



# Municipality of Princeton

Municipal Building  
400 Witherspoon Street  
Princeton, NJ 08540-3496

Department of Community Development  
Office of the Engineer  
Telephone (609)921-7077  
Fax: (609) 688-2027

**ROBERT V. KISER, P.E.**  
Director of Engineering

## MEMORANDUM

TO: Robert Bruschi, Administrator

FROM: Robert V. Kiser, P.E., Director of Engineering

DATE: March 20, 2014

SUBJECT: **PSA, Traffic Engineer**  
**Great Road and Mountain Avenue Intersection Improvements**  
**IH Engineers, P.C. NTE \$19,525.50**

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Proposals have been received for the completion of a traffic analysis and a signal warrant report in relation to the above intersection (Phase I). In addition, (Phase II) services that would include the preliminary and final design of a traffic signal, if NJDOT signal warrants are met, and have been provided for in the proposal as well.

Proposals received for these services are as follows:

1.	IH Engineers, P.C. Princeton, NJ	\$19,525.50
2.	Maser Consulting, PA Red Bank, NJ	\$18,700.00
3.	Pennoni Associates, Inc. Edison, NJ	\$42,410.00
4.	Arora and Associates, P.C. Lawrenceville, NJ	\$44,858.48

These proposals have been reviewed with the Municipal Attorney and it has been determined that the Maser Consulting, P.A. proposal should not be considered since the Maser firm has recently presented before the Princeton Planning Board and therefore has a conflict. It is therefore recommended that a Professional Services Agreement be entered into with the IH Engineers, P.C. firm in the not to exceed amount of \$19,525.50 for the services specified, per the firms attached proposal dated March 10, 2014.

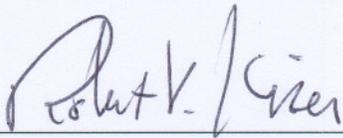
Cost breakdown for the IH Engineers, P.C., proposal is as follows:

Phase I-	Traffic Analysis and Signal Warrant Report -	\$ 7,560.00
Phase II-	Preliminary and Final Design	<u>-\$11,965.50</u>
	Total	\$19,525.50

The Phase II preliminary and final design services will only be completed contingent upon the NJDOT traffic signal warrants being met.

The Princeton Traffic and Transportation Committee has considered this intersection and recommends that the signalization of the intersection be pursued to improve safety and ease the current traffic congestion at the intersection.

Please contact either myself, Deanna Stockton, P.E., Assistant Engineer or Alina Ferreira, P.E., Construction Engineer, if you have any questions.



Robert V. Kiser, P.E., Director of Engineering

RVK/cc

c: Linda McDermott, Municipal Clerk  
Edwin W. Schmierer, Municipal Attorney  
Kathy Monzo, Deputy Administrator/Director of Finance  
Sandy Webb, CFO  
Lee O. Solow, Director of Planning  
Deanna L. Stockton, P.E., Assistant Engineer  
Alina Ferreira, P.E., Construction Engineer  
Rosanna Roberto, Secretary

**RESOLUTION 2014-R  
OF THE MAYOR AND COUNCIL  
OF THE MUNICIPALITY OF PRINCETON  
AUTHORIZING A TRAFFIC STUDY AND SIGNAL DESIGN  
FOR THE GREAT ROAD AND MOUNTAIN AVENUE**

**WHEREAS**, the Municipality desires to enter into a professional services agreement in connection with certain activities being conducted by the Municipality, as hereafter more particularly stated, and

**WHEREAS**, the services to be performed are professional services which are exempt from public bidding under the Local Public Contracts Law.

**NOW, THEREFORE, BE IT RESOLVED** by the Mayor and Council of the Municipality of Princeton as follows:

The Mayor and Clerk are hereby authorized to enter into a contract for professional services with IH Engineers, P.C. (hereinafter referred to as "Provider") to conduct a traffic analysis, signal warrant report and preliminary and final traffic signal designs in connection with the Great Road and Mountain Avenue intersection, as hereafter more particularly stated.

1. The contract so authorized shall require the Provider to provide services and other related duties, as follows:

Provider shall serve as a professional traffic engineering company on behalf of the Municipal Department of Engineering to conduct a traffic analysis, signal warrant report and preliminary and final traffic signal designs in connection with the Great Road and Mountain Avenue intersection. Specifically, the Provider shall perform the services provided for in their proposal dated March 10, 2014.

