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May 5, 2021

Planning Board  
Township of Bordentown  
1 Municipal Drive  
Bordentown, NJ 08505-2193

Attention: Michael P. Theokas, Acting Director  
Office of Community Development

Re: **Preliminary and Final Major Site Plan - Review # 2**  
**Dunns Mill Road Industrial Facility (First Industrial)**  
**Block 126, Lots 1.01, 1.02, 2 & 14.01**  
**Dunns Mill Road**  
**Application #PB-2020-09**  
**Our File #TC - 0304P076**

Dear Board Members:

We have reviewed a Preliminary and Final Major Site Plan, received December 23, 2020, with recent revisions received on May 4, 2021, consisting of the following:

Sheet	Title	Date	Revised
-----	Stormwater Management Report	12-07-20	03-24-21
-----	Stormwater Management Measures Operation & Maintenance Manual	12-21-20	03-24-21
-----	Traffic Impact Statement	12-18-20	-----
-----	Environmental Impact Statement	01-27-21	03-24-21
-----	Community Impact Statement	01-28-21	-----
C-000	Cover Sheet	12-07-20	03-24-21
C-050	Existing Conditions and Demolition Plans	12-07-20	03-24-21
C-100	Site Plan	03-03-21	04-28-21
C-110	Pavement Plan	12-07-20	03-24-21
C-120	Truck Turn Plan	12-07-20	03-24-21
C-121	Truck Turn 2	12-07-20	03-24-21
C-150	Site Details 1	12-07-20	03-24-21
C-151	Site Details 2	12-07-20	03-24-21
C-200	Grading Plan	12-07-20	03-24-21
C-300	Drainage Plan	12-07-20	03-24-21
C-310	Drainage Profiles 1	12-07-20	03-24-21

*Engineering, Planning and Municipal Services*

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Sheet	Title	Date	Revised
C-320	Drainage Profiles 2	12-07-20	03-24-21
C-330	Drainage Profiles 3	12-07-20	03-24-21
C-350	Drainage Details 1	12-07-20	03-24-21
C-351	Drainage Details 2	12-07-20	03-24-21
C-352	Drainage Details 3	12-07-20	03-24-21
C-400	Utility Plan	12-07-20	03-24-21
C-450	Utility Details 1	12-07-20	03-24-21
C-451	Utility Details 2	12-07-20	03-24-21
C-452	Utility Details 3	12-07-20	03-24-21
C-500	Erosion & Sediment Control Plan – Stage 1	12-07-20	03-24-21
C-510	Erosion & Sediment Control Plan – Stage 2	12-07-20	03-24-21
C-550	Erosion & Sediment Control Notes	12-07-20	03-24-21
C-551	Erosion & Sediment Control Details	12-07-20	03-24-21
L-100	Landscape Plan	04-15-21	04-28-21
L-110	Basin Enlargement Plan	12-07-20	03-24-21
L-120	Landscape Notes and Details	12-07-20	03-24-21
L-200	Lighting Plan	12-07-20	03-24-21
L-201	Lighting Details	12-07-20	03-24-21
D-100	Pre-Development Drainage Area Map	12-02-20	-----
D-200	Post-Development Drainage Area Map	12-02-20	-----
D-300	Post-Development Inlet Map	12-02-20	-----
1 to 5	ALTA/NSPS Land Title Survey	11-25-20	-----
1 of 1	Minor Subdivision Plan	01-11-21	03-29-21
1 to 4	Architecturals	12-03-20	-----
1 of 1	Landscape Illustrative Plan	04-2021	-----
1 of 3	Renderings	04-2021	-----

The plans, Stormwater Management Report, Environmental Impact Statement and Community Impact Statement were prepared by A.A. Caponigro, P.E., Kimley Horn, Two Liberty Place, 50 South 16<sup>th</sup> Street, Suite 3010, Philadelphia, PA 19102, (267) 687-0150.

The Traffic Impact Study was prepared by Adam Gibson, P.E., Kimley Horn, Two Liberty Place, 50 South 16<sup>th</sup> Street, Suite 3010, Philadelphia, PA 19102, (267) 687-0150.

The Survey Plan and Minor Subdivision Plan were prepared by Donald P. Sweeney, PLS, Control Point Associates, Inc., 305 Fellowship Road, Suite 210, Mt. Laurel, NJ 08054, (609) 857-2099.

The architectural plans were prepared by Joseph V. Belluccia, AIA, 2401 N. Howard Avenue, Tampa, FL, 33607, (813) 258-3233.

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**I. GENERAL INFORMATION**

<b>Applicant/Owner:</b>	Dunns Mill, LLC 789 Farnsworth Avenue Bordentown, NJ 085050	The Jang Family Trust 32709 Seagate Drive Suite 106 Rancho Palos Verde, CA 90275
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**Proposal:** The applicant is proposing to develop a +/- 20-acre parcel located at the intersection of Dunns Mill Road, Rising Sun Road and U.S. Route 130 in Bordentown, NJ. The site is currently undeveloped wooded area. The project involves construction of a 208,000 SF industrial facility with a 48-bay loading truck dock, associated parking, loading and stormwater management facilities. In addition to the development of the proposed warehouse, a minor subdivision is being proposed along with land being set aside for the construction of a “connector” road to be dedicated to and to be constructed by the Township of Bordentown on approximately 5 acres.

**Zoning:** General Commercial (GC-1) Zone

**II. SUBMISSION INFORMATION**

As required under Section 25:804 of the Revised General Ordinances of the Township of Bordentown, the project was reviewed for completeness and determined to be complete at the Bordentown Township Planning Board Meeting of January 28, 2021.

**III. ZONING REQUIREMENTS**

**Use:** The applicant's proposed use is in conformance with the permitted principal uses of the GC-1 – General Commercial Zone.

Requirements	General Commercial I District (GC-1)	Proposed (overall property)	Proposed (Excluding Township Dedication Area)
<b>Yard Setbacks</b>			
Minimum Front Yard	75 ft.	Dunns Mill: 83.2' (C) Rising Sun: 75.0' (C)	Dunns Mill: 83.2' (C) Rising Sun: 75.0' (C)
Minimum Side Yard	25 ft. each	195.8' (C)	97.8' (C)
Minimum Rear Yard	50 ft.	N/A	N/A
Minimum Street Parking Yard	50 ft.	119.8' (C)	39.4' (NC)

Requirements	General Commercial I District (GC-1)	Proposed (overall property)	Proposed (Excluding Township Dedication Area)
<b>Lot Dimensions</b>			
Minimum Lot Area	1 acre	20.27 ac (C)	15.95 ac (C)
Minimum Lot Frontage	150 ft.	537' (C)	410' (C)
Minimum Lot Width	150 ft.	537.7' (C)	448.4' (C)
Minimum Lot Depth	150 ft.	971.3' (C)	971.3' (C)
<b>MISCELLANEOUS</b>			
Maximum Building Coverage	30%	23.6% (C)	30.0% (C)
Maximum Impervious Surface Ratio	75%	55.6% (C)	62.9% (C)
Building Height	50 ft.	44.5 ft (C)	44.5 ft (C)

C - Compliant  
NC - Non-compliant

**IV. PERFORMANCE STANDARDS**

**Variations and Waivers**

- In accordance with 25:409.E.2, at least the first 50 feet adjacent to any street line and 15 feet adjacent to any lot line shall not be used for parking and shall be planted and maintained in lawn area or ground cover and landscaped with evergreen shrubbery. A fifty-foot (50') parking lot setback is required from a public right-of-way. The applicant proposes areas having 43.7 feet to 50 feet at various locations along the proposed "Connector Road". A variance is required.
- In accordance with 25:409.E.3, no merchandise, products, unenclosed waste, equipment or similar material or objects shall be displayed or stored outside. A note should be added to the plans and specify that if a dumpster is provided on-site, a trash enclosure will be required to be provided. A detail should be reflected on the plans at this time.
- In accordance with 25:503.E.8, all detention or retention basins must be enclosed by a 4-foot high chain-link fence with a self-latching gate. The required fence must be a non-climbable fence and comply with mesh size standards provided within the building code. Landscaping may be required around the fence as determined by the Planning Board. Plans should be revised and details be provided.

4. In accordance with Ordinance 25:504, lighting standards are established. The proposed site lighting intensity far exceeds the lighting permitted by Ordinance. The Township's average illumination design criteria is labeled on the lighting plan and identifies the Ordinance requirements. However, the design does not conform. The proposed average illumination should be revised on the lighting plan.
5. In accordance with 25:506.D, sites that street trees are required on both sides of all streets. We request that a landscape easement be provided along the proposed Connector Road to allow for the future plantings of the street trees by the Township, if and where deemed necessary. Street trees should be shown along the connector road and labelled as "by others".
6. In accordance with 25:508.A.3.a: areas likely to experience heavy traffic shall be paved with not less than 4 inches of compacted base course and a minimum of 2 inch wearing course in accordance with the NJDOT specifications for road and bridge construction. The heavy-duty asphalt pavement section should be revised accordingly. Plans should be revised.
7. In accordance with 25:508.A.3.b: areas likely to experience light traffic shall be paved with not less than 3 inches of compacted base course and a minimum of 2 inch wearing course in accordance with the NJDOT specifications for road and bridge construction. The standard duty asphalt pavement section should be revised accordingly. Plans should be revised.
8. Ordinance 25:508.A.4 requires parking areas to be lined with "hair-pin" striping, whereas linear striping is proposed for the passenger parking areas. A waiver is required.
9. Ordinance 25:508.A.5.a requires passenger vehicle parking stalls to have the dimensions of 10-foot by 20-foot, whereas 10-foot by 18-foot parking stalls are proposed. A waiver is required for stall length.
10. In accordance with 25:508.H.1 sites that a screen planting, berm, fence wall or combination thereof, no less than 4 feet in height shall be provided between the off-street parking areas and any lot line or street line. A waiver is required.
11. In accordance with 25:508.H.2 sites that all loading areas shall be landscaped and screened sufficiently to obscure the view of parked vehicles and loading platforms from any public street throughout the year. Plans have been revised.
12. In accordance with 25:508.H.4 sites that one shade tree shall be provided for every 3 parking spaces. A calculation should be provided on the plans. A waiver may be required.

