STORMWATER MANAGEMENT REPORT

for

SUBARU BLOCK 1464 LOTS 4 AND 5
VEHICLE STORAGE LOT

250 Memorial Avenue
Camden, New Jersey
Block 1464, Lot 4 and Lot 5

Prepared For:

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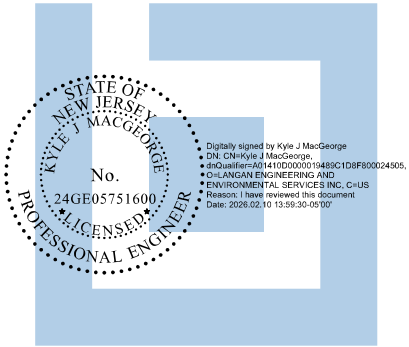

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1. INTRODUCTION

1.1 Scope

This report presents the results of the stormwater-management analysis for the Subaru Block 1464 Lots 4 and 5 Vehicle Storage Lot project in Camden, New Jersey. For the purposes of this report, "site" refers to Block 1464, Lots 4 and 5 in Camden, and all proposed improvements will be located within these two lots.

As explained in detail here, the proposed project will meet the regulatory requirements of New Jersey Administrative Code (N.J.A.C.) 7:8 Stormwater Management; City of Camden Stormwater Ordinance and the Standards for Soil Erosion and Sediment Control in New Jersey.

1.2 Existing Site Conditions and Land Use

The address of the approximately 2.11-acre site owned by Finger One, LLC, is 250 Memorial Avenue in the city of Camden, Camden County, New Jersey. The site, tax parcel Block 1464, Lots 4 and 5, is within the Office Light Industrial Zone (OLI) zoning district and is an undeveloped field.

According to Federal Emergency Management Agency (FEMA) Preliminary Flood Insurance Rate Map (FIRM) panel 28 of 305, map number 34007C0028F (August 17, 2016) (Figure 3), the southeastern part of the site lies within FEMA's current 0.2% Annual Chance Flood Hazard Area (Zone X). The remainder of the site lies within FEMA's current 1% Annual Chance Flood Hazard Area (Zone AE), which has an elevation of 10 feet (NAVD 88). At the project location, the Cooper River is tidal.

Per a soil survey administered by the Natural Resources Conservation Service for Camden County, New Jersey (Figure 2), the main soil type on the site is SauB (Sauken gravelly artifactual sandy loam, 0% to 2% slopes). SauB is interpreted to have a hydrological soil group (HSG) of C. There are also small sections of the site with UReB (urban land, Anthroportic Udorthents complex, transportation corridor, 0% to 10% slopes) soils. UReB is interpreted to have a hydrological soil group (HSG) of C. Groundwater depths recorded in April 2025 vary throughout the site between approximately elevation 1.88 and 1.94 (AMSL).

According to review of the existing hydrology, the site drains northeast toward existing inlets along Memorial Avenue. Based on record plans, we understand that Camden has separate sewer and stormwater pipes in Memorial Avenue and we understand that stormwater ultimately discharges to the Cooper River. This drainage pattern will be maintained in the proposed site condition described below.

The site has been analyzed as one drainage area in the existing condition, as shown on Figure 4 and described below.

- Points of Analysis:
    - POI-1: Point of interest is the existing storm sewer in Memorial Avenue near the intersection of Memorial Avenue and Admiral Wilson Boulevard (U.S. Route 30).
- Existing Conditions

- EXDA-1: Predominantly grass where runoff freely flows northeast off-site into inlets in the Memorial Avenue right-of-way, and then into drains to the existing storm sewer.

1.3 Proposed Development and Land Use

Subaru of America plans to develop a motor-vehicle storage lot for 147 vehicles. Security fences, gates, and landscape improvements are also proposed.

The proposed site improvements will reduce pervious areas on-site. The proposed development includes a land disturbance of 2.10 acres and a net increase in impervious coverage of 1.37 acres. The proposed overall site drainage pattern will be maintained.

The Cooper River is designated as a Category One River; therefore, a 300-foot buffer is required by the New Jersey Stormwater Management and Flood Hazard Area Control Act. Approximately 0.70 acres of disturbance is within the riparian zone.

The site has been analyzed as two drainage areas and one bypass area in the proposed condition, as shown on Figure 5 and described below.

- Points of Analysis:
  - POI-1: Point of interest is in the existing storm sewer in Memorial Avenue near the intersection of Memorial Avenue and Admiral Wilson Boulevard (U.S. Route 30).
- Proposed Conditions
  - PRDA-1 is an impervious parking surface where runoff will be collected by a pervious pavement system (BMP-1). A system of perforated equalizing pipes is proposed to help evenly distributed stormwater runoff throughout the pervious-pavement storage bed. BMP-1 discharges to the existing storm sewer in Memorial Avenue.
  - PRDA-2 is a pervious pavement driveway where runoff will be collected by a 4" perforated underdrain embedded in the stone underneath the pervious pavement. Ther pervious pavement will treat runoff for water quality before discharge to a stone infiltration bed containing perforated storage pipes (BMP-2). BMP-2 discharges to the existing storm sewer in Memorial Avenue. The trench drain at the edge of the pervious pavement across the driveway is a fail-safe to prevent discharging runoff to Memorial Avenue.
  - Bypass: Predominantly grass areas where yard drains will collect and convey runoff to the existing storm sewer in Memorial Avenue.

2. REGULATORY REQUIREMENTS AND COMPLIANCE

The project will create more than ¼ acre of "regulated impervious surface," and will disturb more than 1 acre of land; therefore, the project is considered a major development as defined in N.J.A.C. 7:8-1.2 (July 2023). Therefore, the project is subject to the New Jersey stormwater requirements outlined in N.J.A.C. 7:8 and the City of Camden Stormwater Ordinance. Stormwater management is proposed for the project to meet the requirements of N.J.A.C. 7:8 (July 2023).

Pursuant to N.J.A.C. 7:8-5.7.(a).2, we have verified that the current hydrologic condition (i.e., ground cover) has existed on-site for at least five years "without interruption prior to the time of application." As required, we have presumed, for the purposes of runoff calculations, that the pre-construction site is in good hydrologic condition.

2.1 Low-Impact Development Requirements and Compliance

Langan has proposed the following low-impact strategies to satisfy stormwater management in accordance with N.J.A.C. 7:8-5.3(b). A Low-Impact Development Checklist for the project is provided as Appendix A. The strategies are as follows:

1. Maintain pre-construction drainage patterns to the extent feasible.
2. Manage the peak rate from the additional impervious surface created by the proposed project by using a combination of green-infrastructure best management practices (BMP).
3. Provide low-maintenance native landscape plants that encourage retention, and native plants that minimize the use of lawns, fertilizers, and pesticides.
4. Provide preventive source controls – storm inlets will comply with NJPDES criteria.

2.2 Runoff Quantity Requirements and Compliance

N.J.A.C. 7:8-5.6 and the city of Camden require control of stormwater-runoff-quantity control impacts.

One way to satisfy N.J.A.C. 7:8-5.6(b)(1) is to demonstrate that post-construction runoff for the current and projected 2-, 10- and 100-year storms for the drainage areas are proposed to be reduced to 50%, 75%, and 80% of the respective pre-construction peak runoff rate. This analysis is discussed further in section 4 of this report.

In addition to the above requirements, Camden requires reducing the 25-year storm post-construction peak rate to less than or equal to the pre-construction peak rate. This requirement will be satisfied for the drainage area and is discussed further in section 4.

2.3 Runoff Quality Requirements and Compliance

N.J.A.C. 7:8-5.5 requires that *"eighty percent Total Suspended Solids (TSS) removal of the anticipated load, expressed as an annual average shall be achieved for the stormwater runoff from the net increase of motor vehicle surface."* Additionally, pursuant to the Flood Hazard Area Control Act Rules N.J.A.C 7:13-11.2(j)4, "*runoff from the water quality design storm that is discharged within a 300-foot riparian zone shall be treated in accordance with this section to reduce the post-construction load of total suspended solids by 95 percent of the anticipated load."*

These requirements apply to developments with a proposed increase of ¼ acre or more of regulated motor-vehicle lot surface.

Runoff quality is required because this project proposes more than ¼ acre of regulated motor-vehicle lot surface that will drain to a sewer system that discharges to the Cooper River (Category One water).

The proposed previous paving system (BMP-1) and infiltration bed (BMP-2) are designed to capture and infiltrate the entire NJDEP water-quality storm for the proposed condition. Because all runoff generated by the motor-vehicle surface lot for this storm will remain on-site and be infiltrated, no Total Suspended Solids will be discharged from the water-quality storm, and the requirement will be satisfied.

2.4 Groundwater Recharge Requirements and Compliance

N.J.A.C. 7:8-5.4 requires that the design engineer must demonstrate through hydrologic and hydraulic analysis that the site and its stormwater-management system either

1. maintain 100% of the site's average annual pre-construction groundwater recharge volume, or
2. infiltrate 100% of the increase of stormwater runoff volume from pre-construction to post-construction for the projected two-year storm.

According to N.J.A.C. 7:8-5.4.(b).2 and city requirements, the project is exempt from the groundwater recharge requirement because the project site is located in the city of Camden's Gateway Redevelopment Plan area which is an Urban Enterprise Zone meeting NJDEP's definition of an "urban redevelopment area".

Although recharge is not explicitly required, Langan proposes to infiltrate the water-quality storm to meet the criteria for water quality described in Section 2.3.

2.4.1 Groundwater Mounding Analysis

The designs of the pervious paving with stone storage bed (BMP-1) and small-scale infiltration basin (BMP-2) need to consider groundwater mounding to determine if the basin will operate as designed and to determine potential adverse impacts to groundwater levels. The NJDEP Hantush Spreadsheet will be used to assess the groundwater mounding for this basin. A mounding analysis has been performed for the water quality storm.

The NJDEP Hantush Spreadsheet used to assess groundwater mounding requires the following parameters:

- Recharge (Infiltration) rate, R: 10.00 in/hr – BMP-1 Water Quality Storm Event
  0.09 in/hr – BMP-1 100-yr, Projected Storm Event
  0.43 in/hr – BMP-2 Water Quality Storm Event
- Horizontal infiltration rate, Kh: 2.15 in/hr – BMP-1
  2.15 in/hr – BMP-2
- x and y Basin Dimensions: 60/2 = 30 ft long & 450/2 = 225 ft wide – BMP-1
  40/2 = 20 ft long & 5.33/2 = 2.665 ft wide – BMP-2
- Initial Thickness Saturation Zone, hi(0): 10 feet *(default value)*

- Duration of Infiltration Period, t: 0.22 hrs – BMP-1 Water Quality Storm Event
  72.00 hrs – BMP-1 100-yr, Projected Storm Event
  13.36 hrs – BMP-2
- Exfiltration Volume: 5,131 CF – BMP-1 100-yr, Projected Storm Event
  10,982 CF – BMP-1 Water Quality Storm Event
  102 CF – BMP-2
- Seasonal High-Water Table: Elevation 1.70
- Bottom Elevation of Basin: Elevation 4.33 (Stone) – BMP-1
  Elevation 4.28 (Stone) – BMP-2
- Infiltration Area: 28,513 SF – BMP-1
  213 SF – BMP-2

Notes:

1) Duration of infiltration period determined using the following equation from the NJ BMP Manual:

$$\text{Duration of infiltration period, t } (hr) = \frac{Discarded\ Volume\ via\ Exfiltration\ (cf)\ x\ 12\ in/ft}{Infiltration\ area\ (sf)\ x\ Exfiltration\ rate\ (in/hr)}$$

The results of the groundwater mounding analyses are summarized in Table 1 below:

Table 1 – Groundwater Mounding Analysis Results

Stormwater Management Practice	Exfiltration Volume (CF)	Groundwater Mounding Height (ft)	Seasonal High Water Table Elevation (ft)	Groundwater Mounding Elevation (ft)	Basin Bottom Elevation (ft)	Duration of Infiltration (Max 72 hrs) (hrs)
BMP-1*	5,131	1.22	1.70	2.92	4.33	0.22
BMP-1**	10,982	2.54	1.70	4.24	4.33	72.00
BMP-2*	102	0.63	1.70	2.33	4.28	13.36

* 1.25in/2-yr Water Quality Event ** 100-yr Project Storm Even

The results of the groundwater mounding analysis for the water quality storm indicate that the maximum calculated groundwater mounding height will not encroach into the bottom of the infiltration basin and that the exfiltrated volume of water will drain from the basin within 72 hours. Supporting calculations for the groundwater mounding analyses are in Appendix G.

2.5 Stormwater Conveyance Requirements and Compliance

Camden requires that stormwater conveyance systems be designed for the 25-year storm.

Langan sized outlet pipes for the new stormwater systems based on the system outflow, which is designed for up to the 100-year (current and projected) managed rate, so the system will be more than adequate to convey the 25-year storm. No new points discharging to the ground surface are proposed, and the existing discharge points will be maintained.

3. STORMWATER DESIGN METHODOLOGIES

Methodologies of the major elements of Langan's design of the stormwater management system are described below.

3.1 Hydrology Methodology

N.J.A.C. 7:8-5.7 requires that stormwater runoff be calculated by using the USDA Natural Resources Conservation Service (NRCS) methodology, which is described in Technical Release 55—Urban Hydrology for Small Watersheds (TR-55, June 1986). Pre-construction and post-construction hydrographs were developed for each drainage area described in the previous section by using an area, hydrologic soil group (HSG), land cover, rainfall depth, and time of concentration. Tables summarizing the drainage areas for the pre-construction condition are provided on Figure 4, and post-construction condition are provided on Figure 5.

Time of concentration is calculated by using the velocity method for each drainage area described in Section 1.3. See Appendix D for calculations and Figure 4 for pre-construction flow path and Figure 5 for post-construction flow path used in the calculations.

According to N.J.A.C. 7:8-5.6, stormwater analysis must be performed for current and projected storms as defined in N.J.A.C. 7:8-5.7(c) and (d). Langan used the county-specific, New Jersey 24-hour rainfall frequency data for Camden County shown in Table 5-1 of the New Jersey Stormwater Best Management Practices Manual (July 2023), because it has larger depths than site-specific rainfall data from NOAA Atlas 14, and results lead to a more conservative design. The rainfall depths are provided in the table below with design, current and future rainfall depths in bold.

Design Storm Event	Site-Specific Rainfall Depth [NOAA Atlas 14, Vol2, Ver3] (in.)	Table 5-1: County Specific Rainfall (in.), Camden	Current Adj. Factor, Camden	Current Rainfall (in.)	Future Adj. Factor, Camden	Future Rainfall (in.)
2-yr	3.28	3.31	1.03	**3.41**	1.18	**3.91**
10-yr	4.91	5.06	1.04	**5.26**	1.22	**6.17**
25-yr	6.01	6.28	1.00	**6.28**	1.00	**6.28**
100-yr	7.98	8.52	1.05	**8.95**	1.39	**11.84**

The hydrograph summaries calculated with the NRCS methodology are provided in Appendix B for the pre-construction condition and Appendix C for the post-construction condition.

3.2 Conveyance Methodology

Langan designed the proposed stormwater conveyance system for the 25-year storm by using the rational method. The proposed storm-pipe system ties into existing drainage structures. No point-discharges to the ground surface are proposed, as shown on the Post-Construction Drainage Area Map (Figure 5). Values for area, time of concentration, and a runoff coefficient were calculated for each runoff area's flow to individual catch-basin inlets. See Appendix D for

calculations and Figure 4 for pre-construction flow path and Figure 5 for post-construction flow path used in the calculations. Runoff coefficient and pipe-conveyance calculations are provided in Appendix E.

4. STORMWATER MANAGEMENT SOLUTIONS

4.1 Proposed Runoff Quantity

The table below shows a comparison of peak flow rates for pre-construction and post-construction at POI-1. The stormwater design for this project seeks to satisfy the reductions for post-construction peak discharge rates leaving the site for the 2-, 10- and 100-year storms for the drainage areas and for the entire site to 50%, 75%, and 80% of the respective pre-construction peak rate of runoff. The stormwater design also seeks to satisfy reducing the post-construction peak 25-year storm to the pre-construction 25-year storm or less peak discharge rate. As a result, the project complies with N.J.A.C. 7:8-5.6(b)4 and city requirements.

CURRENT RAINFALL

POI-1			
STORM EVENT	**PRE-CONSTRUCTION RATE**	**REQUIRED RATE**	**POST-CONSTRUCTION RATE**
2-YR	**2.82**	1.41	**1.28**
10-YR	**6.30**	4.73	**4.13**
25-YR	**8.37**	8.37	**6.34**
100-YR	**13.95**	11.16	**10.24**

PROJECTED RAINFALL

POI-1			
STORM EVENT	**PRE-CONSTRUCTION RATE**	**REQUIRED RATE**	**POST-CONSTRUCTION RATE**
2-YR	**3.80**	1.90	**1.88**
10-YR	**8.33**	6.25	**6.11**
25-YR	**8.56**	8.56	**6.34**
100-YR	**20.54**	16.43	**13.43**

4.2 Proposed Water-Quality Solution

Best management practices are required for water quality because the proposed development would create an increase of ¼ acre or more in motor-vehicle-lot surface area. Green-infrastructure BMPs from N.J.A.C Table 5-1 were selected to satisfy stormwater quantity and quality requirements.

Water-quality requirements will be satisfied by a pervious paving system (BMP-1) and small-scale

infiltration basin (BMP-2), including perforated storage pipes to increase void space in the system, which are proposed to infiltrate the NJDEP water-quality storm for the proposed condition.

4.3 Proposed Stormwater Conveyance

Langan designed the proposed conveyance system in accordance with N.J.A.C. and city of Camden requirements. Runoff from the proposed development will be conveyed to the existing storm sewer in Memorial Avenue by a new connection to the existing system. Proposed pipes were sized for capacity to convey the runoff from the 25-year storm. As shown in Appendix E, all pipes convey flow from the 25-year storm without overtopping catch-basin grates or manhole-cover rims.

5. CONCLUSION

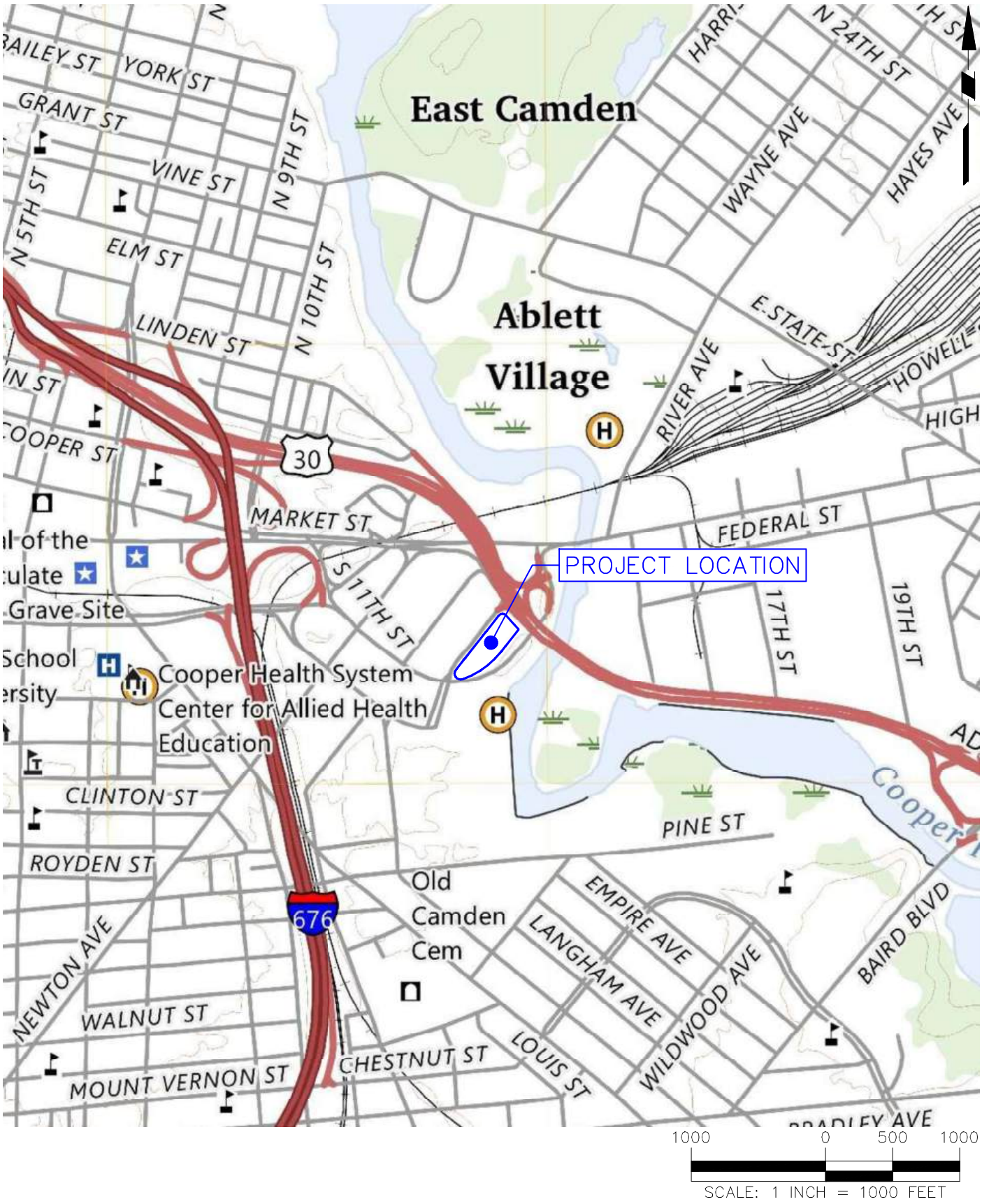
This report shows that all the regulatory requirements will be met for the proposed project.

- The runoff-quantity requirements from N.J.A.C. 7:8-5.6 and city of Camden will be met for each drainage area.
- The runoff-quality requirement from N.J.A.C. 7:8-5.5 will be met by infiltrating all runoff through pervious paving and small-scale infiltration BMPs, both of which have 80% TSS removal rates.
- The groundwater-recharge requirement from N.J.A.C. 7:8-5.4 is not required because the project site falls within an urban redevelopment area.

The design meets the following requirements:

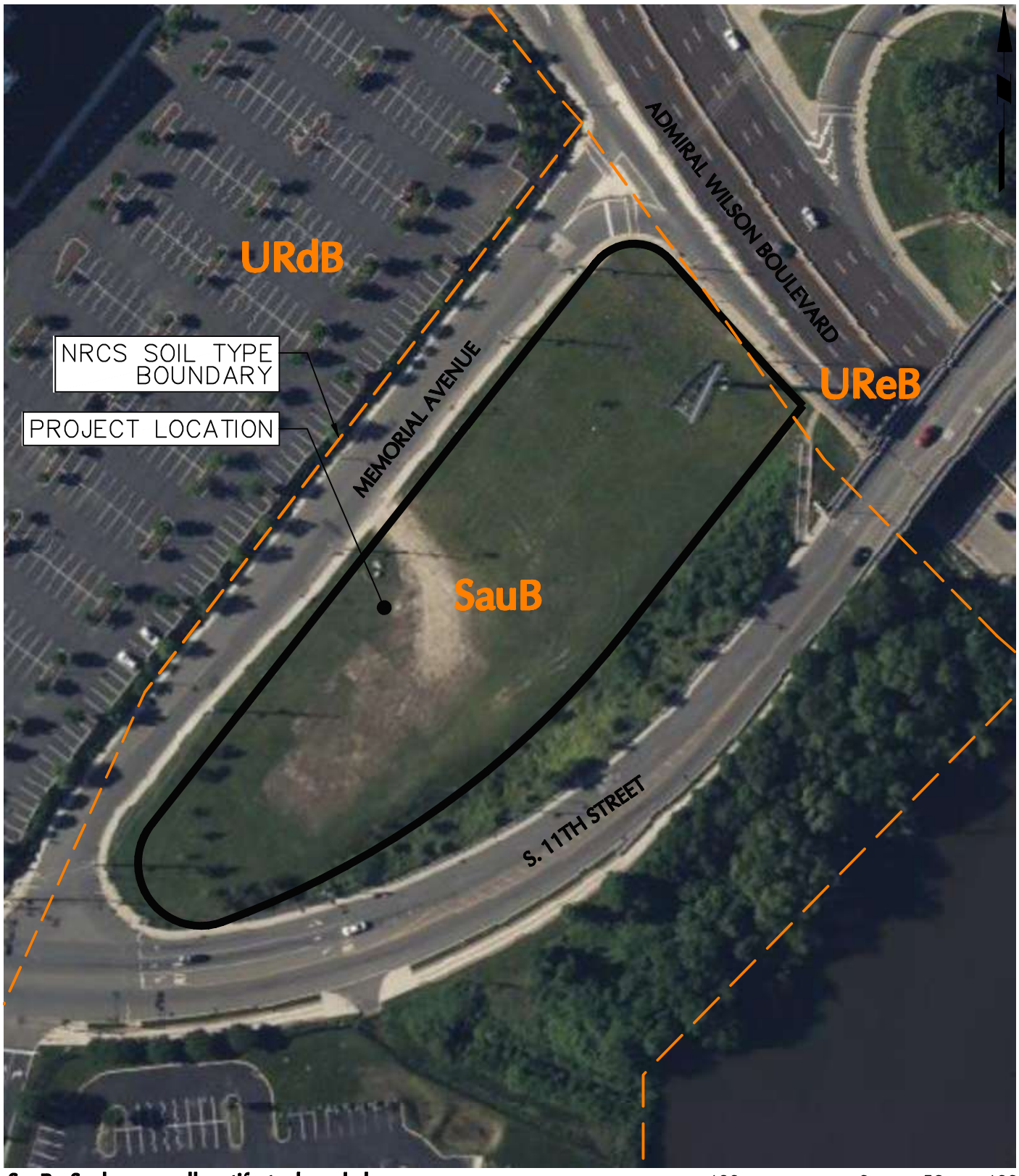
- N.J.A.C. 7:8 – New Jersey Department of Environmental Protection (NJDEP) Stormwater Management Rules,
- City of Camden Stormwater Ordinance, and
- Standards for Soil Erosion and Sediment Control in New Jersey

FIGURES



LANGAN Langan Engineering and Environmental Services, LLC 1 University Square Drive, Suite 110 Princeton, NJ 08540 T: 609.282.8000 F: 609.282.8001 www.langan.com NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400	Project SUBARU LOT 4 AND 5 REDEVELOPMENT CAMDEN CAMDEN COUNTY NEW JERSEY	Drawing Title USGS SITE LOCATION MAP	Project No. 220132401 Date 04/01/2025 Drawn By JIL Checked By JCW	Figure FIG. 1

Date: 6/9/2025 Time: 10:54 User: jlees Style Table: Langan.stb Layout: FIG.1 Document Code: FG01-220132401-0201-CS101-0101



SauB - Sauken gravelly artifactual sandy loam
URdB - Urban land, sandy substratum
UReB - Urban land - Anthroportic Udorthents complex

100 0 50 100
SCALE IN FEET

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Project
SUBARU LOT 4 AND 5 REDEVELOPMENT
CAMDEN COUNTY CAMDEN NEW JERSEY

Drawing Title
SOIL MAP

Project No. 220132401
Date 04/01/2025
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Figure
FIG. 2

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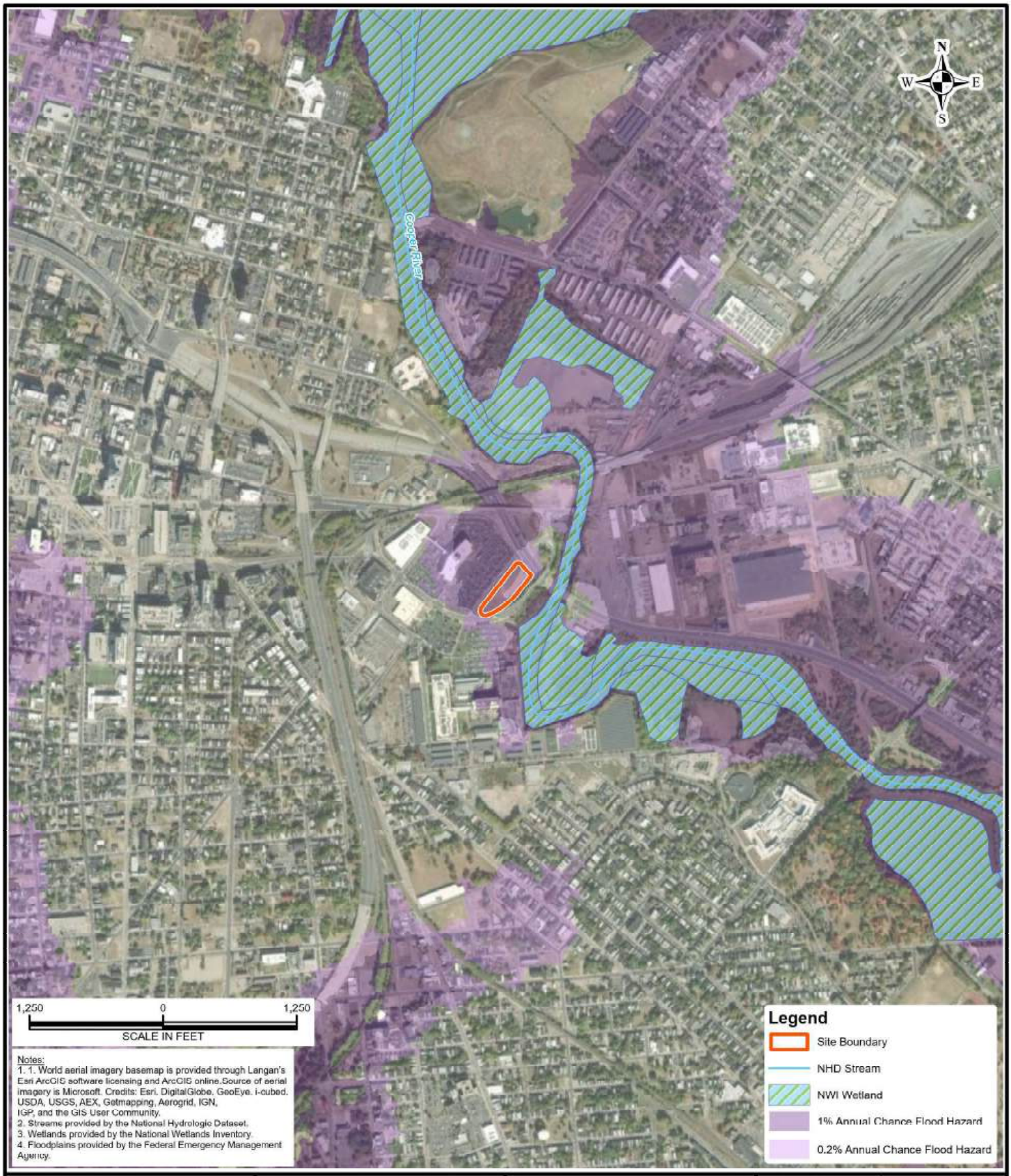

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Project
SUBARU
LOTS 4 AND 5
REDEVELOPMENT
250 MEMORIAL AVE
CAMDEN
CAMDEN COUNTY NJ

Figure Title
FEMA
FLOOD
MAP

Project No.	220132421
Date	5/13/2025
Scale	1" = 1,250 feet
Drawn By	RDB

Figure
3

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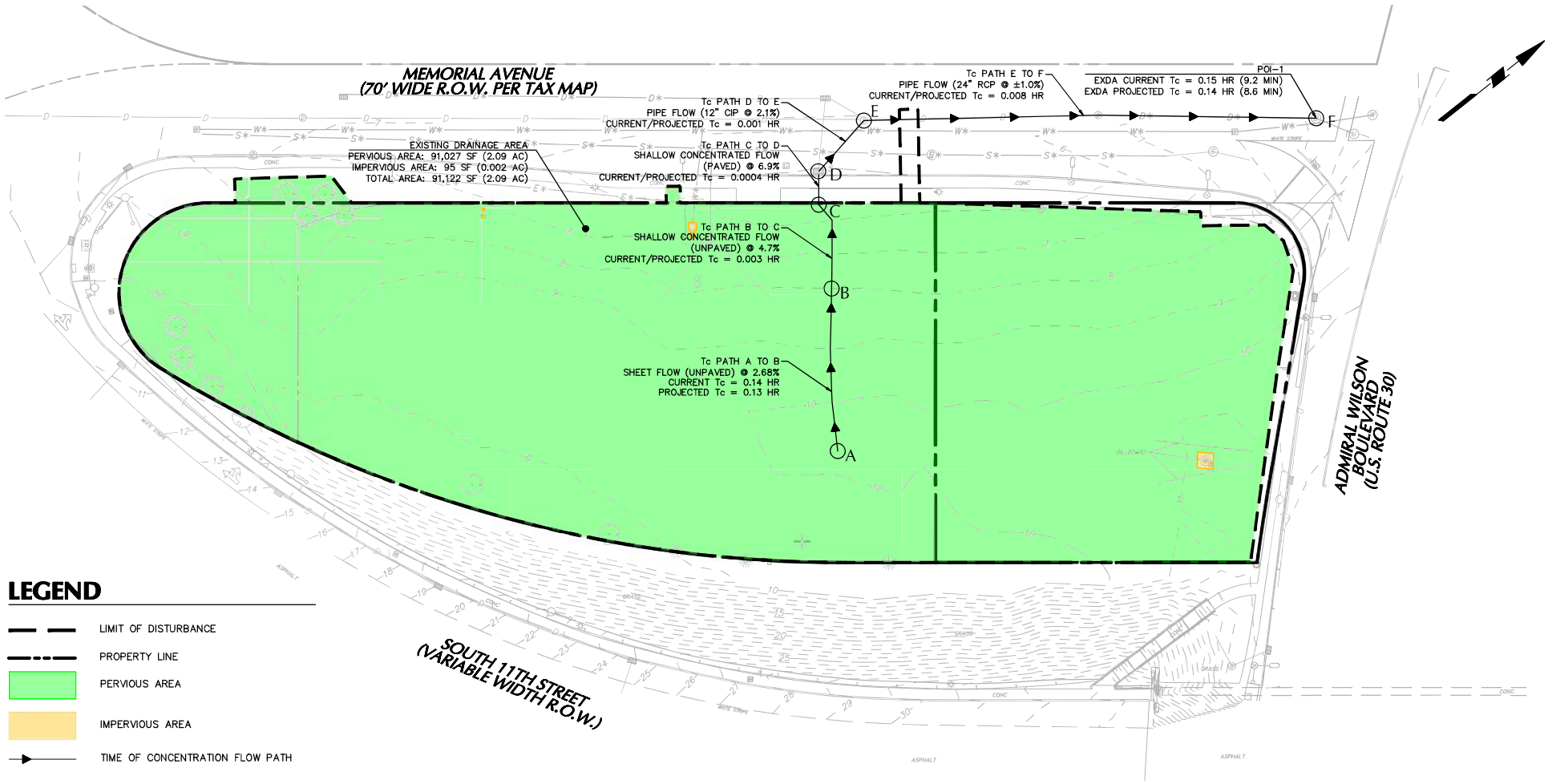

LEGEND

- LIMIT OF DISTURBANCE
- PROPERTY LINE
- PERVIOUS AREA
- IMPERVIOUS AREA
- TIME OF CONCENTRATION FLOW PATH

DRAINAGE AREA	LAND COVER	HYDROLOGIC SOIL GROUP	AREA		CN
			SF	ACRES	
EXDA (POI-1)	Impervious	C	95	0.002	98
	Grass (good conditions)	C	91,027	2.090	74
	TOTAL		**91,122**	**2.092**	

50 0 25 50

SCALE: 1 INCH = 50 FEET

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Project: SUBARU BLOCK 1464 LOTS 4 AND 5 VEHICLE STORAGE LOT
CAMDEN
CAMDEN COUNTY NEW JERSEY

Drawing Title: PRE-CONSTRUCTION DRAINAGE AREA MAP

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Date 6/12/2025
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Figure: FIG. 4

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Project No. 220132401

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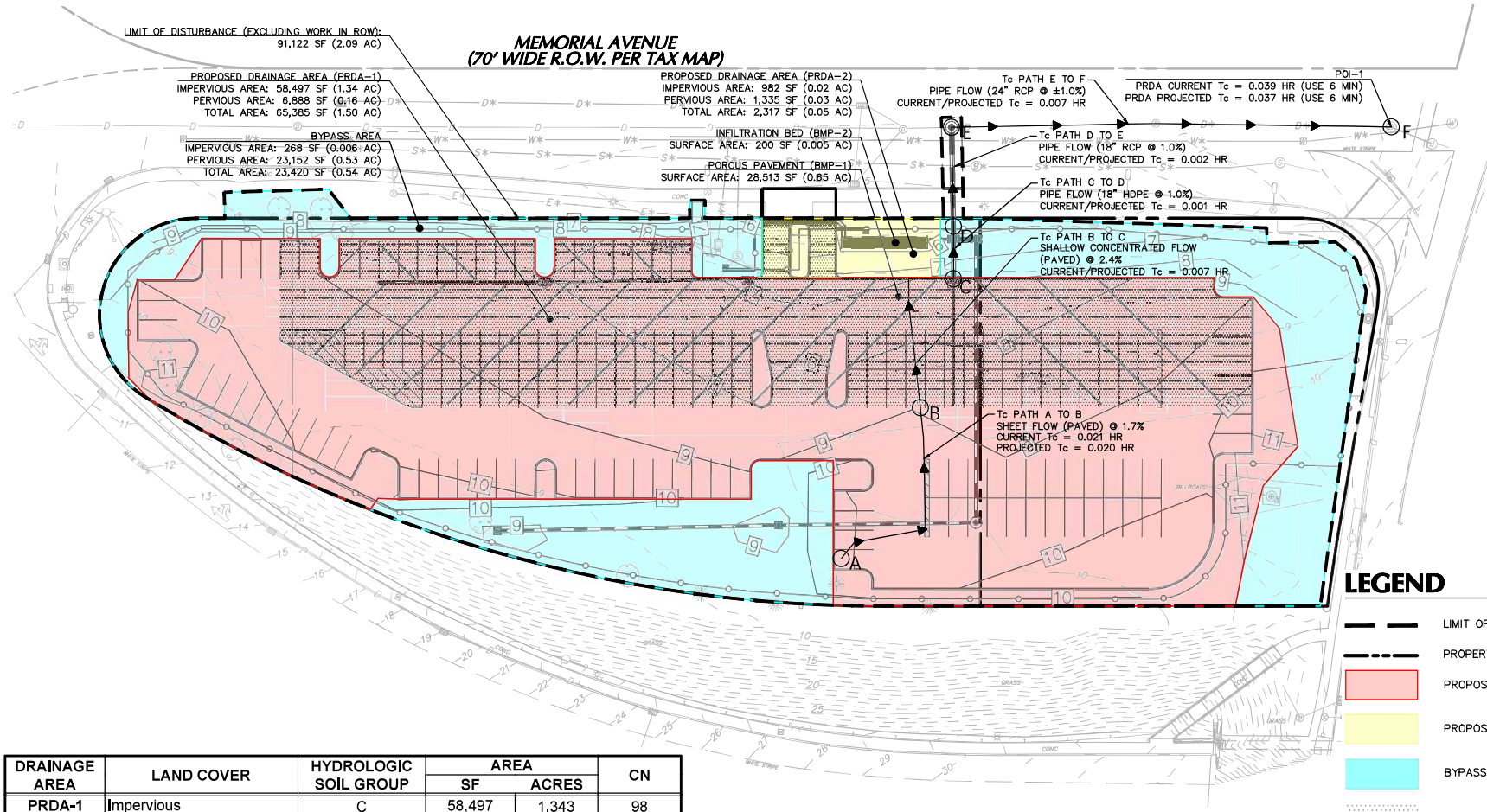
Date: 8/7/2025 Time: 17:02 User: jlees Style Table: Langan.stb Layout: FIG.1 Document Code: FG01-220132401-0201-CG101-0101



LEGEND

- LIMIT OF DISTURBANCE
- PROPERTY LINE
- PROPOSED DRAINAGE AREA 1 (PRDA-1)
- PROPOSED DRAINAGE AREA 2 (PRDA-2)
- BYPASS AREAS
- POROUS AREA
- TIME OF CONCENTRATION FLOW PATH

50 0 25 50

SCALE: 1 INCH = 50 FEET

DRAINAGE AREA	LAND COVER	HYDROLOGIC SOIL GROUP	AREA SF	AREA ACRES	CN
PRDA-1 (POI-1)	Impervious	C	58,497	1.343	98
	Grass (fair conditions)	C	6,888	0.158	79
	TOTAL		65,385	1.501	
DRAINAGE AREA	LAND COVER	HYDROLOGIC SOIL GROUP	AREA SF	AREA ACRES	CN
PRDA-2 (POI-1)	Impervious	C	982	0.023	98
	Grass (fair conditions)	C	1,335	0.031	79
	TOTAL		2,317	0.053	
DRAINAGE AREA	LAND COVER	HYDROLOGIC SOIL GROUP	AREA SF	AREA ACRES	CN
BYPASS (POI-1)	Impervious	C	268	0.006	98
	Grass (fair conditions)	C	23,152	0.531	79
	TOTAL		23,420	0.538	

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Project: SUBARU BLOCK 1464 LOTS 4 AND 5 VEHICLE STORAGE LOT
CAMDEN COUNTY CAMDEN NEW JERSEY

Drawing Title: POST-CONSTRUCTION DRAINAGE AREA MAP

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Figure: FIG. 5

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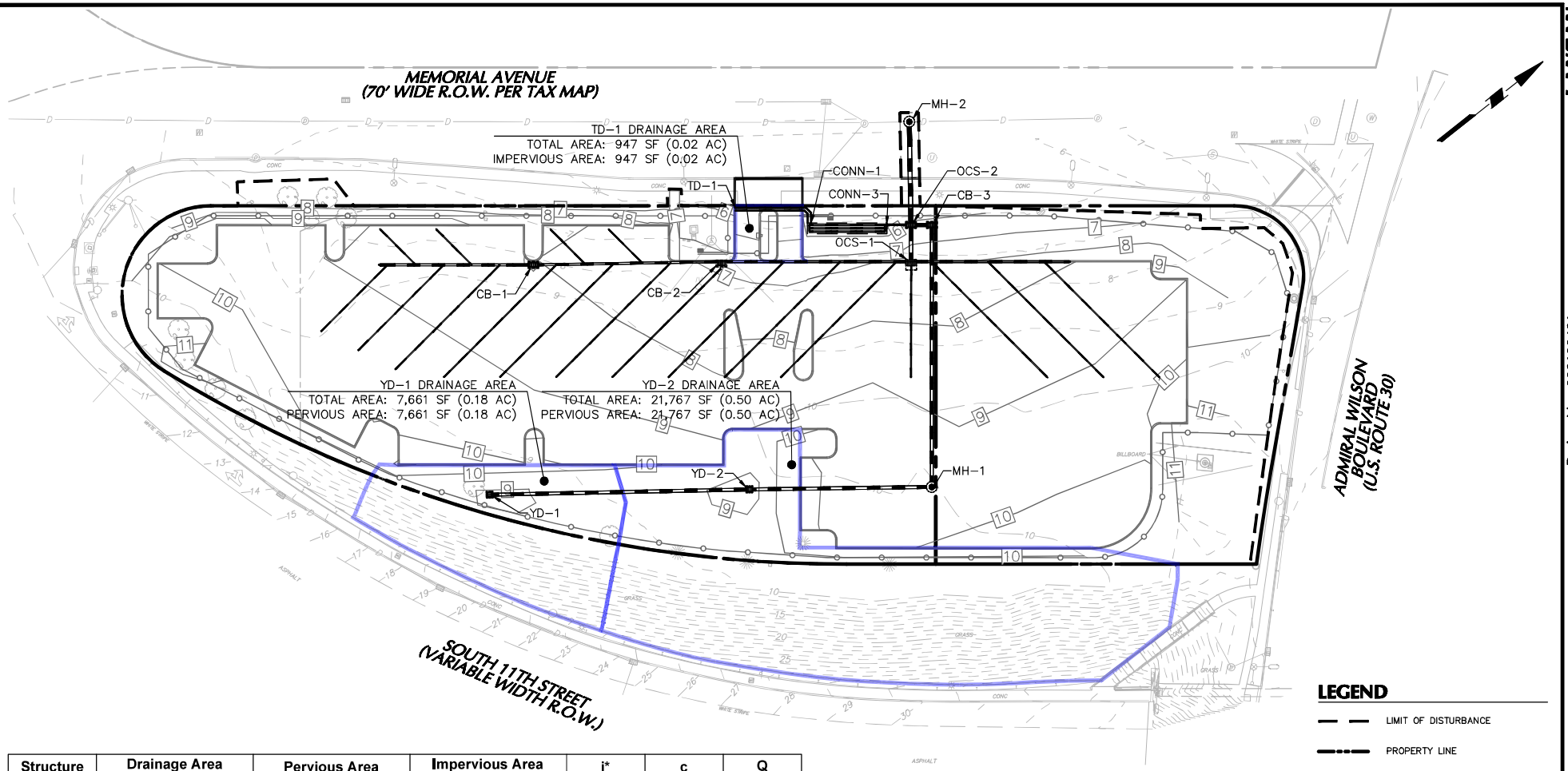
Date: 2/6/2026 Time: 13:42 User: jlees Style Table: Langan.stb Layout: FIG.2 Document Code: FG01-220132401-0201-CG101-0102



Structure	Drainage Area		Pervious Area		Impervious Area		i*	c	Q
	sf	acres	sf	acres	sf	acres	in/hr		cfs
YD-1	7,661	**0.176**	7,661	**0.176**	0	**0.00**	7.30	***0.79***	**1.01**
YD-2	21,767	**0.500**	21,767	**0.500**	0	**0.00**	7.30	***0.79***	**2.88**
TD-1	947	**0.022**	0	**0.000**	947	**0.02**	7.30	***0.99***	**0.16**
OCS-1	-	-	-	-	-	-	-	-	**7.60**
OCS-2	-	-	-	-	-	-	-	-	**0.63**

1. 7.3 in/hr represents the five-minute inlet concentration time in the 25-year storm event (NOAA Atlas 14 Rainfall Data)
2. A weighted "c" value was calculated for each drainage area
3. Impervious c = 0.99 and pervious c = 0.79 (Grass cover in fair condition for Hydrological Soil Group C)
4. Peak Flow (Q) was calculated using Rational Method, Q=CiA
5. Peak Flow (Q) for OCS-1 and OCS-2 are from HydroCAD results for the 100-year projected storm out of BMP-1 and BMP-2

LANGAN
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NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project: SUBARU BLOCK 1464 LOTS 4 AND 5 VEHICLE STORAGE LOT
CAMDEN COUNTY CAMDEN NEW JERSEY

Drawing Title: POST-CONSTRUCTION INLET DRAINAGE AREA MAP

Project No. 220132401
Date 01/13/2026
Drawn By JIL
Checked By JCW

Figure: FIG. 6

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Project No. 220132401

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Appendix A
Low-Impact Development Checklist

New Jersey Stormwater Best Management Practices Manual

February 2004

APPENDIX A

Low Impact Development Checklist

A checklist for identifying nonstructural stormwater management strategies incorporated into proposed land development

According to the NJDEP Stormwater Management Rules at N.J.A.C. 7:8, the groundwater recharge, stormwater quality, and stormwater quantity standards established by the Rules for major land development projects must be met by incorporating nine specific nonstructural stormwater management strategies into the project's design to the maximum extent practicable.

To accomplish this, the Rules require an applicant seeking land development approval from a regulatory board or agency to identify those nonstructural strategies that have been incorporated into the project's design. In addition, if an applicant contends that it is not feasible to incorporate any of the specific strategies into the project's design, particularly for engineering, environmental, or safety reasons, the Rules further require that the applicant provide a basis for that contention.

This checklist has been prepared to assist applicants, site designers, and regulatory boards and agencies in ensuring that the nonstructural stormwater management requirements of the Rules are met. It provides an applicant with a means to identify both the nonstructural strategies incorporated into the development's design and the specific low impact development BMPs (LID-BMPs) that have been used to do so. It can also help an applicant explain the engineering, environmental, and/or safety reasons that a specific nonstructural strategy could not be incorporated into the development's design.

The checklist can also assist municipalities and other land development review agencies in the development of specific requirements for both nonstructural strategies and LID-BMPs in zoning and/or land use ordinances and regulations. As such, where requirements consistent with the Rules have been adopted, they may supersede this checklist.

Finally, the checklist can be used during a pre-design meeting between an applicant and pertinent review personnel to discuss local nonstructural strategies and LID-BMPs requirements in order to optimize the development's nonstructural stormwater management design.

Since this checklist is intended to promote the use of nonstructural stormwater management strategies and provide guidance in their incorporation in land development projects, municipalities are permitted to revise it as necessary to meet the goals and objectives of their specific stormwater management program and plan within the limits of N.J.A.C. 7:8.

Low Impact Development Checklist

A checklist for identifying nonstructural stormwater management strategies incorporated into proposed land development

Municipality: City of Camden

County: Camden Date: 2/04/2026

Review board or agency: City of Camden Planning Board

Proposed land development name: Subaru Lot 4 and 5 Redevelopment

Lot(s): 1464 Block(s): 4 and 5

Project or application number: _____

Applicant's name: Finger One, LLC

Applicant's address: 1 Subaru Drive

Camden, NJ 08103

Telephone: 609-617-8497 Fax: _____

Email address: bszaka@subaru.com

Designer's name: Kyle MacGeorge (Langan Engineering and Environmental Services)

Designer's address: 1 University Square Drive, Suite 110

Princeton, NJ 08540

Telephone: 215-845-8924 Fax: _____

Email address: kmacgeorge@langan.com

Part 1: Description of Nonstructural Approach to Site Design

In narrative form, provide an overall description of the nonstructural stormwater management approach and strategies incorporated into the proposed site's design. Attach additional pages as necessary. Details of each nonstructural strategy are provided in Part 3 below.

The proposed stormwater management approach for this project includes low-impact development strategies listed below, in accordance with N.J.A.C 7:8-5.3:

1.Maintain pre-development drainage patterns to the extent feasible.

2.Manage the peak rate from the additional impervious surface created by the proposed project by using a combination of green-infrastructure best management practices (porous pavement and infiltration basin).

3.Provide low-maintenance native landscape plants that encourage retention, and native plants that minimize the use of lawns, fertilizers, and pesticides.

4.Provide preventive source controls storm inlets will comply with NJPDES criteria.

5.Redevelopment of brownfield as part of environmental cap rather than disturbing native land.

Part 2: Review of Local Stormwater Management Regulations

Title and date of stormwater management regulations used in development design:

City of Camden Zoning and Land Use and Stormwater Control and Management Code; N.J.A.C 7:8 (July 2023)

Do regulations include nonstructural requirements? Yes: X No: _____

If yes, briefly describe: Nonstructural requirements in the City of Camden ordinance are consistent with the N.J.A.C code requirements, which include evaluating nonstrutural strategies as part of the stormwater management plan to reduce the need for structural requirements.

List LID-BMPs prohibited by local regulations: N/A

Pre-design meeting held? Yes: _____ Date: _____ No: X

Meeting held with: N/A

Pre-design site walk held? Yes: _____ Date: _____ No: X

Site walk held with: N/A

Other agencies with stormwater review jurisdiction:

Name: DelAtlantic Conservation District (West Berlin Office serving Camden County)

Required approval: NJPDES Approval

Name: _____

Required approval: _____

Name: _____

Required approval: _____

Part 3: Nonstructural Strategies and LID-BMPs in Design

3.1 Vegetation and Landscaping

Effective management of both existing and proposed site vegetation can reduce a development's adverse impacts on groundwater recharges and runoff quality and quantity. This section of the checklist helps identify the vegetation and landscaping strategies and nonstructural LID-BMPs that have been incorporated into the proposed development's design to help maintain existing recharge rates and/or minimize or prevent increases in runoff quantity and pollutant loading.

A. Has an inventory of existing site vegetation been performed? Yes: X No: _____

If yes, was this inventory a factor in the site's layout and design? Yes: X No: _____

B. Does the site design utilize any of the following nonstructural LID-BMPs?

Preservation of natural areas? Yes: _____ No: X If yes, specify % of site: _____

Native ground cover? Yes: X No: _____ If yes, specify % of site: 34.7%

Vegetated buffers? Yes: _____ No: X If yes, specify % of site: _____

C. Do the land development regulations require these nonstructural LID-BMPs?

Preservation of natural areas? Yes: _____ No: X If yes, specify % of site: _____

Native ground cover? Yes: _____ No: X If yes, specify % of site: _____

Vegetated buffers? Yes: _____ No: X If yes, specify % of site: _____

D. If vegetated filter strips or buffers are utilized, specify their functions: N/A

Reduce runoff volume increases through lower runoff coefficient: Yes: _____ No: _____

Reduce runoff pollutant loads through runoff treatment: Yes: _____ No: _____

Maintain groundwater recharge by preserving natural areas: Yes: _____ No: _____

3.2 Minimize Land Disturbance

Minimizing land disturbance is a nonstructural LID-BMP that can be applied during both the development's construction and post-construction phases. This section of the checklist helps identify those land disturbance strategies and nonstructural LID-BMPs that have been incorporated into the proposed development's design to minimize land disturbance and the resultant change in the site's hydrologic character.

A. Have inventories of existing site soils and slopes been performed? Yes: X No: _____

If yes, were these inventories factors in the site's layout and design? Yes: X No: _____

B. Does the development's design utilize any of the following nonstructural LID-BMPs?

Restrict permanent site disturbance by land owners? Yes: _____ No: X

If yes, how: _____

_____

Restrict temporary site disturbance during construction? Yes: _____ No: X

If yes, how: _____

_____

Consider soils and slopes in selecting disturbance limits? Yes: X No: _____

If yes, how: No steep slopes exist on site pre-construction. Proposed grading matches existing grades and drainage patterns to the best extent possible to minimize clearing and grading.

C. Specify percentage of site to be cleared: 100% Regraded: 100%

D. Specify percentage of cleared areas done so for buildings: 0%

For driveways and parking: 100% For roadways: 0%

E. What design criteria and/or site changes would be required to reduce the percentages in C and D above?

Nothing can be changed to reduce the percentages in C and D above.

F. Specify site's hydrologic soil group (HSG) percentages:

HSG A: _____ HSG B: _____ HSG C: 100% HSG D: _____

G. Specify percentage of each HSG that will be permanently disturbed:

HSG A: _____ HSG B: _____ HSG C: 100% HSG D: _____

H. Locating site disturbance within areas with less permeable soils (HSG C and D) and minimizing disturbance within areas with greater permeable soils (HSG A and B) can help maintain groundwater recharge rates and reduce runoff volume increases. In light of the HSG percentages in F and G above, what other practical measures if any can be taken to achieve this?

No changes, all site soils are HSG C.

I. Does the site include Karst topography? Yes: _____ No: X

If yes, discuss measures taken to limit Karst impacts:

3.3 Impervious Area Management

New impervious surfaces at a development site can have the greatest adverse effect on groundwater recharge and stormwater quality and quantity. This section of the checklist helps identify those nonstructural strategies and LID-BMPs that have been incorporated into a proposed development's design to comprehensively manage the extent and impacts of new impervious surfaces.

A. Specify impervious cover at site: Existing: 0.1% Proposed: 65%

B. Specify maximum site impervious coverage allowed by regulations: 90%

C. Compare proposed street cartway widths with those required by regulations:

Type of Street	Proposed Cartway Width (feet)	Required Cartway Width (feet)
Residential access – low intensity	N/A - No streets	proposed.
Residential access – medium intensity		
Residential access – high intensity with parking		
Residential access – high intensity without parking		
Neighborhood		
Minor collector – low intensity without parking		
Minor collector – with one parking lane		
Minor collector – with two parking lanes		
Minor collector – without parking		
Major collector		

D. Compare proposed parking space dimensions with those required by regulations:

Proposed: 9FT x 18FT Regulations: 9FT x 18FT

E. Compare proposed number of parking spaces with those required by regulations:

Proposed: 159 Regulations: N/A - principal use is a vehicle storage lot

F. Specify percentage of total site impervious cover created by buildings: 0%

By driveways and parking: 100% By roadways: 0%

G. What design criteria and/or site changes would be required to reduce the percentages in F above?

N/A - No building/s being proposed.

H. Specify percentage of total impervious area that will be unconnected:

Total site: 0% Buildings: 0% Driveways and parking: 0% Roads: 0%

I. Specify percentage of total impervious area that will be porous:

Total site: 49% Buildings: 0% Driveways and parking: 49% Roads: 0%

J. Specify percentage of total building roof area that will be vegetated: 0%

K. Specify percentage of total parking area located beneath buildings: 0%

L. Specify percentage of total parking located within multi-level parking deck: 0%

3.4 Time of Concentration Modifications

Decreasing a site's time of concentration (Tc) can lead directly to increased site runoff rates which, in turn, can create new and/or aggravate existing erosion and flooding problems downstream. This section of the checklist helps identify those nonstructural strategies and LID-BMPs that have been incorporated into the proposed development's design to effectively minimize such Tc decreases.

When reviewing Tc modification strategies, it is important to remember that a drainage area's Tc should reflect the general conditions throughout the area. As a result, Tc modifications must generally be applied throughout a drainage area, not just along a specific Tc route.

A. Specify percentage of site's total stormwater conveyance system length that will be:

Storm sewer: 54% Vegetated swale: 0% Natural channel: 0%

Stormwater management facility: 46% Other: 0%

Note: the total length of the stormwater conveyance system should be measured from the site's downstream property line to the downstream limit of sheet flow at the system's headwaters.

B. What design criteria and/or site changes would be required to reduce the storm sewer percentages and increase the vegetated swale and natural channel percentages in A above?

This is not possible in a urban setting.

C. In conveyance system subareas that have overland or sheet flow over impervious surfaces or turf grass, what practical and effective site changes can be made to:

Decrease overland flow slope: No changes can be made, since slopes must comply with parking and driveway requirements.

Increase overland flow roughness: This is not possible in a urban setting.

3.5 Preventative Source Controls

The most effective way to address water quality concerns is by pollution prevention. This section of the checklist helps identify those nonstructural strategies and LID-BMPs that have been incorporated into the proposed development's design to reduce the exposure of pollutants to prevent their release into the stormwater runoff.

A. Trash Receptacles

Specify the number of trash receptacles provided: 0

Specify the spacing between the trash receptacles: N/A

Compare trash receptacles proposed with those required by regulations:

Proposed: 0 Regulations: N/A

B. Pet Waste Stations

Specify the number of pet waste stations provided: 0

Specify the spacing between the pet waste stations: N/A

Compare pet waste stations proposed with those required by regulations:

Proposed: 0 Regulations: N/A

C. Inlets, Trash Racks, and Other Devices that Prevent Discharge of Large Trash and Debris

Specify percentage of total inlets that comply with the NJPDES storm drain inlet criteria: 100%

D. Maintenance

Specify the frequency of the following maintenance activities:

Street sweeping: Proposed: 0 Regulations: N/A

Litter collection: Proposed: 0 Regulations: N/A

Identify other stormwater management measures on the site that prevent discharge of large trash and debris:

_____

_____

E. Prevention and Containment of Spills

Identify locations where pollutants are located on the site, and the features that prevent these pollutants from being exposed to stormwater runoff:

Pollutant: N/A Location: _____

Feature utilized to prevent pollutant exposure, harmful accumulation, or contain spills:

Pollutant: N/A Location: _____

Feature utilized to prevent pollutant exposure, harmful accumulation, or contain spills:

Pollutant: N/A Location: _____

Feature utilized to prevent pollutant exposure, harmful accumulation, or contain spills:

Pollutant: N/A Location: _____

Feature utilized to prevent pollutant exposure, harmful accumulation, or contain spills:

Pollutant: N/A Location: _____

Part 4: Compliance with Nonstructural Requirements of NJDEP Stormwater Management Rules

1. Based upon the checklist responses above, indicate which nonstructural strategies have been incorporated into the proposed development's design in accordance with N.J.A.C. 7:8-5.3(b):

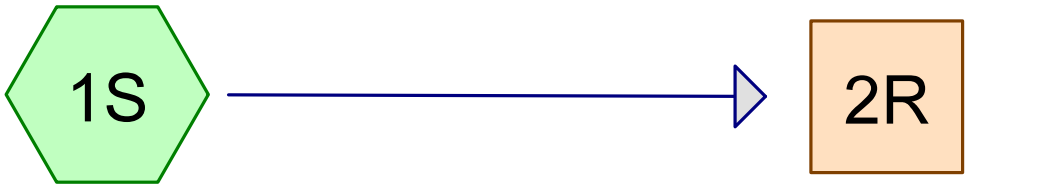
No.	Nonstructural Strategy	Yes	No
1.	Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment loss.	X	
2.	Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surfaces.	X	
3.	Maximize the protection of natural drainage features and vegetation.	X	
4.	Minimize the decrease in the pre-construction time of concentration.		X
5.	Minimize land disturbance including clearing and grading.	X	
6.	Minimize soil compaction.	X	
7.	Provide low maintenance landscaping that encourages retention and planting of native vegetation and minimizes the use of lawns, fertilizers, and pesticides.	X	
8.	Provide vegetated open-channel conveyance systems discharge into and through stable vegetated areas.		X
9.	Provide preventative source controls.	X	

2. For those strategies that have not been incorporated into the proposed development's design, provide engineering, environmental, and/or safety reasons. Attached additional pages as necessary.

The time of concentration will be decreased due to addition of pavement areas and stormwater conveyance systems. However, runoff will be managed by BMPs and the peak runoff rates leaving the site are lower than predevelopment conditions.
There is limited space to fit vegetated open-channel conveyance. Therefore, storm piping is proposed to convey runoff. As noted above, this runoff is directed to BMPs for management of quantity, quality and rate per NJDEP and City of Camden requirements.

Appendix B
Pre-Construction Runoff Hydrographs

Pre-Construction -
Current Rainfall



Existing - Current

POI-1 - Current

Subcat Reach Pond Link

Routing Diagram for Subaru Finger 1 - SWM Design
Prepared by Langan Engineering, Printed 8/6/2025
HydroCAD® 10.20-6a s/n 08223 © 2024 HydroCAD Software Solutions LLC

Summary for Subcatchment 1S: Existing - Current

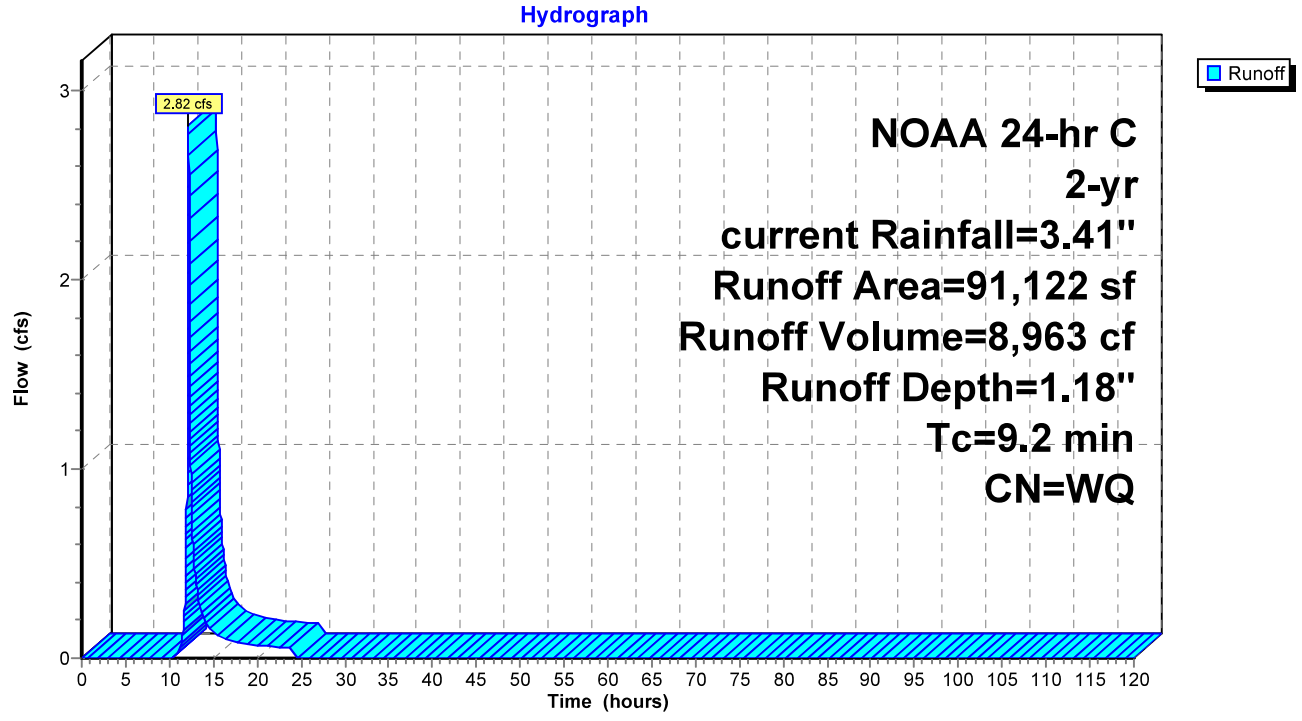
Runoff = 2.82 cfs @ 12.17 hrs, Volume= 8,963 cf, Depth= 1.18"
Routed to Reach 2R : POI-1 - Current

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 2-yr, current Rainfall=3.41"

	Area (sf)	CN	Description
*	95	98	Impervious
*	91,027	74	Grass (Good condition)
	91,122		Weighted Average
	91,027		99.90% Pervious Area
	95		0.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2					**Direct Entry, Tc**

Subcatchment 1S: Existing - Current



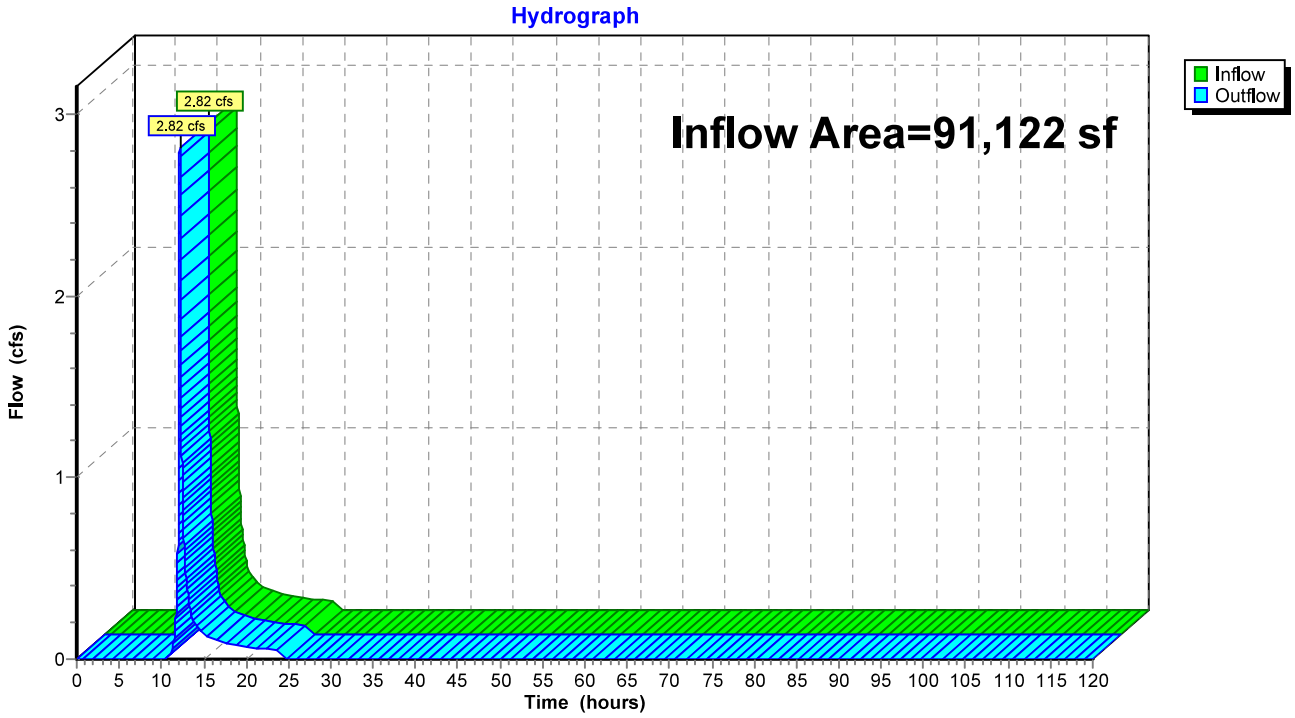
Summary for Reach 2R: POI-1 - Current

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 91,122 sf, 0.10% Impervious, Inflow Depth = 1.18" for 2-yr, current event
Inflow = 2.82 cfs @ 12.17 hrs, Volume= 8,963 cf
Outflow = 2.82 cfs @ 12.17 hrs, Volume= 8,963 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach 2R: POI-1 - Current



Summary for Subcatchment 1S: Existing - Current

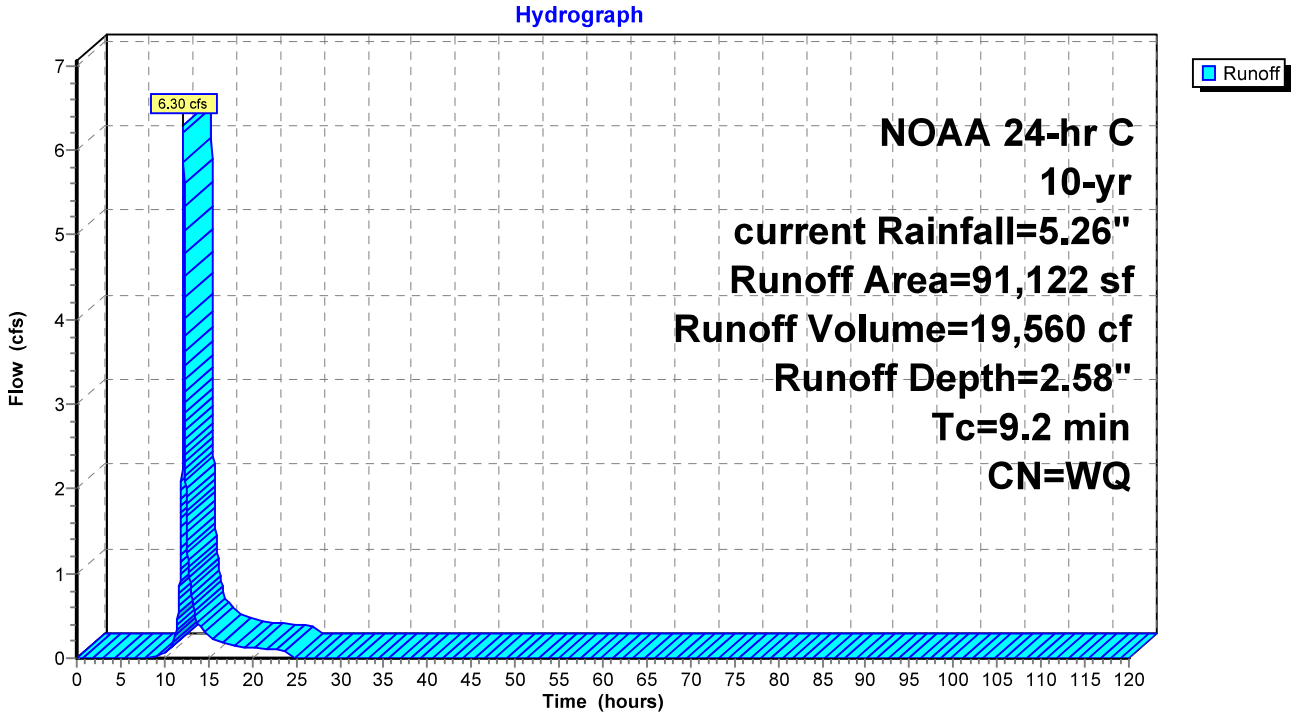
Runoff = 6.30 cfs @ 12.17 hrs, Volume= 19,560 cf, Depth= 2.58"
Routed to Reach 2R : POI-1 - Current

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 10-yr, current Rainfall=5.26"

	Area (sf)	CN	Description
*	95	98	Impervious
*	91,027	74	Grass (Good condition)
	91,122		Weighted Average
	91,027		99.90% Pervious Area
	95		0.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2					**Direct Entry, Tc**

Subcatchment 1S: Existing - Current



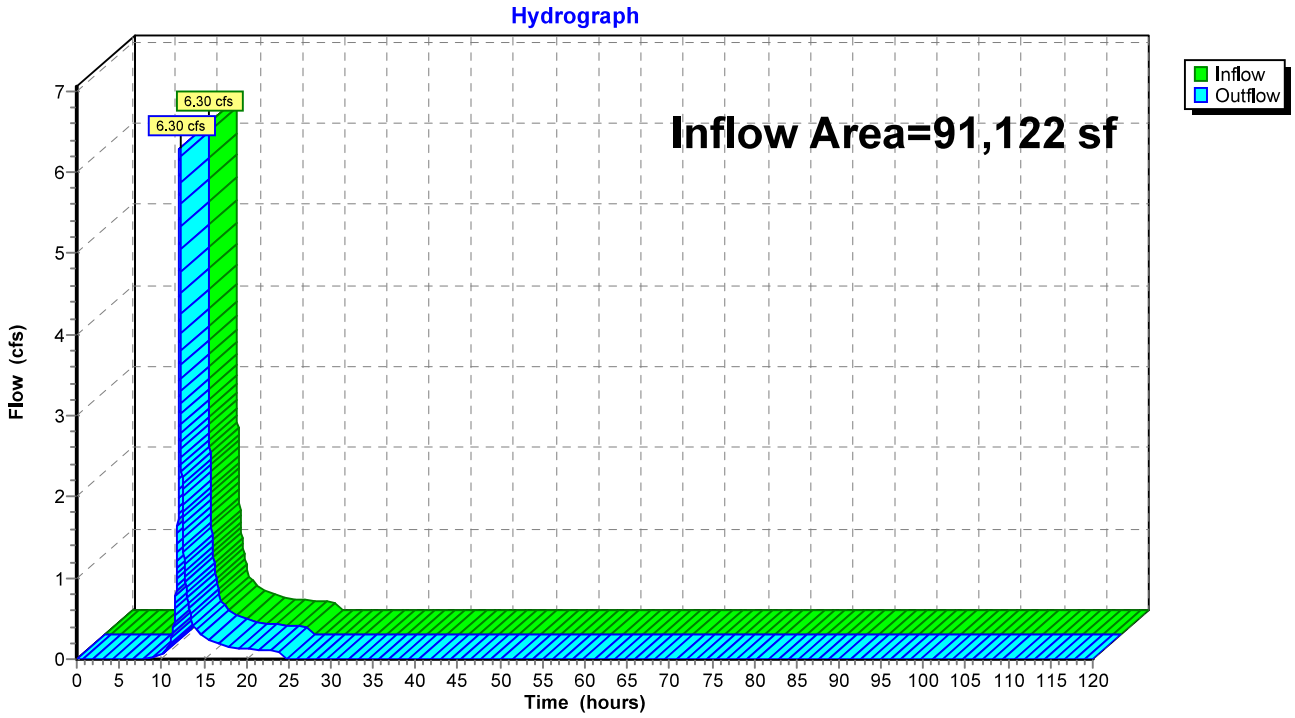
Summary for Reach 2R: POI-1 - Current

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 91,122 sf, 0.10% Impervious, Inflow Depth = 2.58" for 10-yr, current event
Inflow = 6.30 cfs @ 12.17 hrs, Volume= 19,560 cf
Outflow = 6.30 cfs @ 12.17 hrs, Volume= 19,560 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach 2R: POI-1 - Current



Summary for Subcatchment 1S: Existing - Current

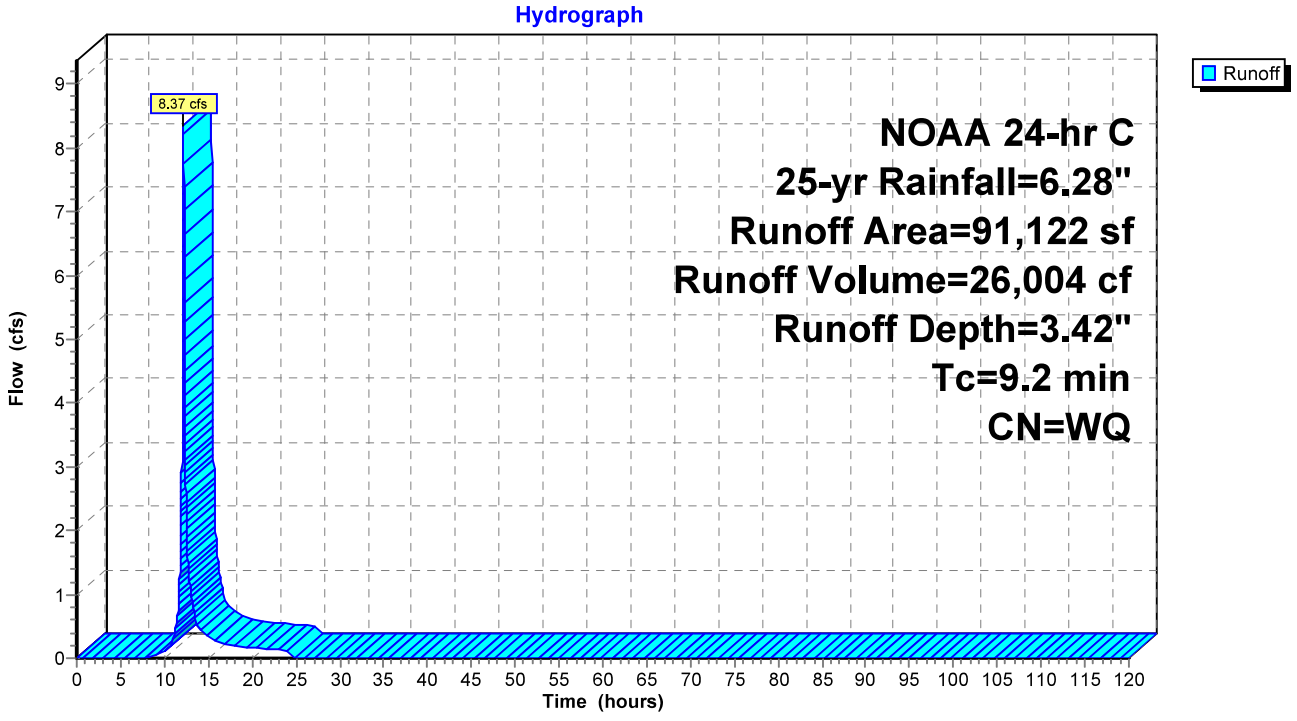
Runoff = 8.37 cfs @ 12.17 hrs, Volume= 26,004 cf, Depth= 3.42"
Routed to Reach 2R : POI-1 - Current

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 25-yr Rainfall=6.28"

	Area (sf)	CN	Description
*	95	98	Impervious
*	91,027	74	Grass (Good condition)
	91,122		Weighted Average
	91,027		99.90% Pervious Area
	95		0.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2					**Direct Entry, Tc**

Subcatchment 1S: Existing - Current



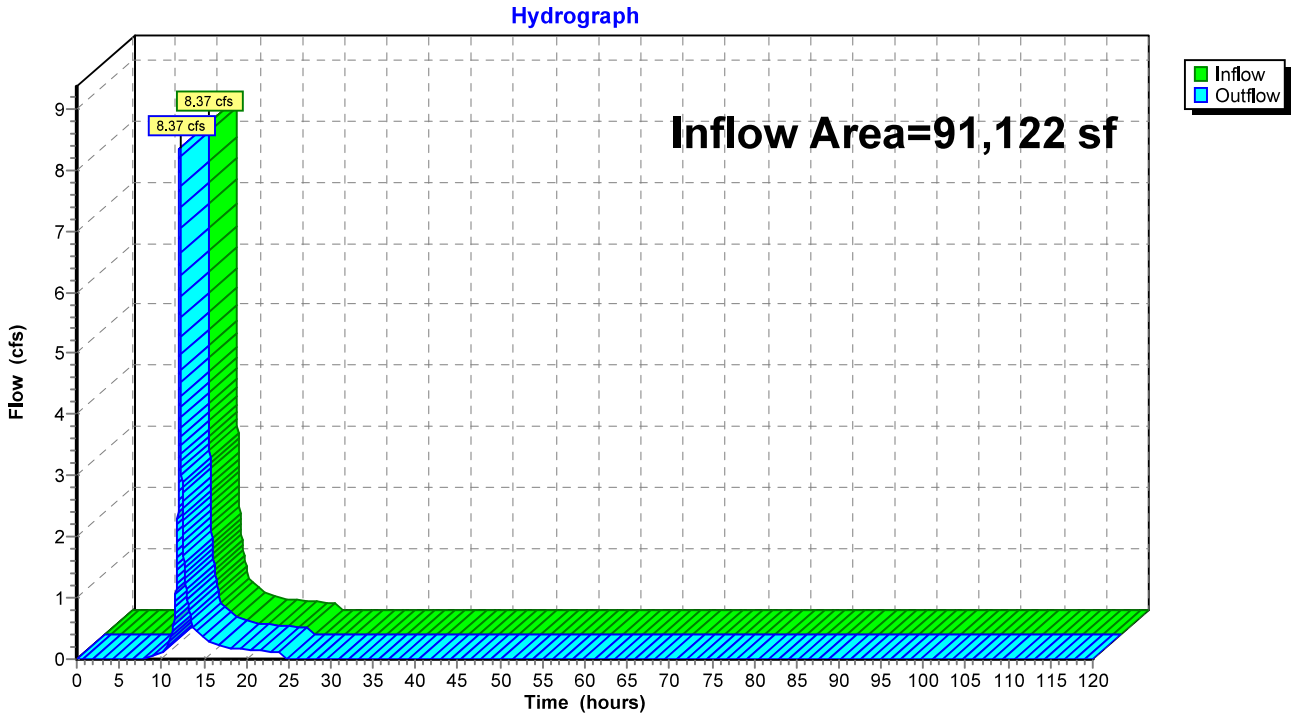
Summary for Reach 2R: POI-1 - Current

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 91,122 sf, 0.10% Impervious, Inflow Depth = 3.42" for 25-yr event
Inflow = 8.37 cfs @ 12.17 hrs, Volume= 26,004 cf
Outflow = 8.37 cfs @ 12.17 hrs, Volume= 26,004 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach 2R: POI-1 - Current



Summary for Subcatchment 1S: Existing - Current

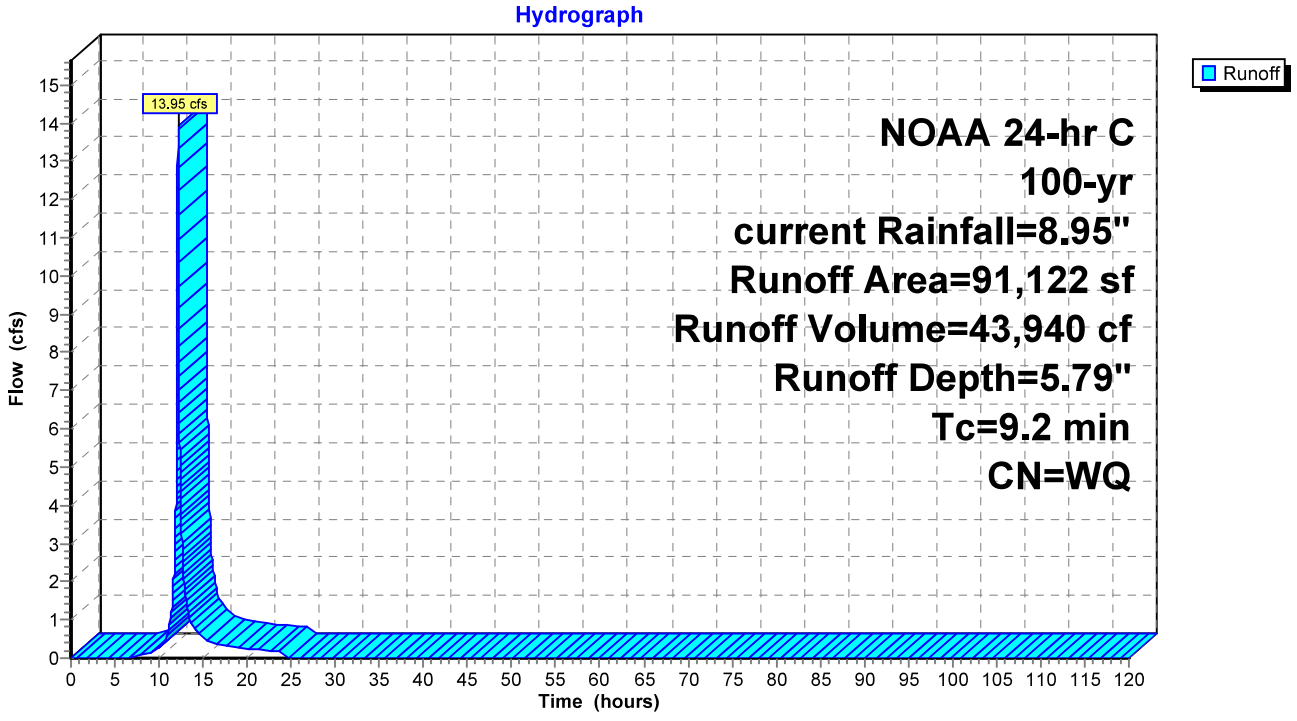
Runoff = 13.95 cfs @ 12.17 hrs, Volume= 43,940 cf, Depth= 5.79"
Routed to Reach 2R : POI-1 - Current

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 100-yr, current Rainfall=8.95"

	Area (sf)	CN	Description
*	95	98	Impervious
*	91,027	74	Grass (Good condition)
	91,122		Weighted Average
	91,027		99.90% Pervious Area
	95		0.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2					**Direct Entry, Tc**

Subcatchment 1S: Existing - Current



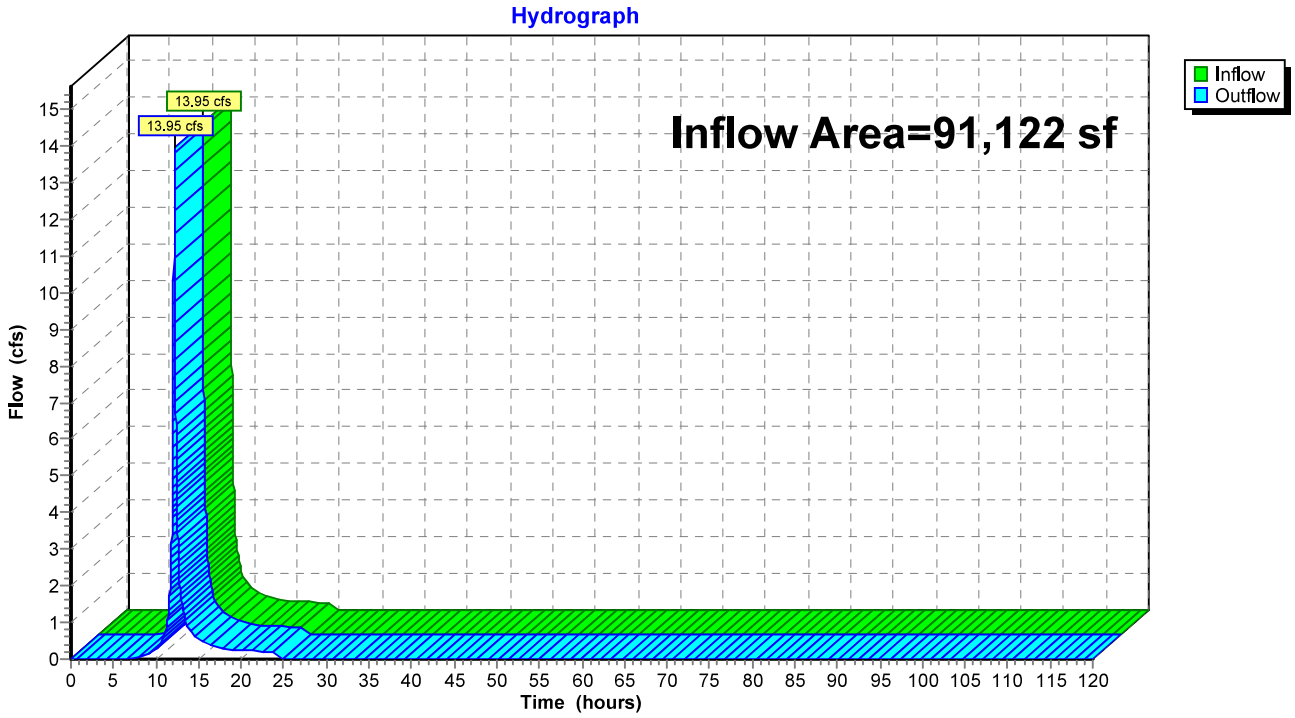
Summary for Reach 2R: POI-1 - Current

[40] Hint: Not Described (Outflow=Inflow)

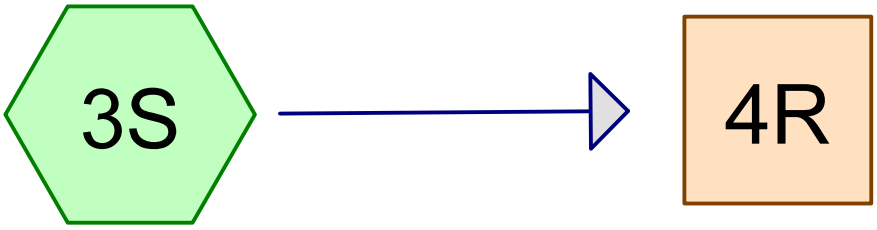
Inflow Area = 91,122 sf, 0.10% Impervious, Inflow Depth = 5.79" for 100-yr, current event
Inflow = 13.95 cfs @ 12.17 hrs, Volume= 43,940 cf
Outflow = 13.95 cfs @ 12.17 hrs, Volume= 43,940 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach 2R: POI-1 - Current



Pre-Construction - Projected Rainfall



Existing - Projected

POI-1 - Projected

Subcat Reach Pond Link

Routing Diagram for Subaru Finger 1 - SWM Design
Prepared by Langan Engineering, Printed 8/6/2025
HydroCAD® 10.20-6a s/n 08223 © 2024 HydroCAD Software Solutions LLC

