



TO:	Wrentham Conservation Commission	DATE:	December 8, 2022
FROM:	Howard Stein Hudson & W&S Wetland Scientist	HSR PROJECT NO.:	19227.01
SUBJECT:	Sheldon West/Sheldon Meadow		

Culvert Removal and Restoration, Attachment C in the RtC

The following changes and additions to Attachment C are requested:

1. Because the Commission holds the pipe removal to be an important component of the project, resize the 11x17-inch sheet to 24x36-inches, and integrate its implementation into the Plan Set, most notably, the Notes sheet as to schedule and access through the 1139 West Street project.

Response: The plan has been re-sized to 24x36 inches and has been integrated into the Plan Sets as suggested. The note regarding the schedule and access is Note #4 under notes on the wetland crossing detail sheet.

2. In addition to the plan view shown on the 11x17-inch sheet, add to the 24x36-inch sheet an inset plan of the work area during removal, and one of the finished project.
 - a. The work area must demonstrate how the work will be done. This inset must show at least the Limit of Work as well as the location and types of erosion control devices, where the machine will work from, and what measures will be taken to stabilize the bank during restoration.

Response: The approximate limit of work, approximate location of erosion controls, and machine staging area have been added to the plan. The methods to stabilize the Bank are detailed in the Stream Restoration Area Construction Methodology. The Methodology makes it clear that the slope stabilization effort is to be done under the direction of a Professional Wetlands Scientist (PWS).

It is important to note that the final limit of work and final limit of erosion controls may need to be adjusted during the construction effort if the PWS requires an adjustment. We would recommend incorporating a Condition



into the final Order of Conditions that allows the PWS flexibility to make minor adjustments.

- b. The finished project plan must show what the final grades will be, where plantings will be located, and what areas will need repair/restoration following the work.

Response: The plan view shows proposed finish grades. A species list has been added to the plan that specifies the species, size and quantity of each plant. Speckled Alder, Alnus incana, and Silky Dogwood, Cornus amomum have been incorporated into the design, and are proposed to be planted on the slopes, above the Willow tubelings, under the direction of a PWS. The tubelings are proposed to be planted on 2 foot intervals, just above the proposed COIR Logs.

3. Revise the Construction Methodology on the left side of the plan:

- a. Note 1: This should be shown on the work area plan.

Response: As mentioned above, it is difficult to show the location of all of the erosion controls on the plan because the location may need to be adjusted depending on what is encountered during the culvert removal process. The plan has been revised to show erosion controls in areas that should not need to be adjusted. The erosion controls were added to protect down gradient resource areas in the vicinity of the machine staging area and temporary stockpile area. We would recommend that the work be done during July or August, when water tables are lower, and during a period where precipitation is not anticipated. Note 1 requires a stockpile of erosion controls on site that the PWS can install as needed during the construction effort.

- b. Note 3: Make the stone base WASHED river rock. Be explicit that no outside loam or other soil is to be brought to the work area. The native soils have an existing seed base and minimizes the potential for non-native invasive plants or insects.

Response: A note has been added that specifies that the river rock be washed. We understand the Commissions concerns with respect to native soils being used, however, we do not expect to be able to rely solely on the soils that will be excavated from the work area. It is likely that the material



was imported to create the wood road when the wetland was filled and the culvert was installed. It is not clear what type of material that is and the contractor may need to import materials to stabilize the slopes. We would recommend a Condition in the final Order of Conditions that requires soils from the property to be used in areas that are free of invasive species. It is anticipated that only a small amount of material will be needed.

We anticipate the need to stabilize the slopes with a native seed mix. Unfortunately, the seed bank in the surface soils, in and around the wood road, may not be dense enough to stabilize the slopes without additional seed. We have had great success with the seed mixes from New England Wetland Plants and would recommend allowing the use of a similar seed mix for this project. Note 5 in the Stream Restoration Area Construction Methodology specifies New England Erosion Control/Restoration Mix for Detention Basins and most sites.

- c. Note 5: I believe the Commission would be willing to rely on the existing seed base in lieu of the seed mix. Also, unless any grade exceeds 3-horizontal to 1-vertical, using a thick layer of seed-free straw would be allowable. There should also be a time limit from when the work begins and is complete. I would suggest no more than 14 days. The concern is that this may be treated as a side-project and linger, creating the potential for erosion and damage to the perennial stream. "Complete," as mentioned above, must mean that all altered surfaces are stable, planted, and all work is complete.