**General Comments**

13. The Township Ordinance requires parking of 42 spaces for the proposed warehouse and office space whereas, the applicant is proposing 118 spaces with 8 "banked" spaces, totaling 126 spaces.

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as part of the construction of the new warehouse. Testimony should be provided regarding the excessive parking for the proposed warehouse.

In addition, the southern-most parking stalls located near Rising Sun Road require the construction retaining wall. This elevated parking could potentially direct headlights toward the house on Lot 14.02 and onto the roadway. Our office recommends that the proposed eight (8) "banked" spaces be removed to allow for additional landscape buffering.

14. The applicant has revised the plans to address vehicle turn-around at the dead-end driveway of the proposed passenger vehicle parking lot.
15. The minor subdivision plan and site plan submitted should reflect the appropriate lot and block numbers. The applicant shall coordinate with the Township's Tax Assessor.

The file plan should reflect the proper endorsement block for the municipal engineer as prescribed in Title 46/Chapter 26A of the map filing law. In addition, the zoning chart provided should be corrected with regard to impervious coverage. Plan should be revised.

The existing easements for prior access should be noted to be removed from the file plan.

Proposed "Lot 2" will be utilized for public open space and drainage. We recommend that all references to the side yard, parking and street parking setback lines be removed from the final plan and site plans for this lot.

16. As proposed, the right-of-way line at the northwestern corner of the site reflects an encroachment on Lot 3, off-site. Plans should be revised and appropriate Right of Way accounted for. Our office had spoken with the applicant's engineer and a revised geometry was proposed that does not conform with NJDOT standards. It appears additional right-of-way will be required to properly align the eastern portion of Dunns Mill Road.
17. It appears additional right-of-way is required to allow for a future sidewalk along Dunns Mill Road from Route 130 to the proposed round-about. The applicant's engineer should revise the plans to reflect the sidewalk, to be constructed by others. All public sidewalk should be reflected to be 5 feet in width.
18. The existing house on Lot 16 should be identified on the plans. In addition, a more sufficient buffer be provided for this residential use.
19. The applicant is proposing guiderail at several locations on the site including an area adjacent to Lot 16 and within the front yard of the future Connector Road, across from Lot 14.02, both residential uses. We recommend that the applicant consider the use of weathering steel (COR-TEN) guiderail.

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20. The applicant has provided an off-set roadway within the proposed right-of-way dedication to eliminate the need for a "D" Variance of this project for building coverage or FAR. The off-set also allows for a sidewalk to be constructed along the southern side of the Connector Road. This, in addition to the modifications proposed at the round-about will be subject to NJDOT review and approval as part of the Township's grant funding. Our office recommends that any approval granted for this project be subject to potential right-of-way modifications if deemed necessary for NJDOT approval of the Connector Road. This condition may create variances beyond those identified in our reviews.
21. All existing stormsewer pipes and structures should be shown on the landscape and lighting plans. Conflicts appear to exist between the landscape material placement. Plans should be revised.
22. A stormwater Operation and Maintenance Manual has been submitted for compliance with the NJDEP Best Management Practices. Testimony should be provided that annual stormwater reports will be submitted to the Township's Stormwater Management Coordinator. A note should be added to the plans.
23. The applicant should identify if any topsoil will be removed from the site as a result of the construction. We recommend that topsoil remain on-site wherever possible and be utilized for raised landscape berms. If topsoil is being removed, that applicant should comply with the Township's soil removal permit. A note should be added to the plans.
24. Testimony should be provided for waste and recycling management at the site. If outside storage is proposed, enclosures should be provided in accordance with the Township Ordinance. Our office has found that waste dumpsters regularly find their way onto warehouse sites after tenant fit-out. A note should be added that enclosures will be required should dumpsters be located on site. A detail should be provided at this time.
25. The applicant should provide testimony regarding compliance with the Township's Affordable Housing contribution requirements as a result of this project.
26. The applicant should conform to the comments from the Township Fire Official's letter dated February 22, 2021. Copies of approval letters should be forwarded to our office.
27. The applicant should address any and all comments provided from the Bordentown Township Environmental Commission. Testimony should be provided.
28. The applicant should provide testimony that the subdivision will be filed by plan. In addition, the Minor Subdivision Plan should provide the proper endorsement statement for the municipal engineer in accordance with Title 46/Chapter 26A. The zoning chart should also be corrected with regard to impervious coverage. Plan should be revised.

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**Lighting**

29. Testimony should be provided on the anticipated hours of operation. Should night-time operation not be required for all or a portion of the site, reduced light levels and timers, should be designed into the electrical layout at this time. A note should be added to the lighting plan.
30. Light shields should be utilized for the pole mounted light fixture along the outside perimeter of the site. Special attention should be given to areas facing residential homes. The plans should be revised and a note added.
31. We question the need for the wall mounted lighting on the eastern end of the building and recommend these be removed to eliminate "wall washing".
32. The light legend should note where light shields are being provided. In addition, the lighting legend notes indicate to "coordinate placement of all wallpack with building architect and owner prior to installation". We recommend that all site lighting, including architectural lighting, be identified on the site plans.

**Details**

33. The Cover Sheet signature blocks should be revised to reflect the "Planning Board".
34. Eco-style curb piece should be reflected on the Type "B" Inlet detail.
35. A fence/guiderail/retaining wall cross-section should be provided.
36. Where guiderail is proposed atop or adjacent to a retaining wall, structural calculations should be provided.
37. The curb/sidewalk detail should be revised to reflect a method to prevent differential settlement. Our office recommends the applicant follow NJDOT details for curb ramp interface with a cradle to support the ramp.
38. A grading plan detail should be provided for all ADA parking areas to ensure compliance.
39. The chain link fence detail should reflect a black vinyl coated system. All components are to be black.
40. Stormwater outlet end sections should utilized concrete headwalls in lieu of flared end sections.



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If this project is approved, it should be subject to the final approval of the Connector Road design by NJDOT. Potential variances may result from comments from NJDOT for the Connector Road may require the applicant to return to the Planning Board. These may include "C" and "D" Variances.

**V. Summary of Waivers/Variances**

25:409.E.2	(Variance) – Parking Lot Setback
25:409.E.3	(Variance) – Outdoor Display or Storage
25:503.E.8	(Waiver) – Fencing at Stormwater Basin
25:504	(Waiver) – Site Lighting Intensity
25:506.D	(Waiver) – Street Trees
25:508.A.3.a	(Waiver) – Heavy Duty Paving
25:508.A.3.b	(Waiver) – Light Duty Paving
25:508.A.4	(Waiver) – Parking Stall Hairpin Striping
25:508.A.5.a	(Waiver) – Parking Stall Dimensions
25:508.H.1	(Waiver) – Off-street Parking Screening
25:508.H.2	(Waiver) – Loading Area Screening
25:508.H.4	(Waiver) – Parking Lot Shade Trees
Signage	We defer to the Planning Board Planner

**VI. APPROVAL PROCESS**

If the Planning Board should grant approval to this project, the following is applicable:

1. The applicant's professional should make appropriate revisions to the plan pursuant to the Planning Board action.
2. Ten (10) copies of the final site plans should be submitted to our office for review, approval and signature. In addition, architectural plan elevations and floor plans as presented at the Board will be required to be attached to the site plan sets to create a record document.
3. The applicant is notified that an inspection escrow and performance bond may be required for this application and an estimate for all on/off site improvements (excluding structures) must be reviewed and approved by the Planning Board Engineer. The inspection escrow must be posted prior to the issuance of any building permits.
4. The applicant should contact the Planning Board office to settle any outstanding review escrow accounts prior to the issuance of building permits.
5. The applicant should post an escrow with the Township for tax map revisions as deemed necessary as a result of this development in conformance with the Township Ordinances.

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6. The applicant's engineer is advised that all plan revisions must be noted on the plan as such, and a revision date must be put on the plan each time it is revised. Approval of plans by this office will only be for the original plan and noted revisions. The approval will not extend to cover unnoted revisions.

#### **VII. OUTSIDE AGENCY APPROVALS**

This plan may be subject to the review and approval of the following outside agencies, if not already received. Evidence of these approvals must be submitted to the Township and this office prior to the final signature of plans:

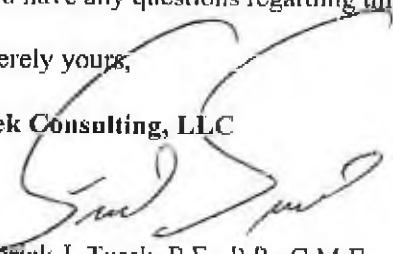
1. Burlington County Planning Board
2. Burlington County Soil Conservation District
3. Bordentown Township Fire Official
4. Bordentown Township Police Department
5. Bordentown Sewerage Authority
6. Bordentown City Water Company
7. NJDOT – Rising Sun Road
8. NJDEP
9. Any others as may be necessary

When plans are resubmitted, they are to be accompanied with a point-by-point response to all underlined items.