Summary for Subcatchment 3S: Existing - Projected

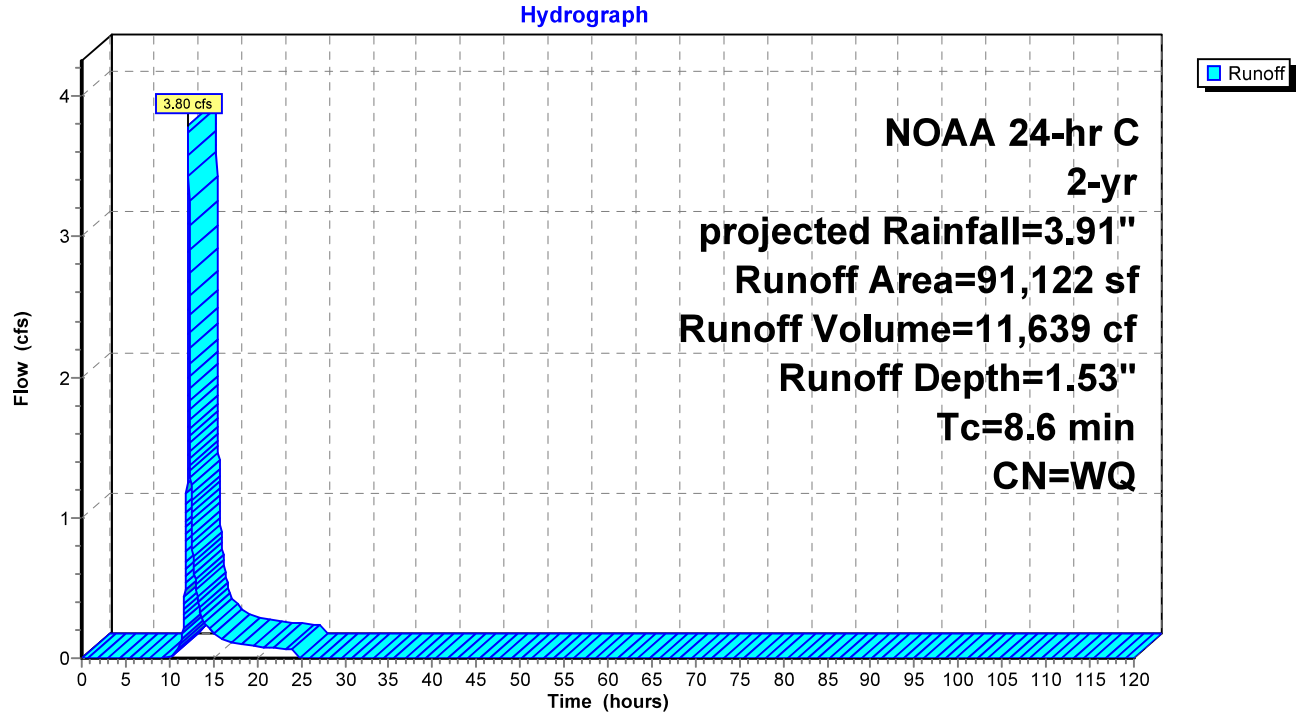
Runoff = 3.80 cfs @ 12.16 hrs, Volume= 11,639 cf, Depth= 1.53"
Routed to Reach 4R : POI-1 - Projected

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 2-yr, projected Rainfall=3.91"

	Area (sf)	CN	Description
*	95	98	Impervious
*	91,027	74	Grass (Good condition)
	91,122		Weighted Average
	91,027		99.90% Pervious Area
	95		0.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.6					**Direct Entry, Tc**

Subcatchment 3S: Existing - Projected



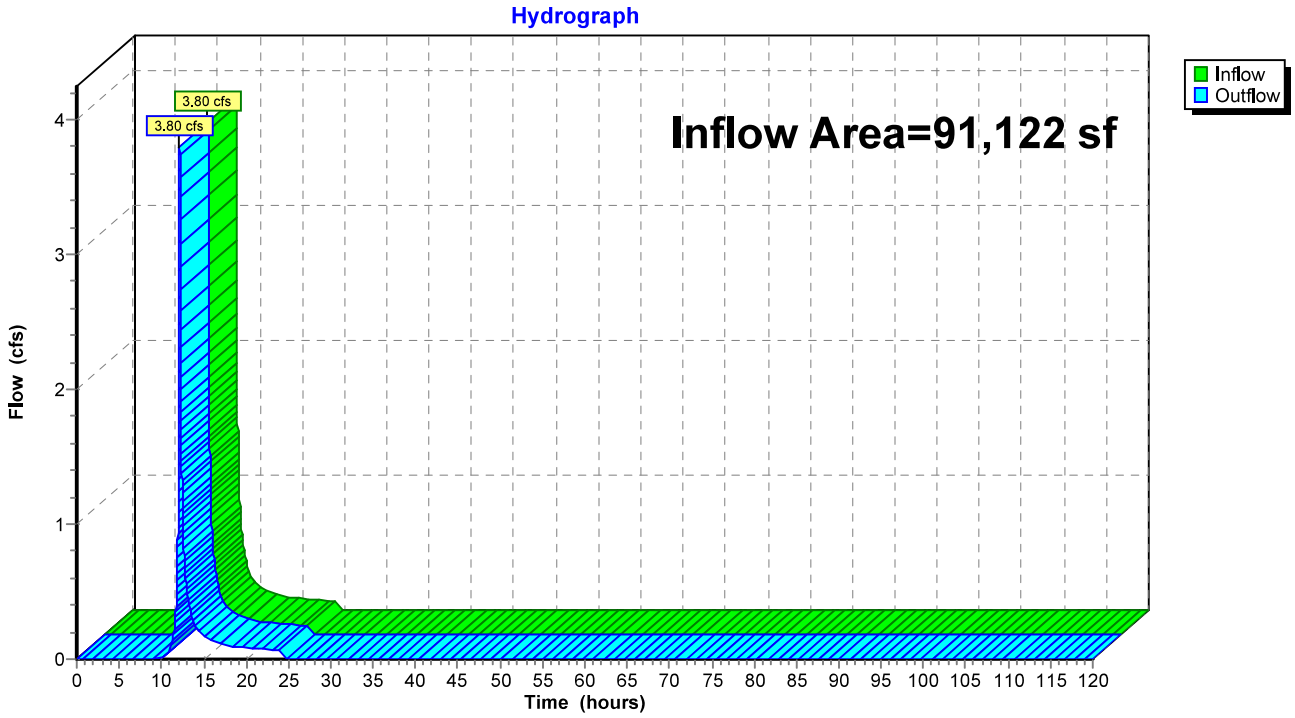
Summary for Reach 4R: POI-1 - Projected

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 91,122 sf, 0.10% Impervious, Inflow Depth = 1.53" for 2-yr, projected event
Inflow = 3.80 cfs @ 12.16 hrs, Volume= 11,639 cf
Outflow = 3.80 cfs @ 12.16 hrs, Volume= 11,639 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach 4R: POI-1 - Projected



Summary for Subcatchment 3S: Existing - Projected

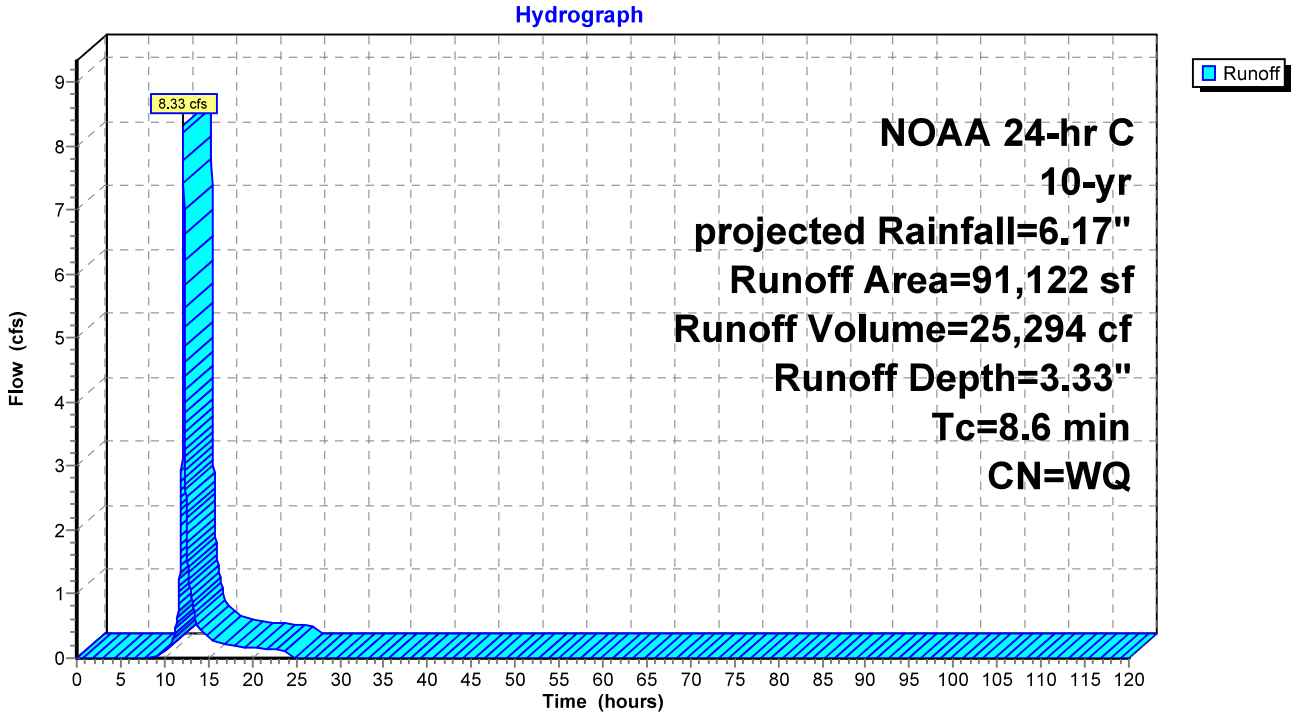
Runoff = 8.33 cfs @ 12.16 hrs, Volume= 25,294 cf, Depth= 3.33"
Routed to Reach 4R : POI-1 - Projected

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 10-yr, projected Rainfall=6.17"

	Area (sf)	CN	Description
*	95	98	Impervious
*	91,027	74	Grass (Good condition)
	91,122		Weighted Average
	91,027		99.90% Pervious Area
	95		0.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.6					**Direct Entry, Tc**

Subcatchment 3S: Existing - Projected



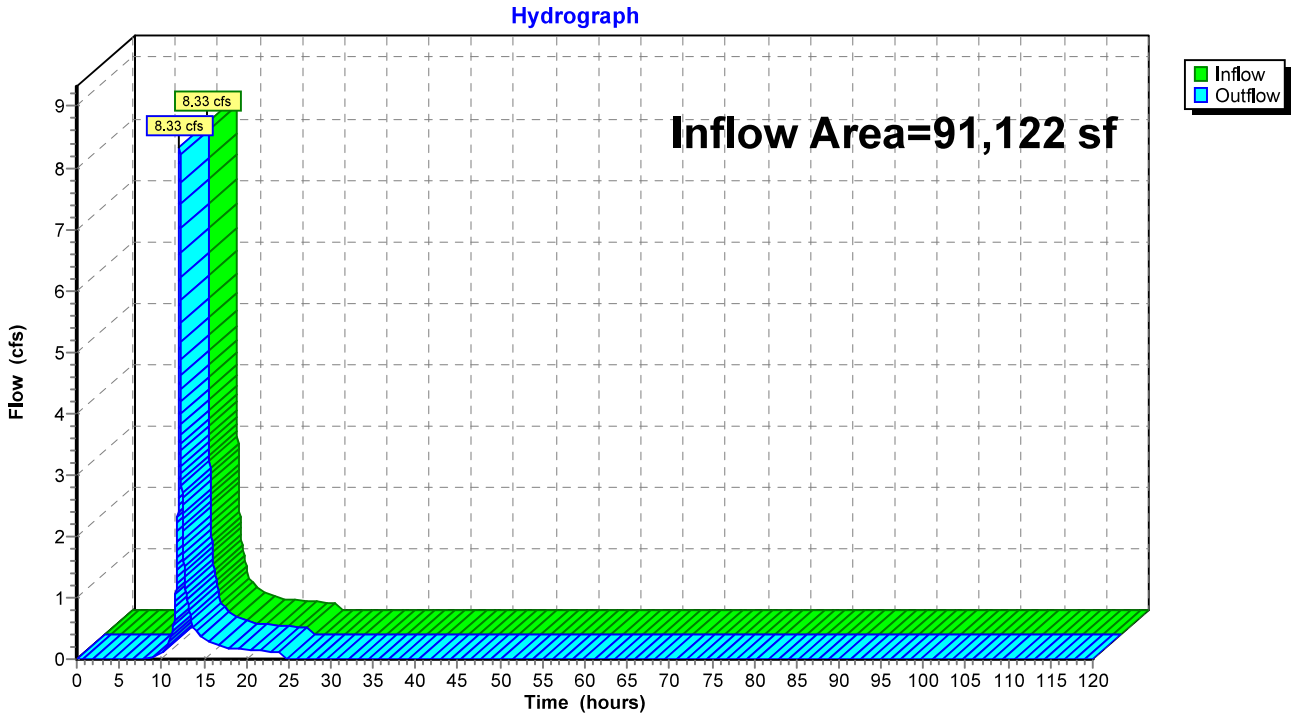
Summary for Reach 4R: POI-1 - Projected

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 91,122 sf, 0.10% Impervious, Inflow Depth = 3.33" for 10-yr, projected event
Inflow = 8.33 cfs @ 12.16 hrs, Volume= 25,294 cf
Outflow = 8.33 cfs @ 12.16 hrs, Volume= 25,294 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach 4R: POI-1 - Projected



Summary for Subcatchment 3S: Existing - Projected

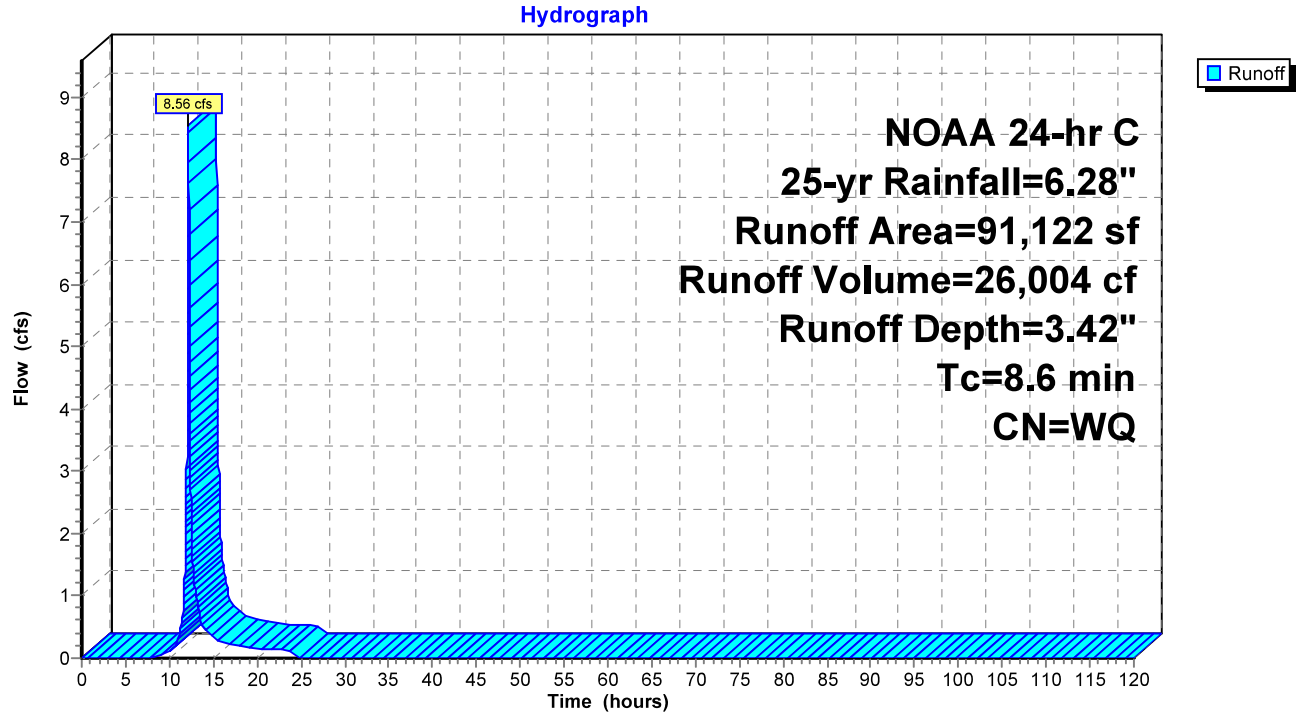
Runoff = 8.56 cfs @ 12.16 hrs, Volume= 26,004 cf, Depth= 3.42"
Routed to Reach 4R : POI-1 - Projected

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 25-yr Rainfall=6.28"

	Area (sf)	CN	Description
*	95	98	Impervious
*	91,027	74	Grass (Good condition)
	91,122		Weighted Average
	91,027		99.90% Pervious Area
	95		0.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.6					**Direct Entry, Tc**

Subcatchment 3S: Existing - Projected



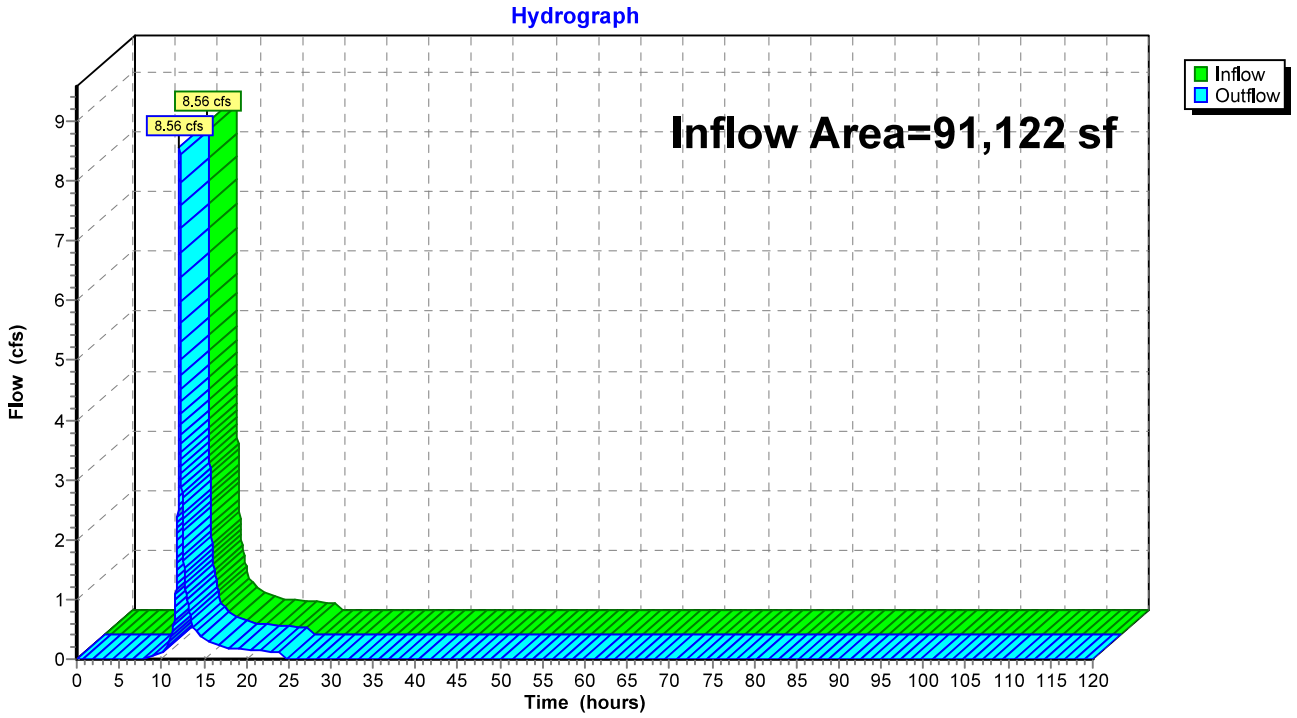
Summary for Reach 4R: POI-1 - Projected

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 91,122 sf, 0.10% Impervious, Inflow Depth = 3.42" for 25-yr event
Inflow = 8.56 cfs @ 12.16 hrs, Volume= 26,004 cf
Outflow = 8.56 cfs @ 12.16 hrs, Volume= 26,004 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach 4R: POI-1 - Projected



Summary for Subcatchment 3S: Existing - Projected

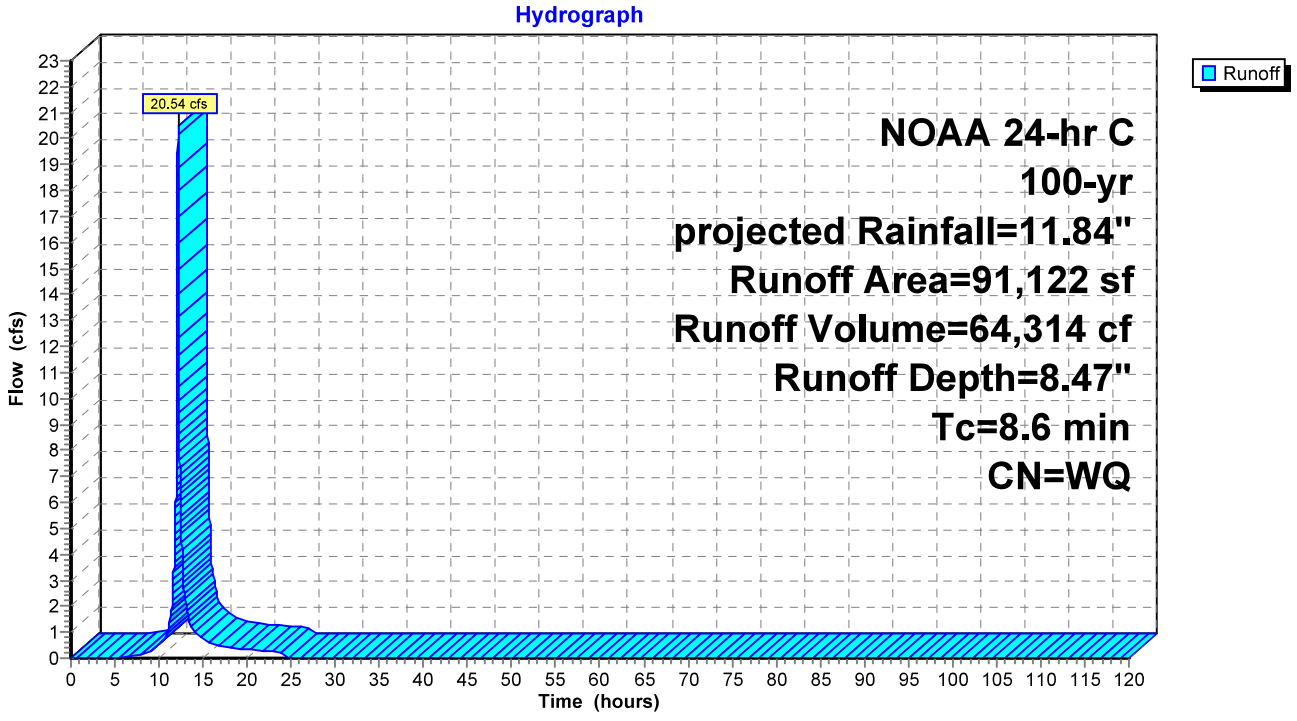
Runoff = 20.54 cfs @ 12.16 hrs, Volume= 64,314 cf, Depth= 8.47"
Routed to Reach 4R : POI-1 - Projected

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 100-yr, projected Rainfall=11.84"

	Area (sf)	CN	Description
*	95	98	Impervious
*	91,027	74	Grass (Good condition)
	91,122		Weighted Average
	91,027		99.90% Pervious Area
	95		0.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.6					**Direct Entry, Tc**

Subcatchment 3S: Existing - Projected



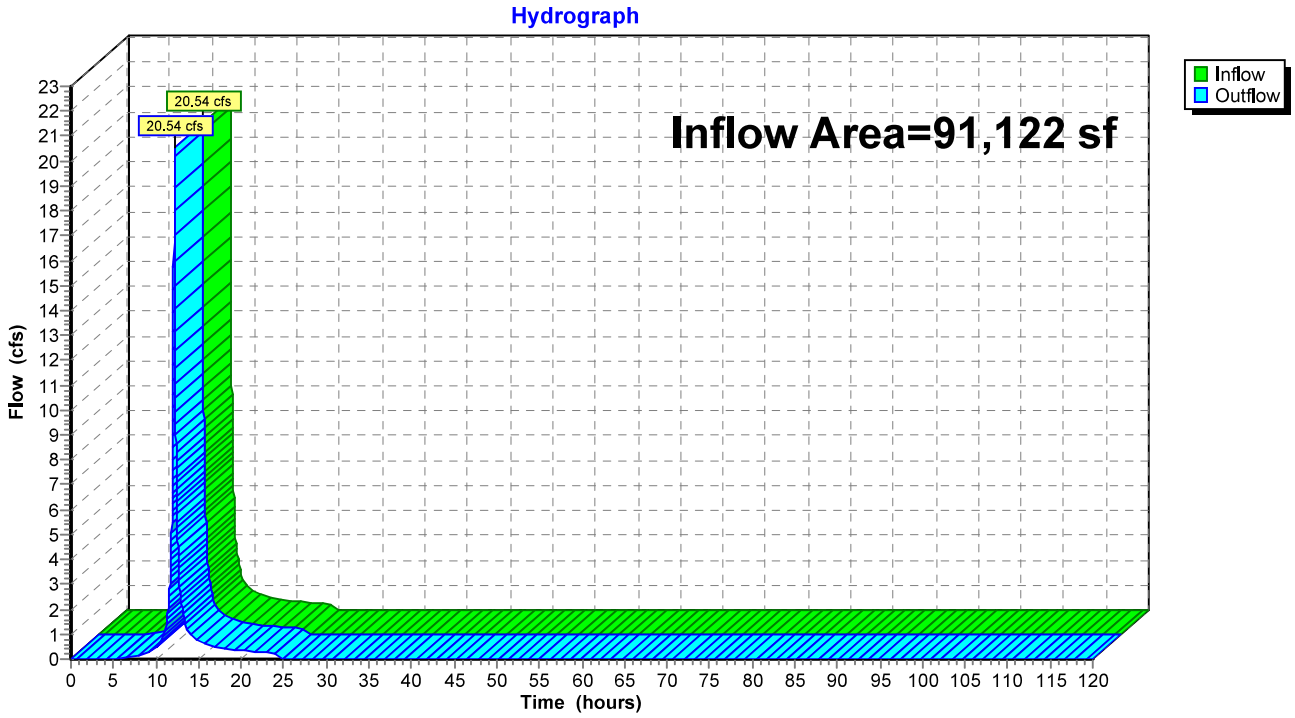
Summary for Reach 4R: POI-1 - Projected

[40] Hint: Not Described (Outflow=Inflow)

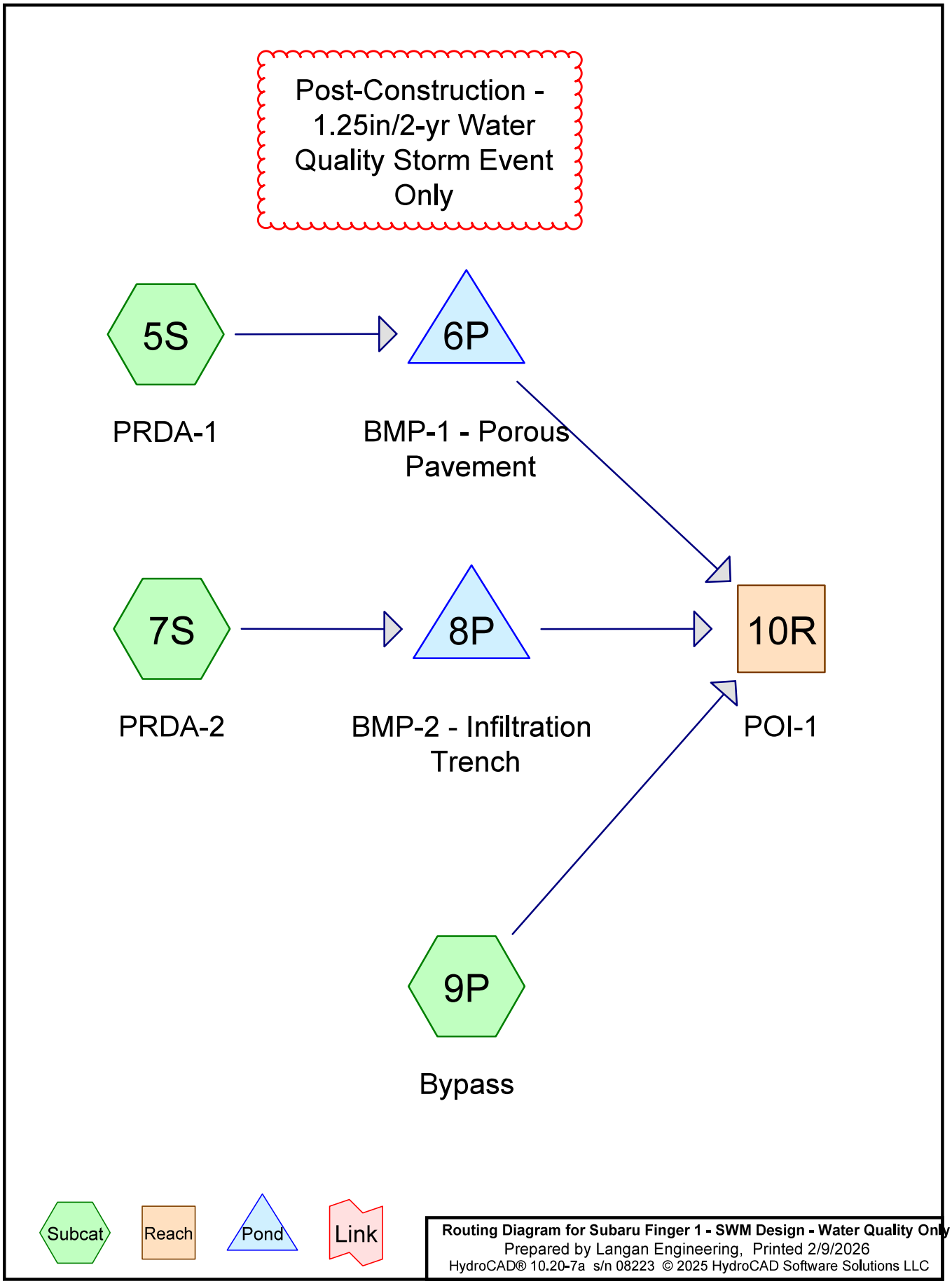
Inflow Area = 91,122 sf, 0.10% Impervious, Inflow Depth = 8.47" for 100-yr, projected event
Inflow = 20.54 cfs @ 12.16 hrs, Volume= 64,314 cf
Outflow = 20.54 cfs @ 12.16 hrs, Volume= 64,314 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach 4R: POI-1 - Projected



Appendix C
Post-Construction Runoff Hydrographs



Routing Diagram for Subaru Finger 1 - SWM Design - Water Quality Only
Prepared by Langan Engineering, Printed 2/9/2026
HydroCAD® 10.20-7a s/n 08223 © 2025 HydroCAD Software Solutions LLC

Summary for Subcatchment 5S: PRDA-1

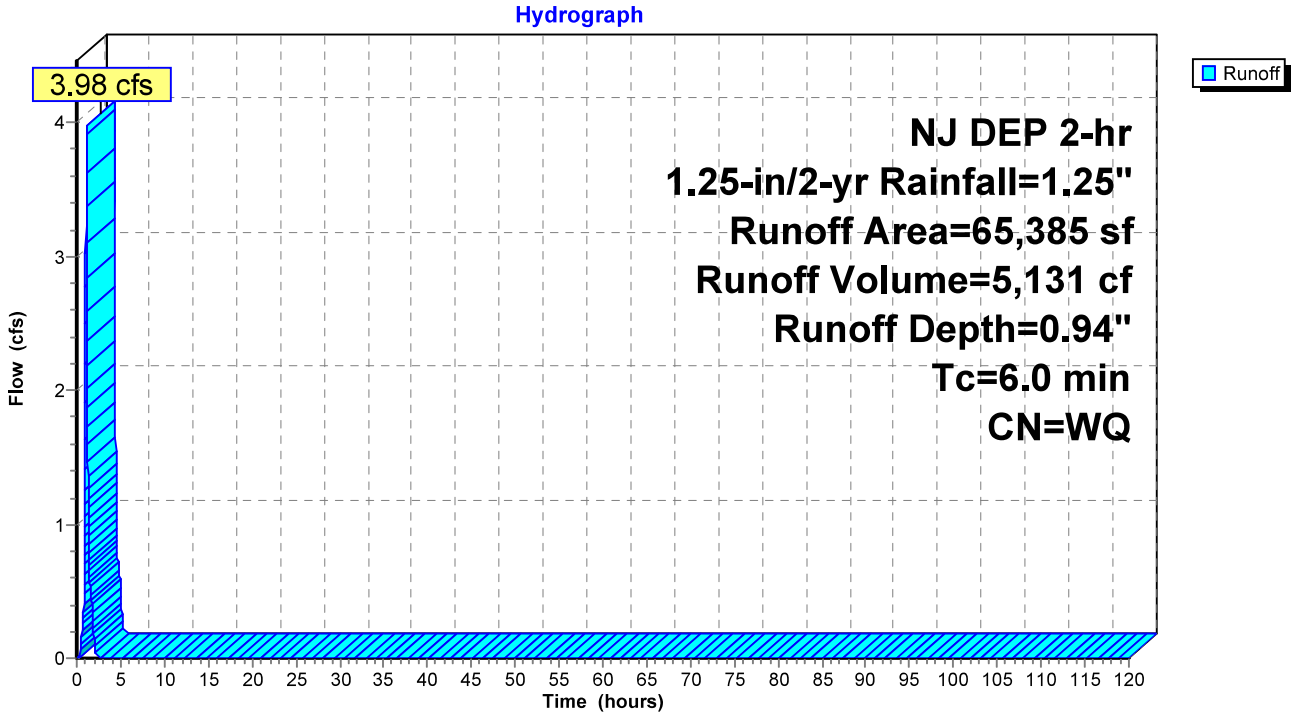
Runoff = 3.98 cfs @ 1.11 hrs, Volume= 5,131 cf, Depth= 0.94"
Routed to Pond 6P : BMP-1 - Porous Pavement

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NJ DEP 2-hr 1.25-in/2-yr Rainfall=1.25"

	Area (sf)	CN	Description
*	58,497	98	Impervious
*	6,888	79	Grass (Fair condition)
	65,385		Weighted Average
	6,888		10.53% Pervious Area
	58,497		89.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 5S: PRDA-1



Summary for Pond 6P: BMP-1 - Porous Pavement

Inflow Area = 65,385 sf, 89.47% Impervious, Inflow Depth = 0.94" for 1.25-in/2-yr event
Inflow = 3.98 cfs @ 1.11 hrs, Volume= 5,131 cf
Outflow = 3.97 cfs @ 1.12 hrs, Volume= 5,131 cf, Atten= 0%, Lag= 0.5 min
Discarded = 3.97 cfs @ 1.12 hrs, Volume= 5,131 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Reach 10R : POI-1

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 4.34' @ 1.12 hrs Surf.Area= 28,513 sf Storage= 130 cf

Plug-Flow detention time= 0.5 min calculated for 5,131 cf (100% of inflow)
Center-of-Mass det. time= 0.5 min (71.1 - 70.5)

Volume	Invert	Avail.Storage	Storage Description
#1	4.33'	21,670 cf	**Custom Stage Data (Prismatic)** Listed below 54,175 cf Overall x 40.0% Voids

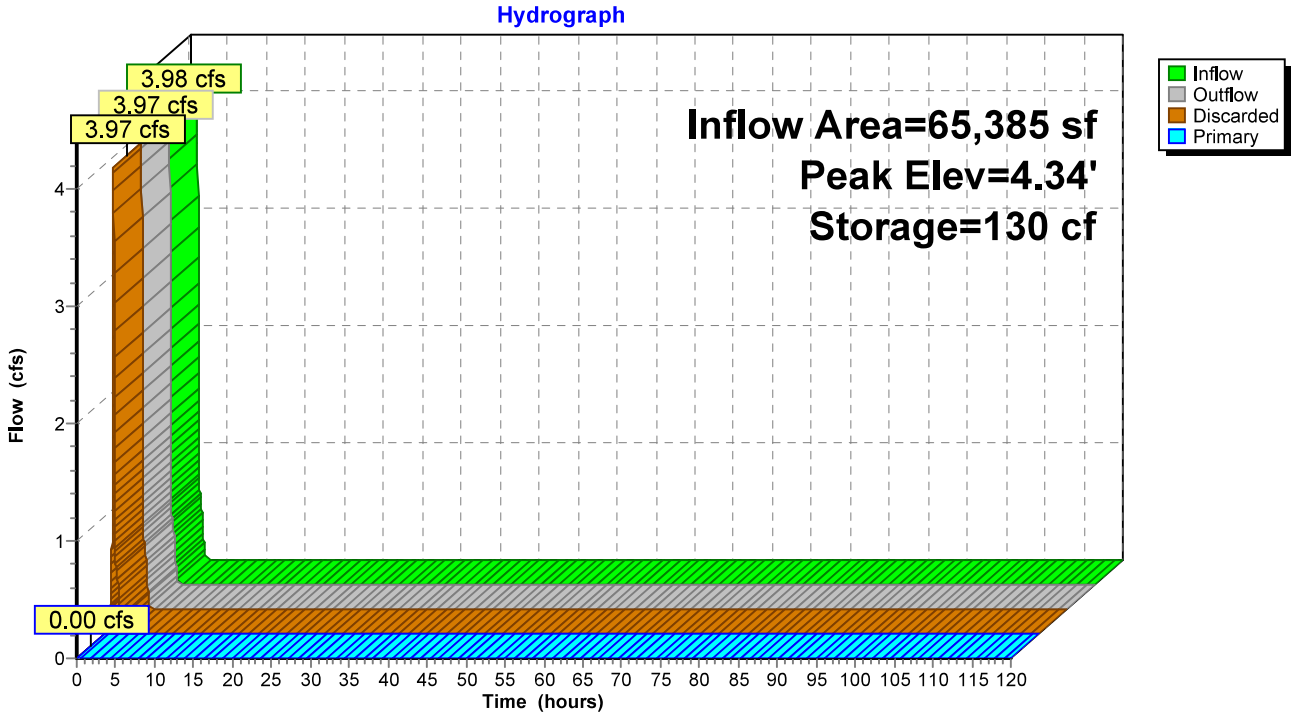
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
4.33	28,513	0	0
6.23	28,513	54,175	54,175

Device	Routing	Invert	Outlet Devices
#1	Device 3	5.13'	**42.0" W x 4.0" H Vert. 42"Wx4"H Orifice** C= 0.600 Limited to weir flow at low heads
#2	Device 3	4.80'	**16.0" W x 4.0" H Vert. 16"Wx4"H WQ Orifice** C= 0.600 Limited to weir flow at low heads
#3	Primary	2.20'	**18.0" Round 18" HDPE Outlet** L= 18.5' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 2.20' / 2.02' S= 0.0097 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#4	Discarded	4.33'	**10.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=6.60 cfs @ 1.12 hrs HW=4.34' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 6.60 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=4.33' (Free Discharge)
└**3=18" HDPE Outlet** (Passes 0.00 cfs of 9.54 cfs potential flow)
  ├**1=42"Wx4"H Orifice** (Controls 0.00 cfs)
  └**2=16"Wx4"H WQ Orifice** (Controls 0.00 cfs)

Pond 6P: BMP-1 - Porous Pavement



Summary for Subcatchment 7S: PRDA-2

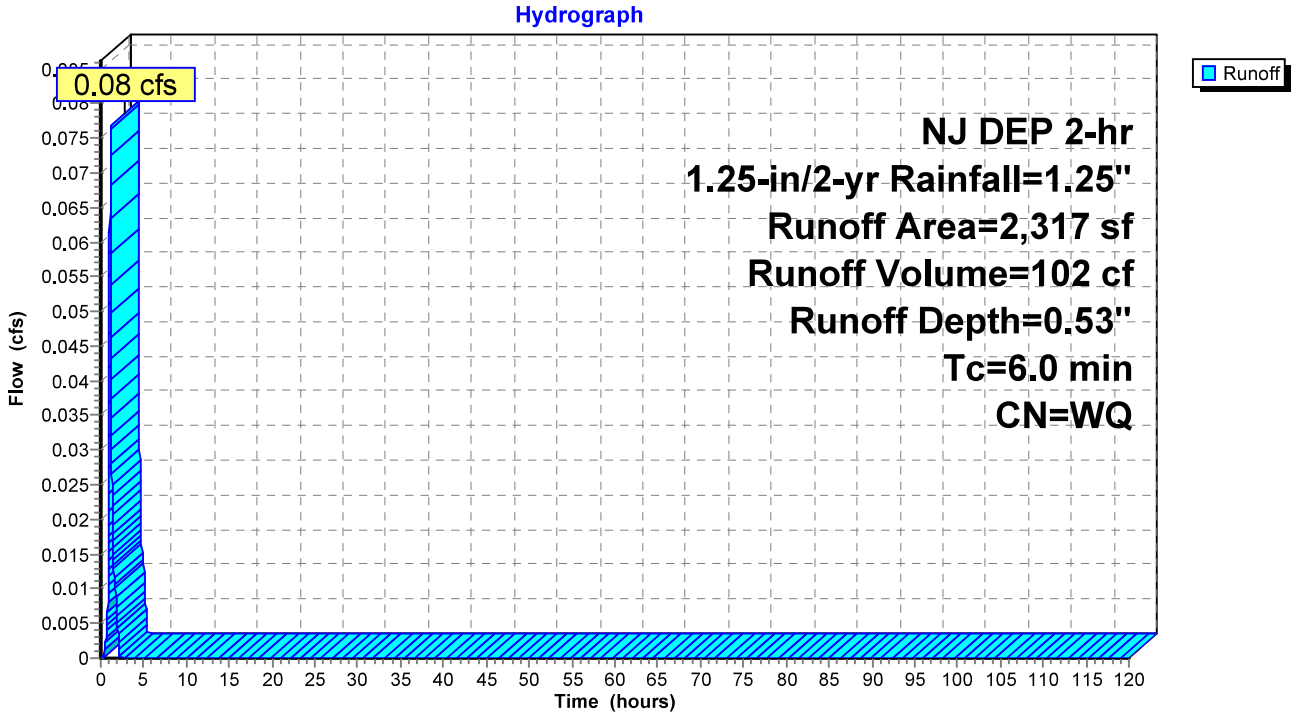
Runoff = 0.08 cfs @ 1.12 hrs, Volume= 102 cf, Depth= 0.53"
Routed to Pond 8P : BMP-2 - Infiltration Trench

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NJ DEP 2-hr 1.25-in/2-yr Rainfall=1.25"

	Area (sf)	CN	Description
*	982	98	Impervious
*	1,335	79	Grass (Fair Condition)
	2,317		Weighted Average
	1,335		57.62% Pervious Area
	982		42.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 7S: PRDA-2



Summary for Pond 8P: BMP-2 - Infiltration Trench

Inflow Area = 2,317 sf, 42.38% Impervious, Inflow Depth = 0.53" for 1.25-in/2-yr event
Inflow = 0.08 cfs @ 1.12 hrs, Volume= 102 cf
Outflow = 0.00 cfs @ 0.66 hrs, Volume= 102 cf, Atten= 97%, Lag= 0.0 min
Discarded = 0.00 cfs @ 0.66 hrs, Volume= 102 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Reach 10R : POI-1

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 5.21' @ 2.07 hrs Surf.Area= 213 sf Storage= 90 cf

Plug-Flow detention time= 360.2 min calculated for 102 cf (100% of inflow)
Center-of-Mass det. time= 360.3 min (432.8 - 72.5)

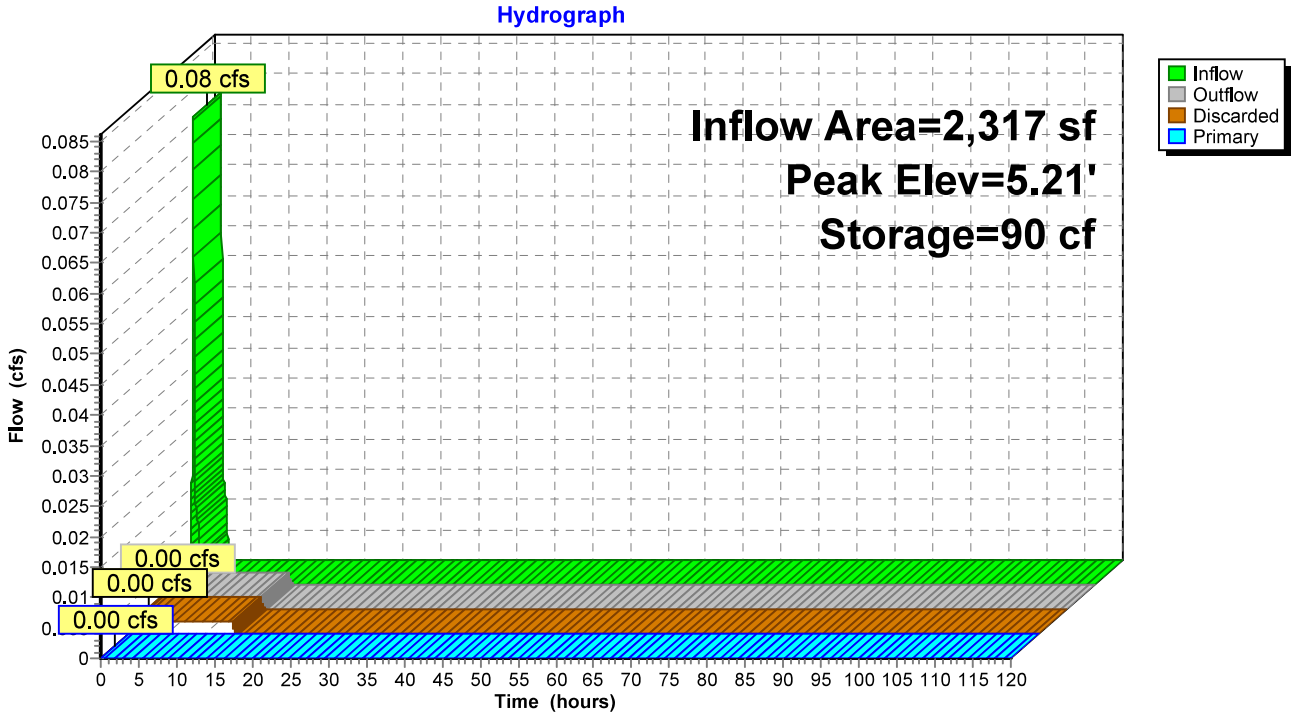
Volume	Invert	Avail.Storage	Storage Description
#1	4.28'	109 cf	**5.33'W x 40.00'L x 1.58'H Prismatoid** 337 cf Overall - 65 cf Embedded = 272 cf x 40.0% Voids
#2	4.78'	40 cf	**8.0" Round Pipe Storage** x 3 Inside #1 L= 38.0' 65 cf Overall - 1.1" Wall Thickness = 40 cf
		149 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Device 3	5.58'	**18.0" W x 3.0" H Vert. WQ Orifice** C= 0.600 Limited to weir flow at low heads
#2	Discarded	4.28'	**0.430 in/hr Exfiltration over Surface area**
#3	Primary	2.02'	**18.0" Round 18" RCP Outlet** L= 52.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 2.02' / 1.50' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Discarded OutFlow Max=0.00 cfs @ 0.66 hrs HW=4.30' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=4.28' (Free Discharge)
└**3=18" RCP Outlet** (Passes 0.00 cfs of 10.46 cfs potential flow)
└**1=WQ Orifice** (Controls 0.00 cfs)

Pond 8P: BMP-2 - Infiltration Trench



Summary for Subcatchment 9P: Bypass

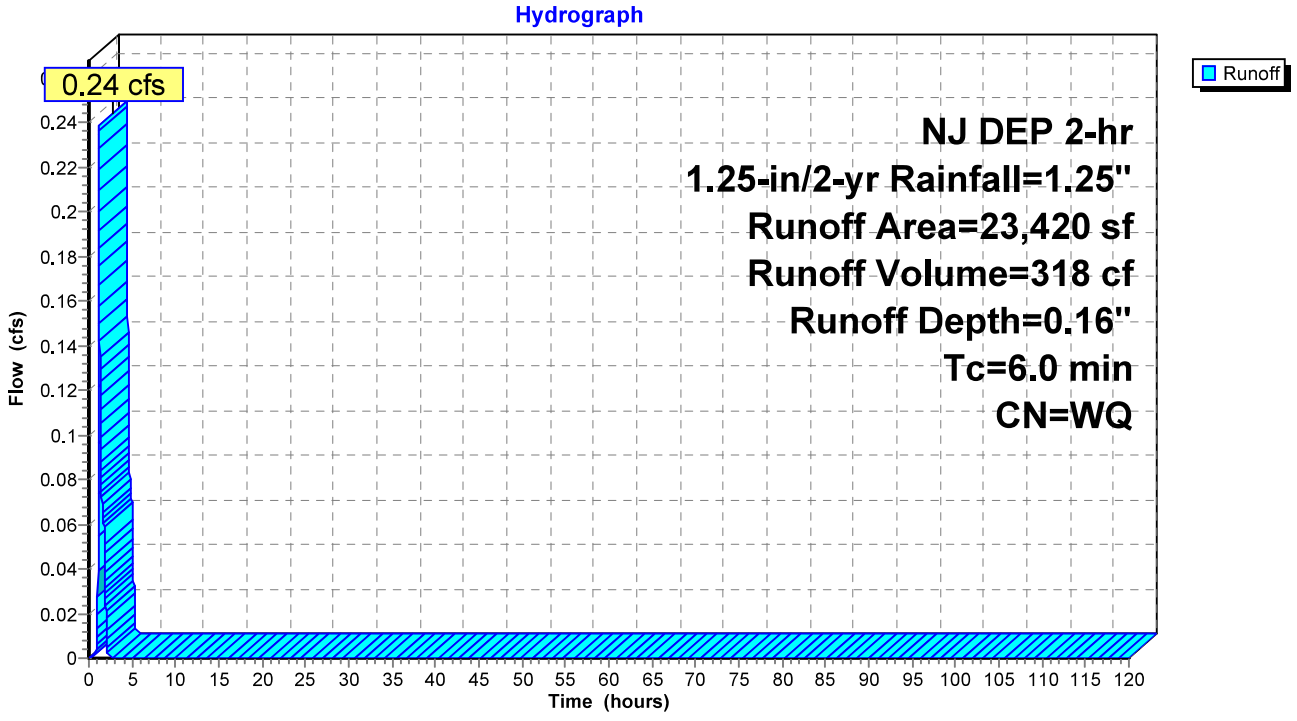
Runoff = 0.24 cfs @ 1.14 hrs, Volume= 318 cf, Depth= 0.16"
Routed to Reach 10R : POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NJ DEP 2-hr 1.25-in/2-yr Rainfall=1.25"

	Area (sf)	CN	Description
*	268	98	Impervious
*	23,152	79	Grass (Fair condition)
	23,420		Weighted Average
	23,152		98.86% Pervious Area
	268		1.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 9P: Bypass



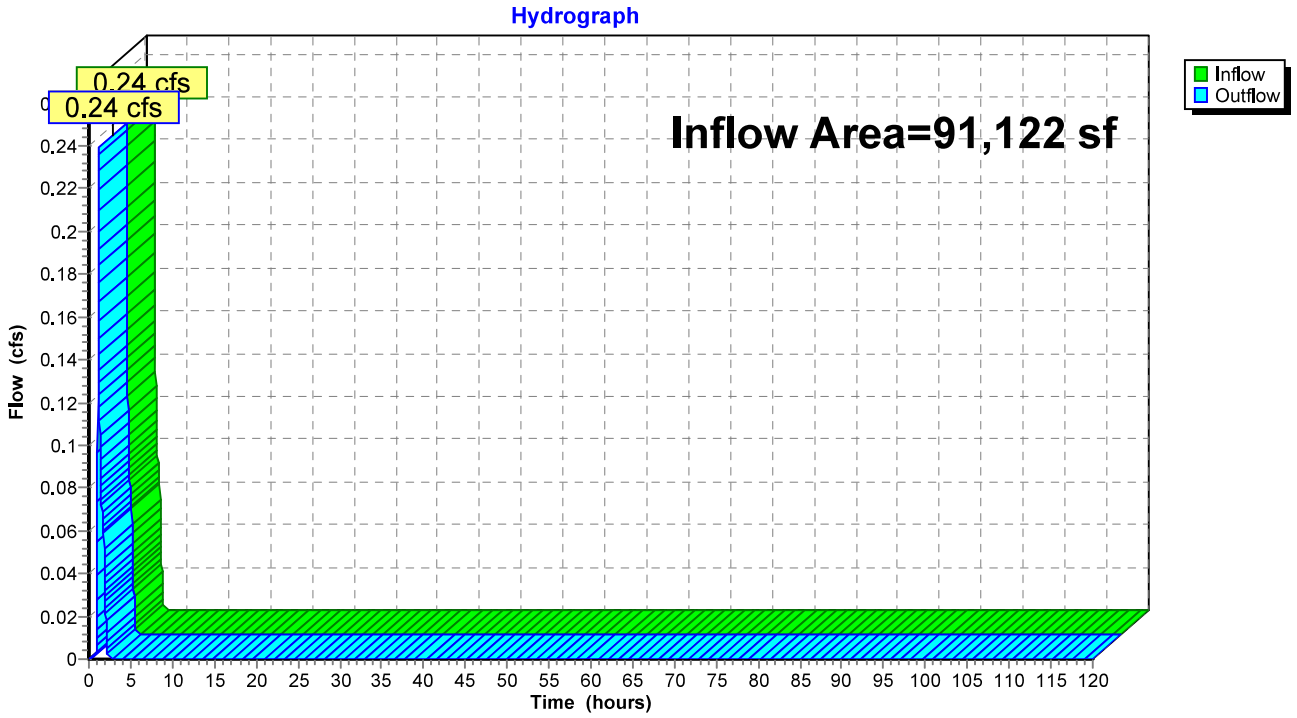
Summary for Reach 10R: POI-1

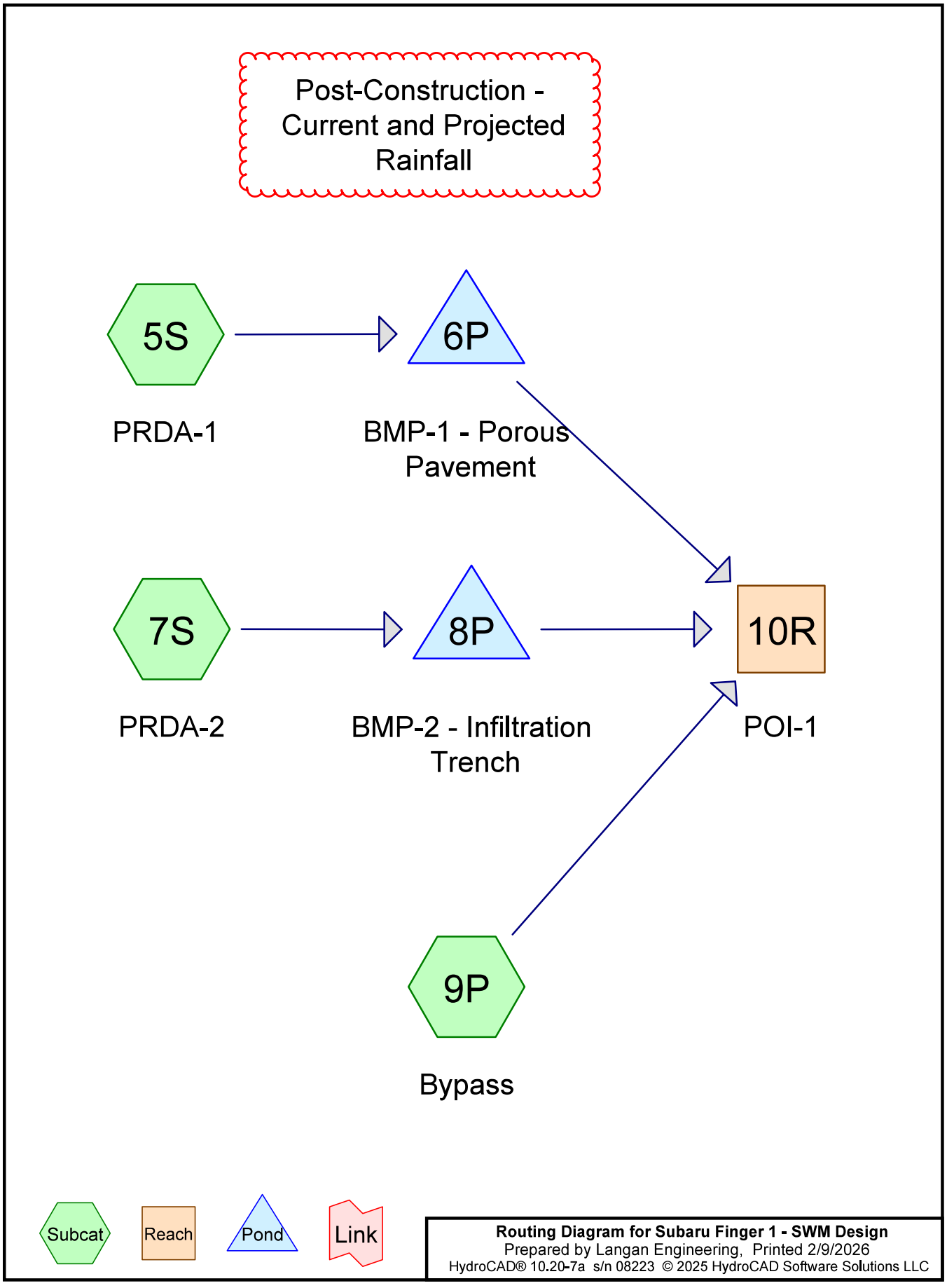
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 91,122 sf, 65.57% Impervious, Inflow Depth = 0.04" for 1.25-in/2-yr event
Inflow = 0.24 cfs @ 1.14 hrs, Volume= 318 cf
Outflow = 0.24 cfs @ 1.14 hrs, Volume= 318 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach 10R: POI-1





Routing Diagram for Subaru Finger 1 - SWM Design
Prepared by Langan Engineering, Printed 2/9/2026
HydroCAD® 10.20-7a s/n 08223 © 2025 HydroCAD Software Solutions LLC

Summary for Subcatchment 5S: PRDA-1

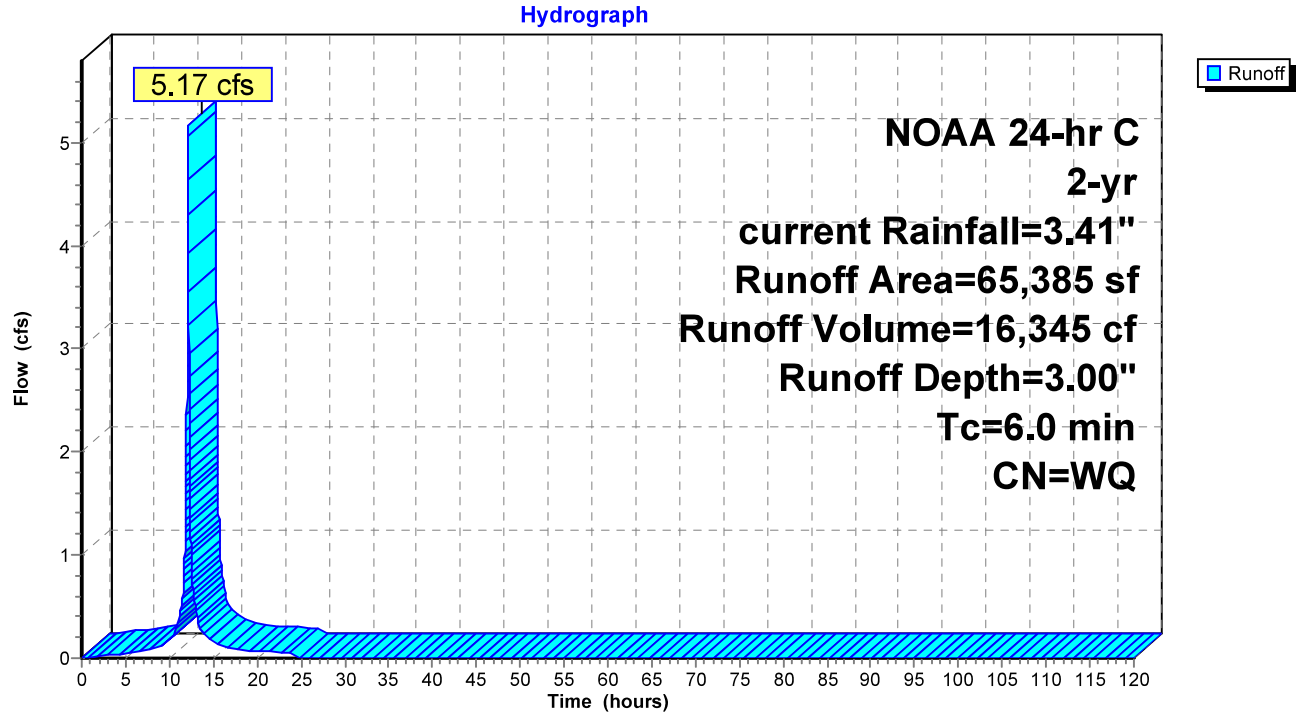
Runoff = 5.17 cfs @ 12.13 hrs, Volume= 16,345 cf, Depth= 3.00"
Routed to Pond 6P : BMP-1 - Porous Pavement

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 2-yr, current Rainfall=3.41"

	Area (sf)	CN	Description
*	58,497	98	Impervious
*	6,888	79	Grass (Fair condition)
	65,385		Weighted Average
	6,888		10.53% Pervious Area
	58,497		89.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 5S: PRDA-1



Summary for Pond 6P: BMP-1 - Porous Pavement

Inflow Area = 65,385 sf, 89.47% Impervious, Inflow Depth = 3.00" for 2-yr, current event
Inflow = 5.17 cfs @ 12.13 hrs, Volume= 16,345 cf
Outflow = 0.67 cfs @ 12.65 hrs, Volume= 16,345 cf, Atten= 87%, Lag= 31.5 min
Discarded = 0.06 cfs @ 6.93 hrs, Volume= 9,789 cf
Primary = 0.61 cfs @ 12.65 hrs, Volume= 6,556 cf
Routed to Reach 10R : POI-1

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 5.07' @ 12.65 hrs Surf.Area= 28,513 sf Storage= 8,482 cf

Plug-Flow detention time= 568.7 min calculated for 16,343 cf (100% of inflow)
Center-of-Mass det. time= 568.8 min (1,329.7 - 760.9)

Volume	Invert	Avail.Storage	Storage Description
#1	4.33'	21,670 cf	**Custom Stage Data (Prismatic)** Listed below 54,175 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
4.33	28,513	0	0
6.23	28,513	54,175	54,175

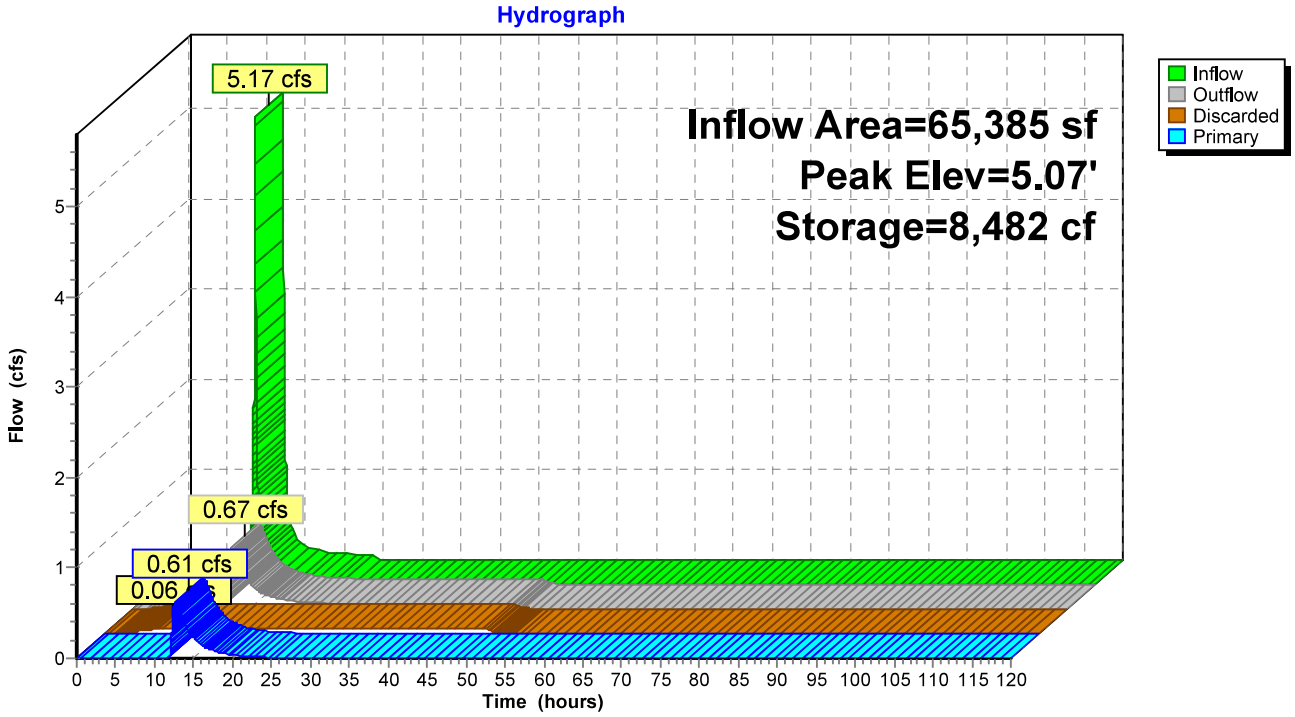
Device	Routing	Invert	Outlet Devices
#1	Device 3	5.13'	**42.0" W x 4.0" H Vert. 42"Wx4"H Orifice** C= 0.600 Limited to weir flow at low heads
#2	Device 3	4.80'	**16.0" W x 4.0" H Vert. 16"Wx4"H WQ Orifice** C= 0.600 Limited to weir flow at low heads
#3	Primary	2.20'	**18.0" Round 18" HDPE Outlet** L= 18.5' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 2.20' / 2.02' S= 0.0097 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#4	Discarded	4.33'	**0.090 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.06 cfs @ 6.93 hrs HW=4.35' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.06 cfs)

0.09 in/hr per BMP-1
100-yr Projected Storm
Event Mounding Analysis

Primary OutFlow Max=0.61 cfs @ 12.65 hrs HW=5.07' (Free Discharge)
└**3=18" HDPE Outlet** (Passes 0.61 cfs of 12.40 cfs potential flow)
  ├**1=42"Wx4"H Orifice** (Controls 0.00 cfs)
  └**2=16"Wx4"H WQ Orifice** (Orifice Controls 0.61 cfs @ 1.68 fps)

Pond 6P: BMP-1 - Porous Pavement



Summary for Subcatchment 7S: PRDA-2

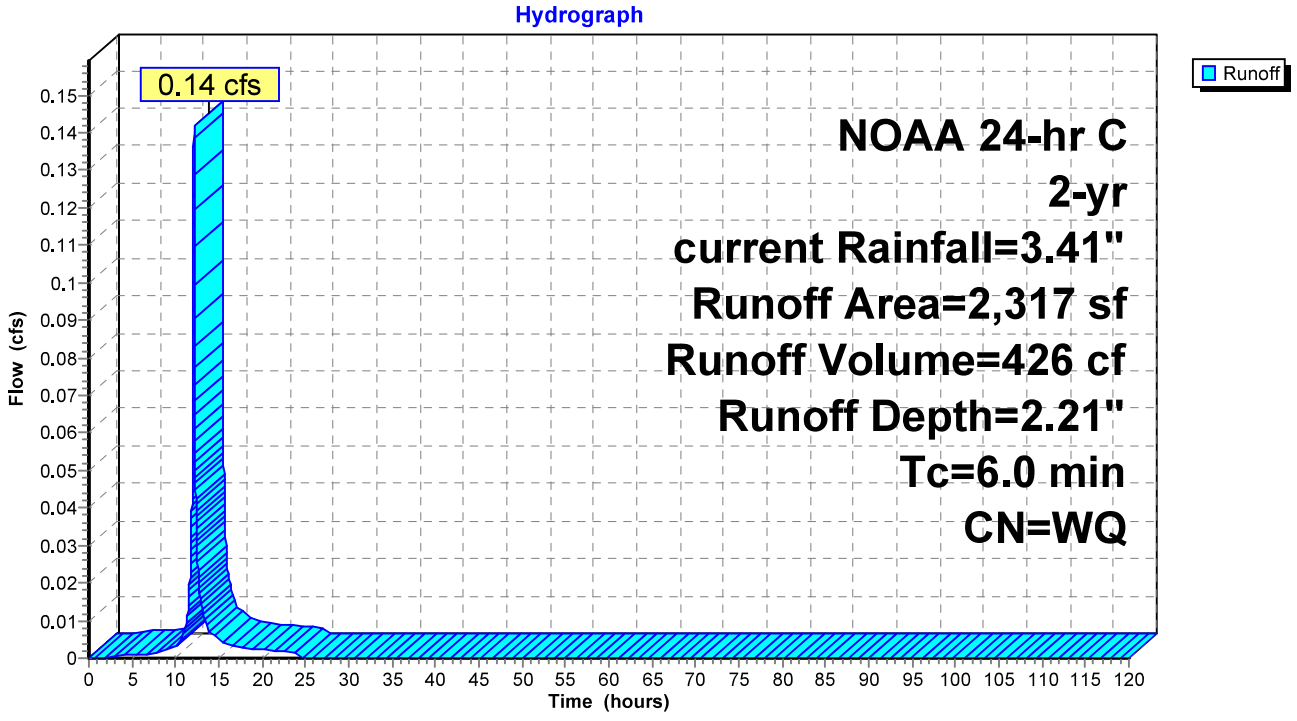
Runoff = 0.14 cfs @ 12.13 hrs, Volume= 426 cf, Depth= 2.21"
Routed to Pond 8P : BMP-2 - Infiltration Trench

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 2-yr, current Rainfall=3.41"

	Area (sf)	CN	Description
*	982	98	Impervious
*	1,335	79	Grass (Fair Condition)
	2,317		Weighted Average
	1,335		57.62% Pervious Area
	982		42.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 7S: PRDA-2



Summary for Pond 8P: BMP-2 - Infiltration Trench

Inflow Area = 2,317 sf, 42.38% Impervious, Inflow Depth = 2.21" for 2-yr, current event
Inflow = 0.14 cfs @ 12.13 hrs, Volume= 426 cf
Outflow = 0.12 cfs @ 12.17 hrs, Volume= 426 cf, Atten= 14%, Lag= 2.2 min
Discarded = 0.00 cfs @ 9.34 hrs, Volume= 261 cf
Primary = 0.12 cfs @ 12.17 hrs, Volume= 165 cf
Routed to Reach 10R : POI-1

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 5.67' @ 12.17 hrs Surf.Area= 213 sf Storage= 132 cf

Plug-Flow detention time= 354.9 min calculated for 426 cf (100% of inflow)
Center-of-Mass det. time= 354.9 min (1,146.2 - 791.3)

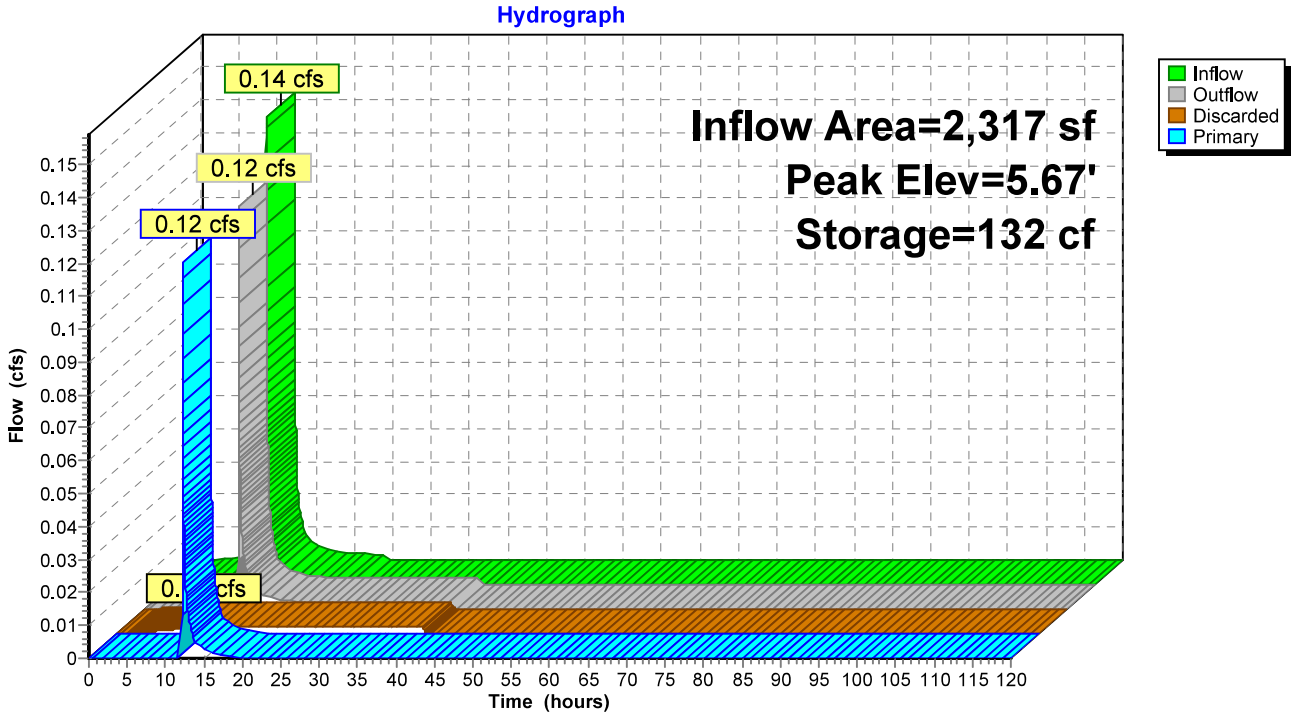
Volume	Invert	Avail.Storage	Storage Description
#1	4.28'	109 cf	**5.33'W x 40.00'L x 1.58'H Prismatoid** 337 cf Overall - 65 cf Embedded = 272 cf x 40.0% Voids
#2	4.78'	40 cf	**8.0" Round Pipe Storage** x 3 Inside #1 L= 38.0' 65 cf Overall - 1.1" Wall Thickness = 40 cf
		149 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Device 3	5.58'	**18.0" W x 3.0" H Vert. WQ Orifice** C= 0.600 Limited to weir flow at low heads
#2	Discarded	4.28'	**0.430 in/hr Exfiltration over Surface area**
#3	Primary	2.02'	**18.0" Round 18" RCP Outlet** L= 52.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 2.02' / 1.50' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Discarded OutFlow Max=0.00 cfs @ 9.34 hrs HW=4.30' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.12 cfs @ 12.17 hrs HW=5.67' (Free Discharge)
└**3=18" RCP Outlet** (Passes 0.12 cfs of 14.48 cfs potential flow)
└**1=WQ Orifice** (Orifice Controls 0.12 cfs @ 0.94 fps)

Pond 8P: BMP-2 - Infiltration Trench



Summary for Subcatchment 9P: Bypass

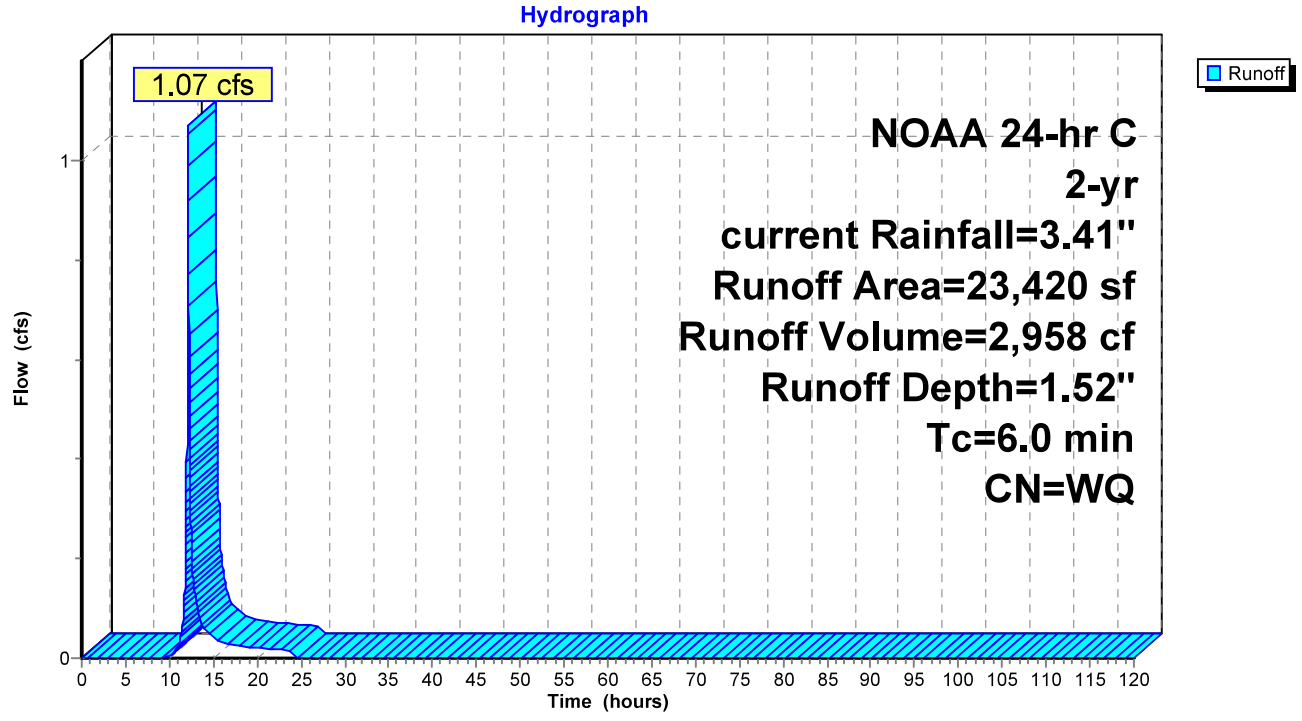
Runoff = 1.07 cfs @ 12.13 hrs, Volume= 2,958 cf, Depth= 1.52"
Routed to Reach 10R : POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 2-yr, current Rainfall=3.41"

	Area (sf)	CN	Description
*	268	98	Impervious
*	23,152	79	Grass (Fair condition)
	23,420		Weighted Average
	23,152		98.86% Pervious Area
	268		1.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 9P: Bypass



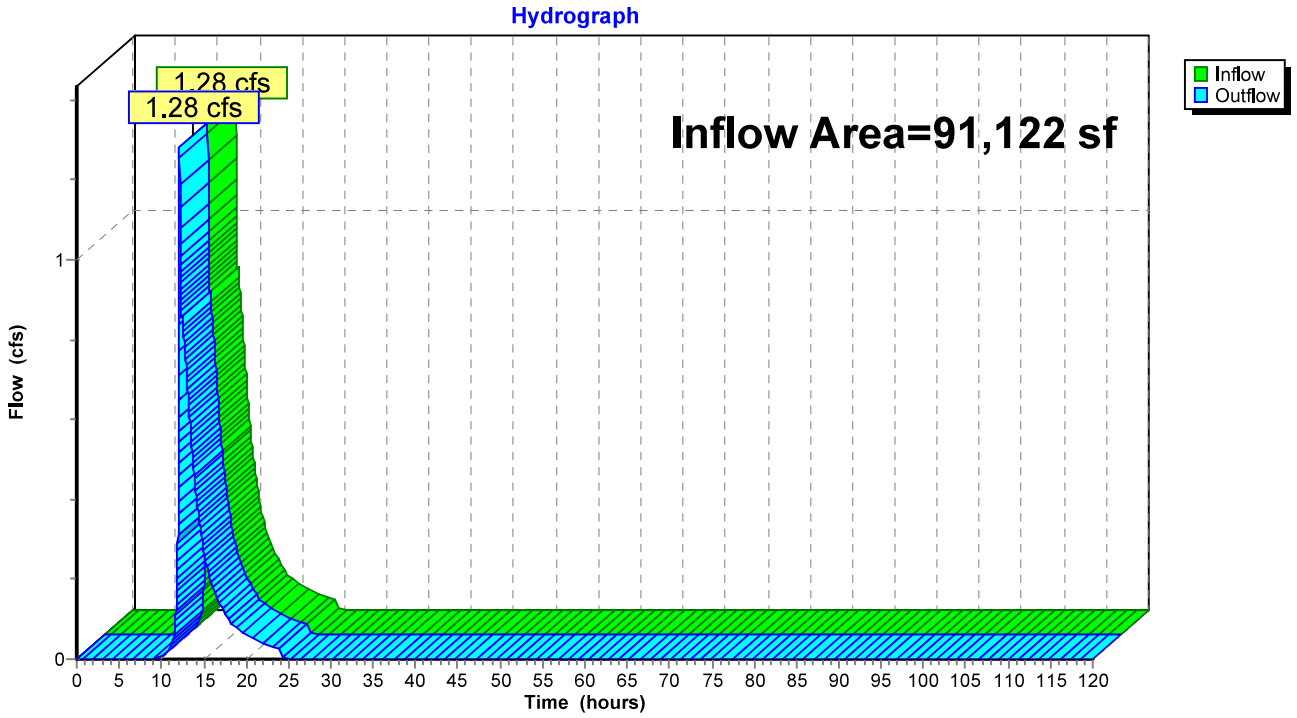
Summary for Reach 10R: POI-1

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 91,122 sf, 65.57% Impervious, Inflow Depth = 1.27" for 2-yr, current event
Inflow = 1.28 cfs @ 12.15 hrs, Volume= 9,680 cf
Outflow = 1.28 cfs @ 12.15 hrs, Volume= 9,680 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach 10R: POI-1



Summary for Subcatchment 5S: PRDA-1

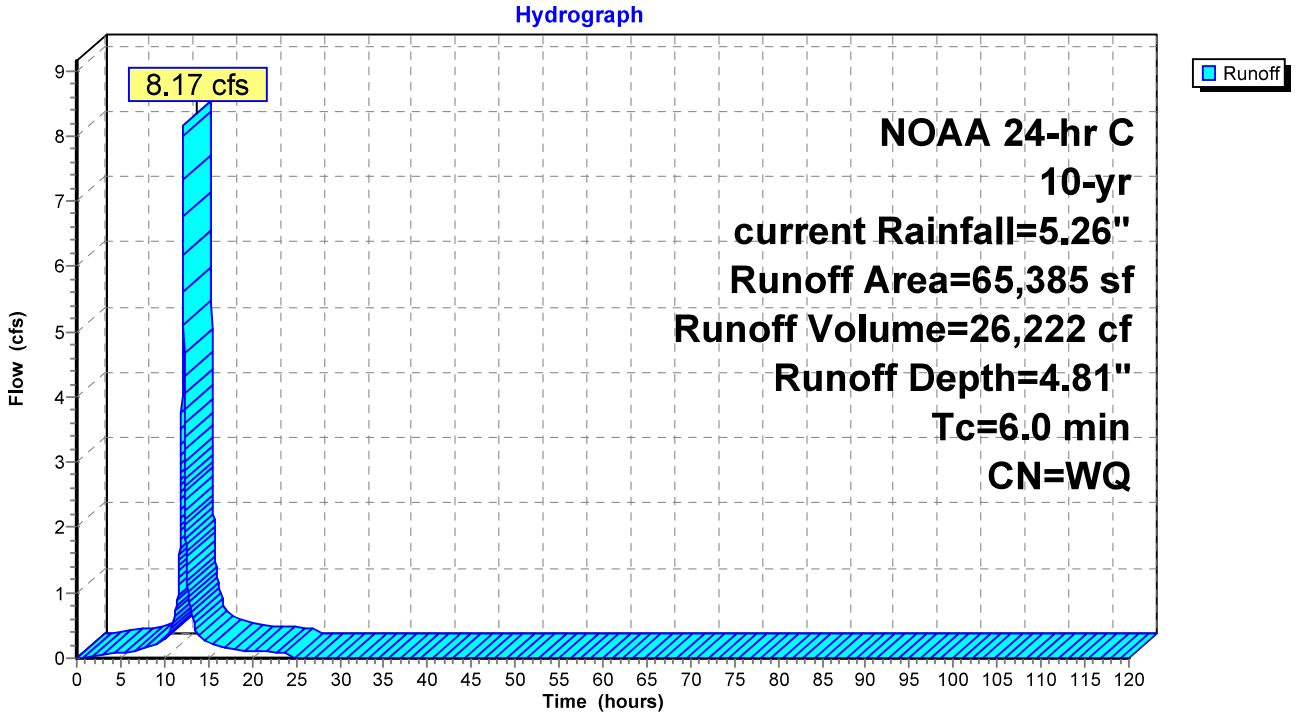
Runoff = 8.17 cfs @ 12.13 hrs, Volume= 26,222 cf, Depth= 4.81"
Routed to Pond 6P : BMP-1 - Porous Pavement

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 10-yr, current Rainfall=5.26"

	Area (sf)	CN	Description
*	58,497	98	Impervious
*	6,888	79	Grass (Fair condition)
	65,385		Weighted Average
	6,888		10.53% Pervious Area
	58,497		89.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 5S: PRDA-1



Summary for Pond 6P: BMP-1 - Porous Pavement

Inflow Area = 65,385 sf, 89.47% Impervious, Inflow Depth = 4.81" for 10-yr, current event
Inflow = 8.17 cfs @ 12.13 hrs, Volume= 26,222 cf
Outflow = 2.77 cfs @ 12.30 hrs, Volume= 26,222 cf, Atten= 66%, Lag= 10.1 min
Discarded = 0.06 cfs @ 4.08 hrs, Volume= 10,366 cf
Primary = 2.71 cfs @ 12.30 hrs, Volume= 15,856 cf
Routed to Reach 10R : POI-1

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 5.37' @ 12.30 hrs Surf.Area= 28,513 sf Storage= 11,902 cf

Plug-Flow detention time= 402.5 min calculated for 26,220 cf (100% of inflow)
Center-of-Mass det. time= 402.6 min (1,155.7 - 753.1)

Volume	Invert	Avail.Storage	Storage Description
#1	4.33'	21,670 cf	**Custom Stage Data (Prismatic)** Listed below 54,175 cf Overall x 40.0% Voids

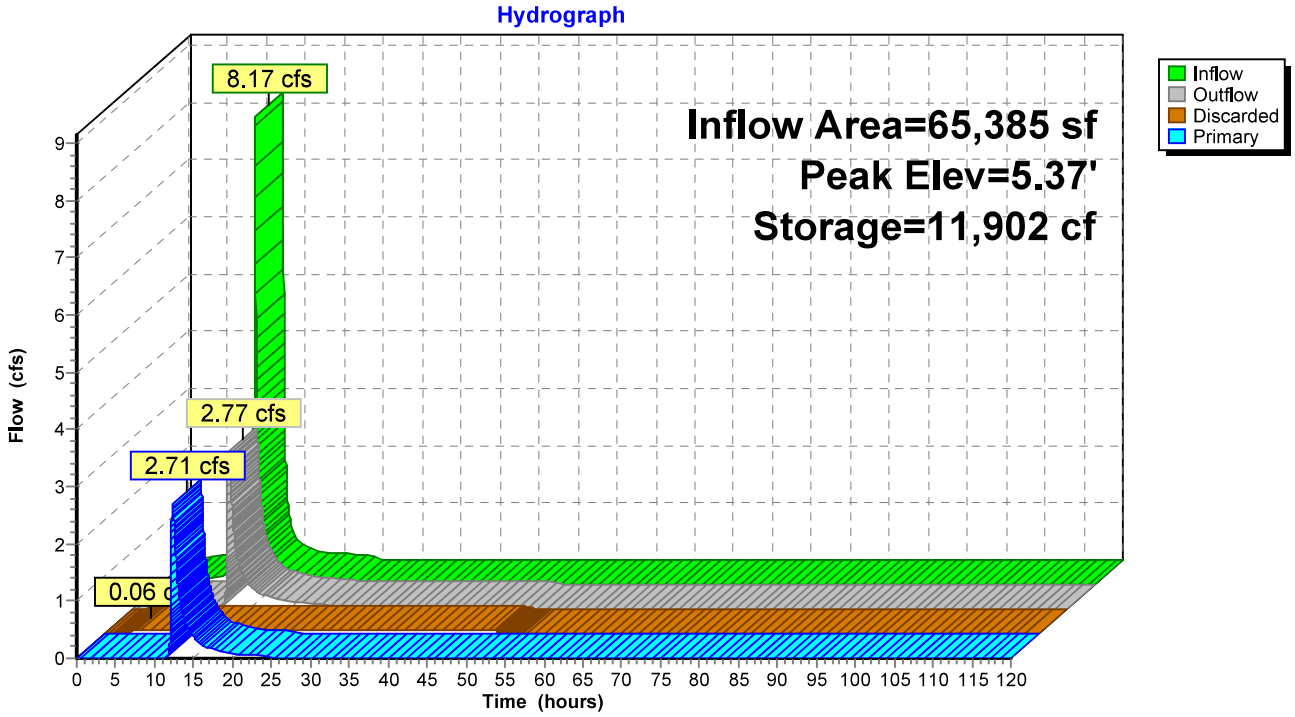
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
4.33	28,513	0	0
6.23	28,513	54,175	54,175

Device	Routing	Invert	Outlet Devices
#1	Device 3	5.13'	**42.0" W x 4.0" H Vert. 42"Wx4"H Orifice** C= 0.600 Limited to weir flow at low heads
#2	Device 3	4.80'	**16.0" W x 4.0" H Vert. 16"Wx4"H WQ Orifice** C= 0.600 Limited to weir flow at low heads
#3	Primary	2.20'	**18.0" Round 18" HDPE Outlet** L= 18.5' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 2.20' / 2.02' S= 0.0097 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#4	Discarded	4.33'	**0.090 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.06 cfs @ 4.08 hrs HW=4.35' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=2.71 cfs @ 12.30 hrs HW=5.37' (Free Discharge)
└**3=18" HDPE Outlet** (Passes 2.71 cfs of 13.25 cfs potential flow)
  ├**1=42"Wx4"H Orifice** (Orifice Controls 1.35 cfs @ 1.58 fps)
  └**2=16"Wx4"H WQ Orifice** (Orifice Controls 1.36 cfs @ 3.05 fps)

