



August 30, 2023

Village of Pinckney
8350 Main Street, Suite A
Whitmore Lake, MI 48189

Regarding: Revised Final Site Plan
Lakeland Knoll Residential Open Space Development

The following discussion outlines responses to Final Site Plan review comments received from village consultants in regards to the proposed project. Our responses are listed *in bold italics* after each review comment.

Final Open Space Residential Plan Review by Mannik Smith Group dated 07/26/2023

Recommendations:

1. Documentation that a wetland permit are obtained.

A draft permit from EGLE has been obtained and awaits execution and issuance at the appropriate time prior to construction.

2. Documentation that a MDNR agreement and any needed easement are obtained for constructing the emergency access connecting to Pond Street as well as review and approval from the Putnam Township Fire Marshal and the Pinckney Police Department that rapid emergency access is adequate.

A copy of the MDNR "Agreement to Construct and Maintain Driveway " across the Lakeland Trail has been provided to the village by the project sponsor.

3. Incorporating the photometric plan and light fixture details as well as the typical building elevations in the final site plan drawing package.

Photometric plan information prepared by DTE and typical building elevations have been previously provided by the project sponsor to the Village in separate submittals.

4. Updating the Master Deed and Bylaws and addressing any remaining comments from the Village Attorney.

The Master Deed and Bylaws have been revised to address any concerns from the Village Attorney in previous / past submittals.

5. Addressing any other comments noted by the Village staff, Village Engineer, and all other required agencies.

Remaining comments are addressed herein.

Final Site Plan Review by Wolverine Engineers & Surveyors dated 07/27/2023

Following responses are related to comments in red excerpted from the review letter:

1. Provide soil boring information including static water elevations boundary in accordance with Section 2.2.J. of the Village of Pinckney Technical Standards.
 - a. **Soil Boring locations have been shown in the construction plan set; however, we have not reviewed soil boring logs or the static water elevations boundary.**
Soil Borings will be provided with Construction Plans.

2. Pursuant to Section 152.392 of the Zoning Ordinance, the Planning Commission has the discretion to require an Impact Assessment Report. We recommend that the Planning Commission direct the Proprietor to provide a report addressing the following items:
 - a. 152.392(B)(8): Public services, facilities and utilities. We are concerned that the existing water and sewer systems may not have sufficient capacity to service this development. This was discussed at the pre-planning meeting. Of primary concern is the capacity of the wastewater treatment plant (WWTP). To this end, the Sewer Committee has been in discussions to commission a study to evaluate the remaining available capacity at the WWTP. Additionally, the sewer collection system and water distribution system need to be evaluated and we can work with the design engineer to determine if any improvements are warranted to accommodate this development. Once this information has been gathered, the Proprietor shall submit a report for review.
 - i. Water Capacity:
 1. **The existing water capacity is not sufficient to support the entire development without the addition of a new supply well. We have been in contact with EGLE, Pinckney, and the developer to discuss the possibility of adding an additional well.**
 2. **Per the technical standards: Contractor shall submit for approval design computations for single-family residential development based on average daily flow rate plus a fire demand of 1,500 gallons per minute (gpm) and a residual of 20 psi (pounds per square inch) at the most remote hydrant. 1.04(B)(1):**
 3. **The proposed water main layout includes one connection to public water located at the Southeast corner of the parcel near Howell St. Given this single connection, our water system model indicates the most remote hydrant would maintain 1,331 gpm for fire demand with a residual of 20 psi.**
 4. **We also conducted an analysis of the water system with a second connection located at the intersection of Hamburg Street and Pond Street. The dual connection increased the fire demand to 1,724 gpm at the most remote hydrant with a residual of 20 psi. To meet the minimum fire demand of 1,500 gpm we recommend a second connection be made at this intersection.**

The project sponsor has provided a stub across the Lakeland Trail for future connection by the Village to the south.



6. Sheet 2:

- a. Confirm that no existing easements encumber the site.
 - i. A statement has been added to the plan set stating no easements are present.
 - ii. We have received a title insurance policy for the property, dated 9/30/2021, which does not list any known easements.
- b. Show Location and height of all existing structures within 250' of the property boundary. (Section 2.2.C. of the Village of Pinckney Technical Standards)
 - i. Some existing buildings within 250' are missing.
 - ii. Heights have not been listed in the plan documents.

