COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE:       July 13, 2015
AGENDA NUMBER:      12
FILE NUMBER:        14-082
ITEM:               Winslow Woods 2\textsuperscript{nd} Addition

RECOMMENDATION:     Table with 4 Stipulations

APPLICANT:          Paul Emmerich Construction
                        1875 Station Parkway
                        Andover MN 55304

PURPOSE:            18 Single family residential development

LOCATION:           East of Yellow Pine Street NW, south of 152\textsuperscript{nd} Lane NW, west of a railroad track and north of Xeon Street NW in Andover, 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.
6. Endangered, Threatened or Special concern species, elements of communities.

EXHIBITS:
2. Large format plan set by Carlson McCain; dated 5/29/15, received 6/16/15.
3. Wetland Delineation by Kjolhaug Environmental Services; dated

HISTORY & CONSIDERATIONS:

The proposed project is an update to the original proposal that had approximately 94 single family lots along with the associated streets and utilities, three stormwater ponds, one infiltration basin and an existing pond enlarged to manage the stormwater runoff from the site. The original proposed development had 14.5 acres of impervious area.

The current proposal is for approximately 18 single family lots with associated streets and utilities, one stormwater pond and an enlargement of an existing pond. The completed development will include 2.1 acres of impervious area.

Proposed 1,389 SF of wetland fill. Wetland replacement credits to be purchased in lieu of onsite replacement.

FINDINGS:
Ditches and Drainage: There is not a public ditch on the property. The project site is tributary to County Ditch 20. The trend in land use for this drainage area is toward residential. There are flooding concerns downstream.

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 889.1 feet. The total floodplain impact is 0 acre-feet. Compensatory storage is not needed.

Groundwater: Ground water is present at depths of 10.5 to 18 feet below ground, corresponding with elevations of 883.5 to 887. The site does include groundwater sensitive areas. Information has been provided to substantiate low floor elevations. Low floor elevations do meet the criteria for the City of Andover (3 ft above mottled soil elevations, 2 ft above 100-year).

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 provided for the storm water/infiltration pond shown on the drainage plan. It is unknown if 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 Sartell. Stabilizing vegetation is proposed for disturbed areas within two weeks of rough grading. Adjacent properties are not 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 exist downstream from the proposed site. The rate of post development runoff from the site does exceed predevelopment rates for the 2 and 10-Yr storm events. Consistent information needs to be provided between model and plan set before determination of downstream impacts can be made.

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 and are designed correctly. 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 exist on-site according to the 1987 Federal manual, NWI, PWI and Soil Survey. The delineation was reviewed and approved by the TEP in 2014. A wetland permit application has been submitted requesting a de minimis exemption to fill 1,389 square feet in the south edge of Wetland 5 for a roadway shoulder. It is a Type 1 (PEMAd) partially drained, seasonally flooded basin/wet meadow wetland.

The plans for the project show future additions to the development. If additional impacts are proposed for the future additions, they will need to be replaced and not qualify for an exemption as the rules do not allow for dividing a property to increase the amounts of impact or to gain an exemption.

Wildlife: The proposed project does includes the threatened Sea-beach Needlegrass (Aristida tuberculosa), Blanding’s turtles (Emydoidea blandingii), and state-listed snakes. The applicant completed a biological survey and have reached a settlement with the DNR.
on a takings permit for the Sea-beach Needlegrass (*Aristida tuberculosa*). The DNR provided the applicant with information to protect the turtle and snakes.

Performance Escrow: $6,950.00

**ISSUES/CONCERNS:**

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<tr>
<th><strong>Stormwater &amp; Hydraulics:</strong> Rate control is not being met for the 2 and 10-Yr storm events and inconsistent data was provided between the model and plan set. Without a correct model, it is not possible to determine the downstream effects of an increase in discharge rate.</th>
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<tbody>
<tr>
<td><strong>1.</strong> Provide consistent model/plan set information:</td>
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<tr>
<td>a. Drainage area for 1S-W300.</td>
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<tr>
<td>b. Outlet pipe information for P400.</td>
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<td><strong>Pipe information provided for P400 on the plan set does not match information used in HydroCAD model.</strong> In/Out inverts on plan set are 892.5’/892.3’ and 891.8’/891.6’ in model. Pipe length on plan set is approximately 20’ and 120’ in model.</td>
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<td><strong>Model information and drainage map are not consistent. Model area used for 1S-W300 is 5.75 acres and 8.2 acres on drainage map.</strong></td>
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<td><strong>Due to high groundwater levels at P300, infiltration is not feasible. A filtration bench should be considered instead of an infiltration trench.</strong></td>
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<td><strong>Soils &amp; Erosion Control:</strong> Adjacent land to the south is not protected from sedimentation. Add silt fence location to the erosion control plan on the southern portion of the construction site.</td>
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<td><strong>3.</strong> Erosion Control:</td>
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<td>a. Provide location of silt fence on south side of construction on Erosion Control Plan sheet.</td>
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<td><strong>All wetlands, waterbodies, ponds, infiltration basins and water conveyance</strong></td>
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<tr>
<td>b. Provide inlet protection at CBMH 304.</td>
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systems are not protected from erosion and sedimentation. Inlet protection needs to be installed at CBMH 304.

| Escrow: $2,000 + (9.9 ac * $500/ac) = $6,950.00 | 4. Receipt of escrows. |

**RECOMMENDATION:** Table with 4 Stipulations

**Stipulations:**

1. Receipt of Escrows
2. Erosion Control:
   c. Provide location of silt fence on south side of construction on Erosion Control Plan sheet.
   d. Provide inlet protection at CBMH 304.
3. Provide consistent model/plan set information:
   e. Drainage area for 1S-W300.
   f. Outlet pipe information for P400.
4. To meet District infiltration/filtration requirements, redesign infiltration trench to function as a filter bench.