Under this Agreement, Provider shall at all times act as an independent professional contractor and not as an employee of the Municipality, and shall have no authority to act as an agent or representative of the Municipality or to enter into any financial or other contractual commitment on behalf of the Municipality without the prior written approval of same granted in accordance with law.

Payment of fees will be made upon the submission to the Provider to the Municipality of invoices in duplicate in the form prescribed by the Municipality not later than the tenth (10th)

day of the month following that covered by the invoice, and shall specify in detail the periods for which fees are claimed for the services performed. The provider shall give written notice to the Municipality when the Provider has billed eighty (80%) of the compensation set forth in paragraph I of the Agreement.

2. The form of contract shall include standard provisions common to professional service agreements entered into by the Municipality and shall be subject to approval by the Municipal Attorney.
3. The contract shall be awarded without competitive bidding as a contract for professional services under the provisions of the Local Public Contracts Law because the subject services will be performed by a person or persons authorized by law to practice a recognized profession and whose practice is regulated by law.
4. A notice of this action shall be published in the Princeton Packet as required by law within ten (10) days of its passage.

Councilperson	Absent	Present	1 <sup>st</sup>	2 <sup>nd</sup>	Yea	Nay	Abstain	Disqualified
Ms. Butler								
Mrs. Crumiller								
Ms. Howard								
Mr. Liverman								
Mr. Miller								
Mr. Simon								
Mayor Lempert								

I, Linda S. McDermott, Clerk of the Municipality of Princeton, do hereby certify that the above is a true and complete copy of a resolution adopted by the Mayor and Council of said Municipality at a meeting held March 24, 2014.

IN WITNESS WHEREOF, I hereunto set my hand and affix the corporate seal of said Municipality, this March 24, 2014.

\_\_\_\_\_  
Linda S. McDermott  
Municipal Clerk

**MUNICIPALITY OF PRINCETON  
PROFESSIONAL SERVICES AGREEMENT 2014**

AGREEMENT, made this \_\_\_\_ day of March, 2014, by IH Engineers, P.C. located 103 College Road East, 1<sup>st</sup> Floor, Princeton, NJ 08540 (hereinafter referred to as "Provider"), and the Municipality of Princeton, a municipal corporation in the County of Mercer and State of New Jersey (hereinafter referred to as the "Municipality") located at 400 Witherspoon Street, Princeton, New Jersey 08540.

WHEREAS, the Municipality wished to enter into a professional service agreement with the Provider for the performance of professional services in connection with certain activities being conducted by the Municipality, as hereafter more particularly stated in the Providers' proposal dated May 6, 2013, hereby attached; and

WHEREAS, the services to be performed are professional services which are exempt from public bidding under the Local Public Contracts Law. N.J.S.A. 40A:11-1 et seq., and

NOW, THEREFORE, in consideration of the mutual obligations hereafter set forth, the parties hereto agree as follows:

1. STATEMENT OF WORK: The Provider shall use its best efforts to perform professional services at the Great Road and Mountain Avenue intersection as follows:

Phase I-	Traffic Analysis and Signal Warrant Report	-\$ 7,560.00
Phase II-	Preliminary and Final Design	-\$11,965.50
	Total	-\$19,525.50

Under this Agreement the Provider shall at all times act as an independent professional contractor and not as an employee of the Municipality and shall have no authority to act as an agent or representative of the Municipality or to enter into any financial or other contractual commitment on behalf of the Municipality without the prior written approval of same granted in accordance with law. This Agreement shall be supplemented by the terms of the Provider's proposal including the standard provisions of the proposal except where such terms are contradicted by the terms of this Professional Services Agreement in which case the terms of this Agreement shall apply. The Agreement will be effective from March 24, 2014 through December 31, 2014 subject to available budgetary funding.

2. PAYMENT:

- a. Total fee of three thousand dollars (\$19,535.50).
- b. Rendition of Invoices: Payment of fees and reimbursement for such expenses incurred will be made upon the submission by the Provider to the Municipality of invoices in duplicate in the form prescribed by the Municipality not later than the tenth (10th) day of the month following that covered by the invoice, and shall specify in detail the periods for which fees or other compensation are claimed, the services performed, and an itemized listing of all expenses incurred for which reimbursement is claimed. The Provider shall give written notice to the Municipality when the Provider has billed eighty percent (80%) of the compensation set forth in paragraph 2.a of this Agreement.

