



**WOONASQUATUCKET RIVER
WATERSHED COUNCIL**

FINAL CLOSEOUT REPORT 12-31-2023

3/13/2024

Greening the Woonasquatucket River Greenway

Using Green Infrastructure to Improve Water Quality and
Make Environmental Justice Communities More Resilient

Contract Number:

SNEPWG-19-7-WRWC

Grant Period:

September 1, 2019 –
December 31, 2023

**FINAL CLOSEOUT
REPORT**

Through December 31, 2023

Project Leader/Report Contact Person: Alicia J. Lehrer

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**WOONASQUATUCKET RIVER
WATERSHED COUNCIL**

Greening the Woonasquatucket River Greenway Project Report – Narrative

Project Overall Goals:

1. Reduce nutrients to the Woonasquatucket River and Narragansett Bay ecosystems by treating stormwater, especially from parking lots prior to entering the river.
2. Use an innovative approach developing partnerships along the existing Woonasquatucket River Greenway to best site nature based stormwater capture and treatment practices that enhance the communities in which they are located and improve natural ecosystems.
3. Establish and support sustainable partnerships between the WRWC, Farm Fresh Rhode Island (FFRI), RIDOT and the communities this project serves. F
4. Create environmental equity by providing flood protection, summer heat reduction, opportunities for entry level jobs through the WRWC's existing River Rangers program, general wellness to high minority, low-status communities, and bring new life and greenery to urban landscapes.
5. Foster adaptation to climate change through flood storage and reducing urban heat islands.

Project Long Term Objectives:

1. Improve water quality in the Woonasquatucket River – targeting nutrients, bacteria, solids – thereby also improving water quality in Narragansett Bay
2. Increase flood storage capacity in the Woonasquatucket Watershed, reducing hazard flooding and building climate resilience
3. Build and employ a local workforce to install and maintain green infrastructure so that we have a trained crew ready build on the success of this project and others like it
4. Reduce the urban summer heat stresses on community residents, specifically those that need it most in Olneyville, one of the city hot spots
5. Improve the look, feel, and enjoyment of the entire Woonasquatucket River Greenway corridor, encouraging more pleasurable outdoor recreation and healthy lifestyles
6. Improve habitat along the Greenway for pollinators, birds, mammals, and river life
7. Provide an example of how long-term collaborations can make significant, measurable improvements to the environment
8. Build capacity of residents in urban, climate-threatened communities to understand and prepare for climate change, become more resilient, and become participants and stewards in the process
9. Provide an example of how a transit, recreation and an urban river corridor can be the perfect opportunity to provide all the above

Results & Progress to Date:

Activities Carried Out this Reporting Period:

- 1) Task 1 – Install 3 WRWC pilot projects
 - a) The Woonasquatucket River Rangers continue to maintain green infrastructure landscapes to assure excellent function of all site green infrastructure.
- 2) Task 2 – Ribbon Cuttings, Press Events, Pilot Tours:
 - a) Senate Site Visit to Farm Fresh & Tour July 31, 2023
 - b) Daniel Hayden tour of Farm Fresh, October 6, 2023

- 3) Task 3 – Complete Greening the Greenway (GTG) Plan – Identify Top Ten Priority Projects: WRWC and RIDOT have completed a working priority matrix and map for use as our GTG Plan that we update as new potential projects arise (see attached recent meeting minutes from WRWC/RIDOT/Stantec (RIDOT’s on-call GI Design Consultant for more details on current projects).
- a) WRWC has actively begun or completed the design process for our next top GTG projects:
 - i) Greystone Social Club, 3 Greystone Ave, North Providence, RI 02911. We redesigned their overflow parking adjacent to the river with grass reinforcement paving along with a bioretention basin for overflow. Project complete.
 - ii) Cathedral Art Metal Co. Inc., 25 Manton Ave, Providence RI. WRWC worked with property owner and construction contractor to depave portions of the parking lot, grade, add soil media and amenities to capture stormwater from the lot to prevent it running off directly into the Woonasquatucket.
 - iii) 100 Manton Ave LLC (Atlantic Mills), 100 Manton Ave, Providence, RI: The developer contacted WRWC in June to discuss opportunities for GI in their parking lot. We are in discussions with the Providence Redevelopment Association, under a Purchase and Sale Agreement with the current property owner, to determine how to proceed.
 - iv) The Puerta de Refugio Church, 247 Valley Street, Providence, RI: Parking lot retrofit completed. The Woonasquatucket River Rangers continue to maintain the GI.
 - v) Woonasquatucket River Greenway Extension on Kinsley Avenue & Promenade Street from Eagle Square to Providence Place Mall: Construction contractor selected. Construction to begin in March 2024. Woonasquatucket River Rangers to work with construction contractor on GI installation through the SNEP Natural Infrastructure Grant Program.
 - vi) Bath Street & Promenade: Our design consultant, courtesy of RIDOT Office of Stormwater completed the 60% designs. Final design and construction to be completed through the SNEP Natural Infrastructure Grant Program.
 - vii) Contech Medical, 99 Hartford Ave, Providence: Project not selected. No update.
 - viii) Preferred Equipment, 1 Goldsmith Street, Johnston: Final design and permitting completed, contractor selected, construction to begin March 2024. Woonasquatucket River Rangers built 8 rain boxes they will connect to downspouts around this site and plant in spring 2024 to capture and treat building runoff.
 - ix) Groden Network, 610 Manton Ave, Providence, RI: RIDOT’s design consultant completed preliminary design and landscape plans. Final designs to be completed spring 2024 and constructed through RIDOT funding.
 - x) Licht Property parking lot, corner of Acorn and Kinsley, Providence, RI: WRWC’s Civil Engineering designed the nature-based parking lot retrofit for this site to capture and treat stormwater prior to entering Woonasquatucket. Construction was completed December 2023.
- 4) Task 4 – Get Landowner Consent for Top Four GTG Sites: Landowner consent for top four sites complete.



- 5) Task 5 – Complete Designs for Top Four GTG Sites: In progress. Designs and construction now complete for Greystone Social Club and Peurta de Refugio. Preferred Equipment is at 30% design. The Woonasquatucket Greenway Extension 100% designs, project bid complete, contractor selected, construction starting March 2024.
- 6) Task 6 – Bidding & Construction of Top Four GTG Sites: As described in Task 3 above, construction contractor selected for Kinsley/Promenade Greenway, Preferred Equipment Resource, Cathedral Art Metal, Licht Property.
- 7) Task 7 – Press, Engagement and Tours of Completed Projects: WRWC jointly organized a press event with FFRI on May 23, 2023. Huge turnout. Senator Reed, Lt. Governor Matos, Providence Mayor Brett Smiley, RAE Tom Ardito, RIDEM Director Terry Gray, RIDOT Director Peter Alviti, Secretary of Commerce Elizabeth Tanner, FFRI Executive Director Jesse Rye, and WRWC Executive Director Alicia Lehrer spoke.
- 8) Task 8 – Ongoing Project Maintenance: WRWC River Rangers are continuing maintenance on the Citizens Bank, Manton Avenue Tree Filter Pilots, FFRI and the Puerta de Refugio projects, and all other projects completed as described under task 3 through either RIDOT funding or direct payment from property owners.
- 9) Task 9 – Project Reporting: This is our final project report.
- 10) Task 10 – Project Coordination: WRWC coordinated all aspects of the project, met with the project teams and develop partnerships throughout the project period.

Deliverables/Milestones Completed this Reporting Period:

- Task 5 – Contractor selected for Kinsley & Promenade Woonasquatucket Greenway Extension from Eagle Square to Downtown Providence. Contractor selected for Preferred Equipment. Contractor selected for Cathedral Art Metal and Licht Parking lot projects.
- Task 6 – Construction of rainboxes completed for Preferred Equipment, construction of parking lot retrofits completed at Cathedral Art Metal and Licht Parking Lot on Acorn and Kinsley.
- Task 9 – Final Report Completion.

Progress toward Short and Long Term Objectives: This reporting period, we made progress toward all of our overall goals and objectives by completing designs at Preferred Equipment, Cathedral Art Metal, and the Licht Parking lot. We also selected construction contractors for the Woonasquatucket Greenway, Preferred Equipment, Cathedral Art and Licht Parking Lot. We have also lined up several other projects for full design and construction under additional funding sources thanks to this source of funding.

Findings to Date & Lessons Learned:

1. QAPPs for these types of projects that do not actually involve monitoring take a lot of time and funding spent on consultants that could be better spent on the projects themselves and do not appreciably add to the quality of the project. We do not think it makes sense to continue requiring QAPPs from applicants or if they must be required, they should be completed not by the project applicants but by a SNEP consultant in partnership with EPA and with the assistance of the project team.



2. Working with private property owners is worthwhile as it builds community support for building in climate resilience while improving neighborhoods. However, the process, like any other, can include hitches. It requires patience, persistence and building strong community relationships.
3. Projects such as the ones in play through this grant are the perfect learning lab for WRWC's resident leaders, our Climate Champions or Campeones. They are followed the design and construction processes for DeSoto Street, the Licht Parking lot and Cathedral Art Retrofit. They will use knowledge gained through these projects to guide them in helping WRWC select future community greening projects using nature-based stormwater solutions (GI).

Challenges/Delays:

1. No challenges or delays for this final reporting period.



Work Remaining Under Current Contract – Revised Project Schedule:

Task	Deliverables	Schedule
1a. Install 3 WRWC pilot projects complete with informational signage	Citizens Bank Stormwater Improvement Project: Bioretention basin & walkway with permeable paver borders, removal of impervious surface, pet waste station	Completed November 2019
	Greystone Stormwater Treatment Retrofit Project: 2 bioretention swales, replacement of traditional pavement with porous pavement	Completed Nov 2020
	Manton Avenue Tree Filters: 3-4 tree filters	Completed July 2020
1b. Install FFRI Food Hub Stormwater Management & Public Greenspace* a. Site Preparation: Remove existing slab, parking lot pavement, below grade obstructions; import clean fill & loam. b. Construction of Bio Retention Areas. c. Plant Materials and Planting	a. Site readied for planting	Aug 2019 – Sep 2020
	b. Bioretention areas ready to receive plants	Oct 2019 – Aug 2020
	c. Select plant materials per design and install; construction administration by Landscape Architect	Completed November 2021
2a. Ribbon Cuttings, Press Events & Tours of WRWC Pilot Projects	1 press events held, 1 tour held, 30 or more residents attend tour	Two tours completed November 2021. One tour completed June 2023. Press event held May 2023.
2b. Press Event FFRI Food Hub	1 press event held, 1 tour held, 30 or more attendees	Tours held throughout 2021 for 68 attendees. Press event held May 2023, estimated 50 attendees, additional tours in July and October 2023.
3. Complete “Greening the Greenway” (GTG) Plan	Prioritization of projects based on cost-benefit to the community and water quality	Completed April 2020 and ongoing
	- Feasibility study & 10% design for top 9 projects with review of readily available subsurface utility & soil data; water quality calculations - Identification of Top 4 GTG Projects	Completed April 2020 and ongoing
4. Get consent/buy in of landowners for Top 4 Priority Projects	Letters of Agreement between landowners and WRWC & RIDOT for Top 4 GTG Projects; commence easement discussions	Consent/easement completed for three projects. Woonasquatucket Greenway Completed January 2023. Bath Street to be completed by May 2024.
5. Complete Designs for Top 4 Priority GTG sites	Survey, wetlands analysis, soil investigations	Three completed December 2021, two additional completed June 2022.
	Design plans, water quality calculations, opinions of construction cost	Three completed December 2021, two additional completed September 2023.
	Finalize easements	Two completed December 2021, three additional completed December 2023.

	RIDEM permitting applications & permits	All completed December 2023.
	Bid documents (construction plans & specifications)	Six completed December 2023.
6. Bidding & Construction of Top 4 Priority GTG sites	Competitive bid process; award contracts to contractors	All completed by December 2023.
	Construction of Top 4 Priority GTG projects	Construction of two completed by December 2021. Two more completed by December 2023.
	Construction substantial completion	Construction of two completed by December 2021. Two more completed by December 2023.
	Construction ready for final payment	Construction of two completed by December 2021. Two more completed by December 2023.
7. Press, engagement and tours of Completed Projects including FFRI Food Hub	3 + media outlets cover project, 3+ tours of project or elements engage 100 residents/partners	Over 11 tours completed with 160 residents/partners through May 2023. Additional press engagement held at FFRI May 2023.
8. Ongoing Project Maintenance	All GTG projects maintained throughout life of project and beyond	Aug 2019 – Aug 2024
9. Project Reporting	Semi-annual and final project reports	Completed Jan & July 2020, Jan & July 2021, Jan & July 2022, Jan & July 2023, March 2024.

Compliance:

WRWC has submitted a final, signed, approved QAPP.

Project Partners & Progress this Reporting Period:

- **Rhode Island Department of Transportation (RIDOT)** – Continued partnership on project development discussions and selections of stormwater capture and treatment practices, managed and paid on-call engineering contractors for design services for Preferred Equipment and Bath Street.
- **City of Providence Planning Department (Planning)** – Managed bid advertisement and contractor selection Woonasquatucket Greenway Extension.
- **WRWC Climate Champions (Campeones)** – Resident leaders worked with WRWC learning siting, design and construction processes for DeSoto Street, Cathedral Art Metal, and the Licht Parking Lot. They also attended an 8 hour Stormwater 101 training with the Woonasquatucket River Rangers in July.

Volunteer and Community Involvement:

No volunteer involvement in Greening the Greenway projects this reporting period.

Outreach & Communications:

Nothing to report this period.



Project Budget Report

Summary Budget Table 1: Expenditures by Federal Cost Category

Budget Category	Total Budgeted Funds per Modification 2/29/24	Total Budgeted Match	Grant Funds Expended Invoice 10	Grant Funds Expended Cumulative	Match Funds Expended This Period	Match Funds Expended Cumulative	Match Source (note cash or in-kind)
Personnel	\$63,219	\$0	\$16,182	\$63,219	\$1,351	\$10,916	Cash, RIDOT Office of Stormwater for Maintenance of Greening the Greenway Projects, Farm Fresh Rhode Island payment to River Rangers for Green Infrastructure Maintenance
Fringe	\$20,863	\$0	\$5,330	\$20,863	\$0	\$1,024	Cash, RIDOT Office of Stormwater for Maintenance of Greening the Greenway Projects
Travel	\$3,843	\$0	\$0	\$3,843	\$0	\$0	
Equipment	\$0	\$0	\$0	\$0	\$0	\$0	
Supplies	\$76,277	\$0	\$12,823	\$76,277	\$0	\$1,080	Cash, RIDOT Office of Stormwater for Maintenance of Greening the Greenway Projects
Contractual	\$58,525	\$80,000	\$58,375	\$58,525	\$0	\$66,980	Cash, Source of Funds: Rhode Island Housing Community Development Grant for Manton Ave Tree Filters project – purchase of Storm Trees and construction fees Cash, Source of Funds: RI Conservation Law Foundation Settlement Agreement - Iglesia Puerta De Refugio retrofit
Other	\$0	\$0	\$0	\$0	\$0	\$0	
Total Direct	\$222,727	\$80,000	\$92,710	\$222,728	\$1,351	\$80,000	
Indirect	\$22,273	\$0	\$9,271	\$22,272	\$0	\$0	
Total	\$245,000	\$80,000	\$101,981	\$245,000	\$1,351	\$80,000	

Summary Budget Table 2: Expenditures by Project Task (Grant Funds Only)

Budget Category	Budgeted Funds	Expended Progress Period 1	Expended Progress Period 2	Expended Invoice 3	Expended Invoice 4	Expended Invoice 5	Expended Invoice 6	Expended Invoice 7	Expended Invoice 8	Expended Invoice 9	Expended Invoice 10	Actual Expended to Date
Task 1a – Install 3 WRWC pilots	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Task 1b – Install FFRI Stormwater	\$134,305	\$0	\$28,289	\$36,720	\$494	\$6,044	\$1,792	\$0	\$ 774	\$926	\$0	\$75,039
Task 2 – Press Events	\$4,000	\$0	\$0	\$276	\$0	\$0	\$0	\$0	\$0	\$422	\$560	\$1,258
Task 3 – Complete GTG Plan	\$5,000	\$0	\$4,000	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,000
Task 4 – Get landowner consent for top 4 GTG projects	\$4,000	\$0	\$1,000	\$0	\$0	\$0	\$0	\$0	\$113	\$961	\$2,487	\$4,561
Task 5 – Complete Design for top 4 GTG projects	\$0	\$0	\$0	\$0	\$249	\$0	\$0	\$0	\$0	\$0	\$0	\$249
Task 6 – Bidding & Construction	\$63,100	\$0	\$0	\$0	\$0	\$0	\$21,407	\$0	\$0	\$0	\$86,529	\$107,936
Task 7 – Press & Engagement on Completed Projects	\$3,000	\$0	\$0	\$1,771	\$0	\$879	\$7,368	\$0	\$0	\$0	\$0	\$10,017
Task 8 – Ongoing Project Maintenance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Task 9 – Project Reporting	\$3,595	\$0	\$750	\$563	\$549	\$2,170	\$1,020	\$1,749	\$492	\$387	\$668	\$8,347
Task 10 – Project Coordination	\$28,000	\$1,165	\$3,171	\$6,113	\$434	\$3,005	\$3,186	\$3,781	\$0	\$0	\$11,737	\$32,591
Total	\$245,000	\$1,165	\$37,210	\$46,443	\$1,726	\$12,098	\$34,773	\$5,530	\$1,379	\$2,696	\$101,981	\$245,000

Budget Narrative:**Personnel:**

Alby Pearson, River Ranger – 36 hours spent on Task 6 (construction)
Alicia Lehrer, Executive Director – 34.09 hours spent on Tasks 9 and 10
Andrew deLisle, Senior River Ranger – 45.5 hours spent on Task 6 (construction)
Bridget Zwack, Environmental Engineer – 19.5 hours spent on Task 10
Cameron Sanders, River Ranger – 43 hours spent on Task 6 (construction)
Jacob Gorke, Greenway Manager – 71 hours spent on Task 6 (construction) and 10
Lisa Aurecchia, Director of Projects – 51 hours spent on Task 4, 6, and 10
Mackenzie Kourie, River Ranger – 20 hours spent on Task 6 (construction)
Mark Pereira, Civil Engineer – 128.5 hours spent on Tasks 4 and 10
Peter Dear, Senior River Ranger – 76.65 hours spent on Task 6 (construction)
Sam Blair, Stormwater Specialist – 17.5 hours spent on Tasks 6 and 10
Tristan Corona, River Ranger – 20 hours spent on Task 6 (construction)

Fringe: 33% Fringe Rate for WRWC Staff

Supplies: \$12,823 Supplies for Rain Box Build


Travel: \$0 this project period

Contractual: \$58,375 DiCenzo Construction for depaving and grading on two GI projects

Indirect: 10% of direct project costs

Certification

The undersigned verifies that the descriptions of activities and expenditures in this progress report are accurate to the best of my knowledge; and that the activities were conducted in agreement with the grant contract. I also understand that matching fund levels established in the grant contract must be met.

