

SPDES Permit No. NY0028410

Long Term Control Plan Semi-Annual Status Report Reporting Period: July through December 2016 Amended Administrative Order CWA-02-2014-3033 (Amends CWA-02-2012-3024)

March 2017

Long Term Control Plan Semi-Annual Status Report Reporting Period: July through December 2017

Table of Contents

- 1. INTRODUCTION
- 2. REQUIREMENTS DUE IN REPORTING PERIOD
- 3. WORK COMPLETED IN CURRENT AND PROJECTION OF WORK TO BE PERFORMED IN NEXT REPORTING PERIODS
- 4. IMPLEMENTATION ISSUES
- 5. CHANGES IN KEY PERSONNEL
- 6. PUBLIC MEETINGS
- 7. MODEL MODIFICATIONS
- 8. CERTIFICATION STATEMENT

ATTACHMENT:

- A. Work Completed in Current Period/Projection of Work to be Performed in Next Reporting Period
- B. Certificates of Acceptance and Occupancy
- C. Detailed Project Descriptions
- D. Public Meeting Materials

1. INTRODUCTION

The Buffalo Sewer Authority (Authority) received approval of its Long Term Control Plan (LTCP) from the United States Environmental Protection Agency (USEPA) and New York State Department of Environmental Conservation (NYSDEC) on March 18, 2014. The Authority entered into an Amended Administrative Order on April 16, 2014 (herein after referred to as the AO), with the USEPA. This AO establishes a schedule for implementation of the Authority's LTCP, approved by the USEPA and NYSDEC.

The AO in part requires that the Authority submit written Semi-Annual Status Reports to the USEPA and NYSDEC by September 1st for current year January 1– June 30 reporting period, and March 1st for the previous calendar year July 1 – December 31 reporting period. The AO requires that the following be provided in each Semi-Annual Status Report:

- The project milestones, deadlines and other terms that the Authority is required to meet since the date of the last Semi-Annual Status Report, whether and to what extent the Authority has met those requirements, and the reason for any anticipated delays and/or noncompliance.
- A general description of the work completed during the reporting period and the applicability of the work to meet indicated design criteria, as well as the projection of work to be performed during the next reporting period and any anticipated delays for the upcoming work. Any changes in key personnel must also be noted.
- Enclosure of public meeting (if held) materials including: advertisements, handouts, formal meeting notes, and a summary of the meeting (see Attachment D).
- Copies (to USEPA only) of all monthly monitoring reports or other reports pertaining to combined sewer overflows (CSOs) and bypasses that Authority submitted to the NYSDEC during the reporting period. Please note DMRs are now submitted electronically directly to the USEPA and no dry weather overflows occurred during this period, so this item does not apply during this reporting period.

This report covers July through December 2016 which serves as Semi-Annual Report No. 6.

2. REQUIREMENTS DUE IN REPORTING PERIOD

Attachment A provides the current status of all projects listed in the Administrative Order. Issues with implementing these projects are detailed in Section 4 of this document.

This document serves as the March 1, 2017 semi-annual report.

Certificates of Acceptance and Occupancy for fully completed projects are included in Attachment B.

3. WORK COMPLETED IN CURRENT REPORTING PERIOD AND PROJECTION OF WORK TO BE PERFORMED NEXT REPORTING PERIOD

A general description of the work completed on LTCP projects during the reporting period (July 1 through December 31, 2016) and the work projected to be performed during the next reporting period (January 1 through June 30, 2017) is provided in Attachment A. Work to be completed after the current or next reporting period has been grayed out.

A more detailed description of each project including the location and the goal to be achieved through each project is provided in Attachment C.

4. IMPLEMENTATION ISSUES

4.1 Smith Street Storage

The Smith Street Storage project has undergone several conceptual level redesigns that have reduced capital and maintenance costs and negative impacts to the environment and residents; however these redesigns have also resulted in a prolonged engineering period. In order to expedite construction, the Smith Street storage project has been separated into a partial sewer separation project and an in-line storage project.

The partial sewer separation project was completed on June 22, 2016.

NYSDEC approval of plans for Bidding for the Smith Street in-line storage project was granted on February 25, 2016. The contract was awarded at the May 11, 2016 meeting of the Board of the Buffalo Sewer Authority and the Notice to Proceed was

issued on July 13, 2016. Due to the extended approval process of the Smith Street in-line storage project, completion of construction of the overall Smith Street storage project is expected to be completed by October 2017.

4.2 Hamburg Drain Optimizations

Preliminary design for the Hamburg Drain Optimizations was begun prior to January 1, 2014, however detailed design was delayed due to high water levels in Lake Erie. As a result of this delay the March 18, 2016 Notice to Proceed deadline was exceeded. Upon further review of the proposed locations for sewer separation and/or green infrastructure, it was determined that sufficient sewer separation had already been conducted and/or extensive private investment requiring storm water detention/retention is expected in the drainage basins where this work was proposed. As a result, engineering design has proceeded along Louisiana and Miami Streets. In addition, work has progressed on the Willert Park Green Infrastructure project which is expected to also significantly reduce overflows through the Hamburg Drain. These projects are expected to be bid in April 2016.

4.3 WWTP Improvement Project Alternative C2

Design of this project has been delayed due to the need to remove extensive quantities of grit which have accumulated in the system reducing WWTP capacity. Before further upgrades are considered, the existing issues must first be rectified to allow for accurate measurements of existing capacity to be conducted. The Authority has requested proposals from engineering firms for the WWTP Project Alternative C2, but has not awarded a contract due to the noted grit issues. The first notice to proceed for construction of Alternative C2 is expected to be issued after the March 18, 2017 date, as cleaning of the system remains ongoing.

The cleaning of the A-side influent channels, aeration basin 3 and both the A-side and B-side effluent channels was progressed during this reporting period.

4.4 North Relief-Interceptor

Preliminary subsurface investigation in conjunction with the North Relief-Interceptor concept has revealed concerns with the location of bedrock and the feasibility of the proposed tunnel location. Due to the noted concerns, the Authority has phased the proposed project. Phase 1 preliminary engineering and design has commenced on the northern section as the Bird Avenue Underflow sewer project. Engineering for the the second phase is expected to begin March 2019.

5. CHANGES IN KEY PERSONNEL

No changes in key personnel occurred during this reporting period.

6. PUBLIC MEETINGS

Public meetings regarding the Niagara Street Now project which incorporates part of the Niagara Street green infrastructure project and the Willert Park Green Infrastructure project have taken place during the reporting period (see Attachment D).

7. MODEL MODIFICATIONS

The process of converting the hydraulic model from XP-SWMM to PC-SWMM has commenced. The model is currently being refined in preparation for the calibration process which will follow the flow and precipitation monitoring period.

8. CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Oluwole A. McFoy, P.E. General Manager

<u>785 17</u> Date

Attachment A to the Semi-Annual Status Report: March 2017

Work Completed in Current Period/ Projection of Work to be Performed in Next Reporting Period

Project Name	Project Milestone	AO Project Deadline	Actual Completion Dates	Project Status
Phase I Projects				
CSO 060 GI Project			Prior to 1/1/2014	Complete.
Bird/Lang RTC	Construction Start	3/17/2014	2/24/2014	Complete
Projects	Completion Date	9/2/2014	5/9/2016	Complete
	Operations/ Optimization (RTC)	9/3/2014 – 9/3/15	10/1/2016	Complete
Bird RTC Project	Construction Start	3/17/2014	2/24/2014	Complete
	Completion Date	9/2/2014	5/6/2016	Complete
	Operations/ Optimization (RTC)	9/3/2014 – 9/3/15	10/1/2016	Complete
Lang RTC Project	Construction Start	3/17/2014	2/24/2014	Complete
	Completion Date	9/2/2014	5/9/2016	Complete
	Operations/ Optimization (RTC)	9/3/2014 – 9/3/15	10/1/2016	Complete

Project Name	Project Milestone	AO Project	Actual Completion	Project Status
		Deadline	Dates	
Foundation Project	<u>s</u>			
Foundation 1 -	Engineering Start	3/18/2014	Prior to 1/1/2014	Complete
Smith Street	Engineering Completion	3/18/2015	6/10/2015	Complete
Storage	Notice to Proceed	3/18/2015		Projected to be Completed During Next Reporting Period; See 4.1
	Substantial Completion	3/18/2017		
CSO No. 026 Sewer	Engineering Start	3/18/2014	Prior to 1/1/2014	Complete
Separation	Engineering Completion	3/18/2015	4/3/2015	Complete
	Notice to Proceed	3/18/2015	7/8/2015	Complete
	Substantial Completion	3/18/2017	6/22/2016	Complete
CSO No. 026 RTC	Engineering Start	3/18/2014	Prior to 1/1/2014	Complete
Structure	Engineering Completion	3/18/2015	6/10/2015	Complete
	Notice to Proceed	3/18/2015		Project awarded 5/11/16; Scheduled to be complete in October 2017; See 4.1
	Substantial Completion	3/18/2017		
Foundation 2 - SPP	Engineering Start	3/1/2014	Prior to 1/1/2014	Complete
Optimization (20	Engineering Completion	3/18/2015	4/20/2015	Complete
projects)	Notice to Proceed	3/1/2014	Prior to 1/1/2014	Complete
	Substantial Completion	3/18/2017		
SPP 180	Engineering Start		Prior to 1/1/2014	Complete
Optimization	Engineering Completion		4/20/2015	Complete
	Notice to Proceed		9/8/2015	Complete
	Substantial Completion	3/18/2017	12/16/2015	Complete
SPP 331	Engineering Start		Prior to 1/1/2014	Complete
Optimization	Engineering Completion	3/18/2015	4/20/2015	Complete
	Notice to Proceed		9/8/2015	Complete
	Substantial Completion	3/18/2017	12/16/2015	Complete

Project Name	Project Milestone	AO Project	Actual Completion	Project Status
		Deadline	Dates	
SPP 036	Engineering Start		Prior to 1/1/2014	Complete
Optimization	Engineering Completion		1/20/2014	Complete
	Notice to Proceed		5/30/2014	Complete
	Substantial Completion	3/18/2017	8/4/2014	Complete
SPP 217	Engineering Start		Prior to 1/1/2014	Complete
Optimization	Engineering Completion		4/3/2015	Complete
	Notice to Proceed		7/8/2015	Complete
	Substantial Completion	3/18/2017	12/21/2015	Complete
SPP 318	Engineering Start		Prior to 1/1/2014	Complete
Optimization	Engineering Completion		4/3/2015	Complete
	Notice to Proceed		7/8/2015	Complete
	Substantial Completion	3/18/2017	12/21/2015	Complete
SPP 097A	Engineering Start		Prior to 1/1/2014	Complete
Optimization	Engineering Completion		4/20/2015	Complete
	Notice to Proceed		9/8/2015	Complete
	Substantial Completion	3/18/2017	12/16/2015	Complete
SPP 122	Engineering Start		Prior to 1/1/2014	Complete
Optimization	Engineering Completion		Prior to 1/1/2014	Complete
	Notice to Proceed		Prior to 1/1/2014	Complete
	Substantial Completion	3/18/2017	Prior to 1/1/2014	Complete
SPP 163	Engineering Start		3/1/2014	Complete
Optimization	Engineering Completion		11/25/2014	Complete
	Notice to Proceed		3/1/2015	Complete
	Substantial Completion	3/18/2017	8/6/2015	Complete
SPP 165	Engineering Start		Prior to 1/1/2014	Complete
Optimization	Engineering Completion		Prior to 1/1/2014	Complete
	Notice to Proceed		Prior to 1/1/2014	Complete
	Substantial Completion	3/18/2017	Prior to 1/1/2014	Complete

Project Name	Project Milestone	AO Project	Actual Completion	Project Status
		Deadline	Dates	
SPP 165A	Engineering Start		Prior to 1/1/2014	Complete
Optimization	Engineering Completion		4/4/2014	Complete
	Notice to Proceed		7/25/2014	Complete
	Substantial Completion	3/18/2017	11/3/2014	Complete
SPP 178	Engineering Start		Prior to 1/1/2014	Complete
Optimization	Engineering Completion		Prior to 1/1/2014	Complete
	Notice to Proceed		Prior to 1/1/2014	Complete
	Substantial Completion	3/18/2017	Prior to 1/1/2014	Complete
SPP 335B	Engineering Start		Prior to 1/1/2014	Complete
Optimization	Engineering Completion		Prior to 1/1/2014	Complete
	Notice to Proceed		Prior to 1/1/2014	Complete
	Substantial Completion	3/18/2017	Prior to 1/1/2014	Complete
SPP 336A	Engineering Start		Prior to 1/1/2014	Complete
Optimization	Engineering Completion		4/20/2015	Complete
	Notice to Proceed		9/8/2015	Complete
	Substantial Completion	3/18/2017	12/16/2015	Complete
SPP 341A	Engineering Start		1/1/2014	Complete
Optimization	Engineering Completion			This project is on hold pending the results of post-
	Notice to Proceed			construction monitoring.
	Substantial Completion	3/18/2017		
SPP 342B	Engineering Start:		Prior to 1/1/2014	Complete
Optimization	Engineering Completion		Prior to 1/1/2014	Complete
	Notice to Proceed		Prior to 1/1/2014	Complete
	Substantial Completion	3/18/2017	Prior to 1/1/2014	Complete
SPP 001	Engineering Start:		Prior to 1/1/2014	Complete
Optimization	Engineering Completion		3/27/2014	Complete
	Notice to Proceed		6/16/2014	Complete
	Substantial Completion	3/18/2017	12/12/2014	Complete

Project Name	Project Milestone	AO Project	Actual Completion	Project Status
		Deadline	Dates	
SPP 183	Engineering Start		Prior to 1/1/2014	Complete
Optimization	Engineering Completion		Prior to 1/1/2014	Complete
	Notice to Proceed		Prior to 1/1/2014	Complete
	Substantial Completion	3/18/2017	Prior to 1/1/2014	Complete
SPP 283	Engineering Start		Prior to 1/1/2014	Complete
Optimization	Engineering Completion		Prior to 1/1/2014	Complete
	Notice to Proceed		Prior to 1/1/2014	Complete
	Substantial Completion	3/18/2017	Prior to 1/1/2014	Complete
SPP 211	Engineering Start		Prior to 1/1/2014	Complete
Optimization	Engineering Completion		Prior to 1/1/2014	Complete
	Notice to Proceed		Prior to 1/1/2014	Complete
	Substantial Completion	3/18/2017	Prior to 1/1/2014	Complete
Foundation 3 -	Engineering Start	3/18/2016	8/9/2016	Ongoing
Remaining RTC	Notice to Proceed	3/18/2017		
(14 sites)	Engineering Completion	3/18/2023		
	Substantial Completion	3/18/2024		
Hertel Northwest	Engineering Start			
In-Line Storage	Engineering Completion			
	Notice to Proceed			
	Substantial Completion	3/18/2024		
Hertel South In-	Engineering Start			
Line Storage	Engineering Completion			
	Notice to Proceed			
	Substantial Completion	3/18/2024		
Hertel Northeast In-	Engineering Start			
Line Storage	Engineering Completion			
	Notice to Proceed			
	Substantial Completion	3/18/2024		

Project Name	Project Milestone	AO Project	Actual Completion	Project Status
		Deadline	Dates	
Bird East In-Line	Engineering Start			
Storage	Engineering Completion			
	Notice to Proceed			
	Substantial Completion	3/18/2024		
East Ferry In-Line	Engineering Start			
Storage	Engineering Completion			
	Notice to Proceed			
	Substantial Completion	3/18/2024		
Colorado In-Line	Engineering Start			
Storage	Engineering Completion			
	Notice to Proceed			
	Substantial Completion	3/18/2024		
North Bailey In-	Engineering Start			
Line Storage	Engineering Completion			
	Notice to Proceed			
	Substantial Completion	3/18/2024		
South Bailey In-	Engineering Start			
Line Storage	Engineering Completion			
	Notice to Proceed			
	Substantial Completion	3/18/2024		
Roslyn In-Line	Engineering Start			
Storage	Engineering Completion			
	Notice to Proceed			
	Substantial Completion	3/18/2024		
Kay In-Line Storage	Engineering Start		8/9/2016	
	Engineering Completion			Projected to be Completed During Next Reporting Period
	Notice to Proceed			
	Substantial Completion	3/18/2024		

Project Name	Project Milestone	AO Project	Actual Completion	Project Status
		Deadline	Dates	
Amherst Quarry	Engineering Start			
Off-Line Storage	Engineering Completion			
	Notice to Proceed			
	Substantial Completion	3/18/2024		
Fillmore North In-	Engineering Start			
Line Storage	Engineering Completion			
	Notice to Proceed			
	Substantial Completion	3/18/2024		
Gibson CSO Line	Engineering Start			
Storage	Engineering Completion			
	Notice to Proceed			
	Substantial Completion	3/18/2024		
Montgomery CSO	Engineering Start			
Line Storage	Engineering Completion			
	Notice to Proceed			
	Substantial Completion	3/18/2024		
Foundation 4 -	Engineering Start	3/18/2015	Prior to 1/1/2014	Complete
Hamburg Drain	Engineering Completion	3/18/2017		
Optimizations	Notice to Proceed	3/18/2016		On hold; See 4.2.
	Substantial Completion	3/18/2018		
Foundation 4 -	Engineering Start	3/18/2028		
Hamburg Drain	Engineering Completion	3/18/2030		
Storage	Notice to Proceed	3/18/2030		
	Substantial Completion	3/18/2032		
<u>WWTP</u>				
WWTP	Engineering Start	3/18/2015		On hold; See 4.3.
Improvement	Engineering Completion	3/18/2019		
Project Alternative		3/18/2017		
C2	Substantial Completion	3/18/2022		

Project Name	Project Milestone	AO Project Deadline	Actual Completion Dates	Project Status
Green Infrastructur	e Projects	_		
Green 1 - Pilot	Engineering Start	3/1/2014	Prior to 1/1/2014	Complete
Projects – 267-	Engineering Completion	3/18/2016		
acres of GI control	Substantial Completion	3/18/2018		
2001-2013	Engineering Start		Prior to 1/1/2014	Complete
Demolitions	Engineering Completion		Prior to 1/1/2014	Complete
	Substantial Completion	3/18/2018	See LTCP Appendix 12 3.	Complete
2014-2018	Engineering Start		Prior to 1/1/2014	Complete
Demolitions	Engineering Completion			
	Substantial Completion	3/18/2018		
PUSH Blue Projects	Engineering Start		Prior to 1/1/2014	Complete
	Engineering Completion			
	Substantial Completion	3/18/2018		
Carlton Street	Engineering Start		Prior to 1/1/2014	Complete
Porous Asphalt	Engineering Completion		Prior to 1/1/2014	Complete
	Substantial Completion	3/18/2018	7/25/2014	Complete
Fillmore Avenue	Engineering Start		Prior to 1/1/2014	Complete
Porous Parking	Engineering Completion		Prior to 1/1/2014	Complete
Lots and Green Lots	Substantial Completion	3/18/2018	4/23/2015	Complete
Ohio Street	Engineering Start		Prior to 1/1/2014	Complete
	Engineering Completion		Prior to 1/1/2014	Complete
	Substantial Completion	3/18/2018	12/1/2014	Complete
Kenmore Avenue	Engineering Start		4/30/2014	Complete
	Engineering Completion		4/20/2015	Complete
	Substantial Completion	3/18/2018		
Allen Street	Engineering Start		Prior to 1/1/2014	Green infrastructre will no longer be implemented
	Engineering Completion			as part of the Allen Street streetscape project due
	Substantial Completion	3/18/2018		to site constraints.

