Veterans Park Tisbury Retrofit Sites Field Summary Sheet

Name: Causeway Rd 1

ID#: 1

Site Description: Open turf area adjacent to path in Vet's Mem. Park (Park) off Causeway Road. Access via paved path from Causeway Road, sloping towards field. Soccer net storage on side, adjacent to isolated wetland area.

Site Conditions: Fair

Proposed SCM Description: WQ Swale for pretreatment

overflow to wetland

Existing or New SCM on site? New

Site Location:



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RETROFIT DETAILS

Project Candidate Score: 3 - Good

Proposed SCM: Water quality swale with deep sump CB and forebay for pretreatment.

Primary Non-Structural Controls: Turf removal, native plantings around swale to provide habitat/connectivity to adjacent isolated wetland.

BMP Benefit(s): Storage, Other - Pretreatment

Primary Site Conflict(s): Utilities, wetlands, tree Impacts, soccer net storage

Maintenance Concern(s): Medium

RETROFIT SIZING INFORMATION

Estimated Drainage Area:(ac): 2.70	Estimated Practice Area (sf): 750
Estimated Impervious Area (ac): 1.17	Existing Head Available? Yes - Check elevations

Date Assessed: 11/3/2022 2:28:02 PM Assessed by: RC, CC, ML, JB

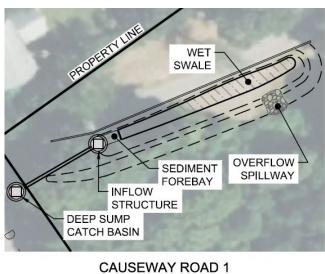




Photo Caption: View from entry point from road. Soccer nets on side.

Photo Caption: View of entry path facing Causeway Rd.





SCALE 1" = 50'

Typical Water Quality Swale Schematic

Concept Design

Date Assessed: 11/3/2022 2:28:02 PM

Name: Causeway Rd 2

ID#: 2

Site Description: Open turf ararea in park with playground equipment that floods regularly. Site slopes from Causway Rd to flat ara below, poor drainage evident and some trees.

Site Conditions: Poor

Proposed SCM Description: Constructed stormwater

Treatment Wetland

Existing or New SCM on site? New

Site Location:



RETROFIT DETAILS

Project Candidate Score: 3-Good

Proposed SCM: Constructed stormwater sreament wetland.

Primary Non-Structural Controls: Turf removal, native plantings around constructed wetland to provide habitat/connectivity to adjacent isolated wetland.

BMP Benefit(s): Habitat, Storage, Repair

Primary Site Conflict(s): Swingset, wetlands

Maintenance Concern(s): Medium – good maintenance access

RETROFIT SIZING INFORMATION

Estimated Drainage Area:(ac): 6.012	Estimated Practice Area (sf): 3,275
Estimated Impervious Area (ac): 2.08	Existing Head Available? Yes - Need elevations

Date Assessed: 11/3/2022 3:02:32 PM Assessed by: RC, CC, ML, JB

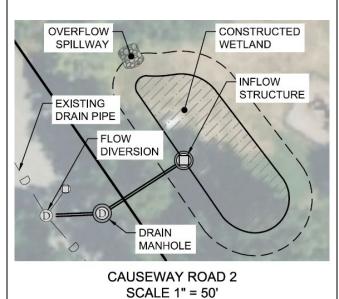




Photo Caption: Standing water on field.

Photo Caption: Flooded area surrounding playground equipment.





Typical Constructed Stormwater Treatment Wetland Schematic

Concept Design

Date Assessed: 11/3/2022 3:02:32 PM

Name: Recreation Courts

ID#: 3

Site Description: Volleyball and basketball courts located in proximity to pipe outfall at Causeway Rd and wetlands area.

Site Conditions: Poor

Proposed SCM Description: Relocate volleyball/basketball courts, divert WQv runoff from outfall to proposed constructed stormwater treatment wetland.

Existing or New SCM on site? New

Site Location:



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RETROFIT DETAILS

Project Candidate Score: 3 - Good

Proposed SCM: Constructed stormwater treatment wetland.

Primary Non-Structural Controls: Pavement and turf removal. Native plantings around constructed wetland to provide habitat/connectivity to adjacent wetland.