Grantee Signature: 

Name: Alicia J. Lehrer

Job Title: Executive Director

Date: March 13, 2024

Organization: Woonasquatucket River Watershed Council (WRWC)

Appendix A

**Citizens Bank Parking Lot
Pilot Retrofit Before & After**

And

**Manton Avenue Tree Filters
Designs**



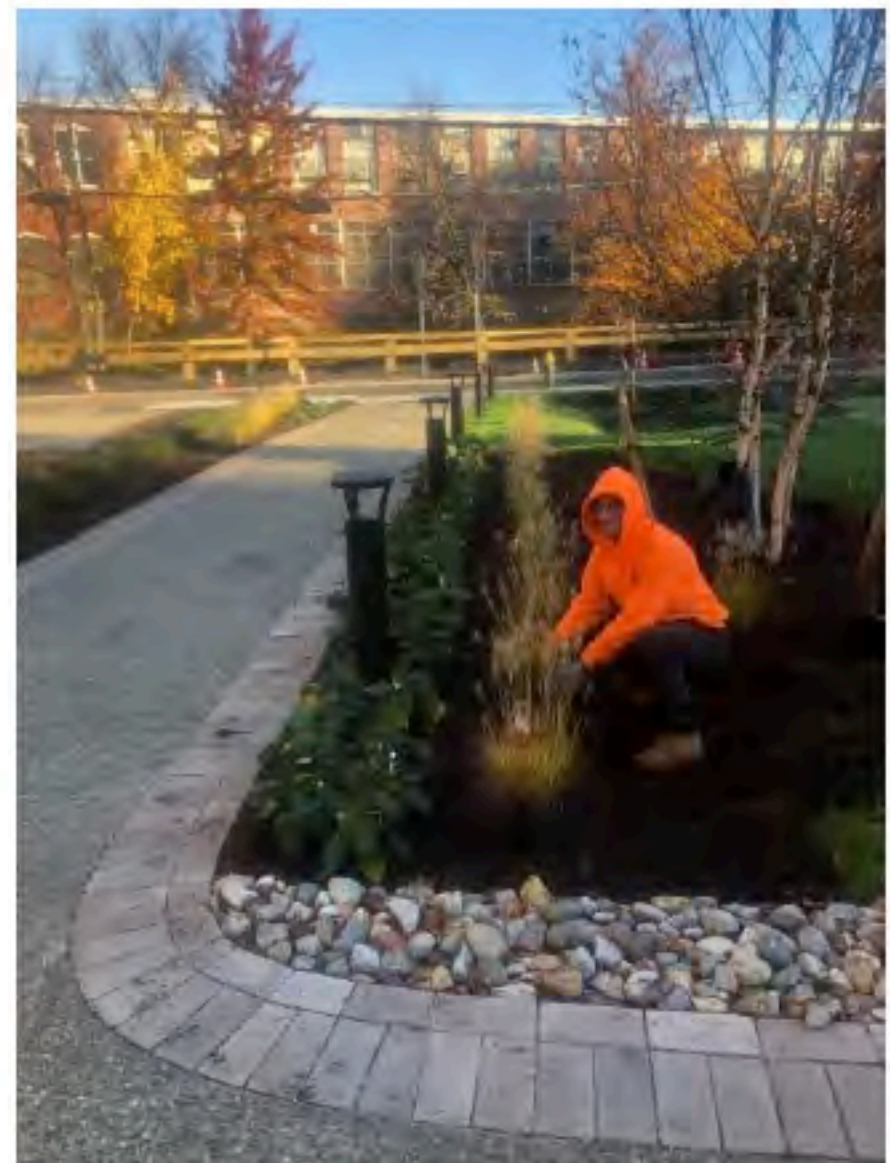
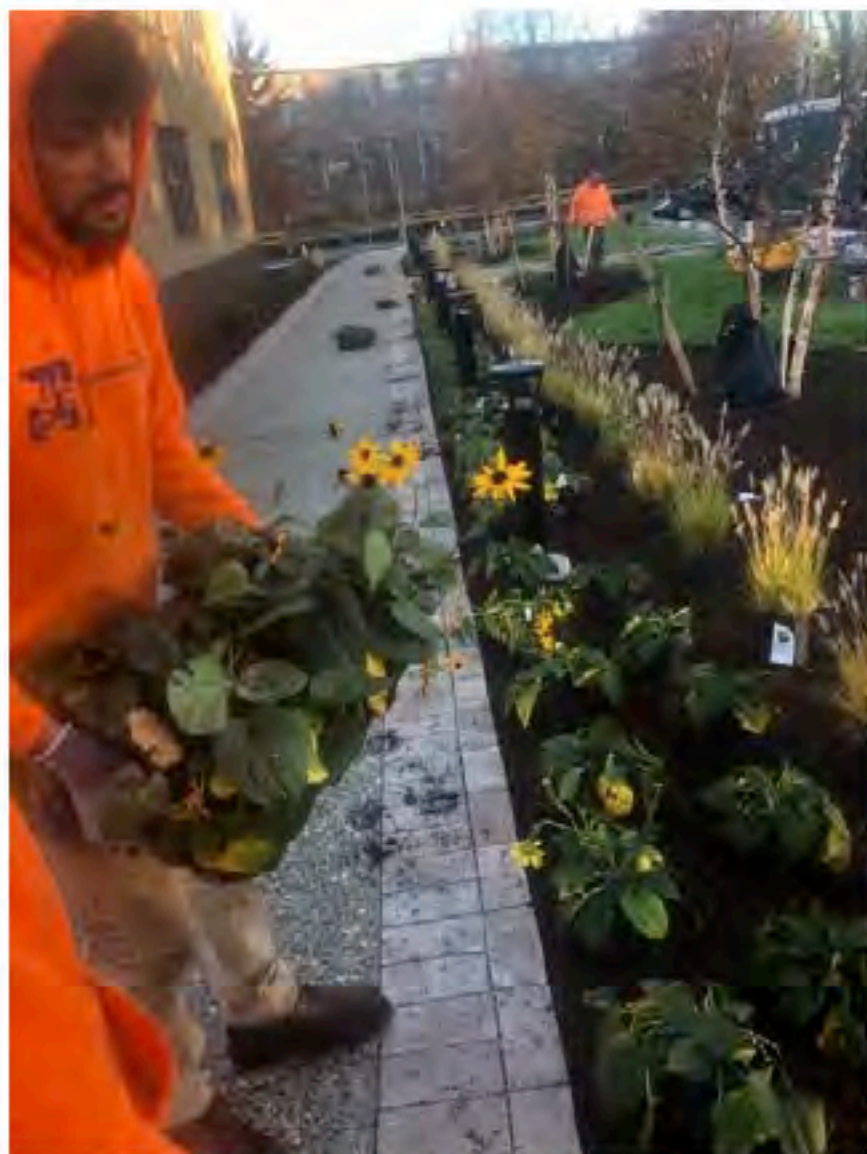
Pilot Citizens Bank Parking Lot Retrofit Project



Parking Lot Prior to Retrofit



Completed Project



WRWC River Rangers Completing Landscape Installation at Pilot



Nature is at work here!

We're creating a healthy community! This site uses nature to clean dirty stormwater and reduce flooding.

www.greeninfrastructureri.org



Clean

The rain garden removes sand, dirt and other pollutants from the rain water before it enters the Woonasquatucket River.



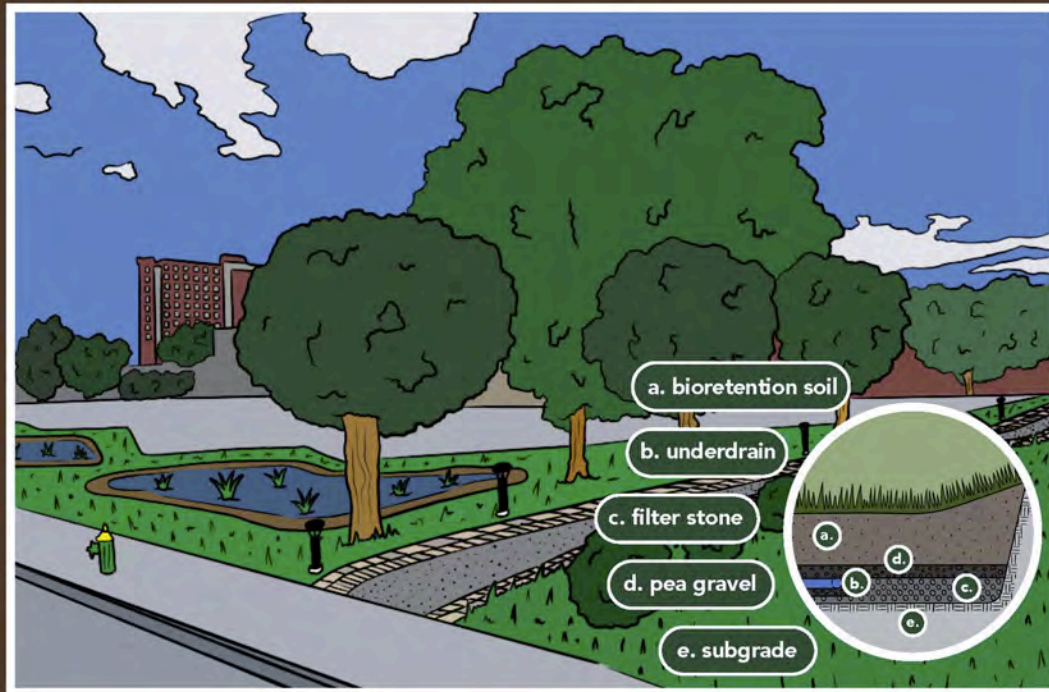
Protect

Absorbs rain and reduces flooding.



Economy

This land is protected and used by local residents and businesses. Green space increases property values for everyone.



a. bioretention soil

b. underdrain

c. filter stone

d. pea gravel

e. subgrade

Cool

Removes hard surfaces that hold heat. Adds plants and trees that provide shade for people and wildlife.



Wellness

Provides cleaner air and places to rest outside, connecting people to nature in the city.



Habitat

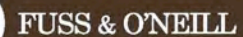
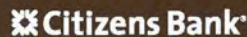
Attracts and feeds animals like butterflies, bees and birds. Butterflies and bees are really important to local farmers who provide fresh food.



San Souci Connector Rain Gardens

This site used to be a big parking lot, but it was changed to be better for people and wildlife. All the dirty water from the parking lot used to wash straight into the river.

This path and garden now create a walkway that also cleans water, leading from Olneyville Square to the Woonasquatucket River. The brick around the walkway and the garden collect and filter dirty rain water that washes off the parking lot, making the river **cleaner** and Olneyville **greener**.

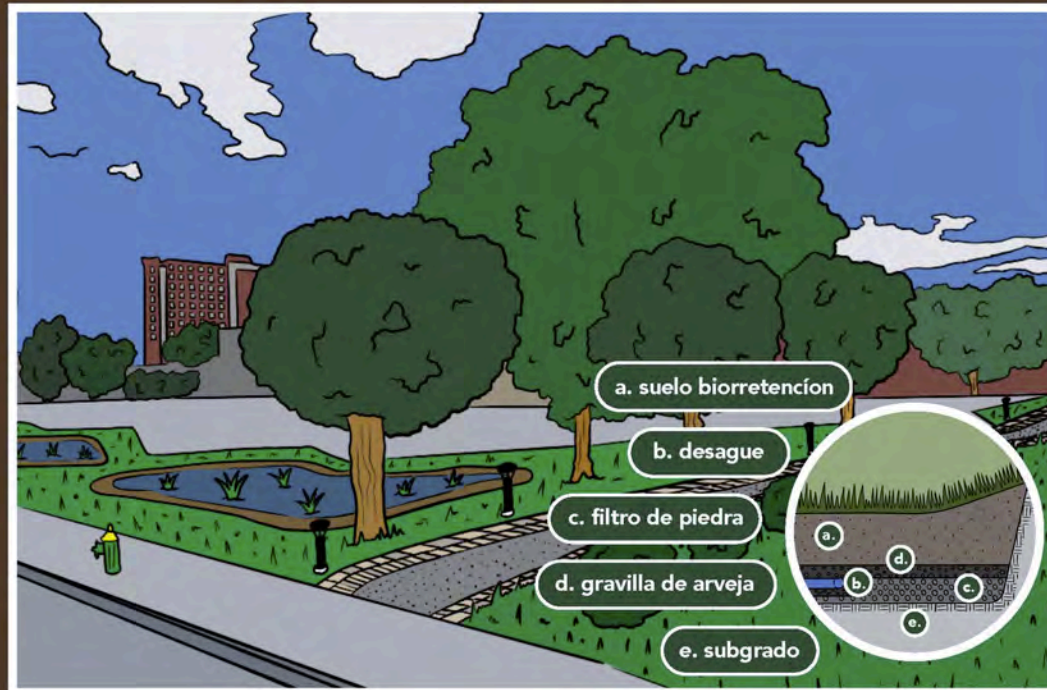




La Naturaleza trabaja Aquí!

Estamos creando una comunidad saludable! Este sitio usa la naturaleza para limpiar agua sucia luvial y reducir inundacion.

www.greeninfrastructureri.org



Limpia

El jardín luvial elimina arena, tierra, y otros contaminantes de the agua luvial antes de que entren en el Río Woonasquatucket.



Proteje

Absorbe la lluvia y reduce inundacion.



Economia

Esta tierra es protegida y usado por los negocios y residentes locales. Espacio verdes suben el valor de la propiedad para todos.



Refresca

Elimina duro superficies que sostienen calor. Agrega plantas y arboles que propocionan sombra para la gente y la fauna silvestre.



Buena Salud

Propociona aire limpio y lugares para comer afuera, conectando la gente a la naturaleza en la ciudad.



Habitar

Atrae y alimenta animales como mariposas, abejas y pajaros. Mariposas y abejas son muy importantes para los granjeros locales que propocionan comida fresca.

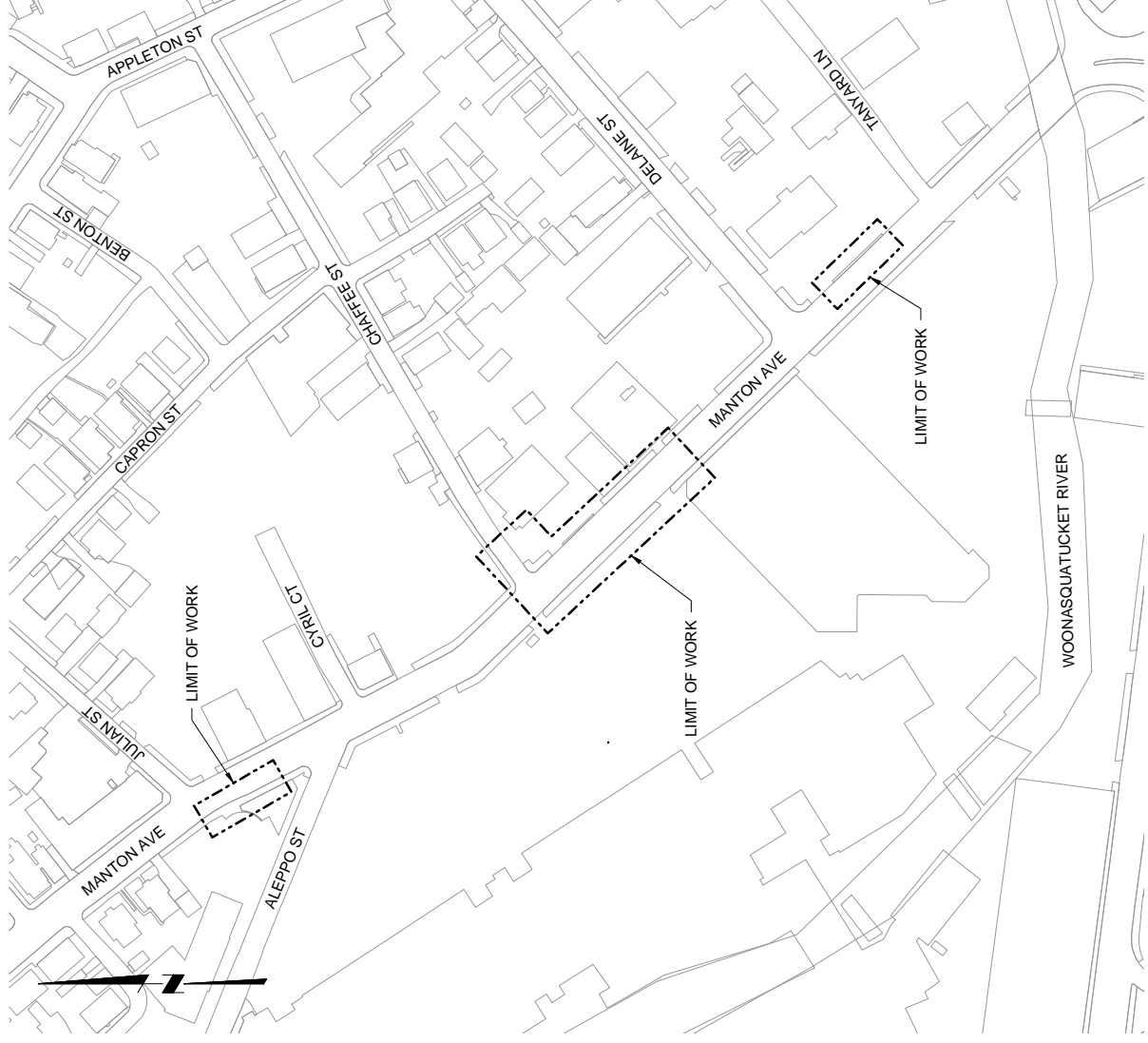
Conector de agua de lluvia San Souci

Este sitio antes era un estacionamiento grande, pero se ha cambiando para ser mejor para las personas y fauna silvestre. Toda la agua del estacionamiento antes se corria hacia el rio. Este camino y jardin ahora es un camino que tambien limpia agua, comensando en Olneyville Square hasta el Río Woonasquatucket. El ladrio sobre el camino y el jardin, colectan y filtran agua sucia de lluvia, que pasa del estacionamiento, haciendo el rio mas **limpio**, y Olneyville mas **verde**.

WOONASQUATUCKET RIVER WATERSHED COUNCIL MANTON AVENUE TREE FILTERS

JANUARY 16, 2020
CONSTRUCTION DOCUMENTS (REVISED)

Manton Avenue Tree Filter Project



PREPARED FOR:



PREPARED BY:



LOCATION MAP
SCALE: 1" = 100'

DRAWING INDEX

Table with columns: DISCIPLINE, SHEET NUMBER, COVER SHEET, DRAWING INDEX, LEGEND, ABBREVIATIONS, AND NOTES, STANDARD DETAILS - I, STANDARD DETAILS - II, STORMTREE DETAIL, OVERALL SITE PLAN, ENLARGED SITE PLANS, SURFACE RESTORATION, PLANTING SCHEDULE, AND PLANTING PLAN.

