TOWN OF NEWBURGH
PLANNING BOARD
TECHNICAL REVIEW COMMENTS

PROJECT NAME:	**NEWBURGH CHICKEN, LLC- POPEYES**
PROJECT NO.:	**23-17**
PROJECT LOCATION:	**197 SOUTH PLANK ROAD**
	SECTION 60, BLOCK 3, LOT 6.1
REVIEW DATE:	**29 NOVEMBER 2023**
MEETING DATE:	**7 DECEMBER 2023**
PROJECT REPRESENTATIVE:	**DYNAMIC ENGINEERING**

1. Planning Board should discuss the need for continuation of sidewalks along the entire property frontage as is standard practice for the Town of Newburgh on State highways.

2. The applicant's representative are requested to discuss the proposed full movement entrance at NYS Route 52. Existing traffic conditions limit access to this driveway making left turns very difficult out of and into the site. Ken Wersted's and NYSDOT comments on this access point should also be received early in the process.

3. A permit for demolition of the site is required from the Town of Newburgh Building Department. A note should be specifically added to Sheet 3 identifying that a permit is required prior to any demolition.

4. Numerous Zoning Board of Appeals variance relief have been granted to the project. These are specifically identified in the project narrative submitted.

5. The building is required to be provided with fire protection sprinklers in accordance with Chapter 107-17 thru 26. The water supply should be upgraded to provide for sprinklers. Sprinkler and potable water connections should be designed in accordance with the attached detail.

6. Calculations supporting the size of the grease trap proposed on the sanitary sewer should be provided. NYSDEC has design standards for grease traps.

7. The location of the water main in NYS Route 52 should be confirmed.

8. Standard notes for connection to the Town of Newburgh Water & Sewer must be added to the plans. Copy attached.

9. Orange County Planning Referral is required.

10. The plans identify 43,130 square feet of disturbance. This equates to 0.99 acres. The applicants have identified that they are not required to receive coverage under the NYSDEC Stormwater SPDES Permit. This office recommends coverage under the permit to protect both the Town of Newburgh and the applicant from any circumstances which result in excavation, land disturbance or other activities including utility connections which are not currently identified on the plan to exceed one acre threshold. Project is in a very visible are/high traffic area such that review by outside agencies may occur.

11. A Stormwater Facilities Maintenance Agreement will be required to be filed.

12. Security for Stormwater Management and Landscaping are required. Cost estimates should be prepared and submitted for review. Town Board approval of the cost estimates and Inspection Escrow is required.

13. NYSDOT permits for off-site grading, utilities and access are required.

14. The applicant's representative are requested to evaluate the constructability of the retaining wall along the west property line. Wall is approximately 11 feet high in very close proximity to the adjoining property.

15. The existing Utility Notes on Sheet 8 with regard to water and sewer should state that existing water and sewer utilities are to be capped and new connections provided for the site.

16. Compliance with the Town's Tree Preservation Ordinance Chapter 172 of the Town Code should be addressed.

17. The plans should address the existing catch basin at the Route 300 access drive. Modifications to this will be required. Consideration for relocation of the catch basin to capture runoff at the access drive should be considered.

18. Show the 358 contour at the intersection of Route 300 and 52 in the vicinity of the existing catch basins.

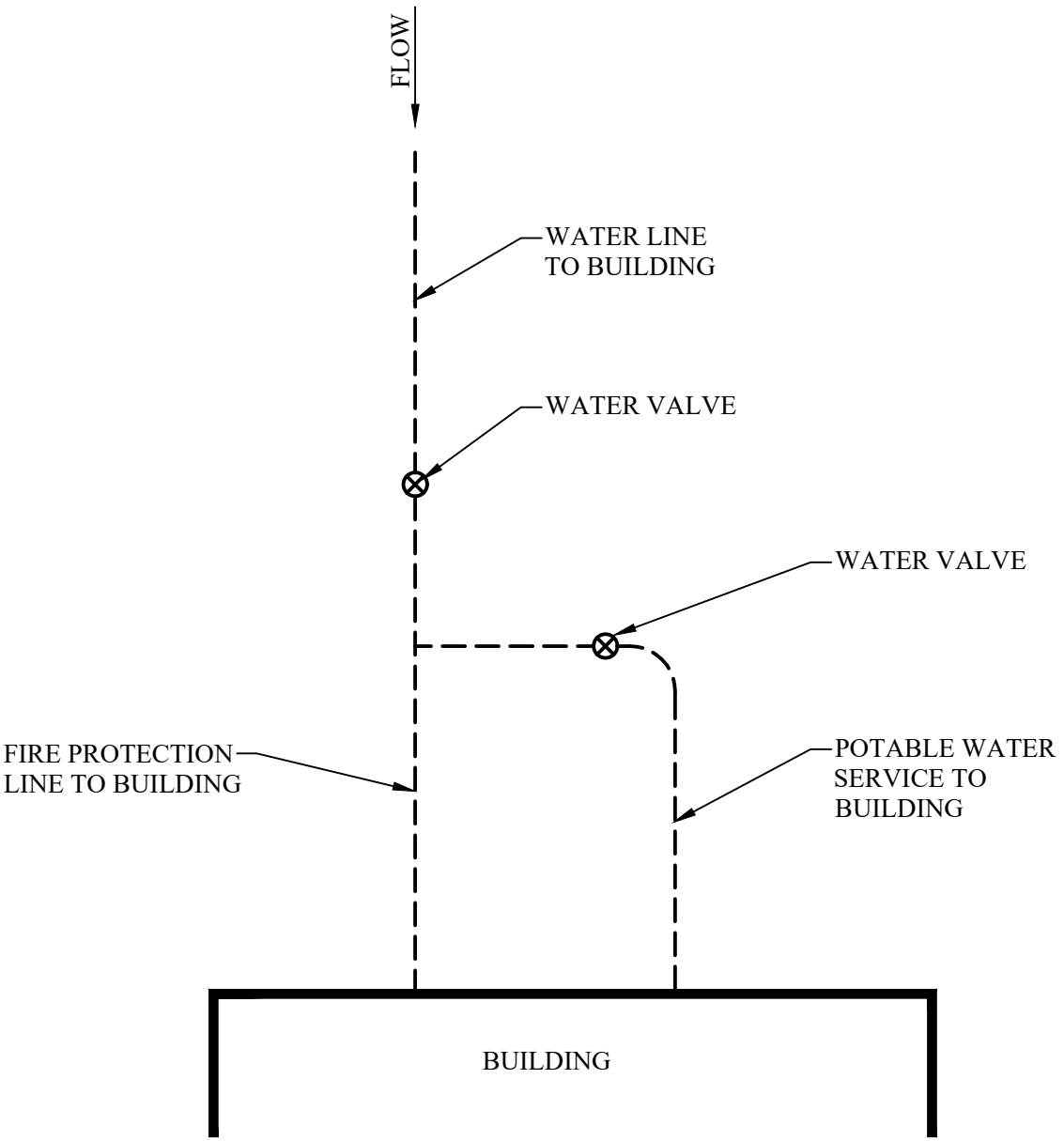
19. The EAF submitted for the Type II Action identifies potential habitat for Indianna Bat. Mitigation measures including tree cutting time frame restriction should be identified on the plans.

20. Address proposed 90° bends in proposed sanitary sewer laterals

Respectfully submitted,

MHE Engineering, D.P.C.

Patrick J. Hines
Principal
PJH/kbw



NOTE:
VALVING MUST BE ARRANGED SO THAT POTABLE WATER IS TERMINATED IF FIRE PROTECTION LINE IS TURNED OFF.

TOWN OF NEWBURGH FIRE PROTECTION FLOW TO BLDG. CONNECTION DETAIL

X
XXX

SCALE: N.T.S.

TOWN OF NEWBURGH
WATER SYSTEM NOTES FOR SITE PLANS

1. "Construction of potable water utilities and connection to the Town of Newburgh water system requires a permit from the Town of Newburgh Water Department. All work and materials shall conform to the requirements of the NYSDOH and the Town of Newburgh."

2. All water service lines four (4) inches and larger in diameter shall be cement lined class 52 ductile iron pipe conforming to ANSI\AWWA C151\A21.51 for Ductile Iron Pipe, latest revision. Joints shall be either push-on or mechanical joint as required.

3. Thrust restraint of the pipe shall be through the use of joint restraint. Thrust blocks are not acceptable. Joint restraint shall be through the use of mechanical joint pipe with retainer glands. All fittings and valves shall also be installed with retainer glands for joint restraint. Retainer glands shall be EBBA Iron Megalug Series 1100 or approved equal. The use of a manufactured restrained joint pipe is acceptable with prior approval of the Water Department.

4. All fittings shall be cast iron or ductile iron, mechanical joint, class 250 and conform to ANSI\AWWA C110\A21.10 for Ductile and Gray Iron Fittings or ANSI\AWWA C153\A21.53 for Ductile Iron Compact Fittings, latest revision.

5. All valves 4 to 12 inches shall be Resilient Wedge Gate Valves conforming to ANSI\AWWA C509 such as Mueller Model A-2360-23 or approved equal. All gate valves shall open left (counterclockwise).

6. Tapping sleeve shall be mechanical joint such as Mueller H-615 or equal. Tapping valves 4 to 12 inches shall be Resilient Wedge Gate Valves conforming to ANSI\AWWA C509 such as Mueller Model T-2360-19 or approved equal. All tapping sleeves and valves shall be tested to 150 psi minimum; testing of the tapping sleeve and valve must be witnessed and accepted by the Town of Newburgh Water Department prior to cutting into the pipe.

Original 12-06-96
Revised 04-24-02
Revised 01-2015

TOWN OF NEWBURGH
WATER SYSTEM NOTES FOR SITE PLANS

7. All hydrants shall be Clow-Eddy F-2640 conforming to AWWA Standard C-502, latest revision. All hydrants shall include a 5 ¼ inch main valve opening, two 2 ½ inch diameter NPT hose nozzles, one 4 inch NPT steamer nozzle, a 6 inch diameter inlet connection and a 1 ½ inch pentagon operating nut. All hydrants shall open left (counter-clockwise). Hydrants on mains to be dedicated to the Town shall be Equipment Yellow. Hydrants located on private property shall be Red.

8. All water service lines two (2) inches in diameter and smaller shall be type K copper tubing. Corporation stops shall be Mueller H-15020N for ¾ and 1 inch, Mueller H-15000N or B-25000N for 1 ½ and 2 inch sizes. Curb valves shall be Mueller H-1502-2N for ¾ and 1 inch and Mueller B-25204N for 1 ½ and 2 inch sizes. Curb boxes shall be Mueller H-10314N for ¾ and 1 inch and Mueller H-10310N for 1 ½ and 2 inch sizes.

9. All pipe installation shall be subject to inspection by the Town of Newburgh Water Department. The contractor shall be responsible for coordinating all inspections as required with the Town of Newburgh Water Department.

10. The water main shall be tested, disinfected and flushed in accordance with the Town of Newburgh requirements. All testing, disinfection and flushing shall be coordinated with the Town of Newburgh Water Department. Prior to putting the water main in service satisfactory sanitary results from a certified lab must be submitted to the Town of Newburgh Water Department. The test samples must be collected by a representative of the testing laboratory and witnessed by the Water Department.

11. The final layout of the proposed water and/or sewer connection, including all materials, size and location of service and all appurtenances, is subject to the review and approval of the Town of Newburgh Water and/or Sewer Department. No permits shall be issued for a water and/or sewer connection until a final layout is approved by the respective Department.

Original 12-06-96
Revised 04-24-02
Revised 01-2015

TOWN SEWER SYSTEM NOTES

1. Construction of sanitary sewer facilities and connection to the Town of Newburgh sanitary sewer system requires a permit from the Town of Newburgh Sewer Department. All construction shall conform to the requirements of the NYSDEC and the Town of Newburgh.

2. All sewer pipe installation shall be subject to inspection by the Town of Newburgh Sewer Department. The Contractor shall be responsible for coordinating all inspections as required with the Town of Newburgh Sewer Department.

3. All gravity sanitary sewer service lines shall be 4 inches in diameter or larger and shall be SDR-35 PVC pipe conforming to ASTM D-3034-89. Joints shall be push-on with elastomeric ring gasket conforming ASTM D-3212. Fittings shall be as manufactured by the pipe supplier or equal and shall have a bell and spigot configuration compatible with the pipe.

4. The sewer main shall be tested in accordance with Town of Newburgh requirements. All testing shall be coordinated with the Town of Newburgh Sewer Department.

5. The final layout of the proposed water and/or sewer connection, including all materials, size and location of service and all appurtenances, is subject to the review and approval of the Town of Newburgh Water and/or Sewer Department. No permits shall be issued for a water and/or sewer connection until a final layout is approved by the respective Department.

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NICHOLAS M. WARD-WILLIS
Principal Member
nward-willis@kblaw.com
Also Admitted in CT

November 21, 2023

VIA HAND DELIVERY

Chairman John P. Ewasutyn and
Members of the Planning Board
Town of Newburgh
21 Hudson Valley Professional Plaza
Newburgh, NY 12550

Re: Newburgh Chicken, LLC – Proposed Popeyes Chicken
197 South Plank Road
Parcel ID No. 60-3-6.1

Dear Chairman Ewasutyn and Members of the Town of Newburgh Planning Board:

On behalf of Newburgh Chicken, LLC (the "Applicant"), we are pleased to submit the enclosed application for Site Plan Approval for the proposed development of a Popeyes Chicken at property located at 197 South Plank Road (New York State Route 52), known as designated as Tax Parcel No. 60-3-6.1 and located in the Business (B) Zoning District (the "Property"). The Applicant is the contract vendee of the Property, which is currently owned by Louis J. Gallo and Jean F. Gallo.

I. Proposed Development

The Property is currently developed with an approximately 2,691 square-foot, one-story fast-food establishment (specifically, a Dairy Queen) with a drive-thru and twenty-six (26) parking spaces. The existing fast-food establishment and drive-thru, which has been located on the Property for several decades, is a legal nonconforming use, as fast-food establishments are not permitted in the Business (B) Zoning District. The Applicant seeks to demolish the existing building and redevelop the Property with an approximately 2,537 square-foot, one-story fast-food establishment (specifically, a Popeyes Chicken) with a drive-thru and twenty-two (22) parking spaces. Construction of the new building in a different location on the Property will significantly improve on-site and off-site traffic conditions, while simultaneously improving the aesthetics of the Property.

II. Special Permit and Variances Granted by the Zoning Board of Appeals

Our office previously confirmed with the Town's consulting engineer, Patrick Hines, P.E., that, as the use is a nonconforming use and the Town's Zoning Code sets forth

specific dimensional regulations for each particular use, the Zoning Board of Appeals would need to approve the setbacks for the new construction. Additionally, the Zoning Board would need to grant a special permit pursuant to Town Code § 185-19.A(3) to permit the proposed nonconforming use of a fast-food establishment to continue on the Property.

The Applicant appeared before the Town Zoning Board of Appeals at its September 28 and October 26, 2023 meetings. At the October 26, 2023 meeting, the Zoning Board granted the Applicant a special permit pursuant to Town Code § 185-19.A(3), which authorizes the proposed nonconforming use to continue on the Property, albeit in a different location and under a new corporate entity. Additionally, in granting the special permit, the Zoning Board determined that the applicable bulk requirements for the project are those which are proposed as part of the development of the Property.

Nevertheless, there are certain dimensional requirements that apply to the project, regardless of the fact that the proposed use is not permitted by right in the Business (B) Zoning District. Accordingly, the Zoning Board granted the following area variances related to the project.

(1) A one (1) loading space variance from Zoning Code § 185-13.B(6), where the required loading spaces for the project is one (1) space and the proposed loading spaces is zero (0) spaces.

(2) A 99.4-foot (99.4') variance from Zoning Code § 185-13.D(6), where the minimum required distance from the intersection to the entrance to the Property on South Plank Road (Rt. 52) is 150 feet (150.0') and the proposed distance is 50.6 feet (50.6').

(3) An 11.7-foot (11.7') variance from Zoning Code § 185-18.C(4)(a), where the minimum required setback from the physical center line on Union Avenue (Rt. 300) is 80 feet (80') and the proposed setback is 68.3 feet (68.3').

(4) A 23.5-foot (23.5') variance from Zoning Code § 185-18.C(4)(b), where the minimum required front yard setback from Union Avenue (Rt. 300) is 60 feet (60.0') and the proposed front yard setback is 36.5 feet (36.5').

(5) A 6-foot (6.0') variance from Zoning Code § 185-14.M(2)(c), where the maximum permitted freestanding sign height is 14 feet (14.0') and the proposed freestanding sign height is 20 feet (20.0').

The Zoning Board granted the above area variances in reliance on the plan set titled "General Notes" (Sheet 1 of 2) and "Site Plan Exhibit" (Sheet 2 of 2), prepared by Dynamic Engineering Consultants, P.C. and dated October 17, 2023.

III. SEQRA

As part of its review of the application, the Zoning Board determined that the proposed redevelopment is a Type II action under Part 617.5(c)(9), as it is the construction of a primary, non-residential structure involving less than 4,000 square feet of gross floor area and not involving a change in zoning or a use variance. It is respectfully submitted that the Planning Board should reach the same conclusion (i.e., that the project is a Type II action under Part 617.5(c)(9)) and no further SEQRA review is required.

IV. Application Submission Materials

In support of this application, enclosed please find fourteen (14) copies of the following materials (twelve (12) for the Planning Board, one (1) for the Building Department, and one (1) for the Orange County Planning Department):

(1) Town of Newburgh Application Package for Site Plans, consisting of the following completed pages:

Application for Site Plan Review, dated July 26, 2023
Checklist for Site Plan, dated November 20, 2023
Application for Clearing and Grading, dated November 21, 2023
Fee Acknowledgement, dated July 26, 2023
Planning Board Proxy, dated August 12, 2023 (the original having been previously submitted to the Planning Board on August 25, 2023)
Planning Board Disclaimer Statement to Applicants, dated July 26, 2023
Disclosure Addendum Statement to Application, Petition and Request, dated July 26, 2023
Architectural Review Form, dated November 20, 2023

(2) Project Narrative for the proposed Popeyes Chicken

(3) Site Plans entitled "Preliminary and Final Site Plan for Newburgh Chicken, LLC, Proposed Popeyes Restaurant," prepared by Dynamic Engineering Consultants, P.C., consisting of the following:

Sheet 1 – Cover Sheet, dated 11/16/2023
Sheet 2 – Aerial Map, dated 11/16/2023
Sheet 3 – Demolition Plain, dated 11/16/2023
Sheet 4 – Site Plan, dated 11/16/2023
Sheet 5 – Signage and Striping Plan, dated 11/16/2023
Sheet 6 – Grading Plan, dated 11/16/2023
Sheet 7 – Drainage Plan, dated 11/16/2023
Sheet 8 – Utility Plan, dated 11/16/2023
Sheet 9 – Landscape Plan, dated 11/16/2023
Sheet 10 – Lighting Plan, dated 11/16/2023
Sheet 11 – Lighting Details, dated 11/16/2023
Sheet 12 – Stormwater Pollution Prevention Plan, dated 11/16/2023
Sheet 13 – Construction Details, dated 11/16/2023
Sheet 14 – Construction Details, dated 11/16/2023
Sheet 15 – Construction Details, dated 11/16/202
Sheet 16 – Construction Details, dated 11/16/2023
Sheet 17 – Vehicle Circulation (WB-50), dated 11/16/2023
Sheet 18 – Vehicle Circulation (Trash Truck), dated 11/16/2023
Sheet 19 – Vehicle Circulation (Fire Truck), dated 11/16/2023

(4) Architectural Plans, prepared by G141 Architecture, LLC, consisting of the following:

Drawing RE-1 – Rendering Elevations, dated 11/15/2023
Drawing PB-1 – Floor Plan, dated 11/09/2023
Drawing PB-2 – Exterior Elevations, dated 11/09/2023
Drawing PB-3 – Exterior Specifications, dated 11/09/2023
Drawing PB-4 – Floor Plan, 11/09/2023

(5) ALTA/NSPS Land Title Survey, prepared by Gallas Surveying Group, last revised October 18, 2022

(6) Proposed Stormwater Mitigation Plan, prepared by Dynamic Engineering Consultants, P.C., dated November 2023

(7) Traffic Impact Study, prepared by Dynamic Traffic, LLC, last revised November 15, 2023

(8) Short Environmental Assessment Form Part 1 with EAF Mapper Summary Report, dated July 26, 2023 (submitted as a Short Form due to the project's classification as a Type II action, as set forth above)

(9) Affidavit of Mailing concerning the notice sent to property owners within 500 feet, duly sworn to on August 25, 2023

V. Conclusion

The Applicant respectfully requests to be placed on the Planning Board's December 7, 2023 meeting agenda to commence review of the enclosed application. We also respectfully request that the Planning Board schedules a public hearing at that time for its December 21, 2023 meeting.

We look forward to meeting with the Planning Board at its regular meeting on December 7, 2023. We further look forward to working with the Town to develop the Property in a way that will yield significant benefits to the community by improving the Property, the traffic flow along South Plank Road, the appearance of the building, and the landscaping and functionality of the Property.

Thank you for your consideration.

Very truly yours,

Nicholas M. Ward-Willis

Enclosures

cc: Matt Bersch, P.E.

Newburgh Chicken, LLC
197 South Plank Road
Section 60, Block 3, Lot 6.1

PROJECT NARRATIVE FOR THE PROPOSED POPEYES CHICKEN

Newburgh Chicken, LLC ("Newburgh Chicken") is the contract vendee of approximately 0.97 acres of certain real property located at 197 South Plank Road (NYS Route 52), situated within the Town of Newburgh ("Property"). The Property is currently owned by Louis J. Gallo and Jean F. Gallo, and is located on the south side of South Plank Road (NYS Route 52), at the intersection of Union Avenue (NYS Route 300) and South Plank Road, in the Business (B) Zoning District. The Property abuts South Plank Road on the north side, Union Avenue on the east side, 203 South Plank Road on the west side, and 1437 Union Avenue on the south side. The adjacent property at 203 South Plank Road is currently used as a CVS Pharmacy with a drive thru pharmacy, and the property located at 1437 Union Avenue consists of a vacant building which is closed and not currently operational.

The Property is currently developed with an approximately 2,691 square-foot, one-story fast-food establishment (specifically, a Dairy Queen) with a drive-thru and 26 parking spaces. Newburgh Chicken seeks to develop the Property with an approximately 2,537 square-foot, one-story fast-food establishment (specifically, a Popeyes Chicken) with a drive-thru and 22 parking spaces. The existing fast-food establishment (Dairy Queen) and drive-thru has been located on the Property for several decades, and, as such, is a legal nonconforming use, as fast-food establishments are not permitted in the Business (B) Zoning District.

At its October 26, 2023 meeting, the Zoning Board of Appeals granted Newburgh Chicken a special permit pursuant to Town Code § 185-19.A(3), which authorizes the proposed nonconforming use to continue on the Property, albeit in a different location and under a new corporate entity. Additionally, in granting the special permit, the Zoning Board determined that the applicable bulk requirements for the project are those which are proposed as part of the development of the Property. Moreover, the Zoning Board granted six (6) area variances to Newburgh Chicken for dimensional requirements that apply to the project, regardless of the fact that the proposed use is not permitted by right in the Business (B) Zoning District.

At this time, Newburgh Chicken respectfully seeks site plan approval from the Planning Board for the proposed Popeyes Chicken. The proposed Popeyes Chicken establishment is appropriate in the community, as a fast-food establishment has existed on the Property for several decades, albeit under a different corporate entity. Moreover, it is appropriate for the Property given its proximity to major corridors such as Interstates 84 and 87 and Route 52. Permitting Newburgh Chicken to develop a Popeyes Chicken on the Property will yield significant benefits to the Town of Newburgh by allowing the continued use of the Property as a fast-food establishment, as has been the case for several decades, and improving the safety of the Property, the traffic flow along South Plank Road, the appearance of the building, and the landscaping and functionality of the Property.

PRELIMINARY AND FINAL SITE PLAN

FOR

NEWBURGH CHICKEN, LLC
PROPOSED POPEYES RESTAURANT

PARCEL: 60-3-6.1; TAX MAP SHEET #60 - LATEST REV. DATED 2023

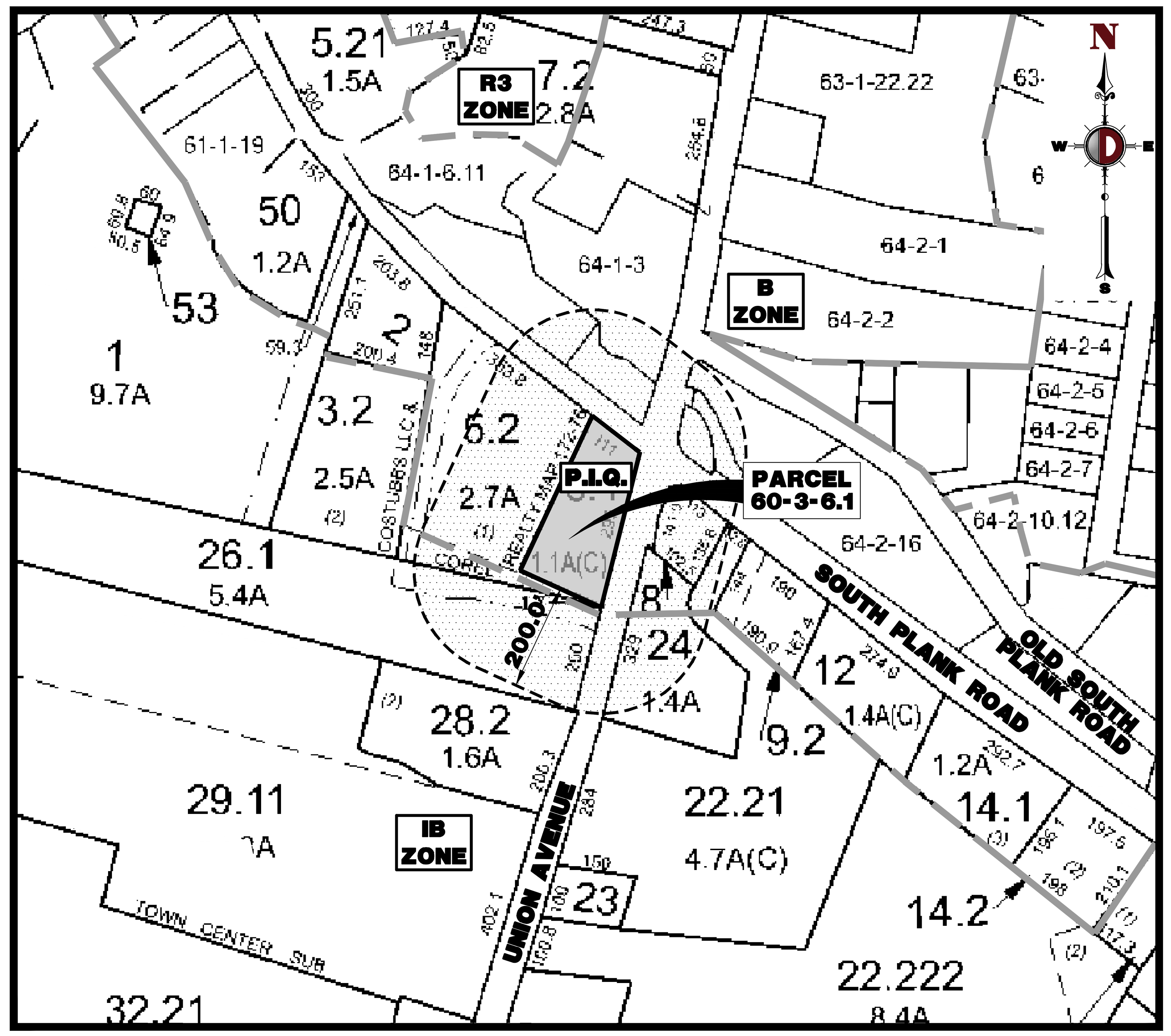
197 SOUTH PLANK ROAD

TOWN OF NEWBURGH

ORANGE COUNTY, NEW YORK

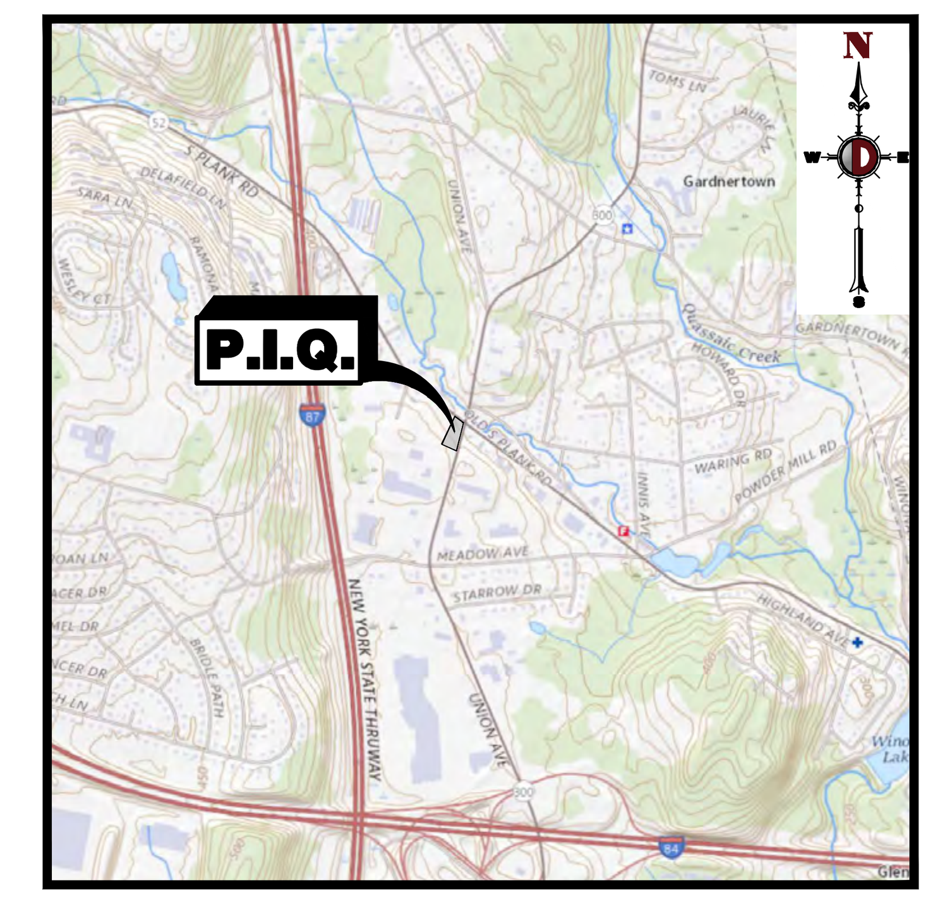
500' PROPERTY OWNERS LIST

PROPERTY OWNER	BLOCK	LOT	PROPERTY OWNER	BLOCK	LOT
JBD INC 1451 RTE. 300 NEWBURGH NY 12550	60	7.2	CONEW, LLC 250 PEHLE AVE STE 600 SADDLE BROOK NJ 07663	60	29.11
JEMF PROPERTIES, LLC 2015 E 14TH ST BROOKLYN NY 11229	60	1	KANEWPO, LLC 18 KINGWOOD LN POUGHKEEPSIE NY 12601	64	1.1
SOUTH PLANK HOLDINGS, LLC 289 NORTH PLANK RD STE 2 NEWBURGH NY 12550	60	2	J & B NORTH PLANK ROAD LLC 19 MAIDSTONE DR WALDEN NY 12586	64	2
JEMF PROPERTIES. LLC 2015 E 14TH ST BROOKLYN NY 11229	60	3.2	DANIEL C OLSON KAREN A OLSON 1445 ROUTE 300 NEWBURGH NY 12550	64	3
LLC 111 NORTH BROADWAY ASSOCIATES NEWBURGH GRAND LLC 384 S MAMARONECK AVE WHITE PLAINS NY 10605	60	5.2	STEVEN WAGNER KARLENE K WAGNER 1447 ST RTE 300 NEWBURGH NY 12550	64	4
LOUIS J GALLO JEAN F GALLO 2 KELLY CIR POUGHKEEPSIE NY 12601	60	6.1	GREGG GALATI ENTERPRISES LLC 206 SOUTH PLANK RD NEWBURGH NY 12550	64	6.11
AUTOMOTIVE AUDIO LTD 195 S PLANK RD NEWBURGH NY 12550	60	8	LITTLE BRICK HOUSE PROPERTIES LIE 1229 RTE 300 NEWBURGH NY 12550	64	1
NEDZAT KALICI MYRA KALICI 193 S PLANK RD NEWBURGH NY 12550	60	9.2	119 OLD SOUTH PLANK RD. LLC 30 SYCAMORE DR WALLKILL NY 12589	64	2
GP OWNERSHIP LLC 15 S GETZIL BERGER BLVD UNIT 3 MONROE NY 10950	60	12	CARLOS LOPEZ JR. ANDREW LIGHTBODY 120 OLD SOUTH PLANK RD NEWBURGH NY 12550	64	1.1
NEW YORK TELEPHONE CO %DUFF & PHELPS ADDISON TX 75001	60	22.21	JCH EXPANDING LLC 10 DEFOREST AVE NEWBURGH NY 12550	64	12.1
TREVOR OWENS NOREEN OWENS 18 VERDE CT MONTGOMERY NY 12549	60	23	JCH EXPANDING LLC 10 DEFOREST AVE NEWBURGH NY 12550	64	12.2
NELLA'S NEST NORTH CORP. 1430 ROUTE 300 NEWBURGH NY 12550	60	24	300 & PLANK, LLC 30 SYCAMORE DR WALLKILL NY 12589	64	14.1
KALIAN 1437 LLC 60 E 42ND ST 1942 NEW YORK NY 10165	60	26.1	300 & PLANK, LLC 30 SYCAMORE DR WALLKILL NY 12589	64	15
NEW YORK TELEPHONE CO %DUFF & PHELPS ADDISON TX 75001	60	28.2	ADAMS ALGONQUIN PLAZA LLC P.O. BOX 4452 NEW WINDSOR NY 12553	64	16



AREA MAP

1" = 200'



KEY MAP

1" = 2000'

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PLANNING BOARD APPROVAL

APPROVED AT THE PLANNING BOARD OF THE TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

BOARD ENGINEER DATE

PREPARED BY

DYNAMIC ENGINEERING CONSULTANTS, P.C.

1904 MAIN STREET

LAKE COMO, NJ 07719

WWW.DYNAMICEC.COM

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

Rev.	Date	Comments	By

DYNAMIC ENGINEERING

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Toms River, New Jersey T: 732.974.0198 | Allen, Texas T: 972.534.2100 | Austin, Texas T:512.646.2646 | Houston, Texas T: 281.789.6400 | Delray Beach, Florida T: 561.921.8570
Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.253.4888 | Bethlehem, Pennsylvania T: 610.598.4400 | Annapolis, Maryland T: 410.567.5000

TITLE: COVER SHEET

PROJECT: **NEWBURGH CHICKEN, LLC.**
PROPOSED POPEYES RESTAURANT
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No: 1021 22-01041

DATE: 11/16/2023

DRAWN BY: RPK

DESIGNED BY: JD

CHECKED BY: RW

CHECKED BY: MB

SCALE: (H) AS (V) NOTED

SHEET No: 1 OF 19

Rev. # 0

MATTHEW J. BERSCH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 54522

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

811 Know what's below. Call before you dig.

PROTECT YOURSELF

ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Plotted: 11/20/23 - 1:34 PM, By: rkazimir, - Product Ver: 24.2s (LMS Tech)
File: \\decpc.local\decfolders\Data\decpc projects\1021 parikh network, llc\22-01041 newburgh ny\Dwg\Site Plans\D10212201041SK0.dwg, ---> 01 COVER SHEET

R2 ZONE

NEW YORK STATE THRUWAY

IB ZONE

B ZONE

R3 ZONE

NY-300

P.I.Q.

200.0'

UNION AVENUE (NYSH 300)

MEADOW AVENUE

SOUTH PLANK ROAD (SH 52)

OLD SOUTH PLANK ROAD

WARRING AVENUE

STARROW DRIVE

R3 ZONE

R3 ZONE

N

W E

S

GRAPHIC SCALE

-100 0 50 100 200 400

(IN FEET)

1 INCH = 100 FT.

THE AERIAL IMAGE DEPICTED ON THIS PLAN IS BASED ON IMAGERY PREPARED BY DIGITAL GLOBE, GEO EYE AND USDA FARM SERVICE AGENCY. THIS IMAGERY WAS PROVIDED BY GOOGLE MAPS ON 10/27/2023. THE CONDITIONS OF THE SITE AND SURROUNDING AREAS MAY HAVE CHANGED SINCE THE DATE OF AERIAL PHOTOGRAPHY AND THEREFORE THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

Rev.	Date	Comments	By

DYNAMIC ENGINEERING

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TITLE: AERIAL MAP

PROJECT: **NEWBURGH CHICKEN, LLC.**
PROPOSED POPEYES RESTAURANT
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No:	1021 22-01041
DRAWN BY:	RPK
DESIGNED BY:	JD
CHECKED BY:	RW
CHECKED BY:	MB
DATE:	11/16/2023
SCALE: (H) 1"=100' (V)	
SHEET No:	2 OF 19
Rev. #	0

MATTHEW J. BERSCH
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NEW JERSEY LICENSE No. 54522

JOSHUA M. DERALD
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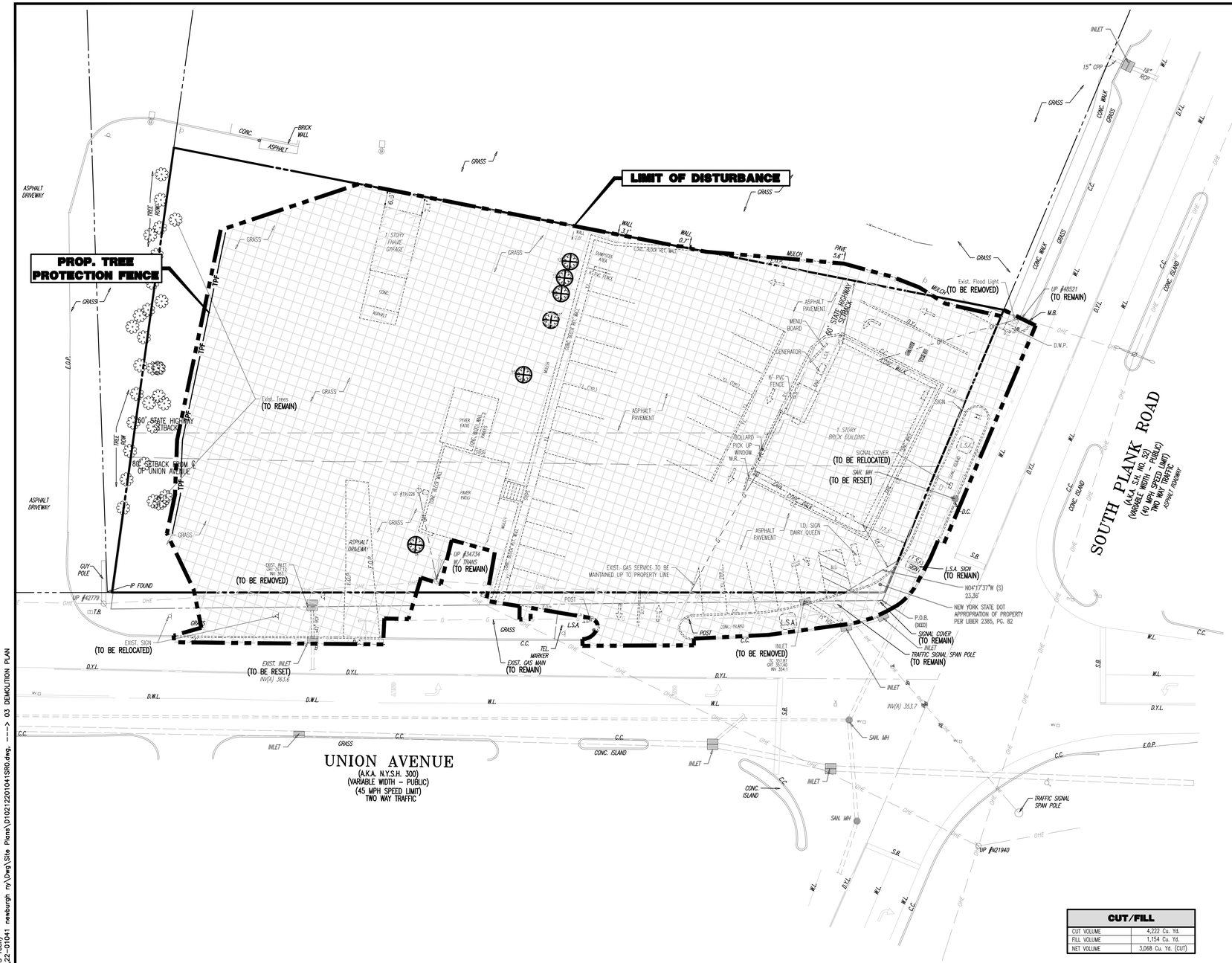
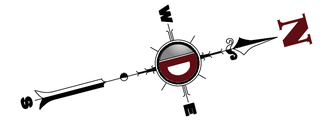


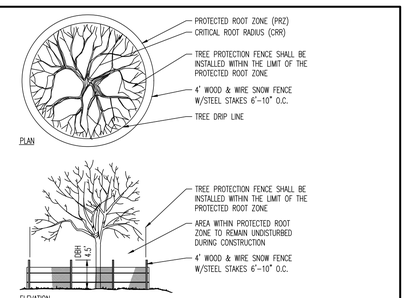


DEMOLITION NOTES

1. ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN STRICT ADHERENCE TO ALL FEDERAL, STATE AND LOCAL REGULATIONS.
2. PROCEED WITH DEMOLITION IN A SYSTEMATIC MANNER, FROM THE TOP OF THE STRUCTURE(S) TO THE GROUND.
3. COMPLETE DEMOLITION WORK ABOVE EACH FLOOR OR TIER BEFORE DISTURBING ANY OF THE SUPPORTING MEMBERS OF THE LOWER LEVELS.
4. DEMOLISH CONCRETE AND MASONRY IN SMALL SECTIONS.
5. REMOVE STRUCTURAL FRAMING MEMBERS AND LOWER THEM TO THE GROUND.
6. BREAK UP CONCRETE SLABS-ON-GRADE, UNLESS OTHERWISE DIRECTED BY OWNER.
7. LOCATE DEMOLITION EQUIPMENT THROUGHOUT THE STRUCTURE AND REMOVE MATERIALS SO AS TO NOT IMPOSE EXCESSIVE LOADS ON SUPPORTING WALLS, FLOORS, OR FRAMING.
8. PROVIDE INTERIOR AND EXTERIOR SHORING, BRACING AND SUPPORTS TO PREVENT MOVEMENT, SETTLEMENT OR COLLAPSE OF STRUCTURES TO BE DEMOLISHED (AND ADJACENT FACILITIES, IF APPLICABLE).
9. DEMOLISH AND REMOVE ALL FOUNDATION WALLS, FOOTINGS AND OTHER MATERIALS WITHIN THE AREA OF THE DESIGNATED FUTURE BUILDING. ALL OTHER FOUNDATION SYSTEMS, INCLUDING BASEMENTS, SHALL BE DEMOLISHED TO A DEPTH OF NOT LESS THAN ONE FOOT BELOW PROPOSED PAVEMENT OR, BREAK BASEMENT FLOOR SLABS. SEAL ALL OPEN UTILITY LINES WITH CONCRETE. CONTRACTOR TO REVIEW STRUCTURE PRIOR TO DEMOLITION TO DETERMINE IF BASEMENT, CRAWL SPACE OR ANY SUB-STRUCTURE EXISTS. ANY SUB-STRUCTURE, INCLUDING BASEMENTS SHALL BE REMOVED IN ITS ENTIRETY OR AS DIRECTED BY OWNER.
10. ERECT AND MAINTAIN COVERED PASSAGEWAYS IN ORDER TO PROVIDE SAFE PASSAGE FOR PERSONS AROUND THE AREA OF DEMOLITION. CONDUCT ALL DEMOLITION OPERATIONS IN A MANNER THAT WILL PREVENT DAMAGE AND PERSONAL INJURY TO STRUCTURES, ADJACENT BUILDINGS AND ALL PERSONS. PLACE THE SAFETY AND PROTECTION OF THE SURROUNDING COMMUNITY AND PROPERTY AT THE HIGHEST PRIORITY.
11. REFRAIN FROM USING ANY EXPLOSIVES WITHOUT PRIOR WRITTEN CONSENT OF OWNER AND APPLICABLE GOVERNMENTAL AUTHORITIES.
12. CONDUCT DEMOLITION SERVICES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER OCCUPIED FACILITIES WITHOUT PRIOR WRITTEN PERMISSION OF OWNER AND ANY APPLICABLE GOVERNMENTAL AUTHORITIES. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS, IF REQUIRED BY APPLICABLE GOVERNMENTAL REGULATIONS.
13. USE WATERING, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS, AS NECESSARY TO LIMIT THE AMOUNT OF DUST AND DIRT RISING AND SCATTERING IN THE AIR. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. RETURN ALL ADJACENT AREAS TO THE CONDITIONS EXISTING PRIOR TO THE START OF WORK.
14. ACCOMPLISH AND PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE UNAUTHORIZED ENTRY OF PERSONS AT ANY TIME.
15. COMPLETELY FILL BELOW GRADE AREAS AND VOIDS RESULTING FROM THE DEMOLITION OF STRUCTURES AND FOUNDATIONS WITH SOIL MATERIALS IN ACCORDANCE WITH THE GEOTECHNICAL REPORT, CONSISTING OF STONE, GRAVEL AND SAND, FREE FROM DEBRIS, TRASH, FROZEN MATERIALS, ROOTS AND OTHER ORGANIC MATTER. STONES USED WILL NOT BE LARGER THAN 6 INCHES IN DIMENSION. MATERIAL FROM DEMOLITION MAY NOT BE USED AS FILL PRIOR TO PLACEMENT OF FILL MATERIALS. UNDERTAKE ALL NECESSARY ACTION IN ORDER TO ENSURE THAT AREAS TO BE FILLED ARE FREE OF STANDING WATER, FROST, FROZEN MATERIAL, TRASH, DEBRIS. PLACE FILL MATERIALS IN HORIZONTAL LAYERS NOT EXCEEDING 6 INCHES IN LOOSE DEPTH AND COMPACT EACH LAYER AT PLACEMENT TO 95% OPTIMUM DENSITY. GRADE THE SURFACE TO MEET ADJACENT CONTOURS AND TO PROVIDE SURFACE DRAINAGE.
16. REMOVE FROM THE DESIGNATED SITE, AT THE EARLIEST POSSIBLE TIME, ALL DEBRIS, RUBBISH, SALVAGEABLE ITEMS, HAZARDOUS AND COMBUSTIBLE SERVICES. REMOVED MATERIALS MAY NOT BE STORED, SOLD OR BURNED ON THE SITE. REMOVAL OF HAZARDOUS AND COMBUSTIBLE MATERIALS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PROCEDURES AS AUTHORIZED BY THE FIRE DEPARTMENT OR OTHER APPROPRIATE REGULATORY AGENCIES AND AUTHORITIES.
17. DISCONNECT, SHUT OFF AND SEAL IN CONCRETE ALL UTILITIES SERVING THE STRUCTURE(S) TO BE DEMOLISHED BEFORE THE COMMENCEMENT OF THE DESIGNATED DEMOLITION. MARK FOR POSITION ALL UTILITY DRAINAGE AND SANITARY LINES AND PROTECT ALL ACTIVE LINES. CLEARLY IDENTIFY BEFORE THE COMMENCEMENT OF DEMOLITION SERVICES THE REQUIRED INTERRUPTION OF ACTIVE SYSTEMS THAT MAY AFFECT OTHER PARTIES, AND NOTIFY ALL APPLICABLE UTILITY COMPANIES TO ENSURE THE CONTINUATION OF SERVICE.
18. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL PROCEDURES ARE TO BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS NECESSARY.
19. VERIFY THAT ALL ENVIRONMENTAL CONCERNS INCLUDING BUT NOT LIMITED TO ASBESTOS, LEAD BASED PAINT, HAZMAT MATERIALS, UNDERGROUND STORAGE TANKS, AND TRANSFORMERS HAVE BEEN REMOVED PRIOR TO COMMENCEMENT OF DEMOLITION ACTIVITIES. THESE ARE NOT SHOWN ON THE PLANS. REFER TO ENVIRONMENTAL REPORTS AND DOCUMENTS FOR LOCATIONS AND DISPOSAL PROCEDURES.

NOTES

1. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR SHALL BE REQUIRED TO CALL THE BOARD OF PUBLIC UTILITIES ONE CALL DAMAGE PROTECTION SYSTEM OR UTILITY MARK OUT IN ADVANCE OF ANY EXCAVATION.
2. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING SITE IMPROVEMENTS AND UTILITIES. ALL DISCREPANCIES SHALL BE IDENTIFIED TO THE ENGINEER IN WRITING.
3. ALL EXISTING UTILITIES TO BE ABANDONED SHALL BE DISCONNECTED AND CAPPED AT THE MAIN FOR WATER, AT THE CLEAN-OUT FOR SEWER AND THE SHUT-OFF VALVE OR MAIN FOR GAS IN ACCORDANCE WITH MUNICIPAL AND LOCAL UTILITY REQUIREMENTS.
4. ALL EXISTING DEBRIS SHALL BE REMOVED BY CONTRACTOR IN ACCORDANCE WITH MUNICIPAL AND LOCAL UTILITY COMPANY REQUIREMENTS.



ESTIMATE A TREE'S PROTECTED ROOT ZONE (PRZ) BY CALCULATING THE CRITICAL ROOT RADIUS (CRR)
1. MEASURE THE DBH (DIAMETER OF TREE AT BREAST HEIGHT, 4.5' ABOVE GROUND ON THE UPHILL SIDE OF TREE) IN INCHES.
2. MULTIPLY MEASURED DBH BY 1.5 OR 1.0. EXPRESS THE RESULT IN FEET

DBH x 1.5: CRITICAL ROOT RADIUS FOR OLDER, UNHEALTHY, OR SENSITIVE SPECIES.
DBH x 1.0: CRITICAL ROOT RADIUS FOR YOUNGER, HEALTHY OR TOLERANT SPECIES.

TREE PROTECTION DURING SITE CONSTRUCTION DETAIL

NOT TO SCALE

CUT/FILL	
CUT VOLUME	4,222 Cu. Yd.
FILL VOLUME	1,154 Cu. Yd.
NET VOLUME	3,068 Cu. Yd. (CUT)

DEMOLITION PLAN LEGEND

- PROPOSED LIMIT OF DISTURBANCE LINE
- PROPOSED TREE PROTECTION FENCE LINE
- EXISTING IMPROVEMENTS TO BE REMOVED UNLESS OTHERWISE NOTED
- TREES TO REMAIN
- TREES TO BE REMOVED

GRAPHIC SCALE

-20 0 10 20 40 80

(IN FEET)
1 INCH = 20 FT.

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Rev.	Date	Comments	By

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Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.233.4888 | Bethlehem, Pennsylvania T: 610.598.4400 | Annapolis, Maryland T: 410.567.5000

TITLE:

DEMOLITION PLAN

PROJECT: **NEWBURGH CHICKEN, LLC.**
PROPOSED POPEYES RESTAURANT
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No:	1021 22-01041
DRAWN BY:	RPK
DESIGNED BY:	JD
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SCALE: (H) 1"=20' (V)	
SHEET No:	3 OF 19
Rev. #	0

MATTHEW J. BERSCH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 54522

JOSHUA M. REYNALD
STATE OF NEW JERSEY
LICENSED PROFESSIONAL ENGINEER
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 24639

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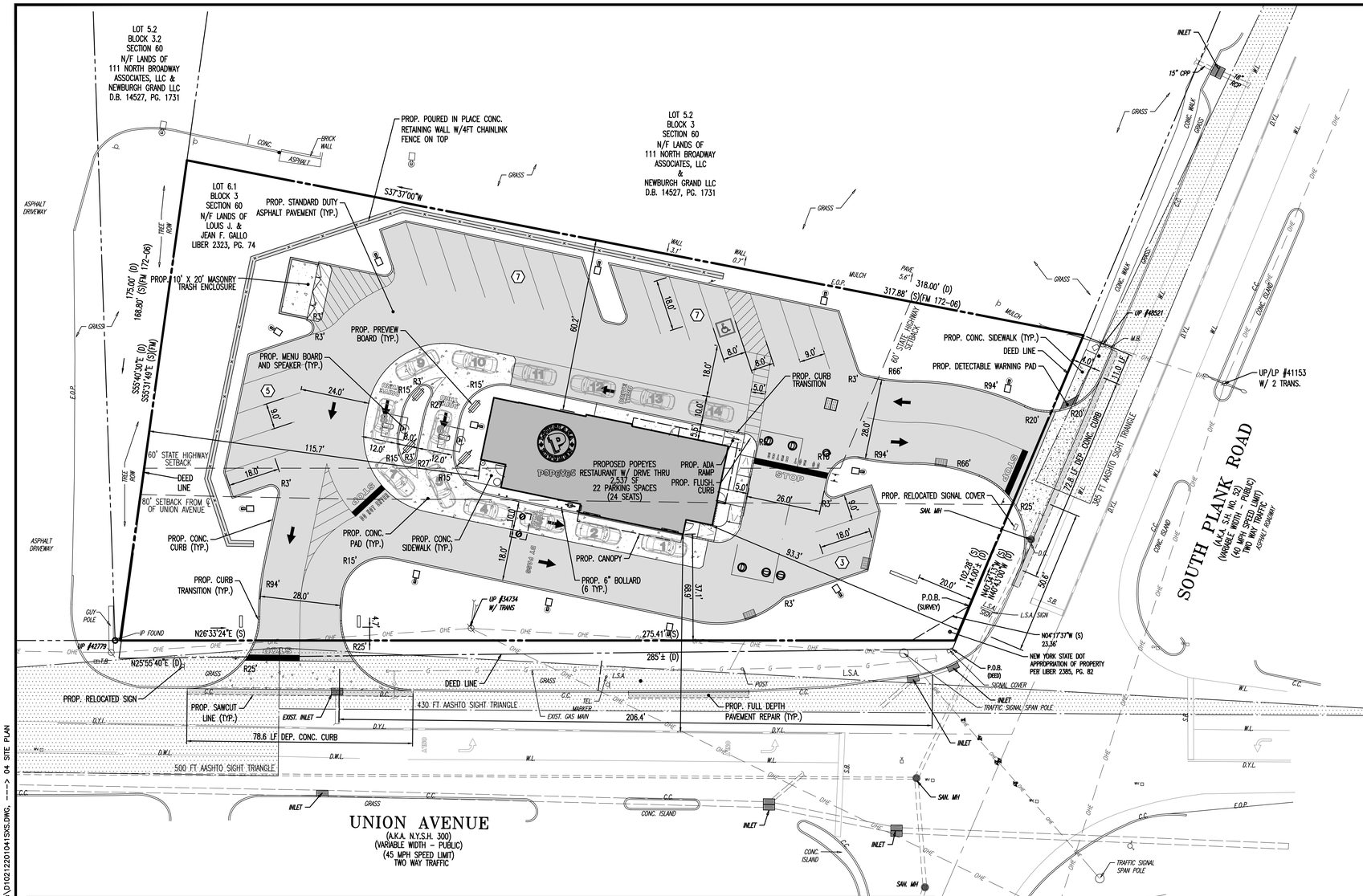
File: \\decpc.local\dfs\folders\data\decpc projects\1021 parkh network, llc\22-01041 newburgh ny\Dwg\Site Plans\D1021220104 1SR0.dwg, ----> 03 DEMOLITION PLAN



SITE PLAN LEGEND

PAVEMENT LEGEND

▨	PROPOSED STANDARD DUTY ASPHALT PAVEMENT
⛶	PROPOSED STANDARD DUTY CONCRETE PAVEMENT

GENERAL NOTES

1. THIS PLAN HAS BEEN PREPARED BASED ON REFERENCES INCLUDING:

   BOUNDARY & TOPOGRAPHIC SURVEY
   GALLAS SURVEYING GROUP
   2865 U.S. ROUTE 1
   NORTH BRUNSWICK, NJ 08902
   SURVEYOR FILE NO: G22172
   DATED: 10-07-2022 REV: 10-18-2022

2. APPLICANT: NEWBURGH CHICKEN, LLC
   301 ROUTE 17 NORTH, SUITE 802
   RUTHERFORD, NJ 07070

3. OWNER: LOUIS J GALLO & JEAN F GALLO
   2 KELLY CIR
   POUGHKEEPSIE, NY 12601

4. PARCEL DATA: PARCEL 60-3-6.1
   197 SOUTH PLANK ROAD
   TOWN OF NEWBURGH
   ORANGE COUNTY, NY

5. ZONE: ZONE B (BUSINESS ZONE)

6. EXISTING USE: FAST-FOOD RESTAURANT **(EXISTING NON-CONFORMING USE)** (§ 185-10, ATTACHMENT 11)

7. PROPOSED USE: FAST-FOOD RESTAURANT **(PERMITTED USE*)** (§ 185-10, ATTACHMENT 11)

   *PERMITTED USE PURSUANT TO SPECIAL PERMIT GRATED BY THE ZONING BOARD OF APPEALS AT ITS OCTOBER 26, 2023 MEETING.

   *NOTE: AS THE PROPOSED FAST FOOD RESTAURANT USE IS A NON-CONFORMING USE IN THE B DISTRICT, THE ZBA HAS ADVISED IT ESTABLISHES THE BULK AND DIMENSIONAL REQUIREMENTS FOR THE USE ON THIS PROPERTY. PURSUANT TO THE SPECIAL PERMIT GRANTED BY THE ZBA AT ITS OCTOBER 26, 2023 MEETING, THE PROPOSED BULK AND DIMENSIONAL REQUIREMENTS LISTED BELOW WERE APPROVED FOR THIS PROPERTY.

8. SCHEDULE OF ZONING REQUIREMENTS (§ 185-11, ATTACHMENT 13)

ZONE REQUIREMENT	EXISTING	PROPOSED
MINIMUM LOT AREA	42,212 SF (0.97 AC)	42,212 SF (0.97 AC)
MINIMUM LOT WIDTH	125.5 FT	125.5 FT
MINIMUM LOT DEPTH	297.0 FT	297.0 FT
MINIMUM FRONT YARD SETBACK (SOUTH PLANK ROAD)	13.9 FT	93.3 FT
MINIMUM FRONT YARD SETBACK (UNION AVENUE)	25.3 FT	37.1 FT
MINIMUM REAR YARD SETBACK	79.4 FT	115.7 FT
MINIMUM SIDE YARD SETBACK	6.6 FT	60.2 FT
MAXIMUM BUILDING HEIGHT	≤40 FT	≤40 FT
MAXIMUM LOT SURFACE COVERAGE	49.4% (20,837 SF)	60.8% (25,649 SF)
MAXIMUM BUILDING COVERAGE	6.4% (2,691 SF)	6.0% (2,537 SF)

N/S: NO STANDARD N/A: NOT APPLICABLE (E): EXISTING NON-CONFORMANCE (V): VARIANCE

9. EXCEPTIONS TO DISCTRICT REGULATIONS
   A. NO BUILDING OR STRUCTURE SHALL BE PLACED WITHIN EIGHTY (80) FEET OF THE CENTER LINE OF ROCK CUT ROAD, DRURY LANE, FOREST ROAD, UNION AVENUE (FROM THE NEW WINDSOR LINE NORTH TO UNION AVENUE EXTENSION), UNION AVENUE EXTENSION OR PLATTEKILL TURNPIKE. (§ 185-18.C.(4)(a)) **(VARIANCE GRANTED AT OCTOBER 26, 2023 ZBA MEETING - 68.9 FT PROVIDED FROM ℄ OF UNION AVENUE)**
   B. FRONT YARDS ABUTTING ALL COUNTY AND STATE HIGHWAYS SHALL BE AT LEAST SIXTY (60) FEET IN DEPTH, EXCEPT WHERE THE MAJORITY OF EXISTING BUILDINGS ON EITHER SIDE OF THE ROAD WITHIN THREE-HUNDRED (300) FEET FROM THE INTERSECTION OF THE NEAREST PROPERTY LINE AND STREET LINE ARE OF A LESSER AVERAGE DEPTH. IN SUCH CASE, THE FRONT YARD SEPTH SHALL BE FIFTY (50) FEET OR THE AVERAGE OF ALL LOT DEPTHS WITHIN SAID THREE-HUNDRED (300) FEET, WHICHEVER IS GREATER. (§ 185-18.C.(4)(b)) **(VARIANCE GRANTED AT OCTOBER 26, 2023 ZBA MEETING - 37.1 FT PROVIDED FROM NYSH-300 (UNION AVENUE)**
10. CORNER LOT REQUIREMENTS
    A. FRONT YARD SETBACKS ARE REQUIRED ON BOTH STREET FRONTAGES, AND ONE YARD OTHER THAN SUCH FRONT YARDS SHALL BE DEEMED TO BE THE REAR YARD, AND THE OTHER YARD SHALL BE THE SIDE YARD. (§ 185-17A.)
    B. AT ALL STREET INTERSECTIONS NO OBSTRUCTIONS TO VISION, SUCH AS BUT NOT LIMITED TO SHRUBBERY, LOW-BRANCHING TREES, FINISHED GRADE OF EARTH, EARTHWORK IN PROGRESS, BERMS, FENCES, WALLS, SIGNS OR VEHICLES SHALL BE ERECTED OR PERMITTED TO A HEIGHT IN EXCESS OF TWO (2) FEET WITHIN THE TRIANGLE FORMED BY THE INTERSECTING STREET LINES AND A LINE DRAWN BETWEEN POINTS ALONG SUCH STREET LINES FORTY (40) FEET DISTANT FROM THEIR POINT OF INTERSECTION. EXISTING TREES WITH BRANCHES WHICH ARE TRIMMED AWAY TO A POINT UP TO TEN (10) FEET ABOVE THE GROUND AREA MAY BE ALLOWED IN THIS AREA. TREE BRANCHES TEN (10) FEET ABOVE THE GROUND AND HIGHER MAY ALSO BE ALLOWED TO ENCROACH ON THE AREA. (§ 185-17B.)
11. PARKING REQUIREMENTS
    A. OFF-STREET PARKING SPACE REQUIREMENTS FOR NONRESIDENTIAL USES SUCH AS RESTAURAUNT, CLUB, EATING OR DRINKING PLACE, INCLUDING FAST-FOOD AND DRIVE-THROUGH FACILITIES SHALL BE ONE (1) SPACE PER FOUR (4) SEATS, OR PER FORTY (40) SQUARE FEET OF SEATING AREA OR AS REQUIRED BY THE PLANNING BOARD FOR RESTAURANTS DEMONSTRATING GREATER PARKING SPACE NEEDS IN THE JUDGEMENT OF THE PLANNING BOARD. (§ 185-13C.(1)(b))
    B. IN ADDITION TO THE MINIMUM REQUIRED NUMBER OF OFF-STREET PARKING SPACES, THE PLANNING BOARD MAY REQUIRE A RESERVE AREA OF UP TO TWENTY PERCENT (20%) OF THE TOTAL AREA REQUIRED FOR OFF-STREET PARKING TO PROVIDE FOR ADDITIONAL PARKING, SHOULD FUTURE DEMAND FOR PARKING SPACES EXCEED THE NUMBER OF SPACES PROVIDED. SUCH RESERVE AREA, WHICH SHALL NOT REDUCE THE MAXIMUM PERMITTED PERCENT OF LOT COVERAGE, MUST BE GRADED AND AVAILABLE FOR PARKING USE IF REQUIRED BUT NEED NOT BE SURFACED OR OTHERWISE DEVELOPED FOR PARKING USE UNTIL SUCH AREA IS REQUIRED AS DETERMINED BY RECONSIDERATION OF THE MINIMUM REQUIRED OFF-STREET PARKING SPACES BY THE PLANNING BOARD. (§ 185-13C.(4))
    C. THE MINIMUM PARKING SPACE WIDTH SHALL BE NINE (9) FEET, AND THE MINIMUM LENGTH SHALL BE EIGHTEEN (18) FEET. EACH SPACE SHALL BE DELINEATED ON THE SURFACE OF THE PARKING AREA BY TWO (2) PAINTED LINES PARALLEL TO THE LONGEST DIMENSION OF THE SPACE, EACH OF WHICH LINES SHALL BE FOUR (4) INCHES IN WIDTH AND BEGINNING EIGHT (8) INCHES AND ENDING TWELVE (12) INCHES INSIDE BOTH DIVIDING LINES OF THE SPACE. (§ 185-13D.(5)) **(COMPLIES)**
    D. ALL OPEN PARKING AREAS SHALL BE SUITABLY LANDSCAPED. IN PARKING LOTS WITH MORE THAN TWENTY (20) SPACES, AT LEAST FIVE PERCENT (5%) OF THE AREA OF THE PARKING LOT SHALL BE DEVOTED TO LANDSCAPING WITHIN THE INTERIOR OF THE PARKING LOT. SUCH LANDSCAPING SHALL BE IN ADDITION TO THAT WHICH MAY BE REQUIRED ALONG THE STREET LINE, THE LOT LINES OR THE BUILDING FOUNDATION. IN ALL PARKING LOTS PROVIDING EIGHT (8) OR MORE OFF-STREET PARKING SPACES, ONE SHADE OR FLOWERING ORNAMENTAL TREE SHALL BE PLANTED FOR EACH EIGHT (8) PARKING SPACES AND ANY ADDITIONAL NUMBER THEREOF, SAID TREE OR TREES TO BE PLANTED IN MEDIAN DIVIDERS, ISLANDS OR SUCH OTHER LOCATIONS AS MAY BE ACCEPTABLE TO THE PLANNING BOARD. (§ 185-13D.(9)(a)) **(COMPLIES)**
    E. ALL PLANTING BEDS, LANDSCAPED ISLANDS AND PEDESTRIAN WALKWAYS, IF PROVIDED, SHALL BE PROTECTED BY CURBS, STURDY POSTS, RAILS OR WALLS 1 1/2 TO TWO FEET IN HEIGHT OR OTHER PROTECTIVE DEVICES AND SHALL BE OF SUFFICIENT WIDTH TO PREVENT DAMAGE OR INJURY TO BOTH PLANT MATERIALS AND PEDESTRIANS. ADDITIONAL BARRIERS MAY BE REQUIRED BY THE PLANNING BOARD TO GIVE BETTER PROTECTION AND TO IMPROVE PEDESTRIAN AND VEHICULAR CIRCULATION. (§ 185-13D.(9)(b)) **(COMPLIES)**
    F. PARKING CALCULATION:

       (24 SEATS)*(1 PARKING SPACE/4 SEATS) = 6 SPACES REQUIRED
       22 SPACES PROVIDED **(COMPLIES)**
12. LOADING REQUIREMENTS
    A. FOR A BUILDING WITH A FLOOR AREA OF LESS THAN TWENTY-FIVE THOUSAND (25,000) SQUARE FEET, ONE (1) OFF-STREET TRUCK LOADING SPACE SHALL BE PROVIDED. (§ 185-13B.(6)) **(VARIANCE GRANTED AT OCTOBER 26, 2023 ZBA MEETING - DEDICATED LOADING ZONE NOT PROVIDED)**
13. DRIVEWAY REQUIREMENTS
    A. DRIVEWAYS SHALL BE DESIGNED WITH A GRADE NO MORE THAN ONE (1) INCH PER FOOT FROM EDGE OF PAVEMENT OR BACK OF CURB TO THE RIGHT-OF-WAY LINE. THE MINIMUM WIDTH OF THE DRIVEWAY PAVEMENT AT THE ROAD PAVEMENT LINE OR AT THE CURBLINE SHALL BE FIFTEEN (15) FEET, TAPERING TO A MINIMUM OF TEN (10) FEET AT THE RIGHT-OF-WAY LINE. (§ 161-34A.) **(COMPLIES)**
    B. UNOBSTRUCTED ACCESS TO AND FROM A STREET SHALL BE PROVIDED. SUCH ACCESS SHALL CONSIST OF AT LEAST TWO (2) LANES OF TEN (10) FOOT WIDTH APIECE. (§ 185-13D.(6)(a) **(COMPLIES)**
    C. NO ENTRANCE OR EXIT FOR AN ACCESSORY OFF-STREET PARKING AREA WITH OVER TEN (10) PARKING SPACES OR ANY LOADING BERTH SHALL BE LOCATED WITHIN ONE-HUNDRED AND FIFTY (150) FEET OF A STREET INTERSECTION. (§ 185-13D.(6)(b)) **(VARIANCE GRANTED AT OCTOBER 26, 2023 ZBA MEETING - 50.6 FT PROVIDED ALONG SOUTH PLANK ROAD)**
14. FENCE AND WALL REQUIREMENTS
    A. FENCES AND WALLS SHALL BE PERMITTED IN ANY YARD OR ALONG THE EDGE OF A YARD; HOWEVER, NO FENCE SHALL BE ERECTED WITHIN THE RIGHT-OF-WAY OF A PUBLIC ROAD. (§ 185-16A.) **(COMPLIES)**
    B. NO FENCES AND WALLS SHALL BE PERMITTED IN LOCATIONS WHERE THEY WILL INTERFERE WITH ADEQUATE SIGHT DISTANCE FOR VEHICLES EXITING FROM A DRIVEWAY ON THE PARCEL WHERE THE WALL OR FENCE IS TO BE CONSTRUCTED OR FROM DRIVEWAYS ON NEIGHBORING PROPERTY. (§ 185-16C.) **(COMPLIES)**
    C. FENCES AND WALLS SHALL CONFORM TO CORNER LOT REQUIREMENTS WHERE APPLICABLE (SEE § 185-17, CORNER LOTS, OF THIS CHAPTER). (§ 185-16D.) **(COMPLIES)**
    D. WITH THE EXCEPTION OF SUBSECTION D OF THIS SECTION, THERE SHALL BE NO RESTRICTION ON THE TYPE AND HEIGHT OF A FENCE OR WALL IN A NONRESIDENCE DISTRICT. (§ 185-16E.) **(COMPLIES)**
15. SIDEWALK REQUIREMENTS
    A. SIDEWALKS SHALL BE LOCATED SUCH THAT THE OUTSIDE OF THE SIDEWALK IS TWO (2) FEET FROM THE INSIDE OF THE RIGHT-OF-WAY LINE. (§ 161-35A.) **(COMPLIES)**
16. CURB REQUIREMENTS
    A. CURBS ARE TO BE SIX (6) INCHES WIDE AT THE TOP AND EIGHT (8) INCHES WIDE AT THE BOTTOM, WITH A TOTAL HEIGHT OF TWENTY (20) INCHES. THE FACE OF THE CURB SHALL BE EXPOSED SIX (6) INCHES AT THE EDGE OF THE PAVED ROADWAY. (§ 161-39L.(1)) **(COMPLIES)**
17. FAST-FOOD, DRIVE-THRU AND DRIVE-UP ESTABLISHMENT REQUIREMENTS
    A. ALL DRIVE-THRU AISLES SHALL EXIT INTO A PARKING AREA OR ONTO A SIDE STREET AND NOT DIRECTLY ONTO ROUTES 9W, 17K, 32, 52 OR 300. (§ 185-42A.(1)) **(COMPLIES)**
    B. PARKING SHALL BE ADEQUATE FOR THE TYPE OF FACILITY PROPOSED, WITH THREE (3) ADDITIONAL SHORT-TERM SPACES DEVOTED SPECIFICALLY FOR PICK-UP OR ORDER DELAYS FOR EACH DRIVE-UP, DRIVE-THRU, WALK-UP OR PICKUP WINDOW OR AREA INSIDE OR OUTSIDE OF THE BUILDING. (§ 185-42A.(3)) **(COMPLIES)**
    C. PUBLIC ROADS AND INTERNAL DRIVE AISLES SHALL NOT BE BLOCKED BY WAITING DRIVE-THRU TRAFFIC. (§ 185-42A.(4)) **(COMPLIES)**
    D. PARKING AREAS AND CIRCULATION DRIVES SHALL BE ADEQUATELY SEPARATED SO AS TO AVOID CONFLICT BETWEEN PARKING CARS AND WAITING DRIVE-THRU TRAFFIC. (§ 185-42A.(5)) **(COMPLIES)**
    E. ADEQUATE STACKING SPACE WILL BE PROVIDED FOR WAITING DRIVE-THRU VEHICLES SUCH THAT THESE VEHICLES DO NOT INTERFERE WITH SITE VEHICULAR OR PEDESTRIAN CIRCULATION. (§ 185-42A.(6)) **(COMPLIES)**
    F. ANY SUCH USE SHALL MEET THE FOLLOWING CONDITIONS OF OPERATION:
       i. PROVISION OF SUFFICIENT SECURITY TO PREVENT THE USE OF THE PREMISES AS A LOITERING PLACE DURING HOURS OF OPERATION. (§ 185-42B.(1)) **(COMPLIES)**
       ii. PROVISION OF ADEQUATE FACILITIES AND PERSONNEL FOR DISPOSAL OF TRASH AND OTHER DEBRIS. (§ 185-42B.(2)) **(COMPLIES)**
       iii. PROVISION FOR CONTINUING MAINTENANCE OF THE EXTERIOR OF THE BUILDING AND THE GROUNDS, INCLUDING LANDSCAPING, SIGNS AND POLICING OF LITTER. (§ 185-42B.(3)) **(COMPLIES)**

GENERAL NOTES (CONT.)

18. THE APPLICANT REQUESTS ANY AND ALL SUBMISSION WAIVERS THAT ARE NOT SPECIFICALLY IDENTIFIED HEREIN. TESTIMONY WILL BE SUPPLIED AT THE PUBLIC HEARING TO SUPPORT SAID SUBMISSION WAIVERS.

19. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.

20. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.

21. THE SOILS REPORT AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER CONSTRUCTION MANAGER OF ANY DISCREPANCY BETWEEN SOILS REPORT & PLANS.

22. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL UNDERGROUND TANKS, PIPES, VALVES, ETC.

23. THE PROPERTY SURVEY SHALL BE CONSIDERED A PART OF THESE PLANS.

24. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.

25. SOLID WASTE TO BE DISPOSED OF BY CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

26. ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.

27. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.

28. ALL CONTRACTORS MUST CARRY STATUTORY WORKERS COMPENSATION, EMPLOYERS LIABILITY INSURANCE AND APPROPRIATE LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME DYNAMIC ENGINEERING CONSULTANTS, P.C. , ITS SUBCONSULTANTS AS ADDITIONAL INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THE HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH DYNAMIC ENGINEERING CONSULTANTS, P.C. WITH CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, LIABILITIES OR COSTS, INCLUDING REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS.

29. NEITHER THE PROFESSIONAL ACTIVITIES OF DYNAMIC ENGINEERING CONSULTANTS, P.C., NOR THE PRESENCE OF DYNAMIC ENGINEERING CONSULTANTS, P.C. OR ITS EMPLOYEES AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOBSITE SAFETY. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND SHALL BE MADE ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE.

30. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL REVIEW AND APPROVE OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN CONCEPT AND THE INFORMATION SHOWN IN THE CONSTRUCTION MEANS OR METHODS, COORDINATION OF THE WORK WITH OTHER TRADES OR CONSTRUCTION SAFETY PRECAUTIONS, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. DYNAMIC ENGINEERING'S REVIEW SHALL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM SHALL NOT INDICATE THAT DYNAMIC ENGINEERING CONSULTANTS, P.C. HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT BROUGHT TO THE ATTENTION OF DYNAMIC ENGINEERING CONSULTANTS, P.C. IN WRITING BY THE CONTRACTOR. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.