BMP Benefit(s): Habitat, Repair, Restoration of wetland

Primary Site Conflict(s): Basketball and volleyball courts, existing wetlands

Maintenance Concern(s): Medium

RETROFIT SIZING INFORMATION

Estimated Drainage Area:(ac): 21.28	Estimated Practice Area (sf): 10,225
Estimated Impervious Area (ac): 4.27	Existing Head Available? Yes, Drainage area from outfall

Date Assessed: 11/4/2022 3:22:29 AM Assessed by: RC,CC,ML,JB

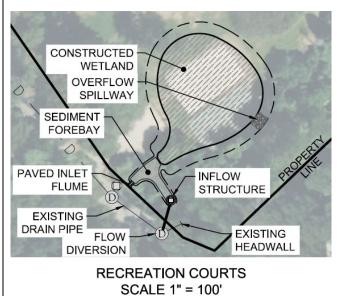




Photo Caption: Volleyball court with phragmites at northern end.

Photo Caption: View of basketball and volleybal courts facing Causeway Rd.





Typical Constructed Stormwater Treatment Wetland Schematic

Concept Design

Date Assessed: 11/4/2022 3:22:29 AM

Name: Lagoon Pond Rd Parking Lot

ID#: 4

Site Description: This is a gravel public parking lot adjacent to baseball field, abutting wetlands. Puddles were observed along side adjacent to fields. Good opportunity for educational signage.

Site Conditions: Fair, poor drainage.

Proposed SCM Description: Parking lot bioretention

island.

Existing or New SCM on site? New

Site Location:



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RETROFIT DETAILS

Project Candidate Score: 3-Good

Proposed SCM: Bioretention.

Primary Non-Structural Controls: Public Education.

BMP Benefit(s): Habitat, Repair

Primary Site Conflict(s): Parking lot, wetlands, coastal proximity

Maintenance Concern(s): Medium

RETROFIT SIZING INFORMATION

Estimated Drainage Area (ac): 0.45	Estimated Practice Area (sf): 260
Estimated Impervious Area (ac): 0.13	Existing Head Available? Minor regrading of parking lot needed

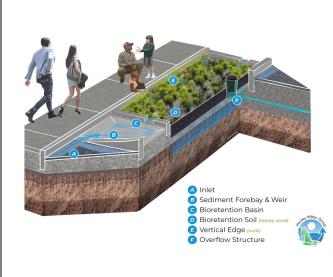
Date Assessed: 11/3/2022 3:51:12 PM Assessed by: RC,CC,ML,JB





Photo Caption: View from parking lot facing the field.

Photo Caption: View from entry of parking lot.





Typical Bioretention Schematic

Site Sketch

Date Assessed: 11/3/2022 3:51:12 PM

Name: Edgartown Rd 1

ID#: 5

Site Description: Close to busy intersection of State Road and Edgartown Road. Currently the right-of-way with the sidewalk has at-grade grass vegetation. It is 10.5 feet wide, with a constant fairly steep slope.

Site Conditions: Good

Proposed SCM Description: A bioretention swale installed between telephone poles adjacent to sidewalk would manage some upgradient stormwater runoff outside of the park.

Existing or New SCM on site? New

Site Location:



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RETROFIT DETAILS

Project Candidate Score: 3-Good

Proposed SCM: Right-of-way water quality swale.

Primary Non-Structural Controls: None.

BMP Benefit(s): Habitat, Storage

Primary Site Conflict(s): Utilities, Access

Maintenance Concern(s): Medium

RETROFIT SIZING INFORMATION

Estimated Drainage Area:(ac): 4.07	Estimated Practice Area (sf): 355
Estimated Impervious Area (ac): 1.36	Existing Head Available? No

Date Assessed: 11/3/2022 5:24:03 PM Assessed by: RC, CC, ML, JB



Photo Caption: View of right-of-way facing the intersection.



Photo Caption: View of right-of-way further uphill on Edgartown Road.



CHECKDAM TYP.

