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May 8, 2024

Nancy Tran
Land Use Board Secretary
Borough of Highlands Land Use Board
151 Navesink Avenue
Highlands, New Jersey 07732

Re: Completeness Review No. 4
Home & Land Development Corp.
14 & 32 North Peak Street
Block 35, Lots 8 & 9
Minor Subdivision and Variances
Borough of Highlands, Monmouth County, New Jersey
Our File No.: HLPB2022-10

Dear Ms. Tran:

As requested, we have reviewed the above referenced application in accordance with the Borough of Highlands Zoning and Land Use Regulations. section entitled, "Part 3, Subdivision and Site Plan Review, Article VI, Application Procedure", and "Article VIII, Plat and Plan Details, section 21-58.A – Minor Subdivision Plat".

Below is our Completeness Review along with comments for the above referenced project. This review was prepared in accordance with the following documents received:

1. Response Letter to Third Completeness Review to Ms. Tran from Frank W. Farrell, P.E., C.M.E, Principal, dated April 26, 2024.
2. Second Completeness Review to Ms. Tran from Edward W. Herrman, P.E., P.P., C.M.E., C.F.M., Land Use Engineer, dated August 15, 2023.
3. Land Use Board Application for Subdivision and Variance, dated November 18, 2022.
4. Copy of a plan set entitled, "Plot Plan For 32 North Peak Street, Block 35, Lots 8 & 9, situated in Borough of Highlands, Monmouth County, New Jersey", prepared by Grotto Engineering Associates, LLC., Clark New Jersey, dated April 5, 2024, and revised April 25, 2024, signed by Frank W. Farrell, P.E., C.M.E, Principal, consisting of 8 sheets.
5. Copy of a report entitled, "Steep Slope and Sump Block Permit Application Report for Home & Land Development Corp., 14 & 32 North Peak Street, Block 35, Lots 8 & 9, Borough of Highlands, Monmouth County, New Jersey, prepared by Grotto Engineering Associates, LLC., Clark New Jersey, dated April 26, 2024, and by Frank W. Farrell, P.E., C.M.E, Principal.
6. Minor Subdivision Plan prepared by Thomas P. Santry, Jr., P.L.S., dated July 29, 2022, last revised November 30, 2023, consisting of three (3) sheets.
7. Stone Strong System – Gravity Retaining Wall, prepared by Garden State Precast, last revised December 15, 2021, consisting of eight (8) sheets.

It is understood that the application will be heard at the May 9th Planning Board meeting.

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The Applicant has satisfied many of the comments as outlined within the Third Completeness Review dated, February 20, 2024, pursuant to Ordinance Section 21-58.A as a Minor Subdivision Plat, however, the following comments are offered for the Planning Board's consideration:

This review has determined that the Application is deemed a Major Subdivision, Major Site Plan and a NJDEP Treatment Works Approval (TWA) is required for Lots 8 & 9 based on the proposed sanitary sewer extension.

The application was originally submitted as a Minor Subdivision and signed by a licensed land surveyor. Multiple engineering issues such as grading, utilities, encroachments, stormwater management, steep slopes and retaining walls on the proposed lots and within an existing right-of-way were found on the Minor Subdivision plan.

A licensed surveyor is responsible for the Minor Subdivision. A licensed professional engineer is responsible for the Minor Site Plan which must address all engineering issues upon the resubmission of the application.

The Applicant's Engineer resubmitted a plan set entitled, "Plot Plan" as referenced above and along with the proposed sewer design as previously proposed by the land surveyor's design.

According to the *Municipal Land Use Law, Chapter 291*, a Minor Subdivision is defined under Section 40:55D-5 as:

"Minor subdivision" means a subdivision of land for the creation of a number of lots specifically permitted by ordinance as a minor subdivision; provided that such subdivision does not involve (1) a planned development, (2) any new street or (3) the extension of any off-tract improvement,

The Applicant's Engineer has proposed a sanitary sewer extension from an existing sanitary sewer main located in Valley Avenue. The proposed extension consists of approximately 270 feet of 6" PVC piping with 2 manholes and multiple cleanouts within a 10-foot and 6-foot unnamed right-of-way located south of and west of Lots 8 & 9 and along Lots 4.02 and 10 in Block 35 terminating at Valley Avenue.

Based on the "minor subdivision definition as indicated above, the proposed Minor Subdivision must be submitted as a Major Subdivision and follow the Borough of Highlands Municipal Code §21-57 and associated sections. Please note there are additional checklist items.

A Major Site Plan is required based on the same criteria found under §21-8 Definitions for a Major Site Plan.

