DRAINAGE STATEMENT

For

Amin Family, LLC

Proposed Mixed Use Development

Block 711, Lot 2
202 West 7th Street and Arlington Avenue
City of Plainfield
Union County, New Jersey

Prepared by:

DYNAMIC ENGINEERING

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NJ Professional Engineer License #49266

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DEC # 3327-99-001

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APPENDIX

I. Site Description

The project area is comprised of Block 711, Lot 2 as shown on the City of Plainfield Tax Map Sheet 92, located in the City of Plainfield, Union County, New Jersey. The subject property consists of 0.603 acres (26,279 SF) and is located at the corner of 202 West 7th Street and Arlington Avenue.

Under the existing conditions, the site consists of an existing retail strip center with a convenience store and laundromat. The proposed project consists of constructing building additions to the existing building and proposing two (2) floors above the existing building in order to provide twelve (12) residential units. Additional improvements include grading, lighting, landscaping, and other associated site amenities. The new development proposes to decrease the impervious coverage on site by approximately 263 SF.

The existing conditions of the tract have been verified by the Boundary and Topographic Survey, prepared by Dynamic Survey, LLC, dated January 14, 2020.

II. Design Overview

This report has been prepared to define and analyze the stormwater drainage conditions that would occur as a result of the redevelopment of Block 711, Lot 2 in the City of Plainfield, Union County, New Jersey.

The scope of this study includes the building additions to the existing retail strip center, proposed residential units as well as associated site improvements, including driveways, parking areas, landscaping and grading.

Based upon the scope of the project, the proposed development consists of less than one acre of land disturbance and proposed less than ¼ acre increase in impervious surface. Therefore, the proposed development is not classified as a "major development" and is not subject to the stormwater management, water quality, or groundwater recharge regulations set forth by N.J.A.C. 7:8 and the City of Plainfield Land Use Ordinance.

III. Existing Drainage Conditions

The majority of the subject parcel is currently developed and includes an existing retail strip center, parking areas and associated site improvements. The majority of the runoff generated from the existing development is collected via the existing conveyance system onsite, which ultimately drains to the stormwater lines within West 7th Street and Arlington Avenue. The remainder of the stormwater onsite drains via overland flow towards the northern and western portions of the subject property.

Based on the Union County Soil Survey information, the soil types native to the site include:

UNION COUNTY SOIL SURVEY INFORMATION		
SOIL TYPE (SYMBOL)	**HYDROLOGIC SOIL GROUP (HSG)**	**SOIL TYPE (NAME)**
BhpBr	B	Birdsboro-Urban land complex, 0 to 6 percent slopes, rarely flooded
UR	D	Urban land

IV. Proposed Site Conditions

The proposed development consists of constructing building additions to the existing building and proposing two (2) floors above the existing building in order to provide twelve (12) residential units above the existing retail strip center as well as associated site amenities such as grading, lighting and landscaping. The stormwater drainage for the proposed site has been designed to maintain existing runoff patterns. The majority of the stormwater runoff generated from the proposed development is tributary to the existing stormwater conveyance system located within Arlington Avenue and West 7th Street. A new roof leader system is proposed to direct the stormwater to the existing stormwater infrastructure in Arlington Avenue. The remainder of the site stormwater onsite drains via overland flow towards the northern and western portions of the subject property.

V. Conclusion

The proposed development has been designed with provisions for the safe and efficient control of stormwater runoff in a manner that will not adversely impact the existing drainage patterns, adjacent roadways, or adjacent parcels. Furthermore, the project decreases the impervious coverage onsite and therefore does not increase the peak stormwater runoff from the parcel. We anticipate that the proposed project will not significantly impact the existing drainage infrastructure located on or within the vicinity of the surrounding area.