Project Name	Project Milestone	AO Project Deadline	Actual Completion Dates	Project Status
Niagara Street	Engineering Start		Prior to 1/1/2014	Complete
Phase 1: Elmwood Street to Virgina	Engineering Completion		3/19/2014	Complete
Street	Substantial Completion	3/18/2018	12/1/2016	Complete
Niagara Street	Engineering Start		Prior to 1/1/2014	Complete
Phase 2: Virgina Street to Porter	Engineering Completion		6/3/2015	Complete
Avenue	Substantial Completion	3/18/2018		
Niagara Street	Engineering Start		10/28/2015	Complete
Phase 4: Porter Avenue to Ontario	Engineering Completion			
Street	Substantial Completion	3/18/2018		
Genesee Street	Engineering Start		Prior to 1/1/2014	Complete
	Engineering Completion		6/8/2015	Complete
	Substantial Completion	3/18/2018	12/20/2016	Only punch list items remain
Green 2 – 410	Engineering Start:	3/18/2019		
acres of GI Control	Engineering Completion:	3/18/2023		
	Substantial Completion:	3/18/2024		
Green 3 – 375	Engineering Start:	3/18/2023		
acres of GI Control	Engineering Completion:	3/18/2028		
	Substantial Completion:	3/18/2029		
Green 4 – 263	Engineering Start:	3/18/2028		
acres of GI Control	Engineering Completion:	3/18/2033		
	Substantial Completion:	3/18/2034		

Project Name	Project Milestone	AO Project	Actual Completion	Project Status
		Deadline	Dates	
Gray Projects				
CSOs 014/15 – Erie	Engineering Start		Prior to 1/1/2014	Complete
Basin In-line				
storage and	Engineering Completion		Prior to 1/1/2014	Complete
optimization				
projects	Notice to Proceed	3/18/2014	Prior to 1/1/2014	Complete
SEE DETAILS				
FOLLOWING FOR	Substantial Completion	3/18/2015	12/29/2014	Complete
SPECIFIC PROJECTS				
SPPs 206A&B	Engineering Start		Prior to 1/1/2014	Complete
	Engineering Completion		Prior to 1/1/2014	Complete
	Notice to Proceed		5/30/2014	Complete
	Substantial Completion	3/18/2015	12/29/2014	Complete
SPP 035	Engineering Start		Prior to 1/1/2014	Complete
	Engineering Completion		Prior to 1/1/2014	Complete
	Notice to Proceed		Prior to 1/1/2014	Complete
	Substantial Completion	3/18/2015	5/31/2014	Complete
SPP 036	Engineering Start		Prior to 1/1/2014	Complete
	Engineering Completion		Prior to 1/1/2014	Complete
	Notice to Proceed		5/30/2014	Complete
	Substantial Completion	3/18/2015	12/5/2014	Complete
CSO 013 – Satellite	Engineering Start	3/18/2019		
storage,				
conveyance, FM &	Engineering Completion	3/18/2020		
PS	Notice to Proceed	3/18/2020		
	Substantial Completion	3/18/2022		

Project Name	Project Milestone	AO Project	Actual Completion	Project Status
		Deadline	Dates	
North Relief –	Engineering Start	3/18/2019	5/15/2015	Complete; See 4.4.
Interceptor	Engineering Completion	3/18/2022		
	Notice to Proceed	3/18/2022		
	Substantial Completion	3/18/2026		
CSOs 010, 008/010,	Engineering Start	3/18/2021		
	Engineering Completion	3/18/2023		
Underflow capacity	Notice to Proceed	3/18/2023		
upsizing	Substantial Completion	3/18/2024		
SPP 337 (CSO 053) – Satellite storage,	Engineering Start	3/18/2023		
conveyance, FM &	Engineering Completion	3/18/2025		
PS	Notice to Proceed	3/18/2025		
	Substantial Completion	3/18/2027		
SPP 336A&B (CSO 053) – Satellite	Engineering Start	3/18/2024		
storage,	Engineering Completion	3/18/2026		
conveyance, FM &	Notice to Proceed	3/18/2026		
PS	Substantial Completion	3/18/2029		
Jefferson Avenue	Engineering Start	3/18/2025		
& Florida Street (CSO 053) –	Engineering Completion	3/18/2027		
Satellite storage,	Notice to Proceed	3/18/2027		
conveyance and FM	Substantial Completion	3/18/2030		
CSO 055 – Satellite		3/18/2027		
storage,	Engineering Completion:	3/18/2030		
	Notice to Proceed:	3/18/2030		
PS	Substantial Completion:	3/18/2034		

Project Name	Project Milestone	AO Project	Actual Completion	Project Status
		Deadline	Dates	
CSOs 028/044/047	Engineering Start:	3/18/2028		
Satellite storage,				
conveyance, FM &	Engineering Completion:	3/18/2031		
PS	Notice to Proceed:	3/18/2031		
	Substantial Completion:	3/18/2034		
CSO 052 – Satellite	Engineering Start:	3/18/2030		
storage,	Engineering Completion:	3/18/2032		
conveyance, FM &	Notice to Proceed:	3/18/2032		
PS	Substantial Completion:	3/18/2034		
CSO 064 – Satellite	Engineering Start:	3/18/2030		
storage,	Engineering Completion:	3/18/2032		
conveyance, FM &	Notice to Proceed:	3/18/2032		
PS	Substantial Completion:	3/18/2034		

Attachment B to the Semi-Annual Status Report: March 2017

Certificates of Acceptance and Occupancy

CONTRACT NO. 81500026

WORK:	CSO No. 26 Sewer Separation
BID:	\$1,996,500.00
CONTRACTOR:	Mark Cerrone, Inc. 2368 Maryland Avenue Niagara Falls, NY 14304
WHEREAS:	The Principal Sanitary Engineer of the Buffalo Sewer Authority has certified that the Contractor completed the work in accordance with the plans and specifications on June 22, 2016.
NOW THEREFORE BE IT RESOLVED:	That the Board of the Buffalo Sewer Authority hereby finds and determines that:
	a. The work to be performed under the terms of the Contract has been complete and is accepted;
	b. The date of entrance and occupancy be fixed as of June 22, 2016;
	c. The maintenance period commence on June 22, 2016;
	d. Final payment be made to the Contractor in the amount of \$91,048.75, making the final cost of the contract \$1,820,975.01.
	MOTION TO APPROVE
	MADE BY MS. PETRUCCI
	2 ND BY MR. ROOSEVELT
	AYES 4 NOES 0
	Board Meeting of July 27, 2016

CONTRACTNO. 81400002

CERTIFICATE OF ACCEPTANCE AND OCCUPANCY

WORK: Real Time Control Demonstration Project, Contract No. RTC-1

BID: \$2,376,000.00

CONTRACTOR: Mark Cerrone, Inc.

2368 Maryland Avenue Niagara Falls, NY 14304

WHEREAS: The Principal Sanitary Engineer and staff have certified that the Contractor

completed the work in accordance with the plans and specification on May 9,

2016; and

WHEREAS: In Item No. 14, on June 10, 2015 the contract value was increased by

\$63,221.55; and

WHEREAS: In Item No. 28, on July 29, 2015 the contract value was increased by

\$5,509.87; and

WHEREAS: In Item No. 21, on July 27, 2016 the contract value was decreased by

\$22,849.12.

NOW THEREFORE BEITRESOLVED:

That the Board of the Buffalo Sewer Authority hereby finds and determines that:

- a. The work to be performed under the terms of the Contract has been complete and is accepted;
- b. The date of entrance and occupancy be fixed as of May 9, 2016; and
- c. The maintenance period commence on May 9, 2016;
- d. Final payment be made to the Contractor in the amount of \$121,094.13 decreased by \$22,849.12 by Change Order No. 3, making the final cost of the Contract \$2,421,882.30.

MOTION TO	APPROVE		
MADE BY		MS. PETRU	CCI
2 ND BY	MR. ROOSEVELT		
AYES	4	NOES	0

Board Meeting of July 27, 2016

CONTRACT NO. 81600017

WORK:	Settle	ed Wastewater #6 Pump	and Motor R	Rehabi	litatio	on	
BID:	\$326	,900.00					
CONTRACTOR:	Hohl	Industrial, Inc.					
WHEREAS:	certif	The Treatment Plant Administrator of the Buffalo Sewer Authority has certified that the Contractor completed the work in accordance with the plans and specifications on September 20, 2016.					
NOW THEREFORE BE IT RESOLVED:	That that:	the Board of the Buffal	o Sewer Aut	thority	here	eby finds and	determines
	a.	The work to be perfor complete and is accepted		the ter	rms c	of the Contra	ect has been
	b.	The date of entrance an	d occupancy	be fix	ked as	s of Septembe	er 20, 2016;
	c.	The maintenance period	d commence	on Se	ptem	ber 20, 2016;	
	d.	Changes under this con	tract resulted	l in a 1	net in	crease of \$35	50,415.00;
	e.	Final payment to be \$33,865.75, making the					
			MOTION T	O_		APPROV	√E
			MADE BY			MR. KENNI	EDY
			2 ND BY		MI	R. ROOSEVI	ELT
			AYES _	۷	ļ	_ NOES	0
				Boar	rd Me	eeting of Octo	ober 5, 2016

Board Meeting of December 7, 2016

ITEM NO. 27

CONTRACT NO. 85000014

WORK:	Har	nburg Drain Floatables	Control Facility			
BID:	\$15	,203,000.00				
CONTRACTOR:	440	e Hanover Insurance Co. Lincoln Street rcester, MA 01653				
	Ma: 150	Surety to: n O'Trees, Inc. 0 Union Road, Suite 20 st Seneca, NY 14224	1			
WHEREAS:	that	e Principal Sanitary Eng the Contractor comple cifications on February	eted the work in		•	
NOW THEREFORE BE IT RESOLVED:	Tha that	at the Board of the Buff	alo Sewer Autho	rity he	reby finds and	determines
	a.	The work to be perfected and is acceptable.		terms	of the Contract	ct has been
	b.	The date of entrance a	and occupancy be	fixed	as of February	11, 2015;
	c.	The maintenance peri	od commence on	Februa	ary 11, 2015;	
	d.	Final payment be made making the final cost				275,000.00,
			MOTION TO		APPROV	/E
			MADE BY		MR. KENNE	EDY
			2 ND BY	N	IR. ROOSEVE	ELT
			AYES	4	NOES	0

CONTRACT NO. 81600007

WORK:	Installation of Centrifu	uge #1	
BID:	\$1,133,000.00		
CONTRACTOR:	Hohl Industrial, Inc. 770 Riverview Blvd. Tonawanda, NY 1415	0	
WHEREAS:		d the work in ac	ersonnel have certified that the ecordance with the plans and
NOW THEREFORE BE IT RESOLVED:	That the Board of the that:	Buffalo Sewer Autho	ority hereby finds and determines
	a. The work to be complete and is	*	e terms of the Contract has been
	b. The date of entra	ance and occupancy be	e fixed as of October 20, 2016;
	c. The maintenance	e period commence or	n October 20, 2016;
	- ·	e made to the Contract \$	ctor in the amount of \$54,219.82, 1,084,396.34.
		MOTION TO	APPROVE
		MADE BY	MR. KENNEDY
		2 ND BY	MS. PETRUCCI
		AYES	4 NOES 0
		Во	ard Meeting of December 7, 2016

Attachment C to the Semi-Annual Status Report: March 2017

Detailed Project Descriptions

Project Name	Project Description	Project Purpose*
Discoul Desired		
Phase I Projects CSO 060 GI Project	This project consisted of the construction of 4768 CF of rain garden on Windsor, Parkdale and Elmwood Avenues between Bird and Forest Avenues and 39,600 SF of permeable pavement on Clarendon and Claremont Avenues between Bird and Forest Avenues, installation of a Stormceptor unit at Bird Avenue and Granger Place and a total of 6,125 LF of 12-30 inch sewer designed to carry street flow to the existing storm overflow sewer on Forest Avenue from the above mentioned street segments. Additionally, weirs were raised in SPPs 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, and 240.	This project was designed to treat 13,600 cf of stormwater runoff from the 0.9 inch water quality storm event and remove 49.5 cfs of peak flow from the combined sewer system. Thereby reducing overflows through SPPs 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, and 241 to CSO 060. Together with other LTCP projects, this project is projected reduce CSO 060 discharges to Scajaquada Creek based on the 1993 Modified Typical Year (TY) to negligible activations and flow.
Bird/Lang RTC Projects	These RTC projects utilize available capacity of large sewers to provide flow control measures during wet weather events through the use of gates which allow continuous dry weather underflow.	
Bird RTC Project	The Bird RTC Project is located on Bird Avenue between Parkdale Avenue and Hoyt Street.	The Bird RTC project is designed to provide 1.01 MG of storage volume, thereby reducing discharges through SPP 013 to CSO 004. Together with other LTCP projects, this project is projected reduce CSO 004 discharges to the Black Rock Canal based on the TY to 3 activations.
Lang RTC Project	The Lang RTC Project is located on Lang Avenue between Courtland Avenue and Hagen Street.	The Lang RTC project is designed to have a storage volume of 0.84 MG, thereby reducing discharges through SPP 340 to CSO 053. Together with other LTCP projects, this project is projected to reduce CSO 053 discharges to Scajaquada Creek based on the 1993 Modified Typical Year (TY) to 4 activations.

Project Name	Project Description	Project Purpose*
Foundation Project	<u>s</u>	
Foundation 1 - Smith Street Storage	Originally envisioned as a single project, these two projects have been separated to realize cost advantages due to the different levels of skill required for the projects and to expedite the sewer separation component.	
CSO No. 026 Sewer Separation	This project consisted of the installation of collection sewers for street receiver flows on Leddy Street, South Park Avenue, Owahn Place, Prenatt Street, Bolton Place, St. Stephen's Place, and Buffalo River Place in order to discharge these storm flows downstream of regulators combined the Optimization projects for SPP 217 and SPP 318.	Together with the Smith Street in-line storage project, the Smith Street partial sewer separation project is designed to divert and detain the equivalent of a storage volume of 0.5 MG, thereby reducing CSO 026 discharges. Together with other LTCP projects, this project is projected to reduce CSO 026 discharges to the Buffalo River based on the TY to 3 activations.
CSO No. 026 RTC Structure	The second contract consists of an in-line storage project which is designed to detain wet weather flows along the western side of Smith Street using a weir structure between the I-190 and the I-190 off ramp within the Smith Street Drain for discharge to the South Interceptor thereby diverting combined sewer flows from CSO 026.	Together with the Smith Street partial sewer separation project, the Smith Street in-line storage project is designed to divert and detain the equivalent of a storage volume of 0.5 MG, thereby reducing CSO 026 discharges. Together with other LTCP projects, this project is projected to reduce CSO 026 discharges to the Buffalo River based on the TY to 3 activations.

Project Name	Project Description	Project Purpose*
Foundation 2 - SPP Optimization (20 projects)	Project consists of multiple smaller projects that will overlap in engineering and construction. SEE DETAILS FOLLOWING FOR SPECIFIC PROJECTS	In general, these projects will reduce discharges to the CSOs by detaining flows within the BSA's system through the modification of existing control structures.
SPP 180 Optimization	This project consisted of raising of the weir associated with SPP 180 by 2.0' along its entire length. SPP 180 is located on Delaware Avenue at the intersection with West Delavan. As part of the revised SPP 331 Optimization, this weir will be raised an additional 1.75' along its entire length.	The SPP 180 Optimization project was designed to increase the capacity of the CSS at SPP 180 thereby decreasing CSO 006 discharges. Together with other LTCP projects, this project is projected to reduce CSO 006 discharges to the Black Rock Canal based on the TY to 4 activations.
SPP 331 Optimization	SPP331 is located at the intersection of Elmwood Avenue and West Delavan Avenue. Preliminary plans were for the diversion of flows from this point through a new sewer to Bird Avenue along the centerline of Elmwood Avenue. This would have required major disruption of a very high traffic commercial area and was deemed impractical. Plans have been developed to instead divert the same flow that was to have been diverted through this project through a system of localized weir modifications rather than extensive pipe installation. These modifications include raising the weir at SPP 180 by 1.75' and the bench located in SPP 332 on the northeast quadrant of Gates Circle which currently directs dry weather flows into the interceptor will be removed and replaced with a 6.2' weir and restored sewer trough which will direct dry weather flows into the Bird Avenue trunk sewer.	The SPP 331 Optimization project is designed to increase the underflow capacity at SPP 331 thereby decreasing CSO 006 discharges. Together with other LTCP projects, this project is projected to reduce CSO 006 discharges to the Black Rock Canal based on the TY to 4 activations.

Project Name	Project Description	Project Purpose*
SPP 036 Optimization	This project consisted of the reconstruction of 35' of 30" sewer associated with SPP 036 to reverse the slope. It was located on Church Street between the off and on ramps of the Skyway (State Route 5).	The SPP 036 Optimization project was designed to increase the underflow capacity at SPP 036 thereby decreasing CSO 015 discharges. Together with other LTCP projects, this project is projected based on the TY to reduce discharges to the Erie Basin through CSO 015 to 0 activations.
SPP 217 Optimization	In association with the Smith Street partial sewer separation project, this project consisted of the removal of two bottom orifice plates totaling 1.42' in height, increasing the orifice size and conveyance capacity of the Emslie Street Sewer. SPP 217 is located on Emslie Street at its intersection with Eagle Street.	The SPP 217 Optimization project is designed to increase the underflow capacity at SPP 217 thereby decreasing CSO 026 discharges. Together with other LTCP projects, this project is projected to reduce CSO 026 discharges to the Buffalo River based on the TY to 3 activations.
SPP 318 Optimization	In association with the Smith Street partial sewer separation project, this project consisted of the removal of an orifice plate, increasing the orifice size and conveyance capacity of the Clinton Avenue Sewer. SPP 318 is located east of the intersection of Fillmore Avenue and Clinton Street.	The SPP 318 Optimization project is designed to increase the underflow capacity at SPP 318 thereby decreasing CSO 026 discharges. Together with other LTCP projects, this project is projected to reduce CSO 026 discharges to the Buffalo River based on the TY to 3 activations.
SPP 097A Optimization		The SPP 097A Optimization project is designed to eliminate SPP 097A thereby decreasing CSO 026 discharges. Together with other LTCP projects, this project is projected to reduce CSO 026 discharges to the Buffalo River based on the TY to 3 activations.
SPP 122 Optimization	This project consisted of raising of the weir associated with SPP 122 by 0.5' along its entire length. SPP 122 is located on South Legion Drive just north of the intersection with Meriden Street.	The SPP 122 Optimization project was designed to increase the flow volume conveyed by the CSS at SPP 122 thereby decreasing CSO 037 discharges. Together with other LTCP projects, this project is projected to reduce CSO 037 discharges to the Buffalo River based on the TY to 3 activations.

Project Name	Project Description	Project Purpose*
SPP 163 Optimization	The SPP 163 Weir Optimization project consisted of replacing the existing weir with a new weir 0.75' higher. It is located to the East of the intersection of Fillmore Avenue and Northland on Northland Avenue.	The SPP 163 Optimization project is designed to increase the flow volume conveyed by the CSS at SPP 163 thereby decreasing CSO 053 discharges. Together with other LTCP projects, this project is projected to reduce CSO 053 discharges to Scajaquada Creek based on the TY to 4 activations.
SPP 165 Optimization	This project consisted of raising of the weir associated with SPP 165 by 0.5' along its entire length. SPP 165 is located on Fillmore Avenue just north of the intersection with East Delavan Street.	The SPP 165 Optimization project was designed to increase the capacity of the CSS at SPP 165 thereby decreasing CSO 053 discharges. Together with other LTCP projects, this project is projected to reduce CSO 053 discharges to Scajaquada Creek based on the TY to 4 activations.
SPP 165A Optimization	The weir associated with SPP 165A located at the intersections of Fillmore and Kensington Avenues.	The SPP 165A Optimization project was designed to increase the capacity of the CSS at SPP 165A by raising the weir by 0.75' and upsizing 675' of 15" pipe to 18" pipe to reduce CSOs in association with CSO 053. Together with other LTCP projects, this project is projected to reduce CSO 053 discharges to Scajaquada Creek based on the TY to 4 activations.
SPP 178 Optimization	This project consisted of raising of the weir associated with SPP 178 by 0.5' along its entire length. SPP 178 is located on Masten Avenue just north of the intersection with Northland Avenue.	The SPP 178 Optimization project was designed to increase the flow volume conveyed by the CSS at SPP 178 thereby decreasing CSO 053 discharges. Together with other LTCP projects, this project is projected to reduce CSO 053 discharges to Scajaquada Creek based on the TY to 4 activations.
SPP 335B Optimization	This project consisted of raising of the weir associated with SPP 335B by 1.0' along its entire length. SPP 335B is located on Hager Street just south of the intersection with Florida Street.	The SPP 335B Optimization project was designed to increase the flow volume conveyed by CSS at SPP 335B thereby decreasing CSO 053 discharges. Together with other LTCP projects, this project is projected to reduce CSO 053 discharges to Scajaquada Creek based on the TY to 4 activations.

Project Name	Project Description	Project Purpose*
SPP 336A Optimization	This project has been constructed in association with the SPP 331 optimization. The project consist sof removing a sluice gate and orifice plate and modifying the existing structure by changing the existing side channel opening from 24" to 30". SPP 336A is located on Humboldt Parkway North of the Scajaquada Drain.	The SPP 336A Optimization project is designed to increase the underflow capacity of the CSS at SPP 336A thereby decreasing CSO 053 discharges. Together with other LTCP projects, this project is projected to reduce CSO 053 discharges to Scajaquada Creek based on the TY to 4 activations.
SPP 341A Optimization	SPP 341A is located on Genesee Street east of Kerns Avenue. This project is on hold pending the results of post-construction monitoring.	The SPP 341A Optimization project would increase the flow volume conveyed by the CSS at SPP 341A thereby decreasing CSO 053 discharges. Together with other LTCP projects, this project is projected to reduce CSO 053 discharges to Scajaquada Creek based on the TY to 4 activations. Field conditions may require modification to this planned optimization.
SPP 342B Optimization	This project consisted of raising of the weir associated with SPP 342B by 1.0' along its entire length. SPP 342B is located on Sprenger Avenue adjacent to Schiller Park.	The SPP 342B Optimization project was designed to increase the flow volume conveyed by the CSS at SPP 342B thereby decreasing CSO 053 discharges. Together with other LTCP projects, this project is projected to reduce CSO 053 discharges to Scajaquada Creek based on the TY to 4 activations.
SPP 001 Optimization	The weir associated with SPP 001 located at the discharge of Cornelius Creek into the Niagara River and tributary to CSO 055 has been raised 1.0' to reduce CSOs.	The SPP 001 Optimization project was designed to increase the flow volume conveyed by the CSS at SPP 001 thereby decreasing CSO 055 discharges. Together with other LTCP projects, this project is projected to reduce CSO 055 discharges to the Niagara River based on the TY to 9 activations.
SPP 183 Optimization	This project consisted of raising of the weir associated with SPP 183 by 2.0' along its entire length. SPP 183 is located at the intersection of Bradley Avenue and Dewitt Street.	The SPP 183 Optimization project was designed to increase the flow volume conveyed by the CSS at SPP 183 thereby decreasing CSO 059 discharges. Together with other LTCP projects, this project is projected to reduce CSO 059 discharges to Scajaquada Creek based on the TY to 0 activations.