Pond 6P: BMP-1 - Porous Pavement



Summary for Subcatchment 7S: PRDA-2

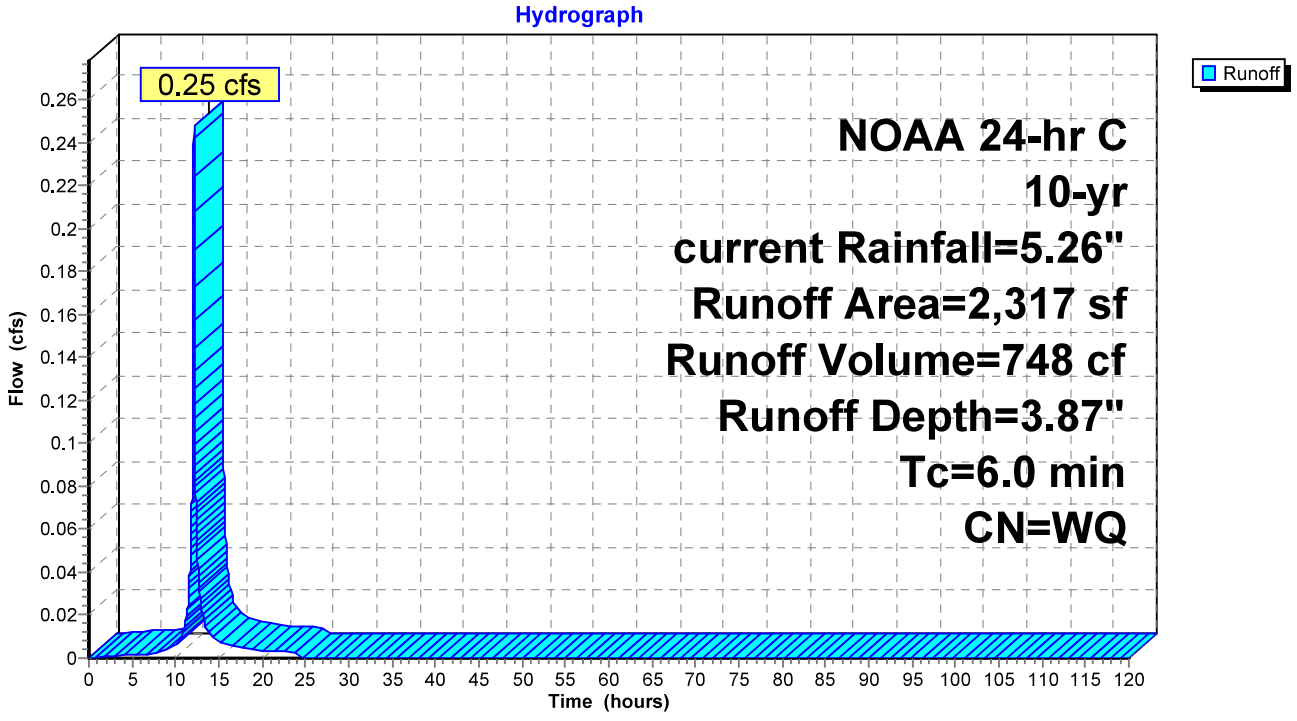
Runoff = 0.25 cfs @ 12.13 hrs, Volume= 748 cf, Depth= 3.87"
Routed to Pond 8P : BMP-2 - Infiltration Trench

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 10-yr, current Rainfall=5.26"

	Area (sf)	CN	Description
*	982	98	Impervious
*	1,335	79	Grass (Fair Condition)
	2,317		Weighted Average
	1,335		57.62% Pervious Area
	982		42.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 7S: PRDA-2



Summary for Pond 8P: BMP-2 - Infiltration Trench

Inflow Area = 2,317 sf, 42.38% Impervious, Inflow Depth = 3.87" for 10-yr, current event
Inflow = 0.25 cfs @ 12.13 hrs, Volume= 748 cf
Outflow = 0.25 cfs @ 12.14 hrs, Volume= 748 cf, Atten= 1%, Lag= 0.5 min
Discarded = 0.00 cfs @ 7.11 hrs, Volume= 281 cf
Primary = 0.24 cfs @ 12.14 hrs, Volume= 467 cf
Routed to Reach 10R : POI-1

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 5.72' @ 12.14 hrs Surf.Area= 213 sf Storage= 136 cf

Plug-Flow detention time= 214.5 min calculated for 748 cf (100% of inflow)
Center-of-Mass det. time= 214.6 min (997.5 - 782.9)

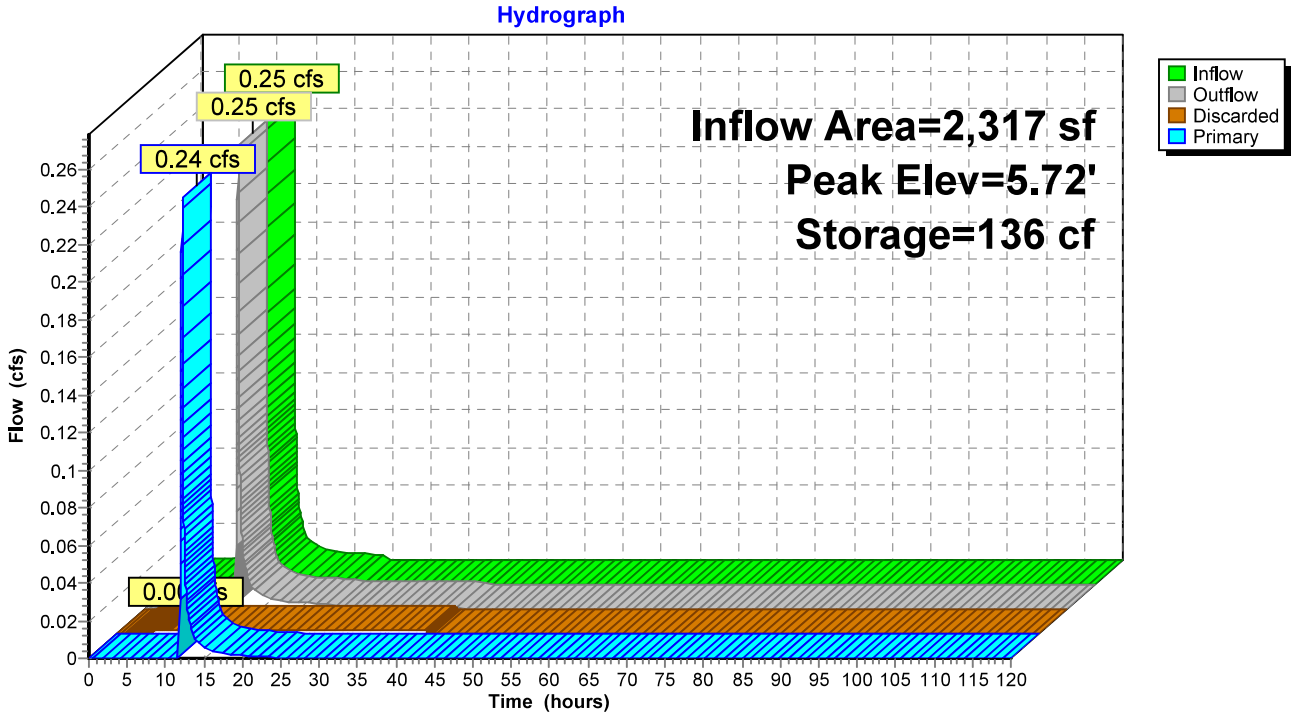
Volume	Invert	Avail.Storage	Storage Description
#1	4.28'	109 cf	**5.33'W x 40.00'L x 1.58'H Prismatoid** 337 cf Overall - 65 cf Embedded = 272 cf x 40.0% Voids
#2	4.78'	40 cf	**8.0" Round Pipe Storage** x 3 Inside #1 L= 38.0' 65 cf Overall - 1.1" Wall Thickness = 40 cf
		149 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Device 3	5.58'	**18.0" W x 3.0" H Vert. WQ Orifice** C= 0.600 Limited to weir flow at low heads
#2	Discarded	4.28'	**0.430 in/hr Exfiltration over Surface area**
#3	Primary	2.02'	**18.0" Round 18" RCP Outlet** L= 52.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 2.02' / 1.50' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Discarded OutFlow Max=0.00 cfs @ 7.11 hrs HW=4.30' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.24 cfs @ 12.14 hrs HW=5.72' (Free Discharge)
└**3=18" RCP Outlet** (Passes 0.24 cfs of 14.61 cfs potential flow)
└**1=WQ Orifice** (Orifice Controls 0.24 cfs @ 1.19 fps)

Pond 8P: BMP-2 - Infiltration Trench



Summary for Subcatchment 9P: Bypass

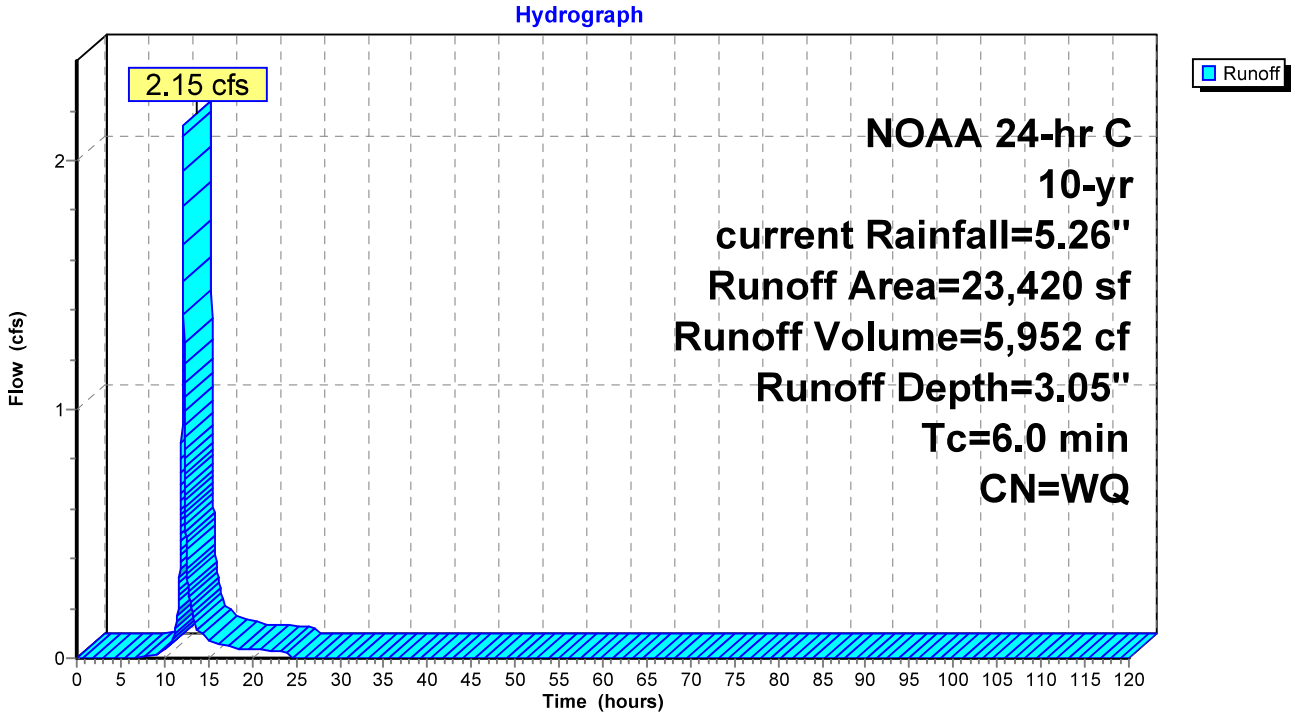
Runoff = 2.15 cfs @ 12.13 hrs, Volume= 5,952 cf, Depth= 3.05"
Routed to Reach 10R : POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 10-yr, current Rainfall=5.26"

	Area (sf)	CN	Description
*	268	98	Impervious
*	23,152	79	Grass (Fair condition)
	23,420		Weighted Average
	23,152		98.86% Pervious Area
	268		1.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 9P: Bypass



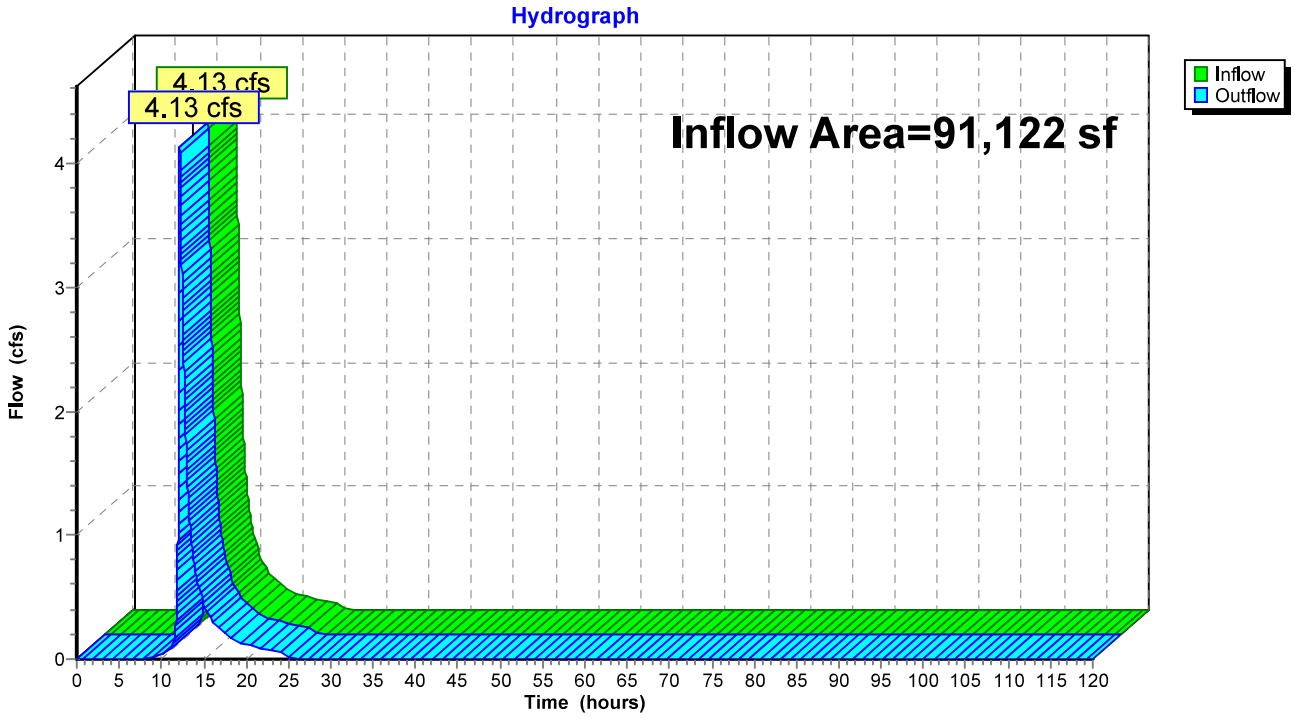
Summary for Reach 10R: POI-1

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 91,122 sf, 65.57% Impervious, Inflow Depth = 2.93" for 10-yr, current event
Inflow = 4.13 cfs @ 12.16 hrs, Volume= 22,275 cf
Outflow = 4.13 cfs @ 12.16 hrs, Volume= 22,275 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach 10R: POI-1



Summary for Subcatchment 5S: PRDA-1

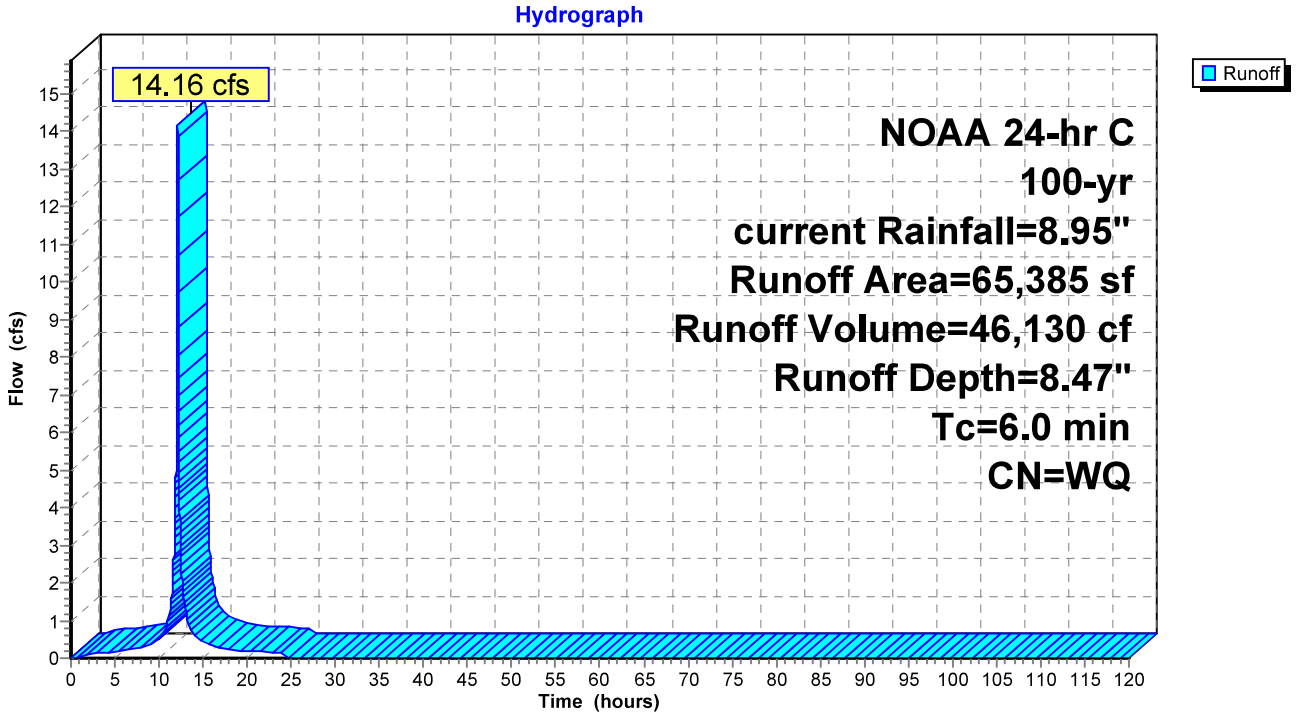
Runoff = 14.16 cfs @ 12.13 hrs, Volume= 46,130 cf, Depth= 8.47"
Routed to Pond 6P : BMP-1 - Porous Pavement

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 100-yr, current Rainfall=8.95"

	Area (sf)	CN	Description
*	58,497	98	Impervious
*	6,888	79	Grass (Fair condition)
	65,385		Weighted Average
	6,888		10.53% Pervious Area
	58,497		89.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 5S: PRDA-1



Summary for Pond 6P: BMP-1 - Porous Pavement

Inflow Area = 65,385 sf, 89.47% Impervious, Inflow Depth = 8.47" for 100-yr, current event
Inflow = 14.16 cfs @ 12.13 hrs, Volume= 46,130 cf
Outflow = 6.17 cfs @ 12.25 hrs, Volume= 46,130 cf, Atten= 56%, Lag= 7.3 min
Discarded = 0.06 cfs @ 2.14 hrs, Volume= 10,814 cf
Primary = 6.11 cfs @ 12.25 hrs, Volume= 35,316 cf
Routed to Reach 10R : POI-1

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 5.84' @ 12.25 hrs Surf.Area= 28,513 sf Storage= 17,188 cf

Plug-Flow detention time= 272.4 min calculated for 46,126 cf (100% of inflow)
Center-of-Mass det. time= 272.5 min (1,018.0 - 745.5)

Volume	Invert	Avail.Storage	Storage Description
#1	4.33'	21,670 cf	**Custom Stage Data (Prismatic)** Listed below 54,175 cf Overall x 40.0% Voids

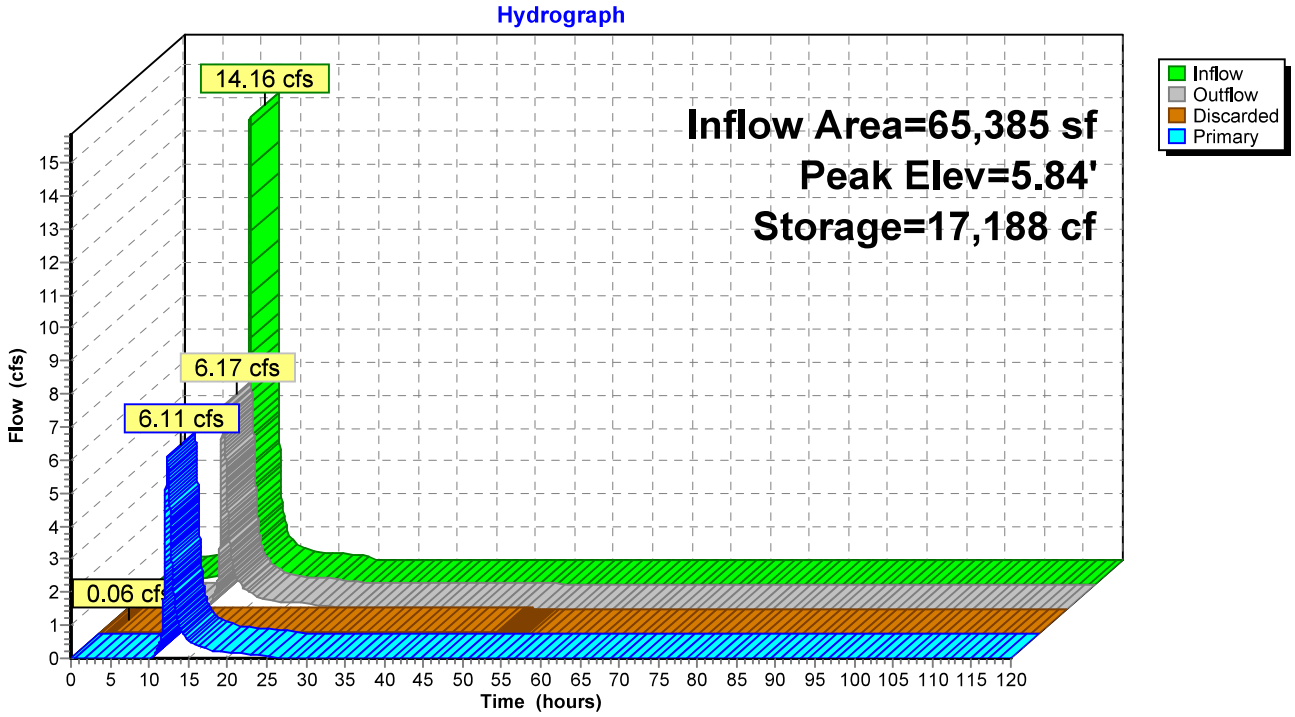
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
4.33	28,513	0	0
6.23	28,513	54,175	54,175

Device	Routing	Invert	Outlet Devices
#1	Device 3	5.13'	**42.0" W x 4.0" H Vert. 42"Wx4"H Orifice** C= 0.600 Limited to weir flow at low heads
#2	Device 3	4.80'	**16.0" W x 4.0" H Vert. 16"Wx4"H WQ Orifice** C= 0.600 Limited to weir flow at low heads
#3	Primary	2.20'	**18.0" Round 18" HDPE Outlet** L= 18.5' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 2.20' / 2.02' S= 0.0097 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#4	Discarded	4.33'	**0.090 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.06 cfs @ 2.14 hrs HW=4.35' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=6.11 cfs @ 12.25 hrs HW=5.84' (Free Discharge)
└**3=18" HDPE Outlet** (Passes 6.11 cfs of 14.46 cfs potential flow)
  ├**1=42"Wx4"H Orifice** (Orifice Controls 4.11 cfs @ 3.52 fps)
  └**2=16"Wx4"H WQ Orifice** (Orifice Controls 1.99 cfs @ 4.48 fps)

Pond 6P: BMP-1 - Porous Pavement



Summary for Subcatchment 7S: PRDA-2

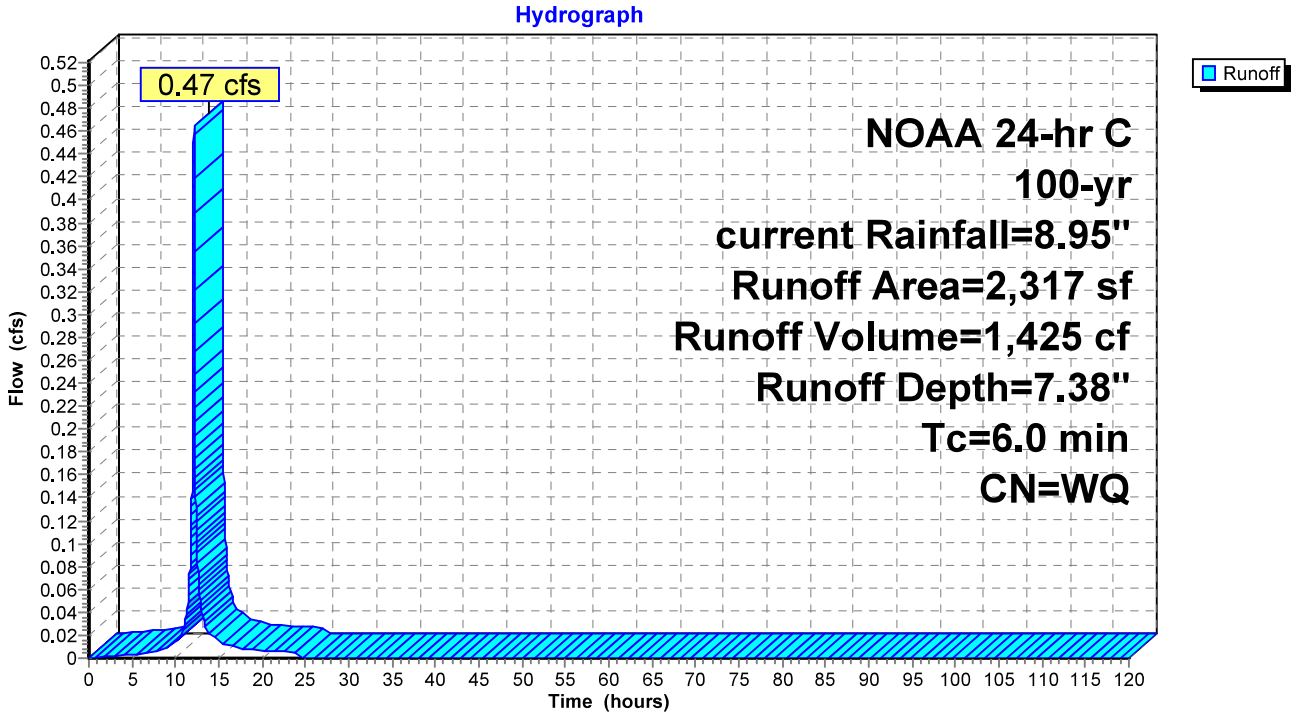
Runoff = 0.47 cfs @ 12.13 hrs, Volume= 1,425 cf, Depth= 7.38"
Routed to Pond 8P : BMP-2 - Infiltration Trench

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 100-yr, current Rainfall=8.95"

	Area (sf)	CN	Description
*	982	98	Impervious
*	1,335	79	Grass (Fair Condition)
	2,317		Weighted Average
	1,335		57.62% Pervious Area
	982		42.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 7S: PRDA-2



Summary for Pond 8P: BMP-2 - Infiltration Trench

Inflow Area = 2,317 sf, 42.38% Impervious, Inflow Depth = 7.38" for 100-yr, current event
Inflow = 0.47 cfs @ 12.13 hrs, Volume= 1,425 cf
Outflow = 0.46 cfs @ 12.14 hrs, Volume= 1,425 cf, Atten= 0%, Lag= 0.4 min
Discarded = 0.00 cfs @ 3.11 hrs, Volume= 297 cf
Primary = 0.46 cfs @ 12.14 hrs, Volume= 1,127 cf
Routed to Reach 10R : POI-1

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 5.79' @ 12.14 hrs Surf.Area= 213 sf Storage= 143 cf

Plug-Flow detention time= 123.9 min calculated for 1,425 cf (100% of inflow)
Center-of-Mass det. time= 123.9 min (896.0 - 772.1)

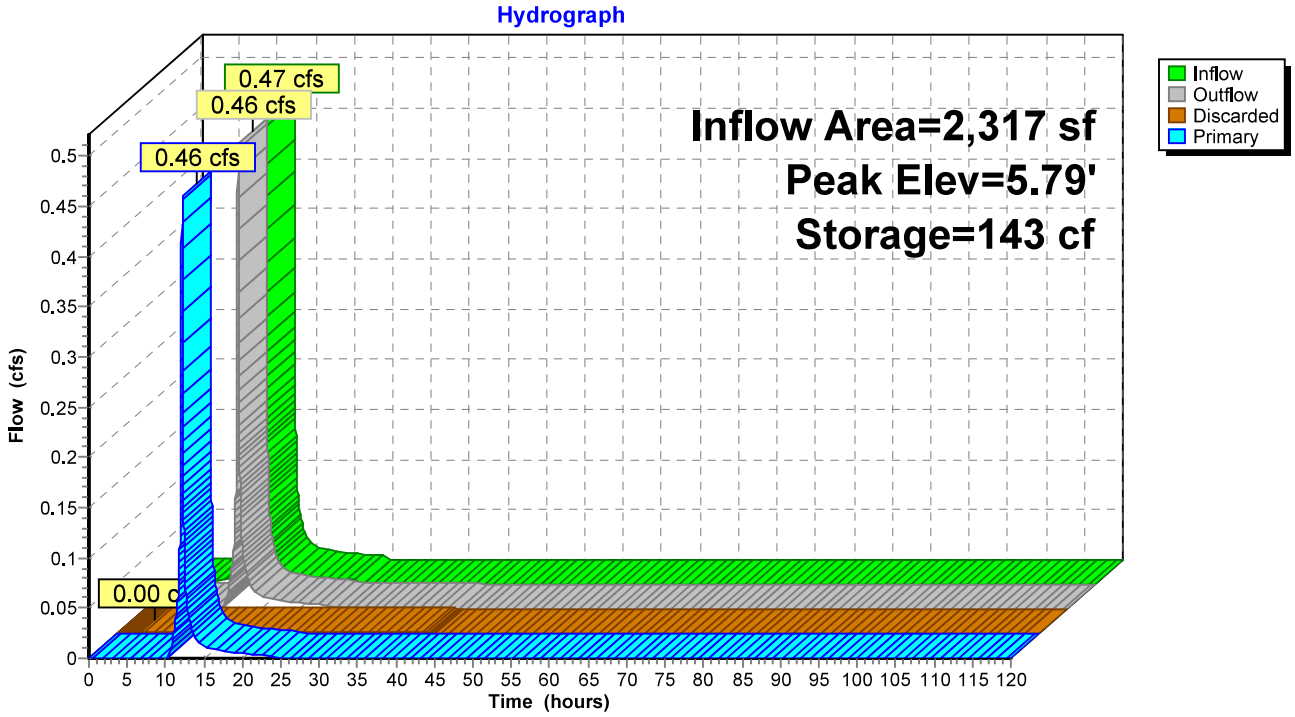
Volume	Invert	Avail.Storage	Storage Description
#1	4.28'	109 cf	**5.33'W x 40.00'L x 1.58'H Prismatoid** 337 cf Overall - 65 cf Embedded = 272 cf x 40.0% Voids
#2	4.78'	40 cf	**8.0" Round Pipe Storage** x 3 Inside #1 L= 38.0' 65 cf Overall - 1.1" Wall Thickness = 40 cf
		149 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Device 3	5.58'	**18.0" W x 3.0" H Vert. WQ Orifice** C= 0.600 Limited to weir flow at low heads
#2	Discarded	4.28'	**0.430 in/hr Exfiltration over Surface area**
#3	Primary	2.02'	**18.0" Round 18" RCP Outlet** L= 52.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 2.02' / 1.50' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Discarded OutFlow Max=0.00 cfs @ 3.11 hrs HW=4.30' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.46 cfs @ 12.14 hrs HW=5.79' (Free Discharge)
└**3=18" RCP Outlet** (Passes 0.46 cfs of 14.78 cfs potential flow)
└**1=WQ Orifice** (Orifice Controls 0.46 cfs @ 1.47 fps)

Pond 8P: BMP-2 - Infiltration Trench



Summary for Subcatchment 9P: Bypass

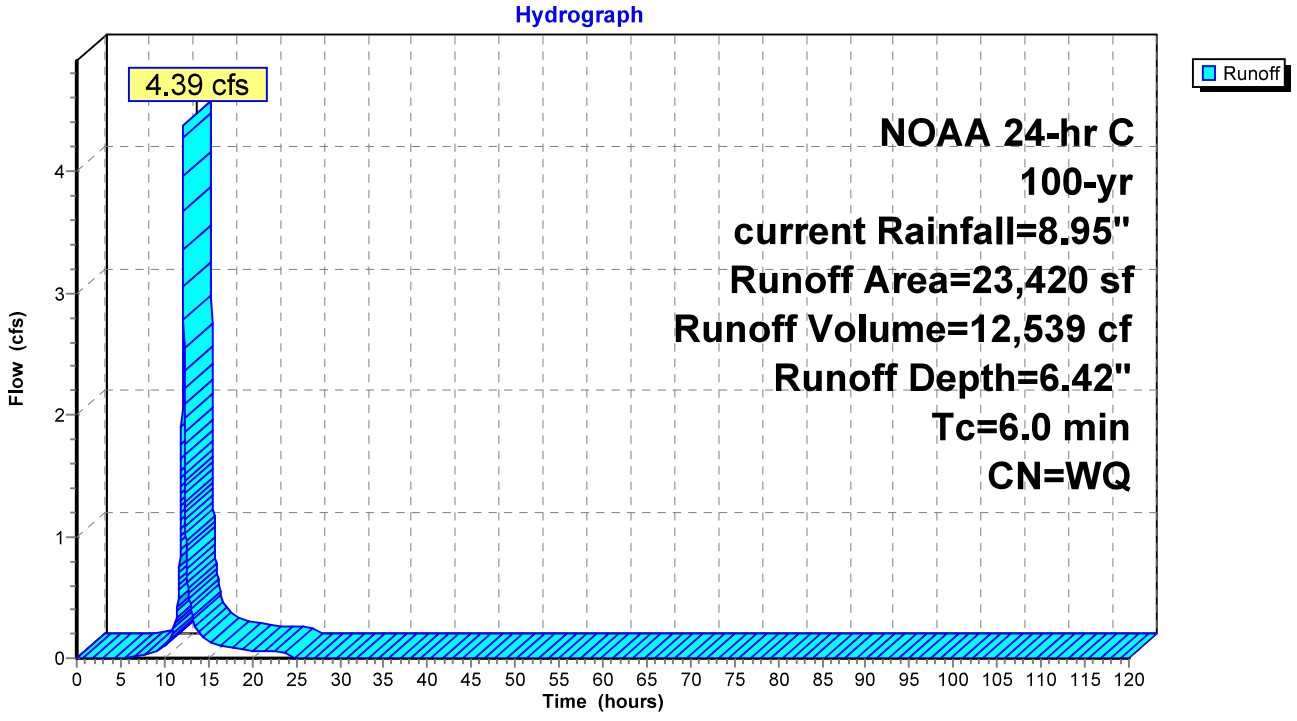
Runoff = 4.39 cfs @ 12.13 hrs, Volume= 12,539 cf, Depth= 6.42"
Routed to Reach 10R : POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 100-yr, current Rainfall=8.95"

	Area (sf)	CN	Description
*	268	98	Impervious
*	23,152	79	Grass (Fair condition)
	23,420		Weighted Average
	23,152		98.86% Pervious Area
	268		1.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 9P: Bypass



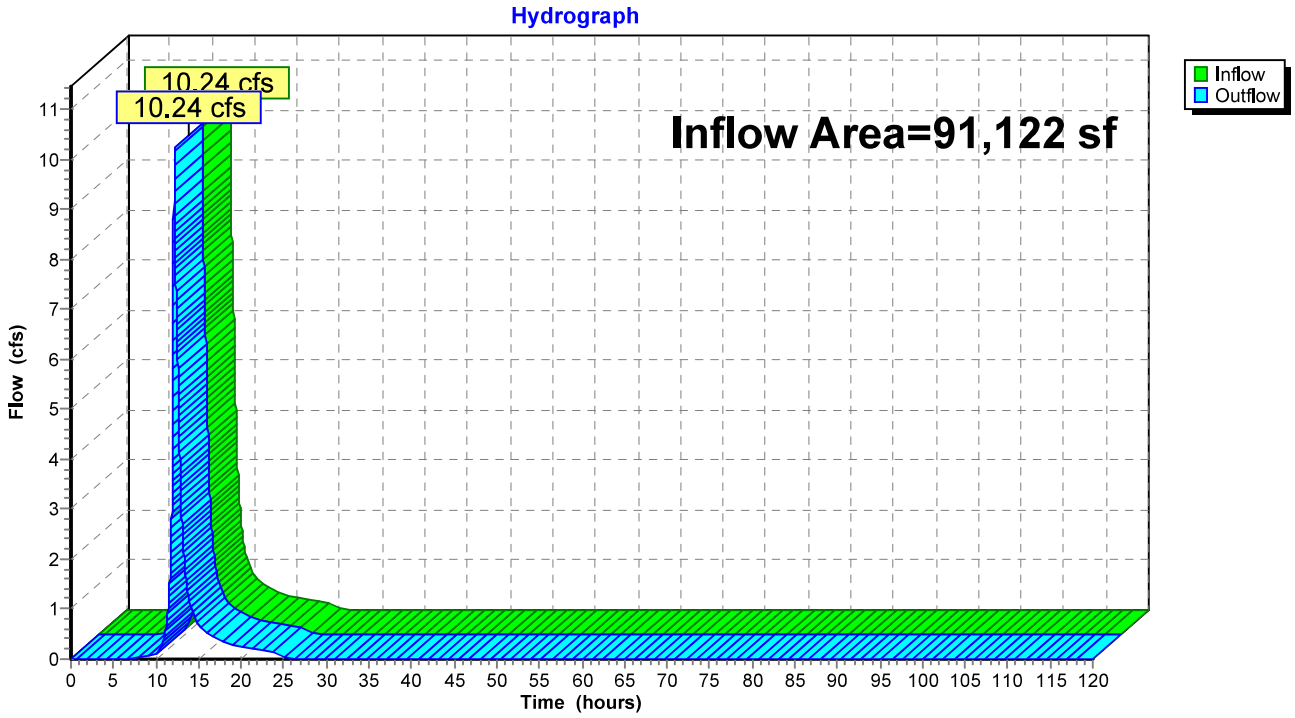
Summary for Reach 10R: POI-1

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 91,122 sf, 65.57% Impervious, Inflow Depth = 6.45" for 100-yr, current event
Inflow = 10.24 cfs @ 12.14 hrs, Volume= 48,982 cf
Outflow = 10.24 cfs @ 12.14 hrs, Volume= 48,982 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach 10R: POI-1



Summary for Subcatchment 5S: PRDA-1

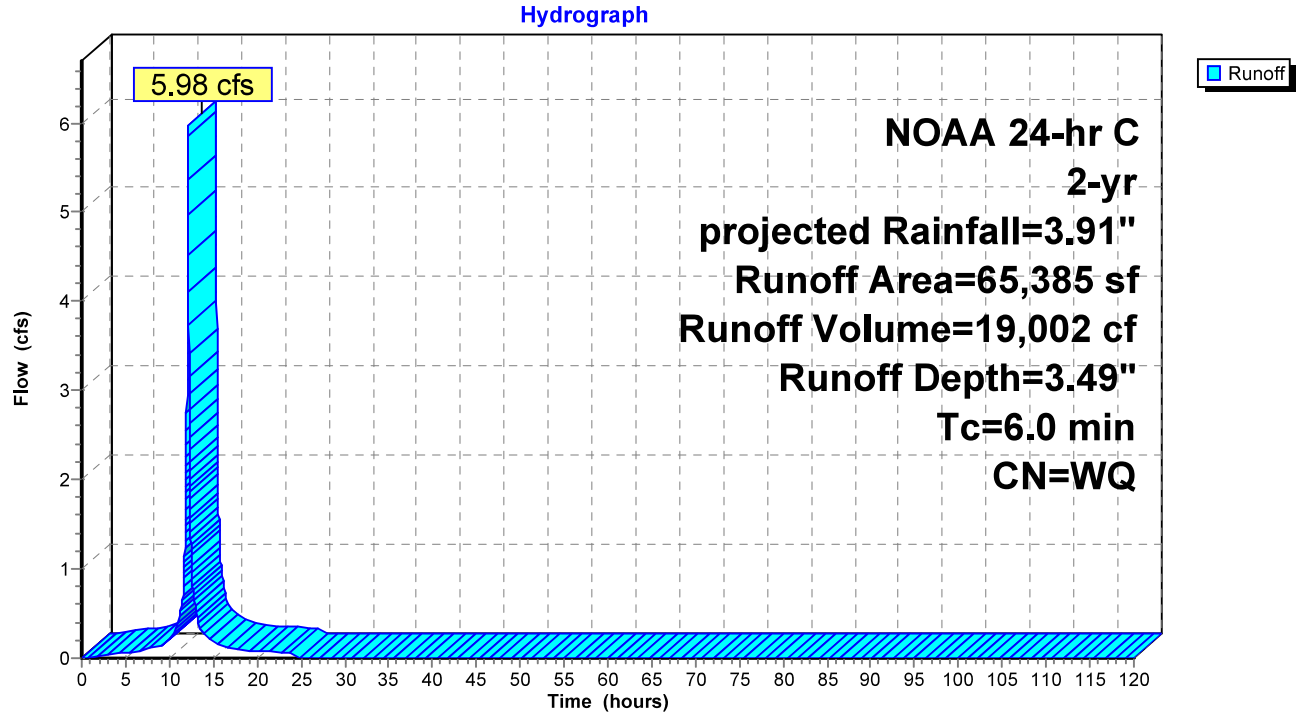
Runoff = 5.98 cfs @ 12.13 hrs, Volume= 19,002 cf, Depth= 3.49"
Routed to Pond 6P : BMP-1 - Porous Pavement

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 2-yr, projected Rainfall=3.91"

	Area (sf)	CN	Description
*	58,497	98	Impervious
*	6,888	79	Grass (Fair condition)
	65,385		Weighted Average
	6,888		10.53% Pervious Area
	58,497		89.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 5S: PRDA-1



Summary for Pond 6P: BMP-1 - Porous Pavement

Inflow Area = 65,385 sf, 89.47% Impervious, Inflow Depth = 3.49" for 2-yr, projected event
Inflow = 5.98 cfs @ 12.13 hrs, Volume= 19,002 cf
Outflow = 1.05 cfs @ 12.56 hrs, Volume= 19,002 cf, Atten= 82%, Lag= 26.0 min
Discarded = 0.06 cfs @ 6.08 hrs, Volume= 9,997 cf
Primary = 0.99 cfs @ 12.56 hrs, Volume= 9,005 cf
Routed to Reach 10R : POI-1

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 5.17' @ 12.56 hrs Surf.Area= 28,513 sf Storage= 9,524 cf

Plug-Flow detention time= 509.6 min calculated for 19,000 cf (100% of inflow)
Center-of-Mass det. time= 509.7 min (1,268.0 - 758.3)

Volume	Invert	Avail.Storage	Storage Description
#1	4.33'	21,670 cf	**Custom Stage Data (Prismatic)** Listed below 54,175 cf Overall x 40.0% Voids

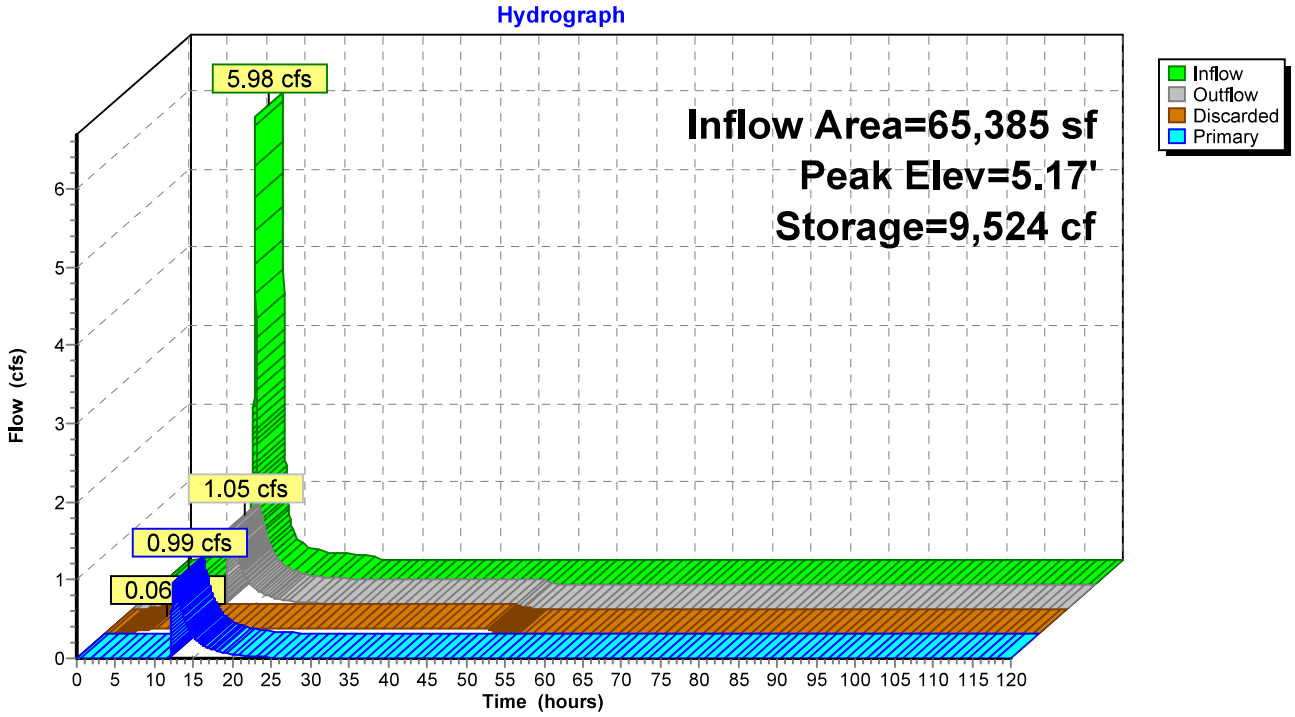
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
4.33	28,513	0	0
6.23	28,513	54,175	54,175

Device	Routing	Invert	Outlet Devices
#1	Device 3	5.13'	**42.0" W x 4.0" H Vert. 42"Wx4"H Orifice** C= 0.600 Limited to weir flow at low heads
#2	Device 3	4.80'	**16.0" W x 4.0" H Vert. 16"Wx4"H WQ Orifice** C= 0.600 Limited to weir flow at low heads
#3	Primary	2.20'	**18.0" Round 18" HDPE Outlet** L= 18.5' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 2.20' / 2.02' S= 0.0097 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#4	Discarded	4.33'	**0.090 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.06 cfs @ 6.08 hrs HW=4.35' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=0.99 cfs @ 12.56 hrs HW=5.17' (Free Discharge)
└**3=18" HDPE Outlet** (Passes 0.99 cfs of 12.66 cfs potential flow)
  ├**1=42"Wx4"H Orifice** (Orifice Controls 0.07 cfs @ 0.60 fps)
  └**2=16"Wx4"H WQ Orifice** (Orifice Controls 0.92 cfs @ 2.07 fps)

Pond 6P: BMP-1 - Porous Pavement



Summary for Subcatchment 7S: PRDA-2

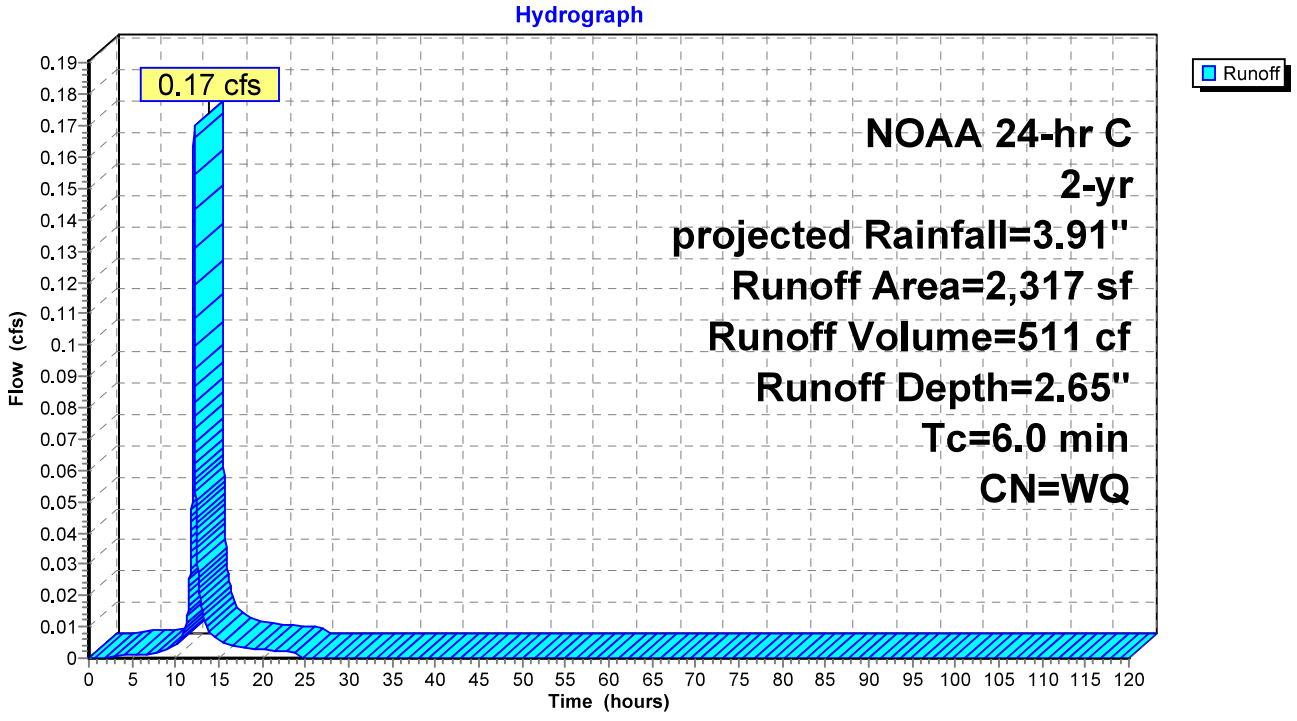
Runoff = 0.17 cfs @ 12.13 hrs, Volume= 511 cf, Depth= 2.65"
Routed to Pond 8P : BMP-2 - Infiltration Trench

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 2-yr, projected Rainfall=3.91"

	Area (sf)	CN	Description
*	982	98	Impervious
*	1,335	79	Grass (Fair Condition)
	2,317		Weighted Average
	1,335		57.62% Pervious Area
	982		42.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 7S: PRDA-2



Summary for Pond 8P: BMP-2 - Infiltration Trench

Inflow Area = 2,317 sf, 42.38% Impervious, Inflow Depth = 2.65" for 2-yr, projected event
Inflow = 0.17 cfs @ 12.13 hrs, Volume= 511 cf
Outflow = 0.17 cfs @ 12.14 hrs, Volume= 511 cf, Atten= 1%, Lag= 0.6 min
Discarded = 0.00 cfs @ 8.77 hrs, Volume= 269 cf
Primary = 0.17 cfs @ 12.14 hrs, Volume= 242 cf
Routed to Reach 10R : POI-1

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 5.69' @ 12.14 hrs Surf.Area= 213 sf Storage= 134 cf

Plug-Flow detention time= 304.0 min calculated for 511 cf (100% of inflow)
Center-of-Mass det. time= 304.0 min (1,092.7 - 788.7)

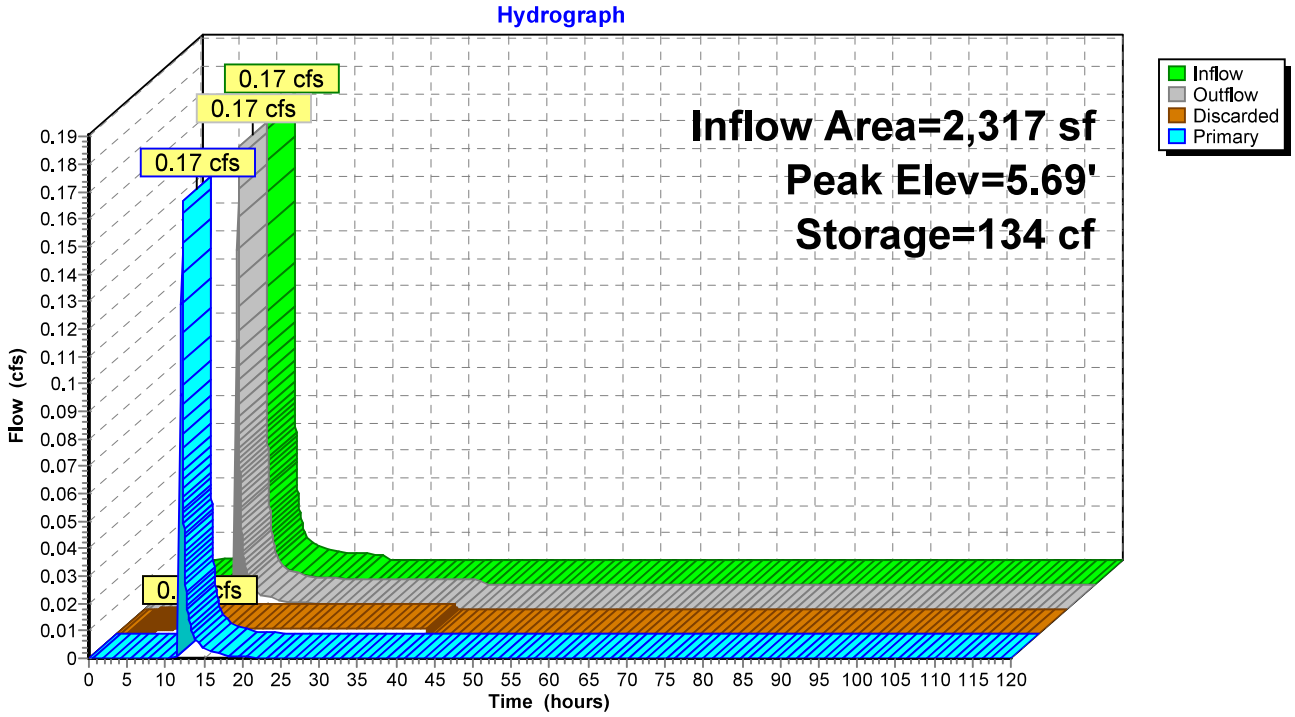
Volume	Invert	Avail.Storage	Storage Description
#1	4.28'	109 cf	**5.33'W x 40.00'L x 1.58'H Prismatoid** 337 cf Overall - 65 cf Embedded = 272 cf x 40.0% Voids
#2	4.78'	40 cf	**8.0" Round Pipe Storage** x 3 Inside #1 L= 38.0' 65 cf Overall - 1.1" Wall Thickness = 40 cf
		149 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Device 3	5.58'	**18.0" W x 3.0" H Vert. WQ Orifice** C= 0.600 Limited to weir flow at low heads
#2	Discarded	4.28'	**0.430 in/hr Exfiltration over Surface area**
#3	Primary	2.02'	**18.0" Round 18" RCP Outlet** L= 52.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 2.02' / 1.50' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Discarded OutFlow Max=0.00 cfs @ 8.77 hrs HW=4.30' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.17 cfs @ 12.14 hrs HW=5.69' (Free Discharge)
└**3=18" RCP Outlet** (Passes 0.17 cfs of 14.53 cfs potential flow)
└**1=WQ Orifice** (Orifice Controls 0.17 cfs @ 1.04 fps)

Pond 8P: BMP-2 - Infiltration Trench



Summary for Subcatchment 9P: Bypass

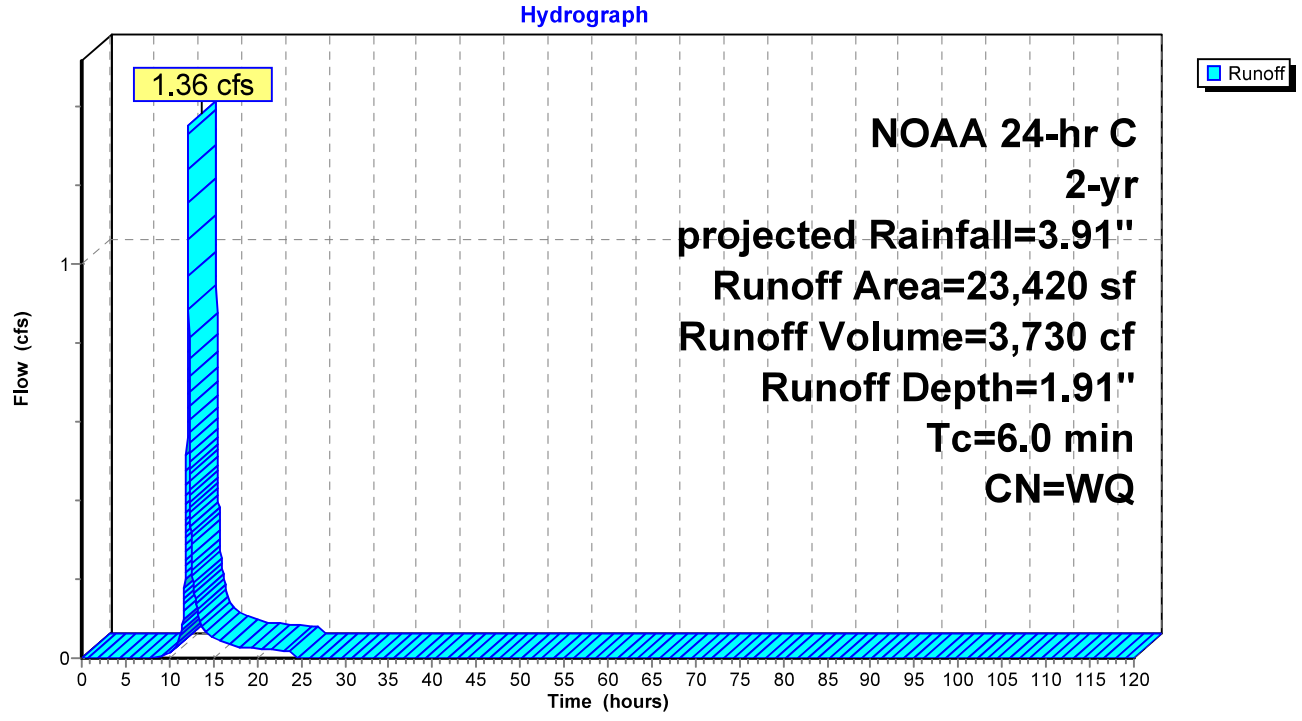
Runoff = 1.36 cfs @ 12.13 hrs, Volume= 3,730 cf, Depth= 1.91"
Routed to Reach 10R : POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 2-yr, projected Rainfall=3.91"

	Area (sf)	CN	Description
*	268	98	Impervious
*	23,152	79	Grass (Fair condition)
	23,420		Weighted Average
	23,152		98.86% Pervious Area
	268		1.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 9P: Bypass



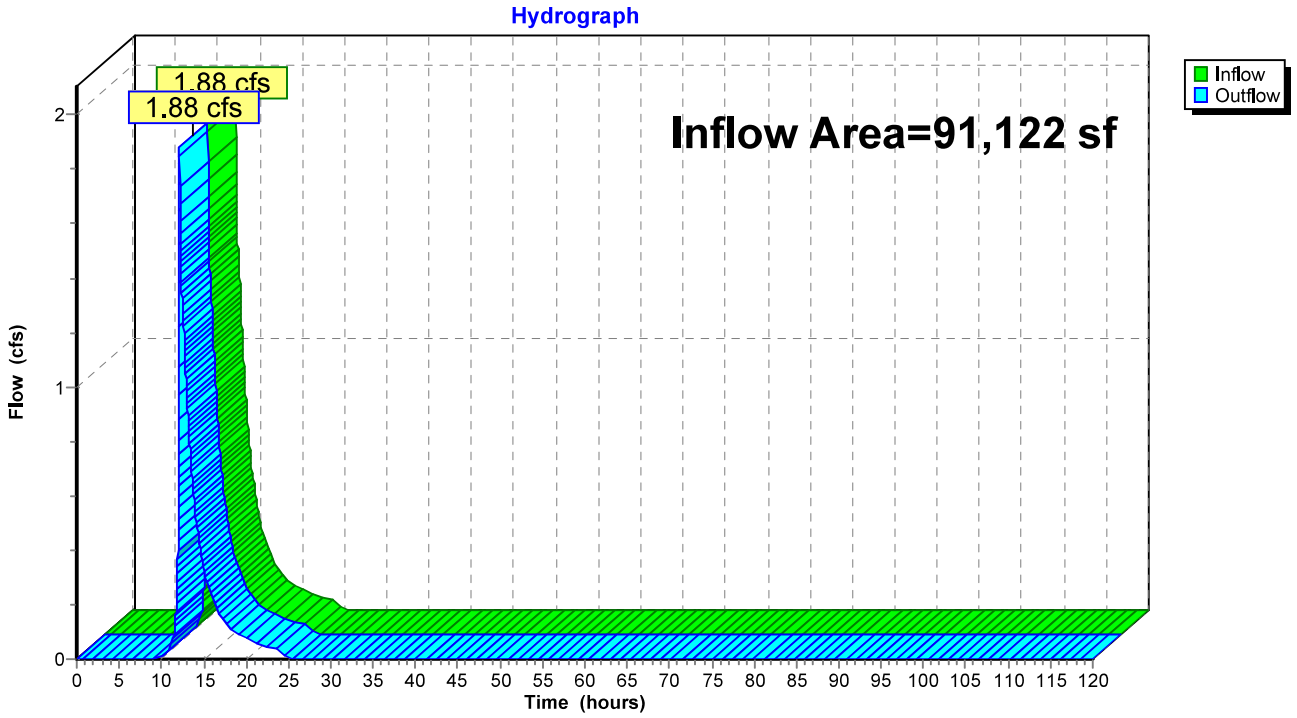
Summary for Reach 10R: POI-1

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 91,122 sf, 65.57% Impervious, Inflow Depth = 1.71" for 2-yr, projected event
Inflow = 1.88 cfs @ 12.15 hrs, Volume= 12,977 cf
Outflow = 1.88 cfs @ 12.15 hrs, Volume= 12,977 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach 10R: POI-1



Summary for Subcatchment 5S: PRDA-1

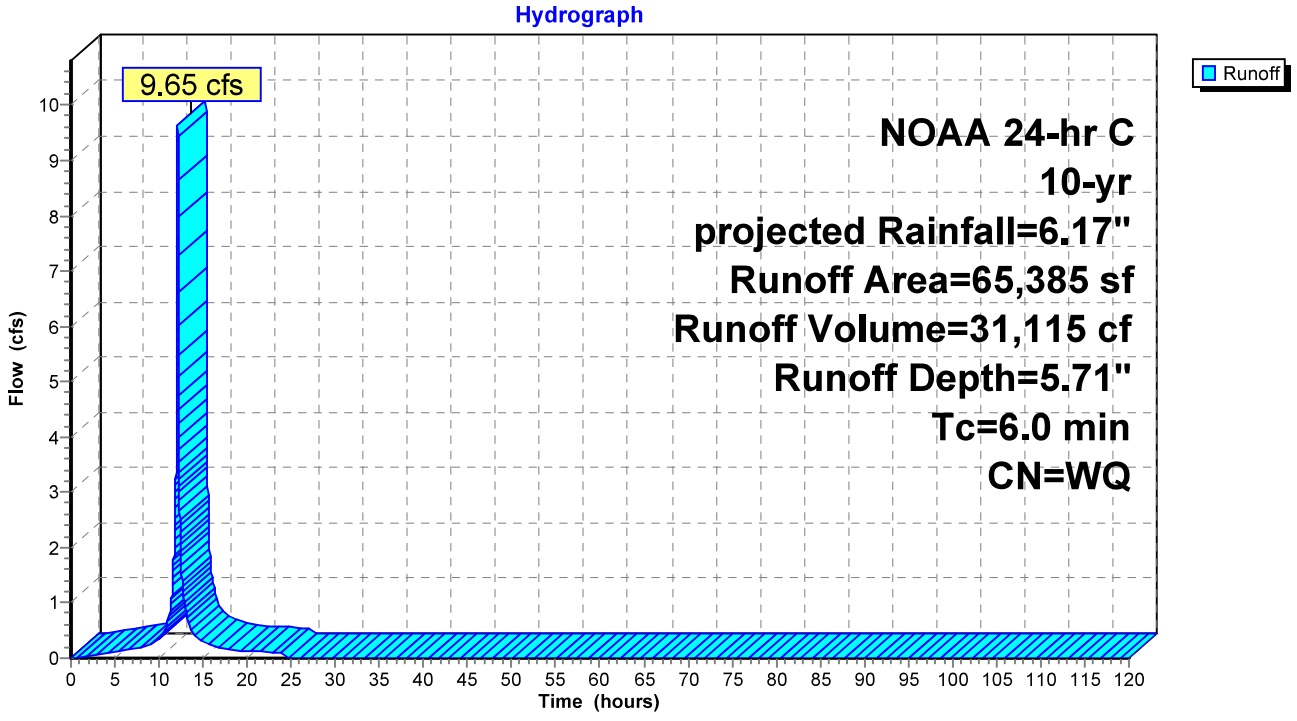
Runoff = 9.65 cfs @ 12.13 hrs, Volume= 31,115 cf, Depth= 5.71"
Routed to Pond 6P : BMP-1 - Porous Pavement

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 10-yr, projected Rainfall=6.17"

	Area (sf)	CN	Description
*	58,497	98	Impervious
*	6,888	79	Grass (Fair condition)
	65,385		Weighted Average
	6,888		10.53% Pervious Area
	58,497		89.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 5S: PRDA-1



Summary for Pond 6P: BMP-1 - Porous Pavement

Inflow Area = 65,385 sf, 89.47% Impervious, Inflow Depth = 5.71" for 10-yr, projected event
Inflow = 9.65 cfs @ 12.13 hrs, Volume= 31,115 cf
Outflow = 4.05 cfs @ 12.26 hrs, Volume= 31,115 cf, Atten= 58%, Lag= 7.7 min
Discarded = 0.06 cfs @ 3.33 hrs, Volume= 10,523 cf
Primary = 3.99 cfs @ 12.26 hrs, Volume= 20,592 cf
Routed to Reach 10R : POI-1

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 5.50' @ 12.26 hrs Surf.Area= 28,513 sf Storage= 13,328 cf

Plug-Flow detention time= 356.2 min calculated for 31,112 cf (100% of inflow)
Center-of-Mass det. time= 356.3 min (1,106.9 - 750.6)

Volume	Invert	Avail.Storage	Storage Description
#1	4.33'	21,670 cf	**Custom Stage Data (Prismatic)** Listed below 54,175 cf Overall x 40.0% Voids

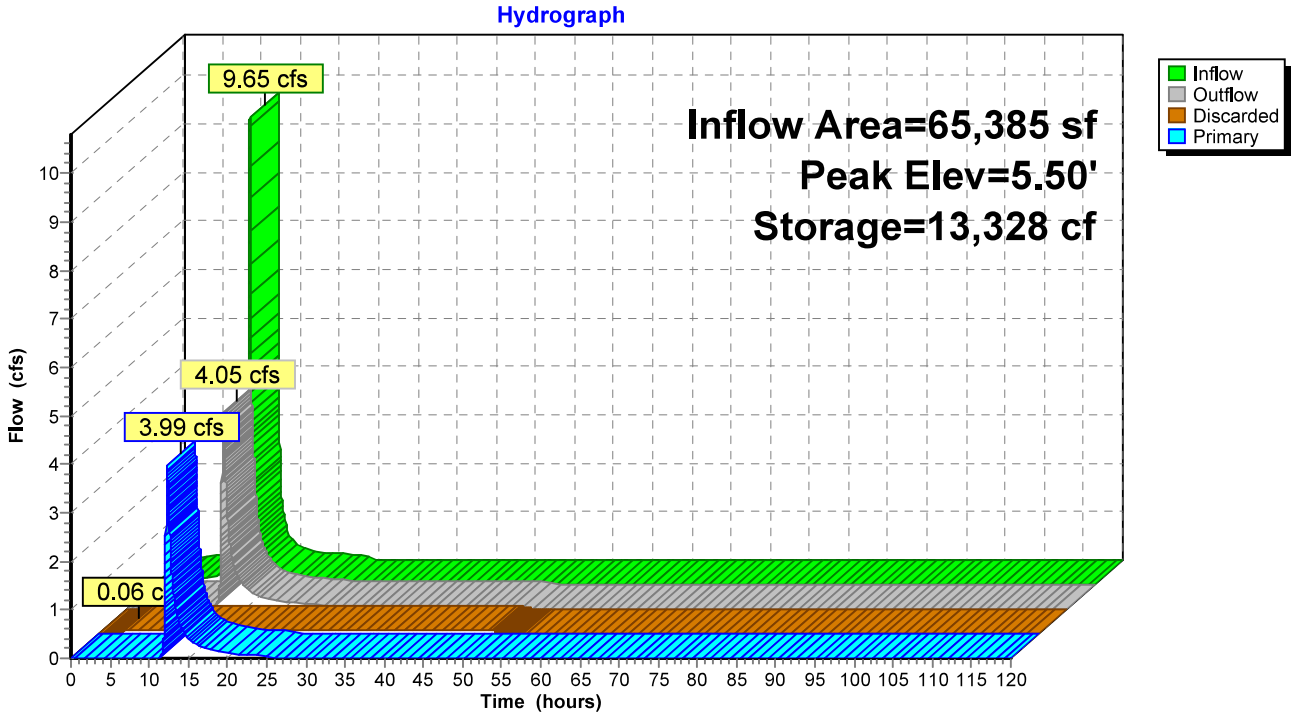
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
4.33	28,513	0	0
6.23	28,513	54,175	54,175

Device	Routing	Invert	Outlet Devices
#1	Device 3	5.13'	**42.0" W x 4.0" H Vert. 42"Wx4"H Orifice** C= 0.600 Limited to weir flow at low heads
#2	Device 3	4.80'	**16.0" W x 4.0" H Vert. 16"Wx4"H WQ Orifice** C= 0.600 Limited to weir flow at low heads
#3	Primary	2.20'	**18.0" Round 18" HDPE Outlet** L= 18.5' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 2.20' / 2.02' S= 0.0097 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#4	Discarded	4.33'	**0.090 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.06 cfs @ 3.33 hrs HW=4.35' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=3.99 cfs @ 12.26 hrs HW=5.50' (Free Discharge)
└**3=18" HDPE Outlet** (Passes 3.99 cfs of 13.58 cfs potential flow)
  ├**1=42"Wx4"H Orifice** (Orifice Controls 2.44 cfs @ 2.09 fps)
  └**2=16"Wx4"H WQ Orifice** (Orifice Controls 1.55 cfs @ 3.50 fps)

Pond 6P: BMP-1 - Porous Pavement



Summary for Subcatchment 7S: PRDA-2

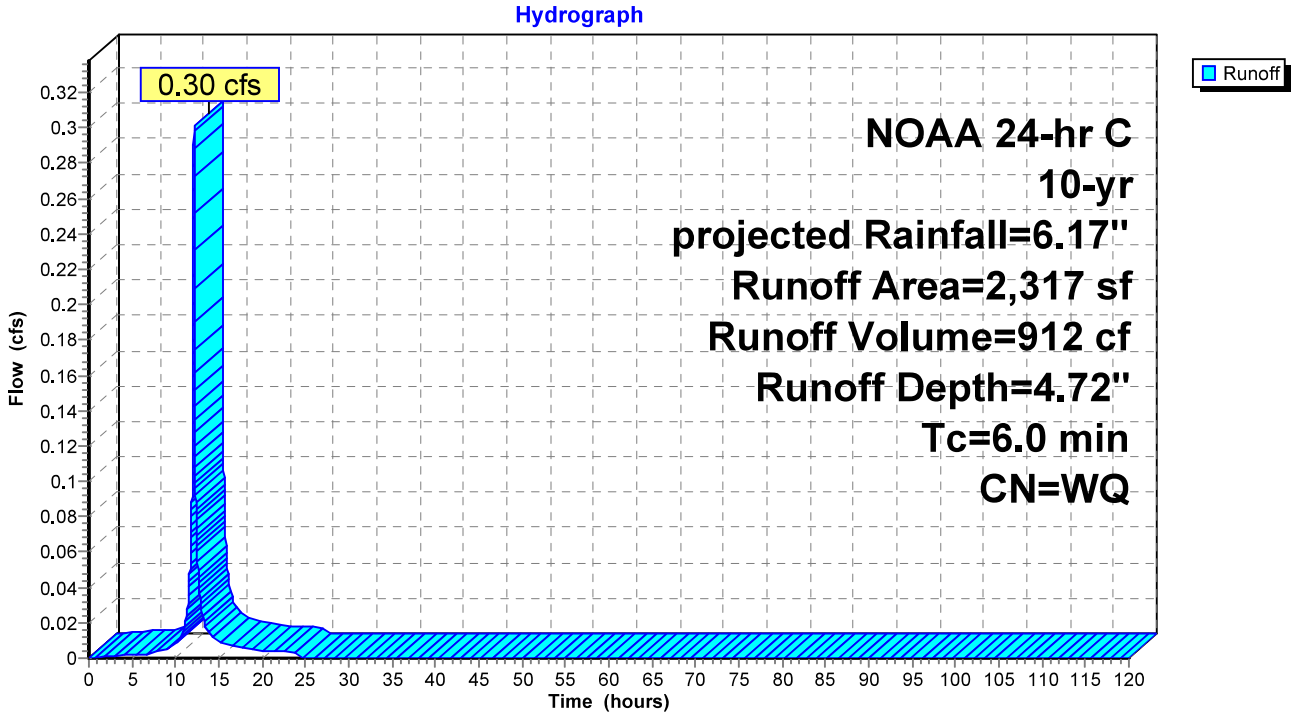
Runoff = 0.30 cfs @ 12.13 hrs, Volume= 912 cf, Depth= 4.72"
Routed to Pond 8P : BMP-2 - Infiltration Trench

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 10-yr, projected Rainfall=6.17"

	Area (sf)	CN	Description
*	982	98	Impervious
*	1,335	79	Grass (Fair Condition)
	2,317		Weighted Average
	1,335		57.62% Pervious Area
	982		42.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 7S: PRDA-2



Summary for Pond 8P: BMP-2 - Infiltration Trench

Inflow Area = 2,317 sf, 42.38% Impervious, Inflow Depth = 4.72" for 10-yr, projected event
Inflow = 0.30 cfs @ 12.13 hrs, Volume= 912 cf
Outflow = 0.30 cfs @ 12.14 hrs, Volume= 912 cf, Atten= 1%, Lag= 0.5 min
Discarded = 0.00 cfs @ 6.36 hrs, Volume= 286 cf
Primary = 0.30 cfs @ 12.14 hrs, Volume= 625 cf
Routed to Reach 10R : POI-1

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 5.74' @ 12.14 hrs Surf.Area= 213 sf Storage= 138 cf

Plug-Flow detention time= 179.9 min calculated for 912 cf (100% of inflow)
Center-of-Mass det. time= 179.9 min (959.6 - 779.7)

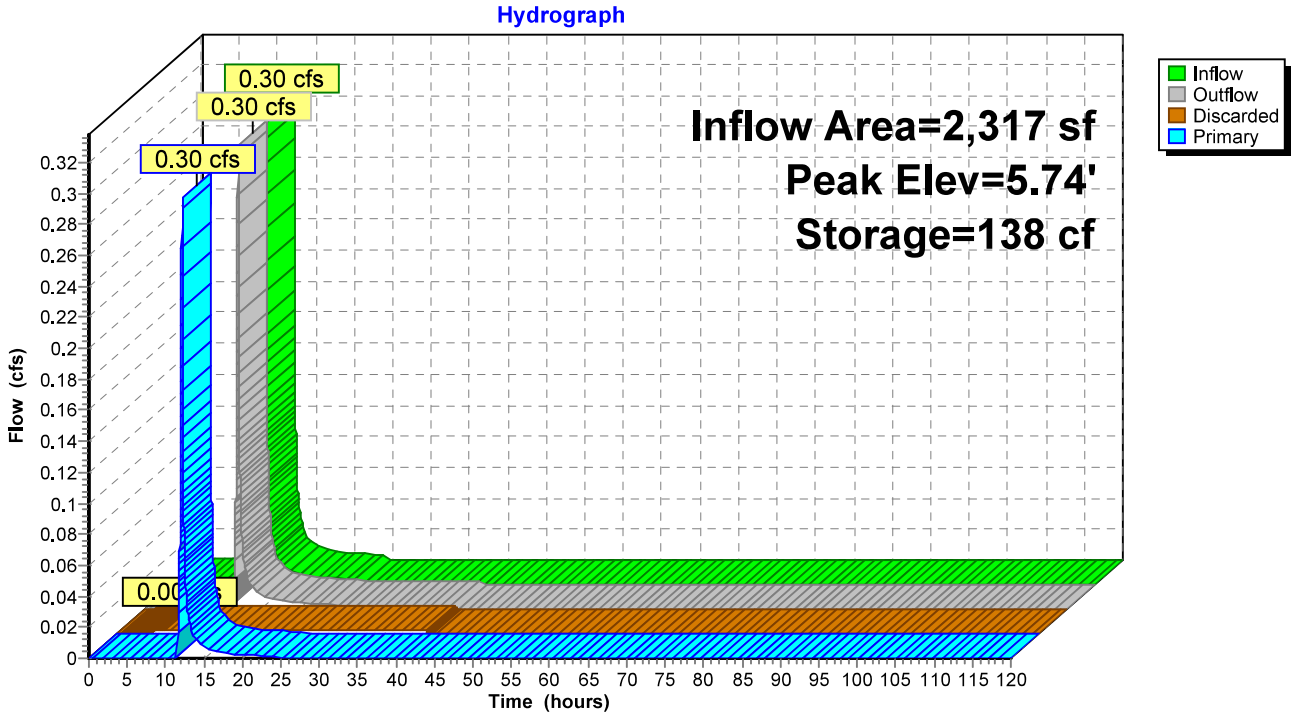
Volume	Invert	Avail.Storage	Storage Description
#1	4.28'	109 cf	**5.33'W x 40.00'L x 1.58'H Prismatoid** 337 cf Overall - 65 cf Embedded = 272 cf x 40.0% Voids
#2	4.78'	40 cf	**8.0" Round Pipe Storage** x 3 Inside #1 L= 38.0' 65 cf Overall - 1.1" Wall Thickness = 40 cf
		149 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Device 3	5.58'	**18.0" W x 3.0" H Vert. WQ Orifice** C= 0.600 Limited to weir flow at low heads
#2	Discarded	4.28'	**0.430 in/hr Exfiltration over Surface area**
#3	Primary	2.02'	**18.0" Round 18" RCP Outlet** L= 52.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 2.02' / 1.50' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Discarded OutFlow Max=0.00 cfs @ 6.36 hrs HW=4.30' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.30 cfs @ 12.14 hrs HW=5.74' (Free Discharge)
└**3=18" RCP Outlet** (Passes 0.30 cfs of 14.65 cfs potential flow)
└**1=WQ Orifice** (Orifice Controls 0.30 cfs @ 1.27 fps)

Pond 8P: BMP-2 - Infiltration Trench



Summary for Subcatchment 9P: Bypass

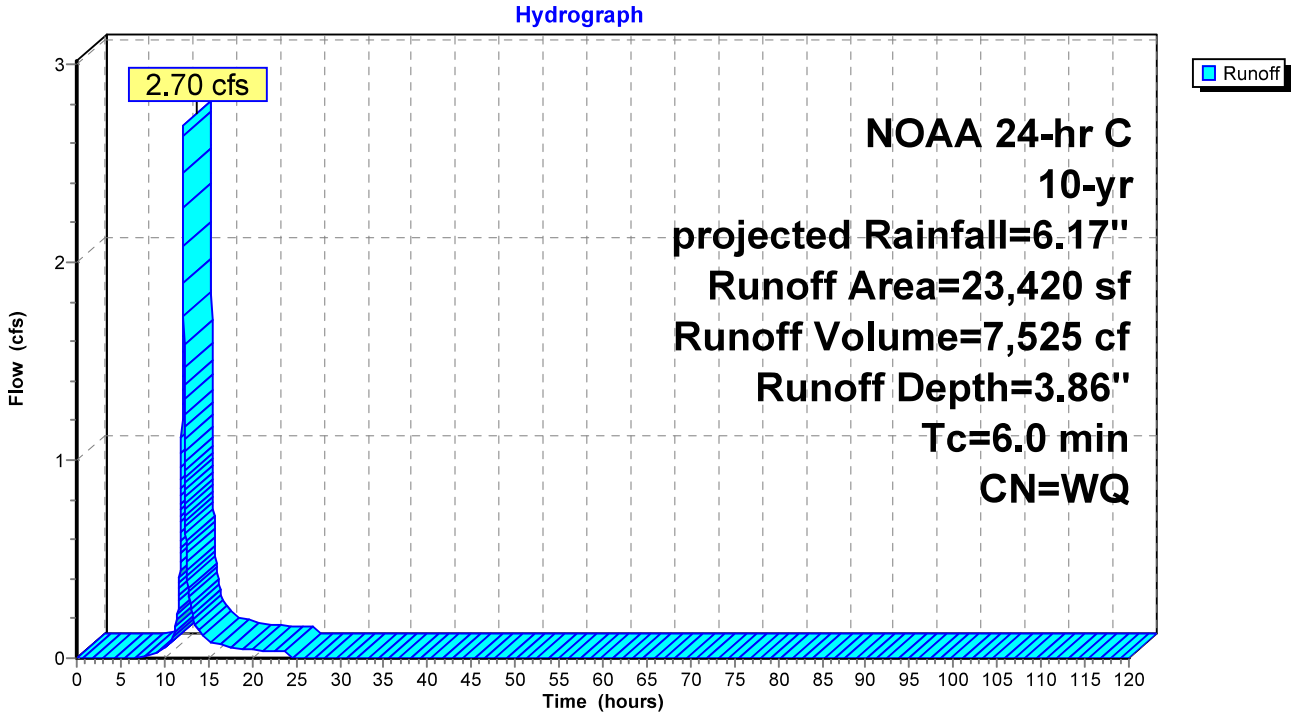
Runoff = 2.70 cfs @ 12.13 hrs, Volume= 7,525 cf, Depth= 3.86"
Routed to Reach 10R : POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 10-yr, projected Rainfall=6.17"

	Area (sf)	CN	Description
*	268	98	Impervious
*	23,152	79	Grass (Fair condition)
	23,420		Weighted Average
	23,152		98.86% Pervious Area
	268		1.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 9P: Bypass



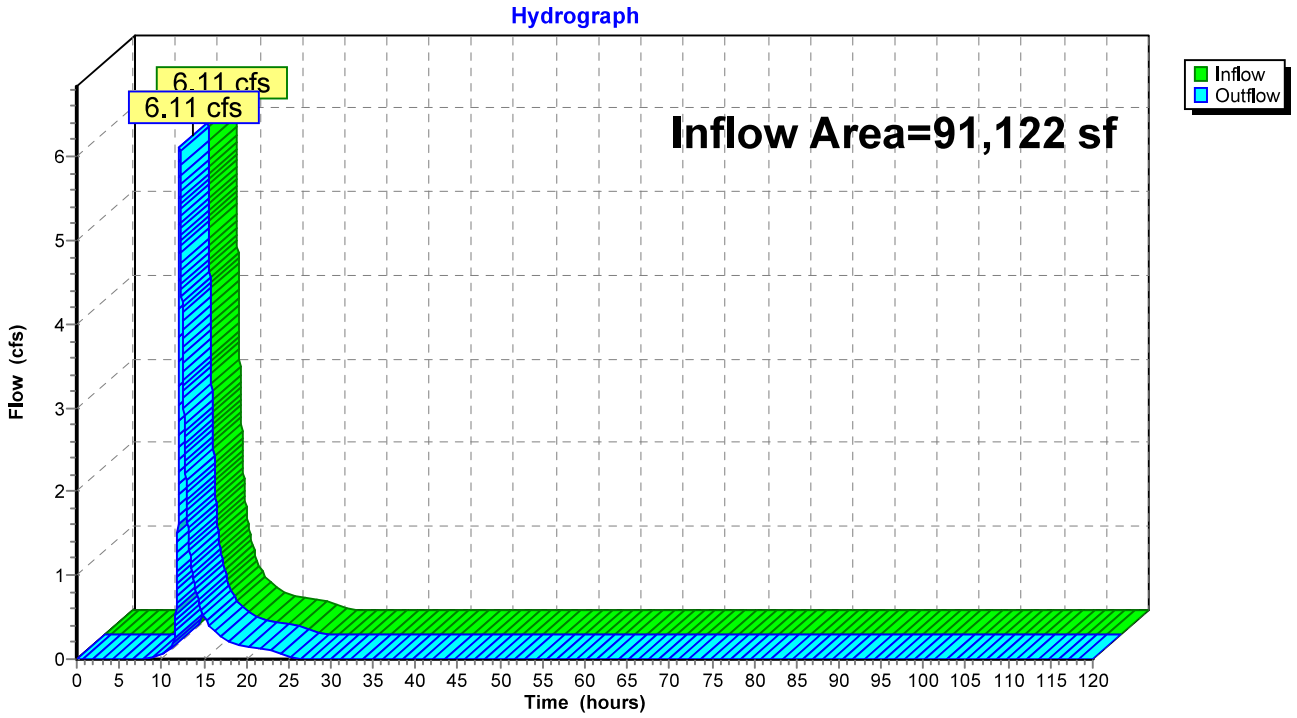
Summary for Reach 10R: POI-1

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 91,122 sf, 65.57% Impervious, Inflow Depth = 3.79" for 10-yr, projected event
Inflow = 6.11 cfs @ 12.16 hrs, Volume= 28,742 cf
Outflow = 6.11 cfs @ 12.16 hrs, Volume= 28,742 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach 10R: POI-1



Summary for Subcatchment 5S: PRDA-1

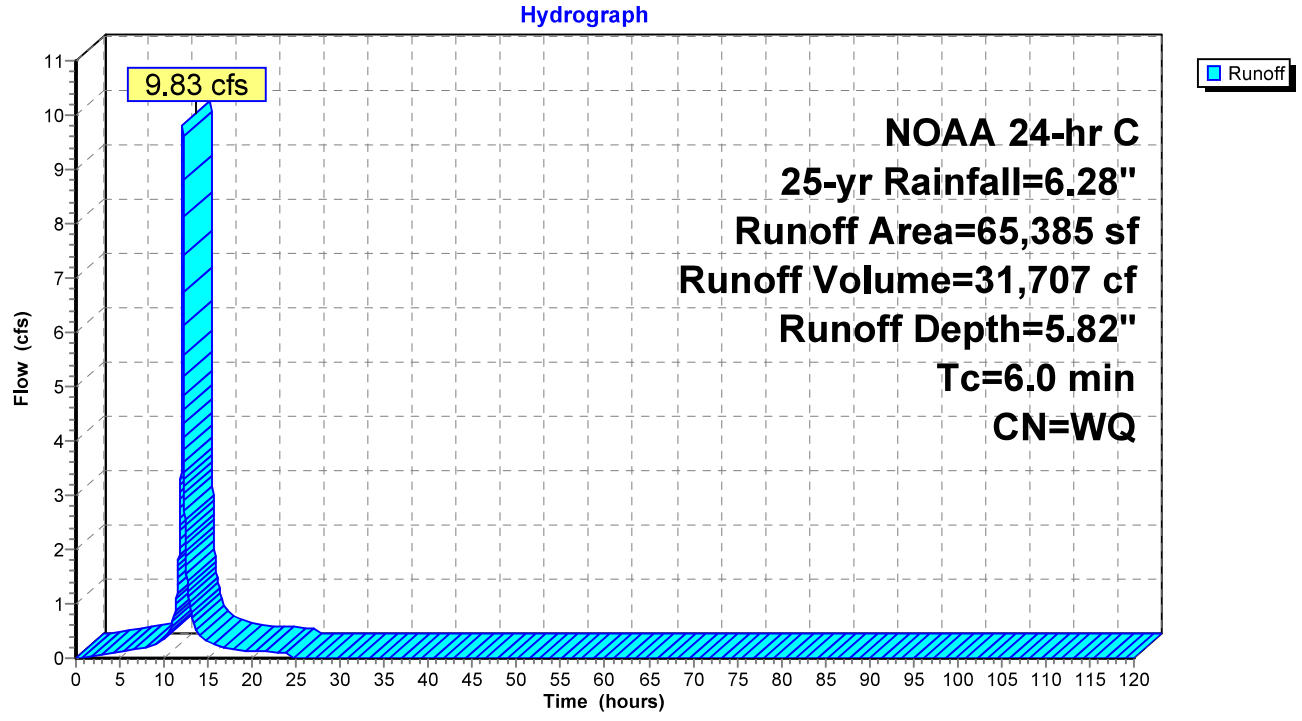
Runoff = 9.83 cfs @ 12.13 hrs, Volume= 31,707 cf, Depth= 5.82"
Routed to Pond 6P : BMP-1 - Porous Pavement

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 25-yr Rainfall=6.28"

	Area (sf)	CN	Description
*	58,497	98	Impervious
*	6,888	79	Grass (Fair condition)
	65,385		Weighted Average
	6,888		10.53% Pervious Area
	58,497		89.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 5S: PRDA-1



Summary for Pond 6P: BMP-1 - Porous Pavement

Inflow Area = 65,385 sf, 89.47% Impervious, Inflow Depth = 5.82" for 25-yr event
Inflow = 9.83 cfs @ 12.13 hrs, Volume= 31,707 cf
Outflow = 4.17 cfs @ 12.26 hrs, Volume= 31,707 cf, Atten= 58%, Lag= 7.6 min
Discarded = 0.06 cfs @ 3.26 hrs, Volume= 10,539 cf
Primary = 4.11 cfs @ 12.26 hrs, Volume= 21,168 cf
Routed to Reach 10R : POI-1

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 5.51' @ 12.26 hrs Surf.Area= 28,513 sf Storage= 13,494 cf

Plug-Flow detention time= 351.5 min calculated for 31,705 cf (100% of inflow)
Center-of-Mass det. time= 351.6 min (1,102.0 - 750.3)