31. IN AN EFFORT TO RESOLVE ANY CONFLICTS THAT ARISE DURING THE DESIGN AND CONSTRUCTION OF THE PROJECT OR FOLLOWING THE COMPLETION OF THE PROJECT, DYNAMIC ENGINEERING CONSULTANTS, P.C. AND THE CONTRACTOR MUST AGREE THAT ALL DISPUTES BETWEEN THEM ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE PROJECT SHALL BE SUBMITTED TO NONBINDING MEDIATION UNLESS THE PARTIES MUTUALLY AGREE OTHERWISE.

32. THE CONTRACTOR MUST INCLUDE A MEDIATION PROVISION IN ALL AGREEMENTS WITH INDEPENDENT SUBCONTRACTORS AND CONSULTANTS RETAINED FOR THE PROJECT AND TO REQUIRE ALL INDEPENDENT CONTRACTORS AND CONSULTANTS ALSO TO INCLUDE A SIMILAR MEDIATION PROVISION IN ALL AGREEMENTS WITH THEIR SUBCONTRACTORS, SUBCONSULTANTS, SUPPLIERS AND FABRICATORS, THEREBY PROVIDING FOR MEDIATION AS THE PRIMARY METHOD FOR DISPUTE RESOLUTION BETWEEN THE PARTIES TO ALL THOSE AGREEMENTS.

33. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED THEREON, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, IT SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE, ALL FINES OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND IT SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS TO CONNECT ANY SUCH WORK AND FROM ALL SUCH FINES AND PENALTIES, COMPENSATION AND PUNITIVE DAMAGES AND COSTS OF ANY NATURE RESULTING THEREFROM.

34. ALL TRAFFIC SIGNS AND STRIPING SHALL FOLLOW THE REQUIREMENTS SPECIFIED IN THE MANUAL ON "UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
35. THE BUILDING SETBACK DIMENSIONS ILLUSTRATED AND LISTED ON THE SITE PLAN DRAWINGS ARE MEASURED FROM THE OUTSIDE SURFACE OF BUILDING WALLS. THESE SETBACK DIMENSIONS DO NOT ACCOUNT FOR ROOF OVERHANGS, ORNAMENTAL ELEMENTS, SIGNAGE OR OTHER EXTERIOR EXTENSIONS UNLESS SPECIFICALLY NOTED.

36. CONTRACTOR ACKNOWLEDGES HE HAS READ AND UNDERSTOOD THE DESIGN PHASE SOIL PERMEABILITY AND GROUNDWATER TEST RESULTS IN THE STORMWATER MANAGEMENT REPORT AND THAT THE CONTRACTORS RESPONSIBILITIES INCLUDE NECESSARY PROVISIONS TO ACHIEVE THE DESIGN PERMEABILITY IN THE FIELD.

37. CONTRACTOR TO BE ADVISED THAT THE ENGINEER WAS NOT PROVIDED WITH FINAL FLOOR PLAN DRAWINGS FOR THE BUILDING AT THE TIME OF SITE PLAN DESIGN. AS A RESULT, ENTRANCE DOOR LOCATIONS AS DEPICTED HEREON MAY NOT BE FINAL AND MUST BE CONFIRMED WITH THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. THE HANDICAP ACCESSIBLE PARKING SPACES AND THE ASSOCIATED RAMPS AND ACCESSIBLE ROUTE MUST COMPLY WITH NJAC 5:23-7 AND THE HANDICAP PARKING SPACES MUST BE LOCATED AS THE NEAREST SPACES TO THE ENTRANCE. CONTRACTOR TO NOTIFY OWNER AND ENGINEER IMMEDIATELY OF ANY DISCREPANCY PRIOR TO CONSTRUCTION.

GRAPHIC SCALE

(IN FEET)
1 INCH = 20 FT.

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

Rev.	Date	Comments	By

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TITLE:
SITE PLAN

PROJECT: **NEWBURGH CHICKEN, LLC.**
PROPOSED POPEYES RESTAURANT
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No:	1021 22-01041
DATE:	11/16/2023
DRAWN BY:	RPK
SCALE:	(H) 1"=20' (V)
DESIGNED BY:	JD
CHECKED BY:	RW
CHECKED BY:	MB
SHEET No:	4 OF 19
Rev. #	0

MATTHEW J. BERSCH
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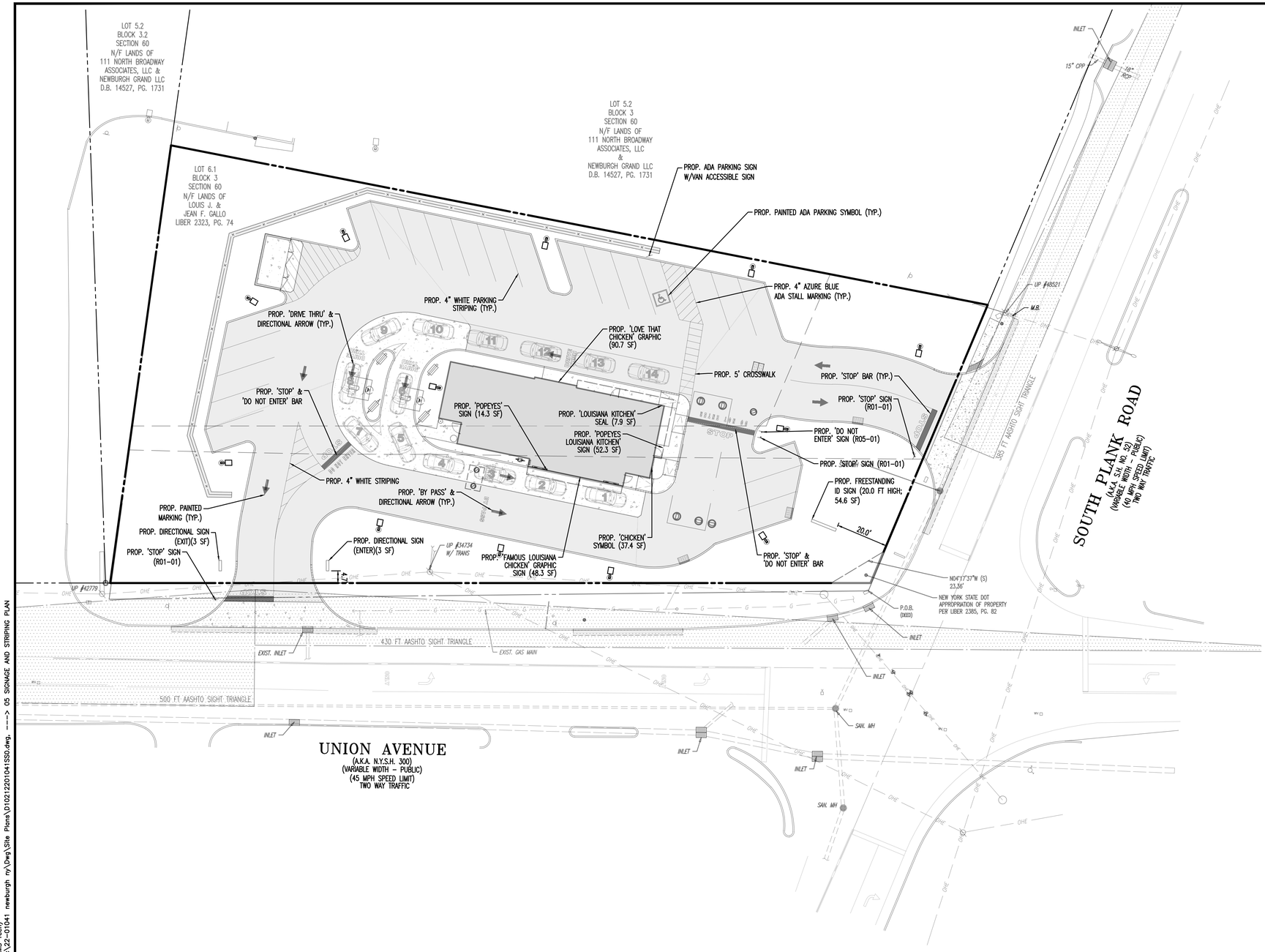

SIGNAGE CHART

SIGN	PROPOSED	
FREESTANDING [11] [12] [13] [14]	SOUTH PLANK ROAD (NY-52)	
	NUMBER OF SIGNS:	ONE (1)
	SIGN AREA:	54.6 SF
	SIGN HEIGHT:	20.0 FT (V)
	SIGN SETBACK TO PROPERTY LINE	20.0 FT
BUILDING MOUNTED [8] [9] [10]	NORTH FACADE:	
	NUMBER OF SIGNS:	TWO (2)
	'POPEYES LOUISIANA KITCHEN' SIGN AREA:	52.3 SF
	CHICKEN SYMBOL SIGN AREA:	37.4 SF
	TOTAL:	89.7 SF
	EAST FACADE:	
	NUMBER OF SIGNS:	TWO (2)
	'FAMOUS LOUISIANA CHICKEN' GRAPHIC AREA:	48.3 SF
	'POPEYES' SIGN AREA:	14.3 SF
	TOTAL:	62.6 SF
	WEST FACADE:	
	NUMBER OF SIGNS:	TWO (2)
	'LOVE THAT CHICKEN' GRAPHIC AREA:	90.7 SF
	'LOUISIANA KITCHEN' SEAL SIGN AREA:	7.9 SF
	TOTAL:	98.6 SF
DIRECTIONAL	NUMBER OF DIRECTIONAL SIGNS	TWO (2)
	DIRECTIONAL SIGN AREA	3 SF

N/S: NO STANDARD N/A: NOT APPLICABLE (E): EXISTING NON-CONFORMANCE (V): VARIANCE

NOTES:

[1] THE AREA OF SIGN FACES ENCLOSED IN FRAMES OR CABINETS IS DETERMINED BASED ON THE OUTER DIMENSIONS OF THE FRAME OR CABINET SURROUNDING THE SIGN FACE. SIGN AREA DOES NOT INCLUDE FOUNDATIONS, SUPPORTS AND OTHER ESSENTIAL STRUCTURES WHICH ARE NOT SERVICING AS A BACKDROP OR BORDER TO THE SIGN. ONLY ONE SIDE OF A DOUBLE-FACED SIGN IS COUNTED. (§ 185-14.F.(1)(a))

[2] WHEN SIGNS ARE CONSTRUCTED OF INDIVIDUAL PIECES OR LETTERS ATTACHED TO A BUILDING WALL, THE SIGN AREA IS DETERMINED BY A PERIMETER DRAWN AROUND ALL THE PIECES OR LETTERS. (§ 185-14.F.(1)(c))

[3] THE OVERALL HEIGHT OF A SIGN OR SIGN STRUCTURE IS MEASURED FROM THE GRADE DIRECTLY BELOW THE SIGN TO THE HIGHEST POINT OF THE SIGN OR SIGN STRUCTURE. (§ 185-14.F.(2))

[4] WHERE ILLUMINATION OF SIGNS IS PERMITTED, SUCH ILLUMINATION MAY ONLY BE BETWEEN SUNDOWN AND 11:00 PM (OR CLOSE OF BUSINESS). ILLUMINATION SHALL ONLY BE OF AN EVEN INTENSITY AT ALL TIMES. ILLUMINATION MAY BE DIRECT (GIVING FORTH LIGHT FROM THE INTERIOR OF THE SIGN THROUGH TRANSLUCENT MATERIAL) OR IT MAY BE INDIRECT (WHEN THE LIGHT SOURCE IS NOT VISIBLE FROM ANY ADJOINING PROPERTY OR STREET AND IS DIRECTED UPON THE SIGN) AS SPECIFIED IN § 185-14P. (§ 185-14.H.(12))

[5] WHEN A SIGN EXTENDS OVER A PRIVATE AREA WHERE VEHICLES TRAVEL OR ARE PARKED, THE BOTTOM OF THE SIGN SHALL BE AT LEAST FOURTEEN (14) FEET ABOVE GRADE. VEHICLE AREAS INCLUDE DRIVEWAYS, ALLEYS, PARKING LOTS, LOADING, MANEUVERING AREAS, ETC. (§ 185-14.I.(9))

[6] WHEN A SIGN EXTENDS OVER PRIVATE SIDEWALKS, WALKWAYS OR OTHER SPACES ACCESSIBLE TO PEDESTRIANS, THE BOTTOM OF THE SIGN SHALL BE AT LEAST EIGHT AND ONE-HALF (8.5) FEET ABOVE THE GRADE. (§ 185-14.I.(10))

[7] SIGNS MAY BE ERECTED IN REQUIRED YARDS AND SETBACK AREAS, BUT NOT IN BUFFER AREAS, UNLESS OTHERWISE SPECIFIED IN THIS CHAPTER. (§ 185-14.I.(11))

[8] A WALL SIGN'S LENGTH SHALL NOT EXCEEDED SEVENTY PERCENT (70%) OF THE WIDTH OF THE TENANCY OR BUILDING WALL TO WHICH IT IS MOUNTED. (§ 185-14.J.(1)(d))

[9] ATTACHED WALL SIGNS MAY ONLY BE DIRECTLY ILLUMINATED. (§ 185-14.J.(1)(e))

[10] ATTACHED WALL SIGNS SHALL NOT BE LOCATED ON THE REAR OF A BUILDING. (§ 185-14.J.(1)(f))

[11] NO FREESTANDING SIGN SHALL BE LOCATED LESS THAN FIFTEEN (15) FEET FROM ANY FRONT OR SIDE PROPERTY LINE, OR A DISTANCE EQUAL TO THE HEIGHT OF SAID SIGN, WHICHEVER IS GREATER. (§ 185-14.J.(5)(a))

[12] A FREESTANDING SIGN SHALL BE LOCATED NO LESS THAN TEN (10) FEET FROM ANY BUILDING, OR EQUAL TO THE HEIGHT OF THE SIGN, WHICHEVER IS GREATER. (§ 185-14.J.(5)(b))

[13] FREESTANDING SIGNS MAY EITHER BE DIRECTLY OR INDIRECTLY ILLUMINATED. (§ 185-14.J.(5)(g))

[14] A FREESTANDING SIGN SHALL BE NO MORE THAN THIRTY-FIVE (35) FEET IN HEIGHT ABOVE FINISHED GRADE. SIGNS WHICH EXCEED FOURTEEN (14) FEET IN HEIGHT SHALL BE DESIGNED AND CONSTRUCTED TO WITHSTAND WINDS OF ONE-HUNDRED (100) MILES PER HOUR, AND SUCH SHALL BE CERTIFIED TO BY A PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT LICENSED TO PRACTICE IN THE STATE OF NEW YORK. (§ 185-14.J.(5)(c))

[15] ONE (1) FREESTANDING SIGN MAY BE PLACED ON THE PREMISES SUBJECT TO THE FOLLOWING:

A. SUCH SIGN SHALL ONLY BE ALLOWED IF THE BUILDING ON THE SITE IS SET BACK A MINIMUM OF THIRTY-FIVE (35) FEET FROM THE FRONT PROPERTY LINE. (§ 185-14.M.(2)(a))

B. ON LOTS WITH A LOT WIDTH OF ONE-HUNDRED (100) FEET OR LESS, THE MAXIMUM SIGN AREA SHALL BE FORTY (40) SQUARE FEET. ON LOTS WITH A LOT WIDTH OF MORE THAN ONE-HUNDRED (100) FEET, THE MAXIMUM SIGN AREA SHALL BE SIXTY (60) FEET. (§ 185-14.M.(2)(b))

C. THE MAXIMUM HEIGHT SHALL BE FORTEEN (14) FEET. (§ 185-14.M.(2)(c)) **(VARIANCE GRANTED AT OCTOBER 26, 2023 ZBA MEETING - 20 FT HIGH SIGN IS PROPOSED)**

[16] ATTACHED WALL, SUSPENDED WALL, PROJECTING, WINDOW AND AWNING SIGNS MAY BE PLACED ON THE PREMISES SUBJECT TO THE FOLLOWING CONDITIONS:

A. THE TOTAL ALLOWABLE SIGN AREA FOR ALL PERMANENT SIGNS ON THE SITE, EXCEPT FREESTANDING SIGNS, SHALL BE AS FOLLOWS:

i. IF THERE IS NO FREESTANDING SIGN ON THE SITE, THEN ONE (1) SQUARE FOOT OF SIGN AREA PER LINEAR FOOT OF BUILDING WALL THAT FRONTS ON A STREET IS ALLOWED. (§ 185-14.M.(1)(a)(1))

ii. IF THERE IS A FREESTANDING SIGN ON THE SITE, THEN 3/4 SQUARE FOOT OF SIGN AREA PER LINEAR FOOT OF BUILDING WALL THAT FRONTS ON A STREET IS ALLOWED. (§ 185-14.M.(1)(a)(2))

B. THERE IS NO LIMIT ON THE NUMBER OF SUCH SIGNS ON A SITE SO LONG AS THEIR AGGREGATE SQUARE FOOTAGE IS WITHIN THE TOTAL ALLOWABLE AREA LIMIT. (§ 185-14.M.(1)(b))

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Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.233.4888 | Bethlehem, Pennsylvania T: 610.595.4400 | Annapolis, Maryland T: 410.567.5000

TITLE:

SIGNAGE AND STRIPING PLAN

PROJECT: **NEWBURGH CHICKEN, LLC.**
PROPOSED POPEYES RESTAURANT
PARCEL: 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No:	1021 22-01041
DATE:	11/16/2023
DRAWN BY:	XXX
SCALE: (H) 1"=20' (V)	
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Rev. #	0

MATTHEW J. BERSCH
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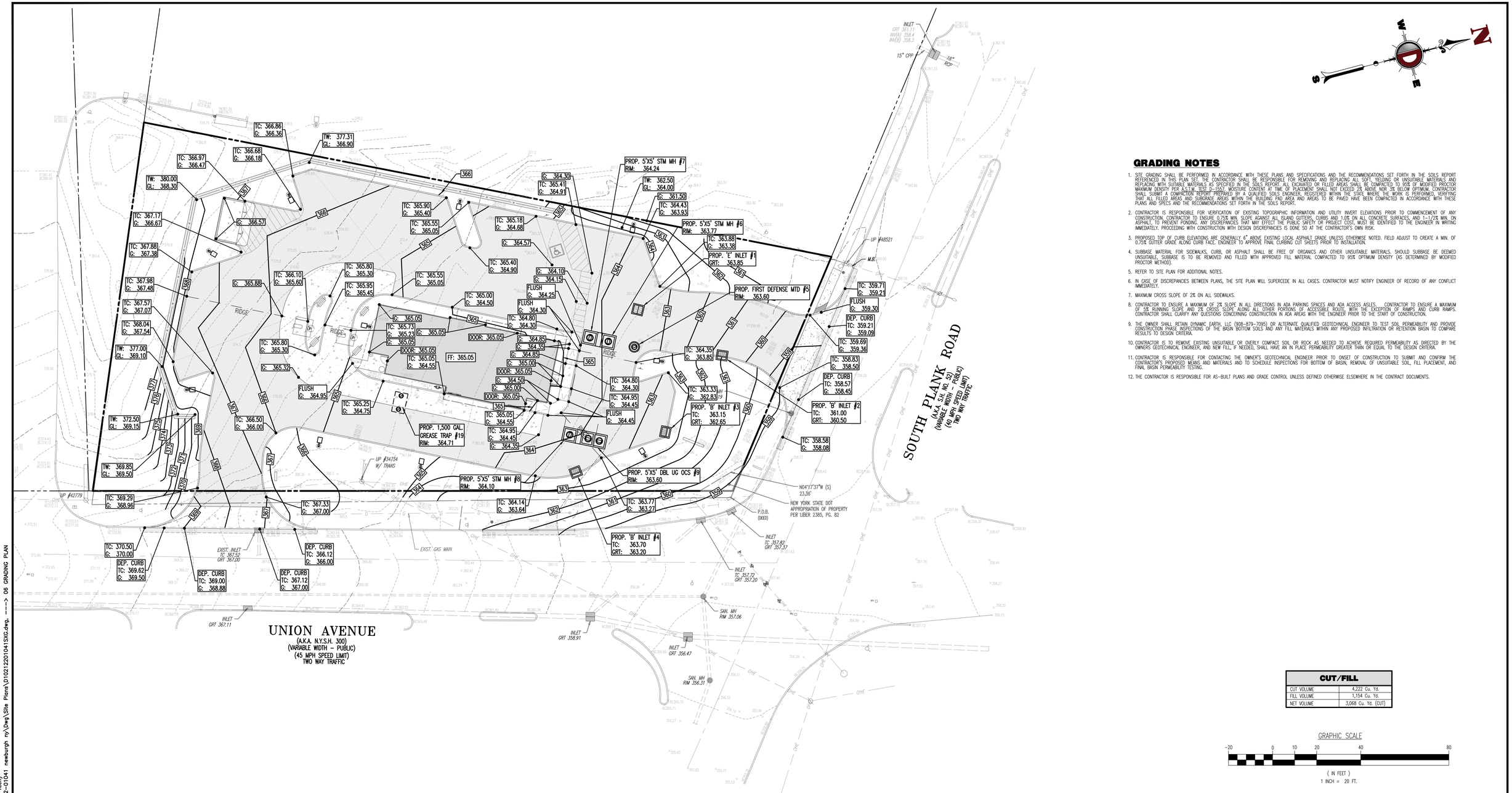

GRADING NOTES

1. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE SOILS REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER A.S.T.M. TEST D-1557, MOISTURE CONTENT AT TIME OF PLACEMENT SHALL NOT EXCEED 2% ABOVE NOR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT PREPARED BY A QUALIFIED SOILS ENGINEER, REGISTERED WITHIN THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT.
2. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MIN. SLOPE AGAINST ALL ISLAND GUTTERS, CURBS AND 1.0% ON ALL CONCRETE SURFACES, AND 1-1/2% MIN. ON ASPHALT TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY EFFECT THE PUBLIC SAFETY OR PROJECT COST, MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITH DESIGN DISCREPANCIES IS DONE SO AT THE CONTRACTOR'S OWN RISK.
3. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MIN. OF 0.75% GUTTER GRADE ALONG CURB FACE. ENGINEER TO APPROVE FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION.
4. SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED TO 95% OPTIMUM DENSITY (AS DETERMINED BY MODIFIED PROCTOR METHOD).
5. REFER TO SITE PLAN FOR ADDITIONAL NOTES.
6. IN CASE OF DISCREPANCIES BETWEEN PLANS, THE SITE PLAN WILL SUPERCEDE IN ALL CASES. CONTRACTOR MUST NOTIFY ENGINEER OF RECORD OF ANY CONFLICT IMMEDIATELY.
7. MAXIMUM CROSS SLOPE OF 2% ON ALL SIDEWALKS.
8. CONTRACTOR TO ENSURE A MAXIMUM OF 2% SLOPE IN ALL DIRECTIONS IN ADA PARKING SPACES AND ADA ACCESS AISLES. CONTRACTOR TO ENSURE A MAXIMUM OF 5% RUNNING SLOPE AND 2% CROSS SLOPE ALONG ALL OTHER PORTIONS OF ACCESSIBLE ROUTE, WITH THE EXCEPTION OF RAMPS AND CURB RAMPS. CONTRACTOR SHALL CLARIFY ANY QUESTIONS CONCERNING CONSTRUCTION IN ADA AREAS WITH THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.
9. THE OWNER SHALL RETAIN DYNAMIC EARTH, LLC (908-879-7095) OR ALTERNATE QUALIFIED GEOTECHNICAL ENGINEER TO TEST SOIL PERMEABILITY AND PROVIDE CONSTRUCTION PHASE INSPECTIONS OF THE BASIN BOTTOM SOILS AND ANY FILL MATERIALS WITHIN ANY PROPOSED INFILTRATION OR RETENTION BASIN TO COMPARE RESULTS TO DESIGN CRITERIA.
10. CONTRACTOR IS TO REMOVE EXISTING UNSUITABLE OR OVERLY COMPACT SOIL OR ROCK AS NEEDED TO ACHIEVE REQUIRED PERMEABILITY AS DIRECTED BY THE OWNERS GEOTECHNICAL ENGINEER, AND NEW FILL IF NEEDED, SHALL HAVE AN IN PLACE PERMEABILITY GREATER THAN OR EQUAL TO THE DESIGN CRITERIA.
11. CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE OWNER'S GEOTECHNICAL ENGINEER PRIOR TO ONSET OF CONSTRUCTION TO SUBMIT AND CONFIRM THE CONTRACTOR'S PROPOSED MEANS AND MATERIALS AND TO SCHEDULE INSPECTIONS FOR BOTTOM OF BASIN, REMOVAL OF UNSUITABLE SOIL, FILL PLACEMENT, AND FINAL BASIN PERMEABILITY TESTING.
12. THE CONTRACTOR IS RESPONSIBLE FOR AS-BUILT PLANS AND GRADE CONTROL UNLESS DEFINED OTHERWISE ELSEWHERE IN THE CONTRACT DOCUMENTS.

CUT/FILL	
CUT VOLUME	4,222 Cu. Yd.
FILL VOLUME	1,154 Cu. Yd.
NET VOLUME	3,068 Cu. Yd. (CUT)

GRAPHIC SCALE

−20 0 10 20 40 80

(IN FEET)
1 INCH = 20 FT.

GRADING/UTILITY GRAPHIC LEGEND

- PROPERTY LINE (PARCEL IN QUESTION)
- OFF-SITE PROPERTY LINES
- EXIST. GUY WIRE
- EXIST. LIGHT POLE
- EXIST. BUILDING LIGHT
- EXIST. SHOE BOX LIGHT
- EXIST. COBRA LIGHT POLE
- EXIST. TRAFFIC SIGNAL POLE
- EXIST. MANHOLE
- EXIST. "A" INLET
- EXIST. "B" INLET
- EXIST. "E" INLET
- EXIST. YARD INLET
- EXIST. FLARED END SECTION
- EXIST. HEADWALL
- EXIST. UTILITY POLE
- EXIST. MONITORING WELL
- APPROX. TEST PIT LOCATION
- EXIST. FIRE HYDRANT
- EXIST. WATER VALVE
- EXIST. GAS VALVE
- EXIST. GAS METER
- EXIST. ELECTRIC METER
- EXIST. ELECTRIC BOX
- EXIST. CLEAN OUT
- EXIST. WELL
- EXIST. WATER SHUT OFF VALVE
- EXIST. TELEPHONE BOX
- EXIST. CABLE TV BOX
- PROP. HEADWALL
- PROP. WATER VALVE
- PROP. GAS VALVE
- PROP. STORM CLEANOUT
- PROP. SANITARY CLEANOUT
- PROP. AREA LIGHT
- PROP. OUTLET CONTROL STRUCTURE
- PROP. DRAINAGE MANHOLE
- PROP. SANITARY SEWER MANHOLE
- PROP. 'A' INLET
- PROP. 'B' INLET
- PROP. 'E' INLET
- PROP. YARD INLET
- PROP. FLARED END SECTION
- EXIST. CABLE LINE
- PROP. CABLE LINE
- EXIST. ELECTRIC LINE
- PROP. ELECTRIC LINE
- EXIST. FIBER OPTIC LINE
- PROP. FIBER OPTIC LINE
- EXIST. GAS LINE
- PROP. GAS LINE
- EXIST. OVERHEAD WIRES
- PROP. OVERHEAD WIRES
- EXIST. TELEPHONE LINE
- PROP. TELEPHONE LINE
- EXIST. WATER LINE
- PROP. WATER LINE
- EXIST. FIRE SERVICE
- PROP. FIRE SERVICE
- EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
- PROP. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
- EXIST. SANITARY SEWER LINE
- PROP. SANITARY SEWER LINE
- PROP. FORCE MAIN
- EXIST. FORCE MAIN
- PROP. STORM DRAIN LINE
- EXIST. STORM DRAIN LINE
- EXIST. MINOR CONTOUR & ELEVATION
- EXIST. MAJOR CONTOUR & ELEVATION
- PROP. FINISH GRADE CONTOUR & ELEVATION
- PROP. DIRECTION OF DRAINAGE FLOW ARROW
- × 8.9 — EXIST. SPOT ELEVATIONS
- ×G 8.90 — EXIST. GUTTER ELEV.
- ×TC 8.90 — EXIST. TOP OF CURB ELEV.
- ×FF 8.90 — EXIST. FINISH FLOOR ELEV.
- ×GF 8.90 — EXIST. GARAGE FLOOR ELEV.
- G: 000.00 — PROP. GRADE SPOT ELEV.
- TC: 000.00 / G: 000.00 — PROP. TOP OF CURB & FINISHED GRADE ELEV.
- FF: 000.00 — PROP. FINISHED FLOOR ELEV.
- TW: 000.00 / GL: 000.00 — PROP. TOP OF WALL & FINISHED GRADE @ LOW SIDE OF WALL (ACTUAL BOTTOM OF WALL FOOTING TO BE ESTABLISHED BY WALL DESIGNER)
- TC: 000.00 / GH: 000.00 / GL: 000.00 — PROP. TOP OF EXTENDED CURB, (GH) FINISHED GRADE @ HIGH SIDE OF EXTENDED CURB & (GL) FINISHED GRADE @ LOW SIDE OF EXTENDED CURB

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Toms River, New Jersey T: 732.974.0198 | Allen, Texas T: 972.534.2100 | Austin, Texas T:512.646.2646 | Houston, Texas T: 281.799.6400 | Delray Beach, Florida T: 561.921.8570
Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.253.4888 | Bethlehem, Pennsylvania T: 610.598.4400 | Annapolis, Maryland T: 410.567.5000

TITLE: GRADING PLAN

PROJECT: NEWBURGH CHICKEN, LLC.
PROPOSED POPEYES RESTAURANT
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No:	1021 22-01041
DRAWN BY:	RPK
DESIGNED BY:	JD
CHECKED BY:	RW
CHECKED BY:	MB
DATE:	11/16/2023
SCALE: (H) 1"=20' (V)	
SHEET No:	6 OF 19
Rev. #	0

MATTHEW J. BERSCH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 54522

JOSHUA M. SCHWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 102639

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FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Comments | Date | Rev. | By

Plotted: 11/20/23 - 1:35 PM, By: mazamir, - Product Ver: 24.2s (LMS Tech)
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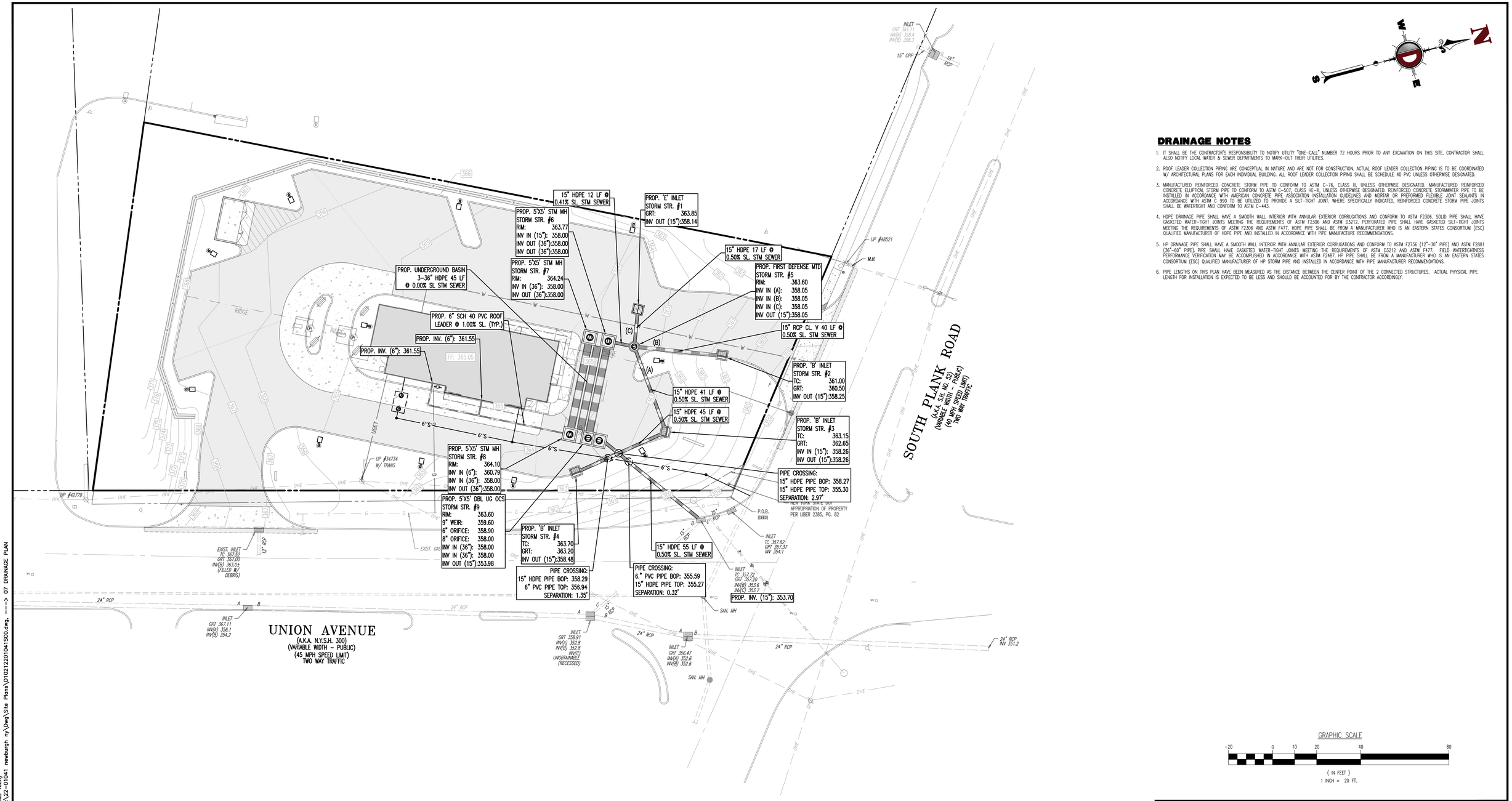

DRAINAGE NOTES

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY UTILITY "ONE-CALL" NUMBER 72 HOURS PRIOR TO ANY EXCAVATION ON THIS SITE. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER & SEWER DEPARTMENTS TO MARK-OUT THEIR UTILITIES.
2. ROOF LEADER COLLECTION PIPING ARE CONCEPTUAL IN NATURE AND ARE NOT FOR CONSTRUCTION. ACTUAL ROOF LEADER COLLECTION PIPING IS TO BE COORDINATED W/ ARCHITECTURAL PLANS FOR EACH INDIVIDUAL BUILDING. ALL ROOF LEADER COLLECTION PIPING SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE DESIGNATED.
3. MANUFACTURED REINFORCED CONCRETE STORM PIPE TO CONFORM TO ASTM C-76, CLASS III, UNLESS OTHERWISE DESIGNATED. MANUFACTURED REINFORCED CONCRETE ELLIPTICAL STORM PIPE TO CONFORM TO ASTM C-507, CLASS HE-III, UNLESS OTHERWISE DESIGNATED. REINFORCED CONCRETE STORMWATER PIPE TO BE INSTALLED IN ACCORDANCE WITH AMERICAN CONCRETE PIPE ASSOCIATION INSTALLATION GUIDELINES AND MORTAR OR PREFORMED FLEXIBLE JOINT SEALANTS IN ACCORDANCE WITH ASTM C 990 TO BE UTILIZED TO PROVIDE A SILT-TIGHT JOINT. WHERE SPECIFICALLY INDICATED, REINFORCED CONCRETE STORM PIPE JOINTS SHALL BE WATERTIGHT AND CONFORM TO ASTM C-443.
4. HDPE DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNULAR EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2306. SOLID PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM D3212. PERFORATED PIPE SHALL HAVE GASKETED SILT-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM F477. HDPE PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HDPE PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURE RECOMMENDATIONS.
5. HP DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNULAR EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2736 (12"-30" PIPE) AND ASTM F2881 (36"-60" PIPE). PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM D3212 AND ASTM F477. FIELD WATERTIGHTNESS PERFORMANCE VERIFICATION MAY BE ACCOMPLISHED IN ACCORDANCE WITH ASTM F2487. HP PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HP STORM PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURER RECOMMENDATIONS.
6. PIPE LENGTHS ON THIS PLAN HAVE BEEN MEASURED AS THE DISTANCE BETWEEN THE CENTER POINT OF THE 2 CONNECTED STRUCTURES. ACTUAL PHYSICAL PIPE LENGTH FOR INSTALLATION IS EXPECTED TO BE LESS AND SHOULD BE ACCOUNTED FOR BY THE CONTRACTOR ACCORDINGLY.

GRAPHIC SCALE

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(IN FEET)
1 INCH = 20 FT.

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Plotted: 11/20/23 - 1:36 PM, By: rkazimir, - Product Ver: 24.2a (LMS Tech)
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Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.233.4888 | Bethlehem, Pennsylvania T: 610.595.4400 | Annapolis, Maryland T: 410.567.5000

TITLE: DRAINAGE PLAN

PROJECT: NEWBURGH CHICKEN, LLC.
PROPOSED POPEYES RESTAURANT
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No:	1021 22-01041
DATE:	11/16/2023
DRAWN BY:	RPK
SCALE: (H) 1"=20' (V)	
DESIGNED BY:	JD
CHECKED BY:	RW
CHECKED BY:	MB
SHEET No:	7 OF 19
Rev. #	0

MATTHEW J. BERSCH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 54522

JOSHUA M. DERVALD
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 24639

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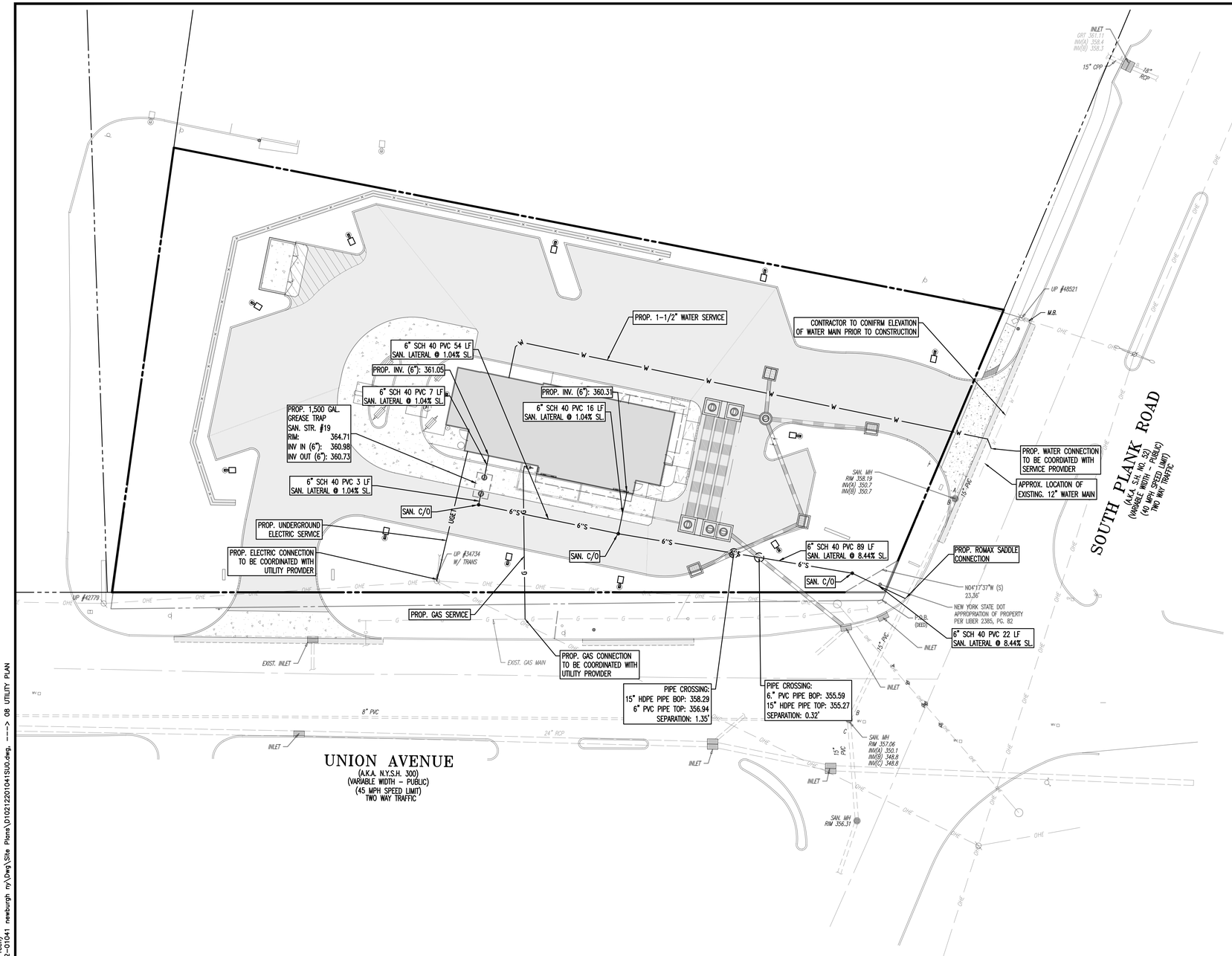

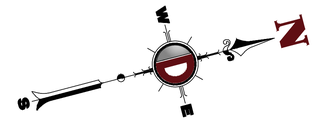

EXISTING UTILITY NOTES

EXISTING WATER SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING WATER SERVICE CONNECTION IF FEASIBLE. OTHERWISE REMOVE EXISTING WATER SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL WATER COMPANY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL WATER COMPANY PRIOR TO COMPLETION. IF THE EXISTING WATER SERVICE CAN NOT BE UTILIZED, THE NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL WATER COMPANY. CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.

EXISTING GAS SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING GAS SERVICE CONNECTION IF FEASIBLE. OTHERWISE REMOVE EXISTING GAS SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL GAS COMPANY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL GAS COMPANY PRIOR TO COMPLETION. ANY NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL GAS COMPANY. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.

SANITARY SEWER SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING SEWER SERVICE CONNECTION IF OF ADEQUATE SIZE AND INTEGRITY AND ACCEPTABLE TO LOCAL SEWER AUTHORITY. OTHERWISE CONTRACTOR TO REMOVE EXISTING SEWER SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL SEWER AUTHORITY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL SEWER AUTHORITY PRIOR TO COMPLETION. IF EXISTING SEWER SERVICE CAN NOT BE UTILIZED THEN THE NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL SEWER AUTHORITY. CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.

UTILITY NOTES

1. LOCATION OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS SHALL BE CONFIRMED INDEPENDENTLY BY THE CONTRACTOR IN FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO THE ENGINEER. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY UTILITY "ONE-CALL" NUMBER 72 HOURS PRIOR TO ANY EXCAVATION ON THIS SITE. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER & SEWER DEPARTMENTS TO MARK-OUT THEIR UTILITIES.
3. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME. SERVICE SIZES TO BE DETERMINED BY ARCHITECT.
4. WATER SERVICE MATERIALS SHALL BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTORS PRICE FOR WATER SERVICE SHALL INCLUDE ALL FEES AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE A COMPLETE WORKING SERVICE.
5. ALL WATER MAIN SHALL BE CEMENT-LINED, CLASS 52 DUCTILE IRON PIPE, UNLESS OTHERWISE DESIGNATED.
6. THE MINIMUM DIAMETER FOR DOMESTIC WATER SERVICES SHALL BE 1 INCH.
7. ALL SANITARY SEWER MAINS SHALL BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST 10 FEET HORIZONTALLY. IF SUCH SEPARATION IS NOT POSSIBLE, THE PIPES SHALL BE IN SEPARATE TRENCHES WITH THE SEWER MAIN AT LEAST 18 INCHES BELOW THE WATER MAIN OR SUCH OTHER SEPARATION AS APPROVED BY THE APPROVING AUTHORITY. WHERE APPROPRIATE CROSSING SEPARATION FROM A WATER MAIN IS NOT POSSIBLE, THE SEWER SHALL BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DUCTILE IRON PIPE USING MECHANICAL OR SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER MAIN AS POSSIBLE. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER SHALL BE PROVIDED. THE APPROVING AUTHORITY MAY REQUIRE ADDITIONAL STRUCTURAL SUPPORT FOR STORM SEWER CROSSING OVER SEWER LINES.
8. ALL SANITARY SEWER MAINS SHALL BE SDR-35 PVC PIPE MATERIAL UNLESS OTHERWISE DESIGNATED. SEWER PIPES INSTALLED WITH LESS THAN 3 FEET OF COVER, GREATER THAN 20 FEET OF COVER OR WITHIN 18 INCHES OF A WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE. ALL DUCTILE IRON SEWER PIPE SHALL BE CEMENT-LINED, CLASS 52 PIPE, FURNISHED WITH SEWER COAT, OR APPROVED EQUAL.
9. WHERE SANITARY SEWER LATERALS ARE GREATER THAN 10' DEEP AT CONNECTION TO THE SEWER MAIN, CONCRETE DEEP LATERAL CONNECTIONS ARE TO BE UTILIZED.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILIZATION OF THE EXISTING SEWER MAIN, STRUCTURES AND APPURTENANCES DURING CONNECTION.
11. LOCATION & LAYOUT OF GAS, ELECTRIC & TELECOMMUNICATION UTILITY LINES AND SERVICES SHOWN ON THESE PLANS ARE SCHEMATIC IN NATURE. ACTUAL LOCATION & LAYOUT OF THESE UTILITIES & SERVICES ARE TO BE PER THE APPROPRIATE UTILITY PROVIDER.
12. ROOF LEADER COLLECTION PIPING ARE CONCEPTUAL IN NATURE AND ARE NOT FOR CONSTRUCTION. ACTUAL ROOF LEADER COLLECTION PIPING IS TO BE COORDINATED W/ ARCHITECTURAL PLANS FOR EACH INDIVIDUAL BUILDING. ALL ROOF LEADER COLLECTION PIPING SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE DESIGNATED.
13. ALL SEWER AND WATER FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATORY AUTHORITY'S RULES AND REGULATIONS.
14. ALL PROPOSED UTILITIES TO BE INSTALLED UNDERGROUND UNLESS OTHERWISE NOTED.
15. MANUFACTURED REINFORCED CONCRETE STORM PIPE TO CONFORM TO ASTM C-76, CLASS III, UNLESS OTHERWISE DESIGNATED. MANUFACTURED REINFORCED CONCRETE ELLIPTICAL STORM PIPE TO CONFORM TO ASTM C-507, CLASS HE-III, UNLESS OTHERWISE DESIGNATED. REINFORCED CONCRETE STORMWATER PIPE TO BE INSTALLED IN ACCORDANCE WITH AMERICAN CONCRETE PIPE ASSOCIATION INSTALLATION GUIDELINES AND MORTAR OR PREFORMED FLEXIBLE JOINT SEALANTS IN ACCORDANCE WITH ASTM C 990 TO BE UTILIZED TO PROVIDE A SILT-TIGHT JOINT. WHERE SPECIFICALLY INDICATED, REINFORCED CONCRETE STORM PIPE JOINTS SHALL BE WATERTIGHT AND CONFORM TO ASTM C-443.
16. HDPE DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNULAR EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2306. SOLID PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM D3212. PERFORATED PIPE SHALL HAVE GASKETED SILT-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM F477. HDPE PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HDPE PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURE RECOMMENDATIONS.
17. HP DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNULAR EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2736 (12"-30" PIPE) AND ASTM F2881 (36"-60" PIPE). PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM D3212 AND ASTM F477. FIELD WATERTIGHTNESS PERFORMANCE VERIFICATION MAY BE ACCOMPLISHED IN ACCORDANCE WITH ASTM F2487. HP PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HP STORM PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURER RECOMMENDATIONS.
18. PIPE LENGTHS ON THIS PLAN HAVE BEEN MEASURED AS THE DISTANCE BETWEEN THE CENTER POINT OF THE 2 CONNECTED STRUCTURES. ACTUAL PHYSICAL PIPE LENGTH FOR INSTALLATION IS EXPECTED TO BE LESS AND SHOULD BE ACCOUNTED FOR BY THE CONTRACTOR ACCORDINGLY.

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EXIST. WELL
EXIST. WATER SHUT OFF VALVE
EXIST. TELEPHONE BOX
EXIST. CABLE TV BOX

PROP. WATER VALVE
PROP. GAS VALVE
PROP. STORM CLEANOUT
PROP. SANITARY CLEANOUT
PROP. AREA LIGHT
PROP. OUTLET CONTROL STRUCTURE
PROP. DRAINAGE MANHOLE
PROP. SANITARY SEWER MANHOLE
PROP. 'A' INLET
PROP. 'B' INLET
PROP. 'C' INLET
PROP. 'D' INLET
PROP. 'E' INLET
PROP. YARD INLET
PROP. HEADWALL
PROP. FLARED END SECTION

EXIST. CABLE LINE
PROP. CABLE LINE
EXIST. ELECTRIC LINE
PROP. ELECTRIC LINE
EXIST. FIBER OPTIC LINE
PROP. FIBER OPTIC LINE
EXIST. GAS LINE
PROP. GAS LINE
EXIST. OVERHEAD WIRES
PROP. OVERHEAD WIRES
EXIST. TELEPHONE LINE
PROP. TELEPHONE LINE
EXIST. WATER LINE
PROP. WATER LINE
EXIST. FIRE SERVICE
PROP. FIRE SERVICE

EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
PROP. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
EXIST. SANITARY SEWER LINE
PROP. SANITARY SEWER LINE
EXIST. FORCE MAIN
PROP. FORCE MAIN
EXIST. STORM DRAIN LINE
PROP. STORM DRAIN LINE
EXIST. MINOR CONTOUR & ELEVATION
EXIST. MAJOR CONTOUR & ELEVATION
PROP. FINISH GRADE CONTOUR & ELEVATION
PROP. DIRECTION OF DRAINAGE FLOW ARROW

× 8.9 EXIST. SPOT ELEVATIONS
× G. 8.90 EXIST. GUTTER ELEV.
× TC 8.90 EXIST. TOP OF CURB ELEV.
× FF. 8.90 EXIST. FINISH FLOOR ELEV.
× GF. 8.90 EXIST. GARAGE FLOOR ELEV.
G: 000.00 PROP. GRADE SPOT ELEV.
TC: 000.00 G: 000.00 PROP. TOP OF CURB & FINISHED GRADE ELEV.
FF: 000.00 PROP. FINISHED FLOOR ELEV.
TW: 000.00 GL: 000.00 PROP. TOP OF WALL & FINISHED GRADE @ LOW SIDE OF WALL (ACTUAL BOTTOM OF WALL FOOTING TO BE ESTABLISHED BY WALL DESIGNER)
TC: 000.00 CH: 000.00 GL: 000.00 PROP. TOP OF EXTENDED CURB, (CH) FINISHED GRADE @ HIGH SIDE OF EXTENDED CURB & (GL) FINISHED GRADE @ LOW SIDE OF EXTENDED CURB

GRAPHIC SCALE
-20 0 10 20 40 80
(IN FEET)
1 INCH = 20 FT.

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

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Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.233.4888 | Bethlehem, Pennsylvania T: 610.598.4400 | Annapolis, Maryland T: 410.567.5000

TITLE: UTILITY PLAN

PROJECT: NEWBURGH CHICKEN, LLC.
PROPOSED POPEYES RESTAURANT
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No:	1021 22-01041
DATE:	11/16/2023
DRAWN BY:	RPK
SCALE: (H) 1"=20' (V)	
DESIGNED BY:	JD
CHECKED BY:	RW
CHECKED BY:	MB
SHEET No:	8 OF 19
Rev. #	0

MATTHEW J. BERSCH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 54522

JOSHUA M. ARNOLD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 102639

STATE OF NEW YORK — JOSHUA M. ARNOLD — 102639 — LICENSED PROFESSIONAL ENGINEER

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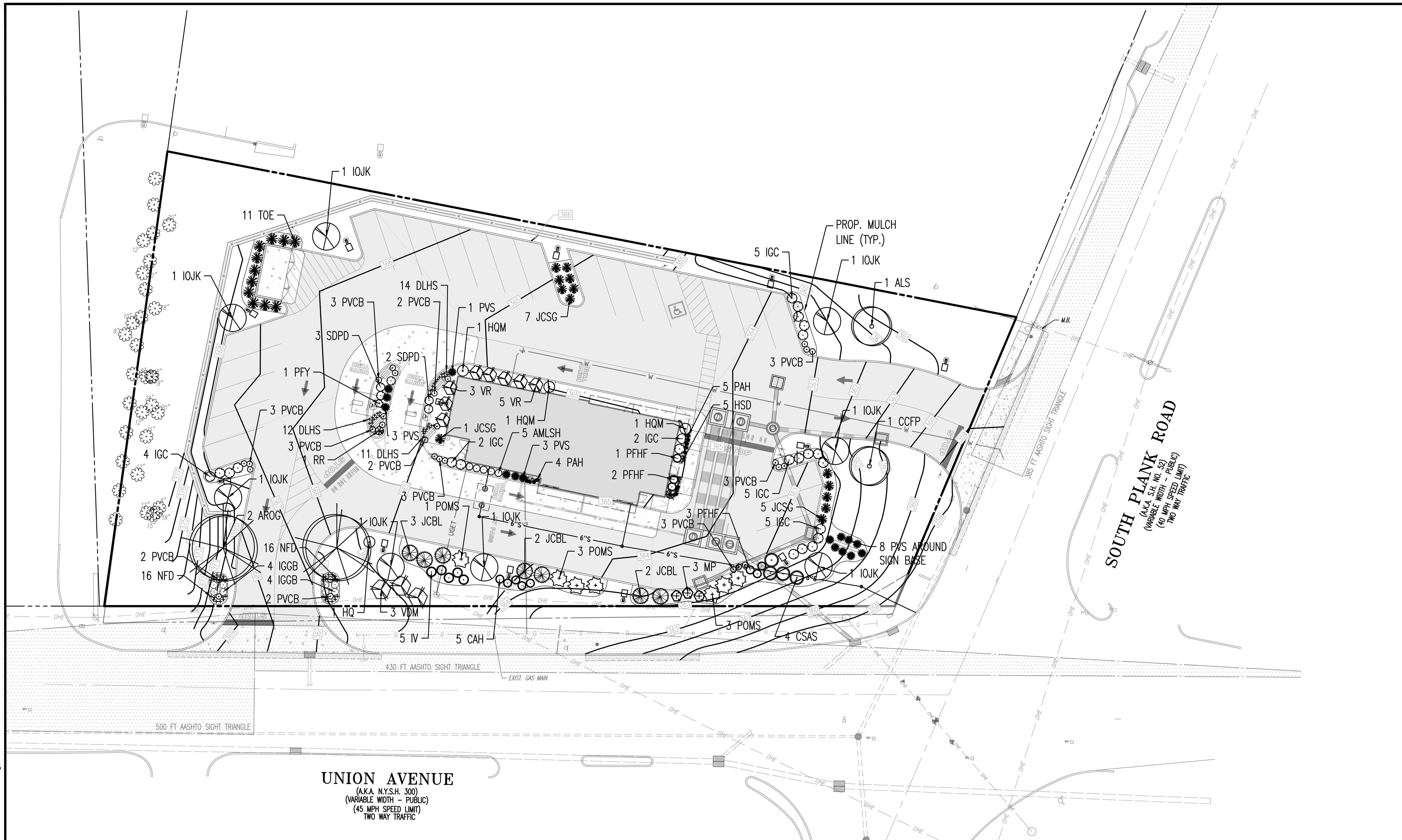
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS TO UTILITY COMPANIES BEFORE DIGGING TO ENSURE THE SAFETY OF SURFACE ANYWHERE IN ANY STATE.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Rev.	Date	Comments	By

THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY



GRAPHIC SCALE

-20 0 10 20 40 80

(IN FEET)
1 INCH = 20 FT.

LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
SHADE TREE(S)					
AROG	2	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2 1/2-3" CAL.	B+B
ORNAMENTAL TREE(S)					
ALS	1	AMELANCHIER LAEVIS 'SNOWCLOUD'	SNOWCLOUD SERVICEBERRY	8-10'	B+B
CCFP	1	CERCIS CANADENSIS 'FOREST PANSY'	FOREST PANSY REDBUD	8-10'	B+B
	2				
EVERGREEN TREE(S)					
IOJK	8	ILEX OPACA 'JERSEY KNIGHT'	JERSEY KNIGHT AMERICAN HOLLY	6-8'	B+B
TOE	11	THUJA OCCIDENTALIS 'EMERALD'	EMERALD GREEN ARBORVITAE	6-8'	B+B
	19				
EVERGREEN SHRUB(S)					
IGC	23	ILEX GLABRA COMPACTA	DWARF INKBERRY HOLLY	24-30"	#3 CAN
IGGB	8	ILEX GLABRA 'GEM BOX'	GEM BOX INKBERRY HOLLY	24-30"	#3 CAN
JCBL	7	JUNIPERUS CHINENSIS 'BLUE POINT'	BLUE POINT JUNIPER	4-5'	B+B
JCSG	13	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER	24-30" SPRD.	#3 CAN
JVA	1	JUNIPERUS VIRGINIANA 'FARROWJVBF'	AQUAVITA JUNIPER	36-42"	#7 CAN
VR	8	VIBURNUM X RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	36-42"	#7 CAN
	60				
DECIDUOUS SHRUB(S)					
AMLSH	5	ARONIA MELANOCARPA 'LOW SCAPE HEDGER'	'LOW SCAPE HEDGER' CHOKEBERRY	18-24"	#3 CAN
CAH	5	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	HUMMINGBIRD SUMMERSWEET	24-30"	#3 CAN
CSAS	4	CEANOTHUS AMERICANUS	NEW JERSEY TEA	30-36"	#3 CAN
HQ	1	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	24-30"	#3 CAN
HQM	3	HYDRANGEA QUERCIFOLIA 'MUNCHKIN'	MUNCHKIN OAKLEAF HYDRANGEA	24-30"	#3 CAN
IV	5	ITEA VIRGINICA 'HENRY'S GARNET'	GARNET SWEETSPIRE	24-30"	#5 CAN
MP	3	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	30-36"	#5 CAN
PFHF	6	POTENTILLA FRUTICOSA 'KUPINPA'	HAPPY FACE PINK PARADISE CINQUEFOIL	24-30"	#3 CAN
PFY	1	POTENTILLA FRUTICOSA 'HAPPY FACE YELLOW'	HAPPY FACE YELLOW POTENTILLA	24-30"	#3 CAN
POMS	7	PHYSOCARPUS 'SUMMER WINE'	SUMMER WINE NINE BARK	30-36"	#7 CAN
RR	1	ROSA 'RADRAZZ'	KNOCKOUT ROSE	24-30"	#3 CAN
SDPD	5	SPIREA X 'NCSX2'	DOUBLE PLAY DOOZIE SPIREA	24-30"	#3 CAN
VDM	3	VIBURNUM DENTATUM 'MORTON'	NORTHERN BURGUNDY ARROWWOOD VIBURNUM	30-36"	#7 CAN
	48				
PERENNIAL(S)					
DLHS	37	HEMEROCALLIS SPP.	DAYLILY	1 GAL.	CONTAINER
HSD	10	HEMEROCALLIS 'STELLA D'ORO'	STELLA D'ORO DAYLILY	2 GAL.	CONTAINER
NFD	32	NEPETA X FAASSENII 'DROPMORE'	DROPMORE CAT MINT	2 GAL.	CONTAINER
	79				
ORNAMENTAL GRASS(ES)					
PAH	12	PENNISETUM ALOPECUROIDES 'HAMELN'	DWARF FOUNTAIN GRASS	2 GAL.	CONTAINER
PVCB	29	PANICUM VIRGATUM 'CAPE BREEZE'	CAPE BREEZE SWITCH GRASS	2 GAL.	CONTAINER
PVS	15	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	2 GAL.	CONTAINER
	56				

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

TOWN OF NEWBURGH LANDSCAPE REQUIREMENTS

1. NO PERSON SHALL, PRIOR TO THE ISSUANCE OF A CLEARING AND GRADING PERMIT, A STORMWATER MANAGEMENT PLAN APPROVAL OR SITE PLAN, SPECIAL PERMIT OR SUBDIVISION APPROVAL, CONDUCT CLEAR CUTTING OR WHOLESALE TREE CUTTING ACTIVITIES ON ANY PROPERTY WITHIN THE TOWN, UNLESS SUCH ACTIVITY IS EXEMPT UNDER THE PROVISIONS OF THE APPLICABLE CHAPTER. A VIOLATION OF THIS PROVISION SHALL CONSTITUTE SUFFICIENT GROUNDS FOR THE TOWN TO REFUSE TO GRANT A CLEARING AND GRADING PERMIT, STORMWATER APPROVAL OR OTHER DEVELOPMENT PERMIT OR APPROVAL. THIS PROVISION SHALL NOT BE CONSTRUED TO PERMIT CLEAR CUTTING OR WHOLESALE TREE CUTTING FOLLOWING ISSUANCE OF THE APPLICABLE PERMIT OR APPROVAL EXCEPT IN COMPLIANCE WITH ALL APPLICABLE PROVISIONS OF LAW AND PERMIT CONDITIONS. (§ 172-4.A)
2. NO PERSON CAUSING OR PERFORMING DEVELOPMENT ACTIVITIES IN NONRESIDENTIAL ZONING DISTRICTS (B, IB AND I UNDER CHAPTER 185, ZONING) SHALL REMOVE OR DISTURB MORE THAN SEVENTY-FIVE PERCENT (75%) OF THE TOTAL INCHES IN DIAMETER OF SIGNIFICANT TREES. ANY REMOVAL OR DISTURBANCE BEYOND THIS THRESHOLD SHALL REQUIRE REFORESTATION OR RESTITUTION AS HEREINAFTER PROVIDED. IN THE EVENT THAT THE PARCEL IS ONE (1) ACRE OR LESS AND HAS NOT BEEN SUBJECT TO REVIEW UNDER THIS CHAPTER IN CONJUNCTION WITH THE SUBDIVISION OF A PARENT PARCEL, THEN THE STANDARD SHALL BE NINETY PERCENT (90%) RATHER THAN SEVENTY-FIVE PERCENT (75%) FOR SIGNIFICANT TREES. (§ 172-4.C)
3. NO PERSON SHALL REMOVE OR DISTURB ANY SPECIMEN TREE UNLESS SUCH TREE IS LOCATED WITHIN THE BUILDABLE AREA ON LOTS LESS THAN FIVE (5) ACRES IN SIZE OR UNLESS SUCH TREE IS LOCATED WITHIN THE BUILDING AREA AND MINIMUM REQUIRED PARKING AREA(S) ON LOTS FIVE (5) OR MORE ACRES IN SIZE, OR IN RIGHTS OF WAY IN WHICH DRIVEWAYS OR STREETS ARE BEING CONSTRUCTED. EVERY EFFORT SHALL BE MADE TO AVOID DAMAGE TO OR REMOVAL OF SUCH TREE OR TREES. THE OWNER AND APPLICANT SHALL HAVE PROVIDED THE TOWN WITH EVIDENCE TO ESTABLISH THAT IT IS NOT FEASIBLE TO RELOCATE THE BUILDING AREA, PARKING AREA, DRIVEWAYS, STORMWATER CONTROL FACILITIES AND OTHER IMPROVEMENTS BASED UPON THE PHYSICAL CHARACTERISTICS OR CONDITION OF THE LOT OR THAT SUCH RELOCATION CREATES UNDUE HARDSHIP AND FINANCIAL EXPENSE. (§ 172-4.D)
4. A TOPPING SHALL BE CONSIDERED A REMOVAL IF PERFORMED ON A SPECIMEN TREE WITHOUT PRIOR APPROVAL OF THE AUTHORIZED OFFICIAL OR HIS DESIGNEE. THIS FORM OF PRUNING IS NOT AN INDUSTRY ACCEPTED PRACTICE AND THEREFORE SHOULD NOT BE USED EXCEPT IN EXTRAORDINARY CIRCUMSTANCES. (§ 172-4.E)
5. EVERY EFFORT SHALL BE MADE TO AVOID REMOVAL OF TREES FROM VERNAL POOLS AND A SURROUNDING BUFFER AREA AT LEAST TWENTY (20) FEET IN WIDTH. (§ 172-4.F)
6. NO DEVELOPMENT ACTIVITY SHALL OCCUR WITHIN THE AREA ENCOMPASSED BY THE CRITICAL ROOT ZONE OF ANY TREE THAT IS TO BE PRESERVED. NO EXCESS SOIL, ADDITIONAL FILL, LIQUIDS, OR CONSTRUCTION DEBRIS SHALL BE PLACED WITHIN THE AREA ENCOMPASSED BY THE CRITICAL ROOT ZONE OF ANY TREE THAT IS TO BE PRESERVED. (§ 172-10.B)

TOWN OF NEWBURGH LANDSCAPE REQUIREMENTS

A. ALL OPEN PARKING AREAS SHALL BE SUITABLY LANDSCAPED. IN PARKING LOTS WITH MORE THAN TWENTY (20) SPACES, AT LEAST FIVE PERCENT (5%) OF THE AREA OF THE PARKING LOT SHALL BE DEVOTED TO LANDSCAPING WITHIN THE INTERIOR OF THE PARKING LOT. SUCH LANDSCAPING SHALL BE IN ADDITION TO THAT WHICH MAY BE REQUIRED ALONG THE STREET LINE, THE LOT LINES OR THE BUILDING FOUNDATION. IN ALL PARKING LOTS PROVIDING EIGHT (8) OR MORE OFF-STREET PARKING SPACES, ONE (1) SHADE OR FLOWERING ORNAMENTAL TREE SHALL BE PLANTED FOR EACH EIGHT (8) PARKING SPACES AND ANY ADDITIONAL NUMBER THEREOF, SAID TREE OR TREES TO BE PLANTED IN MEDIAN DIVIDERS, ISLANDS OR SUCH OTHER LOCATIONS AS MAY BE ACCEPTABLE TO THE PLANNING BOARD. (§ 185-13.D.(9)(a)) **(COMPLIES)**
B. ALL PLANTING BEDS, LANDSCAPED ISLANDS AND PEDESTRIAN WALKWAYS, IF PROVIDED, SHALL BE PROTECTED BY CURBS, STURDY POSTS, RAILS OR WALLS ONE AND ONE-HALF TO TWO (1.5 – 2) FEET IN HEIGHT OR OTHER PROTECTIVE DEVICES AND SHALL BE OF SUFFICIENT WIDTH TO PREVENT DAMAGE OR INJURY TO BOTH PLANT MATERIALS AND PEDESTRIANS. ADDITIONAL BARRIERS MAY BE REQUIRED BY THE PLANNING BOARD TO GIVE BETTER PROTECTION AND TO IMPROVE PEDESTRIAN AND VEHICULAR CIRCULATION (§ 185-13.D.(9)(b)) **(COMPLIES)**

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Rev.	Date	Comments	By

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TITLE: LANDSCAPE PLAN

PROJECT: **NEWBURGH CHICKEN, LLC.**
PROPOSED POPEYES RESTAURANT
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No:	1021 22-01041
DATE:	11/16/2023
DRAWN BY:	RPK
DESIGNED BY:	JD
CHECKED BY:	RW
CHECKED BY:	MB
SCALE:	(H) 1"=20' (V)
SHEET No:	9 OF 19
Rev. #	0

MATTHEW J. BERSCH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 54522

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

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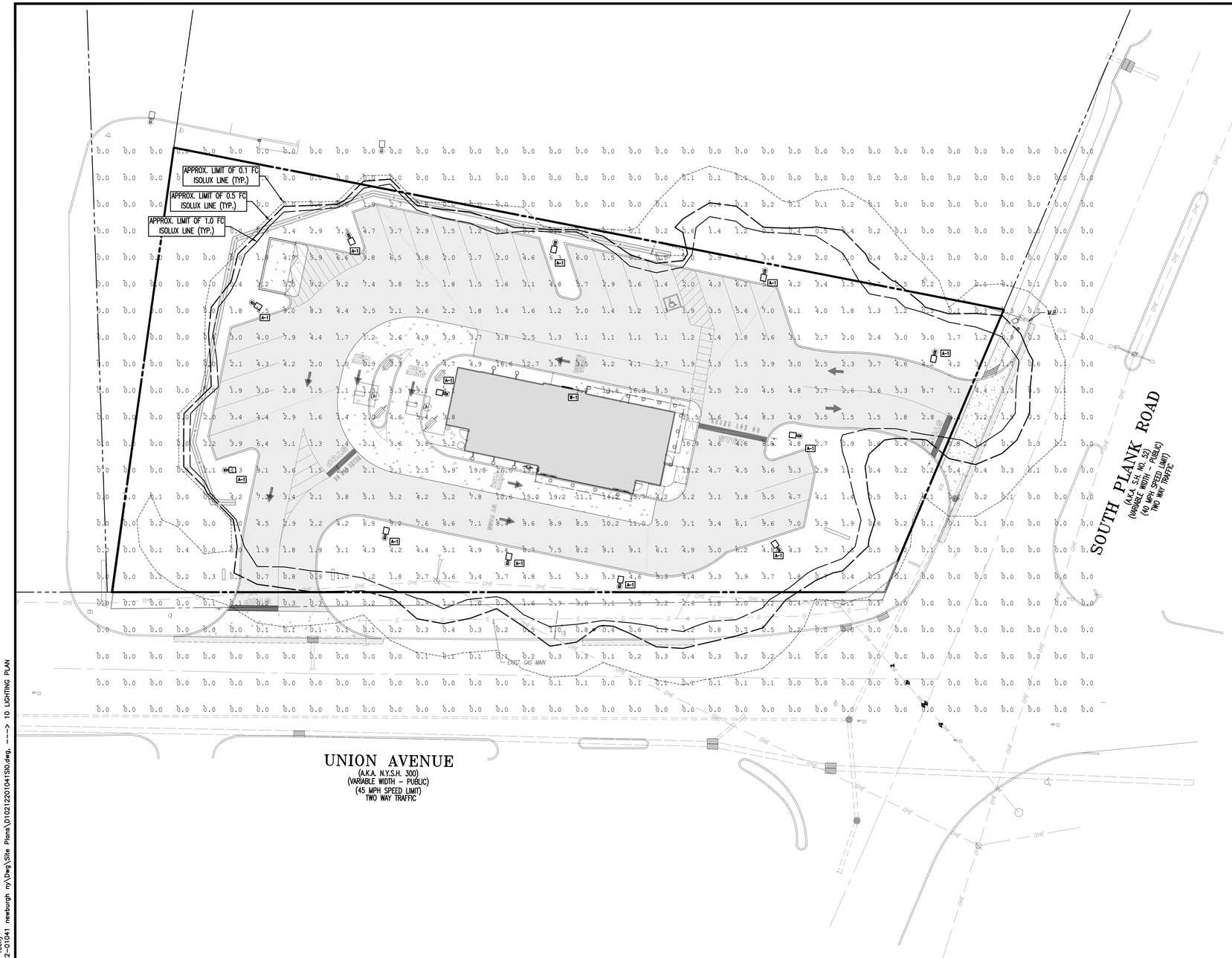
Plotted: 11/20/23 – 1:36 PM, By: rkazimir, – Product Ver: 24.2s (LMS Tech)
File: \\decpc.local\decfolders\data\decpc projects\1021 parikh network, llc\22-01041 newburgh ny\Dwg\Site Plans\D102122010415L0.dwg. ---> 09 LANDSCAPE PLAN

THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY



LIGHTING NOTES

1. THE AREA OF BRILLIANCE, CHARACTER, COLOR, DEGREE, DENSITY, INTENSITY, LOCATION AND TYPE OF ILLUMINATION SHALL BE THE MINIMUM NECESSARY TO PROVIDE FOR THE SECURITY OF THE PROPERTY AND THE SAFETY AND WELFARE OF THE PUBLIC. (§125-8.A) **(COMPLIES)**
2. ALL SOURCES OF ILLUMINATION ON NONPUBLIC PROPERTY, INCLUDING THE LIGHTING OF SIGNS, SHALL BE SHIELDED OR DIRECTED IN SUCH A MANNER THAT THE DIRECT RAYS THEREFROM ARE NOT CAST UPON ANY PROPERTY USED FOR RESIDENTIAL PURPOSES, OTHER THAN THE LOT ON WHICH SUCH ILLUMINATION IS SITUATED. (§125-8.B) **(COMPLIES)**
3. ILLUMINATION SHALL BE STEADY IN NATURE, NOT FLASHING, MOVING OR CHANGING IN BRILLIANCE, COLOR OR INTENSITY, EXCLUDING THE LIGHTING OF SIGNS CONVEYING INFORMATION, SUCH AS TIME AND TEMPERATURE. (§125-8.C) **(COMPLIES)**
4. THE DURATION, PERIOD OR TIME OF ILLUMINATION OF NONRESIDENTIAL PREMISES SHALL BE THE MINIMUM NECESSARY TO PROVIDE FOR THE SECURITY OF THE PROPERTY AND THE SAFETY AND WELFARE OF THE PUBLIC. FOR NONRESIDENTIAL PREMISES OPEN TO THE PUBLIC, ILLUMINATION SHALL BE EXTINGUISHED, EXCEPT THAT NECESSARY FOR THE SECURITY OF THE PROPERTY AND SAFETY OF PERSONS THEREON, ONE (1) HOUR AFTER THE PREMISES ARE CLOSED TO THE PUBLIC. (§125-8.D) **(COMPLIES)**
5. ILLUMINATION CONNECTED OR USED WITH A SIGN OR OTHERWISE WHICH COMPETES FOR ATTENTION WITH OR MAY BE MISTAKEN FOR A TRAFFIC SIGNAL OR CREATES A DISTRACTIVE HAZARD TO TRAFFIC BY GLARE OR MOVEMENT IS PROHIBITED. (§125-8.E) **(COMPLIES)**

GENERAL NOTES

1. THIS LIGHTING PLAN ILLUSTRATES ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) APPROVED METHODS. ACTUAL SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINARIES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER RELATED VARIABLE FIELD CONDITIONS.
2. ALL EXISTING CONDITIONS LIGHTING LEVELS ARE REPRESENTATIVE OF AN APPROXIMATION UTILIZING LABORATORY DATA FOR SIMILAR FIXTURES AND/OR ACTUAL FIELD MEASUREMENTS TAKEN WITH A LIGHT METER. DUE TO FACTORS SUCH AS FIXTURE MAINTENANCE, EQUIPMENT TOLERANCES, WEATHER CONDITIONS, ETC., ACTUAL LIGHTING LEVELS MAY DIFFER AND THE LIGHTING LEVELS DEPICTED ON THIS PLAN SHOULD BE CONSIDERED AS APPROXIMATE.
3. CONDUITS SHALL BE INSTALLED A MINIMUM OF 2 FEET BEHIND GUIDERAIL POSTS.
4. ALL WIRING METHODS AND EQUIPMENT CONSTRUCTION SHALL CONFORM TO THE CURRENT NATIONAL ELECTRICAL CODE.
5. REFER TO ARCHITECTURAL PLANS FOR SITE WIRING DIAGRAM.
6. THIS PLAN IS PREPARED SPECIFICALLY TO ANALYZE THE LIGHTING LEVELS GENERATED BY THE PROPOSED ON-SITE LIGHTING ONLY. EXISTING LIGHT FIXTURES BEYOND THE EXTENTS OF THIS DEVELOPMENT/PROPERTY ARE NOT MODELED IN THIS DESIGN, AND MAY ALTER ACTUAL LIGHT LEVELS AT THE PROPERTY LINES.

