

September 7, 2020

Via electronic mail

Planning Board
Township of Berkeley Heights
29 Park Avenue
Berkeley Heights, New Jersey 07922

Attn.: Connie Valenti, Land Use Secretary

Re: **Engineering Review**
Modera Berkeley Heights
91 Lone Pine Drive (Block 703, Lots 3, 4, and 8)
Applicant: Lone Pine Drive Urban Renewal, LLC.
Township of Berkeley Heights, Union County, New Jersey
NEA File No.: BERKSPL20.017

Honorable Board Members:

Neglia Engineering Associates (“NEA”) has reviewed the application and supporting documents for the above-referenced development. Specifically, we have reviewed the following:

- The Township of Berkeley Heights Planning Board Application for Site Plan Approval (No. SP-7-20), signed by Paul Spatz, President, Twin Pine Realty Corp., dated August 10, 2020.
- The Township of Berkeley Heights, Planning Board Site Plan Checklist, prepared by Eric L. Keller, P.E. of Bowman Consulting Group, Ltd., dated August 13, 2020.
- Ownership Disclosure Statement for Lone Pine Drive Urban Renewal, LLC
- Traffic Evaluation Update, consisting of two (2) sheets, prepared and signed by Eric L. Keller, P.E. of Bowman Consulting Group, Ltd., dated August 14, 2020.
- Stormwater Management Report, consisting of three (3) sheets, prepared and signed by Eric L. Keller, P.E. of Bowman Consulting Group, Ltd., dated August 10, 2020.
- Design Standard Compliance Report, consisting of three (3) sheets, prepared and signed by Eric L. Keller, P.E. of Bowman Consulting Group, Ltd., dated August 10, 2020.
- ALTA/NSPS Land Title Survey, consisting of two (2) sheets, prepared and signed by James J. Heiser, P.L.S., Partner Engineering and Science Inc., dated November 13, 2017.
- Signed and sealed set of engineering plans, consisting of twenty-two (22) sheets, entitled “ Amended Preliminary and Final Site Plans for Modera Berkeley Heights, property located at 91 Lone Pine Drive, Lots 3, 4, & 8, Township of Berkeley Heights, Union County, New Jersey,” prepared by Eric L. Keller, P.E. of Bowman Consulting Group, Ltd., dated August 10, 2020.



- A signed and sealed set of architectural plans, consisting of twelve (12) sheets, entitled “ Berkeley Heights Architectural Design Package, property located at 91 Lone Pine Drive, Block 703, Lots 3, 4 & 8, Township of Berkeley Heights, Union County, NJ ” prepared by David J. Minno, AIA, R.A., of Minno & Wasko Architects and Planners, dated August 10, 2020.

Project Description

The properties in question are identified as Lots 3, 4 and 8 in Block 703, per the Township of Berkeley Heights Tax Map. The site is further identified as 91 Lone Pine Drive, all located within the ‘DH-24’ (Downtown Housing 24) Zone District/Redevelopment Area. The subject properties have access via an unimproved driveway off Lone Pine Drive. The site encompasses approximately 245,368 square feet (5.63 acres) and is presently used as a contractor’s yard, consisting predominantly of paved areas, driveways, trailers, storage and a few small buildings. There are trees and other forms of vegetation on the property; most of which are located in the western edge of property along Snyder Avenue Brook. The site contains flood hazard areas, and the western section of the site along Snyder Avenue Brook contains an area of wetlands and associated riparian zones. The site is bound by Snyder Avenue Brook to the west, the Chemtrade property to the east and north, and NJ Transit Railroad to the south.

The Owner/Applicant for the project is Lone Pine Drive Urban Renewal, LLC. with an address of 135 Route 202/206, Suite 9, Bedminster, New Jersey 07921. The Applicant is seeking amended preliminary and final site plan approval to construct a 4-story residential building consisting of 173 units, including a 4-level parking structure and associated site improvements, including the reconstruction of Lone Pine Drive. There is an affordable housing component, which equates to 26 proposed COAH units. The buildings/structures proposed are as follows:

Overall, the residential proposal will be a rental apartment building with a total of 173 units (6 - 3BR, 81 - 2BR, 86 – 1BR). The four -level parking garage will consist of 266 parking spaces. A total of 64 surface parking spaces are proposed (48 of which are banked for future consideration). In summary, a potential total of 330 spaces are proposed. Lone Pine Drive will be reconstructed to provide improved access to the project site. New utility services will connect to the site through Lone Pine Drive.