3. TERMINATION.

This Agreement shall be effective for the period provided above, although it may be sooner terminated, with or without cause for any reason whatsoever, at any time by the Municipality by giving thirty (30) days written notice to the Provider.

4. NON-CONFLICTS OF INTEREST.

The Provider represents that neither it nor its firm is now performing and expressly agrees to refrain during the period of effectiveness of this Agreement from so performing, any professional services for any person, firm or corporation which results or might result in a conflict of interest between the Provider and the Municipality, directly or indirectly. The Provider agrees to disclose in writing to the Municipality any and all such conflicts of interest, which may arise, giving full particulars.

5. TITLE TO DATA AND PROPERTY PRODUCED BY THE PROVIDER.

The Provider agrees that title to and all rights and other legal interest in all correspondence, Memoranda, records, data, analysis, graphs, reports, physical property and other subject matter prepared, procured or produced in the rendition of services hereunder shall vest exclusively and remain jointly with the Municipality and Provider and the Provider shall not have the right to sell, disclose, or make same available to third parties without the prior written consent of the Municipality.

6. CONFIDENTIALITY.

The Provider agrees to, treat and maintain as confidential, and not to disclose to any third party or to use for its own benefit, reproduce or have reproduced, any information or other such document or data obtained, learned or produced as a result of the services rendered hereunder (except to the extent required by law) without the prior written consent of the Municipality, which consent shall not unreasonably be refused, and to both require and furnish copies to the Municipality of an identical covenant executed by all agents, employees, or subcontractors of the Provider participating in the rendering of the services hereunder.

7. COMPLIANCE WITH LAWS.

During the performance of this contract, the contractor agrees as follows:

The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, sex, affectional or sexual orientation. The contractor will take affirmative action to ensure that such applicants are recruited and employed, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, sex, affectional or sexual orientation. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Public Agency Compliance Officer setting forth provisions of this nondiscrimination clause;

The contractor or subcontractor, where applicable, will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, sex, affectional or sexual orientation;

The contractor or subcontractor where applicable, will send to each labor union or representative or workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer advising the labor union or workers representative of the contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment;

The contractor or subcontractor, where applicable, agrees to comply with the regulations promulgated by the Treasurer pursuant to P.L. 1975. c. 127, as amended and supplemented from time to time and the Americans with Disabilities Act;

The contractor or subcontractor agrees to attempt, in good faith, to employ minority and female workers consistent with the applicable county employment goals prescribed by N.J.A.C. 17:27-5.2 promulgated by the Treasurer pursuant to P.L. 1975. c. 127. as amended and supplements from time to time or in accordance with a binding determination of the applicable county employment goals determined by the Affirmative Action Office pursuant to N.J.A.C. 17:27-5.2 promulgated by the Treasurer pursuant to P.L. 1975. c. 127, as amended and supplemented from time to time;

The contractor or subcontractor agrees to inform in writing appropriate recruitment agencies in the area, including employment agencies, placement bureaus, colleges, universities, labor unions, that it does not discriminate on the basis of age, creed, color, national origin, ancestry, marital status, sex, affectional or sexual orientation, and that it will discontinue the use of any recruitment agency which engages in direct or indirect discriminatory practices;

The contractor or subcontractor agrees to revise any of its testing procedures, if necessary, to assure that all personnel testing conforms with the principles of job-related testing, as established by the statutes and court decisions of the State of New Jersey and as established by applicable Federal law and applicable Federal court decisions;

The contractor or subcontractor agrees to review all procedures relating to transfer, upgrading, downgrading and layoff to ensure that all such actions are taken without regard to age, creed, color, national origin, ancestry, marital status, sex, affectional or sexual orientation, and conform with the applicable employment goals, consistent with the statutes and court decisions of the State of New Jersey, and applicable Federal law and applicable Federal court decisions;

The contractor and its subcontractors shall furnish such reports or other documents to the Affirmative Action Office as may be requested by the office from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Affirmative Action Office for conducting a compliance investigation pursuant to Subchapter 10 of the Administrative Code (N.J.A.C. 17:27).

8. COMPLETE AGREEMENT.

This Agreement and any attachments hereto or incorporated by the reference represents the entire contract between the parties and shall take precedence over all other prior or existing understandings or agreements, if any, whether oral or written, and shall not be modified, assigned or transferred except upon the written consent of both parties hereto. All notices by either party to the other required or permitted hereunder may be sent by regular mail to their respective addresses first set forth above unless sooner revised by written notice.

