and specialty chemicals projects, and olefins, aromatics, synthesis gas and their respective derivatives.

Backlog

Backlog represents the total dollar amount of revenues we expect to record in the future as a result of performing work under contracts that have been awarded to us. With respect to O&M contracts, however, we include in backlog the amount of revenues we expect to receive for only one succeeding year, regardless of the remaining life of the contract. For national government programs (other than U.S. federal O&M contracts), our policy is to include in backlog the full contract award, whether funded or unfunded, excluding option periods. In accordance with industry practice, substantially all of our contracts are subject to cancellation, termination, or suspension at the discretion of the client. In addition, the contracts in our backlog are subject to changes in the scope of services to be provided as well as adjustments to the costs relating to the contracts. Accordingly, backlog is not necessarily indicative of our future revenues or earnings.

Our backlog includes expected revenues for contracts that are based on estimates. The following table summarizes our backlog for each of the last three fiscal years (in millions):

Backlog:	2016	2015	2014
Aerospace & Technology	$ 5,109,973	$ 4,880,775	$ 4,998,844
Buildings & Infrastructure	5,033,539	4,723,034	4,532,085
Industrial	3,106,575	3,650,520	2,471,867
Petroleum & Chemicals	$ 5,510,442	$ 5,552,241	6,377,561
Total	$ 18,760,529	$ 18,806,570	$ 18,380,357

For additional information regarding our backlog including those risk factors specific to backlog, please refer to Item 1A — *Risk Factors* , and Item 7 — *Management's Discussion and Analysis of Financial Condition and Results of Operations* below. Subject to the factors discussed in Item 1A— *Risk Factors* below, we estimate that approximately $7.7 billion, or 41.28%, of total backlog at September 30, 2016 will be realized as revenues within the next fiscal year.

Significant Customers

The following table sets forth the percentage of total revenues earned directly or indirectly from agencies of the U.S. federal government for each of the last five fiscal years:

2016	2015	2014	2013	2012
21.4%	21.7%	17.8%	19.9%	22.1%

Given the percentage of total revenue derived directly from the U.S. federal government, the loss of U.S. federal government agencies as customers would have a material adverse effect on the Company. In addition, any or all of our government contracts could be terminated, we could be suspended or debarred from all government contract work, or payment of our costs could be disallowed. Approximately 88% of revenue derived directly from the U.S. federal government is in the Aerospace & Technology segment. For more information on risks relating to our government contracts, see Item 1A - *Risk Factors* below.

Financial Information About Geographic Areas

Selected financial information regarding the geographic areas in which we operate is included in Note 15 — *Segment Information* of Notes to Consolidated Financial Statements beginning on page F-1 of this Annual Report on Form 10-K and is incorporated herein by reference. For fiscal 2016, approximately 43.0% of our revenues were earned from clients outside the United States. Our international operations are subject to a variety of risks, which are described under Item 1A - *Risk Factors* below.

Contracts

While there is considerable variation in the pricing provisions of the contracts we undertake, our contracts generally fall into two broad categories: cost-reimbursable and fixed-price. The following table sets forth the percentages of total revenues represented by these types of contracts for each of the last five fiscal years:

	2016	2015	2014	2013	2012
Cost-reimbursable	82 %	83 %	83 %	85 %	85 %
Fixed-price	18 %	17 %	17 %	15 %	15 %

In accordance with industry practice, most of our contracts (including those with the U.S. federal government) are subject to termination at the discretion of the client, which is discussed in greater detail in Item 1A — *Risk Factors* . In such situations, our contracts typically provide for reimbursement of costs incurred and payment of fees earned through the date of termination.

When we are directly responsible for engineering, design, procurement, and construction of a project or the maintenance of a client's plant or facility, we reflect the costs of materials, equipment, and subcontracts in both revenues and costs. On other projects, where the client elects to pay for such items directly and we have no associated responsibility for such items, these amounts are not reflected in either revenues or costs. The following table sets forth the approximate amount of such pass-through costs included in revenues for each of the last five fiscal years (in millions of dollars):

2016	2015	2014	2013	2012
$ 2,489.9	$ 2,602.6	$ 2,954.9	$ 2,624.8	$ 2,328.4

Cost-Reimbursable Contracts

Cost-reimbursable contracts generally provide for reimbursement of costs incurred plus an amount of profit. The profit element may be in the form of a simple mark-up applied to the labor costs incurred or it may be in the form of a fee, or a combination of a mark-up and a fee. The fee element can also take several forms. The fee may be a fixed amount; it may be an amount based on a percentage of the costs incurred; or it may be an incentive fee based on targets, milestones, or performance factors defined in the contract. In general, we prefer cost-reimbursable contracts because we believe the primary reason for awarding a contract to us should be our technical expertise and professional qualifications rather than price.

Fixed-Price Contracts

Fixed-price contracts include both "lump sum bid" contracts and "negotiated fixed-price" contracts. Under lump sum bid contracts, we typically bid against other contractors based on specifications the client furnishes. This type of pricing presents certain inherent risks, including the possibility of ambiguities in the specifications received, problems with new technologies, and economic and other changes that may occur over the contract period. Additionally, it is not unusual for lump sum bid contracts to lead to an adversarial relationship with clients, which is contrary to our relationship-based business model. Accordingly, lump sum bid contracts are not our preferred form of contract, and, as such, the Company has rarely entered into individual lump sum bid contracts that are material to its financial results. In contrast, under a negotiated fixed-price contract, we are selected as the contractor first and then we negotiate a price with our client. Negotiated fixed-price contracts frequently exist in single-responsibility arrangements where we perform some portion of the work before negotiating the total price of the project. Thus, although both types of contracts involve a firm price for the client, the lump sum bid contract provides the greater degree of risk to us. However, because of economies that may be realized during the contract term, both negotiated fixed-price and lump sum bid contracts may offer greater profit potential than other types of contracts. The Company carefully manages the risk inherent in these types of contracts. Over the past five years, most of our fixed-price work has been either negotiated fixed-price contracts or lump sum bid contracts for project services, rather than turnkey construction.

Competition

With respect to each of the four broad categories of services we provide, we compete with a large number of companies across the world. Typically, no single company or companies dominate the market in which we provide any such services. We compete based on the following factors, among others: price of services, technical capabilities, reputation for quality, safety record, availability of qualified personnel, ability to timely perform work, and willingness to accept project-related risk. For more information regarding the competitive conditions in our business, please refer to Item 1A— *Risk Factors* below.

Employees

At September 30, 2016, we had approximately 43,800 full-time, staff employees (including contract staff). Additionally, as of September 30, 2016, there were approximately 11,100 persons employed in the field on a project basis. The number of field employees varies in relation to the number and size of the maintenance and construction projects in progress at any particular time.

Executive Officers of the Registrant

The information required by Paragraph (a), and Paragraphs (c) through (g) of Item 401 of Regulation S-K (except for information required by Paragraph (e) of that Item to the extent the required information pertains to our executive officers) and Item 405 of Regulation S-K is set forth under the captions "The Board of Directors and its Committees - Nominees," "The board of Directors and its Committees - Continuing Directors," and "Section 16(a) Beneficial Ownership Reporting Compliance" in our definitive proxy statement to be filed with the SEC pursuant to Regulation 14A within 120 days after the close of our fiscal year and is incorporated herein by reference.

The following table presents the information required by Paragraph (b) of Item 401 of Regulation S-K.

Name	Age	Position with the Company	Year Joined the Registrant
Steven J. Demetriou	58	Chairman and Chief Executive Officer	2015
Kevin C. Berryman	57	Executive Vice President, Chief Financial Officer	2014
Terence D. Hagen	52	President, Aerospace & Technology	1987
Joseph G. Mandel	56	President, Petroleum & Chemicals	2011
Robert V. Pragada	48	President, Buildings & Infrastructure	2016
William B. Allen	52	Senior Vice President and Chief Accounting Officer	2016
Lori S. Sundberg	52	Senior Vice President, Global Human Resources	2013
Michael R. Tyler	60	Senior Vice President and General Counsel	2013

All of the officers listed in the preceding table serve in their respective capacities at the pleasure of the Board of Directors of the Company. Mr. Hagen has served in executive and senior management capacities with the Company for more than five years. Below is additional information on the other executive officers.

Mr. Demetriou joined the Company in August 2015. Mr. Demetriou served as Chairman and CEO of Aleris Corporation for 14 years, a global downstream aluminum producer based in Cleveland, Ohio. Over the course of his career, he has gained broad experience with companies in a range of industries including metals, specialty chemicals, oil & gas, manufacturing and fertilizers.

Mr. Berryman joined the Company in December 2014. Mr. Berryman served as EVP and CFO for five years at International Flavors and Fragrances Inc., an S&P 500 company and leading global creator of flavors and fragrances used in a wide variety of consumer products. Prior to that, he spent 25 years at Nestlé in a number of finance roles including treasury, mergers & acquisitions, strategic planning, and control.

Mr. Mandel joined the Company in February 2011 through the acquisition of certain operating companies comprising the process and construction business of Aker Solutions ASA, a global provider of products, systems and services to the oil and gas industry. Mr. Mandel served in various senior management roles with Aker Solutions ASA since first joining them in 1995.

Mr. Pragada rejoined the Company in February 2016 after serving as President and Chief Executive Officer of The Brock Group since August 2014. From March 2006 to August 2014 Mr. Praga da served in executive and senior management capacities with the Company.

Mr. Allen, joined the Company in October 2016. Mr. Allen served as Corporate Vice President, Finance and Principal Accounting Officer at Lyondellbasell Industries, N.V., from 2013 to 2016, from 2009 to 2013 he served as Vice President, Corporate Controller and Chief Accounting Officer, and from 2007 to 2009 as Chief Financial Officer of the Catalysts Business Segment at Albemarle Corporation.

Ms. Sundberg joined the Company in April 2013. Ms. Sundberg served as the Senior Vice President of Human Resources and Ethics at Arizona Public Services Company, Arizona's largest electric utility company, from November 2007 to April 2013. From 1998 to 2007 she served in a number of global HR leadership roles with American Express.

Mr. Tyler joined the Company in June 2013. He previously served as Executive Vice President, General Counsel and Secretary of Sanmina Corporation, a global electronics manufacturing services provider from April 2007 to June 2013, and Chief Legal and Administrative Officer of Gateway, Inc., a computer hardware company, from January 2004 to April 2007.

Available Information

You may read and copy any materials we file with the SEC at the SEC's Public Reference Room located at 100 F Street N.E., Washington, D.C. 20549. In order to obtain information about the operation of the Public Reference Room, a person may call the SEC at 1-800-732-0330. The SEC also maintains a site on the Internet that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The SEC's website is http://www.sec.gov. You may also read and download the various reports we file with, or furnish to, the SEC free of charge from our website at www.jacobs.com .

Item 1A. R ISK FACTORS

We operate in a changing environment that involves numerous known and unknown risks and uncertainties that could materially adversely affect our business, financial condition, and results of operations. The risks described below highlight some of the factors that have affected and could affect us in the future. We may also be affected by unknown risks or risks that we currently think are immaterial. If any such events actually occur, our business, financial condition, and results of operations could be materially adversely affected.

Construction and maintenance sites are inherently dangerous workplaces. If we fail to maintain safe work sites, we can be exposed to significant financial losses and reputational harm, as well as civil and criminal liabilities.

Construction and maintenance sites often put our employees and others in close proximity with large pieces of mechanized equipment, moving vehicles, chemical and manufacturing processes, and highly regulated materials, in a challenging environment, and often in geographically remote locations. On many sites, we are responsible for safety and, accordingly, must implement safety procedures. If we fail to implement such procedures or if the procedures we implement are ineffective, our employees and others may become injured, disabled or even lose their lives, the completion or commencement of our projects may be delayed, and we may be exposed to litigation or investigations. Unsafe work sites also have the potential to increase employee turnover, increase the cost of a project to our clients, and raise our operating costs. Any of the foregoing could result in financial losses or reputational harm, which could have a material adverse impact on our business, financial condition, and results of operations.

In addition, our projects can involve the handling of hazardous and other highly regulated materials, which, if improperly handled or disposed of, could subject us to civil and/or criminal liabilities. We are also subject to regulations dealing with occupational health and safety. Although we maintain functional groups whose primary purpose is to ensure we implement effective health, safety, and environmental ("HSE") work procedures throughout our organization, including construction sites and maintenance sites, the failure to comply with such regulations could subject us to liability. In addition, despite the work of our functional groups, we cannot guarantee the safety of our personnel or that there will be no damage to or loss of our work, equipment or supplies.

Our safety record is critical to our reputation. Many of our clients require that we meet certain safety criteria to be eligible to bid for contracts and many contracts provide for automatic termination or forfeiture of some or all of our contract fees or profit in the event we fail to meet certain measures. Accordingly, if we fail to maintain adequate safety standards, we could suffer reduced profitability or the loss of projects or clients, which could have a material adverse impact on our business, financial condition, and results of operations.

Our vulnerability to the cyclical nature of the markets in which our clients operate is exacerbated during economic downturns and times of political uncertainty.

We provide technical, professional, construction, and O&M services to clients operating in a number of markets including oil and gas exploration, production, and refining; programs for various national governments, including the U.S. federal government; chemicals and polymers; mining and minerals; pharmaceuticals and biotechnology; infrastructure; buildings; power; and other, general industrial and consumer businesses and markets (such as technology and manufacturing; pulp and paper; and food and consumer products). These markets and the resulting demand for our services have been, and we expect will continue to be, cyclical and subject to significant fluctuations due to a variety of factors beyond our control, including economic conditions and changes in client spending, particularly during periods of economic or political uncertainty.

Current global economic and political conditions have negatively impacted many of our clients' ability and willingness to fund their projects, including their ability to raise capital and pay, or timely pay, our invoices. They have also caused our clients to reduce their capital expenditures, alter the mix of services purchased, seek more favorable price and other contract terms, and otherwise slow their spending on our services. For example, in the public sector, declines in state and local tax revenues as well as other economic declines may result in lower state and local government spending. In addition, due to these conditions many of our competitors may be more inclined to take greater or unusual risks or accept terms and conditions in contracts that we might not deem acceptable. These conditions have reduced, and may continue to reduce, the demand for our services, which has had, and may continue to have, a significant negative impact on our business, financial condition and results of operations.

Current economic and political conditions also make it extremely difficult for our clients, our vendors, and us to accurately forecast and plan future business activities. For example, following the recent U.S. elections, many observers expect spending on U.S. infrastructure to increase significantly. There is no assurance that such spendin g will occur or that the Company will benefit from any increase in spending. We cannot predict the timing, strength or duration of any economic recovery or downturn worldwide or in our clients' markets. In addition, our business has traditionally lagged re coveries in the general economy and, therefore, may not recover as quickly as the economy at large. A continuation or worsening of current weak economic conditions, a failure to obtain expected benefits from any increased infrastructure spending, or a redu ction in government spending could have a material adverse impact on our business, financial condition, and results of operations.

Regardless of economic or market conditions, investment decisions by our customers may vary by location or as a result of other factors like the availability of labor or relative construction cost. Because we are dependent on the timing and funding of new awards, we are therefore vulnerable to changes in our clients' markets and investment decisions. As a result, our past results have varied and may continue to vary depending upon the demand for future projects in the markets and the locations in which we operate.

Fluctuations in commodity prices may affect our customers' investment decisions and therefore subject us to risks of cancellation, delays in existing work, or changes in the timing and funding of new awards.

Commodity prices can affect our customers in a number of ways. For example, for those customers that produce commodity products such as oil, gas, copper, or fertilizers, fluctuations in price can have a direct effect on their profitability and cash flow and, therefore, their willingness to continue to invest or make new capital investments. Furthermore, declines in commodity prices can negatively impact our business in regions whose economies are substantially dependent on commodity prices, such as the Middle East. To the extent commodity prices decline or fluctuate and our customers defer new investments or cancel or delay existing projects, the demand for our services decreases, which may have a material adverse impact on our business, financial condition, and results of operations.

Commodity prices can also strongly affect the costs of projects. Rising commodity prices can negatively impact the potential returns on investments that are planned, as well as those in progress, and result in customers deferring new investments or canceling or delaying existing projects. Cancellations and delays have affected our past results and may continue to do so in significant and unpredictable ways and could have a material adverse impact on our business, financial condition, and results of operations.

Our project execution activities may result in liability for faulty services.

If we fail to provide our services in accordance with applicable professional standards, we could be exposed to significant monetary damages or even criminal violations. Our engineering practice, for example, involves professional judgments regarding the planning, design, development, construction, operations and management of industrial facilities and public infrastructure projects. While we do not generally accept liability for consequential damages in our contracts, and although we have adopted a range of insurance, risk management and risk avoidance programs designed to reduce potential liabilities, a catastrophic event at one of our project sites or completed projects resulting from the services we have performed could result in significant professional or product liability, and warranty or other claims against us as well as reputational harm, especially if public safety is impacted. These liabilities could exceed our insurance limits or the fees we generate, may not be covered by insurance at all due to various exclusions in our coverage, and could impact our ability to obtain insurance in the future. Further, even where coverage applies, the policies have deductibles, which result in our assumption of exposure for a layer of coverage with respect to any claim filed by us. In addition, clients or subcontractors who have agreed to indemnify us against any such liabilities or losses might refuse or be unable to pay us. An uninsured claim, either in part or in whole, as well as any claim covered by insurance but subject to a high deductible, if successful and of a material magnitude, could have a material adverse impact on our business, financial condition and results of operations.

We engage in a highly competitive business. If we are unable to compete effectively, we could lose market share and our business and results of operations could be negatively impacted.

We face intense competition to provide technical, professional, and construction services to clients. The markets we serve are highly competitive and we compete against a large number of regional, national, and multinational companies.

The extent of our competition varies by industry, geographic market, and project type. For example, with respect to our construction, and operations and maintenance services, clients generally award large projects to large contractors, which may give our larger competitors an advantage when bidding for these projects. Conversely, with respect to our engineering, design, architectural, and consulting services, low barriers of entry can result in competition with smaller, newer competitors. The extent and type of competition varies by market and geographic area.

Our projects are frequently awarded through a competitive bidding process, which is standard in our industry. We are constantly competing for project awards based on pricing, schedule and the breadth and technical sophistication of our services. Competition can place downward pressure on our contract prices and profit margins, and may force us to accept contractual terms and conditions that are less favorable to us, th ereby increasing the risk that, among other things, we may not realize profit margins at the same rates as we've seen in the past or may become responsible for costs or other liabilities we have not accepted in the past. If we are unable to compete effecti vely, we may experience a loss of market share or reduced profitability or both, which if significant, could have a material adverse impact on our business, financial condition, and results of operations.

Our results of operations depend on the award of new contracts and the timing of the performance of these contracts.

Our revenues are derived from new contract awards. Delays in the timing of the awards or cancellations of such prospects as a result of economic conditions, material and equipment pricing and availability or other factors could impact our long-term projected results. It is particularly difficult to predict whether or when we will receive large-scale projects as these contracts frequently involve a lengthy and complex bidding and selection process, which is affected by a number of factors, such as market conditions, governmental and environmental approvals. Since a significant portion of our revenues is generated from such projects, our results of operations and cash flows can fluctuate significantly from quarter to quarter depending on the timing of our contract awards and the commencement or progress of work under awarded contracts. Furthermore, many of these contracts are subject to financing contingencies and as a result, we are subject to the risk that the customer will not be able to secure the necessary financing for the project.

In addition, many of our contracts require us to satisfy specific progress or performance milestones in order to receive payment from the customer. As a result, we may incur significant costs for engineering, materials, components, equipment, labor or subcontractors prior to receipt of payment from a customer.

The uncertainty of our contract award timing can also present difficulties in matching workforce size with contract needs. In some cases, we maintain and bear the cost of a ready workforce that is larger than necessary under existing contracts in anticipation of future workforce needs for expected contract awards. If an expected contract award is delayed or not received, we may incur additional costs resulting from reductions in staff or redundancy of facilities, which could have a material adverse effect on our business, financial condition and results of operations.

The outcome of pending and future claims and litigation could have a material adverse impact on our business, financial condition, and results of operations.

We are a party to litigation in the normal course of business. Since we engage in engineering and construction activities for large facilities and projects where design, construction or systems failures can result in substantial injury or damage to employees or others, we are exposed to substantial claims and litigation and investigations if there is a failure at any such facility or project. Such claims could relate to, among other things, personal injury, loss of life, business interruption, property damage, pollution, and environmental damage and be brought by our clients or third parties, such as those who use or reside near our clients' projects. We can also be exposed to claims if we agreed that a project will achieve certain performance standards or satisfy certain technical requirements and those standards or requirements are not met. In many of our contracts with clients, subcontractors, and vendors, we agree to retain or assume potential liabilities for damages, penalties, losses, and other exposures relating to projects that could result in claims that greatly exceed the anticipated profits relating to those contracts. In addition, while clients and subcontractors may agree to indemnify us against certain liabilities, such third parties may refuse or be unable to pay us.

We maintain insurance coverage for various aspects of our business and operations. Our insurance programs have varying exclusions for matters such as fraud, coverage limits and maximums, and insurance companies may seek to deny claims we might make. In addition, we have elected to retain a portion of losses that may occur through the use of various deductibles, limits, and retentions under these programs. As a result, we may be subject to future liability for which we are only partially insured, or completely uninsured.

Although in the past we have been generally able to cover our insurance needs, there can be no assurances that we can secure all necessary or appropriate insurance in the future, or that such insurance can be economically secured. For example, catastrophic events can result in decreased coverage limits, coverage that is more limited, or increased premium costs or deductibles. We monitor the financial health of the insurance companies from which we procure insurance, and this is one of the factors we take into account when purchasing insurance. Our insurance is purchased from a number of the world's leading providers, often in layered insurance or quota share arrangements. If any of our third party insurers fail, abruptly cancel our coverage or otherwise cann ot satisfy their insurance requirements to us, then our overall risk exposure and operational expenses could be increased and our business operations could be interrupted.

In addition, the nature of our business sometimes results in clients, subcontractors, and vendors presenting claims to us for, among other things, recovery of costs related to certain projects. Similarly, we occasionally present change orders and claims to our clients, subcontractors, and vendors for, among other things, additional costs exceeding the original contract price. If we fail to document properly the nature of our claims and change orders or are otherwise unsuccessful in negotiating reasonable settlements with our clients, subcontractors, and vendors, we could incur cost overruns, reduced profits or, in some cases, a loss for a project. Further, these claims can be the subject of lengthy negotiations, arbitration or litigation proceedings, which could result in the investment of significant amounts of working capital pending the resolution of the relevant change orders and claims. A failure to promptly recover on these types of claims could have a material adverse impact on our liquidity and financial results. Additionally, irrespective of how well we document the nature of our claims and change orders, the cost to prosecute and defend claims and change orders can be significant.

Litigation and regulatory proceedings are subject to inherent uncertainties and unfavorable rulings can and do occur. Pending or future claims against us could result in professional liability, product liability, criminal liability, warranty obligations, default under our credit agreements and other liabilities which, to the extent we are not insured against a loss or our insurer fails to provide coverage, could have a material adverse impact on our business, financial condition, and results of operations.

The nature of our contracts, particularly those that are fixed-price, subject us to risks of cost overruns. We may experience reduced profits or, in some cases, losses under these contracts if costs increase above our estimates.

For fiscal 2016, approximately 18% of our revenues were earned under fixed-price contracts. Such contracts require us to estimate the total cost of the project in advance of our performance. In addition, we may enter into guaranteed maximum price contracts where we guarantee a price or delivery date. For fixed-price contracts, we may benefit from any cost-savings, but we bear the risk of paying some, if not all, of any cost overruns. Fixed-price contract amounts are established in part on cost and scheduling estimates that are based on a number of assumptions, including those about future economic conditions, prices and availability of labor, equipment and materials, and other exigencies. If these estimates prove inaccurate, there are errors or ambiguities as to contract specifications, or if circumstances change due to, among other things, unanticipated technical problems, difficulties in obtaining permits or approvals, changes in local laws or labor conditions, weather or other delays beyond our control, changes in the costs of equipment or raw materials, our vendors' or subcontractors' inability or failure to perform, or changes in general economic conditions, then cost overruns may occur and we could experience reduced profits or, in some cases, a loss for that project. These risks are exacerbated for projects with long-term durations because there is an increased risk that the circumstances on which we based our original estimates will change in a manner that increases costs. If the project is significant, or there are one or more issues that impact multiple projects, costs overruns could have a material adverse impact on our business, financial condition, and results of operations.

Our contracts that are fundamentally cost reimbursable in nature may also present a risk to the extent the final cost on a project exceeds the amount the customer expected or budgeted. Like fixed-price contracts, the expected cost of cost-reimbursable projects are based in part on our estimates of the resources and time necessary to perform such contracts. If we are unable to properly support the costs we incur or otherwise fail to obtain proper reimbursement for all costs incurred - for whatever reason - the project may be less profitable than we expect or even result in losses. Additionally, we may be required to pay liquidated damages if we fail to meet schedule or performance requirements of our contracts, which could harm our reputation and have a material adverse impact on our business, financial condition, and results of operation.

Our continued success is dependent upon our ability to hire, retain, and utilize qualified personnel.

The success of our business is dependent upon our ability to hire, retain, and utilize qualified personnel, including engineers, architects, designers, craft personnel, and corporate management professionals at a reasonable cost who have the required experience and expertise. The market for these and other personnel is competitive. From time to time, it may be difficult to attract and retain qualified individuals with the expertise, and in the timeframe, demanded by our clients, or to replace such personnel when needed in a timely manner. In certain geographic areas, for example, we may not be able to satisfy the demand for our services because of our inability to successfully hire and retain qualified personnel. Furthermore, some of our personnel hold government granted clearance that may be required to obtain government projects. If we were to lose some or all of these personnel, they would be difficult to replace. Loss of the services of, or failure to recruit, qualified technical and management personnel could limit our ability to successfully complete existing projects and compete for new projects.

In addition, in the event that any of our key personnel retire or otherwise leave the Company, we need to have appropriate succession plans in place and to successfully implement such plans, which requires devoting time and resour ces toward identifying and integrating new personnel into leadership roles and other key positions. If we cannot attract and retain qualified personnel or effectively implement appropriate succession plans, it could have a material adverse impact on our bu siness, financial condition, and results of operations.

The cost of providing our services, including the extent to which we utilize our workforce, affects our profitability. For example, the uncertainty of contract award timing can present difficulties in matching our workforce size with our contracts. If an expected contract award is delayed or not received, we could incur costs resulting from excess staff, reductions in staff, or redundancy of facilities that could have a material adverse impact on our business, financial conditions, and results of operations.

The contracts in our backlog may be adjusted, cancelled or suspended by our clients and, therefore, our backlog is not necessarily indicative of our future revenues or earnings. Additionally, even if fully performed, our backlog is not a good indicator of our future gross margins.

Backlog represents the total dollar amount of revenues we expect to record in the future as a result of performing work under contracts that have been awarded to us. As of the end of fiscal 2016, our backlog totaled approximately $18.8 billion. There is no assurance that backlog will actually be realized as revenues in the amounts reported or, if realized, will result in profits. In accordance with industry practice, substantially all of our contracts are subject to cancellation, termination, or suspension at the discretion of the client. In the event of a project cancellation, we would generally have no contractual right to the total revenue reflected in our backlog. Projects can remain in backlog for extended periods of time because of the nature of the project and the timing of the particular services required by the project. The risk of contracts in backlog being cancelled or suspended generally increases during periods of widespread economic slowdowns or in response to changes in commodity prices.

The contracts in our backlog are subject to changes in the scope of services to be provided as well as adjustments to the costs relating to the contracts. The revenue for certain contracts included in backlog is based on estimates. Additionally, the way we perform on our individual contracts can affect greatly our gross margins and hence, future profitability.

In some markets, there is a continuing trend towards cost-reimbursable contracts with incentive-fee arrangements. Typically, our incentive fees are based on such things as achievement of target completion dates or target costs, overall safety performance, overall client satisfaction, and other performance criteria. If we fail to meet such targets or achieve the expected performance standards, we may receive a lower, or even zero, incentive fee resulting in lower gross margins. Accordingly, there is no assurance that the contracts in backlog, assuming they produce the revenues currently expected, will generate gross margins at the rates we have realized in the past.

Contracts with the U.S. federal government and other governments and their agencies pose additional risks relating to future funding and compliance.

Contracts with the U.S. federal government and other governments and their agencies, which are a significant source of our revenue and profit, are subject to various uncertainties, restrictions, and regulations including oversight audits by various government authorities as well as profit and cost controls, which could result in withholding or delay of payments to us. Government contracts are also exposed to uncertainties associated with funding such as sequestration and budget deficits. Contracts with the U.S. federal government, for example, are subject to the uncertainties of Congressional funding. Governments are typically under no obligation to maintain funding at any specific level, and funds for government programs may even be eliminated. Legislatures typically appropriate funds on a year-by-year basis, while contract performance may take more than one year. As a result, contracts with government agencies may be only partially funded or may be terminated, and we may not realize all of the potential revenue and profit from those contracts.

Our government clients may reduce the scope or terminate our contracts for convenience or decide not to renew our contracts with little or no prior notice. Since government contracts represent a significant percentage of our revenues (for example, those with the U.S. federal government represented approximately 21.4% of our total revenue in fiscal 2016), a significant reduction in government funding or the loss of such contracts could have a material adverse impact on our business, financial condition, and results of operations.

Most government contracts are awarded through a rigorous competitive process. The U.S. federal government has increasingly relied upon multiple-year contracts with multiple contractors that generally require those contractors to engage in an additional competitive bidding process for each task order issued under a contract. This process may result in us facing significant additional pricing pressure and uncertainty and incurring additional costs. Moreover, we ma y not be awarded government contracts because of existing policies designed to protect small businesses and under-represented minorities. Our inability to win new contracts or be awarded work under existing contracts could have a negative impact on our bus iness and results of operations.

In addition, government contracts are subject to specific procurement regulations and a variety of other socio-economic requirements, which affect how we transact business with our clients and, in some instances, impose additional costs on our business operations. For example, for contracts with the U.S. federal government, we must comply with the Federal Acquisition Regulation, the Truth in Negotiations Act, the Cost Accounting Standards, the Service Contract Act, and numerous regulations governing environmental protection and employment practices. Government contracts also contain terms that expose us to heightened levels of risk and potential liability than non-government contracts. This includes, for example, unlimited indemnification obligations.

We also are subject to government audits, investigations, and proceedings. For example, government agencies such as the U.S. Defense Contract Audit Agency routinely review and audit us to determine the adequacy of and our compliance with our internal control systems and policies and whether allowable costs are in accordance with applicable regulations. These audits can result in a determination that a rule or regulation has been violated or that adjustments are necessary to the amount of contract costs we believe are reimbursable by the agencies and the amount of our overhead costs allocated to the agencies.

If we violate a rule or regulation, fail to comply with a contractual or other requirement or do not satisfy an audit, a variety of penalties can be imposed on us including monetary damages and criminal and civil penalties. For example, in so-called "qui tam" actions brought by individuals or the government under the U.S. Federal False Claims Act or under similar state and local laws, treble damages can be awarded. In addition, any or all of our government contracts could be terminated, we could be suspended or debarred from all government contract work, or payment of our costs could be disallowed. The occurrence of any of these actions could harm our reputation and our business, financial condition, and results of operations could be negatively impacted.

Many of our federal government contracts require us to have security clearances, which can be difficult and time consuming to obtain. If our employees are unable to obtain or retain the necessary securities clearances, our clients could terminate or not renew existing contracts or award us new contracts. To the extent this occurs, our business, financial condition and results of operations could be negatively impacted.

Our use of joint ventures and partnerships exposes us to risks and uncertainties, many of which are outside of our control.

As is common in our industry, we perform certain contracts as a member of joint ventures, partnerships, and similar arrangements. This situation exposes us to a number of risks, including the risk that our partners may be unable to fulfill their obligations to us or our clients.

We cannot control the actions of our joint venture partners, including the nonperformance, default or bankruptcy of our joint venture partners. Our partners may be unable or unwilling to provide the required levels of financial support to the partnerships. If these circumstances occur, we may be required to pay financial penalties or liquidated damages, provide additional services, or make additional investments to ensure adequate performance and delivery of the contracted services. Under agreements with joint and several liabilities, we could be liable for both our obligations and those of our partners. These circumstances could also lead to disputes and litigation with our partners or clients, all of which could have a material adverse impact on our reputation, business, financial condition, and results of operations.

We depend on the management effectiveness of our joint venture partners. Differences in views among the joint venture participants may result in delayed decisions or in failures to agree on major issues, which could materially affect the business and operations of these ventures. In addition, in many of the countries in which we engage in joint ventures, it may be difficult to enforce our contractual rights under the applicable joint venture agreement. If we are not able to enforce our contractual rights, we may not be able to realize the benefits of the joint venture or we may be subject to additional liabilities.

We participate in joint ventures and similar arrangements in which we are not the controlling partner. In these cases, we have limited control over the actions of the joint venture. These joint ventures may not be subject to the same requirements regarding internal controls and internal control over financial reporting that we follow. To the extent the controlling partner makes decisions that negatively impact the joint venture or internal control problems arise within the joint venture, it could have a material adverse impact on our business, financial condition, and results of operations.

The failure by a joint venture partner to comply with applicable laws, regulations or client requirements could negatively impact our business and, for government clients, could result in fines, penalties, suspension or even debarment being imposed on us, which could have a material adverse impact on our bus iness, financial condition, and results of operations.

We are dependent on third parties to complete many of our contracts.

Third-party subcontractors we hire perform much of the work performed under our contracts. We also rely on third-party equipment manufacturers or suppliers to provide much of the equipment and materials used for projects. If we are unable to hire qualified subcontractors or find qualified equipment manufacturers or suppliers, our ability to successfully complete a project could be impaired. If we are not able to locate qualified third-party subcontractors or the amount we are required to pay for subcontractors or equipment and supplies exceeds what we have estimated, especially in a lump sum or a fixed-price contract, we may suffer losses on these contracts. If a subcontractor, supplier, or manufacturer fails to provide services, supplies or equipment as required under a contract for any reason, we may be required to source these services, equipment or supplies to other third parties on a delayed basis or on less favorable terms, which could impact contract profitability. There is a risk that we may have disputes with our subcontractors relating to, among other things, the quality and timeliness of work performed, customer concerns about the subcontractor, or our failure to extend existing task orders or issue new task orders under a contract. In addition, faulty workmanship, equipment or materials could impact the overall project, resulting in claims against us for failure to meet required project specifications.

In the current economic environment, third parties may find it difficult to obtain sufficient financing to help fund their operations. The inability to obtain financing could adversely affect a third party's ability to provide materials, equipment or services which could have a material adverse impact on our business, financial condition, and results of operations. In addition, a failure by a third party subcontractor, supplier or manufacturer to comply with applicable laws, regulations or client requirements could negatively impact our business and, for government clients, could result in fines, penalties, suspension or even debarment being imposed on us, which could have a material adverse impact on our business, financial condition, and results of operations.

Negative conditions in the credit and financial markets and delays in receiving client payments could result in liquidity problems, adversely affecting our cost of borrowing and our business.

Although we finance much of our operations using cash provided by operations, at times we depend on the availability of credit to grow our business and to help fund business acquisitions. Instability in the credit markets in the U.S. or abroad could cause the availability of credit to be relatively difficult or expensive to obtain at competitive rates, on commercially reasonable terms or in sufficient amounts. This situation could make it more difficult or more expensive for us to access funds, refinance our existing indebtedness, enter into agreements for new indebtedness, or obtain funding through the issuance of securities or such additional capital may not be available on terms acceptable to us. We may also enter into business acquisition agreements that require us to access credit, which if not available at the closing of the acquisition could result in a breach of the acquisition agreement and a resulting claim for damages by the sellers of such business. In addition, market conditions could negatively impact our clients' ability to fund their projects and, therefore, utilize our services, which could have a material adverse impact on our business, financial condition, and results of operations.

In addition, we are subject to the risk that the counterparties to our credit agreements may go bankrupt if they suffer catastrophic demand on their liquidity that will prevent them from fulfilling their contractual obligations to us. We also routinely enter into contracts with counterparties including vendors, suppliers, and subcontractors that may be negatively impacted by events in the credit markets. If those counterparties are unable to perform their obligations to us or our clients, we may be required to provide additional services or make alternate arrangements on less favorable terms with other parties to ensure adequate performance and delivery of services to our clients. These circumstances could also lead to disputes and litigation with our partners or clients, which could have a material adverse impact on our reputation, business, financial condition, and results of operations.

Some of our customers, suppliers and subcontractors depend on access to commercial financing and capital markets to fund their operations. Disruptions of the credit or capital markets could adversely affect our clients' ability to finance projects and could result in contract cancellations or suspensions, project delays and payment delays or defaults by our clients. In addition, clients may be unable to fund new projects, may choose to make fewer capital expenditures or otherwise slow their spending on our services or to seek contract terms more favorable to them. Our government clients may face budget deficits that prohibit them from funding proposed and existing projects or that cause them to exercise their right to terminate our contracts with little or no prior notice. In addition, any financial difficulties suffered by our subcontractors or suppliers could increase our cost or adversely impact project schedules. These disruptions could materially impact our back log and have a material adverse impact on our business, financial condition, and results of operations.

In addition, we typically bill our clients for our services in arrears and are, therefore, subject to our clients delaying or failing to pay our invoices. In weak economic environments, we may experience increased delays and failures due to, among other reasons, our clients' unwillingness to pay for alleged poor performance or to preserve their own working capital. If one or more clients delays in paying or fails to pay us a significant amount of our outstanding receivables, it could have a material adverse impact on our liquidity, financial condition, and results of operations.

Furthermore, our cash balances and short-term investments are maintained in accounts held by major banks and financial institutions located primarily in North America, Europe, South America, Australia and Asia. Some of our accounts hold deposits in amounts that exceed available insurance. Although none of the financial institutions in which we hold our cash and investments have gone into bankruptcy or forced receivership, or have been seized by their governments, there is a risk that such events may occur in the future. If any such events were to occur, we would be at risk of not being able to access our cash, which may result in a temporary liquidity crisis that could impede our ability to fund our operations, which could have a material adverse impact on our business, financial condition, and results of operations.

Maintaining adequate bonding and letter of credit capacity is necessary for us to successfully bid on and win some contracts.

In line with industry practice, we are often required to provide performance or payment bonds or letters of credit to our customers. These instruments indemnify the customer should we fail to perform our obligations under the contract. If a bond or a letter of credit is required for a particular project and we are unable to obtain an appropriate bond or letter of credit, we cannot pursue that project. Historically, we have had adequate bonding and letter of credit capacity but, as is typically the case, the issuance of a bond is at the surety's sole discretion and the issuance of a letter of credit is based on the Company's credit-worthiness. Because of an overall lack of worldwide bonding capacity, we may find it difficult to find sureties who will provide required levels of bonding or such bonding may only be available at significant additional cost. There can be no assurance that our bonding capacity will continue to be available to us on reasonable terms. In addition, future projects may require us to obtain letters of credit that extend beyond the term of our existing credit facilities. Our inability to obtain adequate bonding and, as a result, to bid on new contracts that require such bonding or letter of credit could have a material adverse impact on our business, financial condition, results of operations, and cash flows.

Past and future environmental, heath, and safety laws could impose significant additional costs and liabilities.

We are subject to a variety of environmental, health, and safety laws and regulations governing, among other things, discharges to air and water, the handling, storage, and disposal of hazardous or waste materials and the remediation of contamination associated with the releases of hazardous substances and human health and safety. These laws and regulations and the risk of attendant litigation can cause significant delays to a project and add significantly to its cost. Violations of these regulations could subject us and our management to civil and criminal penalties and other liabilities.

Various U.S. federal, state, local, and foreign environmental laws and regulations may impose liability for property damage and costs of investigation and cleanup of hazardous or toxic substances on property currently or previously owned by us or arising out of our waste management or environmental remediation activities. These laws may impose responsibility and liability without regard to knowledge of or causation of the presence of contaminants. The liability under these laws is joint and several. We have potential liabilities associated with our past waste management and other activities and with our current and prior ownership of various properties. The discovery of additional contaminants or the imposition of unforeseen clean-up obligations at these or other sites could have a material adverse impact on our financial condition and results of operations.

When we perform our services, our personnel and equipment may be exposed to radioactive and hazardous materials and conditions. We may be subject to liability claims by employees, customers, and third parties as a result of such exposures. In addition, we may be subject to fines, penalties or other liabilities arising under environmental or safety laws. A claim, if not covered or only partially covered by insurance, could have a material adverse impact on our results of operations and financial condition.

Health safety, and environmental laws and regulations and policies are reviewed periodically and any changes thereto could affect us in substantial and unpredictable ways. Such changes could, for example, relax or repeal laws and regulations relating to the environment, which could result in a decline in the demand for our environmental services and, in turn, could negatively impact our revenue. Changes in the environmental laws and regulations, remediation obligations, enforcement actions, stricter interpretations of existing requiremen ts, future discovery of contamination or claims for damages to persons, property, natural resources or the environment could result in material costs and liabilities that we currently do not anticipate. If we fail to comply with any environmental, health, or safety laws or regulations, whether actual or alleged, we could be exposed to fines, penalties or potential litigation liabilities, including costs, settlements and judgments, any of which could adversely affect our business, financial condition and res ults of operations.

In addition, we and many of our clients operate in highly regulated environments, which may require us or our clients to obtain, and to comply with, federal, state, and local government permits and approvals. Any of these permits or approvals may be subject to denial, revocation or modification under various circumstances. Failure to obtain or comply with, or the loss or modification of, the conditions of permits or approvals may subject us to penalties or other liabilities, which could have a material adverse impact on our business, financial condition, and result of operations.

If we fail to comply with federal, state, local or foreign governmental requirements, our business may be adversely affected.

We are subject to U.S. federal, state, local and foreign laws and regulations that affect our business. For example, our global operations require importing and exporting goods and technology across international borders. Although we have policies and procedures to comply with U.S. and foreign international trade laws, the violation of such laws could subject the Company and its employees to civil or criminal penalties, including substantial monetary fines, or other adverse actions including denial of import or export privileges or debarment from participation in U.S. government contracts, and could damage our reputation and our ability to do business.

Employee, agent or partner misconduct or our overall failure to comply with laws or regulations could weaken our ability to win contracts, which could result in reduced revenues and profits.

Misconduct, fraud, non-compliance with applicable laws and regulations, or other improper activities by one of our employees, agents or partners could have a significant negative impact on our business and reputation. Such misconduct could include the failure to comply with government procurement regulations, regulations regarding the protection of classified information, regulations prohibiting bribery and other corrupt practices, regulations regarding the pricing of labor and other costs in government contracts, regulations on lobbying or similar activities, regulations pertaining to the internal controls over financial reporting, regulations pertaining to export control, environmental laws, and any other applicable laws or regulations. For example, we routinely provide services that may be highly sensitive or that relate to critical national security matters; if a security breach were to occur, our ability to procure future government contracts could be severely limited. The precautions we take to prevent and detect these activities may not be effective, and we could face unknown risks or losses. Our failure to comply with applicable laws or regulations or acts of misconduct could subject us to fines and penalties, cancellation of contracts, loss of security clearance, and suspension or debarment from contracting, which could weaken our ability to win contracts and result in reduced revenues and profits and could have a material adverse impact on our business, financial condition, and results of operations.

We could be adversely affected by violations of the U.S. Foreign Corrupt Practices Act and similar worldwide anti-bribery laws.

The U.S. Foreign Corrupt Practices Act ("FCPA"), the U.K. Bribery Act of 2010, and similar anti-bribery laws in other jurisdictions generally prohibit companies and their intermediaries from making improper payments for the purpose of obtaining or retaining business. Our policies mandate compliance with these anti-bribery laws, including the requirements to maintain accurate information and internal controls. We operate in many parts of the world that have experienced governmental corruption to some degree and in certain circumstances; strict compliance with anti-bribery laws may conflict with local customs and practices. Despite our training and compliance programs, there is no assurance that our internal control policies and procedures will protect us from acts committed by our employees or agents. If we are found to be liable for FCPA or other violations (either due to our own acts or our inadvertence, or due to the acts or inadvertence of others), we could suffer from civil and criminal penalties or other sanctions, including contract cancellations or debarment, and loss of reputation, any of which could have a material adverse impact on our business, financial condition, and results of operations.

The loss of or a significant reduction in business from one or a few customers could have a material adverse impact on us.

A few clients have in the past and may in the future account for a significant portion of our revenue and/or backlog in any one year or over a period of several consecutive years. For example, in fiscal 2016, 2015, and 2014, approximately

21.4%, 21.7%, and 17.8%, res pectively, of our revenue was earned directly or indirectly from agencies of the U.S. federal government. Although we have long-standing relationships with many of our significant clients, our clients may unilaterally reduce, delay, or cancel their contrac ts at any time. Our loss of or a significant reduction in business from a significant client could have a material adverse impact on our business, financial condition, and results of operations.

Our international operations are exposed to additional risks and uncertainties, including unfavorable political developments and weak foreign economies.

For fiscal 2016, approximately 43.0% of our revenue was earned from clients outside the U.S. Our business is dependent on the continued success of our international operations, and we expect our international operations to continue to account for a significant portion of our total revenues. Our international operations are subject to a variety of risks, including:

- Recessions and other economic crises in other regions, such as Europe, or specific foreign economies and the impact on our costs of doing business in those countries;
- Difficulties in staffing and managing foreign operations, including logistical and communication challenges;
- Unexpected changes in foreign government policies and regulatory requirements;
- Potential non-compliance with a wide variety of laws and regulations, including anti-corruption, export control and anti-boycott laws and similar non-U.S. laws and regulations;
- Lack of developed legal systems to enforce contractual rights;
- Expropriation and nationalization of our assets in a foreign country;
- Renegotiation or nullification of our existing contracts;
- The adoption of new, and the expansion of existing, trade or other restrictions;
- Embargoes;
- Changes in labor conditions;
- Acts of war, civil unrest, force majeure, and terrorism;
- The ability to finance efficiently our foreign operations;
- Social, political, and economic instability;
- Expropriation of property;
- Tax increases;
- Currency exchanges rate fluctuations;
- Limitations on the ability to repatriate foreign earnings; and
- U.S. government policy changes in relation to the foreign countries in which we operate, including embargoes or other trade restrictions.

The lack of a well-developed legal system in some of these countries may make it difficult to enforce our contractual rights. In addition, military action or continued unrest, particularly in the Middle East, could impact the supply or pricing of oil, disrupt our operations in the region and elsewhere. To the extent our international operations are affected by unexpected or adverse economic, political and other conditions, our business, financial condition, and results of operations may be adversely affected.

We work in international locations where there are high security risks, which could result in harm to our employees or unanticipated cost.

Some of our services are performed in high-risk locations, where the country or location is subject to political, social or economic risks, or war or civil unrest. In those locations where we have employees or operations, we may expend significant efforts and incur substantial security costs to maintain the safety of our personnel. Despite these activities, in these locations, we cannot guarantee the safety of our personnel and we may suffer future losses of employees and subcontractors. Acts of terrorism and threats of armed conflicts in or around various areas in which we operate could limit or disrupt markets and our operations, including disruptions resul ting from the evacuation of personnel, cancellation of contracts, or the loss of key employees, contractors or assets.

Foreign exchange risks may affect our ability to realize a profit from certain projects.

Our reported financial condition and results of operations are exposed to the effects (both positive and negative) that fluctuating exchange rates have on the process of translating the financial statements of our international operations, which are denominated in currencies other than the U.S. dollar, into the U.S. dollar. While we generally attempt to denominate our contracts in the currencies of our expenditures, we do enter into contracts that expose us to currency risk, particularly to the extent contract revenue is denominated in a currency different than the contract costs. We attempt to minimize our exposure from currency risks by obtaining escalation provisions for projects in inflationary economies or entering into derivative (hedging) instruments, when there is currency risk exposure that is not naturally mitigated via our contracts. These actions, however, may not always eliminate currency risk exposure. The governments of certain countries have or may in the future impose restrictive exchange controls on local currencies and it may not be possible for us to engage in effective hedging transactions to mitigate the risks associated with fluctuations in a particular currency. Based on fluctuations in currency, the U.S. dollar value of our backlog may from time to time increase or decrease significantly. We may also be exposed to limitations on our ability to reinvest earnings from operations in one country to fund the financing requirements of our operations in other countries.

Our operations may be impacted by the United Kingdom's proposed exit from the European Union.

In June 2016, the U.K. held a referendum in which voters approved an exit from the E.U., commonly referred to as "Brexit." As a result of the referendum, there may be greater restrictions on imports and exports between the U.K. and E.U. countries and increased regulatory complexities. These changes may adversely affect our relationships with our existing and future customers, suppliers, employees, and subcontractors, or otherwise have an adverse effect on our business, financial condition and results of operations. Brexit may also create global economic uncertainty, which may cause our customers to closely monitor their costs, terminate or reduce the scope of existing contracts, decrease or postpone currently planned contracts, or negotiate for more favorable deal terms, each of which may have a negative impact on our business, financial condition and results of operations.

Our business strategy relies in part on acquisitions to sustain our growth. Acquisitions of other companies present certain risks and uncertainties.

Our business strategy involves growth through, among other things, the acquisition of other companies. Acquiring companies presents a number of risks, including:

- Assumption of liabilities of an acquired business, including liabilities that were unknown at the time the acquisition was negotiated;
- Valuation methodologies may not accurately capture the value of the acquired business;
- Failure to realize anticipated benefits, such as cost savings and revenue enhancements;
- Difficulties relating to combining previously separate entities into a single, integrated, and efficient business;
- The effects of diverting management's attention from day-to-day operations to matters involving the integration of acquired companies;
- Potentially substantial transaction costs associated with business combinations;
- Potential impairment resulting from the overpayment for an acquisition or post-acquisition deterioration in an acquired business;
- Difficulties relating to assimilating the personnel, services, and systems of an acquired business and to assimilating marketing and other operational capabilities;
- Difficulties retaining key personnel of an acquired business;
- Increased burdens on our staff and on our administrative, internal control and operating systems, which may hinder our legal and regulatory compliance activities;
- Difficulties in applying and integrating our system of internal controls to an acquired business;

- Increased financial and accounting challenges and complexities in areas such as tax planning, treasury management, financial reporting and internal controls; and
- The potential requirement for additional equity or debt financing, which may not be available, or if available, may not have favorable terms.

While we may obtain indemnification rights from the sellers of acquired businesses, such rights may be difficult to enforce, the losses may exceed any dedicated escrow funds, and the indemnitors may not have the ability to financially support the indemnity.

If our management is unable to successfully integrate acquired companies or implement our growth strategy, our operating results could be harmed. In addition, even if the operations of an acquisition are integrated successfully, we may not realize the full benefits of an acquisition, including the synergies, cost savings, or sales or growth opportunities that we expect. These benefits may not be achieved within the anticipated time frame, or at all. Moreover, we cannot assure that we will continue to successfully expand or that growth or expansion will result in profitability.

In addition, there is no assurance that we will continue to locate suitable acquisition targets or that we will be able to consummate any such transactions on terms and conditions acceptable to us. Existing cash balances and cash flow from operations, together with borrowing capacity under our credit facilities, may be insufficient to make acquisitions. Future acquisitions may require us to obtain additional equity or debt financing, which may not be available on attractive terms, or at all. Acquisitions may also bring us into businesses we have not previously conducted and expose us to additional business risks that are different than those we have traditionally experienced.

In the event we issue stock as consideration for certain acquisitions we may make, we could dilute share ownership.

One method of acquiring companies or otherwise funding our corporate activities is through the issuance of additional equity securities. If we issue additional equity securities, such issuances could have the effect of diluting our earnings per share as well as our existing shareholders' individual ownership percentages in the Company.

Our quarterly results may fluctuate significantly, which could have a material negative effect on the price of our common stock.

Our quarterly operating results may fluctuate significantly, which could cause our operating results to fall below the expectations of securities analysts and have a material negative effect on the price of our common stock. Fluctuations are caused by a number of factors, including:

- Fluctuations in the spending patterns of our government and commercial customers;
- The number and significance of projects executed during a quarter;
- Unanticipated changes in contract performance, particularly with contracts that have funding limits;
- The timing of resolving change orders, requests for equitable adjustments, and other contract adjustments;
- Delays incurred in connection with a project;
- Changes in prices of commodities or other supplies;
- Changes in foreign currency exchange rates;
- Weather conditions that delay work at project sites;
- The timing of expenses incurred in connection with acquisitions or other corporate initiatives;
- The decision by the Board of Directors to begin or cease paying a dividend, and the expectation that if the Company pays dividends, it would declare dividends at the same or higher levels in the future;
- Natural disasters or other crises;
- Staff levels and utilization rates;
- Changes in prices of services offered by our competitors; and
- General economic and political conditions.

Our actual results could differ from the estimates and assumptions used to prepare our financial statements.

In preparing our financial statements, our management is required under U.S. GAAP to make estimates and assumptions as of the date of the financial statements. These estimates and assumptions affect the reported values of assets, liabilities, revenue, and expenses and disclosure of contingent assets and liabilities. Areas requiring significant estimates by our management include:

- Recognition of contract revenue, costs, profit or losses in applying the principles of percentage of completion accounting;
- Estimated amounts for expected project losses, warranty costs, contract close-out or other costs;
- Recognition of recoveries under contract change orders or claims;
- Collectability of billed and unbilled accounts receivable and the need and amount of any allowance for doubtful accounts;
- Estimates of other liabilities, including litigation and insurance revenues/reserves and reserves necessary for self-insured risks;
- Accruals for estimated liabilities, including litigation reserves;
- Valuation of assets acquired, and liabilities, goodwill, and intangible assets assumed, in acquisitions;
- Valuation of stock-based compensation;
- The determination of liabilities under pension and other post-retirement benefit programs; and
- Income tax provisions and related valuation allowances.

Our actual business and financial results could differ from our estimates of such results, which could have a material negative impact on our financial condition and results of operations.

We may be adversely impacted by, or unable to fully realize the benefits of, our corporate reorganization.

In the second quarter of fiscal 2016, we reorganized the Company's operating units into four lines of business, each of which is a separate reportable segment. We may be unable to realize the anticipated longer term efficiency benefits of the reorganization. Furthermore, our reorganization into four reportable segments, which also represent the Company's reporting units, may have a material impact on the risk that an impairment charge of goodwill will occur. In the past, with a single reportable segment the Company had two reporting units. Following the reorganization, our number of reporting units has increased to four reporting units. Our goodwill was allocated amongst the new reporting units, for purposes of goodwill impairment testing, on the basis of Enterprise Fair Values. This allocation of goodwill to the four new reporting units could make it more likely that the Company will have an impairment charge in the future, in circumstances where an impairment charge may not have been necessary prior to the reorganization. An impairment charge to one of our reporting units could have an impact on our results of operations.

An impairment charge of goodwill could have a material adverse impact on our financial condition and results of operations.

Because we have grown in part through acquisitions, goodwill and intangible assets represent a substantial portion of our assets. Under U.S. GAAP, we are required to test goodwill carried in our Consolidated Balance Sheets for possible impairment on an annual basis based upon a fair value approach. As of September 30, 2016, we had $3.1 billion of goodwill, representing 41.8% of our total assets of $7.4 billion. We have chosen to perform our annual impairment reviews of goodwill at the end of the third quarter of our fiscal year. We also are required to test goodwill for impairment between annual tests if events occur or circumstances change that would more likely than not reduce our enterprise fair value below its book value. These events or circumstances could include a significant change in the business climate, including a significant sustained decline in a reporting unit's market value, legal factors, operating performance indicators, competition, sale or disposition of a significant portion of our business, potential government actions toward our facilities, and other factors.

If our market capitalization drops significantly below the amount of net equity recorded on our balance sheet, it might indicate a decline in our fair value and would require us to further evaluate whether our goodwill has been impaired. If the fair value of our reporting units is less than their carrying value, we could be required to record an impairment charge. The amount of any impairment could be significant and could have a material adverse impact on our fi nancial condition and results of operations for the period in which the charge is taken. For a further discussion of goodwill impairment testing, please see Item 7— *Management's Discussion and Analysis of Financial Condition and Results of Operations* below .

We may be required to contribute additional cash to meet any underfunded benefit obligations associated with retirement and post-retirement benefit plans we manage.

We have various employee benefit plan obligations that require us to make contributions to satisfy, over time, our underfunded benefit obligations, which are generally determined by calculating the projected benefit obligations minus the fair value of plan assets. For example, as of September 30, 2016 and October 2, 2015, our defined benefit pension and post-retirement benefit plans were underfunded by $403.1 million and $413.1 million, respectively. See Note 6— *Pension Plans* of Notes to Consolidated Financial Statements beginning on page F-1 of this Annual Report on Form 10-K for additional disclosure. In the future, our benefit plan obligations may increase or decrease depending on changes in the levels of interest rates, pension plan asset performance and other factors. If we are required to contribute a significant amount of the deficit for underfunded benefit plans, our cash flows could be materially and adversely affected.

Rising inflation, interest rates, and/or construction costs could reduce the demand for our services as well as decrease our profit on our existing contracts, in particular with respect to our fixed-price contracts.

Rising inflation, interest rates, or construction costs could reduce the demand for our services. In addition, we bear all of the risk of rising inflation with respect to those contracts that are fixed-price. Because a significant portion of our revenues are earned from cost-reimbursable type contracts (approximately 82% during fiscal 2016), the effects of inflation on our financial condition and results of operations over the past few years have been generally minor. However, if we expand our business into markets and geographic areas where fixed-price and lump-sum work is more prevalent, inflation may have a larger impact on our results of operations in the future. Therefore, increases in inflation, interest rates or construction costs could have a material adverse impact on our business, financial condition, and results of operations.

We may be affected by market or regulatory responses to climate change.

Growing concerns about climate change may result in the imposition of additional environmental regulations. For example, there is a growing consensus that new and additional regulations may be enacted concerning, among other things, greenhouse gas emissions could result in increased compliance costs for us and our clients. Legislation, international protocols, regulation or other restrictions on emissions could also affect our clients, including those who are involved in the exploration, production or refining of fossil fuels, emit greenhouse gases through the combustion of fossil fuels or emit greenhouse gases through the mining, manufacture, utilization or production of materials or goods. Such policy changes could increase the costs of projects for our clients or, in some cases, prevent a project from going forward, thereby potentially reducing the need for our services, which would in turn have a material adverse impact on our business, financial condition, and results of operations. However, these changes could also increase the pace of projects, such as carbon capture or storage projects, that could have a positive impact on our business. We cannot predict when or whether any of these various proposals may be enacted or what their effect will be on us or on our customers.

Our effective tax rate may increase or decrease.

We are subject to income taxes in the U.S. and numerous foreign jurisdictions. Significant judgment is required in determining our worldwide provision for income taxes. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. We are regularly under audit by tax authorities. Although we believe that our tax estimates and tax positions are reasonable, they could be materially affected by many factors including the final outcome of tax audits and related litigation, the introduction of new tax accounting standards, legislation, regulations, and related interpretations, our global mix of earnings, the realizability of deferred tax assets and changes in uncertain tax positions. An increase or decrease in our effective tax rate could have a material adverse impact on our financial condition and results of operations.

Systems and information technology interruption or failure and data security breaches could adversely impact our ability to operate or expose us to significant financial losses and reputational harm.

We rely heavily on computer, information, and communications technology and related systems in order to properly operate our business. From time to time, we experience occasional system interruptions and delays. In the event we are unable to regularly deploy software and hardware, effectively upgrade our systems and network infrastructure, and take other steps to maintain or improve the efficiency and efficacy of our systems, the operation of such systems could be interrupted or result in the loss, corruption, or release of data. In addition, our computer and communication systems and operations could be damaged or interrupted by natural disasters, force majeure events, telecommuni cations failures, power loss, acts of war or terrorism, computer viruses, malicious code, physical or electronic security breaches, intentional or inadvertent user misuse or error, or similar events or disruptions. Any of these or other events could cause interruptions, delays, loss of critical and/or sensitive data or similar effects, which could have a material adverse impact on our business, financial condition, protection of intellectual property, and results of operations, as well as those of our clien ts.

In addition, we face the threat to our computer systems of unauthorized access, computer hackers, computer viruses, malicious code, organized cyber-attacks and other security problems and system disruptions, including possible unauthorized access to and disclosure of our and our clients' proprietary or classified information. We rely on industry accepted security measures and technology to securely maintain all confidential and proprietary information on our computer systems, but they may still be vulnerable to these threats. As a result, we may be required to expend significant resources to protect against the threat of these system disruptions and security breaches or to alleviate problems caused by these disruptions and breaches. Any of these events could damage our reputation and have a material adverse effect on our business, financial condition, results of operations and cash flows.

We continuously evaluate the need to upgrade and/or replace our systems and network infrastructure to protect our computing environment, to stay current on vendor supported products and to improve the efficiency of our systems and for other business reasons. The implementation of new systems and information technology could adversely impact our operations by imposing substantial capital expenditures, demands on management time and risks of delays or difficulties in transitioning to new systems. And, our systems implementations may not result in productivity improvements at the levels anticipated. Systems implementation disruption and any other information technology disruption, if not anticipated and appropriately mitigated, could have an adverse effect on our business.

We may not be able to protect our intellectual property or that of our clients.

Our technology and intellectual property provide us, in certain instances, with a competitive advantage. Although we protect our property through patent registrations, license restrictions, and similar mechanisms, we may not be able to successfully preserve our rights and they could be invalidated, circumvented, challenged or become obsolete. Our employees and contractors are subject to confidentiality obligations, but this protection may be inadequate to deter or prevent misappropriation of our confidential information and/or infringement of our intellectual property. In addition, the laws of some foreign countries in which we operate do not protect intellectual property rights to the same extent as the U.S. If we are unable to protect and maintain our intellectual property rights or if there are any successful intellectual property challenges or infringement proceedings against us, our ability to differentiate our service offerings could be reduced. Litigation to determine the scope of intellectual property rights, even if ultimately successful, could be costly and could divert management's attention away from other aspects of our business.

In addition, if our intellectual property rights or work processes become obsolete, we may not be able to differentiate our service offerings and some of our competitors may be able to offer more attractive services to our customers. Our competitors may independently attempt to develop or obtain access to technologies that are similar or superior to our technologies.

Our clients or other third parties may also provide us with their technology and intellectual property. There is a risk we may not sufficiently protect our or their information from improper use or dissemination and, as a result, could be subject to claims and litigation and resulting liabilities, loss of contracts or other consequences that could have an adverse impact on our business, financial condition, and results of operations.

Our businesses could be materially and adversely affected by events outside of our control.

Extraordinary or force majeure events beyond our control, such as natural or man-made disasters, could negatively impact our ability to operate. As an example, from time to time we face unexpected severe weather conditions which may result in weather-related delays that are not always reimbursable under a fixed-price contract; evacuation of personnel and curtailment of services; increased labor and material costs in areas resulting from weather-related damage and subsequent increased demand for labor and materials for repairing and rebuilding; inability to deliver materials, equipment and personnel to jobsites in accordance with contract schedules; and loss of productivity. We may remain obligated to perform our services after any such natural or man-made event, unless a force majeure clause or other contractual provision provides us with relief from our contractual obligations. If we are not able to react quickly to such events, or if a high concentration of our projects are in a specific geographic region that suffers from a natural or man-made catastrophe, our operations may be significantly affected, which could have a negative impact on our operations. In addition, if we cannot complete our contracts on time, we may be subject to potential liability claims by our cli ents which may reduce our profits.

We are subject to professional standards, duties and statutory obligations on professional reports and opinions we issue, which could subject us to monetary damages.

We issue reports and opinions to clients based on our professional engineering expertise as well as our other professional credentials that subject us to professional standards, duties and obligations regulating the performance of our services. For example, we issue opinions and reports to government clients in connection with securities offerings. If a client or another third party alleges that our report or opinion is incorrect or it is improperly relied upon and we are held responsible, we could be subject to significant monetary damages. In addition, our reports and other work product may need to comply with professional standards, licensing requirements, securities regulations and other laws and rules governing the performance of professional services in the jurisdiction where the services are performed. We could be liable to third parties who use or rely upon our reports and other work product even if we are not contractually bound to those third parties. These events could in turn result in monetary damages and penalties.

Delaware law and our charter documents may impede or discourage a takeover or change of control.

We are a Delaware corporation. Certain anti-takeover provisions of the Delaware general corporation law impose restrictions on the ability of others to acquire control of us. In addition, certain provisions of our charter documents may impede or discourage a takeover. For example:

- Only our Board of Directors can fill vacancies on the board;
- There are various restrictions on the ability of a shareholder to nominate a director for election; and
- Our Board of Directors can authorize the issuance of preferred shares.

These types of provisions, as well as our ability to adopt a shareholder rights agreement in the future, could make it more difficult for a third party to acquire control of us, even if the acquisition would be beneficial to our shareholders. Accordingly, shareholders may be limited in the ability to obtain a premium for their shares.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

Our properties consist primarily of office space within general, commercial office buildings located in major cities primarily in the following countries: United States; Australia; Austria; Belgium; Canada; Chile; China; Finland; Germany; Greece; India; Italy; Malaysia; Mexico; Morocco; The Netherlands; Oman; The Philippines; Puerto Rico; Peru; Republic of Ireland; Saudi Arabia; South Africa; Singapore; Spain; Sweden; United Arab Emirates; and the United Kingdom. Such space is used for operations (providing technical, professional, and other home office services), sales, and administration. Most of our properties are leased. In addition, we have fabrication facilities located in Canada in Pickering, Ontario and Edmonton and Lamont, Alberta. The total amount of space used by us for all of our operations is approximately 7.6 million square feet.

We also lease smaller, project offices located throughout the U.S., the U.K., and in certain other countries. We also rent most of our construction equipment on a short-term basis.

