

JOHN H. ALLGAIR, PE, PP, LS (1983-2001)  
DAVID J. SAMUEL, PE, PP, CME  
JOHN J. STEFANI, PE, LS, PP, CME  
JAY B. CORNELL, PE, PP, CME  
MICHAEL J. McCLELLAND, PE, PP, CME  
GREGORY R. VALES, PE, PP, CME



TIM W. GILLEN, PE, PP, CME (1991-2019)  
BRUCE M. KOCH, PE, PP, CME  
LOUIS J. PLOSKONKA, PE, CME  
TREVOR J. TAYLOR, PE, PP, CME  
BEHRAM TURAN, PE, LSRP  
LAURA J. NEUMANN, PE, PP  
DOUGLAS ROHMEYER, PE, CFM, CME  
ROBERT J. RUSSO, PE, PP, CME  
JOHN J. HESS, PE, PP, CME

MEMO TO: City of Bayonne  
Planning Board

FROM: Robert J. Russo, PE, PP, CME  
City Engineer's Office

DATE: July 27, 2022

RE: ***Prologis, LP  
Preliminary and Final Site Plan  
Report #1  
Block 359 Lot 7  
148 East 5<sup>th</sup> Street  
Bayonne, New Jersey  
Our File: PBYP0359.09/600.01  
Application # P-22-010***

As per your request, this office has reviewed the following documents relative to the above referenced preliminary and final site plan application:

- Preliminary and Final Site Plan, as prepared by Dynamic Engineering, LLC, dated March 25, 2022 with no revisions;
- ALTA/NSPS Land Title Survey, as prepared by Dynamic Survey, LLC, dated October 19, 2021, with no revisions;
- Architectural Drawings, as prepared by Parette Somjen Architects, dated March 29, 2022, with latest revision date of July 8, 2022;
- Environmental Impact Statement, prepared by Dynamic Engineering, LLC, dated March 2022, with no revisions;
- Stormwater Management Groundwater Recharge and Water Quality Analysis, as prepared by Dynamic Engineering, LLC, dated March 2022, with no revisions;
- Stormwater Management Measures Maintenance Plan & Field Manuals, as prepared by Dynamic Engineering, LLC, dated March 2022, with no revisions;
- Traffic Impact Study, as prepared by Dynamic Traffic, dated March 25, 2022, with no revisions;
- Application Forms.

The following comments are offered with regard to same:

**A. PROJECT OVERVIEW**

1. The site is located in the southwest corner of the T-intersection of E. 5<sup>th</sup> Street and Ingham Avenue. The site has existing frontage along both E. 5<sup>th</sup> Street and Ingham Avenue. The site is fully developed, approximately 7.516 acres and is located in the I-H (Heavy Industrial) District. There are several existing warehouse facilities on-site consisting of approximately 303,500 sf of warehouse space. The applicant is proposing to demolish portions of the existing buildings leaving two buildings totaling 59,106 sf and constructing eighty-eight (88) off-street parking spaces and one hundred and forty-five (145) trailer parking spaces. The applicant is proposing associated roadway, utility and stormwater management improvements.



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We defer the review of the zoning related issues to the Board Planning Consultant except where they may pertain to engineering issues.

**B. GENERAL SITE IMPROVEMENT REVIEW**

1. In accordance with NJDEP Geoweb, the site is listed on the Known Contaminated Site List; NJEMS Site ID 36906; PI number 002646 and PI Name Norton & Son, Inc. The applicant should provide the City with an update of any previously performed environmental cleanups, restrictions on construction and if the construction should be performed under the observation of a LSRP.

In addition, it appears there is an underground storage tank facility on the site that was inspected on January 31, 2018. Testimony should be provided regarding whether the UST will be removed as part of this application.

