COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: May 11, 2015
AGENDA NUMBER: 11
FILE NUMBER: 15-060
ITEM: AR North America

RECOMMENDATION: Table with 10 Stipulations

APPLICANT: A.R. North America Inc.
140 81 St. Ave.
Fridley MN, 55432-1770

PURPOSE: Building Expansion and additional parking area; modification of existing pond with filtration trench

LOCATION: Northeast Corner of 81st Ave. NE. and Main Street in Fridley, MN
APPLICABILITY:
1. Any work within or adjacent to a Public Ditch within the Watershed District.
2. Any work in or adjacent to wetlands, lakes or water courses.
3. One or more cumulative acres of land disturbance.
4. High water table, outwash and organic soils.
5. High infiltration soils.
6. Highly erodible soils

EXHIBITS:
2. Stormwater Management Plan by Hakanson Anderson; dated 4/29/15; received 4/29/15
3. 11X17 Plan set by Hakanson Anderson; dated (none); received 4/29/2015

HISTORY & CONSIDERATIONS:
The existing property consists of a commercial building, associated parking and a stormwater pond. The entire site was delineated in 1996 when the building was constructed.

FINDINGS:
Ditches and Drainage: There is not a public ditch on the property. There are no flooding concerns downstream. Alternatives to additional drainage considered and reviewed include storage.

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 862.8 feet. The total floodplain impact is 0 acre-feet, within the floodplain. Compensatory storage is not needed.

The applicant is required to run the 100-year elevation for interior ponds using the NOAA Atlas 14 information as shown in the following web link.
http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=mn

Groundwater: Ground water is present at 5.5-7 feet below the surface. The site does not include groundwater sensitive areas. Information has been provided to substantiate low floor elevations.

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

**Soils & Erosion Control:** Soils affected by the proposal are Lino, and Isanti. Stabilizing vegetation is 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 protected from erosion and sedimentation. Project site is greater than 1 acre; an NPDES permit is required.

**Stormwater & Hydraulics:** The applicant is not 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 do not exist downstream from the proposed site. It is not certain if the rate of post development runoff from the site does exceed predevelopment rates, or rates which would interfere with sensitive downstream land uses.

**Water Quality:** Project does include new impervious drainage areas greater than 1 acre. All discharges into wetlands are pretreated by a sediment basin/water quality pond but they are not designed correctly. The proposal will not detrimentally affect the existing water quality of the receiving water. The proposal will cause extreme fluctuations of water levels or temperature changes.

**Wetlands:** Wetlands do exist on-site according to the 1987 Federal manual, NWI, PWI and Soil Survey. A wetland delineation and permit was completed and reviewed by the TEP. The applicant is proposing to fill 973 square feet of PEMB/Type 2 wetland. The site is not eligible for the de minimis exemption because of prior wetland impacts so the impacts will be mitigated through a wetland bank.

**Wildlife:** The proposed project does not include endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors.

**Performance Escrow:** $3,150.00

**ISSUES/CONCERNS:**

<table>
<thead>
<tr>
<th>Stormwater &amp; Hydraulics</th>
<th>1. Adjust storage calculation on the filtration trench to account for 40% voids</th>
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<tbody>
<tr>
<td>The pipe storage defined in the proposed parking area to the south west of the site is not modeled correctly and over accounts for storage by not accounting for void space. The model should only use at a maximum 40% to account for voids.</td>
<td>1. Adjust storage calculation on the filtration trench to account for 40% voids</td>
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<tr>
<td>The exfiltration option should not be turned on under existing conditions. It is not likely that there will be infiltration in the existing pond due to sedimentation.</td>
<td>2. Remove exfiltration as an outlet to the existing pond during event simulations</td>
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<td>Provide a detail showing the filtration system in the pond.</td>
<td>3. Provide a detail for the filtration system on the proposed pond. Include all inverts and connections to outlet structures.</td>
</tr>
<tr>
<td>Provide calculations showing that the 1 inch 24 hour storm from impervious surfaces can be drained in 48 hours.</td>
<td>4. Provide calculations that show the volume from the 1 inch 24hr event drains within 48 hours</td>
</tr>
<tr>
<td>5. With all of the changes provide stormwater runoff calculations that show the site is meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation.</td>
<td>6. With all of the changes provide a new comparison of the rate control analysis for existing versus proposed.</td>
</tr>
<tr>
<td>The applicant must acknowledge that they will conduct a post construction infiltration test with CCWD staff present.</td>
<td>7. 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.</td>
</tr>
<tr>
<td>Sump manholes should be sized based on the total drainage area receiving in order to optimize pretreatment. Sumps should be no less than 4 ft.</td>
<td>8. Submit sizing information for sumps, but do not include sumps less than 4 ft.</td>
</tr>
<tr>
<td>Wetlands: A wetland bank application has not been submitted for the wetland impacts.</td>
<td>9. Complete a wetland bank application and provide proof of withdrawal of the credits from BWSR.</td>
</tr>
</tbody>
</table>
Escrows: $2,000 + (2.3 ac * $500/ac) = $3,150.00

10. Receipt of escrows.

**RECOMMENDATION**: Table with 10 Stipulations

**Stipulations:**
1. Receipt of escrows
2. Adjust storage calculation on the filtration trench to account for 40% voids
3. Provide a detail for the filtration system on the proposed pond. Include all inverts and connections to outlet structures.
4. Provide calculations that show the volume from the 1 inch 24hr event drains within 48 hours
5. Remove exfiltration as an outlet to the existing pond during event simulations
6. With all of the changes provide stormwater runoff calculations that show the site is meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation.
7. With all of the changes provide a new comparison of the rate control analysis for existing versus proposed.
8. 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.
9. Submit sizing information for sumps, but do not include sumps less than 4 ft.
10. Complete a wetland bank application and provide proof of withdrawal of the credits from BWSR.