According to N.J.A.C. 7:14A-22, proposed Lots 8 and 9 must apply for a TWA for the installation of the sanitary sewer pipeline and manholes.

Our comments are provided below:

I. ZONING

- 1.This property is located in the R-1.01 Residential District.
- 2.The Applicant requires six (6) variances based on the resubmission of the Plot Plan set.
- 3.The following bulk requirement summary is provided for the Board's reference:

R-1.01 Residential Zone	Required	Existing Lots 8 & 9 (Provided by Applicant)	Existing Lot 8 (Ref: Santry Minor Subdivision)	Existing Lot 9 (Ref: Santry Minor Subdivision)	Proposed Lot 8	Proposed Lot 9
Min. Lot Area (sf)	5,000	13,423	Not provided	Not provided	7,775.37	5,658.99
Lot Frontage/Width (ft)	50	130.26/127.62	91.76	38.40	79.23	50.03 (51.03)
Min. Lot Depth (ft)	100	105.26	(101.42)	(114.44)	108.08 (100.16)	118.28 (113.18)
Min. Front Yard Setback (ft)	35	60.6	-	-	35.3	*31.9
Min. Side Yard Setback (ft)	8/12	**4.7/92.2	-	-	8.3/12	8.2/12
Min. Rear Yard Setback (ft)	25	**8.6	-	-	25	25
Max. Building Height (ft)	30	-	-	-	<30	<30
Max Lot Coverage	70%	±41.9%	-	-	39.0%	34.2%
Max Building Coverage	30%	±8.0%	-	-	26.1%	22.5%
***Max Lot Coverage	33.4%(8) 45.8%(9)	**41.9%	-	-	*39.0%	34.2%
***Max Impervious Surface Area	15.8%(8) 21.2%(9)	**41.9%	-	-	*39.0%	*34.2%
***Max Lot Disturbance (sf)	7,075(8) 5,140(9)		-	-	*7,775	*5,649
On-Site Parking (spaces)	2	Not provided	-	-	2	2

* VARIANCE REQUIRED

** EXISTING NON-CONFORMING CONDITION

*** PER STEEP SLOPES ORDINANCE AND CALCULATIONS § 21-84-B

[Ord. #0-09-23 § 6; amended 6-15-2022 by Ord. No. 0-22-09] These calculations are per the applicant.

Note; Items in the Table above shown in () reflect our calculations and are to be confirmed by the Applicant.

II. APPLICATION FEES (PART 6 FEE SCHEDULE ARTICLE XXIII, ORD. 21-107)

1. Variances			
Residential "c" (minimum front yard setback) x1	1 EA	\$ 125.00	\$ 125.00
Steep slope maximum lot coverage x1	1 EA	\$ 125.00	\$ 125.00
Steep slope maximum impervious coverage x2	1 EA	\$ 125.00	\$ 250.00
<u>Steep slope maximum lot disturbance x2</u>	<u>1 EA</u>	<u>\$ 125.00</u>	<u>\$ 250.00</u>
Subtotal			\$ 750.00
2. Subdivisions			
Major			
Preliminary Plat		\$500 plus \$50 per lot x2	\$ 600.00
<u>Final approval</u>		<u>50% preliminary fee</u>	<u>\$ 300.00</u>
Subtotal			\$ 900.00
3. Site Plans			
Major (approx. 3,350 sf total footprint)			
Preliminary approval		\$1000 plus \$50 per acre or Part thereof and \$20 per 1,000 Square foot of building floor area or part thereof or \$20 per dwelling unit	\$ 1,117.00
<u>Final approval</u>		<u>50% preliminary fee</u>	<u>\$ 558.50</u>
Subtotal			\$ 1,675.50
Total			\$ 3,325.50

III. CHECKLIST ITEMS

1. All existing structures, wooded areas, and topographical features, such as slump blocks, within the portion to be subdivided and within seventy-five (75) feet thereof.

Provide additional information for roadways and wooded areas.

2. Metes and bounds descriptions of all new lot and property lines.

The Applicant has provided metes and bounds for all proposed lot lines on the plan, and descriptions remain outstanding.

3. The existence and location of any utility or other easement.

The Applicant has updated the plans to indicate utility poles (for electric) on the northerly side of North Peak Street, gas and water lines on North Peak Street and an additional water meter on Lot 9.

4. A wetlands statement provided by a qualified expert.

Provide a statement by a licensed engineer or other authority indicating that wetlands are or are not present on the property.

The Applicant has stated, "This office has reviewed available state mapping, which does not depict wetlands being present on this site."