CIVIL GENERAL NOTES

- 1. THE CONTRACTOR SHALL TEMPORARILY MATCH EXISTING GRADES AND CONDITIONS WITHIN THE CONSTRUCTION AREA UNTIL FINAL RESTORATION IS COMPLETE.
2. ALL EXISTING MANHOLE FRAMES, COVERS, CATCH BASIN FRAMES AND GRATES REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER AND THEN LATER BE SELECTED BY THE OWNER AND DELIVERED BY THE CONTRACTOR TO A LOCATION DESIGNATED BY THE OWNER. ALL REMAINING FRAMES, COVERS AND GRATES NOT SELECTED BY AND DELIVERED TO THE OWNER SHALL BE DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
3. THE LIMITS OF BELOW GRADE EXCAVATIONS FOR NEW PIPELINES OR STRUCTURES ARE APPROXIMATE, ACTUAL, HORIZONTAL AND VERTICAL LIMITS INCLUDING MEASUREMENT FOR THE NEW WORK SHALL BE APPROVED BY THE ENGINEER DURING CONSTRUCTION.
4. INTERRUPTIONS OF SERVICES SHALL NOT BE PERMITTED. THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES AND PROVIDE ALL TEMPORARY UTILITIES AND CONNECTIONS TO AVOID INTERRUPTIONS OF WATER, SANITARY, DRAINAGE, ELECTRIC, PHONE, GAS, FIBEROPTICS, AND CABLE SERVICES.
5. PRIOR TO BEGINNING WORK THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS INFORMATION AND REPORT ANY DISCREPANCIES BETWEEN THE PLANS AND THE ACTUAL CONDITIONS TO THE ENGINEER.
6. THE CONTRACTOR SHALL PROVIDE ALL EROSION AND SEDIMENT CONTROL DEVICES, AND SHALL NOT COMMENCE CONSTRUCTION UNTIL THESE MEASURES HAVE BEEN INSTALLED AND APPROVED BY THE ENGINEER.
7. THE CONTRACTOR SHALL PROTECT ALL TRAVELED WAYS FROM DUST AND CONSTRUCTION DEBRIS AT ALL TIMES.
8. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, ALL AREAS ADJACENT TO THE LIMITS OF CONSTRUCTION WHICH ARE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.
9. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEMOLISHED MATERIALS, RUBBISH EXCAVATED MATERIAL AND DEBRIS UNLESS OTHERWISE NOTED, AND IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS HAVING JURISDICTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL DISPOSAL PERMITS AT NO ADDITIONAL COST TO THE OWNER.
10. THE CONTRACTOR MAY BE ASKED BY THE OWNER TO SUSPEND CONSTRUCTION OPERATIONS TEMPORARILY TO AVOID CONFLICTS WITH LARGE PUBLIC EVENTS OR LARGE STORM EVENTS. THE CONTRACTOR SHALL NOT BE COMPENSATED FOR COSTS RELATING TO SHUTDOWNS FOR THESE REASONS.
11. THE CONTRACTOR SHALL NOT BLOCK ACCESS TO STREET AND PRIVATE PARKING IN THE VICINITY OF THE LIMITS OF CONSTRUCTION AFTER WORK HOURS AND ON WEEKENDS.
12. ESTABLISHED WORKING HOURS OF 7:00 AM TO 4:00 PM, MONDAY THROUGH FRIDAY WITHOUT APPROVAL OF THE OWNER.
13. ALL STREET EXCAVATIONS SHALL BE COMPLETELY CLOSED AT THE END OF EACH WORKING DAY BY BACKFILLING AND TEMPORARY PAVING OR BY COVERING WITH STEEL PLATES WHEN APPROVED BY THE OWNER.
14. EXISTING UTILITY POLES THAT FALL WITHIN 5 FEET OF THE PROPOSED EDGE OF TRENCH SHALL BE SUPPORTED BY THE UTILITY OWNER DURING EXCAVATION OF THE TRENCH. CONTRACTOR SHALL COORDINATE SUCH SUPPORT AND RESPONSIBILITY FOR COSTS AND FEES. EXISTING GAS, ELECTRIC AND TELEPHONE UTILITIES SHALL BE PROTECTED AND SUPPORTED BY THE CONTRACTOR WITH THE UTILITY OWNER TO SUPPORT AND BE RESPONSIBLE FOR COSTS AND FEES. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORTING THE EXISTING UTILITY IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS.
15. SPECIFIC DETAIL CALLOUTS MAY NOT BE INCLUDED WITHIN THE DRAWING SET. THE CONTRACTOR SHALL REFERENCE DETAILS ON CG SHEETS AS APPLICABLE WHEN A DETAIL CALLOUT HAS NOT BEEN INCLUDED.
16. THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), OR LATEST REVISION, THE RHODE ISLAND STATE BUILDING CODE (LATEST EDITION), OR LATEST REVISION, AND RHODE ISLAND STANDARD DETAILS ARE MADE A PART HEREOF AS FULLY AND COMPLETELY AS IF ATTACHED HERETO.
20. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY, WHICH INCLUDES WORKING WITH AND HANDLING CONTAMINATED SOILS PRESENT AT THE SITE. THE CONTRACTOR SHALL PROVIDE TEMPORARY FENCING AND/OR BARRIERS AROUND ALL OPEN EXCAVATED AREAS, AND CONDUCT ALL WORK IN ACCORDANCE WITH OSHA STANDARDS AND REQUIREMENTS OF THE OWNER AND THE CITY OF CENTRAL FALLS.
21. THE CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS, PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH THE SAME, AND COORDINATE WITH THE ENGINEER AS REQUIRED.
22. CONTRACTOR SHALL PROVIDE EMERGENCY ACCESS TO POLICE AND FIRE DEPARTMENTS AT ALL TIMES.
23. IF ANY DEVIATION OR ALTERATION OF THE WORK PROPOSED ON THESE DRAWINGS IS REQUIRED, THE CONTRACTOR IS TO IMMEDIATELY CONTACT AND COORDINATE WITH THE ENGINEER AND OWNER.
24. ANY AREA OUTSIDE OF THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO THE OWNER.

CIVIL GENERAL NOTES (CONTINUED)

- 25. ALL EXISTING CONDITIONS SHOWN SHALL BE CONSIDERED APPROXIMATE AND ARE BASED ON THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK WHICH WOULD BE AFFECTED.
26. ALL ROADWAY WORK SHALL CONFORM TO THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION (RIDOT) REQUIREMENTS AND RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2004 EDITION OR LATEST REVISION.

LAYOUT AND GRADING NOTES

- 1. ALL LINES ARE PERPENDICULAR OR PARALLEL TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE INDICATED.
2. ACCESSIBLE RAMPS SHALL BE PER THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES.
3. CONTRACTOR TO PERFORM BENCH-MARK FIELD LEVEL VERIFICATION AND COORDINATE LAYOUT CHECK PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CONTACT ENGINEER IF ANY DISCREPANCIES ARE FOUND.
4. THE PROPOSED WALKWAYS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2% AND MAXIMUM RUNNING SLOPE OF 5% AS SHOWN ON THE CONSTRUCTION DETAILS AND GRADING PLAN.
5. SMOOTH TRANSITIONS SHALL OCCUR BETWEEN DIFFERENT MATERIALS. LEVEL CHANGES SHALL BE LESS THAN 1/2" AND HAVE BEVELED EDGES.
6. ALL WORK PERFORMED AND ALL MATERIALS FURNISHED SHALL CONFORM WITH THE LINES AND GRADES ON THE PLANS AND SITE WORK SPECIFICATIONS, UNLESS OTHERWISE DIRECTED.
7. AT ALL LOCATIONS WHERE EXISTING CURBING OR PAVEMENT ABOUT NEW CONSTRUCTION, THE EDGE OF THE EXISTING CURB OR PAVEMENT SHALL BE SAW CUT TO A CLEAN, SMOOTH EDGE. BLEND NEW PAVEMENT AND CURBS SMOOTHLY INTO EXISTING BY MATCHING LINES, GRADES AND JOINTS.
8. PITCH EVENLY BETWEEN SPOT GRADES. ALL PAVED AREAS MUST PITCH TO DRAIN AT A MIN. OF 1/8" PER FOOT UNLESS SPECIFIED.
9. GRADES SHALL CONFORM WITH ADA REQUIREMENTS WHERE APPLICABLE.
10. A CAD FILE OF THE PROPOSED DESIGN WILL BE PROVIDED TO THE AWARDED CONTRACTOR.

UTILITY NOTES

- 1. UNDERGROUND UTILITIES WERE COMPILED FROM AVAILABLE PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE AND ASSUMED. BEFORE COMMENCING SITE WORK IN ANY AREA, CONTACT "DIG SAFE" AT 1-888-DIG-SAFE AND ALL UTILITY COMPANIES NOT COVERED BY "DIG SAFE" TO ACCURATELY LOCATE UNDERGROUND UTILITIES. ANY DAMAGE TO EXISTING UTILITIES OR STRUCTURES SHALL BE THE CONTRACTOR'S RESPONSIBILITY. COSTS OF SUCH DAMAGE SHALL BE THE CONTRACTOR'S RESPONSIBILITY. NO EXCAVATION SHALL BE DONE UNTIL UTILITY COMPANIES ARE PROPERLY NOTIFIED.
2. ALL EXISTING AND PROPOSED UTILITY COVERS, GRATES, ETC. SHALL BE ADJUSTED TO BE FLUSH WITH THE SURROUNDING SURFACE OR PAVEMENT FINISH GRADE OF THIS CONTRACT. "RIM" ELEVATIONS OF STRUCTURES AND MANHOLES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH AND CONSISTENT WITH THE PROPOSED FINAL GRADES.
3. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION OF PRIVATE UTILITIES BY THE UTILITY COMPANIES, AS REQUIRED.
4. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION.
5. THE CONTRACTOR SHALL PROTECT ALL UNDERGROUND DRAINAGE, SEWER AND UTILITY FACILITIES FROM EXCESSIVE VEHICULAR LOADS DURING CONSTRUCTION. ANY DAMAGE TO THESE FACILITIES RESULTING FROM CONSTRUCTION LOADS SHALL BE RESTORED TO ORIGINAL CONDITION AT NO COST TO THE OWNER.
6. DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES BY PROVIDING TEMPORARY SUPPORTS OR SHEETING AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER.
7. EXCAVATION REQUIRED WITHIN THE PROXIMITY OF EXISTING UTILITY LINES, INCLUDING THE COMBINED SEWER, SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.

SURVEYING NOTES

- 1. DESIGN DRAWINGS PREPARED FROM AN EXISTING CONDITIONS TOPOGRAPHIC SURVEY CONDUCTED BY NATIONAL LAND SURVEYOR INC. BETWEEN AUGUST AND SEPTEMBER 2019.
2. HORIZONTAL DATUM BASED ON NORTH-AMERICAN DATUM OF 19 83 (NAD- 83) RHODE ISLAND STATE PLANE COORDINATE SYSTEM.
3. VERTICAL DATUM BASED ON NORTH-AMERICAN VERTICAL DATUM OF 19 85 (NAVD- 85).
4. PROPERTY LINES SHOWN ARE TAKEN FROM GEOGRAPHIC INFORMATION SYSTEM (GIS) DATA AND ARE APPROXIMATE ONLY.
5. SURVEY IS INCOMPLETE ON MANTON AVE NORTH OF ALEPPO ST. AND IN BETWEEN DELAINE ST AND TANYARD LN. AND ON CHAFFEE ST NORTH-EAST OF MANTON AVE. CONTRACTOR TO TEST PIT IN ADVANCE OF WORK WHERE SURVEY IS INCOMPLETE IN ORDER TO IDENTIFY UTILITY CONFLICTS.

EROSION AND SEDIMENTATION CONTROL NOTES

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING OR INSTALLING ALL TEMPORARY SEDIMENT AND EROSION CONTROLS AS SHOWN ON THESE PLANS AND SHALL MAINTAIN ALL EROSION CONTROL MEASURES AS NECESSARY DURING THE ENTIRE CONSTRUCTION PERIOD.
2. EROSION CONTROL BARRIERS SHALL BE INSTALLED AS SHOWN ON THE EROSION CONTROL PLAN PRIOR TO COMMENCEMENT OF CONSTRUCTION OPERATIONS.
3. REQUIRED SEDIMENTATION CONTROL FACILITIES MUST BE PROPERLY ESTABLISHED, CLEARLY VISIBLE AND IN OPERATION PRIOR TO INITIATING ANY LAND CLEARING ACTIVITY AND/OR OTHER CONSTRUCTION RELATED WORK INCLUDING DEMOLITION. SUCH FACILITIES SHALL REPRESENT THE LIMIT OF WORK. WORKERS SHALL BE INFORMED THAT NO CONSTRUCTION ACTIVITY IS TO OCCUR BEYOND THE LIMIT OF WORK AT ANY TIME THROUGHOUT THE CONSTRUCTION PERIOD.
4. THE CONTRACTOR SHALL SCHEDULE WORK TO ALLOW THE FINISHED SUB GRADE ELEVATIONS TO DRAIN PROPERLY WITHOUT PONDING. SPECIFICALLY, ALLOW WATER TO ESCAPE WHERE PROPOSED CURB MAY RETAIN RUNOFF PRIOR TO APPLICATION OF SURFACE PAVING. PROVIDE TEMPORARY POSITIVE DRAINAGE, AS REQUIRED, TO STABILIZED DISCHARGE POINTS. CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY UTILITY CONNECTIONS.

EROSION AND SEDIMENTATION CONTROL NOTES (CONTINUED)

- 5. THE CONTRACTOR SHALL MAINTAIN SURFACE DRAINAGE DURING CONSTRUCTION. STORMWATER SHALL BE CONTROLLED AWAY FROM WORK SITES WHILE PREVENTING AREAS OF EROSION.
6. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 14 DAYS UPON COMPLETION OF WORK IN THAT AREA.
7. NEWLY VEGETATED AREAS SHALL BE MAINTAINED REGULARLY TO ENSURE STABLE VEGETATED SURFACES.
8. ANY ACCUMULATION OF PONDING WATER IN AREAS WITHIN THE LIMITS OF DISTURBANCE, OTHER THAN DESIGNATED AREAS, SHALL BE REMOVED OR PROVIDE POSITIVE DRAINAGE TO PREVENT FUTURE PONDING.
9. ANY DEWATERING WASTE WATERS PUMPED FROM EXCAVATIONS SHALL BE CONVEYED BY HOSE TO AN UPLAND AREA AND DISCHARGED INTO HAY BALE ENCLOSURES OR SEDIMENTATION BAGS AS REQUIRED.
10. CONSTRUCTION SITE WASTE MATERIALS SHALL BE PROPERLY CONTAINED ONSITE AND DISPOSED OFF SITE IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE REGULATIONS.
11. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON A WEEKLY BASIS AND AFTER EACH STORM EVENT OF 0.25 INCH OR GREATER DURING CONSTRUCTION TO ENSURE THAT CHANNELS, DITCHES AND PIPES ARE CLEAR OF DEBRIS AND THAT THE EROSION CONTROL BARRIERS ARE INTACT. IDENTIFIED DEFICIENCIES SHALL BE CORRECTED IMMEDIATELY.
12. THE CONTRACTOR SHALL CLEAN AND MAINTAIN EROSION CONTROL BARRIER WHEN SEDIMENT ACCUMULATES TO ONE HALF THE HEIGHT OF THE HAYBALES OR ONE THIRD THE HEIGHT OF SILT FENCE. MATERIAL COLLECTED FROM THE SILTATION BARRIERS SHALL BE REMOVED AS NECESSARY AND DISPOSED IN AN UPLAND AREA.
13. THE CONTRACTOR SHALL REMOVE SEDIMENT AND DEBRIS FROM ALL CATCH BASINS, MANHOLES, AND THE DRAINAGE SYSTEM ON A ROUTINE BASIS. IMMEDIATELY FOLLOWING SITE STABILIZATION, AND PRIOR TO PROJECT COMPLETION AND ACCEPTANCE.
14. CATCH BASINS AND STORM DRAIN INLETS SHALL BE PROTECTED WITH INLET PROTECTION.
15. THE CONTRACTOR SHALL NOT REMOVE ANY HAY BALES, SILT FENCE OR OTHER EROSION CONTROLS UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED.
16. INSTALLATION OF THE EROSION CONTROL BARRIERS AS ILLUSTRATED IS INTENDED TO REPRESENT THE MINIMUM SEDIMENTATION CONTROL FACILITIES NECESSARY TO MEET ANTICIPATED SITE CONDITIONS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR ENGINEER.
17. EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED ONCE ALL UPSTREAM AREAS ARE STABILIZED.

ABBREVIATIONS

Table with columns: ABBREVIATION, DESCRIPTION. Includes ADA (AMERICANS WITH DISABILITIES ACT), ADJ (ADJUST), APPROX (APPROXIMATE), AVE (AVENUE), CB (CATCH BASIN), CI (CAST IRON), CLF (CHAIN LINK FENCE), CO (CLEANOUT), CONC (CONCRETE), CU YRD (CUBIC YARDS), D (DRAINAGE), DI (DUCTILE IRON OR DROP INLET), DIMH (DRAIN MANHOLE), DUCT (DUCTILE), EMH (ELECTRIC MANHOLE), EXIST (EXISTING), G (GAS), GV (GATE VALVE), LF (LINEAR FOOT), MAX (MAXIMUM), MH (MANHOLE), MIN (MINIMUM), OHW (OVERHEAD WIRE), S (SEWER), SMH (SEWER MANHOLE), SS (STAINLESS STEEL), ST (STORMTREE OR STREET), STD (STANDARD), TBD (TO BE DETERMINED), TC (TELECOMMUNICATION), TMH (TELECOMMUNICATION MANHOLE), TYP (TYPICAL), UG (UNDERGROUND), W (WATER), WW (WATER VALVE).

PROPOSED LEGEND

Table with columns: SYMBOL, DESCRIPTION. Includes STORMTREE, PLANTING BED, CONCRETE PAVERS, TREE, SIDEWALK OR PAVEMENT, GRANITE CURB, UNDERDRAIN.

EXISTING LEGEND

Table with columns: SYMBOL, DESCRIPTION. Includes BOUNDARY, ABUTTER, MAJOR CONTOUR, MINOR CONTOUR, TELECOMMUNICATION LINE, GAS LINE, DRAINAGE LINE, SEWER LINE, WATER LINE, OHW, WELL, UTILITY POLE, WATER VALVE, GAS VALVE, HYDRANT, DRAIN MANHOLE, SEWER MANHOLE, CATCH BASIN.

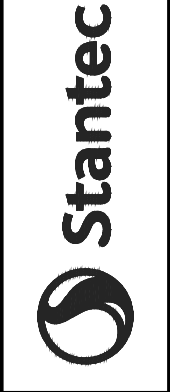


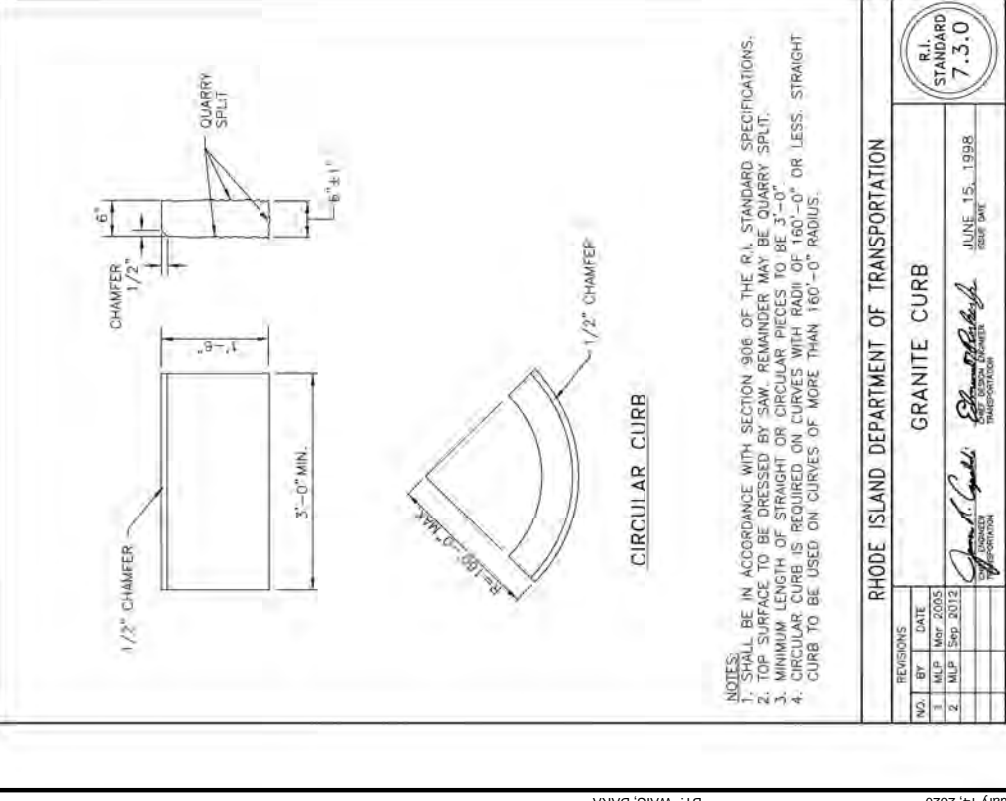
Table with columns: DATE, DRAWN BY, DESIGNED BY, CHECKED BY, APPROVED BY. Includes dates and names: DATE OCTOBER 25, 2019; DRAWN BY D WAIS; DESIGNED BY Z HALSTEAD; CHECKED BY C FEENEY; APPROVED BY C FEENEY.

Table with columns: SCALE, WARNING, IF THIS BAR DOES NOT MEASURE THEN DRAWING IS NOT TO SCALE, REV, DATE, BY, DESCRIPTION.