Volume	Invert	Avail.Storage	Storage Description
#1	4.33'	21,670 cf	**Custom Stage Data (Prismatic)** Listed below 54,175 cf Overall x 40.0% Voids

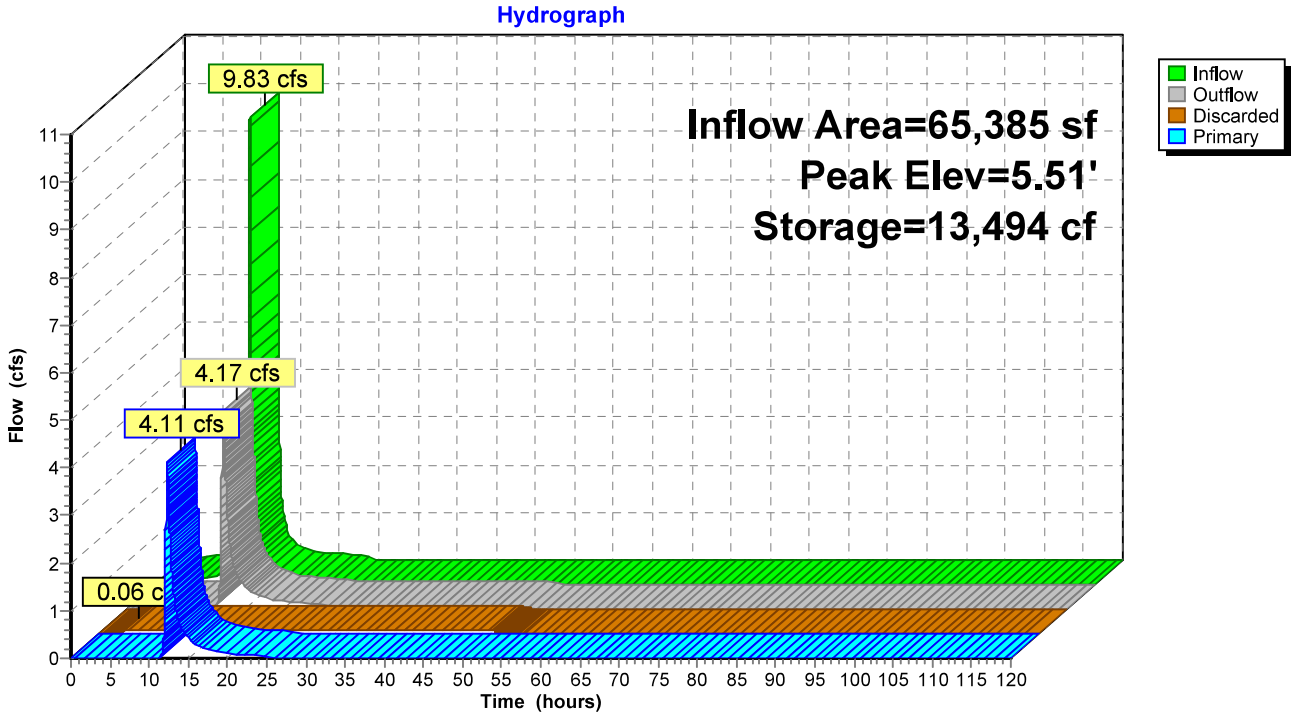
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
4.33	28,513	0	0
6.23	28,513	54,175	54,175

Device	Routing	Invert	Outlet Devices
#1	Device 3	5.13'	**42.0" W x 4.0" H Vert. 42"Wx4"H Orifice** C= 0.600 Limited to weir flow at low heads
#2	Device 3	4.80'	**16.0" W x 4.0" H Vert. 16"Wx4"H WQ Orifice** C= 0.600 Limited to weir flow at low heads
#3	Primary	2.20'	**18.0" Round 18" HDPE Outlet** L= 18.5' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 2.20' / 2.02' S= 0.0097 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#4	Discarded	4.33'	**0.090 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.06 cfs @ 3.26 hrs HW=4.35' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=4.11 cfs @ 12.26 hrs HW=5.51' (Free Discharge)
└**3=18" HDPE Outlet** (Passes 4.11 cfs of 13.62 cfs potential flow)
  ├**1=42"Wx4"H Orifice** (Orifice Controls 2.54 cfs @ 2.18 fps)
  └**2=16"Wx4"H WQ Orifice** (Orifice Controls 1.58 cfs @ 3.55 fps)

Pond 6P: BMP-1 - Porous Pavement



Summary for Subcatchment 7S: PRDA-2

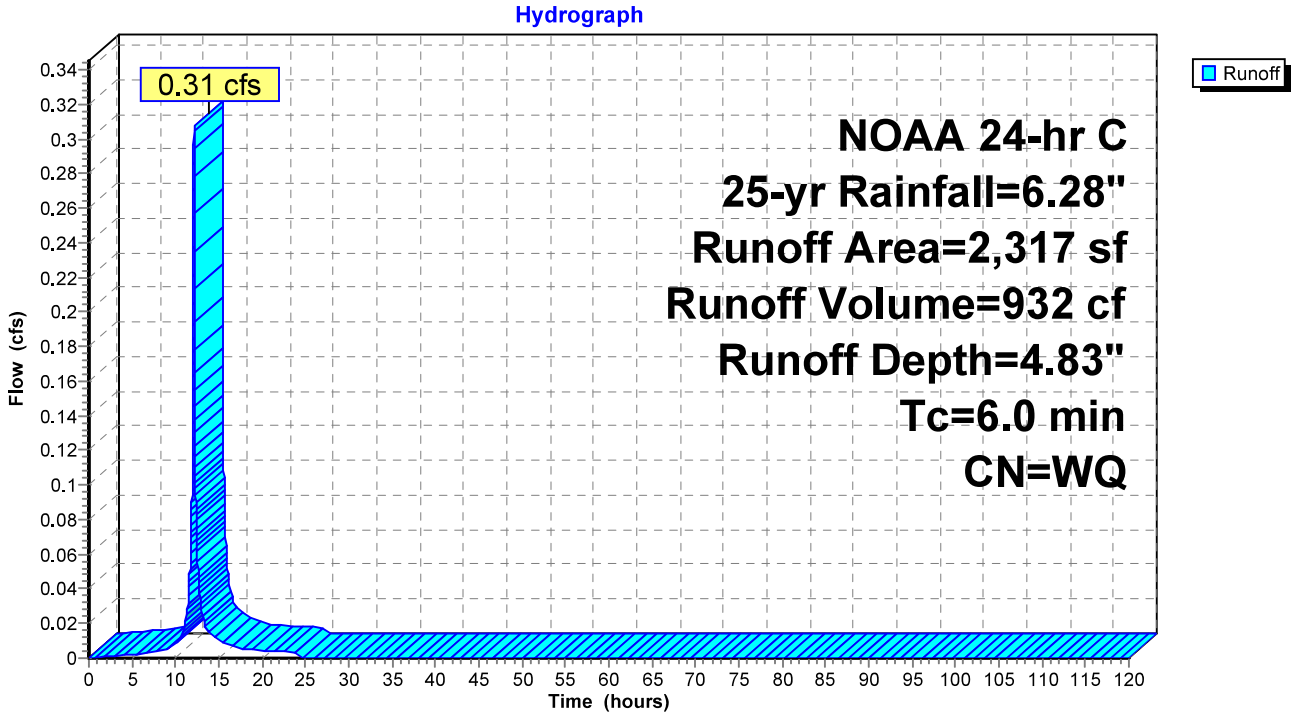
Runoff = 0.31 cfs @ 12.13 hrs, Volume= 932 cf, Depth= 4.83"
Routed to Pond 8P : BMP-2 - Infiltration Trench

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 25-yr Rainfall=6.28"

	Area (sf)	CN	Description
*	982	98	Impervious
*	1,335	79	Grass (Fair Condition)
	2,317		Weighted Average
	1,335		57.62% Pervious Area
	982		42.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 7S: PRDA-2



Summary for Pond 8P: BMP-2 - Infiltration Trench

Inflow Area = 2,317 sf, 42.38% Impervious, Inflow Depth = 4.83" for 25-yr event
Inflow = 0.31 cfs @ 12.13 hrs, Volume= 932 cf
Outflow = 0.31 cfs @ 12.14 hrs, Volume= 932 cf, Atten= 1%, Lag= 0.5 min
Discarded = 0.00 cfs @ 6.27 hrs, Volume= 287 cf
Primary = 0.30 cfs @ 12.14 hrs, Volume= 645 cf
Routed to Reach 10R : POI-1

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 5.74' @ 12.14 hrs Surf.Area= 213 sf Storage= 138 cf

Plug-Flow detention time= 176.6 min calculated for 932 cf (100% of inflow)
Center-of-Mass det. time= 176.6 min (955.9 - 779.3)

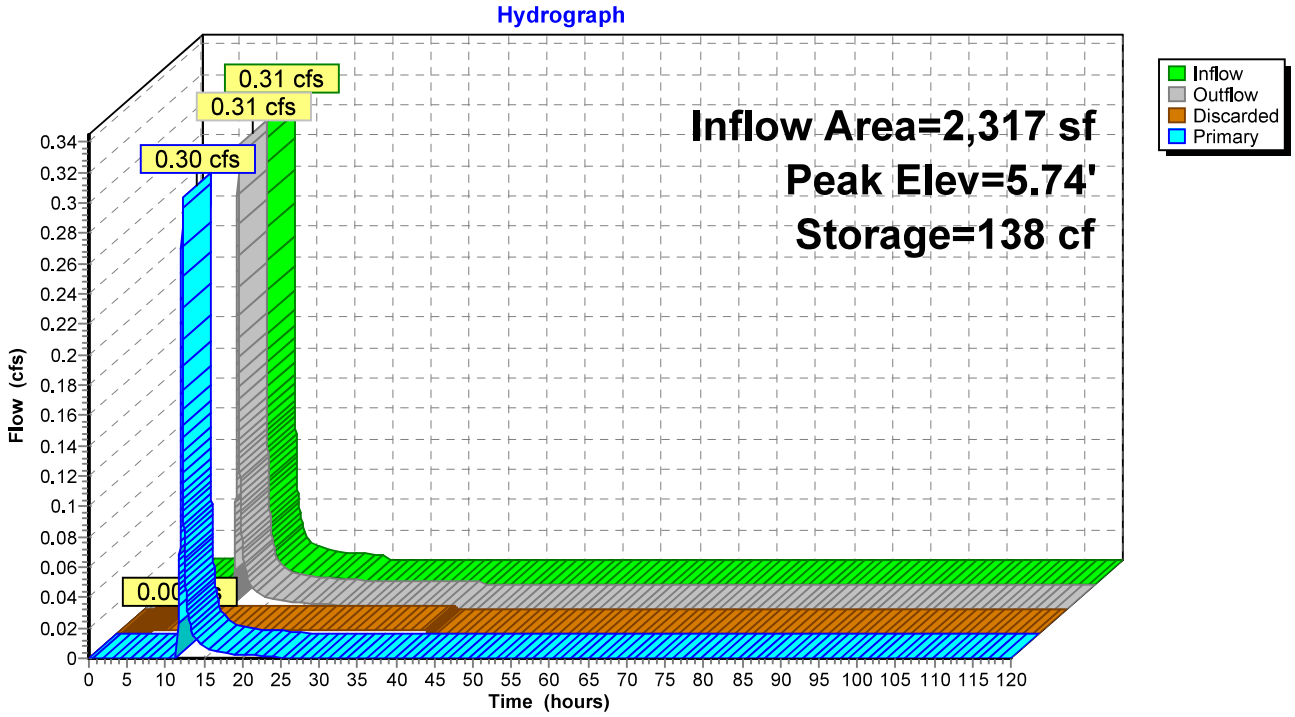
Volume	Invert	Avail.Storage	Storage Description
#1	4.28'	109 cf	**5.33'W x 40.00'L x 1.58'H Prismatoid** 337 cf Overall - 65 cf Embedded = 272 cf x 40.0% Voids
#2	4.78'	40 cf	**8.0" Round Pipe Storage** x 3 Inside #1 L= 38.0' 65 cf Overall - 1.1" Wall Thickness = 40 cf
		149 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Device 3	5.58'	**18.0" W x 3.0" H Vert. WQ Orifice** C= 0.600 Limited to weir flow at low heads
#2	Discarded	4.28'	**0.430 in/hr Exfiltration over Surface area**
#3	Primary	2.02'	**18.0" Round 18" RCP Outlet** L= 52.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 2.02' / 1.50' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Discarded OutFlow Max=0.00 cfs @ 6.27 hrs HW=4.30' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.30 cfs @ 12.14 hrs HW=5.74' (Free Discharge)
└**3=18" RCP Outlet** (Passes 0.30 cfs of 14.66 cfs potential flow)
└**1=WQ Orifice** (Orifice Controls 0.30 cfs @ 1.28 fps)

Pond 8P: BMP-2 - Infiltration Trench



Summary for Subcatchment 9P: Bypass

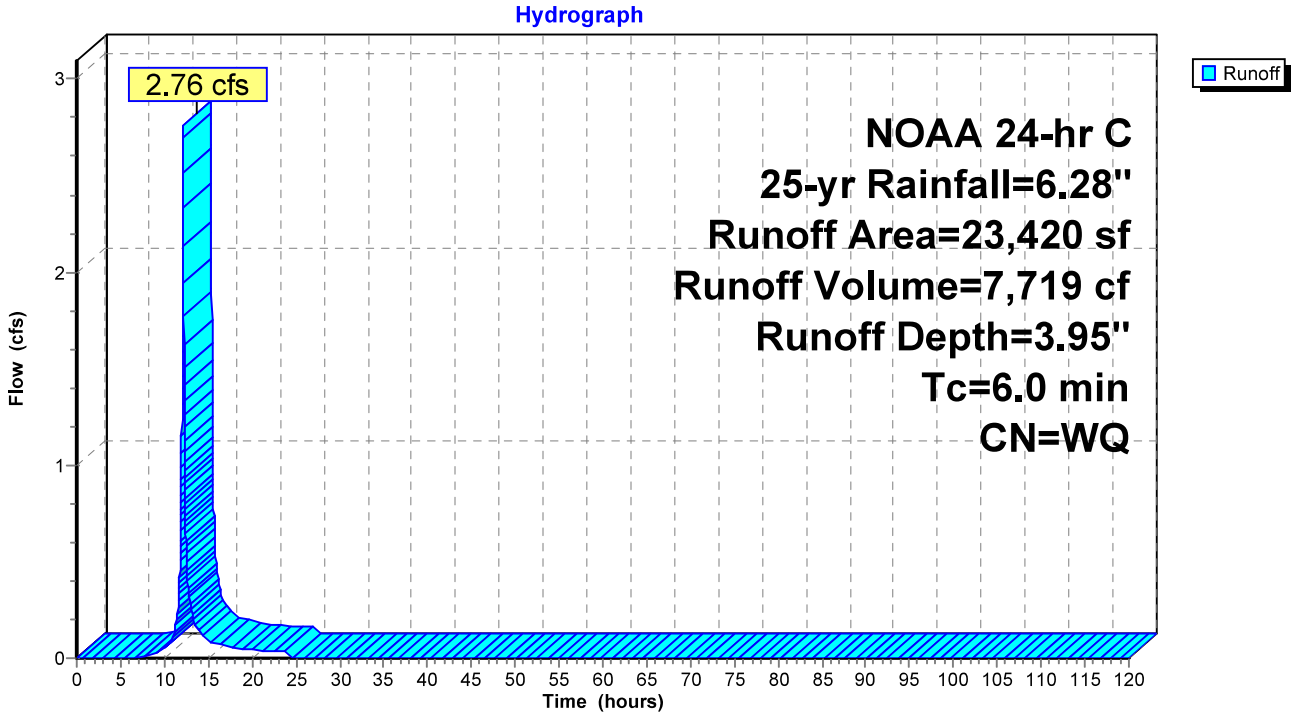
Runoff = 2.76 cfs @ 12.13 hrs, Volume= 7,719 cf, Depth= 3.95"
Routed to Reach 10R : POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 25-yr Rainfall=6.28"

	Area (sf)	CN	Description
*	268	98	Impervious
*	23,152	79	Grass (Fair condition)
	23,420		Weighted Average
	23,152		98.86% Pervious Area
	268		1.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 9P: Bypass



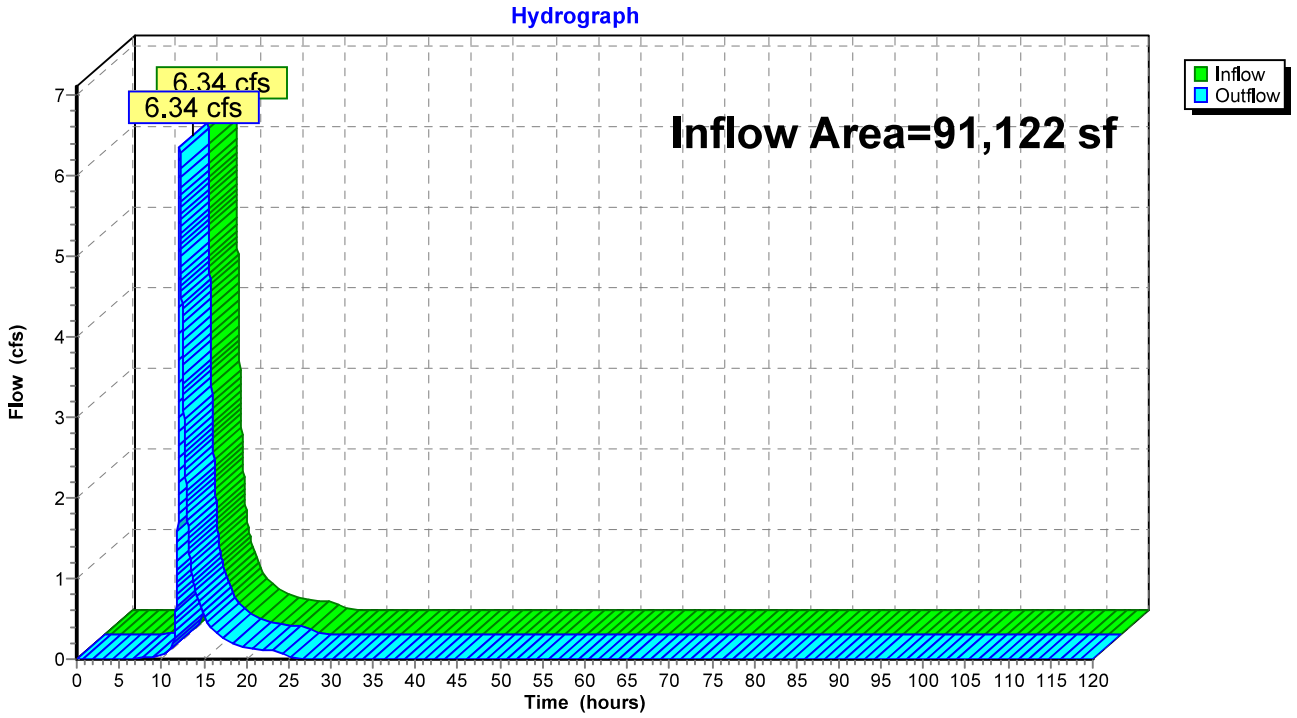
Summary for Reach 10R: POI-1

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 91,122 sf, 65.57% Impervious, Inflow Depth = 3.89" for 25-yr event
Inflow = 6.34 cfs @ 12.16 hrs, Volume= 29,531 cf
Outflow = 6.34 cfs @ 12.16 hrs, Volume= 29,531 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach 10R: POI-1



Summary for Subcatchment 5S: PRDA-1

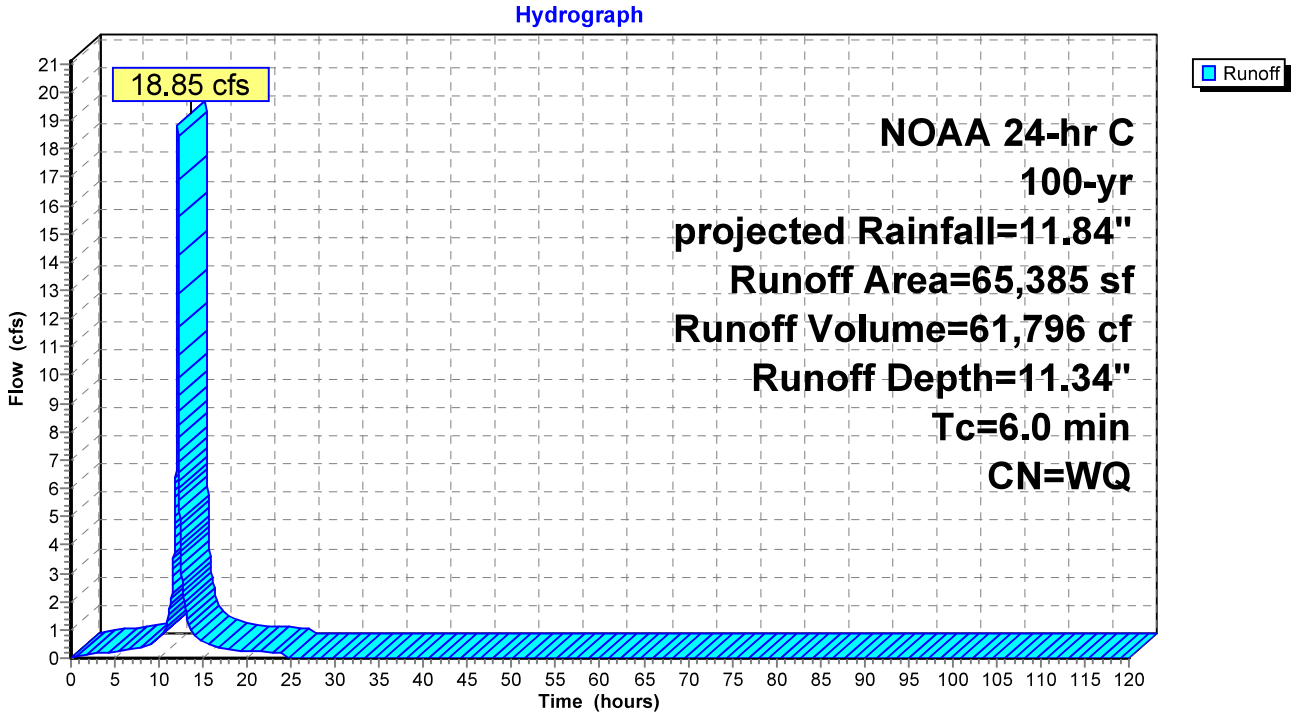
Runoff = 18.85 cfs @ 12.13 hrs, Volume= 61,796 cf, Depth=11.34"
Routed to Pond 6P : BMP-1 - Porous Pavement

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 100-yr, projected Rainfall=11.84"

	Area (sf)	CN	Description
*	58,497	98	Impervious
*	6,888	79	Grass (Fair condition)
	65,385		Weighted Average
	6,888		10.53% Pervious Area
	58,497		89.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 5S: PRDA-1



Summary for Pond 6P: BMP-1 - Porous Pavement

Inflow Area = 65,385 sf, 89.47% Impervious, Inflow Depth = 11.34" for 100-yr, projected event
Inflow = 18.85 cfs @ 12.13 hrs, Volume= 61,796 cf
Outflow = 7.60 cfs @ 12.26 hrs, Volume= 61,796 cf, Atten= 60%, Lag= 8.1 min
Discarded = 0.06 cfs @ 1.57 hrs, Volume= 10,982 cf
Primary = 7.54 cfs @ 12.26 hrs, Volume= 50,814 cf
Routed to Reach 10R : POI-1

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 6.16' @ 12.26 hrs Surf.Area= 28,513 sf Storage= 20,865 cf

Plug-Flow detention time= 225.1 min calculated for 61,796 cf (100% of inflow)
Center-of-Mass det. time= 225.1 min (967.2 - 742.2)

Volume	Invert	Avail.Storage	Storage Description
#1	4.33'	21,670 cf	**Custom Stage Data (Prismatic)** Listed below 54,175 cf Overall x 40.0% Voids

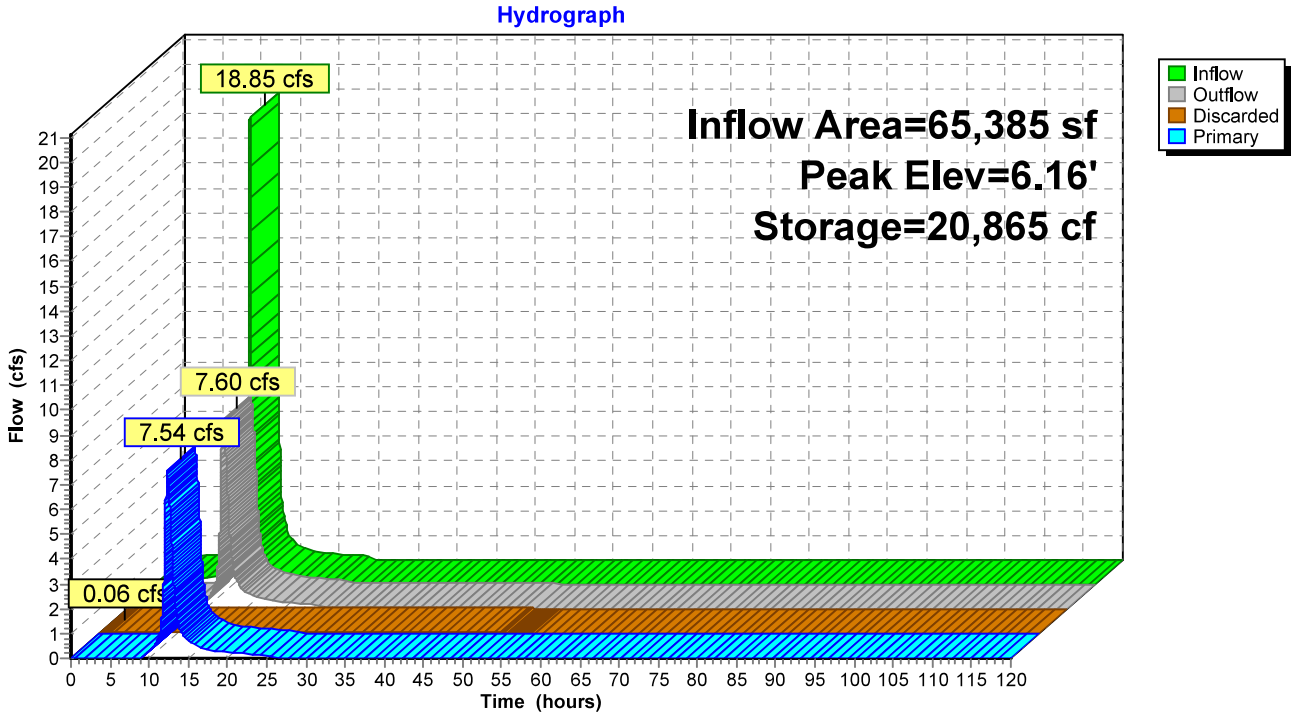
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
4.33	28,513	0	0
6.23	28,513	54,175	54,175

Device	Routing	Invert	Outlet Devices
#1	Device 3	5.13'	**42.0" W x 4.0" H Vert. 42"Wx4"H Orifice** C= 0.600 Limited to weir flow at low heads
#2	Device 3	4.80'	**16.0" W x 4.0" H Vert. 16"Wx4"H WQ Orifice** C= 0.600 Limited to weir flow at low heads
#3	Primary	2.20'	**18.0" Round 18" HDPE Outlet** L= 18.5' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 2.20' / 2.02' S= 0.0097 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#4	Discarded	4.33'	**0.090 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.06 cfs @ 1.57 hrs HW=4.35' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=7.54 cfs @ 12.26 hrs HW=6.16' (Free Discharge)
└**3=18" HDPE Outlet** (Passes 7.54 cfs of 15.24 cfs potential flow)
  ├**1=42"Wx4"H Orifice** (Orifice Controls 5.21 cfs @ 4.46 fps)
  └**2=16"Wx4"H WQ Orifice** (Orifice Controls 2.34 cfs @ 5.25 fps)

Pond 6P: BMP-1 - Porous Pavement



Summary for Subcatchment 7S: PRDA-2

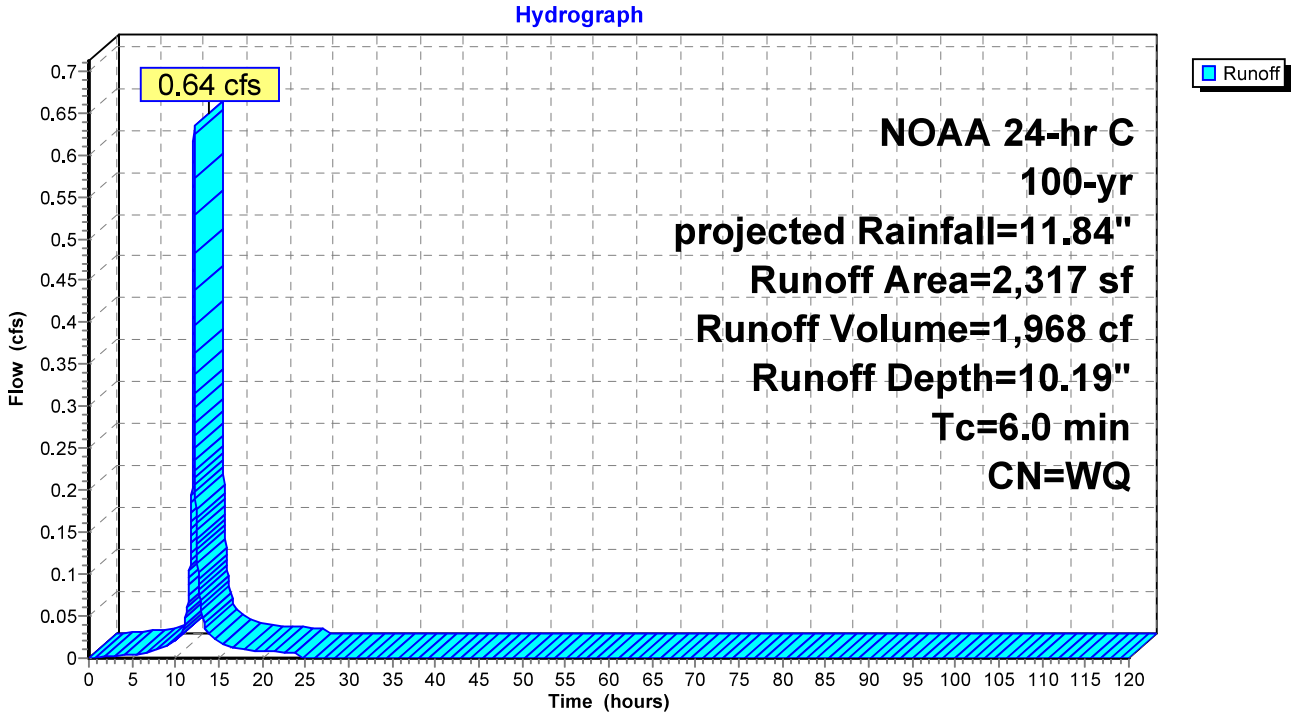
Runoff = 0.64 cfs @ 12.13 hrs, Volume= 1,968 cf, Depth=10.19"
Routed to Pond 8P : BMP-2 - Infiltration Trench

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 100-yr, projected Rainfall=11.84"

	Area (sf)	CN	Description
*	982	98	Impervious
*	1,335	79	Grass (Fair Condition)
	2,317		Weighted Average
	1,335		57.62% Pervious Area
	982		42.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 7S: PRDA-2



Summary for Pond 8P: BMP-2 - Infiltration Trench

Inflow Area = 2,317 sf, 42.38% Impervious, Inflow Depth = 10.19" for 100-yr, projected event
Inflow = 0.64 cfs @ 12.13 hrs, Volume= 1,968 cf
Outflow = 0.63 cfs @ 12.14 hrs, Volume= 1,968 cf, Atten= 1%, Lag= 0.4 min
Discarded = 0.00 cfs @ 1.78 hrs, Volume= 302 cf
Primary = 0.63 cfs @ 12.14 hrs, Volume= 1,666 cf
Routed to Reach 10R : POI-1

Routing by Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
Peak Elev= 5.84' @ 12.14 hrs Surf.Area= 213 sf Storage= 147 cf

Plug-Flow detention time= 96.0 min calculated for 1,968 cf (100% of inflow)
Center-of-Mass det. time= 96.1 min (862.5 - 766.5)

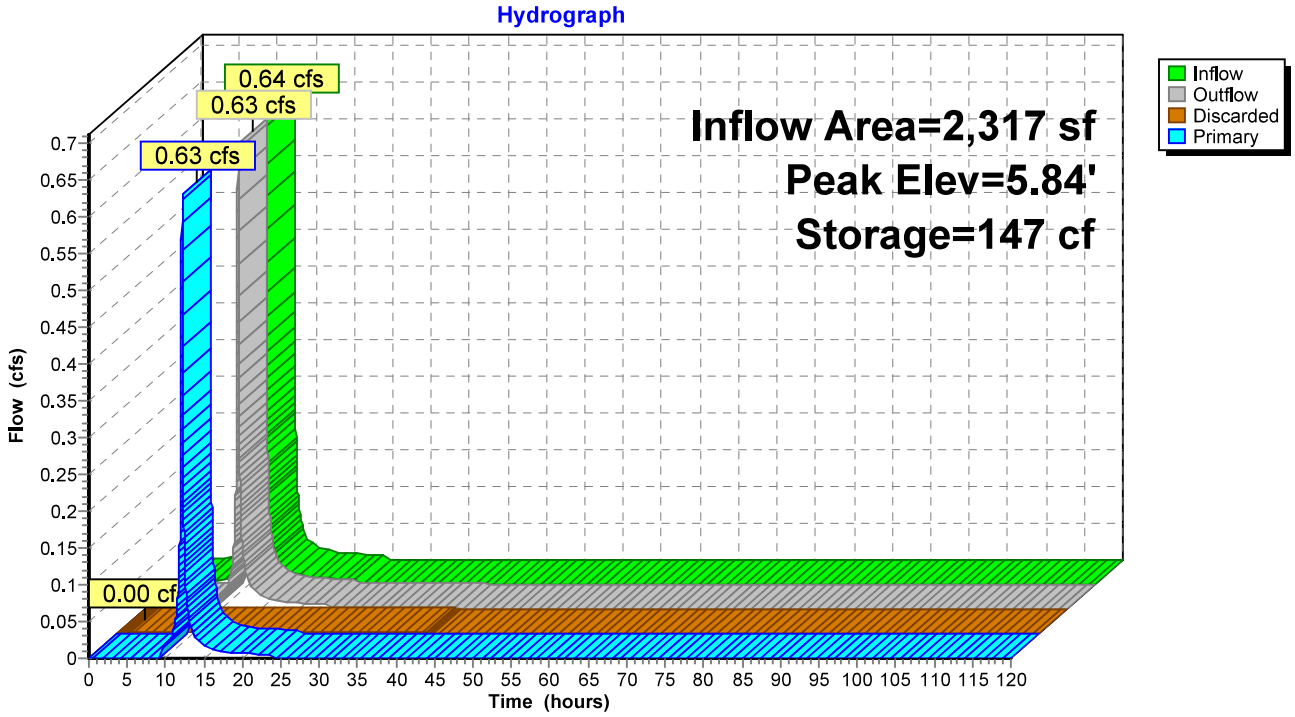
Volume	Invert	Avail.Storage	Storage Description
#1	4.28'	109 cf	**5.33'W x 40.00'L x 1.58'H Prismatoid** 337 cf Overall - 65 cf Embedded = 272 cf x 40.0% Voids
#2	4.78'	40 cf	**8.0" Round Pipe Storage** x 3 Inside #1 L= 38.0' 65 cf Overall - 1.1" Wall Thickness = 40 cf
		149 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Device 3	5.58'	**18.0" W x 3.0" H Vert. WQ Orifice** C= 0.600 Limited to weir flow at low heads
#2	Discarded	4.28'	**0.430 in/hr Exfiltration over Surface area**
#3	Primary	2.02'	**18.0" Round 18" RCP Outlet** L= 52.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 2.02' / 1.50' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Discarded OutFlow Max=0.00 cfs @ 1.78 hrs HW=4.30' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.63 cfs @ 12.14 hrs HW=5.84' (Free Discharge)
└**3=18" RCP Outlet** (Passes 0.63 cfs of 14.91 cfs potential flow)
└**1=WQ Orifice** (Orifice Controls 0.63 cfs @ 1.68 fps)

Pond 8P: BMP-2 - Infiltration Trench



Summary for Subcatchment 9P: Bypass

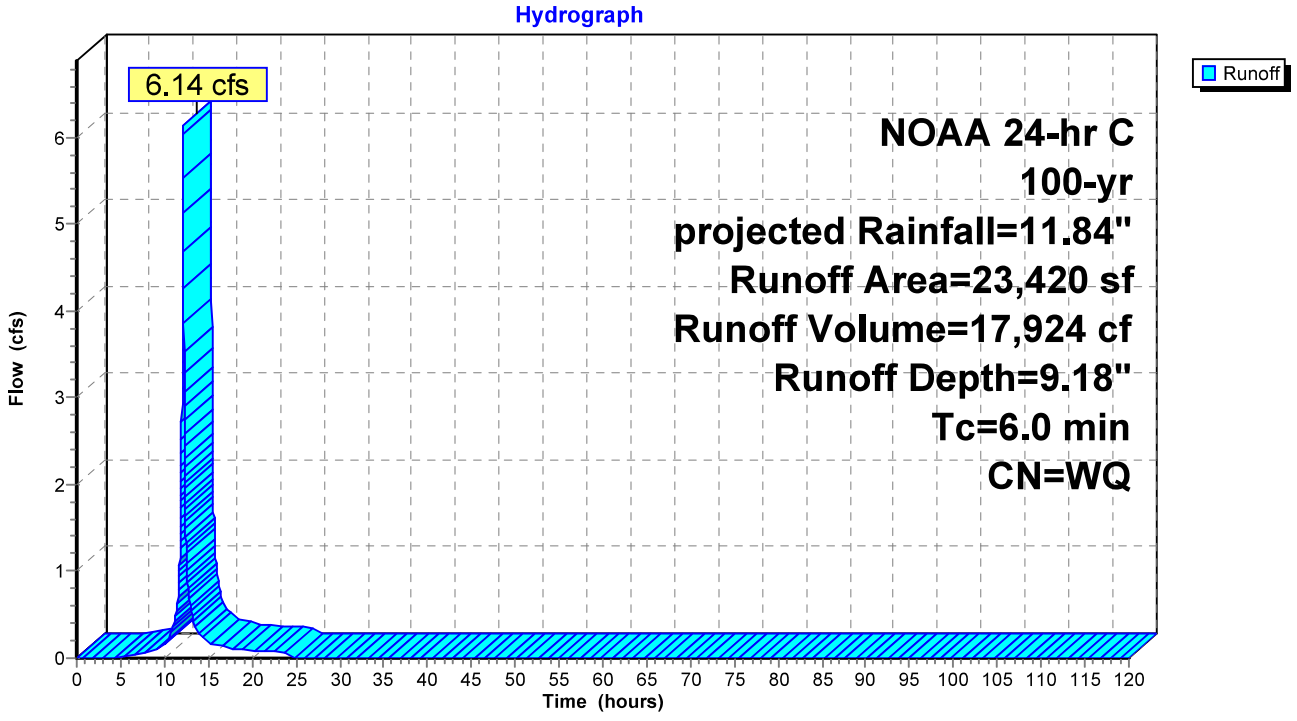
Runoff = 6.14 cfs @ 12.13 hrs, Volume= 17,924 cf, Depth= 9.18"
Routed to Reach 10R : POI-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs
NOAA 24-hr C 100-yr, projected Rainfall=11.84"

	Area (sf)	CN	Description
*	268	98	Impervious
*	23,152	79	Grass (Fair condition)
	23,420		Weighted Average
	23,152		98.86% Pervious Area
	268		1.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc**

Subcatchment 9P: Bypass



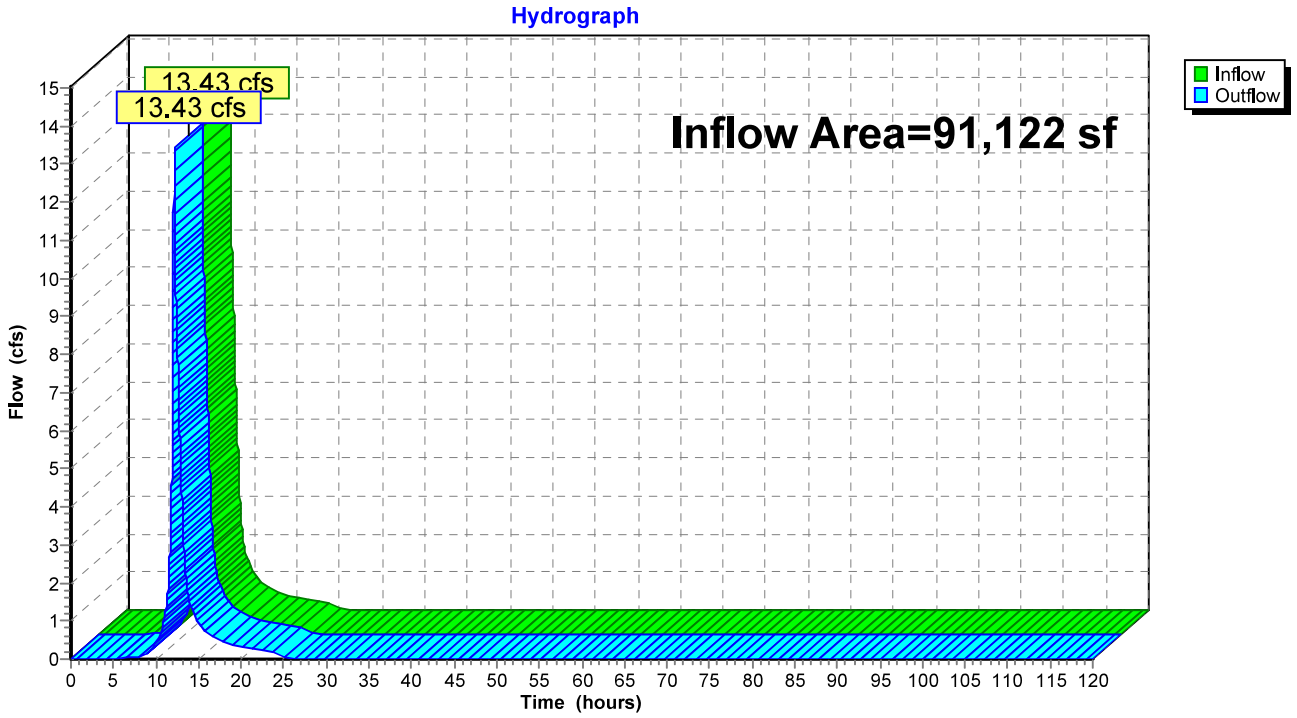
Summary for Reach 10R: POI-1

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 91,122 sf, 65.57% Impervious, Inflow Depth = 9.27" for 100-yr, projected event
Inflow = 13.43 cfs @ 12.14 hrs, Volume= 70,404 cf
Outflow = 13.43 cfs @ 12.14 hrs, Volume= 70,404 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-120.00 hrs, dt= 0.01 hrs

Reach 10R: POI-1



Appendix D
Time of Concentration Calculations

Time of Concentration (T_c) or Travel Time (T_t)
EXISTING DRAINAGE AREA

Project Subaru Lot 4 & 5 Redevelopment — By JIL — Date 6/5/2025
Location Camden, NJ — Checked JCW — Date
Circle One: (Present) During Developed
Circle One: (T_c) T_t through subarea

NOTES: Space for as many as three segments per flow type can be used for each worksheet.
Include a map, schematic, or description of flow segments.

		CURRENT RAINFALL						FUTURE RAINFALL					
Sheet Flow (Applicable to T_c only)	Segment ID	AB						AB					
1. Surface Description (Table 3-1 of TR-55)		UNPAVED						UNPAVED					
2. Manning's Roughness Coeff., n (Table 3-1 of TR-55)		0.15						0.15					
3. Flow Length, L (total L ≤ 150 ft)	ft	100						100					
4. Two-yr 24-hr Rainfall, P_2	in	3.41						3.91					
5. Land Slope, s	ft/ft	0.027						0.027					
6. $Tt = (0.007\ (nL)^{0.8}) / (P_2^{0.5}\ s^{0.4})$ Compute T_t	hr	0.141				=	0.141	0.131				=	0.131
Shallow Concentrated Flow	Segment ID	BC	CD					BC	CD				
7. Surface Description (Paved or Unpaved)		UNPAVED	PAVED					UNPAVED	PAVED				
8. Flow Length, L	ft	34.6	6.7					34.6	6.7				
9. Watercourse Slope, s	ft/ft	0.047	0.0690					0.047	0.069				
10. Average Velocity, V (Figure 3-1 of TR-55)	ft/sec	3.50	5.30					3.5	5.3				
11. $T_t = L / 3600V$ Compute T_t	hr	0.003	0.0004			=	0.003	0.003	0.0004			=	0.003
		12" CIP	24" RCP										
Channel or Pipe Flow	Segment ID	DE	EF					DE	EF				
12. Cross Sectional Flow Area, A	ft^2	0.79	3.14					0.7853975	3.14159				
13. Wetted Perimeter, P_w	ft	3.14	6.28					3.14159	6.28318				
14. Hydraulic Radius, $R = A / P_w$ Compute R	ft	0.250	0.500					0.25	0.5				
15. Channel Slope, s	ft/ft	0.021	0.010					0.021	0.01				
16. Manning's Roughness Coeff., n		0.012	0.012					0.012	0.012				
17. $V = (1.486\ R^{0.67}\ s^{0.5}) / n$ Compute V	ft/sec	7.089	7.783					7.0887068	7.783007811				
18. Flow Length, L	ft	33.8	227					33.8	227.2				
19. $T_t = L / 3600V$ Compute T_t	hr	0.001	0.008			=	0.009	0.001	0.008			=	0.009
20. Watershed or Subarea T_c or T_t (add T_t in steps 6, 11, and 19)					hr		0.153				hr		0.144
					min		**9.2**				min		**8.6**

Time of Concentration (T_c) or Travel Time (T_t)
PROPOSED DRAINAGE AREA

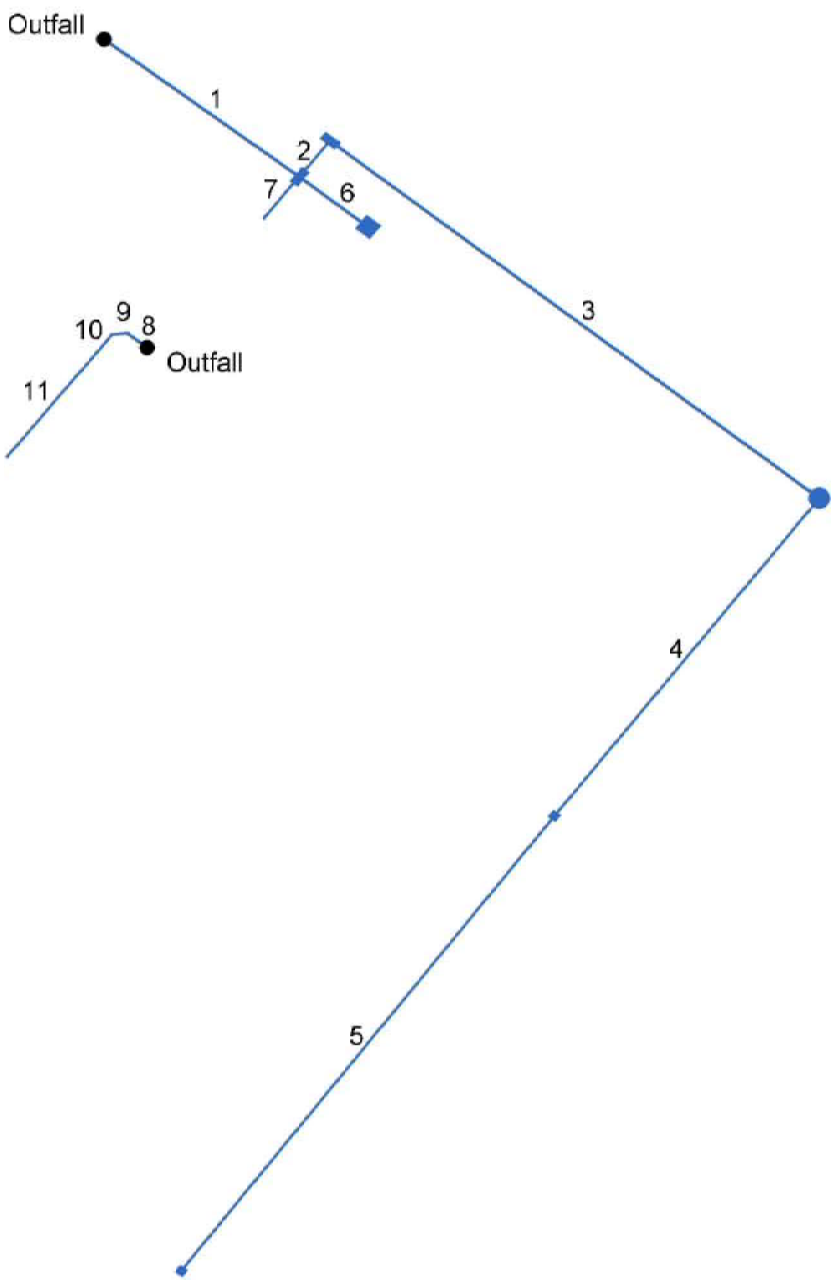
Project: Subaru Lot 4 & 5 Redevelopment — By: JIL — Date: 6/5/2025
Location: Camden, NJ — Checked: JCW — Date:
Circle One: Present During (Developed)
Circle One: (T_c) T_t through subarea

NOTES: Space for as many as three segments per flow type can be used for each worksheet.
Include a map, schematic, or description of flow segments.

		CURRENT RAINFALL					FUTURE RAINFALL				
Sheet Flow (Applicable to T_c only)	Segment ID	AB					AB				
1. Surface Description (Table 3-1 of TR-55)		PAVED					PAVED				
2. Manning's Roughness Coeff., n (Table 3-1 of TR-55)		0.011					0.011				
3. Flow Length, L (total L ≤ 150 ft)	ft	100					100				
4. Two-yr 24-hr Rainfall, P_2	in	3.41					3.91				
5. Land Slope, s	ft/ft	0.017					0.017				
6. $Tt = (0.007\ (nL)^{0.8}) / (P_2^{0.5}\ s^{0.4})$ Compute T_t	hr	0.021			=	0.021	0.020			=	0.020
Shallow Concentrated Flow	Segment ID	BC					BC				
7. Surface Description (Paved or Unpaved)		UNPAVED					UNPAVED				
8. Flow Length, L	ft	81.1					81.1				
9. Watercourse Slope, s	ft/ft	0.024					0.024				
10. Average Velocity, V (Figure 3-1 of TR-55)	ft/sec	3.18					3.18				
11. $T_t = L / 3600V$ Compute T_t	hr	0.007			=	0.007	0.007			=	0.007
		18" HDPE	18" RCP	24" RCP			18" HDPE	18" RCP	24" RCP		
Channel or Pipe Flow	Segment ID	CD	DE	EF			CD	DE	EF		
12. Cross Sectional Flow Area, A	ft^2	1.77	1.77	3.14			1.77	1.77	3.14		
13. Wetted Perimeter, P_w	ft	4.71	4.71	6.28			4.71	4.71	6.28		
14. Hydraulic Radius, $R = A / P_w$ Compute R	ft	0.375	0.375	0.500			0.375	0.375	0.5		
15. Channel Slope, s	ft/ft	0.010	0.010	0.010			0.01	0.01	0.01		
16. Manning's Roughness Coeff., n		0.012	0.013	0.012			0.012	0.013	0.012		
17. $V = (1.486\ R^{0.67}\ s^{0.5}) / n$ Compute V	ft/sec	6.419	5.925	7.783			6.419	5.925	7.783		
18. Flow Length, L	ft	24	46	205			24	46	204.5		
19. $T_t = L / 3600V$ Compute T_t	hr	0.001	0.002	0.007	=	0.010	0.001	0.002	0.007	=	0.010
20. Watershed or Subarea T_c or T_t (add T_t in steps 6, 11, and 19)	hr					0.038					0.037
	min					2.3					2.2
						USE Tc 6 MIN					USE Tc 6 MIN

Appendix E
Stormwater Conveyance Calculations

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: 2026-02-04 - Subaru Finger 1 Storm Sewers.stm	Number of lines: 11	Date: 2/5/2026

Storm Sewer Inventory Report

Line No.	Alignment				Flow Data				Physical Data								Line ID
	Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	
1	End	51.978	37.356	Grate	0.00	0.00	0.00	0.0	1.50	2.00	2.54	18	Cir	0.012	1.50	6.13	OCS-2 TO MH-2
2	1	10.495	-89.005	Grate	0.00	0.00	0.00	0.0	2.22	2.00	2.43	15	Cir	0.012	1.50	6.27	CB-3 TO OCS-2
3	2	131.953	90.000	MH	0.00	0.00	0.00	0.0	2.43	1.00	3.75	15	Cir	0.012	1.00	9.68	MH-1 TO CB-3
4	3	91.888	89.221	Grate	2.93	0.00	0.00	5.0	3.75	1.00	4.67	15	Cir	0.012	0.50	8.85	YD-2 TO MH-1
5	4	130.824	-0.414	Grate	1.01	0.00	0.00	5.0	4.67	1.00	5.98	15	Cir	0.012	1.00	8.86	YD-1 TO YD-2
6	1	18.498	0.970	Comb	7.60	0.00	0.00	5.0	2.02	0.97	2.20	18	Cir	0.012	1.00	7.17	OCS-1 TO OCS-2
7	1	12.192	90.978	None	0.63	0.00	0.00	5.0	4.10	1.48	4.28	8	Cir	0.012	1.00	5.86	BMP-2 TO OCS-2
8	End	5.345	-141.641	None	0.00	0.00	0.00	0.0	4.28	0.56	4.31	8	Cir	0.012	0.75	5.15	PIPE-36
9	8	3.279	-45.025	None	0.00	0.00	0.00	0.0	4.31	0.61	4.33	8	Cir	0.012	0.75	5.08	PIPE-35
10	9	2.000	-45.000	None	0.00	0.00	0.00	0.0	4.33	1.00	4.35	8	Cir	0.012	0.15	4.83	PIPE-34
11	10	33.509	0.091	None	0.16	0.00	0.00	5.0	4.35	0.30	4.45	4	Cir	0.012	1.00	4.84	TD-1

Project File: 2026-02-04 - Subaru Finger 1 Storm Sewers.stm

Number of lines: 11

Date: 2/5/2026

Storm Sewer Tabulation

Station		Len	Drng Area		Rnoff coeff	Area x C		Tc		Rain (I)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line	(ft)	Incr (ac)	Total (ac)	(C)	Incr	Total	Inlet (min)	Syst (min)	(in/hr)	(cfs)	(cfs)	(ft/s)	Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	51.978	0.00	0.00	0.00	0.00	0.00	0.0	8.9	0.0	12.17	16.09	7.33	18	2.00	1.50	2.54	2.85	3.86	5.88	6.13	OCS-2 TO MH-2
2	1	10.495	0.00	0.00	0.00	0.00	0.00	0.0	8.8	0.0	3.94	9.90	3.21	15	2.00	2.22	2.43	3.86	3.89	6.13	6.27	CB-3 TO OCS-2
3	2	131.953	0.00	0.00	0.00	0.00	0.00	0.0	8.1	0.0	3.94	7.00	3.96	15	1.00	2.43	3.75	4.13	4.56	6.27	9.68	MH-1 TO CB-3
4	3	91.888	0.00	0.00	0.00	0.00	0.00	5.0	7.6	0.0	3.94	7.00	4.03	15	1.00	3.75	4.67	4.90	5.47	9.68	8.85	YD-2 TO MH-1
5	4	130.824	0.00	0.00	0.00	0.00	0.00	5.0	5.0	0.0	1.01	7.00	2.13	15	1.00	4.67	5.98	5.47	6.37	8.85	8.86	YD-1 TO YD-2
6	1	18.498	0.00	0.00	0.00	0.00	0.00	5.0	5.0	0.0	7.60	11.22	4.30	18	0.97	2.02	2.20	3.86	3.94	6.13	7.17	OCS-1 TO OCS-2
7	1	12.192	0.00	0.00	0.00	0.00	0.00	5.0	5.0	0.0	0.63	1.59	3.71	8	1.48	4.10	4.28	4.39	4.65	6.13	5.86	BMP-2 TO OCS-2
8	End	5.345	0.00	0.00	0.00	0.00	0.00	0.0	5.5	0.0	0.16	0.98	2.06	8	0.56	4.28	4.31	4.46	4.49	5.03	5.15	PIPE-36
9	8	3.279	0.00	0.00	0.00	0.00	0.00	0.0	5.4	0.0	0.16	1.02	2.06	8	0.61	4.31	4.33	4.49	4.51	5.15	5.08	PIPE-35
10	9	2.000	0.00	0.00	0.00	0.00	0.00	0.0	5.3	0.0	0.16	1.31	2.06	8	1.00	4.33	4.35	4.51	4.53	5.08	4.83	PIPE-34
11	10	33.509	0.00	0.00	0.00	0.00	0.00	5.0	5.0	0.0	0.16	0.11	1.83	4	0.30	4.35	4.45	4.68	4.89	4.83	4.84	TD-1

Project File: 2026-02-04 - Subaru Finger 1 Storm Sewers.stm | Number of lines: 11 | Run Date: 2/5/2026

NOTES:Known Qs only ; c = cir e = ellip b = box

Appendix F
Stormwater Management Infiltration Test Summary Report

8 August 2025

Sent via email:
bszaka@subaru.com

Bernadette Szakal
Associate Director, Real Estate & CFS
Subaru of America, Inc.
One Subaru Drive
Camden, NJ 08103

RE: Stormwater Management Infiltration Test Summary Report
Subaru Block 1454 Lots 4 & 5 "Finger 1" Vehicle Storage Lot
Camden, NJ
Langan Project No.: 220132401

Bernadette,

This report summarizes our soil characterization and infiltration tests for the stormwater management facilities as part of the proposed redevelopment of the Subaru lots 4 and 5. The purposes of this study were to:

1) review regional geology information,
2) excavate test pits to characterize the soils at the proposed stormwater management facilities,
3) perform in situ infiltration tests,
4) perform laboratory particle-size analysis tests on soil samples collected from the infiltration tests.

We estimated elevations shown on the test pit and infiltration test logs from the *ALTA/NSPS Land Title Survey* prepared by Langan (July 2024). Elevations are in reference to the North American Vertical Datum of 1988 (NAVD88).

PROJECT OVERVIEW

Existing Conditions and Proposed Development

The site is comprised of Lot 4 (1350 Admiral Wilson Boulevard) and Lot 5 (250 Memorial Avenue) and is approximately 2 acres. The site is bounded by Memorial Avenue, Admiral Wilson Boulevard and South 11th Street and consists of a vacant grass field with trees lining the eastern perimeter. A site location map is provided as Figure 1, attached.

The site slopes upward from about elevation 6 at the northern end of the site to about elevation 10 at the southern end of the site.

The site will be developed into a paved lot for vehicle storage to support the operational needs of the Subaru Headquarters located across Memorial Avenue.

REGIONAL GEOLOGY

We reviewed soil survey, geology, and the FEMA flood-insurance rate maps for the site. Pertinent information obtained from our review is summarized in the following sections.

Soil Survey

According to the United States Department of Agriculture (USDA) National Resources Conservation Service (NRCS) Soil Survey map for Camden County, New Jersey, the site is underlain by Sauken gravelly artifactual sandy loam (SauB), which is mapped across the entire site. According to the USDA, the Sauken series is characterized by its sandy loam texture, which consists of a balanced mix of sand, silt, and clay, making it relatively easy to work with and well-draining. The term "gravelly" indicates the presence of a significant amount of gravel-sized particles within the soil, contributing to its coarse texture. The word "artifactual" suggests that the soil contains human-made artifacts or materials, which could be remnants of past human activities or constructions.

The soil survey map is provided in Figure 2, attached.

Surficial Geology

According to the United States Geological Survey (2002) surficial geology map for New Jersey, the site is underlain by Salt-marsh and estuarine deposits (Qmm), which is mapped across the entire site. The salt marsh and estuarine deposits consists of salt marsh peat and dark brown to black organic silt and clay with sand and minor pebble gravel.

The surficial geology map is provided in Figure 3, attached.

FEMA Flood Rate Insurance Map

According to the Federal Emergency Management Agency (FEMA) flood insurance rate map (FIRM) panel 34007C0028F (effective 17 August 2016), the western and central eastern areas of the site are within the area of the 1% annual chance of flood (100-year flood) with a base flood elevation at elevation 10. The northeast and southeast corners of the site are within the area of 0.2% annual chance of flood (500-year flood).

The FEMA flood map is provided in Figure 4, attached.

SUBSURFACE EXPLORATION

Our field exploration consisted of six characterization test pits (TP-1 through TP-6) and six single ring infiltration tests (INF-1 through INF-6). The infiltration testing plan is provided in Figure 5.

Soil Characterization Test Pits

Soil characterization test pits performed to assess the soil conditions to determine the depths for infiltration testing. Additional details of the soil characterization test pits are provided below.

- Dates: 8 to 9 May 2025
- Quantity: Six test pits
- Depths: About 5.4 to 8 feet below grade.
- Contractor: Boring Brothers Inc.
- Excavator: Takeuchi TB290 Mid-size Excavator
- Engineering Oversight: The test pits were completed under the full-time observation of Langan field engineers under the direct supervision of our project Professional Engineer. Our field engineers examined and classified the encountered soil, recorded subsurface conditions, performed the infiltration tests, obtained soil samples, and prepared the test pit and infiltration test logs.
- Backfill: All test pits were backfilled in lifts using excavated soil. Each lift was tamped with the bucket of the excavator.

The test pit logs indicate the primary soil type in capital letters (i.e., SAND, CLAY, GRAVEL, COBBLES). The following terms on the logs describe the approximate percent of the minor material constituents in the samples:

- "trace" = 1% to 10%
- "some" = > 10% to 30%
- "y" modifier (silty, clayey, sandy, gravelly) = >30% to 50%

Table 1, attached, provides a summary of the test pits. Attachment A includes the test pit logs with descriptions of the soils encountered and Attachment B includes photographs of the test pits.

Single-Ring Infiltration Tests

Single-ring infiltration tests were performed after the soil characterization test pits. A separate test pit adjacent to the soil characterization test pit was excavated to perform the infiltration tests. Additional details of the single-infiltration tests are provided below.

- Dates: 8 to 9 May 2025
- Quantity: Six infiltration tests
- Locations: Test pits for infiltration testing were offset about 5 feet from the soil characterization test pits, which were excavated first.
- Test Method: We conducted the single-ring infiltration tests in general accordance with the procedure in the New Jersey Best Management Practices (BMP) Manual Chapter 12 – Soil Testing Criteria (April 2022). A 6-inch-diameter ring was driven into the test soil to about 3 inches below the test elevation. The test soil was pre-soaked in general accordance with the BMP manual.

- Engineering Oversight: Langan engineers conducted the single ring infiltration tests.

Table 1, attached, provides a summary of the infiltration test results and soil types, and Attachment C includes the single-ring infiltration test logs.

Laboratory Tests

We collected soil samples from the depths where in situ infiltration tests were conducted. We sent these soil samples to a testing laboratory where the following tests were performed to confirm the field classifications:

- Particle-Size Analysis – Sieve [ASTM D6913] (6 tests)
- Particle-Size Analysis – Hydrometer [ASTM D7928] (6 tests)

A summary of the laboratory test results is provided in Table 1. The laboratory test results are provided in Attachment D.

SUBSURFACE CONDITIONS

The subsurface conditions are generally consistent with the Sauken series mapped at the site. The subsurface conditions encountered generally consist of topsoil over an environmental soil cap over historic fill. Groundwater was encountered at about 7 feet below grade in all test pits except TP-4 where bucket refusal was encountered at 7 feet below grade.

Subsurface strata and groundwater shown on the logs and described below are based on the conditions encountered in the test pits at the time of our exploration. Variations should be expected across the site.

Topsoil

All test pits encountered topsoil. The topsoil typically consisted of a brown fine to medium sand with varying amounts of silt, gravel and rootlets and was about 4 to 8 inches thick.

Environmental Cap

A sandy fill layer (environmental cap) was encountered below the topsoil in all test pits. We understand that the environmental cap layer was placed as a barrier to isolate impacted soil from the surface. The environmental cap soil consisted of brown to light brown fine to medium sand with varying amounts of subrounded gravel and silt/clay. Pockets of a light gray clay were encountered within this material in test pits TP-3 through TP-6. Infiltration tests INF-5 and INF-6 were performed in this layer.

Historic Fill

Historic fill was encountered below the environmental cap in all test pits. The fill generally consisted of a dark gray to black SAND with varying amounts of gravel, silt, clay and human artifacts including bricks, concrete, metal, glass, wood and broken ductile iron pipes. A faint to

strong odor was detected in this layer. Large blocks of dark gray clay were encountered within this layer at TP-2, TP-3 and TP-5. Infiltration tests INF-1 to INF-4 were performed in this layer.

Clay

A clay layer was encountered at TP-1, TP-5 and TP-6 below the historic fill and near or below the groundwater table. Large pockets of this material were encountered within the historic fill at test pits TP-2, TP-3 and TP- 5. This layer is consistent with the salt-marsh and estuarine deposits mapped at the site and generally consisted of a dark gray clay with a strong organic odor. Infiltration tests were not performed in this layer.

Groundwater

We encountered groundwater at the bottom of test pits TP-1, TP-2, TP-3, TP-5 and TP-6 Groundwater was encountered at about 4 to 7 feet below grade, corresponding to elevation 1.7 to 2.

We did not encounter indications of seasonal high groundwater in our test pits. Groundwater should be expected to fluctuate with the seasons, weather, and climate change.

KEY FINDINGS

The key findings from our exploration and infiltration tests are:

- An environmental cap, about 2-feet-thick, was encountered in all test pits and was underlain by historical fill.
- Historical fill was encountered at all test pit locations. The layer consisted of cobbles, bricks, concrete blocks, glass and metal during excavation efforts.
- Refusal of the excavator bucket was encountered in test pit TP-4 from about 7 to 7.5 feet below grade. In general, the Takeuchi TB290 mid-size excavator was able to advance through the historic fill but encountered difficulties excavating below 7.5 feet at TP-4.
- Low infiltration rates (less than 1 inch per hour) were measured at infiltration test INF-1. A low hydraulic conductivity (less than 1 inch per hour) was measured at all infiltration test locations.

LIMITATIONS

The conclusions provided in this report result from our interpretation of the geotechnical conditions existing at the site inferred from a limited number of test pits and infiltration tests. Actual subsurface conditions may vary.

Any proposed changes in stormwater management facilities or their locations should be brought to our attention as soon as possible so that we can determine whether such changes affect our conclusions. Information on subsurface strata and groundwater levels shown on the logs represent conditions encountered only at the locations indicated and at the time of exploration.

If different conditions are encountered during construction, they should immediately be brought to our attention for evaluation.

This report has been prepared to assist the owner and Langan (the civil engineer) in the design process and is only applicable to the design of the specific project identified. The information in this report cannot be utilized or depended on by engineers or contractors who are involved in evaluations or designs of facilities (including underpinning, grouting, stabilization, etc.) on adjacent properties which are beyond the limits of that which is the specific subject of this report.

Environmental issues (such as permitting or potentially contaminated soil and groundwater) are outside the scope of this study and should be addressed in a separate evaluation.

CLOSURE

We completed six in situ infiltration tests and laboratory tests to assist with stormwater management design. If you would like to discuss the subsurface conditions or test results in more detail, please contact us.

Sincerely,
Langan Engineering and Environmental Services, LLC

Conrad Cho
Senior Project Manager

Jared Green, PE, BC.GE
Principal/Vice President

Enclosures: Table 1 – Test Pit and Infiltration Test Summary Table
Figures 1 through 5
Attachment A – Test Pit Logs
Attachment B – Test Pit Photographic Log
Attachment C – Single-Ring Infiltration Test Logs
Attachment D – Laboratory Test Results

cc: K. MacGeorge

\\langan.com\data\PHL\data4\220132401\Project Data_Discipline\Geotechnical\Reports\2025-06-10- Subaru Lot 4 & 5 - Inf Summary Report.docx

TABLES

Table 1 – Infiltration Test Result Summary

Subaru Block 1454 Lots 4 and 5 Vehicle Storage Lot
250 Memorial Drive, Camden, NJ
Project No. 220132401

TABLE 1
Test Pit and Infiltration Testing Summary

Test Pit Location	Test Pit Date	Surface Elevation (feet)	Test Pit Completion Depth (feet)	Final depth elevation (feet)	Depth to Groundwater (feet)	Groundwater elevation (feet)	Depth to SHGW Mottling (feet)	SRI Test Depth (feet)	SRI Test Elevation (Feet)	Field Intake Rate (inch/hour)	Hydraulic Conductivity (inch/hour)	Top soil thickness (inches)	Clean Fill thickness (feet)	Clean Fill bottom depth (feet)	% Silt and Clay	USDA Classification
INF-01 (TP-01)	5/8/2025	8.0	7.5	0.5	7.0	1.0	7.0	3.7	4.3	0.00	0.00	4	1.67	2.00	14	SAND, some clay
INF-02 (TP-02)	5/8/2025	9.0	8.0	1.0	7.3	1.7	7.3	5.0	4.0	2.11	0.72	8	1.83	2.50	13.4	SAND, some clay
INF-03 (TP-03)	5/8/2025	8.7	7.5	1.2	7.0	1.7	7.0	4.5	4.2	1.00	0.34	4	1.87	2.20	16.7	SAND, some clay
INF-04 (TP-04)	5/9/2025	8.8	7.0	1.8	N/E	N/E	N/E	4.5	4.3	1.12	0.39	7	1.72	2.30	16.8	SAND, some clay
INF-05 (TP-05)	5/9/2025	5.9	5.4	0.5	4.5	1.4	4.5	1.8	4.1	1.88	0.64	6	2.20	2.70	7.9	SAND, trace clay
INF-06 (TP-06)	5/9/2025	6.1	5.5	0.6	4.2	1.9	4.2	1.8	4.3	1.49	0.51	7	1.92	2.50	9.6	SAND, trace clay

N/E = Not Encountered
SHGW = Seasonal High Groundwater / Mottling
All Reported Elevations are Based on NAVD 88

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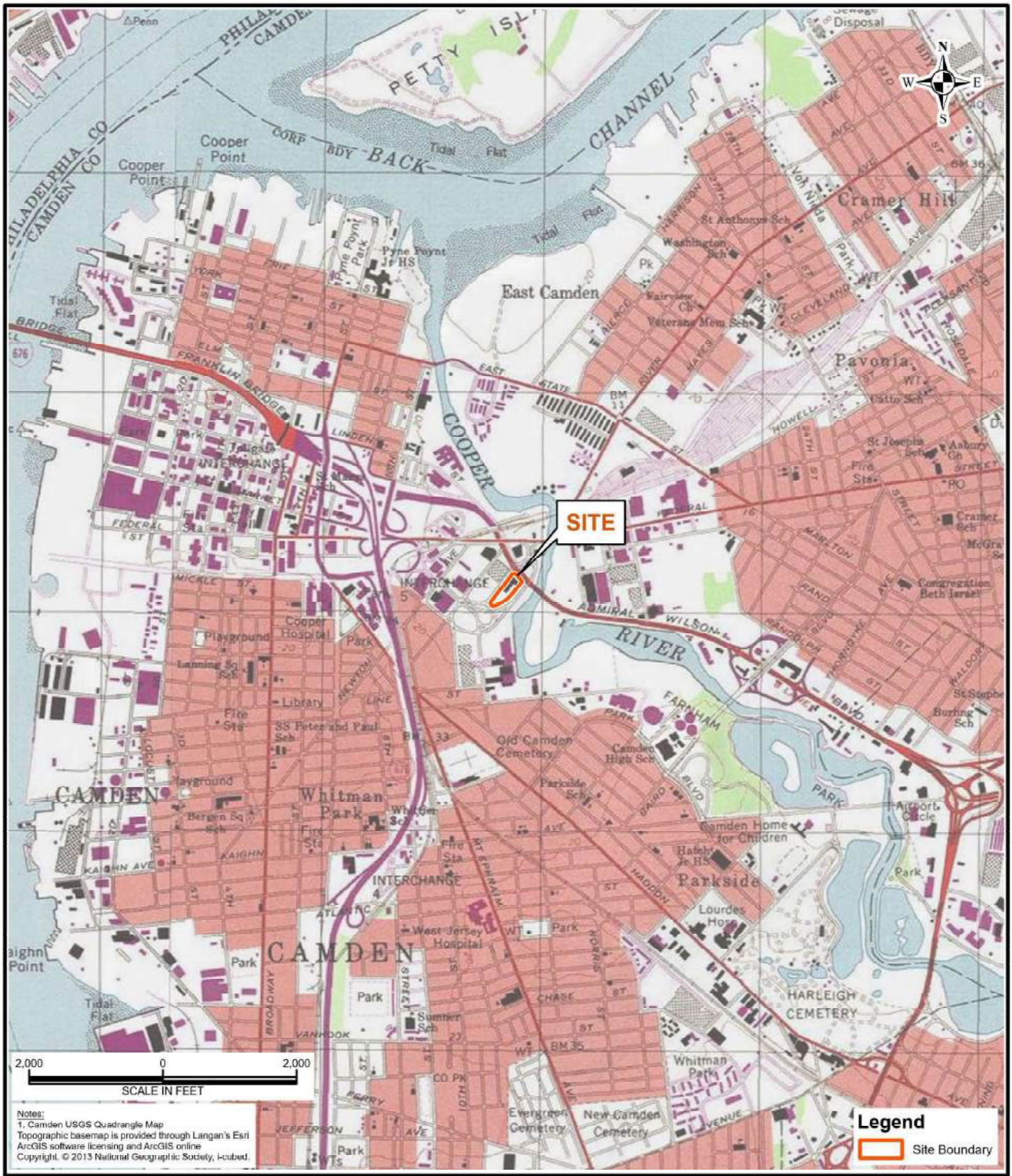
FIGURES



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Project	SUBARU BLOCK 1454 LOTS 4 AND 5 VEHICLE STORAGE LOT 250 MEMORIAL AVE CAMDEN CAMDEN COUNTY NJ
Figure Title	SITE LOCATION PLAN
Project No.	220132401
Date	8/8/2025
Scale	1" = 2,000 feet
Drawn By	RDB
Figure	1

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Project
SUBARU
BLOCK 1454
LOTS 4 AND 5
VEHICLE STORAGE LOT
250 MEMORIAL AVE
CAMDEN
CAMDEN COUNTY NJ

Figure Title
SOIL SURVEY MAP

Project No. 220132401
Date 8/8/2025
Scale 1" = 1,250 feet
Drawn By RDB
Figure 2

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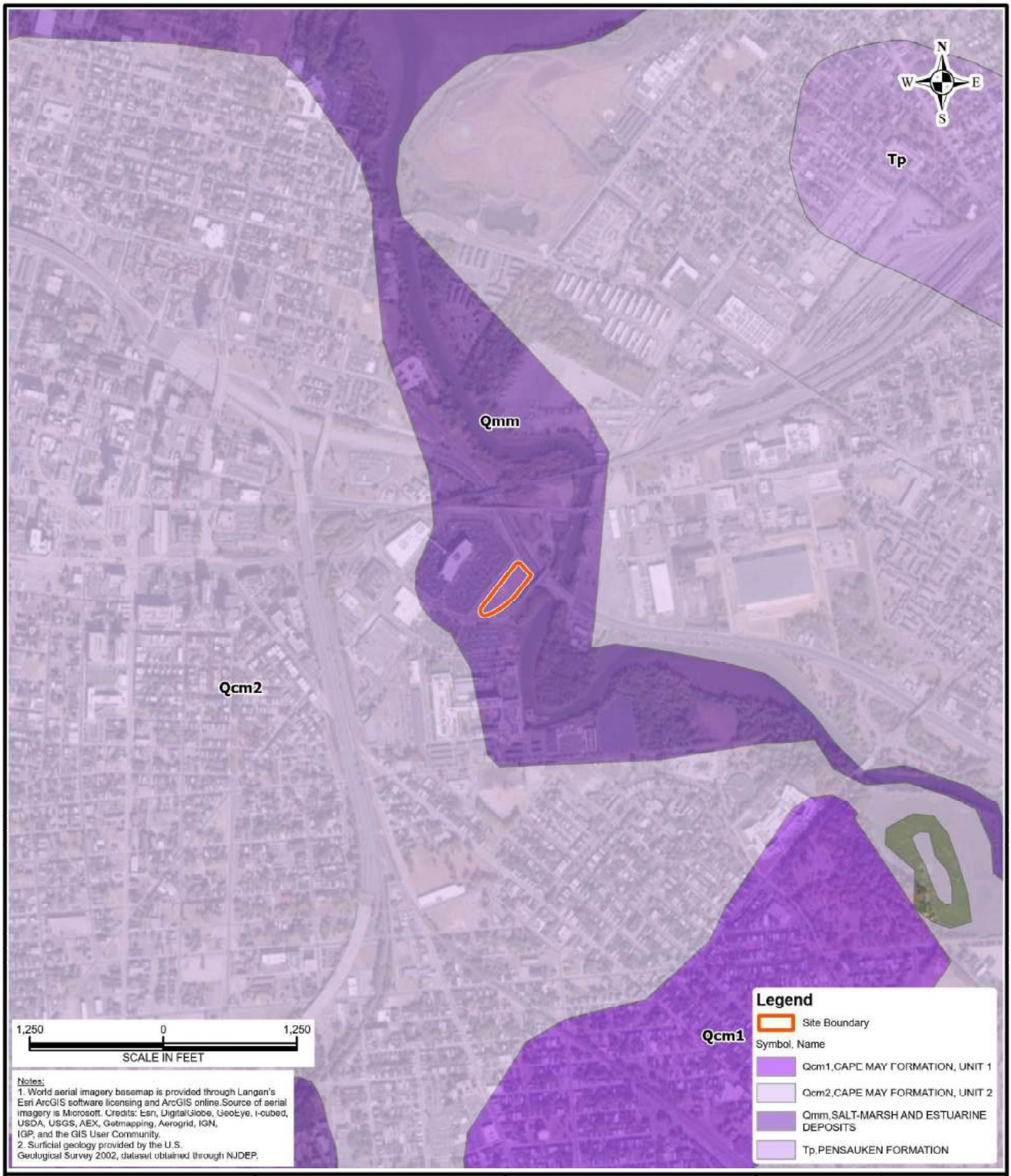
Path: C:\Users\rboekenheide\Desktop\GIS_Projects\PHL\220132421 - Subaru Lots 4 and 5 Redevelopment\APRX\220132421 - Subaru Lots 4 and 5 Redevelopment\220132421 - Subaru Lots 4 and 5 Redevelopment.aprx



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Project
SUBARU
BLOCK 1454
LOTS 4 AND 5
VEHICLE STORAGE LOT
250 MEMORIAL AVE
CAMDEN
CAMDEN COUNTY NJ

Figure Title
SURFICIAL GEOLOGY MAP

Project No.	220132401
Date	8/8/2025
Scale	1" = 1,250 feet
Drawn By	RDB

Figure 3

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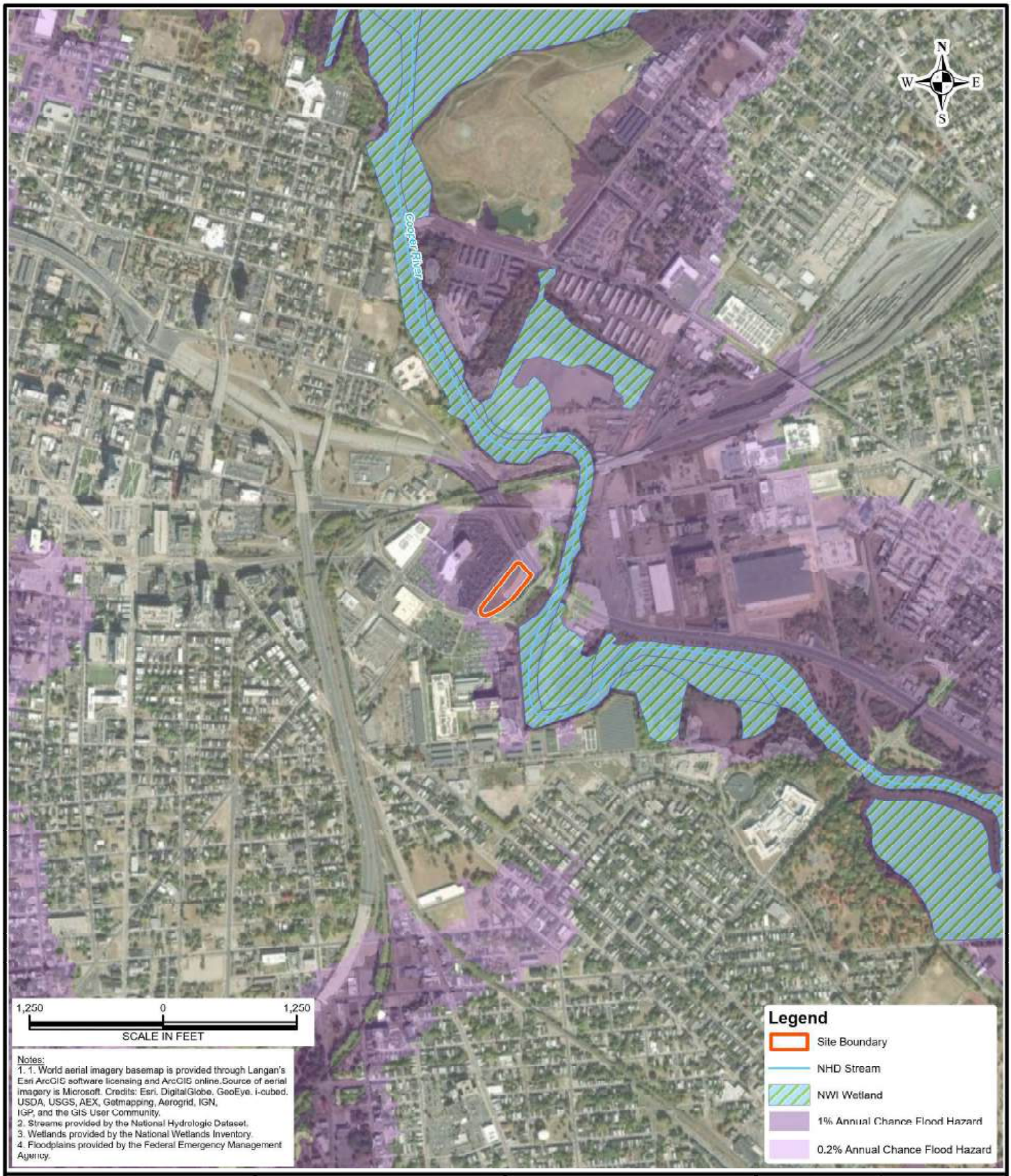

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Project	SUBARU BLOCK 1454 LOTS 4 AND 5 VEHICLE STORAGE LOT 250 MEMORIAL AVE CAMDEN CAMDEN COUNTY NJ
Figure Title	FEMA FLOOD MAP
Project No.	220132401
Date	8/8/2025
Scale	1" = 1,250 feet
Drawn By	RDB
Figure	4

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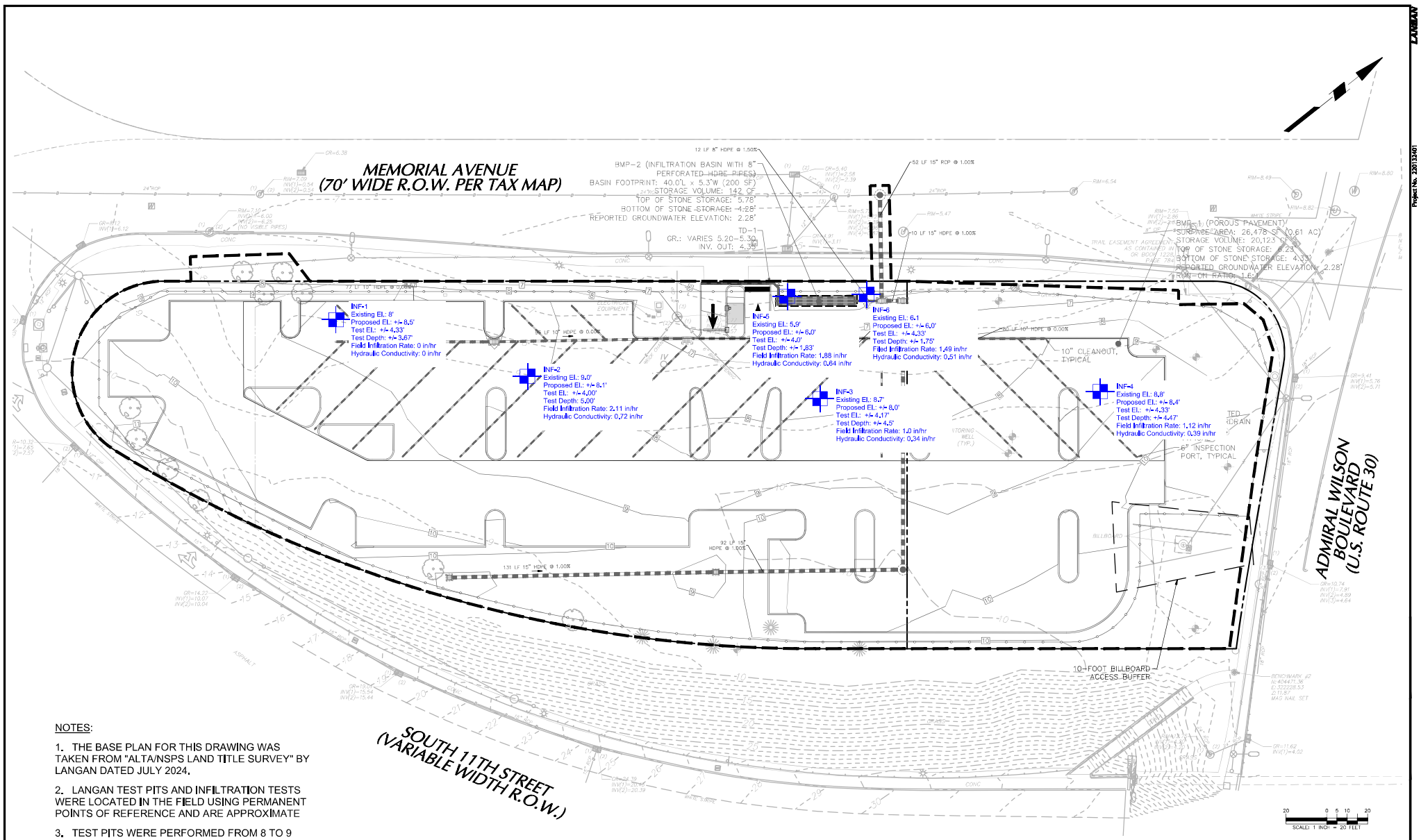

NOTES:

1. THE BASE PLAN FOR THIS DRAWING WAS TAKEN FROM "ALTA/NSPS LAND TITLE SURVEY" BY LANGAN DATED JULY 2024.

2. LANGAN TEST PITS AND INFILTRATION TESTS WERE LOCATED IN THE FIELD USING PERMANENT POINTS OF REFERENCE AND ARE APPROXIMATE

3. TEST PITS WERE PERFORMED FROM 8 TO 9 MAY 2025 BY BORING BROTHERS INC. UNDER THE FULL-TIME OBSERVATION OF A LANGAN ENGINEER.

