Fiscal Year 2022-23

Traffic Signal Technologies

Grant Program

Program Guidelines: August 19, 2022

Applications will be accepted from September 1, 2022 to September 30, 2022.

pennsylvania
DEPARTMENT OF TRANSPORTATION

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Section I – Program Overview

Act 54 of 2022 enacted on July 11, 2022 includes $5 million to provide grants to municipalities to install and maintain traffic signal technologies. The Traffic Signal Technologies Grant (TSTG) program is a reimbursement grant program for municipalities that is administered by the Pennsylvania Department of Transportation (PennDOT). The funding was added to the municipal traffic signal appropriation, which is also used to fund the Green Light-Go program. Therefore, PennDOT will administer the additional funds for traffic signal technologies similar to the Green Light-Go program. No matching funds are required for the TSTG program.

The total amount of grant funding available is approximately $5 million. Applications will be accepted from September 1, 2022 to September 30, 2022.

For general information on the Traffic Signal Technologies Grant program, please contact the PennDOT program resource account at RA-PDSignalFunding@pa.gov.

Section II – Eligibility

A. Eligible Applicants

The following entities may apply for a grant under the Traffic Signal Technologies Grant program.

1. **Municipalities** – Any county, city, borough, incorporated town, township or home rule municipality.

B. Eligible Projects

Grant funding must be utilized to install and maintain traffic signal technologies at traffic control signals which will be connected to a central location (PennDOT) using the Commonwealth communications network.

The following project types are eligible for the use of program funds:

1. **Traffic Signal System** – A system that synchronizes and times traffic signals, such as a clock synchronization and timing pattern selection from a central server. Pattern selection may be by time-of-day, manual override, or traffic responsive algorithm.

2. **Adaptive Signal Control Technology** – Technology that utilizes sensors to monitor traffic flow, vehicle delay and queues to optimize the timing plan of the traffic signal in real time.

3. **Automated Traffic Signal Performance Measures (ATSPM)** – Controller, detection and communication technology to support traffic signal timing and synchronization updates using ATSPM.

4. **Unified Command and Control** – Controller and communication technology to support unified command and control through PennDOT's statewide platform.

All work must be completed within existing right-of-way. No right-of-way way acquisition will be permitted for projects funded with this program.

If communications technology is installed as part of a project, all cable must be within or attached to municipally-owned facilities. Due to the time limitations of the program, new third-party utility attachments will not be permitted.

C.   Ineligible Projects

The following project types and activities are __not eligible__ for funding through the Traffic Signal Technologies Grant program:

1. **New Traffic Signals** – Installation of new stop-and-go traffic signals at locations which are not controlled by stop-and-go traffic signals at the time of application submission.

2. **Signal Heads** – Replacement of existing incandescent or LED bulbs with new LED bulbs for vehicular and/or pedestrian signal indications, replacement of signal housings, and/or installation of backplates.

3. **Traffic Signal Supports** – Installation or replacement of traffic signal supports, including mast arms, strain poles, pedestal poles, and pedestrian stub poles.

4. **Routine Maintenance** – Preventative or repair maintenance activities required of municipalities under PennDOT Publication 191, including in-kind replacement of defective equipment.

5. **Modernization Upgrades** – Installation and/or upgrade of existing traffic signal equipment which is beyond its useful life and to bring traffic signals into compliance with current standards.

6. **Emergency Preemption** – Installation of emergency preemption equipment

7. **Battery Backup** – Installation of battery backup equipment, also known as uninterruptible power supplies

8. **Signing and Pavement Marking** – Installation or replacement of signs or pavement markings

9. **Flashing Warning Devices** – Installation of new flashing warning devices or modification, upgrades, or repairs to existing flashing warning devices

10. **Roadway Construction** – Physical roadway work, such as pavement or concrete work, including curbs, sidewalks, and ADA ramps.

In addition to the list above, projects which have already been awarded funding through the Green Light-Go Program will not be eligible.

