COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: September 23, 2013
AGENDA NUMBER: 8
FILE NUMBER: 13 - 045
ITEM: Catcher's Creek

RECOMMENDATION: Table with 6 Stipulations

APPLICANT: Hedlund
2005 Pin Oak Drive
Eagan, MN 55122

PURPOSE: 70 lot residential development on 36.6 acres

LOCATION: Located inside the southeast quadrant of the intersection of
Andover Boulevard NW (145th Avenue NW) and Prairie Road NW
in the southeast corner of the City of Andover in Anoka County,
Minnesota

![Map of Catcher's Creek Project]
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. The lands and water that have been, or may be covered by the regional flood.
5. Activities upstream from land that is dependent upon removal of water from the soil profile for their continued use (Drainage Sensitive Uses)
6. High water table, outwash and organic soils.
7. High infiltration soils.
8. Highly erodible soils

EXHIBITS:
1. Plans that were revised, Sheets CG-1.0, CG-1.1, CG-1.2, CG-1.3, C-4.0, C-4.1, Dated 7/31/13, Received Electronically 9/18/13.
3. 100 year from report, HydroCAD model run, Dated 7/28/13, Received Electronically 9/18/13.
4. Revised 100 year with rte to shelf and weir Ith change, HydroCAD model run, Dated 7/30/13, Received Electronically 9/18/13.
5. Atlas 14 100 year, HydroCAD model run, Dated 7/28/13, Received Electronically 9/18/13.

HISTORY & CONSIDERATIONS: The applicant originally submitted on 5/13/13 to the CCWD. After a meeting with City and Watershed District staff the applicant re-submitted the application package with significant changes to the stormwater infrastructure on 6/12/13.

FINDINGS:
Ditches and Drainage: There is a public ditch on the property. The ditch is County Ditch 57. The ditch has not been inspected. There are approximately 0 acres of existing agricultural land affected by this ditch. The project site is tributary to County Ditch 57. The trend in land use for this drainage area is toward residential. There are not flooding concerns downstream. Alternatives to additional drainage considered and reviewed include storage and infiltration. The ditch was last repaired in 2001. The ditch is not in need of repair.

Floodplain: There is floodplain on the property according to FEMA. The District TP-40 model predicts the 100-year elevation for the subwatershed at 878.1 feet and the district Atlas 14 model predicts the 100-year elevation for the subwatershed at 878.5 feet. The FEMA map predicts the 100-year elevation for the property at 879 feet. The floodplain is impacted in the proposed development. The total floodplain impact is 3.9 acre-feet, within the flood/fringeway. Compensatory storage is provided.
The applicant is advised 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

Stormwater & Hydraulics: The applicant is not meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation and has explained why they are unable to. 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. The proposed pond is a combination pond which is attached to the adjacent Hickory Meadows pond and proposes to use the existing outlet in Hickory Meadows pond.

Groundwater: Ground water is present at 7 to 19 feet below existing ground surface at elevations from 869 ft to 877 ft. The site does not include groundwater sensitive areas. Information has been provided to substantiate low floor elevations. Based on HWL, low floor elevations do not meet the criteria for the City of Andover (3 ft above mottled soil elevation, 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 ponds 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 Sartell, Markey, Rifle, Zimmerman and Alluvial Land. 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.

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 may 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 NWI, Soil Survey and 1987 Manual Midwest Regional Supplement. The wetland boundary has been reviewed. Staff will be issuing and approval of the wetland boundary application.

The project is not exempt.
The proposed project is not wetland dependent.

The applicant is proposing 7995 square feet of wetland impact in one location.

Three project alternatives have been provided.

The applicant is pursuing sequencing flexibility.

Wetland Replacement: The applicant is proposing replacement of impacted wetlands at a 2:1 ratio.

The applicant is proposing mitigation via wetland bank credits.

The project proposes restoration of all disturbed areas to pre-construction elevations and land use.

There are no proposed permanent wetland impacts.

Wildlife: The proposed project does not include endangered & threatened species, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas, wildlife travel corridors. The site does not include rare natural communities. No substantial adverse alteration or significant detrimental impact on a species food supply, security or reproductive cycle or the alteration or removal of a plant species will occur.

Escrows: Escrows have not been paid. $1500 + ($200 per acre * 29 Acres) + (180 lf adjacent to ditch * 180lf) = $9,100
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<th>ISSUES/CONCERNS:</th>
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<td><strong>Stormwater &amp; Hydraulics:</strong> Comments from the engineer stated that a sump manhole was added prior to stormwater discharge into the infiltration basin. However, this was not apparent on the plans.</td>
<td>The applicant must include a pretreatment device prior to runoff discharged from the storm sewer system into any infiltration areas.</td>
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<td><strong>Groundwater:</strong> Based on HWL, low floor elevations do not meet the criteria for the City of Andover. Block 5, lots 1 and 2 do not meet the city of Andover requirement of 2 ft above the 100 year elevations for TP-40 and Atlas 14.</td>
<td>The LFE need to be adjusted to a minimum of 884ft. Block 4 Lots 1-10 meet the city requirement for TP-40 100-year but not Atlas 14. The applicant needs to adjust low floor elevations to meet city requirements based on TP-40. Applicant is advised to adjust low floor elevations to meet city requirements based on Atlas 14.</td>
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<td><strong>Floodplain:</strong> Compensatory storage is provided and it is clear how the floodwater will access and drain out of the floodplain mitigation area. However, the note for the outlet of the smaller compensatory storage to the west says the drain is at 871ft which is 3 feet below the bottom of the compensatory storage.</td>
<td>The drain elevation should be at 874ft. Also, the plans show that the drain is 4 inches in diameter. This size is susceptible to clogging. The applicant should increase the size of the outlet to 12 inches for both compensatory storages.</td>
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<td><strong>Soils &amp; Erosion Control:</strong> No Landscaping plan is provided.</td>
<td>Provide plan for final stabilizing vegetation</td>
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<td><strong>Maintenance:</strong> The compensatory storage construction abutting the creek comes right to the top of bank making the transit of a backhoe for ditch maintenance impossible.</td>
<td>There needs to be a 20’ minimum width between the top of the ditch bank and the compensatory storage for a maintenance access way.</td>
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It is unknown if adjacent property owners have been notified of the proposed changes in drainage and have acknowledged the proposed changes. The applicant is proposing grading on the property to the West. No documentation has been provided to verify that permission has been granted for such encroachments. The applicant needs to provide evidence that adjacent property owners have been notified through the city. And that the applicant has permission for the proposed grading on the property to the west.
RECOMMENDATION:  Table 6 Stipulations

Stipulations:
1. Receipt of $9,100 escrows.
2. Include a minimum 20’ maintenance travel way between the top of the ditch and any proposed construction within the ditch easement.
3. Provide landscaping plan for proposed infiltration area.
4. Include a water quality unit, pretreatment device prior to runoff discharged from the storm sewer system into any infiltration areas.
5. Provide written documentation which shows permission has been granted for grading on to adjacent property south of Holly street cul-de-sac.
6. Adjust grading and low floor elevations to meet the requirement of 2ft above the 100-year elevation as needed.
   a. Adjust low floor elevations to 884 on Lots 1 and 2 of Block 5 to meet the requirements based on TP-40 100-year elevation. We recommend adjusting LFE to 2 feet above Atlas 14 100-year elevation.
   b. It is advised the applicant adjust low floor elevations to Lots 1-10 of Block 4 to meet the 2 foot separation requirement based on the Atlas 14 100-year.