Date	Description	No.
Revisions		

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Project
SUBARU BLOCK 1464
LOT 4 AND 5
REDEVELOPMENT
CAMDEN
CAMDEN COUNTY NEW JERSEY

Drawing Title
INFILTRATION TESTING PLAN

Project No. 220132401
Date 8/8/2025
Drawn By JL
Checked By JCW
Figure 5
Sheet 1 of 1

© 2021 Langan
Date: 8/13/2025 Time: 16:27 User: snicolas Style Table: Langan.stb Layout: CG101 Document Code: FGS=220132401=021=CG101=104

Attachment A

Test Pit Logs

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Log of Test Pit **TP-1** Sheet 1 of 1

Project: Subaru Block 1454 Lots 4 and 5 Vehicle Storage Lot	Project No.: 220132401	Date: 5/12/2025
Location: 250 Memorial Drive, Camden , NJ	Elevation and Datum: Approx. el. 8.0 (NAVD 88)	
Excavation Company: Boring Brothers Inc.	Depth: 7.5 ft	Water Level - First: 7.0 ▽ / Water Level - Completion: 7.0 ▼
Excavation Equipment: Takeuchi TB290 Mid-size Excavator	Excavation Foreman: Robert Grams	Field Engineer: Sary Nicolas

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+8.0		0			Start excavating at 8:29 AM on 05/08/2025
	+7.7	[10YR 6/3] Light brown fine to medium SAND, some rootlets, trace silt (moist) [TOPSOIL] (About 4 inches thick)				Environmental cap stockpiled separately from historic fill. Bottom of cap encountered at 2 ft below ground surface.
		[10YR 6/3] Light brown fine to medium SAND, trace fine to coarse subrounded gravel, trace silt (moist) [CLEAN FILL]	1			Single grain structure
	+6.0		2			Single grain structure
		[10YR 2/1] Black fine to medium SAND, some cobbles, trace fine to coarse gravel, trace silt, trace brick, trace concrete blocks up to 16 inches in diameter (moist) [HISTORIC FILL]				
	+5.0		3			Single grain structure
	+4.7	[10YR 5/6] Yellowish brown fine to medium SAND (moist) [HISTORIC FILL]				Faint odor detected. Single grain to granular structure
		[5Y 3/1] Dark gray fine to coarse gravelly fine to medium SAND, some silt and clay, some concrete blocks up to 14 inches in diameter, trace coarse sand, trace brick, trace glass, trace metal (moist) [HISTORIC FILL]	4	S-1	GRAB	Single ring infiltration test performed at 3.7 ft below ground surface. Sample S-1: -200 = 14%
	+2.3		5			
		[5Y 3/1] Dark gray CLAY, trace fine sand (moist) [HISTORIC FILL]	6			Blocky structure. Strong odor encountered
	+1.0		7			Single grain to granular structure. Groundwater encountered at 7 ft. Faint sheen observed at the surface of the groundwater. Bottom of test pit encountered at 7.5 ft below ground surface. Test pit backfilled with the excavated soil and tamped with the excavator's bucket at 9:30 AM on 05/08/2025.
	+0.5	[10YR 2/1] Black fine to medium SAND, some clay, trace brick, trace metal (wet) [HISTORIC FILL]				
		End of Test Pit at 7.5ft.	8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

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Log of Test Pit **TP-2**

Sheet 1 of 1

Project: Subaru Block 1454 Lots 4 and 5 Vehicle Storage Lot	Project No.: 220132401	Date: 5/12/2025
Location: 250 Memorial Drive, Camden , NJ	Elevation and Datum: Approx. el. 9.0 (NAVD 88)	
Excavation Company: Boring Brothers Inc.	Depth: 8.0 ft	Water Level - First: 7.3 ▽ / Water Level - Completion: 7.3 ▼
Excavation Equipment: Takeuchi TB290 Mid-size Excavator	Excavation Foreman: Robert Grams	Field Engineer: Sary Nicolas

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+9.0					
	+8.3	[10YR 4/2] Dark grayish brown fine to medium SAND, some fine to coarse subrounded gravel, some rootlets, trace silt (moist) [TOPSOIL] (About 8 inches in thick)	0			Start excavating at 9:40 AM on 05/08/2025
	+7.8	[10YR 5/4] Yellowish brown Sandy fine to coarse subangular GRAVEL, some silt (moist) [CLEAN FILL]	1			Environmental cap stockpiled separately from historic fill. Bottom of cap encountered at 2 ft below ground surface. Filter fabric barrier encountered at 15 inches below ground surface.
		[10YR 6/4] Light yellowish brown fine to coarse SAND, some fine to coarse subrounded gravel, trace silt (moist) [CLEAN FILL]	2			Single grain structure
	+6.5	[10YR 4/3] Brown fine to medium SAND, some clay, trace fine subrounded gravel (moist) [HISTORIC FILL]	3			Single grain to granular structure
	+5.5	[2.5Y 4/4 to 2.5Y 3/1] Olive brown to dark gray Sandy COBBLES, some fine to coarse subangular gravel, some brick, some concrete, some large blocks of dark gray clay, trace glass, trace wood (moist) [HISTORIC FILL]	4			Single grain to blocky structure
	+4.0	[10YR 5/3] Light olive brown fine to medium SAND, some clay and silt, trace fine to coarse subrounded gravel, trace coarse sand (moist) [HISTORIC FILL]	5	S-2	GRAB	Single ring infiltration test performed at 5 ft below ground surface. Sample S-2: -200 = 13.4%
	+3.0	[GLEY1 4/1] Dark greenish gray Clayey fine to medium SAND, some small pockets of clay, trace fine subrounded gravel (wet) [HISTORIC FILL]	6			Granular structure
		▽	7			Groundwater seen rapidly entering test pit at 7.3 ft below ground surface.
	+1.0	End of Test Pit at 8.0ft.	8			Bottom of test pit encountered at 8 ft below ground surface. Test pit backfilled with the excavated soil and tamped with the excavator's bucket at 10:45 AM on 05/08/2025.
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

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Log of Test Pit **TP-3** Sheet 1 of 1

Project: Subaru Block 1454 Lots 4 and 5 Vehicle Storage Lot	Project No.: 220132401	Date: 5/12/2025
Location: 250 Memorial Drive, Camden , NJ	Elevation and Datum: Approx. el. 8.7 (NAVD 88)	
Excavation Company: Boring Brothers Inc.	Depth: 7.5 ft	Water Level - First: 7.0 ▽ / Water Level - Completion: 7.0 ▼
Excavation Equipment: Takeuchi TB290 Mid-size Excavator	Excavation Foreman: Robert Grams	Field Engineer: Sary Nicolas

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+8.7					
	+8.4	[10YR 5/3] Brown fine to medium SAND, some fine to coarse subrounded gravel, trace silt, trace rootlets (moist) [TOPSOIL] (About 4 inches thick)	0			Start excavating at 11:05 AM on 05/08/2025
		[10YR 5/3] Brown fine to medium SAND, some fine to coarse gravel, trace silt, trace clay at the bottom of the cap (moist) [CLEAN FILL]	1			Single grain structure
	+6.5		2			Environmental cap stockpiled separately from historic fill. Bottom of cap encountered at 2 ft below ground surface.
		[5Y 5/2] Olive gray fine to medium SAND, some fine to coarse subangular to subrounded gravel, trace brick, trace concrete (moist) [HISTORIC FILL]	3			Single grain structure
	+5.2					Single grain to blocky structure
		[5Y 3/1] Dark gray to black fine SAND, some fine to coarse gravel, some silt and clay, some cobbles and concrete blocks up to 17 inches in diameter, broken pipes, trace medium and coarse sand, trace large pockets of dark gray clay, trace brick (moist) [HISTORIC FILL]	4	S-3	GRAB	Single ring infiltration test performed at 4.5 ft below ground surface. Sample S-3: -200 = 16.7%
			5			
			6			Strong odor encountered at 6 ft below ground surface. Wall collapsing at 6 ft.
		▽	7			Groundwater observed rapidly entering the test pit at 7 ft below ground surface.
	+1.2	End of Test Pit at 7.5ft.	8			Bottom of test pit encountered at 7.5 ft below ground surface. Test pit backfilled with the excavated soil and tamped with the excavator's bucket at 12:00 PM on 05/08/2025.
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

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Log of Test Pit **TP-4** Sheet 1 of 1

Project: Subaru Block 1454 Lots 4 and 5 Vehicle Storage Lot	Project No.: 220132401	Date: 5/12/2025
Location: 250 Memorial Drive, Camden , NJ	Elevation and Datum: Approx. el. 8.8 (NAVD 88)	
Excavation Company: Boring Brothers Inc.	Depth: 7.0 ft	Water Level - First: N/A ▽ / Water Level - Completion: N/A ▼
Excavation Equipment: Takeuchi TB290 Mid-size Excavator	Excavation Foreman: Robert Grams	Field Engineer: Sary Nicolas

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+8.8					
	+8.2	[10YR 4/3] Brown fine to medium SAND, some fine to coarse subrounded gravel, some rootlets (moist) [TOPSOIL] (About 7 inches thick)	0			Start excavating a 7:49 AM on 05/09/2025
		[10YR 5/6] Yellowish brown fine to medium SAND, some fine to coarse subrounded gravel, trace pockets of gray clay within sand (moist) [CLEAN FILL]	1			Environmental cap stockpiled separately from historic fill. Bottom of cap encountered at 2 ft below ground surface. Single grain to granular structure
	+6.5		2			
	+6.1	[5Y 3/2] Dark olive gray fine to medium SAND, trace fine subrounded gravel, trace clay, trace brick (moist) [HISTORIC FILL]				Single grain to granular structure
	+5.9		3			Single grain structure
		[10YR 5/6] Yellowish brown fine to medium SAND, trace fine subrounded gravel (moist) [HISTORIC FILL]	4	S-4	GRAB	Granular to single grain structure
	+4.0	[5Y 3/2] Dark olive gray fine to medium SAND, some fine to coarse gravel, some silt and clay, trace coarse sand, trace brick, trace metal, trace cobbles up to 12 inches in diameter (moist) [HISTORIC FILL]	5			Single ring infiltration test performed at 4.47 ft. Sample S-4: -200 = 16.8% Odor encountered from 5 to 7 ft. Single grain structure
		[10YR 2/1] Black fine to coarse SAND, some fine to coarse gravel, some brick, some concrete, some cobbles up to 14 inches in diameter, trace wood, trace silt [HISTORIC FILL]	6			
	+1.8		7			Bucket refusal encountered at 7 ft below ground surface. Unknown obstruction. Test pit offset 5 ft south east of original location. Bucket refusal encountered at 7.5 ft below ground surface. Test pits backfilled with excavated soil and tamped with the excavator's bucket at 9:00 AM on 05/09/2025
		End of Test Pit at 7.0ft.	8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

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Log of Test Pit **TP-5** Sheet 1 of 1

Project	Project No.	Date
Subaru Block 1454 Lots 4 and 5 Vehicle Storage Lot	220132401	5/12/2025

Location	Elevation and Datum
250 Memorial Drive, Camden , NJ	Approx. el. 5.9 (NAVD 88)

Excavation Company	Depth	Water Level - First	Water Level - Completion
Boring Brothers Inc.	5.4 ft	5.0 ▽	4.5 ▼

Excavation Equipment	Excavation Foreman	Field Engineer
Takeuchi TB290 Mid-size Excavator	Robert Grams	Sary Nicolas

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+5.9					
	+5.4	[10YR 5/3] Brown fine to medium SAND, some fine to coarse subrounded gravel, some rootlets, trace silt (moist) [TOPSOIL] (About 6 inches thick)	0			Start excavating at 1:06 PM on 05/28/2025
		[10YR 5/3] Brown fine to medium SAND, some fine to coarse subrounded gravel, trace coarse sand, trace silt and clay, pockets of clay within sand (moist) [CLEAN FILL]	1	S-5	GRAB	Environmental cap stockpiled separately from historic fill. Bottom of cap encountered at 2 ft below ground surface. Single grain to granular structure
			2			Single ring infiltration test performed at 1.8 ft below ground surface. Sample S-5: -200 = 7.9%
	+3.2					Faint odor encountered from 2.7 ft
		[10YR 4/1 to 10YR 2/1] Dark gray to black Clayey fine to medium SAND, trace brick, trace concrete, broken DIP pipe, pockets of dark gray clay (moist) [HISTORIC FILL]	3			Granular structure
	+1.9		4			
		[10YR 4/1] Dark gray CLAY, trace fine sand (moist) ▽				Blocky structure. Strong odor encountered at 4 ft below ground surface. Groundwater encountered at 4.5 ft below ground surface.
	+0.9	▽	5			
	+0.5	[10YR 2/1] Black fine to coarse SAND, some fine to coarse gravel, some clay (wet)				Granular structure. Bottom of test pit encountered at 5.4 ft below ground surface. Test pit backfilled with the excavated soil and tamped with the excavator's bucket at 2:00 PM on 05/08/25
		End of Test Pit at 5.4ft.	6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
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			17			
			18			
			19			
			20			

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Log of Test Pit **TP-6** Sheet 1 of 1

Project: Subaru Block 1454 Lots 4 and 5 Vehicle Storage Lot	Project No.: 220132401	Date: 5/12/2025
Location: 250 Memorial Drive, Camden , NJ	Elevation and Datum: Approx. el. 6.1 (NAVD 88)	
Excavation Company: Boring Brothers Inc.	Depth: 5.5 ft	Water Level - First: 4.2 ▽ / Water Level - Completion: 4.2 ▼
Excavation Equipment: Takeuchi TB290 Mid-size Excavator	Excavation Foreman: Robert Grams	Field Engineer: Sary Nicolas

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+6.1		0			Start excavating at 9:11 AM on 05/09/2025
	+5.5	[10YR 4/3] Brown fine to medium SAND, some fine to coarse subrounded gravel, some rootlets, trace silt (moist) [TOPSOIL] (About 7 inches thick)				Environmental cap stockpiled separately from historic fill. Bottom of cap encountered at 2 ft below ground surface.
		[10YR 6/4] Light yellowish brown medium to fine SAND, some fine to coarse subrounded gravel, trace coarse sand, trace silt and clay, pockets of clay within sand (moist) [CLEAN FILL]	1	S-6	GRAB	Single grain structure
			2			Single ring infiltration test performed at 1.8 ft below ground surface. Sample S-6: -200 = 9.6%
	+3.6					Single grain to granular structure
		[10YR 3/1] Dark gray fine to medium SAND, some fine to coarse subrounded gravel, some brick, some cobbles and concrete blocks up to 9 inches in diameter, trace clay, trace metal, trace wood (moist) [HISTORIC FILL]	3			
			4 ▽			Strong odor encountered from 4.5 ft below ground surface.
						Groundwater first encountered at 4.2 ft below ground surface. Sheen observed at the surface of the groundwater.
	+1.4					
		[10YR 4/1] Dark gray CLAY, trace fine sand (wet)	5			Blocky structure
	+0.6					Bottom of test pit encountered at 5.5 ft below ground surface. Test pit backfilled with the excavated soil and tamped with the excavator's bucket at 10 AM on 05/09/2025.
		End of Test Pit at 5.5ft.	6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

Appendix B

Test Pit Photographic Logs

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ATTACHMENT B
TEST PIT PHOTOGRAPHS

Client Name:	Subject Property Location:	Project No.
Subaru of America	Block 1454 Lots 4 and 5, 250 Memorial Drive, Camden NJ	220132401

Date	Photo No.
May 8, 2025	1

Test Pit Location:

TP-1

Description:

General view of TP-1.

Refer to Figure 2 for approximate location of test pits.

Groundwater encountered at 7 ft below ground surface.

Date	Photo No.
May 8, 2025	2

Test Pit Location:

TP-1

Description:

View of historic fill stockpiled on a tarp and separately from the clean cap.

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ATTACHMENT B
TEST PIT PHOTOGRAPHS

Client Name:	Subject Property Location:	Project No.
Subaru of America	Block 1454 Lots 4 and 5, 250 Memorial Drive, Camden NJ	220132401

Date	Photo No.
May 8, 2025	3

Test Pit Location:

TP-2

Description:

General view of TP-2.

Filter fabric encountered at 15 inches below ground surface.

Groundwater encountered at 7.3 ft below ground surface.

Date	Photo No.
May 8, 2025	4

Test Pit Location:

TP-3

Description:

General view of TP-3.

Groundwater encountered at 7 ft below ground surface.

Sheen observed at the surface of the ground water.

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ATTACHMENT B
TEST PIT PHOTOGRAPHS

Client Name:	Subject Property Location:	Project No.
Subaru of America	Block 1454 Lots 4 and 5, 250 Memorial Drive, Camden NJ	220132401

Date	Photo No.
May 9, 2025	5

Test Pit Location:

TP-4

Description:

General view of TP-4

Bucket refusal encountered at 7 ft below ground surface.

Groundwater not encountered.

Date	Photo No.
May 9, 2025	6

Test Pit Location:

TP-4

Description:

View of historic fill at TP-4 stockpiled on a tarp and separately from the clean cap.

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ATTACHMENT B
TEST PIT PHOTOGRAPHS

Client Name:	Subject Property Location:	Project No.
Subaru of America	Block 1454 Lots 4 and 5, 250 Memorial Drive, Camden NJ	220132401

Date	Photo No.
May 8, 2025	7

Test Pit Location:

TP-5

Description:

General view of TP-5

Groundwater encountered at 4.5 ft below ground surface.

Sheen observed at the surface of the ground water.

Date	Photo No.
May 9, 2025	8

Test Pit Location:

TP-6

Description:

General view of TP-6

Groundwater encountered at 4.2 ft below ground surface.

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ATTACHMENT B
TEST PIT PHOTOGRAPHS

Client Name:	Subject Property Location:	Project No.
Subaru of America	Block 1454 Lots 4 and 5, 250 Memorial Drive, Camden NJ	220132401

Date	Photo No.
May 9, 2025	9

Test Pit Location:

TP-6

Description:

View of historic fill at TP-6 stockpiled on a tarp and separately from the clean cap.

Appendix C

Single-Ring Infiltration Test Logs

LANGAN

INFILTRATION TEST No.: INF-1

Project No.:	220132401	**Date:**	5/8/2025
Project:	Subaru Block 1454 Lots 4 & 5 Vehicle Storage Lot	**Weather:**	Sunny
Location:	250 Memorial Avenue	**Temperature:**	65-80 °F
Client:	Subaru of America	**Tested by:**	J Lees

Test Method:	Single-Ring Infiltration Test	**Surface Elevation:**	about 8 feet (NAVD88)
Instrument Diameter:	6 inch diameter rings	**Test Depth:**	about 3 feet 8 inches
		Test Elevation:	about 4 feet 4 inches (NAVD88)

	Time	Time Interval		Initial Water Level (inch)	Final Water Level (inch)	Drop in Water Level (inch)
		(minutes)	(seconds)			
Pre-Soak / Saturation	10:37 AM	60	0.0	3	2.94	0.06

	Time	Time Interval		Initial Water Level (inch)	Final Water Level (inch)	Drop in Water Level (inch)	Field Intake Rate (inch/hour)
		(minutes)	(seconds)				
Infiltration Test	11:37 AM	60	0.0	3	3.00	0.00	0.00
	12:37 PM	60	0.0	3	3.00	0.00	0.00
						Average Stabilized Field Intake Rate (inch/hour):	0.00
						Hydraulic Conductivity (inch/hour):	0.00

Comments:

Test conducted in historic fill layer, brick fragments and cobbles visible.
Collected sample INF-1 at the infiltration test depth for laboratory particle-size and hydrometer analysis.

LANGAN

INFILTRATION TEST No.: INF-2

Project No.:	220132401	**Date:**	5/8/2025
Project:	Subaru Block 1454 Lots 4 & 5 Vehicle Storage Lot	**Weather:**	Sunny
Location:	250 Memorial Avenue	**Temperature:**	65-80 °F
Client:	Subaru of America	**Tested by:**	J Lees

Test Method:	Single-Ring Infiltration Test	**Surface Elevation:**	about 9 feet (NAVD88)
Instrument Diameter:	6 inch diameter rings	**Test Depth:**	about 5 feet 0 inches
		Test Elevation:	about 4 feet 0 inches (NAVD88)

	Time	Time Interval		Initial Water Level (inch)	Final Water Level (inch)	Drop in Water Level (inch)
		(minutes)	(seconds)			
Pre-Soak / Saturation	11:57 AM	58	0.0	3	0.00	3.00

	Time	Time Interval		Initial Water Level (inch)	Final Water Level (inch)	Drop in Water Level (inch)	Field Intake Rate (inch/hour)
		(minutes)	(seconds)				
Infiltration Test	12:55 PM	18	17	3	2.00	1.00	3.28
	1:14 PM	22	40	3	2.00	1.00	2.65
	1:36 PM	28	2	3	2.00	1.00	2.14
	2:04 PM	28	21	3	2.00	1.00	2.12
	2:34 PM	28	25	3	2.00	1.00	2.11
	3:02 PM	28	25	3	2.00	1.00	2.11
						Average Stabilized Field Intake Rate (inch/hour):	2.11
						Hydraulic Conductivity (inch/hour):	0.72

Comments:

Test conducted in historic fill layer. Collected sample INF-2 at the infiltration test depth for laboratory particle-size and hydrometer analyses.

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INFILTRATION TEST No.: INF-3

Project No.:	220132401	**Date:**	5/8/2025
Project:	Subaru Block 1454 Lots 4 & 5 Vehicle Storage Lot	**Weather:**	Sunny
Location:	250 Memorial Avenue	**Temperature:**	65-80 °F
Client:	Subaru of America	**Tested by:**	J Lees

Test Method:	Single-Ring Infiltration Test	**Surface Elevation:**	about 8 feet 8 inches (NAVD88)
Instrument Diameter:	6 inch diameter rings	**Test Depth:**	about 4 feet 6 inches
		Test Elevation:	about 4 feet 2 inches (NAVD88)

	Time	Time Interval		Initial Water Level (inch)	Final Water Level (inch)	Drop in Water Level (inch)
		(minutes)	(seconds)			
Pre-Soak / Saturation	12:34AM	60	0.0	3	1.50	1.50

	Time	Time Interval		Initial Water Level (inch)	Final Water Level (inch)	Drop in Water Level (inch)	Field Intake Rate (inch/hour)
		(minutes)	(seconds)				
Infiltration Test	1:34 PM	60	0.0	3	2.00	1.00	1.00
	2:34 AM	60	0.0	3	2.00	1.00	1.00
Average Stabilized Field Intake Rate (inch/hour):							1.00
Hydraulic Conductivity (inch/hour):							0.34

Comments:

Test conducted in historic fill layer, brick fragments and cobbles visible.
Collected sample INF-3 at the infiltration test depth for laboratory particle-size and hydrometer analyses.

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INFILTRATION TEST No.: INF-4

Project No.:	220132401	**Date:**	5/9/2025
Project:	Subaru Block 1454 Lots 4 & 5 Vehicle Storage Lot	**Weather:**	Cloudy, drizzle
Location:	250 Memorial Avenue	**Temperature:**	65 °F
Client:	Subaru of America	**Tested by:**	S. Nicolas

Test Method:	Single-Ring Infiltration Test	**Surface Elevation:**	about 8 feet 10 inches (NAVD88)
Instrument Diameter:	6 inch diameter rings	**Test Depth:**	about 4 feet 6 inches
		Test Elevation:	about 4 feet 4 inches (NAVD88)

	Time	Time Interval		Initial Water Level (inch)	Final Water Level (inch)	Drop in Water Level (inch)
		(minutes)	(seconds)			
Pre-Soak / Saturation	11:46 AM	30	2.0	3	2.00	1.00
	12:31 PM	45	20.0	2	1.00	1.00

	Time	Time Interval		Initial Water Level (inch)	Final Water Level (inch)	Drop in Water Level (inch)	Field Intake Rate (inch/hour)
		(minutes)	(seconds)				
Infiltration Test	1:24 PM	53	20.0	3	2.00	1.00	1.13
	2:17 PM	53	21.0	3	2.00	1.00	1.12
	3:10 PM	53	20.0	3	2.00	1.00	1.13
Average Stabilized Field Intake Rate (inch/hour):							1.12
Hydraulic Conductivity (inch/hour):							0.39

Comments:
Collected sample INF-4 at the infiltration test depth for laboratory particle-size and hydrometer analyses.

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INFILTRATION TEST No.: INF-5

Project No.:	220132401	**Date:**	5/9/2025
Project:	Subaru Block 1454 Lots 4 & 5 Vehicle Storage Lot	**Weather:**	Cloudy, drizzle
Location:	250 Memorial Avenue	**Temperature:**	65 °F
Client:	Subaru of America	**Tested by:**	J Lees

Test Method:	Single-Ring Infiltration Test	**Surface Elevation:**	about 5 feet 10 inches (NAVD88)
Instrument Diameter:	6 inch diameter rings	**Test Depth:**	about 1 feet 10 inches
		Test Elevation:	about 4 feet 0 inches (NAVD88)

	Time	Time Interval		Initial Water Level (inch)	Final Water Level (inch)	Drop in Water Level (inch)
		(minutes)	(seconds)			
Pre-Soak / Saturation	10:05 AM	60	0.0	3	0.00	3.00

	Time	Time Interval		Initial Water Level (inch)	Final Water Level (inch)	Drop in Water Level (inch)	Field Intake Rate (inch/hour)
		(minutes)	(seconds)				
Infiltration Test	11:05 AM	29	4.0	3	2.00	1.00	2.06
	11:37 AM	31	55.0	3	2.00	1.00	1.88
	12:10 PM	31	53.0	3	2.00	1.00	1.88
	12:43 PM	31	53.0	3	2.00	1.00	1.88
						Average Stabilized Field Intake Rate (inch/hour):	1.88
						Hydraulic Conductivity (inch/hour):	0.64

Comments:

Test conducted in top layer of clean fill (sandy soil, trace clay). Collected sample INF-5 at the infiltration test depth for laboratory particle-size and hydrometer analyses.

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INFILTRATION TEST No.: INF-6

Project No.:	220132401	**Date:**	5/9/2025
Project:	Subaru Block 1454 Lots 4 & 5 Vehicle Storage Lot	**Weather:**	Cloudy, drizzle
Location:	250 Memorial Avenue	**Temperature:**	65 °F
Client:	Subaru of America	**Tested by:**	J Lees

Test Method:	Single-Ring Infiltration Test	**Surface Elevation:**	about 6 feet 1 inches (NAVD88)
Instrument Diameter:	6 inch diameter rings	**Test Depth:**	about 1 feet 9 inches
		Test Elevation:	about 4 feet 4 inches (NAVD88)

	Time	Time Interval		Initial Water Level (inch)	Final Water Level (inch)	Drop in Water Level (inch)
		(minutes)	(seconds)			
Pre-Soak / Saturation	11:12 AM	60	0.0	3	0.00	3.00

	Time	Time Interval		Initial Water Level (inch)	Final Water Level (inch)	Drop in Water Level (inch)	Field Intake Rate (inch/hour)
		(minutes)	(seconds)				
Infiltration Test	12:12 PM	22	15.0	3	2.00	1.00	2.70
	12:36 PM	26	58.0	3	2.00	1.00	2.22
	1:04 PM	27	47.0	3	2.00	1.00	2.16
	1:31 PM	32	3.0	3	2.00	1.00	1.87
	2:04 AM	36	7.0	3	2.00	1.00	1.66
	2:39 AM	40	10	3	2.00	1.00	1.49
	3:20 AM	40	10	3	2.00	1.00	1.49
						Average Stabilized Field Intake Rate (inch/hour):	1.49
						Hydraulic Conductivity (inch/hour):	0.51

Comments:

Test conducted in top layer of clean fill (sandy soil, trace clay). Collected sample INF-6 at the infiltration test depth for laboratory particle-size and hydrometer analyses.

Appendix D

Laboratory Test Results

25-N-261

ANS

LABORATORY TEST REQUEST SHEET

Prepared for: ANS Consultants Inc.

CLIENT - PROJECT NAME: Subaru Block 1454 Lots 4 and 5 Camden (22013240T)

LOCATION: 250 Memorial Drive, Camden NJ

SHIPPING DATE: 05/12/25

REQUESTED DELIVERABLE DATE: **Standard Turnaround**

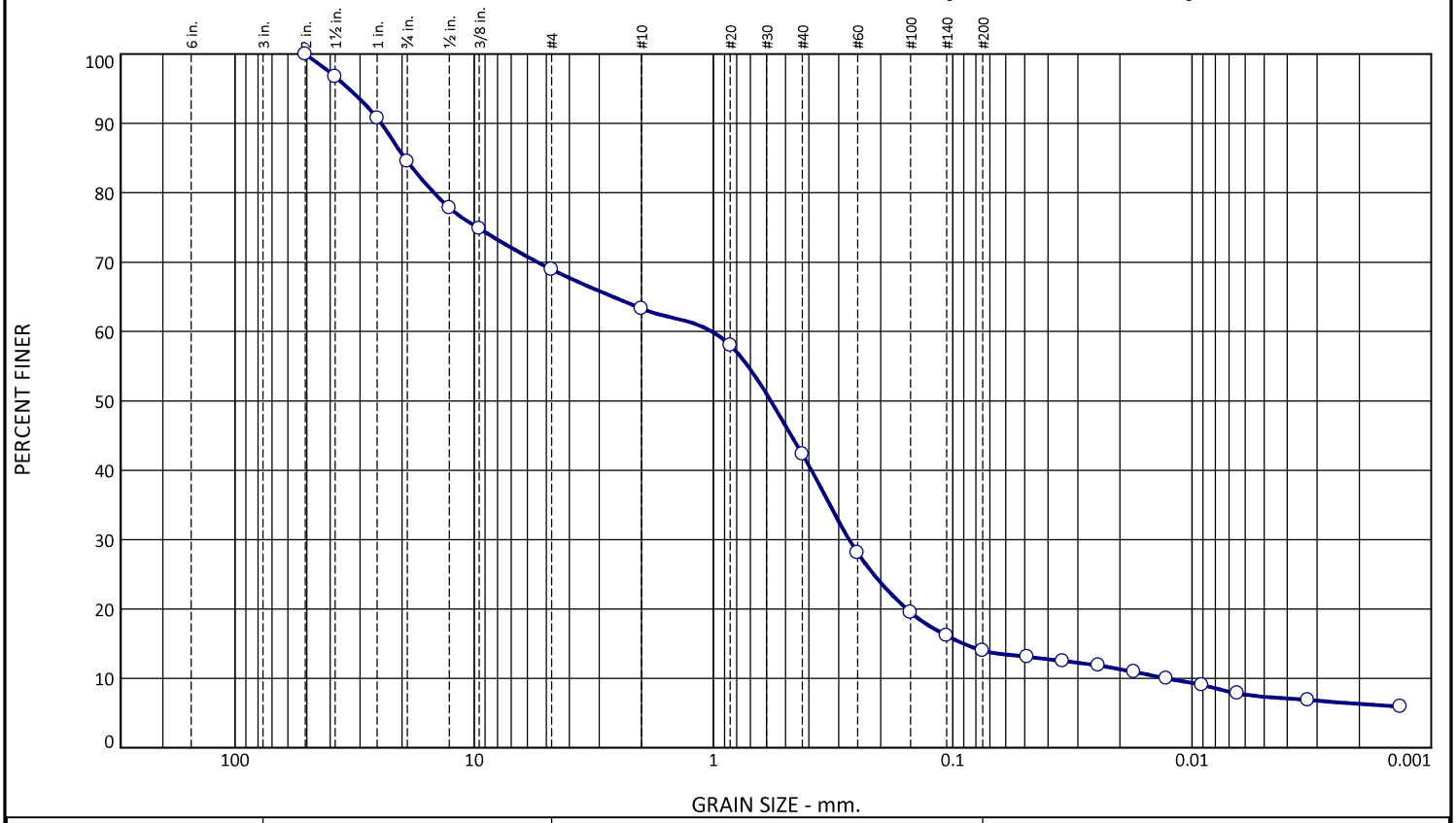
				SOIL TESTING										ROCK	OTHER				
Investigation ID	Sample ID	Depth (ft)	Sample Type	Sieve Analysis (ASTM D6913)	Sieve & Hydrometer Analyses (ASTM D6913 & 7928)	Atterberg Limits (ASTM D4318)	Moisture Content (ASTM D2216)	Standard Proctor Compaction (ASTM D698)	Modified Proctor Compaction (ASTM D1557)	California Bearing Ratio (2 Pt.) (ASTM D1883)	Thermal Resistivity (ASTM D5334)	Corrosion Analysis Suite, ANS (ASTM C1580, G51, G187,	UCS of Soil (ASTM D2166)	UCS of Rock (ASTM D7012) – Method C	Organic Content (ASTM D2974)				REMARKS/COMMENTS
INF-1	INF-1	3.7	Bag		X														
INF-2	INF-2	5.0	Bag		X														
INF-3	INF-3	4.5	Bag		X														
INF-4	INF-4	4.5	Bag		X														
INF-5	INF-5	1.8	Bag		X														
INF-6	INF-6	1.8	Bag		X														
TOTAL				0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	

Send Results to:

Name: Conrad Cho — Email ID ccho@langan.com

Name: Sary Nicolas — Email ID snicolas@langan.com

PARTICLE SIZE DISTRIBUTION REPORT (ASTM D6913)



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	15.5	15.5	5.7	21.0	28.3	7.7	6.3

SIEVE SIZE OR DIAMETER	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2.0"	100.0		
1.5"	96.7		
1.0"	90.8		
0.75"	84.5		
0.5"	77.8		
0.375"	74.9		
#4	69.0		
#10	63.3		
#20	58.0		
#40	42.3		
#60	28.1		
#100	19.5		
#140	16.2		
#200	14.0		
0.0489 mm.	13.1		
0.0347 mm.	12.5		
0.0246 mm.	11.9		
0.0175 mm.	10.9		
0.0128 mm.	10.0		
0.0091 mm.	9.1		
0.0065 mm.	7.8		
0.0033 mm.	6.9		
0.0013 mm.	5.9		

* (no specification provided)

Soil Description

Olive Brown silty sand with gravel

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 24.4121 D_{85}= 19.5124 D_{60}= 1.0131
D_{50}= 0.5760 D_{30}= 0.2711 D_{15}= 0.0901
D_{10}= 0.0129 C_u= 78.84 C_c= 5.64

Classification

USCS= SM AASHTO= A-1-b

Remarks

Undersized Specimen
SG Assumed

Sample Number: INF-1, INF-1 **Depth:** 3.7'

Date: 5/29/2025

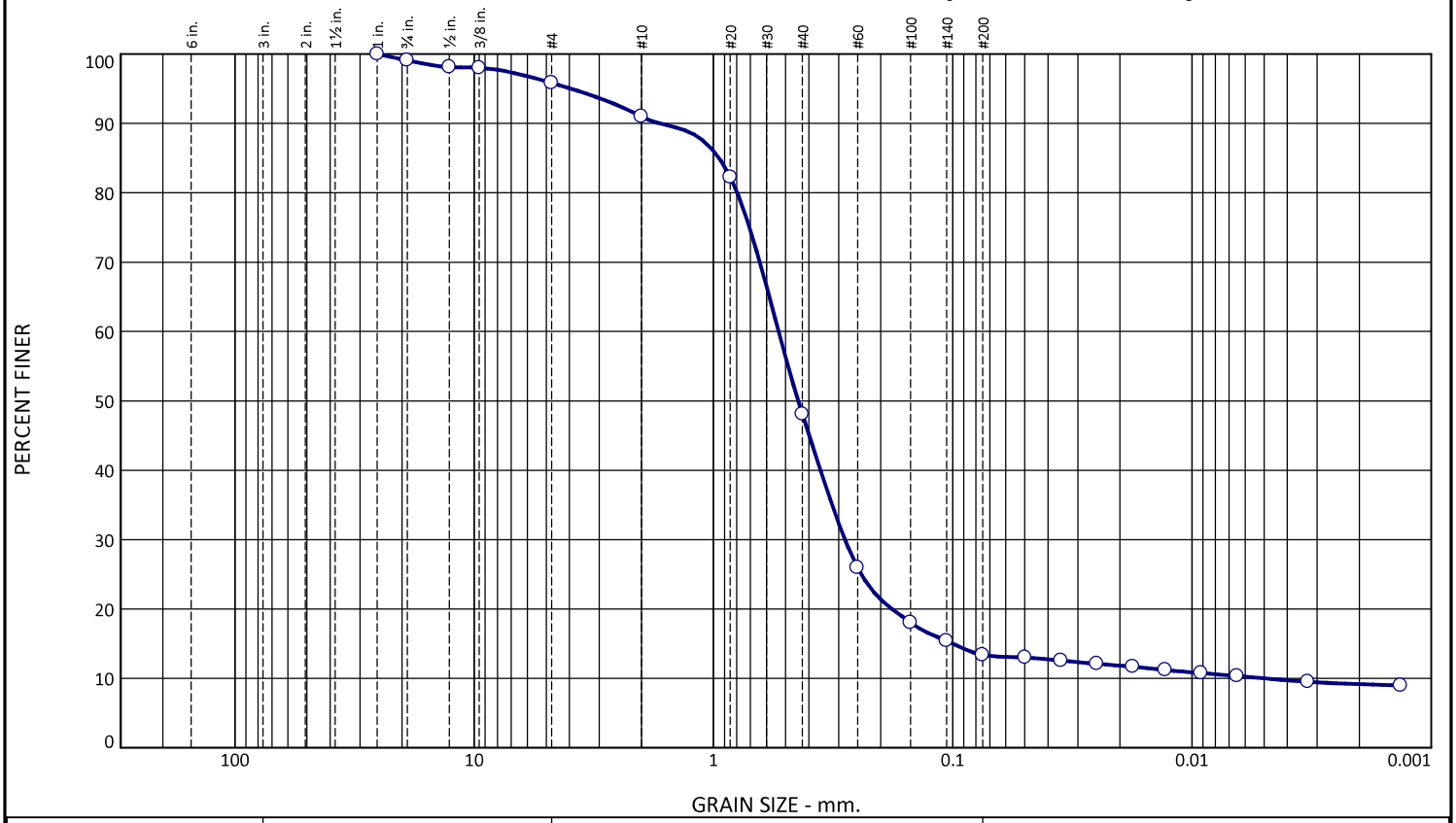
ANS CONSULTANTS, INC.

South Plainfield, New Jersey

Client: Langan Engineering and Environmental Services
Project: Subaru Block 1454 Lots 4 and 5 Camden, 250 Memorial Drive, Camden, NJ (#220132401)
Project No: AOU-1681 (25-N-234) **Figure**

Tested By: KB / HP **Checked By:** ANS

PARTICLE SIZE DISTRIBUTION REPORT (ASTM D6913)



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.9	3.3	4.8	42.9	34.7	4.2	9.2

SIEVE SIZE OR DIAMETER	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.0"	100.0		
0.75"	99.1		
0.5"	98.1		
0.375"	98.0		
#4	95.8		
#10	91.0		
#20	82.3		
#40	48.1		
#60	26.0		
#100	18.0		
#140	15.4		
#200	13.4		
0.0498 mm.	13.0		
0.0353 mm.	12.6		
0.0250 mm.	12.1		
0.0177 mm.	11.7		
0.0129 mm.	11.2		
0.0092 mm.	10.8		
0.0065 mm.	10.4		
0.0033 mm.	9.5		
0.0013 mm.	9.0		

* (no specification provided)

Soil Description

Olive Brown silty sand

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 1.6718 D_{85}= 0.9474 D_{60}= 0.5345
D_{50}= 0.4426 D_{30}= 0.2822 D_{15}= 0.1000
D_{10}= 0.0049 C_u= 108.12 C_c= 30.14

Classification

USCS= SM AASHTO= A-1-b

Remarks

SG Assumed

Sample Number: INF-2, INF-2 **Depth:** 5.0'

Date: 5/29/2025

ANS CONSULTANTS, INC.

South Plainfield, New Jersey

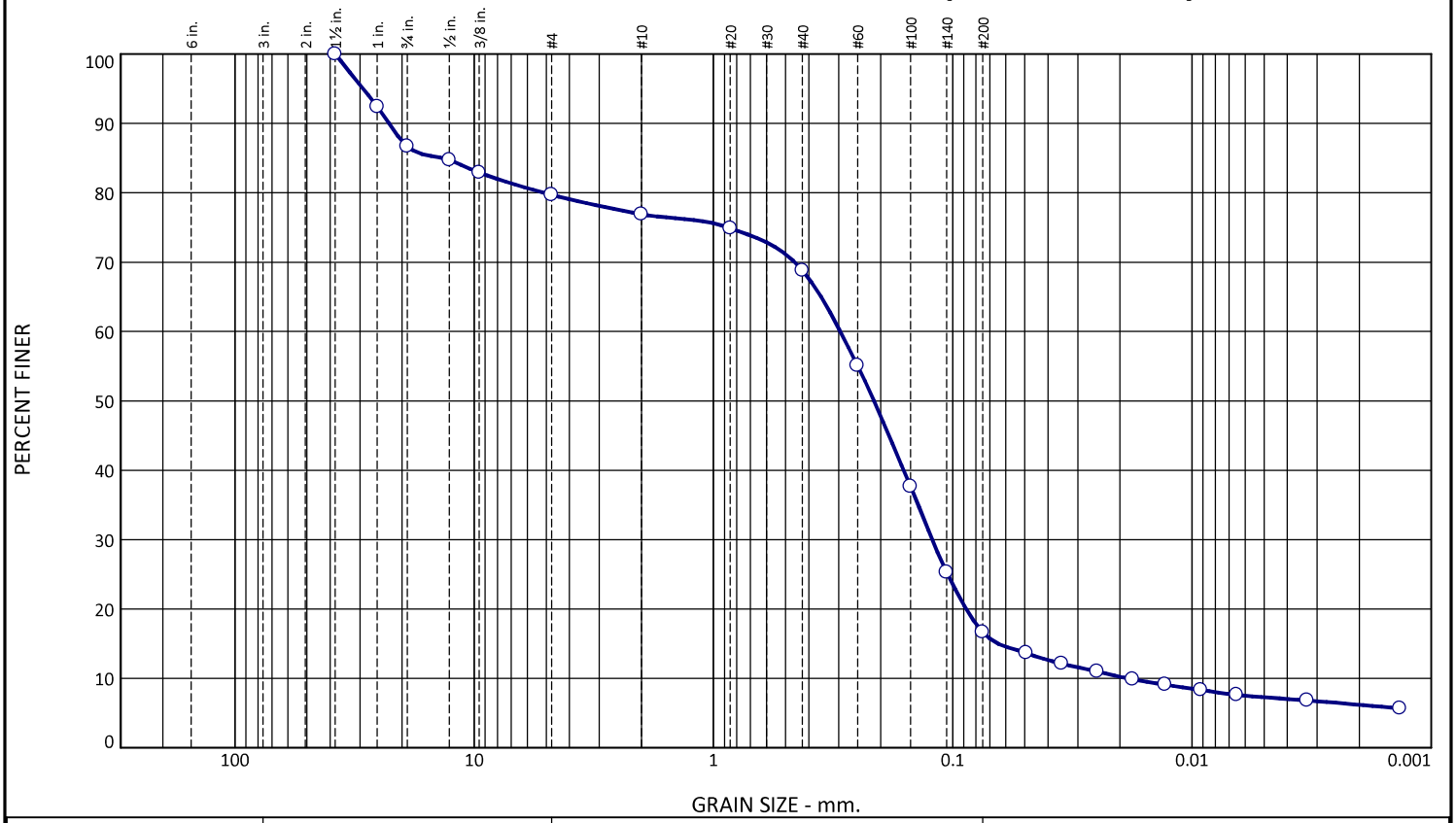
Client: Langan Engineering and Environmental Services

Project: Subaru Block 1454 Lots 4 and 5 Camden, 250 Memorial Drive, Camden, NJ (#220132401)

Project No: AOU-1681 (25-N-234) **Figure**

Tested By: KB / HP **Checked By:** ANS

PARTICLE SIZE DISTRIBUTION REPORT (ASTM D6913)



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	13.3	7.0	2.8	8.1	52.1	10.5	6.2

SIEVE SIZE OR DIAMETER	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5"	100.0		
1.0"	92.4		
0.75"	86.7		
0.5"	84.7		
0.375"	82.9		
#4	79.7		
#10	76.9		
#20	74.9		
#40	68.8		
#60	55.1		
#100	37.6		
#140	25.3		
#200	16.7		
0.0493 mm.	13.7		
0.0351 mm.	12.1		
0.0249 mm.	11.0		
0.0177 mm.	9.9		
0.0130 mm.	9.1		
0.0092 mm.	8.3		
0.0065 mm.	7.6		
0.0033 mm.	6.8		
0.0014 mm.	5.7		

* (no specification provided)

Soil Description

Dark Olive Brown silty sand with gravel

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 22.6975 D_{85}= 13.5029 D_{60}= 0.2951
D_{50}= 0.2133 D_{30}= 0.1218 D_{15}= 0.0646
D_{10}= 0.0186 C_u= 15.90 C_c= 2.71

Classification

USCS= SM AASHTO= A-2-4(0)

Remarks

Undersized Specimen
SG Assumed

Sample Number: INF-3, INF-3 **Depth:** 4.5'

Date: 5/29/2025

ANS CONSULTANTS, INC.

South Plainfield, New Jersey

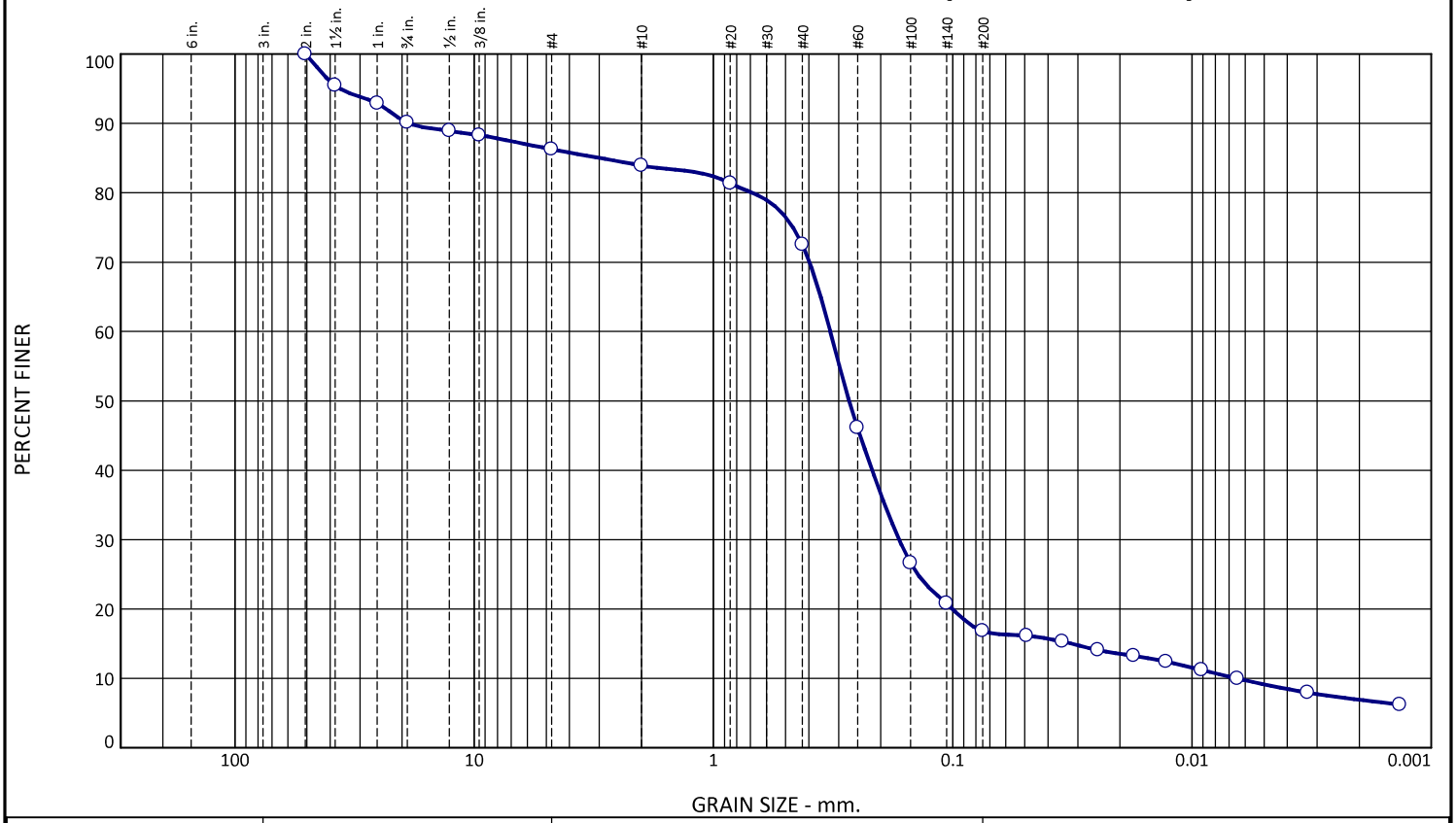
Client: Langan Engineering and Environmental Services

Project: Subaru Block 1454 Lots 4 and 5 Camden, 250 Memorial Drive, Camden, NJ (#220132401)

Project No: AOU-1681 (25-N-234) **Figure**

Tested By: KB / HP **Checked By:** ANS

PARTICLE SIZE DISTRIBUTION REPORT (ASTM D6913)



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	9.9	3.8	2.4	11.4	55.7	9.9	6.9

SIEVE SIZE OR DIAMETER	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2.0"	100.0		
1.5"	95.5		
1.0"	92.9		
0.75"	90.1		
0.5"	88.9		
0.375"	88.3		
#4	86.3		
#10	83.9		
#20	81.4		
#40	72.5		
#60	46.1		
#100	26.6		
#140	20.8		
#200	16.8		
0.0491 mm.	16.1		
0.0348 mm.	15.3		
0.0247 mm.	14.1		
0.0175 mm.	13.2		
0.0128 mm.	12.4		
0.0091 mm.	11.2		
0.0065 mm.	10.0		
0.0033 mm.	7.9		
0.0014 mm.	6.2		

* (no specification provided)

Soil Description

Olive Brown silty sand

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 18.6381 D_{85}= 2.9621 D_{60}= 0.3250
D_{50}= 0.2711 D_{30}= 0.1675 D_{15}= 0.0317
D_{10}= 0.0065 C_u= 49.75 C_c= 13.21

Classification

USCS= SM AASHTO= A-2-4(0)

Remarks

Undersized Specimen
SG Assumed

Sample Number: INF-4, INF-4 **Depth:** 4.5'

Date: 5/29/2025

ANS CONSULTANTS, INC.

South Plainfield, New Jersey

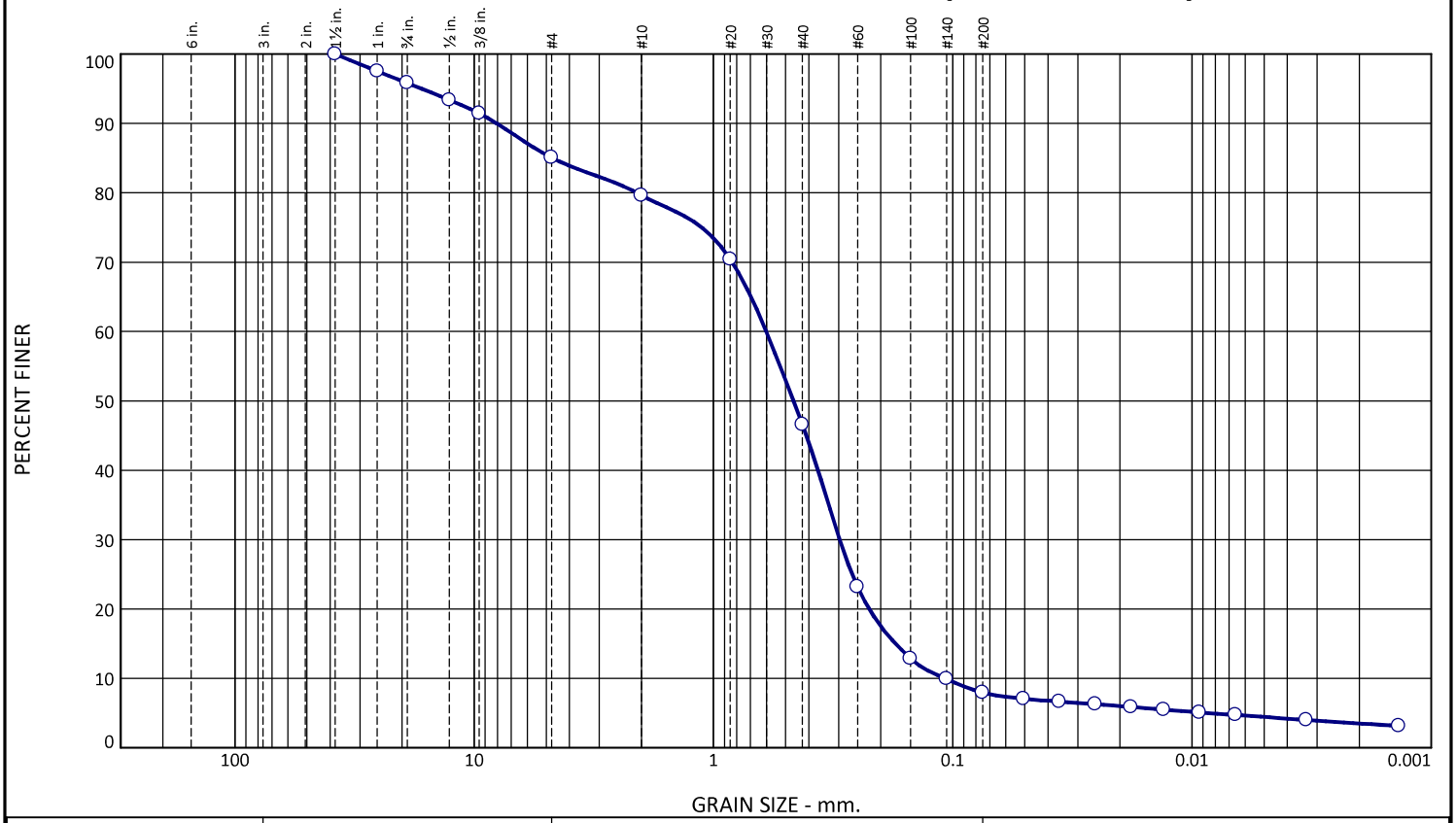
Client: Langan Engineering and Environmental Services

Project: Subaru Block 1454 Lots 4 and 5 Camden, 250 Memorial Drive, Camden, NJ (#220132401)

Project No: AOU-1681 (25-N-234) **Figure**

Tested By: KB / HP **Checked By:** ANS

PARTICLE SIZE DISTRIBUTION REPORT (ASTM D6913)



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	4.2	10.7	5.5	33.0	38.7	4.4	3.5

SIEVE SIZE OR DIAMETER	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5"	100.0		
1.0"	97.5		
0.75"	95.8		
0.5"	93.4		
0.375"	91.5		
#4	85.1		
#10	79.6		
#20	70.4		
#40	46.6		
#60	23.2		
#100	12.9		
#140	9.9		
#200	7.9		
0.0506 mm.	7.1		
0.0358 mm.	6.7		
0.0254 mm.	6.3		
0.0180 mm.	5.9		
0.0131 mm.	5.5		
0.0093 mm.	5.1		
0.0066 mm.	4.7		
0.0033 mm.	4.0		
0.0014 mm.	3.1		

* (no specification provided)

Soil Description

Dark Yellowish Brown poorly graded sand with silt

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 8.0622 D_{85}= 4.7054 D_{60}= 0.6020
D_{50}= 0.4634 D_{30}= 0.2968 D_{15}= 0.1734
D_{10}= 0.1072 C_u= 5.62 C_c= 1.37

Classification

USCS= SP-SM AASHTO= A-1-b

Remarks

SG Assumed

Sample Number: INF-5, INF-5 **Depth:** 1.8'

Date: 5/29/2025

ANS CONSULTANTS, INC.

South Plainfield, New Jersey

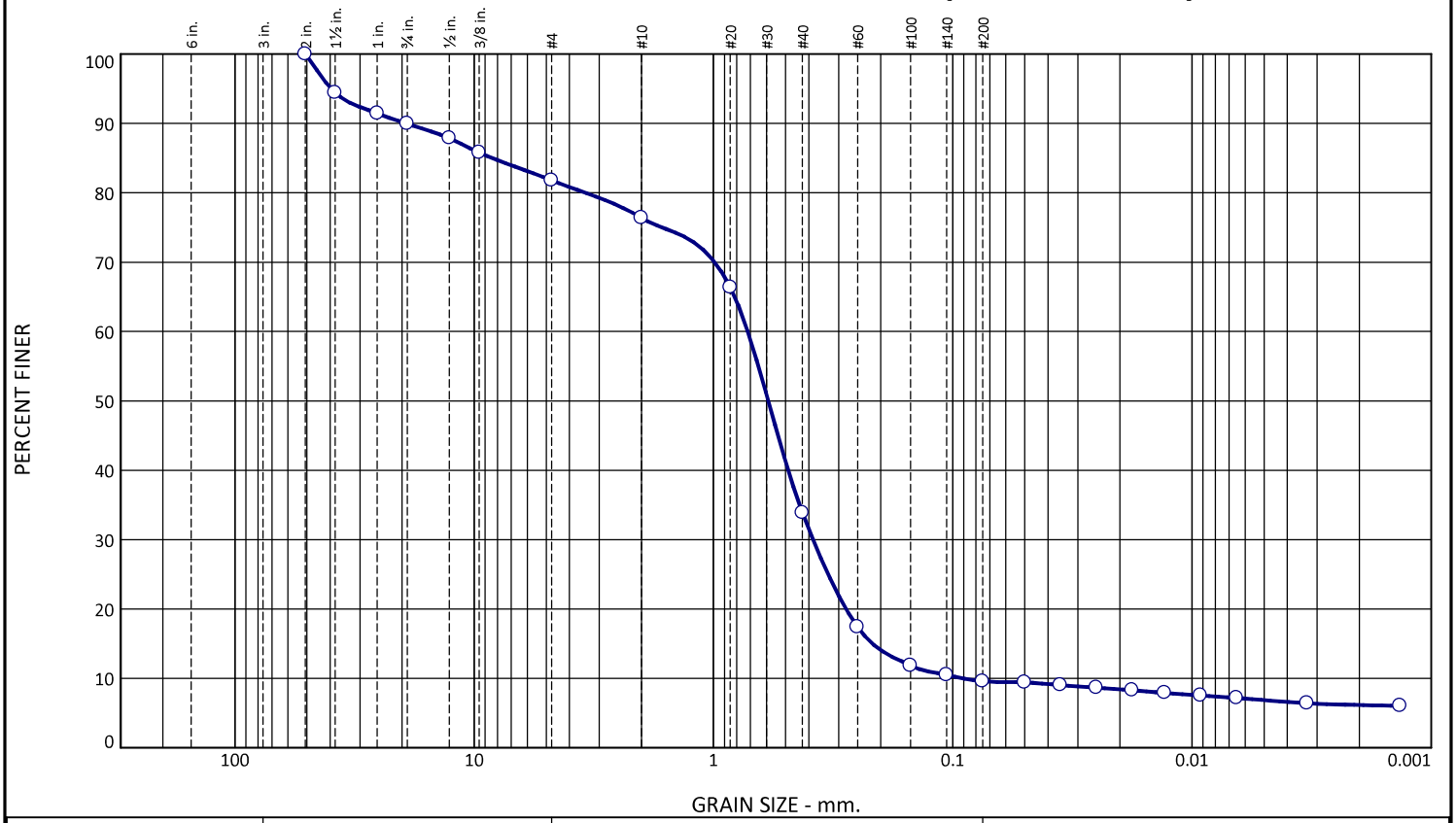
Client: Langan Engineering and Environmental Services

Project: Subaru Block 1454 Lots 4 and 5 Camden, 250 Memorial Drive, Camden, NJ (#220132401)

Project No: AOU-1681 (25-N-234) **Figure**

Tested By: KB / HP **Checked By:** ANS

PARTICLE SIZE DISTRIBUTION REPORT (ASTM D6913)



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	10.0	8.2	5.4	42.5	24.3	3.4	6.2

SIEVE SIZE OR DIAMETER	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
2.0"	100.0		
1.5"	94.4		
1.0"	91.4		
0.75"	90.0		
0.5"	87.9		
0.375"	85.8		
#4	81.8		
#10	76.4		
#20	66.4		
#40	33.9		
#60	17.4		
#100	11.8		
#140	10.5		
#200	9.6		
0.0501 mm.	9.4		
0.0355 mm.	9.0		
0.0251 mm.	8.7		
0.0178 mm.	8.3		
0.0130 mm.	7.9		
0.0092 mm.	7.5		
0.0065 mm.	7.2		
0.0033 mm.	6.4		
0.0014 mm.	6.0		

* (no specification provided)

Soil Description

Olive Brown well-graded sand with silt and gravel

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 19.1705 D_{85}= 8.3860 D_{60}= 0.7194
D_{50}= 0.5903 D_{30}= 0.3834 D_{15}= 0.2165
D_{10}= 0.0909 C_u= 7.92 C_c= 2.25

Classification

USCS= SW-SM AASHTO= A-1-b

Remarks

Undersized Specimen
SG Assumed

Sample Number: INF-6, INF-6 **Depth:** 1.8'

Date: 5/29/2025

ANS CONSULTANTS, INC.

South Plainfield, New Jersey

Client: Langan Engineering and Environmental Services
Project: Subaru Block 1454 Lots 4 and 5 Camden, 250 Memorial Drive, Camden, NJ (#220132401)
Project No: AOU-1681 (25-N-234) **Figure**

Tested By: KB / HP **Checked By:** ANS

Appendix G
Mounding Analysis

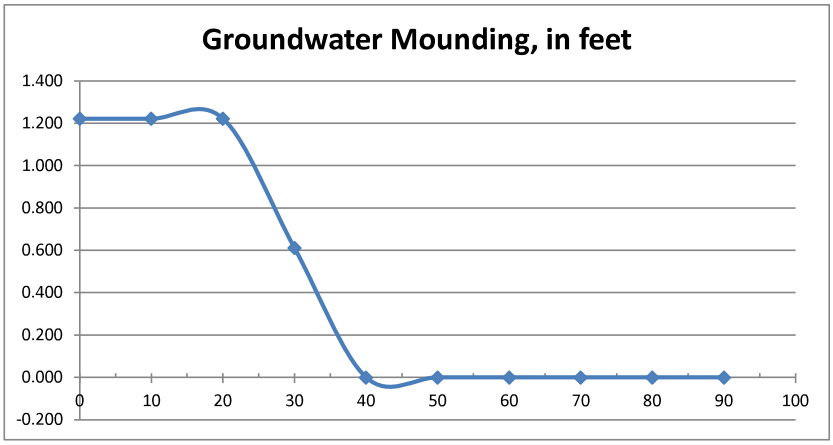
Input Values

10.00	*R*	Recharge rate (permeability rate) (in/hr)
		Specific yield, Sy (dimensionless)
0.150	Sy	default value is 0.15; max value is 0.2 provided that a lab test data is submitted
		Horizontal hydraulic conductivity (in/hr)
2.15	Kh	Kh = 5xRecharge Rate (R) in the coastal plain; Kh=R outside the coastal plain
30.000	x	1/2 length of basin (x direction, in feet)
225.000	y	1/2 width of basin (y direction, in feet)
0.22	t	Duration of infiltration period (hours)
10.00	hi(0)	Initial thickness of saturated zone (feet)

11.222	h(max)	Maximum thickness of saturated zone (beneath center of basin at end of infiltration period)
1.222	Δh(max)	Maximum groundwater mounding (beneath center of basin at end of infiltration period)

Ground-water Mounding, in feet	Distance from center of basin in x direction, in feet
1.222	0
1.222	10
1.222	20
0.611	30
0.000	40
0.000	50
0.000	60
0.000	70
0.000	80
0.000	90

Re-Calculate Now



Disclaimer

This spreadsheet solving the Hantush (1967) equation for ground-water mounding beneath an infiltration basin is made available to the general public as a convenience for those wishing to replicate values documented in the USGS Scientific Investigations Report 2010-5102 "Groundwater mounding beneath hypothetical stormwater infiltration basins" or to calculate values based on user-specified site conditions. Any changes made to the spreadsheet (other than values identified as user-specified) after transmission from the USGS could have unintended, undesirable consequences. These consequences could include, but may not be limited to: erroneous output, numerical instabilities, and violations of underlying assumptions that are inherent in results presented in the accompanying USGS published report. The USGS assumes no responsibility for the consequences of any changes made to the spreadsheet. If changes are made to the spreadsheet, the user is responsible for documenting the changes and justifying the results and conclusions.

BMP-1 Water Quality Storm Event

Infiltration Area (BMP-1): 28,513 SF*

* The infiltration area is irregular therefore the length and width of the basin varies. The general dimensions of the basin are assumed to be 60 ft x 450 ft (60 FT x 450 FT = 27,000 SF which is reasonable approximation of the actual infiltration area).

Bottom of Infiltration Basin (Stone) El: 4.33
Seasonal High Water Table (SHWT) El: 1.70
Maximum Allowable Mounding Height: 4.33 - 1.70 = 2.63 ft
Initial Thickness of Saturation Zone: 10 ft (default value)

Average Observed Field Intake Rate of 1.27 in/hr x 0.34239 from NJSWBMP)
Vertical Infiltration Rate: 0.43 in/hr
Kh = 0.43 in/hr x 5 (Coastal Zone) = 2.15 in/hr

Replace in-situ soil below storage bed with K5 sand Recharge Rate = 10.00 in/hr

Volume of Stormwater to Infiltrate: 5,131 CF (WQ Storm Event)

Infiltration duration: (5,131 CF x 12 in) / (28,513 SF x 10.00 in/hr) = 0.22 hours

Results: 1.222 ft Mounding Height** < 2.63 ft OK

** Switching the 1/2 length of basin and 1/2 width of basin results in 1.222 ft Mounding Height

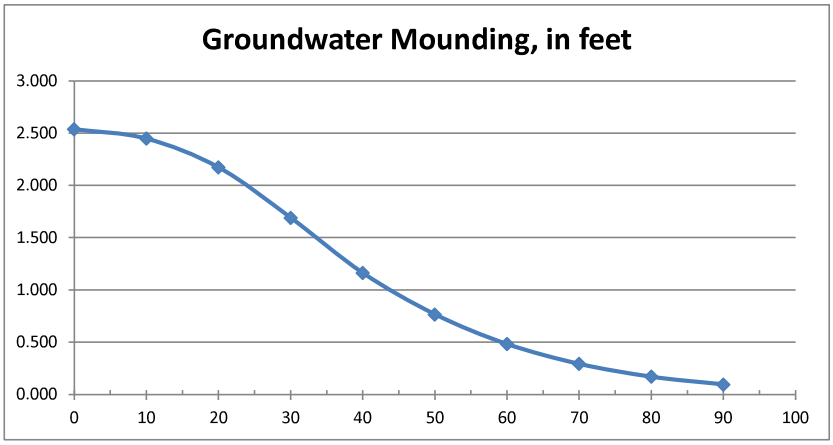
Input Values

0.09	*R*	Recharge rate (permeability rate) (in/hr)
		Specific yield, Sy (dimensionless)
0.150	Sy	default value is 0.15; max value is 0.2 provided that a lab test data is submitted
		Horizontal hydraulic conductivity (in/hr)
2.15	Kh	Kh = 5xRecharge Rate (R) in the coastal plain; Kh=R outside the coastal plain
30.000	x	1/2 length of basin (x direction, in feet)
225.000	y	1/2 width of basin (y direction, in feet)
72.00	t	Duration of infiltration period (hours)
10.00	hi(0)	Initial thickness of saturated zone (feet)

12.539	h(max)	Maximum thickness of saturated zone (beneath center of basin at end of infiltration period)
2.539	Δh(max)	Maximum groundwater mounding (beneath center of basin at end of infiltration period)

Ground-water Mounding, in feet	Distance from center of basin in x direction, in feet
2.539	0
2.449	10
2.174	20
1.692	30
1.164	40
0.766	50
0.484	60
0.293	70
0.170	80
0.095	90

Re-Calculate Now



Disclaimer

This spreadsheet solving the Hantush (1967) equation for ground-water mounding beneath an infiltration basin is made available to the general public as a convenience for those wishing to replicate values documented in the USGS Scientific Investigations Report 2010-5102 "Groundwater mounding beneath hypothetical stormwater infiltration basins" or to calculate values based on user-specified site conditions. Any changes made to the spreadsheet (other than values identified as user-specified) after transmission from the USGS could have unintended, undesirable consequences. These consequences could include, but may not be limited to: erroneous output, numerical instabilities, and violations of underlying assumptions that are inherent in results presented in the accompanying USGS published report. The USGS assumes no responsibility for the consequences of any changes made to the spreadsheet. If changes are made to the spreadsheet, the user is responsible for documenting the changes and justifying the results and conclusions.

BMP-1 100-yr Projected Storm Event

Infiltration Area: 28,513 SF*

* The infiltration area is irregular therefore the length and width of the basin varies. The general dimensions of the basin are assumed to be 60 ft x 450 ft (60 FT x 450 FT = 27,000 SF which is reasonable approximation of the actual infiltration area).

Bottom of Infiltration Basin (Stone) El: 4.33
Seasonal High Water Table (SHWT) El: 1.70
Maximum Allowable Mounding Height: 4.33 - 1.70 = 2.63 ft
Initial Thickness of Saturation Zone: 10 ft (default value)

Average Observed Field Intake Rate of 1.27 in/hr x 0.34239 from NJSWBMP)
Vertical Infiltration Rate: 0.43 in/hr
Kh = 0.43 in/hr x 5 (Coastal Zone) = 2.15 in/hr

Set t = 72 hrs, R = 0.43 in/hr. Results: 11.021 Mounding Height > 2.63 No Good

Try t = 72 hrs, R = 0.09 in/hr. Results: 2.539 ft Mounding Height < 2.63 ft OK

Volume Infiltrated (Mounding Analysis): t * (Area * R) / 12 in/hr = 72 hrs * (28,513 SF * 0.09 in/hr) /12 in/hr = 15,397 CF
Volume Infiltrated (HydroCAD 100-yr Projected Storm Event Node 6P): 10,982 CF

10,982 CF < 15,397 CF OK

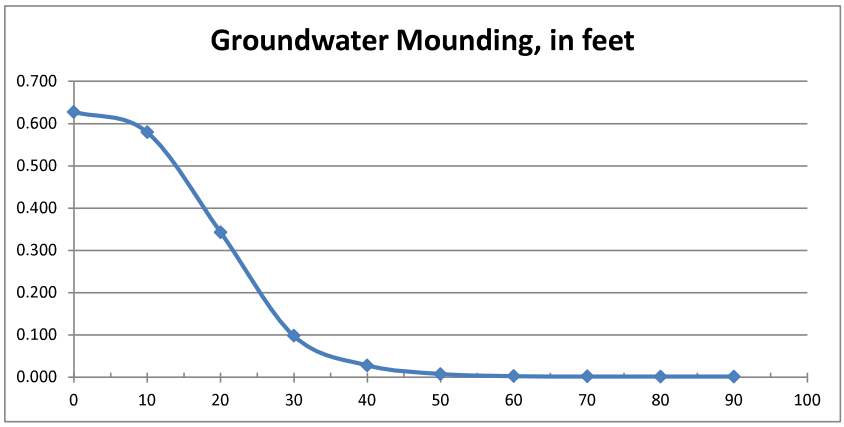
Input Values

0.43	R	Recharge rate (permeability rate) (in/hr)
		Specific yield, Sy (dimensionless)
0.150	Sy	default value is 0.15; max value is 0.2 provided that a lab test data is submitted
		Horizontal hydraulic conductivity (in/hr)
2.15	Kh	Kh = 5xRecharge Rate (R) in the coastal plain; Kh=R outside the coastal plain
20.000	x	1/2 length of basin (x direction, in feet)
2.665	y	1/2 width of basin (y direction, in feet)
13.36	t	Duration of infiltration period (hours)
10.00	hi(0)	Initial thickness of saturated zone (feet)

10.627	h(max)	Maximum thickness of saturated zone (beneath center of basin at end of infiltration period)
0.627	Δh(max)	Maximum groundwater mounding (beneath center of basin at end of infiltration period)

Ground-water Mounding, in feet	Distance from center of basin in x direction, in feet
0.627	0
0.579	10
0.342	20
0.098	30
0.028	40
0.007	50
0.002	60
0.001	70
0.001	80
0.001	90

Re-Calculate Now



Disclaimer

This spreadsheet solving the Hantush (1967) equation for ground-water mounding beneath an infiltration basin is made available to the general public as a convenience for those wishing to replicate values documented in the USGS Scientific Investigations Report 2010-5102 "Groundwater mounding beneath hypothetical stormwater infiltration basins" or to calculate values based on user-specified site conditions. Any changes made to the spreadsheet (other than values identified as user-specified) after transmission from the USGS could have unintended, undesirable consequences. These consequences could include, but may not be limited to: erroneous output, numerical instabilities, and violations of underlying assumptions that are inherent in results presented in the accompanying USGS published report. The USGS assumes no responsibility for the consequences of any changes made to the spreadsheet. If changes are made to the spreadsheet, the user is responsible for documenting the changes and justifying the results and conclusions.

BMP-2 Water Quality Storm Event
Infiltration Area (BMP-2): 213 SF*
* The dimensions of the basin are 40 FT x 5.33 FT.

Bottom of Infiltration Basin (Stone) El: 4.28
Seasonal High Water Table (SHWT) El: 1.70
Maximum Allowable Mounding Height: 4.28 - 1.70 = 2.58 ft
Initial Thickness of Saturation Zone: 10 ft (default value)

Average Observed Field Intake Rate of 1.27 in/hr x 0.34239 from NJSWBMP)
Vertical Infiltration Rate: 0.43 in/hr
Kh = 0.43 in/hr x 5 (Coastal Zone) = 2.15 in/hr

Volume of Stormwater to Infiltrate: 102 CF (WQ Storm Event)

Infiltration duration: (102 CF x 12 in/hr) / (213 SF x 0.43 in/hr) = 13.36 hours

Results: 0.627 ft Mounding Height < 2.58 ft OK

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CITY OF CAMDEN
DEPARTMENT OF PLANNING & DEVELOPMENT

DIVISION OF PLANNING
&
ZONING

SITE PLAN APPLICATION AND
SUBMISSION ITEMS PACKAGE

Any question please contact:
Angela Miller, Planning Board Secretary
(856) 757-7214

Docusign Envelope ID: 86330A9F-BA8A-4413-ABE5-4C3D8ADE5E80

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COUNTY PLANNING BOARD APPLICATION……Page 11

Docusign Envelope ID: 86330A9F-BA8A-4413-ABE5-4C3D8ADE5E80

SITE PLAN APPLICATION
CHECKLIST

CHECK IF COMPLETED	FOR OFFICE USE ONLY
✓ 1. Zoning Application	_____
✓ 2. Site Plan Applications & Site Plans (15 copies of both)	_____
✓ 3. Proof of ownership (i.e. Deed, Tax Bill and/or Lease)	_____
✓ 4. Signed Escrow Fee Agreement	_____

PRIOR TO SUBMISSION OF ANY SITE PLAN APPLICATIONS EVERY APPLICANT MUST CALL FOR A PRE-APPLICATION CONFERENCE.

IT IS STRONGLY ADVISED THAT THE APPROPRIATE PROFESSIONALS BE PRESENT AT SAID MEETING.

PRE-APPLICATION CONFERENCE FEE: $500.00

(ACCORDING TO SECTION 577-270 OF THE CITY'S ZONING CODE)

***NOTE:**

A. **Incomplete applications will not be processed.**

B. **Submission hours are 8:30am to 4:30pm, Monday through Friday. All applications must be stamped "received" by the Division of Planning. No outside drop-offs will be processed.**

C. **All plans must be folded with *Title Block* facing upward.**

D. **Whenever public notice is required, the Division of Planning shall prepare procedures for said notification and advise applicant of its readiness.**

Revised 8/27/2020

Docusign Envelope ID: 86330A9F-BA8A-4413-ABE5-4C3D8ADE5E80

The following checklist pertains to PLOT PLANS:

Check if Completed		For Office Use Only
✓	**1. Name and Address of owner and applicant** SEE GI001	____
✓	**2. Name, signature, licenses #, seal and address of engineer, land surveyor, architect, professional planner, and/or landscape architect (as applicable).** ALL SHEETS	____
✓	**3. Title block denoting type of application, tax map sheet, county municipality, block and lot, and street address.** ALL SHEETS	____
✓	**4. Key map not less the 1" – 1000" showing location of tract to surrounding street, municipal boundaries, etc. within 500'.** SEE GI001	____
✓	**5. Schedule for required and proposed zone requirements for Lot area, frontage, setbacks, imperious coverage, parking, etc.** SEE CS101	____
✓	**6. North arrow to top of sheet, scale and graphic scale.** ALL PLAN SHEETS	____
✓	**7. Signature block for board chair, secretary, zoning officer/ administrative officer and engineer.** SEE GI001	____
✓	**8. Date of property survey** SEE VL-100 AND VL-101	____
✓	**9. Acreage of tract to nearest tenth** SEE ZONING TABLE ON CS101	____
✓	**10. Date or original and all revisions** ALL SHEETS	____
✓	**11. Size and location of existing or proposed structures and their dimension of setbacks** SEE CS101	____
✓	**12. Location and dimensions of any existing or proposed streets** SEE CS101	____
✓	**13. All proposed lot lines and area of lots in square feet** SEE CD101, CS101	____
✓	**14. Copy of and plan delineation of any existing or proposed deed restriction** SEE ALTA/NSPS LAND TITLE SURVEY VL-100, VL-101	____
✓	**15. Any existing or proposed easement or land reserved or dedicated for public use** SEE CS101	____
✓	**16. Existing streets, other right-of-way or easements; water courses, wetlands, soils floodplains, or other environmentally Sensitive area within 200' of tract** SEE CS101	____
✓	**17. Topographical features of subject property from USGS 7.5 minute maps** SEE GI001	____

Docusign Envelope ID: 86330A9F-BA8A-4413-ABE5-4C3D8ADE5E80

CHECK IF COMPLETED		FOR OFFICE USE ONLY
✓	18. Boundary, limits, nature and extent of wooded areas, Specimen trees and other significant physical features SEE VL-100 AND VL-101	____
✓	19. Drainage calculations SEE STORMWATER REPORT	____
✓	20. Proposed utilities: sanitary sewer, water, storm water management, telephone, cable TV and electric SEE CG101, CG501, CU101	____
✓	21. Soil erosion and sediment control plan if more than 5000 sq. ft. SEE CE101, CE501	____
✓	22. Spot and finished elevations at all property corners, corners of Structures, existing or proposed first floor elevations CG101	____
✓	23. Construction details road and paving cross-sections and profiles if no profiles needed SEE CS501	____
✓	24. Lighting plan and details	____
✓	25. Landscape plan and details SEE PLANTING PLAN BY PHS	____
✓	26. Site identification signs, traffic control signs, and directional signs SEE CS101	____
✓	27. Sight triangles SEE CS101	____
✓	28. Vehicular and pedestrian circulation patterns SEE CS501	____
✓	29. Parking plan indicating spaces, size and type aisle width internal Collectors, curb cuts, drives and driveways and all ingress and Egress areas with dimensions SEE CS101	____
N/A	30. Preliminary architectural plan and elevations NO BUILDING PROPOSED	____
✓	31. Environmental impact report, parcels 2 acres or larger	____
✓	32. Plan paper size should be 24 by 36 ALL SHEETS	____

Docusign Envelope ID: 86330A9F-BA8A-4413-ABE5-4C3D8ADE5E80

PURSUANT TO THE CODE OF THE CITY OF CAMDEN
(ARTICLE I, SECTION 233-4)

SITE PLAN APPLICATION

(Please Answer ALL Questions)

APPLICANT Finger One, LLC

ADDRESS 1 Subaru Drive, Camden, NJ 08103

TELEPHONE# 856-488-5096 **FAX#** _____

OWNER OF PROPERTY _____
(if other than applicant)

ADDRESS _____

TELEPHONE _____

IF APPLICANT IS INCORPORATE OR A PARTNERSHIP, LEGAL REPRESENTATION IS REQUIRED. PLEASE PROVIDE THE FOLLOWING:

ATTORNEY'S NAME Troutman Pepper Locke LLP - Thomas M Letizia, Esquire

ADDRESS 104 Carnegie Center Drive, Suite 203 Princeton, NJ 08540

TELEPHONE# 609-951-4136 **FAX#** _____

EMAIL ADDRESS thomas.letizia@troutman.com

PLEASE PROVIDE THE FOLLOWING INFORMATION BELOW:

ENGINEER AND/OR ARCHITECT NAME Langan - Kyle MacGeorge, PE

ADDRESS 1818 Market Street, Suite 3300, Philadelphia, PA 19103

TELEPHONE# 215-845-8924 **FAX#** _____

ADDRESS OF DEVELOPMENT 250 Memorial Avenue, Camden, NJ 08103

BLOCK NO.(S) 1464 LOT NO.(S) 4, 5 ZONE _____

PRESENT USE(S) No current uses, vacant lot

_____

DESCRIBE PROPOSED USES (S):
(attach separate sheet if needed) _____

Off-street corporate vehicle storage, as defined by the Amendment to Gateway

Redevelopment Plan approved 1/2/2026.

Docusign Envelope ID: 86330A9F-BA8A-4413-ABE5-4C3D8ADE5E80

SQUARE FOOTAGE OF PROPOSED USE 91,933 SF (Lot 4 + Lot 5 + Ord MC-4935)

LOT AREA (Measured in Square Footage) Lot 4: 31,432 SF, Lot 5: 52,141 SF, Ord MC-4935: 8,360 SF

BUILDING AREA OF GROUND FLOOR 0 SF - No Building Proposed

BUILDING AREA (Total Sq. Ft. – all floors) 0 SF - No Building Proposed

NO. OF PROPOSED PARKING SPACES 0 parking spaces (159 vehicle storage spaces)

NO. OF EXISTING PARKING SPACES 0 spaces

AREA IN ACRES OF ANY ADDITION ADJOINING LAND OWNED BY APPLICANT 0 acres

DOES THIS APPLICANT CONSTITUTE:
(Please check appropriate box)

_____ New Application

____ Preliminary ✓ Preliminary and Final

____ Revision or Resubmission of a prior application

*IS THIS APPLICATION FOR A VARIANCE TO CONSTRUCT A MULTI-DWELLING OF 25 OR MORE FAMILY DWELLING UNITS? (Please check) YES _____ NO ✓

*IS THIS APPLICATION INTENDED FOR COMMERCIAL PURPOSE(S)?
(Please check) YES ✓ NO _____

IF THE ANSWER TO (A) OR (B) IS "YES", AND/OR IF APPLICANT IS A CORPORATION OR PARTNERSHIP, PLEASE PROVIDE THE FOLLOWING:

1. Name and address of all stockholders or individual partners owning at least 10% of its stock, of any class, or at least 10% of the interest in the partnership, as the case may be. (Additional sheet may be attached if needed). See Limited Liability Company Operating Agreement of Finger One, LLC Article 1 Section 3

NAME	ADDRESS
Subaru of America, Inc.	1 Subaru Drive Camden, New Jersey 08103

Docusign Envelope ID: 86330A9F-BA8A-4413-ABE5-4C3D8ADE5E80

DOES THIS APPLICATION INCLUDE:

1. AN ADDITION OF 1,000 SQ. FT. OR MORE TO AN EXISTING STRUCTURE?
   (Please circle) YES (NO)

2. AN ADDITION OF 1,000 SQ. FT. OR MORE OF PAVING AREA FOR OFF-STREET PARKING?
   (Please circle) YES (NO)

THIS APPLICANT CERTIFIES THAT THE ABOVE INFORMATION HAS BEEN COMPLETED TO THE BEST OF HIS/HER KNOWLEDGE.

3/20/2026
DATE

Peggy Verdi, Manager Finger One, LLC
APPLICANT'S NAME (PLEASE PRINT)

DocuSigned by:
Peggy Verdi
FEE9566E0E9345E...
APPLICANT'S SIGNATURE

Docusign Envelope ID: 86330A9F-BA8A-4413-ABE5-4C3D8ADE5E80

PLEASE READ

ASSESSMENT CERTIFICATION

Section A: Applicant shall complete

SECTION A **OWNER**

Name of OWNER of Property Finger One, LLC

Address: 250 Memorial Avenue, Camden, NJ 08103

SEARCH Address: _____

Block: 1464 Lot: 4, 5 Account: _____

Section B: Applicant shall take this form to the City of Camden Tax Office, Room 117 (1st floor) for completion to indicate whether taxes are paid up to date. Applicant must also go to the PNC Bank (Broadway & Market St) for water and sewer to make sure water/sewer is paid up to date.
Upon completion, this form shall be submitted with original application. **NO APPLICATIONS WILL BE ACCEPTED –if any money is owed for Taxes or Water/Sewer, no permit can be issued until accounts are paid in full-proof of payment must be brought back before turning application in.**

Section C: **TAX OFFICE & PNC BANK**
An application for Zoning/Sign permit has been submitted to the Division of Planning. Please check your records to be certain that the account is current

I HEREBY CERTIFY THAT THE PROPERTY ASSESSMENT ARE:

Account Type	Qtr.	Due date	Amount Owed	Other
(Taxes/W&S/Other	_____	_____	_____	_____
(Taxes/W&S/Other	_____	_____	_____	_____
(Taxes/W&S/Other	_____	_____	_____	_____
(Taxes/W&S/Other	_____	_____	_____	_____

COMMENTS: _____

DATED: _____ PREPARED BY: _____

Docusign Envelope ID: 86330A9F-BA8A-4413-ABE5-4C3D8ADE5E80

ESCROW DEPOSIT AGREEMENT BETWEEN THE CITY OF CAMDEN AND

DEPOSITOR Finger One, LLC

Address 1 Subaru Drive, Camden, NJ 08103

Telephone No. 856-488-5096 Check No. _____

Depositor herewith deposits the sum of Three Thousand Six Hundred Thirteen Dollars and 23/100 dollars ($ 3,613.23) with the City of Camden in accordance with an subject to the provisions of the City of Camden Ordinance No. MC-2304, being incorporated by reference and made a part hereof, and agrees to the following:

1. Depositor's payment of said deposit is made in connection with an application for:
   Site plan for a corporate vehicle storage lot

   At (provide address with block and lot number):
   250 Memorial Avenue, Camden, NJ 08103 Block: 1464 Lots: 4 & 5

2. The Treasure of the City of Camden shall be authorized to disburse to the City Engineer from the funds deposited, those fees required to be paid for the technical and professional review by the Zoning Board of Adjustment and/or Planning Board pursuant to the terms of Ordinance MC-2304.

3. All fees shall be disbursed upon reconciliation of the Engineer & Insurance Escrow Accounts by Ordinance MC-2304.

4. If there are insufficient funds in the depositor's escrow account to pay all pending bill attribute to the aforementioned project, depositor shall be notified by the appropriate agency and requested to make an additional deposit into the escrow account.

5. Depositor understands that if he/she fails to make any additional deposit required, depositor's application shall be denied.

6. Any additional deposits shall be made to the Treasure, City of Camden, by way of the Division of Planning, in accordance with the terms set forth herein unless otherwise agreed to by the depositor and the approving agency.

7. The City of Camden shall not be required to pay interest on any sums held pursuant to this agreement.

IN WITNESS WHEREOF the undersigned hereby accepts the terms and conditions of this agreement.

3/20/2026

DATE:

DocuSigned by:
Peggy Verdi
EEC8956E9E8345E...

Applicant or Authorized Signature

Peggy Verdi, Manager Finger One, LLC

LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

20 March 2026

HAND DELIVERY

Dr. Edward C. Williams, PP, AICP, CSI
Planning Director/Zoning Officer
Department of Planning and Development
520 Market Street
City Hall, Room 224
Camden, New Jersey 08102

RE: Preliminary and Final Site Plan
Subaru Block 1464, Lot 4 & 5 Vehicle Storage Lot
250 Memorial Avenue, Camden, Camden County, New Jersey 08103
Finger One, LLC One Subaru Drive Camden, NJ 08103

Dear Dr. Williams:

On behalf of Finger One, LLC, Langan Engineering & Environmental Services submits the Preliminary and Final Site Plan Application for Vehicle Storage Lot at the above-referenced premises in the City. Finger One, LLC, the property owner, plans to develop a motor-vehicle storage lot. The project will not increase the number of employees. The purpose of this project is to provide additional fleet vehicle storage for Subaru Headquarters located nearby at One Subaru Drive. The vehicles located on the lot will be new Subaru vehicles that are used for various purposes by Subaru of America (SOA). The vehicles will be managed by SOA staff so the lot will be secure and will not be for general parking use. The property is in the Gateway Redevelopment Area. An Ordinance Amending the Gateway Redevelopment Plan (MC-466) to allow the off-street corporate vehicle storage use was approved by the City Council of the City of Camden on January 2, 2026.

Permit application fees will be provided by Troutman Pepper Locke LLP, the attorney representing Finger One, LLC, under a separate cover letter.

We submit the following materials in support of this request:

1. Checks in the amounts of
    a. $87.30 for the Zoning Permit review fee (under separate cover);
    b. $1,137.58 for the Site plan Application fee (under separate cover);
    c. $3,613.23 for the Site Plan Escrow deposit (under separate cover);
    d. W-9 Tax ID Form;

2. Completed Escrow Deposit Agreement executed by the Applicant; and

3. Fifteen (15) packages of the following materials and information:

    a. Assessment Certification of the Camden Water Office confirming water and sewer payments and of the Camden Tax Collector's Office confirming the property taxes are current for the property;

b. Deed, dated April 3, 2025, for the subject property confirming that the Applicant is the property owner;

c. Completed Zoning Permit Application Form;

d. An Ordinance Amending the Gateway Redevelopment Plan (MC-466) Regarding Tax Block 1464, Lots 4 and 5 on the Camden City Municipal Tax Map, approved January 2, 2026;

e. Completed Site Plan Application Form;

f. Ownership Disclosure for the Applicant;

g. A copy of the certified list of owners of property within 200 feet of the subject property, dated March 19, 2026;

h. Site plans prepared by Langan, dated March 20, 2026;

i. Survey map prepared by Langan, dated July 17, 2024, and last revised April 7, 2025;

j. Electrical Site Plan Lighting Performance by Stantec, dated March 20, 2026;

k. Subaru Lot 4 & 5 Vehicle Storage Lot Planting Plan by Pennsylvania Horticultural Society, dated April 14, 2025;

l. Stormwater Management Report prepared by Langan, dated August 13, 2025, and last revised February 9, 2026;

m. Environmental Impact Assessment by Langan, dated March 20, 2026;

n. Preliminary and Final Checklists; and

o. Photos of the site and the nearby property across from the 11th Street entrance of the subject property.

Should you have any questions or require additional information, please do not hesitate to contact us at 215-845-8924 or kmacgeorge@langan.com.

Sincerely,
Langan Engineering and Environmental Services, Inc.

Kyle MacGeorge, P.E., LEED AP
Associate Principal

Enclosures
cc: Finger One, LLC, Subaru of America, Inc., Troutman Pepper Locke LLP
\\langan.com\data\PH\data3\220140301\Project Data\Correspondence\2024-09-12 - RVE Engineers Response Letter - Subaru HQ Traffic Calming.docx

PRELIMINARY AND FINAL SITE PLAN FOR
SUBARU BLOCK 1464 LOTS 4 AND 5 VEHICLE STORAGE LOT
250 MEMORIAL AVENUE, CAMDEN, CAMDEN COUNTY, NEW JERSEY
BLOCK 1464, LOT 4 AND LOT 5

MAP REFERENCE: MICROSOFT

SITE LOCATION MAP
SCALE: 1" = 500'

MAP REFERENCE: USGS

USGS KEY MAP
SCALE: 1" = 1000'

MAP REFERENCE: CITY OF CAMDEN ZONING MAP

ZONING MAP
SCALE: 1" = 1000'

CIVIL SHEET INDEX			
LAST DATED	SHEET NO.	DRAWING NO.	TITLE
3/20/2026	1	GI001	COVER SHEET
3/20/2026	2	CD101	SITE DEMOLITION PLAN
3/20/2026	3	CS101	SITE PLAN
3/20/2026	4	CS501	SITE DETAILS
3/20/2026	5	CS502	SITE DETAILS
3/20/2026	6	CG101	GRADING & DRAINAGE PLAN
3/20/2026	7	CG201	STORM PROFILES
3/20/2026	8	CG501	GRADING & DRAINAGE DETAILS
3/20/2026	9	CG502	GRADING & DRAINAGE DETAILS
3/20/2026	10	CE101	SOIL EROSION & SEDIMENT CONTROL PLAN
3/20/2026	11	CE501	SOIL EROSION & SEDIMENT CONTROL DETAILS

ADDITIONAL DRAWINGS ENTITLED "ALTA/NSPS LAND TITLE SURVEY", DRAWINGS NO. VL-100 & VL-101 DATED JULY 17, 2024, AND ELECTRICAL SITE PLAN LIGHTING PERFORMANCE, DRAWING NO. E-101 DATED MARCH 20,2026, ATTACHED.

