



**Memorandum**

**To:** *Karen Chandler, c/o Barr Engineering  
Bassett Creek Water Management Commission*

**Copy:** *Andrea Weber, Minneapolis Park and Recreation Board*

**From:** *Pete Willenbring, WSB & Associates, Inc.  
Erick Francis, WSB & Associates, Inc.*

**Date:** *February 20, 2014*

**Re:** *Response to Comments for the Main Stem of Bassett Creek Restoration Project  
Minneapolis Park and Recreation Board  
WSB Project No. 1165-82*

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The purpose of this memorandum is to respond to comments outlined in a letter dated September 12, 2013 from Jeff Weiss, PE, from Barr Engineering Company to Andrea Weber, Project Manager for the Minneapolis Park and Recreation Board. These comments are made on behalf of the Bassett Creek Water Management Commission (BCWMC) regarding the Main Stem of Bassett Creek Restoration Project. The responses to these comments are outlined below:

Please note that this project is being submitted to the Commission for the 90% review without receiving final comments from either the Army Corps of Engineers (ACOE) and the State Historical Preservation Office (SHPO). This 90% plan is being submitted to keep the project on track for spring and summer construction. Anticipated changes to the plan are outlined in the Response to Comment Number 20.

**Comment No. 1.** Sheet 2 appears to show several easements outside of the project area. If the easements are unrelated to the proposed project, then they should be removed from the plan set.

**Response:** Plans have been updated to remove any easements that are not within the project limits.

**Comment No. 2.** The “Description of Proposed Improvements” on Sheet 3 appears to contain some items not included in the proposed project (e.g. cross vanes) and omit items that are included in the proposed project (e.g. live fascines). This description should be corrected.

**Response:** Plans have been updated and the Cross Vane description has been removed from the Description of Proposed Improvements.

**Comment No. 3.** The detail for a fishing block on Sheet 4 shows limestone blocks stacked on top of each other to provide a smooth surface from which to fish. The detail should be modified or notes added to the detail to describe how the limestone blocks will be secured together. A portion of the limestone blocks are to be cantilevered over the water below, and excessive weight on the cantilevered portion may cause the top limestone slab to tip and potentially injure the public. Securing blocks together is needed to prevent this from happening. If the design does not require a means to secure the limestone blocks together, then computations should be provided to show that there is no risk of a block tipping and causing injury.

**Response:** Plans have been updated and the Fishing Piers have been removed from the plans to limit impacts to the Creek.

**Comment No. 4.** Construction access and construction limits should be shown on Sheets 10 – 19.

**Response:** Plans have been updated to show construction access and limits on Sheets 10-19.

**Comment No. 5.** On Sheets 13 – 19, there are many locations calling for clearing vegetation, grading and installing biolog and fascine. Biolog and fascines (and live stakes) are generally installed by hand and do not always require significant clearing for their installation. The value of existing vegetation and the need to grade existing stream banks should be evaluated to determine if extensive clearing and grading is necessary or if installation by hand within the confines of the existing vegetation would be appropriate.

**Response:** Plans have been updated to instruct the contractor to limit the disturbance of the existing vegetation along the streambank when installing the biolog and fascines. However, slopes that are vertical will be reshaped to provide a more sustainable slope.

**Comment No. 6.** Sheets 13 – 19 show where several rock vanes and root wads are to be placed. The design elevations for each of these features should be included in the plans.

**Response:** Plans have been updates to show design elevations for the top of root wads and rock vanes.

**Comment No. 7.** Sheets 13-19 show the placement of some rock vanes and root wads quite close together, particularly on Sheet 13 (Station 160+50) and Sheet 16 (Station 113+50). Notes in the plan set state that actual locations of vanes and root wads will be staked in the field. Nonetheless, the placement of all vanes and root wads (Sheets 13-19) should be evaluated and the plans should be modified as necessary to reflect anticipated placement as accurately as possible.

**Response:** Plans have been updated to further define root wad and rock vane spacing and location.

**Comment No. 8.** Sheets 13 – 19 show several locations where fieldstone boulder stabilization will be used. The design elevation of these features should be included in the plans.

**Response:** Plans have been updated to define design elevation for the top of fieldstone boulder stabilization.

**Comment No. 9.** On Sheet 13, between stations 160+00 and 162+00, the proposed fascines would likely successfully stabilize the stream banks; however, willows can grow quite tall and may provide an unintended hazard for the golf course. Native grasses or other shrub species would also work in this location. The design team should consult with the golf course planners to agree on a planting plan.

**Response:** Plans have been updated to limit the live fascines and willow plantings along the golf course fairways.

**Comment No. 10.** On Sheet 14, VRSS is proposed between stations 137+50 to 143+50 with willows (live stakes) as the primary vegetation planted between the VRSS layers. The west bank is well-forested and may provide significant shading to all or portions of the VRSS. We recommend evaluating the anticipated light exposure for the VRSS to ensure the light will be sufficient for willow live stakes to grow. In case of insufficient light, we recommend modifying the planting plan as necessary.

**Response:** The sunlight that penetrates the tree canopy the westerly bank of the creek has been evaluated and should be adequate to allow the Willow cuttings to flourish. If there are issues in the future additional species may be installed in the VRSS as part of the warranty period.