2. The applicant should provide testimony regarding trash and recycling facility operations. Dumpster enclosure areas are not shown on the site plan.
3. The applicant's engineer is proposing to remove existing railroad tracks on the property. While the ALTA survey does not delineate a Conrail easement, the City tax map shows a 10' Conrail easement running through the property. Either approval from Conrail should be obtained prior to removal or the property owner should provide documentation that they have the rights to remove the railroad track.
4. While this office defers review of the Soil Erosion and Sediment Control Plan to the local Soil Conservation District, at a minimum a stone tracking pad should be installed. Utilizing the existing pavement as a stabilized construction entrance is unacceptable due to the large amount of earthwork required due to the building demolition and proposed cut/fills.
5. Vehicle Circulation Plan (WB-67), sheet no. 12, indicates that WB-67 vehicles will exit the site turning right and traveling eastbound along East 5<sup>th</sup> Street and will need to drive over the full faced curb in addition to crossing into the opposite lane of traffic. The site plan should be revised to eliminate both conflicts. It appears the existing utility pole with a cobra head light will need to be relocated as well. There are two existing driveway entrances for the site; the E. 5<sup>th</sup> Street driveway is approximately 38' wide and the Ingham Avenue driveway is approximately 51' wide. It appears that the existing Ingham Avenue driveway functions as the existing truck entrance. The applicant's engineer should supply testimony regarding same.
6. Section 33-10.9.a.2 of the Ordinance requires a minimum of ten (10%) percent of any surface parking facility shall be landscaped and shall include one (1) shade tree for every twenty (20) parking spaces. The applicant is not proposing any landscaping. Either the site plan should be revised or the applicant shall request a variance for same.
7. Section 35-4.24 of the Ordinance states that in heavy industrial zones, any legally registered trailer, conveying materials related to the principal use, mounted on a chassis with wheels shall be permitted. No such trailer shall remain parked on said premises for longer than ninety (90) days. The applicant should provide testimony demonstrating compliance with the Ordinance.

**C. SITE GRADING REVIEW**

1. Existing Building 7A has a garage floor elevation of 15.62 and a sill elevation of 16.25. The proposed first floor elevation is 16.25. The design engineer should clarify the existing grade difference on the first floor.
2. The site plan notes that the existing utility services are to remain. The applicant's engineer should clearly delineate and identify the location of all existing sanitary laterals and water service layouts. The size and type of material should also be identified. It is unclear if the existing utilities will be in conflict with the proposed



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drainage utilities. In addition, the utility plan should clearly demonstrate that the existing sanitary sewer lateral is separated from the storm sewer system.

3. The existing retaining wall appears to be a vertical concrete wall located along Ingham Avenue property line and is exposed on both sides. The proposed retaining wall is a modular block wall with an unspecified wall batter from vertical. The constructability of this type of wall may not be feasible due to the horizontal clearance between the existing building to remain and the retaining wall.
4. The existing gas service that is exposed on the existing wall along Ingham Avenue and is vertical to the concrete wall and enters the property in question on a 90 degree bend should be relocated underground below the proposed modular block wall.
5. Spot elevations should be provided for the proposed ADA accessible parking spaces and adjacent sidewalk, demonstrating ADA compliance.
6. Rim elevation 20.39 for storm manhole #28, and rim elevation 15.83 for storm manhole #43, appear to be incorrect and should be reviewed.
7. There appears to be an 8" to 12" cut near the western property line which results in proposed grades tie in slopes in excess of 7%. The applicant's engineer should review this further and reduce the slope to a maximum of 5%.
8. It appears a portion of the proposed drainage area east of existing Building 7A will flow over the existing wall and into the public right of way along Ingham Avenue. The drainage path should be redesigned to enter the onsite proposed stormwater management system.
9. There are various existing fire hydrants onsite that are proposed to be removed. It appears proposed fire hydrants will be required onsite. Final review and approval of proposed fire hydrants should be obtained by the City Fire Sub-Code Officials.
10. A Knox box should be provided on the proposed 40' wide rolling cantilever gate.
11. The proposed six (6) trailer parking spaces south of Building 7A do not appear to be accessible due to the proposed chain link fence layout. The applicant's engineer should review same.
12. A stop sign and a stop bar should be installed at the Ingham Avenue driveway exit.