APPENDIX

NRCS WEB SOIL SURVEY

Map Scale: 1:625 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 5 10 20 30

Feet: 0 30 60 120 180

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Union County, New Jersey
Survey Area Data: Version 13, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 26, 2019—Jul 31, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BhpBr	Birdsboro-Urban land complex, 0 to 6 percent slopes, rarely flooded	B	0.0	2.9%
UR	Urban land		0.7	97.1%
Totals for Area of Interest			**0.7**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

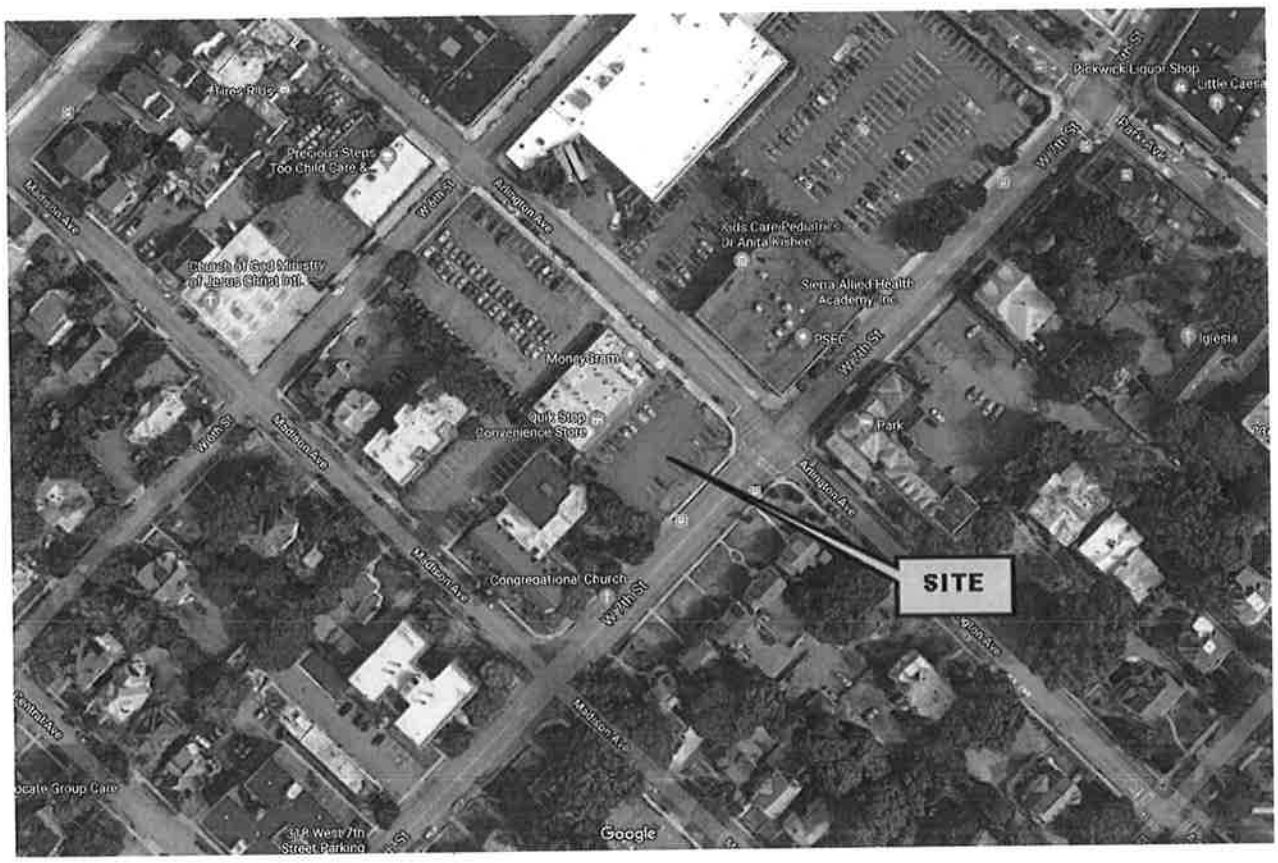
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