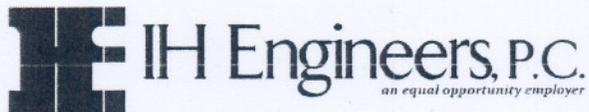
**WITNESS**

**MUNICIPALITY OF PRINCETON**

\_\_\_\_\_  
Linda S. McDermott, Clerk

By: \_\_\_\_\_  
Elizabeth Lempert, Mayor

\_\_\_\_\_  
By: \_\_\_\_\_  
Atlantic Traffic & Design Engineers, Inc.



103 College Road East, 1<sup>st</sup> Floor  
Princeton, NJ 08540  
T: 609-734-8400 F: 609-734-8405  
www.ihengineers.com  
Also in: Hackensack and Staten Island

March 10, 2014

Alina Ferriera, PE, PP, CME  
Construction Engineer  
Princeton  
400 Witherspoon Street  
Princeton, NJ 08540

RE: Request for Proposals  
Great Road and Mountain Avenue Traffic Study and Signal Design

Dear Ms. Ferriera:

Enclosed please find our proposal to provide traffic engineering services in relation to the referenced project. Brian M. Stankus, P.E., PTOE, a Project Engineer of our staff will serve as Project Manager for this assignment and will provide your office with a single point of contact.

As you know, Brian is currently the appointed Traffic Engineer for Princeton's Planning Board and Zoning Board of Adjustment. We look forward to the opportunity to expand our relationship with Princeton on this contract.

IH Engineers, P.C. provides quality consulting services tailored to the specific needs of each client. It is the goal of every team member to fulfill all contractual requirements within budget and without compromising function or quality. With this in mind, we have developed a comprehensive Quality Management Plan, which has been approved by the NJDOT. We ensure that our work product meets requested specifications, applicable policies and guidelines issued by our clients. As a result, our firm enjoys a high percentage of repeat business and has worked in NJ Counties such as Mercer, including projects within Princeton near Great Road and Mountain Avenue (Rosedale Road Bridge), as well as Middlesex, Somerset, Hunterdon and Passaic and for public agencies such as NJDOT, NJ Turnpike Authority, South Jersey Transportation Authority, Port Authority of NY&NJ, NYSDOT, Delaware River Port Authority and Delaware River Joint Toll Bridge Commission.

Thank you for your consideration.

Sincerely,  
IH ENGINEERS, P.C.

A handwritten signature in black ink, appearing to read 'David C. Battaglia', is written over the printed name and title.

David C. Battaglia, PE, CME, CFM  
Manager, Business Development & Communication

encl.

# PROJECT NARRATIVE

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## Project Understanding:

Staff from IH Engineers, P.C. have reviewed the Request for Proposals (RFP) and have conducted a field view at the subject intersection. Although large snow banks were obscuring some features, we believe we have a good understanding of the issues that will need to be resolved in order to bring this project to a successful conclusion.

The results of the traffic signal warrant analysis will be largely contingent on the traffic volume on Mountain Avenue westbound approaching Great Road. It appears that right-turning traffic onto Great Road northbound may reflect Mountain Avenue's use as a connector between Great Road to the west and U.S. Route 206 to the north. Traffic volumes turning left from Mountain Avenue onto Great Road southbound may reflect Mountain Avenue's use as part of a bypass of more congested intersections to the south and east on Route 206, especially the very congested intersection with Nassau Street (Route 27). The manual turning movement counts will provide a better understanding of the existing traffic volume patterns.

We note that the RFP requests two four-hour count periods centered on the weekday morning and evening peak hours; however, we believe that considering the minimal number of additional hours required, a twelve-hour manual count is worthwhile since it will provide a better understanding of turning movements throughout the day and also provide more available data for the warrant analysis.

We note that the RFP does not include a crash analysis as an element of the scope of work. However, since a complete traffic signal warrant analysis includes evaluation of the Crash Experience warrant, IH will request copies of crash reports for the intersection, for the three most recent years for which records are available, and complete this analysis to determine whether the intersection's crash history can help in satisfying a signal warrant.

Assuming that IH's analysis results in a recommendation for installation of a traffic signal, we will also review the anticipated benefits of coordination of this signal with the existing adjacent signals, 2,100 feet to the south at Rosedale Road / Cleveland Lane, and 4,100 feet to the north at Coventry Farm Road/ Princeton Day School. Because it does not appear that any of the intersecting streets within these limits carries a substantial volume, we believe that coordination of these signals may result in an improved progressive traffic flow along the corridor.

