COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: March 23, 2015
AGENDA NUMBER: 9
FILE NUMBER: 14 - 013
ITEM: Sand Creek Park

RECOMMENDATION: Table with 7 Stipulations

APPLICANT: City of Coon Rapids
11155 Robinson Drive
Coon Rapids MN 55433-3761

PURPOSE: Reconstruction of Sand Creek Park

LOCATION: South of Hwy 11 (Northdale Blvd NW) and east of railroad tracks
APPLICABILITY:
1. Any work within or adjacent to a Public Ditch within the Watershed District.
2. One or more cumulative acres of land disturbance.

EXHIBITS:
1. HydroCAD model for existing and proposed conditions by WSB; dated 2/25/2015, received 2/25/2015.
2. Existing and proposed grading plans by WSB; dated 2/25/2015, received 2/25/2015.
3. Revised HydroCAD model for existing and proposed conditions by WSB; dated 3/11/2015, received 3/15/2015.
4. Revised Existing and proposed grading plans by WSB; dated 3/11/2015, received 3/15/2015.

HISTORY & CONSIDERATIONS:
This project has not been before the Board. The applicant is proposing to do the project in 3 phases. The third phase would not be completed until the wetland delineation report and any impacts have been reviewed and approved by the TEP.

FINDINGS:
Ditches and Drainage: There is not a public ditch on the property. The project site is tributary to Lower Coon Creek. The trend in land use for this drainage area is toward open space and residential. There are no flooding concerns downstream. Alternatives to additional drainage considered and reviewed include storage and retention.

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 866.7 feet.

Groundwater: Surficial ground water is present at unknown feet. The site does not include groundwater sensitive areas. Proposed structures on slab, information is not needed 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/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 cut and fill. 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 not protected from erosion and sedimentation. Project site is greater than 1 acre; an NPDES permit is required.

**Stormwater & Hydraulics:** 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 not 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. 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 exist on-site according to the 1987 Federal Manual and its associated supplement(s), NWI, and Soils Survey. The wetland delineation report has not been submitted due to the time of year. The wetlands on the site are in a later phase of the project and any impacts will be reviewed as part of the later phase. The applicant is proposing to do the project in 3 phases.

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

**Performance Escrow:** $27,500.00

**ISSUES/CONCERNS:**

<table>
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<tr>
<th>Stormwater &amp; Hydraulics: A 3 foot groundwater separation is required from bottom of pond to considered infiltration. Soil borings closest to basins 3A, 4 and 5 do not provide the required 3 foot groundwater separation. Drain tile should be installed to allow for filtration at these basins which will meet the Districts infiltration requirements.</th>
<th>1. Install drain tile to allow for filtration at Basins #3A, #4 and #5.</th>
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<tr>
<td>a. Groundwater elevation at SB17 is</td>
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870.34’ and Basin #3A bottom elevation is at 871.5’ which does not meet the 3’ groundwater separation required for separation. Drain tile should be installed for filtration to meet districts infiltration requirements.

b. Groundwater elevation at SB18 is 869.21’ and Basin #4 bottom elevation is at 871’ which does not meet the 3’ groundwater separation required for separation. Drain tile should be installed for filtration to meet districts infiltration requirements.

c. Groundwater elevation at SB19 is 867.52 and Basin #5 bottom elevation is at 869.9’ which does not meet the 3’ groundwater separation required for separation. Drain tile should be installed for filtration to meet districts infiltration requirements.

Pre-treatment cells should be included in HydroCAD model to accurately represent drainage on site. This includes the pre-treatment cells north of Basin #2 and to the east of Basins #3 and #3A.

2. Include pretreatment cells in the HydroCAD model to accurately model drainage pattern and storage on site. This includes the pre-treatment cells north of Basin #2 and to the east of Basins #3 and #3A.

3. Provide consistent information on plan set and model.
   a. Basin #1
      i. R4342 Outlet structure is 878.44’ on plan set and 878.25’ in model.
      ii. HWL is 878.9’ on plan set and 878.79’ in model.
      iii. Total pipe length should reflect distance to next basin (pre-treatment cell), 953’ on plan set, and 937’ in model.
      iv. Basin should be routed to
Details for storm sewer outlet control devices for basins were not provided (labeled R4342 in HydroCAD model).

Basins need to have pretreatment to prevent sedimentation. Curb cut inlets to infiltration basins need to be identified on plan set.

**Wetlands:** The wetland delineation report has not been submitted due to the time of year. The wetlands on the site are in a later phase of the project and any impacts will be reviewed as part of the later phase. The applicant is proposing to do the project in 3 phases.

**Escrows:** $2,000 + (51 ac * $500/ac) = $27,500.00

**RECOMMENDATION:** Table with 7 Stipulations

**Stipulations:**
1. Receipt of escrows.
2. Install drain tile to allow for filtration at Basins #3A, #4 and #5.
3. Include pretreatment cells in the HydroCAD model to accurately model drainage pattern and storage on site. This includes the pre-treatment cells north of Basin #2 and to the east of Basins #3 and #3A.
4. Provide consistent information on plan set and model.
   a. Basin #1
      i. R432 Outlet structure is 878.44’ on plan set and 878.25’ in model.
      ii. HWL is 878.9’ on plan set and 878.79’ in model.
   b. Basin #3
      i. Weir outlet in model not shown on plan set.
      ii. HWL is 874.1’ on plan set and 874.04’ in model.
      iii. Outlet pipe information, 196’ @ 1.02% on plan set and 200’ @ 1.00% in model
   c. Basin #3A
      i. HWL is 874.1’ on plan set and 874.38’ in model.

   4. Provide details for storm sewer outlet control devices at basins (Labeled R4342 in HydroCAD model).

   5. Identify locations of curb cuts and pretreatment devices on plan set.

   6. A wetland delineation report must be submitted and if any impacts are proposed, a wetland permit must be obtained.

   7. Receipt of escrows.
iii. Total pipe length should reflect distance to next basin (pre-treatment cell), 953’ on plan set, and 937’ in model.
iv. Basin should be routed to pre-treatment cell, not to ditch outlet.
b. Basin #3
   i. Weir outlet in model not shown on plan set.
   ii. HWL is 874.1’ on plan set and 874.04’ in model.
   iii. Outlet pipe information, 196’ @ 1.02% and 200’ @ 1.00%
c. Basin #3A
   i. HWL is 874.1’ on plan set and 874.38’ in model.
5. Provide details for storm sewer outlet control devices at basins (Labeled R4342 in HydroCAD model).
6. Identify locations of curb cuts and pretreatment devices on plan set.
7. A wetland delineation report must be submitted and if any impacts are proposed, a wetland permit must be obtained.