GENERAL NOTES

1. THE CONTRACTOR SHALL FURNISH, INSTALL, TEST AND COMPLETE ALL WORK TO THE SATISFACTION OF THE ENGINEER AND OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION; AS SUCH, THESE PLANS DO NOT COMPLETELY REPRESENT, NOR ARE THEY INTENDED TO REPRESENT, ALL SPECIFIC INSTRUCTIONS REQUIRED FOR SITEWORK CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO CONSTRUCT ALL IMPROVEMENTS DEPICTED ON THESE PLANS IN ACCORDANCE WITH ALL APPLICABLE RULES, REGULATIONS AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION.

2. THE CONTRACTOR SHALL ACCEPT THE SITE AS IS. THE CONTRACTOR SHALL ASSESS CONDITIONS, AND THE KIND, QUALITY AND QUANTITY OF WORK REQUIRED. THE OWNER AND ENGINEER MAKE NO GUARANTEE IN REGARD TO THE ACCURACY OF ANY INFORMATION THAT WAS OBTAINED DURING INVESTIGATIONS. THE CONTRACTOR SHALL MAKE A THOROUGH SITE INSPECTION IN ORDER TO FIELD CHECK EXISTING SITE CONDITIONS; CORRELATE CONDITIONS WITH THE DRAWINGS; AND, RESOLVE ANY POSSIBLE CONSTRUCTION CONFLICTS WITH THE OWNER AND ENGINEER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL PERFORM ADDITIONAL TOPOGRAPHIC SURVEYS HE/SHE DEEMS NECESSARY, PROVIDED THEY ARE COORDINATED WITH THE OWNER. ANY CONDITIONS DETERMINED BY THE CONTRACTOR THAT DIFFER FROM THE INFORMATION SHOWN ON THE DRAWINGS THAT ARE NOT BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER PRIOR TO THE START OF WORK SHALL NOT BE CONSIDERED GROUNDS FOR ADDITIONAL PAYMENT OR CHANGES TO THE CONTRACT DURATION, OR ANY OTHER CLAIMS AGAINST THE OWNER OR OWNER'S ENGINEER.

3. THE CONTRACTOR SHALL, WHEN HE/SHE DEEMS NECESSARY, PROVIDE A WRITTEN REQUEST FOR INFORMATION (RFI) TO THE OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITEWORK ITEM. THE (RFI) SHALL BE IN A FORM ACCEPTABLE TO OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER AND SHALL ALLOW FOR A MINIMUM OF THREE WORK DAYS FOR A WRITTEN REPLY. RFIS SHALL BE NUMBERED CONSECUTIVELY BY DATE SUBMITTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITEWORK ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS DEPICTED ON THE PLANS.

4. INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO BID. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO BID.

5. THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND REQUIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, REVIEW AND ADHERE TO ALL THESE DOCUMENTS.

6. CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ALL CONSTRUCTION STAKEOUT FOR THIS PROJECT MUST BE COMPLETED FROM THE SITE SPECIFIC SURVEY CONTROL (HORIZONTAL AND VERTICAL) UPON WHICH THE DESIGN IS BASED. THE CONTRACTOR SHOULD NOT RELY ON OR RE-ESTABLISH SURVEY CONTROL BY GPS OR OTHER METHODS FOR USE IN CONSTRUCTION STAKEOUT OR ANY OTHER PURPOSE FOR THIS PROJECT. ANY DISCREPANCIES BETWEEN THE EXISTING HORIZONTAL OR VERTICAL DATA SHOWN ON THESE DRAWINGS AND THAT ENCOUNTERED IN THE FIELD MUST BE REPORTED TO THE DESIGN TEAM PRIOR TO CONSTRUCTION FOR RESOLUTION.

200-FOOT PROPERTY OWNERS LIST

OWNER & ADDRESS REPORT

CAMDEN CITY — BLOCK 1464, LOTS 4 & 5 — 03/19/26 Page 1 of 1

BLOCK	LOT	QUAL	BLD	PROPERTY OWNER	PROPERTY LOCATION	Addl Lots
1464	4			22 SUBARU BLVD 08103	ONE SUBARU DRIVE	
1464	5		BLDG	22 SUBARU BLVD 08103	ONE SUBARU DRIVE	
1466	15			CAMPBELL SOUP COMPANY PO BOX 32361 CHARLOTTE, NC 28232	376 MEMORIAL AVE	
1466	15.01			CAMPBELL LEASE GENERAL CORPORATION PO BOX 32361 CHARLOTTE, NC 28232	ONE CAMPBELL PLACE	
1464	4			FINGER ONE, LLC 1 SUBARU DRIVE CAMDEN, NJ 08103	1500 ADMIRAL WILSON BLVD	
1464	4		BLD	FINGER ONE, LLC 1 SUBARU DRIVE CAMDEN, NJ 08103	1500 ADMIRAL WILSON BLVD	
1464	5			FINGER ONE, LLC 1 SUBARU DRIVE CAMDEN, NJ 08103	250 MEMORIAL AVE	
1465	6			NJ DEPT OF TRANSPORTATION PO BOX 600 TRENTON, NJ 08625	1201 ADM WILSON & COOPER	
1468	10			NJ DEPT OF TRANSPORTATION PO BOX 600 TRENTON, NJ 08625	1201 ADM WILSON & COOPER	

VARIANCES AND WAIVERS:

VARIANCES: N/A

WAIVERS: N/A

THE APPLICANT WILL COMPLY WITH THE CITY'S "ORDINANCE FOR ESTABLISHING STANDARDS FOR THE SUBMISSION OF MAPS AND OTHER DOCUMENTS IN A DIGITAL FORMAT." THE APPLICANT SHOULD BE AWARE THAT FINAL SIGNATURES OF APPROVAL AND BUILDING PERMITS WILL NOT BE ISSUED UNTIL THE REQUIRED INFORMATION IS RECEIVED.

THE OWNER, OR HIS REPRESENTATIVE, IS TO DESIGNATE AN INDIVIDUAL RESPONSIBLE FOR CONSTRUCTION SITE SAFETY DURING THE COURSE OF SITE IMPROVEMENTS PURSUANT TO N.J.A.C. 5:23-2.21(e) OF THE N.J. UNIFORM CONSTRUCTION CODE AND CFR 1926.329(f) (OSHA COMPETENT PERSON).

OWNER/APPLICANT:

FINGER ONE, LLC
ONE SUBARU DRIVE
CAMDEN, NJ 08103

CIVIL ENGINEER:

LANGAN ENGINEERING & ENVIRONMENTAL SERVICES, INC.
1 UNIVERSITY SQUARE DRIVE, SUITE 1100
PRINCETON, NJ 08540

NJ CERTIFICATION OF AUTHORIZATION NO:
24GA27996400

APPROVED BY CITY OF CAMDEN PLANNING BOARD
PRELIMINARY & FINAL SITE PLAN

CHAIRMAN OF THE PLANNING BOARD

SECRETARY OF THE PLANNING BOARD

ZONING OFFICER/ADMINISTRATIVE OFFICER

PLANNING BOARD ENGINEER

Date	Description	No.
Revisions		

STATE OF NEW JERSEY — No. 24GE05751600 — PROFESSIONAL ENGINEER

Digitally signed by Kyle J. MacGeorge
DN: CN=Kyle J. MacGeorge, O=Langan Engineering and Environmental Services, L=Princeton, S=New Jersey, C=US
Reason: I have reviewed this document
Date: 2026.03.20 10:47:15-04'00'

Signature — Date

KYLE J. MACGEORGE, P.E.
PROFESSIONAL ENGINEER NJ LIC. NO. 24GE05751600

LANGAN
Langan Engineering and Environmental Services, LLC
1 University Square Drive, Suite 110
Princeton, NJ 08540
T: 609.282.8000 F: 609.282.8001 www.langan.com
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project: SUBARU BLOCK 1464 LOTS 4 AND 5 VEHICLE STORAGE LOT
CAMDEN COUNTY — CAMDEN — NEW JERSEY

Drawing Title: COVER SHEET

Project No.: 220132401
Date: 3/20/2026
Drawn By: JL
Checked By: JCW

Drawing No.: GI001
Sheet 1 of 11

© 2026 Langan

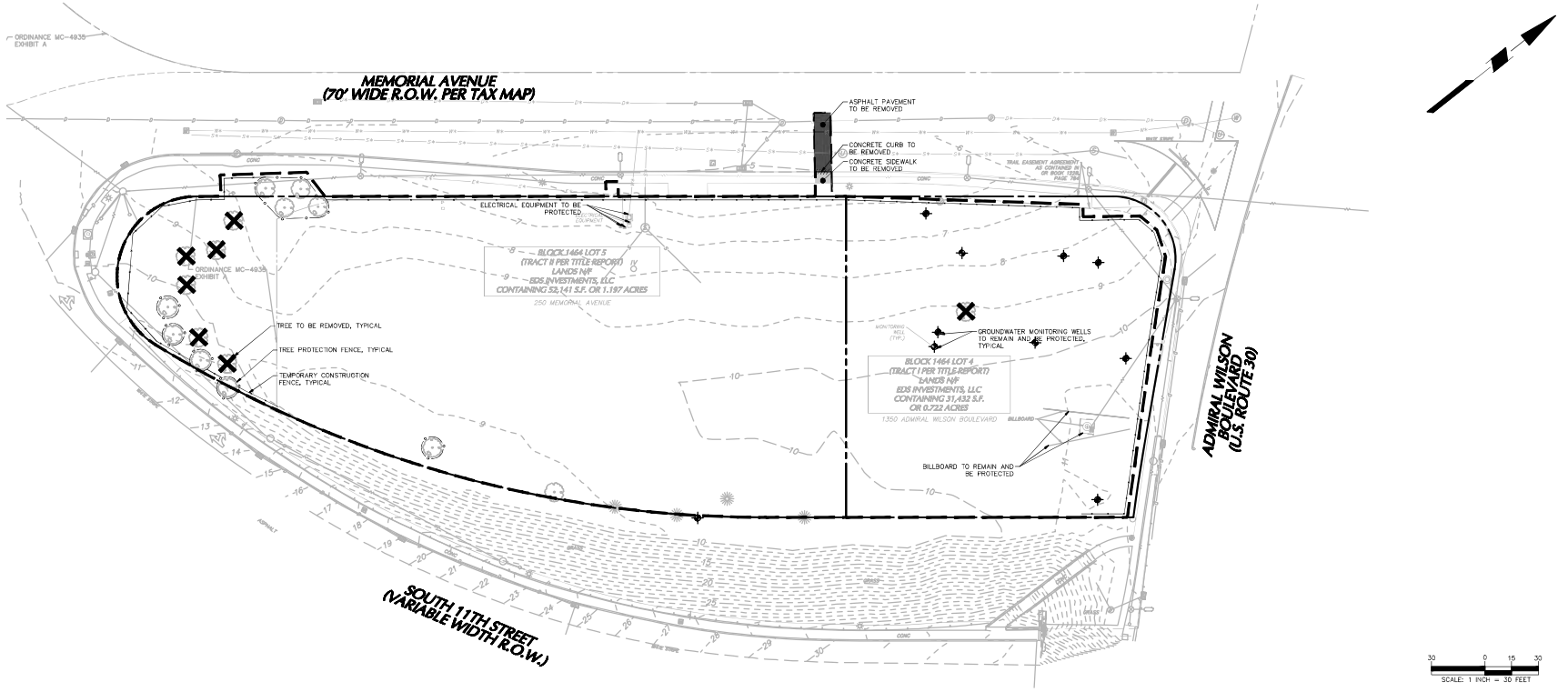
Date: 3/20/2026 Time: 10:43 User: jlees Style Table: Langan.stb Layout: GI001 Document Code: 220132401-GI001-GI001-0101

LEGEND

- LIMIT OF DISTURBANCE
- PROPERTY LINE
- FEMA FLOOD HAZARD AREA BOUNDARY
- CURB DEMOLITION
- PAVEMENT SAWCUT LINE
- TREE PROTECTION FENCE
- TEMPORARY CONSTRUCTION FENCE
- EXISTING FEATURE TO BE REMOVED
- ASPHALT REMOVAL
- CONCRETE REMOVAL
- COLUMN
- MONITORING WELL
- SIGN
- TREE
- CATCH BASIN
- ELECTRIC BOX
- ELECTRIC METER
- METAL COVER
- FIRE HYDRANT
- INDICATOR VALVE
- COMMUNICATION BOX
- GAS VALVE
- LIGHT POLE
- MANHOLE (TYPE AS LABELED)
- POWER POLE
- GUY WIRE
- TRAFFIC SIGNAL
- TRAFFIC SIGNAL STRUCTURE
- VALVE UNKNOWN
- WATER VALVE
- CONC — CONCRETE
- CIP — CAST IRON PIPE
- HDPE — HIGH-DENSITY POLYETHYLENE PIPE
- RCP — REINFORCED CONCRETE PIPE
- X 262.3 — SPOT ELEVATION
- –10– — CONTOUR LINE
- OVERHEAD WIRE
- STORM DRAIN LINE
- SANITARY LINE
- REFERENCE STORM DRAIN LINE
- REFERENCE SANITARY LINE
- REFERENCE WATER LINE
- REFERENCE ELECTRIC LINE
- GUARD RAIL

SITE DEMOLITION NOTES

1. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO THEIR SATISFACTION PRIOR TO THE EXECUTION OF CONTRACTS OR COMMENCING WORK. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER OF RECORD.
2. THE CONTRACTOR SHALL DEMOLISH ALL BUILDINGS, PAVEMENT, ETC WHERE INDICATED WITHIN THE LIMIT OF DISTURBANCE. EDGES OF PAVEMENT DEMOLITION SHALL BE SAW CUT. ALL DEMOLITION AND MATERIAL REUSE SHALL BE IN ACCORDANCE WITH THE MATERIAL MANAGEMENT PLAN REQUIREMENTS FOR THE SITE. THE CONTRACTOR SHALL REFER TO THE LICENSED STATE REMEDIATION PROFESSIONAL OF RECORD FOR THE SITE REGARDING MATERIAL REUSE.
3. THE CONTRACTOR MUST ACCEPT THE SITE AS IS AND SHALL BE DEEMED TO HAVE INSPECTED THE SITE AND REVIEWED ALL CONTRACT DOCUMENTS PRIOR TO SUBMITTING A BID. THE CONTRACTOR SHALL INSPECT THE SITE THOROUGHLY AND FIELD VERIFY THE LOCATION AND DEPTH OF ALL APPLICABLE EXISTING UTILITIES. SOME UNDERGROUND UTILITIES MAY BE LOCATED DIFFERENT THAN SHOWN ON THIS PLAN. ALL CONTRACTORS USING THESE PLANS FOR DEMOLITION OR CONSTRUCTION SHALL CONFIRM ALL UTILITIES IN THE FIELD TO ESTABLISH LOCATIONS, SIZES, MATERIALS, AND ELEVATIONS. ANY DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND THE CONSTRUCTION MANAGER. CONTRACTOR SHALL PROTECT AND MAINTAIN UTILITIES AS NOTED.
4. THE CONTRACTOR SHALL CARRY OUT THE WORK OF THIS CONTRACT PLACING THE SAFETY AND PROTECTION OF THE SURROUNDING COMMUNITY AND PROPERTY AT THE HIGHEST PRIORITY. THE CONTRACTOR SHALL PROVIDE FOR FREE AND SAFE PASSAGE OF PERSONS AROUND THE AREA OF THE DEMOLITION AS DIRECTED BY THE GOVERNING AGENCIES AND THE OWNER. ALL OPERATIONS SHALL BE CONDUCTED SO AS TO PREVENT DAMAGE TO ADJACENT BUILDINGS, STRUCTURES, AND OTHER FACILITIES AND INJURY TO PERSONS, BOTH PEDESTRIAN AND WORKERS ALIKE. THE CONSULTANT DOES NOT HAVE THE RIGHT TO STOP DEMOLITION ACTIVITIES. SUCH DIRECTION MUST COME FROM THE OWNER.
5. THE CONTRACTOR SHALL INSTALL AND MAINTAIN CONSTRUCTION SIGNAGE AND ASSOCIATED TRAFFIC MEASURES. THE CONTRACTOR SHALL FOLLOW THE WORK ZONE SAFETY GUIDELINES FOR CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS REQUIRED BY LOCAL JURISDICTION.
6. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAINTAINING THE SECURITY OF THE PROJECT SITE AT ALL TIMES.
7. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL UTILITIES, WHETHER SHOWN OR NOT ON THE CONTRACT DRAWING, AND SHALL ABANDON, REMOVE, OR PROTECT THE UTILITIES AS INDICATED HEREON OR AS DIRECTED BY THE OWNER, SUBCONSULTANT, OR INTERESTED UTILITY COMPANY.
8. THE CONTRACTOR SHALL VERIFY THAT A SOIL EROSION AND SEDIMENT CONTROL PERMIT HAS BEEN OBTAINED FOR DEMOLITION ACTIVITIES. CONTRACTOR SHALL COMPLY WITH THE CONDITIONS THEREON BY INSTALLING AND MAINTAINING ALL SESC MEASURES AND MAKING THE REQUIRED NOTIFICATIONS.
9. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL VERIFY THAT THE UTILITY SERVICES TO BE DEMOLISHED WILL NOT AFFECT OTHER SERVICES OUTSIDE THE CONTRACT LIMIT.
10. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL DISCONNECT AND CAP/TERMINATE AT THE UTILITY MAIN ALL BUILDING SERVICES, E.G. WATER, SEWER, GAS, ELECTRIC, TELEPHONE, ETC. (UNLESS OTHERWISE NOTED) IN ACCORDANCE WITH ALL LOCAL REGULATIONS AND UTILITY COMPANY REQUIREMENTS. THIS WORK SHALL INCLUDE COORDINATION WITH UTILITY COMPANIES AND OBTAINING AND PAYING FEES FOR ALL STREET AND SIDEWALK OPENING PERMITS.
11. ALL EXISTING SITE ELEMENTS SLATED FOR DEMOLITION SHALL BE REMOVED IN THEIR ENTIRETY INCLUDING, BUT NOT LIMITED TO, ASPHALT, BUSHES, TREES, PLANTERS, ETC. WITHIN THE CONTRACT LIMITS UNLESS OTHERWISE NOTED.
12. CONTRACTOR TO VERIFY THAT ALL ENVIRONMENTAL CONCERNS (ASBESTOS, LEAD BASED PAINT, HAZMAT MATERIALS, UNDERGROUND STORAGE TANKS, TRANSFORMERS, ETC.) HAVE BEEN REMOVED PRIOR TO COMMENCEMENT OF DEMOLITION ACTIVITIES. THESE POTENTIAL CONCERNS ARE NOT SHOWN ON THIS PLAN. THE CONTRACTOR SHALL REFER TO THE ENVIRONMENTAL REPORTS AND DOCUMENTS FOR ENVIRONMENTAL CONCERN LOCATIONS AND DISPOSAL PROCEDURES.
13. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL ADJACENT RIGHT-OF-WAYS AND ADJACENT PROPERTIES CLEAN DURING DEMOLITION.
14. CONTRACTOR SHALL STOCKPILE REMOVED ASPHALT AND CONCRETE IN SEPARATE PILES. REMOVED MATERIAL MAY BE REUSED IN ACCORDANCE WITH THE MATERIAL MANAGEMENT PLAN REQUIREMENTS. THE CONTRACTOR SHALL REFER TO THE LICENSED STATE REMEDIATION PROFESSIONAL OF RECORD FOR THE SITE REGARDING MATERIAL REUSE.
15. CONTRACTOR TO PROVIDE DUST CONTROL MEASURES DURING DEMOLITION AND CONSTRUCTION ACTIVITIES.
16. CONTRACTOR TO WASH TRUCK TIRES BEFORE EXITING THE CONSTRUCTION SITE.
17. EXISTING GROUNDWATER MONITORING WELLS TO BE PROTECTED DURING CONSTRUCTION PER THE OWNER'S LSRP'S DIRECTIONS.
18. PER CITY ORDINANCE ALL UTILITY SERVICES TO BE ABANDONED ARE TO BE DISCONNECTED AT THE MAIN AND REMOVED FROM THE GROUND.



Date	Description	No.
Revisions		

Signature Date
KYLE J. MACGEORGE, P.E.
PROFESSIONAL ENGINEER NJ LIC. NO. 24GE05751600

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NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project
SUBARU BLOCK 1464 LOTS 4 AND 5 VEHICLE STORAGE LOT
CAMDEN COUNTY CAMDEN NEW JERSEY

Drawing Title
SITE DEMOLITION PLAN

Project No.	Drawing No.
220132401	CD101
Date: 3/20/2026	
Drawn By: JJL	
Checked By: JCW	
Sheet 2 of 11	

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Date: 3/19/2026 Time: 11:38 User: cwickware Style Table: Langan.stb Layout: CD101 Document Code: 220132401-0501-CD101-0101

LEGEND

- PROPERTY LINE
- PROPOSED FEMA FLOOD HAZARD AREA BOUNDARY
- 300' RIPARIAN BUFFER ZONE
- CURB
- DEPRESSED CURB
- PAVEMENT SAWCUT LINE
- SECURITY FENCE
- SIGN
- SLIDE GATE TRACKS
- SLIDE GATE MOTOR
- PROPOSED LANDSCAPE
- CONCRETE
- STANDARD DUTY ASPHALT
- POROUS ASPHALT
- STORMWATER BASIN
- DETECTABLE WARNING SURFACE
- *EXISTING LANDSCAPE*
- BM#4 EL.=11.85 *PERMANENT BENCHMARK*
- *COLUMN*
- *MONITORING WELL*
- *SIGN*
- *TREE*
- *CATCH BASIN*
- *ELECTRIC BOX*
- *ELECTRIC METER*
- *METAL COVER*
- *FIRE HYDRANT*
- *INDICATOR VALVE*
- *COMMUNICATION BOX*
- *GAS VALVE*
- *LIGHT POLE*
- *MANHOLE (TYPE AS LABELED)*
- *POWER POLE*
- *GUY WIRE*
- *TRAFFIC SIGNAL*
- *TRAFFIC SIGNAL STRUCTURE*
- *VALVE UNKNOWN*
- *WATER VALVE*
- CONC *CONCRETE*
- *GUARD RAIL*

SITE NOTES

1. OWNER/APPLICANT: FINGER ONE, LLC
   ONE SUBARU DRIVE
   CAMDEN, NJ 08103
2. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO THEIR SATISFACTION PRIOR TO THE EXECUTION OF CONTRACTS OR COMMENCING WORK. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER OF RECORD.
3. AS PER THE NATIONAL FLOOD INSURANCE PROGRAM (FIRM) MAP TITLED "CAMDEN COUNTY, NEW JERSEY (ALL JURISDICTIONS), PANEL 28 OF 305, MAP NUMBER 34007C0028F," WITH AN EFFECTIVE DATE OF AUGUST 17, 2016, THE SUBJECT PANEL IS LOCATED IN ZONE X, OTHER AREAS, DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
4. ALL CURBS TO BE 6 INCHES UNLESS OTHERWISE SPECIFIED.
5. ALL REGULATORY SIGNS AND TRAFFIC MARKINGS SHALL COMPLY WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
6. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN IS BASED ON A FIELD SURVEY PERFORMED BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES DURING JUNE 2024.
7. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM NAD83 (2011) OBTAINED USING GPS OBSERVATIONS.
8. ELEVATIONS SHOWN ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). TO CONVERT TO NGVD, ADD 1.125 FEET.

STRIPING AND SIGNAGE NOTES

1. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO THEIR SATISFACTION PRIOR TO THE EXECUTION OF CONTRACTS OR COMMENCING WORK. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER OF RECORD.
2. ALL SIGNAGE, STRIPING, AND OTHER TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN CONFORMANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
3. ALL STRIPING SHALL BE LONG LIFE EPOXY RESIN AND 4 INCH WIDE UNLESS OTHERWISE NOTED ALL PAVEMENT GRAPHICS SHALL BE HOT-APPLIED THERMOPLASTIC (REFLECTIVE).
4. ALL PROPOSED SIGNAGE AND STRIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE TENANT REQUIREMENTS.
5. FINAL QUANTITIES SHALL BE COORDINATED AND VERIFIED IN THE FIELD.
6. MOUNT SIGNAGE ACCORDING TO LOCAL CODES.
7. AS-16 AND MONUMENT WAYFINDING SIGNS HAVE BEEN LOCATED WITH THEIR ANTICIPATED SIZES IDENTIFIED. DETAILS FOR WAYFINDING SPECIFICS REGARDING DIRECTION AND LOCATION WILL BE PROVIDED TO PLANNING BOARD ENGINEER FOR REVIEW ONCE COORDINATED WITH TENANT.

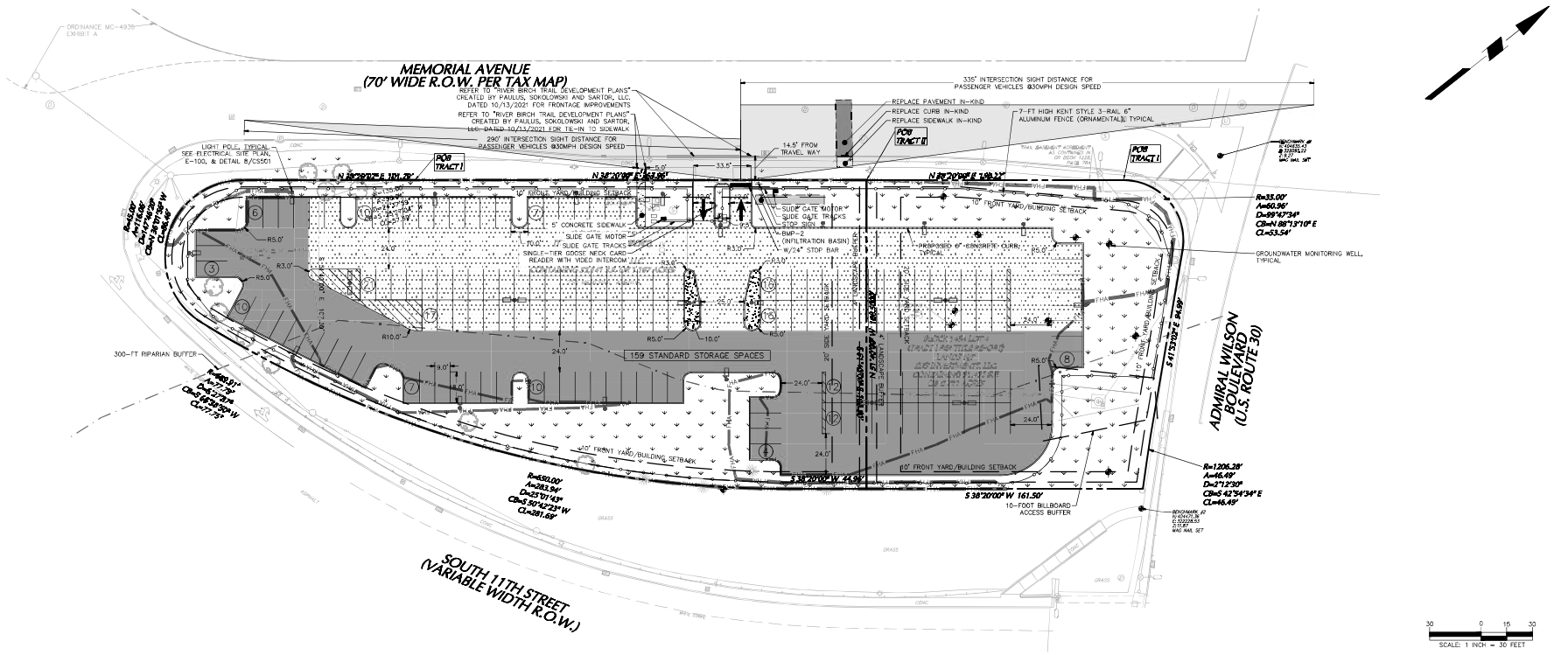
ALL PROPOSED CURBS SHALL BE 6" REVEAL CITY OF CAMDEN VERTICAL CURB, UNLESS OTHERWISE NOTED, REGARDLESS OF WIDTH FROM FACE OF CURB TO BACK OF CURB SHOWN ON PLAN.

CITY OF CAMDEN ZONING TABLE

ZONING DISTRICT: OLI - Office Light Industrial Zone [1]
Gateway Redevelopment Plan [2]

ITEM	PERMITTED/REQUIRED	PROPOSED
Land Use		
Principal Use	Off-street corporate vehicle storage	Off-street corporate vehicle storage
Lot Area		Lot 4: 31,432 SF (0.722 AC) Lot 5: 52,141 SF (1.197 AC) Ord MC-4935: 8,360 SF (0.192 AC)
Min. Lot Area	40,000 SF (0.92 AC)	
Min. Lot Frontage	200 FT	>200 FT
Building Setbacks		
Min. Front	10 FT	N/A
Min. Side	20 FT	N/A
Min. Rear	30 FT	N/A
Building Height/Stories	4 Stories or 45 FT	N/A
Maximum Lot Building Coverage	80%	0.20%
Maximum Lot Impervious Coverage	90%	65.0%
Minimum Yards		
Min. Front yard	10 FT	10 FT
Min. Side Yard	20 FT	N/A
Min. Rear Yard	30 FT	N/A
Fence Height[2] (§870-197.E & §870-197.Y do not apply)	7 FT	7 FT
Lighting	LED Lights	LED Lights
Car Storage Space Size		
Standard Space Size	9 FT x 18 FT	9 FT x 18 FT
Car Parking Spaces		
Min. Aisle Width	24 FT	24 FT
Minimum Number of Spaces[2] (§ 870-230, §870-132, §870.234, §F Site Design Controls do not apply)	No Minimum	159 Spaces

(1) All data is referenced from the Land Development Ordinance of the City of Camden, dated December 2009.
(2) Site is in accordance with the Amendment to Gateway Redevelopment Plan approved January, 2, 2026.



Date	Description	No.
	Revisions	

Signature Date
KYLE J. MACGEORGE, P.E.
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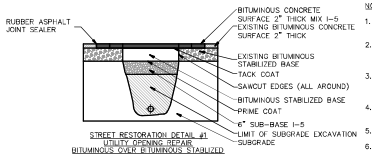
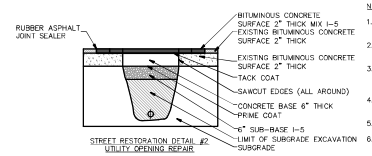
Date: 3/20/2026 Time: 14:39 User: cwickware Style Table: Langan.stb Layout: CS101 Document Code: 220132401-001-CS101-101



STREET RESTORATION DETAIL #1
UTILITY OPENING REPAIR
BITUMINOUS OVER BITUMINOUS STABILIZED

NOTES:

1. PROTECT SUBGRADES AND FOUNDATION SOILS FROM SOFTENING AND DAMAGE BY WATER, FREEZING TEMPERATURES OR FROST.
2. EXCAVATE TO SUBGRADE ELEVATIONS REGARDLESS OF CHARACTER OF MATERIALS AND OBSTRUCTIONS ENCOUNTERED. TAMP SUBGRADE PRIOR TO PLACEMENT OF RESTORATION MATERIALS.
3. BOX OUT EXISTING OPENINGS AS INDICATED ON DETAIL. SAW CUT EXISTING UTILITY STREET OPENING USING LONGITUDINAL AND TRAVERSE CUTS TO PROVIDE A NEAT EDGE AND SEAL JOINTS AS INDICATED.
4. PLACE EACH MATERIAL AT DEPTH AND THICKNESS INDICATED. COMPACT EACH LAYER BY MEANS OF TAMPING.
5. GRADE AREAS TO A SMOOTH SURFACE TO BLEND INTO EXISTING GRADES.
6. UNDER PAVEMENTS AND WALKWAYS, PLACE SUB-BASE COURSE MATERIAL ON PREPARED SUBGRADES AS INDICATED OR DIRECTED BY ENGINEER AND COMPACT BY TAMPING TO REQUIRED THICKNESSES.
7. REMOVE SURPLUS SATISFACTORY SOIL AND WASTE MATERIAL INCLUDING UNSATISFACTORY SOIL, TRASH, AND DEBRIS TO DESIGNATED ON-SITE STAGING AREA FOR MANAGEMENT BY SUBARU IN COORDINATION WITH THE PROJECT LICENSED SITE REMEDIATION PROFESSIONAL OF RECORD.
8. BACKFILL MATERIAL, INCLUDING BASE COURSE AND STONE COURSE, MUST MEET REQUIREMENTS OF NJDEP CLEAN FILL, INCLUDING APPROVAL BY SITE LSRP.

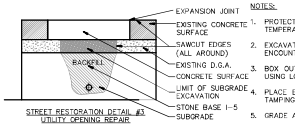


STREET RESTORATION DETAIL #2
UTILITY OPENING REPAIR

NOTES:

1. PROTECT SUBGRADES AND FOUNDATION SOILS FROM SOFTENING AND DAMAGE BY WATER, FREEZING TEMPERATURES OR FROST.
2. EXCAVATE TO SUBGRADE ELEVATIONS REGARDLESS OF CHARACTER OF MATERIALS AND OBSTRUCTIONS ENCOUNTERED. TAMP SUBGRADE PRIOR TO PLACEMENT OF RESTORATION MATERIALS.
3. BOX OUT EXISTING OPENINGS AS INDICATED ON DETAIL. SAW CUT EXISTING UTILITY STREET OPENING USING LONGITUDINAL AND TRAVERSE CUTS TO PROVIDE A NEAT EDGE AND SEAL JOINTS AS INDICATED.
4. PLACE EACH MATERIAL AT DEPTH AND THICKNESS INDICATED. COMPACT EACH LAYER BY MEANS OF TAMPING.
5. GRADE AREAS TO A SMOOTH SURFACE TO BLEND INTO EXISTING GRADES.
6. UNDER PAVEMENTS AND WALKWAYS, PLACE SUB-BASE COURSE MATERIAL ON PREPARED SUBGRADES AS INDICATED OR DIRECTED BY ENGINEER AND COMPACT BY TAMPING TO REQUIRED THICKNESSES.
7. REMOVE SURPLUS SATISFACTORY SOIL AND WASTE MATERIAL INCLUDING UNSATISFACTORY SOIL, TRASH, AND DEBRIS TO DESIGNATED ON-SITE STAGING AREA FOR MANAGEMENT BY SUBARU IN COORDINATION WITH THE PROJECT LICENSED SITE REMEDIATION PROFESSIONAL OF RECORD.
8. BACKFILL MATERIAL, INCLUDING BASE COURSE AND STONE COURSE, MUST MEET REQUIREMENTS OF NJDEP CLEAN FILL, INCLUDING APPROVAL BY SITE LSRP.

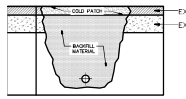
1 STREET RESTORATION DETAILS (CONTRACTOR TO FOLLOW DETAIL THAT APPLIES TO CONDITION FOUND ON SITE WHEN UTILITY TRENCHING OCCURS)
NOT TO SCALE



STREET RESTORATION DETAIL #3
UTILITY OPENING REPAIR

NOTES:

1. PROTECT SUBGRADES AND FOUNDATION SOILS FROM SOFTENING AND DAMAGE BY WATER, FREEZING TEMPERATURES OR FROST.
2. EXCAVATE TO SUBGRADE ELEVATIONS REGARDLESS OF CHARACTER OF MATERIALS AND OBSTRUCTIONS ENCOUNTERED. TAMP SUBGRADE PRIOR TO PLACEMENT OF RESTORATION MATERIALS.
3. BOX OUT EXISTING OPENINGS AS INDICATED ON DETAIL. SAW CUT EXISTING UTILITY STREET OPENING USING LONGITUDINAL AND TRAVERSE CUTS TO PROVIDE A NEAT EDGE AND SEAL JOINTS AS INDICATED.
4. PLACE EACH MATERIAL AT DEPTH AND THICKNESS INDICATED. COMPACT EACH LAYER BY MEANS OF TAMPING.
5. GRADE AREAS TO A SMOOTH SURFACE TO BLEND INTO EXISTING GRADES.
6. UNDER PAVEMENTS AND WALKWAYS, PLACE SUB-BASE COURSE MATERIAL ON PREPARED SUBGRADES AS INDICATED OR DIRECTED BY ENGINEER AND COMPACT BY TAMPING TO REQUIRED THICKNESSES.
7. REMOVE SURPLUS SATISFACTORY SOIL AND WASTE MATERIAL INCLUDING UNSATISFACTORY SOIL, TRASH, AND DEBRIS TO DESIGNATED ON-SITE STAGING AREA FOR MANAGEMENT BY SUBARU IN COORDINATION WITH THE PROJECT LICENSED SITE REMEDIATION PROFESSIONAL OF RECORD.
8. BACKFILL MATERIAL, INCLUDING BASE COURSE AND STONE COURSE, MUST MEET REQUIREMENTS OF NJDEP CLEAN FILL, INCLUDING APPROVAL BY SITE LSRP.



STREET RESTORATION DETAIL #4
TYPICAL UTILITY OPENING (TEMPORARY) CONCRETE SURFACE OVER STONE BASE

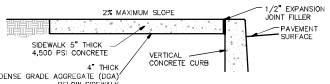
CITY OF CAMDEN
DIVISION OF CAPITAL IMPROVEMENTS AND CONSTRUCTION MANAGEMENT
CAMDEN COUNTY, NEW JERSEY

NOTES:

1. UTILITY TRENCHES: EXCAVATE TRENCHES TO INDICATED SLOPES, LINE DEPTHS AND INVERT ELEVATIONS. MAINTAIN 12 INCHES (300 mm) OF WORKING CLEARENCE ON EACH SIDE OF PIPE OR CONDUIT.
2. PLACE, COMPACT AND SHAPE BEDDING COURSE TO PROVIDE CONTINUOUS SUPPORT FOR PIPES AND CONDUITS OVER ROCK AND OTHER UNYIELDING BEARING SURFACES AND TO FILL UNAUTHORIZED EXCAVATIONS.
3. PLACE AND COMPACT INITIAL BACKFILL OF SATISFACTORY SOIL MATERIAL OR SUBBASE MATERIAL, FREE OF PARTICLES LARGER THAN 1 INCH (25 mm) TO A HEIGHT OF 12 INCHES (300 mm) OVER THE UTILITY PIPE OR CONDUIT. PLACE AND COMPACT FINAL BACKFILL OF SATISFACTORY SOIL MATERIAL TO FINAL SUBGRADE.
4. PROVIDE TEMPORARY BITUMINOUS PATCH
5. CHECK PATCHED AREA ROUTINELY FOR ANY SIGNS OF SETTLEMENT, REPAIR AS NEEDED.

2 ON-SITE ASPHALT PAVEMENT
NOT TO SCALE

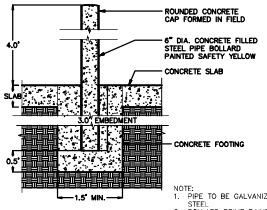
CITY OF CAMDEN
DIVISION OF CAPITAL IMPROVEMENTS AND CONSTRUCTION MANAGEMENT
CAMDEN COUNTY, NEW JERSEY



NOTES:

1. CONCRETE MUST BE PORTLAND CEMENT CONCRETE, AIR-ENTRAINED, CONFORM TO THE NJDOT STANDARD SPECIFICATIONS FOR CLASS B CONCRETE, AND MUST HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AFTER 28 DAYS.

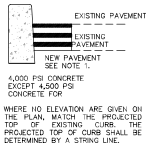
3 SIDEWALK AND VERTICAL CONCRETE CURB
NOT TO SCALE



NOTE:
1. PIPE TO BE GALVANIZED STEEL.
2. BOLLARD PRIME PAINTED WITH SAFETY YELLOW PLASTIC SLEEVE

4 STEEL BOLLARD
NOT TO SCALE

CITY OF CAMDEN
DIVISION OF CAPITAL IMPROVEMENTS AND CONSTRUCTION MANAGEMENT
CAMDEN COUNTY, NEW JERSEY

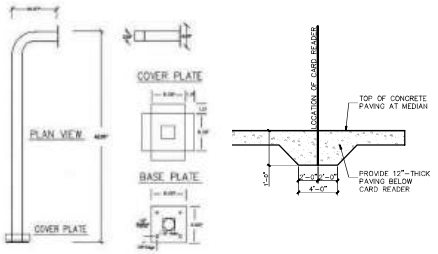


* WHERE NO ELEVATION ARE GIVEN ON THE PLAN, MATCH THE PROJECTED TOP OF EXISTING CURB. THE PROJECTED TOP OF CURB SHALL BE DETERMINED BY A STRING LINE.

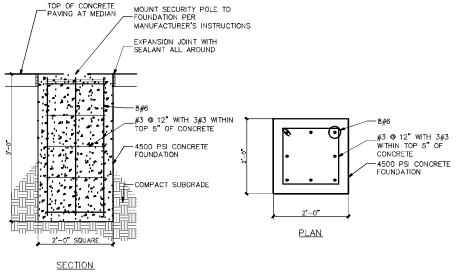
NOTES:

1. WHEN NEW CURB IS CONSTRUCTED ALONG AN EXISTING PAVED AREA, THE EXISTING PAVEMENT SHALL BE CUT IN A STRAIGHT LINE PARALLEL TO FACE OF NEW CURB WITH A SHARP TOOL AND THE NEW PAVEMENT SHALL BE TACKED AND BUTTED TO EXISTING PAVEMENT.
2. EXPANSION JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20' APART AND FILLED WITH CELLULAR COMPRESSION MATERIAL AS SPECIFIED AND RECESSED 1/4" FROM FACE AND TOP OF CURB. EXPANSION JOINTS TO BE INCLUDED IN PRICE BID FOR CURB. CONSTRUCTION JOINT SHALL BE MID-POINT BETWEEN EXP. JOINTS.

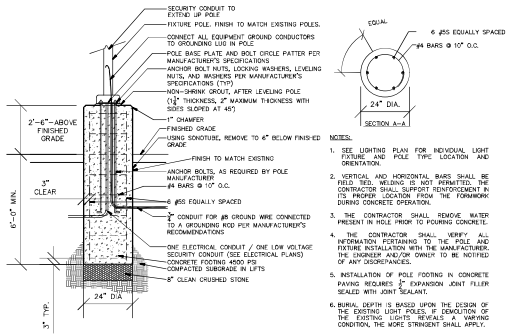
5 7"x8"x18" VERTICAL CONCRETE CURB
NOT TO SCALE



6 SINGLE-TIER GOOSE NECK CARD READER WITH VIDEO INTERCOM
NOT TO SCALE



7 SECURITY POLE FOUNDATION DETAIL
NOT TO SCALE



NOTES:

1. SEE LIGHTING PLAN FOR INDIVIDUAL LIGHT FIXTURE AND POLE TYPE LOCATION AND ORIENTATION.
2. VERTICAL AND HORIZONTAL BARS SHALL BE FIELD TIED. WELDING IS NOT PERMITTED. THE CONTRACTOR SHALL SUPPORT REINFORCEMENT IN THE PROPER LOCATION DURING THE FORMWORK DURING CONCRETE OPERATION.
3. THE CONTRACTOR SHALL REMOVE WATER PRESENT IN HOLE PRIOR TO POURING CONCRETE.
4. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PERTAINING TO THE POLE AND FIXTURE INSTALLATION WITH THE MANUFACTURER. THE ENGINEER AND/OR OWNER TO BE NOTIFIED OF ANY DISCREPANCIES.
5. INSTALLATION OF POLE FOOTING IN CONCRETE PAVING REQUIRES 1" EXPANSION JOINT FILLER SEALED WITH JOINT SEALANT.
6. BURIAL DEPTH IS BASED UPON THE DESIGN OF THE EXISTING LIGHT POLES. IF DEMOLITION OF THE EXISTING LIGHTS REVEALS A VARYING CONDITION, THE MORE STRINGENT SHALL APPLY.

8 LIGHT POLE FOUNDATION DETAIL
NOT TO SCALE

ALL SITEWORK CONSTRUCTION AND DETAILS TO CONFORM TO THE STANDARDS OF THE CITY OF CAMDEN.

Date	Description	No.
	Revisions	

Signature Date
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PROFESSIONAL ENGINEER NJ LIC. NO. 24GE05751600

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NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project
SUBARU BLOCK 1464 LOTS 4 AND 5 VEHICLE STORAGE LOT
CAMDEN COUNTY — CAMDEN — NEW JERSEY

Drawing Title
SITE DETAILS

Project No.	220132401
Date	3/20/2026
Drawn By	JJL
Checked By	JCW

Drawing No. CS501
Sheet 4 of 11

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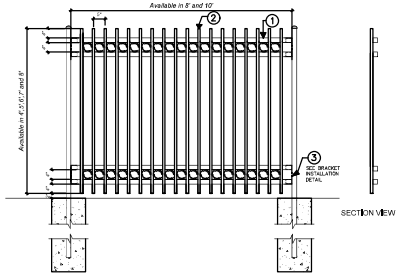
Date: 3/19/2026 Time: 11:39 User: owiloware Style Table: Langan.stb Layout: CS501 Document Code: 220132401-0501-CS501-101

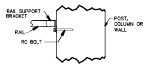
ALL SITEWORK CONSTRUCTION AND DETAILS TO CONFORM TO THE STANDARDS OF THE CITY OF CAMDEN.



SECTION VIEW

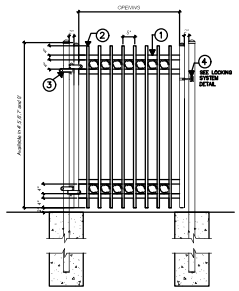
MATERIALS DESCRIPTION
1. 2" 14GA SQUARE FRAME
2. 1" 16GA SQUARE TUBING PICKET
3. 2" RAIL MOUNTING BRACKET

NOTES:
1. DESIGN AND SPECIFICATIONS SUBJECT TO CHANGE BY MANUFACTURER.
2. POSTS AND FOOTINGS - AS REQUIRED BY SITE CONDITIONS AND LOCAL CODES.



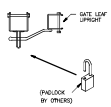
BRACKET INSTALLATION DETAIL

1 MERCHANTS METALS - KENT STYLE 3-RAIL 6" ALUMINUM FENCE PANEL
NOT TO SCALE



SECTION VIEW

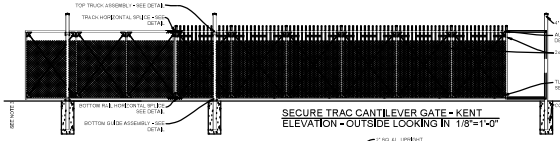
MATERIALS DESCRIPTION
1. 2" 14GA SQUARE FRAME
2. 1" 16GA SQUARE TUBING PICKET
3. GATE HINGES (MALE AND FEMALE)
4. LATCH STRIKER & RECEIVER



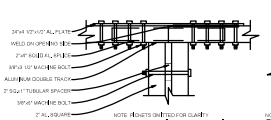
NOTES:
1. DESIGN AND SPECIFICATIONS SUBJECT TO CHANGE BY MANUFACTURER.
2. POSTS AND FOOTINGS - AS REQUIRED BY SITE CONDITIONS AND LOCAL CODES.
3. GATE HARDWARE SOLD SEPARATELY.

2 MERCHANTS METALS - KENT STYLE 3-RAIL 6" ALUMINUM FENCE GATE
NOT TO SCALE

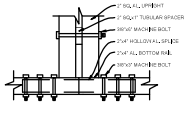
SECURE TRAC CANTILEVER GATE - KENT
PLAN 1/8"=1'-0"



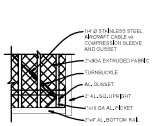
SECURE TRAC CANTILEVER GATE - KENT
ELEVATION - OUTSIDE LOOKING IN 1/8"=1'-0"



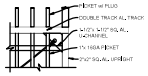
TRACK HORIZONTAL SPLICE
DETAIL 1"=1'-0"



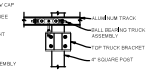
BOTTOM RAIL HORIZONTAL SPLICE
DETAIL 1"=1'-0"



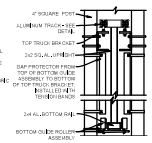
TURNBUCKLE ASSEMBLY
DETAIL 1/2"=1'-0"



RAIL
DETAIL 1/2"=1'-0"



TOP TRUCK ASSEMBLY
DETAIL 1/2"=1'-0"



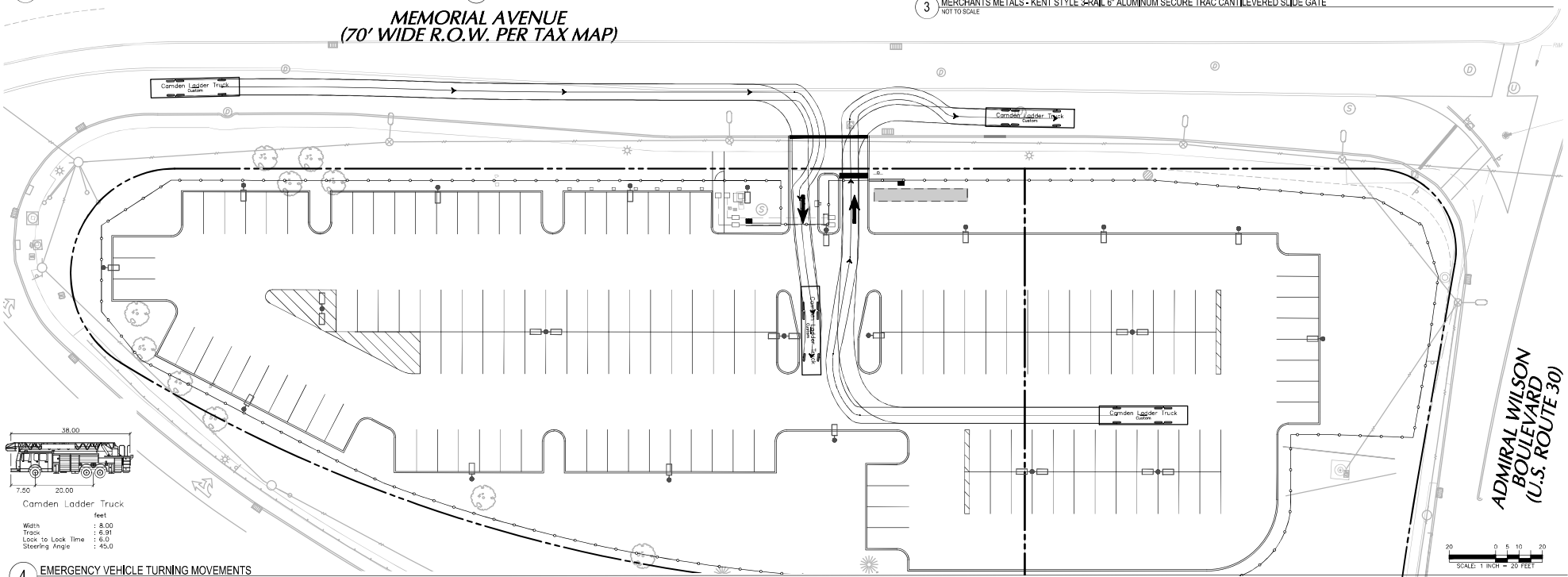
BOTTOM GUIDE ASSEMBLY
DETAIL 1/2"=1'-0"

NOTES:
1. SPECIFICATIONS SHOWN CAN BE CHANGED BY THE MANUFACTURER ONLY.
2. ALL COMPONENTS OF THE GATE TO BE COATED BLACK. OTHER COLORS AVAILABLE.
3. VERIFY POST DEPTH AND FOOTING DIMENSIONS WITH LOCAL CODES AND SITE CONDITIONS.
4. CUSTOM DIMENSIONS ARE AVAILABLE UPON REQUEST.
5. OUTSIDE LOOKING IN. GATE LATCHES ON _____ (RIGHT AS SHOWN).
6. GATE OPENINGS OVER 40' WILL REQUIRE ADDITIONAL SUPPORT.
7. OPENINGS OVER 30' REQUIRE A FIELD SPLICE AND DOUBLE TRACK (AS SHOWN). GATE OPENINGS 30' OR LESS DO NOT REQUIRE A FIELD SPLICE AND ONLY REQUIRE A SINGLE ALUMINUM TRACK AND 2 SUPPORT POSTS.

OPENING INSIDE FACE OF POST TO INSIDE FACE OF POST	COUNTERBALANCE OUTSIDE FACE OF POST TO OUTSIDE FACE OF POST
10'-0"	12'-0"
11'-0" - 14'-0"	17'-0"
15'-0" - 22'-0"	10'-0"
23'-0" - 30'-0"	12'-0"
31'-0" - 40'-0"	15'-0"
41'-0" - 50'-0"	20'-0"

ADD 4" TO COUNTER BALANCE AND OPENING FOR OVERALL LENGTH OF GATE.

3 MERCHANTS METALS - KENT STYLE 3-RAIL 6" ALUMINUM SECURE TRAC CANTILEVERED SLIDE GATE
NOT TO SCALE



Camden Ladder Truck

	feet
Width	: 8.00
Track	: 6.91
Lock to Lock Time	: 6.0
Steering Angle	: 45.0

4 EMERGENCY VEHICLE TURNING MOVEMENTS
1" = 20'

Date	Description	No.
Revisions		

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NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project
SUBARU BLOCK 1464
LOTS 4 AND 5 VEHICLE STORAGE LOT
CAMDEN COUNTY CAMDEN NEW JERSEY

Drawing Title
SITE DETAILS

Project No.	220132401
Date	3/20/2026
Drawn By	MD
Checked By	JCW

Drawing No.
CS502

Sheet 5 of 11

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Date: 3/19/2026 Time: 15:16 User: cwickware Style Table: Langan.stb Layout: CS502 Document Code: 220132401-0501-CS501-0102

LEGEND

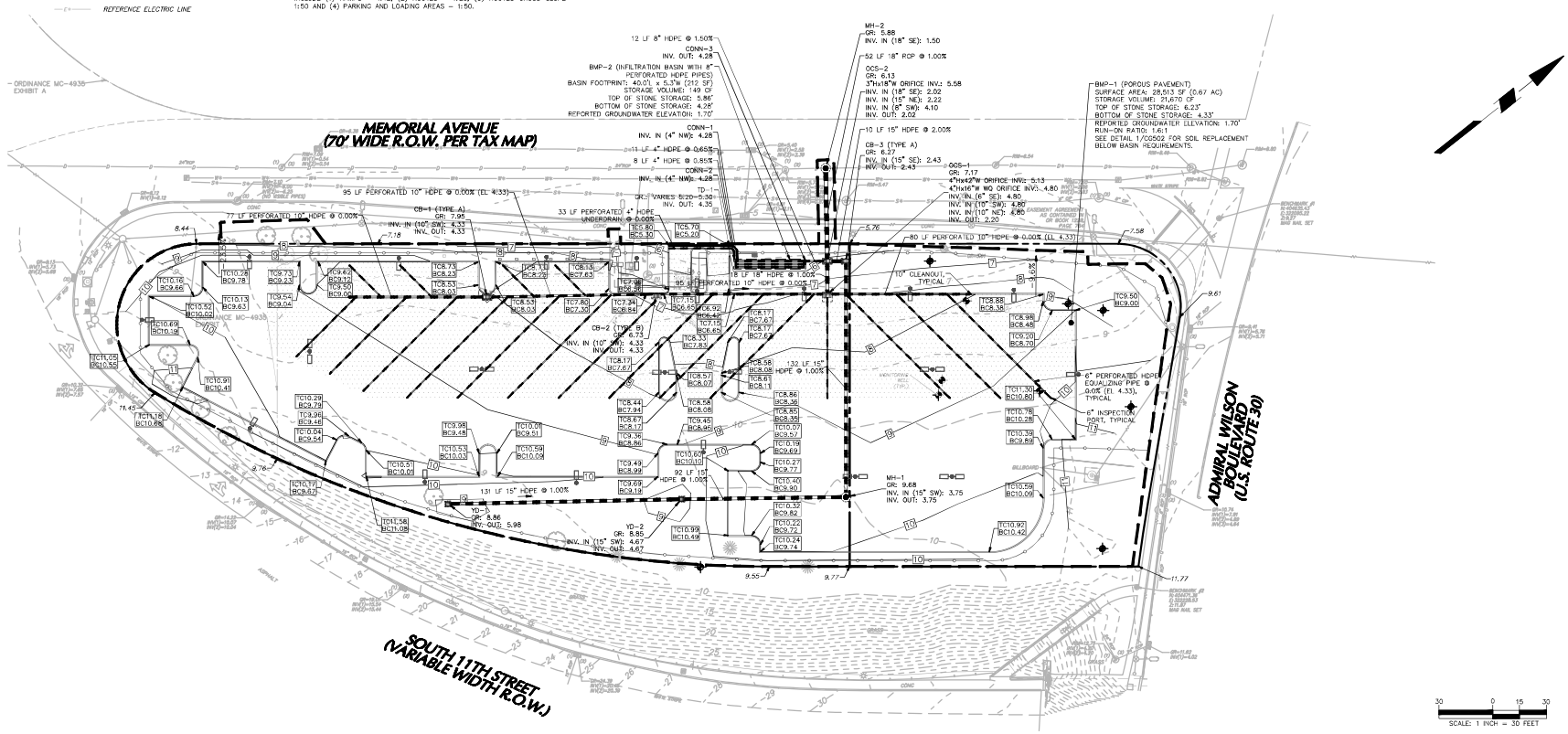
- LIMIT OF DISTURBANCE
- PROPERTY LINE
- STORMWATER PIPE
- 10.50 SPOT ELEVATION
- X.X % SLOPE LABEL
- 10 1 FOOT CONTOUR LINE
- STORMWATER STRUCTURE
- POROUS ASPHALT
- STORMWATER BASIN
- COLUMN
- MONITORING WELL
- SIGN
- TREE
- CATCH BASIN
- ELECTRIC BOX
- ELECTRIC METER
- METAL COVER
- FIRE HYDRANT
- INDICATOR VALVE
- COMMUNICATION BOX
- GAS VALVE
- LIGHT POLE
- MANHOLE (TYPE AS LABELED)
- POWER POLE
- GUY WIRE
- TRAFFIC SIGNAL
- TRAFFIC SIGNAL STRUCTURE
- VALVE UNKNOWN
- WATER VALVE
- CONC CONCRETE
- CIP CAST IRON PIPE
- HDPE HIGH-DENSITY POLYETHYLENE PIPE
- RCP REINFORCED CONCRETE PIPE
- 10.50 SPOT ELEVATION
- 10 CONTOUR LINE
- OHW OVERHEAD WIRE
- STORM DRAIN LINE
- SAN SANITARY LINE
- RSTM REFERENCE STORM DRAIN LINE
- RSAN REFERENCE SANITARY LINE
- RW REFERENCE WATER LINE
- RE REFERENCE ELECTRIC LINE

GRADING AND DRAINAGE NOTES

1. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO THEIR SATISFACTION PRIOR TO THE EXECUTION OF CONTRACTS OR COMMENCING WORK. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER OF RECORD.
2. AS PER THE NATIONAL FLOOD INSURANCE PROGRAM FIRM MAPS TITLED, "CITY OF CAMDEN, CAMDEN COUNTY, NEW JERSEY, COMMUNITY PANELS 340070002B", LAST REVISED 08/17/2016" THE PROPERTY PRIMARILY LIES IN "ZONE AE", DESCRIBED BY FEMA AS "SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD" WITH BASE FLOOD ELEVATION DETERMINED AS ELEVATION 10 IN NAVD88. THE PROPERTY ALSO LIES IN "OTHER FLOOD AREAS: ZONE X", DESCRIBED BY FEMA AS "AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD", THE PROPERTY ALSO LIES IN "OTHER AREAS: ZONE X" DESCRIBED BY FEMA AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN".
2. THE LIMITS OF THE FLOOD HAZARD AREA WERE DETERMINED USING METHOD 2 (FEMA TIDAL METHOD) SET FORTH AT N.J.A.C. 7:13–3.4(D). THE FLOOD HAZARD ELEVATION IS 10 FEET NAVD88, AS PER EFFECTIVE FEMA FLOOD INSURANCE RATE MAP NO. 34007C0028F, DATED OF 8/17/2016.
3. EXISTING FRAMES, COVERS, AND GRATES IN AREAS WHERE GRADES WILL BE REVISED BY FILLING OR CUTTING, OR PAVEMENT OVERLAY, MUST BE RESET TO MATCH FINAL GRADE (THIS INCLUDES MANHOLES, HANDHOLES, VALVE BOXES, INLETS, ETC). IN AREAS OF CUT, CONTRACTOR SHALL PROVIDE REQUIRED COVERAGE OF UTILITY AND STORMWATER LINES AS SPECIFIED BY THE UTILITY PURVEYOR.
4. PROPOSED STORMWATER PIPING TRENCHES MAY REQUIRE OVER EXCAVATION IN AREAS NOT CAPABLE OF SUPPORTING THE PROPOSED SYSTEMS. STABILIZATION WITH APPROVED BEDDING MATERIALS WILL BE REQUIRED. OWNER'S GEOTECHNICAL ENGINEER MUST APPROVE BEDDING MATERIALS USED FOR STABILIZATION AND THE DEPTH OF THE OVER EXCAVATION.
5. CONTRACTOR IS RESPONSIBLE FOR LOCATING UTILITY CROSSINGS AND PROVIDING UTILITY DROPS AS REQUIRED. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF CROSSING CONFLICT OCCURS.
6. GRADING FOR ADA ACCESSIBLE ROUTES, RAMPS, PARKING AND LOADING SHALL BE IN ACCORDANCE WITH THE NEW JERSEY AMERICAN WITH DISABILITIES ACT ARCHITECTURAL BARRIER REMOVAL AND COMPLIANCE MANUAL. MAXIMUM SLOPES INCLUDE (1) RAMPS – 1:12, (2) ROUTES – 1:20, (3) ROUTES CROSS–SLOPE – 1:50 AND (4) PARKING AND LOADING AREAS – 1:50.
7. TEST PITS WILL BE REQUIRED TO CONFIRM ADEQUATE CLEAR DISTANCES BETWEEN PROPOSED AND EXISTING UTILITIES. TEST PITS SHALL BE PERFORMED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
8. STRUCTURES SHOWN ON THESE DRAWINGS INCLUDE, BUT ARE NOT LIMITED TO, DRAINAGE STRUCTURES (INLETS, CATCH BASINS, AND MANHOLES), SANITARY MANHOLES, METER PITS AND UNDERGROUND VAULTS ARE NOT STRUCTURALLY DESIGNED. THE DETAILS PROVIDE TYPICAL DIMENSIONS, LOCATIONS OF PIPE PENETRATIONS, PIPE INVERTS AND GROUND

   ELEVATIONS AT THE STRUCTURE RIM OR GRATE ONLY. THE STRUCTURAL DESIGN INCLUDING WALL AND SLAB THICKNESS AS WELL AS REINFORCING SHALL BE THE RESPONSIBILITY OF THE PRECAST MANUFACTURER TO MEET STATE DEPARTMENT OF TRANSPORTATION STANDARDS AND HS–20 OR HS–25 LOADING REQUIREMENTS WHEN POSITIONED IN TRAVEL WAYS.
9. ALL GRADING, DRAINAGE, AND UTILITY INSTALLATION AND/OR CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS OR LOCAL REQUIREMENTS. SHOULD A DIFFERENCE IN REQUIREMENTS OCCUR, THE STRICTER OF THE TWO REGULATIONS WILL APPLY.
10. GRADE ALL AREAS OTHER THAN PAVED GRADED AREAS AND BUILDINGS, INCLUDING EXCAVATED AREAS, FILLED AND TRANSITION AREAS, AND LANDSCAPED AREAS TO FINISH GRADE ELEVATIONS OR CONTOURS AS INDICATED ON DRAWINGS. FINISHED SUBGRADE SURFACE SHALL BE UNIFORM AND SMOOTH, FREE FROM ROCK, DEBRIS, OR IRREGULAR SURFACE CHANGES. SITE SHALL BE GRADED TO ALLOW FOR PROPER DRAINAGE WITHOUT PONDING AND IN A MANNER THAT WILL MINIMIZE EROSION POTENTIAL.
11. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC LOADING AND BE INSTALLED ACCORDINGLY.
12. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL WATER TIGHT AND BE INSTALLED ACCORDINGLY.
13. SITE GRADING SHALL NOT PROCEED UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
14. LENGTHS OF STORM PIPES SHOWN ARE CENTER–TO–CENTER LENGTHS BETWEEN DRAINAGE STRUCTURES.
15. CONTRACTOR SHALL REVIEW ALL DRAINAGE CONNECTIONS TO MANHOLES AND CATCH BASINS AND INCREASE THE INLET BOX SIZES AS NECESSARY TO ACCOMMODATE THE PROPOSED INLET AND OUTLET PIPES.
16. ALL GRADING IS TO PROMOTE POSITIVE DRAINAGE AWAY FROM THE BUILDING.
17. EACH INLET BOX SHALL BE PROVIDED WITH CIRCULAR OPENINGS AT THE REQUIRED LOCATIONS AND ELEVATIONS FOR THE PROPER CONNECTION OF ALL PIPES. THE CIRCULAR CONNECTIONS SHALL BE SEALED WITH A FLEXIBLE SEAL ASSEMBLY SUCH AS CS–FLEXIBLE CONNECTOR BY A–LOK PRODUCTS, INC. OR APPROVED EQUAL.
18. REPORTED GROUNDWATER ELEVATIONS ARE BASED ON HIGHEST REPORTED VALUE FROM VARIOUS PRIOR SUBSURFACE EXPLORATIONS (BY OTHERS).
19. PROPOSED LANDSCAPE GRADING MUST NOT EXCEED 3:1.
20. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM NAD83 (2011).
21. ELEVATIONS SHOWN ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88). TO CONVERT TO NGVD, ADD 1.125 FEET.
22. ON–SITE SOILS ARE CONSIDERED HISTORIC FILL AND MUST BE HANDLED IN ACCORDANCE WITH THE NJDEP GUIDANCE DOCUMENT FOR THE REMEDIATION OF CONTAMINATED SOILS. CAPPING OF ALL ON–SITE SOILS (HISTORIC FILL) WILL BE REQUIRED WITH EITHER IMPERVIOUS SURFACE (ASPHALT, CONCRETE, ETC) OR 2–FT THICK CERTIFIED CLEAN FILL CAP MEETING NJDEP CERTIFIED CLEAN FILL CRITERIA, INCLUDING APPROVAL BY SITE LSRP.
23. REMOVE SURPLUS SATISFACTORY SOIL AND WASTE MATERIAL INCLUDING UNSATISFACTORY SOIL, TRASH, AND DEBRIS TO DESIGNATED ON–SITE STAGING AREA FOR MANAGEMENT BY SUBARU IN COORDINATION WITH THE PROJECT LICENSED SITE REMEDIATION PROFESSIONAL OF RECORD.
24. BACKFILL MATERIAL, INCLUDING BASE COURSE AND STONE BASE COURSE, MUST MEET REQUIREMENTS OF NJDEP CLEAN FILL, INCLUDING APPROVAL BY SITE LSRP.

ALL PERFORATED PIPES EMBEDDED IN THE POROUS PAVEMENT STORAGE BED ARE EQUALIZING PIPES TO PROVIDE A CONDUIT FOR WATER TO MOVE TOWARD THE SYSTEM OUTLET, OCS–1.



SCALE: 1 INCH = 30 FEET

Date	Description	No.
Revisions		

Signature Date

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Project: SUBARU BLOCK 1464 LOTS 4 AND 5 VEHICLE STORAGE LOT
CAMDEN COUNTY CAMDEN NEW JERSEY

Drawing Title: GRADING & DRAINAGE PLAN

Project No.	220132401
Date	3/20/2026
Drawn By	JJL
Checked By	JCW

Drawing No. CG101

Sheet 6 of 11

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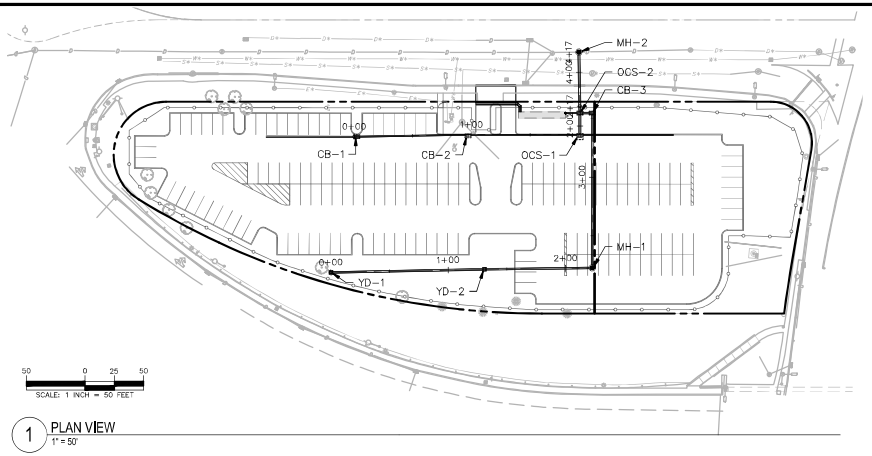
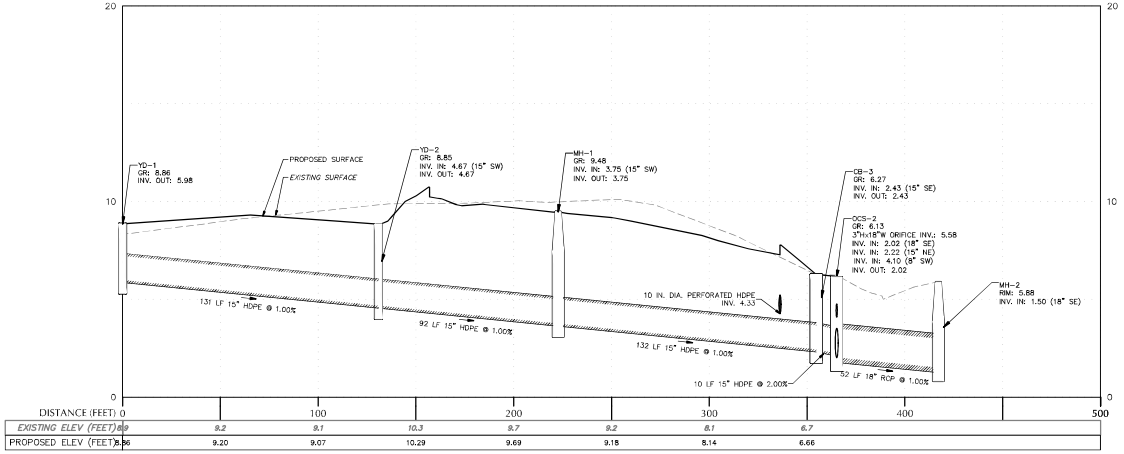
Date: 3/19/2026 Time: 11:40 User: cwickware Style Table: Langan.stb Layout: CG101 Document Code: 220132401-0601-CG101-0101

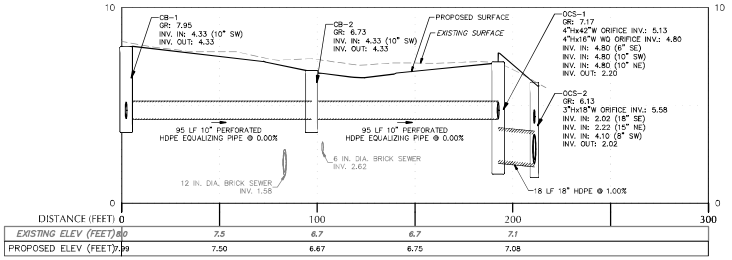


1 PLAN VIEW
1" = 50'



2 STORM PROFILE: YD-1 TO MH-2
V:1"=3', H:1"=30'

ALL PERFORATED PIPES EMBEDDED IN THE POROUS PAVEMENT STORAGE BED AT INV. = 4.33 ARE EQUALIZING PIPES TO HELP SPREAD WATER THROUGHOUT THE INFILTRATION BED. CONNECT PIPES TO OCS-1 WITH AN UPTURNED ELBOW AT INV. = 4.80 (ABOVE WATER QUALITY STORAGE), SEE DETAIL 2/CG502.



3 STORM PROFILE: CB-1 TO OCS-2
V:1"=3', H:1"=30'

SCALE: 1 INCH = 30 FEET
HORIZONTAL SCALE

SCALE: 1 INCH = 3 FEET
VERTICAL SCALE

Date	Description	No.
	Revisions	

KYLE J. MACGEORGE, P.E.
PROFESSIONAL ENGINEER NJ LIC. NO. 24GE05751600
Signature Date

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Project
SUBARU BLOCK 1464
LOTS 4 AND 5 VEHICLE STORAGE LOT
CAMDEN COUNTY NEW JERSEY

Drawing Title
STORM PROFILES

Project No. 220132401
Date 3/20/2026
Drawn By JL
Checked By JCW

Drawing No. CG201
Sheet 7 of 11

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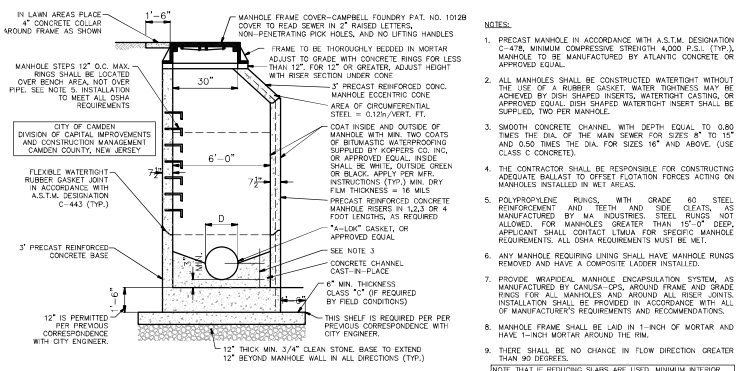
Date: 3/19/2026 Time: 11:40 User: cwickware Style Table: Langan.ctb Layout: CG201 Document Code: 220132401-0601-CG201-0101

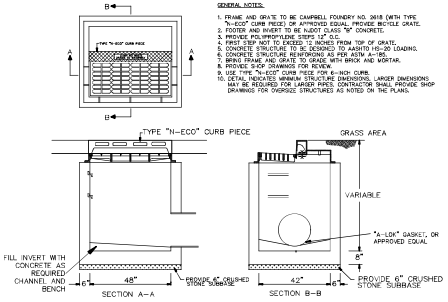


NOTES:

1. PRECAST MANHOLE IN ACCORDANCE WITH A.S.T.M. DESIGNATION C-478, MINIMUM COMPRESSIVE STRENGTH 4,000 P.S.I. (TYP.). MANHOLE TO BE MANUFACTURED BY ATLANTIC CONCRETE OR APPROVED EQUAL.
2. ALL MANHOLES SHALL BE CONSTRUCTED WATERTIGHT WITHOUT THE USE OF A RUBBER GASKET. WATER TIGHTNESS MAY BE ACHIEVED BY DISH SHAPED INSERTS, WATERTIGHT CASTING, OR APPROVED EQUAL. DISH SHAPED WATERTIGHT INSERT SHALL BE SUPPLIED, TWO PER MANHOLE.
3. SMOOTH CONCRETE CHANNEL WITH DEPTH EQUAL TO 0.80 TIMES THE DIA. OF THE MAIN SEWER FOR SIZES 8" TO 15" AND 0.50 TIMES THE DIA. FOR SIZES 16" AND ABOVE. (USE CLASS C CONCRETE).
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING ADEQUATE BALLAST TO OFFSET FLOTATION FORCES ACTING ON MANHOLES INSTALLED IN WET AREAS.
5. POLYPROPYLENE RUNGS, WITH GRADE 60 STEEL REINFORCEMENT AND TEETH AND SIDE CLEATS, AS MANUFACTURED BY MA INDUSTRIES. STEEL RUNGS NOT ALLOWED. FOR MANHOLES GREATER THAN 15'-0" DEEP, APPLICANT SHALL CONTACT LTMUA FOR SPECIFIC MANHOLE REQUIREMENTS. ALL OSHA REQUIREMENTS MUST BE MET.
6. ANY MANHOLE REQUIRING LINING SHALL HAVE MANHOLE RUNGS REMOVED AND HAVE A COMPOSITE LADDER INSTALLED.
7. PROVIDE WRAPIDSEAL MANHOLE ENCAPSULATION SYSTEM, AS MANUFACTURED BY CANUSA-CPS, AROUND FRAME AND GRADE RINGS FOR ALL MANHOLES AND AROUND ALL RISER JOINTS. INSTALLATION SHALL BE PROVIDED IN ACCORDANCE WITH ALL OF MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS.
8. MANHOLE FRAME SHALL BE LAID IN 1-INCH OF MORTAR AND HAVE 1-INCH MORTAR AROUND THE RIM.
9. THERE SHALL BE NO CHANGE IN FLOW DIRECTION GREATER THAN 90 DEGREES.

NOTE THAT IF REDUCING SLABS ARE USED, MINIMUM INTERIOR HEIGHT OF 7 FEET BETWEEN MANHOLE BASE AND REDUCING SLAB MUST BE PROVIDED PER CITY ENGINEER.

1 CITY OF CAMDEN STANDARD PRECAST MANHOLE
NOT TO SCALE

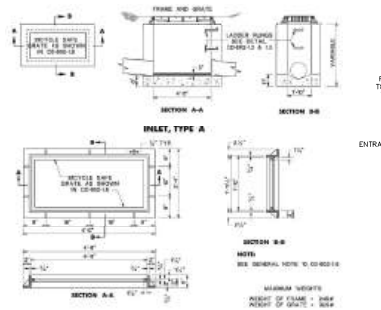


GENERAL NOTES:

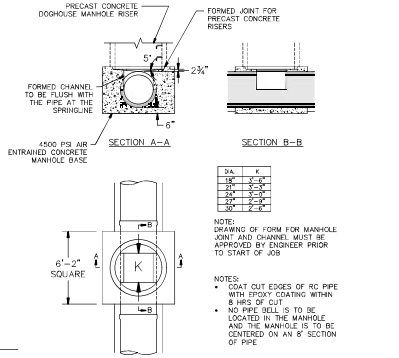
1. FRAME AND GRATE TO BE CAMPBELL FOUNDRY NO. 3015 WITH TYPE "H-ECO" CURB PIECE OR APPROVED EQUAL. PROVIDE BICYCLE GRATE.
2. FRAME AND GRATE SHALL BE H-20 CLASS "B" CONCRETE.
3. PROVIDE ANY APPROPRIATE SHIMS.
4. FIRST STEP NOT TO EXCEED 15 INCHES FROM TOP OF GRATE.
5. CONCRETE STRUCTURE TO BE DESIGNED TO AASHTO HS-20 LOADING.
6. CONCRETE STRUCTURE REINFORCING AS PER ASTM A-185.
7. BRING FRAME AND GRATE TO GRADE WITH BRICK AND MORTAR.
8. PROVIDE SHOP DRAWINGS FOR REVIEW.
9. USE TYPE "H-ECO" CURB PIECE FOR 6-INCH CURB. FOR 8-INCH THICK CURB AND LARGER DIMENSIONS, LARGER DIMENSIONS MAY BE REQUIRED FOR LARGER PIPES. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR OVERSIZE STRUCTURES AS NOTED ON THE PLANS.

NOTE: ALL INLETS TO BE FIT WITH SUMP AND TRAP.

2 TYPE "B" INLET DETAIL
NOT TO SCALE



3 TYPE "A" INLET DETAIL
NOT TO SCALE

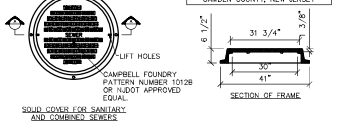


DIA.	K
18"	3'-6"
21"	3'-5"
24"	3'-0"
27"	2'-9"
30"	2'-6"

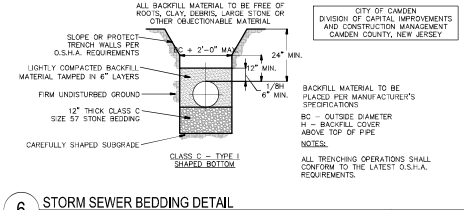
NOTE:
DRAWING OF FORM FOR MANHOLE JOINT AND CHANNEL MUST BE APPROVED BY ENGINEER PRIOR TO START OF JOB

NOTES:
- COAT CUT EDGES OF RC PIPE WITH EPOXY COATING WITHIN 8 HRS OF CUT.
- NO PIPE BELL IS TO BE LOCATED IN THE MANHOLE AND THE MANHOLE IS TO BE CENTERED ON AN 8" SECTION OF PIPE

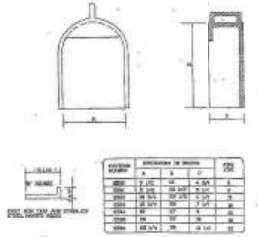
4 DOGHOUSE MANHOLE CONNECTION (REFERENCED FROM PHILADELPHIA WATER DEPARTMENT)
NOT TO SCALE



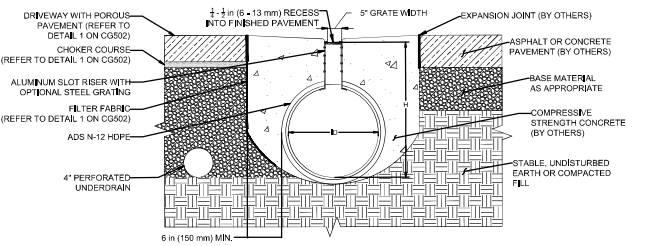
5 MANHOLE FRAME AND COVER
NOT TO SCALE



6 STORM SEWER BEDDING DETAIL
NOT TO SCALE



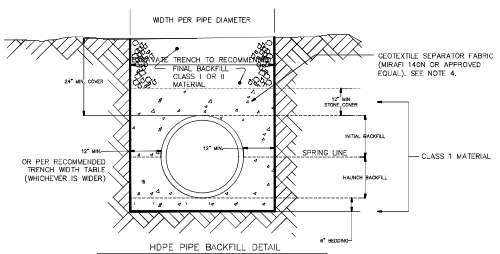
7 CITY OF CAMDEN STANDARD CAST IRON TRAP
NOT TO SCALE



Nominal Diameter ID, in (mm)	Depth of Invert, H, in. (mm)	
	Minimum	Maximum
4 (100)	10,25 (260)	28,00 (711)
6 (150)	12,50 (318)	30,00 (762)
8 (200)	14,50 (368)	32,00 (813)
10 (250)	16,50 (419)	34,00 (864)
12 (300)	19,00 (483)	48,00 (1219)
15 (375)	22,00 (559)	51,00 (1295)
18 (450)	25,00 (635)	54,00 (1372)
24 (600)	31,25 (794)	60,00 (1524)
30 (750)	38,25 (972)	66,00 (1676)
36 (900)	44,25 (1024)	72,00 (1829)

NOTES:
1. BACKFILL DESIGN MAY BE USED FOR LIGHT TO MODERATE TRAFFIC LOADS (I.E. RETAIL PARKING LOTS, AGAINST A CURB, ETC.).
2. CONCRETE BACKFILL SHOULD EXTEND DOWNWARD TO AT LEAST THE SPRING LINE OF THE PIPE. SOIL BELOW THE PIPE AND CONCRETE SHALL BE A LEAN CLAY OR SIMILAR AT 95% COMPACTION.
3. SITE ENGINEER TO PROVIDE SITE SPECIFIC DETAILS, SUCH AS CONCRETE STRENGTH OR BACKFILL DESIGN ALTERATIONS.
4. COUPLER BANDS ARE SOIL-TIGHT. FOR A TIGHTER SEAL, A FULL CONCRETE INSTALLATION, NEOPRENE SHEET, OR MASTIC FILLER (PROVIDED BY OTHER) MAY BE USED.
5. REFER TO ADS TECH NOTE 2.11 FOR ADDITIONAL DESIGN INFORMATION.

8 DURASLOT (OR APPROVED EQUAL) TRENCH DRAIN
NOT TO SCALE



HDPE PIPE BACKFILL DETAIL

NOTES:

1. BEDDING, HAUNCH, INITIAL BACKFILL AND COVER SHALL BE CLASS 1 MATERIAL. CLASS 1 MATERIAL MUST BE EVENLY SPREAD INTO THE HAUNCH AND BETWEEN CORRUGATIONS. IF CLASS 1A MATERIAL IS USED, THE CLASS 1A MATERIAL SHOULD BE SPREAD IN 6-INCH-THICK LIFTS AND NOMINALLY COMPACTED USING A HAND-OPERATED COMPACTION EQUIPMENT. IF CLASS 1B MATERIAL IS USED, THE CLASS 1B MATERIAL SHOULD BE SPREAD IN 6-INCH-THICK LIFTS AND COMPACTED TO AT LEAST 95% OF THE MATERIALS MAX DRY DENSITY.
2. FINAL BACKFILL MATERIAL SHALL BE EITHER CLASS I (A OR B) OR CLASS II MATERIAL. THESE MATERIALS CAN EITHER BE IMPORTED OR PROCESSED FROM ONSITE MATERIAL GENERATED DURING ROCK EXCAVATION.
3. FINAL BACKFILL SHALL BE COMPACTED TO AT LEAST 95% OF THE MATERIAL'S MAXIMUM DRY DENSITY AS DETERMINED BY A MODIFIED PROCTOR COMPACTION TEST (ASTM D1557).
4. BACKFILL MATERIAL, INCLUDING BASE COURSE AND STONE COURSE, MUST MEET REQUIREMENTS OF NJDEP CLEAN FILL, INCLUDING APPROVAL BY SITE LSRP.

TABLE 1: CLASSES OF EMBEDMENT AND BACKFILL MATERIALS

CLASS	TYPE	SOIL GROUP SYMBOL D 2487	DESCRIPTION	PERCENTAGE PASSING SIEVE SIZES 1 1/2 IN. (40 MM)	NO. 4 (4.75 MM)	NO. 200 (0.075 MM)
I	MANUFACTURED, PROCESSED AGGREGATES; DENSE-GRADED, CLEAN	NONE	ANGULAR, CRUSHED STONE (OR OTHER CLASS IA MATERIALS) AND STONE/SAND MIXTURES WITH GRADATIONS SELECTED TO MINIMIZE MIGRATION OF ADJACENT SOILS. CONTAIN LITTLE OR NO FINES (SEE X1.8.).	100 %	≤ 50 %	<5 %
II	COARSE-GRAINED SOILS, CLEAN	GW	WELL-GRADED GRAVELS AND GRAVEL-SAND MIXTURES; LITTLE OR NO FINES.	100 %	<50 % "COARSE FRACTION"	<5 %
		GP	POORLY-GRADED GRAVELS AND GRAVEL-SAND MIXTURES; LITTLE OR NO FINES.			
		SW	WELL-GRADED SANDS AND GRAVELLY SANDS; LITTLE OR NO FINES.		≥ 50 % OF "COARSE FRACTION"	
		SP	POORLY-GRADED SANDS AND GRAVELLY SANDS; LITTLE OR NO FINES.			
	COARSE-GRAINED SOILS, BORDERLINE CLEAN TO W/ FINES	E.G. GW-GC, SP-SM,	SANDS AND GRAVELS WHICH ARE BORDERLINE BETWEEN CLEAN AND WITH FINES.	100 %	VARIES	5 % TO 12 %
III	COARSE-GRAINED SOILS, WITH FINES	GM	SILTY GRAVELS, GRAVEL-SAND SILT MIXTURES.	100 %	<50 % OF "COARSE FRACTION"	12 % TO 50 %
		GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES.			
		SM	SILTY SANDS, SAND-SILT MIXTURES.		≥ 50 % OF "COARSE FRACTION"	
		SC	CLAYEY SANDS, SAND-CLAY MIXTURES.			

TABLE 2: MAXIMUM COVER FOR ADS AND MEGAGREEN PIPES (PER ASTM F2648), FT(MM)

DIAMETER OF PIPE IN. (MM)	CLASS 1 COMPACTED 95% FT. (M)	CLASS 2 95% FT. (M)	CLASS 3 90% FT. (M)
12 (300)	27 (8,2)	21 (6,4)	14 (4,3)	12 (3,6)
15 (375)	27 (8,2)	21 (6,4)	14 (4,3)	13 (3,9)
18 (450)	25 (7,6)	18 (5,5)	13 (3,9)	11 (3,3)
24 (600)	22 (6,7)	16 (4,8)	11 (3,3)	12 (3,6)
30 (750)	16 (4,8)	12 (3,6)	8 (2,4)	6 (1,8)
36 (900)	21 (6,4)	15 (4,5)	10 (3,0)	10 (3,0)
42 (1050)	17 (5,2)	13 (3,9)	9 (2,7)	7 (2,1)
48 (1200)	18 (5,5)	13 (3,9)	9 (2,7)	10 (3,0)
60 (1500)	20 (6,0)	15 (4,5)	10 (3,0)	10 (3,0)

TABLE 3: RECOMMENDED TRENCH WIDTH

DIAMETER	O.D.	TRENCH WIDTH
12"	14.45"	31"
15"	17.60"	34"
18"	21.10"	38"
24"	28.30"	48"
30"	36.10"	66"
36"	42.25"	78"
42"	47.00"	83"
48"	53.00"	89"
60"	66.30"	102"

The trench width must be wide enough to accomodate compaction equipment.

TABLE 4: HIGH DENSITY CORRUGATED POLYETHYLENE PIPE HEIGHT OF COVER H-20 AND E-80 LIVE LOADS

NOMINAL DIAMETER IN. (MM)	MINIMUM COVER IN. & (MM) H-20	E-80
12 (300)	12 (300)	24 (600)
15 (375)	12 (300)	24 (600)
18 (450)	12 (300)	24 (600)
24 (600)	12 (300)	24 (600)
30 (750)	12 (300)	24 (600)
36 (900)	12 (300)	24 (600)
42 (1050)	12 (300)	24 (600)
48 (1200)	12 (300)	24 (600)
60 (1500)	24 (600)	24 (600)

GENERAL NOTES:

1. MATERIALS UNLESS OTHERWISE SPECIFIED ON THE PLANS OR HEREIN, CORRUGATED POLYETHYLENE PIPE SHALL CONFORM TO AASHTO M-294, LATEST EDITION, STANDARD SPECIFICATION FOR CORRUGATED POLYETHYLENE PIPE.
2. RESINS: CORRUGATED POLYETHYLENE PIPE SHALL BE MANUFACTURED FROM HIGH DENSITY POLYETHYLENE VIRGIN COMPOUNDS, AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM D-3350 FOR THE CELL CLASSIFICATION 335400C.
3. COUPLING BANDS: EXCEPT AS OTHERWISE REQUIRED HEREIN, COUPLING BANDS AND OTHER HARDWARE FOR CORRUGATED POLYETHYLENE PIPE SHALL DEMONSTRATE THAT THEY MEET THE SOIL TIGHTNESS REQUIREMENTS OF AASHTO SECTION 26 "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES."