Response: For the reasons mentioned above we would recommend allowing the use of a native seed mix.

The specified grades are proposed to be no steeper than 3:1. Note 5 of the Stream Restoration Area Construction Methodology requires the placement of a North American Green, Eronet, S75 or equal erosion control blanket to be installed on the slopes following the seeding effort.

We agree that a specified timeframe is a good idea and would recommend a Condition in the Final Order of Conditions specifying no more than 14 days. The construction effort should take no longer than 3-5 days.



- d. Note 6: Two issues: First, the New England Wetland Plants catalog shows only one *Salix* species, *nigra*, which needs full sun. That area is well-shaded during the growing season. Speckled Alder or Buttonbush, also in that catalog, may be better fits although the Commission would entertain other suggestions as long as they are native shrubs that can thrive in that location. Second, given the use of an existing seed bank rather than direct seeding, a 75% standard may present a challenge as to how to monitor and quantify. Following the first sentence consider this narrative in place of the existing:

Response: I believe that *Salix nigra* is the only Willow tree listed in the New England Wetland Plants catalog, however the shrub section of the catalog specifies five different types of willows. The Species List on the plan shows Pussy Willow, *Salix discolor*, Silky Willow, *Salix sericea*, & Sand Bar Willow, *Salix exigua*, all of which should do well in this area. As mentioned above, the plan was also revised to incorporate Speckled Alder, *Alnus incana*, & Silky Dogwood, *Cornus amomum* on the side slope.

“Within 30 days following the removal of the pipe (not completion of the restoration), the Professional Wetland Scientist (PWS) shall submit a report to the Commission as to the character of the work, any needed changes to the effort, and the stability of the final product. Thereafter, the PWS shall evaluate the restoration area in which work occurred within 14 Days of September 1 and submit a report within 14 days. This monitoring must be performed for at least two full years following the removal of the pipe. The report should describe additional efforts to ensure that plant cover in the restored area resembles the abutting natural areas and that any problem areas, including the appearance of any invasive species, be delineated with a schedule of actions taken to further the restoration. The final report, shall include an evaluation of the recovery of the area and actions taken to control any invasive species in the restoration area.”

Response: We would recommend keeping the language as drafted since the restoration effort will be done very quickly. Perhaps a Condition in the final Order of Conditions would be appropriate requiring a report to be submitted to the Conservation Commission within a week of the culvert removal.

Lastly, a sequence of construction is needed to guide the contractor with respect to the need for both working during low flows in the stream and to work quickly. The Commission will have a review and approval Condition for all reports. This project, as you suggested, should occur in the dry season but will likely required to be completed for a Certificate of Compliance is issued.



Response: The Stream Restoration Area Construction Methodology specifies that the construction effort is proposed to be done under the direction of a PWS and that the work be done during late July or mid-August.

Plan Sets: Sheldon West, 1139 West Street, 35 pages dated 11/11/22 & Sheldon Meadow, 20 Hancock Street, 39 pages dated 11/11/22

The Commission's goal is to prevent damage to wetland resource areas under the Massachusetts Wetlands Protection Act (the "Act"), M.G.L. Chapter 131, Section 40, and its Regulations (the "Act"). That same goal is required by the Wrentham Wetlands Protection Bylaw, Article 17.31 of Town of Wrentham General Bylaws and subsequent Regulations (the "Bylaw") but also adds the protection of neighboring properties and public infrastructure. To meet these goals, the Commission reviews plans to ensure that stormwater is retained on-site and that any water that leaves a project site, whether surface water or ground water, retains the same quality as well as rate and quantity that existed prior to construction.

The following comments represent a review of the revised Plan Sets dated 11/11/22 referencing the RtC as appropriate. General Comments are to be applied throughout both Plan Sets in all sheets as applicable:

1. General Comment regarding Future Plans, Construction Plans, and the Stormwater Pollution Prevention Plan: The RtC, in several responses, pushed the response to future plans. Moreover, the RtC and the Notes on the Plan Set, imply that the Commission's role is only to "review" those new plans. It must be reflected throughout the Plan Set, especially the Notes on Sheet C1.2, that the Commission will review and may modify any plans before approval and that no work inside the buffer zone is allowed until those plans are approved.