#### **D. TRAFFIC REVIEW**

1. The Applicant's Engineer should provide intersection sight distance triangles that conform to the latest AASHTO (American Association of State Highway and Transportation Officials) guidelines as published in the current edition of *A Policy on Geometric Design of Highways and Streets*.
2. The Applicant's Engineer should design the proposed curb ramps, sidewalks, and crosswalks, to meet the latest ADA requirements. The Applicant's Engineer should provide turning spaces before and after proposed ramps as necessary at the required slopes and the locations of proposed detectable warning surfaces should be clearly indicated. This ADA compliance issue should be reviewed relative to all curb ramps, sidewalks, and crosswalks currently proposed under this project.
3. Fire lanes and striping are subject to the approval of the Fire Sub code Official.



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## **E. STORMWATER MANAGEMENT**

### **General**

1. The reference project has been reviewed in accordance with the Stormwater Management Rules NJAC 7:8 as amended on March 2, 2020, and City of Bayonne ordinances.
2. A portion of the project site is located within the Flood Hazard Area. Flood hazard area boundaries shall be shown on all plans. The Applicant must obtain a Flood Hazard Area Permit from NJDEP. A copy of the permit must be provided to this office.
3. The Applicant must obtain a Soil Erosion and Sediment Control Plan Certification from the Hudson Soil Conservation District. A copy of the certification must be provided to this office.
4. The proposed development proposes more than 1 acre of land disturbance and must obtain a General Permit for Construction Activities from the NJDEP. A copy of the permit must be provided to this office.
5. An executed Major Development Stormwater Summary (Attachment D of the Tier A MS4 NJPDES Permit) shall be submitted to this office for review and approval.

### **Stormwater**

6. The applicant should review the possibility of rerouting the storm water discharge to the existing separate storm sewer system located in Ingham Avenue.
7. Stormwater Runoff calculations use 24hr precipitation sums of 3.31, 5.02, and 8.31 inches for 2-year, 10-year, and 100-year design storm events. The current NOAA estimates for this area are 3.51, 5.57, and 8.84 inches. Stormwater calculations must be updated to use the current NOAA rainfall depths for the design storms (<http://hdsc.nws.noaa.gov/hdsc/pfds/index.html>) that correctly reflect the project location.
8. The Applicant proposes constructing pervious pavement with underdrains to address stormwater quantity management and water quality. Dimensions of the pervious pavement extents and area must be labeled on the site plan.
9. A Pervious pavement detail must note the maximum water elevation for the water quality, 2-yr, 10-yr, and 100-yr storm events, and drain times for the proposed pervious pavement area.
10. The one-foot separation between the bottom of the pervious pavement with underdrains and the seasonal high water table or bedrock is required. There are no geotechnical investigations with soil profile data in the proposed pervious pavement area. The applicant should provide a geotechnical investigation to confirm that the pervious pavement area meets this requirement.
11. The pervious pavement area must include at least two inspection ports, with a removable cap, in the storage bed with its location shown on the plan. The inspection ports must be placed at least three feet from any edge and extend down 4 – 6 inches into the subsoil, and the depth of runoff for the water quality designed storm must be marked upon each structure and its level included in the drainage report and the maintenance manual. Details of pervious pavement inspection ports must be provided on construction plans, and they must be traffic-rated.
12. The Drainage and Utility Plan (sheets 6) should be revised to note the maximum water elevation for the water quality, 2-yr, 10-yr, and 100-yr storm events for proposed pervious pavement areas.