Although it is not specifically mentioned in the RFP, Great Road is Mercer County Route 601 and as such the traffic signal warrant analysis and plans will be subject to review and approval from the Mercer County Traffic Engineer's office. The IH staff who will complete this assignment know the County Traffic Engineer well and can coordinate effectively to ensure the study and plans satisfy County requirements.

The IH staff that will be assigned to this project are familiar with the Manual on Uniform Traffic Control Devices (MUTCD), both in terms of the requirements of a traffic signal warrant analysis, as well as in terms of the signing, striping and layout of traffic signal indications. We also understand that pedestrian accessibility and compliance with current ADA/PROWAG accessibility best practices will be a critical component of this project. We anticipate that this project will include the design of at least four curb ramps to serve the existing asphalt pedestrian/bicycle paths present at the intersection, and one curb ramp and landing area will be proposed along the west side of Great Road opposite Mountain Avenue to provide one crossing of the County highway.

IH Engineers' offices are located on College Road East at U.S. Route 1 in Plainsboro Township, approximately seven miles (by road) from the subject intersection. This proximity will minimize the travel time involved with site visits and meetings, thereby reducing Princeton's costs to achieve completion of the project. In addition, IH Engineers has performed various projects in Princeton and has an awareness of local traffic patterns. In particular, our award winning bridge replacement on Rosedale Road near the subject intersection required an analysis of local roadways to develop an appropriate detour route.

# PROJECT NARRATIVE

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## Project Approach:

IH Engineers, P.C. will perform the following tasks:

### *Phase I:*

1. Upon receipt of topographic information from Princeton, we will conduct a field view of the intersection to verify existing conditions, including signing, striping and other traffic controls; utility poles; visible utilities including manholes, valves, inlets, hydrants; and other relevant information.
2. We will place three (3) Automated Traffic Recorder (ATR) machines, one on each of the three legs of the intersection, and will collect at least seven (7) complete days worth of data from each. Each ATR will collect two-way traffic volume and classification data by 15-minute intervals.
3. We will conduct a 12-hour manual turning movement count at the intersection, between the hours of 7:00 a.m. and 7:00 p.m. We will discuss the proposed count date with Princeton staff, and will perform this count while local schools and Princeton University are in session. Counts will include total vehicles, heavy vehicles, pedestrians and bicycles.
4. We will contact the Princeton Police Department to request police crash reports at or within 200 feet of the intersection, for the most recent three-year period for which reports are available.
5. We will review and tabulate the traffic volume and crash data, and we will prepare a signed and sealed warrant analysis report in support of the proposed signalization. This report will also include a review of the existing geometry and recommendations for improvements if applicable. We will provide a copy of this document to Princeton and Mercer County staff.
6. We will attend up to three, 3 hour, coordination meetings with Princeton staff.

### *Phase II:*

7. Assuming that our warrant analysis concludes with a recommendation that a signal be installed: Using the topographic information provided by Princeton, we will prepare a Traffic Signal Layout Plan for the proposed signal, including the locations of signal foundations, standards, mast arms, signal heads, push buttons, signage and striping, and other traffic controls. In the preparation of this plan, we will coordinate with Princeton staff with regard to preferences including the colors of signal poles, mast arms and signal heads, and the location of the proposed crosswalks and ADA compliant curb ramps.
8. We will prepare a timing schedule for the operation of the proposed signal, including timing for all anticipated signal intervals. The timing will also consider potential coordination with the adjacent traffic signals to the north and south along Great Road.
9. We will submit the signal layout plan and timing to both Princeton and Mercer County for review and comment prior to preparing additional plans. This "Preliminary Design" submission will also include a cover sheet, standard legend/notes, a signing and striping and ADA compliant curb ramp design plan, and construction details.
10. Upon receipt of signal layout comments, we will revise accordingly, and will then prepare an electrical plan detailing the proposed items for construction, including the proposed controller and meter, underground electrical distribution, the traffic signal equipment, and equipment associated with coordination with the adjacent Great Road signals, if applicable.
11. We will prepare a complete Final Design bid plan set, including the signal layout and electrical plans, a cover sheet and boiler plate NJDOT traffic control drawings. The plan set will also include an engineer's

# PROJECT NARRATIVE

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estimate and proposal form/bid quantities in 8-1/2"x11" format, as well as specifications/special provisions based on the New Jersey Department of Transportation's 2007 Specifications for Road and Bridge Construction, and Princeton's "front end" specification. This preliminary bid set will be submitted to both Princeton and Mercer County for review and comment.

