Brooklyn Inland Wetlands Commission

Special Meeting Agenda

Tuesday, July 11, 2023
Zoom and In-Person Meeting
Community Center
31 Tiffany Street Upper Level
6:00 p.m.

<table>
<tr><td colspan="3">In-Person:
Community Center 31 Tiffany Street Upper Level, Brooklyn, CT</td></tr>
<tr><td>Online:
Click link below:
https://us06web.zoom.us/j/83921116459</td><td>OR</td><td>Go to Zoom.us ,
click Sign In
On the top right, click Join a Meeting
Enter meeting ID: 839 2111 6459</td></tr>
<tr><td colspan="3">Phone: Dial 1 646 558 8656 US Toll
Enter meeting number: 839 2111 6459
You can bypass attendee number by pressing #</td></tr>
</table>

Call to Order:

Roll Call:

Staff Present:

Seating of Alternates:

Public Commentary:

Additions to Agenda: None

Approval of Minutes: Regular Meeting Minutes June 13, 2023

Public Hearings: None.

Old Business:

1. SUBD23-001 Jeffrey Weaver, Day Street, Map 43, Lot 6, R-30 and RA Zones; 2-lot subdivision.

2. IWWC 23-005 Townsend Development Associates LLC, 538 Providence Road, Map 41, Lot 16, PC Zone; Modification to existing approved Special Permit to construct approximately 16,100 sf of Self Storage in two buildings, and 19,360 sf of commercial space.

New Business:

1. IWWC 23-006 Ryan Kelleher. 404 Wolf Den Road, Map 18, Lot 22, RA Zone; Improvement of an existing gravel driveway through a wetland to construct single-family home on 41 acres of land.

2. IWWC 23-007 Tripp Hollow Investments LLC, Tripp Hollow Road, Map 14, Lot 10-1 RA Zone; Proposed single-family house, well, septic system and site grading in the upland review area on a subdivision lot created in 2004.

3. IWWC 23-008 Wal-Mart Real Estate Business Trust, 450 Providence Road, Map 41, Lot 10, PC Zone; Online grocery pickup addition with parking modifications.

4. IWWC 23-009 A. Kausch & Sons, Church Street, Map 37, Lot 21, RA Zone; Driveway with wetland crossing with 1,340 sq ft of wetlands fill proposed for a single-family house with attached garage, porch, deck, septic system, well and associated grading all in the upland review area.

Communications:

1. Wetlands Agent Monthly Report.
2. Budget Update.

Public Commentary:

Adjourn:

____

Richard Oliverson, Chairman

Brooklyn Inland Wetlands Commission

Regular Meeting Minutes

Tuesday, June 13, 2023
Zoom and In-Person Meeting
Clifford B. Green Memorial Center
69 South Main Street
6:00 p.m.

Call to Order: 6:00 pm

Roll Call: Richard Oliverson, Adam Brindamour, Janet Booth, Demian Sorrentino, Jason Burgess and James Paquin. Adam Tucker was absent with notice.

Staff Present: Margaret Washburn, Lisa Lindia

Seating of Alternates: None

Public Commentary: None

Additions to Agenda: None

Approval of Minutes: Regular Meeting Minutes: April 11, 2023, meeting – accepted as written.

Public Hearings: None

Old Business:

1. 111318D Donald Gudeahn, Wolf Den Road, Map 18, Lot 21, RA Zone; Residential home, septic system, well and minor grading all within the upland review area. **Cease & Desist Order.**

Paul Archer with Archer Surveying – Mr. Archer went out and rehung the wetland flags at the site. Joe Theroux was contacted to review the site; he submitted a letter on behalf of Mr. Gudeahn for review. A small area was filled, and minor grading was done to keep the water moving at the same time. Margaret Washburn had previously directed Mr. Gudeahn to seed the lawn. Mr. Archer passed a couple of photos. When they built the house, they piled up the rocks and logs. Mr. Archer asked is this a modification to the open wetlands permit or is Mr. Gudeahn is required to apply for a new one. Mr. Gudeahn would like to clean up the rocks and logs to make the lawn more presentable. He will not do any further excavation. All of the rocks and logs would be removed off site.

Margaret Washburn – Asked for clarification about hanging the flags at the site. You rehung the flags from where they were in 2018?

Mr. Archer – That is correct, I am not a Soil Scientist, I did not delineate it. We located where Joe Theroux had the flags in the past and put them back where they were.

Richard Oliverson – Mr. Gudeahn, will you need to use a machine to remove rocks and logs?

Mr. Gudeahn -Yes, I will not push in any fill.

Margaret Washburn – Asked if the silt fence was still in place.

Mr. Archer – No it is not but it will be put back once the rocks and logs are removed. The silt fence can be put back.

Jim Paquin – Moves to lift the Cease-and-Desist Oder. Requires application to amend permit for the additional disturbance.

Jim Paquin – Rescinds previous motion.

Paul Archer – If he does not want to why would he need to amend it. The remediation plan covers the 68 sq feet to be left alone. Plant New England Wet Mix on the Southerly side of the silt fence.

Margaret Washburn – Explains that on page 3 of her report according to our regulations if the existing application is to be modified a new application needs to be submitted with the state fee and the fee for the Notice of Action to be printed in the paper.

Richard Oliverson – Thinks it would be best to handle the remediation and the Cease-and-Desist Order.

Jim Paquin – Does this require silt fence? Sometimes putting in silt fence causes more damage. He may be able to use an alternative.

Jim Paquin made a motion Demian Sorrentino seconded the motion.

1. 111318D Donald Gudeahn, Wolf Den Road, Map 18, Lot 21, RA Zone; Residential Home, Septic System, Well and Minor Grading all within the upland review area. Violation. The 68 sf of wetlands filled, and 161 sf of wetlands excavated were deemed to be de minimis. Remediation plan was accepted. The Cease & Desist Order was lifted.

APPROVED 6/0.

Demian Sorrentino - This is a warning to the owner. No land disturbance in the upland review area or wetlands without a new permit or amendment to the existing permit.

Margaret Washburn – Will email Mr. Gudeahn to schedule going out to complete the Final Certificate of Zoning Compliance.

2. IWWC23-004 – Jeffrey Weaver. Day Street, Map 43 Lot 6, R-30 Zone: Duplex, septic system, driveway all within the upland review area. **WITHDRAWN WITHOUT PREJUDICE ON 6/7/23, 6/13/23.**

3. SUBD23-001 - Jeffrey Weaver. Day Street, Map 43 Lot 6, R-30 and RA Zones; 2-lot subdivision.

Paul Archer with Archer Surveying – Mr. Weaver is proposing two more duplexes with a fifty-foot access strip. The duplex on the south side has a small wetland pocket which was flagged by Joseph Theroux. When the 125-foot-arc radius is drawn you will see we are not proposing anything in the wetlands but in the upland review area. We do have NDDH approval at this time. We just received comments from Syl Pauley to review that morning. Mr. Archer states that Mr. Pauley's comments deal with the drainage pipe under the driveway which is outside of the regulated area out of the purview of the IWWC. This will be heard at Planning and Zoning.

Janet Booth and Margaret Washburn – Pointed out that revision date on the plan is needed.

Paul Archer – Mr. Archer will have David Held add the revision date.

Richard Oliverson – From what I heard we do not have a say in the pipe.

Paul Archer – It is outside of the upland review area.

Richard Oliverson – I believe there is water on the other side of the driveway. Has photos of the water flowing above the driveway.

Mr. Archer – Addressed Richard Oliverson are you reviewing these plans as an abutter?

Richard Oliverson – Did you mail me a letter? Do you want me to stop now?

Mr. Archer – There are no letters necessary yet.

Richard Oliverson – They were necessary before you got to this subdivision. I do not have a problem, but I was there when there was rain. As far as the pipe not being in the upland review area, you want to be able to handle the water on the site.

Demian Sorrentino – Typically direct abutters recuse themselves.

Richard Oliverson – Recuses himself and sits in the back of the room.

Janet Booth – Suggests a site walk. Adam Brindamour and Demian Sorrentino agree. They will meet at the site on Monday June 19th at 5:30. Someone will take minutes to forward to the office.

Adam Brindamour and Demian Sorrentino continue to the next scheduled meeting, July 11, 2023, which will be held at the Community Center.

Richard Oliverson – Returns to the table.

<u>New Business:</u>

1. IWWC 23-005 – Townsend Development Associates LLC, 538 Providence Road, Map 41 Lot 16, PC Zone: Modification to existing approved Special Permit to construct approximately 16,100 sf of Self Storage in two buildings, and 19,360 sf of commercial space.

Peter Parent – Represents CHA, which used to be CME. Initially in 2005-2006 the following was approved and constructed: The Savings Institute, CVS, a boulevard entry drive, parking and at the northwest part of the site, and a retaining wall. Underground utilities were also installed at this time.

2008 – A proposed large grocery store was not built on the back of the parcel; at the time the market was collapsing, and Walmart had moved in up the street.

2015 – A smaller building was built which currently is the Spa and medical office.

Now proposing a 19,000-square foot commercial space with a boutique-style grocery store, and self-storage. PZC has already approved self- storage on the east side on the back of the lot. A self-storage tenant is looking to construct.

There is a unique agreement recorded on the land records for the Town to maintain a serpentine drainage swale near Route 6 and another swale near the northern boundary. The current design only treats for Water Quality and not Peak Flow Retention. This was allowed in the agreement from 2003-2004 calculations based on plans by J & D. A 42” RCP from Route 6 goes into the serpentine swale and discharges under Day Street, near Plaza Street, and finally discharges into the Quinebaug River. The swale was constructed in 2006-2007. Peter Parent’s dad, Mitch Parent, and Janet worked on this together. Mr. Townsend is now developing the back half of the property.

Jim Paquin – Asked what was approved for impervious area in the previous two approved proposals versus this plan?

Peter Parent – This plan proposes 30,000-square feet less impervious area than the 2005-2006 plan and 10,000-square feet more than the 2015 plan.

Richards Oliverson – Who maintains the swales?

Peter Parent – It is supposed to be the Town.

Janet Booth – What is involved in maintaining the swale? How should it be maintained?

Peter Parent – To keep the vegetation mowed, not to have woody vegetation grow, in so sediment can be removed.

Margaret Washburn – Asked when the last time the property was flagged.

Peter Parent – Explained that the last time the wetlands were flagged was 2017.

No Commission Members feel that it needs to be re-flagged.

Demian Sorrentino – Is there any activity beyond the retaining wall?

Peter Parent – No; additional disturbance is along eastern raised berms. All drainage now goes into a hydrodynamic separator, and from there into the serpentine swale. All new discharge will go into a hydrodynamic separator into the rear swale.

Margaret Washburn and Janet Booth – would like to do a site walk. Peter Parent will meet them there Wednesday June 21st at 10:00 a.m.

Received and continued to 7/11/23.

2. Paul Sansoucy, 266 Pomfret Road, Map 26 Lot 19B, RA Zone: Show Cause Hearing for Violation.

Paul Sansoucy – There was an overgrown jungle at the entrance, I brought in topsoil and wanted to plant grass.

James Paquin – Explained you are aware your property starts ten to twelve feet off of Route 169. Most of the work you have done is in the State right-of-way. I am fine with the minimal work by the pond that Mr.

Sansoucy did; it could be considered landscaping and maintenance. We are not authorized to issue a permit to work on land owned by the state. Mr. Sansoucy needs to be more mindful in the future when working by the pond.

James Paquin made a motion to lift the Cease & Desist Order and advised the applicant to be more mindful in the future when regarding sensitivity working near a watercourse. Janet Booth seconded the motion. APPROVED 6/0.

Paul Sansoucy, 266 Pomfret Road, Map 26 Lot 19B, RA Zone: Show Cause Hearing for Violation. The Cease & Desist Order was lifted.

Communications:

1. Agent Report: There were some erosion problems at the Arters Quarry. Margaret Washburn did an inspection for the upcoming renewal of his PZC permit. There were some problems with blowouts on the edge of the driveway which slope down to Blackwells Brook. Norm Thibeault was there and was able to help advise Doug Hartin how to fix the problem. The erosion is now controlled.

2. Budget Update: Budget was reviewed by Commission.

Public Commentary:

Adjourn: 7:43 p.m. Adam Brindamour made a motion to adjourn. Janet Booth seconded the motion. APPROVED 6/0.

Submitted By:

Lisa M Lindia
Recording Secretary

INLAND WETLANDS & WATERCOURSES COMMISSION
TOWN OF BROOKLYN, CONECTICUT

Date 5/1/2023

Application # SUBD 23-001

APPLICATION -- INLAND WETLANDS & WATERCOURSES

APPLICANT Jeff Weaver MAILING ADDRESS P.O. Box 9 Brooklyn, CT 06234
APPLICANT'S INTEREST IN PROPERTY owner PHONE 450 9432 EMAIL ask4weaver@charter.net

PROPERTY OWNER IF DIFFERENT ______ PHONE ______
MAILING ADDRESS ______ EMAIL ______

ENGINEER/SURVEYOR (IF ANY) Archer Surveying LLC
ATTORNEY (IF ANY) ______

PROPERTY LOCATION/ADDRESS Day St
MAP # 43 LOT # 6 ZONE R30/RA TOTAL ACRES 49.48 ACRES OF WETLANDS ON PROPERTY ______

PURPOSE AND DESCRIPTION OF THE ACTIVITY 2 lot Subdivision

WETLANDS EXCAVATION AND FILL:
FILL PROPOSED Ø CUBIC YDS Ø SQ FT Ø
EXCAVATION PROPOSED O CUBIC YDS O SQ FT O
LOCATION WHERE MATERIAL WILL BE PLACED: ON SITE O OFF SITE O
TOTAL REGULATED AREA ALTERED: SQ FT 7,500 ACRES ______

RECEIVED
MAY 1 2023

EXPLAIN ALTERNATIVES CONSIDERED (REQUIRED): ______

MITIGATION MEASURES (IF REQUIRED): WETLANDS/WATERCOURSES CREATED: CY O SQFT O ACRES O

IS PARCEL LOCATED WITHIN 500FT OF AN ADJOINING TOWN? NO IF YES, WHICH TOWN(S) ______
IS THE ACTIVITY LOCATED WITHIN THE WATERSHED OF A WATER COMPANY AS DEFINED IN CT GENERAL STATUTES 25-32A? ______

THE OWNER AND APPLICANT HEREBY GRANT THE BROOKLYN IWWC, THE BOARD OF SELECTMAN AND THEIR AUTHORIZED AGENTS PERMISSION TO ENTER THE SUBJECT PROPERTY FOR THE PURPOSE OF INSPECTION AND ENFORCEMENT OF THE IWWC REGULATIONS OF THE TOWN OF BROOKLYN. IF THE COMMISSION DETERMINES THAT OUTSIDE REVIEW IS REQUIRED, APPLICANT WILL PAY CONSULTING FEE.

NOTE: DETERMINATION THAT THE INFORMATION PROVIDED IS INACCURATE MAY INVALIDATE THE IWWC DECISION AND RESULT IN ENFORCEMENT ACTION.

APPLICANT: Jeffrey A Weaver DATE 4/26/23

OWNER: Jeffrey A Weaver DATE 4/26/23

REQUIREMENTS

________ APPLICATION FEE $ \$150 - STATE FEE (\$60.00) \$60.00 \$300.00 (2 lots) = \$50 pub \$560.00 CK# 6326

________ COMPLETION OF CT DEEP REPORTING FORM

________ ORIGINAL PLUS COPIES OF ALL MATERIALS REQUIRED - **NUMBER TO BE DETERMINED BY STAFF**

________ PRE-APPLICATION MEETING WITH THE WETLANDS AGENT IS RECOMMENDED TO EXAMINE THE SCOPE OF THE ACTIVITY

________ SITE PLAN SHOWING LOCATION OF THE WETLANDS WITH EXISTING AND PROPOSED CONDITIONS. APPLICANT MAY BE REQUIRED TO HAVE A CERTIFIED **SOIL SCIENTIST IDENTIFY THE WETLANDS.**

________ COMPLIANCE WITH THE CONNECTICUT EROSION & SEDIMENTATION CONTROL MANUAL

________ IF THE PROPOSED ACTIVITY IS DEEMED TO BE A "SIGNIFICANT IMPACT ACTIVITY" A PUBLIC HEARING IS REQUIRED ALONG WITH THE FOLLOWING INFORMATION:

- NAMES AND ADDRESSES OF ABUTTING PROPERTY OWNERS
- ADDITIONAL INFORMATION AS CONTAINED IN IWWC REGULATIONS ARTICLE 7.6

ADDITIONAL INFORMATION/ACTION NEEDED:

OTHER APPLICATIONS MAY BE REQUIRED. CONTACT THESE AGENCIES FOR FURTHER INFORMATION:

APPLICATION TO STATE OF CONNECTICUT DEEP
INLAND WATER RESOURCES DIVISION
79 ELM ST.
HARTFORD, CT. 06106
1-860-424-3019

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MA. 01742
1-860-343-4789

STAFF USE ONLY:

________ DECLARATORY RULING: AS OF RIGHT & NON-REGULATED USES (SEE IWWC REGULATIONS SECTION 4)

________ PERMIT REQUIRED:

________ AUTHORIZED BY STAFF/CHAIR (NO ACTIVITY IN WETLANDS/WATERCOURSE AND MINIMAL IMPACT)

CHAIR, BROOKLYN IWWC WETLANDS OFFICER

________ AUTHORIZED BY IWWC

________ SIGNIFICANT ACTIVITY/PUBLIC HEARING

________ NO PERMIT REQUIRED

________ OUTSIDE OF UPLAND REVIEW AREA

________ NO IMPACT

CHAIR, BROOKLYN IWWC WETLANDS OFFICER

________ TIMBER HARVEST

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

GIS CODE #: ___ ___ ___ ___ ___ ___ ___ ___ ___
For DEEP Use Only

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete and mail this form in accordance with the instructions on pages 2 and 3 to:
DEEP Land & Water Resources Division, Inland Wetlands Management Program, 79 Elm Street, 3rd Floor, Hartford, CT 06106
Incomplete or incomprehensible forms will be mailed back to the inland wetlands agency.

PART I: Must Be Completed By The Inland Wetlands Agency

RECEIVED
MAY 1 2023

1. DATE ACTION WAS TAKEN: year: ________ month: ________
2. ACTION TAKEN (see instructions, only use one code): ________
3. WAS A PUBLIC HEARING HELD (check one)? yes ☐ no ☐
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:
   (print name) ________ (signature) ________

PART II: To Be Completed By The Inland Wetlands Agency Or The Applicant

5. TOWN IN WHICH THE ACTION IS OCCURRING (print name): Brooklyn
   does this project cross municipal boundaries (check one)? yes ☐ no ☑
   if yes, list the other town(s) in which the action is occurring (print name(s)): ________, ________
6. LOCATION (see instructions for information): USGS quad name: ________ or number: ________
   subregional drainage basin number: ________
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (print name): Jeff Warren
8. NAME & ADDRESS / LOCATION OF PROJECT SITE (print information): Day St
   briefly describe the action/project/activity (check and print information): temporary ☐ permanent ☑ description:
   2 lot Subdivision
9. ACTIVITY *PURPOSE* CODE (see instructions, only use one code): B
10. ACTIVITY *TYPE* CODE(S) (see instructions for codes): 3, 12, ________, ________
11. WETLAND / WATERCOURSE AREA ALTERED (must provide acres or linear feet):
    wetlands: ________ acres open water body: ________ acres stream: ________ linear feet
12. UPLAND AREA ALTERED (must provide acres): .18 acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (must provide acres): Ø acres

DATE RECEIVED:

PART III: To Be Completed By The DEEP

DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO

FORM CORRECTED / COMPLETED: YES NO

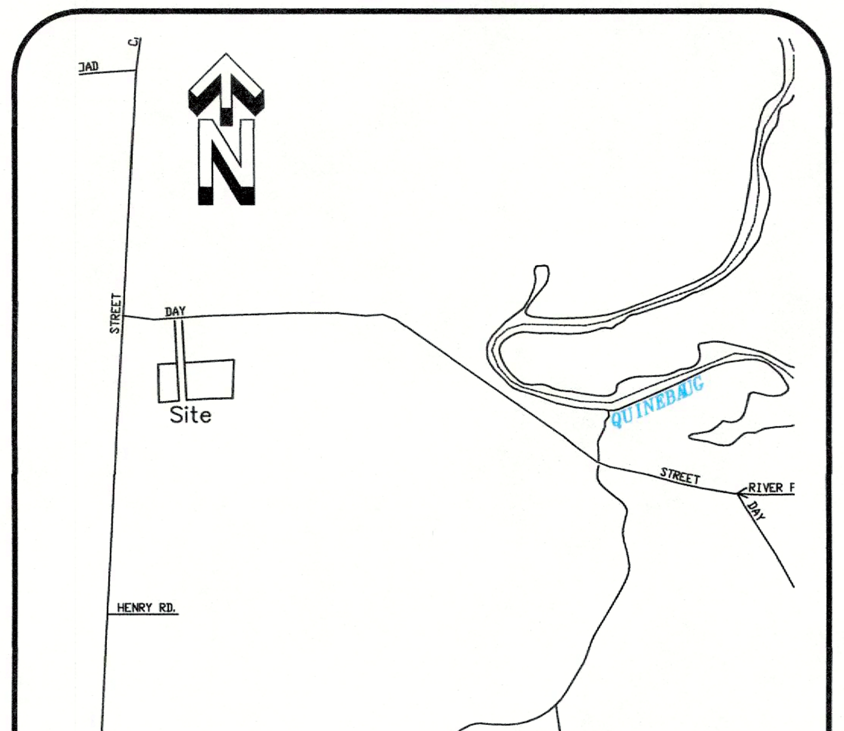
2 LOT SUBDIVISION

PREPARED FOR

Jeffrey Weaver

Day Street
Brooklyn, Connecticut

May 1, 2023



LOCATION MAP
SCALE: 1" = 1,000'

PREPARED BY

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240

Provost & Rovero, Inc.
Civil Engineering • Surveying • Site Planning
Structural • Mechanical • Architectural Engineering
57 East Main Street, P.O. Box 191
Plainfield, Connecticut 06374
(860) 230-0856 - FAX: (860) 230-0860
info@prorovinc.com
www.prorovinc.com

APPROVED BY THE BROOKLYN
INLAND WETLANDS COMMISSION

CHAIRMAN DATE

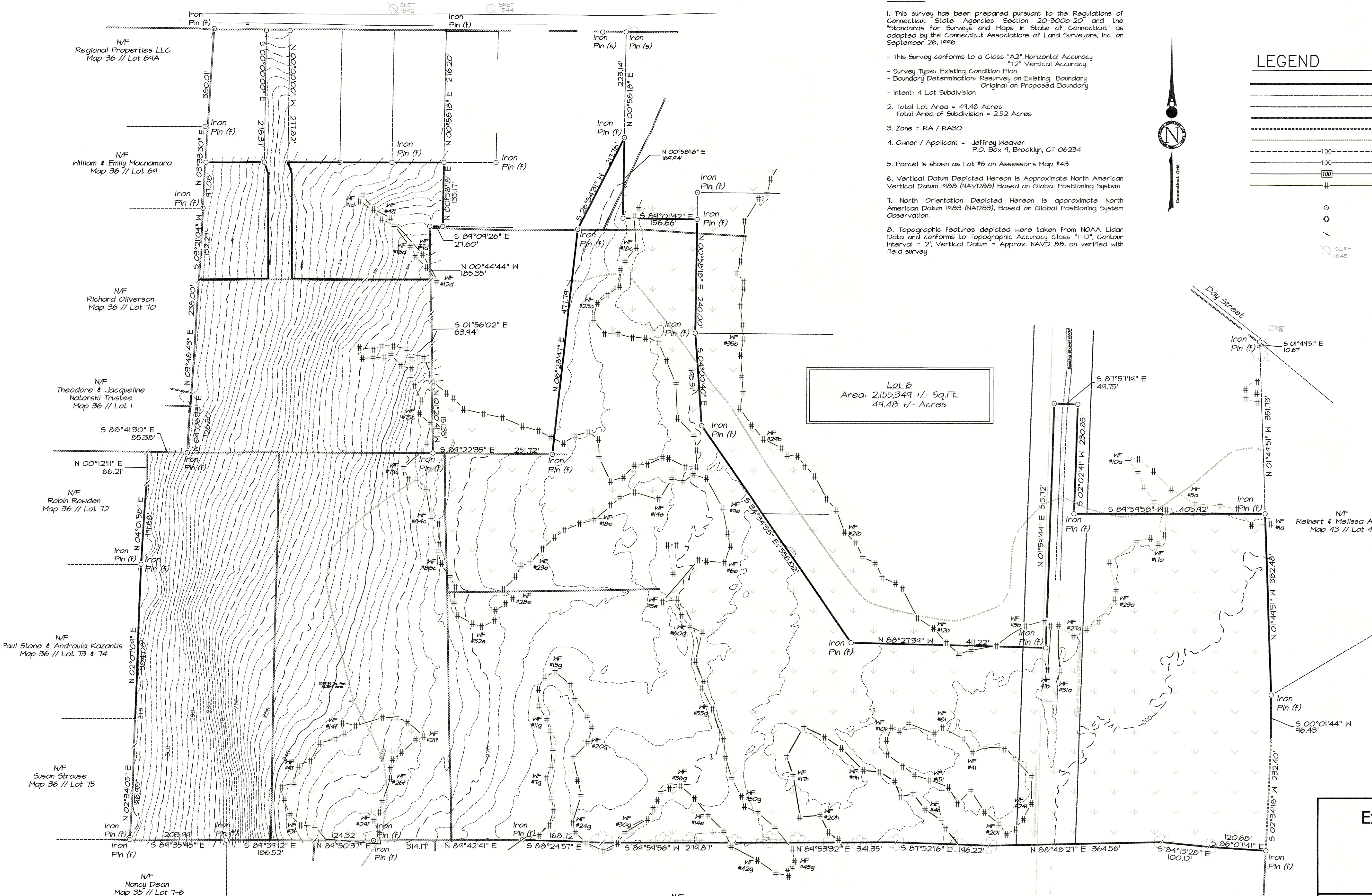
Expiration date per section 22A-42A of the Connecticut General Statutes. Date: ________

APPROVED BY THE BROOKLYN
PLANNING AND ZONING COMMISSION

CHAIRMAN DATE

Expiration date per section 8.26C of the Connecticut General Statutes. Date: ________

INDEX OF DRAWINGS



Notes

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20-300b-20 and the "Standards for Surveys and Maps in State of Connecticut" as adopted by the Connecticut Associations of Land Surveyors, Inc. on September 26, 1996

- This Survey conforms to a Class "A2" Horizontal Accuracy
  "T2" Vertical Accuracy
- Survey Type: Existing Condition Plan
- Boundary Determination: Resurvey on Existing Boundary
  Original on Proposed Boundary
- Intent: 4 Lot Subdivision

2. Total Lot Area = 49.48 Acres
   Total Area of Subdivision = 2.52 Acres

3. Zone = RA / RA30

4. Owner / Applicant = Jeffrey Weaver
   P.O. Box 9, Brooklyn, CT 06234

5. Parcel is shown as Lot #6 on Assessor's Map #43

6. Vertical Datum Depicted Hereon is Approximate North American Vertical Datum 1988 (NAVD88) Based on Global Positioning System

7. North Orientation Depicted Hereon is approximate North American Datum 1983 (NAD83), Based on Global Positioning System Observation.

8. Topographic features depicted were taken from NOAA Lidar Data and conforms to Topographic Accuracy Class "T-D", Contour Interval = 2', Vertical Datum = Approx. NAVD 88, an verified with field survey

MAP REFERENCE:

1. Division of Property - First Time Split, Prepared for Jeff Weaver, Day Street, Brooklyn, Connecticut, Date: June 2018, Scale: 1"=100", Prepared by Archer Surveying LLC
2. 10 Lot Subdivision, Prepared for Jeff Weaver, Day Street, Brooklyn, Connecticut, Date: May 2018, Scale: 1"=60", Prepared by Archer Surveying LLC
3. 6 Lot Subdivision, Prepared for Jeff Weaver, Day Street, Brooklyn, Connecticut, Date: February 2020, Scale: 1"=50", Prepared by Archer Surveying LLC

To My Knowledge and Belief this Map is substantially Correct as noted hereon.

Paul M. Archer LLS #70013 Date

No Certification is expressed or implied unless this map bears the embossed seal of the land surveyor whose signature appears hereon.

REVISIONS	
7/16	MISC

Existing Condition Plan

Prepared For:
Jeff Weaver
Day Street
Brooklyn, Connecticut

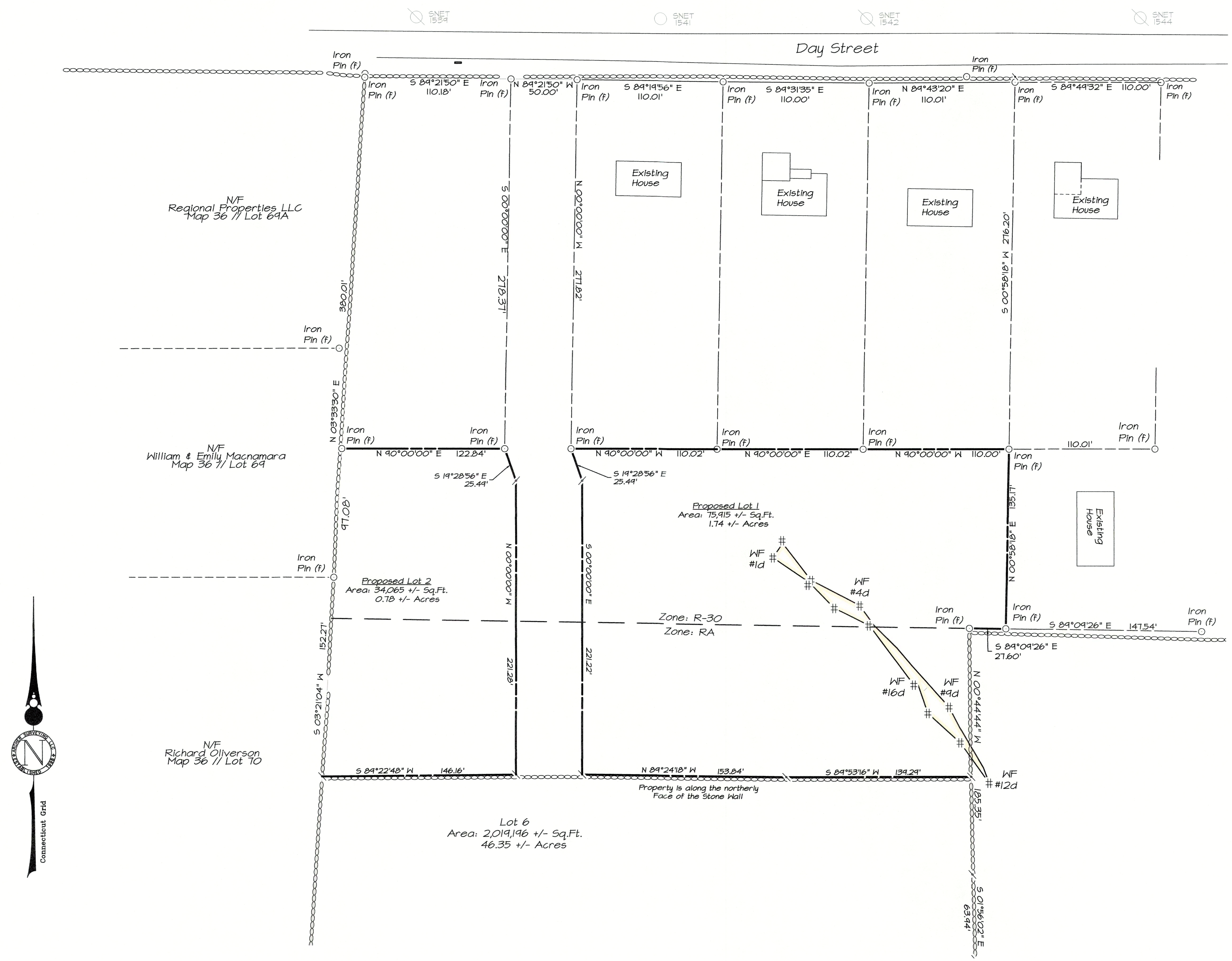
DRAWING SCALE: 1"=100' 0 50 100 200

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240 / (860) 928-1921

KWP associates
LOUIS J. SOJA, JR.

Sheet No.	x	Project No.	2212	Date:	May 1, 2023

ARCHER Surveying LLC



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- This Survey conforms to a Class "A-2" Horizontal Accuracy
  Class "T-2" Vertical Accuracy
- Survey Type: Subdivision Plan
- Boundary Determination: Resurvey on Existing Boundary
  Original on Proposed Boundary
- Intent: 4 Lot Subdivision

2. Total Lot Area = 49.48 Acres
   Total Area of Subdivision = 2.52 Acres

3. Zone = R-30 / RA

4. Owner / Applicant = Jeffrey Weaver
   P.O. Box 9, Brooklyn, CT 06234

5. Parcel is shown as Lot #6 on Assessor's Map #43

6. This Subdivision does include land areas within the Federal Emergency Management Agency's 100 year flood hazard area

7. Wetlands shown were flagged in the field by Joseph Theroux, Certified Soil Scientist in April 2018 and field located by Archer Surveying LLC

8. There are not Known endangered species or species of special concern on the subject property nor within 2 miles of the subject property per the December 2006 Natural Diversity Data Base Mapping

9. Parcel does not lie within an aquifer protection area

10. The Subdivision Regulations of the Town of Brooklyn are a part of this plan. Approval of this plan is contingent on completion of the requirements of said regulations, excepting any variances or modifications are on file in the office of the commission.

11. North orientation, bearings and coordinate values shown are based on North American Datum of 1983 (NAD83)

12. Passive Solar Energy techniques were considered in the design of the subdivision

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2. 10 Lot Subdivisioin, Prepared for Jeff Weaver, Day Street, Brooklyn, Connecticut, Date: May 2018, Scale: 1"=60", Prepared by Archer Surveying LLC

3. 6 Lot Subdivision, Prepared for Jeff Weaver, Day Street, Brooklyn, Connecticut, Date: February 2020, Scale: 1"=50", Prepared by Archer Surveying LLC

4. 4 Lot Subdivision, Prepared for Jeff Weaver, Day Street, Brooklyn, Connecticut, Date: July 2021, Scale: 1"=50", Prepared by Archer Surveying LLC

To My Knowledge and Belief this Map is substantially Correct as noted hereon.

Paul M. Archer LLS #70013 Date

No Certification is expressed or implied unless this map bears the embossed seal of the land surveyor whose signature appears hereon.

LEGEND

EXISTING PROPERTY LINE
PROPOSED PROPERTY LINE
EXISTING EASEMENT LINE
ZONE LINE
STONEWALL
STONEWALL REMAINS
UTILITY POLE
100 YEAR FLOOD LIMIT
EXISTING INDEX CONTOUR
EXISTING CONTOUR
WETLANDS FLAG
BUILDING SETBACK
IRON PIN FOUND
PROPERTY POINT

REVISIONS

Subdivision Plan
"2 Lot Subdivision"

Prepared For:

Jeffrey Weaver
Day Street
Brooklyn, Connecticut

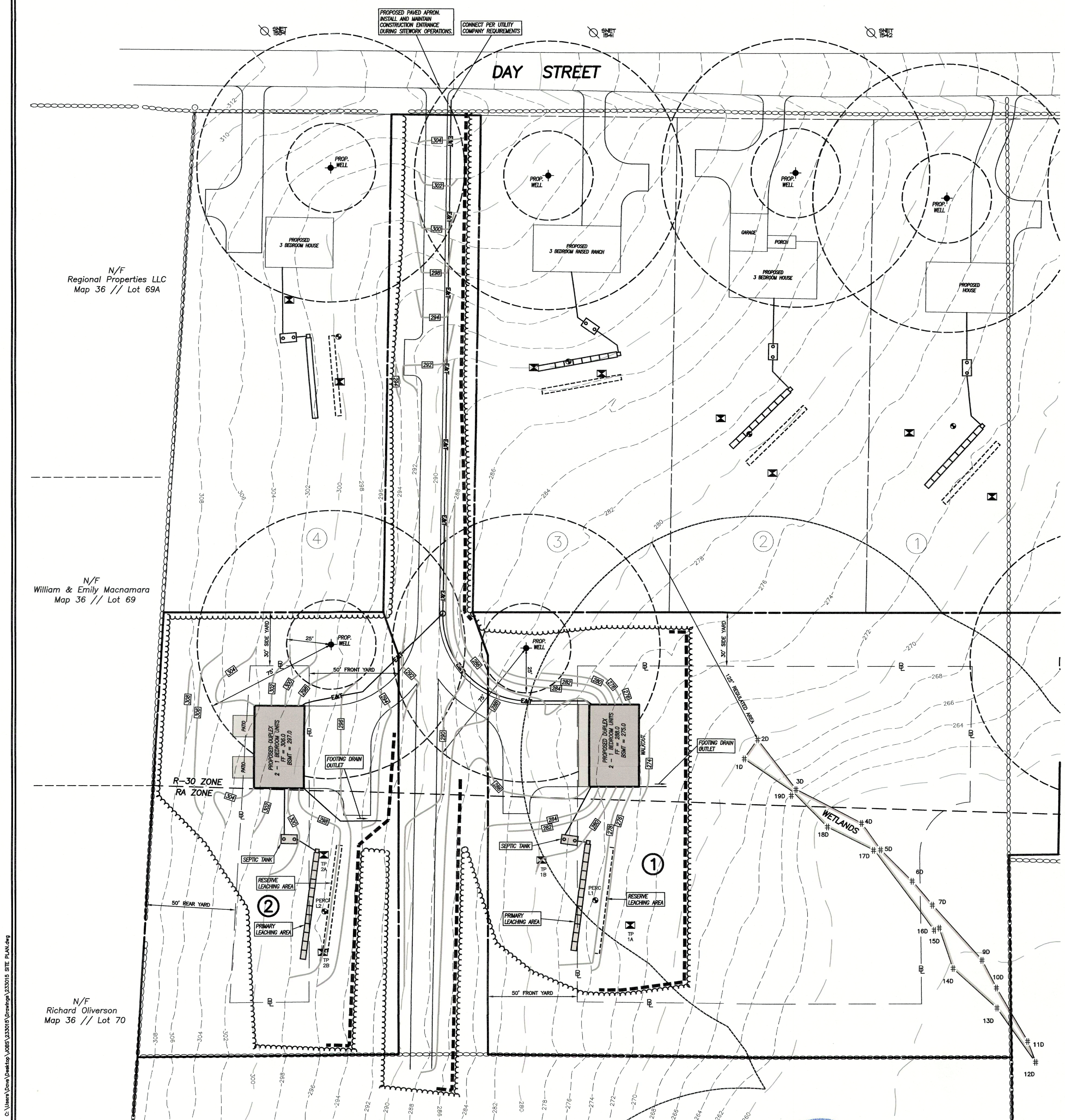
DRAWING SCALE: 1"=40' 0 20 40 80

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240 / (860) 928-1921

KWP associates
LOUIS J. SOJA, JR.

Sheet No.	3 of 6	Project No.	2212	Date:	May 1, 2023

ARCHER Surveying LLC



N

SEPTIC SYSTEM DESIGN DATA – LOT 1

Percolation Rate	=	3.33 min. / in.
2 bedroom duplex requires	=	660 s.f. effective leaching area
Effective Leaching area	=	11.0 s.f. / l.f. of trench
Length Required	=	660/11.0 = 60 l.f.
Length Provided	=	12 units @ 5 l.f. = 60 l.f.
Min. Leaching System Spread (MLSS)	=	20.0 x 2.0 x 1.0 = 40'
MLSS Provided	=	60'

LEACHING FIELD

60 l.f. Mantis 536-8 leaching units (12 units @ 5 l.f. each)
Maximum depth into existing grade = 6"

SEPTIC SYSTEM DESIGN DATA – LOT 2

Percolation Rate	=	3.33 min. / in.
2 bedroom duplex requires	=	660 s.f. effective leaching area
Effective Leaching area	=	11.0 s.f. / l.f. of trench
Length Required	=	660/11.0 = 60 l.f.
Length Provided	=	12 units @ 5 l.f. = 60 l.f.
Min. Leaching System Spread (MLSS)	=	26.0 x 2.0 x 1.0 = 52'
MLSS Provided	=	60'

LEACHING FIELD

60 l.f. Mantis 536-8 leaching units (12 units @ 5 l.f. each)
Maximum depth into existing grade = 2"

LEGEND

- TEST PIT
- WETLAND FLAG
- STONE WALL
- EXISTING INDEX CONTOUR
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED UTILITIES
- PROPOSED CLEARING LIMITS
- PROPOSED SILT FENCE
- BUILDING SETBACK LINE

SURVEY NOTES:

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20-300b-1 through 20-300b-20 as amended on October 26, 2018;

   This map was prepared from record research, other maps, limited field measurements and other sources. It is not to be construed as a Property/Boundary or Limited Property/Boundary Survey and is subject to such facts as said surveys may disclose.

   – This survey conforms to a Class "C" horizontal accuracy.

   – Topographic features conform to a Class "T-2" accuracy.

   – Survey Type: General Location Survey.

2. The subject parcel is shown as a portion of lot #6, on assessor's map #43.
3. Zone: R-30 & RA.
4. Owner of record: Jeffrey Weaver
   P.O. Box 9
   Brooklyn, CT 06234
5. The intent of this survey is to show the residential development of the subject property.
6. Elevations based on NAVD 1988. Contour interval = 2'.
7. North orientation is referenced to Connecticut State Plane Coordinates, NAD83.
8. The locations of existing utilities are based on surface evidence and other sources of information. Before any construction is to commence contact "CALL BEFORE YOU DIG" at 1-800-922-4455.
9. Wetlands were flagged in the field by Joseph Theroux, certified soil scientist in April, 2018.

Site Development Plan

Prepared For:

Jeffrey Weaver
Day Street
Brooklyn, Connecticut

DRAWING SCALE: 1"=30'   0   30'   60'

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240

Provost & Rovero, Inc.
Civil Engineering • Surveying • Site Planning
Structural • Mechanical • Architectural Engineering
57 East Main Street, P.O. Box 191
Plainfield, Connecticut 06374
(860) 230-0856 - FAX: (860) 230-0860
info@prorovinc.com
www.prorovinc.com

REVISIONS

DATE	DESCRIPTION

Sheet No. 4 OF 6 | Project No. 233015 | Date: 5/1/2023

TO MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

PAUL M. ARCHER LLS #70013   DATE

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS THE EMBOSSED SEAL OF THE LAND SURVEYOR WHOSE SIGNATURE APPEARS HEREON.

STATE OF CONNECTICUT DAVID J. HELD No. 24287 LICENSED PROFESSIONAL ENGINEER

5/1/2023
ENGINEER   DATE

ARCHER Surveying LLC

EROSION AND SEDIMENT CONTROL PLAN:

REFERENCE IS MADE TO:

1. Connecticut Guidelines for Soil Erosion and Sediment Control 2002 (2002 Guidelines).
2. Soil Survey of Windham County Connecticut, U.S.D.A. Soil Conservation Service 1983.