Associated site improvements include sidewalks, granite block curbs, ADA curb ramps, parking, striping, signage, retaining walls, grass pavers, landscaping, lighting, grading, drainage, and utility improvements. Furthermore, the Applicant proposes to reconstruct concrete curb, sidewalk, and driveway along Lone Pine Drive. **NEA defers to the Board Planner regarding zoning reviews for variances, design waivers and overall conformance with the applicable Redevelopment Plan, including but not limited to signage, lighting and landscaping.**

1. Site Engineering Comments

- 1.1 The Applicant shall submit plans to the Township of Berkeley Heights Fire Official for review. The Applicant shall incorporate any requirements provided by the Fire Official into the plans, including, but not limited to, fire lanes, restricted parking areas, and fire apparatus access and circulation.



- 1.2 At such time as a hearing is scheduled regarding this matter, a representative or owner of the project site shall be present to address questions from the Board.
- 1.3 The Applicant shall provide testimony regarding the daily operations of the proposed site development, including, but not limited to, refuse and recycling collection, loading and unloading for delivery and move-in vehicles, number of employees, hours of operation, parking required for employees, etc. Additionally, the Applicant shall provide testimony regarding the proposed on-site parking operations (i.e. assigned parking, unassigned parking, and visitor/guest parking).
- 1.4 The Applicant shall provide testimony, and indicate on the plans, the minimum clearance height within the proposed parking garage.
- 1.5 Banked parking is permitted is per the Redevelopment Plan, but testimony should be provided as same is restricted in the front yard.
- 1.6 The Applicant shall confirm that the proposed access doors and sidewalk clearance comply with current ADA requirements. Testimony addressing the same shall be provided.
- 1.7 The Applicant shall provide testimony that the proposed architectural design including façade materials and colors complies with §3.2.C of the Redevelopment Plan.
- 1.8 The Applicant shall ensure that all disturbed work areas are stabilized. The Applicant shall topsoil, seed, hay, and straw mulch to ensure lawn growth/germination, where appropriate.
- 1.9 Sanitary sewer and drainage easements are shown on the plan; however, the corresponding easement agreements with metes and bounds descriptions were not enclosed with this submission. The Applicant shall submit all covenants for review.
- 1.10 The Applicant shall indicate the location of any proposed HVAC units, generators or transformers and their associated concrete pads. The Applicant shall ensure that the HVAC units are adequately screened and shall provide construction details for the proposed method of screening (i.e. landscaping, fencing, etc.).
- 1.11 The Applicant shall provide testimony regarding any use of green building technologies, which are strongly encouraged by the redevelopment plan.
- 1.12 Pursuant to §3.2B of the Redevelopment Plan, the Applicant shall provide testimony regarding locations of bicycle racks and benches in the area of the Lone Pine Drive extension that abuts the Mill Creek property.
- 1.13 Testimony must be provided regarding the request for the RSIS de minimus exceptions relating to Lone Pine Drive right of way width and associated sidewalk placement.

2. **Grading, Drainage, and Utility Comments**

- 2.1 The Applicant shall provide testimony regarding the status of existing utilities on the site and whether they are adequate for the proposed use.
- 2.2 The Applicant proposes a significant increase in the amount of sanitary sewage to be generated by the proposed development. The Applicant shall verify if a Treatment Works Approval (“TWA”) permit



is required from the New Jersey Department of Environmental Protection. The Applicant shall provide copies of all correspondences to and from the NJDEP regarding this matter to the Board for review.