Most of the existing adjacent buildings are located south of the Lakeland Trail, and are comprised of one and two-story homes of typical height.

8. Sheet 7:

- a. Emergency Access Drive
 - i. Show breakaway fence location:
 1. Plastic bollards have been shown on the north and south sides of the trail crossing. We were unable to find any notation of a breakaway fence and we have not aware of any previous approval that has been granted to the developer to utilize bollards in lieu of a breakaway fence.
 2. Provide detail for proposed gate/fence to be approved by MDNR and Village of Pinckney.

A detail of the steel bollards specified by the MDNR as part of their granting of the driveway easement is shown on Sheet 7.

- ii. Consider utilizing a mowed drivable surface in lieu of gravel:
 1. Gravel cross section and call outs are shown on the plans.

The emergency access drive is proposed to be gravel construction as shown on the plan.

- iv. MDNR approval to cross the Lakelands Trail must be secured prior to final site plan submittal.
 1. We have received a draft "Easement to Construct and Maintain Driveway".
 - a. Final easement has not been provided.
 - b. The easement specifically excludes construction of utilities. We expect an additional easement will be required to accommodate the proposed storm, sanitary, and water systems located within the Lakelands Trail property.
 - c. Bollards and gate (with key) mentioned in easement. Clarify which is being proposed.
 - d. Grading activities shown at the Southeast corner of the property may require an additional easement.

A final copy of the easement has been provided to the Village by the project sponsor. According to the MDNR the owner of the proposed utilities (ie., the Village) will be the grantee of an easement for the utilities crossing the trail. Bollards are as stated above and any required grading easements for the driveway construction will be obtained prior to construction.



General Comments:

1. Ordinary high water mark should be listed for all water features in the project area. Water surface line type should be called out on plans or noted in legend.
This information is shown on the plans.
2. Percentage of lot coverage is listed on "Parallel Plan", but not on current layout.
Maximum lot coverage for the proposed layout is listed under site data on the cover sheet.
3. Boundary survey prepared by a Land Surveyor has not been provided for review at this time.
The project sponsor has a record survey for the property which can be provided as needed.
4. Notation of performance guarantees has not been provided including amounts, types and terms.
A performance guarantees has not been required.
5. Trees measuring at least eight inches in diameter at breast height shall be clearly labeled.
No tree survey was performed for the site, areas to be cleared are shown by the clearance limits depicted on the grading plan.
6. Ordinary high water mark of a stream, river, lake or pond shall be verified by a Land Surveyor registered in the State of Michigan or any professional trained in wetland delineation listed above.
See response 1 above. All topographic information is presented under the direction with our registered land surveyor.
7. Grading plan shall be provided in compliance with the Village Technical Standards.
Noted and will be addressed as needed on construction plans.
8. All finished contours must be connected to existing contour lines at or before the property lines. Please review Southeast property corner.
Contours revised as requested.
9. Please provide the following note on plan documents:
 - a. "The areas to be left undisturbed during construction shall be so indicated on the site plan and shall be identified on the ground by use of snow fencing or silt fencing so as to be obvious to construction personnel."
A note has been added outlining this requirement is added to the grading plan.
10. Structures:
 - a. Show all applicable setbacks or building restrictions (from perimeter lot lines).
 - b. Typical layout, elevation, and floor area for each type of building.
 - c. Distance between structures.
 - d. Total percentage of lot coverage.
 - e. Elevation Drawings.
 - f. Density calculations, types of dwelling units, and floor area per dwelling unit.
All applicable site data has been provided on the Cover Sheet.
11. Show vision clearance area at main entrance including all potential obstructions.
The main entrance occupies the same location as the water tower access drive, no obstructions are evident.
12. Clearly indicate side slopes of stormwater drainage facilities. A letter of approval of the proposed drainage system from the Livingston County Drain Commissioner shall be submitted prior to final site plan approval. A maintenance agreement for entire stormwater system must be included.
This information is noted on the Overall Grading Plan. Note, LCDC reviewed provided preliminary approval of the stormwater management plan in their email dated 5/5/2021, copied on the email were the village engineer, clerk and zoning official.