D.   Eligible Use of Funds

Traffic Signal Technologies Grant funding may be used for planning, pre-construction, and construction activities. Funds may be used by the applicant to pay for any of the following project costs:

1.   Professional services to perform traffic signal and related studies

2.   Engineering and design activities*

3.   Construction and equipment installation

4.   Construction inspection

5.   Miscellaneous costs associated with construction, such as mobilization, and temporary traffic control

*Invoices from engineering consultants must identify the hours invoiced by employee or job classification, and no markup on other direct costs (including subconsultants) is permitted.

E.   Ineligible Use of Funds

Ineligible costs include but are not limited to:

1.   Public relations
2.   Outreach
3.   Communications
4.   Lobbying
5.   Litigation
6.   Fees for securing other financing
7.   Interest on borrowed funds
8.   Municipal engineer review fees
9.   Application preparation fees.

In addition, project costs expended prior to execution of a Reimbursement Agreement are not eligible for reimbursement.

Section III – Program Requirements

A. Reimbursement

The Traffic Signal Technologies grant program is a reimbursement-based program. Awarded applicants will be required to pay contractors directly and then submit a request for reimbursement through PennDOT utilizing DCED's Electronic Single Application for Assistance (ESA) system.

No funds for which reimbursement will be requested can be expended prior to full execution of a Reimbursement Agreement between the applicant and PennDOT.

B. Municipal Managed Projects

All projects will be locally managed by the applicant. The applicant is responsible for providing an employee with approval authority to manage the project.

For projects where a professional consultant is used to complete design work, the selection of an engineering consultant shall be in accordance with one of the three procedures described in Section 3.5 of PennDOT Local Project Delivery Manual, Publication 740:

1. Utilize a designated municipal engineer

2. Proceed with consultant selection

3. Utilize PennDOT's Open End Contracts to complete necessary tasks (subject to availability)

Please note that cost cannot be a factor in the selection of a consultant. Only after a consultant has been selected and approved based on qualifications can a price proposal be requested. Chapter 3 of Publication 740 should be followed for consultant selection. The consultant selection shall be approved by PennDOT's Bureau of Operations prior to executing a contract and issuing notice to proceed.

The following requirements should be considered when choosing an option above for a consultant:

- Municipal engineers must have been selected properly per PennDOT's procedures in Publication 740 to be utilized for the design of Traffic Signal Technologies Grant projects.

- There are different advertisement requirements depending whether the anticipated design contract amount exceeds $150,000. If the anticipated design cost is anticipated to be under $150,000 but is close, the municipality may want to follow the stricter process.

- It is anticipated that most Traffic Signal Technologies Grant projects will be non-complex and will not require shortlisting of firms before a final ranking is established.

- DBE Goals are not required for consultant contracts unless federal funding is used for the matching funds.

C. Other Requirements

1. **Conflicts of Interest**
    An officer, director, or employee of an applicant who is a party to or who has a private interest in a project shall disclose the nature and extent of the interest to the governing body of the applicant and may not vote on any action of the applicant concerning the project, nor participate in the deliberations of the applicant concerning the project.

2. **Nondiscrimination**

    No assistance shall be awarded to an applicant under this program unless the applicant and project user certify to the Department that they shall not discriminate against any employee or against any person seeking employment because of race, color, handicap, national origin, age or sex. All contracts for work to be paid with Traffic Signal Technologies Grant assistance must contain the commonwealth's official nondiscrimination clause.

3. **Project Records**
    The applicant must maintain full and accurate records with respect to the project. The Department requires access to such records, as well as the ability to inspect all work, invoices, materials, and other relevant records at reasonable times and places. Upon request of the Department, the applicant must furnish all data, reports, contracts, documents, and other information relevant to the project.

4. **Pennsylvania Prevailing Wage Act**
    All of the construction work associated with the project may be subject to the Pennsylvania Prevailing Wage Act, as determined by the Pennsylvania Department of Labor and Industry.