STEPPED DRY SWALE FLOW-IN-FLOW-OUT

EDGARTOWN ROAD 1

SCALE 1" = 80'

Typical Water Quality Swale Schematic

Site Sketch

Date Assessed: 11/3/2022 5:24:03 PM

Veterans Park Tisbury Retrofit Sites Field Summary Sheet Name: Edgartown Rd 2 ID#: 6 Site Description: The west side of the right-of-way along **Site Location:** Edgartown Road has a concrete sidewalk flanked with atgrade grassy areas in a residential neighborhood. No utility poles or wires overhead on this side of the road. Site Conditions: Good Proposed SCM Description: Stormwater tree trench, consisting of an inlet pipe, subsurface stone reservoir, and Edgartown tree pit (planting soil and tree). Rd 2 **Existing or New SCM on site? New** Esri Community Maps Contributors, MassGIS, © OpenStreetMap, Microsoft, Esri, HERE, Garmin SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA **RETROFIT DETAILS Project Candidate Score: 3-Good Proposed SCM:** Subsurface infiltration tree trench. **Primary Non-Structural Controls: None.** BMP Benefit(s): Habitat, Storage **Primary Site Conflict(s):**

Estimated Drainage Area:(ac): 0.66

Estimated Impervious Area (ac): 0.30

Existing Head Available? Yes

Date Assessed: 11/3/2022 4:54:02 PM

Assessed by: RC, CC, ML, JRB

Maintenance Concern(s): Medium

RETROFIT SIZING INFORMATION



Photo Caption: Sidewalk and right-of-way on western side of Edgartown Road.



Photo Caption: Sidewalk and right-of-way on western side of Edgartown Road.



Typical Tree Trench Schematic



Site Sketch

Date Assessed: 11/3/2022 4:54:02 PM Assessed by: RC, CC, ML, JRB

Veterans Park Tisbury Retrofit Sites Field Summary Sheet

Name: Edgartown Rd 3

ID#: 7

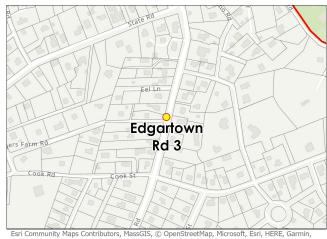
Site Description: The west side of the right-of-way along Edgartown Road has a concrete sidewalk flanked with atgrade grassy areas in a residential neighborhood. There are trees/branches and utility poles to consider.

Site Conditions: Good

Proposed SCM Description: Stormwater tree trench, consisting of an inlet pipe, subsurface stone reservoir, and tree pit (planting soil and tree).

Existing or New SCM on site? New

Site Location:



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RETROFIT DETAILS

Project Candidate Score: 3-Good

Proposed SCM: Subsurface infiltration tree trench.

Primary Non-Structural Controls: None.

BMP Benefit(s): Habitat, Storage

Primary Site Conflict(s): Utilities

Maintenance Concern(s): Low

RETROFIT SIZING INFORMATION

Estimated Drainage Area:(ac): 2.02	Estimated Practice Area (sf): 161
Estimated Impervious Area (ac): 0.74	Existing Head Available? No

Date Assessed: 11/3/2022 5:37:46 PM Assessed by: RC, CC, ML, JRB



Photo Caption: View of street right-of-way along Edgartown Rd facing north. Tree branches and utility lines overhead.





Typical Tree Trench Schematic

Site Sketch

Date Assessed: 11/3/2022 5:37:46 PM Assessed by: RC, CC, ML, JRB

Name: Edgartown Rd 4 ID#: 8 Site Description: Area along west side of Edgartown **Site Location:** Road sidewalk/right-of-way in a residential neighborhood. Sediment observed in road shoulder. No utility poles or wires overhead. Site Conditions: Good Proposed SCM Description: Stormwater tree trench, consisting of an inlet pipe, subsurface stone reservoir, and Edgartown tree pit (planting soil and tree). Rd 4 **Existing or New SCM on site? New** Esri Community Maps Contributors, MassGIS, © OpenStreetMap, Microsoft, Esri, HERE, Garmi SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA **RETROFIT DETAILS Project Candidate Score: 4-Great Proposed SCM:** Subsurface infiltration tree trench. **Primary Non-Structural Controls: None.** BMP Benefit(s): Habitat, Storage Primary Site Conflict(s): Access Maintenance Concern(s): Low **RETROFIT SIZING INFORMATION Estimated Drainage Area:(ac): 0.55 Estimated Practice Area (sf): 77**