WOONASQUATUCKET RIVER WATERSHED COUNCIL
MANTON AVENUE TREE FILTERS
GENERAL
DRAWING INDEX, LEGEND, ABBREVIATIONS, AND NOTES
G-02
19519250

GENERAL SHEET NOTES

1. DETAILS PROVIDED BY RHODE ISLAND DEPARTMENT OF TRANSPORTATION (RIDOT).
2. RIDOT DETAILS PROVIDED FOR REFERENCE ONLY. CONTRACTOR TO CONFIRM DETAIL MATCHES LATEST RIDOT STANDARD AVAILABLE ONLINE AT WWW.DOT.RI.GOV.
3. EXISTING GRANITE CURB TO BE REUSED WHEN POSSIBLE. NEW GRANITE CURB TO BE - INCHES WIDE PER CITY OF PROVIDENCE STANDARD.



REVISIONS	
NO.	DATE
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2	MAY 2012

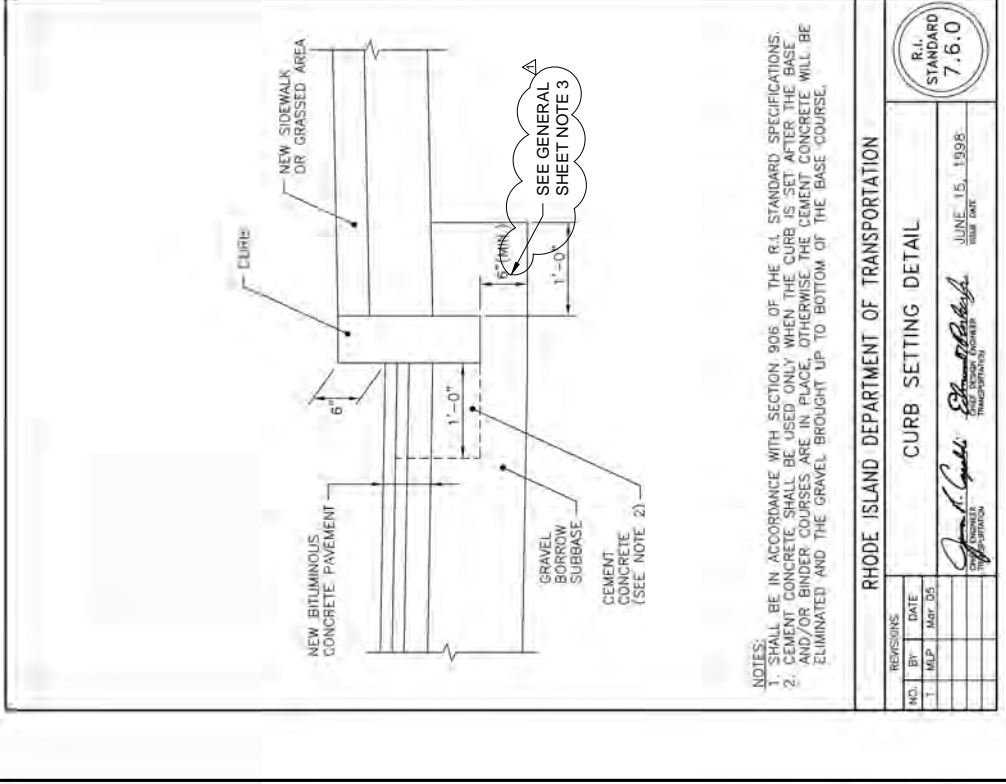
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

GRANITE CURB

R.I. STANDARD 7.3.0

JUNE 15, 1998

DATE DATE



REVISIONS	
NO.	DATE
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2	MAY 07

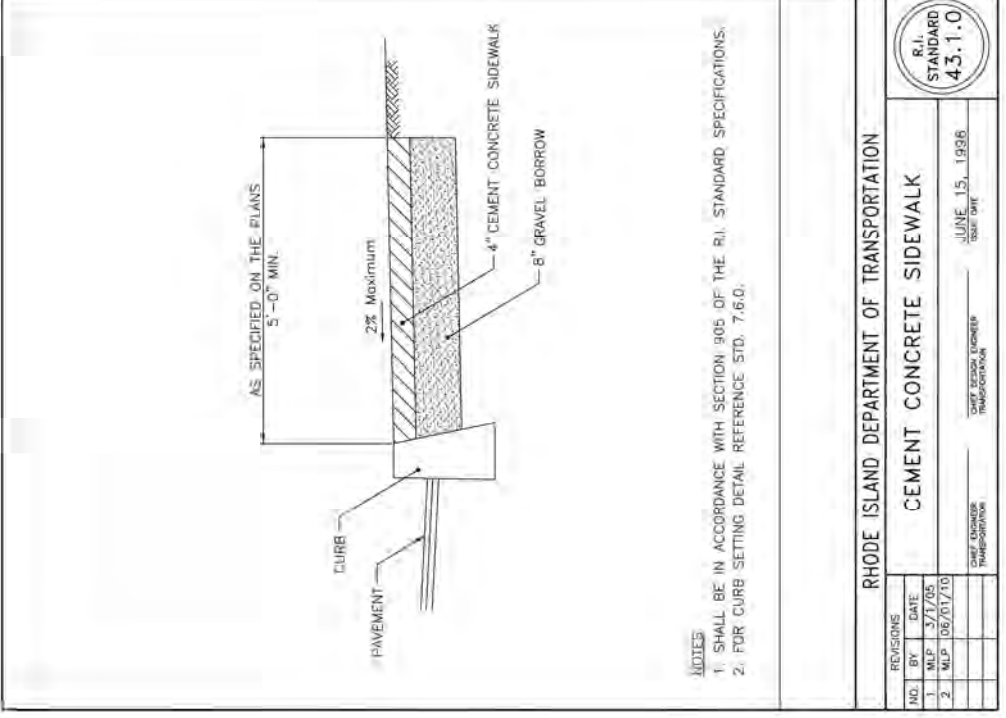
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

CURB SETTING DETAIL

R.I. STANDARD 7.6.0

JUNE 15, 1998

DATE DATE



REVISIONS	
NO.	DATE
1	MAY 05
2	MAY 07

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

CEMENT CONCRETE SIDEWALK

R.I. STANDARD 43.1.0

JUNE 15, 1998

DATE DATE

REV	DATE	BY	DESCRIPTION

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WARNING: IF THIS BAR DOES NOT MEASURE UP THEN DRAWING IS NOT TO SCALE

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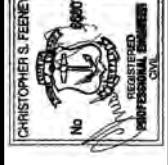
DATE: OCTOBER 25, 2019

DRAWN BY: D WAIS

DESIGNED BY: Z HALSTEAD

CHECKED BY: C FEENEY

APPROVED BY: C FEENEY



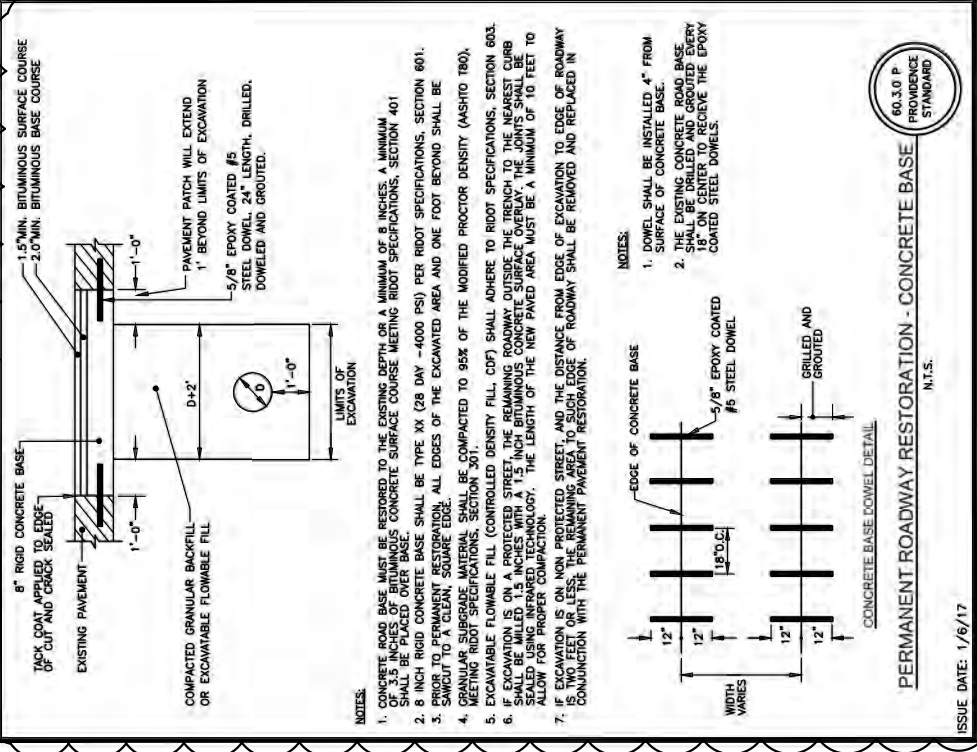
WOONASQUATUCKET RIVER WATERSHED COUNCIL

MANTON AVENUE TREE FILTERS

CIVIL GENERAL STANDARD DETAILS - I

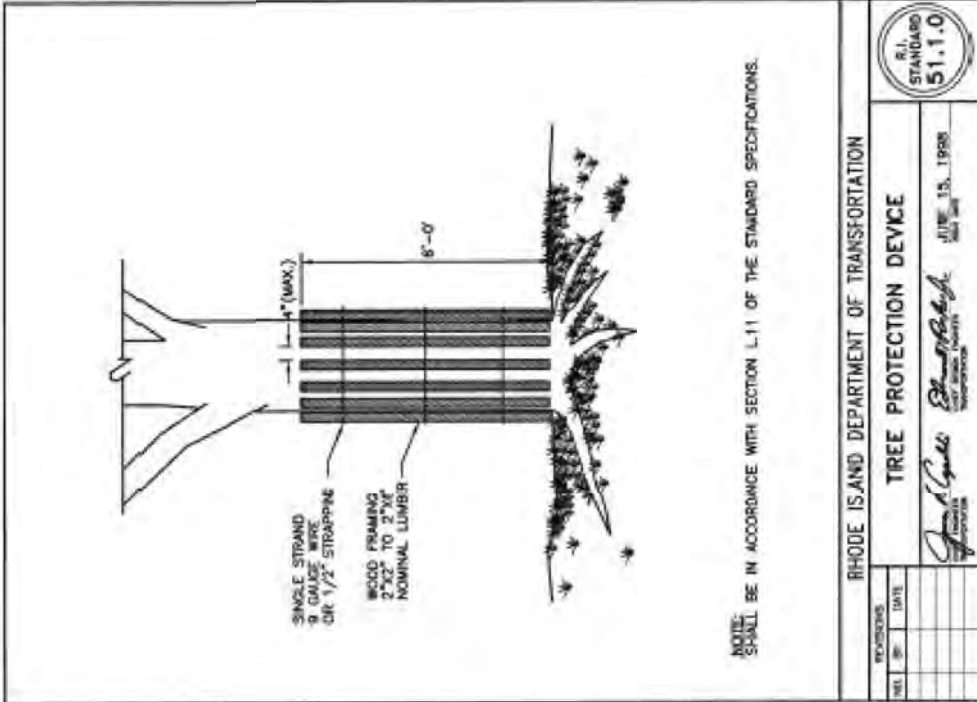
GENERAL SHEET NOTES

1. DETAILS PROVIDED BY RHODE ISLAND DEPARTMENT OF TRANSPORTATION (RIDOT).
2. RIDOT DETAILS PROVIDED FOR REFERENCE ONLY. CONTRACTOR TO CONFIRM DETAIL MATCHES LATEST RIDOT STANDARD AVAILABLE ONLINE AT WWW.DOT.RI.GOV.
3. CONTRACTOR SHALL VACUUM CONCRETE SLURRY IN ACCORDANCE WITH RIDOT SPECIFICATIONS FOR SAW CUTTING CONCRETE.



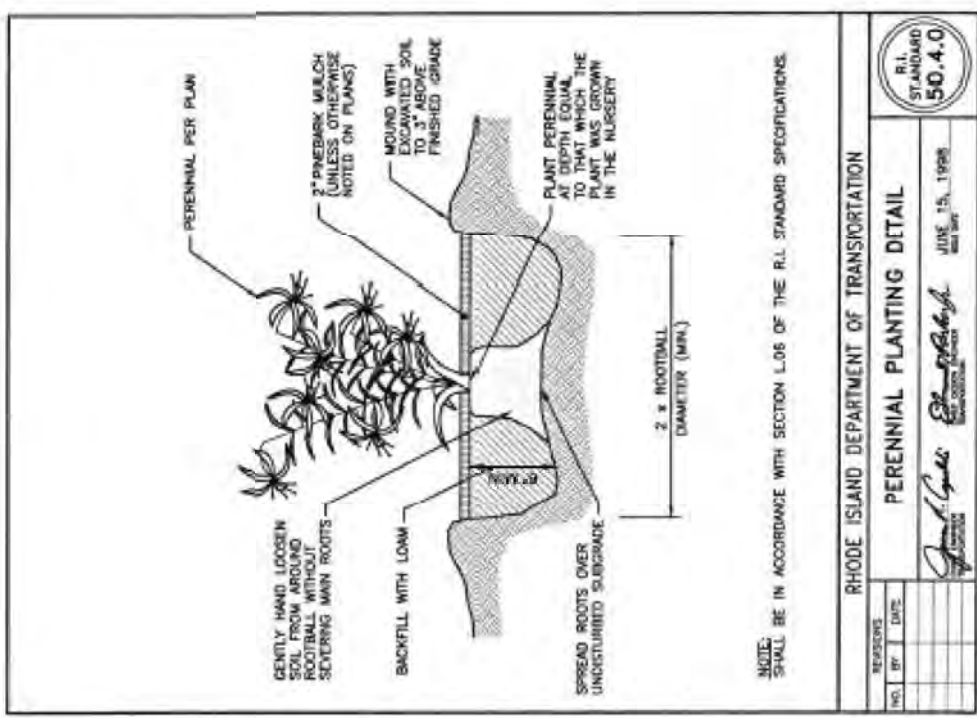
60.3.0 P
PROVIDENCE
STANDARD

PERMANENT ROADWAY RESTORATION - CONCRETE BASE
N.I.S.
ISSUE DATE: 1/9/17



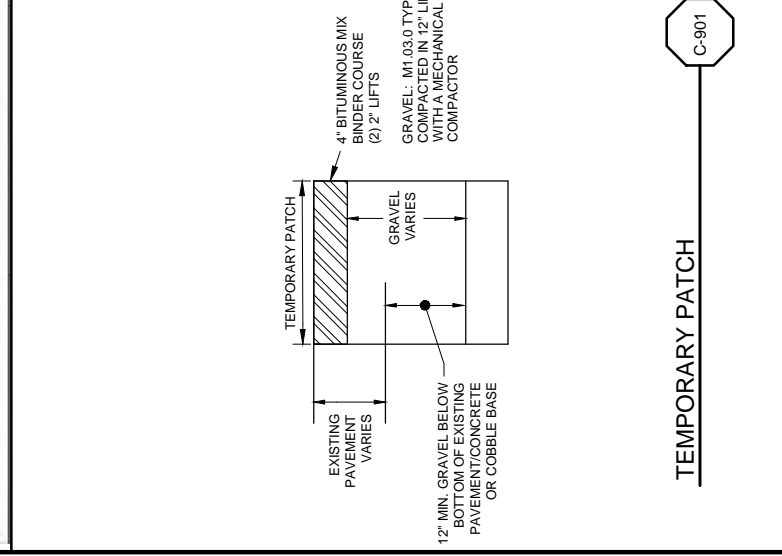
R.I. STANDARD
51.1.0

RHODE ISLAND DEPARTMENT OF TRANSPORTATION
TREE PROTECTION DEVICE
JUNE 15, 1998



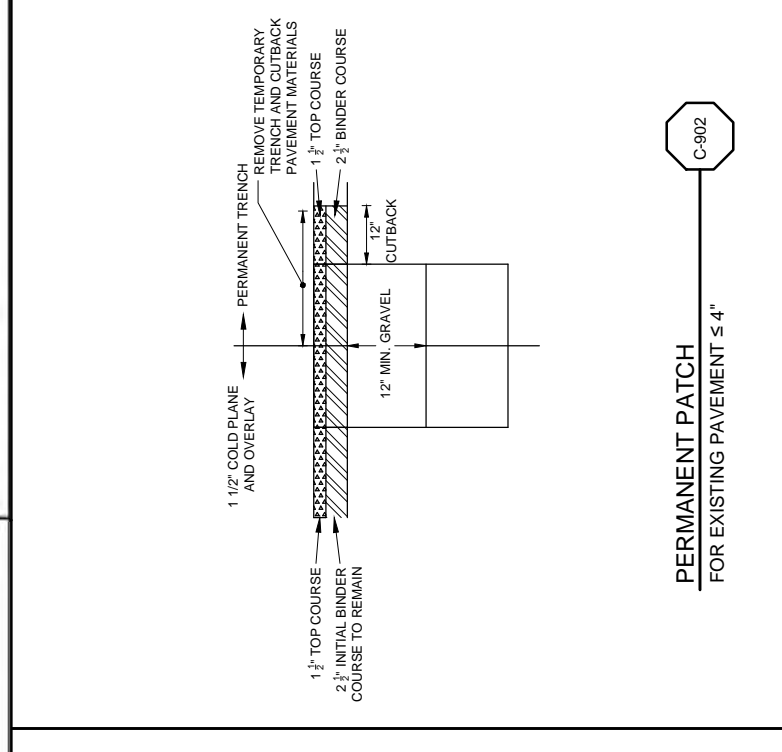
R.I. STANDARD
50.4.0

RHODE ISLAND DEPARTMENT OF TRANSPORTATION
PERENNIAL PLANTING DETAIL
JUNE 15, 1998



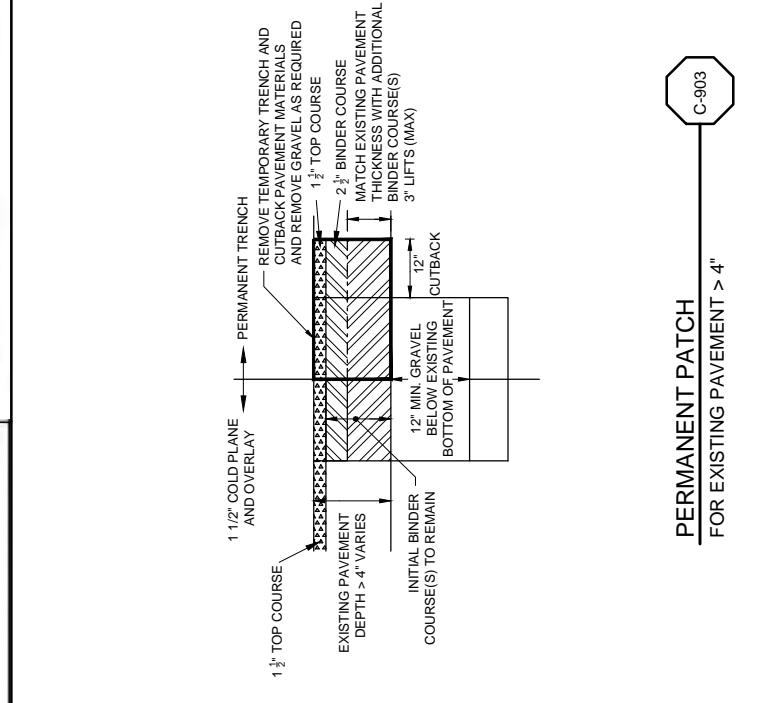
C-901

TEMPORARY PATCH
FOR EXISTING PAVEMENT ≤ 4"