5. **Certification of Expenses**
    The applicant shall sign a payment request form certifying that the expenses were incurred and were in accordance with the scope of work approved by the Department. In lieu of a formal project audit and prior to final closeout of the grant agreement, the applicant shall be required to submit copies of all canceled checks verifying the expenditure of program proceeds. Bank statements may also be submitted if electronic payment of the expenditure occurred.

6. **Bidding Requirements**
    Applicants must comply with all applicable federal, state, and local laws and regulations dealing with bidding and procurement.

Section IV – Application Procedures

A. Pre-Submission Requirements

Prior to application submission, applicants are **<u>required</u>** to complete a project scoping form, which is available in **Appendix II**. The purpose of the scoping form is to ensure that the project scope is consistent

with the program goals and requirements, and will allow PennDOT to assist applicants with refining the scope to ensure a successful project (e.g., equipment compatibility, appropriateness of project for the location, etc.).

> Scoping forms shall be submitted via e-mail to RA-PDSignalFunding@pa.gov no later than September 23, 2022. The completed and approved scoping form shall be uploaded as an attachment to the formal application submission in the eGrants system.

B. Conflicts of Interest

The application form is designed to be completed by municipal staff without the need for outside assistance. Municipalities which utilize consultants for assistance with the application should be aware of the conflict of interest provisions in PennDOT Publication 93, Policy and Procedures for the Administration of Consultant Agreements, Section 1.5, which states: "7. A consultant that is involved with a grant application or preparing a Request for Proposal (RFP) for a particular project is not eligible to perform preliminary engineering or final design on that project." Traffic Signal Technologies grant projects must comply with the procedures in Publication 93 for selection of a consultant.

Consultant involvement shall be disclosed in the grant application. Failure to disclose consultant involvement is a misdemeanor under 18 Pa.C.S. §4904, unsworn falsification to authorities.

C. Submission Process

All applications and attachments are to be submitted electronically through DCED's Electronic Single Application for Assistance (ESA) system by an eligible applicant (see Section II.A). The electronic application form through ESA is available at: https://www.esa.dced.state.pa.us/Login.aspx. The application can be saved at any time and accessed at a later date.

Accessing the application requires a Keystone Login. If you already have a Keystone Login, that may be used. Instructions for registering for a new Keystone Login are provided on the login page.

Setting Up Your Profile in ESA

After logging into ESA, you can set up a user profile which contains general information about you and your organization. This information can then be automatically pulled into any grant application you create. It is recommended to complete this before starting your first application. Click on "User Settings" in the orange menu bar at the top of the home screen to access your user profile.

Following are guidelines for information required in the user profile.

- Are You Applying As? *For Traffic Signal Technologies grant applications, this should be "Government"*

- Entity/Company Type: *For Traffic Signal Technologies grant applications, this should be "Municipality"*

- FEIN: *This is your organization's federal employer/tax ID number. Enter as 9 digits without dashes.*

- SAP Vendor #: *This is your municipality's SAP Vendor number to receive payments from the Commonwealth of Pennsylvania. If you do not know your SAP Vendor number, you can search at* https://b2b.ies.pa.gov/apps/vendor_lookup/index.html

- Entity Name: *This should be the official legal name and match the name used for SAP Vendor Registration and used on official resolutions. Please be aware there is a difference between "Borough of Anytown" and "Anytown Borough," which could affect processing of grant applications if your project is awarded.*

- CEO: *Although this is not used for the Traffic Signal Technologies grant program, it is required in the ESA system and cannot be blank. For municipalities, this could be a Mayor, Manager, Council President, Board of Supervisors Chair, etc.*

- The remaining blocks should be self-explanatory.

An overview of the application with instructions and a list of required documentation is outlined in **Appendix I**.

D.   Submission Deadline

Applications for the Traffic Signal Technologies grant program will be accepted from September 1, 2022 to September 30, 2022.