DEVELOPMENT SCHEDULE: (Individual Lots):

1. Prior to any work on site, the limits of disturbance shall be clearly flagged in the field by a Land Surveyor, licensed in the State of Connecticut. Once the limits of clearing are flagged, they shall be reviewed and approved by an agent of the Town.
2. Install and maintain erosion and sedimentation control devices as shown on these plans. All erosion control devices shall be inspected by an agent of the Town. Any additional erosion control devices required by the Town's Agent shall be installed and inspected prior to any construction on site. (See silt fence installation notes.)
3. Install construction entrance.
4. Construction will begin with clearing, grubbing and rough grading of the proposed site. The work will be confined to areas adjacent to the proposed building, septic system and driveway. Topsoil will be stockpiled on site and utilized during final grading.
5. Begin construction of the house, septic system and well.
6. Disturbed areas shall be seeded and stabilized as soon as possible to prevent erosion.
7. The site will be graded so that all possible trees on site will be saved to provide buffers to adjoining lots.

DEVELOPMENT CONTROL PLAN:

1. Development of the site will be performed by the individual lot owner, who will be responsible for the installation and maintenance of erosion and sediment control measures required throughout construction.
2. The sedimentation control mechanisms shall remain in place from start of construction until permanent vegetation has been established. The representative for the Town of Brooklyn will be notified when sediment and erosion control structures are initially in place. Any additional soil & erosion control measures requested by the Town or its agent, shall be installed immediately. Once the proposed development, seeding and planting have been completed, the representative shall again be notified to inspect the site. The control measures will not be removed until this inspection is complete.
3. All stripping is to be confined to the immediate construction area. Topsoil shall be stockpiled so that slopes do not exceed 2 to 1. A hay bale sediment barrier is to surround each stockpile and a temporary vegetative cover shall be provided.
4. Dust control will be accomplished by spraying with water and if necessary, the application of calcium chloride.
5. The proposed planting schedule is to be adhered to during the planting of disturbed areas throughout the proposed construction site.
6. Final stabilization of the site is to follow the procedures outlined in "Permanent Vegetative Cover". If necessary a temporary vegetative cover is to be provided until a permanent cover can be applied.

SILT FENCE INSTALLATION AND MAINTENANCE:

1. Dig a 6" deep trench on the uphill side of the barrier location.
2. Position the posts on the downhill side of the barrier and drive the posts 1.5 feet into the ground.
3. Lay the bottom 6" of the fabric in the trench to prevent undermining and backfill.
4. Inspect and repair barrier after heavy rainfall.
5. Inspections will be made at least once per week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater to determine maintenance needs.
6. Sediment deposits are to be removed when they reach a height of 1 foot behind the barrier or half the height of the barrier and are to be deposited in an area which is not regulated by the inland wetlands commission.
7. Replace or repair the fence within 24 hours of observed failure. Failure of the fence has occurred when sediment fails to be retained by the fence because:
- the fence has been overtopped, undercut or bypassed by runoff water,
- the fence has been moved out of position (knocked over), or
- the geotextile has decomposed or been damaged.

HAY BALE INSTALLATION AND MAINTENANCE:

1. Bales shall be placed as shown on the plans with the ends of the bales tightly abutting each other.
2. Each bale shall be securely anchored with at least 2 stakes and gaps between bales shall be wedged with straw to prevent water from passing between the bales.
3. Inspect bales at least once per week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs.
4. Remove sediment behind the bales when it reaches half the height of the bale and deposit in an area which is not regulated by the Inland Wetlands Commission.
5. Replace or repair the barrier within 24 hours of observed failure. Failure of the barrier has occurred when sediment fails to be retained by the barrier because:
- the barrier has been overtopped, undercut or bypassed by runoff water,
- the barrier has been moved out of position, or
- the hay bales have deteriorated or been damaged.

TEMPORARY VEGETATIVE COVER:

SEED SELECTION

Grass species shall be appropriate for the season and site conditions. Appropriate species are outlined in Figure TS-2 in the 2002 Guidelines.

TIMING CONSIDERATIONS

Seed with a temporary seed mixture within 7 days after the suspension of grading work in disturbed areas where the suspension of work is expected to be more than 30 days but less than 1 year.

SITE PREPARATION

Install needed erosion control measures such as diversions, grade stabilization structures, sediment basins and grassed waterways.

Grade according to plans and allow for the use of appropriate equipment for seedbed preparation, seeding, mulch application, and mulch anchoring.

SEEDBED PREPARATION

Loosen the soil to a depth of 3-4 inches with a slightly roughened surface. If the area has been recently loosened or disturbed, no further roughening is required. Soil preparation can be accomplished by tracking with a bulldozer, discing, harrowing, raking or dragging with a section of chain link fence. Avoid excessive compaction of the surface by equipment traveling back and forth over the surface. If the slope is tracked, the cleat marks shall be perpendicular to the anticipated direction of the flow of surface water.

If soil testing is not practical or feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 300 pounds per acre or 7.5 pounds per 1,000 square feet of 10-10-10 or equivalent. Additionally, lime may be applied using rates given in Figure TS-1 in the 2002 Guidelines.

SEEDING

Apply seed uniformly by hand cyclone seeder, drill, cultipacker type seeder or hydroseeder at a minimum rate for the selected species. Increase seeding rates by 10% when hydroseeding.

MULCHING

Temporary seedings made during optimum seeding dates shall be mulched according to the recommendations in the 2002 Guidelines. When seeding outside of the recommended dates, increase the application of mulch to provide 95%-100% coverage.

MAINTENANCE

Inspect seeded area at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for seed and mulch movement and rill erosion.

Where seed has moved or where soil erosion has occurred, determine the cause of the failure. Repair eroded areas and install additional controls if required to prevent reoccurrence of erosion.

Continue inspections until the grasses are firmly established. Grasses shall not be considered established until a ground cover is achieved which is mature enough to control soil erosion and to survive severe weather conditions (approximately 80% vegetative cover).

PERMANENT VEGETATIVE COVER:

Refer to Permanent Seeding Measure in the 2002 Guidelines for specific applications and details related to the installation and maintenance of a permanent vegetative cover. In general, the following sequence of operations shall apply:

1. Topsoil will be replaced once the excavation and grading has been completed. Topsoil will be spread at a minimum compacted depth of 4".
2. Once the topsoil has been spread, all stones 2" or larger in any dimension will be removed as well as debris.
3. Apply agricultural ground limestone at a rate of 2 tons per acre or 100 lbs. per 1000 s.f. Apply 10-10-10 fertilizer or equivalent at a rate of 300 lbs. per acre or 7.5 lbs. per 1000 s.f. Work lime and fertilizer into the soil to a depth of 4".
4. Inspect seedbed before seeding. If traffic has compacted the soil, retill compacted areas.
5. Apply the chosen grass seed mix. The recommended seeding dates are: April 1 to June 15 & August 15 - October 1.
6. Following seeding, firm seedbed with a roller. Mulch immediately following seeding. If a permanent vegetative stand cannot be established by September 30, apply a temporary cover on the topsoil such as netting, mat or organic mulch.

ARCHER
Surveying LLC

EROSION AND SEDIMENT CONTROL NARRATIVE:

PRINCIPLES OF EROSION AND SEDIMENT CONTROL

The primary function of erosion and sediment controls is to absorb erosional energies and reduce runoff velocities that force the detachment and transport of soil and/or encourage the deposition of eroded soil particles before they reach any sensitive area.

KEEP LAND DISTURBANCE TO A MINIMUM

The more land that is in vegetative cover, the more surface water will infiltrate into the soil, thus minimizing stormwater runoff and potential erosion. Keeping land disturbance to a minimum not only involves minimizing the extent of exposure at any one time, but also the duration of exposure. Phasing, sequencing and construction scheduling are interrelated. Phasing divides a large project into distinct sections where construction work over a specific area occurs over distinct periods of time and each phase is not dependent upon a subsequent phase in order to be functional. A sequence is the order in which construction activities are to occur during any particular phase. A sequence should be developed on the premise of "first things first" and "last things last" with proper attention given to the inclusion of adequate erosion and sediment control measures. A construction schedule is a sequence with time lines applied to it and should address the potential overlap of actions in a sequence which may be in conflict with each other.

- Limit areas of clearing and grading. Protect natural vegetation from construction equipment with fencing, tree armoring, and retaining walls or tree wells.
- Route traffic patterns within the site to avoid existing or newly planted vegetation.
- Phase construction so that areas which are actively being developed at any one time are minimized and only that area under construction is exposed. Clear only those areas essential for construction.
- Sequence the construction of storm drainage systems so that they are operational as soon as possible during construction. Ensure all outlets are stable before outletting storm drainage flow into them.
- Schedule construction so that final grading and stabilization is completed as soon as possible.

SLOW THE FLOW

Detachment and transport of eroded soil must be kept to a minimum by absorbing and reducing the erosive energy of water. The erosive energy of water increases as the volume and velocity of runoff increases. The volume and velocity of runoff increases during development as a result of reduced infiltration rates caused by the removal of existing vegetation, removal of topsoil, compaction of soil and the construction of impervious surfaces.

- Use diversions, stone dikes, silt fences and similar measures to break flow lines and dissipate storm water energy.
- Avoid diverting one drainage system into another without calculating the potential for downstream flooding or erosion.

KEEP CLEAN RUNOFF SEPARATED

Clean runoff should be kept separated from sediment laden water and should not be directed over disturbed areas without additional controls. Additionally, prevent the mixing of clean off-site generated runoff with sediment laden runoff generated on-site until after adequate filtration of on-site waters has occurred.

- Segregate construction waters from clean water.
- Divert site runoff to keep it isolated from wetlands, watercourses and drainage ways that flow through or near the development until the sediment in that runoff is trapped or detained.

REDUCE ON SITE POTENTIAL INTERNALLY AND INSTALL PERIMETER CONTROLS

While it may seem less complicated to collect all waters to one point of discharge for treatment and just install a perimeter control, it can be more effective to apply internal controls to many small sub-drainage basins within the site. By reducing sediment loading from within the site, the chance of perimeter control failure and the potential off-site damage that it can cause is reduced. It is generally more expensive to correct off-site damage than it is to install proper internal controls.

- Control erosion and sedimentation in the smallest drainage area possible. It is easier to control erosion than to contend with sediment after it has been carried downstream and deposited in unwanted areas.
- Direct runoff from small disturbed areas to adjoining undisturbed vegetated areas to reduce the potential for concentrated flows and increase settlement and filtering of sediments.
- Concentrated runoff from development should be safely conveyed to stable outlets using rip rapped channels, waterways, diversions, storm drains or similar measures.
- Determine the need for sediment basins. Sediment basins are required on larger developments where major grading is planned and where it is impossible or impractical to control erosion at the source. Sediment basins are needed on large and small sites when sensitive areas such as wetlands, watercourses, and streets would be impacted by off-site sediment deposition. Do not locate sediment basins in wetlands or permanent or intermittent watercourses. Sediment basins should be located to intercept runoff prior to its entry into the wetland or watercourse.
- Grade and landscape around buildings and septic systems to divert water away from them.

SEPTIC SYSTEM CONSTRUCTION NOTES

1. The building, septic system and well shall be accurately staked in the field by a licensed Land Surveyor in the State of Connecticut, prior to construction.
2. Topsoil shall be removed and in the area of the primary leaching field scarified, prior to placement of septic fill. Septic fill specifications are as follows:

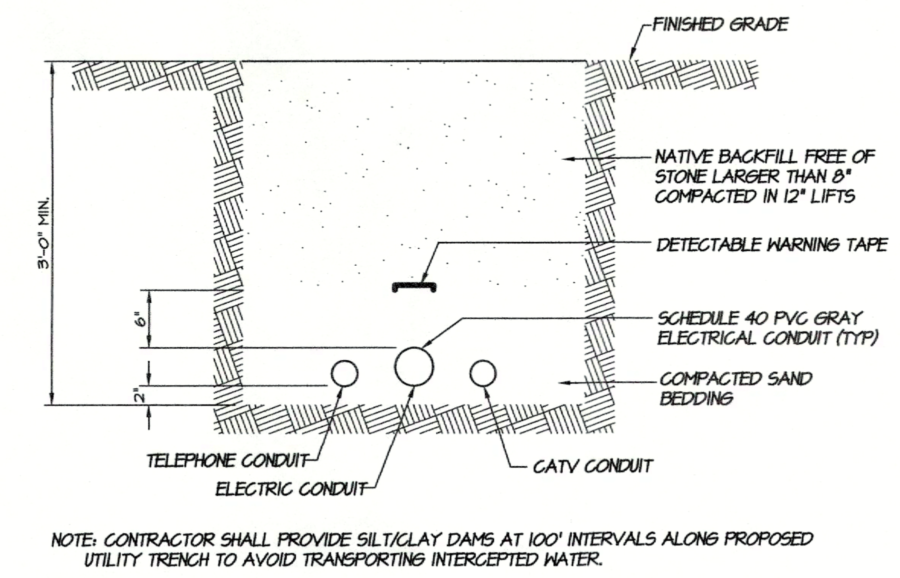
   - Max. percent of gravel (material between No. 4 & 3 inch sieves) = 45%

   GRADATION OF FILL (MINUS GRAVEL)

SIEVE SIZE	PERCENT PASSING (WET SIEVE)	PERCENT PASSING (DRY SIEVE)
No. 4	100%	100%
No. 10	70% - 100%	70% - 100%
No. 40	10% - 50%	10% - 75%
No. 100	0% - 20%	0% - 5%
No. 200	0% - 5%	0% - 2.5%

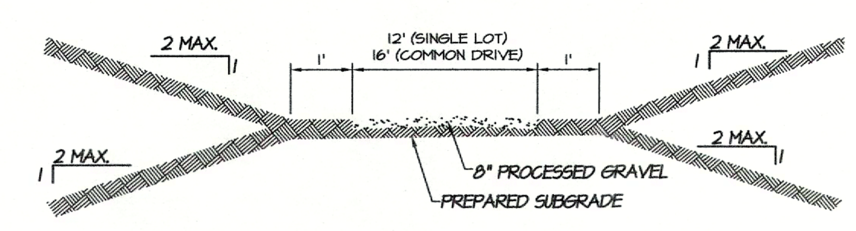
   Fill material shall be approved by the sanitarian prior to placement. It shall be compacted in 6" lifts and shall extend a minimum of ten feet (10') beyond the last leaching trench before tapering off.

3. Septic tank shall be two compartment precast 1500 gallon tank with gas deflector and outlet filter as manufactured by Jolley Precast, Inc. or equal.
4. Distribution boxes shall be 4 hole precast concrete as manufactured by Jolley Precast, Inc. or equal.
5. All precast structures such as septic tanks, distribution boxes, etc. shall be set level on six inches (6") of compacted gravel base at the elevations specified on the plans.
6. Solid distribution pipe shall be 4" diameter PVC meeting ASTM D-3034 SDR 35 with compression gasket joints. It shall be laid true to the lines and grades shown on the plans and in no case have a slope less than 0.125 inches per foot.
7. Perforated distribution pipe shall be 4" diameter PVC meeting ASTM D-2729 or ASTM D-3350, 1500 lb. minimum crush.
8. Sewer pipe from the foundation wall to the septic tank shall be schedule 40 PVC meeting ASTM D 1785. It shall be laid true to the grades shown on the plans and in no case shall have a slope less than 0.25 inches per foot.
9. Force main pressure pipe from pump chamber to the leaching field shall be 2" diameter pvc meeting ASTM D 2241 SDR 21.
10. Solid footing drain outlet pipe shall be 4" Diameter PVC meeting ASTM D 3034, SDR 35 with compression gasketed joints. Footing drain outlet pipe shall not be backfilled with free draining material, such as gravel, broken stone, rock fragments, etc.



NOTE: CONTRACTOR SHALL PROVIDE SILT/CLAY DAMS AT 100' INTERVALS ALONG PROPOSED UTILITY TRENCH TO AVOID TRANSPORTING INTERCEPTED WATER.

NOT TO SCALE



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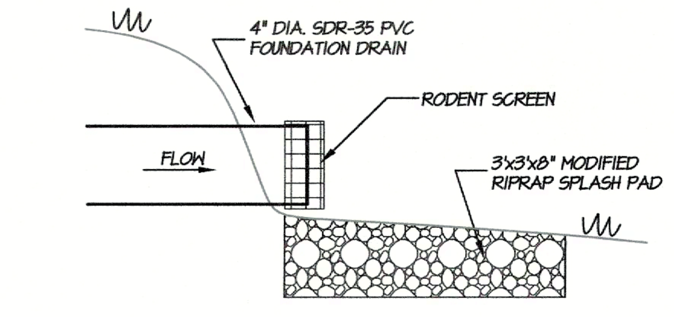
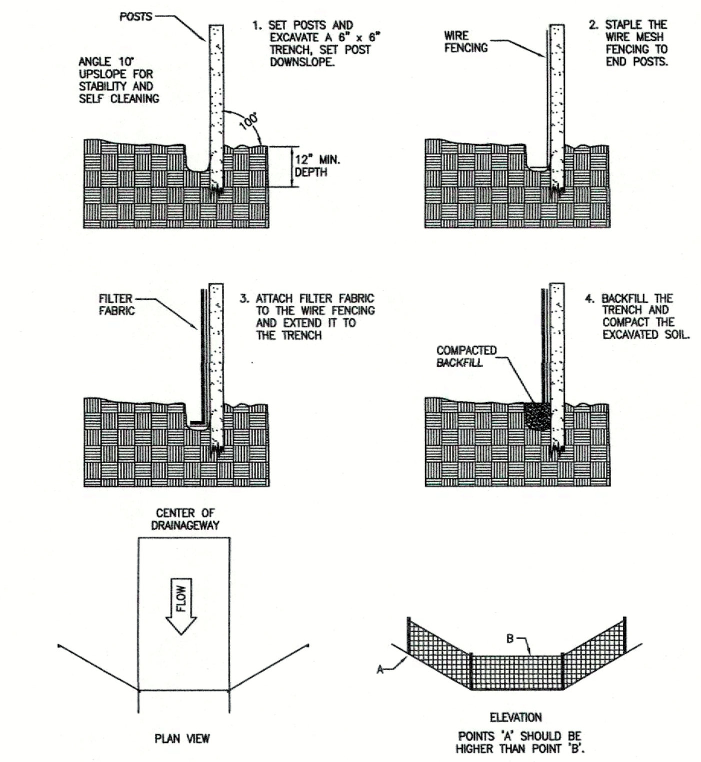


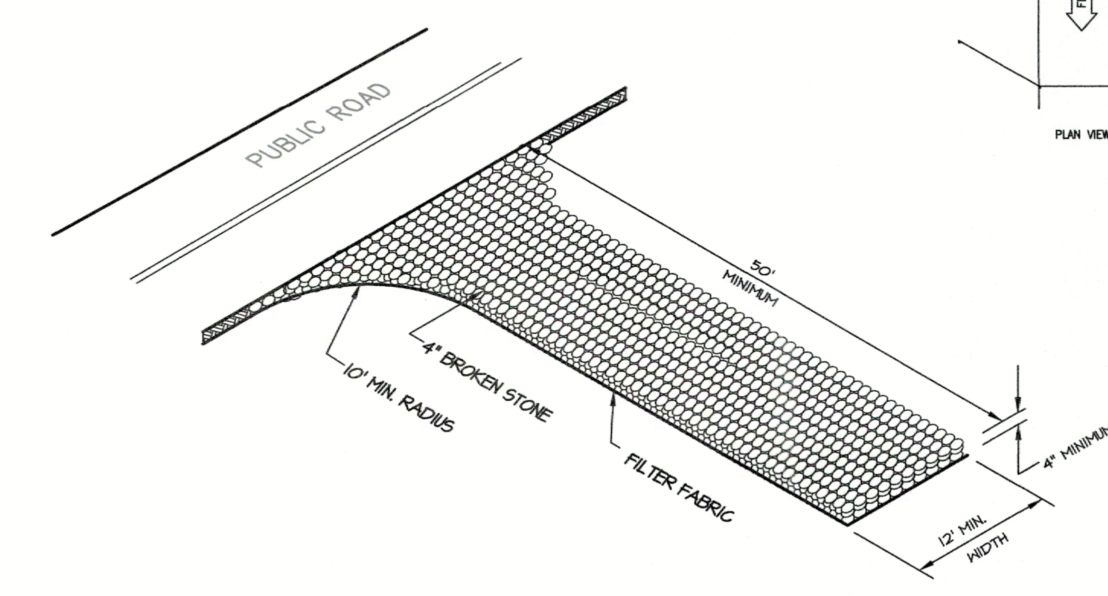
FOUNDATION DRAIN OUTLET

NOT TO SCALE



SILT FENCE

NOT TO SCALE



CONSTRUCTION ENTRANCE

NOT TO SCALE

TEST PIT OBSERVATIONS 2/16/2023
Observed by: Donovan Moe, NDDH

TEST PIT	DEPTH	PROFILE
1A	0–12"	topsoil
	12–36"	brown sandy loam
	36–48"	tan fine sandy loam with pockets of rotten rock
	48–96"	wet gray sandy loam with rotten rock
	Mottling	36"
	GWT	48" (seepage)
	Ledge	N/A
	Roots	16"
	Restrictive	36"
1B	0–6"	topsoil
	6–30"	brown sandy loam to a tan fine sandy loam
	30–87"	compact gray mottled sandy loam with fines
	87–93"	groundwater
	Mottling	30"
	GWT	87" (seepage @ 42")
	Ledge	N/A
	Roots	18"
	Restrictive	30"

TEST PIT OBSERVATIONS 2/16/2023
Observed by: Donovan Moe, NDDH

TEST PIT	DEPTH	PROFILE
2A	0–5"	topsoil
	05–26"	brown sandy loam w/fines
	26–95"	Compact Gray Sandy Loam
	Mottling	26"
	GWT	N/A
	Ledge	N/A
	Roots	5"
	Restrictive	26"
2B	0–6"	topsoil
	6–26"	brown sandy loam w/fines
	26–88"	compact gray mottled sandy loam with fines
	88–94"	groundwater
	Mottling	26"
	GWT	88"
	Ledge	N/A
	Roots	20"
	Restrictive	26"

PERCOLATION TESTS 2/13/2023
Observed by: Donovan Moe, NDDH

Perc L1
Depth: 24"

TIME	DEPTH
12:13	2.75"
12:18	12"
12:28	18.5"
12:33	20.5"
12:38	22"

Percolation Rate: 3.33 min/inch

PERCOLATION TESTS 2/13/2023
Observed by: Donovan Moe, NDDH

Perc L2
Depth: 20"

TIME	DEPTH
12:47	1"
12:49	5"
12:52	8"
12:55	10"
1:00	13"
1:05	15"
1:10	16.5"
1:15	18"

Percolation Rate: 3.33 min/inch

REVISIONS

Detail Sheet
"2 Lot Subdivision"

Prepared For:

Jeffrey Weaver
Day Street
Brooklyn, Connecticut

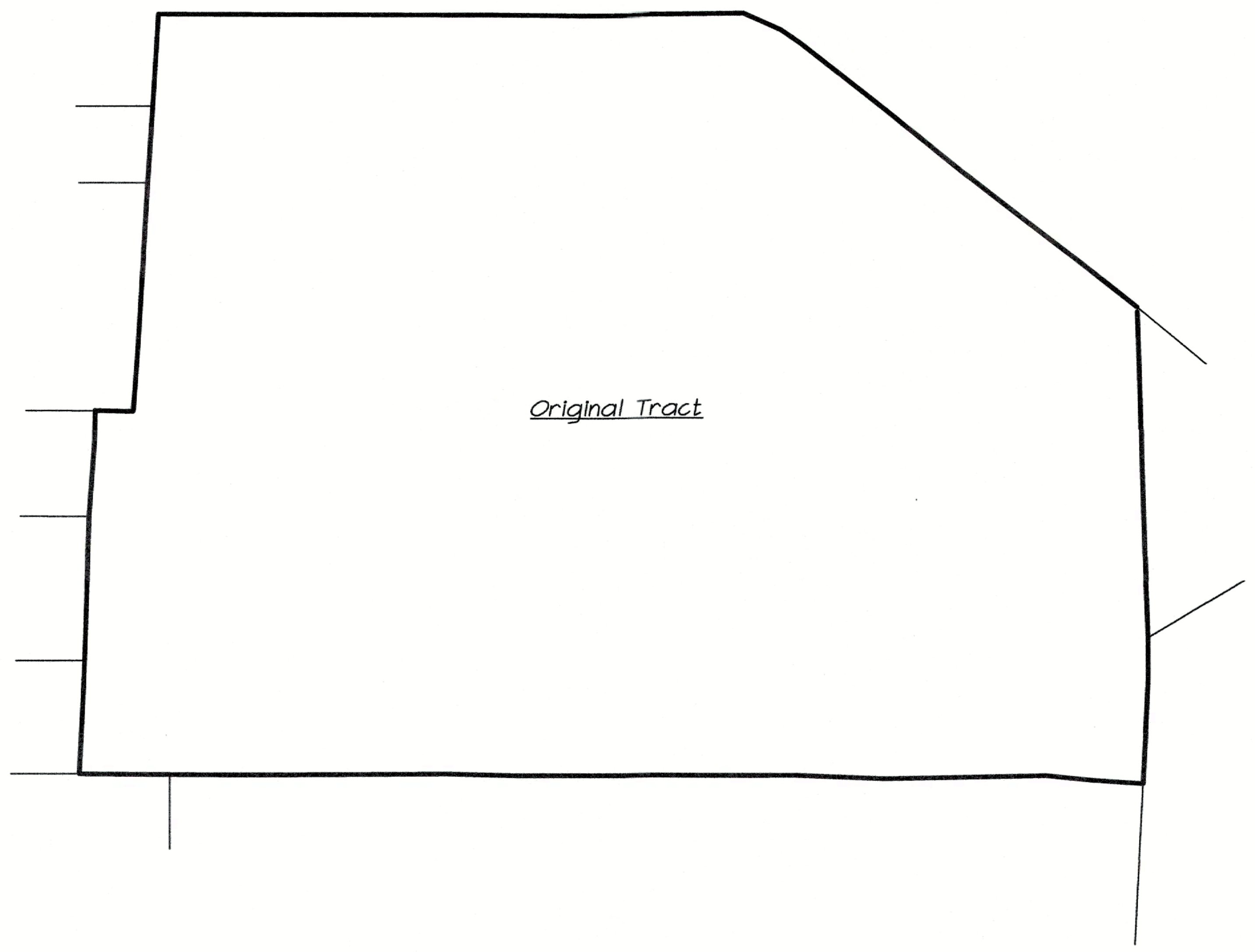
DRAWING SCALE: 1"=40'
0 20 40 80

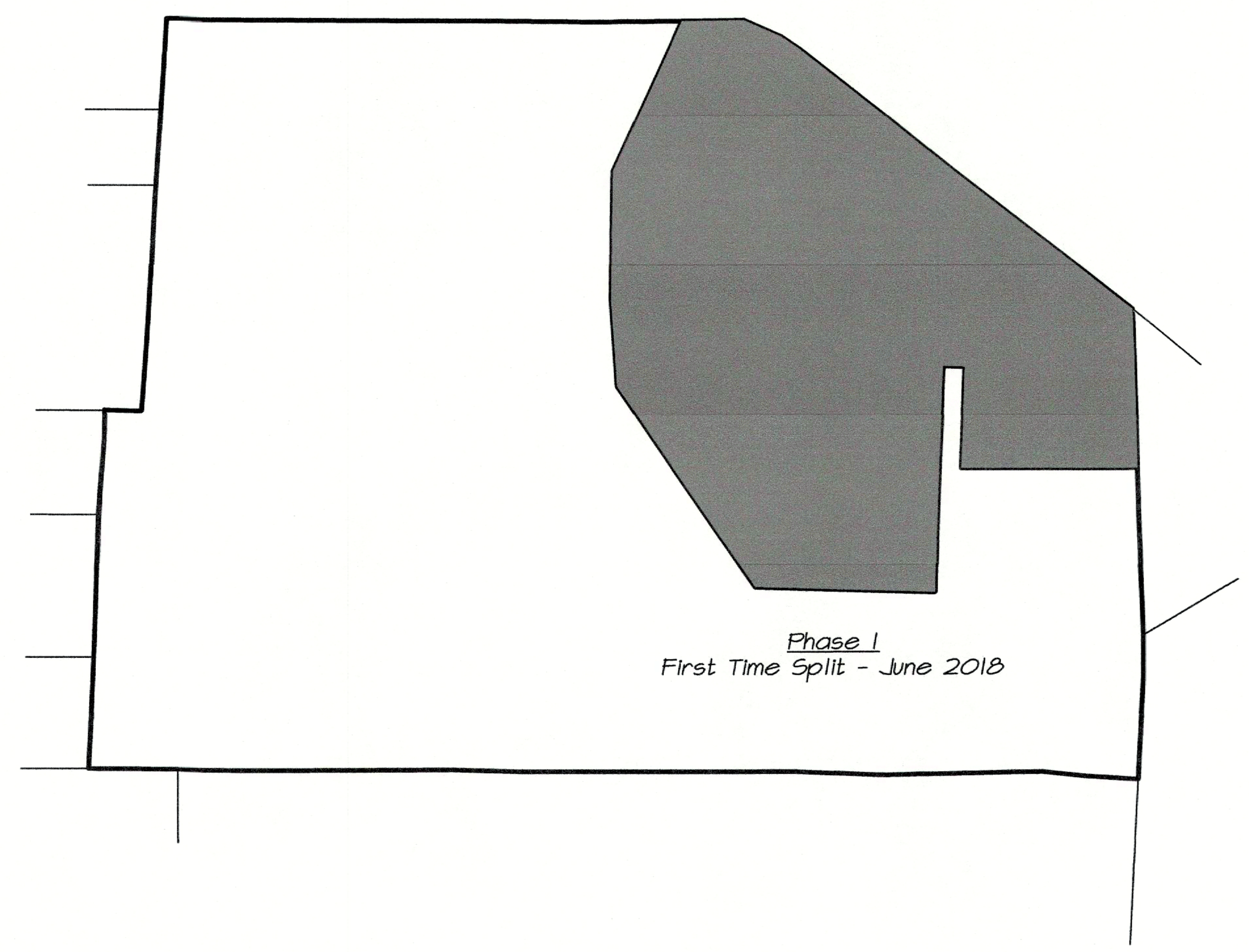
ARCHER Surveying L.L.C.
18 Providence Road, Brooklyn, CT
(860) 779-2240 / (860) 928-1921

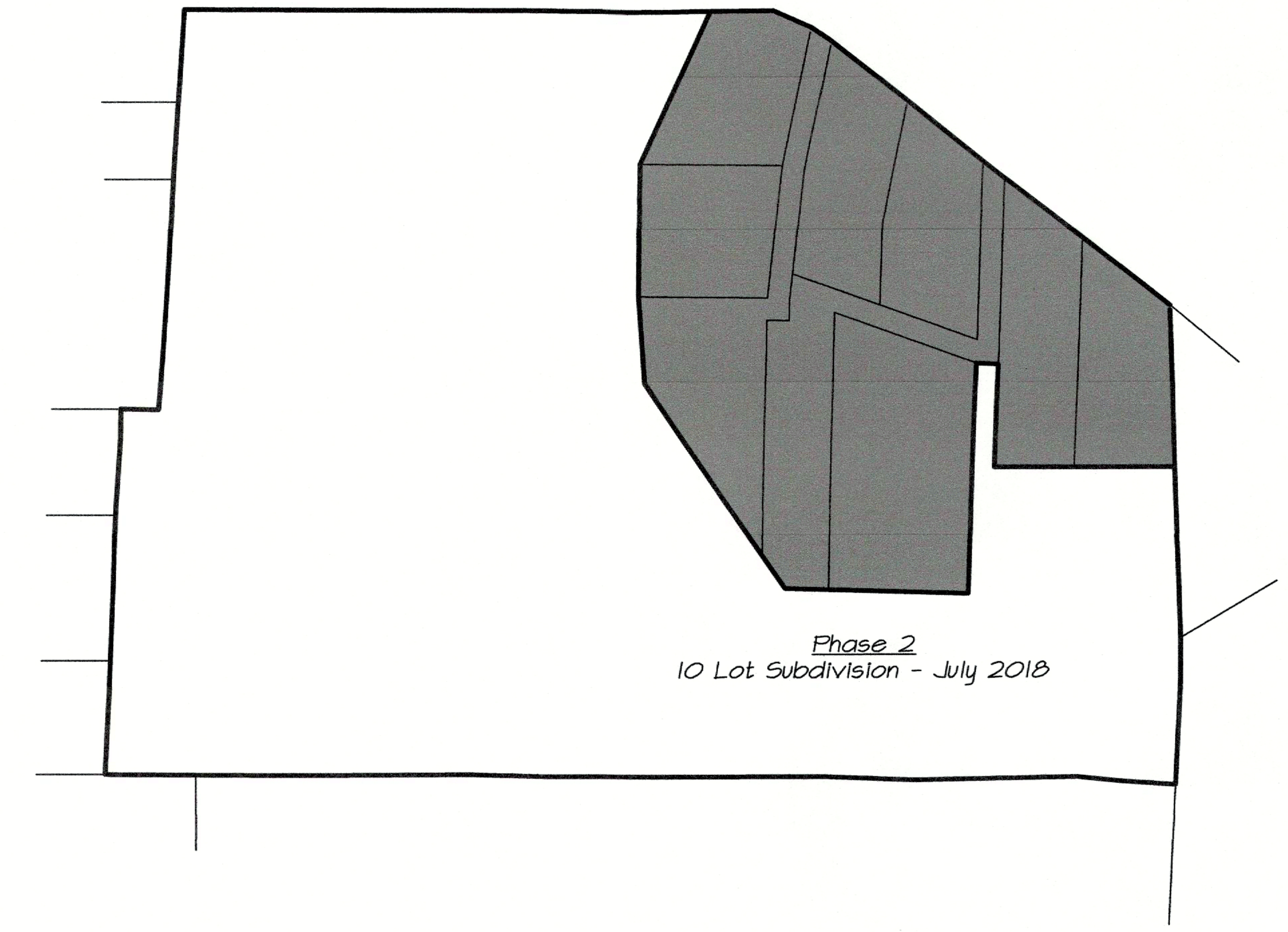
KWP associates
SURVEYING ~ ENGINEERING ~ SITE PLANNING

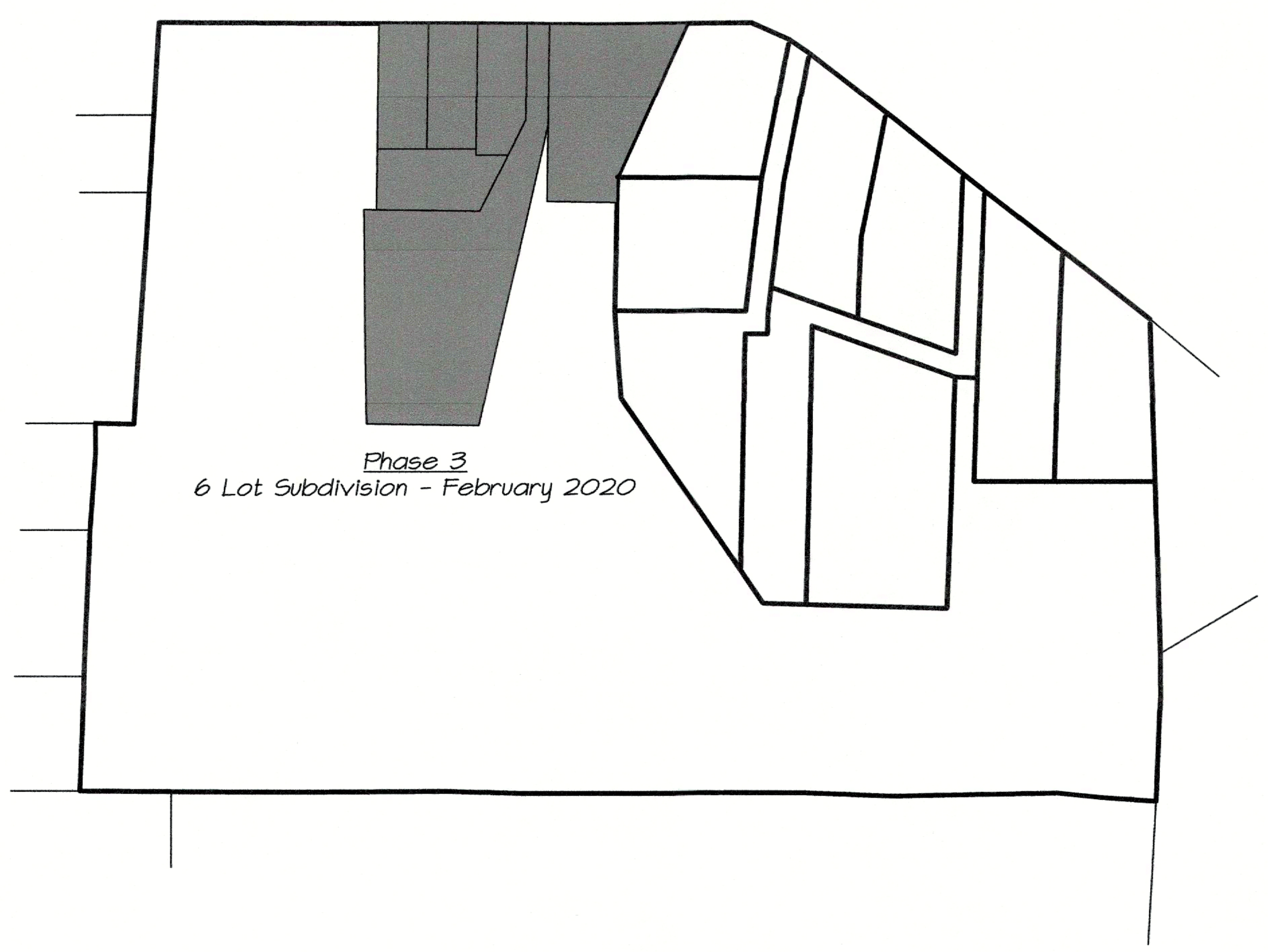
LOUIS J. SOJA, JR.
LAND SURVEYING-LAND PLANNING

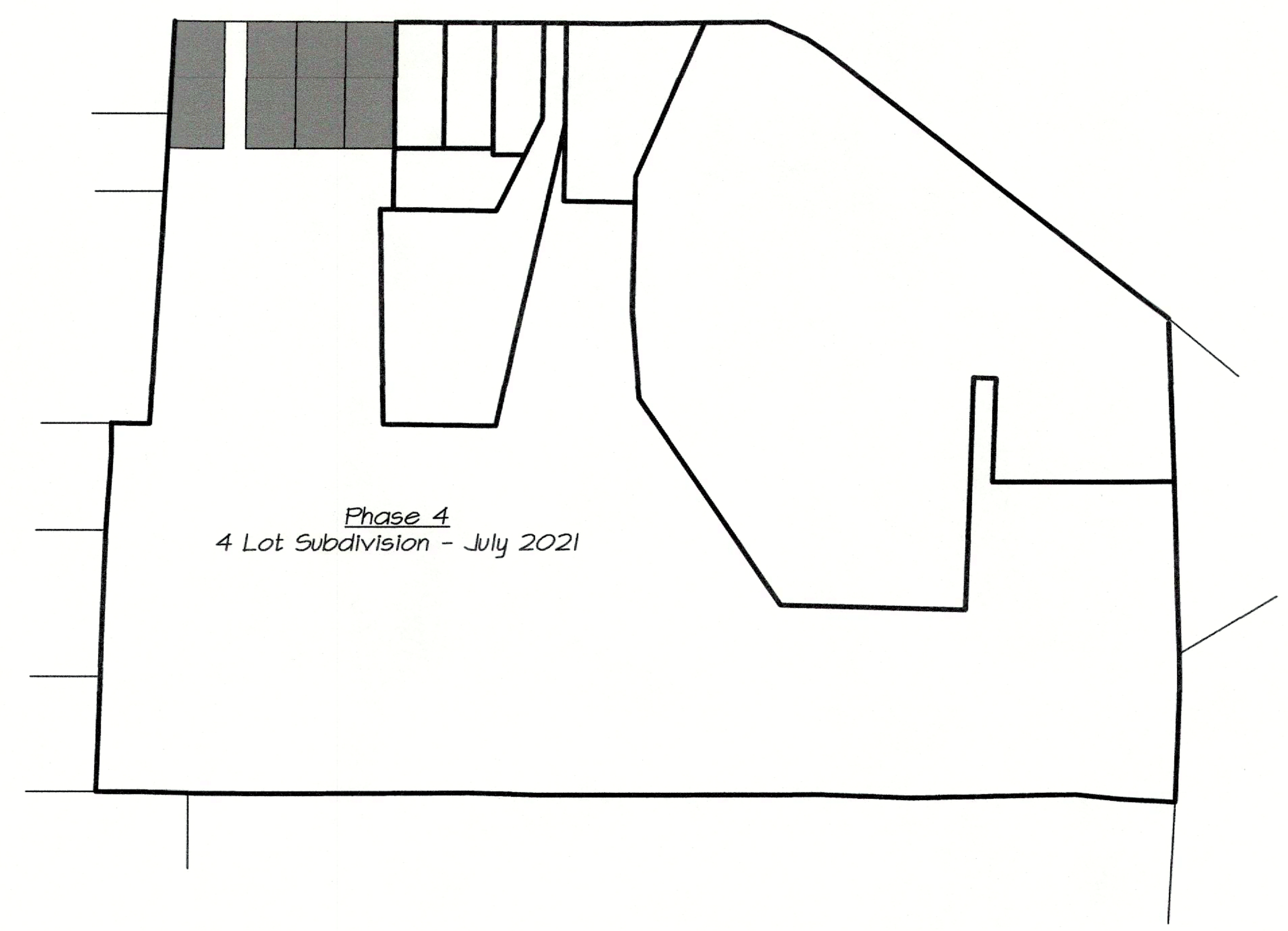
Sheet No.	5 of 6	Project No.	2212	Date:	May 1, 2023

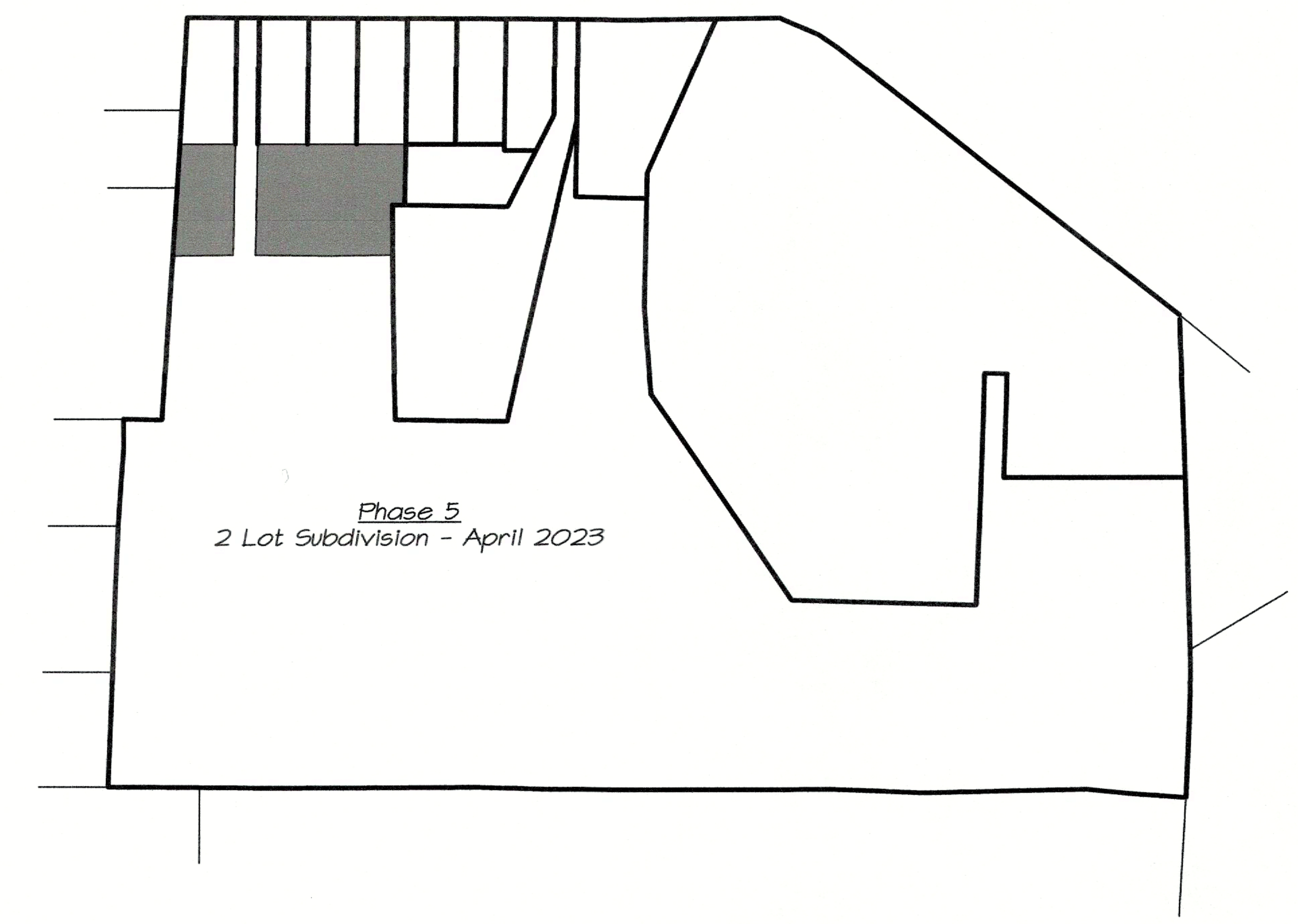












Grantor	Grantee	Date	Vol. / Pg.
	Michael & Sara Lancer	October 1969	48 / 266
Michael & Sara Lancer	Harold Lancer	July 1989	96 / 379
Harold Lancer	Harold Lancer Trustee	July 1997	184 / 89
Harold Lancer Trustee	Jeffrey Weaver	April 2018	608 / 299
Jeffrey A Weaver	Jeffrey A Waver	June 2018	611 /81

REVISIONS	
DATE	DESCRIPTION

History Plan
"2 Lot Subdivision"

Prepared For:

Jeffrey Weaver
Day Street
Brooklyn, Connecticut

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779-2240

Sheet No.	6 OF 6	Project No.	2212	Date:	May 1, 2023

ARCHER Surveying LLC

NORTHEAST DISTRICT DEPARTMENT OF HEALTH

69 SOUTH MAIN STREET • UNIT 4 • BROOKLYN, CT 06234
PHONE (860) 774-7350 • FAX (860) 774-1308 • WEB SITE WWW.NDDH.ORG

May 10, 2023

Jeffrey Weaver
PO Box 9
Brooklyn, CT 06234

SUBJECT: FILE #23000175 -- DAY STREET MAP #43, LOT #6 (PART 4) BROOKLYN, CT

Dear Jeffrey Weaver:

Upon review of the subdivision plan (ARCHER SURVEYING LLC, WEAVER, PROT #233015, DRAWN 05/01/2023) submitted to this office on 05/03/2023 for the above referenced subdivision, The Northeast District Department of Health concurs with the feasibility of this parcel of land for future development. Additionally, approval to construct individual subsurface sewage disposal systems may be granted based on compliance with appropriate regulations and the Technical Standards as they apply to individual building lots with the following notations:

1. Lots:1 and 2 require that a Professional Engineer design and submit individual plot plan(s) for review and approval prior to construction.
2. Proposed lots are based on _2_ bedroom multi-family homes at the locations tested. If the number of bedrooms are increased, septic system sizes will require an increase per the Technical Standards.
3. If the proposed septic area is moved, additional testing may be required
4. Footing drain on lot #2 must be relocated on Professional Engineer Design to meet 25 foot separation distance to septic system.