12. Upon resolution of comments from Princeton and/or Mercer County, we will revise bid materials accordingly. We will provide twelve (12) copies of the final bid package for Princeton's use in soliciting bids to complete the work reflected in the project plans.

## *Phase III:*

13. If requested, we will review bids received and prepare a letter recommending a contractor for selection.
14. We will attend a pre-construction meeting with the selected contractor and Princeton staff, including a representative of the Police Department, to discuss the project, including work hours, project scope, traffic control and any other questions regarding the project.
15. We will review and respond to Requests for Information ("RFIs") submitted by the contractor during construction and, if required, will attend up to three (3) field meetings to review and address issues encountered during construction.
16. We will attend the traffic signal "turn-on". At this time we will conduct an inspection of the signal installation to identify any items that are not in compliance with the layout plan or the specifications. We will outline any such issues in a "punch list" letter to be provided to the contractor. Once the "punch list" items have been corrected, we will prepare a Final As-Built Traffic Plan and submit five (5) copies of a signed and sealed engineer's certification which, in combination with an ordinance to be approved by Princeton, will serve as the formal approval of the traffic signal installation.

## **Project Exclusions/Assumptions:**

- Per the RFP, Princeton will supply electronic drawings of standard details for its standard equipment.
- Per the RFP, Princeton will provide topographic information. Therefore, surveying services are excluded.
- It is assumed that the provided topographic information will be in an electronic format such as AutoCAD and have sufficient detail to reasonably perform the required design services.
- Attendance at meetings beyond those noted in the Scope of Work are excluded.
- It is assumed that coordination with utility companies will be performed by Princeton.
- Design of geometric improvements, aside from ADA-compliant curb cut ramps, is excluded.
- It is assumed that no environmental or soil erosion permitting will be required.

If desired, we will be happy to submit a supplemental proposal to assist with any necessary tasks.

## **Project Schedule:**

We anticipate completion of the traffic count program and Traffic Signal Warrant Analysis report for the proposed signal within five (5) weeks of Notice to Proceed.

We anticipate providing a draft Traffic Signal Layout Plan within five (5) weeks of the finalization of the warrant analysis, assuming that the warrant analysis concludes that signalization is recommended.

We anticipate providing a "final draft" of the full plan set within six (6) weeks of the receipt of comments on the preliminary signal layout and timing. Final bid plan sets will be provided within two (2) weeks of receipt of final comments.

# FEE ESTIMATE

## Great Road and Mountain Avenue, Princeton, NJ Traffic Signal Warrant Analysis and Signal Design

March 10, 2014

TASK	HOURS				Total
	QA/QC Engineer	Project Manager	Engineer/Drafter	Junior Engineer	
<i>Billing Rate (2014)*</i>	\$ 165.00	\$ 136.00	\$ 100.00	\$ 87.75	
<b>Phase I</b>					
1. Field View	2	2			4
2. ATR counts		3		8	11
3. Turning movement counts		2		16	18
4. Crash reports		2			2
5. Warrant analysis report	4	6			10
6. Meetings (3)		9			9
<i>Phase I hours</i>	6	24	0	24	54
<i>Phase I "NTE"</i>	\$ 990.00	\$ 3,264.00	\$ -	\$ 2,106.00	\$ 6,360.00
<b>Phase II</b>					
7. Draft signal layout plan		8	12		20
8. Timing schedule / traffic analysis	1	4		6	11
9. Prelim design submission	2	8	12		22
10. Electrical plan		8	12		20
11. Final design plan set	2	10	12		24
12. Revisions and final plan submittal		6	6		12
<i>Phase II hours</i>	5	44	54	6	109
<i>Phase II "NTE"</i>	\$ 825.00	\$ 5,984.00	\$ 5,400.00	\$ 526.50	\$ 12,735.50
<b>Phase III</b>					
13. Bid review / contractor recomm.		2			2
14. Pre-con meeting		3			3
15. RFIs / field meetings		12			12
16. Signal inspection / certification	1	6			7
<i>Phase III hours</i>	1	23	0	0	24
<i>Phase III "NTE"</i>	\$ 165.00	\$ 3,128.00	\$ -	\$ -	\$ 3,293.00
<b>Reimbursable expenses:</b>					
ATR machine rental: 3 machines @ \$200/wk, 2 weeks				\$ 1,200.00	
Reproductions: Twelve (12) sets of 15 sheets, \$1/sheet				\$ 180.00	
<b>Total reimbursable expenses</b>					\$ 1,380.00

