Project Purpose: The proposed project will reconstruct 1.7 miles of rural section roadway as part of the 2018 City of Wyoming roadway improvement project. This will include an addition of approximately 0.6 acres of impervious area with the project resulting in a total impervious area of 4.1 acres.

Project Location: Pioneer Road from 260th Street to Iris Avenue, 260th Street from west Comfort Drive to Pioneer Road, and Indian Trail from East Comfort Drive to Pioneer Road. The site drains to Comfort Lake & the Sunrise River.

Applicable District Rules: 2.0 & 3.0

Recommendation: Approval with the following conditions:

Prior to permit issuance, the following are required:

1. Submittal of updated details filtration trenches, including protection from compaction, revegetation specifications, and engineered soils minimizing potential for phosphorus leaching (reduce compost percentage to 20% or less and/or require satisfactory results from Mehlich III testing per MN Stormwater Manual recommendations).

2. Execution of a facility maintenance plan satisfactory to the CLFLWD addressing the ongoing operation and maintenance of the proposed stormwater management features including ditch checks and filtration trenches.

Stipulations of Permit:


Rule 2.0: Stormwater Management

The proposed project is reconstruction of Pioneer Road from 260th Street to Iris Avenue, 260th Street from west Comfort Drive to Pioneer Road, and Indian Trail from East Comfort Drive to Pioneer Road.
Some road segments are located outside of CLFLWD. This permit only applies to the areas located within CLFLWD. The roads will be left as rural section however Pioneer Road will be widened to meet Minnesota Department of Transportation state aid standards.

Based on the submitted geotechnical report the soils include a mixture of different soil types but primarily consist of clay and fill with limited infiltration capacity. Ditch checks with linear filtration trenches located within the City Right-of-Way will provide treatment for the project. Pretreatment of runoff is provided by the rural section design and grass swales along the roadway. The design details include a 70% sand and 30% MnDOT Grade 2 compost. Based on the MN Stormwater manual this amount of compost has the potential to leach Phosphorus. The amount of compost should be reduced to 20% or less and/or require a Mehlich III test as described in the MN Stormwater manual. Additional detail notes should also be included that protect the features from compaction and specify appropriate seed mixes for planting of the filtration trenches.

The proposed project has approximately 3.5 acres of reconstructed impervious and 0.6 acres of new impervious. For public linear projects the treatment volume required is either 0.55 inches of runoff from all new and reconstructed impervious surfaces, or 1.1 inches of runoff from the net increase in impervious area, whichever is greater, must be captured and treated. In this case the 0.55 inches of runoff over all new and reconstructed impervious area is greater. The required treatment volume for the project is 0.55 inches of runoff from the reconstructed impervious surface which equates to 8,093 cubic feet (CF). The onsite soils are not suitable for infiltration, therefore biofiltration is proposed. The volume conversion factor for biofiltration is 0.65; therefore the required treatment volume is 12,450 CF. The project incorporates 21 ditch checks and 2,610 linear feet of filter trenches. The proposed treatment volume is 16,033 CF therefore satisfying the District’s volume control requirements. Treatment requirements are calculated based on all new and reconstructed impervious; however the basins capture runoff from only Pioneer Avenue. This segment was focused on because of the space availability, but also because this is the segment of road that is being widened. Indian Trail and 260th Street will be left in their current configuration and as rural section. The sediment load from Indian Trail and 260th street will be minimized because of the rural section will sheet flow runoff through right-of-way and ditches. Therefore, total suspend solids in runoff that is not captured by a practice will be reduced by the maximum extent practicable as required under 2.3.3(b).

Because the project is rural section the runoff will discharge at multiple locations, however the project will discharge to three primary places: Comfort Lake, the Sunrise River, and large Wetland Basins to the north. The City has analyzed the project at each discharge location from the City ROW to ensure no increase in rates from the city project at those locations. Overall the proposed project provides a slight decrease in rates compared to existing conditions, thereby stratifying District Rate Control. A summary table of rates leaving the site is summarized below.

<table>
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<tr>
<th>Rate Control Summary</th>
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<tbody>
<tr>
<td>Conditions</td>
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<tr>
<td>Existing (cfs)</td>
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<tr>
<td>Proposed (cfs)</td>
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</table>
A detailed SWPPP has been submitted and the proposed basins shall be constructed concurrent with the work authorized by the permit.

Rule 3.0: Erosion Control
Detailed erosion control plans and a Stormwater Pollution Prevention Plan have been provided. The proposed plans include rock construction entrances, biorolls, silt fence, rip rap at storm sewer outfalls, revegetation specifications and an implementation schedule. The proposed project meets District erosion control requirements.

Rule 4.0: Lake, Stream, and Wetland Buffer Requirements
The proposed project does not trigger this rule; a subdivision was not proposed and no municipal rezoning or variance was required for this project.

Rule 5.0: Shoreline and Streambank Alterations
The proposed project does not trigger this rule; a DNR general permit applicable to property owners who hold a District permit is not in effect.

Rule 6.0: Watercourse and Basin Crossings
The proposed project does not trigger this rule; no roadways, utilities, or water control structures are proposed in the bed of District waterbodies.

Rule 7.0: Floodplain and Drainage Alterations
The proposed project does not trigger this rule; Wyoming has a state-approved floodplain ordinance.

Rule 8.0: Wetland Management
The proposed project does not trigger this rule; the District is not the LGU for wetland impacts.

Rule 9.0: Fees
The proposed project does not trigger this rule, government agencies are exempt.

Rule 10.0: Financial Assurances
The proposed project does not trigger this rule; pursuant to District policy, financial assurances are not requested from government agencies.

Rule 11.0: Variances
The proposed project does not request a variance.

Submittals Received
The following submittals were received and reviewed as the basis for this permit application review:
1. Application, received April 24, 2018, prepared April 20, 2018.
2. Construction Plan Set (91 Sheets), received April 24, 2018, undated, prepared by WSB & Associates, Inc.