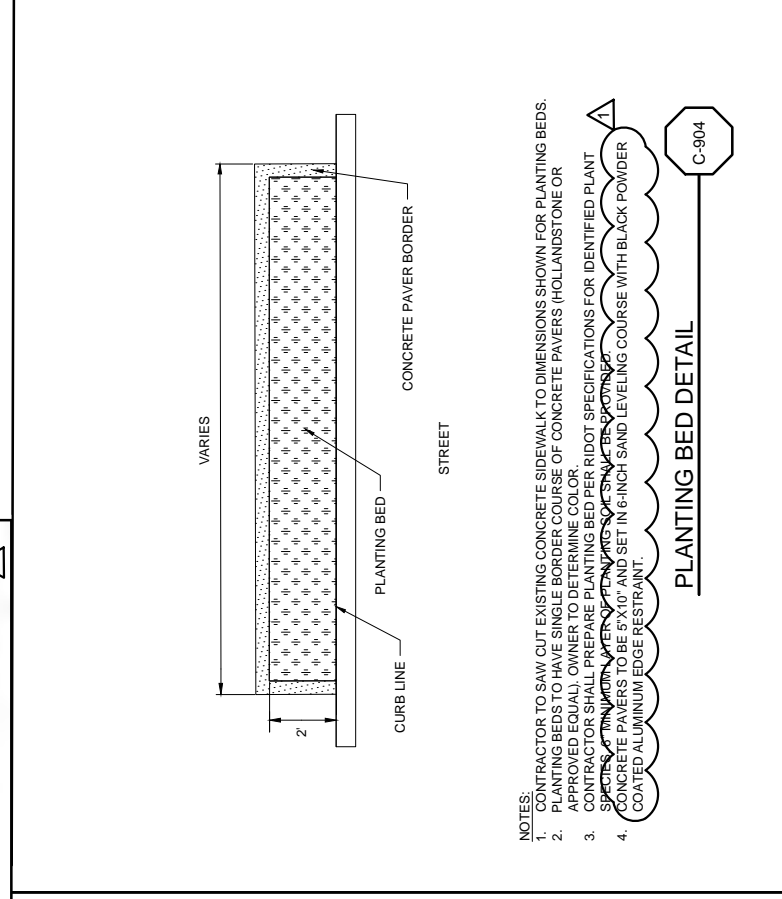
C-902

PERMANENT PATCH
FOR EXISTING PAVEMENT ≤ 4"



C-903

PERMANENT PATCH
FOR EXISTING PAVEMENT > 4"



C-904

PLANTING BED DETAIL

- NOTES:
1. CONTRACTOR TO SAW CUT EXISTING CONCRETE SIDEWALK TO DIMENSIONS SHOWN FOR PLANTING BEDS.
 2. PLANTING BEDS TO HAVE SINGLE BORDER COURSE OF CONCRETE PAVERS (HOLLANDSTONE OR PROVED EQUAL). REFER TO DETERMINING COURSE OF CONCRETE PAVERS (HOLLANDSTONE OR PROVED EQUAL) BEFORE PREPARING PLANTING BEDS PER RIDOT SPECIFICATIONS FOR IDENTIFIED PLANT SPECIES.
 3. CONCRETE PAVERS TO BE EXPOSED AND SET IN 6-INCH SAND LEVELING COURSE WITH BLACK POWDER COATED ALUMINUM EDGE RESTRAINT.

REV	DATE	BY	DESCRIPTION

SCALE: NO SCALE

WARNING: IF THIS BAR DOES NOT MEASURE THEN DRAWING IS NOT TO SCALE

DATE: OCTOBER 25, 2019
 DRAWN BY: D. WAIS
 DESIGNED BY: Z. HALSTEAD
 CHECKED BY: C. FEENEY
 APPROVED BY: C. FEENEY

CHRISTOPHER S. FEENEY
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 No. 10000

Stantec

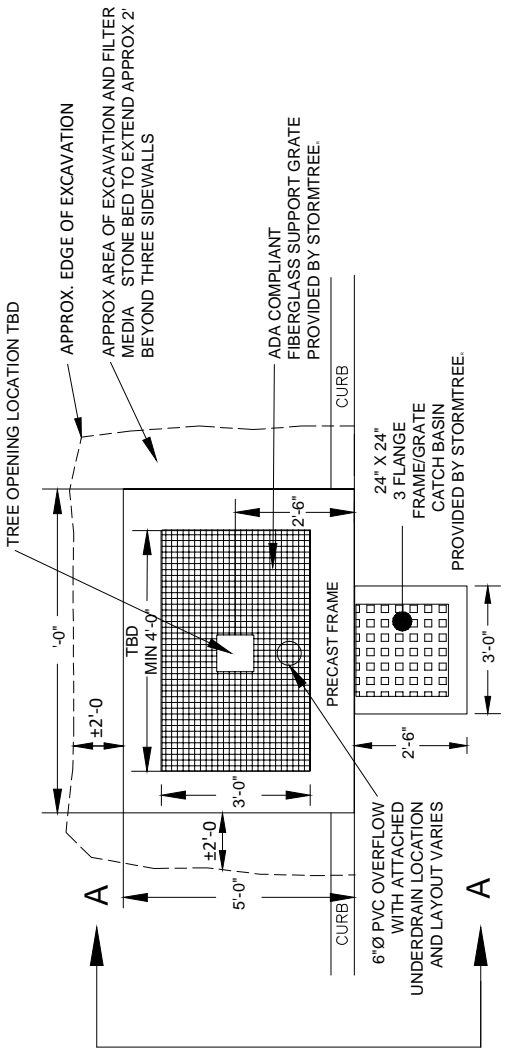
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WOONASQUATUCKET RIVER WATERSHED COUNCIL
 MANTON AVENUE TREE FILTERS
 CIVIL GENERAL
 STANDARD DETAILS - II

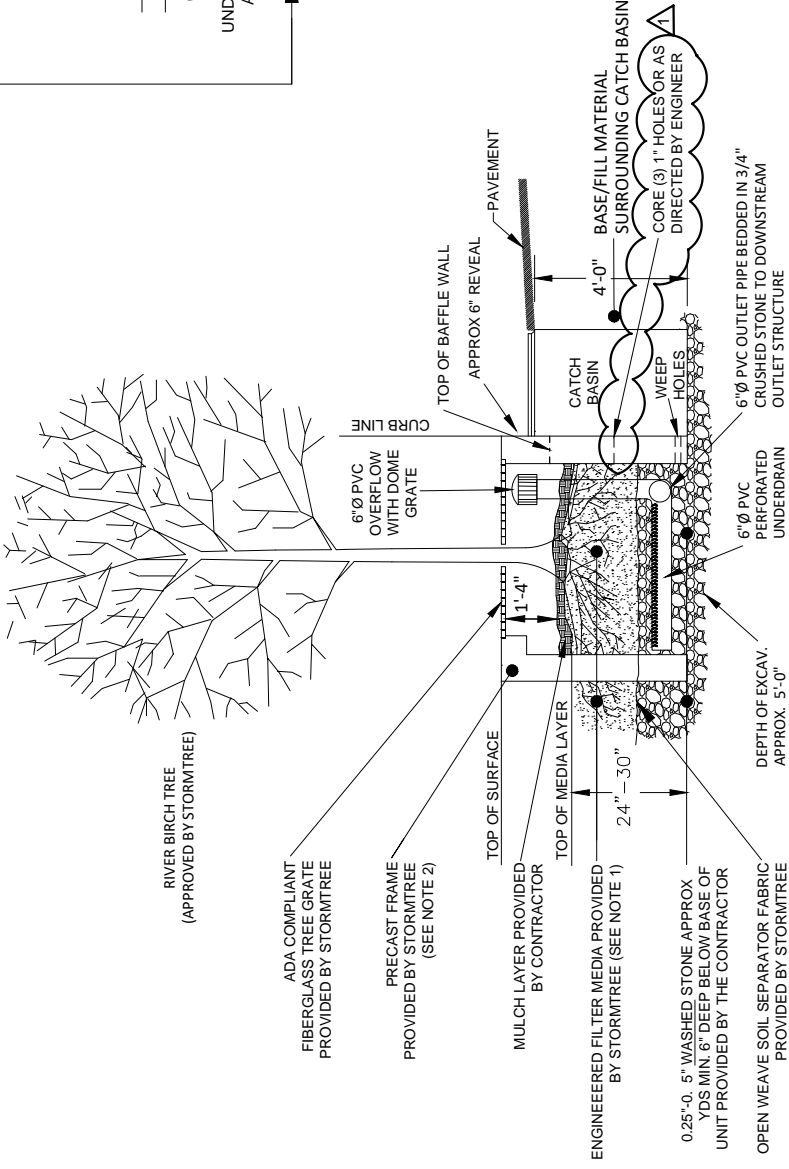
SHEET
CG-02
 195130250

GENERAL SHEET NOTES

- STORMTREE® TO PROVIDE AND DELIVER TO THE SITE. STORMTREE® SYSTEM COMPONENTS TO INCLUDE ALL OF THE FOLLOWING: PRECAST TREE FRAME, FIBERGLASS SUPPORT GRATE, CB FRAME, CB GRATE, ENGINEERED MEDIA, SOIL SEPARATOR FABRIC, AND RELATED HARDWARE.
- CONTRACTOR TO PROVIDE APPROX 1 CU YDS WASHED 0.25"-0.5" STONE PER UNIT.
- CONTRACTOR TO PROVIDE 6" PERFORATED UNDERDRAIN, 6" OUTLET PIPE TO STORM DRAIN, AND HIGH LEVEL DOME GRATE. UNDERDRAINS ARE TO BE PROVIDED ON STORMTREE FILTERS NO. 2 AND 3 ONLY.
- DEPTH OF ALL FILTER MEDIA BED SHALL BE A MINIMUM OF 24" DEEP AND NO MORE THAN A MAXIMUM OF 36" DEEP TO BE DETERMINED BY STORMTREE®, REAL DIMENSIONS OF FILTER MEDIA BED TO BE AS SPECIFIED.
- THE INTEGRATION OF ADJOINING FEATURES AND LAND SURFACES CONTIGUOUS TO THE STORMTREE® SYSTEMS (E.G. LANDSCAPING, SIDEWALKS, CURBING, PAVEMENT, PAVERS, ETC.) ARE TO BE DISCUSSED IN ADVANCE WITH STORMTREE®, THE ENGINEER AND ALL SITE SPECIFIC CONTRACTORS.



PLAN VIEW
NOT TO SCALE



NOTES:

- LAYER WITHIN UNIT TO BE "WALKED IN" COMPACTED. LAYER EXTERIOR OF UNIT SHOULD BE COMPACTED VIA VIBRATORY EQUIPMENT OR OTHER MEANS DUE TO VARIATIONS IN PRECAST FORMING. PLEASE ALLOW FOR MINOR DIFFERENCE IN OVERALL DIMENSIONS OF THE STRUCTURE.
- CONTRACTOR TO INSTALL UNDERDRAIN FROM STORMTREE UNIT WITH 0.5% SLOPE TO OUTLET. DEPTH TO BE DETERMINED IN FIELD 3'-6" TO 4'-6" TYPICAL.

**STORMTREE (ST 7X5)
TREE FILTER SYSTEM
SECTION A-A**
NOT TO SCALE

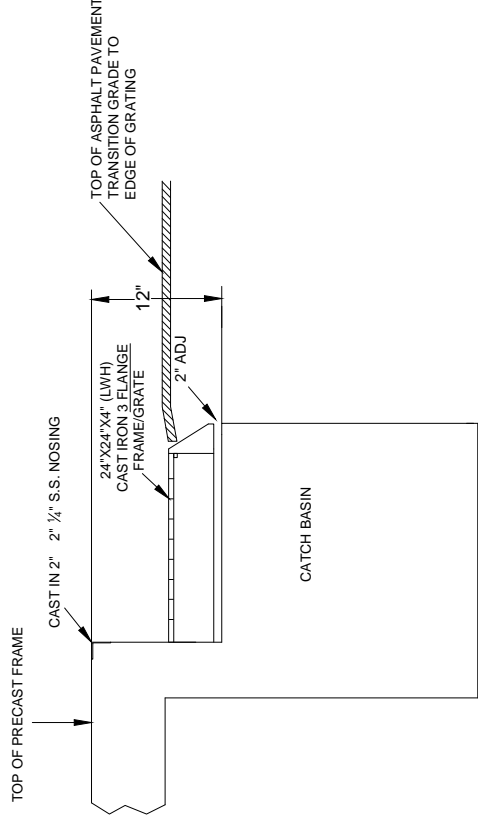


FIG CATCH BASIN (4" HIGH OPTION)
NOT TO SCALE



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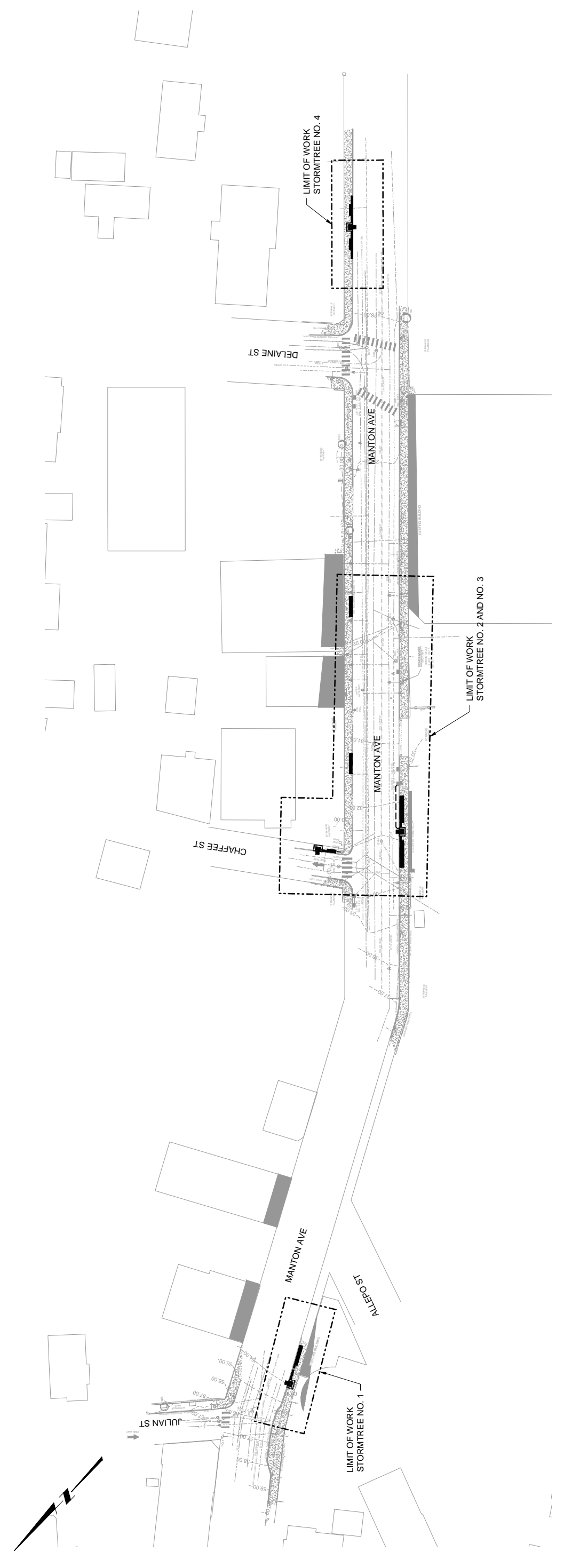
SCALE	NO SCALE
WARNING	IF THIS BAR DOES NOT MEASURE UP THEN DRAWING IS NOT TO SCALE
DATE	OCTOBER 25, 2019
DRAWN BY	D WAIS
DESIGNED BY	Z HALSTEAD
CHECKED BY	C FEENEY
APPROVED BY	C FEENEY



WOONASQUATUCKET RIVER WATERSHED COUNCIL
MANTON AVENUE TREE FILTERS
CIVIL GENERAL
STORMTREE DETAIL





GENERAL SHEET NOTES

1. REFER TO EROSION AND SEDIMENTATION CONTROL NOTES SHOWN ON G-02 PRIOR TO ANY SAWCUTTING AND/OR EXCAVATION.
2. CONTRACTOR SHALL SAWCUT ALL CONCRETE AND PAVEMENT PRIOR TO EXCAVATION.
3. CONTRACTOR SHALL INSTALL CATCH BASIN INLET PROTECTION PRIOR TO ANY SAWCUTTING AND/OR EXCAVATION (SEE C-02).