Section V – Application Evaluation

A.   Selection Process

The Bureau of Operations will review and rank submitted applications with respect to applicable criteria for program funding, current priorities for traffic safety and mobility, and other factors. The anticipated timeline for the Traffic Signal Technologies grant selection process will be as follows:

- August 1, 2022 to September 30, 2022: Outreach and pre-application scoping

- August 27, 2022: Pennsylvania Bulletin Announcement

- September 1, 2022: Application period begins

- September 30, 2022: Traffic Signal Technologies grant application period ends

- October 2022: PennDOT application review

- November 2022: Award approval and denial notifications

- November 2022-February 2023: Grant agreement execution

- May 2025: Required construction completion

Each eligible project application will be ranked based upon the merits of the project for each criterion. Final selection recommendations will be provided to the PennDOT Executive Management for award approval.

B. Selection Criteria

The following selection criteria may be considered by the Bureau of Operations staff to rank projects:

1. **Project Benefits and Effectiveness (50% Scoring Weight)** – How will the project improve safety, enhance mobility, and reduce congestion? This criteria will consider benefits based on traffic volume and cost per intersection as a surrogate for a benefit/cost ratio.

2. **Local and Regional Impact (25% Scoring Weight)** – How will the project support the regional transportation system? Does the project include a corridor crossing multiple municipalities? Is the project consistent with regional and local planning documents? Is the project identified on the Regional Operations Plan?

3. **Operations and Maintenance (25% Scoring Weight)** – Does the applicant's past and current operations and maintenance performance meet the Department's expectations? Has the applicant demonstrated capabilities sufficient to maintain the technology which is proposed?

Appendix I – Application Instructions

A. Beginning a New Application

After logging in to ESA, on the Home screen, enter the following information in the "Begin a New Application" section:

- Project Name: *Enter a brief project name to describe your project*

- Are you applying on behalf of your organization or another entity? *Choose as appropriate*

- Do you need help selecting your program? *Choose "No"*

After the above information has been entered, click "Create a New Application."

The next screen is titled "Select Program." Type **Traffic Signal** into the Program Name box and click "Search."

At the bottom of the screen in the Traffic Signal Technologies Grant Program field, click on "Apply".

Traffic Signal Technologies   🖉 Apply
Pennsylvania Department of Transportation

Act 54 of 2022 enacted on July 11, 2022 includes $5 million to provide grants to municipalities to install and maintain traffic signal technologies. The program is administered by the Pennsylvania Department of Transportation (PennDOT). The funding was added to the municipal traffic signal appropriation, which is also used to fund the Green Light-Go program. Therefore, PennDOT will administer the additional funds for traffic signal technologies similar to the Green Light-Go program. The Traffic Signal Technologies Grant program is a reimbursement grant program for municipalities. No matching funds are required.

Additional Information: Program Fact Sheet, Guidelines

B. Pre-Application Requirements

The next screen will confirm eligibility as indicated in Section II of this document. Answer the questions on the Requirements screen then click "Continue."

The system will not allow you to continue unless the eligibility requirements are met.

REVIEW INFORMATION BELOW

- Before you can apply for Traffic Signal Technologies, you must complete the Pre-Application Requirements section below.

Requirements

Have you completed the pre-application scoping form? Click here. ◆

1. Please Download, complete and upload the form.

Upload Files
Use the control below to select your file. Each file can be no larger than 30MB.

File 1   Choose File   No file chosen

Are you submitting an application for a municipality? ◆
* Municipality includes any county, city, borough, incorporated town, township or home rule municipality.

Has municipality signed and submitted a Traffic Signal Maintenance Agreement covering all signals in the municipality? ◆
See here for more information.

Please provide the date of completion:

Continue

C. Applicant Information

If you have already entered your user profile information as indicated in Section IV.C of this document, click "Use Account Information" and all of your information will be pre-populated.

Please refer to the section on user profile in Section IV.C for specific information to be entered in the fields on this page.

After confirming your information is entered correctly, click "Continue" at the bottom right of the page.