Item 3. LEGAL PROCEEDINGS

The information required by this Item 3 is included in Note 12 — *Contractual Guarantees, Litigation, Investigations, and Insurance* of Notes to Consolidated Financial Statements beginning on page F-1 of this Annual Report on Form 10-K and is incorporated herein by reference.

Item 4. MINE SA FETY DISCLOSURE

Section 1503 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") requires domestic mine operators to disclose violations and orders issued under the Federal Mine Safety and Health Act of 1977 (the "Mine Act") by the federal Mine Safety and Health Administration. Under the Mine Act, an independent contractor, such as Jacobs, that performs services or construction of a mine is included within the definition of a mining operator. We do not act as the owner of any mines.

Information concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Act and Item 104 of Regulation S-K is included in Exhibit 95.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Jacobs' common stock is listed on the NYSE and trades under the symbol JEC. We provided to the NYSE, without qualification, the required annual certification of our Chief Executive Officer regarding compliance with the NYSE's corporate governance listing standards. The following table sets forth the low and high sales prices of a share of our common stock during each of the fiscal quarters presented, based on the NYSE Composite Price History:

	Low Sales Price	High Sales Price
Fiscal 2016:		
First quarter	$ 37.51	$ 45.41
Second quarter	34.76	44.77
Third quarter	40.93	53.33
Fourth quarter	48.13	55.89
Fiscal 2015:		
First quarter	$ 39.78	$ 49.94
Second quarter	37.87	45.49
Third quarter	41.68	48.25
Fourth quarter	36.05	44.64

Shareholders

According to the records of our transfer agent, there were 1,073 shareholders of record as of November 18, 2016.

Share Repurchases

On July 23, 2015, the Board of Directors approved a program to repurchase up to $500 million of the Company's common stock over the next three years. Share repurchases may be executed through various means including, without limitation, open market transactions or otherwise. The share repurchase program, which expires on July 22, 2018, does not oblige the Company to purchase any shares. The authorization for the share repurchase program may be terminated, increased, or decreased by the Company's Board of Directors in its discretion at any time. The timing of our share repurchases may depend upon the market conditions, other uses of capital, and other factors.

A summary of repurchases of our common stock each fiscal month during the fourth quarter of fiscal 2016 is as follows (in thousands, except per-share amounts):

Period	Total Number of Shares Purchased	Average Price Paid per Share (1)	Total Numbers of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs ($ in thousands)
July 2 through July 29, 2016	227	$ 52.30	227	$ 385,665
July 30 through August 26, 2016	213	$ 53.77	213	$ 374,211
August 27 through September 30, 2016	522	$ 51.32	522	$ 347,451
Total	962	$ 52.10	962	$ 347,451

(1) Includes commissions paid and calculated at the average price per share since the repurchase program authorization date.

Dividends

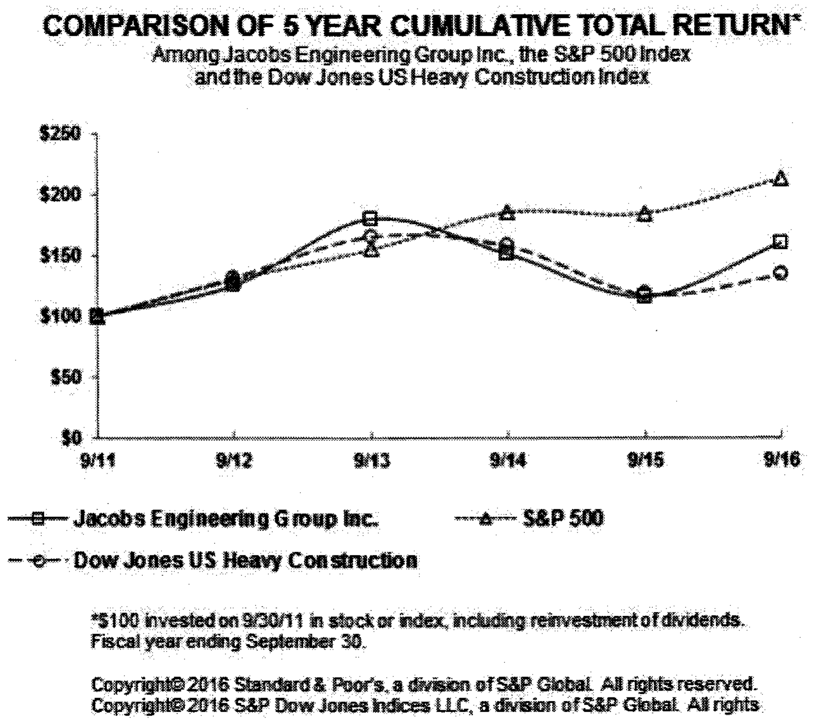
Our current policy is to use cash flows from operations to fund future growth, pay down debt, and, subject to market conditions, repurchase common stock under a stock buy-back program approved by our Board of Directors. During fiscal 2016, the Company undertook a strategic review to evaluate, among other things, how to invest its resources and maximize returns. As part of that evaluation, management has been reviewing and considering the continued use of the share repurchase program and the possible initiation of a cash dividend. The Company expects to present its strategy and corporate goals at its Investor Day, to be held on December 1, 2016.

Unregistered Sales of Equity Securities.

None.

Performance Graph

The following graph and table shows the changes over the past five-year period in the value of $100 invested at the end of fiscal 2011 in (1) the common stock of Jacobs Engineering Group Inc., (2) the Standard & Poor's 500 Index, and (3) the Dow Jones Heavy Construction Group Index. The values of each investment are based on share price appreciation, with reinvestment of all dividends, provided any were paid. The investments are assumed to have occurred at the beginning of the period presented. The stock performance included in this graph is not necessarily indicative of future stock price performance.



	2011	2012	2013	2014	2015	2016
Jacobs Engineering Group Inc.	**100.00**	**125.21**	**180.18**	**151.19**	**115.92**	**160.17**
S&P 500	**100.00**	**130.20**	**155.39**	**186.05**	**184.91**	**213.44**
Dow Jones US Heavy Construction	**100.00**	**131.89**	**166.14**	**158.59**	**117.78**	**133.61**

Note: The above information was provided by Research Data Group, Inc.

Item 6. **SELECTED FINANCIAL DATA**

The following table presents selected financial data for each of the last five fiscal years. This selected financial data should be read in conjunction with the Consolidated Financial Statements and related notes beginning on page F-1 of this Annual Report on Form 10-K. Dollar amounts are presented in thousands, except for per share information:

	2016 (a)	2015 (b)	2014 (c)	2013	2012 (d)
Results of Operations:					
Revenues	$ 10,964,157	$ 12,114,832	$ 12,695,157	$ 11,818,376	$ 10,893,778
Net earnings attributable to Jacobs	210,463	302,971	328,108	423,093	378,954
Financial Position:					
Current ratio	1.61 to 1	1.58 to 1	1.58 to 1	2.07 to 1	1.99 to 1
Working capital	1,081,784	1,141,512	1,372,332	2,020,853	1,722,656
Current assets	2,864,470	3,122,678	3,722,178	3,908,473	3,469,708
Total assets	7,360,022	7,785,926	8,453,659	7,274,144	6,839,433
Cash	655,716	460,859	732,647	1,256,405	1,032,457
Long-term debt	385,330	584,434	764,075	415,086	528,260
Total Jacobs stockholders' equity	4,265,276	4,291,745	4,469,255	4,213,097	3,722,473
Return on average equity	4.92%	6.92%	7.56%	10.66%	10.77%
Backlog:					
Technical professional services	12,013,121	11,692,404	12,607,029	11,118,400	10,266,500
Field services	6,747,408	7,114,166	5,773,005	6,099,500	5,643,200
Total	18,760,529	18,806,570	18,380,034	17,217,900	15,909,700
Per Share Information:					
Basic earnings per share	1.75	2.42	2.51	3.27	2.97
Diluted earnings per share	1.73	2.40	2.48	3.23	2.94
Stockholders' equity	35.26	34.85	33.92	32.00	28.65
Average Number of Shares of Common Stock and Common Stock Equivalents Outstanding (Diluted)	121,483	126,110	132,371	130,945	128,692
Common Shares Outstanding At Year End	120,951	123,153	131,753	131,639	129,936

(a) Includes costs of $135.6 million or $1.12 per diluted share, related to the Company's restructuring initiatives in the first, second, third and fourth quarter of fiscal 2016. Also included in the fourth quarter of fiscal 2016 are (i) a loss on sale of our French subsidiary of $17.1 million or $0.14 per diluted share; and (ii) a non-cash write-off on an equity investment of $10.4 million or $0.09 per diluted share.

(b) Includes costs of $107.9 million or $0.86 per diluted share, related to the Company's restructuring initiatives in the second, third and fourth quarters of fiscal 2015.

(c) Includes costs of $109.2 million or $0.82 per diluted share, related to the Company's restructuring initiatives in the third and fourth quarter of fiscal 2014.

(d) Includes a one-time, after-tax gain of $4.0 million, or $0.03 per diluted share, related to the sale of the Company's intellectual property for iron ore pelletizing and certain other related assets.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Critical Accounting Policies and Estimates

In order to understand better the changes that occur to key elements of our financial condition, results of operations, and cash flows, a reader of this Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") should be aware of the critical accounting policies we apply in preparing our consolidated financial statements.

The consolidated financial statements contained in this report were prepared in accordance with U.S. GAAP. The preparation of our consolidated financial statements and the financial statements of any business performing long-term engineering and construction-type contracts requires management to make certain estimates and judgments that affect both the entity's results of operations and the carrying values of its assets and liabilities. Although our significant accounting policies are described in Note 2 – *Significant Accounting Policies* of Notes to Consolidated Financial Statements beginning on page F-1 of this Annual Report on Form 10-K, the following discussion is intended to highlight and describe those accounting policies that are especially critical to the preparation of our consolidated financial statements.

Revenue Accounting for Contracts and Use of Joint Ventures —In general, we recognize revenues at the time we provide services. Depending on the commercial terms of the contract, we recognize revenues either when costs are incurred, or using the percentage-of-completion method of accounting by relating contract costs incurred to date to the total estimated costs at completion. This method of revenue recognition requires us to prepare estimates of costs to complete contracts in progress as of the balance sheet dates. In making such estimates, judgments are required to evaluate the possible effects of variances in schedule, the costs of materials and labor, productivity, and the impact of change orders, claims, contract disputes, and achievement of contractual performance standards. Many of our engineering and construction contracts provide for reimbursement of costs plus a fixed or percentage fee. For contracts containing incentive fee arrangements, fees are frequently based on achievement of target completion dates, target costs, and/or other performance criteria. Failure to meet these targets or increases in contract costs can result in unrealized incentive fees or non-recoverable costs, which could exceed revenues recognized from the project.

We provide for contract losses in their entirety in the period they become known without regard to the percentage of completion. For multiple contracts with a single customer, we account for each contract separately.

The nature of our business sometimes results in clients, subcontractors or vendors presenting claims to us for recovery of costs they incurred in excess of what they expected to incur, or for which they believe they are not contractually responsible. In those situations where a claim against us may result in additional costs to the contract, we include in the total estimated costs of the contract (and therefore, the estimated amount of margin to be earned under the contract) an estimate, based on all relevant facts and circumstances available, of the additional costs to be incurred. Similarly, and in the normal course of business, we may present claims to our clients for costs we have incurred for which we believe we are not contractually responsible. In those situations where we have presented such claims to our clients, we include in revenues the amount of costs incurred, without profit, to the extent it is probable that the claims will result in additional contract revenue, and the amount of such additional revenue can be reliably estimated. Costs associated with unapproved change orders are included in revenues using substantially the same criteria used for claims.

Certain cost-reimbursable contracts with government customers as well as many commercial clients provide that contract costs are subject to audit and adjustment. In this situation, revenues are recorded at the time services are performed based upon the amounts we expect to realize upon completion of the contracts. In those situations where an audit indicates that we may have billed a client for costs that are not allowable under the terms of the contract, we estimate the amount of such nonbillable costs and adjust our revenues accordingly.

As is common to the industry, we execute certain contracts jointly with third parties through various forms of joint ventures and consortiums. Although the joint ventures own and hold the contracts with the clients, the services required by the contracts are typically performed by us and our joint venture partners, or by other subcontractors under subcontracting agreements with the joint ventures. The assets of our joint ventures, therefore, consist almost entirely of cash and receivables (representing amounts due from clients), and the liabilities of our joint ventures consist almost entirely of amounts due to the joint venture partners (for services provided by the partners to the joint ventures under their individual subcontracts) and other subcontractors. In general, at any given time, the equity of our joint ventures represents the undistributed profits earned on contracts the joint ventures hold with clients. Very few of our joint ventures have employees. None of our joint ventures have third-party debt or credit facilities. Our joint ventures, therefore, are simply mechanisms used to deliver engineering and construction services to clients. Generally they do not, in and of themselves, present any risk of loss to us or to our partners separate from those that we would carry if we were performing the contract on our own. We may, however, be exposed to additional risk through the use of joint ventures. See Item 1A – *Risk Fa ctors* above. Under U.S. GAAP, our share of losses associated with the contracts held by the joint ventures, if and when they occur, has always been reflected in our Consolidated Financial Statements.

In evaluating the Company's joint ventures (also referred to as "variable interest entities", or "VIEs") for accounting and consolidation purposes, we perform a qualitative analysis to determine whether or not the Company has a "controlling financial interest" in the VIE. The Company is deemed to have a controlling financial interest in a VIE if it has (i) the power to direct the activities of the VIE that most significantly impact the VIE's economic performance; and (ii) the right to receive benefits, or obligation to absorb losses, that could potentially be significant to the VIE. In making our qualitative analysis, the Company assesses each VIE to determine those activities that most significantly impact the VIE's economic performance and whether the Company, another entity, or multiple entities have the power to direct those activities.

If we determine that we have the power to direct those activities of the VIE that most significantly impact its financial performance and have the right or obligation to receive benefits or absorb losses that could potentially be significant to the VIE, then we are the primary beneficiary of the VIE and we consolidate the VIE. If we determine that we do not have the power to direct the most significant activities of the VIE or power is shared by two or more unrelated parties, then we are not the primary beneficiary and we do not consolidate the VIE.

For the Company's unconsolidated joint ventures, we use either the equity method of accounting or proportional consolidation. The Company does not currently participate in any significant VIEs in which it has a controlling financial interest. There were no changes in facts and circumstances in the period that caused the Company to reassess the method of accounting for its VIEs.

Accounting for Stock Issued to Employees and Others — We measure the cost of employee services received in exchange for an award of equity instruments based on the estimated grant-date fair value of the award. We estimate the fair value of stock options granted to employees and directors using the Black-Scholes option-pricing model. Like all option-pricing models, the Black-Scholes model requires the use of subjective assumptions including (i) the expected volatility of the market price of the underlying stock, and (ii) the expected term of the award, among others. Accordingly, changes in assumptions and any subsequent adjustments to those assumptions can cause different fair values to be assigned to our stock option awards. For restricted stock units containing service and performance conditions with measures external to the Company, compensation expense is based on the fair value of such units determined using Monte Carlo Simulations.

Accounting for Pension Plans — the accounting for pension plans requires the use of assumptions and estimates in order to calculate periodic pension cost and the value of the plans' assets and liabilities. These assumptions include discount rates, investment returns, and projected salary increases, among others. The actuarial assumptions used in determining the funded statuses of the plans are provided in Note 7 – *Pension Plans* of Notes to Consolidated Financial Statements beginning on page F-1 of this Annual Report on Form 10-K.

The expected rates of return on plan assets for fiscal 2017 range from 3.5% to 8.5% compared to 3.5% to 8.5% for the prior year. We believe the range of rates selected for fiscal 2017 reflects the long-term returns expected on the plans' assets, considering recent market conditions, projected rates of inflation, the diversification of the plans' assets, and the expected real rates of market returns. The discount rates used to compute plan liabilities were changed from a range of 1.6% to 7.8% in fiscal 2015 to a range of 0.7% to 7.0% in fiscal 2016. These assumptions represent the Company's best estimate of the rates at which its pension obligations could be effectively settled.

Changes in the actuarial assumptions often have a material effect on the values assigned to plan assets and liabilities, and the associated pension expense. For example, if the discount rate used to value the net pension benefit obligation ("PBO") at September 30, 2016, was higher (lower) by 0.5%, the PBO would have been lower (higher) at that date by approximately $124.4 million for non-U.S. plans, and by approximately $9.1 million for U.S. plans. If the expected return on plan assets was higher (lower) by 1.0%, the net periodic pension cost for fiscal 2017 would be lower (higher) by approximately $10.0 million for non-U.S. plans, and by approximately $1.3 million for U.S. plans. Differences between actuarial assumptions and actual performance (i.e., actuarial gains and losses) that are not recognized as a component of net periodic pension cost in the period in which such differences arise are recorded to accumulated other comprehensive income (loss) and are recognized as part of net periodic pension cost in future periods in accordance with U.S. GAAP. Management monitors trends in the marketplace within which our pension plans operate in an effort to assure the fairness of the actuarial assumptions used.

Contractual Guarantees, Litigation, Investigations, and Insurance — In the normal course of business, we are subject to certain contractual guarantees and litigation. The guarantees to which we are a party generally relate to project schedul es and plant performance. Most of the litigation in which we are involved has us as a defendant in workers' compensation; personal injury; environmental; employment/labor; professional liability; and other similar lawsuits. We maintain insurance coverage f or various aspects of our business and operations. We have elected, however, to retain a portion of losses that occur through the use of various deductibles, limits, and retentions under our insurance programs. This situation may subject us to some future liability for which we are only partially insured, or completely uninsured, and we intend to mitigate any such future liability by continuing to exercise prudent business judgment in negotiating the terms and conditions of our contracts.

In accordance with U.S. GAAP, we record in our Consolidated Balance Sheets amounts representing our estimated liability relating to such guarantees, litigation, and insurance claims. We include any adjustments to such liabilities in our consolidated results of operations.

In addition, as a contractor providing services to the U.S. federal government and several of its agencies, we are subject to many levels of audits, investigations, and claims by, or on behalf of, the U.S. federal government with respect to contract performance, pricing, costs, cost allocations, and procurement practices. We adjust revenues based upon the amounts we expect to realize considering the effects of any client audits or governmental investigations.

Testing Goodwill for Possible Impairment — The goodwill carried on our Consolidated Balance Sheets is tested annually for possible impairment. In performing the annual impairment test, we evaluate our goodwill at the reporting unit level. The Company performs the annual goodwill impairment test for the reporting units at the end of the third quarter of our fiscal year. The Company will test goodwill for impairment between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount.

During the second quarter of fiscal 2016, we reorganized our operations around four global lines of business. The four global lines, which represent our reporting units, are: Petroleum & Chemicals, Buildings & Infrastructure, Aerospace & Technology, and Industrial. Previously, the Company had two reporting units "Europe" and "Non-Europe".

In conjunction with the aforementioned reorganization, we performed a quantitative impairment test and we allocated goodwill among our new reporting units based on the relative fair value of the four reporting units. As a result, in the second quarter of fiscal 2016, we performed a quantitative assessment of goodwill for each of the Company's reporting units (both immediately before and after the reorganization). Based on this quantitative assessment, the fair value of each of the reporting units (pre and post reorganization) exceeded their respective net book values, and accordingly, no impairment charge was necessary as a result of the reorganization.

U.S. GAAP does not prescribe a specific valuation method for estimating the fair value of reporting units. The valuation technique used to estimate the fair value of the reporting units requires the use of significant estimates and assumptions, including revenue growth rates, operating margins, discount rates and future market conditions, among others.

We used both an income approach and a market approach to test our goodwill for possible impairment. Such approaches require us to make estimates and judgments. Under the income approach, fair value is determined by using the discounted cash flows of our reporting units. The Company ' s discount rate reflects a weighted average cost of capital (" WACC ") for a peer group of companies representative of the Company's respective reporting units. Under the market approach, the fair value of our reporting units is determined by reference to guideline companies that are reasonably comparable to our reporting units; the fair values are estimated based on the valuation multiples of the invested capital associated with the guideline companies. In assessing whether there is an indication that the carrying value of goodwill has been impaired, we utilize the results of both valuation techniques and consider the range of fair values indicated. The fair values for each reporting unit exceeded the respective book values ranging from 28% to 90%.

It is possible that changes in market conditions, economy, facts and circumstances, judgments, and assumptions used in estimating the fair value could change, resulting in possible impairment of goodwill in the future. The fair values resulting from the valuation techniques used are not necessarily representative of the values we might obtain in a sale of the reporting units to willing third parties.

In performing the Company's annual impairment test as of the end of the third quarter of fiscal 2016 t he Company performed a qualitative assessment, and determined that it was more likely than not that the fair value of its reporting units exceeded their carrying amounts. As a result, the Company is not required to proceed to a quantitative impairment assessment.

We have determined that the fair value of our reporting units substantially exceeded their respective carrying values for the Balance Sheets presented.

Fiscal 2016

During the second quarter of fiscal 2016, we reorganized our operating and reporting structure around four lines of business ("LOB"). This reorganization is intended to better serve our global clients, leverage our workforce, help streamline operations, and provide enhanced growth opportunities. The four global LOBs are: Petroleum & Chemicals, Buildings & Infrastructure, Aerospace & Technology, and Industrial. Previously, the Company operated its business as a single segment.

The 2015 Restructuring and Other Events Affecting Fiscal 2016

During the second quarter of fiscal 2015, the Company commenced a series of initiatives intended to improve operational efficiency, reduce costs, and better position itself to drive growth of the business in the future (the " 2015 Restructuring"). The 2015 Restructuring was not completed in fiscal 2015, and actions related to the 2015 Restructuring continued throughout fiscal 2016. Actions related to the 2015 Restructuring completed during the fiscal year include involuntary terminations, the abandonment of certain leased offices, combining operational organizations, and the co-location of employees into other existing offices. The Company's consolidated results of operations for fiscal 2016 include a $187.9 million pre-tax impact relating to costs associated with the 2015 Restructuring. The majority of the costs of the 2015 Restructuring are included in selling, general, and administrative expense in the accompanying Consolidated Statements of Earnings.

The Company previously announced on July 15, 2016 that it had sold its Jacobs France subsidiary. The sale is part of the Company's strategy to streamline our overall operational efficiency in regions that fit within our target markets and geographies. The loss on the sale of our French subsidiary was $17.1 million, or $0.14 per diluted share.

In addition to the 2015 Restructuring and the sale of our French subsidiary, the Company's consolidated results of operations for fiscal 2016 also include a non-cash write-off on an equity investment of $10.4 million, or $0.09 per share. The write off of the equity investment and the loss on sale of our French subsidiary are included in Loss on Disposal of Business and Investments on the Consolidated Statements of Earnings.

The following table summarizes the effects of the 2015 Restructuring and other events on the Company's consolidated results of operations for fiscal 2016 and fiscal 2015 (in thousands, except for earnings per share):

	Year Ended September 30, 2016		
	U.S. GAAP	Effects of 2015 Restructuring and other items	Without 2015 Restructuring and other items
Selling, general and administrative	$ 1,429,233	$ (187,630)	$ 1,241,603
Earnings Before Taxes	286,723	(229,317)	516,040
Income Tax Benefit (Expense)	(72,208)	66,225	(138,433)
Net earnings of the Group	214,515	(163,092)	377,607
Net Earnings Attributable to Noncontrolling Interests	(4,052)	—	(4,052)
Net earnings Attributable to Jacobs	$ 210,463	$ (163,092)	$ 373,555
Diluted Earnings per share	$ 1.73	$ (1.35)	$ 3.08

	Year Ended October 2, 2015		
	U.S. GAAP	Effects of 2015 Restructuring	Without 2015 Restructuring
Selling, general and administrative	$ 1,522,811	$ (154,283)	$ 1,368,528
Earnings Before Taxes	$ 430,137	$ (157,192)	$ 587,329
Income Tax Benefit (Expense)	(101,255)	49,278	(150,533)
Net earnings of the Group	328,882	(107,914)	436,796
Net Earnings Attributable to Noncontrolling Interests	(25,911)	—	(25,911)
Net earnings Attributable to Jacobs	$ 302,971	$ (107,914)	$ 410,885
Diluted Earnings per share	$ 2.40	$ (0.86)	$ 3.26

The 2015 Inter-company Debt Refinancing

During the third quarter of fiscal 2015, the Company completed the refinancing of certain international inter-company debt (the "2015 Inter-company Debt Refinancing"). The 2015 Inter-company Debt Refinancing resulted in a one-time tax benefit of $23.1 million, or $0.18 per share.

2016 Overview

The Company's GAAP net earnings for fiscal 2016 decreased by $92.5 million, or 30.5%, when compared to fiscal 2015. The Company's results for fiscal 2016 when compared to the prior year were negatively impacted by the 2015 Restructuring, the loss on sale of our French subsidiary of $17.1 million, and the non-cash write-off on an equity investment of $10.4 million mentioned above. Excluding the effects of the 2015 Restructuring and these other events, the Company's adjusted net earnings for fiscal 2016 decreased by $37.3 million, or 9.1%, compared to the prior year.

Also influencing the comparability of the Company's fiscal 2016 consolidated results to fiscal 2015 were (i) a $0.09 per diluted share tax benefit related to an international tax matter recorded in first quarter of fiscal 2016; (ii) a $0.03 net benefit per diluted share benefit related to several items, including the release of a foreign tax reserve and a one-time benefit in noncontrolling interests relating to certain work performed by one of our partially owned subsidiaries; partially off-set by the impact of a customer bankruptcy and a litigation settlement in the second quarter of fiscal 2016; (iii) a one-time tax related and other items of $4.1 million, or $0.03 per share in the fourth quarter of fiscal 2016; and (iv) a one-time tax benefit of $23.1 million, or $0.18 per share related to the 2015 Inter-company Debt Refinancing recorded in the second quarter of fiscal 2015.

Backlog at September 30, 2016 was $18.8 billion, and is essentially flat year over year. Backlog remains near record levels despite the negative effects on backlog stemming from the effects of foreign exchange rate changes. New prospects and new sales remain strong and the Company continues to have a positive outlook for many of the industry groups and markets in which our clients operate.

During fiscal 2016, the Company repurchased and retired 3.4 million shares of its common stock under its share repurchase program. Total cash spent for the shares repurchased during fiscal 2016 was $152.5 million. As of October 2, 2015, the Company exhausted the $500 million approved by the Board of Directors on August 19, 2014. On July 23, 2015, the Board of Directors approved another program to purchase an additional $500 million of the Company's common stock over the next three years. At the end of fiscal 2016, $347.5 million remained available under the current plan.

Business Combinations Completed Between Fiscal 2014 and Fiscal 2016

During fiscal year 2016, the Company acquired J.L. Patterson & Associates and The Van Dyke Technology Group, Inc. These acquisitions were not material to the Company's consolidated results for fiscal 2016.

We also completed a number of other acquisitions during fiscal 2014 including Federal Network Systems LLC ("FNS", formerly a subsidiary of Verizon); Eagleton Engineering, LLC; FMHC Corporation; Stobbarts (Nuclear) Limited; Trompeter Enterprises; and MARMAC Field Services, Inc. The results of operations of these other acquisitions were not material, individually or in the aggregate, to the Company's consolidated results of operations for fiscal 2014. During fiscal 2014, we also acquired an additional 15% interest in Jacobs, Zamel and Turbag Consulting Engineers Company ("ZATE"). This transaction brought the Company's ownership in ZATE to 75%.

Consistent with other business combinations we have completed in the past, we began integrating businesses we acquired last year into our existing operations almost immediately after each business was acquired. Accordingly, it is not practicable to provide complete financial in formation for fiscal 2016 on a stand-alone basis for any of the businesses we acquired last year.

Results of Operations

During the second quarter of fiscal 2016, we reorganized our operating and reporting structure around four lines of business ("LOB"). This reorganization is intended to better serve our global clients, leverage our workforce, help streamline operations, and provide enhanced growth opportunities. The four global LOBs are: Petroleum & Chemicals, Buildings & Infrastructure, Aerospace & Technology, and Industrial, which are the Company's reportable segments. Previously, the Company operated its business as a single segment.

Reconciliation of Segment Operating Profit to Total Operating Profit

The following table reconciles segment operating profit to total operating profit by including certain corporate-level items (in thousands).

	2016	2015	2014
Segment Operating Profit	$ 586,328	$ 615,549	$ 600,815
Unallocated corporate items	(60,100)	(15,739)	20,583
Restructuring Charges	(187,630)	(154,283)	(93,330)
Total Operating Profit	$ 338,598	$ 445,527	$ 528,068

Included in "unallocated corporate items" in the above table are costs and expenses, which relate to general corporate activities as well as corporate-managed benefit and insurance programs. Such costs and expenses include: (i) those elements of SG&A expenses relating to the business as a whole; (ii) those elements of the Company's cash and equity incentive plans relating to corporate personnel whose other compensation costs are not allocated to the LOBs; (iii) the amortization of intangible assets acquired as part of purchased business combinations; (iv) the quarterly variances between the Company's actual costs of certain of its self-insured integrated risk and employee benefit programs and amounts charged to the LOBs; and (v) certain adjustments relating to costs associated with the Company's international defined benefit pension plans. In addition, "unallocated corporate items" includes adjustments to contract margins (both positive and negative) associated with projects where it has been determined, in the opinion of management, that such adjustments are not indicative of the performance of the related LOB and therefore should not be attributed to the LOB.

Segment Operating Results

In evaluating the Company's performance by operating segment, the Chief Operating Decision Maker reviews various metrics and statistical data for each LOB but focuses primarily on revenues and operating profit. As discussed above, segment operating profit includes not only local SG&A expenses but also the SG&A expenses of the Company's support groups that have been allocated to the segments. In addition, the Company allocates portions of the Company's cash and equity incentive plans to the LOBs. The revenues of certain LOBs are more affected by pass-through revenues than other LOBs. The methods for recognizing revenue, incentive fees, project losses, and change orders are consistent among the LOBs.

Aerospace & Technology

	2016	2015	2014
Revenue	$ 2,657,433	$ 2,924,753	$ 2,306,453
Operating Profit	203,808	205,368	139,684

Aerospace & Technology revenues for the fiscal year ended September 30, 2016 decreased $267.3 million, or 9.1%, to $2.7 billion from $2.9 billion in fiscal 2015. The decrease was due in part to some of our U.S. government customers' shift to a small-business preference in contract awards, which was partially mitigated by stronger revenues in our U.K. nuclear and defense markets.

Aerospace & Technology revenues for the year ended October 2, 2015 increased $618.3 million, or 26.8%, to $2.9 billion from $2.3 billion in fiscal 2014. The increase was primarily due to the FNS acquisition completed during the fourth quarter of fiscal 2014.

Operating profit for the year ended September 30, 2016 decreased $1.6 million, or 0.8% to $203.8 million from $205.4 million in fiscal 2015. The slight decrease in operating profit was due to lower volumes in fiscal 2016 described above but was mostly mitigated by improving our performance on fixed price contracts. Operating margin for fiscal 2016, improved to 7.7%, compared to 7.0%, respectively, in fiscal 2015. The improvement in operating margin was due to additional fees on our nuclear work for the U.K. government, the replacement of lower margin work with higher margin contracts and our continued focus on overall profitability.

Operating profit for the year ended October 2, 2015 increased $65.7 million, or 47.0% to $205.4 million from $139.7 million, in fiscal 2014. The increase in operating profit was due primarily to the acquisition described above and an increase in nuclear and defense work in the U.K. As a result, operating margin for the year ended October 2, 2015, improved to 7.0%, compared to 6.1%, in fiscal 2014.

Buildings & Infrastructure

	2016	2015	2014
Revenue	$ 2,253,512	$ 2,458,379	$ 2,705,197
Operating Profit	174,648	145,299	164,439

Buildings & Infrastructure revenues for the year ended September 30, 2016 decreased $204.9 million, or 8.3%, to $2.3 billion from $2.5 billion in fiscal 2015. The decrease was primarily due to reduced U.S. and U.K. client spending in certain markets during fiscal 2016.

Buildings & Infrastructure revenues for the year ended October 2, 2015 decreased $246.8 million, or 9.1%, to $2.5 billion from $2.7 billion in fiscal 2014. The decrease was primarily due to the decline in our Energy and Power business in the Asia Pacific region.

Operating profit for the year ended September 30, 2016 increased $29.3 million, or 20.2%, from $145.3 million in fiscal 2015 to $174.6 million. Proactive cost control and restructuring efforts contributed to the increase in operating profit for fiscal 2016 as compared to the corresponding period last year. As a result, operating margin for fiscal 2016 improved to 7.8%, compared to 5.9%, in fiscal 2015.

Operating profit for the year ended October 2, 2015 decreased $19.1 million, or 11.6% to $145.3 million from $164.4 million in fiscal 2014. The decrease in operating profit was due to the decline in energy and power business. As a result, operating margin for the year ended October 2, 2015, declined to 5.9%, compared to 6.1%, in fiscal 2014.

Industrial

	2016	2015	2014
Revenue	$ 2,793,713	$ 2,517,571	$ 2,956,391
Operating Profit	81,268	126,531	134,230

Industrial revenues for the year ended September 30, 2016 increased $276.1 million, or 11.0%, to $2.8 billion from $2.5 billion in fiscal 2015. The increase was primarily due to new Life Sciences projects offset by a decline in the Mining & Minerals business due to weak market conditions.

Industrial revenues for the year ended October 2, 2015 decreased $438.8 million, or 14.8%, to $2.5 billion from $3.0 billion in fiscal 2014. The decrease was primarily due to a decline in the Mining & Minerals and Field Services business due to weak market conditions.

Operating profit for the year ended September 30, 2016 decreased $45.3 million, or 35.8% to $81.3 million from $126.5 million, in fiscal 2015. The decrease was due to the decline in the Mining & Minerals business and was caused primarily by a negotiated settlement of a project c laim that occurred in the second quarter of fiscal 2015 combined with the negative effects of a litigation settlement affecting the second quarter of fiscal 2016 and a customer bankruptcy. These decreases were offset in part by the increases in the Life Sc iences market and benefits associated with the 2015 Restructuring. Although driven by discrete items in each of the periods presented, the change in operating profit was negative. As a result, operating margin for fiscal 2016 declined to 2.9% from 5.0% fo r the corresponding period last year.

Operating profit for the year ended October 2, 2015 decreased $7.7 million, or 5.7% to $126.5 million from $134.2 million, in fiscal 2014. The decrease in operating profit was due to the decline in the Mining & Minerals business driven by lower revenues as a result of weak market conditions. Operating margin for the year ended October 2, 2015 increased to 5.0%, compared to 4.5%, in fiscal 2014. The decrease in operating margin was driven primarily by a better project mix in the Specialty Chemical & Manufacturing markets and lower pass through revenue in Field Services.

Petroleum & Chemicals

	2016	2015	2014
Revenue	$ 3,259,499	$ 4,214,129	$ 4,727,116
Operating Profit	126,604	138,351	162,462

Petroleum & Chemicals revenues for the year ended September 30, 2016 decreased $954.6 million, or 22.7%, to $3.3 billion from $4.2 billion in fiscal 2015. Petroleum & Chemicals revenues for the year ended October 2, 2015 decreased $513.0 million, or 10.9%, to $4.2 billion from $4.7 billion in fiscal 2014. The decrease in both comparable annual periods was primarily due to lower business volume in the Oil & Gas market sector and to a lesser extent the Refining market sector, particularly in the Middle East and North America, as weak oil prices have significantly impacted client capital spending and delayed the pace of new contract awards.

Operating profit for the year ended September 30, 2016 decreased $11.7 million, or 8.5%, to $126.6 million from $138.4 million in fiscal 2015. The decrease in operating profit was due to lower volume in the Oil and Gas and Refining market sectors offset in part by significant savings from restructuring efforts and LOB structure efficiencies. A continued strong focus on cost reductions has partially mitigated the volume reduction impact on operating profit. As a result, operating margin for the year ended September 30, 2016 increased to 3.9% from 3.3% in fiscal 2015.

Operating profit for the year ended October 2, 2015 decreased $24.1 million, or 14.8% to $138.4 million from $162.5 million, in fiscal 2014. The decrease in operating profit was due to lower business volume partially offset by restructuring actions to lower the LOB cost structure. As a result, operating margin for the year ended October 2, 2015, declined to 3.3%, compared to 3.4% in fiscal 2014.

Consolidated Results

Fiscal 2016 Compared to Fiscal 2015

Direct costs of contracts decreased $1.0 billion, or 9.4%, from $10.1 billion during fiscal 2015 to $9.2 billion during fiscal 2016. Direct costs of contracts include all costs incurred in connection with and directly for the benefit of client contracts, including depreciation and amortization relating to assets used in connection with providing the services required by client projects. The level of direct costs of contracts may fluctuate between reporting periods due to a variety of factors including the amount of pass-through costs we incur during a period. On those projects where we are responsible for subcontract labor or third party materials and equipment, we reflect the amounts of such items in both revenues and costs (and we refer to such costs as "pass-through costs"). On other projects, where the client elects to pay for such items directly and we have no associated responsibility for such items, these amounts are not considered pass-through costs and are, therefore, not reflected in either revenues or costs. To the extent that we incur a significant amount of pass-through costs in a period, our direct cost of contracts are likely to increase as well. The decrease in direct costs of contracts between fiscal years 2015 and 2016 is primarily a result of the general decline in our business.

Pass-through costs decreased $112.7 million, or 4.3%, from $2.6 billion during fiscal 2015 to $2.5 billion for fiscal 2016. In general, pass-through costs are more significant on projects that have a higher content of field services activities.

Pass-through costs are generally incurred at a specific point in the lifecycle of a project and are highly dependent on the needs of our individual clients and the nature of the clients' projects. However, because we have hundreds of projects, w hich start at various times within a fiscal year, the effect of pass-through costs on the level of direct costs of contracts, can vary between fiscal years without there being a fundamental or significant change to the underlying business.

As a percentage of revenues, direct costs of contracts were 83.9% for fiscal 2016, compared to 83.8% for fiscal 2015. The relationship between direct costs of contracts and revenues will fluctuate between reporting periods depending on a variety of factors including the mix of business during the reporting periods being compared as well as the level of margins earned from the various types of services provided. Generally speaking, the more procurement we do on behalf of our clients (i.e., where we purchase equipment and materials for use on projects, and/or procure subcontracts in connection with projects) and the more field services revenues we have relative to technical, professional services revenues, the higher the ratio will be of direct costs of contracts to revenues. Because revenues from pass-through costs typically have lower margin rates associated with them, it is not unusual for us to experience an increase or decrease in such revenues without experiencing a corresponding increase or decrease in our gross margins and operating profit. The ratio of direct costs of contracts to revenues was flat over the prior year period. The Company experienced a slight decrease in margins in fiscal 2016 when compared to fiscal 2015.

Selling, general, and administrative ("SG&A") expenses for fiscal 2016 decreased by $93.6 million, or 6%, to $1.43 billion, compared to $1.52 billion for fiscal 2015. The decrease in SG&A expenses was primarily due to higher SG&A savings associated with the 2015 Restructuring. Excluding the effects of the 2015 Restructuring in both fiscal 2016 and 2015, adjusted SG&A expenses for fiscal 2016 decreased $126.9 million, or 9%, to $1.24 billion from $1.37 billion in fiscal 2015.

Net interest expense for fiscal 2016 decreased $4.8 million to $7.4 million from $12.2 million in fiscal 2015. Included in net interest expense for fiscal 2016 was a reversal of $2.7 million of accrued interest expense related to the statute expiration of a foreign tax reserve. Interest expense for fiscal 2016 was also lower when compared to the same period last year due to lower debt levels.

Loss on disposal of business and investments for fiscal 2016 increased by $38.5 million to $41.4 million from $2.9 million in fiscal 2015. The increase is due to the previously discussed loss on the sale of our French subsidiary of $24.4 million, and a non-cash write-off on an equity investment of $17.0 million.

Miscellaneous expense for fiscal 2016 increased $2.8 million to $3.1 million from $0.2 million in fiscal 2015. The increase over the prior year period was primarily due to realized exchange rate losses. Included in miscellaneous expense for fiscal 2016 was a reversal of $5.1 million of accrued penalties related to the statute expiration of a foreign tax reserve.

The Company's effective income tax rate for fiscal 2016 increased to 25.2% from 23.5% in fiscal 2015. Contributing to the increase in the effective tax rate when compared to the prior year is the absence of a $23.1 million nonrecurring benefit related to a foreign currency loss in 2015. Also contributing to the increase is an $8.9 million charge related to the revaluation of deferred tax assets due to a statutory tax rate change in the United Kingdom. Offsetting the fiscal 2016 effective tax rate increases was a $11.2 million benefit related to a valuation allowance release, a $6.9 million benefit due to a prior period adjustment to income taxes payable and a $8.7 million benefit recorded upon the filing of a US amended tax return to claim additional foreign tax credits and Internal Revenue Code section 179D benefit for the design of energy efficient buildings.

Fiscal 2015 Compared to Fiscal 2014

The Company's GAAP net earnings for fiscal 2015 decreased by $25.1 million, or 7.6%, compared to fiscal 2014. Included in net earnings for fiscal 2015 is the one-time tax benefit of $23.1 million, or $0.18 per share, related to the 2015 Inter-company Debt Refinancing.

The Company's results for fiscal 2015 when compared to the prior year were positively impacted by (i) the SKM acquisition, which is included for all of fiscal 2015 compared to approximately nine and a half months in fiscal 2014 and, to a lesser degree, (ii) the other acquisitions completed during fiscal 2014. Also influencing the comparability of the Company's fiscal 2015 results of operations to fiscal 2014 were the 2015 Restructuring and the 2014 Events below:

- $6.8 million, or $0.05 per diluted share, increase to net earnings due to the favorable resolution of an international tax matter in the first quarter of fiscal 201 4; as a result of these events, approximately $4.1 million of accrued interest expense was reversed;
- $6.4 million, or $0.05 per diluted share, increase to net earnings related to a gain on the sale of certain intellectual property in the second quarter of fiscal 2014;
- $22.7 million, or $0.18 per diluted share, decrease to net earnings relating to certain specific operational events at SKM and SKM transaction-related costs and expenses incurred during the first half of the fiscal year; and
- $22.3 million, or $0.16 per diluted share, decrease to net earnings due to lower margins associated with certain projects in Europe combined with unusual weather effects in the second quarter of fiscal 2014.

Revenues decreased $580.3 million, or 4.6%, from $12.7 billion for fiscal 2014 to $12.1 billion for fiscal 2015. Revenues for fiscal year 2015 include a negative impact of $561.0 million related to the strengthening of the U.S. Dollar.

Direct costs of contracts decreased $474.9 million, or 4.5%, from $10.62 billion during fiscal 2014 to $10.15 billion during fiscal 2015. Pass-through costs decreased $352.2 million, or 11.9%, from $2.95 billion during fiscal 2014 to $2.60 billion for fiscal 2015.

As a percentage of revenues, direct costs of contracts were 83.8% for fiscal 2015, compared to 83.7% for fiscal 2014. The ratio of direct costs of contracts to revenues was flat over the prior year period.

Selling, general, and administrative ("SG&A") expenses for fiscal 2015 decreased by $22.9 million, or 1.5%, to $1.52 billion, compared to $1.55 billion for fiscal 2014. The decrease in SG&A expenses was primarily due to lower costs stemming from the 2014 Events, which were partially offset by increased costs related to the 2015 Restructuring. Excluding the effects of the 2015 Restructuring and the 2014 Events, adjusted SG&A expenses for fiscal 2015 decreased $67.4 million, or 4.7%, to $1.37 billion from $1.44 billion for the corresponding period last year.

Net interest expense for fiscal 2015 increased $10.5 million to $12.2 million from $1.7 million in fiscal 2014. Included in net interest expense for fiscal 2014 was the reversal of $4.1 million of accrued interest expense recorded in connection with income tax liabilities relating to certain contested international tax matters, which were favorably resolved during the first quarter of fiscal 2014.

The Company's consolidated effective income tax rate was 25.2% for fiscal 2016, compared to 23.5% in fiscal 2015. Contributing to the increase in the effective tax rate when compa red to the prior year is the absence of a $23.1 million nonrecurring benefit related to foreign currency loss in 2015. The fiscal 2016 effective tax rate is lower than the statutory rate due to an $11.2 million benefit related to a valuation allowance rel ease, a $6.9 million benefit due to a prior period adjustment to income taxes payable and an $8.7 million benefit recorded upon the filing of a US amended tax return to claim additional foreign tax credits and an IRC section 179D benefit for the design of energy efficient buildings. Offsetting the current year benefits was an $8.9 million expense charge related to the revaluation of deferred tax assets due to a statutory tax rate change in the United Kingdom.

Contractual Obligations

The following table sets forth certain information about our contractual obligations as of September 30, 2016 (in thousands):

		Payments Due by Fiscal Period			
	Total	1 Year or Less	1 - 3 Years	3 - 5 Years	More than 5 Years
Debt obligations	$ 387,751	$ 2,421	$ 385,330		$ —
Operating leases (a)	832,469	144,326	241,143	169,615	277,385
Obligations under defined benefit pension plans (b)	402,955	20,016	42,466	45,931	294,542
Obligations under nonqualified deferred compensation plans (c)	141,065	18,814	39,916	43,174	39,161
Purchase obligations (d)	1,122,071	1,122,071	—	—	—
Interest (e)	19,388	5,750	11,287	2,351	—
Total	$ 2,905,699	$ 1,313,398	$ 720,142	$ 261,071	$ 611,088

(a) Assumes the Company will make the end of lease term residual value guarantee payment of $62.4 million in 2025 with respect to the lease of an office building in Houston, Texas. Please refer to Note 11— *Commitments and Contingencies, and Derivative Financial Instruments* of Notes to Consolidated Financial Statements beginning on page F-1 of this Annual Report on Form 10-K.

(b) Assumes that future contributions will be consistent with amounts projected to be contributed in fiscal 2017, allowing for certain growth based on rates of inflation and salary increases, but limited to the amount recorded as of September 30, 2016. Actual contributions will depend on a variety of factors, including amounts required by local laws and regulations, and other funding requirements.

(c) Assumes that future payments will be consistent with amounts paid in fiscal 2016, allowing for certain growth. Due to the nonqualified nature of the plans, and the fact that benefits are based in part on years of service, the payments included in the schedule were limited to the amount recorded as of September 30, 2016.

(d) Represents those liabilities estimated to be under firm contractual commitments as of September 30, 2016; primarily accounts payable and accrued payroll.

(e) Determined based on borrowings outstanding at the end of fiscal 2016 using the interest rates in effect at that time and, for our outstanding long term debt, concluding with the expiration date of the 2014 Facility, as defined below.

Backlog Information

Backlog represents the total dollar amount of revenues we expect to record in the future as a result of performing work under contracts that have been awarded to us. We include in backlog the entire value of contracts at the time the contracts are awarded to us or when we have otherwise been authorized by the client to proceed with the services required by the contracts. With respect to O&M contracts, however, we include in backlog the amount of revenues we expect to receive for only one succeeding year, regardless of the remaining life of the contract. For national government programs (other than U.S. federal O&M contracts), our policy is to include in backlog the full contract award, whether funded or unfunded, excluding option periods. In accordance with industry practice, substantially all of our contracts are subject to cancellation or termination at the discretion of the client. In a situation where a client terminates a contract, we would ordinarily be entitled to receive payment for work performed up to the date of termination. In addition, it is not unusual for clients to change the scope of services required by the contract over the life of the project. Accordingly, backlog can fluctuate from one reporting period to the next due to the timing of when new contracts are added to backlog and when the contract revenue is recognized in our consolidated financial statements. Many of our contracts require us to provide services that span over a number of fiscal quarters (and sometimes over fiscal years).

Please refer to Item 1A— *Risk Factors* , above, for a discussion of other factors that may cause backlog to ultimately convert into revenues at different amounts.

The following table summarizes our backlog for each of the last three fiscal years (in millions):

Backlog:	2016	2015	2014
Aerospace & Technology	$ 5,109,973	$ 4,880,775	$ 4,998,844
Buildings & Infrastructure	5,033,539	4,723,034	4,532,085
Industrial	3,106,575	3,650,520	2,471,867
Petroleum & Chemicals	$ 5,510,442	$ 5,552,241	6,377,561
Total	$ 18,760,529	$ 18,806,570	$ 18,380,357

Our backlog at September 30, 2016 decreased by $46 million, or 0.2%, to $18.8 billion from $18.8 billion at October 2, 2015. The decrease in backlog from October 2, 2015 to September 30, 2016 was due primarily to new awards from clients operating in the Chemicals and Pharmaceuticals industries, offset in part by an approximate $182.6 million reduction due to foreign exchange.

Backlog in the Aerospace & Technology LOB at September 30, 2016 was $ 5.11 billion, up $ 229.2 million, or $180.4 million after the effect of exchange rate changes when compared to the backlog at October 2, 2015. The year-over-year increase in backlog was primarily from an increase in new awards from the U.S. federal government.

Backlog in the Buildings & Infrastructure LOB at September 30, 2016 was $5.03 billion, up $310.5 million, or $217.6 million after the effect of exchange rate changes when compared to the backlog at October 2, 2015. The year-over-year increase in backlog was primarily from new awards in the U.S. Buildings and Infrastructure market.

Backlog in the Industrial LOB at September 30, 2016 was $3.11 billion, down $543.9 million, or $449.5 million after the effect of exchange rate changes when compared to the backlog at October 2, 2015. The year-over-year decrease in backlog was primarily related to a lower level of field services awards.

Backlog in the Petroleum & Chemicals LOB at September 30, 2016 was $5.51 billion, down $41.8 million, or $5.3 million after the effect of exchange rate changes when compared to the backlog at October 2, 2015. The year-over-year decrease in backlog was primarily related to weak oil process affecting our customers' capital spend.

Backlog relating to work to be performed either directly or indirectly for the U.S. federal government and its agencies totaled approximately $4.8 billion (or 25.4% of total backlog), $4.6 billion (or 23.9% of total backlog), and $3.9 billion (or 22.9% of total backlog) at September 30, 2016, October 2, 2015, and September 26, 2014, respectively. Most of our federal contracts require that services be provided beyond one year. In general, these contracts must be funded annually (i.e., the amounts to be spent under the contract must be appropriated by the U.S. Congress to the procuring agency, and then the agency must allot these sums to the specific contracts).

We estimate that approximately $7.7 billion, or 41.28%, of total backlog at September 30, 2016 will be realized as revenues within the next fiscal year.

Effects of Inflation

The effects of inflation on our business is discussed in Item 1A— *Risk Factors* , and is incorporated herein by reference.

Liquidity and Capital Resources

At September 30, 2016, our primary sources of liquidity consisted of $655.7 million of cash and cash equivalents and $1.21 billion of available borrowing capacity under our $1.6 billion revolving credit facility (the "2014 Facility").

Additional information regarding the 2014 Facility is set forth in Note 6 - *Borrowings* in Notes to Consolidated Financial Statements beginning on page F-1 of this Annual Report on Form 10-K. We finance as much of our operations and growth as possible through cash generated by our operations.

During fiscal 2016, our cash and cash equivalents increased by $194.9 million from $460.9 million at October 2, 2015 to $655.7 million at September 30, 2016. This compares to a net decrease in cash and cash equivalents of $271.8 million during fiscal 2015. During fiscal 2016, we experienced net cash inflows of $68 0.2 million from operating activities offset by outflows of $317.0 million from financing activities, $139.6 million from investing activities, and $28.7 million from the effects of exchange rate changes.

Operations provided net cash of $680.2 million during fiscal 2016. This compares to net cash inflows of $484.6 million and $721.7 million during fiscal 2015 and 2014, respectively. The $195.6 million increase in cash provided by operations in fiscal 2016 as compared to fiscal 2015 was due primarily to a $373.1 million favorable change in the Company's working capital accounts, partially offset by a $ 114.4 million decrease in net earnings attributable to the Group.

Because such a high percentage of our revenues are earned on cost-plus type contracts, and due to the significance of revenues relating to pass-through costs, most of the costs we incur are included in invoices we send to clients. Although we continually monitor our accounts receivable, we manage the operating cash flows of the Company by managing the working capital accounts in total, rather than by the individual elements. The primary elements of the Company's working capital accounts are accounts receivable, accounts payable, and billings in excess of cost. Accounts payable consists of obligations to third parties relating primarily to costs incurred for projects, which are generally billable to clients. Accounts receivable consist of billings to our clients — a substantial portion of which is for project-related costs. Billings in excess of cost consist of billings to and payments from our clients for costs yet to be incurred.

This relationship between revenues and costs, and between receivables and payables is unique to our industry, and facilitates review of our liquidity at the total working capital level. The $373.1 million increase in cash flows relating to our working capital accounts during fiscal 2016 is indicative of our building momentum to become more effective in our working capital performance.

With respect to the Company's trade accounts receivable, while our credit risk could be significant based on the fact that we provide services to clients operating in a wide range of industries as well as in a number of countries outside the U.S., we manage these issues closely to reduce exposures as much as possible and historically have not experienced material losses. Nevertheless, and as disclosed previously, the Company incurred a loss during the second quarter of fiscal 2016 relating to the bankruptcy of a client of the Industrial LOB. Our private sector customers include large, well-known, and well-established multi-national companies, and our government customers consist of national, state, and local agencies located principally in the U.S., the U.K., and Australia. Although we have not historically experienced significant collection issues with any of our governmental or commercial customers, we are currently reassessing how we extend credit to certain customers and markets that we service.

We used $139.6 million of cash and cash equivalents for investing activities during fiscal 2016. This compares to $96.1 million and $1.5 billion during fiscal 2015 and 2014, respectively. The increase in investing activities in fiscal 2016 when compared to fiscal 2015 was primarily the result of two small acquisitions in fiscal 2016 and the cash used in the sale of Jacobs France subsidiary. The acquisition activity in fiscal 2014 was primarily related to the Company's acquisition of SKM for $1.2 billion ($1.1 billion net of cash acquired).

Additions to property and equipment totaled $67.7 million, $88.4 million, and $132.1 million for fiscal years 2016, 2015, and 2014, respectively. Included in fiscal 2015 and 2014 activity are significant expenditures for leasehold improvements relating primarily to the consolidation of certain office space, expansion of office space and relocations of certain office space, all occurring in a number of locations.

Our financing activities resulted in net cash outflow of $317.0 million during fiscal 2016 as compared to net cash outflow of $553.3 million and net cash inflow of $304.9 million during fiscal 2015 and 2014, respectively. The $236.3 million in incremental cash inflow during fiscal 2016 as compared to the previous year was due primarily to a $269.8 million decrease in cash used to repurchased shares of Company common stock (discussed in further detail in Part II, Item 5 of this Annual Report on Form 10-K). The $858.2 million in incremental cash outflows during fiscal 2015 as compared to fiscal 2014 was due primarily to a $502.7 million increase in cash used to pay-off long-term debt during fiscal 2015, combined with a $343.9 million increase in cash used to repurchase shares of Company common stock

The Company had $655.7 million of cash and short-term equivalents at September 30, 2016. Of this amount, approximately $149.2 million was held in the U.S. and $506.5 million was held outside of the U.S., primarily in Canada, the U.K., and the Eurozone. Other than the tax cost of repatriating funds held outside the U.S. to the U.S. (see Note 10— *Income*

Taxes of Notes to Consolidated Financial Statements beginning on page F-1 of this Annual Report on Form 10-K), there are no impediments to repatriating these funds to the U.S.

The total amount utilized under the 2014 Facility at September 30, 2016 was $387.8 million ($385.3 million in the form of direct borrowings and $2.5 million utilized in the form of letters of credit). Please refer to Note 6— *Borrowings* of Notes to Consolidated Financial Statements beginning on page F-1 of this Annual Report on Form 10-K for additional information regarding the 2014 Facility.

We believe we have adequate liquidity and capital resources to fund our operations, support our acquisition strategy, support the existing share repurchase authorization, and service our debt for the next twelve months. We had $655.7 million in cash and cash equivalents at September 30, 2016, compared to $460.9 million at October 2, 2015. Our consolidated working capital position at September 30, 2016 was $1.08 billion; a decrease of $59.7 million from October 2, 2015.

Additionally, there was $1.21 billion of borrowing capacity available at September 30, 2016 under the 2014 Facility. We believe that the remaining capacity, terms and conditions of the 2014 Facility, combined with cash on-hand and the other committed and uncommitted facilities we have in place, are adequate for our working capital and general business requirements.

The Company had $256.0 million of letters of credit outstanding at September 30, 2016. Of this amount, $2.5 million were issued under the 2014 Facility and $253.5 million were issued under separate, committed and uncommitted letter-of-credit facilities.

Off-Balance Sheet Arrangements

We are party to financial instruments with off-balance sheet risk in the form of guarantees not reflected in our balance sheet that arise in the normal course of business. However, such off-balance sheet arrangements are not reasonably likely to have an effect on our financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or resources that are material to investors. See Note 11 – *Commitments and Contingencies, and Derivative Financial Instruments* of Notes to Consolidated Financial Statements beginning on page F-1 of this Annual Report on Form 10-K.

New Accounting Pronouncements

From time to time, the Financial Accounting Standards Board ("FASB") issues accounting standards updates (each being an "ASU") to its Accounting Standards Codification ("ASC"), which constitutes the primary source of U.S. GAAP. The Company regularly monitors ASUs as they are issued and considers their applicability to its business. All ASUs applicable to the Company are adopted by the due date and in the manner prescribed by the FASB. A discussion of those recently issued ASUs most likely to affect the presentation of the Company's consolidated financial statements follows.

In May 2014, the FASB issued ASU No. 2014-09— *Revenue from Contracts with Customers* . The new guidance provided by ASU 2014-09 is intended to remove inconsistencies and perceived weaknesses in the existing revenue requirements, provide a more robust framework for addressing revenue issues, improve comparability, provide information that is more useful and simplify the preparation of financial statements. ASU 2014-09 was initially effective for annual and interim reporting periods beginning after December 15, 2016. On July 9, 2015, the FASB approved a one-year deferral of the effective date of this standard. The revised effective date for the standard is for annual reporting periods beginning after December 15, 2017 and interim periods therein. The FASB also approved changes allowing for early adoption of the standard as of the original effective date. The Company has completed its initial assessment of the new standard and is in the process of developing a plan to assess its contracts with customers. The Company currently intends to adopt the new standard using the Modified Retrospective application. This standard could have a significant impact on the Company's Consolidated Financial Statements and an administrative impact on its operations. The Company will further assess the impact through its implementation program.

In February 2016, the FASB issued ASU 2016-02— *Leases* . ASU 2016-02 requires lessees to recognize assets and liabilities for most leases. ASU 2016-02 is effective for public entity financial statements for annual periods beginning after December 15, 2018, and interim periods within those annual periods. Early adoption is permitted, including adoption in an interim period. The guidance must be adopted using a modified retrospective approach for leases that exist or are entered into after the beginning of the earliest comparative period in the financial statements. The Company is evaluating the impact of the new guidance on its consolidated financial statements. This standard could have a significant impact on the Company's

Consolidated Financial Statements and an administrative impact on its operations. The Company will further assess the impact through its implementation program.

In March 2016, the FASB issued ASU 2016-09— *Improvements to Employee Share-Based Payment Accounting* . ASU 2016-09 simplifies several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. ASU 2016-09 is effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods. Early adoption is permitted for any entity in any interim or annual period for which financial statements have not been issued or made available for issuance. If an entity early adopts the amendments in an interim period, any adjustments must be reflected as of the beginning of the fiscal year that includes that interim period. An entity that elects early adoption must adopt all of the amendments in the same period. The Company is evaluating the impact of the new guidance on its consolidated financial statements and does not expect it to have a material impact.

During the second quarter of fiscal 2016, the Company adopted the provisions of ASU 2015-17— *Balance Sheet Classification of Deferred Taxes* on a retrospective basis for all periods presented. ASU 2015-17 removes the requirement to separate deferred income tax liabilities and assets into current and noncurrent amounts in a classified statement of financial position. Instead, the update requires that deferred tax liabilities and assets be classified as noncurrent in a classified statement of financial position. As a result of the Company's adoption of ASU 2015-17 in the second quarter of fiscal 2016, the current deferred taxes and noncurrent deferred tax assets included in miscellaneous noncurrent assets on the October 2, 2015 Consolidated Balance Sheet were reclassified to noncurrent deferred taxes, which increased noncurrent deferred tax assets by $160.3 million and decreased miscellaneous noncurrent assets by $213.8 million.

Item 7A. QUANTITATIVE AND QUALITAT IVE DISCLOSURES ABOUT MARKET RISK

We do not enter into derivative financial instruments for trading, speculation or other purposes that would expose the Company to market risk. In the normal course of business, our results of operations are exposed to risks associated with fluctuations in interest rates and currency exchange rates.

Interest Rate Risk

Please refer to the discussion of the 2014 Facility and the 2012 Facility in the liquidity and capital resources discussion in Management's Discussion and Analysis of Financial Condition and Results of Operations in this Annual Report on Form 10-K, and Note 5 - *Borrowings* in Notes to Consolidated Financial Statements beginning on Page F-1 of this Annual report on Form 10-K.

Foreign Currency Risk

In situations where our operations incur contract costs in currencies other than their functional currency, we attempt to have a portion of the related contract revenues denominated in the same currencies as the costs. In those situations where revenues and costs are transacted in different currencies, we sometimes enter into foreign exchange contracts in order to limit our exposure to fluctuating foreign currencies. We follow the provisions of ASC 815-10 - *Derivatives and Hedging* in accounting for our derivative contracts. The Company does not currently have exchange rate sensitive instruments that would have a material effect on our consolidated financial statements or results of operations.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The information required by this Item 8 is submitted as a separate section beginning on page F-1of this Annual Report on Form 10-K and is incorporated herein by reference.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

The Company's management, with the participation of its Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the Company's disclosure controls and procedures as defined by Rule 13a-15(e) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") as of September 30, 2016, the end of the period covered by this Annual Report on Form 10-K (the "Evaluation Date"). Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were functioning effectively as of the Evaluation Date to provide reasonable assurance that the information required to be disclosed by the Company in reports filed under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to the Company's management, including the Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal controls over financial reporting, as defined in Rule 13a-15(f) under the Exchange Act. Management, with the participation of its Chief Executive Officer and Chief Financial Officer, has assessed the effectiveness of the Company's internal control over financial reporting as of the Evaluation Date based on the framework established in *"Internal Control—Integrated Framework,"* issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on this evaluation, management has concluded that the Company's internal controls over financial reporting as of the Evaluation Date were effective. The Company's independent registered public accounting firm, Ernst & Young LLP, has issued an attestation report on the Company's internal control over financial reporting which appears later in this Annual Report on Form 10-K.

Changes in Internal Control

There were no changes in the Company's internal control over financial reporting during the Company's fiscal quarter ended September 30, 2016 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Limitations on Effectiveness of Controls

The Company's management, including its Chief Executive Officer and Chief Financial Officer, does not expect that its disclosure controls and procedures or its system of internal control over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well designed or operated, can provide only reasonable, but not absolute, assurance that the objectives of the system of internal control are met. The design of the Company's control system reflects the fact that there are resource constraints, and that the benefits of such control systems must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control failures and instances of fraud, if any, within the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the intentional acts of individuals, by collusion of two or more people, or by management override of the controls. The design of any system of controls is also based in part on certain assumptions about the likelihood of future events, and there can be no assurance that the design of any particular control will always succeed in achieving its objective under all potential future conditions.

Item 9B. OTHER INFORMATION

None.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Directors, Executive Officers, Promoters and Control Persons

The information required by Paragraph (a), and Paragraphs (c) through (g) of Item 401 of Regulation S-K (except for information required by Paragraph (e) of that Item to the extent the required information pertains to our executive officers) and Item 405 of Regulation S-K is set forth under the captions "The Board of Directors and its Committees" and "Section 16(a) Beneficial Ownership Reporting Compliance" in our definitive proxy statement to be filed with the SEC pursuant to Regulation 14A within 120 days after the close of our fiscal year and is incorporated herein by reference. The information required by Paragraph (b) of Item 401 of Regulation S-K, as well as the information required by Paragraph (e) of that Item to the extent the required information pertains to our executive officers, is set forth in Part I, Item 1 of this Annual Report on Form 10-K under the heading "Executive Officers of the Registrant."

Code of Ethics

We have adopted a code of ethics for our chief executive, chief financial, and principal accounting officers; a code of business conduct and ethics for members of our Board of Directors and corporate governance guidelines. The full text of the codes of ethics and corporate governance guidelines is available at our website at www.jacobs.com. In the event we make any amendment to, or grant any waiver from, a provision of the code of ethics that applies to the principal executive officer, principal financial officer or principal accounting officer that requires disclosure under applicable SEC rules, we will disclose such amendment or waiver and the reasons therefor on our website. We will provide any person without charge a copy of any of the aforementioned codes of ethics upon receipt of a written request. Requests should be addressed to: Jacobs Engineering Group Inc., 1999 Bryan Street, Suite 1200, Dallas, Texas 75201, Attention: Corporate Secretary.

Corporate Governance

The information required by Items 407(d)(4) and (d)(5) of Regulation S-K is set forth under the caption "The Board of Directors and its Committees - Committees of the Board of Directors - Audit Committee" in our definitive proxy statement to be filed with the SEC pursuant to Regulation 14A within 120 days after the close of our fiscal year and is incorporated herein by reference.