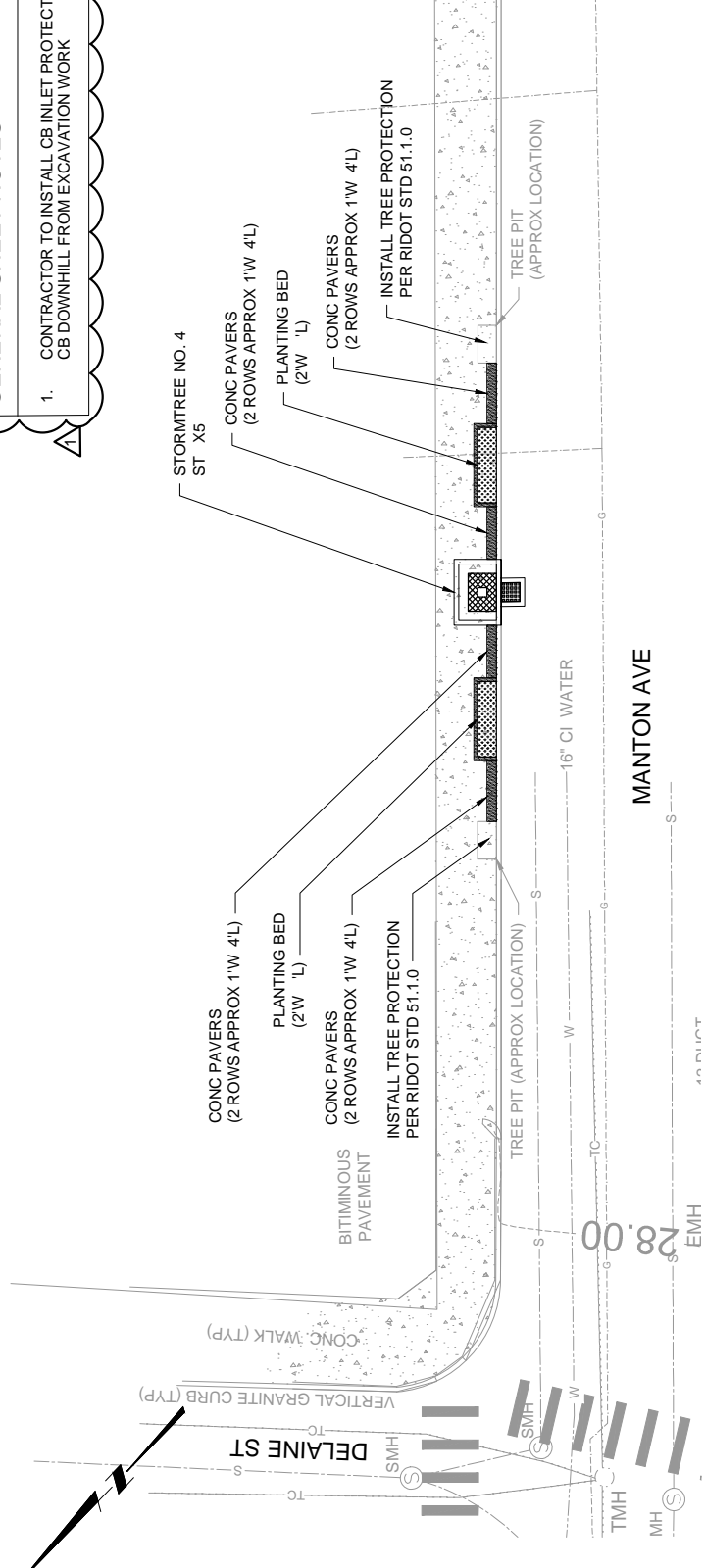
PLAN



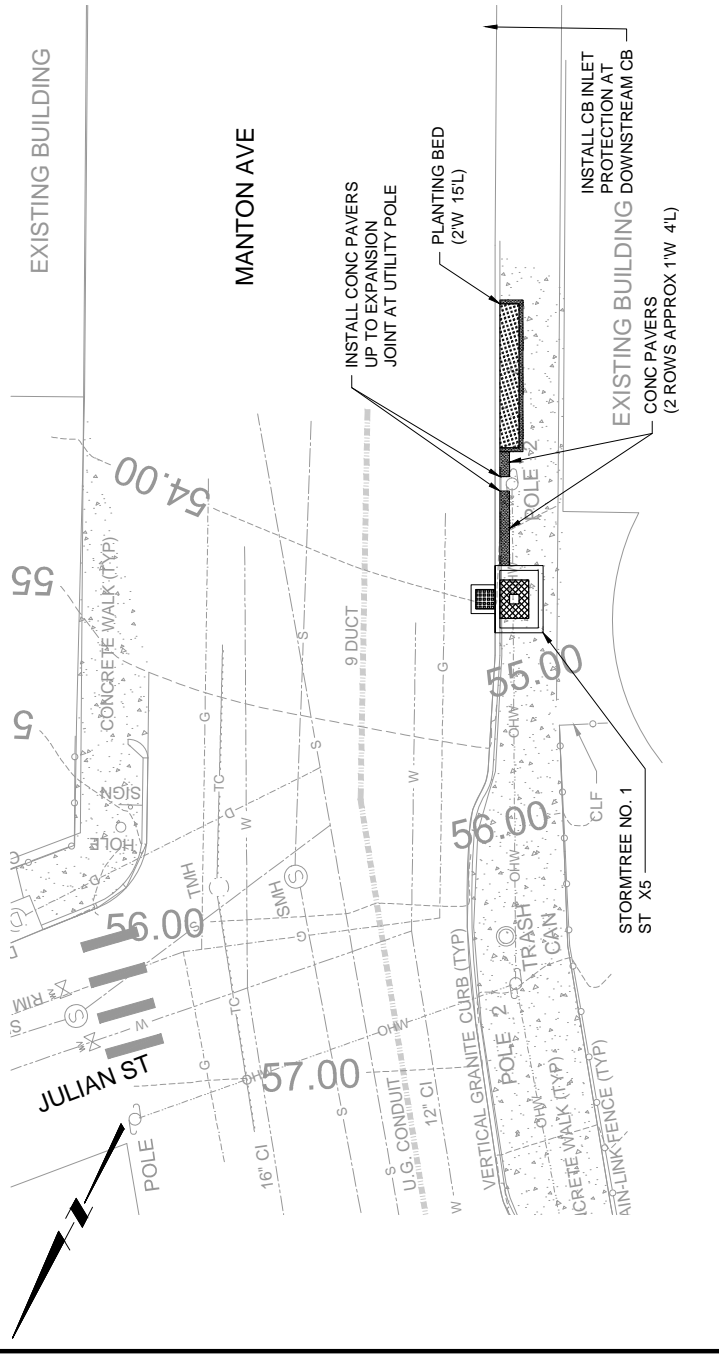
 <p>CHRISTOPHER S. FEENEY No. 10000 REGISTERED PROFESSIONAL ENGINEER STATE OF MASSACHUSETTS EXPIRES 12/31/2021</p>				WOODSQUATUCKET RIVER WATERSHED COUNCIL MANTON AVENUE TREE FILTERS CIVIL OVERALL SITE PLAN	SHEET C-01 195120250																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REV	DATE	BY	DESCRIPTION																	WARNING 0 1/2 1 IF THIS BAR DOES NOT MEASURE THEN DRAWING IS NOT TO SCALE	SCALE 1" = 40'	DATE OCTOBER 25, 2019	DRAWN BY D. WAIS	DESIGNED BY Z. HALSTEAD	CHECKED BY C. FEENEY	APPROVED BY C. FEENEY
REV	DATE	BY	DESCRIPTION																								

GENERAL SHEET NOTES

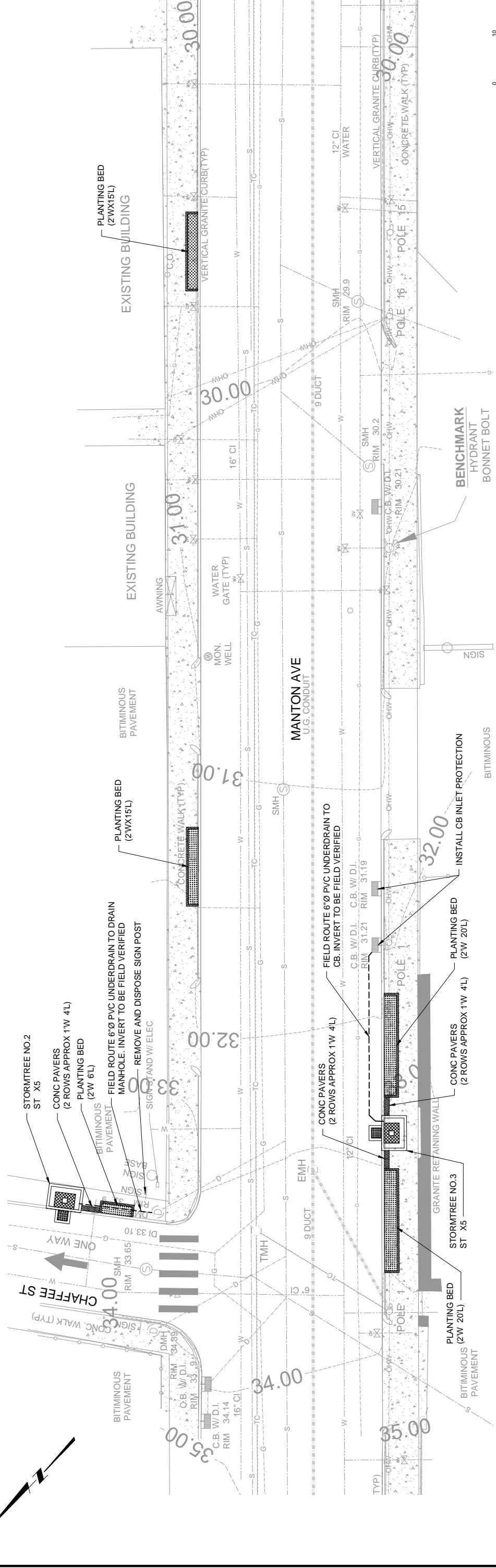
1. CONTRACTOR TO INSTALL CB INLET PROTECTION ON CB DOWNHILL FROM EXCAVATION WORK



PLAN - STORMTREE NO.4



PLAN - STORMTREE NO.1



PLAN - STORMTREE NO. 2 AND NO. 3



REV	DATE	BY	DESCRIPTION

SCALE	1" = 10'
WARNING	0 1/2 1 IF THIS BAR DOES NOT RESURFICE THEN DRAWING IS NOT TO SCALE
DATE	OCTOBER 25, 2019
DRAWN BY	D. WAIS
DESIGNED BY	Z. HALSTEAD
CHECKED BY	C. FEENEY
APPROVED BY	C. FEENEY

CD-1	
------	--

WOONASQUATUCKET RIVER WATERSHED COUNCIL	
MANTON AVENUE TREE FILTERS	
CIVIL	
ENLARGED SITE PLANS	

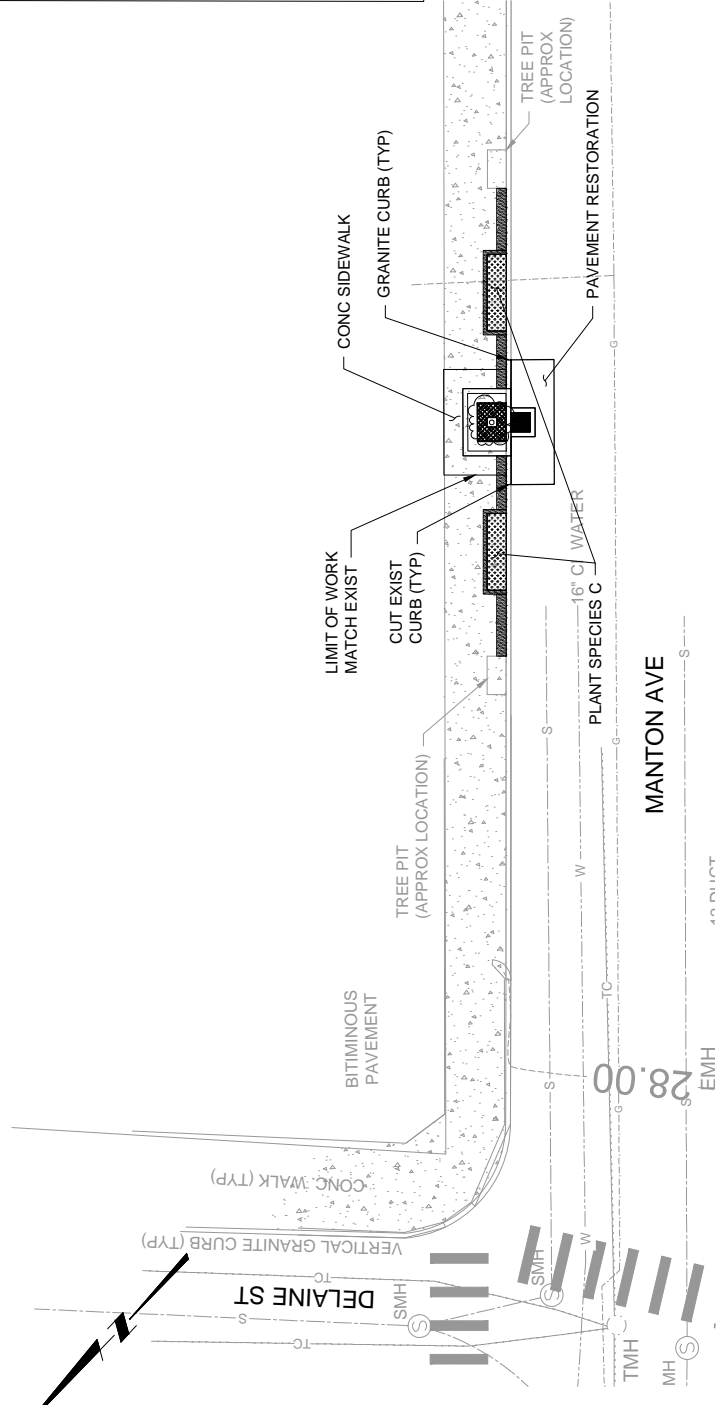
SHEET	C-02
195130250	



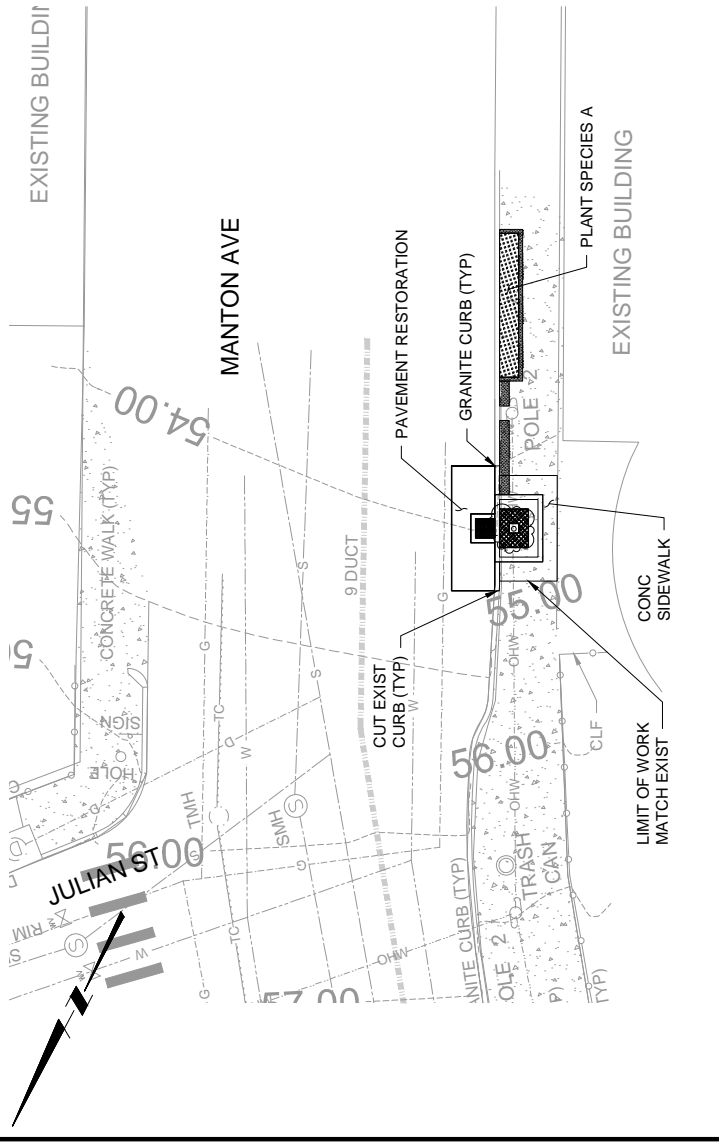
GENERAL SHEET NOTES

1. CONCRETE SIDEWALK RESTORATION TO EXTEND TO CLOSEST JOINT.
2. CONCRETE ROAD BASE ON MANTON AVENUE. CONTRACTOR TO REMOVE CONCRETE AND ASPHALT AND RESTORE PER DETAIL 60.3.0.
3. CONTRACTOR TO SAW CUT ROAD TO INSTALL NEW CATCH BASIN.
4. EXISTING GRANITE CURB TO BE CUT AND/OR RESET TO MATCH CURB LINE OF STORMTREE UNIT.
5. CONTRACTOR TO MAINTAIN ADA MINIMUM OF 3.5' FROM PAVEMENT TO RIGHT OF WAY.
6. *BETULA NIGRA* (RIVER BIRCH) TO BE PLANTED IN ALL STORMTREE UNITS. PLANTS TO BE SPACED 1' ON CENTER AND IN 6" OF LOAM OVER SUBSOIL (NOT STONE).

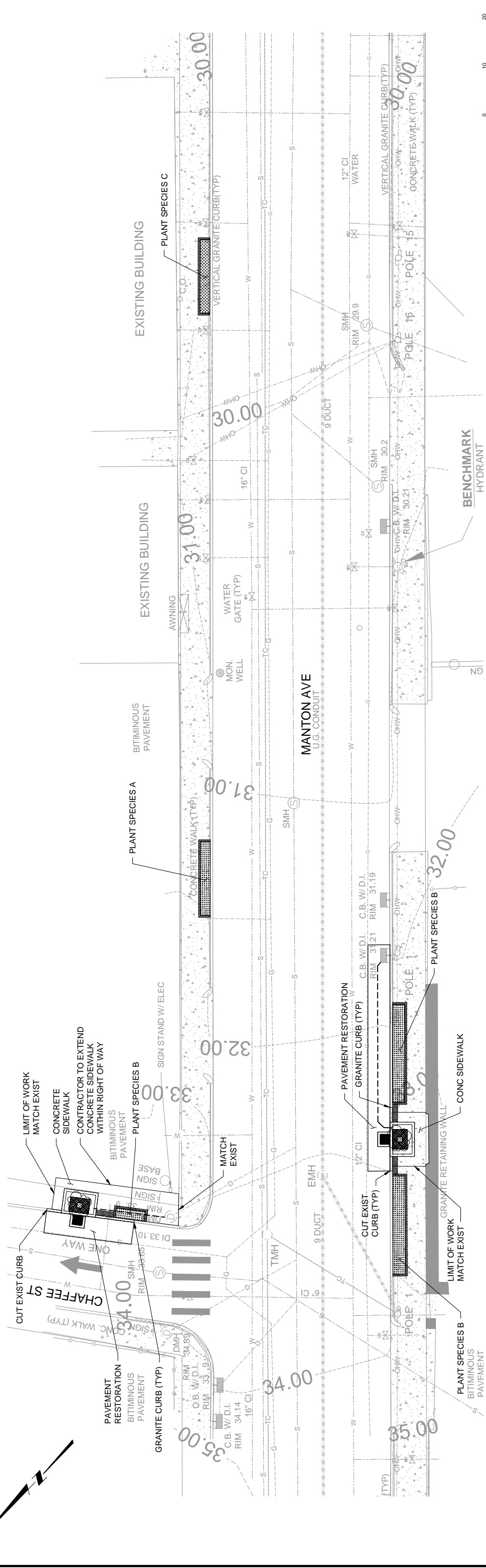
PLANT SPECIES LETTER	SPECIES NAME
A	<i>HEMEROCALLIS STELLA DE ORO</i> (STELLA DE ORO DAYLILY)
B	<i>SCHIZACHYRIUM SCOPARIUM 'CAROUSEL'</i> (CAROUSEL LITTLE BLUESTEM)
C	<i>PANICUM VIRGATUM 'CAPE BREEZE'</i> (CAPE BREEZE SWITCHGRASS)



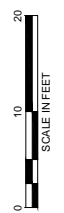
PLAN - STORMTREE NO. 4



PLAN - STORMTREE NO. 1



PLAN - STORMTREE NO. 2 AND NO. 3



12/9/19	D. WAIS	CCD-1	SCALE	1" = 10'	WARNING	DATE	OCTOBER 25, 2019	SHEET	C-03
REV	DATE	BY	DESCRIPTION	IF THIS BAR DOES NOT RESURFACE THEN DRAWING IS NOT TO SCALE	DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	WOONASQUATUCKET RIVER WATERSHED COUNCIL
					D. WAIS	Z. HALSTEAD	C. FEENEY		MANTON AVENUE TREE FILTERS
									CIVIL
									SURFACE RESTORATION PLANTING SCHEDULE/PLAN



DATE: OCTOBER 25, 2019
 DRAWN BY: D. WAIS
 DESIGNED BY: Z. HALSTEAD
 CHECKED BY: C. FEENEY
 APPROVED BY: C. FEENEY

SCALE: 1" = 10'

REV	DATE	BY	DESCRIPTION

Appendix B

**Manton Avenue Tree Filter Project
Pilot Before & After
Presentation**





WOONASQUATUCKET RIVER
WATERSHED COUNCIL

“Greening & Cleaning Manton Ave” Before & After

Encourage, support and promote the restoration and preservation of the Woonasquatucket River Watershed as an environmental, recreational, cultural, and economic asset of the State of Rhode Island.

Greening & Cleaning Manton Ave

Goals

1. Employ “Nature at Work” green infrastructure techniques along Manton Avenue to capture and treat stormwater runoff from the neighborhood, starting at Olneyville Square and moving northwest up Manton Avenue.
 - A. Install Tree Filters – 4 Tree Filters w/ attached catch basins installed
 - B. Install other green landscape elements – 8 sidewalk inset planting areas installed

Site 1 – Manton Ave Near Delaine St. in front of Dunkin Donuts



Google

Before

Site 1 – Manton Ave Near Delaine St. in front of Dunkin Donuts



New sidewalk
planting bed

New Tree Filter
w/ attached
catch basin

New sidewalk
planting bed

Note: Street tree shown in "Before" pic was knocked down by a car during the course of this project. The WRWC will be replacing the tree with remaining partner funds.

