

Project Summaries Guidance Manual

Version 3.0 May 2020



PHILADELPHIA
WATER
DEPARTMENT

TABLE OF CONTENTS

I.	Purpose.....	5
II.	Format	9
III.	Content	11
IV.	Detailed Information for Street Projects	17
1.	Project Summary Workflow	17
2.	Information Gathering	17
3.	Project Type Specific Content	18
4.	Preparation for Photo Taking	19
5.	Photographing the Sites	19
6.	Rendering Development	19
7.	Map Development	20
8.	Finalizing and Submitting	21
V.	Detailed Information for Plant Projects	23
1.	Project Summary Workflow	23
2.	Information Gathering	24
3.	Project Type Specific Content	24
4.	Preparation for Photo Taking	26
5.	Photographing the Sites	27
6.	Rendering Development	27
7.	Map Development	28
8.	Finalizing and Submitting	30
VI.	Detailed Information for Green Stormwater Infrastructure Projects	33
1.	Project Summary Workflow	33
2.	Information Gathering	33
3.	Project Type Specific Content	34
4.	Rendering Development	35
5.	Map Development	35
6.	Finalizing and Submitting	35

TABLES

Table IV-1 – Final Deliverables and File Formats for Street Project Summaries	22
Table V-1 – Project Purpose	25
Table V-2 – Site Managers	27
Table V-3 – Final Deliverables and File Formats for Plant Project Summaries	31
Table VI-1 – Final Deliverables and File Formats for Street Project Summaries	37
Table H-1 – Colors for Elements of Construction (CMYK values)	75
Table H-2 – Colors for Elements of Construction (RGB values)	75

FIGURES

Figure I-1 – Project Summary Process	7
Figure II-1 – Page One of Project Summary	9
Figure II-2 – Page Two of Project Summary	10
Figure III-1 – Template Quick Parts Drop Down Menu	11
Figure III-2 – Example Project Summary Pages 1 and 2	12
Figure IV-1 – Workflow Process for Creating a Street Project Summary	17
Figure IV-2 – Example Stock Renderings	20
Figure IV-3 – Correct Custom Rendering	20
Figure IV-4 – Custom Rendering May Need To Be Cropped To Fit the Allotted Space	21
Figure V-1 – Workflow Process for Creating Plant Project Summaries	23
Figure V-2 – Rendering with Above and Below Ground Components	28
Figure V-3 – Aerial View for Proposed Plant Project with Comments	29
Figure V-4 – Example of Cropped Rendering to Fit in Allotted Space	30
Figure VI-1 – Workflow Process for Creating a GSI Project Summary	33
Figure VI-2 – Rendering May need to Be Cropped to Fit the Allotted Space	36
Figure D-1 – Master Summary Checklist	60
Figure E-1 – Indicator Spots and Arrows Marked on Plans for Photographer	63
Figure E-2 – Screen Shots from Google Earth for Photographer’s Use in the Field	63
Figure F-1 – Examples of Poor Lighting and Shadow Effects To Avoid	66

Figure F-2 – Example of Parked Cars Potentially Blocking the Rendering Area	67
Figure F-3 – Example of Fence Potentially Blocking the Rendering Area.....	68
Figure F-4 – Example of Grid Shot Method for Photographing Sites	69
Figure F-5 – Example of Photo Location Image	70
Figure H-1 – Example Project Location Map	74
Figure H-2 – Example Construction Areas Map.....	74

APPENDICES

APPENDIX A: Sample Project Summaries – Street	39
APPENDIX B: Sample Project Summary – Plant	47
APPENDIX C: Sample Project Summary – Green Stormwater Infrastructure	51
APPENDIX D: Master Summary Checklist	59
APPENDIX E: Preparation for Photo Taking	61
APPENDIX F: Photographing the Sites	65
APPENDIX G: Rendering Development.....	71
APPENDIX H: Map Development	73

This page left blank intentionally.

I. Purpose

To support the Philadelphia Water Department (PWD) Public Affairs Program, this Project Summaries Guidance Manual has been developed to standardize the creation of Project Summaries (see Appendix A). Project Summaries describe anticipated improvements to PWD assets including construction and associated activities that may affect the general public, especially residents living in proximity to work zones. Quality of life issues (e.g., noise, dust, and increased traffic) can be disruptive to the community and if not carefully managed, community members may become upset, which may potentially hinder construction progress.

PWD will provide project information in Project Summaries to affected community members before construction. This information will include the schedule of activities and procedures for addressing issues such as interruption of utilities, increased traffic, noise, dust, and general health and safety.

PWD Public Affairs may distribute these Project Summaries directly to affected community members and they will also be available on the PWD website (www.phila.gov/water/notifications).

Informing affected community members of the issues and benefits of a proposed project before the start of construction will encourage them to become partners in the process, making them more likely to support PWD's efforts. Providing the Project Summaries on the PWD website allows community members to quickly learn about the construction projects in their neighborhoods and conveys a sense of civic progress. A Project Summary that provides information proactively (i.e., in advance of construction activities) in clear language with informative graphics for each project is required for each project to engage work zone community residents and to facilitate positive interaction with PWD.

Project Summaries convey important information about water, sewer, linings, plant, and green stormwater infrastructure projects to the public. The summaries provide a brief overview of the project, notifying residents where work will take place, the streets affected, and the Southeastern Pennsylvania Transportation Authority (SEPTA) routes that may be impacted. The summaries also provide information to residents about the benefits of the project, including PWD efforts to collaborate with other utilities, renew city infrastructure and leave neighborhoods in better condition than before the start of the project.

Frequently Asked Questions

This manual standardizes the creation of Project Summaries. See the questions and answers below to learn more about the guidance manual and Project Summaries.

Why is a guidance manual needed?

Comprehensive, standardized documentation encourages preparation of a consistent list of information for each project. Project Summaries will be concise, highlighting positive aspects of projects, and providing channels for feedback. Project Summaries allow residents of a neighborhood affected by construction to gain an understanding of what is occurring and why.

Who are the audiences of Project Summaries?

The key audience for each summary will be residents in work zones and on detour routes who may be affected by the construction. The general public, civic groups, and elected officials are secondary target audiences.

What project details will the Project Summaries provide?

1. **Purpose of the project:** An overview of why PWD has prioritized the investment of the project and how the project benefits the system.
2. **Information on construction impacts to neighborhoods:** Disruption of water service, hours of construction, traffic impacts, sidewalk access, parking, dirt and dust, impact to street trees and Southeastern Pennsylvania Transportation Authority (SEPTA) service disruptions.
3. **Community benefits to residents and the city overall after completion:** Economic, social, and environmental factors that will be positively impacted by the project upon completion.
4. **Visual aids:** Renderings and maps to assist residents in better understanding the work being done and where it is occurring.

How will Project Summaries be distributed?

1. **Available on PWD website:** Project Summaries will be uploaded to the PWD website in PDF format by the Public Affairs Branch on a routine basis. The summaries will be accessible through an Interactive Water Construction Projects Map, which can be found at www.phila.gov/water/notifications.
2. **Handouts:** Project Summaries can be printed and provided to PWD construction staff in the field and general contractors for distribution to the public, per request. Handouts will be distributed at Public Meetings.
3. **Project work site signage:** Public Affairs has begun to standardize construction signs for active projects. These signs are installed at a central location on the construction site. The format and tone of the public information provided on the signs will mirror that of the Project Summaries.

What is the process for creating Project Summaries?

As a Project Summary is required for all projects to be constructed, it is important to identify who will be creating a Project Summary and at which point of the design the Project Summary should be created. Once a project design is complete, the Project Summary should be compiled by the lead designer, which could either be PWD staff or vendor. The Project Summary will be created using this manual and submitted to both the PWD Project Manager and PWD Public Affairs for review and revision, which could be an iterative process. Once approved, the Project Summary will be uploaded to the PWD website for public viewing. This aligns with the work flow below.

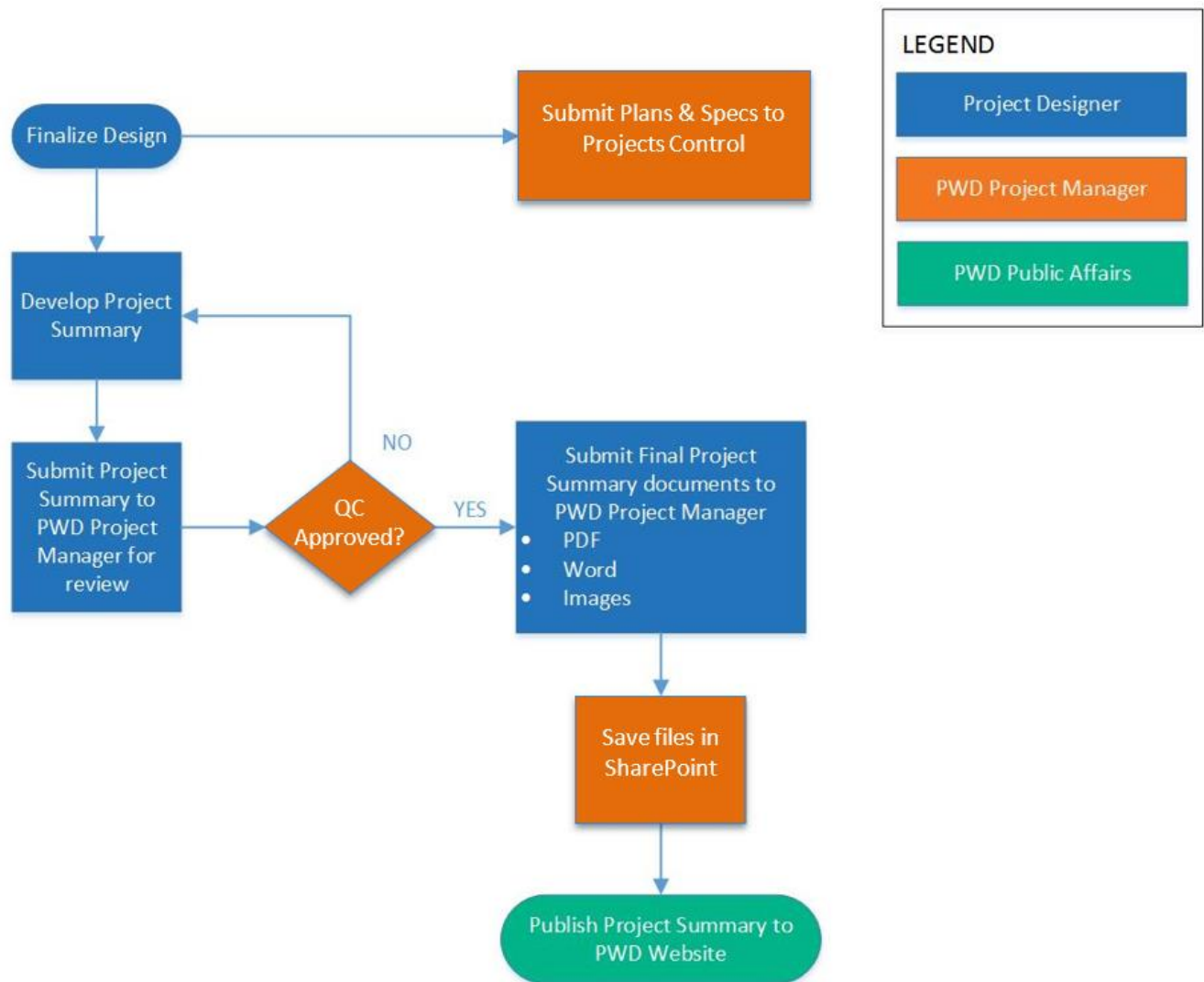


Figure I-1 – Project Summary Process

II. Format

The format of each Project Summary will follow a standard template to ensure consistency among Project Summaries and all other PWD documents. The Project Summary should be two pages in length for ease of printing one page double-sided for distribution. More complicated projects such as GSI projects with multiple components and plant improvement projects might require more than two pages. During development of a Project Summary, the user should use the template to create a two-page (printed) Project Summary and can include additional information in subsequent pages. This will allow PWD Public Affairs to use the two-page version for printed distribution and upload the full Project Summary to the PWD website. The document layout should maintain the modular format shown on Figures II-1 and II-2 below.

Sample Project Summaries for projects are provided in Appendices A, B, and C.

Project Summaries should also follow the PWD Style Guide, to be provided by Public Affairs, for formatting, colors and fonts.

Document Setup

Margins: 0.5 inch on all edges

A - Logo

Position: In header, at top right corner

B - PWD Project Number

Font: Calibri
Font Size: 16 pt
Font Color: PMS 3005 (R-34 G-115 B-186)

C - Header

Font: Calibri
Font Size: 32 pt
Font Color: PMS 3005 (R-34 G-115 B-186)

D - Start/End Dates

Font: Calibri
Font Size: 11 pt
Font Color: Black

E - Project Location Map

Box Size: Height – at least 2.5 inches, Width – at least 2.5 inches
Box Border: None

The figure shows a template for the first page of a project summary. It includes the Philadelphia Water Department logo (A) in the top right. Section B is the project number 'XXXXX'. Section C is the project title 'Sewer Lining'. Section D contains start and completion dates. Section E is a map of Philadelphia with a red dot indicating the project location. Section F is a large blue rectangular area. Section G lists areas impacted by construction. Section H explains the project's purpose. Section I lists the benefits. Section J is a placeholder for a rendering, with a red text prompt 'Choose a Rendering'. Section K is a note about the rendering above.

A PHILADELPHIA WATER DEPARTMENT

B Project Number XXXXX

C Sewer Lining

D Anticipated Start Date: Enter date
Anticipated Completion Date: Enter date

E Project Location in Philadelphia

F

G Areas impacted by construction:
• Enter Street from XYZ Avenue to XYZ Avenue
• Enter Street from XYZ Avenue to XYZ Avenue
• Enter Street from XYZ Avenue to XYZ Avenue
• Enter Street from XYZ Avenue to XYZ Avenue

H Why are we doing this project?
The sewers that carry wastewater and stormwater from homes and businesses on your street are showing wear and need to be upgraded. Sewer system failures can lead to significant inconveniences such as flooding and water service shutoffs. We are proactively lining sewers below the streets with special materials to avoid those issues. This approach avoids the major construction and digging involved in total sewer replacement while significantly reducing the chance of leaks or sewer back-ups, which can occur during storms. This work will also include:
• Repaving any pipe trench excavations in the street and sidewalk
• General restoration of the work site to its initial condition
Coordination with PECO, PGW, Verizon, and Comcast is ongoing during construction. This cooperative approach minimizes inconveniences and potential future service disruptions.

I What are the benefits of doing this project?
Placing a new layer of material inside the sewers in your neighborhood protects and improves the systems that remove wastewater and stormwater from local homes, businesses and streets. Investing in more reliable sewers reduces the likelihood of failures that can lead to costly property damage and ensures healthier rivers for you and future generations.
This method of strengthening the sewers also reduces the need to dig up streets in your neighborhood and costs less than full sewer replacement.

J Choose a Rendering

K Above: Graphic rendering of completed work at XX Street near XX Street.