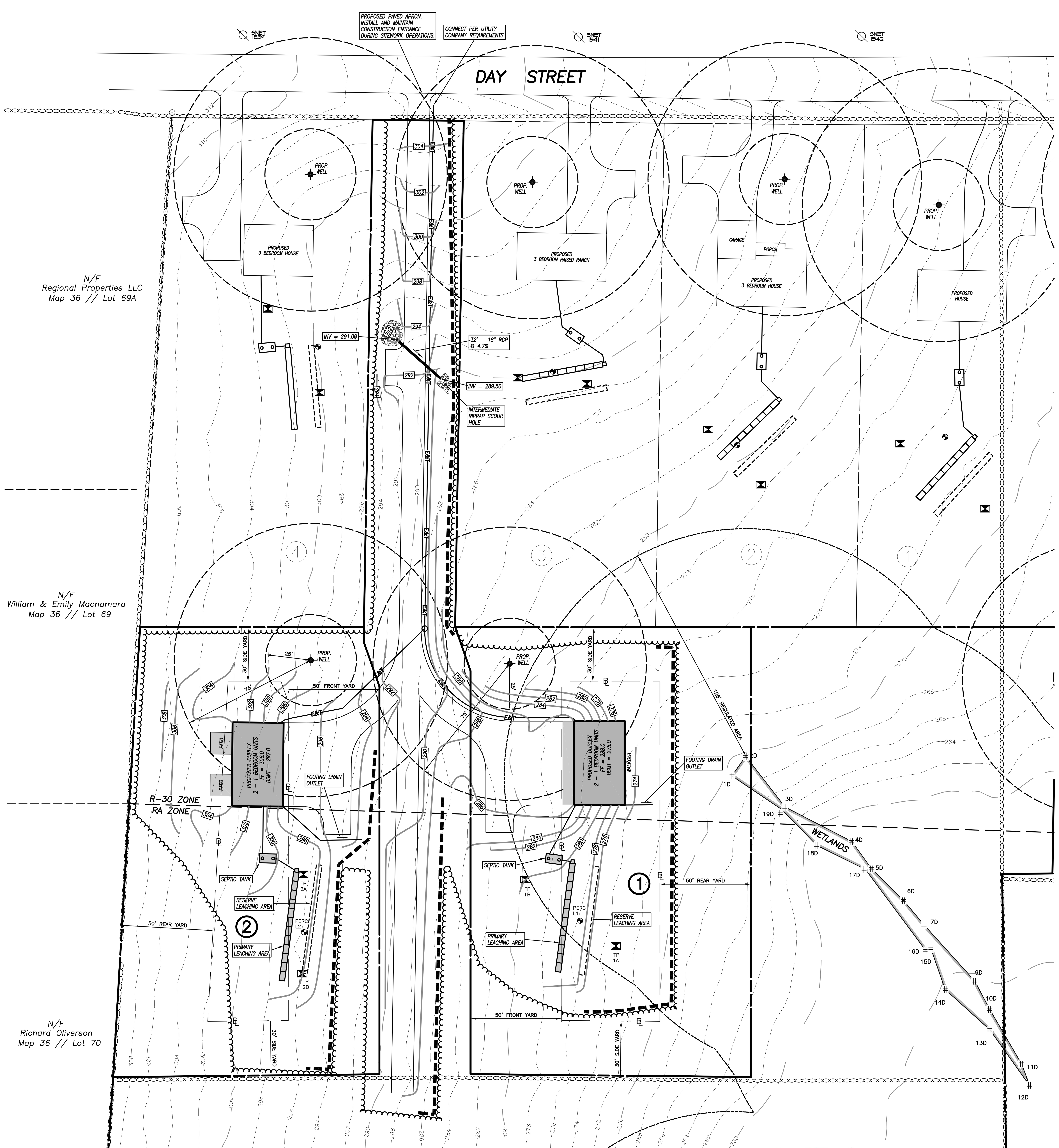
Be advised you must receive approval from the appropriate commissions in the Town of Brooklyn prior to construction of these lots.

This letter is NOT to be construed as an APPROVAL TO CONSTRUCT the septic system and DOES NOT indicate that the Northeast District Department of Health endorses approval for issuance of any building permit.

Should you have any questions, please feel free to contact the sanitarian that reviewed your plan.

Sincerely,
Donovan Moe
Donovan Moe, EHS
Environmental Health Specialist ~ NDDH

cc: Town of Brooklyn; Archer Surveying, LLC



SEPTIC SYSTEM DESIGN DATA – LOT 1

Percolation Rate	=	3.33 min. / in.
2 bedroom duplex requires	=	660 s.f. effective leaching area
Effective Leaching area	=	11.0 s.f. / l.f. of trench
Length Required	=	660/11.0 = 60 l.f.
Length Provided	=	12 units @ 5 l.f. = 60 l.f.
Min. Leaching System Spread (MLSS)	=	20.0 x 2.0 x 1.0 = 40'
MLSS Provided	=	60'

LEACHING FIELD

60 l.f. Mantis 536–8 leaching units (12 units @ 5 l.f. each)
Maximum depth into existing grade = 6"

SEPTIC SYSTEM DESIGN DATA – LOT 2

Percolation Rate	=	3.33 min. / in.
2 bedroom duplex requires	=	660 s.f. effective leaching area
Effective Leaching area	=	11.0 s.f. / l.f. of trench
Length Required	=	660/11.0 = 60 l.f.
Length Provided	=	12 units @ 5 l.f. = 60 l.f.
Min. Leaching System Spread (MLSS)	=	26.0 x 2.0 x 1.0 = 52'
MLSS Provided	=	60'

LEACHING FIELD

60 l.f. Mantis 536–8 leaching units (12 units @ 5 l.f. each)
Maximum depth into existing grade = 2"

LEGEND

- TEST PIT
- WETLAND FLAG
- STONE WALL
- EXISTING INDEX CONTOUR
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED UTILITIES
- PROPOSED CLEARING LIMITS
- PROPOSED SILT FENCE
- BUILDING SETBACK LINE

SURVEY NOTES:

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Section 20–300b–1 through 20–300b–20 as amended on October 26, 2018;

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   – Topographic features conform to a Class "T–2" accuracy.

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3. Zone: R–30 & RA.
4. Owner of record: Jeffrey Weaver, P.O. Box 9, Brooklyn, CT 06234
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9. Wetlands were flagged in the field by Joseph Theroux, certified soil scientist in April, 2018.

Site Development Plan

Prepared For:

Jeffrey Weaver
Day Street
Brooklyn, Connecticut

DRAWING SCALE: 1"=30'

0 30' 60'

TO MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

PAUL M. ARCHER LLS #70013 DATE

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS THE EMBOSSED SEAL OF THE LAND SURVEYOR WHOSE SIGNATURE APPEARS HEREON.

6/7/2023

ENGINEER DATE

STATE OF CONNECTICUT DAVID J. HEALD No. 24267 LICENSED PROFESSIONAL ENGINEER

Provost & Rovero, Inc.
Civil Engineering • Surveying • Site Planning
Structural • Mechanical • Architectural Engineering
57 East Main Street, P.O. Box 191
Plainfield, Connecticut 06374
(860) 230-0856 - FAX: (860) 230-0860
info@prorovinc.com
www.prorovinc.com

REVISIONS

DATE	DESCRIPTION

ARCHER Surveying LLC
18 Providence Road, Brooklyn, CT
(860) 779–2240

Sheet No.	4 OF 6	Project No.	233015	Date:	5/1/2023

ARCHER Surveying LLC

INLAND WETLANDS & WATERCOURSES COMMISSION
TOWN OF BROOKLYN, CONECTICUT

Date 6/6/23

Application # IWWC 23-005

APPLICATION -- INLAND WETLANDS & WATERCOURSES

APPLICANT Townsend Development Associates, LLC MAILING ADDRESS ~~13309 Palmers Creek Terrace~~ 6458 Watercrest Way, Unit 401 Lakewood Ranch, FL 34202

APPLICANT'S INTEREST IN PROPERTY Owner PHONE: CELL 860-208-6839 HOME: ____

E-MAIL stownsend53@yahoo.com

PROPERTY OWNER IF DIFFERENT ____ PHONE: CELL: ____ HOME: ____

MAILING ADDRESS ____ EMAIL ____

ENGINEER/SURVEYOR (IF ANY)
Clough Harbour Associates, LLP (CHA) 400 Capital Boulevard, Suite 301, Rocky Hill, CT 06067

ATTORNEY (IF ANY) ____

PROPERTY LOCATION/ADDRESS) 538 Providence Road

MAP # 41 LOT # 16 ZONE PC TOTAL ACRES 7.49+/- ACRES OF WETLANDS ON PROPERTY 1.27 +/-

PURPOSE AND DESCRIPTION OF THE ACTIVITY
Modification to existing approved Special Permit to construct approx. 16,100 SF of Self-Storage in two buildings, and 19,360 SF of commercial space.

WETLANDS EXCAVATION AND FILL:
FILL PROPOSED n/a CUBIC YDS ____ SQ FT ____
EXCAVATION PROPOSED n/a CUBIC YDS ____ SQ FT ____
LOCATION WHERE MATERIAL WILL BE PLACED: ON SITE ____ OFF SITE ____
TOTAL REGULATED AREA ALTERED: SQ FT 30,000 ACRES 0.7 +/-

EXPLAIN ALTERNATIVES CONSIDERED (REQUIRED):
Alternative would be to proceed with construction of previously approved plan.

MITIGATION MEASURES (IF REQUIRED): WETLANDS/WATERCOURSES CREATED: CY n/a SQ FT ____ ACRES ____

IS PARCEL LOCATED WITHIN 500FT OF AN ADJOINING TOWN? No IF YES, WHICH TOWN(S) ____

IS THE ACTIVITY LOCATED WITHIN THE WATERSHED OF A WATER COMPANY AS DEFINED IN CT GENERAL STATUTES 25-32A? Yes

RECEIVED
JUN - 6 2023

THE OWNER AND APPLICANT HEREBY GRANT THE BROOKLYN IWWC, THE BOARD OF SELECTMAN AND THEIR AUTHORIZED AGENTS PERMISSION TO ENTER THE SUBJECT PROPERTY FOR THE PURPOSE OF INSPECTION AND ENFORCEMENT OF THE IWWC REGULATIONS OF THE TOWN OF BROOKLYN. IF THE COMMISSION DETERMINES THAT OUTSIDE REVIEW IS REQUIRED, APPLICANT WILL PAY CONSULTING FEE.

NOTE: DETERMINATION THAT THE INFORMATION PROVIDED IS INACCURATE MAY INVALIDATE THE IWWC DECISION AND RESULT IN ENFORCEMENT ACTION.

APPLICANT: Townsend Development Associates, LLC DATE 5/1/23

OWNER: Steve Tord DATE 5/1/23

REQUIREMENTS

______ STANDARD APPLICATION FEE $ ($150)______ STATE FEE ($60)______ CHECK #______

______ NOTICE OF ACTION PUBLICATION FEE $______ CHECK #______

______ PUBLIC HEARING PUBLICATION FEE ($100) $______ (SUBJECT TO CHANGE DEPENDING ON PAPER) CHECK#______

______ SIGNIFICANT ACTIVITY FEE (PUBLIC HEARING) ($250) $______ CHECK #______

______ COMPLETION OF CT DEEP REPORTING FORM

______ ORIGINAL PLUS COPIES OF ALL MATERIALS REQUIRED - **NUMBER TO BE DETERMINED BY STAFF**

______ PRE-APPLICATION MEETING WITH THE WETLANDS AGENT IS RECOMMENDED TO EXAMINE THE SCOPE OF THE ACTIVITY

______ SITE PLAN SHOWING LOCATION OF THE WETLANDS WITH EXISTING AND PROPOSED CONDITIONS. APPLICANT MAY BE REQUIRED TO HAVE A CERTIFIED **SOIL SCIENTIST IDENTIFY THE WETLANDS.**

______ COMPLIANCE WITH THE CONNECTICUT EROSION & SEDIMENTATION CONTROL MANUAL

______ IF THE PROPOSED ACTIVITY IS DEEMED TO BE A "SIGNIFICANT IMPACT ACTIVITY" A PUBLIC HEARING IS REQUIRED ALONG WITH THE FOLLOWING INFORMATION:

- NAMES AND ADDRESSES OF ABUTTING PROPERTY OWNERS
- ADDITIONAL INFORMATION AS CONTAINED IN IWWC REGULATIONS ARTICLE 7.6

ADDITIONAL INFORMATION/ACTION NEEDED:

OTHER APPLICATIONS MAY BE REQUIRED. CONTACT THESE AGENCIES FOR FURTHER INFORMATION:
APPLICATION TO STATE OF CONNECTICUT DEEP

INLAND WATER RESOURCES DIVISION
79 ELM ST.
HARTFORD, CT. 06106
1-860-424-3019

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MA. 01742
1-860-343-4789

Connecticut Department of
ENERGY & ENVIRONMENTAL PROTECTION

GIS CODE #: __________
For DEEP Use Only

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete this form in accordance with the instructions on pages 2 and 3 and mail to:
DEEP Land & Water Resources Division, Inland Wetlands Management Program, 79 Elm Street, 3rd Floor, Hartford, CT 06106
Incomplete or incomprehensible forms will be mailed back to the inland wetlands agency.

PART I: Must Be Completed By The Inland Wetlands Agency

1. DATE ACTION WAS TAKEN: year: __________ month: __________
2. ACTION TAKEN (see instructions - one code only): __________
3. WAS A PUBLIC HEARING HELD (check one)? yes ☐ no ☐
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:

   (print name) __________ (signature) __________

PART II: To Be Completed By The Inland Wetlands Agency Or The Applicant

5. TOWN IN WHICH THE ACTIVITY IS OCCURRING (print name): Brooklyn

   does this project cross municipal boundaries (check one)? yes ☐ no ☒

   if yes, list the other town(s) in which the activity is occurring (print name(s)): __________, __________
6. LOCATION (see instructions for information): USGS quad name: Danielson or number: 43

   subregional drainage basin number: 3700
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (print name): Townsend Development Associates, LLC
8. NAME & ADDRESS OF ACTIVITY / PROJECT SITE (print information): 538 Providence Road, Brooklyn, CT

   briefly describe the action/project/activity (check and print information): temporary ☐ permanent ☒ description:
   Development of approx. 35,460 SF of Commercial Buildings and associated parking
9. ACTIVITY *PURPOSE* CODE (see instructions - one code only): D
10. ACTIVITY *TYPE* CODE(S) (see instructions for codes): 9, 10, 12, 14
11. WETLAND / WATERCOURSE AREA ALTERED (see instructions for explanation, must provide acres or linear feet):

    wetlands: 0 acres open water body: 0 acres stream: 0 linear feet
12. UPLAND AREA ALTERED (must provide acres): 7.49 acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (must provide acres): 0 acres

DATE RECEIVED:

PART III: To Be Completed By The DEEP

DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO

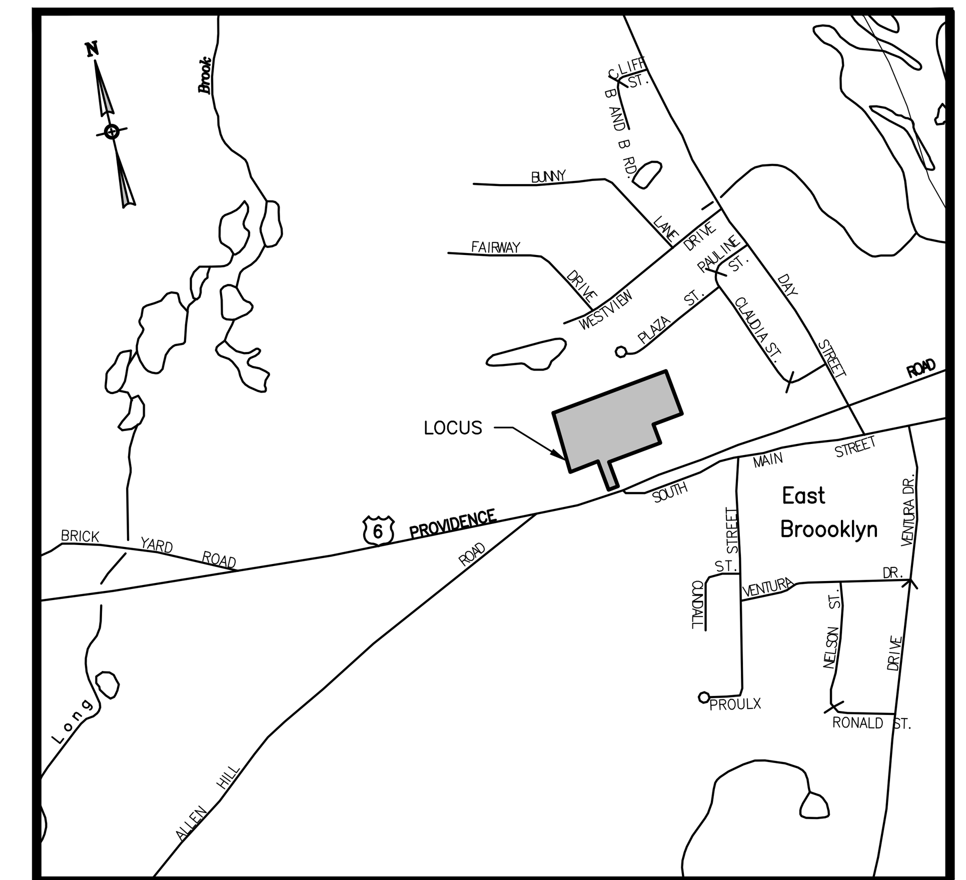
FORM CORRECTED / COMPLETED: YES NO

SPECIAL PERMIT
SITE DEVELOPMENT PLAN

PREPARED FOR

TOWNSEND DEVELOPMENT ASSOCIATES, LLC

PROVIDENCE ROAD (U.S. ROUTE 6)
BROOKLYN, CONNECTICUT
MAY 5, 2023



LOCATION MAP SCALE 1"=1000'

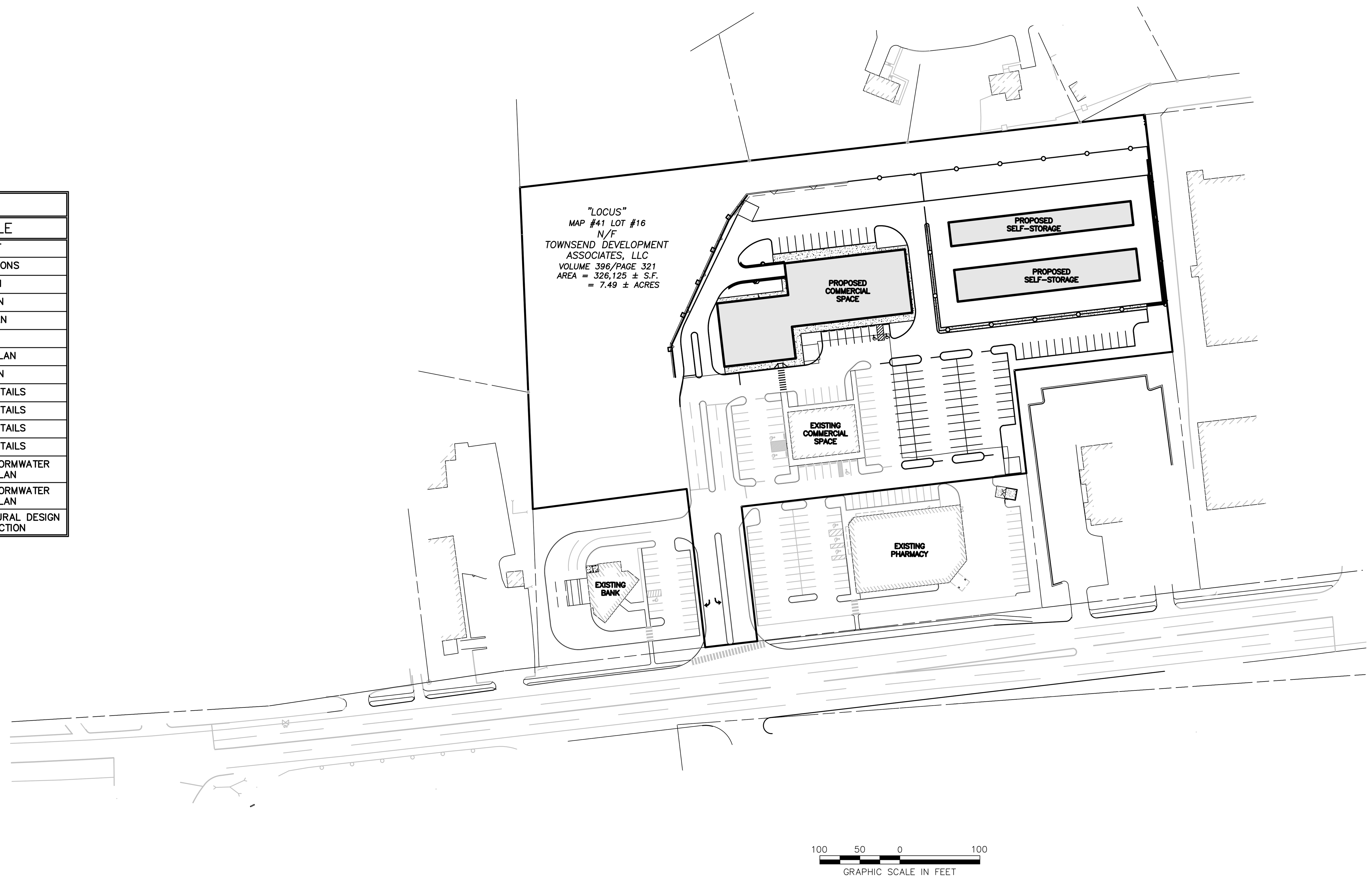
PROPERTY OWNER & APPLICANT: TOWNSEND DEVELOPMENT ASSOCIATES, LLC
169 BARRETT HILL ROAD
BROOKLYN, CT 06234

ZONING DISTRICT: PC = PLANNED COMMERCIAL ZONE

EXISTING USES: COMMERCIAL/MEDICAL OFFICE

PROPOSED USES: 19,640 S.F. COMMERCIAL SPACE
16,100 S.F. SELF STORAGE SPACE

DRAWING INDEX



SCALE: 1'=100'

DIMENSIONAL REQUIREMENTS

ZONING CRITERIA	REQUIRED	PROVIDED
LOT SIZE	30,000 SF	±326,125 SF
LOT FRONTAGE	100 FEET	65.92 FEET (REAR LOT)
FRONT YARD SETBACK	30 FEET / 45 FEET*	50.8 FEET
SIDE YARD SETBACK	20 FEET	30.4 FEET
REAR YARD SETBACK	20 FEET	105.7 FEET
LOT COVERAGE	65% IMPERVIOUS	±54% IMPERVIOUS
BUILDING HEIGHT	30 FEET / 40 FEET**	<30 FEET

* IF PARKING OR DRIVEWAY IS BETWEEN BUILDINGS AND STREET
** 30' FOR 1 & 2 STORY BUILDINGS, 40' FOR 3 STORY BUILDINGS

SELF STORAGE REQUIREMENTS

ZONING CRITERIA	REQUIRED	PROVIDED
LOT	SITED ON A REAR LOT	SITED ON A REAR LOT
SETBACK	150' TO STREET LINE	>200' TO PLAZA STREEET
DENSITY	4,000 SF/ACRE	±2,150 SF/ACRE
MAXIMUM BUILDING SIZE	>20,000 SF	9,200 SF

PARKING CALCULATIONS

BUILDING	PARKING REQUIREMENT	SPACES REQUIRED	SPACES PROVIDED
RETAIL USES (7.B.2.2)	3 SPACES PER 1,000 SF	38 SPACES	
PERSONAL SERVICES USES (7.B.2.2)		8 SPACES (EXISTING USE)	
LICENSED HEALTH SERVICES (7.B.2.4)		8 SPACES (EXISTING USE)	
RESTAURANT USES (7.B.2.5)	1 SPACE PER 3 SEATS	80 SPACES (ASSUMING 240 SEATS)	
	TOTAL	134 SPACES	134 SPACES (41 EXISTING)

PER ADA STANDARDS, PARKING AREAS WITH 101 TO 150 PARKING SPACES MUST PROVIDE A MINIMUM OF 5 ACCESSIBLE PARKING SPACES. THERE ARE 3 EXISTING AND TWO PROPOSED ACCESSIBLE SPACES TO MEET THIS REQUIREMENT.

ADJACENT POTENTIAL OVERFLOW PARKING

BUILDING	GROSS SQUARE FOOTAGE	SPACES REQUIRED	SPACES PROVIDED
PHARMACY PRIOR APPROVAL	13,225 SF	67 SPACES	73 SPACES
BANK PRIOR APPROVAL	3,000 SF	15 SPACES	21 SPACES
	TOTAL	83 SPACES	94 SPACES

CHA
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Rocky Hill, CT 06067
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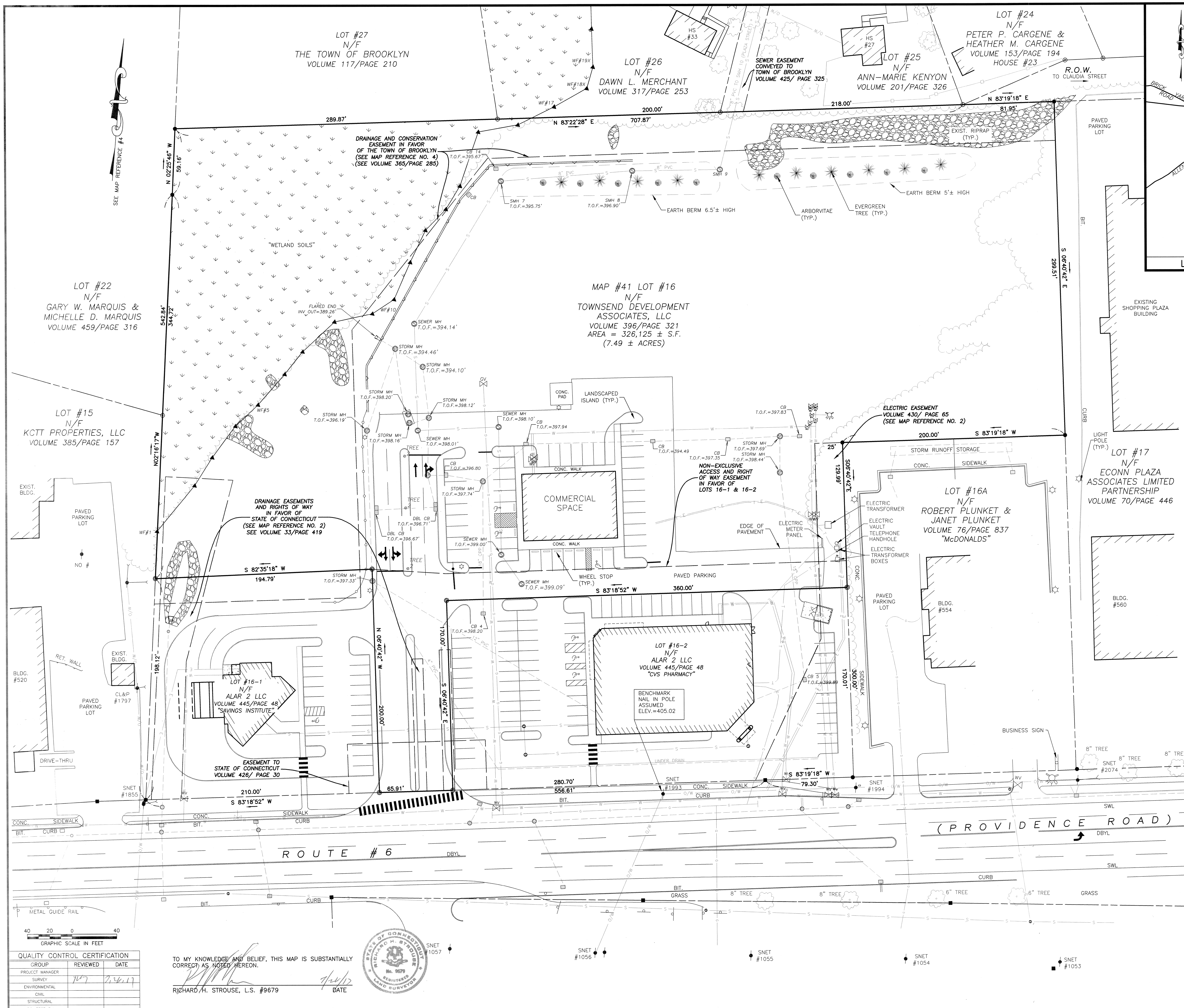
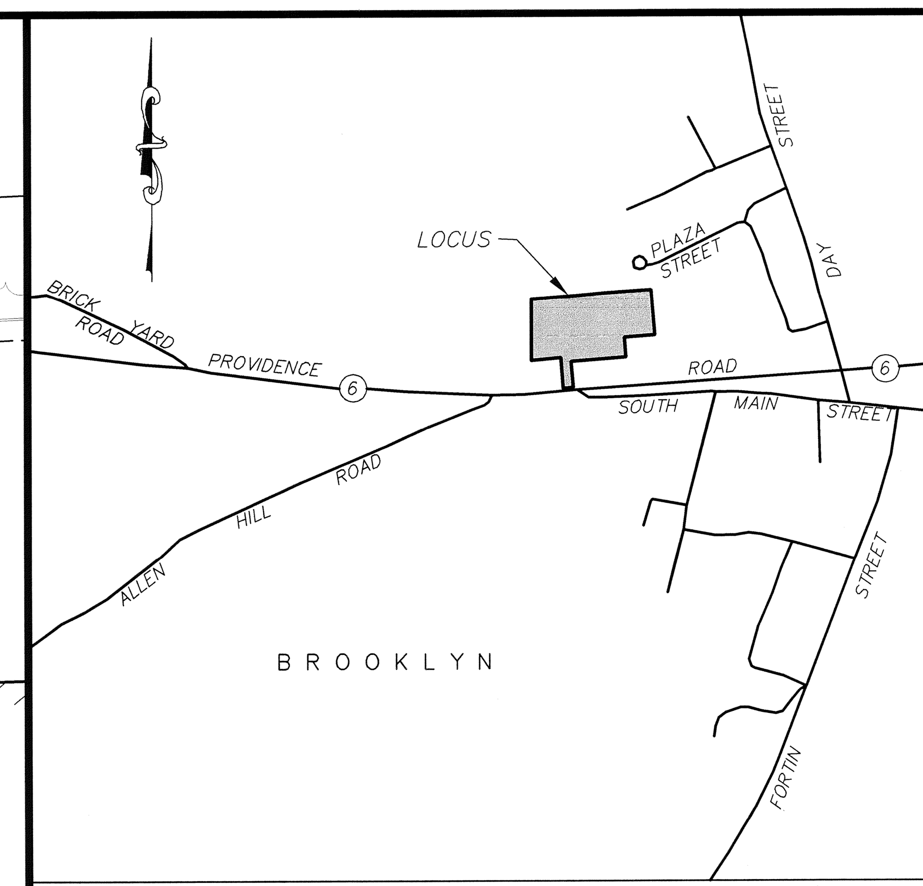
PER SECTION 8-26c OF THE CONNECTICUT GENERAL STATUTES, AS AMENDED APPROVAL AUTOMATICALLY EXPIRES ________ IF ALL PHYSICAL IMPROVEMENTS REQUIRED BY THIS PLAN ARE NOT COMPLETE BY THIS DATE.

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN DATE	CHAIRMAN OR SECRETARY DATE	CHAIRMAN OR SECRETARY DATE





LOCATION MAP SCALE 1"=1000'

MAP REFERENCES

1.) "SUBDIVISION MAP PREPARED FOR TOWNSEND DEVELOPMENT ASSOCIATES, LLC PROVIDENCE PIKE (US ROUTE #6) BROOKLYN, CONNECTICUT", SCALE: 1"=40', DATED: APRIL 2008, SHEET NO. 2, PREPARED BY ARCHER SURVEYING L.L.C.

2.) "COMPILATION PLAN MAP SHOWING EASEMENT AREA TO BE GRANTED TO THE CONNECTICUT LIGHT AND POWER COMPANY ACROSS THE PROPERTY OF TOWNSEND DEVELOPMENT ASSOCIATES, LLC LOT #16 (PROVIDENCE ROAD) U.S. ROUTE #6 BROOKLYN, CT", SCALE: 1"=40', DATED: NOVEMBER 6, 2007, PREPARED BY CME ASSOCIATES, INC.

3.) "EASEMENT MAP SURVEY, TOWN OF BROOKLYN MAP SHOWING EASEMENT ACQUIRED FROM TOWNSEND DEVELOPMENT ASSOCIATES, LLC BY THE STATE OF CONNECTICUT, PROVIDENCE ROAD & SOUTH MAIN STREET (ROUTE 6)", SCALE: 1'=20', DATED: JULY 2007, PREPARED BY CME ASSOCIATES, INC.

4.) "SITE DEVELOPMENT PLAN PREPARED FOR TOWNSEND DEVELOPMENT ASSOCIATES, LLC, LOT #16 (PROVIDENCE ROAD) U.S. ROUTE #6 BROOKLYN, CT", SCALE: 1"=40', DATED: OCTOBER 10, 2006, REVISED JANUARY 3, 2007, PREPARED BY CME ASSOCIATES, INC.

NOTES

1.) THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS PREPARED AND ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.

THE TYPE OF SURVEY PERFORMED IS AN IMPROVEMENT LOCATION SURVEY CONFORMING TO THE STANDARDS OF ACCURACY FOR A HORIZONTAL CLASS A-2 AND VERTICAL CLASS T-2 AND IS A DEPENDENT RESURVEY OF THE SUBJECT PROPERTY.

THIS SURVEY WAS PREPARED TO DEPICT THE EXISTING CONDITIONS OF THE SUBJECT PROPERTY.

2.) THE SUBJECT PARCEL WAS CONVEYED TO TOWNSEND DEVELOPMENT ASSOCIATES, LLC, THROUGH A CONVEYANCE DATED ON SEPTEMBER 20, 2006 AND IS RECORDED IN VOLUME 396, PAGE 321 OF THE BROOKLYN LAND RECORDS.

3.) THE SUBJECT PROPERTY IS SHOWN ON THE BROOKLYN TAX ASSESSOR MAP No. 19 AS LOT 16 OF BLOCK 41 AND HAS BEEN ASSIGNED ADDRESS OF PROVIDENCE PIKE ROUTE 6, BROOKLYN, CONNECTICUT.

4.) TOTAL AREA OF PROPERTY = 7.49 ± ACRES (326,125 ± SQUARE FEET).

5.) SITE IS LOCATED IN (PC) PLANNED COMMERCIAL ZONE.

6.) UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROL TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO CME ASSOCIATES, INC. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.

