COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: October 14, 2019
AGENDA NUMBER: 17
FILE NUMBER: 19-087
ITEM: CSAH 78 HANSON BLVD RECONSTRUCTION

RECOMMENDATION: Tabled with 10 Stipulations

APPLICANT: Anoka County Highway Department
Attn: Nick Dobda
1440 Bunker Lake Boulevard
Andover, MN 55304

PURPOSE: Reconstruction of CSAH 78 Hanson Blvd. from Northdale Blvd. to Main St.

LOCATION: CSAH 78; Coon Rapids, MN
APPLICABILITY:
1. Within 1 mile of an impaired waters.
2. Any work within or adjacent to a Public ditch within the Watershed District.
3. Any work in or adjacent to wetlands, lakes or water courses
4. One or more cumulative acres of land disturbance
5. The lands and waters that have been, or may be covered by the regional flood.
6. High water table, outwash and organic soils
7. High infiltration soils
8. Highly erodible soils
9. Excavation or filling or a combination of excavation and filling of sand or other excavation or fill material including the laying, repairing, replacing or enlarging of a culvert or an underground pipe or facility where it crosses a public ditch or waters of the state.
10. Endangered, Threatened or Special concern species, elements or communities

EXHIBITS:
1. Response Letter; by HDR, undated, received 10/2/19.
2. Construction Plan set (193 sheets); by HDR, dated 9/20/19, received 10/2/19.
3. Drainage Design Report; by HDR, dated 9/13/19, received 10/2/19.
4. Drilling Investigation Report; by Braun Intertec, dated 11/14/18, received 4/24/19.
5. Geotechnical Evaluation Report; by Braun Intertec, dated 10/12/18, received 4/24/19.
7. Natural Heritage Review letter; by DNR, dated 1/15/19, received 10/2/19.
PREVIOUS ACTION TAKEN: This application was initially submitted on April 24, 2019 and was deemed to be incomplete.

FINDINGS:
Pre-application Meeting: The project as submitted has not received a general review during a pre-application meeting.

Ditches: There is a public ditch on the property. The public ditch is County Ditch 54 according to the public drainage map. The approved/as-built elevations through this property are 844.64 ft MSL at the downstream end and 844.71 ft MSL at the upstream end.

The ditch is a 5th order stream. The ditch serves the primary role of
  a. Trunk drainage system

The ditch serves approximately 0 acres of agricultural land. Land use in the area is toward commercial/residential.

The project does not propose alterations to the ditch.
Ditch Hydraulics: A crossing of the ditch is not proposed. Existing culvert to remain as-is.

Erosion and Sediment Control: Soils affected by the proposal are Markey, Lino, Isanti, Rifle and Zimmerman.
  • Stabilizing vegetation is proposed for disturbed areas within seven (7) days of rough grading.
  • Soil stockpiles have been proposed to be fitted with sediment-trapping measures to prevent soil loss and do have a note to stabilize within seven (7) days of inactivity.
  • Adjacent properties and stormwater ponds are protected from sediment deposition.
• Construction schedules detailing when sediment trapping measures will occur; stabilization of earthen structures and the general timing of construction phases have been provided.
• Stormwater runoff does pass through a sediment basin or other sediment trapping BMP with equal or greater storage capacity.
• Stabilization adequate to prevent erosion has been provided at the outlets of all storm sewer pipes.
• All storm sewer inlets are protected from sediment-laden water during construction.
• All work adjacent to water or related resource has not taken precautions to contain sediment, and stabilize the work area during construction.
• Provisions have been made to minimize transport of sediment (mud) by runoff or vehicle tracking onto the paved surface.
• Provisions have been made for cleaning road surfaces where sediment is transported by the end of the day.
• Construction entrance points are clearly located on the erosion and sediment control plan.
• The erosion and sediment control plan does provide for the repair and maintenance of all temporary and permanent erosion and sediment control practices.
• Details are provided for ESC (riprap, perimeter control, concrete washout, inlet protection, etc.)

Dewatering: Shallow ground water does not exist on site. The project does not require dewatering.

Floodplain: There is floodplain on the property according to the District model and FEMA. The District’s floodplain elevation is at 857.8 feet on the upstream side and 857.7 on the downstream side. The project does not propose to place fill within the floodplain. The total floodplain impact is 0 acre-feet. The proposed impact is not within the floodway/flood fringe. Compensatory storage is not needed. There are flooding concerns upstream and downstream.

High Water Flooding: Information is not needed to substantiate low floor elevations, no structures proposed.

Groundwater: Geotechnical information collected in October 2017 indicates long term groundwater elevation is present at 13 feet below the surface on the south end of the project and 10.5 feet below the surface on the north end. Adjacent wetlands and Coon Creek indicate groundwater elevation near 854 ft.

The project site is not within the Emergency Response Area/10 Year Well Head Protection Area/Drinking Water Supply Management Area.

The proposal does not contain a land use discouraged or prohibited by the Safe Drinking Water Supply Act (SDSA).
**Historic Sites:** The proposed project does include sites of historic or archeological significance.

**Local Planning & Zoning:** The proposed project is consistent with local planning and zoning. There is an approved local water plan.

Property owners affected by changes in drainage should be notified and acknowledge the changes proposed.