If you have any questions regarding this matter, please do not hesitate to call.

Sincerely yours,

**Turek Consulting, LLC**



Frederick J. Turek, P.E., P.P., C.M.E.  
President

Co: Marcie Maute, Community Development; Cynthia Dziura, RMC, PB Secretary; Jack Carman, P.P.; Jeffrey L'Amoreaux, P.E.; Brian Carlin, Esq.; Steven Scholey, Fire Official; Anthony Caponigro, P.E.; James Knopka, Sr., First Industrial; Jon Hanlon, First Industrial; John C. Gillespie, Esq.



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May 5, 2021

Office of Community Development  
Township of Bordentown  
1 Municipal Drive  
Bordentown, New Jersey 08505-9193  
Attn: Mike Theokas, Administrator  
Director of Community Development

Re: First Industrial Realty Trust  
Dunns Mill Road, Rising Sun Road and US RT 130 N  
Block 126, Lot 101, 102, 2 & 14.01  
Twp File – PB-2020-09  
Spiezle File – 20A010 – Phase 24  
Preliminary & Final Site Plan – Second Review

Dear Board Members:

This office received a revised Preliminary & Final Site Plan application from First Industrial Realty Trust, located at Dunns Mill Road, Rising Sun Road and US RT 130 N on March 25, 2121. Subsequent to the April 22, 2021 Planning Board meeting, the Site Plan and Landscape Plan were updated, as of 4-28-21, based upon comments from the Board members. A revised Minor Subdivision Plan has been submitted on March 29, 2021. The applicant is requesting the development of a 208,000 square foot warehouse building on a 20.27-acre parcel. The project includes a 4.32-acre parcel to be dedicated to the Township for the creation of a bypass connector road.

The Site Plans have been prepared by Anthony A. Caponigro, PE of Kimley-Horn Associates, Philadelphia, PA, dated 12-7-20 and revised to 3-24-21. The Site Plan and Landscape Plan have been revised as of 4-28-21. The Stormwater Management Report has been prepared by Anthony A. Caponigro, PE of Kimley-Horn Associates, Philadelphia, PA, dated 12-7-20 and revised to 3-24-21. The Stormwater Management Manual has been prepared by Anthony A. Caponigro, PE of Kimley-Horn Associates, Philadelphia, PA, dated 12-21-20 and revised to 3-24-21. The Pre-Development Drainage Area Map has been prepared by Anthony A. Caponigro, PE of Kimley-Horn Associates, Philadelphia, PA and dated 12-2-20. The Traffic Impact Statement has been prepared by Adam Gibson, PE of Kimley-Horn Associates, Philadelphia, PA and dated 12-18-20. The Land Title Survey has been prepared by Donald P. Sweeney, PLA of Control Point Associates, Inc., Mt. Laurel, NJ and dated 11-25-20. The Architectural Plan, prepared by Joseph V. Belluccia, AIA, Tampa, FL and dated 12-3-20, has not been signed by an Architect licensed in New Jersey. A Minor Subdivision Plan has been prepared by Donald P. Sweeney, PLA of Control Point Associates, Inc., Mt. Laurel, NJ, dated



1-11-21 and revised to 3-29-21. An Environmental Impact Statement has been prepared by Roux Associates, Inc., Somerset, NJ and dated 2-24-21.

## I. Completeness Review

The application has been reviewed for completeness, as per Ordinance Section 25:804. Information necessary to review the Preliminary and Final Site Plan application has been provided. The application has been deemed complete by the Planning Board.

## II. Zoning Review

### Principal permitted uses on the land and in buildings:

"Wholesale distribution centers and warehouses" shall be permitted in the General Commercial (GC-1) Zone (25:409.A.6).

### Area and Yard Requirements:

#### General Commercial (GC-1) Zone (25:409.D):

- a. Lot area - The minimum lot area is 1.0 acre. The total existing lot area is 20.27 acres. The proposed lot area for the warehouse is 15.95 acres. This area excludes the proposed 4.32 acres dedicated to the Township for the road and associated basin area. The plan conforms.
- b. Lot frontage – The minimum lot frontage is 150 feet. The plan conforms providing a 537.0 foot frontage.
- c. Lot width – The minimum lot width is 150 feet. The plan conforms providing 537.7 feet.
- d. Lot depth – The minimum lot depth is 150 feet. The plan conforms providing 971.3 feet.
- e. Front yard – The minimum front yard setback requirement is 75 feet. The proposed building frontage along Rising Sun Road is 75 feet and 83.2 feet along Dunns Mill Road. The proposed plan conforms.
- f. Side yard - The minimum side yard setback is 25 feet each side. The plan conforms providing 97.8 feet from the proposed Connector Road.
- g. Rear yard - The maximum rear yard setback is 50 feet. This is not applicable for this application.
- h. Impervious surface ratio – A maximum of 75 percent is required. The overall property is 55.6 percent before the road dedication and 62.6 percent after the road dedication. The plan conforms.
- i. Floor area ratio – A maximum floor area ratio (FAR) of 0.30 percent is required. The plan indicates a 23.6 percent for the overall site and 30.0 percent after the road dedication. The plan conforms.
- j. Building height – The maximum building height is 50 feet. The plan indicates that the proposed warehouse is 44.5 feet. The plan conforms.

- k. Parking – The minimum requirement is one (1) space per 5,000 square feet of gross floor area. A total of 42 parking spaces are required for the 208,000 sq. ft. building. The chart on the plan lists 126 parking spaces on Sheet C-100. The plan conforms.
- l. Loading Space – A 12 foot by 60-foot space is required when the loading dock is at right angles to the building (25:508.B.1). The plan conforms.

### III. Site Plan Review

#### General Requirements

1. The first 50 feet adjacent to any street line should not be used for parking and shall be planted and maintained with lawn and evergreen trees (25:409.E.2). The plan indicates a 43.7-foot setback from the proposed connector road. The plan has been revised to indicate eight (8) banked parking spaces. A variance may be required.
2. The parking lot setback areas shall be planted and maintained in lawn area and landscaped with evergreen shrubs (25:409.E.2). The plan conforms.
3. No merchandise, products, unenclosed waste, equipment or similar materials or objects shall be displayed or stored outside (25:409.E.3). The plan should be revised to indicate conformance.
4. All areas not utilized for buildings, parking, loading, access aisles and driveways or pedestrian walkways shall be suitably landscaped with shrubs, ground cover, seeding or plantings and maintained in good condition. Not less than 45 per cent of the total lot area within the GC Districts shall be landscaped, including any permanent water areas. The plan conforms w/ 46.8% for the total lot area and is reduced to 40.1% with the proposed warehouse parcel.
5. Off-street parking areas shall be oriented to and shall be a reasonable walking distance of the buildings (25:508.A.2. a). The plan conforms.
6. The applicant should provide testimony regarding conformance to the current Council on Affordable Housing (COAH) regulations (25:503.1.D).
7. As a condition of approval, the applicant should provide a cost estimate and performance guarantee to the Township Engineer for approval.

#### Design Standards

1. The required parking stall size is 10 feet by 20 feet (25:508.A.5.a). The plan indicates ten (10) foot wide by eighteen (18) foot long spaces. A design waiver is required.
2. Sidewalks around the building should be a minimum of five (5) feet wide. The plan conforms.
3. Two-way drive aisles should be a minimum of 25 feet in width (25:508.F.2). The plan indicates 30-foot-wide drive aisle. The plan conforms.
4. Where sidewalks occur in parking areas, parked vehicles shall not overhang or extend over the sidewalk unless an additional two (2) feet of sidewalk width are provided in order to accommodate the overhang. The plan conforms providing a seven (7) foot wide sidewalk.



5. The plan indicates five (5) handicap parking spaces. The plan conforms to the Barrier Free requirements of five (5) spaces between 101 and 150 spaces.
6. A fence is required for any walls over 30 inches in height. A fence needs to be indicated along the top of the retaining wall on the south corner of the front parking lot.
7. The applicant should indicate if employee break areas are to be provided. These areas should include picnic tables and chairs or similar furniture.