   COUPLING BANDS SHALL LAP EQUALLY ON EACH OF THE PIPES BEING CONNECTED TO FORM A TIGHTLY CLOSED JOINT AFTER INSTALLATION.

   THE CORRUGATIONS IN THE BAND SHALL INDEX THE CORRUGATIONS IN THE PIPE ENDS TO ENGAGE AT LEAST TWO FULL CORRUGATIONS FROM THE END OF EACH PIPE.

   WHEN INFILTRATION OR EXFILTRATION IS A CONCERN, THE COUPLING BANDS MAY BE REQUIRED TO HAVE GASKETS. THE GASKET MATERIAL SHALL BE CLOSED-CELL EXPANDED RUBBER OR NEOPRENE.

   OTHER COUPLINGS MAY BE BELL & SPIGOT AND CONFORM TO THE REQUIREMENTS OF AASHTO M294.
4. DESIGNATION OF TYPES: THE PIPE MAY BE ONE OR BOTH OF THE FOLLOWING TYPES:

   TYPE S: THIS PIPE WILL HAVE A FULL CIRCULAR CROSS-SECTION WITH AN OUTER CORRUGATED PIPE WALL AND A SMOOTH INNER LINER.

   TYPE D: THIS PIPE SHALL CONSIST OF AN ESSENTIALLY SMOOTH WATERWAY BRACED CIRCUMFERENTIALLY WITH CIRCULAR RIBS WHICH ARE FORMED SIMULTANEOUSLY WITH A SMOOTH OUTER WALL.
5. INSTALLATION: CORRUGATED POLYETHYLENE PIPE SHALL BE INSTALLED IN ACCORDANCE WITH TABLE 1 AND ASTM D-2321, LATEST EDITION, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS."

9 HDPE PIPE INSTALLATION/BEDDING DETAIL
NOT TO SCALE

ALL SITEWORK CONSTRUCTION AND DETAILS TO CONFORM TO THE STANDARDS OF THE CITY OF CAMDEN.

Date	Description	No.
	Revisions	

Signature Date
KYLE J. MACGEORGE, P.E.
PROFESSIONAL ENGINEER NJ LIC. NO. 24GE05751600

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NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project: SUBARU BLOCK 1464 LOTS 4 AND 5 VEHICLE STORAGE LOT
CAMDEN COUNTY CAMDEN NEW JERSEY

Drawing Title: GRADING & DRAINAGE DETAILS

Project No. 220132401
Date 3/20/2026
Drawn By JL
Checked By JCW

Drawing No. CG501
Sheet 8 of 11

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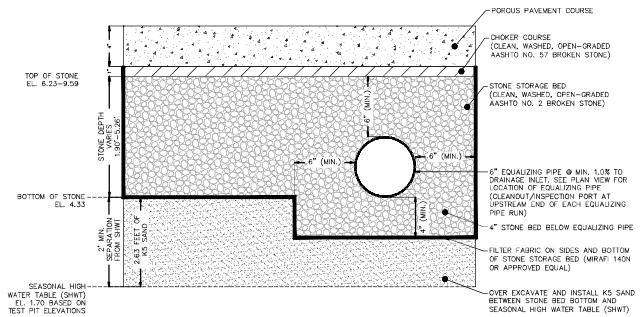
Date: 3/19/2026 Time: 11:40 User: cwickware Style Table: Langan.stb Layout: CG501 Document Code: 220132401-0501-CG501-0101



NOTES

1. THE POROSITY OF THE PERMEABLE ASPHALT SURFACE COURSE SHALL BE 15 – 25%.
2. THE BINDER USED IN THE PERMEABLE SURFACE COURSE SHALL BE A POLYMER MODIFIED BINDER PG 64E-22.
3. ELASTOMERIC POLYMER SHALL BE STYRENE-BUTADIENE-STYRENE (SBS), OR APPROVED EQUAL, APPLIED AT A RATE OF 3% BY WEIGHT OF THE TOTAL BINDER.
4. POROUS ASPHALT PAVEMENT COURSE SHALL CONSIST OF THE FOLLOWING GRADATIONS:

BINDER COURSE U.S. STANDARD SIEVE SIZE	PERCENT PASSING BY WEIGHT
1"	100
3/4"	90-100
1/2"	80-100
3/8"	50-80
#4	10-20
#8	5-10
#40	3-8
#200	0-3

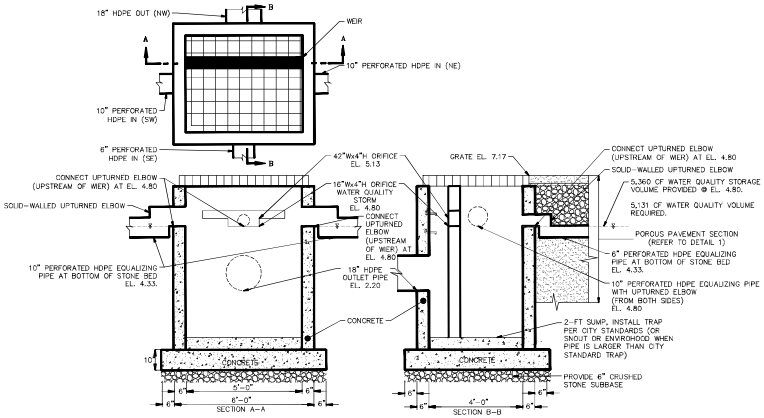
WEARING COURSE U.S. STANDARD SIEVE SIZE	PERCENT PASSING BY WEIGHT
5/8"	100
1/2"	95-100
3/8"	70-95
#4"	20-40
#8"	10-20
#40"	0-8
#200"	0-3

5. THE POROSITY OF ANY POROUS ASPHALT BASE COURSE SHALL BE >= 25%
6. THE MINIMUM AIR TEMPERATURE FOR PAVING SHALL BE 50F.
7. TEMPERATURE GUIDELINES FOR THE INSTALLATION OF IMPERVIOUS ASPHALT ARE AS FOLLOWS:
   - ASPHALT BASE COURSE: 250 – 245°F
   - FINISH ROLLING BASE COURSE: 140 – 150°F
   - ASPHALT SURFACE COURSE: 200 – 220°F
   - FINISH ROLLING SURFACE COURSE: 110 – 140°F
8. VEHICULAR USE IS PROHIBITED FOR AT LEAST 48 HOURS AFTER PAVEMENT INSTALLATION.
9. CONSTRUCTION MAY NOT TAKE PLACE DURING RAIN OR SNOW, NOR WHEN THE SUBSOIL IS FROZEN. FROZEN AGGREGATE MATERIALS MAY NOT BE INSTALLED.
10. CONSTRUCTION AND TESTING REQUIREMENTS OF THE POROUS PAVEMENT SYSTEM SHALL COMPLY WITH NJ BMP MANUAL CHAPTER 9.6.N

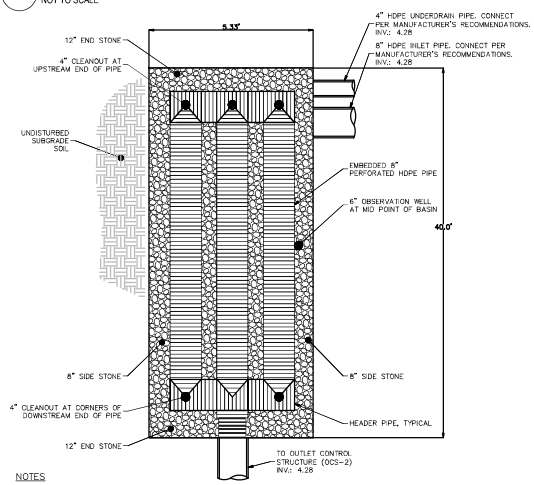
MAINTENANCE INSPECTION FOR POROUS PAVEMENT

Yes	No	Maintenance Evaluation	Action(s) Required if Answer "Yes"
		Are there cracks, subsidence, spalling, or deterioration of the porous pavement?	Use manufacturer-approved methods for repair or patching.
		Is there a build-up of sediment, floatables, or other debris impeding flow through the surface or cleanout?	Clear surface of debris using appropriate maintenance procedures.
		Is there persistent, standing water on the porous pavement surface?	Inform owner and consult manufacturer or engineer
		Infiltration testing of the porous pavement was conducted and found unsatisfactory in accordance with the NJ BMP manual?	Consult owner and engineer
		Is there standing water within the porous pavement cleanouts?	Conduct maintenance of the system using cleanout jetter. If problem persists, contact owner and engineer.
		Are there any upstream conditions contributing to excessive sediment loading?	Address the conditions causing excessive sediment loading.
		Does the existing maintenance program need to be amended to provide a more effective maintenance program?	Address suggested changes to the responsible party for the stormwater maintenance facility.

1 BMP-1: PERVIOUS PAVING SYSTEM DESIGNED TO INFILTRATE INTO THE SUBSOIL (NJDEP)
NOT TO SCALE



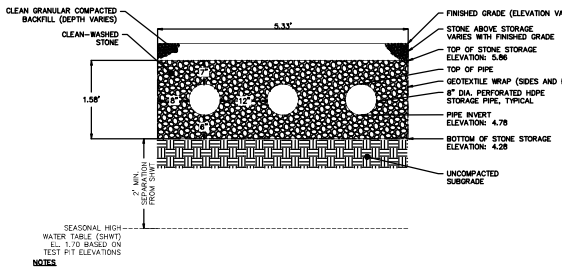
2 OUTLET CONTROL STRUCTURE (OCS-1)
NOT TO SCALE



NOTES

1. STORAGE PIPES MUST BE MADE OF CONTINUOUSLY PERFORATED HDPE PLASTIC PIPING WITH A SMOOTH INTERIOR AND A MINIMUM INNER DIAMETER OF FOUR INCHES. HDPE MUST MEET THE SPECIFICATIONS OF AASHTO M252, TYPE S OR AASHTO M294, TYPE S.
2. THE PERFORATION PATTERN SHALL GENERALLY FOLLOW THE SPECIFICATIONS IN THE AASHTO CLASS II PERFORATION TABLE. THE DIAMETER OF EACH PERFORATION SHALL BE APPROXIMATELY 0.375 INCHES. THE PERFORATIONS SHALL BE PLACED 2 AT EVERY 45° AROUND THE CIRCUMFERENCE OF THE PIPE.
3. STONE SHALL BE UNIFORMLY-GRADED, CLEAN WASHED STONE (HAVING LESS THAN 0.5% WASH LOSS, BY MASS, WHEN TESTED PER THE AASHTO T-11 WASH TEST).

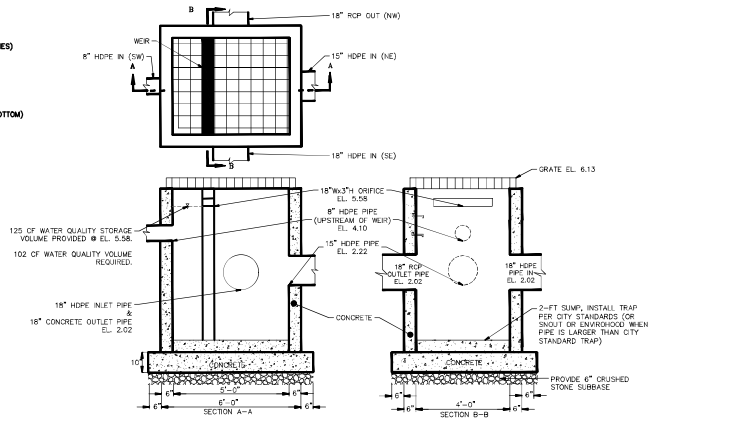
3 BMP-2: SUBSURFACE INFILTRATION BASIN (PLAN VIEW)
NOT TO SCALE



NOTES

1. ALL AGGREGATES WITHIN THE STONE STORAGE BED SHALL BE CLEAN-WASHED, DEFINED AS HAVING LESS THAN 0.5% WASH LOSS, BY MASS, WHEN TESTED PER THE AASHTO T-11 WASH LOSS TEST.
2. GEOTEXTILE SHALL CONSIST OF POLYPROPYLENE FIBERS AND MEET THE FOLLOWING SPECIFICATIONS:
   GRAB TENSILE STRENGTH (ASTM-D4632) > OR = 120 LBS.
   MULLEN BURST STRENGTH (ASTM-D3786) > OR = 225 LBS.
   FLOW RATE (ASTM-D4491) > OR = 95 GAL/MIN./FT²
   UV RESISTANCE AFTER 500 HRS. (ASTM-D4355) > OR = 70%
   HEAT-SET OR HEAT CALENDARED FABRICS ARE NOT PERMITTED
3. HDPE PIPE SHALL MEET THE SPECIFICATIONS OF AASHTO M252, TYPE S, OR AASHTO M294, TYPE S.

4 BMP-2: SUBSURFACE INFILTRATION BASIN (SECTION VIEW)
NOT TO SCALE



5 OUTLET CONTROL STRUCTURE (OCS-2)
NOT TO SCALE

ALL SITEWORK CONSTRUCTION AND DETAILS TO CONFORM TO THE STANDARDS OF THE CITY OF CAMDEN.

Date	Description	No.
	Revisions	

STATE OF NEW JERSEY — KYLE JOSEPH MACGEORGE — No. GE05751600 — PROFESSIONAL ENGINEER

Signature Date

KYLE J. MACGEORGE, P.E.
PROFESSIONAL ENGINEER NJ LIC. NO. 24GE05751600

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NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project
SUBARU BLOCK 1464 LOTS 4 AND 5 VEHICLE STORAGE LOT
CAMDEN COUNTY — CAMDEN — NEW JERSEY

Drawing Title
GRADING & DRAINAGE DETAILS

Project No.	Drawing No.
220132401	CG502
Date: 3/20/2026	
Drawn By: JL	
Checked By: JCW	
Sheet 9 of 11	

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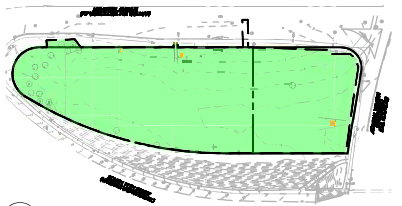
Date: 3/19/2026 Time: 11:41 User: cwickware Style Table: Langan.stb Layout: CG501 Document Code: 220132401-0501-CG501-2102

LEGEND

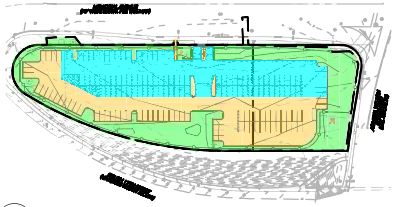
- LIMIT OF DISTURBANCE
- PROPERTY LINE
- PROPOSED PIPE
- PROPOSED 1 FOOT CONTOUR LINE
- COMPOST FILTER SOCK
- TREE PROTECTION FENCE
- TEMPORARY CONSTRUCTION FENCE
- INLET PROTECTION
- ROCK CONSTRUCTION ENTRANCE
- SauB — NRCS SOIL TYPE
- NRCS SOIL TYPE BOUNDARY
- PERVIOUS AREA
- IMPERVIOUS AREA
- POROUS AREA
- COLUMN
- MONITORING WELL
- SIGN
- TREE
- CATCH BASIN
- ELECTRIC BOX
- ELECTRIC METER
- METAL COVER
- FIRE HYDRANT
- INDICATOR VALVE
- COMMUNICATION BOX
- GAS VALVE
- LIGHT POLE
- MANHOLE (TYPE AS LABELED)
- POWER POLE
- GUY WIRE
- TRAFFIC SIGNAL
- TRAFFIC SIGNAL STRUCTURE
- VALVE UNKNOWN
- WATER VALVE
- CONC — CONCRETE
- CIP — CAST IRON PIPE
- HDPE — HIGH-DENSITY POLYETHYLENE PIPE
- RCP — REINFORCED CONCRETE PIPE
- X 262.3 — SPOT ELEVATION
- -10- — CONTOUR LINE
- OVERHEAD WIRE
- GUARD RAIL

DELATLANTIC EROSION AND SEDIMENT CONTROL NOTES FOR PROJECTS MORE THAN 1 ACRE

1. THE SOIL EROSION INSPECTOR MAY REQUIRE ADDITIONAL SOIL EROSION MEASURES TO BE INSTALLED, IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY, 7TH EDITION, JANUARY 2014, REVISED JULY 2017.
2. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR, BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.
3. THE SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY LAND DISTURBANCE.
4. ALL APPLICABLE EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN PLACE PRIOR TO ANY GRADING OPERATION AND/OR INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES.
5. SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.
6. APPLICABLE EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE LEFT IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND/OR THE AREA IS STABILIZED.
7. THE CONTRACTOR SHALL PERFORM ALL WORK, FURNISH ALL MATERIALS AND INSTALL ALL MEASURES REQUIRED TO REASONABLY CONTROL SOIL EROSION RESULTING FROM CONSTRUCTION OPERATIONS AND PREVENT EXCESSIVE FLOW OF SEDIMENT FROM THE CONSTRUCTION SITE.
8. ANY DISTURBED AREA THAT IS TO BE LEFT EXPOSED FOR MORE THAN SIXTY (60) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING AND FERTILIZATION IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREAS WILL BE MULCHED WITH SALT HAY OR EQUIVALENT AND ANCHORED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY (I.E. PEG AND TWINE, MULCH NETTING OR LIQUID MULCH BINDER).
9. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO PROVIDE CONFIRMATION OF LIME, FERTILIZER AND SEED APPLICATION AND RATES OF APPLICATION AT THE REQUEST OF THE SOIL CONSERVATION DISTRICT.
10. ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH AT A RATE OF 2 TONS PER ACRE, ACCORDING TO THE NEW JERSEY STANDARDS IMMEDIATELY FOLLOWING ROUGH GRADING.
11. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORMWATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
12. ALL SEDIMENTATION STRUCTURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS AND AFTER EVERY STORM EVENT.
13. A CRUSHED STONE, TIRE CLEANING PAD WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS EXISTS. THE STABILIZED PAD WILL BE INSTALLED ACCORDING TO THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS.
14. ALL DRIVEWAYS MUST BE STABILIZED WITH CRUSHED STONE OR SUBBASE PRIOR TO INDIVIDUAL LOT CONSTRUCTION.
15. REMOVE ANY SEDIMENT THAT MAY BE SPILLED, DROPPED, OR TRACKED OFF THE PROJECT SITE. ALL PAVED RIGHTS-OF-WAY ADJACENT TO THE PROJECT SITE MUST BE MAINTAINED IN A CLEAN, SWEPT CONDITION THROUGHOUT CONSTRUCTION.
16. ALL CATCH BASIN INLETS WILL BE PROTECTED ACCORDING TO THE CERTIFIED PLAN.
17. ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
18. ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA. THE SEDIMENT FILTER SHOULD BE COMPOSED OF A SUITABLE SEDIMENT FILTER FABRIC.
19. NJSA 4:24-39, ET SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE ALL PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES. ALL SITE WORK FOR THE PROJECT MUST BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE AS A PREREQUISITE TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY.
20. A COPY OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE MAINTAINED ON THE PROJECT SITE DURING CONSTRUCTION.
21. ANY CONVEYANCE OF THIS PROJECT PRIOR TO ITS COMPLETION WILL TRANSFER FULL RESPONSIBILITY FOR COMPLIANCE WITH THE CERTIFIED PLAN TO ANY SUBSEQUENT OWNERS.
22. IMMEDIATELY AFTER THE COMPLETION OF STRIPPING AND STOCKPILING OF TOPSOIL, THE STOCKPILE MUST BE STABILIZED ACCORDING TO THE STANDARD FOR TEMPORARY VEGETATIVE COVER. STABILIZE TOPSOIL PILE WITH STRAW MULCH FOR PROTECTION IF THE SEASON DOES NOT PERMIT THE APPLICATION AND ESTABLISHMENT OF TEMPORARY SEEDING. ALL SOIL STOCKPILES ARE NOT TO BE LOCATED WITHIN FIFTY (50) FEET OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY AND THE BASE MUST BE PROTECTED WITH A SEDIMENT BARRIER.
23. ANY CHANGES TO THE SITE PLAN WILL REQUIRE THE SUBMISSION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN TO THE SOIL CONSERVATION DISTRICT. THE REVISED PLAN MUST BE IN ACCORDANCE WITH THE CURRENT STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.
24. METHODS FOR THE MANAGEMENT OF HIGH ACID PRODUCING SOILS SHALL BE IN ACCORDANCE WITH THE STANDARDS. HIGH ACID PRODUCING SOILS ARE THOSE FOUND TO CONTAIN IRON SULFIDES OR HAVE A PH OF 4 OR LESS.
25. MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT BE CONSTRUCTED STEEPER THAN 3:1 UNLESS OTHERWISE APPROVED BY THE DISTRICT.
26. DUST IS TO BE CONTROLLED BY AN APPROVED METHOD ACCORDING TO THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND MAY INCLUDE WATERING WITH A SOLUTION OF CALCIUM CHLORIDE AND WATER.
27. ADJOINING PROPERTIES SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS ON THE PROPOSED SITE.
28. USE STAGED CONSTRUCTION METHODS TO MINIMIZE EXPOSED SURFACES, WHERE APPLICABLE.
29. ALL VEGETATIVE MATERIAL SHALL BE SELECTED IN ACCORDANCE WITH AMERICAN STANDARDS FOR NURSERY STOCK OF THE AMERICAN ASSOCIATION OF THE NURSERYMEN AND IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.
30. NATURAL VEGETATION AND SPECIES SHALL BE RETAINED WHERE SPECIFIED ON THE LANDSCAPE PLAN.
31. THE PERMANENT VEGETATIVE COVER SUCH AS SEEDING OR SODDING ON ALL AREAS SHALL BE ACCOMPLISHED WITHIN 10 DAYS AFTER FINAL GRADING OPERATIONS HAVE BEEN COMPLETED.
32. EXCAVATED SOIL MATERIAL SHALL NOT BE PLACED ADJACENT TO RIVERS, STREAMS, OR BODIES OF WATER IN A MANNER THAT WILL CAUSE IT TO BE WASHED AWAY BY HIGH WATER OR RUNOFF. EXCESS BORROW MATERIAL REMOVED FROM THE CONSTRUCTION SITE SHALL BE STABILIZED AT THE SITE OF PLACEMENT.
33. THIS CERTIFICATION IS LIMITED TO THE CONTROLS SPECIFIED IN THIS PLAN. IT IS NOT AUTHORIZATION TO ENGAGE IN THE PROPOSED LAND USE UNLESS SUCH USE HAS BEEN PREVIOUSLY APPROVED BY THE MUNICIPALITY, COUNTY, STATE AGENCY OR OTHER CONTROLLING AGENCY.



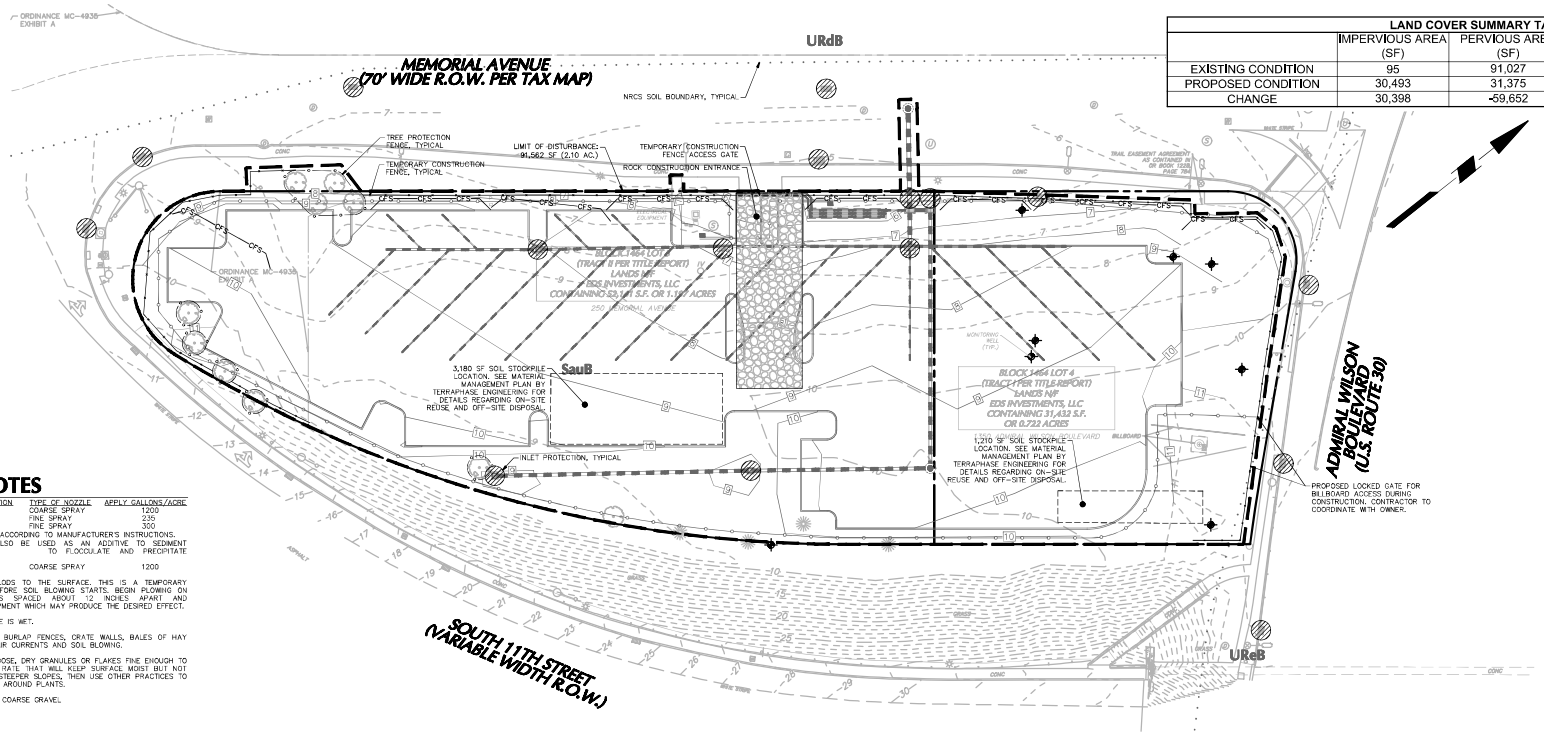
1 EXISTING IMPERVIOUS/PERVIOUS AREA
1" = 100'



2 PROPOSED IMPERVIOUS/PERVIOUS AREA
1" = 100'

LAND COVER SUMMARY TABLE

	IMPERVIOUS AREA (SF)	PERVIOUS AREA (SF)	POROUS AREA (SF)	TOTAL AREA (SF)
EXISTING CONDITION	95	91,027	0	91,122
PROPOSED CONDITION	30,493	31,375	29,254	91,122
CHANGE	30,398	-59,652	29,254	0



SOIL STOCKPILE LOCATION NOTE: DURING CONSTRUCTION, IF THE STOCKPILE IS LOCATED WITHIN THE THE FLOOD HAZARD AREA, PLACE AN IMPERMEABLE BARRIER ON THE GROUND, ENCLOSE THE AREA WITH JERSEY BARRIERS, AND COVER WHEN NOT IN USE.

NOTE: IMPORTED MATERIAL FOR SOIL EROSION AND SEDIMENT CONTROL MEASURES MUST MEET REQUIREMENTS OF NJDEP CLEAN FILL, INCLUDING APPROVAL BY SITE LSRP.

DUST CONTROL NOTES

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ACRE
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1200
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300
POLYACRYLAMIDE (PAM) – SPRAY ON	APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS.		
POLYACRYLAMIDE (PAM) – DRY SPREAD	MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS.		
ACIDULATED SOY BEAN SOAP STICK	NONE	COARSE SPRAY	1200

TILLAGE – TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

SPRINKLING – SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

BARRIERS – SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.

CALCIUM CHLORIDE – SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS OR ACCUMULATION AROUND PLANTS.

STONE – COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL

DISTRICT CONTACT INFORMATION

DELATLANTIC CONSERVATION DISTRICT
408 COMMERCE LANE
WEST BERLIN, NJ 08091
PHONE: (856) 767-6299

Date	Description	No.
Revisions		

Signature — Date
KYLE J. MACGEORGE, P.E.
PROFESSIONAL ENGINEER NJ LIC. NO. 24GE05751600

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NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project: SUBARU BLOCK 1464 LOTS 4 AND 5 VEHICLE STORAGE LOT
CAMDEN COUNTY — CAMDEN — NEW JERSEY

Drawing Title: SOIL EROSION & SEDIMENT CONTROL PLAN

Project No. 220132401
Date 3/20/2026
Drawn By JL
Checked By JCW

Drawing No. CE101
Sheet 10 of 11

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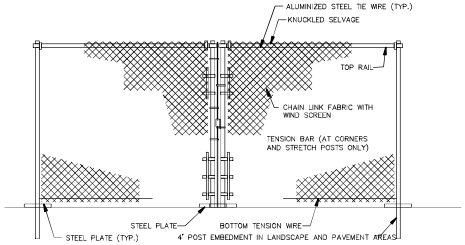
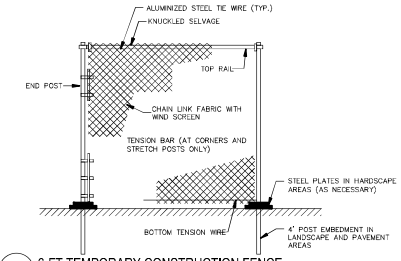
Date: 3/19/2026 Time: 11:41 User: cwilcware Style Table: Langan.stb Layout: CE101 Document Code: 220132401-0501-CE101-101



1 TEMPORARY CONTRUCTION GATE
NOT TO SCALE



2 6-FT TEMPORARY CONSTRUCTION FENCE
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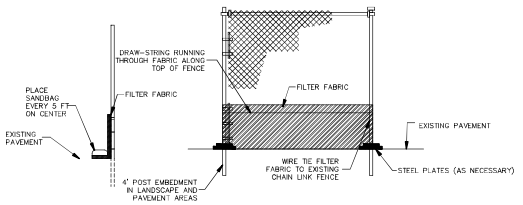
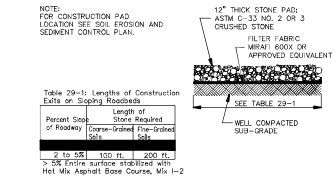
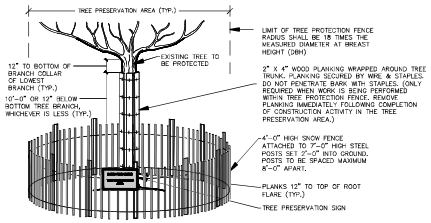


3 SILT FENCE/CHAIN LINK FENCE (IN PAVEMENT AREAS ONLY)
NOT TO SCALE

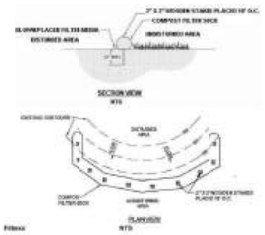


4 STABALIZED CONSTRUCTION ACCESS
NOT TO SCALE

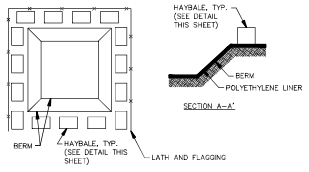


NOTES:
1. ALL EXISTING TREES WITHIN THE LIMITS OF TREE PROTECTION FENCING SHALL BE PROTECTED THROUGHOUT THE DURATION OF WORK. THE LIMIT OF TREE PROTECTION FENCE RADIUS SHALL BE 18 TIMES THE MEASURED DIAMETER-AT-BREAST-HEIGHT (DBH), UNLESS CONDITIONS WARRANT THE FENCE TO BE LOCATED CLOSER TO THE TREE. THE PROJECT LANDSCAPE ARCHITECT TO APPROVE THE LOCATION OF ALL FENCING PRIOR TO EXCAVATION.
2. TREE PROTECTION PLANKING SHALL BE INSTALLED ON ALL EXISTING TREES ONLY WHEN WORK IS TO BE DONE WITHIN THE LIMIT OF TREE PROTECTION FENCING. REFER TO DETAIL ON THIS SHEET.
3. IF TREE PROTECTION FENCING NEEDS TO BE MOVED OR BREACHED DUE TO TEMPORARY CONSTRUCTION ACTIVITY WITHIN THE TREE PROTECTION ZONE, THE FENCING WILL BE RESET TO ITS ORIGINAL LOCATION IMMEDIATELY AFTER CONSTRUCTION WITHIN THE TREE PROTECTION ZONE IS COMPLETE.
4. TREE PROTECTION FENCING SHALL BE MAINTAINED TO PROTECT TREES AT ALL TIMES. ANY DAMAGED FENCING SHALL BE IMMEDIATELY REPLACED WHEN DAMAGED.
5. DEMOLITION WORK WITHIN THE TREE PROTECTION FENCE OF PROTECTED TREES SHALL BE PERFORMED BY NON-MECHANICAL METHODS. CONTRACTOR TO PROTECT ROOT MASS AGAINST DAMAGE DURING EXCAVATION. ANY TREE ROOTS THAT ARE DISTURBED, BROKEN, OR CUT SHALL BE PRUNED BACK WITH CLEAN SHARP TOOLS.
6. ALL TEMPORARILY EXPOSED TREE ROOTS SHALL BE COVERED WITH 2 INCHES OF SHREDDED HARDWOOD MULCH AND THOROUGHLY IRRIGATED ON A DAILY BASIS AS DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT.
7. ALL WORK TO BE PERFORMED UNDER THE DIRECT SUPERVISION OF EITHER THE OWNER'S REPRESENTATIVE OR THE PROJECT LANDSCAPE ARCHITECT.

5 TREE PROTECTION FENCING AND TREE PLANKING
NOT TO SCALE

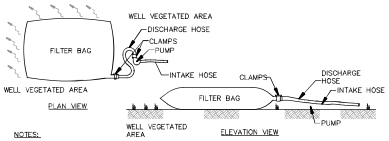


6 COMPOST FILTER SOCK
NOT TO SCALE



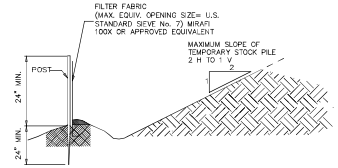
NOTES:
1. CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY WASHOUT FACILITY (SEE DETAIL THIS SHEET).
2. A NON-COLLAPSING, NON-WATER COLLECTING COVER SHALL BE PLACED OVER THE CONCRETE WASHOUT FACILITY PRIOR TO INCLEMENT WEATHER.
3. AT OR BEFORE 50% OF THE FACILITY'S CAPACITY IS ATTAINED, DISCONTINUE USE AND CLEAN OUT FACILITY. REMOVE HARDENED CONCRETE AND PROPERLY DISPOSE OR REUSE.
4. REMOVE WASHOUT FACILITY UPON COMPLETION OF CONCRETE CONSTRUCTION. REMOVE CONTAMINATED SOIL AS NECESSARY.

7 CONCRETE WASHOUT FACILITY
NOT TO SCALE



NOTES:
1. FILTER BAG SHALL BE NON-WOVEN GEOTEXTILE WHICH RETAINS ALL SEDIMENT PARTICLES LARGER THAN 180 MICRONS.
2. FILTER BAGS SHALL BE PLACED ON A STABLE, WELL VEGETATED AREA WITH A GROUND SLOPE NOT EXCEEDING FIVE PERCENT (5%).
3. CLAMP PUMP DISCHARGE HOSE SECURELY INTO FILTER BAGS.
4. LIMIT PUMPING RATE TO 1/2 THE MANUFACTURER'S MAXIMUM PUMPING RATE
5. WHEN SEDIMENTS FILL 1/2 THE VOLUME OF A FILTER BAG, IMMEDIATELY REMOVE THAT BAG FROM SERVICE PROPERLY, DISPOSE OF SPENT BAGS WITH THEIR SEDIMENTS.

8 SEDIMENT FILTER BAG
NOT TO SCALE



9 TEMPORARY STOCKPILE
NOT TO SCALE

Date	Description	No.
Revisions		

NEW JERSEY PROFESSIONAL ENGINEER No. 24GE05751600 LICENSED
Signature Date
KYLE J. MACGEORGE, P.E.
PROFESSIONAL ENGINEER NJ LIC. NO. 24GE05751600

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NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project
SUBARU BLOCK 1464 LOTS 4 AND 5 VEHICLE STORAGE LOT
CAMDEN COUNTY CAMDEN NEW JERSEY

Drawing Title
SOIL EROSION & SEDIMENT CONTROL DETAILS

Project No. 220132401
Date 3/20/2026
Drawn By JL
Checked By JCW

Drawing No. CE501
Sheet 11 of 11

Date: 3/19/2026 Time: 11:41 User: cwiloware Style Table: Langan.stb Layout: CE501 Document Code: 220132401-0501-CE501-101

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ALTA/NSPS LAND TITLE SURVEY
1350 ADMIRAL WILSON BOULEVARD, 250 MEMORIAL AVENUE, CITY OF CAMDEN, CAMDEN COUNTY, NEW JERSEY
BLOCK 1464, LOTS 4 & 5

PROJECT LOCATION MAP
SCALE: 1"=500'
SOURCE: MICROSOFT BING

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF CAMDEN, COUNTY OF CAMDEN, STATE OF NEW JERSEY, AND IS DESCRIBED AS FOLLOWS:

TRACT I: (LOTS 4 AND 4 QUAL 801, BLOCK 1464)

BEGINNING AT A CORNER FORMED BY THE INTERSECTION OF THE SOUTHWESTERLY OF BRIDGE BOULEVARD AND THE SOUTHEASTERLY LINE OF MEMORIAL AVENUE, AND EXTENDING THENCE IN A SOUTHWESTERLY DIRECTION ALONG THE SOUTHEASTERLY LINE OF MEMORIAL AVENUE A DISTANCE OF 200.00 FEET. TO A POINT; THENCE IN A SOUTHEASTERLY DIRECTION AND AT RIGHT ANGLES TO MEMORIAL AVENUE, A DISTANCE OF 180.50 FEET TO A POINT IN LINE OF LANDS OF THE STATE OF NEW JERSEY; THENCE

IN A NORTHEASTERLY DIRECTION ALONG SAME AND PARALLEL WITH MEMORIAL AVENUE A DISTANCE OF 161.5 FEET, MORE OR LESS, TO A POINT IN THE CURVED SOUTHWESTERLY LINE OF BRIDGE BOULEVARD; THENCE IN A NORTHWESTERLY DIRECTION ALONG THE CURVED SOUTHWESTERLY LINE OF BRIDGE BOULEVARD AND CURVING TO THE RIGHT WITH A RADIUS OF 1206.28 FEET THE ARC DISTANCE OF 194.73 FEET TO THE PLACE OF BEGINNING.

EXCEPTING THEREOUT AND THEREFROM THE FOLLOWING PREMISES KNOWN AS PARCEL #20 NEW JERSEY STATE HIGHWAY DEPT., ROUTE 25 (1927) SECTION 10 ON A PLAN FILED IN THE REGISTER OF DEEDS OFFICE OF CAMDEN COUNTY, MAY, 1947.

BEGINNING AT THE INTERSECTION OF THE SOUTHEASTERLY LINE OF MEMORIAL AVENUE WITH THE SOUTHWESTERLY LINE OF BRIDGE BOULEVARD AND EXTENDING THENCE IN A SOUTHWESTERLY DIRECTION ALONG THE SOUTHEASTERLY LINE OF MEMORIAL AVENUE ABOUT 26.45 FEET THENCE IN A GENERAL EASTERLY DIRECTION CURVING TO THE RIGHT WITH A RADIUS OF 20 FEET THE ARC DISTANCE OF ABOUT 36.71 FEET TO THE CURVED SOUTHWESTERLY LINE OF BRIDGE BOULEVARD; THENCE IN A NORTHWESTERLY DIRECTION ALONG THE CURVED SOUTHWESTERLY LINE OF BRIDGE BOULEVARD AND CURVING TO THE RIGHT WITH A RADIUS OF 1206.28 FEET THE ARC DISTANCE OF 26.23 FEET TO THE PLACE OF BEGINNING.

AND FURTHER EXCEPTING THEREOUT AND THEREFROM THE FOLLOWING PREMISES KNOWN AS PARCEL W2C, AS INDICATED ON A PLAN FILED OR ABOUT TO BE FILED IN THE OFFICE OF THE REGISTER OF DEEDS OF CAMDEN COUNTY, ENTITLED "NEW JERSEY STATE HIGHWAY DEPARTMENT, GENERAL PROPERTY, PARCEL MAP, ROUTE 151, SECTION 1 (CAMDEN CONNECTION TO ROUTE 25), FROM FEDERAL STREET PENNSYLVANIA-READING SEASHORE LINES, SHOWING EXISTING RIGHT OF WAY AND PARCELS TO BE ACQUIRED IN THE CITY OF CAMDEN, COUNTY OF CAMDEN, SCALES AS SHOWN, SEPTEMBER 1948", PARCEL W2C, BEGINNING AT A POINT IN THE EXISTING SOUTHWESTERLY RIGHT OF WAY LINE OF STATE HIGHWAY ROUTE 25 (ENTRANCE ROAD), DISTANT 60 FEET SOUTHWESTWARDLY FROM, MEASURED RADIAL TO, BASE LINE "B", AS LAID DOWN ON SAID PLAN, AT SECTION 22+43.00 (ARC STATION), SAID BEGINNING POINT BEING THE JUNCTION OF SAID EXISTING SOUTHWESTERLY RIGHT OF WAY LINE WITH THE NEW SOUTHWESTERLY RIGHT OF WAY LINE, SAID STATE HIGHWAY, AS LAID DOWN ON SAID PLAN, SAID BEGINNING POINT BEING DISTANT 200.61 FEET, MEASURED NORTHWESTWARDLY ALONG SAID EXISTING SOUTHWESTERLY RIGHT OF WAY LINE OF A RADIUS OF 1206.28 FEET, FROM A POINT OF TANGENCY IN SAID EXISTING SOUTHWESTERLY RIGHT OF WAY LINE MARKED "P.T. 24 + 53.46 FEET" ON SAID PLAN, SAID POINT OF TANGENCY BEING DISTANT 6 FEET, MEASURED SOUTHWESTERLY ALONG A LINE NORMAL TO BASE LINE "B", AFORESAID, AT SAID P.T. STATION FROM A CITY MONUMENT ON THE SOUTHWESTERLY SIDE OF SAID STATE HIGHWAY, AS SHOWN ON SAID PLAN, AND RUNNING; THENCE:

1. ALONG SAID NEW SOUTHWESTERLY RIGHT OF WAY LINE, AT RIGHT ANGLES TO A LINE RADIUS TO BASE LINE "B", AFORESAID, AT STATION 22 + 43.00, A DISTANCE OF 96.53 FEET TO A POINT OF CURVATURE; THENCE
2. IN A WESTERLY DIRECTION STILL ALONG SAID NEW RIGHT OF WAY LINE, CURVING TO THE LEFT WITH A RADIUS OF 35 FEET, AN ARC DISTANCE OF 60.96 FEET TO A POINT OF TANGENCY IN THE SOUTHEASTERLY LINE OF MEMORIAL AVENUE; THENCE
3. ALONG SAID SOUTHEASTERLY LINE OF MEMORIAL AVENUE NORTH 37°54'20" EAST (NORTH 37°54'20" EAST) A DISTANCE OF 23.33 FEET TO A POINT OF CURVATURE; THENCE
4. IN AN EASTERLY DIRECTION ALONG THE EXISTING RIGHT OF WAY LINE OF THE AFORESAID STATE HIGHWAY CURVING TO THE RIGHT WITH A RADIUS OF 20 FEET, AN ARC DISTANCE OF 36.72 FEET TO A POINT OF REVERSE CURVATURE DISTANT 60 FEET SOUTHWESTERLY FROM, MEASURED RADIAL TO BASE LINE "B", AFORESAID; THENCE
5. IN A SOUTHEASTERLY DIRECTION STILL ALONG SAID EXISTING RIGHT OF WAY LINE CONCENTRIC WITH AND DISTANT 60 FEET SOUTHWESTERLY FROM, MEASURED RADIAL TO BASE LINE "B", AFORESAID, CURVING TO THE LEFT WITH A RADIUS OF 1206.28 FEET, AN ARC DISTANCE OF 17.51 FEET TO THE POINT AND PLACE OF BEGINNING.

TRACT II: (LOT 5, BLOCK 1464)

BEGINNING AT A POINT IN THE SOUTHEASTERLY LINE OF MEMORIAL AVENUE, AT THE DISTANCE OF 173.55 FEET SOUTHWESTWARDLY FROM A POINT OF CURVE IN SAID LINE, SAID BEGINNING POINT BEING ALSO 200 FEET SOUTHWESTWARDLY FROM THE INTERSECTION OF SAID SOUTHEASTERLY LINE OF MEMORIAL AVENUE WITH THE CURVE SOUTHWESTERLY LINE OF BRIDGE BOULEVARD (ROUTE 25); THENCE

SOUTHWESTWARDLY ALONG THE SOUTHEASTERLY LINE OF MEMORIAL AVENUE, 263.96 FEET TO A POINT WHERE SAID SOUTHEASTERLY LINE OF MEMORIAL AVENUE IS INTERSECTED BY THE RIGHT OF WAY LINE OF ROUTE 151, SECTION 1, CAMDEN CONNECTION TO ROUTE 25, AS SHOWN ON A PLAN ENTITLED NEW JERSEY STATE HIGHWAY DEPARTMENT GENERAL PROPERTY PARCEL MAP; THENCE

ALONG SAID RIGHT OF WAY LINE, CURVING TO THE LEFT WITH A RADIUS OF 135 FEET, THE ARC DISTANCE OF 57.74 FEET; THENCE

SOUTHWESTWARDLY STILL ALONG SAID RIGHT OF WAY LINE AND AT RIGHT ANGLES TO MEMORIAL AVENUE, THE DISTANCE OF 107.30 FEET TO A CORNER IN SAID LINE; THENCE

STILL ALONG SAID RIGHT OF WAY LINE, CURVING TO THE LEFT WITH A RADIUS OF 650 FEET; THE ARC DISTANCE OF 283.94 FEET TO A POINT OF TANGENT; THENCE

NORTHEASTWARDLY STILL ALONG SAID RIGHT OF WAY LINE AND PARALLEL WITH MEMORIAL AVENUE 44.96 FEET TO A POINT; THENCE

NORTHWESTWARDLY AT RIGHT ANGLES TO MEMORIAL AVENUE, 180.50 FEET TO A POINT IN THE SOUTHEASTERLY LINE OF MEMORIAL AVENUE AND THE PLACE OF BEGINNING.

AND ALSO BEING DESCRIBED AS FOLLOWS:

TRACT I: (LOTS 4 AND 4 QUAL 801, BLOCK 1464)

BEGINNING AT THE WESTERLY TERMINUS OF A ROUNDED CORNER FORMING THE INTERSECTION OF THE SOUTHEASTERLY SIDE OF MEMORIAL AVENUE (VARIABLE WIDTH) AND THE SOUTHWESTERLY SIDE OF ADMIRAL WILSON BOULEVARD (VARIABLE WIDTH) AND EXTENDING; THENCE,

1) ON AN ARC CURVING TO THE RIGHT HAVING A RADIUS OF 35.00 FEET, AN ARC DISTANCE OF 60.96 FEET AND A CENTRAL ANGLE OF 99°47'54" AND BEING SUBTENDED BY A CHORD WHICH BEARS NORTH 88°13'10" EAST, A CHORD LENGTH OF 53.54 FEET; THENCE,
2) SOUTH 41°53'02" EAST, A DISTANCE OF 94.99 FEET TO A POINT OF CURVATURE; THENCE,
3) ON AN ARC CURVING TO THE LEFT HAVING A RADIUS OF 1,206.28 FEET, AN ARC DISTANCE OF 46.49 FEET AND A CENTRAL ANGLE OF 2°12'50" AND BEING SUBTENDED BY A CHORD WHICH BEARS SOUTH 42°54'34" EAST, A CHORD LENGTH OF 46.49 FEET TO A POINT IN THE NORTHWESTERLY RIGHT-OF-WAY LINE OF FLANDERS AVENUE (VARIABLE WIDTH); THENCE,
4) ALONG SAID LINE OF FLANDERS AVENUE, SOUTH 38°20'00" WEST, A DISTANCE OF 161.50 FEET TO THE NORTHEASTERLY LINE OF BLOCK 1464, LOT 5; THENCE,
5) NORTH 51°40'00" WEST, A DISTANCE OF 180.50 FEET TO THE AFOREMENTIONED SOUTHEASTERLY SIDE OF MEMORIAL AVENUE; THENCE,
6) ALONG SAID SIDE OF MEMORIAL AVENUE, NORTH 38°20'00" EAST, A DISTANCE OF 150.22 FEET TO THE FIRST MENTIONED POINT AND PLACE OF BEGINNING.

TRACT II: (LOT 5, BLOCK 1464)

BEGINNING AT A POINT IN THE SOUTHEASTERLY SIDE OF MEMORIAL AVENUE (VARIABLE WIDTH), SAID POINT BEING LOCATED AT THE WESTERLY CORNER OF BLOCK 1464, LOT 4, AND LOCATED SOUTH 38°20'00" WEST, A DISTANCE OF 150.22 FEET FROM THE WESTERLY TERMINUS OF A ROUNDED CORNER FORMING THE INTERSECTION OF THE SOUTHEASTERLY SIDE OF MEMORIAL AVENUE (VARIABLE WIDTH) AND THE SOUTHWESTERLY SIDE OF ADMIRAL WILSON BOULEVARD (VARIABLE WIDTH) AND EXTENDING; THENCE,

1) ALONG THE SOUTHWESTERLY LINE OF LOT 4, SOUTH 51°40'00" EAST, A DISTANCE OF 180.50 FEET TO A POINT IN THE NORTHWESTERLY LINE OF FLANDERS AVENUE (VARIABLE WIDTH); THENCE,
2) ALONG THE SAID LINE OF FLANDERS AVENUE, SOUTH 38°20'00" WEST, A DISTANCE OF 44.96 FEET; THENCE,
3) STILL ALONG THE SAME ON AN ARC TO THE RIGHT HAVING A RADIUS OF 650.00 FEET, AN ARC DISTANCE OF 283.94 FEET AND A CENTRAL ANGLE OF 25°01'43" AND BEING SUBTENDED BY A CHORD WHICH BEARS SOUTH 50°42'23" WEST, A CHORD LENGTH OF 281.69 FEET; THENCE,
4) NORTH 51°40'00" WEST, A DISTANCE OF 107.30 FEET TO A POINT IN THE AFOREMENTIONED SOUTHEASTERLY SIDE OF MEMORIAL AVENUE; THENCE,
5) ALONG SAID LINE OF MEMORIAL AVENUE, ON AN ARC CURVING TO THE RIGHT HAVING A RADIUS OF 135.00 FEET, AN ARC DISTANCE OF 58.04 FEET AND A CENTRAL ANGLE OF 24°37'59" AND BEING SUBTENDED BY A CHORD WHICH BEARS NORTH 25°22'04" EAST, A CHORD LENGTH OF 57.59 FEET; THENCE,
6) STILL ALONG THE SAME NORTH 38°20'00" EAST, A DISTANCE OF 263.96 FEET TO THE FIRST MENTIONED POINT AND PLACE OF BEGINNING.

ORDINANCE MC-4935 AS EVIDENCED BY ORDINANCE AUTHORIZING THE VACATION OF A PORTION OF MT. EPHRAIM AVENUE AND ELEVENTH STREET BETWEEN MT. EPHRAIM AVENUE AND MEMORIAL AVENUE IN DEED BOOK 10395 PAGE 1067

NOTE: FOR INFORMATION ONLY: BEING LOTS 4, 4 QUAL 801 AND 5, BLOCK 1464 ON THE TAX MAP OF THE CITY OF CAMDEN, COUNTY OF CAMDEN, STATE OF NEW JERSEY.

ORDINANCE MC 004935 DESCRIPTION OF VACATED PARCEL AT 11TH STREET AND MEMORIAL AVENUE.
LEGAL DESCRIPTION OF PARCEL 1 R.O.W. VACATION

ALL THAT CERTAIN TRACT OR PARCEL OF LAND SITUATE IN THE CITY OF CAMDEN, CAMDEN COUNTY, AND THE STATE OF NEW JERSEY AND BEING KNOWN AS PARCEL 1 R.O.W. VACATION, SITUATED WITHIN THE EXISTING 11TH STREET AND MEMORIAL AVENUE RIGHT OF WAYS AS SHOWN ON A PLAN ENTITLED "STREET VACATION & EASEMENT PLAN – PROPOSED SUBARU HEADQUARTERS, CITY OF CAMDEN, CAMDEN COUNTY, NEW JERSEY", PREPARED BY T&M ASSOCIATES, MOORESTOWN, NEW JERSEY, DATED JULY 6, 2015 AND BEING FURTHER DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EXISTING SOUTHEASTERLY RIGHT-OF-WAY LINE OF MEMORIAL AVENUE (70' WIDE), SAID POINT BEING THE NORTHWESTERLY PROPERTY CORNER OF BLOCK 1464, LOT 5, THENCE;

1. SOUTHWESTERLY AND SOUTHERLY CURVING TO THE LEFT ALONG AN ARC HAVING A RADIUS OF 135.00 FEET, AN ARC DISTANCE OF 58.04 FEET, A CENTRAL ANGLE OF 24°37'59", THENCE;
2. S 51°40'00" E, A DISTANCE OF 107.30 FEET TO A POINT ON THE SOUTHEASTERLY LINE OF FLANDERS AVENUE, THENCE;
3. SOUTHWESTERLY AND WESTERLY CURVING TO THE RIGHT ALONG SAID LINE OF FLANDERS AVENUE AN ARC HAVING A RADIUS OF 689.91 FEET, AN ARC DISTANCE OF 77.79 FEET, A CENTRAL ANGLE OF 6°27'37", THENCE;
4. SOUTHWESTERLY AND NORTHERLY CURVING TO THE RIGHT CONNECTING SAID LINE OF FLANDERS AVENUE TO SAID LINE OF MEMORIAL AVENUE ALONG AN ARC HAVING A RADIUS OF 45.00 FEET, AN ARC DISTANCE OF 116.08 FEET, A CENTRAL ANGLE OF 147°46'34", THENCE;
5. N 38°20'02" W, A DISTANCE OF 101.29 FEET TO THE POINT AND PLACE OF BEGINNING.

CONTAINING WITHIN SAID BOUNDS 8,360.65 SQUARE FEET OR 0.19 ACRES OF LAND MORE OR LESS AS DESCRIBED ABOVE.

TITLE EXCEPTIONS

FIRST AMERICAN TITLE INSURANCE COMPANY
COMMITMENT NO.: NCS-1208879-PHL
COMMITMENT DATE: MARCH 17, 2025

EXCEPTIONS 1 THROUGH 9 ARE NOT SURVEY RELATED.

10. SLOPE, GRADING AND DRAINAGE RIGHTS OF THE STATE OF NEW JERSEY AS CONTAINED IN DEED BOOK 1487 PAGE 472 (AFFECTS TRACTS I AND II)
11. DEED NOTICE AS CONTAINED IN OR BOOK 9233, PAGE 1865. (NOT PLOTTABLE. INVOLVES ENVIRONMENT ISSUES AFFECTS TRACTS I AND II)
12. DEED RESTRICTIONS AS CONTAINED IN OR BOOK 9705, PAGE 1793 AND CORRECTIVE DEED OR BOOK 10474, PAGE 1613. (RESTRICTIONS NOT PLOTTABLE. AFFECTS TRACTS I AND II)
13. TRAIL EASEMENT AGREEMENT AS CONTAINED IN OR BOOK 12284, PAGE 784. (PLOTTED. AS APPROXIMATELY SHOWN ON THE SURVEY. AFFECTS TRACT I)
14. NOTE FOR INFORMATION: VARIATIONS EXIST BETWEEN TAX MAP AND DEED DESCRIPTION. (NOT PLOTTABLE. AFFECTS TRACTS I AND II)
15. RIGHTS OF TENANTS UNDER UNRECORDED LEASES. (NOT PLOTTABLE. NOT SURVEY RELATED.)
16. SUBJECT TO THE RIGHT, BOTH PUBLIC AND PRIVATE, IN AND TO THAT PORTION OF THE SUBJECT PREMISES WHICH LIE WITHIN THE EXISTING RIGHTS OF WAY OF SOUTH 11TH STREET (TRACT I AND TRACT II) AND ADMIRAL WILSON BOULEVARD A/K/A US ROUTE 30 (TRACT I).
17. RIGHTS OF THE STATE OF NEW JERSEY TO LIMIT AND/OR REGULATE INGRESS TO AND/OR EGRESS FROM THE PREMISES AND ADJOINING SOUTH 11TH STREET (TRACT I AND TRACK II) AND ADMIRAL WILSON BOULEVARD A/K/A US ROUTE 30 (TRACT I).
18. THIS ITEM HAS BEEN INTENTIONALLY DELETED.
19. TERMS AND CONDITIONS OF THAT CERTAIN ORDINANCE MC-4935 AS EVIDENCED BY ORDINANCE AUTHORIZING THE VACATION OF A PORTION OF MT. EPHRAIM AVENUE AND ELEVENTH STREET BETWEEN MT. EPHRAIM AVENUE AND MEMORIAL AVENUE IN DEED BOOK 10395 PAGE 1067. (VACATED PORTION OF FORMER RIGHT-OF-WAY ON WESTERLY END OF LOT 5.)
20. RIGHTS OF THE CITY OF CAMDEN TO MAINTAIN, OPERATE, REPAIR OR REPLACE EXISTING UTILITY LINES LOCATED WITHIN THE BED OF A PORTION OF MT. EPHRAIM AVENUE AND ELEVENTH STREET BETWEEN MT. EPHRAIM AVENUE AND MEMORIAL AVENUE, NOW VACATED.
21. RIGHTS OF UTILITY COMPANIES, IF ANY, LYING WITHIN THE BED OF A PORTION OF MT. EPHRAIM AVENUE AND ELEVENTH STREET BETWEEN MT. EPHRAIM AVENUE AND MEMORIAL AVENUE, NOW VACATED.

NOTES

1. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM NAD83 (2011) OBTAINED USING GPS OBSERVATIONS.
2. ELEVATIONS SHOWN ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88) OBTAINED USING GPS OBSERVATIONS.
3. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN IS BASED ON A FIELD SURVEY PERFORMED BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES DURING JUNE, 2024.
4. OFFSETS (IF SHOWN) ARE FOR SURVEY REFERENCES ONLY AND ARE NOT TO BE USED FOR CONSTRUCTION OF ANY TYPE.
5. UNLESS SPECIFICALLY NOTED HEREON, STORM AND SANITARY SEWER INFORMATION (INCLUDING PIPE INVERT, PIPE MATERIAL, AND PIPE SIZE) WAS OBSERVED AND MEASURED AT FIELD LOCATED STRUCTURES (MANHOLES/CATCH BASINS, ETC.). CONDITIONS CAN VARY FROM THOSE ENCOUNTERED AT THE TIMES WHEN AND THE LOCATIONS WHERE DATA WAS OBTAINED. DESPITE MEETING THE REQUIRED STANDARD OF CARE THE SURVEYOR CANNOT AND DOES NOT WARRANT THAT PIPE MATERIAL AND/OR PIPE SIZE THROUGHOUT THE PIPE RUN ARE THE SAME AS THOSE OBSERVED AT EACH STRUCTURE, OR THAT THE PIPE RUN IS STRAIGHT BETWEEN THE LOCATED STRUCTURES.
6. ADDITIONAL UTILITY (WATER, GAS, ELECTRIC ETC.) DATA MAY BE SHOWN FROM FIELD LOCATED SURFACE MARKINGS (BY OTHERS), EXISTING STRUCTURES, AND/OR FROM EXISTING DRAWINGS.
7. UNLESS SPECIFICALLY NOTED HEREON THE SURVEYOR HAS NOT EXCAVATED TO PHYSICALLY LOCATE THE UNDERGROUND UTILITIES. THE SURVEYOR MAKES NO GUARANTEES THAT THE SHOWN UNDERGROUND UTILITIES ARE EITHER IN SERVICE, ABANDONED OR SUITABLE FOR USE, NOR ARE IN THE EXACT LOCATION OR CONFIGURATION INDICATED HEREON.
8. PRIOR TO ANY DESIGN OR CONSTRUCTION THE PROPER UTILITY AGENCIES MUST BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FOR FIELD LOCATIONS.
9. THIS MAP IS NOT VALID UNLESS EMBOSSED WITH THE IMPRESSION SEAL OR ENCRYPTED WITH THE DIGITAL SIGNATURE AND SEAL OF THE PROFESSIONAL.
10. AT THE TIME OF FIELD SURVEY THERE WAS NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK.
11. NO PROPOSED CHANGES IN STREET RIGHT OF WAY LINES INFORMATION WAS MADE AVAILABLE TO THE SURVEYOR BY THE CONTROLLING JURISDICTION. NO EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK.
12. THERE WERE NO PLOTTABLE OFFSITE (I.E., APPURTENANT) EASEMENTS DISCLOSED IN DOCUMENTS PROVIDED TO OR OBTAINED BY THE SURVEYOR.
13. LANGAN WETLANDS SCIENTISTS VISITED THIS SITE IN JANUARY 2020 AND NOTED THAT NO WETLANDS WERE ENCOUNTERED AT THE SITE AT THAT TIME.

SURVEYOR'S CERTIFICATION

CERTIFIED TO:

1. FIRST AMERICAN TITLE INSURANCE COMPANY
2. SUBARU OF AMERICA, INC., A NEW JERSEY CORPORATION PROPOSED
3. EDS INVESTMENTS, LLC
4. FINGER ONE, LLC

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 5, 8, 9, 13, 16, 17 AND 18 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED DURING JUNE, 2024.

Digitally signed by Joseph E Romano
Date: 2025.04.07 10:25:32-04'00'

Signature:

JOSEPH E. ROMANO
PROFESSIONAL LAND SURVEYOR
NEW JERSEY LIC. NO. 24GS03627300
JROMANO@LANGAN.COM

FLOOD CERTIFICATION

AS PER THE NATIONAL FLOOD INSURANCE PROGRAM (FIRM) MAP TITLED "CAMDEN COUNTY, NEW JERSEY (ALL JURISDICTIONS)", PANEL 28 OF 305, MAP NUMBER 34007C0028F," WITH AN EFFECTIVE DATE OF AUGUST 11, 2016, THE SUBJECT PARCEL IS LOCATED IN ZONE X, OTHER AREAS, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

No.	Description	Date
6	Updated Title Report	04-07-25
5	Added Cert Name	03-18-25
4	Updated Title Report	11-11-24
3	Added Descriptions	10-07-24
2	Boundary Revision	09-16-24
1	Updated Title Report	08-29-24

REVISIONS

LANGAN
Langan Engineering and Environmental Services, LLC
1818 Market Street, Suite 3300
Philadelphia, PA 19103
T: 215.845.8900 F: 215.845.8901 www.langan.com

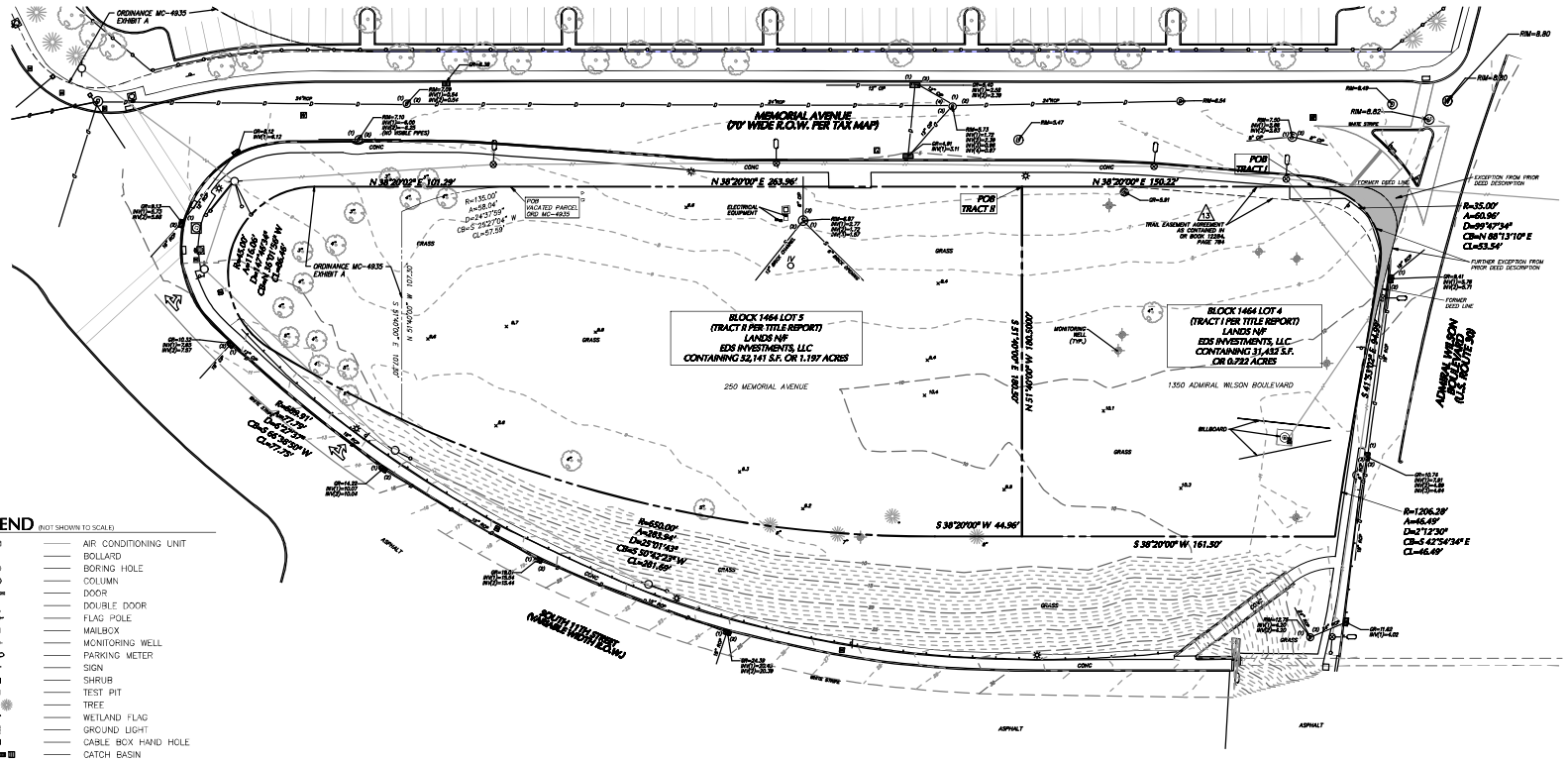
Project
SUBARU OF AMERICA
BLOCK 1464 LOTS 4 & 5
1350 ADMIRAL WILSON BOULEVARD,
250 MEMORIAL AVENUE
CITY OF CAMDEN
CAMDEN COUNTY NEW JERSEY

Drawing Title
ALTA/NSPS LAND TITLE SURVEY

Project No. 220132402	Drawing No. VL-100
Date 07/17/2024	
Drawn By HSA/CJ/DT	
Checked By KB	Sheet 1 of 2

PROJECT NO. 220132402

Pathname: I:\langan.com\data\PHL\data4\220132402\Project Data_Discipline\Survey\CAD\Existing\220132402-V4-ENTITLE.dwg Date: 4/7/2025 Time: 10:48 User: ahiggins Style Table: Langan.ctb Layout: VL-100



NOTES

1. SEE SHEET VL-100 FOR NOTES.

LEGEND (NOT SHOWN TO SCALE)

- AIR CONDITIONING UNIT
- BOLLARD
- BORING HOLE
- COLUMN
- DOOR
- DOUBLE DOOR
- FLAG POLE
- MAILBOX
- MONITORING WELL
- PARKING METER
- SIGN
- SHRUB
- TEST PIT
- TREE
- WETLAND FLAG
- GROUND LIGHT
- CABLE BOX HAND HOLE
- CATCH BASIN
- CLEANOUT
- ELECTRIC BOX
- ELECTRIC METER
- FILLER VALVE
- FIRE HYDRANT
- FLARED END SECTION
- COMMUNICATION BOX
- FUEL PUMP
- GAS METER
- GAS VALVE
- GUY POLE
- GUY WIRE
- HAND HOLE
- LIGHT POLE
- MANHOLE (TYPE AS LABELLED)
- POST INDICATOR VALVE
- POWER POLE
- ROOF DRAIN
- STANDPIPE
- TELEPHONE BOOTH
- TRAFFIC SIGNAL BOX
- PEDESTRIAN PUSH BUTTON
- TRAFFIC SIGNAL
- TRAFFIC SIGNAL ARM
- TRAFFIC SIGNAL POLE

SCALE IN FEET: 30 0 15 30

Date	Description	No.
04-07-25	Updated Title Report	6
03-18-25	Added Cert Name	5
11-11-24	Updated Title Report	4
10-07-24	Added Descriptions	3
09-16-24	Boundary Revision	2
08-29-24	Updated Title Report	1

REVISIONS

LANGAN
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1818 Market Street, Suite 3300
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T: 215.845.8900 F: 215.845.8901 www.langan.com

Project

SUBARU OF AMERICA
BLOCK 1464 LOTS 4 & 5

1350 ADMIRAL WILSON BOULEVARD,
250 MEMORIAL AVENUE
CITY OF CAMDEN
CAMDEN COUNTY NEW JERSEY

Drawing Title

ALTA/NSPS LAND TITLE SURVEY

Project No.	Drawing No.
220132402	VL-101
Date: 07/17/2024	
Drawn By: HSALC/DT	
Checked By: KB	Sheet 2 of 2

LANGAN

PROJECT NO. 220132402

Filename: \\langan.com\data\PHL\data4\220132402\Project Data_Discipline\Survey\CAD\Drawings\220132402-SHEET02.dwg Date: 4/7/2025 Time: 09:49 User: smagers Style Table: Langan.ctb Layout: VL-101

IV. ASSESSMENT CERTIFICATION

Section A: Applicant shall complete

SECTION A **OWNER**

Name of OWNER of Property Finger One, LLC

Address: 250 Memorial Avenue, Camden, NJ 08103

SEARCH Address: 1350 Admiral Wilson Blvd, Camden

Block: 1464 **Lot:** 4 **Account:** _____

Section B: **Applicant shall take this form to the City of Camden Tax Office, Room 117** **(1st floor) for completion to indicate whether taxes are paid up to date. Also for water and sewer to make sure water /sewer is paid up to date.** Upon completion, this form shall be submitted with original application. **NO APPLICATIONS WILL BE ACCEPTED – if any money is owed for Taxes or Water/Sewer, no permit can be issued until accounts are paid in full-proof of payment must be brought back before turning application in.**

Section C: **TAX OFFICE & PNC BANK**

An application for Zoning/Sign permit has been submitted to the Division of Planning. Please check your records to be certain that the account is current

I HEREBY CERTIFY THAT THE PROPERTY ASSESSMENT ARE:

****MORTGAGE LETTERS ON LETTERHEAD WILL BE ACCEPTED FOR SALE/RESALE PROPERTIES ONLY****

Account Type	Qtr.	Due date	Amount Owed	Other
Taxes/W&S/Other	PAST DUE		$378.23	AM 3-19-26
(Taxes/W&S/Other				
(Taxes/W&S/Other				
(Taxes/W&S/Other				

COMMENTS: _____

_____

DATED: _____ **PREPARED BY:** _____

DETACH AND RETAIN FOR RECORDS

VENDOR NUMBER		CHECK DATE	CHECK NUMBER
5545066882	SUBARU OF AMERICA INC ONE SUBARU DRIVE CAMDEN, NJ 08103	19-MAR-26	1899605

BALANCE FORWARD: **0.00**

INVOICE DATE	INVOICE NO.	VIN	GROSS AMOUNT	DISC. AMOUNT	NET AMOUNT
19-MAR-26	14644MARCH2026		378.23		378.23
			378.23	0.00	378.23

SUBARU

SUBARU OF AMERICA INC
ONE SUBARU DRIVE
CAMDEN, NJ 08103

62-35
311

CHECK DATE **19-MAR-26**

CHECK NUMBER **1899605**

AMOUNT ******$378.23**

PAY *Three Hundred Seventy-Eight Dollars And Twenty-Three Cents******

TO THE ORDER OF
CITY OF CAMDEN
TAX OFFICE, RM 117
PO BOX 95120
CAMDEN,NJ 08101
United States

VOID AFTER 180 DAYS

BNY MELLON TRUST OF DELAWARE
Newark, Delaware 19711

Two Signatures required for amounts $50,000.00 and over

Authorized Signature(s)
For Subaru of America, Inc

⑈000189960 5⑈ ⑆031100351⑆ 0300981289⑈

SUBARU OF AMERICA INC
ONE SUBARU DRIVE
CAMDEN, NJ 08103

CITY OF CAMDEN
TAX OFFICE, RM 117
PO BOX 95120
CAMDEN,NJ 08101
United States

BLG: 1464. 4.
po ck/cs
Date: 03/20/26 10:37 AM CAP
Amt: 378.32 CS/CK#:1899605
Ref Num: 147600 Seq: 39 to 40

IV. ASSESSMENT CERTIFICATION

Section A: Applicant shall complete

SECTION A **OWNER**

Name of OWNER of Property Finger One, LLC

Address: 250 Memorial Avenue, Camden, NJ 08103

SEARCH Address: 1350 Admiral Wilson Blvd, Camden

Block: 1464 **Lot:** 4 **Account:** _____

Section B: **Applicant shall take this form to the City of Camden Tax Office, Room 117 (1st floor) for completion to indicate whether taxes are paid up to date. Also for water and sewer to make sure water /sewer is paid up to date.** Upon completion, this form shall be submitted with original application. **NO APPLICATIONS WILL BE ACCEPTED – if any money is owed for Taxes or Water/Sewer, no permit can be issued until accounts are paid in full-proof of payment must be brought back before turning application in.**

Section C: **TAX OFFICE & PNC BANK**

An application for Zoning/Sign permit has been submitted to the Division of Planning. Please check your records to be certain that the account is current

I HEREBY CERTIFY THAT THE PROPERTY ASSESSMENT ARE:

****MORTGAGE LETTERS ON LETTERHEAD WILL BE ACCEPTED FOR SALE/RESALE PROPERTIES ONLY****

Account Type	Qtr.	Due date	Amount Owed	Other
(Taxes/W&S/Other	_____	NOT BILLING	_____	RC 3/20/26
(Taxes/W&S/Other	_____	_____	_____	_____
(Taxes/W&S/Other	_____	_____	_____	_____
(Taxes/W&S/Other	_____	_____	_____	_____

COMMENTS: _____

_____

DATED: _____ **PREPARED BY:** _____

IV. ASSESSMENT CERTIFICATION

Section A: Applicant shall complete

SECTION A **OWNER**

Name of OWNER of Property Finger One, LLC

Address: 250 Memorial Avenue, Camden, NJ 08103

SEARCH Address: 250 Memorial Avenue, Camden, NJ

Block: 1464 **Lot:** 5 **Account:** _____

Section B: **Applicant shall take this form to the City of Camden Tax Office, Room 117 (1st floor) for completion to indicate whether taxes are paid up to date. Also for water and sewer to make sure water /sewer is paid up to date.** Upon completion, this form shall be submitted with original application. **NO APPLICATIONS WILL BE ACCEPTED – if any money is owed for Taxes or Water/Sewer, no permit can be issued until accounts are paid in full-proof of payment must be brought back before turning application in.**

Section C: **TAX OFFICE & PNC BANK**

An application for Zoning/Sign permit has been submitted to the Division of Planning. Please check your records to be certain that the account is current

I HEREBY CERTIFY THAT THE PROPERTY ASSESSMENT ARE:

****MORTGAGE LETTERS ON LETTERHEAD WILL BE ACCEPTED FOR SALE/RESALE PROPERTIES ONLY****

Account Type	Qtr.	Due date	Amount Owed	Other
Taxes/W&S/Other			-0-	AM 3-19-26
(Taxes/W&S/Other				
(Taxes/W&S/Other				
(Taxes/W&S/Other				

COMMENTS: _____

_____

DATED: _____ **PREPARED BY:** _____

IV. ASSESSMENT CERTIFICATION

Section A: Applicant shall complete

SECTION A	**OWNER**
Name of OWNER of Property	Finger One, LLC
Address:	250 Memorial Avenue, Camden, NJ 08103
SEARCH Address:	250 Memorial Avenue, Camden, NJ
Block: 1464	**Lot:** 5 **Account:**

Section B: <u>Applicant shall take this form to the City of Camden Tax Office, Room 117</u> (1st floor) for completion to indicate whether taxes are paid up to date. Also for water and sewer to make sure water /sewer is paid up to date. Upon completion, this form shall be submitted with original application. **NO APPLICATIONS WILL BE ACCEPTED – if any money is owed for Taxes or Water/Sewer, no permit can be issued until accounts are paid in full-proof of payment must be brought back before turning application in.**

Section C: **<u>TAX OFFICE & PNC BANK</u>**

An application for Zoning/Sign permit has been submitted to the Division of Planning. Please check your records to be certain that the account is current

I HEREBY CERTIFY THAT THE PROPERTY ASSESSMENT ARE:

****MORTGAGE LETTERS ON LETTERHEAD WILL BE ACCEPTED FOR SALE/RESALE PROPERTIES ONLY****

Account Type	Qtr	Due date	Amount Owed	Other
(Taxes/W&S/Other			0	RC 3.20.20
(Taxes/W&S/Other				
(Taxes/W&S/Other				
(Taxes/W&S/Other				

City Of Camden Water
Camden Office
Date 3.20.20
Rep RC

COMMENTS: _____

_____

DATED: _____ **PREPARED BY:** _____

ORDINANCE MC- 5596
On Motion Of: Falio Leyba-Martinez
APPROVED: October 14th, 2025
ADOPTED: December 9th, 2025

MBS:dh
10-14-25

AN ORDINANCE AMENDING THE GATEWAY REDEVELOPMENT PLAN (MC-466) REGARDING TAX BLOCK 1464, LOTS 4 AND 5 ON THE CAMDEN CITY MUNICIPAL TAX MAP

WHEREAS, the Gateway Redevelopment Plan for the Gateway Redevelopment Area (the "Redevelopment Plan") was adopted by Ordinance MC-4166 on April 27, 2006 by the City Council of the City of Camden and which was amended by Ordinance MC-5469 adopted on October 17, 2023; and

WHEREAS, the City Council of the City of Camden requested that the Planning Board of the City of Camden study a proposed amendment to the Redevelopment Plan (the "Amended and Restated Gateway Redevelopment Plan"), a copy of which is attached hereto; and

WHEREAS, the Amended and Restated Gateway Redevelopment Plan is intended to help facilitate the redevelopment of the property located at 1350 Admiral Wilson Boulevard and 250 Memorial Drive and identified as Block 1464, Lots 4 and 5 on the Camden City Municipal Tax Map (the "Property"); and

WHEREAS, the Amended and Restated Gateway Redevelopment Plan is only intended to facilitate the redevelopment of the Property and shall not be applicable to any other properties in the Gateway Redevelopment Area; now, therefore

BE IT ORDAINED, by the governing body of the City of Camden that:

Section 1. City Council of the City of Camden hereby approves and adopts the Amended and Restated Gateway Redevelopment Plan regarding Block 1464, Lots 4 and 5 on the Camden City Municipal Tax Map.

Section 2. Any portion of this Ordinance not herein amended and supplemented shall remain in full force and effect.

Section 3. All ordinances or parts of ordinances inconsistent with the provisions of this Ordinance are hereby repealed as to such inconsistency and are hereby repealed as to such inconsistency only.

Section 4. If any standards, controls, objectives, land uses, permitted uses and other restrictions and requirements called for in this Amended and Restated Gateway Redevelopment Plan differ in content from the provisions set forth in the zoning law, the provisions of this Ordinance—unless otherwise specified—shall prevail.

Section 5. This Ordinance shall take effect twenty (20) days after the final passage and publication as provided by law.

Section 6. If and provision or regulation of this Amended and Restated Gateway Redevelopment Plan shall be judged invalid by a court of competent jurisdiction, such order or judgment shall not affect or invalidate the remainder of any article, section, subsection, paragraph, subdivision or clause of this Amended and Restated Redevelopment Plan and such section, subsection, paragraph, subdivision or clause of this Amended and Restated Redevelopment Plan are hereby declared severable.

BE IT FURTHER ORDAINED, that pursuant to N.J.S.A. 52:27BBB-23 and N.J.S.A. 40:69A-41, a true copy of this Ordinance shall be forwarded to the Mayor, who shall have ten (10) days from the receipt thereof to approve or veto this Ordinance. Additionally, pursuant to N.J.S.A. 52:27BBB-23, a true copy of this Ordinance shall be forwarded to the State Commissioner of Community Affairs, who shall have ten (10) days from the receipt thereof to veto this Ordinance, and the action by the Commissioner regarding this Ordinance shall supersede any action by the Mayor on the same Ordinance. All notices of approval and/or veto shall be filed in the Office of the Municipal Clerk.

Date of Introduction: October 14, 2025

The above has been reviewed
and approved as to form.

DANIEL S. **BLACKBURN**
City Attorney

ANGEL FUENTES
President, City Council

VICTOR CARSTARPHEN
Mayor

ATTEST:
LUIS PASTORIZA
Municipal Clerk

Angel Fuentes, President
Councilperson-at-Large

Sheila Davis,
Councilperson-at-Large

Nohemi Soria-Perez
Councilperson-at-Large

Luis Pastoriza, RMC, CMR
Municipal Clerk

Yenise E. Valdes
Assistant Municipal Clerk

Howard McCoach
Counsel-To-Council

Arthur Barclay, Vice-President
Councilperson, 1st Ward

Chris Collins
Councilperson, 2nd Ward

Falio Leyba-Martinez
Councilperson, 3rd Ward

Jannette Ramos
Councilperson, 4th Ward

MUNICIPAL CLERK
CITY OF CAMDEN
NEW JERSEY

PO Box 95120
Room 105, City Hall
Camden, NJ 08101
Tele: (856) 757-7223 / Fax: (856) 757-7220
Email: clerk@ci.camden.nj.us Website: www.ci.camden.nj.us

MEMORANDUM

DATE: ***December 12, 2025***

TO: ***Victor Carstarphen, Mayor***

FROM: ***Luis Pastoriza, Municipal Clerk***

RE: ***Ordinance Final Passage – (MC-5596)***

An Ordinance **Amending The Gateway Redevelopment Plan** (MC-466) Regarding **Tax Block 1464, Lots 4 And 5** On The Camden City Municipal Tax Map

In accordance with Rule XIX of the Administrative Code of the City of Camden (Rules of Procedure governing the City Council), I am delivering to you the attached ordinance adopted by City Council at a **Regular** meeting held on **12-9-2025.** Said article provides that "each ordinance shall be returned by the Mayor to the Municipal Clerk after the Mayor has affixed his /her signature thereto or after the expiration of **ten (10) days** from the date of its delivery to the Mayor in any event."

OFFICE OF THE MAYOR

Received by: _____ **Date:** 12/12/25

Date of Approval: 1/2/25

CITY OF CAMDEN — CITY COUNCIL ACTION REQUEST FORM

COUNCIL MEETING DATE: OCTOBER 7, 2025

TO: City Council
FROM: Dr. Edward C. Williams, PP, AICP, CSI, AHP, CZO, CPZBS, Director
Planning & Development

TITLE OF ORDINANCE/RESOLUTION: An ordinance amending the Gateway Redevelopment Plan (MC-466) regarding the Tax Block 1464, Lots 4 and 5 on the Camden City Municipal Tax Map

Point of Contact: Dr. E. Williams Planning & Development 7135
Edwillia@camdennj.gov

ENDORSEMENTS

	Recommend Approval (Y/N)	Signature	Date	Comments
Responsible Department Director				
Supporting Department Director (if necessary)				
Director of Grants Management				
Qualified Purchasing Agent				
Director of Finance				

Approved by:
Business Administrator

Signature Date

Attachments (list and attach all available):

1. Waiver Request Form Attached for State DCA/DLGS Approval – Attachment G
2. Notification memorandum of DCA of board approval
3. Grant Summary Form; Grant application

"Walk-on" note: All walk-on legislation must be pre-approved by the Business Administrator. The Department Director and Contact Person are jointly responsible for delivering all necessary documents to the City Clerk for distribution at the Council Meeting.

Received by:
City Attorney

Signature Date

EXECUTIVE SUMMARY

TITLE OF ORDINANCE/ RESOLUTION: An ordinance amending the Gateway Redevelopment Plan (MC-466) regarding the Tax Block 1464, Lots 4 and 5 on the Camden City Municipal Tax Map

FACTS/BACKGROUND: (Executive level details. Short, concise bullets)

- This proposed action involves amending the existing Gateway Redevelopment Plan to include a storage lot for company vehicles.

AMOUNT OF PROPOSED CONTRACT or TOTAL COST OF PROPOSAL: n/a

IMPACT STATEMENT: It is recommended that the City Council approved these actions to facilitate the amendment to the Gateway Redevelopment Plan

SUBJECT MATTER EXPERTS/ADVOCATES:

- N/A

COORDINATION:

- The Planning Division staff will continue to monitor this matter.

Prepared by:

Edward Williams x7135 Edwillia@camdennj.gov

Name Phone/Email

PROPOSED AMENDMENT TO GATEWAY REDEVELOPMENT PLAN

SEPTEMBER 2025

PREMISES: BLOCK 1464, LOTS 4 AND 5

Prepared for: City of Camden Planning Board
City of Camden Department of Development and Planning
City of Camden Division of Planning

Prepared by: Troutman Pepper Locke LLP for Subaru of America, Inc.

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I. INTRODUCTION

A. Executive Summary.

This Amendment ("this Amendment" and the "proposed amendment") to the City of Camden Gateway Redevelopment Plan (the "Redevelopment Plan"), dated December 2005 and last amended by Ordinance MC-4166, dated September 12, 2023, is intended to facilitate the redevelopment of the property located at 1350 Admiral Wilson Boulevard and 250 Memorial Avenue in the City of Camden. The property is identified as Block 1464, Lots 4 and 5 on the City Official Tax Map (the "Property"). See **Figure A** attached. Finger One, LLC, an affiliate of Subaru of America, Inc., is the new owner and designated redeveloper of the Property ("Subaru").

The Property (comprising approximately 1.919 Acres) consists of vacant land and has frontage on Admiral Wilson Boulevard, Memorial Avenue and South 11th Street. The Property is located in the Office Light Industrial (OLI) Zone of the Gateway Redevelopment Area. The Property is situated directly across the street from the Subaru Corporate Headquarters building. It was the former site of the Sears Tire & Battery operation. The structures related to the previous use were demolished in 2011 by the prior owner and designated redeveloper Campbell Soup Company in accordance with a certain Redevelopment Agreement with the City of Camden Redevelopment Agency. The Property has existing environmental contamination which will be remediated in connection with the redevelopment of the Property.

Subaru, through its affiliate Finger One, LLC, acquired the Property in April 2025 and intends to redevelop the Property with an off-street vehicle storage use for its corporate vehicles. The use of the corporate vehicles is strictly for offsite Subaru events and promotions. The lot will not be utilized for employee, overflow or visitor parking for the Subaru Headquarters building. Other site improvements may include the installation of a guard house, fencing, landscaping and stormwater management infrastructure (collectively, the "Project"). See **Figure B** attached.

The Redevelopment Plan was initially adopted in 2005. During the last 20 years, the Property has not been redeveloped, and the contamination has not been fully remediated. This Amendment is intended, in part, to encourage redevelopment and remediation of the Property.

In addition, the Redevelopment Plan currently does not permit off-street corporate vehicle storage as a principal permitted use in the OLI Zone District of the Gateway Redevelopment Area. In 2005, the Plan could not and did not envision the need to accommodate the type of use now being proposed by Subaru for the Property. Encouraging the redevelopment of the Property for the off-street corporate vehicle storage use will facilitate the intent of the Redevelopment Plan for the Property that it be maintained, improved and beautified given its prominent location in the Gateway Redevelopment Area of the City.

This Amendment is only intended to facilitate the redevelopment of the Property specifically designated herein and shall not be applicable to any other properties in the Gateway Redevelopment Area.

B. Purpose/Consistency.

The Amendment will further the following goals and objectives of the Redevelopment Plan:

- Attract new business to the Central Gateway;
- Create attractive and pedestrian friendly green areas;
- Clean up and redevelop contaminated sites; and
- Improving the area infrastructure.

The Amendment also furthers various Redevelopment Plan strategies and concepts such as open space enhancement in the Gateway Redevelopment Area.

The Amendment is consistent with the Redevelopment Plan's regulatory controls for the development of the Project on the Property. The OLI Zone does presently permit off-street parking lots as a permitted accessory use. This Amendment seeks to designate a lot for off-street corporate vehicle storage as a principal permitted use on the Property. It is only because the Property constitutes a separate lot and is not immediately adjacent to the Subaru Headquarters parcel, that the proposed off-street corporate vehicle storage use must be classified as a principal use and therefore requiring the need for this Amendment. If it were not for these geographic circumstances, the Project would be considered "as-of-right".

C. Need for Amendment of Plan.

To successfully redevelop the Property, certain amendments to the Redevelopment Plan are required. These amendments will allow for the redevelopment and use of the Property in a way that is modern, aesthetically pleasing and complementary to surrounding uses and buildings. The Redevelopment Plan currently provides that the designated Redeveloper "shall agree to comply with all applicable submission requirements, design standards and development regulations established in this plan for the Redevelopment Area, as well as those established by the City of Camden, County of Camden and State of New Jersey, except where variances and waivers are properly approved." However, the Redevelopment Plan also provides that it "may be amended from time to time in conformance with the requirements of the Local Redevelopment and Housing Law."

As noted above, the Redevelopment Plan as adopted in 2005 does not allow vehicle storage lots as a separate principal permitted use such as planned by Subaru. Since the Planning Board has sole jurisdiction over Gateway Redevelopment Area applications, it does not have the authority to grant a "d(1)" use variance to permit vehicle storage uses. This Amendment including off-street corporate vehicle storage as a principal permitted use in the OLI Zone would allow for the successful redevelopment of the Property.

As stated above, this Amendment is only intended to facilitate redevelopment of the Property and shall not be applicable to any other properties in the Gateway Redevelopment Area.

II. THE PLAN

A. Plan Concepts.

This Amendment is consistent with the Redevelopment Plan's goals and objectives. The only exception is that this Amendment applies to the specific Project and the Property described herein and shall not be applicable to any other properties subject to the Redevelopment Plan or located in the Gateway Redevelopment Area.