GRAPHIC SCALE

−20 0 10 20 40 80

(IN FEET)

1 INCH = 20 FT.

LIGHTING LUMINAIRE SCHEDULE

SYMBOL	QUANTITY	LABEL	WATTAGE	MOUNTING HEIGHT	ARRANGEMENT	LIGHT LOSS FACTOR	MANUFACTURER	DESCRIPTION	IES FILE
═══	1	W-1	18	10	SINGLE	1.00	G&G INDUSTRIAL LIGHTING	TYPE VS	GPX4-SO.IES
⊂▭	11	A-1	104	18	SINGLE	1.00	GE LIGHTING SOLUTIONS	TYPE II	EALP03_C2AN730_____-ELS-EAL-DF3-BLCK.IES

ISO CURVES ARE MAINTAINED AND SHOWN AT 1.0, 0.5, AND 0.1 FC.

(FM) - FLUSH MOUNT FOUNDATION (PED) - PEDESTAL FOUNDATION

THE CALCULATIONS SHOWN WERE MADE UTILIZING ACCEPTED PROCEDURES OF THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA. VARIATIONS IN LAMP OUTPUT, BALLAST OUTPUT, LINE VOLTAGE, DIRT DEPRECIATION, AND OTHER FACTORS MAY AFFECT ACTUAL RESULTS. UNLESS OTHERWISE STATED, ALL RESULTS ARE MAINTAINED VALUES, UTILIZING ACCEPTED LIGHT LOSS FACTORS (LLF).

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TITLE:

LIGHTING PLAN

PROJECT: **NEWBURGH CHICKEN, LLC.**
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Plotted: 11/20/23 - 1:36 PM, By: rkazmir, - Product Ver: 24.2a (LMS Tech)
File: \\decpc.local\decfolders\data\decpc projects\1021 parish network, llc\22-01041 newburgh ny\Dwg\Site Plans\01021220104130.dwg, ---> 10 LIGHTING PLAN

G&G INDUSTRIAL LIGHTING
T 800.285.6780 E sales@ggled.net
www.ggled.net

Date
Project

DIRECT AC DRIVERLESS

GPX DRIVERLESS LINEAR

Low-Profile, Driverless Linkable IP67 LED Linear Luminaire

Product Features

Maintenance-Free Driverless Design
Connects directly to AC line voltage without an LED driver or electrolytic capacitors, for extreme reliability and lifetime. Requires zero maintenance.

Easy to Install Quick-Connect Cabling
Convenient push-and-click connectors and cabling make GPX Series fixtures easy to install and daisy chain.

Coextruded Copolyester/Aluminum Housing
Our patented process combines copolyester and aluminum together, with no seals or gaskets. The result is a single piece enclosure with excellent heatsinking characteristics for long lifetime.

Superior Chemical & UV Resistance
Seamless polymeric outer shell provides IP67 ingress protection and is specialized for superior chemical resistance. An additional protective coating is available which integrates a UV inhibitor and UV blocker for outdoor applications.

Performance Summary

Delivered Light Output: Up to 8,000 Lumens
Efficacy: 130 LPW
CRI: Typical 85 CRI
CCT: 5000K & 4000K
Lifetime: Designed to last 100,000 Hours at 25°C
Warranty: 5 Years (See ggled.net for Terms)
Mounting: Ceiling or Wall
Protection Class: IP67
Voltage: 120 VAC or 277 VAC Input
Maximum Run Length: Refer to the Table on Page 2
Ambient Temperature: -40°C to 55°C

Ordering Information

Product	Length	Lumen Output	Color Temp.	Lens Diffusion	UV Protection	Through Wired	Voltage
GPX	2 2-Foot	SO Standard Output 600 Lumens/Ft	50K (standard) 5000 Kelvin	Blank (standard) Chemical Resistant Clear Lens	Blank (standard) No Coating, Rated for Indoor Use	Blank (standard) Connectors on Input & Output for ability to Daisy Chain fixtures	120V 120 VAC Input
	4 4-Foot	HO* High Output 1000 Lumens/Ft	40K* 4000 Kelvin	GC (glare control) Chemical Resistant Lens with Added Diffusion Sheet	UVO Outdoor-Rated with UV-Blocking Coating	SE (Single-Ended) Connector on Input Only, No Daisy Chain, for Standalone Install	277V 277 VAC Input
	6 6-Foot	*Available in 2', 4' & 8' only	*N/A in 2' HO				
	8 8-Foot						

Power & Connection Accessories

Cable	Type	Length	Wire
*No Jumper Cable Required on End-to-End Connection			
GPX-JMP-1	Jumper	1ft	18 AWG SJTW
GPX-JMP-2	Jumper	2ft	18 AWG SJTW
GPX-JMP-4	Jumper	4ft	18 AWG SJTW
GPX-JMP-8	Jumper	8ft	18 AWG SJTW
GPX-LDR-10	Leader Cable	10ft	18 AWG SJTW
GPX-LDR-25	Leader Cable	25ft	18 AWG SJTW

Mounting Hardware	Description
GPX-MNT-NM	Non-Metalic Quick Latch
GPX-MNT-SS	Stainless Steel Bolt Latch

*For serviceability and expansion/contraction considerations G&G limits the number of luminaires connected end-to-end (without a jumper cable) to a maximum of 4.

Rev Date 22 1108

STRONG. SIMPLE. COMPACT.

G&G INDUSTRIAL LIGHTING
T 800.285.6780 E sales@ggled.net
www.ggled.net

G&G FULLY INTEGRATED GUARANTEE — OUR PRODUCTS ARE ENGINEERED, TESTED, MANUFACTURED, ASSEMBLED & SHIPPED FROM ONE FACILITY

Low-Profile, Driverless Linkable IP67 LED Linear Luminaire

Product Specifications

Construction & Materials
Convenient push-and-click connectors let you easily and rapidly install Leader Cables and Jumper Cables. Multiple cable lengths support a variety of layouts.

Integrated aluminum heat spreader.

Seamless polymeric outer shell provides IP67 ingress protection and is specialized for superior chemical resistance. An additional protective coating is available which integrates a UV inhibitor and UV blocker for outdoor applications.

All G&G luminaires and components (with the exception of our LED boards and drivers) are proudly manufactured and assembled in the USA.

Electrical System
Power Factor: 0.9 nominal.
Input Power: Stays consistent over life.
Temperature Rating: Designed to operate in temperatures -40°C to 55°C.
Total Harmonic Distortion: < 20%

Regulatory Qualifications
cULus Listed
UL Listed for Wet Locations
NEMA 4X Rated

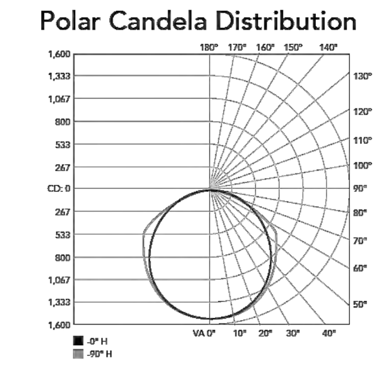
DIRECT AC DRIVERLESS

Photometry

GPX Series
Based on DTC Report Test #: 14404-T

Fixture photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. IESNA LM-79-08 specifies the entire luminaire as the source resulting in a fixture efficiency of 100%.

Polar Candela Distribution



Zonal Lumen Summary

Zone	Luminaire
0-30	26.2%
0-40	43.2%
0-60	77.4%
0-90	98.5%
0-180	100%

Lumen & Power Data

Length & Output	Lumens	Wattage	Amps @120V	Amps @277V
GPX2-SO	1200	9	0.075	0.032
GPX4-SO	2400	18	0.150	0.065
GPX6-SO	3600	27	0.225	0.097
GPX8-SO	4800	36	0.300	0.130
GPX2-HO	2000	16	0.130	0.060
GPX4-HO	4000	31 (36 @ 277V)	0.258	0.112
GPX8-HO	8000	62 (72 @ 277V)	0.517	0.224

Dimensions

Model	Fixture Diameter	Fixture Length Thru Wire	Fixture Length Single End	Mounted Width	Mounted Height
GPX2	1.0"	25.15"	24.00"	1.25"	1.75"
GPX4	1.0"	47.15"	46.00"	1.25"	1.75"
GPX6	1.0"	69.15"	68.00"	1.25"	1.75"
GPX8	1.0"	91.15"	90.00"	1.25"	1.75"

Maximum Fixture Run

Maximum Fixture Run (Per 1 Leader Cable): **120VAC**

	GPX2-SO (9W)	GPX4-SO (18W)	GPX4-HO (31W)	GPX6-SO (27W)	GPX8-SO (36W)	GPX8-HO (62W)
JMP1 (1FT)	66 (198')	37 (185')	23 (115')	26 (182')	20 (180')	12 (108')
JMP2 (2FT)	59 (236')	34 (204')	21 (126')	24 (192')	19 (190')	12 (120')
JMP4 (4FT)	50 (300')	31 (248')	19 (152')	22 (220')	17 (204')	10 (120')
JMP8 (8FT)	40 (400')	26 (312')	16 192')	19 (266')	15 (240')	9 (144')

Maximum Fixture Run (Per 1 Leader Cable): **277VAC**

	GPX2-SO (9W)	GPX4-SO (18W)	GPX4-HO (36W)	GPX6-SO (27W)	GPX8-SO (36W)	GPX8-HO (72W)
JMP1 (1FT)	157 (471')	89 (445')	58 (290')	63 (441')	48 (432')	30 (270')
JMP2 (2FT)	141 (564')	83 (498')	55 (330')	59 (472')	46 (460')	30 (300')
JMP4 (4FT)	119 (714')	73 (584')	48 (384')	54 (540')	42 (504')	27 (324')
JMP8 (8FT)	95 (950')	61 (732')	40 (480')	46 (644')	37 (592')	24 (384')

Rev Date 22 1108

STRONG. SIMPLE. COMPACT.

EVOLVE

CUSTOMER NAME
PROJECT NAME
DATE TYPE
CATALOG NUMBER

EALP Series
LED Outdoor Area Light

The EALP Area Light luminaire offers a wide range of optical patterns, color temperatures, lumen packages and mounting configurations to optimize area light applications, as well as provide versatility in lighting design within the same form-factor. They are ideal for commercial property site-lighting applications such as retail and commercial exteriors.

Construction

Housing:	Aluminum die cast enclosure. Integral heat sink for maximum heat transfer
Lens:	Impact resistant tempered glass
Paint:	Corrosion resistant polyester powder paint, minimum 2.0 mil thickness Standard = Black, Dark Bronze Gray, White (RAL & custom colors available) Optional = Coastal Finish
Weight:	27 lbs

Optical system

Lumens:	22,700 - 70,700
Photometry:	Type II, III, IV & V
Efficacy:	122 - 146 LPW
CCT:	3000K, 4000K, 5000K
CRI:	≥70
Upward Light Output Ration (ULOR):	0 Horizontal Orientation

Electrical

Input Voltage:	120-277V, 277-480V & 347-480V
Input Frequency:	50/60 Hz
Power Factor (PH):	> 90% at rated watts
Total Harmonic Distortion (THD):	< 20% at rated watts

Surge Protection

TYPICAL (120 STRIKES)		
☐ 6kV/3kA*	☐ 10kV/5kA*	☐ 20kV/10kA*

*Per ANSI C136.2-2015

Lumen Maintenance

Projected Lxx per IES TM-21-11 at 25°C

OPTICS	LXX(10K) @ HOURS 25,000 HR	50,000 HR	60,000 HR
J5, K2, K3, K4, K5	L96	L92	L91
L2, L3, L4, L5, M2, M3, M4, M5	L95	L93	L92
J2, J3, J4, N2, N3, N4, N5	L95	L93	L92
P2, P3, P4, P5, Q2,Q3, Q4, Q5	L95	L93	L92

Note: Projected Lxx based on LM80 (≥ 10,000 hour testing). Accepted Industry tolerances apply to initial luminous flux and lumen maintenance measurements

Luminaire Ambient Temperature Factor

AMBIENT TEMP (°C)	INITIAL FLUX FACTOR	AMBIENT TEMP (°C)	INITIAL FLUX FACTOR
10	1.02	30	0.99
20	1.01	40	0.98
25	1.00		

Ratings

Operating Temperature:	-40° C to 40° C
Vibration:	3G per ANSI C136.31-2010
LM-79:	Testing in accordance with IESNA Standards

Controls

Dimming:	Standard - 0-10V Optional - DALI (Option U)
Sensors:	Photo Electric Sensors (PE) available LightGrid and Daintree Compatible

Warranty

☐ 5 Year (Standard) ☐ 10 Year (Optional)

DLC LISTED · DLC LISTED PREMIUM · ida · 5 YEAR · UL LISTED · UL CERTIFIED · UL1598 · IP66 · IK08 Optical Only

EVOLVE
EALP Series
LED Outdoor Area Light

CUSTOMER NAME
PROJECT NAME
DATE TYPE
CATALOG NUMBER

Ordering Information

EALP 03 _ __ __ 7 __ _ _ __ ____ ___

PRODUCT ID	GENERATION	VOLTAGE	OPTICAL CODE	DISTRIBUTION	CRI	CCT	DIMMING[2]	CONTROLS	MOUNTING ARM	COLOR	OPTIONS
E= Evolve	03	0[1]=120-277V	Jx =25000 lm[11]	SM = Symmetric Medium	7 = 70 (min)	30[11] = 3000K	N = Dimming thru PE receptacle	A = ANSI C136.41 7-Pin Receptacle	C1[4] = Integral Slipfitter: Standard	BLCK = Black	F= Fusing
AL= Area Light		H[1] = 347-480V	Kx = 30000 lm	SW = Symmetric Wide		40 = 4000K	D = External Dimming 18/2 3 ft Cable	D = ANSI C136.41 7-Pin Receptacle with Shorting Cap	D1[5] = Universal Mounting Arm: Fitted for round or square pole mounting	DKBZ = Dark Bronze	H = Motion Sensor[3,13,14] (Sensor Switch)
P = Premium		E[1,9] = 277-480V	Lx = 35000 lm	SH = Symmetric High Angle		50 = 5000K		E[3] = ANSI C136.41 7-pin with Non-Dimming PE Control	K1[4,6] = Knuckle Slipfitter: For 1.9 in. - 2.3 in OD Tenon	GRAY = Gray	H1 = LightGrid w/ WattStopper[13]
			Mx = 40000 lm	AF = Asymmetric Forward					S1[4,6] = Knuckle Slipfitter: For 2.3 in. - 3.0 in OD Tenon	WHTE = White	H2 = Daintree enabled motion sensor[6,13,14]
		1 = 120V	Nx = 50000 lm[13]	AH = Asymmetric High Angle					V1[4,6] = Knuckle Wall Mount		H4 = Motion Sensor (WattStopper)[13]
		2 = 208V	Px = 60000 lm[13,14]	AW = Asymmetric Wide							J = cUL/Canada
		3 = 240V	Qx = 70000 lm[13,14]	AN = Asymmetric Narrow/Auto							L = Tool-Less Entry
		4 =277V									R = Enhanced Surge Protection (10kV/5kA)
		D = 347V									S1 = Rotated Left[12]
		5 = 480V									S2 = Rotated Right[12]
											T = Extreme Surge Protection
											U = DALI Programmable[7,8]
											V = 3 Position Terminal Block
											Y = Coastal Finish[10]
											XXX = Special Options

[1] Not Available with Fusing, Must Choose a Discrete Voltage with "F" Option Code
[2] Note Standard Dimming is 0-10V
[3] Not available in 277-480V
[4] Supplied with 3ft leads
[5] Supplied with 16/3 ft Cable
[6] Restricted Aiming Angle of 0-45°
[7] Compatible with LightGrid Wireless Control Nodes, Not Compatible with Motion Sensor Control
[8] Not available in 347V, 480V or 347-480V.
[9] Only available with K, L & M optics
[10] Recommended for installations within 750 feet from coast. Lead time varies, check with factory.
[11] Select 3000K CCT for IDA approved fixtures.
[12] For aimed left of right light distribution orientation, as assembled in manufacturing. Not applicable for Symmetric Distributions
[13] Not available with Dali
[14] Not available with 20kV/10kA SPD

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

Rev.	Date	Comments	By

DYNAMIC ENGINEERING
LAND DEVELOPMENT CONSULTING • PERMITTING • GEOTECHNICAL • ENVIRONMENTAL • SURVEY • PLANNING & ZONING
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F: 732.974.3521
www.dynamicec.com
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Toms River, New Jersey T: 732.974.0198 | Allen, Texas T: 972.534.2100 | Austin, Texas T:512.646.2646 | Houston, Texas T: 281.789.6400 | Delray Beach, Florida T: 561.921.8570
Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.253.4888 | Bethlehem, Pennsylvania T: 610.598.4400 | Annapolis, Maryland T: 410.567.5000

TITLE: **LIGHTING DETAILS**

PROJECT: **NEWBURGH CHICKEN, LLC.**
PROPOSED POPEYES RESTAURANT
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No:	1021 22-01041
DATE:	11/16/2023
DRAWN BY:	RPK
SCALE:	(H) 1"=XX' (V)
DESIGNED BY:	JD
CHECKED BY:	RW
CHECKED BY:	MB
SHEET No:	11 OF 19
Rev. #	0

MATTHEW J. BERSCH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 54522

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
Know what's below. Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Plotted: 11/20/23 – 1:37 PM, By: rkazimir, — Product Ver: 24.2a (LMS Tech)
File: \\decpc.local\decfolders\data\decpc projects\1021 parikh network, llc\22-01041 newburgh ny\Dwg\Site Plans\D102122010410SI0.DWG, ---> 11 LIGHTING DETAILS

THIS PLAN TO BE UTILIZED FOR SOIL EROSION & SEDIMENT CONTROL PURPOSES ONLY

GRAPHIC SCALE

-20 0 10 20 40 80

(IN FEET)
1 INCH = 20 FT.

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DYNAMIC ENGINEERING

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Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.253.4888 | Bethlehem, Pennsylvania T: 610.598.4400 | Annapolis, Maryland T: 410.567.5000

TITLE:
STORMWATER POLLUTION PREVENTION PLAN

PROJECT: **NEWBURGH CHICKEN, LLC.**
PROPOSED POPEYES RESTAURANT
PARCEL 60–3–6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No:	1021 22–01041
DATE:	11/16/2023
DRAWN BY:	RPK
DESIGNED BY:	JD
CHECKED BY:	RW
CHECKED BY:	MB
SCALE:	(H) 1"=20' (V)
SHEET No:	12 OF 19
Rev. #	0

Rev.	Date	Comments	By

MATTHEW J. BERSCH
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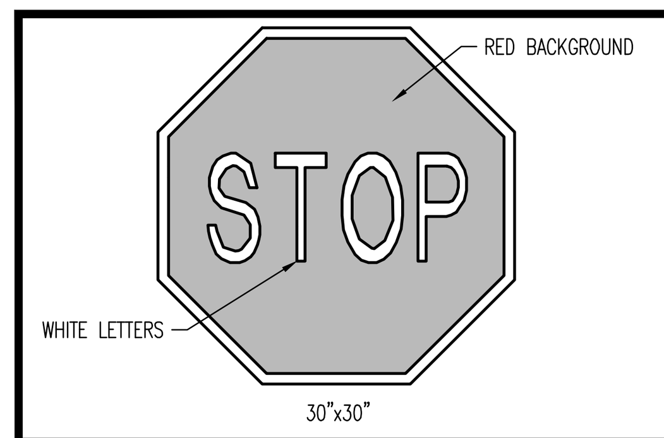
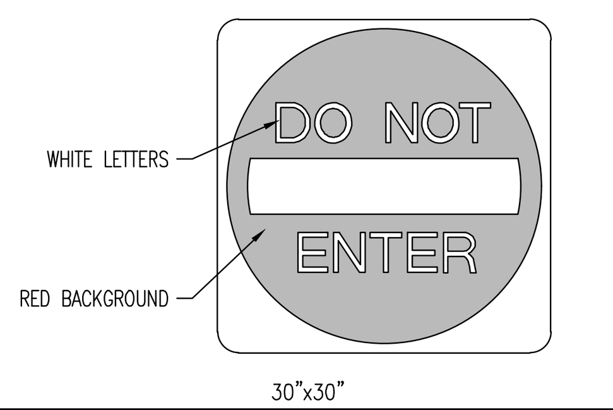
Plotted: 11/20/23 – 1:37 PM, By: rkazimir, – Product Ver: 24.2s (LMS Tech)
File: \\decpc.local\decfolders\data\decpc projects\1021 parikh network, llc\22-01041 newburgh ny\Dwg\Site Plans\D1021220104 1SE0.dwg, ---> 12 STORMWATER POLLUTION PREVENTION PLAN



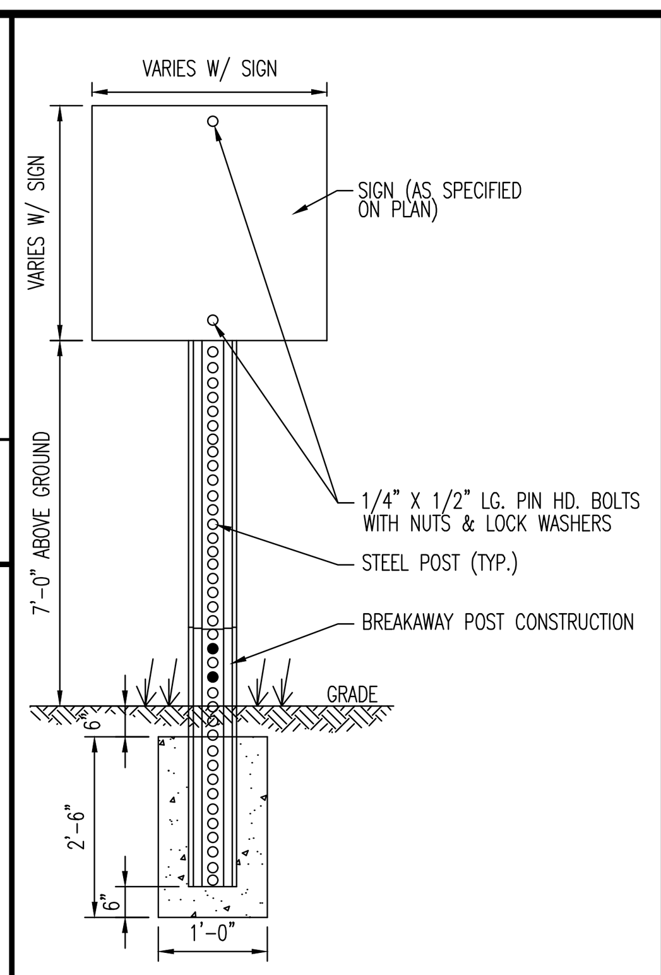
R1-1 SIGN DETAIL

NOT TO SCALE



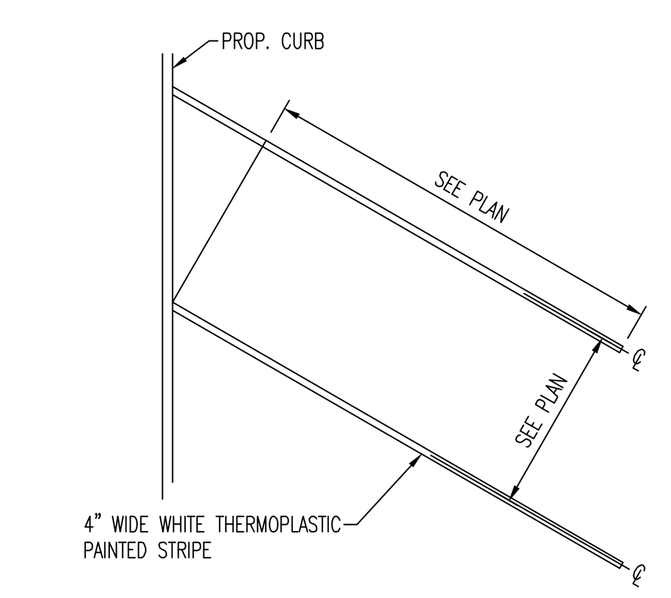
R5-1 SIGN DETAIL

NOT TO SCALE



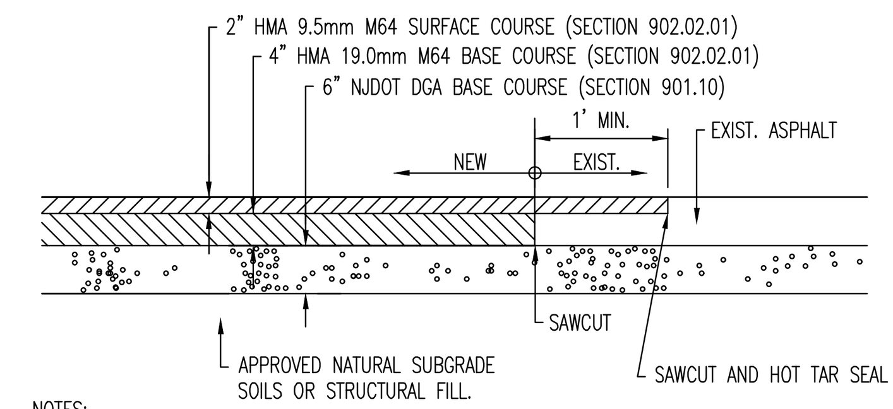
SIGN POST & FOOTING DETAIL

NOT TO SCALE



30 ANGLED PARKING STRIPING DETAIL

NOT TO SCALE



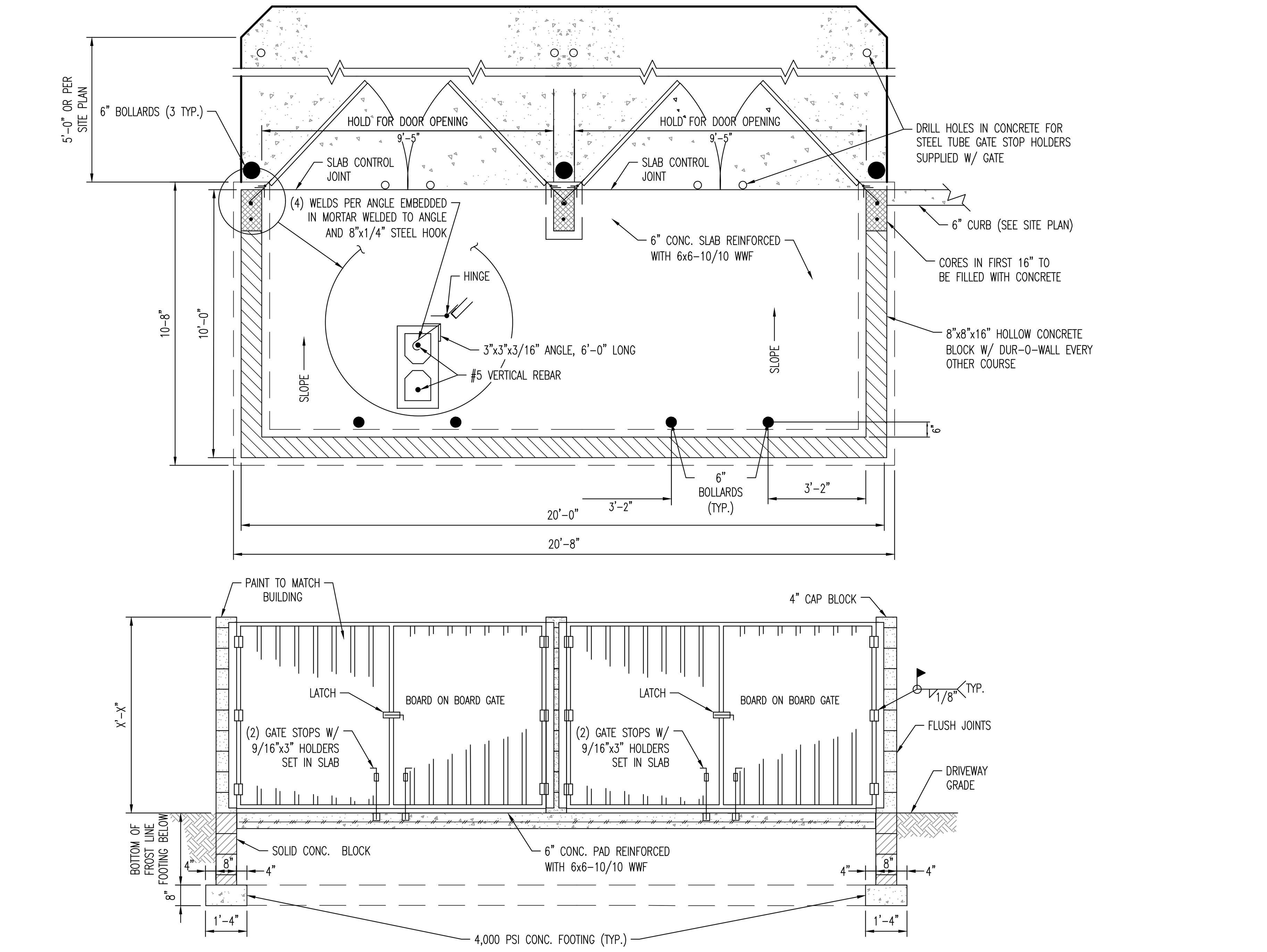
NOTES:

1. ALL PAVEMENT SECTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2019.
2. OWNER SHALL CONTACT AND ENGAGE DYNAMIC EARTH, LLC. TO INSPECT AND TEST SUBGRADE SOILS. CONTRACTOR SHALL CONTACT DYNAMIC EARTH, LLC. AT (908) 879-7095 (WWW.DYNAMIC-EARTH.COM) AT ONSET OF CONSTRUCTION TO CONFIRM REQUIREMENTS AND COORDINATE INSPECTIONS.
3. SUBGRADE SOILS SHALL BE APPROVED BY DYNAMIC EARTH, LLC. APPROVED NATURAL SOILS SHALL BE COMPACTED AND PROOFROLLED WITH A LOADED TANDEM AXLE TRUCK TO A FIRM AND UNYIELDING CONDITION. UNSUITABLE MATERIALS SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL OR STABILIZED AS DIRECTED BY DYNAMIC EARTH, LLC. ANY STRUCTURAL FILL AT OR BELOW PAVEMENT SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM-D1557.
4. CONTRACTOR TO REFER TO GEOTECHNICAL REPORT FOR FINAL PAVEMENT SECTION DESCRIPTION.

05/2022 - JGJ/AOV

STANDARD DUTY ASPHALT PAVEMENT DETAIL

NOT TO SCALE



03/2023 - KMG/JGJ

10' X 20' MASONRY TRASH ENCLOSURE WITH BOARD ON BOARD GATE DETAIL

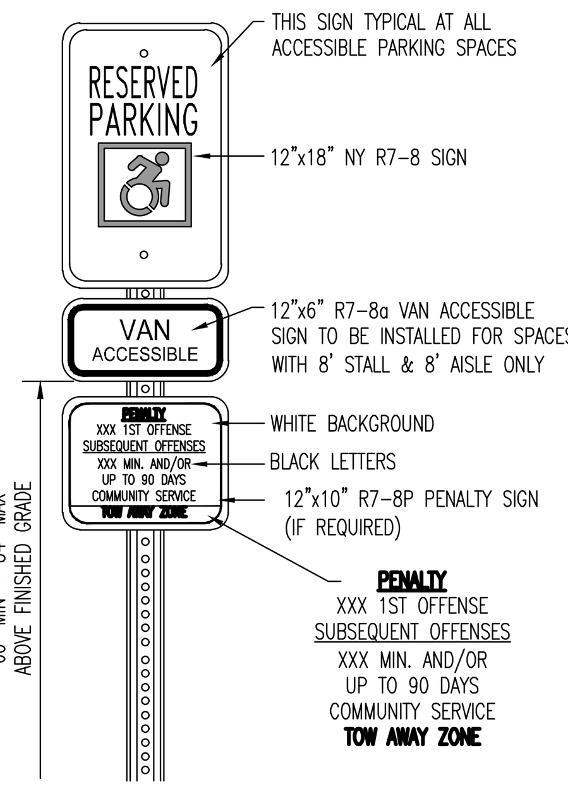
NOT TO SCALE

NOTES:

1.) IF AT THE TIME OF CONSTRUCTION THE STATE OF NEW YORK REQUIRES A SIGN INCLUDING FINES/PENALTIES, CONTRACTOR IS TO PROVIDE SIGNAGE INDICATING THE CURRENT FINES/PENALTIES AS APPROVED BY THE STATE OF NEW YORK.

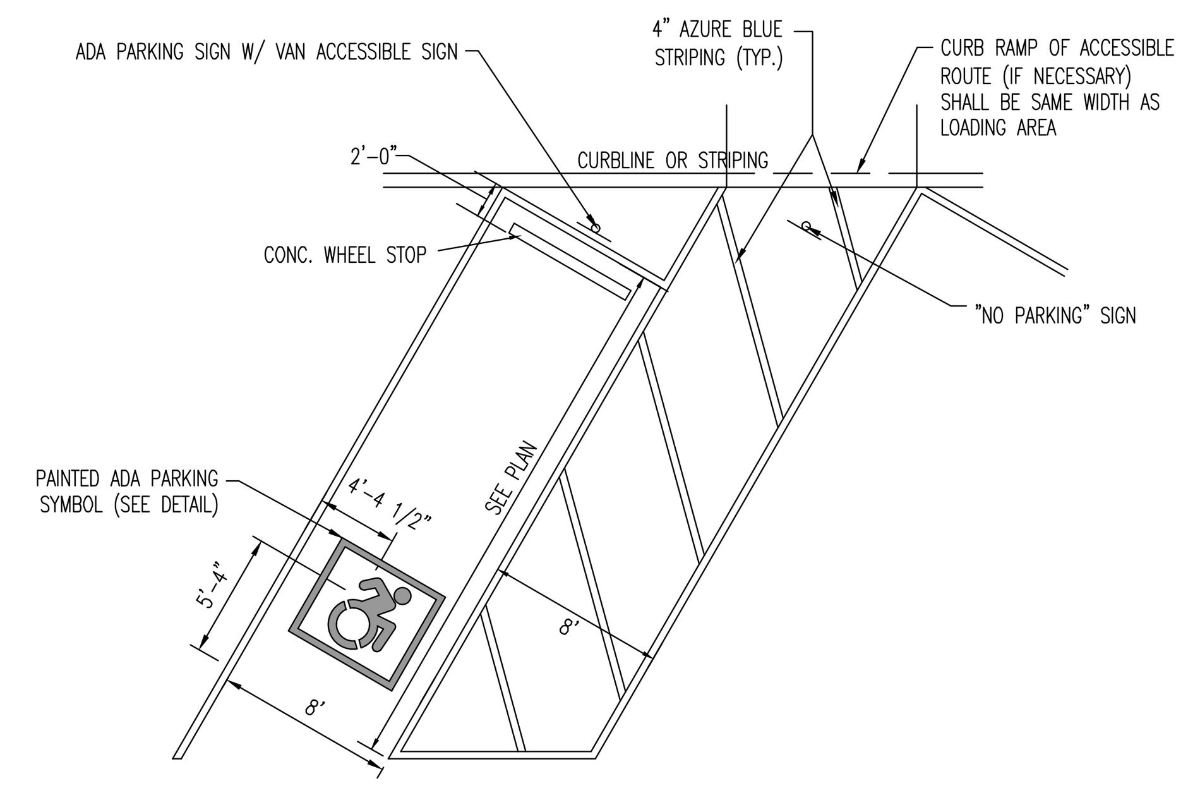
2.) VAN ACCESSIBLE SIGN SHALL BE 60" MINIMUM ABOVE FINISHED GRADE WHERE APPLICABLE. WHEN VAN ACCESSIBLE IS NOT REQUIRED, R7-8 SIGN SHALL BE SET AT 60" MINIMUM ABOVE FINISHED GRADE.

3.) PER THE NYSBC SECTION 1106.5 STRIPED ACCESS AISLE SHALL BE PROVIDED WITH SIGNAGE READING "NO PARKING". SIGN SHALL NOT INTERFERE WITH AN ACCESSIBLE ROUTE (SEE SITE PLAN FOR LOCATION)



ADA PARKING SIGN W/ VAN ACCESSIBLE SIGN

NOT TO SCALE

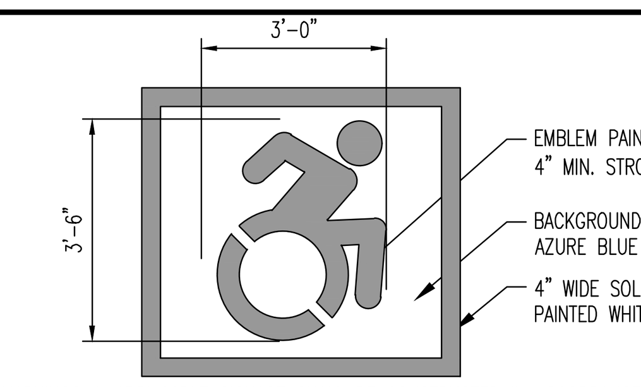


NOTES:

1. PAVEMENT STRIPING FOR ALL ADA PARKING SPACES SHALL BE PAINTED AZURE BLUE.
2. WHERE AN ADA PARKING STALL MEETS A STANDARD PARKING STALL, AN AZURE BLUE AND WHITE PAVEMENT STRIPE SHALL BE PAINTED.
3. ALL PAVEMENT STRIPING, MARKINGS AND SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADA ACCESSIBILITY GUIDELINES.
4. SPACES CONSIDERED VAN ACCESSIBLE SHALL HAVE THE ACCESSIBLE AISLE LOCATED ADJACENT TO THE PASSENGER SIDE OF THE VEHICLE.

HANDICAPPED STALL MARKINGS

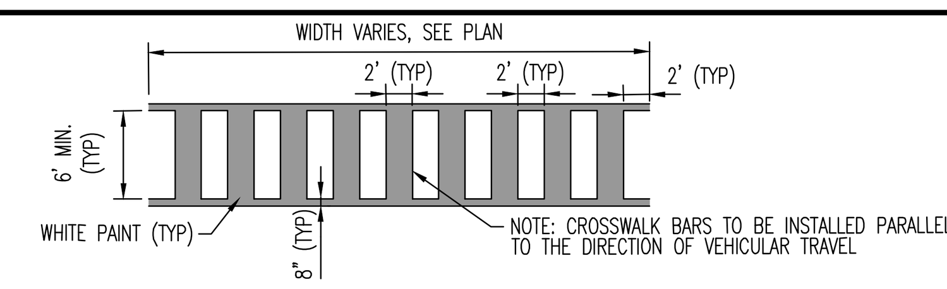
NOT TO SCALE



NOTE: ALL PAVEMENT STRIPING, MARKINGS & APPLICABLE SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST A.D.A. ACCESSIBILITY GUIDELINES AND NEW YORK STATE REQUIREMENTS.

PAINTED A.D.A. PARKING SYMBOL DETAIL

NOT TO SCALE



TYPICAL LADDER CROSSWALK

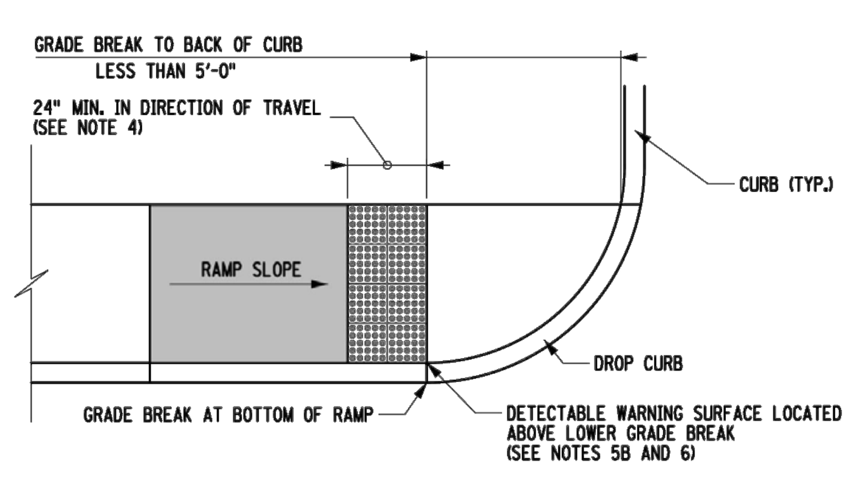
NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE IN COMPLETE CONFORMANCE WITH THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
2. SEE PLAN FOR TYPE OF CROSSWALK MARKING PROPOSED.

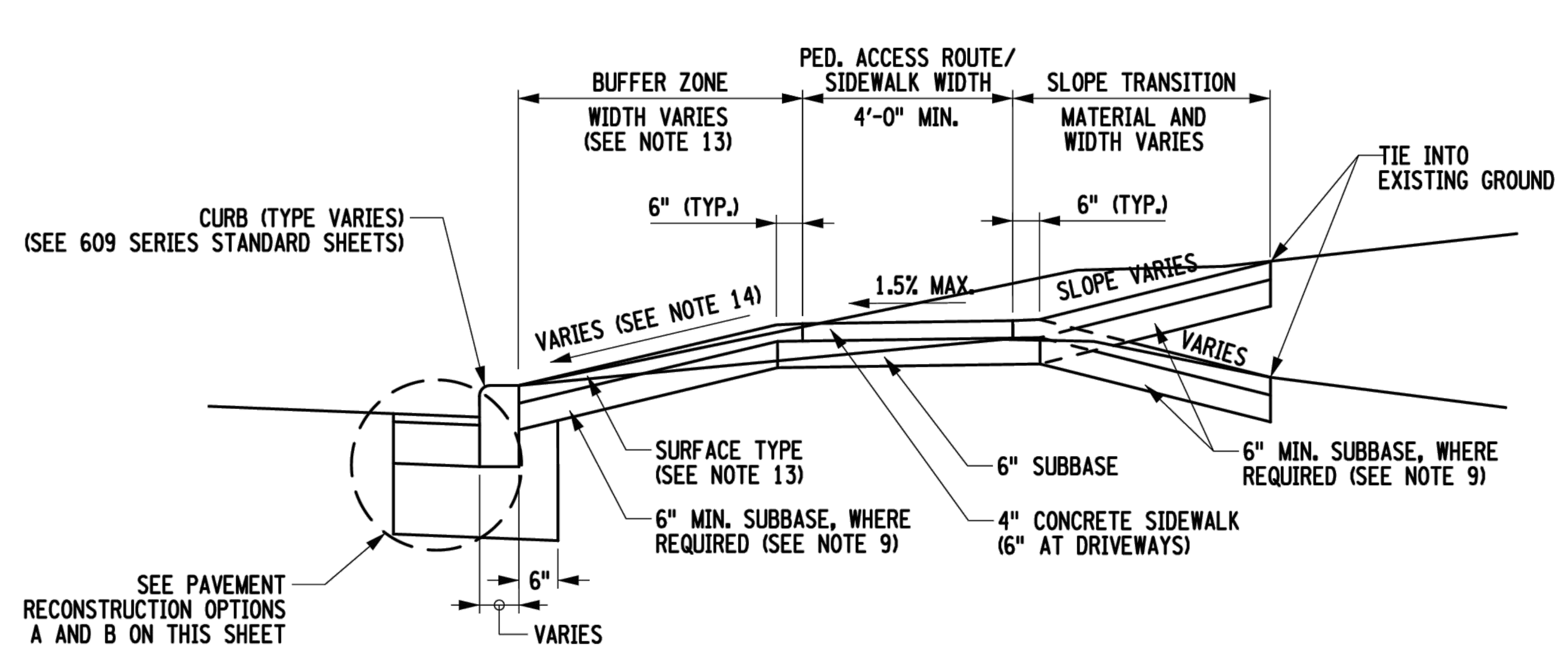
08/31/21 - BWS/DJS

PAINTED CROSSWALK STRIPING DETAILS

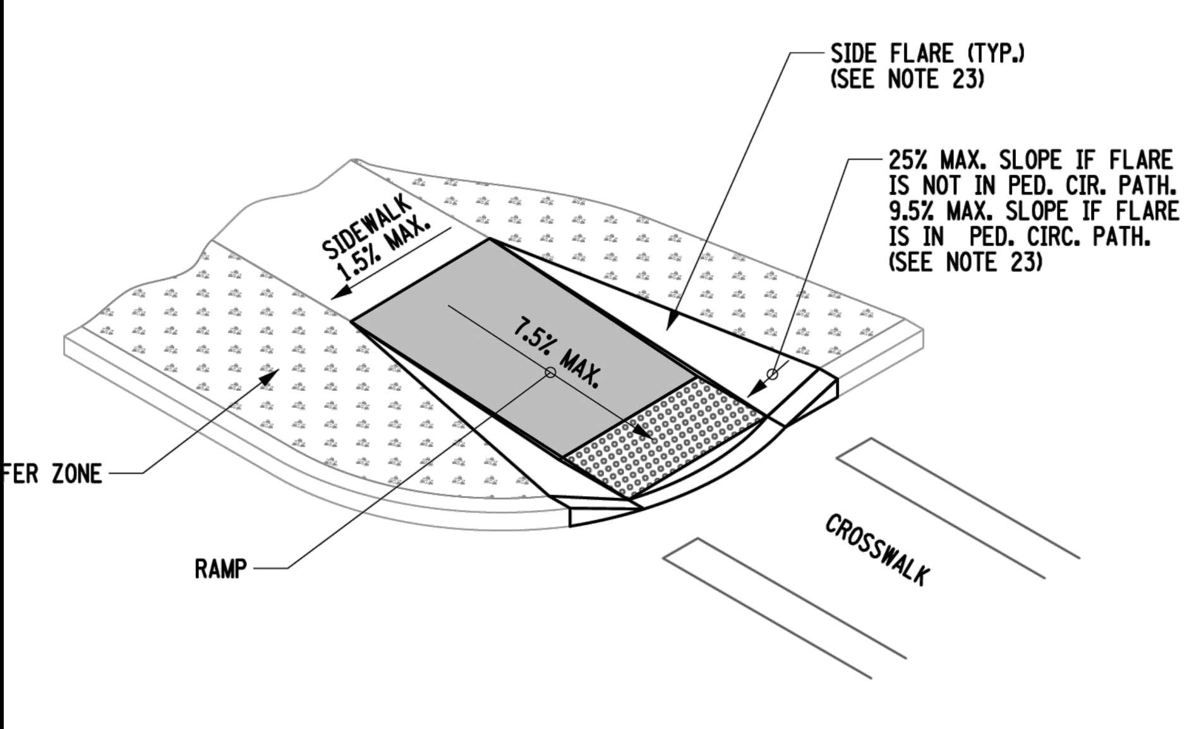
NOT TO SCALE



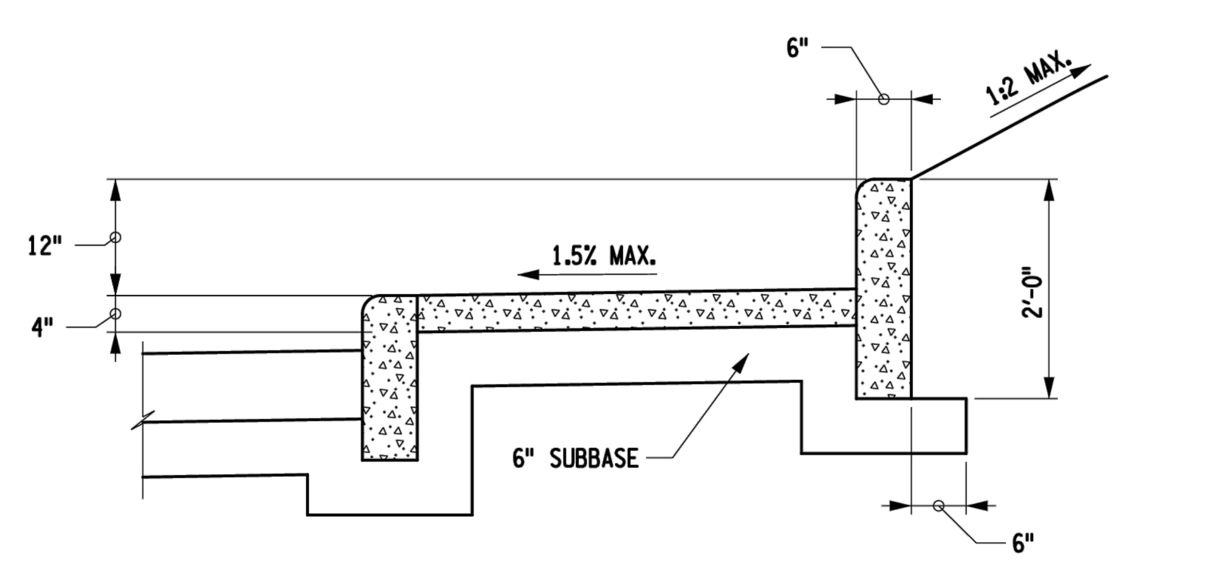
DETECTABLE WARNING SURFACE PALCEMENT - OPTION 2



TYPICAL SIDEWALK CROSS SECTION CURBED WITH BUFFER ZONE



RAMP SIDE OPTION A: FLARED CONCRETE

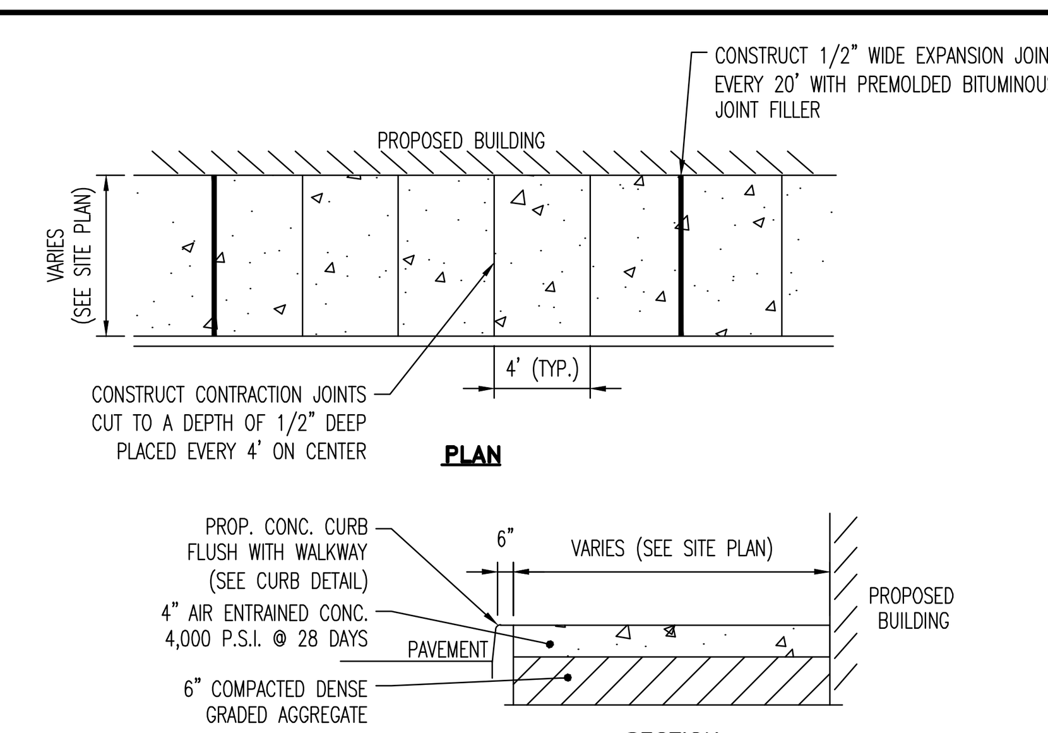


BACK OF CURB DETAIL USE IN CUT SECTIONS WITH LIMITED RIGHT-OF WAY OR STEEP SLOPES

NYSDOT - PEDESTRIAN FACILITIES DETAILS

NOT TO SCALE

(REFER TO NYSDOT 608-01 SHEET 1 & 2 FOR NOTES)



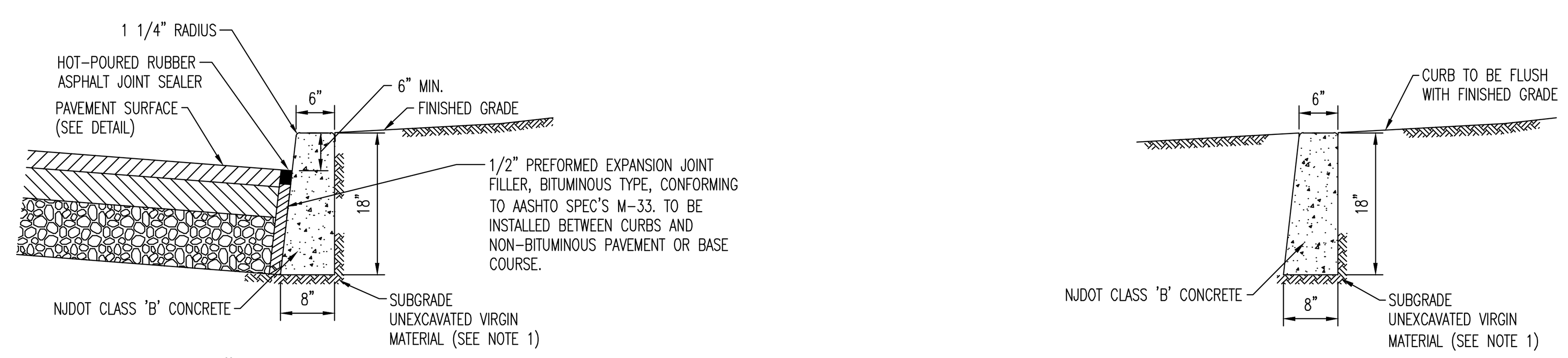
NOTE:

1. MAX. CROSS SLOPE 1/4" PER FOOT PITCHED AWAY FROM BUILDING.
2. PROVIDE 1/2" WIDE PREMOLDED BITUMINOUS EXPANSION JOINT AT 20' INTERVALS.
3. REFER TO SITE PLAN FOR SIDEWALK WIDTH.
4. PROVIDE A BROOM FINISH TO PROVIDE A SLIP RESISTANT WEARING SURFACE IN ACCORDANCE WITH A.D.A. REGULATIONS. FINISH THE EDGES OF THE GROOVES USING AN EDGING TOOL WITH A 1/4" RADIUS.

JCS 05/19

CURB AND WALK DETAIL AT BUILDING

NOT TO SCALE



6" CURB REVEAL

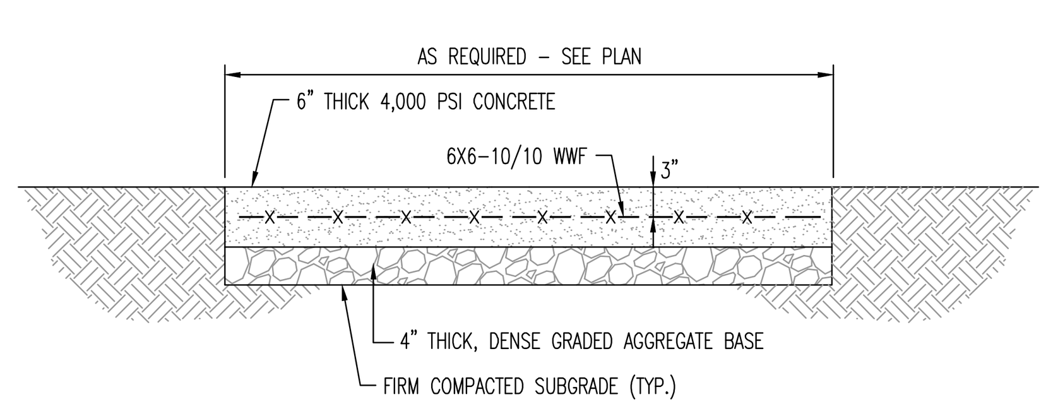
FLUSH CURB

NOTES:

1. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH 3/4" CLEAN CRUSHED STONE. ALL SUBGRADES SHALL BE APPROVED BY THE TOWNSHIP ENGINEER PRIOR TO POURING.
2. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'-0" APART AND SHALL BE FILLED WITH PREFORMED, BITUMINOUS-IMPREGNATED FIBER JOINT FILLER, COMPLYING WITH THE REQUIREMENTS OF AASHTOM-213, RECESSED 1/4" FROM THE FRONT FACE AND TOP OF THE CURB.
3. DUMMY JOINTS (FORMED) SHALL BE INSTALLED MIDWAY BETWEEN EXPANSION JOINTS.
4. WIDTH OF JOINT FILLER STRIP EQUAL TO THE THICKNESS OF THE PAVEMENT LESS 1/2".
5. THESE SPECIFICATIONS ALSO MEET RSIS DESIGN STANDARDS.

CONCRETE CURB DETAIL

NOT TO SCALE



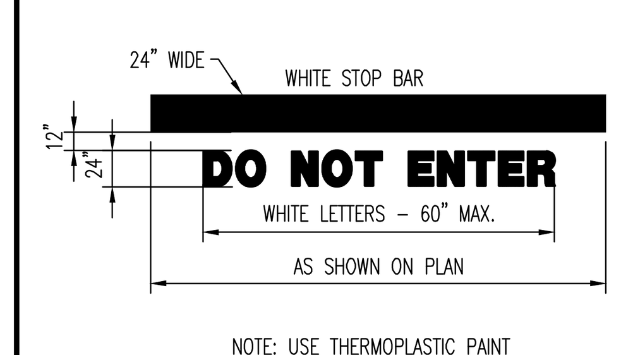
NOTES:

1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS WITH A MINIMUM CEMENT CONTENT OF 600 POUNDS PER CUBIC YARD FOR ALL FOOTINGS.
2. ALL CONCRETE SHALL HAVE A SLUMP OF NO GREATER THAN 4" TO WITHIN A TOLERANCE OF 1".
3. ALL EXPOSED CONCRETE SHALL BE AIR-ENTRAINED, (6% WITHIN 1% TOLERANCE), CONFORMING TO ASTM C260.
4. REINFORCING STEEL SHALL BE A MINIMUM ASTM A615, GRADE 60, AND SHALL BE FIELD WIRED IN PLACE.
5. ALL FORMWORK, AND PLACEMENT OF CONCRETE SHALL COMPLY WITH GOOD CONSTRUCTION PRACTICES AND BE IN ACCORDANCE WITH ALL LOCAL GOVERNING CODES AND REGULATIONS, AS WELL AS THE ACI AND UNIFORM BUILDING CODE.
6. PROVIDE CONTRACTION JOINT SPACING NO GREATER THAN 15', ISOLATION/EXPANSION JOINTS AT STRUCTURES AND CONSTRUCTION JOINTS WHEN WORK IS INTERRUPTED, ALL AT REGULAR JOINT INTERVALS. JOINT PATTERNS SHOULD DIVIDE CONCRETE INTO APPROXIMATE SQUARE PANELS WITH LENGTHS NOT MORE THAN 125% OF WIDTH AND AVOID ACUTE ANGLES.

JGJ/JDMS 06/23

CONCRETE PAD DETAIL

NOT TO SCALE



NOTE: USE THERMOPLASTIC PAINT

DO NOT ENTER STRIPING DETAIL

NOT TO SCALE

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

Rev.	Date	Comments	By

DYNAMIC ENGINEERING

1904 Main Street
Lake Como, NJ 07719
T: 732.974.0198
F: 732.974.3521
www.dynamicec.com

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Toms River, New Jersey T: 732.974.0198 | Allen, Texas T: 972.534.2100 | Austin, Texas T:512.646.2646 | Houston, Texas T: 281.789.6400 | Delray Beach, Florida T: 561.921.8570
Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.253.4888 | Bethlehem, Pennsylvania T: 610.598.4400 | Annapolis, Maryland T: 410.567.5000

TITLE:

CONSTRUCTION DETAILS

PROJECT: **NEWBURGH CHICKEN, LLC.**
PROPOSED POPEYES RESTAURANT
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No:	1021 22-01041
DATE:	11/16/2023
DRAWN BY:	RPK
DESIGNED BY:	JD
CHECKED BY:	RW
CHECKED BY:	MB
SCALE:	(H) NOT TO (V) SCALE
SHEET No:	13 OF 19
Rev. #	0

MATTHEW J. BERSCH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 54522

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

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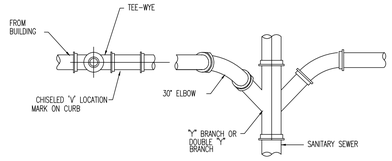
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

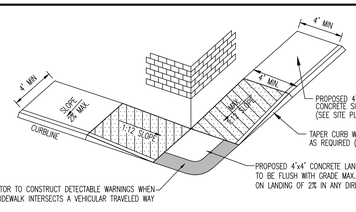
Plotted: 11/20/23 - 1:37 PM, By: rkazimir - Product Ver: 24.2s (LMS Tech)
File: \\decpc.local\decfolders\data\decpc projects\1021 parikh network, llc\22-01041 newburgh ny\Dwg\Site Plans\D1021220104150D0.dwg, ---> 13 CONSTRUCTION DETAILS



NOTE: 1. REFER TO UTILITY PLAN FOR PIPE SIZES, VERIFY WITH ARCHITECTURAL PLANS.
2. CONTACT ENGINEER WITH ANY CONFLICTS PRIOR TO ANY SEWER CONNECTION WORK.

STANDARD CONNECTION DETAIL

NOT TO SCALE

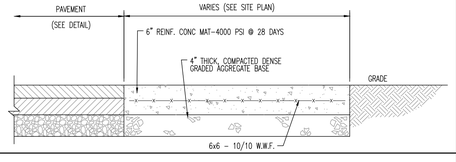


A.D.A. DETECTABLE WARNING SURFACES SHALL CONSIST OF RAISED TRUNCATED DOMES THAT CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT ON DARK OR DARK ON LIGHT(SEE DETAIL)

NOTES:
1.) CURB RAMPS MAY NOT EXTEND INTO ANY PORTION OF THE PARKING SPACE OR ASSOCIATED STRIPED ISLAND.
2.) COUNTER SLOPES OF ADJOINING GUTTERS AND PAVEMENT SHALL NOT BE STEEPER THAN 1:20 WITH A MAX. CROSS SLOPE OF 2%.
3.) A LEVEL LANDING AREA (MAX. SLOPE 2% IN ANY DIRECTION) SHALL BE PROVIDED AT THE TOP OF THE RAMP. THE LANDING CLEAR LENGTH SHALL BE 36" MIN AND THE CLEAR WIDTH SHALL BE AS WIDE AS THE RAMP.
4.) CURB RAMPS, PAVEMENT MARKINGS & APPLICABLE SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST A.D.A. ACCESSIBILITY GUIDELINES.

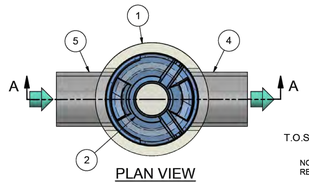
A.D.A. CURB RAMP AT BUILDING CORNER DETAIL

NOT TO SCALE



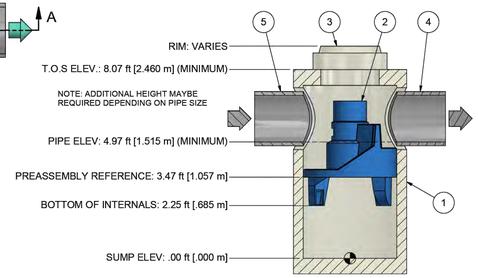
CONCRETE COMPACTOR/DUMPSTER PAD DETAIL

NOT TO SCALE



PLAN VIEW

HYDRO FRAME AND COVER (INCLUDED)
GRADE RINGS BY OTHERS AS REQUIRED



SECTION A-A

1. MANHOLE WALL AND SLAB THICKNESSES ARE NOT TO SCALE.

2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING FIRST DEFENSE MANHOLE.

3. CONTRACTOR TO CONFIRM RIM, PIPE INVERTS, PIPE DIA, AND PIPE ORIENTATION PRIOR TO RELEASE OF UNIT TO FABRICATION.

PRODUCT SPECIFICATION:

1. Peak Hydraulic Flow: 18.0 cfs (510 l/s)
2. Min Sediment Storage Capacity: 0.7 cu. yd. (0.5 cu. m.)
3. Maximum Inlet/Outlet Pipe Diameters: 24 in. (600 mm)
4. The Treatment System Shall Use An Induced Vortex To Separate Pollutants From Stormwater Runoff.
5. For More Product Information Including Regulatory Acceptances, Please Visit https://hydro-int.com/en/products/first-defense

GENERAL NOTES:
1. General Arrangement drawings only. Contact Hydro International for site specific drawings.
2. The diameter of the inlet and outlet pipes may be no more than 24".
3. Multiple inlet pipes possible (refer to project plan).
4. Inlet/outlet pipe angle can vary to align with drainage network (refer to project plan.s)
5. Peak flow rate and minimum height limited by available cover and pipe diameter.
6. Larger sediment storage capacity may be provided with a deeper sump depth.

PARTS LIST				
ITEM	QTY	SIZE (in)	SIZE (mm)	DESCRIPTION
1	1	48	1200	I.D. PRECAST MANHOLE
2	1			INTERNAL COMPONENTS (PRE-INSTALLED)
3	1	30	750	FRAME AND COVER (ROUND)
4	1	24 (MAX)	600 (MAX)	OUTLET PIPE (BY OTHERS)
5	1	24 (MAX)	600 (MAX)	INLET PIPE (BY OTHERS)

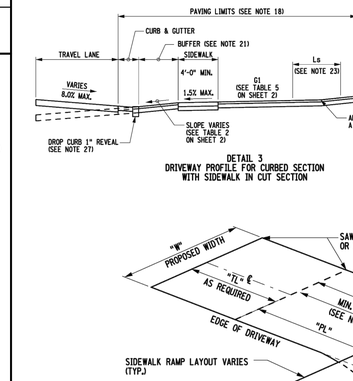
PROJECTION

IF IN DOUBT ASK

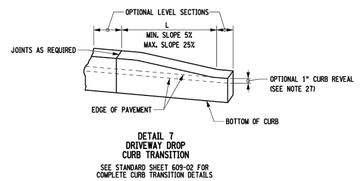
DATE: 10/7/2019 | SCALE: 1:30
DESIGN BY: ER | CHECKED BY: MRJ | APPROVED BY:
TITLE: 4-ft DIAMETER FIRST DEFENSE
GENERAL ARRANGEMENT

Hydro International
hydro-int.com
HYDRO INTERNATIONAL

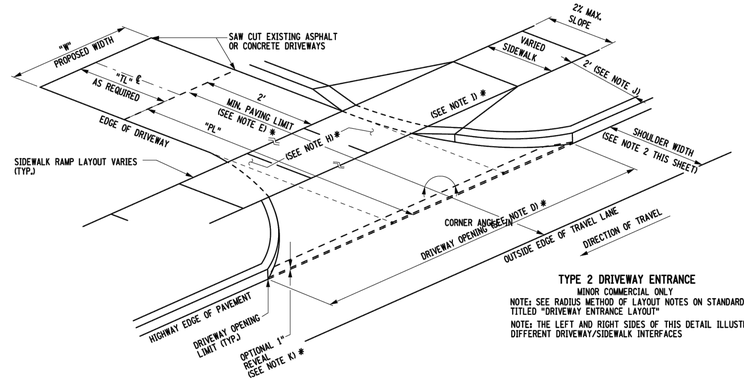
WEIGHT: 19448 lbmass | MATERIAL:
STOCK NUMBER:
DRAWING NO.: FD GA-4
SHEET SIZE: B | SHEET: 1 OF 1 | Rev: -



DETAIL 3
DRIVEWAY PROFILE FOR CURBED SECTION WITH SIDEWALK IN CUT SECTION



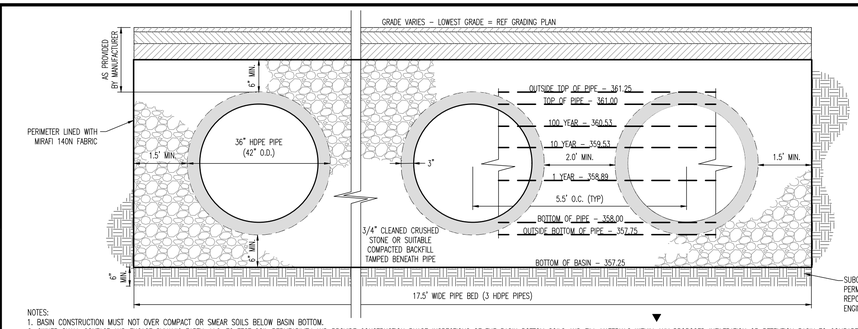
DETAIL 7
DRIVEWAY DROP CURB TRANSITION
SEE STANDARD SHEET 609-02 FOR COMPLETE CURB TRANSITION DETAILS



TYPE 2 DRIVEWAY ENTRANCE
MINOR COMMERCIAL ONLY
NOTE: SEE RADIUS METHOD OF LAYOUT NOTES ON STANDARD SHEET TITLED "DRIVEWAY ENTRANCE LAYOUT"
NOTE: THE LEFT AND RIGHT SIDES OF THIS DETAIL ILLUSTRATE DIFFERENT DRIVEWAY/SIDEWALK INTERFACES

NYSDOT - RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAY DETAILS

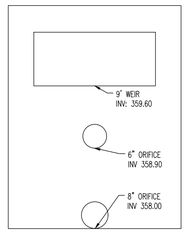
NOT TO SCALE
(REFER TO NYSDOT 608-03 SHEET 1 FOR NOTES)

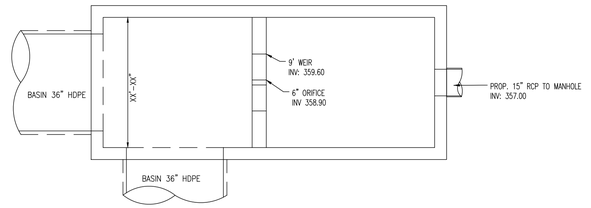


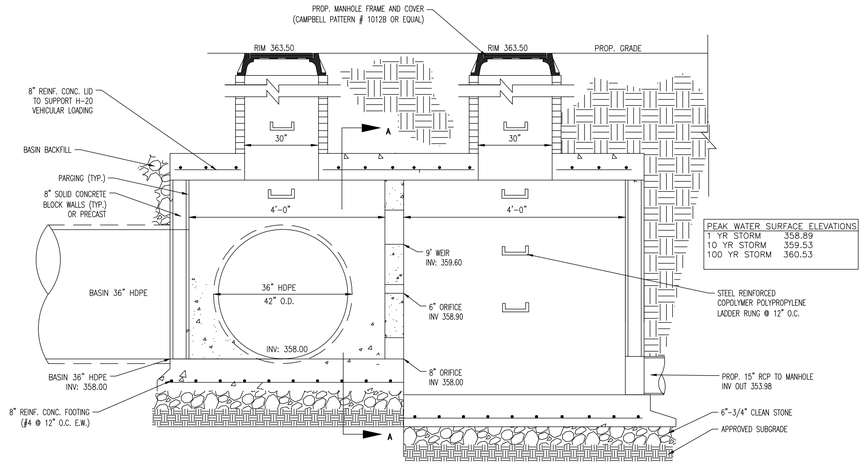
NOTES:
1. BASIN CONSTRUCTION MUST NOT OVER COMPACT OR SMEAR SOILS BELOW BASIN BOTTOM.
2. OWNER SHALL CONTACT AND ENGAGE DYNAMIC EARTH, LLC. TO TEST SOIL PERMEABILITY AND PROVIDE CONSTRUCTION PHASE INSPECTIONS OF THE BASIN BOTTOM SOILS AND FILL MATERIALS WITHIN ANY PROPOSED INFILTRATION OR RETENTION BASIN TO COMPARE RESULTS TO DESIGN CRITERIA. CONTRACTOR SHALL CONTACT DYNAMIC EARTH AT (908) 879-7095 (WWW.DYNAMIC-EARTH.COM) AT ONSET OF PROJECT TO CONFIRM REQUIREMENTS AND COORDINATE INSPECTIONS.
3. TOPSOIL AND UNSUITABLE MATERIALS (INCLUDING ANY SOILS WITH INSUFFICIENT PERMEABILITY) ARE TO BE STRIPPED FROM BASIN BOTTOM AREA AND REPLACED WITH SUITABLE MATERIAL PROVIDING PERMEABILITY RATES MEETING THE DESIGN CRITERIA. CONTRACTOR SHALL SUBMIT PROPOSED REPLACEMENT MATERIAL USED AND ITS CORRESPONDING PERMEABILITY RATE FOR APPROVAL BY DYNAMIC EARTH. REFER TO THE TEST PIT AND/OR SOIL BORING RECORDS AND STORMWATER MANAGEMENT REPORT TO CONFIRM THE DEPTH OF THE ZONE OF INFILTRATION.

36" HDPE SCHEMATIC UNDERGROUND BASIN DETAIL

NOT TO SCALE

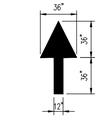


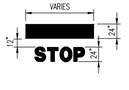




OUTLET STRUCTURE DETAIL (OCS) STORM STRUCTURE #9

NOT TO SCALE





NOTE: ARROWS AND WORDS CAN BE ARRANGED IN OTHER COMBINATIONS THAN THOSE ILLUSTRATED HERE TO ACHIEVE DESIRED RESULT. ALL PAINT TO BE THERMOPLASTIC.

PAINTED MARKING DETAILS

NOT TO SCALE

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Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.253.4888 | Bethlehem, Pennsylvania T: 610.598.4400 | Annapolis, Maryland T: 410.567.5000

TITLE: CONSTRUCTION DETAILS

PROJECT: NEWBURGH CHICKEN, LLC.
PROPOSED POPEYES RESTAURANT
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No: 1021 22-01041 | DATE: 11/16/2023
DRAWN BY: ARK | SCALE:(H) NOT TO (V) SCALE
DESIGNED BY: JD
CHECKED BY: RW
CHECKED BY: MB
SHEET No: 14 OF 19

MATTHEW J. BERSCH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 54522

JOSHUA M. SCHMALD
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 24639

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Rev. # 0

Rev.	Date	Comments	By

Plotted: 11/20/23 - 1:38 PM, By: rkazimir, - Product Ver: 24.2a (LMS Tech)
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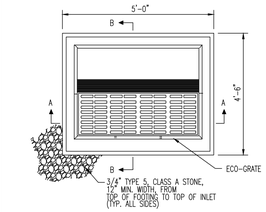
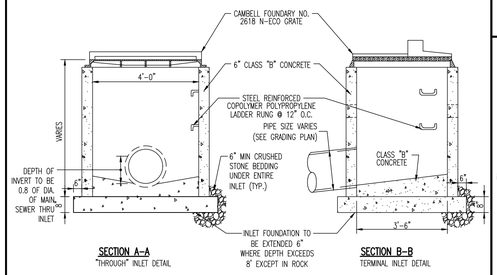


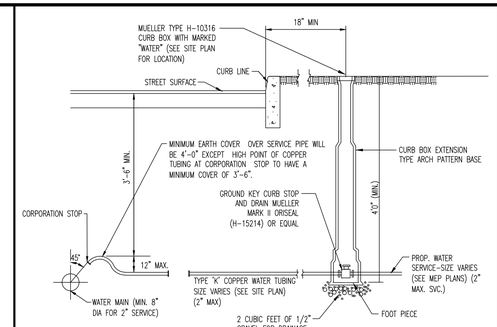
NOTES
1. CONSTRUCTION PER ASTM C-913, LATEST REVISION & HS-20 LOADING.
2. ALL CONCRETE TO BE N.J.D.O.T. CLASS "B" CONCRETE.
3. WALLS SHALL BE PRECAST CONCRETE ONLY.
4. FRAME AND GRATE TO BE CAMPBELL FOUNDRY CO., NO. 2618 BICYCLE SAFE N-ECO GRATE SET IN CONC.
5. STEEL REINFORCED COPOLYMER POLYPROPYLENE LADDER RUNG @ 12" O.C.
6. WHEN ADDITIONAL DEPTH IS SCHEDULED, WALLS BELOW 8'-0" MEASURED FROM GRATE TO INVERT SHALL BE 12" THICK AND EXTEND 12" BEYOND OUTSIDE OF WALL.