Item 11. EXECUTIVE COMPENSATION

The information required by this Item is set forth under the captions "The Board of Directors and its Committees - Compensation of Directors for Fiscal 2016," "The Board of Directors and its Committees - Committees of the Board of Directors - Compensation Committee Interlocks and Insider Participation," "Compensation Committee Report," "Compensation Discussion and Analysis," and "Executive Compensation" in our definitive proxy statement to be filed with the SEC pursuant to Regulation 14A within 120 days after the close of our fiscal year and is incorporated herein by reference.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Securities Authorized for Issuance Under Equity Compensation Plans

The following table presents certain information about our equity compensation plans as of September 30, 2016:

Plan Category	Column A Number of securities to be issued upon exercise of outstanding options, warrants, and rights	Column B Weighted- average exercise price of outstanding options, warrants, and rights	Column C Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in Column A)
Equity compensation plans approved by shareholders (a)	3,577,512	$ 45.70	7,552,708
Equity compensation plans not approved by shareholders	—	—	—
Total	3,577,512	$ 45.70	7,552,708

(a) The number in Column A excludes purchase rights accruing under our two, broad-based, shareholder-approved employee stock purchase plans: The Jacobs Engineering Group Inc. 1989 Employee Stock Purchase Plan (the "1989 ESPP"), and the Global Employee Stock Purchase Plan (the "GESPP"). These plans give employees the right to purchase shares at an amount and price that are not determinable until the end of the specified purchase periods, which occur monthly. Our shareholders have authorized a total of 27.8 million shares of common stock to be issued through the 1989 ESPP and the GESPP. From the inception of the 1989 ESPP and the GESPP through September 30, 2016, a total of 27.2 million shares have been issued, leaving 0.6 million shares of common stock available for future issuance at that date.

The information required by Item 403 of Regulation S-K is set forth under the caption "Security Ownership" in our definitive proxy statement to be filed with the SEC pursuant to Regulation 14A within 120 days after the close of our fiscal year and is incorporated herein by reference.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this Item is set forth under the captions "The Board of Directors and its Committees - Independence of Directors," "The Board of Directors and its Committees - Committees of the Board of Directors," and "Certain Relationships and Related Transactions" in our definitive proxy statement to be filed with the SEC pursuant to Regulation 14A within 120 days after the close of our fiscal year and is incorporated herein by reference.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this Item is set forth under the captions "Report of the Audit Committee" and "Audit and Non-Audit Fees" in our definitive proxy statement to be filed with the SEC pursuant to Regulation 14A within 120 days after the close of our fiscal year and is incorporated herein by reference.

PART IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Documents filed as part of this report:

(1) The Company's Consolidated Financial Statements at September 30, 2016 and October 2, 2015and for each of the three years in the period ended September 30, 2016, October 2, 2015 and September 26, 2014 and the notes thereto, together with the report of the independent auditors on those Consolidated Financial Statements are hereby filed as part of this report, beginning on page F-1.

(2) Financial statement schedules – no financial statement schedules are presented as the required information is either not applicable, or is included in the consolidated financial statements or notes thereto.

(3) See Exhibit Index below.

(b) Exhibit Index:

2.1 Merger Implementation Deed between Sinclair Knight Merz Management Pty Limited and Sinclair Knight Merz Holdings Limited and Jacobs Engineering Group Inc. and Jacobs Australia Holdings Company Pty. Ltd, dated as of September 8, 2013. Filed as Exhibit 2.2 to the Registrant's fiscal 2013 Annual Report on Form 10-K and incorporated herein by reference.

2.2 Sales Agreement between Sinclair Knight Merz Management Pty Limited, Sinclair Knight Merz Holdings Limited, Jacobs Engineering Group Inc. and Jacobs Australia Holdings Company Pty, Ltd., dated as of December 13, 2013. Filed as Exhibit 2.3 to the Registrant's Quarterly Report on Form 10-Q for the first quarter of fiscal 2014 and incorporated herein by reference.

3.1 Amended and Restated Certificate of Incorporation of the Registrant. Filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K on January 28, 2014 and incorporated herein by reference.

3.2 Amended and Restated Bylaws of the Registrant. Filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K on July 16, 2015 and incorporated herein by reference.

4.1 See Sections 5 through 18 of Exhibit 3.1.

4.2 See Article II, Section 3.03 of Article III, Article VI and Section 7.04 of Article VII of Exhibit 3.2.

10.1# The Jacobs Engineering Group Inc. Incentive Bonus Plan for Officers and Key Managers as amended and restated on May 22, 2014. Filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the second quarter of fiscal 2015 and incorporated herein by reference.

10.2# The Executive Security Program of Jacobs Engineering Group Inc. Filed as Exhibit 10.2 to the Registrant's fiscal 2014 Annual Report on Form 10-K and incorporated herein by reference.

10.3# Amendment to the Executive Security Program of Jacobs Engineering Group Inc., dated December 23, 2008. Filed as Exhibit 10.3 to the Registrant's fiscal 2014 Annual Report on Form 10-K and incorporated herein by reference.

10.4# Amendment to the Executive Security Program of Jacobs Engineering Group Inc., dated May 31, 2009. Filed as Exhibit 10.4 to the Registrant's fiscal 2014 Annual Report on Form 10-K and incorporated herein by reference.

10.5# Jacobs Engineering Group Inc. 1991 Executive Deferral Plan, effective June 1, 1991. Filed as Exhibit 10.5 to the Registrant's fiscal 2012 Annual Report on Form 10-K and incorporated herein by reference.

10.6# Jacobs Engineering Group Inc. 1993 Executive Deferral Plan, effective December 1, 1993. Filed as Exhibit 10.6 to the Registrant's fiscal 2012 Annual Report on Form 10-K and incorporated herein by reference.

10.7# Jacobs Engineering Group Inc. 1995 Executive Deferral Plan, effective January 1, 1995. Filed as Exhibit 10.7 to the Registrant's fiscal 2014 Annual Report on Form 10-K and incorporated herein by reference.

10.8# Jacobs Engineering Group Inc. Amended and Restated Executive Deferral Plan. Filed as Exhibit 10.8 to the Registrant's fiscal 2012 Annual Report on Form 10-K and incorporated herein by reference.

10.9# The Jacobs Engineering Group Inc. 1989 Employee Stock Purchase Plan, as Amended and Restated-effective January 22, 2009. Filed as Exhibit 10.9 to the Registrant's fiscal 2014 Annual Report on Form 10-K and incorporated herein by reference.

10.10# The Jacobs Engineering Group Inc. Global Employee Stock Purchase Plan. Filed as Exhibit 10.10 to the Registrant's fiscal 2011 Annual Report on Form 10-K and incorporated herein by reference.

10.11# Jacobs Engineering Group Inc. 401(k) Plus Savings Plan and Trust, as Amended and Restated April 1, 2003. Filed as Exhibit 10.12 to the Registrant's fiscal 2012 Annual Report on Form 10-K and incorporated herein by reference.

10.12# Jacobs Engineering Group Inc. 1999 Stock Incentive Plan, as Amended and Restated. Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 333-157014) on January 28, 2014 and incorporated herein by reference.

10.13# Form of Indemnification Agreement entered into between the Registrant and certain of its officers and directors. Filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the third quarter of fiscal 2012 and incorporated herein by reference.

10.14# Form of Jacobs Engineering Group Inc. Non-Qualified Stock Option Agreement. Filed as Exhibit 4.3 to the Registrant's Registration Statement on Form S-8 filed on January 29, 2009 and incorporated herein by reference.

10.15# Form of Jacobs Engineering Group Inc. Restricted Stock Agreement. Filed as Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q for the second quarter of fiscal 2012 and incorporated herein by reference.

10.16# Form of Restricted Stock Unit Award Agreement. Filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the second quarter of fiscal 2012 and incorporated herein by reference.

10.17# Form of Restricted Stock Award Agreement. Filed as Exhibit 10.3 to the Registrant's Current Report on Form 8-K on June 1, 2011 and incorporated herein by reference.

10.18# Jacobs Engineering Group Inc. 1999 Outside Director Stock Plan, as Amended and Restated. Filed as Exhibit 10.21 to the Registrant's fiscal 2012 Annual Report on Form 10-K and incorporated herein by reference.

10.19# Form of Restricted Stock Unit Award Agreement (Performance Shares - Net Earnings Growth 2013 Award). Filed as Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q for the third quarter of fiscal 2013 and incorporated herein by reference.

10.20# Form of Restricted Stock Unit Award Agreement. (Performance Shares - TSR 2013 Award). Filed as Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q for the third quarter of fiscal 2013 and incorporated herein by reference.

10.21 Credit Agreement dated as of March 29, 2012 among Jacobs Engineering Group Inc. and certain of its subsidiaries as borrowers, and the Bank of America, N.A, (as Administrative Agent); BNP Paribas, and Wells Fargo Bank, N.A. (as Co-Syndication Agents); Union Bank, N.A. (as Documentation Agent); Merrill Lynch, Pierce, Fenner & Smith Incorporated (as Sole Book Manager); and Merrill Lynch, Pierce, Fenner & Smith Incorporated, BNP Paribas Securities Corp, and Wells Fargo Securities, LLC (as Joint Lead Arrangers). Filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the second quarter of fiscal 2012 and incorporated herein by reference.

10.22# Employment agreement between Jacobs Engineering Group Inc. and Michael Tyler dated May 28, 2013. Filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the third quarter of fiscal 2013 and incorporated herein by reference.

10.23# Retirement Agreement dated April 14, 2014 between the Registrant and Thomas R. Hammond. Filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the second quarter of fiscal 2014 and incorporated herein by reference.

10.24# Jacobs Engineering Group Inc. 2005 Executive Deferral Plan, effective January 1, 2005. Filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the second quarter of fiscal 2010 and incorporated herein by reference.

10.28# Amendment No. 2 to Consulting Agreement between the Registrant and Noel G. Watson dated July 1, 2013. Filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the third quarter of fiscal 2013 and incorporated herein by reference.

10.34# Employment Agreement dated December 23, 2010 between the Registrant and Gary Mandel. Filed as Exhibit 10.6 to the Registrant's Quarterly Report on Form 10-Q for the second quarter of fiscal 2011 and incorporated herein by reference.

10.35 Amended and Restated Credit Agreement dated as of February 7, 2014 among Jacobs Engineering Group Inc. and certain of its subsidiaries as borrowers, and the Bank of America, N.A. (as Administrative Agent); Bank of America, N.A., BNP Paribas, and Wells Fargo Bank, N.A. (as Co-Syndication Agents); The Bank of Tokyo-Mitsubishi UFJ, LTD, and TD Bank, N.A. (as Co-Documentation Agents); Merrill Lynch, Pierce, Fenner & Smith Incorporated (as Sole Book Manager); and Merrill Lynch, Pierce, Fenner & Smith Incorporated, BNP Paribas Securities Corp, and Wells Fargo Securities, LLC (as Joint Lead Arrangers). Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K on February 11, 2014 and incorporated herein by reference.

10.36# Form of Restricted Stock Unit Award Agreement (Performance Shares - Net Earnings Growth - 2014 Award). Filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the third quarter of fiscal 2014 and incorporated herein by reference.

10.37# Form of Restricted Stock Unit Award Agreement (Performance Shares - TSR - 2014 Award). Filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the third quarter of fiscal 2014 and incorporated herein by reference.

10.39# Offer Letter by and between Jacobs Engineering Group Inc. and Kevin C. Berryman, effective November 12, 2014. Filed as Exhibit 99.1 to Amendment No. 1 to the Registrant's Current Report on Form 8-K/A on November 17, 2014 and incorporated herein by reference.

10.40# Transition Agreement with Craig L. Martin, dated as of December 19, 2014. Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K on December 23, 2014 and incorporated herein by reference.

10.41# Letter Agreement with Noel G. Watson, dated as of February 25, 2015. Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K on March 2, 2015 and incorporated herein by reference.

10.42 Amendment Agreement, dated as of March 4, 2015, among Jacobs Engineering Group, Inc., certain subsidiaries thereof party thereto, each lender party thereto, each issuer of letters of credit party thereto and Bank of America, N.A., as Administrative Agent and Swing Line Lender. Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K on March 5, 2015 and incorporated herein by reference.

10.43# Form of Transition Agreement. Filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the second quarter of fiscal 2015 and incorporated herein by reference.

10.44# Form of Stock Option Agreement (December 2014 grants). Filed as Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q for the second quarter of fiscal 2015 and incorporated herein by reference.

10.45# Offer Letter with Steven J. Demetriou, dated as of July 10, 2015. Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K on July 16, 2015 and incorporated herein by reference.

10.46# Form of Nonqualified Stock Option Agreement. Filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the third quarter of fiscal 2015 and incorporated herein by reference.

10.47# Form of Restricted Stock Unit Award Agreement (Performance Shares - Net Earnings Growth). Filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the third quarter of fiscal 2015 and incorporated herein by reference.

10.48# Separation Agreement with Santo Rizzuto dated October 16, 2015. Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K on October 22, 2015 and incorporated herein by reference.

10.49# Separation Agreement with Cora Carmody, effective September 15, 2015. Filed as Exhibit 10.49 to the Registrant's fiscal 2015 Annual Report on Form 10-K and incorporated herein by reference.

10.50# Jacobs Engineering Group Inc. Management Incentive Plan, as Amended and Restated, effective November 19, 2015. Filed as Exhibit 10.50 to the Registrant's fiscal 2015 Annual Report on Form 10-K and incorporated herein by reference.

10.51# Form of Restricted Stock Agreement (awarded pursuant to the 1999 Stock Incentive Plan). Filed as Exhibit 10.51 to the Registrant's fiscal 2015 Annual Report on Form 10-K and incorporated herein by reference.

10.52# Form of Restricted Stock Unit Agreement (awarded pursuant to the 1999 Stock Incentive Plan). Filed as Exhibit 10.52 to the Registrant's fiscal 2015 Annual Report on Form 10-K and incorporated herein by reference.

10.53# Form of Restricted Stock Unit Agreement (Performance Shares - Earnings Per Share Growth). Filed as Exhibit 10.53 to the Registrant's fiscal 2015 Annual Report on Form 10-K and incorporated herein by reference.

10.54# Form of Restricted Stock Unit Agreement (Performance Shares - TSR). Filed as Exhibit 10.54 to the Registrant's fiscal 2015 Annual Report on Form 10-K and incorporated herein by reference.

10.55# Form of Restricted Stock Unit Agreement (Cash Settled Non-US Employees). Filed as Exhibit 10.55 to the Registrant's fiscal 2015 Annual Report on Form 10-K and incorporated herein by reference.

10.56# Form of Nonqualified Stock Option Agreement (1999 Stock Incentive Plan). Filed as Exhibit 10.56 to the Registrant's fiscal 2015 Annual Report on Form 10-K and incorporated herein by reference.

10.57# Form of Restricted Stock Unit Award Agreement (awarded pursuant to the 1999 Outside Directors Stock Plan). Filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the second quarter of fiscal 2016 and incorporated herein by reference.

10.58# Form of Stock Option Award Agreement (awarded pursuant to the 1999 Outside Directors Stock Plan). Filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q for the second quarter of fiscal 2016 and incorporated herein by reference.

10.59# Retirement Agreement with Phillip J. Stassi dated June 1, 2016. Filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the third quarter of fiscal 2016 and incorporated herein by reference.

10.60# Offer letter with William Benton Allen, Jr.. Filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K on October 14, 2016 and incorporated herein by reference.

†10.61# Offer letter with Robert V. Pragada, dated January 28, 2016.

†21. List of Subsidiaries of Jacobs Engineering Group Inc.

†23. Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.

†31.1 Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

†31.2 Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

†32.1 Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

†32.2 Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

†95. Mine Safety Disclosure.

†101.INS XBRL Instance Document

†101.SCH XBRL Taxonomy Extension Schema Document

†101.CAL XBRL Taxonomy Extension Calculation Linkbase Document

†101.DEF XBRL Taxonomy Extension Definition Linkbase Document

†101.LAB XBRL Taxonomy Extension Label Linkbase Document

†101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

† Being filed herewith.

Management contract or compensatory plan or arrangement.

SIGNAT URES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

JACOBS ENGINEERING GROUP INC.

Dated: November 22, 2016 By: /S/ Steven J. Demetriou

Steven J. Demetriou
President, Chief Executive Officer, and Chairman
(Principal Executive Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated:

Signature	Title	Date
/S/ Steven J. Demetriou Steven J. Demetriou	Chairman of the Board and Chief Executive Officer (Principal Executive Officer)	November 22, 2016
/S/ Joseph R. Bronson Joseph R. Bronson	Director	November 22, 2016
/S/ John F. Coyne John F. Coyne	Director	November 22, 2016
/S/ Juan Jose Suarez Coppel Juan Jose Suarez Coppel	Director	November 22, 2016
/S/ Robert C. Davidson, Jr. Robert C. Davidson, Jr.	Director	November 22, 2016
/S/ Ralph E. Eberhart Ralph E. Eberhart	Director	November 22, 2016
/S/ Dawne S. Hickton Dawne S. Hickton	Director	November 22, 2016
/S/ Linda Fayne Levinson Linda Fayne Levinson	Director	November 22, 2016
Peter J. Robertson	Director	
/S/ Christopher M.T. Thompson Christopher M.T. Thompson	Director	November 22, 2016
/S/ Noel G. Watson Noel G. Watson	Director	November 22, 2016
/S/ Kevin C. Berryman Kevin C. Berryman	Executive Vice President, Chief Financial Officer (Principal Financial Officer)	November 22, 2016
/S/ William B. Allen William B. Allen	Senior Vice President and Chief Accounting Officer (Principal Accounting Officer)	November 22, 2016

JACOBS ENGINEERING GROUP INC. AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS

WITH REPORTS OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

September 30, 2016

JACOBS ENGINEERING GROUP INC. AND SUBSIDIARIES

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September 30, 2016

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JACOBS ENGINEERING GROUP INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

(In thousands, except share information)
At September 30, 2016 and October 2, 2015

	2016	2015
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 655,716	$ 460,859
Receivables	2,115,663	2,548,743
Prepaid expenses and other current assets	93,091	113,076
Total current assets	2,864,470	3,122,678
Property, Equipment, and Improvements, Net	319,673	381,238
Other Noncurrent Assets:		
Goodwill	3,079,628	3,048,778
Intangibles	336,922	353,419
Miscellaneous	759,329	879,813
Total other noncurrent assets	4,175,879	4,282,010
	$ 7,360,022	$ 7,785,926
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Notes payable	$ 2,421	$ 13,364
Accounts payable	522,427	566,866
Accrued liabilities	938,378	1,090,985
Billings in excess of costs	319,460	309,951
Total current liabilities	1,782,686	1,981,166
Long-term Debt	385,330	584,434
Other Deferred Liabilities	861,824	863,868
Commitments and Contingencies		
Stockholders' Equity:		
Capital stock:		
Preferred stock, $1 par value, authorized—1,000,000 shares; issued and outstanding—none	—	—
Common stock, $1 par value, authorized—240,000,000 shares; issued and outstanding—120,950,899 shares and 123,152,966 shares, respectively	120,951	123,153
Additional paid-in capital	1,168,272	1,137,144
Retained earnings	3,586,647	3,496,212
Accumulated other comprehensive loss	(610,594)	(464,764)
Total Jacobs stockholders' equity	4,265,276	4,291,745
Noncontrolling interests	64,906	64,713
Total Group stockholders' equity	4,330,182	4,356,458
	$ 7,360,022	$ 7,785,926

See the accompanying Notes to Consolidated Financial Statements.

JACOBS ENGINEERING GROUP INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF EARNINGS

For the Fiscal Years Ended September 30, 2016, October 2, 2015, and September 26, 2014
(In thousands, except per share information)

	2016	2015	2014
Revenues	$ 10,964,157	$ 12,114,832	$ 12,695,157
Costs and Expenses:			
Direct costs of contracts	(9,196,326)	(10,146,494)	(10,621,373)
Selling, general and administrative expenses	(1,429,233)	(1,522,811)	(1,545,716)
Operating Profit	338,598	445,527	528,068
Other (Expense) Income:			
Interest income	7,848	7,262	9,693
Interest expense	(15,260)	(19,503)	(11,437)
Loss on disposal of business and investments	(41,410)	(2,909)	—
Gain on sale of intellectual property, net	—	—	12,147
Miscellaneous income (expense), net	(3,053)	(240)	3,695
Total other income (expense), net	(51,875)	(15,390)	14,098
Earnings Before Taxes	286,723	430,137	542,166
Income Tax Expense	(72,208)	(101,255)	(190,054)
Net Earnings of the Group	214,515	328,882	352,112
Net Earnings Attributable to Noncontrolling Interests	(4,052)	(25,911)	(24,004)
Net Earnings Attributable to Jacobs	$ 210,463	$ 302,971	$ 328,108
Net Earnings Per Share:			
Basic	$ 1.75	$ 2.42	$ 2.51
Diluted	$ 1.73	$ 2.40	$ 2.48

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

For the Fiscal Years Ended September 30, 2016, October 2, 2015, and September 26, 2014
(In thousands)

	2016	2015	2014
Net Earnings of the Group	$ 214,515	$ 328,882	$ 352,112
Other Comprehensive (Loss) Income:			
Foreign currency translation adjustments	(46,515)	(136,168)	(33,316)
Change in pension liability	(111,488)	33,208	(15,303)
Gains (losses) on cash flow hedges	(1,403)	2,949	1,022
Other Comprehensive Income (Loss) Before Income Taxes	(159,406)	(100,011)	(47,597)
Income Tax Benefit (Expense):			
Foreign currency translation adjustments	—	—	3,250
Change in pension liability	13,303	(438)	(14,562)
Gains (losses) on cash flow hedges	273	(766)	(513)
Income Tax Benefit (Expense)	13,576	(1,204)	(11,825)
Net Other Comprehensive Income (Loss)	(145,830)	(101,215)	(59,422)
Net Comprehensive Income of the Group	68,685	227,667	292,690
Net Comprehensive Income Attributable to Noncontrolling Interests	(4,052)	(25,911)	(24,004)
Total Comprehensive Income	$ 64,633	$ 201,756	$ 268,686

See the accompanying Notes to Consolidated Financial Statements including the Company's note on Other Comprehensive Income for a presentation of amounts reclassified to net income during the period

JACOBS ENGINEERING GROUP IN C. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

For the Fiscal Years Ended September 30, 2016, October 2, 2015, and September 26, 2014
(In thousands)

	Common Stock	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comp-rehensive Income (Loss)	Total Jacobs Stock-holders' Equity	Non-controlling Interests	Total Group Stock-holders' Equity
Balances at September 27, 2013	131,639	1,084,624	3,300,961	(304,127)	4,213,097	35,238	4,248,335
Net earnings	—	—	328,108	—	328,108	24,004	352,112
Foreign currency translation adjustments, net of deferred tax benefit of $3,250	—	—	—	(30,066)	(30,066)	—	(30,066)
Pension liability, net of deferred tax expense of $14,562	—	—	—	(29,865)	(29,865)	—	(29,865)
Gain on derivatives, net of deferred tax expense of $513	—	—	—	509	509	—	509
Noncontrolling interest acquired / consolidated	—	4,779	(15,704)	—	(10,925)	(17,724)	(28,649)
Distributions to noncontrolling interests	—	—	(968)	—	(968)	(5,113)	(6,081)
Issuances of equity securities, net of deferred tax expense of $1,264	2,254	114,953	—	—	117,207	—	117,207
Repurchases of equity securities	(2,140)	(30,498)	(85,204)	—	(117,842)	—	(117,842)
Balances at September 26, 2014	131,753	1,173,858	3,527,193	(363,549)	4,469,255	36,405	4,505,660
Net earnings	—	—	302,971	—	302,971	25,911	328,882
Foreign currency translation adjustments	—	—	—	(136,168)	(136,168)	—	(136,168)
Pension liability, net of deferred tax expense of $438	—	—	—	32,770	32,770	—	32,770
Gain on derivatives, net of deferred tax expense of $766	—	—	—	2,183	2,183	—	2,183
Noncontrolling interest acquired / consolidated	—	—	(9,709)	—	(9,709)	9,627	(82)
Distributions to noncontrolling interests	—	—	—	—	—	(7,230)	(7,230)
Issuances of equity securities, net of deferred tax expense of $10,332	1,590	80,801	—	—	82,391	—	82,391
Repurchases of equity securities	(10,190)	(117,515)	(324,243)	—	(451,948)	—	(451,948)
Balances at October 2, 2015	123,153	1,137,144	3,496,212	(464,764)	4,291,745	64,713	4,356,458
Net earnings	—	—	210,463	—	210,463	4,052	214,515
Foreign currency translation adjustments	—	—	—	(46,516)	(46,516)	—	(46,516)
Pension liability, net of deferred tax income of $13,303	—	—	—	(98,185)	(98,185)	—	(98,185)
Gain on derivatives, net of deferred tax income of $274	—	—	—	(1,129)	(1,129)	—	(1,129)
Noncontrolling interest acquired / consolidated	—	(127)	—	—	(127)	(1,150)	(1,277)
Distributions to noncontrolling interests	—	—	(3,146)	—	(3,146)	(2,709)	(5,855)
Issuances of equity securities, net of deferred tax expense of $3,382	1,351	72,055	—	—	73,406	—	73,406
Repurchases of equity securities	(3,553)	(40,800)	(116,882)	—	(161,235)	—	(161,235)
Balances at September 30, 2016	$ 120,951	$ 1,168,272	$ 3,586,647	$ (610,594)	$ 4,265,276	$ 64,906	$ 4,330,182

See the accompanying Notes to Consolidated Financial Statements.

JACOBS ENGINEERING GROUP INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

For the Fiscal Years Ended September 30, 2016, October 2, 2015, and September 26, 2014
(In thousands)

	2016	2015	2014
Cash Flows from Operating Activities:			
Net earnings attributable to the Group	$ 214,515	$ 328,882	$ 352,112
Adjustments to reconcile net earnings to net cash flows from operations:			
Depreciation and amortization:			
Property, equipment and improvements	82,363	99,924	98,592
Intangible assets	47,608	49,368	46,820
Loss on sales of investments	17,049	—	—
Loss on sales of business	24,361	2,909	—
Gain on sale of certain intellectual property	—	—	(12,147)
Stock based compensation	32,370	41,412	43,400
Tax benefit (deficiency) from stock based compensation	(377)	(1,237)	1,344
Equity in earnings of operating ventures, net	(11,892)	5,483	(8,394)
Change in pension plan obligations	(9,380)	(5,980)	(37,218)
Change in deferred compensation plans	576	(3,229)	(7,062)
Losses (gains) on disposals of assets, net	10,680	30,985	(4,668)
Changes in assets and liabilities, excluding the effects of businesses acquired:			
Receivables	397,268	172,958	107,944
Prepaid expenses and other current assets	17,906	6,644	(7,217)
Accounts payable	(44,214)	(28,943)	108,241
Accrued liabilities	(71,930)	(120,847)	(2,172)
Billings in excess of costs	33,347	(52,441)	29,833
Income taxes	(4,586)	(22,685)	(17,373)
Deferred income taxes	(27,407)	(31,177)	30,799
Other deferred liabilities	(28,801)	(15,759)	3,725
Deferred gain on synthetic lease transaction	—	23,343	—
Change in long-term receivables	—	—	2,828
Long-term insurance prepayment	—	—	(17,411)
Other, net	717	4,962	9,740
Net cash provided by operating activities	680,173	484,572	721,716
Cash Flows from Investing Activities:			
Additions to property and equipment	(67,688)	(88,404)	(132,146)
Disposals of property and equipment	10,479	369	10,414
Purchases of intangibles	(10,027)	—	—
Purchases of investments	(3,403)	—	(25,137)
Sales of investments	—	13	58
Sale of intellectual property	—	—	12,371
Acquisitions of businesses, net of cash acquired	(49,943)	(8,101)	(1,384,342)
Sales of business	(19,039)	—	—
Net cash used for investing activities	(139,621)	(96,123)	(1,518,782)
Cash Flows from Financing Activities:			
Proceeds from long-term borrowings	1,649,653	1,768,639	819,681
Repayments of long-term borrowings	(1,840,789)	(1,907,109)	(455,426)
Proceeds from short-term borrowings	3,040	362,433	207,876
Repayments of short-term borrowings	(14,042)	(382,190)	(226,091)
Proceeds from issuances of common stock	43,140	33,222	44,704
Common stock repurchases	(152,550)	(422,316)	(78,399)
Tax benefit (deficiency) from stock based compensation	377	1,237	(1,344)
Dividends paid to noncontrolling interests	(5,855)	(7,230)	(6,081)
Net cash provided by (used for) financing activities	(317,026)	(553,314)	304,920
Effect of Exchange Rate Changes	(28,669)	(106,923)	(31,612)
Net Increase (Decrease) in Cash and Cash Equivalents	194,857	(271,788)	(523,758)
Cash and Cash Equivalents at Beginning of Period	460,859	732,647	1,256,405
Cash and Cash Equivalents at End of Period	$ 655,716	$ 460,859	$ 732,647

See the accompanying Notes to Consolidated Financial Statements.

1. Description of Business and Basis of Presentation

Description of Business

We provide a broad range of technical, professional, and construction services including engineering, design, and architectural services; construction and construction management services; operations and maintenance services; and process, scientific, and systems consulting services. We provide our services through offices and subsidiaries located primarily in North America, South America, Europe, the Middle East, India, Australia, Africa, and Asia. We provide our services under cost-reimbursable and fixed-price contracts. The percentage of revenues realized from each of these types of contracts for each of the last three fiscal years was as follows:

	2016	2015	2014
Cost-reimbursable	82%	83%	83%
Fixed-price	18%	17%	17%

Basis of Presentation, Definition of Fiscal Year, and Other Matters

The accompanying Consolidated Financial Statements have been prepared in accordance with U.S. GAAP and include the accounts of Jacobs Engineering Group Inc. and its subsidiaries and affiliates which it controls. All significant intercompany accounts and transactions have been eliminated in consolidation.

The Company's fiscal year ends on the Friday closest to September 30 (determined on the basis of the number of workdays) and, accordingly, an additional week of activity is added every five -to- six years. Fiscal 2015 included an extra week of activity.

During the second quarter of fiscal 2016, we reorganized our operating and reporting structure around four lines of business ("LOB"). This reorganization is intended to better serve our global clients, leverage our workforce, help streamline operations, and provide enhanced growth opportunities. The four global LOBs are: Petroleum & Chemicals, Buildings & Infrastructure, Aerospace & Technology, and Industrial. Previously, the Company operated its business as a single segment. For a further discussion of our segment information, please refer to Note 15- *Segment Information.*

Please refer to Note 17— *Definitions* for the definitions of certain terms used in the accompanying Consolidated Financial Statements and these Notes to Consolidated Financial Statements.

2. Significant Accounting Policies

Revenue Accounting for Contracts and Use of Joint Ventures

In general, we recognize revenues at the time we provide services. Depending on the commercial terms of the contract, we recognize revenues either when costs are incurred, or using the percentage-of-completion method of accounting by comparing contract costs incurred to date to the total estimated costs at completion. Contract losses are provided for in their entirety in the period they become known, without regard to the percentage-of-completion. For multiple contracts with a single customer we account for each contract separately. We also recognize as revenues, costs associated with claims and unapproved change orders to the extent it is probable that such claims and change orders will result in additional contract revenue and the amount of such additional revenue can be reliably estimated.

Certain cost-reimbursable contracts include incentive-fee arrangements. These incentive fees can be based on a variety of factors but the most common are the achievement of target completion dates, target costs, and/or other performance criteria. Failure to meet these targets can result in unrealized incentive fees. We recognize incentive fees based on expected results using the percentage-of-completion method of accounting. As the contract progresses and more information becomes available, the estimate of the anticipated incentive fee that will be earned is revised as necessary. We bill incentive fees based on the terms and conditions of the individual contracts. In certain situations, we are allowed to bill a portion of the incentive fees over the performance period of the contract. In other situations, we are allowed to bill incentive fees only after the target criterion has been achieved. Incentive fees which have been recognized but not billed are included in receivables in the accompanying Consolidated Balance Sheets.

Certain cost-reimbursable contracts with government customers as well as certain commercial clients provide that contract costs are subject to audit and adjustment. In this situation, revenu es are recorded at the time services are performed based upon the amounts we expect to realize upon completion of the contracts. Revenues are not recognized for non-recoverable costs. In those situations where an audit indicates that we may have billed a c lient for costs not allowable under the terms of the contract, we estimate the amount of such nonbillable costs and adjust our revenues accordingly.

When we are directly responsible for subcontractor labor or third-party materials and equipment, we reflect the costs of such items in both revenues and costs (and we refer to such costs as "pass-through" costs). On those projects where the client elects to pay for such items directly and we have no associated responsibility for such items, these amounts are not reflected in either revenues or costs.

The following table sets forth pass-through costs included in revenues for each of the last three fiscal years (in millions):

2016	2015	2014
$ 2,489.9	$ 2,602.6	$ 2,954.9

As is common to the industry, we execute certain contracts jointly with third parties through various forms of joint ventures and consortiums. Although the joint ventures own and hold the contracts with the clients, the services required by the contracts are typically performed by us and our joint venture partners, or by other subcontractors under subcontracting agreements with the joint ventures. The assets of our joint ventures, therefore, consist almost entirely of cash and receivables (representing amounts due from clients), and the liabilities of our joint ventures consist almost entirely of amounts due to the joint venture partners (for services provided by the partners to the joint ventures under their individual subcontracts) and other subcontractors. In general, at any given time, the equity of our joint ventures represents the undistributed profits earned on contracts the joint ventures hold with clients. Very few of our joint ventures have employees. None of our joint ventures have third-party debt or credit facilities. Our joint ventures, therefore, are simply mechanisms used to deliver engineering and construction services to clients. Rarely do they, in and of themselves, present any risk of loss to us or to our partners separate from those that we would carry if we were performing the contract on our own. Under U.S. GAAP, our share of profits and losses associated with the contracts held by the joint ventures, if and when they occur, has always been reflected in our Consolidated Financial Statements.

Certain of our joint ventures meet the definition of a VIE. In evaluating our VIEs for possible consolidation, we perform a qualitative analysis to determine whether or not we have a "controlling financial interest" in the VIE as defined by U.S. GAAP. We consolidate only those VIEs over which we have a controlling financial interest.

For the Company's unconsolidated joint ventures, we use either the equity method of accounting or proportional consolidation.

There were no changes in facts and circumstances during the period that caused the Company to reassess the method of accounting for its VIEs.

Fair Value Measurements

The net carrying amounts of cash and cash equivalents, trade receivables and payables, and notes payable approximate Fair Value due to the short-term nature of these instruments. Similarly, we believe the carrying value of long-term debt also approximates Fair Value based on the interest rates and scheduled maturities applicable to the outstanding borrowings. Certain other assets and liabilities, such as forward contracts and an interest rate swap agreement we purchased as cash-flow hedges discussed in Note 11 — *Commitments and Contingencies and Derivative Financial Instruments* are required to be carried in our Consolidated Financial Statements at Fair Value.

The Fair Value of the Company's reporting units (used for purposes of determining whether there is an indication of possible impairment of the carrying value of goodwill) is determined using both an income approach and a market approach. Both approaches require us to make certain estimates and judgments. Under the income approach, Fair Value is determined by using the discounted cash flows of our reporting units. Under the market approach, the Fair Values of our reporting units are determined by reference to guideline companies that are reasonably comparable to our reporting units; the Fair Values are estimated based on the valuation multiples of the invested capital associated with the guideline companies. In assessing whether there is an indication that the carrying value of goodwill has been impaired, we utilize the results of both valuation techniques and consider the range of Fair Values indicated. The range of values (both ends of the range) for each reporting unit exceeded the resp ective book values by over 28% to 90%.

With respect to equity-based compensation (i.e., share-based payments), we estimate the Fair Value of stock options granted to employees and directors using the Black-Scholes option-pricing model. Like all option-pricing models, the Black-Scholes model requires the use of subjective assumptions including (i) the expected volatility of the market price of the underlying stock, and (ii) the expected term of the award, among others. Accordingly, changes in assumptions and any subsequent adjustments to those assumptions can cause different Fair Values to be assigned to our stock option awards. For restricted stock units containing service and market conditions, compensation expense is based on the Fair Value of such units using a Monte Carlo simulation.

The Fair Values of the assets owned by the various pension plans that the Company sponsors are determined based on the type of asset, consistent with U.S. GAAP. Equity securities are valued by using market observable data such as quoted prices. Publicly traded corporate equity securities are valued at the last reported sale price on the last business day of the year. Securities not traded on the last business day are valued at the last reported bid price. Debt securities are valued at the last reported sale price on the last business day applicable. Real estate consists primarily of common or collective trusts, with underlying investments in real estate. These investments are valued using the best information available, including quoted market price, market prices for similar assets when available, internal cash flow estimates discounted at an appropriate interest rate, or independent appraisals, as appropriate. Insurance contracts, investments in infrastructure/raw goods, and hedge funds are valued using actuarial assumptions and values reported by the fund managers.

The methodologies described above and elsewhere in these Notes to Consolidated Financial Statements may produce a Fair Value measure that may not be indicative of net realizable value or reflective of future Fair Values. Furthermore, while the Company believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the Fair Value of certain financial instruments could result in a different Fair Value measurement.

Cash Equivalents

We consider all highly liquid investments with original maturities of less than three months to be cash equivalents. Cash equivalents at September 30, 2016 and October 2, 2015 consisted primarily of money market mutual funds and overnight bank deposits.

Receivables and Billings in Excess of Costs

Receivables include billed receivables, unbilled receivables, and retentions receivable. Billed receivables represent amounts invoiced to clients in accordance with the terms of our client contracts. They are recorded in our financial statements when they are issued. Unbilled receivables and retentions receivable represent reimbursable costs and amounts earned and reimbursable under contracts in progress as of the respective balance sheet dates. Such amounts become billable according to the contract terms, which usually consider the passage of time, achievement of certain milestones or completion of the project. We anticipate that substantially all of such unbilled amounts will be billed and collected over the next fiscal year.

Certain contracts allow us to issue invoices to clients in advance of providing services. Billings in excess of costs represent billings to, and cash collected from, clients in advance of work performed. We anticipate that substantially all such amounts will be earned over the next twelve months.

Property, Equipment, and Improvements

Property, equipment and improvements are carried at cost, and are shown net of accumulated depreciation and amortization in the accompanying Consolidated Balance Sheets. Depreciation and amortization is computed primarily by using the straight-line method over the estimated useful lives of the assets. The cost of leasehold improvements is amortized using the straight-line method over the lesser of the estimated useful life of the asset or the remaining term of the related lease. Estimated useful lives range from 20 to 40 years for buildings, from 3 to 10 years for equipment and from 4 to 10 years for leasehold improvements.

Goodwill and Other Intangible Assets

Goodwill represents the excess of the cost of an acquired business over the Fair Value of the net tangible and intangible assets acquired. Goodwill and intangible assets with indefinite lives are not amortized; instead, we test goodwill and intangible assets with indefinite lives for possible impairment. We conduct such tests annually (or more frequently if events occur or circumstances change that would more likely than not reduce the Fair Values of our reporting units below their respective carrying values).

In the second quarter of fiscal 2016, we reorganized of our operations around four global lines of business. The four global lines, which represent our reporting units are: Petroleum & Chemicals, Buildings & Infrastructure, Aerospace & Technology, and Industrial. Previously, the Company had two reporting units, "Europe" and "Non-Europe"

In conjunction with the aforementioned reorganization, we performed a quantitative impairment test and we allocated goodwill among our new reporting units based on the relative fair value of the new reporting units. As a result, during the second quarter of fiscal 2016, we performed a quantitative assessment of goodwill for each of the Company's reporting units (both immediately before and after the reorganization). Based on this quantitative assessment, the fair value of each of the reporting units (pre and post reorganization) exceeded their respective net book values, and accordingly no impairment charge was recorded as a result of the reorganization.

In performing the Company's annual impairment test as of the end of the third quarter of fiscal 2016 the Company performed a qualitative assessment, and determined that it was more likely than not that the fair value of its reporting units exceeded their carrying amounts. As a result, the Company did not proceed to a quantitative impairment assessment.

We have determined that the fair value of our reporting units substantially exceeded their respective carrying values for the Consolidated Balance Sheets presented.

The Company had $3.0 billion of Goodwill at October 2, 2015. The following table presents the components of our Goodwill at September 30, 2016 by Reporting Unit (in thousands):

		2016
Aerospace & Technology	$	988,274
Buildings & Infrastructure		792,561
Industrial		591,757
Petroleum & Chemicals		707,036
Total Goodwill	$	3,079,628

The following table provides certain information related to the Company's acquired intangible assets for each of the fiscal years presented (in thousands):

	Customer Relationships, Contracts, and Backlog	Developed Technology	Trade Names	Patents	Other	Total
Balances, September 27, 2013	195,527	18,911	2,179	-	1,287	217,904
Acquisitions	249,164	—	15,049	—	—	264,213
Amortization	(37,737)	(1,533)	(3,251)	-	(693)	(43,214)
Foreign currency translation	1,087	—	171	-	31	1,289
Balances, September 26, 2014	408,041	17,378	14,148	-	625	440,192
Acquisitions	(4,315)	—	(1,292)	—	300	(5,307)
Amortization	(39,967)	(1,533)	(4,172)	-	(277)	(45,949)
Foreign currency translation	(34,418)	—	(1,085)	-	(14)	(35,517)
Balances, October 2, 2015	329,341	15,845	7,599	-	634	353,419
Acquisitions	7,286	—	859	10,027	-	18,172
Amortization	(38,595)	(1,534)	(3,819)	-	(454)	(44,402)
Foreign currency translation	9,605	—	147	-	(19)	9,733
Balances, September 30, 2016	307,637	14,311	4,786	10,027	161	336,922
Weighted Average Amortization Period (years)	8.4	9.3	5	25	3.2	8.9

The weighted average amortization period includes the effects of foreign currency translation.

The above table excludes the values assigned to those intangible assets embedded in the Company's equity method investment in AWE Management Ltd. ("AWE") and Guimar Engenharia LTDA ("Guimar"). Those amounts are included in the carrying value of the Company's investment in AWE and Guimar. The amount of amortization expense we estimate we will record during each of the next five fiscal years relating to intangible assets existing at September 30, 2016, including those associated with AWE and Guimar, is: fiscal 2017 - $44.5 million; fiscal 2018 - $44.6 million; fiscal 2019 - $43.2 million; fiscal 2020 - $41.1 million; and fiscal 2021 - $37.7 million. The amounts reported for future amortization include the effect of exchange rate changes.

Foreign Currencies

In preparing our Consolidated Financial Statements, it is necessary to translate the financial statements of our subsidiaries operating outside the U.S., which are denominated in currencies other than the U.S. dollar, into the U.S. dollar. In accordance with U.S. GAAP, revenues and expenses of operations outside the U.S. are translated into U.S. dollars using weighted-average exchange rates for the applicable periods being translated while the assets and liabilities of operations outside the U.S. are generally translated into U.S. dollars using period-end exchange rates. The net effect of foreign currency translation adjustments is included in stockholders' equity as a component of accumulated other comprehensive income (loss) in the accompanying Consolidated Balance Sheets.

Share-Based Payments

We measure the value of services received from employees and directors in exchange for an award of an equity instrument based on the grant-date Fair Value of the award. The computed value is recognized as a non-cash cost on a straight-line basis over the period the individual provides services, which is typically the vesting period of the award with the exception of awards containing an internal performance measure which is recognized on a straight-line basis over the vesting period subject to the probability of meeting the performance requirements and adjusted for the number of shares expected to be earned. The cost of these awards is recorded in selling, general and administrative expense in the accompanying Consolidated Statements of Earnings.

The followin g table presents our stock-based compensation expense for the various types of awards made by the Company for each of the fiscal years presented (in thousands):

Award Type	2016	2015	2014
Restricted Stock and Restricted Stock Units (excluding Market and Performance Awards)	$ 21,156	$ 20,779	$ 17,307
Stock Options	7,165	10,683	10,829
Market and Performance Awards	4,049	9,950	15,264
Total Expense	$ 32,370	$ 41,412	$ 43,400

The Company has two incentive plans whereby eligible employees and directors of Jacobs may be granted stock options, restricted stock, and/or restricted stock units.

Stock Options —Substantially all of the stock options granted during the year were awarded on the same date for all employees and directors (although the date is different for employees and directors). The following table presents the assumptions used in the Black-Scholes option-pricing model during each of the last three fiscal years for awards made to employees and directors:

	Awards Made to Employees			Awards Made to Directors		
	2016	**2015**	**2014**	**2016**	**2015**	**2014**
Dividend yield	—%	—%	—%	—%	—%	—%
Expected volatility	27.77%	27.00%	34.25%	29.21%	29.28%	35.30%
Risk-free interest rate	1.82%	1.67%	1.79%	1.44%	1.63%	1.76%
Expected term of options (in years)	5.82	5.82	5.82	5.82	5.82	5.82

Market and Performance Awards — The Company granted restricted stock units containing service, performance, and market conditions. The PSUs are earned over a three-year performance period if the specified performance metrics are met. During fiscal year 2014, the performance-based restricted stock unit award is split equally between Relative TSR Restricted Stock Units and Net Earnings Growth Restricted Stock Units. During fiscal year 2015, the Company only granted Net Earnings Growth Restricted Stock Units. For fiscal 2016, half of the PSUs granted were Relative TSR Restricted Stock Units and the other half of the PSUs were EPS Based Restricted Stock Units.

The number of Relative TSR Restricted Stock Units in which the employee may ultimately vest shall be equal to the Relative TSR grant multiplied by the TSR Performance Multiplier. The TSR Performance Multiplier will be determined by comparing the Company's total stockholder return to the total stockholder return of each of the companies in a specified industry peer group over the three year period immediately following the award date. For purposes of computing total stockholder return, the beginning stock price will be the average closing stock price over the 30 calendar day period ending on the award date ("Performance Period"), and the ending stock price will be the average closing price over the 30 calendar day period ending on the last day of the Performance Period. Any dividend payments made over the Performance Period will be deemed re-invested on the ex-dividend date in additional shares of the related Company.

The following table presents the basis on which the Relative TSR Restricted Stock Units are determined:

Company TSR Percentile Rank	TSR Performance Multiplier
Below 30th percentile	—%
30th percentile	50%
50th percentile	100%
70th percentile or above	150%

If the Company's total stockholder return over the Performance Period falls between any of the brackets described above, the TSR Performance Multiplier will be determined using straight line interpolation based on the actual percentile ranking.

Substantially all of the TSR restricted stock units awarded during the year are awarded on the same date. The follo wing table presents the assumptions used to value the TSR Restricted Stock Units:

	2016	2015	2014
Dividend yield	—%	—%	—%
Expected volatility	25.06%	—%	24.77%
Risk-free interest rate	1.21%	—%	0.80%
Expected term (in years)	3	-	3

2013 Awards

The number of Net Earnings Growth Restricted Stock Units awarded in fiscal year 2013 in which an employee may ultimately vest shall be equal to the sum of the following: (1) an amount, not less than zero, equal to one-third of the earned Net Earnings Growth Restricted Stock Units grant multiplied by the Net Earnings Growth Performance Multiplier (or, "NEGPM", as defined) determined based upon the growth in the Company's Net Earnings (as defined) over the period starting on the first day of the Company's third quarter of fiscal 2013 and ending on the last day of the Company's second quarter of fiscal 2014; plus, (2) an amount, not less than zero, equal to (A) two-thirds of the earned Net Earnings Growth Restricted Stock Units grant multiplied by the NEGPM determined based upon the average growth in the Company's Net Earnings over the period starting on the first day of the Company's third quarter of fiscal 2013 and ending on the last day of the Company's second quarter of fiscal 2015, minus (B) the amount determined pursuant to (1) above; plus, (3) an amount, not less than zero, equal to (A) the earned Net Earnings Growth Restricted Stock Units grant multiplied by the NEGPM determined based upon the average growth in the Company's Net Earnings over the period starting on the first day of the Company's third quarter of fiscal 2013 and ending on the last day of the Company's second quarter of fiscal 2016, minus (B) the amount determined pursuant to (1) and (2) above.

2014 and 2015 Awards

For Net Earnings Growth Restricted Stock Units awarded in fiscal years 2014 and 2015, all of the criteria referenced in the paragraph above are the same over the three year vesting period with the exception of the performance period. The performance periods for fiscal years 2014 and 2015 are based upon the Company's Net Earnings (as defined) over the period starting on the first day of the Company's third quarter of fiscal 2014 and ending on the last day of the Company's second quarter of fiscal 2017 and the Company's Net Earnings (as defined) over the period starting on the first day of the Company's third quarter of fiscal 2015 and ending on the last day of the Company's second quarter of fiscal 2018, respectively.

If the Company's average growth in Net Earnings over the applicable fiscal years during the respective performance periods is between 5% and 10%, 10% and 15%, or 15% and 20%, the Net Earnings Growth Performance Multiplier will be determined using straight line interpolation based on the actual average growth in the Company's consolidated net earnings attributable to Jacobs.

The following table presents the basis on which the Net Earnings Growth Restricted Stock Units are determined:

Average Net Earnings Growth	Net Earnings Growth Performance Multiplier
Less than 5%	—%
5%	50%
10%	100%
15%	150%
20%	200%

Unless stated otherwise, the Net Earnings Growth Restricted Stock Units awards are valued based on the closing price of the Company's common stock as reported in the NYSE Composite Price History on their respective grant dates.

2016 Awards

For the EPS Based Awards issued in fiscal 2016, the number of restricted stock units to be issued on the maturity date of November 19, 2018 is based on the Company's EPS growth over fiscal 2016, 2017 and 2018. The number of restricted stock units to be issued equals the sum of: (i) an amount, not less than zero, equal to one-third of the target number of restricted stock units multiplied by a n EPS Performance Multiplier for that period determined based upon the growth in the Company's EPS ("EPS Growth Rate") from fiscal 2015 to fiscal 2016; (ii) an amount, not less than zero, equal to two-thirds of the target number of restricted stock units m ultiplied by an EPS Performance Multiplier determined based upon the Compound Annual EPS Growth Rate for fiscal 2017 as compared to fiscal 2015, minus the amount of shares earned pursuant to clause (i); and (iii) an amount, not less than zero, equal to the target number of restricted stock units multiplied by an EPS Performance Multiplier determined based upon the Compound Annual EPS Growth Rate for fiscal 2018 as compared to fiscal 2015, minus the amount of shares earned pursuant to clauses (i) and (ii).

The "Compound Annual EPS Growth Rate" for purposes of clauses (ii) and (iii) above means the EPS Growth Rate, which when multiplied twice times fiscal 2015 EPS (in the case of clause (ii)) or three times fiscal 2015 EPS (in the case of clause (iii)) results in a number equal to actual fiscal 2017 EPS and fiscal 2018 EPS, respectively. The "EPS Performance Multiplier" is determined by reference to the following table based upon the Company's EPS Growth Rate or Compound Annual EPS Growth Rate over the relevant fiscal periods. The Compensation Committee set these metrics based on the Company's plan at the start of the fiscal year.

EPS Growth Rate or Compound Annual EPS Growth Rate	EPS Performance Multiplier
Less than 4%	—%
4%	50%
7.5%	100%
15%	150%
20% or greater	200%

If the EPS Growth Rate or Compound Annual EPS Growth Rate falls between 4% and 7.5%, 7.5% and 15%, or 15% and 20%, the EPS Performance Multiplier will be determined using linear interpolation based on the actual growth in EPS.

Unless stated otherwise, the EPS Based Restricted Stock Units awards are valued based on the closing price of the Company's common stock as reported in the NYSE Composite Price History on their respective grant dates.

Concentrations of Credit Risk

Our cash balances and cash equivalents are maintained in accounts held by major banks and financial institutions located primarily in North America, South America, Europe, the Middle East, India, Australia, Africa, and Asia. In the normal course of business, and consistent with industry practices, we grant credit to our clients without requiring collateral. Concentrations of credit risk is the risk that, if we extend a significant amount of credit to clients in a specific geographic area or industry, we may experience disproportionately high levels of default if those clients are adversely affected by factors particular to their geographic area or industry. Concentrations of credit risk relative to trade receivables are limited due to our diverse client base, which includes the U.S. federal government and multi-national corporations operating in a broad range of industries and geographic areas. Additionally, in order to mitigate credit risk, we continually evaluate the credit worthiness of our major commercial clients.

Use of Estimates and Assumptions

The preparation of financial statements in conformity with U.S. GAAP requires us to employ estimates and make assumptions that affect the reported amounts of certain assets and liabilities; the revenues and expenses reported for the periods covered by the financial statements; and certain amounts disclosed in these Notes to the Consolidated Financial Statements. Although such estimates and assumptions are based on management's most recent assessment of the underlying facts and circumstances utilizing the most current information available and past experience, actual results could differ significantly from those estimates and assumptions. Our estimates, judgments, and assump tions are evaluated periodically and adjusted accordingly.

Earlier in these Notes to Consolidated Financial Statements we discussed three significant accounting policies that rely on the application of estimates and assumptions: revenue recognition for long-term construction contracts; the process for testing goodwill for possible impairment; and the accounting for share-based payments to employees and directors. The following is a discussion of certain other significant accounting policies that rely on the use of estimates:

Accounting for Pensions — We use certain assumptions and estimates in order to calculate periodic pension cost and the value of the assets and liabilities of our pension plans. These assumptions involve discount rates, investment returns, and projected salary increases, among others. Changes in the actuarial assumptions may have a material effect on the plans' liabilities and the projected pension expense.

Accounting for Income Taxes — We determine our consolidated income tax expense using the asset and liability method prescribed by U.S. GAAP. Under this method, deferred tax assets and liabilities are recognized for the temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and income tax purposes. Such deferred tax assets and liabilities are adjusted, as appropriate, to reflect changes in tax rates expected to be in effect when the temporary differences reverse. If and when we determine that a deferred tax asset will not be realized for its full amount, we will recognize and record a valuation allowance with a corresponding charge to earnings. Judgment is required in determining our worldwide provision for income taxes. In the normal course of business, we may engage in numerous transactions every day for which the ultimate tax outcome (including the period in which the transaction will ultimately be included in taxable income or deducted as an expense) is uncertain. Additionally, we file income, franchise, gross receipts and similar tax returns in many jurisdictions. Our tax returns are subject to audit and investigation by the Internal Revenue Service, most states in the U.S., and by various government agencies representing many jurisdictions outside the U.S.

Contractual Guarantees, Litigation, Investigations, and Insurance — In the normal course of business we are subject to certain contractual guarantees and litigation. We record in the Consolidated Balance Sheets amounts representing our estimated liability relating to such guarantees, litigation, and insurance claims. We perform an analysis to determine the level of reserves to establish for both insurance-related claims that are known and have been asserted against us as well as for insurance-related claims that are believed to have been incurred based on actuarial analysis, but have not yet been reported to our claims administrators as of the respective balance sheet dates. We include any adjustments to such insurance reserves in our Consolidated Statements of Earnings. In addition, as a contractor providing services to various agencies of the U.S. federal government, we are subject to many levels of audits, investigations, and claims by, or on behalf of, the U.S. federal government with respect to contract performance, pricing, costs, cost allocations, and procurement practices. We adjust revenues based upon the amounts we expect to realize considering the effects of any client audits or governmental investigations.

Accounting for Business Combinations — U.S. GAAP requires that the purchase price paid for business combinations accounted for using the acquisition method be allocated to the assets and liabilities acquired based on their respective Fair Values. Determining the Fair Value of contract assets and liabilities acquired often requires estimates and judgments regarding, among other things, the estimated cost to complete such contracts. The Company must also make certain estimates and judgments relating to other assets and liabilities acquired as well as any identifiable intangible assets acquired.

New Accounting Pronouncements

In May 2014, the FASB issued ASU No. 2014-09— *Revenue from Contracts with Customers* . The new guidance provided by ASU 2014-09 is intended to remove inconsistencies and perceived weaknesses in the existing revenue requirements, provide a more robust framework for addressing revenue issues, improve comparability, provide information that is more useful and simplify the preparation of financial statements. ASU 2014-09 was initially effective for annual and interim reporting periods beginning after December 15, 2016. On July 9, 2015, the FASB approved a one-year deferral of the effective date of this standard. The revised effective date for the standard is for annual reporting periods beginning after December 15, 2017 and interim periods therein. The FASB also approved changes allowing for early adoption of the standard as of the original effective date. The Company has completed its initial assessment of the new standard and is in the process of developing a plan to assess its contracts with customers. The Company currently intends to adopt the new standard using the Modified Retrospective application. This standard could have a significant impact on the Company's Consolidated Financial Statements and an admini strative impact on its operations. The Company will further assess the impact through its implementation program.

In February 2016, the FASB issued ASU 2016-02— *Leases* . ASU 2016-02 requires lessees to recognize assets and liabilities for most leases. ASU 2016-02 is effective for public entity financial statements for annual periods beginning after December 15, 2018, and interim periods within those annual periods. Early adoption is permitted, including adoption in an interim period. The guidance must be adopted using a modified retrospective approach for leases that exist or are entered into after the beginning of the earliest comparative period in the financial statements. The Company is evaluating the impact of the new guidance on its consolidated financial statements. This standard could have a significant impact on the Company's Consolidated Financial Statements and an administrative impact on its operations. The Company will further assess the impact through its implementation program.

In March 2016, the FASB issued ASU 2016-09— *Improvements to Employee Share-Based Payment Accounting* . ASU 2016-09 simplifies several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. ASU 2016-09 is effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods. Early adoption is permitted for any entity in any interim or annual period for which financial statements have not been issued or made available for issuance. If an entity early adopts the amendments in an interim period, any adjustments must be reflected as of the beginning of the fiscal year that includes that interim period. An entity that elects early adoption must adopt all of the amendments in the same period. The Company is evaluating the impact of the new guidance on its consolidated financial statements and does not expect it to have a material impact.

During the second quarter of fiscal 2016, the Company adopted the provisions of ASU 2015-17— *Balance Sheet Classification of Deferred Taxes* on a retrospective basis for all periods presented. ASU 2015-17 removes the requirement to separate deferred income tax liabilities and assets into current and noncurrent amounts in a classified statement of financial position. Instead, the update requires that deferred tax liabilities and assets be classified as noncurrent in a classified statement of financial position. As a result of the Company's adoption of ASU 2015-17 in the second quarter of fiscal 2016, the current deferred taxes and noncurrent deferred tax assets included in miscellaneous noncurrent assets on the October 2, 2015 Consolidated Balance Sheet were reclassified to noncurrent deferred taxes, which increased noncurrent deferred tax assets by $160.3 million and decreased miscellaneous noncurrent assets by $213.8 million.

3. Employee Stock Purchase and Stock Option Plans

Broad-Based, Employee Stock Purchase Plans

Under the 1989 ESPP and the GESPP, eligible employees who elect to participate in these plans are granted the right to purchase shares of the common stock of Jacobs at a discount that is limited to 5% of the per-share market value on the day shares are sold to employees. The following table summarizes the stock issuance activity under the 1989 ESPP and the GESPP during each of the last three fiscal years:

	2016	2015	2014
Aggregate Purchase Price Paid for Shares Sold:			
Under the 1989 ESPP	$ 23,631,241	$ 28,621,800	$ 30,354,723
Under the GESPP	2,660,067	3,535,479	3,314,046
Total	$ 26,291,308	$ 32,157,279	$ 33,668,769
Aggregate Number of Shares Sold:			
Under the 1989 ESPP	$ 564,461	$ 696,853	$ 553,201
Under the GESPP	63,196	84,361	59,883
Total	$ 627,657	$ 781,214	$ 613,084

At September 30, 2016, there remains 599,506 shares reserved for issuance under the 1989 ESPP and 64,628 shares reserved for issuance under the GESPP.

Stock Incentive Plans

We also sponsor the 1999 SIP and the 1999 ODSP. The 1999 SIP provides for the issuance of incentive stock options, nonqualified stock options, share appreciation rights ("SAR"), restricted stock, and restricted stock units to employees. The 1999 ODSP provides for awards of shares of common stock, restricted stock, and restricted stock units, and grants of nonqualified stock options to our outside (i.e., nonemployee) directors. The following table sets forth certain information about the 1999 Plans:

	1999 SIP	1999 ODSP	Total
Number of shares authorized	29,850,000	1,100,000	30,950,000
Number of remaining shares reserved for issuance at September 30, 2016	10,532,310	597,910	11,130,220
Number of shares relating to outstanding stock options at September 30, 2016	3,299,137	278,375	3,577,512
Number of shares available for future awards:			
At September 30, 2016	7,233,173	319,535	7,552,708
At October 2, 2015	7,103,759	41,125	7,144,884

Effective September 28, 2012, all grants of shares under the 1999 SIP are issued on a fungible basis. An award other than an option or SAR are granted on a 1.92-to-1.00 basis ("Fungible"). An award of an option or SAR are granted on a 1-to-1 basis ("Not Fungible").

The following table presents the Fair Value of shares (of restricted stock and restricted stock units) vested during each of the last three fiscal years (in thousands):

	2016	2015	2014
Restricted Stock and Restricted Stock Units (service condition)	$ 17,481	$ 18,568	$ 6,820
Restricted Stock Units (service, market, and performance conditions at target)	4,336	11,264	18,675
Total	$ 21,817	$ 29,832	$ 25,495

The following table presents the Company's total pre-tax compensation cost relating to share-based payments included in the accompanying Consolidated Statements of Earnings (in thousands):

2016	2015	2014
$ 32,370	$ 41,412	$ 43,400

At September 30, 2016, the amount of compensation cost relating to nonvested awards not yet recognized in the financial statements is approximately $85.4 million. The majority of the unrecognized compensation costs will be recognized by the third quarter of fiscal 2019. The weighted average remaining contractual term of options currently exercisable is 5.4 years.

Stock Options

The following table summarizes the stock option activity for each of the last three fiscal years:

	Number of Stock Options		Weighted Average Exercise Price
Outstanding at September 27, 2013	4,606,212	$	52.33
Granted	602,525	$	53.51
Exercised	(718,065)	$	47.18
Cancelled or expired	(269,525)	$	54.46
Outstanding at September 26, 2014	4,221,147	$	53.23
Granted	614,759	$	43.56
Exercised	(34,000)	$	31.54
Cancelled or expired	(729,199)	$	86.15
Outstanding at October 2, 2015	4,072,707	$	46.06
Granted	460,770	$	42.17
Exercised	(412,416)	$	40.88
Cancelled or expired	(543,549)	$	49.13
Outstanding at September 30, 2016	3,577,512	$	45.69

Stock options outstanding at September 30, 2016 consisted entirely of nonqualified stock options. The following table presents the total intrinsic value of stock options exercised during each of the last three fiscal years (in thousands):

	2016		2015		2014
$	4,149	$	442	$	9,590

The total intrinsic value of stock options exercisable at September 30, 2016 was approximately $17.9 million. The following table presents certain other information regarding our 1999 Plans:

		2016		2015		2014
At fiscal year end:						
Range of exercise prices for options outstanding		$32.51–$80.63		$32.51–$80.63		$25.87–$94.11
Number of options exercisable		2,581,421		2,590,560		2,725,980
For the fiscal year:						
Range of prices relating to options exercised		$36.88–$55.00		$25.87–$42.74		$20.98–$57.54
Estimated weighted average fair values of options granted	$	12.80	$	13.41	$	19.04

The following table presents certain information regarding stock options outstanding, and stock options exercisable at September 30, 2016:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number	Weighted Average Remaining Contractual Life (years)	Weighted Average Price	Number	Weighted Average Exercise Price
\$32.51 - \$37.03	337,875	5.51	37.00	337,875	37.00
\$37.43 - \$46.37	2,096,554	5.87	42.67	1,328,450	42.60
\$47.11 - \$55.53	1,059,633	6.11	52.84	853,071	52.68
\$60.08 - \$80.63	83,450	5.48	65.99	62,025	67.93
	3,577,512	5.90	45.69	2,581,421	45.81

The 1999 Plans allow participants to satisfy the exercise price of stock options by tendering shares of Jacobs common stock that have been owned by the participants for at least six months. Shares so tendered are retired and canceled, and are shown as repurchases of common stock in the accompanying Consolidated Statements of Stockholders' Equity.

Restricted Stock

The following table presents the number of shares of restricted stock and restricted stock units issued under the 1999 SIP during each of the last three fiscal years:

	2016	2015	2014
Restricted stock	597,091	507,882	589,150
Restricted stock units (service condition)	183,131	126,635	287,545
Restricted stock units (service and performance conditions)	372,794	219,965	432,700

The amount of restricted stock units issued for awards with performance and market conditions in the above table are based on the target amount. The number of shares ultimately issued, which could be greater or less than target, will be based on achieving specific performance conditions described in *Note 2 – Significant Accounting Policies* .

The share amounts in the above tables reflect the Non-Fungible share counting of 1 share for each share of restricted stock and restricted stock unit issued.

The following table presents the number of shares of restricted stock and restricted stock units cancelled and withheld for taxes under the 1999 SIP during each of the last three fiscal years:

	2016	2015	2014
Restricted stock	512,903	326,480	147,221
Restricted stock units (service condition)	177,640	70,296	12,333
Restricted stock units (service and performance conditions)	275,933	194,116	52,000

The amount of restricted stock units cancelled for awards with market and performance conditions in the above table is based on the target amount.

The share amounts in the above tables reflect the Non-Fungible share counting of 1 share for each share of restricted stock and restricted stock unit issued.

The restr ictions attached to restricted stock and restricted stock units generally relate to the recipient's ability to sell or otherwise transfer the stock or stock units. There are also restrictions that subject the stock and stock units to forfeiture back to the Company until earned by the recipient through continued employment or service.

The following table provides the number of shares of restricted stock and restricted stock units outstanding at September 30, 2016 under the 1999 SIP. Shares granted prior to September 29, 2012 are not Fungible (granted on a 1-to-1 basis). Shares Granted after September 28, 2012 are Fungible (granted on a 1.92 -to-1.00 basis):

	Not Fungible	Fungible	Total
Restricted stock	245,150	1,444,927	1,690,077
Restricted stock units (service condition)	57,300	466,588	523,888
Restricted stock units (service and performance conditions at target)	—	721,934	721,934

The following table presents the number of shares of restricted stock and restricted stock units issued under the 1999 ODSP during each of the last three fiscal years:

	2016	2015	2014
Restricted stock units (service condition)	23,090	13,500	15,000

The following table provides the number of shares of restricted stock and restricted stock units outstanding at September 30, 2016 under the 1999 ODSP:

	2016
Restricted stock	34,000
Restricted stock units (service condition)	88,590

All shares granted under the 1999 ODSP are issued on a 1-to-1 basis.