LEGEND

PROPERTY LINE
ABUTTERS LINE
EDGE OF PAVEMENT
EXISTING CONTOUR — 398 —
RETAINING WALL
LIMITS OF INLAND WETLANDS — WLF#
WOOD FENCE
CHAIN LINK FENCE
TREE LINE
OVERHEAD WIRES — O/W —
ELECTRIC — E —
GAS — G —
SANITARY — S —
TELEPHONE — T —
WATER — W —
SINGLE LIGHT POLE
DOUBLE LIGHT POLE
NOW OR FORMERLY N/F
UTILITY POLE
BOUNDARY POINT
DRILL HOLE DH
IRON MONUMENT
HYDRANT
WATER VALVE
CONNECTICUT HIGHWAY DEPARTMENT MONUMENT(CHD)

QUALITY CONTROL CERTIFICATION		
GROUP	REVIEWED	DATE
PROJECT MANAGER		
SURVEY	[illegible]	7.24.17
ENVIRONMENTAL		
CIVIL		
STRUCTURAL		
ARCHITECTURAL		

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

[signature] 7/24/17

RICHARD H. STROUSE, L.S. #9679 DATE

STATE OF CONNECTICUT · RICHARD H. STROUSE · No. 9679 · REGISTERED · LAND SURVEYOR

CME ASSOCIATES, INC.
32 Crabtree Lane, Woodstock, CT 06281
333 East River Drive, East Hartford, CT 06108
50 Elm Street, Southbridge, MA 01550
888-291-3227 | www.cmeengineering.com

CME

IMPROVEMENT LOCATION PLAN
PREPARED FOR
TOWNSEND DEVELOPMENT ASSOCIATES, LLC
LOT #16, PROVIDENCE ROAD (RT 6) BROOKLYN, CONNECTICUT

REVISIONS			
NO.	DATE	DESCRIPTION	BY

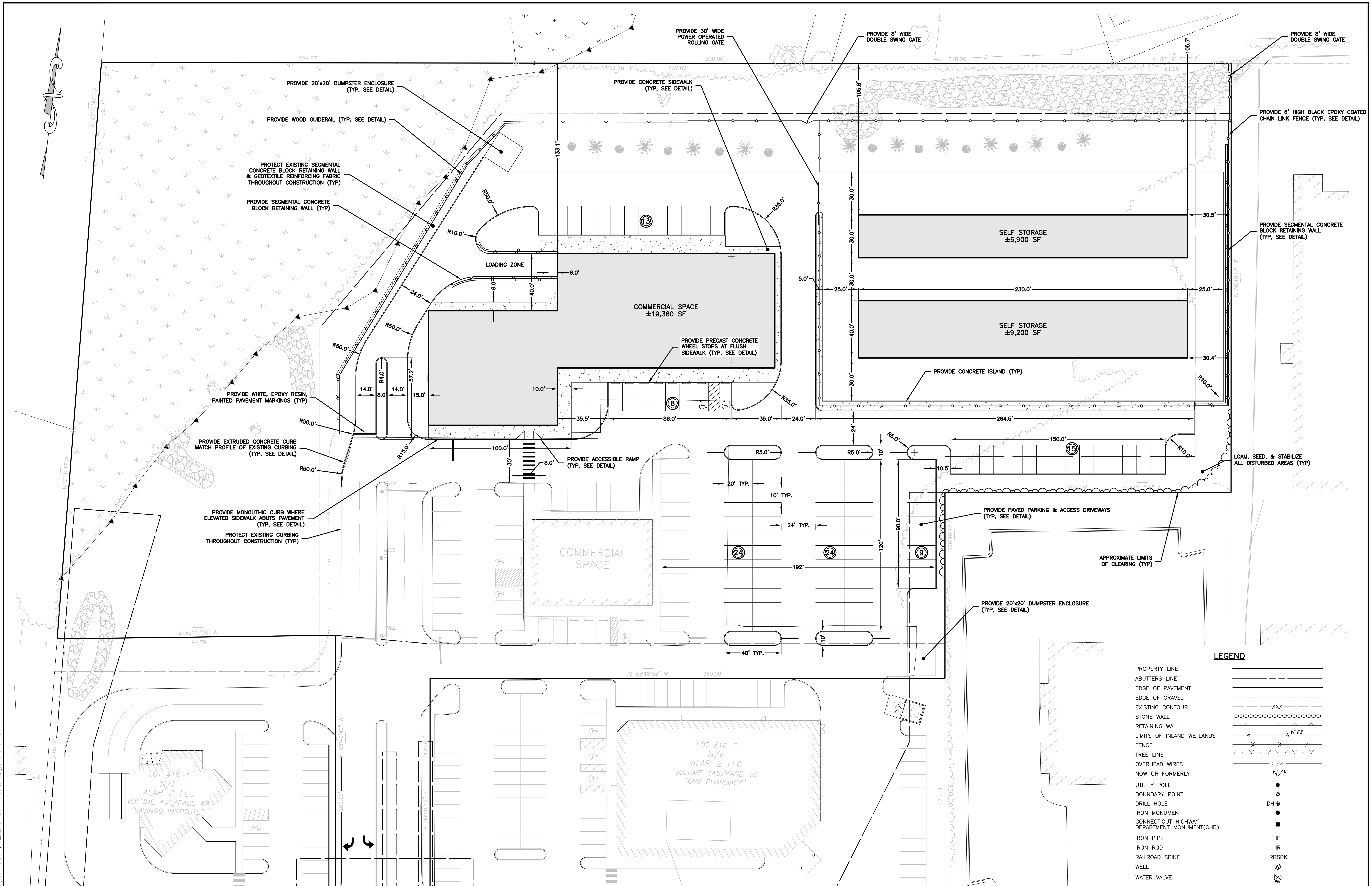
JOB DATA	
PROJECT	2014090_TOWNSEND
BOOK NO.	179
DESIGNED	-
DRAWN	RAC
CHECKED	CB
COGO FILE	2014090 ALL
FILE	2014090_REC.dwg

DATE: 07/24/2017

SCALE: 1" = 40'

PROJECT: #2014090

SHEET 1 OF 1



REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN — DATE	CHAIRMAN OR SECRETARY — DATE	CHAIRMAN OR SECRETARY — DATE

30 15 0 30
GRAPHIC SCALE IN FEET

File: V:\PROJECTS\ANY\K6\080849.000\09_DESIGN\DRAWINGS\CIVIL\080849 STP.DWG

CHA
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Rocky Hill, CT 06067
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SITE DEVELOPMENT PLAN PREPARED FOR:
TOWNSEND DEVELOPMENT ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

STATE OF CONNECTICUT — BRYAN L. BUSCH — No. 21097 — LICENSED PROFESSIONAL ENGINEER
05/24/2023

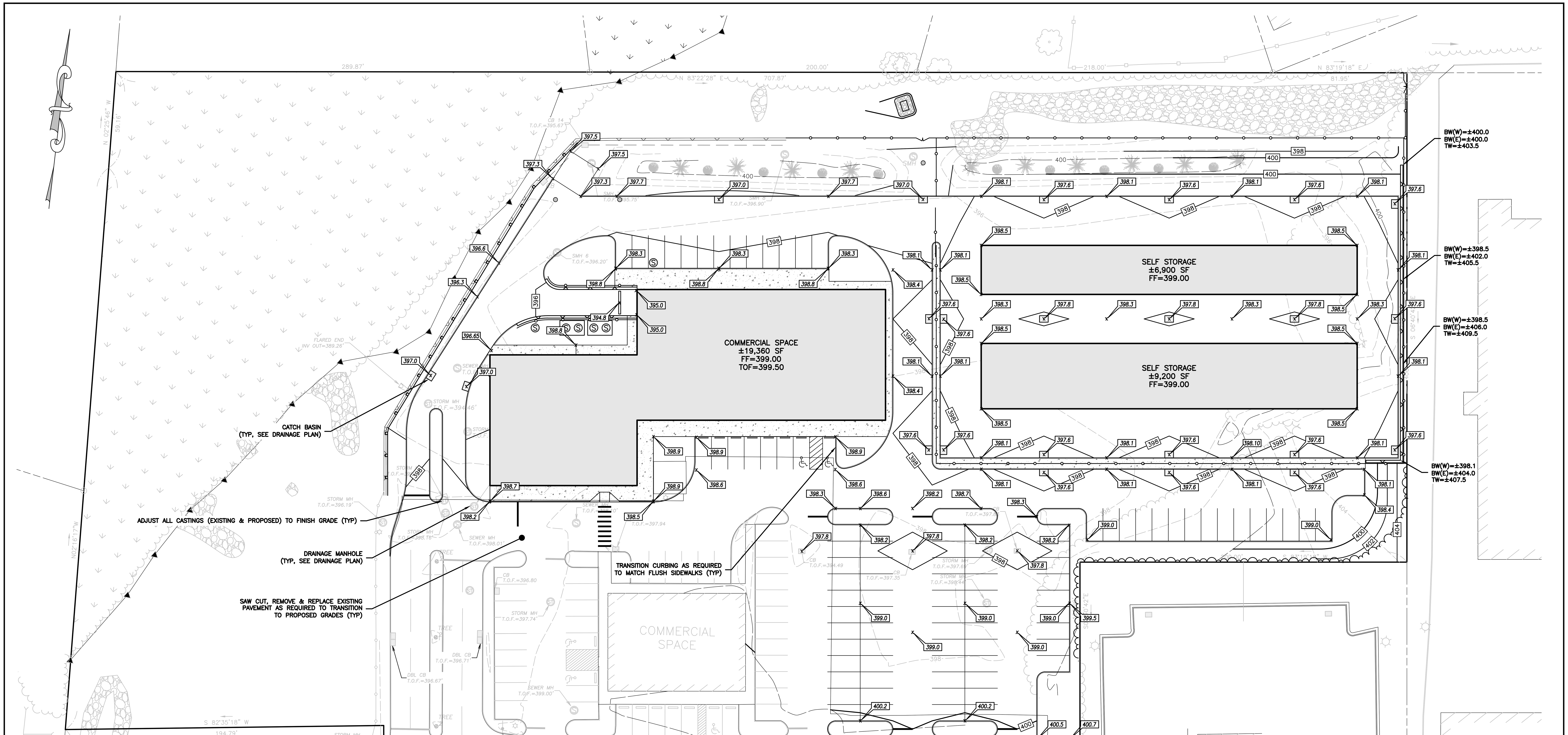
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

No.	Submittal / Revision	App'd.	By	Date

LAYOUT PLAN

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date:	Project No:	Scale:
05/05/2023	080849	1" = 30'

Drawing No.:
3



LEGEND

PROPERTY LINE	
ABUTTERS LINE	
EDGE OF PAVEMENT	
EDGE OF GRAVEL	
EXISTING CONTOUR	XXX
STONE WALL	
RETAINING WALL	
LIMITS OF INLAND WETLANDS	WLF#
FENCE	
TREE LINE	
OVERHEAD WIRES	O/W
NOW OR FORMERLY	N/F
UTILITY POLE	
BOUNDARY POINT	
DRILL HOLE	DH
IRON MONUMENT	
CONNECTICUT HIGHWAY DEPARTMENT MONUMENT(CHD)	
IRON PIPE	IP
IRON ROD	IR
RAILROAD SPIKE	RRSPK
WELL	W
WATER VALVE	WV

30 15 0 30
GRAPHIC SCALE IN FEET

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN DATE	CHAIRMAN OR SECRETARY DATE	CHAIRMAN OR SECRETARY DATE

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SITE DEVELOPMENT PLAN
PREPARED FOR:

TOWNSEND
DEVELOPMENT
ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

STATE OF CONNECTICUT
BRYAN L. BUSCH
No. 21097
LICENSED
PROFESSIONAL ENGINEER
05/24/2023

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No.	Submittal / Revision	App'd.	By	Date

GRADING PLAN

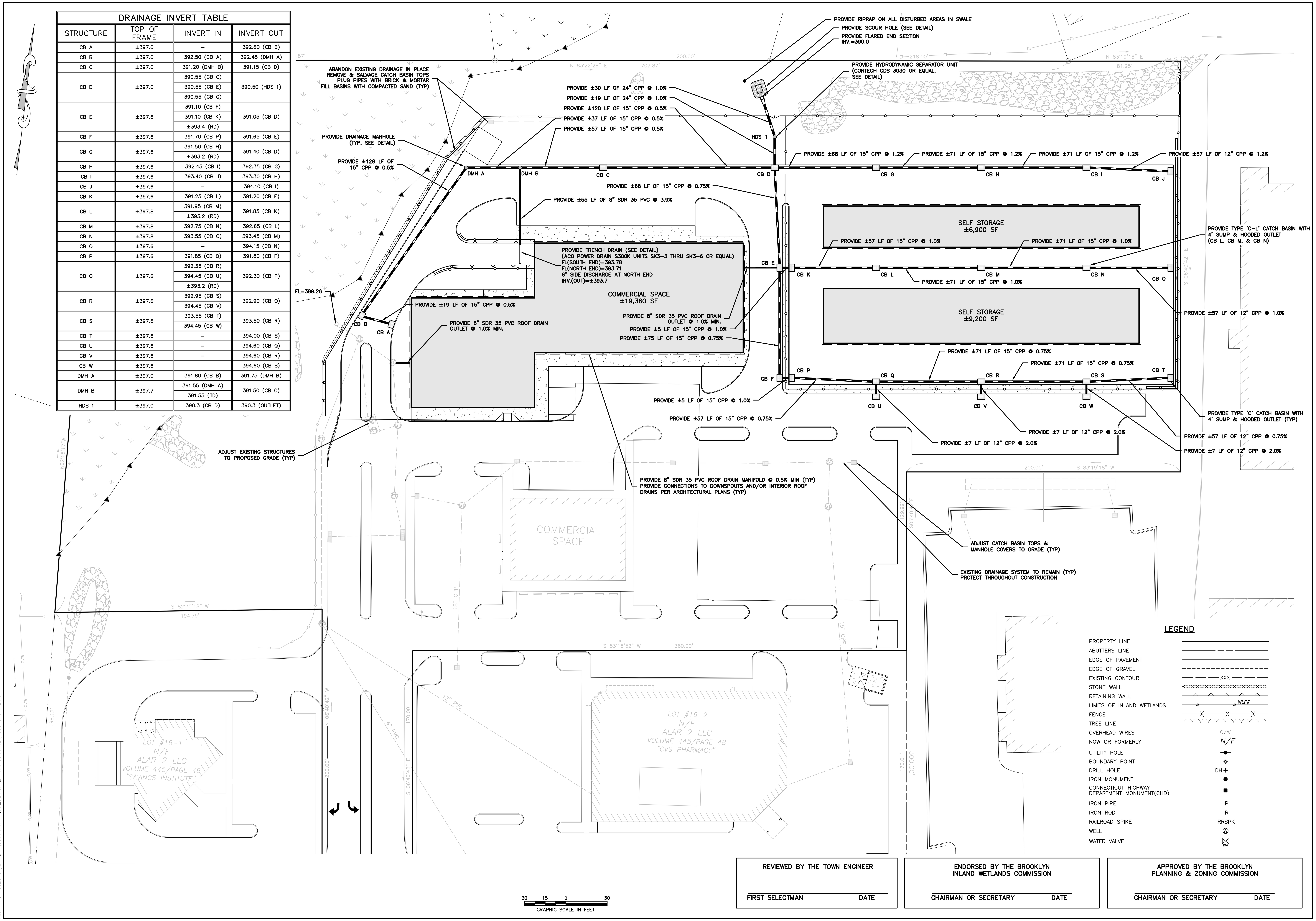
Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date:	Project No:	Scale:
05/05/2023	080849	1" = 30'

Drawing No.:
4

File: V:\PROJECTS\ANY\K6\080849.000\05_DESIGN\DRAWINGS\CIVIL\080849 STP.DWG

DRAINAGE INVERT TABLE

STRUCTURE	TOP OF FRAME	INVERT IN	INVERT OUT
CB A	±397.0	–	392.60 (CB B)
CB B	±397.0	392.50 (CB A)	392.45 (DMH A)
CB C	±397.0	391.20 (DMH B)	391.15 (CB D)
CB D	±397.0	390.55 (CB C) 390.55 (CB E) 390.55 (CB G)	390.50 (HDS 1)
CB E	±397.6	391.10 (CB F) 391.10 (CB K) ±393.4 (RD)	391.05 (CB D)
CB F	±397.6	391.70 (CB P)	391.65 (CB E)
CB G	±397.6	391.50 (CB H) ±393.2 (RD)	391.40 (CB D)
CB H	±397.6	392.45 (CB I)	392.35 (CB G)
CB I	±397.6	393.40 (CB J)	393.30 (CB H)
CB J	±397.6	–	394.10 (CB I)
CB K	±397.6	391.25 (CB L)	391.20 (CB E)
CB L	±397.8	391.95 (CB M) ±393.2 (RD)	391.85 (CB K)
CB M	±397.8	392.75 (CB N)	392.65 (CB L)
CB N	±397.8	393.55 (CB O)	393.45 (CB M)
CB O	±397.6	–	394.15 (CB N)
CB P	±397.6	391.85 (CB Q)	391.80 (CB F)
CB Q	±397.6	392.35 (CB R) 394.45 (CB U) ±393.2 (RD)	392.30 (CB P)
CB R	±397.6	392.95 (CB S) 394.45 (CB V)	392.90 (CB Q)
CB S	±397.6	393.55 (CB T) 394.45 (CB W)	393.50 (CB R)
CB T	±397.6	–	394.00 (CB S)
CB U	±397.6	–	394.60 (CB Q)
CB V	±397.6	–	394.60 (CB R)
CB W	±397.6	–	394.60 (CB S)
DMH A	±397.0	391.80 (CB B)	391.75 (DMH B)
DMH B	±397.7	391.55 (DMH A) 391.55 (TD)	391.50 (CB C)
HDS 1	±397.0	390.3 (CB D)	390.3 (OUTLET)



REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN — DATE	CHAIRMAN OR SECRETARY — DATE	CHAIRMAN OR SECRETARY — DATE

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SITE DEVELOPMENT PLAN PREPARED FOR:
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No.	Submittal / Revision	App'd.	By	Date

DRAINAGE PLAN

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date: 05/05/2023	Project No: 080849	Scale: 1" = 30'

Drawing No.: 5

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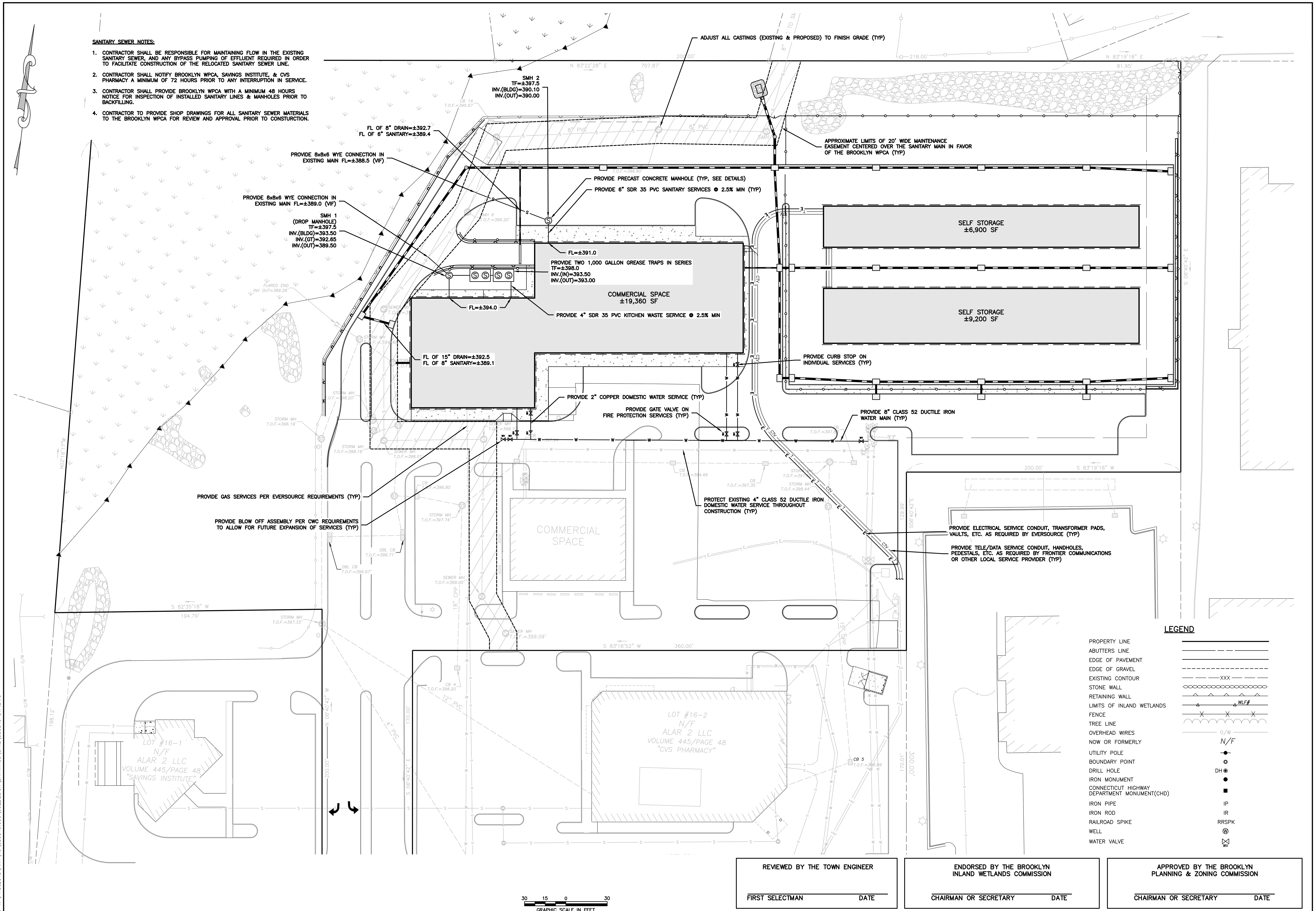
SANITARY SEWER NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING FLOW IN THE EXISTING SANITARY SEWER, AND ANY BYPASS PUMPING OF EFFLUENT REQUIRED IN ORDER TO FACILITATE CONSTRUCTION OF THE RELOCATED SANITARY SEWER LINE.
2. CONTRACTOR SHALL NOTIFY BROOKLYN WPCA, SAVINGS INSTITUTE, & CVS PHARMACY A MINIMUM OF 72 HOURS PRIOR TO ANY INTERRUPTION IN SERVICE.
3. CONTRACTOR SHALL PROVIDE BROOKLYN WPCA WITH A MINIMUM 48 HOURS NOTICE FOR INSPECTION OF INSTALLED SANITARY LINES & MANHOLES PRIOR TO BACKFILLING.
4. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL SANITARY SEWER MATERIALS TO THE BROOKLYN WPCA FOR REVIEW AND APPROVAL PRIOR TO CONSTURCTION.



LEGEND

PROPERTY LINE	
ABUTTERS LINE	
EDGE OF PAVEMENT	
EDGE OF GRAVEL	
EXISTING CONTOUR	XXX
STONE WALL	
RETAINING WALL	
LIMITS OF INLAND WETLANDS	WLF#
FENCE	X X X
TREE LINE	
OVERHEAD WIRES	O/W
NOW OR FORMERLY	N/F
UTILITY POLE	
BOUNDARY POINT	
DRILL HOLE	DH
IRON MONUMENT	
CONNECTICUT HIGHWAY DEPARTMENT MONUMENT(CHD)	
IRON PIPE	IP
IRON ROD	IR
RAILROAD SPIKE	RRSPK
WELL	W
WATER VALVE	WV

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN DATE	CHAIRMAN OR SECRETARY DATE	CHAIRMAN OR SECRETARY DATE

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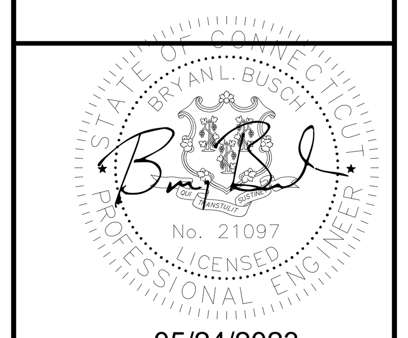
SITE DEVELOPMENT PLAN
PREPARED FOR:

TOWNSEND
DEVELOPMENT
ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT



05/24/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

No.	Submittal / Revision	App'd.	By	Date

UTILITY PLAN

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date:	Project No:	Scale:
05/05/2023	080849	1" = 30'

Drawing No.:

6

PLANTING SCHEDULE

PLAN LABEL	COMMON NAME Botanical Name	QUANTITY	SIZE	NOTES
	SHRUBS			
AC	JUNIPER BUSH Juniperus Andorre Compacta	9	2 GAL.	CONT.
BK	DWARF KOREAN BOXWOOD Buxus Koreana	26	18"–24" HT.	CONT.
FI	FORSYTHIA Forsythia 'spring glory' x intermedia	3	2 GAL.	CONT.
KL	OLYMPIC FIRE MOUNTAIN LAUREL Kalmia latifolia 'Olympic Fire'	4	24"–30" HT.	B&B
MP	BAYBERRY Myrica pensylvanica	7	2'–3' HT.	CONT.
RP	PJM Rhododendron	4	2 GAL.	CONT.
RY	RHODODENDRON Rhododendron 'Commonwealth'	4	24"–30" HT.	B&B
VD	ARROWHEAD VIBURNUM Viburnum dentatum	15	24"–30" HT.	CONT.
	TREES			
PCC	CALLERY PEAR Pyus calleryana 'chanticleer'	3	2.5"–3" CAL.	B&B
CA	WHITE HYBRID DOGWOOD Cornus rutden 'Celestial'	11	2.5"–3" CAL.	B&B
GT	UPRIGHT PYRAMIDAL THORNLESS HONEY LOCUST Gleditsia triancanthos inermis 'Skyline'	4	2.5"–3" CAL.	B&B
PP	COLORADO BLUE SPRUCE Picca Pungens	2	3" CAL.	B&B
TP	GREEN GIANT ARBORVITAE Thuja Standishii x plicata	2	3" CAL.	B&B
	MULCHED BED	–	–	–
	GRASS SEEDED AREA	–	–	–

B&B = BALLED AND BURLAPPED
CAL. = CALIPER
CONT. = CONTAINER
GAL. = GALLON
HT. = HEIGHT

SEEDING: SEEDING SHALL TAKE PLACE BETWEEN MARCH 15 AND MAY 31 OR AUGUST 15 AND OCTOBER 15 ONLY. SEED SHALL BE PURE, LIVE, FRESH SEED FROM COMMERCIAL SOURCES MEETING AND LABELED IN ACCORDANCE WITH STATE AND FEDERAL RULES AND REGULATIONS. THE SEED MIXTURE STHALL BE:

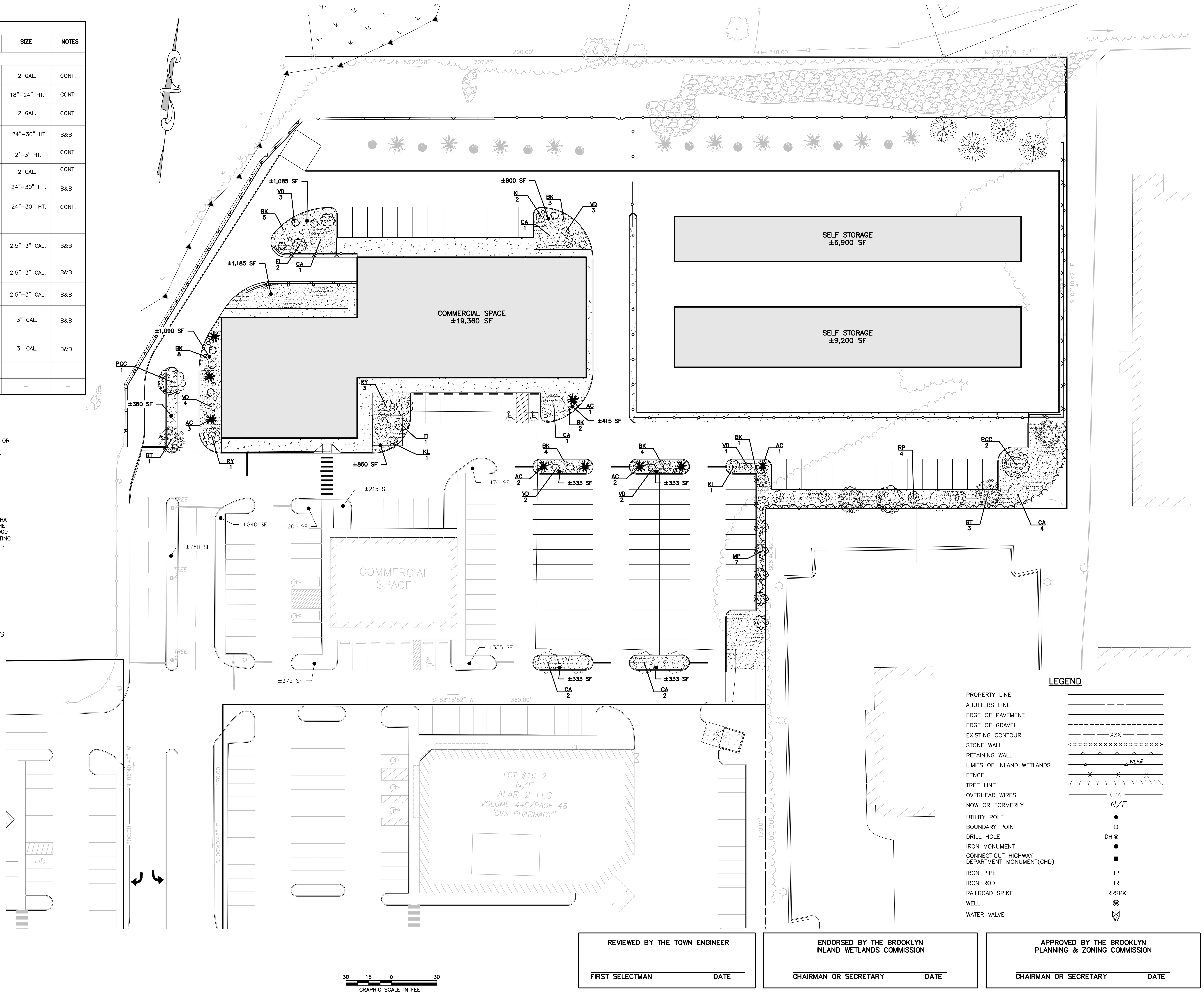
PROPORTION BY TYPE	WEIGHT	PUR.	GERM.
PALMER PERENNIAL RYEGRASS	20%	99%	90%
RANGER PERENNIAL RYEGRASS	20%	99%	90%
BARON KENTUCKY BLUEGRASS	30%	95%	85%
MERION KENTUCKY BLUEGRASS	30%	95%	85%

INERT MATERIALS 2.5% (MAXIMUM)

SEEDED AREAS SHALL, AT A MINIMUM, INCLUDE ALL AREAS OF THE SITE THAT HAVE BEEN DISTURBED OR ARE BARREN UNLESS OTHERWISE NOTED ON THE PLANS. SEED SHALL BE APPLIED AT A MINIMUM RATE OF 4 LBS. PER 1000 SQUARE FEET. PROVIDE 6" GOOD QUALITY FERTILE LOAM OR REUSE EXISTING SOIL AND PROVIDE ADDITIONAL LOAM AS REQUIRED FOR MINIMUM 6" DEPTH.

LANDSCAPE CALCULATIONS:
TOTAL REQUIRED PARKING = 134 SPACES
10 SQ FT OF LANDSCAPING PER PARKING SPACE
THEREFORE, 1,340 SQ FT OF LANDSCAPING REQUIRED
GREATER THAN 4,000 SQ FT PROVIDED

1 DECIDUOUS TREE PER 100 SQ FT OF LANDSCAPING
THEREFORE, 14 TREES REQUIRED
20 DECIDUOUS TREES PROVIDED PLUS 4 CONIFEROUS TREES



LEGEND

PROPERTY LINE
ABUTTERS LINE
EDGE OF PAVEMENT
EDGE OF GRAVEL
EXISTING CONTOUR
STONE WALL
RETAINING WALL
LIMITS OF INLAND WETLANDS
FENCE
TREE LINE
OVERHEAD WIRES — O/W
NOW OR FORMERLY — N/F
UTILITY POLE
BOUNDARY POINT
DRILL HOLE — DH
IRON MONUMENT
CONNECTICUT HIGHWAY DEPARTMENT MONUMENT(CHD)
IRON PIPE — IP
IRON ROD — IR
RAILROAD SPIKE — RRSPK
WELL
WATER VALVE

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
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SITE DEVELOPMENT PLAN
PREPARED FOR:

TOWNSEND
DEVELOPMENT
ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

STATE OF CONNECTICUT
BRYAN L. BUSCH
No. 21097
LICENSED
PROFESSIONAL ENGINEER
05/24/2023

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LANDSCAPE PLAN

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date:	Project No:	Scale:
05/05/2023	080849	1" = 30'

Drawing No.:
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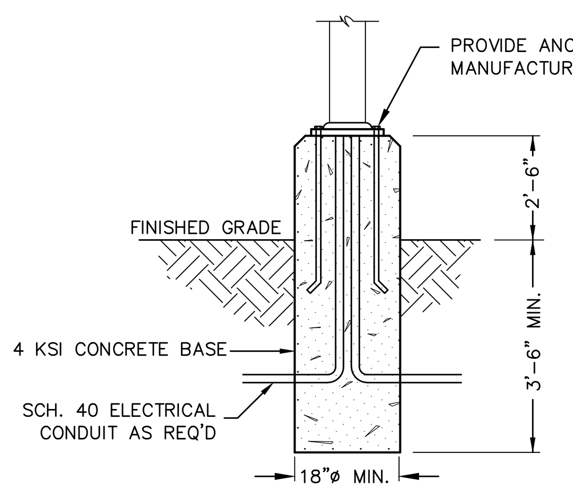
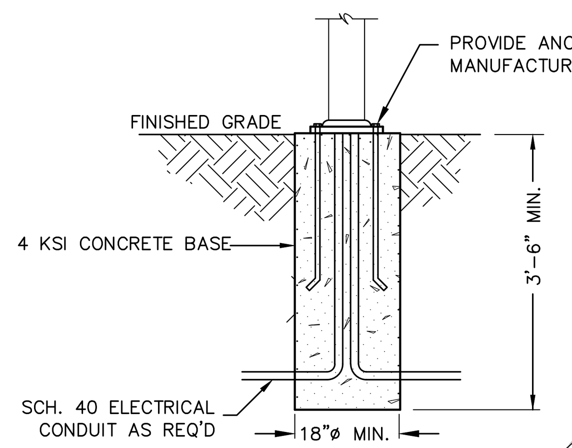
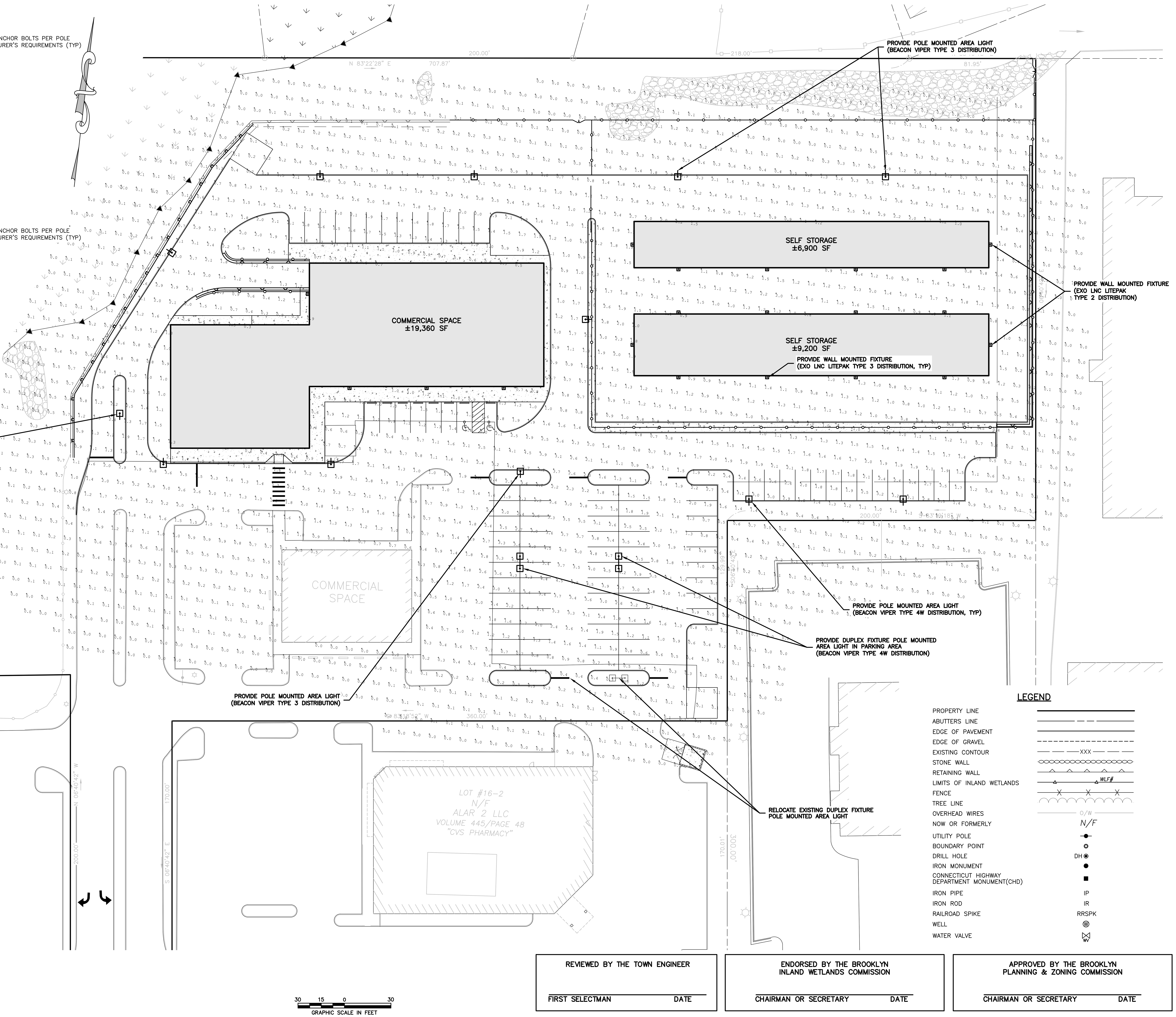


POLE IN PAVED AREA W/CONCRETE BASE
NOT TO SCALE



POLE IN ISLAND OR SIDEWALK
NOT TO SCALE



LEGEND

PROPERTY LINE	
ABUTTERS LINE	
EDGE OF PAVEMENT	
EDGE OF GRAVEL	
EXISTING CONTOUR	XXX
STONE WALL	
RETAINING WALL	
LIMITS OF INLAND WETLANDS	WLF#
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IRON PIPE	IP
IRON ROD	IR
RAILROAD SPIKE	RRSPK
WELL	W
WATER VALVE	WV

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SITE DEVELOPMENT PLAN
PREPARED FOR:

TOWNSEND DEVELOPMENT ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

STATE OF CONNECTICUT PROFESSIONAL ENGINEER No. 21097 LICENSED

05/24/2023

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LIGHTING PLAN

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date:	Project No:	Scale:
05/05/2023	080849	1" = 30'

Drawing No.:
8

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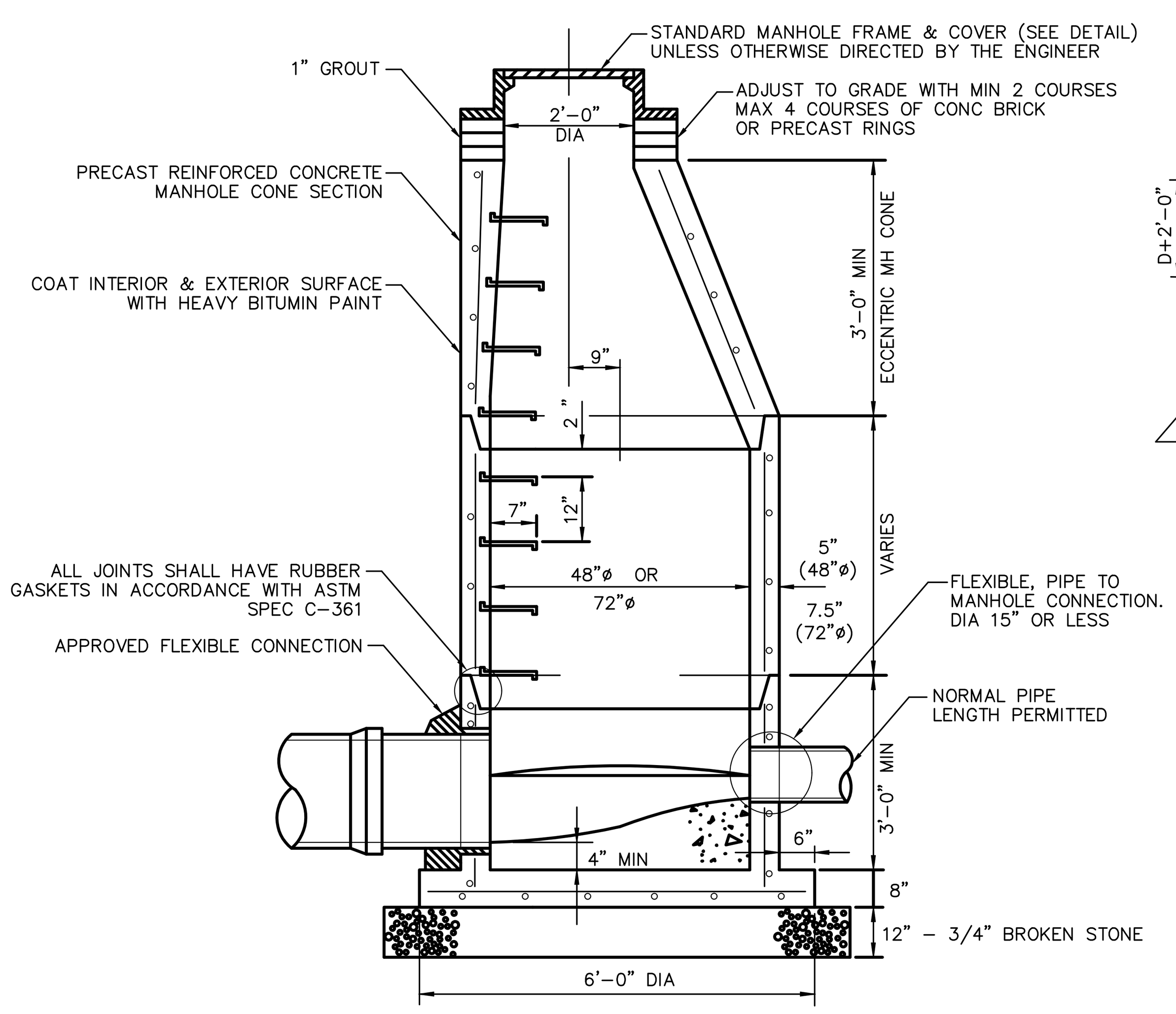
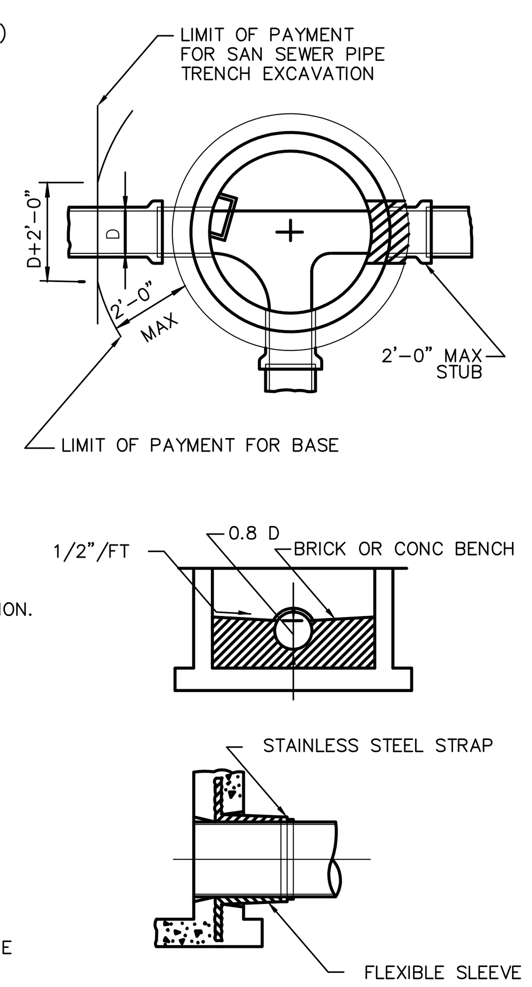
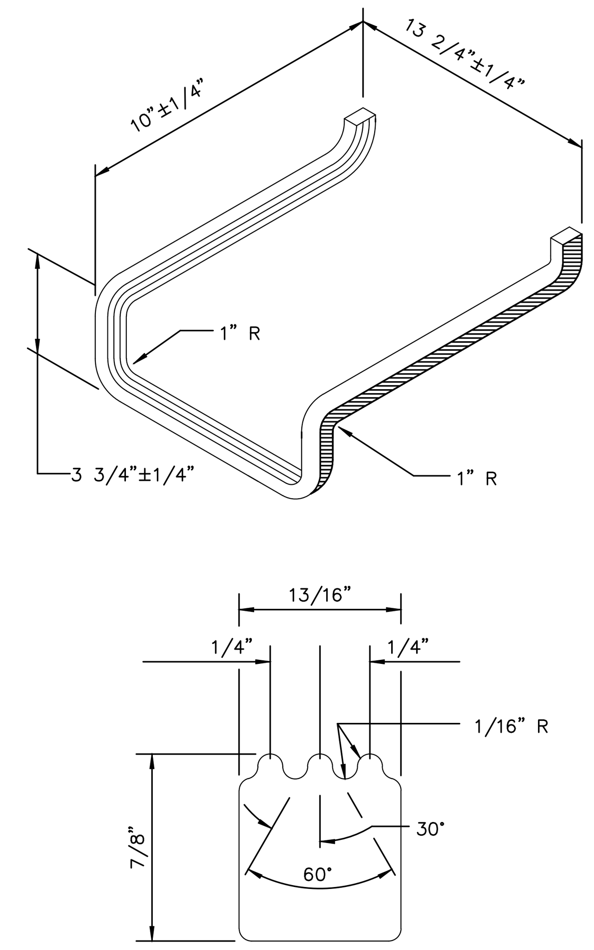


NOTE: PRECAST MANHOLE SHALL BE IN ACCORDANCE WITH ASTM C-478

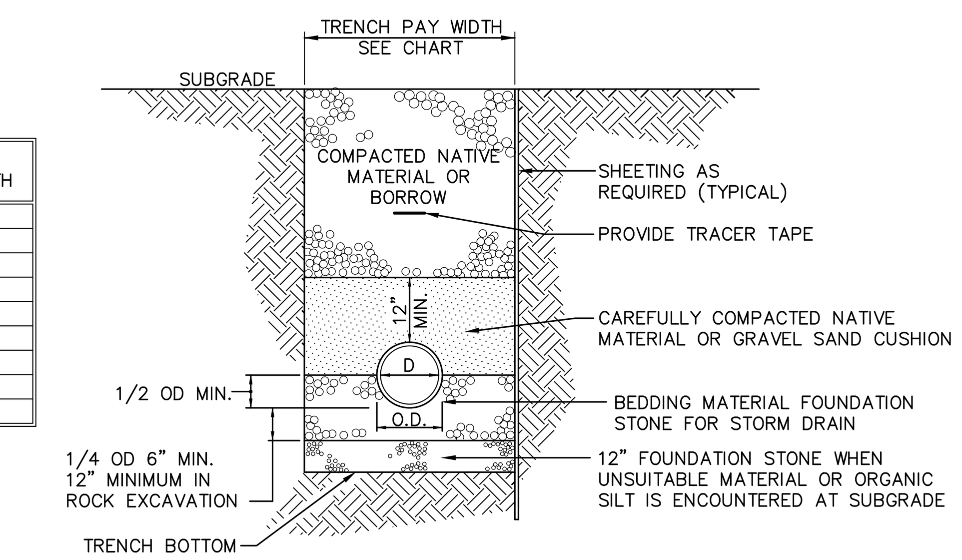


SANITARY MANHOLE
NTS



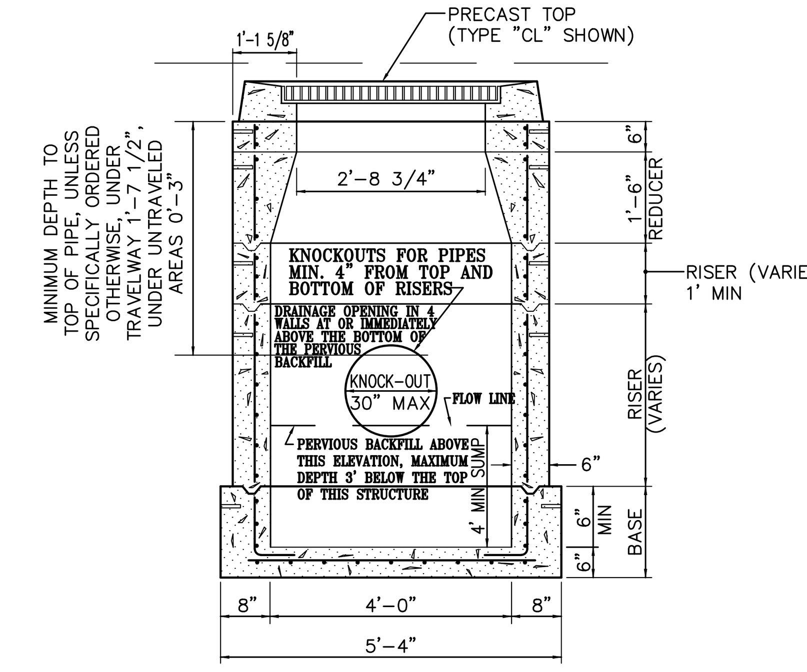
NOTE:
1. ALCOA #6061-T6 DROP FRONT DESIGN STEP OR APPROVED EQUAL.
2. PORTION OF ALUMINUM MH STEP TO BE EMBEDDED IN CONC SHALL BE COATED WITH A BITUMINOUS MATERIAL.