Figure II-1 – Page One of Project Summary

F - Construction Areas Map

Box Size: Height – at least 2.5 inches, Width – at least 2.5 inches
Box Border: None

G - Street Names

Font: Calibri
Font Size: 11
Font Color: Black

H - Project Purpose

Font: Calibri
Font Size: 16 pt (main header)
11 pt (text)
Font Color: Black

I - Community Benefits

Font: Calibri
Font Size: 16 pt (main header)
11 pt (text)
Font Color: Black

J - Graphic Rendering

Box Size: Height – 3 inches, Width – 4 inches
Box Border: None
*Can be located on the bottom right of page 1, space permitting

K - Photo Caption

Font: Calibri
Font Size: 11 pt
Font Color: Black

L - Frequently Asked Questions

Font: Calibri
Font Size: 16 pt (main header)
11 pt (text)
Font Color: Black

M - Contact Information

In footer

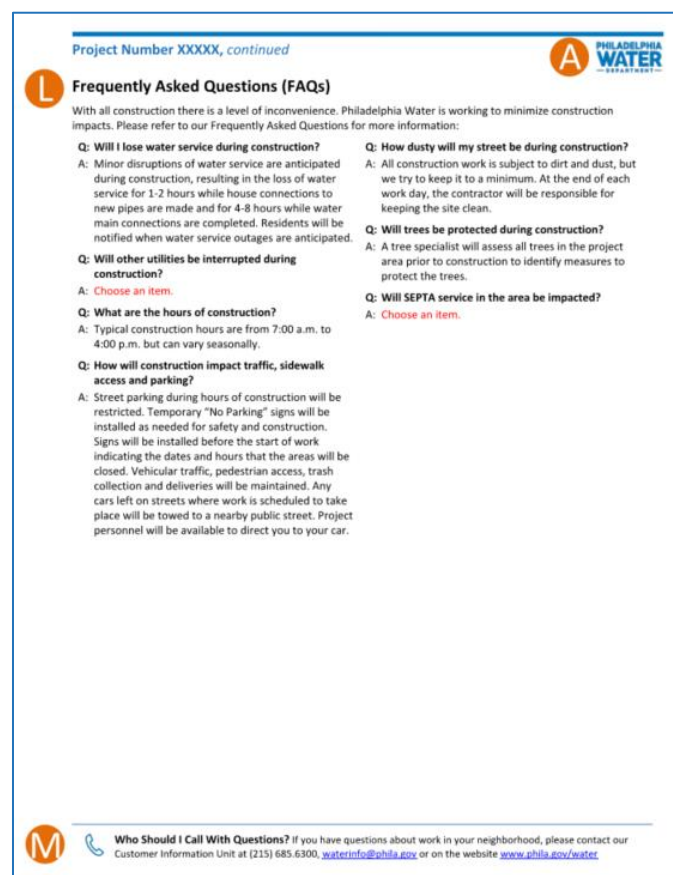


Figure II-2 – Page Two of Project Summary

III. Content

This chapter describes the content to provide for each of the boxes listed in the previous chapter (Chapter II). The sections below follow the box numbering defined in Chapter II.

This chapter describes the box content that is common to all three Project types: street, plant, and green stormwater infrastructure. Text boxes with content, known as **Quick Parts**, are built into the template and will autopopulate after the user chooses the project type from a drop-down menu. These Quick Parts are sections of text that have been developed by PWD Public Affairs to explain aspects of the project in a way that is clear for the public to understand and is consistent with PWD’s messaging. The user will choose one of the following projects types built in to the template:

- Construction of Green Stormwater Infrastructure (GSI)
- Sewer Lining
- Replacement of Sewers
- Replacement of Sewers with GSI Component
- Stream Corridor Infrastructure Protection
- Stream Restoration
- Replacement of Water Pipes and Sewers with GSI Component
- Replacement of Water Pipes and Sewers
- Replacement of Water Pipes
- Replacement of Water Pipes with GSI Component
- Wetland Creation

Each project type has Quick Parts text that will be inserted upon choosing a project type (Figure III-1) and can be modified, if necessary. Quick Parts allow standardization of text and format for Project Summaries. Any project that does not fall within one of the options above can use the “Miscellaneous” option and details of the specific project to be filled in.

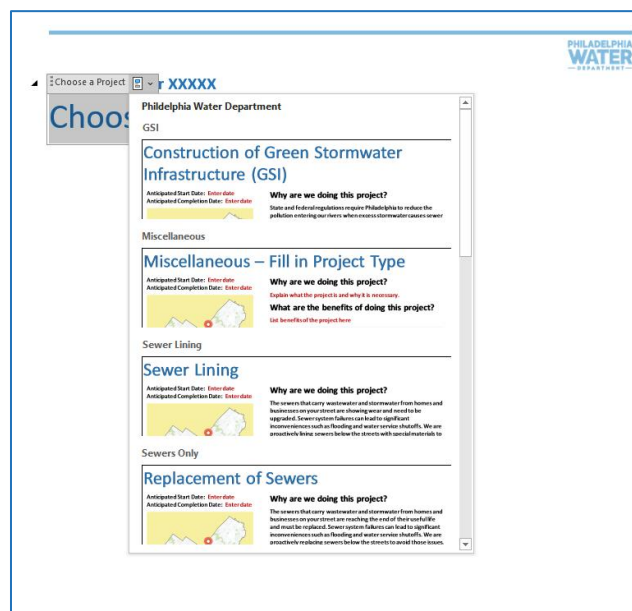


Figure III-1 – Template Quick Parts Drop Down Menu

Some content details for boxes B, G, H, and L differ among project types. Therefore, additional content guidance specific to each of the three project types is provided within the Project Type Specific Content in the subsequent chapter dedicated to each type:

- Chapter IV for Street Projects
- Chapter V for Plant Projects
- Chapter VI for Green Stormwater Infrastructure Projects

Content that needs to be tailored to a specific project is indicated with red font in the template. Complete sample Project Summaries are included in Appendices A, B, and C.

The image below depicts a sample Project Summary showing pages 1 and 2 side by side. The text that follows provides an explanation of each of the essential parts that make up a Project Summary.

B Project Number XXXXX

C Sewer Lining

D Anticipated Start Date: *Enter date*
Anticipated Completion Date: *Enter date*

E

F

G Areas impacted by construction:

- Enter Street from XYZ Avenue to XYZ Avenue
- Enter Street from XYZ Avenue to XYZ Avenue
- Enter Street from XYZ Avenue to XYZ Avenue
- Enter Street from XYZ Avenue to XYZ Avenue

H Why are we doing this project?

The sewers that carry wastewater and stormwater from homes and businesses on your street are showing wear and need to be upgraded. Sewer system failures can lead to significant inconveniences such as flooding and water service shutoffs. We are proactively lining sewers below the streets with special materials to avoid those issues. This approach avoids the major construction and digging involved in total sewer replacement while significantly reducing the chance of leaks or sewer back-ups, which can occur during storms. This work will also include:

- Repaving any pipe trench excavations in the street and sidewalk
- General restoration of the work site to its initial condition

Coordination with PECO, PGW, Verizon, and Comcast is ongoing during construction. This cooperative approach minimizes inconveniences and potential future service disruptions.

I What are the benefits of doing this project?

Placing a new layer of material inside the sewers in your neighborhood protects and improves the systems that remove wastewater and stormwater from local homes, businesses and streets. Investing in more reliable sewers reduces the likelihood of failures that can lead to costly property damage and ensures healthier rivers for you and future generations.

This method of strengthening the sewers also reduces the need to dig up streets in your neighborhood and costs less than full sewer replacement.

J

K Above: Graphic rendering of completed work at XX Street near XX Street.

L Frequently Asked Questions (FAQs)

With all construction there is a level of inconvenience. Philadelphia Water is working to minimize construction impacts. Please refer to our Frequently Asked Questions for more information:

Q: Will I lose water service during construction?
A: Minor disruptions of water service are anticipated during construction, resulting in the loss of water service for 1-2 hours while house connections to new pipes are made and for 4-8 hours while water main connections are completed. Residents will be notified when water service outages are anticipated.

Q: How dusty will my street be during construction?
A: All construction work is subject to dirt and dust, but we try to keep it to a minimum. At the end of each work day, the contractor will be responsible for keeping the site clean.

Q: Will trees be protected during construction?
A: A tree specialist will assess all trees in the project area prior to construction to identify measures to protect the trees.

Q: Will SEPTA service in the area be impacted?
A: Choose an item.

Q: What are the hours of construction?
A: Typical construction hours are from 7:00 a.m. to 4:00 p.m. but can vary seasonally.

Q: How will construction impact traffic, sidewalk access and parking?
A: Street parking during hours of construction will be restricted. Temporary "No Parking" signs will be installed as needed for safety and construction. Signs will be installed before the start of work indicating the dates and hours that the areas will be closed. Vehicular traffic, pedestrian access, trash collection and deliveries will be maintained. Any cars left on streets where work is scheduled to take place will be towed to a nearby public street. Project personnel will be available to direct you to your car.

M Who Should I Call With Questions? If you have questions about work in your neighborhood, please contact our Customer Information Unit at (215) 685-6300, waterinfo@phila.gov or on the website www.phila.gov/water.

Figure III-2 – Example Project Summary Pages 1 and 2

A - PWD Logo

The PWD logo is part of the template and should not be changed or removed.

B - PWD Project Number

The PWD project number is located on the top left of the page and is used to track and organize the Project Summaries.

C - Project Type

The project type indicates the type of work being done.

D - Start/End Dates

The anticipated start date and completion date of the project should be left blank, as it will be filled in by PWD Public Affairs at the time of notice to proceed (NTP).

E - Project Area Map

The map of the project area provides the general location of the construction in the context of Philadelphia. The aerial view is used to capture the location of existing and new construction in relationship to roads in the area or notable landmarks. The moveable pointer is used to indicate the area work is being done helping residents to easily locate the project area. Multiple pointers can be copied and pasted on to the map as necessary.

F - GIS Construction Areas Map

The GIS construction areas map provides residents with a zoomed in view of where construction will be taking place. Showing a street map with the highlighted areas under construction allows residents to fully understand the extent of the project. This is typically only included in street (water, sewer, lining, etc.) and GSI projects, not plant projects. A legend is included to indicate what the different highlighted colors represent in the map.

If a project has multiple construction areas that are not in close proximity, the following options should be considered:

1. If there are two construction areas that are not in close proximity, create two construction area maps that will fit in to the space allotted for this map. This is most useful for small construction areas that can fit in maps side-by-side. It is important to keep the orientation of the maps the same (north facing up) and the scale relatively the same so they look uniform.
2. If there are more than two construction areas that are not in close proximity, create one construction area map that is zoomed-out enough to capture all construction areas and that will fit the space allotted for this map. Also create zoomed-in individual maps for each construction area that can be included in pages following the standard two-page Project Summary template.
3. If options 1 or 2 are not sufficient to identify all construction areas, consult the PWD Project Manager to determine a solution.

Project Summaries will not contain maps depicting traffic detour routes. Though these alternatives are documented in each project's specifications entitled "Maintenance of Traffic Requirements", it would be difficult to convey this information legibly within the confines of the two-page Project Summary. (SEPTA detour routes are covered above in L, "Frequently Asked Questions.").

G - Street Names

The purpose of the list of street names is to allow neighborhood residents to quickly determine if they will be impacted by the future construction project. This list of street names will be taken directly from the contract documents unless otherwise directed by PWD. If a parcel is to be identified, the name of the parcel (i.e., Morris Estate Recreation Center) or the surrounding streets as listed in the contract documents should be used.

H - Project Purpose

The purpose of the text in this area is to provide detailed information on why construction is occurring. The template has been developed to autopopulate H with the appropriate Quick Parts section after choosing the

project type in the drop down menu. An explanation of the Quick Parts text and how to modify it if necessary will be addressed in the Detailed Information Sections for Streets, Plants and GSI Projects.

If a “Miscellaneous” template is used, the primary text should include:

1. **Purpose of Construction:** State the main reason for the project - that is, the engineering need that requires the project be undertaken now. Inform residents that there is a need to replace aging or obsolete infrastructure with reliable, sustainable materials and equipment. For example, new pipes and plant upgrades will help prevent disruptions or inconveniences that could potentially be caused by the current infrastructure.
2. **Coordination with Other City Entities:** Notify residents that PWD is completing the project in coordination with other utilities and agencies, and that PWD will work with these entities to limit disruptions to other services during the work. In some cases, improvements will have multi-use benefits to these entities, which should be highlighted. Entities that may be part of coordination efforts include the Pennsylvania Department of Transportation (PennDOT), SEPTA, PECO Energy Company (PECO), Philadelphia Parks and Recreation, and Philadelphia Gas Works (PGW).
3. **Green Stormwater Infrastructure Components:** If green stormwater infrastructure is being installed, it is important to explain how green stormwater infrastructure benefits the neighborhood by putting less strain on the sewer system and helping the environment. This could also be tied into the aesthetic improvements to the neighborhood.

Note: Find supplemental guidance for the content of H in Section 3, Project Type Specific Content of Chapters IV, V, and VI.

I - Community Benefit

The purpose of the text in this area is to provide information on the ways the project will improve quality of life of the project's neighbors and of the wider community. Because many of the projects being constructed are hidden infrastructure and cannot be easily seen, it is important to explain the benefits of the work. When creating a Project Summary from the standard templates, this text will autopopulate. However, if a “Miscellaneous” template is being used, utilize the checklist below as a brainstorming tool as needed to identify Community Benefits.

1. Consider three types of benefits:
 - a. **Infrastructure Benefits:** Briefly restate the project's resulting infrastructure improvement. The infrastructure benefits often do not impact many stakeholders in ways observable to them, therefore the Project Summary also devotes space to community and additional benefits.
 - b. **Community Benefits:** State additional benefits not directly related to the project's primary purpose that will result from construction. This consists of all project enhancements that benefit the community in areas outside of its direct engineering design intent. Simple examples are:
 - i. resurfaced roads
 - ii. ADA-compliant curb ramps
 - c. **Additional Benefits:** State additional benefits that typically result over time from accomplishment of the project's direct engineering design intent.
2. Unlike the Infrastructure Benefits, the Community and Additional Benefits (b and c above) may be only briefly discussed in the project's design report or contract documents. However, they are of equal

importance in this Project Summary because they demonstrate consideration of stakeholder concerns by city government.

- a. Economic:
 - i. How will the project save money in the future?
 - ii. Will it generate profit to empower and sustain the community?
 - iii. Will it promote development or home ownership or raise property values?
- b. Social:
 - i. Social capital, including social network construction
 - ii. Health and well-being, such as blood lead level trends
 - iii. Safety and Security, including crime statistics such as violent crimes per capita
- c. Leadership: This value emphasizes the communication and collaboration among the entities involved in the work and reinforces that the work will benefit city services other than those provided by PWD.
- d. Environmental:
 - i. What are the environmental impacts of the project?
 - ii. What ecological footprints will it eliminate?
 - iii. What ideas have been incorporated to support long-term sustainability?
- e. Technological Innovation:
 - i. What technological innovations are being implemented in design, construction, operation, etc. of the project?
 - ii. How is PWD acting as a thought leader with these innovations?
- f. Other

Additional ideas should be considered and used as applicable in this box.

Note: Find supplemental guidance for the content of I in Section 3, Project Type Specific Content, of Chapter IV, V, and VI.

J - Graphic Rendering

A rendering allows residents to visualize the location of the proposed above ground and underground work. It is particularly useful for residents who are not familiar with underground infrastructure as it provides a view of the work that cannot be seen. Chapters IV, V, VI provide details on producing a representative rendering.