4. Earnings Per Share

Basic and Diluted Earnings Per Share

The following table (i) reconciles the denominator used to compute Basic EPS to the denominator used to compute Diluted EPS for each of the last three fiscal years, and (ii) discloses the number of antidilutive stock options, shares of restricted stock, and restricted stock units outstanding at the end of each of the fiscal years indicated (in thousands):

	2016	2015	2014
Shares used to calculate EPS:			
Weighted average shares outstanding (denominator used to compute basic EPS)	120,133	125,007	130,483
Diluted effect of stock options and restricted stock	1,350	1,103	1,888
Denominator used to compute diluted EPS	121,483	126,110	132,371
Antidilutive stock options and restricted stock	2,142	3,237	2,074

Share Repurchases

On July 23, 2015, the Board of Directors approved a share repurchase program up to $500 million of the Company's common stock over the ensuing three years (the "2015 Share Repurchase Program"). As authorized, share repurchases may be executed through various means including, without limitation, open market transactions, privately negotiated transactions or otherwise. The share repurchase program did not obligate the Company to purchase any shares, and expires on July 22, 2018. The timing of shares repurchases may depend upon market conditions, other uses of capital, and other factors.

The following table summarizes the activity under this program during fiscal 2016 (in thousands, except per-share amounts):

Amount Authorized (in thousands)	Average Price Per Share (1)	Total Shares Retired (In thousands)	Shares Repurchased (In thousands) 2016
$ 500,000	$ 44.76	3,408	3,408

(1) Includes commissions paid and calculated as the average price per share since the repurchase program authorization date.

5. Restructuring Charges

During the second quarter of fiscal 2015, the Company began implementing a series of initiatives intended to improve operational efficiency, reduce costs, and better position itself to drive growth of the business in the future (the "2015 Restructuring"). The 2015 Restructuring was not completed in fiscal 2015, and actions related to the 2015 Restructuring continued throughout fiscal 2016. Actions related to the 2015 Restructuring completed during fiscal 2015 and fiscal 2016 include involuntary terminations, the abandonment of certain leased offices, combining operational organizations, and the co-location of employees into other existing offices. We are not exiting any service types or client-end-markets in connection with the 2015 Restructuring.

The majority of the costs of the 2015 Restructuring are included in SG&A expense in the Consolidated Statement of Earnings for the fiscal year ended September 30, 2016. The following table summarizes the impact of the 2015 Restructuring on the Company's reportable segments for the fiscal year ended September 30, 2016 (in thousands):

	2016
Aerospace & Technology	5,835
Buildings & Infrastructure	23,378
Industrial	29,690
Petroleum & Chemicals	$ 87,188
Corporate	41,816
Total Restructuring Charges	$ 187,907

The Company's accrual for the 2015 Restructuring as of October 2, 2015 was $102.2 million. There were $187.9 million of charges and $137.9 million of payments during fiscal 2016. The accrual balance was $152.2 million at September 30, 2016.

6. Borrowings

Short-Term Credit Arrangements

The Company maintains both committed and uncommitted credit arrangements with several banks providing for short-term borrowing capacity and overdraft protection. There were borrowings of $2.4 million outstanding under these short-term credit facilities at a weighted average interest rate of 4.38% at September 30, 2016, and there were borrowings of $13.4 million outstanding under these short-term credit facilities at October 2, 2015.

Long-term Debt

On February 7, 2014, Jacobs and certain of its subsidiaries entered into a $1.6 billion long-term unsecured, revolving credit facility (the "2014 Facility") with a syndicate of large U.S. and international banks and financial institutions. The following table presents certain information regarding the Company's long-term revolving credit facilities at September 30, 2016 and October 2, 2015 (dollars in thousands):

2016			2015		
Principal Balance Outstanding		Range of Interest Rates	Principal Balance Outstanding		Range of Interest Rates
$	385,330	1.0% – 1.65%	$	584,434	1.0% – 1.51%

The total amount outstanding under the 2014 Facility in the form of direct borrowings at September 30, 2016 was $385.3 million. The Company issued $2.5 million in letters of credit leaving $1.21 billion of available borrowing capacity under the 2014 Facility at September 30, 2016. In addition, the Company had $253.5 million issued under separate, committed and uncommitted letter-of-credit facilities for total issued letters of credit of $256.0 million at September 30, 2016.

The 2014 Facility expires in February 2019 and permits the Company to borrow under two separate tranches in U.S. dollars, certain specified foreign currencies, and any other currency that may be approved in accordance with the terms of the 2014 Facility. Depending on the Company's Consolidated Leverage Ratio, borrowings under the 2014 Facility will bear interest at either a eurocurrency rate plus a margin of between 1.0% and 1.5% or a base rate plus a margin of between 0% and 0.5%. The 2014 Facility also provides for a financial letter of credit subfacility of $300.0 million, permits performance letters of credit, and provides for a $50.0 million subfacility for swingline loans. Letters of credit are subject to fees based on the Company's Consolidated Leverage Ratio at the time any such letter of credit is issued. The 2014 Facility also provides an accordion feature that allows the Company and the lenders to increase the facility amount to $2.1 billion. The Company pays a facility fee of between 0.100% and 0.25% per annum depending on the Company's Consolidated Leverage Ratio. Amounts outstanding under the 2014 Facility may be prepaid at the option of the Company without premium or penalty, subject to customary breakage fees in connection with the prepayment of eurocurrency loans. The 2014 Facility contains affirmative, negative, and financial covenants customary for financings of this type including, among other things, limitations on certain other indebtedness, loans and investments, liens, mergers, asset sales and transactions with affiliates. In addition, the 2014 Facility contains customary events of default. We were in compliance with our debt covenants at September 30, 2016.

The following table presents certain additional information regarding the Company's long-term debt for the fiscal years shown:

		2016		**2015**
Maximum amount outstanding at any month-end during the fiscal year	$	958,460	$	1,006,899
Average amount outstanding during the year	$	825,641	$	943,258
Weighted average interest rate during the year		1.39%		1.28%

The following table presents the amount of interest paid by the Company during each of the last three fiscal years (in thousands):

	2016		**2015**		**2014**
$	13,282	$	15,506	$	13,841

7. Pension and Other Postretirement Benefit Plans

Company-Only Sponsored Plans

We sponsor various defined benefit pension plans covering employees of certain U.S. and international subsidiaries. The pension plans provide pension benefits that are based on the employee's compensation and years of service. Our funding policy is to fund the actuarially determined accrued benefits where applicable, allowing for projected co mpensation increases using the projected unit method.

The accounting for pension and other post-retirement benefit plans requires the use of assumptions and estimates in order to calculate periodic benefit cost and the value of the plans' assets and benefit obligations. These assumptions include discount rates, investment returns, and projected salary increases, among others. The discount rates used in valuing the plans' benefit obligations were determined with reference to high quality corporate and government bonds that are appropriately matched to the duration of each plan's obligations. The expected long-term rate of return on plan assets is generally based on using country-specific simulation models which select a single outcome for expected return based on the target asset allocation. The expected long-term-rates of return used in the valuation are the annual average returns generated by these assumptions over a 20-year period for each asset class based on the expected long-term rate of return of the underlying assets.

The following table sets forth the changes in the plans' combined net benefit obligation (segregated between plans existing within and outside the U.S.) during each of the fiscal years presented (in thousands):

	U.S. Pension Plans		Non-U.S. Pension Plans	
	2016	2015	2016	2015
Net benefit obligation at the beginning of the year	$ 533,665	$ 495,788	$ 1,155,592	$ 1,196,520
Service cost	9,875	12,045	14,378	21,374
Interest cost	16,746	20,629	38,892	44,659
Participants' contributions	1,847	2,743	2,255	4,402
Actuarial (gains)/losses	29,129	42,749	382,691	30,238
Benefits paid	(14,143)	(40,289)	(32,277)	(35,662)
Curtailments/settlements	(35,224)	—	(35,375)	(5,763)
Plan amendments	—	—	—	(1,612)
Transfers *	(356,231)	—	—	—
Effect of exchange rate changes	—	—	(162,374)	(98,564)
Net benefit obligation at the end of the year	$ 185,664	$ 533,665	$ 1,363,782	$ 1,155,592

* Pension plan transferred to a new service provider for the plan

The following table sets forth the changes in the combined Fair Value of the plans' assets (segregated between plans existing within and outside the U.S.) during each of the fiscal years presented (in thousands):

	U.S. Pension Plans		Non-U.S. Pension Plans	
	2016	2015	2016	2015
Fair value of plan assets at the beginning of the year	$ 379,907	$ 415,350	$ 896,298	$ 876,171
Actual return on plan assets	28,835	(1,754)	242,927	86,411
Employer contributions	10,213	3,857	23,217	39,326
Participants' contributions	1,847	2,743	2,255	4,402
Gross benefits paid	(14,143)	(40,289)	(32,277)	(35,662)
Curtailments/settlements	(35,224)	—	(1,863)	(1,646)
Transfers*	(228,971)	—	—	—
Effect of exchange rate changes	—	—	(126,646)	(72,704)
Fair value of plan assets at the end of the year	$ 142,464	$ 379,907	$ 1,003,911	$ 896,298

* Pension plan transferred to a new service provider for the plan

During fiscal 2016 we also curtailed our U.K. and French pension plans.

The following table reconciles the combined funded statuses of the plans recognized in the accompanying Consolidated Balance Sheets at September 30, 2016 and October 2, 2015 (segregated between plans existing within and outside the U.S.) (in thousands):

	U.S. Pension Plans		Non-U.S. Pension Plans	
	2016	2015	2016	2015
Net benefit obligation at the end of the year	$ 185,664	$ 533,665	$ 1,363,782	$ 1,155,592
Fair value of plan assets at the end of the year	142,464	379,907	1,003,911	896,298
Under funded amount recognized at the end of the year	$ 43,200	$ 153,758	$ 359,871	$ 259,294

The following table presents the accumulated benefit obligation at September 30, 2016 and October 2, 2015 (segregated between plans existing within and outside the U.S.) (in thousands):

	U.S. Pension Plans		Non-U.S. Pension Plans	
	2016	2015	2016	2015
Accumulated benefit obligation at the end of the year	185,664	488,024	1,331,884	1,113,016

The following table presents the amounts recognized in the accompanying Consolidated Balance Sheets at September 30, 2016 and October 2, 2015 (segregated between plans existing within and outside the U.S.) (in thousands):

	U.S. Pension Plans		Non-U.S. Pension Plans	
	2016	2015	2016	2015
Prepaid benefit cost included in prepaid assets	$ —	$ —	$ 492	$ 4,054
Accrued benefit cost included in current liabilities	—	—	608	381
Accrued benefit cost included in noncurrent liabilities	43,200	153,758	359,755	262,967
Net amount recognized at the end of the year	$ 43,200	$ 153,758	$ 359,871	$ 259,294

In fiscal 2015 and through June 30, 2016, we were responsible for administering a U.S. pension plan for participating employees of which are assigned to, and worked exclusively on, a specific operating contract with the U.S. federal government. The costs of this pension plan were fully reimbursed by the U.S. federal government pursuant to applicable cost accounting standards. Accordingly, included in "Miscellaneous Noncurrent Assets" in the accompanying Consolidated Balance Sheet at October 2, 2015 was a receivable from the U.S. federal government of approximately $115.5 million representing the underfunded amount for this pension plan. As of June 30, 2016, we ceased performing on this operating contract, and, as such, we are no longer responsible for administering this pension plan. As a result of no longer administering the plan, we derecognized the plan benefit obligation and plan assets pertaining to the plan resulting in a decrease of plan benefit obligation by $356.2 million and plan assets by $229.0 million.

The following table presents the significant actuarial assumptions used in determining the funded statuses and the following year's benefit cost of the Company's U.S. plans for each fiscal year presented:

	2016	2015	2014
Weighted average discount rates	3.2%	3.9% to 4.0%	3.9% to 4.4%
Rates of compensation increases	—%	3.0%	2.95%
Return on Assets	7.4%	7.4%	7.70%

The following table presents the significant actuarial assumptions used in determining the funded statuses and the following year's benefit cost of the Company's non-U.S. pension plans for each fiscal year presented:

	2016	2015	2014
Weighted average discount rates	0.7% to 7.0%	1.6% to 7.8%	1.8% to 8.8%
Rates of compensation increases	2.5% to 7.5%	2.4% to 7.5%	2.6% to 7.5%
Expected long-term rates of return on assets	3.5% to 8.5%	3.5% to 8.5%	4.5% to 8.5%

The following table presents certain amounts relating to our U.S. pension plans recognized in accumulated other comprehensive loss at September 30, 2016, October 2, 2015 and September 26, 2014 (in thousands):

	2016	2015	2014
Arising during the period:			
Net actuarial loss	$ 4,337	$ 12,237	$ 1,378
Reclassification adjustments:			
Net actuarial gain	(2,312)	(2,347)	(2,255)
Total	$ 2,025	$ 9,890	$ (877)

The following table presents certain amounts relating to our non-U.S. pension plans recognized in accumulated other comprehensive loss at September 30, 2016, October 2, 2015 and September 26, 2014(in thousands):

	2016	2015	2014
Arising during the period:			
Net actuarial (gain) loss	$ 102,925	$ (27,165)	$ 48,752
Prior service cost (benefit)	580	(1,512)	(1)
Total	103,505	(28,677)	48,751
Reclassification adjustments:			
Net actuarial gain	(7,508)	(14,034)	(12,914)
Prior service benefit	163	51	(19)
Total	(7,345)	(13,983)	(12,933)
Total	$ 96,160	$ (42,660)	$ 35,818

The following table presents certain amounts relating to our pension plans recorded in accumulated other comprehensive loss that have not yet been recognized as components of net periodic benefit cost at September 30, 2016, and October 2, 2015 (segregated between U.S. and non-U.S. plans) (in thousands):

	U.S. Pension Plans		Non-U.S. Pension Plans	
	2016	2015	2016	2015
Net actuarial loss	$ 61,483	$ 59,458	$ 304,345	$ 208,929
Prior service cost	—	—	(1,203)	(1,947)
Total	$ 61,483	$ 59,458	$ 303,142	$ 206,982

The following table presents the amount of accumulated comprehensive income that will be amortized against earnings as part of our net periodic benefit cost in fiscal 2017 based on 2016 exchange rates (segregated between U.S. and non-U.S. plans) (in thousands):

	U.S. Pension Plans	Non-U.S. Pension Plans
Unrecognized net actuarial loss	$ 3,985	$ 10,676
Unrecognized prior service cost	—	(313)
Accumulated comprehensive loss to be recorded against earnings	$ 3,985	$ 10,363

We consider various factors in developing the estimates for the expected, long-term rates of return on plan assets. These factors include the projected, long-term rates of returns on the various types of assets in which the plans invest, as well as historical returns. In general, investment allocations are determined by each plan's trustees and/or investment committees. The objectives of the plans' investment policies are to (i) maximize returns while preserving capital; (ii) provide returns sufficient to meet the current and long-term obligations of the plan as the obligations become due; and (iii) maintain a diversified portfolio of assets so as to reduce the risk associated with having a disproportionate amount of the plans' total assets invested in any one type of asset, issuer or geography. None of our pension plans hold Jacobs common stock directly (although some plans may hold shares indirectly throu gh investments in mutual funds). The plans' weighted average asset allocations at September 30, 2016 and October 2, 2015 (the measurement dates used in valuing the plans' assets and liabilities) were as follows:

	U.S. Pension Plans		Non-U.S. Pension Pans	
	2016	2015	2016	2015
Equity securities	71%	70%	25%	25%
Debt securities	20%	21%	32%	31%
Real estate investments	2%	3%	6%	7%
Other	7%	6%	37%	37%

The following table presents the Fair Value of the Company's Domestic U.S. plan assets at September 30, 2016, segregated by level of Fair Value measurement inputs within the Fair Value hierarchy promulgated by U.S. GAAP (in thousands):

	Fair Value, Determined Using Fair Value Measurement Inputs		
	Level 1	Level 3	Total
U.S. Domestic equities	$ 85,494	$ —	$ 85,494
Overseas equities	15,169	—	15,169
U.S. Domestic bonds	28,886	—	28,886
Cash and equivalents	3,723	—	3,723
Real estate	—	3,477	3,477
Hedge funds	—	5,715	5,715
Total	$ 133,272	$ 9,192	$ 142,464

The following table presents the Fair Value of the Company's non-U.S. pension plan assets at September 30, 2016, segregated by level of Fair Value measurement inputs within the Fair Value hierarchy promulgated by U.S. GAAP (in thousands):

	Fair Value, Determined Using Fair Value Measurement Inputs		
	Level 1	Level 3	Total
U.S. Domestic equities	$ 31,972	$ —	$ 31,972
Overseas equities	220,179	—	220,179
U.S. Domestic bonds	258,949	—	258,949
Overseas bonds	61,974	—	61,974
Cash and equivalents	63,182	—	63,182
Real estate	—	55,665	55,665
Insurance contracts	—	39,473	39,473
Hedge funds	—	272,517	272,517
Total	$ 636,256	$ 367,655	$ 1,003,911

The following table presents the Fair Value of the Company's U.S. pension plan assets at October 2, 2015, segregated by level of Fair Value measurement inputs within the Fair Value hierarchy promulgated by U.S. GAAP (in thousands):

	Fair Value, Determined Using Fair Value Measurement Inputs		
	Level 1	Level 3	Total
U.S. Domestic equities	$ 225,362	$ —	$ 225,362
Overseas equities	41,414	—	41,414
U.S. Domestic bonds	80,804	—	80,804
Cash and equivalents	6,041	—	6,041
Real estate	—	9,914	9,914
Hedge funds	—	16,372	16,372
Total	$ 353,621	$ 26,286	$ 379,907

The following table presents the Fair Value of the Company's non-U.S. pension plan assets at October 2, 2015, segregated by level of Fair Value measurement inputs within the Fair Value hierarchy promulgated by U.S. GAAP (in thousands):

	Fair Value, Determined Using Fair Value Measurement Inputs		
	Level 1	Level 3	Total
U.S. Domestic equities	$ 28,007	$ —	$ 28,007
Overseas equities	198,309	—	198,309
U.S. Domestic bonds	203,266	—	203,266
Overseas bonds	71,545	—	71,545
Cash and equivalents	39,933	—	39,933
Real estate	—	61,996	61,996
Insurance contracts	—	32,522	32,522
Hedge funds	—	260,720	260,720
Total	$ 541,060	$ 355,238	$ 896,298

At September 30, 2016 and October 2, 2015, the Company holds no assets in the U.S. or non-U.S. pension plans that use Level 2 fair value measurement inputs.

The following table summarizes the changes in the Fair Value of the Company's U.S. Pension Plans' Level 3 assets for the year ended September 30, 2016 (in thousands):

	Real Estate	Hedge Funds
Balance, beginning of year	$ 9,914	$ 16,372
Purchases, sales, and settlements	(6,530)	(10,788)
Realized and unrealized gains (losses)	93	131
Balance, end of year	$ 3,477	$ 5,715

The following table summarizes the changes in the Fair Value of the Company's non-U.S. Pension Plans' Level 3 assets for the year ended September 30, 2016 (in thousands):

	Real Estate	Insurance Contracts	Hedge Funds
Balance, beginning of year	$ 61,996	$ 32,522	$ 260,720
Purchases, sales, and settlements	(462)	(165)	(1,205)
Realized and unrealized gains	2,572	6,451	57,656
Effect of exchange rate changes	(8,441)	665	(44,654)
Balance, end of year	$ 55,665	$ 39,473	$ 272,517

The following table summarizes the changes in the Fair Value of the Company's U.S. Pension Plans' Level 3 assets for the year ended October 2, 2015 (in thousands):

	Real Estate	Hedge Funds
Balance, beginning of year	$ -	$ 16,304
Purchases	10,616	—
Sales	—	68
Realized and unrealized losses	(702)	-
Balance, end of year	$ 9,914	$ 16,372

The following table summarizes the changes in the Fair Value of the Company's non-U.S. Pension Plans' Level 3 assets for the year ended October 2, 2015 (in thousands):

	Real Estate	Insurance Contracts	Hedge Funds
Balance, beginning of year	$ 59,966	$ 37,468	$ 213,936
Purchases, sales, and settlements	1,271	526	4,760
Realized and unrealized gains	5,390	1,353	54,719
Effect of exchange rate changes	(4,631)	(6,825)	(12,695)
Balance, end of year	$ 61,996	$ 32,522	$ 260,720

The following table presents the amount of cash contributions we anticipate making into the plans during fiscal 2017 (in thousands):

	U.S. Pension Plans	Non-U.S. Pension Pans
Anticipated cash contributions	—	$ 20,016

The following table presents the total benefit payments expected to be paid to pension plan participants during each of the next five fiscal years, and in total for the five years thereafter (in thousands):

	U.S. Pension Plans	Non-U.S. Pension Pans
2017	$ 11,589	$ 27,902
2018	11,916	29,627
2019	11,935	31,039
2020	12,009	30,416
2021	12,095	31,933
For the periods 2022 through 2026	59,090	194,569

The following table presents the components of net periodic benefit cost for the Company's U.S. pension plans recognized in the accompanying Consolidated Statements of Earnings for each of the last three fiscal years (in thousands):

	2016	2015	2014
Service cost	$ 9,875	$ 12,045	$ 12,077
Interest cost	16,746	20,629	22,041
Expected return on plan assets	(22,368)	(29,526)	(28,495)
Actuarial loss	7,512	3,756	3,608
Prior service cost	(176)	(239)	(103)
Net pension cost, before special items	11,589	6,665	9,128
Settlement loss	8,061	—	—
Total net periodic pension cost recognized	$ 19,650	$ 6,665	$ 9,128

The fiscal 2016 settlement loss included in the U.S. pension plan net periodic benefit cost table above related to the previously discussed transfer of a U.S. pension plan to a new service provider.

The following table presents the components of net periodic benefit cost for the Company's Non-U.S. pension plans recognized in the accompanying Consolidated Statements of Earnings for each of the last three fiscal years (in thousands):

	2016	2015	2014
Service cost	$ 14,378	$ 21,374	$ 25,374
Interest cost	38,892	44,659	54,208
Expected return on plan assets	(50,190)	(53,052)	(56,394)
Actuarial loss	9,092	17,398	15,993
Prior service cost	(260)	(96)	(28)
Net pension cost, before special items	11,912	30,283	39,153
Curtailments and settlements	(7,512)	255	(15,894)
Total net periodic pension cost recognized	$ 4,400	$ 30,538	$ 23,259

The fiscal 2016 settlement loss included in the Non-U.S. pension plan net periodic benefit cost table above related to the previously discussed sale of the Company's French subsidiary.

Multiemployer Plans

In Canada and the U.S., we contribute to various trusteed pension plans covering hourly construction employees under industry-wide agreements. We also contribute to various trusteed plans in Australia and certain countries in Europe covering both hourly and certain salaried employees. Contributions are based on the hours worked by employees covered under these agreements and are charged to direct costs of contracts on a current basis.

The majority of the contributions the Company makes to multiemployer pension plans are outside the U.S. With respect to these multiemployer plans, the Company's liability to fund these plans is generally limited to the contributions we are required to make under collective bargaining agreements.

Based on our review of our multiemployer pension plans under the guidance provided in ASU 2011-09— *Compensation-Retirement Benefits-Multiemployer Plans* , we have concluded that none of the multiemployer pension plans into which we contribute are individually significant to our Consolidated Financial Statements.

The following table presents the Company's contributions to these multiemployer plans during each of the last three fiscal years (in thousands):

	2016	2015	2014
Canada	$ 44,912	$ 42,575	$ 56,341
Europe	$ 8,771	$ 10,902	$ 12,693
United States	$ 5,058	$ 5,968	$ 4,485
Contributions to multiemployer pension plans	$ 58,741	$ 59,445	$ 73,519

8. Other Comprehensive Income

The following table presents amounts reclassified from changes in pension liabilities in other comprehensive income to direct cost of contracts and selling, general and administrative expenses in the Company's Consolidated Statements of Earnings for the periods presented related to the Company's defined benefit pension plans (in thousands):

	2016	2015	2014
Amortization of Defined Benefit Items:			
Actuarial losses	$ (12,880)	$ (21,153)	$ (19,601)
Prior service cost	260	96	28
Total Before Income Tax	(12,620)	(21,057)	(19,573)
Income Tax Benefit	2,963	4,727	4,385
Total reclassifications after-tax	$ (9,657)	$ (16,330)	$ (15,188)

9. Savings and Deferred Compensation Plans

Savings Plans

We sponsor various defined contribution savings plans which allow participants to make voluntary contributions by salary deduction. Such plans cover substantially all of our domestic, nonunion employees in the U.S. and are qualified under Section 401(k) of the U.S. Internal Revenue Code. Similar plans outside the U.S. cover various groups of employees of our international subsidiaries and affiliates. Several of these plans allow the Company to match, on a voluntary basis, a portion of the employee contributions. The following table presents the Company's contributions to these savings plans during each of the last three fiscal years (in thousands):

2016	2015	2014
$ 89,966	$ 87,973	$ 88,951

Deferred Compensation Plans

Our Executive Security Plan and Executive Deferral Plans are nonqualified deferred compensation programs that provide benefits payable to directors, officers, and certain key employees or their designated beneficiaries at specified future dates, upon retirement, or death. Benefit payments under both plans are funded by a combination of contributions from participants and the Company, and most of the participants are covered by life insurance policies with the Company designated as the beneficiary. The following table presents the amount charged to expense for the Company's deferred compensation plans during each of the last three fiscal years (in thousands):

2016	2015	2014
$ 5,792	$ 5,536	$ 5,321

10. Income Taxes

The following table presents the components of our consolidated income tax expense for each of the last three fiscal years (in thousands):

	2016	2015	2014
Current income tax expense:			
Federal	$ 36,020	$ 72,840	$ 102,450
State	11,336	16,248	18,698
Foreign	52,259	43,344	38,107
Total current tax expense	99,615	132,432	159,255
Deferred income tax expense (benefit):			
Federal	6,439	13,337	7,561
State	485	2,295	2,789
Foreign	(34,331)	(46,809)	20,449
Total deferred tax expense (benefit)	(27,407)	(31,177)	30,799
Consolidated income tax expense	$ 72,208	$ 101,255	$ 190,054

Deferred taxes reflect the tax effects of temporary differences between the amounts recorded as assets and liabilities for financial reporting purposes and the comparable amounts recorded for income tax purposes. Deferred tax assets and liabilities are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The following table presents the components of our net deferred tax assets at September 30, 2016 and October 2, 2015 (in thousands):

	2016	2015
Deferred tax assets:		
Obligations relating to:		
Defined benefit pension plans	$ 77,834	$ 64,644
Other employee benefit plans	179,063	186,701
Net Operating Losses	139,125	134,467
Self-insurance programs	1,722	473
Contract revenues and costs	(8,177)	25,579
Deferred Rent	7,955	9,428
Restructuring	47,792	6,722
Other	9,933	6,370
Valuation Allowance	(41,684)	(60,320)
Gross deferred tax assets	413,563	374,064
Deferred tax liabilities:		
Depreciation and amortization	(154,939)	(187,099)
Other, net	(1,555)	(3,994)
Gross deferred tax liabilities	(156,494)	(191,093)
Net deferred tax assets	$ 257,069	$ 182,971

A valuation allowance is recorded to reduce deferred tax assets to the amount that is more likely than not to be realized based on an assessment of positive and negative evidence, including estimates of future taxable income necessary to realize future deductible amounts. The valuation allowance at September 30, 2016 and October 2, 2015 was $41.7 million and $60.3 million, respectively.

Net operating loss carry forwards of foreign subsidiaries at September 30, 2016 and October 2, 2015 totaled $483.4 million and $455.1 million, respectively. If unused, foreign net operating losses of $26.1 million will expire between 2017 and 2036. Net operating losses of $361.5 million can be carried forward indefinitely.

The following table presents the income tax benefit s realized from the exercise of nonqualified stock options and disqualifying dispositions of stock sold under our employee stock purchase plans during each of the last three fiscal years (in millions):

2016		2015		2014	
$	1.50	$	0.20	$	3.40

The following table reconciles total income tax expense using the statutory U.S. federal income tax rate to the consolidated income tax expense shown in the accompanying Consolidated Statements of Earnings for each of the last three fiscal years (dollars in thousands):

	2016		2015		2014	
Statutory amount	$	98,935	$	141,479	$	189,758
State taxes, net of the federal benefit		7,853		12,857		12,750
Tax differential on foreign earnings		11,337		(38,838)		11,991
Foreign Tax Credits		(44,018)		(21,313)		(20,802)
Uncertain Tax Positions		1,449		2,281		(9,847)
Other, net		(3,348)		4,789		6,204
Consolidated income tax expense	$	72,208	$	101,255	$	190,054
Rates used to compute statutory amount		35.0%		35.0%		35.0%
Consolidated effective income tax rate		25.2%		23.5%		35.1%

The Company's consolidated effective income tax rate was 25.2% for fiscal 2016, compared to 23.5% in fiscal 2015. Contributing to the increase in the effective tax rate when compared to the prior year is the absence of a $23.1 million nonrecurring benefit related to foreign currency loss in 2015. The fiscal 2016 effective tax rate is lower than the statutory rate due to an $11.2 million benefit related to a valuation allowance release, a $6.9 million benefit from a prior period adjustment to income taxes payable, and an $8.7 million benefit recorded upon the filing of a US amended tax return to claim additional foreign tax credits and an U.S. Internal Revenue Code Section 179D benefit for the design of energy efficient buildings. Offsetting the current year benefits was an $8.9 million expense charge related to the revaluation of deferred tax assets due to a statutory tax rate change in the United Kingdom.

The following table presents income tax payments made during each of the last three fiscal years (in millions):

2016		2015		2014	
$	116.30	$	156.50	$	173.60

The following table presents the components of our consolidated earnings before taxes for each of the last three fiscal years (in thousands):

	2016		2015		2014	
United States earnings	$	206,159	$	283,504	$	288,800
Foreign earnings		80,564		146,633		253,366
	$	286,723	$	430,137	$	542,166

United States income taxes, net of applicable credits, have been provided on the undistributed earnings of the Company's foreign subsidiaries, except in those instances where the earnings have been permanently reinvested. At September 30, 2016, approximately $26.1 million of such undistributed earnings of certain foreign subsidiaries have been permanently reinvested. Should these earnings be repatriated, approximately $5.4 million of income taxes would be payable.

The Company accounts for unrecognized tax benefits in accordance with ASC Topic 740, *Income Taxes* . It accounts for interest and penalties on unrecognized tax benefits as interest and penalties (i.e., not as part of income tax expense). The Company's liability for gross unrecognized tax benefits was $44.2 million and $42.7 million at September 30, 2016 and October 2, 2015, respectively, all of which, if recognized, would affect the Company's consolidated effective income tax rate. The Company had $36.4 million and $42.1 million in accrued interest and penalties at September 30, 2016 and October 2, 2015, respectively. The Company estimates that, within 12 months, $4.3 million of gross, primarily non-U.S. unrecognized tax be nefits will reverse due to the anticipated expiration of time to assess tax. As of September 30, 2016, the Company's U.S. federal income tax returns for tax years 2013 through 2016 remain subject to examination.

The following table presents the reconciliation of the beginning and ending amount of unrecognized tax benefits for the years presented (in thousands):

	2016	2015	2014
Balance, beginning of year	42,666	41,923	51,770
Additions based on tax positions related to the current year	5,670	6,440	6,528
Additions for tax positions of prior years	367	—	—
Reductions for tax positions of prior years	(2,451)	(5,697)	(16,375)
Settlement	(2,085)	—	—
Balance, end of year	44,167	42,666	41,923

11. Commitments and Contingencies, and Derivative Financial Instruments

Commitments Under Operating Leases

We lease certain of our facilities and equipment under operating leases with net aggregate future lease payments of approximately $794,068 million at September 30, 2016, payable as follows (in thousands):

In fiscal years,		
2017	$	144,326
2018		129,837
2019		111,306
2020		91,827
2021		77,788
Thereafter		277,385
		832,469
Amounts representing sublease income		(38,401)
	$	794,068

We recognize rent expense, inclusive of landlord concessions and tenant allowances, over the lease term on a straight-line basis. We also recognize rent expense on a straight-line basis for leases containing fixed escalation clauses and rent holidays. Contingent rentals are included in rent expense as accruable. Operating leases relating to many of our major offices generally contain renewal options, and provide for additional rental based on escalation in operating expenses and real estate taxes.

The following table presents rent expense and sublease income offsetting the Company's rent expense during each of the last three fiscal years (in thousands):

		2016		2015		2014
Rent expense	$	151,539	$	175,067	$	194,796
Sublease income		(7,212)		(5,275)		(6,102)
Net rent	$	144,327	$	169,792	$	188,694

Guarantee

We are party to a synthetic lease agreement involving certain real and personal property located in Houston, Texas that we use in our operations. A synthetic lease is a type of off-balance sheet transaction which provides us with certain tax and other financial benefits. Significant terms of the lease are as follows:

End of lease term		2025
End of term purchase option (in thousands)	$	76,950
Residual value guaranty (in thousands)	$	62,412

The Company refinanced the synthetic lease agreement effective July 28, 2015 with a ten-year term. The new lease agreement continues to gives us the right to request an extension of the lease term. We may also assist the owner in selling the property at the end of the lease term, the proceeds from which would be used to reduce our residual value guarantee. The minimum lease payments required by the lease agreement is included in the above lease pay-out schedule. We have determined that the estimated Fair Value of the aforementioned financial guarantee was not significant at September 30, 2016.

Derivative Financial Instruments

In situations where our operations incur contract costs in currencies other than their functional currency, we attempt to have a portion of the related contract revenues denominated in the same currencies as the costs. In those situations where revenues and costs are transacted in different currencies, we sometimes enter into foreign exchange contracts in order to limit our exposure to fluctuating foreign currencies. The Company does not currently have exchange rate sensitive instruments that would have a material effect on our consolidated financial statements or results of operations.

Letters of Credit

Letters of credit outstanding at September 30, 2016 totaled $256.0 million. Of this amount, $2.5 million has been issued under the 2014 Facility and $253.5 million are issued under separate, committed and uncommitted letter-of-credit facilities.

12. Contractual Guarantees, Litigation, Investigations, and Insurance

In the normal course of business, we are subject to certain contractual guarantees and litigation. The guarantees to which we are a party generally relate to project schedules and plant performance. Most of the litigation in which we are involved has us as a defendant in workers' compensation, personal injury, environmental, employment/labor, professional liability, and other similar lawsuits.

We maintain insurance coverage for various aspects of our business and operations. Our insurance programs have varying coverage limits and maximums, and insurance companies may seek to not pay any claims we might make. We have also elected to retain a portion of losses that occur through the use of various deductibles, limits, and retentions under our insurance programs. As a result, we may be subject to future liability for which we are only partially insured or completely uninsured. We intend to mitigate any such future liability by continuing to exercise prudent business judgment in negotiating the terms and conditions of our contracts. Our insurers are also subject to business risk and, as a result, one or more of them may be unable to fulfill their insurance obligations due to insolvency or otherwise.

Additionally, as a contractor providing services to the U.S. federal government and several of its agencies, we are subject to many levels of audits, investigations, and claims by, or on behalf of, the U.S. federal government with respect to our contract performance, pricing, costs, cost allocations, and procurement practices. Furthermore, our income, franchise, and similar tax returns and filings are also subject to audit and investigation by the Internal Revenue Service, most states within the U.S., as well as by various government agencies representing jurisdictions outside the U.S.

We record in our Consolidated Balance Sheets amounts representing our estimated liability relating to such claims, guarantees, litigation, and audits and investigations. We perform an analysis to determine the level of reserves to establish for insurance-related claims that are known and have been a sserted against us, and for insurance-related claims that are believed to have been incurred based on actuarial analysis, but have not yet been reported to our claims administrators as of the respective balance sheet dates. We include any adjustments to su ch insurance reserves in our consolidated results of operations.

The Company believes, after consultation with counsel, that such guarantees, litigation, U.S. government contract-related audits, investigations and claims, and income tax audits and investigations should not have any material adverse effect on our consolidated financial statements.

On August 9, 2014, the Company received a Notice of Arbitration from Motiva Enterprises LLC ("Motiva") alleging fraud and breach of fiduciary duty with respect to an expansion project at the Motiva, Port Arthur, Texas refinery. The arbitration relates to the professional services provided by Bechtel-Jacobs CEP Port Arthur Joint Venture ("BJJV"), a joint venture between Bechtel Corporation and Jacobs, in connection with that project. On March 1, 2016, Motiva submitted an amended Notice of Arbitration, asserting the same causes of actions in its original notice (fraud and breach of fiduciary duty) and alleged entitlement to monetary relief in excess of $8 billion of alleged actual damages, punitive damages, attorneys' fees and interest. The non-appealable arbitration is pending in Houston, Texas before a panel utilizing the rules of the International Institute for Conflict Prevention and Resolution and an evidentiary hearing was conducted, which concluded on October 21, 2016. Post-hearing briefing was requested by the arbitration panel and is expected to be submitted by late November 2016. A decision is expected thereafter. If BJJV is found liable, this matter could have a material adverse effect on the Company's business, financial condition, results of operations and/or cash flows, particularly in the short term. However, BJJV has denied liability and is vigorously defending these claims, and based on the information currently available, the Company does not expect the resolution of this matter to have a material adverse effect on the Company's business, financial condition, results of operations and/or cash flows.

On September 30, 2015, Nui Phao Mining Company Limited ("NPMC") commenced arbitration proceedings against Jacobs E&C Australia Pty Limited ("Jacobs E&C"). The arbitration is pending in Singapore before the Singapore International Arbitration Centre. In March 2011, Jacobs E&C was engaged by NPMC for the provision of management, design, engineering, and procurement services for the Nui Phao mine/mineral processing project in Vietnam. In the Notice of Arbitration and in a subsequently filed Statement of Claim and Supplementary Statement of Claim dated February 1, 2016 and February 26, 2016, respectively, NPMC asserts various causes of action and alleges that the quantum of its claim exceeds $167 million. Jacobs has denied liability and is vigorously defending this claim. A hearing on the merits has been set for November 2017. The Company does not expect the resolution of this matter to have a material adverse effect on its financial condition, results of operations and/or cash flows.

On December 7, 2009, the Judicial Council of California, Administrative Office of the Courts ("AOC") initiated an action in the San Francisco County Superior Court against Jacobs Facilities Inc. ("JFI") and Jacobs Project Management ("JPM"). On May 12, 2011, AOC filed an operative Second Amended Complaint, which added Jacobs as a defendant. The action arises out of a contract between AOC and JFI pursuant to which JFI provided regular maintenance and repairs at certain AOC court facilities.

AOC alleged three causes of action: (i) breach of contract based on the expiration of JFI's contractor's license before JFI executed an assignment and assumption agreement to formally transfer the contract to JPM, a licensed entity; (ii) disgorgement of all fees AOC paid before the assignment and assumption agreement pursuant to California's Contractors' State License Law ("CSLL"); and (iii) breach of Jacobs' parent guarantee agreement. JPM cross-claimed for unpaid sums for contract services that the licensed JPM had performed between August 2009 and November 2009. A jury trial was held on the parties' CSLL claims in April 2012 and, on May 2, 2012, the jury returned a special verdict in favor of the Jacobs entities finding, among other things, that JPM was owed approximately $4.7 million in unpaid fees and that JFI was not required to disgorge the approximate $18.3 million that AOC had paid for its work under the contract.

AOC subsequently dismissed its cause of action for breach of contract, and JPM dismissed its cross-claims other than those for its unpaid invoices. AOC's third cause of action for breach of the parent guaranty was resolved by a stipulation, which provided that if AOC obtains a judgment against JFI, the judgment will also be against its parent, Jacobs. The trial court entered judgment in the Jacobs entities' favor.

On Aug ust 20, 2015, the California Court of Appeal reversed the jury's verdict, holding that JFI had violated the CSLL. The Court of Appeal remanded to the San Francisco County Superior Court for an evidentiary hearing to determine whether the Jacobs' entities had "substantially complied" with the CSLL under California Business and Professions Code Section 7031(e). Establishing "substantial compliance" would prevent $18.3 million in disgorgement against Jacobs and permit Jacobs to recover $4.7 million in unpaid contract amounts. The evidentiary hearing on substantial compliance was conducted between July 18 and August 5, 2016. On August 30, 2016, the California State Legislature amended the applicable substantial compliance provision of the CSLL. On September 9, 2016, Jacobs filed a motion to apply the newly amended substantial compliance provision to the AOC contract. AOC filed a response and agreed that the new statute "will apply" to the case "as of January 1, 2017," the new law's effective date. The Court ordered the parties to submit proposed tentative statements of decision applying the newly amended and prior versions of substantial compliance in the alternative. The parties submitted proposed tentative statements of decision on October 21, 2016. A he aring regarding the parties' proposed tentative statements of decision is scheduled for mid-December 2016. In advance of that hearing, the Court issued a tentative ruling in favor of the Company but there is no assurance that the tentative decision will b e the final ruling of the Court after it hears argument by the parties.

The Jacobs entities have contested, and will continue to vigorously contest, the AOC's claims and will vigorously litigate JPM's claim for unpaid sums. The Company does not expect the resolution of this matter to have a material adverse effect on its financial condition, results of operations and/or cash flows.

13. Common and Preferred Stock

Jacobs is authorized to issue two classes of capital stock designated "common stock" and "preferred stock" (each has a par value of $1.00 per share). The preferred stock may be issued in one or more series. The number of shares to be included in a series as well as each series' designation, relative powers, dividend and other preferences, rights and qualifications, redemption provisions, and restrictions are to be fixed by the Board of Directors at the time each series is issued. Except as may be provided by the Board of Directors in a preferred stock designation, or otherwise provided for by statute, the holders of shares of common stock have the exclusive right to vote for the election of directors and on all other matters requiring stockholder action. The holders of shares of common stock are entitled to dividends if and when declared by the Board of Directors from whatever assets are legally available for that purpose.

14. Other Financial Information

Receivables

The following table presents the components of "Receivables" as shown in the accompanying Consolidated Balance Sheets at September 30, 2016 and October 2, 2015 as well as certain other related information (in thousands):

	2016	2015
Amounts billed, net	$ 1,110,042	$ 1,213,892
Unbilled receivables and other	937,552	1,252,509
Retentions receivable	68,069	82,342
Total receivables, net	$ 2,115,663	$ 2,548,743
Other information about receivables:		
Amounts due from the United States federal government included above, net of advanced billings	$ 235,203	$ 327,157
Claims receivable	$ 26,061	$ 32,511

Billed receivables, net consist of amounts invoiced to clients in accordance with the terms of the client contracts and are shown net of an allowance for doubtful accounts. We anticipate that substantially all of such billed amounts will be collected over the next twelve months.

Unbilled receivables and retentions receivable represent reimbursable costs and amounts earned and reimbursable under contracts in progress as of the respective balance sheet dates. Such amounts become billable according to the contract terms, which usuall y consider the passage of time, achievement of certain milestones or completion of the project. We anticipate that substantially all of such unbilled amounts will be billed and collected over the next twelve months.

Claims receivable are included in "Receivables" in the accompanying Consolidated Balance Sheets and represent certain costs incurred on contracts to the extent it is probable that such claims will result in additional contract revenue and the amount of such additional revenue can be reliably estimated.

Property, Equipment, and Improvements, Net

The following table presents the components of our property, equipment, and improvements, net at September 30, 2016 and October 2, 2015 (in thousands):

	2016	2015
Land	$ 16,680	$ 23,757
Buildings	91,194	97,597
Equipment	531,539	592,491
Leasehold improvements	221,437	259,544
Construction in progress	36,764	17,229
	897,614	990,618
Accumulated depreciation and amortization	(577,941)	(609,380)
	$ 319,673	$ 381,238

Miscellaneous Noncurrent Assets

The following table presents the components of "Miscellaneous noncurrent assets" shown in the accompanying Consolidated Balance Sheets at September 30, 2016 and October 2, 2015 (in thousands):

	2016	2015
Deferred income taxes	$ 413,563	$ 374,064
Cash surrender value of life insurance policies	122,364	115,440
Investments	178,256	222,941
Notes receivable	18,303	13,197
Reimbursable pension costs (a)	-	119,548
Other	26,843	34,623
Total	$ 759,329	$ 879,813

(a) Consists primarily of costs incurred relating to a defined benefit pension plan covering employees providing services on a contract with, and for the benefit of, the U.S. federal government pursuant to which such costs are fully reimbursable. As of June 30, 2016, we ceased performing on this operating contract, and, as such, we are no longer responsible for administering this pension plan.

Accrued Liabilities

The following table presents the components of "Accrued liabilities" shown in the accompanying Consolidated Balance Sheets at September 30, 2016 and October 2, 2015 (in thousands):

	2016	2015
Accrued payroll and related liabilities	$ 561,652	$ 623,297
Project-related accruals	102,400	130,401
Non project-related accruals	87,813	102,324
Insurance liabilities	54,984	59,081
Sales and other similar taxes	37,029	53,476
Deferred rent	69,059	93,040
Other	25,441	29,366
Total	$ 938,378	$ 1,090,985

Other Deferred Liabilities

The following table presents the components of "Other deferred liabilities" shown in the accompanying Consolidated Balance Sheets at September 30, 2016 and October 2, 2015 (in thousands):

	2016	2015
Liabilities relating to defined benefit pension and early retirement plans	$ 402,955	$ 416,725
Liabilities relating to nonqualified deferred compensation arrangements	123,926	129,982
Deferred income taxes	156,494	191,093
Miscellaneous	178,449	126,068
Total	$ 861,824	$ 863,868

Total Accumulated Other Comprehensive Loss

The following table presents the components of "Accumulated other comprehensive loss" shown in the accompanying Consolidated Balance Sheets at September 30, 2016, and October 2, 2015 (in thousands):

	2016	2015
Foreign currency translation adjustments	$ (245,603)	$ (199,087)
Adjustments relating to defined benefit pension plans	(364,625)	(266,440)
Other	(366)	763
Total	$ (610,594)	$ (464,764)

Supplemental Cash Flow Information

During fiscal 2016 and fiscal 2015, the Company acquired businesses for cash and stock of $49.9 million and $8.1 million, respectively. The following table presents the non-cash adjustments relating to these acquisitions made in preparing the accompanying Consolidated Statements of Cash Flows (in thousands):

	2016	2015
Working capital	$ 10,023	$ (8,749)
Property and equipment	879	71
Noncurrent assets	8,192	(4,334)
Deferred liabilities	—	(1,316)
Goodwill	30,849	22,429

15. Segment Information

During the second quarter of fiscal 2016, we reorganized our operating and reporting structure around four lines of business ("LOB"). This reorganization is intended to better serve our global clients, leverage our workforce, help streamline operations, and provide enhanced growth opportunities. The four global LOBs are: Aerospace & Technology, Buildings & Infrastructure, Industrial, and Petroleum & Chemicals. Previously, the Company operated its business as a single segment.

Under the new organization, each LOB has a president that reports directly to the Company's Chairman and CEO (who is also the Company's Chief Operating Decision Maker, or "CODM"). As part of the reorganization, the sales function, which had been managed centrally for many years, is now managed on a LOB basis, and accordingly, the associated cost is now embedded in the new segments and report to the respective LOB presidents. In addition, a portion of the costs of other support functions (e.g., finance, legal, human resources, and information technology) are allocated to each LOB using methodologies which, we believe, effectively attribute the cost of these support functions to the revenue-generating activities of the Company on a rational basis. In addition, the cost of the Company's cash incentive plan, the Jacobs Engineering Group Inc. Management Incentive Plan ("MIP") and the expense associated with the Jacobs Engineering Group Inc. Stock Incentive Plan ("1999 SIP") have likewise been charged to the LOBs except for those amounts determined to relate to the business as a whole (which amounts remain in corporate's results of operations).

Financial information for each LOB is reviewed by the CODM to assess performance and make decisions regarding the allocation of resources. The Company does not track assets by LOB, nor does it provide such information to the CODM.

The CODM evaluates the operating performance of our LOBs using operating profit, which is defined as margin less "corporate charges" (e.g., the allocated amounts described above). The Company incurs certain selling, general and administrative ("SG&A") costs which relate to its business as a whole which are not allocated to the LOBs.

The following tables present total revenues and operating profit for each reportable segment. Prior period information has been restated to reflect the current period presentation (in thousands).

	2016	2015	2014
Revenues from External Customers:			
Aerospace & Technology	$ 2,657,433	$ 2,924,753	$ 2,306,453
Buildings & Infrastructure	2,253,512	2,458,379	2,705,197
Industrial	2,793,713	2,517,571	2,956,391
Petroleum & Chemicals	3,259,499	4,214,129	4,727,116
Total	$ 10,964,157	$ 12,114,832	$ 12,695,157

	2016	2015	2014
Operating Profit:			
Aerospace & Technology	$ 203,808	$ 205,368	$ 139,684
Buildings & Infrastructure	174,648	145,299	164,439
Industrial	81,268	126,531	134,230
Petroleum & Chemicals	126,604	138,351	162,462
Total Segment Operating Profit	586,328	615,549	600,815
Other Corporate Items	(60,100)	(15,739)	20,583
Restructuring Charges	(187,630)	(154,283)	(93,330)
(Loss) Gain on disposal of business and investments	(41,410)	(2,909)	12,147
Total Other Expense	(10,465)	(12,481)	1,951
Earnings Before Taxes	$ 286,723	$ 430,137	$ 542,166

Included in "other corporate items" in the above table are costs and expenses which relate to general corporate activities as well as corporate-managed benefit and insurance programs. Such costs and expenses include: (i) those elements of SG&A expenses relating to the business as a whole; (ii) those elements of the MIP and the 1999 SIP relating to corporate personnel whose other compensation costs are not allocated to the LOBs; (iii) the amortization of intangible assets acquired as part o f purchased business combinations; (iv) the quarterly variances between the Company's actual costs of certain of its self-insured integrated risk and employee benefit programs and amounts charged to the LOBs; and (v) certain adjustments relating to costs a ssociated with the Company's international defined benefit pension plans. In addition, "other corporate items" includes adjustments to contract margins (both positive and negative) associated with projects where it has been determined, in the opinion of m anagement, that such adjustments are not indicative of the performance of the related LOB and therefore should not be attributed to the LOB.

Included in (Loss) Gain on disposal of business and investments was the losses associated with the sale of the Company's French subsidiary and a non-cash write-off on an equity investment.

We provide a broad range of technical, professional, and construction services including engineering, design, and architectural services; construction and construction management services; operations and maintenance services; and process, scientific, and systems consulting services. We provide our services through offices and subsidiaries located primarily in North America, South America, Europe, the Middle East, India, Australia, Africa, and Asia. We provide our services under cost-reimbursable and fixed-price contracts.

The following table presents certain financial information by geographic area for fiscal 2016, 2015, and 2014 (in thousands):

	2016	2015	2014
Revenues:			
United States	$ 6,247,448	$ 7,154,433	$ 7,078,366
Europe	2,346,224	2,074,837	2,402,399
Canada	927,942	1,065,651	1,344,632
Asia	299,952	304,393	299,086
India	187,929	163,871	148,453
Australia and New Zealand	436,670	611,271	709,379
South America and Mexico	125,610	143,014	271,213
Middle East and Africa	392,382	597,362	441,629
Total	$ 10,964,157	$ 12,114,832	$ 12,695,157
Long-Lived Assets:			
United States	$ 195,392	$ 208,155	$ 240,501
Europe	37,163	55,713	58,562
Canada	21,464	36,647	51,622
Asia	3,069	3,859	4,063
India	13,350	16,264	17,960
Australia and New Zealand	18,888	24,460	49,436
South America and Mexico	5,621	9,127	11,084
Middle East and Africa	24,726	27,013	23,569
Total	$ 319,673	$ 381,238	$ 456,797

Revenues were earned from unaffiliated clients located primarily within the various and respective geographic areas shown. Long-lived assets consist of property and equipment, net of accumulated depreciation and amortization.

The following table presents the revenues earned directly or indirectly from the U.S. federal government and its agencies, expressed as a percentage of total revenues, for fiscal 2016, 2015 and 2014:

2016	2015	2014
21.4%	21.7%	17.8%

16. Selected Quarterly Information — Unaudited

The following table presents selected quarterly financial information for each of the last three fiscal years. (in thousands, except for per share amounts):

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Fiscal Year
2016					
Revenues	$ 2,847,934	$ 2,781,763	$ 2,693,873	$ 2,640,587	$ 10,964,157
Operating profit (a)	59,450	86,781	109,556	82,811	338,598
Earnings before taxes	57,787	90,456	102,807	35,673	286,723
Net earnings of the Group	50,306	63,389	70,937	29,883	214,515
Net earnings attributable to Jacobs	46,514 (b)	65,250 (b)	69,055 (b)	29,644 (b)	210,463
Earnings per share:					
Basic	0.38 (b)	0.54 (b)	0.58 (b)	0.25 (b)	1.75
Diluted	0.38 (b)	0.54 (b)	0.57 (b)	0.24 (b)	1.73
2015					
Revenues	$ 3,187,005	$ 2,903,332	$ 2,907,541	$ 3,116,954	$ 12,114,832
Operating profit (a)	158,223	133,045	100,434	53,825	445,527
Earnings before taxes	154,695	128,962	97,188	49,292	430,137
Net earnings of the Group	106,195	88,110	97,308	37,269	328,882
Net earnings attributable to Jacobs	100,079	81,967 (c)	91,062 (c)	29,863 (c)	302,971
Earnings per share:					
Basic	0.78	0.65 (c)	0.74 (c)	0.00 (c)	2.42
Diluted	0.77	0.64 (c)	0.73 (c)	0.24 (c)	2.40
2014					
Revenues	$ 3,068,891	$ 3,176,033	$ 3,231,791	$ 3,218,442	$ 12,695,157
Operating profit (a)	145,047	122,434	123,937	136,650	528,068
Earnings before taxes	146,921	132,394	118,046	144,805	542,166
Net earnings of the Group	98,949	90,800	71,309 (d)	91,054 (d)	352,112
Net earnings attributable to Jacobs	93,732	83,460 (e)	64,842	86,074	328,108
Earnings per share:					
Basic	0.72	0.64 (e)	0.50 (d)	0.66 (d)	2.51
Diluted	0.71	0.63 (e)	0.49 (d)	0.65 (d)	2.48

(a) Operating profit represents revenues less (i) direct costs of contracts, and (ii) selling, general and administrative expenses.

(b) Includes costs of $48.1 million, or $0.39 per diluted share, in the first quarter of fiscal 2016, $25.7 million or $0.21 per diluted share in the second quarter of fiscal 2016, $25.8 million, or $0.21 per diluted share, in the third quarter, and $36.0 million or $0.3 per diluted share in the fourth quarter of fiscal 2016, in each case, related to the 2015 Restructuring. Also included in the fourth quarter of fiscal 2016 were $17.1 million, or $0.14 per diluted share related to the loss on sale of our French subsidiary; and $10.4 million, or $0.09 per diluted share related to the non-cash write-off on an equity investment.

(c) Includes costs of $9.6 million, or $0.08 per diluted share, in the second quarter of fiscal 2015, $30.1 million or $0.24 per diluted share in the third quarter of fiscal 2015, and $68.2 million, or $0.56 per diluted share, in the fourth quarter of fiscal 2015, in each case, related to the 2015 Restructuring.

(d) Includes costs of $47.0 million, or $0.35 per diluted share, in the third quarter of fiscal 2014, and $30.4 million, or $0.23 per diluted share, in the fourth quarter of fiscal 2014, in each case, related to the 2014 Restructuring.

(e) Includes $6.4 million, or $0.05 per diluted share, increase to net earnings related to a gain on the sale of certain intellectual property in the second quarter of fiscal 2014.

17. Definitions

The following terms used in the accompanying Consolidated Financial Statements and these Notes to Consolidated Financial Statements have the meanings set forth below:

"1989 ESPP" means the Jacobs Engineering Group Inc. 1989 Employee Stock Purchase Plan, as amended. The 1989 ESPP is a shareholder-approved, broad-based, employee stock purchase plan qualified under Section 423 of the U.S. Internal Revenue Code.

"1999 ODSP" means the Jacobs Engineering Group Inc. 1999 Outside Director Stock Plan, as amended. The 1999 ODSP is a shareholder-approved, equity-based compensation plan covering Jacobs' non-management directors.

"1999 SIP" means the Jacobs Engineering Group Inc. Stock Incentive Plan, as amended. The 1999 SIP is a shareholder-approved, equity-based compensation plan covering the Company's officers and key employees.

The "2015 Restructuring" refers to a series of initiatives intended to improve operational efficiency, reduce costs, and better position the Company to drive growth of the business in the future. Actions included involuntary terminations, the abandonment of certain leased offices, and the co-location of employees. Included in the Company's consolidated results of operations for fiscal 2016 and fiscal 2015 are pre-tax costs of $187.9 million and $157.2 million, respectively, relating to the 2015 Restructuring. These costs are primarily included in selling, general, and administrative expense in the accompanying Consolidated Statements of Earnings.

The "2014 Restructuring" refers to a series of initiatives intended to improve operational efficiency, reduce costs, accelerate the integration of SKM, and better position the Company to drive growth of the business in the future. Actions included involuntary terminations, the abandonment of certain leased offices, and the co-location of employees. Included in the Company's consolidated results of operations for fiscal 2014 are pre-tax costs of $93.3 million relating to the 2014 Restructuring. These costs are included in selling, general, and administrative expense in the accompanying Consolidated Statements of Earnings.

"ASC" refers to the Accounting Standards Codification as maintained by the FASB. The ASC is the primary source of U.S. GAAP to be applied by the Company and all other nongovernmental entities. The ASC organizes and presents hundreds of previously separate pieces of authoritative accounting guidance into a single on-line research database. The accounting principles promulgated by the ASC are organized therein by broad topics, and is updated by the FASB through the issuances of ASUs.

"ASU" means Accounting Standards Updates, the primary means by which the ASC is updated by the FASB.

"Company" (including "we", "us" or "our") means Jacobs Engineering Group Inc. and its consolidated subsidiaries and affiliates.

"Consolidated EBITDA" generally means consolidated net earnings attributable to Jacobs, plus consolidated (i) interest expense, (ii) tax expense, and (iii) depreciation and amortization expense (including amortization expense relating to intangible assets).

"Consolidated Funded Indebtedness" generally means the sum of (i) the balances outstanding under all loan, credit, and similar agreements for borrowed money (including purchase money indebtedness), (ii) all amounts representing direct obligations arising under letters of credit, (iii) indebtedness in respect of capital leases and similar financing arrangements, and (iv) the value of all guarantees issued with respect to the types of indebtedness described in (i) through (iii).

"Consolidated Leverage Ratio" means, as of any date of determination, the ratio of (i) the Company's Consolidated Funded Indebtedness as of such date to (ii) the Company's Consolidated EBITDA for the immediately preceding four consecutive fiscal quarters.

"EPS" means earnings-per-share. "Basic EPS" is computed by dividing the consolidated net earnings attributable to Jacobs by the weighted average number of shares of common stock outstanding during the period. "Diluted EPS" is computed in a manner similar to the computation of Basic EPS, but gives effect to all dilutive securities that were outstanding during the period. Our dilutive securities consist of nonqualified stock options and restricted st ock (including restricted stock units)

"Fair Value" means the price that would be received from selling an asset, or paid to transfer a liability, in an orderly transaction between market participants as of the date fair value is determined (i.e., the "measurement date"). When determining fair value, U.S. GAAP requires that we consider the principal or most advantageous market in which we would transact any sale or purchase. U.S. GAAP also requires that the inputs (factors) we use (consider) to determine fair value be considered in the following order of priority:

- Level 1 inputs are quoted prices in active markets for identical assets or liabilities;
- Level 2 inputs are observable inputs (other than quoted prices in active markets included in Level 1) such as (i) quoted prices for similar assets or liabilities, (ii) quoted prices in markets that have insufficient volume or infrequent transactions (i.e., less active markets), and (iii) model-driven valuations in which all significant inputs are observable or can be derived principally from, or corroborated with, observable market data for substantially the full term of the asset or liability; and
- Level 3 inputs are unobservable inputs to the valuation methodology that are significant to the fair value measurement.

"FASB" means the Financial Accounting Standards Board. The FASB is the designated organization within the U.S. for establishing standards of financial accounting that govern the preparation of financial reports by nongovernmental entities.

"GESPP" means the Jacobs Engineering Group Inc. Global Employee Stock Purchase Plan, as amended. The GESPP is a shareholder-approved, broad-based, employee stock purchase plan covering employees of certain of Jacobs' non-U.S. subsidiaries.

"Group" refers to the combined economic interests and activities of Jacobs and the persons and entities holding noncontrolling interests in the subsidiaries and affiliates that are consolidated into the accompanying Consolidated Financial Statements.

"Jacobs" means Jacobs Engineering Group Inc.

"U.S. GAAP" means those accounting principles and practices generally accepted in the United States.

"U.S. IRC" means the U.S. Internal Revenue Code of 1986, as amended.

"VIE" means a "Variable Interest Entity" as defined in U.S. GAAP. A VIE is a legal entity in which equity investors do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support or, as a group, the holders of the equity investment at risk lack any one of the following three characteristics: (i) the power, through voting rights or similar rights, to direct the activities of a legal entity that most significantly impact the entity's economic performance; (ii) the obligation to absorb the expected losses of the legal entity; or (iii) the right to receive the expected residual returns of the legal entity. Accordingly, entities issuing consolidated financial statements (i.e., a "reporting entity") shall consolidate a VIE if the reporting entity has a "controlling financial interest" in the VIE, as demonstrated by the reporting entity having both (i) the power to direct the activities of a VIE that most significantly impact the VIE's economic performance; and (ii) the right to receive benefits from the VIE that could potentially be significant to the VIE or the obligation to absorb losses of the VIE that could potentially be significant to the VIE.

Report of Erns t & Young LLP
Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Jacobs Engineering Group Inc.

We have audited the accompanying consolidated balance sheets of Jacobs Engineering Group Inc. and subsidiaries as of September 30, 2016 and October 2, 2015, and the related consolidated statements of earnings, comprehensive income, stockholders' equity, and cash flows for each of the three fiscal years in the period ended September 30, 2016. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Jacobs Engineering Group Inc. and subsidiaries at September 30, 2016 and October 2, 2015, and the consolidated results of their operations and their cash flows for each of the three fiscal years in the period ended September 30, 2016, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Jacobs Engineering Group Inc. and subsidiaries' internal control over financial reporting as of September 30, 2016, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated November 22, 2016 expressed an unqualified opinion thereon.

As discussed in Note 2 to the consolidated financial statements, the Company changed the presentation of its deferred tax assets and liabilities to noncurrent in the consolidated balance sheets as a result of the adoption of Accounting Standards Update No. 2015-17 - *Balance Sheet Classification of Deferred Taxes* .

/S/ Ernst & Young LLP
Los Angeles, California
November 22, 2016

Report of Ernst & Young LLP
Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Jacobs Engineering Group Inc.

We have audited Jacobs Engineering Group Inc. and subsidiaries' internal control over financial reporting as of September 30, 2016, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). Jacobs Engineering Group Inc. and subsidiaries' management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Jacobs Engineering Group Inc. and subsidiaries maintained, in all material respects, effective internal control over financial reporting as of September 30, 2016, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Jacobs Engineering Group Inc. and subsidiaries as of September 30, 2016 and October 2, 2015 and the related consolidated statements of earnings, comprehensive income, stockholders' equity, and cash flows for each of the three fiscal years in the period ended September 30, 2016 of Jacobs Engineering Group Inc. and subsidiaries and our report dated November 22, 2016 expressed an unqualified opinion thereon.

/S/ Ernst & Young LLP
Los Angeles, California
November 22, 2016

JACOBS

Jacobs Engineering Group Inc.
155 North Lake Avenue
Pasadena, CA 91101 USA
1.626.578.3500 Fax 1.626.578.6988

December 2, 2015

Mr. Robert V. Pradaga
1 Fairhill Circle
Radnor, PA 19087

Dear Bob:

I am pleased to offer you the position of a line of business President at Jacobs Engineering Group Inc. ("Jacobs"). In this position, you will report directly to me as President and Chief Executive Officer and you will be a member of the Executive Leadership Team. This offer of employment is conditioned upon your acceptance of the terms and conditions outlined in this letter and the attached Employee Acceptance Statement.

Your start date, and the effective date of your hire, will be a mutually agreed date on or before February 1, 2016.

This offer includes the following elements:

- An annual base salary of $675,000. Your base salary and other elements of your compensation are determined at the discretion of the Human Resource and Compensation Committee of the Board (the "Compensation Committee") and will be reviewed annually.

- Participation in Jacobs' Incentive Bonus Plan for full-year fiscal year 2016 (provided you start your employment on or before February 1, 2016) and future fiscal years in which you remain employed, with a bonus target of 100% of your base salary. Annual bonuses are subject to performance and other requirements as described in the terms and conditions of the plan.

- A fiscal year ("FY") 2016 equity award with a grant value of $1,300,000 delivered in the form of 20% stock options, 20% restricted stock awards ("RSAs") and 60% performance share units ("PSUs"). The FY 2016 stock options and RSAs will vest at a rate of 25% on each of first 4 anniversaries of your start date, subject to your continued employment on each vesting date. The FY 2016 PSUs will vest based on the same three year Earnings Per Share growth vesting criteria and performance period as PSUs generally granted to Jacobs' senior executives in November 2015. This award will be granted as of your hire date.