PIPE DIAMETER	MAXIMUM TRENCH WIDTH
6"	2'-6"
8"	3'-0"
10"	3'-0"
12"	3'-0"
15"	3'-3"
18"	3'-6"
21"	4'-0"
24"	4'-6"
30"	5'-0"



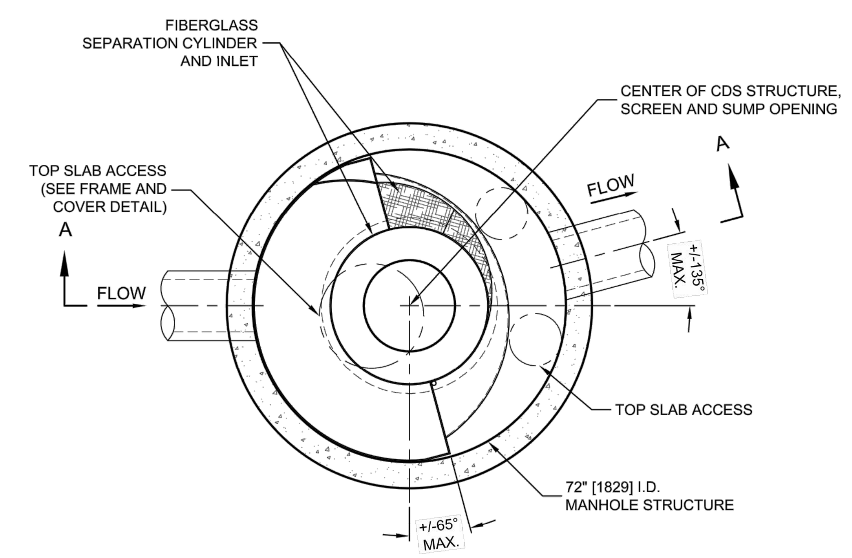
TRENCH SECTION FOR SANITARY SEWER & STORM DRAINS
NOT TO SCALE

NOTE:
BACKFILL MATERIAL TO BE PLACED IN 12" MAXIMUM LIFTS & COMPACTED TO 95% MAXIMUM DRY DENSITY (AS DETERMINED BY THE MODIFIED PROCTOR METHOD)

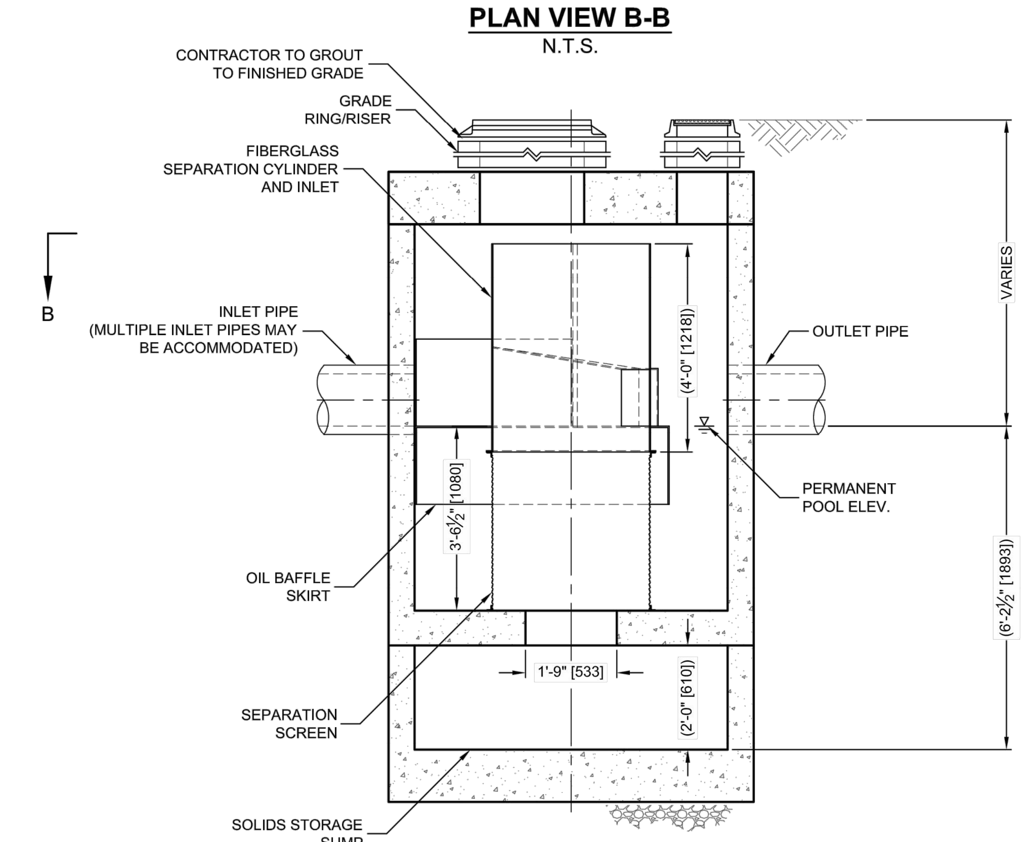


TYPE "C" OR "CL" STANDARD CATCH BASIN CROSS SECTION
NOT TO SCALE

NOTE: CATCH BASINS MUST BE PROVIDED WITH AN OUTLET HOOD ("ELIMINATOR" BY GROUNDWATER RESCUE INC. OR EQUAL)

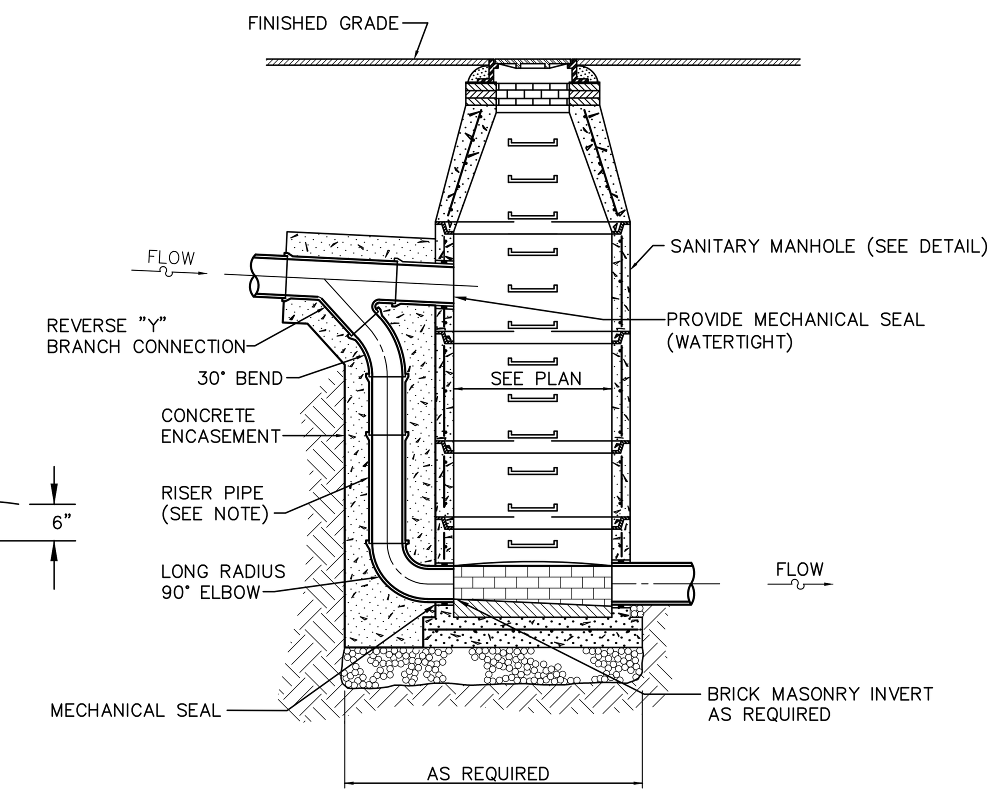


PLAN VIEW B-B
N.T.S.



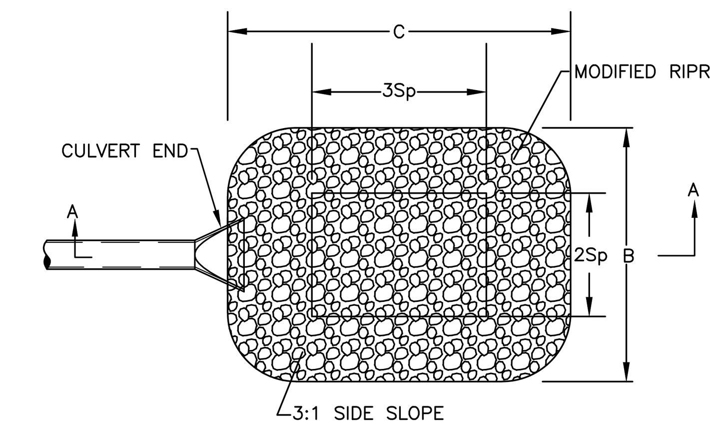
ELEVATION A-A
N.T.S.

HYDRODYNAMIC SEPARATOR
NTS

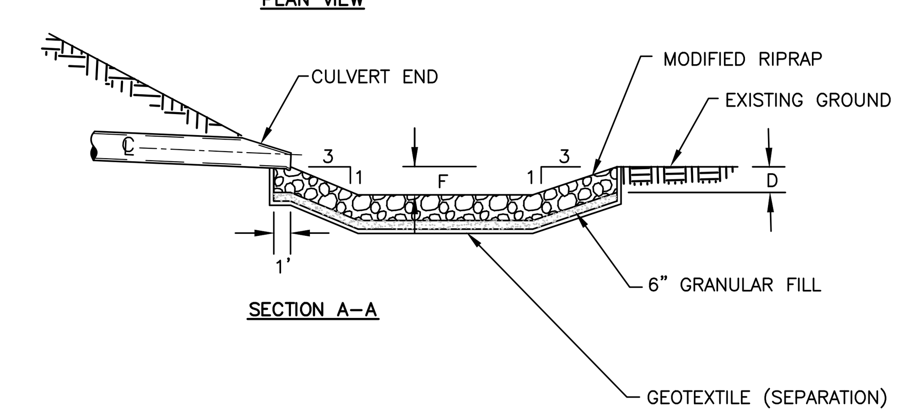


NOTE: USE 8" RISER PIPE AND BENDS FOR INCOMING SEWER OF 12" OR LESS. FOR INCOMING SEWER LARGER THAN 12", THE RISER PIPE AND BENDS SHALL BE 10"

DROP MANHOLE CROSS SECTION
NOT TO SCALE



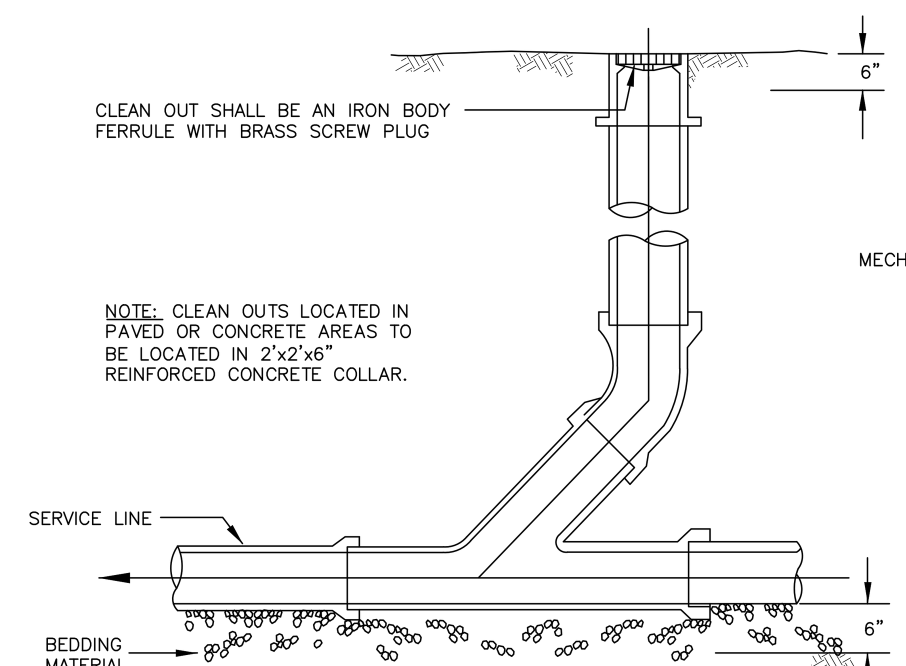
PLAN VIEW



SECTION A-A

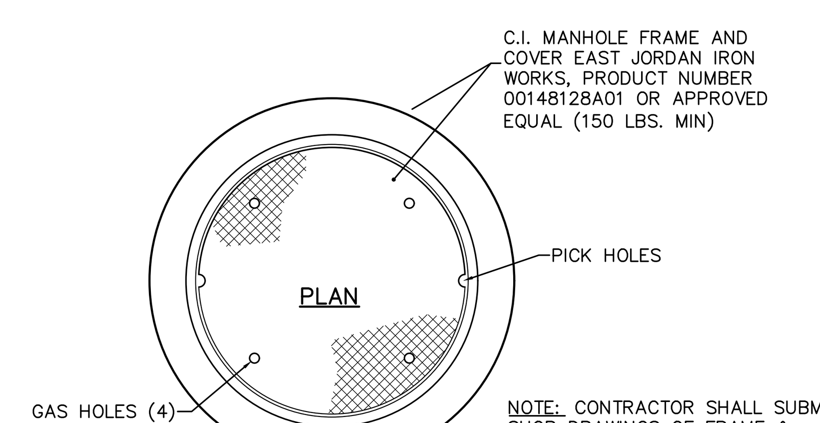
PREFORMED SCOUR HOLE TYPE 1
NTS

LOCATION	B	C	D	F	2Sp	3Sp
24" OUTLET	10'	12'	1'	1'	4'	6'



NOTE: CLEAN OUTS LOCATED IN PAVED OR CONCRETE AREAS TO BE LOCATED IN 2'x2'x6" REINFORCED CONCRETE COLLAR.

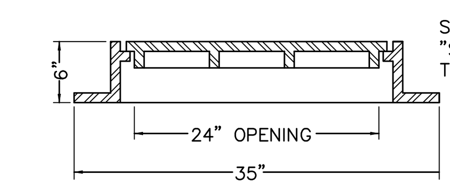
CLEAN-OUT DETAIL
NTS



NOTE: CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF FRAME & COVER SHOWING CASTING FOR APPROVAL

DRAINAGE MANHOLE SHALL HAVE "DRAINAGE" OR "STORM" IMPRINTED ON COVER

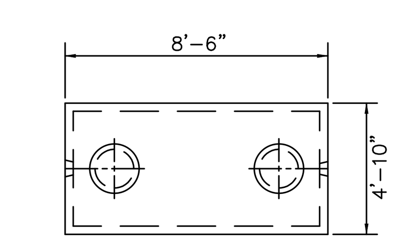
SEWER MANHOLE SHALL HAVE "SANITARY SEWER" IMPRINTED ON THE COVER



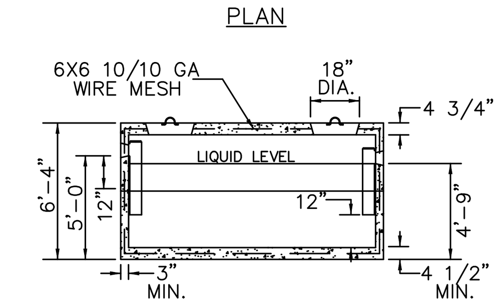
CROSS SECTION

STANDARD COVER SHOWN
BOLTED AND GASKET COVER SIMILAR

STANDARD MANHOLE FRAME AND COVER
NOT TO SCALE

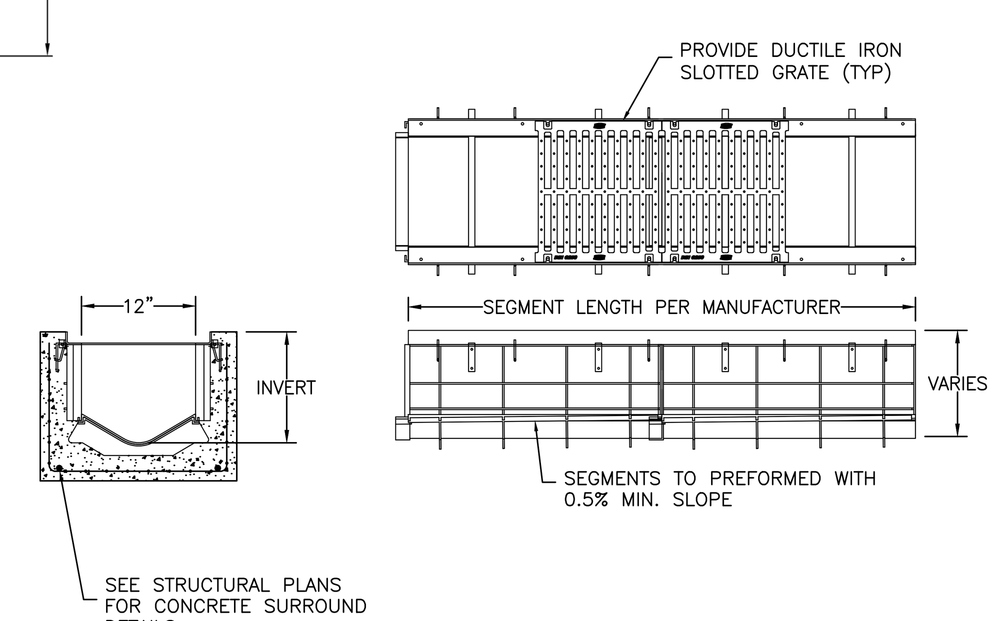


PLAN



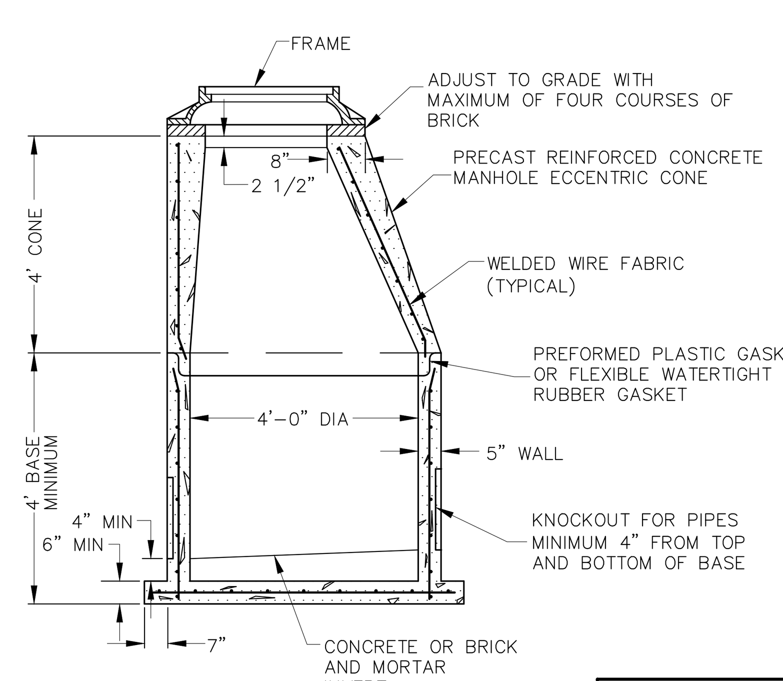
CROSS SECTION

1000 GALLON GREASE TRAP
NOT TO SCALE



TRENCH DRAIN
NTS

NOTE: STRUCTURE TO MEET H-20 LOADING REQUIREMENTS



DRAINAGE MANHOLE CROSS SECTION
NOT TO SCALE

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
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SITE DEVELOPMENT PLAN
PREPARED FOR:

TOWNSEND DEVELOPMENT ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

STATE OF CONNECTICUT · BRYAN L. BUSCH · No. 21097 · LICENSED PROFESSIONAL ENGINEER

05/24/2023

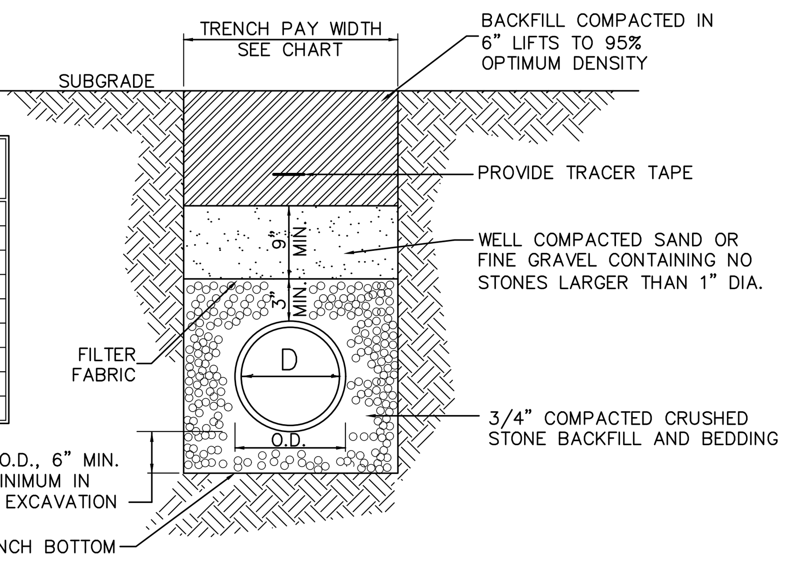
No.	Submittal / Revision	App'd.	By	Date

CONSTRUCTION DETAILS

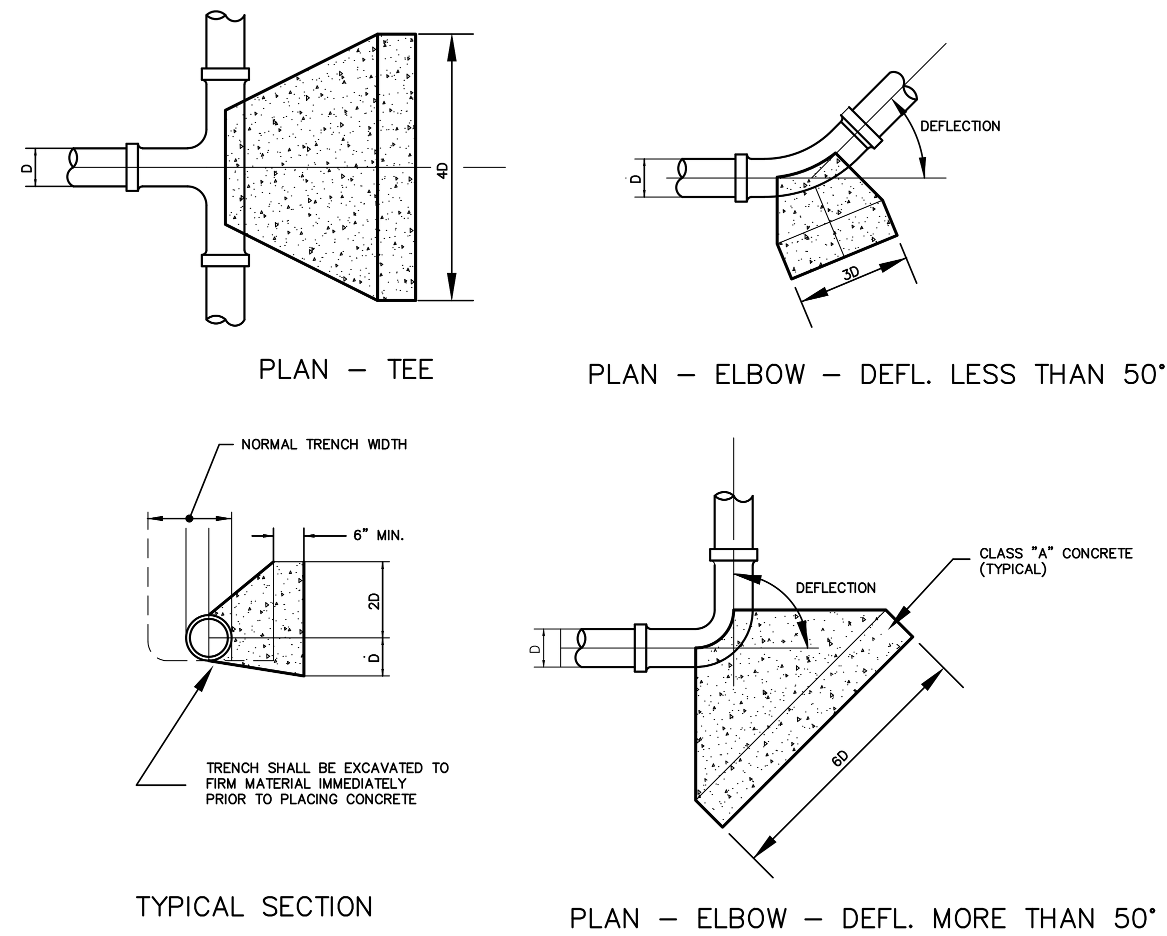
Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date:	Project No:	Scale:
05/05/2023	080849	AS NOTED

Drawing No.:
9

PIPE DIAMETER	MAXIMUM TRENCH WIDTH
6"	2'-6"
8"	3'-0"
10"	3'-0"
12"	3'-0"
15"	3'-3"
18"	3'-6"
21"	4'-0"
24"	4'-6"
30"	5'-0"

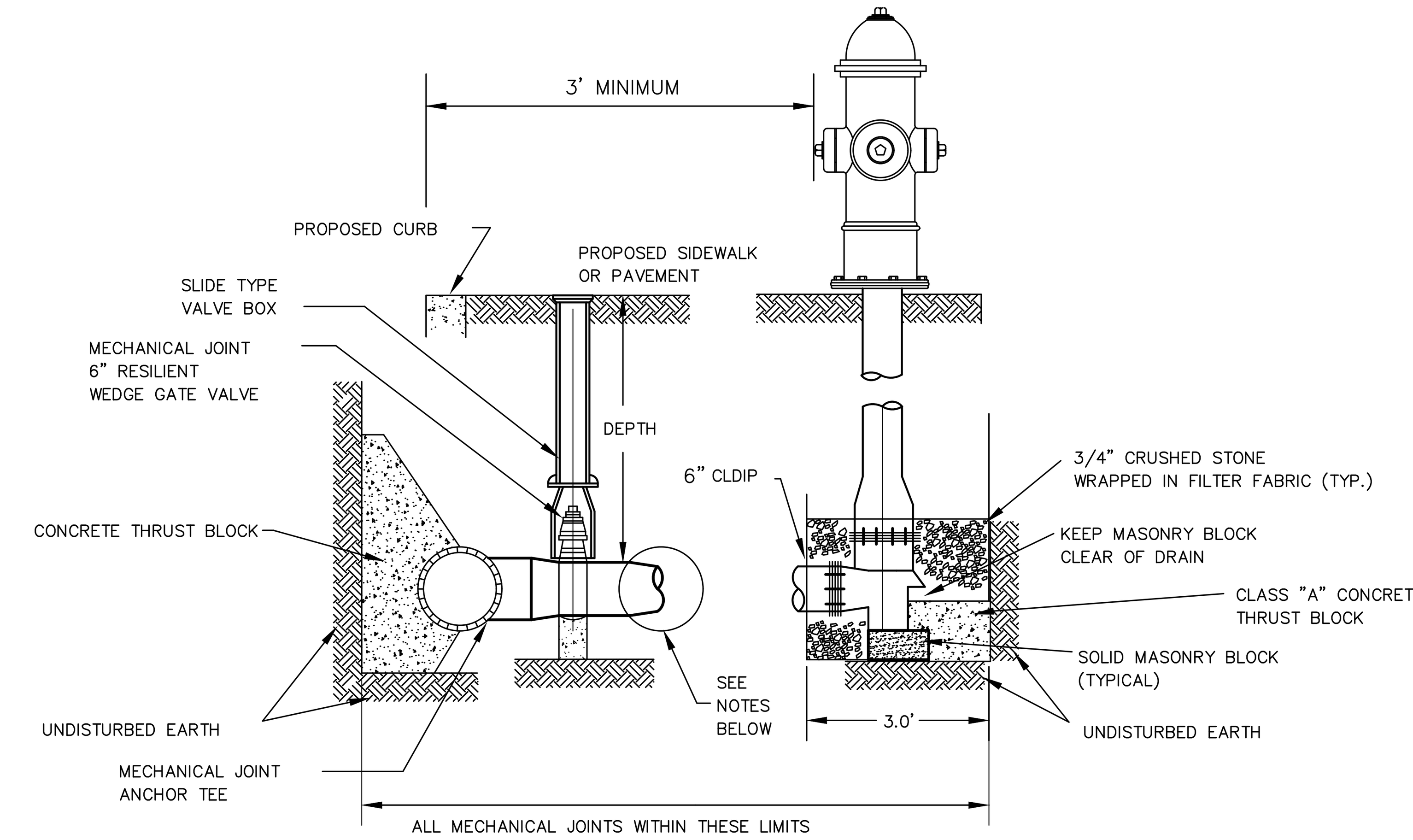


TRENCH SECTION FOR TYPICAL WATER MAIN TRENCH
NOT TO SCALE



CONCRETE THRUST BLOCKS
NOT TO SCALE

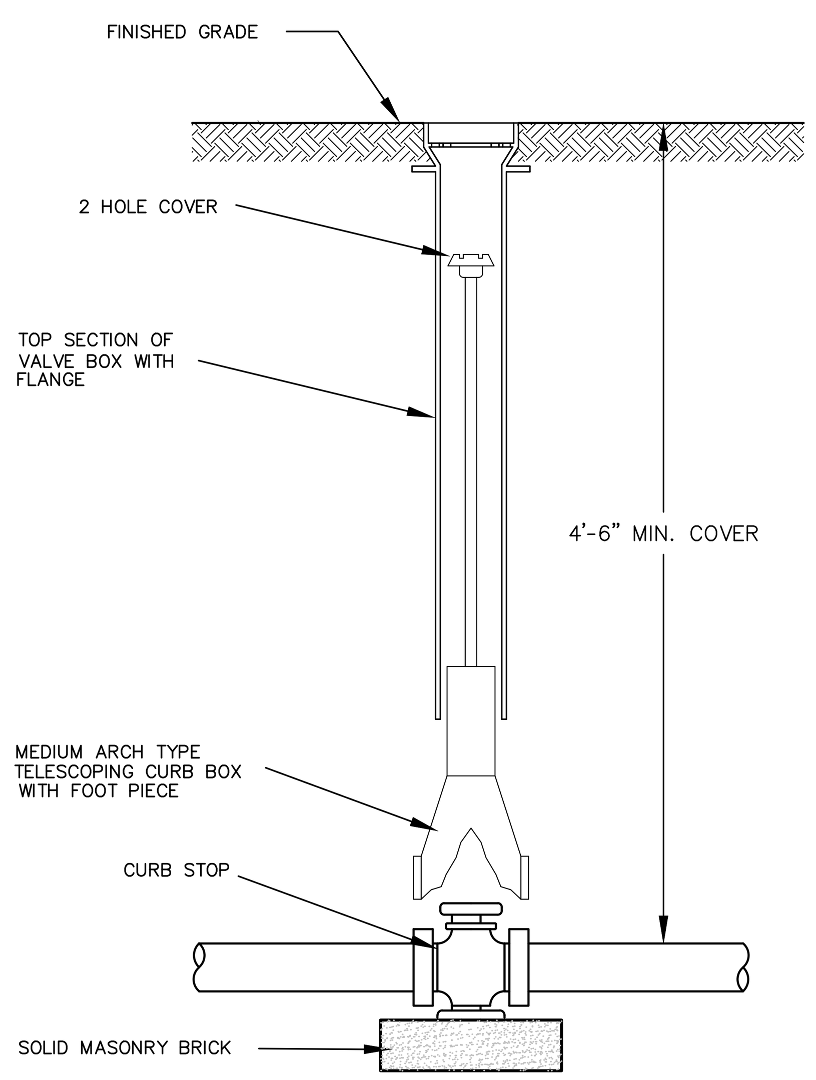
NOTE: THRUST BLOCK DIMENSIONS ASSUME:
ALLOWABLE SOIL BEARING PRESSURE = 1,650 PSI
WATER MAIN WORKING PRESSURE = 150 PSI



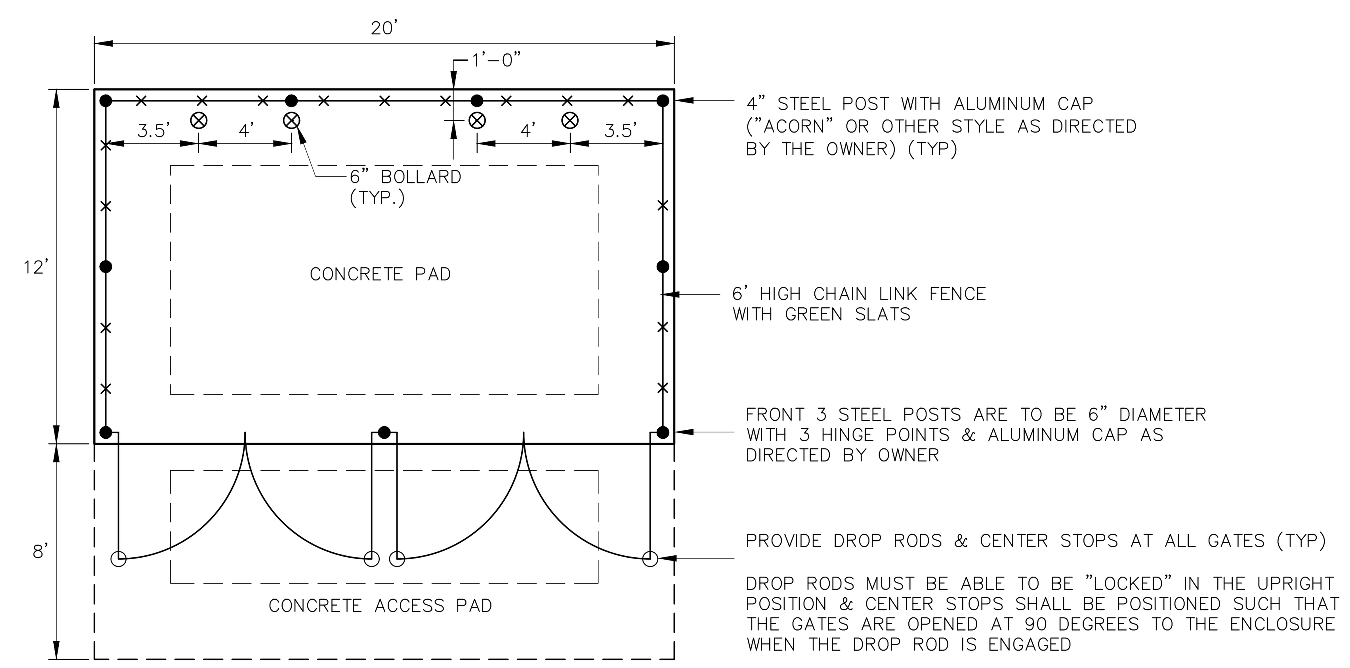
ALL MECHANICAL JOINTS WITHIN THESE LIMITS SHALL BE INSTALLED WITH DUCTILE IRON RETAINER GLANDS/MEGALUGS. ALL PUSH-ON JOINTS SHALL BE RESTRAINED BY MEANS OF COVERALL PIPE JOINT RESTRAINERS.

NOTE: HYDRANTS SHALL BE SET AT BACK OF SIDEWALKS ALLOWING 3.0' MINIMUM TO FACE OF CURB.

HYDRANT DETAIL
NOT TO SCALE

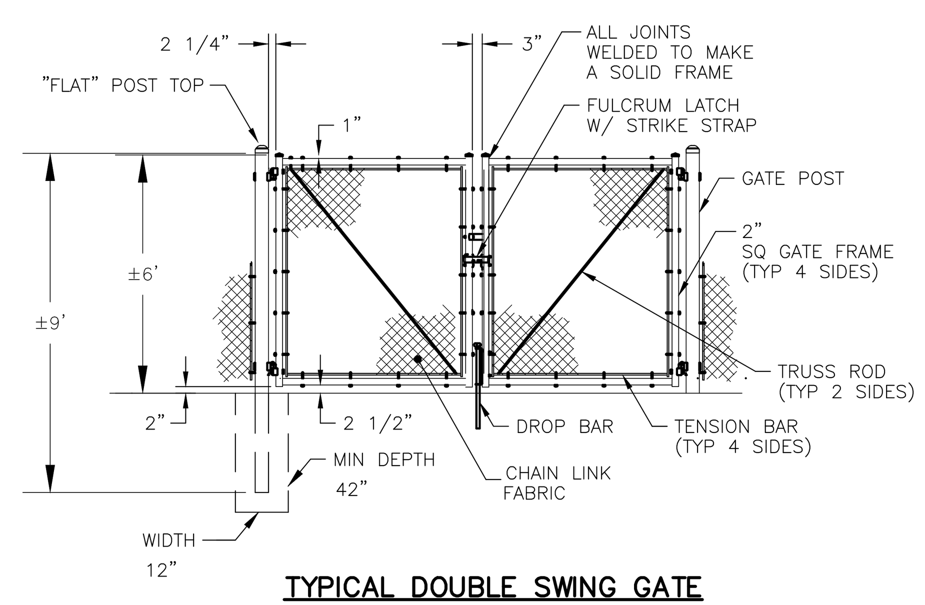


CURB STOP
NTS



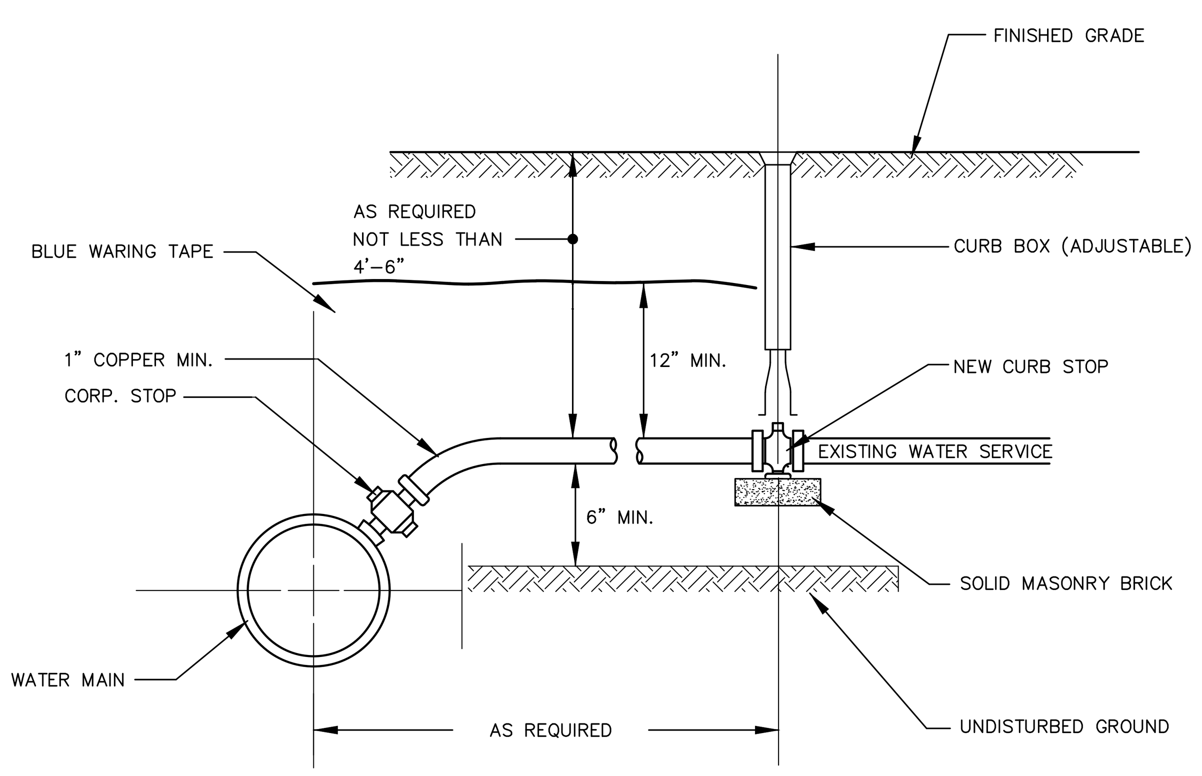
NOTES:
1.) GATE TO BE REINFORCED WITH GALVANIZED STEEL TUBING AND SHEATHED WITH MATERIALS CONSISTENT IN TYPE AND COLOR TO THE REMAINDER OF THE DUMPSTER ENCLOSURE.
2.) GATE POSTS AND BOLLARDS SHALL BE SET IN PLACE PRIOR TO CASTING SLAB.
3.) ENTIRE SLAB SHALL BE CAST ON MINIMUM OF 6" CRUSHED STONE OR COMPACTED GRAVEL.
4.) CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AND SHALL BE PLACED IN ACCORDANCE WITH ACI 318-02.
5.) WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM A 185.
6.) STEEL REINFORCING SHALL HAVE A YIELD STRENGTH OF 60ksi.