SECTION A-A
"THROUGH" INLET DETAIL

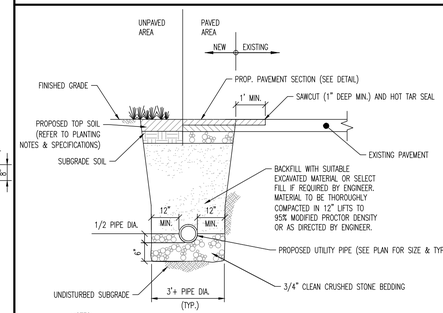
SECTION B-B
TERMINAL INLET DETAIL

TYPE 'B' INLET
NOT TO SCALE



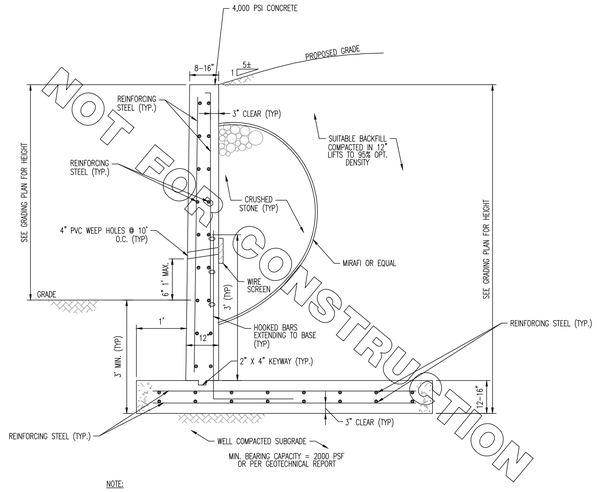
NOTE: CONTRACTOR TO VERIFY SIZE AND LOCATION OF UTILITY SERVICES WITH ARCHITECTURAL PLANS AND/OR M.E.P. DRAWINGS. WHERE CONFLICT EXISTS WITH THE SITE PLAN, ENGINEER TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME.

WATER SERVICE CONNECTION
NOT TO SCALE



NOTES:
1. PAVEMENT SECTION SHALL BE PER PAVEMENT DETAIL, OR TO MATCH ADJOINING EXISTING PAVEMENT SECTION.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST OSHA STANDARDS.
3. ALL TRENCHES IN EXISTING PAVMENT SHALL BE SAWCUT
4. ALL DISTURBED TRAFFIC STRIPING AND PAVEMENT MARKING SHALL BE REPLACED WITHIN KIND MATERIALS.

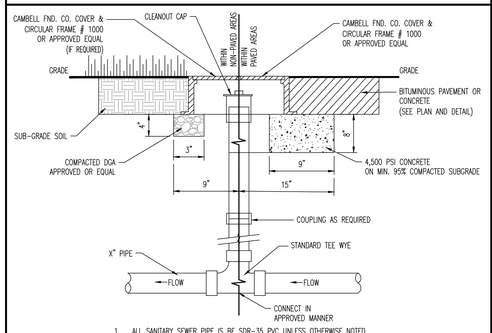
UTILITY SERVICE TRENCH DETAIL
NOT TO SCALE



NOT TO EXCEED CONSTRUCTION

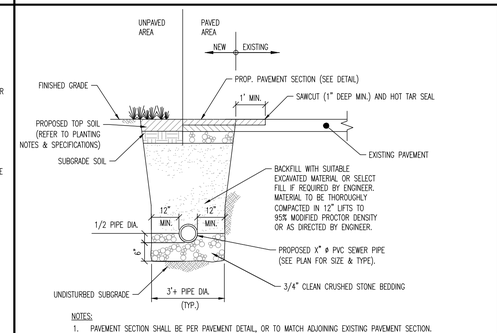
NOTE:
1. DETAIL IS FOR SITE PLAN REVIEW ONLY AND SHALL NOT BE USED FOR BIDDING OR CONSTRUCTION.
2. A DESIGN SIGNED & SEALED BY A PROFESSIONAL ENGINEER FOR ALL RETAINING WALLS SHALL BE SUBMITTED TO THE MUNICIPAL ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.

SCHEMATIC CONCRETE RETAINING WALL DETAIL
NOT TO SCALE



1. ALL SANITARY SEWER PIPE IS BE SDR-35 PVC UNLESS OTHERWISE NOTED.
2. ALL STORM SEWER PIPE IS TO BE SCH-40 PVC UNLESS OTHERWISE NOTED.
3. ALL CLEANOUT CAPS ARE TO BE BRASS FOR SANITARY AND PVC FOR STORM SEWER.
4. X" = SEE PLAN FOR PIPE DIAMETER

CLEANOUT DETAIL
NOT TO SCALE



NOTES:
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2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST OSHA STANDARDS.
3. ALL TRENCHES IN EXISTING PAVMENT SHALL BE SAWCUT
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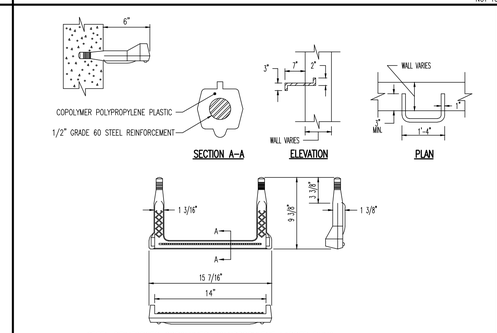
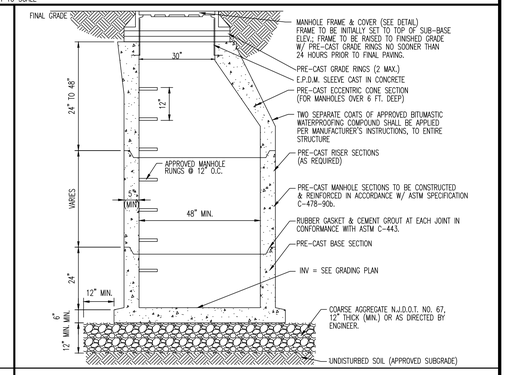
SANITARY SEWER TRENCH DETAIL
NOT TO SCALE



STEEL REINFORCED COPOLYMER POLYPROPYLENE LADDER RUNG

NOTE: LADDER RUNGS FACING TRAFFIC 12" C TO C

LADDER RUNG DETAIL
NOT TO SCALE



TYPICAL PRECAST STORM MANHOLE
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Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.253.4888 | Bethlehem, Pennsylvania T: 610.598.4400 | Annapolis, Maryland T: 410.567.5000

TITLE:
CONSTRUCTION DETAILS

PROJECT: **NEWBURGH CHICKEN, LLC.**
PROPOSED POPEYES RESTAURANT
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No:	1021 22-01041
DRAWN BY:	ARK
DESIGNED BY:	JD
CHECKED BY:	RW
CHECKED BY:	MB
DATE:	11/16/2023
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SHEET No:	15 OF 19
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MATTHEW J. BERSCH
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NEW JERSEY LICENSE No. 54522

JOSHUA M. DERWALD
PROFESSIONAL ENGINEER
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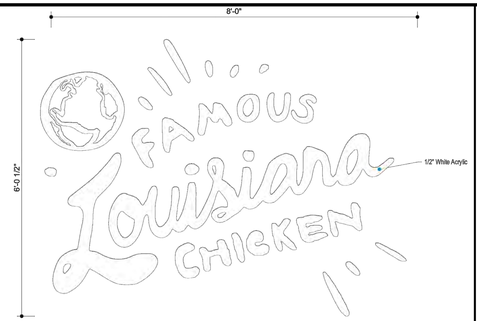
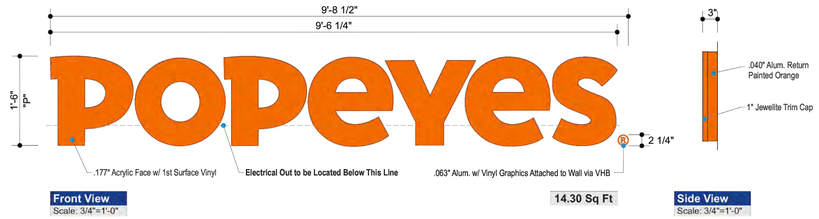
File: \\decpc.local\decfolders\data\decpc projects\1021 parish network, llc\22-01041 newburgh ny\Dwg\Site Plans\01021221041SD0.dwg, ---> 15 CONSTRUCTION DETAILS



'FAMOUS LOUISIANA CHICKEN' SEAL

NOT TO SCALE



POPEYES ONLY CHANNEL LETTERS

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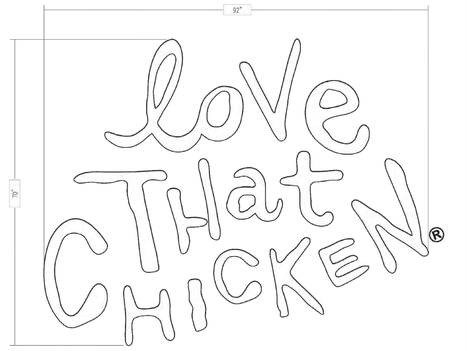

GRAPHIC- BRICK TOWER SIGN DETAIL

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POPEYES LOUISIANA KITCHEN CHANNEL LETTERS

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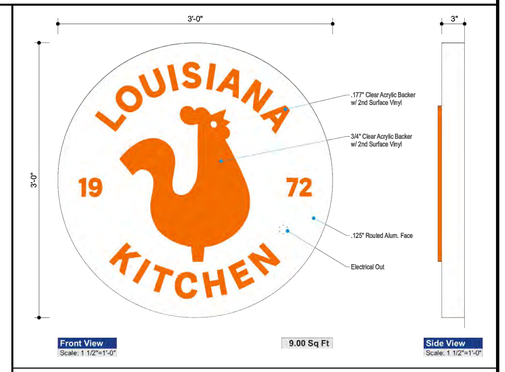

POPEYES SEAL

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TITLE: CONSTRUCTION DETAILS

PROJECT: **NEWBURGH CHICKEN, LLC.**
PROPOSED POPEYES RESTAURANT
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No:	1021 22-01041
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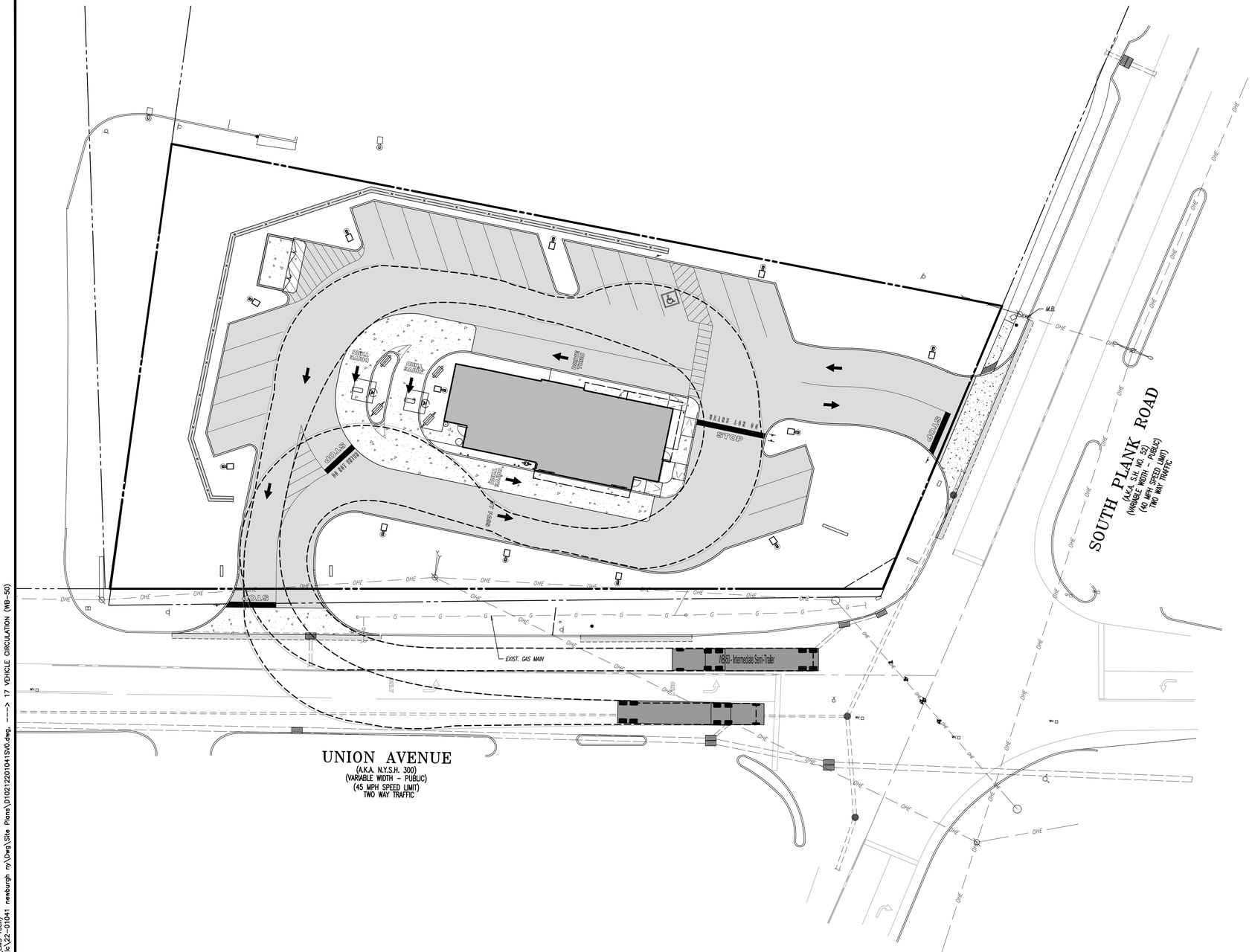

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WB-50 – Intermediate Semi-Trailer

Overall Length	55.000ft
Overall Width	8.500ft
Overall Body Height	12.052ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	17.90°

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TITLE:
VEHICLE CIRCULATION (WB-50)

PROJECT: **NEWBURGH CHICKEN, LLC.**
PROPOSED POPEYES RESTAURANT
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No: 1021 22-01041
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(V)
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File: \\decpc.local\decfolders\data\decpc projects\1021 parikh network, llc\22-01041 newburgh ny\Dwg\Site Plans\D102122010415V0.dwg, ---> 17 VEHICLE CIRCULATION (WB-50)

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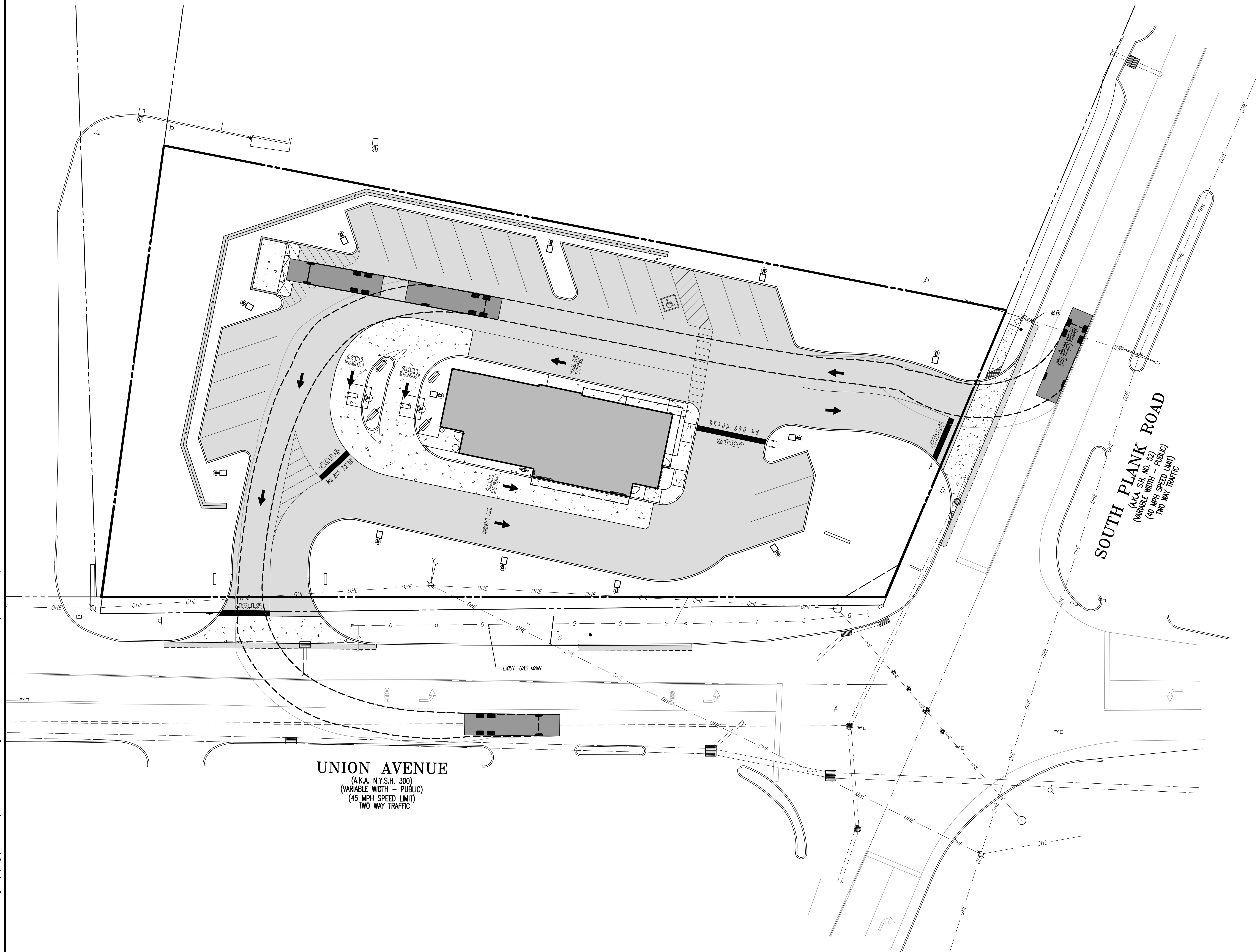

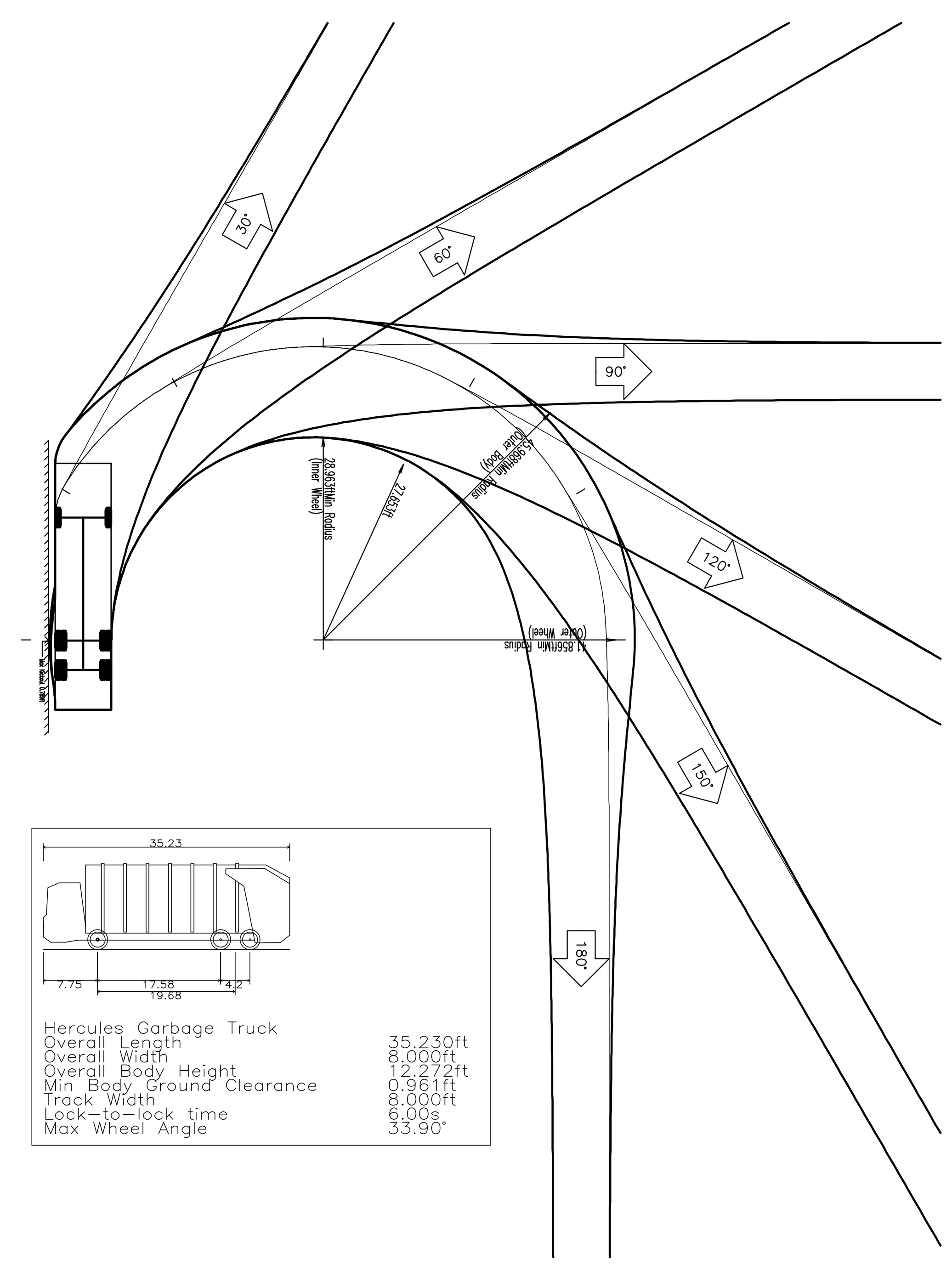

Hercules Garbage Truck	
Overall Length	35.230ft
Overall Width	8.000ft
Overall Body Height	12.272ft
Min Body Ground Clearance	0.961ft
Track Width	8.000ft
Lock-to-lock time	6.00s
Max Wheel Angle	33.90°

GRAPHIC SCALE

−20 0 10 20 40 80

(IN FEET)
1 INCH = 20 FT.

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TITLE:
VEHICLE CIRCULATION (TRASH TRUCK)

PROJECT: **NEWBURGH CHICKEN, LLC.**
PROPOSED POPEYES RESTAURANT
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No: 1021 22-01041
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CHECKED BY: MB
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File: \\decpc.local\decfolders\data\decpc projects\1021 parikh network, llc\22-01041 newburgh ny\Dwg\Site Plans\D10212201041SV0.dwg, ---> 18 VEHICLE CIRCULATION (TRASH TRUCK)

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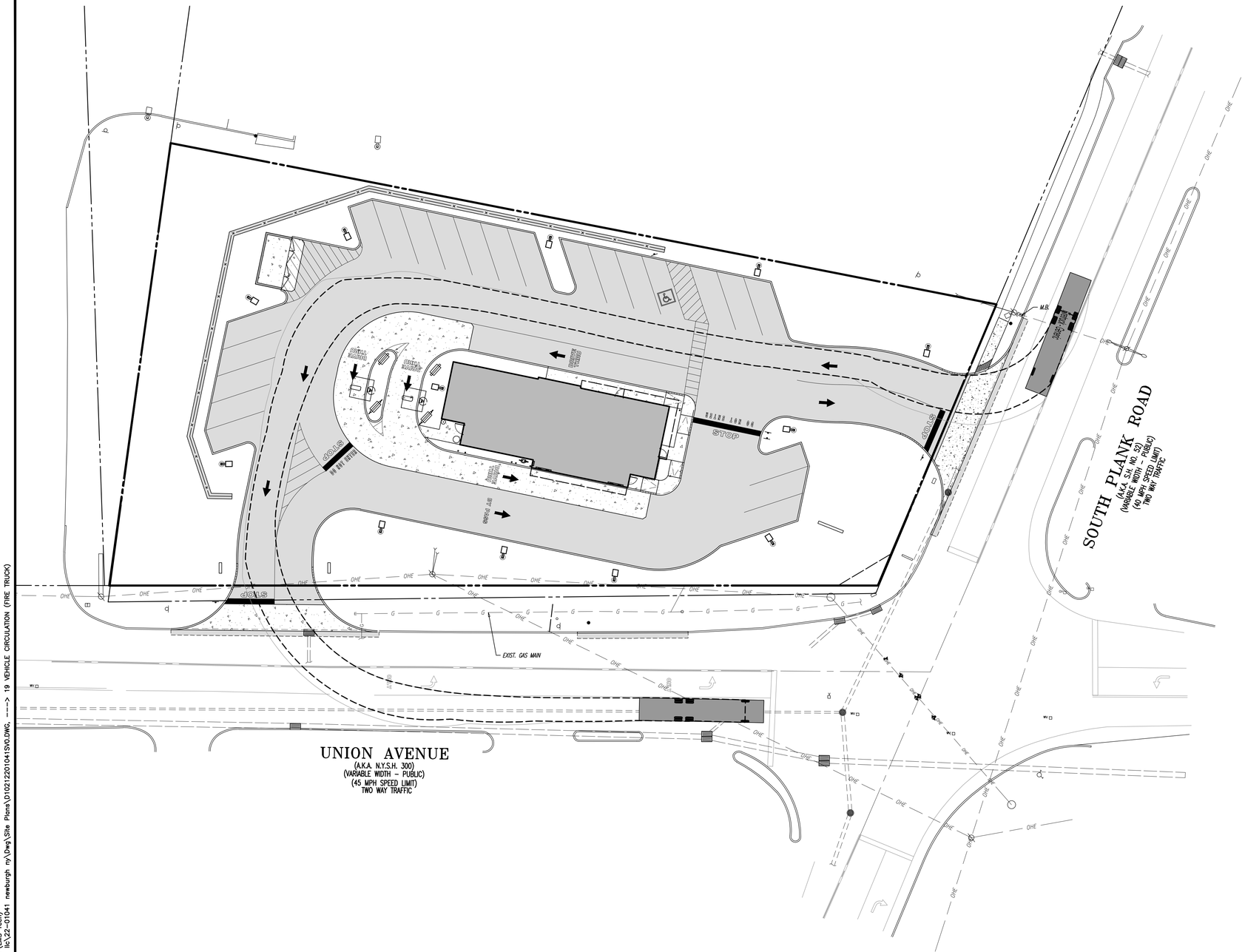

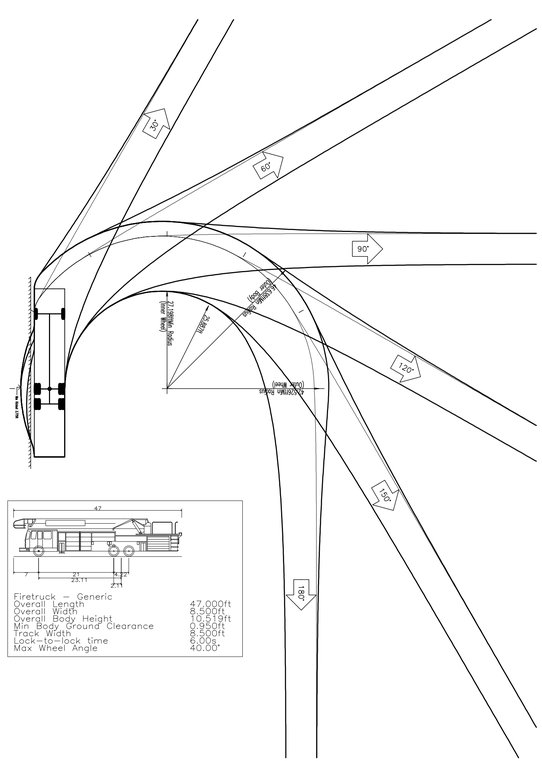

Firetruck – Generic	
Overall Length	47.000ft
Overall Width	8.500ft
Overall Body Height	10.519ft
Min Body Ground Clearance	0.950ft
Track Width	8.500ft
Lock-to-lock time	6.00s
Max Wheel Angle	40.00°

GRAPHIC SCALE

-20 0 10 20 40 80

(IN FEET)
1 INCH = 20 FT.

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TITLE: VEHICLE CIRCULATION (FIRE TRUCK)

PROJECT: **NEWBURGH CHICKEN, LLC.**
PROPOSED POPEYES RESTAURANT
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No:	1021 22-01041
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DESIGNED BY:	JD
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File: \\decpc.local\decfolders\data\decpc projects\1021 parish network, llc\22-01041 newburgh ny\Dwg\Site Plans\D102122010415V0.DWG, ---> 19 VEHICLE CIRCULATION (FIRE TRUCK)

Proposed Stormwater Mitigation Plan

Prepared for:

Newburgh Chicken, LLC

Proposed Popeyes Restaurant
Parcel 60-3-6.1
197 South Plank Road
Town of Newburgh
Orange County, NY

Prepared by:

1904 Main Street
Lake Como, NJ 07719
(732) 974-0198

Joshua M. Sewald, PE, PP
NY Professional Engineer License #097639

November 2023
DEC# 1021-22-01041

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DESIGN OVERVIEW 2
EXISTING DRAINAGE CONDITIONS 2
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DESIGN METHODOLOGY 3
WATER QUANTITY (PEAK FLOW ATTENUATION) 4
UNDERGROUND DETENTION BASIN DESIGN SUMMARY 4
CONCLUSION 4

APPENDIX

- NRCS Web Soil Survey
- HydroCAD Summary Reports – Existing and Proposed Conditions
- Stormwater Collection System Calculations
- Drainage Area Maps

SITE DESCRIPTION

The subject site is identified as Parcel 60-3-6.1 located at 197 South Plank Road, in the Town of Newburgh in Orange County, New York and has a total area of approximately 42,212 SF (0.97 Ac). Under existing conditions, the site consists of a one-story fast-food restaurant. The existing conditions of the site have been verified by the ALTA/NSPS Land Title Survey as prepared by Gallas Surveying Group, LLC, dated 10/07/2022.

DESIGN OVERVIEW

This report has been prepared to define and analyze the stormwater drainage conditions that would occur as a result of development of the subject site into a proposed fast-food restaurant with drive-through. The scope of the study includes the demolition of the existing building and construction of a new fast-food restaurant. Additional improvements include parking, grading, landscaping, lighting, utilities, and other associated site improvements as shown on the accompanying engineering drawings.

The project maintains a limit of disturbance of 0.99 Ac and is therefore not subject to the requirements set forth by the NYS SWDM. However, the project proposes an increase in impervious coverage from approximately 20,837 SF (0.48 Ac) to 25,649 SF (0.59 Ac). Therefore, the project will mitigate this increase in impervious cover by addressing the below unified stormwater sizing criteria:

1. Channel Protection Volume (CPv) – 1-Year Rainfall Event
2. Overbank Flood Volume (Qp) – 10-Year Rainfall Event
3. Extreme Storm Volume (Qf) – 100-Year Rainfall Event

The project's proposed stormwater management system includes an underground detention system, and a manufactured treatment device (MTD) to mitigate the storm events, designed and developed in conformance with the current New York State Stormwater Management Design Manual (NYS SWDM) to provide adequate mitigation measures to satisfy the requirements of the unified stormwater sizing criteria outlined above.

At this time, a geotechnical stormwater investigation for basin area has not been completed. Instead, the soil characteristics were modeled referencing soil type, cover, and seasonal high water table information from NRCS Web Soil Survey. As outlined above, the stormwater management system has been designed to provide water quantity controls.

The proposed stormwater management system has been designed to provide water quality treatment and storage to provide zero net increase in peak discharges to the point of interest for the 1-, 10-, and 100-year storm events.

EXISTING DRAINAGE CONDITIONS

The area to be analyzed consists of approximately 1.109 acres and is comprised of impervious and open space. Presently, all stormwater runoff generated by the subject site is tributary to the stormwater conveyance infrastructure located within the South Plank Road right-of-way.

The subject site has been evaluated with the following drainage sub-watershed areas as depicted on the Existing Drainage Area Map included within the Appendix of this report.

Study Area S Plank Road (Undetained): This area consists of the entire parcel, which includes open space and impervious areas such as vehicular traveled impervious areas and roof runoff. Stormwater runoff generated by

this area is tributary to the existing stormwater conveyance system located at the intersection of South Plank Road and Union Avenue.

Based upon the Orange County Soil Survey, the soil types native to the study area include:

SOIL TYPE (SYMBOL)	SOIL TYPE (NAME)	HYDROLOGIC SOIL GROUP
UH	Udorthents, smoothed	A

PROPOSED DRAINAGE CONDITIONS

The proposed stormwater management system includes an underground detention system which consists of 36" pipes to detain and mitigate stormwater runoff generated by the development in order to meet the stormwater management requirements set forth by the NYS SWDM. A manufactured treatment device is also proposed to treat all vehicular tracked impervious surface on-site prior to detention and discharge.

The proposed site conditions have been evaluated using the following drainage sub-watershed areas as depicted on the Proposed Drainage Area Map included within the Appendix of this report.

Study Area S Plank Road (Detained): This area includes the majority of the parcel, which consists of open space and impervious areas, such as vehicular traveled impervious areas and roof runoff. Stormwater runoff generated by this area is tributary to the existing stormwater conveyance system at the intersection of South Plank Road and Union Avenue via a proposed outlet conveyance pipe.

Study Area S Plank Road (Undetained): This area consists of on-site impervious and pervious areas that are not detained via the proposed inlet conveyance system. Stormwater runoff generated by this area is tributary to the existing stormwater conveyance system at the intersection of South Plank Road and Union Avenue via overland flow.

DESIGN METHODOLOGY

In order to prepare the stormwater management design for the subject site, extensive initial investigation of the property and topography was performed. On-site review of the tract was initially performed by Dynamic Engineering Consultants, PC to verify existing site conditions and land cover characteristics. Gallas Surveying Group, LLC. was contracted to prepare the ALTA/NSPS Land Title Survey to depict the existing site conditions.

Based on our review of the existing site conditions and survey, the Drainage Area Maps for the existing and proposed site conditions as defined within this report were established. A grading plan was developed for the proposed site improvements with consideration to the existing drainage patterns. The plan was designed to ensure runoff from the proposed development could be directed to the proposed stormwater management facilities in order to address the applicable sections of the NYS SWDM. The rainfall data utilized for the analysis of the existing and proposed drainage conditions is based upon the NYS SWDM.

Under proposed conditions, the stormwater runoff from the subject site and surrounding areas is conveyed by overland flow for collection by the on-site stormwater conveyance system and routed to the proposed underground detention basin. The stormwater management system has been designed to provide water quality treatment and storage to provide zero net increase in peak discharges to the point of interest for the 1-, 10- and 100-year storm events.

WATER QUANTITY (PEAK FLOW ATTENUATION)

Water quantity control practices to provide zero net increase in stormwater runoff for the Channel Protection Volume (CPv), Overbank Flood Control (Qp) and Extreme Flood Control (Qf) storm events have been provided. Pre- and post-construction models are detailed below:

Existing vs Proposed Peak Runoff Conditions				
Design Storm	**Existing Peak Runoff (CFS)**	**Proposed Peak Runoff (CFS)**	**Difference (Proposed – Existing) (CFS)**	**Proposed Water Surface Elev.**
1-Year (CPv))	1.47	1.36	-0.11	358.89
10-Year (Qp)	2.90	2.73	-0.17	359.53
100-Year (Qf)	6.43	6.33	-0.10	360.53

Pre-development and post-development analyses share the same points of interest, so direct comparisons between the hydrologic models can be made.

UNDERGROUND DETENTION BASIN DESIGN SUMMARY

Bottom of Basin (Pipe Invert) @ Elev. 358.00
Total Storage Provided 0.022 ac-ft

OUTLET CONTROL STRUCTURE

- 8" Orifice @ Elev. 358.00
- 6" Orifice @ Elev. 358.90
- 0.7' Weir @ Elev. 389.60

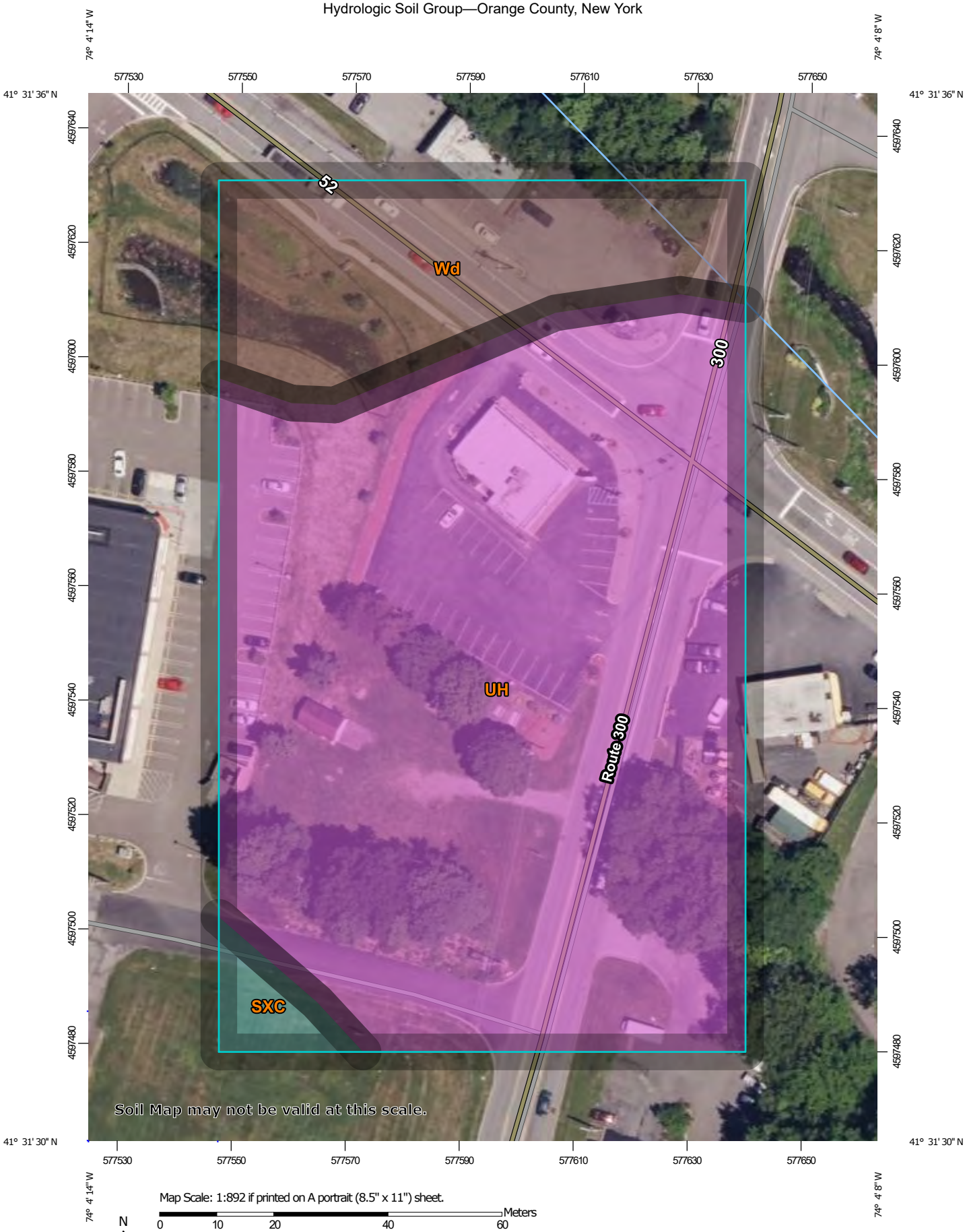
Stage Storage	
Elevation (FT)	**Storage (AC-FT)**
358.00	0.000
358.50	0.002
359.00	0.006
359.50	0.011
360.00	0.016
360.50	0.020
361.00	0.022

CONCLUSION

The proposed development has been designed with provisions for the safe and efficient control of stormwater runoff in a manner that will not adversely impact the existing drainage patterns, adjacent roadways, or adjacent parcels. The drainage analysis, stormwater modeling, and associated mitigation plans fully address the adverse impacts previously noted, and comply with all local and state stormwater design requirements by satisfying the unified stormwater criteria outlined in the report above.

APPENDIX

NRCS WEB SOIL SURVEY



Map Scale: 1:892 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 10 20 40 60

Feet: 0 40 80 160 240

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

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

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

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

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

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

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

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

Soil Survey Area: Orange County, New York
Survey Area Data: Version 24, Sep 6, 2023

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

Date(s) aerial images were photographed: May 31, 2022—Oct 27, 2022

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

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
SXC	Swartswood and Mardin soils, sloping, very stony	C	0.1	2.2%
UH	Udorthents, smoothed	A	2.7	78.7%
Wd	Wayland soils complex, non-calcareous substratum, 0 to 3 percent slopes, frequently flooded	B/D	0.7	19.1%
Totals for Area of Interest			**3.5**	**100.0%**

Description

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

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

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

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

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

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

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

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

HYDROCAD SUMMARY REPORTS – EXISTING AND PROPOSED CONDITIONS

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	NRCC 24-hr	C	Default	24.00	1	2.64	2
2	10-Year	NRCC 24-hr	C	Default	24.00	1	4.80	2
3	100-Year	NRCC 24-hr	C	Default	24.00	1	8.57	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.040	49	50-75% Grass cover, Fair, HSG A (1S, 4S, 8S)
1.179	98	Paved parking, HSG A (2S, 5S, 9S)
2.219	**75**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
2.219	HSG A	1S, 2S, 4S, 5S, 8S, 9S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
2.219		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
1.040	0.000	0.000	0.000	0.000	1.040	50-75% Grass cover, Fair	1S, 4S, 8S
1.179	0.000	0.000	0.000	0.000	1.179	Paved parking	2S, 5S, 9S
2.219	**0.000**	**0.000**	**0.000**	**0.000**	**2.219**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	1S	0.00	0.00	18.0	0.0220	0.011	0.0	15.0	0.0	
2	5S	0.00	0.00	17.0	0.0050	0.012	0.0	15.0	0.0	
3	5S	0.00	0.00	12.0	0.0041	0.012	0.0	15.0	0.0	
4	7P	358.00	353.50	61.0	0.0738	0.011	0.0	15.0	0.0	

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: EX. S PLANK ROAD Runoff Area=23,832 sf 0.00% Impervious Runoff Depth=0.03"
Flow Length=299' Tc=5.5 min CN=49 Runoff=0.00 cfs 0.001 af

Subcatchment 2S: EX. S PLANK ROAD Runoff Area=24,490 sf 100.00% Impervious Runoff Depth=2.41"
Tc=5.5 min CN=98 Runoff=1.47 cfs 0.113 af

Subcatchment 4S: PROP. S PLANK ROAD Runoff Area=8,167 sf 0.00% Impervious Runoff Depth=0.03"
Tc=5.8 min CN=49 Runoff=0.00 cfs 0.000 af

Subcatchment 5S: PROP. S PLANK Runoff Area=24,942 sf 100.00% Impervious Runoff Depth=2.41"
Flow Length=269' Tc=5.8 min CN=98 Runoff=1.48 cfs 0.115 af

Subcatchment 8S: PROP. S PLANK ROAD Runoff Area=13,309 sf 0.00% Impervious Runoff Depth=0.03"
Flow Length=200' Tc=7.5 min CN=49 Runoff=0.00 cfs 0.001 af

Subcatchment 9S: PROP S PLANK ROAD Runoff Area=1,904 sf 100.00% Impervious Runoff Depth=2.41"
Tc=7.5 min CN=98 Runoff=0.11 cfs 0.009 af

Pond 7P: PROP. HDPE BASIN Peak Elev=358.89' Storage=0.005 af Inflow=1.48 cfs 0.115 af
Outflow=1.25 cfs 0.115 af

Link 3L: EX. TOTAL Inflow=1.47 cfs 0.114 af
Primary=1.47 cfs 0.114 af

Link 6L: PROP. TOTAL Inflow=1.36 cfs 0.125 af
Primary=1.36 cfs 0.125 af

Total Runoff Area = 2.219 ac Runoff Volume = 0.239 af Average Runoff Depth = 1.29"
46.88% Pervious = 1.040 ac 53.12% Impervious = 1.179 ac

Summary for Subcatchment 1S: EX. S PLANK ROAD (PERV)

[49] Hint: Tc<2dt may require smaller dt

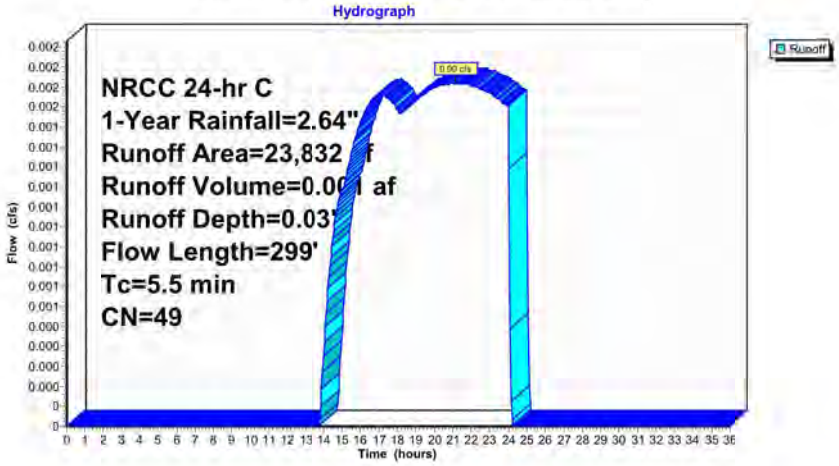
Runoff = 0.00 cfs @ 21.14 hrs, Volume= 0.001 af, Depth= 0.03"
Routed to Link 3L : EX. TOTAL

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 1-Year Rainfall=2.64"

Area (sf)	CN	Description
23,832	49	50-75% Grass cover, Fair, HSG A
23,832		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.9	100	0.1150	0.34		**Sheet Flow, A-B SHEET** Grass: Short n= 0.150 P2= 3.21"
0.2	61	0.0902	4.84		**Shallow Concentrated Flow, B-C SCF** Unpaved Kv= 16.1 fps
0.4	120	0.0542	4.73		**Shallow Concentrated Flow, C-D SCF** Paved Kv= 20.3 fps
0.0	18	0.0220	9.23	11.32	**Pipe Channel, D-E PIPE** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.011 Concrete pipe, straight & clean
5.5	299	Total			

Subcatchment 1S: EX. S PLANK ROAD (PERV)



Hydrograph for Subcatchment 1S: EX. S PLANK ROAD (PERV)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.64	0.03	0.00
0.50	0.01	0.00	0.00	26.50	2.64	0.03	0.00
1.00	0.03	0.00	0.00	27.00	2.64	0.03	0.00
1.50	0.05	0.00	0.00	27.50	2.64	0.03	0.00
2.00	0.06	0.00	0.00	28.00	2.64	0.03	0.00
2.50	0.08	0.00	0.00	28.50	2.64	0.03	0.00
3.00	0.10	0.00	0.00	29.00	2.64	0.03	0.00
3.50	0.12	0.00	0.00	29.50	2.64	0.03	0.00
4.00	0.14	0.00	0.00	30.00	2.64	0.03	0.00
4.50	0.16	0.00	0.00	30.50	2.64	0.03	0.00
5.00	0.18	0.00	0.00	31.00	2.64	0.03	0.00
5.50	0.20	0.00	0.00	31.50	2.64	0.03	0.00
6.00	0.23	0.00	0.00	32.00	2.64	0.03	0.00
6.50	0.25	0.00	0.00	32.50	2.64	0.03	0.00
7.00	0.28	0.00	0.00	33.00	2.64	0.03	0.00
7.50	0.31	0.00	0.00	33.50	2.64	0.03	0.00
8.00	0.34	0.00	0.00	34.00	2.64	0.03	0.00
8.50	0.38	0.00	0.00	34.50	2.64	0.03	0.00
9.00	0.42	0.00	0.00	35.00	2.64	0.03	0.00
9.50	0.46	0.00	0.00	35.50	2.64	0.03	0.00
10.00	0.52	0.00	0.00	36.00	2.64	0.03	0.00
10.50	0.59	0.00	0.00				
11.00	0.68	0.00	0.00				
11.50	0.83	0.00	0.00				
12.00	1.26	0.00	0.00				
12.50	1.81	0.00	0.00				
13.00	1.96	0.00	0.00				
13.50	2.05	0.00	0.00				
14.00	2.12	0.00	0.00				
14.50	2.18	0.00	0.00				
15.00	2.22	0.00	0.00				
15.50	2.26	0.00	0.00				
16.00	2.30	0.00	0.00				
16.50	2.33	0.01	0.00				
17.00	2.36	0.01	0.00				
17.50	2.39	0.01	0.00				
18.00	2.41	0.01	0.00				
18.50	2.44	0.01	0.00				
19.00	2.46	0.01	0.00				
19.50	2.48	0.01	0.00				
20.00	2.50	0.02	0.00				
20.50	2.52	0.02	0.00				
21.00	2.54	0.02	**0.00**				
21.50	2.56	0.02	**0.00**				
22.00	2.58	0.02	0.00				
22.50	2.59	0.02	0.00				
23.00	2.61	0.03	0.00				
23.50	2.63	0.03	0.00				
24.00	**2.64**	**0.03**	0.00				
24.50	2.64	0.03	0.00				
25.00	2.64	0.03	0.00				
25.50	2.64	0.03	0.00				

Summary for Subcatchment 2S: EX. S PLANK ROAD (IMPERV)

[49] Hint: Tc<2dt may require smaller dt

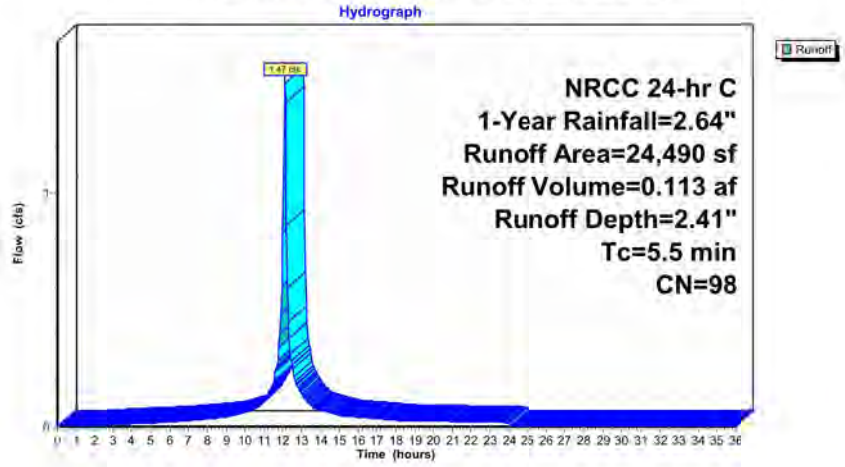
Runoff = 1.47 cfs @ 12.12 hrs, Volume= 0.113 af, Depth= 2.41"
Routed to Link 3L : EX. TOTAL

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 1-Year Rainfall=2.64"

Area (sf)	CN	Description
24,490	98	Paved parking, HSG A
24,490		100.00% Impervious Area

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

Subcatchment 2S: EX. S PLANK ROAD (IMPERV)



Hydrograph for Subcatchment 2S: EX. S PLANK ROAD (IMPERV)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.64	2.41	0.00
0.50	0.01	0.00	0.00	26.50	2.64	2.41	0.00
1.00	0.03	0.00	0.00	27.00	2.64	2.41	0.00
1.50	0.05	0.00	0.00	27.50	2.64	2.41	0.00
2.00	0.06	0.00	0.00	28.00	2.64	2.41	0.00
2.50	0.08	0.01	0.01	28.50	2.64	2.41	0.00
3.00	0.10	0.01	0.01	29.00	2.64	2.41	0.00
3.50	0.12	0.02	0.01	29.50	2.64	2.41	0.00
4.00	0.14	0.03	0.01	30.00	2.64	2.41	0.00
4.50	0.16	0.04	0.01	30.50	2.64	2.41	0.00
5.00	0.18	0.06	0.02	31.00	2.64	2.41	0.00
5.50	0.20	0.07	0.02	31.50	2.64	2.41	0.00
6.00	0.23	0.09	0.02	32.00	2.64	2.41	0.00
6.50	0.25	0.11	0.02	32.50	2.64	2.41	0.00
7.00	0.28	0.13	0.03	33.00	2.64	2.41	0.00
7.50	0.31	0.15	0.03	33.50	2.64	2.41	0.00
8.00	0.34	0.18	0.03	34.00	2.64	2.41	0.00
8.50	0.38	0.21	0.04	34.50	2.64	2.41	0.00
9.00	0.42	0.25	0.04	35.00	2.64	2.41	0.00
9.50	0.46	0.29	0.05	35.50	2.64	2.41	0.00
10.00	0.52	0.34	0.06	36.00	2.64	2.41	0.00
10.50	0.59	0.40	0.07				
11.00	0.68	0.49	0.11				
11.50	0.83	0.62	0.18				
12.00	1.26	1.04	**0.83**				
12.50	1.81	1.59	**0.26**				
13.00	1.96	1.73	0.14				
13.50	2.05	1.83	0.09				
14.00	2.12	1.89	0.07				
14.50	2.18	1.95	0.06				
15.00	2.22	1.99	0.05				
15.50	2.26	2.03	0.04				
16.00	2.30	2.07	0.04				
16.50	2.33	2.10	0.04				
17.00	2.36	2.13	0.03				
17.50	2.39	2.16	0.03				
18.00	2.41	2.18	0.03				
18.50	2.44	2.21	0.03				
19.00	2.46	2.23	0.02				
19.50	2.48	2.25	0.02				
20.00	2.50	2.27	0.02				
20.50	2.52	2.29	0.02				
21.00	2.54	2.31	0.02				
21.50	2.56	2.33	0.02				
22.00	2.58	2.35	0.02				
22.50	2.59	2.36	0.02				
23.00	2.61	2.38	0.02				
23.50	2.63	2.40	0.02				
24.00	**2.64**	**2.41**	0.02				
24.50	2.64	2.41	0.00				
25.00	2.64	2.41	0.00				
25.50	2.64	2.41	0.00				

Summary for Subcatchment 4S: PROP. S PLANK ROAD (DET) (PERV)

[49] Hint: Tc<2dt may require smaller dt

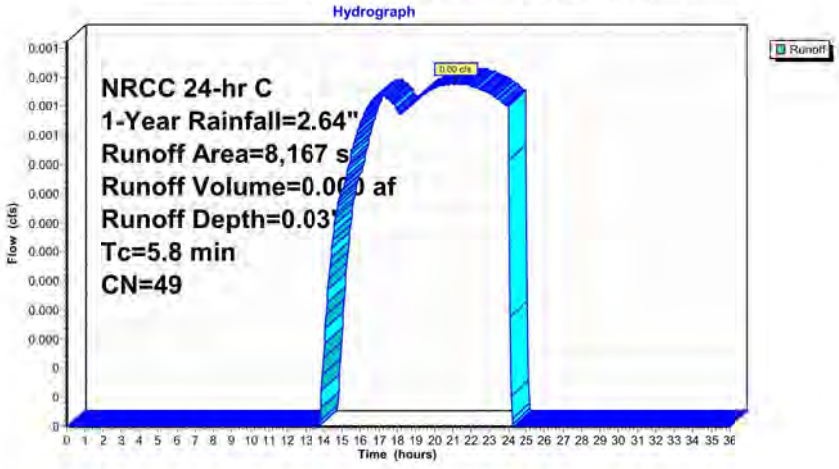
Runoff = 0.00 cfs @ 21.14 hrs, Volume= 0.000 af, Depth= 0.03"
Routed to Pond 7P : PROP. HDPE BASIN

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 1-Year Rainfall=2.64"

Area (sf)	CN	Description
8,167	49	50-75% Grass cover, Fair, HSG A
8,167		100.00% Pervious Area

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

Subcatchment 4S: PROP. S PLANK ROAD (DET) (PERV)



Hydrograph for Subcatchment 4S: PROP. S PLANK ROAD (DET) (PERV)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.64	0.03	0.00
0.50	0.01	0.00	0.00	26.50	2.64	0.03	0.00
1.00	0.03	0.00	0.00	27.00	2.64	0.03	0.00
1.50	0.05	0.00	0.00	27.50	2.64	0.03	0.00
2.00	0.06	0.00	0.00	28.00	2.64	0.03	0.00
2.50	0.08	0.00	0.00	28.50	2.64	0.03	0.00
3.00	0.10	0.00	0.00	29.00	2.64	0.03	0.00
3.50	0.12	0.00	0.00	29.50	2.64	0.03	0.00
4.00	0.14	0.00	0.00	30.00	2.64	0.03	0.00
4.50	0.16	0.00	0.00	30.50	2.64	0.03	0.00
5.00	0.18	0.00	0.00	31.00	2.64	0.03	0.00
5.50	0.20	0.00	0.00	31.50	2.64	0.03	0.00
6.00	0.23	0.00	0.00	32.00	2.64	0.03	0.00
6.50	0.25	0.00	0.00	32.50	2.64	0.03	0.00
7.00	0.28	0.00	0.00	33.00	2.64	0.03	0.00
7.50	0.31	0.00	0.00	33.50	2.64	0.03	0.00
8.00	0.34	0.00	0.00	34.00	2.64	0.03	0.00
8.50	0.38	0.00	0.00	34.50	2.64	0.03	0.00
9.00	0.42	0.00	0.00	35.00	2.64	0.03	0.00
9.50	0.46	0.00	0.00	35.50	2.64	0.03	0.00
10.00	0.52	0.00	0.00	36.00	2.64	0.03	0.00
10.50	0.59	0.00	0.00				
11.00	0.68	0.00	0.00				
11.50	0.83	0.00	0.00				
12.00	1.26	0.00	0.00				
12.50	1.81	0.00	0.00				
13.00	1.96	0.00	0.00				
13.50	2.05	0.00	0.00				
14.00	2.12	0.00	0.00				
14.50	2.18	0.00	0.00				
15.00	2.22	0.00	0.00				
15.50	2.26	0.00	0.00				
16.00	2.30	0.00	0.00				
16.50	2.33	0.01	0.00				
17.00	2.36	0.01	0.00				
17.50	2.39	0.01	0.00				
18.00	2.41	0.01	0.00				
18.50	2.44	0.01	0.00				
19.00	2.46	0.01	0.00				
19.50	2.48	0.01	0.00				
20.00	2.50	0.02	0.00				
20.50	2.52	0.02	0.00				
21.00	2.54	0.02	**0.00**				
21.50	2.56	0.02	**0.00**				
22.00	2.58	0.02	0.00				
22.50	2.59	0.02	0.00				
23.00	2.61	0.03	0.00				
23.50	2.63	0.03	0.00				
24.00	**2.64**	**0.03**	0.00				
24.50	2.64	0.03	0.00				
25.00	2.64	0.03	0.00				
25.50	2.64	0.03	0.00				

Summary for Subcatchment 5S: PROP. S PLANK ROAD (DET) (IMPERV)

[49] Hint: Tc<2dt may require smaller dt

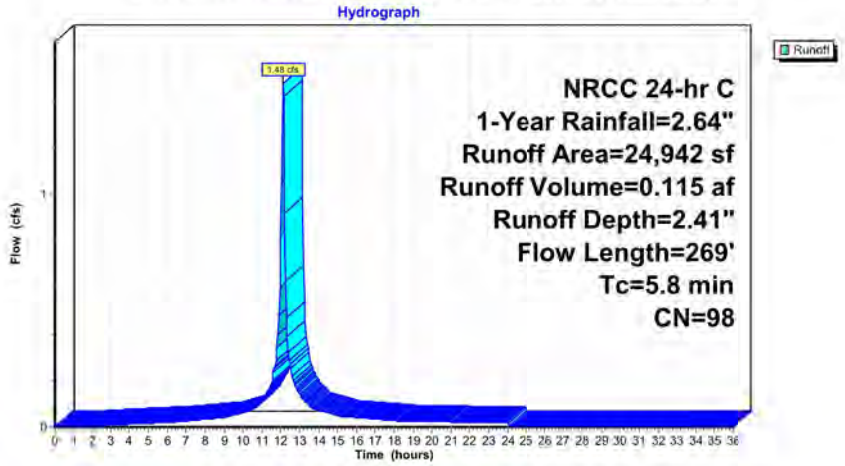
Runoff = 1.48 cfs @ 12.12 hrs, Volume= 0.115 af, Depth= 2.41"
Routed to Pond 7P : PROP. HDPE BASIN

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 1-Year Rainfall=2.64"

Area (sf)	CN	Description
24,942	98	Paved parking, HSG A
24,942		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	74	0.0890	0.29		**Sheet Flow, A-B SHEET** Grass: Short n= 0.150 P2= 3.21"
0.5	26	0.0150	0.94		**Sheet Flow, B-C SHEET** Smooth surfaces n= 0.011 P2= 3.21"
0.9	140	0.0150	2.49		**Shallow Concentrated Flow, C-D SCF** Paved Kv= 20.3 fps
0.1	17	0.0050	4.03	4.95	**Pipe Channel, D-E PIPE** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
0.1	12	0.0041	3.65	4.48	**Pipe Channel, E-F PIPE** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
5.8	269	Total			

Subcatchment 5S: PROP. S PLANK ROAD (DET) (IMPERV)



Hydrograph for Subcatchment 5S: PROP. S PLANK ROAD (DET) (IMPERV)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.64	2.41	0.00
0.50	0.01	0.00	0.00	26.50	2.64	2.41	0.00
1.00	0.03	0.00	0.00	27.00	2.64	2.41	0.00
1.50	0.05	0.00	0.00	27.50	2.64	2.41	0.00
2.00	0.06	0.00	0.00	28.00	2.64	2.41	0.00
2.50	0.08	0.01	0.01	28.50	2.64	2.41	0.00
3.00	0.10	0.01	0.01	29.00	2.64	2.41	0.00
3.50	0.12	0.02	0.01	29.50	2.64	2.41	0.00
4.00	0.14	0.03	0.01	30.00	2.64	2.41	0.00
4.50	0.16	0.04	0.01	30.50	2.64	2.41	0.00
5.00	0.18	0.06	0.02	31.00	2.64	2.41	0.00
5.50	0.20	0.07	0.02	31.50	2.64	2.41	0.00
6.00	0.23	0.09	0.02	32.00	2.64	2.41	0.00
6.50	0.25	0.11	0.02	32.50	2.64	2.41	0.00
7.00	0.28	0.13	0.03	33.00	2.64	2.41	0.00
7.50	0.31	0.15	0.03	33.50	2.64	2.41	0.00
8.00	0.34	0.18	0.03	34.00	2.64	2.41	0.00
8.50	0.38	0.21	0.04	34.50	2.64	2.41	0.00
9.00	0.42	0.25	0.04	35.00	2.64	2.41	0.00
9.50	0.46	0.29	0.05	35.50	2.64	2.41	0.00
10.00	0.52	0.34	0.06	36.00	2.64	2.41	0.00
10.50	0.59	0.40	0.07				
11.00	0.68	0.49	0.11				
11.50	0.83	0.62	0.18				
12.00	1.26	1.04	**0.82**				
12.50	1.81	1.59	**0.27**				
13.00	1.96	1.73	0.14				
13.50	2.05	1.83	0.09				
14.00	2.12	1.89	0.07				
14.50	2.18	1.95	0.06				
15.00	2.22	1.99	0.05				
15.50	2.26	2.03	0.04				
16.00	2.30	2.07	0.04				
16.50	2.33	2.10	0.04				
17.00	2.36	2.13	0.03				
17.50	2.39	2.16	0.03				
18.00	2.41	2.18	0.03				
18.50	2.44	2.21	0.03				
19.00	2.46	2.23	0.03				
19.50	2.48	2.25	0.02				
20.00	2.50	2.27	0.02				
20.50	2.52	2.29	0.02				
21.00	2.54	2.31	0.02				
21.50	2.56	2.33	0.02				
22.00	2.58	2.35	0.02				
22.50	2.59	2.36	0.02				
23.00	2.61	2.38	0.02				
23.50	2.63	2.40	0.02				
24.00	**2.64**	**2.41**	0.02				
24.50	2.64	2.41	0.00				
25.00	2.64	2.41	0.00				
25.50	2.64	2.41	0.00				

Summary for Subcatchment 8S: PROP. S PLANK ROAD (UNDET) (PERV)

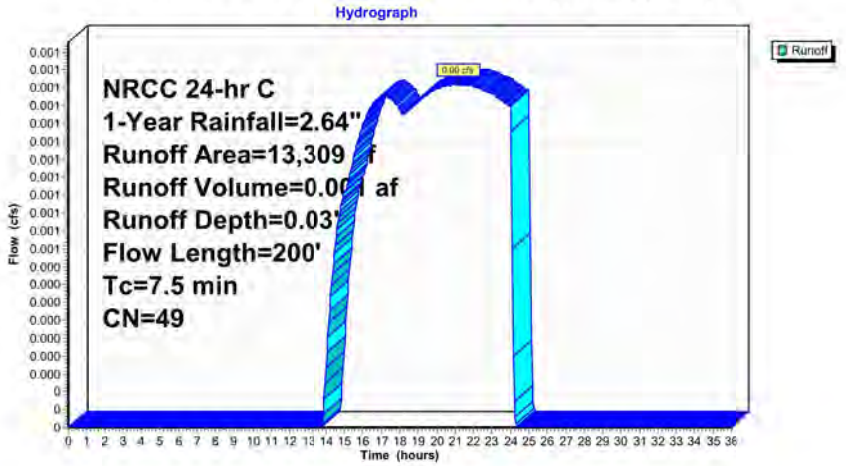
Runoff = 0.00 cfs @ 21.15 hrs, Volume= 0.001 af, Depth= 0.03"
Routed to Link 6L : PROP. TOTAL

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 1-Year Rainfall=2.64"

Area (sf)	CN	Description
13,309	49	50-75% Grass cover, Fair, HSG A
13,309		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.0450	0.24		**Sheet Flow, A-B SHEET** Grass: Short n= 0.150 P2= 3.21"
0.3	65	0.0460	3.45		**Shallow Concentrated Flow, B-C SCF** Unpaved Kv= 16.1 fps
0.1	35	0.0380	3.96		**Shallow Concentrated Flow, C-D SCF** Paved Kv= 20.3 fps
7.5	200	Total			

Subcatchment 8S: PROP. S PLANK ROAD (UNDET) (PERV)



Hydrograph for Subcatchment 8S: PROP. S PLANK ROAD (UNDET) (PERV)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.64	0.03	0.00
0.50	0.01	0.00	0.00	26.50	2.64	0.03	0.00
1.00	0.03	0.00	0.00	27.00	2.64	0.03	0.00
1.50	0.05	0.00	0.00	27.50	2.64	0.03	0.00
2.00	0.06	0.00	0.00	28.00	2.64	0.03	0.00
2.50	0.08	0.00	0.00	28.50	2.64	0.03	0.00
3.00	0.10	0.00	0.00	29.00	2.64	0.03	0.00
3.50	0.12	0.00	0.00	29.50	2.64	0.03	0.00
4.00	0.14	0.00	0.00	30.00	2.64	0.03	0.00
4.50	0.16	0.00	0.00	30.50	2.64	0.03	0.00
5.00	0.18	0.00	0.00	31.00	2.64	0.03	0.00
5.50	0.20	0.00	0.00	31.50	2.64	0.03	0.00
6.00	0.23	0.00	0.00	32.00	2.64	0.03	0.00
6.50	0.25	0.00	0.00	32.50	2.64	0.03	0.00
7.00	0.28	0.00	0.00	33.00	2.64	0.03	0.00
7.50	0.31	0.00	0.00	33.50	2.64	0.03	0.00
8.00	0.34	0.00	0.00	34.00	2.64	0.03	0.00
8.50	0.38	0.00	0.00	34.50	2.64	0.03	0.00
9.00	0.42	0.00	0.00	35.00	2.64	0.03	0.00
9.50	0.46	0.00	0.00	35.50	2.64	0.03	0.00
10.00	0.52	0.00	0.00	36.00	2.64	0.03	0.00
10.50	0.59	0.00	0.00				
11.00	0.68	0.00	0.00				
11.50	0.83	0.00	0.00				
12.00	1.26	0.00	0.00				
12.50	1.81	0.00	0.00				
13.00	1.96	0.00	0.00				
13.50	2.05	0.00	0.00				
14.00	2.12	0.00	0.00				
14.50	2.18	0.00	0.00				
15.00	2.22	0.00	0.00				
15.50	2.26	0.00	0.00				
16.00	2.30	0.00	0.00				
16.50	2.33	0.01	0.00				
17.00	2.36	0.01	0.00				
17.50	2.39	0.01	0.00				
18.00	2.41	0.01	0.00				
18.50	2.44	0.01	0.00				
19.00	2.46	0.01	0.00				
19.50	2.48	0.01	0.00				
20.00	2.50	0.02	0.00				
20.50	2.52	0.02	0.00				
21.00	2.54	0.02	**0.00**				
21.50	2.56	0.02	**0.00**				
22.00	2.58	0.02	0.00				
22.50	2.59	0.02	0.00				
23.00	2.61	0.03	0.00				
23.50	2.63	0.03	0.00				
24.00	**2.64**	**0.03**	0.00				
24.50	2.64	0.03	0.00				
25.00	2.64	0.03	0.00				
25.50	2.64	0.03	0.00				

Summary for Subcatchment 9S: PROP S PLANK ROAD (UNDET) (IMPERV)

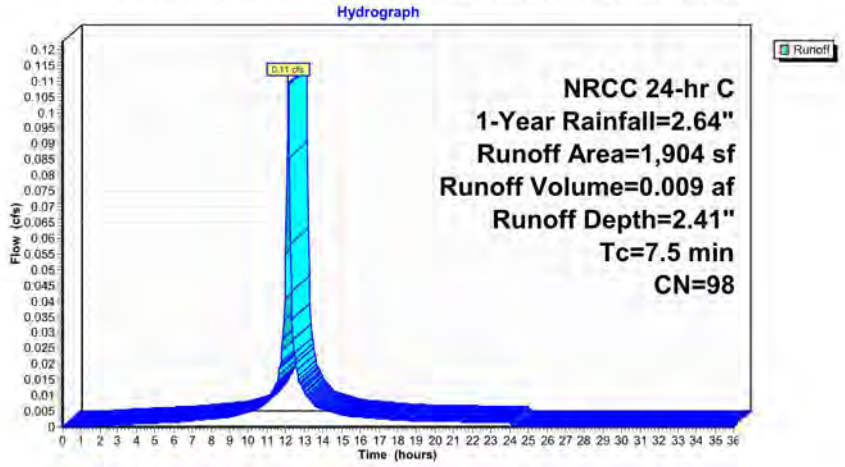
Runoff = 0.11 cfs @ 12.14 hrs, Volume= 0.009 af, Depth= 2.41"
Routed to Link 6L : PROP. TOTAL

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 1-Year Rainfall=2.64"

Area (sf)	CN	Description
1,904	98	Paved parking, HSG A
1,904		100.00% Impervious Area

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

Subcatchment 9S: PROP S PLANK ROAD (UNDET) (IMPERV)



Hydrograph for Subcatchment 9S: PROP S PLANK ROAD (UNDET) (IMPERV)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.64	2.41	0.00
0.50	0.01	0.00	0.00	26.50	2.64	2.41	0.00
1.00	0.03	0.00	0.00	27.00	2.64	2.41	0.00
1.50	0.05	0.00	0.00	27.50	2.64	2.41	0.00
2.00	0.06	0.00	0.00	28.00	2.64	2.41	0.00
2.50	0.08	0.01	0.00	28.50	2.64	2.41	0.00
3.00	0.10	0.01	0.00	29.00	2.64	2.41	0.00
3.50	0.12	0.02	0.00	29.50	2.64	2.41	0.00
4.00	0.14	0.03	0.00	30.00	2.64	2.41	0.00
4.50	0.16	0.04	0.00	30.50	2.64	2.41	0.00
5.00	0.18	0.06	0.00	31.00	2.64	2.41	0.00
5.50	0.20	0.07	0.00	31.50	2.64	2.41	0.00
6.00	0.23	0.09	0.00	32.00	2.64	2.41	0.00
6.50	0.25	0.11	0.00	32.50	2.64	2.41	0.00
7.00	0.28	0.13	0.00	33.00	2.64	2.41	0.00
7.50	0.31	0.15	0.00	33.50	2.64	2.41	0.00
8.00	0.34	0.18	0.00	34.00	2.64	2.41	0.00
8.50	0.38	0.21	0.00	34.50	2.64	2.41	0.00
9.00	0.42	0.25	0.00	35.00	2.64	2.41	0.00
9.50	0.46	0.29	0.00	35.50	2.64	2.41	0.00
10.00	0.52	0.34	0.00	36.00	2.64	2.41	0.00
10.50	0.59	0.40	0.01				
11.00	0.68	0.49	0.01				
11.50	0.83	0.62	0.01				
12.00	1.26	1.04	**0.05**				
12.50	1.81	1.59	**0.02**				
13.00	1.96	1.73	0.01				
13.50	2.05	1.83	0.01				
14.00	2.12	1.89	0.01				
14.50	2.18	1.95	0.00				
15.00	2.22	1.99	0.00				
15.50	2.26	2.03	0.00				
16.00	2.30	2.07	0.00				
16.50	2.33	2.10	0.00				
17.00	2.36	2.13	0.00				
17.50	2.39	2.16	0.00				
18.00	2.41	2.18	0.00				
18.50	2.44	2.21	0.00				
19.00	2.46	2.23	0.00				
19.50	2.48	2.25	0.00				
20.00	2.50	2.27	0.00				
20.50	2.52	2.29	0.00				
21.00	2.54	2.31	0.00				
21.50	2.56	2.33	0.00				
22.00	2.58	2.35	0.00				
22.50	2.59	2.36	0.00				
23.00	2.61	2.38	0.00				
23.50	2.63	2.40	0.00				
24.00	**2.64**	**2.41**	0.00				
24.50	2.64	2.41	0.00				
25.00	2.64	2.41	0.00				
25.50	2.64	2.41	0.00				

Summary for Pond 7P: PROP. HDPE BASIN

Inflow Area = 0.760 ac, 75.33% Impervious, Inflow Depth = 1.82" for 1-Year event
Inflow = 1.48 cfs @ 12.12 hrs, Volume= 0.115 af
Outflow = 1.25 cfs @ 12.17 hrs, Volume= 0.115 af, Atten= 15%, Lag= 2.6 min
Primary = 1.25 cfs @ 12.17 hrs, Volume= 0.115 af
Routed to Link 6L : PROP. TOTAL

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 358.89' @ 12.17 hrs Surf.Area= 0.008 ac Storage= 0.005 af