- An annual equity award for future years in which you remain employed, in an amount, and in a form, determined by the Compensation Committee, commensurate with your position as line of business President. Equity awards are typically granted annually in November. All such equity awards are subject to the terms and conditions of the 1999 Jacobs Engineering Group Inc. Stock Incentive Plan (as it may be amended from time to time, or any plan adopted by Jacobs in replacement thereof), and subject to approval of the Compensation Committee.

- A cash bonus of $850,000 to make up for the forfeiture of unvested awards you left behind at your prior employer in order to accept this offer . The first payment of $500,000 will be made within 15 days of your start date. The second and final payment of $350,000 will be made following the first anniversary of your start date.
  - If you resign from Jacobs without "Good Reason" or are discharged by Jacobs for "Cause" (each as defined below), in each case within two years following your start date, you shall reimburse Jacobs the gross amount of such payment.
- An equity grant of $1,000,000 of RSAs, which will vest at a rate of ¼ per year over four years on each of the first, second, third and fourth anniversaries of your start date, subject to your continued employment on each vesting date. The purpose of this grant to is to make up for the forfeiture of unvested awards you left behind at your prior employer in order to accept this offer as well as a hiring incentive to join Jacobs. Other specific details of this grant, including its terms and conditions, will be forwarded to you under separate cover after your start date.
- Eligibility to participate in the Jacobs' Executive Deferral Plan, subject to the terms and conditions of that plan.
- Paid time off ("PTO") of 5 weeks annually. PTO will accrue at a rate of 25 days (200 hours) per calendar year (in addition to the six US company paid holidays). PTO is subject to the conditions outlined in the Jacobs PTO policy.
- Healthcare benefits, which are effective the first of the month following your start date. Benefits coverage and plan options are described in the enclosed benefits brochure. Should you have additional questions regarding benefits, please let me know.
- If you are discharged by Jacobs without Cause or you resign from Jacobs with Good Reason, in each case within one year following your start date, you will receive a lump sum payment equal to one-year's base salary, paid no later than 30 days following your termination; subject to any delay in payment required in order to avoid the imposition of tax penalties on you pursuant to Code Section 409A.
  - "Cause" in this letter means: (i) an intentional act of fraud, embezzlement, theft or any other material violation of law that occurs during or in the course of your employment with the Company; (ii) intentional damage to the Company's assets; (iii) intentional engagement in any competitive activity which would constitute a breach of your duty of loyalty or of your contractual obligations; (iv) intentional breach of any of the Company's written policies, including its confidentiality policy; (v) the willful and continued failure to substantially perform your duties for the Company (other than as a result of incapacity due to physical or mental illness); (vi) failure by you to cooperate in any investigation of Jacobs by any governmental or self-regulatory authority, or in any internal investigation; or (vii) willful conduct by you that is demonstrably and materially injurious to Jacobs, monetarily or otherwise.For purposes of this paragraph, and act, or a failure to act, shall not be deemed willful or intentional, as those terms are used herein, unless it is done, or omitted to be done, by you in bad faith or without a reasonable belief that your action or omission was in the best interest of Jacobs. Failure to meet performance standards or objectives, by itself, does not constitute "Cause". "Cause" includes any of the above grounds for dismissal regardless of whether Jacobs learns of the existence of such grounds before or after terminating your employment.
  - "Good Reason" in this letter has the Internal Revenue Code ("Code") Section 409A "safe harbor" definition, as described in Treasury Regulation Section 1.409A-1(n)(2)(ii). A resignation will not be considered for Good Reason unless it actually occurs not more than ninety (90) days following the initial existence of one or more of the applicable Good Reason conditions arising without your consent, and then only if you provide notice to Jacobs of the initial existence of such a condition, which describes such condition in detail, no less than ninety (90) days after the initial existence of the condition, and Jacobs does not remedy the condition within the thirty (30) days following its receipt of such notice.

Other Considerations:

- All of your compensation will be subject to applicable income tax, employment tax and other withholding.
- This letter shall be construed in accordance with the internal laws of the State of Pennsylvania, without regard to the conflict of law provisions of any state which would provide for the application of the laws of any state other than Pennsylvania.
- Your initial primary place of employment shall be the Jacobs office in Conshohocken, PA with future flexibility regarding your primary assignment location after 18 months.
- You represent and warrant to Jacobs that, as of your start date, you are not a party to any agreement, written or oral, containing any non-competition or non-solicitation provisions or any other restrictions (including, without limitation, any confidentiality provisions) that would result in any restriction on your ability to accept and perform the position described in this letter, or any other position, with Jacobs or any of its affiliates (the "Representation").
- It is intended that the payments and benefits provided under this letter shall comply with the provisions of Code Section 409A and the regulations relating thereto, or an exemption thereto, and this letter shall be interpreted accordingly.
- This position is classified as exempt, with no eligibility for overtime.
- Jacobs is an at will employer, meaning that either you or Jacobs may terminate the employment relationship at any time and for any reason, with or without notice.

To indicate your acceptance of this offer, please countersign and return this letter. Additionally, your acceptance of this offer is contingent on your reviewing and signing the enclosed Employee Acceptance Statement, which notes Jacobs' conditions of employment and your rights and responsibilities, and further contingent on the accuracy of the Representation. Both signed documents should be returned to Lori.Sundberg@jacobs.com .

Drug screening information will be sent under separate cover.

Bob, we are very pleased at the prospect of you joining the Jacobs senior management team.

Sincerely,

On behalf of JACOBS,

/s/ Steven J. Demetriou
Steven J. Demetriou
President and Chief Executive Officer

January 28, 2016
Date

I hereby accept the terms and conditions of this offer letter:

/s/ Robert V. Pragada
Robert V. Pragada

December 10, 2015
Date

cc: Linda Fayne Levinson, Chairman, Compensation Committee
Lori Sundberg, Senior Vice President, Global Human Resources

EMPLOYEE ACCEPTANCE STATEMENT

The following information addresses Jacobs' employment requirements and your rights and responsibilities. Jacobs is an employer at will; wherein, either party may conclude the employment relationship at any time for any reason or no reason.

Equal Employment Opportunity

Jacobs provides a workplace free of discrimination and harassment. Our Equal Employment Opportunity and Affirmative Action Programs promote equality in the design and administration of personnel actions, such as recruitment, compensation, benefits, transfers and promotions, training, and social and recreational programs. These activities shall be administered equitably without regard to race, color, religion, gender, age, national origin, disability, veteran status, or any other characteristic protected by law. Any employee with questions or concerns about any type of discrimination in the workplace is encouraged to bring these issues to the attention of his/her immediate supervisor, the Human Resources Department, the Compliance Officer and/or the Integrity Hotline. Employees can raise concerns and make reports without fear of reprisal. Anyone found to be engaging in any type of unlawful discrimination will be subject to disciplinary action up to and including termination of employment.

Employment Eligibility

As a requirement of the U.S. Immigration Reform and Control Act of 1986, all employees hired to work in the United States must show evidence of employment eligibility and identity. Employment is conditional upon your ability to verify your eligibility for employment with Jacobs in the United States. Enclosed is a list of acceptable documents for I-9 purposes. Please be prepared to comply with this requirement within three (3) business days of starting work by presenting either one document from List A *OR* one document each from List B and List C. Should you require information regarding immigration questions, please contact me to discuss our procedures.

Drug-Free Workplace

You understand that in accordance with Jacobs' policy, employment is conditional upon you passing a pre-employment drug screen. Lori Sundberg will work with you to make the necessary arrangements.

Confidentiality and Business Conduct

As a further condition of employment, on your first day of employment, you will be asked to read and sign a Confidentiality Agreement, read the Jacobs Corporate Policy concerning Business Conduct, and sign a Statement of Understanding and Compliance.

I hereby accept these terms and conditions of employment:

/s/ Robert V. Pragada	December 10, 2015
Robert V. Pragada	Date

JACOBS

JACOBS ENGINEERING GROUP INC.

LIST OF SUBSIDIARIES

The following table sets forth all subsidiaries of the Company but may not include those subsidiaries that, when considered in the aggregate, would not constitute a significant subsidiary.

Jacobs Government Services Company, a corporation of California	100.00%
Jacobs Field Services North America Inc., a corporation of Texas	100.00%
Jacobs Maintenance, Inc., a corporation of Louisiana	100.00%
Jacobs Consultancy Inc., a corporation of Texas	100.00%
Jacobs PSG Inc., a corporation of Delaware	100.00%
Jacobs Minerals, Inc., a corporation of Delaware	100.00%
DSI Constructors Inc., a corporation of Delaware	100.00%
Jacobs Professional Services Inc., a corporation of Delaware	100.00%
Jacobs Field Services Americas Inc., a corporation of Delaware	100.00%
Jacobs Eagleton LLC, a limited liability company of Texas	100.00%
Jacobs Engineering Inc., a corporation of Delaware	100.00%
Jacobs Group Australia Investments Pty Ltd	100.00%
Jacobs Australia Holdings Company Pty Ltd, a corporation of Australia	100.00%
Sinclair Knight Merz Management Pty Ltd, a corporation of Australia	100.00%
Jacobs Group Australia Holdings Ltd, a corporation of Australia	100.00%
Jacobs Group (Australia) Pty Ltd, a corporation of Australia	100.00%
Redecon Australia Pty Ltd, a corporation of Australia	100.00%
Jacobs E&C Australia PTY Ltd, a corporation of Australia	100.00%
Jacobs Project Management Australia PTY Ltd, an corporation of Australia,	100.00%
Jacobs Architecture (Australia) Pty Ltd, a corporation of Australia	100.00%
Jacobs Group Investments Australia Pty Ltd, a corporation of Australia	
Jacobs (Thailand) Co., Ltd., a corporation Thailand	49.00%
Seatec International Co Ltd, a corporation of Thailand	100.00%
Jacobs Projects (Philippines) Inc., a corporation of the Philippines	100.00%
Sinclair Knight Merz Consulting (India) Private Ltd, a corporation of India	100.00%
Sinclair Knight Merz (Ireland) Ltd, a corporation of the Republic of Ireland	100.00%
Sinclair Knight Merz (NZ) Holdings Ltd, a corporation of New Zealand	100.00%
Jacobs New Zealand Limited, a corporation of New Zealand	100.00%
Sinclair Knight Merz (Fiji) Ltd, a corporation of Fiji	99.90%
PT Jacobs Group Indonesia, a corporation of Indonesia	99.50%
Sinclair Knight Merz International Holdings LLC, a limited liability company of Delaware	100.00%
Sinclair Knight Merz (Europe) Ltd, a corporation of England and Wales	100.00%
Jacobs Chile S.A., a corporation of Chile	100.00% (1)*
Enviros Group Limited, a corporation of England and Wales	100.00%
Enviros Limited, a corporation of England and Wales	100.00%
Enviros Management Services Limited, a corporation of England and Wales	100.00%
Aspinwall & Co Limited, a corporation of England and Wales	100.00%
Colin Buchanan & Partners Ltd, a corporation of England and Wales	100.00%
Colin Buchanan & Partners Hong Kong Ltd, a Special Administrative Region company of Hong Kong	100.00%
Colin Buchanan & Partners China Co Ltd, a company of the People's Republic of China	100.00%

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Sinclair Knight Merz Pakistan (PVT) Limited, a corporation of Pakistan	100.00%
Sinclair Knight Merz Guinea SARL, a corporation of the Republic of Guinea	100.00%
Sinclair Knight Merz (Liberia) LLC, a limited liability company of the Republic of Liberia	100.00%
Sinclair Knight Merz (Kenya) Ltd, a corporation of Kenya	100.00% (2)*
Sinclair Knight Merz LLC (Oman), a limited liability company of the Sultanate of Oman	65.00%
Sinclair Knight Merz (Rus), a corporation of Russia	100.00%
Sinclair Knight Merz Poland Sp z o.o, a corporation of Poland	100.00%
Jacobs Colombia S.A.S., a corporation of Colombia	100.00%
Sinclair Knight Merz Servicos Limitada, a corporation of Brazil	100.00%
Sinclair Knight Merz (South Africa) (Pty) Ltd, a corporation of South Africa	100.00%
Jacobs Engineering Group Malaysia Sdn Bhd, a corporation of Malaysia	100.00%
Jacobs Consulting Services Sdn Bhd, a corporation of Malaysia	100.00%
Perunding Mahir Bersatu Sdn Bhd, a corporation of Malaysia	100.00%
Jacobs Engineering Services Sdn Bhd, a corporation of Malaysia	100.00%
Sinclair Knight Merz (Hong Kong) Limited, a corporation of Hong Kong	100.00%
Sinclair Knight Merz International (Hong Kong) Ltd, a corporation of Hong Kong	100.00%
Sinclair Knight Merz (China) Co Ltd, a corporation of the People's Republic of China	100.00%
CODE International Assurance Ltd., a corporation of Nevada	100.00%
Jacobs Engineering SA, (short name is JESA) a corporation of Morocco	50.00%
Transportation Engineering and Management Consultants Maroc, a corporation of Morocco (Short name: Team Maroc)	100.00%
Jacobs Engineering SA International (short name JESA International), a corporation of Morocco	100.00%
Jacobs Engineering España, S.L., a corporation of Spain	100.00%
Jacobs Luxembourg Finance company Sarl, a Corporation of Luxembourg	100.00%
Jacobs Engineering, SA de db, a corporation of Belgium	100.00%
Jacobs Spain S.L., a corporation of Spain	100.00%
Jacobs Europe Holdco Limited, a corporation of England and Wales	100.00%
Jacobs UK Holdings Limited, a corporation of England and Wales	100.00%
Jacobs Switzerland GmbH, a corporation of Switzerland	100.00%
Jacobs U.K. Limited, a corporation of England and Wales	100.00%
Jacobs Process Limited, a corporation of England and Wales	100.00%
Jacobs E&C Limited, a corporation of England and Wales	100.00%
Jacobs E&C International Limited, a corporation of England and Wales	100.00%
Jacobs Matasis (Pty) Ltd., a corporation of South Africa	74.00%
Jacobs Field Services Limited, a corporation of England and Wales	100.00%
L.E.S Construction Ltd, a corporation of England and Wales	100.00%
Jacobs Engineering India Private Limited, a corporation of India	100.00% (3)*
HGC Constructors Private Ltd., a corporation of India	80.00%
Sula Systems Ltd, a corporation of England and Wales	100.00%
Thistle Water Ltd., a corporation of England and Wales	30.00%
Jacobs Industrial Services UK Limited, a corporation of England and Wales	100.00%
Jacobs Stobbarts Ltd, a corporation of England and Wales	100.00%
Cumbria Nuclear Solutions Limited, a corporation of England and Wales	16.66%

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Gibb Overseas (Jersey), a corporation of Jersey	100.00%
Gibb Overseas Limited, a corporation of England and Wales	100.00%
Jacobs Consultancy Ltd., a corporation of England and Wales	100.00%
Jacobs Engineering U.K. Ltd, a corporation of England and Wales	100.00%
Lindsey Engineering Services Ltd, a corporation of England and Wales	100.00%
Gibb Holdings Ltd., a corporation of England and Wales	100.00%
Jacobs One Limited, a corporation of Scotland	100.00%
Jacobs European Holdings Limited, a corporation of England and Wales	100.00%
Inspire Defence Ltd, a corporation of England and Wales	100.00%
Partners for Infrastructure Ltd, a corporation of England and Wales	100.00%
Allott & Lomax (Hong Kong) Limited, a corporation of Hong Kong	100.00%
Jacobs SKM Ltd, a corporation of England and Wales	100.00%
LeighFisher UK Ltd, a corporation of England and Wales	100.00%
Babtie International Limited, a corporation of Scotland	100.00%
Babtie Shaw & Morton Ltd, a corporation of Scotland	100.00%
Boxinye Ltd, a corporation of the Republic of Ireland	100.00%
Ringway Babtie Limited, a corporation of England and Wales	25.00%
Le Crossing Company Limited, a corporation of England Wales	57.14%
Jacobs China Limited, a Hong Kong corporation	100.00%
BEAR Scotland Limited, a corporation of Scotland	25.00%
Growing Concern Scotland Limited	100.00%
Ringway Jacobs Limited, a corporation of England and Wales	50.00%
Babtie Asia Technical & Management Consultants SdnBhn, a corporation of Malaysia	100.00%
JacobsGIBB Limited, a corporation of England and Wales	100.00%
Westminster & Earley Services Ltd, a corporation of England and Wales	100.00%
Jacobs Engineering Ireland Limited, a corporation of the Republic of Ireland	100.00%
Jacobs Lend Lease Ireland Ltd, a corporation of the Republic of Ireland	50.00%
Jacobs Engineering Deutschland GmbH, a German corporation	100.00%
Jacobs Projects GmbH, a German corporation	100.00%
Jacobs Belgïe N.V., a corporation of Belgium	100.00%
Jacobs Nederland B.V. a corporation of the Netherlands	100.00%
Jacobs Advanced Manufacturing B.V., a corporation of the Netherlands	100.00%
Jacobs Russia LLC, a limited liability company of Russia	100.00%
Jacobs Nuclear Engineering Services Private Ltd., a corporation of India	100.00%
Jacobs Norway AS, a corporation of Norway	100.00%
Sinclair Knight Merz IRH SpA, a corporation of Chile	100.00%
Jacobs Peru S.A., a corporation of Peru	100.00%
Chemetics Inc., a corporation of Canada	100.00%
Jacobs Sverige A.B., a corporation of Sweden	100.00%
Jacobs Italia, SpA, a corporation of Italy	100.00%
Neste Jacobs OY, a corporation of Finland	40.00%
Neste Jacobs ab, a corporation of Sweden	100.00%
Kiinteisto E OY, a corporation of Finland	00.77%
US Active OY, a corporation of Finland	100.00%
Jacobs International Limited, a corporation of the Republic of Ireland	100.00%
Jacobs Luxembourg, S.a.r.l., a corporation of Luxembourg	100.00%

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Jacobs Holding France SAS, a corporation of France	100.00% (6)*
Jacobs Nucléaire SAS, a corporation of France	100.00%
Jacobs Morocco SARLAU, a corporation of Morocco	100.00%
JEM Field Professional Services SA DE CV, a corporation of Mexico	100.00%
Jacobs Brazil Limited Inc. a corporation of Texas	100.00%
Jacobs Brasil Holdings S.A. (0.01% Jacobs Brazil Limited) a corporation of Brazil	99.99%
Jacobs Participacoes Ltda (0.01% Jacobs Brazil Limited) a corporation of Brazil	99.99%
Guimar Engenharia Ltda. a limited liability company of Brazil	45.00%
JEG Acquisition Company Limited, a corporation of England and Wales	100.00%
AWEML, a corporation of England and Wales	33.33%
Jacobs, Zamel and Turbag Consulting Engineers Company, a professional services partnership of Saudi Arabia	75.00%
Jacobs International Holdings Inc., a corporation of Delaware	100.00%
Jacobs Hellas A.E. a corporation of Greece	100.00%
Jacobs Puerto Rico Inc., a corporation of Puerto Rico	100.00%
Jacobs Pan-American Corporation, a corporation of Panama	100.00%
Jacobs Holdings Singapore Pte. Limited., a corporation of Singapore	100.00%
SKM (Singapore) Pte Ltd. a corporation of Singapore	100.00%
Jacobs Engineering Singapore Pte. Limited, a corporation of Singapore	100.00%
Consulting Engineering Services (India) Private Limited, a corporation of India	99.22%
Consulting Engineering Services LLC, a limited liability company a Sultanate of Oman	65.00%
Jacobs Projects (Shanghai) Co., Ltd., a corporation of the Peoples Republic of China	100.00%
Jacobs Engineering (Suzhou) Co., Ltd, a corporation of the Peoples Republic of China	100.00%
Jacobs Construction Engineering Design Consulting (Shanghai) Co., Ltd., a corporation of the Peoples Republic of China	100.00%
Jacobs Engineering LLC, a limited liability company of Singapore	100.00%
Jacobs Canada Inc., a corporation of Canada	100.00%
Jacobs Architecture Canada Inc., a corporation of Canada	100.00%
Jacobs Consultancy Canada Inc., a corporation of Canada	100.00%
Jacobs Industrial Services Limited, a corporation of Canada	100.00%
Jacobs DCSA Saudi Arabia Limited, a limited corporation of Saudi Arabia	60.00%
JFSL Field Services Ltd., a corporation of Canada	100.00%
JFSL Construction Services Inc., a corporation of Canada	100.00%
JFSL Fabrication Services Inc., a corporation of Canada	100.00%
Milestone Construction Inc. a limited corporation of Canada	100.00%
Delta Hudson Ltd, a limited corporation of Cyprus	100.00%
Catalytic Maintenance Ltd, a limited corporation of Cyprus	100.00%
Jacobs Advisers Inc., a corporation of California	100.00% (4)*
Jacobs Civil Consultants Inc., a corporation of New York	100.00%
JE Professional Resources Inc., a corporation of California	100.00%
Jacobs Technology Inc., a corporation of Tennessee	100.00%
Innovative Test Asset Solutions LLC, a limited liability company of Tennessee	100.00%
Federal Network Systems LLC, a limited liability company of Delaware	100.00%
Jacobs Australia Pty limited, a corporation of Australia	100.00%
Unique World Group Pty Limited, a corporation of Australia	100.00%
XUWH Pty Limited, a corporation of Australia	100.00%
Unique World Pty Limited, a corporation of Australia	100.00%
XUC Pty Limited, a corporation of Australia	100.00%
CAC Management, LLC, a limited liability company of New Jersey	100.00%
DM Petroleum Operations Company, a corporation of Louisiana	80.00%

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RL Phillips, Inc. a corporation of Delaware	100.00%
Sytel, Inc. a corporation of Maryland	100.00%
Automotive Testing Operations, LLC, a limited liability company of Delaware	100.00%
Value Engineering and Management, Inc., a corporation of New Jersey	100.00%
Jacobs Industrial Services Inc., a corporation of Delaware	100.00%
Jacobs Engineering New York Inc., a corporation of New York	100.00%
Jacobs Telecommunications Inc., a corporation of New Jersey	100.00%
Edwards and Kelcey Caribe Inc., a corporation of Puerto Rico	100.00%
Jacobs Consultants, Inc., a corporation of Delaware	100.00%
Edwards and Kelcey Architectural and Design Services, a corporation of New Jersey	100.00%
Edwards and Kelcey Design Services Inc., an corporation of Illinois	100.00%
JE Architects/Engineers, P.C., a professional corporation New York	100.00%
EK Design Services, Inc., a corporation of Florida	100.00%
Iffland Kavanagh Waterbury, P.L.L.C., a limited liability company of New York	100.00%
Jacobs Project Management Co., a corporation Delaware	100.00%
Sverdrup of Canada ULC a corporation of Canada	100.00%
VEI Inc., a corporation of Texas	100.00%
Traffic Services, Inc., a corporation of New Jersey	100.00%
Sverdrup Hydro Projects, Inc., a corporation of Missouri	100.00%
JEG Architecture Nevada, Inc., a corporation of Nevada	100.00%
JE Associates, Inc., a corporation of Missouri	100.00%
Jacobs Architects/Engineers, Inc., a corporation of Delaware	100.00%
Jacobs Engineering Company, a corporation of California	100.00%
Bechtel Jacobs Company LLC, a limited liability company of Delaware	40.00%
LeighFisher Inc., a corporation of Delaware	100.00%
LeighFisher Canada Inc., a corporation of Canada	100.00%
LeighFisher Ecuador S.A., an corporation of Ecuador	100.00%
LeighFisher Holdings Ltd. a corporation of England and Wales	100.00%
LeighFisher Ltd., a corporation of England and Wales	100.00%
LeighFisher Switzerland Gmbh, a corporation of Switzerland	100.00%
LeighFisher India Private. Ltd., a corporation of India	100.00%
KlingStubbins Inc., a corporation of Delaware	100.00% (5)*
TSA of Massachusetts LLP a corporation of Massachusetts	100.00%
LeighFisher B.V., a corporation of the Netherlands	100.00%
Sverdrup Asia Limited, a corporation of India	100.00%
Jacobs Engineering Malaysia Sdn Bhd, a corporation of Malaysia	100.00%
Jacobs Engineering de México, S.A. de C.V., a corporation of Mexico	100.00%
Jacobs Engineering and Construction (Thailand) Limited, a corporation of Thailand	99.98%
Sverdrup Jacobs Services, Inc., a corporation of California	100.00%

(1) *Ownership is divided between Jacobs Norway AS (25.1%), Sinclair Knight Merz (Europe) Ltd. (74.7%) and Jacobs Nederland B.V. (0.2%)
(2) *Ownership divided between Sinclair Knight Merz (Europe) Ltd. (50%) and Sinclair Knight Merz (NZ) Holdings Ltd (50%)
(3) *Ownership is divided between Jacobs Engineering Inc. and Jacobs U.K. Limited
(4) *Ownership is divided between Jacobs Engineering Inc. and Jacobs Canada Inc.
(5) *An affiliated company
(6) *Ownership is divided between Jacobs Engineering Espana S.L., Jacobs Luxembourg S.a.r.l. and Jacobs U.K. Limited (one share)

Consent of Ernst & Young LLP
Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statement (Form S-8 Nos. 333-195708, 333-187677, 333-107344, 333-123448, 333-157014, and 333-38974) pertaining to the Jacobs Engineering Group Inc. 1999 Stock Incentive Plan, as amended and restated,

(2) Registration Statement (Form S-8 No. 333-67048) pertaining to the Jacobs Engineering Group Inc. Global Employee Stock Purchase Plan,

(3) Registration Statement (Form S-8 Nos. 333-38984 and 333-209860) pertaining to the Jacobs Engineering Group Inc. 1999 Outside Director Stock Plan, as amended and restated,

(4) Registration Statement (Form S-8 No. 333-45475) pertaining to the Jacobs Engineering Group Inc. 1981 Executive Incentive Plan,

(5) Registration Statement (Form S-8 No. 333-157015) pertaining to the Jacobs Engineering Group Inc. 1989 Employee Stock Purchase Plan, and

(6) Registration Statement (Form S-4 No. 333-147936) and related Prospectus of Jacobs Engineering Group Inc.;

of our reports dated November 22, 2016, with respect to the consolidated financial statements of Jacobs Engineering Group Inc. and subsidiaries and the effectiveness of internal control over financial reporting of Jacobs Engineering Group Inc. and subsidiaries included in this Annual Report (Form 10-K) of Jacobs Engineering Group Inc. and subsidiaries for the year ended September 30, 2016.

/S/ Ernst & Young LLP

Los Angeles, California
November 22, 2016

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Steven J. Demetriou, certify that:

1. I have reviewed this Annual Report on Form 10-K of Jacobs Engineering Group Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/S/ Steven J. Demetriou
Steven J. Demetriou
Chief Executive Officer

November 22, 2016

CERTIFICATION OF CHIEF FINANCIAL OFFICER
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Kevin C. Berryman, certify that:

1. I have reviewed this Annual Report on Form 10-K of Jacobs Engineering Group Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/S/ Kevin C. Berryman
Kevin C. Berryman
Chief Financial Officer

November 22, 2016

Exhibit 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
Pursuant to 18 U.S.C. Section 1350
Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of Jacobs Engineering Group Inc. (the "Company") on Form 10-K for the year ended September 30, 2016 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Steven J. Demetriou, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that: (1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/S/ Steven J. Demetriou

Steven J. Demetriou
Chief Executive Officer

November 22, 2016

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

CERTIFICATION OF CHIEF FINANCIAL OFFICER
Pursuant to 18 U.S.C. Section 1350
Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of Jacobs Engineering Group Inc. (the "Company") on Form 10-K for the year ended September 30, 2016 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Kevin C. Berryman, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that: (1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/S/ Kevin C. Berryman
Kevin C. Berryman
Chief Financial Officer

November 22, 2016

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

Mine Safety Disclosure

Section 1503 of the Dodd-Frank Wall Street Reform and Consumer Protection Act requires domestic mine operators to disclose violations and orders issued under the Federal Mine Safety and Health Act of 1977 (the "Mine Act") by the federal Mine Safety and Health Administration ("MSHA"). Under the Mine Act, an independent contractor, such as Jacobs, that performs services or construction of a mine is included within the definition of a mining operator. We do not act as the owner of any mines. Due to timing and other factors, the data may not agree with the mine data retrieval system maintained by MSHA.

The following table provides information for the year ended September 30, 2016.

Mine or Operating Name/MSHA Identification Number	Section 104 S&S Citations (#)	Section 104(b) Orders (#)	Section 104(d) Citations and Orders (#)	Section 110(b)(2) Violations (#)	Section 107(a) Orders (#)	Total Dollar Value of MSHA Assessments Proposed ($)	Total Number of Mining Related Fatalities (#)	Received Notice of Pattern of Violations Under Section 104(e) (yes/no)	Received Notice of Potential to Have Pattern Under Section 104(e) (yes/no)	Legal Actions Pending as of Last Day of Period (#)	Legal Actions Initiated During Period (#)	Legal Actions Resolved During Period (#)
Mine ID: 02-00024 Contractor ID: 1PL						—		No	No		5	
Mine ID: 02-00144 Contractor ID: 1PL						—		No	No			
Mine ID: 02-03131 Contractor ID: 1PL						—		No	No			
Mine ID: 02-00137 Contractor ID: 1PL						—		No	No			
Mine ID: 02-00150 Contractor ID: 1PL						—		No	No			
Mine ID: 26-01962 Contractor ID: 1PL						—		No	No			
Mine ID: 29-00708 Contractor ID: 1PL						—		No	No		3	
Mine ID: 29-00762 Contractor ID: 1PL						—		No	No			
Mine ID: 26-02755 Contractor ID: 1PL						—		No	No		10	
Mine ID: 04-00743 Contractor ID:Y713								No	No			
Totals	**—**	**—**	**—**	**—**	**—**	**$—**		**No**	**No**	**—**	**18**	**—**

Notes:

1. Jacobs received zero MSHA citations since 1Q FY2015.
2. Jacobs has no pending citations. Jacobs has vacated, reduced, abated and resolved all citations from previous fiscal years.

ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 10/13/2017

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 have ADDITIONAL INSURED provisions or 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).

PRODUCER LIC #0437153 1-212-948-1306 Marsh Risk & Insurance Services CIRTS_Support@jacobs.com 777 S. Figueroa Street Los Angeles, CA 90017-5822	CONTACT NAME: PHONE (A/C, No, Ext): FAX (A/C, No): 1-212-948-1306 E-MAIL ADDRESS:
INSURED Jacobs Engineering Group Inc. C/O Global Risk Management 600 Wilshire Blvd., Suite 1000 Los Angeles, CA 90017	

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: ACE AMER INS CO	22667
INSURER B:	
INSURER C:	
INSURER D:	
INSURER E:	
INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** 51140221 **REVISION NUMBER:**

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.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR X CONTRACTUAL LIABILITY GEN'L AGGREGATE LIMIT APPLIES PER: POLICY PRO-JECT LOC OTHER:			HDO G27865069	07/01/17	07/01/18	EACH OCCURRENCE	$ 3,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 250,000
							MED EXP (Any one person)	$ 5,000
							PERSONAL & ADV INJURY	$ 3,000,000
							GENERAL AGGREGATE	$ 4,000,000
							PRODUCTS - COMP/OP AGG	$ 3,000,000
								$
A	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY / SCHEDULED AUTOS HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY			ISA H09055964	07/01/17	07/01/18	COMBINED SINGLE LIMIT (Ea accident)	$ 3,000,000
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB / OCCUR EXCESS LIAB / CLAIMS-MADE DED RETENTION $						EACH OCCURRENCE	$
							AGGREGATE	$
								$
A A A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		WLR C49115581 (AOS) SCF C49115623 (WI) WCU C49115611 (LA, OH, TX)	07/01/17 07/01/17 07/01/17	07/01/18 07/01/18 07/01/18	X PER STATUTE / OTH-ER	
							E.L. EACH ACCIDENT	$ 3,000,000
							E.L. DISEASE - EA EMPLOYEE	$ 3,000,000
							E.L. DISEASE - POLICY LIMIT	$ 3,000,000
A	PROFESSIONAL LIABILITY "CLAIMS MADE"			EON G21655065 008	07/01/17	07/01/18	PER CLAIM/PER AGG AGGREGATE DEFENSE INCLUDED	2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

PROJECT MGR: Matthew Rempfer. RE: Tri-State Tollway, Roadway Reconstruction, Roosevelt Road (MP 30.5) to St Charles Rd (MP32.3) / Design Engineering. CONTRACT NUMBER: I-17-4300. CONTRACT END DATE: 12/31/2021. SECTOR: Public. *$2,250,000 SIR for states of: LA, OH, TX. The Illinois State Toll Highway Authority is added as an additional insured for general liability & auto liability. Coverage is primary and certificate holder's insurance is excess and non-contributory. *THE TERMS, CONDITIONS, AND LIMITS PROVIDED UNDER THIS CERTIFICATE OF INSURANCE WILL NOT EXCEED OR BROADEN IN ANY WAY THE TERMS, CONDITIONS, AND LIMITS AGREED TO UNDER THE APPLICABLE CONTRACT.*

CERTIFICATE HOLDER	CANCELLATION
Illinois Tollway 2700 Ogden Avenue Downers Grove, IL 60515 USA	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 REPRESENTATI[redacted]

EXHIBIT "1"

ADDITIONAL INSURED - AUTOMATIC STATUS

Named Insured Jacobs Engineering Group, Inc.			Endorsement Number 2
Policy Symbol HDO	Policy Number G27865069	Policy Period 07/01/2017 TO 07/01/2018	Effective Date of Endorsement
Issued By (Name of Insurance Company) ACE American Insurance Company			

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY. THIS

ENDORSEMENT MODIFIES INSURANCE PROVIDED UNDER THE FOLLOWING:

COMMERCIAL GENERAL LIABILITY COVERAGE FORM

SCHEDULE

Name of Person or Organization: Any person or organization for whom any Named Insured is required by written contract or agreement entered into prior to the loss to provide insurance, where such written contract or agreement does not expressly identify a particular Insurance Service Organization Form to be applied to their additional insured status.

Who Is An Insured (Section II) includes as an additional insured the person or organization shown in the Schedule, but the insurance shall not exceed the scope of coverage and/or limits of this policy. Notwithstanding the foregoing sentence, in no event shall the insurance provided such additional insured exceed the scope of the coverage and/or limits required by said contract or agreement; and, if such additional insured's scope of coverage is not expressly stated in such contract or agreement, then such coverage is limited to the additional insured's vicarious liability to the extent directly caused by the Named Insured's negligence during the Named Insureds ongoing operations. This insurance shall be primary insurance to the extent required by said contract or agreement, and any other insurance or self-insurance maintained by such person or organization shall be noncontributory with the insurance provided hereunder to the extent specified in said contract agreement.

Where the contract or agreement provides that the additional insured's scope of coverage is for the named insured's indemnity obligations under such contract or agreement, then such coverage shall be limited to the extent such indemnity obligations are enforceable under applicable law.

Notwithstanding anything to the contrary, the coverage provided an additional insured under this endorsement shall be limited to the minimum coverage limits required to be provided by the named insured under the written contract or agreement.

ADDITIONAL INSURED –
DESIGNATED PERSONS OR ORGANIZATIONS

Named Insured Jacobs Engineering Group, Inc.			Endorsement Number 4
Policy Symbol ISA	Policy Number H09055964	Policy Period 07/01/2017 TO 07/01/2018	Effective Date of Endorsement
Issued By (Name of Insurance Company) ACE American Insurance Company			

Insert the policy number. The remainder of the information is to be completed only when this endorsement is issued subsequent to the preparation of the policy.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM
AUTO DEALERS COVERAGE FORM
MOTOR CARRIER COVERAGE FORM
EXCESS BUSINESS AUTO COVERAGE FORM

Additional Insured(s): Any person or organization whom you have agreed to include as an additional insured under a written contract, provided such contract was executed prior to the date of loss.

A. For a covered "auto," Who Is Insured is amended to include as an "insured," the persons or organizations named in this endorsement. However, these persons or organizations are an "insured" only for "bodily injury" or "property damage" resulting from acts or omissions of:

1. You.
2. Any of your "employees" or agents.
3. Any person operating a covered "auto" with permission from you, any of your "employees" or agents.

B. The persons or organizations named in this endorsement are not liable for payment of your premium.

[redacted]

Authorized Representative

SUPPLEMENT TO CERTIFICATE OF INSURANCE

DATE
10/13/2017

NAME OF INSURED: Jacobs Engineering Group Inc.

SUPP (10/00)

Contract Information Sheet

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

Consultant Name:	*Jacobs Engineering Group Inc*
Contract Number:	*I-17-4300*
Proposal Date:	*10/10/2017*

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 on the Tollway's website

Contract Number: I-17-4300 **Consultant:** Jacobs Engineering Group Inc

EXHIBIT A: ESTIMATED TASK WORK HOURS

Grand Total Exhibit A Hours 139,347

MONTHS of YEAR 2018

TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL HOURS
Design Package 2	125	650	600	600	600	600	600	600	500	547	500	550	6472
Design Package 3	250	1600	1600	1600	1600	1600	1600	1600	2000	2000	1632	2290	19372
Design Package 4							400	400	400	400	400	400	2400
Design Package 5							900	1200	1200	1200	1200	1200	6900
Design Package 6							854	930	930	930	930	930	5504
Design Package 7													
Design Package 8							449	450	450	450	450	450	2699
Concept Verification	202	2500	2500	2500	2500	2500							12702
Data Collection and Coord	100	300	300	300	300	300	300	300	300	300	300	300	3400
TOTALS	677	5050	5000	5000	5000	5000	5103	5480	5780	5827	5412	6120	59449

Contract Number: I-17-4300 **Consultant:** Jacobs Engineering Group Inc

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2019												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Design Package 2													
Design Package 3													
Design Package 4	400	400	400	400	400	400	400	400	400	400	400	400	4800
Design Package 5	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	14400
Design Package 6	930	930	930	930	930	930	930	930	930	930	930	930	11160
Design Package 7							250	230	230	230	230	230	1400
Design Package 8	450	450	450	450	450	450	450	450	450	450	450	450	5400
Concept Verification													
Data Collection and Coord	300	300	300	300	300	300	300	300	300	300	300	300	3600
TOTALS	3280	3280	3280	3280	3280	3280	3530	3510	3510	3510	3510	3510	40760

Contract Number: I-17-4300 **Consultant:** Jacobs Engineering Group Inc

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2020												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Design Package 2													
Design Package 3													
Design Package 4	400	400	400	400	400	681							2681
Design Package 5	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1336	14536
Design Package 6	930	930	930	930	930	930	930	930	930	930	930	930	11160
Design Package 7	230	230	230	230	230	230	230	230	230	230	230	230	2760
Design Package 8	450	450	450	450	450	450	450	450	450	450	450	450	5400
Concept Verification													
Data Collection and Coord	300	300	300	300	300	300	221	20	20	20	20	20	2121
TOTALS	3510	3510	3510	3510	3510	3791	3031	2830	2830	2830	2830	2966	38658

Contract Number: I-17-4300 **Consultant:** Jacobs Engineering Group Inc

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL HOURS
	MONTHS of YEAR 2021												
Design Package 2													
Design Package 3													
Design Package 4													
Design Package 5													
Design Package 6													
Design Package 7													
Design Package 8													
Concept Verification													
Data Collection and Coord	20	20	20	20	20	20	20	20	20	20	20	20	240
TOTALS	20	20	20	20	20	20	20	20	20	20	20	20	240

Contract Number: I-17-4300

Consultant: Jacobs Engineering Group Inc

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2022												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Design Package 2													
Design Package 3													
Design Package 4													
Design Package 5													
Design Package 6													
Design Package 7													
Design Package 8													
Concept Verification													
Data Collection and Coord	20	20	20	20	20	20	20	20	20	20	20	20	240
TOTALS	20	20	20	20	20	20	20	20	20	20	20	20	240

Contract No.: **I-17-4300** **Consultant:** **Jacobs Engineering Group Inc**

EXHIBIT B: FEE CALCULATIONS

A. DIRECT LABOR (without overtime)

139,347.00	X	$ 46.53	=	TOTAL DIRECT SALARY	$ 6,483,815.91
(Total Work Hours from Exhibit C-2)		(Average Hourly 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 REGULAR SALARY TIMES MULTIPLIER $ 18,154,684.55

B. REIMBURSABLE DIRECT COSTS NOT ELIGIBLE FOR PROFIT

(For Prime Consultant listed above.)

TOTAL DIRECT COSTS $122,442.87

C. SERVICES BY OTHERS

Total Allowable Fee DBE/MBE/WBE Subconsultant (from Exhibit H) $ 13,677,872.58

Total Allowable Fee Non-DBE/MBE/WBE Subconsultant (from Exhibit H (cont)) $ 6,545,000.00

TOTAL SERVICES BY OTHERS $ 20,222,872.58

D. ADDITIONAL SERVICES (Prime Consultant)

$ -

(Requires prior authorization before use)

ADDITIONAL SERVICES (Subconsultants)

(Requires prior authorization before use)

TOTAL ADDITIONAL SERVICES $ -

(Requires prior authorization before use)

E. MAXIMUM ALLOWABLE FEE (Upper Limit of Compensation)

$ 38,500,000.00

Contract No.: I-17-4300

Consultant: Jacobs Engineering Group Inc

Date: 10/10/2017

EXHIBIT C-1: PAYROLL CLASSIFICATION ESCALATION TABLE

CONTRACT TERM: 60 No. OF MONTHS

SCHEDULED START DATE: 1/1/2018

RAISE DATE: 1/1/2019

PERCENT OF RAISE: 0%

ESCALATION PER YEAR Year 1 through 5

	First Period	Second Period	Third Period	Fourth Period	Fifth Period
Date - Date	1/1/2018 - 12/31/2018	1/1/2019 - 12/31/2019	1/1/2020 - 12/31/2020	1/1/2021 - 12/31/2021	1/1/2022 - 12/31/2022
	12.0	12.0	12.0	12.0	12.0
	60.0	60.0	60.0	60.0	60.0
	20.00%	20.00%	20.00%	20.00%	20.00%
	Factor First Period	Escalation Factor Second Period	Escalation Factor Third Period	Escalation Factor Fourth Period	Escalation Factor Fifth Period

ESCALATION PER YEAR Year 6 through 10

	Sixth Period	Seventh Period	Eighth Period	Ninth Period	Tenth Period
Date - Date	-	-	-	-	-
	60.0	60.0	60.0	60.0	60.0
	Escalation Factor Sixth Period	Escalation Factor Seventh Period	Escalation Factor Eighth Period	Escalation Factor Ninth Period	Escalation Factor Tenth Period

The escalation factor for this project is: 100.00%

Contract No.: I-17-4300

Consultant: Jacobs Engineering Group Inc

Date: 10/10/2017

Escalation Factor: 100.00%
(From Exhibit C-1)

EXHIBIT C-2: DIRECT LABOR CLASSIFICATION MAN-HOURS AND RATES

Total Estimated Work Hours: 139,347.00

Average Hourly Rate: $46.53

Total Direct Labor $6,483,815.91

DIRECT COST OVERTIME PREMIUM

Total Estimated O/T Hours:

Average Premium O/T Hourly Rate:

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 Right)	Estimated Overtime Hours (Overtime Hours Only) (See Note D to Right)
No	Principal	$50.00	$70.00	$70.00	$70.00	200.00		
No	Project Manager	$40.00	$70.00	$70.00	$70.00	7,250.00		
No	Senior Engineer/Planner	$40.00	$70.00	$64.43	$64.43	29,743.00		
No	Resident Engineer	$40.00	$70.00	$70.00	$70.00	24.00		
No	Project Engineer/Planner	$25.00	$60.00	$46.65	$46.65	33,810.00		
No	Staff Engineer/Planner	$20.00	$40.00					
No	Engineer /Accountant	$20.00	$60.00	$33.07	$33.07	54,000.00		
No	Senior Technical Specialist	$25.00	$60.00	$54.82	$54.82	10,000.00		
No	Technical Specialist	$15.00	$50.00	$32.22	$32.22	3,820.00		
No	Architect	$30.00	$70.00					
No	Realty Specialists	$20.00	$70.00					
No	Intern	$8.25	$20.00	$16.51	$16.51	250.00		

Contract No.: I-17-4300

Consultant: Jacobs Engineering Group Inc

Date: 10/10/2017

Escalation Factor: 100.00%
(From Exhibit C-1)

EXHIBIT C-2: DIRECT LABOR CLASSIFICATION MAN-HOURS AND RATES

Total Estimated Work Hours: 139,347.00

Average Hourly Rate: $46.53

Total Direct Labor $6,483,815.91

DIRECT COST OVERTIME PREMIUM

Total Estimated O/T Hours:

Average Premium O/T Hourly Rate:

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 Right)	Estimated Overtime Hours (Overtime Hours Only) (See Note D to Right)
No	Admin/Clerical	$8.25	$40.00	$25.73	$25.73	250.00		

Contract No.: I-17-4300 **Consultant:** Jacobs Engineering Group, Inc

Date: 10/10/2017

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	Vice President	Mohammad Shabbir Hassan	$50 - $70
Project Manager	Project Manager	**MARK M LUCAS**	$40 - $70
	Project Manager	**MATTHEW G REMPFER**	
Senior Engineer/Planner	Senior Civil Engineer	**THOMAS A IVES**	$40 - $70
	Senior Civil Engineer	WILLIAM J BARTOLUCCI	
	Senior Civil Engineer	ELENA IOVTCHEVA	
	Senior Civil Engineer	GEORGE F. LIPTACK	
	Senior Civil Engineer	MARK D RINNAN	
	Senior Structural Engineer	JENNIFER SCHEDLER DRAKE	
	Senior Structural Engineer	**BRIAN JOSEPH MALONE**	
	Senior Civil Engineer	SILVIU NICOLAE	
	Senior Traffic Engineer / ITS	SEAN A. TIHAL	
	Senior Traffic Engineer / ITS	CHAD R HAMMERL	
	Senior Traffic Engineer / ITS	KENNETH L GLASSMAN	
	Senior Structural Engineer	MARCO LOUREIRO	
Resident Engineer	Resident Engineer	DENNIS HERNANDEZ	$40 - $70
Project Engineer/Planner	Structural Engineer	SOLOMON J BROWN	$25 - $60
	Structural Engineer	MATZ D JUNGMANN	
	Civil Engineer	RICHARD CHARLES HAUSER	
	Civil Engineer	MARA KOSIR	
	Structural Engineer	RONALD DAVID STEFANI	
	Structural Engineer	MATHEW INGRAM	
	Civil Engineer	KELSEY ROSS WATTERWORTH	
	Civil Engineer	KATELYN S BLEACH	
	Civil Engineer	CRAIG T JAKOBSEN	
	Electrical Engineer	ROBERT SWANSON	
	Electrical Engineer	ADAM D DANCZYK	
	Electrical Engineer	JOSHUA JAY ZVOLANEK	
Staff Engineer/Planner			$20 - $40
Engineer /Accountant	Junior Civil Engineer	KENNETH L GOMEZ	$20 - $60
	Junior Civil Engineer	SEAN P KOZLOWSKI	
	Junior Structural Engineer	ARSAL M MANZOOR,	
	Junior Structural Engineer	HEATHER L SALASKY	
	Junior Structural Engineer	TUCKER S RANEY	
	Junior Electrical Engineer	HILLARY ANN RICHARD	
	Junior Structural Engineer	KAURI J BENNER	
	Junior Structural Engineer	KEITH CHERNICK	

Contract No.: I-17-4300 **Consultant:** Jacobs Engineering Group, Inc

Date: 10/10/2017

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
	Junior Structural Engineer	JORDAN REINHARDT KILHOFFER	
	Junior Structural Engineer	SETH GREENBERG	
Senior Technical Specialist	CADD Manager	MARINO J PELOSO	$25 - $60
Technical Specialist	IT Specialist	MARCO A VARGAS	$15 - $50
Architect			$30 - $70
Realty Specialists			$20 - $70
Intern	Intern	MYAH RAE LOWRY	$8.25 - $20
Admin/Clerical	Admin	SILVIA MITULESCU	$8.25 - $40

Contract No.: I-17-4300 **Consultant:** Jacobs Engineering Group Inc

EXHIBIT D

REIMBURSABLE DIRECT COSTS - WORKSHEET ESTIMATES

A. **VEHICLE REIMBURSEMENT - rate based on link below**
http://www2.illinois.gov/cms/Employees/travel/Pages/TravelReimbursement.asp:

B. **ALLOWABLE DIRECT COSTS - based on link below**
http://www.illinoistollway.com/documents/10157/2389762/12_LG_TOLLWAY_XX_ALLOWABLEDIRECTCOSTS_10012013.PDF

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) $ 122,442.87

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	State Rate (Maximum)
Lodging	State Rate (Maximum)
Air Fare	Coach Rate with 2 weeks advance purchase
Vehicles	
Mileage	State Rate* (Maximum)
Vehicle Rental	$55/day (Maximum)
Leased / Company-Owned Vehicles (does not include personal vehicles, not owned by the company)	$65/day
Vehicle Half-day Rate	$32.50/half day
Parking	Actual Cost
Tolls	Actual Cost
Overtime	Premium portion
Film and Film Processing**	Actual Cost
Overnight Delivery/Postage Courier Service	Actual Cost
Copies of Deliverables and Mylars	Actual Cost
Specific Insurance – required for project	Actual Cost
CADD	Actual Costs (Maximum of $15.00/Hr)
Monuments – Permanent	Actual Cost
Payment for Newspaper Ads	Actual Cost
Web Site	Actual 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 beam breaks, cylinder breaks, pavement cores)	Actual Cost
Equipment rental specific for project (snooper for bridge inspection, noise meter, etc.)	Actual Cost
Specialized equipment – on an as needed basis with prior approval	Actual Cost
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

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 actual costs.
- On all agreements authorization after January 1, 2005, GPS Equipment is considered a "tool of the trade."

Contract No.: I-17-4300 **Consultant:** Jacobs Engineering Group Inc

EXHIBIT E - KEY PROJECT PERSONNEL

Project Principal:		
Project Manager:		Matthew G Rempfer
Project Engineer:		Thomas A Ives
Resident Engineer:		
Documentation Engineer:		
Project Civil Engineer:		
Project Structural Engineer:		Brian Joseph Malone
Project Drainage Engineer:		
Senior Engineer:		
Others:	Name:	Mark M Lucas
	Classification:	QA/QC Roadways
	Name:	
	Classification:	
	Name:	
	Classification:	
	Name:	
	Classification:	

[redacted]

Matthew G Rempfer, PE, PTOE

Project Manager

[redacted]

[redacted]

[redacted]

Thomas A Ives, PE

Project Engineer / Permit Coordination

[redacted]

[redacted]

[redacted]

Brian Joseph Malone, Ph.D., SE, LEED AP

Lead Structural Engineer

[redacted]

[redacted]

Mark M Lucas, PE

Roadway QC/QA

[redacted]

[redacted]

Exhibit F

Scope of Work

Tri-State Tollway, Roadway Reconstruction, Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3)

Contract No. I-17-4300

Illinois State Toll Highway Authority

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I. PROJECT DESCRIPTION

This project is to prepare Phase II engineering services for the preparation of contract plans and specifications and project related permits for the proposed improvements including, but not limited to, reconstruction of the Tri-State Tollway (I-294) between Roosevelt Road (M.P. 30.5) and St. Charles Road (M.P. 32.3).

The scope of proposed improvements includes roadway design, reconstructing / rehabilitation of bridges, retaining wall design, noise wall design, new drainage structures and modification of existing drainage system, erosion control for all construction zones, design of appropriate landscape and soil erosion/sedimentation control measures as necessary, pavement markings, delineators, and signage, barrier warrant analysis and installation of guardrail, anchors and terminal, update roadway lighting, maintenance of traffic, protection and relocation of utilities, and other appurtenant and miscellaneous construction.

II. ITEMS OF WORK TO BE INCLUDED IN CONTRACT I-17-4300

The Design Section Engineer's (DSE) services under Contract I-17-4300 shall consist of Phase II engineering services for the above described project, together with the identification of potential utility conflicts as per the requirements of the Illinois Tollway Design Section Engineer's Manual, as amended by the Illinois Tollway, and herein specified. The design criteria and policies, Standard Specifications, materials, and construction requirements of the Illinois State Toll Highway Authority shall apply to all portions of the improvement under Illinois Tollway jurisdiction. The design criteria and policies, materials and construction requirements of the Illinois Department of Transportation shall apply outside the Illinois Tollway jurisdiction area.

This contract may develop construction packages as follows:

- NB CD Road and Bridges (BN 211CD, 219CD, 221CD)
- SB I-294 Interchange Ramps and Pavement (BN 223 (Demo), 222CD, 224, 226A)
- St. Charles Road over I-294 and I-290, ST. Charles Road Ramps, I-290 Pavement and IDOT SN 016-1134 and IDOT SN 016-1135)
- NB I-294 Mainline (MOT Stage I, II and Winter Shutdown)
- SB I-294 Mainline (MOT Stage IV, V and Winter Shutdown)
- NB CD Road over I-88 Rehab
- Ramp J and Ramp K Connector and completion of MOT Stage VII (Ramp Connections and Restoration)

More specifically, the project improvements require design tasks for which design services shall be provided by the DSE to include, but not be limited to, the following:

A. CONCEPT DESIGN VERIFICATION REQUIREMENTS

The DSE will be responsible for reviewing the Phase I Engineering documents completed to date and providing concept (30%) design deliverables as further defined herein.

The DSE review of Phase I Engineering documents prepared to date shall include, but not necessarily be limited to, the following:

1. Project scope
2. Project budget. The DSE shall review the cost estimate and provide an updated concept (30%) level cost estimate.
3. Project schedule. The DSE shall confirm or provide a recommended construction schedule for proposed construction contract package(s) within the contract limits. The DSE shall coordinate with the DCM to ensure that schedules are supported and can be accommodated within the overall Tri-State Tollway Master Corridor Schedule.
4. ITS/Fiber/AET Scope. The scope anticipated to be included as part of the construction contract(s) to be limited to the installation of IPDC foundations, ITS Gantry and DMS foundations, and the underground backbone duct package along the roadway corridor which will contain power and fiber optic cable installed under separate contract(s). ITS device design shall be performed under separate contracts. The I-17-4300 DSE shall be required to coordinate with the DCM and I-17-4307 DSE for Advance ITS and Fiber Relocation to ensure operational and communication requirements are fulfilled for each stage of MOT. The I-17-4300 DSE shall be required to coordinate with the DCM and I-17-4308 DSE to ensure that final ITS device design in conformance with the corridor requirements, and all assets are properly transferred between contracts.

5. Project concept review including geometrics, right-of-way requirements, materials, maintenance of traffic, drainage, number of construction contracts, design criteria, cost benefit analysis, alternatives analysis, and all other appurtenant and miscellaneous items. The DSE will include a review of the following contracts prepared by others to confirm that the design is compatible with that of the I-17-4300 design section:
   a. Tri-State Tollway Roadway Reconstruction Contract I-17-4299.
   b. Tri-State Tollway Roadway Reconstruction Contract I-17-4301.
6. Design Criteria Review. The DSE shall review the current Illinois Tollway Design Criteria and evaluate the impact of updating the concept submittal prepared to date to be in conformance with the current design criteria.
7. Design Deviations prepared to date. The DSE shall coordinate with the DCM and adjacent Tri-State Tollway DSE sections to confirm whether or not deviations are still required.
8. Review of corridor roadway lighting design concept by I-17-4308 DSE.
9. Evaluation of Roadside obstacles in accordance with the Illinois Tollway Traffic Barrier Guidelines, latest edition. The DSE will prepare a strip map which identifies all areas of concern and meet with the Illinois Tollway and DCM to confirm expected level of analysis to be performed as part of the Barrier Warrant Analysis for each contract.
10. Review of utility coordination and utility studies performed to date, perform a field review, and submit Notice of Interference forms. The DSE is responsible for utility coordination in accordance with the Illinois Tollway DSE Manual.
11. Review of Phase I environmental documents to confirm potential issues related to wetlands, waterways, biological, cultural, noise, air, hazardous/special waste, pedestrian/bike accommodations, land use, zoning, etc. Review of ESA investigations and recommendations

performed by others. Prepare Phase II ESA in accordance with the Illinois Tollway Environmental Studies Manual, latest version, and ASTM E1903 Standard Practice for Environmental Site Assessments, Phase II as applicable. Prepare a Remedial Action Plan in accordance with the aforementioned criteria as applicable and in accordance with IEPA requirements for Site Remediation Programs.

12. Review coordination with IDOT, FAA, regulatory, utility companies and local agencies performed to date and confirm commitments and future required action including identification of agreements and municipal/county design issues. Coordinate installation of the FOC duct package system with the Tollway's Fiber Optic Management Vendor.
13. Review of available survey information furnished by the DCM and confirmation of completeness or need for additional information. DSE responsibilities with regard to Field Survey services outlined in Section III.
14. Review of Value Management Study (VMS) reports and evaluate VMS recommendations.

B. PRELIMINARY AND FINAL DESIGN ENGINEERING

1. ROADWAY REQUIREMENTS
   a. Utilize existing aerial mapping, including contours for developing exhibits, right-of-way analysis, etc.
   b. Identify utility impacts on construction, right-of-way, costs, and project schedule. Supplemental SUE services shall be performed by the I-17-4300 DSE.
   c. Identify and establish priority of right-of-way parcel acquisition needed for utility relocation and advance work needs within the project limits.
   d. Conduct supplementary survey as required.
   e. Develop maintenance of traffic and construction staging options for each alternative and corresponding progress schedules.

2. DESIGN AND PLAN PREPARATION – DETAILED REQUIREMENTS

   During this phase, the DSE shall perform designs and prepare contract plans and documents for implementation of the project improvements, to include, but not be limited to, the following:

   a. Design services for preparing contract plans, special provisions, and estimates for the Tri-State Tollway (I-294) Roadway Reconstruction between Roosevelt Road (M.P. 30.5) to St. Charles Road M.P. 32.2)
   b. Performing Bridge Type Studies for new bridges proposed to be constructed. The use of Accelerated Bridge Construction (ABC) techniques will be considered as part of the studies.
   c. Perform Type, Size, and Location (TS&L) drawings for new bridge and retaining wall construction.
   d. Performing Wall Type Studies for new retaining wall design construction.
   e. Perform design services for noise walls.
   f. Performing analyses for new drainage structure installation and modification of the existing drainage system.
   g. Provide design of sediment and erosion control for all construction zones.

h. Provide design of appropriate landscape and soil erosion/sedimentation control measures as necessary in accordance with the Illinois Tollway Environmental Studies manual, latest version.
i. Design services for preparing contract plans and special provisions for installation of pavement markings, delineators, and signage for the contract limits.
j. Provide barrier warrant analyses for all necessary locations and installation of guardrail, anchors, and terminals to conform to the current AASHTO Guidelines and Illinois Tollway criteria.
k.
l. Develop working drawings and contract documents for updating existing roadway and underpass lighting systems for the installation of new roadway and underpass lighting as required by the Illinois Tollway Guidelines for Roadway Illumination, design criteria, and corridor roadway lighting design concept. The DSE shall coordinate with the DCM and the I-17-4308 DSE for the corridor roadway lighting design concept. The I-17-4300 DSE shall be responsible for the design of temporary lighting systems as required for the maintenance of existing illumination and as required for special illumination during construction, including provisions for the maintenance of existing/temporary and final lighting systems through the duration of the contract, and shall determine the actual locations of final roadway and underpass lighting systems; shall coordinate with the DCM to determine lighting system control options, shall prepare contract plans, special provisions, and estimates for the temporary and final roadway and underpass lighting.

m. Perform detailed design for all overhead, cantilever, and ground mounted sign structures within the contract limits.
n. Provide maintenance of traffic plans including those for impacts to local facilities.
o. Utility coordination for protection and / or relocation of utilities.
p. Provide assistance to and backup materials for the preparation of all required permits by the DCM.
q. Perform geotechnical studies.
r. Prepare all required permits.
s. Perform INVEST planning and design evaluations.
t. Perform environmental studies. Phase I Environmental Site Assessments (ESAs) were prepared by others. These shall be reviewed for content and Phase II Environmental Site Assessments are to be prepared including environmental borings and analysis. The DSE will further prepare all designs required for remediation recommendations resulting from the ESA and Remedial Action Plan (RAP).
u. Coordination with the Illinois Tollway and DCM with regard to environmental issues including, but not limited to USACE, IEPA, NPDES, IDNR-OWR. The following tasks have been or will be completed and will be provided to the DSE: Biological Resource Review, Wetland Delineation, Cultural Resource investigation, Stream/Water Quality Investigation, tree transect survey, Special Waste Assessment, and Noise Analysis. The DSE will be responsible for performing detailed tree classification surveys. The DCM will prepare a comprehensive inventory of required permits for the overall Tri-State Tollway (I-294) project, secure select permits, and approvals (including FAA approval and corridor-wide 404/401 permits), and support coordination of other required permits to be secured by the DSE. See Table

B for information regarding permitting responsibilities. Required permit submittals for the project include, but are not limited to: approval from Federal Aviation Administration; permits from the U.S. Army Corps of Engineers, Illinois Environmental Protection Agency, Illinois Department of Natural Resources, U.S. Fish and Wildlife, Metropolitan Water Reclamation District, IDOT, Local Agencies, Local Soil and Water Conservation Districts, Local Forest Preserve Districts, Railroads, etc. The DSE will review and confirm the overall permits inventory as identified by the DCM. The DSE will support the DCM in securing other required construction permits in conformance with the established schedule, including preparation of permits not being prepared by the DCM. The DSE will be required to furnish plans, calculations, etc. as required for permit submittals. The DSE shall coordinate permit requirements with the DCM throughout the design phase. The DSE shall be responsible for ensuring that permit submittals and approvals are consistent with contract schedules.

v. All other appurtenant and miscellaneous items. The following structures are included in this project:
    - Bridges 205/206: IL 38 Roosevelt Road: Two mainline structures
    - Bridges 207/208: Ramp A: Two ramp structures
    - Bridges 209/210/209CD: E-W Tollway: Three mainline structures
    - Bridges 211/ 211CD: Butterfield Road: Two mainline structures
    - Bridges 212/ 212CD: Butterfield Road: Two mainline structures
    - Bridges 219/219CD/220 CN Railroad: Four mainline structures
    - Bridges:221CD/221/222/222CD: I-290: Three mainline structures
    - Bridges 225/226: Electric Ave.: Two mainline structures.
    - Bridge 223: Ramp H over I-290: One mainline structure
    - Bridge 227 St. Charles Road over I-294: One crossroad structure
    - Bridge 016-1134: EB I-290 over Electric Avenue
    - Bridge 016-1135: WB I-290 over Electric Avenue
    - Bridge 016-1136: St. Charles over I-290
    - Bridge 210T: I-88 over Ramps E and D
    - New Bridge: SB I-294 over CCP RR: CD Road
    - New Bridge: I-294 Ramp F and H over I-290: Ramp
    - New Bridge: NB I-294 over I-294 Ramp J: Ramp
    - New Bridge SB I-294 over I-294 Ramp J: Ramp
    - New Bridge: SB I-294 over Electric Avenue: Ramp

w. All other appurtenant and miscellaneous items.

C. STRUCTURAL CONSTRUCTION

1. Perform cursory inspection of structures that are to be rehabilitated to provide repair recommendation verification to supplement the Bridge Condition Report.
2. The DSE will prepare Bridge Type Studies for new bridges proposed to be constructed.
3. The DSE will prepare Wall Type Studies for new retaining walls proposed to be constructed.
4. The DSE will prepare Type, Size, and Location plans for proposed bridges (see Table A), retaining walls, and culverts as required within the project limits.
5. The DSE will prepare contract plans and specifications for proposed bridges (see Table A), retaining walls, and culverts as required within the project limits.

6. The DSE will prepare contract plans, special provisions and estimates for IPDC foundations and ITS Gantry and DMS Foundations within the project limits.

D. DRAINAGE

1. The existing drainage facilities as represented in the concept plans and available Tri-State Tollway (I-294) as-built plans will be reviewed by the DSE to determine level of completeness and to identify potential additional drainage survey requirements..
2. Drainage calculations including culvert and storm sewer sizing will be provided by the DSE.
3. Analysis of alternatives for the proposed drainage system will be required by the DSE. Anticipated alternatives include the staging of the proposed drainage improvements, detention alternatives, and best management practices as applicable. The prior drainage calculation reports from the concept plans and Tri-State Tollway (I-294) reconstruction will be provided for starting background.

4. The proposed right- of-way and easement requirements will be evaluated to accommodate the proposed drainage design.

E. ENVIRONMENTAL STUDIES AND REPORTS

1. Determine and evaluate potential environmental impacts. Precautions should be taken to limit wetland impacts to those presented in the Section 404 permit application submitted by the DCM and which was the basis for the USACE Section 404/IEPA Section 401 water quality certification authorizations issued for the Tri-State Tollway (I-294) project. The DSE shall coordinate immediately with the DCM if design changes result in an increase in impacts as coordination with regulatory resource agencies would be required.
2. Completion of Part II Environmental Studies Inventory Sheet (ESIS). Part I was evaluated during the Master Plan Phase. Therefore only Part II shall be submitted with preliminary plans.
3. Evaluate and develop sediment and erosion control plans/measures if necessary.
4. Preparation of plans as required for USACE review of resource impacts and shall include appropriate details including grading plans, soil erosion and sediment control plans, Best Management Practices plans, existing and proposed drainage plans, and wetland/waters mitigation plans.
5. Prepare a Remedial Action Plan (RAP) in accordance with the aforementioned criteria as applicable and in accordance with IEPA requirements for Site Remediation Programs.