#### Landscape Plan

1. All trees shall have a minimum caliper classification of two and one-half inches (2.5") to three inches (3") and they shall be nursery grown, of substantially uniform size and shape and have straight trunks (25:506.D.3). The plan conforms.
2. All loading areas shall be landscaped and screened sufficiently to obscure the view of the parked vehicles and loading platforms from any public street throughout the year. The screening shall be by an extension of the building, a fence, a berm, wall, planting, or combination thereof and shall not be less than four (4) feet in height (25:508.H.2). The applicant has provided renderings of the areas along Rising Sun Road, RT 130 and Dunns Mill Road. The applicant shall provide information on the renderings, such as the time (years) after installation the plants; the elevation of the perspective (i.e. six feet above grade); the location of the renderings indicated on the site/landscape plan, etc.
3. Each off-street parking area shall have a minimum area of five (5) percent equivalent to landscaped shrubs no higher than three feet (25:508.H.3). The plan indicates 10.95 percent. The plan conforms.
4. The landscaped areas should be distributed throughout the parking area in order to break the view of parked cars (25:508.H.3). The plan conforms.
5. One shade tree measuring 2.5 inch to 3-inch caliper, should be provided for every three (3) parking spaces (25:508.H.4). A total of 126 spaces are indicated requiring 42 shade trees to be planted around the parking lot. The plan has been revised to indicate twenty-one (21) shade trees. A design waiver is required.
6. "Only nursery-grown plant materials shall be acceptable" (25:506.C.6). The plant tags from all plantings shall be submitted during installation. The plan indicates conformance.
7. "Dead or dying plants shall be replaced by the developer during the following planting season" (25:506.C.6). The plan indicates conformance.
8. In nonresidential developments, all areas of the site not occupied by buildings and required improvements shall be landscaped by the planting of grass or other groundcover, shrubs and trees as part of a site plan approved by the Planning Board (25.506.C.5). The plan shall be revised to indicate additional plantings in the following areas:
  - a. A mixture of evergreen and shade trees have been indicated to be planted between RT 130 and the tractor trailer parking lot of the proposed warehouse building. However, the additional plantings have not been identified and it is difficult to determine what are the plants selected and if they will provide a

- suitable buffer. Typically, evergreens should be spaced 12 to 15 feet apart and shade trees 20 to 24 feet apart.
- b. The proposed berm, between RT 130 and the truck parking area, has been revised to indicate a mixture of evergreen and deciduous trees. There appears to be room to plant additional evergreen trees.
  - c. The proposed berm has been revised to extend to the east, towards Dunns Mill Road, to provide additional screening.
  - d. The buffer area along the RT 130 jug handle has been increased. However, there is room for planting additional evergreen trees.
  - e. The berm along the Dunns Mill Road entrance should be more heavily planted. There is room for additional evergreen trees. The additional plantings in this area is important due to the narrow buffer planting space.
  - f. Additional evergreen trees have been indicated to be planted on the north east corner of the building to more adequately buffer the loading areas from Dunns Mill Road.
9. Buffering shall provide a year-round visual screen in order to minimize adverse impacts from a site on an adjacent property or from adjacent areas. It may consist of fencing, evergreens, berms, rocks, boulders, mounds or combinations to achieve the stated objectives (25.506.E.1). The plan has been revised to bank eight (8) parking spaces on the southern corner of the front parking lot. The plan indicates planting turf grass. Our office recommends planting evergreen trees and shrubs. Due to the sensitivity of this corner, our office recommends evaluating the buffer after installation to determine if additional evergreen trees may be required. We do not anticipate a large number of evergreen trees. However, it is important to ensure that any gaps are filled.
  10. The plan has been revised to reduce the large quantity of White Pine trees and balance the number of trees with additional species.
  11. The planting for the three (3) Bioretention Basins should be designed to meet the "NJ Stormwater Best Management Practices". The plant material selected should be based on the goal of simulating a terrestrial forested community of native species.
    - a. Additional trees have been selected from the list of native trees within the BMP Manual (Table7-5).
    - b. "Woody vegetation should not be specified in the vicinity of inflow locations. The stormwater structures should be shown on the Landscape Plan. The conflict of plants and the location of the inflow structures should be confirmed. Revised plans have not been submitted).
    - c. Soils should be tested to determine whether amendments are required. This requirement should be confirmed on the plans.
    - d. The basin maintenance agreement should include requirements that ensure vegetation cover in perpetuity. This should be indicated on the plans.
    - e. The Basin Plant Schedule has been indicated on the same sheet as the overall Plant Schedule.



12. The plan has been revised to indicate Maple trees in place of the Lilac trees along the west side of the building.
13. The plan has been revised to indicate a mixture of taller growing shade and evergreen trees along the east side of the building, facing Dunns Mill Road.
14. Shade trees shall be provided along the street spaced 35' to 50' on center (25:506.D.1). The plan provides shade trees along portions of RT 130.
15. The plan does not indicate irrigation. Our office recommends providing irrigation in the more visible areas, such as along RT 130, Rising Sun and Dunns Mill Roads.
16. In the event the "Existing Wooded Area to Remain" along the west side of the side (adjacent to the existing home) is not possible, due to construction of other factors, additional buffer plantings should be provided. The plan has been revised to indicate the need for additional plantings shall be determined for this area in coordination with the Township professionals.
17. The light poles, as well as underground utilities, should be indicated on the Landscape Plan. There appear to be conflicts between the position of light poles and shade trees. The location of shade trees and underground utilities should be confirmed, also.
18. The location(s) of any ground mounted generators should be provided and the method in which they are screened should be indicated.
19. The revised plans indicate additional plantings in various areas, however, not all of these plantings have been identified. As a result, it is difficult to identify the species of the proposed plantings. The plans should be revised to label all plantings.
20. Our office recommends enlarging the planting layout on the Landscape Plan to a more legible scale (i.e. - minimum thirty feet equals one-inch scale). It is difficult for a contractor and inspector to properly determine the spacing and overall layout at 60-foot scale. The plan may need to be enlarged to fit on two sheets. The Plant List shall be enlarged, also.

#### Lighting

1. The lighting plan in and around the parking areas shall provide for non-glare lights focused downward. The plan conforms.
2. The light level shall be .5 footcandles at intersections (25:504.B). The Lighting Plan indicates the required .5 footcandles at the site entrances.
3. Lighting shall be provided by fixtures with a mounting height not more than 25 feet. The plan conforms.
4. The plan indicates wall mounted light fixtures mounted twenty-five (25) feet high. The plan conforms.
5. Outdoor lighting, such as buildings, driveways, sidewalks, signs, etc., shall be shown on the lighting plan and their effects upon adjacent properties, traffic safety and overhead sky glow (25:504.C). The plan indicates the location of proposed lighting fixtures and the footcandle readings.
6. No light shall shine into windows or onto streets in a manner as to interfere with driver vision. The plan appears to conform.





7. The Area Classification for 'Parking Illumination' for Pedestrian Safety Footcandles is 0.9 footcandles for High Activity (25:504.B). The proposed light levels exceed the minimum proposed light level. The plan indicates an average of 2.83 footcandles. The IES Illumination Guidelines for vehicles is 1.0 footcandles; 0.06 for pedestrian safety and 2.0 for pedestrian security. The applicant should indicate why a higher footcandle average is proposed.
8. The plan should confirm that the proposed lights are 'dark sky friendly', consistent with LEED goals and light pollution reduction.
9. The detail for the light poles indicates a three (3) foot deep concrete sono tube. The height of the sono tube above the surface grade is six (6) inches in landscaped areas. The detail indicates a height of 36 inches in paved areas. The detail has been revised to indicate that all sono tube heights above 36 inches shall include an "Art Form" stenciled textured finish.
10. No direct floodlighting or spotlighting shall be permitted to shine directly or indirectly on an abutting property (25:601.A.7.g). The plan should indicate conformance.

#### Loading

1. Each principal use shall provide for off-street loading and unloading with adequate ingress and egress from streets and with adequate space for maneuvering and shall provide that area at the side or rear of the building (25:408.G.1). The plan indicates a total of 46 loading docks and parking for 45 tractor trailer parking spaces are located in the rear of the building. The plan conforms.
2. There should be no loading from the street (25:508.B.1). The plan conforms.
3. There should be at least one (1) trash and garbage pick-up location provided by each building which shall be separated from the parking spaces by either a location within the building or in a pick-up location outside the building which shall be steel-like, totally enclosed container location in a manner to be obscured from view from parking lot areas, street and adjacent residential uses or zoning districts by a fence, wall, planting or combination of all three (25:508.B.2.). The plan should indicate conformance.
4. The trash enclosure area should be sized to accommodate recyclables (25:509.l).

#### Signs

1. Each principal commercial building not part of a shopping center or each shopping center may have one (1) monument and one (1) facade sign (25:514.H.2.a). The applicant should be prepared to testify as to the proposed signs and their respective locations. plan indicates the location of the monument sign along RT 130 at the entrance to the site. The plan indicates the location of the facade sign on the west (RT 130/206) side of the building.
2. Monument signs shall be set back at least ten (10) feet from all street and property lines (25:514.H.2.d).
3. The base of the monument sign shall be constructed of materials that are consistent with the building. The detail indicates that the materials shall match the building.



4. The height of the proposed monument sign shall be a maximum of six (6) feet high for a posted speed of 30 - 40 miles per hour (25:514.E.4.a).
5. The maximum size of the monument sign shall not exceed 48 square feet for a posted speed of 30 to 40 miles per hour (25:514.E.4.a).
6. Monument signs shall be mounted so that the bottom of the sign is at least 18 inches above the ground level (25:514.E.4.a).
7. A facade sign is not to exceed fifteen (15) percent of the front façade of the building or 24 sq. ft., whichever is less (25:514.H.2.e).

#### Architecture

1. The Master Plan describes the creation of a Township identity. Corridor Standards for Routes 130 and 206 have been created to articulate that vision. The site in question is a prominent location at a highly trafficked section of the highway. The applicant should provide testimony how the building will conform to the Corridor Standards.
2. Architectural Plans, including renderings, of the warehouse building have been provided. However, the materials and specific colors of the building facades have not been identified. The plans should be revised accordingly.
3. This is a highly visible site and the building should be designed to reflect the visual impact from all four sides of the 45.5 feet high building.
  - a. The front of the building faces the connector road and the residential district. The manner in which the architectural treatments can be designed to help visually reduce the height of the building should be described. The use of darker colors along the lower portion of the building and lighter colors along the upper areas of the building should be discussed. The linearity of the building's façade is broken up by various façade elements.
  - b. The sides of the building facing Rising Sun and Dunns Mill Roads appear to be broken up by various faced treatments, similar to the front of the building.
  - c. The rear of the building faces RT 130 and is partially visible from the highway. The plans indicate a long linear façade. The manner in which the area above the loading doors can be designed to provide relief from the same façade treatment should be presented. Sections of the area should be provided, as mentioned previously, to illustrate to the Planning Board the areas of the building that are visible from RT 130.
4. The plans should be revised to indicate the location of the HVAC equipment. The equipment should be screened from view from all sides of the building.
5. The treatment of the roof surface should be provided. A white roof surface material can help to reduce peak rooftop temperatures an average of 44 degrees.

