

To: Michael McKinney  
Administrator/Clerk  
Village of Yorkville  
925 15<sup>th</sup> Avenue  
Union Grove, WI 53182

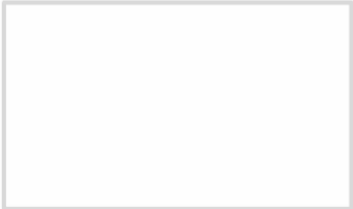
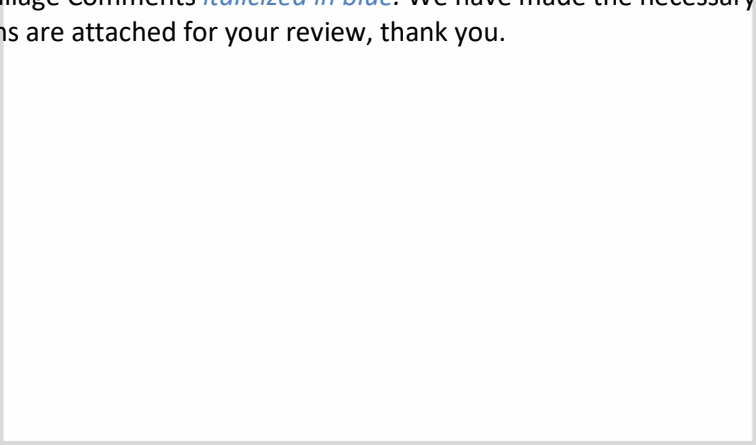
From: Aaron Koch, P.E.  
Pinnacle Engineering Group  
20725 Watertown Road | Suite 100  
Brookfield, WI 53186

Date: 6-29-2021

Subject: Yorkshire Highlands (50<sup>th</sup> Road) Comment Response

Dear Mr. McKinney,

Please see the attached responses for the Yorkshire Highlands (50<sup>th</sup> Road) development. Response comments can be found below the Village Comments *italicized in blue*. We have made the necessary edits per the letter dated May 26, 2021. Revised plans are attached for your review, thank you.



#### 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.**

*Meander lines have been updated to appear on all sheets as requested.*

#### New Review Items

- Remove the proposed drain tile note.  
*Note removed as requested.*

#### 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.  
*The "Site Data Table" has been updated to not include the development trail bonus as requested.*

#### 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.**

*Rip rap has been added to the swale as requested.*

### New Review Items

- Update the Driveway Culvert Sizing Table to reflect the minimum Village standard culvert is 15 inch diameter.  
*Driveway culvert sizing has been updated to 15" diameter as requested.*
- Add the driveway culvert pipe material type to the Table.  
*A note regarding culvert pipe material has been added below the sizing table.*

### MASTERGRADINGPLANSHEETS(C-5thruC-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.**

*A label has been added to the swale as requested.*

### New Review Items

- Shorten up the West end of the bypass swale road culvert to blend into the side slope.  
*Revised as requested.*
- Extend the proposed spot grades along the top of all pond berms so that the berm elevation is consistent and maintained.  
*Revised as requested.*
- Adjust the proposed spot grades along the rear lots of 5 & 6 to match the proposed surface.  
*Revised as requested.*
- Need to provide a permission letter from the neighboring property owner for grading on their property.  
*The neighboring property owner is in agreement with the proposed grading operations. A permission letter has been requested and will be forwarded to the Village as soon as it is received.*
- Need to provide a permanent 20 foot wide drainage easement for Culvert 2 to the East of the road right of way.  
*Easement has been added to the plans as requested.*
- Recommend adding a rodent guard to all existing tiles discharge points that are exposed due to grading work.  
*A note regarding the addition of rodent guard has been added as requested.*
- Provide the size of the rip rap stone and stone pad area.  
*Labels of stone sizing have been added as requested.*
- Add the 730 contour line to the Lot 5 grading.  
*Revised as requested.*

- Relocate the label locations near Culvert 2 on sheet C-5 from overlapping each other.  
*Revised as requested.*
- Add rip rap to the tile discharge into the North Pond.  
*Revised as requested.*
- Add the 728 contour label for Lot 11.  
*Revised as requested.*
- Adjust swale contours to match the proposed bypass swale slope at 0.8% to the East of Lots 13 & 14  
*Revised as requested.*

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

##### New Review Items

- Remove the silt fence within the 50<sup>th</sup> Road right of way.  
*Revised as requested.*
- Revise the silt fence on the north end to wrap around the North side of Lot 12 to contour 730.  
*Revised as requested.*
- 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.”  
*Notes have been updated as requested.*

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

##### New Review Items

- Update the Driveway Culvert Tables  
*Revised as requested.*
- Complete the missing profile graph lines and borders.  
*Profile lines have been revised as requested.*
- Provide station and elevation to all road ditch grade break points.  
*Stationing and elevation to road ditch grade breaks have been added to the profiles.*

## 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.  
*Note was updated as requested.*
- Remove Note 5.0 from the Paving Specification. There is no concrete pavement proposed for this development.  
*Note was updated as requested.*
- Add the attached drain tile inlet to the plan set.  
*Detail was added to the plans as requested.*
- Provide a typical detail for the pond outlet structures and grates.  
*Details for the pond outlet structures and grate detail can be found on Sheet C-12.*
- Update the emergency spillway details to reflect the proposed design.  
*Spillways have been revised to reflect the design.*
- Update the 100-YR HWLs labeled on the pond cross sections.  
*Cross sections have been revised to reflect the proposed design.*
- 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.  
*The proposed 24" RCP pipe was revised to a 19"x30" elliptical RCP pipe to provide 18" of cover as requested.*
- Trash guards are to be added to all road culverts and detention basin discharges. Provide a typical detail.  
*Trash guard details have been added to the plans as requested.*

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

### New Review Items

- Provide station and elevation to all swale grade break points.  
*Stations and elevations for swale grade break points have been added to the profiles.*
- In general, clean up the swale profiles so that they are straight lines.  
*Swale lines have been updated as requested.*

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

##### New Review Items

- Provide drain tile cleanouts for all road crossing at the right of way lines.  
*Drain tile cleanouts have been added at road crossings.*
- Plug all abandoned tiles at the road right of way line.  
*Abandoned tiles that cross the proposed R.O.W. have been plugged as requested.*
- The proposed tile underneath the cul-de-sac shall be non-perforated PVC pipe material.  
*A note specifying non-perforated PVC for the pipe under the cul-de-sac has been added to the plans.*

#### 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.*  
*WinSLAMM model has been revised to reflect the stage storages presented in HydroCAD.*
- 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.  
*The 3.0-acre offsite area has been added to the post-development conditions model.*

#### 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.

*Spot grades along the rear of Lots 5 & 6 have been updated to reflect intended elevations.*

#### 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.**

*Proposed swales have been revised to contain the 100-year ponding elevation outside of the property lines.*

- 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.

*The modeling of an orifice/grate does not allow for the inclusion of a custom angle within HydroCAD. In our review we noticed and revised the notch angle to depict the slope of the structure more accurately. Due to the slope of the structure, and the top of the structure resting near the HWL of the pond, we believe that the structure will more frequently act as a weir than an orifice for flow modeling. A revised weir outlet structure has been included in the HydroCAD design model.*