F. MAINTENANCE OF TRAFFIC

The DSE shall prepare Maintenance of Traffic deliverables in accordance with Illinois Tollway Design Section Engineer's Manual, latest edition, as amended by the Illinois Tollway. The maintenance of traffic plans and studies shall provide for protection and maintenance of Illinois Tollway and crossroad traffic, and maintenance of toll operations during construction. The DCM shall coordinate traffic staging and maintenance of traffic for the corridor with the individual DSEs for the project. The coordination shall include ensuring that regional impacts are minimized and to ensure that traffic is maintained during construction. Contract completion dates shall be coordinated between design contracts. The existing number of traffic lanes shall be maintained on the mainline in each direction on the Tri-State Tollway (I-294) between Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3).

G. UTILITIES

1. The DSE shall coordinate with utility companies and with the DCM throughout the design phase. The DSE shall be responsible for ensuring that utility relocation activities are consistent with contract schedules.
2. The DSE will be required to provide a copy of the agency utility contact log on a monthly basis.
3. Verify location of existing communications cables and utilities with respect to the proposed improvements.
4. All utilities coordination shall be performed in accordance with the Illinois Tollway DSE Manual, specifically with requirements of Subsection 4.5.18 and Section 6.

H. GEOTECHNICAL

1. For the bridges, retaining walls, noise walls, culverts, sign structure, IPDC, ITS Gantry and lighting foundations, the DSE will select proposed boring locations for approval by the Illinois Tollway. The DSE shall review the borings obtained in Phase I. The DSE will provide a boring map to the DCM. If required, the DSE will be responsible for providing information to the DCM as required for obtaining right of entry and permits to perform any subsurface exploration.
2. The DSE will provide subsurface exploration, utility checks, laboratory testing and a Soil survey report. If required, pavement corings will be taken at locations selected by the DSE to gather information for the pavement design. The pavement design for local system roadways will be provided by the agency having jurisdiction of the roadways and the Illinois Tollway will determine mainline and ramp pavement section designs for toll roadway pavements. The DCM will provide applicable agencies and the Illinois Tollway with information necessary for designing pavement sections.
3. The DSE will prepare Structural Geotechnical Reports (SGR) that summarizes the exploration and studies described above. The SGR will follow the Illinois Tollway SGR procedure. The SGR contains geotechnical recommendations related to bridge foundations, retaining wall foundations, slope walls, side slopes, pavement, sign structure, ITS Gantry, lighting foundations, and traffic signal foundations.

III. DESIGN SECTION ENGINEER'S (DSE's) SERVICES

A. EXECUTION OF ENGINEERING SERVICES

1. The DSE shall furnish services in accordance with the articles contained in the Illinois Tollway DSE Manual and all applicable Illinois Tollway Criteria, Manuals, and Bulletins.

B. FIELD SURVEY

1. The DCM will provide available survey information to the DSE. The DCM will establish a centerline and benchmarks for subsequent use by the DSE for the Tri-State Tollway (I-294) between Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3). The DSE will review the survey information and coordinate discrepancies with the DCM. Additional benchmarks will be provided by the DSE as necessary.
2. The DSE shall perform all additional survey work necessary for the design of the project in accordance with the appropriate sections of the Illinois Tollway DSE Manual, or as required for compliance with governing design criteria to provide a complete and acceptable design.
3. Maximum use shall be made of the Illinois Tollway's record drawings and Phase I Engineering documents; however, it is the Design Section Engineer's responsibility to verify all topography in the field.
4. The DSE shall obtain adequate survey information for determining barrier warrant analysis, etc. including approach shoulder drainage and appurtenances.
5. The DSE shall utilize the Illinois Tollway's record drawings and verify features in the field and utilize stationing on drawings only as a reference for the location of the structures. It is not the intent for the DSE to re-establish stationing in the field.
6. All coordination with Agencies, including but not limited to the U.S Army Corps of Engineers, the Illinois Department of Natural Resources, the Illinois Environmental Protection Agency, the Office of Water Resources, and the Illinois Department of Transportation shall be conducted through Illinois Tollway and DCM. The DSE will be expected to assemble information and documents necessary for Illinois Tollway to perform such coordination.
7. All coordination with railroads shall be conducted through the DCM and per the Illinois Tollway DSE Manual.

C. PLATS AND LEGALS

1. This contract is anticipated to require up to 17 separate property acquisitions. DSE to prepare plat and legal description documents associated with each Plat of Acquisition (POA) as well as coordinate and provide assistance to the Tollway Land Acquisition Unit as needed to complete each required acquisition. Documents shall be prepared in a timely manner so to not impede the Tollway property acquisition schedule.

IV. REQUIRED SUBMITTALS TO THE AUTHORITY

Submittal requirements shall be in accordance with the Illinois Tollway DSE's Manual with special attention to, but not limited to, the following:

A. CONCEPT SUBMITTAL REQUIREMENTS:

Master Plan and Concept Design has been performed by Illinois Tollway Contracts RR-14-4221, RR-14-4222, RR-14-4223 and RR-14-4224. The DSE will review the concept design geometry within the project limits and provide concept design plans for necessary refinements which will include the recommended horizontal geometry and vertical profile in accordance with the Illinois Tollway Design Section Engineer's Manual, latest edition, as amended by the Illinois Tollway, and as otherwise noted below, which shall include, but not be limited to, the following:

1. Review of the Concept design documents prepared to date including submittal of a technical memorandum detailing findings and providing recommendations for advancement to preliminary (60%) design.
2. A visual pavement condition survey of existing roadways within the limits of the proposed improvements.
3. Prepare a Maintenance of Traffic Concept Plan for each construction contract proposed. The plan shall be submitted to agencies having jurisdiction over proposed roadways included in the plan for review prior to advancement of subsequent phases of design. The plan shall also be coordinated with adjacent design sections.
4. Update and submit right of way and utility requirements for each construction contract. The right of way requirements shall be submitted on plan drawings and shall include all permanent right of way and permanent and temporary easements the DSE deems as being required for construction of the proposed improvements. Identify ROW parcels to be acquired that affect utility relocations and establish priorities for acquisition.
5. A construction contract packaging schematic and concept level design and construction schedule for contracts for which the DSE is responsible.
6. Updated concept design where necessary for the following components: Drainage, Erosion and Sedimentation Control, Barrier Warrant Analysis Location, and Lighting and Landscaping Plans.
7. Signing Strip Maps by construction contract which are applicable to interim phases of construction and operation of independent tollable segments of roadways.
8. The DSE will review and modify drainage concepts as necessary and any updated concepts completed since that date. The DSE will confirm the nature of the required improvements, the intent of the proposed design and verify compliance with the established design criteria.
9. The DSE will be responsible for reviewing the landscaping and soil erosion/sedimentation control measures concept design.
10. The DSE will be responsible for reviewing the roadway lighting concept design.
11. Context Sensitive Solutions and Aesthetics recommendations.
12. Concept Design Updates based upon coordination with project stakeholders. The DSE will prepare exhibits and renderings as needed to assist with public outreach.

The DSE review of Concept Design referenced above shall include preparation and submittal of a Concept Design Review Technical Memorandum which includes items identified in II. A. above and includes the following:

1. The DSE shall confirm and concur with the following or provide recommendations for proceeding during preliminary and final design:
    a) Scope of Work.
    b) Construction Contract Schedules.
    c) Right of Way Requirements.
    d) Construction Contract Packaging.
    e) Phase I Environmental Commitments.
2. Operating budget impact analysis (impact to Illinois Tollway Maintenance, Illinois Tollway Traffic Operations, and Illinois Tollway Business Systems).

3. Identification of signing requirements and coordination of needs with the Illinois Tollway Sign Shop through the Design Corridor Manager (DCM).

In addition, the DSE shall perform the following during this phase:

1. Coordination of any additional right of way requirements through the DCM. The DSE shall be responsible for ensuring that right of way acquisition activities are consistent with contract schedules.
2. Field review and statement of existing pavement and roadside conditions including drainage facilities. Color photos of typical and special conditions are required.
3. Identify any additional required design deviations. When a design deviation is sought, the DSE will start a Request For Design Deviation to Criteria (F4000.05). If agreed upon the form will be completely filled out and signed by all parties listed for signature.
4. The DSE shall review utility coordination performed to date, verify potential conflicts for the project through concept design and complete Notification of Interference forms for all anticipated utility interferences.
5. The DCM will prepare a comprehensive inventory of agreements for the overall project including railroad agreements. The DCM will be responsible for securing railroad agreements with technical support from the DSE. The DSE will review and confirm the overall agreements inventory as identified by the DCM and support the DCM in securing other required agreements in conformance with the established schedule, including preparation of agreements not being prepared by the DCM (see Table B).
6. The DCM will coordinate system-wide design implementation. The DSE will incorporate site specific design services provided by others as specified in the Illinois Tollway DSE Manual, amended by the Project-wide All Electronic Tolling and Intelligent Transportation Systems Design Criteria document, latest version.
7. Right of Way requirements, permitting requirements, potential utility conflicts, and required railroad intergovernmental and utility agreements shall be identified.
8. The DSE will prepare Bridge Type Studies and Retaining Wall Type Studies during this phase of the work. Upon approval of these recommendations Type, Size and Location Drawings for bridges, retaining walls, and culverts will be prepared. An updated proposed profile will be prepared by the DSE reflecting proposed refinements resulting from structural recommendations (TS&Ls) and through coordination with the adjacent DSEs are necessary.
9. Structural Geotechnical Reports (SGR) for proposed structures in accordance with the Illinois Tollway Geotechnical Manual, latest edition, as amended by the Illinois Tollway.
10. Concept Cost Estimate Review. The DSE shall review the cost estimate prepared by the DCM and shall update the cost estimate or provide a statement concurring with the estimated cost.
11. Concept Plan Legacy Comment Review. The DSE shall review unresolved comments received pertaining to the Concept Design Plans from involved agencies. Comments applicable to Contract I-17-4300 shall be compiled and presented in the technical memorandum.

B. FINAL DESIGN SERVICES AND SUBMITTALS REQUIRED:

1. Preparation of preliminary, pre-final, and final contract documents, special provisions, design and quantity calculations, and construction schedule to be reviewed by the Illinois Tollway.
2. The DSE must have MicroStation capabilities. All final documents shall be submitted in hard copy and electronic format and follow the Illinois Tollway CADD STANDARDS Manual.
3. The DSE shall coordinate and incorporate all requirements of other design contracts impacting this project, if any. The DSE shall meet with other DSE's and the DCM as often as required to ensure the final contract documents of all contracts relating to the limits are coordinated.
4. The DSE shall be responsible for coordinating designs with the DCM and Illinois Tollway User Departments, including but not limited to, Toll Services, Traffic Operations, and Maintenance and Business Systems.
5. Maintenance of traffic and construction staging.
6. The DSE will be responsible for preparing and coordinating construction cost estimates with the DCM and Illinois Tollway in accordance with the DSE Manual. The DSE is responsible for tracking the scope and cost estimate for construction contracts and coordinating changes with the DCM and Illinois Tollway throughout the design phase. Final construction cost estimates will be developed by the DSE.
7. If required, preparation of plats of acquisition and associated legal descriptions.
8. All other submittals as required in the Illinois Tollway DSE's Manual.
9. The DSE shall utilize the new Illinois Tollway stationing. Stationing of existing appurtenances shall be approximated from existing stationing and digital ortho imagery information.
10. Coordinate with the Illinois Tollway Project Manager and DCM on sending individual letters to municipal, township, county, and railroad officials with jurisdictional boundaries adjacent to the study area. Allow interested officials to review concepts under Illinois Tollway consideration and comment on community issues of concern or support.
11. Coordinate with the Illinois Tollway Project Manager, the DCM, and the Illinois Tollway Planning Division on meeting with individual property owners, neighborhood groups, and their local officials as required to address their questions or concerns regarding indirect project impacts.
12. Submit DSE Quality Management Plan within 14 days of Notice to Proceed.
13. The DSE is responsible for submittal of documents required during contract advertisement and as required for contract addenda in accordance with the DSE Manual. The DSE shall coordinate with the DCM and Illinois Tollway as necessary.
14. Provide required information to support the Illinois Tollway's coordination activities with the Tri-State Tollway (I-294) Local Advisory Committee.

V. ITEMS TO BE FURNISHED TO THE DESIGN SECTION ENGINEER

In addition to the items to be provided as described in the Illinois Tollway DSE Manual, the following will be supplied:

1. Items identified in Section II.
2. It shall be the responsibility of the DSE to select the applicable reduced record drawings from the Illinois Tollway's website at www.illinoisvirtualtollway.com.
3. Available inspection reports from current jurisdictional agencies for facilities within the project limits.

4. The Illinois Tollway's biennial structural inspection report of the bridges within the project limits.
5. Digital Ortho-Imagery, contours, horizontal and vertical survey control, and center line of the project limits.
6. Copies of Illinois Tollway Standard Specifications, Standard Drawings, and Illinois Tollway Design Manual can be obtained from the Illinois Tollway's website at www.illinoistollway.com.
7. Copy of Illinois Tollway Railroad and utility agreements (as required).
8. Copy of Bridge Condition Reports (as required).
9. Maintenance Section Reports.
10. General Engineering Consultant's Special Issue Log.

PROJECT SCHEDULE

Contract No. I-17-4300
Tri-State Tollway Roadway Reconstruction Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3)

SCHEDULE

1.	Scoping Meeting	7/24/2017
2.	Design Scope Submittal	8/11/2017
3.	Design Scope Approval	9/6/2017
4.	Notice to Proceed	1/2/2018
5.	Project Kick-Off Meeting	1/10/2018
6.	Concept Submittal	TBD
7.	Preliminary Submittal	TBD
8.	Pre-final Submittal	TBD
9.	Final Submittal	TBD
10.	Advertise	TBD
11.	Bid Opening	TBD
12.	Board Award	TBD
13.	Construction Start Date	TBD

[a] Design for this project is scheduled to begin in 2018. Construction of this project is not scheduled. Listed dates are subject to change and correspond to the advertisement date and construction start dates for the earliest roadway contract. The intent of is to advance the design to enable the Illinois Tollway to proceed to construction in advance of the above listed dates if possible and practical in coordination with the DCM and overall Tri-State Tollway Master Corridor Schedule and program priorities.

TABLE A:
BRIDGES LOCATED WITHIN THE PROJECT LIMITS

Contract No. I-17-4300
Tri-State Tollway (I-294) Roadway Reconstruction Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3)

Bridge #	Traffic Direction	Mile Post	Location	Tollway Over (O) Under (U)	Type of Bridge[1]	Maintenance**
205/206	NB/SB	30.55	IL 38 Roosevelt Road: Two mainline structures	O		C
207/208	NB/SB	30.72	Ramp A: Two ramp structures	O		A
209/210/ 209CD	NB/SB	31.05	E-W Tollway: Three mainline structures	O		A
211/ 211CD	NB	31.35	Butterfield Road: Two mainline structures	O		A
212/ 212CD	SB	31.35	Butterfield Road: Two mainline structures	O		A
219/ 219CD/ 220	NB/SB	31.50	CN Railroad: Four mainline structures	O		A
Bridge No. forthcoming from Tollway	SB	31.50	I-294 over CCP RR: New Bridge	O	New Bridge	

221CD/ 221/222/ 222CD	NB/SB	31.65	I-290 Three mainline structures	O		A
223	SB	31.80	Ramp H over I-290: One mainline structure	O		A
Bridge No. forthcoming from Tollway	SB	31.80	I-294 over Electric Ave: New Ramp Bridge	O	New Bridge	
225/226	NB/SB	31.97	Electric Ave.: Two mainline structures.	O		A
Bridge No. forthcoming from Tollway	Ramp	31.80	I-294 Ramp F and H over I-290: New Ramp Bridge	O	New Bridge	
Bridge No. forthcoming from Tollway	NB/SB	31.80	I-294 over I-294 Ramp J: two new mainline structures	O	New Bridge	
227	NB/SB	32.47	St. Charles Road over I-294: One crossroad structure	U		B
016-1134			EB I-290 over Electric Avenue			
016-1135			WB I-290 over Electric Avenue			
016-1136			St. Charles over I-290			

210T	EB/WB	140.05	I-88 over Ramps E and D: Tunnel	O	Tunnel	A

** A Type – Illinois Tollway has complete maintenance responsibility.
** B Type – Illinois Tollway has partial maintenance responsibility.
** C Type – Illinois Tollway has complete or partial maintenance responsibility.

[1] Bridge type and span arrangements subject to confirmation by the DSE through Type, Size, and Location studies.

TABLE B:
TRI STATE TOLLWAY (I-294) PERMITTING AND AGREEMENTS RESPONSIBILITY MATRIX

Element	Responsibility		
	DCM	DSE	Others
Permits			
Overall Permitting	Management of the overall permitting delivery and schedule. The DCM will be the central point of contact with all agency permit coordination.	Identification of permitting requirements for individual construction contracts; permitting support/preparation as defined below. Direct agency coordination will be determined by the DCM.	
404	Wetland delineation, Permit application; additional information requests; permit terms/conditions; permit acquisition.	Permit compliance within PS&E; detailed plan review; reconciliation of comments in 95% plans.	Construction enforcement by Tollway CM.
401	Permit application; additional information requests; permit terms/conditions; permit acquisition.	Permit compliance within PS&E; detailed plan review; reconciliation of comments in 95% plans.	Construction enforcement by Tollway CM.
Soil Water Conservation Districts (North Cook and Kane/DuPage SWCD's)	Agreement preparation assistance.	Permit compliance; 95% plan review of SESC plan with SWCD's.	Agreement preparation; enforcement/weekly inspections by SWCDs in coordination with Tollway CM.
Floodway Construction Permits	Preliminary stream hydrology/model data.	Validation/verification of stream hydrology for inclusion; permit application; additional information requests; permit terms and conditions; permit acquisition.	Construction enforcement by Tollway CM.
FAA 7460 Review's	Preparation/processing of 7460 review packages for construction impacting O'Hare/Schaumburg airspace; assist with identification of critical locations.	Preparation of plan sheets identifying critical locations affecting airspace; identification of construction means/methods, equipment usage, and construction duration in critical areas.	Construction enforcement by Tollway CM.
DuPage County Stormwater Management Plan Review	Design coordination and oversight.	Design coordination.	
Federal, State and Local Agency Construction Permits	Design coordination and oversight.	Permit application for each construction contract; additional information requests; permit terms and conditions; permit acquisition.	
MWRD – plan review and approval	Early coordination and development of conceptual engineering for affected facilities. Oversight of permit acquisition from the MWRD. Engineering details associated with the permit for the Touhy Basin will be the responsibility of the DSE.	Finalize engineering approach and details pertaining to impacts of MWRD facilities at the Touhy Flood Control Reservoirs. Prepare permit application content.	

Element	Responsibility		
	DCM	DSE	Others
Permits			
Wetland Mitigation Permit (Off-Site Mitigation Site) – IDNR Interagency Policy Act/404 permit (USACE)	Coordination, pre-application meeting, Permit application; develop engineering content, additional information requests; permit terms/conditions; permit acquisition.		
402 Permit (NPDES Construction Permits)	Oversight of Design and preparation of SWPPP (S.P. 111.2) and review and coordination of Notice of Intent (NOI) submittals to the Tollway.	Preparation of SWPPP (S.P. 111.2) and NOI.	Preparation of Incidence of Noncompliance (ION) and Notice of Termination (NOT) by CM
IEPA Air Quality Permits (Mix Plants and Fuel Storage)	Permit application; additional information requests; permit terms and conditions; permit acquisition.		
IEPA Watermain Relocation Construction Permit	Design coordination and oversight.	Permit application; additional information requests; permit terms/conditions; permit acquisition.	
IEPA Notification of Special Waste	Phase II (ESA) Investigation report review.	Preparation of Phase II (ESA) report. Documentation of field investigations and known information related to the nature/extent of special waste to be managed during construction in PS&E.	Discovery/removal of UST's will require IEPA notification; preparation of notifications and manifests of material disposal by Tollway contractor. If UST is to be removed from a known location, removal should be specified in the construction and CM contracts, along with all noted submittal requirements (20, 45 day & completion report). If discovered in the field at an unknown location, contractor should remove and DCM should complete all required reporting.
IEPA Notification of Asbestos/Lead Paint	Design coordination and oversight.	For building demolition contracts, investigation of asbestos and lead paint; preparation of IEPA notification. CMs should have disposal and documentation oversight.	
ICC	Permit application; additional information requests; permit terms/conditions; permit acquisition.	Supporting engineering detail for permit application.	
Agreements			

Railroad Agreements	Preparation/negotiation/securing umbrella agreements; support during negotiation of sub-agreements.	Engineering detail required to support sub-agreements; preparation of draft sub-agreements; assistance with sub-agreement reviews.	Right of Entry Permits by Contractor; Railroad Flagging Costs by Contractor. Tollway CM to provide oversight and tracking.
Other Agreements (Utilities, Federal, State, Municipalities, Counties)	Management of the overall agreements schedule; utility reimbursements for ICP Project A only via DCM contract	Design support; utility reimbursements.	Preparation/negotiation/securing agreements.

Attachment A

Web-Based Program Management System

The Illinois Tollway has a Web-Based Program Management System (WBPM System) that will be utilized by project participants on the Illinois Tollway CRP projects. The WBPM system provides a number of benefits to the project participants, including:

1) Simplification of communications/online collaboration.
2) Automated tracking of time-sensitive items.
3) Automated reporting.
4) Common document management and storage as electronic documents will reside in a central repository.
5) Audit trail of information so project participants will be able to determine who did what and when.
6) Real-time access and exchange of information.
7) Easy, secure, and 24/7 access to project information over the Internet via a computer and an Internet browser.

The consultant must establish broadband Internet connectivity in order to effectively utilize the WBPM system (T1 is recommended) and must comply with all work instructions and procedures relating to its use. The consultant must furnish all hardware and software required to effectively utilize the WBPM system, including personal computers, peripheral software, virus protection software, System plug-ins, ActiveX installation, firewall configuration, and high-speed document scanners. The consultant will be solely responsible for coordination between its sub consultants & suppliers, and the WBPM system. All document transmittals and written communication from the consultant to the Illinois Tollway must be made electronically via the WBPM system. In certain cases where "wet signatures" and/or stamps are required by the Illinois Tollway, document transmittals must be made simultaneously via the WBPM system for record and by traditional means for paper documents, unless the consultant is directed otherwise in writing by the Illinois Tollway. Once stamped/signed documents have been obtained, they must be scanned and uploaded to the WBPM system for record.

All consultant, sub consultant, and supplier employees who will use WBPM system must complete the training provided by the Illinois Tollway prior to receiving access to the WBPM system. A valid e-mail address must be provided prior to training session. The consultant agrees to comply with all terms and conditions associated with use of the WBPM system.

1.0 The Consultant shall utilize the WBPM system to track and manage projects. The WBPM system shall be an official record of all project communication. The Consultant shall post copies of all project related documents on the WBPM system.

2.0 Within 14 calendar days of Notice to Proceed, the Consultant shall designate a website manager (coordinator) who is to be the point of contact with ISTHA website implementation and support staff.

3.0 The Consultant is required but not limited to submit the following using the System:

3.1 Submittal schedule, submittals shall be processed using the WBPM system to provide a record of activity.

3.2 Progress reports.

3.3 Inspection reports.

3.4 Requests for information, project clarifications, general communication, and project related issues.

3.5 Meeting agendas, no later than 3 days before meeting.

3.6 Minutes of meetings, no later than 3 days after each progress meeting date, distribute copies of minutes via the WBPM system to each party present and to other parties who should have been present. Include a brief summary in narrative form of progress since the previous meeting and report.

4.0 Document submission requirements. Project documents transmitted via the WBPM system must comply with the following electronic formats:

4.1 Documents that are marked up or unavailable in electronic format (drawings, sketches, correspondence, etc. generated by hand drafting methods) shall be scanned to PDF (.pdf) , black and white with maximum resolution of 200dpi using CCITT Group 4 (2d Fax) compression.

4.2 Documents that have been generated using Adobe Acrobat PDF printer drivers (not scanned) shall be submitted to the WBPM system.

4.3 Electronic photographs shall be submitted in JPEG (.JPG) file format, sized at a minimum resolution of 1024x768 pixels.

4.4 Grayscale or color photo images that are scanned shall be saved in JPEG (.JPG) file format with medium to low quality compression at a maximum resolution of 200 dpi.

4.5 Product data that is available for download from the Manufacturer's website that has been generated using Adobe Acrobat .PDF printer drivers (not scanned) may also be submitted via the WBPM system.

System Requirements	
Operating System	Windows XP
Internet Browser	Internet Explorer version 6.0 or greater
Processor Speed	2.0 GHz or greater
System Memory (RAM)	512 Megabytes or greater
Hard Drive Space	1500 Megabytes (1.5Gb)
Display Resolution	1024x768 or greater
Connection Type	Broadband Internet Connection (T1) – If a T1 is not an available option, each System participant must have a dedicated (not shared) DSL or equivalent Internet connection.
Other hardware	CD-ROM or DVD drive
Recommended Professional Document Scanners[6]	
Medium Format Scanner[1]	Canon DR-5020 Document Scanner or equivalent
Medium Format Scanner[1]	Canon DR-5080C Document Scanner or equivalent
Medium Format Scanner[1]	Fujitsu M 4097D IPC Document Scanner or equivalent
Medium Format Scanner[1]	Fujitsu M 4097D VRS Document Scanner or equivalent
Medium Format Scanner[1]	Epson GT-30000 Document Scanner or equivalent
Large Format Scanner[1]	Océ TDS610 36" Monochrome Scanner or equivalent
Large Format Scanner[1]	Océ TDS810 36" Monochrome Scanner or equivalent
Large Format Scanner[1]	Vidar Select P36 Color Scanner or equivalent
Large Format Scanner[1]	Vidar Select MP36 MonochromeScanner or equivalent
Required Additional Software	
Portable Document Format(.PDF) file reader	Adobe Acrobat Reader[2]
Portable Document Format(.PDF) file generator	Adobe Acrobat[3]
ZIP File compression utility	WinZip[4] or equal

[1] Large and medium format scanning may also be outsourced to a digital reproduction house in your locale.

[2] Adobe Acrobat Reader is free software available for download at http://www.adobe.com/

[3] Adobe Acrobat is not a free software and must be purchased. At least one copy of the software must be purchased by the Consultant and must reside on a PC accessible to all users within the Consultant's office. The purchase and installation of multiple copies is recommended.

[4] A fully functional evaluation version of WinZip is available for download at http://www.winzip.com/, alternative free file compression utility is 7-zip available at http://www.7-zip.org/

Note: The scanner models specified meet the requirements of website usage and are provided for information purposes only. Scanner models may change or be discontinued by the manufacturer.

Supplement to Exhibit F

Scope of Work

Tri-State Tollway, Roadway Reconstruction, Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3)

Contract No. I-17-4300

Illinois State Toll Highway Authority

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I. PROJECT DESCRIPTION

A. No modifications.

II. ITEMS OF WORK TO BE INCLUDED IN CONTRACT I-17-4300

It is assumed that the majority of all design for this project will be performed in the first 3 years of this contract; however, this project will have a duration of 5-years. It is also assumed the project will be constructed over the course of five years. Years 1 and 2 will consist of advance work. Years 3 and 4 will consist of mainline and ramp construction and the fifth year will consist of ramp construction, tie-in, and restoration work. DSE will provide bid phase support to advance these contracts to letting. Construction phase support is not included in this Contract.

The scope is based upon development of the following construction packages:

- Package 1 – Package 1 does not exist. ComEd will be responsible for all plans and bid packages related to their tower relocation.
- Package 2 - Contract C09A; NB CD Road and Bridges (BN 211CD, 219CD, 221CD). [Est. Construction Cost: $31M]
- Package 3 - Contract C09B; SB I-294 Interchange Ramps and Pavement (BN 223 (Demo), 222CD (SB I-294 over the CN Railroad), 224 (SB I-294 Ramp F and H over I-290), 226A (SB I-294 Ramp F over Electric Avenue). [Est. Construction Cost: $48M]
- Package 4 – Contract C09C; St. Charles Road over I-294 and I-290 (BN 227, SN 016-1136), St. Charles Road Ramps, I-290 Pavement, and IDOT SN 016-1134 and IDOT SN 016-1135 (I-290 over Electric Avenue). [Est. Construction Cost: $60M]
- Package 5 – Contract C09-1; NB I-294 Mainline (MOT Stage I, II, and Winter Shutdown). [Est. Construction Cost: $194M]
- Package 6 – Contract C09-2; SB I-294 Mainline (MOT Stage IV, V, and Winter Shutdown). [Est. Construction Cost: $194]
- Package 7 – Contract C09D; NB CD Road over I-88 Rehab (BN 209CD, 210T). [Est. Construction Cost: $1M]
- Package 8 – Contract C09-2A; Ramp J and Ramp K Connections and Completion of MOT Stage VII (Ramp Connections and Restoration). [Est. Construction Cost: $15M]
- Package 8 – Contract C09-2A (Continuation); Ramp J and Ramp K Connections and Completion of MOT Stage VII (Ramp Connections and Restoration). [Est. Construction Cost: $15M]

A. CONCEPT DESIGN VERIFICATION REQUIREMENTS

- The concept design verification is based on Alternative 8R, as detailed in the Master Plan and Advanced Engineering Studies (AES). No additional mainline alternative analysis is included in the scope.
- The scope is based upon a review of the MOT scheme included in the Master Plan. Scope based on assumption that four mainline lanes will be maintained in each

direction during construction.. No additional MOT alternative analysis is included in the scope.

- DSE will review the noise study performed as part of the Master Plan. which includes the proposed height and location of proposed noise walls. The DSE will perform adjustments to the study and associated model as required for modifications to the horizontal and vertical geometry of the roadway.
- IDOT Coordination: DSE will provide support to the DCM when coordinating on the following:
  - Access permit along IDOT facilities
  - I-290 interchange geometrics (Concept Design)
  - Approval to use IDOT drainage outlets
  - Limits and scope of improvements to I-290
  - Proposed structure openings spanning I-290
  - Design of St. Charles Road over I-290
  - Design of St. Charles Road over I-294
  - Design of I-294 over Butterfield Road
  - Design of I-294 over Roosevelt Road
  - Design of I-290 over Electric Avenue
  - Construction staging along I-290
- Municipal Coordination: DSE will provide support to the DCM when coordinating on the following:
  - Village of Elmhurst: St. Charles Road improvements
  - Village of Hillside: Buck Road detention site
  - Village of Berkeley: I-294 over Electric Avenue bridge type options
  - Coordination with the Village of Berkeley regarding relocation of the maintenance facility beneath Electric Avenue.
  - Village of Elmhurst: I-290 over Electric Avenue bridge type options (if complete bridge replacement)
- CN Railway Coordination: DSE will provide support to the DCM when coordinating on the following:
  - Design of I-294 over CN

B. CONCEPT DESIGN VERIFICATION REQUIREMENTS

1. ROADWAY REQUIREMENTS

- DSE will develop MOT and construction staging for the recommended mainline alternative only.

2. DESIGN AND PLAN PREPARATION – DETAILED REQUIREEMENTS

- Lighting photometric design, pole spacing, wiring design, etc. will be performed under Contract I-17-4308. DSE will coordinate design with DCM and this contract. DSE will review the lighting concept and provide comments to DCM, DSE will not be involved with the detailed design, estimate of cost or specifications. Plans and documents prepared by others will be inserted in the contract documents

- ITS device design will be performed under Contract I-17-4308. DSE will coordinate design with DCM and this contract. DSE will coordinate design with DCM and this contract. DSE will review the ITS concept and provide comments to DCM, DSE will not be involved with the detailed design, estimate of cost or specifications. Plans and documents prepared by others will be inserted in the contract documents
- DSE will provide maintenance of traffic plans including those for impacts to local facilities. DSE will coordinate with IDOT and the local agencies through the DCM.
- DSE will provide assistance, exhibits, and backup materials as defined in Exhibit F, Exhibit B. DSE will attend coordination meetings with DCM related to each specified permit.

C. STRUCTURAL CONSTRUCTION

- Inspection time is included to allow the DSE to verify the provided Modified Bridge Condition Report (MBCR) information. These field visits for the Tollway bridges to be replaced will be limited to visual observations from the outside shoulders only. Detailed inspections to map the various repair areas is included in the scope of services for the bridges and walls to remain and be rehabilitated. The project team will coordinate and provide necessary traffic control for field visits. DSE to prepare a technical memorandum documenting the results.
- DSE will review the SGRs other geotechnical information for the bridges, walls, sign foundations, and other miscellaneous structures. DSE will advance the AES design of the bridges and use the AES bridge sketches as a basis for the TSLs.
- For existing bridges to be replaced that have been inspected for as part of the AES phase, only general site visits will be included in the inspection scope; the following items are eliminated from the inspection scope:
    a. Eliminate existing in-office plan review, MOT prep, and post-inspection sketch preparation
    b. Deck inspections will not be performed and no lane closures will be provided for inspection.
- For BN 223 – No inspection will occur as this structure will be removed
- Scope for completing the Tollway Superstructure Rating Form is limited to new, reconstructed, and widened bridge structures. Scope is not included for for bridges to be rehabbed (209CD, 210T, SN 016-1036)
- Retaining Walls outside of the I-17-4300 limits are not included in the scope of this contract. These include the following walls:
    a. Southern End (I-17-4299):
        i. TS30.45R,NB (south of BN 205)
    b. Northern End (I-17-4301):
        i. TS32.49R,NB (south of BN 227 West Abutment)
        ii. TS32.41R,SB (north of BN 227 West Abutment)

iii. TS32.49R,SB (northern edge of St. Charles, east of BN 227, adjacent to

D. DRAINAGE

- DSE will utilize sewer televising video and reports to assess the condition of existing sewers to remain. DSE will be responsible for the temporary and final drainage for each construction phase.

E. ENVIRONMENTAL STUDIES AND REPORTS

- No modifications.

F. MAINTENANCE OF TRAFFIC

- The existing number of traffic lanes shall be maintained on the mainline in each direction on the Tri-State Tollway (I-294) between Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3).
- Detours will be evaluated for the interchange ramps. DCM will coordinate with IDOT and the Tollway. The DSE will provide assistance and backup materials.
- DSE will coordinate with contract I-17-4310 to coordinate advance MOT related to crossovers and near the St. Charles bridge over I-294.
- DSE will coordinate with the DCM and the local municipalities to coordinate MOT related to crossroad bridge construction. DCM will lead the coordination and DSE will provide support and backup information.

G. UTILITIES

- DSE to evaluate utility crossings to determine utility conflicts and need for relocations.
- DSE to perform research and request permit numbers.
- DSE to coordinate with JULIE and utilize GPR to locate underground utilities. DSE to provide surveyor to obtain the elevation and location of the utility at potential conflicts in accordance with the DSE manual. DSE to coordinate through DCM to obtain permit.
- Minor utility crossings are anticipated including Tollway-owned fiber, gas, electric, and water.
- Potential major utility crossings are anticipated as detailed below:
    - DuPage Water Commission 90" Water Main. It is assumed that no relocation of the utility will be required. Special design details of Butterfield Road over I-294 structure and retaining walls will be required.
    - 20" Nicor Transmission Main. It is assumed that no relocation of the utility will be required. Special design details of eastbound I-290/southbound I-294 ramp structures and retaining walls will be required.

    - ComEd Towers. DSE will coordinate with DCM and provide backup support to assist ComEd in their design of the relocation of the towers. ComEd will provide all tower design services.
    - Multiple Cell Towers require relocation near Electric Avenue in Village of Berkeley. DSE will coordinate with DCM and the local municipality
- ComEd is responsible for relocating their transmission towers per conditions of its agreement with the Tollway. ComEd will prepare all plans and specifications to perform the work and restore any impacts to the Tollway system.
- Scope of services assumes no municipal utility relocations are required.

H. GEOTECHNICAL

- DSE will prepare MOT plans for subsurface exploration activities when MOT set up is not covered by Tollway standard lane closure detail. DSE will coordinate this activity with the DCM.
- DSE will review borings provided during the Master Plan and AES phase and determine plan for supplemental borings. This will include structure borings, roadway borings, and borings within detention basins.

III. DESIGN SECTION ENGINEER'S (DSE's) SERVICES

A. EXECUTION OF ENGINEERING SERVICES

a. No modifications.

B. FIELD SURVEY

a. DSE will review the survey provided by the Tollway. The survey provided by the Tollway is assumed to primarily cover I-294. Additional survey will be required along I-290 between Butterfield Road and the CN Railroad to account for areas of proposed improvement.
b. DSE will provide additional ground survey at bridge locations to be rehabilitated to verify location of existing bridge elements.
c. DSE will provide additional ground survey in locations of ROW acquisition.
d. DSE will prepare MOT plans for ground survey activities. DSE will coordinate with the DCM.
e. DSE will provide tree surveys including tree type identification.

IV. REQUIRED SUBMITTALS TO THE AUTHORITY

Submittal requirements shall be in accordance with the Illinois Tollway DSE's Manual with special attention to, but not limited to, the following:

A. CONCEPT SUBMITTAL REQUIREMENTS

a. Review of the Concept design documents prepared to date including submittal of a technical memorandum detailing findings and providing recommendations for advancement to preliminary (60%) design.
b. DSE to provide a visual pavement condition survey of existing roadways within the limits of the proposed improvements. This will consist of local road and/or routes used for detour purposes.
c. DSE to coordinate with DCM to implement Context Sensitive Solution and Aesthetic recommendations (i.e. bridge and retaining wall form liners). DCM will provide guidance document.
d. DSE will coordinate with DCM to provide assistance and backup calculations with respect to Tollway Budget Analysis.
e. The DCM will coordinate system-wide ITS design implementation. The DSE will incorporate site specific design services provided by others as specified in the Illinois Tollway DSE Manual, amended by the Project-wide All Electronic Tolling and Intelligent Transportation Systems Design Criteria document, latest version.

B. FINAL DESIGN SERVICES AND SUBMITTALS REQUIRED:

1. Part 2; Preliminary and Final Design

Project Deliverables shall be in accordance with the Tollway's Design Section Engineer's Manual including, but not limited to, the following:

- Plans, special provisions, design calculations, quantity calculations and construction schedules/estimates of time associated with Preliminary (60%), Prefinal (95%) and Final (100%) submittals for construction contracts packaged in accordance with approved contract packaging recommendations.
- Development of construction cost estimates associated with the concept (30%), preliminary (60%) and prefinal (95%) milestone submittals. In addition, the DSE will prepare the Engineer's Estimate of construction cost for the 100% contract documents.
- At the preliminary (60%), prefinal (95%) and final (100%) milestones, transmittal will detail the status of necessary permits and agreements, land acquisition document preparation and coordination, railroad coordination, utility coordination, environmental coordination and all other coordination with agencies affected by or with whom coordination has taken place.
- All design calculations will be submitted at final (100%) including roadway, drainage, lighting, barrier warrant, and structural calculations.
- DSE to provide a constructability review at major milestone submittals.

A. ITEMS TO BE FURNISHED TO THE DESIGN SECTION ENGINEER

In addition to the items listed in Exhibit F Section v, the following will be furnished to the DSE:

- The provided reports shall include a Tollway approved recommended scope of rehabilitation, details of repair areas, locations of repair areas, and sufficient information to allow for plan preparation of substructure and superstructure rehabilitation.

- The Tollway will provide the pavement design for the mainline and ramps.
- Design of any fiber optic relocation will be done by others, as required.
- The ESIS Part I will be prepared by the Tollway

B. MISCELLANEOUS

a. Meetings, field checks, coordination and data review.
b. Book meetings will be required with PMO and DCM
c. Preparation of Consultant Quality Plan
d. QA/QC in accordance with Consultant Quality Plan
e. Invest Coordination. DSE will update INVEST scorecard per Tollway's INVEST manual.
f. Value Engineering. DCM will conduct VMS workshops at 60%. DSE will participate and provide backup support materials and staff to present the project and receive recommendations. The DSE will attend one (1) workshop that will cover all of the packages that the DSE is responsible for. DSE will provide staff to be present during VMS breakout sessions to be available to answer questions.
g. Project administration and status books
h. Involvement in Public Outreach. DSE will assist with development of outreach exhibits. DCM will prepare and print exhibits, DSE will provide support and backup information.
i. Continual monitoring of construction costs and preparation of concept cost estimates.
j. Impacts to construction schedule and staging. The DSE shall develop schedules utilizing Microsoft Project Software
k. Microstation will be used on this project and will follow Tollway CADD Standards Manual including Geopak SS4 and Subsurface Utility Engineering and Subsurface Utility Design and Analysis (SUE/SUDA).
l. DSE will monitor and ensure ProjectWise site administered by the DCM contains current design files at regular intervals and milestone completions.
m. Scope of Services assumes that no updates will be required upon completion of 100% plans (i.e. plans shelved due to funding availability).

EXHIBIT G

Contract No. I-17-4300

Jacobs Engineering Group 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
157-010	US 20 Phase I Study	$2,189,155.00	$298,427.00	4/1/2019
159-031	Statewide Structural Engineering Services	$1,141,557.00	$70,000.00	4/1/2019
162-006	I-90 REVLAC Study	$1,464,310.00	$823,234.00	4/1/2019
168-006	I-94/US 41 Smart Corridor Study & Design	$4,120,703.00	$1,195,000.00	6/1/2019
172-009	Various Lighting and Electrical	$114,825.00	$12,610.00	4/1/2018
PSB 14-3	I-294 Roadway Study, Cermak Road to Balmoral Avenue	$10,768,000.00	$2,193,000.00	2/2/2018
13-0082	System Integrator Services	$8,020,000.00	$4,966,615.00	5/31/2019

Contract No.: I-17-4300 **Consultant:** Jacobs Engineering Group 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	Terra Engineering, Ltd.		
	Direct Labor	$ 2,304,157.97	
	Direct Costs	$ 5,842.03	
	Services by Others	$ -	
	Additional Services **		
	Total this Subconsultant (ULC)		$ 2,310,000.00
2	GSG Consultants, Inc.		
	Direct Labor	$ 1,196,692.00	
	Direct Costs	$ 1,113,610.96	
	Services by Others	$ -	
	Additional Services **		
	Total this Subconsultant (ULC)		$ 2,310,302.96
3	ABNA of Illinois, Inc.		
	Direct Labor	$ 1,720,613.44	
	Direct Costs	$ 11,886.56	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ 1,732,500.00
4	DB Sterlin, Inc.		
	Direct Labor	$ 720,369.97	
	Direct Costs	$ 49,630.03	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ 770,000.00
5	Fontas Group, Inc.		
	Direct Labor	$ 1,149,815.52	
	Direct Costs	$ 8,113.00	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ 1,157,928.52
6	Primera Engineers, Ltd.		
	Direct Labor	$ 3,053,013.60	
	Direct Costs	$ 34,127.50	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ 3,087,141.10
7	SDIENGR Corp.		
	Direct Labor	$ 2,262,144.78	
	Direct Costs	$ 47,855.22	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ 2,310,000.00
8			
	Direct Labor		
	Direct Costs		
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
9			
	Direct Labor		
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
10			
	Direct Labor		
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -

** Additional services funds require prior authorization before use

TOTAL DBE/MBE/WBE Subconsultants: $ 13,677,872.58

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

TOTAL Allowable Fee DBE/MBE/WBE Subconsultants: $ 13,677,872.58

DBE/MBE/WBE Percentage of Total Fee (includes Additional Services): 35.53%

DBE/MBE/WBE Percentage of Total Fee (does not include Additional Services): 35.53%

EXHIBIT "1"

Project No. I-17-4300 **Consultant:** Jacobs Engineering Group 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)

1 Stanley Consultants

Direct Labor	$ 5,729,591.00	
Direct Costs	$ 45,409.00	
Services by Others	$ -	
Additional Services **		
Total this Subconsultant (ULC)		$ 5,775,000.00

2 Aqua Vitae Engineering, LLC

Direct Labor	$ 761,885.60	
Direct Costs	$ 8,114.40	
Services by Others	$ -	
Additional Services **		
Total this Subconsultant (ULC)		$ 770,000.00

3

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

4

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

5

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

6

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

7

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

8

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

9

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

10

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

** Additional services funds require prior authorization before use

TOTAL Non-DBE/MBE/WBE Subconsultants: $ 6,545,000.00

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

TOTAL Allowable Fee Non-DBE/MBE/WBE Subconsultants: $ 6,545,000.00

Contract Information Sheet

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

Consultant Name:	*TERRA Engineering, Ltd*
Contract Number:	*I-17-4300*
Proposal Date:	*10/10/2017*

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 on the Tollway's website

Contract Number: I-17-4300 **Consultant:** TERRA Engineering, Ltd

EXHIBIT A: ESTIMATED TASK WORK HOURS

Grand Total Exhibit A Hours	18,198

MONTHS of YEAR 2018

TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL HOURS
Concept Design Submittal	300	400	400	400	400	400	400	400	400				3500
60% PS&E Design Submittal									200	600	600	600	2000
95% PS&E Design Submittal													
Final PS&E Design Submittal													
Contract Bid PS&E Advertise and Award													
TOTALS	300	400	400	400	400	400	400	400	600	600	600	600	5500

Contract Number: I-17-4300 **Consultant:** TERRA Engineering, Ltd

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2019												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Concept Design Submittal													
60% PS&E Design Submittal	600	600	600	600	600	600	600	600	600	600			6000
95% PS&E Design Submittal											560	560	1120
Final PS&E Design Submittal													
Contract Bid PS&E Advertise and Award													
TOTALS	600	600	600	600	600	600	600	600	600	600	560	560	7120

Contract Number: I-17-4300 **Consultant:** TERRA Engineering, Ltd

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2020												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Concept Design Submittal													
60% PS&E Design Submittal													
95% PS&E Design Submittal	560	560	560	560	560	560							3360
Final PS&E Design Submittal							274	274	274	274	274	272	1642
Contract Bid PS&E Advertise and Award													
TOTALS	560	560	560	560	560	560	274	274	274	274	274	272	5002

Contract Number: I-17-4300 **Consultant:** TERRA Engineering, Ltd

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL HOURS
	MONTHS of YEAR 2021												
Concept Design Submittal													
60% PS&E Design Submittal													
95% PS&E Design Submittal													
Final PS&E Design Submittal													
Contract Bid PS&E Advertise and Award	24	24	24	24	24	24	24	24	24	24	24	24	288
TOTALS	24	24	24	24	24	24	24	24	24	24	24	24	288

Contract Number: I-17-4300 **Consultant:** TERRA Engineering, Ltd

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2022												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Concept Design Submittal													
60% PS&E Design Submittal													
95% PS&E Design Submittal													
Final PS&E Design Submittal													
Contract Bid PS&E Advertise and Award	24	24	24	24	24	24	24	24	24	24	24	24	288
TOTALS	24	24	24	24	24	24	24	24	24	24	24	24	288

Contract No.: **I-17-4300** **Consultant:** **TERRA Engineering, Ltd**

EXHIBIT B: FEE CALCULATIONS

A. DIRECT LABOR (without overtime)

18,198.00	X	$ 45.22	=	TOTAL DIRECT SALARY	$ 822,913.56
(Total Work Hours from Exhibit C-2)		(Average Hourly 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 REGULAR SALARY TIMES MULTIPLIER $ 2,304,157.97

B. REIMBURSABLE DIRECT COSTS NOT ELIGIBLE FOR PROFIT

(For Prime Consultant listed above.)

TOTAL DIRECT COSTS $5,842.03

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 (Prime Consultant)

(Requires prior authorization before use)

ADDITIONAL SERVICES (Subconsultants)

(Requires prior authorization before use)

TOTAL ADDITIONAL SERVICES $ -

(Requires prior authorization before use)

E. MAXIMUM ALLOWABLE FEE (Upper Limit of Compensation) **$ 2,310,000.00**

Contract No.: **I-17-4300**

Consultant: **TERRA Engineering, Ltd**

Date: **10/10/2017**

EXHIBIT C-1: PAYROLL CLASSIFICATION ESCALATION TABLE

CONTRACT TERM: 60 No. OF MONTHS

SCHEDULED START DATE: 1/1/2018

RAISE DATE: 1/1/2019

PERCENT OF RAISE: 0%

ESCALATION PER YEAR Year 1 through 5

1/1/2018 - 12/31/2018	1/1/2019 - 12/31/2019	1/1/2020 - 12/31/2020	1/1/2021 - 12/31/2021	1/1/2022 - 12/31/2022
Date Date	Date Date	Date Date	Date Date	Date Date
12.0	12.0	12.0	12.0	12.0
60.0	60.0	60.0	60.0	60.0
20.00%	20.00%	20.00%	20.00%	20.00%
Factor First Period	Escalation Factor Second Period	Escalation Factor Third Period	Escalation Factor Fourth Period	Escalation Factor Fifth Period

ESCALATION PER YEAR Year 6 through 10

-	-	-	-	-
Date Date	Date Date	Date Date	Date Date	Date Date
60.0	60.0	60.0	60.0	60.0
Escalation Factor Sixth Period	Escalation Factor Seventh Period	Escalation Factor Eighth Period	Escalation Factor Ninth Period	Escalation Factor Tenth Period

The escalation factor for this project is: 100.00%

Contract No.: I-17-4300

Date: 10/10/2017

Consultant: TERRA Engineering, Ltd

Escalation Factor: 100.00%
(From Exhibit C-1)

EXHIBIT C-2: DIRECT LABOR CLASSIFICATION MAN-HOURS AND RATES

Total Estimated Work Hours: 18,198.00

Average Hourly Rate: $45.22

Total Direct Labor $822,913.56

DIRECT COST OVERTIME PREMIUM

Total Estimated O/T Hours: 80.00

Average Premium O/T Hourly Rate: $11.50

Total Overtime Premium: $920.00

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 Right)	Estimated Overtime Hours (Overtime Hours Only) (See Note D to Right)
No	Principal	$50.00	$70.00	$70.00	$70.00	400.00		
No	Project Manager	$40.00	$70.00	$70.00	$70.00	1,900.00		
No	Senior Engineer/Planner	$40.00	$70.00	$67.00	$67.00	1,900.00		
No	Resident Engineer	$40.00	$70.00					
No	Project Engineer/Planner	$25.00	$60.00	$52.00	$52.00	3,300.00		
No	Staff Engineer/Planner	$20.00	$40.00	$38.00	$38.00	3,300.00		
No	Engineer /Accountant	$20.00	$60.00	$35.50	$35.50	3,058.00		
No	Senior Technical Specialist	$25.00	$60.00	$33.00	$33.00	2,100.00		
Yes	Technical Specialist	$15.00	$50.00	$29.00	$29.00	1,600.00	14.50	40.00
No	Architect	$30.00	$70.00					
No	Realty Specialists	$20.00	$70.00					
Yes	Intern	$8.25	$20.00	$17.00	$17.00	360.00	8.50	40.00
No	Admin/Clerical	$8.25	$40.00	$26.00	$26.00	280.00		

EXHIBIT "1"

Contract No.: I-17-4300 **Consultant:** TERRA Engineering, Ltd

Date: 10/10/2017

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	Executive Vice President	Jamil Bou-Saab	$50 - $70
Project Manager	Director of Transportation	Timothy W. Barry	$40 - $70
	Vice President	George Ghareeb	
	Associate Vice President	Eric Therkildsen	
	Structural Department Manager	Donald Bell	
	Sr. Project Manager	David Landeweer	
	Survey Department Manager	Thomas Baumgartner	
Senior Engineer/Planner	Sr. Structural Engineer	Patrick Hannemann	$40 - $70
	Sr. Structural Engineer	Kristen Fields	
	Sr. Structural Engineer	Orwin Youngquist	
	Project Manager	David Albers	
	Senior Engineer	Colin Coad	
	Senior Engineer	Michael Hutchinson	
	Senior Engineer	Curtis Laster	
	Senior Engineer	Felix Rubin	
	Senior Engineer	Christopher Venatta	
Resident Engineer			$40 - $70
Project Engineer/Planner	Lead Engineer	Alexander Badaoui	$25 - $60
	Lead Engineer	Bernard Bolanowski	
	Lead Engineer	Dustin Erickson	
	Lead Engineer	David Kasalko	
	Lead Engineer	Julie Schmidt	
Staff Engineer/Planner	Project Engineer	Lindsey Burke	$20 - $40
	Project Engineer	Rund Daoud	
	Project Engineer	Samuel Grimes	
	Project Engineer	Jerry Hall	
	Project Engineer	Jason Heinekamp	
	Project Engineer	Mitchell Horras	
	Project Engineer	Suhaib Ibrahim	
	Project Engineer	Lindsey Jones	
	Project Engineer	Dovydas Kackys	
	Project Engineer	Katherine Kenefake	
	Project Engineer	Stephen McCarthy	
	Project Engineer	Scott Rasmussen	
	Project Engineer	Kelly Samara	
	GIS Analyst	Selena Hilton-Aragon	

Contract No.: I-17-4300 **Consultant:** TERRA Engineering, Ltd

Date: 10/10/2017

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
Engineer /Accountant	Sr. Landscape Architect	Keven Graham	$20 - $60
	Landscape Architect	Tedd Lundquist	
	Landscape Architect Designer	Stephen Lekan	
	Landscape Architect Designer	William Prescott	
Senior Technical Specialist	Surveyor	Munif Kawash	$25 - $60
	Surveyor	Bradford McGuire	
	Surveyor	Dario Sanchez	
Technical Specialist	IT & Cadd Co-Manager	Bobby Mason	$15 - $50
	IT & Cadd Manager	Kurt Voigts	
	Cadd Drafter	Neil Garity	
	Cadd Drafter	Kelly Roberts	
	Cadd Drafter	Juan Salazar	
	Engineer Technician	Eid Alphonse	
	Engineer Technician	Mohammad Aqilan	
	Engineer Technician	Evan Smith	
Architect			$30 - $70
Realty Specialists			$20 - $70
Intern	Intern	Matthew Moorehouse	$8.25 - $20
Admin/Clerical	Adminstrative Manager	Guat Hoon Lim	$8.25 - $40
	Administrative Associate	Michelle Campbell	
	Administrative Associate	Alexis Zgoda	
	Accountant	Iwona Bartosik	

Contract No.: I-17-4300 **Consultant:** TERRA Engineering, Ltd

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

B. **ALLOWABLE DIRECT COSTS - based on link below**
http://www.illinoistollway.com/documents/10157/2389762/12_LG_TOLLWAY_XX_ALLOWABLEDIRECTCOSTS_10012013.PDF

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) $ 4,922.03

Contract No.: I-17-4300 **Consultant:** TERRA Engineering, Ltd

EXHIBIT E - KEY PROJECT PERSONNEL

Project Principal: ____________________

Project Manager: ____________________

Project Engineer: ____________________

Resident Engineer: ____________________

Documentation Engineer: ____________________

Project Civil Engineer: ____________________

Project Structural Engineer: ____________________

Project Drainage Engineer: ____________________

Senior Engineer: ____________________

Others: Name: ____________________

Classification: ____________________

Name: ____________________

Classification: ____________________

Name: ____________________

Classification: ____________________

Name: ____________________

Classification: ____________________

EXHIBIT F

Contract No. I-17-4300

TERRA Engineering, Ltd.

SCOPE OF SERVICES

I. PROJECT DESCRIPTION

No modifications.

II. ITEMS OF WORK TO BE INCLUDED IN CONTRACT I-17-4300

It is assumed the project will be constructed over the course of five years. Years 1 and 2 will consist of advance work. Years 3 and 4 will consist of mainline and ramp construction and the fifth year will consist of ramp construction, tie-in, and restoration work. DSE will provide bid phase support to advance these contracts to letting including an estimated one addendum per contract. Construction phase support is not included in this contract. This contract may develop construction packages as follows:

Years 1 and 2 Contract Bid Packages:

- Package 1 – Advance Grading for ComEd Tower Relocation
- Package 2 – Contract C09A; NB CD Road and Bridges (BN 211CD, 219CD, 221CD).
- Package 3 – Contract C09B; SB I-294 Interchange Ramps and Pavement (BN 223 (Demo), 222CD (SB I-294 over the CN Railroad), 224 (SB I-294 Ramp F and H over I-290), 226A (SB I-294 Ramp F over Electric Avenue).
- Package 4 – Contract C09C1; St. Charles Road over I-294 and I-290 (BN 227, SN 016-1136), St. Charles Road Ramps, I-290 Pavement, and IDOT SN 016-1134 and IDOT SN 016-1135 (I-290 over Electric Avenue).

Year 3 Contract Bid Package:

- Package 5 – Contract C09-1; NB I-294 Mainline (MOT Stage I, II, and Winter Shutdown).

Year 4 Contract Bid Package:

- Package 6 – Contract C09-2; SB I-294 Mainline (MOT Stage IV, V, and Winter Shutdown).
- Package 7 – Contract C09D; NB CD Road over I-88 Rehab (BN 209CD, 210T).
- Package 8 – Contract C09-2A; Ramp J and Ramp K Connections and Completion of MOT Stage VII (Ramp Connections and Restoration).

Year 5 Contract Bid Package:

- Package 8 – Contract C09-2A (Continuation); Ramp J and Ramp K Connections and Completion of MOT Stage VII (Ramp Connections and Restoration).

A. CONCEPT DESIGN VERIFICATION REQUIREMENTS

- The concept design verification is based on Alternative 8R, as detailed in the Master Plan and Advanced Engineering Studies (AES). No additional mainline alternative analysis is included in the scope.

- The scope is based upon a review of the MOT scheme included in the Master Plan. Scope based on assumption that four mainline lanes will be maintained in each direction during construction.
- DSE will review the noise study performed as part of the Master Plan. DSE will conduct further analysis to determine the proposed height and location of proposed noise walls.
- IDOT Coordination: DSE will provide support to the DCM when coordinating on the following:
  - Access permit along IDOT facilities
  - I-290 interchange geometrics (Concept Design)
  - Approval to use IDOT drainage outlets
  - Limits and scope of improvements to I-290
  - Proposed structure openings spanning I-290
  - Design of St. Charles Road over I-290
  - Design of St. Charles Road over I-294
  - Design of I-294 over Butterfield Road
  - Design of I-294 over Roosevelt Road
  - Design of I-290 over Electric Avenue
  - Construction staging along I-290
- Municipal Coordination: DSE will provide support to the DCM when coordinating on the following:
  - Village of Elmhurst: St. Charles Road improvements
  - Village of Hillside: Buck Road detention site
  - Village of Berkeley: I-294 over Electric Avenue bridge type options
  - Coordination with the Village of Berkeley regarding relocation of the maintenance facility beneath Electric Avenue.
  - Village of Elmhurst: I-290 over Electric Avenue bridge type options (if complete bridge replacement)
- CN Railway Coordination: DSE will provide support to the DCM when coordinating on the following:
  - Design of I-294 over CN

B. CONCEPT DESIGN VERIFICATION REQUIREMENTS

1. ROADWAY REQUIREMENTS

- DSE will develop MOT and construction staging for the recommended mainline alternative only.

2. DESIGN AND PLAN PREPARATION – DETAILED REQUIREEMENTS

- DSE will provide maintenance of traffic plans including those for impacts to local facilities. DSE will coordinate with IDOT and the local agencies through the DCM.
- DSE will provide assistance, exhibits, and backup materials. DSE will attend coordination meetings with DCM related to each specified permit.

C. DRAINAGE

- The DSE shall inspect existing storm drainage pipes to remain for condition assessment. DSE will include sewer televising services as a direct cost. DSE will be responsible for the temporary and final drainage for each construction phase.

D. ENVIRONMENTAL STUDIES AND REPORTS

- No modifications.

E. MAINTENANCE OF TRAFFIC

- The existing number of traffic lanes shall be maintained on the mainline in each direction on the Tri-State Tollway (I-294) between Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3).
- Detours will be evaluated for the interchange ramps. DCM will coordinate with IDOT and the Tollway. The DSE will provide assistance and backup materials.
- DSE will coordinate with contract I-17-4310 to coordinate advance MOT related to crossovers and near the St. Charles bridge over I-294.
- DSE will coordinate with the DCM and the local municipalities to coordinate MOT related to crossroad bridge construction. DCM will lead the coordination and DSE will provide support and backup information.

F. UTILITIES

- DSE to evaluate utility crossings to determine utility conflicts and need for relocations.
- DSE to perform research and request permit numbers.
- DSE to coordinate with JULIE and utilize GPR to locate underground utilities. DSE to provide surveyor to obtain the elevation and location of the utility at potential conflicts in accordance with the DSE manual. DSE to coordinate through DCM to obtain permit.
- Minor utility crossings are anticipated including Tollway-owned fiber, gas, electric, and water.
- Potential major utility crossings are anticipated as detailed below:
    - DuPage Water Commission 90" Water Main. It is assumed that no relocation of the utility will be required. Special design details of Butterfield Road over I-294 structure and retaining walls will be required.
    - 20" Nicor Transmission Main. It is assumed that no relocation of the utility will be required. Special design details of eastbound I-290/southbound I-294 ramp structures and retaining walls will be required.
    - ComEd Towers. DSE will coordinate with DCM and provide backup support to assist ComEd in their design of the relocation of the towers. ComEd will provide all tower design services.
    - Multiple Cell Towers require relocation near Electric Avenue in Village of Berkeley. DSE will coordinate with DCM and the local municipality.

G. GEOTECHNICAL

- DSE will prepare MOT plans for subsurface exploration activities when MOT set up is not covered by Tollway standard lane closure detail. DSE will coordinate this activity with the DCM.
- DSE will review borings provided during the Master Plan and AES phase and determine plan for supplemental borings. This will include structure borings, roadway borings, and borings within detention basins.

III. DESIGN SECTION ENGINEER'S (DSE's) SERVICES

A. EXECUTION OF ENGINEERING SERVICES

- No modifications.

B. FIELD SURVEY

- DSE will review the survey provided by the Tollway. The survey provided by the Tollway is assumed to primarily cover I-294. Additional survey will be required along I-290 between Butterfield Road and the CN Railroad to account for areas of proposed improvement.
- DSE will provide additional ground survey at bridge locations to be rehabilitated to verify location of existing bridge elements.
- DSE will provide additional ground survey in locations of ROW acquisition.
- DSE will prepare MOT plans for ground survey activities. DSE will coordinate with the DCM.
- DSE will provide tree surveys including tree type identification.

IV. REQUIRED SUBMITTALS TO THE AUTHORITY

Submittal requirements shall be in accordance with the Illinois Tollway DSE's Manual with special attention to, but not limited to, the following:

A. CONCEPT SUBMITTAL REQUIREMENTS

- Review of the Concept design documents prepared to date including submittal of a technical memorandum detailing findings and providing recommendations for advancement to preliminary (60%) design.
- DSE to provide a visual pavement condition survey of existing roadways within the limits of the proposed improvements. This will consist of local road and/or routes used for detour purposes.
- DSE to coordinate with DCM to implement Context Sensitive Solution and Aesthetic recommendations (i.e. bridge and retaining wall form liners). DCM will provide guidance document.
- DSE will coordinate with DCM to provide assistance and backup calculations with respect to Tollway Budget Analysis.
- The DCM will coordinate system-wide ITS design implementation. The DSE will incorporate site specific design services provided by others as specified in the Illinois Tollway DSE Manual, amended by the Project-wide All Electronic Tolling and Intelligent Transportation Systems Design Criteria document, latest version.

B. FINAL DESIGN SERVICES AND SUBMITTALS REQUIRED

1. Preliminary and Final Design

Project Deliverables shall be in accordance with the Tollway's Design Section Engineer's Manual including, but not limited to, the following:

- Plans, special provisions, design calculations, quantity calculations and construction schedules/estimates of time associated with Preliminary (60%), Prefinal (95%) and Final (100%) submittals for construction contracts packaged in accordance with approved contract packaging recommendations.
- Development of construction cost estimates associated with the concept (30%), preliminary (60%) and prefinal (95%) milestone submittals. In addition, the DSE will prepare the Engineer's Estimate of construction cost for the 100% contract documents.
- At the preliminary (60%), prefinal (95%) and final (100%) milestones, transmittal will detail the status of necessary permits and agreements, land acquisition document preparation and coordination, railroad coordination, utility coordination, environmental coordination and all other coordination with agencies affected by or with whom coordination has taken place.
- All design calculations will be submitted at final (100%) including roadway, drainage, lighting, barrier warrant, and structural calculations.
- DSE to provide a constructability review at major milestone submittals.

2. Items To Be Furnished to the Design Section Engineer

In addition to the items listed in Exhibit F Section V, the following will be furnished to the DSE:

- The provided reports shall include a Tollway approved recommended scope of rehabilitation, details of repair areas, locations of repair areas, and sufficient information to allow for plan preparation of substructure and superstructure rehabilitation.
- The Tollway will provide the pavement design for the mainline and ramps.
- Design of any fiber optic relocation will be done by others, as required.
- The ESIS Part I will be prepared by the Tollway

3. Miscellaneous

- Meetings, field checks, coordination and data review.
- Book meetings will be required with PMO and DCM
- Preparation of Consultant Quality Plan
- QA/QC in accordance with Consultant Quality Plan
- Invest Coordination. DSE will update INVEST scorecard per Tollway's INVEST manual.
- Value Engineering. DCM will conduct VMS workshops at 60%. DSE will participate and provide backup support materials and staff to present the project and receive recommendations.

- Project administration and status books
- Involvement in Public Outreach. DSE will assist with development of outreach exhibits. DCM will prepare and print exhibits, DSE will provide support and backup information.
- Continual monitoring of construction costs and preparation of concept cost estimates.
- Impacts to construction schedule and staging. The DSE shall develop schedules utilizing Microsoft Project Software
- Microstation will be used on this project and will follow Tollway CADD Standards Manual including Geopak SS4 and Subsurface Utility Engineering and Subsurface Utility Design and Analysis (SUE/SUDA).
- DSE will monitor and ensure ProjectWise site administered by the DCM contains current design files at regular intervals and milestone completions.