Any new plans for work in the Commission's jurisdiction must reflect what was approved on the plans and what is held in the Orders of Conditions. If the Commission determines that there are significant differences between the new plans and the approved plans or Orders, a new Notice of Intent with public hearings will be required to comply with the Act and Bylaw.

Response: As said above that any plans that differ from the approved plans for work within the Commission's jurisdiction will be submitted to the commission and determined if the changes can be deemed administrative changes, minor modification or a new NOI



filing. This is understood and part of the permitting process and not reiterated on the Notes sheet.

2. General Comment, Stabilization: There is no better way to meet the Commission's goals than through rigorous stabilization of bare ground. Yet, the RtC did not yield regarding comments on time to stabilization and insists on the minimum standard of 14 and 21 days. The Commission, in its Orders of Conditions, may choose a shorter time period within areas of its jurisdiction. The Plan Set also failed to be prescriptive with respect to the types of Erosion Control methods to be used with the season or type of surface. Granted, the terrain is flat; however, the extent of fill and the time to bring in the fill will, during some seasons, create the potential for erosion that may not be easily contained. This issue must be addressed in the Plan Set. This will be expanded in Comment 4, below.

Response: Note #12 on the Notes sheets, under Erosion Control Plan Notes: states “Per EPA, stabilization measures such as temporary seeding with hydro-seeding or rapid growing annual grasses, small grains, or legumes shall take place no more than 14 days after the construction activity in the portion of the site has temporarily or permanently ceased and plan on remaining that way for more than 21 days. (Other acceptable forms of stabilization is mulch or stump grindings, erosion control blankets, or jute netting)” This is prescriptive with respects to the types of erosion control methods to be used. The items also are detailed on the detail sheets and within the SWPPP document. It is in the interest of the land developer and the contractor to keep the site stabilized. It is also the right of the commission and agent to be able to inspect the site during construction to verify that the Order of Conditions are being followed.

3. In RtC #2 Cover Sheet, Notes for Zoning Requirements regarding Open Space. Sheet C1.6 satisfied the comment. However; it was noted on subsequent sheets that a considerable amount of work will occur in these areas, particularly the area that will be used for storage during construction. This will compromise the function of the open space as well as create an opportunity for non-native invasive plants and insects. The intent of Open Space is to preserve or provide a natural habitat. Although the preference is to preserve, it is recognized that some areas will be altered. These areas must be restored to something other than a lawn. Provide a plan for the restoration of such altered open spaces and monitoring for non-native invasive species. It is suggested that an Open Space Restoration and Monitoring Plan must be submitted to show that work inside the jurisdiction of the Commission will be



protected against alteration or that any land that is altered be restored and monitored to ensure recovery to a native state.

Response: The areas that are to be restored to vegetation within the jurisdictional buffer is proposed to be conservation seed mix, that is more than lawn. The specifications for the seed mix are listed on the Landscape Plans, and a note has been added to the plan “proposed seed mix within conservation jurisdictional buffers to be free of invasive species and approved by a licensed wetland scientist.” The areas and processes to vegetate the area are all within the Landscape Plans. The areas outside of the limit of work and within the jurisdictional area that is labeled as open space will not be altered, and existing vegetation will remain.

4. General Comment: The Plan Set must be more specific on non-vegetative measures for Stabilization. Vegetative measures are great during the four months of the growing season when planting may occur and be successful – if watered. Note 12 of Erosion Control Plan Notes, Sheet C1.2, cites the non-vegetative measures albeit in an awkwardly worded note that fails to be prescriptive as to when and how the applications are to be applied. I would suggest this wording for Note 12: “Outside of the growing season, from September 1 to May 1, jute netting (stump grindings...) shall be applied as temporary erosion control, as shown on Detail Sheet X, on slopes less than 3-horizontal to 1-vertical. On slopes exceeding 3 to 1, an erosion control blanket, as specified on Detail Sheet X....”