- 2.3 The Applicant proposes a significant increase in the amount of potable water demand by the proposed development. The Applicant shall verify if a Water Main Extension permit is required from the New Jersey Department of Environmental Protection. The Applicant shall provide copies of all correspondences to and from the NJDEP regarding this matter to the Board for review.
- 2.4 Adequate slopes and grades to be provided to promote positive drainage patterns.
- 2.5 The Applicant indicates that Freshwater Wetlands and Flood Hazard Area permits have been issued by the NJDEP. The Applicant shall furnish copies of said permits, including all conditions imposed thereupon, to the Township for review.
- 2.6 The Applicant shall provide drainage conveyance design calculations for the proposed improvements at the crossing of the Snyder Avenue Brook with Lone Pine Drive. Said calculations shall include, but not be limited to, design storm peak flow rates, pipe capacity, hydraulic grade line calculations, riprap apron design, etc.
- 2.7 The Applicant shall revise the Riprap Conduit Outlet Protection Detail to indicate that such shall be constructed at a longitudinal slope of zero (0) percent, in accordance with the “Standards for Soil Erosion and Sediment Control in New Jersey,” latest edition.
- 2.8 The Applicant proposes to direct stormwater runoff from the proposed parking lot and driveway northwest of the proposed building (and the future banked parking lots), directly into the environmentally-sensitive area associated with the Snyder Avenue Brook, consisting of both a flood hazard area and freshwater wetlands. The Applicant proposes to use a “sawtooth curb” to convey surface runoff into this area with no protection from trash, debris, etc. which may emanate from the parking lot or site in general. NEA strongly recommends that the Applicant revise the plans to provide grates or other means of preventing trash and debris from leaving the site by implementing grates or other measures consistent with the New Jersey Pollution Discharge Elimination System (“NJPDES”) requirements (i.e. Type N-Eco curb pieces).
- 2.9 The Applicant shall provide calculations to demonstrate that the stormwater runoff being concentrated at the “sawtooth curb” openings will not result in erosive velocities as runoff enters the Snyder Avenue Brook area. Such calculations shall be in accordance with the “Standards for Soil Erosion and Sediment Control in New Jersey,” latest edition. Should additional measures be required, the Applicant shall revise the plans accordingly, including any associated construction details.
- 2.10 The Applicant proposes to construct a “bioswale” area west of the proposed parking lot and driveway area, contiguous with the “sawtooth curb” line. The Applicant shall provide calculations supporting the design of the proposed bioswale, including, but not limited to, drainage calculations, overflow/bypass measures, etc. In accordance with RSIS standards, proposed drainage facilities shall be designed to accommodate the 25-year design storm. Additionally, the Applicant shall provide a construction detail or cross-section of the proposed bioswale.



- 2.11 The Applicant proposes a landscaping buffer along the eastern property line, inclusive of drainage improvements. The Applicant shall ensure that the proposed landscape planting will not adversely affect the drainage system, and vice versa. The Applicant shall ensure that the operation, maintenance, and any required repairs of said system will not require the removal of the landscape planting. Conversely, the Applicant shall relocate the proposed drainage system, and provide associated grading revisions, to locate such between the buffer and the proposed building. Additionally, NEA strongly recommends that the Applicant provide domed inlet grates for the inlets immediately adjacent to said buffer area to ensure that debris will not clog the inlet.
- 2.12 The Applicant shall revise the plans to indicate the diameter, length, material, and slope of all proposed downspout or roof drain piping.
- 2.13 The Applicant shall revise the plans to clearly depict the downstream piping associated with Inlet X1, including, but not limited to, pipe configuration, diameter, material invert, slope, etc. Additionally, the Applicant shall provide justification for the eight (8) percent pipe slope for the proposed 15-inch RCP influent to Inlet X1.
- 2.14 The Applicant proposes to construct a “blind” connection for a 15-inch RCP from Inlet C1 to the downstream end of the easterly 5-foot by 12-foot box culvert. Similarly, the Applicant proposes to construct a “blind” connection for a 24-inch RCP from Inlet A2 into the upstream end of the easterly 5-foot by 12-foot box culvert. The Applicant shall revise the plan to include a manhole access at these connection to the culvert. Conversely, for the effluent pipe from Inlet C1, the Applicant may reconfigure the associated 15-inch RCP to discharge through the proposed headwall and eliminate this blind connection. Additionally, the grate elevation for Proposed Inlet C1 appears to be higher than the bottom of the existing swale. The Applicant shall ensure that said inlet will adequately drain all flow intended to be conveyed into such.
- 2.15 The Applicant shall revise the plans to indicate that all drainage or utility pipes to be constructed below the proposed twin 5-foot by 12-foot culverts and 48-inch RCP culvert shall be constructed with casing pipes (i.e. steel pipe sleeves with spacers) so that future maintenance, repair, or replacement of the same can be performed without undermining the proposed culverts. Construction details of the same shall be provided.
- 2.16 The Applicant shall provide additional grading information at the upstream ends of the proposed 5-foot by 12-foot box culverts, as these culverts appear to be projecting above existing grade. Additionally, the Applicant shall provide grading information associated with the proposed headwall at the upstream end of the proposed 48-inch RCP. In addition, the Applicant shall ensure that said proposed headwall, and any grading associated therewith, will not adversely impact the performance of the proposed westerly 5-foot by 12-foot box culvert. The Applicant shall provide an elevation view of the upstream inlets to the two box culverts and round pipe with headwall, facing north. Said elevation view shall include, but not be limited to, the cross-section of the stream channel, various inlet openings for all pipes, grate elevations shown at culverts, headwall, and proposed roadway retaining wall.