Project Name	Project Description	Project Purpose*
SPP 283 Optimization	SPP 283 is located in the median between the I-190 South ramp to Porter Avenue and a service road near the West Side Rowing Club. This project consisted of removing an orifice plate which restricted flows from entering the Swan Trunk and the installation of a new 1.0' tall weir to restrict flows from discharging through CSO 063.	The SPP 283 Optimization project was designed to increase the underflow capacity of the CSS at SPP 283 thereby decreasing CSO 063 discharges. Together with other LTCP projects, this project is projected to reduce CSO 063 discharges to the Niagara River based on the TY to 4 activations.
SPP 211 Optimization	This project consisted of constructing a weir to an elevation above the overflow raised pipe invert at SPP 211. SPP 211 is located at the South East corner of the intersection of Clinton and South Ogden Streets.	The SPP 211 Optimization project was designed to increase the flow volume conveyed by the CSS at SPP 211 thereby decreasing CSO 066 discharges. Together with other LTCP projects, this project is projected to reduce CSO 066 discharges to the Buffalo River based on the TY to 4 activations.

Project Name	Project Description	Project Purpose*
Foundation 3 - Remaining RTC (14 sites)	These RTC projects propose to utilize available capacity in the CSS to provide flow control measures during wet weather events through the use of active controls.	In general, these projects are designed to reduce discharges to the CSOs through the detention of flows within the BSA's CSS system.
Hertel Northwest In-Line Storage	This RTC project is proposed to utilize available capacity of a large sewer to provide flow control measures during wet weather events while allowing continuous dry weather underflow. The proposed project location is within the northern of the two large combined sewers which are located under Hertel Avenue.	This RTC project is proposed to utilize available capacity within the collection system to detain flows until downstream capacity becomes available. Together with other LTCP projects, this project is projected to reduce CSO 055 discharges to the Niagara River based on the TY to 9 activations.
Hertel South In- Line Storage	This RTC project is proposed to utilize available capacity in the CSS capacity of a large sewer to provide flow control measures during wet weather events while allowing continuous dry weather underflow. The proposed project location is within the southern of the two large combined sewers which are located under Hertel Avenue.	This RTC project is proposed to utilize available capacity within the collection system to detain flows until downstream capacity becomes available. Together with other LTCP projects, this project is projected to reduce CSO 055 discharges to the Niagara River based on the TY to 9 activations.
Hertel Northeast In- Line Storage	This RTC project is proposed to utilize available capacity in the CSS capacity of a large sewer to provide flow control measures during wet weather events while allowing continuous dry weather underflow. This project will be located within the northern of the two large combined sewers which are located under Hertel Avenue.	This RTC project is proposed to utilize available capacity within the collection system to detain flows until downstream capacity becomes available. Together with other LTCP projects, this project is projected to reduce CSO 055 discharges to the Niagara River based on the TY to 9 activations.

Project Name	Project Description	Project Purpose*
Bird East In-Line Storage	This RTC project is proposed to utilize available capacity in the CSS capacity of a large sewer to provide flow control measures during wet weather events while allowing continuous dry weather underflow. This project will be located to the east of the above mentioned Bird RTC project along the same Bird Avenue sewer.	This RTC project is proposed to utilize available capacity within the collection system to detain flows until downstream capacity becomes available. Together with other LTCP projects, this project is projected to reduce CSO 004 discharges to the Black Rock Canal based on the TY to 3 activations.
East Ferry In-Line Storage	This RTC project is proposed to utilize available capacity in the CSS capacity of a large sewer to provide flow control measures during wet weather events while allowing continuous dry weather underflow. The proposed project location is along the Ferry Street sewer upstream of its leaping weir overflow to the Scajaquada Drain north of Florida Street.	This RTC project is proposed to utilize available capacity within the collection system to detain flows until downstream capacity becomes available. Together with other LTCP projects, this project is projected to reduce CSO 053 discharges to Scajaquada Creek based on the TY to 4 activations.
Colorado In-Line Storage	This RTC project is proposed to utilize available capacity in the CSS capacity of a large sewer to provide flow control measures during wet weather events while allowing continuous dry weather underflow. The proposed project location is along the Colorado Avenue sewer which runs underneath the manufacturing facility located at 1001 East Delavan Avenue.	This RTC project is proposed to utilize available capacity within the collection system to detain flows until downstream capacity becomes available. Together with other LTCP projects, this project is projected to reduce CSO 053 discharges to Scajaquada Creek based on the TY to 4 activations.
North Bailey In- Line Storage	This RTC project is proposed to utilize available capacity in the CSS capacity of a large sewer to provide flow control measures during wet weather events while allowing continuous dry weather underflow. The proposed project location is along Bailey Avenue north of Scajaquada Street.	This RTC project is proposed to utilize available capacity within the collection system to detain flows until downstream capacity becomes available. Together with other LTCP projects, this project is projected to reduce CSO 053 discharges to Scajaquada Creek based on the TY to 4 activations.

Project Name	Project Description	Project Purpose*
South Bailey In- Line Storage	This RTC project is proposed to utilize available capacity in the CSS capacity of a large sewer to provide flow control measures during wet weather events while allowing continuous dry weather underflow. The proposed project location is along Bailey Avenue north of Scajaquada Street and south of the afore mentioned North Bailey In-Line Storage project.	This RTC project is proposed to utilize available capacity within the collection system to detain flows until downstream capacity becomes available. Together with other LTCP projects, this project is projected to reduce CSO 053 discharges to Scajaquada Creek based on the TY to 4 activations.
Roslyn In-Line Storage	This RTC project is proposed to utilize available capacity in the CSS capacity of a large sewer to provide flow control measures during wet weather events while allowing continuous dry weather underflow. The proposed project location is near Roslyn Street on Lang Avenue.	This RTC project is proposed to utilize available capacity within the collection system to detain flows until downstream capacity becomes available. Together with other LTCP projects, this project is projected to reduce CSO 053 discharges to Scajaquada Creek based on the TY to 4 activations.
Kay In-Line Storage	This RTC project, now known as Hazelwood, is proposed to utilize available capacity in the CSS capacity of a large sewer to provide flow control measures during wet weather events while allowing continuous dry weather underflow. The proposed project location is on Hazelwood Avenue between East Delavan and Easton Avenues.	This RTC project is proposed to utilize available capacity within the collection system to detain flows until downstream capacity becomes available. Together with other LTCP projects, this project is projected to reduce CSO 053 discharges to Scajaquada Creek based on the TY to 4 activations.
Amherst Quarry Off-Line Storage	This RTC project proposes to utilize available capacity in the CSS capacity within the inactive Amherst Quarry to provide flow control measures during wet weather events, once downstream capacity is available, flows will then be pumped back into the system. The Amherst Quarry is located in an area bounded by Parkridge Avenue, East Amherst Street, and Hewitt Avenue.	This RTC project is proposed to utilize available capacity of the quarry to detain flows until downstream capacity becomes available. Together with other LTCP projects, this project is projected to reduce CSO 053 discharges to Scajaquada Creek based on the TY to 4 activations.

Project Name	Project Description	Project Purpose*
Fillmore North In- Line Storage	This RTC project is proposed to utilize available capacity in the CSS capacity of a large sewer to provide flow control measures during wet weather events while allowing continuous dry weather underflow. This project is proposed to be located on Fillmore Avenue, however pending the results of post-construction monitoring, it may be eliminated depending on the efficacy of the Smith Street Storage project.	This RTC project is proposed to utilize available capacity within the collection system to detain flows until downstream capacity becomes available. Together with other LTCP projects, this project is projected to reduce CSO 026 discharges to the Buffalo River based on the TY to 3 activations.
Gibson CSO Line Storage	This project is proposed to utilize the available capacity of the CSO pipe downstream of the SPP, but before the discharge point or outfall. It would be designed to convey water to prevent surface flooding and overflows through upstream SPPs. Once the storm event has subsided, it would be designed to dewater back into the combined system. The dewatering rate would be controlled so that it would not cause overflows downstream from the control structure. The proposed project location is on Gibson Street, however pending the results of post-construction monitoring, it may be eliminated depending on the efficacy of the Smith Street Storage project.	This RTC project is proposed to utilize available capacity within the collection system to detain flows until downstream capacity becomes available. Together with other LTCP projects, this project is projected to reduce CSO 026 discharges to the Buffalo River based on the TY to 3 activations.

Project Name	Project Description	Project Purpose*
Montgomery CSO Line Storage	This project is proposed to utilize the available capacity of the CSO pipe downstream of the SPP, but before the discharge point or outfall. It would be designed to convey water to prevent surface flooding and overflows through upstream SPPs. Once the storm event has subsided, it would be designed to dewater back into the combined system. The dewatering rate would be controlled so that it would not cause overflows downstream from the control structure. The proposed project location is along the railroad right-of-way near Montgomery Street, however pending the results of post-construction monitoring, it may be eliminated depending on the efficacy of the Smith Street Storage project.	This RTC project is proposed to utilize available capacity within the collection system to detain flows until downstream capacity becomes available. Together with other LTCP projects, this project is projected to reduce CSO 026 discharges to the Buffalo River based on the TY to 3 activations.
Foundation 4 - Hamburg Drain Optimizations	This project will entail several in-system optimizations, e.g. rerouting of flows, installation of weirs, partial sewer separations etc. and/or green infrastructure to reduce the overflow events at a number of upstream SPPs in order to control flows through CSOs 017, 022, and 064. These optimizations would be located within the Hamburg Basin.	These optimization projects are proposed to increase the flow volume conveyed by the CSS upstream of the SPPs and diverting stormwater flows out of the CSS thereby decreasing CSO 017, 022, and 064 discharges. Together with other LTCP projects, this project is projected based on the TY to reduce discharges to the Buffalo River through CSO 017 to 4 activations, CSO 022 to 5 activations, and CSO 064 to 3 activations.
Foundation 4 - Hamburg Drain Storage	Together with the Hamburg Drain Optimizations, this project would be designed to provide the equivalent of 5 MG of offline storage. This facility would be located within the Hamburg Basin and may involve the installation of RTCs.	This storage project is proposed to provide off-line storage thereby decreasing CSO 017, 022, and 064 discharges. Together with other LTCP projects, this project is projected based on the TY to reduce discharges to the Buffalo River through CSO 017 to 4 activations, CSO 022 to 5 activations, and CSO 064 to 3 activations.

Project Name	Project Description	Project Purpose*
Green Infrastructur	e Projects	
Green 1 - Pilot Projects – 267- acres of GI control SEE DETAILS FOLLOWING FOR SPECIFIC PROJECTS	Projects consist of multiple green infrastructure projects that will overlap in engineering and construction.	In general, this phase is designed to control stormwater flow from 267 acres of impervious area in the various sewer sheds within the targeted areas.
2001-2013 Demolitions	This project consists of the demolition of vacant houses thereby replacing impervious with pervious surfaces.	This project is designed to control stormwater flow from 354 total acres of impervious area.
2014-2018 Demolitions	This project consists of the demolition of vacant houses thereby replacing impervious with pervious surfaces. In addition, the BSA is piloting alterations to the City of Buffalo's demolition specifications to allow for the use of modified rain gardens to increase onsite infiltration.	This project is designed to control stormwater flow from 50 total acres of impervious area.
PUSH Blue Projects	PUSH-Buffalo will install rain gardens, porous pavement and a green roof and distribute rain barrels within the CSO 012 sewershed.	This project is designed to control stormwater flow from 1 acre of impervious area.
Carlton Street Porous Asphalt	This project consisted of the installation of pervious pavement to retain stormwater from the area tributary to the Right-of-Way on Carlton Street between Michigan and Jefferson Avenues in the City of Buffalo as part of the City's streetscape project.	This project is designed to control stormwater flow from a 5.9 acre sewershed.

Project Name	Project Description	Project Purpose*
Fillmore Avenue Porous Parking Lots and Green Lots	This project consisted of the installation of porous pavement parking lots and modified rain gardens to retain stormwater from the area tributary to the Right-of-Way of Fillmore Avenue in the City of Buffalo as part of the City's streetscape project.	This project is designed to control stormwater flow from 0.4 total acres of impervious area.
Ohio Street	This project consisted of the installation of green infrastructure to retain stormwater from the area tributary to the Right-of-Way on Ohio Street in the City of Buffalo as part of the City's streetscape project.	This project is designed to control stormwater flow from 6.1 total acres of impervious area.
Kenmore Avenue	This project consists of the installation of green infrastructure to retain stormwater from the area tributary to the Right-of-Way on Kenmore Avenue in the City of Buffalo as part of the City's streetscape project.	This project is designed to control stormwater flow from 5.17 total acres of impervious area.
Genesee Gateway Project	This project consists of the installation of green infrastructure to retain stormwater from the area tributary to the Right-of-Way on Genesee Street in the City of Buffalo as part of the City's streetscape project.	This project is designed to control stormwater flow from 2.8 total acres of impervious area.
Allen Street	This project will consist of the installation of green infrastructure to retain stormwater from the area tributary to the Right-of-Way for the portion of Allen Street between Main Street and Elmwood Avenue in the City of Buffalo as part of the City's streetscape project.	This project is designed to control stormwater flow from 2.5 total acres of impervious area.
Niagara Street Phase 1: Elmwood Street to Virgina Street	This project consists of the installation of green infrastructure to retain stormwater from the area tributary to the Right-of-Way for the length of Niagara Street in the City of Buffalo as part of the City's streetscape project.	This project is designed to control stormwater flow from 2 total acres of impervious area.

Project Name	Project Description	Project Purpose*
Niagara Street Phase 2: Virgina Street to Porter Avenue	This project consists of the installation of green infrastructure to retain stormwater from the area tributary to the Right-of-Way for the length of Niagara Street in the City of Buffalo as part of the City's streetscape project.	This project is designed to control stormwater flow from 7.3 total acres of impervious area.
Niagara Street Phase 4: Porter Avenue to Ontario Street	This project consists of the installation of green infrastructure to retain stormwater from the area tributary to the Right-of-Way for the length of Niagara Street in the City of Buffalo as part of the City's streetscape project.	This project is designed to control stormwater flow from 15 total acres of impervious area in MS4 drainage areas and 25.5 in CSO drainage areas.
Green 2 – 410 acres of GI Control	These projects will consist of multiple green infrastructure projects that will overlap in engineering and construction. Details will be provided in the Phase 2 Green Infrastructure Master Plan.	In general, these projects would be designed to retain stormwater flow from 410 acres of impervious area in the various sewer sheds in the targeted areas.
Green 3 – 375 acres of GI Control	These projects will consist of multiple green infrastructure projects that will overlap in engineering and construction. Details will be provided in the Phase 2 Green Infrastructure Master Plan.	In general, these projects would be designed to retain stormwater flow from 375 acres of impervious area in the various sewer sheds in the targeted areas.
Green 4 – 263 acres of GI Control	These projects will consist of multiple green infrastructure projects that will overlap in engineering and construction. Details will be provided in the Phase 2 Green Infrastructure Master Plan.	In general, these projects would be designed to retain stormwater flow from 263 acres of impervious area in the various sewer sheds in the targeted areas.
<u>WWTP</u>		
WWTP Improvement Project Alternative C2	The proposed project is expected to rehabilitate the existing primary clarifiers by adding high rate disenfection and provide additional secondary clarifiers at the Bird Island WWTP.	This project would be designed to provide treatment of wet weather flows and increased secondary treatment capacity.

Project Name	Project Description	Project Purpose*
Gray Projects		
CSOs 014/15 – Erie Basin In-line storage and optimization projects SEE DETAILS FOLLOWING FOR SPECIFIC PROJECTS		
SPPs 206A&B	A new 113,000 gallon in-line storage facility was constructed in association with SPPs 206A&B to reduce CSOs at CSO 014. This site is located at Trenton Road/ Village Court north east of Fourth Street.	This project was designed to provide in-line storage thereby decreasing CSO 014 discharges through SPPs 206A&B. Together with other LTCP projects, this project is projected based on the TY to reduce discharges to the Erie Basin through CSO 014 to 2 activations.
SPP 035	the Genesee Trunk and Swan Trunk sewers to create additional	This project was designed to provide in-line storage thereby decreasing CSO 015 discharges through SPP 35. Together with other LTCP projects, this project is projected based on the TY to reduce discharges to the Erie Basin through CSO 015 to 0 activations.
SPP 036	This project consisted of the reconstruction of 35' of 30" sewer associated with SPP 036 to reverse the slope. This site is located on Church Street between the off and on ramps of the Skyway bridge (State Route 5).	This sewer reconstruction project was designed to increase the underflow capacity of the CSS thereby decreasing CSO 015 discharges. Together with other LTCP projects, this project is projected based on the TY to reduce discharges to the Erie Basin through CSO 015 to 0 activations.

Project Name	Project Description	Project Purpose*
CSO 013 – Satellite	CSO 013 is located at the extension of Virginia Street into the Black	This storage project would provide off-line storage thereby decreasing CSO
storage,	Rock Canal, the structure is tentatively planned to be built between	013 discharges. Preliminary design is for a 0.3 MG offline storage facility.
conveyance, FM &	the last SPP structure and the Canal. The proposed satellite storage	Together with other LTCP projects, this project is projected based on the TY
PS	facility would consist of a covered, concrete, underground tank.	to reduce discharges to the Black Rock Canal through CSO 013 to 4 activations.
North Relief – Interceptor	The original conception of this project was of a deep tunnel relief sewer to run in the vicinity of Niagara Street between Bird Avenue and Albany Street with an additional line connecting the tunnel to the WWTP influent siphon. Preliminary design is for 5,310' of 96"pipe and 571' of 120" pipe. Due to site constraints this project may be redesigned.	The purpose of this project is to reduce discharges through CSOs 004, 011, and 012, by creating a new relief sewer thereby creating offline storage capacity capacity in the CSS. Together with other LTCP projects, this project is projected based on the TY to reduce discharges to the Black Rock Canal through CSO 004 to 3 activations, CSO 011 to 4 activation, and CSO 012 to 2 activations.
061, 004 –	This project will consist of upsizing of underflow piping to maximize flow to the interceptors. This project is tentatively proposed for between Breckenridge Street and Brace Street along the I-190 with an extension along Brace Street across Niagara Street.	This underflow capacity upsizing project would increase the capacity of the CSS thereby decreasing CSO 010, 008, 061 and 004 discharges. Together with other LTCP projects, this project is projected based on the 1993 Modified Typical Year to reduce discharges to the Black Rock Canal through CSO 004 to 3 activations, CSO 010 to 1 activations, CSO 008 to 0 activations, and CSO 061 to 4 activations.
 Satellite storage, 	SPP 337 is located at Colorado Street North of Scajaquada Street. The proposed satellite storage facility would consist of a covered, concrete, underground tank.	The purpose of this project is to reduce discharges through CSO 53 to the Scajaquada Creek. Preliminary design is for a 0.7 MG off-line storage facility. Together with other LTCP projects, this project is projected reduce CSO discharges to Scajaquada Creek based on the TY to 4 activations.
SPP 336A&B (CSO 053) – Satellite storage, conveyance, FM & PS	SPP 336A&B are located on Humboldt Parkway on each side of the Scajaquada Drain. The proposed satellite storage facility would consist of a covered, concrete, underground tank.	The purpose of this project is to reduce discharges through CSO 53 to the Scajaquada Creek. Preliminary design is for a 4.2 MG off-line storage facility. Together with other LTCP projects, this project is projected reduce CSO discharges to Scajaquada Creek based on the TY to 4 activations.

Project Name	Project Description	Project Purpose*
Jefferson Avenue & Florida Street (CSO 053) – Satellite storage, conveyance and FM	The proposed location for this facility is in the vicinity of the intersection of Jefferson Avenue and Florida Street. The proposed satellite storage facility would consist of a covered, concrete, underground tank.	The purpose of this project is to reduce discharges through CSO 53 to the Scajaquada Creek. Preliminary design is for a 2.6 MG off-line storage facility. Together with other LTCP projects, this project is projected reduce CSO discharges to Scajaquada Creek based on the TY to 4 activations.
storage,	For CSO 055, the proposed storage facility would be located upstream of the regulator, near Military Road. At this location, an offline facility would be constructed and flows above 26 MGD (instantaneous peak) would be diverted from the South Hertel Trunk sewer into the storage facility. The proposed satellite storage facility would consist of a covered, concrete, underground tank.	The purpose of this project is to reduce discharges through CSO 55 to the Niagara River. Preliminary design is for a 7.5 MG off-line storage facility. Together with other LTCP projects, this project is projected reduce CSO discharges to the Niagara River through CSO 55 based on the TY to 9 activations.
	The proposed location for this facility is underneath the Tops parking lot between South Park Avenue and the Buffalo River. The proposed satellite storage facility would consist of a covered, concrete, underground tank.	The purpose of this project is to reduce discharges through CSO 28 to the Buffalo River and through CSOs 047 and 044 to Cazenovia Creek. Preliminary design is for a 2.3 MG off-line storage facility. Together with other LTCP projects, this project is projected reduce CSO discharges based on the TY to 6 activations through CSO 028, 2 activations through CSO 044 and 3 activations through CSO 047.
_	The proposed location for this facility is in the vicinity of South Ogden Street between Mineral Springs Road and Cazenovia Creek. The proposed satellite storage facility would consist of a covered, concrete, underground tank.	The purpose of this project is to reduce discharges through CSO 52 to the Buffalo River. Preliminary design is for a 0.6 MG offline storage facility. Together with other LTCP projects, this project is projected reduce CSO discharges to the Buffalo River through CSO 052 based on the TY to 3 activations.

