COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: April 11, 2016
AGENDA NUMBER: 11
FILE NUMBER: 15-112
ITEM: Blaine Apartments

RECOMMENDATION: Approve with 2 Stipulations

APPLICANT: Baldwin Partners I, LLC
3120 Woodbury Drive Ste 100
Woodbury, MN 55124

PURPOSE: Proposed Construction of a 5 level 73,000 sf Apartment Building

LOCATION: Northwest quadrant of Ulysses St. NE and Cloverleaf Parkway,
Blaine, MN
APPLICABILITY:
1. Any work within or adjacent to a Public Ditch within the Watershed District.
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:
1. Geotechnical Report by Braun Intertec Corporation, dated 12/17/2012, received 1/16/2013
2. Stormwater Management Plan from Robert Olson at MFRA Inc., dated 1/16/2013, received 1/16/2013
3. Proposed Drainage model schematic sheet by Robert Olson at MFRA Inc., dated 1/2/2013, received 1/16/2013
4. Existing Conditions HydroCAD Model report by MFRA Inc., dated 1/15/2013, received 1/16/2013
5. Proposed 2, 10, 100 year HydroCAD Model reports by MFRA Inc., dated 1/15/2013, received 1/16/2013
7. Minnesota Notice of Wetland Conversion Act Decision from the city of Blaine Engineering Department, dated 9/16/2004, received 1/16/2013


20. Site Drainage Narrative, Calculations and HydroCAD model by Sambatek; dated 9/15/2015, received 9/16/2015.

21. Grading, Drainage and EC and Details construction sheet by Sambatek; dated 9/15/2015, received 9/16/2015.


**HISTORY & CONSIDERATIONS:**

This project was originally reviewed in 2005 as a part of the Six Cities WMO as permit 12-004.

This project was then reviewed under permit review 13-004 on January 28, 2013 under the project name Baldwin Apartments of Blaine. The drawing plan set at that time was marked revision A. Permit review findings were to approve with 2 Stipulations.

1. Receipt of escrows.
2. 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.

There are several noticeable differences when comparing the current revised drawing set marked revision F to the previous drawing set marked revision A:

- The building footprint has been refined and overall project imperviousness has been slightly reduced.
- Some of the storm sewer layout has been modified and reconfigured, but the existing pond layout and proposed basin dimensions have stayed the same. It is assumed the volume management and discharge rate requirements are still being met. No updated modeling was provided and the modifications are considered minor.
- The dry basin in the courtyard area is now being called a rain garden. The bottom of the proposed rain garden is 899.0’ and the only outlet is a catch basin manhole with rim elevation of 903.0’. Without new modeling results, it is assumed the rain garden will routinely fill to the rim elevation, meaning vegetation will be inundated approximately 4.0’ for an undisclosed amount of time. It is unlikely any vegetation
will survive that depth of inundation. Reviewing the landscape plan, there is no proposed vegetation in the rain garden, only hardwood mulch. This is likely to cause issues. When the rain garden fills, the mulch will likely float, move to the outlet structure, possibly clog the outlet structure and resettled in different locations of the basin. The reviewers considered the benefits of adding a drain tile underdrain under the rain garden, but reviewing the geotechnical report previously provided the groundwater elevation is approximately 897.0’ which is reinforced with the existing ponds water elevation noted at 897.1.’ An underdrain is not appropriate with that water table elevation.

This project was then reviewed under permit review 14-052 on April 28, 2014 under the project name Baldwin Apartments of Blaine. Permit review findings were to approve with 3 Stipulations:
1. Receipt of escrows and escrow balance
2. 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.
3. Label and treat the rain garden as a wet to dry basin and vegetate appropriate plants.

The most noticeable difference when comparing the current revised drawing set marked to the previous drawing set relates to the HydroCAD model. The previous submittal used TP 40 and the project is now required to use Atlas 14.

The project was reviewed and approved on September 28, 2015 with the following stipulations:
1. Receipt of escrows
2. Provide Drainage Easement and Operating and Maintenance Agreement for infiltration basin

Revised plans were received by the District on March 30, 2016. Plan updates are due to shallow groundwater. Overall site design has not changed but drain tile has been added to the rain garden for filtration basin.

**FINDINGS:**

**Ditches and Drainage:** There is a public ditch on the property. The ditch is County Ditch 17. The ditch has not been inspected. There are approximately 0 acres of existing agricultural land affected by this ditch. The trend in land use for this drainage area is toward residential with some commercial, open space and woods in poor condition. There are no flooding concerns downstream. Alternatives to additional drainage considered and reviewed include storage, retention, and infiltration.

**Floodplain:** There is no floodplain on the property according to FEMA. The District model predicts the 100-year elevation for the subwatershed at 900.4 feet.
Groundwater: Surficial ground water is present at 2.5-14 feet below grade at elevations 896 to 899.5. The existing Pond NWL is elevation 897.1. The site does include groundwater sensitive areas. Information has been provided to substantiate low floor elevations at 903.7. Low floor elevations meet the criteria for the Blaine 2 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. A drainage and utility easement is provided for the infiltration pond shown on the drainage plan. It is not clear whether 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 Isanti Fine Sandy Loam (Iw), Zimmerman fine sand (ZmB), and Millerville mucky peat (Mk). 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 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 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 and its associated supplement(s), NWI, and Soils Survey.

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:** $6,540.00.

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<th>ISSUES/CONCERNS:</th>
<th>NEED:</th>
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<tr>
<td>Maintenance: A drainage and utility easement is not provided for the infiltration pond shown on the drainage plan.</td>
<td>1. Provide drainage easement and operating and maintenance agreement for infiltration basin</td>
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<td><strong>Escrows:</strong> $2,000 + (9.08 acres x $500/acre) = $6,540.00</td>
<td>2. Receipt of escrows</td>
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**RECOMMENDATION:** Approve with 2 Stipulations.

**Stipulations:**
1. Receipt of escrows
2. Provide Drainage Easement and Operating and Maintenance Agreement for infiltration basin