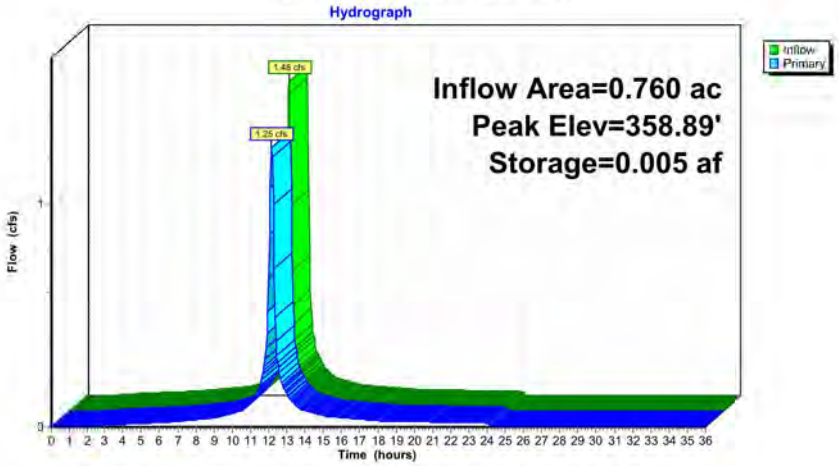
Plug-Flow detention time= 3.7 min calculated for 0.115 af (100% of inflow)
Center-of-Mass det. time= 3.7 min (768.1 - 764.4)

Volume	Invert	Avail.Storage	Storage Description
#1	358.00'	0.022 af	**36.0" Round Pipe Storage** x 3 L= 45.0'

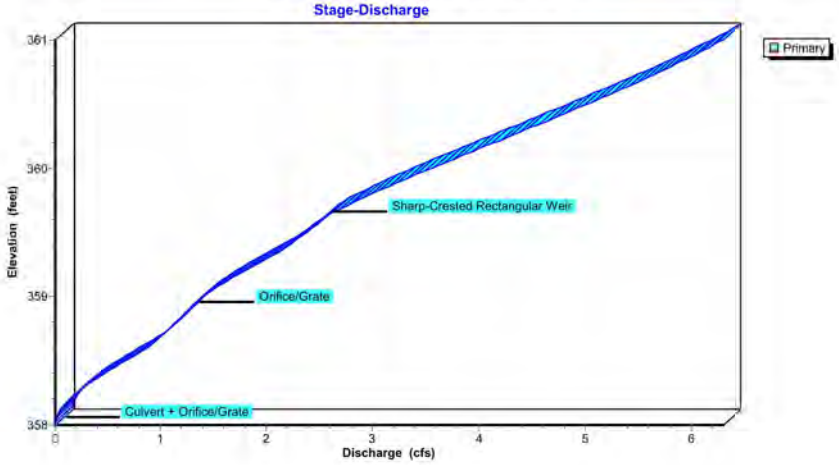
Device	Routing	Invert	Outlet Devices
#1	Primary	358.00'	**15.0" Round Culvert** L= 61.0' Ke= 0.500 Inlet / Outlet Invert= 358.00' / 353.50' S= 0.0738 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.23 sf
#2	Device 1	358.00'	**8.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	358.90'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	359.60'	**0.7' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=1.23 cfs @ 12.17 hrs HW=358.87' (Free Discharge)
└**1=Culvert** (Passes 1.23 cfs of 2.89 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 1.23 cfs @ 3.52 fps)
  ├**3=Orifice/Grate** (Controls 0.00 cfs)
  └**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

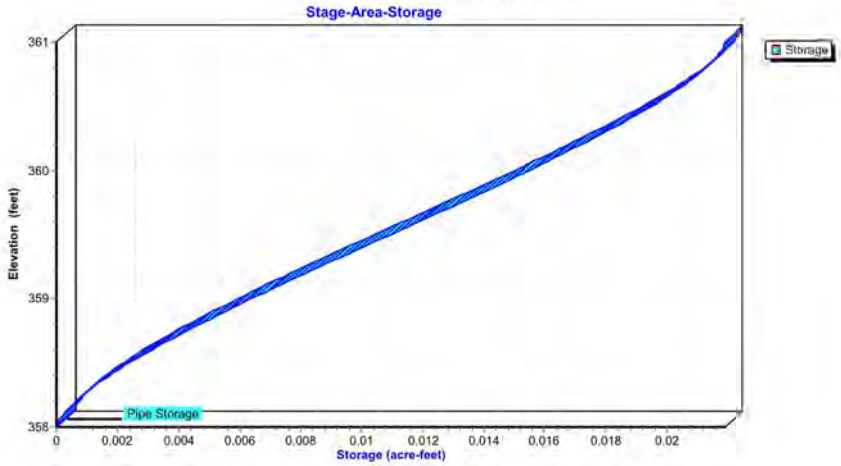
Pond 7P: PROP. HDPE BASIN



Pond 7P: PROP. HDPE BASIN



Pond 7P: PROP. HDPE BASIN



Hydrograph for Pond 7P: PROP. HDPE BASIN

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.000	358.00	0.00
1.00	0.00	0.000	358.00	0.00
2.00	0.00	0.000	358.02	0.00
3.00	0.01	0.000	358.04	0.01
4.00	0.01	0.000	358.06	0.01
5.00	0.02	0.000	358.07	0.02
6.00	0.02	0.000	358.07	0.02
7.00	0.03	0.000	358.08	0.03
8.00	0.03	0.000	358.10	0.03
9.00	0.04	0.000	358.11	0.04
10.00	0.06	0.000	358.13	0.06
11.00	0.11	0.001	358.18	0.11
12.00	**0.82**	**0.002**	**358.50**	**0.67**
13.00	**0.14**	**0.001**	**358.21**	**0.15**
14.00	0.07	0.000	358.15	0.07
15.00	0.05	0.000	358.12	0.05
16.00	0.04	0.000	358.11	0.04
17.00	0.03	0.000	358.10	0.03
18.00	0.03	0.000	358.09	0.03
19.00	0.03	0.000	358.08	0.03
20.00	0.02	0.000	358.08	0.02
21.00	0.02	0.000	358.08	0.02
22.00	0.02	0.000	358.07	0.02
23.00	0.02	0.000	358.07	0.02
24.00	0.02	0.000	358.07	0.02
25.00	0.00	0.000	358.00	0.00
26.00	0.00	0.000	358.00	0.00
27.00	0.00	0.000	358.00	0.00
28.00	0.00	0.000	358.00	0.00
29.00	0.00	0.000	358.00	0.00
30.00	0.00	0.000	358.00	0.00
31.00	0.00	0.000	358.00	0.00
32.00	0.00	0.000	358.00	0.00
33.00	0.00	0.000	358.00	0.00
34.00	0.00	0.000	358.00	0.00
35.00	0.00	0.000	358.00	0.00
36.00	0.00	0.000	358.00	0.00

Stage-Discharge for Pond 7P: PROP. HDPE BASIN

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
358.00	0.00	359.04	1.47	360.08	3.79
358.02	0.00	359.06	1.51	360.10	3.85
358.04	0.01	359.08	1.54	360.12	3.91
358.06	0.01	359.10	1.58	360.14	3.97
358.08	0.02	359.12	1.62	360.16	4.03
358.10	0.04	359.14	1.66	360.18	4.09
358.12	0.05	359.16	1.71	360.20	4.15
358.14	0.07	359.18	1.75	360.22	4.21
358.16	0.09	359.20	1.79	360.24	4.27
358.18	0.11	359.22	1.84	360.26	4.32
358.20	0.13	359.24	1.88	360.28	4.38
358.22	0.16	359.26	1.93	360.30	4.44
358.24	0.19	359.28	1.97	360.32	4.50
358.26	0.22	359.30	2.02	360.34	4.56
358.28	0.25	359.32	2.06	360.36	4.62
358.30	0.28	359.34	2.10	360.38	4.68
358.32	0.32	359.36	2.14	360.40	4.74
358.34	0.36	359.38	2.18	360.42	4.79
358.36	0.39	359.40	2.21	360.44	4.85
358.38	0.43	359.42	2.24	360.46	4.91
358.40	0.47	359.44	2.28	360.48	4.97
358.42	0.51	359.46	2.31	360.50	5.02
358.44	0.55	359.48	2.34	360.52	5.08
358.46	0.59	359.50	2.37	360.54	5.14
358.48	0.63	359.52	2.41	360.56	5.19
358.50	0.68	359.54	2.44	360.58	5.25
358.52	0.72	359.56	2.47	360.60	5.30
358.54	0.76	359.58	2.50	360.62	5.36
358.56	0.80	359.60	2.53	360.64	5.41
358.58	0.84	359.62	2.56	360.66	5.47
358.60	0.87	359.64	2.60	360.68	5.52
358.62	0.91	359.66	2.64	360.70	5.57
358.64	0.94	359.68	2.69	360.72	5.63
358.66	0.96	359.70	2.74	360.74	5.68
358.68	0.99	359.72	2.78	360.76	5.73
358.70	1.02	359.74	2.83	360.78	5.78
358.72	1.05	359.76	2.89	360.80	5.83
358.74	1.07	359.78	2.94	360.82	5.88
358.76	1.10	359.80	2.99	360.84	5.93
358.78	1.12	359.82	3.04	360.86	5.98
358.80	1.15	359.84	3.10	360.88	6.03
358.82	1.17	359.86	3.15	360.90	6.08
358.84	1.20	359.88	3.21	360.92	6.12
358.86	1.22	359.90	3.27	360.94	6.17
358.88	1.24	359.92	3.32	360.96	6.22
358.90	1.27	359.94	3.38	360.98	6.26
358.92	1.29	359.96	3.44	361.00	**6.31**
358.94	1.31	359.98	3.50		
358.96	1.34	360.00	3.55		
358.98	1.37	360.02	3.61		
359.00	1.40	360.04	3.67		
359.02	1.44	360.06	3.73		

Stage-Area-Storage for Pond 7P: PROP. HDPE BASIN

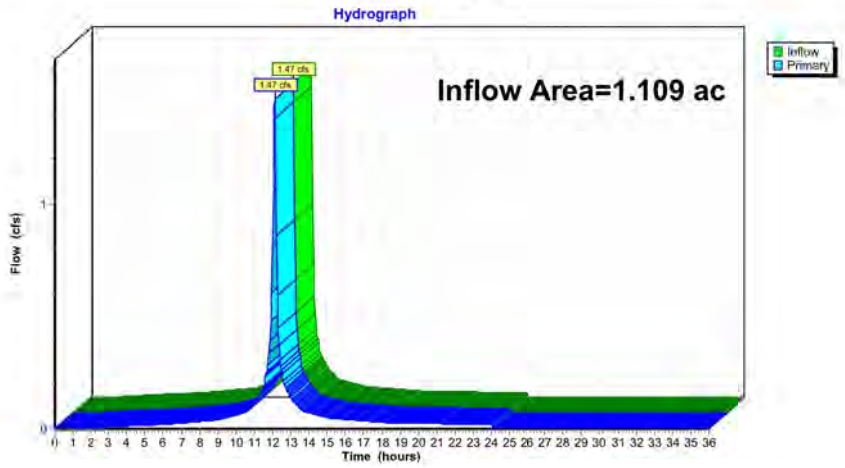
Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
358.00	0.000	359.04	0.007	360.08	0.016
358.02	0.000	359.06	0.007	360.10	0.016
358.04	0.000	359.08	0.007	360.12	0.017
358.06	0.000	359.10	0.007	360.14	0.017
358.08	0.000	359.12	0.007	360.16	0.017
358.10	0.000	359.14	0.008	360.18	0.017
358.12	0.000	359.16	0.008	360.20	0.017
358.14	0.000	359.18	0.008	360.22	0.017
358.16	0.000	359.20	0.008	360.24	0.018
358.18	0.001	359.22	0.008	360.26	0.018
358.20	0.001	359.24	0.009	360.28	0.018
358.22	0.001	359.26	0.009	360.30	0.018
358.24	0.001	359.28	0.009	360.32	0.018
358.26	0.001	359.30	0.009	360.34	0.018
358.28	0.001	359.32	0.009	360.36	0.018
358.30	0.001	359.34	0.009	360.38	0.019
358.32	0.001	359.36	0.010	360.40	0.019
358.34	0.001	359.38	0.010	360.42	0.019
358.36	0.001	359.40	0.010	360.44	0.019
358.38	0.002	359.42	0.010	360.46	0.019
358.40	0.002	359.44	0.010	360.48	0.019
358.42	0.002	359.46	0.011	360.50	0.020
358.44	0.002	359.48	0.011	360.52	0.020
358.46	0.002	359.50	0.011	360.54	0.020
358.48	0.002	359.52	0.011	360.56	0.020
358.50	0.002	359.54	0.011	360.58	0.020
358.52	0.003	359.56	0.012	360.60	0.020
358.54	0.003	359.58	0.012	360.62	0.020
358.56	0.003	359.60	0.012	360.64	0.020
358.58	0.003	359.62	0.012	360.66	0.021
358.60	0.003	359.64	0.012	360.68	0.021
358.62	0.003	359.66	0.012	360.70	0.021
358.64	0.003	359.68	0.013	360.72	0.021
358.66	0.004	359.70	0.013	360.74	0.021
358.68	0.004	359.72	0.013	360.76	0.021
358.70	0.004	359.74	0.013	360.78	0.021
358.72	0.004	359.76	0.013	360.80	0.021
358.74	0.004	359.78	0.014	360.82	0.021
358.76	0.004	359.80	0.014	360.84	0.021
358.78	0.005	359.82	0.014	360.86	0.022
358.80	0.005	359.84	0.014	360.88	0.022
358.82	0.005	359.86	0.014	360.90	0.022
358.84	0.005	359.88	0.014	360.92	0.022
358.86	0.005	359.90	0.015	360.94	0.022
358.88	0.005	359.92	0.015	360.96	0.022
358.90	0.006	359.94	0.015	360.98	0.022
358.92	0.006	359.96	0.015	361.00	**0.022**
358.94	0.006	359.98	0.015		
358.96	0.006	360.00	0.016		
358.98	0.006	360.02	0.016		
359.00	0.006	360.04	0.016		
359.02	0.007	360.06	0.016		

Summary for Link 3L: EX. TOTAL

Inflow Area = 1.109 ac, 50.68% Impervious, Inflow Depth = 1.24" for 1-Year event
Inflow = 1.47 cfs @ 12.12 hrs, Volume= 0.114 af
Primary = 1.47 cfs @ 12.12 hrs, Volume= 0.114 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link 3L: EX. TOTAL



Hydrograph for Link 3L: EX. TOTAL

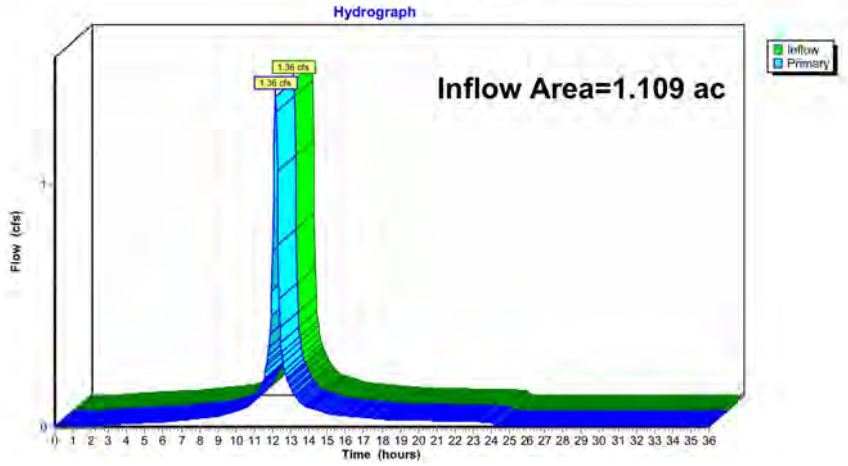
Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.01	0.00	0.01	28.50	0.00	0.00	0.00
3.00	0.01	0.00	0.01	29.00	0.00	0.00	0.00
3.50	0.01	0.00	0.01	29.50	0.00	0.00	0.00
4.00	0.01	0.00	0.01	30.00	0.00	0.00	0.00
4.50	0.01	0.00	0.01	30.50	0.00	0.00	0.00
5.00	0.02	0.00	0.02	31.00	0.00	0.00	0.00
5.50	0.02	0.00	0.02	31.50	0.00	0.00	0.00
6.00	0.02	0.00	0.02	32.00	0.00	0.00	0.00
6.50	0.02	0.00	0.02	32.50	0.00	0.00	0.00
7.00	0.03	0.00	0.03	33.00	0.00	0.00	0.00
7.50	0.03	0.00	0.03	33.50	0.00	0.00	0.00
8.00	0.03	0.00	0.03	34.00	0.00	0.00	0.00
8.50	0.04	0.00	0.04	34.50	0.00	0.00	0.00
9.00	0.04	0.00	0.04	35.00	0.00	0.00	0.00
9.50	0.05	0.00	0.05	35.50	0.00	0.00	0.00
10.00	0.06	0.00	0.06	36.00	0.00	0.00	0.00
10.50	0.07	0.00	0.07				
11.00	0.11	0.00	0.11				
11.50	0.18	0.00	0.18				
12.00	**0.83**	0.00	**0.83**				
12.50	**0.26**	0.00	**0.26**				
13.00	0.14	0.00	0.14				
13.50	0.09	0.00	0.09				
14.00	0.07	0.00	0.07				
14.50	0.06	0.00	0.06				
15.00	0.05	0.00	0.05				
15.50	0.04	0.00	0.04				
16.00	0.04	0.00	0.04				
16.50	0.04	0.00	0.04				
17.00	0.04	0.00	0.04				
17.50	0.03	0.00	0.03				
18.00	0.03	0.00	0.03				
18.50	0.03	0.00	0.03				
19.00	0.03	0.00	0.03				
19.50	0.03	0.00	0.03				
20.00	0.02	0.00	0.02				
20.50	0.02	0.00	0.02				
21.00	0.02	0.00	0.02				
21.50	0.02	0.00	0.02				
22.00	0.02	0.00	0.02				
22.50	0.02	0.00	0.02				
23.00	0.02	0.00	0.02				
23.50	0.02	0.00	0.02				
24.00	0.02	0.00	0.02				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

Summary for Link 6L: PROP. TOTAL

Inflow Area = 1.109 ac, 55.56% Impervious, Inflow Depth = 1.35" for 1-Year event
Inflow = 1.36 cfs @ 12.16 hrs, Volume= 0.125 af
Primary = 1.36 cfs @ 12.16 hrs, Volume= 0.125 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link 6L: PROP. TOTAL



Hydrograph for Link 6L: PROP. TOTAL

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.01	0.00	0.01	28.50	0.00	0.00	0.00
3.00	0.01	0.00	0.01	29.00	0.00	0.00	0.00
3.50	0.01	0.00	0.01	29.50	0.00	0.00	0.00
4.00	0.01	0.00	0.01	30.00	0.00	0.00	0.00
4.50	0.02	0.00	0.02	30.50	0.00	0.00	0.00
5.00	0.02	0.00	0.02	31.00	0.00	0.00	0.00
5.50	0.02	0.00	0.02	31.50	0.00	0.00	0.00
6.00	0.02	0.00	0.02	32.00	0.00	0.00	0.00
6.50	0.02	0.00	0.02	32.50	0.00	0.00	0.00
7.00	0.03	0.00	0.03	33.00	0.00	0.00	0.00
7.50	0.03	0.00	0.03	33.50	0.00	0.00	0.00
8.00	0.04	0.00	0.04	34.00	0.00	0.00	0.00
8.50	0.04	0.00	0.04	34.50	0.00	0.00	0.00
9.00	0.04	0.00	0.04	35.00	0.00	0.00	0.00
9.50	0.05	0.00	0.05	35.50	0.00	0.00	0.00
10.00	0.07	0.00	0.07	36.00	0.00	0.00	0.00
10.50	0.08	0.00	0.08				
11.00	0.12	0.00	0.12				
11.50	0.19	0.00	0.19				
12.00	**0.72**	0.00	**0.72**				
12.50	**0.31**	0.00	**0.31**				
13.00	0.16	0.00	0.16				
13.50	0.10	0.00	0.10				
14.00	0.08	0.00	0.08				
14.50	0.07	0.00	0.07				
15.00	0.06	0.00	0.06				
15.50	0.05	0.00	0.05				
16.00	0.05	0.00	0.05				
16.50	0.04	0.00	0.04				
17.00	0.04	0.00	0.04				
17.50	0.03	0.00	0.03				
18.00	0.03	0.00	0.03				
18.50	0.03	0.00	0.03				
19.00	0.03	0.00	0.03				
19.50	0.03	0.00	0.03				
20.00	0.03	0.00	0.03				
20.50	0.03	0.00	0.03				
21.00	0.03	0.00	0.03				
21.50	0.02	0.00	0.02				
22.00	0.02	0.00	0.02				
22.50	0.02	0.00	0.02				
23.00	0.02	0.00	0.02				
23.50	0.02	0.00	0.02				
24.00	0.02	0.00	0.02				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: EX. S PLANK ROAD Runoff Area=23,832 sf 0.00% Impervious Runoff Depth=0.56"
Flow Length=299' Tc=5.5 min CN=49 Runoff=0.24 cfs 0.026 af

Subcatchment 2S: EX. S PLANK ROAD Runoff Area=24,490 sf 100.00% Impervious Runoff Depth=4.56"
Tc=5.5 min CN=98 Runoff=2.70 cfs 0.214 af

Subcatchment 4S: PROP. S PLANK ROAD Runoff Area=8,167 sf 0.00% Impervious Runoff Depth=0.56"
Tc=5.8 min CN=49 Runoff=0.08 cfs 0.009 af

Subcatchment 5S: PROP. S PLANK Runoff Area=24,942 sf 100.00% Impervious Runoff Depth=4.56"
Flow Length=269' Tc=5.8 min CN=98 Runoff=2.72 cfs 0.218 af

Subcatchment 8S: PROP. S PLANK ROAD Runoff Area=13,309 sf 0.00% Impervious Runoff Depth=0.56"
Flow Length=200' Tc=7.5 min CN=49 Runoff=0.11 cfs 0.014 af

Subcatchment 9S: PROP S PLANK ROAD Runoff Area=1,904 sf 100.00% Impervious Runoff Depth=4.56"
Tc=7.5 min CN=98 Runoff=0.20 cfs 0.017 af

Pond 7P: PROP. HDPE BASIN Peak Elev=359.53' Storage=0.011 af Inflow=2.81 cfs 0.227 af
Outflow=2.42 cfs 0.227 af

Link 3L: EX. TOTAL Inflow=2.90 cfs 0.239 af
Primary=2.90 cfs 0.239 af

Link 6L: PROP. TOTAL Inflow=2.73 cfs 0.258 af
Primary=2.73 cfs 0.258 af

Total Runoff Area = 2.219 ac Runoff Volume = 0.497 af Average Runoff Depth = 2.69"
46.88% Pervious = 1.040 ac 53.12% Impervious = 1.179 ac

Summary for Subcatchment 1S: EX. S PLANK ROAD (PERV)

[49] Hint: Tc<2dt may require smaller dt

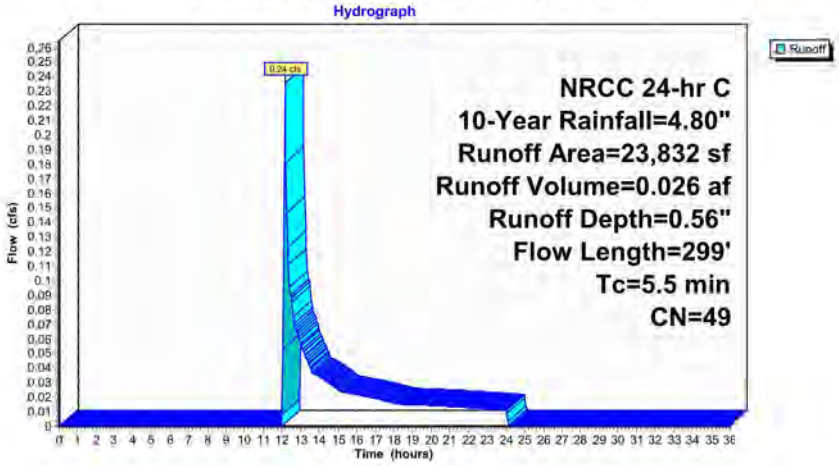
Runoff = 0.24 cfs @ 12.15 hrs, Volume= 0.026 af, Depth= 0.56"
Routed to Link 3L : EX. TOTAL

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=4.80"

Area (sf)	CN	Description
23,832	49	50-75% Grass cover, Fair, HSG A
23,832		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.9	100	0.1150	0.34		**Sheet Flow, A-B SHEET** Grass: Short n= 0.150 P2= 3.21"
0.2	61	0.0902	4.84		**Shallow Concentrated Flow, B-C SCF** Unpaved Kv= 16.1 fps
0.4	120	0.0542	4.73		**Shallow Concentrated Flow, C-D SCF** Paved Kv= 20.3 fps
0.0	18	0.0220	9.23	11.32	**Pipe Channel, D-E PIPE** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.011 Concrete pipe, straight & clean
5.5	299	Total			

Subcatchment 1S: EX. S PLANK ROAD (PERV)



Hydrograph for Subcatchment 1S: EX. S PLANK ROAD (PERV)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	4.80	0.56	0.00
0.50	0.03	0.00	0.00	26.50	4.80	0.56	0.00
1.00	0.06	0.00	0.00	27.00	4.80	0.56	0.00
1.50	0.09	0.00	0.00	27.50	4.80	0.56	0.00
2.00	0.12	0.00	0.00	28.00	4.80	0.56	0.00
2.50	0.15	0.00	0.00	28.50	4.80	0.56	0.00
3.00	0.18	0.00	0.00	29.00	4.80	0.56	0.00
3.50	0.22	0.00	0.00	29.50	4.80	0.56	0.00
4.00	0.25	0.00	0.00	30.00	4.80	0.56	0.00
4.50	0.29	0.00	0.00	30.50	4.80	0.56	0.00
5.00	0.33	0.00	0.00	31.00	4.80	0.56	0.00
5.50	0.37	0.00	0.00	31.50	4.80	0.56	0.00
6.00	0.41	0.00	0.00	32.00	4.80	0.56	0.00
6.50	0.46	0.00	0.00	32.50	4.80	0.56	0.00
7.00	0.51	0.00	0.00	33.00	4.80	0.56	0.00
7.50	0.56	0.00	0.00	33.50	4.80	0.56	0.00
8.00	0.62	0.00	0.00	34.00	4.80	0.56	0.00
8.50	0.69	0.00	0.00	34.50	4.80	0.56	0.00
9.00	0.76	0.00	0.00	35.00	4.80	0.56	0.00
9.50	0.85	0.00	0.00	35.50	4.80	0.56	0.00
10.00	0.95	0.00	0.00	36.00	4.80	0.56	0.00
10.50	1.07	0.00	0.00				
11.00	1.24	0.00	0.00				
11.50	1.50	0.00	0.00				
12.00	2.29	0.00	**0.01**				
12.50	3.30	0.13	**0.09**				
13.00	3.56	0.18	0.06				
13.50	3.73	0.23	0.04				
14.00	3.85	0.26	0.03				
14.50	3.95	0.29	0.03				
15.00	4.04	0.31	0.02				
15.50	4.11	0.33	0.02				
16.00	4.18	0.35	0.02				
16.50	4.24	0.37	0.02				
17.00	4.29	0.39	0.02				
17.50	4.34	0.40	0.02				
18.00	4.39	0.42	0.02				
18.50	4.43	0.43	0.02				
19.00	4.47	0.45	0.01				
19.50	4.51	0.46	0.01				
20.00	4.55	0.47	0.01				
20.50	4.58	0.48	0.01				
21.00	4.62	0.50	0.01				
21.50	4.65	0.51	0.01				
22.00	4.68	0.52	0.01				
22.50	4.71	0.53	0.01				
23.00	4.74	0.54	0.01				
23.50	4.77	0.55	0.01				
24.00	**4.80**	**0.56**	0.01				
24.50	4.80	0.56	0.00				
25.00	4.80	0.56	0.00				
25.50	4.80	0.56	0.00				

Summary for Subcatchment 2S: EX. S PLANK ROAD (IMPERV)

[49] Hint: Tc<2dt may require smaller dt

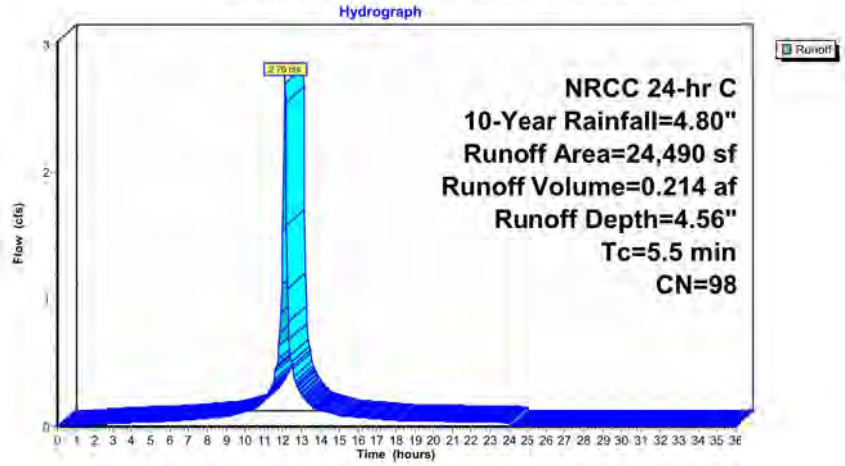
Runoff = 2.70 cfs @ 12.12 hrs, Volume= 0.214 af, Depth= 4.56"
Routed to Link 3L : EX. TOTAL

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=4.80"

Area (sf)	CN	Description
24,490	98	Paved parking, HSG A
24,490		100.00% Impervious Area

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

Subcatchment 2S: EX. S PLANK ROAD (IMPERV)



Hydrograph for Subcatchment 2S: EX. S PLANK ROAD (IMPERV)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	4.80	4.56	0.00
0.50	0.03	0.00	0.00	26.50	4.80	4.56	0.00
1.00	0.06	0.00	0.00	27.00	4.80	4.56	0.00
1.50	0.09	0.01	0.01	27.50	4.80	4.56	0.00
2.00	0.12	0.02	0.02	28.00	4.80	4.56	0.00
2.50	0.15	0.04	0.02	28.50	4.80	4.56	0.00
3.00	0.18	0.06	0.02	29.00	4.80	4.56	0.00
3.50	0.22	0.08	0.03	29.50	4.80	4.56	0.00
4.00	0.25	0.11	0.03	30.00	4.80	4.56	0.00
4.50	0.29	0.14	0.03	30.50	4.80	4.56	0.00
5.00	0.33	0.17	0.04	31.00	4.80	4.56	0.00
5.50	0.37	0.20	0.04	31.50	4.80	4.56	0.00
6.00	0.41	0.24	0.04	32.00	4.80	4.56	0.00
6.50	0.46	0.28	0.05	32.50	4.80	4.56	0.00
7.00	0.51	0.32	0.05	33.00	4.80	4.56	0.00
7.50	0.56	0.38	0.06	33.50	4.80	4.56	0.00
8.00	0.62	0.43	0.07	34.00	4.80	4.56	0.00
8.50	0.69	0.49	0.07	34.50	4.80	4.56	0.00
9.00	0.76	0.56	0.08	35.00	4.80	4.56	0.00
9.50	0.85	0.64	0.10	35.50	4.80	4.56	0.00
10.00	0.95	0.74	0.12	36.00	4.80	4.56	0.00
10.50	1.07	0.86	0.14				
11.00	1.24	1.02	0.21				
11.50	1.50	1.28	0.34				
12.00	2.29	2.06	**1.53**				
12.50	3.30	3.06	**0.48**				
13.00	3.56	3.33	0.26				
13.50	3.73	3.50	0.17				
14.00	3.85	3.62	0.13				
14.50	3.95	3.72	0.11				
15.00	4.04	3.80	0.09				
15.50	4.11	3.88	0.08				
16.00	4.18	3.94	0.07				
16.50	4.24	4.00	0.07				
17.00	4.29	4.06	0.06				
17.50	4.34	4.11	0.05				
18.00	4.39	4.15	0.05				
18.50	4.43	4.19	0.05				
19.00	4.47	4.23	0.04				
19.50	4.51	4.27	0.04				
20.00	4.55	4.31	0.04				
20.50	4.58	4.35	0.04				
21.00	4.62	4.38	0.04				
21.50	4.65	4.41	0.04				
22.00	4.68	4.45	0.04				
22.50	4.71	4.48	0.03				
23.00	4.74	4.51	0.03				
23.50	4.77	4.54	0.03				
24.00	**4.80**	**4.56**	0.03				
24.50	4.80	4.56	0.00				
25.00	4.80	4.56	0.00				
25.50	4.80	4.56	0.00				

Summary for Subcatchment 4S: PROP. S PLANK ROAD (DET) (PERV)

[49] Hint: Tc<2dt may require smaller dt

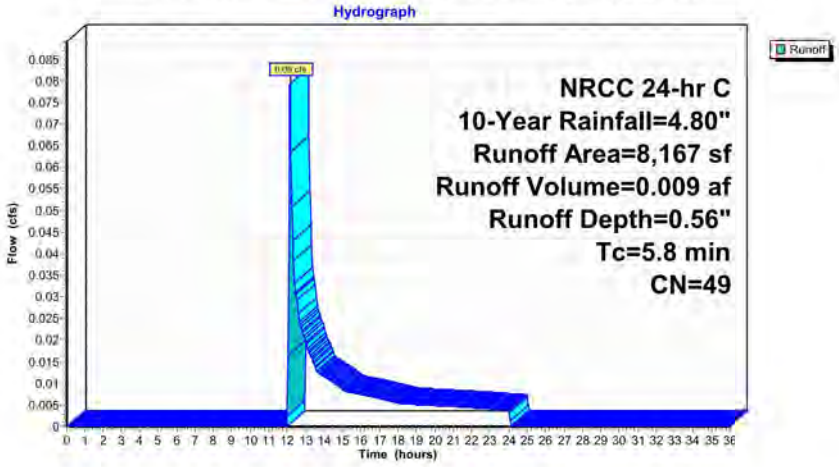
Runoff = 0.08 cfs @ 12.16 hrs, Volume= 0.009 af, Depth= 0.56"
Routed to Pond 7P : PROP. HDPE BASIN

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=4.80"

Area (sf)	CN	Description
8,167	49	50-75% Grass cover, Fair, HSG A
8,167		100.00% Pervious Area

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

Subcatchment 4S: PROP. S PLANK ROAD (DET) (PERV)



Hydrograph for Subcatchment 4S: PROP. S PLANK ROAD (DET) (PERV)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	4.80	0.56	0.00
0.50	0.03	0.00	0.00	26.50	4.80	0.56	0.00
1.00	0.06	0.00	0.00	27.00	4.80	0.56	0.00
1.50	0.09	0.00	0.00	27.50	4.80	0.56	0.00
2.00	0.12	0.00	0.00	28.00	4.80	0.56	0.00
2.50	0.15	0.00	0.00	28.50	4.80	0.56	0.00
3.00	0.18	0.00	0.00	29.00	4.80	0.56	0.00
3.50	0.22	0.00	0.00	29.50	4.80	0.56	0.00
4.00	0.25	0.00	0.00	30.00	4.80	0.56	0.00
4.50	0.29	0.00	0.00	30.50	4.80	0.56	0.00
5.00	0.33	0.00	0.00	31.00	4.80	0.56	0.00
5.50	0.37	0.00	0.00	31.50	4.80	0.56	0.00
6.00	0.41	0.00	0.00	32.00	4.80	0.56	0.00
6.50	0.46	0.00	0.00	32.50	4.80	0.56	0.00
7.00	0.51	0.00	0.00	33.00	4.80	0.56	0.00
7.50	0.56	0.00	0.00	33.50	4.80	0.56	0.00
8.00	0.62	0.00	0.00	34.00	4.80	0.56	0.00
8.50	0.69	0.00	0.00	34.50	4.80	0.56	0.00
9.00	0.76	0.00	0.00	35.00	4.80	0.56	0.00
9.50	0.85	0.00	0.00	35.50	4.80	0.56	0.00
10.00	0.95	0.00	0.00	36.00	4.80	0.56	0.00
10.50	1.07	0.00	0.00				
11.00	1.24	0.00	0.00				
11.50	1.50	0.00	0.00				
12.00	2.29	0.00	**0.00**				
12.50	3.30	0.13	**0.03**				
13.00	3.56	0.18	0.02				
13.50	3.73	0.23	0.01				
14.00	3.85	0.26	0.01				
14.50	3.95	0.29	0.01				
15.00	4.04	0.31	0.01				
15.50	4.11	0.33	0.01				
16.00	4.18	0.35	0.01				
16.50	4.24	0.37	0.01				
17.00	4.29	0.39	0.01				
17.50	4.34	0.40	0.01				
18.00	4.39	0.42	0.01				
18.50	4.43	0.43	0.01				
19.00	4.47	0.45	0.01				
19.50	4.51	0.46	0.00				
20.00	4.55	0.47	0.00				
20.50	4.58	0.48	0.00				
21.00	4.62	0.50	0.00				
21.50	4.65	0.51	0.00				
22.00	4.68	0.52	0.00				
22.50	4.71	0.53	0.00				
23.00	4.74	0.54	0.00				
23.50	4.77	0.55	0.00				
24.00	**4.80**	**0.56**	0.00				
24.50	4.80	0.56	0.00				
25.00	4.80	0.56	0.00				
25.50	4.80	0.56	0.00				

Summary for Subcatchment 5S: PROP. S PLANK ROAD (DET) (IMPERV)

[49] Hint: Tc<2dt may require smaller dt

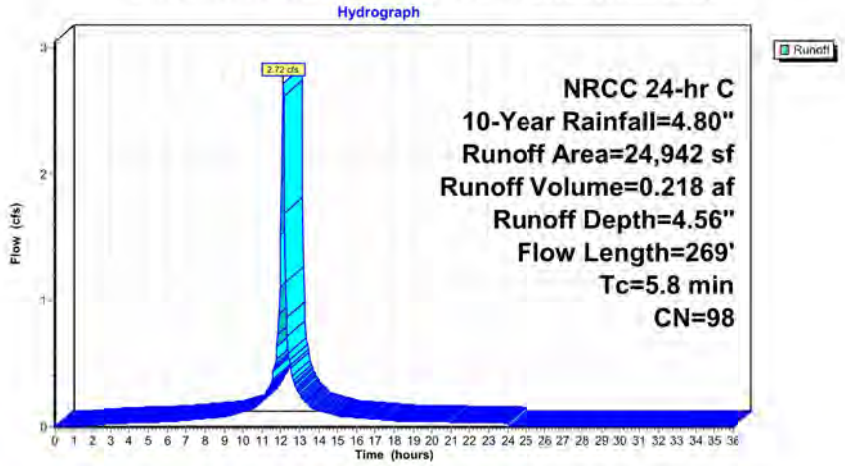
Runoff = 2.72 cfs @ 12.12 hrs, Volume= 0.218 af, Depth= 4.56"
Routed to Pond 7P : PROP. HDPE BASIN

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=4.80"

Area (sf)	CN	Description
24,942	98	Paved parking, HSG A
24,942		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	74	0.0890	0.29		**Sheet Flow, A-B SHEET** Grass: Short n= 0.150 P2= 3.21"
0.5	26	0.0150	0.94		**Sheet Flow, B-C SHEET** Smooth surfaces n= 0.011 P2= 3.21"
0.9	140	0.0150	2.49		**Shallow Concentrated Flow, C-D SCF** Paved Kv= 20.3 fps
0.1	17	0.0050	4.03	4.95	**Pipe Channel, D-E PIPE** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
0.1	12	0.0041	3.65	4.48	**Pipe Channel, E-F PIPE** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
5.8	269	Total			

Subcatchment 5S: PROP. S PLANK ROAD (DET) (IMPERV)



Hydrograph for Subcatchment 5S: PROP. S PLANK ROAD (DET) (IMPERV)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	4.80	4.56	0.00
0.50	0.03	0.00	0.00	26.50	4.80	4.56	0.00
1.00	0.06	0.00	0.00	27.00	4.80	4.56	0.00
1.50	0.09	0.01	0.01	27.50	4.80	4.56	0.00
2.00	0.12	0.02	0.02	28.00	4.80	4.56	0.00
2.50	0.15	0.04	0.02	28.50	4.80	4.56	0.00
3.00	0.18	0.06	0.03	29.00	4.80	4.56	0.00
3.50	0.22	0.08	0.03	29.50	4.80	4.56	0.00
4.00	0.25	0.11	0.03	30.00	4.80	4.56	0.00
4.50	0.29	0.14	0.03	30.50	4.80	4.56	0.00
5.00	0.33	0.17	0.04	31.00	4.80	4.56	0.00
5.50	0.37	0.20	0.04	31.50	4.80	4.56	0.00
6.00	0.41	0.24	0.04	32.00	4.80	4.56	0.00
6.50	0.46	0.28	0.05	32.50	4.80	4.56	0.00
7.00	0.51	0.32	0.05	33.00	4.80	4.56	0.00
7.50	0.56	0.38	0.06	33.50	4.80	4.56	0.00
8.00	0.62	0.43	0.07	34.00	4.80	4.56	0.00
8.50	0.69	0.49	0.07	34.50	4.80	4.56	0.00
9.00	0.76	0.56	0.08	35.00	4.80	4.56	0.00
9.50	0.85	0.64	0.10	35.50	4.80	4.56	0.00
10.00	0.95	0.74	0.12	36.00	4.80	4.56	0.00
10.50	1.07	0.86	0.14				
11.00	1.24	1.02	0.21				
11.50	1.50	1.28	0.34				
12.00	2.29	2.06	**1.52**				
12.50	3.30	3.06	**0.49**				
13.00	3.56	3.33	0.26				
13.50	3.73	3.50	0.17				
14.00	3.85	3.62	0.13				
14.50	3.95	3.72	0.11				
15.00	4.04	3.80	0.09				
15.50	4.11	3.88	0.08				
16.00	4.18	3.94	0.07				
16.50	4.24	4.00	0.07				
17.00	4.29	4.06	0.06				
17.50	4.34	4.11	0.06				
18.00	4.39	4.15	0.05				
18.50	4.43	4.19	0.05				
19.00	4.47	4.23	0.05				
19.50	4.51	4.27	0.04				
20.00	4.55	4.31	0.04				
20.50	4.58	4.35	0.04				
21.00	4.62	4.38	0.04				
21.50	4.65	4.41	0.04				
22.00	4.68	4.45	0.04				
22.50	4.71	4.48	0.04				
23.00	4.74	4.51	0.03				
23.50	4.77	4.54	0.03				
24.00	**4.80**	**4.56**	0.03				
24.50	4.80	4.56	0.00				
25.00	4.80	4.56	0.00				
25.50	4.80	4.56	0.00				

Summary for Subcatchment 8S: PROP. S PLANK ROAD (UNDET) (PERV)

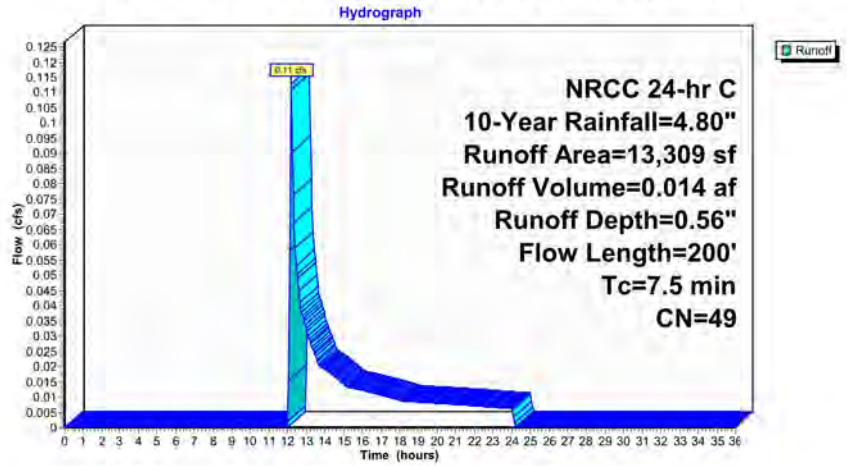
Runoff = 0.11 cfs @ 12.18 hrs, Volume= 0.014 af, Depth= 0.56"
Routed to Link 6L : PROP. TOTAL

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=4.80"

Area (sf)	CN	Description
13,309	49	50-75% Grass cover, Fair, HSG A
13,309		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.0450	0.24		**Sheet Flow, A-B SHEET** Grass: Short n= 0.150 P2= 3.21"
0.3	65	0.0460	3.45		**Shallow Concentrated Flow, B-C SCF** Unpaved Kv= 16.1 fps
0.1	35	0.0380	3.96		**Shallow Concentrated Flow, C-D SCF** Paved Kv= 20.3 fps
7.5	200	Total			

Subcatchment 8S: PROP. S PLANK ROAD (UNDET) (PERV)



Hydrograph for Subcatchment 8S: PROP. S PLANK ROAD (UNDET) (PERV)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	4.80	0.56	0.00
0.50	0.03	0.00	0.00	26.50	4.80	0.56	0.00
1.00	0.06	0.00	0.00	27.00	4.80	0.56	0.00
1.50	0.09	0.00	0.00	27.50	4.80	0.56	0.00
2.00	0.12	0.00	0.00	28.00	4.80	0.56	0.00
2.50	0.15	0.00	0.00	28.50	4.80	0.56	0.00
3.00	0.18	0.00	0.00	29.00	4.80	0.56	0.00
3.50	0.22	0.00	0.00	29.50	4.80	0.56	0.00
4.00	0.25	0.00	0.00	30.00	4.80	0.56	0.00
4.50	0.29	0.00	0.00	30.50	4.80	0.56	0.00
5.00	0.33	0.00	0.00	31.00	4.80	0.56	0.00
5.50	0.37	0.00	0.00	31.50	4.80	0.56	0.00
6.00	0.41	0.00	0.00	32.00	4.80	0.56	0.00
6.50	0.46	0.00	0.00	32.50	4.80	0.56	0.00
7.00	0.51	0.00	0.00	33.00	4.80	0.56	0.00
7.50	0.56	0.00	0.00	33.50	4.80	0.56	0.00
8.00	0.62	0.00	0.00	34.00	4.80	0.56	0.00
8.50	0.69	0.00	0.00	34.50	4.80	0.56	0.00
9.00	0.76	0.00	0.00	35.00	4.80	0.56	0.00
9.50	0.85	0.00	0.00	35.50	4.80	0.56	0.00
10.00	0.95	0.00	0.00	36.00	4.80	0.56	0.00
10.50	1.07	0.00	0.00				
11.00	1.24	0.00	0.00				
11.50	1.50	0.00	0.00				
12.00	2.29	0.00	**0.00**				
12.50	3.30	0.13	**0.05**				
13.00	3.56	0.18	0.03				
13.50	3.73	0.23	0.02				
14.00	3.85	0.26	0.02				
14.50	3.95	0.29	0.02				
15.00	4.04	0.31	0.01				
15.50	4.11	0.33	0.01				
16.00	4.18	0.35	0.01				
16.50	4.24	0.37	0.01				
17.00	4.29	0.39	0.01				
17.50	4.34	0.40	0.01				
18.00	4.39	0.42	0.01				
18.50	4.43	0.43	0.01				
19.00	4.47	0.45	0.01				
19.50	4.51	0.46	0.01				
20.00	4.55	0.47	0.01				
20.50	4.58	0.48	0.01				
21.00	4.62	0.50	0.01				
21.50	4.65	0.51	0.01				
22.00	4.68	0.52	0.01				
22.50	4.71	0.53	0.01				
23.00	4.74	0.54	0.01				
23.50	4.77	0.55	0.01				
24.00	**4.80**	**0.56**	0.01				
24.50	4.80	0.56	0.00				
25.00	4.80	0.56	0.00				
25.50	4.80	0.56	0.00				

Summary for Subcatchment 9S: PROP S PLANK ROAD (UNDET) (IMPERV)

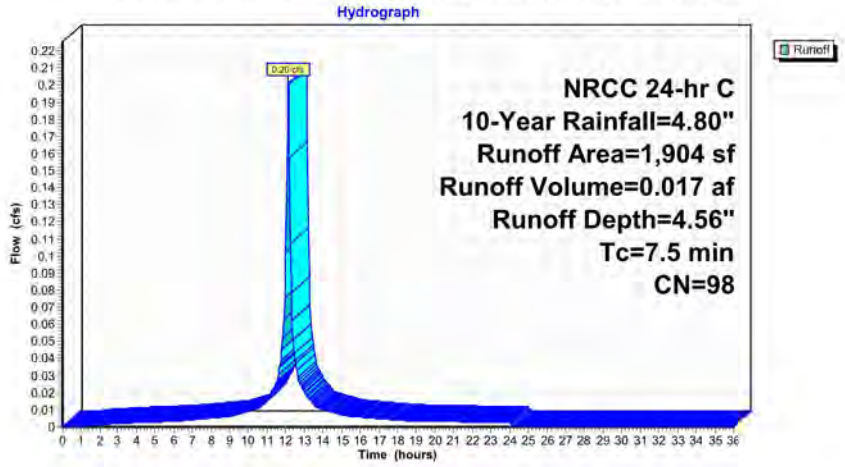
Runoff = 0.20 cfs @ 12.14 hrs, Volume= 0.017 af, Depth= 4.56"
Routed to Link 6L : PROP. TOTAL

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=4.80"

Area (sf)	CN	Description
1,904	98	Paved parking, HSG A
1,904		100.00% Impervious Area

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

Subcatchment 9S: PROP S PLANK ROAD (UNDET) (IMPERV)



Hydrograph for Subcatchment 9S: PROP S PLANK ROAD (UNDET) (IMPERV)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	4.80	4.56	0.00
0.50	0.03	0.00	0.00	26.50	4.80	4.56	0.00
1.00	0.06	0.00	0.00	27.00	4.80	4.56	0.00
1.50	0.09	0.01	0.00	27.50	4.80	4.56	0.00
2.00	0.12	0.02	0.00	28.00	4.80	4.56	0.00
2.50	0.15	0.04	0.00	28.50	4.80	4.56	0.00
3.00	0.18	0.06	0.00	29.00	4.80	4.56	0.00
3.50	0.22	0.08	0.00	29.50	4.80	4.56	0.00
4.00	0.25	0.11	0.00	30.00	4.80	4.56	0.00
4.50	0.29	0.14	0.00	30.50	4.80	4.56	0.00
5.00	0.33	0.17	0.00	31.00	4.80	4.56	0.00
5.50	0.37	0.20	0.00	31.50	4.80	4.56	0.00
6.00	0.41	0.24	0.00	32.00	4.80	4.56	0.00
6.50	0.46	0.28	0.00	32.50	4.80	4.56	0.00
7.00	0.51	0.32	0.00	33.00	4.80	4.56	0.00
7.50	0.56	0.38	0.00	33.50	4.80	4.56	0.00
8.00	0.62	0.43	0.01	34.00	4.80	4.56	0.00
8.50	0.69	0.49	0.01	34.50	4.80	4.56	0.00
9.00	0.76	0.56	0.01	35.00	4.80	4.56	0.00
9.50	0.85	0.64	0.01	35.50	4.80	4.56	0.00
10.00	0.95	0.74	0.01	36.00	4.80	4.56	0.00
10.50	1.07	0.86	0.01				
11.00	1.24	1.02	0.02				
11.50	1.50	1.28	0.03				
12.00	2.29	2.06	**0.10**				
12.50	3.30	3.06	**0.04**				
13.00	3.56	3.33	0.02				
13.50	3.73	3.50	0.01				
14.00	3.85	3.62	0.01				
14.50	3.95	3.72	0.01				
15.00	4.04	3.80	0.01				
15.50	4.11	3.88	0.01				
16.00	4.18	3.94	0.01				
16.50	4.24	4.00	0.01				
17.00	4.29	4.06	0.00				
17.50	4.34	4.11	0.00				
18.00	4.39	4.15	0.00				
18.50	4.43	4.19	0.00				
19.00	4.47	4.23	0.00				
19.50	4.51	4.27	0.00				
20.00	4.55	4.31	0.00				
20.50	4.58	4.35	0.00				
21.00	4.62	4.38	0.00				
21.50	4.65	4.41	0.00				
22.00	4.68	4.45	0.00				
22.50	4.71	4.48	0.00				
23.00	4.74	4.51	0.00				
23.50	4.77	4.54	0.00				
24.00	**4.80**	**4.56**	0.00				
24.50	4.80	4.56	0.00				
25.00	4.80	4.56	0.00				
25.50	4.80	4.56	0.00				

Summary for Pond 7P: PROP. HDPE BASIN

Inflow Area = 0.760 ac, 75.33% Impervious, Inflow Depth = 3.58" for 10-Year event
Inflow = 2.81 cfs @ 12.13 hrs, Volume= 0.227 af
Outflow = 2.42 cfs @ 12.17 hrs, Volume= 0.227 af, Atten= 14%, Lag= 2.4 min
Primary = 2.42 cfs @ 12.17 hrs, Volume= 0.227 af
Routed to Link 6L : PROP. TOTAL

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 359.53' @ 12.16 hrs Surf.Area= 0.009 ac Storage= 0.011 af

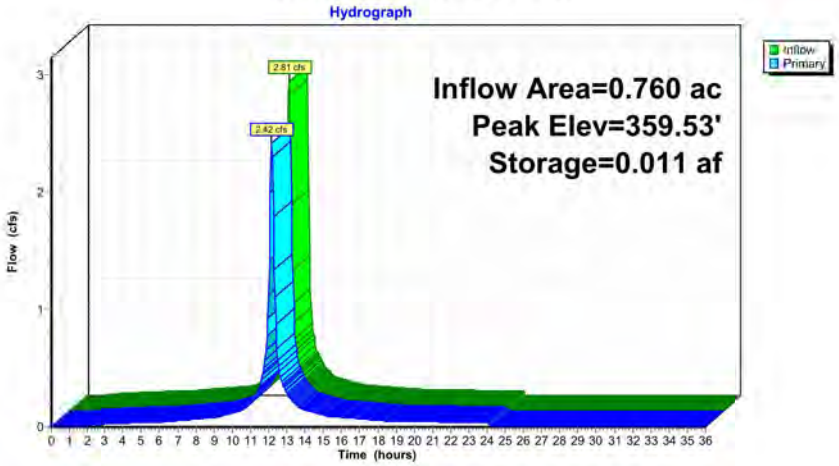
Plug-Flow detention time= 3.4 min calculated for 0.226 af (100% of inflow)
Center-of-Mass det. time= 3.4 min (760.9 - 757.5)

Volume	Invert	Avail.Storage	Storage Description
#1	358.00'	0.022 af	**36.0" Round Pipe Storage** x 3 L= 45.0'

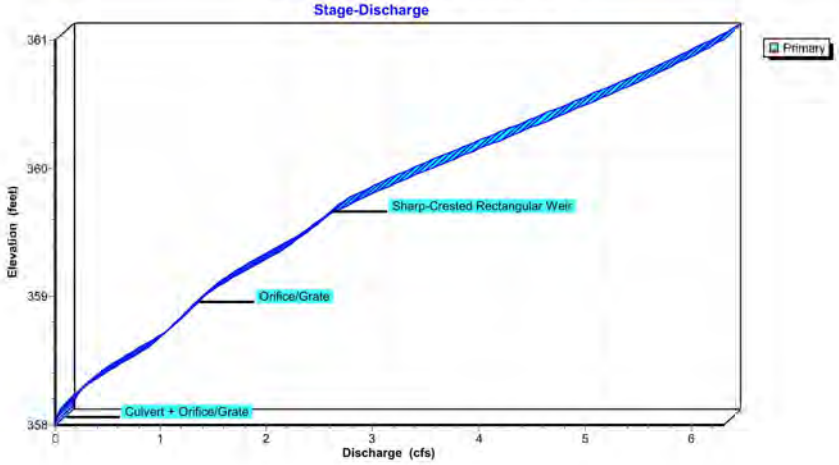
Device	Routing	Invert	Outlet Devices
#1	Primary	358.00'	**15.0" Round Culvert** L= 61.0' Ke= 0.500 Inlet / Outlet Invert= 358.00' / 353.50' S= 0.0738 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.23 sf
#2	Device 1	358.00'	**8.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	358.90'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	359.60'	**0.7' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=2.37 cfs @ 12.17 hrs HW=359.50' (Free Discharge)
└**1=Culvert** (Passes 2.37 cfs of 5.52 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 1.81 cfs @ 5.19 fps)
  ├**3=Orifice/Grate** (Orifice Controls 0.56 cfs @ 2.83 fps)
  └**4=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

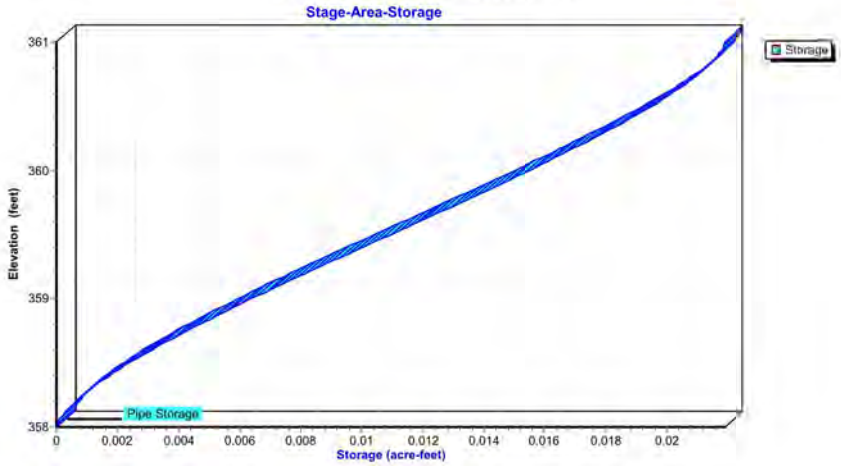
Pond 7P: PROP. HDPE BASIN



Pond 7P: PROP. HDPE BASIN



Pond 7P: PROP. HDPE BASIN



Hydrograph for Pond 7P: PROP. HDPE BASIN

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.000	358.00	0.00
1.00	0.00	0.000	358.01	0.00
2.00	0.02	0.000	358.06	0.02
3.00	0.03	0.000	358.08	0.02
4.00	0.03	0.000	358.09	0.03
5.00	0.04	0.000	358.10	0.04
6.00	0.04	0.000	358.11	0.04
7.00	0.05	0.000	358.12	0.05
8.00	0.07	0.000	358.14	0.07
9.00	0.08	0.000	358.15	0.08
10.00	0.12	0.001	358.19	0.12
11.00	0.21	0.001	358.25	0.21
12.00	**1.52**	**0.005**	**358.78**	**1.13**
13.00	**0.28**	**0.001**	**358.30**	**0.29**
14.00	0.14	0.001	358.21	0.15
15.00	0.10	0.001	358.17	0.10
16.00	0.08	0.000	358.15	0.08
17.00	0.07	0.000	358.14	0.07
18.00	0.06	0.000	358.13	0.06
19.00	0.05	0.000	358.12	0.05
20.00	0.05	0.000	358.12	0.05
21.00	0.04	0.000	358.11	0.04
22.00	0.04	0.000	358.11	0.04
23.00	0.04	0.000	358.10	0.04
24.00	0.03	0.000	358.10	0.03
25.00	0.00	0.000	358.00	0.00
26.00	0.00	0.000	358.00	0.00
27.00	0.00	0.000	358.00	0.00
28.00	0.00	0.000	358.00	0.00
29.00	0.00	0.000	358.00	0.00
30.00	0.00	0.000	358.00	0.00
31.00	0.00	0.000	358.00	0.00
32.00	0.00	0.000	358.00	0.00
33.00	0.00	0.000	358.00	0.00
34.00	0.00	0.000	358.00	0.00
35.00	0.00	0.000	358.00	0.00
36.00	0.00	0.000	358.00	0.00

Stage-Discharge for Pond 7P: PROP. HDPE BASIN

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
358.00	0.00	359.04	1.47	360.08	3.79
358.02	0.00	359.06	1.51	360.10	3.85
358.04	0.01	359.08	1.54	360.12	3.91
358.06	0.01	359.10	1.58	360.14	3.97
358.08	0.02	359.12	1.62	360.16	4.03
358.10	0.04	359.14	1.66	360.18	4.09
358.12	0.05	359.16	1.71	360.20	4.15
358.14	0.07	359.18	1.75	360.22	4.21
358.16	0.09	359.20	1.79	360.24	4.27
358.18	0.11	359.22	1.84	360.26	4.32
358.20	0.13	359.24	1.88	360.28	4.38
358.22	0.16	359.26	1.93	360.30	4.44
358.24	0.19	359.28	1.97	360.32	4.50
358.26	0.22	359.30	2.02	360.34	4.56
358.28	0.25	359.32	2.06	360.36	4.62
358.30	0.28	359.34	2.10	360.38	4.68
358.32	0.32	359.36	2.14	360.40	4.74
358.34	0.36	359.38	2.18	360.42	4.79
358.36	0.39	359.40	2.21	360.44	4.85
358.38	0.43	359.42	2.24	360.46	4.91
358.40	0.47	359.44	2.28	360.48	4.97
358.42	0.51	359.46	2.31	360.50	5.02
358.44	0.55	359.48	2.34	360.52	5.08
358.46	0.59	359.50	2.37	360.54	5.14
358.48	0.63	359.52	2.41	360.56	5.19
358.50	0.68	359.54	2.44	360.58	5.25
358.52	0.72	359.56	2.47	360.60	5.30
358.54	0.76	359.58	2.50	360.62	5.36
358.56	0.80	359.60	2.53	360.64	5.41
358.58	0.84	359.62	2.56	360.66	5.47
358.60	0.87	359.64	2.60	360.68	5.52
358.62	0.91	359.66	2.64	360.70	5.57
358.64	0.94	359.68	2.69	360.72	5.63
358.66	0.96	359.70	2.74	360.74	5.68
358.68	0.99	359.72	2.78	360.76	5.73
358.70	1.02	359.74	2.83	360.78	5.78
358.72	1.05	359.76	2.89	360.80	5.83
358.74	1.07	359.78	2.94	360.82	5.88
358.76	1.10	359.80	2.99	360.84	5.93
358.78	1.12	359.82	3.04	360.86	5.98
358.80	1.15	359.84	3.10	360.88	6.03
358.82	1.17	359.86	3.15	360.90	6.08
358.84	1.20	359.88	3.21	360.92	6.12
358.86	1.22	359.90	3.27	360.94	6.17
358.88	1.24	359.92	3.32	360.96	6.22
358.90	1.27	359.94	3.38	360.98	6.26
358.92	1.29	359.96	3.44	361.00	**6.31**
358.94	1.31	359.98	3.50		
358.96	1.34	360.00	3.55		
358.98	1.37	360.02	3.61		
359.00	1.40	360.04	3.67		
359.02	1.44	360.06	3.73		

Stage-Area-Storage for Pond 7P: PROP. HDPE BASIN

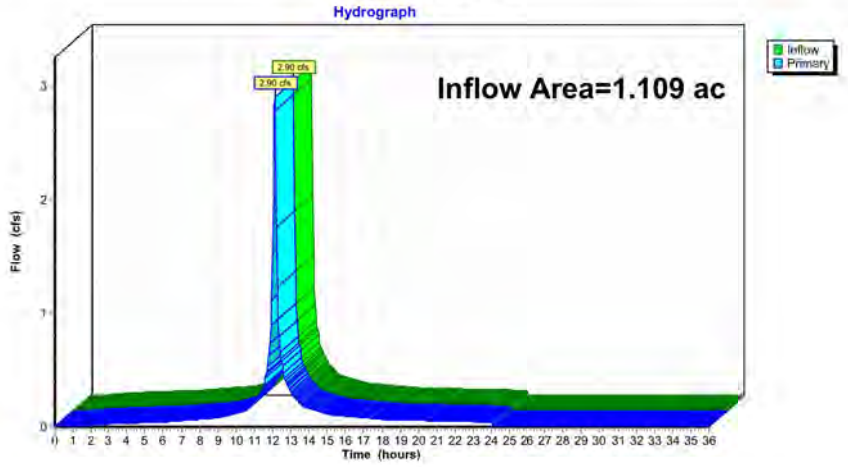
Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
358.00	0.000	359.04	0.007	360.08	0.016
358.02	0.000	359.06	0.007	360.10	0.016
358.04	0.000	359.08	0.007	360.12	0.017
358.06	0.000	359.10	0.007	360.14	0.017
358.08	0.000	359.12	0.007	360.16	0.017
358.10	0.000	359.14	0.008	360.18	0.017
358.12	0.000	359.16	0.008	360.20	0.017
358.14	0.000	359.18	0.008	360.22	0.017
358.16	0.000	359.20	0.008	360.24	0.018
358.18	0.001	359.22	0.008	360.26	0.018
358.20	0.001	359.24	0.009	360.28	0.018
358.22	0.001	359.26	0.009	360.30	0.018
358.24	0.001	359.28	0.009	360.32	0.018
358.26	0.001	359.30	0.009	360.34	0.018
358.28	0.001	359.32	0.009	360.36	0.018
358.30	0.001	359.34	0.009	360.38	0.019
358.32	0.001	359.36	0.010	360.40	0.019
358.34	0.001	359.38	0.010	360.42	0.019
358.36	0.001	359.40	0.010	360.44	0.019
358.38	0.002	359.42	0.010	360.46	0.019
358.40	0.002	359.44	0.010	360.48	0.019
358.42	0.002	359.46	0.011	360.50	0.020
358.44	0.002	359.48	0.011	360.52	0.020
358.46	0.002	359.50	0.011	360.54	0.020
358.48	0.002	359.52	0.011	360.56	0.020
358.50	0.002	359.54	0.011	360.58	0.020
358.52	0.003	359.56	0.012	360.60	0.020
358.54	0.003	359.58	0.012	360.62	0.020
358.56	0.003	359.60	0.012	360.64	0.020
358.58	0.003	359.62	0.012	360.66	0.021
358.60	0.003	359.64	0.012	360.68	0.021
358.62	0.003	359.66	0.012	360.70	0.021
358.64	0.003	359.68	0.013	360.72	0.021
358.66	0.004	359.70	0.013	360.74	0.021
358.68	0.004	359.72	0.013	360.76	0.021
358.70	0.004	359.74	0.013	360.78	0.021
358.72	0.004	359.76	0.013	360.80	0.021
358.74	0.004	359.78	0.014	360.82	0.021
358.76	0.004	359.80	0.014	360.84	0.021
358.78	0.005	359.82	0.014	360.86	0.022
358.80	0.005	359.84	0.014	360.88	0.022
358.82	0.005	359.86	0.014	360.90	0.022
358.84	0.005	359.88	0.014	360.92	0.022
358.86	0.005	359.90	0.015	360.94	0.022
358.88	0.005	359.92	0.015	360.96	0.022
358.90	0.006	359.94	0.015	360.98	0.022
358.92	0.006	359.96	0.015	361.00	**0.022**
358.94	0.006	359.98	0.015		
358.96	0.006	360.00	0.016		
358.98	0.006	360.02	0.016		
359.00	0.006	360.04	0.016		
359.02	0.007	360.06	0.016		

Summary for Link 3L: EX. TOTAL

Inflow Area = 1.109 ac, 50.68% Impervious, Inflow Depth = 2.59" for 10-Year event
Inflow = 2.90 cfs @ 12.12 hrs, Volume= 0.239 af
Primary = 2.90 cfs @ 12.12 hrs, Volume= 0.239 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link 3L: EX. TOTAL



Hydrograph for Link 3L: EX. TOTAL

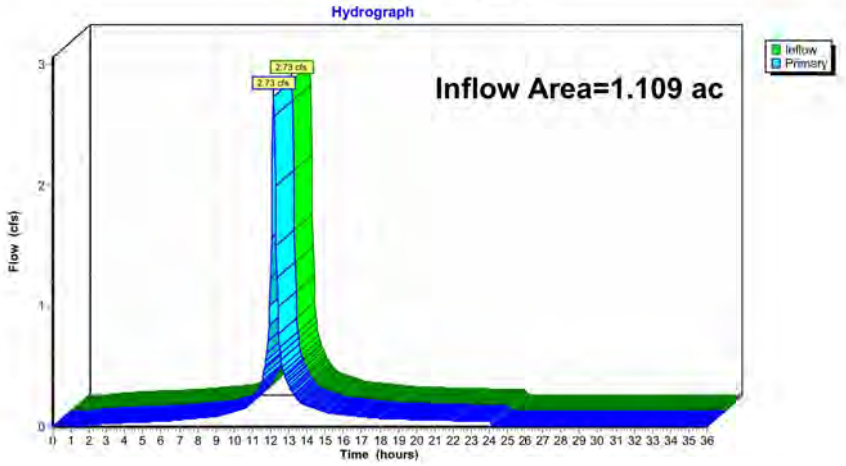
Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.01	0.00	0.01	27.50	0.00	0.00	0.00
2.00	0.02	0.00	0.02	28.00	0.00	0.00	0.00
2.50	0.02	0.00	0.02	28.50	0.00	0.00	0.00
3.00	0.02	0.00	0.02	29.00	0.00	0.00	0.00
3.50	0.03	0.00	0.03	29.50	0.00	0.00	0.00
4.00	0.03	0.00	0.03	30.00	0.00	0.00	0.00
4.50	0.03	0.00	0.03	30.50	0.00	0.00	0.00
5.00	0.04	0.00	0.04	31.00	0.00	0.00	0.00
5.50	0.04	0.00	0.04	31.50	0.00	0.00	0.00
6.00	0.04	0.00	0.04	32.00	0.00	0.00	0.00
6.50	0.05	0.00	0.05	32.50	0.00	0.00	0.00
7.00	0.05	0.00	0.05	33.00	0.00	0.00	0.00
7.50	0.06	0.00	0.06	33.50	0.00	0.00	0.00
8.00	0.07	0.00	0.07	34.00	0.00	0.00	0.00
8.50	0.07	0.00	0.07	34.50	0.00	0.00	0.00
9.00	0.08	0.00	0.08	35.00	0.00	0.00	0.00
9.50	0.10	0.00	0.10	35.50	0.00	0.00	0.00
10.00	0.12	0.00	0.12	36.00	0.00	0.00	0.00
10.50	0.14	0.00	0.14				
11.00	0.21	0.00	0.21				
11.50	0.34	0.00	0.34				
12.00	**1.53**	0.00	**1.53**				
12.50	**0.57**	0.00	**0.57**				
13.00	0.31	0.00	0.31				
13.50	0.21	0.00	0.21				
14.00	0.16	0.00	0.16				
14.50	0.14	0.00	0.14				
15.00	0.11	0.00	0.11				
15.50	0.10	0.00	0.10				
16.00	0.09	0.00	0.09				
16.50	0.09	0.00	0.09				
17.00	0.08	0.00	0.08				
17.50	0.07	0.00	0.07				
18.00	0.06	0.00	0.06				
18.50	0.06	0.00	0.06				
19.00	0.06	0.00	0.06				
19.50	0.06	0.00	0.06				
20.00	0.06	0.00	0.06				
20.50	0.05	0.00	0.05				
21.00	0.05	0.00	0.05				
21.50	0.05	0.00	0.05				
22.00	0.05	0.00	0.05				
22.50	0.05	0.00	0.05				
23.00	0.05	0.00	0.05				
23.50	0.04	0.00	0.04				
24.00	0.04	0.00	0.04				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

Summary for Link 6L: PROP. TOTAL

Inflow Area = 1.109 ac, 55.56% Impervious, Inflow Depth = 2.79" for 10-Year event
Inflow = 2.73 cfs @ 12.16 hrs, Volume= 0.258 af
Primary = 2.73 cfs @ 12.16 hrs, Volume= 0.258 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link 6L: PROP. TOTAL



Hydrograph for Link 6L: PROP. TOTAL

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.01	0.00	0.01	27.50	0.00	0.00	0.00
2.00	0.02	0.00	0.02	28.00	0.00	0.00	0.00
2.50	0.02	0.00	0.02	28.50	0.00	0.00	0.00
3.00	0.03	0.00	0.03	29.00	0.00	0.00	0.00
3.50	0.03	0.00	0.03	29.50	0.00	0.00	0.00
4.00	0.03	0.00	0.03	30.00	0.00	0.00	0.00
4.50	0.04	0.00	0.04	30.50	0.00	0.00	0.00
5.00	0.04	0.00	0.04	31.00	0.00	0.00	0.00
5.50	0.04	0.00	0.04	31.50	0.00	0.00	0.00
6.00	0.05	0.00	0.05	32.00	0.00	0.00	0.00
6.50	0.05	0.00	0.05	32.50	0.00	0.00	0.00
7.00	0.06	0.00	0.06	33.00	0.00	0.00	0.00
7.50	0.06	0.00	0.06	33.50	0.00	0.00	0.00
8.00	0.07	0.00	0.07	34.00	0.00	0.00	0.00
8.50	0.08	0.00	0.08	34.50	0.00	0.00	0.00
9.00	0.09	0.00	0.09	35.00	0.00	0.00	0.00
9.50	0.11	0.00	0.11	35.50	0.00	0.00	0.00
10.00	0.13	0.00	0.13	36.00	0.00	0.00	0.00
10.50	0.15	0.00	0.15				
11.00	0.22	0.00	0.22				
11.50	0.36	0.00	0.36				
12.00	**1.23**	0.00	**1.23**				
12.50	**0.66**	0.00	**0.66**				
13.00	0.35	0.00	0.35				
13.50	0.23	0.00	0.23				
14.00	0.18	0.00	0.18				
14.50	0.15	0.00	0.15				
15.00	0.12	0.00	0.12				
15.50	0.11	0.00	0.11				
16.00	0.10	0.00	0.10				
16.50	0.09	0.00	0.09				
17.00	0.08	0.00	0.08				
17.50	0.08	0.00	0.08				
18.00	0.07	0.00	0.07				
18.50	0.06	0.00	0.06				
19.00	0.06	0.00	0.06				
19.50	0.06	0.00	0.06				
20.00	0.06	0.00	0.06				
20.50	0.06	0.00	0.06				
21.00	0.06	0.00	0.06				
21.50	0.05	0.00	0.05				
22.00	0.05	0.00	0.05				
22.50	0.05	0.00	0.05				
23.00	0.05	0.00	0.05				
23.50	0.05	0.00	0.05				
24.00	0.04	0.00	0.04				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: EX. S PLANK ROAD Runoff Area=23,832 sf 0.00% Impervious Runoff Depth=2.49"
Flow Length=299' Tc=5.5 min CN=49 Runoff=1.63 cfs 0.114 af

Subcatchment 2S: EX. S PLANK ROAD Runoff Area=24,490 sf 100.00% Impervious Runoff Depth=8.33"
Tc=5.5 min CN=98 Runoff=4.85 cfs 0.390 af

Subcatchment 4S: PROP. S PLANK ROAD Runoff Area=8,167 sf 0.00% Impervious Runoff Depth=2.49"
Tc=5.8 min CN=49 Runoff=0.55 cfs 0.039 af

Subcatchment 5S: PROP. S PLANK Runoff Area=24,942 sf 100.00% Impervious Runoff Depth=8.33"
Flow Length=269' Tc=5.8 min CN=98 Runoff=4.87 cfs 0.397 af

Subcatchment 8S: PROP. S PLANK ROAD Runoff Area=13,309 sf 0.00% Impervious Runoff Depth=2.49"
Flow Length=200' Tc=7.5 min CN=49 Runoff=0.85 cfs 0.063 af

Subcatchment 9S: PROP S PLANK ROAD Runoff Area=1,904 sf 100.00% Impervious Runoff Depth=8.33"
Tc=7.5 min CN=98 Runoff=0.36 cfs 0.030 af