K - Photo Caption

The photo caption identifies the locations (e.g., street intersection) depicted in the rendering to orient the reader.

L - Frequently Asked Questions

For residents interested in specific details about the construction, the second page of the Project Summary contains a Frequently Asked Questions (FAQs) box. These questions address concerns neighborhood residents might have about how the construction will affect their daily lives. It addresses topics such as water service disruption, hours of construction, traffic, parking, and dust.

This box also addresses the topic of SEPTA public transportation. Many residents rely on the SEPTA system for daily transportation. By indicating bus routes or train stops that may experience delays or disruptions, we better prepare residents to allow extra time for their travel and hope to reduce the construction impact by allowing residents the opportunity to prepare for any delays.

Note: Find supplemental guidance for the content of L in Section 3, Project Type Specific Content of Chapters IV, V, and VI.

M - Contact Information

The contact information provided on the bottom of the Project Summary allows residents to contact PWD with additional questions. This is important for people who have questions or concerns that are not discussed in the Project Summary.

IV. Detailed Information for Street Projects

This chapter describes the process for development of Project Summaries for Street Projects from data gathering, photo taking, and rendering through final review and posting for the public on the PWD website. This chapter presents sources for gathering key information and provides guidance for presenting the information in the summary. The Project Summary template has been developed using Quick Parts (refer to Chapter III Content) so most of the text is provided and only specific details of the project (location, rendering, project numbers, etc.) need to be manually added.

Every Street Project requires a Project Summary unless explicitly directed otherwise.

1. Project Summary Workflow

The workflow process for creating Project Summaries is shown on Figure IV-1 (below) and described in the following sections.

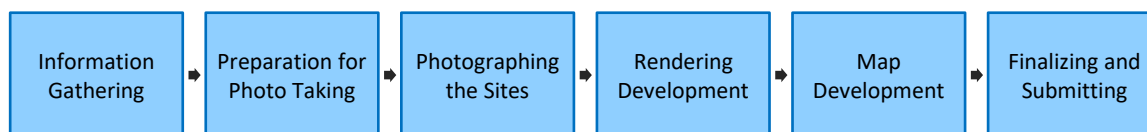


Figure IV-1 – Workflow Process for Creating a Street Project Summary

Project designers are responsible for creating Project Summaries as part of the Final Design Package they submit to the PWD Design Branch (i.e., accompanying the plans and specs) before the project goes to Projects Control or out to bid. Project designers should be familiar with the type and extent of work proposed, including PWD project identifiers (project number), project work type, and project location.

2. Information Gathering

The information described in this section will be used to inform residents about the construction occurring in their neighborhood:

1. Project Summaries include basic information about a project. Much of this information will already be known to the design engineer preparing the summary; however, some of the information will need to be researched and some will need to be completed by PWD.
2. A checklist of Project Summary components is provided for your convenience in Figure D-1 in Appendix D.
3. Key information in Project Summaries includes:
 - a. List of impacted streets
 - b. Coordination with utilities
 - c. Critical closures, detours, or other impacts to the public (when applicable)
4. Any coordination with PECO or PGW should be noted on the Project Summary. If someone unfamiliar with the project details is creating the summary, that person can find this information within the project specifications. Read Specification Section 01121 – Precautionary Measures to verify that the project will not

involve unusual measures that may affect the public, such as limited access to public buildings (schools, libraries, recreational centers, etc.), or result in limited service interruptions controlled by other utilities.

5. Critical closures, detours, or other significant impacts to the public should be noted on the Project Summary. Any SEPTA routes that may experience disruptions will be listed in the Maintenance of Traffic Requirements section of the specifications.

3. Project Type Specific Content

In addition to the general content provided in Chapter III, the following provides guidance on specific information related to Street Projects that need to be included, as applicable.

Additional Guidelines for B - Project Number

The project numbers distinguish whether a project will involve working primarily on the water system (project numbers beginning with “2”), or water and sewer systems (project numbers beginning with “4”). Both water projects beginning with a “2” and water/sewer projects beginning with a “4” can also contain green stormwater infrastructure components.

The project number prefixes and suffixes identified on the plans and specifications also distinguish the type of project work primarily involved:

- W-##### – Water System
- S-##### – Sewer Rehabilitation, which could also include water and GSI

Only the five-digit project number will be used on the Project Summary to identify the project.

Additional Guidelines for H and I - Project Purpose and Community Benefits

These sections will be autopopulated with Quick Parts once one of the following street project types is chosen:

- Sewer Lining
- Replacement of Sewers
- Replacement of Sewers with GSI Component
- Replacement of Water Pipes & Sewers with GSI Component
- Replacement of Water Pipes & Sewers
- Replacement of Water Pipes with GSI Component

These sections provide the project purpose and benefits. Review this text to confirm it is accurate for the project and edit as necessary.

If a green stormwater component is included in the design, such as Replacement of Water Pipes with GSI Component, the Quick Parts will offer four GSI components to include in the summary shown in red font. Choose the appropriate GSI component from the Quick Parts menu. The following GSI components are options in the Quick Parts:

- Permeable Pavement
- Rain Garden
- Stormwater Bumpout
- Stormwater Planter
- Stormwater Tree Trench
- Stormwater Trees
- Underground Storage

Select as many as are applicable in the project but judgment can be used on which components to choose based on impacts to the location, interest of the public, and length of the Project Summary. Delete any remaining drop down lines (i.e., red text) following GSI-type selection. If the GSI component is not provided as an option in the Quick Parts menu, select the closest component provided and customize the text to fit the project.

Additional Guidelines for Section L – Frequently Asked Questions

Review the frequently asked questions:

1. Verify that the working hours are accurate.
2. Adjust the utilities interruption question based on the specific project. Choose the appropriate answer from the Quick Parts drop-down menu. The two options provided are:
 - No disruption of utilities is anticipated during this construction period.
 - Yes. We are working with other utility providers to minimize any disruption to service during construction.
3. Adjust the SEPTA service question based on the specific project. Choose the appropriate answer from the Quick Parts drop-down menu. The two options provided are:
 - No interruptions to SEPTA service are anticipated.
 - Yes. _____ along _____. Visit SEPTA.org for more information.

Tailor the response as appropriate for the project.

4. Preparation for Photo Taking

Refer to Appendix F.

5. Photographing the Sites

Refer to Appendix G.

6. Rendering Development

The rendering shows the type of work that will be performed. The final product displays to the public the underground infrastructure included in the project. The shading, sizes, and locations of pipelines do not have to be exact, and stock renderings are provided in Quick Parts for each type of project. The most appropriate stock rendering (Figure IV-2) should be chosen based on the provided options, taking into consideration type of work being performed, size of the water or sewer pipes, type of green infrastructure being constructed, etc.

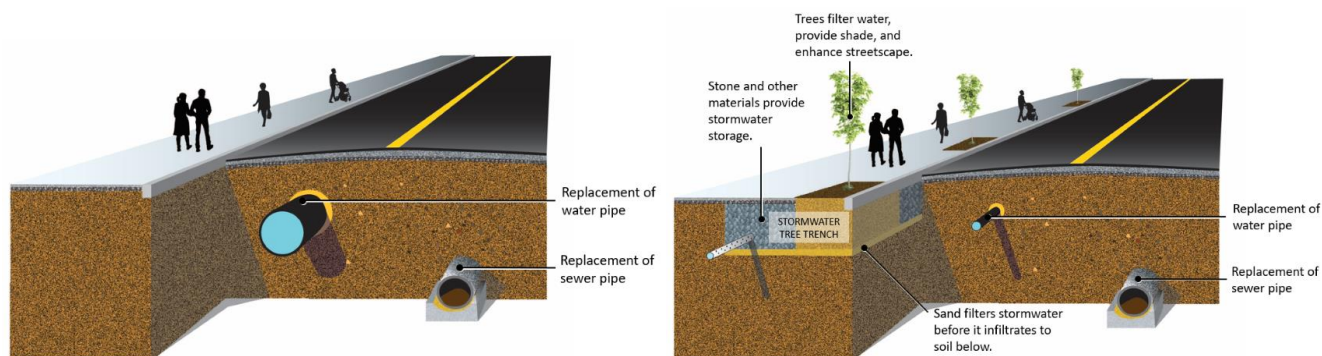


Figure IV-2 – Example Stock Renderings

Custom renderings should be developed if a more accurate rendering would be more informative or appropriate to use for the public to understand the work being performed. The following are general guidelines for custom renderings:

1. The final rendering should show only the proposed water and/or sewer pipes and green stormwater infrastructure, if applicable, in the appropriate locations. No other existing utilities should be shown in the rendering.
2. The final rendering should show the underground work to the edge of the page and show a representative section of the work as shown below (Figure IV-3).
3. The final rendering should show shadows of pipes and excavated area, and should be sufficiently clear to show the pipes within the excavation. If applicable, the final rendering should show porous pavement or other green stormwater improvements.
4. The final rendering of the underground work should be large and bring the viewer's focus to the excavation area (see figure below).



Figure IV-3 – Correct Custom Rendering

The suggested process for creating custom renderings is discussed in Appendix G.

7. Map Development

Refer to Appendix H.

8. Finalizing and Submitting

The final Project Summary for Street Projects is the finished product that will be available to residents. It will contain all of the information gathered and should be presented in a standard format like that found in Appendix A.

1. Adding Information to Project Summary:
 - a. The information gathered in Section 2 Information Gathering should be utilized to populate required information in the Project Summaries.
 - b. For street work, there are several different types of projects: water projects, water/sewer projects, water projects with green stormwater infrastructure, water/sewer projects with green stormwater infrastructure, and lining projects. The same procedure can be used to complete all of the projects.
 - c. Change the header to include the project numbers (B of Figure II-1) for ease of sharing the Project Summary internally.
 - i. Samples for the types of projects are presented in Appendix A. Text should be developed using information gathered in Section 2 Information Gathering.
 - ii. Utilize the Quick Parts integrated within the template and choose the appropriate project type. Verify that the paragraph of text refers to water or water, sewer, lining, or green stormwater infrastructure as appropriate to the project.
 - iii. Leave the anticipated construction start and end date blank (D of Figure II-1). PWD Public Affairs will update this field at the time of distribution.
 - iv. Fill in the streets where work is occurring in the Street Names section (G of Figure II-1).
 - v. Review the Community Benefits text (I of Figure II-1) to ensure it is appropriate to the project.
 - d. Utilize the Quick Parts integrated within the template for the rendering and choose the most appropriate option. If none of the stock renderings included in the template are appropriate or a custom rendering is deemed more informative, insert the custom rendering (J of Figure II-1) after performing a quality check, and confirm that all applicable pipes and green stormwater infrastructure are present. Adjust the size and/or crop the image to provide a clear picture of the area and excavation (see figure below).

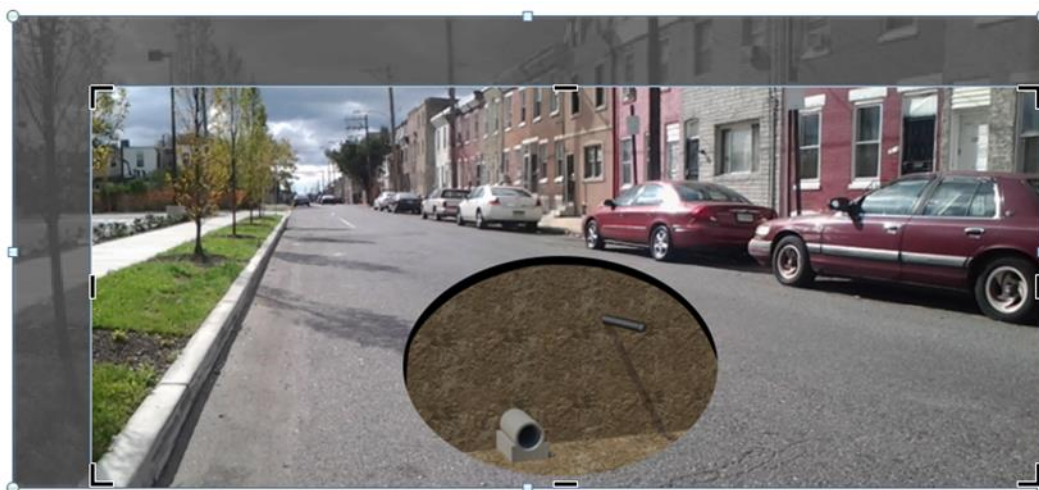


Figure IV-4 – Custom Rendering May Need To Be Cropped To Fit the Allotted Space

- e. Change the text in the Photo Caption (K of Figure II-1). List the name of the street visible as well as the nearest intersecting street.
 - f. Adjust the pointer on the Project Location Map (E of Figure II-1) to indicate area of work.
 - g. Insert the Construction Area Map (F of Figure II-1). Adjust the size and crop, as needed.
 - h. Verify the project contact with PWD and adjust as necessary (M of Figure II-2).
2. Once the Street Project Summary is complete, submit it to the PWD Project Manager for pre-final submittal review. The final versions of the files (Table IV-3) should be submitted to the PWD Project Manager after approval of pre-final version on a CD or PWD-approved file sharing service for each project number as a part of the final deliverable:

Table IV-1 – Final Deliverables and File Formats for Street Project Summaries

FILE DESCRIPTION	FILE FORMAT
Project Summary	Adobe (*.pdf)
Project Summary	Microsoft Word (*.doc or *.docx)
Custom Rendering	Image (*.jpg or similar file type)
Project Location Map	Image (*.jpg or similar file type)
Construction Area Map	Image (*.jpg or similar file type)

3. PWD Public Affairs or the Design Branch will edit the final text and format as needed. Changes may be necessary right before distribution of the Project Summaries to the public at the time of project notification.
4. Distribution of hard copies and uploading to the PWD website will be managed by PWD Public Affairs after NTP for the work is issued. Assistance may be required in updating maps or renderings. The final Project Summaries will be posted to the PWD website with construction letters.

V. Detailed Information for Plant Projects

This chapter describes the process for development of Project Summaries for Plant Projects, from initiation of the workflow process through final review and posting for the public on the PWD website. This type of work may occur above or below ground level. This chapter presents sources for gathering key information and provides guidance for presenting the information in the summary.

The purpose of Plant Project Summaries is to relay to residents in the community, other stakeholders, and interested members of the broader Philadelphia community information on the construction that is occurring, how the construction may impact them, how the final product may affect them, and how the completed project will promote the general welfare of the community.

In contrast to Street Projects which all require Project Summaries by default, Plant Projects only require Project Summaries when directed by PWD Design Branch.

1. Project Summary Workflow

The workflow process for creating Plant Project Summaries is shown on Figure V-1 below and is described in the following sections.

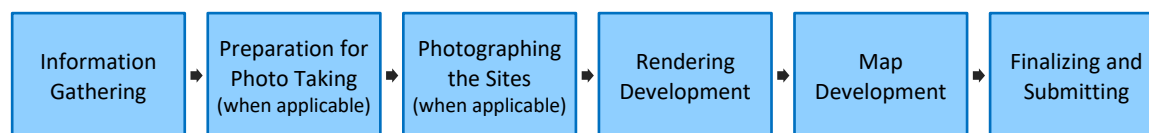


Figure V-1 – Workflow Process for Creating Plant Project Summaries

Project designers are responsible for creating Plant Project Summaries as part of the Final Design Package submitted to the PWD Design Branch (i.e., accompanying the plans and specifications) before the project goes to Projects Control or out to bid. Designers should be familiar with the type and extent of work proposed, including PWD project identifiers (project number), project work type, and project location.