DUMPSTER ENCLOSURE DETAIL
NOT TO SCALE



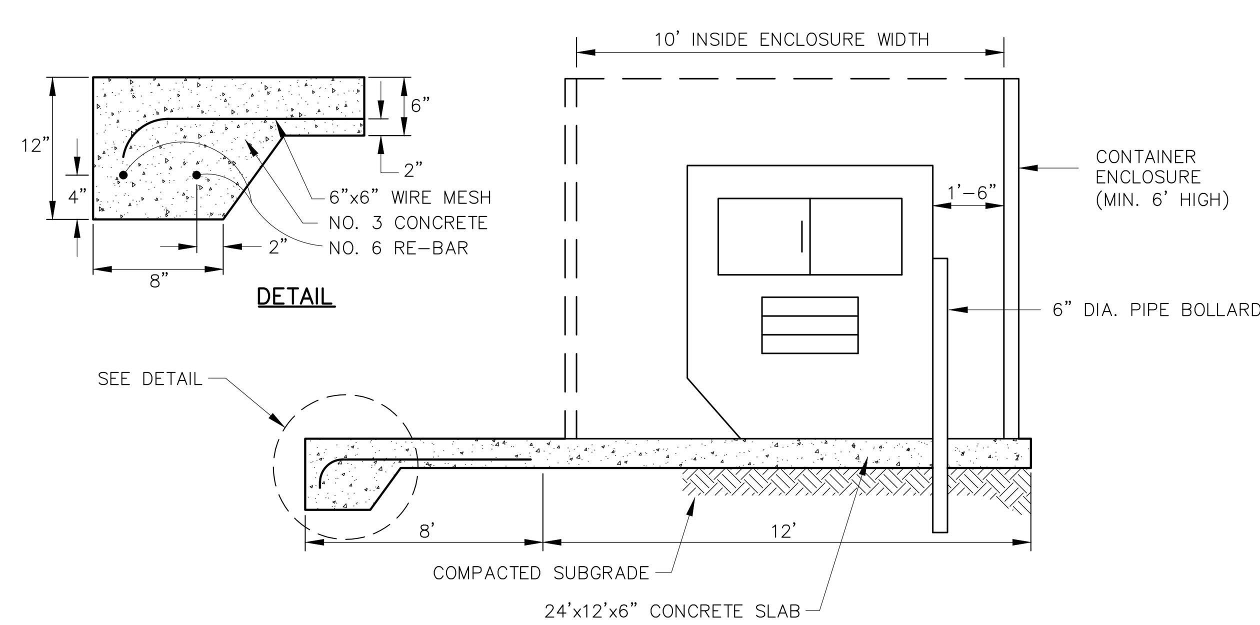
TYPICAL DOUBLE SWING GATE
NOT TO SCALE

NOTE:
1. ALL FENCE COMPONENTS SHALL BE BLACK PVC COATED
2. PROVIDE DROP BAR FOR EACH GATE & GROUND INSERT TO STABILIZE GATES IN BOTH CLOSED & OPEN CONDITIONS. PROVIDE LATCH POSTS TO STABILIZE GATES IN OPEN POSITION IF GROUND ELEVATIONS VARY.

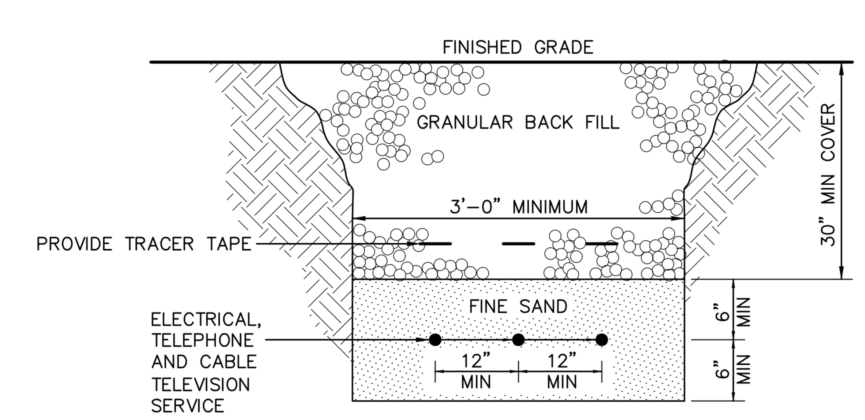


NOTE:
WATER SERVICE PIPE TO BE INSTALLED IN A BED OF FINE AGGREGATE SAND 6" MINIMUM BED AND 12" MINIMUM COVER AND BLUE WARNING TAPE ON TOP OF THE 12" FINE AGGREGATE BED.

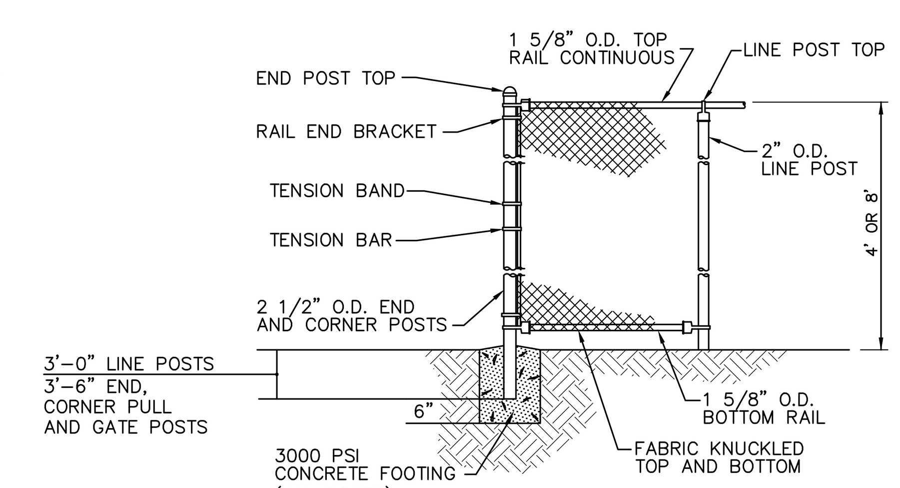
CORPORATION CURB STOP
NTS



DUMPSTER PAD SECTION
NOT TO SCALE



BURIED CABLE TRENCH CROSS SECTION
NOT TO SCALE



NOTE: ALL COMPONENTS SHALL HAVE BLACK EPOXY COATING

TYPICAL CHAIN LINK FENCING
NOT TO SCALE

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN DATE	CHAIRMAN OR SECRETARY DATE	CHAIRMAN OR SECRETARY DATE

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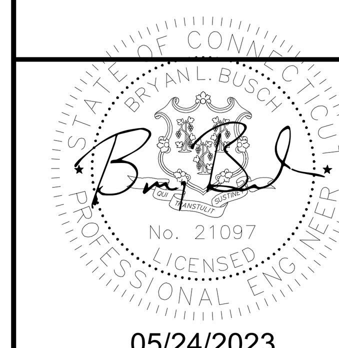
SITE DEVELOPMENT PLAN
PREPARED FOR:

TOWNSEND DEVELOPMENT ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT



05/24/2023

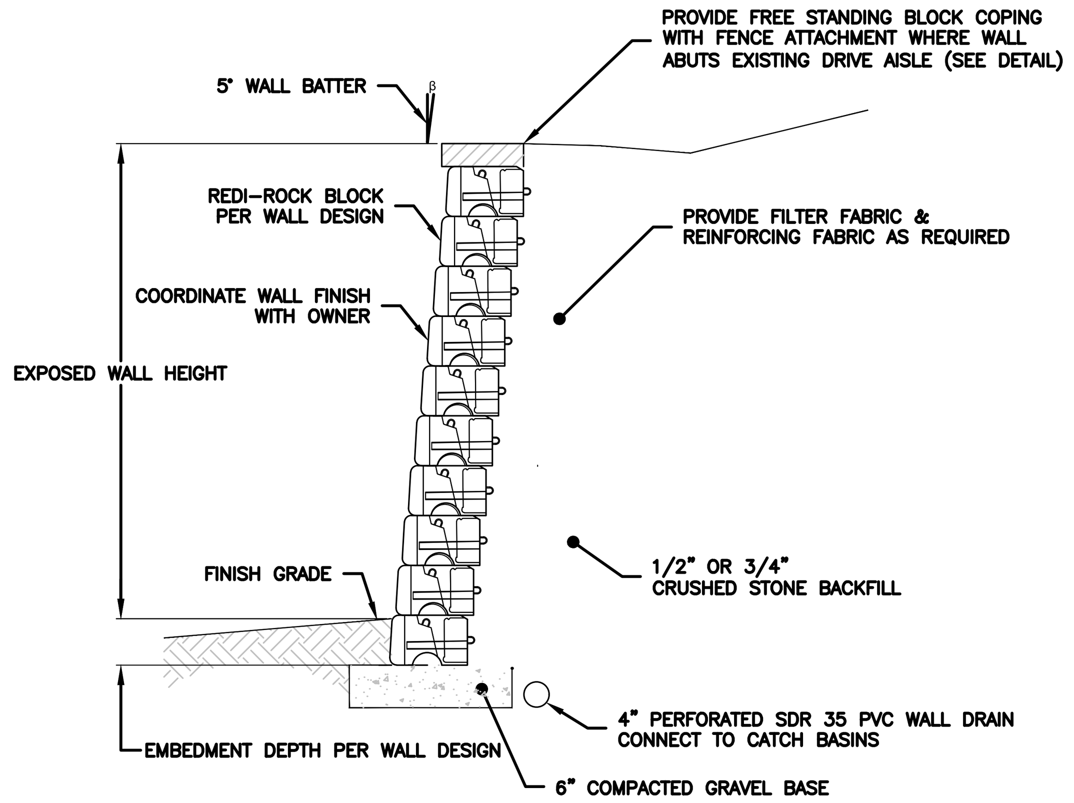
No.	Submittal / Revision	App'd.	By	Date

CONSTRUCTION DETAILS

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date: 05/05/2023	Project No: 080849	Scale: AS NOTED

Drawing No.:
10

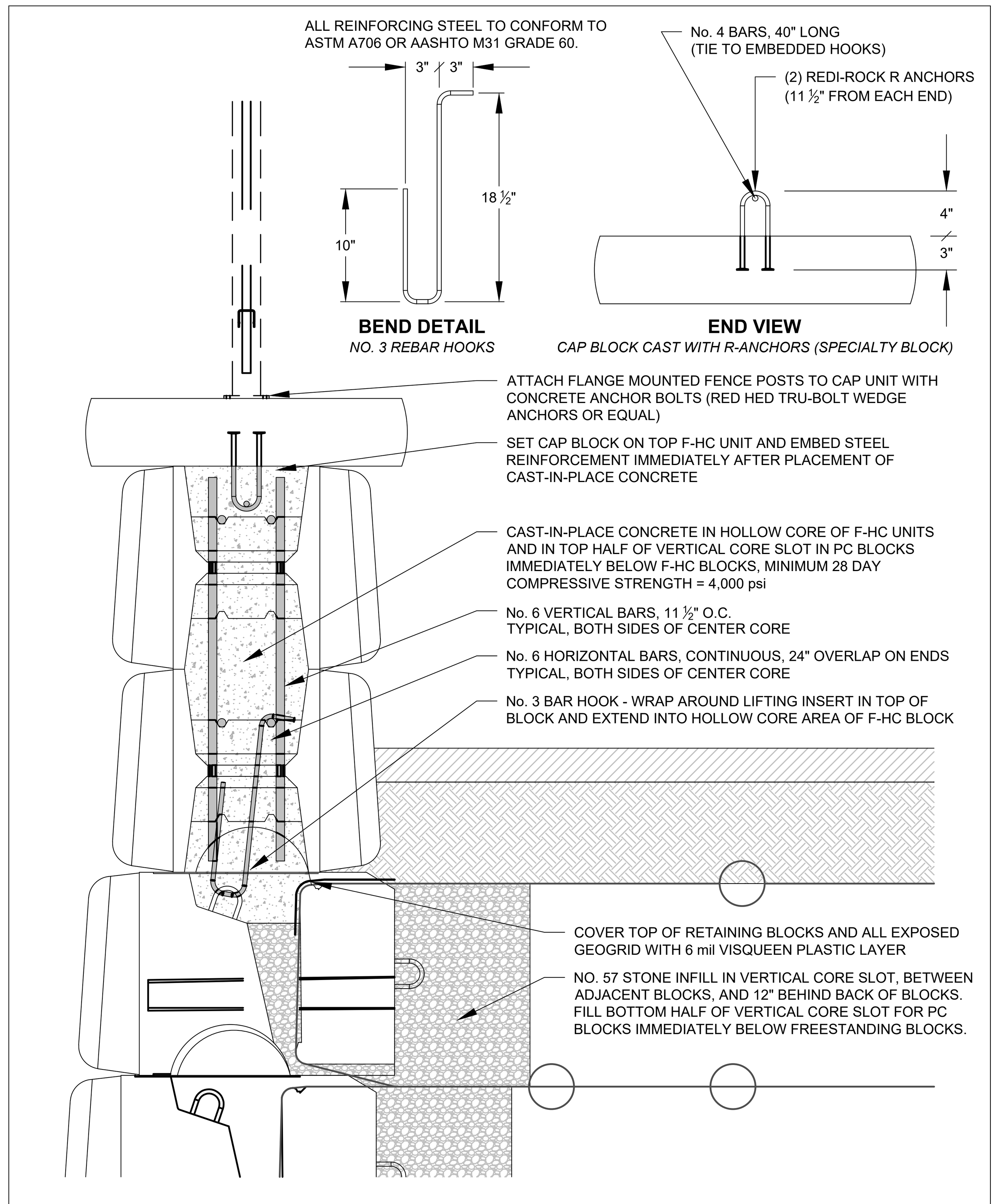
File: V:\PROJECTS\ANY\K6\080849.000\09_DESIGN\DRAWINGS\CIVIL\080849 STP.DWG



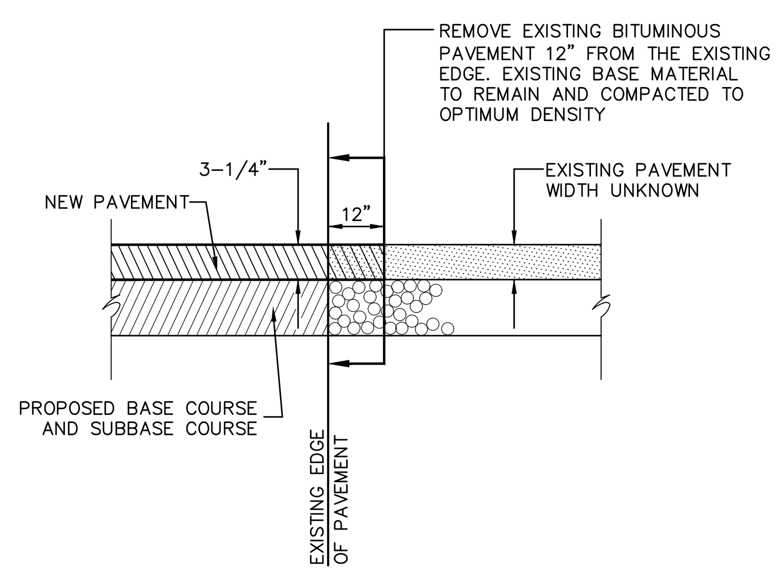
SEGMENTAL CONCRETE BLOCK RETAINING WALL

NOT TO SCALE

NOTES:
1. BASIS FOR DESIGN IS REDI-ROCK GRAVITY WALL SYSTEM.
2. PROVIDED DETAIL ILLUSTRATES TYPICAL WALL CONSTRUCTION. WALL MANUFACTURER MUST PROVIDE COMPLETE SIGNED & SEALED PLANS & CALCULATIONS FOR SUBMISSION TO TOWN BUILDING DEPARTMENT PRIOR TO CONSTRUCTION.



DRAWN BY: J. JOHNSON	TITLE: F-HC FREESTANDING BLOCK COPING WITH FENCE ATTACHMENT	REDI-ROCK
APPROVED BY:		05481 US 31 SOUTH, CHARLEVOIX, MI 49720
DATE: 01/18/17		(866) 222-8400 ext 3010 • engineering@redi-rock.com
SHEET: 2 OF 2	FILE: F-HC Coping with Fence Attachment R-Anchor Option 011817.dwg	www.redi-rock.com



1.) SAW CUT PAVEMENT WITH POWER DRIVEN SAW 12" FROM THE EXISTING EDGE. SAW CUT TO BE PERPENDICULAR TO THE EXISTING SURFACE.

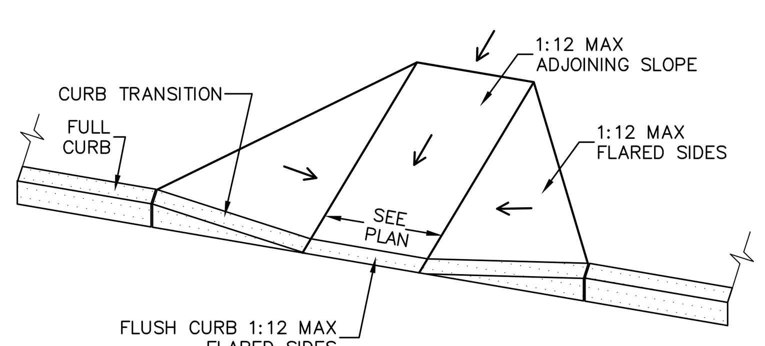
2.) REMOVE ENTIRE WIDTH OF PAVEMENT.

3.) CLEAN JOINT WITH COMPRESSED AIR HAVING A MINIMUM RATED CAPACITY OF 90 PSI

4.) APPLY TACK COAT TO THE SAW CUT EDGE AND MATCH THIS EDGE WITH THE PROPOSED EDGE.

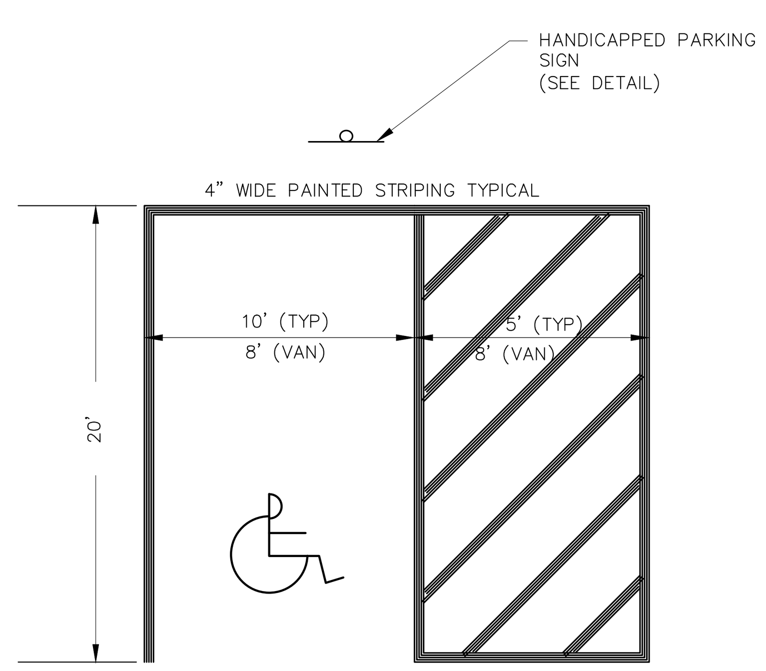
TYPICAL CROSS SECTION FOR MATCHING EXISTING AND PROPOSED PAVEMENT

NOT TO SCALE



DEPRESSED CURB RAMP

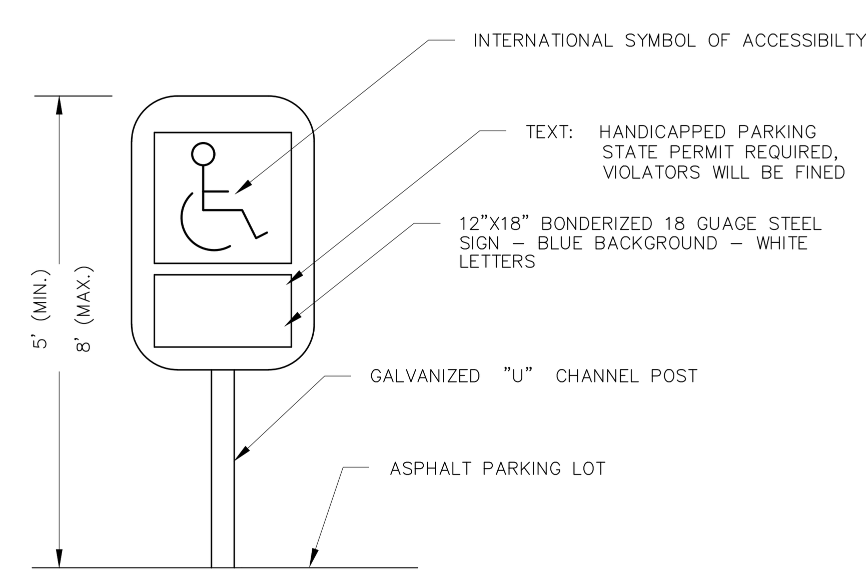
NOT TO SCALE



HANDICAP PARKING LAYOUT

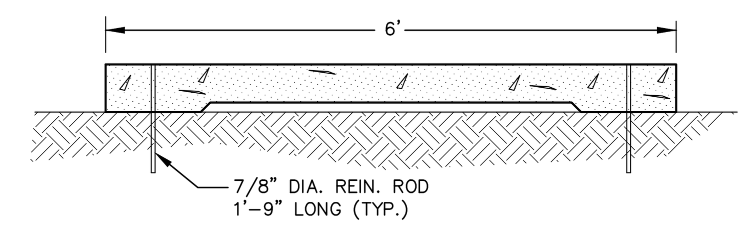
NOT TO SCALE

NOTES:
1. VAN ACCESSIBLE SPACES REQUIRE AN 8' SPACE WITH AN 8' HATCHED AREA.
2. ADJACENT SPACES CAN "SHARE" HATCHED ACCESS AISLES
3. MAXIMUM SLOPE IN ANY DIRECTION WITHIN PARKING SPACE & HATCHED AREA IS 2%



HANDICAPPED PARKING SIGN

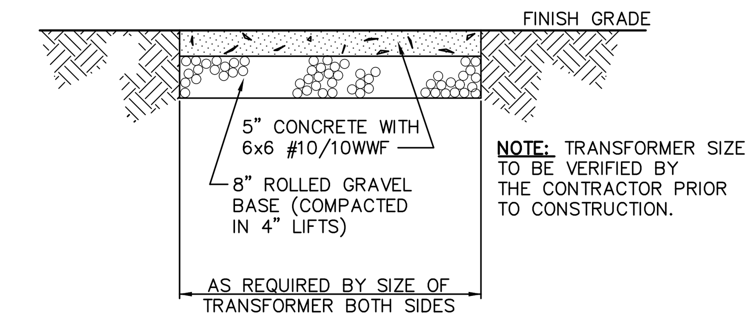
NOT TO SCALE



NOTE: INSTALL AS REQUIRED BY THE MANUFACTURER

CONCRETE WHEEL STOP CROSS SECTION

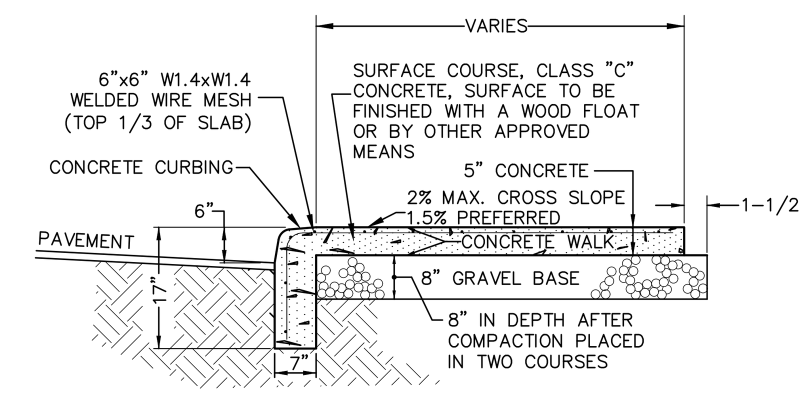
NOT TO SCALE



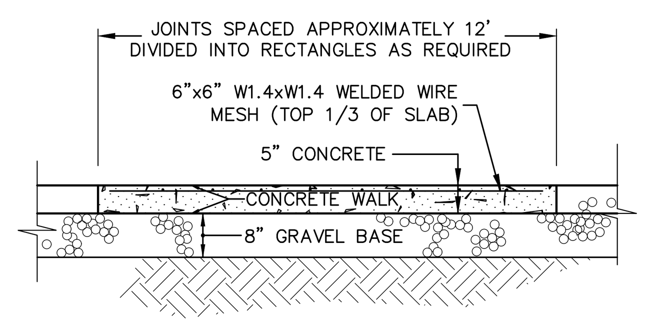
NOTE: TRANSFORMER SIZE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

TRANSFORMER PAD

NOT TO SCALE



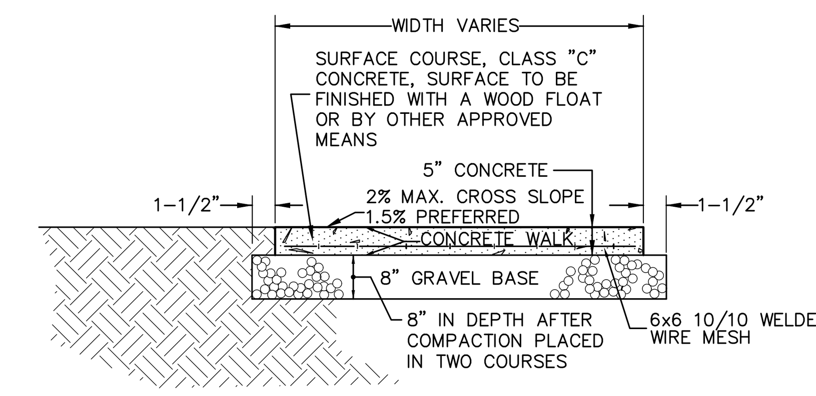
CROSS SECTION



LONGITUDINAL SECTION

5" CONCRETE SIDEWALK WITH CONCRETE CURBING

NOT TO SCALE



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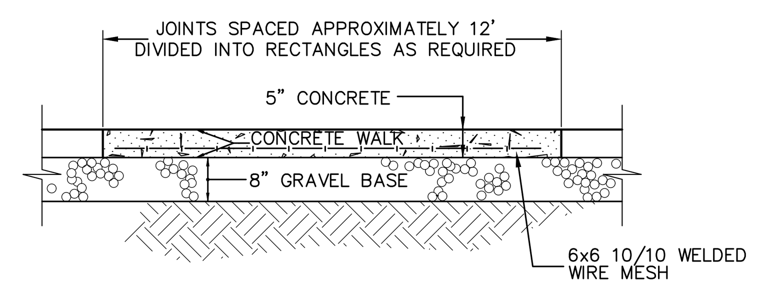
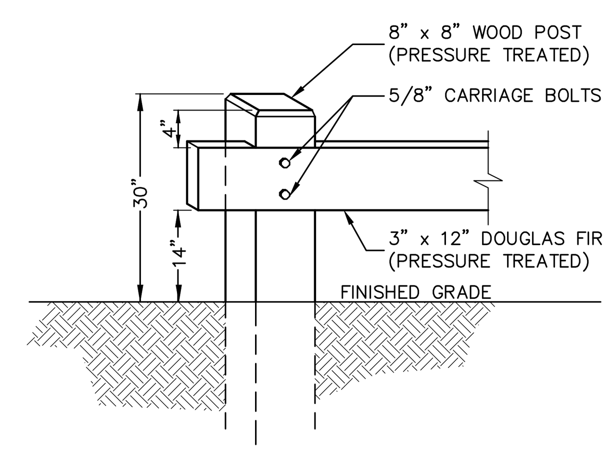


LONGITUDINAL SECTION

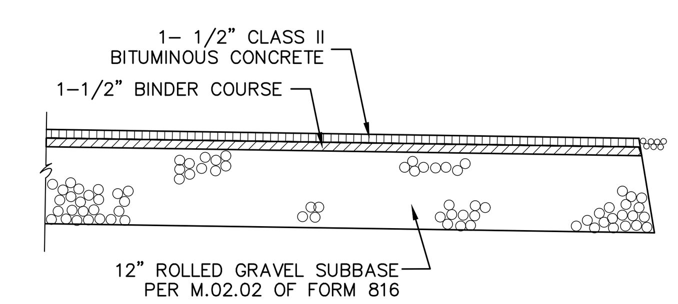
5" CONCRETE SIDEWALK

NOT TO SCALE



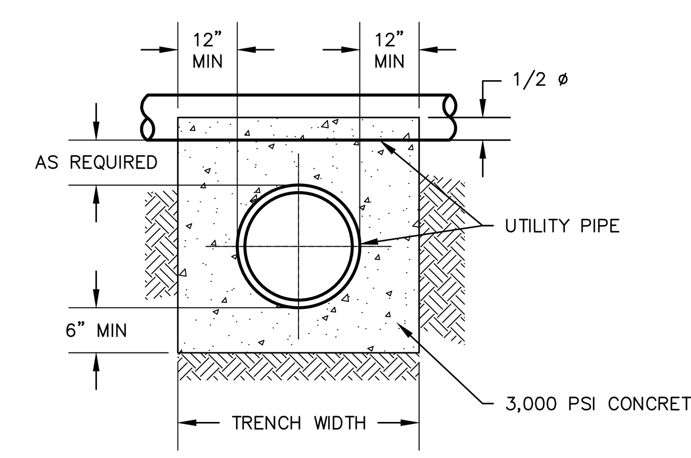
WOOD GUARD RAIL

NOT TO SCALE



BITUMINOUS CONCRETE PAVEMENT

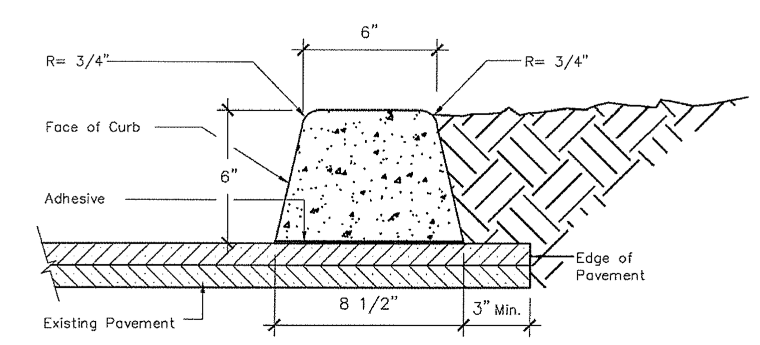
NOT TO SCALE



NOTE:
PROVIDE CONCRETE ENCASEMENT IN ALL LOCATIONS WHERE UTILITIES CROSS WITH LESS THAN 12" OF SEPARARTION OR AS DIRECTED BY THE ENGINEER

CONCRETE ENCASEMENT

NTS



FINISH COURSE STANDARD MOLD 6"

CONCRETE LIP CURBING DETAIL

NOT TO SCALE

NOTE: USE FINISH COURSE STANDARD MOLD 6" BY CONCRETE CRAFTERS OF CT. INC., NAUGATUCK, CT.

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
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SITE DEVELOPMENT PLAN PREPARED FOR:

TOWNSEND DEVELOPMENT ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

No. 21097

05/24/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

No.	Submittal / Revision	App'd.	By	Date

CONSTRUCTION DETAILS

Designed By: PMP	Drawn By: PMP	Checked By:
Issue Date: 05/05/2023	Project No: 080849	Scale: AS NOTED

Drawing No.: 11

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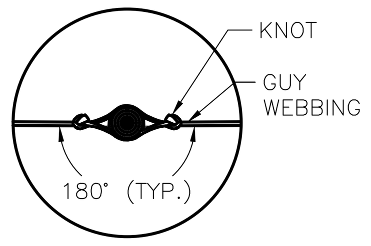
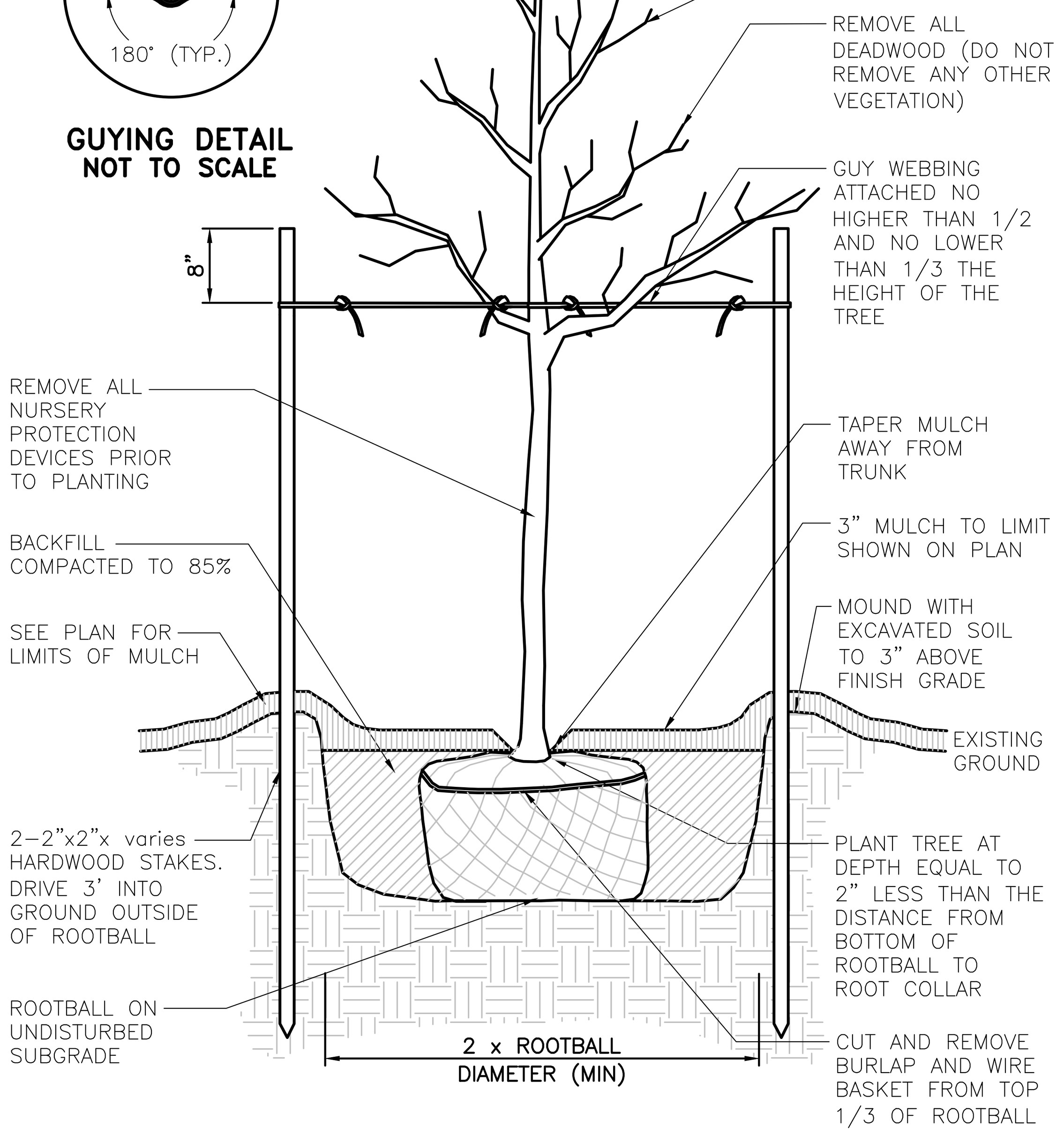
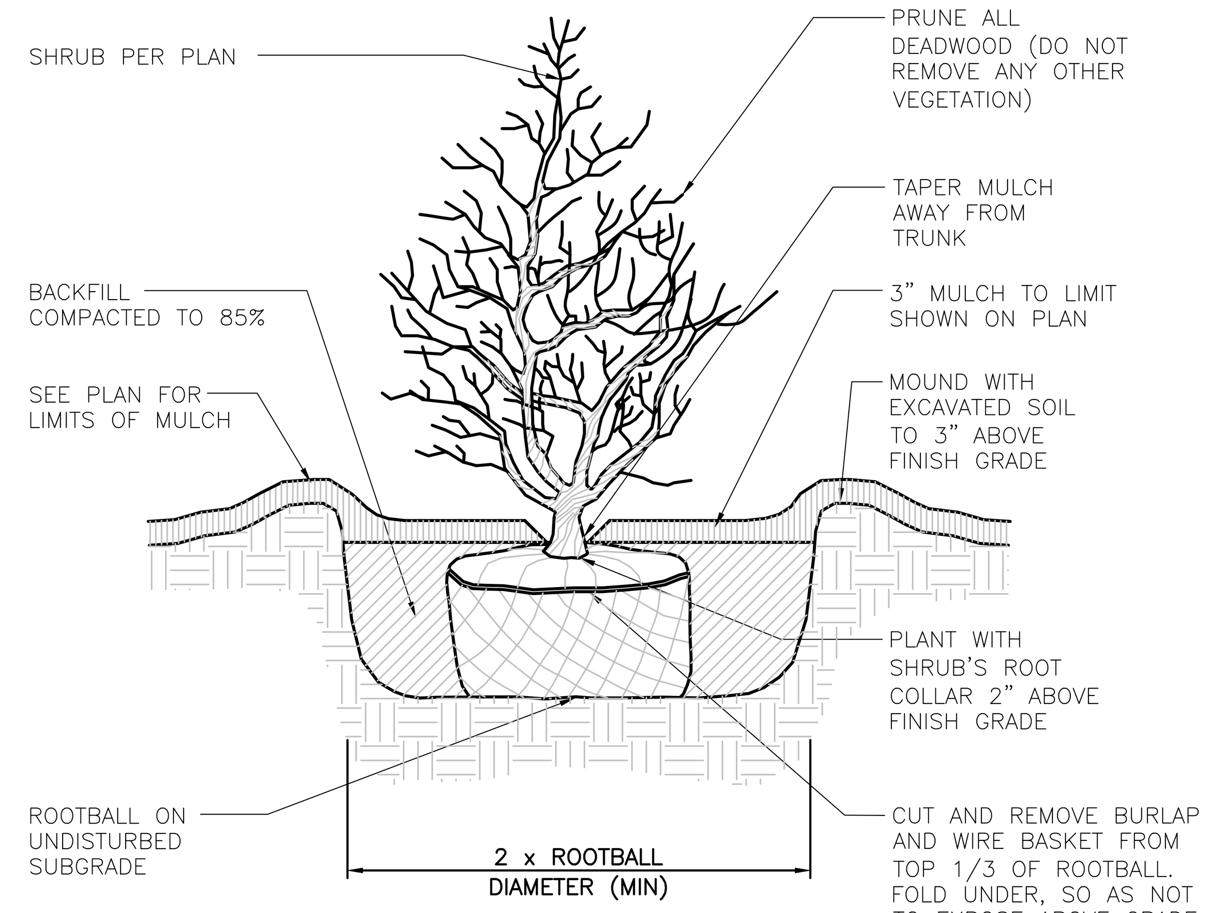


GUYING DETAIL
NOT TO SCALE

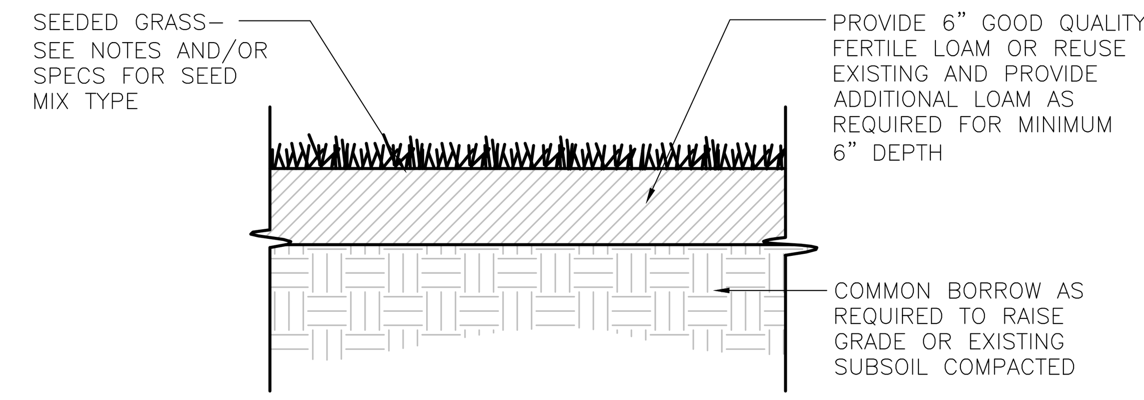


NOTE:
1. AFTER THE GUARANTEE PERIOD THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF STAKES AND GUY WEBBING.