- 2.17 The Applicant shall revise the plans to clarify the note at Station 14+00 on Drawing No. 12 of 22 (Offsite Grading & Utility Plan) stating “80 LF 8” PVC @ 2.0%”, which does not appear to be applicable to any improvements shown on this plan.
- 2.18 The Applicant proposes to construct a retaining wall with a maximum height of four-and-a-half (4.5) feet. As such, the Applicant shall provide structural stability calculations for the proposed wall, signed and sealed by a professional engineer in the State of New Jersey. Said calculations shall include, but not be limited to stability for sliding, overturning, bearing capacity, and internal compound stability. Additionally, upon completion of the wall construction, the Applicant shall provide a certification, which states that the wall(s) were built in accordance with the approved plans, manufacturer’s specifications, and applicable codes, and that the wall will function, as designed, to safely support the intended site loading and soil conditions. This certification shall be signed and sealed by the professional engineer-of-record responsible for the design of the retaining wall(s).
- 2.19 The Applicant shall provide “will-serve” letters demonstrating that applicable utility providers (including, but not limited to sanitary sewer, water, electric, and natural gas service) are capable of serving the site with adequate capacity.
- 2.20 The Applicant shall provide testimony as to the intention (or lack thereof) of dedicating the Lone Pine Drive right of way to the Township, and subsequent maintenance of utilities, sidewalks, and the like.

3. Landscaping and Lighting Comments

- 3.1 The Applicant shall install an automatic irrigation system to ensure that the proposed plant material is properly irrigated and thrives. Notation of such shall be provided on the plan.
- 3.2 The Applicant should provide testimony as to the proposed landscaping, lighting and Lone Pine Drive improvements meeting the criteria set forth in the Redevelopment Plan and/or Berkeley Heights Township Code. Same should include but not be limited to tree removal/tree replacement, buffering, lighting fixtures, pole height, streetscape standards, and the like. Additional review comments will be provided under separate cover.
- 3.3 Final selection of tree species should conform to the Township’s preferred list, and same be reviewed/coordinated with the Township’s Environmental Commission.
- 3.4 Minimum and maximum average illuminations in foot-candles, measured at ground level, shall be respectively, 1 and 4 for retail uses; 1 and 2 for commercial and office uses; and 0.5 and 1 for residential uses (§11.1.5.B).
- 3.5 The location, intensity and direction of all outdoor lighting shall not produce glare or other adverse effect on the existing or future use of nearby properties (§11.1.5.C).
- 3.6 The Applicant shall provide testimony regarding the operating hours of the proposed lighting, including, but not limited to, hours of full site lighting, hours of security lighting, etc.
- 3.7 The location, intensity and direction of all outdoor lighting shall not produce glare or other adverse effect on the existing or future use of nearby properties. To reduce skyglow, adverse night vision effects, and impact on residential areas, the lighting fixtures shall provide complete cutoff and light



shielding above seventy-five (75) degrees from the downward vertical and must provide that no direct light from the fixture can be seen at any point on residential property or more than one hundred (100) feet from the base of the standard.

4. Traffic, Parking and Circulation Comments

- 4.1 The Applicant shall provide testimony addressing vehicular circulation for deliveries, loading/unloading, drop-off, pick up areas, trash/recycling, and other operational issues as may be deemed relevant to the application. This shall include moving truck access, emergency vehicles (EMS and fire included) and circulation including anticipated sizes and types of moving van that would access the site.
- 4.2 The Applicant must provide testimony of all detailed information regarding traffic impacts of the project, the intensity of the use, the adequacy of the access drives, the suitability of the on-site circulation, site triangles, proposed trips generated, pedestrian safety and parking measures.
- 4.3 All parking spaces, loading spaces, fire lanes, and circulation routes shall be striped and signed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD). All such striping and signage shall be depicted on a Traffic Circulation Plan or Site Plan.
- 4.4 The capacity of trip rates for the proposed redevelopment area matches “*ITE Generation Manual 10th Edition*”. The development will generate approximately 59 total new trips during AM Peak Hour and a total of 75 new trips during PM Peak hour. Therefore, the increase of three (3) units (from 170 to 173), constitutes a negligible change of one additional trip in the AM and PM peak hour, in relation to the prior board approval.
- 4.5 Based on our understanding of the Applicant’s methodologies, they utilized the Residential Site Improvement Standard (RSIS) to determine the total parking spaces needed. Parking supply of 330 parking spaces meets the RSIS requirement of 323 parking spaces. The parking calculation is as follows:
 - 1.8 parking spaces for 1 bedroom @ 86 units
 - 2.0 parking spaces for 2 bedroom @ 81 units
 - 2.1 parking spaces for 3 bedroom @ 6 units