Plant Project Qualifications

The PWD Design Branch will specify whether the designer must prepare a Plant Project Summary on a project-by-project basis at the time of project/task proposal. The PWD Design Branch will decide whether a given project requires a Project Summary based on thresholds of: environmental impact, visibility, and public/political interest. Project cost is not determinative.

1. **Environmental Impact:** Either construction activity or the final structure significantly impacts one or more environmental impact factors. (See this chapter, Section 3, Additional Guidelines for I - Frequently Asked Questions).
2. **Visibility:** Either construction activity (excluding transportation of materials) or the final structure itself is visible at ground level outside the plant fence.
3. **Public/political Interest:** A project pertaining to an infrastructure improvement that has gained public interest, or that occurs in a location that is already in the public eye, is likely to warrant a Project Summary.

2. Information Gathering

The bulk of content for a Project Summary is information already known to the design engineer. However, some of the information comes from other departments or may require origination by PWD Design Branch. A checklist of Project Summary components is provided for your convenience in Figure D-1 in Appendix D.

3. Project Type Specific Content

In addition to the general content provided in Chapter III, the following provides guidance on specific information related to Plant Projects that need to be included, as applicable. Plant Projects can use the “Miscellaneous” option as a starting template and be edited as appropriate.

Additional Guidelines for B - PWD Project Number

The project number distinguishes whether a project will involve working primarily on water treatment plant and water pump station projects (numbers beginning with “6”), or wastewater treatment plant and wastewater pump station projects (numbers beginning with “7”):

- 60000s – Water Treatment Plant and Water Pump Station Projects
- 70000s – Wastewater Treatment Plant and Wastewater Pump Station Projects

Only the five-digit project number will be used on the Project Summary to identify the project. Plant projects do not have bid numbers.

Additional Guidelines for D - Dates

Start and completion dates will be filled in by PWD Public Affairs.

Additional Guidelines for H - Project Purpose

The Project Purpose should be a high level, easy to read short paragraph with the following information:

1. Primary driver
 - a. Replace aging equipment
 - b. Improve process safety
 - c. Restore after an adverse event
 - d. Expand capacity
 - e. Improve water quality
2. Primary discipline (if any is dominant)
 - a. Mechanical
 - b. Electrical
 - c. Air handling and odor control
 - d. Structural
 - e. Architectural
3. Major plant process (visibly high level):
 - a. Large pumps
 - b. Physical separation process
 - c. Biological treatment process

- d. Disinfection process
- e. Biosolids disposal process

Example Project Purpose language is provided below:

Table V-1 – Project Purpose

IF THE PROJECT DOES THIS...	THEN THE “PROJECT PURPOSE” IS THIS...
Replace chlorine gas with hypochlorite.	Improve safety for the operators of the disinfection system.
Replace work cone check valves on the main influent pumps.	Replace large pumps that have reached the end of their useful life.
Restore operation of the main influent pumps after a diesel fire destroyed the dual-fuel engines that drive pumps by installing engine generators and electric pump motors.	Replace large pumps damaged in a July 20, 2011 fire.
Reconfigure aeration and secondary clarification to accommodate biological nutrient removal.	Improve water quality by making structural changes to the biological treatment process.

Additional Guidelines for I - Community Benefits

For plant projects, identifying Community Benefits may be difficult, because many plant upgrades do not present obvious benefits beyond cost, regulatory compliance, and reliability. Consider the following questions about the project to populate the Community Benefits portion of the summary:

- Decrease plant operating noise?
- Decrease truck deliveries?
- Enhance odor control?
- Prevent flooding and/or decrease sewer overflows?
- Improve effluent quality?
- Improve system reliability/redundancy or make the plant more resilient in the aftermath of storms?
- Progress towards *Green City, Clean Waters* or other city-wide initiatives?

It is likely that for Plant Project Summaries the number of "Community Benefits" that apply to the whole service area will outnumber benefits that apply to the project site's immediate neighborhood. This is because the benefits of plant projects are not concentrated on a plant's neighbors, but are instead realized throughout the service area.

Additional Guidelines for L – Frequently Asked Questions

Use the FAQ section to address any of the following environmental impact factors not explicitly addressed in Project Summary I, "Community Benefits."

- a. Dust
- b. Noise/hours
- c. Traffic & Parking
- d. Buses
- e. Stormwater management (Obtain the project's Stormwater Plan from Stormwater Plan Review. Contact: Victoria Lenoci, Project Manager, Victoria.Lenoci@Phila.gov)
- f. Trees
- g. Odor
- h. Water quality
- i. Community character (social, aesthetic, or land use)
- j. Site visits
- k. Groundwater
- l. Wildlife
- m. Land value

Name any of the above items that are not impacted by the project in a final, catch-all FAQ item:

Q: "How will I be impacted by construction and the final facility?"

A: "The construction and final facility will not impact your utilities, _____, _____, _____, ...or _____. "
Complete the sentence with a comma-delimited list of the relevant factors listed above that it will not impact the community.

4. Preparation for Photo Taking

Refer to Appendix E for general tips of taking photographs to be rendered. The following are tips on taking photos at a plant for rendering:

- For some plant projects, neither the construction activity nor the final structure itself will be visible at ground level from outside the facility fence. In such cases, a photo would add little context to a rendering, since the site would be unfamiliar to readers. In the case of such projects, renderings may be completed using 3D CADD instead of using a photo.
- Take the photograph from a safe location for the photographer, away from dangers such as roads, heavy equipment, chemicals, or basin edges. Coordinate with the Plant Site Manager (Table V-2) to verify that photograph locations are both safe and accessible.

Table V-2 – Site Managers

SITES	SITE MANAGER	TITLE	OFFICE	CELL
Belmont WTP	Donna L. Schwartz	Sanitary Engineer 4	215-685-0202	215-906-0151
Queen Lane WTP	Jerry G. Kuziw	Sanitary Engineer 4	215-685-2101	215-906-1147
Baxter WTP	Linda Kramer	Sanitary Engineer 4	215-685-8020	215-916-5446
Northeast WPCP	Robert J. Lendzinski	Sanitary Engineer 4	215-685-1301	215-906-5259
Southwest WPCP	Mary E. Senss	Sanitary Engineer 4	215-685-4015	215-279-4128
Southeast WPCP	Douglas A. Cowley	Sanitary Engineer 4	215-685-1706	267-784-6040
Laboratory Services	Gary Burlingame	Water Laboratory Services Director	215-685-1402	215-306-3143
Waste Water Pumping	Anthony Marchino III	Water Conveyance Systems Asst Spvr.	215-685-8089	215-778-7839
Water Pumping - Schuylkill	Michael D. Hengstler	Water Conveyance Systems Asst Spvr.	215-685-2567	215-768-6665
Water Pumping - Delaware	Anthony P. Adesso	Water Conveyance Systems Asst Spvr.	215-685-8046	267-228-1163
Additional Information	Vahe Hovsepian	Design Branch Manager	215-685-6278	N/A

5. Photographing the Sites

If photos will be used as the basis of any renderings, refer to Appendix F.

6. Rendering Development

The renderings show the type of work that will be done. The final products display to the public the underground infrastructure and aboveground structures included in the project. Plant project construction typically includes surface and sub-surface elements, both of which should be illustrated on the renderings. One or multiple renderings may be needed to show major aspects of construction. The sizes and locations of the plant construction does not have to be exact, but should be generally accurate (correct general location and diameters of pipes, approximate actual sizes and materials of new structures, and additional site elements such as fencing, curbs, or signage).

Note: Some renderings will not include a background photo of the site. These renderings will be prepared using the drawings in plan and section view of the new construction to occur. This will be the case when the background setting will be altered and a photo taken pre-construction is not representative of the future setting. The final renderings should:

1. Show only the proposed plant project in the appropriate locations. No other existing utilities should be shown in the rendering.
2. Show the underground work to the edge of the page and show a representative section of the work as shown below (Figure V-2).
3. Show shadows of any construction components, but these should be clear enough to see the components within the excavation.
4. Bring the viewer's focus to the excavation area and provide the relative scale of work.
5. Include all details necessary to convey plant components, but avoid complicated details.
6. Be representative of future construction for above ground structures.



Figure V-2 – Rendering with Above and Below Ground Components

The suggested process for creating renderings is discussed in Appendix G.

7. Map Development

Plant projects may include construction on a large portion of the facility footprint. In addition to the Project Location Map and the Construction Area Map detailed in Appendix H, an aerial view map can be used to capture the relationship of the existing and new sections to roads and water bodies in the area or notable landmarks.

1. Use the plans and a web-based mapping tool that provides an aerial view such as Google Map, Bing Maps, or similar website, to identify an aerial view that is representative of the area where work will occur. Select locations for the aerial using these guidelines:
 - a. Choose a view that shows the entirety of the area on which plant construction will occur.
 - b. Choose a view that includes a major road or landmark if possible to help residents identify the location.
 - c. Choose a view that is zoomed or cropped accordingly to show project area and limited surrounding area.
2. Capture the aerial view and open in Adobe Acrobat or similar program.
3. Utilize the comment tools in Adobe Acrobat (or similar program) to highlight and label important areas of construction, proposed and existing components, roads that may be impacted, and any landmarks (Figure V-3).
4. Keep the aerial view clean and easy to read.

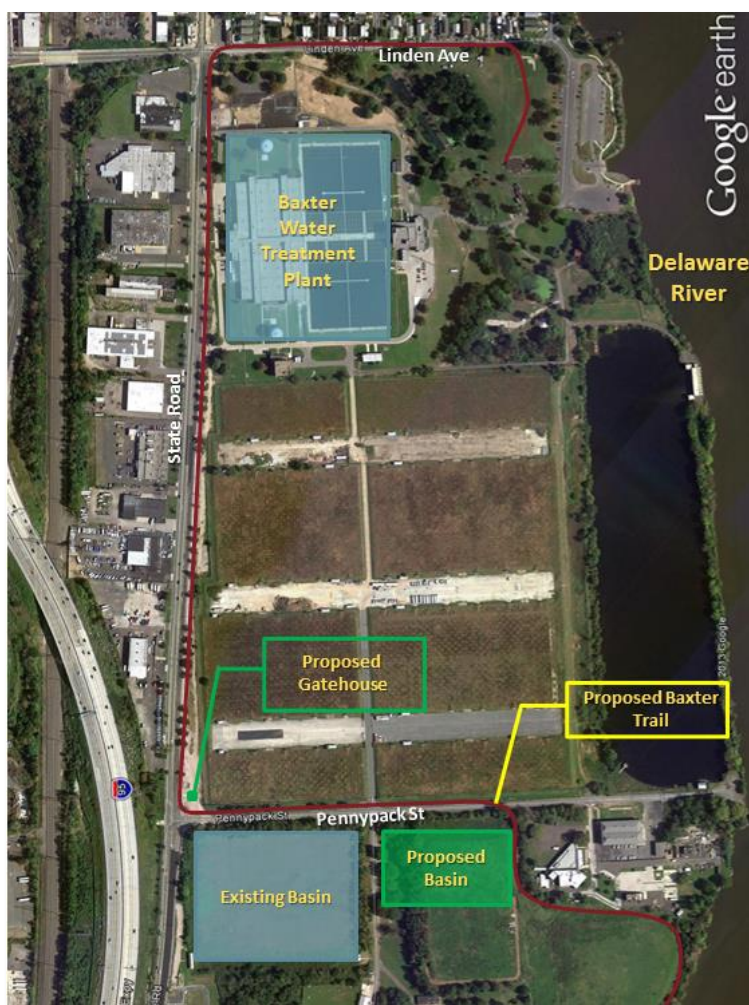


Figure V-3 – Aerial View for Proposed Plant Project with Comments

8. Finalizing and Submitting

The final summary is the finished project that will be available to residents. While the content of the summary should comply with this manual, the format is an example, not a requirement. Style should be based on the PWD style guide (to be provided by Public Affairs). The Plant Project Summary in Appendix B is an example created using the Quick Parts template selecting the “Miscellaneous” option.

1. Perform these checks for completeness of information:
 - a. Verify inclusion of content specified in this chapter and Chapter III:
 - B - Project Number
 - D - Design and construction date ranges
 - E, F - Project Location and Construction Area Maps
 - H - Project Purpose
 - I - Community Benefits
 - J - Renderings
 - b. Verify adherence to the format specified in:
 - Appendix B - Sample Project Summary - Plant
 - c. Appendix D - PWD Style Guide
2. Perform final assembly:
 - a. Insert the renderings after performing a quality check and looking for all important plant project components. Adjust the size and/or crop the image to provide a clear picture of the anticipated work (Figure V-4 below). Call-out boxes may be inserted using Adobe Acrobat (or similar program) to highlight components of the work.



Figure V-4 – Example of Cropped Rendering to Fit in Allotted Space

- b. Insert the project aerial view map, adjust the size and crop as needed, and verify that the comments from Adobe Acrobat came through clearly.
- c. Target 2 to 3 pages in length for the Project Summary.

3. Once the Plant Project Summary is complete, submit it to the PWD Project Manager for pre-final submittal review. The final versions of the files (Table V-3) should be submitted to the PWD Project Manager after approval of pre-final version on a CD or PWD-approved file sharing service for each project number as a part of the final deliverable:

Table V-3 – Final Deliverables and File Formats for Plant Project Summaries

File Description	File Format
Project Summary	Adobe (*.pdf)
Project Summary	Microsoft Word (*.doc or *.docx)
Rendering(s)	Image (*.jpg or similar file type)
Aerial View	Image (*.jpg or similar file type)

4. PWD Public Affairs will make edits to final text and format as needed. Edits may be necessary immediately before public distribution of the Project Summaries if the scope of work changes. Prior to publication, please ensure all final edits have been made.
5. Distribution of hard copy and uploading to the PWD website will be managed by PWD Public Affairs after NTP for work is issued. Assistance may be required in updating maps or renderings. The final Plant Project Summaries will be posted to the PWD website with construction letters.

This page left blank intentionally.

VI. Detailed Information for Green Stormwater Infrastructure Projects

This chapter describes the process for development of Project Summaries for GSI Projects from data gathering and rendering through final review and posting for the public on the PWD website. This chapter presents sources for gathering key information and provides guidance for presenting the information in the summary. The Project Summary template has been developed using Quick Parts (refer to Chapter III Content) so most of the text is provided and only specific details of the project (location, rendering, project numbers, etc.) need to be manually added.

Every GSI Project bid by PWD requires a Project Summary unless explicitly directed otherwise.

1. Project Summary Workflow

The workflow process for creating Project Summaries is shown on Figure VI-1 below and described in the following sections.