D. Project Overview

The following information should be entered on this screen:

- Project Name: *This should auto populate from the project name entered previously*

- Is this project related to another previously submitted project: *Choose yes if you have submitted this project previously for funding from the Commonwealth, including other programs such as Green Light-Go or ARLE. If yes, indicate the program and application round for which the project was previously submitted.*

- Have you contacted anyone at PennDOT about your project? *If you submitted a project scoping form prior to your application submission, choose "Yes" and indicate the name of the PennDOT staff who reviewed the scoping form.* **A project scoping form is required for Traffic Signal Technologies grant applications as indicated in Section IV.A of this document.**

- Is your community certified through Sustainable Pennsylvania? *This information is not used for the Traffic Signal Technologies grant program and any information entered will be ignored.*

- Are you interested in applying for multiple funding sources for this project? *Currently, Traffic Signal Technologies grant program requirements and application periods are not aligned with other PennDOT funding programs, so this can be left as "No."*

- How many Site Locations are involved in the project? *Enter the number of traffic signals where work will be performed.*
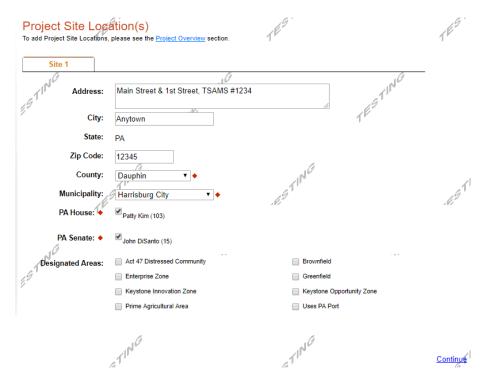
After confirming your information is entered correctly, click "Continue" at the bottom right of the page.

E.   Project Site Location(s)

There will be separate tabs that appear depending how many project locations were selected on the previous page.

For each location, enter the following information:

- Address: *Enter identifying information about the location, such as intersecting street names. For signalized intersections, please include the TSAMS ID number for the intersection which can be found from the following map:* *https://gis.penndot.gov/onemap/?map-id=20435*

- Enter County and Municipality, which will preselect the appropriate legislators. If multiple legislators are shown, choose only the ones with districts including the project location.

- Designated Areas: *This information is not used for Traffic Signal Technologies grants and all can be left unchecked.*

After confirming your information is entered correctly, click "Continue" at the bottom right of the page.

F.   Project Narrative

Enter the following on this page, as described on the screen:

- Project Description – *Provide a brief description of the project scope of work.*

  For each project component, PennDOT recommends that the applicant justify the need for the project by answering the following questions:

  - *Why are the project improvements critically needed to improve mobility and/or safety?*

  - *How will the improvements address the mobility and/or safety issue(s)?*

  - *Who is going to maintain and operate the proposed improvements?*

- Project Safety Features – *Provide a brief description on the anticipated benefits of the project upon completion. Examples may include the extent of anticipated congestion reduction and/or improved safety, reduced fuel consumption and emissions, reductions in long-term operation and maintenance requirements, and so forth. Please include quantitative data if available.*

- Project Cost Effectiveness – *Describe how the project is a cost effective solution. If applicable, discuss what other alternatives were explored and why the proposed*

> *improvements were selected.*

- Project Schedule – *Please outline critical project milestones for preconstruction and construction activities.*

After confirming your information is entered correctly, click "Continue" at the bottom right of the page.

G. Program Budget

This screen has two tabs. **Both tabs must be completed.**

On the "Spreadsheet" tab, enter the proposed breakdown of project funding. The spreadsheet contains two columns by default:

- Traffic Signal Technologies Program: *Enter the funding being requested from the Traffic Signal Technologies Grant Program. The total of this column will be the amount of the grant request.*

- Local Local: *Enter any matching funds being provided.*

Additional matching funding source columns can be added by clicking the "Add funding source" button.

Budget Spreadsheet ◆

The first column indicates the amount of funding you are requesting from PennDOT. After completing the budget, please complete the Basis of Cost tab. Included is a Budget Narrative where you can provide a more detailed description of specific line items.