Response: The notes reference in previous responses cover the different methods for stabilization that we recommend to the contractor. If the commission would like to condition more specific method during specific times of the year that is acceptable to the applicant. We do not believe that is the best method as weather in New England is unpredictable and certain months do not always bring the weather of the designated season, and with it being conditioned could force the contractor to use inappropriate methods of stabilization during transition months.

There must be a specification on the Detail Sheet for the jute netting, erosion control blanket or other materials proposed along with a requirement to maintain these materials on-site in some quantity. This should be referenced in each of the Notes.

Response: Details has been added for jute netting, erosion control blankets, mulching, and additional items that were referenced in the SWPPP. These items are listed in the overall plan changes at the end of the response.



5. General Comment: All notes should be edited for specificity, clarity, and conciseness. Notes that are unclear are easily misinterpreted to the detriment of the project.

Response: We have reviewed the notes and feel they are clean and specific.

6. Landscape Plans, Sheets C8.1 & 2 (both sets). The planting list responds to the Comment but concern remains over the word “Options” in the species table for the West Street project. The concern is that nurseries tend to give you the stock they have rather than want. Within the buffer zone it is likely the Commission, inside its area of jurisdiction, may require native plants and perhaps a certification from a botanist.

Response: A note has been added to the landscape plans to read that only Red and White cedar trees are to be planted within the commissions jurisdictional area. Please see response 3 in regard to the other planting within the buffer areas.

7. In evaluating RtC #30 no O&M plan was found although it is a thick document with no tabs or coherent pagination. It was difficult to find information. Regardless, this particular aspect may not be of importance to the Commission as the future work in the buffer zone will be limited to landscaping-style maintenance. It is believed that the changes provided above, coupled with the Orders of Conditions will be sufficient.

Response: At the beginning of the document there is a table of contents, and each section has a fly sheet with the appendix letter and title. The Operations and Maintenance is found within the Long Term Pollution and Prevention Plan, and the map of the locations is titled “BMP Map” and located in the appendix.

8. Sheldon Meadow, RtC#2. This isn’t exactly clear as to the extent of clearing or is it simply to the extent of the LOW Fencing?

Response: The extent of clearing is depicted on the Demolition and Erosion control plan, with the Limit of Work (LOW) fence depicting the extent of disturbance within the site. On Sheldon West there is not as much “clearing” in terms of trees and shrubbery as it is an open field, but the LOW still depicts the limit of disturbance.



PLAN CHANGES

SHELDON MEADOW

Layout and Materials Sheets 1 and 2:

- Sidewalk within 100' buffer zone reduced to 5' in width. Sidewalk outside of 100' buffer zone remains as 6' in width.

Landscape Scape Sheet 1:

- Note #8 added under General Landscape Notes: "Proposed seed mix within conservation jurisdictional buffers to be free of invasive species and approved by a licensed wetland scientist."
- Note #9 added under General Landscape Notes: "Only red cedar and white cedar trees are to be plant within conservation jurisdictional buffers."

Detail Sheet 2:

- Mulching detail added
- Filter bag detail added
- Erosion blanket/Jute netting detail added
- ADA ramp with grass strip detail relocated to Sheet 3
- Roof drain detail relocated to Sheet 6
- Typical parking space detail relocated to Sheet 3
- Typical crosswalk detail relocated to Sheet 3

Detail Sheet 3:

- Typical crosswalk detail added
- Typical parking space detail added
- ADA ramp with grass strip detail added
- Trench detail – water service detail relocated to Sheet 6
- Trench detail – water main detail relocated to Sheet 6

Detail Sheet 6:

- Trench detail – water service detail added
- Trench detail – water main detail added
- Roof drain detail added

Detail Sheet 12 added: Culvert Removal and Restoration Plan



WEST STREET

Landscape Scape Sheet 2:

- Note #8 added under General Landscape Notes: “Proposed seed mix within conservation jurisdictional buffers to be free of invasive species and approved by a licensed wetland scientist.”
- Note #9 added under General Landscape Notes: “Only red cedar and white cedar trees are to be plant within conservation jurisdictional buffers.”

Detail Sheet 1

- Filter bag detail added

Detail Sheet 2

- Erosion blanket/jute netting detail added

Detail Sheet 8

- Mulching detail added

Detail Sheet 9 added: Culvert Removal and Restoration Plan