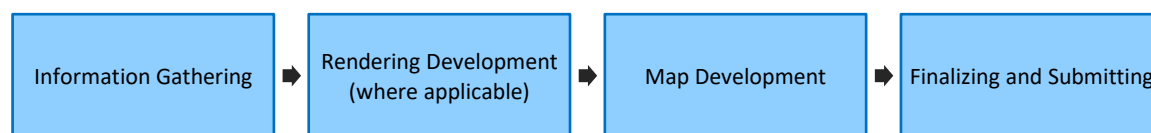


Figure VI-1 – Workflow Process for Creating a GSI Project Summary

Project designers are responsible for creating GSI Project Summaries as part of the Final Design Package they submit to the PWD Project Manager (i.e., accompanying the plans and specs) before the project goes to Projects Control or out to bid. Project designers should be familiar with the type and extent of work proposed, including PWD project identifiers (project number), project work type, and project location.

2. Information Gathering

The information described in this section will be used to inform residents about the construction occurring in their neighborhood:

1. Project Summaries include basic information about a project. Much of this information will already be known to the design engineer preparing the summary; however, some of the information will need to be researched and some will need to be completed by PWD.
2. A checklist of Project Summary components is provided for your convenience in Figure D-1 in Appendix D.
3. Key information in GSI Project Summaries includes:
 - a. List of impacted streets
 - b. Coordination with utilities
 - c. Critical closures, detours, or other impacts to the public (when applicable)
4. Any coordination with PECO or PGW should be noted on the GSI Project Summary. If someone unfamiliar with the project details is creating the summary, that person can find this information within the project

specifications. Read Specification Section 01121 – Precautionary Measures to verify that the project will not involve unusual measures that may affect the public, such as limited access to public buildings (schools, libraries, recreational centers, etc.), or result in limited service interruptions controlled by other utilities.

5. Critical closures, detours, or other significant impacts to the public should be noted on the Project Summary. Additionally, perform a word search of the specification for “SEPTA” to note any SEPTA routes that may experience disruptions. This is typically found in the Maintenance of Traffic Requirements section.
6. The anticipated project start and completion dates should be left blank. PWD Public Affairs will populate this field at the time of NTP.

3. Project Type Specific Content

In addition to the general content provided in Chapter III, the following provides guidance on specific information related to Green Stormwater Infrastructure Projects that need to be included, as applicable.

Additional Guidelines for B – Project Number

The project number for GSI projects typically begins with a “5”. The project number prefixes and suffixes identified on the plans and specifications also distinguish the type of project work primarily involved:

- G-##### – Green Stormwater Infrastructure Project

Only the five-digit project number will be used on the Project Summary to identify the project. This should be the first input made in the Project Summaries template.

Additional Guidelines for H – Project Purpose

Choose the appropriate GSI component from the Quick Parts menu. The following GSI components are options in the Quick Parts:

- Permeable Pavement
- Rain Garden
- Stormwater Bumpout
- Stormwater Planter
- Stormwater Tree Trench
- Stormwater Trees
- Underground Storage

Select as many as are applicable in the project but judgment can be used on which components to choose based on impacts to the location, interest of the public and length of the Project Summary. Delete any remaining drop down lines (i.e., red text) following GSI-type selection. If the GSI component is not provided as an option in the Quick Parts menu, select the closest component provided and customize the text to fit the project.

Additional Guidelines for L – Frequently Asked Questions

Review the frequently asked questions:

1. Verify that the working hours are accurate.

2. Adjust the utilities interruption question based on the specific project. Choose the appropriate answer from the Quick Parts drop-down menu. The two options provided are:
 - No disruption of utilities is anticipated during this construction period.
 - Yes. We are working with other utility providers to minimize any disruption to service during construction.
3. Adjust the SEPTA service question based on the specific project. Choose the appropriate answer from the Quick Parts drop-down menu. The two options provided are:
 - No interruptions to SEPTA service are anticipated.
 - Yes. _____ along _____. Visit SEPTA.org for more information.

Tailor the response as appropriate for the project.

4. Rendering Development

The rendering portion of a GSI Project Summary may be completed in three different ways, which are listed below in order of preference. The PWD Project Manager should be consulted prior to GSI Project Summary development to confirm if there is a rendering preference.

1. If available, utilize renderings previously created for the specific GSI project. Some GSI projects already have renderings prepared during the planning and design phases. If these have been generated by PWD or by the project designer, they can be used as the rendering for the GSI Project Summary. All renderings developed for the project should be included in the final GSI Project Summary package deliverable for PWD Public Affairs review.
2. Utilize the QuickParts integrated within the template for stock renderings and choose the most appropriate option. The stock renderings include options for bumpouts and tree trenches.
3. Insert the stock images of basic GSI found on the Project Summaries SharePoint site and at this website: <https://flic.kr/s/aHskE5bWN9>. Select the GSI component most interesting or relevant to the project. Crop out any text that is not relevant to the project work, if necessary.
4. Create a rendering using 3D CADD or follow the methods described in Appendix F, Preparation for Photo Taking, Appendix G, Photographing the Sites, and Appendix H, Rendering Development, to create a rendering similar to a Streets Project, but focusing on the GSI components instead.

5. Map Development

Refer to Appendix H.

6. Finalizing and Submitting

The final GSI Project Summary is the finished product that will be available to residents. It will contain all of the information gathered and should be presented in a standard format like that found in Appendix C.

6. Adding Information to Project Summary
 - a. The information gathered in Section 2 Information Gathering should be utilized to populate required information in the Project Summaries.

- b. For GSI work, there are several different GSI component choices: permeable pavement, rain garden, stormwater bumpout, stormwater planter, stormwater tree trench, stormwater trees, and underground storage. The same procedure can be used to complete all of the projects.
- c. Change the header to include the project numbers (B of Figure II-1) for ease of sharing the Project Summary internally.
- d. Samples for the types of GSI projects are presented in Appendix C.
 - i. Utilize the Quick Parts integrated within the template and choose the appropriate project type. Verify that the paragraph of text refers to GSI as appropriate to the project.
 - ii. Leave the anticipated construction start and completion dates blank (D of Figure II-1). PWD Public Affairs will update this field at the time of distribution.
 - iii. Fill in the streets where work is occurring in the Street Names section (G of Figure II-1).
 - iv. Review the Community Benefits text (I of Figure II-1) to ensure it is appropriate to the project.
- e. Insert the rendering (J of Figure II-1) after performing a quality check, and confirm that all applicable green stormwater infrastructure are present. Adjust the size and/or crop the image to provide a clear picture of the area (Figure VI-2 below).



Figure VI-2 – Rendering May need to Be Cropped to Fit the Allotted Space

- f. Change the text in the Photo Caption (K of Figure II-1). List the name of the street visible as well as the nearest intersecting street.
 - g. Insert the project location street view map (F of Figure II-1), adjust the size, and crop as needed.
 - h. Verify the project contact with PWD and adjust as necessary (M of Figure II-2).
7. Once the GSI Project Summary is complete, submit it to the PWD Project Manager for pre-final submittal review. The final versions of the files (Table VI-1 below) should be submitted to the PWD Project Manager after approval of pre-final version on a CD or PWD-approved file sharing service for each project number as a part of the final deliverable:

Table VI-1 – Final Deliverables and File Formats for Street Project Summaries

FILE DESCRIPTION	FILE FORMAT
Project Summary	Adobe (*.pdf)
Project Summary	Microsoft Word (*.doc or *.docx)
All Relevant Project Renderings	Image (*.jpg or similar file type)
Project Location Map	Image (*.jpg or similar file type)
Construction Area Map	Image (*.jpg or similar file type)

8. PWD Public Affairs or the Office of Watersheds will edit the final text and format as needed. Changes may be necessary right before distribution of the GSI Project Summaries to the public at the time of project notification.
9. Distribution of hard copies and uploading to the PWD website will be managed by PWD Public Affairs after NTP for the work is issued. Assistance may be required in updating maps or renderings. The final GSI Project Summaries will be posted to the PWD website with construction letters.

APPENDIX A: Sample Project Summaries – Street

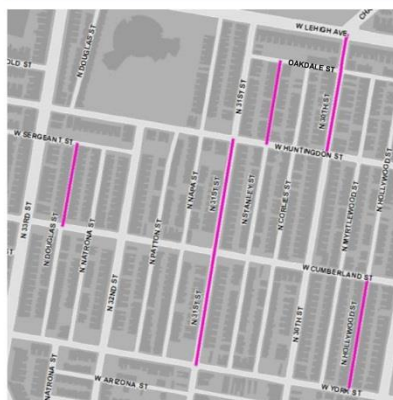
Project Type	Sample Title
Water and Sewer Sample	Replacement of Water Pipes and Sewers
Street Work with Green Stormwater Infrastructure Sample	Replacement of Water Pipes and Sewers with GSI Component
Miscellaneous Sample	Northern Liberties Storm Flood Relief (SFR) Program

Project Number 40781

Replacement of Water Pipes and Sewers

Anticipated Start Date: Enter date

Anticipated Completion Date: Enter date



Areas impacted by construction:

- Hollywood Street from York Street to Cumberland Street
- 30th Street from Huntingdon Street to Lehigh Avenue
- Stanley Street from Huntingdon Street to Oakdale Street
- 31st Street from York Street to Huntingdon Street
- Douglas Street from Cumberland Street to Sergeant Street

Why are we doing this project?

The water mains and sewers beneath your streets are approaching the end of their useful life. These critical systems bring water to local homes and businesses and take wastewater away for treatment. Pipe breakages and system failures can lead to significant inconveniences like flooding and water service shutoffs. We are proactively installing new water pipes and sewers below the streets to avoid those issues. The new pipes and sewers will be appropriately sized to meet the needs of customers, which may have changed since the existing structures were built.

This work will also include:

- Replacement of the customer's existing water service pipe from the new water main to the curbstop
- Repaving all pipe trench excavations in the street and sidewalk
- General restoration of the work site to its initial condition

Coordination with PECO, PGW, Verizon, and Comcast is ongoing during construction. This cooperative approach minimizes inconvenience and potential future service disruptions.

What are the benefits of doing this project?

Replacing the sewers in your neighborhood protects and improves the systems that remove wastewater and stormwater from local homes, businesses and streets. Investing in new, more reliable sewers reduces the likelihood of failures that can lead to costly property damage and ensures healthier rivers for you and future generations.

Replacing the water mains in your neighborhood protects and improves the systems that bring clean water to local homes and businesses. Investing in new water mains reduces the likelihood of main breaks that can lead to water shutoffs and costly property damage from flooding. New water mains ensure access to safe drinking water and reliable service for Fire Department needs.

Replacing water mains before they break also reduces how long your water will need to be turned off, and offers lower maintenance and repair costs for the City.

Lead pipe replacement: PWD will let customers know if their building is connected to the City water main by a service pipe made from lead. We will replace part of any service pipe made of lead, and customers can save money by replacing the rest of the pipe during water main replacement. Call 215 685 6300 for more info.

Project Number 40781, *continued*



At Right: Graphic rendering of completed work at Hollywood Street near York Street.



Frequently Asked Questions (FAQs)

With all construction there is a level of inconvenience. Philadelphia Water is working to minimize construction impacts. Please refer to our Frequently Asked Questions for more information:

Q: Will I lose water service during construction?

A: Minor disruptions of water service are anticipated during construction, resulting in the loss of water service for 1-2 hours while house connections to new pipes are made and for 4-8 hours while water main connections are completed. Residents will be notified when water service outages are anticipated.

Q: Will other utilities be interrupted during construction?

A: Yes. We are working with other utility providers to minimize any disruption to service during construction.

Q: What are the hours of construction?

A: Typical construction hours are from 7:00 a.m. to 4:00 p.m. but can vary seasonally.

Q: How will construction impact traffic, sidewalk access and parking?

A: Street parking during hours of construction will be restricted. Temporary "No Parking" signs will be installed as needed for safety and construction. Signs will be installed before the start of work indicating the dates and hours that the areas will be closed. Vehicular traffic, pedestrian access, trash collection and deliveries will be maintained. Any cars left on streets where work is scheduled to take place will be towed to a nearby public street. Project personnel will be available to direct you to your car.

Q: How dusty will my street be during construction?

A: All construction work is subject to dirt and dust, but we try to keep it to a minimum. At the end of each work day, the contractor will be responsible for keeping the site clean.

Q: Will trees be protected during construction?

A: A tree specialist will assess all trees in the project area prior to construction to identify measures to protect the trees.

Q: Will SEPTA service in the area be impacted?

A: Yes. SEPTA Bus Route 32 and 54 along Lehigh Avenue and Bus Route 39 along York Street. Visit SEPTA.org for more information.



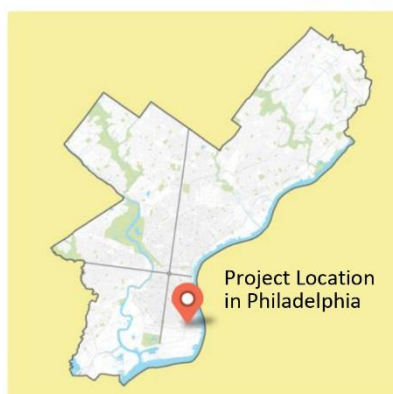
Who Should I Call With Questions? If you have questions about work in your neighborhood, please contact our Customer Information Unit at (215) 685.6300, waterinfo@phila.gov or on the website www.phila.gov/water

Project Number 40773

Replacement of Water Pipes and Sewers with GSI Component

Anticipated Start Date: Enter date

Anticipated Completion Date: Enter date



Areas impacted by construction:

- Lawrence Street from Porter Street to Ritner Street
- Hancock Street from Shunk Street to Porter Street
- Howard Street from Shunk Street to Porter Street
- Gladstone Street from 2nd Street to Front Street
- Roseberry Street from 2nd Street to Front Street
- Galloway Street from Shunk Street to Porter Street

Why are we doing this project?

The water mains and sewers beneath your streets are approaching the end of their useful life. These critical systems bring water to local homes and businesses and take wastewater away for treatment. Pipe breakages and system failures can lead to significant inconveniences like flooding and water service shutoffs. We are proactively installing new water pipes and sewers below the streets to avoid those issues. The new pipes and sewers will be appropriately sized to meet the needs of customers, which may have changed since the existing structures were built.

Investing in new pipes and sewers reduces the likelihood of failure, which can lead to water shutoffs and costly property damage from flooding. New water mains ensure access to safe drinking water and reliable service for fire department needs.

Lead pipe replacement: PWD will let customers know if their building is connected to the City water main by a service pipe made from lead. We will replace part of any service pipe made of lead, and customers can save money by replacing the rest of the pipe during water main replacement. Call 215 685 6300 for more info.

State and federal regulations require Philadelphia to reduce the pollution entering our rivers when excess stormwater causes sewer overflows. **Green City, Clean Waters** is a program designed to meet those regulations and invest in neighborhoods across the city by creating stormwater infrastructure that incorporates green space.

What is green stormwater infrastructure?

Green stormwater infrastructure (GSI) uses materials such as plants, soil, stone and special pavement to slow, filter and soak up water during storms. This project includes the following type of green stormwater infrastructure:

Stormwater Tree Trench - A stormwater tree trench looks like a series of traditional street trees, but underground the trees are connected by a concrete structure designed to store and filter water. During construction, a trench is created along the sidewalk and lined with special fabric, then filled with stone and topped with soil and trees.

Project Number 40773, continued



At Right: Graphic rendering of completed work at Galloway Street near Porter Street.

Frequently Asked Questions (FAQs)

With all construction there is a level of inconvenience. Philadelphia Water is working to minimize construction impacts. Please refer to our Frequently Asked Questions for more information:

Q: Will I lose water service during construction?