B. Overview of Proposed Amendment.

This Amendment modifies specific criteria and design standards related to principal use, fence height and material, parking requirements and design standards, landscaping, lighting and accessory uses and structures.

III. REGULATORY CONTROLS

A. Amendments.

1. Definitions.

"Off-street corporate vehicle storage"—an open area on a lot, other than a street or other public way, used for the storage of corporate-owned motor vehicles which are used only for corporate events and promotions and not for the parking of motor vehicles of employees, guests, clients or customers. It shall include delineated spaces, driveways and drive aisles located on the lot.

2. Principal Uses.

In addition to the permitted principal uses for the Office Light Industrial Zone set forth in the Redevelopment Plan, the following principal use shall be permitted on the Property:

--Off-street corporate vehicle storage.

3. Fence Height and Material.

Fences in the front, side or rear yard of the Property shall have a maximum height of 7 feet and shall be ornamental in nature along Memorial Drive and powdered coated black chain link along all other sides. Sections 870-197.E and 870-197.Y of the City of Camden Code pertaining to fencing shall not apply.

4. Parking Requirements and Design Standards.

Vehicle storage spaces shall be identified by means of four-inch painted lines. All parking shall be curbed with permanent and durable curbing to confine cars without overhang or projection onto perimeter sidewalks, driveways, bicycle parking areas, planted areas or adjacent landscaped areas. Provisions for the stacking of vehicle spaces shall be permitted provided that no more than two vehicles shall be stacked before a drive aisle is provided. Except as set forth above, the provisions of Sections 870-230, 870-231 and 870-234 of the City of Camden Code and Section F of the Site Design Controls of the Redevelopment Plan shall not apply.

5. Landscaping.

Suitable perimeter landscaping shall be installed to minimize noise, glare and other nuisance characteristics as well as to improve the environment of the site and the surrounding area. Such landscaping shall be coordinated with the proposed River Birch Trail sidewalk and trail improvements project to be undertaken by Camden Community Partnership along all street frontages of the Property. Except as set forth above, the provisions of Section 870-244.F of the City of Camden Code and Section E of the Site Design Controls of the Redevelopment Plan shall not apply.

6. Lighting.

LED lights shall be permitted anywhere within the Property.

7. Accessory Uses and Structures.

In addition to the accessory uses for the Office Light Industrial Zone set forth in the Redevelopment Plan, the following accessory uses and structures shall be permitted on the Property: (i) guard booths; and (ii) accessory uses and structures customary and incidental to the principal use permitted including, but not limited to, utility facilities, solar canopies and emergency generators.

B. Deviations from the Approved Redevelopment Plan.

The Planning Board may review and retain jurisdiction over applications requiring relief for deviations from the requirements of the Redevelopment Plan, this Amendment, or other City of Camden land use ordinances, except as set forth below. Accordingly, an amendment to the Redevelopment Plan shall not be necessary if an applicant desires to deviate from the bulk provisions or design standards in the Redevelopment Plan, this Amendment, or the City of Camden Code, so long as the applicant obtains the appropriate variance(s) from the Planning Board. All requests for such relief shall be made to the Planning Board accompanied by a complete application for development as required by City ordinance. Decisions of such requests shall be made in accordance with the legal standards set forth in the Municipal Land Use Law, N.J.S.A. 40:55D-70(c), in the case of requests for relief from zoning standards, and in accordance with the legal standards set forth in N.J.S.A. 40:55D-51 in the case of requests for relief from design standards.

No deviations shall be granted by the Planning Board that result in any of the following:

i. To allow a principal use not specially permitted on the Property; or

ii. To allow the maximum height of a principal building or structure to exceed the maximum permitted height by more than ten (10) feet or ten percent (10%).

IV. EFFECTIVE DATE OF THE REDEVELOPMENT PLAN

The effective date of this Amendment shall be the date that the Ordinance adopting this Amendment becomes effective.

V. LIST OF FIGURES

Figure A—Highlighted Tax Map
Figure B—Conceptual Site Plan

FIGURE A

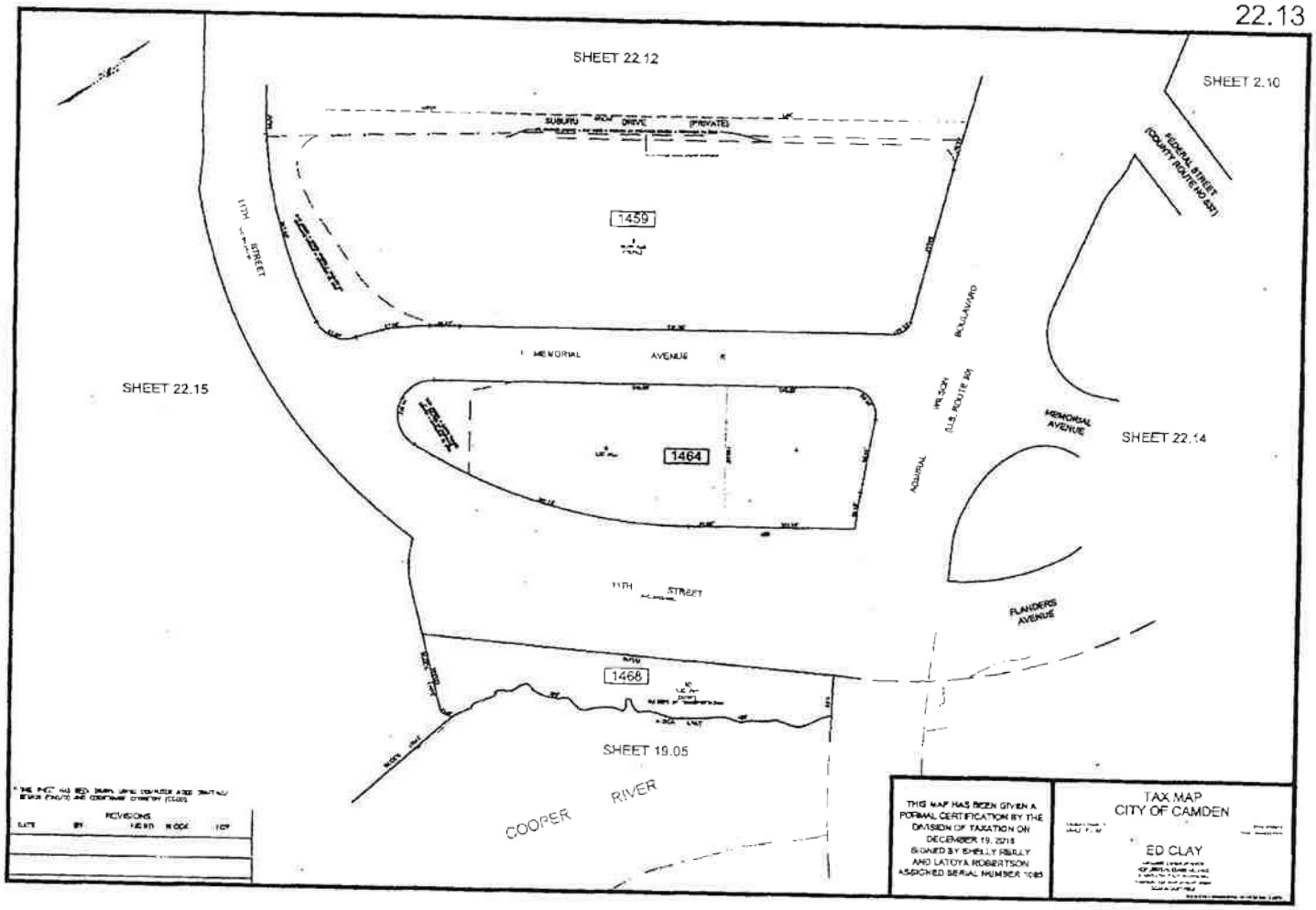
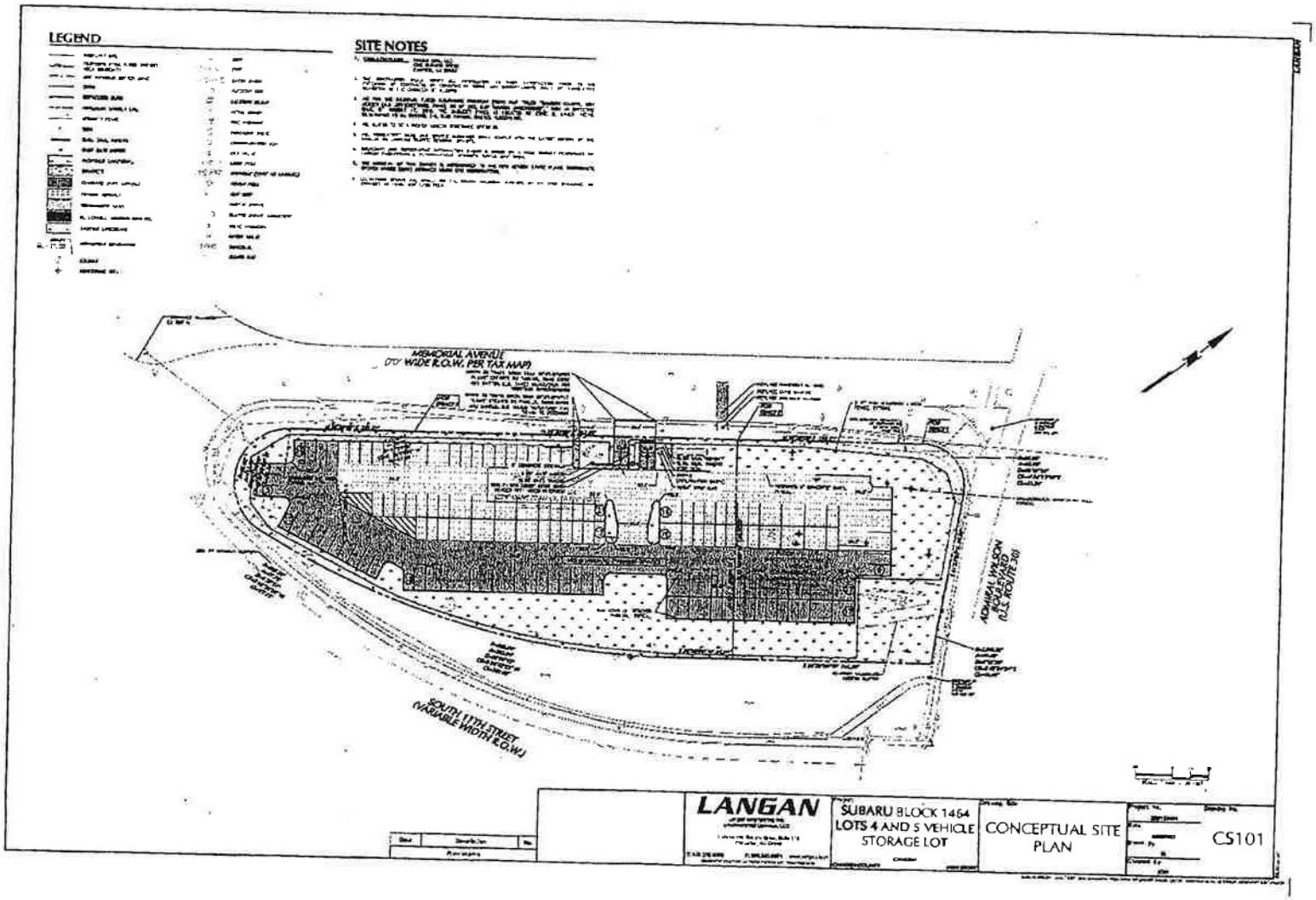
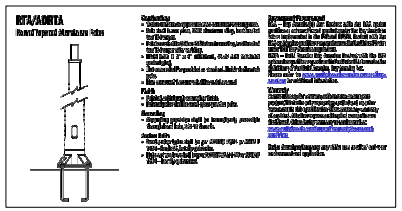

22.13
SHEET 22.12
SHEET 2.10
SUBURU DRIVE (PRIVATE)
1459
11TH STREET
MEMORIAL AVENUE
BOULEVARD
FEDERAL STREET (COUNTY ROUTE NO 537)
SHEET 22.15
1464
ADMIRAL
HIGHWAY (U.S. ROUTE 30)
MEMORIAL AVENUE
SHEET 22.14
11TH STREET
FLANDERS AVENUE
1468
SHEET 19.05
COOPER RIVER
REVISIONS
THIS MAP HAS BEEN GIVEN A FORMAL CERTIFICATION BY THE DIVISION OF TAXATION ON DECEMBER 19, 2018 SIGNED BY SHELLY REILLY AND LATOYA ROBERTSON ASSIGNED SERIAL NUMBER 1085
TAX MAP
CITY OF CAMDEN
ED CLAY
22.13

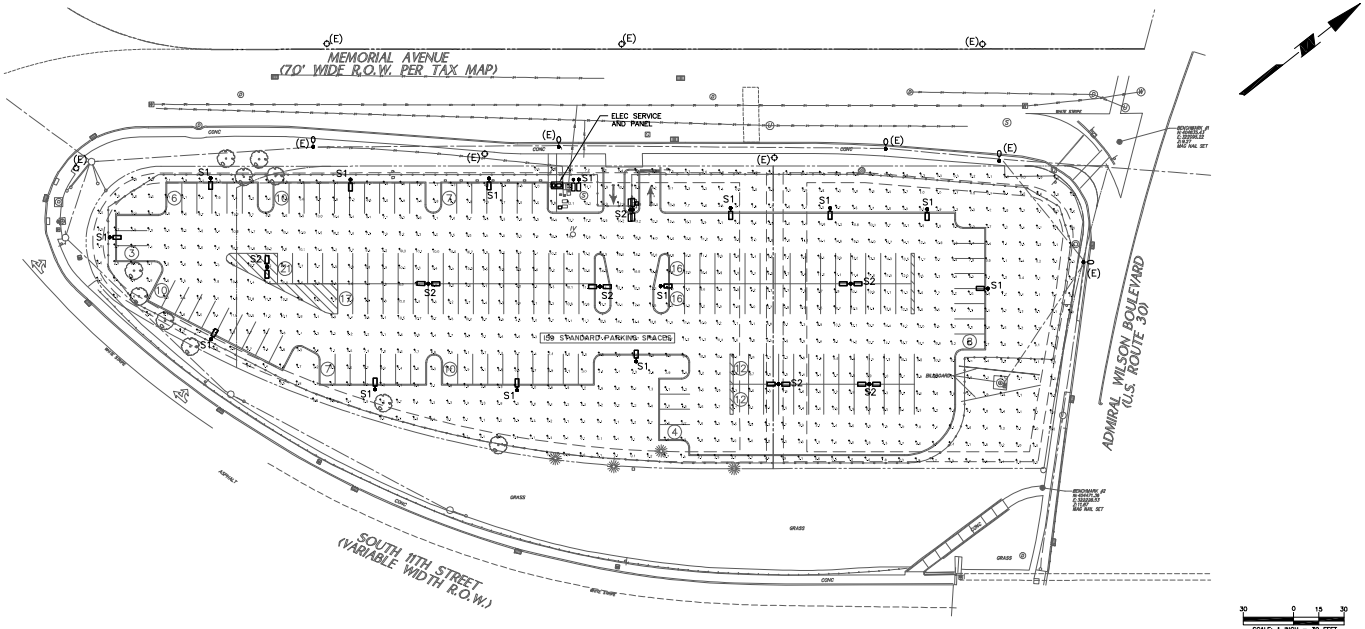
FIGURE B


LEGEND
SITE NOTES
MEMORIAL AVENUE
100' WIDE R.O.W. PER TAX MAP)
ADMIRAL WILSON BOULEVARD (U.S. ROUTE 30)
SOUTH 11TH STREET (VARIABLE WIDTH R.O.W.)
LANGAN
SUBARU BLOCK 1464 LOTS 4 AND 5 VEHICLE STORAGE LOT
CONCEPTUAL SITE PLAN
CS101

Luminaire Schedule									
Tag	Description	Luminaire Watts	Voltage	Luminaire Lumens	CCT	Driver Type	Mounting	Manufacturer	Label
S1	SINGLE HEAD FORWARD THROW LED WITH 25000 LUMEN OUTPUT AND HOUSE SIDE SHIELD, MOUNTED AT 20'. PROVIDE 18' ROUND TAPERED ALUMINUM POLE WITH TENON SLIP FITTER.	159	UNIVERSAL	18815	4000K	0-10V	POLE	HOLOPHANE	MGLEDM-P23-40K-MVOLT-ZT-PT-WH -BSKD-PR7-NBR-POLL-HSS Pole: RTA-18-60E-P-LN-NDR-SK-ABG-BCV
S2	DUAL HEAD AREA LED WITH 25000 LUMEN OUTPUT EACH, MOUNTED AT 20'. PROVIDE 18' ROUND TAPERED ALUMINUM POLE WITH TENON SLIP FITTER.	159	UNIVERSAL	28922	4000K	0-10V	POLE	HOLOPHANE	MGLEDM-P23-40K-MVOLT-ZT-2IR-WH -BSKD-PR7-NBR-POLL Pole: RTA-18-60E-P-LN-NDR-SK-ABG-BCV

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Parking Lot	Illuminance	Fc	8.55	19.5	1.9	4.50	10.26





1 E-101 ELECTRICAL SITE PLAN – LIGHTING PERFORMANCE
1" = 30'-0"

Stantec

Stantec Consulting Engineering LLC.
1717 Arch Street, Suite 400
Philadelphia, 19103
Tel: (215) 665-7000 • www.stantec.com

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The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing – any errors or omissions shall be reported to Stantec without delay.
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Consultant

Notes

Issued/Revision		By	Appd	YYYY.MM.DD
1 Name: N/A		KL	MN	2024.03.20
		Chkd.	Dsgn.	YYYY.MM.DD

Permit/Seal

Mark Francis Nordy, PE, Principal
NJ License# 24GE06203200

Client/Project Logo

Client/Project
Subaru of America

Subaru Block 1464, Lots 4 and 5
Vehicle Storage Lot
City of Camden, Camden County
New Jersey

Title
Electrical Site Plan
Lighting Performance

Project No.	Scale
191509021	1" = 30'-0"
Revision	Drawing No.
	E-101

LANGAN

Memorandum

1 University Square Drive – Suite 110 Princeton, NJ 08540 T: 609.282.8000 F: 609.282.8001

TO: Dr. Ed Williams, City of Camden
Uzo Ahiarakwe, P.E., P.L.S., City of Camden

FROM: Kyle J. MacGeorge, P.E., LEED AP
Craig Wickware

INFO: Bernadette Szakal, Subaru of America

DATE: 20 March 2026

RE: Environmental Impact Assessment
Subaru Block 1464 Lots 4 and 5 Vehicle Storage Lot
Camden, New Jersey
Langan Project No.: 220132401

This memorandum has been prepared to address the City of Camden's Site Plan Application Checklist item that requires projects with parcels two acres or larger to submit an Environmental Impact Assessment. Although each individual lot is less than two acres, we are submitting this EIA out of precaution because the overall parcels exceed two acres (2.11 acres).

Finger One, LLC, the property owner, plans to develop a motor-vehicle storage lot. The project will not increase the number of employees. The purpose of this project is to provide additional fleet vehicle storage for Subaru Headquarters located nearby at One Subaru Drive. The vehicles located on the lot will be new Subaru vehicles that are used for various purposes by Subaru of America (SOA). The vehicles will be managed by SOA staff so the lot will be secure and will not be for general parking use. The property is in the Gateway Redevelopment Area. An Ordinance Amending the Gateway Redevelopment Plan (MC-466) to allow the off-street corporate vehicle storage use was approved by the City Council of the City of Camden on October 14, 2025, and adopted on December 9, 2025.

The project is located at 250 Memorial Avenue, which has a site area of approximately 2.11 acres, bound by Admiral Wilson Boulevard (U.S. Route 30), S. 11th Street, and Memorial Avenue. The project will disturb 2.10 acres. The site improvements associated with the vehicle storage lot include security fences, gates, and landscape improvements. A separate project (the River Birch Trail project) is being designed by PS&S for the Camden County Partnership, which will install sidewalk and lighting upgrades surrounding the Finger One site on Memorial Avenue, Admiral Wilson Bouevard, and South 11th Street. The SOA design team collaborated with the River Birch Trail project team so that the improvements from both separate projects are coordinated. Otherwise, streetscape, and parking demand will remain unchanged from the current condition. Any temporary disturbance to these items will be restored at the end of construction.

From approximately 1965 to 2008 the site consisted of automotive service operations and petroleum storage in underground tanks (USTs). The USTs on site led to petroleum product

leakage. As a result, a remediation case was opened with NJDEP. Remedial actions took place in late 2009. The area was seeded and maintained as lawn to the current day. The site is currently undergoing additional groundwater and soil remediation under the supervision of Terraphase Engineering. The attached Remediation Status letter from Terraphase Engineering to the New Jersey Department of Environmental Protection (NJDEP) documents the status of the investigation and remediation activities in accordance with the requirements of NJDEP. The site is currently flatly graded (1-3 percent slopes).

Limited trees will be removed for the vehicular storage lot to be constructed. The site does not have any areas that can be considered to have distinctive scenic or historic qualities. The site has existing features that are typical of an undeveloped field area. The proposed vehicle storage lot will not alter existing air quality or noise levels. The vehicles stored on site will typically be newer models, owned and maintained by the operator, Finger One, LLC / Subaru of America, with low emissions and noise generation. Vehicles will be moved during normal business hours, and the site is surrounded by roads. Therefore, the site will not impact existing air quality or noise levels.

The proposed development proposes a net increase of 1.37 acres in impervious coverage. The project will create more than ¼ acre of "regulated impervious surface" and will disturb more than 1 acre of land; therefore, the project is considered a major development as defined in N.J.A.C. 7:8-1.2 (July 2023). The project is subject to the New Jersey stormwater requirements outlined in N.J.A.C. 7:8 and the City of Camden Stormwater Ordinance. Stormwater management is proposed for the project to meet the requirements of N.J.A.C. 7:8 (July 2023). The stormwater requirements will be met by infiltrating all runoff through a pervious paving with an underground stone storage bed and a small-scale infiltration BMP. A Stormwater Management Report has been prepared detailing the proposed stormwater management approach. Minimal soil erosion and sedimentation is expected during construction. However, the proposed work implements a Soil Erosion and Sediment Control Plan to minimize erosion and sediment transport during and after construction.

The vehicle storage lot will not have any appreciable negative or positive impacts during or after construction to soil erosion and sedimentation, degradation of surface water quality, ground water pollution, sewage disposal, solid waste disposal, vegetation destruction, scenic or historic features, air quality, and noise levels. The site is located within the 300-foot riparian zone of the Cooper River. The proposed activities within the riparian zone are not subject to the limits listed in Table 11.2, per N.J.A.C. 7:13-11.2(f)1. However, the project restores approximately 0.34 acres of the riparian zone with non-invasive compatible plant species. NJDEP approval has been granted for work within the riparian zone. The project has been submitted to NJDEP Division of Land Use and pending final review and approval. A copy of approval will be provided to the city of Camden once obtained.

No increase to sewer or water demand on the city infrastructure is anticipated. Utilities for the project will consist of electrical conduit from on-site power source to power a key card access automatic gate and new light poles. The storage lot will not appreciably change the nature of the site's noise production or screening and landscaping of the project with its surroundings.

Construction will occur during normal business hours, and the contractor will coordinate with Finger One/Subaru site security to maintain access as conditions change during construction.

Subaru will be seeking approval from the following agencies as part of the land development process:

- Ordinance Amending the Gateway Redevelopment Plan – Approved and Attached
- NJDEP Flood Hazard Area Verification - Pending
- NJDEP Individual Flood Hazard Area Permit - Pending
- City of Camden Planning Board (Site Plan) - Pending
- City of Camden Department of Capital Improvements (City Engineer) - Pending
- DelAtlantic Conservation District (Erosion and Sediment Control Plan) - Pending
- Other permits as required by City of Camden

Langan Engineering and Environmental Services, Inc.

Kyle J. MacGeorge, P.E., LEED AP®
Associate
New Jersey Professional Engineer License No. 24GE04284600

NJ Certificate of Authorization No. 24GA27996400
\\langan.com\data\PHL\data4\220132401\Project Data_Discipline\Site Civil\Permit Apps\City of Camden\EIA Memo\EIA Memo.docx

July 15, 2025

New Jersey Department of Environmental Protection
Division of Land Resource Protection
Watershed and Land Management
P.O. Box 420, Mail Code 501-02A
Trenton, NJ 08625

Re: Remediation Status

Former Sears Tire & Battery
1350 Admiral Wilson Boulevard
Camden, New Jersey
Site Remediation Program (SRP) Program Interest (PI) Number: 443892

Dear Division of Land Resource Protection,

On behalf of the property owner, Finger One LLC, I am providing an update on the environmental remediation efforts associated with the property referenced above ("Project" or "Site"). The following summary outlines the status of investigation and remediation activities in accordance with the requirements of the New Jersey Department of Environmental Protection (NJDEP).

I am the Licensed Site Remediation Professional (LSRP) retained to oversee the remediation of the Project pursuant to the Administrative Requirements for the Remediation of Contaminated Sites (ARRCS; N.J.A.C 7:26C), the Technical Requirements for Site Remediation (N.J.A.C. 7:26E) and related NJDEP guidance.

Status of Remediation

The property historically hosted automotive service operations and petroleum storage in underground tanks (UST) until December 2008. The USTs on Site led to petroleum product leakage. As a result, a remediation case was opened with NJDEP (PI Number 443892). Groundwater contamination at the property was confirmed on January 25, 2007. Benzene has been detected in the groundwater on Site, though studies show it is stable and has not migrated to the Cooper River. The development of a Remedial Action Workplan to address groundwater is underway. A groundwater Classification Exception Area (CEA) for benzene was established on July 29, 2009 (CEA ID 00-07-27-1345-31). Groundwater conditions at

the Site remain under active investigation. To facilitate property transfer and compliance, Finger One LLC entered a Pre-Purchase Administrative Consent Order (PPACO) with NJDEP. The PPACO establishes remediation timelines.

In addition to groundwater impacts from previous USTs, the Site contains historic fill, common in Camden, which has resulted in residual soil and groundwater impacts. This issue is currently being managed under an open NJDEP case. A soil cap was installed in November 2009, a deed notice was filed on June 8, 2010, and an NJDEP Soil Remedial Action Permit (SRAP) (SRAP ID RAP160001) are in place with the Camden Redevelopment Authority designated as the Person Responsible for Conducting the Remediation (PRCR) and Finger One, LLC designated as the party responsible for permit compliance. The permit mandates ongoing cap inspections, maintenance, and biennial reporting. The next Biennial Certification is due in 2026. Modifications to the cap during development must be documented. A $30,000 letter of credit to cover ongoing maintenance has been posted.

The historic fill has also impacted groundwater quality at the Site, resulting in a CEA which was established on September 29, 2022 (CEA ID 443892) and includes the footprint of the entire Site up to the property boundary.

Proposed Development

Finger One, LLC is seeking approvals to develop the Site which will include modification of the soil cap as shown on the submitted plans. The proposed modifications to the cap are being developed in collaboration with me as the LSRP and will provide significant remedial benefits by creating a more durable and erosion-resistant cap which will reduce the transport of soil material from the Site, as further described below:

- Site grading and use of porous pavement will reduce the velocity of surface runoff, which is a driver of soil erosion and transport
- The design and installation of porous pavement accounts for void spaces which are less susceptible to freeze-thaw cracking than soil caps.

The proposed development is consistent with the remedial goals and will result in an improved environmental cap. Please feel free to contact me with any questions or requests for further information.

Sincerely,

Charlene R. Drake, LSRP, PG
Senior Principal Geologist

CAMDEN COUNTY, NJ
CAMDEN COUNTY CLERK'S OFFICE
DEED-OR BOOK 12812 PG 1949
RECORDED 05/08/2025 11:04:44
FILE NUMBER 2025026799
RCPT # 2798275; RECD BY: eRecord
RECORDING FEES 115.00
TOTAL TAX 935.00

Camden County
Document Summary Sheet

CAMDEN COUNTY CLERK

520 MARKET ST

CAMDEN NJ 08102

Official Use Only

Transaction Identification Number	7637576 9368921
Submission Date *(mm/dd/yyyy)*	04/28/2025
No. of Pages *(excluding Summary Sheet)*	8
Recording Fee *(excluding transfer tax)*	$115.00
Realty Transfer Tax	$935.00
Total Amount	$1,050.00
Document Type	DEED/NO EXEMPTION FROM REALTY TRANSFER FEE

Return Address *(for recorded documents)*

FIRST AMERICAN TITLE INSURANCE COMPANY - NCS PRINCETON
506 CARNEGIE CTR STE 103
PRINCETON, NJ 08540

Municipal Codes

CAMDEN COUNTY 99

Batch Type L2 - LEVEL 2 (WITH IMAGES)

985462

Additional Information (Official Use Only)

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COVER SHEET [DOCUMENT SUMMARY FORM] IS PART OF CAMDEN COUNTY FILING RECORD.
RETAIN THIS PAGE FOR FUTURE REFERENCE.

Camden County
Document Summary Sheet

	Type	**DEED/NO EXEMPTION FROM REALTY TRANSFER FEE**			
	Consideration	$200,000.00			
	Submitted By	SIMPLIFILE, LLC. (SIMPLIFILE)			
	Document Date	04/03/2025			
	Reference Info				
	Book ID	**Book**	**Beginning Page**	**Instrument No.**	**Recorded/File Date**

DEED/NO EXEMPTION FROM REALTY TRANSFER FEE	**GRANTOR**	**Name**	**Address**
		EDS INVESTMENTS LLC	ONE CAMPBELL PLACE, CAMDEN, NJ 08103
	GRANTEE	**Name**	**Address**
		FINGER ONE LLC	1 SUBARU DRIVE, CAMDEN, NJ 08103

Parcel Info					
Property Type	**Tax Dist.**	**Block**	**Lot**	**Qualifier**	**Municipality**
	99	1464	5		99
	99	1464	4		99
	99	1464	4	B01	99

**** DO NOT REMOVE THIS PAGE.***
COVER SHEET [DOCUMENT SUMMARY FORM] IS PART OF CAMDEN COUNTY FILING RECORD.
RETAIN THIS PAGE FOR FUTURE REFERENCE.

Prepared By: Cynthia A. DeLisi, Esq.

Deed

This Deed is made on the 3rd day of April, 2025, and effective April 8, 2025

BETWEEN

EDS INVESTMENTS, LLC, a New Jersey limited liability company, whose address is One Campbell Place, Camden, NJ 08103,

Referred to as the Grantor.

AND

FINGER ONE, LLC, a New Jersey limited liability company, whose post office address is 1 Subaru Drive, Camden, NJ 08103,

Referred to as the Grantee.

The words "Grantor" and "Grantee" shall mean all Grantors and all Grantees listed above.

1. Transfer of Ownership. The Grantor grants and conveys (transfers ownership of) the property (called the "Property") described below to the Grantee. This transfer is made for the sum of $200,000.00. The Grantor acknowledges receipt of this money.

2. Tax Map Reference. (N.J.S.A. 46:15-1.1) Municipality of Camden, in the County of Camden, New Jersey:

Block No. 1464	Lot No. 4	
Block No. 1464	Lot No. 4	Qualifier No. B01
Block No. 1464	Lot No. 5	

☐ No property tax identification number is available on the date of this Deed. (Check box if applicable.)

3. Property. The Property consists of the land and any buildings and structures on the land in the City of Camden, County of Camden and the State of New Jersey. The legal description is:

SEE legal description annexed hereto as Schedule A.

SUBJECT TO easements and restrictions of record.

BEING commonly known as 1350 Admiral Wilson Boulevard and 250 Memorial Avenue.

BEING all the premises conveyed to EDS Investments, LLC by Corrective Deed from EDS Investments, LLC, dated August 23, 2016, recorded September 6, 2016, in the Office of the County Clerk of Camden County, New Jersey, in Book 10474 Page 1673.

AND BEING all the premises previously conveyed to EDS Investments, LLC by deed from Camden Redevelopment Agency, dated November 1, 2012, recorded December 3, 2012, in the Office of the County Clerk of Camden County, New Jersey, in Book 9705, Page 1793.

4. Deed Notice. This transfer is made under and subject to the obligations, conditions, and restrictions set forth in the Deed Notice made by the Camden Redevelopment Agency, filed June 8, 2010 in Book 9233, Page 1865 in the Office of the County Clerk of Camden, New Jersey. The Grantor, Grantee, and subsequent owners and lessees take the Property identified in this Deed subject to the restrictions contained in the said Deed Notice with the obligation to comply with all, and not to violate any, of the conditions of the said Deed Notice.

5. Promises by Grantor. The Grantor promises that the Grantor has done no act to encumber the Property. This promise is called a "covenant as to grantor's acts" (N.J.S.A. 46:4-6). This promise means that the Grantor has not allowed anyone else to obtain any legal rights which affect the Property (such as by making a mortgage or allowing a judgment to be entered against the Grantor).

6. Signatures. This Deed is signed by the Grantor's authorized representatives as of the date at the top of the first page. (Print name below each signature.)

[Signature follows]

EDS INVESTMENTS, LLC

By: _____
Name: Atul Garg
Title: Senior Vice President, Treasurer

STATE OF NEW JERSEY, COUNTY OF Camden **SS.:**

I CERTIFY that on April 3rd, 2025, Atul Garg personally came before me and acknowledged under oath, to my satisfaction, that:

(a) he is the SVP, Treasurer of **EDS INVESTMENTS, LLC**, a New Jersey limited liability company, the limited liability company named in this Deed;

(b) he is the maker of this Deed on behalf of the limited liability company;

(c) he was authorized to and executed this Deed on behalf of the limited liability company, as their voluntary act and deed; and

(d) made this Deed for $200,000.00 as the full and actual consideration paid or to be paid for the transfer of title. (Such consideration is defined in N.J.S.A 46:15-5.)

Signed and sworn to before me on
3rd April, 2025

_____
Notary Public of New Jersey

PAMELA A. MEYER
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires November 30, 2027

Record and Return To:
First American Title Insurance Company
National Commercial Services
506 Carnegie Center, Suite 103
Princeton, NJ 08540
File No.NCS 1208879

~~RECORD & RETURN TO:~~

Finger One, LLC
1 Subaru Drive
Camden, NJ 08103

SCHEDULE A

Legal Description of Property

The Land referred to herein below is situated in the City of Camden, County of Camden, State of New Jersey, and is described as follows:

TRACT I: (Lots 4 and 4 Qual B01, Block 1464)

BEGINNING at a corner formed by the intersection of the Southwesterly of Bridge Boulevard and the Southeasterly line of Memorial Avenue, and extending thence in a Southwesterly direction along the Southeasterly line of Memorial Avenue a distance of 200.00 feet to a point; thence in a Southeasterly direction and at right angles to Memorial Avenue, a distance of 180.50 feet to a point in line of lands of the State of New Jersey; thence
in a Northeasterly direction along same and parallel with Memorial Avenue a distance of 161.5 feet, more or less, to a point in the curved Southwesterly line of Bridge Boulevard; thence in a Northwesterly direction along the curved Southwesterly line of Bridge Boulevard and curving to the right with a radius of 1206.28 feet the arc distance of 184.73 feet to the place of beginning.

EXCEPTING THEREOUT AND THEREFROM THE FOLLOWING premises known as Parcel #20 New Jersey State Highway Dept., Route 25 (1927) Section 1D on a plan filed in the Register of Deeds Office of Camden County, May, 1947.

BEGINNING at the intersection of the Southeasterly line of Memorial Avenue with the Southwesterly line of Bridge Boulevard and extending thence in a Southwesterly direction along the Southeasterly line of Memorial Avenue about 26.45 feet thence in a general Easterly direction curving to the right with a radius of 20 feet the arc distance of about 36.71 feet to the curved Southwesterly line of Bridge Boulevard; thence in a Northwesterly direction along the curved Southwesterly line of Bridge Boulevard and curving to the right with a radius of 1206.28 feet the arc distance of 26.23 feet to the place of beginning.

AND FURTHER EXCEPTING THEREOUT AND THEREFROM the following premises known as Parcel W2C, as indicated on a plan filed or about to be filed in the Office of the Register of Deeds of Camden County, entitled "New Jersey State Highway Department, General Property, Parcel Map, Route 151, Section 1 (Camden Connection to Route 25), from Federal Street Pennsylvania-Reading Seashore Lines, Showing Existing Right Of Way and Parcels to be acquired in the City of Camden, County of Camden, Scales as Shown, September 1948", Parcel W2C, beginning at a point in the existing Southwesterly right of way line of State Highway Route 25 (Entrance Road), distant 60 feet Southwestwardly from, measured radial to, base line "B", as laid down on said plan, at Section 22+43.00 (Arc Station), said beginning point being the junction of said existing Southwesterly right of way line with the new Southwesterly right of way line, said State Highway, as laid down on said plan, said beginning point being distant 200.61 feet, measured Northwestwardly along said existing Southwesterly right of way line of a radius of 1206.28 feet, from a point of tangency in said existing Southwesterly right of way line marked "P.T. 24 + 33.46 feet on said plan, said point of tangency being distant 6 feet, measured Southwesterly along a line normal to Base Line "B", aforesaid, at said P.T. Station from a City monument on the Southwesterly side of said State Highway, as shown on said plan, and running; thence

1. Along said new Southwesterly right of way line, at right angles to a line radius to Base Line "B", aforesaid, at Station 22 + 43.00, a distance of 96.59 feet to a point of curvature; thence

2. In a Westerly direction still along said new right of way line, curving to the left with a radius of 35 feet, an arc distance of 60.96 feet to a point of tangency in the Southeasterly line of Memorial Avenue; thence

3. Along said Southeasterly line of Memorial Avenue North 37°54'20" East (North 37°54'20" East) a distance of 23.33 feet to a point of curvature; thence

4. In an Easterly direction along the existing right of way line of the aforesaid State Highway curving to the right with a radius of 20 feet, an arc distance of 36.72 feet to a point of reverse curvature distant 60 feet Southwesterly from, measured radial to Base Line "B", aforesaid; thence

5. In a Southeasterly direction still along said existing right of way line concentric with and distant 60 feet Southwesterly from, measured radial to Base Line "B", aforesaid, curving to the left with a radius of 1206.28 feet, an arc distance of 113.61 feet to the point and place of beginning.

TRACT II: (Lot 5, Block 1464)

BEGINNING at a point in the Southeasterly line of Memorial Avenue, at the distance of 173.55 feet Southwestwardly from a point of curve in said line, said beginning point being also 200 feet Southwestwardly from the intersection of said Southeasterly line of Memorial Avenue with the curve Southwesterly line of Bridge Boulevard (Route 25); thence

Southwestwardly along the Southeasterly line of Memorial Avenue, 263.96 feet to a point where said Southeasterly line of Memorial Avenue is intersected by the right of way line of Route 151, Section 1, Camden Connection to Route 25, as shown on a plan entitled New Jersey State Highway Department General Property Parcel Map; thence

Along said right of way line, curving to the left with a radius of 135 feet, the arc distance of 57.74 feet; thence

Southwestwardly still along said right of way line and at right angles to Memorial Avenue, the distance of 107.30 feet to a corner in said line; thence

Still along said right of way line, curving to the left with a radius of 650 feet; the arc distance of 283.94 feet to a point of tangent; thence

Northeastwardly still along said right of way line and parallel with Memorial Avenue 44.96 feet to a point; thence

Northwestwardly at right angles to Memorial Avenue, 180.50 feet to a point in the Southeasterly line of Memorial Avenue and the place of beginning.

AND ALSO BEING DESCRIBED AS FOLLOWS:

TRACT I: (Lots 4 and 4 Qual B01, Block 1464)

BEGINNING at the Westerly terminus of a rounded corner forming the intersection of the Southeasterly side of Memorial Avenue (variable width) and the Southwesterly side of Admiral Wilson Boulevard (variable width) and extending; thence,

1) On an arc curving to the right having a radius of 35.00 feet, an arc distance of 60.96 feet and a central angle of 99°47'34" and being subtended by a chord which bears North 88°13'10" East, a chord length of 53.54 feet; thence,

2) South 41°53'02" East, a distance of 94.99 feet to a point of curvature; thence,

3) On an arc curving to the left having a radius of 1,206.28 feet, an arc distance of 46.49 feet and a central angle of 2°12'30" and being subtended by a chord which bears South 42°54'34" East, a chord length of 46.49 feet to a point in the Northwesterly right-of-way line of Flanders Avenue (variable width); thence,

4) Along said line of Flanders Avenue, South 38°20'00" West, a distance of 161.50 feet to the Northeasterly line of Block 1464, Lot 5; thence,

5) North 51°40'00" West, a distance of 180.50 feet to the aforementioned Southeasterly side of Memorial Avenue; thence,

6) Along said side of Memorial Avenue, North 38°20'00" East, a distance of 150.22 feet to the first mentioned point and place of BEGINNING.

TRACT II: (Lot 5, Block 1464)

BEGINNING at a point in the Southeasterly side of Memorial Avenue (variable width), said point being located at the Westerly corner of Block 1464, Lot 4, and located South 38°20'00" West, a distance of 150.22 feet from the Westerly terminus of a rounded corner forming the intersection of the Southeasterly side of Memorial Avenue (variable width) and the Southwesterly side of Admiral Wilson Boulevard (variable width) and extending; thence,

1) Along the Southwesterly line of Lot 4, South 51°40'00" East, a distance of 180.50 feet to a point in the Northwesterly line of Flanders Avenue (variable width); thence,

2) Along the said line of Flanders Avenue, South 38°20'00" West, a distance of 44.96 feet; thence,

3) Still along the same on an arc to the right having a radius of 650.00 feet, an arc distance of 283.94 feet and a central angle of 25°01'43" and being subtended by a chord which bears South 50°42'23" West, a chord length of 281.69 feet; thence,

4) North 51°40'00" West, a distance of 107.30 feet to a point in the aforementioned Southeasterly side of Memorial Avenue; thence,

5) Along said line of Memorial Avenue, on an arc curving to the right having a radius of 135.00 feet, an arc distance of 58.04 feet and a central angle of 24°37'59" and being subtended by a chord which bears North 25°27'04" East, a chord length of 57.59 feet; thence,

6) Still along the same North 38°20'00" East, a distance of 263.96 feet to the first mentioned point and place of BEGINNING.

GIT/REP-3
(8-24)
(Print or Type)

State of New Jersey
Seller's Residency Certification/Exemption

Seller's Information

Name(s)
EDS Investments, LLC, a New Jersey limited liability company

Current Street Address
One Campbell Place

City, Town, Post Office | State | ZIP Code
Camden | NJ | 08103

Property Information

Block(s) | Lot(s) | Qualifier
1464 | 4 and 5 | 4B01

Street Address
1350 Admiral Wilson Boulevard and 250 Memorial Avenue

City, Town, Post Office | State | ZIP Code
Camden | NJ | 08103

Seller's Percentage of Ownership | Total Consideration | Owner's Share of Consideration | Closing Date
100 | $200,000.00 | $200,000.00 | 4/8/2025

Seller's Assurances (Check the Appropriate Box) (Boxes 2 through 16 apply to Residents and Nonresidents)

1. ☐ Seller is a resident taxpayer (individual, estate, or trust) of the State of New Jersey pursuant to the New Jersey Gross Income Tax Act, will file a resident Gross Income Tax return, and will pay any applicable taxes on any gain or income from the disposition of this property.
2. ☐ The real property sold or transferred is used exclusively as a principal residence as defined in 26 U.S. Code section 121.
3. ☐ Seller is a mortgagor conveying the mortgaged property to a mortgagee in foreclosure or in a transfer in lieu of foreclosure with no additional consideration.
4. ☐ Seller, transferor, or transferee is an agency or authority of the United States of America, an agency or authority of the State of New Jersey, the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Government National Mortgage Association, or a private mortgage insurance company.
5. ☒ Seller is not an individual, estate, or trust and is not required to make an estimated Gross Income Tax payment.
6. ☐ The total consideration for the property is $1,000 or less so the seller is not required to make an estimated Income Tax payment.
7a. ☐ The gain from the sale is not recognized for federal income tax purposes under 26 U.S. Code section 721, 1031, or 1033 (CIRCLE THE APPLICABLE CODE SECTION). If the indicated section does not ultimately apply to this transaction, the seller acknowledges the obligation to file a New Jersey Income Tax return for the year of the sale and report the recognized gain. See instructions.
7b. ☐ Seller **only** received like-kind property.
8. ☐ The real property is being transferred by an executor or administrator of a decedent to a devisee or heir to effect distribution of the decedent's estate in accordance with the provisions of the decedent's will or the intestate laws of this State.
9. ☐ The real property being sold is subject to a short sale instituted by the mortgagee, whereby the seller agreed not to receive any proceeds from the sale and the mortgagee will receive all proceeds paying off an agreed amount of the mortgage.
10. ☐ The deed is dated prior to August 1, 2004, and was not previously recorded.
11. ☐ The real property is being transferred under a relocation company transaction where a trustee of the relocation company buys the property from the seller and then sells the house to a third party buyer for the same price.
12. ☐ The real property is being transferred between spouses or incident to a divorce decree or property settlement agreement under 26 U.S. Code section 1041.
13. ☐ The property transferred is a cemetery plot.
14. ☐ The seller is not receiving net proceeds from the sale. Net proceeds from the sale means the net amount due to the seller on the settlement sheet.
15. ☐ The seller is a retirement trust that received an acknowledgment letter from the Internal Revenue Service that the seller is a retirement trust, and is therefore not required to make the estimated Gross Income Tax payment.
16. ☐ The seller (and/or spouse/civil union partner) originally purchased the property while a resident of New Jersey as a member of the U.S. Armed Forces and is now selling the property as a result of being deployed on active duty outside of New Jersey. (Only check this box if applicable and neither boxes 1 nor 2 apply.)

Seller's Declaration

The undersigned understands that this declaration and its contents may be disclosed or provided to the New Jersey Division of Taxation and that any false statement contained herein may be punished by fine, imprisonment, or both. I furthermore declare that I have examined this declaration and, to the best of my knowledge and belief, it is true, correct and complete. By checking this box ☐ I certify that a Power of Attorney to represent the seller(s) has been previously recorded or is being recorded simultaneously with the deed to which this form is attached.

4/3/2025 _____ _____
Date | Signature (Seller) | Indicate if Power of Attorney or Attorney in Fact

_____ _____
Date | Signature (Seller) | Indicate if Power of Attorney or Attorney in Fact

RTF-1 (Rev. 3/2/22)
MUST SUBMIT IN DUPLICATE

STATE OF NEW JERSEY

AFFIDAVIT OF CONSIDERATION FOR USE BY SELLER

(Chapter 49, P.L.1968, as amended through Chapter 33, P.L. 2006) (N.J.S.A. 46:15-5 et seq.)

BEFORE COMPLETING THIS AFFIDAVIT, PLEASE READ THE INSTRUCTIONS ON THE REVERSE SIDE OF THIS FORM.

STATE OF NEW JERSEY

COUNTY Camden } SS. County Municipal Code 0408

MUNICIPALITY OF PROPERTY LOCATION City of Camden

FOR RECORDER'S USE ONLY	
Consideration	$
RTF paid by seller	$
Date	By

*Use symbol "C" to indicate that fee is exclusively for county use.

(1) PARTY OR LEGAL REPRESENTATIVE *(See Instructions #3 and #4 on reverse side)*

Deponent, Atul Garg (Name), being duly sworn according to law upon his/her oath, deposes and says that he/she is the Senior Vice President, Treasurer (Grantor, Legal Representative, Corporate Officer, Officer of Title Company, Lending Institution, etc.) in a deed dated April 8, 2025 transferring real property identified as Block number 1464 Lot number 4, 4B01, 5 located at 1350 Admiral Wilson Boulevard and 250 Memorial Avenue, Camden (Street Address, Town) and annexed thereto.

(2) CONSIDERATION $ 200,000.00 *(Instructions #1 and #5 on reverse side)* ■ no prior mortgage to which property is subject.

(3) Property transferred is Class 4A 4B 4C (circle one). If property transferred is Class 4A, calculation in Section 3A below is required.

(3A) **REQUIRED CALCULATION OF EQUALIZED VALUATION FOR ALL CLASS 4A (COMMERCIAL) PROPERTY TRANSACTIONS:**
(See Instructions #5A and #7 on reverse side)

Total Assessed Valuation ÷ Director's Ratio = Equalized Assessed Valuation

$ 364,100.00 ÷ 65.65 % = $ 554,607.77

If Director's Ratio is less than 100%, the equalized valuation will be an amount greater than the assessed value. If Director's Ratio is equal to or in excess of 100%, the assessed value will be equal to the equalized valuation.

(4) FULL EXEMPTION FROM FEE *(See Instruction #8 on reverse side)*

Deponent states that this deed transaction is fully exempt from the Realty Transfer Fee imposed by C. 49, P.L. 1968, as amended through C. 66, P.L. 2004, for the following reason(s). Mere reference to exemption symbol is insufficient. Explain in detail.

(5) PARTIAL EXEMPTION FROM FEE *(Instruction #9 on reverse side)*

NOTE: All boxes below apply to grantor(s) *only*. **ALL BOXES IN APPROPRIATE CATEGORY MUST BE CHECKED**. Failure to do so will void claim for partial exemption. Deponent claims that this deed transaction is exempt from State portions of the Basic, Supplemental, and General Purpose Fees, as applicable, imposed by C. 176, P.L. 1975, C. 113, P.L. 2004, and C. 66, P.L. 2004 for the following reason(s):

A. **SENIOR CITIZEN** Grantor(s) ☐ 62 years of age or over. * *(Instruction #9 on reverse side for A or B)*

B. **BLIND PERSON** Grantor(s) ☐ legally blind or; *
DISABLED PERSON Grantor(s) ☐ permanently and totally disabled ☐ receiving disability payments ☐ not gainfully employed*

Senior citizens, blind persons, or disabled persons must also meet **all of the following** criteria:
☐ Owned and occupied by grantor(s) at time of sale. ☐ Resident of State of New Jersey.
☐ One or two-family residential premises. ☐ Owners as joint tenants must all qualify.

*IN CASE OF HUSBAND AND WIFE, PARTNERS IN A CIVIL UNION COUPLE, ONLY ONE GRANTOR NEED QUALIFY IF TENANTS BY THE ENTIRETY.

C. **LOW AND MODERATE INCOME HOUSING** *(Instruction #9 on reverse side)* **IF APPLIES ALL BOXES MUST BE CHECKED.**
☐ Affordable according to H.U.D. standards. ☐ Reserved for occupancy.
☐ Meets income requirements of region. ☐ Subject to resale controls.

(6) NEW CONSTRUCTION *(Instructions #2, #10 and #12 on reverse side)* **IF APPLIES ALL BOXES MUST BE CHECKED.**
☐ Entirely new improvement ☐ Not previously occupied.
☐ Not previously used for any purpose. ☐ "NEW CONSTRUCTION" printed clearly at top of first page of the deed.

(7) RELATED LEGAL ENTITIES TO LEGAL ENTITIES *(Instructions #5, #12, #14 on reverse side)* **IF APPLIES ALL BOXES MUST BE CHECKED.**
☐ No prior mortgage assumed or to which property is subject at time of sale.
☐ No contributions to capital by either grantor or grantee legal entity.
☐ No stock or money exchanged by or between grantor or grantee legal entities.

(8) INTERCOMPANY TRANSFER **IF APPLIES ALL BOXES MUST BE CHECKED.** *(Instruction #15 on reverse side)*
☐ Intercompany transfer between combined group members as part of the unitary business
☐ Combined group NJ ID number **(Required)**

(9) Deponent makes this Affidavit to induce county clerk or register of deeds to record the deed and accept the fee submitted herewith in accordance with the provisions of Chapter 49, P.L. 1968, as amended through Chapter 33, P.L. 2006.

Subscribed and sworn to before me this 3rd day of April, 20 25

Pamela A. Meyer

Signature of Deponent

1 Campbell Pl. Camden NJ 08103
Deponent Address

XXX-XX-X 869
Last three digits in Grantor's Social Security Number

EDS Investments, LLC
Grantor Name

One Campbell Place
Camden, NJ 08103
Grantor Address at Time of Sale

First American Title Ins. Co.
Name/Company of Settlement Officer

PAMELA A. MEYER
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires November 30, 2027

FOR OFFICIAL USE ONLY			
Instrument Number		County	
Deed Number	Book	Page	
Deed Dated	Date Recorded		

County recording officers shall forward one copy of each RTF-1 form when Section 3A is completed to:

STATE OF NEW JERSEY
PO BOX 251
TRENTON, NJ 08695-0251
ATTENTION: REALTY TRANSFER FEE UNIT

The Director of the Division of Taxation in the Department of the Treasury has prescribed this form as required by law, and may not be altered or amended without prior approval of the Director. For information on the Realty Transfer Fee or to print a copy of this Affidavit, visit the Division of Taxation website at:
https://www.state.nj.us/treasury/taxation/lpt/localtax.shtml

OWNERSHIP DISCLOSURE STATEMENT

Applicant: FINGER ONE, LLC, a New Jersey limited liability company with an address of One Subaru Drive, Camden, New Jersey 08103.

FINGER ONE, LLC is one hundred percent (100%) owned by SUBARU OF AMERICA, INC., a New Jersey corporation with an address of One Subaru Drive, Camden, New Jersey 08103.

There are no entities or individuals that own ten percent (10%) or more of Subaru of America, Inc.

Docusign Envelope ID: 1D2E2CB1-17D9-4D23-9E13-EF97479A730C

Form **W-9**
(Rev. March 2024)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Go to *www.irs.gov/FormW9* for instructions and the latest information.

Give form to the requester. Do not send to the IRS.

Before you begin. For guidance related to the purpose of Form W-9, see *Purpose of Form*, below.

Print or type. See ***Specific Instructions*** on page 3.

1 Name of entity/individual. An entry is required. (For a sole proprietor or disregarded entity, enter the owner's name on line 1, and enter the business/disregarded entity's name on line 2.)

Finger One, LLC

2 Business name/disregarded entity name, if different from above.

3a Check the appropriate box for federal tax classification of the entity/individual whose name is entered on line 1. Check only **one** of the following seven boxes.

☐ Individual/sole proprietor ☐ C corporation ☐ S corporation ☐ Partnership ☐ Trust/estate

☑ LLC. Enter the tax classification (C = C corporation, S = S corporation, P = Partnership) C

Note: Check the "LLC" box above and, in the entry space, enter the appropriate code (C, S, or P) for the tax classification of the LLC, unless it is a disregarded entity. A disregarded entity should instead check the appropriate box for the tax classification of its owner.

☐ Other (see instructions)

3b If on line 3a you checked "Partnership" or "Trust/estate," or checked "LLC" and entered "P" as its tax classification, and you are providing this form to a partnership, trust, or estate in which you have an ownership interest, check this box if you have any foreign partners, owners, or beneficiaries. See instructions . . . . . ☐

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any)

Exemption from Foreign Account Tax Compliance Act (FATCA) reporting code (if any)

(Applies to accounts maintained outside the United States.)

5 Address (number, street, and apt. or suite no.). See instructions.

One Subaru Drive

6 City, state, and ZIP code

Camden, NJ 08103

Requester's name and address (optional)

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. See also *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

			–			–				

or

Employer identification number

3	3	–	4	1	6	6	5	2	8

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and, generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here | **Signature of U.S. person** Peggy Verdi EEE8558E8E9345E... | **Date** 3/18/2026

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to *www.irs.gov/FormW9*.

What's New

Line 3a has been modified to clarify how a disregarded entity completes this line. An LLC that is a disregarded entity should check the appropriate box for the tax classification of its owner. Otherwise, it should check the "LLC" box and enter its appropriate tax classification.

New line 3b has been added to this form. A flow-through entity is required to complete this line to indicate that it has direct or indirect foreign partners, owners, or beneficiaries when it provides the Form W-9 to another flow-through entity in which it has an ownership interest. This change is intended to provide a flow-through entity with information regarding the status of its indirect foreign partners, owners, or beneficiaries, so that it can satisfy any applicable reporting requirements. For example, a partnership that has any indirect foreign partners may be required to complete Schedules K-2 and K-3. See the Partnership Instructions for Schedules K-2 and K-3 (Form 1065).

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS is giving you this form because they

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must obtain your correct taxpayer identification number (TIN), which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid).
- Form 1099-DIV (dividends, including those from stocks or mutual funds).
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds).
- Form 1099-NEC (nonemployee compensation).
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers).
- Form 1099-S (proceeds from real estate transactions).
- Form 1099-K (merchant card and third-party network transactions).
- Form 1098 (home mortgage interest), 1098-E (student loan interest), and 1098-T (tuition).
- Form 1099-C (canceled debt).
- Form 1099-A (acquisition or abandonment of secured property).

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

Caution: If you don't return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding*, later.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued);

2. Certify that you are not subject to backup withholding; or

3. Claim exemption from backup withholding if you are a U.S. exempt payee; and

4. Certify to your non-foreign status for purposes of withholding under chapter 3 or 4 of the Code (if applicable); and

5. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting is correct. See *What Is FATCA Reporting*, later, for further information.

Note: If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Establishing U.S. status for purposes of chapter 3 and chapter 4 withholding. Payments made to foreign persons, including certain distributions, allocations of income, or transfers of sales proceeds, may be subject to withholding under chapter 3 or chapter 4 of the Code (sections 1441–1474). Under those rules, if a Form W-9 or other certification of non-foreign status has not been received, a withholding agent, transferee, or partnership (payor) generally applies presumption rules that may require the payor to withhold applicable tax from the recipient, owner, transferor, or partner (payee). See Pub. 515, Withholding of Tax on Nonresident Aliens and Foreign Entities.

The following persons must provide Form W-9 to the payor for purposes of establishing its non-foreign status.

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the disregarded entity.
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the grantor trust.
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust and not the beneficiaries of the trust.

See Pub. 515 for more information on providing a Form W-9 or a certification of non-foreign status to avoid withholding.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person (under Regulations section 1.1441-1(b)(2)(iv) or other applicable section for chapter 3 or 4 purposes), do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Pub. 515). If you are a qualified foreign pension fund under Regulations section 1.897(l)-1(d), or a partnership that is wholly owned by qualified foreign pension funds, that is treated as a non-foreign person for purposes of section 1445 withholding, do not use Form W-9. Instead, use Form W-8EXP (or other certification of non-foreign status).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a saving clause. Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items.

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.

2. The treaty article addressing the income.

3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.

4. The type and amount of income that qualifies for the exemption from tax.

5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if their stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first Protocol) and is relying on this exception to claim an exemption from tax on their scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 24% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include, but are not limited to, interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third-party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester;

2. You do not certify your TIN when required (see the instructions for Part II for details);

3. The IRS tells the requester that you furnished an incorrect TIN;

4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only); or

5. You do not certify to the requester that you are not subject to backup withholding, as described in item 4 under "*By signing the filled-out form*" above (for reportable interest and dividend accounts opened after 1983 only).

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Certain payees and payments are exempt from backup withholding. See *Exempt payee code*, later, and the separate Instructions for the Requester of Form W-9 for more information.

See also *Establishing U.S. status for purposes of chapter 3 and chapter 4 withholding*, earlier.

What Is FATCA Reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all U.S. account holders that are specified U.S. persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code*, later, and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you are no longer tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account, for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of $50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a $500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

• **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note for ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040 you filed with your application.

• **Sole proprietor.** Enter your individual name as shown on your Form 1040 on line 1. Enter your business, trade, or "doing business as" (DBA) name on line 2.

• **Partnership, C corporation, S corporation, or LLC, other than a disregarded entity.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

• **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. Enter any business, trade, or DBA name on line 2.

• **Disregarded entity.** In general, a business entity that has a single owner, including an LLC, and is not a corporation, is disregarded as an entity separate from its owner (a disregarded entity). See Regulations section 301.7701-2(c)(2). A disregarded entity should check the appropriate box for the tax classification of its owner. Enter the owner's name on line 1. The name of the owner entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2. If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, enter it on line 2.

Line 3a

Check the appropriate box on line 3a for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3a.

IF the entity/individual on line 1 is a(n) . . .	THEN check the box for . . .
• Corporation	Corporation.
• Individual or • Sole proprietorship	Individual/sole proprietor.
• LLC classified as a partnership for U.S. federal tax purposes or • LLC that has filed Form 8832 or 2553 electing to be taxed as a corporation	Limited liability company and enter the appropriate tax classification: P = Partnership, C = C corporation, or S = S corporation.
• Partnership	Partnership.
• Trust/estate	Trust/estate.

Line 3b

Check this box if you are a partnership (including an LLC classified as a partnership for U.S. federal tax purposes), trust, or estate that has any foreign partners, owners, or beneficiaries, and you are providing this form to a partnership, trust, or estate, in which you have an ownership interest. You must check the box on line 3b if you receive a Form W-8 (or documentary evidence) from any partner, owner, or beneficiary establishing foreign status or if you receive a Form W-9 from any partner, owner, or beneficiary that has checked the box on line 3b.

Note: A partnership that provides a Form W-9 and checks box 3b may be required to complete Schedules K-2 and K-3 (Form 1065). For more information, see the Partnership Instructions for Schedules K-2 and K-3 (Form 1065).

If you are required to complete line 3b but fail to do so, you may not receive the information necessary to file a correct information return with the IRS or furnish a correct payee statement to your partners or beneficiaries. See, for example, sections 6698, 6722, and 6724 for penalties that may apply.

Line 4 Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to you.

Exempt payee code.

• Generally, individuals (including sole proprietors) are not exempt from backup withholding.

• Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.

• Corporations are not exempt from backup withholding for payments made in settlement of payment card or third-party network transactions.

• Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space on line 4.

1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2).

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2—The United States or any of its agencies or instrumentalities.

3—A state, the District of Columbia, a U.S. commonwealth or territory, or any of their political subdivisions or instrumentalities.

4—A foreign government or any of its political subdivisions, agencies, or instrumentalities.

5—A corporation.

6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or territory.

7—A futures commission merchant registered with the Commodity Futures Trading Commission.

8—A real estate investment trust.

9—An entity registered at all times during the tax year under the Investment Company Act of 1940.

10—A common trust fund operated by a bank under section 584(a).

11—A financial institution as defined under section 581.

12—A middleman known in the investment community as a nominee or custodian.

13—A trust exempt from tax under section 664 or described in section 4947.

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
• Interest and dividend payments	All exempt payees except for 7.
• Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
• Barter exchange transactions and patronage dividends	Exempt payees 1 through 4.
• Payments over $600 required to be reported and direct sales over $5,000[1]	Generally, exempt payees 1 through 5.[2]
• Payments made in settlement of payment card or third-party network transactions	Exempt payees 1 through 4.

[1] See Form 1099-MISC, Miscellaneous Information, and its instructions.

[2] However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) entered on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37).

B—The United States or any of its agencies or instrumentalities.

C—A state, the District of Columbia, a U.S. commonwealth or territory, or any of their political subdivisions or instrumentalities.

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i).

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i).

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state.

G—A real estate investment trust.

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940.

I—A common trust fund as defined in section 584(a).

J—A bank as defined in section 581.

K—A broker.

L—A trust exempt from tax under section 664 or described in section 4947(a)(1).

M—A tax-exempt trust under a section 403(b) plan or section 457(g) plan.

Note: You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, enter "NEW" at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have, and are not eligible to get, an SSN, your TIN is your IRS ITIN. Enter it in the entry space for the Social security number. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note: See *What Name and Number To Give the Requester*, later, for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at *www.SSA.gov*. You may also get this form by calling 800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at *www.irs.gov/EIN*. Go to *www.irs.gov/Forms* to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to *www.irs.gov/OrderForms* to place an order and have Form W-7 and/or Form SS-4 mailed to you within 15 business days.

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and enter "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, you will generally have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note: Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon. See also *Establishing U.S. status for purposes of chapter 3 and chapter 4 withholding*, earlier, for when you may instead be subject to withholding under chapter 3 or 4 of the Code.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

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Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code*, earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third-party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLE accounts (under section 529A), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account[1]
3. Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
4. Custodial account of a minor (Uniform Gift to Minors Act)	The minor[2]
5. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee[1]
b. So-called trust account that is not a legal or valid trust under state law	The actual owner[1]
6. Sole proprietorship or disregarded entity owned by an individual	The owner[3]
7. Grantor trust filing under Optional Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))**	The grantor*
8. Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity[4]
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
11. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
15. Grantor trust filing Form 1041 or under the Optional Filing Method 2, requiring Form 1099 (see Regulations section 1.671-4(b)(2)(i)(B))**	The trust

[1] List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

[2] Circle the minor's name and furnish the minor's SSN.

[3] You must show your individual name on line 1, and enter your business or DBA name, if any, on line 2. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

[4] List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.)

* **Note:** The grantor must also provide a Form W-9 to the trustee of the trust.

** For more information on optional filing methods for grantor trusts, see the Instructions for Form 1041.

Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

Identity theft occurs when someone uses your personal information, such as your name, SSN, or other identifying information, without your permission to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax return preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity, or a questionable credit report, contact the IRS Identity Theft Hotline at 800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.

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Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 877-777-4778 or TTY/TDD 800-829-4059.

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to *phishing@irs.gov*. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 800-366-4484. You can forward suspicious emails to the Federal Trade Commission at *spam@uce.gov* or report them at *www.ftc.gov/complaint*. You can contact the FTC at *www.ftc.gov/idtheft* or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see *www.IdentityTheft.gov* and Pub. 5027.

Go to *www.irs.gov/IdentityTheft* to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and territories for use in administering their laws. The information may also be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payors must generally withhold a percentage of taxable interest, dividends, and certain other payments to a payee who does not give a TIN to the payor. Certain penalties may also apply for providing false or fraudulent information.

Notes:
1. Aerial imagery provided through Langan's subscription to Near Map, dated 02/22/2025.

LANGAN
Langan Engineering and Environmental Services, LLC
1818 Market Street, Suite 3300
Philadelphia, PA 19103
T: 215.845.8900 F: 215.845.8901
www.langan.com
NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
Block No. 1464, Lot Nos. 4 & 5
CAMDEN
CAMDEN COUNTY NEW JERSEY

Figure Title

Project No. 220132421
Date 6/18/2025
Scale 1" = 100 feet
Drawn By GEG

Figure A

© 2025 Langan

Path: \\langan.com\data\PHL\data4\220132421\Project Data\ArcGIS\APRX\220132421 - Subaru Lots 4 and 5 Redevelopment\220132421 - Subaru Lots 4 and 5 Redevelopment.aprx

Photograph 1 – View of the site adjacent to Memorial Avenue, facing northeast.

Photograph 2 – View the site, facing southeast.

Photograph 3 – View of the site adjacent to Admiral Wilson Boulevard, facing southeast.

Photograph 4 – View of the site adjacent to Memorial Avenue, facing southwest.

Photograph 5 – View of the site, facing southwest.

Photograph 6 – View of eastern periphery of the site, facing southwest.

Chapter 870. Zoning and Land Use

Article XXX. Application Review Requirements and Procedures

§ 870-294. Preliminary checklist.

Note: See §§ **870-277** through **870-282** for further details of submission requirements and procedures.

Preliminary Checklist

- ✓ Application form and plans for completeness review (3 copies).
- ✓ Application form (15 copies).
- ✓ Plats of plans (15 copies) signed and sealed by a New Jersey professional engineer and folded into eighths with title block revealed.
- ✓ Scale of not less than one inch equals 30 feet on one of the following standard sheet sizes (8 1/2 inches x 13 inches; 15 inches x 21 inches; or 24 inches x 36 inches).
- ✓ Key map no less than one inch equals 1,000 feet.
- ✓ Title block:
  - ✓ Name of subdivision or development, City of Camden, Camden County;
  - ✓ Name, title, address and telephone number of subdivider or developer;
  - ✓ Name, title, address and license number of the professional or professionals who prepared the plot or plan;
  - ✓ Name, title and address of the owner or owners of record;
  - ✓ Scale (written and graphic); and
  - ✓ Date of original preparation and of each subsequent revision thereof and a list of specific revisions entered on each sheet.
  - Application number. TO BE ASSIGNED AFTER THIS INITIAL SUBMISSION
- ✓ North arrow.
- ✓ Certification of ownership or authorization to file application.
- ✓ Approval signature lines.
- ✓ Acreage to the nearest tenth of an acre and a computation of the area of the tract to be disturbed.
- N/A All adopted master plan proposals affecting the proposed development.
- ____ The proposed location, direction of illumination, power and type of proposed outdoor lighting, including details and luminaries.
- ✓ The proposed screening, buffering and landscaping plan, with the information required by ordinance.
- ✓ The location and design of any off-street parking area, showing size and location of bays, aisles and barriers.

✓ All means of vehicular access or egress to and from the site onto public streets, with the information required by ordinance.

✓ Plans and computations for any storm drainage systems as required by the City Engineer.

✓ The location of existing utility structures on the tract and within 200 feet of its boundaries.

N/A Plans of proposed improvements and utility layouts as required by ordinance; and required letters from appropriate state and county agencies granting approval for the extension of utility service(s). N/A - NO EXTENSIONS PROPOSED

N/A Plans, typical cross sections and construction details, horizontal and vertical alignment of the center line of all proposed streets and of existing streets abutting the tract as required by ordinance.

N/A A copy of any protective covenants or deed restrictions applying to the land being developed or an indication of them on the submitted plat or plan.

✓ The location and width of all existing and proposed utility easements, the use(s) for which they are intended to be limited, and the manner in which the easements will be controlled.

N/A Proposed permanent monuments.

✓ Certification from the City Tax Collector that all taxes and assessments are paid to date.

N/A Architectural or historic significance of any existing buildings to remain or to be removed.

N/A Scale model of proposed development.

N/A Traffic study, including but not necessarily limited to:

- Anticipated traffic volumes;
- Capacity of existing and proposed roadways;
- Traffic volume impact from other developments;
- Roadway network problems, i.e., unsafe intersections, turns, grades;
- Need for traffic signals and other improvements.

N/A Photographs of any unusual topographic, environmental, historic or physical aspect.

✓ Location of all structures with all setbacks, heights, yards, and floor area ratios, and finished floor elevations.

N/A Sketches, plans and photographs of other known similar developments.

N/A Common open space including acreage calculations and proposed recreation facilities.

The Planning Board may waive submission of any required exhibits in appropriate cases and for specific reasons. Requests for such waivers shall accompany a major subdivision or site plan application, stating the reasons that such a waiver is being requested.

The Board reserves the right to acquire additional information before granting preliminary approval when unique circumstances affect the tract and/or when the application for development poses special problems for the tract and the surrounding area. Such information may include, but not be limited to, drainage calculations and traffic analyses; provided, however, that no application shall be declared incomplete for lack of such additional information.

Craig Wickware, Project Engineer, Langan — March 20, 2026

Signature and title of person who completed checklist — Date

Chapter 870. Zoning and Land Use

Article XXX. Application Review Requirements and Procedures

§ 870-295. Final checklist.

Note: See §§ **870-277** through **870-285** for further details of submission requirements and procedures.

Final Checklist

✓ Application form and plans for completeness review (3 copies).

✓ Application form (15 copies).

✓ Plats of plans (15 copies) signed and sealed by a N.J.P.L.S. or N.J.P.E., as required, and folded into eighths with title block revealed.

✓ Scale of not less than one inch equals 30 feet on one of the following standard sheet sizes (8 1/2 inches x 13 inches; 15 inches x 21 inches; or 24 inches x 36 inches).

✓ All details stipulated in other applicable sections of the Ordinance.

____ All additional details required at the time of preliminary approval. PRELIM APPROVAL NOT YET GRANTED

N/A A section or staging plan, if proposed.

N/A Detailed architectural and engineering data as required by ordinance.

✓ Certification from the City Tax Collector that all taxes and assessments are paid up-to-date.

____ Letters directed to the Chairman of the Board and signed by a responsible official of all utility companies, etc., providing service to the tract as required by ordinance. PRELIM APPROVAL NOT YET GRANTED

____ Certification in writing from the applicant to the Board that the applicant has:

(a) Installed all improvements in accordance with the requirements of the Ordinance; and/or,

(b) Posted a performance guarantee. PRELIM APPROVAL NOT YET GRANTED

____ A statement from the City Engineer that all installed improvements have been inspected.

✓ Detailed soil erosion and sediment control plan

✓ Detailed engineering data including:

Ground floor or other floor plans;

Cross sections, profiles and established grades of all streets, aisles, lanes and driveways;

Sanitary sewer and water main profiles;

All dimensions of the exterior boundaries of any subdivision.

N/A Architectural elevations for all proposed buildings, walls, fences and signs, and samples of building materials to be used shall be submitted to the Planning Board for approval. Architectural elevation drawings shall include:

Fully dimensioned exterior buildings walls.

Architectural features and design.

Exterior doors and windows.

Exterior materials to be used and treatment of materials.

Roof design and method of screening air conditioning units, etc.

Fully dimensioned building signs.

Fully dimensioned retaining walls and fences.

TBD Approximate date of project beginning/completion.

Estimated cost of project. WILL PROVIDE

✓ Photographs of project site and neighboring properties.

The Planning Board may waive submission of any required exhibits in appropriate cases and for specific reasons. Requests for such waivers shall accompany a final subdivision or site plan application, stating the reasons that such a waiver is being requested.

The Board reserves the right to acquire additional information before granting final approval when unique circumstances affect the tract and/or when the application for development poses special problems for the tract and the surrounding area. Such information may include, but not be limited to, drainage calculations and traffic analyses; provided, however, that no application shall be declared incomplete for lack of such additional information.

Craig Wickware, Project Engineer, Langan — March 20, 2026

Signature and title of person who completed checklist — Date

Rudbeckia fulgida deami

Allium 'Millenium'

Sporobolus heterolepis

Andropogon ternarius 'Black Mountain'

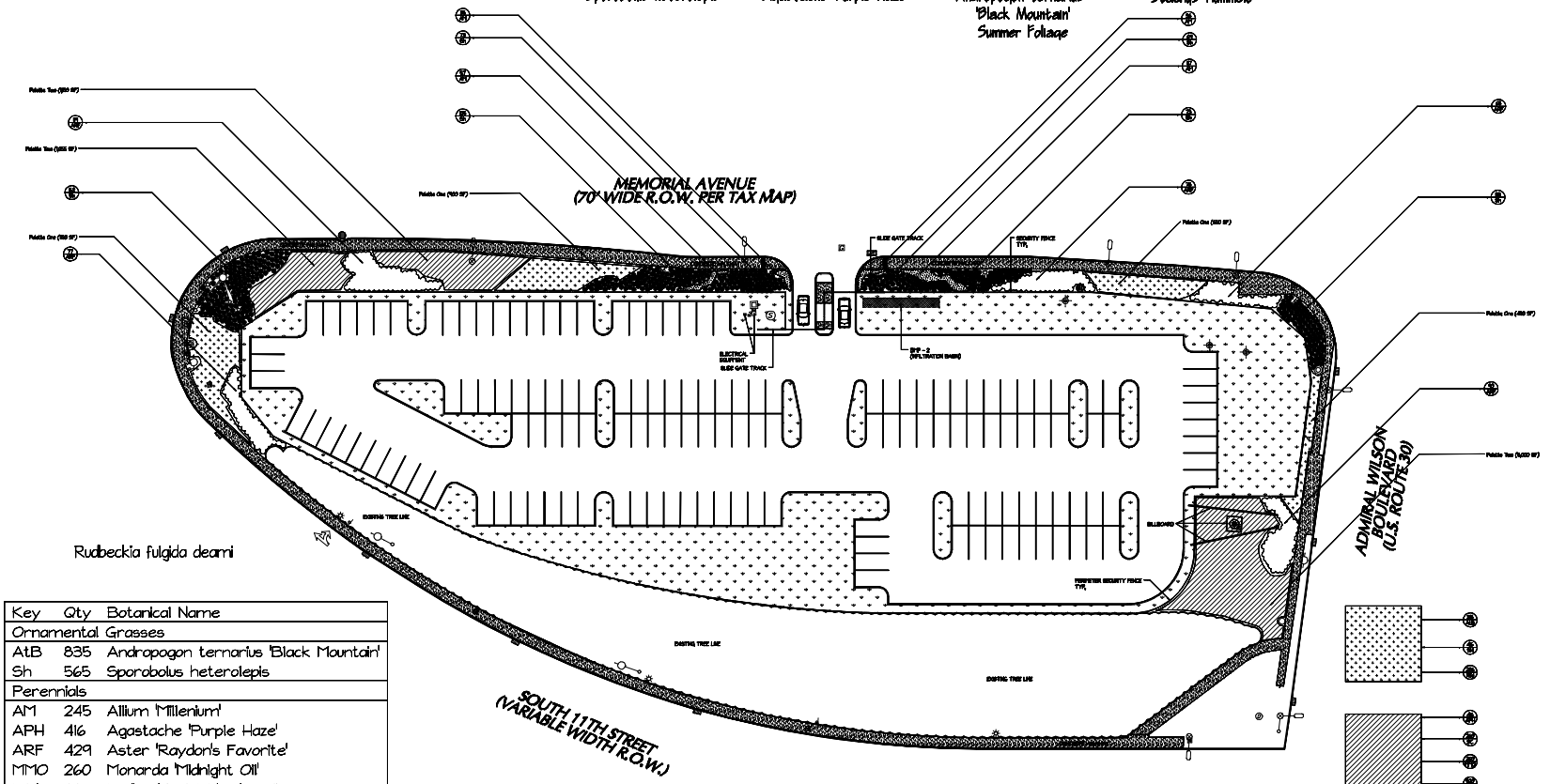
Agastache 'Purple Haze'

Andropogon ternarius 'Black Mountain' Summer Foliage

Monarda 'Midnight Oil'

Stachys 'Hummelo'

Salvia 'Cardonna'



Key	Qty	Botanical Name
Ornamental Grasses		
AtB	835	Andropogon ternarius 'Black Mountain'
Sh	565	Sporobolus heterolepis
Perennials		
AM	245	Allium 'Millenium'
APH	416	Agastache 'Purple Haze'
ARF	429	Aster 'Raydon's Favorite'
MMO	260	Monarda 'Midnight Oil'
Rfd	236	Rudbeckia fulgida deamii
SC	260	Salvia 'Cardonna'
SH	416	Stachys 'Hummelo'

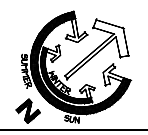
NOTES

No.	Date	Description
01	7-1-25	Removal of retention basin

REVISIONS

PHS PENNSYLVANIA HORTICULTURAL SOCIETY
100 N. 20th Street - Suite 405
Philadelphia, PA 19103-1495
p: 215-988-8889
PHSonline.org

Subaru Lot 4 & 5
Vehicle Storage Lot
Planting Plan



SCALE	1" = 30'-0"
DRAWN BY	
CHECKED BY	TDM
DATE	4-14-25
DATE OF PRINT	

PROJECT NO. SUB11425
SHEET NO. L-01

Powered by Bluebeam

CITY OF CAMDEN
OFFICE OF ASSESSMENTS
520 Market Street, Room 329
P.O. Box 95120
Camden, New Jersey 08101-5120
PHONE (856) 757-7017
assessor@camdennj.gov

Abrina Carson, CTA
Tax Assessor

Victor Carstarphen
Mayor

MEMORANDUM

To: Applicant – 200' List

From: Camden City Assessor's Office

Date: March 19, 2026

Re: 200' Certified List
Block 1464, Lots 4 & 5

Attached please find the Certified List of Property Owners within 200' of the above referenced property.

In order to comply with Chapter 245, P.L. 1991, notice of hearings shall be given to the public utility, cable television company, or local utility which possesses a right-of-way or easement within the municipality and which has registered with the municipality to receive notice. The following list includes the companies that serve the City of Camden:

CAMDEN COUNTY M.U.A.
1645 Ferry Avenue
Camden, NJ 08104

AMERICAN WATER
PO Box 52747
Phoenix, AZ 85072

PUBLIC SERVICE ELECTRIC & GAS
PO Box 790
Cranford, NJ 07016-0790

NEW JERSEY AMERICAN WATER
PO Box 578
Alton, IL 62002
(Servicing East Camden & Cramer Hill)

VERIZON
540 Broad Street
Newark, NJ 07101

COMCAST CABLEVISION
1250 Haddonfield-Berlin Road
Cherry Hill, NJ 08034-0404

The Certified List reflects the property ownership in the tax records as of March 19, 2026.

Be advised that this record may contain information governed by L. 2015, c. 226 and L. 2020, c. 125, which include civil and criminal penalties for improper disclosure.

Certified by:

/s/ Abrina Carson
Abrina Carson, CTA
Tax Assessor

OWNER & ADDRESS REPORT

CAMDEN CITY

BLOCK 1464, LOTS 4 & 5

BLOCK	LOT	QUAL	CLA	PROPERTY OWNER	PROPERTY LOCATION	Add'l Lots
1459	9		4A	SC GARDEN ST GR ZN U R DEV ENT, INC ONE SUBARU DRIVE CAMDEN, NJ 08103	ONE SUBARU DRIVE	
1459	9	BLDG	15F	SC GARDEN ST GR ZN U R DEV ENT, INC ONE SUBARU DRIVE CAMDEN, NJ 08103	ONE SUBARU DRIVE	
1460	15		4B	CAMPBELL SOUP COMPANY PO BOX 32368 CHARLOTTE, NC 28232	375 MEMORIAL AVE	
1460	15.01		4A	CAMPBELL URBAN RENEWAL CORPORATION PO BOX 32368 CHARLOTTE, NC 28232	ONE CAMPBELL PLACE	
1464	4		1	FINGER ONE, LLC 1 SUBARU DRIVE CAMDEN, NJ 08103	1350 ADMIRAL WILSON BLVD	
1464	4	B01	4A	FINGER ONE, LLC 1 SUBARU DRIVE CAMDEN, NJ 08103	1350 ADMIRAL WILSON BLVD	
1464	5		1	FINGER ONE, LLC 1 SUBARU DRIVE CAMDEN, NJ 08103	250 MEMORIAL AVE	
1466	6		15C	NJ DEPT OF TRANSPORTATION PO BOX 600 TRENTON, NJ 08625	INT ADM WILSON & COOPER	
1468	10		15C	NJ DEPT OF TRANSPORTATION PO BOX 600 TRENTON, NJ 08625	SS ADM WLSN & COOPER RVR	

Docusign Envelope ID: 86330A9F-BA8A-4413-ABE5-4C3D8ADE5E80

CITY OF CAMDEN
DIVISION OF PLANNING
CITY HALL – ROOM 224
PO BOX 95120
CAMDEN, NEW JERSEY 08101-5120
(856) 757-7214

INSTRUCTIONS FOR ZONING/SIGN PERMIT APPLICATION

ALL APPLICANTS WHO NEED A ZONING/SIGN PERMIT MUST SUBMIT THE FOLLOWING:

1. Completed Zoning AND/OR Sign Application

2. Proof of ownership (deed, tax bill, or lease) (Leases must be notarized) (Contract of Sale)

3. A detail floor plan of proposed use, conversion of single family dwelling shall have measurement of all habitable space. Accurate drawing of a proposed sign including dimensions and illustration signed by sign supplier. **Any addition or accessory uses or fences must have a Plot Plan and/or Survey. Additions/Fences must be presented on a Plot Plan/Survey with rear and side set back. You can obtain a Plot Plan from the Engineering Dept. located in City Hall, Room 325.** *(copy of all/any plans must accompany application.

4. Completed attached Tax Certification (**City of Camden Tax Office Room 117 1st floor and Water/Sewer is located in the Room 117, 1st floor)**

5. Application fee:
(**non-refundable)**

Single Family Dwelling	$ 69.56
Two-Family Dwelling	$ 139.13
Three-Family Dwelling Or More	$ 215.51
Rooming House	$ 259.16
Boarding House	$ 259.16
Commercial Use	$ 87.30
Industrial Warehousing & Manufacturing Use	$ 139.87
Institutional Use	$ 69.56
Advertising Billboards	$ 395.56
Sign Application	$ 79.11
Rezoning Application	$ 345.09

Money Order or Check payable to the City of Camden

PLEASE RETURN COMPLETED APPLICATIONS TO THE ABOVE ADDRESS. **INCOMPLETE APPLICATIONS SHALL NOT BE PROCESS.** ANY APPLICATION WHICH REMAINS INCOMPLETE FOR MORE THAN 10 BUSINESS DAYS WILL BE DISCARDED. FALSIFICATION IN ANY FORM SHALL SUBJECT APPLICANT TO A FINE OR MUNICIPAL COURT.

No construction, erection, alteration, repair, remodeling, conversion, renovation or demolition of any building or structure shall begin prior to Zoning approval. Other municipal agency approvals maybe required.

DO NOT REMOVE OR DISCARD ANY PART OF THIS APPLICATION

Docusign Envelope ID: 86330A9F-BA8A-4413-ABE5-4C3D8ADE5E80

I. GENERAL

Today's Date: 3/xx/2026

Applicant: Finger One, LLC **Telephone:** 856-488-5096

Applicant's Address: 1 Subaru Drive, Camden, NJ 08103

Applicant Interest: (please check one) (X) **owner** ( ) **tenant** ( ) **agent/owner**

SUBMITTING FOR: (X) **Zoning Permit** ( ) **Sign Permit**

---

1. Name and Address of property OWNER if different from that of applicant:

2. **Address and Block and Lot number** for which zoning/sign permit is desired:

250 Memorial Avenue, Camden, NJ 08103 **Block:** 1464 **Lot:** 4, 5

3.

Zone District:	**R1**	**R2**	**R3**	**C1**	**C2**	**C3**	**C4**	**LII**	**LI2**	**GI1**	**GI2**
(please circle)	**US**	**PR1**	**OL1**	**TOD**	**MW1**	**MW2**	**MS**	**CV2**	**CC**		

4. Historic District: The property is not in an Historic District

5. What is the property/land **PRESENTLY** being used *entirely as:*

No current uses, vacant lot

6. Is the structure presently vacant? _____ If so how long? _____
N/A - no existing structure on site

7. How many stories/floors does the building have? _____ Is there a basement/cellar? _____
N/A - no existing structure on site

DO NOT REMOVE OR DISCARD ANY PART OF THIS APPLICATION

Docusign Envelope ID: 86330A9F-BA8A-4413-ABE5-4C3D8ADE5E80

II. ZONING

1. What is being proposed?

   New Construction X Addition_____ Fence X (ht 7-FT) Installation_____

   New Business_____ Conversion_____ Other (explain: _____)

2. Describe in detail the use & activities **PROPOSED** (attached separate sheet if necessary):

   Proposed use is a off-street vehicle storage lot, as defined by the Amendment to Gateway Redevelopment Plan approved January 2, 2026.

3. Are there other activities existing within the same property? No (please describe)

4. Dimensions of Principal Building and/or structure

   N/A - no existing or proposed building on site

5. Dimensions of All Accessory Building and/or structure

   N/A - no existing or proposed building on site

6. Are any of the activities conducted in the principal building existing as a nonconforming use?

   No_____ Yes_____ (please explain) N/A - no existing or proposed building on site

7. To the applicant's knowledge, has there been any prior applications made to the Zoning Board of Adjustment or the Planning Board?

   No_____ Yes X (please explain) _____

==========

THIS APPLICANT CERTIFIES THAT THE ABOVE INFORMATION HAS BEEN COMPLETED TO THE BEST OF HIS/HER KNOWLEDGE.

3/20/2026
(Date)

DocuSigned by:
Peggy Verdi
EEE0350E9E0345E...
(Signature of Applicant)

Peggy Verdi, Manager Finger One, LLC
(Name of Corporation or Association)

DO NOT REMOVE OR DISCARD ANY PART OF THIS APPLICATION

Docusign Envelope ID: 86330A9F-BA8A-4413-ABE5-4C3D8ADE5E80

III. SIGN

1. Type Sign: Awning / Billboard / Freestanding / Hanging / Mounted / Off Site / Window *(please circle)*
   Other (describe): _____ Alteration of an existing sign _____
   (attach photo & describe) _____

2. Are there any existing signs? _____ (if yes, please attach photos)

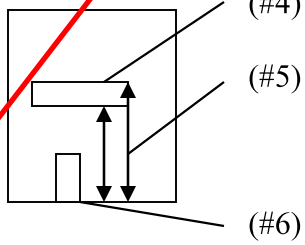
3. How many signs are proposed? _____

4. Will signs(s) be illuminated? Yes_____ No_____

5. Dimension: _____X_____=_____sq ft.

6. Distance between ground and the lowest part of sign _____ft.

7. Distance between ground and highest part of the sign _____ft.



8. Material of Sign:_____

9. Color(s) on sign(s):_____

10. Illustration/Wording:_____

_____

==========

THIS APPLICANT CERTIFIES THAT THE ABOVE INFORMATION HAS BEEN COMPLETED TO THE BEST OF HIS/HER KNOWLEDGE AND FURTHER UNDERSTANDS THAT <u>IF THE SIGN EXCEEDS THE MAXIMUM REQUIREMENT</u> A VARIANCE THROUGH THE PLANNING BOARD OF THE CITY OF CAMDEN MUST BE REQUESTED.

_____ _____
(Date) (Signature of Applicant)

_____
(Name of Corporation or Association)

DO NOT REMOVE OR DISCARD ANY PART OF THIS APPLICATION

Docusign Envelope ID: 86330A9F-BA8A-4413-ABE5-4C3D8ADE5E80

IV. ASSESSMENT CERTIFICATION

Section A: Applicant shall complete

SECTION A **OWNER**

Name of OWNER of Property Finger One, LLC

Address: 250 Memorial Avenue, Camden, NJ 08103

SEARCH Address: _____

Block: 1464 **Lot:** 4, 5 **Account:** _____

Section B: Applicant shall take this form to the City of Camden Tax Office, Room 117 (1st floor) for completion to indicate whether taxes are paid up to date. Also for water and sewer to make sure water /sewer is paid up to date. Upon completion, this form shall be submitted with original application. **NO APPLICATIONS WILL BE ACCEPTED – if any money is owed for Taxes or Water/Sewer, no permit can be issued until accounts are paid in full-proof of payment must be brought back before turning application in.**

Section C: **TAX OFFICE & PNC BANK**

An application for Zoning/Sign permit has been submitted to the Division of Planning. Please check your records to be certain that the account is current

I HEREBY CERTIFY THAT THE PROPERTY ASSESSMENT ARE:

****MORTGAGE LETTERS ON LETTERHEAD WILL BE ACCEPTED FOR SALE/RESALE PROPERTIES ONLY****

Account Type	Qtr.	Due date	Amount Owed	Other
(Taxes/W&S/Other	_____	_____	_____	_____
(Taxes/W&S/Other	_____	_____	_____	_____
(Taxes/W&S/Other	_____	_____	_____	_____
(Taxes/W&S/Other	_____	_____	_____	_____

COMMENTS: _____

_____

_____

DATED: _____ **PREPARED BY:** _____