**Maintenance:** The owner of the Stormwater Management features and treatment practices is Anoka County. The Stormwater Treatment Practices (STPs) consisting of the following:

<table>
<thead>
<tr>
<th>Stormwater Treatment Practices</th>
<th>Number</th>
<th>Inspection &amp; Maintenance Responsibility</th>
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</thead>
<tbody>
<tr>
<td>Infiltration Basin</td>
<td>1</td>
<td>Anoka County</td>
</tr>
<tr>
<td>Sump</td>
<td>1</td>
<td>Anoka County</td>
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As a requirement of the County’s JPA, the County will inspect and maintain the stormwater facilities.

Easements: The proposed project does include ditch maintenance easement. A maintenance access to all storm water management features is provided.

**Stormwater & Hydrology:** Infiltration is allowed within the project area. The 0.55-inch infiltration is achieved. The stormwater management system utilizes an infiltration basin. Calculations have been provided that illustrate the 0.55-inch infiltration volume is achieved below outlet.

Drainage sensitive uses do not exist downstream from the proposed site. The rate of post-development runoff from the site does not exceed predevelopment rates, or rates which would interfere with sensitive downstream land uses. Properties and waterways downstream from the project are protected from erosion due to increases in the volume, velocity and peak water flow rates of stormwater runoff. Concentrated storm water leaving a site is discharged directly into a well-defined natural or man-made off-site receiving channel or pipe. All on-site constructed storm water conveyance channels are constructed to withstand the expected velocity from a 2-year frequency storm without erosion.

**Water Quality:** The proposed project does cause an exceedance of State water quality standards. The project does not contribute to the adverse impact of wetlands through inundation or volume of flow. All discharges into wetlands/stormwater basins are not pretreated by a sediment basin/water quality pond, and are not designed correctly. All work adjacent to wetlands, waterbodies and water conveyance systems are protected from erosion. The proposal will detrimentally affect the existing water quality of the receiving
water. The proposal will not cause extreme fluctuations of water levels or temperature changes.

**Impairments:** This project is within one (1) mile of and drains to an Impaired Water. The Impaired Water is Coon Creek (CD 54). Coon Creek is impaired for macroinvertebrate bioassessments and E. coli. The major stressors are Total Suspended Solids (TSS)/Total Phosphorus (TP)/E.coli. There is an EPA approved Total Maximum Daily Load (TMDL) or Waste Load Allocation (WLA) for this water.

There are new impervious surfaces proposed as part of this project.

**Wetlands:** Wetlands do exist on-site according to the 1987 Federal manual, NWI, PWI and Soil Survey. Wetlands have been delineated. The most recent delineation was approved on 6/11/18. The wetland boundary has been checked.

The wetland is not a DNR protected water.

The total proposed wetland impact is 0 square feet.

**Wetland Replacement Plan:** A wetland replacement plan has not been submitted and is not required.

**Wildlife:** The proposed project does include endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors.

The applicant has contacted the MDNR natural heritage or endangered species program. MDNR has responded to the applicant on 1/15/2018 Correspondence # ERDB 20180262.

If the project is present, the project does propose substantial adverse alteration or significant detrimental impact on a species or removal of a plant species will occur.

**Performance Escrow:** $7,730

**Wetland Escrow:** $0

There are not ditch liens on the property.

**ISSUES/CONCERNS:**

<table>
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<th>ISSUE</th>
<th>NEED</th>
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<td>Escrows: $2,000 + (11.46 ac * $500/ac) = $7,730</td>
<td>1. Receipt of escrows.</td>
</tr>
<tr>
<td>Erosion &amp; Sediment Control: Adjacent wetlands and waterbodies not protected from construction activities.</td>
<td>2. Provide double row silt fence when construction is adjacent to wetlands and waterbodies.</td>
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### Stormwater & Hydraulics:
Sump installation is noted on Sump detail page but not shown on profile or noted in Schedule.

Infiltration is unlikely to be achieved due to high groundwater.

Project has three discharge points. Volume management calculations are provided for entire project but it is unclear how each discharge point meets requirements.

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### Water Quality:
All discharges into wetlands/water quality basins are not pretreated.

Does not appear that calculation provided for sump is correct. Sediment load for approximately 9 acres is considerably lower than anticipated.

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<td>7. Provide calculations (SHSAM can be used) to indicate sumps are appropriately sized to meet district removal rates of 80% TSS for MnDOT particle size. A minimum of 4-foot depth is required to prevent resuspension.</td>
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### Wetlands:
Erosion control plan does not depict wetlands.

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<td>8. Depict all delineated water resources on the Erosion Control Plan to ensure their protection.</td>
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### Wildlife:
The proposed project does include endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors. Documentation from the DNR (Correspondence # ERDB 20180262) indicates rare features may be adversely affected by the proposed project and provides recommendations.

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### RECOMMENDATION:
Table with 10 Stipulations

**Stipulations:**

1. Receipt of escrows.
2. Provide double row silt fence when construction is adjacent to wetlands and waterbodies.
3. Update storm sewer profile and schedule to illustrate sump locations.
4. Basin should be redesigned to act as a filtration system or wet basin to meet District requirements to the maximum extent practicable.
5. Include statement and calculation for each drainage section that illustrates how District requirements are met.
6. Provide pretreatment prior to FES 5103.
7. Provide calculations (SHSAM can be used) to indicate sumps are appropriately sized to meet district removal rates of 80% TSS for MnDOT particle size. A minimum of 4-foot depth is required to prevent resuspension.
8. Depict all delineated water resources on the grading plan.
10. Provide note on plans that contractors must receive the DNR flyers/Fact Sheets regarding Banding’s Turtles.