**Comment No. 11.** On Sheet 14, a callout states that the stone wall will be removed from the stream. Removing the wall will cause disturbance to the channel, so details should be provided about the channel restoration after wall removal. Alternatively, the need to remove the wall could be re-evaluated, especially given the historical context of the wall and the condition of the stream in that area.

**Response:** Plans have been updated to show that the remnants of the wall will not be removed from within the creek. Based on further discussion with the MPRB Staff, they have chosen to keep the wall intact and possibly develop an interruptive sign describing the history of the wall.

**Comment No. 12.** On Sheet 15, approximately 20 trees are to be removed between Station

128+00 and 131+00, with vanes, biolog and fascines to be installed along the bank. It appears that all trees along this bank are to be removed. It is possible to install vanes without removing all adjacent vegetation. The need to remove all trees along this bank should be re-evaluated with consideration of actual current erosion, the potential for future erosion, and value of existing mature trees.

**Response:** This area along the creek is intended to be cleared of the existing trees and vegetation, the streambank is stabilized with biologs and rock vanes, and the cleared will be restored with native vegetation, wild flowers, trees and shrubs. The final restoration plan is pending and is awaiting response from the ACOE and SHPO.

**Comment No. 13.** On Sheet 19, the transition between the biolog and riprap can result in erosion behind the riprap if the transition is not done properly. The plan set should include a detailed view of this area to show how the transition will occur.

**Response:** Plans have been updated to detail the transition between the biolog and fieldstone rip rap to reduce the potential for erosion behind the stone.

**Comment No. 14.** The plan set should show where silt curtain will be used to prevent sediment from washing downstream during construction.

**Response:** Plans have been updated and identify silt curtain installation locations.

**Comment No. 15.** The plan set should include a restoration plan showing where new vegetation (including trees and shrubs) will be planted and where seed mixes will be used. The restoration plan should also describe how access paths will be restored.

**Response:** Plans have been updated to identify vegetation restoration areas shrub and tree planting locations and the restoration of the haul roads and staging areas. However, the final restoration plan is pending and is awaiting response from the ACOE and SHPO.

**Comment No. 16.** The plans call for removal of dozens of trees with hundreds of feet of fascine to be installed along the stream banks. Willows can be excellent species to help stabilize stream banks and are often available for harvesting for use in fascines. Dogwood species can also be used in similar situations as willow; however harvesting sites are generally not as plentiful. If it is not possible to include dogwood cuttings in some fascines, then substituting fascines with dogwood shrubs in some locations should be considered to provide species diversity and create new harvest sites for future MPRB work. Furthermore, other shrub and tree species thrive in riparian zones even though they are not suitable for live stakes and live fascines. Increased diversity in the plantings is encouraged.

**Response:** Plans have been updated to allow for the use of Dogwood's be used in the fascines where possible. However, the final restoration plan is

pending and is awaiting response from the ACOE and SHPO.

**Comment No. 17.** For the SWPPP notes and restoration plans, please note that

Temporary or permanent mulch must be uniformly applied by mechanical or hydraulic means and stabilized by disc-anchoring or use of hydraulic soil stabilizers.

Temporary vegetative cover must be spread at 1.5 times the usual rate per acre. If temporary cover is to remain in place beyond the present growing season, two-thirds of the seed mix shall be composed of perennial grasses.

**Response:** Plans have been updated to instruct the contractor that the application of temporary mulch be uniformly and must be applied mechanically or hydraulically, to increase the volume of temporary seed by 1.5 times, and the addition of perennial grasses to the temporary cover crop if the temporary cover is to remain in place for longer than present growing season.

**Comment No. 18.** The BCWMC generally does not allow fill in the floodplain. If fill is placed in the floodplain, the BCWMC requires that compensating storage and/or channel improvement be provided so that the flood level is not increased at any point along the trunk system due to the fill.

**Response:** Filling into the flood plain will be limited to the restoration of the eroded portion of the pedestrian trail in Bassett Creek Park to its previously existing condition.

**Comment No. 19.** Golden Valley and Minneapolis are the LGUs responsible for reviewing the project for conformance to the Minnesota Wetland Conservation Act.

**Response:** Discussions have been held about the LGU responsibilities for this project with Lois Eberhart, City of Minneapolis, and Jeff Oliver, City of Golden Valley. It has been determined that the LUG authority will be transferred to the City of Golden Valley due to the greater portion of the project being in Golden Valley and to simplify the WCA permitting process. Documentation for this transfer of LGU authority is currently being processed.

**Comment No. 20.** Revised plans must be submitted to the BCWMC Engineer for review.

**Response:** Revised Plans (90% complete) will be provided to the Commission upon completion. Please note, this project is still under the review of the ACOE and SHPO and further changes to the plans may be required by these Agencies. The anticipated changes to the plan may include

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alterations to the final seeding and planting plan, the trail restoration in the Bassett Creek Park, and the Maintenance Area 6, north of the Wirth Chalet.

Thank you for your cooperation and review of the plans and anticipate your approval for the Main Stem of Bassett Creek Restoration Project.

Please contact Pete or Erick at 763-287-7188 or 763-512-5251 if you have further questions.