After

Site 2 – Manton Sidewalk next to Autozone (Just North of Delaine)



Looking toward Delaine

Before

Site 2 – Manton Sidewalk next to Autozone (Just North of Delaine)



New sidewalk planting bed

Looking toward Delaine



New sidewalk planting bed

Looking toward Chaffee

After

Site 3 – Manton Sidewalk in front of Atlantic Mills



Before

Site 3 – Manton Sidewalk in front of Atlantic Mills



New sidewalk planting beds

After



New Tree Filter w/
attached catch basin
(close-up)

Site 4 – Corner Manton & Chaffee



Church Parking Lot

Looking down Chaffee from Manton



From Church Parking Lot on Manton

Before

Site 4 – Corner Manton & Chaffee



New Tree Filter w/
attached catch basin &
new sidewalk planting
bed on Chaffee

After



New sidewalk-
planting bed
on Manton in
front of
Church
Parking Lot

Site 5 – Gasometer (Manton across from Julian)



Before

Site 5 – Gasometer (Manton across from Julian)



New Tree Filter w/
attached catch basin



New sidewalk
planting bed
on Manton

After

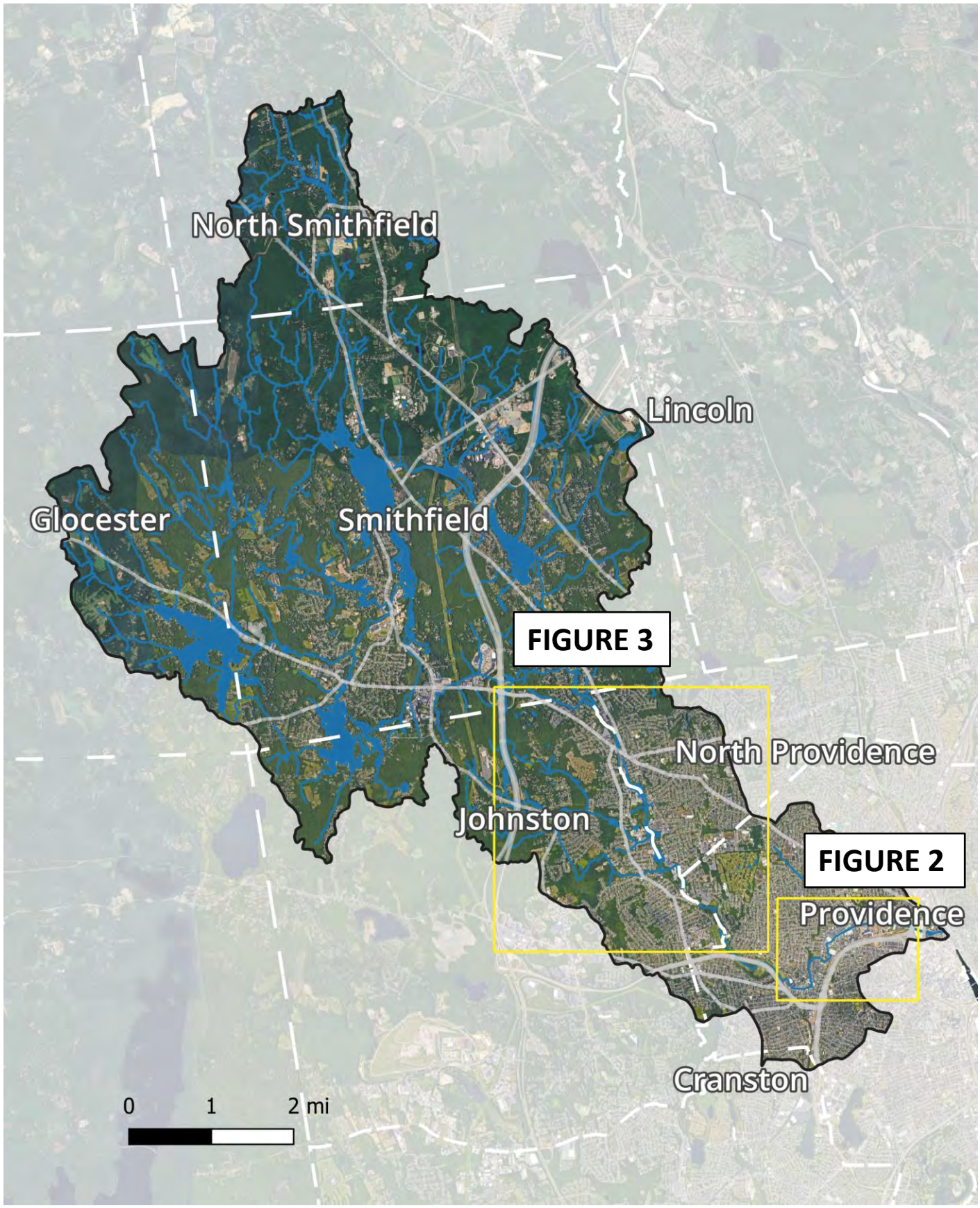
Site 5 – Gasometer (Manton across from Julian)

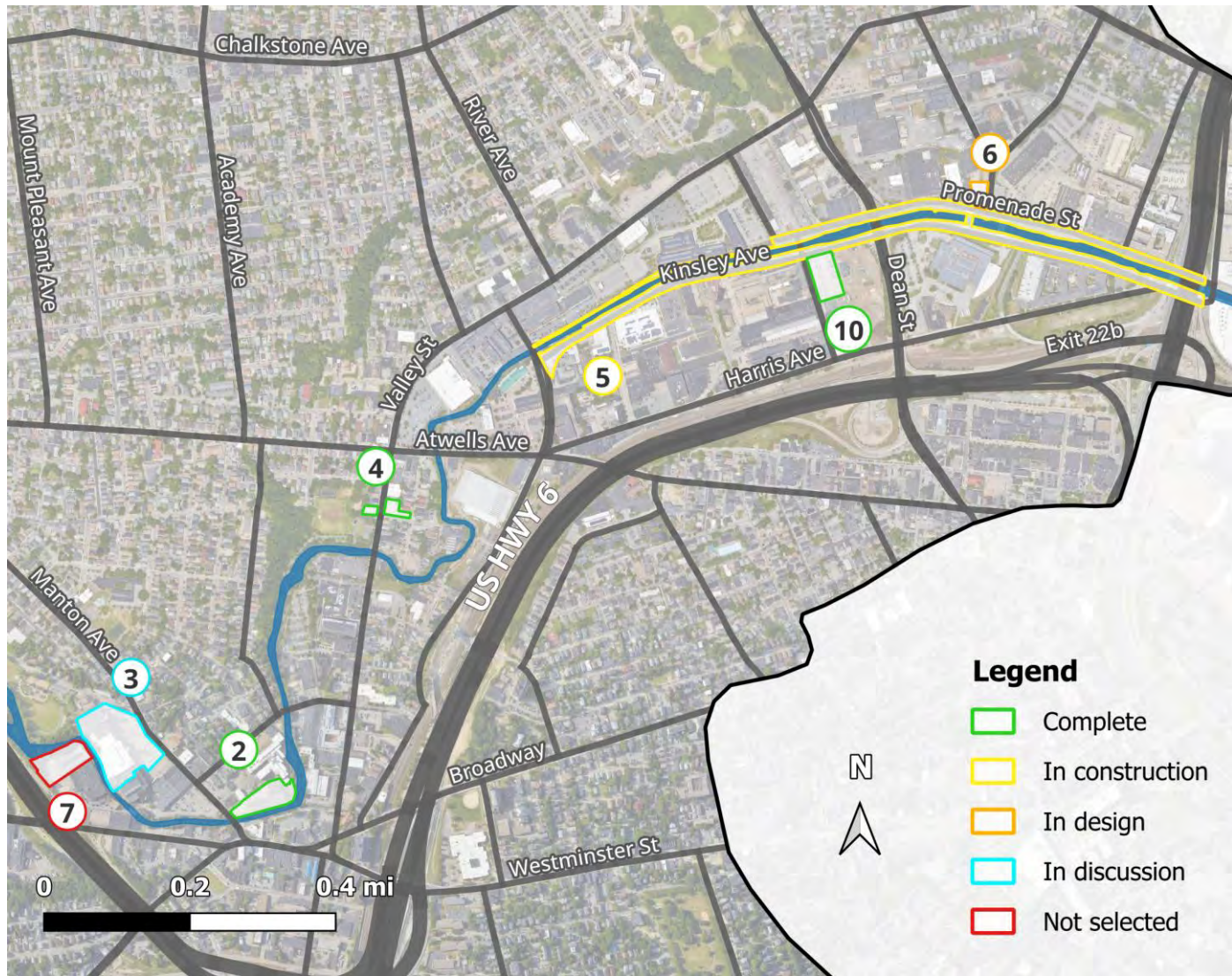


Close-up of Tree Filter

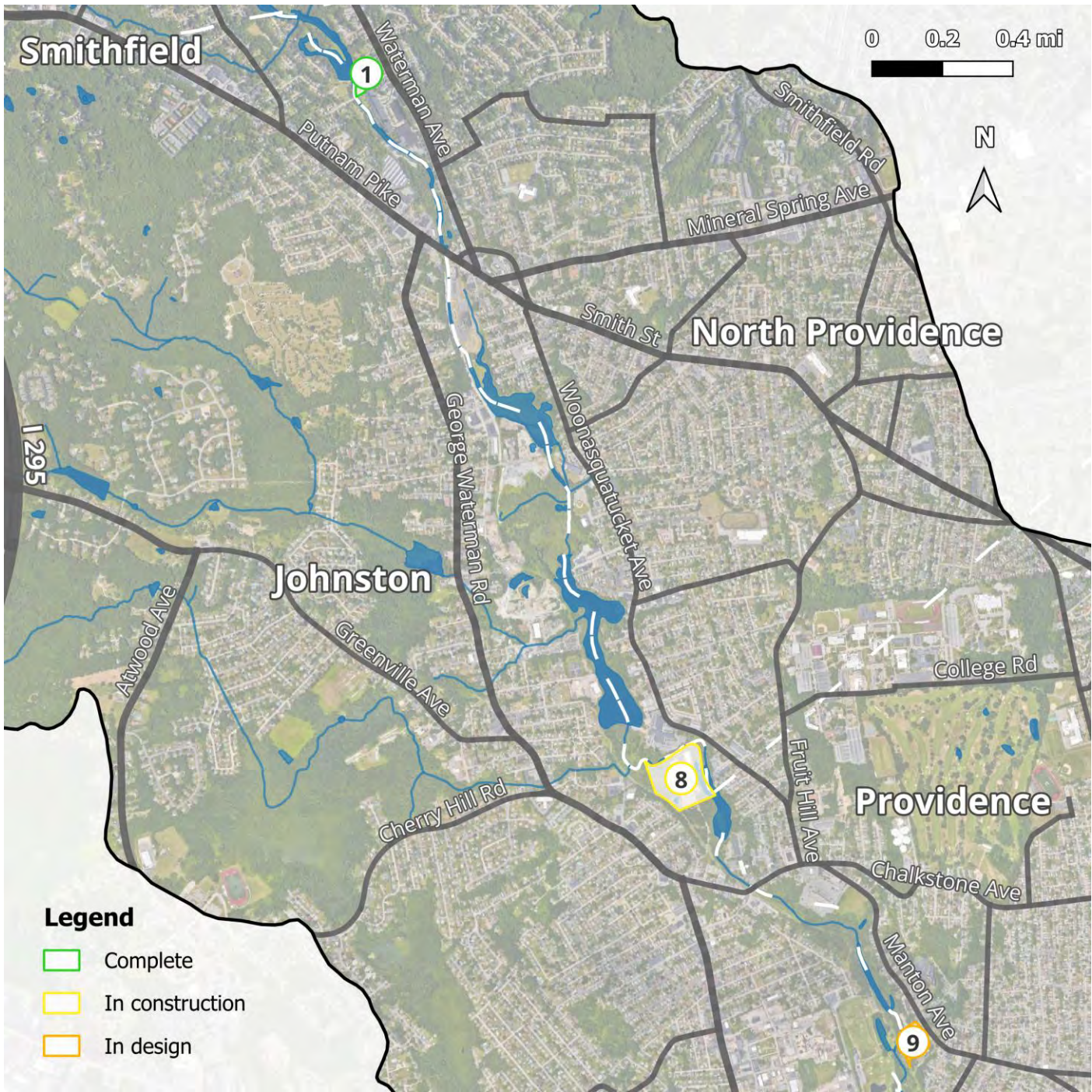
Appendix C
Greening the Greenway
Project Map







SITE	NAME	ADDRESS	STATUS	COORDINATES
2	CATHEDRAL ART METAL CO, INC	25 MANTON AVE, PROVIDENCE	COMPLETE	41.81769891, -71.44283174
3	100 MANTON AVE LLC (ATLANTIC MILLS)	100 MANTON AVE, PROVIDENCE	IN DISCUSSION	41.81876247, -71.44682552
4	PUERTA DE REFUGIO	247 VALLEY ST, PROVIDENCE	COMPLETE	41.82336438, -71.43950224
5	WOONASQUATUCKET RIVER GREENWAY EXTENSION	KINSLEY AVE & PROMENADE ST FROM EAGLE SQ TO PROVIDENCE PLACE MALL	IN CONSTRUCTION	41.82800074, -71.43162808
6	BATH ST POCKET PARK	CORNER OF BATH ST & PROMENADE ST, PROVIDENCE	IN DESIGN	41.82966414, -71.42380344
7	CONTECH MEDICAL	99 HARTFORD AVE, PROVIDENCE	NOT SELECTED	41.81834013, -71.44817657
10	LICHT PROPERTY	CORNER OF ACORN ST & KINSLEY AVE, PROVIDENCE	COMPLETE	41.82804553, -71.42801515



SITE	NAME	ADDRESS	STATUS	COORDINATES
1	GREYSTONE SOCIAL CLUB	3 GREYSTONE AVE, NORTH PROVIDENCE	COMPLETE	41.86601223, -71.49217492
8	PREFERRED EQUIPMENT	1 GOLDSMITH ST, JOHNSTON	IN CONSTRUCTION	41.83750250, -71.47412748
9	GRODEN NETWORK	610 MANTON AVE, PROVIDENCE	IN DESIGN	41.82651537, -71.46168901

Appendix D

Greystone Social Club Before & After





Greystone Before



Greystone After



Appendix E

Farm Fresh Food Hub Planting





River Rangers & TerraCorps Members Planting FFRI Food Hub GI



Greenway Program Director Pitching in While Overseeing FFRI Installation



Appendix F

Photos of Iglesia Puerta De Refugio Parking Lot Green Infrastructure Retrofit Fall 2021



Iglesia Puerta De Refugio
247 Valley Street, Providence, RI 02909

Main Parking Lot Pre-Construction



View from corner of Tuxedo & Amherst Street

Main Parking Lot Post-Construction



View from corner of Tuxedo & Amherst Street



View from Amherst to corner of Valley Street

Asphalt removed, swale created, irrigation installed, wildlife habitat landscape installed, chain link fence replaced with wooden guard rail.

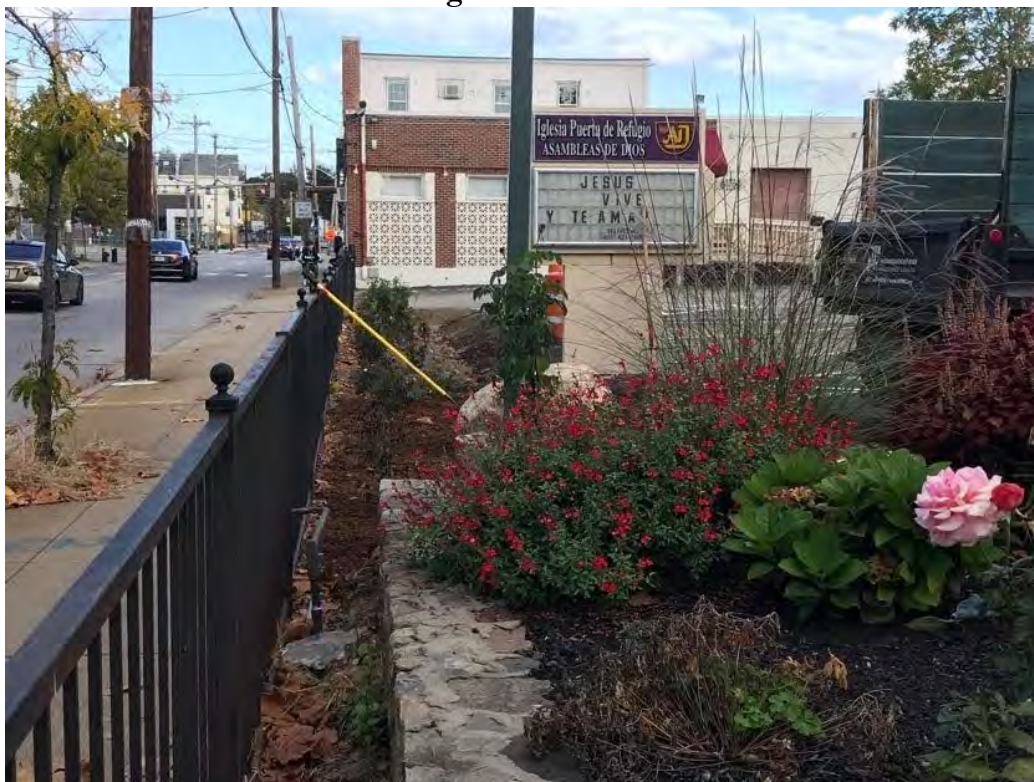
Iglesia Puerta De Refugio
247 Valley Street, Providence, RI 02909

Main Parking Lot Pre-Construction



View from Valley Street

Main Parking Lot Post-Construction



Corner of Amherst looking North on Valley Street

Iglesia Puerta De Refugio
247 Valley Street, Providence, RI 02909

Main Parking Lot Green Infrastructure Construction October 2021
Woonasquatucket River Ranger Landscape Installation



Left to Right: Woonasquatucket River Ranger Andrew deLisle, Greenway Manager Jacob Gorke and River Ranger Sharad Wertheimer

Iglesia Puerta De Refugio
247 Valley Street, Providence, RI 02909

Overflow Parking Lot Pre-Construction



Valley Street adjacent to Greenway & Donigian Park

Overflow Parking Lot Post-Construction



Asphalt removed, swale created, additional bioretention and tree wells installed, wildlife habitat landscape installed, chain link fence replaced with wooden guard rail.

Iglesia Puerta De Refugio
247 Valley Street, Providence, RI 02909

Overflow Parking Lot Green Infrastructure Construction October 2021
Woonasquatucket River Ranger Landscape Installation



Greenway Manager Jacob Gorke (left) and Woonasquatucket River Ranger Sharad Wertheimer (right) install trees in the new bioretention areas.

Appendix G

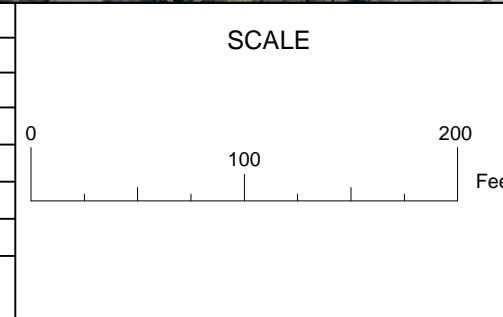
Preferred Equipment Green Infrastructure 60% Design Plans 09/27/2021





SHEET KEYNOTES	
A.	PROPOSED PAVEMENT REMOVAL (REPLACE WITH WILD SEED MIX).
B.	PROPOSED WILD SEED MIX PLANTING. OPPORTUNITY FOR POLLINATOR HABITAT MEADOWS.
C.	DISPOSE OF OLD WOODEN PALLETS.
D.	PROPOSED BIORETENTION FLOW-THROUGH PLANTER BOX CAPTURING WATER FROM ROOF DRAINS TO BE CONSTRUCTED BY WRWC RIVER RANGERS.
E.	PROPOSED FENCE REMOVAL FOR ACCESS TO STORMWATER BASIN. PROPOSED NEW FENCE CONSTRUCTION. FOCUS ON PUBLIC EDUCATION AND PLACEMAKING WITH EDUCATIONAL SIGNAGE.
F.	PROPOSED POND WATER QUALITY IMPROVEMENTS TO EXISTING DETENTION BASIN AND TRANSFER OF OWNERSHIP.
G.	PROPOSED EDUCATIONAL SIGNAGE NEAR FUTURE OUTDOOR CLASSROOM WITH LANDSCAPE ENHANCEMENTS AND ANTICIPATED EDUCATIONAL PROGRAMMING.
H.	PROPOSED NARROW ONE-LANE ROAD WITH GRASS/MEADOW ON THE EDGES.
I.	PROPOSED GRAVEL TRUCK TURNOUT (60' X 8').
J.	PROPOSED PEA GRAVEL PARKING.
K.	RED REVISION CLOUD INDICATES AREA REQUIRING SURVEY FIELDWORK AND RESOURCE FLAGGING BY POND.
L.	PROPOSED NEW PARKING STRIPING.