Project Name	Project Description	Project Purpose*
CSO 064 – Satellite	The proposed location for this facility is in the vicinity of the	The purpose of this project is to reduce discharges through CSO 064 to the
storage,	confluence of Ohio, Louisiana and Saint Claire Streets. The proposed	Buffalo River. Preliminary design is for a 0.1 MG off-line storage facility.
conveyance, FM &	satellite storage facility would consist of a covered, concrete,	Together with other LTCP projects, this project is projected reduce CSO
PS	underground tank.	discharges to the Buffalo River through CSO 064 based on the TY to 3
		activations.

*Note: Black Rock Canal Performance Criterion is 4 Activations in the Typical Year Buffalo River Performance Criterion is 6 Activations in the Typical Year Cazenovia Creek - B Performance Criterion is 4 Activations in the Typical Year Cazenovia Creek - C Performance Criterion is 6 Activations in the Typical Year Erie Basin Performance Criterion is 2 Activations in the Typical Year Niagara River Performance Criterion is 9 Activations in the Typical Year Scajaquada Creek - Performance Criterion is 4 Activations in the Typical Year

Attachment D to the Semi-Annual Status Report: March 2017

Public Meeting Materials



Agenda

Project: Buffalo Sewer Authority Ref. no: 630867

CSO No. 026 RTC Structure

Subject: Public Informational Meeting Agenda

Venue Field Office Site – 5 Clifford Street

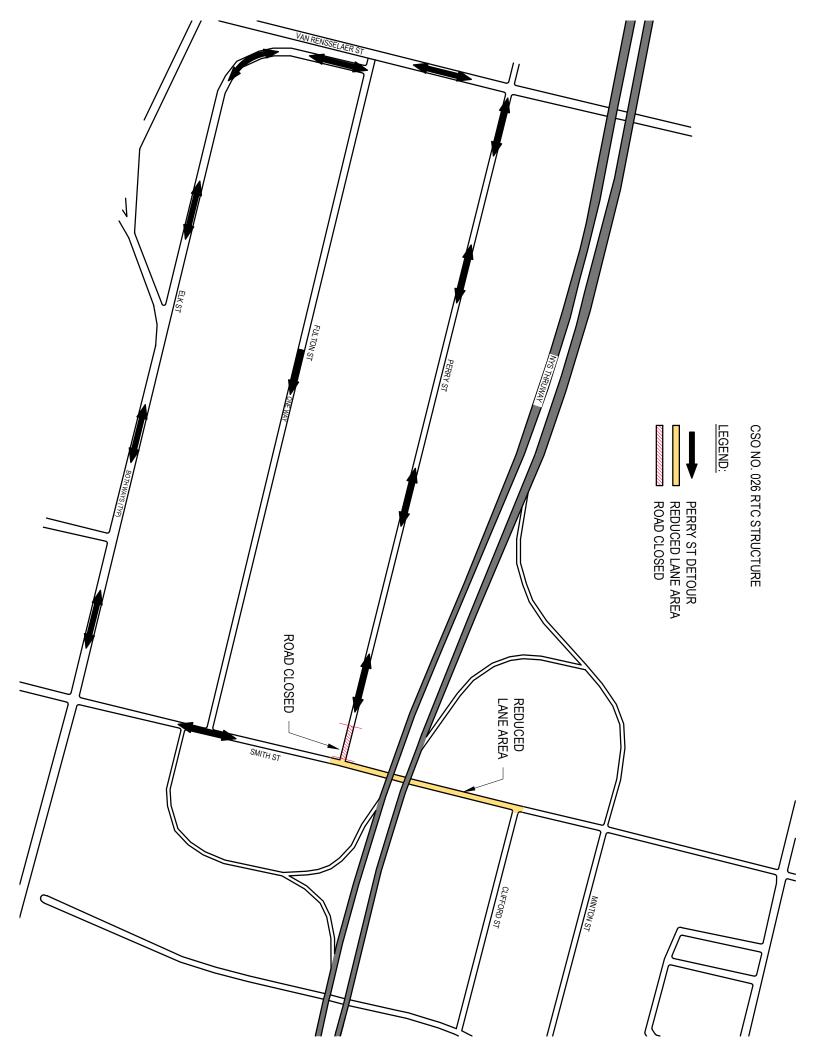
Date/Time: Thursday, August 11, 2016 at 11:00 a.m.

Agenda Item

1. Introductions

- 2. Project Description and Schedule
- 3. Traffic Detour
- 4. Public Safety
- 5. Questions / Contacts





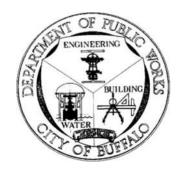




Welcome & Introduction

Michael J. Finn, P.E.

City Engineer





Summary of Public Outreach to Date



- **Ground the work** in established principles

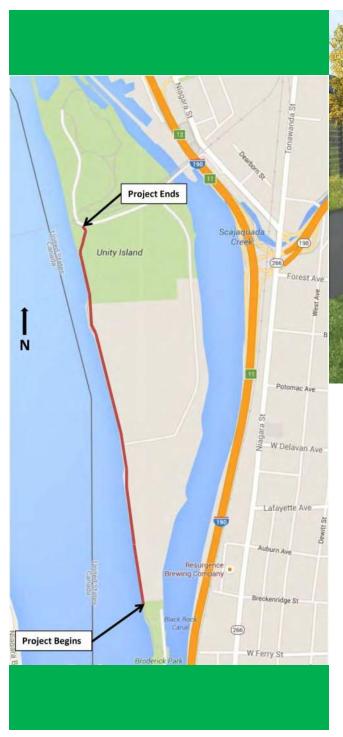
 December 2015
- **Survey** residents, business owners, and stakeholders December 2015 January 2016
- Community Workshops to re-imagine the streetscape February 2016
- Summarize Feedback for the designers, engineers and community in a Vision Document March 2016
- Identify Priorities
 April 2016
- Preliminary Design Update Summer 2016

Website: www.NiagaraStreetNow.org

Tonight's Objectives

- Shoreline Trail Project update
- Update on design progress
- Presentation of landscaping possibilities at property frontage
- Update on project cost, budget and schedule
- After presentation, discuss visuals on display and have questions answered with the design team
- Opportunity to select a landscaping option at <u>your</u> property







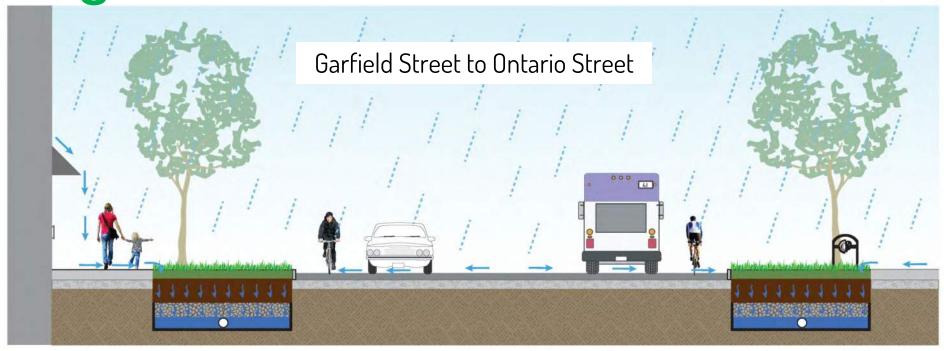
Shoreline Trail

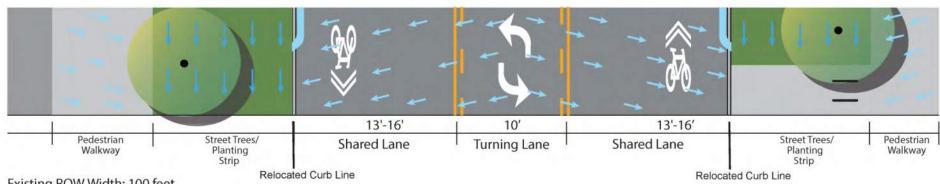
- Formal award to contractor February 2017
- Begin construction Spring 2017

