



09/26/2023

Village of Pinckney  
220 S. Howell Street  
Pinckney, MI 48169

Re: Final Site Plan Review  
Lakeland Knoll Residential Open Space Development  
Pinckney, Michigan 48169

We have received a full set of “Final Site Plans”, dated 08/30/2023, in addition to the previously reviewed site plans. After mindful consideration, and discussions with representatives of The Village of Pinckney, we have removed several comments from the previous reviews dated: 06/30/2020; 07/27/2023; and 08/30/2023. Several of the removed items have not yet been addressed; however, they will be reviewed more thoroughly during our “Construction Plan Review” which has not been provided at this time. It will be the developer and their representative’s responsibility to adequately address previous comments to the satisfaction of The Village of Pinckney and the Village Engineer.

Below are updated comments based on plans we have received to date and through our communication with the developers’ civil engineer and The Village of Pinckney.

We recommend the comments found below in **RED** are satisfactorily addressed prior to recommending site plan approval – 09/26/2023 – JAL

**1. Public Utilities:**

- 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.

- 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. Approval of this well is outside of our control and further approvals are needed to ensure adequate water capacity for this development.

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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.
    - a. Provide additional plan information for proposed water connection and improvements in this location. All right-of-way, existing easements, and proposed easements within project areas should be shown.
    - b. The Village of Pinckney is willing to contribute a portion of the funds required to re-construct partial roadway improvements in this area including paving, driveways, and sidewalk; however, an agreement establishing the split of work will need to be drafted and agreed upon by both The Village of Pinckney and the Proprietor/owners representative.
- ii. Sewer Capacity:
1. We are in the process of modeling the Village of Pinckney's sanitary sewer system and require additional time to complete the full analysis. Once a comprehensive model has been created and all existing flows are known, we will determine the available capacity for the Lakeland Knoll Development.
    - a. The Village of Pinckney's sanitary sewer system has been modeled and we are awaiting final confirmation that the system meets all state and federal requirements while providing capacity for peak flows throughout the Village of Pinckney. This will be confirmed in the "Construction Plan Review" portion of the project.

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## 2. MDNR Trail Access:

- a. Emergency Access Drive.
  - i. Must be accessible year-round for emergencies, maintenance, and snow removal.
  - ii. Developer must coordinate with the Village of Pinckney, The Fire Marshall, and MDNR to confirm the following are acceptable to all parties:
    - 1. Proposed gate(s), locking mechanism(s), and/or removable bollards.
    - 2. The proposed emergency access road cross section (Must meet emergency vehicle loading requirements).
  - iii. We understand MDNR approval, and the assertion of any associated easements, is required to perform all proposed work within the Lakelands Trail.
    - 1. Although the Village of Pinckney is willing to discuss and potentially sign off on these easements (pending review of application and required legal documents), the efforts required to attain these easements is the responsibility of the developer and all fees, applications, exhibits, and other miscellaneous requirements shall be prepared by the developer. 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.
    - 2. Any required easements must be secured and signed by all required parties prior to approval of "Construction Plan Review".
    - 3. The easement specifically excludes construction of utilities. We expect an additional easement will be required to accommodate the proposed sanitary and water systems located at the emergency access drive and found within the Lakelands Trail property.
- b. Primary Main Access Drive at N. Howell Street:
  - i. Utility easement and authorization may be required from MDNR for proposed improvements in the trail area including but not limited to:
    - 1. Sanitary, Water, and Storm improvements.
    - 2. Proposed sidewalks, grading activities, and work outside the existing N. Howell Street Right-of-Way.
    - 3. Refer to comments above under item 2.a.iii regarding assertion and of any required easements for this area.

## 3. Proposed Road and Drive Improvements:

- a. Provide additional plan information for proposed water connection, and all improvements located south of the trail connection at Pond Street. All existing topography, site improvements, right-of-way, existing easements, and proposed easements within project areas should be shown.
- b. The proposed N. Howell Street extension does not appear to align with the centerline of the existing portion of N. Howell Street. This should be reviewed and discussed with the Village if an offset is being proposed. Additional survey information and details are required to adequately review this area.

- c. Provide additional ADA compliant sidewalk at southeast corner of the site, north and east of N. Howell Street. The sidewalk on N. Howell shall extend to nearest public street.
- d. The proposed slope at the water tower access road does not appear to meet maximum requirements in technical standards. Access drive may not be greater than the existing slope in that area. We recommend the developer/design engineer contact the Village of Pinckney to discuss options for this area.
  - i. A locking access gate is required with a minimum of 50' clear south of the gate to allow for parking of vehicles as the gate is opened. Gate and all components must be approved by Village of Pinckney Department of Public Works.
- e. The Village of Pinckney would like to reserve the possibility of converting the Emergency Access Drive area into a public road in the future.
  - i. To allow for this future improvement given the current site layout, The Village will likely need the following plan modifications:
    1. Lot 14 may need to be removed unless the road centerline/ROW can be relocated to allow for the Village of Pinckney's Technical Standards for public roadways to be met.
    2. Partial relocation/re-design of the forebay at "Pond 2".
    3. Re-grading of the area to allow for placement of a roadway meeting current Village of Pinckney Technical Standards.
    4. Relocation of proposed utilities meeting current Village of Pinckney Technical Standards.

**4. Miscellaneous Plan Modifications:**

- a. The following plan sheets and modifications shall be included with the "Final Site Plan" submittal:
  - i. Photometric Plan. Note: additional lighting in cul-de-sacs will be required.
  - ii. Trees will not be permitted within the right-of-way (including cul-de-sac islands). These trees inhibit the placement and repair of public and private utilities.
  - iii. A boundary survey for the property, signed by a Licensed Surveyor in the State of Michigan.
  - iv. Add all variances and waivers which have been requested or approved on the cover sheet.
  - v. Areas to be left undisturbed during construction shall be clearly labeled on the site plan documents.
- b. If Franchise Utilities, such as gas and electric, are not to be shown on the "Final Site Plans" for review, these utilities must be located in rear yards unless approved by the Village Engineer or qualified village agent.

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**General Comments:**

1. An application to The Michigan Department of Environment, Great Lakes, and Energy (EGLE) for the proposed water main and sanitary sewer systems shall be completed by the developer or their representative. Once completed and ready for submittal, the Village of Pinckney will sign/submit all approved application documents.
2. Items not included in the "Final Site Plans" as described under § 152.391 FINAL SITE PLAN APPLICATION, in the Village of Pinckney's Zoning Ordinance, are open for review and comment during "Construction Plan Review".
3. Notation of performance guarantees has not been provided including amounts, types and terms. [152.391(C)(1)(i)]
4. Applicant shall comply with requirements of all outside agencies currently received, and those not yet received, at the time of this letter.
5. 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 [152.391(C)(8)(c)]

Please do not hesitate to call if you have any questions or require additional information.

Sincerely,

WOLVERINE ENGINEERS AND SURVEYORS, INC.



Jesse A. Lewter

CC: File 18-0115