COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: September 9, 2013
AGENDA NUMBER: 15
FILE NUMBER: 13 - 104
ITEM: Lever Street & 173rd Ave

RECOMMENDATION: Table with 7 Stipulations

APPLICANT: RFC Engineering, Inc.
13635 Johnson Street
Ham Lake, MN 55304

PURPOSE: Construction of Lever Street from 173rd Avenue to Lexington Avenue, right turn and bypass lanes on Lexington Avenue

LOCATION: Lever Street and 173rd Street in Ham Lake, MN

APPLICABILITY:
1. Any work in or adjacent to wetlands, lakes or water courses.
2. One or more cumulative acres of land disturbance.
3. Activities upstream from land that is dependent upon removal of water from the soil profile for their continued use (Drainage Sensitive Uses)
4. High water table, outwash and organic soils.
5. High infiltration soils.
6. Highly erodible soils

EXHIBITS:
1. Project Timeline, Received 8/28/2013
2. Existing HydroCAD Report, Printed 8/28/2013, Received 8/28/2013
3. Proposed HydroCAD Report, Printed 8/28/2013, Received 8/28/2013
4. Lever Street Construction Plans Sheets 11, XX and 19, Dated 4/1/2013, Received 8/28/2013
5. Soils Classifications, Dated 8/27/2013, Received 8/28/2013

HISTORY & CONSIDERATIONS:

FINDINGS:
Ditches and Drainage: There is not a public ditch on the property. The project site is tributary to County Ditch 44. The trend in land use for this drainage area is toward open space, agriculture and residential. There are flooding concerns downstream. Alternatives to additional drainage considered and reviewed include storage and retention. The public ditch was last repaired in 2013. The ditch is not in need of repair.
**Floodplain:** There is no floodplain on the property according to FEMA. The District Atlas 14 model predicts the 100-year elevation for the subwatershed at 903.1 feet. The total floodplain impact is 0 acre-feet, within the floodplain. Compensatory storage is not needed.

**Groundwater:** A geotechnical report was not submitted. Application noted that a confining layer was found at elevation 904 but will be removed with construction of the pond. Groundwater was observed at 898.0 on July 11, 2013.

**Historic Sites:** The proposed project does not include sites of historic or archeological significance.

**Local Planning & Zoning:** The proposed project is consistent with local planning and zoning.

**Maintenance:** The proposed project does not include a ditch maintenance easement or utility line crossings. A drainage and utility easement is provided for the storm water pond shown on the drainage plan. Property owners affected by changes in drainage have been notified and have acknowledged the changes proposed.

**Soils & Erosion Control:** Soils affected by the proposal are Lino and Zimmerman. Stabilizing vegetation is not proposed for disturbed areas within two weeks of rough grading. Adjacent properties are protected from sediment deposition. All wetlands, waterbodies, ponds, infiltration basins and water conveyance systems are not protected from erosion and sedimentation. Project site is greater than 1 acre; an NPDES permit is required.

**Stormwater & Hydraulics:** It is unclear if the applicant is meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation. Stormwater leaving the site is discharged into a well-defined receiving channel or pipe and routed to a public drainage system. Drainage sensitive uses 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.

**Water Quality:** Project does not include new impervious drainage areas greater than 1 acre. The proposal will not detrimentally affect the existing water quality of the receiving water. The proposal will not cause extreme fluctuations of water levels or temperature changes.

**Wetlands:** There are no wetlands within the project area according to the 1987 Federal manual, NWI, PWI and Soil Survey.
**Wildlife:** The proposed project does not include endangered or threatened species, rare natural communities, and colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors.

**Performance Escrow:** $2,494.00  
**Wetland Escrow:** $0.00

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<tr>
<th>ISSUES/CONCERNS:</th>
<th>NEEDS</th>
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<td><strong>Groundwater:</strong> A geotechnical report was not submitted.</td>
<td>Provide a geotechnical report showing where groundwater is and the soil texture down to groundwater.</td>
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<td><strong>Soils &amp; Erosion Control:</strong> All wetlands, waterbodies, ponds, infiltration basins and water conveyance systems are not protected from erosion and sedimentation.</td>
<td>The infiltration basin is not protected from erosion and sedimentation during construction. After initial grading the District requires that infiltration basins be completely surrounded by erosion control measures to prevent the basin from clogging.</td>
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| **Stormwater & Hydraulics:** It is also unclear whether the applicant is meeting the rate control requirement. No maps were provided for existing and proposed conditions showing where the drainage basins are. Therefore, it is too difficult to compare pre and post conditions 1-inch volumes and runoff rates. | A post construction test on the infiltration basin will be required to verify the assumed infiltration rates are obtained. The applicant must acknowledge that they will conduct a post construction test on the infiltration basin by filling the basin to a minimum depth of 6 inches with water and monitor the time necessary to drain. The Coon Creek Watershed District shall be notified prior to the test to witness the results.  
Infiltration basins shall be designed with at least 3 feet of separation from the invert of the basin to groundwater. Otherwise, the basin will not infiltrate as modeled. |
RECOMMENDATION: Table with 7 Stipulations

Stipulations:
1. Receipt of escrows ($2,494).
2. Provide a geotechnical report shows where groundwater is and the soil texture down to groundwater.
3. Provide detail showing the invert of the emergency overflow for the pond
4. Provide subwatershed maps showing drainage areas for pre and post conditions.
5. The applicant must acknowledge that they will conduct a post construction test on the infiltration basin by filling the basin to a minimum depth of 6 inches with water and monitor the time necessary to drain. The Coon Creek Watershed District shall be notified prior to the test to witness the results.
6. After initial grading completely surrounded the proposed infiltration basin with erosion control measures to prevent the basin from clogging.
7. Provide pretreatment basins or some other type of water quality unit prior to discharging in to infiltration basin.