A: Minor disruptions of water service are anticipated during construction, resulting in the loss of water service for 1-2 hours while house connections to new pipes are made and for 4-8 hours while water main connections are completed. Residents will be notified when water service outages are anticipated.

Q: Will other utilities be interrupted during construction?

A: No disruption of utilities is anticipated during this construction period.

Q: What are the hours of construction?

A: Typical construction hours are from 7:00 a.m. to 4:00 p.m. but can vary seasonally.

Q: How will construction impact traffic, sidewalk access and parking?

A: Street parking during hours of construction will be restricted. Temporary “No Parking” signs will be installed as needed for safety and construction. Signs will be installed before the start of work indicating the dates and hours that the areas will be closed. Vehicular traffic, pedestrian access, trash collection and deliveries will be maintained. Any cars left on streets where work is scheduled to take place will be towed to a nearby public street. Project personnel will be available to direct you to your car.

Q: How dusty will my street be during construction?

A: All construction work is subject to dirt and dust, but we try to keep it to a minimum. At the end of each work day, the contractor will be responsible for keeping the site clean.

Q: Will trees be protected during construction?

A: A tree specialist will assess all trees in the project area prior to construction to identify measures to protect the trees.

Q: Will SEPTA service in the area be impacted?

A: Yes. SEPTA Bus Route 57 along 2nd Street. Visit SEPTA.org for more information.

Q: Once the project is built, who will maintain the new plants and trees?

A: Philadelphia Water is responsible for maintaining all of our infrastructure, including green stormwater infrastructure. We visit sites about once a month to perform routine maintenance.



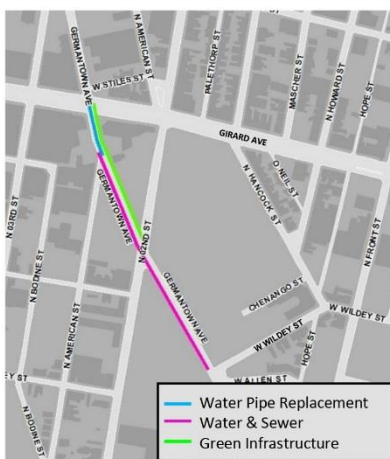
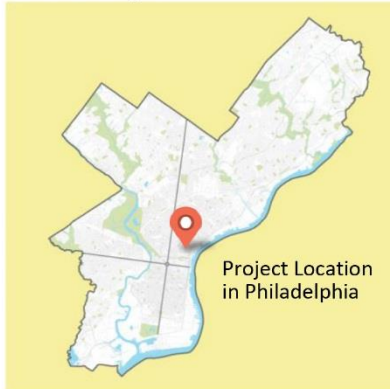
Who Should I Call With Questions? If you have questions about work in your neighborhood, please contact our Customer Information Unit at (215) 685.6300, waterinfo@phila.gov or on the website www.phila.gov/water

Project Number 40735

Northern Liberties Project Phase 5 – Storm Flood Relief (SFR) Program

Facts about the SFR Program

- PWD has a Basement Protection Program to proactively protect residential basements
- The Northern Liberties Flood Relief Project is one of several projects within the SFR Program



Areas impacted by construction:

- Germantown Avenue from Wildey Street to Girard Avenue

Why are we doing this project?

The PWD Storm Flood Relief (SFR) Program has been on-going since 2005. The objective of the program is to minimize the occurrence of flooding on streets and in basements due to large rain events in areas that are prone to flooding. This goal is accomplished by increasing the capacity of the sewer infrastructure to move water away from residences and businesses. Flooding is typically caused by:

- Local drainage issues – sewer pipes in the building or on site are blocked or undersized.
- Insufficient trunk sewer capacity – pipes in the street are not large enough to carry away water.

The Northern Liberties Project, which is within the SFR Program, is a six-phase project. PWD will be constructing Phase 5 in the coming months. This phase will include the installation of over 1 mile of box sewer, pipe sewers of various diameters (from 12" to 60") and 2 underground chambers on Germantown Avenue (one north of 2nd Street and one at American Street).

Coordination with PECO, PGW and telecommunications companies like Verizon and Comcast is on-going during this work. This cooperative approach minimizes inconvenience and potential future service disruptions during construction.

As a part of this project, the sidewalk, curb and street will be restored and new ADA-compliant ramps and pavements will be installed improving the safety, functionality and aesthetics along the streets where work is taking place. PWD has attended various community meetings to inform the public of the SFR project goals and how the projects will benefit the communities. This interaction has allowed for community input on the projects.

What are the benefits of doing this project?

State and federal regulations require Philadelphia to reduce the pollution entering our rivers when excess stormwater causes sewer overflows. Green City, Clean Waters is a program designed to meet those regulations and invest in neighborhoods across the city by creating stormwater infrastructure that incorporates green space.

Project Number 40735, continued



At Right: Graphic rendering of completed work at Germantown Ave near Wilkey Street.

Frequently Asked Questions (FAQs)

With all construction there is a level of inconvenience. Philadelphia Water is working to minimize construction impacts. Please refer to our Frequently Asked Questions for more information:

Q: Will I lose water service during construction?

A: Minor disruptions of water service are anticipated during construction, resulting in the loss of water service for 1-2 hours while house connections to new pipes are made and for 4-8 hours while water main connections are completed. Residents will be notified when water service outages are anticipated.

Q: Will other utilities be interrupted during construction?

A: No disruption of utilities is anticipated during this construction period.

Q: What are the hours of construction?

A: Typical construction hours are from 7:00 a.m. to 4:00 p.m. but can vary seasonally.

Q: How will construction impact traffic, sidewalk access and parking?

A: Street parking during hours of construction will be restricted. Temporary “No Parking” signs will be installed as needed for safety and construction. Signs will be installed before the start of work indicating the dates and hours that the areas will be closed. Vehicular traffic, pedestrian access, trash collection and deliveries will be maintained. Any cars left on streets where work is scheduled to take place will be towed to a nearby public street. Project personnel will be available to direct you to your car.

Q: How dusty will my street be during construction?

A: All construction work is subject to dirt and dust, but we try to keep it to a minimum. At the end of each work day, the contractor will be responsible for keeping the site clean.

Q: Will trees be protected during construction?

A: A tree specialist will assess all trees in the project area prior to construction to identify measures to protect the trees.

Q: Will SEPTA service in the area be impacted?

A: Yes. Bus Route 25 along Frankford Avenue may be detoured. Visit SEPTA.org for more information.

Q: Once the project is built, who will maintain the new plants and trees?

A: Philadelphia Water is responsible for maintaining all of our infrastructure, including green stormwater infrastructure. We visit sites about once a month to perform routine maintenance.



Who Should I Call With Questions? If you have questions about work in your neighborhood, please contact our Customer Information Unit at (215) 685.6300, waterinfo@phila.gov or on the website www.phila.gov/water

Project Number 40735, *continued*

Community Benefits

Social Equity

- Aligned with PWD's Green City, Clean Water program which reduces the amount of run-off into the sewers
- Improved sidewalks and ADA ramps

Economic Gains

- Minimize property damage and inconvenience caused by flooding and pipe breaks
- Reliable water pipes and sewers to provide uninterrupted service

Environmental Benefits

- Fewer sewer back-ups
- Decreased run-off from Green Infrastructure component
- Aesthetic improvements to the neighborhood

Technological Innovation

- Project management software
- Hydraulic modeling performed during project planning

Leadership

- Routine communication with the public through PWD-led community meetings
- Collaboration with SEPTA, PECO, and PGW

Project Locations and Details



APPENDIX B: Sample Project Summary – Plant

Samuel S. Baxter Water Treatment Plant (WTP)

Clear Well Basin Replacement

Samuel S. Baxter is one of Philadelphia's three main drinking WTPs, providing clean drinking water to 750,000 residents of Philadelphia and lower Bucks County each day. Over the coming years, Philadelphia Water will upgrade this WTP, which includes building a new Clear Well Basin (CWB) to store 10 million gallons of drinking water. The new CWB will replace a deteriorating basin that is more than 100 years old, and the new design will be consistent with the area's historic character. Construction will occur along State Road, near the intersection of Pennypack Street.

BY THE NUMBERS

100

year-old basin
to be replaced

10

million gallons of water
in new CWB

750,000

customers served with
fresh, clean water

60%

of drinking water to
Philadelphia and Bucks County



Figure 1. Replacing the old basin at the Samuel S. Baxter WTP will allow Philadelphia Water to continue to provide fresh, safe drinking water to its customers.

! SNAPSHOT

OBJECTIVES Allow Philadelphia Water to continue providing safe drinking water from new CWB that will replace a 100-year-old deteriorating basin; preserve open space on top of new CWB with 4-acre green roof; work with Delaware River City Corporation (DRCC); maintain historic character and complement views along proposed Baxter Trail

KEY MILESTONES Design – ongoing through 2016 Construction – anticipated 2016 - 2019

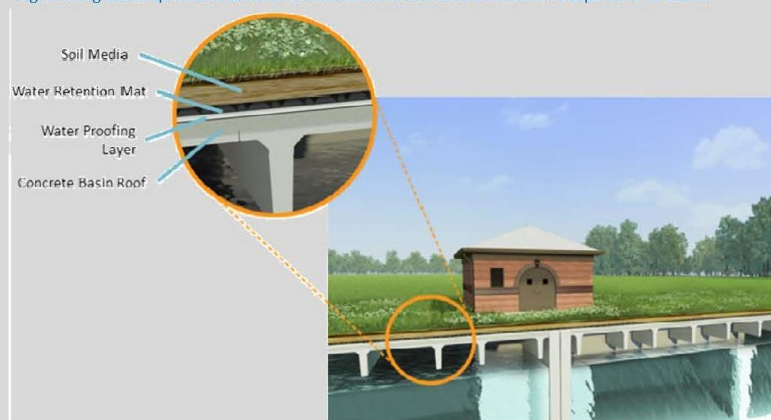
@ CLOSER LOOK



New pipes and a new gatehouse (Figure 2) with flow control valves will be constructed to convey water from the WTP to the new CWB. New piping will be located underground, beneath the gatehouse, and has been designed using state-of-the-art engineering techniques and tools.

The new gatehouse will be visible from State Road and the proposed Baxter Trail, which is part of a national trail network being developed by the DRCC. The gatehouse building is being designed to aesthetically maintain the historic character of the site and complement the views along the proposed Baxter Trail and the nearby Delaware River.

Figure 2. Visible from State Road, the proposed gatehouse and underground valve vault has been designed using state-of-the-art engineering techniques and tools to maintain the aesthetics and historic aspects of the site.



The new CWB (Figure 3) will be constructed over a 4-acre area, and a green roof will be installed on top to maintain the open space appearance of the site. Once the new CWB is done, the old basin will be decommissioned and demolished.

Figure 3. New green roof over top of the new basin will preserve open space at the site.

\$ FINANCIAL

Construction Cost



Cost per Gallon of Treatment

&STAKEHOLDERS



Recreationists using the trail



Customers and community at large

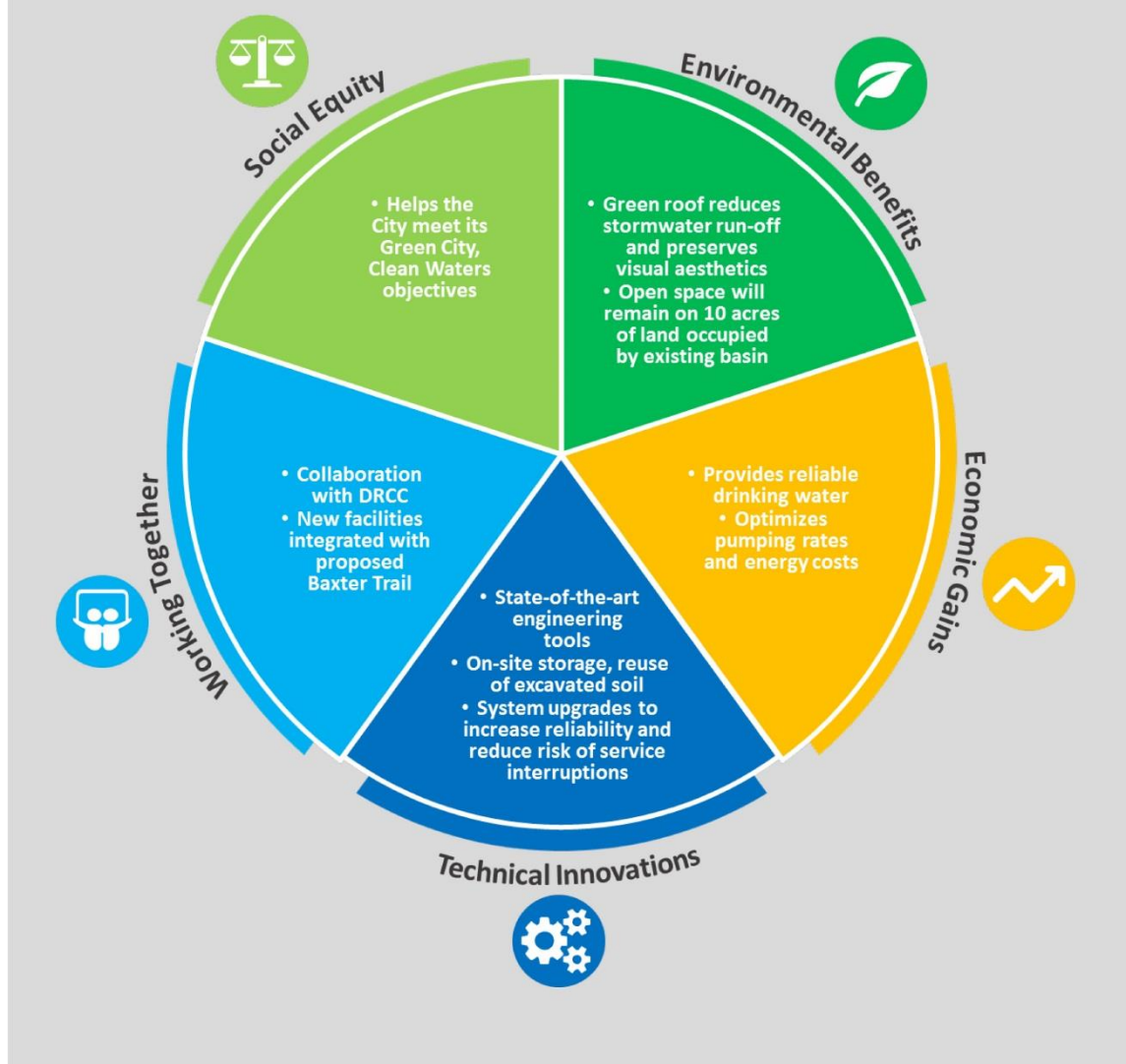


Elected officials

🕒 SCHEDULE



☑ TRIPLE-BOTTOM-LINE BENEFITS: CWB REPLACEMENT AT BAXTER WTP



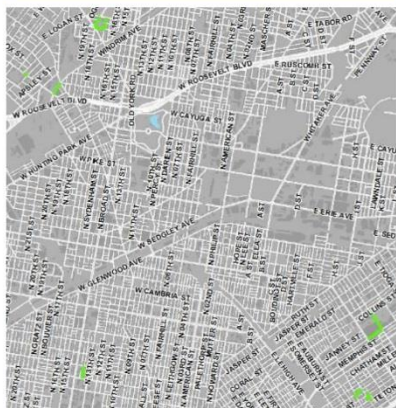
APPENDIX C: Sample Project Summary – Green Stormwater Infrastructure

Project Type	Sample Title
GSI Sample	Construction of Green Stormwater Infrastructure (GSI) – Stormwater Bumpout, Stormwater Tree Trench, and Underground Storage
GSI Sample	Construction of Green Stormwater Infrastructure (GSI) – Rain Garden, Stormwater Tree Trench and Permeable Pavement

Project Number 50053

Construction of Green Stormwater Infrastructure (GSI)

Anticipated Start Date: **Enter date**
Anticipated Completion Date: **Enter date**



Areas impacted by construction:

- Logan School and Stokely Playground
- Shevchenko Park and Richmond Library
- Wayne and Abbottsford Avenues
- Windrim Ave from Wayne Ave to Germantown Ave
- Philadelphia Military Academy
- Westmoreland Street and Tulip Street

Why are we doing this project?