Date Assessed: 11/3/2022 5:43:23 PM

Assessed by: RC, CC, ML, JRB

Estimated Impervious Area (ac): 0.35

Existing Head Available? No

PHOTOS/SKETCHES Photo Caption: View of potential tree trench area along western edge of road. A Inlet B Deep Sump Catch Basin Perforated Lateral (Inflow) Mulch Planting Soil



Date Assessed: 11/3/2022 5:43:23 PM Assessed by: RC, CC, ML, JRB

Pea Stone Layer
G Gravel Reservoir
Overflow Pipe 7 Filter Fabric

Veterans Park Tisbury Retrofit Sites Field Summary Sheet

Name: State Rd Vacant Lot

ID#: 9

Site Description: This is a vacant privately owned parcel on State Road. Land would need to be purchased from owner or work would need to be done with landowner permission via an easment or similar agreement.

Site Conditions: Fair

Proposed SCM Description: Subsurface infiltration system in vacant lot would tie into drainage network.

Existing or New SCM on site? New

Site Location:



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RETROFIT DETAILS

Project Candidate Score: 3-Good

Proposed SCM: Subsurface infiltration system.

Primary Non-Structural Controls: Could provide meadow consisting of native grasses/perennials over proposed

infiltration system.

BMP Benefit(s): Habitat, Storage, Water Quality

Primary Site Conflict(s): Utilities, Land ownership

Maintenance Concern(s): Low

RETROFIT SIZING INFORMATION

Estimated Drainage Area:(ac): 17.88	Estimated Practice Area (sf): 1,691
Estimated Impervious Area (ac): 7.76	Existing Head Available? No

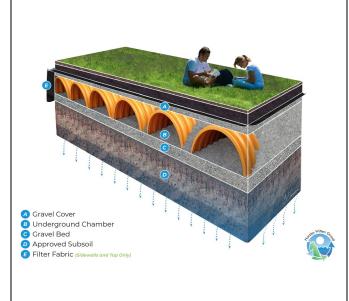
Date Assessed: 11/3/2022 5:57:10 PM

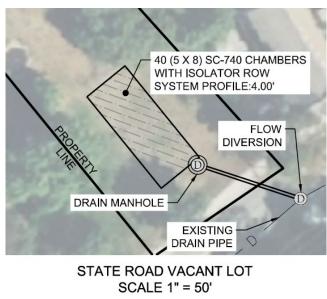




Photo Caption: View of parcel from road.

Photo Caption: View of parcel from road.





Typical Subsurface Infiltration System

Site Sketch

Date Assessed: 11/3/2022 5:57:10 PM

Veterans Park Tisbury Retrofit Sites Field Summary Sheet Name: Low Point in Park ID#: 10 Site Description: This lower point is located along the **Site Location:** northern edge of the park parcel, directly behind higherlevel parking areas. Coverage is grassy, with areas of coarse gravel/rocks. Site Conditions: Fair Vineyard Proposed SCM Description: Lower grade by approx 12", provide surface gravel wetland with subsurface Low Point chambers. War Veterans Memorial Park **Existing or New SCM on site? New** Esri Community Maps Contributors, MassGIS, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA **RETROFIT DETAILS Project Candidate Score: 3-Good Proposed SCM:** Subsurface gravel wetland. **Primary Non-Structural Controls:** BMP Benefit(s): Habitat, Storage Primary Site Conflict(s): Land Use Maintenance Concern(s): Low

Date Assessed: 11/3/2022 6:20:50 PM

Assessed by: RC, CC, ML, JB

RETROFIT SIZING INFORMATION

Estimated Drainage Area:(ac): 0.39

Estimated Impervious Area (ac): 0.28

Estimated Practice Area (sf): 515

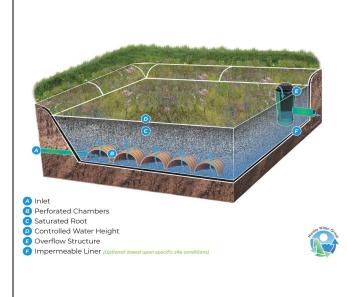
Existing Head Available? No

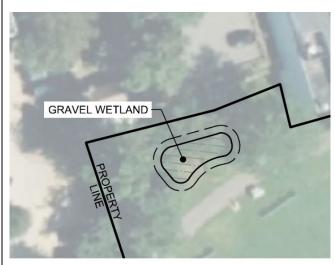




Photo Caption: View of low point area facing the upper parking lot of adjacent complex.

