

January 11, 2023

Nora Fekete, Planner  
Somerset County Planning Board  
P.O. Box 3000  
Somerville, New Jersey 08876-1262

Re: 144 Liberty Corner Road  
Block 11, Lot 6.02  
Warren Township  
Somerset County, New Jersey  
Application #WR 487:000-22

Dear Ms. Fekete:

On behalf of the applicant, 144 Liberty Corner Real Estate, LLC, I am herewith transmitting the following information for review and approval by the Somerset County Planning Board.

1. One (1) set of the Preliminary & Final Major Subdivision Plan prepared by Van Cleef Engineering Associates, LLC (Van Cleef), dated June 4, 2021, last revised January 11, 2023
2. One (1) copy of the Stormwater Management Report prepared by Van Cleef, dated June 4, 2021, last revised January 11, 2023.
3. One (1) copy of the Boundary and Topographic Survey prepared by Van Cleef, dated January 22, 2021, last revised September 29, 2021.
4. One (1) copy of the NJDEP Freshwater Wetlands Letter of Interpretation: Line Verification Approval dated January 13, 2015.
5. One (1) copy of the NJDEP Freshwater Wetlands Letter of Interpretation-Extension Approval dated January 3, 2020.
6. One (1) copy of the NJDEP Flood Hazard Area Verification Approval dated October 4, 2022.
7. One (1) copy of plans entitled HEC-RAS STATIONS, FHA & FLOODWAYS LINE Plan prepared by Van Cleef, dated June 2022, last revised September 30, 2022.

#### OFFICE LOCATIONS

[www.vancleefengineering.com](http://www.vancleefengineering.com)

Lebanon, NJ  
908-735-9500

Hamilton, NJ  
609-689-1100

Toms River, NJ  
732-573-0490

Freehold, NJ  
732-303-8700

Bethlehem, PA  
610-332-1772

Hillsborough, NJ  
908-359-8291

Mt. Arlington, NJ  
862-284-1100

Phillipsburg, NJ  
908-454-3080

Doylestown, PA  
214-345-1876

Leesport, PA  
610-670-6630

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8. One (1) copy of the Stormwater Management Measures Operation and Maintenance Manual, prepared by Van Cleef, dated December 22, 2022, revised January 11, 2023.
9. One (1) copy of the Warren Township Planning Board letter of submittal.

This submission includes revisions to the plans and reports prepared in response to the Somerset County review letters dated September 8, 2022 and September 28, 2022 as described below.

#### **Title Sheet and Plan Requirements**

1. The Somerset County Acceptance block has been added to the title sheet as requested, including the note specified.
2. The key map has been revised to a scale of 1" = 2000' and shows the tract to be developed and the surrounding area including major highways.
3. A signed and sealed copy of "Boundary and Topographic Survey of Block 11, Lots 6.01 and 6.02, Warren Township, Somerset County, new Jersey" prepared by Pamela Mathews, N.J.P.E. & L.S., dated January 22, 2021 is included with this submission.

#### **Access and Frontage Requirements**

1. The plans now include a detailed intersection grading plan on Sheet 14 as specified.
2. The plans now show curb returns of 25' radius at the intersection of Road "A" and CR 525.
3. A note has been added to the plans stating that Road "A" is to be a public road. A label has been added that states that the clear span of the existing culvert at Sta. 0+55 is 10'. The culvert was designed by Parsons Brinkerhoff – FG, Inc. in Oct. 1995 for the County. It is a precast box culvert and was referred to as such in their plans. There is earth fill over the culvert and pavement over the fill, which fits with the culvert designation whereas it would not for a bridge.