REV	DATE	BY	DESCRIPTION
1	8/17/21	DW	ISSUED FOR CLIENT REVIEW
0	5/20/21	DW	ISSUED FOR CLIENT REVIEW



DATE	9/27/2021
DRAWN BY	D. WAIS
DESIGNED BY	D. WAIS
CHECKED BY	B. CALLAHAN
APPROVED BY	C. FEENEY



WOONASQUACKET RIVER WATERSHED COUNCIL
GREENING THE GREENWAY
PREFERRED EQUIPMENT RESOURCE 1 GOLDSMITH ST., JOHNSON, RI 02919 DRAINAGE AREA MAP
195130250

Appendix H

Senator Reed Press Event Riverside Park Highlighting SNEP Program





Alicia Lehrer <alehrer@wrwc.org>

SNEP Event

1 message

Weinreich, Kyle (Reed) <Kyle_Weinreich@reed.senate.gov>
To: "alehrer@wrwc.org" <alehrer@wrwc.org>

Thu, May 19, 2022 at 5:14 PM

Alicia,

Below is the draft press release if you could send me a quote it would be much appreciated. I look forward to seeing you tomorrow.

FOR IMMEDIATE RELEASE: May 20, 2022

CONTACT: Chip Unruh (Reed), 202-224-4642

A Watershed Moment for Southern New England Clean Water Restoration: Over \$43.6 Million in Pipeline for SNEP's Multi-State Watershed Cleanup & Conservation

PROVIDENCE, RI – What started nearly a decade ago when **U.S. Senator Jack Reed** secured a \$2 million appropriation to launch the Southeast New England Program (SNEP) for Coastal Watershed Restoration program in Fiscal Year 2014 has grown into a clean water success story with over \$43.6 million in federal funding and the appropriations pipeline flowing to revitalize local watersheds in Rhode Island and southern New England.

SNEP funding is administered through a partnership between the U.S. Environmental Protection Agency (EPA) and Restore America's Estuaries. The Southeast New England region consists of coastal areas in Massachusetts and Rhode Island, including areas around Narragansett Bay and Buzzards Bay. Federal SNEP funding is leveraged by state and local government and non-government organizations, including non-profits, community organizations, academic institutions, and businesses working collaboratively to maintain and improve water quality and habitat conditions within these coastal watersheds.

Today, Senator Reed, along with **Congressmen Jim Langevin** and **David Cicilline**, hosted **EPA Deputy Administrator Janet McCabe** and **EPA Regional Administrator David Cash** for a walking tour of Riverside Park, guided by **Woonasquatucket River Watershed Council (WRWC) Executive Director Alicia Lehrer**, and provided an update on how SNEP funds are making a difference across the state and region.

During the Industrial Revolution, Rhode Island's rivers -- and waterways throughout New England -- served residents by powering factories that provided jobs. As the population increased, communities sprouted up along Narraganset Bay and the Buzzards Bay watershed, leading to increased pollution and waste flowing into New England waters. And today, stormwater runoff, erosion, development, and infrastructure challenges affect the health of our rivers, streams, and watersheds.

Since 2015, federal SNEP funds have been used to clean up local waterways and create economic opportunities for surrounding communities.

This year, a total of \$9 million in SNEP eco-grants is being allocated for a variety of projects, including:

- \$3 million to Restore America's Estuaries for SNEP Watershed Implementation Grants.
- \$1 million to the New England Environmental Finance Center at University of Southern Maine for SNEP Network (Technical Assistance Network).
- \$750,000 to continue work on five SNEP Pilot Watershed Initiative grants, including the Woonasquatucket River Watershed Council's work to strengthen community capacity to improve river water quality, develop a community-centered climate resilience plan, and implement a sustainable funding mechanism for stormwater management and maintenance of green- and gray-water systems.
- \$500,000 to support BMP monitoring, outreach support, and developing water quality monitoring plans for the five pilot watersheds and an upcoming SNEP State of the Region Report.
- \$250,000 to the Buzzards Bay National Estuary Program to continue restoring water and habitat quality.
- \$150,000 to bolster community capacity building efforts in the region.

Additionally, thanks to the recently enacted Infrastructure Investment and Jobs Act (P.L. 117-58), an additional \$15 million will flow to SNEP over the next five years. EPA plans to allocate \$2.3 million in FY 22 toward the development of a Responsible Management Entities (RMEs) strategy and installation of innovative/alternative septic systems in Rhode Island and Massachusetts. Additional funds will also go toward helping the U.S. Geological Survey study groundwater nitrogen and bacterial concentrations related to septic systems.

"We want our communities and waterways to be clean, healthy, and connected. Our watersheds are ecologically and economically important. This federal watershed conservation funding helps bring people together to solve big challenges and clean up the Bay and other waterways in a strategic, coordinated manner that benefits the entire region," said **Senator Reed**, a senior member of the Senate Appropriations Committee.

Langevin Quote

Cicilline Quote

“EPA is grateful that the Bipartisan Infrastructure Law is providing our Southeastern New England Program for Coastal Watershed Restoration with an additional \$15 million over five years. These funds will make a real and lasting difference, especially in disadvantaged communities who are most vulnerable to the impacts of climate change, allowing the program to make further investments in the health and resiliency of all of our coastal communities. I want to thank Senator Reed for his partnership in helping to ensure that Rhode Island has a clean and healthy environment that can serve as the foundation for prosperous local economies and communities,” said **EPA Deputy Administrator Janet McCabe**.

“The SNEP program is a testament to the power that a successful federal, state and grassroots partnership can make. Right here in Rhode Island and throughout southeastern New England, coastal communities are searching for solutions to environmental challenges including climate change impacts, elevated nutrient levels harming water quality, and protecting communities that have been overburdened by environmental impacts. During the past several years, we’ve already seen that SNEP efforts are making tangible strides in helping communities to develop and test solutions to these problems,” said **EPA New England Regional Administrator David W. Cash**.

Woonasquatucket River Watershed Council

Tom Ardito Quote

-end-

Kyle Weinreich

Deputy Press Secretary

Office of U.S. Senator Jack Reed

U.S. Federal Courthouse, Room 408

One [Exchange Terrace](#)

[Providence, RI 02903](#)

[Office: \(401\) 528-5200](#)

[Cell: \(401\) 793-6588](#)

Kyle_weinreich@reed.senate.gov

JACK  REED

Reed delivers millions of dollars in federal grants for Watershed Wellness

May 20, 2022 10:28 am by [Kevin Perrington-Turner \(https://www.abc6.com/author/kturnerabc6-com/\)](https://www.abc6.com/author/kturnerabc6-com/)



Sen. Jack Reed is seen hosting a tour at Riverside Park in Providence, Friday, May 20, 2022. (WLNE)

PROVIDENCE, R.I. (WLNE) — Rhode Island Sen. Jack Reed will host a tour to local and state officials to give an update on the \$43.6 million federal grant through the Southeast New England Program for Coastal Watershed Restoration program in Providence.

The tour will be guided by the Woonasquatucket River Watershed Council executive director Alicia Lehrer and will begin at noon at Riverside Park.

The U.S. Environmental Protection Agency, deputy administrator Janet McCabe, and EPA regional administrator David Cash, along with Reps. David Cicilline and Jim Langevin will also be at the event.

Reed launched the program in 2014. The funding will be to revitalize local watersheds in Rhode Island and Southern New England, including WRWC's efforts in Riverside Park.

ABC 6 News will be streaming this event on our website.

Categories: [News \(https://www.abc6.com/category/news/\)](https://www.abc6.com/category/news/)

TOP VIDEOS



Barrington family forced from their home amidst rising Rhode Island rent

Appendix I

Minutes from GTG Team Meeting – June 2022



RIDOT WRWC Meeting

195130250 / WRWC_Meeting_Minutes_051922

Date/Time: June 24, 2022 / 11:30 AM Eastern Time
Place: Microsoft Teams
Meeting Title: RIDOT-WRWC Project Updates
Attendees: Alisa Richardson, RIDOT
Lisa Aurecchia, Clare Brown, WRWC
Chris Feeney, Dara Wais, Stantec
Absentees: Alicia Lehrer, WRWC
Distribution: Attendees & Absentees

Salmon Street

1. WRWC noticed the end of the Salmon St roadway dumps and creates a massive pit at the end of the road that floods. DPW threw a bunch of asphalt there
2. WRWC, Providence Housing Authority, Providence Department of Public Works, and Stantec met at Salmon St May 19, 2022 to discuss current uses and issues, inspecting existing drainage structures, and land and stormwater ownership
3. Flow does not discharge directly to the waterbody
4. RIDOT could not find feasible way to pursue project. Stantec will not proceed with this project.

Bath Street

1. PRA came to an agreement with Lumen for a permanent easement on the property at the corner of 373 Promenade Street and Bath Street, with an easement area of ~6,500 square feet. PRA is currently receiving 90% comments from RIDOT and are hoping to finish plans in September.
2. Fuss & O'Neill conducted Phase II soil sampling in March, using the City's brownfields assessment grant
3. McMahon is at 90% design for the slip lane design from Bath St to Promenade St. WRWC will send plans to Stantec.
4. Alicia considers expanding the Promenade area a priority and is very interested in a pocket park or greening on this Bath St property. WRWC previously mentioned they can put SNEP funding towards construction.
5. RIDOT supports Stantec creating a feasibility 10% concept plan and cost estimate to see if this project is viable.
6. Because this is a small area, there is an opportunity to explore subsurface practices, such as a bioretention underground storage and other structures included in the RIDOT linear stormwater manual. Underground structures are expensive, so this project will likely need a funding match to implement anything substantial. Option for pervious pavements, trees, and directing flow from Bath St into this area and relevant drainage structures. Team will be careful of contaminated soils.

Preferred Equipment / Manton Fish Ladder

1. The survey has been conducted. We are waiting to receive the deliverable from Crossman Engineering mid next week. When this is received, Stantec will proceed with flushing out and furthering the design, stormwater credits, and potential outdoor classroom design concepts

June 24, 2022

RIDOT WRWC Meeting

Page 2 of 2

2. Stantec tried to engage the WBE Applied Biosystems as a wetlands subconsultant, but their insurance was not approved by Stantec's sub prequalification requirements. After this valid attempt, Stantec and RIDOT will work on a request to move budget over from subconsultant to Stantec's direct labor to complete this work internally.
3. The EA Engineering permitting application number is 21-0212. Lisa will give the team a permitting update from EA Engineering.
4. Evan from Building Green Futures wants timing update for nursery idea. RIDOT landscape architects do not think Preferred is a good place for the nursery. RIDOT needs space for pollinators.

Groden Network

1. Stantec shared a draft concept (big picture and zoomed in aerial, with parcels, contours, drainage structures, proposed BMPs with catchment areas) with water quality pretreatment / restoration via sediment forebay, water quality swale with detention, path/bridge to Greenway, and flow-through bioretention/roof leader planter boxes.
 - a. The pretreatment area will be designed for easy maintenance/cleaning.
 - b. The water quality swale between the property and Greenway could have gabion baskets and check dams for detention.
 - c. To not add impervious area, gaps between boards or maybe metal mesh could be used for path to Greenway.
2. Stantec presented draft stormwater credits for the area.
 - a. RIDOT advised to delete the sediment forebay depaving row and count it as an infiltration basin.
 - b. RIDOT advised to use their water quality calculator, inputting the contributing area to receive credit for TSS (total suspended solids); expecting no credit for phosphorus, infiltration, and change in hydrography.

Dara Wais

Phone: 401-214-1742

Dara.Wais@Stantec.com

Stantec Consulting Services Inc.

Appendix J

Completed Conceptual Designs for Preferred Equipment Site Retrofit



1

2

3

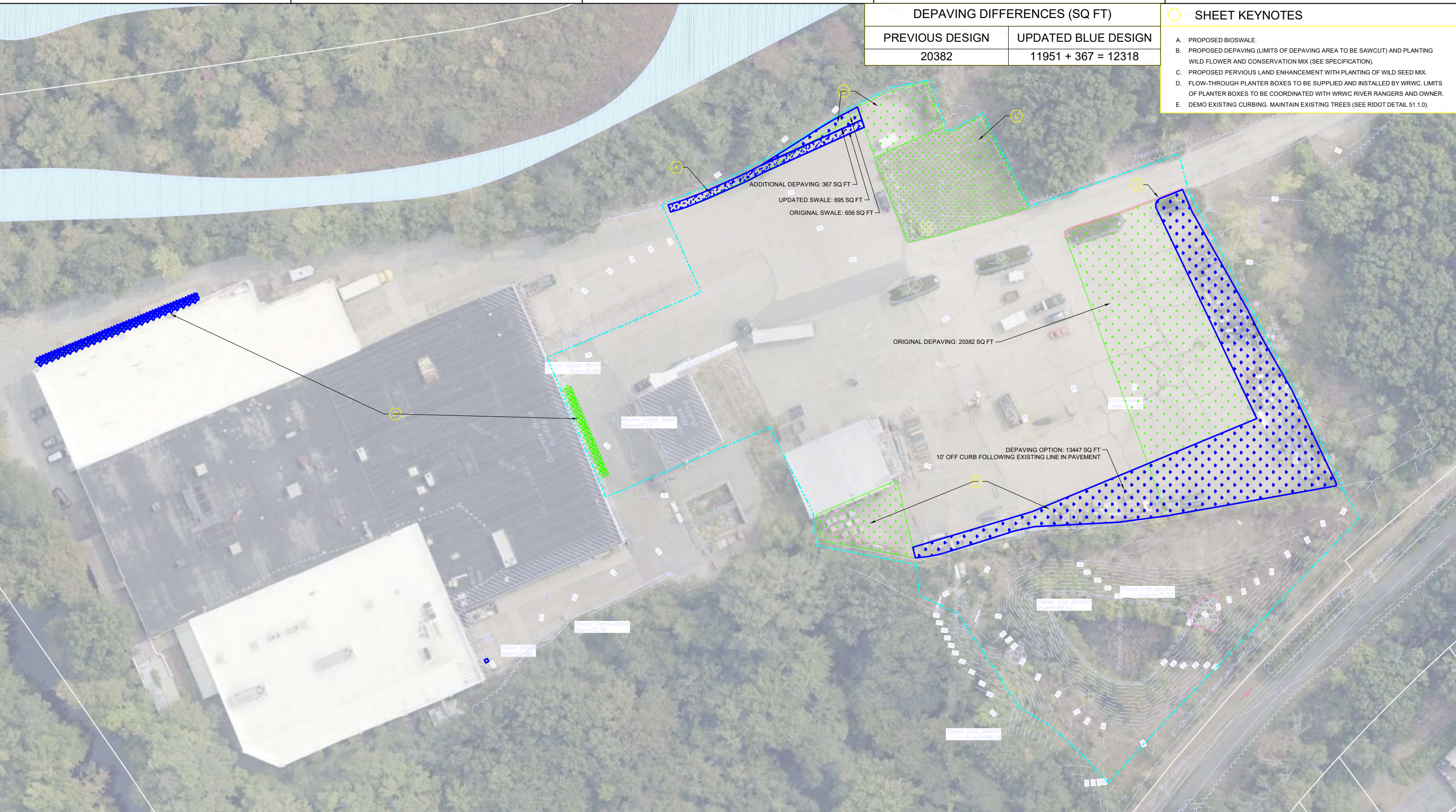
4

5

DEPAVING DIFFERENCES (SQ FT)	
PREVIOUS DESIGN	UPDATED BLUE DESIGN
20382	11951 + 367 = 12318

SHEET KEYNOTES	
A.	PROPOSED BIOSWALE.
B.	PROPOSED DEPAVING (LIMITS OF DEPAVING AREA TO BE SAWCUT) AND PLANTING WILD FLOWER AND CONSERVATION MIX (SEE SPECIFICATION).
C.	PROPOSED PERVIOUS LAND ENHANCEMENT WITH PLANTING OF WILD SEED MIX.
D.	FLOW-THROUGH PLANTER BOXES TO BE SUPPLIED AND INSTALLED BY WRWC. LIMITS OF PLANTER BOXES TO BE COORDINATED WITH WRWC RIVER RANGERS AND OWNER.
E.	DEMO EXISTING CURBING. MAINTAIN EXISTING TREES (SEE RIDOT DETAIL 51.1.0).

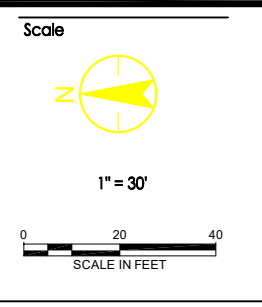
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\\ms07ps001\shared\proj\30250\30250_191320250_1\design\working\watershed\plan\watershed\drawing\30250_proposed_option.dwg 10/14/22 10:42 AM

Revision	By	Appd	YYYY.MM.DD

DATE	10/14/22
DRAWN BY	D. WAIS
DESIGNED BY	D. WAIS
CHECKED BY	C. FEENEY
APPROVED BY	



**PRELIMINARY
NOT FOR
CONSTRUCTION**

Not for permits, pricing or other official purposes. This document has not been completed or checked and is for general information or comment only.



Client/Project
RHODE ISLAND DEPARTMENT OF TRANSPORTATION - WOONASQUATUCKET RIVER WATERSHED COUNCIL
PREFERRED EQUIPMENT RESOURCE
GSI RETROFIT

JOHNSTON, RI

File Name: 30250_PROPOSED_OPTION

Title
PROPOSED CONDITIONS -PARKING LOT OPTION

Project No.
195130250

Drawing No.
C4.2.2

Appendix K

Farm Fresh Signage and Press Event Pics



Farm Fresh Signage Installed



Press Event May 23, 2023
Celebration of FFRI/WRWC Partnership
For Green Infrastructure & Climate Resilience



Speakers Left to Right: Jesse Rye – Farm Fresh Rhode Island; Senator Jack Reed; Lieutenant Governor Sabina Matos; Providence Mayor Brett Smiley; Tom Ardito – SNEP RAE; RIDEM Director Terry Gray; RIDOT Director Peter Alviti; RI Secretary of Commerce Elizabeth Tanner; Alicia Lehrer – WRWC.



WRWC River Ranger Team and Lieutenant Governor Matos show off the signage that the River Rangers installed at Farm Fresh. This team also maintains the green FFRI's stormwater features.

Appendix L

**Cathedral Art Metal
and
Acorn & Promenade Street**

Parking Lot Retrofits

Fall 2023

Before & After



Cathedral Art Metal Retrofit

Fall 2023

Front Parking Lot



Before



After

Back Loading Area



Before



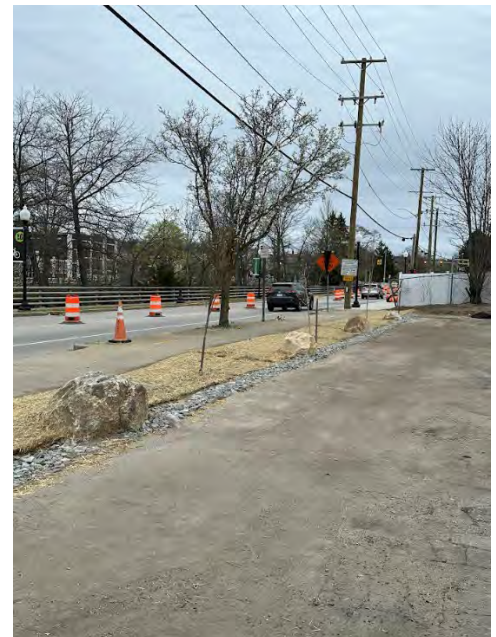
After

Acorn & Kinsley Parking Lot

Fall 2023



Before



After