Photo Caption: Low point area facing the park.





LOW POINT SCALE 1" = 50'

Typical Subsurface Gravel Wetland Schematic

Site Sketch

Assessed by: RC, CC, ML, JB

Date Assessed: 11/3/2022 6:20:50 PM

Name: Beach Street Municipal Lot

ID#: 11

Site Description: This is a municipal parking lot located on Beach Street adjacent to and at a higher elevation than the park. This site is a mix of pavement and gravel.

Note, site and concept design were identified by EPA Impervious Cover Disconnection Project, March 2020 (Paradigm Env and UNH, Stormwater Center)

Site Conditions: Poor

Proposed SCM Description: Subsurface sand filter below existing parking lot; add sand filter layer to provide treatment, perhaps with an organic layer for enhanced nitrogen removal.

Existing or New SCM on site? New

Site Location:



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RETROFIT DETAILS

Project Candidate Score: 3-Good

Proposed SCM: Subsurface sand filter with chambers.

Primary Non-Structural Controls:

BMP Benefit(s): Storage, Repair

Primary Site Conflict(s): Parking Lot

Maintenance Concern(s): Low

RETROFIT SIZING INFORMATION

Estimated Drainage Area:(ac): 4.74	Estimated Practice Area (sf): 1,415
Estimated Impervious Area (ac): 3.07	Existing Head Available? No

Date Assessed: 11/3/2022 2:00:00 PM

Assessed by: RC, CC, ML, JB

PHOTOS/SKETCHES A Gravel Cover B Underground Chamber Gravel Bed Approved Subsoil Filter Fabric (Sidewalls and Top Co Photo Caption: View of Beach Street Municipal Lot from Typical Underground Chamber System. Can use **Beach Street** permeable pavers or typical asphalt on surface FLOW DIVERSION -EXISTING -DRAIN PIPE 35 (5 X 7) SC-740 CHAMBERS -WITH ISOLATOR ROW SYSTEM PROFILE:4.00' H CONVERT EXISTING LEACHING CATCH BASIN TO INLET BEACH STREET MUNICIPAL LOT SCALE 1" = 80' Site Sketch

Date Assessed: 11/3/2022 2:00:00 PM Assessed by: RC, CC, ML, JB

Name: Entire Park ID#: 12

Site Description: The War Veteran Memorial Park fields become saturated with water to the effect that they are unusable for community sports activities. The park hosts a number of large events, including a car show and music festival.

Site Conditions: Poor

Proposed SCM Description: Raise park surface and construct a shallow subsurface chamber system

Existing or New SCM on site? New

Site Location:



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RETROFIT DETAILS

Project Candidate Score: 4-Great

Proposed SCM: Subsurface chamber system. Profile to support turf grass uses, stormwater storage, potential organic

layer for enhanced nitrogen removal. Reinforced turf possible for high-use/high

intensity uses.

Primary Non-Structural Controls: Several options for habitat enhancements, depending on park uses. Apply Integrated

Pest Management, low to no N fertilizers for fields.

BMP Benefit(s): Storage, Repair, Climate Resiliency

Primary Site Conflict(s): Utilities, Access, Land Use, Wetlands, Park uses

Maintenance Concern(s): Medium

Estimated Drainage Area:(ac): 62.84 Estimated Practice Area (sf): 45,600 Estimated Impervious Area (ac): 22.61 Existing Head Available? Yes, with field raising

Date Assessed: 11/3/2022 3:00:00 PM Assessed by: RC, CC, ML, JB

PHOTOS/SKETCHES Photo Caption: Baseball outfield. **Photo Caption:** Baseball field including diamond. StormTank® modules (side panels used on perimeter modules 4,836 (93 X 52) Stone backfill around perimeter SC-160LP CHAMBERS WITH ISOLATOR ROWS SYSTEM PROFILE:2.50' H * PVC or HDPE Liner cab be incorporated as required by engineer of record

Example Subsurface Storage System (https://stormwater.brentwoodindustries.com/knowledg e-center/detention-tank/)

Site Sketch

ENTIRE PARK SCALE 1" = 200'

Date Assessed: 11/3/2022 3:00:00 PM Assessed by: RC, CC, ML, JB