A review of the NJDEP GeoWeb does not definitively establish that there are no wetlands present on a property. Field observations are necessary to determine the presence or absence of wetland.

A signed letter by a qualified expert is required.

A letter stating, "We have reviewed the State's GeoWeb mapping and performed a site review to confirm that there are no regulated freshwater wetlands or buffers impacting the property," would suffice in completing this checklist item.

5. The Board reserves the right to require a feasible sketch plan layout of remaining land not being subdivided if it is deemed necessary.

The applicant has provided a generic house layout that demonstrates the sizes of proposed homes and the need for any additional setback relief.

The proposed lots have many engineering issues that must be addressed by a licensed civil engineer. A licensed engineer is required to certify that the developed sites are designed and will be constructed under the appropriate standard of engineering practices and the safety of the homeowner and adjoining properties.

A Plot Plan set has been provided by the Applicant's engineer.

6. A lot grading plan, to be reviewed by the Borough Engineer, if required.
As a condition of approval, the Applicant must provide plot plans for review and approval at the time of obtaining building permits.

A grading plan is included with the Plot Plan set.

A Major Site plan with additional checklist items is required as discussed above.

IV. COMPLETENESS

The application has been scheduled for the May 9th Planning Board meeting.

V. GENERAL COMMENTS

1. Lot areas shown in the bulk requirement summary are not consistent with the previous Minor Subdivision plan prepared by Santry Minor Subdivision Plan prepared by Thomas P. Santry, Jr., P.L.S., last revised November 30, 2023. Please explain.
2. Please explain how all the zone requirements were calculated for "Existing Lots 8 & 9" as shown on the Cover sheet of the plan set and also shown in the bulk requirements summary.
3. The Applicant provided a Plot Plan however they must provide a Minor Site Plan. Based on comments above, the Applicant must provide a Major Site Plan submission.
4. The floor area of the proposed dwellings is unknown. No architectural plans have been provided or square footage noted by the Applicant. The floor area is needed to determine the Major Site Plan preliminary and final approval fees and the total approval fee for the project. The Applicant is requested to provide floor areas per the architectural plans.

5. Confirm that all reference maps for topographic information are consistent and use the same datum.
6. The General notes reference to the "City Engineer". Please revise.
7. The plans show adjustments to the existing gutter and roadway within North Peak Street, including installation of a retaining wall and storm drainage improvements within the existing cartway area.
 - a. The Borough Council must approve the construction of a retaining wall within North Peak Street right-of-way, *prior* to approval by the Planning Board. The Planning Board may not condition an approval upon a subsequent Borough Council approval.
 - b. The proposed retaining wall is provided so that access to Lot 9 is possible. The retaining wall is over 10 feet high and is used to extend North Peak Street so that Lot 9 can access the proposed driveway. This extension of North Peak Street and installation of the retaining wall must be pre-approved by Borough Council.
 - c. An existing inlet with 12" and 15" pipes was previously shown on the Minor Subdivision dated May 1, 2023, with the inlet noted to be removed. The proposed plans appear to have removed the 15-inch pipe and installed the proposed 10 ft high retaining wall over that area. The 12-inch pipe remaining is shown to be extended through the retaining wall. Explain how this will work and so as not to disrupt the drainage in the area.
 - d. A proposed manhole and the 12-inch pipe are shown north of the proposed retaining wall and daylight at the wall. It appears this pipe begins in Middletown Township and discharges in Highlands. The applicant is proposing to extend the pipe through the retaining wall on North Peak Street but there is no information on where the water originates and how much will be discharged through the retaining wall and onto Lots 8 and 9.
 - e. There is a wall-like feature at the end of the paved portion of North Peak Street. This must be shown on the plans and included in the proposed roadway and drainage improvements.
 - f. The proposed retaining wall elevations are not consistent with the existing grades and more information is needed. All retaining walls are large and insufficient information is provided to evaluate these.
 - g. Proposed grading is not shown on the north side of the proposed retaining wall on North Peak Street.
 - h. Off-street parking is determined by the number of bedrooms. Please provide.
 - i. We question vehicle access to Lot 9 by way of the proposed driveway, narrow roadway, and the proposed 10+ft high adjacent retaining wall. Access to Lot 9 will be in a space approximately 10 feet wide and next to a 10+ft. retaining wall.
8. The applicant previously demolished structures on both lots and performed clearing and some grading. The limit of grading/disturbance for the proposed improvements appears to comprise the entire property limits, including some off-tract elements.