Pond 7P: PROP. HDPE BASIN Peak Elev=360.53' Storage=0.020 af Inflow=5.46 cfs 0.436 af
Outflow=5.12 cfs 0.436 af

Link 3L: EX. TOTAL Inflow=6.43 cfs 0.504 af
Primary=6.43 cfs 0.504 af

Link 6L: PROP. TOTAL Inflow=6.33 cfs 0.530 af
Primary=6.33 cfs 0.530 af

Total Runoff Area = 2.219 ac Runoff Volume = 1.034 af Average Runoff Depth = 5.59"
46.88% Pervious = 1.040 ac 53.12% Impervious = 1.179 ac

Summary for Subcatchment 1S: EX. S PLANK ROAD (PERV)

[49] Hint: Tc<2dt may require smaller dt

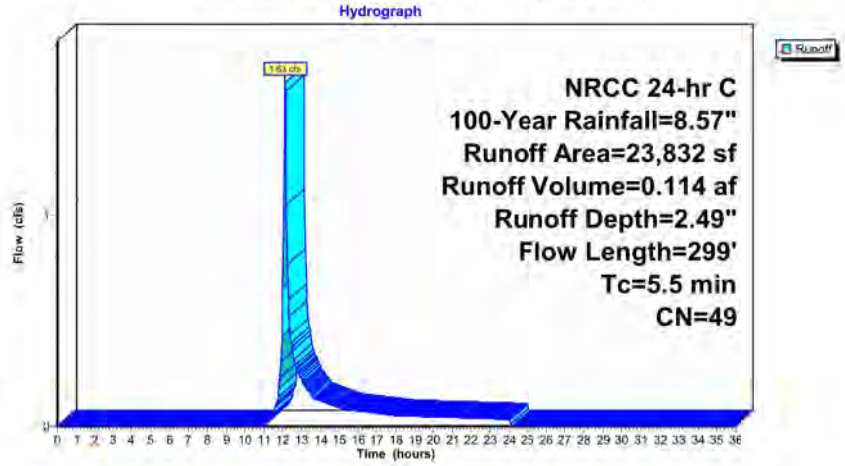
Runoff = 1.63 cfs @ 12.13 hrs, Volume= 0.114 af, Depth= 2.49"
Routed to Link 3L : EX. TOTAL

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 100-Year Rainfall=8.57"

Area (sf)	CN	Description
23,832	49	50-75% Grass cover, Fair, HSG A
23,832		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.9	100	0.1150	0.34		**Sheet Flow, A-B SHEET** Grass: Short n= 0.150 P2= 3.21"
0.2	61	0.0902	4.84		**Shallow Concentrated Flow, B-C SCF** Unpaved Kv= 16.1 fps
0.4	120	0.0542	4.73		**Shallow Concentrated Flow, C-D SCF** Paved Kv= 20.3 fps
0.0	18	0.0220	9.23	11.32	**Pipe Channel, D-E PIPE** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.011 Concrete pipe, straight & clean
5.5	299	Total			

Subcatchment 1S: EX. S PLANK ROAD (PERV)



Hydrograph for Subcatchment 1S: EX. S PLANK ROAD (PERV)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	8.57	2.49	0.00
0.50	0.05	0.00	0.00	26.50	8.57	2.49	0.00
1.00	0.10	0.00	0.00	27.00	8.57	2.49	0.00
1.50	0.15	0.00	0.00	27.50	8.57	2.49	0.00
2.00	0.21	0.00	0.00	28.00	8.57	2.49	0.00
2.50	0.27	0.00	0.00	28.50	8.57	2.49	0.00
3.00	0.33	0.00	0.00	29.00	8.57	2.49	0.00
3.50	0.39	0.00	0.00	29.50	8.57	2.49	0.00
4.00	0.45	0.00	0.00	30.00	8.57	2.49	0.00
4.50	0.52	0.00	0.00	30.50	8.57	2.49	0.00
5.00	0.59	0.00	0.00	31.00	8.57	2.49	0.00
5.50	0.66	0.00	0.00	31.50	8.57	2.49	0.00
6.00	0.74	0.00	0.00	32.00	8.57	2.49	0.00
6.50	0.82	0.00	0.00	32.50	8.57	2.49	0.00
7.00	0.91	0.00	0.00	33.00	8.57	2.49	0.00
7.50	1.01	0.00	0.00	33.50	8.57	2.49	0.00
8.00	1.11	0.00	0.00	34.00	8.57	2.49	0.00
8.50	1.23	0.00	0.00	34.50	8.57	2.49	0.00
9.00	1.36	0.00	0.00	35.00	8.57	2.49	0.00
9.50	1.51	0.00	0.00	35.50	8.57	2.49	0.00
10.00	1.69	0.00	0.00	36.00	8.57	2.49	0.00
10.50	1.91	0.00	0.00				
11.00	2.21	0.00	0.01				
11.50	2.68	0.03	0.05				
12.00	4.08	0.32	**0.66**				
12.50	5.89	1.02	**0.38**				
13.00	6.36	1.25	0.22				
13.50	6.66	1.40	0.15				
14.00	6.88	1.51	0.12				
14.50	7.06	1.61	0.10				
15.00	7.21	1.69	0.08				
15.50	7.34	1.76	0.08				
16.00	7.46	1.83	0.07				
16.50	7.56	1.89	0.07				
17.00	7.66	1.95	0.06				
17.50	7.75	2.00	0.06				
18.00	7.83	2.05	0.05				
18.50	7.91	2.09	0.05				
19.00	7.98	2.13	0.05				
19.50	8.05	2.18	0.05				
20.00	8.12	2.22	0.04				
20.50	8.18	2.25	0.04				
21.00	8.24	2.29	0.04				
21.50	8.30	2.33	0.04				
22.00	8.36	2.36	0.04				
22.50	8.42	2.40	0.04				
23.00	8.47	2.43	0.04				
23.50	8.52	2.46	0.03				
24.00	**8.57**	**2.49**	0.03				
24.50	8.57	2.49	0.00				
25.00	8.57	2.49	0.00				
25.50	8.57	2.49	0.00				

Summary for Subcatchment 2S: EX. S PLANK ROAD (IMPERV)

[49] Hint: Tc<2dt may require smaller dt

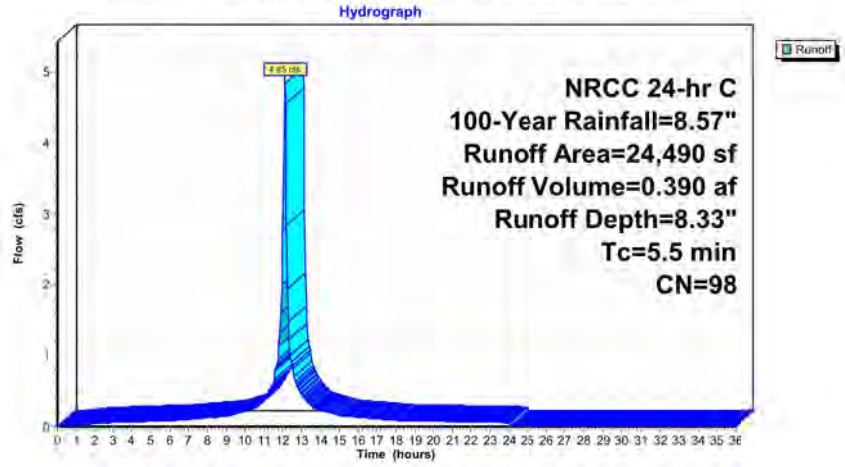
Runoff = 4.85 cfs @ 12.12 hrs, Volume= 0.390 af, Depth= 8.33"
Routed to Link 3L : EX. TOTAL

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 100-Year Rainfall=8.57"

Area (sf)	CN	Description
24,490	98	Paved parking, HSG A
24,490		100.00% Impervious Area

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

Subcatchment 2S: EX. S PLANK ROAD (IMPERV)



Hydrograph for Subcatchment 2S: EX. S PLANK ROAD (IMPERV)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	8.57	8.33	0.00
0.50	0.05	0.00	0.00	26.50	8.57	8.33	0.00
1.00	0.10	0.01	0.02	27.00	8.57	8.33	0.00
1.50	0.15	0.04	0.03	27.50	8.57	8.33	0.00
2.00	0.21	0.08	0.04	28.00	8.57	8.33	0.00
2.50	0.27	0.12	0.05	28.50	8.57	8.33	0.00
3.00	0.33	0.17	0.06	29.00	8.57	8.33	0.00
3.50	0.39	0.22	0.06	29.50	8.57	8.33	0.00
4.00	0.45	0.28	0.07	30.00	8.57	8.33	0.00
4.50	0.52	0.34	0.07	30.50	8.57	8.33	0.00
5.00	0.59	0.40	0.07	31.00	8.57	8.33	0.00
5.50	0.66	0.47	0.08	31.50	8.57	8.33	0.00
6.00	0.74	0.54	0.08	32.00	8.57	8.33	0.00
6.50	0.82	0.61	0.09	32.50	8.57	8.33	0.00
7.00	0.91	0.70	0.10	33.00	8.57	8.33	0.00
7.50	1.01	0.80	0.11	33.50	8.57	8.33	0.00
8.00	1.11	0.90	0.12	34.00	8.57	8.33	0.00
8.50	1.23	1.02	0.13	34.50	8.57	8.33	0.00
9.00	1.36	1.14	0.15	35.00	8.57	8.33	0.00
9.50	1.51	1.29	0.18	35.50	8.57	8.33	0.00
10.00	1.69	1.47	0.22	36.00	8.57	8.33	0.00
10.50	1.91	1.68	0.25				
11.00	2.21	1.98	0.38				
11.50	2.68	2.45	0.61				
12.00	4.08	3.85	**2.74**				
12.50	5.89	5.65	**0.86**				
13.00	6.36	6.12	0.46				
13.50	6.66	6.42	0.30				
14.00	6.88	6.64	0.23				
14.50	7.06	6.82	0.20				
15.00	7.21	6.97	0.16				
15.50	7.34	7.10	0.14				
16.00	7.46	7.22	0.13				
16.50	7.56	7.33	0.12				
17.00	7.66	7.42	0.11				
17.50	7.75	7.51	0.10				
18.00	7.83	7.60	0.09				
18.50	7.91	7.67	0.08				
19.00	7.98	7.74	0.08				
19.50	8.05	7.81	0.08				
20.00	8.12	7.88	0.08				
20.50	8.18	7.94	0.07				
21.00	8.24	8.00	0.07				
21.50	8.30	8.06	0.07				
22.00	8.36	8.12	0.06				
22.50	8.42	8.18	0.06				
23.00	8.47	8.23	0.06				
23.50	8.52	8.28	0.06				
24.00	**8.57**	**8.33**	0.05				
24.50	8.57	8.33	0.00				
25.00	8.57	8.33	0.00				
25.50	8.57	8.33	0.00				

Summary for Subcatchment 4S: PROP. S PLANK ROAD (DET) (PERV)

[49] Hint: Tc<2dt may require smaller dt

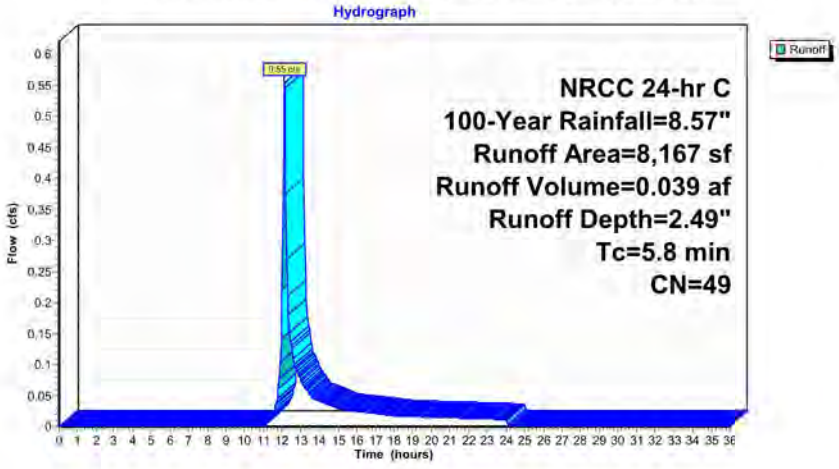
Runoff = 0.55 cfs @ 12.14 hrs, Volume= 0.039 af, Depth= 2.49"
Routed to Pond 7P : PROP. HDPE BASIN

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 100-Year Rainfall=8.57"

Area (sf)	CN	Description
8,167	49	50-75% Grass cover, Fair, HSG A
8,167		100.00% Pervious Area

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

Subcatchment 4S: PROP. S PLANK ROAD (DET) (PERV)



Hydrograph for Subcatchment 4S: PROP. S PLANK ROAD (DET) (PERV)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	8.57	2.49	0.00
0.50	0.05	0.00	0.00	26.50	8.57	2.49	0.00
1.00	0.10	0.00	0.00	27.00	8.57	2.49	0.00
1.50	0.15	0.00	0.00	27.50	8.57	2.49	0.00
2.00	0.21	0.00	0.00	28.00	8.57	2.49	0.00
2.50	0.27	0.00	0.00	28.50	8.57	2.49	0.00
3.00	0.33	0.00	0.00	29.00	8.57	2.49	0.00
3.50	0.39	0.00	0.00	29.50	8.57	2.49	0.00
4.00	0.45	0.00	0.00	30.00	8.57	2.49	0.00
4.50	0.52	0.00	0.00	30.50	8.57	2.49	0.00
5.00	0.59	0.00	0.00	31.00	8.57	2.49	0.00
5.50	0.66	0.00	0.00	31.50	8.57	2.49	0.00
6.00	0.74	0.00	0.00	32.00	8.57	2.49	0.00
6.50	0.82	0.00	0.00	32.50	8.57	2.49	0.00
7.00	0.91	0.00	0.00	33.00	8.57	2.49	0.00
7.50	1.01	0.00	0.00	33.50	8.57	2.49	0.00
8.00	1.11	0.00	0.00	34.00	8.57	2.49	0.00
8.50	1.23	0.00	0.00	34.50	8.57	2.49	0.00
9.00	1.36	0.00	0.00	35.00	8.57	2.49	0.00
9.50	1.51	0.00	0.00	35.50	8.57	2.49	0.00
10.00	1.69	0.00	0.00	36.00	8.57	2.49	0.00
10.50	1.91	0.00	0.00				
11.00	2.21	0.00	0.00				
11.50	2.68	0.03	0.02				
12.00	4.08	0.32	**0.22**				
12.50	5.89	1.02	**0.13**				
13.00	6.36	1.25	0.08				
13.50	6.66	1.40	0.05				
14.00	6.88	1.51	0.04				
14.50	7.06	1.61	0.04				
15.00	7.21	1.69	0.03				
15.50	7.34	1.76	0.03				
16.00	7.46	1.83	0.02				
16.50	7.56	1.89	0.02				
17.00	7.66	1.95	0.02				
17.50	7.75	2.00	0.02				
18.00	7.83	2.05	0.02				
18.50	7.91	2.09	0.02				
19.00	7.98	2.13	0.02				
19.50	8.05	2.18	0.02				
20.00	8.12	2.22	0.02				
20.50	8.18	2.25	0.01				
21.00	8.24	2.29	0.01				
21.50	8.30	2.33	0.01				
22.00	8.36	2.36	0.01				
22.50	8.42	2.40	0.01				
23.00	8.47	2.43	0.01				
23.50	8.52	2.46	0.01				
24.00	**8.57**	**2.49**	0.01				
24.50	8.57	2.49	0.00				
25.00	8.57	2.49	0.00				
25.50	8.57	2.49	0.00				

Summary for Subcatchment 5S: PROP. S PLANK ROAD (DET) (IMPERV)

[49] Hint: Tc<2dt may require smaller dt
[47] Hint: Peak is 109% of capacity of segment #5

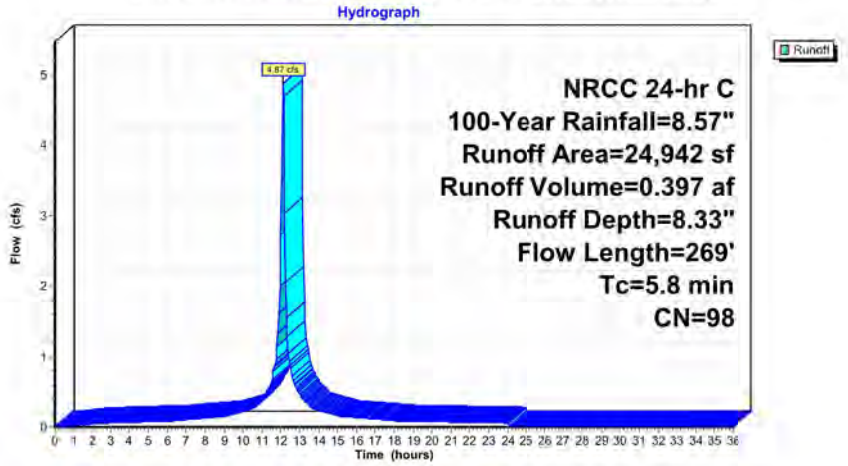
Runoff = 4.87 cfs @ 12.12 hrs, Volume= 0.397 af, Depth= 8.33"
Routed to Pond 7P : PROP. HDPE BASIN

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 100-Year Rainfall=8.57"

Area (sf)	CN	Description
24,942	98	Paved parking, HSG A
24,942		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	74	0.0890	0.29		**Sheet Flow, A-B SHEET** Grass: Short n= 0.150 P2= 3.21"
0.5	26	0.0150	0.94		**Sheet Flow, B-C SHEET** Smooth surfaces n= 0.011 P2= 3.21"
0.9	140	0.0150	2.49		**Shallow Concentrated Flow, C-D SCF** Paved Kv= 20.3 fps
0.1	17	0.0050	4.03	4.95	**Pipe Channel, D-E PIPE** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
0.1	12	0.0041	3.65	4.48	**Pipe Channel, E-F PIPE** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
5.8	269	Total			

Subcatchment 5S: PROP. S PLANK ROAD (DET) (IMPERV)



Hydrograph for Subcatchment 5S: PROP. S PLANK ROAD (DET) (IMPERV)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	8.57	8.33	0.00
0.50	0.05	0.00	0.00	26.50	8.57	8.33	0.00
1.00	0.10	0.01	0.02	27.00	8.57	8.33	0.00
1.50	0.15	0.04	0.03	27.50	8.57	8.33	0.00
2.00	0.21	0.08	0.04	28.00	8.57	8.33	0.00
2.50	0.27	0.12	0.05	28.50	8.57	8.33	0.00
3.00	0.33	0.17	0.06	29.00	8.57	8.33	0.00
3.50	0.39	0.22	0.06	29.50	8.57	8.33	0.00
4.00	0.45	0.28	0.07	30.00	8.57	8.33	0.00
4.50	0.52	0.34	0.07	30.50	8.57	8.33	0.00
5.00	0.59	0.40	0.07	31.00	8.57	8.33	0.00
5.50	0.66	0.47	0.08	31.50	8.57	8.33	0.00
6.00	0.74	0.54	0.08	32.00	8.57	8.33	0.00
6.50	0.82	0.61	0.09	32.50	8.57	8.33	0.00
7.00	0.91	0.70	0.10	33.00	8.57	8.33	0.00
7.50	1.01	0.80	0.11	33.50	8.57	8.33	0.00
8.00	1.11	0.90	0.13	34.00	8.57	8.33	0.00
8.50	1.23	1.02	0.14	34.50	8.57	8.33	0.00
9.00	1.36	1.14	0.15	35.00	8.57	8.33	0.00
9.50	1.51	1.29	0.18	35.50	8.57	8.33	0.00
10.00	1.69	1.47	0.22	36.00	8.57	8.33	0.00
10.50	1.91	1.68	0.26				
11.00	2.21	1.98	0.39				
11.50	2.68	2.45	0.62				
12.00	4.08	3.85	**2.73**				
12.50	5.89	5.65	**0.88**				
13.00	6.36	6.12	0.47				
13.50	6.66	6.42	0.30				
14.00	6.88	6.64	0.24				
14.50	7.06	6.82	0.20				
15.00	7.21	6.97	0.16				
15.50	7.34	7.10	0.14				
16.00	7.46	7.22	0.13				
16.50	7.56	7.33	0.12				
17.00	7.66	7.42	0.11				
17.50	7.75	7.51	0.10				
18.00	7.83	7.60	0.09				
18.50	7.91	7.67	0.08				
19.00	7.98	7.74	0.08				
19.50	8.05	7.81	0.08				
20.00	8.12	7.88	0.08				
20.50	8.18	7.94	0.07				
21.00	8.24	8.00	0.07				
21.50	8.30	8.06	0.07				
22.00	8.36	8.12	0.07				
22.50	8.42	8.18	0.06				
23.00	8.47	8.23	0.06				
23.50	8.52	8.28	0.06				
24.00	**8.57**	**8.33**	0.06				
24.50	8.57	8.33	0.00				
25.00	8.57	8.33	0.00				
25.50	8.57	8.33	0.00				

Summary for Subcatchment 8S: PROP. S PLANK ROAD (UNDET) (PERV)

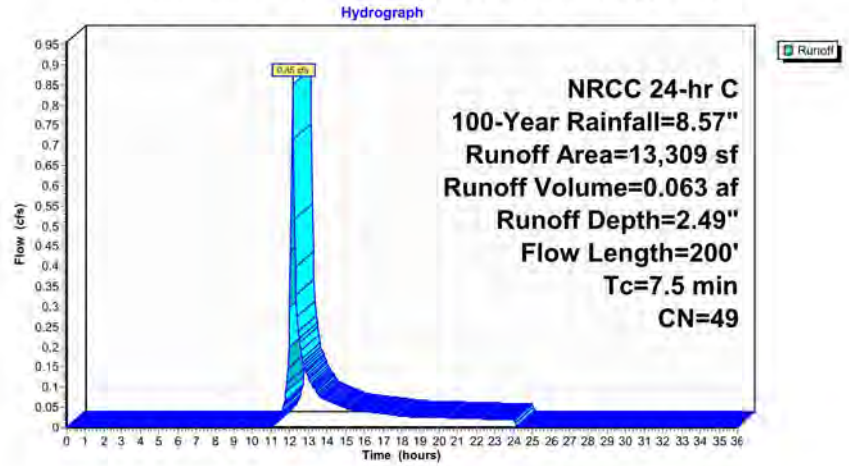
Runoff = 0.85 cfs @ 12.15 hrs, Volume= 0.063 af, Depth= 2.49"
Routed to Link 6L : PROP. TOTAL

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 100-Year Rainfall=8.57"

Area (sf)	CN	Description
13,309	49	50-75% Grass cover, Fair, HSG A
13,309		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.0450	0.24		**Sheet Flow, A-B SHEET** Grass: Short n= 0.150 P2= 3.21"
0.3	65	0.0460	3.45		**Shallow Concentrated Flow, B-C SCF** Unpaved Kv= 16.1 fps
0.1	35	0.0380	3.96		**Shallow Concentrated Flow, C-D SCF** Paved Kv= 20.3 fps
7.5	200	Total			

Subcatchment 8S: PROP. S PLANK ROAD (UNDET) (PERV)



Hydrograph for Subcatchment 8S: PROP. S PLANK ROAD (UNDET) (PERV)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	8.57	2.49	0.00
0.50	0.05	0.00	0.00	26.50	8.57	2.49	0.00
1.00	0.10	0.00	0.00	27.00	8.57	2.49	0.00
1.50	0.15	0.00	0.00	27.50	8.57	2.49	0.00
2.00	0.21	0.00	0.00	28.00	8.57	2.49	0.00
2.50	0.27	0.00	0.00	28.50	8.57	2.49	0.00
3.00	0.33	0.00	0.00	29.00	8.57	2.49	0.00
3.50	0.39	0.00	0.00	29.50	8.57	2.49	0.00
4.00	0.45	0.00	0.00	30.00	8.57	2.49	0.00
4.50	0.52	0.00	0.00	30.50	8.57	2.49	0.00
5.00	0.59	0.00	0.00	31.00	8.57	2.49	0.00
5.50	0.66	0.00	0.00	31.50	8.57	2.49	0.00
6.00	0.74	0.00	0.00	32.00	8.57	2.49	0.00
6.50	0.82	0.00	0.00	32.50	8.57	2.49	0.00
7.00	0.91	0.00	0.00	33.00	8.57	2.49	0.00
7.50	1.01	0.00	0.00	33.50	8.57	2.49	0.00
8.00	1.11	0.00	0.00	34.00	8.57	2.49	0.00
8.50	1.23	0.00	0.00	34.50	8.57	2.49	0.00
9.00	1.36	0.00	0.00	35.00	8.57	2.49	0.00
9.50	1.51	0.00	0.00	35.50	8.57	2.49	0.00
10.00	1.69	0.00	0.00	36.00	8.57	2.49	0.00
10.50	1.91	0.00	0.00				
11.00	2.21	0.00	0.00				
11.50	2.68	0.03	0.03				
12.00	4.08	0.32	**0.30**				
12.50	5.89	1.02	**0.22**				
13.00	6.36	1.25	0.13				
13.50	6.66	1.40	0.08				
14.00	6.88	1.51	0.07				
14.50	7.06	1.61	0.06				
15.00	7.21	1.69	0.05				
15.50	7.34	1.76	0.04				
16.00	7.46	1.83	0.04				
16.50	7.56	1.89	0.04				
17.00	7.66	1.95	0.03				
17.50	7.75	2.00	0.03				
18.00	7.83	2.05	0.03				
18.50	7.91	2.09	0.03				
19.00	7.98	2.13	0.03				
19.50	8.05	2.18	0.03				
20.00	8.12	2.22	0.02				
20.50	8.18	2.25	0.02				
21.00	8.24	2.29	0.02				
21.50	8.30	2.33	0.02				
22.00	8.36	2.36	0.02				
22.50	8.42	2.40	0.02				
23.00	8.47	2.43	0.02				
23.50	8.52	2.46	0.02				
24.00	**8.57**	**2.49**	0.02				
24.50	8.57	2.49	0.00				
25.00	8.57	2.49	0.00				
25.50	8.57	2.49	0.00				

Summary for Subcatchment 9S: PROP S PLANK ROAD (UNDET) (IMPERV)

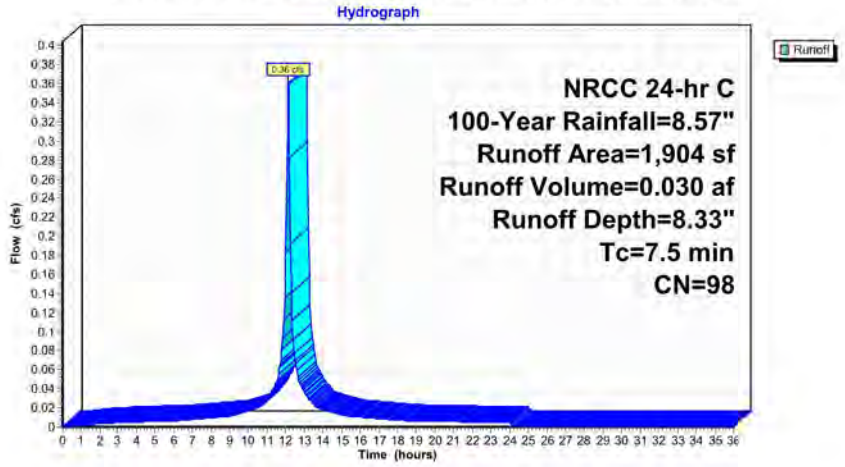
Runoff = 0.36 cfs @ 12.14 hrs, Volume= 0.030 af, Depth= 8.33"
Routed to Link 6L : PROP. TOTAL

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 100-Year Rainfall=8.57"

Area (sf)	CN	Description
1,904	98	Paved parking, HSG A
1,904		100.00% Impervious Area

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

Subcatchment 9S: PROP S PLANK ROAD (UNDET) (IMPERV)



Hydrograph for Subcatchment 9S: PROP S PLANK ROAD (UNDET) (IMPERV)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	8.57	8.33	0.00
0.50	0.05	0.00	0.00	26.50	8.57	8.33	0.00
1.00	0.10	0.01	0.00	27.00	8.57	8.33	0.00
1.50	0.15	0.04	0.00	27.50	8.57	8.33	0.00
2.00	0.21	0.08	0.00	28.00	8.57	8.33	0.00
2.50	0.27	0.12	0.00	28.50	8.57	8.33	0.00
3.00	0.33	0.17	0.00	29.00	8.57	8.33	0.00
3.50	0.39	0.22	0.00	29.50	8.57	8.33	0.00
4.00	0.45	0.28	0.01	30.00	8.57	8.33	0.00
4.50	0.52	0.34	0.01	30.50	8.57	8.33	0.00
5.00	0.59	0.40	0.01	31.00	8.57	8.33	0.00
5.50	0.66	0.47	0.01	31.50	8.57	8.33	0.00
6.00	0.74	0.54	0.01	32.00	8.57	8.33	0.00
6.50	0.82	0.61	0.01	32.50	8.57	8.33	0.00
7.00	0.91	0.70	0.01	33.00	8.57	8.33	0.00
7.50	1.01	0.80	0.01	33.50	8.57	8.33	0.00
8.00	1.11	0.90	0.01	34.00	8.57	8.33	0.00
8.50	1.23	1.02	0.01	34.50	8.57	8.33	0.00
9.00	1.36	1.14	0.01	35.00	8.57	8.33	0.00
9.50	1.51	1.29	0.01	35.50	8.57	8.33	0.00
10.00	1.69	1.47	0.02	36.00	8.57	8.33	0.00
10.50	1.91	1.68	0.02				
11.00	2.21	1.98	0.03				
11.50	2.68	2.45	0.05				
12.00	4.08	3.85	**0.18**				
12.50	5.89	5.65	**0.07**				
13.00	6.36	6.12	0.04				
13.50	6.66	6.42	0.02				
14.00	6.88	6.64	0.02				
14.50	7.06	6.82	0.02				
15.00	7.21	6.97	0.01				
15.50	7.34	7.10	0.01				
16.00	7.46	7.22	0.01				
16.50	7.56	7.33	0.01				
17.00	7.66	7.42	0.01				
17.50	7.75	7.51	0.01				
18.00	7.83	7.60	0.01				
18.50	7.91	7.67	0.01				
19.00	7.98	7.74	0.01				
19.50	8.05	7.81	0.01				
20.00	8.12	7.88	0.01				
20.50	8.18	7.94	0.01				
21.00	8.24	8.00	0.01				
21.50	8.30	8.06	0.01				
22.00	8.36	8.12	0.01				
22.50	8.42	8.18	0.00				
23.00	8.47	8.23	0.00				
23.50	8.52	8.28	0.00				
24.00	**8.57**	**8.33**	0.00				
24.50	8.57	8.33	0.00				
25.00	8.57	8.33	0.00				
25.50	8.57	8.33	0.00				

Summary for Pond 7P: PROP. HDPE BASIN

Inflow Area = 0.760 ac, 75.33% Impervious, Inflow Depth = 6.89" for 100-Year event
Inflow = 5.46 cfs @ 12.13 hrs, Volume= 0.436 af
Outflow = 5.12 cfs @ 12.15 hrs, Volume= 0.436 af, Atten= 6%, Lag= 1.7 min
Primary = 5.12 cfs @ 12.15 hrs, Volume= 0.436 af
Routed to Link 6L : PROP. TOTAL

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 360.53' @ 12.15 hrs Surf.Area= 0.007 ac Storage= 0.020 af

Plug-Flow detention time= 3.2 min calculated for 0.436 af (100% of inflow)
Center-of-Mass det. time= 3.2 min (756.7 - 753.6)

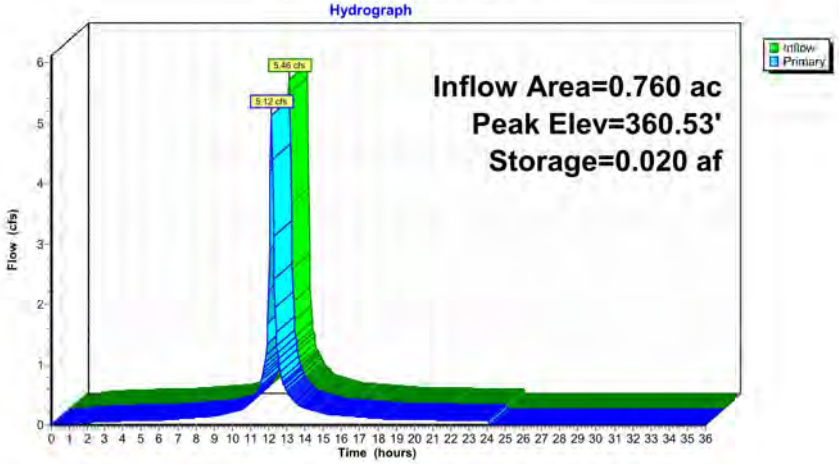
Volume	Invert	Avail.Storage	Storage Description
#1	358.00'	0.022 af	**36.0" Round Pipe Storage** x 3 L= 45.0'

Device	Routing	Invert	Outlet Devices
#1	Primary	358.00'	**15.0" Round Culvert** L= 61.0' Ke= 0.500 Inlet / Outlet Invert= 358.00' / 353.50' S= 0.0738 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.23 sf
#2	Device 1	358.00'	**8.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	358.90'	**6.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	359.60'	**0.7' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=5.08 cfs @ 12.15 hrs HW=360.52' (Free Discharge)
└**1=Culvert** (Passes 5.08 cfs of 8.13 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 2.49 cfs @ 7.12 fps)
  ├**3=Orifice/Grate** (Orifice Controls 1.11 cfs @ 5.64 fps)
  └**4=Sharp-Crested Rectangular Weir** (Weir Controls 1.49 cfs @ 3.14 fps)

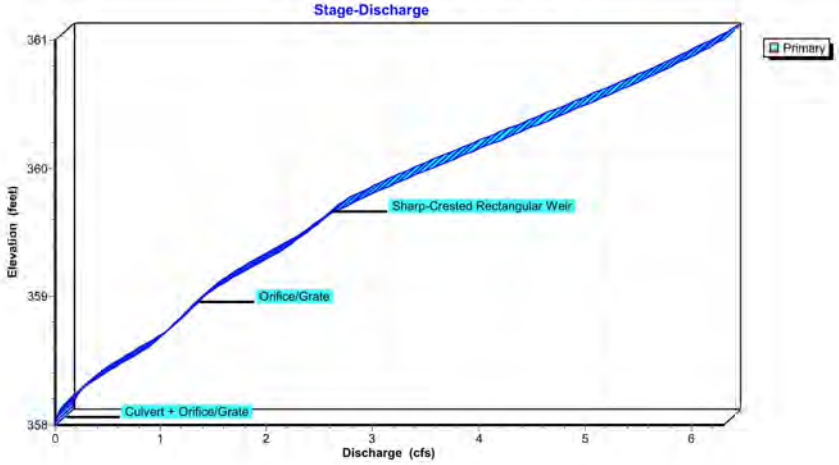
Pond 7P: PROP. HDPE BASIN

Hydrograph



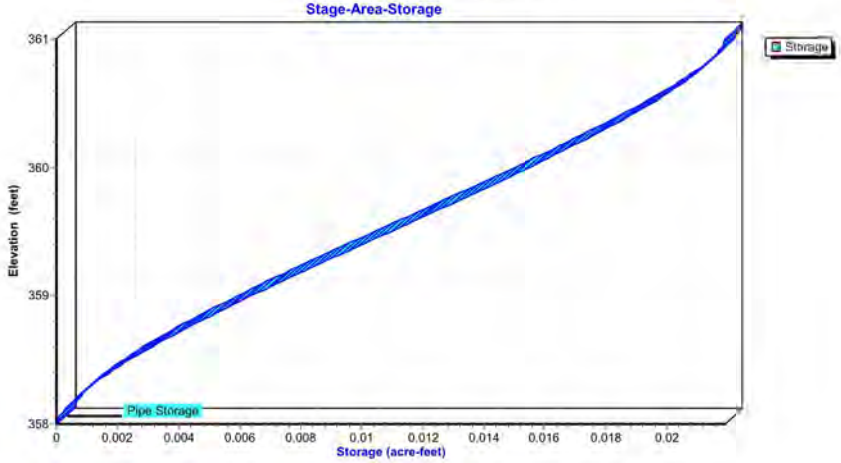
Pond 7P: PROP. HDPE BASIN

Stage-Discharge



Pond 7P: PROP. HDPE BASIN

Stage-Area-Storage



Hydrograph for Pond 7P: PROP. HDPE BASIN

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.000	358.00	0.00
1.00	0.02	0.000	358.07	0.02
2.00	0.04	0.000	358.11	0.04
3.00	0.06	0.000	358.13	0.06
4.00	0.07	0.000	358.14	0.07
5.00	0.07	0.000	358.15	0.07
6.00	0.08	0.000	358.15	0.08
7.00	0.10	0.001	358.17	0.10
8.00	0.13	0.001	358.19	0.12
9.00	0.15	0.001	358.21	0.15
10.00	0.22	0.001	358.26	0.22
11.00	0.39	0.001	358.35	0.38
12.00	**2.95**	**0.010**	**359.41**	**2.23**
13.00	**0.54**	**0.002**	**358.45**	**0.57**
14.00	0.28	0.001	358.30	0.28
15.00	0.19	0.001	358.24	0.19
16.00	0.16	0.001	358.22	0.16
17.00	0.13	0.001	358.20	0.13
18.00	0.11	0.001	358.18	0.11
19.00	0.10	0.000	358.17	0.10
20.00	0.09	0.000	358.16	0.09
21.00	0.09	0.000	358.16	0.09
22.00	0.08	0.000	358.15	0.08
23.00	0.07	0.000	358.15	0.07
24.00	0.07	0.000	358.14	0.07
25.00	0.00	0.000	358.00	0.00
26.00	0.00	0.000	358.00	0.00
27.00	0.00	0.000	358.00	0.00
28.00	0.00	0.000	358.00	0.00
29.00	0.00	0.000	358.00	0.00
30.00	0.00	0.000	358.00	0.00
31.00	0.00	0.000	358.00	0.00
32.00	0.00	0.000	358.00	0.00
33.00	0.00	0.000	358.00	0.00
34.00	0.00	0.000	358.00	0.00
35.00	0.00	0.000	358.00	0.00
36.00	0.00	0.000	358.00	0.00

Stage-Discharge for Pond 7P: PROP. HDPE BASIN

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
358.00	0.00	359.04	1.47	360.08	3.79
358.02	0.00	359.06	1.51	360.10	3.85
358.04	0.01	359.08	1.54	360.12	3.91
358.06	0.01	359.10	1.58	360.14	3.97
358.08	0.02	359.12	1.62	360.16	4.03
358.10	0.04	359.14	1.66	360.18	4.09
358.12	0.05	359.16	1.71	360.20	4.15
358.14	0.07	359.18	1.75	360.22	4.21
358.16	0.09	359.20	1.79	360.24	4.27
358.18	0.11	359.22	1.84	360.26	4.32
358.20	0.13	359.24	1.88	360.28	4.38
358.22	0.16	359.26	1.93	360.30	4.44
358.24	0.19	359.28	1.97	360.32	4.50
358.26	0.22	359.30	2.02	360.34	4.56
358.28	0.25	359.32	2.06	360.36	4.62
358.30	0.28	359.34	2.10	360.38	4.68
358.32	0.32	359.36	2.14	360.40	4.74
358.34	0.36	359.38	2.18	360.42	4.79
358.36	0.39	359.40	2.21	360.44	4.85
358.38	0.43	359.42	2.24	360.46	4.91
358.40	0.47	359.44	2.28	360.48	4.97
358.42	0.51	359.46	2.31	360.50	5.02
358.44	0.55	359.48	2.34	360.52	5.08
358.46	0.59	359.50	2.37	360.54	5.14
358.48	0.63	359.52	2.41	360.56	5.19
358.50	0.68	359.54	2.44	360.58	5.25
358.52	0.72	359.56	2.47	360.60	5.30
358.54	0.76	359.58	2.50	360.62	5.36
358.56	0.80	359.60	2.53	360.64	5.41
358.58	0.84	359.62	2.56	360.66	5.47
358.60	0.87	359.64	2.60	360.68	5.52
358.62	0.91	359.66	2.64	360.70	5.57
358.64	0.94	359.68	2.69	360.72	5.63
358.66	0.96	359.70	2.74	360.74	5.68
358.68	0.99	359.72	2.78	360.76	5.73
358.70	1.02	359.74	2.83	360.78	5.78
358.72	1.05	359.76	2.89	360.80	5.83
358.74	1.07	359.78	2.94	360.82	5.88
358.76	1.10	359.80	2.99	360.84	5.93
358.78	1.12	359.82	3.04	360.86	5.98
358.80	1.15	359.84	3.10	360.88	6.03
358.82	1.17	359.86	3.15	360.90	6.08
358.84	1.20	359.88	3.21	360.92	6.12
358.86	1.22	359.90	3.27	360.94	6.17
358.88	1.24	359.92	3.32	360.96	6.22
358.90	1.27	359.94	3.38	360.98	6.26
358.92	1.29	359.96	3.44	361.00	**6.31**
358.94	1.31	359.98	3.50		
358.96	1.34	360.00	3.55		
358.98	1.37	360.02	3.61		
359.00	1.40	360.04	3.67		
359.02	1.44	360.06	3.73		

Stage-Area-Storage for Pond 7P: PROP. HDPE BASIN

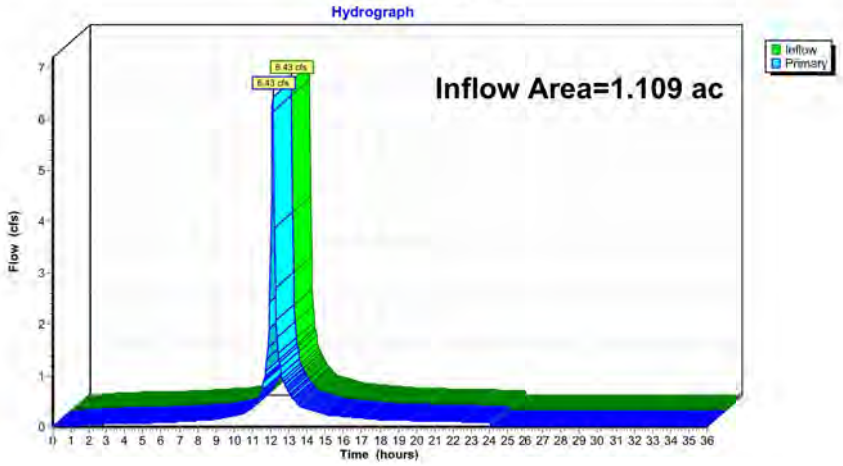
Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
358.00	0.000	359.04	0.007	360.08	0.016
358.02	0.000	359.06	0.007	360.10	0.016
358.04	0.000	359.08	0.007	360.12	0.016
358.06	0.000	359.10	0.007	360.14	0.017
358.08	0.000	359.12	0.007	360.16	0.017
358.10	0.000	359.14	0.008	360.18	0.017
358.12	0.000	359.16	0.008	360.20	0.017
358.14	0.000	359.18	0.008	360.22	0.017
358.16	0.000	359.20	0.008	360.24	0.018
358.18	0.001	359.22	0.008	360.26	0.018
358.20	0.001	359.24	0.009	360.28	0.018
358.22	0.001	359.26	0.009	360.30	0.018
358.24	0.001	359.28	0.009	360.32	0.018
358.26	0.001	359.30	0.009	360.34	0.018
358.28	0.001	359.32	0.009	360.36	0.018
358.30	0.001	359.34	0.009	360.38	0.019
358.32	0.001	359.36	0.010	360.40	0.019
358.34	0.001	359.38	0.010	360.42	0.019
358.36	0.001	359.40	0.010	360.44	0.019
358.38	0.002	359.42	0.010	360.46	0.019
358.40	0.002	359.44	0.010	360.48	0.019
358.42	0.002	359.46	0.011	360.50	0.020
358.44	0.002	359.48	0.011	360.52	0.020
358.46	0.002	359.50	0.011	360.54	0.020
358.48	0.002	359.52	0.011	360.56	0.020
358.50	0.002	359.54	0.011	360.58	0.020
358.52	0.003	359.56	0.012	360.60	0.020
358.54	0.003	359.58	0.012	360.62	0.020
358.56	0.003	359.60	0.012	360.64	0.020
358.58	0.003	359.62	0.012	360.66	0.021
358.60	0.003	359.64	0.012	360.68	0.021
358.62	0.003	359.66	0.012	360.70	0.021
358.64	0.003	359.68	0.013	360.72	0.021
358.66	0.004	359.70	0.013	360.74	0.021
358.68	0.004	359.72	0.013	360.76	0.021
358.70	0.004	359.74	0.013	360.78	0.021
358.72	0.004	359.76	0.013	360.80	0.021
358.74	0.004	359.78	0.014	360.82	0.021
358.76	0.004	359.80	0.014	360.84	0.021
358.78	0.005	359.82	0.014	360.86	0.022
358.80	0.005	359.84	0.014	360.88	0.022
358.82	0.005	359.86	0.014	360.90	0.022
358.84	0.005	359.88	0.014	360.92	0.022
358.86	0.005	359.90	0.015	360.94	0.022
358.88	0.005	359.92	0.015	360.96	0.022
358.90	0.006	359.94	0.015	360.98	0.022
358.92	0.006	359.96	0.015	361.00	**0.022**
358.94	0.006	359.98	0.015		
358.96	0.006	360.00	0.016		
358.98	0.006	360.02	0.016		
359.00	0.006	360.04	0.016		
359.02	0.007	360.06	0.016		

Summary for Link 3L: EX. TOTAL

Inflow Area = 1.109 ac, 50.68% Impervious, Inflow Depth = 5.45" for 100-Year event
Inflow = 6.43 cfs @ 12.12 hrs, Volume= 0.504 af
Primary = 6.43 cfs @ 12.12 hrs, Volume= 0.504 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link 3L: EX. TOTAL



Hydrograph for Link 3L: EX. TOTAL

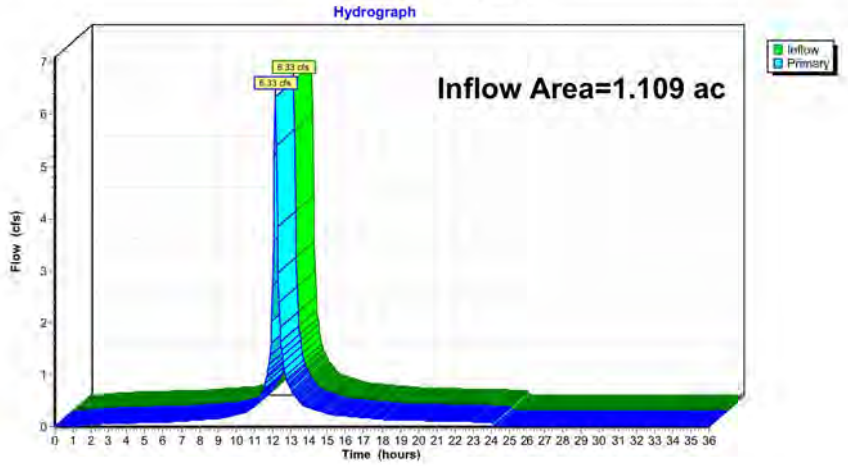
Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.02	0.00	0.02	27.00	0.00	0.00	0.00
1.50	0.03	0.00	0.03	27.50	0.00	0.00	0.00
2.00	0.04	0.00	0.04	28.00	0.00	0.00	0.00
2.50	0.05	0.00	0.05	28.50	0.00	0.00	0.00
3.00	0.06	0.00	0.06	29.00	0.00	0.00	0.00
3.50	0.06	0.00	0.06	29.50	0.00	0.00	0.00
4.00	0.07	0.00	0.07	30.00	0.00	0.00	0.00
4.50	0.07	0.00	0.07	30.50	0.00	0.00	0.00
5.00	0.07	0.00	0.07	31.00	0.00	0.00	0.00
5.50	0.08	0.00	0.08	31.50	0.00	0.00	0.00
6.00	0.08	0.00	0.08	32.00	0.00	0.00	0.00
6.50	0.09	0.00	0.09	32.50	0.00	0.00	0.00
7.00	0.10	0.00	0.10	33.00	0.00	0.00	0.00
7.50	0.11	0.00	0.11	33.50	0.00	0.00	0.00
8.00	0.12	0.00	0.12	34.00	0.00	0.00	0.00
8.50	0.13	0.00	0.13	34.50	0.00	0.00	0.00
9.00	0.15	0.00	0.15	35.00	0.00	0.00	0.00
9.50	0.18	0.00	0.18	35.50	0.00	0.00	0.00
10.00	0.22	0.00	0.22	36.00	0.00	0.00	0.00
10.50	0.25	0.00	0.25				
11.00	0.39	0.00	0.39				
11.50	0.67	0.00	0.67				
12.00	**3.40**	0.00	**3.40**				
12.50	**1.25**	0.00	**1.25**				
13.00	0.68	0.00	0.68				
13.50	0.44	0.00	0.44				
14.00	0.35	0.00	0.35				
14.50	0.30	0.00	0.30				
15.00	0.24	0.00	0.24				
15.50	0.22	0.00	0.22				
16.00	0.20	0.00	0.20				
16.50	0.19	0.00	0.19				
17.00	0.17	0.00	0.17				
17.50	0.15	0.00	0.15				
18.00	0.14	0.00	0.14				
18.50	0.13	0.00	0.13				
19.00	0.13	0.00	0.13				
19.50	0.12	0.00	0.12				
20.00	0.12	0.00	0.12				
20.50	0.11	0.00	0.11				
21.00	0.11	0.00	0.11				
21.50	0.11	0.00	0.11				
22.00	0.10	0.00	0.10				
22.50	0.10	0.00	0.10				
23.00	0.09	0.00	0.09				
23.50	0.09	0.00	0.09				
24.00	0.09	0.00	0.09				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

Summary for Link 6L: PROP. TOTAL

Inflow Area = 1.109 ac, 55.56% Impervious, Inflow Depth = 5.74" for 100-Year event
Inflow = 6.33 cfs @ 12.15 hrs, Volume= 0.530 af
Primary = 6.33 cfs @ 12.15 hrs, Volume= 0.530 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Link 6L: PROP. TOTAL



Hydrograph for Link 6L: PROP. TOTAL

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.02	0.00	0.02	27.00	0.00	0.00	0.00
1.50	0.04	0.00	0.04	27.50	0.00	0.00	0.00
2.00	0.05	0.00	0.05	28.00	0.00	0.00	0.00
2.50	0.05	0.00	0.05	28.50	0.00	0.00	0.00
3.00	0.06	0.00	0.06	29.00	0.00	0.00	0.00
3.50	0.07	0.00	0.07	29.50	0.00	0.00	0.00
4.00	0.07	0.00	0.07	30.00	0.00	0.00	0.00
4.50	0.08	0.00	0.08	30.50	0.00	0.00	0.00
5.00	0.08	0.00	0.08	31.00	0.00	0.00	0.00
5.50	0.08	0.00	0.08	31.50	0.00	0.00	0.00
6.00	0.09	0.00	0.09	32.00	0.00	0.00	0.00
6.50	0.10	0.00	0.10	32.50	0.00	0.00	0.00
7.00	0.11	0.00	0.11	33.00	0.00	0.00	0.00
7.50	0.12	0.00	0.12	33.50	0.00	0.00	0.00
8.00	0.13	0.00	0.13	34.00	0.00	0.00	0.00
8.50	0.15	0.00	0.15	34.50	0.00	0.00	0.00
9.00	0.16	0.00	0.16	35.00	0.00	0.00	0.00
9.50	0.19	0.00	0.19	35.50	0.00	0.00	0.00
10.00	0.23	0.00	0.23	36.00	0.00	0.00	0.00
10.50	0.28	0.00	0.28				
11.00	0.41	0.00	0.41				
11.50	0.69	0.00	0.69				
12.00	**2.71**	0.00	**2.71**				
12.50	**1.49**	0.00	**1.49**				
13.00	0.73	0.00	0.73				
13.50	0.47	0.00	0.47				
14.00	0.37	0.00	0.37				
14.50	0.31	0.00	0.31				
15.00	0.25	0.00	0.25				
15.50	0.22	0.00	0.22				
16.00	0.21	0.00	0.21				
16.50	0.19	0.00	0.19				
17.00	0.18	0.00	0.18				
17.50	0.16	0.00	0.16				
18.00	0.14	0.00	0.14				
18.50	0.13	0.00	0.13				
19.00	0.13	0.00	0.13				
19.50	0.13	0.00	0.13				
20.00	0.12	0.00	0.12				
20.50	0.12	0.00	0.12				
21.00	0.11	0.00	0.11				
21.50	0.11	0.00	0.11				
22.00	0.11	0.00	0.11				
22.50	0.10	0.00	0.10				
23.00	0.10	0.00	0.10				
23.50	0.09	0.00	0.09				
24.00	0.09	0.00	0.09				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

Events for Subcatchment 1S: EX. S PLANK ROAD (PERV)

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-Year	2.64	0.00	0.001	0.03
10-Year	4.80	0.24	0.026	0.56
100-Year	**8.57**	**1.63**	**0.114**	**2.49**

Events for Subcatchment 2S: EX. S PLANK ROAD (IMPERV)

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-Year	2.64	1.47	0.113	2.41
10-Year	4.80	2.70	0.214	4.56
100-Year	**8.57**	**4.85**	**0.390**	**8.33**

Events for Subcatchment 4S: PROP. S PLANK ROAD (DET) (PERV)

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-Year	2.64	0.00	0.000	0.03
10-Year	4.80	0.08	0.009	0.56
100-Year	**8.57**	**0.55**	**0.039**	**2.49**

Events for Subcatchment 5S: PROP. S PLANK ROAD (DET) (IMPERV)

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-Year	2.64	1.48	0.115	2.41
10-Year	4.80	2.72	0.218	4.56
100-Year	**8.57**	**4.87**	**0.397**	**8.33**

Events for Subcatchment 8S: PROP. S PLANK ROAD (UNDET) (PERV)

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-Year	2.64	0.00	0.001	0.03
10-Year	4.80	0.11	0.014	0.56
100-Year	**8.57**	**0.85**	**0.063**	**2.49**

Events for Subcatchment 9S: PROP S PLANK ROAD (UNDET) (IMPERV)

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-Year	2.64	0.11	0.009	2.41
10-Year	4.80	0.20	0.017	4.56
100-Year	**8.57**	**0.36**	**0.030**	**8.33**

Events for Pond 7P: PROP. HDPE BASIN

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)	Storage (acre-feet)
1-Year	1.48	1.25	358.89	0.005
10-Year	2.81	2.42	359.53	0.011
100-Year	**5.46**	**5.12**	**360.53**	**0.020**

Events for Link 3L: EX. TOTAL

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
1-Year	1.47	1.47	**0.00**
10-Year	2.90	2.90	0.00
100-Year	**6.43**	**6.43**	0.00

Events for Link 6L: PROP. TOTAL

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
1-Year	1.36	1.36	**0.00**
10-Year	2.73	2.73	0.00
100-Year	**6.33**	**6.33**	0.00

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Prepared by Dynamic Engineering Printed 11/16/2023
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STORMWATER COLLECTION SYSTEM CALCULATIONS

DYNAMIC ENGINEERING

Stormwater Collection System Calculations

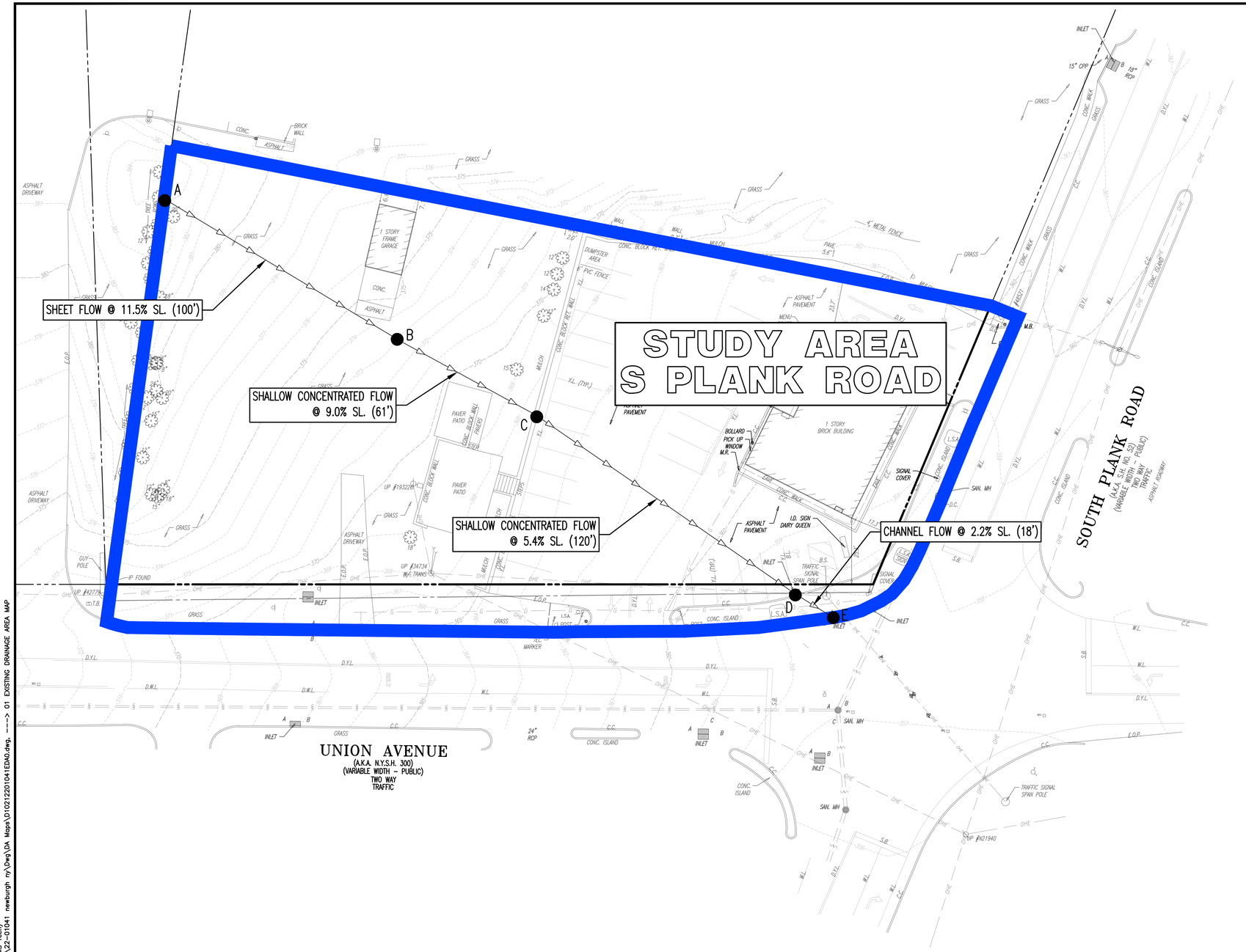
Project: Proposed Popeyes Restaurant
Job #: 1021-22-01041
Location: Newburgh NY
Design Storm: 25 Year

Computed By: JD
Checked By: MB
Date: 11/16/2023

NOTES:
1) Design method used is Rational Method, unless otherwise noted.
2) Refer to Weighted Runoff Coefficient table for calculation of incremental areas and C values

PIPE SECTION		SUBCATCHMENT AREA	INCREMENTAL		CUMULATIVE	TIME OF CONCENTRATION			I	PEAK RUNOFF		PIPING INPUT			PIPING DATA		
FROM	TO	Area (Acres)	"C"	A x C Ac	A x C (acres)	Tc to Inlet (min)	Tc in Pipe (min.)	Final Tc (min)	(In/Hr)	Q to Inlet (CFS)	Q cum. for Pipe (CFS)	Dia. (In)	Length (Ft)	Man. "n"	Slope (ft/ft)	Pipe Capacity (cfs)	Pipe Velocity (fps)
STORM STR 1	STORM STR 5	0.32	0.77	0.25	0.25	6.00	0.07	6.00	7.70	1.93	1.93	15	17.0	0.012	0.0050	4.95	4.04
STORM STR 2	STORM STR 5	0.06	0.87	0.05	0.05	6.00	0.18	6.00	7.70	0.39	0.39	15	40.0	0.013	0.0050	4.57	3.73
STORM STR 4	STORM STR 3	0.26	0.77	0.20	0.20	6.00	0.19	6.00	7.70	1.54	1.54	15	45.0	0.012	0.0050	4.95	4.04
STORM STR 3	STORM STR 5	0.04	0.92	0.04	0.24	6.00	0.17	6.19	7.70	0.31	1.85	15	41.0	0.012	0.0050	4.95	4.04
STORM STR 5	UNDERGROUND BASIN	0.00	0.95	0.00	0.54	6.00	0.05	6.36	7.70	0.00	4.16	15	12.0	0.012	0.0041	4.48	3.65
UNDERGROUND BASIN	EX. INLET	0.70	0.95	0.67	1.21	6.00	0.02	6.41	7.70	5.16	9.32	15	55.0	0.001	0.0050	49.46	40.32

DRAINAGE AREA MAPS



GRAPHIC SCALE

-20 0 10 20 40 80

(IN FEET)
1 INCH = 20 FT.

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Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.233.4888 | Bethlehem, Pennsylvania T: 610.598.4400 | Annapolis, Maryland T: 410.567.5000

TITLE:
EXISTING DRAINAGE AREA MAP

PROJECT: **NEWBURGH CHICKEN, LLC.**
PROPOSED POPEYES
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No:	1021 22-01041
DRAWN BY:	RPK
DESIGNED BY:	JD
CHECKED BY:	RW
CHECKED BY:	MB
DATE:	11/08/2023
SCALE: (H) 1"=20' (V)	
SHEET No:	1 OF 3
Rev. #	0

MATTHEW J. BERSCH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 54522

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

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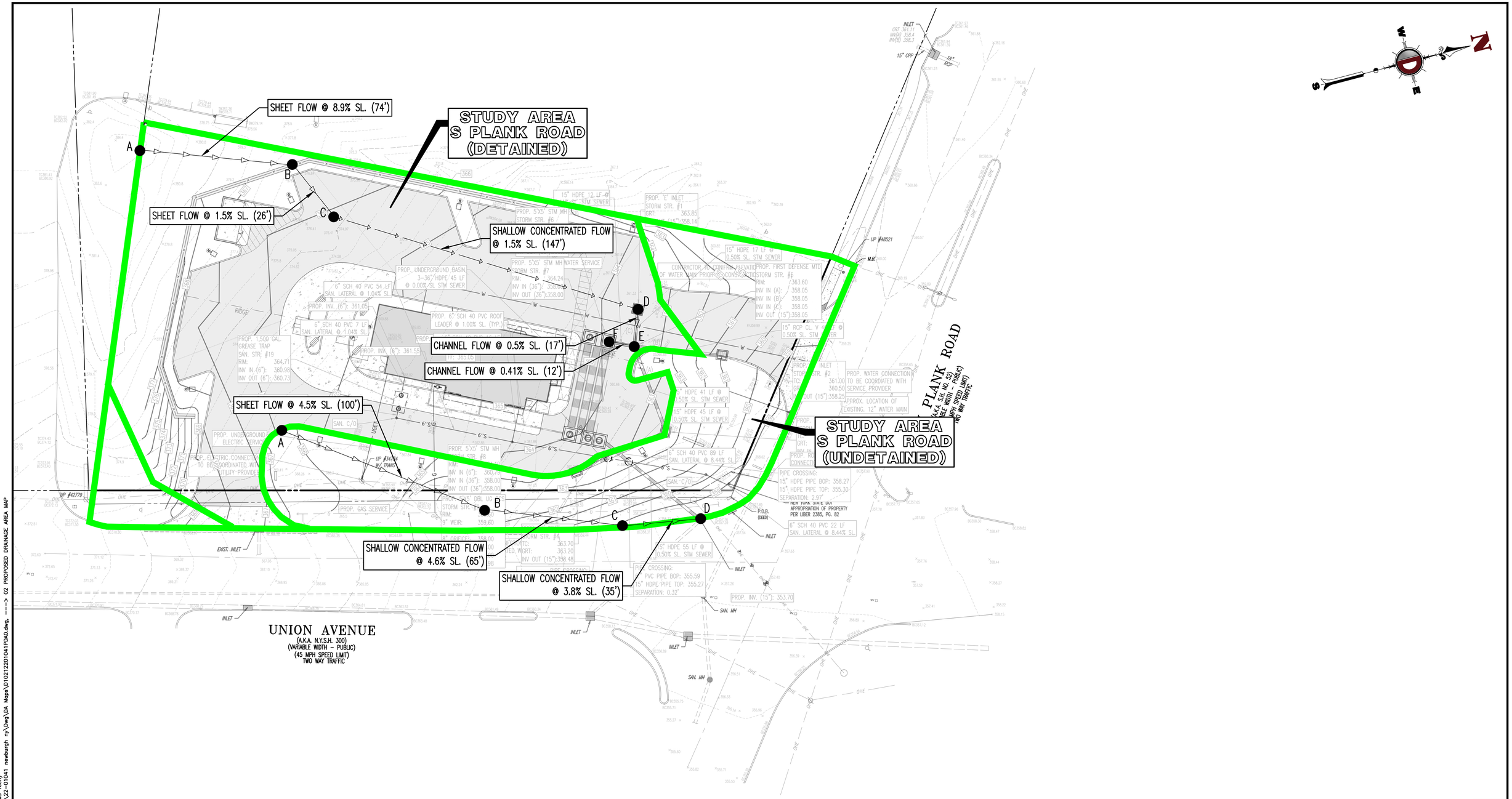
Rev.	Date	Comments	By

Plotted: 11/20/23 - 1:42 PM, By: rkazimir, - Product Ver: 24.2a (LMS Tech)
File: \\decpc.local\dfolders\data\decpc projects\1021 parkh network, llc\22-01041 newburgh ny\Dwg\DA Maps\D1021221041EDA0.dwg, ----> 01 EXISTING DRAINAGE AREA MAP



GRAPHIC SCALE

−20 0 10 20 40 80

(IN FEET)
1 INCH = 20 FT.

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Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.253.4888 | Bethlehem, Pennsylvania T: 610.598.4400 | Annapolis, Maryland T: 410.567.5000

TITLE:

PROPOSED DRAINAGE AREA MAP

PROJECT: **NEWBURGH CHICKEN, LLC.**
PROPOSED POPEYES
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No:	1021 22-01041
DRAWN BY:	RPK
DESIGNED BY:	JD
CHECKED BY:	RW
CHECKED BY:	MB
DATE:	11/08/2023
SCALE:	(H) 1"=20' (V)
SHEET No:	2 OF 3
Rev. #	0

MATTHEW J. BERSCH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 54522

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

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Rev.	Date	Comments	By

INLET AREA STORM STR. 1

INLET AREA STORM STR. 2

INLET AREA STORM STR. 3

INLET AREA STORM STR. 4

SOUTH PLANK ROAD
(AKA S.H. NO. 52)
(VARIABLE WIDTH - PUBLIC)
(40 MPH SPEED LIMIT)
TWO WAY TRAFFIC

UNION AVENUE
(A.K.A. N.Y.S.H. 300)
(VARIABLE WIDTH - PUBLIC)
(45 MPH SPEED LIMIT)
TWO WAY TRAFFIC

PROP. UNDERGROUND BASIN
3-36" HDPE/ 45 LF
@ 0.00% SL. STM SEWER

PROP. 1,500 GAL.
GREASE TRAP
SAN. STR. #19
RIM: 364.71
INV IN (6"): 360.98
INV OUT (6"): 360.73

PROP. 5'X5' STM MH
STORM STR. #6
RIM: 363.77
INV IN (15"): 358.00
INV OUT (36"): 358.00
INV OUT (36"): 358.00

PROP. 5'X5' STM MH
STORM STR. #7
RIM: 364.24
INV IN (36"): 358.00
INV OUT (36"): 358.00

PROP. 5'X5' STM MH
STORM STR. #8
RIM: 360.73
INV IN (36"): 358.00
INV OUT (36"): 358.00

PROP. 5'X5' DBL UG OCS
STORM STR. #9
RIM: 363.60
9" WEIR: 359.60
6" ORIFICE: 358.90
6" ORIFICE: 358.00
INV IN (36"): 358.00
INV IN (36"): 358.00
INV OUT (15"): 353.98

PROP. 'B' INLET
STORM STR. #1
TC: 361.00
GRT: 360.50
INV OUT (15"): 358.25

PROP. 'B' INLET
STORM STR. #2
TC: 361.00
GRT: 360.50
INV OUT (15"): 358.25

PROP. 'B' INLET
STORM STR. #3
TC: 363.15
GRT: 362.65
INV OUT (15"): 358.26

PROP. 'B' INLET
STORM STR. #4
TC: 363.70
GRT: 363.20
INV OUT (15"): 358.48

PROP. FIRST DEFENSE MTD
STORM STR. #5
RIM: 363.60
INV IN (A): 358.05
INV IN (B): 358.05
INV IN (C): 358.05
INV OUT (15"): 358.05

INLET
GRT: 361.11
INV(A): 358.4
INV(B): 358.3

15" CPP

18" RCP

UP #48521

M.B.

15" HDPE 12 LF @ 0.50% SL. STM SEWER

15" HDPE 17 LF @ 0.50% SL. STM SEWER

15" RCP CL. V 40 LF @ 0.50% SL. STM SEWER

15" HDPE 41 LF @ 0.50% SL. STM SEWER

15" HDPE 45 LF @ 0.50% SL. STM SEWER

15" HDPE 55 LF @ 0.50% SL. STM SEWER

6" SCH 40 PVC 54 LF
SAN. LATERAL @ 1.04% SL.

PROP. INV. (6"): 361.69

6" SCH 40 PVC 7 LF
SAN. LATERAL @ 1.04% SL.

6" SCH 40 PVC ROOF LEADER @ 1.00%

PROP. 361.55

6" SCH 40 PVC 16 LF
SAN. LATERAL @ 1.04% SL.

FF: 365.05

6" SCH 40 PVC 3 LF
SAN. LATERAL @ 1.04% SL.

6" SCH 40 PVC 22 LF
SAN. LATERAL @ 8.44% SL.

CONTRACTOR TO CONFIRM ELEVATIONS OF WATER MAIN PRIOR TO CONSTRUCTION

PROP. WATER CONNECTION TO BE COORDIATED WITH SERVICE PROVIDER

APPROX. LOCATION OF EXISTING 12" WATER MAIN

NEW YORK STATE DOT APPROPRIATION OF PROPERTY PER LIBER 2385, PG. 82

P.O.B. (DED.)

PROP. ELECTRIC CONNECTION TO BE COORDINATED WITH UTILITY PROVIDER

PROP. UNDERGROUND ELECTRIC SERVICE

UP #34734 W/ TRANS

UP #42779

PROP. GAS SERVICE

EXIST. INLET

EXIST. GAS

PIPE CROSSING:
15" HDPE PIPE BOP: 358.29
6" PVC PIPE TOP: 356.94
SEPARATION: 1.35'

PIPE CROSSING:
6" PVC PIPE BOP: 355.59
15" HDPE PIPE TOP: 355.27
SEPARATION: 0.32'

PROP. INV. (15"): 353.70

SAN. MH

SAN. C/O

UGE

OHE

24" RCP

GRAPHIC SCALE
-20 0 10 20 40 80
(IN FEET)
1 INCH = 20 FT.

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION

DYNAMIC ENGINEERING
LAND DEVELOPMENT CONSULTING • PERMITTING • GEOTECHNICAL • ENVIRONMENTAL • SURVEY • PLANNING & ZONING

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Newtown, Pennsylvania T: 267.685.0276 | Philadelphia, Pennsylvania T: 215.253.4888 | Bethlehem, Pennsylvania T: 610.598.4400 | Annapolis, Maryland T: 410.567.5000

TITLE:
INLET AREA MAP

PROJECT: **NEWBURGH CHICKEN, LLC.**
PROPOSED POPEYES
PARCEL 60-3-6.1
197 SOUTH PLANK ROAD
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

JOB No:	1021 22-01041
DRAWN BY:	RPK
DESIGNED BY:	JD
CHECKED BY:	RW
CHECKED BY:	MB
DATE:	11/08/2023
SCALE:	(H) 1"=20' (V)
SHEET No:	3 OF 3
Rev. #	0

MATTHEW J. BERSCH
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 54522

JOSHUA M. SEWALD
PROFESSIONAL ENGINEER
NEW YORK LICENSE No. 097639

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON INTENDING TO DISTURB THE EARTH'S SURFACE, BEFORE ANY WORK.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

Comments | By | Date | Rev.

Plotted: 11/20/23 - 1:42 PM, By: rkazimir, - Product Ver. 24.2s (LMS Tech)
File: \\decpc.local\ecfolders\data\decpc projects\1021 parish network, llc\22-01041 newburgh ny\Dwg\DA Maps\D102122301041AM0.dwg, ----> 03 INLET AREA MAP

TRAFFIC IMPACT STUDY

For

PN Restaurants
Proposed Popeye's Restaurant with Drive-Thru

Property Located at:

197 South Plank Road (NYS Route 52)
Parcel 60-3-6.1
Town of Newburgh, Orange County, NY

Prepared by:

DYNAMIC TRAFFIC

1904 Main Street | 245 Main Street, Suite #110
Lake Como, NJ 07719 | Chester, NJ 07930
(732) 681-0760

Kevin Savage

Kevin M. Savage, PE, PTOE
NY PE License #105693

Corey M. Chase, PE
NY PE License #93631

October 31, 2023
Revised November 15, 2023

1021 22-01537

AMC/arf/oss

INTRODUCTION

It is proposed to construct a Popeye's restaurant with drive-thru on a parcel of land currently developed with a Dairy Queen, located on the southwest corner of the intersection of Union Avenue (NYS Route 300) and South Plank Road (NYS Route 52) in the Town of Newburgh, Orange County, New York (see Figure 1 in Appendix A). The site is designated as Parcel 60 – 3 - 6.1 on the Town of Newburgh Tax Maps. The existing use consists of a building with a 2,342 SF Dairy Queen. It is proposed to raze the existing site and construct a 2,537 SF Popeye's Restaurant ("The Project"). The site is located within the Zone B – Business Zone. Access to the site is currently provided via an enter only driveway along South Plank Road (NYS Route 52) and a full movement driveway along Union Avenue (NYS Route 300). It is proposed to close the existing access points and provide access to the site via a new full movement driveway along Union Avenue (NYS Route 300) and a full movement driveway along South Plank Road (NYS Route 52).

Dynamic Traffic LLC has been retained to prepare this study to assess the traffic impact associated with the construction of The Project on the adjacent roadway network. This study documents the methodology, analyses, findings and conclusions of our study and includes:

- A detailed field inspection was conducted to obtain an inventory of existing roadway geometry, traffic control, and location and geometry of existing driveways and intersections.

- Existing traffic data was collected via manual turning movement (MTM) counts during the weekday PM, and Saturday midday peak periods at the intersection of South Plank Road (NYS Route 52) and Union Avenue (NYS Route 300).

- Projections of traffic to be generated by the proposed development were prepared utilizing trip generation data as published by the Institute of Transportation Engineers. Site traffic was then assigned to the adjacent street system based upon the anticipated directional distribution.

- Capacity analyses were conducted for the Existing, No Build, and Build conditions for the study intersections.

- The proposed points of ingress and egress were inspected for adequacy of geometric design, spacing and/or alignment to streets and driveways on the opposite side of the street, relationship to other driveways adjacent to the development, and conformance with accepted design standards.