EXHIBIT G
Contract No. I-17-4300
TERRA 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
CDB Project No. 816-010-038 / CDB Contract No. 13041310	GSU Roadway and Sewer Repair	$191,896.00	$42,030.98	Dec-17
D-30-011-11 / PTB 159-32	WO #14 Geotechnical duties as required	$293,440.38	$211,812.83	Jun-18
D-91-279-12 / PTB 163-09	FAU 2857 (Ashland Avenue)	$79,787.68	$1,127.58	Dec-17
D-91-279-12 / PTB 163-09	Ashland Avenue Bridge Removal Supplement 1	$47,779.51	$1,319.05	Dec-17
D-91-279-12 / PTB 163-09	Lincoln Ave. - resurfacing	$32,256.89	$4,464.02	Dec-17
P-93-036-11 / PTB 161-022	I-180 over IL River	$119,657.50	$22,284.92	Apr-18
P-93-036-11 / PTB 161-022	IL 116 over Rooks Creek	$58,021.23	$1,983.70	Dec-17
P-93-036-11 / PTB 161-022	I-57 over RR - PTB 161-022 WO #14	$97,791.92	$5,396.15	Dec-17
P-93-036-11 / PTB 161-022	I-180 Bridge 2 Lane Feasibility	$52,099.19	$26,906.21	Apr-18
P-93-036-11 / PTB 161-022	US45/52 over Rock Creek	$66,910.60	$20,930.23	Apr-18
P-93-036-11 / PTB 161-022	I-57 over Grinnell Road	$31,586.36	$21,885.06	Apr-18
P-30-003-14 / PTB 170-022	Truck Weight Study	$413,041.00	$272,345.82	Jun-18
HPR-66-001-16 / PTB 177-014	IDOT Traffic Counts 2016-2017	$3,100,000.00	$150,000.00	Nov-17
C-94-096-012 / PTB 180-010	FAP Route 669 (IL 116)	$21,277.59	$11,779.31	Dec-17
C-94-096-012 / PTB 180-010	IDOT Independent Weight Checks	$33,454.06	$33,454.06	Jun-18
C-94-054-016 / PTB 180-011	US 150 over BNSF Railroad (Millenia)	$29,384.92	$29,219.84	Mar-18
P-94-021-07 / PTB 144-23	Eastern Bypass Corridor Study / CSS Project	$1,119,133.00	$354,478.90	On-going
D-94-038-12 / PTB 163-25	Railroad bridge over IL 29 north of Chillicothe	$312,124.73	$267,987.51	On-going
D-94-097-07 / PTB 153-44	IL 29 Extension	$207,362.59	$106,689.84	Jun-18
D-94-132-06 / PTB 147-023	IL 17 over Edwards River	$53,778.12	$19,209.09	Jul-18
RR-15-9976R / PSB16-2 Item 2	Traffic and Planning Studies	$408,000.00	$297,636.84	Dec-19
I-15-4658 / PSB15-2 Item 7	EOWA, I-294 to I-9 Bensenville Yard Underpass. Phase II Engineering Services	$6,769,676.00	$6,456,519.31	Feb-21
RR-14-5704 / PSB14-3 Item 7	4243 - CUR - Tollway Construction upon Request	$4,000,000.00	$1,840,628.87	Dec-18
I-16-4257 / PSB16-1 Item 10	I-16-4257, Environmental Studies Upon Request	$150,000.00	$111,037.01	Jul-21
I-16-4266 / PSB16-3 Item 2	I-16-4266, IL 53-IL 120 EIS	$625,000.00	$625,000.00	Jun-19

Contract No.: I-17-4300 **Consultant:** TERRA 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/WBE SUBCONSULTANTS

1 ______

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

2 ______

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

3 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

4 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

5 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

6 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

7 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

8 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

9 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

10 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

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

Project No. I-17-4300 Consultant: TERRA 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.

OTHER SUBCONSULTANTS (NOT DBE/MBE/WBE)

1 ______________________

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

2 ______________________

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

3 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

4 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

5 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

6 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

7 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

8 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

9 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

10 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

** Additional services funds require prior authorization 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 following information and it will be populated on every exhibit.

Consultant Name: *SDIENGR Corp.*

Contract Number: *I-17-4300*

Proposal Date: *10/10/2017*

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 on the Tollway's website

Contract Number: I-17-4300 **Consultant:** SDIENGR Corp.

EXHIBIT A: ESTIMATED TASK WORK HOURS

Grand Total Exhibit A Hours: 16,371

TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL HOURS
	MONTHS of YEAR 2018												
PLAN SHEETS	334	328	328	328	328	328	328	328	328	328	328	328	3942
DESIGN CALCULATIONS	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	222
BARRIER WARRANT ANALYSES	75	75	75	75	75	75	75	75	75	75	74	74	898
ADDENDUM						6						6	12
MEETINGS	4	4	4	4	4	4	4	4	4	4	4	4	48
QA/QC						36						36	72
PROJECT MANAGEMENT	4	4	4	4	4	4	4	4	4	4	4	4	48
TOTALS	435.5	429.5	429.5	429.5	429.5	471.5	429.5	429.5	429.5	429.5	428.5	470.5	5242

Contract Number: I-17-4300 **Consultant:** SDIENGR Corp.

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2019												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
PLAN SHEETS	328	328	328	328	328	328	328	328	328	328	328	328	3936
DESIGN CALCULATIONS	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	222
BARRIER WARRANT ANALYSES	74	74	74	74	74	74	74	74	74	74	74	74	888
ADDENDUM						6						6	12
MEETINGS	4	4	4	4	4	4	3.5	3.5	3.5	3.5	3.5	3.5	45
QA/QC						36						36	72
PROJECT MANAGEMENT	4	4	4	4	4	4	4	4	4	4	4	4	48
TOTALS	428.5	428.5	428.5	428.5	428.5	470.5	428	428	428	428	428	470	5223

Contract Number: I-17-4300 **Consultant:** SDIENGR Corp.

EXHIBIT A: ESTIMATED TASK WORK HOURS

	MONTHS of YEAR 2020												TOTAL HOURS
TASK	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	
PLAN SHEETS	328	328	328	328	328	328	328	328	328	328	328	328	3936
DESIGN CALCULATIONS	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	222
BARRIER WARRANT ANALYSES	74	74	74	74	74	74	74	74	74	74	74	74	888
ADDENDUM						6						10	16
MEETINGS	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	42
QA/QC						36						34	70
PROJECT MANAGEMENT	4	4	4	4	4	4	4	4	4	4	4	4	48
TOTALS	428	428	428	428	428	470	428	428	428	428	428	472	5222

Contract Number: I-17-4300 **Consultant:** SDIENGR Corp.

EXHIBIT A: ESTIMATED TASK WORK HOURS

	MONTHS of YEAR 2021												TOTAL HOURS
TASK	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	
PLAN SHEETS	25	25	25	25	25	25	25	25	25	25	25	25	300
DESIGN CALCULATIONS	0	0	0	0	0	0	0	0	0	0	0	0	
BARRIER WARRANT ANALYSES	0	0	0	0	0	0	0	0	0	0	0	0	
ADDENDUM	0	0	0	0	0	0	0	0	0	0	0	0	
MEETINGS	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	42
QA/QC	0	0	0	0	0	0	0	0	0	0	0	0	
PROJECT MANAGEMENT	0	0	0	0	0	0	0	0	0	0	0	0	
TOTALS	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	342

Contract Number: I-17-4300 **Consultant:** SDIENGR Corp.

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2022												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
PLAN SHEETS	25	25	25	25	25	25	25	25	25	25	25	25	300
DESIGN CALCULATIONS	0	0	0	0	0	0	0	0	0	0	0	0	
BARRIER WARRANT ANALYSES	0	0	0	0	0	0	0	0	0	0	0	0	
ADDENDUM	0	0	0	0	0	0	0	0	0	0	0	0	
MEETINGS	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	42
QA/QC	0	0	0	0	0	0	0	0	0	0	0	0	
PROJECT MANAGEMENT	0	0	0	0	0	0	0	0	0	0	0	0	
TOTALS	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	342

Contract No.: I-17-4300 **Consultant:** SDIENGR Corp.

EXHIBIT B: FEE CALCULATIONS

A. DIRECT LABOR (without overtime)

16,371.00	X	$ 49.35	=	TOTAL DIRECT SALARY	$ 807,908.85
(Total Work Hours from Exhibit C-2)		(Average Hourly 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 REGULAR SALARY TIMES MULTIPLIER $ 2,262,144.78

B. REIMBURSABLE DIRECT COSTS NOT ELIGIBLE FOR PROFIT

(For Prime Consultant listed above.)

TOTAL DIRECT COSTS $47,855.22

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 (Prime Consultant)

(Requires prior authorization before use)

ADDITIONAL SERVICES (Subconsultants)

(Requires prior authorization before use)

TOTAL ADDITIONAL SERVICES $ -

(Requires prior authorization before use)

E. MAXIMUM ALLOWABLE FEE (Upper Limit of Compensation)

$ 2,310,000.00

Contract No.: I-17-4300

Date: 10/10/2017

Consultant: SDIENGR Corp.

EXHIBIT C-1: PAYROLL CLASSIFICATION ESCALATION TABLE

CONTRACT TERM: 60 No. OF MONTHS

SCHEDULED START DATE: 1/1/2018

RAISE DATE: 1/1/2019

PERCENT OF RAISE: 0%

ESCALATION PER YEAR Year 1 through 5

1/1/2018 - 12/31/2018	1/1/2019 - 12/31/2019	1/1/2020 - 12/31/2020	1/1/2021 - 12/31/2021	1/1/2022 - 12/31/2022
Date Date	Date Date	Date Date	Date Date	Date Date
12.0	12.0	12.0	12.0	12.0
60.0	60.0	60.0	60.0	60.0
20.00%	20.00%	20.00%	20.00%	20.00%
Factor First Period	Escalation Factor Second Period	Escalation Factor Third Period	Escalation Factor Fourth Period	Escalation Factor Fifth Period

ESCALATION PER YEAR Year 6 through 10

-	-	-	-	-
Date Date	Date Date	Date Date	Date Date	Date Date
60.0	60.0	60.0	60.0	60.0
Escalation Factor Sixth Period	Escalation Factor Seventh Period	Escalation Factor Eighth Period	Escalation Factor Ninth Period	Escalation Factor Tenth Period

The escalation factor for this project is: 100.00%

Contract No.: I-17-4300

Date: 10/10/2017

Consultant: SDIENGR Corp.

Escalation Factor: 100.00%
(From Exhibit C-1)

EXHIBIT C-2: DIRECT LABOR CLASSIFICATION MAN-HOURS AND RATES

Total Estimated Work Hours: 16,371.00

Average Hourly Rate: $49.35

Total Direct Labor $807,908.85

DIRECT COST OVERTIME PREMIUM

Total Estimated O/T Hours: 0.00

Average Premium O/T Hourly Rate: $0.00

Total Overtime Premium: $0.00

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 Right)	Estimated Overtime Hours (Overtime Hours Only) (See Note D to Right)
No	Principal	$50.00	$70.00	$70.00	$70.00	381.00		
No	Project Manager	$40.00	$70.00	$65.00	$65.00	1,285.00		
No	Senior Engineer/Planner	$40.00	$70.00	$65.00	$65.00	2,157.00		
No	Resident Engineer	$40.00	$70.00					
No	Project Engineer/Planner	$25.00	$60.00	$57.00	$57.00	2,339.00		
No	Staff Engineer/Planner	$20.00	$40.00	$40.00	$40.00	2,339.00		
No	Engineer /Accountant	$20.00	$60.00	$60.00	$60.00	2,339.00		
No	Senior Technical Specialist	$25.00	$60.00	$40.00	$40.00	2,339.00		
No	Technical Specialist	$15.00	$50.00	$32.00	$32.00	2,339.00		
No	Architect	$30.00	$70.00					
No	Realty Specialists	$20.00	$70.00					
No	Intern	$8.25	$20.00					
No	Admin/Clerical	$8.25	$40.00	$25.60	$25.60	853.00		

EXHIBIT "1"

Contract No.: I-17-4300 **Consultant:** SDIENGR Corp.

Date: 10/10/2017

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	President	Olufemi A. Oladeinde	\$50 - \$70
Project Manager	Project Manager	Olufemi A. Oladeinde	\$40 - \$70
Senior Engineer/Planner	Senior Engineer/Planner	Ebenezer A. Oguribido	\$40 - \$70
Resident Engineer			\$40 - \$70
Project Engineer/Planner	Project Engineer/Planner	Theodore Lenart	\$25 - \$60
Staff Engineer/Planner	Staff Engineer/Planner	Ashok Guntaka	\$20 - \$40
Engineer /Accountant	Engineer /Accountant	Larry R. Thompson	\$20 - \$60
	Engineer /Accountant	Boris Lyalin	
Senior Technical Specialist	Senior Technical Specialist	Hunasamar Jayaswamy	\$25 - \$60
Technical Specialist	Technical Specialist	Steven Flowers	\$15 - \$50
	Technical Specialist	Adeyemi Adefarasin	
	Technical Specialist	Charles Okunade	
Architect			\$30 - \$70
Realty Specialists			\$20 - \$70
Intern			\$8.25 - \$20
Admin/Clerical	Administrative Assistant	Earline L. Mayes	\$8.25 - \$40
	Administrative Assistant	Maria Cartagena	
	Administrative Assistant	Mariam Khan	
	Administrative Assistant	Fatima Amjad	

Contract No.: I-17-4300 **Consultant:** SDIENGR Corp.

EXHIBIT D

REIMBURSABLE DIRECT COSTS - WORKSHEET ESTIMATES

A. **VEHICLE REIMBURSEMENT - rate based on link below**
http://www2.illinois.gov/cms/Employees/travel/Pages/TravelReimbursement.asp:

B. **ALLOWABLE DIRECT COSTS - based on link below**
http://www.illinoistollway.com/documents/10157/2389762/12_LG_TOLLWAY_XX_ALLOWABLEDIRECTCOSTS_10012013.PDF

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) $47,855.22

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	State Rate (Maximum)
Lodging	State Rate (Maximum)
Air Fare	Coach Rate with 2 weeks advance purchase
Vehicles	
Mileage	State Rate* (Maximum)
Vehicle Rental	$55/day (Maximum)
Leased / Company-Owned Vehicles (does not include personal vehicles, not owned by the company)	$65/day
Vehicle Half-day Rate	$32.50/half day
Parking	Actual Cost
Tolls	Actual Cost
Overtime	Premium portion
Film and Film Processing**	Actual Cost
Overnight Delivery/Postage Courier Service	Actual Cost
Copies of Deliverables and Mylars	Actual Cost
Specific Insurance – required for project	Actual Cost
CADD	Actual Costs (Maximum of $15.00/Hr)
Monuments – Permanent	Actual Cost
Payment for Newspaper Ads	Actual Cost
Web Site	Actual 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 beam breaks, cylinder breaks, pavement cores)	Actual Cost
Equipment rental specific for project (snooper for bridge inspection, noise meter, etc.)	Actual Cost
Specialized equipment – on an as needed basis with prior approval	Actual Cost
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

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 actual costs.

- On all agreements authorization after January 1, 2005, GPS Equipment is considered a "tool of the trade."

Contract No.: **I-17-4300** **Consultant:** **SDIENGR Corp.**

EXHIBIT E - KEY PROJECT PERSONNEL

Project Principal: ______________________

Project Manager: ______________________

Project Engineer: ______________________

Resident Engineer: ______________________

Documentation Engineer: ______________________

Project Civil Engineer: ______________________

Project Structural Engineer: ______________________

Project Drainage Engineer: ______________________

Senior Engineer: ______________________

Others: Name: ______________________

Classification: ______________________

Name: ______________________

Classification: ______________________

Name: ______________________

Classification: ______________________

Name: ______________________

Classification: ______________________

EXHIBIT F

CONTRACT RR-14-4221

SDIENGR Corp.

SCOPE OF SERVICES

This project is to prepare Phase II engineering services for the preparation of contract plans and specifications and project related permits for the proposed improvements including, but not limited to, reconstruction of the Tri-State Tollway (I-294) between Roosevelt Road (M.P. 30.5) and St. Charles Road (M.P. 32.3).

The scope of proposed improvements includes:

- roadway design,
- reconstructing / rehabilitation of bridges,
- retaining wall design,
- noise wall design,
- new drainage structures and modification of existing drainage system,
- erosion control for all construction zones,
- design of appropriate landscape and soil erosion/sedimentation control measures as necessary,
- pavement markings,
- delineators, and signage,
- barrier warrant analysis and installation of guardrail, anchors and terminal,
- update roadway lighting,
- maintenance of traffic,
- protection and relocation of utilities, and
- other appurtenant and miscellaneous construction.

The following structures are included in this project:

- Bridges 205/206: IL 38 Roosevelt Road: Two mainline structures
- Bridges 207/208: Ramp A: Two ramp structures
- Bridges 209/210/209CD: E-W Tollway: Three mainline structures
- Bridges 211/ 211CD: Butterfield Road: Two mainline structures
- Bridges 212/ 212CD: Butterfield Road: Two mainline structures
- Bridges 219/219CD/220 CN Railroad: Four mainline structures
- Bridges:221CD/221/222/222CD: I-290: Three mainline structures
- Bridges 225/226: Electric Ave.: Two mainline structures.
- Bridge 223: Ramp H over I-290: One mainline structure
- Bridge 227 St. Charles Road over I-294: One crossroad structure
- Bridge 016-1134: EB I-290 over Electric Avenue
- Bridge 016-1135: WB I-290 over Electric Avenue
- Bridge 016-1136: St. Charles over I-290
- Bridge 210T: I-88 over Ramps E and D
- New Bridge: SB I-294 over CCP RR: CD Road
- New Bridge: I-294 Ramp F and H over I-290: Ramp
- New Bridge: NB I-294 over I-294 Ramp J: Ramp
- New Bridge SB I-294 over I-294 Ramp J: Ramp
- New Bridge: SB I-294 over Electric Avenue: Ramp

EXHIBIT G

CONTRACT RR-14-4221

(SDIENGR Corp.)

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
PSB 14-3 & RR-14-4221	**Tri-State Tollway, Bridge Rehabilitation/ Reconstruction, Mile-Long Bridge (MP 21.5):** The work encompasses engineering studies, bridge rehabilitation, bridge reconstruction and widening and shall include but not be limited to the following: 1. Perform a Bridge Type Study for the bridge reconstruction and widening design. 2. Perform Bridge Condition Reports. 3. Perform Type, Size and Location (TS&L) drawings for the bridge reconstruction and widening design. 4. Provide a BCR. 5. Develop scope, costs and recommendations associated with: a. Bridge Rehabilitation. b. Bridge Reconstruction and Widening. 6. Based on the results of 1 and 2, the Tollway will determine final scope of design work. The following structures are included in this project: • Bridge Nos. 191 and 192, Mile-Long Bridge	$1,388,000	$442,000	3/31/2020

Contract No.: I-17-4300 **Consultant:** SDIENGR Corp.

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 __________

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

2 __________

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

3 __________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

4 __________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

5 __________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

6 __________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

7 __________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

8 __________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

9 __________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

10 __________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

** 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: $ -

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. I-17-4300 **Consultant:** SDIENGR Corp.

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)

1 ________		
Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -
2 ________		
Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -
3 ________		
Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
4 ________		
Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
5 ________		
Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
6 ________		
Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
7 ________		
Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
8 ________		
Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
9 ________		
Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
10 ________		
Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

** Additional services funds require prior authorization 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 following information and it will be populated on every exhibit.

Consultant Name:	*Stanley Consultants*
Contract Number:	*I-17-4300*
Proposal Date:	*10/10/2017*

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 on the Tollway's website

Contract Number: I-17-4300 **Consultant:** Stanley Consultants

EXHIBIT A: ESTIMATED TASK WORK HOURS

									Grand Total Exhibit A Hours				42,410
	MONTHS of YEAR 2018												TOTAL HOURS
TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Concept/ Coord	830	900	900	900	800	100	100	100	100	100	100	100	5030
Package 1													
Package 2					1000	1000	1000	1000	1000	900	800	100	6800
Package 3										150			150
Package 4													
Package 5													
Package 6													
Package 7													
Package 8													
TOTALS	830	900	900	900	1800	1100	1100	1100	1100	1150	900	200	11980

Contract Number: I-17-4300 **Consultant:** Stanley Consultants

EXHIBIT A: ESTIMATED TASK WORK HOURS

	MONTHS of YEAR 2019												TOTAL HOURS
TASK	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	
Concept/ Coord	100	100	100	100	100	100	50	50	50	50	50	50	900
Package 1													
Package 2													
Package 3	162												162
Package 4		184			100								284
Package 5	1000	1000	1000	1000	1000	1000	800	336					7136
Package 6								2400	2400	2400	2400	2400	12000
Package 7													
Package 8													
TOTALS	1262	1284	1100	1100	1200	1100	850	2786	2450	2450	2450	2450	20482

Contract Number: I-17-4300 **Consultant:** Stanley Consultants

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2020												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Concept/ Coord	20	20	20	20	20	20	20	20	20	20	20	20	240
Package 1													
Package 2													
Package 3													
Package 4													
Package 5													
Package 6	2400	2400	2400	2080									9280
Package 7	80			84									164
Package 8						100			144				244
TOTALS	2500	2420	2420	2184	20	120	20	20	164	20	20	20	9928

Contract Number: I-17-4300 **Consultant:** Stanley Consultants

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2021												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Concept/ Coord												10	10
Package 1													
Package 2													
Package 3													
Package 4													
Package 5													
Package 6													
Package 7													
Package 8													
TOTALS												10	10

Contract Number: I-17-4300 **Consultant:** Stanley Consultants

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2022												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Concept/ Coord												10	10
Package 1													
Package 2													
Package 3													
Package 4													
Package 5													
Package 6													
Package 7													
Package 8													
TOTALS												10	10

Contract No.: I-17-4300 **Consultant:** Stanley Consultants

EXHIBIT B: FEE CALCULATIONS

A. DIRECT LABOR (without overtime)

42,410.00	X	$ 48.25	=	TOTAL DIRECT SALARY	$ 2,046,282.50
(Total Work Hours from Exhibit C-2)		(Average Hourly 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 REGULAR SALARY TIMES MULTIPLIER $ 5,729,591.00

B. REIMBURSABLE DIRECT COSTS NOT ELIGIBLE FOR PROFIT

(For Prime Consultant listed above.)

TOTAL DIRECT COSTS $45,409.00

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 (Prime Consultant)

(Requires prior authorization before use)

ADDITIONAL SERVICES (Subconsultants)

(Requires prior authorization before use)

TOTAL ADDITIONAL SERVICES $ -

(Requires prior authorization before use)

E. MAXIMUM ALLOWABLE FEE (Upper Limit of Compensation) **$ 5,775,000.00**

Contract No.: I-17-4300

Consultant: Stanley Consultants

Date: 10/10/2017

EXHIBIT C-1: PAYROLL CLASSIFICATION ESCALATION TABLE

CONTRACT TERM:	60	No. OF MONTHS
SCHEDULED START DATE:	1/1/2018	
RAISE DATE:	1/1/2019	
PERCENT OF RAISE:	0%	

ESCALATION PER YEAR Year 1 through 5

1/1/2018 - 12/31/2018	1/1/2019 - 12/31/2019	1/1/2020 - 12/31/2020	1/1/2021 - 12/31/2021	1/1/2022 - 12/31/2022
Date Date	Date Date	Date Date	Date Date	Date Date
12.0	12.0	12.0	12.0	12.0
60.0	60.0	60.0	60.0	60.0
20.00%	20.00%	20.00%	20.00%	20.00%
Factor First Period	Escalation Factor Second Period	Escalation Factor Third Period	Escalation Factor Fourth Period	Escalation Factor Fifth Period

ESCALATION PER YEAR Year 6 through 10

-	-	-	-	-
Date Date	Date Date	Date Date	Date Date	Date Date
60.0	60.0	60.0	60.0	60.0
Escalation Factor Sixth Period	Escalation Factor Seventh Period	Escalation Factor Eighth Period	Escalation Factor Ninth Period	Escalation Factor Tenth Period

The escalation factor for this project is: 100.00%

Contract No.: I-17-4300

Consultant: Stanley Consultants

Date: 10/10/2017

Escalation Factor: 100.00%
(From Exhibit C-1)

EXHIBIT C-2: DIRECT LABOR CLASSIFICATION MAN-HOURS AND RATES

Total Estimated Work Hours: 42,410.00

Average Hourly Rate: $48.25

Total Direct Labor $2,046,282.50

DIRECT COST OVERTIME PREMIUM

Total Estimated O/T Hours:

Average Premium O/T Hourly Rate:

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 Right)	Estimated Overtime Hours (Overtime Hours Only) (See Note D to Right)
No	Principal	$50.00	$70.00	$70.00	$70.00	300.00		
No	Project Manager	$40.00	$70.00	$70.00	$70.00	2,000.00		
No	Senior Engineer/Planner	$40.00	$70.00	$61.89	$61.89	12,300.00		
No	Resident Engineer	$40.00	$70.00	$57.49	$57.49	1,000.00		
No	Project Engineer/Planner□	$25.00	$60.00					
No	Staff Engineer/Planner	$20.00	$40.00	$31.49	$31.49	3,400.00		
No	Engineer /Accountant	$20.00	$60.00	$40.44	$40.44	10,900.00		
No	Senior Technical Specialist	$25.00	$60.00	$46.43	$46.43	8,000.00		
No	Technical Specialist	$15.00	$50.00	$33.61	$33.61	4,000.00		
No	Architect	$30.00	$70.00					
No	Realty Specialists	$20.00	$70.00					
No	Intern	$8.25	$20.00					

Contract No.: I-17-4300

Consultant: Stanley Consultants

Date: 10/10/2017

Escalation Factor: 100.00%
(From Exhibit C-1)

EXHIBIT C-2: DIRECT LABOR CLASSIFICATION MAN-HOURS AND RATES

Total Estimated Work Hours: 42,410.00

Average Hourly Rate: $48.25

Total Direct Labor $2,046,282.50

DIRECT COST OVERTIME PREMIUM

Total Estimated O/T Hours:

Average Premium O/T Hourly Rate:

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 Right)	Estimated Overtime Hours (Overtime Hours Only) (See Note D to Right)
No	Admin/Clerical	$8.25	$40.00	$24.95	$24.95	510.00		

EXHIBIT "1"
Page **285** of 419

Contract No.: I-17-4300 **Consultant:** Stanley Consultants

Date: 10/10/2017

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	Vice President	Bruce Worthington	$50 - $70
Project Manager	Project Manager	**Robert Koss**	$40 - $70
Senior Engineer/Planner	Senior Engineer	Antonio A Cerda	$40 - $70
	Senior Engineer	Diana Lynn Decker	
	Department Manager	**D. Scott Eshleman**	
	Senior Engineer	Kurt G Frank	
	Senior Engineer	Sagar R Sonar	
	Department Manager	Majid Zargar	
	Senior Engineer	Atalay Yargicoglu	
	Senior Engineer	Tyler Howard Grau	
Resident Engineer	Senior Resident Project Representat	Aaron Russell	$40 - $70
Project Engineer/Planner			$25 - $60
Staff Engineer/Planner	Engineer in Training II	Curt Edward Grass	$20 - $40
Engineer /Accountant	Engineer	Craig Steven Phillips	$20 - $60
	Engineer	Ryan Delves	
	Engineer	Gary Janecek	
	Engineer	Christopher Kwon	
	Engineer	Pete Sarich	
Senior Technical Specialist	Senior Designer	Timothy W Knaus	$25 - $60
	Designer	Elizabeth W Dalton	
	Designer	Richard T Thoms	
Technical Specialist	Associate Designer	Dwayne K Jackson	$15 - $50
Architect			$30 - $70
Realty Specialists			$20 - $70
Intern			$8.25 - $20
Admin/Clerical	Administrative Asst. Sr.	Jean A Kennedy	$8.25 - $40
	Administrative Assistant	Janet Worthington	

Contract No.: I-17-4300 **Consultant:** Stanley Consultants

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

B. **ALLOWABLE DIRECT COSTS - based on link below**
http://www.illinoistollway.com/documents/10157/2389762/12_LG_TOLLWAY_XX_ALLOWABLEDIRECTCOSTS_10012013.PDF

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) $ 45,409.00

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	State Rate (Maximum)
Lodging	State Rate (Maximum)
Air Fare	Coach Rate with 2 weeks advance purchase
Vehicles	
Mileage	State Rate* (Maximum)
Vehicle Rental	$55/day (Maximum)
Leased / Company-Owned Vehicles (does not include personal vehicles, not owned by the company)	$65/day
Vehicle Half-day Rate	$32.50/half day
Parking	Actual Cost
Tolls	Actual Cost
Overtime	Premium portion
Film and Film Processing**	Actual Cost
Overnight Delivery/Postage Courier Service	Actual Cost
Copies of Deliverables and Mylars	Actual Cost
Specific Insurance – required for project	Actual Cost
CADD	Actual Costs (Maximum of $15.00/Hr)
Monuments – Permanent	Actual Cost
Payment for Newspaper Ads	Actual Cost
Web Site	Actual 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 beam breaks, cylinder breaks, pavement cores)	Actual Cost
Equipment rental specific for project (snooper for bridge inspection, noise meter, etc.)	Actual Cost
Specialized equipment – on an as needed basis with prior approval	Actual Cost
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

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 actual costs.

- On all agreements authorization after January 1, 2005, GPS Equipment is considered a "tool of the trade."

Contract No.: **I-17-4300** **Consultant:** **Stanley Consultants**

EXHIBIT E - KEY PROJECT PERSONNEL

Project Principal: ______________________

Project Manager: ______________________

Project Engineer: ______________________

Resident Engineer: ______________________

Documentation Engineer: ______________________

Project Civil Engineer: ______________________

Project Structural Engineer: ______________________

Project Drainage Engineer: ______________________

Senior Engineer: ______________________

Others:

	Name:	Robert Koss
	Classification:	Roadway Engineer
	Name:	D. Scott Eshleman
	Classification:	Structures QA
	Name:	
	Classification:	
	Name:	
	Classification:	

[redacted]

Robert Koss, PE, PTOE

Lead Roadway / Civil Engineer

[redacted]

JACOBS

[redacted]

[redacted]

D. Scott Eshleman, P.E., S.E.

Structures QA/QC

[redacted]

EXHIBIT F

Contract No. I-17-4300

Stanley Consultants

SCOPE OF SERVICES

A. CONCEPT DESIGN VERIFICATION

1. Assist with concept report (geometrics) validation
2. Assist with the preparation of permits and Intergovernmental Agreements
3. Provide coordination for Concept Level INVEST scoring
4. Provide constructability review for the Concept Design
5. Assist with Utility Coordination
6. Update the current FHWA Traffic Noise Model (TNM) for current and future noise levels at sensitive receptors as needed for geometric refinements. It is assumed that field monitoring will not be required.
7. Perform Bridge Inspection and prepare an Abbreviated Bridge Condition Report for the following Bridges to assess their ability to carry stage construction loads during their replacement.
   a. Bridge Number 205 – I-294 NB over Roosevelt Rd (Deck Repl Only)
   b. Bridge Number 207 – I-294 NB over Roosevelt Ramp A
   c. Bridge Number 209 – I-294 NB over I-88
   d. Bridge Number 206 – I-294 SB over Roosevelt Rd (Deck Repl Only)
   e. Bridge Number 208 – I-294 SB over Roosevelt Ramp A
   f. Bridge Number 210 – I-294 SB over I-88
8. Perform a Type Study and prepare Type, Size and Location plans for these proposed bridges and retaining walls.
   a. Bridge Number 211CD – I-294 NB Ramp J over Butterfield Rd
   b. Bridge Number 219CD – I-294 NB Ramp J over CN RR
   c. Bridge Number 221CD – I-294 NB Ramp J over I-290
   d. Retaining Wall TS31.35N.NB(R)
   e. Retaining Wall TS31.46N.NB(R)
   f. Bridge Number 205 – I-294 NB over Roosevelt Rd (Deck Repl Only)
   g. Bridge Number 207 – I-294 NB over Roosevelt Ramp A
   h. Bridge Number 209 – I-294 NB over I-88
   i. Bridge Number 206 – I-294 SB over Roosevelt Rd (Deck Repl Only)
   j. Bridge Number 208 – I-294 SB over Roosevelt Ramp A
   k. Bridge Number 210 – I-294 SB over I-88
9. Assess these bridges for their ability to incorporate Accelerated Bridge Construction (ABC) techniques into their design documents.
   a. Bridge Number 211CD – I-294 NB Ramp J over Butterfield Rd
   b. Bridge Number 219CD – I-294 NB Ramp J over CN RR
   c. Bridge Number 221CD – I-294 NB Ramp J over I-290
   d. Bridge Number 205 – I-294 NB over Roosevelt Rd (Deck Repl Only)
   e. Bridge Number 207 – I-294 NB over Roosevelt Ramp A
   f. Bridge Number 209 – I-294 NB over I-88
   g. Bridge Number 206 – I-294 SB over Roosevelt Rd (Deck Repl Only)
   h. Bridge Number 208 – I-294 SB over Roosevelt Ramp A
   i. Bridge Number 210 – I-294 SB over I-88
10. Perform Specialized 3D Structural Analysis on these bridges in order to address the effects of

their high degree of skew.

a. Bridge Number 221CD – I-294 NB Ramp J over I-290
b. Bridge Number 207 – I-294 NB over Roosevelt Ramp A
c. Bridge Number 208 – I-294 SB over Roosevelt Ramp A

B. PRELIMINARY AND FINAL DESIGN ENGINEERING

1. DESIGN AND PLAN PREPARATION – PREPARE CONTRACT PLANS FOR THE FOLLOWING CONTRACT PACKAGES

Contract Package 2

a. Bridge Number 211CD – I-294 NB Ramp J over Butterfield Rd
b. Bridge Number 219CD – I-294 NB Ramp J over CN RR
c. Bridge Number 221CD – I-294 NB Ramp J over I-290
d. Retaining Wall TS31.35N.NB(R)
e. Retaining Wall TS31.46N.NB(R)

Contract Package 5

a. Bridge Number 205 – I-294 NB over Roosevelt Rd (Deck Repl Only)
b. Bridge Number 207 – I-294 NB over Roosevelt Ramp A
c. Bridge Number 209 – I-294 NB over I-88

Contract Package 6

a. Prepare roadway plans, roadway profiles, grading plans, jointing & pavement elevation plans, cross sections and assemble contract package
b. Bridge Number 206 – I-294 SB over Roosevelt Rd (Deck Repl Only)
c. Bridge Number 208 – I-294 SB over Roosevelt Ramp A
d. Bridge Number 210 – I-294 SB over I-88

Constructability Reviews

a. Provide constructability reviews for contract packages 2 through 8

EXHIBIT G

Contract No. I-17-4300

Stanley Consultants

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 159/001 D-91-408-11	US 45 Phase II	$3,114,550.00	$2,060,000.00	6/1/2018
PTB 169/007 C-91-012-14	159th Street Phase 111	$8,000,000.00	$3,000,000.00	5/1/2018
PTB 173/015	Harlem Avenue Phase I	$272,000.00	$268,000.00	7/1/2018
PTB 174/004 D-91-119-15	Various Hydraulic Studies	$120,000.00	$100,000.00	6/1/2018
PTB 175/005 P-91-225-15	Various Phase I	$1,800,000.00	$400,000.00	9/1/2023
PTB 176/006 C-91-359-15	Various Phase III	$150,000.00	$143,000.00	2/1/2018
I-13-4622	EOWA Interchange Design	$9,000,000.00	$1,375,000.00	6/1/2018

Contract No.: I-17-4300 **Consultant:** Stanley Consultants

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				
	Direct Labor			
	Direct Costs			
	Services by Others			
	Additional Services **			
	Total this Subconsultant (ULC)		$ -	
2				
	Direct Labor			
	Direct Costs			
	Services by Others			
	Additional Services **			
	Total this Subconsultant (ULC)		$ -	
3				
	Direct Labor			
	Direct Costs			
	Services by Others	$ -		
	Additional Services **	$ -		
	Total this Subconsultant (ULC)		$ -	
4				
	Direct Labor			
	Direct Costs			
	Services by Others	$ -		
	Additional Services **	$ -		
	Total this Subconsultant (ULC)		$ -	
5				
	Direct Labor			
	Direct Costs			
	Services by Others	$ -		
	Additional Services **	$ -		
	Total this Subconsultant (ULC)		$ -	
6				
	Direct Labor			
	Direct Costs	$ -		
	Services by Others	$ -		
	Additional Services **	$ -		
	Total this Subconsultant (ULC)		$ -	
7				
	Direct Labor			
	Direct Costs	$ -		
	Services by Others	$ -		
	Additional Services **	$ -		
	Total this Subconsultant (ULC)		$ -	
8				
	Direct Labor			
	Direct Costs	$ -		
	Services by Others	$ -		
	Additional Services **	$ -		
	Total this Subconsultant (ULC)		$ -	
9				
	Direct Labor			
	Direct Costs	$ -		
	Services by Others	$ -		
	Additional Services **	$ -		
	Total this Subconsultant (ULC)		$ -	
10				
	Direct Labor			
	Direct Costs	$ -		
	Services by Others	$ -		
	Additional Services **	$ -		
	Total this Subconsultant (ULC)		$ -	

** 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: $ -

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

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

Project No. I-17-4300 **Consultant:** Stanley Consultants

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)

1 ______________________

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

2 ______________________

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

3 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

4 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

5 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

6 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

7 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

8 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

9 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

10 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

** Additional services funds require prior authorization 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 following information and it will be populated on every exhibit.

Consultant Name: *Primera Engineers, Ltd.*

Contract Number: *I-17-4300*

Proposal Date: *10/10/2017*

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 on the Tollway's website

Contract Number: I-17-4300 **Consultant:** Primera Engineers, Ltd.

EXHIBIT A: ESTIMATED TASK WORK HOURS

Grand Total Exhibit A Hours	23,964

MONTHS of YEAR 2018

TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL HOURS
Design Pkg #1	0	0	0	0	0	0	0	0	0	0	0	0	
Design Pkg #2	73	73	73	73	73	73	73	73	73	73	73	73	876
Design Pkg #3	78	78	78	78	78	78	78	78	78	78	78	78	936
Design Pkg #5	159	159	159	159	159	159	159	159	159	159	159	159	1908
Design Pkg #6	173	173	173	173	173	173	173	173	173	173	173	173	2076
Design Pkg #7	37	37	37	37	37	37	37	37	37	37	37	37	444
Design Pkg #8	91	91	91	91	91	91	91	91	91	91	91	91	1092
Concept & Coord	152	152	152	12	12	12	12	12	12	12	12	12	564
TOTALS	763	763	763	623	623	623	623	623	623	623	623	623	7896

Contract Number: I-17-4300 **Consultant:** Primera Engineers, Ltd.

EXHIBIT A: ESTIMATED TASK WORK HOURS

	MONTHS of YEAR 2019												TOTAL HOURS
TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Design Pkg #1	0	0	0	0	0	0	0	0	0	0	0	0	
Design Pkg #2	72	72	72	72	72	72	72	72	72	72	72	72	864
Design Pkg #3	78	78	78	78	78	78	78	78	78	78	78	78	936
Design Pkg #5	159	159	159	159	159	159	159	159	159	159	159	159	1908
Design Pkg #6	173	173	173	173	173	173	173	173	173	173	173	173	2076
Design Pkg #7	37	37	37	37	37	37	37	37	37	37	37	37	444
Design Pkg #8	91	91	91	91	91	91	91	91	91	91	91	91	1092
Concept & Coord	12	12	12	12	12	12	12	12	12	12	12	12	144
TOTALS	622	622	622	622	622	622	622	622	622	622	622	622	7464

Contract Number: I-17-4300 **Consultant:** Primera Engineers, Ltd.

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2020												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Design Pkg #1	0	0	0	0	0	0	0	0	0	0	0	0	
Design Pkg #2	72	72	72	72	72	72	72	72	72	72	72	72	864
Design Pkg #3	78	78	78	78	78	78	78	78	78	78	78	54	912
Design Pkg #5	159	159	159	159	159	159	159	159	159	159	159	153	1902
Design Pkg #6	173	173	173	173	173	173	173	173	173	173	173	164	2067
Design Pkg #7	37	37	37	37	37	37	37	37	37	30	30	30	423
Design Pkg #8	91	91	91	91	91	91	91	91	91	91	91	88	1089
Concept & Coord	12	12	12	12	12	12	12	12	12	12	12	12	144
TOTALS	622	622	622	622	622	622	622	622	622	615	615	573	7401

Contract Number: I-17-4300 **Consultant:** Primera Engineers, Ltd.

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2021												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Design Pkg #1	0	0	0	0	0	0	0	0	0	0	0	0	
Design Pkg #2	6	6	6	6	6	6	6	5	5	5	5	5	67
Design Pkg #3	7	7	7	6	6	6	6	6	6	6	6	6	75
Design Pkg #5	13	13	13	13	13	13	13	13	13	13	13	13	156
Design Pkg #6	14	14	14	14	14	14	14	14	14	14	14	14	168
Design Pkg #7	3	3	3	3	3	3	3	3	3	3	3	3	36
Design Pkg #8	8	8	8	8	8	8	8	8	8	8	8	8	96
Concept & Coord	3	3	3	3	3	3	3	3	3	3	3	3	36
TOTALS	54	54	54	53	53	53	53	52	52	52	52	52	634

Contract Number: I-17-4300 **Consultant:** Primera Engineers, Ltd.

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2022												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Design Pkg #1	0	0	0	0	0	0	0	0	0	0	0	0	
Design Pkg #2	5	5	5	5	5	5	5	5	5	5	5	5	60
Design Pkg #3	6	6	6	6	6	6	6	6	6	6	6	6	72
Design Pkg #5	13	12	12	12	12	12	12	12	12	12	12	12	145
Design Pkg #6	14	14	13	13	13	13	13	13	13	13	13	13	158
Design Pkg #7	3	3	3	3	3	3	3	3	3	3	2	2	34
Design Pkg #8	7	7	7	7	6	6	6	6	6	6	6	6	76
Concept & Coord	2	2	2	2	2	2	2	2	2	2	2	2	24
TOTALS	50	49	48	48	47	47	47	47	47	47	46	46	569

Contract No.: I-17-4300 Consultant: Primera Engineers, Ltd.

EXHIBIT B: FEE CALCULATIONS

A. DIRECT LABOR (without overtime)

23,964.00	X	$ 45.50	=	TOTAL DIRECT SALARY $ 1,090,362.00
(Total Work Hours from Exhibit C-2)		(Average Hourly 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 REGULAR SALARY TIMES MULTIPLIER $ 3,053,013.60

B. REIMBURSABLE DIRECT COSTS NOT ELIGIBLE FOR PROFIT

(For Prime Consultant listed above.)

TOTAL DIRECT COSTS $34,127.50

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 (Prime Consultant)

(Requires prior authorization before use)

ADDITIONAL SERVICES (Subconsultants)

(Requires prior authorization before use)

TOTAL ADDITIONAL SERVICES $ -

(Requires prior authorization before use)

E. MAXIMUM ALLOWABLE FEE (Upper Limit of Compensation)

$ 3,087,141.10

Contract No.: **I-17-4300**

Date: **10/10/2017**

Consultant: **Primera Engineers, Ltd.**

EXHIBIT C-1: PAYROLL CLASSIFICATION ESCALATION TABLE

CONTRACT TERM: 60 No. OF MONTHS

SCHEDULED START DATE: 1/1/2018

RAISE DATE: 1/1/2019

PERCENT OF RAISE: 0%

ESCALATION PER YEAR Year 1 through 5

1/1/2018 - 12/31/2018	1/1/2019 - 12/31/2019	1/1/2020 - 12/31/2020	1/1/2021 - 12/31/2021	1/1/2022 - 12/31/2022
Date Date	Date Date	Date Date	Date Date	Date Date
12.0	12.0	12.0	12.0	12.0
60.0	60.0	60.0	60.0	60.0
20.00%	20.00%	20.00%	20.00%	20.00%
Factor First Period	Escalation Factor Second Period	Escalation Factor Third Period	Escalation Factor Fourth Period	Escalation Factor Fifth Period

ESCALATION PER YEAR Year 6 through 10

-	-	-	-	-
Date Date	Date Date	Date Date	Date Date	Date Date
60.0	60.0	60.0	60.0	60.0
Escalation Factor Sixth Period	Escalation Factor Seventh Period	Escalation Factor Eighth Period	Escalation Factor Ninth Period	Escalation Factor Tenth Period

The escalation factor for this project is: 100.00%

Contract No.: I-17-4300

Date: 10/10/2017

Consultant: Primera Engineers, Ltd.

Escalation Factor: 100.00%
(From Exhibit C-1)

EXHIBIT C-2: DIRECT LABOR CLASSIFICATION MAN-HOURS AND RATES

Total Estimated Work Hours: 23,964.00

Average Hourly Rate: $45.50

Total Direct Labor: $1,090,362.00

DIRECT COST OVERTIME PREMIUM

Total Estimated O/T Hours: 250.00

Average Premium O/T Hourly Rate: $15.31

Total Overtime Premium: $3,827.50

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 Right)	Estimated Overtime Hours (Overtime Hours Only) (See Note D to Right)
No	Principal	$50.00	$70.00	$70.00	$70.00	500.00		
No	Project Manager	$40.00	$70.00	$70.00	$70.00	1,800.00		
No	Senior Engineer/Planner	$40.00	$70.00	$64.41	$64.41	3,300.00		
No	Resident Engineer	$40.00	$70.00					
No	Project Engineer/Planner	$25.00	$60.00	$50.58	$50.58	4,800.00		
No	Staff Engineer/Planner	$20.00	$40.00	$40.00	$40.00	4,900.00		
No	Engineer /Accountant	$20.00	$60.00	$32.30	$32.30	4,700.00		
Yes	Senior Technical Specialist	$25.00	$60.00	$34.28	$34.28	2,400.00	17.14	100.00
Yes	Technical Specialist	$15.00	$50.00	$29.79	$29.79	1,000.00	14.90	100.00
No	Architect	$30.00	$70.00					
No	Realty Specialists	$20.00	$70.00					
No	Intern	$8.25	$20.00					
Yes	Admin/Clerical	$8.25	$40.00	$24.98	$24.98	564.00	12.49	50.00

EXHIBIT "1"
Page 307 of 419

Contract No.: I-17-4300 **Consultant:** Primera Engineers, Ltd.

Date: 10/10/2017

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	Erin Inman	$50 - $70
Project Manager	Senior Project Manager	Ted Lachus	$40 - $70
	Senior Project Manager	Eduardo DeSantiago	
	Senior Project Manager	John Antonoglu	
	Senior Project Manager	Robert Deming	
	Senior Project Manager	Michael Ewers	
	Senior Project Manager	Brad Minnick	
	Project Manager	Sven Flodstrom	
Senior Engineer/Planner	Engineer 4	Mohammad Husain	$40 - $70
	Engineer 4	Mark Johnson	
	Engineer 4	Jaime Milla	
	Engineer 4	Scott VanDerAa	
Resident Engineer			$40 - $70
Project Engineer/Planner	Engineer 3	Dawn Cosentino	$25 - $60
	Engineer 3	Chad Dillavou	
	Engineer 3	John Moran	
	Engineer 3	Matt Villanueva	
Staff Engineer/Planner	Engineer 2	Jonathan Briars	$20 - $40
	Engineer 2	Douglas Keppy	
	Engineer 2	Paul Koc	
	Engineer 2	Maura Lakowski	
	Engineer 2	Monica Simoni	
	Engineer 2	Michael Zelisko	
	Engineer 2	Frank Zurek	
Engineer /Accountant	Engineer 1	Peter Busch	$20 - $60
	Engineer 1	Andrew Cecchi	
	Engineer 1	Jack Rice	
Senior Technical Specialist	Senior Technician	Christopher Pisarczyk	$25 - $60
	Senior Technician	Grace Wielich	
Technical Specialist	Technician 1	Ezequiel Lopez	$15 - $50
Architect			$30 - $70
Realty Specialists			$20 - $70
Intern			$8.25 - $20
Admin/Clerical	Administrative	Evelyn Harris-Kerr	$8.25 - $40
	Administrative	Quamrul Milky	

Contract No.: I-17-4300 **Consultant:** Primera Engineers, Ltd.

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

B. **ALLOWABLE DIRECT COSTS - based on link below**
http://www.illinoistollway.com/documents/10157/2389762/12_LG_TOLLWAY_XX_ALLOWABLEDIRECTCOSTS_10012013.PDF

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) $ 30,300.00

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	State Rate (Maximum)
Lodging	State Rate (Maximum)
Air Fare	Coach Rate with 2 weeks advance purchase
Vehicles	
Mileage	State Rate* (Maximum)
Vehicle Rental	$55/day (Maximum)
Leased / Company-Owned Vehicles (does not include personal vehicles, not owned by the company)	$65/day
Vehicle Half-day Rate	$32.50/half day
Parking	Actual Cost
Tolls	Actual Cost
Overtime	Premium portion
Film and Film Processing**	Actual Cost
Overnight Delivery/Postage Courier Service	Actual Cost
Copies of Deliverables and Mylars	Actual Cost
Specific Insurance – required for project	Actual Cost
CADD	Actual Costs (Maximum of $15.00/Hr)
Monuments – Permanent	Actual Cost
Payment for Newspaper Ads	Actual Cost
Web Site	Actual 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 beam breaks, cylinder breaks, pavement cores)	Actual Cost
Equipment rental specific for project (snooper for bridge inspection, noise meter, etc.)	Actual Cost
Specialized equipment – on an as needed basis with prior approval	Actual Cost
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

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 actual costs.

- On all agreements authorization after January 1, 2005, GPS Equipment is considered a "tool of the trade."

Contract No.: I-17-4300 Consultant: Primera Engineers, Ltd.

EXHIBIT E - KEY PROJECT PERSONNEL

Project Principal: ____________________

Project Manager: ____________________

Project Engineer: ____________________

Resident Engineer: ____________________

Documentation Engineer: ____________________

Project Civil Engineer: ____________________

Project Structural Engineer: ____________________

Project Drainage Engineer: ____________________

Senior Engineer: ____________________

Others:

Name: ____________________

Classification: ____________________

Name: ____________________

Classification: ____________________

Name: ____________________

Classification: ____________________

Name: ____________________

Classification: ____________________

Supplement to Exhibit F

Primera Engineers Ltd.
Scope of Work

Tri-State Tollway, Roadway Reconstruction, Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3)

Contract No. I-17-4300

Illinois State Toll Highway Authority

I. PROJECT DESCRIPTION

A. Primera's scope of work only relates to Contract Packages 2, 3, 5, 6, 7, and 8.

II. ITEMS OF WORK TO BE INCLUDED IN CONTRACT I-17-4300

A. CONCEPT DESIGN VERIFICATION REQUIREMENTS

- Primera will support the DSE in reviewing and verifying the Maintenance of Traffic (MOT) concept as prepared by others.
- Scope based on assumption that four mainline lanes will be maintained in each direction during construction.
- If additional MOT schemes are studied, it will be addressed in PROJECT CONTINGENCY.
- IDOT Coordination: Primera will support the DSE in coordinating Permits required for potential detours involving IDOT due to MOT Stages of Construction.
- Municipal Coordination: Primera will support the DSE in coordinating Permits required for potential detours involving Local Municipalities due to MOT Stages of Construction.
- CN Railway Coordination: Not included in the Scope of Work.

B. PRELIMINARY AND FINAL DESIGN ENGINEERING

1. ROADWAY REQUIREMENTS

- Primera will develop MOT designs for the recommended mainline alternative only for Packages 2, 3, 5, 6, 7, and 8.

2. DESIGN AND PLAN PREPARATION – DETAILED REQUIREMENTS

- Primera will develop MOT plans including those for impacts to local facilities for Packages 2, 3, 5, 6, 7, and 8.
- Primera will develop and provide the DSE with coordination letters required for MOT detours on IDOT and local agencies routes.
- Primera will support the DSE in providing an oversight role in the development of Pavement Marking and Signing Plans for Packages 2, 3, 5, 6, 7, and 8.
- The development of the Pavement Marking and Signing Plans will be by others.

C. STRUCTURAL CONSTRUCTION

- Primera will develop and provide the DSE with Temporary Structure Plans required for the widening if BN 222.
- Eleven (11) temporary retaining walls are estimated to be required for stage construction. These walls will be located adjacent to proposed permanent retaining walls. Primera will coordinate with the proposed permanent retaining

wall designer and provide locations of the temporary retaining walls. Temporary retaining walls will be Contractor designed.

- Ten (10) temporary soil retention systems are estimated to be required for stage line MOT. Primera to identify location of wall and square foot of exposed face. The temporary soil retention system will be Contractor designed.
- All geotechnical and survey information required for the structural work to be performed by Primera will be provided by others.

D. DRAINAGE

- Primera will investigate and design temporary drainage facilities resulting from the requirements for Maintenance of Traffic design for Packages 2, 3, 5, 6, 7, and 8.

E. ENVIRONMENTAL STUDIES AND REPORTS

- Not included in the Scope of Work.

F. MAINTENANCE OF TRAFFIC

- The existing number of traffic lanes shall be maintained on the mainline in each direction on the Tri-State Tollway (I-294) between Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3).
- Detours will be evaluated for the interchange ramps. DCM will coordinate with IDOT and the Tollway. Primera will provide assistance and backup materials to DSE for coordination purposes.
- Primera will support DSE in coordinating with contract I-17-4310 to coordinate advance MOT related to crossovers and near the St. Charles Bridge over I-294.
- Primera will support the DSE in coordinating with the DCM and the local municipalities to coordinate MOT related to crossroad bridge construction. DCM will lead the coordination and DSE will provide support and backup information.

G. UTILITIES

- Not included in the Scope of Work.

H. GEOTECHNICAL

- Not included in the Scope of Work.

III. DESIGN SECTION ENGINEER'S (DSE's) SERVICES

- No modifications.

IV. REQUIRED SUBMITTALS TO THE AUTHORITY

Submittal requirements shall be in accordance with the Illinois Tollway DSE's Manual with special attention to, but not limited to, the following:

A. CONCEPT SUBMITTAL REQUIREMENTS

a. Review of the Concept design documents prepared to date including submittal of a technical memorandum detailing findings and providing recommendations for advancement to preliminary (60%) design relative to MOT documents and designs.
b. Primera will support the DSE in providing a visual pavement condition survey of existing roadways within the limits of the proposed improvements. This will consist of local road and/or routes used for detour purposes.

B. FINAL DESIGN SERVICES AND SUBMITTALS REQUIRED:

- No Modifications

EXHIBIT G

CONTRACT I-17-4300

Primera Engineers, 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
IDOT IL Rte. 22	Phase II Roadway Reconstruction & Widening Quentin Rd to IL 83	$ 3,146,948	$ 250,000	6/2018
ISTHA I-11-4014	Elgin-O'Hare Program Management Sub to CH2M Hill	$ 4,918,820	$ 840,000	12/2019
IDOT IL Rte. 120	Phase II Roadway & Bridge Rehabilitation	$ 670,278	$ 3,000	12/2017
IDOT Various	D1 - Phase I Various Sub to EJM	$ 300,000	$ 0	10/2017
IDOT Various	D1 Bike / Ped Feasibility Study	$ 579,316	$ 10,000	12/2017
ISTHA RR-13-4151	Systemwide DUR Sub to EJM	$ 2,210,000	$ 200,000	12/2017
ISTHA I-14-4190	I-90 Roadway, Retaining Wall and Bridge Reconstruction and Widening, West of Higgins Road (MP 60.8) to Roselle Road (MP 65.5) Construction Inspection – BCP JV	$ 2,441,500	$ 10,000	12/2017
ISTHA RR-16-4255	I-355 Roadway and Bridge Rehabilitation Design, MP 12.3 (I-55) to MP 22.3 (Butterfield Road) Phase II Engineering	$ 9,253,293	$ 3,900,000	12/2018
IDOT Various	D1 Various Construction Inspection	$ 1,000,000	$ 300,000	12/2018

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Contract No.: I-17-4300 **Consultant:** Primera Engineers, 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/WBE SUBCONSULTANTS

1 ______________________

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

2 ______________________

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

3 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

4 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

5 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

6 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

7 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

8 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

9 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

10 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

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

Project No.	I-17-4300	Consultant:	Primera Engineers, 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.

OTHER SUBCONSULTANTS (NOT DBE/MBE/WBE)

1			
	Direct Labor		
	Direct Costs		
	Services by Others		
	Additional Services **		
	Total this Subconsultant (ULC)		$ -
2			
	Direct Labor		
	Direct Costs		
	Services by Others		
	Additional Services **		
	Total this Subconsultant (ULC)		$ -
3			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
4			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
5			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -

6			
	Direct Labor		
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
7			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
8			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
9			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
10			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -

** Additional services funds require prior authorization 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 following information and it will be populated on every exhibit.

Consultant Name: *GSG Consultants, Inc.*

Contract Number: *I-17-4300*

Proposal Date: *10/10/2018*

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 boxes

A full set of instructions to complete the exhibits is available on the Tollway's website

Contract Number: I-17-4300

Consultant: GSG Consultants, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

												Grand Total Exhibit A Hours	10,820
	MONTHS of YEAR 2018												TOTAL HOURS
TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Geotechnical Investigation	200	200	800	800	800	800	600	660	700	800	500	100	6960
Environmental Studies	150		150		200		200	80	10				790
TOTALS	350	200	950	800	1000	800	800	740	710	800	500	100	7750

Contract Number: I-17-4300 **Consultant:** GSG Consultants, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2019												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Geotechnical Investigation	100	100	200	70	25					20			515
Environmental Studies		2							2				4
TOTALS	100	102	200	70	25				2	20			519

Contract Number: I-17-4300 **Consultant:** GSG Consultants, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

	MONTHS of YEAR 2020												TOTAL HOURS
TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Geotechnical Investigation	300	300	300	300	300	300	150	150	50	50	50	20	2270
Environmental Studies			1								1		2
TOTALS	300	300	301	300	300	300	150	150	50	50	51	20	2272

Contract Number: I-17-4300 **Consultant:** GSG Consultants, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL HOURS
	MONTHS of YEAR 2021												
Geotechnical Investigation	20	20	20	20	20	20	20	20	20	20	20	20	240
Environmental Studies			1								1		2
TOTALS	20	20	21	20	20	20	20	20	20	20	21	20	242

Contract Number: I-17-4300 **Consultant:** GSG Consultants, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2022												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Geotechnical Investigation	5		5	5		5		5	5		5		35
Environmental Studies			1									1	2
TOTALS	5		6	5		5		5	5		5	1	37

Contract No.: **I-17-4300** **Consultant:** **GSG Consultants, Inc.**

EXHIBIT B: FEE CALCULATIONS

A. DIRECT LABOR (without overtime)

10,820.00	X	$ 39.50	=	TOTAL DIRECT SALARY	$ 427,390.00
(Total Work Hours from Exhibit C-2)		(Average Hourly 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 REGULAR SALARY TIMES MULTIPLIER $ 1,196,692.00

B. REIMBURSABLE DIRECT COSTS NOT ELIGIBLE FOR PROFIT

(For Prime Consultant listed above.)

TOTAL DIRECT COSTS $1,113,610.96

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 (Prime Consultant)

(Requires prior authorization before use)

ADDITIONAL SERVICES (Subconsultants)

(Requires prior authorization before use)

TOTAL ADDITIONAL SERVICES $ -

(Requires prior authorization before use)

E. MAXIMUM ALLOWABLE FEE (Upper Limit of Compensation)

$ 2,310,302.96

Contract No.: I-17-4300 **Consultant:** GSG Consultants, Inc.

Date: 10/10/2017

EXHIBIT C-1: PAYROLL CLASSIFICATION ESCALATION TABLE

CONTRACT TERM:	60	No. OF MONTHS
SCHEDULED START DATE:	1/1/2018	
RAISE DATE:	1/1/2019	
PERCENT OF RAISE:	0%	

ESCALATION PER YEAR Year 1 through 5

	First Period	Second Period	Third Period	Fourth Period	Fifth Period
Date - Date	1/1/2018 - 12/31/2018	1/1/2019 - 12/31/2019	1/1/2020 - 12/31/2020	1/1/2021 - 12/31/2021	1/1/2022 - 12/31/2022
	12.0	12.0	12.0	12.0	12.0
	60.0	60.0	60.0	60.0	60.0
Escalation Factor	20.00% (Factor First Period)	20.00% (Escalation Factor Second Period)	20.00% (Escalation Factor Third Period)	20.00% (Escalation Factor Fourth Period)	20.00% (Escalation Factor Fifth Period)

ESCALATION PER YEAR Year 6 through 10

	Sixth Period	Seventh Period	Eighth Period	Ninth Period	Tenth Period
Date - Date	-	-	-	-	-
	60.0	60.0	60.0	60.0	60.0
Escalation Factor	(Escalation Factor Sixth Period)	(Escalation Factor Seventh Period)	(Escalation Factor Eighth Period)	(Escalation Factor Ninth Period)	(Escalation Factor Tenth Period)

The escalation factor for this project is: 100.00%

Contract No.: I-17-4300

Consultant: GSG Consultants, Inc.

Date: 10/10/2017

Escalation Factor: 100.00%
(From Exhibit C-1)

EXHIBIT C-2: DIRECT LABOR CLASSIFICATION MAN-HOURS AND RATES

Total Estimated Work Hours: 10,820.00

Average Hourly Rate: $39.50

Total Direct Labor: $427,390.00

DIRECT COST OVERTIME PREMIUM

Total Estimated O/T Hours:

Average Premium O/T Hourly Rate:

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 Right)	Estimated Overtime Hours (Overtime Hours Only) (See Note D to Right)
No	Principal	$50.00	$70.00	$70.00	$70.00	600.00		
No	Project Manager	$40.00	$70.00	$54.00	$54.00	800.00		
No	Senior Engineer/Planner	$40.00	$70.00	$47.00	$47.00	1,800.00		
No	Resident Engineer	$40.00	$70.00					
No	Project Engineer/Planner	$25.00	$60.00	$40.00	$40.00	2,500.00		
No	Staff Engineer/Planner	$20.00	$40.00	$30.00	$30.00	2,700.00		
No	Engineer /Accountant	$20.00	$60.00					
No	Senior Technical Specialist	$25.00	$60.00					
No	Technical Specialist	$15.00	$50.00	$32.00	$32.00	2,240.00		
No	Architect	$30.00	$70.00					
No	Realty Specialists	$20.00	$70.00					
No	Intern	$8.25	$20.00					
No	Admin/Clerical	$8.25	$40.00	$27.00	$27.00	180.00		

EXHIBIT "1"

Contract No.: I-17-4300 **Consultant:** GSG Consultants, Inc.

Date: 10/10/2017

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	Sassila, Ala	$50 - $70
Project Manager	Project Manager	Letzel, Scott	$40 - $70
	Project Manager	Olson, Jay	
	Project Manager	Shah, Jigar M.	
	Project Manager	Suda, Robert	
Senior Engineer/Planner	Senior Engineer	Edgell, Dawn	$40 - $70
	Senior Engineer	Chandhuri, Kalyan S.	
	Senior Engineer	Shaikh, Kaleem	
	Project Manager	Thomas, Crispin	
Resident Engineer			$40 - $70
Project Engineer/Planner	Project Engineer	Johnson, Charles	$25 - $60
	Project Engineer	Chipko, Matthew	
	Project Engineer	Jarass, Qassem	
	Project Engineer	Riad, Ossama	
	Project Engineer	Rothamer, Jeffery	
Staff Engineer/Planner	Staff Engineer	Flores, Edwin	$20 - $40
	Staff Engineer	Kizawi, Ameer	
	Staff Engineer	Votava, Jeffery	
Engineer /Accountant			$20 - $60
Senior Technical Specialist			$25 - $60
Technical Specialist	Inspector	Cagney, Thaddeus	$15 - $50
	Inspector	McCoy, David	
	Inspector	Oliver,Lindsey	
	Inspector	Motlani, Imran	
	Inspector	Rowe, Joshua	
Architect			$30 - $70
Realty Specialists			$20 - $70
Intern			$8.25 - $20
Admin/Clerical	Administrator	Garman, Hala	$8.25 - $40
	Administrator	Zarco, Petra	

Contract No.: I-17-4300 **Consultant:** GSG Consultants, Inc.

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

B. **ALLOWABLE DIRECT COSTS - based on link below**
http://www.illinoistollway.com/documents/10157/2389762/12_LG_TOLLWAY_XX_ALLOWABLEDIRECTCOSTS_10012013.PDF

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

Drilling

Laboratory Testing

TOTAL DIRECT COSTS (Vehicles, Allowable and Itemized) $1,113,610.96

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	State Rate (Maximum)
Lodging	State Rate (Maximum)
Air Fare	Coach Rate with 2 weeks advance purchase
Vehicles	
Mileage	State Rate* (Maximum)
Vehicle Rental	$55/day (Maximum)
Leased / Company-Owned Vehicles (does not include personal vehicles, not owned by the company)	$65/day
Vehicle Half-day Rate	$32.50/half day
Parking	Actual Cost
Tolls	Actual Cost
Overtime	Premium portion
Film and Film Processing**	Actual Cost
Overnight Delivery/Postage Courier Service	Actual Cost
Copies of Deliverables and Mylars	Actual Cost
Specific Insurance – required for project	Actual Cost
CADD	Actual Costs (Maximum of $15.00/Hr)
Monuments – Permanent	Actual Cost
Payment for Newspaper Ads	Actual Cost
Web Site	Actual 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 beam breaks, cylinder breaks, pavement cores)	Actual Cost
Equipment rental specific for project (snooper for bridge inspection, noise meter, etc.)	Actual Cost
Specialized equipment – on an as needed basis with prior approval	Actual Cost
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

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 actual costs.