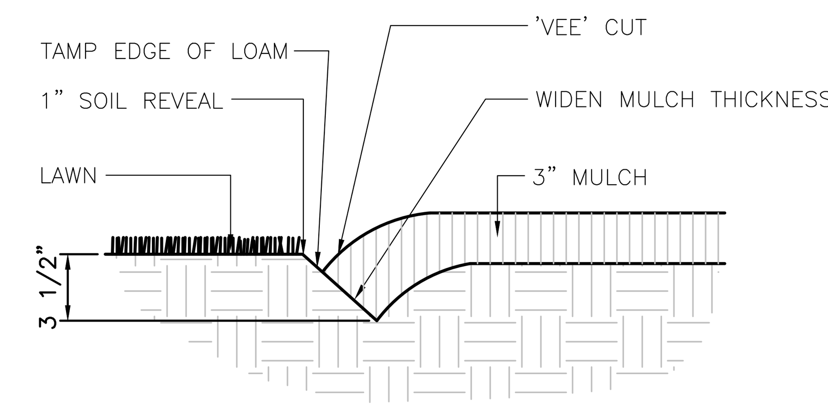
DECIDUOUS TREE
STAKING AND PLANTING DETAIL
NOT TO SCALE



SHRUB PLANTING DETAIL
NOT TO SCALE

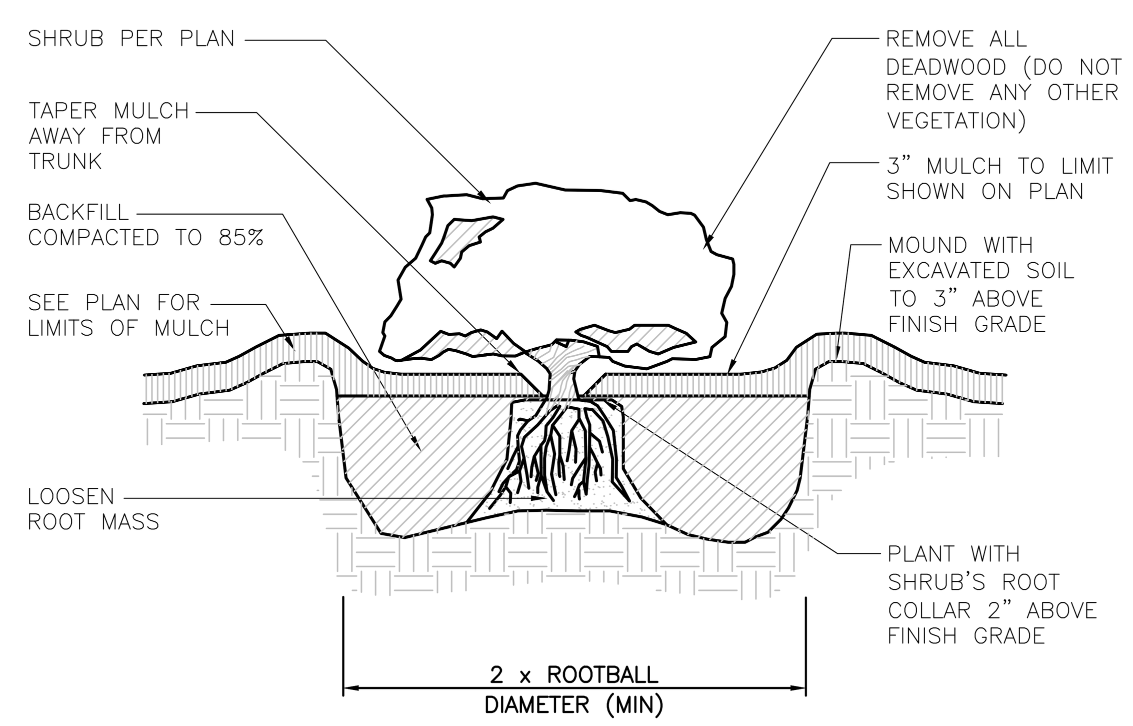


LOAM AND SEED DETAIL
NOT TO SCALE

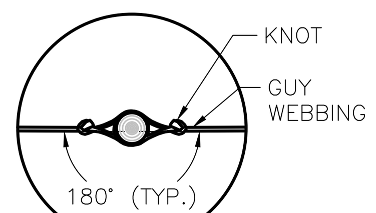


NOTE: LOCATE BEDLINE AS SHOWN ON PLAN.

BEDLINE EDGE DETAIL
NOT TO SCALE



CONTAINER GROWN TREE AND
SHRUB PLANTING DETAIL
NOT TO SCALE



GUYING DETAIL
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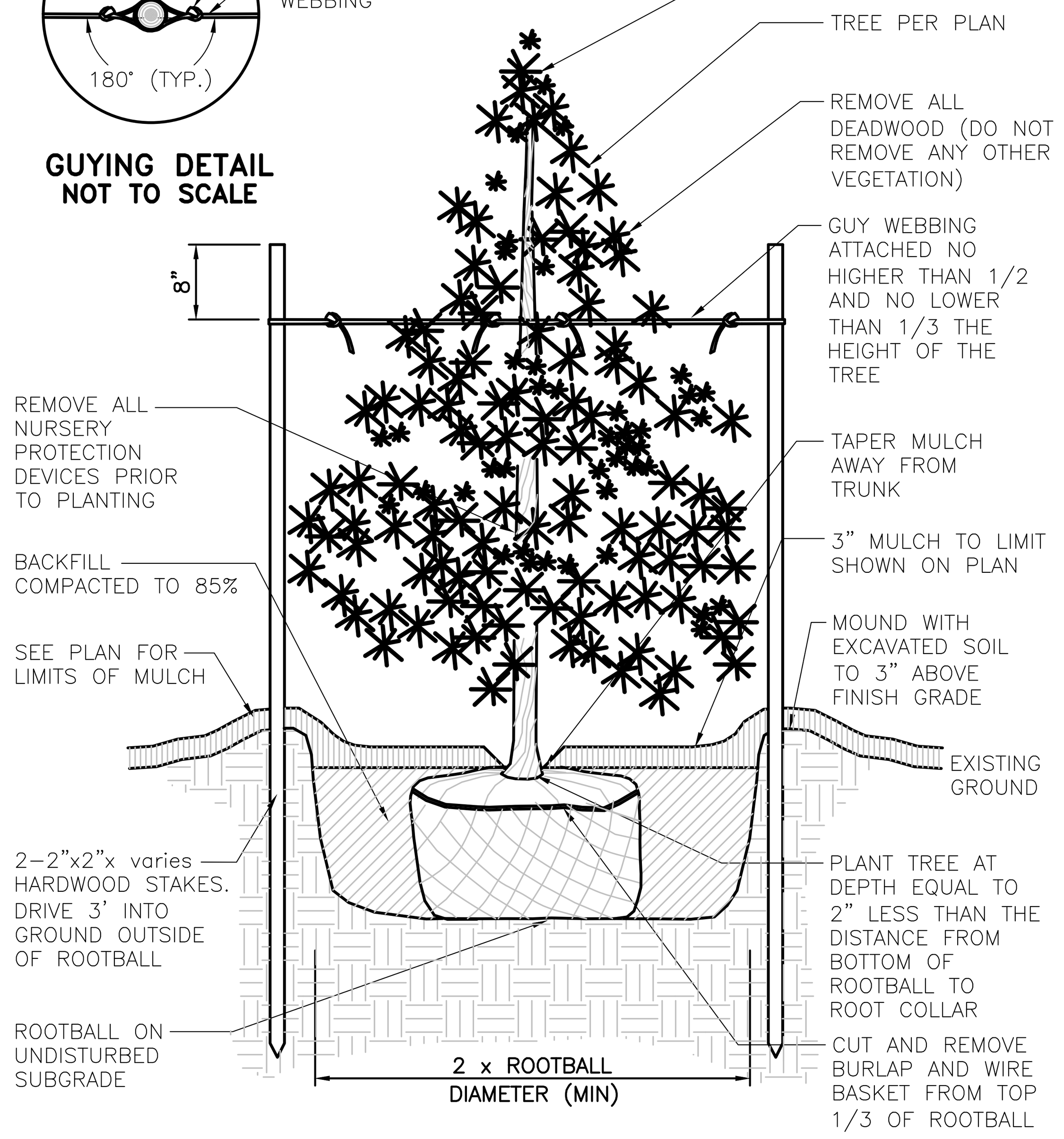
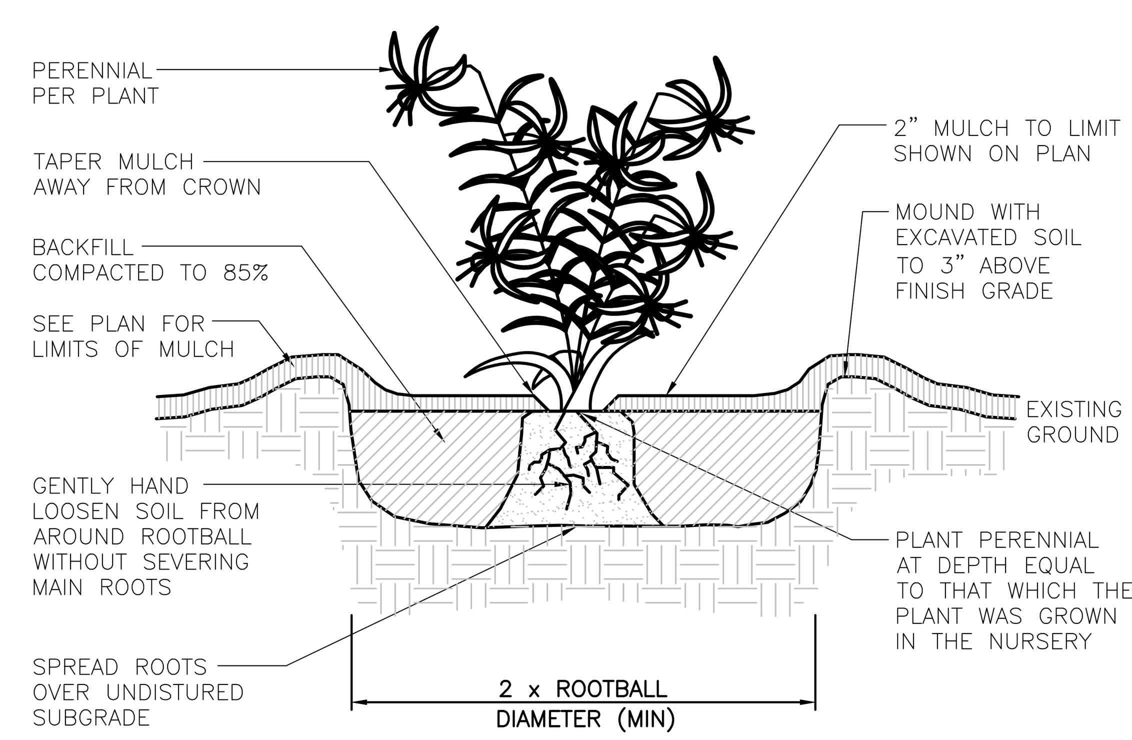


NOTE:
1. AFTER THE GUARANTEE PERIOD THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF STAKES AND GUY WEBBING.

EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



PERENNIAL PLANTING DETAIL
NOT TO SCALE

GENERAL NOTES:

ALL PLANT MATERIAL MUST BE TAGGED IN THE GROUND, AT THE NURSERY BY THE LANDSCAPE ARCHITECT. ALL PLANT MATERIAL SHALL BE COMMERCIALLY OBTAINED AND SHALL MEET THE AMERICAN ASSOCIATION OF NURSERYMAN STANDARDS FOR NURSERY STOCK, LATEST EDITION, AND ITS AMENDMENTS. PLANT ONLY DURING SEASON NORMAL TO THE PARTICULAR VARIETY. ALL PLANT INSPECTIONS WILL BE AT THE EXPENSE OF THE CONTRACTOR. PERMANENT SEALS WILL BE REQUIRED.

2. COVER ALL PLANTING BEDS WITH 3" SHREDDED HARDWOOD BARK MULCH WITHIN A SEVENTY-TWO HOUR PERIOD AFTER PLANTING. SEE PLAN FOR BED LAYOUT.
3. ALL EXISTING AND PROPOSED TREES SHOWN IN LAWN AREAS SHALL RECEIVE A 6' DIAMETER MULCH BED. MULCH SHALL BE PLACED TO A DEPTH OF 3". REMOVE ALL SOD, ROOTS, STICKS AND STONES PRIOR TO PLACEMENT OF MULCH.
4. ALL PLANT MATERIALS FURNISHED BY THE CONTRACTOR SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE OF LANDSCAPE WORK.
5. STAKE ALL TREES OVER 5' AS SHOWN ON DETAILS.
6. REMOVE STAKES AT THE END OF THE GUARANTEE PERIOD.
7. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE SITE CLEAN OF MISCELLANEOUS DEBRIS THROUGHOUT THE CONSTRUCTION PERIOD. ALL WASTE MATERIAL IS TO BE DISPOSED OF IMMEDIATELY TO AN OFF-SITE LOCATION, UNLESS OTHERWISE INDICATED ON THE PLANS.
8. THE CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS, AND SHALL OBTAIN ALL NECESSARY PERMITS FOR THIS PROJECT.
9. LAYOUT: ALL NOTES AND DIMENSIONS ARE TYPICAL UNLESS OTHERWISE NOTED. ALL DIMENSIONS ARE SQUARE (PARALLEL OR PERPENDICULAR) UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL NOTIFY THE OWNER/OWNER'S REPRESENTATIVE IMMEDIATELY IN THE EVENT OF ANY DISCREPANCIES FOUND IN THE CONTRACT DOCUMENTS AND/OR IN THE FIELD, OR OF CONDITIONS UNCOVERED IN THE WORK WHICH ARE NOT REFLECTED IN THE PLANS.
10. LOAM: LOAM MOVED DURING THE COURSE OF CONSTRUCTION SHALL BE RETAINED AND DISTRIBUTED WITHIN THE SITE IN ACCORDANCE WITH THE LANDSCAPE PLAN. STOCKPILED LOAM SHALL NOT BE MIXED WITH ANY SUBSOIL OR UNSUITABLE MATERIALS. ALL EXCESS LOAM SHALL REMAIN ON THE PROPERTY OF THE OWNER. NEW LOAM IF REQUIRED TO PROVIDE THE SPECIFIED DEPTH, SHALL BE A FERTILE, FRIABLE MEDIUM TEXTURED SANDY LOAM FREE OF MATERIAL TOXIC TO HEALTHY PLANT GROWTH. LOAM SHALL ALSO BE FREE OF ALL STUMPS, ROOTS, STONES AND OTHER EXTRANEOUS MATTER AN INCH (1") OR GREATER IN DIAMETER. THE PH SHALL BE BETWEEN 5.5 AND 7.5 WHEN TESTED.
11. LAWN PREPARATION: REMOVE ALL DEBRIS AND OTHER INORGANIC MATERIALS ON THE PREPARED SUBGRADE, RESHAPE AND DRESS ANY DAMAGED OR ERODED AREA PRIOR TO SPREADING THE LOAM. SCARIFY AND LOOSEN SUBGRADE IN ANY AREAS WHERE COMPACTION MAY HAVE OCCURRED. SPREAD STOCKPILED AND OFF-SITE LOAM ON ALL DISTURBED AREAS TO PRODUCE A DEPTH OF 6". FINE GRADE LOAMED AREAS TO PRODUCE A SMOOTH AND UNBROKEN FINISH GRADE TO THE REQUIRED DEPTH. APPLY A STARTER FERTILIZER (10-20-10) AT A RATE OF 20 LBS. PER 1000 SQUARE FEET AND LIME AT A RATE OF 40 LBS. PER 1000 SQUARE FEET. ONCE SPREAD, THE FERTILIZER AND LIME SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM. THE LOAM SHALL BE ROLLED, AND DEPRESSION SHALL BE TOP DRESSED AND RAKED TO CREATE A SMOOTH SURFACE.
12. PROTECTION OF EXISTING PLANTINGS: MAXIMUM EFFORT SHOULD BE MADE TO SAVE TREE OR OTHER PLANT SPECIMENS WHICH ARE LARGE FOR THEIR SPECIES, RARE TO THE AREA, OR OF SPECIAL HORTICULTURAL OR LANDSCAPE VALUE. CONTACT OWNER/LANDSCAPE ARCHITECT BEFORE REMOVING ANY SPECIMEN OF THIS TYPE UNLESS OTHERWISE NOTED ON THE PLANS. NO MATERIAL OR TEMPORARY SOIL DEPOSITS SHALL BE PLACED WITHIN THE DRIP LINE OF SHRUBS OR TREES DESIGNATED ON THE LANDSCAPE PLAN TO BE RETAINED. PROTECTIVE BARRIERS ARE TO BE INSTALLED AROUND EACH PLANT AND/OR GROUP OF PLANTS THAT ARE TO REMAIN ON THE SITE. BARRIERS SHALL NOT BE SUPPORTED BY THE PLANTS THEY ARE PROTECTING, BUT SHALL BE SELF SUPPORTING. THEY SHALL BE OF MINIMUM OF FOUR FEET (4') HIGH AND CONSTRUCTED OF A DURABLE MATERIAL, SUCH AS SNOW OR SILT FENCE, THAT WILL LAST UNTIL CONSTRUCTION IS COMPLETED.
13. PRUNING: THE CONTRACTOR SHALL CAREFULLY PRUNE BRANCHES IN THE WAY OF CONSTRUCTION BY USING ONLY APPROVED METHODS AND TOOLS. THE USE OF AXES FOR TRIMMING OR SPURS FOR CLIMBING WILL NOT BE PERMITTED.
14. EXISTING UTILITIES: IN ACCORDANCE WITH "CALL BEFORE YOU DIG" AT (1-800-922-4455), THE CONTRACTOR SHALL CONTACT ALL APPLICABLE UTILITY COMPANIES AND VERIFY UTILITY LINE LOCATIONS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY/ALL UTILITY DAMAGE. RECORD LOCATIONS OF "CALL BEFORE YOU DIG" UTILITY LINE MARKINGS ON PROJECT RECORD DOCUMENTS.
15. DISTURBED AREAS: ANY AREAS DISTURBED DURING THE COURSE OF CONSTRUCTION ARE TO BE RESTORED TO ORIGINAL (OR BETTER) CONDITION BY CONTRACTOR BEFORE COMPLETION OF THE PROJECT, AND ARE SUBJECT TO APPROVAL BY LANDSCAPE ARCHITECT AND OWNER. ALL GRASS AREAS DISTURBED DURING CONSTRUCTION SHALL BE YORK RAKED TO REMOVE STONES AND LOAMED AND SEEDED AS PER SPECIFICATIONS.
16. DRAINAGE SYSTEMS: CONTRACTOR IS RESPONSIBLE FOR GENERAL CLEAN-OUT OF ALL CATCH BASINS, MANHOLES, AND/OR OTHER DRAINAGE FEATURES ON THE SITE WHICH HAVE ACCUMULATED SEDIMENT AS A RESULT OF CONSTRUCTION ACTIVITIES.
17. CLEANING: CONTRACTOR IS RESPONSIBLE FOR KEEPING SITE CLEAN OF MISCELLANEOUS DEBRIS THROUGHOUT THE CONSTRUCTION PERIOD. ALL WASTE MATERIAL IS TO BE DISPOSED OF IMMEDIATELY TO AN OFF-SITE LOCATION, UNLESS OTHERWISE INDICATED ON THE PLAN.
18. PLANT MATERIAL SUBSTITUTIONS ALL PLANT SUBSTITUTIONS ARE SUBJECT TO APPROVAL BY LANDSCAPE ARCHITECT AND OWNER.
19. IRRIGATION TO BE PROVIDED ON ALL PLANTING BEDS AND LAWN AREAS. IRRIGATION PLAN BY OTHERS.

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN DATE	CHAIRMAN OR SECRETARY DATE	CHAIRMAN OR SECRETARY DATE

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SITE DEVELOPMENT PLAN
PREPARED FOR:

TOWNSEND
DEVELOPMENT
ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

STATE OF CONNECTICUT BRYAN L. BUSCH No. 21097 LICENSED PROFESSIONAL ENGINEER
05/24/2023

No.	Submittal / Revision	App'd.	By	Date

CONSTRUCTION DETAILS

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date: 05/05/2023	Project No: 080849	Scale: AS NOTED

Drawing No.:
12

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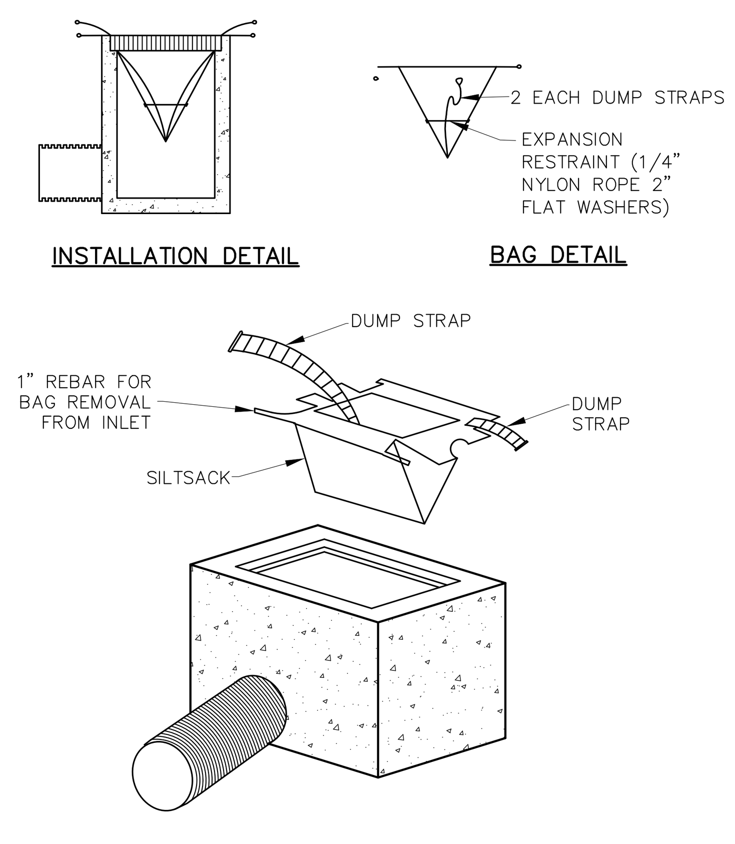
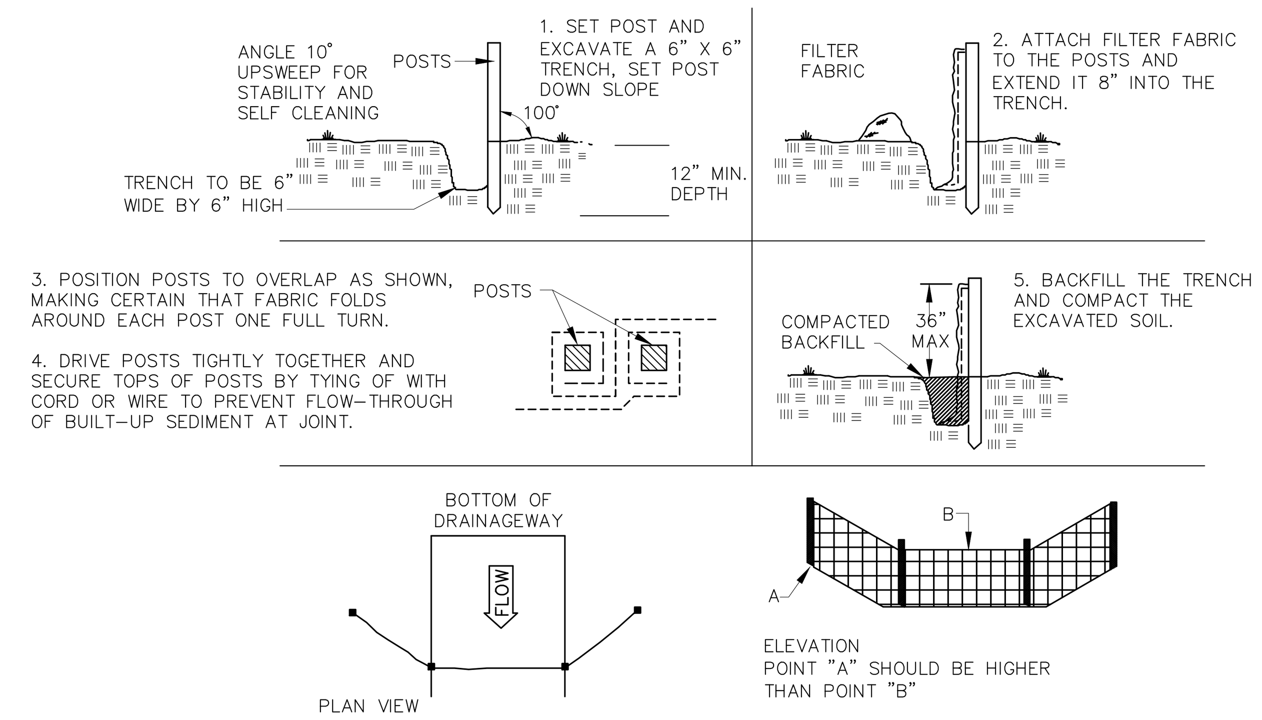
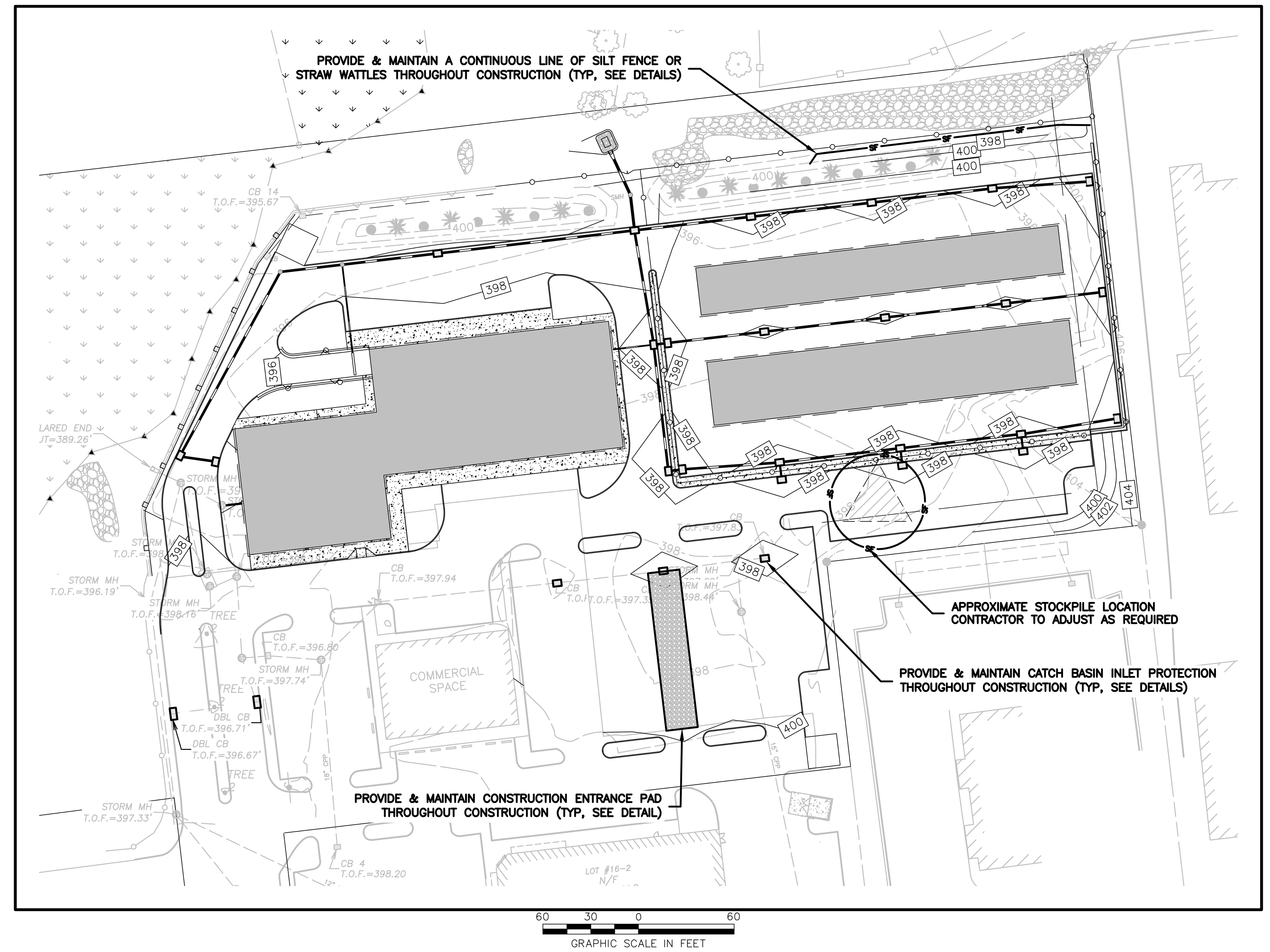
EROSION AND SEDIMENTATION CONTROL DETAILS

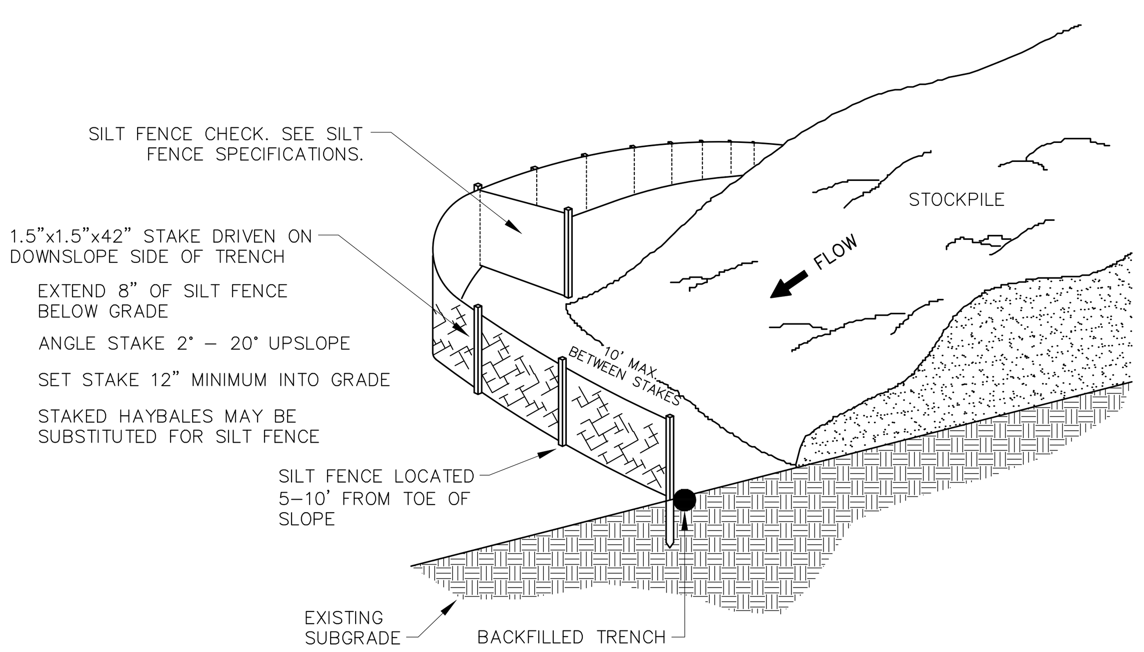


INLET SEDIMENT CONTROL DEVICE
NOT TO SCALE

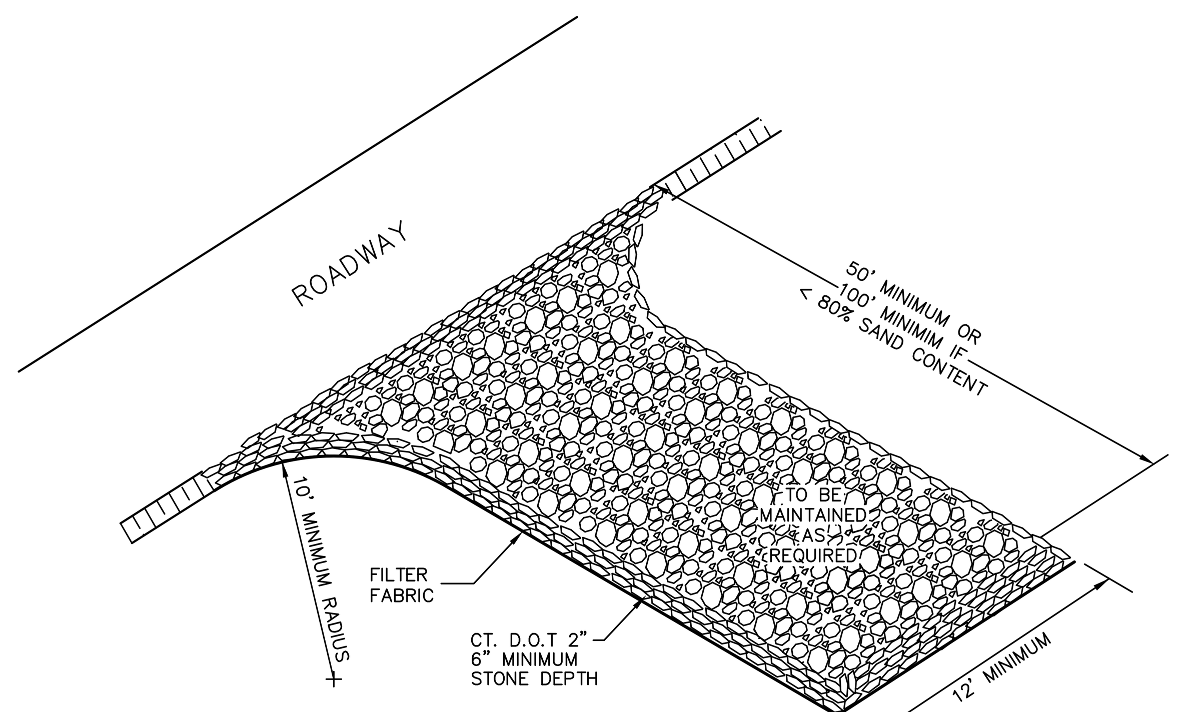


PLACEMENT AND CONSTRUCTION OF A SILT FENCE
NOT TO SCALE

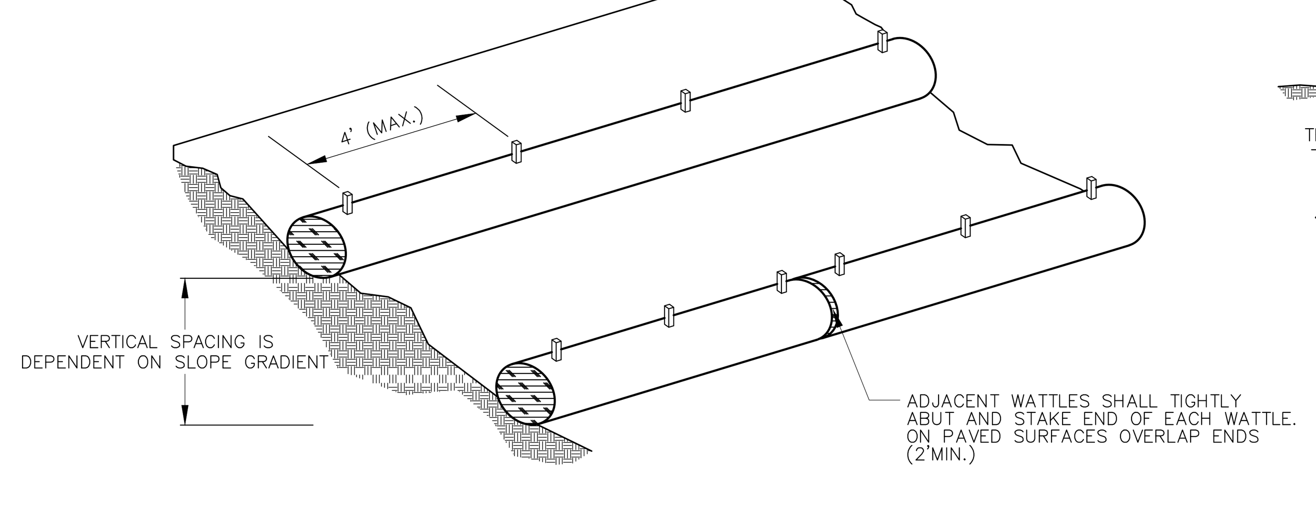




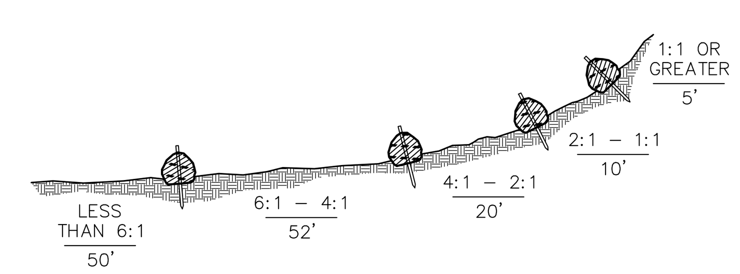
SILT FENCE AT TOE OF SLOPE APPLICATION
NOT TO SCALE



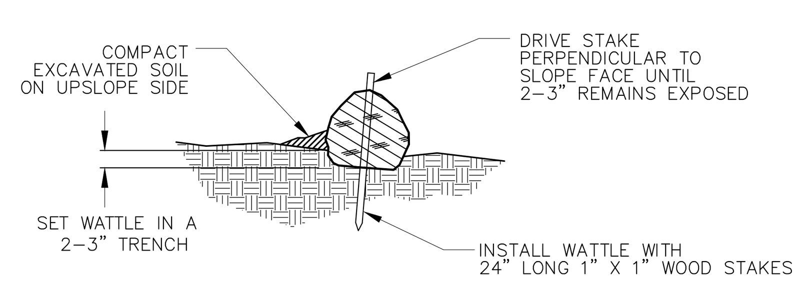
CONSTRUCTION ENTRANCE PAD
NTS



TYPICAL WATTLE INSTALLATION GUIDE



TYPICAL WATTLE SPACING BASED ON SLOPE GRADIENT



ENRICHMENT DETAIL

STRAW WATTLE NOTES:

1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2-3" DEEP BY 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT THE SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.
3. SECURE THE WATTLE WITH 24" LONG STAKES EVERY 3-4' WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLES LEAVING 2-3" OF STAKE EXTENDING ABOVE. THE WATTLE STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE.
4. SECURE WATTLES PLACED ON PAVED SURFACES WITH SANDBAGS SPACED AT AN INTERVAL SUFFICIENT TO PREVENT MOVEMENT OF WATTLE AND TO ENSURE THAT ENDS OF ADJACENT WATTLES REMAIN TIGHTLY ABUTTED.

STRAW WATTLE INSTALLATION
NOT TO SCALE

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN DATE	CHAIRMAN OR SECRETARY DATE	CHAIRMAN OR SECRETARY DATE

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400 Capital Boulevard, Suite 301
Rocky Hill, CT 06067
860-257-4557 | www.chacompanies.com

SITE DEVELOPMENT PLAN
PREPARED FOR:

TOWNSEND DEVELOPMENT ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

STATE OF CONNECTICUT
BRYAN L. BUSCH
No. 21097
LICENSED PROFESSIONAL ENGINEER

05/24/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

No.	Submittal / Revision	App'd.	By	Date

E&S CONTROL AND STORMWATER MAINTENANCE PLAN

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date:	Project No:	Scale:
05/05/2023	080849	AS NOTED

Drawing No.:
13

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EROSION AND SEDIMENTATION CONTROL NARRATIVE & NOTES

PROJECT NARRATIVE

THIS PROJECT CONSISTS OF THE CONSTRUCTION OF 35,600 SF OF RETAIL/OFFICE SPACE AND A 5,000 SF RESTAURANT ON ±9.8 ACRES IN THE TOWN OF BROOKLYN, CONNECTICUT. THE LOCATION OF THE SITE IS ON THE NORTH SIDE OF PROVIDENCE ROAD (RT 6) APPROXIMATELY 1,300 FEET WEST OF DAY STREET. THIS PROJECT WILL CONSIST OF PAVED PARKING, DRAINAGE PIPING AND STRUCTURES, AND UNDERGROUND UTILITIES.

IT IS ANTICIPATED THAT APPROXIMATELY 4.8 ACRES OF THE 9.8 ACRE SITE WILL BE DISTURBED DURING THE CONSTRUCTION OF THE FACILITY.

THE PROJECT SHALL BE DEVELOPED IN A SINGLE PHASE, HOWEVER, DISTURBED AREAS SHALL BE STABILIZED AT MILESTONE POINTS DURING CONSTRUCTION. ALL WORK SHALL BE SCHEDULED SUCH THAT STABILIZATION COINCIDES WITH THE ABILITY TO VEGETATE DISTURBED AREAS, APRIL 1 THROUGH JUNE 15 AND AUGUST 15 THROUGH OCTOBER 1.

THIS PROJECT REQUIRES THE FOLLOWING PERMITS:
PLANNING & ZONING SPECIAL PERMIT
IWWWC PERMIT

ESTIMATED CONSTRUCTION SCHEDULE

A. INSTALL EROSION AND SEDIMENT CONTROL SYSTEMS – APRIL, 2016

B. ROUGH GRADE SITE – APRIL, 2016

C. INSTALL STORMWATER AND UTILITY SYSTEMS – MAY/JUNE, 2016

D. CONSTRUCT ACCESS ROADWAYS & PARKING – JULY, 2016

E. CONSTRUCT BUILDING STRUCTURES – APRIL-SEPTEMBER, 2016

F. FINISH GRADE SITE AND INSTALL LANDSCAPING – SEPTEMBER, 2016

GENERAL NOTES

1. ELEVATIONS ARE BASED ON AN ASSUMED DATUM.
2. INLAND WETLAND BOUNDARIES WERE DELINEATED IN THE FIELD BY CME ASSOCIATES, INC.
3. ALL UTILITIES SHALL BE APPROVED BY LOCAL UTILITY COMPANIES PRIOR TO CONSTRUCTION; ALL UTILITIES SHALL BE CONSTRUCTED TO UTILITY COMPANY SPECIFICATIONS.
4. ALL CONSTRUCTION SHALL BE TO TOWN SPECIFICATIONS & REGULATIONS.
5. NO CHANGES CAN BE MADE TO THESE PLANS WITHOUT THE TOWN ENGINEER'S APPROVAL.
6. CONTRACTOR SHALL OBTAIN ALL REQUIRED LOCAL & STATE PERMITS PRIOR TO BEGINNING ANY CONSTRUCTION.
7. FIELD CHANGES SHALL HAVE PRIOR APPROVAL OF THE TOWN ENGINEER.
8. CATCH BASIN TOPS SHALL NOT BE CEMENTED DOWN UNTIL FINAL GRADES ARE SET.
9. UNLESS OTHERWISE NOTED OR SPECIFIED, ALL ROADWAYS & STORM DRAINAGE SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE STATE OF CONNECTICUT, D.O.T. "STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION, FORM 816, 2004" AND ALL SUPPLEMENTS THERETO. SIMILARLY PERTINENT CONSTRUCTION DETAILS THAT ARE NOT INCLUDED WITH THESE DRAWINGS SHALL CONFORM TO THE STATE OF CONNECTICUT, D.O.T. STANDARD ROADWAY DRAWINGS.
10. CONTRACTOR SHALL NOTIFY THE TOWN ENGINEER OF CONSTRUCTION SCHEDULE SO THAT INSPECTION MAY BE PROVIDED.
11. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED ON PLANS HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROL TESTIMONY, FIELD MEASUREMENTS AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO CME ASSOCIATES, INC. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION.
12. CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 TWO (2) WORKING DAYS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.

