



Nielsen Madsen + Barber  
CIVIL ENGINEERS AND LAND SURVEYORS

May 26, 2021

Mr. Michael McKinney  
Village of Yorkville  
925 15<sup>th</sup> Avenue  
Union Grove, WI 53182

RE: Yorkshire Highlands Subdivision – 50<sup>th</sup> Road  
Preliminary Plat, Civil Plans and Storm Water Management Plan Review  
Village of Yorkville

Dear Mike:

We have received the updated Preliminary Plat, Civil Plans, and the Storm Water Management Plan, dated April 28, 2021, for the above referenced proposed project, prepared by Pinnacle Engineering Group.

There are outstanding review comments from our March 8, 2021 review letter (below) that are updated in **RED** for the current plan(s) as well as new review comments for the more completed updated submittal.

#### **PRELIMINARY PLAT REVIEW COMMENTS**

- Stonecrest Shores had a 75 foot wide public access easement along the East Branch Root River Canal. Should the same be incorporated here?

Addressed

Recommend that the easement segments on the south end be adjusted to eliminate the jogs as much as possible.

#### **EXISTING CONDITIONS SHEET (C-2)**

- Show the meander lines.

Partially addressed

It appears that the line shows up on some sheets and not on others. Recommend changing the pen weights so it appears on all the sheets.

#### **New Review Items**

- Remove the proposed drain tile note.

#### **SITE PLAN SHEET (C-3)**

#### **New Review Items**

- The "Site Data Table" mentions that a public trail is to be utilized for the development yield, yet there is no public trail shown on the plans. Either remove the development trail bonus and adjust the lot yield computation or show the proposed trail and a typical detail for it.



#### **OVERALL GRADING PLAN SHEETS (C-4)**

- Add rip rap to all incoming swales to the retention basins.

Partially addressed

Add rip rap to the incoming swale between lots 9 & 10 into the North pond.

##### **New Review Items**

- Update the Driveway Culvert Sizing Table to reflect the minimum Village standard culvert is 15 inch diameter.
- Add the driveway culvert pipe material type to the Table.

#### **MASTER GRADING PLAN SHEETS (C-5 thru C-7)**

- All drainage swales to be labeled with length and slope. Minimum centerline slope to be 0.80%.

Partially Addressed

Add label to the bypass swale on the South side of Lot 7.

##### **New Review Items**

- Shorten up the West end of the bypass swale road culvert to blend into the side slope.
- Extend the proposed spot grades along the top of all pond berms so that the berm elevation is consistent and maintained.
- Adjust the proposed spot grades along the rear lots of 5 & 6 to match the proposed surface.
- Need to provide a permission letter from the neighboring property owner for grading on their property.
- Need to provide a permanent 20 foot wide drainage easement for Culvert 2 to the East of the road right of way.
- Recommend adding a rodent guard to all existing tiles discharge points that are exposed due to grading work.
- Provide the size of the rip rap stone and stone pad area.
- Add the 730 contour line to the Lot 5 grading.
- Relocate the label locations near Culvert 2 on sheet C-5 from overlapping each other.
- Add rip rap to the tile discharge into the North Pond.
- Add the 728 contour label for Lot 11.
- Adjust swale contours to match the proposed bypass swale slope at 0.8% to the East of Lots 13 & 14

#### **OVERALL EROSION CONTROL PLAN SHEET (C-8)**

##### **New Review Items**

- Remove the silt fence within the 50<sup>th</sup> Road right of way.
- Revise the silt fence on the north end to wrap around the North side of Lot 12 to contour 730.
- Update the Ponds/Sedimentation Note to add the following:  
and established grass after the "When construction is completed."  
and convert the pond outlet structure after the "sediment collected during construction."

## **ROAD PLAN AND PROFILE SHEETS (C-9 & C-10)**

### **New Review Items**

- Update the Driveway Culvert Tables
- Complete the missing profile graph lines and borders.
- Provide station and elevation to all road ditch grade break points.

## **CONSTRUCTION DETAIL SHEET (C-11 thru C-13)**

### **New Review Items**

- Update the Paving Specification Note 4.0 to reflect a public road and the owner is the Village of Yorkville.
- Remove Note 5.0 from the Paving Specification. There is no concrete pavement proposed for this development.
- Add the attached drain tile inlet to the plan set.
- Provide a typical detail for the pond outlet structures and grates.
- Update the emergency spillway details to reflect the proposed design.
- Update the 100-YR HWLs labeled on the pond cross sections.
- Provide a minimum of 18" of cover to the entire length of the 24" diameter road culvert in the North ditch line of 50<sup>th</sup> Road by either modifying the pavement grades and/or changing the round pipe to an arched pipe.
- Trash guards are to be added to all road culverts and detention basin discharges. Provide a typical detail.

## **SWALE PLAN AND PROFILE SHEET (C-14 & C-15)**

### **New Review Items**

- Provide station and elevation to all swale grade break points.
- In general, clean up the swale profiles so that they are straight lines.

## **OVERALL DRAIN TILE MAP (C-16)**

### **New Review Items**

- Provide drain tile cleanouts for all road crossing at the right of way lines.
- Plug all abandoned tiles at the road right of way line.
- The proposed tile underneath the cul-de-sac shall be non-perforated PVC pipe material.

## **STORM WATER MANAGEMENT PLAN GENERAL POND DESIGN/MODELING COMMENTS**

- The pond storage modeling should be refined to include the elevation/surface area/storage relationship for each contour elevation at and above the NWL.  
**Partially addressed.**  
The elevation/surface area relationship was refined for the HydroCAD modeling, but not the WinSLAMM modeling. The storage modeled in WinSLAMM should be consistent with the HydroCAD storage.
- All ponds shall provide a minimum one-foot of freeboard above the 100-year, 24-hour peak ponding elevation.  
**Addressed.**  
For future reference one-foot of freeboard is a standard element in wet detention basin design. Refer to the WDNR Technical Standard 1001, Section V.B.2.d.iv. Freeboard.

### **New Review Items**

- The 3.0-acre offsite area subbasin should be added to post-development conditions HydroCAD model and routed to the north pond (as previously modeled) to account for the offsite tributary runoff's impact on the proposed design.

## **MIDDLE POND**

- It is recommended that the 100-year water surface ponding area be restricted to an Outlot and that the extents of the 100-year ponding area be delineated on the plans if it is not clearly contained on an Outlot based on the provided contours.  
**Partially addressed.**  
The extent of the 100-year water surface ponding area is unclear due to the proposed spot grades along the rear of Lots 5 and 6 not matching the proposed contours.

## **NORTH POND**

- Water surface ponding elevations would encroach on Lots 8, 9, and 10 during the 100-year, 24-hour event. It is recommended that the 100-year water surface ponding area be restricted to an Outlot and that the extents of the 100-year ponding area be delineated on the plans if it is not clearly contained on an Outlot based on the provided contours.  
**Not addressed.**  
The revised 100-year ponding elevation of 719.4 ft would encroach on the swales on Lots 8, 9, and 10.

- The 36-inch-diameter outlet grate at elevation 717.5 is shown as angled on the pond outlet detail. The HydroCAD model should reflect the angle of the grate rather than a vertical orifice as currently modeled.

Not addressed.

The outlet grate is now modeled as a 12' long (trapezoidal) weir and does not reflect the angle of the grate. The outlet should be modeled as an orifice/grate with an appropriately sized orifice opening with a custom angle.

Please feel free to contact me if you have any questions.

Sincerely,



Mark R. Madsen, P.E., P.L.S.  
Village Engineer

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