#### Environmental Impact Statement

1. An Environmental Impact Statement (EIS) has been prepared by Roux Associates, Inc. and dated 3-24-21. The EIS reviews the various positive and negative environmental



impacts that are a result of the proposed warehouse development. A review of the fourteen pertinent technical categories include the following:

- a. Ground Water Pollution – A survey of the site indicates that the four former underground storage tanks, as well as the septic system, identified "no anomalies". No contaminants from the previous use of pesticides were detected that were above the applicable NJDEP soil remediation standards.
  - b. The Drainage Plan incorporates ground water through an underground infiltration facility in the truck loading area on west side of the site. The existing soils on the east side of the site 'provide little to no infiltration on the east side of the site'. The applicant shall indicate if these conditions are applicable to the three (3) Bioretention Basins on the east side of the building.
  - c. Solid waste will be handled by a private waste management vendor. The manner in which recyclable materials will be collected and removed should be provided.
  - d. There are no threatened or endangered species identified on the site.
  - e. The three wetlands have been determined to be 'isolated wetlands' and are considered to be 'Intermediate Resource Value'. No significant impact will occur.
2. It is recommended that a greater percent of the proposed plantings should be native to the area, thus providing a source of food and habitat. Planting within the Bioretention Basins, as mentioned previously in this letter, will provide additional habitat
  3. LED lighting is proposed which reduces energy use.
  4. The possibility of including solar panels on the roof should be considered.

#### IV. Summary of Variances and Waivers

##### Variances:

Parking lot setback of 50 feet (25:409.E.2)

##### Waivers:

Ten by twenty-foot parking spaces (25:508.A.5.a)

Parking lot shade trees (25:508.H.4)

#### V. Outside Agency Approvals

1. City of Bordentown Water Company
2. Bordentown Sewer Authority
3. Bordentown Township Fire Marshall
4. Burlington County Planning Board
5. Burlington County Soil Conservation District
6. NJ Department of Transportation
7. Public Service Electric & Gas
8. Other agencies, as may be required.



Please contact our office should you have any questions and/or comments regarding this application.

Very truly yours,

A handwritten signature in black ink that reads "Jack Carman". The signature is written in a cursive style and is positioned above a horizontal line.

Jack Carman, PP, LLA  
NJ PP- #33L100527300  
NJ LLA - #21AS00065800

Cc: First Industrial Realty Trust; Anthony Caponigro, PE; Adam Gibson, PE; John Gillespie, Esq.; Brian Carlin, Esq., Fred Turek, PE, CME; Jeffrey A. L'Amoreaux, PE; (sent via electronic transmission)



SURINDER S. ARORA, P.E.  
President

ARORA and ASSOCIATES, P.C.  
Consulting Engineers

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May 5, 2021

Michael Theokas, Planning Board Secretary  
Township of Bordentown  
1 Municipal Drive  
Bordentown, New Jersey 08505

RE: First Industrial Acquisitions II, LLC, Block 126, Lots 1.01, 1.02  
Kimley-Horn Traffic Letter of April 28, 2021  
Proposed Connector Road Traffic Volume Statement  
Connector Road between Dunns Mill Road and Rising Sun Road  
Bordentown Township, Burlington County, New Jersey

Dear Mr. Theokas:

This office is in receipt of three documents related to the proposed Connector Road as described above. These documents are attached to this letter report, and are:

- An April 28, 2021 letter from Adam Gibson, P.E. of Kimley-Horn, traffic engineering consultant for the developer
- A previously submitted December 16, 2020 letter report from Mr. Gibson, describing the traffic impact of the proposed First Industrial project
- An excerpt from the Delaware Valley Regional Planning Commission (DVRPC) estimating the traffic volumes on the roundabout proposed for the north end of the Connector Road<sup>1</sup>.

The April 28, 2018 Kimley-Horn letter cites traffic volumes from the DVRPC report. With Connector Road construction as proposed between Dunns Mill and Rising Sun Roads, 1,218 and 1,478 trips are expected to use the north-end roundabout during the weekday morning and evening rush hour periods, respectively. We find this citation to be correct, and the underlying assumptions to be reasonable given the pronounced level of traffic activity in the area. These are not small nor insignificant volumes of traffic, as the construction of the Connector Road is intended to have measurable effects, relieving traffic elsewhere in the Township. We further believe that traffic volumes of these magnitudes can be expected on the Connector Road itself, not only the roundabout.

According to the Federal Highway Administration Publication *Roundabouts: An Informational Guide*, a single-lane roundabout (such as that proposed) has a capacity of 1,800 vehicles per hour at any point on the roundabout. As the highest projected volume, 1,478 vehicles per hour, will be distributed among the three (four, counting the low-volume NJDOT maintenance yard driveway) segments of the roundabout, we do not believe the roundabout's capacity will be reached. Tractor trailers using the roundabout will operate at much slower speeds than conventional automobiles, and therefore will use up capacity at a

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<sup>1</sup> For the purposes of this letter, the Connector Road refers to the to-be-constructed roadway near the western end of Rising Sun Road, rather than the newer road connecting US 206 and Rising Sun Road's eastern end.



greater rate. Nevertheless, we believe the amount of capacity will be sufficient, especially now that peak hour traffic volume projections in the DVRPC study were conducted pre-pandemic.<sup>2</sup>

Finally, it is important to distinguish between background traffic on the new Connector Road versus that proposed by First Industrial Acquisitions. According to the Institute of Transportation Engineers, a warehouse such as the one contemplated will generate 50 and 53 new trips in the weekday morning and evening peak rush hours, respectively. Some of these trips will be oriented to and from Dunns Mill Road, and the balance to and from Rising Sun Road. Even if all trips were oriented in one direction, the total volumes (1,268 and 1,531 vehicles per hour, respectively) the capacity of the roundabout still will not be reached. In a worst-case scenario, with all traffic from the First Industrial Acquisitions site concentrated in one direction on the Connector Road, traffic volumes would be between 3 and 4 percent from First Industrial.

It is our recommendation to the Planning Board that First Industrial's traffic be viewed as a very small percentage of overall traffic along the Connector Road, and that said road be constructed at the earliest opportunity due to the benefits identified by DVRPC. If you have any questions, please do not hesitate to contact me.

Very truly yours,

ARORA and ASSOCIATES, P.C.

A handwritten signature in black ink, appearing to read 'Jeffrey A. L'Amoreaux', with a long horizontal flourish extending to the right.

Jeffrey A. L'Amoreaux, P.E.  
Traffic Project Engineer

Cc: Brian Carlin, Esq.  
Frederick Turek, P.E.  
Jack Carman, P.P.  
Adam Gibson, P.E., Kimley-Horn

attachments

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<sup>2</sup> It is worth mentioning that since the onset of the pandemic, transportation officials have seen traffic volumes reduce to approximately 50 percent of daily volumes immediately after shutdowns were enacted. Daily traffic volumes have recovered to approximately 90 percent of their pre-pandemic levels, however, rush hour traffic volumes have not. Daily traffic has "flattened" over the course of a typical weekday, resulting in a more efficient use of the roadway system more devoid of congested traffic concentrations.

# Kimley»Horn

April 28, 2021

Mr. James Knopka  
Sr. Director of Construction  
First Industrial Realty Trust, Inc.  
17 E. Gay Street, Suite 302  
West Chester, PA 19380

**RE: *First Industrial Acquisitions II, LLC., Block 126, Lots 1.01, 1.02, 2, & 14.01  
Township of Bordentown, Burlington County  
Dunns Mill Road, Rising Sun Road & U.S 130  
Proposed Connector Road Traffic Volume Statement***

Kimley-Horn has prepared this Traffic Volume Statement for the intersection of Dunns Mill Road & Proposed Connector Road based upon comments received at the Bordentown Township Board Meeting and follow-up coordination with the Township's Traffic Engineer consultant. The Township requested that volumes near the roundabout of Dunns Mill Road & Proposed Connector Road be evaluated to determine the level of impact from the site generated trips of the proposed warehouse development.

## **Background Information**

The Delaware Valley Regional Planning Committee (DVRPC) previously conducted a traffic study in May 2014 to evaluate the impact on traffic of constructing a new connector road between Dunns Mill Road and Rising Sun Road. The study was conducted to improve traffic circulation, reduce delays, and implement better distribution of truck traffic within the study area.

## **Projected Site Generated Traffic**

The Traffic Impact Statement conducted by Kimley-Horn, dated December 18, 2020, utilized the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 10<sup>th</sup> Edition* to determine the site generated trips of the proposed warehouse development. Based upon the size of the development, it was calculated that 50 trips would be generated during the AM peak hour and 53 trips would be generated during the PM peak hour. Of those trips, the total number of truck trips generated are 4 trips and 6 trips during the AM and PM peak hours, respectively.

It was assumed that 75% of project trips would travel to/from the north and 25% of project trips would travel to/from the south. For a conservative analysis, the 75% of project trips generated to/from the North were assumed to travel through the roundabout of Dunns Mill Road & Proposed Connector Road.