The Applicant states, “The limit of disturbance was no greater than is being proposed and shown on the Soil Erosion and Sediment Control Plan. Proposed disturbance to adjoining property owners has been eliminated. Disturbance shall only occur on Lots 8 & 9 and within the Borough’s right-of-way.”

It appears the proposed limit of disturbance is no greater than the actual clearing line of what was previously removed. The limit of disturbance and tree clearing for the installation of the sanitary sewer extension is not fully shown on the plans. Please provide.

9. The applicant may not construct improvements in the rights-of-way without prior approval from Borough Council. The right-of-way at the rear of the site is 10-feet wide and within that area, the applicant is proposing a 6-inch sanitary sewer plus a retaining wall on the south side, plus a larger retaining wall on the north side which is needed to support the new dwelling. Between these two retaining walls is a sanitary pipe that is as shallow as 3.5 feet and as deep at 13 feet. The plans are not clear as to depth. Maintenance of the proposed sewer main is extremely difficult under these deep and narrow conditions.
10. The prior dwelling utilized a septic system. The location and disposition of this should be shown on the plans. The septic tank is shown on the Minor Subdivision Plan prepared by Thomas P. Santry, PLS. The Applicant must provide documentation from the Health Department that the system has been or will be properly removed.
11. An Existing Conditions Plan is requested to provide clarity for the site. Existing features are missing on the plans and the proposed plans are complex and difficult to differentiate the proposed and existing features.
12. The Applicant proposes to provide 4-inch sewer lateral connections at the rear of the dwellings to a 6-inch sanitary sewer line that is proposed to be constructed within the 10 ft right-of-way that decreases to a 6 ft wide right of way as it turns toward Valley Avenue, and then connects to an existing sewer manhole located in Valley Avenue. The Applicant has provided a plan and profile of the approximate 270 linear foot 6-inch sanitary sewer line with many cleanouts and two manholes.
 - a. The proposed sewer line is an off-tract improvement and therefore, a Major Subdivision, Major Site Plan and NJDEP TWA application are required.
 - b. The proposed sanitary sewer line is recommended to be an 8-inch diameter pipe, as we do not recommend that two dwellings share a 6-inch sewer line.
 - c. According to a note on the plan and profile sheet, the sewer extension route is based on Borough Topographic information (2’ contours) to an “approximately located” manhole. This route must be surveyed, with metes and bounds, to verify the locations of both R.O.W.’s and determine exactly where to connect to the manhole.
 - d. The retaining walls, including footings and other features, are to be shown on a profile to confirm clearances for the dwellings’ 4-inch service laterals. The laterals must pass through the proposed retaining wall in order to connect to the proposed sanitary pipeline. The top of the retaining wall on the house side is at elevation 131.5 and the bottom is at elevation 118.0. The wall is 13.5 feet high in the area of the sanitary sewer main. We find this unacceptable.

- e. There is a slope change shown on the profile between the lateral connections to the pipeline. Any change in slope must be provided by way of a manhole or the slope of the full length of the pipe must change.
 - f. The sanitary profile shows a series of cleanouts and pipe drops from the last manhole to the connection point in Valley Avenue. These cleanouts and drops are not acceptable and do not follow standard engineering practice. This entire length must be replaced with manholes.
 - g. The full extent, width and depth of the retaining walls must be provided to determine the full impact of the large and deep structure.
 - h. The plan indicates cleanouts for Lots 8 & 9 connecting directly to the sewer line. A service lateral connection is required.
 - i. Existing and proposed (fill) grading, although shown on the profile is not completely shown on the plan view. The plan also lacks grading between Lot 7 and the proposed retaining wall.
13. Cross sections C-C and D-D on Plan Sheet 6 of 8, Cut/Fill Cross Sections and Calculations should include both retaining walls (rear yard and North Peak Street). All cross sections are to show property lines so that a clear evaluation may be made of the impact of the walls.
14. The rear retaining wall is set at elevation 131.5 and supports the new houses which have first floor elevations of 143 and 145.2.
15. The Applicant has indicated the existing and proposed water, gas, and electric service connections for Lots 8 & 9.
- a. The existing water valve shown on the minor subdivision is not shown on Lot 9.
 - b. The proposed water and gas services for Lot 9 cross Lot 8. The water and gas services will need to be relocated or an easement placed on Lot 8.
 - c. The water service is proposed at 2 inches and is oversized for a single-family home. Why is the service line greater than 1 inch?
 - d. The electric service needs to be shown on the plans.
16. The Applicant is requested to document compliance with the Steep Slope Ordinance found at 21-84.B and provide calculations as required therein. In addition, means and methods for controlling velocity and rate of stormwater runoff shall be documented.