- On all agreements authorization after January 1, 2005, GPS Equipment is considered a "tool of the trade."

Contract No.: I-17-4300 **Consultant:** GSG Consultants, Inc.

EXHIBIT E - KEY PROJECT PERSONNEL

Project Principal: ____________________

Project Manager: ____________________

Project Engineer: ____________________

Resident Engineer: ____________________

Documentation Engineer: ____________________

Project Civil Engineer: ____________________

Project Structural Engineer: ____________________

Project Drainage Engineer: ____________________

Senior Engineer: ____________________

Others:

Name: ____________________

Classification: ____________________

Name: ____________________

Classification: ____________________

Name: ____________________

Classification: ____________________

Name: ____________________

Classification: ____________________

EXHIBIT F

Contract No. I-17-4300

GSG Consultants, Inc.

SCOPE OF SERVICES

GSG Consultants, Inc (GSG) will be responsible for providing Geotechnical investigation and Design support for the subject contract. All geotechnical investigations and reports will comply with the requirements outlined in the "Geotechnical Manual" as published by the Illinois State Toll Highway Authority, March 2017. The geotechnical scope of work is outlined below:

Description — **No. of Borings / Depths (ft)**

Bridge Structures

Structure Numbers	Location	Total Borings	Est. Depth
207, 208	I-294 over Ramp A	8	90
209, 210	I-294 over I-88	7	90
211, 211CD, 212, 212CD	I-294 over Butterfield	10	90
219, 219CD, 220, 220CD	I-294 over CCP RR	10	90
221, 221CD, 222, 222CD	I-294 over I-290	18	90
223A	I-294 Ramp F and H over I-290	5	90
224A, 224B	I-294 over I-294 Ramp J	8	90
225, 226, 226A	I-294 over Electric Ave	19	85
016-1134, 016-1135	I-290 over Electric Ave	12	85
227	St. Charles Road over I-294	4	80

Retaining Walls Structure	Total Borings	Est. Total Footage
NB Walls - 3,039 feet	51	1795
SB Walls -7,201 feet	133	5075
NB Noise Walls - 2,383 feet	21	30
SB Noise Walls - 5,197 feet	31	30
Detention Ponds	54	870
Stability Borings	8	25

The scope for each of the improvement items on the project are described below.

Review and validate the Master Plan

GSG will review geotechnical and environmental reports and will provide comments regarding the status of the work completed and anticipated work to be completed as part of the Phase II design

Bridges and Culverts

Borings for the bridges and culverts were already completed during the Master Plan. Those previous borings will be used to complete the Structural Geotechnical Reports. GSG will advance supplement soils borings for bridge / ramp at I-294 and I-55. We assumed an additional 6 borings will be completed during this phase of the project. We also assumed 6 additional culvert borings will be required for the above referenced water crossings.

EXHIBIT F

Contract No. I-17-4300

GSG Consultants, Inc.

SCOPE OF SERVICES

Retaining Walls
New retaining walls will be completed along the main alignment and future ramps. For wall heights greater than 20 feet, borings will be completed at 50-foot spacing; wall heights less than 20 feet will have boring spacings of 75 feet. All borings will be completed to depths of twice the height of the walls. Borings will also be completed approximately 40 feet from the face of the highest walls for slope stability analysis. A total of 219 borings will be completed, to depths of 20 to 35 feet.

Noise Walls
New noise walls will be completed along the main alignment and future ramps. The borings will be spaced at 100 feet. All borings will be completed to depths of twice the height of the walls. A total of 103 borings will be completed, to an average depth of 30 feet.

Roadway Construction
We will advance ninety-one (91) borings to depths of 10 feet for subgrade improvements along the proposed roadway alignment. Borings will be spaced approximately 150 feet in alternating directions of traffic. Borings were already eliminated where proposed retaining wall borings were present.

Overhead Signs
Per the ISTHA Manual Section 3.6.3.4, borings will be completed for each of the proposed signs. It is anticipated that there will be 8 sign trusses, 2 cantilever signs, 1 DMS, and 12 ATM gantries. A total of twenty-six (26) borings will be completed to approximate depths of 40 feet.

Below is GSG's project approach for the investigations and reporting.

Subsurface Exploration
It is assumed that access to any adjacent private properties will be obtained by the Tollway prior to mobilization.
Conduct a visual reconnaissance of the project area to evaluate access for drilling equipment and locate proposed soil boring locations.
Prepare sampling plan showing the locations of the proposed soil borings based on the results of the site reconnaissance activities.
Clear Underground Utilities - GSG will layout the soil borings based on the approved sampling plan. GSG will contact JULIE 48-hour prior to starting the field activities and clear underground utilities at the site. We will conduct a joint meeting with the Tollway and underground utility companies.
Arrange for traffic control for soil borings requiring traffic control during field activities.
Mobilize truck-mounted and ATV drill rigs as appropriate to the project area and perform subsurface exploration activities. Soil samples will be collected using split-barrel samples utilizing the Standard Penetration Test (SPT) procedures.
As required by Geotechnical Manual, rock coring will be completed at various structures in accordance with ASTM D2113.

EXHIBIT F

Contract No. I-17-4300

GSG Consultants, Inc.

SCOPE OF SERVICES

Subsurface exploration and sampling activities will be supervised by an experienced geotechnical engineer. All material recovered from each split barrel will be carefully examined and visually classified at the time of sampling by the field geotechnical engineer. The field geotechnical engineer will prepare a written record (field log) providing SPT results, soil classification, field observations and other relevant data.

Soil samples will be preserved in a 2 in. diameter, 8 ounce, screw-top, airtight clear glass jars. The soil samples will be placed in the jars and sealed as soon as taken, and the jars will be stored in cardboard boxes, marked and identified. The jar labels will show the section number, boring number, depth at which sample was taken, and number of SPT blows. The samples shall be protected against freezing and the jars against breakage, and will be delivered to the soil laboratory on a daily basis for laboratory testing.
We will backfill each borehole with soil cuttings or grout mix, based on the subsurface condition after completion of all field explorations and after all samples, observations and information have been collected. Patch top of each borehole with asphalt or concrete mixed in accordance with existing surface.

Laboratory Testing Program
GSG will perform laboratory testing program on selected soil samples. The type of the laboratory testing program is dependent upon the type of soil encountered but will generally include visual engineering classification, natural moisture content, unit weight, unconfined compressive strength tests, organic content tests, and Atterberg limits testing.

Geotechnical Analysis and Reporting

Draft Report

We will prepare a "Draft Geotechnical Report" upon completion of all field explorations, laboratory testing, and all engineering analysis. The report will include exhibits showing boring locations, boring logs, soil test data, soil profile drawings, and results of all special studies and analyses, engineering recommendation for the proposed project, construction considerations, and all other information specified by the Tollway Geotechnical Manual and IDOT's Geotechnical Manual. The report will also include recommendation regarding the need for additional geotechnical investigation during the construction phase. We will also provide a PDF electronic copy of the draft geotechnical report. The report will include the followings:
Summary of Site Investigation - We will review the general topography and ground surface features, and consideration of any possible project design constraints such as right-of-way, utilities, construction limitations, water flow, scour or erosion conditions that may affect foundation considerations. We will also provide discussion of any evidence of unstable ground conditions, geologic formations, groundwater conditions or other site conditions that may affect foundation selection.

EXHIBIT F

Contract No. I-17-4300

GSG Consultants, Inc.

SCOPE OF SERVICES

Roadway - GSG will review the field and laboratory testing data and will perform engineering analysis for the proposed roadway reconstruction / addition. The engineering analysis for the roadway will include stability analysis of the sub-grade, embankment slope stability and settlement, sub-grade improvement, drainage systems and filters, and sub-grade frost susceptibility. The geotechnical report will include results of the engineering analysis; pavement design parameters; location and extent of unsuitable and unstable soils present within each crossing area such as highly organic soils, frost susceptible soils, high shrink/swell potential soils, soil with high moisture content, or low shears strength. The report will include location specific sub-grade treatment recommendations based on the conditions encountered at each location. The recommendation will include width and depth of area requiring treatment and type of treatment. We will also include recommendation regarding underground utilities excavation and placement, signal foundation and other project related components.

Structure – The engineering analysis and recommendation for retaining wall, bridges and culverts will include evaluations of short and long-term stability and settlement due to excavations and embankment loadings, including recommendations for cut and fill slopes and need for settlement platforms and piezometer, analysis for foundation type, drainage and drainage systems, scour evaluations and remedial treatments, seismic evaluation, and construction considerations. We will include a detailed discussion regarding foundation conditions and recommended foundation type and criteria for design of bridges, retaining walls, buildings, culverts and other structures. We will also provide information regarding temporary earth support system during construction, anticipated groundwater problems and management during construction, consideration of underpinning, where appropriate, and description of recommended instrumentation and monitoring program during construction. For the overhead signs will include soil properties and design parameters for the overhead sign design.

Final Report

We will issue the final Geotechnical Report after incorporating the review comments made on the Draft Geotechnical Report by the Tollway. The final Geotechnical Report will be stamped by a Professional Engineer licensed in the State of Illinois and experienced in geotechnical engineering under whom all phases of geotechnical work were performed.

Environmental Services

Validate Preliminary Environmental Site Assessment (PESA) report – We will request an updated regulatory Environmental Database Report, review historic information, and determine location and nature of Recognized Environmental Condition / Potentially Impacted Property (PIPs) within the project limit. We will prepare an updated PESA report showing the location and nature of the RECs/PIPs within the project limit.

EXHIBIT F

Contract No. I-17-4300

GSG Consultants, Inc.

SCOPE OF SERVICES

Perform Preliminary Site Investigation (PSI) - Based on the results of the PESA, we will identify the location of RECs / PIPs within the project limit. GSG will prepare a sampling plan for the PSI, and will advance soil borings to determine the potential presence of impacted soils. We will prepare a PSI report showing the location and extent of impacted materials that could be reuse, location and depth of soil require removal from the Tollway, and location of Clean Construction and Demolition Debris (CCDD).

Tree Survey – GSG will conduct a tree survey within the project limit. The tree survey will include determining the number of living, trees with a diameter at breast height (DBH) of at least 6 inches. Trees that met the criteria were measured, identified by species, assigned a unique numbered tag which was nailed to the north side of the tree at eye-level, and recorded using a GPS.

EXHIBIT G

Contract No. I-17-4300

GSG Consultants, 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
Various, 4032	Environmental	$900,000.00	$150,000.00	12/30/2017
I-90, 4187	CM	$1,676,368.00	$20,000.00	8/30/2017
I-294, 4224	Geotechnical	$1,740,949.00	$300,000.00	12/31/2017
EOWA 4656	Geotechnical	$1,225,000.00	$950,000.00	12/31/2018
EOWA 4659	Assessment and CM	$2,275,000.00	$1,350,000.00	12/31/2018
EOWA 4657	Geotechnical	$60,564.00	$60,564.00	12/31/2018
4257	Environmental	$750,000.00	$750,000.00	12/31/2020

Contract No.: I-17-4300 **Consultant:** GSG Consultants, 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 ______

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

2 ______

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

3 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

4 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

5 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

6 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

7 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

8 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

9 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

10 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

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

Project No. I-17-4300 Consultant: GSG Consultants, 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)

1			
	Direct Labor		
	Direct Costs		
	Services by Others		
	Additional Services **		
	Total this Subconsultant (ULC)		$ -
2			
	Direct Labor		
	Direct Costs		
	Services by Others		
	Additional Services **		
	Total this Subconsultant (ULC)		$ -
3			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
4			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
5			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
6			
	Direct Labor		
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
7			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
8			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
9			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
10			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -

** Additional services funds require prior authorization 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 following information and it will be populated on every exhibit.

Consultant Name:	*Fontas Group, Inc.*
Contract Number:	*I-17-4300*
Proposal Date:	*10/10/2017*

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 on the Tollway's website

Contract Number: I-17-4300 **Consultant:** Fontas Group, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

										Grand Total Exhibit A Hours			8,460
	2018												TOTAL HOURS
TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Meetings	4	4	3	3	3	3	3	3	3	3	3	3	38
Permits/IGA's	12	12	12	12	11	11	11	11	11	11	11	11	136
Utility Coordination	136	137	136	137	136	137	136	137	136	137	136	137	1638
ComEd Coordination	3	3	3	3	3	3	3	3	3	3	3	3	36
Gen Coord MP	72	72	72	72	71	72	71	72	71	72	71	72	860
TOTALS	227	228	226	227	224	226	224	226	224	226	224	226	2708

EXHIBIT "1"
Page **343** of 419

Contract Number: I-17-4300 **Consultant:** Fontas Group, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

	2019												TOTAL HOURS
TASK	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	
Meetings	3	3	3	3	3	3	3	3	3	3	3	3	36
Permits/IGA's	11	11	11	11	11	11	11	11	11	11	11	11	132
Utility Coordination	136	137	136	137	136	137	136	137	136	137	136	137	1638
ComEd Coordination	3	3	3	3	3	3	3	3	3	3	3	3	36
Gen Coord MP	71	72	71	72	71	72	71	72	71	72	71	72	858
TOTALS	224	226	224	226	224	226	224	226	224	226	224	226	2700

Contract Number: I-17-4300 **Consultant:** Fontas Group, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

	2020												TOTAL HOURS
TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Meetings	3	3	3	3	3	3	3	3	3	3	3	3	36
Permits/IGA's	11	11	11	11	11	11	11	11	11	11	11	11	132
Utility Coordination	136	137	136	137	136	137	136	137	136	137	136	137	1638
ComEd Coordination	3	3	3	3	2	2	2	2	2	2	2	2	28
Gen Coord MP	71	72	71	72	71	72	71	72	71	72	71	72	858
TOTALS	224	226	224	226	223	225	223	225	223	225	223	225	2692

Contract Number: I-17-4300 **Consultant:** Fontas Group, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	2021 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL HOURS
Meetings													
Permits/IGA's													
Utility Coordination	10	10	10	10	10	10	10	10	10	10	10	10	120
ComEd Coordination													
Gen Coord MP	5	5	5	5	5	5	5	5	5	5	5	5	60
TOTALS	15	15	15	15	15	15	15	15	15	15	15	15	180

Contract Number: I-17-4300 **Consultant:** Fontas Group, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL HOURS
Meetings													
Permits/IGA's													
Utility Coordination	10	10	10	10	10	10	10	10	10	10	10	10	120
ComEd Coordination													
Gen Coord MP	5	5	5	5	5	5	5	5	5	5	5	5	60
TOTALS	15	15	15	15	15	15	15	15	15	15	15	15	180

Contract No.: I-17-4300 Consultant: Fontas Group, Inc.

EXHIBIT B: FEE CALCULATIONS

A. DIRECT LABOR (without overtime)

8,460.00	X	$ 48.54	=	TOTAL DIRECT SALARY	$ 410,648.40
(Total Work Hours from Exhibit C-2)		(Average Hourly 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 REGULAR SALARY TIMES MULTIPLIER $ 1,149,815.52

B. REIMBURSABLE DIRECT COSTS NOT ELIGIBLE FOR PROFIT

(For Prime Consultant listed above.)

TOTAL DIRECT COSTS $8,113.00

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 (Prime Consultant)

(Requires prior authorization before use)

ADDITIONAL SERVICES (Subconsultants)

(Requires prior authorization before use)

TOTAL ADDITIONAL SERVICES $ -

(Requires prior authorization before use)

E. MAXIMUM ALLOWABLE FEE (Upper Limit of Compensation)

$ 1,157,928.52

Contract No.: **I-17-4300** **Consultant:** **Fontas Group, Inc.**

Date: **10/10/2017**

EXHIBIT C-1: PAYROLL CLASSIFICATION ESCALATION TABLE

CONTRACT TERM: 60 No. OF MONTHS

SCHEDULED START DATE: 1/1/2018

RAISE DATE: 1/1/2019

PERCENT OF RAISE: 0%

ESCALATION PER YEAR Year 1 through 5

1/1/2018 - 12/31/2018	1/1/2019 - 12/31/2019	1/1/2020 - 12/31/2020	1/1/2021 - 12/31/2021	1/1/2022 - 12/31/2022
Date Date	Date Date	Date Date	Date Date	Date Date
12.0	12.0	12.0	12.0	12.0
60.0	60.0	60.0	60.0	60.0
20.00%	20.00%	20.00%	20.00%	20.00%
Factor First Period	Escalation Factor Second Period	Escalation Factor Third Period	Escalation Factor Fourth Period	Escalation Factor Fifth Period

ESCALATION PER YEAR Year 6 through 10

-	-	-	-	-
Date Date	Date Date	Date Date	Date Date	Date Date
60.0	60.0	60.0	60.0	60.0
Escalation Factor Sixth Period	Escalation Factor Seventh Period	Escalation Factor Eighth Period	Escalation Factor Ninth Period	Escalation Factor Tenth Period

The escalation factor for this project is: 100.00%

Contract No.: I-17-4300

Consultant: Fontas Group, Inc.

Date: 10/10/2017

Escalation Factor: 100.00%
(From Exhibit C-1)

EXHIBIT C-2: DIRECT LABOR CLASSIFICATION MAN-HOURS AND RATES

Total Estimated Work Hours: 8,460.00

Average Hourly Rate: $48.54

Total Direct Labor: $410,648.40

DIRECT COST OVERTIME PREMIUM

Total Estimated O/T Hours:

Average Premium O/T Hourly Rate:

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 Right)	Estimated Overtime Hours (Overtime Hours Only) (See Note D to Right)
No	Principal	$50.00	$70.00	$70.00	$70.00	180.00		
No	Project Manager	$40.00	$70.00	$70.00	$70.00	2,160.00		
No	Senior Engineer/Planner	$40.00	$70.00	$45.00	$45.00	3,240.00		
No	Resident Engineer	$40.00	$70.00					
No	Project Engineer/Planner	$25.00	$60.00					
No	Staff Engineer/Planner	$20.00	$40.00					
No	Engineer /Accountant	$20.00	$60.00					
No	Senior Technical Specialist	$25.00	$60.00	$35.10	$35.10	2,880.00		
No	Technical Specialist	$15.00	$50.00					
No	Architect	$30.00	$70.00					
No	Realty Specialists	$20.00	$70.00					
No	Intern	$8.25	$20.00					

Contract No.: I-17-4300

Date: 10/10/2017

Consultant: Fontas Group, Inc.

Escalation Factor: 100.00%
(From Exhibit C-1)

EXHIBIT C-2: DIRECT LABOR CLASSIFICATION MAN-HOURS AND RATES

Total Estimated Work Hours: 8,460.00

Average Hourly Rate: $48.54

Total Direct Labor $410,648.40

DIRECT COST OVERTIME PREMIUM

Total Estimated O/T Hours:

Average Premium O/T Hourly Rate:

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 Right)	Estimated Overtime Hours (Overtime Hours Only) (See Note D to Right)
No	Admin/Clerical	$8.25	$40.00					

Contract No.: I-17-4300 **Consultant:** Fontas Group, Inc.

Date: 10/10/2017

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	President	Julie Hayes	$50 - $70
Project Manager	Project Manager III	Joseph W McKenna	$40 - $70
	Project Manager III	William Sanchez	
Senior Engineer/Planner	Sr. Engineer III	TBD	$40 - $70
Resident Engineer			$40 - $70
Project Engineer/Planner			$25 - $60
Staff Engineer/Planner			$20 - $40
Engineer /Accountant			$20 - $60
Senior Technical Specialist	CAD Supervisor	Ishamali Weathersby	$25 - $60
Technical Specialist			$15 - $50
Architect			$30 - $70
Realty Specialists			$20 - $70
Intern			$8.25 - $20
Admin/Clerical			$8.25 - $40

Contract No.: I-17-4300 **Consultant:** Fontas Group, Inc.

EXHIBIT D

REIMBURSABLE DIRECT COSTS - WORKSHEET ESTIMATES

A. **VEHICLE REIMBURSEMENT - rate based on link below**
http://www2.illinois.gov/cms/Employees/travel/Pages/TravelReimbursement.asp:

B. **ALLOWABLE DIRECT COSTS - based on link below**
http://www.illinoistollway.com/documents/10157/2389762/12_LG_TOLLWAY_XX_ALLOWABLEDIRECTCOSTS_10012013.PDF

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) $ 8,113.00

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	State Rate (Maximum)
Lodging	State Rate (Maximum)
Air Fare	Coach Rate with 2 weeks advance purchase
Vehicles	
Mileage	State Rate* (Maximum)
Vehicle Rental	$55/day (Maximum)
Leased / Company-Owned Vehicles (does not include personal vehicles, not owned by the company)	$65/day
Vehicle Half-day Rate	$32.50/half day
Parking	Actual Cost
Tolls	Actual Cost
Overtime	Premium portion
Film and Film Processing**	Actual Cost
Overnight Delivery/Postage Courier Service	Actual Cost
Copies of Deliverables and Mylars	Actual Cost
Specific Insurance – required for project	Actual Cost
CADD	Actual Costs (Maximum of $15.00/Hr)
Monuments – Permanent	Actual Cost
Payment for Newspaper Ads	Actual Cost
Web Site	Actual 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 beam breaks, cylinder breaks, pavement cores)	Actual Cost
Equipment rental specific for project (snooper for bridge inspection, noise meter, etc.)	Actual Cost
Specialized equipment – on an as needed basis with prior approval	Actual Cost
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

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 actual costs.

- On all agreements authorization after January 1, 2005, GPS Equipment is considered a "tool of the trade."

Contract No.: **I-17-4300** **Consultant:** **Fontas Group, Inc.**

EXHIBIT E - KEY PROJECT PERSONNEL

Project Principal: ______________________________

Project Manager: ______________________________

Project Engineer: ______________________________

Resident Engineer: ______________________________

Documentation Engineer: ______________________________

Project Civil Engineer: ______________________________

Project Structural Engineer: ______________________________

Project Drainage Engineer: ______________________________

Senior Engineer: ______________________________

Others: Name: ______________________________

Classification: ______________________________

Name: ______________________________

Classification: ______________________________

Name: ______________________________

Classification: ______________________________

Name: ______________________________

Classification: ______________________________

EXHIBIT F

Contract No. I-17-4300

Fontas Group, Inc.

SCOPE OF SERVICES

UTILITY COORDINATION

Review Phase I Utility Locations
Submit Design Utility Reports
Identify Potential Conflicts
Review Relocation Plans for Plan Development and Feasibility
Attend Bi-Weekly Meetings - corridor
Coordinate utility plans for each contract package
Review Utility Relocation Schedules
Submit NOI's on eBuilder
Work Orders - Review, Process and Approve
Assist in preparation of utility permits and intergovermental agreements.
Assist with ComEd Transmission Towers coordination

EXHIBIT G

Contract No. I-17-4300

Fontas Group, 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

Contract No.: I-17-4300 **Consultant:** Fontas Group, 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

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

2

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

3

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

4

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

5

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

6

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

7

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

8

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

9

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

10

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

** 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: $ -

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. I-17-4300 **Consultant:** Fontas Group, 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)

1		
Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -
2		
Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -
3		
Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
4		
Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
5		
Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
6		
Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
7		
Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
8		
Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
9		
Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
10		
Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

** Additional services funds require prior authorization 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 following information and it will be populated on every exhibit.

Consultant Name: *DB Sterlin Consultants, Inc.*

Contract Number: *I-17-4300*

Proposal Date: *10/10/2017*

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 on the Tollway's website

Contract Number: I-17-4300 **Consultant:** DB Sterlin Consultants, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

Grand Total Exhibit A Hours 5,397

TASK	MONTHS of YEAR 2018												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Supplemental Survey	140	140	140	140	140	140	140	140	140	140	140	140	1680
Civil/Design Engineering Support	128	128	128	128	128	128	128	128	128	128	128	128	1536
TOTALS	268	268	268	268	268	268	268	268	268	268	268	268	3216

Contract Number: I-17-4300 **Consultant:** DB Sterlin Consultants, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2019												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Supplemental Survey	8	8	8	8	8	8	8	8	8	8	8	8	96
Civil/Design Engineering Support	128	128	128	128	128	128	128	128	128	128	128	128	1536
TOTALS	136	136	136	136	136	136	136	136	136	136	136	136	1632

Contract Number: I-17-4300 **Consultant:** DB Sterlin Consultants, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2020												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Supplemental Survey	8	8	8	8	8	8	3	3	3	3	3	3	66
Civil/Design Engineering Support	14	14	14	14	14	14	14	14	14	14	14	14	168
TOTALS	22	22	22	22	22	22	17	17	17	17	17	17	234

Contract Number: I-17-4300 **Consultant:** DB Sterlin Consultants, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2021												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Supplemental Survey	3	3	3	3	3	3	3	3	3	3	3	3	36
Civil/Design Engineering Support	14	14	14	14	14	14	14	14	14	14	14	14	168
TOTALS	17	17	17	17	17	17	17	17	17	17	17	17	204

Contract Number: I-17-4300 **Consultant:** DB Sterlin Consultants, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL HOURS
	MONTHS of YEAR 2022												
Supplemental Survey	3	3	3	3	3	3	3	3	3	3	3	3	36
Civil/Design Engineering Support	8	8	8	8	8	8	8	4	4	4	4	3	75
TOTALS	11	11	11	11	11	11	11	7	7	7	7	6	111

Contract No.: I-17-4300 **Consultant:** DB Sterlin Consultants, Inc.

EXHIBIT B: FEE CALCULATIONS

A. DIRECT LABOR (without overtime)

5,397.00	X	$ 47.67	=	TOTAL DIRECT SALARY	$ 257,274.99
(Total Work Hours from Exhibit C-2)		(Average Hourly 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 REGULAR SALARY TIMES MULTIPLIER $ 720,369.97

B. REIMBURSABLE DIRECT COSTS NOT ELIGIBLE FOR PROFIT

(For Prime Consultant listed above.)

TOTAL DIRECT COSTS $49,630.03

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 (Prime Consultant)

(Requires prior authorization before use)

ADDITIONAL SERVICES (Subconsultants)

(Requires prior authorization before use)

TOTAL ADDITIONAL SERVICES $ -

(Requires prior authorization before use)

E. MAXIMUM ALLOWABLE FEE (Upper Limit of Compensation)

$ 770,000.00

Contract No.: **I-17-4300**

Consultant: **DB Sterlin Consultants, Inc.**

Date: **10/10/2017**

EXHIBIT C-1: PAYROLL CLASSIFICATION ESCALATION TABLE

CONTRACT TERM: 60 No. OF MONTHS

SCHEDULED START DATE: 1/1/2018

RAISE DATE: 1/1/2019

PERCENT OF RAISE: 0%

ESCALATION PER YEAR Year 1 through 5

	Period 1	Period 2	Period 3	Period 4	Period 5
Date - Date	1/1/2018 - 12/31/2018	1/1/2019 - 12/31/2019	1/1/2020 - 12/31/2020	1/1/2021 - 12/31/2021	1/1/2022 - 12/31/2022
	12.0	12.0	12.0	12.0	12.0
	60.0	60.0	60.0	60.0	60.0
	20.00%	20.00%	20.00%	20.00%	20.00%
	Factor First Period	Escalation Factor Second Period	Escalation Factor Third Period	Escalation Factor Fourth Period	Escalation Factor Fifth Period

ESCALATION PER YEAR Year 6 through 10

	Period 6	Period 7	Period 8	Period 9	Period 10
Date - Date	-	-	-	-	-
	60.0	60.0	60.0	60.0	60.0
	Escalation Factor Sixth Period	Escalation Factor Seventh Period	Escalation Factor Eighth Period	Escalation Factor Ninth Period	Escalation Factor Tenth Period

The escalation factor for this project is: 100.00%

Contract No.: I-17-4300

Consultant: DB Sterlin Consultants, Inc.

Date: 10/10/2017

Escalation Factor: 100.00%
(From Exhibit C-1)

EXHIBIT C-2: DIRECT LABOR CLASSIFICATION MAN-HOURS AND RATES

Total Estimated Work Hours: 5,397.00

Average Hourly Rate: $47.67

Total Direct Labor $257,274.99

DIRECT COST OVERTIME PREMIUM

Total Estimated O/T Hours: 238.00

Average Premium O/T Hourly Rate: $15.83

Total Overtime Premium: $3,767.54

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 Right)	Estimated Overtime Hours (Overtime Hours Only) (See Note D to Right)
No	Principal	$50.00	$70.00	$70.00	$70.00	80.00		
No	Project Manager	$40.00	$70.00					
No	Senior Engineer/Planner	$40.00	$70.00	$60.00	$60.00	1,100.00		
No	Resident Engineer	$40.00	$70.00					
No	Project Engineer/Planner□	$25.00	$60.00	$50.00	$50.00	1,610.00		
No	Staff Engineer/Planner	$20.00	$40.00	$38.00	$38.00	707.00		
No	Engineer /Accountant	$20.00	$60.00					
No	Senior Technical Specialist	$25.00	$60.00	$53.00	$53.00	850.00		
Yes	Technical Specialist	$15.00	$50.00	$31.66	$31.66	1,050.00	15.83	238.00
No	Architect	$30.00	$70.00					
No	Realty Specialists	$20.00	$70.00					
No	Intern	$8.25	$20.00					
No	Admin/Clerical	$8.25	$40.00					

EXHIBIT "1"

Contract No.: I-17-4300 **Consultant:** DB Sterlin Consultants, Inc.

Date: 10/10/2017

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 in Charge	Regine Jeune	$50 - $70
Project Manager			$40 - $70
Senior Engineer/Planner	Senior Engineer II	William Kucera	$40 - $70
	Senior Engineer II	M. Basar Civelek	
	Senior Engineer I	Anthony Wiedmann	
	Senior Engineer I	Michael Hurtubise	
	Project Engineer III	Victor Cardona	
Resident Engineer			$40 - $70
Project Engineer/Planner□	Project Engineer II	Michael Miller	$25 - $60
	Project Engineer II	Brigida Franco Hogan	
	Project Engineer II	Craig Cleland	
	Project Engineer II	Nicholas Riha	
	Project Engineer II	David Wilcox	
Staff Engineer/Planner	Engineer III	Demetria Sese	$20 - $40
	Engineer III	Eurie Bayan	
Engineer /Accountant			$20 - $60
Senior Technical Specialist	Professional Land Surveyor II	Thomas Galbreath	$25 - $60
	CADD Manager	Michael Kritz	
	CADD Manager	Nebojsa Scekic	
Technical Specialist	CADD Technician II	Christopher Formosa	$15 - $50
	Survey Crew Member II	Umit Yurdacan	
	Survey Crew Member II	Andrew Weis	
	Survey Crew Member II	Urban Gutierrez	

Contract No.: I-17-4300 **Consultant:** DB Sterlin Consultants, Inc.

Date: 10/10/2017

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
	Survey Crew Member II	Chan Kwong	
	Survey Crew Member II	Enrique Gaitan	
	Survey Crew Member I	Gavin Kabak	
	Survey Crew Member I	Francisco Villanueva	
	Survey Crew Member I	Jason Gutierrez	
	Survey Crew Member I	Dwayne Johnson	
	Survey Crew Member I	Alvaro Rodriguez	
	Survey Crew Member I	Darius J. Gilmore	
Architect			$30 - $70
Realty Specialists			$20 - $70
Intern			$8.25 - $20
Admin/Clerical			$8.25 - $40

Contract No.: I-17-4300 **Consultant:** DB Sterlin Consultants, Inc.

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

B. **ALLOWABLE DIRECT COSTS - based on link below**
http://www.illinoistollway.com/documents/10157/2389762/12_LG_TOLLWAY_XX_ALLOWABLEDIRECTCOSTS_10012013.PDF

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) $ 45,862.49

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	State Rate (Maximum)
Lodging	State Rate (Maximum)
Air Fare	Coach Rate with 2 weeks advance purchase
Vehicles	
Mileage	State Rate* (Maximum)
Vehicle Rental	$55/day (Maximum)
Leased / Company-Owned Vehicles (does not include personal vehicles, not owned by the company)	$65/day
Vehicle Half-day Rate	$32.50/half day
Parking	Actual Cost
Tolls	Actual Cost
Overtime	Premium portion
Film and Film Processing**	Actual Cost
Overnight Delivery/Postage Courier Service	Actual Cost
Copies of Deliverables and Mylars	Actual Cost
Specific Insurance – required for project	Actual Cost
CADD	Actual Costs (Maximum of $15.00/Hr)
Monuments – Permanent	Actual Cost
Payment for Newspaper Ads	Actual Cost
Web Site	Actual 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 beam breaks, cylinder breaks, pavement cores)	Actual Cost
Equipment rental specific for project (snooper for bridge inspection, noise meter, etc.)	Actual Cost
Specialized equipment – on an as needed basis with prior approval	Actual Cost
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

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 actual costs.

- On all agreements authorization after January 1, 2005, GPS Equipment is considered a "tool of the trade."

Contract No.: **I-17-4300** **Consultant:** **DB Sterlin Consultants, Inc.**

EXHIBIT E - KEY PROJECT PERSONNEL

Project Principal: ____________________

Project Manager: ____________________

Project Engineer: ____________________

Resident Engineer: ____________________

Documentation Engineer: ____________________

Project Civil Engineer: ____________________

Project Structural Engineer: ____________________

Project Drainage Engineer: ____________________

Senior Engineer: ____________________

Others: Name: ____________________

Classification: ____________________

Name: ____________________

Classification: ____________________

Name: ____________________

Classification: ____________________

Name: ____________________

Classification: ____________________

Exhibit F – Scope of Services

DB Sterlin Consultants, Inc.

I-17-4300 – Jacobs Engineering (Prime)

Task 1 – Field Surveys:

Field Surveys

DB Sterlin Consultants, Inc. (DBS), will perform a supplemental survey to support the development of Phase II design for the I-294 and I-290 corridor, from Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3). Effort consists of the compilation of horizontal and vertical control data, verify centerline/baseline surveys for the mainline and ramps, verify existing horizontal and vertical survey control points, topographic surveys, limited cross sections and profiles, drainage surveys, bridge surveys, utility surveys and miscellaneous pick-up surveys using specified assumptions as described below.

Mainline Surveys

DBS will field measure edge of pavement profiles (or as directed by the prime Consultant) at 100-foot intervals, point of curves, alignment change in directions and high and low points extending 1000 feet beyond the project limits along existing interstate corridors proposed for improvement with I-290, and I-294). This task does not include ramps, mainline only.

Storm Sewer and Drainage Survey

DBS shall locate sanitary and storm sewer structures, including below rim investigation for inverts, pipe materials and direction. Only structures that are visible and accessible from the surface shall be measured. Manholes will not be physically entered or cleaned. DBS will notify the prime Consultant which manholes or structures cannot be measured or accessed and it will be the prime Consultant's responsibility to coordinate cleaning and access to manholes or drainage structures with the appropriate jurisdictional agency. Sanitary and Storm sewer underground utilities will be mapped based upon surface evidence as well as surface markings (to be provided by others). DBS will provide CADD drawings indicating the above located sewer structures. Below rim information shall be provided in field books and shall depict cuts, pipe size, material and directions. Atlases and existing as-built information from municipalities, and ISTHA will be provided to DBS by others. For budgeting purposes, it is assumed 150 structures will be surveyed.

Borings

Borings will be laid out and located. For budgeting purposes, 20 borings are to be staked and located.

Bridge Surveys

Bridge surveys will be conducted at existing bridges within the project limits. For budgeting purposes, it is assumed that up to 19 bridge locations will be surveyed. At each location, shots will be taken on both faces including low steel or concrete and pavement elevations below to calculate the vertical clearance. Shots will be taken at the face of piers, abutments or slope walls to determine horizontal clearances. Sketches showing the vertical clearance over each edge of pavement and the center of the roadway will be provided or point id numbers shall be included.

Supplemental Aerial Mapping Information

This consists of performing a field comparison of the aerial base map drawing with existing planimetric features. Surface features that are not identified or indicated on the aerial mapping shall be field located and/or measured and incorporated into the base mapping by DBS. In addition to the missing features, DBS shall survey the void areas in the aerial due to overhead obstructions such as bridges, trees or tall brush and grasses.

Work performed:

DBS, with drawings in hand, will walk the project corridor, field locate and/or measure and will incorporate all surface planimetric features that were not identified or indicated on the aerial mapping. The aerial base mapping captured approximately 85-90% of the area due to the character of the corridor.

Pick-Up Surveys

DBS will perform miscellaneous follow-up survey to support Phase II design. This work could include surveying additional areas along I-290, additional ground survey in locations of ROW acquisition, tie in surveys and cross road surveys. For budgeting purposes, up to 184 hours are assumed for this effort.

Utility Surveys

The Prime will provide DBS with potential utility conflict areas; DBS will then obtain the elevation and location of utility conflicts. The Prime will coordinate through DCM to obtain permit. Potholing if necessary will be provided by the Tollway through their consultant. The Prime will contact JULIE for marking of the utilities.

Assumptions

- The Prime will prepare MOT plans for ground survey activities.
- The DCM will provide available survey information to the Prime. The DCM will establish a centerline and benchmarks for subsequent use by the Prime for the Tri-State Tollway (I-294) between Roosevelt Road (M.P. 30.5) to St. Charles Road (M.P. 32.3). DBS will review the survey information and coordinate discrepancies with the Prime.
- Atlases and existing as-built information will be provided to DBS.
- Base topographic mapping shall be compiled in Microstation format. All Planimetric features shall be shown to depict the existing field conditions as determined by field survey. Fonts, text size, line types, line weight, layers/levels, feature symbols/cells and other CADD features shall be in accordance with current (Tollway) standards.

Deliverables shall be a digital base map in Microstation. DGN format.

Task 2 – General Civil/Design Services

Barrier Warrant Analyses

DB Sterlin will participate in the preparation of Barrier Warrant Analyses for the project. Initially, DBS will help to identify locations for analyses (Level II and Level III). Working with the Jacobs Team DBS will help to develop an overall plan for management of the BWA task. When the design is fairly well defined DBS will begin work on the individual warrants. The nature of this task is iterative – As the warrant locations become closer to finalized DBS will work with the rest of the Jacobs team on finalizing light pole locations and slope treatments to both minimize the need for barriers and to finalize the barrier warrant analyses.

Additional Civil/Design Support

Because of DB Sterlin's longstanding relationship with Jacobs Engineering and the balance of the Jacobs team, we offer flexibility to Jacobs in helping assist with design tasks going forward, including roadway design and drainage design as well as structural design.

EXHIBIT G

Contract No. I-17-4300

DB Sterlin Consultants, 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
I-16-4266	IL 53 North Extension EIS	500,000	500,000	1/1/2022
RR-16-4275	Edens Spur Rehabilitation Design	300,000	100,000	1/1/2020
I-17-4676	I-490/I-90 System Interchange Design	1,300,000	1,300,000	1/1/2020
I-17-4300	I-294 Roosevelt to St. Charles Design	770,000	770,000	1/1/2023
I-17-4302	I-294 Wolf Rd to O'Hare Oasis Design	900,000	900,000	1/1/2023
RR-16-9198	CM Upon Request	260,000	260,000	1/1/2020
I-17-4679	I-390/I-490 System Interchange CM	300,000	300,000	1/1/2022
RR-16-4253	I-88 IL 251 to Annie Glidden CM	3,000,000	3,000,000	6/1/2020
I-17-4682	EOWA CM Upon Request	480,000	480,000	1/1/2020
RR-16-4282	I-94 CM Upon Request	200,000	200,000	1/1/2020

Contract No.: I-17-4300 **Consultant:** DB Sterlin Consultants, 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 ______

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

2 ______

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

3 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

4 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

5 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

6 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

7 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

8 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

9 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

10 ______

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

** 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:	$ -
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. I-17-4300 Consultant: DB Sterlin Consultants, 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)

1 ______________________

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

2 ______________________

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

3 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

4 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

5 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

6 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

7 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

8 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

9 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

10 ______________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

** Additional services funds require prior authorization 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 following information and it will be populated on every exhibit.

Consultant Name:	*Aqua Vitae Engineering, LLC*
Contract Number:	*I-17-4300*
Proposal Date:	*10/10/2017*

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 on the Tollway's website

Contract Number: I-17-4300 **Consultant:** Aqua Vitae Engineering, LLC

EXHIBIT A: ESTIMATED TASK WORK HOURS

	MONTHS of YEAR 2019												TOTAL HOURS
TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Prelim	136	136	136	136	136	136	136	136	136	136	136	136	1632
TOTALS	136	136	136	136	136	136	136	136	136	136	136	136	1632

Contract Number: I-17-4300 **Consultant:** Aqua Vitae Engineering, LLC

EXHIBIT A: ESTIMATED TASK WORK HOURS

Grand Total Exhibit A Hours	5,134

MONTHS of YEAR 2018

TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL HOURS
Concept	136	136	136	136	136	136	136	136	136	136	136	136	1632
TOTALS	136	136	136	136	136	136	136	136	136	136	136	136	1632

Contract Number: I-17-4300 **Consultant:** Aqua Vitae Engineering, LLC

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2020												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Prefinal	136	136	136	136	136	136	136	136	136	136	136	136	1632
TOTALS	136	136	136	136	136	136	136	136	136	136	136	136	1632

Contract Number: I-17-4300 **Consultant:** Aqua Vitae Engineering, LLC

EXHIBIT A: ESTIMATED TASK WORK HOURS

	MONTHS of YEAR 2021												TOTAL HOURS
TASK	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	
Final	10	10	10	10	10	10	10	10	10	10	10	10	120
TOTALS	10	10	10	10	10	10	10	10	10	10	10	10	120

Contract Number: I-17-4300 **Consultant:** Aqua Vitae Engineering, LLC

EXHIBIT A: ESTIMATED TASK WORK HOURS

	MONTHS of YEAR 2022												TOTAL HOURS
TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Final	10	10	10	10	10	10	10	10	10	10	10	8	118
TOTALS	10	10	10	10	10	10	10	10	10	10	10	8	118

Contract No.: I-17-4300 Consultant: Aqua Vitae Engineering, LLC

EXHIBIT B: FEE CALCULATIONS

A. DIRECT LABOR (without overtime)

5,134.00 (Total Work Hours from Exhibit C-2) X $ 53.00 (Average Hourly Rate from Exhibit C-2) = TOTAL DIRECT SALARY $ 272,102.00

Multiplier to be used on this project: 2.80

Allowable Multiplier = (2.8 DSE) (2.5 or 2.8 CM) (2.5 PMO)

DIRECT REGULAR SALARY TIMES MULTIPLIER $ 761,885.60

B. REIMBURSABLE DIRECT COSTS NOT ELIGIBLE FOR PROFIT

(For Prime Consultant listed above.)

TOTAL DIRECT COSTS $8,114.40

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 (Prime Consultant)

(Requires prior authorization before use)

ADDITIONAL SERVICES (Subconsultants)

(Requires prior authorization before use)

TOTAL ADDITIONAL SERVICES $ -

(Requires prior authorization before use)

E. MAXIMUM ALLOWABLE FEE (Upper Limit of Compensation)

$ 770,000.00

Contract No.: **I-17-4300** **Consultant:** **Aqua Vitae Engineering, LLC**

Date: **10/10/2017**

EXHIBIT C-1: PAYROLL CLASSIFICATION ESCALATION TABLE

CONTRACT TERM: 60 No. OF MONTHS

SCHEDULED START DATE: 1/1/2018

RAISE DATE: 1/1/2019

PERCENT OF RAISE: 0%

ESCALATION PER YEAR Year 1 through 5

1/1/2018 - 12/31/2018	1/1/2019 - 12/31/2019	1/1/2020 - 12/31/2020	1/1/2021 - 12/31/2021	1/1/2022 - 12/31/2022
Date Date	Date Date	Date Date	Date Date	Date Date
12.0	12.0	12.0	12.0	12.0
60.0	60.0	60.0	60.0	60.0
20.00%	20.00%	20.00%	20.00%	20.00%
Factor First Period	Escalation Factor Second Period	Escalation Factor Third Period	Escalation Factor Fourth Period	Escalation Factor Fifth Period

ESCALATION PER YEAR Year 6 through 10

-	-	-	-	-
Date Date	Date Date	Date Date	Date Date	Date Date
60.0	60.0	60.0	60.0	60.0
Escalation Factor Sixth Period	Escalation Factor Seventh Period	Escalation Factor Eighth Period	Escalation Factor Ninth Period	Escalation Factor Tenth Period

The escalation factor for this project is: 100.00%

Contract No.: I-17-4300 **Consultant:** Aqua Vitae Engineering, LLC

Date: 10/10/2017 **Escalation Factor:** 100.00%

(From Exhibit C-1)

EXHIBIT C-2: DIRECT LABOR CLASSIFICATION MAN-HOURS AND RATES

Total Estimated Work Hours: 5,134.00

Average Hourly Rate: $53.00

Total Direct Labor $272,102.00

DIRECT COST OVERTIME PREMIUM

Total Estimated O/T Hours:

Average Premium O/T Hourly Rate:

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 Right)	Estimated Overtime Hours (Overtime Hours Only) (See Note D to Right)
No	Principal	$50.00	$70.00	$53.00	$53.00	5,134.00		
No	Project Manager	$40.00	$70.00					
No	Senior Engineer/Planner	$40.00	$70.00					
No	Resident Engineer	$40.00	$70.00					
No	Project Engineer/Planner	$25.00	$60.00					
No	Staff Engineer/Planner	$20.00	$40.00					
No	Engineer /Accountant	$20.00	$60.00					
No	Senior Technical Specialist	$25.00	$60.00					
No	Technical Specialist	$15.00	$50.00					
No	Architect	$30.00	$70.00					
No	Realty Specialists	$20.00	$70.00					
No	Intern	$8.25	$20.00					

Contract No.: I-17-4300 **Consultant:** Aqua Vitae Engineering, LLC

Date: 10/10/2017 **Escalation Factor:** 100.00%
(From Exhibit C-1)

EXHIBIT C-2: DIRECT LABOR CLASSIFICATION MAN-HOURS AND RATES

Total Estimated Work Hours: 5,134.00

Average Hourly Rate: $53.00

Total Direct Labor $272,102.00

DIRECT COST OVERTIME PREMIUM

Total Estimated O/T Hours:

Average Premium O/T Hourly Rate:

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 Right)	Estimated Overtime Hours (Overtime Hours Only) (See Note D to Right)
No	Admin/Clerical	$8.25	$40.00					

EXHIBIT "1"
Page **391** of 419

Contract No.: I-17-4300 **Consultant:** Aqua Vitae Engineering, LLC

Date: 10/10/2017

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	President	Gary D. Paradoski, P.E.	$50 - $70
Project Manager			$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			$15 - $50
Architect			$30 - $70
Realty Specialists			$20 - $70
Intern			$8.25 - $20
Admin/Clerical			$8.25 - $40

Contract No.: I-17-4300 **Consultant:** Aqua Vitae Engineering, LLC

EXHIBIT D

REIMBURSABLE DIRECT COSTS - WORKSHEET ESTIMATES

A. **VEHICLE REIMBURSEMENT - rate based on link below**
http://www2.illinois.gov/cms/Employees/travel/Pages/TravelReimbursement.asp:

B. **ALLOWABLE DIRECT COSTS - based on link below**
http://www.illinoistollway.com/documents/10157/2389762/12_LG_TOLLWAY_XX_ALLOWABLEDIRECTCOSTS_10012013.PDF

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) $ 8,114.40

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	State Rate (Maximum)
Lodging	State Rate (Maximum)
Air Fare	Coach Rate with 2 weeks advance purchase
Vehicles	
Mileage	State Rate* (Maximum)
Vehicle Rental	$55/day (Maximum)
Leased / Company-Owned Vehicles (does not include personal vehicles, not owned by the company)	$65/day
Vehicle Half-day Rate	$32.50/half day
Parking	Actual Cost
Tolls	Actual Cost
Overtime	Premium portion
Film and Film Processing**	Actual Cost
Overnight Delivery/Postage Courier Service	Actual Cost
Copies of Deliverables and Mylars	Actual Cost
Specific Insurance – required for project	Actual Cost
CADD	Actual Costs (Maximum of $15.00/Hr)
Monuments – Permanent	Actual Cost
Payment for Newspaper Ads	Actual Cost
Web Site	Actual 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 beam breaks, cylinder breaks, pavement cores)	Actual Cost
Equipment rental specific for project (snooper for bridge inspection, noise meter, etc.)	Actual Cost
Specialized equipment – on an as needed basis with prior approval	Actual Cost
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

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 actual costs.

- On all agreements authorization after January 1, 2005, GPS Equipment is considered a "tool of the trade."

Contract No.: **I-17-4300** **Consultant:** **Aqua Vitae Engineering, LLC**

EXHIBIT E - KEY PROJECT PERSONNEL

Project Principal: ______________________

Project Manager: ______________________

Project Engineer: ______________________

Resident Engineer: ______________________

Documentation Engineer: ______________________

Project Civil Engineer: ______________________

Project Structural Engineer: ______________________

Project Drainage Engineer: ______________________

Senior Engineer: ______________________

Others: Name: ______________________

Classification: ______________________

Name: ______________________

Classification: ______________________

Name: ______________________

Classification: ______________________

Name: ______________________

Classification: ______________________

EXHIBIT F

Contract No. I-17-4300

Aqua Vitae Engineering, LLC

SCOPE OF SERVICES

Erosion and Sediment Control, Landscaping, Fencing, and storm water detention Best Management Practices design plans, specifications, and cost estimating for Design Packages 2 thru 8; along with associated meetings, permitting compliance and INVEST evaluations.

EXHIBIT G

Contract No. I-17-4300

Aqua Vitae Engineering, LLC

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
I-17-4300	Tri-State Tollway, Roadway Reconstruction, Roosevelt Road (MP 30.5) to St. Charles Road (MP 32.3)	$770,000.00	$770,000.00	12/31/2022
I-17-4306	Tri-State Tollway Bridge Rehabilitation, Repairs & Demolition, Various Locations	$47,000.00	$47,000.00	10/31/2022
I-17-4302	Tri-State Tollway Roadway Reconstruction and Bridge Rehabiliation, Wolf Rd (MP 36.2) to O'Hare Oasis (MP 37.8)	$234,000.00	$234,000.00	10/31/2022
MO-17-1238	Systemwide Pavement Roadway Management Services	$483,000.00	$483,000.00	12/31/2022
I-17-4677	Elgin O'Hare Western Access, Devon Avenue to Pratt Boulevard: Erosion & Sediment Control and Landscaping design.	$159,620.00	$159,620.00	4/30/2020
I-17-4674	Elgin O'Hare Western Access, Jane Addams Memorial Tollway System Interchange Westbound Collector Distributor Road: Erosion & Sediment Control and Landscaping design.	$51,750.00	$51,750.00	11/31/2019
RR-16-9198	Systemwide Construction Management Upon Request, Non-Roadway	$60,000.00	$60,000.00	12/31/2018
I-16-4257	Environmental Studies Upon Request: Environmental Inspector for erosion and sediment control, NPDES, IEPA, USACE, IDNR, and local storm sewer permits who has the experience to evaluate and recommend corrective actions in the field.	$50,000.00	$50,000.00	7/31/2021
RR-16-4253	Roadway and Bridge Rehabilitation-Design, Reagan Memorial Tollway MP 76.1 (IL 251) to MP 91.4 (Annie Glidden Road): Erosion and Landscaping field inspection, note preparation, design and quantity calculations. Attend INVEST meetings.	$57,902.78	$0.00	3/31/2018
I-16-4249	I-90 and Systemwide Construction Management Services Upon Request: Erosion & Sediment Control inspections and reporting.	$30,000.00	$13,200.00	12/31/2018
I-14-4193	I-90 at Roselle Road Interchange (MP 65.5), Construction Management Services	$16,800.00	$15,960.00	5/31/2018
C-91-010-16	US 45 (Milburn Bypass) North of Milburn Road to North of Grass Lake Road, Phase III: Erosion & Sediment Control and USACE 404 field inspections and reporting.	$49,730.73	$49,730.73	12/31/2018

C-91-324-16	Various Maintenance Construction Engineering/Erosion and Sediment Control/Landscape Architecture for Various Projects: SWPPP review, ESC Field Meetings, Erosion & Sediment Control and USACE 404 Reporting for IDOT let projects throughout District 1.	$97,336.77	$88,265.60	3/31/2020
Private	Various development and storm water management permits for a private property management co.	Time & Materials	Approx. $4,000	12/31/2017
Private	Various urban infill land redevelopment projects: Storm water management and Best Management Practices (BMPs) design and specifications.	Time & Materials	Approx. $4,000	3/31/2018
Private	Various greenfield residential land development projects: Storm water management and Best Management Practics (BMPs) design and specs.	Time & Materials	Approx. $4,000	11/31/2018
LCFPD	Stream stabilization design and permitting.	$13,600.00	$6,807.50	12/31/2017

Contract No.: I-17-4300 **Consultant:** Aqua Vitae Engineering, LLC

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 ______________________

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

2 ______________________

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

3 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

4 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

5 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

6 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

7 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

8 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

9 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

10 ______________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

** 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: $ -

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. I-17-4300 **Consultant:** Aqua Vitae Engineering, LLC

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)

1 ____________________

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

2 ____________________

Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -

3 ____________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

4 ____________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

5 ____________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

6 ____________________

Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

7 ____________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

8 ____________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

9 ____________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

10 ____________________

Direct Labor	$ -	
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

** Additional services funds require prior authorization 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 following information and it will be populated on every exhibit.

Consultant Name:	*ABNA of Illinois, Inc.*
Contract Number:	*I-17-4300*
Proposal Date:	*10/10/2017*

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 on the Tollway's website

Contract Number: I-17-4300 **Consultant:** ABNA of Illinois, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

Grand Total Exhibit A Hours	12,880

MONTHS of YEAR 2018

TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL HOURS
Concept Verification and Coordination	500	500	443	400	400	300	300	200					3043
Contract C09B - Design Package 3								200	300	300	300	300	1400
Contract C09-1 Design Package 5													
Contract C09-2 Design Package 6													
Contract C09D Design Package 7													
Contract C09-2A Design Package 8													
TOTALS	500	500	443	400	400	300	300	400	300	300	300	300	4443

Contract Number: I-17-4300 **Consultant:** ABNA of Illinois, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2019												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Concept Verification and Coordination													
Contract C09B - Design Package 3	100	100	100	173									473
Contract C09-1 Design Package 5	400	400	400	400	400	400	400	400	400	300	300	320	4520
Contract C09-2 Design Package 6	200	200	200	200	100	100	100	100	100	50	50	38	1438
Contract C09D Design Package 7									254	250			504
Contract C09-2A Design Package 8											112	100	212
TOTALS	700	700	700	773	500	500	500	500	754	600	462	458	7147

Contract Number: I-17-4300 **Consultant:** ABNA of Illinois, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2020												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Concept Verification and Coordination													
Contract C09B - Design Package 3													
Contract C09-1 Design Package 5													
Contract C09-2 Design Package 6													
Contract C09D Design Package 7													
Contract C09-2A Design Package 8	100	100	100	100	100	80	70	70	60	50	20	20	870
TOTALS	100	100	100	100	100	80	70	70	60	50	20	20	870

Contract Number: I-17-4300 **Consultant:** ABNA of Illinois, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

	MONTHS of YEAR 2021												TOTAL HOURS
TASK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Concept Verification and Coordination													
Contract C09B - Design Package 3													
Contract C09-1 Design Package 5	20				20				20				60
Contract C09-2 Design Package 6		20				20				20			60
Contract C09D Design Package 7													
Contract C09-2A Design Package 8				40				40				40	120
TOTALS	20	20		40	20	20		40	20	20		40	240

Contract Number: I-17-4300 **Consultant:** ABNA of Illinois, Inc.

EXHIBIT A: ESTIMATED TASK WORK HOURS

TASK	MONTHS of YEAR 2022												TOTAL HOURS
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Concept Verification and Coordination													
Contract C09B - Design Package 3													
Contract C09-1 Design Package 5													
Contract C09-2 Design Package 6	20			20			20			10			70
Contract C09D Design Package 7													
Contract C09-2A Design Package 8			30			30			30			20	110
TOTALS	20		30	20		30	20		30	10		20	180

Contract No.: I-17-4300 **Consultant:** ABNA of Illinois, Inc.

EXHIBIT B: FEE CALCULATIONS

A. DIRECT LABOR (without overtime)

12,880.00	X	$ 47.71	=	TOTAL DIRECT SALARY	$ 614,504.80
(Total Work Hours from Exhibit C-2)		(Average Hourly 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 REGULAR SALARY TIMES MULTIPLIER $ 1,720,613.44

B. REIMBURSABLE DIRECT COSTS NOT ELIGIBLE FOR PROFIT

(For Prime Consultant listed above.)

TOTAL DIRECT COSTS $11,886.56

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 (Prime Consultant)

(Requires prior authorization before use)

ADDITIONAL SERVICES (Subconsultants)

(Requires prior authorization before use)

TOTAL ADDITIONAL SERVICES $ -

(Requires prior authorization before use)

E. MAXIMUM ALLOWABLE FEE (Upper Limit of Compensation)

$ 1,732,500.00

Contract No.: **I-17-4300**

Consultant: **ABNA of Illinois, Inc.**

Date: **10/10/2017**

EXHIBIT C-1: PAYROLL CLASSIFICATION ESCALATION TABLE

CONTRACT TERM: 60 No. OF MONTHS

SCHEDULED START DATE: 1/1/2018

RAISE DATE: 2/1/2018

PERCENT OF RAISE: 0%

ESCALATION PER YEAR Year 1 through 5

	First	Second	Third	Fourth	Fifth
Date - Date	1/1/2018 - 1/31/2018	2/1/2018 - 1/31/2019	2/1/2019 - 1/31/2020	2/1/2020 - 1/31/2021	2/1/2021 - 1/31/2022
Months	1.0	12.0	12.0	12.0	12.0
Term	60.0	60.0	60.0	60.0	60.0
Factor	1.67% (Factor First Period)	20.00% (Escalation Factor Second Period)	20.00% (Escalation Factor Third Period)	20.00% (Escalation Factor Fourth Period)	20.00% (Escalation Factor Fifth Period)

ESCALATION PER YEAR Year 6 through 10

	Sixth	Seventh	Eighth	Ninth	Tenth
Date - Date	2/1/2022 - 12/31/2022	-	-	-	-
Months	11.0				
Term	60.0	60.0	60.0	60.0	60.0
Factor	18.33% (Escalation Factor Sixth Period)	(Escalation Factor Seventh Period)	(Escalation Factor Eighth Period)	(Escalation Factor Ninth Period)	(Escalation Factor Tenth Period)

The escalation factor for this project is: 100.00%

Contract No.: I-17-4300 **Consultant:** ABNA of Illinois, Inc.

Date: 10/10/2017 **Escalation Factor:** 100.00%
(From Exhibit C-1)

EXHIBIT C-2: DIRECT LABOR CLASSIFICATION MAN-HOURS AND RATES

Total Estimated Work Hours: 12,880.00

Average Hourly Rate: $47.71

Total Direct Labor $614,504.80

DIRECT COST OVERTIME PREMIUM

Total Estimated O/T Hours: 300.00

Average Premium O/T Hourly Rate: $20.50

Total Overtime Premium: $6,150.00

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 Right)	Estimated Overtime Hours (Overtime Hours Only) (See Note D to Right)
No	Principal	$50.00	$70.00	$70.00	$70.00	100.00		
No	Project Manager	$40.00	$70.00					
No	Senior Engineer/Planner	$40.00	$70.00	$70.00	$70.00	1,815.00		
No	Resident Engineer	$40.00	$70.00					
No	Project Engineer/Planner	$25.00	$60.00	$56.00	$56.00	4,325.00		
No	Staff Engineer/Planner	$20.00	$40.00	$31.00	$31.00	3,350.00		
No	Engineer /Accountant	$20.00	$60.00					
No	Senior Technical Specialist	$25.00	$60.00					
Yes	Technical Specialist	$15.00	$50.00	$41.00	$41.00	3,250.00	20.50	300.00
No	Architect	$30.00	$70.00					
No	Realty Specialists	$20.00	$70.00					
No	Intern	$8.25	$20.00					
No	Admin/Clerical	$8.25	$40.00	$30.27	$30.27	40.00		

EXHIBIT "1"

Contract No.: I-17-4300 **Consultant:** ABNA of Illinois, Inc.

Date: 10/10/2017

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	Professional 7	Abe Adewale	$50 - $70
Project Manager			$40 - $70
Senior Engineer/Planner	Professional 6	Thomas Paolicchi	$40 - $70
	Professional 6	Stephen Alsbury	
	Professional 6	Robert Loehr	
Resident Engineer			$40 - $70
Project Engineer/Planner	Professional 4	Kokchung (Chris) Leow	$25 - $60
	Professional 4	Abdulai Bah	
	Professional 4	Franklin P. Eppert	
	Professional 4	Femi Alade	
	Professional 4	Brian Wells	
	Professional 4	Michael Buscher	
	Professional 3	Rajan Tiwari	
	Professional 2	Baikuntha Silwal	
Staff Engineer/Planner	Professional 1	Jeevan Kethi Reddy	$20 - $40
	Professional 1	Oluwafemi Jegede	
	Professional 1	Marvin Echols	
Engineer /Accountant			$20 - $60
Senior Technical Specialist			$25 - $60
Technical Specialist	Technician 5	Mark Jones	$15 - $50
	Technician 5	Scott Roeseler	
	Technician 5	Steven Stegman	
	Technician 4	Tammy Neff-Smith	
	Technician 4	Steve Perry	
Architect			$30 - $70
Realty Specialists			$20 - $70
Intern			$8.25 - $20
Admin/Clerical	Administration 2	Carmen Arrington	$8.25 - $40

Contract No.: I-17-4300 **Consultant:** ABNA of Illinois, Inc.

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

B. **ALLOWABLE DIRECT COSTS - based on link below**
http://www.illinoistollway.com/documents/10157/2389762/12_LG_TOLLWAY_XX_ALLOWABLEDIRECTCOSTS_10012013.PDF

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) $ 5,736.56

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	State Rate (Maximum)
Lodging	State Rate (Maximum)
Air Fare	Coach Rate with 2 weeks advance purchase
Vehicles	
Mileage	State Rate* (Maximum)
Vehicle Rental	$55/day (Maximum)
Leased / Company-Owned Vehicles (does not include personal vehicles, not owned by the company)	$65/day
Vehicle Half-day Rate	$32.50/half day
Parking	Actual Cost
Tolls	Actual Cost
Overtime	Premium portion
Film and Film Processing**	Actual Cost
Overnight Delivery/Postage Courier Service	Actual Cost
Copies of Deliverables and Mylars	Actual Cost
Specific Insurance – required for project	Actual Cost
CADD	Actual Costs (Maximum of $15.00/Hr)
Monuments – Permanent	Actual Cost
Payment for Newspaper Ads	Actual Cost
Web Site	Actual 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 beam breaks, cylinder breaks, pavement cores)	Actual Cost
Equipment rental specific for project (snooper for bridge inspection, noise meter, etc.)	Actual Cost
Specialized equipment – on an as needed basis with prior approval	Actual Cost
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

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 actual costs.

- On all agreements authorization after January 1, 2005, GPS Equipment is considered a "tool of the trade."

Contract No.: **I-17-4300** **Consultant:** **ABNA of Illinois, Inc.**

EXHIBIT E - KEY PROJECT PERSONNEL

Project Principal: ______________________

Project Manager: ______________________

Project Engineer: ______________________

Resident Engineer: ______________________

Documentation Engineer: ______________________

Project Civil Engineer: ______________________

Project Structural Engineer: ______________________

Project Drainage Engineer: ______________________

Senior Engineer: ______________________

Others: Name: ______________________

Classification: ______________________

Name: ______________________

Classification: ______________________

Name: ______________________

Classification: ______________________

Name: ______________________

Classification: ______________________

EXHIBIT F

Contract No. I-17-4300

ABNA of Illinois, Inc.

SCOPE OF SERVICES

ABNA will be supporting Jacobs on this project and performing the following general scope of services (refer to Jacobs Exhibit F for a more detailed overall scope of services).

Contract Package 3:
1. Retaining wall design at various locations.

Contract Package 5:
1. Retaining wall design at various locations.
2. BWA at various locations.

Contract Package 6:
1. BWA at various locations

Contract Package 7:
1. BWA at various locations

Contract Package 8:
1. BWA at various locations

Concept Coordination:
1. Retaining wall design at various locations
2. Plats for property acquisitions
3. Coordination Meetings

EXHIBIT G

Contract No. I-17-4300

ABNA of Illinois, 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
RR-14-4222	Structural Design Support	$512,000.00	$300,000.00	6/1/2018
IL 132	Roadway Improvements/Bridge Replacement	$525,100.00	$185,000.00	6/1/2018

Contract No.: I-17-4300 **Consultant:** ABNA of Illinois, 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		
Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -
2		
Direct Labor		
Direct Costs		
Services by Others		
Additional Services **		
Total this Subconsultant (ULC)		$ -
3		
Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
4		
Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
5		
Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
6		
Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
7		
Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
8		
Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
9		
Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -
10		
Direct Labor		
Direct Costs	$ -	
Services by Others	$ -	
Additional Services **	$ -	
Total this Subconsultant (ULC)		$ -

** 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: $ -

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

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

Rev. 6/2016

Project No. I-17-4300 **Consultant:** ABNA of Illinois, 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)

1			
	Direct Labor		
	Direct Costs		
	Services by Others		
	Additional Services **		
	Total this Subconsultant (ULC)		$ -
2			
	Direct Labor		
	Direct Costs		
	Services by Others		
	Additional Services **		
	Total this Subconsultant (ULC)		$ -
3			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
4			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
5			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
6			
	Direct Labor		
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
7			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
8			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
9			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -
10			
	Direct Labor	$ -	
	Direct Costs	$ -	
	Services by Others	$ -	
	Additional Services **	$ -	
	Total this Subconsultant (ULC)		$ -

** Additional services funds require prior authorization before use

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

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

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

EXHIBIT "1"

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