COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: November 12, 2013
AGENDA NUMBER: 10
FILE NUMBER: 13 - 126
ITEM: Master Machine

RECOMMENDATION: Table with 12 Stipulations

APPLICANT: Stone Construction
PURPOSE: Proposed development of a new lot and building
LOCATION: West side of Lincoln Street, 1900 feet north of Bunker Lake Blvd. 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. High water table, outwash and organic soils.
4. High infiltration soils.
5. Highly erodible soils

EXHIBITS:
2. Plan set by Hakanson Anderson; dated 10-14-2013; received 10-30-2013

HISTORY & CONSIDERATIONS:
This development is located in Block 2, Lot 3 of the Majestic Oaks Commercial Center development (PAN 98-22). As part of the original plan for the Commercial Center Development, all stormwater is intended to be routed to a regional pond north of the Master Machine proposed development. Therefore, rate control is accounted for.

FINDINGS:
Ditches and Drainage: There is not a public ditch on the property. The project site is tributary to County Ditch 59.

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 889.3 feet. The total floodplain impact is 0 acre-feet. 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.htm?bkmrk=mn

Groundwater: No Groundwater information was provided.

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 no approved local water plan. The project has not received approval from the city.

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/infiltration 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 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:** Without groundwater information it is not clear whether 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 do 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 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:** Wetlands do not exist on-site 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, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors.

**Performance Escrow:** $3,100.00

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<tr>
<th>ISSUES/CONCERNS</th>
<th>NEED:</th>
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<tr>
<td><strong>Floodplain:</strong> The applicant did not model the site and ponding system using Atlas 14.</td>
<td>1. It is required by the district to use Atlas 14 rainfall depths as the basis of all modeling. Atlas 14 information as shown in the following web link. <a href="http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=mn">http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=mn</a></td>
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<tr>
<td><strong>Groundwater:</strong> No Groundwater information was provided. Groundwater information needs to be provided in order to determine whether or not the applicant is meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation.</td>
<td>2. Provide Soil Borings indicating where groundwater elevations are in the vicinity of proposed infiltration practices.</td>
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<td><strong>Local Planning &amp; Zoning:</strong> The project has</td>
<td>3. Provide evidence of City approval</td>
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<td><strong>Maintenance:</strong> A utility easement needs to be provided for the infiltration basin and trenches. The easement needs to be indicated on the plan set.</td>
<td>4. Provide a utility easement for the infiltration trenches and infiltration pond. Show this easement on the drawings.</td>
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<td><strong>Performance Escrow:</strong> $3,100.00</td>
<td>5. Submit escrow</td>
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| **Soils & Erosion Control:**
   1. Infiltration basins are 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.
   
   2. Project site is greater than 1 acre; an NPDES permit is required. A SWPPP was not provided.
   
   3. There is no statement provided that stabilizing vegetation will be proposed within 14 days of rough grading.
   
   4. Sump manholes need to be implemented into the stormwater system at CBMH#8, CBMH#7, CBMH#3 and CBMH#4 to protect the infiltration trenches from sedimentation. |
| 6. After initial grading completely surround the proposed infiltration basins with erosion control measures to prevent the basin from clogging.
   
   7. Complete a SWPPP and provide copy of NPDES permit to CCWD and City.
   
   8. Provide statement indicating soils will be stabilized with 14 days of rough grading.
   
   9. Provide sump manholes at CBMH#8, #7, #3, and #4
   
   10. Provide line work on utilities drawing showing the connection of CBM#12 to CB#1, and CB#11 to CBMH#2.
   
   11. Use catch basins to model CB#1 and CB/MH #2 with culvert outlets in HydroCAD. |
| **Stormwater & Hydraulics:** A post construction test on the infiltration basin will be required to verify the assumed infiltration rates are obtained. | 12. 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.
   
   13. It is required by the district to use Atlas 14 rainfall depths as the basis of all modeling. Atlas 14 information as shown in the following web link. |
RECOMMENDATION:  Table with 13 Stipulations

Stipulations:

1. It is required by the district to use Atlas 14 rainfall depths as the basis of all modeling. Atlas 14 information as shown in the following web link.
   http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=mn
2. Provide Soil Borings indicating where groundwater elevations are in the vicinity of proposed infiltration practices.
3. Provide evidence of City approval
4. Provide a utility easement for the infiltration trenches and infiltration pond. Show this easement on the drawings.
5. Submit escrow
6. After initial grading completely surround the proposed infiltration basins with erosion control measures to prevent the basin from clogging.
7. Complete a SWPPP and provide copy of NPDES permit to CCWD and City.
8. Provide statement indicating soils will be stabilized with 14 days of rough grading.
9. Provide sump manholes at CBMH#8, #7, #3, and #4
10. Provide line work on utilities drawing showing the connection of CBMH #12 to CB#1, and CB#11 to CBMH#2.
11. Use catch basins to model CB#1 and CB/MH #2 with culvert outlets in HydroCAD.
12. 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.