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13. The construction detail for the pervious pavement must be updated to include post-construction testing requirements per the BMP manual.
14. Pervious pavement drain times calculations must be added to the drainage report and demonstrate compliance with 72 hours maximum drain time requirement.
15. Exhibits showing calculations for existing and proposed motor vehicle surface areas must be added to the drainage report to document the calculations presented in the report.
16. Construction detail of pavement transition from pervious to regular paving should be provided on the site plan. This detail should show engineering mechanisms to prevent the migration of water stored below the pervious pavement to the base course of regular pavement.
17. Pervious pavement detail should be updated to include a gravel envelope around the underdrain. The underdrain must be surrounded by a minimum of 3 inches of clean, washed, open-graded AASHTO No.57 broken stone, both above and below the underdrain.
18. Trash rack details should be provided for all outlet devices (orifices, weirs, overflow grates, etc.) shown on the proposed outlet structure. The trash rack should be in accordance with NJAC 7:8-5.7 and 7:8-6.2.
19. As per BMP Manual requirements, geotechnical investigations must be performed for each area of the proposed BMP to determine soil suitability and establish seasonal high water in the area of the proposed BMP. The Applicant should perform the required testing in accordance with Chapter 12 of the BMP Manual.
20. The drainage report should be updated to include a summary table listing the following for each BMP: area of BMP, depth of BMP; the number of test pits/boring/soils profiles performed for the BMP; depth of soil investigation, no. of infiltration tests performed, minimum tested permeability rates, seasonal high-water table established; and the number of soil investigations required per Chapter 12 of BMP Manual.
21. Weighted rational C calculations must be updated to use runoff coefficients from Table 7.1 in NJAC 5:21-7.2.
22. All stormwater conveyance pipes must have adequate capacity to convey the 100-yr storm event unless the Applicant's engineer demonstrates that runoff from the 100-yr storm event will reach the underground detention basins via an alternate path. Revise drainage report accordingly.
23. The site plan should be revised to show the downstream drainage structures, including grate and invert elevations. The drainage report should be revised to include a capacity analysis of the existing collection system from the site to East 5th Street to document adequate capacity to convey outflow peak flows from the proposed development. The analysis should include at least two pipe reaches downstream of the site along East 5th Street. The calculation to include both onsite and offsite flows.
24. There is insufficient pipe cover at storm str. #30. This should be addressed.
25. The tie in structure is an existing vault that the design engineer is requiring the contractor to confirm the outlet elevation. Should the Board act favorably on this application, the outlet elevation should be confirmed during the compliance phase because the storm sewer system may require a redesign depending on the existing elevation. In addition, if this existing structure is not accessible then it should be upgraded to either a storm manhole or inlet.

#### **O&M Manual**

26. The O&M Manual should be revised to include Deed Book#, Page#, and the date the deed was filed with County Clerk.



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27. In accordance with NJAC 7:8-5.8(d), the maintenance of stormwater management facilities and any future revisions to the manual shall be recorded upon the deed of record for the property. O&MM should be updated to include this requirement.
28. In accordance with NJAC 7:8-5.8(g), O&MM shall be evaluated by the person responsible for maintenance for updates and effectiveness at least once per year. The O&M manual shall be updated and recorded in the deed as needed at that time. O&MM should be updated to include this requirement.
29. In accordance with NJAC 7:8-5.8(h), the person responsible for maintenance shall retain and make available, upon request by any public entity with administrative, health, environmental, or safety authority over the site, this maintenance plan. O&MM should be updated to include this requirement.

**G. MISCELLANEOUS**

1. The following construction details shall be provided and/or modified on the site plans:
  - a. All site concrete shall be 4,500 psi concrete;
  - b. Revise the Paving Detail to indicate 2" HMA 9.5M64 Surface Course and 4" HMA 19M64 Base Course are required;
  - c. Revise the Heavy Duty Pavement Section Detail to indicate 6" HMA 19M64 Base Course is required and specify both where and the type of geotextile fabric is required;
  - d. Revise the Sidewalk Detail to show a minimum of 4" thick DGA subbase.
2. If the Board acts favorable on this application, the applicant shall post the required performance bonds and engineering and inspection fees.
3. Other Agency Approvals:
  - Hudson County Planning Board
  - Bayonne Utility Department and Suez
  - Soil Conservation District
  - NJDEP
  - Conrail
  - All other agencies having jurisdiction

Should you have any questions regarding this matter, please do not hesitate to contact this office.

RJR/DM

cc: Land Use Administrator  
Board Attorney  
Board Planner  
City Planner  
Zoning Officer  
Prologis, L.P., Applicant  
Chris J. Murphy, Esq., Applicant's Attorney  
Dynamic Engineering, LLC, Applicant's Engineer  
Parette Somjen Architects, Applicant's Architect