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4. The Road "A" Profile has been revised down to the maximum slope of 5%.
5. The Sheet 7 Road "A" Plan, Sheet 8 Road "A" Profile and the Sheet 14 Road "A" and CR 525 Intersection Plan have been made consistent with each other.
6. The plans have been revised to specify the limits of curb construction, guide rail removal and guide rail installation in the County R.O.W. The NJDOT Standard Construction Details for beam guide rail have been incorporated into the plans. The curb in the County R.O.W. is called out to conform to the County curb details.
7. The Somerset County details for Road Widening with Curb and 9" x 20" Concrete Curb have been added to the plans. Any conflicting details have been removed.
8. A vehicular circulation plan has been added to the plans based on an SU30 Single Unit Truck which shows the truck safely entering and exiting the site without hitting the curb or crossing into the opposing lane of traffic.
9. Sheet 6 has been revised by changing the label "Martinsville Road" to the correct "Westgate Road".
10. The plans have been revised to show the intersection striping and signage as specified.

No Comment necessary. We understand that there may be additional requirements subsequent to the submission of this response.

#### **Right-of-Way Requirements**

1. The plans have been revised to show the preferred labelling of the County road as CR 525.
2. The physical centerline of CR 525 has been added to the plans with associated dimensions.

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3. The reference to the Tax Map right-of-way width has been removed from the plans and Property Parcel Map Sheet 5 of 8 prepared by Parsons Brinkerhoff in Oct. 1995 as part of reconstruction of CR 525 was used to establish the right-of-way width. The right-of-way width is variable where this project fronts on CR 525 and is well in excess of the desired 33' half right-of-way width.

#### **Clear Sight Requirements**

1. The sight distance has been increased to the required length of 550 feet. A note has been added to the plans stating that all sight obstructions shall be cleared.
2. The plans show the right-of-way line on the two properties directly adjacent to the site. The lines of sight are entirely within the County right-of-way so there is no need for acquiring any sight easements.

We understand that there may be additional requirements subsequent to the submission of this response.

#### **Stormwater Management Requirements**

1. Culvert that the dead River tributary drains to has been labeled as "County Bridge #G1003" has on all plan sheets.
2. Additional soil pits were dug in December 2022 at the locations of basins 1 and 5 to verify minimum separation from seasonal high groundwater and permeability. Previous soil testing performed in April 2021 was done at the locations of basins 3 and 4. Two permeability tests (basin flood tests) were performed at the same time as the test pits. A soil log exhibit has been provided in the appendix of the stormwater report showing pit locations and information as requested. The soil test results are also included in the stormwater report appendix. The basin details have been updated to include seasonal high groundwater elevation along with the soil log used to determine seasonal high groundwater.

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3. Plans have been revised to provide outlet control structures to meet the hydraulic requirements of the stormwater management plan. Typical County outlet control structure utilized for basins 4 and 5. Smaller structures used as outlet control structures for basins 1 and 3 as these basins have lower peak flow rates. Outlet control structures and outfall pipes noted as requested, see cross section notes on sheets 10 and 11.
4. Notes added to plan as requested, see outlet structure details on sheets 10 and 11.
5. Pretreatment has been added to basins 4 and 5 in the form of a 50% MTD incorporated into the proposed storm sewer. NJDEP certification for the 50% MTD's has been added to the appendix of the stormwater report. Per Chapter 5 of the BMP manual "This pretreatment requirement does not apply to BMPs with a contributory drainage area of 1 acre or less except when pretreatment is a design requirement even without using exfiltration in the routing (such as a subsurface infiltration basin.)". Per chapter 9.7 pretreatment is not required for bio-retention systems without infiltration. Basins 1 and 3 have a less than one acre of contributory drainage area, therefore pretreatment is not required.
6. Ten-foot wide flat top of berm has been added to all proposed basins. Clay core provided within embankments, limit of clay cores delineated on plan. Detail for clay core added to plan see sheets 10 and 11.
7. Top of berm elevation provides a minimum of one foot of freeboard from the peak elevation over the spillway and a minimum of 1.5 feet of depth from the top of berm to spillway. Peak elevation over spillway found by routing the NJDEP Projected 100 year storm volume plus 50% over spillway. See stormwater report Appendix G and "Basin Water Surface Elevation Summary" for more detail.
8. Proposed basin layouts and grading revised accordingly to allow proper drainage of spillways.