The Redevelopment Plan allows for the parking demand to be calculated via the RSIS.

- 4.6 In accordance with the Redevelopment Plan §3.2.A.4, “*A Traffic Circulation Plan, depicting the turning radius of emergency vehicle routes through the site. No truck circulation routes shall interfere with any permitted-on street parking spaces or driveways.*” The Applicant shall coordinate with the Township of Berkeley Heights Fire Department regarding the dimensions of the largest vehicle which may respond to an emergency at the subject site. The Applicant shall graphically depict the vehicle



circulation and turning maneuvers for the Township fire apparatus through the subject site. Said graphical depiction, as well as a copy of the submitted site plans shall be submitted to the Fire Department for review. The Applicant shall provide a hard, sealed copy of this plan for review.

- 4.7 In accordance with the Redevelopment Plan §3.2.A.5, *“Fire lanes and restricted parking areas shall be provided as directed by the Township Fire Official.”* As such, the Applicant shall coordinate with the Township of Berkeley Heights Fire Official regarding such. Proof of said coordination shall be provided to the Board.
- 4.8 In accordance with the Redevelopment Plan §3.2.A.8, *“All parking spaces, loading spaces, fire lanes, and circulation routes shall be striped and signed in accordance with eh Manual on Uniform Traffic Control Devices (MUTCD). All such striping and signage shall be depicted on the Traffic Circulation Plan.”*
- 4.9 The Applicant shall provide testimony as to the Traffic Engineering Evaluation prepared for this project, including but not limited to roadways/intersections reviewed, the inclusion of any other projects or redevelopment projects within the Township, traffic volumes and trips, capacity analyses and Level of Service levels.

5. Final Comments

- 5.1 Should the Board look favorably upon this application, a performance bond and inspection escrow will be established in accordance with the Municipal Land Use Law. The Board Engineer will prepare this estimate to address the cost of all site improvements in accordance with the Municipal Land Use Law.
- 5.2 The Applicant shall provide Certification by Tax Collector that taxes are paid for the property.
- 5.3 The Applicant shall obtain all approvals required by outside agencies, including but not limited to NJDOT, NJDEP, Union County, and Somerset-Union Soil Conservation District, as well as the Berkeley Height Police Department, Fire Department, Emergency Services and Department of Public Works. It is the Applicant’s responsibility to determine what outside agency permits are required. Copies of said approvals shall be provided upon receipt.
- 5.4 Any new or revised materials shall be filed with the Township and shall not be sent directly to the Board’s professionals. The Township will forward the application and related materials to the Board’s professionals when they are finished with their review. Materials submitted directly to NEA will not be reviewed.
- 5.5 Revised reports, plans and exhibits, which are to be considered at the hearing, should be submitted ten days prior to the scheduled hearing.
- 5.6 The above comments are based on a review of materials submitted and/or testimony provided to date. NEA reserves the right to provided new or updated comments as additional information becomes available.
- 5.7 The Applicant is responsible for the payment of all applicable fees, including but not limited to application, escrow, COAH, tax map revisions, permits, sewer, and the like.



We trust you will find the above in order. Should you have any questions or required additional information, please do not hesitate to contact the undersigned.

Very truly yours,

Neglia Engineering Associates

A handwritten signature in black ink, appearing to be 'T. Solfaro', written over a horizontal line.

Thomas R. Solfaro, P.E., C.M.E.
Township of Berkeley Heights

TRS

cc: Bill Robertson, Esq. – Planning Board Attorney (via e-mail)
Andy S. Norin, Esq. – Applicant’s Attorney (via e-mail)
Eric L. Keller, P.E. – Applicant’s Engineer (via email)