## **Traffic Volume Review**

Based upon the data and information provided in the previous DVRPC traffic study, volumes along Dunns Mills Road and nearby intersections were collected to quantify the number of trips expected to traverse through the roundabout at Dunns Mill Road & Proposed Connector Road. The DVRPC traffic study estimated the number to be 1,218 trips during the AM peak hour and 1,478 trips during the PM peak hour. The trip generation for the proposed development is estimated to conservatively include 38 trips during the AM peak hour and 40 trips during the PM peak hour traversing through the roundabout, which equates to approximately 3% of the total traffic volumes during the AM and PM peak hours.

## **Conclusion**

It was determined that the proposed site generated trips are expected to have a negligible impact, approximately 3% of the total traffic volumes developed by the DVRPC, to the surrounding public roadway network and at the roundabout of Dunns Mill Road & Proposed Connector Road.

Please contact me at (646) 255-1121 or [adam.gibson@kimley-horn.com](mailto:adam.gibson@kimley-horn.com) should you have any questions.

Sincerely,



Adam Gibson, P.E.  
Traffic Engineer



# Kimley»Horn

December 18, 2020

Attn:

Mr. James Knopka  
Sr. Director of Construction  
First Industrial Realty Trust, Inc.  
17 E. Gay Street, Suite 302  
West Chester, PA 19380

**RE: *First Industrial Acquisitions II, LLC., Block 126, Lots 1.01, 1.02, 2, & 14.01  
Township of Bordentown, Burlington County  
Dunns Mill Road, Rising Sun Road & U.S 130  
Traffic Impact Statement***

This letter provides information in support of a Traffic Impact Statement for the proposed warehouse development project at Dunns Mill Road in the Township of Bordentown, Burlington County, New Jersey.

## **Applicant Name**

The Applicant for the proposed expansion is First Industrial Acquisitions II, LLC.

## **Lot Location**

The proposed warehouse development project is bounded on the north by Dunns Mill Road, on the south by Rising Sun Road, on the west by U.S. 130, and on the east by residential homes and the Scottish Rite in the Township of Bordentown, Burlington County, New Jersey. A map illustrating the location of the project site is provided as an attachment to this letter. The lot is currently located on Block 126, Lots 1.01, 1.02, 2 & 14.01.

## **Site Plan and Site Access**

The draft site plan for the proposed warehouse development is provided as an attachment to this letter. The proposed development is comprised of +/- 208,000 square feet of warehouse space on an existing +/-20-acre property. Four (4) site access points are proposed: one to Rising Sun Road, one to Dunns Mill Road, and two to the Connector Road. The Rising Sun Road access is proposed as an unsignalized intersection with STOP control on the site access approach. The site access to Dunns Mill Road is proposed as an unsignalized intersection with STOP control on the site access approach. The two site access points along the Connector Road are proposed as unsignalized intersections with STOP control on the site access approaches.

## **Trip Generation/Significance Test**

The NJDOT defines a "significant increase" in trips as an increase of 10% or more of daily trips and an increase of 100 or more peak-hour trips.

The traffic generation potential of the proposed development project was determined using the trip generation information published in *Trip Generation Manual* (Institute of Transportation Engineers', Tenth Edition, 2017) for Land Use Code (LUC) 150: Warehousing. Per ITE's *Trip Generation Manual*, the Peak-Hour of Adjacent Street Traffic was utilized for the trip generation calculations. Given the nature of the land use proposed, internal capture and pass-by trip reductions were not considered. To provide a conservative analysis, multi-modal reductions were not considered.

The estimated increase in gross trips for both the AM peak-hour and PM peak-hour are less than 100 trips.

Land Use	Intensity	Daily	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
LUC 150: Warehousing	208,000 SF	374	50	38	12	53	14	39
<b>Net, New External Trips</b>		<b>374</b>	<b>50</b>	<b>38</b>	<b>12</b>	<b>53</b>	<b>14</b>	<b>39</b>

### Trip Distribution

The project site trip distribution was developed based upon a gravity model, which correlated the population (using censusreporter.com for 2018 U.S. Census Data) of near-by municipalities (within approximately a 10-mile radius of the site) to the distance from the project site to the municipality. Travel routes were then determined to/from each of the surrounding municipalities. The table attached summarizes the estimated trip distribution for the proposed development. The proposed development project's trips were assigned to the surrounding network based on existing travel patterns, the existing roadway network, location and type of site access, and locations of similar land use and population densities in the area.

Based upon travel time estimates and the existing roadway network, it was assumed that 70% of site generated trips would enter and exit to/from the north and would utilize I-295, I-95, Route 130 and Route 206. 25% of trips generated would enter and exit the site to/from the south and west and would utilize I-295, I-95, Route 130, and Route 206. Lastly, 5% of trips would enter and exit to/from the east and would utilize I-195 and Route 68.

## Summary

Based upon the information provided above, and the increase in number of gross trips being less than 100 trips for both the AM and PM peak hours, with minimal impact to the surrounding roadway network, a detailed traffic impact study is not recommended for the proposed warehouse development.

Please contact me at (646) 255-1121 or [adam.gibson@kimley-horn.com](mailto:adam.gibson@kimley-horn.com) should you have any questions.

Sincerely,



Adam Gibson, P.E.  
Traffic Engineer

## Attachments:

- (1) Site Location Map
- (2) Proposed Conditions Site Plan
- (3) Trip Generation
- (4) Gravity Model

## Site Location Map



## SITE LOCATION

Dunns Mill Road, Rising Sun Road & Route 130  
Township of Bordentown, Burlington County, NJ

**Kimley»»Horn**

## Proposed Conditions Site Plan

NO.	REVISION	DATE
1	ISSUED FOR PERMITTING	08/11/10
2	ISSUED FOR PERMITTING	08/11/10
3	ISSUED FOR PERMITTING	08/11/10
4	ISSUED FOR PERMITTING	08/11/10
5	ISSUED FOR PERMITTING	08/11/10
6	ISSUED FOR PERMITTING	08/11/10
7	ISSUED FOR PERMITTING	08/11/10
8	ISSUED FOR PERMITTING	08/11/10
9	ISSUED FOR PERMITTING	08/11/10
10	ISSUED FOR PERMITTING	08/11/10

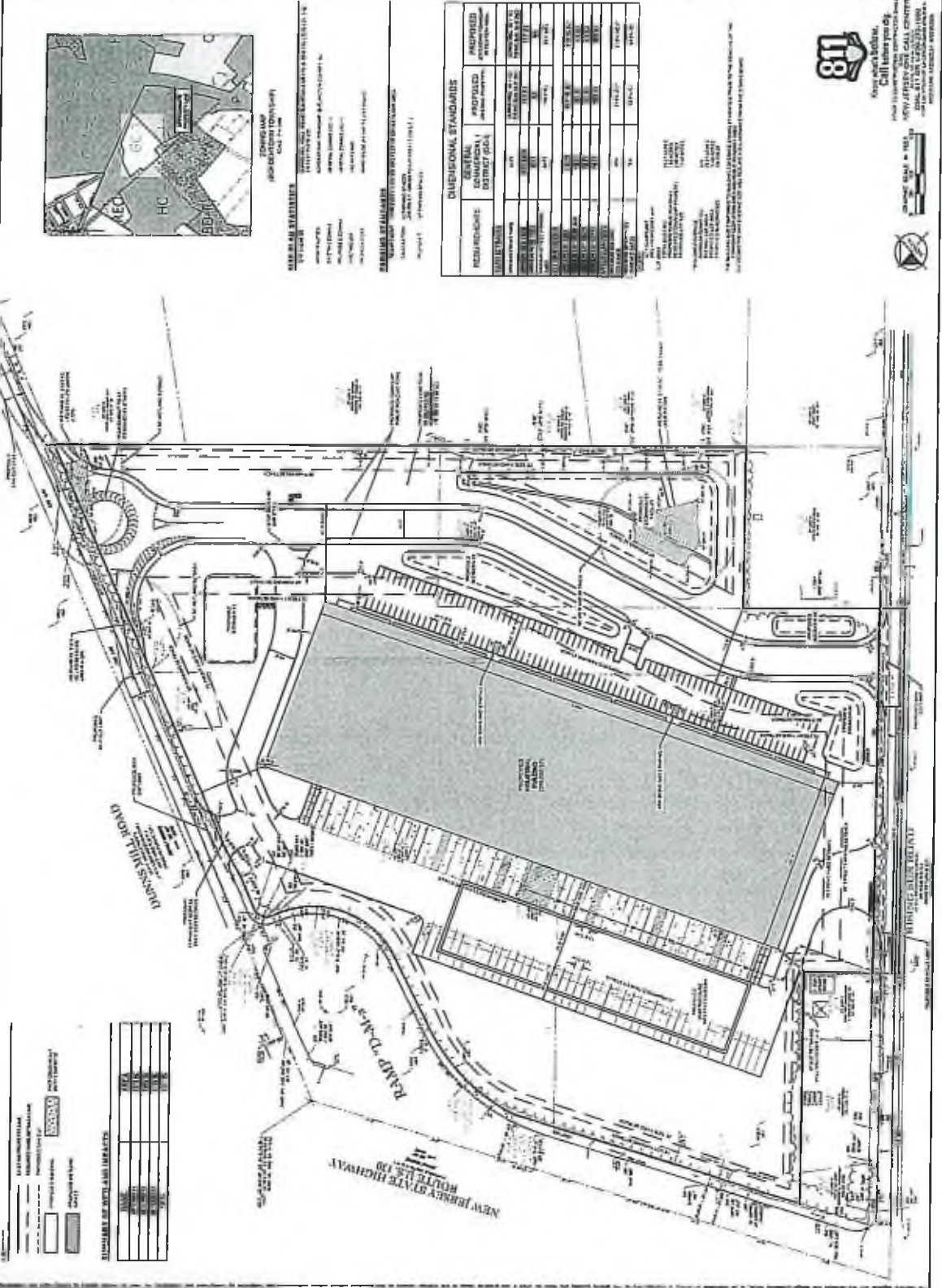
**Kimley-Horn**  
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**SITE PLAN**