- The site plan as designed was reviewed for sufficiency in accommodating large wheel base vehicles such as delivery trucks, refuse trucks, and emergency vehicles.

- The parking layout and supply was assessed based on accepted design standards, local requirements, and demand experienced at similar developments.

EXISTING CONDITIONS

A review of the existing roadway conditions near the proposed site was conducted to provide the basis for assessing the traffic impact of the development. This included field investigations of the surrounding roadways and intersections, collection of traffic volume data, and extensive analyses.

Existing Roadway Conditions

The following are descriptions of the roadways in the study area:

Union Avenue (NYS Route 300) is an Urban Minor Arterial roadway under NYSDOT jurisdiction with a general north/south orientation. In the vicinity of the site the posted speed limit is 40 MPH and the roadway provides one travel lane in each direction with a two-way center left-turn lane south of the intersection with South Plank Road (NYS Route 52). On-street parking is not permitted. Curb and sidewalk are provided in the vicinity of the intersection with South Plank Road (NYS Route 52). Union Avenue (NYS Route 300) provides a straight horizontal alignment along the site frontage and a general downgrade from north to south. The land uses along Union Avenue (NYS Route 300) in the vicinity of The Project are primarily commercial.

South Plank Road (NYS Route 52) is an Urban Minor Arterial roadway under NYSDOT jurisdiction with a general east/west orientation. In the vicinity of the site the posted speed limit is 40 MPH and the roadway provides one travel lane in each direction. On-street parking is not permitted. Curb and sidewalk are provided in the vicinity of the intersection with Union Avenue (NYS Route 300). South Plank Road (NYS Route 52) provides a straight horizontal alignment along the site frontage and a relatively flat vertical alignment. The land uses along South Plank Road (NYS Route 52) in the vicinity of The Project are primarily commercial.

Existing Traffic Volumes

Manual turning movement (MTM) counts were conducted on Thursday, October 20, 2022 from 4:30 to 6:30 PM as well as on Saturday, October 22, 2022 from 11:00 AM to 2:00 PM at the intersection of South Plank Road (NYS Route 52) and Union Avenue (NYS Route 300).

Review of the collected traffic data reveals that the weekday evening PSH occurs between 4:45 - 5:45 PM and the Saturday PSH occurs between 12:30 PM - 1:30 PM. Figure 2, located in Appendix A, shows the existing peak hour traffic volumes at the study intersections. All traffic counts are contained in Appendix B.

Existing Capacity Analysis

The methodology utilized in the capacity analyses is described in the *Highway Capacity Manual*, published by the Transportation Research Board. In general, the term Level of Service (LOS) is used to provide a "qualitative" evaluation of capacity based upon certain "quantitative" calculations related to empirical values, such as traffic volume and intersection control.

At signalized intersections, factors that affect the various approach capacities include width of approach, number of lanes, signal "green time", turning percentages, truck volumes, etc. However, delays cannot be related to capacity in a simple one-to-one fashion. For example, it is possible to have delays in the Level of Service "F" range without exceeding roadway capacity. Substantial delays can exist without exceeding capacity if one or more of the following conditions exist: long signal cycle lengths; a particular traffic movement experiences a long red time; or progressive movement for a particular lane group is poor. Table I describes the level of service ranges for signalized intersections.

An unsignalized (STOP sign controlled) driveway or side street along a through route is seldom critical from an overall capacity standpoint, however, it may be of great significance to the capacity of the minor cross-route, and it may influence the quality of traffic flow on both. When analyzing an unsignalized intersection, it is assumed that both the major street through and right turn movements are unimpeded and have the right-of-way over all side street traffic and left turns from the major street. All other turning movements in the intersection cross, merge with, or are otherwise impeded by major street movements. Traffic delays at unsignalized intersections are determined by sequentially processing these impeded movements. Table II describes the level of service ranges for unsignalized (stop controlled) intersections.

Table I
Level of Service Criteria
for Signalized Intersections

Level of Service	Average Control Delay (seconds per vehicle)
A	0.0 to 10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	greater than 80.0

Table II
Level of Service Criteria
for Unsignalized Intersections

Level of Service	Average Control Delay (seconds per vehicle)
a	0.0 to 10.0
b	10.1 to 15.0
c	15.1 to 25.0
d	25.1 to 35.0
e	35.1 to 50.0
f	greater than 50.0

It should be noted that the analyses within the *Highway Capacity Manual* assume a random arrival for all the movements, which may not be the case if an adjacent traffic signal is present that platoons vehicles, such as the signalized intersection of Union Avenue (NYS Route 300) & South Plank Road (NYS Route 52).

All capacity analyses were performed utilizing Synchro 11 software. It should be noted that the existing percentage of trucks and peak hour factors were used in the existing analysis. Table III summarizes the existing levels of service (LOS) and delays. All capacity analysis calculation worksheets are contained in Appendix C.

Table III
Existing Levels of Service

Intersection	Direction/ Movement		PM PSH	SAT PSH
South Plank Road (NYS Route 52) & Union Avenue (NYS Route 300)	EB	LTR	F (88.2)	D (38.3)
	WB	LT	D (35.9)	C (29.1)
		R	B (10.2)	A (6.5)
	NB	L	F (226.0)	F (159.2)
		TR	C (34.0)	C (31.7)
	SB	L	E (56.9)	D (54.5)
		TR	C (31.1)	D (40.1)
	Overall		**E (64.9)**	**D (47.0)**

A (#) - Signalized Intersection Level of Service (seconds of delay per vehicle)

The following are discussions pertaining to each of the existing intersections analyzed.

Union Avenue (NYS Route 300) & South Plank Road (NYS Route 52)

South Plank Road (NYS Route 52) intersects Union Avenue (NYS Route 300) to form a four-leg intersection controlled by a traffic signal. The signal timing directive was obtained from NYS DOT which indicates that a three-phase cycle is utilized with a 115-second cycle length during both peak hours. The eastbound approach of South Plank Road (NYS Route 52) provides a shared left turn/through/right turn lane while the westbound approach provides a shared left turn/through lane and a dedicated right turn lane. The northbound and southbound approaches of Union Avenue (NYS Route 300) both provide a dedicated left turn lane and a shared through/right turn lane. The traffic signal permit plan and timing directive are contained in Appendix B.

A review of the existing analysis reveals that the intersection operates at levels of service "E" or better and all movements operate at levels of service "E" or better during the analyzed peak periods, with the exception of the northbound left turn movement during both analyzed peak hours and the eastbound approach during the weekday evening peak hour, which operate at level of service "F". See Table III for the individual movement levels of service and delays.

FUTURE CONDITIONS

Traffic volumes and operational analyses were developed for both the No Build and Build conditions. The No Build conditions provide a baseline for assessing the impact of the site development traffic on the roadway system. The process of developing the No Build and Build traffic volumes and the subsequent analyses is outlined below.

Regardless of whether the subject site is developed or not, traffic volumes on the surrounding roadways are expected to increase as a result of developments throughout the region. A growth rate of 2.0% per year was applied to the study area intersections.

Through consultation with the Town of Newburgh Planning Board staff, there are nine other developments in the vicinity of the site that have been approved but not yet constructed that are identified as potential significant traffic generators.

- A residential development consisting of 246 units known as the Polo Club, located at 1582 Union Avenue (NYS Route 300), has been approved and is currently under construction. Projections of the associated traffic volumes were developed utilizing data from *Traffic Impact Study*, prepared by Maser Consulting and dated December 9, 2019. It should be noted that this study only includes traffic projections for the weekday morning and evening peak hours. As such, traffic projections for the Saturday midday peak hour were developed utilizing the same methodology outlined within the aforementioned study. The Adjacent Development Traffic Volumes are shown on Figure 3.

- A development consisting of a 290,000 SF warehouse, located along South Plank Road (NYS Route 52) just north of Jeanne Drive, has been approved but not yet constructed. Projections of the associated traffic volumes were developed utilizing data from *Traffic Study*, prepared by JMC Project 18156 and dated December 3, 2020. It should be noted that this study only includes traffic projections for the weekday morning and evening peak hours. As such, traffic projections for the Saturday midday peak hour were developed utilizing the same methodology outlined within the aforementioned study. The Adjacent Development Traffic Volumes are shown on Figure 4.

- A development consisting of a 100-unit senior adult housing facility and a 3,150 SF bank known as Monarch Woods, located at 25 Monarch Drive, has been approved but not yet constructed. Projections of the associated traffic volumes were developed by utilizing the Institute of Transportation Engineers' (ITE) Land Use Code (LUC) 252 – Senior Adult Housing and LUC 912 – Drive-In Bank. The Adjacent Development Traffic Volumes are shown on Figure 5.

- A development consisting of two warehouse buildings totaling 1,142,200 SF known as Matrix Logistics Center, located opposite the Newburgh Mall, has been approved and is currently under construction. Projections of the associated traffic volumes were developed utilizing data published within the *Traffic Impact Study*, prepared by Langan Engineering and dated May 14, 2021. It should be noted that this study only includes traffic projections for the weekday morning and evening peak hours. As such, traffic projections for the Saturday midday peak hour were developed utilizing the same methodology outlined within the aforementioned study. The Adjacent Development Traffic Volumes are shown on Figure 6.

- A residential development consisting of 246 apartments known as The Enclave, located at 1565 Union Avenue (NYS Route 300), has been approved and not yet constructed. Projections of the associated traffic volumes were developed using ITE LUC 220 – Multifamily Housing. The Adjacent Development Traffic Volumes are shown on Figure 7.

- A development known as Resorts World Casino, located within the Newburgh Mall, has been approved and opened. Projections of the associated traffic volumes were developed utilizing data published within a memo by Maser Consulting dated February 12, 2021. It should be noted that this memo only includes traffic projections for the weekday morning and evening peak hours. As such, traffic projections for the Saturday midday peak hour were developed utilizing the same methodology outlined within the aforementioned memo. The Adjacent Development Traffic Volumes are shown on Figure 8.

- A development consisting of a 20,000 SF office and retail known as MJKC, located off of NYS Route 32 has been approved but not yet constructed. Projections of the associated traffic volumes were developed using ITE LUC 822 – Strip Retail Plaza (<40K). The Adjacent Traffic Volumes are shown on Figure 9.

- A development consisting of a 173,000 SF warehouse known as MKJ Park Warehouse, located off of NYS Route 32, has been approved but not yet constructed. Projections of the associated traffic volumes were developed using data published within the *Traffic Impact Study*, prepared by Colliers Engineering & Design, dated April 6, 2023. It should be noted that this study only includes traffic projections for the weekday morning and evening peak hours. As such, traffic projections for the Saturday midday peak hour were developed using ITE LUC 150 – Warehouse. The Adjacent Development Traffic Volumes are shown in Figure 10.

- A development consisting of a 56,000 SF warehouse known as Fabulous Events, located along NYS Route 32, has been approved but not yet constructed. Projections of the associated traffic volumes were developed using data published within the *Traffic Impact Study*, prepared by Colliers Engineering & Design, dated May 26, 2023. It should be noted that this study only includes traffic projections for the weekday morning and evening peak hours. As such, traffic projections for the Saturday midday peak hour were developed using ITE LUC 150 – Warehouse. The Adjacent Development Traffic Volumes are shown in Figure 11.

Future No Build traffic volumes were developed by applying the background growth rate of 2.0% for two (2) years to the study area roadways existing traffic volumes. Figure 12, in Appendix A, shows the No Build traffic volumes.

Traffic Generation

Trip generation projections for The Project were prepared utilizing trip generation research data as published under Land Use Code 934 – Fast-Food Restaurant with Drive-Through Window in the Institute of Transportation Engineers' (ITE) publication, *Trip Generation, 11th Edition.* This publication sets forth trip generation rates based on empirical traffic count data conducted at numerous research sites.

According to studies conducted by ITE, traffic associated with LUC 934 is not 100% newly generated. Rather, a portion of the traffic is diverted from the existing traffic stream on the adjacent roadway network. This is because the Popeye's is not exclusively a destination land use, instead patrons stop on their way to/from other locations such as home or work. ITE identifies a 55% passby traffic percentage, and was used during the evening peak hour. It should be noted that there will be passby traffic during the Saturday midday peak period and this passby rate was set at 50%, consistent with the weekday morning peak hour. Table IV below details the traffic volumes associated with the subject project taking into account internal capture and the passby credits.

Table IV
Trip Generation Considering Passby Traffic

Land Use	Trip Type	PM PSH			SAT PSH		
		In	Out	Total	In	Out	Total
2,537 SF Fast-Food Restaurant with Drive-Through Window	Total	44	40	84	71	69	140
	Passby	24	22	46	36	34	70
	New (Primary)	**20**	**18**	**38**	**35**	**35**	**70**

Once the magnitude of traffic to be generated by the site is known, it is necessary to assign that traffic to the adjacent street system. The distribution of new traffic to the surrounding roadways is based on the location of primary arterial roadways, major signalized intersections and existing traffic patterns. Figures 13-17, located in Appendix A, illustrate the Primary Traffic Trip Distribution, Primary Site Generated Volumes, Passby Traffic Trip Distribution, Passby Site Generated Volumes, and the Total Site Generated Volumes, respectively. The Total Site Generated Volumes assigned to the study area network were added to the No Build traffic volumes to generate the Build traffic volumes, which are shown in Figure 18.

Trip Generation Comparison

As previously noted, the site is currently occupied by a Dairy Queen which has an existing trip generation. Table V below provides a comparison between the trips associated with the existing site and the trips projected for the proposed redevelopment.

Table V
Existing vs. Proposed Trip Generation Comparison

Land Use	PM PSH			SAT PSH		
	In	Out	Total	In	Out	Total
Fast-Food Restaurant with Drive-Through Window – Dairy Queen *(Existing)*	40	37	77	66	63	129
Fast-Food Restaurant with Drive-Through Window – Popeye's *(Proposed)*	44	40	84	71	69	140
Difference	**+4**	**+3**	**+7**	**+5**	**+6**	**+11**

As shown in the table above, it is anticipated that 7 additional trips during the weekday evening peak hour and 11 additional trips during the Saturday midday peak hour are anticipated to access the site from the adjacent roadway network with the proposed redevelopment.

Future Capacity Analysis

Operational conditions at the study intersections were analyzed under the No Build and Build conditions and are summarized in Table VI below.

Table VI
Future Levels of Service

Intersection	Direction/ Movement		PM PSH			SAT PSH		
			No Build	Build	Build w/ Mit.	No Build	Build	Build w/ Mit.
South Plank Road (NYS Route 52) & Union Avenue (NYS Route 300)	EB	LTR	F (511.0)	F (545.0)	F (507.8)	F (141.3)	F (164.8)	F (148.9)
	WB	LT	E (65.8)	E (69.5)	E (65.4)	D (39.5)	D (41.1)	D (39.6)
		R	B (11.7)	B (11.9)	B (11.4)	A (6.3)	A (6.3)	A (6.0)
	NB	L	F (401.0)	F (411.5)	F (350.0)	F (313.9)	F (328.4)	F (286.1)
		TR	D (48.7)	D (49.0)	D (53.7)	C (30.6)	D (41.2)	D (44.5)
	SB	L	E (75.4)	E (75.7)	E (70.8)	E (69.2)	E (69.6)	E (67.7)
		TR	C (33.7)	C (33.7)	C (36.4)	D (45.8)	D (46.2)	D (51.7)
	Overall		**F (170.6)**	**F (179.5)**	**F (167.4)**	**F (87.0)**	**F (93.8)**	**F (88.8)**
Union Avenue (NYS Route 300) & Site Driveway	EB	LR	-	c (23.8)	-	-	d (25.5)	-
	NB	LT	-	a (9.9)	-	-	b (10.5)	-
	Overall		**-**	**a (0.3)**	**-**	**-**	**a (0.7)**	**-**
South Plank Road (NYS Route 52) & Site Driveway	WB	LT	-	a (8.8)	-	-	a (8.6)	-
	NB	LR	-	c (21.6)	-	-	c (17.3)	-
	Overall		**-**	**a (0.3)**	**-**	**-**	**a (0.6)**	**-**

a (#) - Unsignalized Intersection Level of Service (seconds of delay per vehicle)
A (#) - Signalized Intersection Level of Service (seconds of delay per vehicle)

South Plank Road (NYS Route 52) & Union Avenue (NYS Route 300)

With the addition of site generated traffic, the intersection is anticipated to operate at overall intersection No Build levels of service "F" during the analyzed peak hours. Additionally, each movement is anticipated to operate at No Build levels of service.

Revised signal timings were investigated based on the new traffic volumes for both peak hours. Specifically, the reallocation of one (1) second from the northbound/southbound ROW (phase 1 and 5) to the northbound/southbound lead lefts (phase 2 and 6), in addition to one (1) second from the northbound/southbound ROW (phase 1 and 5) to the eastbound/westbound ROW (phase 3) is recommended during the weekday evening peak hour. Additionally, the reallocation of one (1) second from the northbound/southbound ROW (phase 1 and 5) to the northbound /southbound lead lefts (phase 2 and 6), in addition to two (2) seconds from the northbound/southbound ROW (phase 1 and 5) to the eastbound/westbound ROW (phase 3) is recommended during the Saturday peak hour. It should be noted that with these signal timing modifications, the intersection anticipated to operate at similar or better than No Build levels of service. See Table VI for the individual movement levels of service and delays.

Union Avenue (NYS Route 300) & Site Driveway

The site driveway is proposed to intersect Union Avenue (NYS Route 300) to form an unsignalized T-intersection with the eastbound approach of the site driveway operating under stop control. The eastbound approach of the site driveway is proposed to provide a shared left turn/right turn lane. The northbound approach of Union Avenue (NYS Route 300) is proposed to provide a dedicated left turn lane via the existing two-way center left-turn lane and a dedicated through lane. The southbound approach of Union Avenue (NYS Route 300) is proposed to provide a shared through/right turn lane. As designed, the driveway is anticipated to operate at levels of service "D" or better during the studied peak hours. See Table VI for the individual movement levels of service and delays.

South Plank Road (NYS Route 52) & Site Driveway

The site driveway is proposed to intersect South Plank Road (NYS Route 52) to form an unsignalized T-intersection with the northbound approach of the site driveway operating under stop control. The eastbound approach of South Plank Road (NYS Route 52) is proposed to provide a shared through/right turn lane. The westbound approach of South Plank Road (NYS Route 52) is proposed to provide a shared left turn/through lane. The northbound approach of the site driveway is proposed to provide a shared left turn/right turn lane.

As designed, the driveway is anticipated to operate at levels of service "C" or better during the studied peak hours. See Table VI for the individual movement levels of service and delays.

SITE PLAN

Site Access and Circulation

The site plan was reviewed with respect to the site access and on-site circulation design. As noted previously, access to The Project will be provided via a new full movement driveway along Union Avenue (NYS Route 300) and a new full movement driveway along South Plank Road (NYS Route 52).

The parking lot will be serviced by parking aisles with widths of 18', which will allow for one way circulation and 60 degree parking.

Parking

The Town of Newburgh Ordinance sets forth a parking requirement of 1 parking space per 4 seats for restaurants and fast food establishments. The Ordinance also states a requirement of 1 space per 40 SF. This equates to a parking requirement of 6 spaces for the proposed 24-seat Popeye's restaurant. The site as proposed provides 22 spaces and as such, the Ordinance requirement is met.

An Operational Characteristics Study has been conducted by Dynamic Traffic for Popeye's sites which identified a maximum parking demand of 6.48 spaces per 1,000 SF, and equates to a parking demand of 16 spaces for the proposed 2,537 SF Popeye's (inclusive of employees). Consequently, the proposed 22 parking spaces will be sufficient to support the anticipated demand of the project.

It is proposed to provide parking stalls with dimensions of 9'x18', which satisfy the Ordinance minimum requirement of 9'x18'.

FINDINGS & CONCLUSIONS

Findings

Based upon the detailed analyses as documented herein, the following findings are noted:

- The proposed 2,537 SF Popeye's Restaurant is projected to generate 20 entering trips and 18 exiting trips during the evening peak hour, and 35 entering trips and 35 exiting trips during the Saturday peak hour that are "new" to the adjacent roadway network.

- Access to the site is proposed to be provided via a new full movement driveway along South Plank Road (NYS Route 52) and a new full movement driveway along Union Avenue (NYS Route 300).

- With the addition of site generated traffic and proposed signal retiming, the intersection of Union Avenue (NYS Route 300) and South Plank Road (NYS Route 52) is anticipated to operate at overall No Build intersection level of service "F" during the peak hours studied.

- As designed, the intersection of Union Avenue (NYS Route 300) and the site driveway is anticipated to operate at levels of service "D" or better during the peak hours studied.

- As designed, the intersection of South Plank Road (NYS Route 52) and the site driveway is anticipated to operate at levels of service "C" or better during the peak hours studied.

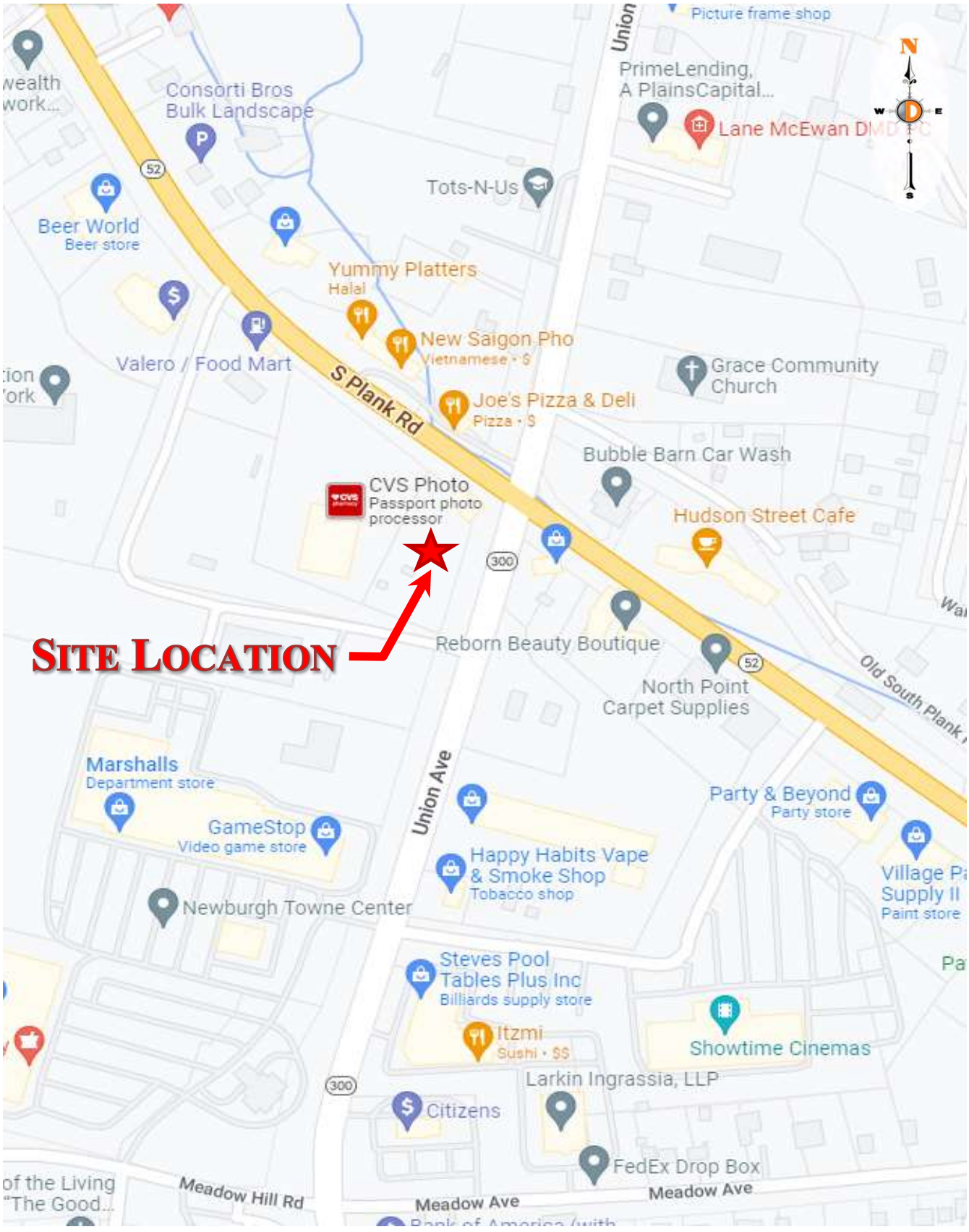
- As proposed, The Project's site driveways and internal circulation have been designed to provide for safe and efficient movement of automobiles and large wheel base vehicles.

- The proposed parking supply and design is sufficient to support the projected demand and satisfies the Ordinance requirements.

Conclusions

Based upon our Traffic Impact Study as detailed in the body of this report, it is the professional opinion of Dynamic Traffic LLC that the adjacent street system of the Town of Newburgh and NYSDOT will not experience any significant degradation in operating conditions with the construction of The Project. The site driveways are located to provide safe and efficient access to the adjacent roadway system. The site plan as proposed provides for good circulation throughout the site and provides adequate parking to accommodate The Project's needs.

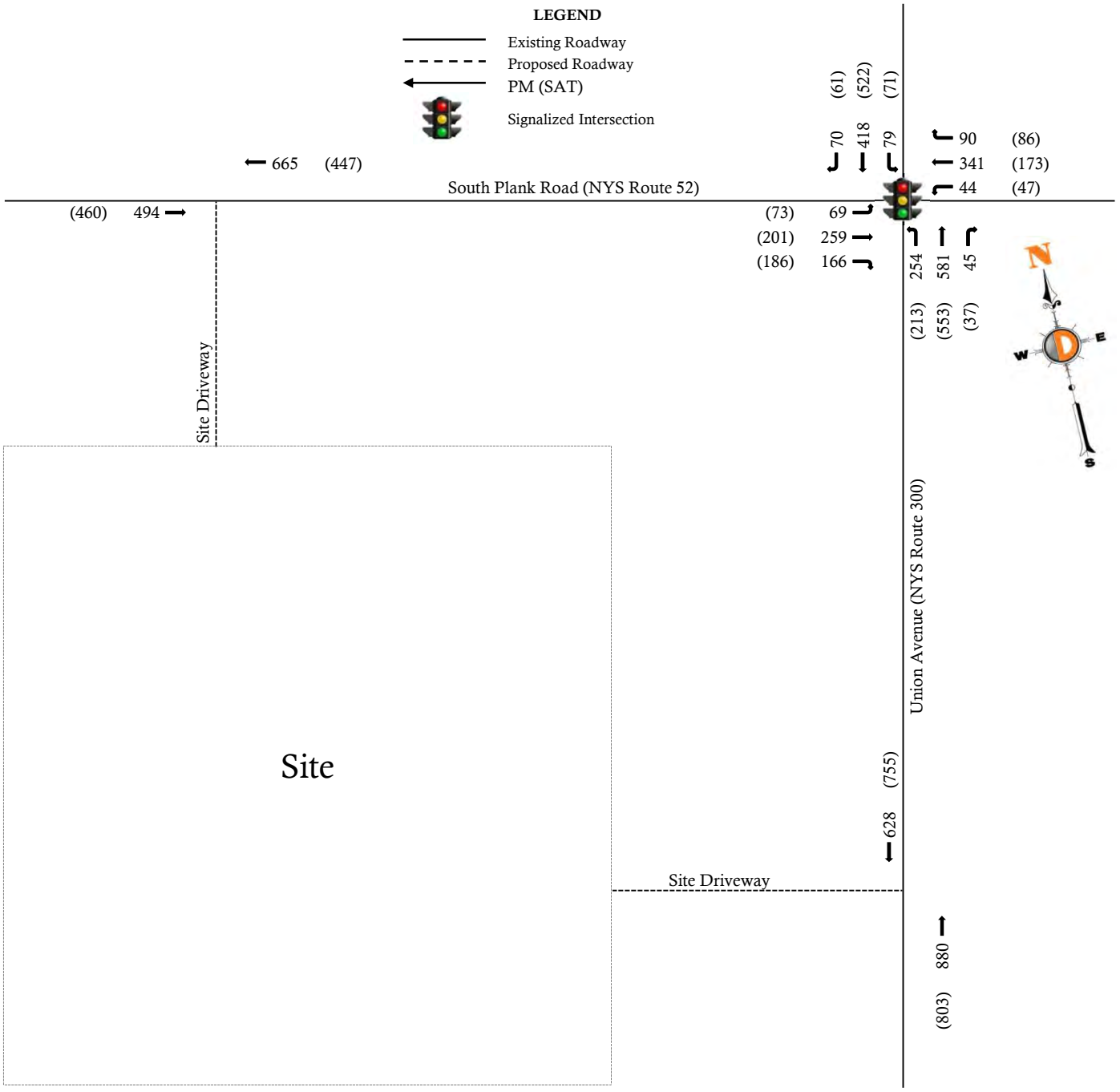
Appendix A
Traffic Volume Figures



Proposed Popeye's Development
Traffic Impact Study
1021-22-01537

Figure 1

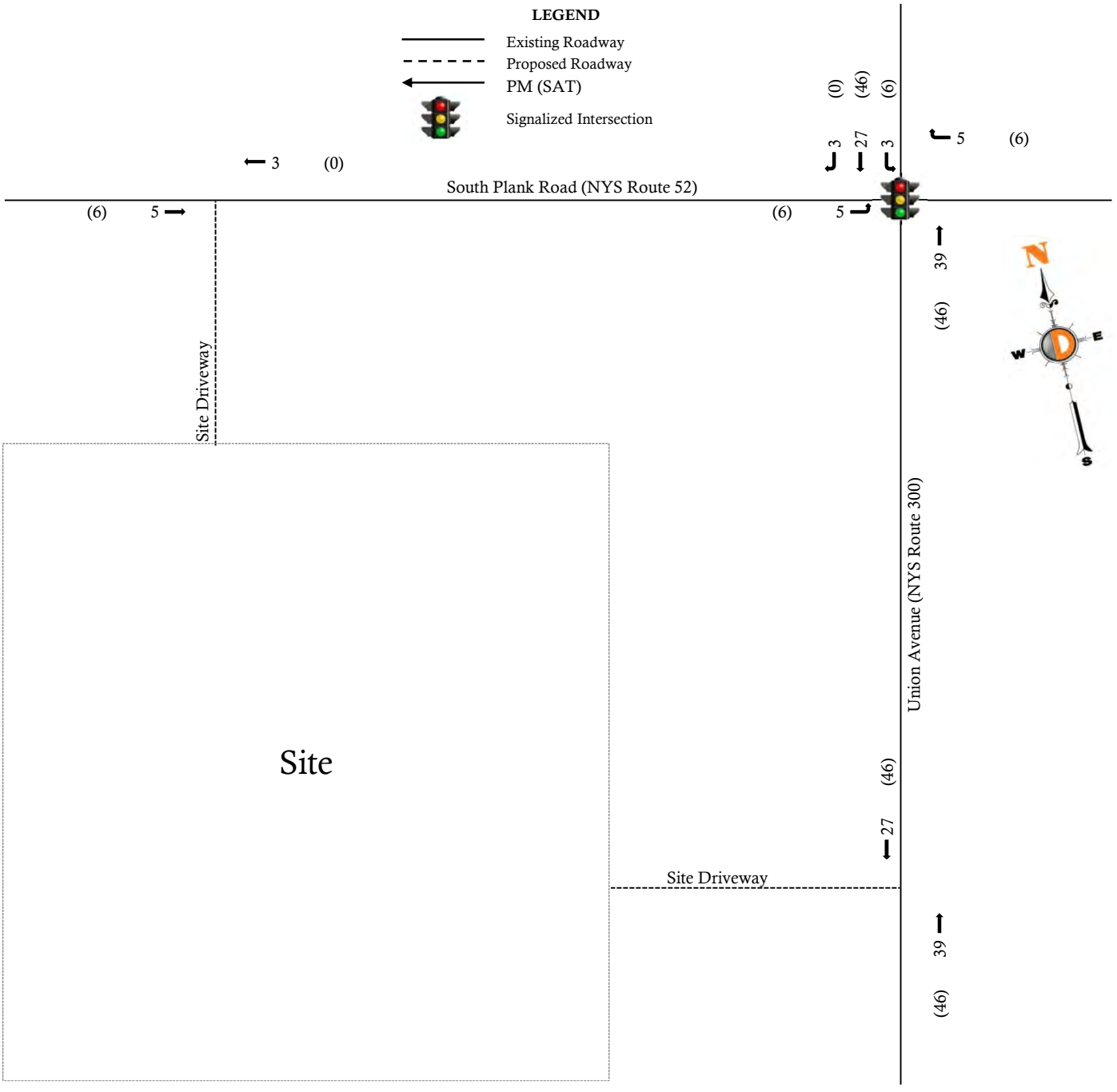
Site Location Map



Proposed Popeye's Development
Traffic Impact Study
1021-22-01537

Figure 2

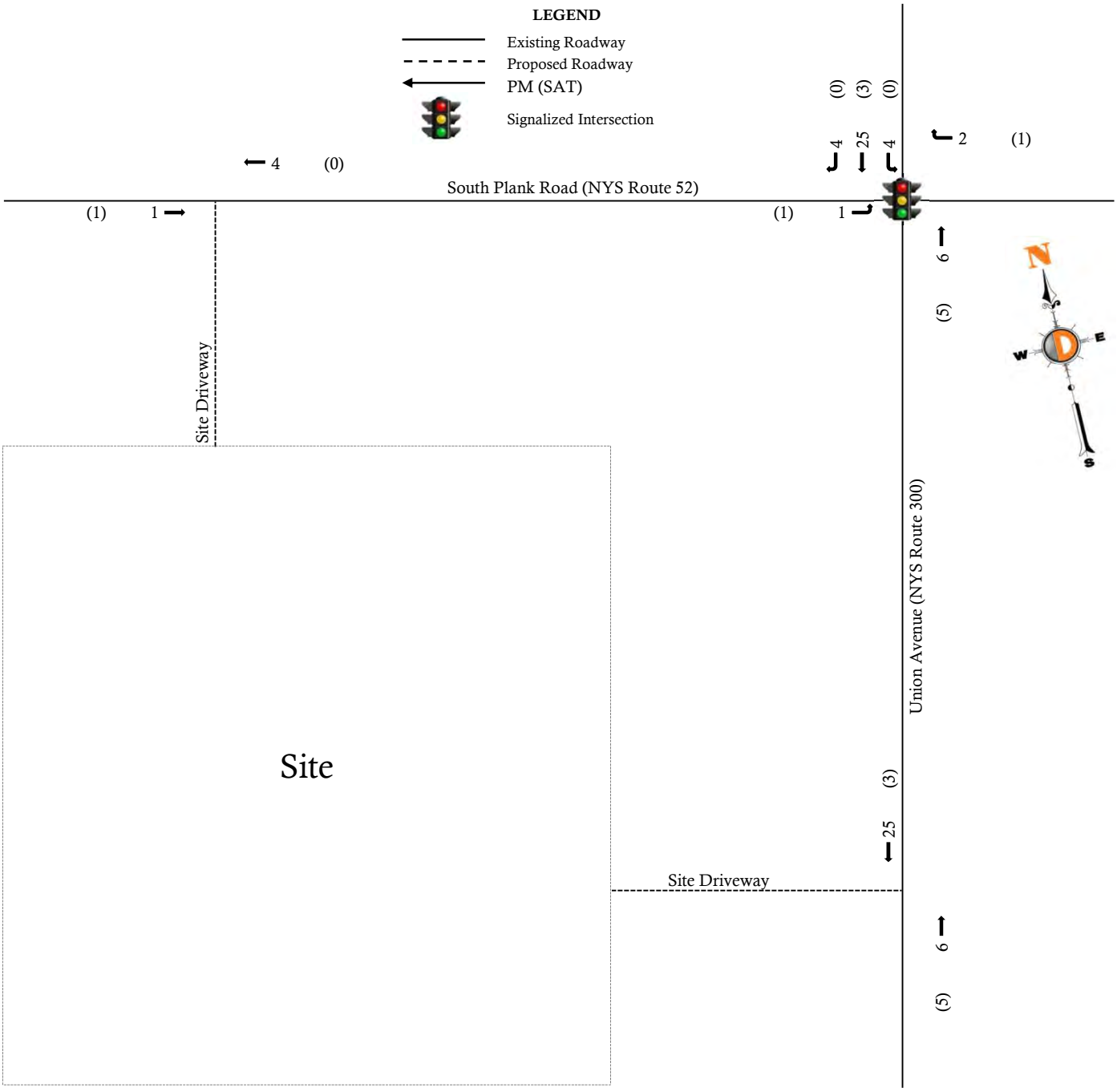
Existing Traffic Volumes



Proposed Popeye's Development
Traffic Impact Study
1021-22-01537

Figure 3

Adjacent Development Traffic Volumes
[The Polo Club - 1582 Route 300]



Proposed Popeye's Development
Traffic Impact Study
1021-22-01537

Figure 4

Adjacent Development Traffic Volumes [Farrell Industrial Park]

Proposed Popeye's Development
Traffic Impact Study
1021-22-01537

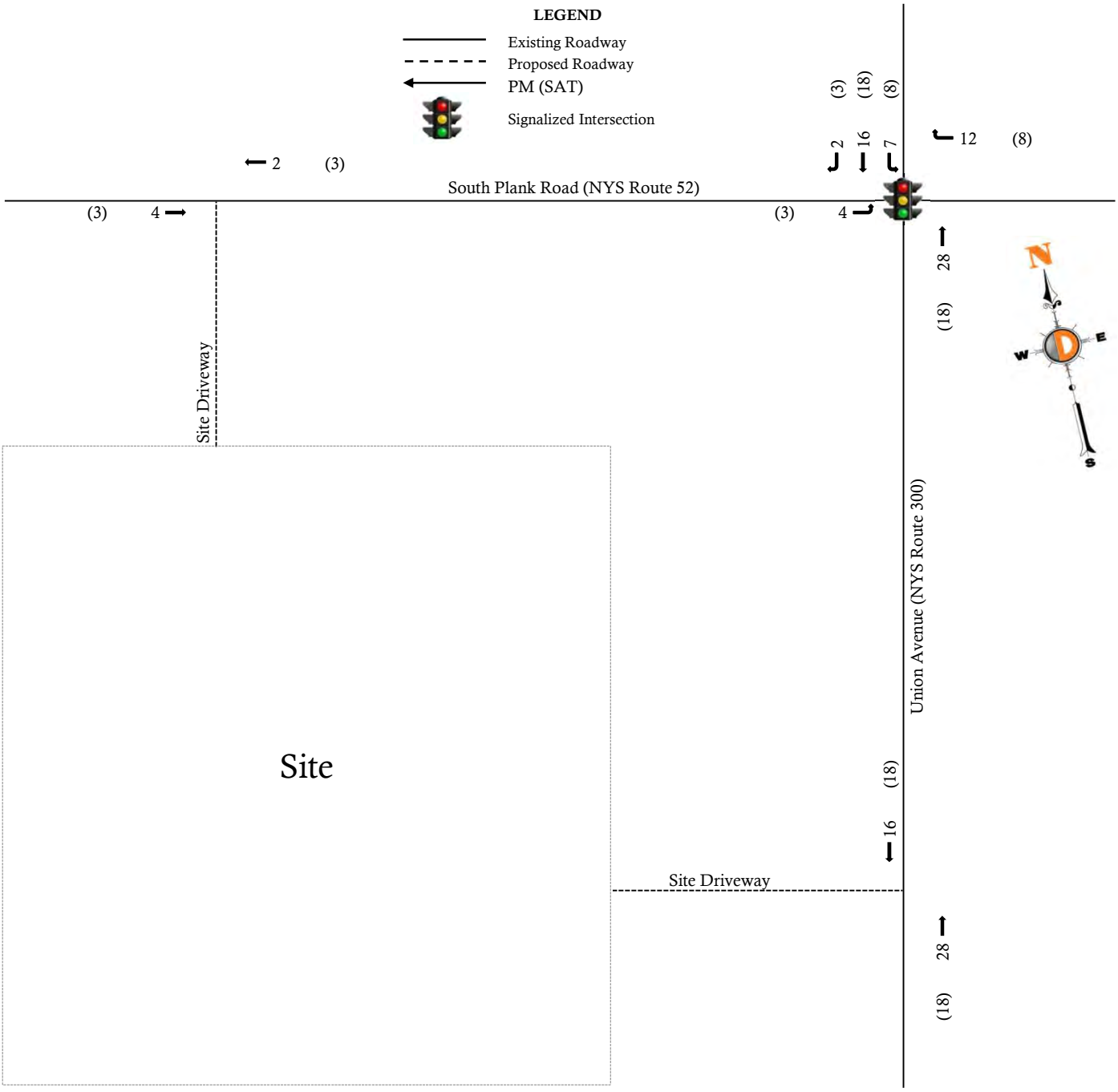
Figure 5

Adjacent Development Traffic Volumes
[Monarch Woods - 25 Monarch Dr]

Proposed Popeye's Development
Traffic Impact Study
1021-22-01537

Figure 6

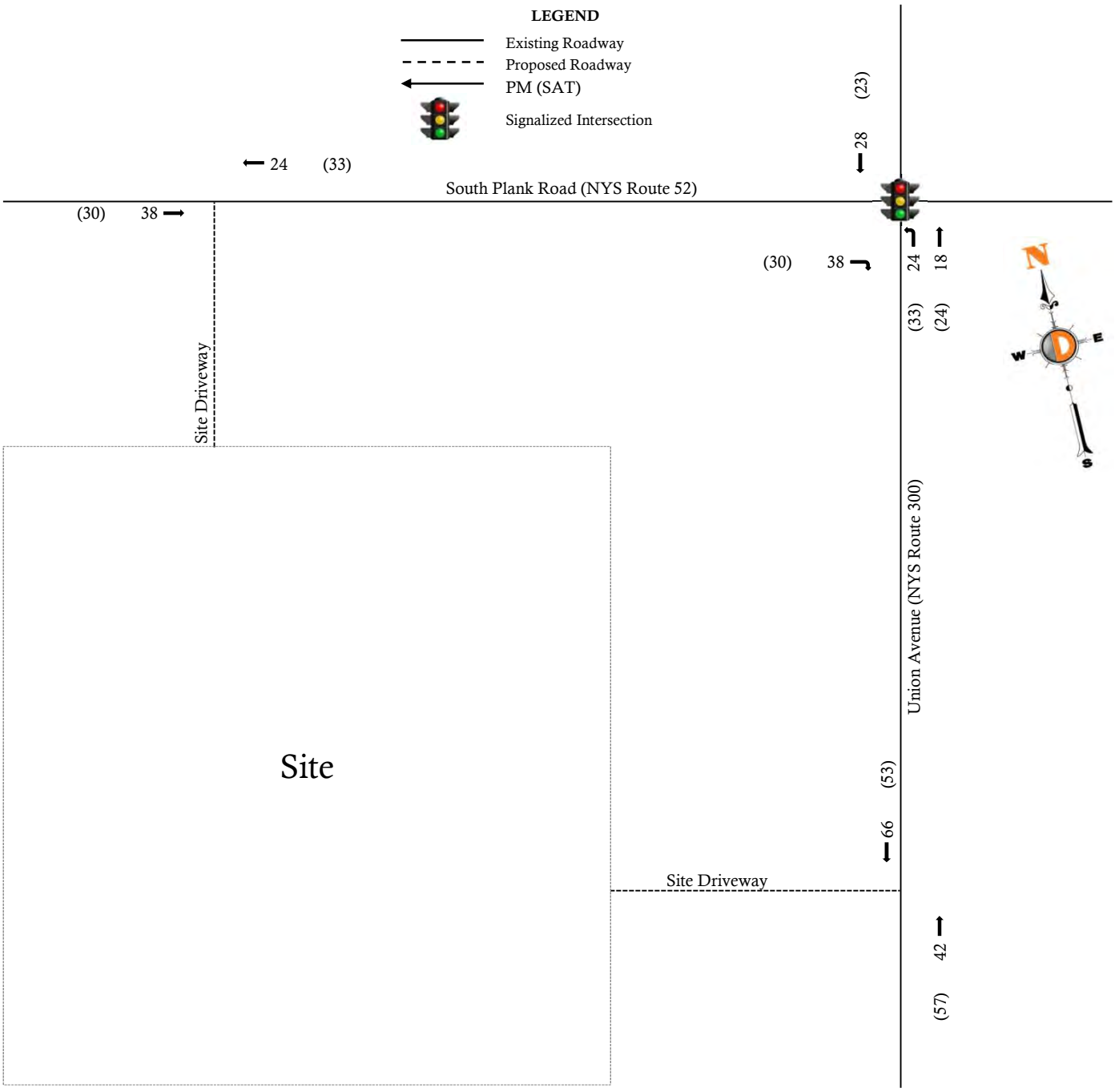
Adjacent Development Traffic Volumes
[Matrix Logistics Center - Opposite Newburgh Mall]



Proposed Popeye's Development
Traffic Impact Study
1021-22-01537

Figure 7

Adjacent Development Traffic Volumes
[The Enclave - 1565 Route 300]



Proposed Popeye's Development
Traffic Impact Study
1021-22-01537

Figure 8

Adjacent Development Traffic Volumes
[Resorts World Casino - Newburgh Mall]

Proposed Popeye's Development
Traffic Impact Study
1021-22-01537

Figure 9

Adjacent Development Traffic Volume [MJKC - Office/Retail]

Proposed Popeye's Development
Traffic Impact Study
1021-22-01537

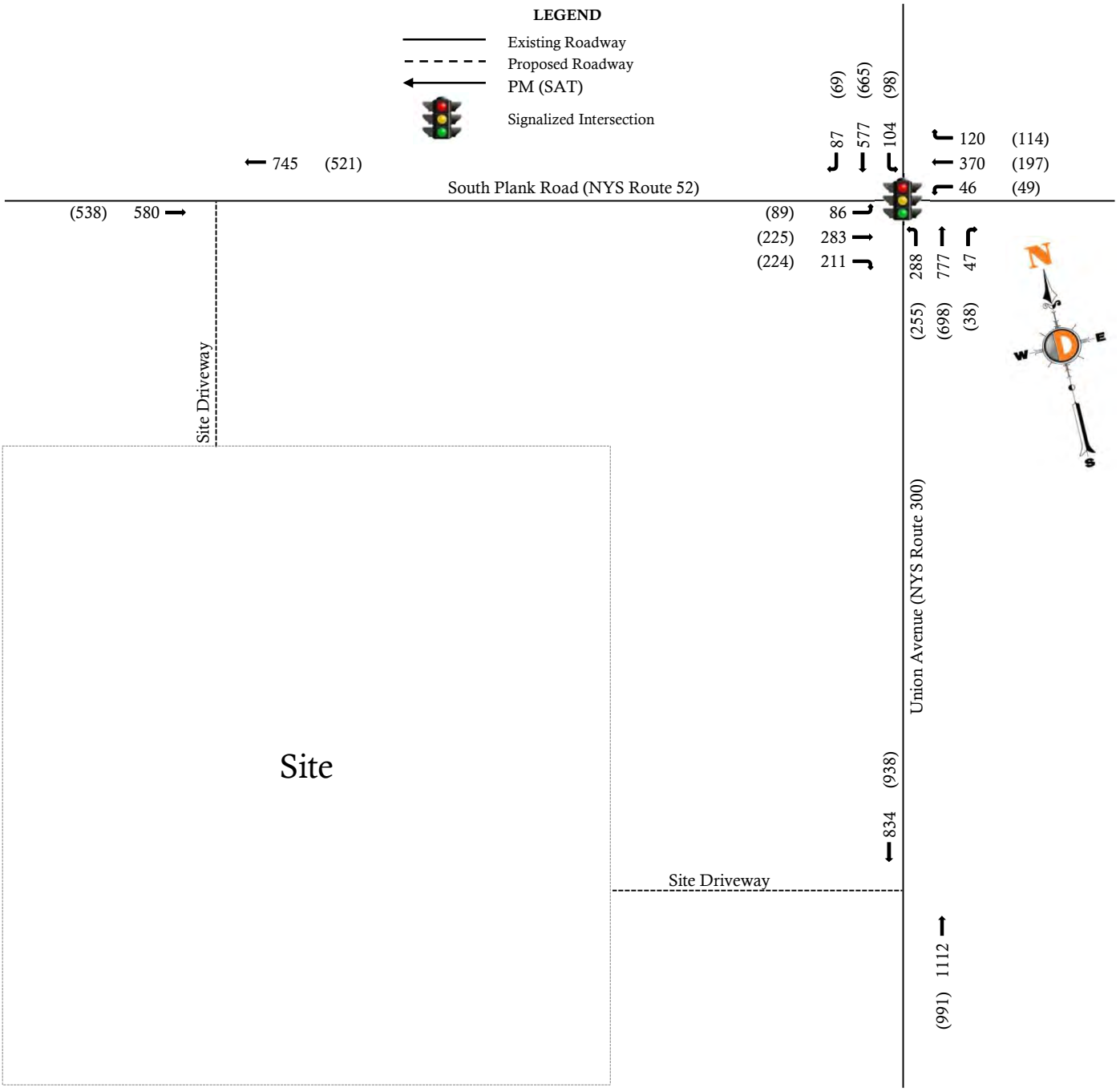
Figure 10

Adjacent Development Traffic Volumes [MKJ Park Warehouse]

Proposed Popeye's Development
Traffic Impact Study
1021-22-01537

Figure 11

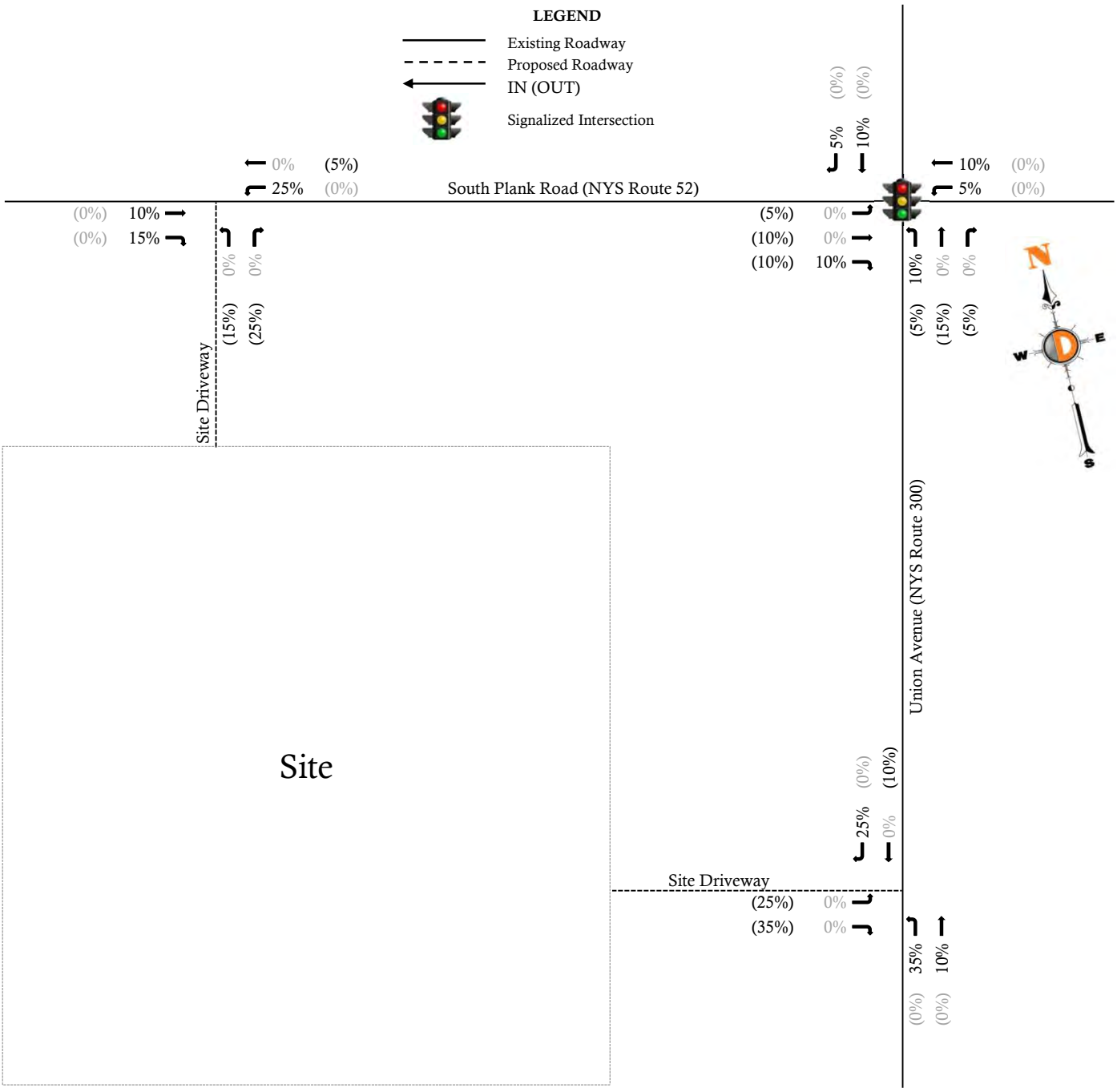
Adjacent Development Traffic Volume [Fabulous Events - Warehouse]



Proposed Popeye's Development
Traffic Impact Study
1021-22-01537

Figure 12

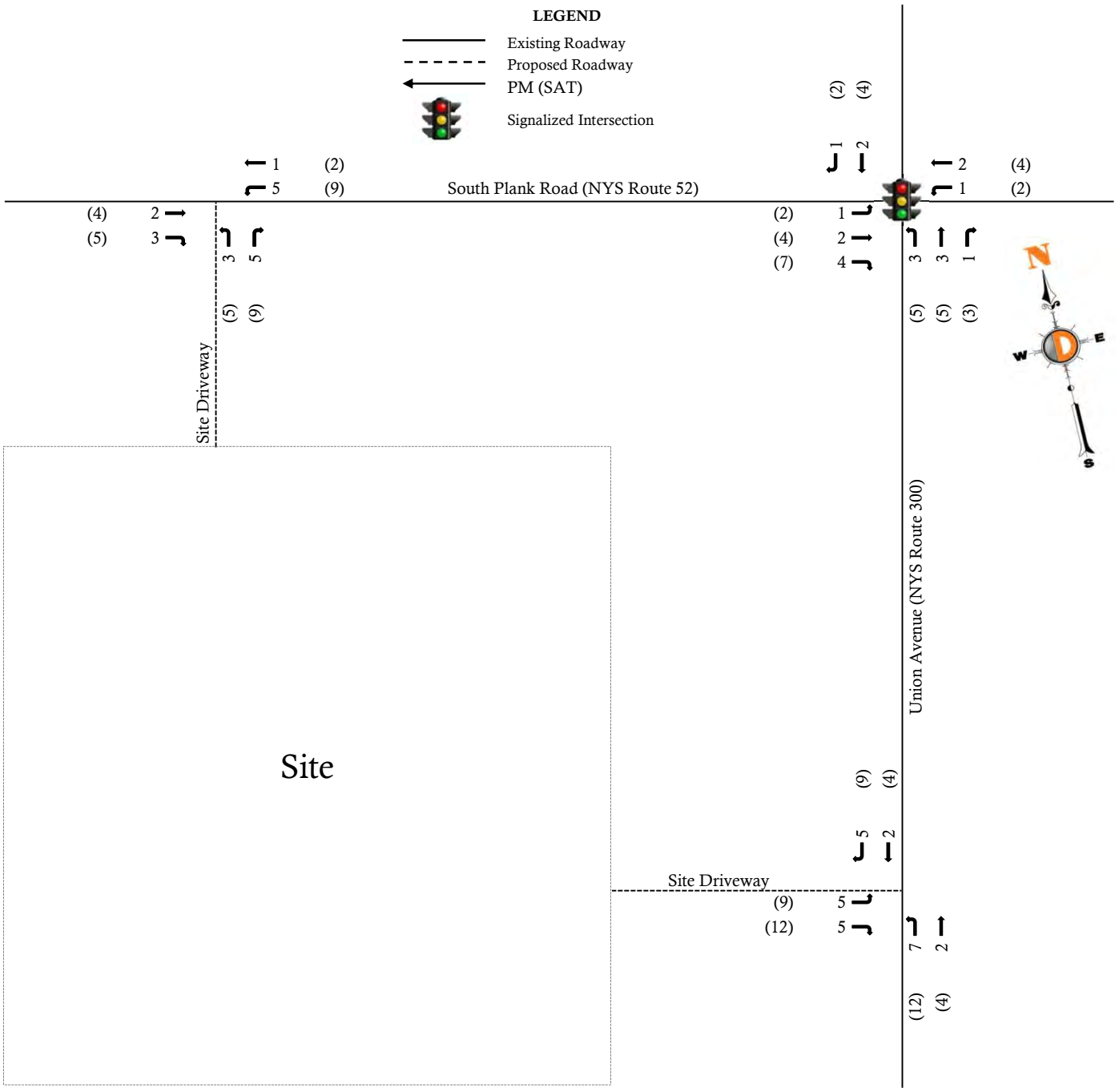
No Build Traffic Volumes



Proposed Popeye's Development
Traffic Impact Study
1021-22-01537

Figure 13

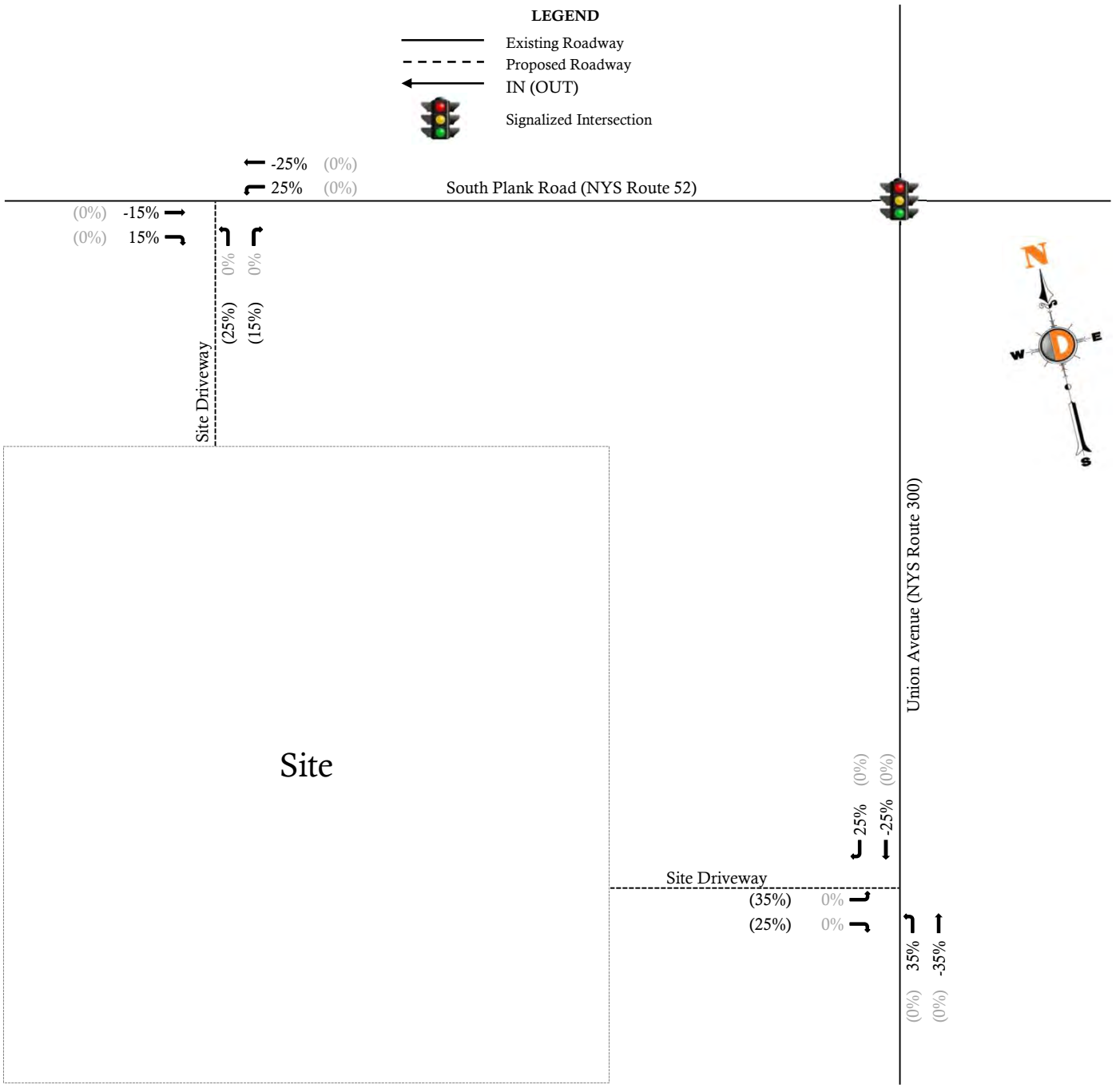
Percent Distribution (Primary Trips)



Proposed Popeye's Development
Traffic Impact Study
1021-22-01537

Figure 14

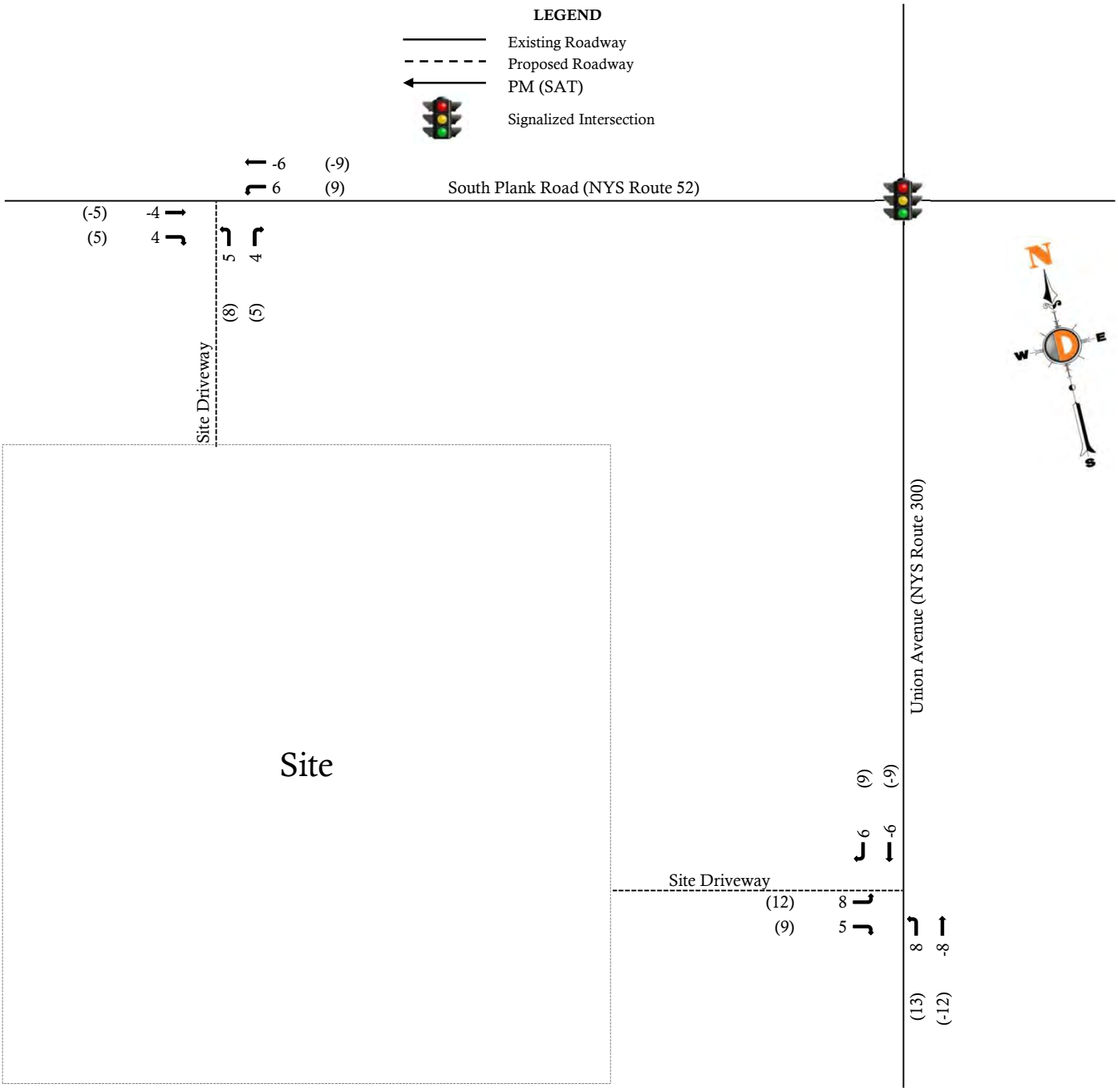
Primary Site Generated Trips



Proposed Popeye's Development
Traffic Impact Study
1021-22-01537

Figure 15

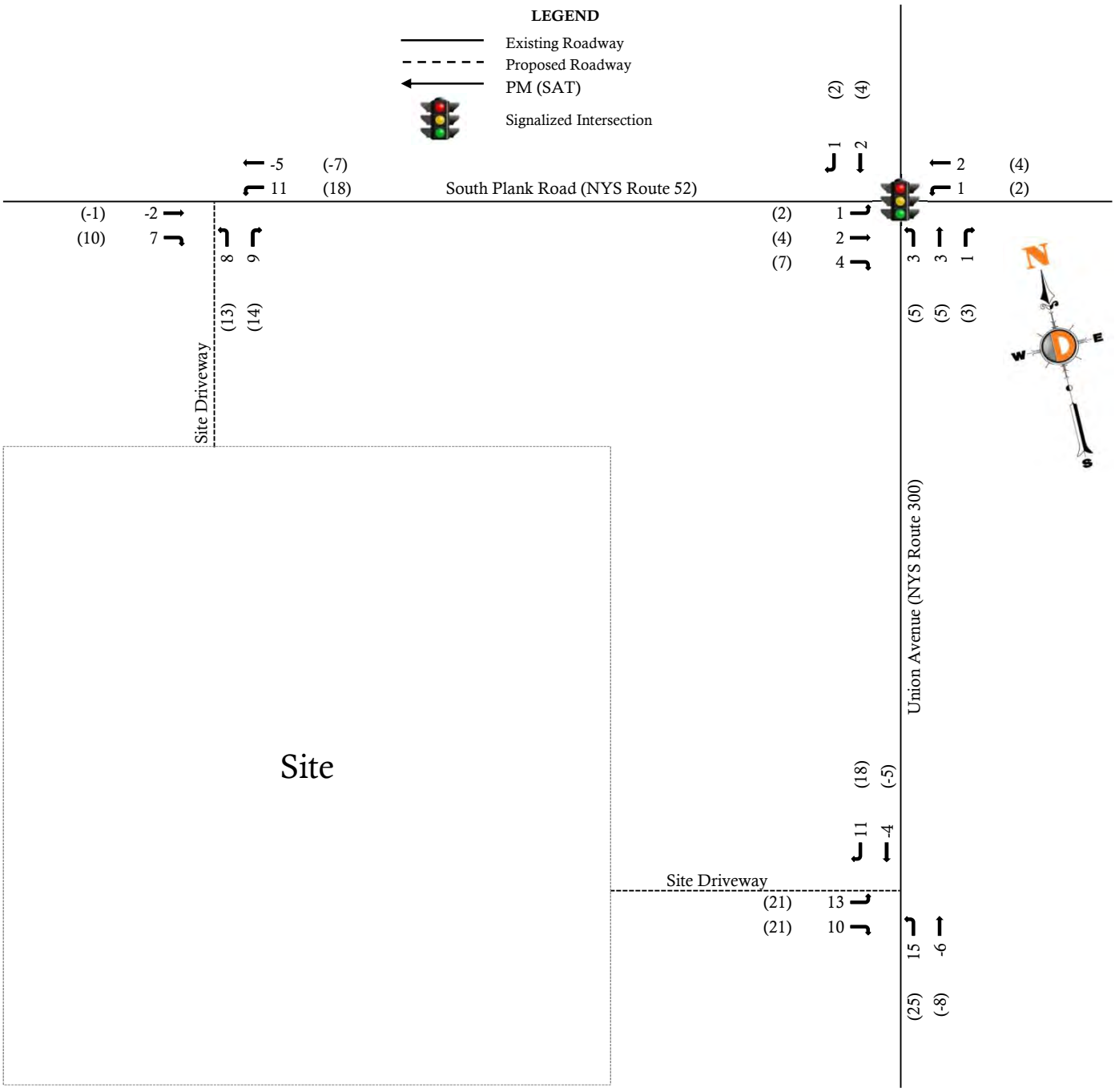
Percent Distribution (Passby Trips)



Proposed Popeye's Development
Traffic Impact Study
1021-22-01537

Figure 16

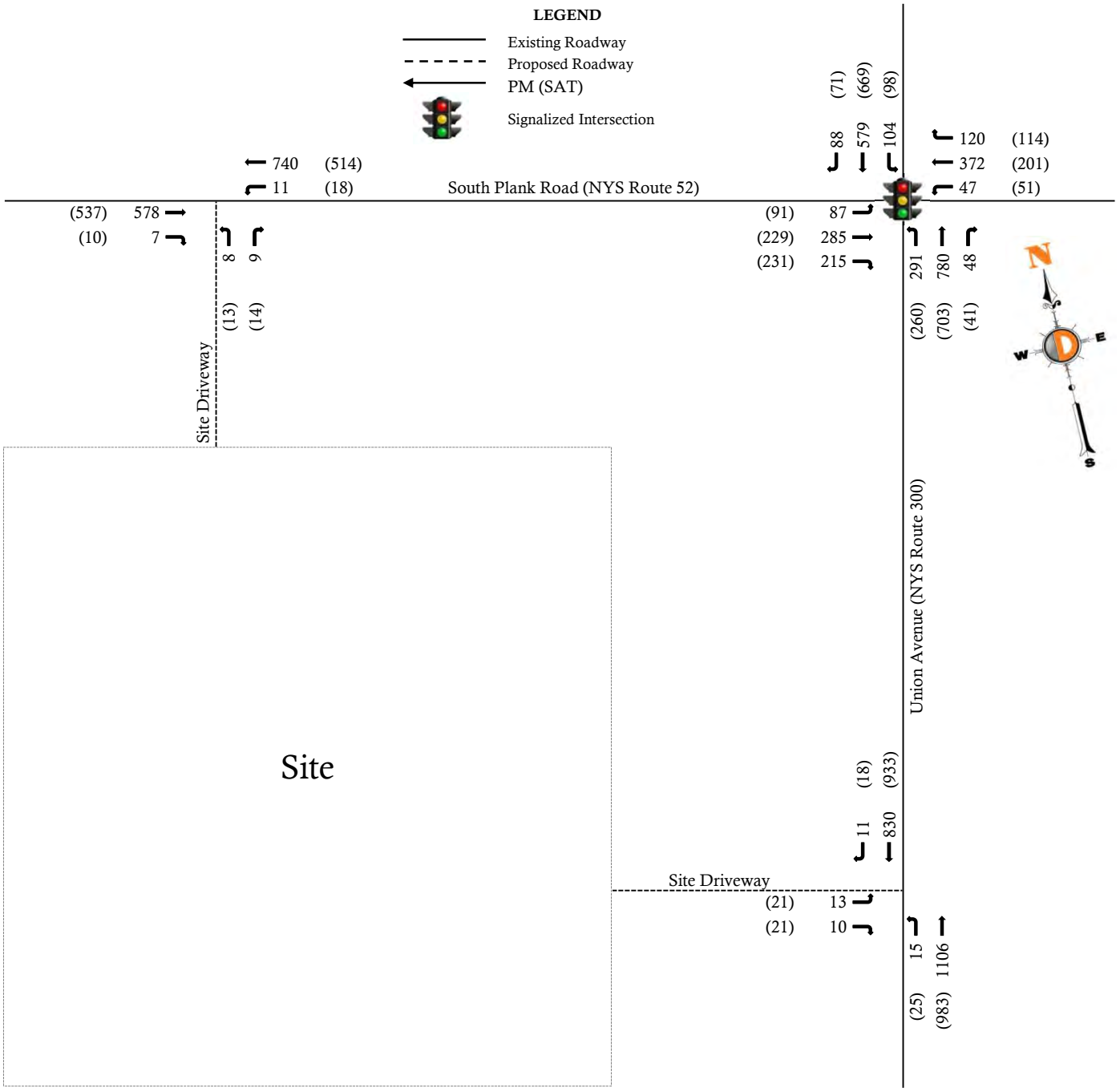
Passby Site Generated Trips



Proposed Popeye's Development
Traffic Impact Study
1021-22-01537

Figure 17

Total Site Generated Trips



Proposed Popeye's Development
Traffic Impact Study
1021-22-01537

Figure 18

Build Traffic Volumes

Appendix B
Project Information

Dynamic Traffic, LLC

1904 Main Street, Lake Como, NJ 07719
245 Main Street - Suite #110, Chester, NJ 07930
732-681-0760

E/W: South Plank Rd
N/S: Union Ave
Town/County: Newburgh/Orange
Job #: 1021-22-01537

File Name : South Plank Rd & Union Ave - PM
Site Code : 00000000
Start Date : 10/20/2022
Page No : 1

Groups Printed- Cars - Trucks (SU) - Trucks (TT)

	South Plank Road Eastbound					South Plank Road Westbound					Union Avenue Northbound					Union Avenue Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:30 PM	22	59	30	0	111	12	86	23	0	121	60	122	8	0	190	19	111	30	0	160	582
04:45 PM	17	50	40	0	107	11	91	30	0	132	61	137	11	0	209	22	120	23	0	165	613
Total	39	109	70	0	218	23	177	53	0	253	121	259	19	0	399	41	231	53	0	325	1195
05:00 PM	17	78	39	0	134	16	100	27	1	144	49	132	15	0	196	16	97	14	0	127	601
05:15 PM	11	68	47	0	126	9	71	14	0	94	65	172	6	0	243	19	109	14	0	142	605
05:30 PM	24	63	40	0	127	8	79	19	0	106	79	140	13	0	232	22	92	20	0	134	599
05:45 PM	15	54	37	0	106	5	72	21	0	98	52	123	22	0	197	22	117	24	0	163	564
Total	67	263	163	0	493	38	322	81	1	442	245	567	56	0	868	79	415	72	0	566	2369
06:00 PM	9	57	31	0	97	8	63	12	0	83	66	133	12	0	211	14	110	14	0	138	529
06:15 PM	15	44	28	0	87	7	70	18	0	95	59	119	14	0	192	20	97	18	0	135	509
Grand Total	130	473	292	0	895	76	632	164	1	873	491	1078	101	0	1670	154	853	157	0	1164	4602
Apprch %	14.5	52.8	32.6	0		8.7	72.4	18.8	0.1		29.4	64.6	6	0		13.2	73.3	13.5	0		
Total %	2.8	10.3	6.3	0	19.4	1.7	13.7	3.6	0	19	10.7	23.4	2.2	0	36.3	3.3	18.5	3.4	0	25.3	
Cars	129	462	286	0	877	74	626	161	1	862	483	1065	100	0	1648	150	842	152	0	1144	4531
% Cars	99.2	97.7	97.9	0	98	97.4	99.1	98.2	100	98.7	98.4	98.8	99	0	98.7	97.4	98.7	96.8	0	98.3	98.5
Trucks (SU)	1	11	3	0	15	2	5	2	0	9	3	11	1	0	15	2	9	4	0	15	54
% Trucks (SU)	0.8	2.3	1	0	1.7	2.6	0.8	1.2	0	1	0.6	1	1	0	0.9	1.3	1.1	2.5	0	1.3	1.2
Trucks (TT)	0	0	3	0	3	0	1	1	0	2	5	2	0	0	7	2	2	1	0	5	17
% Trucks (TT)	0	0	1	0	0.3	0	0.2	0.6	0	0.2	1	0.2	0	0	0.4	1.3	0.2	0.6	0	0.4	0.4

	South Plank Road Eastbound					South Plank Road Westbound					Union Avenue Northbound					Union Avenue Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 06:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	17	50	40	0	107	11	91	30	0	132	61	137	11	0	209	22	120	23	0	165	613
05:00 PM	17	78	39	0	134	16	100	27	1	144	49	132	15	0	196	16	97	14	0	127	601
05:15 PM	11	68	47	0	126	9	71	14	0	94	65	172	6	0	243	19	109	14	0	142	605
05:30 PM	24	63	40	0	127	8	79	19	0	106	79	140	13	0	232	22	92	20	0	134	599
Total Volume	69	259	166	0	494	44	341	90	1	476	254	581	45	0	880	79	418	71	0	568	2418
% App. Total	14	52.4	33.6	0		9.2	71.6	18.9	0.2		28.9	66	5.1	0		13.9	73.6	12.5	0		
PHF	.719	.830	.883	.000	.922	.688	.853	.750	.250	.826	.804	.844	.750	.000	.905	.898	.871	.772	.000	.861	.986
Cars	68	250	165	0	483	43	337	89	1	470	251	573	44	0	868	77	411	70	0	558	2379
% Cars	98.6	96.5	99.4	0	97.8	97.7	98.8	98.9	100	98.7	98.8	98.6	97.8	0	98.6	97.5	98.3	98.6	0	98.2	98.4
Trucks (SU)	1	9	0	0	10	1	3	0	0	4	1	6	1	0	8	2	6	1	0	9	31
% Trucks (SU)	1.4	3.5	0	0	2.0	2.3	0.9	0	0	0.8	0.4	1.0	2.2	0	0.9	2.5	1.4	1.4	0	1.6	1.3
Trucks (TT)	0	0	1	0	1	0	1	1	0	2	2	2	0	0	4	0	1	0	0	1	8
% Trucks (TT)	0	0	0.6	0	0.2	0	0.3	1.1	0	0.4	0.8	0.3	0	0	0.5	0	0.2	0	0	0.2	0.3

Dynamic Traffic, LLC

1904 Main Street, Lake Como, NJ 07719
245 Main Street - Suite #110, Chester, NJ 07930
732-681-0760

E/W: South Plank Rd
N/S: Union Ave
Town/County: Newburgh/Orange
Job #: 1021-22-01537

File Name : South Plank Rd & Union Ave - SAT
Site Code : 00000000
Start Date : 10/22/2022
Page No : 1

Groups Printed- Cars - Trucks (SU) - Trucks (TT)

	South Plank Road Eastbound					South Plank Road Westbound					Union Avenue Northbound					Union Avenue Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
11:00 AM	16	54	51	1	122	8	47	20	0	75	53	109	19	0	181	14	114	21	0	149	527
11:15 AM	25	52	44	0	121	11	33	16	0	60	53	130	12	0	195	22	113	25	0	160	536
11:30 AM	16	59	57	0	132	12	62	26	0	100	43	127	12	0	182	22	126	14	0	162	576
11:45 AM	15	40	48	0	103	6	36	16	0	58	32	145	17	0	194	24	132	22	0	178	533
Total	72	205	200	1	478	37	178	78	0	293	181	511	60	0	752	82	485	82	0	649	2172
12:00 PM	13	41	61	0	115	12	59	21	0	92	60	117	15	0	192	16	115	11	0	142	541
12:15 PM	14	43	37	0	94	8	41	21	0	70	56	140	21	0	217	17	125	16	0	158	539
12:30 PM	19	35	49	0	103	13	38	21	0	72	57	139	11	0	207	21	142	19	0	182	564
12:45 PM	20	54	49	0	123	14	46	26	0	86	56	129	7	0	192	19	119	4	0	142	543
Total	66	173	196	0	435	47	184	89	0	320	229	525	54	0	808	73	501	50	0	624	2187
01:00 PM	22	64	35	0	121	8	43	18	0	69	44	136	11	0	191	16	124	22	0	162	543
01:15 PM	12	48	53	0	113	12	46	21	0	79	56	149	8	0	213	15	137	16	0	168	573
01:30 PM	18	44	43	2	107	7	46	20	0	73	52	153	17	0	222	20	99	13	0	132	534
01:45 PM	18	48	37	0	103	8	54	10	0	72	40	119	12	0	171	17	111	13	0	141	487
Total	70	204	168	2	444	35	189	69	0	293	192	557	48	0	797	68	471	64	0	603	2137
Grand Total	208	582	564	3	1357	119	551	236	0	906	602	1593	162	0	2357	223	1457	196	0	1876	6496
Apprch %	15.3	42.9	41.6	0.2		13.1	60.8	26	0		25.5	67.6	6.9	0		11.9	77.7	10.4	0		
Total %	3.2	9	8.7	0	20.9	1.8	8.5	3.6	0	13.9	9.3	24.5	2.5	0	36.3	3.4	22.4	3	0	28.9	
Cars	206	579	560	3	1348	118	548	235	0	901	598	1587	161	0	2346	223	1446	192	0	1861	6456
% Cars	99	99.5	99.3	100	99.3	99.2	99.5	99.6	0	99.4	99.3	99.6	99.4	0	99.5	100	99.2	98	0	99.2	99.4
Trucks (SU)	1	2	3	0	6	1	1	1	0	3	4	4	1	0	9	0	9	3	0	12	30
% Trucks (SU)	0.5	0.3	0.5	0	0.4	0.8	0.2	0.4	0	0.3	0.7	0.3	0.6	0	0.4	0	0.6	1.5	0	0.6	0.5
Trucks (TT)	1	1	1	0	3	0	2	0	0	2	0	2	0	0	2	0	2	1	0	3	10
% Trucks (TT)	0.5	0.2	0.2	0	0.2	0	0.4	0	0	0.2	0	0.1	0	0	0.1	0	0.1	0.5	0	0.2	0.2

Dynamic Traffic, LLC

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Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	19	35	49	0	103	13	38	21	0	72	57	139	11	0	207	21	142	19	0	182	564
12:45 PM	20	54	49	0	123	14	46	26	0	86	56	129	7	0	192	19	119	4	0	142	543
01:00 PM	22	64	35	0	121	8	43	18	0	69	44	136	11	0	191	16	124	22	0	162	543
01:15 PM	12	48	53	0	113	12	46	21	0	79	56	149	8	0	213	15	137	16	0	168	573
Total Volume	73	201	186	0	460	47	173	86	0	306	213	553	37	0	803	71	522	61	0	654	2223
% App. Total	15.9	43.7	40.4	0		15.4	56.5	28.1	0		26.5	68.9	4.6	0		10.9	79.8	9.3	0		
PHF	.830	.785	.877	.000	.935	.839	.940	.827	.000	.890	.934	.928	.841	.000	.942	.845	.919	.693	.000	.898	.970
Cars	73	200	183	0	456	47	171	86	0	304	211	550	37	0	798	71	519	59	0	649	2207
% Cars	100	99.5	98.4	0	99.1	100	98.8	100	0	99.3	99.1	99.5	100	0	99.4	100	99.4	96.7	0	99.2	99.3
Trucks (SU)	0	1	2	0	3	0	0	0	0	0	2	2	0	0	4	0	3	1	0	4	11
% Trucks (SU)	0	0.5	1.1	0	0.7	0	0	0	0	0	0.9	0.4	0	0	0.5	0	0.6	1.6	0	0.6	0.5
Trucks (TT)	0	0	1	0	1	0	2	0	0	2	0	1	0	0	1	0	0	1	0	1	5
% Trucks (TT)	0	0	0.5	0	0.2	0	1.2	0	0	0.7	0	0.2	0	0	0.1	0	0	1.6	0	0.2	0.2

TE 44(3/91) STATE OF NEW YORK - DEPARTMENT OF TRANSPORTATION
TRAFFIC AND SAFETY DIVISION
TRAFFIC CONTROL SIGNAL SPECIFICATIONS

STUDY:
CONTRACT:
PIN:
FILE:

43 SIGNAL NO(S). Orange COUNTY PAGE 1 OF 19 PAGES

INTERSECTION Route 52 at Route 300

☐ City, ☐ Village, ☒ Town of Newburgh

Department Order filed _____ (Date) as Section 2033.33 Subdivision (d)

Prior specifications hereby superceded: ☐ None ☒ June 3 19 87

Purpose: Install presence loop detection

These specifications will be effective upon the ☒ installation, ☐ modification of the necessary traffic control device(s) required by and conforming to the State Manual of Uniform Traffic Control Devices.

