



03/19/2024

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 11/01/2023, in addition to the previously reviewed site plans. After discussions with representatives of The Village of Pinckney, the Developer, and their engineer, 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 – 03/19/2024 – 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).

The proposed water main layout includes one connection to public water located at the Southeast corner of the parcel near Howell St. At the developer's request, we updated our model to include the minimum amount of 12" water main to reach the 1,500 gpm fire demand. Assuming a single connection, and 12" water main from the water connection location to a point located approximately 111 feet east of Horizon Lane, our water system model indicates the most remote hydrant would maintain 1,500 gpm for fire demand with a residual of 20 psi.

Given additional losses that may not be included within the water model, it is our recommendation to extend the 12" water main through the westernmost Tee in Horizon Lane to ensure the minimum fire flow is met.

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.
  - b. Water main shall be extended from the intersection of Horizon Lane and N. Howell Street to the southern property line to facilitate the future connection to the adjacent public water system.

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.

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2. The proposed emergency access road cross section (Must meet emergency vehicle loading requirements).
- 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. Proposed Road and Drive Improvements:**

- a. Provide additional plan information for all improvements located south of the trail connection at Pond Street. Wolverine has limited existing topography on file from Hamburg Street to the north end of 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 the 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.

**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. Add all variances and waivers which have been requested or approved on the cover sheet.
  - iv. Areas to be left undisturbed during construction shall be clearly labeled on the site plan documents.

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- 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.

**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

## Julie Durkin

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**From:** Jesse A. Lewter <JesseL@wolveng.com>  
**Sent:** Friday, May 3, 2024 12:04 PM  
**To:** Julie Durkin  
**Cc:** Dustin Moma  
**Subject:** RE: Lakeland Knoll

Julie,

Although they did take care of most of the items (satisfactorily until full construction plans are available for full review). The following items (which were shown in red text) from my previous review letter have not been adequately addressed:

1. Water main shall be extended from the intersection of Horizon Lane and N. Howell Street to the southern property line to facilitate the future connection to the adjacent public water system.
2. Proposed easements have not been shown on the plan documents. (We are particularly concerned with easement for sewer and water from North Howell to their proposed/future connections at Pond Street.)
3. The sidewalk along N. Howell has been extended as requested; however, we may need to adjust the Northwest and Northeast quadrant of the Depot and Howell intersection to allow for future road and sidewalk improvements in those areas. We can provide additional comments during our construction plan review.

Additional comments based on previous conversations with the developer:

4. It is in the best interests of the Village to extend the proposed 12" water main through the intersection of N. Howell Street and Horizon Lane. We do not recommend reducing from a 12" to an 8" water main as is currently shown on the plan documents. Details of this can be worked out during our construction plan review.
5. Although MDNR has expressed concern with adding a new public street crossing located at the currently proposed emergency access drive, we would recommend providing some site modifications which would allow for this area to become a public street in the future. An example of these required modifications would include:
  - a. Eliminating or relocating "Lot 14".
  - b. Adjusting permanent storm features in the area to allow for street widening and sidewalk.
  - c. Providing a 66' wide Right-of-Way from N. Howell Street to the southern property line.

Failure to provide these modifications will likely eliminate the possibility of providing a second connection from Lakeland Knoll to the adjacent neighborhood to the south. We understand neighborhood connectivity to be one of the overall planning goals of the Village.

If this is to be approved as a "Final Site Plan", at a minimum, I would recommend the items below be noted as conditional approval items:

- A. Water main shall be extended beyond the southern property line an adequate distance to allow for a future connection to Pond Street.
- B. All utilities will be reviewed during construction plan review and must be approved by the Village Engineer and DPW staff prior to starting any work on site.
- C. All requirements found under section § 152.391(C) "Final Site Plan" of the zoning ordinance (that have not received a variance/waiver from the Village), must be satisfactorily addressed during construction plan review, and no work may begin until all items of the zoning ordinance have been satisfactorily addressed.
- D. Previous site plan review comments found in our letter dated 03/19/2024, that have not been addressed, shall be revisited during construction plan review, and no work may begin until all items have been satisfactorily addressed.

\*\*\* Wording may need to be tweaked to be a formal conditional item.

Please let me know if you have any questions.

Sincerely,