The Applicant has prepared a Steep Slope and Slump Block Permit Application report pursuant to Ordinance § 21-84.B.

- a. The report indicates that Lot 8 will require variances for the maximum lot coverage, maximum impervious surface area and maximum lot disturbance according to the steep slope requirements. Lot 9 will require variances for the maximum impervious surface area and maximum lot disturbance according to the steep slope requirements.
- b. The report refers to the 10-foot right-of-way as an easement. Please clarify or correct.

- c. Please indicate the project site on the Soil Map.
- d. The method for controlling velocity and rate of stormwater runoff is describe by the Applicant's Engineer's statement:

"Stormtech (SC-740) Chamber Systems will be installed in the rear yards of each property. The chambers will temporarily store roof runoff during a storm event to control the stormwater runoff. The bottom of the chambers are open and are installed on clean stone which allows the stored water to percolate into the ground, Roof leaders will be hard piped directly to the chambers. Details, size, and specifications may be provided upon request.

- e. The stormtech chambers will infiltrate water into the ground in an area of fill which is adjacent to the retaining wall that is 10 to 13 feet high. It is possible that the water infiltrated into the ground will cause hydrostatic forces on the adjacent retaining wall and may even follow the soil line between in situ soils and the fill soil needed to raise the rear yards 10+ feet. It is recommended that soil testing be conducted to verify that the water will not travel along the old ground surface (under the fill) and undermine the retaining walls.
- f. No storm analysis was provided for the stormtech chambers. There is no stormwater analysis or storm event size provided for the site. It is unknown what storm event can be handled by the chambers and what the extent of overflow will be. Any overflow will be toward the retaining wall at the rear.
- g. The applicant must provide soil testing and a geotechnical analysis and design of the retaining walls and the stormtech chambers and determine how all these improvements impact each other and the surrounding area.
- h. There is an elevation change of 50 feet between the first-floor elevation of Lot 8 and the bottom of the sanitary lateral in the right of way. The slopes and elevations and proposed conditions on this site are of concern and the applicant must provide specialized engineering and analysis to assure proper stability.
- i. The grading at the front of the lots is toward the houses. Of particular concern is the existing pipe discharging from Middletown Township and through the proposed 10 ft. high retaining wall in the North Peak Street right-of-way. The water from the pipe flows toward the houses and the proposed grading is also toward the houses. It then is diverted to a swale between the two houses and flows toward and over the 13.5 ft high retaining wall at the rear of the site.
- j. In regard to the retaining walls, we note that walls provided by Garden State Precast are proposed. Generally, these walls are masses of weight which use a wide base to provide the needed stability. Therefore, these walls are very wide and will use a lot of area underground. This is of particular concern in the area of the sanitary sewer main. Per the plans, about 2 feet of space is available between the sewer main and the outer edge of the retaining wall.
- k. The above concerns, although directed at the two proposed lots, are also of concern to the surrounding lots. The applicant must analyze the impact of uncontrolled surface runoff from this site onto all surrounding and downstream properties.

17. The Applicant is seeking a waiver for an Environmental Impact Report as required in §21-84B Steep Slope and Slump Block. We do not recommend a waiver based on our many concerns commented upon above.
18. We also note that the proposed retaining wall is very close to the existing retaining walls for Lot 7. The proposed height of the retaining wall in the south corner of Lot 8 is 7.7 ft higher than that of the existing retaining wall on Lot 7.

More information is required to determine the impact the new retaining walls will have on the existing dwellings and walls.
19. Should this application be approved, a performance guarantee will be required for all improvements in the right of ways. Additionally, detailed engineering designs are required, and fully designed and detailed plot plans are required prior to issuance of any building permits.
20. Additional construction details are required. Construction details should be placed together for easier reference.
21. It is understood that the site was cleared. Tree permits were approved in September 2021. Tree replacement may be required according to § 22.1.8 Tree Replacement Requirements, Ordinance O-24-04. Tree clearing will be necessary for the proposed installation of the sewer extension.
22. Approval of this application will be conditioned upon the Applicant obtaining approved documents from the Freehold Soil Conservation District.

VI. CONCLUSION

The Applicant requires a Major Subdivision Plan, Major Site Plan and an NJDEP Treatment Works Approval, and revised plans and reports must be submitted.

Should you have any questions, please do not hesitate to contact me.

Very truly yours,



Carmela Roberts, P.E., C.M.E., C.P.W.M.
Land Use Board Engineer

cc: Michael Muscillo, Borough Administrator, (mmuscillo@highlandsborough.org)
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