State and federal regulations require Philadelphia to reduce the pollution entering our rivers when excess stormwater causes sewer overflows. **Green City, Clean Waters** is a program designed to meet those regulations and invest in neighborhoods across the city by creating stormwater infrastructure that incorporates green space.

In addition to water quality benefits, green tools used by **Green City, Clean Waters** provide a number of community benefits. New green spaces have been found to **improve the value of homes** and **encourage outdoor recreation** while **reducing stress, noise, air pollution** and **litter** in neighborhoods.

What is green stormwater infrastructure?

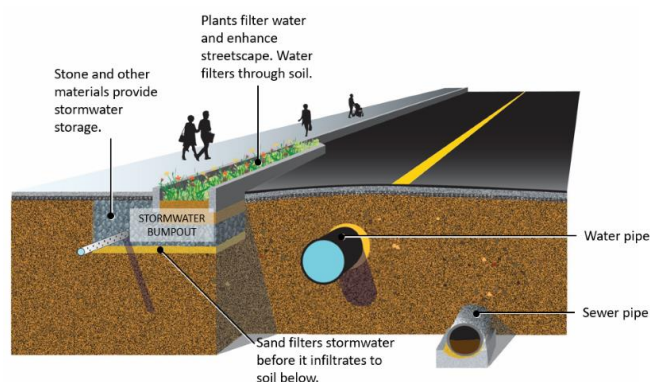
Green stormwater infrastructure (GSI) uses materials such as plants, soil, stone and special pavement to slow, filter and soak up water during storms. This project includes the following types of green stormwater infrastructure:

Stormwater Bumpout - A stormwater bumpout is a landscaped extension of the curb. Underneath the bumpout is a large concrete storage system filled with gravel or stone and topped off with soil. Grasses, perennials and shrubs are planted on top of the storage system.

Stormwater Tree Trench - A stormwater tree trench looks like a series of traditional street trees, but underground the trees are connected by a concrete structure designed to store and filter water. During construction, a trench is created along the sidewalk and lined with special fabric, then filled with stone and topped with soil and trees.

Underground Storage - Underground or subsurface storage refers to spaces that store stormwater underground. Typically, a rectangular bed is cut in the street or sidewalk. The bed is lined with special fabric and then filled with stone or gravel and sometimes plastic storage pipes.

Project Number 50053, *continued*



At Right: Graphic rendering of a stormwater bumpout similar to the one to be constructed at the corner of Wayne Ave and Windrim Ave.

Frequently Asked Questions (FAQs)

With all construction there is a level of inconvenience. Philadelphia Water is working to minimize construction impacts. Please refer to our Frequently Asked Questions for more information:

Q: Will I lose water service during construction?

A: Minor disruptions of water service are anticipated during construction, resulting in the loss of water service for 1-2 hours while house connections to new pipes are made and for 4-8 hours while water main connections are completed. Residents will be notified when water service outages are anticipated.

Q: Will other utilities be interrupted during construction?

A: Yes. We are working with other utility providers to minimize any disruption to service during construction.

Q: What are the hours of construction?

A: Typical construction hours are from 7:00 a.m. to 4:00 p.m. but can vary seasonally.

Q: How will construction impact traffic, sidewalk access and parking?

A: Street parking during hours of construction will be restricted. Temporary “No Parking” signs will be installed as needed for safety and construction. Signs will be installed before the start of work indicating the dates and hours that the areas will be closed. Vehicular traffic, pedestrian access, trash collection and deliveries will be maintained. Any cars left on streets where work is scheduled to take place will be towed to a nearby public street. Project personnel will be available to direct you to your car.

Q: How dusty will my street be during construction?

A: All construction work is subject to dirt and dust, but we try to keep it to a minimum. At the end of each work day, the contractor will be responsible for keeping the site clean.

Q: Will trees be protected during construction?

A: A tree specialist will assess all trees in the project area prior to construction to identify measures to protect the trees.

Q: Will SEPTA service in the area be impacted?

A: Yes. Bus Route 53 along Wayne Avenue and Trolley Route 75 along Windrim Avenue. Visit SEPTA.org for more information.

Q: Once the project is built, who will maintain the new plants and trees?

A: Philadelphia Water is responsible for maintaining all of our infrastructure, including green stormwater infrastructure. We visit sites about once a month to perform routine maintenance.

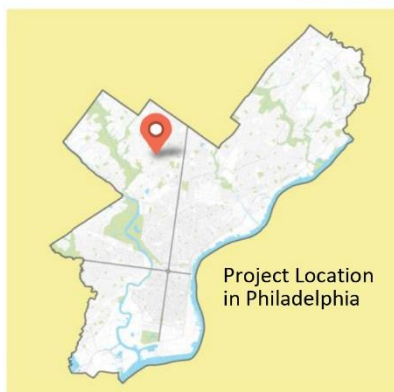


Who Should I Call With Questions? If you have questions about work in your neighborhood, please contact our Customer Information Unit at (215) 685.6300, waterinfo@phila.gov or on the website www.phila.gov/water

Project Number 50078

Construction of Green Stormwater Infrastructure (GSI)

Anticipated Start Date: **Enter date**
Anticipated Completion Date: **Enter date**



Areas impacted by construction:

- Clearview Community Park at Clearview Street and Washington Lane
- Morris Estates Park on Cheltenham Avenue between 15th Street and 18th Street

Why are we doing this project?

State and federal regulations require Philadelphia to reduce the pollution entering our rivers when excess stormwater causes sewer overflows. **Green City, Clean Waters** is a program designed to meet those regulations and invest in neighborhoods across the city by creating stormwater infrastructure that incorporates green space.

In addition to water quality benefits, green tools used by **Green City, Clean Waters** provide a number of community benefits. New green spaces have been found to **improve the value of homes** and **encourage outdoor recreation** while **reducing stress, noise, air pollution** and **litter** in neighborhoods.

What is green stormwater infrastructure?

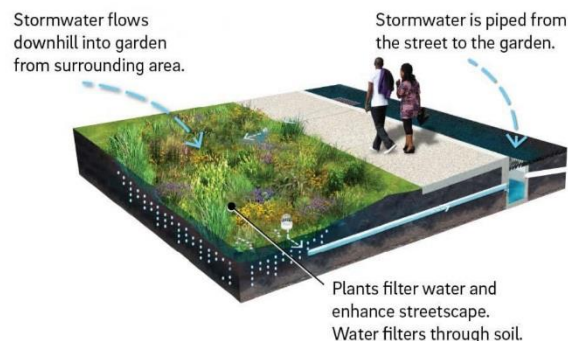
Green stormwater infrastructure (GSI) uses materials such as plants, soil, stone and special pavement to slow, filter and soak up water during storms. This project includes the following types of green stormwater infrastructure:

Rain Garden - A rain garden is a planted, shallow depression designed to catch and filter stormwater runoff from a downspout or nearby paved areas, such as streets. The plants in rain gardens are generally hardy, native species that can thrive in extremely wet and dry weather.

Stormwater Tree Trench - A stormwater tree trench looks like a series of traditional street trees, but underground the trees are connected by a concrete structure designed to store and filter water. During construction, a trench is created along the sidewalk and lined with special fabric, then filled with stone and topped with soil and trees.

Permeable Pavement - Permeable or porous pavement is a specially designed pavement system that allows water to soak through the pavement rather than flow over the surface and into storm drains. These surfaces can be used by cars, bikes and pedestrians in the same way that traditional, non-absorbing concrete and asphalt are used.

Project Number 50078, *continued*



At Right: Graphic rendering of a rain garden similar to the one to be constructed at Clearview & Washington Lane and Morris Estates Park.

Frequently Asked Questions (FAQs)

With all construction there is a level of inconvenience. Philadelphia Water is working to minimize construction impacts. Please refer to our Frequently Asked Questions for more information:

Q: Will I lose water service during construction?

A: Minor disruptions of water service are anticipated during construction, resulting in the loss of water service for 1-2 hours while house connections to new pipes are made and for 4-8 hours while water main connections are completed. Residents will be notified when water service outages are anticipated.

Q: Will other utilities be interrupted during construction?

A: Yes. We are working with other utility providers to minimize any disruption to service during construction.

Q: What are the hours of construction?

A: Typical construction hours are from 7:00 a.m. to 4:00 p.m. but can vary seasonally.

Q: How will construction impact traffic, sidewalk access and parking?

A: Street parking during hours of construction will be restricted. Temporary “No Parking” signs will be installed as needed for safety and construction. Signs will be installed before the start of work indicating the dates and hours that the areas will be closed. Vehicular traffic, pedestrian access, trash collection and deliveries will be maintained. Any cars left on streets where work is scheduled to take place will be towed to a nearby public street. Project personnel will be available to direct you to your car.

Q: How dusty will my street be during construction?

A: All construction work is subject to dirt and dust, but we try to keep it to a minimum. At the end of each work day, the contractor will be responsible for keeping the site clean.

Q: Will trees be protected during construction?

A: A tree specialist will assess all trees in the project area prior to construction to identify measures to protect the trees.

Q: Will SEPTA service in the area be impacted?

A: No interruptions to SEPTA service are anticipated

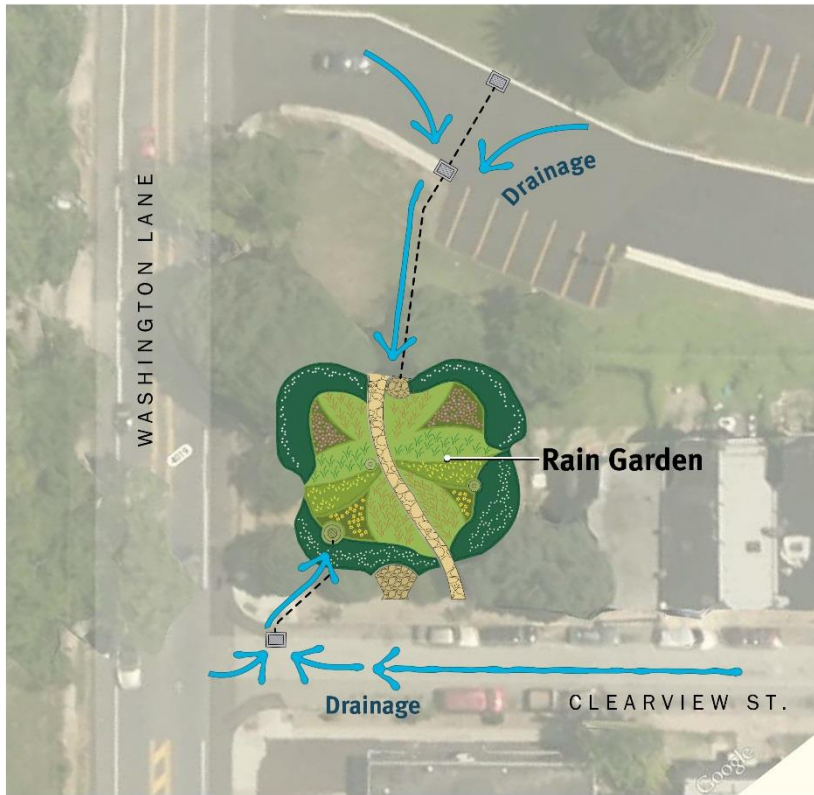
Q: Once the project is built, who will maintain the new plants and trees?

A: Philadelphia Water is responsible for maintaining all of our infrastructure, including green stormwater infrastructure. We visit sites about once a month to perform routine maintenance.



Who Should I Call With Questions? If you have questions about work in your neighborhood, please contact our Customer Information Unit at (215) 685.6300, waterinfo@phila.gov or on the website www.phila.gov/water

Expanded Rain Garden at Clearview



Site Plan



Context Map



Existing Conditions



Early Rendering

APPENDIX D: Master Summary Checklist

The following is a checklist of the components and actions required for the development of a Project Summary for a Street Project. It is a tool available for use and is not a required deliverable.

COMPONENT	YES	NO	N/A	COMMENT
Project Number	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Brief Description	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Blocks Where Work is Being Performed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Type of Work (Water, Sewer, Lining, GSI)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SEPTA Closings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
GIS Map Complete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Photo Taken	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Photo Chosen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Rendering Complete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Section 01121 Precautionary Measures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Figure D-1 – Master Summary Checklist

APPENDIX E: Preparation for Photo Taking

Photos can be used to create visual renderings of the scope of work. The following steps are recommendations for taking photos that best represent the work, not a prescribed procedure. Street and GSI projects will likely require one representative photo/rendering while plant projects may require more than one rendering since they encompass a wider array of project types and may have multiple design elements. Plant projects may, for instance, include both an exterior and an interior rendering.

Review the project plans to become familiar with the location of the work prior to going into the field. Use the plans together with a web-based mapping tool that provides the street view, such as Google Street view or Bird's Eye view on bing.com or similar website, to identify a vantage point that is representative of the area where work will occur. Before going out into the field, identify the locations on the plans where photos will be taken to verify the locations will be appropriate for rendering.

1. Select photo locations:

- a. Use the plans and a web-based mapping tool that provides the street view, such as Google Street view or Bird's Eye view on bing.com or similar website, to identify a location that is representative of the area where work will occur. Select locations for the rendering photos using these guidelines:
 - i. Choose a location that is aesthetically pleasing and would allow quick recognition of the location. Known landmarks are preferred.
 - ii. Choose a vantage point that features the site of the proposed work and would be visible to the public, if possible.
 - iii. Choose a location that clearly shows the work to be done.
 - iv. Choose locations away from pipe intersections, valves, junctions or manholes for simplified illustration and better perspective of the work.
 - v. Optimal locations will be on wide stretches of land such as medium sized streets (at least two lanes of traffic) or open lots.
 - vi. Avoid obstructions such as vehicles that prevent obtaining a clear photo of the ground. Heavy traffic areas may be busy and traffic may prevent a clear view of the project area.
 - vii. Consider health and safety of the photographer in choosing a location. High traffic areas or other hazards may also pose a health and safety concern while taking photographs of the area. Make sure the location is physically accessible. Coordination with PWD staff, such as a plant operator, may be necessary. Refer to your company's health and safety practices.
 - viii. If the street view shows permanent obstacles, buildings, structures, etc. that impede the view, select a different location.
- b. Identify on the plans where the photographer should stand and in which direction he/she should take the photo. Utilize a dot for the location where the photographer should stand and an arrow to indicate the desired direction of the photo (Figure E-1 below). Place the dot on the sidewalk in a safe location for the photographer to stand.