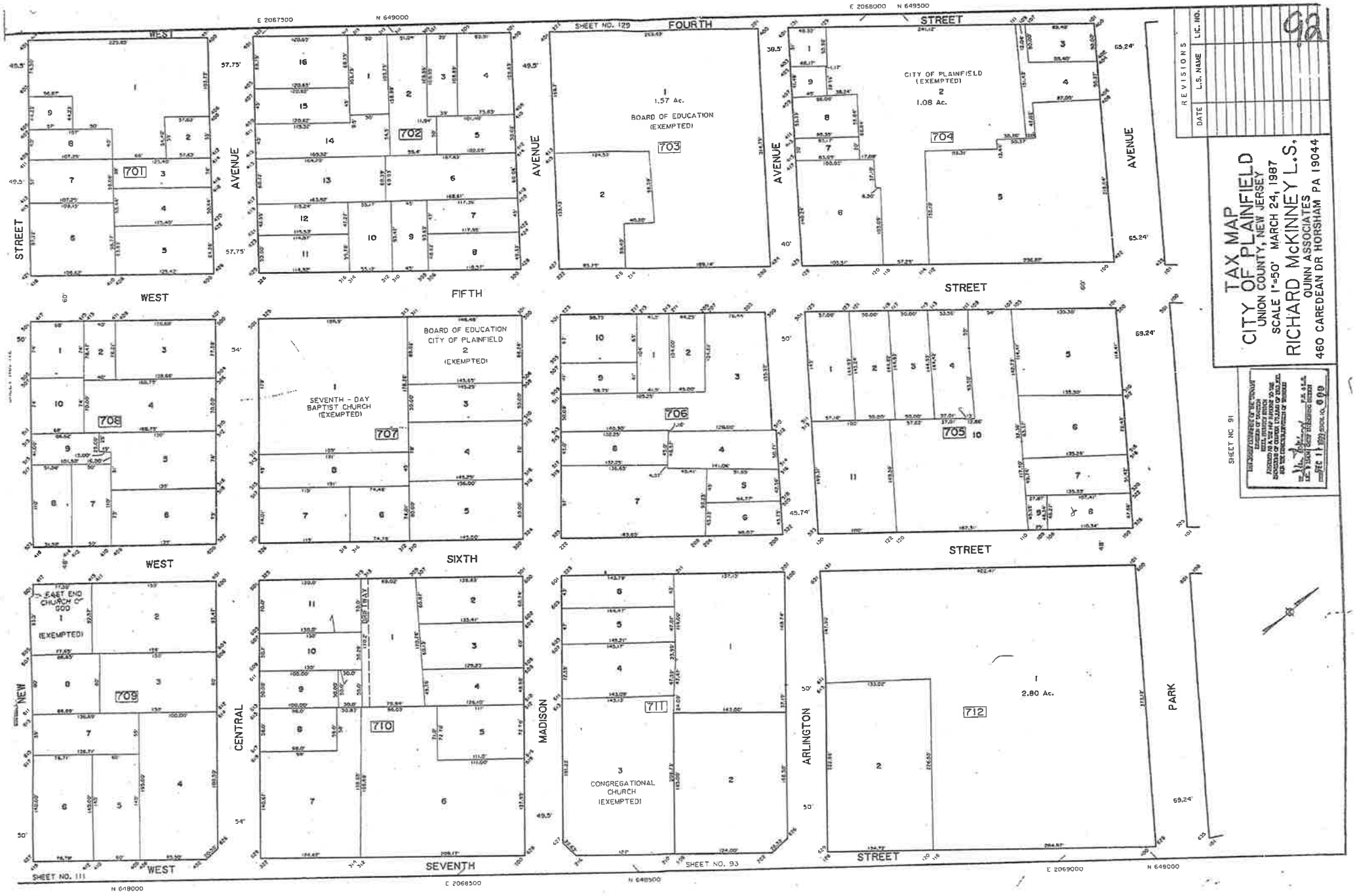
AERIAL MAP



Aerial Photo Map

(not to scale)

CITY OF PLAINFIELD TAX MAP


TAX MAP
CITY OF PLAINFIELD
UNION COUNTY, NEW JERSEY
SCALE 1"=50' MARCH 24, 1987
RICHARD McKINNEY L.S.
QUINN ASSOCIATES
460 CAREDEAN DR HORSHAM PA 19044
REVISIONS
DATE
L.S. NAME
LIC. NO.
WEST STREET
FIFTH AVENUE
FOURTH STREET
SIXTH AVENUE
SEVENTH AVENUE
NEW STREET
CENTRAL AVENUE
MADISON AVENUE
ARLINGTON AVENUE
PARK STREET
701
702
703
704
705
706
707
708
709
710
711
712
BOARD OF EDUCATION (EXEMPTED)
CITY OF PLAINFIELD (EXEMPTED)
SEVENTH - DAY BAPTIST CHURCH (EXEMPTED)
EAST END CHURCH OF GOD (EXEMPTED)
CONGREGATIONAL CHURCH (EXEMPTED)
SHEET NO. 129
SHEET NO. 91
SHEET NO. 111
SHEET NO. 93
E 2067500
N 649000
E 2068000
N 649500
E 2066500
N 648500
E 2069000
N 648000
N 649000