**FIRST INDUSTRIAL REALTY TRUST**

C-100



**LEGEND**

- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING DRIVEWAY
- PROPOSED DRIVEWAY
- EXISTING DRIVEWAY
- PROPOSED DRIVEWAY
- EXISTING DRIVEWAY
- PROPOSED DRIVEWAY

**REQUIREMENTS OF NEVADA REGULATORY AGENCIES**

NO.	REVISION	DATE
1	ISSUED FOR PERMITTING	08/11/10
2	ISSUED FOR PERMITTING	08/11/10
3	ISSUED FOR PERMITTING	08/11/10
4	ISSUED FOR PERMITTING	08/11/10
5	ISSUED FOR PERMITTING	08/11/10
6	ISSUED FOR PERMITTING	08/11/10
7	ISSUED FOR PERMITTING	08/11/10
8	ISSUED FOR PERMITTING	08/11/10
9	ISSUED FOR PERMITTING	08/11/10
10	ISSUED FOR PERMITTING	08/11/10



**NOTES TO THE CONTRACTOR**

- ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
- CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF DENVER CONSTRUCTION STANDARDS.
- ALL UTILITIES SHALL BE DEPTH MARKED AND PROTECTED PRIOR TO CONSTRUCTION.
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION.
- ALL SITEWORK SHALL BE COMPLETED WITHIN THE SPECIFIED TIME FRAME.
- ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF DENVER.
- ALL UTILITIES SHALL BE DEPTH MARKED AND PROTECTED PRIOR TO CONSTRUCTION.
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION.
- ALL SITEWORK SHALL BE COMPLETED WITHIN THE SPECIFIED TIME FRAME.
- ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF DENVER.

**DIMENSIONAL STANDARDS**

REQUIREMENT	GENERAL DIMENSIONAL	PROPOSED DIMENSIONAL	PROPOSED PROVISIONS
MINIMUM SETBACK	10 FT	10 FT	10 FT
MINIMUM FRONT SETBACK	10 FT	10 FT	10 FT
MINIMUM SIDE SETBACK	10 FT	10 FT	10 FT
MINIMUM REAR SETBACK	10 FT	10 FT	10 FT
MINIMUM FRONT YARD SETBACK	10 FT	10 FT	10 FT
MINIMUM SIDE YARD SETBACK	10 FT	10 FT	10 FT
MINIMUM REAR YARD SETBACK	10 FT	10 FT	10 FT
MINIMUM FRONT SETBACK	10 FT	10 FT	10 FT
MINIMUM SIDE SETBACK	10 FT	10 FT	10 FT
MINIMUM REAR SETBACK	10 FT	10 FT	10 FT
MINIMUM FRONT SETBACK	10 FT	10 FT	10 FT
MINIMUM SIDE SETBACK	10 FT	10 FT	10 FT
MINIMUM REAR SETBACK	10 FT	10 FT	10 FT

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## Trip Generation



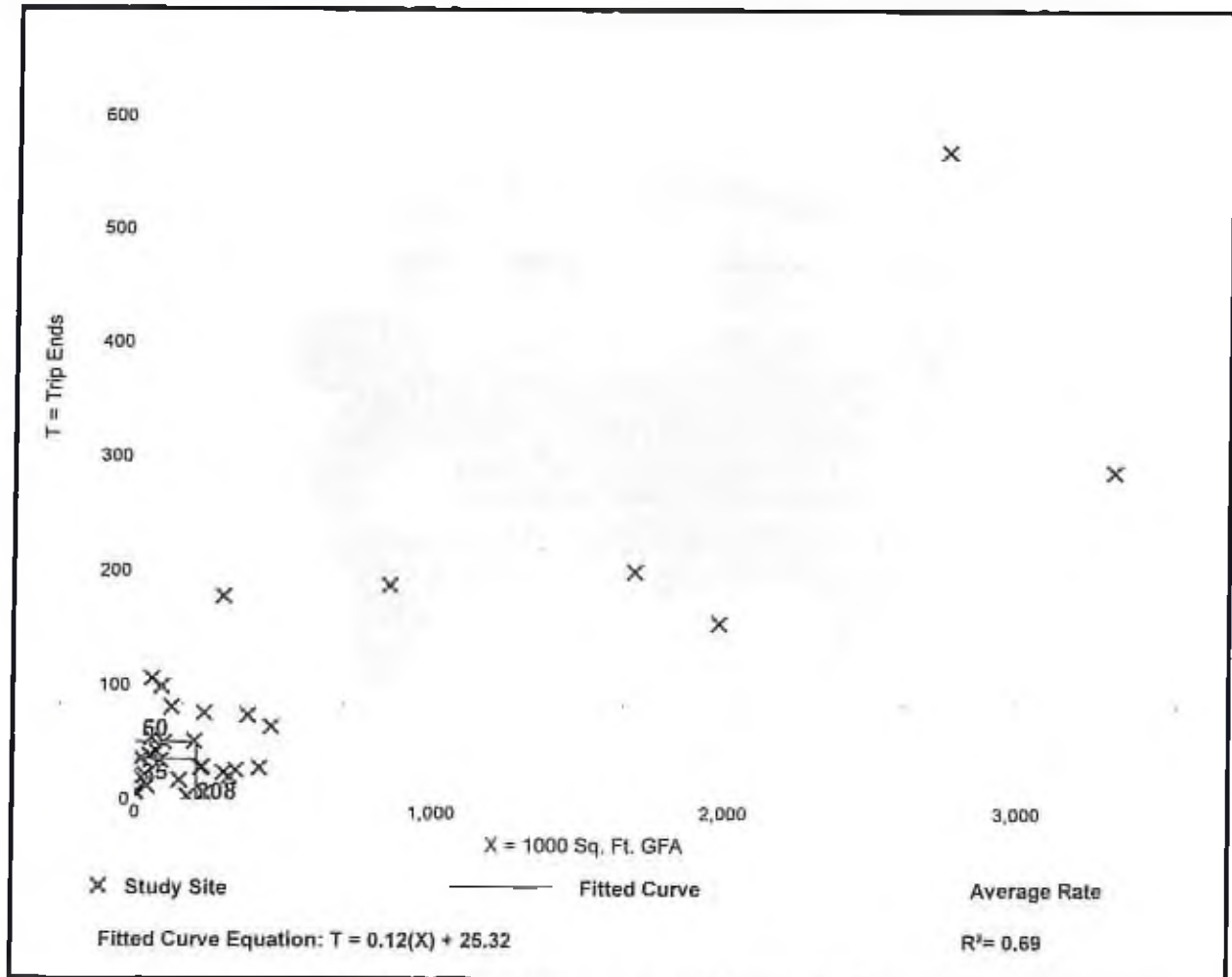
## Warehousing (150)

**Vehicle Trip Ends vs:** 1000 Sq. Ft. GFA  
**On a:** Weekday,  
 Peak Hour of Adjacent Street Traffic,  
 One Hour Between 7 and 9 a.m.  
**Setting/Location:** General Urban/Suburban  
 Number of Studies: 34  
 Avg. 1000 Sq. Ft. GFA: 451  
 Directional Distribution: 77% entering, 23% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.02 - 1.93	0.20