13. Class of all sanitary sewer and storm sewer pipe shall be shown on all plan and profiles.
This information is noted on the Overall Utility Plan and will also be provided on construction plans.
14. Top of casting elevation of all manholes, inlets, and/or catch basins etc. Shall be shown in both plan and profile.
Info to be provided on construction plans.
15. Invert elevations for all sanitary and storm sewer lines, for both existing and proposed sewers, shall be shown in both plan and profile.
Info to be provided on construction plans.
16. List construction methods for water, sanitary, and storm system installation and connections. (Including but not limited to open cut, bore and jack, and directional drill).
Info to be provided on construction plans.
17. Show utility hookups and proposed supply line location for coordination with water system improvements (i.e. gas and electric).
Water service locations will be provided on construction drawings.
18. Information regarding surface equipment shall be provided (electrical and telephone boxes, poles, and other misc. surface equipment)
Franchise utility detailed design has not yet been coordinated with the service providers. If needed, such information will be provided prior to construction.
19. Location and specifications of exterior lighting fixtures and a photometric lighting plan shall be provided.
Site lighting locations are shown on Landscape Plan. Photometric and fixture information has been provided to the Village previously.
20. Proprietor or his/her authorized agent shall prepare all applicable regulatory permit applications and secure signature from the village as necessary prior to forwarding on the appropriate agencies.
Noted.
21. Applicant must provide proof that plans were submitted to all other agencies that regulate the proposed development. Verify traffic impact statement has been submitted to County Road Commission.
Submittals to outside agencies will be made during construction plan review and approval process.
22. Landscape Plans:
 - a. Location and description of trees and shrubs to be planted, including common name, species (deciduous or evergreen), root type (shallow or deep), height, diameter at breast height and size of root ball and/or container.
 - b. The location and dimensions of common open spaces and recreational areas, proposed improvements, and maintenance provisions for the areas.
 - c. Please note the following on the landscape plan sheet:
 - i. "Ground cover. All landscaped areas that do not contain trees, shrubs or planting beds shall be covered with living ground cover (including grass) and/or organic mulch. Stone or aggregate shall not be accepted as a ground cover. Ground cover shall be planted in sufficient quantity to present a finished appearance within one growing season and shall not exceed 18 inches in height at maturity."
 - d. Tree and Shrub Standards:



- i. evergreen trees shall be at least six feet in height.
- ii. Large Skyline Honey Locust is not permitted (has seeds/thorns).
- iii. Confirm the following trees not listed under permitted trees/plants are acceptable to the planning commission:
 1. Pink Profusion Crab
 2. Tuliptree
 3. London Plane Tree
 4. Kentucky Coffee Tree

All Landscape comments have been addressed on the attached plans, see sheet 10.

Final Site Plans:

Note: Final Site Plans do not match Construction Plans.

1. Sheet 2:
 - a. Show additional details regarding the existing water connection location.
Details will be provided with forthcoming construction plan submittal.
 - b. Expand limits to include 250' from project area as outlined in the Village of Pinckney Zoning Ordinance.
Limits of topography are as shown on the plans.
 - c. Provide Ordinary High Water Mark for all pond areas.
Provided.
2. Sheet 3:
 - a. Provide additional sidewalk at southeast corner of the site, north and east of N. Howell Street. Sidewalk on N. Howell shall extend to nearest public street.
No additional sidewalk is proposed beyond connection to the Lakeland Trail.
 - b. Provide thicker cross section for sidewalk per technical standards for all driveway crossing locations.
Thickened sidewalk for driveway crossings is noted on the sidewalk detail cross-section.
3. Sheet 4:
 - a. Maximum spacing for fire hydrants is 250' along public roads. Additional hydrants are required to meet the Village of Pinckney Technical Standards.
Additional hydrant coverage limits have been added to the utility plan to illustrate 250' coverage radius encompassing all proposed building areas.
 - b. Maximum spacing for gate valves is 800'.
 - i. Valves should be relocated to provide a maximum of 800' along water main.
Valves have been relocated as necessary.
 - ii. Confirm all proposed valve locations with DPW and Village Engineer.
DPW and Village Engineer comments in this regard will be addressed upon receipt.
 - c. Confirm 10' separation between water main and storm/sanitary sewer. Including, but not limited to intersections of: Horizon/N. Howell; Danline/Horizon; Danline/N. Howell.
Additional dimensions have been added to the plan to illustrate minimum separation.
 - d. Define abbreviations listed at eastern water main connection location (TSV & W).
TSV & W indicates tapping sleeve, valve and well and is defined as such on the plans.