Niagara Street Phases 3 & 4

Ontario Street to Porter Avenue

Niagara Street Section





Existing ROW Width: 100 feet

Existing Curb-to-Curb Width: 50 - 58 feet Proposed Curb-to-Curb Width: 42 feet

Niagara Street

Arthur Street intersection looking north

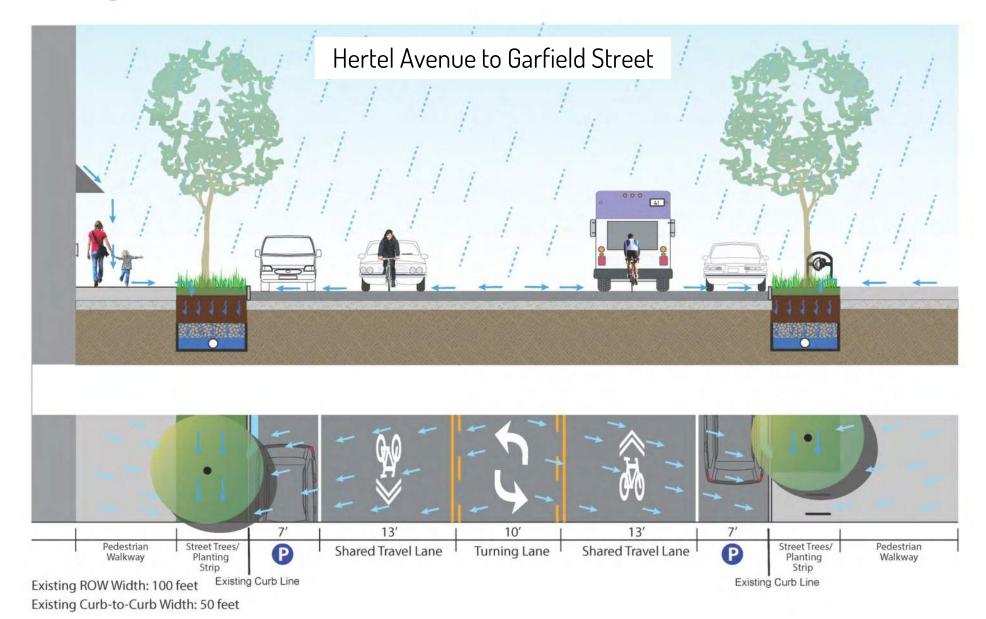


Niagara Street

Arthur Street intersection looking north



Niagara Street Section



Niagara Street

Looking south at 1660 Niagara Street



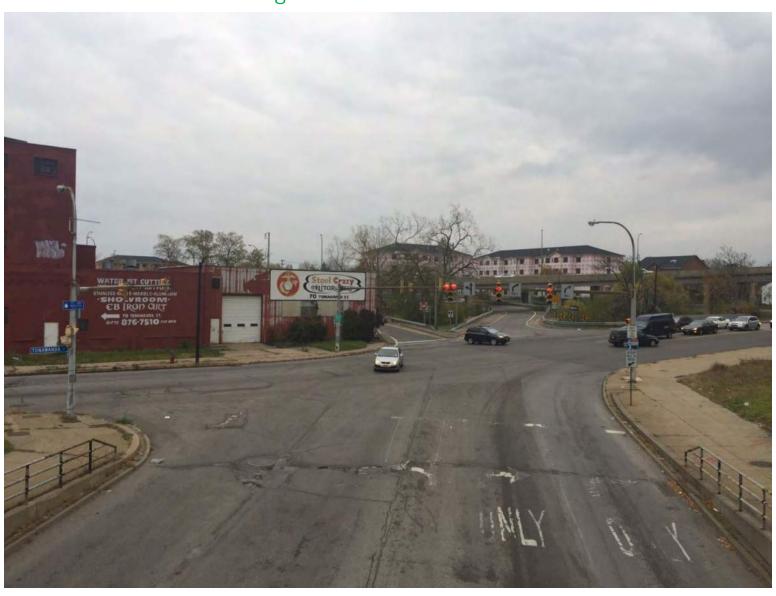
Niagara Street

Looking south at 1660 Niagara Street



Niagara Street

Tonawanda Street intersection looking south



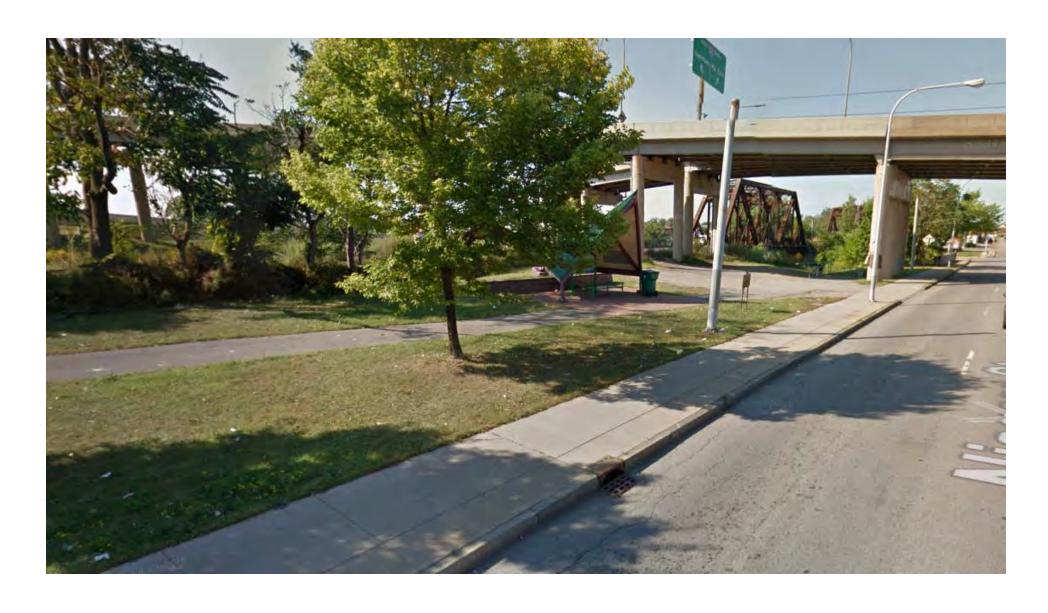
Niagara Street

Tonawanda Street intersection looking south



Niagara Street

Northbound Niagara beneath Route 198 Viaduct looking west



Niagara Street

Northbound Niagara beneath Route 198 Viaduct looking west



Niagara Street

Southbound Niagara beneath Route 198 Viaduct looking west

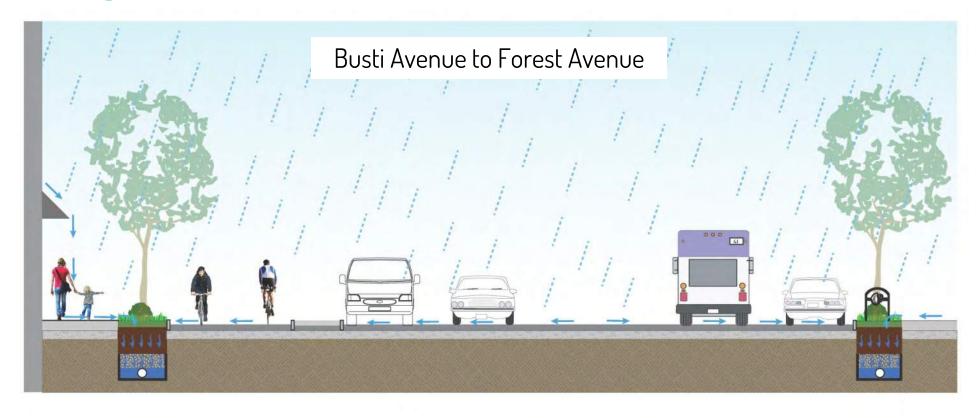


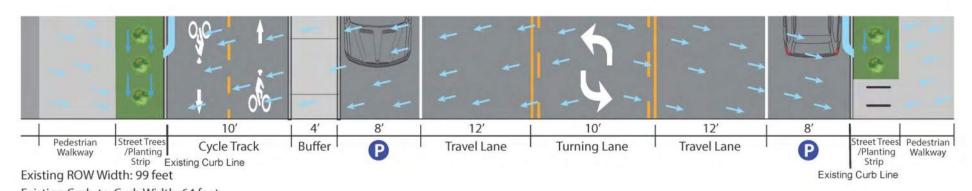
Niagara Street

Southbound Niagara beneath Route 198 Viaduct looking west



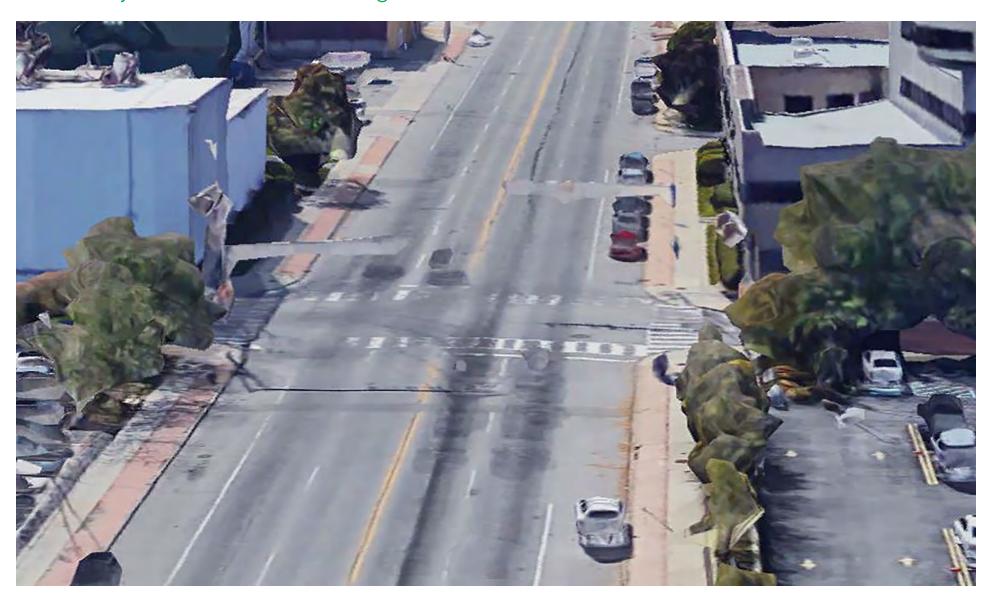
Niagara Street Section





Niagara Street

West Ferry Street intersection looking south



Niagara Street

West Ferry Street intersection looking south



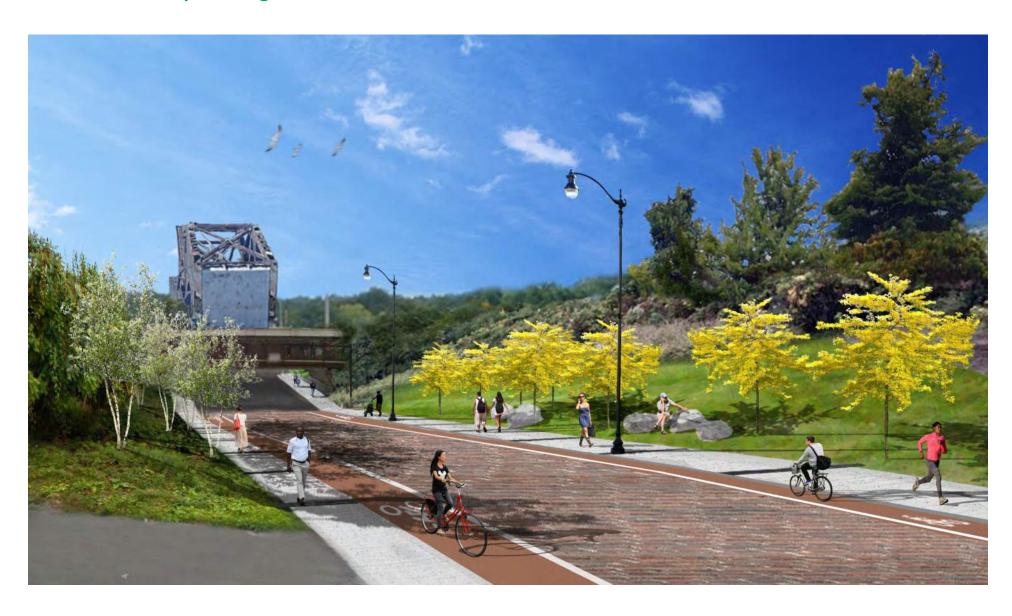
Niagara Street

Robert Rich Way looking west



Niagara Street

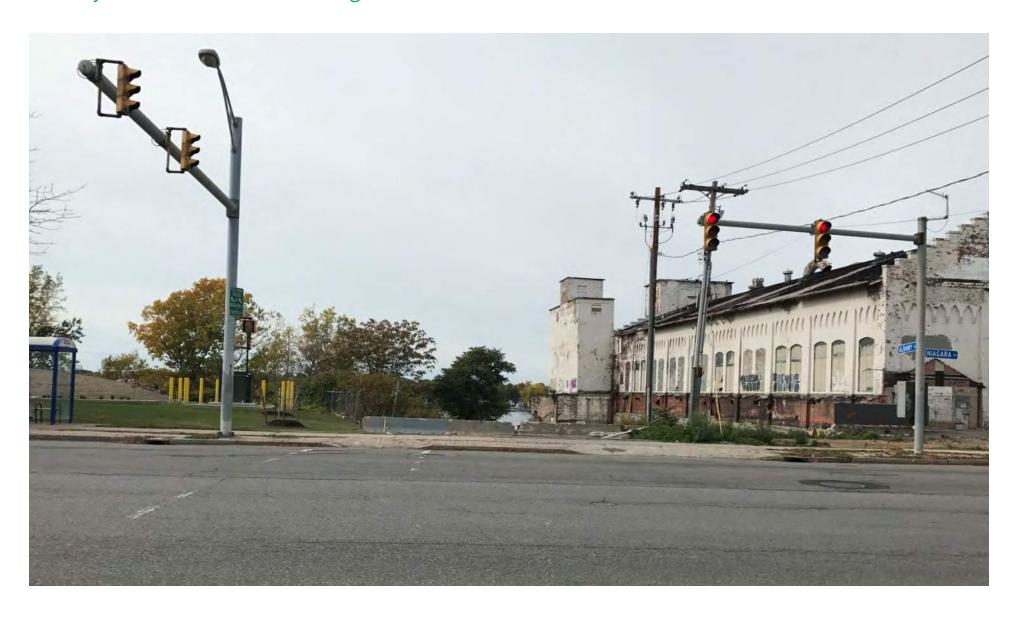
Robert Rich Way looking west



Existing

Niagara Street

Albany Street intersection looking west



Proposed

Niagara Street

Albany Street intersection looking west



Existing

Niagara Street

Busti Street intersection looking north



Proposed

Niagara Street

Busti Street intersection looking north



Existing

Niagara Street

Triangle between Busti, Hampshire and Niagara looking west



Proposed

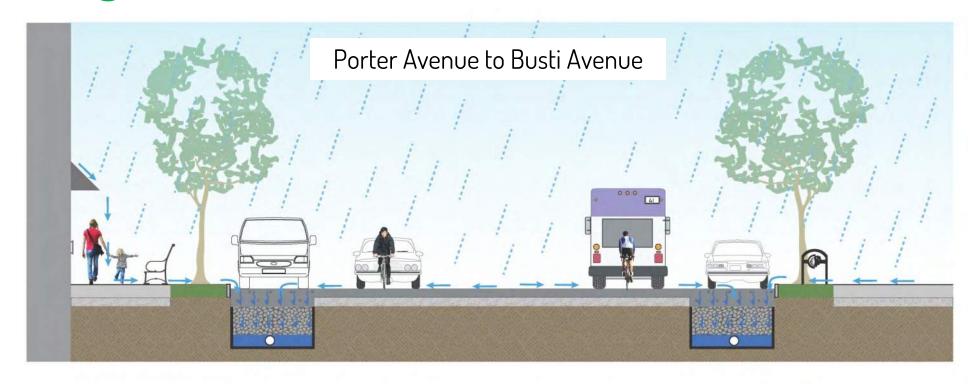
Niagara Street

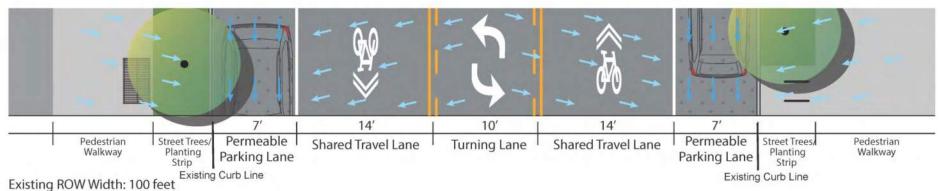
Triangle between Busti, Hampshire and Niagara looking west



Proposed

Niagara Street Section





Existing Curb-to-Curb Width: 52 feet



Green Infrastructure

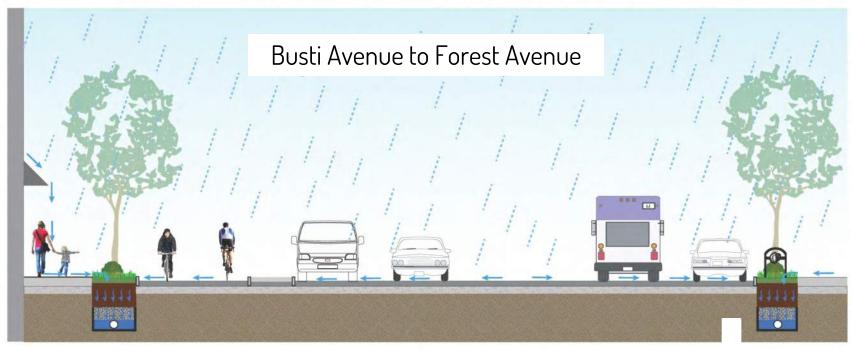
Julie Barrett O'Neill

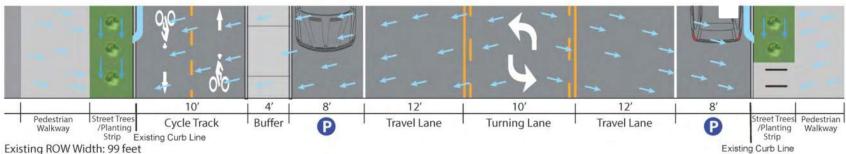
General Counsel Buffalo Sewer Authority



Green Infrastructure





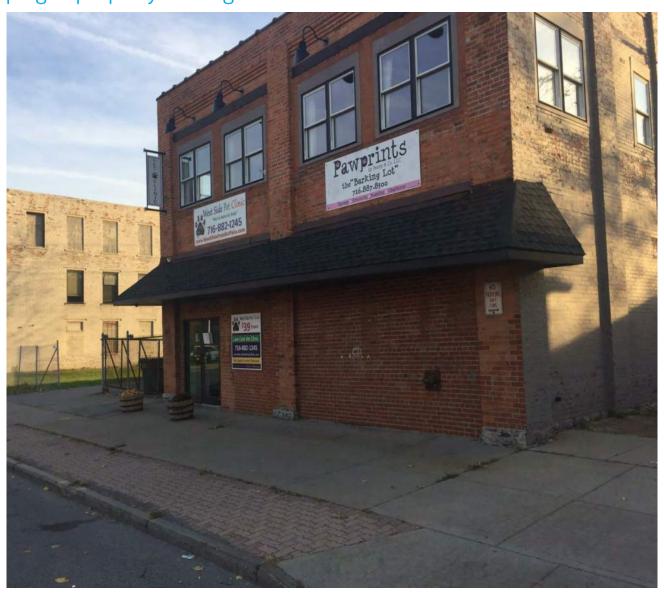


Existing ROW Width: 99 feet

Existing Curb-to-Curb Width: 64 feet

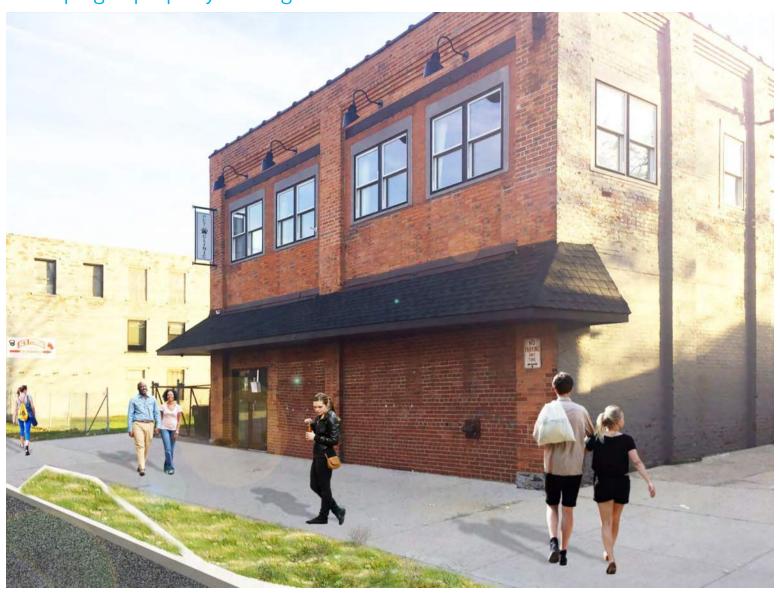
Existing

Niagara Street



Proposed - Option 1 (turf)

Niagara Street



Proposed - Option 2 (hardscape)

Niagara Street



Proposed - Option 3 (garden 1)

Niagara Street



Proposed - Option 4 (garden 2)

Niagara Street



Proposed - Option 5 (garden 3)

Niagara Street



Project Cost Estimate

	ļ	BSA		DPW		Total	
Construction Item							
Paving				\$	1,550,000	\$	1,550,000
Sidewalks, Driveways and Snow Storage				\$	1,700,000	\$	1,700,000
Curb				\$	200,000	\$	200,000
Bump Outs/Road Diet		\$	50,000	\$	1,150,000	\$	1,200,000
Signals				\$	1,600,000	\$	1,600,000
Drainage Structures		\$	1,100,000			\$	1,100,000
Green Infrastructure Stormwater Controls							
- Permeable Pavement (Porter to Busti)		\$	1,800,000			\$	1,800,000
- Stormwater Planters (Busti to Ontario)		\$	2,200,000			\$	2,200,000
- Plantings		\$	500,000			\$	500,000
Trees				\$	275,000	\$	275,000
Public Art				\$	65,000	\$	65,000
Robert Rich Way				\$	510,000	\$	510,000
Amenities (wayfinding signage, street furniture, etc.)				\$	750,000	\$	750,000
Signs, Striping, & Other Essential Work				\$	750,000	\$	750,000
Lighting				\$	2,900,000	\$	2,900,000
Cycle Track				\$	2,500,000	\$	2,500,000
Survey				\$	200,000	\$	200,000
Work Zone Traffic Control (WZTC)				\$	500,000	\$	500,000
Field Change				\$	700,000	\$	700,000
Mobilization				\$	500,000	\$	500,000
Construction Inspection & Administration				\$	2,800,000	<u>_</u> \$	2,800,000
	TOTALS	\$	5,650,000	\$	18,650,000	<u>:</u> \$	24,300,000

Available Funding

Federal	USDOT	\$7,300,000
	EPA	\$400,000
State	LWRP	\$4,200,000
	CFA Award 2013	\$510,000
	DASNY	\$2,900,000
	NYSERDA	\$1,500,000
	WQIP	\$937,500
Local	City of Buffalo	\$1,720,000
	Buffalo Sewer Authority	\$4,712,500
	TOTALS	\$24,180,000
	COST VS. FUNDING DIFFERENTIAL	-\$120,000

Project Schedule

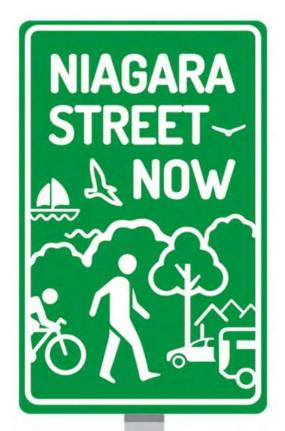
Design approval (including finalized environmental review)
January 2017

Final design presented to the public February/March 2017

Ready for Bid April 2017

Anticipated Construction Start July 2017

Anticipated Construction CompletionSpring 2019



Next Steps

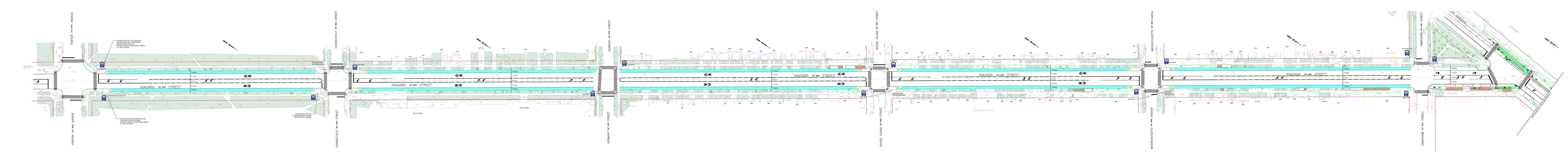
NIAGARA

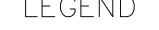
Review & offer feedback on **Design Progress**

- Discuss visuals on display and have questions answered with the design team following this presentation
- Select a landscaping option at **your** property
- Give feedback on available comment sheets or on the <u>NiagaraStreetNow.org</u> website over the next week

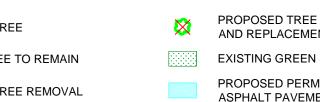


PRELIMINARY DESIGN PLANS



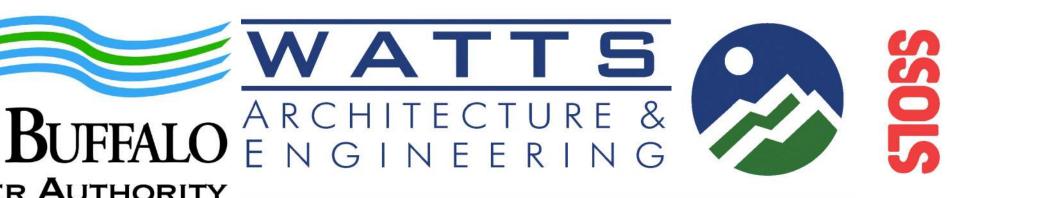


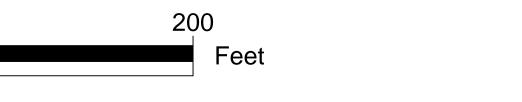




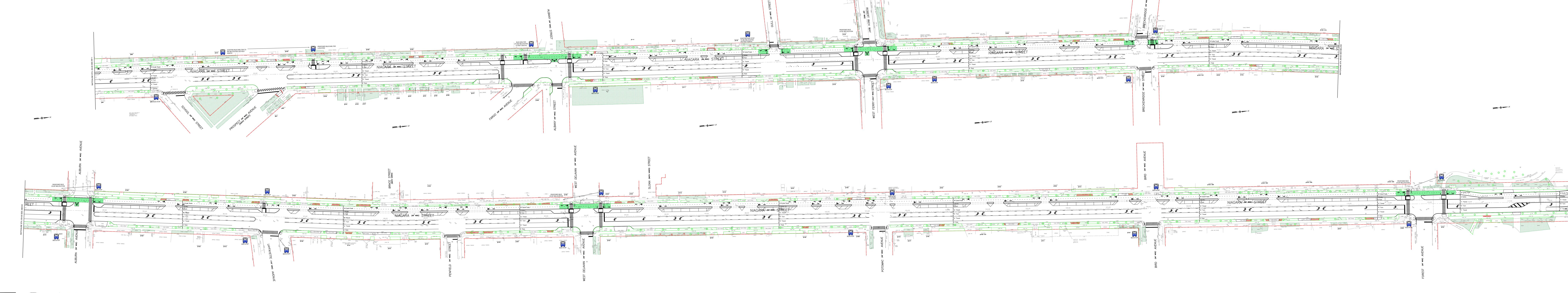




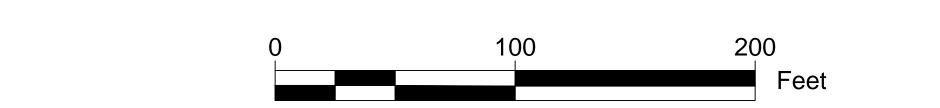


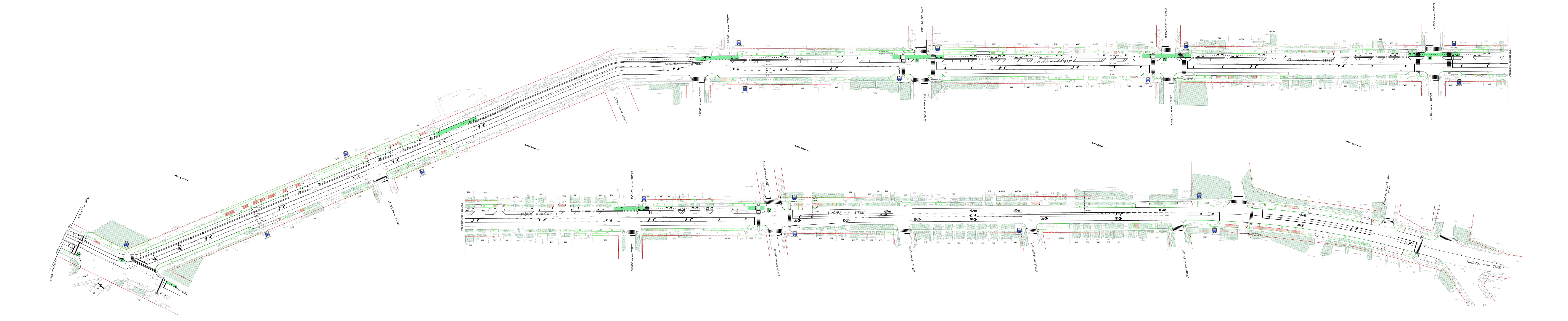




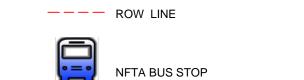














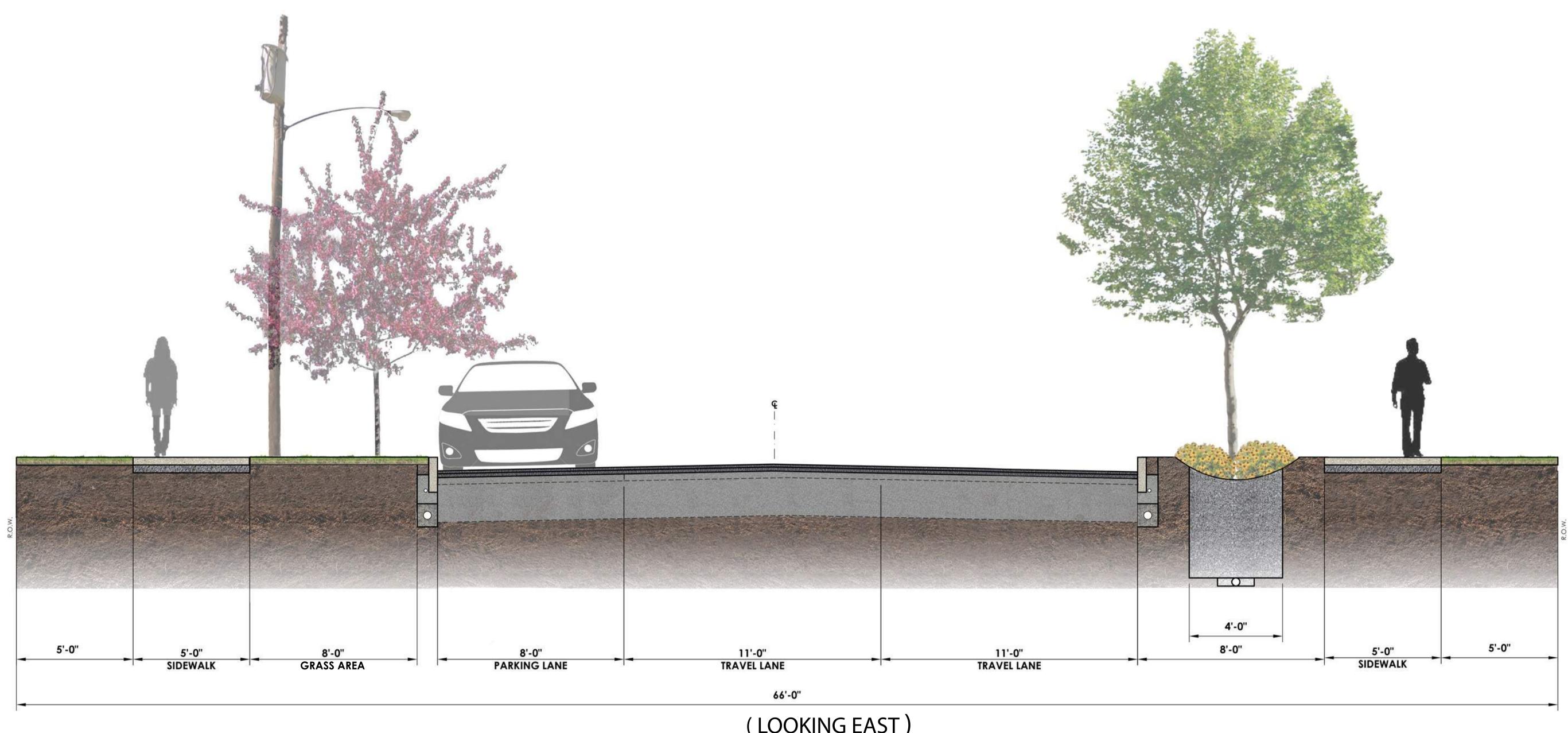




NIAGARA STREET PHASES 3 & 4 DECEMBER 2016

NORTHLAND AVENUE REHABILITATION / STREETSCAPE

FILLMORE AVENUE TO GRIDER STREET



(LOOKING EAST)