- c. Capture a screenshot of the desired location for the picture to be taken for the photographer's reference (Figure E-2 below).



- d. Provide the photographer with a copy of the marked up plans and screenshots from a street view mapping tool (e.g., Google Maps, Bing, or similar website) that he/she can take in the field as a reference.
- e. Provide the photographer with a list of personal protective equipment (PPE) necessary for the visit.

APPENDIX F: Photographing the Sites

A photo is used to generate the rendering, which assists residents in understanding the scope of work. The following guidelines should be used when photographing project sites.

1. Map vehicle routes prior to leaving the office to avoid navigation while driving, which is a safety hazard.
2. Verify batteries are fully charged at the beginning of your field visit.
3. All photography of plant sites should begin with coordination with the PWD site manager. Sites may not be entered without the company of a site manager from the plant. The manager may require specific PPE or restrict access to various locations where the project will take place. Refer to your company's health and safety practices for proper PPE.
4. Take photos during daylight hours with high visibility, preferably with limited cloud cover and when the sun is directly overhead.



Figure F-1 – Examples of Poor Lighting and Shadow Effects To Avoid

5. If there are significant shadows in the foreground of the photo, move until the shot is clear. Significant shadows are most likely from trees or buildings. Shadows make it difficult to complete the rendering and obtain the appropriate lighting. Figure F-1 (above) provides examples of poor lighting and a shadow, which are not preferred.
6. Once on site, stand out of the roadway on the sidewalk in a safe location while confirming photo location and taking the photographs.
7. Utilize the marked up plans (Appendix E) to verify the location of the photo.
8. Use the screenshot (Appendix E) to verify the location and direction of the photo.
9. The photo's point of view should be at a slight angle from the proposed area of construction.

10. If it appears that there are features in the selected location that will prevent the rendering from being completed, move until the shot is clear and make a note of the revised location. Features that may impede renderings:
- a. Parked or moving vehicles (Figure F-2 below)
 - b. Trees
 - c. Sidewalk structures (light posts, bollards, etc.)
 - d. Heavy debris on the ground (leaves, snow, trash, etc.)
 - e. Buildings
 - f. Sidewalk structures (light posts, bollards, etc.)
 - g. Fences (Figure F-3 below)
 - h. Columns
 - i. Guardrails
 - j. Walls



Figure F-2 – Example of Parked Cars Potentially Blocking the Rendering Area



Figure F-3 – Example of Fence Potentially Blocking the Rendering Area

11. Camera setting:
 - a. Use a high-resolution setting when capturing and saving images (a minimum of 10 megapixels).
 - b. If available, utilize the panorama setting when capturing images. Review the shot after taking it and if the panoramic view does not capture the appropriate image (images are too skewed, narrow, etc.), utilize grid shots. Grid shots begin at the top left corner of the photo area and continue to the bottom right corner. Individual photos are captured from the same vantage point with overlapping areas on all sides and with a straight horizon line. The photos are later compiled into one image (Figure F-4 below) using photo editing software.

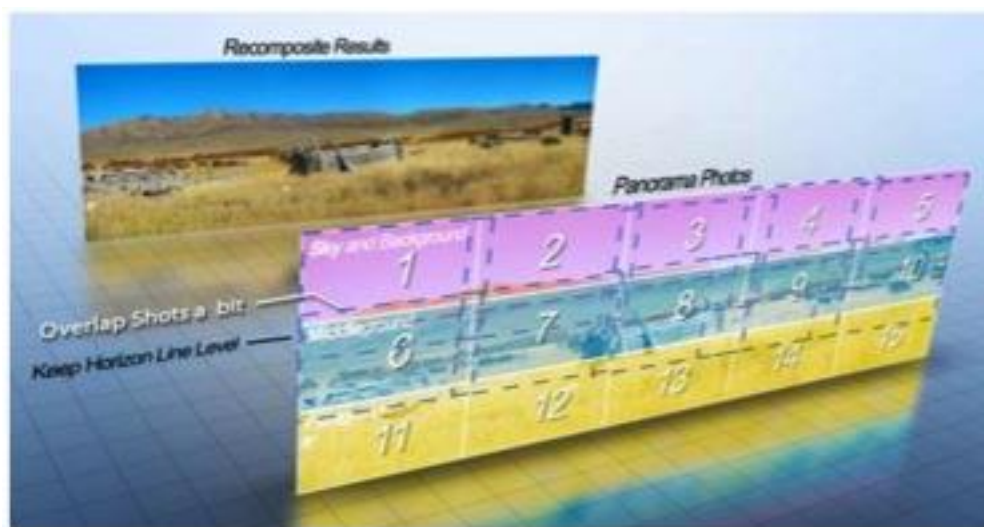


Figure F-4 – Example of Grid Shot Method for Photographing Sites

12. Capture images for below ground work so that the horizon is at or above the middle of the image, this allows more room for the rendering below the ground surface.
13. In addition to panoramic images, capture at least two additional photos of the location by standing in the indicated location (Appendix E) and from a few yards back from the indicated spot. Review the captured photos and if it appears there may be issues (e.g., poor lighting, obstructions) that can hinder the development of the rendering, take additional photos making sure to note where the additional photos are taken from. Tips for additional photos include:
 - a. Turn around and photograph the opposite direction, if the plans indicate that the work extends in that direction.
 - b. Move to a different location where the issue(s) are not present.
 - c. Adjust the camera settings if light appears to be a problem.
 - d. Use a tripod or other method for stabilizing the camera.
 - e. Limit panorama range to 45 to 60 degrees, keeping the proposed work area in the center of the area.
 - f. Capture some of the background and foreground.
 - g. Be methodical.
15. The photographer should mark up the plans indicating the locations and directions the photos were actually taken (Figure F-5 below). Different photos should be indicated by the photo number.

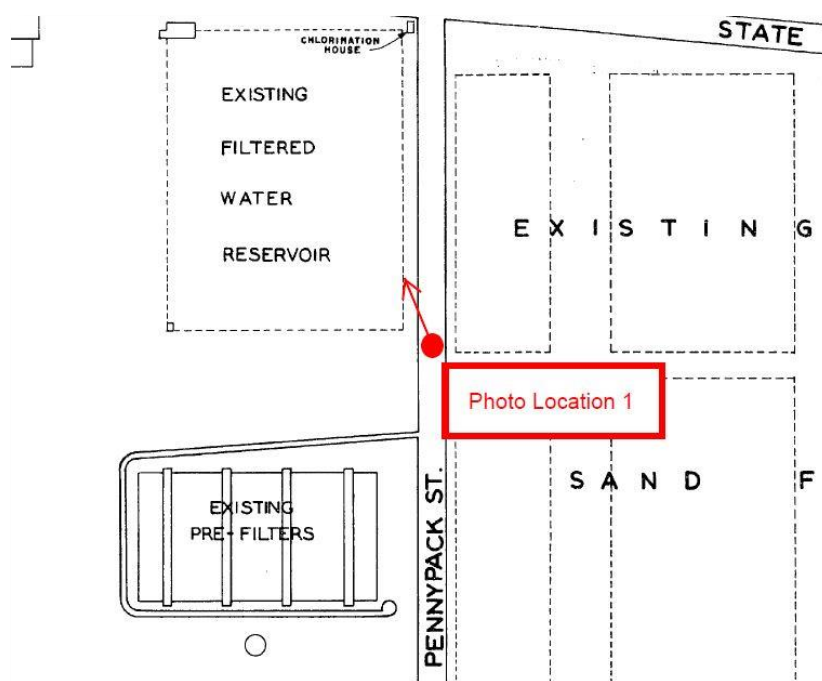


Figure F-5 – Example of Photo Location Image

16. If a proposed plant project is occurring inside of an existing building, ask the PWD site manager to turn on lights until lighting is suitable for the image. Try to avoid the glare of the flash when photographing indoors. Keep in mind that some indoor areas may not have room for a panoramic shot and a standard picture may be taken instead.
17. Photos should be saved as high-resolution graphic files such as a *.jpg file or similar file type.

APPENDIX G: Rendering Development

There are two parts to the rendering: the background and the proposed work. The background is the chosen photograph. The rendering of the proposed work will need to be created to show items such as pipes, pavement, buildings, basins, etc. The easiest way to create these items is with 3D modeling/photo editing software such as:

- Autodesk Revit®
- Autodesk 3ds Max Design®
- Adobe Photoshop®
- Autodesk SketchBook Designer®

The following steps are applicable using Revit/3ds Max Design/Photoshop, but the principles can be used for other modeling/editing software.

1. In Revit, set up the scene that contains all objects needed to display the proposed excavation, pipes, soil, asphalt, and gravel.
 - a. Review the work plans to identify the location of work in relation to the location of the photo.
 - b. It may be necessary to make objects larger than indicated on the plans, but retain a relatively reasonable scale, to better highlight the work. If components of the work are scaled correctly, it may be difficult to see what work is truly occurring.
2. Apply materials to the objects so they appear realistic when rendered.
3. Import the items made in Revit to 3ds Max Design. Link the objects created in Revit to 3ds Max Design.
 - a. Linking allows you to go back to the objects created in Revit and make changes without re-importing the objects to 3ds Max Design.
4. Insert the location photo - it is important to maintain the same photo aspect ratio when importing the photo.
5. Create a camera view and adjust it to match the perspective of the photo.
6. Make adjustments to the objects created in Revit so they appear properly in the camera view. It may be necessary to scale or move the objects to match the perspective.
7. Adjust the lighting; it may be necessary to move the “sun” so that shadows in the excavation area match those in the photo.
8. Adjust materials as necessary so they appear realistic when rendered.
9. Render the photo to verify the objects appear correctly.
10. In Adobe Photoshop, open the location photo.
11. Remove any unwanted objects from the location photo. Unwanted items may be people, vehicles, temporary street items, etc.
12. Import the 3ds Max Design rendering into Adobe Photoshop as a new layer on the location photo.
13. Use Adobe Photoshop to adjust and blend the two photos as needed to create the final picture.
14. Touch up the finished picture using photo editing software.

APPENDIX H: Map Development

The Project Location Map (Figure H-1 below) shows where the construction will take place in the City of Philadelphia. The map is zoomed out to show the full extents of the city and provides a pointer to identify one or more locations where construction will take place.

The Construction Areas Map (Figure H-2 below) highlights the streets/parcels where construction will occur. The map is zoomed-in to show individual streets and offers information on what type of construction will occur in those areas. It is important that street limits and names are clearly legible to provide this information to the public to gain an understanding the extent of construction.

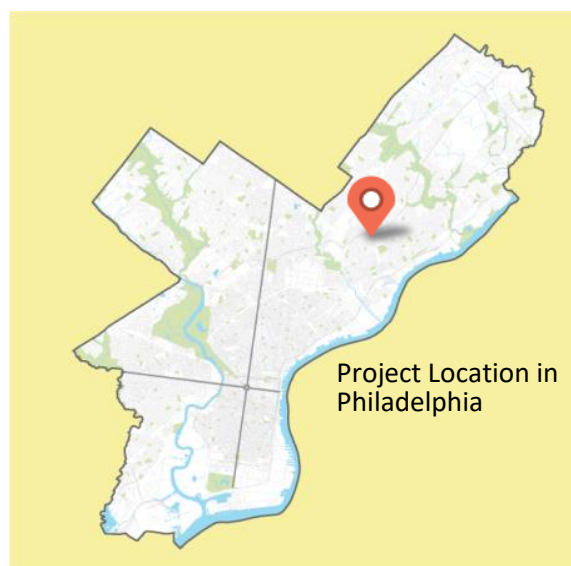


Figure H-1 – Example Project Location Map

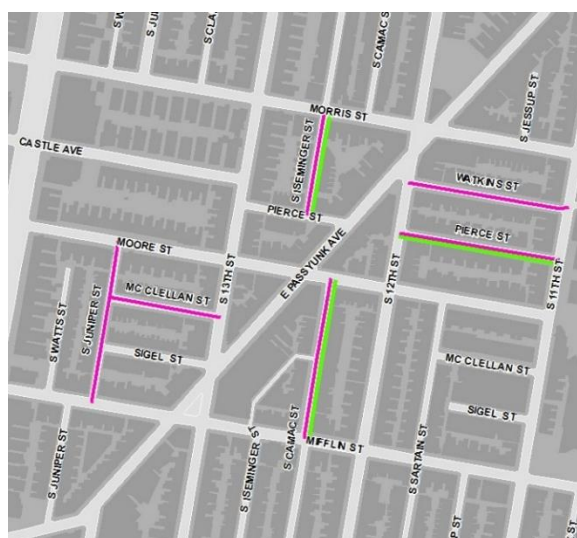


Figure H-2 – Example Construction Areas Map

1. The Project Location Map will be available in the template. To indicate where the project location is, drag the pointer to the approximate location of the construction work to be performed. The pointer can also be moved, copied and pasted as needed to show one or more locations.
2. The Construction Areas Map should be made in ArcGIS or comparable platform. The following steps should be taken to create the map:

- a. To make the detailed map, the drafter should select the streets being worked on and append them to a projects layer. Mark the extent of planned work on the map using the colors in Tables H-1 and H-2 below.
- b. Minor piping for GSI projects and detour streets for all projects should not be shown on the map.
- c. Line width should be 3.40.
- d. When a single project includes more than one element of construction, use every color needed and place them adjacent to each other on the street. For example, one street may have both water pipe replacement and green infrastructure. That map will show both cyan and lime lines indicating the area of work. Colored lines may be placed next to each other for work occurring in the same location.

Table H-1 – Colors for Elements of Construction (CMYK values)

	ELEMENT	COLOR NAME	CMYK COMPOSITION
1	Water Pipes	Cyan	C-1 M-0 Y-0 K-0
2	Water Pipes and Sewers	Magenta	C-0 M-1 Y-0 K-0
4	Lining	Yellow	C-0 M-0 Y-1 K-0
5	Green Stormwater Infrastructure	Lime	C-1 M-0 Y-1 K-0

Table H-2 – Colors for Elements of Construction (RGB values)

RGB	GSI	Lining	Sewer	Water
Red	0	255	255	0
Green	255	255	0	255
Blue	0	0	255	230

- e. A legend should be included on each map with the color(s) used on the map to indicate to the reader what each color represents (see example above). Place the legend so it does not cover up any relevant street names or streets where work is being done.
 - f. The map should be exported to high-resolution graphic files such as a *.jpg file so they can be dropped into the Project Summary.
 - g. Writing on the map needs to be legible. Font size should be 14. All street names should be clear to read.
 - h. Once completed the Construction Areas Map can be imported into the template by clicking on the “Insert Picture” icon in F (Figure II-1). A window will pop up with options to browse for a file or search for a picture online. Click on “browse” and import the file.
 - i. If ArcGIS or comparable platform is unavailable, a screen shot of the base map found at <http://phila.gov/map> can be taken and edited in a graphics editing program such as MS Paint to add the areas of construction and the legend.
3. If projects are spread out across Philadelphia and Project Location Map cannot clearly show the project work with the street names legible, an additional sheet can be added to the end of the Project Summary showing the maps with project work at a scale at which words are legible.