Add funding source		Traffic Signal Technologies	Local Local	Total
Requested Amount - Collapse		$116,636.00	$0.00	
Preliminary Engineering	Remove	$4,486.00	$0.00	$4,486.00
Final Design Cost	Remove	$4,486.00	$0.00	$4,486.00
Construction Cost	Remove	$107,664.00	$0.00	$107,664.00
Miscellaneous Services	Remove	$0.00	$0.00	$0.00
Total		$116,636.00	$0.00	
			Budget Total:	$116,636.00

On the "Basis of Cost" tab, review the information that is prepopulated and make adjustments as appropriate. Note, backup documentation for the cost estimate is **required** to be attached on the Addenda tab so a narrative description is not required.
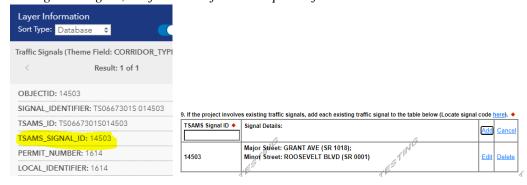
The cost estimate shall following the estimating guidance available on the Traffic Signal Portal.

After confirming your information is entered correctly, click "Continue" at the bottom right of the page.

H. Program Addenda

This page includes information specific to the Traffic Signal Technologies Grant Program. Please note, information entered on this screen will have a direct impact on the application scoring, and the requirements below should be reviewed carefully to ensure proper information is submitted.

- Consultant Involvement: *Indicate whether a consultant was involved in preparing the application, and indicate the name of the consultant(s), if applicable. Refer to Section IV.B of this document for more information regarding consultants and conflicts of interest.*

- Project Type: *Select from the drop down menu based on the predominant work included in the project. Refer to Section II.B of this document for a description of the project types.*

- Regional Operations Plan: *Identify whether the project is identified on the Regional Operations Plan. Refer to the PennDOT TSMO Website to find the Regional Operations Plan:* https://www.penndot.gov/ProjectAndPrograms/operations/Pages/TSMO-Regions.aspx

- Joint Municipality Project: *Indicate if the project includes multiple municipalities.*

- Project Location: *Add each traffic signal to the table in #9 by using the TSAMS Signal ID. The TSAMS ID can be found using* [PennDOT OneMap](#) *and is a number between 1 and 17000. Click on the signal on the map to get information relating to the signal. After adding each signal, confirm the information pulled from TSAMS is correct.*

- Project Location Map: *Please attach a map of the project location with the application. At minimum, as applicable, the map should illustrate:*

    o *Signal locations where work is proposed*

    o *Municipal boundaries for multi-municipal projects*

    o *Prominent land uses in the study area (primary traffic generators)*

- Maintenance and Operations Plan: *Describe the proposed maintenance and operations plan associated with the project and attach a copy of the plan. The plan should be in accordance with the Department guidelines for the Maintenance of Traffic Signals System defined in*

Publication 191. In addition, please include any past or existing maintenance and operations programs in the municipality. Please attach the existing or proposed Maintenance and Operation Plan for the intersections being requested.

- Who performs maintenance? *Indicate whether maintenance is performed by municipal forces, contractors, or both.*

- What is the timeline to address maintenance problems? *Select the timeframe in which maintenance problems are typically addressed from the options provided.*

- Project Schedules: *Upload a project schedule with critical project milestones for preconstruction and construction activities.*

- Cost Estimate: *Upload a detailed cost estimate to document the estimated project cost. The cost estimate shall follow the estimating guidance available on the* [Traffic Signal Portal](#).

- Supporting Documents: *Attach any additional documents which help support this application (i.e. photographs, plans, diagrams, letter of support, etc.).*

- Worker Protection Form: *Please download the Worker Protection and Investment Certification Form from the link provided in the application, complete the certification, and upload the signed copy of the form. This is required in accordance with Governor Wolf's* [Executive Order 2021-06](#). *Grant recipients are required to certify compliance with Pennsylvania's labor or workforce safety laws as identified in the order.*

After confirming your information is entered correctly, click "Continue" at the bottom right of the page.