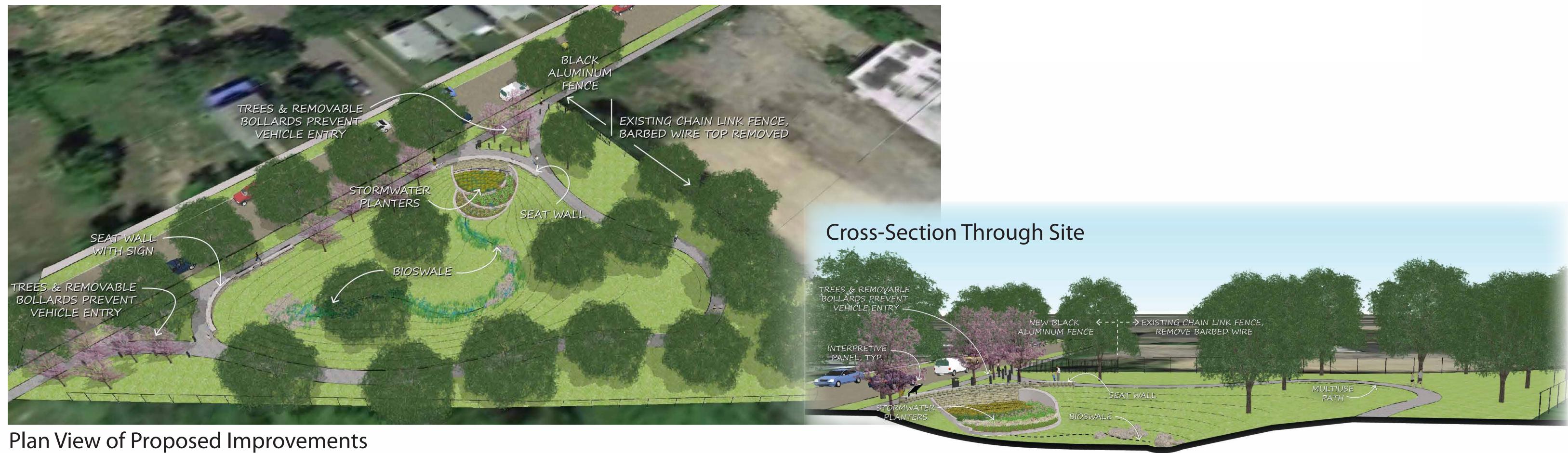








577 NORTHLAND AVENUE: Green Infrastructure Design Concept



















NORTHLAND CORRIDOR REDEVELOPMENT AND WORKFORCE TRAINING CENTER

STAKEHOLDERS ADVISORY COMMITTEE

Wednesday, September 28, 2016; 10:30 AM

AGENDA

- 1. Welcome & Introductions Hon. Ulysees O. Wingo, Sr.
- 2. Restore NY Grant Application (D. Stebbins)
- 3. Northland Avenue Street Improvements (J. Bidell)
- 4. Northland Corridor Campus Plan (D. Naetzker)









WILLERT PARK GREEN INFRASTRUCTURE

Project Kickoff & Walking Tour October 15th, 2016



Oluwole A. McFoy, P.E. General Manager

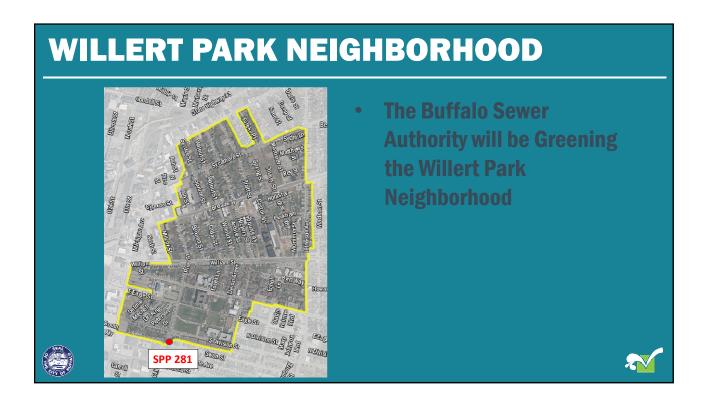


WELCOME & INTRODUCTIONS

Oluwole A. McFoy, PE
 General Manager of the Buffalo Sewer Authority







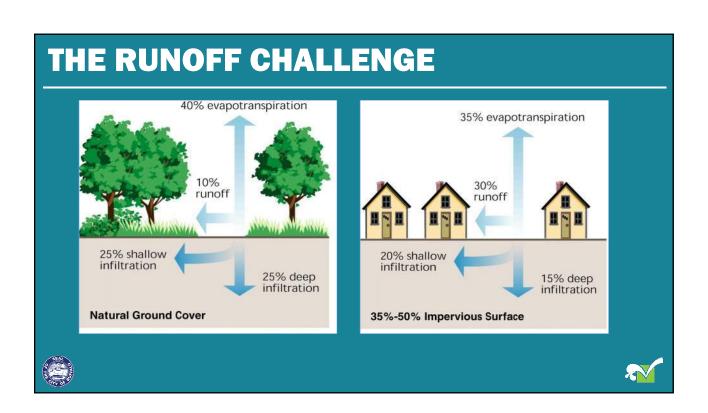


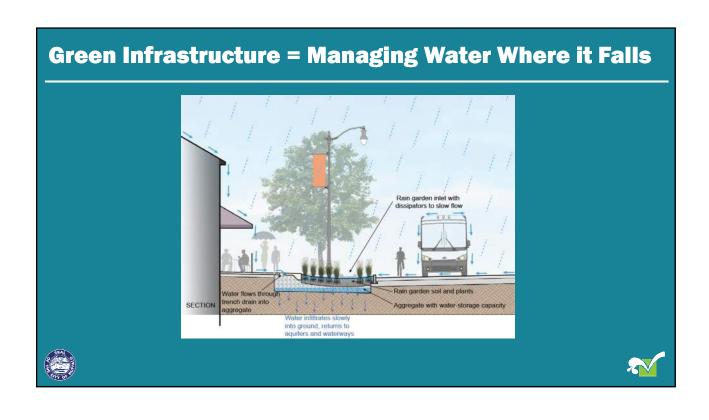
PROJECT SCHEDULE

- October 2016 January 2017
 Public Participation, Project Design
- January 2017 April 2017
 Bidding & Contracting
- May 2017
 Start Construction







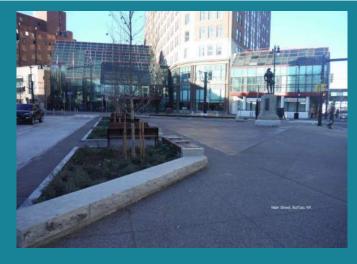








GREEN STREETS



Main & Genesee Street



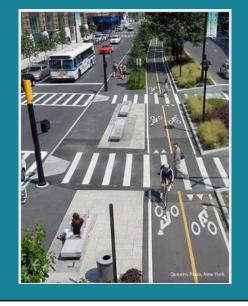
GREEN STREETS



Fillmore Avenue



GREEN STREETS



New York City



GREEN STREETS



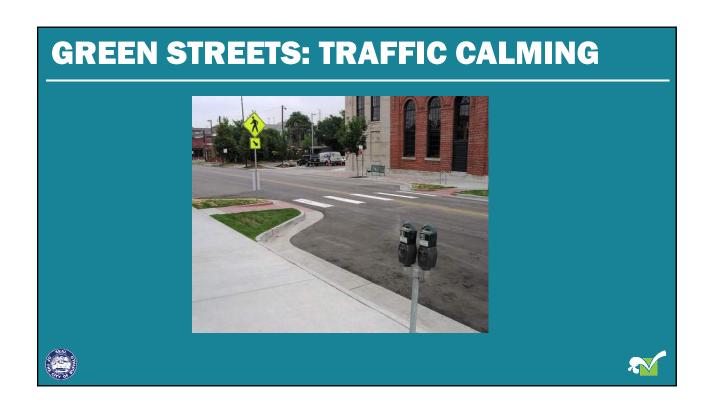
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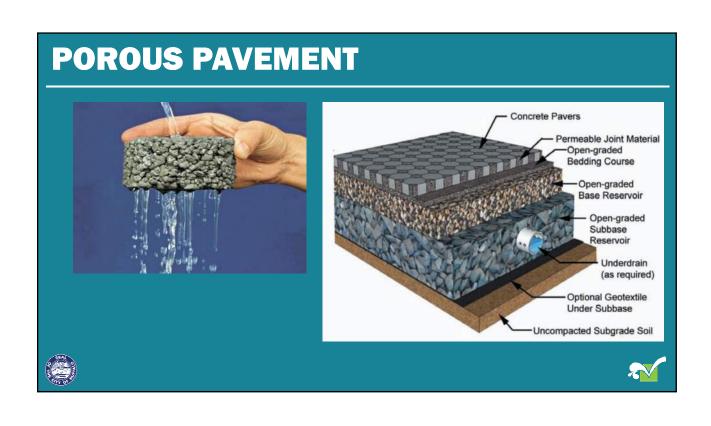








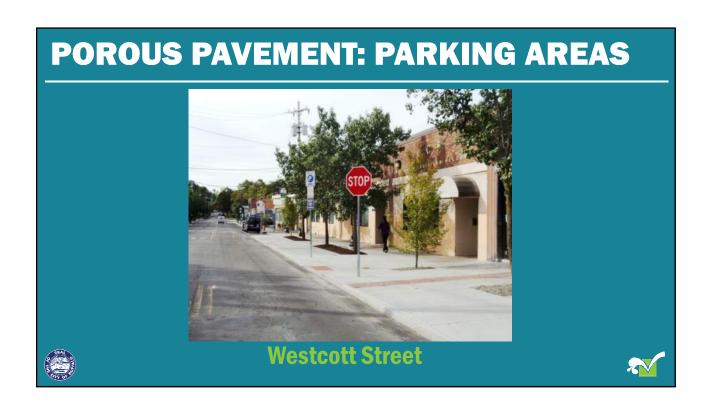






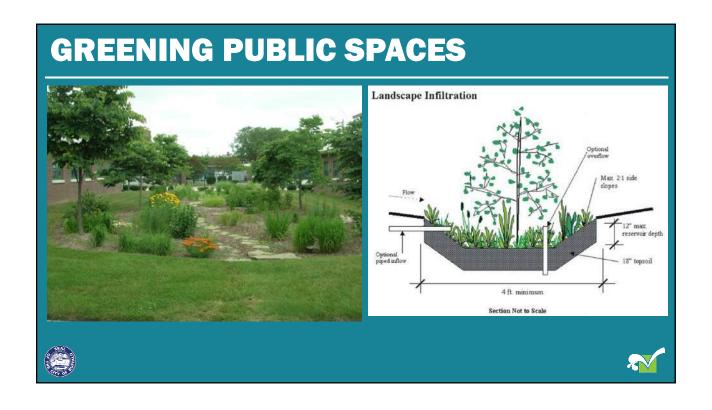






























Public Information Meeting Sign In Sheet

Sycamore Avenue Page 1 of 5

Project No.:

4786-01

BSA Pratt Willert Green Streets

Project Name:

October 15, 2016 9:30a-12:00p

Meeting Location: Mt. Aaron
Baptist Church

						<u> </u>
Dapust Church	E-mail Address	Bouc 1956 Gmai)			FN75819746)6May	D JENKS 2524(6) YAKUB
	Phone Number	7165188939		L951-h77-	1108 444	
	Address	S/O Jerson Lic	Roosevelt Ave.	398 Josepha 84	138 MORTIMER ST	540 GENESEE ST
	Name	William Brice	Thomas 2 ack	Brenda Spener	ERIK TARVER	
		~	7	က	4	5



Public Information Meeting Sign In Sheet

Sycamore Avenue Page 2 of 5

Project No.:

4786-01

BSA Pratt Willert Green Streets

Project Name:

October 15, 2016 9:30a - 12:00p

Meeting Location: Mt. Aaron
Rantist Church

3		-, '	٠		•	
Baptist Church	E-mail Address	seno PDF of Package! Addrygut@bullalo.edu	Kanstanley@ool. Con			
	Phone Number					
	Address	466 HIRKORG ST	Michigan St. Courador Office 11 Genesee Suite 401			
	Name	Ruth Bryand	Kaven Stenden - Tany			
		9	7	ω	o	10



Public Information Meeting Sign In Sheet

William Street Page 1 of 5

Project No.:

4786-01

BSA Pratt Willert Green Streets

Project Name:

October 15, 2016 1:30p - 4:00p

	Name	Address	Phone Number	E-mail Address
	Willia Brice	S10 Jellerson Due	7165788939	7165788939 Delle 1956.60ma.1
7	Shoonda Tules	265 William Sheet	186)381-8831	
ო	who was by make		114-468-914	116-897-9718 assembly, 900
4	EVA M. Doy Le	425 Emslie St	847-6010	ewriter 520 aol. com
5				

Public Information Meeting Sign-In Sheet

Page 1 of 5

Project No.:

4349-25

Project Name:

BSA Pratt Willert Green Streets

Date:

November 17, 2016 6:30p – 8:00p

	Name	Address	Phone Number	E-mail Address
1	Erie County Legislator Barbara Miller-Williams' office	427 William St	716-842-0490	bhwæerie.gov
2	Martin Kohn	29 Grey St	(716)472-0045	embrounce hot-
3	VElma J. Terguson	117 Sycamore St.	116 852-6801	
4	Theresa Toole	312 Sxcamore St.		
5	Ada Hopson. Clemons	101 Balcos Blud Aptius	316-5063	aheronnections of yahoo.com
6	Champagno Dair,	250 Hickory St	308-5817	Mooderso 1 Dingil. Duffe lastate edy

Public Information Meeting Sign-In Sheet

Page 2 of 5

Project No.:

4349-25

Project Name:

BSA Pratt Willert Green Streets

wendel

Date:

November 17, 2016 6:30p - 8:00p

	Name	Address	Phone Number	E-mail Address
7	CONOR DEVISERL	487 HICKORY	716-445-913	7 cdeubell@watts-ae.c
8	Chery (4. Jordan	261 William St	716-835-2271	Cherylcautions Ia road runner i com
9	LARRY J. STEPHENS	Se.		L BABYBLUE 446 YAHO. COM
10	Marlos Gordon		716-491-1598	Mrclg hodgea mon, com
11	Addre Mensel		716-903-8399	Kwakumens@gwaithm

Public Information Meeting Sign-In Sheet Page 3 of 5



Project No.:

Project Name:

4349-25

BSA Pratt Willert Green Streets

Date:

November 17, 2016 6:30p - 8:00p

	Name	Address	Phone Number	E-mail Address
12	Lahan Bron	268 Starken Buffulo My 1421	716578-2437	
13	DORIAN TY/ER	265 WILLIAM ST BUR N.Y. 14304		DDTYLER67@YAHOO.COM
14	KAREN GRANY			
15	Destiney Gareia	185 Hickory Ave 14204	716 3162248	
16	Rev. Feel Lilley	940 Brustages 14212	716-576-5573	FAGELSTY (a) Grand-E
17	Africant gruch	125 Michigan		tuckerd poyassembly

Public Information Meeting Sign-In Sheet

Page 4 of 5

Project No.:

4349-25

Project Name:

BSA Pratt Willert Green Streets

Date:

November 17, 2016 6:30p – 8:00p

	Name	Address	Phone Number	E-mail Address
18	Shoul Tyle	265 hillianst		divatec 4690 yahoo
19		407 PRATT ST) Stow 46 @ AGE TO
20	Michala Lanzrd	433 Pratt St		
21	MARK BOYD	425 MICHIGAN AVE., SUITE 107 14203	897-9714	BOYDMC NYASSEMBURGON
22	Teel Donnex	herdel		TDonner@WD-AE.Con

Public Information Meeting Sign-In Sheet

Page 5 of 5

Project No.:

4349-25

Project Name:

BSA Pratt Willert Green Streets



Date:

November 17, 2016

6:30p - 8:00p

	Name	Address	Phone Number	E-mail Address
23	Sail hells	216 Clinton St.	830-	wells.gv7
24				

Willert Park

Public Meeting

November 17, 2016

OPENING DISCUSSION:

- Julie- BSA needs to spend \$92M over 15 years on GI projects
- Comments on proposed designs for William
 - One driving lane on each side is too narrow
 - Traffic backs up on Broadway where it is one lane
 - Worried about getting out of driveways
 - Now that people are using side streets to get to suburbs, more traffic (they avoid expressways)
 - o 18 wheeler trucks
 - Evacuation route
 - One lane wouldn't be conducive
 - Narrows at Jefferson
 - Looks good but not functional
- Now that there is migration, greening the area is finally happening (20 years late) but glad it's coming
 - o Who is responsible for maintaining? Mowing?
- PWCC- parking lot is full during stakeholder meetings and school functions
 - o Fought so hard to get parking there they should keep it
 - o Neighbor of PWCC- think it's a great idea; weird to have 3 lanes of parking
 - o Full in evenings- have to park on street and sometimes on Sycamore or Genesee
 - Want to see it nice but not deal with the parking
- JFK- partnerships
 - Educational opportunities
 - o Julie- it's about the science!

Points of View card exercise notes

Question: What opportunities do you feel that this Green Infrastructure project can provide to your community?

Name	Card Chosen	Response
Michele	Joy & Love	Pratt Willert CC- lots of families, lots of love and joy
Sharonda	Success	Lives on William- seen a lot of changes but have a long way to go
Cheryl	Beginning & Gratitude	Always excited to begin- direction you've never dreamed; grateful for this project; teacher at BPS
	Gratituae	areamea; gratejui joi tiiis project; teacher at BPS

A Mayor Byron W. Brown Water Quality Effort

		Montessori and excited to let kids know there are
		other opportunities; lots of talk but hopes it comes to
		fruition
Dorian	Didn't pick but	Looking for change- want to see neighborhood go up;
	agrees with wife	homeowner; feels brought value to community and
	(Sharonda)-	takes care of property; hopes this project will unify
	success	
Mark	Everything is	Engineering student- sometimes you look & seems
	possible	impossible but tear it apart and you find that it is
		possible
Carlos	Clarity	William very vital, pipeline- would like clarity on
		project; let neighbors know what's going on
Addae	Communication	Best way to engage in whatever you do; let people
		know what you're doing; helps build understanding
		and support
Joyce	Opportunity	There are a lot of people who can benefit- want to see
•		neighborhood continue to grow
Conor	Alone	Fan of nature & environment- likes to spend time in
		nature alone; would be good for community so can
		have access to some nature that haven't had
		previously
Champagne	Creativity	Good project for community to share ideas that will
. 3	,	bring about creativity and create success and help
		generate better decisions
Gayle	Intuition	Build for 7 generations-community here a long time;
,	(footprint)	now being redeveloped and looking to future for 7
	0	generations; there is always an impact/ environmental
		footprint; we need to think about support; here as
		citizen of neighborhood that is concerned about
		quality of life
Velma		Green to concrete and coming back to green again-
		been waiting a long time
Pastor	Together	Some things are disjointed- desire for input but shovels
Jonathan		are already in the ground?; need to step back and
		work together
Sandy	No card	Want something to happen-team open to hearing your
·		thoughts
Mark	sustainability	From environmental, personal, and community
· · · · · · · · · · · · · · · · · · ·		perspective- approaching with wide lens; big picture,
		how does this fit into a larger theme
	Inspiration	Doesn't live in neighborhood but did as child and
	(footprint)	works nearby; this is another way of looking at things
	0	(wanted to get rid of green); lots of children; hope this
		sparks conversation; when the lord is carrying you (see
		card); hope this community input will have an impact
	Journey (hands	He's had a long journey, like this neighborhood, but its
	together)	just starting again. Hope it isn't lip service & journey
	10900.101/	doesn't end before the "ring comes off"
Theresa	No card	Wants to know what happened to Sycamore
	1	Traine to know what happened to Sycamore



DISCUSSION:

- OJ- follow up to Theresa's inquiry about why Sycamore has been taken off the table at this point
 - Need to get biggest bang for our buck
 - Gayle- it's problematic to her that one street (William) is going to be developed but Clinton
 Street has more traffic
 - Problematic for homeowners who bought there because they thought they were part of downtown; community has been given arbitrary boundaries with no rhyme or reason; other separations based on something but not informed by neighborhood; we have to pay attention; how can we separate the corridor?; more people come down Clinton & there's more infrastructure
 - Julie- Safe routes to school is happening on Clinton Street so something is going to be happening there
 - We have to look at where the water wants to go; and it wants to go to William Street
- Theresa- what's happening to the Buffalo Forge site?
 - Heard it's going to be a Walmart
 - Hope it's not going to be a Walmart!
 - There is no way to know what it is going to be at this time
 - Significant cleanup must be done before it is redeveloped
- Julie- the goal with GI is to stop 100% of pollution reaching water ways
- Theresa- there will be more and more traffic on Sycamore since you're not doing anything there and it is being diverted from William Street with a road diet
 - o People don't necessarily follow what you want them to do
- Potential to reroute 18 wheelers?
 - o Can we make sure that William isn't a truck route?
- OJ- didn't pick a card but if had would pick TRUST- we are doing this this way because we want to build trust. Don't want to develop a plan and force it upon you.
 - Yes we have a tight schedule, but that means what we are talking about will be in construction next spring, so we want you to inform us. Tell us your concerns.
- BIG concern is traffic congestion
 - Will it spill over to Sycamore or Clinton if William is brought down to two drive lanes
 - Need to coordinate traffic and commercial development
 - Support both adequately
 - Community safety in terms of plantings
 - Crime Prevention Through Environmental Design (CPTED)
 - Get them into discussion
- Gayle- has problem with presentation of plantings
 - Doesn't look planned or organized
 - Want signature project, want it to stand out and attract tourists
 - Incorporate art and Michigan Street heritage



A Mayor Byron W. Brown Water Quality Effort

- Larkinville as precedent
- Porous pavement discussion
 - o Concerned about wear if it's used on William
 - Can it hold up to truck traffic?
 - Maybe better use on parking lots

Willert Park Site Analysis Tour

October 15, 2016

MORNING SITE TOUR DISCUSSIONS:

Points of View card exercise notes

1st Question: What do you perceive your role in this project to be?