\* Billing rates include Overhead and Profit

<b>Phase I - III NTE Total</b>	<b>\$ 22,388.50</b>
<b>Reimbursable Expenses Total</b>	<b>\$ 1,380.00</b>
<b>TOTAL PROJECT COST (Rounded)</b>	<b>\$ 23,800.00</b>

12/30/04

Taxpayer Identification# 200-006-070/000

Dear Business Representative:

Congratulations! You are now registered with the New Jersey Division of Revenue.

Use the Taxpayer Identification Number listed above on all correspondence with the Divisions of Revenue and Taxation, as well as with the Department of Labor (if the business is subject to unemployment withholdings). Your tax returns and payments will be filed under this number, and you will be able to access information about your account by referencing it.

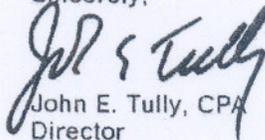
Additionally, please note that State law requires all contractors and subcontractors with Public agencies to provide proof of their registration with the Division of Revenue. The law also amended Section 92 of the Casino Control Act, which deals with the casino service industry.

We have attached a Proof of Registration Certificate for your use. To comply with the law, if you are currently under contract or entering into a contract with a State agency, you must provide a copy of the certificate to the contracting agency.

If you have any questions or require more information, feel free to call our Registration Hotline at (609)292-1730.

I wish you continued success in your business endeavors.

Sincerely,

  
John E. Tully, CPA  
Director

STATE OF NEW JERSEY  
BUSINESS REGISTRATION CERTIFICATE

DEPARTMENT OF TREASURY/  
DIVISION OF REVENUE  
PO BOX 252  
TRENTON, N J 08646-0252

TAXPAYER NAME:

IH ENGINEERS, P.C.

TRADE NAME:

ADDRESS:

103 COLLEGE RD EAST 1ST FLOOR  
PRINCETON NJ 08540

SEQUENCE NUMBER:

0992017

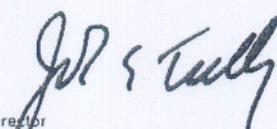
EFFECTIVE DATE:

03/29/03

ISSUANCE DATE:

12/30/04

FORM-BRC(08-01)

  
Director  
This Certificate is NOT assignable or transferable. It must be conspicuously displayed at above address



## State of New Jersey

**CHRIS CHRISTIE**  
*Governor*

DEPARTMENT OF THE TREASURY  
DIVISION OF REVENUE  
P.O. BOX 026  
TRENTON, NJ 08625-034  
PHONE: 609-292-2146 FAX: 609-984-6679

**ANDREW P. SIDAMON-ERISTOFF**  
*State Treasurer*

**KIM GUADAGNO**  
*Lt. Governor*

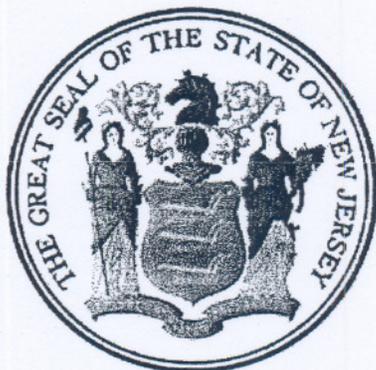
### APPROVED *under the*

Small Business Set-Aside Act and Minority and Women Certification Program

This certificate acknowledges **IH ENGINEERS PC** as a **Category 3 & 5** approved Small Business Enterprise that has met the criteria established by N.J.A.C. 17:13 and/or 17:14.

This registration will remain in effect for three years. Annually the business must submit, not more than 20 days prior to the anniversary of the registration notice, an annual verification statement in which it shall attest that there is no change in the ownership, revenue eligibility or control of that business.

If the business fails to submit the annual verification statement by the anniversary date, the registration will lapse and the business will be removed from the SAVI that lists registered small businesses. If the business seeks to be registered again, it will have to reapply and pay the \$100 application fee. In this case, a new application must be submitted prior the expiration date of this registration.



Andrew Pantelides  
Assistant Director

Issued: August 9, 2012  
Certification Number: 59797-23

Expiration: August 8, 2015