- e. 0.39% sanitary slope is less than minimum per technical standards (West end of N.Howell St.)
Slope of sanitary increased to meet minimum requirements.
 - f. Adjust location of any hydrants not meeting technical standard minimum spacing and coverage requirements.
See response 3a above.
 - g. Consider revising storm at intersection of Horizon Ln. & Stonebrite Ct.
Considered, no change proposed.
4. Sheet 5:
- a. Note max slope for pond areas.
Side slopes inside ponds are 5:1 H:V meeting the LCDC design standards and labeled on the plans.
 - b. Provide enlargement for southeast site improvements including connection to existing streets, grading, and sidewalks.
Proposed southeast site improvements are shown on sheet 7 of the plans.
5. Sheet 6:
- a. 0.47 is listed as the runoff coefficient for all pond drainage areas. It appears that these coefficients should vary, please confirm.
A composite runoff coefficient is utilized based on entire site estimated runoff impervious surface build out.
 - b. Pond 1 lists Qa under II.D.2. Should this read Qp to match the allowable release rate above?
Allowable release rate for pond 1 is calculated table II.D.1 individually based on total allowable for all ponds.
 - c. Total storage for Pond 2 is listed as less than 100-year Detention Basin Size II.D.6.
Pond 2 modified to provide required 100-year storage and calculations have been updated.
 - d. Forebay storage for Pond 3 is listed as less than listed minimum storage II.A.2.
Pond 3 modified to provide required forebay storage and calculations have been updated.
6. Sheet 7:
- a. Extend proposed gravel section to north edge of bituminous pavement on Pond Street. Review the possibility of adjusting the geometry of this access road to meet the existing end of Pond Street.
Emergency access gravel drive connects to Pond Street gravel pavement section as shown.
 - b. It appears there is proposed grading outside of the Right-of-Way, north of W. Depot Street. Please provide additional grading information for this area.
Grading contours and limits have been revised in this area.
 - c. Extend sidewalk and add ADA compliant crossings at connection to W. Depot Street.
No offsite sidewalks are proposed.
 - d. Add sidewalk on North and East side of N. Howell Street.
No additional sidewalk has been added to the plan in this area.



- e. There are existing gravel access roads on the east and west sides of N. Howell St. Provide appropriate sidewalk (per technical standards) for access areas.
Sidewalk detail has been revised to include thickened walk for all sanctioned driveway crossings.
 - f. Is there any proposed water quality treatment or storage for south end of N. Howell St.? This area appears to drain directly to the public storm system with no additional stormwater controls.
The proposed catch basins in this area service as much of the roadway drainage as is feasible based on the available depth of Pond 1. The remaining short section of the roadway will drain to the basins located at the N. Howell / Depot Street intersection which is consistent with the existing drainage system that services the water tower driveway.
 - g. Utility easement and authorization required from MDNR for required for Sanitary, Water, and Storm improvements located in 100' ROW area.
As mentioned above, the MDNR has indicated that the easement and authorization for the utility crossings of the trail ROW will be made with the ultimate owner of the utilities (i.e., the Village).
7. Sheet 9:
- a. Refer to comments under, "Previous Review Comments" above.
See responses above to all preceding comments.
8. Sheet 10:
- a. Developer will coordinate emergency access barrier type, access, and location with Fire Marshal and MDNR.
Location and type of emergency access and barrier are shown on the plans and has been coordinated with all comments received to date.
 - b. Refer to additional landscape comments under "General Comments" above.
Landscape Plan has been revised as necessary.

Construction Plans: ***All construction plan comments will be addressed during the construction plan review phase of the project.***

Your review and approval of the Final Site Plans is respectfully requested.

Please contact me if you have any questions.

Sincerely,
Livingston Engineering



Hugo J Ceron, PE
Project Engineer

cc: Marshall Blau, Progressive Properties (email only)