I. This Signal shall:

A. Operate in accordance with the Table of Operations and/or Change Intervals as shown on page(s) 2 as a:
- ☐ Pretimed signal
- ☐ Semi-traffic actuated signal
- ☒ Full-traffic actuated signal
- ☐ Pedestrian actuated signal
- ☐ Other _____

B.
- ☒ Display vehicular indications
- ☐ Display pedestrian indications
- ☒ Be equipped with vehicle detectors
- ☐ Be equipped with Pedestrian push buttons

as shown in the ☒ schematic, ☐ scaled drawing on page 3.

C. Be equipped with ☐ pre-emption, ☐ interconnection and/or coordination which are described as follows:

9-1-93 (Date) M. J. Mignosa (Signature) RTE (Title)

cc:
- ☒ Main Office (2)
- ☒ Region 8 Traffic Engineer
- ☒ F. Haalck (3)
- ☒ M. Glover

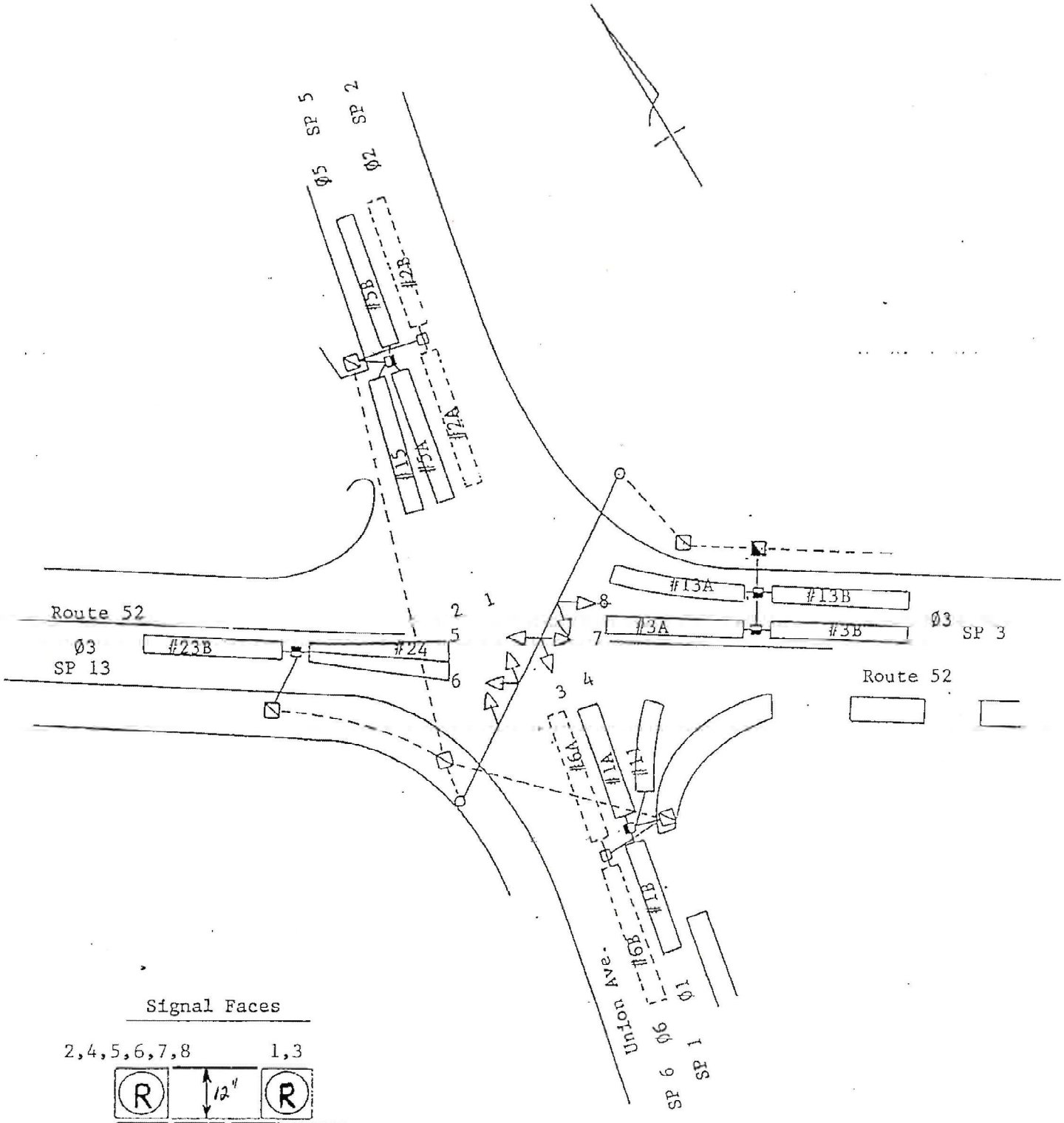
Installation Date _____

Modification Date 4-26-93

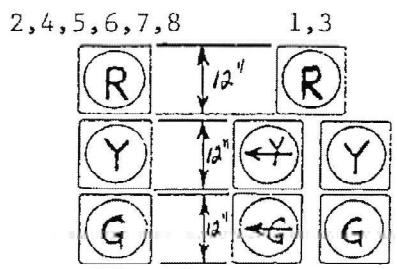
STATE OF NEW YORK - DEPARTMENT OF TRANSPORTATION
TRAFFIC AND SAFETY DIVISION
TRAFFIC CONTROL SIGNAL SPECIFICATIONS (CONTINUED)

Study:
Contract:
PIN:
File:

43 SIGNAL NO(S). | Orange COUNTY | 4-26-93 DATE | PAGE 3 OF 19 PAGES



Signal Faces



STD8

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	2	2	2		2	2		
Gap, Ext	2	2	2		2	2		
Max 1	40	15	40		40	15		
Max 2								
Yel Clearance	4	4	4		4	4		
Red Clearance	1	1	1		1	1		
Walk								
Ped Clearance								
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	On	On	On		On	On		
Min Recall	On				On			
Max Recall								
Ped Recall								
Soft Recall								
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		On		On		On		On
Enable Simul Gap	On	On	On	On	On	On	On	On
Gaurantee Passag								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red Nc Call								
Rec Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

ID: 3043 RTE 52 @ UNION AVE (RTE 300)

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq
1	0	0	1	4
2	0	0	2	4
3			3	1
4			4	1
5			5	1
6			6	1
7			7	1
8			8	1
9			9	1
10			10	1
11			11	1
12			12	1
13	0	0	13	1
14	0	0	14	1
15	0	0	15	1
16	0	0	16	1
17	0	0	17	1
18	0	0	18	1
19	0	0	19	1
20	0	0	20	1
21	0	0	21	1
22	0	0	22	1
23	0	0	23	1
24	0	0	24	1
25	0	0	25	1
26	0	0	26	1
27	0	0	27	1
28	0	0	28	1
29	0	0	29	1
30	0	0	30	1
31	0	0	31	1
32	0	0	32	1
33	0	0	33	1
34	0	0	34	1
35	0	0	35	1
36	0	0	36	1
37	0	0	0	1
38	0	0	0	1
39	0	0	0	1
40	0	0	0	1
41	0	0	0	1
42	0	0	0	1
43	0	0	0	1
44	0	0	0	1
45	0	0	0	1
46	0	0	0	1
47	0	0	0	1
48	0	0	0	1

Split	1	2	3	4	5	6	7	8
1 Coor	40	15	40		40	15		
2 Coor	60	15	40		60	15		
3 Coor								
4 Coor								
5 Coor								
6 Coor								
7 Coor								
8 Coor								
9 Coor								
10 Coor								
11 Coor								
12 Coor								

Split	1	2	3	4	5	6	7	8
13 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON
14 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON
15 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON
16 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON
17 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON
18 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON
19 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON
20 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON
21 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON
22 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON
23 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON
24 Coor	0	0	0	0	0	0	0	0
	NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms, Call/Inhibit/Redirect, P/OLAP Auto Flash; CIC; Misc Unit Param

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	GREEN	On
2	1	RED	On
3	1	RED	On
4	1	RED	Off
5	2	GREEN	On
6	2	RED	On
7	2	RED	Off
8	2	RED	Off

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	OFF
Auto Reset	ON
Expand Split	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	PH OVER
Flash Yel	45
Flash Red	0

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	USER
Loc Fish Start	ON
Start Flash(s)	0
Start AllRed(s)	0
Yellow < 3"	OFF
Display Time	20
Red Revert	0
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

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Overlap 1-16 Program Parms & Parm+ [1.5.2.1] [1.5.2.2]

Overlap Conflict Lock	OFF	Overlap Lock Inhibit	OFF	Parent Ph Clearance	ON	Extra Included Ph	OFF

Overlap	Parameter	Parent Clr	Time	Overlap	Parameter	Parent Clr	Time
	Included Ø	NORMAL			Included Ø	NORMAL	
1	Modifier Ø	Grn		9	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5		Conflict Ø	Yel	3.5
A	Conflict Olap	Red	1.5	I	Conflict Olap	Red	1.5
	Conflict Ped	LG			Conflict Ped	LG	
	Included Ø	NORMAL			Included Ø	NORMAL	
2	Modifier Ø	Grn		10	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5		Conflict Ø	Yel	3.5
B	Conflict Olap	Red	1.5	J	Conflict Olap	Red	1.5
	Conflict Ped	LG			Conflict Ped	LG	
	Included Ø	NORMAL			Included Ø	NORMAL	
3	Modifier Ø	Grn		11	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5		Conflict Ø	Yel	3.5
C	Conflict Olap	Red	1.5	K	Conflict Olap	Red	1.5
	Conflict Ped	LG			Conflict Ped	LG	
	Included Ø	NORMAL			Included Ø	NORMAL	
4	Modifier Ø	Grn		12	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5		Conflict Ø	Yel	3.5
D	Conflict Olap	Red	1.5	L	Conflict Olap	Red	1.5
	Conflict Ped	LG			Conflict Ped	LG	
	Included Ø	NORMAL			Included Ø	NORMAL	
5	Modifier Ø	Grn		13	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5		Conflict Ø	Yel	3.5
E	Conflict Olap	Red	1.5	M	Conflict Olap	Red	1.5
	Conflict Ped	LG			Conflict Ped	LG	
	Included Ø	NORMAL			Included Ø	NORMAL	
6	Modifier Ø	Grn		14	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5		Conflict Ø	Yel	3.5
F	Conflict Olap	Red	1.5	N	Conflict Olap	Red	1.5
	Conflict Ped	LG			Conflict Ped	LG	
	Included Ø	NORMAL			Included Ø	NORMAL	
7	Modifier Ø	Grn		15	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5		Conflict Ø	Yel	3.5
G	Conflict Olap	Red	1.5	O	Conflict Olap	Red	1.5
	Conflict Ped	LG			Conflict Ped	LG	
	Included Ø	NORMAL			Included Ø	NORMAL	
8	Modifier Ø	Grn		16	Modifier Ø	Grn	
	Conflict Ø	Yel	3.5		Conflict Ø	Yel	3.5
H	Conflict Olap	Red	1.5	P	Conflict Olap	Red	1.5
	Conflict Ped	LG			Conflict Ped	LG	

Channel Settings [1.8.1]

......Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Phase / Olap #	1	2	3		5	6							3											
Channel Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Channel Flash	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								

Channel+ Settings [1.8.4]

......Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Flash Red+																								
Flash Yellow+																								
Flash Green+																								
Flash Inh Red+																								
Olap Ovrd																								

Coord Transition, CoorPhs [2.5]

Pat#	Short	Long	Dwell	No Shortway Ø	E-Vlt	Offset	Red/Hd	Float	Min Veh Perm	Min Ped Perm
1	12	22				EndGRN				
2	12	22				EndGRN				
3	12	22				EndGRN				
4	12	22				EndGRN				
5	12	22				EndGRN				
6	12	22				EndGRN				
7	12	22				EndGRN				
8	12	22				EndGRN				
9	12	22				EndGRN				
10	12	22				EndGRN				
11	12	22				EndGRN				
12	12	22				EndGRN				
13	12	22				EndGRN				
14	12	22				EndGRN				
15	12	22				EndGRN				
16	12	22				EndGRN				
17	12	22				EndGRN				
18	12	22				EndGRN				
19	12	22				EndGRN				
20	12	22				EndGRN				
21	12	22				EndGRN				
22	12	22				EndGRN				
23	12	22				EndGRN				
24	12	22				EndGRN				
25						BegGRN				
26						BegGRN				
27						BegGRN				
28						BegGRN				
29						BegGRN				
30						BegGRN				
31						BegGRN				
32						BegGRN				
33						BegGRN				
34						BegGRN				
35						BegGRN				
36						BegGRN				
37						BegGRN				
38						BegGRN				
39						BegGRN				
40						BegGRN				
41						BegGRN				
42						BegGRN				
43						BegGRN				
44						BegGRN				
45						BegGRN				
46						BegGRN				
47						BegGRN				
48						BegGRN				

Channel Params[1.8.3]

C1 IO Mode USER   BIU Map SINGLE   Invert Rail Input OFF

Ven Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1	1		5				45	50	10
2	2	5	1				45	50	25
3	3		3				45	50	25
4									
5	5						45	50	10
6	6	1	5				45	50	25
7									
8									
9									
10									
11									
12	2	5	5				45	50	25
13	3		15				45	50	25
14									
15									
16	6	1	5				45	50	25
17									
18									
19									
20									
21									
22									
23	3						45	50	25
24	3						45	50	25
25									
26									
27									
28									
29									
30									
31									
32									

Ven Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
33							45	50	
34							45	50	
35							45	50	
36							45	50	
37							45	50	
38							45	50	
39							45	50	
40							45	50	
41							45	50	
42							45	50	
43							45	50	
44							45	50	
45							45	50	
46							45	50	
47							45	50	
48							45	50	
49							45	50	
50							45	50	
51							45	50	
52							45	50	
53							45	50	
54							45	50	
55							45	50	
56							45	50	
57							45	50	
58							45	50	
59							45	50	
60							45	50	
61							45	50	
62							45	50	
63							45	50	
64							45	50	

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	On	On		On				
2	On	On		On				
3	On	On		On				
4	On	On		On				
5	On	On		On				
6	On	On		On				
7	On	On		On				
8	On	On		On				
9	On	On		On				
10	On	On		On				
11	On	On		On				
12	On	On		On				
13	On	On		On				
14	On	On		On				
15	On	On		On				
16	On	On		On				
17	On	On		On				
18	On	On		On				
19	On	On		On				
20	On	On		On				
21	On	On		On				
22	On	On		On				
23	On	On		On				
24	On	On		On				
25	On	On		On				
26	On	On		On				
27	On	On		On				
28	On	On		On				
29	On	On		On				
30	On	On		On				
31	On	On		On				
32	On	On		On				

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add Addln	Red Lock	Yell Lock	occ	vol
33	On	On		On				
34	On	On		On				
35	On	On		On				
36	On	On		On				
37	On	On		On				
38	On	On		On				
39	On	On		On				
40	On	On		On				
41	On	On		On				
42	On	On		On				
43	On	On		On				
44	On	On		On				
45	On	On		On				
46	On	On		On				
47	On	On		On				
48	On	On		On				
49	On	On		On				
50	On	On		On				
51	On	On		On				
52	On	On		On				
53	On	On		On				
54	On	On		On				
55	On	On		On				
56	On	On		On				
57	On	On		On				
58	On	On		On				
59	On	On		On				
60	On	On		On				
61	On	On		On				
62	On	On		On				
63	On	On		On				
64	On	On		On				

Parameters+ 1-64 [5.3]

Det #	occ Grn	occ Yell	occ Red	Dlay 1	Dlay 2	Type	Src
1						NORM	
2						NORM	
3						NORM	
4						NORM	
5						NORM	
6						NORM	
7						NORM	
8						NORM	
9						NORM	
10						NORM	
11						NORM	
12						NORM	
13						NORM	
14						NORM	
15						NORM	
16						NORM	
17						NORM	
18						NORM	
19						NORM	
20						NORM	
21						NORM	
22						NORM	
23						NORM	
24						NORM	
25						NORM	
26						NORM	
27						NORM	
28						NORM	
29						NORM	
30						NORM	
31						NORM	
32						NORM	

Parameters+ 1-64 [5.3]

Det #	occ Grn	occ Yell	occ Red	Dlay 1	Dlay 2	Type	Src
33						NORM	
34						NORM	
35						NORM	
36						NORM	
37						NORM	
38						NORM	
39						NORM	
40						NORM	
41						NORM	
42						NORM	
43						NORM	
44						NORM	
45						NORM	
46						NORM	
47						NORM	
48						NORM	
49						NORM	
50						NORM	
51						NORM	
52						NORM	
53						NORM	
54						NORM	

Parameters+ 1-64 [5.3]

Det #	occ Grn	occ Yell	occ Red	Dlay 1	Dlay 2	Type	Src
55						NORM	
56						NORM	
57						NORM	
58						NORM	
59						NORM	
60						NORM	
61						NORM	
62						NORM	
63						NORM	
64						NORM	

Ped Det Parms [5.4]

Det #	Call Ø	No Act	Max Pres	Err Cnt
1			15	
2			15	
3			15	
4			15	
5			15	
6			15	
7			15	
8			15	

Unit Paramters [1.2.1]

TS2 Det Faults	ON

Vol/Occ Report Parm [1.5.8]

Vol/Occ Period Minutes	15
Vol/Occ Period Minutes	0

Preemption Times [3.1], Options+ [3.6]

Pre #	Enable	Type	Output	Delay	MinDura
1	ON	RAIL	DWELL		
2	ON	RAIL	DWELL		
3	ON	EMERG	DWELL		
4	ON	EMERG	DWELL		
5	ON	EMERG	DWELL		
6	ON	EMERG	DWELL		

Pre #	MaxPres	MinGrn	MinWlk	PedClr	Co+Pre
1					ON
2					ON
3					ON
4					ON
5					ON
6					ON

Pre #	Track Grn	Min Dwell	Ext Dwel	PedClr+	Yel
1		2			
2		2			
3		2			
4		2			
5		2			
6		2			

Pre #	Red	Pattern	Skip
1			OFF
2			OFF
3			OFF
4			OFF
5			OFF
6			OFF

Low Priority Preempts

Pre #	Type	Min	Max
7	OFF		
8	OFF		
9	OFF		
10	OFF		

Unit Parameters [1.2.1]

Stop Timer Over Preempt	OFF
Preempt or Ext Output	PRE
Max Seek Track Time	
Max Seek Dwell Time	

Channel Parameters [1.8.3]

D Conn Mappings	NONE
Pre Invert Rail Input	OFF

Track Clear Phases [3.2], Track Clear Overlaps+ [3.5]

Pre #	Track Phases	Track Overlaps
1		
2		
3		
4		
5		
6		

Dwell Phases [3.2] and Overlaps+ [3.5]

Pre #		
1	Phases	
	Overlaps	
	Peds	
2	Phases	
	Overlaps	
	Peds	
3	Phases	
	Overlaps	
	Peds	
4	Phases	
	Overlaps	
	Peds	
5	Phases	
	Overlaps	
	Peds	
6	Phases	
	Overlaps	
	Peds	

Exit Phases [3.2]

Pre #	Exit Phase
1	
2	
3	
4	
5	
6	

Preemption Options+ [3.6]

Pre #	Lock	Override Auto Flsh	Override Higher	Flsh Dwel	Link
1	ON	ON	ON	OFF	
2	ON	ON	ON	OFF	
3	ON	ON	ON	OFF	
4	ON	ON	ON	OFF	
5	ON	ON	ON	OFF	
6	ON	ON	ON	OFF	

Alt# 1 Times Table [1.1.6.1.2]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 2 Times Table [1.1.6.1.2]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 3 Times Table [1.1.6.1.3]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 1 Options Table [1.1.6.2.1]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	On	On	On	On	On	On	On	On
Soft Recall								
Dual Entry								
Enabl SimGap	On	On	On	On	On	On	On	On
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 1 Veh Parameters [5.5.1.1]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Switch																
Delay																
Extend																
Queue																
No Activity																
Max Presence																
Erratic Count																
Fail Time																

Alt# 1 Veh Options [5.5.1.2]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Extend																
Queue																
Added Initial																
Red Lock																
Yellow Lock																
Occupancy																
Volume																

Alt# 1 Veh Parameters+ [5.5.1.3]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Occ-on-green																
Occ-on-yellow																
Occ-on-red																
Delay Phase 1																
Delay Phase 2																
Detector Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Source																

Alt# 1 Ped Parameters+ [5.5.1.4]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Det#								
Call								
No Activity								
Max Presence								
Erratic Count								

Alt# 2 Options Table [1.1.6.2.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	On	On	On	On	On	On	On	On
Soft Recall								
Dual Entry								
Enabl SimGap	On	On	On	On	On	On	On	On
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 3 Options Table [1.1.6.2.3]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	On	On	On	On	On	On	On	On
Soft Recall								
Dual Entry								
Enabl SimGap	On	On	On	On	On	On	On	On
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 4 Options Table [1.1.6.2.4]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	On	On	On	On	On	On	On	On
Soft Recall								
Dual Entry								
Enabl SimGap	On	On	On	On	On	On	On	On
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 2 Veh Parameters [5.5.2.1]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Switch																
Delay																
Extend																
Queue																
No Activity																
Max Presence																
Erratic Count																
Fail Time																

Alt# 2 Veh Options [5.5.2.2]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Extend																
Queue																
Added Initial																
Red Lock																
Yellow Lock																
Occupancy																
Volume																

Alt# 2 Veh Parameters+ [5.5.2.3]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Occ-on-green																
Occ-on-yellow																
Occ-on-red																
Delay Phase 1																
Delay Phase 2																
Detector Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Source																

Alt# 2 Ped Parameters+ [5.5.2.4]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Det#								
Call								
No Activity								
Max Presence								
Erratic Count								

	Annual Schedule [4.3] Month of Year												Day of Week							Date																															DayLink Plan To
1	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	On	1
2	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
3	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
4	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
5	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																		1
6	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
7	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
8	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
9	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
10	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
11	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
12	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
13	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
14	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
15	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
16	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
17	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
18	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
19	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
20	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
21	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
22	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
23	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1
24	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
																																																			1

Day Plans [4.4]

Day Plan 1

	Hour	Min	Act		Hour	Min	Act
1	0	0	1	9			
2	6	0	2	10			
3	9	0	1	11			
4	15	0	2	12			
5	18	0	1	13			
6				14			
7				15			
8				16			

Day Plan 2

	Hour	Min	Act		Hour	Min	Act
1				9			
2				10			
3				11			
4				12			
5				13			
6				14			
7				15			
8				16			

Day Plan 3

	Hour	Min	Act		Hour	Min	Act
1				9			
2				10			
3				11			
4				12			
5				13			
6				14			
7				15			
8				16			

Day Plan 4

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 5

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 6

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 7

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 8

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 9

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 10

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 11

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 12

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 13

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 14

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 15

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Action Table [4.5]

Act#	Pat#	A1	A2	A3	S1	S2	S3	S4	S5	S6	S7	S8
1	1											
2	2											
3	3											
4	4											
5	5											
6	6											
7	7											
8	8											
9	9											
10	10											
11	11											
12	12											
13	13											
14	14											
15	15											
16	16											
17	17											
18	18											
19	19											
20	20											
21	21											
22	22											
23	23											
24	24											
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
48												
98												
99												
100	255											

Coord Alternate Tables - Pat# [2.6]

Pat#	OSpl	STime	DetG	Cal Inh	SC	Qckl	Overlap Off 1	2	3	4	5	6	7	8	Da	Max2
1															DFT	
2															DFT	
3															DFT	
4															DFT	
5															DFT	
6															DFT	
7															DFT	
8															DFT	
9															DFT	
10															DFT	
11															DFT	
12															DFT	
13															DFT	
14															DFT	
15															DFT	
16															DFT	
17															DFT	
18															DFT	
19															DFT	
20															DFT	
21															DFT	
22															DFT	
23															DFT	
24															DFT	
25															DFT	
26															DFT	
27															DFT	
28															DFT	
29															DFT	
30															DFT	
31															DFT	
32															DFT	
33															DFT	
34															DFT	
35															DFT	
36															DFT	
37															DFT	
38															DFT	
39															DFT	
40															DFT	
41															DFT	
42															DFT	
43															DFT	
44															DFT	
45															DFT	
46															DFT	
47															DFT	
48															DFT	

C1-USER IO Map [1.8.9.1 In]

I1-1	1	Veh Call 1
I1-2	2	Veh Call 2
I1-3	3	Veh Call 3
I1-4	189	Unused
I1-5	5	Veh Call 5
I1-6	6	Veh Call 6
I1-7	189	Unused
I1-8	189	Unused
I2-1	189	Unused
I2-2	189	Unused
I2-3	189	Unused
I2-4	12	Veh Call 12
I2-5	13	Veh Call 13
I2-6	189	Unused
I2-7	189	Unused
I2-8	16	Veh Call 16
I3-1	189	Unused
I3-2	189	Unused
I3-3	189	Unused
I3-4	189	Unused
I3-5	189	Unused
I3-6	189	Unused
I3-7	23	Veh Call 23
I3-8	24	Veh Call 24
I4-1	C11S Connector	
I4-2		
I4-3		
I4-4		
I4-5	189	Unused
I4-6	189	Unused
I4-7	229	33xCMUStop
I4-8	228	33xFlashSns
I5-1	189	Unused
I5-2	189	Unused
I5-3	189	Unused
I5-4	189	Unused
I5-5	189	Unused
I5-6	189	Unused
I5-7	189	Unused
I5-8	189	Unused
I6-1	189	Unused
I6-2	189	Unused
I6-3	189	Unused
I6-4	189	Unused
I6-5	189	Unused
I6-6	189	Unused
I6-7	189	Unused
I6-8	189	Unused

C1-USER IO Map [1.8.9.2 Out]

O1-1	1	Ch1 Red
O1-2	49	Ch1 Green
O1-3	2	Ch2 Red
O1-4	26	Ch2 Yellow
O1-5	50	Ch2 Green
O1-6	3	Ch3 Red
O1-7	27	Ch3 Yellow
O1-8	51	Ch3 Green
O2-1	4	Ch4 Red
O2-2	52	Ch4 Green
O2-3	5	Ch5 Red
O2-4	29	Ch5 Yellow
O2-5	53	Ch5 Green
O2-6	6	Ch6 Red
O2-7	30	Ch6 Yellow
O2-8	54	Ch6 Green
O3-1	7	Ch7 Red
O3-2	55	Ch7 Green
O3-3	8	Ch8 Red
O3-4	32	Ch8 Yellow
O3-5	56	Ch8 Green
O3-6	9	Ch9 Red
O3-7	33	Ch9 Yellow
O3-8	57	Ch9 Green
O4-1	10	Ch10 Red
O4-2	58	Ch10 Green
O4-3	11	Ch11 Red
O4-4	35	Ch11 Yellow
O4-5	59	Ch11 Green
O4-6	12	Ch12 Red
O4-7	36	Ch12 Yellow
O4-8	60	Ch12 Green
O5-1	28	Ch4 Yellow
O5-2	34	Ch10 Yellow
O5-3	25	Ch1 Yellow
O5-4	31	Ch7 Yellow
O5-5	115	Not Used
O5-6	115	Not Used
O5-7	115	Not Used
O5-8	114	Watchdog
O6-1	115	Not Used
O6-2	115	Not Used
O6-3	13	Ch13 Red
O6-4	37	Ch13 Yellow
O6-5	61	Ch13 Green
O6-6	14	Ch14 Red
O6-7	38	Ch14 Yellow
O6-8	62	Ch14 Green

C1-USER IO Map [1.8.9.2 Out]

O7-1	115	Not Used
O7-2	115	Not Used
O7-3	115	Not Used
O7-4	115	Not Used
O7-5	115	Not Used
O7-6	115	Not Used
O7-7	115	Not Used
O7-8	115	Not Used

C11S-USER IO Map [1.8.9.1 In]

I4-1	189	Unused
I4-2	189	Unused
I4-3	189	Unused
I4-4	189	Unused
I7-1	189	Unused
I7-2	189	Unused
I7-3	189	Unused
I7-4	189	Unused
I7-5	189	Unused
I7-6	189	Unused
I7-7	189	Unused
I7-8	189	Unused
I8-1	189	Unused
I8-2	189	Unused
I8-3	189	Unused
I8-4	189	Unused
I8-5	189	Unused
I8-6	189	Unused
I8-7	189	Unused
I8-8	189	Unused

C11S-USER IO Map [1.8.9.2 Out]

O8-1	115	Not Used
O8-2	115	Not Used
O8-3	115	Not Used
O8-4	115	Not Used
O8-5	115	Not Used
O8-6	115	Not Used
O8-7	115	Not Used
O8-8	115	Not Used

IO Logic [1.8.7]

Result				Fcn	Oper		Fcn	Oper		Fcn	Timer	
O	0	=	I	----	0	I	----	0	I	----	0	DLY
I	0	=	I	----	0	I	----	0	I	----	0	DLY
I	0	=	I	----	0	I	----	0	I	----	0	DLY
I	0	=	I	----	0	I	----	0	I	----	0	DLY
I	0	=	I	----	0	I	----	0	I	----	0	DLY
I	0	=	I	----	0	I	----	0	I	----	0	DLY
I	0	=	I	----	0	I	----	0	I	----	0	DLY
I	0	=	I	----	0	I	----	0	I	----	0	DLY
I	0	=	I	----	0	I	----	0	I	----	0	DLY
I	0	=	I	----	0	I	----	0	I	----	0	DLY

Security Access Levels [8.2]

1	SWLOAD	22	NONE	43	NONE
2	SECURE	23	NONE	44	NONE
3	NONE	24	NONE	45	NONE
4	NONE	25	NONE	46	NONE
5	NONE	26	NONE	47	NONE
6	NONE	27	NONE	48	NONE
7	NONE	28	NONE	49	NONE
8	NONE	29	NONE	50	NONE
9	NONE	30	NONE	51	NONE
10	NONE	31	NONE	52	NONE
11	NONE	32	NONE	53	NONE
12	NONE	33	NONE	54	NONE
13	NONE	34	NONE	55	NONE
14	NONE	35	NONE	56	NONE
15	NONE	36	NONE	57	NONE
16	NONE	37	NONE	58	NONE
17	NONE	38	NONE	59	NONE
18	NONE	39	NONE	60	NONE
19	NONE	40	NONE	61	NONE
20	NONE	41	NONE	62	NONE
21	NONE	42	NONE	63	NONE
				64	NONE

Com Parameters [6.1]

Station ID	3043
Group ID	
Master ID	0
Backup Time	0

SysUp Modem [6.1]

Enable Modem	OFF
Idle Time	0
Dial Time	0
Tel:	#N/A
Alt:	#N/A

2070 Port Parms [6.2]

Port	Baud Rate	FCM
SP1	9600	MODE 6
SP2	9600	MODE 6
SP3	19200	MODE 6
SP4	38400	MODE 6
SP5	1200	AUTO
SP6	1200	AUTO
SP7	1200	AUTO
SP8	1200	AUTO

2070 IP 1 Addressing [6.5]

	Addressing			
Addr	0	0	0	0
Mask	0	0	0	0
Brdcst	0	0	0	0
GtWay	0	0	0	0
Port	0			

2070 IP 2 Addressing [6.5]

	Addressing			
Addr	0	0	0	0
Mask	0	0	0	0
Brdcst	0	0	0	0
GtWay	0	0	0	0
Port	0			

2070 Port Binding Ports [6.6]

	Port	Echo	Mode
ASYNC1	SP1	OFF	0
ASYNC2	SP2	OFF	0
ASYNC3	SP3	OFF	0
ASYNC4	SP4	OFF	0
SYNC1	SP5S	SYNC3	OFF
SYNC2	OFF	SYNC4	OFF

2070 Port Binding Functions [6.6]

Function	Channel	Function	Channel
TS2/CVM	NONE	SYSUp	ASYNC2
CMU/MMU	NONE	SYSDown	ASYNC1
Opticom	NONE	Shell	NONE
Loop Det	NONE		
GPS	NONE		

#	Event / Alarm	Ev	Alr
1	Power Up Alarm.	On	On
2	Stop Timing	On	On
3	TS1 Cabinet Door		
4	Coordination Failure	On	On
5	External Alarm # 1	On	On
6	External Alarm # 2	On	On
7	External Alarm # 3		
8	External Alarm # 4		
9	Closed Loop Disabled		On
10	External Alarm # 5		
11	External Alarm # 6		
12	Manual Control Enable	On	On
13	Coord Free Input		
14	Local Flash Input	On	On
15	MMU Flash		
16	CMU Flash		
17	Cycle Fault		On
18	Cycle Failure		On
19	Coordination Fault		On
20	Controller Fault	On	On
21	Detector SDLC Failure		
22	MMU SDLC Failure		
23	Critical SDLC Failure		
24	Reserved		
25	EEPROM CRC Fault	On	On
26	Detector Diagnostic Failur		
27	BIU Detector Failure	On	On
28	Queue detector alarm		On
29	Ped Detector Fault		On
30	Coord Diagnostic Fault		
41	TempAlert Probe Ch. A		
42	TempAlert Probe Ch. B		
47	Coord Active		
48	Preempt Active		On
49	Preempt 1 Input		On
50	Preempt 2 Input		On
51	Preempt 3 Input		On
52	Preempt 4 Input		On
53	Preempt 5 Input		On
54	Preempt 6 Input		On
55	Preempt 7 Input		On
56	Preempt 8 Input		On
57	Preempt 9 Input		On
58	Preempt 10 Input		On
61	In Transition		On
81	FIO Status Alarm		

Call Phases[1.1.5]

Ø	Phases Called By Ø
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Redirect Phases[1.1.5]

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

Inhibit Phases[1.1.5]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

Alt Call & Redirect # 1 [1.1.6.3]

Col	Ø	Phases Called By Ø
1		
2		
3		
4		
5		
6		
7		
8		

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 1 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Alt Call & Redirect # 2 [1.1.6.3]

Col	Ø	Phases Called By Ø
1		
2		
3		
4		
5		
6		
7		
8		

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 2 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Coord, CIC Plans [2.3]

CIC	CoØ	Grow	1	2	3	4	5	6	7	8
1	OFF									
2	OFF									
3	OFF									
4	OFF									

Auto Flash Phase/Olap Settings [1.4.2]

Yel Ø								
Yel (olaps)								

Unit Parameters [1.2.1]

Allow Skip Yellow	OFF	Max Cycle Time	
TOD Dim Enable	OFF	Cycle Fault Action	ALARM
Tone Disable	OFF		
Diamond Mode	4Ph		
Backup Time (s)	900		
Disable Init Ped	OFF		
Cycle Fault Action	ALARM		
Enable Run Timer	ON		

TE 262-12 (7/91)

MODEL 179 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

TAPS _____
STUDY #_____
FILE #_____
PAGE 17 OF 19

SIGNAL # 0-43 COUNTY # Orange DATE 4-26-93

TABLE OF SWITCH PACKS

SWITCH PACK	FUNCTION	INDICATIONS	FACE	TERMINAL WIRING BOARD		FACE	TERMINAL WIRING BOARD	
				TERMINAL	WIRE COLOR CODE		TERMINAL	WIRE COLOR CODE
1	ϕ1	RED YELLOW GREEN Ground Wire	3	SP 1 R SP 1 Y SP 1 G Gnd Bus		4	SP 1 R SP 1 Y SP 1 G Gnd Bus	
2	ϕ2	← ← Ground Wire	1	SP 2 R SP 2 Y SP 2 G Gnd Bus			SP 2 R SP 2 Y SP 2 G Gnd Bus	
3	ϕ3	RED YELLOW GREEN Ground Wire	5	SP 3 R SP 3 Y SP 3 G Gnd Bus		6	SP 3 R SP 3 Y SP 3 G Gnd Bus	
4		Ground Wire		SP 4 R SP 4 Y SP 4 G Gnd Bus			SP 4 R SP 4 Y SP 4 G Gnd Bus	
5	ϕ5	RED YELLOW GREEN Ground Wire	1	SP 5 R SP 5 Y SP 5 G Gnd Bus		2	SP 5 R SP 5 Y SP 5 G Gnd Bus	
6	ϕ6	← ← Ground Wire	3	SP 6 R SP 6 Y SP 6 G Gnd Bus			SP 6 R SP 6 Y SP 6 G Gnd Bus	
7		Ground Wire		SP 7 R SP 7 Y SP 7 G Gnd Bus			SP 7 R SP 7 Y SP 7 G Gnd Bus	
8		Ground Wire		SP 8 R SP 8 Y SP 8 G Gnd Bus			SP 8 R SP 8 Y SP 8 G Gnd Bus	
9		Ground Wire		SP 9 R SP 9 Y SP 9 G Gnd Bus			SP 9 R SP 9 Y SP 9 G Gnd Bus	
10		Ground Wire		SP 10 R SP 10 Y SP 10 G Gnd Bus			SP 10 R SP 10 Y SP 10 G Gnd Bus	
11		Ground Wire		SP 11 R SP 11 Y SP 11 G Gnd Bus			SP 11 R SP 11 Y SP 11 G Gnd Bus	
12		Ground Wire		SP 12 R SP 12 Y SP 12 G Gnd Bus			SP 12 R SP 12 Y SP 12 G Gnd Bus	
13	ϕ3	RED YELLOW GREEN Ground Wire	7	SP 13 R SP 13 Y SP 13 G Gnd Bus		8	SP 13 R SP 13 Y SP 13 G Gnd Bus	
14		Ground Wire		SP 14 R SP 14 Y SP 14 G Gnd Bus			SP 14 R SP 14 Y SP 14 G Gnd Bus	

Appendix C
Capacity Analysis

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	259	166	44	341	90	254	581	45	79	418	70
Future Volume (vph)	69	259	166	44	341	90	254	581	45	79	418	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	12	12	12	11	11	11
Grade (%)		-2%			2%			-4%			-6%	
Storage Length (ft)	0		0	0		140	256		0	260		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.955				0.850		0.989			0.978	
Flt Protected		0.993			0.994		0.950			0.950		
Satd. Flow (prot)	0	1774	0	0	1787	1530	1823	1896	0	1745	1816	0
Flt Permitted		0.705			0.879		0.950			0.950		
Satd. Flow (perm)	0	1260	0	0	1581	1530	1823	1896	0	1745	1816	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23				70		5			10	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		155			698			257			538	
Travel Time (s)		2.6			11.9			4.4			9.2	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	4%	1%	2%	1%	1%	1%	1%	2%	3%	2%	1%
Adj. Flow (vph)	70	262	168	44	344	91	257	587	45	80	422	71
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	500	0	0	388	91	257	632	0	80	493	0
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Minimum Split (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Total Split (s)	40.0	40.0		40.0	40.0	40.0	15.0	60.0		15.0	60.0	
Total Split (%)	34.8%	34.8%		34.8%	34.8%	34.8%	13.0%	52.2%		13.0%	52.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Act Effct Green (s)		35.5			35.5	35.5	10.2	40.3		8.9	36.3	
Actuated g/C Ratio		0.37			0.37	0.37	0.10	0.41		0.09	0.37	
v/c Ratio		1.05			0.67	0.15	1.35	0.80		0.50	0.72	
Control Delay (s/veh)		88.2			35.9	10.2	226.0	34.0		56.9	31.1	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)		88.2			35.9	10.2	226.0	34.0		56.9	31.1	
LOS		F			D	B	F	C		E	C	
Approach Delay (s/veh)		88.2			31.0			89.5			34.7	

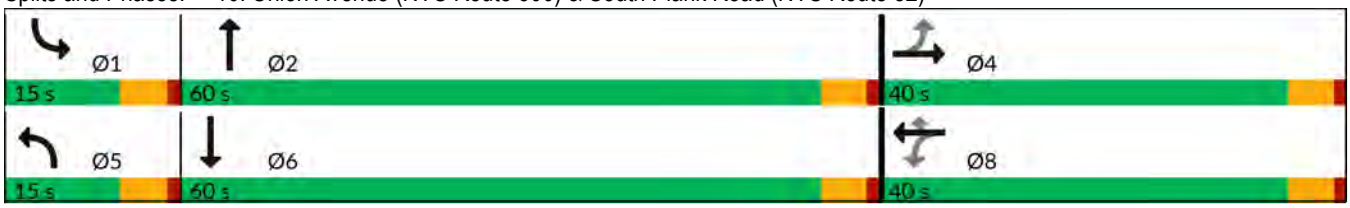
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			C			F			C	
Queue Length 50th (ft)		~339			203	8	~213	353		48	248	
Queue Length 95th (ft)		#660			#415	49	#437	492		110	354	
Internal Link Dist (ft)		75			618			177			458	
Turn Bay Length (ft)						140	256			260		
Base Capacity (vph)		475			577	603	190	1091		182	1047	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		1.05			0.67	0.15	1.35	0.58		0.44	0.47	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 97.2			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.35			
Intersection Signal Delay (s/veh): 64.9		Intersection LOS: E	
Intersection Capacity Utilization 104.9%		ICU Level of Service G	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: Union Avenue (NYS Route 300) & South Plank Road (NYS Route 52)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	201	186	47	173	86	213	553	37	71	522	61
Future Volume (vph)	73	201	186	47	173	86	213	553	37	71	522	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	12	12	12	11	11	11
Grade (%)		-2%			2%			-4%			-6%	
Storage Length (ft)	0		0	0		140	256		0	260		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.945				0.850		0.991			0.984	
Flt Protected		0.992			0.989		0.950			0.950		
Satd. Flow (prot)	0	1777	0	0	1784	1546	1823	1903	0	1797	1839	0
Flt Permitted		0.907			0.804		0.950			0.950		
Satd. Flow (perm)	0	1625	0	0	1450	1546	1823	1903	0	1797	1839	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31				89		4			7	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		155			698			257			538	
Travel Time (s)		2.6			11.9			4.4			9.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	1%	2%	0%	1%	0%	1%	1%	0%	0%	1%	3%
Adj. Flow (vph)	75	207	192	48	178	89	220	570	38	73	538	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	474	0	0	226	89	220	608	0	73	601	0
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Minimum Split (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Total Split (s)	40.0	40.0		40.0	40.0	40.0	15.0	60.0		15.0	60.0	
Total Split (%)	34.8%	34.8%		34.8%	34.8%	34.8%	13.0%	52.2%		13.0%	52.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Act Effct Green (s)		35.3			35.3	35.3	10.1	40.9		8.7	36.9	
Actuated g/C Ratio		0.36			0.36	0.36	0.10	0.42		0.09	0.38	
v/c Ratio		0.78			0.43	0.14	1.17	0.76		0.46	0.86	
Control Delay (s/veh)		38.3			29.1	6.5	159.2	31.7		54.5	40.1	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)		38.3			29.1	6.5	159.2	31.7		54.5	40.1	
LOS		D			C	A	F	C		D	D	
Approach Delay (s/veh)		38.3			22.7			65.6			41.7	

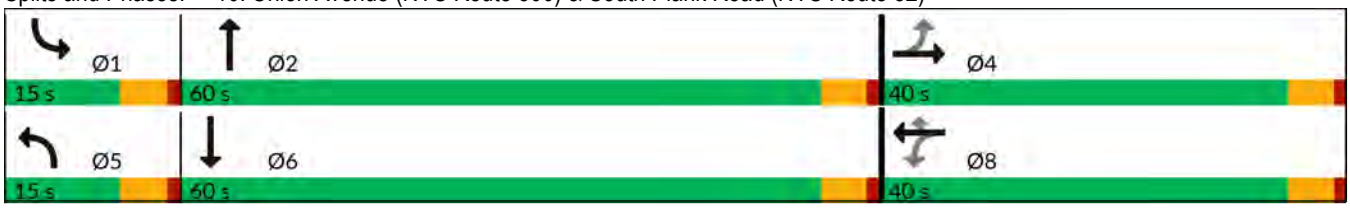
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D			C			E			D	
Queue Length 50th (ft)		240			103	0	~162	329		43	330	
Queue Length 95th (ft)		#509			213	37	#366	465		100	466	
Internal Link Dist (ft)		75			618			177			458	
Turn Bay Length (ft)						140	256			260		
Base Capacity (vph)		608			525	617	188	1085		186	1050	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.78			0.43	0.14	1.17	0.56		0.39	0.57	

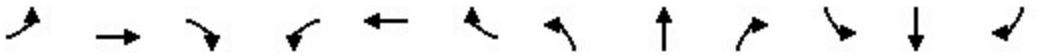
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 97.5			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.17			
Intersection Signal Delay (s/veh): 47.0		Intersection LOS: D	
Intersection Capacity Utilization 97.3%		ICU Level of Service F	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: Union Avenue (NYS Route 300) & South Plank Road (NYS Route 52)





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	283	211	46	370	120	288	777	47	104	577	87
Future Volume (vph)	86	283	211	46	370	120	288	777	47	104	577	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	12	12	12	11	11	11
Grade (%)		-2%			2%			-4%			-6%	
Storage Length (ft)	0		0	0		140	256		0	260		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.951				0.850		0.992			0.980	
Flt Protected		0.993			0.995		0.950			0.950		
Satd. Flow (prot)	0	1769	0	0	1789	1530	1823	1902	0	1745	1820	0
Flt Permitted		0.475			0.800		0.950			0.950		
Satd. Flow (perm)	0	846	0	0	1439	1530	1823	1902	0	1745	1820	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26				86		4			9	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		155			698			257			538	
Travel Time (s)		2.6			11.9			4.4			9.2	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	4%	1%	2%	1%	1%	1%	1%	2%	3%	2%	1%
Adj. Flow (vph)	87	286	213	46	374	121	291	785	47	105	583	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	586	0	0	420	121	291	832	0	105	671	0
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Minimum Split (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Total Split (s)	40.0	40.0		40.0	40.0	40.0	15.0	60.0		15.0	60.0	
Total Split (%)	34.8%	34.8%		34.8%	34.8%	34.8%	13.0%	52.2%		13.0%	52.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Act Effct Green (s)		35.1			35.1	35.1	10.0	51.3		9.6	50.8	
Actuated g/C Ratio		0.32			0.32	0.32	0.09	0.46		0.09	0.46	
v/c Ratio		2.06			0.93	0.22	1.77	0.95		0.70	0.80	
Control Delay (s/veh)		511.0			65.8	11.7	401.0	48.7		75.4	33.7	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)		511.0			65.8	11.7	401.0	48.7		75.4	33.7	
LOS		F			E	B	F	D		E	C	
Approach Delay (s/veh)		511.0			53.7			140.0			39.3	

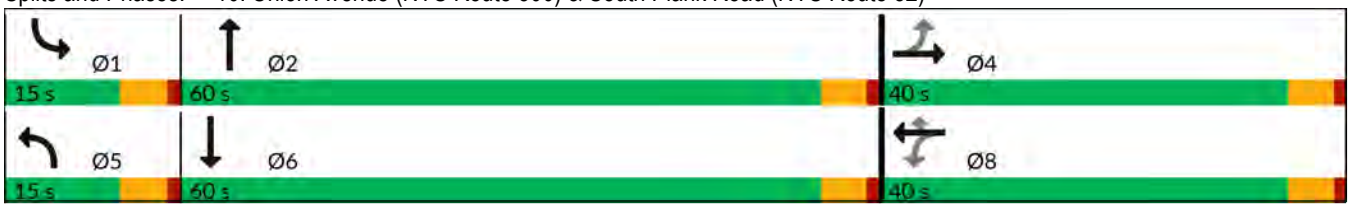
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			D			F			D	
Queue Length 50th (ft)		~685			305	18	~327	552		77	393	
Queue Length 95th (ft)		#908			#508	63	#499	#820		#159	551	
Internal Link Dist (ft)		75			618			177			458	
Turn Bay Length (ft)						140	256			260		
Base Capacity (vph)		285			454	542	164	947		157	909	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		2.06			0.93	0.22	1.77	0.88		0.67	0.74	

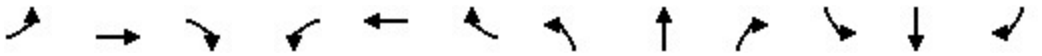
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 111.1			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 2.06			
Intersection Signal Delay (s/veh): 170.6		Intersection LOS: F	
Intersection Capacity Utilization 122.8%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: Union Avenue (NYS Route 300) & South Plank Road (NYS Route 52)





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	225	224	49	197	114	255	698	38	98	665	69
Future Volume (vph)	89	225	224	49	197	114	255	698	38	98	665	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	12	12	12	11	11	11
Grade (%)		-2%			2%			-4%			-6%	
Storage Length (ft)	0		0	0		140	256		0	260		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.944				0.850		0.992			0.986	
Flt Protected		0.992			0.990		0.950			0.950		
Satd. Flow (prot)	0	1775	0	0	1786	1546	1823	1904	0	1797	1843	0
Flt Permitted		0.761			0.724		0.950			0.950		
Satd. Flow (perm)	0	1362	0	0	1306	1546	1823	1904	0	1797	1843	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32				118		3			6	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		155			698			257			538	
Travel Time (s)		2.6			11.9			4.4			9.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	1%	2%	0%	1%	0%	1%	1%	0%	0%	1%	3%
Adj. Flow (vph)	92	232	231	51	203	118	263	720	39	101	686	71
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	555	0	0	254	118	263	759	0	101	757	0
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Minimum Split (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Total Split (s)	40.0	40.0		40.0	40.0	40.0	15.0	60.0		15.0	60.0	
Total Split (%)	34.8%	34.8%		34.8%	34.8%	34.8%	13.0%	52.2%		13.0%	52.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Act Effct Green (s)		35.2			35.2	35.2	10.1	48.7		9.4	48.1	
Actuated g/C Ratio		0.32			0.32	0.32	0.09	0.45		0.09	0.44	
v/c Ratio		1.20			0.60	0.20	1.57	0.89		0.65	0.92	
Control Delay (s/veh)		141.3			39.5	6.3	313.9	40.6		69.2	45.8	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)		141.3			39.5	6.3	313.9	40.6		69.2	45.8	
LOS		F			D	A	F	D		E	D	
Approach Delay (s/veh)		141.3			29.0			110.9			48.5	

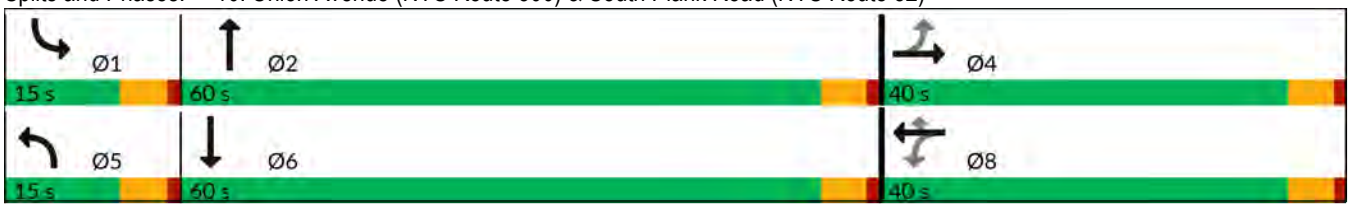
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			C			F			D	
Queue Length 50th (ft)		~488			157	0	~275	472		72	478	
Queue Length 95th (ft)		#724			256	42	#450	654		#148	#718	
Internal Link Dist (ft)		75			618			177			458	
Turn Bay Length (ft)						140	256			260		
Base Capacity (vph)		463			423	581	168	972		166	942	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		1.20			0.60	0.20	1.57	0.78		0.61	0.80	

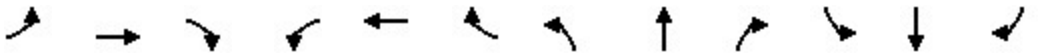
Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 108.4			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.57			
Intersection Signal Delay (s/veh): 87.0		Intersection LOS: F	
Intersection Capacity Utilization 113.5%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: Union Avenue (NYS Route 300) & South Plank Road (NYS Route 52)





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	285	215	47	372	120	291	780	48	104	579	88
Future Volume (vph)	87	285	215	47	372	120	291	780	48	104	579	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	12	12	12	11	11	11
Grade (%)		-2%			2%			-4%			-6%	
Storage Length (ft)	0		0	0		140	256		0	260		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.951				0.850		0.991			0.980	
Flt Protected		0.993			0.994		0.950			0.950		
Satd. Flow (prot)	0	1769	0	0	1788	1530	1823	1900	0	1745	1820	0
Flt Permitted		0.464			0.792		0.950			0.950		
Satd. Flow (perm)	0	826	0	0	1424	1530	1823	1900	0	1745	1820	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26				85		4			9	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		155			698			257			538	
Travel Time (s)		2.6			11.9			4.4			9.2	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	4%	1%	2%	1%	1%	1%	1%	2%	3%	2%	1%
Adj. Flow (vph)	88	288	217	47	376	121	294	788	48	105	585	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	593	0	0	423	121	294	836	0	105	674	0
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Minimum Split (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Total Split (s)	40.0	40.0		40.0	40.0	40.0	15.0	60.0		15.0	60.0	
Total Split (%)	34.8%	34.8%		34.8%	34.8%	34.8%	13.0%	52.2%		13.0%	52.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Act Effct Green (s)		35.1			35.1	35.1	10.0	51.6		9.6	51.2	
Actuated g/C Ratio		0.32			0.32	0.32	0.09	0.46		0.09	0.46	
v/c Ratio		2.13			0.94	0.22	1.79	0.95		0.70	0.80	
Control Delay (s/veh)		545.0			69.5	11.9	411.5	49.0		75.7	33.7	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)		545.0			69.5	11.9	411.5	49.0		75.7	33.7	
LOS		F			E	B	F	D		E	C	
Approach Delay (s/veh)		545.0			56.7			143.3			39.4	

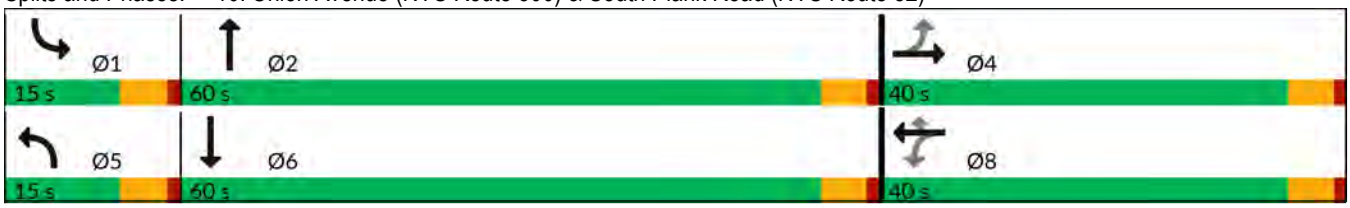
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			E			F			D	
Queue Length 50th (ft)		~701			309	19	~331	557		77	396	
Queue Length 95th (ft)		#924			#516	64	#506	#828		#159	555	
Internal Link Dist (ft)		75			618			177			458	
Turn Bay Length (ft)						140	256			260		
Base Capacity (vph)		278			449	540	164	943		157	906	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		2.13			0.94	0.22	1.79	0.89		0.67	0.74	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 111.4			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 2.13			
Intersection Signal Delay (s/veh): 179.5		Intersection LOS: F	
Intersection Capacity Utilization 123.7%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: Union Avenue (NYS Route 300) & South Plank Road (NYS Route 52)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	229	231	51	201	114	260	703	41	98	669	71
Future Volume (vph)	91	229	231	51	201	114	260	703	41	98	669	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	12	12	12	11	11	11
Grade (%)		-2%			2%			-4%			-6%	
Storage Length (ft)	0		0	0		140	256		0	260		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.943				0.850		0.992			0.986	
Flt Protected		0.992			0.990		0.950			0.950		
Satd. Flow (prot)	0	1773	0	0	1786	1546	1823	1904	0	1797	1843	0
Flt Permitted		0.745			0.708		0.950			0.950		
Satd. Flow (perm)	0	1331	0	0	1277	1546	1823	1904	0	1797	1843	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32				118		3			6	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		155			698			257			538	
Travel Time (s)		2.6			11.9			4.4			9.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	1%	2%	0%	1%	0%	1%	1%	0%	0%	1%	3%
Adj. Flow (vph)	94	236	238	53	207	118	268	725	42	101	690	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	568	0	0	260	118	268	767	0	101	763	0
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Minimum Split (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Total Split (s)	40.0	40.0		40.0	40.0	40.0	15.0	60.0		15.0	60.0	
Total Split (%)	34.8%	34.8%		34.8%	34.8%	34.8%	13.0%	52.2%		13.0%	52.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Act Effct Green (s)		35.2			35.2	35.2	10.0	49.1		9.4	48.5	
Actuated g/C Ratio		0.32			0.32	0.32	0.09	0.45		0.09	0.45	
v/c Ratio		1.26			0.63	0.20	1.60	0.89		0.65	0.93	
Control Delay (s/veh)		164.8			41.1	6.3	328.4	41.2		69.6	46.2	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)		164.8			41.1	6.3	328.4	41.2		69.6	46.2	
LOS		F			D	A	F	D		E	D	
Approach Delay (s/veh)		164.8			30.2			115.6			49.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			C			F			D	
Queue Length 50th (ft)		~521			164	0	~286	480		72	484	
Queue Length 95th (ft)		#752			265	42	#459	#678		#148	#727	
Internal Link Dist (ft)		75			618			177			458	
Turn Bay Length (ft)						140	256			260		
Base Capacity (vph)		452			412	579	168	968		166	939	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		1.26			0.63	0.20	1.60	0.79		0.61	0.81	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 108.8			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.60			
Intersection Signal Delay (s/veh): 93.8		Intersection LOS: F	
Intersection Capacity Utilization 115.2%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
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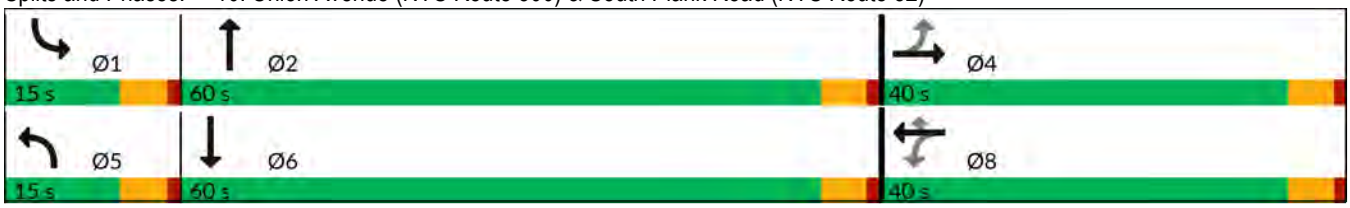
Splits and Phases: 10: Union Avenue (NYS Route 300) & South Plank Road (NYS Route 52)



Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	10	15	1106	830	11
Future Vol, veh/h	13	10	15	1106	830	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	75	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	-1	6	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	1	2	2
Mvmt Flow	14	11	16	1202	902	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2142	908	914	0	-	0
Stage 1	908	-	-	-	-	-
Stage 2	1234	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	54	334	746	-	-	-
Stage 1	393	-	-	-	-	-
Stage 2	275	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	53	334	746	-	-	-
Mov Cap-2 Maneuver	170	-	-	-	-	-
Stage 1	385	-	-	-	-	-
Stage 2	275	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	23.8	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	746	-	216	-	-
HCM Lane V/C Ratio	0.022	-	0.116	-	-
HCM Control Delay (s/veh)	9.9	-	23.8	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q (veh)	0.1	-	0.4	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	21	21	25	983	933	18
Future Vol, veh/h	21	21	25	983	933	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	75	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	-1	6	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	1	0	2
Mvmt Flow	22	22	27	1046	993	19

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2103	1003	1012	0	-	0
Stage 1	1003	-	-	-	-	-
Stage 2	1100	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	57	294	685	-	-	-
Stage 1	355	-	-	-	-	-
Stage 2	319	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	55	294	685	-	-	-
Mov Cap-2 Maneuver	176	-	-	-	-	-
Stage 1	341	-	-	-	-	-
Stage 2	319	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	25.5	0.3	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	685	-	220	-	-
HCM Lane V/C Ratio	0.039	-	0.203	-	-
HCM Control Delay (s/veh)	10.5	-	25.5	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q (veh)	0.1	-	0.7	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	578	7	11	740	8	9
Future Vol, veh/h	578	7	11	740	8	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-1	-	-	3	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	2	2	1	2	2
Mvmt Flow	608	7	12	779	8	9

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	615	0	1415	612
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	803	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	965	-	151	493
Stage 1	-	-	-	-	541	-
Stage 2	-	-	-	-	441	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	965	-	148	493
Mov Cap-2 Maneuver	-	-	-	-	148	-
Stage 1	-	-	-	-	541	-
Stage 2	-	-	-	-	431	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.1	21.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	235	-	-	965	-
HCM Lane V/C Ratio	0.076	-	-	0.012	-
HCM Control Delay (s/veh)	21.6	-	-	8.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q (veh)	0.2	-	-	0	-

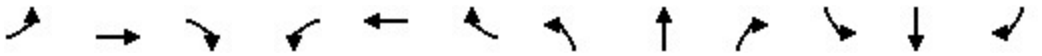
Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	537	10	18	514	13	14
Future Vol, veh/h	537	10	18	514	13	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-1	-	-	3	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	1	2	2	1	2	2
Mvmt Flow	548	10	18	524	13	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	558	0	1113	553
Stage 1	-	-	-	-	553	-
Stage 2	-	-	-	-	560	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1013	-	231	533
Stage 1	-	-	-	-	576	-
Stage 2	-	-	-	-	572	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1013	-	225	533
Mov Cap-2 Maneuver	-	-	-	-	225	-
Stage 1	-	-	-	-	576	-
Stage 2	-	-	-	-	558	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.3	17.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	321	-	-	1013	-
HCM Lane V/C Ratio	0.086	-	-	0.018	-
HCM Control Delay (s/veh)	17.3	-	-	8.6	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q (veh)	0.3	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	285	215	47	372	120	291	780	48	104	579	88
Future Volume (vph)	87	285	215	47	372	120	291	780	48	104	579	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	12	12	12	11	11	11
Grade (%)		-2%			2%			-4%			-6%	
Storage Length (ft)	0		0	0		140	256		0	260		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.951				0.850		0.991			0.980	
Flt Protected		0.993			0.994		0.950			0.950		
Satd. Flow (prot)	0	1769	0	0	1788	1530	1823	1900	0	1745	1820	0
Flt Permitted		0.477			0.796		0.950			0.950		
Satd. Flow (perm)	0	850	0	0	1431	1530	1823	1900	0	1745	1820	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26				86		4			9	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		155			698			257			538	
Travel Time (s)		2.6			11.9			4.4			9.2	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	1%	4%	1%	2%	1%	1%	1%	1%	2%	3%	2%	1%
Adj. Flow (vph)	88	288	217	47	376	121	294	788	48	105	585	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	593	0	0	423	121	294	836	0	105	674	0
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Minimum Split (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Total Split (s)	41.0	41.0		41.0	41.0	41.0	16.0	58.0		16.0	58.0	
Total Split (%)	35.7%	35.7%		35.7%	35.7%	35.7%	13.9%	50.4%		13.9%	50.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Act Effct Green (s)		36.1			36.1	36.1	11.0	51.2		10.2	50.4	
Actuated g/C Ratio		0.32			0.32	0.32	0.10	0.46		0.09	0.45	
v/c Ratio		2.05			0.92	0.22	1.65	0.97		0.66	0.82	
Control Delay (s/veh)		507.8			65.4	11.4	350.0	53.7		70.8	36.4	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)		507.8			65.4	11.4	350.0	53.7		70.8	36.4	
LOS		F			E	B	F	D		E	D	
Approach Delay (s/veh)		507.8			53.4			130.8			41.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			D			F			D	
Queue Length 50th (ft)		~690			304	18	~319	577		76	410	
Queue Length 95th (ft)		#913			#504	62	#493	#855		#147	576	
Internal Link Dist (ft)		75			618			177			458	
Turn Bay Length (ft)						140	256			260		
Base Capacity (vph)		289			458	549	178	898		170	863	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		2.05			0.92	0.22	1.65	0.93		0.62	0.78	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 112.5			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 2.05			
Intersection Signal Delay (s/veh): 167.4		Intersection LOS: F	
Intersection Capacity Utilization 123.7%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: Union Avenue (NYS Route 300) & South Plank Road (NYS Route 52)

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	229	231	51	201	114	260	703	41	98	669	71
Future Volume (vph)	91	229	231	51	201	114	260	703	41	98	669	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	12	12	12	11	11	11
Grade (%)		-2%			2%			-4%			-6%	
Storage Length (ft)	0		0	0		140	256		0	260		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.943				0.850		0.992			0.986	
Flt Protected		0.992			0.990		0.950			0.950		
Satd. Flow (prot)	0	1773	0	0	1786	1546	1823	1904	0	1797	1843	0
Flt Permitted		0.751			0.714		0.950			0.950		
Satd. Flow (perm)	0	1342	0	0	1288	1546	1823	1904	0	1797	1843	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33				118		3			6	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		155			698			257			538	
Travel Time (s)		2.6			11.9			4.4			9.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	1%	2%	0%	1%	0%	1%	1%	0%	0%	1%	3%
Adj. Flow (vph)	94	236	238	53	207	118	268	725	42	101	690	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	568	0	0	260	118	268	767	0	101	763	0
Turn Type	Perm	NA		Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8						
Detector Phase	4	4		8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Minimum Split (s)	8.0	8.0		8.0	8.0	8.0	8.0	8.0		8.0	8.0	
Total Split (s)	42.0	42.0		42.0	42.0	42.0	16.0	57.0		16.0	57.0	
Total Split (%)	36.5%	36.5%		36.5%	36.5%	36.5%	13.9%	49.6%		13.9%	49.6%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	Min		None	Min	
Act Effct Green (s)		37.1			37.1	37.1	11.0	49.8		10.0	48.8	
Actuated g/C Ratio		0.33			0.33	0.33	0.10	0.45		0.09	0.44	
v/c Ratio		1.22			0.61	0.20	1.50	0.90		0.63	0.95	
Control Delay (s/veh)		148.9			39.6	6.0	286.1	44.5		67.7	51.7	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)		148.9			39.6	6.0	286.1	44.5		67.7	51.7	
LOS		F			D	A	F	D		E	D	
Approach Delay (s/veh)		148.9			29.1			107.0			53.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F			C			F			D	
Queue Length 50th (ft)		~511			163	0	~279	507		73	511	
Queue Length 95th (ft)		#731			257	41	#447	#754		#133	#766	
Internal Link Dist (ft)		75			618			177			458	
Turn Bay Length (ft)						140	256			260		
Base Capacity (vph)		466			426	591	179	888		176	861	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		1.22			0.61	0.20	1.50	0.86		0.57	0.89	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 111.9			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.50			
Intersection Signal Delay (s/veh): 88.8		Intersection LOS: F	
Intersection Capacity Utilization 115.2%		ICU Level of Service H	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: Union Avenue (NYS Route 300) & South Plank Road (NYS Route 52)