### Data Plot and Equation



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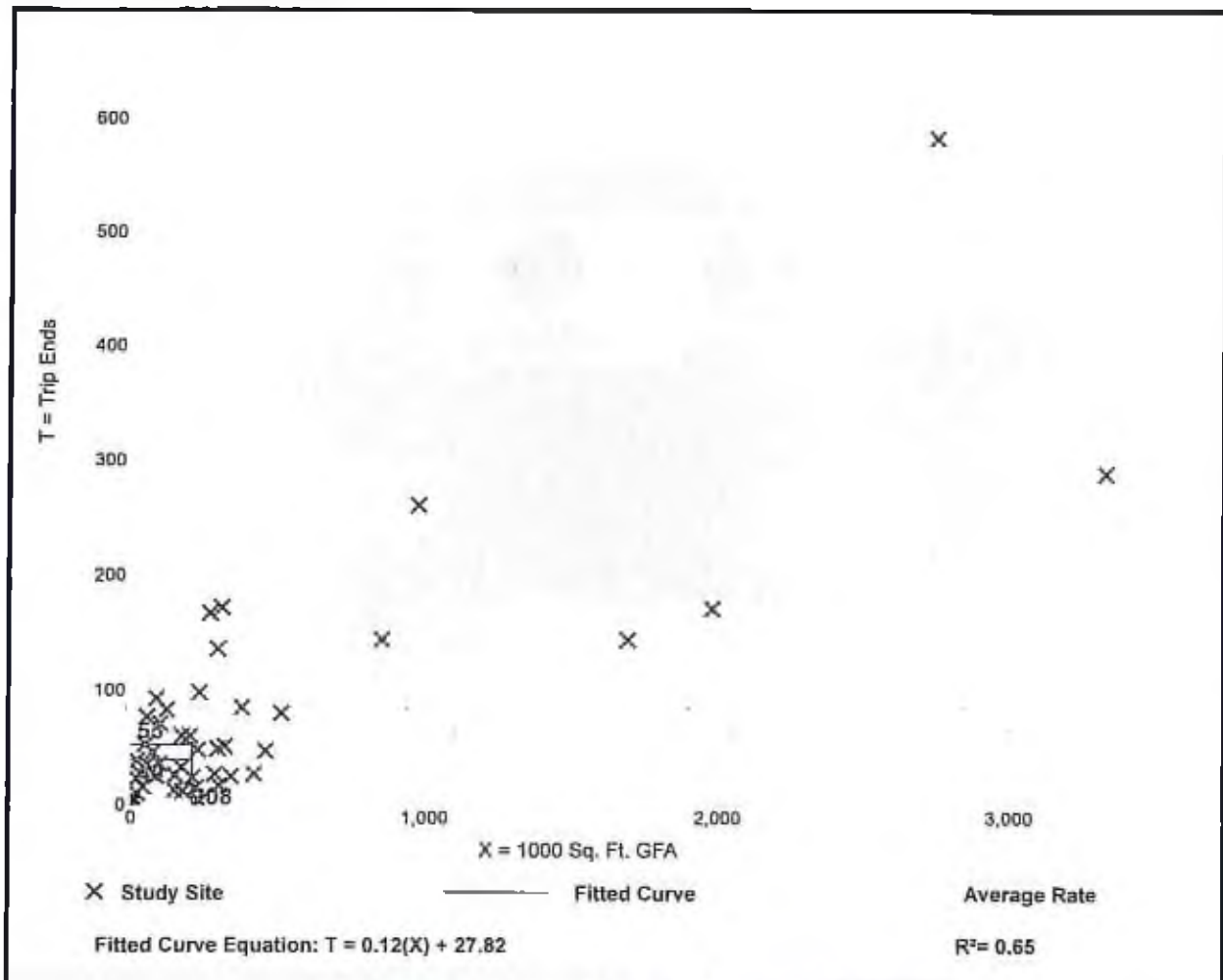
## Warehousing (150)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**  
**Setting/Location: General Urban/Suburban**  
**Number of Studies: 47**  
**Avg. 1000 Sq. Ft. GFA: 400**  
**Directional Distribution: 27% entering, 73% exiting**

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.19	0.01 - 1.80	0.18

### Data Plot and Equation



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## Gravity Model

County	Municipality	Population*	Distance** (miles)	F/D <sup>2</sup>	Percentage	Use	To/From North I-295/I-95/I-195/Rt 130	To/From South I-295/I-95/Rt 130/ Rt 206	To/From East Route 68
Burlington	Allentown Township	1,903	11	15.73	0.1%	0%	0%		
	Bordentown Township	11,917	2.9	1417.00	9.0%	9%	9%		
	Burlington Township	22,587	10.7	197.28	1.3%	1%		1%	
	Chesterfield Township	7,516	4.4	1166.68	7.4%	8%	8%		
	Eastampton Township	5,954	10.5	68.17	0.4%	1%		1%	
	Hamilton Township	87,557	7.7	100.42	0.6%	1%	1%		
	Mansfield Township	8,538	5	3502.28	22.2%	22%		22%	
	North Hanover Township	7,540	9.9	87.11	0.6%	1%			1%
	Burlington City	9,814	10.5	68.39	0.4%	0%	0%		
	Westampton Township	8,703	13.4	54.66	0.3%	0%	0%		
	Bordentown City	3,840	1.7	3011.42	19.1%	20%	20%		
	Fieldsboro Borough	906	1.1	3173.55	20.1%	20%	20%		
	Florence Township	12,589	6.8	19.59	0.1%	0%		0%	
	Springfield Township	3,288	7.7	212.33	1.3%	1%		1%	
Mercer	Tranton City	83,973	8.1	1248.85	7.9%	8%	8%		
	Ewing Township	36,057	12.4	234.80	1.5%	2%	2%		
Monmouth	Robbinston Township	2,935	8.3	42.60	0.3%	0%	0%		
	Upper Freehold Township	6,506	15.2	29.89	0.2%	0%	0%		
Bucks (PA)	Bristol Borough	9,614	11.7	70.23	0.4%	0%	0%		
	Bristol Township	53,803	16.1	207.57	1.3%	1%		1%	
	Tullytown Borough	1,922	12.4	12.50	0.1%	0%	0%		
	Falls Township	33,826	14.5	160.88	1.0%	1%	1%		
	Morrisville Borough	8,588	8.5	118.87	0.8%	1%	1%		
	Lower Makefield Township	32,622	14.3	159.53	1.0%	1%	1%		
	Yardely Borough	2,472	15	10.99	0.1%	0%	0%		
	Middletown Township	45,156	15.6	185.55	1.2%	1%	1%		
	Bensalem Township	60,370	18	186.33	1.2%	1%		1%	
<b>TOTAL</b>					<b>100%</b>	<b>100%</b>	<b>72%</b>	<b>27%</b>	<b>1%</b>

\*2018 Census Data via Census Reporter  
\*\*Google Maps Directions

Use 70 25 5

*US 206 & Connector Road – Summary Analysis*

This intersection performs adequately in all scenarios.

*US 130 & Dunns Mill Road - Summary Analysis*

This intersection is key to the success of the new connector road. The intersection was expected to perform worst in the build scenario, and it did. During the AM peak hour, the performance is satisfactory. The PM peak hour is a concern, particularly the southbound left turn movement. To complete a southbound left turn, a vehicle must travel through the intersection, travel through a far-side jug handle, and finally proceed through the intersection again. Compared to the base-year scenario, the southbound approach experiences a delay increase of 144 percent. The high traffic volumes entering the jug handle also create the potential for gridlock, as was noted on several occasions in the modeling exercise. Mitigation techniques are available. Without mitigation, the feasibility of the new connector road is questionable. Potential mitigation techniques include the following:

- An extended cycle length to provide additional green time to the eastbound approach;
- Queue sensors in the jug handle to trigger a signal phase change to empty the jug handle;
- A traffic signal for eastbound Lockwood Avenue prior to the entry of the jug handle traffic to allow the jug handle to empty; or
- A combination of the above techniques.

Provided impacts to the southbound approach are mitigated, the intersection should perform satisfactorily when con-

sidering the increased traffic volumes and differing traffic patterns that would be associated with the new connector road.

As was mentioned in the trip generation analysis, the level of new trips associated with new development is a conservative estimate. The results represent the worst-case scenario. In reality, the level of traffic that funnels through this intersection, particularly for trucks, may not be as high as estimated. It certainly should not be higher than estimated.

*Dunns Mill Road and Potential Connector Road*

The analysis focused on four key intersections that may be impacted by the new connector road. However, for the new connector road, as discussed in the next chapter, a roundabout is proposed for its intersection with Dunns Mill Road. The roundabout was not analyzed with the models used for this project; however, some analysis can still be conducted.

Based on the traffic estimates used for the build scenario, all traffic traveling along the Dunns Mill Road's eastern leg would travel through the roundabout. This equals 1,135 cars and 83 trucks during the AM peak hour and 1,409 cars and 69 trucks during the PM peak hour. Not accounted for is traffic that would not travel through the US 130 and Dunn Mill Road intersection (i.e., Connector Road to eastbound Dunns Mill Road and the opposite). Based on the estimated volumes, and the fact that the estimate does not include certain movements, a dual-lane roundabout would likely be necessary. Part of the concept involves closing Rising Sun Road's connection with northbound US 130. If this were to remain open, a single-lane roundabout would likely be sufficient, but this creates another intersection which will need to be evaluated.



BUREAU OF FIRE PREVENTION  
BORDENTOWN TOWNSHIP FIRE DISTRICT # 1  
PO BOX 11372  
YARDVILLE, NJ 08620  
609-298-5375  
609-298-4501 (FAX)



February 22, 2021

Bordentown Township  
Attn: Michael Theokas  
1 Municipal Drive  
Bordentown NJ 08505

RE: Applicant – First Industrial Realty Trust  
Dunns Mill Rd  
Block 126; Lot 101,102, 2 & 41.01 Plate#23  
Bordentown Township NJ

Mr. Theokas,

The proposed plans for the First Industrial Building dated 12/7/20, have been reviewed.

I have listed comments below:

- Installation of hydrants remote from the buildings across in curbed area.
- Installation of Fire Department Connection remote to the building and within 50' of hydrant.
- Request additional hydrants to be installed mid span of the parking lot.
- Confirm fire protection water supply from Rising Sun Rd 12" main and provide calculations of supply.
- Provide a fire apparatus turning template based on the specifications provided.
- Additional Emergency key boxes maybe required if additional gates are being installed.
- Establish fire lanes once all modifications have been submitted.
- What is the propose commodity of the building?

(Note this review is only related to site plan proposal and not building construction plans.)

Thank you in advance for your anticipated cooperation in this matter

Respectfully,

A handwritten signature in blue ink that reads "Scholey".

Steven C. Scholey  
Chief/Fire Official/Marshal  
Fire District #1

	Overall Length	Wheelbase	Center Front Axle to Bumper	Width	GVW	Overall Width Required for Outrigger placement	Manufacturer
Ladder 3225	42'	20'	7.3'	8'	72000	16'	Pierce
Engine 3212	36' 9"	20'	8'	8' 4"	51000	N/A	E-ONE