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9. Proposed emergency spillways will be located in fill areas, stabilization provided as directed. Extent of gabions having a minimum thickness of 12 inches and “Stabilized Emergency Spillway detail added to plans, see sheets 10 and 11.
10. Drywells removed from plans.
11. Bio-retention basin cross section details including depth of bio-media layer and specification in accordance with the NJDEP BMP manual for small-scale bioretention systems see plan sheets 10 and 11.
12. Stormwater Management Measures Operation and Maintenance Manual is provided with this submission.
13. Stormwater Detention Facilities Maintenance Agreement to be provided.
14. NJDEP FHA LOI Extension, prior LOI Approval, NJDEP approved FHA Verification and plan are provided with this this submission. All future NJDEP review reports, permits and approvals associated with the stormwater management plan will be provided.

### **Stormwater Management Report Requirements**

1. As a result of a field visit it was concluded that the double “B” inlet at the intersection of Mountainview Road and Mountainview Road drains away from County Bridge #G1003. The stormwater management analysis revised to add a second point of analysis at the double “B” inlet. Stormwater runoff quantity, quality, and recharge standards have been meet for both points of analysis.
2. Drainage areas shown on the pre-development and post-development drainage area maps revised for consistency with hydrograph calculations. All proposed drainage areas include C values.

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3. Hydrograph reports generated for this analysis were calculated using PondPack Connect Edition Update 2, by Bentley Systems, Incorporated. The stormwater report “References” section updated accordingly. A hydrograph diagram and summary of the analysis is provided in Appendix “A” of the stormwater report.
4. No sand filter basins with underdrains are proposed, this statement has been removed from the Stormwater management report.
5.
  - a. Exfiltration rate of 0.5 in/hr was utilized in the routing. This exfiltration rate was converted to a constant exfiltration of cubic feet per second by converting in/hr to ft/min and multiplying by basin bottom area.
  - b. Analysis revised to reflect basin 1 discharging into basin 5, see diagram in stormwater report Appendix A.
  - c. Drainage area to CB#1 and CB#2 included in stormwater analysis.
  - d. Bypass area includes sections of impervious areas (part of the access road and half of the dwelling adjacent to basin 5) that will not be directed to the basins. All other impervious areas will be direct to basins either via overland flow or roof drains.
6.
  - a. Water quality hydrograph summary included in Appendix F of the stormwater report, all small-scale bioretention basins have been designed in accordance with the BMP manual and approved for 80% TSS removal. Outlet control structures have been designed to infiltrate water quality storm volumes.
  - b. Water Quality section of the stormwater report updated with calculations for “Required TSS Removal rate by Acreage-Removal Rate over Total Acres”. The area of proposed untreated motor vehicle surface is less than the existing untreated motor vehicle surface. As such, the required TSS removal rate for the proposed motor vehicle surfaces has been satisfied.

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7.
  - a. Recharge for Point of Analysis 1 was achieved by maintaining 100 percent of the average annual pre-construction groundwater recharge volume. Recharge for Point of Analysis 2 was achieved by demonstrating through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post construction for the two-year storm is infiltrated. See Stormwater report Groundwater Recharge section and Appendix J for more information.
  - b. Drywells removed from the plans. Recharge will be achieved via the small-scale bioretention basins.
  - c. Groundwater mounding analysis has been provided for each small-scale bioretention basin. See Stormwater report appendix J for mounding analyses.

**Recycling Requirement**

Will comply.

**Performance Guarantee and Inspection Fee**

Will comply.

**Preconstruction Requirements**

Will comply.

**Filed Map Requirements**

Will Comply.

**Responses to Supplemental Review Letter of 9-28-22**



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**Traffic Requirements**

1. To be addressed by others.
2. A gap is now shown as proposed in the striped median to allow for left turns in and out of Road "A" from and to Liberty Corner Road (CR 525).

Please contact me should you have any questions regarding this matter.

Sincerely,

*Michael K. Ford*

Michael K. Ford, P.E.  
Principal/Branch Manager

MKF/PC/kp  
Enclosures

cc: Haji Memon, 144 Liberty Corner Real Estate, LLC (w/encl)  
Jeffrey R. Chang, Attorney (w/encl)  
Warren Township Planning Board (w/encl)