Name Card Chosen Response

Crystal	Cat Photo	As a facilitator role is finding solutions
John	Girl blowing dandelions	Everything is possible, more is possible than you think
William		Leave the neighborhood better than it is now
Ruth		More greater things can happen in the future
Karen		
Pastor Dwayne	Alignment	Alignment
Scott	Learning	Learning process
Julie	Intimacy	Close neighborhood
Erik	Together	Work together to make community better
Sandy		
Katie	Communication	Everything can be worked out
Ted	Passion	Passion to team
OJ	Trust	People have distrust in public, works project and help people have trust
William	Journey	Worked for community still working in community to make it better

MORNING SITE TOUR DISCUSSIONS:

Why are we doing this in this way?

Site tours allow us to observe together in real time, the constraints, opportunities, and challenges and enables us to collaboratively and creatively problem solve together. Leads to better understanding between team and community = TRUST= COOPERATION=BETTER, MORE SUSTAINABLE PROJECT



ALONG GENESEE STREET AND DAVIS STREET

- We learned a lot about what the intention of GI is and hopefully have a better understanding of why we need it, how or in what ways can it actually improve the quality of life for the community?
 - Water for gardens, beautiful rain gardens, less storm water going to CSO=better water quality
- Many residential downspouts are not connecting. Solution go to Rain Check.org
- Implementing more Rain Gardens
- Plants that thrive on water from rain barrels and use of rain gardens
- Hold water within bump outs in street
- Potential bump outs at intersections
- Street trees
- Bike lane master plan
- Green code
- Comprehensive plan
- Funding for GI opportunities?
- What can we do that leverages \$\$ to enhance streetscape and community?
- JFK parking lot
- Youth education opportunities with green infrastructure
- Teaching opportunities

JEFFERSON & SYCAMORE STREETS

- No street trees at Jefferson and Sycamore Street
- Trees add value to residential properties
- Sidewalks extremely wide
- Bicycle Lanes
- Broadway to William eligible for GI
- Components of green infrastructure in the streetscape
- Complete Streets
- Bus Locations and Shelters
- No Parking or limited parking along Sycamore Street
- 2 travel lanes both directions
- Noise of traffic
- Island bump outs vs wider sidewalks



SYCAMORE & MORTIMER STREETS

- Former Buffalo Forge Site
 - Current BOA (not sure if in BOA program)
 - Old parking lot is not functioning with stormwater runoff to sewers
 - o Running black sand over rock 3' under
 - o Good opportunity for green infrastructure improvements
 - No trees for this area as it will be cut for development
 - o Economic Development Zone

SYCAMORE & SPRING STREETS

- Area for future development
- How to make area user friendly for neighborhood
- How to get investment into neighborhood
- What are some green infrastructure opportunities
- Lot of traffic
- Traffic calming measures needed
- Crosswalks needed
- Safe connection and park access to Wende Park
- Road diet
- Pratt Willert Community Center
 - o Opportunities for on-site GI
 - o Precedent: Green City, Philadelphia, PA
 - Guerin Recreational Center
 - 90 community members participated in developing on-site storm water management plan
 - o Enhances public space while managing storm water
- Return to Mt. Aaron- notice planting bed in front of site is receiving runoff from parking lot
 - o Good candidate for rain garden demonstration project

AFTERNOON SITE TOUR DISCUSSIONS:

Points of View card exercise notes

2nd Question: What do you need to happen today for this exercise to be valuable?

Name	Response
Scott	Learning from team members and public
Ellen	Walking streets and looking at neighborhood
William	Overall improvements to this area
Eva	Safe streets
Sharonda	Traffic calming measures
?	Individual
John	Site Visit
Mrs. Rybarczyk	See another part of the city
Katie	See other areas for improvement to city and neighborhood
Ms. Tucker	Improve quality of life for everyone & get children involved
Julie	Walk William to see future possibilities
OJ	Bus Route #1 William Street – Historic corridor
Crystal	Everyone getting value out of exercises today

CLINTON & GENESEE STREETS

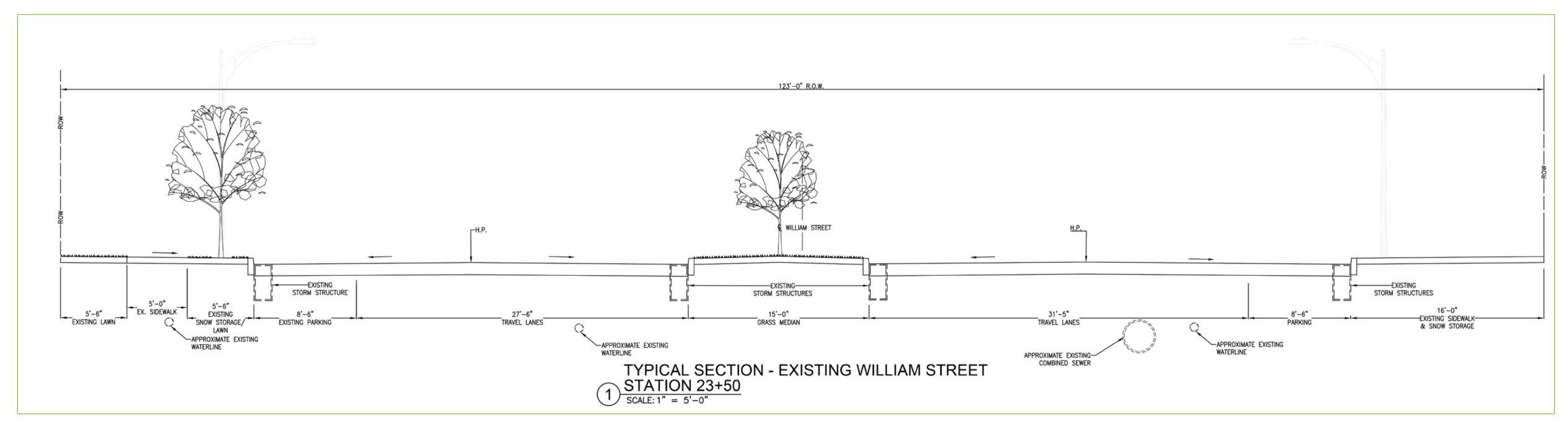
- JFK Community Center ideal candidate for green infrastructure improvements
 - Rain garden, porous pavement, or other presents great opportunity for education of youth
- Jesse Clipper Memorial 1st African American soldier from Buffalo killed in World War I
- Culturally significant for this area and community
- Preserve park
- Improvements for park
- Not a fan of bump outs
- Traffic signage needed
- Involve community members
- Sewer management on site



A Mayor Byron W. Brown Water Quality Effort

- Teachers at BPS 32- Bennet Park Montessori park on William Street
- Feels like a Boulevard
- Median can be enlarged
- Median as a park?
- Road diet
- Utility corridor along front lawns
- Rain barrels
- Rain gardens
- Curbs on South side vs nice curbs on North side
- Business owner(s) for landscape enhancement
 - o Dr. Holland on Iroquois Place
 - Façade improvements
- Narrow sidewalk with a green side median
 - Island bumpouts vs widen sidewalks

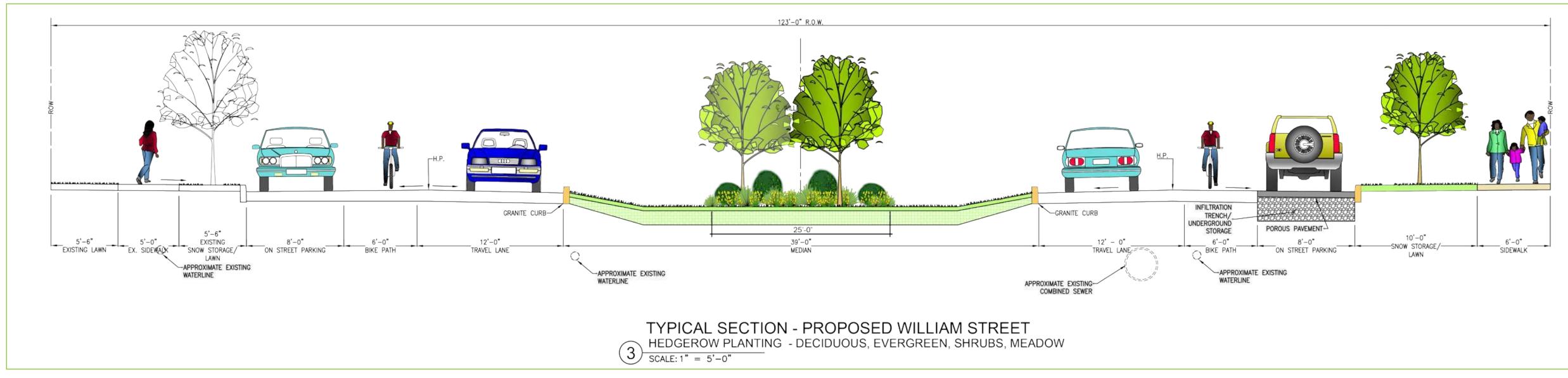
William Street Green Infrastructure

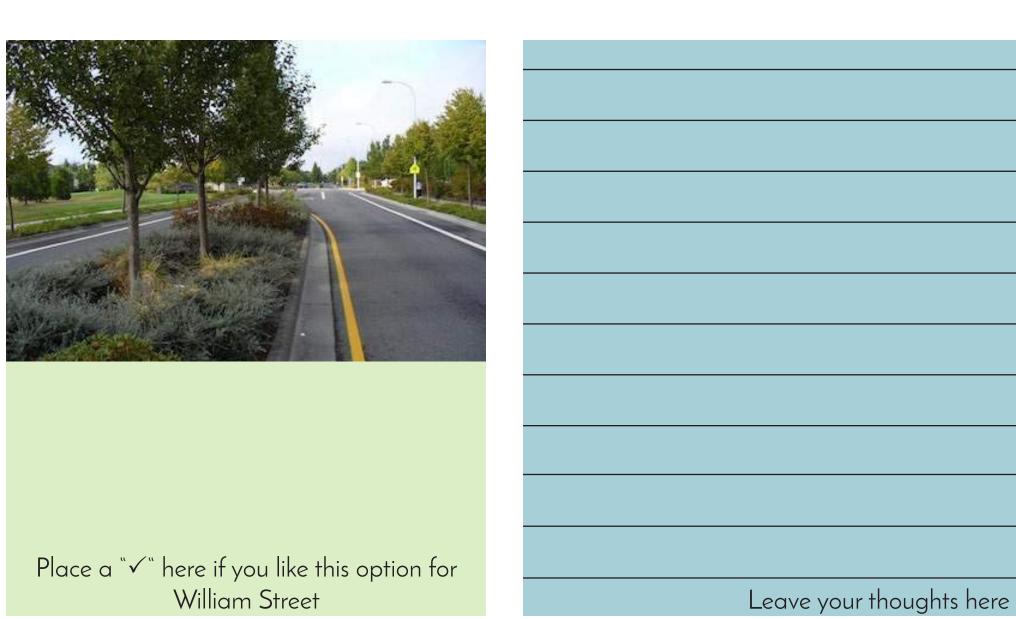


Place a mark by which you think would be most appropriate to William Street. Tell us YOUR thoughts if you'd like to.



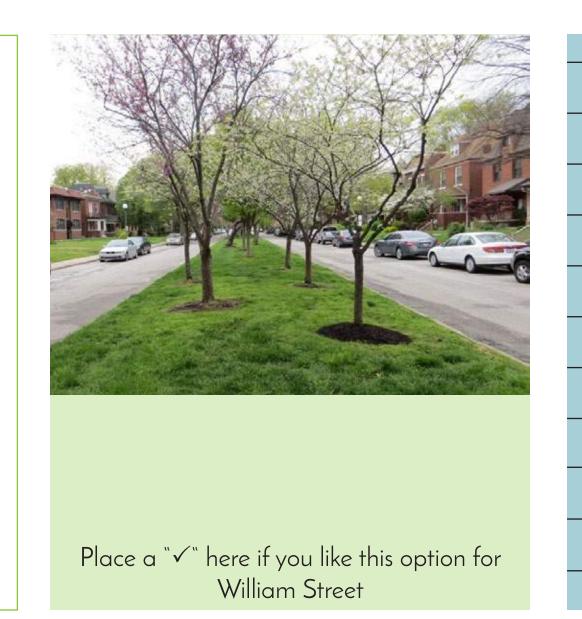




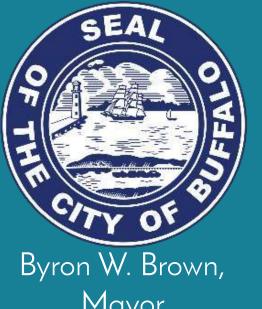


Leave your thoughts here











A Mayor Byron W. Brown Water Quality Effort

HELP US GREEN THE WILLERT PARK NEIGHBORHOOD

The Buffalo Sewer Authority will be Greening the Willert Park Neighborhood



This project will build upon the Buffalo Sewer Authority's and the City of Buffalo's Green Street projects accomplished to date, including:



Impervious surface reduction/pavement width reductions on Ohio Street;

Commercial stormwater planters and/swales on Elmwood Avenue, the southern portion of Niagara Street, and Genesee Street.

Rain gardens/bioswales on Windsor Avenue, Parkdale Avenue and Ohio Street.





Pervious pavement at Clarendon Place, Claremont Avenue, Carlton Street, Ohio Street and Kenmore Avenue.

Green Infrastructure (GI) Opportunities to Consider:

Permeable pavements

Bioretention

Impervious Surface Reduction

Nownspout Disconnection





Value of Green Infrastructure

Improving Quality of Life

Managing stormwater

Streetscape enhancements

Value of Community Participation

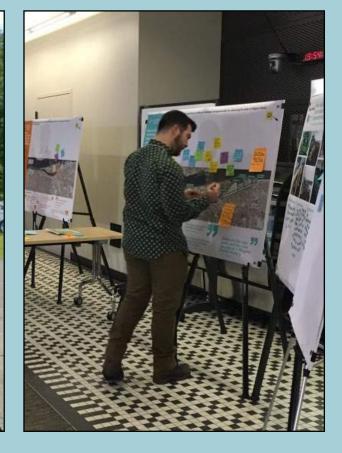
Adds value and authenticity

Supports long term sustainability

Builds trust and community support from onset







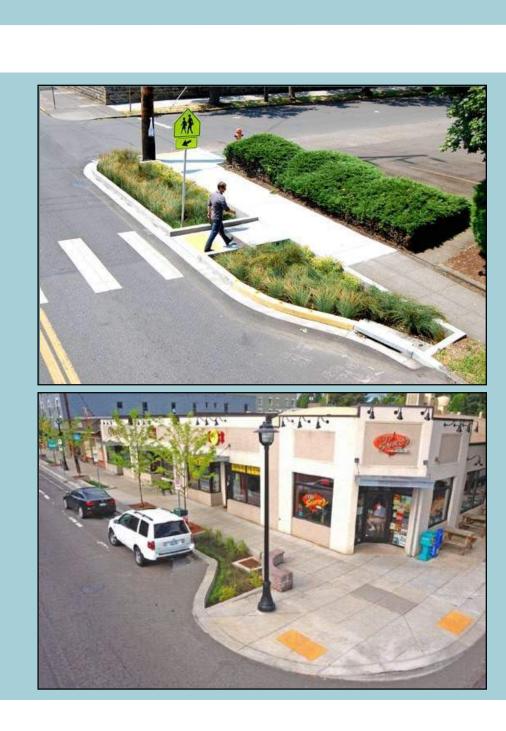


Value of Traffic Calming

Enhancing the Pedestrian Experience

Marga Bicycle Safety

Integrating Complete Streets policy



JFK

Community Center

Leave your thoughts here

Place a "√" here if you like this option for the JFK Community Center

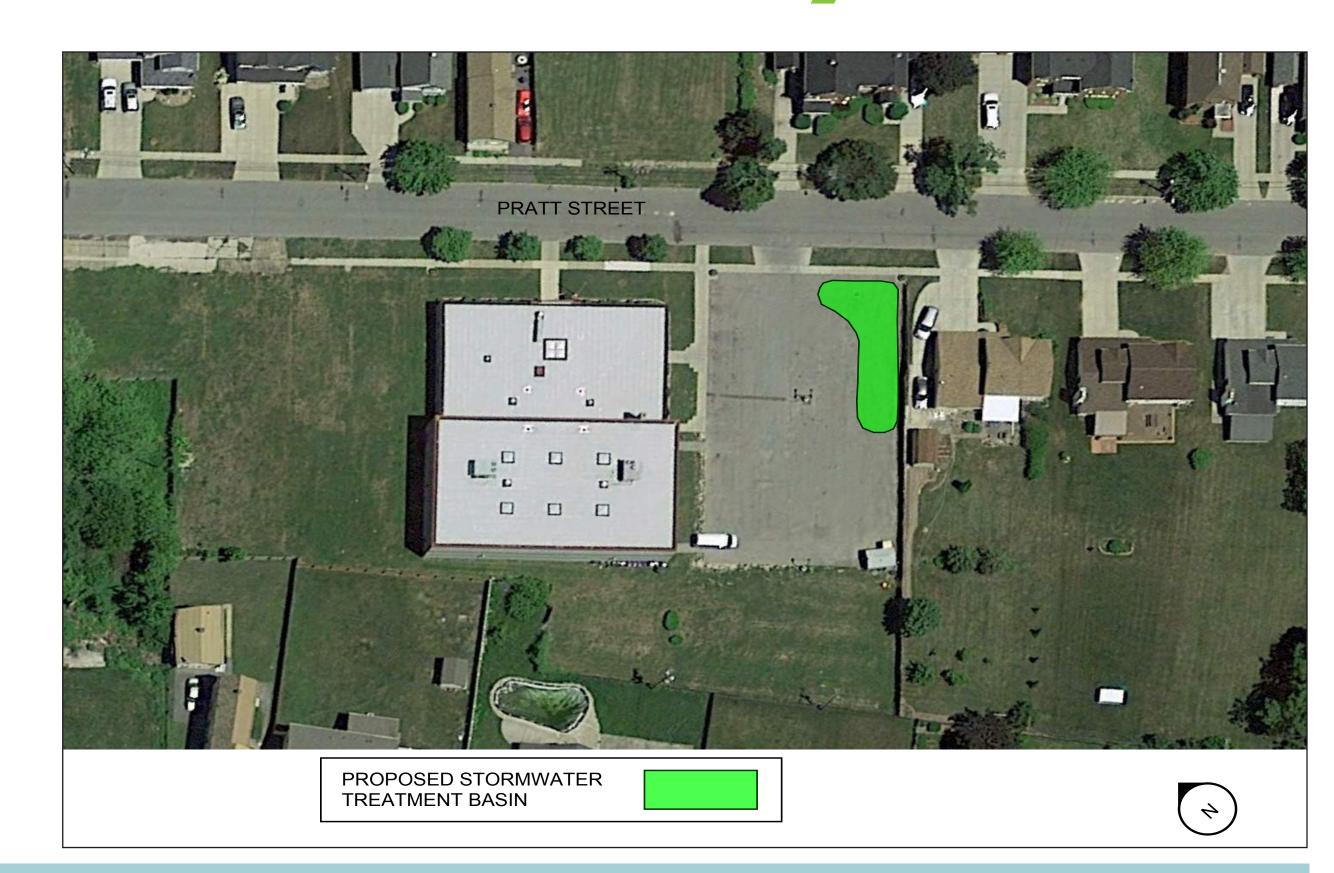
Green Infrastructure







Pratt Willert Community Center



Leave your thoughts here

Place a "√" here if you like this option for the Willert Pratt Community Center

Youth Education / Job Training / Demonstrations







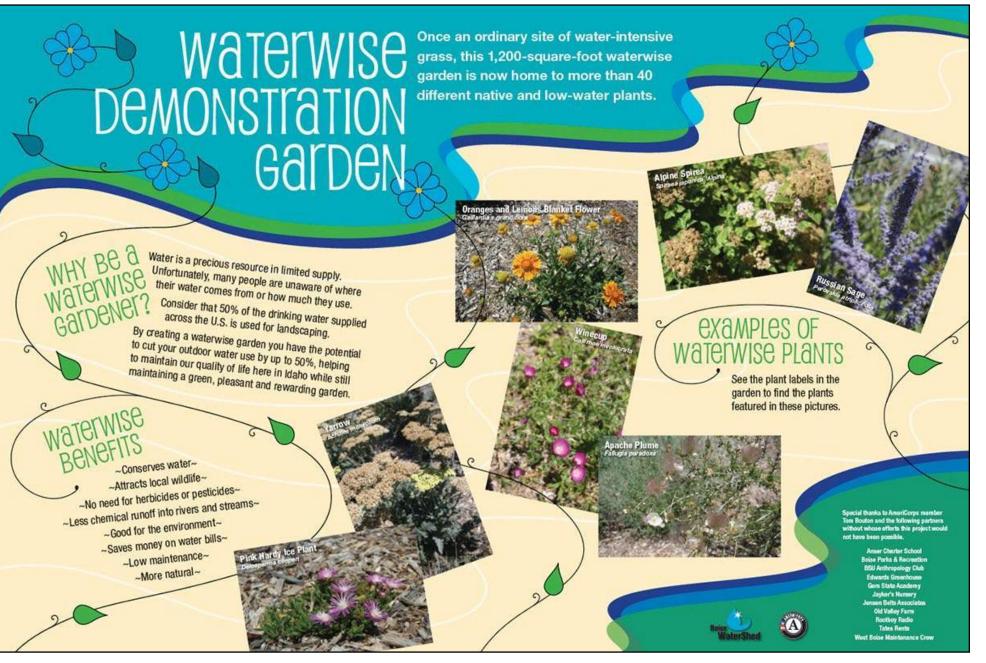














WILLERT PARK GREEN INFRASTRUCTURE

Preliminary Design Update November 17th, 2016





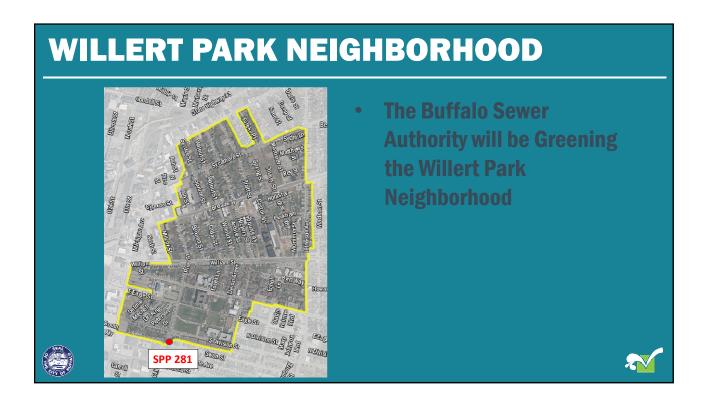
WELCOME & INTRODUCTIONS

Oluwole A. McFoy, PE
 General Manager of the Buffalo Sewer Authority



Mayor Byron W. Brown





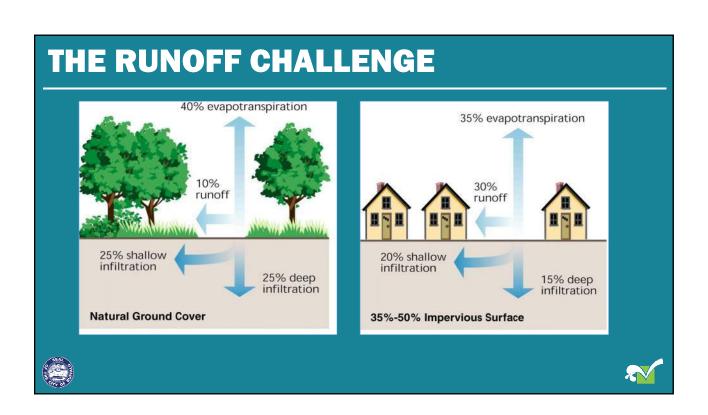


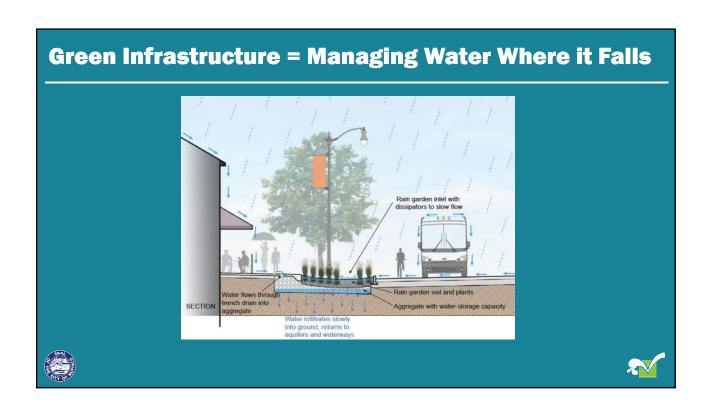
PROJECT SCHEDULE

- October 2016 January 2017
 Public Participation, Project Design
- January 2017 April 2017
 Bidding & Contracting
- Spring 2017Start Construction





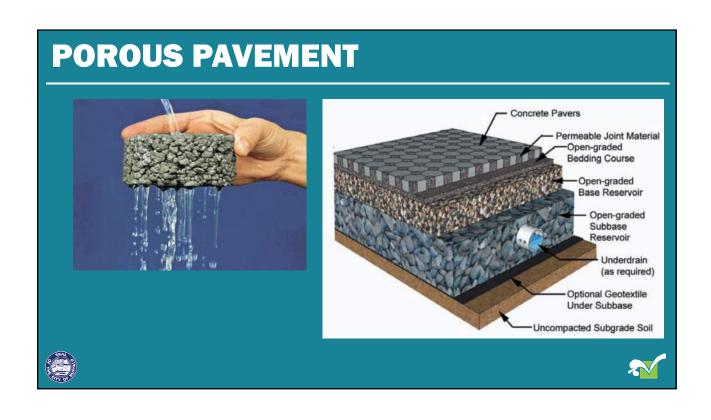






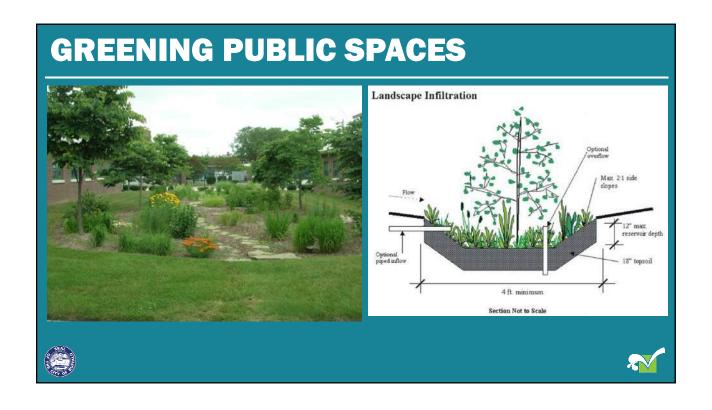




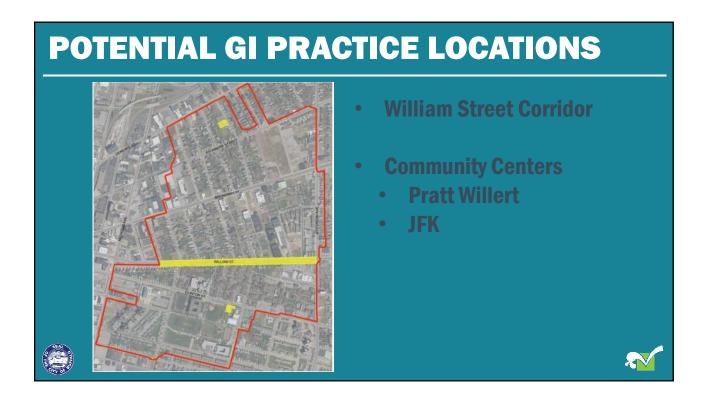


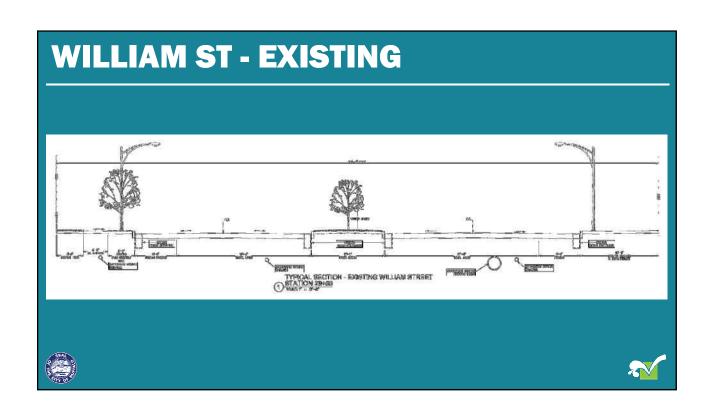


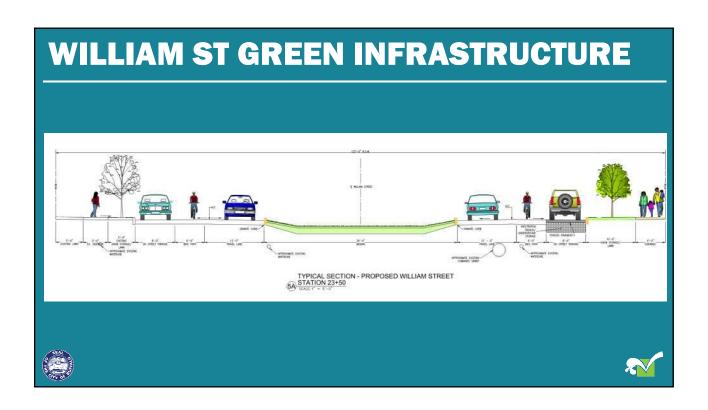


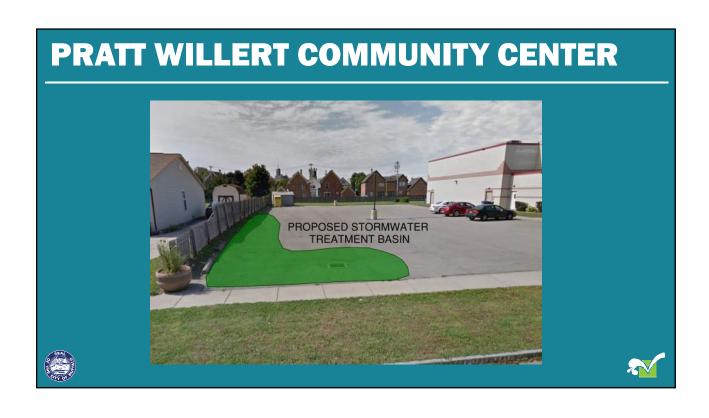




















Willert Park

Public Meeting

February 1, 2017

OPENING DISCUSSION:

- OJ- This project is meant to address parking and traffic as well as the stormwater and beautifying
 the neighborhood. Yes, there has been traffic analysis done to get us the numbers we are talking
 about.
- Renderings are briefly introduced and discussed, meeting is opened up for comments/questions

QUESTIONS:

- What is the time table?
 - Construction should start by end of May, early June and expecting about 9 months to completion. Project going out to public bid by end of February.
- How will it be done? One block at a time?
 - o OJ: That will depend on the contractor who wins the project
- When will they be working?
 - OJ: 7 am to 5 pm are the allotted hours, but typically they will start around 7:30 am and work until 3:30 pm.
- I love the renderings, and this may be a moot point now but: with the narrow lanes to slow the trucks, I am still concerned about the amount of traffic William Street gets and being able to back out of my driveway. Broadway is always backed up and cars are lined up.
 - OJ: You have 14 feet of lanes to assist in getting out of your driveways and at it's peak there are only about 1200 cars per day travelling on William.
- Gail: Maybe as a block club we could look into/ask about getting the parking arrangements changed? Similar to how they park on Clinton; could there be a smaller time window when parking is allowed? Could they park across the street where there's no houses?
 - OJ: That's something we could take to the City Council. Who is parking in front of your houses, guests or downtown workers? We also have a lot of senior citizens in this neighborhood and we don't want them playing "chicken" with the traffic when they try to get to their houses.
- But going down to one lane the traffic will still be fast. I'm worried about getting hit when I try to turn into my driveway. People blow the stop sign ALL the time and drive too fast.
 - Julie: All of these plans will help to slow down traffic and we're working with traffic lights and timing too to help with these concerns.
- Will this stop the big trucks (garbage trucks) from jumping the curbs?
 - OJ: We'll take care of that in-house.
- Gail: Concerned about pedestrians crossing; could there be a small sidewalk for mid-block crossing?
 - Julie: There are 3 locations for pedestrian crossing.
 - OJ: We're putting in pedestrian signals at the lights too!



A Mayor Byron W. Brown Water Quality Effort

- What about maintenance? Is someone contracted to care for everything?
 - OJ: We've discussed this as length and what we've designed we can maintain. This is our investment, it would be a shame not to take care of it.
- What kind of trees are you planting?
 - Joy: Formal and bouquet groupings gives you variety and arrival notes; flowers in spring, color in fall; formal like Elm trees at intersections. Purposely staggered or purposely formal. Expect at least 6-8 feet clear from ground "on the greatest day 50 years from now"
- Will these attract beetles or diseases?
 - Joy: Nothing we've selected is NOW/currently affected by any diseases; none that are known. Every tree will attract insects, but we did NOT select the Linden.
- At these clustered areas: Can somebody hide there?
 - O Joy: No. We purposely did not select any evergreens that grow all the way to the ground, and we will always have 6-8 feet of clear space between the branches and the ground. The perennials will only be around 4' tall or shorter. We're going for resilient, hardy plants. They're doing the work for stormwater and can be mown down!
 - The bioretention soil mix should allow trees to perform well, and the clustered trees allows you not to notice if one tree isn't performing. It gives us the flexibility to replace a dead/dying tree and you won't notice the disruption.
- Jesse Clipper Park crabapple keep or cut down?
 - Janet says let it go!
- Reverend Eugene: Possible statue of Jesse Clipper; need to confirm and what size.

GAME: "Prune your Future" – participants were asked to come up and write down small projects/tasks/ideas they would like to see in the future for this area. Gail Wells took poster with all of post – it notes for use at future block club meetings.



A Mayor Byron W. Brown Water Quality Effort



Public Information Meeting Sign-In Sheet

Page 1 of 5

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Project No.:

Project Name:

4349-25

BSA Willert Park Green Infrastructure

Date:

February 1, 2017 7:00p – 8:00p

Meeting Location: JFK Recreation Center

Name		Address	Phone Number	E-mail Address
1	Kate Ward	189 William St.	9/2-3036	Kawlaw@verizon,net
2	Chery Jordan	261 William St	855-2271	Cherykautious La Cherykautious La
3	Pat Burks	386 Sycamore	856.7165	PPA6386 & Verison in
4	DEV. EUGENE PIERCE JESSE CLIAPER POST # 430		668-6524	asimet aggregation
5	Antonma Sittefi			asimetr@gwbuffalo,
6	Ada Hopson Clemons		E .	

Public Information Meeting Sign-In Sheet

Page 2 of 5



Project No.:

4349-25

Date:

February 1, 2017 7:00p – 8:00p

Project Name:

BSA Willert Park Green Infrastructure

Meeting Location: JFK Recreation Center

	Name	Address	Phone Number	E-mail Address
7	Mazcial	181 3/ Melian St	903-6388	marciw b1810 gmail.com
8	Lut Hall	65 Niagoura St.	851-5581	ahall@City-buffalora
9 /	Heborah E.	425 Michigan Ste. 107	235-7773 897-9714	
10	Michel & gll	20/ William	/	
11	Donelle a Donelle & Ruffin	127 William St	847-0912	dewroffn@col.com

Public Information Meeting Sign-In Sheet

Page 3 of 5



Project No.:

4349-25

Project Name:

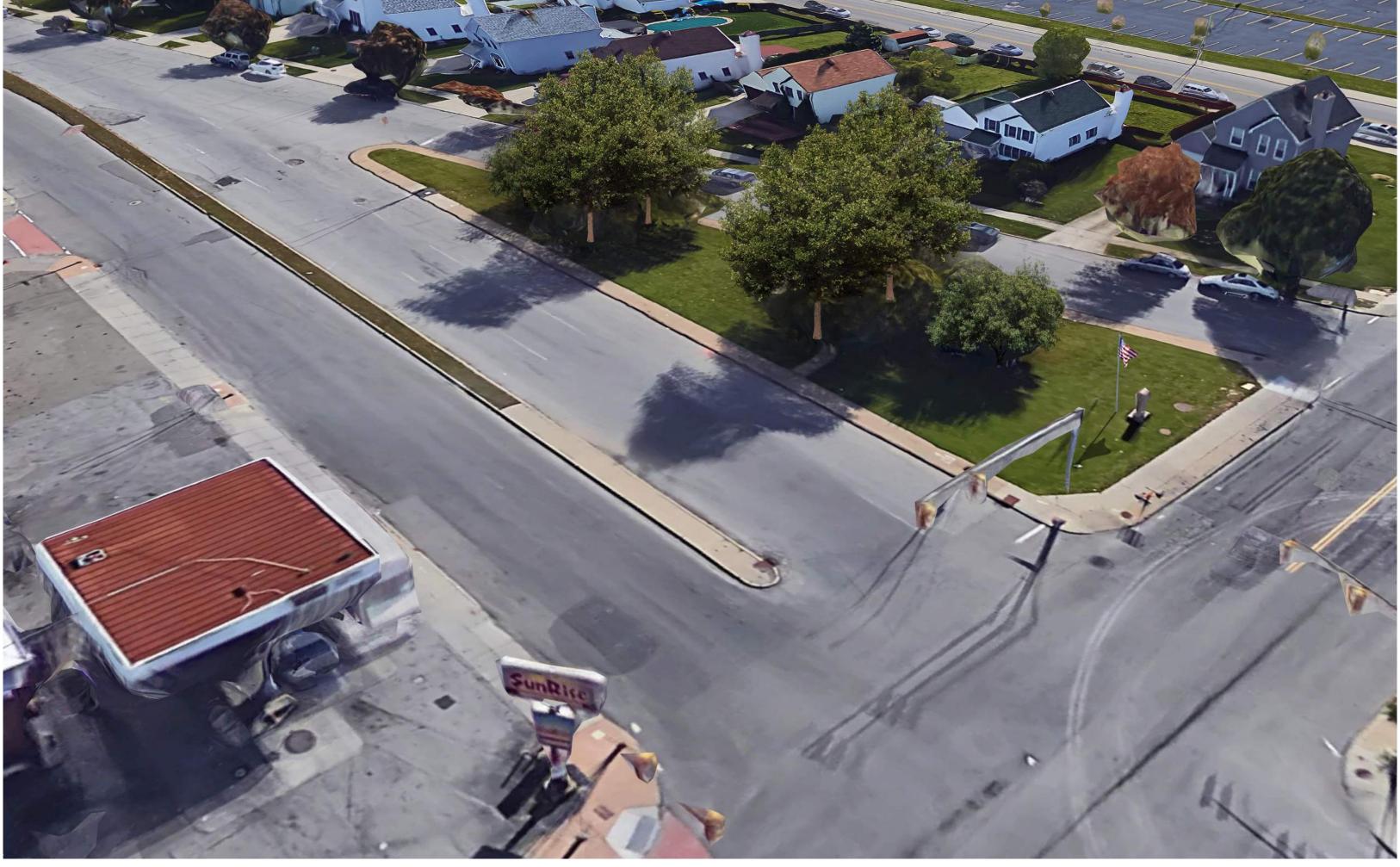
BSA Willert Park Green Infrastructure

Date:

February 1, 2017 7:00p – 8:00p

Meeting Location: JFK Recreation Center

Name		Address	Phone Number	E-mail Address
12	GENEVA Tohnson	195 William St	553-9262	gdiAmondousa @ gmail.com
13	Marsha Jackson	234 Clinton Street	479-0496	marsha Jackson pho 80 amail Com
14	JOYCE STEWART	407 PLOTT ST.	563-4663	JSTEW 44 @ AOL.
15	BARBANA Willer	236 Climpin ST.	510-7726	Briwerie, gov Barbara miller willing @ g mail. cont
16	7	466 Seneca Street 14204	716 846 - 4570	Kehlor @ gmail.
17	Christel Peocock	427 William Street 14201	716 842-0490	Bimwaerie, gov.



Overhead View of William Street at Jesse Clipper Park (Existing Conditions)



Overhead View of William Street at Jesse Clipper Park (Proposed Conditions)



Intersection of William and Hickory Streets, Looking West (Existing Conditions)



Intersection of William and Hickory Streets, Looking West (Proposed Conditions)



Intersection of William and Mortimer Streets, Looking West (Existing Conditions)



Intersection of William and Mortimer Streets, Looking West (Proposed Conditions)



Pratt Willert Community Center (Existing Conditions)



Pratt Willert Community Center (Proposed Conditions)



JFK Community Center (Existing Conditions)



JFK Community Center (Proposed Conditions)



WILLERT PARK GREEN INFRASTRUCTURE

Final Design Update February 1st, 2017





Oluwole A. McFoy, P.E. General Manager

WELCOME & INTRODUCTIONS

Oluwole A. McFoy, PE
 General Manager of the Buffalo Sewer Authority







PROJECT SCHEDULE

- October 2016 February 2017
 Public Participation, Project Design
- February 2017 April 2017
 Bidding & Contracting
- Late Spring 2017
 Start Construction





Green Infrastructure = Managing Water Where it Falls Rain garden infet with dissipators to slow flow water storage capacity into ground, returns to garden and waterways Water infiliates storily into ground, returns to garden and waterways.