I.   Application Certification

The final step is to electronically sign the application and submit the application.

The individual signing the application must have authority to sign on behalf of the Applicant in accordance with all legal requirements applicable to the Applicant's Organization. The signature is legally binding. PennDOT will rely on the signature as originating from the person possessing legal authority to submit the application on behalf of the Applicant. The box acknowledging this must be checked.

The application must be completed in its entirety for the application to be evaluated by the Department. Applications received after the due date will not be considered by the Department.

Click here for fillable PDF form

Appendix II – Project Scoping Form

(7-22)

pennsylvania
DEPARTMENT OF TRANSPORTATION
www.penndot.gov

**TRAFFIC SIGNAL TECHNOLOGIES GRANT
PRE-APPLICATION SCOPING FORM**

PLEASE TYPE OR PRINT ALL INFORMATION IN BLUE OR BLACK INK

A – PROJECT OVERVIEW

DISTRICT	COUNTY	MUNICIPALITY(S)

Attach a map or list of the signalized intersections included in the project.

PROJECT NAME

PROJECT CONTACT NAME | PROJECT CONTACT EMAIL

PROJECT TYPE (check one)
☐ Traffic Signal System ☐ Adaptive Signal Control Technology ☐ ATSPM ☐ Unified Command and Control

NETWORK CHARACTERISTICS (check one)
☐ Arterial Corridor ☐ Collector Corridor ☐ Other Corridor ☐ Two-way Grid Network ☐ One-Way Grid Network ☐ Isolated Intersection

TRAFFIC CONGESTION LEVEL (check one) | OPERATIONAL MAINTENANCE FREQUENCY (check one)
☐ Below Capacity ☐ Near Capacity ☐ Over Capacity | ☐ 6 months of less ☐ More than 6 months ☐ Complaint Driven Only

PEDESTRIAN DEMAND (check one)
☐ Ped Recall ☐ Infrequent Peds (<10 ped calls/day) ☐ Moderate Peds (>1 to 6 peds/hour) ☐ High Peds (>6 peds/hour)

PEDESTRIAN TIMING REQUIREMENTS

Does pedestrian crossing require more time than would otherwise be provided to accommodate vehicle demand? ☐ Yes ☐ No

Does pedestrian demand constrain the range of cycle length which can effectively be used on the corridor? ☐ Yes ☐ No

TRAFFIC SIGNAL OPERATIONAL OBJECTIVES (check those which apply)
INTERSECTION CONTEXT: ☐ Minimize phase failures ☐ Equitable service ☐ Maximize throughput

NETWORK CONTEXT: ☐ Smooth flow ☐ Manage queues

PROJECT DESCRIPTION (Include narrative to describe the project scope of work)

WHY IS THE PROJECT NEEDED? (Provide project needs that are tangible and fact-based, and indicate how the project will address the operational objectives identified above. Also indicate why the existing traffic signals are unable to meet the objectives identified above.)

(07-22)

DESCRIBE HOW THE MUNICIPALITY CURRENTLY OPERATES AND MAINTAINS THE TRAFFIC SIGNALS

B – COST ESTIMATE

PHASE	ITEM DESCRIPTION	UNIT COST	QUANTITY	COST
Engineering/Design				$
Construction	Controller Unit	$		$
	Controller Assembly	$		$
	Communication System	$		$
	Managed Network Switch	$		$
	Unified Command and Control Integration	$		$
	Detection System	$		$
	Adaptive Signal System	$		$
	Other Construction Items	$		$
	Traffic Control	$		$
	Inspection	$		$
Contingency				$
Cost Escalation				$
GRANT FUNDING REQUEST	MATCHING FUNDS (Optional)	MATCHING FUNDS %	**Total Project Cost**	$

Attach additional pages if needed for more details on cost estimate

C – PennDOT REVIEW

TO BE COMPLETED BY PENNDOT BUREAU OF OPERATIONS

REVIEW COMMENTS

REVIEWED BY	DATE