SEEDING SPECIFICATIONS

A. IF GROUND HAS BEEN PREVIOUSLY MULCHED, MULCH MUST BE REMOVED OR ADDITIONAL NITROGEN MUST BE ADDED.

B. REMOVE ALL SURFACE STONES 2" OR LARGER AS WELL AS ALL DEBRIS SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, CLUMPS, OR OTHER UNSUITABLE MATERIAL.

C. APPLY FERTILIZER AT 7.5 POUNDS PER 1,000 SQUARE FEET AND LIME AT 200 POUNDS PER 1,000 SQUARE FEET UNLESS SOIL TESTING FOR REQUIREMENTS IS PERFORMED.

D. NO MOWING IS TO BE UNDERTAKEN UNTIL THE MAJORITY OF THE VEGETATION IS AT LEAST 6" HIGH. MOWING SHOULD CUT THE TOP 1/3 OF VEGETATION. DO NOT UNDER ANY CIRCUMSTANCES CUT VEGETATION BELOW 3".

E. DO NOT APPLY ANY FORM OF WEED CONTROL UNTIL GRASS HAS BEEN MOWED AT LEAST 4 TIMES.

F. THESE SEEDING MEASURES ARE NOT TO BE USED ON SLOPES IN EXCESS OF 2:1 GRADING.

G. PERMANENT SEEDING MEASURES ARE TO BE USED INSTEAD OF TEMPORARY SEEDING MEASURES WHERE WORK IS TO BE SUSPENDED FOR A PERIOD OF TIME LONGER THAN 1 YEAR.

H. IF THERE IS NO EROSION, BUT SEED SURVIVAL IS LESS THAN 100 PLANTS PER SQUARE FOOT AFTER 4 WEEKS OF GROWTH, RE-SEED AS PLANTING SEASON ALLOWS.

I. ALL DISTURBED AREAS OUTSIDE THE PAVEMENT AREA, WITHIN AND OUTSIDE THE ROAD RIGHT OF WAY, SHALL BE RESTORED IN ACCORDANCE WITH THE TOWN SUBDIVISION REGULATIONS.

CONSTRUCTION SEQUENCE

A. STAKEOUT LIMIT OF DISTURBANCE.

B. HOLD A PRECONSTRUCTION MEETING.

C. CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 TWO (2) WORKING DAYS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.

D. INSTALL THE CONSTRUCTION ENTRANCE.

E. INSTALL PERIMETER FILTER (SILT FENCE OR WATTLES)

F. PERFORM ALL NECESSARY CLEARING AND GRUBBING OPERATIONS.

G. EXCAVATE & DISPOSE OF ALL STUMPS OFF SITE.

H. STRIP ALL TOPSOIL WITHIN THE FOOTPRINT OF THE CONSTRUCTION SITE. STOCKPILE ALL TOPSOIL IN AN APPROVED AREA AND SECURE WITH EROSION AND SEDIMENT CONTROLS.

I. ROUGH GRADE SITE.

J. DIG FOUNDATIONS AND STOCKPILE MATERIAL AS REQUIRED.

K. PRIOR TO INSTALLATION OF SURFACE WATER CONTROLS SUCH AS TEMPORARY DIVERSIONS AND STONE DIKES, INSPECT EXISTING CONDITIONS TO ENSURE DISCHARGE LOCATIONS ARE STABLE. IF NOT STABLE, REVIEW DISCHARGE CONDITIONS WITH THE DESIGN ENGINEER AND IMPLEMENT ADDITIONAL STABILIZATION MEASURES PRIOR TO INSTALLING WATER SURFACE CONTROLS.

L. STABILIZE CUT AND FILL SLOPES.

M. CONSTRUCT FOUNDATION AND ERECT STRUCTURES.

N. INSTALL SERVICE UTILITIES.

O. CONSTRUCT CONCRETE SIDEWALKS.

P. FINISH GRADE ACCESS DRIVEWAYS & PARKING AREAS.

Q. PLACE TOPSOIL WHERE REQUIRED. INSTALL PERIMETER LANDSCAPE PLANTINGS.

R. FINISH GRADE SIDE SLOPES, SEED AND MULCH.

S. UPON SUBSTANTIAL COMPLETION OF THE BUILDING, COMPLETE THE BALANCE OF SITE WORK AND STABILIZATION OF ALL OTHER DISTURBED AREAS.

T. INSTALL BINDER COURSE OF PAVING.

U. WHEN ALL OTHER WORK HAS BEEN COMPLETED, REPAIR AND SWEEP ALL PAVED AREAS FOR THE TOP COURSE OF PAVING.

V. INSTALL TOP COURSE OF PAVEMENT.

W. ALL REMAINING EXPOSED AREAS SHALL BE LOAMED, SEEDED AND MULCHED OR SODDED WITHIN 14 DAYS OF FINAL GRADING.

X. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS.

Y. CONTRACTOR TO REMOVE ANY ACCUMULATED SEDIMENT FROM DRAINAGE STRUCTURES OR BASINS.

NOTE: SEVERAL OF THE ABOVE ACTIVITIES MAY BE DONE SIMULTANEOUSLY.

SILT FENCE SPECIFICATIONS

A. SYNTHETIC FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER, ETHYLENE, OR SIMILAR FILAMENTS AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE FOLLOWING MINIMUM REQUIREMENTS:

1. FILTERING EFFICIENCY	75 PERCENT (MIN)
2. GRAB TENSILE STRENGTH	100 POUNDS
3. ELONGATION AT FAILURE	15 PERCENT
4. MULLEN BURST STRENGTH	250 POUNDS PER SQUARE INCH
5. PUNCTURE STRENGTH	50 POUNDS
6. APPARENT OPENING SIZE	0.60mm< X <0.90mm
7. FLOW RATE	0.2 GALLONS PER SQUARE FOOT PER MINUTE
8. PERMITTIVITY	0.05 PER SECOND (MIN)
9. ULTRAVIOLET RADIATION STABILITY	70 PERCENT AFTER 500 HOURS OF EXPOSURE (MIN)

B. STAKES ARE TO BE MADE OUT OF HARDWOOD WITH A MINIMUM CROSS SECTIONAL AREA OF 1.5 SQUARE INCHES OR STEEL POSTS WITH A MINIMUM WEIGHT OF 0.5 POUNDS PER LINEAR FOOT.

C. TORN OR PUNCTURED GEOTEXTILES SHALL NOT BE USED.

D. ON SLOPES WHERE SURFACE FLOW FOLLOWS THE SILT FENCE LINE, PERPENDICULAR SILT FENCE CHECKS SHALL BE INSTALLED AT 50 FOOT INTERVALS.

E. LINES OF SILT FENCE SHOULD FOLLOW CONTOUR LINES 5–10 FEET DOWN GRADIENT FROM THE SLOPE. WHERE CONTOUR LINES CAN NOT BE FOLLOWED PERPENDICULAR WINGS SHOULD BE PLACED AT 50 FOOT INTERVALS.

EROSION & SEDIMENT CONTROL OPERATIONS AND MAINTENANCE

A. EROSION AND SEDIMENTATION CONTROL AND RESTORATION MEASURES SHALL CONFORM TO THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL", PUBLISHED BY THE CONNECTICUT COUNCIL OF SOIL AND WATER CONSERVATION AND THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION; AND TO TOWN REGULATIONS.

B. INSTALLATION OF SEDIMENT AND EROSION CONTROLS SUCH AS WATTLES AND SILT FENCES SHALL BE ESTABLISHED PRIOR TO COMMENCING ANY LAND DISTURBANCE ACTIVITIES.

C. ALL STOCKPILED MATERIAL SHALL BE RINGED WITH WATTLES OR SILT FENCES. ANY MATERIAL TO BE STOCKPILED LONGER THAN 14 DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING OR JUTE NETTING.

D. PAVEMENT AND CURBING SHOULD BE INSTALLED AS SOON AS POSSIBLE AFTER STORM DRAINAGE IS INSTALLED.

E. CATCH BASINS SHALL BE PROTECTED FROM SEDIMENTATION UNTIL ALL AREAS ARE PERMANENTLY VEGETATED OR STABILIZED.

F. CATCH BASIN SUMPS SHALL BE CLEANED OF SILT PERIODICALLY DURING CONSTRUCTION.

G. WATTLES OR SILT FENCE SHALL BE PLACED 5–10 FEET FROM THE TOE OF ALL CRITICAL SLOPES AS SHOWN ON THE PLAN. THESE SHALL BE CHECKED BY THE CONTRACTOR REGULARLY AND REPAIRED WHENEVER THEY FAIL TO ENSURE CLEAN RUN-OFF FROM THE SITE.

H. ADDITIONAL CONTROL MEASURES IF REQUESTED BY THE TOWN SHALL BE INSTALLED IMMEDIATELY UPON REQUEST.

I. ALL DISTURBED AREAS SHALL BE PROTECTED WITH A MINIMUM VEGETATION COVER AS SHOWN IN ACCOMPANYING CHART.

J. THE CONTRACTOR SHALL PLAN ALL LAND DISTURBING ACTIVITIES IN A MANNER AS TO MINIMIZE THE EXTENT OF THE DISTURBED AREAS.

K. THE CONTRACTOR SHALL MAKE DAILY INSPECTIONS OF THE SITE TO INSURE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES AND WILL IMMEDIATELY MAKE NECESSARY REPAIRS IF REQUIRED BY THE TOWN.

L. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED AT A MINIMUM OF ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.1 INCHES OR GREATER TO DETERMINE MAINTENANCE NEEDS.

M. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE REPLACED WITHIN 24 HOURS OF AN OBSERVED FAILURE.

N. ALL CONSTRUCTION TRAFFIC SHALL ENTER AND LEAVE BY THE DESIGNATED ENTRANCE. THIS ENTRANCE SHALL BE CONSTRUCTED OF CRUSHED STONE TO HELP FREE TIRES OF SOIL WHEN LEAVING THE SITE. THE CONTRACTOR SHALL INSTRUCT ALL VEHICLE DRIVERS TO CLEAN SOIL MATERIAL FROM TIRES IN FRONT OF THE SITE. ALL SOIL, MISCELLANEOUS DEBRIS, OR OTHER MATERIAL SPILLED, DUMPED OR OTHERWISE DEPOSITED ON PUBLIC STREETS, HIGHWAYS, SIDEWALKS OR OTHER PUBLIC THOROUGHFARES DURING TRANSIT TO OR FROM THE SITE SHALL BE REMOVED PROMPTLY.

O. THE CONTRACTOR HEREBY ACKNOWLEDGES HIS RESPONSIBILITY TO INSTALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ON THIS SITE AND THAT HIS FAILURE TO INSTALL AND MAINTAIN THESE DEVICES COULD RESULT IN FINES OR SUSPENSION OF WORK BY THE CITY/TOWN.

P. MINIMIZE OR ELIMINATE ANY UNNECESSARY LAND DISTURBANCE OR CLEARING.

PERSON RESPONSIBLE FOR MAINTAINING CONTROL MEASURES DURING CONSTRUCTION.

NAME	STEVE TOWNSEND
ADDRESS	169 BARRETT HILL ROAD BROOKLYN, CT
TELEPHONE #	(860)-774-5359

MAINTENANCE LOG

LOCATION	DESCRIPTION	DATE	INITIALS

PROJECT DATES	DATE	INITIALS
PROJECT GROUNDBREAKING		
FINAL STABILIZATION		

STORMWATER OPERATION AND MAINTENANCE

STORMWATER FACILITY
OPERATION AND MAINTENANCE PLAN:

CONSTRUCTION PHASE

GENERAL PROVISIONS:

1. CONTRACTOR TO INSTALL AND MAINTAIN DRAINAGE FACILITIES AS SHOWN ON THE PLAN SET TITLED: (SPECIAL PERMIT, SITE DEVELOPMENT PLAN, PREPARED FOR, TOWNSEND DEVELOPMENT ASSOCIATES, LLC, BY CME ASSOCIATES, INC., DATED JUNE 26, 2015)
2. PRIOR TO CONSTRUCTION, ALL EROSION/SILTATION CONTROL DEVICES SHOWN ON ABOVE PLAN SHALL BE INSTALLED. TO PREVENT SILT INTRUSION INTO THE DRAINAGE SYSTEM DURING CONSTRUCTION, THE CONTRACTOR IS TO INSTALL INLET PROTECTION AT ALL CATCH BASINS AND SET SILT FENCE AT ALL SLOPES WHICH MAY ERODE IN THE DIRECTION OF ANY OPEN DRAINAGE FACILITIES. SUCH PREVENTIVE MEASURES ARE TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS.
3. EROSION CONTROLS ARE TO BE INSPECTED ON A DAILY BASIS. UPON DISCOVERY, THE CONTRACTOR SHALL REMOVE ANY SEDIMENT FROM AN EROSION CONTROL STRUCTURE.
4. ALL EXPOSED SOILS SHALL BE IMMEDIATELY STABILIZED TO PREVENT EROSION.
5. UPON INSTALLATION OF CATCH BASINS, INLET PROTECTION SHALL BE INSTALLED AND MAINTAINED UNTIL READY FOR PAVING.
6. PRIOR TO CONSTRUCTION OF IMPERVIOUS AREAS, ALL DRAINAGE STRUCTURES AND PIPES SHALL BE INSTALLED AND INSPECTED FOR PROPER FUNCTION. DURING CONSTRUCTION OF OTHER SITE FEATURES, DRAINAGE FACILITIES SHALL BE INSPECTED ON A DAILY BASIS AND CLEANED/REPAIRED IMMEDIATELY UPON DISCOVERY OF SEDIMENT BUILD-UP OR DAMAGE.
7. AFTER PAVING IS INSTALLED, IT SHALL BE SWEPT CLEAN ON A MONTHLY BASIS.

GRASSED SWALES & DRAINAGE CHANNELS:

1. CONTRACTOR TO INSPECT SEVERAL TIMES DURING THE FIRST FEW MONTHS TO ENSURE THAT GRASS COVER IS ESTABLISHED. AFTER ESTABLISHMENT, INSPECTION TO OCCUR SEMI-ANNUALLY AND AFTER EVERY 0.5 INCH RAIN EVENT.
2. CONTRACTOR SHALL CLEAN SWALE AFTER SITE IS COMPLETELY STABILIZED AND PRIOR TO TRANSFER OF OWNERSHIP TO OWNER.

CATCH BASIN SUMPS:

1. CONTRACTOR TO INSPECT WEEKLY OR AFTER EACH 0.5 INCH RAIN EVENT AND CLEAN AS NEEDED.
2. CONTRACTOR SHALL CLEAN SUMPS AFTER SITE IS COMPLETELY STABILIZED AND PRIOR TO TRANSFER TO OWNER.

STONE CHECK DAMS:

1. CONTRACTOR TO INSPECT WEEKLY OR AFTER EACH 0.5 INCH RAIN EVENT.
2. CONTRACTOR SHALL REMOVE SEDIMENT FROM CHECK DAMS AFTER SITE IS COMPLETELY STABILIZED AND PRIOR TO TRANSFER TO OWNER.

HYDRODYNAMIC OIL & PARTICLE SEPARATOR:

1. PRIOR TO TURNOVER TO OWNER THE OIL WATER SEPARATOR WILL BE CLEANED USING A VACUUM TRUCK OR OTHER ORDINARY CATCH BASIN CLEANING EQUIPMENT. THE DEBRIS WILL BE REMOVED FROM THE SITE AND DISPOSED OF ACCORDING TO ALL LOCAL, STATE, AND FEDERAL REGULATIONS. THIS WORK WILL BE DONE BY A LICENSED HAULER OF CONTAMINATED MATERIALS.

POST-DEVELOPMENT PHASE

GENERAL PROVISIONS:

SNOW STOCKPILING:

SNOW ACCUMULATIONS REMOVED FROM STREETS AND PARKING LOTS SHALL BE PLACED IN UPLAND AREAS, WHERE SAND AND DEBRIS WILL REMAIN AFTER SNOW MELT FOR LATER REMOVAL. CARE SHOULD BE TAKEN NOT TO DEPOSIT SNOW IN THE IMMEDIATE VICINITY OF CATCH BASINS, DRAINAGE SWALES, OR SLOPES LEADING TO BODIES OF WATER, AND DRINKING WATER WELL SUPPLIES.

PAVEMENT SWEEPING:

STREETS AND PARKING LOTS SHOULD BE SWEPT CLEAN AT LEAST ONCE ANNUALLY, PREFERABLY IMMEDIATELY AFTER WINTER SNOW MELT AND BEFORE SPRING RAINS. SWEEPING DURING THIS PERIOD CAPTURES PEAK SEDIMENT LOADS AND EXTENDS THE SERVICE LIFE OF THE STORM WATER MANAGEMENT SYSTEM.

GRASSED SWALES & DRAINAGE CHANNELS:

GRASSED SWALES AND DRAINAGE CHANNELS SHALL BE INSPECTED AT LEAST ANNUALLY TO ENSURE THAT THEY ARE OPERATING AS INTENDED. POTENTIAL PROBLEMS THAT SHOULD BE CHECKED INCLUDE:
1. SLOPE INTEGRITY
2. EROSION
3. VEGETATIVE HEALTH
4. SOIL STABILITY
5. SEDIMENTATION

ANY NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY. TRASH SHALL BE REMOVED AND THE BANKS MOWED AS REQUIRED, BUT AT LEAST ONCE PER YEAR. GRASS SHALL BE KEPT BETWEEN FOUR AND SIX INCHES IN LENGTH. (MOWING SHOULD BE PERFORMED WHEN GROUND IS DRY TO AVOID RUTS AND COMPACTION.)

CATCH BASIN SUMPS:

CATCH BASINS SHALL BE INSPECTED BI-ANNUALLY AND CLEANED AT LEAST ANNUALLY, AFTER THE SNOW AND ICE SEASON, AND AS SOON AS POSSIBLE BEFORE SPRING RAINS. IN GENERAL, A CATCH BASIN SHOULD BE CLEANED IF THE DEPTH OF DEPOSITS IS GREATER THAN ONE HALF THE SUMP DEPTH. IF A CATCH BASIN SIGNIFICANTLY EXCEEDS THIS STANDARD THEN MORE FREQUENT CLEANINGS SHALL BE SCHEDULED. IN AREAS WITH HIGHER POLLUTANT LOADINGS OR DISCHARGES INTO SENSITIVE BODIES OF WATER, MORE FREQUENT CLEANINGS WILL BE NECESSARY.

STONE CHECK DAMS:

CHECK DAMS SHALL BE INSPECTED FOR SEDIMENTATION ON A QUARTERLY BASIS AND CLEANED AS REQUIRED.

HYDRODYNAMIC OIL & PARTICLE SEPARATOR:

THE OIL WATER SEPARATOR WILL BE INSPECTED QUARTERLY FOR THE PRESENCE OF ACCUMULATED OIL AND GREASE, FLOATABLES AND SEDIMENT, IF FOUND, THE STRUCTURE WILL BE CLEANED USING A VACUUM TRUCK OR OTHER ORDINARY CATCH BASIN CLEANING EQUIPMENT. THE DEBRIS WILL BE REMOVED FROM THE SITE AND DISPOSED OF ACCORDING TO ALL LOCAL, STATE, AND FEDERAL REGULATIONS. THIS WORK WILL BE DONE BY A LICENSED HAULER OF CONTAMINATED MATERIALS. THE SCHEDULE OF INSPECTIONS WILL BE ADJUSTED TO AN ANNUAL INSPECTION IF NO OIL OR GREASE IS FOUND ON A REGULAR BASIS. OWNER WILL BE RESPONSIBLE FOR THE INSPECTIONS AND CLEANING.

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN DATE	CHAIRMAN OR SECRETARY DATE	CHAIRMAN OR SECRETARY DATE

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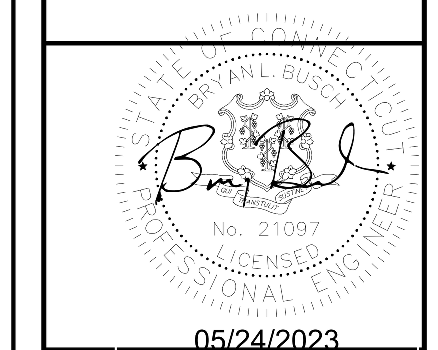
Rocky Hill, CT 06067
860-257-4557 | www.chacompanies.com

SITE DEVELOPMENT PLAN
PREPARED FOR:

TOWNSEND
DEVELOPMENT
ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT



05/24/2023

No.	Submittal / Revision	App'd.	By	Date

E&S CONTROL AND STORMWATER MAINTENANCE PLAN

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date: 05/05/2023	Project No: 080849	Scale: AS NOTED

Drawing No.:
14

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Drainage Report

Townsend Development Associates
Route 6, Brooklyn, CT

CHA Project Number: 080849.000

Prepared for:
Townsend Development Associates, LLC
13309 Palmers Creek Terrace
Lakewood Ranch, FL 34202

Prepared by:

CHA

400 Capital Boulevard, Suite 301
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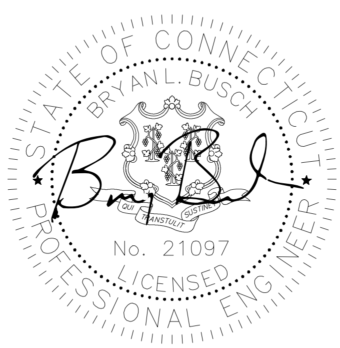
Phone: (860) 257-4557



05/24/2023

May 24, 2023

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SUMMARY

SUMMARY

Townsend Development Associates proposes to modify their previously approved commercial development on 10-acres located west of Day Street on the north side of Route 6 in Brooklyn, Connecticut. A national pharmacy chain and bank are currently located along Route 6, and a medical office and spa are located interior to the site, per the previously approved designs. The remaining area of the site was filled to sub grade during the original construction. The revised design includes the construction of a self-storage facility and a mixed-use commercial building, currently envisioned as a grocery store and restaurant.

The proposed development will consist of approximately 19,360 square feet of commercial building space and 16,040 square feet of self-storage space with associated parking and access driveways. The majority of the storm flows from the parking areas will be collected by a series of catch basins and routed through hydrodynamic separators. Stormwater will discharge to the northwest wetland and the existing drainage swale along the northern boundary.

The revised development represents a reduction in overall site impervious area versus the originally approved plan. This reduction in impervious area will reduce the overall peak flows from the site versus the original plan and will improve the efficiency of the hydrodynamic separators (One existing and one proposed).

As part of an agreement between a previous property Owner and the Town of Brooklyn (See Section G), the proposed stormwater treatment system is not required to attenuate peak flows versus existing conditions, but must only treat the runoff for water quality (80% Total Suspended Solids removal). Because peak stormwater flow reduction is not a requirement, pre-development stormwater analysis has not been provided. Post development peak stormwater flows are indicated in Table No. 1.

CHA utilized a computer model, HydroCAD®, to perform drainage calculations. The model used the Soil Conservation Service TR-20 method with NOAA 24-hour rainfall data to calculate the runoff. The drainage system was designed for the 10-year storm while the 25-year storm was used for the design of the storm drainage outlet protection. The design point for calculations is the wetland at the northwest corner of the site. Calculations for the 2, 10, 25, and 100-year storm events are provided. Peak storm flows for proposed conditions are listed in Table 1-1.

Table 1-1. Proposed Peak Storm Flows

Storm Event	Proposed Peak Flow to Northwest Wetland
2 Year Storm	24.0 cfs
10 Year Storm	37.6 cfs
25 Year Storm	46.1 cfs
100 Year Storm	59.1 cfs

WATER QUALITY VOLUME CALCULATIONS

Water Quality Flow

Project Name: Townsend   Project # 080849

Date: April 30, 2023

Following Guidelines From "2004 Connecticut Stormwater Manual"

Existing Vortech at Retaining Wall

Water Quality Volume

Section 7
Table 7-1

WQV = 1" (R) (A) / 12

Where:

WQV = Water Quality Volume (ac-ft)
R = Volumetric Runoff Coefficient
(0.05 + 0.009(I))
I = % Impervious Cover
A = Site Area in acres

Areas From
AutoCAD

	SQ. FT	Acres
Impervious	111,965	2.570
Pervious	12,645	0.290
Total (A)	124,610	2.861

I = Impervious / Total
I = 89.9%

R= 0.05 + (0.009)(I)
R= 0.859

WQV REQUIRED = 0.205 ac ft
8,917 cf

Calculate Curve Number

APP B

CN=1000/(10+5P+10Q-10(Q^2+1.25QP)^.5)

Where:

CN = Runoff Curve Number
P = Design Precipitation (1" for Water Quality Storm)
Q = Runoff Depth (watershed inches)
((WQV) (12)) / A

CN = **99** Assume 98

Read Initial Abstraction From Table 4-1

APP B

Ia = **0.041**

Ia / P = **0.041**

Read Unit Peak Discharge From Exhibit 4-111

APP B

From HydroCAD Tc = **5 min**

qu = +/- **750**

Water Quality Flow

APP B

WQF = (qu) (A) (Q)

Where:

qu = unit peak discharge (cfs/sqmi/in)	**750**
A = Drainage Area (sqmi)	**0.004**
Q = Runoff Depth (watershed inches)	**0.859**

WQF = **2.9** cfs

Proposed HDS Unit

Water Quality Volume

Section 7
Table 7-1

WQV = 1" (R) (A) / 12

Where:

WQV = Water Quality Volume (ac-ft)
R = Volumetric Runoff Coefficient
(0.05 + 0.009(I))
I = % Impervious Cover
A = Site Area in acres

Areas From
AutoCAD

	SQ. FT	Acres
Impervious	96,295	2.211
Pervious	17,575	0.403
Total (A)	113,870	2.614

I = Impervious / Total
I = 84.6%

R= 0.05 + (0.009)(I)
R= 0.811

WQV REQUIRED = 0.177 ac ft
7,697 cf

Calculate Curve Number

APP B

CN=1000/(10+5P+10Q-10(Q^2+1.25QP)^.5)

Where:

CN = Runoff Curve Number

P = Design Precipitation (1" for Water Quality Storm)

Q = Runoff Depth (watershed inches)

((WQV) (12)) / A

CN = **98**

Read Initial Abstraction From Table 4-1

APP B

Ia = **0.041**

Ia / P = **0.041**

Read Unit Peak Discharge From Exhibit 4-111

APP B

From HydroCAD Tc = **5 min**

qu = +/- **750**

Water Quality Flow

APP B

WQF = (qu) (A) (Q)

Where:

qu = unit peak discharge (cfs/sqmi/in)	**750**
A = Drainage Area (sqmi)	**0.004**
Q = Runoff Depth (watershed inches)	**0.811**

WQF = **2.5** cfs

Prepared By: PMP

Checked By: C. EATON

May 5, 2023

Appendix B
Water Quality Flow (WQF) and Flow Diversion Guidance

Water Quality Flow Calculation

The water quality flow (WQF) is the peak flow rate associated with the water quality design storm. This section describes the recommended procedure for calculating the water quality flow (WQF) for the design of:

- *Grass drainage channels (not water quality swales, which should be designed based on water quality volume - WQV)*
- *Pre-manufactured stormwater treatment devices (e.g., hydrodynamic separators, catch basin inserts, and media filters)*
- *Flow diversion structures for off-line stormwater treatment practices*

The WQF should be calculated using the WQV described in Chapter Seven. This WQV, converted to watershed inches, should be substituted for the runoff depth (*Q*) in the Natural Resources Conservation Service (formerly Soil Conservation Service), TR-55 Graphical Peak Discharge Method. The procedure is based on the approach described in Claytor and Schueler, 1996.

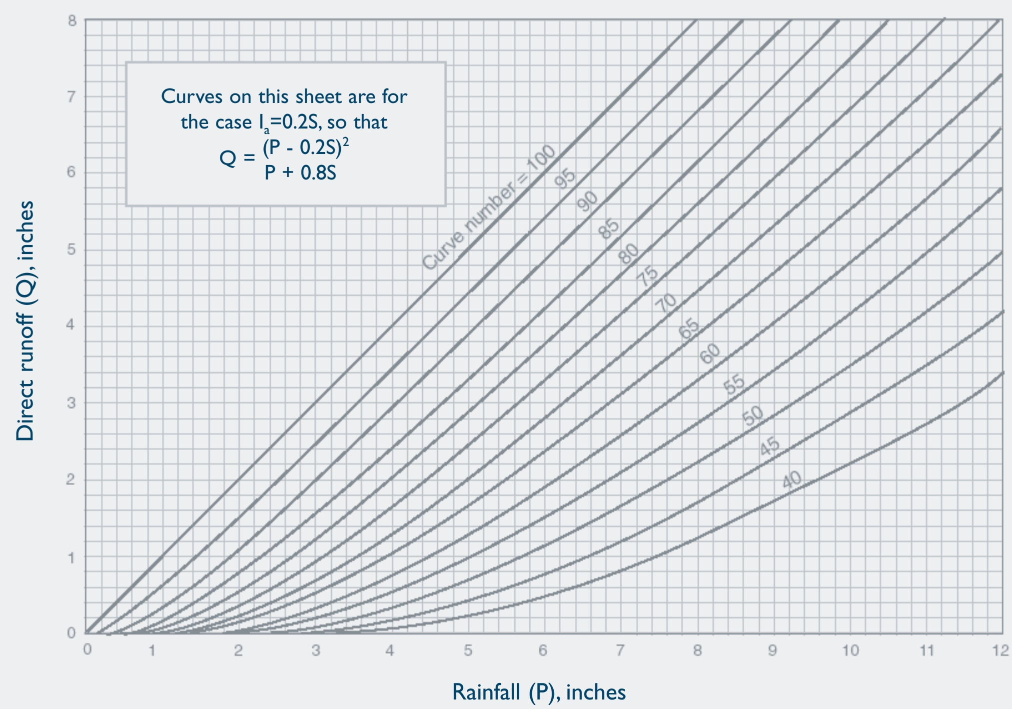
1. Compute the NRCS Runoff Curve Number (CN) using the following equation, or graphically using **Figure 2-1** from TR-55 (USDA, 1986) (reproduced below):

$$CN = \frac{1000}{\left[10 + 5P + 10Q - 10(Q^2 + 1.25QP)^{1/2}\right]}$$

where: CN = Runoff Curve Number
P = design precipitation, inches (1" for water quality storm)
Q = runoff depth (in watershed inches)

$$= \frac{\left[WQV\,(acre - feet)\right] \text{x} \left[12(inches/foot)\right]}{Drainage\ Area\ (acres)}$$

Figure 2-1 Solution of Runoff Equation



2. Compute the time of concentration (t_c) based on the methods described in Chapter 3 of TR-55. A minimum value of 0.167 hours (10 minutes) should be used. For sheet flow, the flow path should not be longer than 300 feet.

3. Using the computed CN, t_c, and drainage area (A) in acres, compute the peak discharge for the water quality storm (i.e., the water quality flow [WQF]), based on the procedures described in Chapter 4 of TR-55.

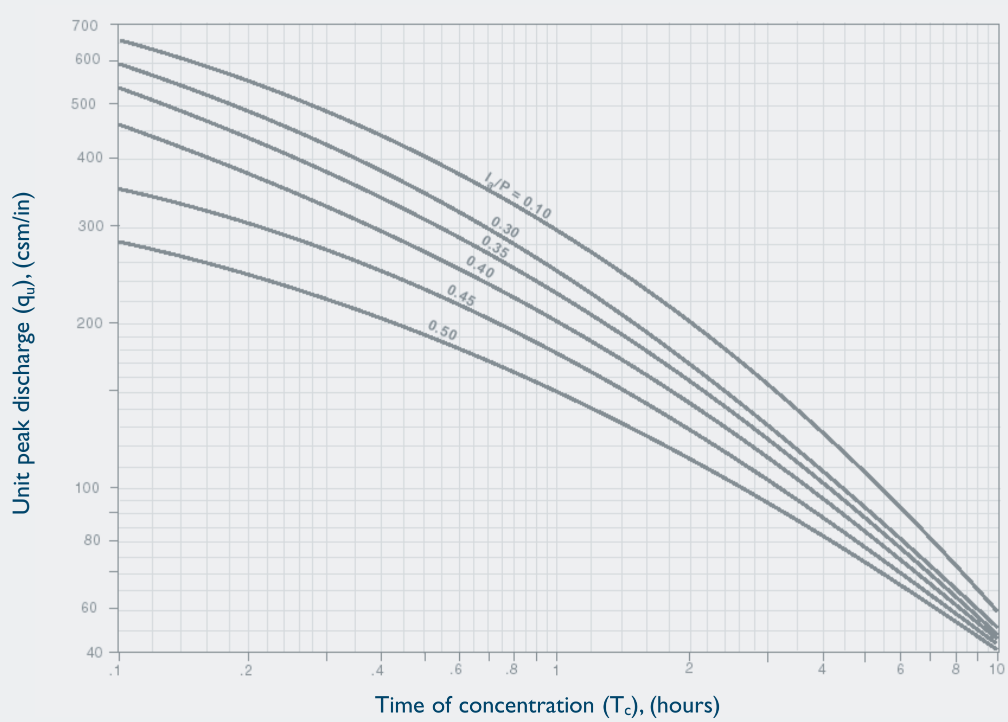
   - *Read initial abstraction (I_a) from Table 4-1 in Chapter 4 of TR-55 (reproduced below); compute I_a/P*

Table 4-1 I_a values for runoff curve numbers

Curve number	I_a (in)	Curve number	I_a (in)	Curve number	I_a (in)	Curve number	I_a (in)
40	3.000	55	1.636	70	0.857	85	0.353
41	2.878	56	1.571	71	0.817	86	0.326
42	2.762	57	1.509	72	0.778	87	0.299
43	2.651	58	1.448	73	0.740	88	0.273
44	2.545	59	1.390	74	0.703	89	0.247
45	2.444	60	1.333	75	0.667	90	0.222
46	2.348	61	1.279	76	0.632	91	0.198
47	2.255	62	1.226	77	0.597	92	0.174
48	2.167	63	1.175	78	0.564	93	0.151
49	2.082	64	1.125	79	0.532	94	0.128
50	2.000	65	1.077	80	0.500	95	0.105
51	1.922	66	1.030	81	0.469	96	0.083
52	1.846	67	0.985	82	0.439	97	0.062
53	1.774	68	0.941	83	0.410	98	0.041
54	1.704	69	0.899	84	0.381		

   - *Read the unit peak discharge (q_u) from Exhibit 4-III in Chapter 4 of TR-55 (reproduced below) for appropriate t_c*

Exhibit 4-III Unit peak discharge (q_u) for NRCS (SCS) type III rainfall distribution



- *Substituting the water quality volume (WQV), converted to watershed inches, for runoff depth (Q), compute the water quality flow (WQF) from the following equation:*

$$WQF = (q_u)(A)(Q)$$

where: WQV = water quality flow (cfs)
q_u = unit peak discharge (cfs/mi2/inch)
A = drainage area (mi2)
Q = runoff depth (in watershed inches)
$= \dfrac{[WQV\,(acre-feet)] \text{ x } [12(inches/foot)]}{Drainage\ Area\ (acres)}$

Other peak flow calculation methods may be used for determining the WQF, such as those recommended by manufacturers of proprietary treatment systems, provided that the WQF calculated by other methods is equal to or greater than the WQF calculated using the above NRCS Graphical Peak Discharge Method.

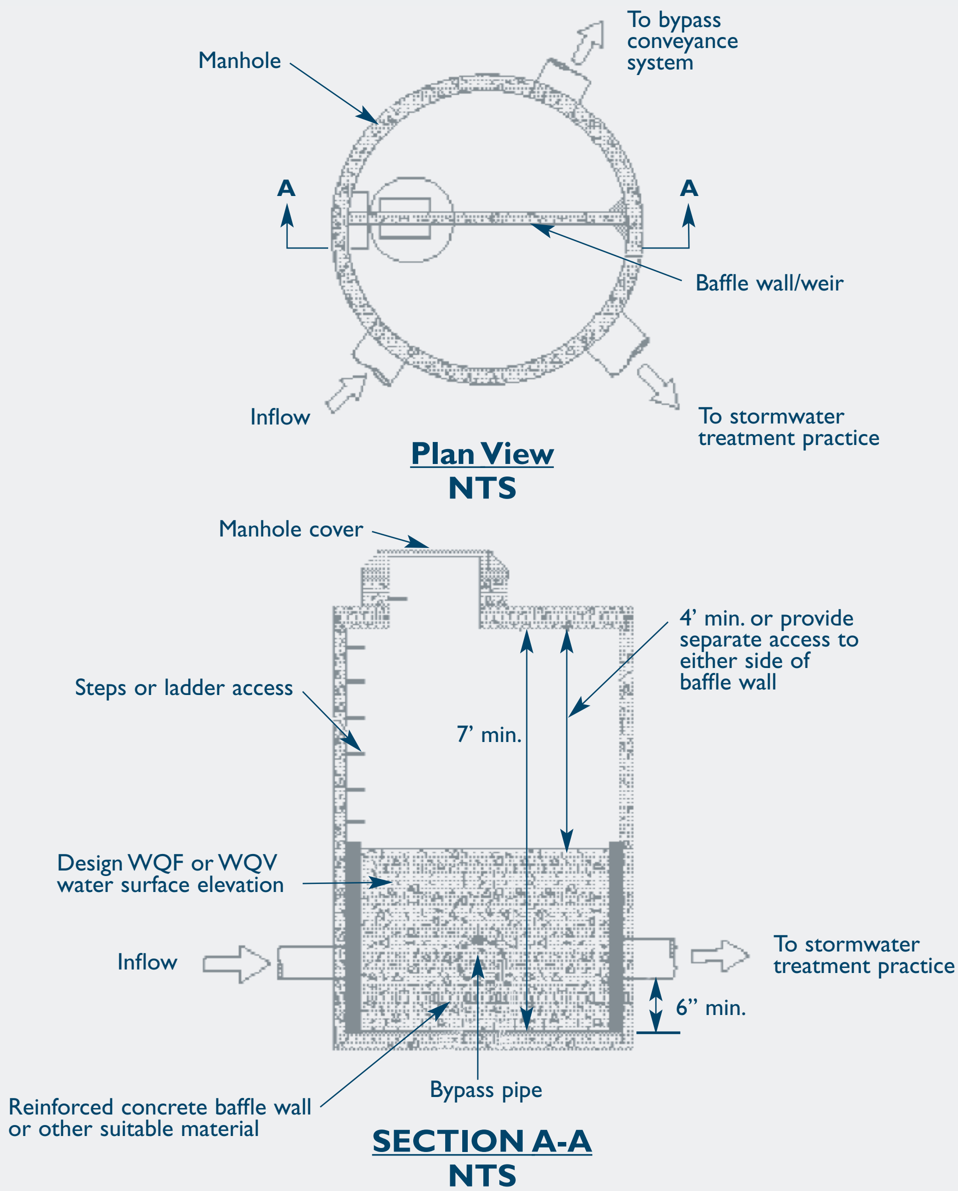
Flow Diversion Structures

Flow diversion structures, also called flow splitters, are designed to deliver flows up to the design water quality flow (WQF) or water quality volume (WQV) to off-line stormwater treatment practices. Flows in excess of the WQF or WQV are diverted around the treatment facility with minimal increase in head at the flow diversion structure to avoid surcharging the treatment facility under higher flow conditions. Flow diversion structures are typically manholes or vaults equipped with weirs, orifices, or pipes to bypass excess runoff. A number of design options exist. **Figures B-1** through **B-3** show common examples of flow diversion structures for use upstream of stormwater treatment practices. Other equivalent designs that achieve the result of diverting flows in excess of the WQF or WQV around the treatment facility, including bypasses or overflows located inside the facility, are also acceptable.

The following general procedures are recommended for design of flow diversion structures:

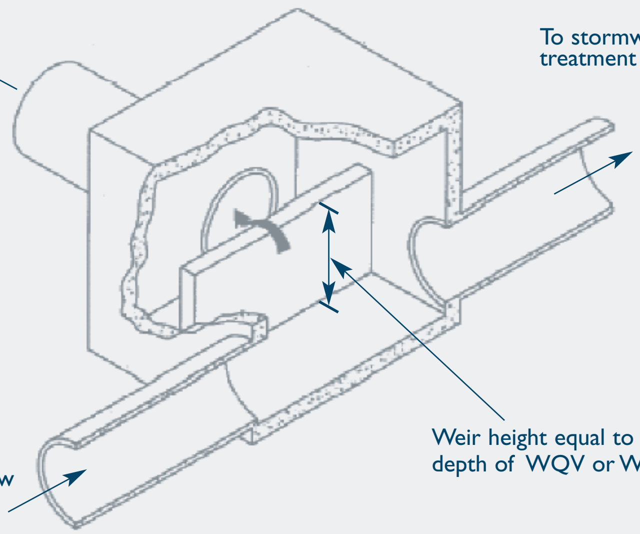
- *Locate the top of the weir or overflow structure at the maximum water surface elevation associated with the WQF, or the water surface elevation in the treatment practice when the entire WQV is being held, whichever is higher.*
- *Determine the diversion structure dimensions required to divert flows in excess of the WQF using standard equations for a rectangular sharp-crested weir, uniform flow in pipes or channels, or orifice depending on the type of diversion structure.*
- *Provide sufficient freeboard in the stormwater treatment practice and flow splitter to accommodate flow over the diversion structure.*
- *Limit the maximum head over the flow diversion structure to avoid surcharging the stormwater treatment practice under high flow conditions. Flow to the stormwater treatment practice at the 100-year water surface elevation should not increase the WQF by more than 10 percent.*
- *Design diversion structures to withstand the effects of freezing, frost in foundations, erosion, and flotation due to high water conditions. These structures should be designed to minimize clogging potential and to allow for ease of inspection and maintenance.*

Figure B-1 Flow Diversion Structure Design Option 1



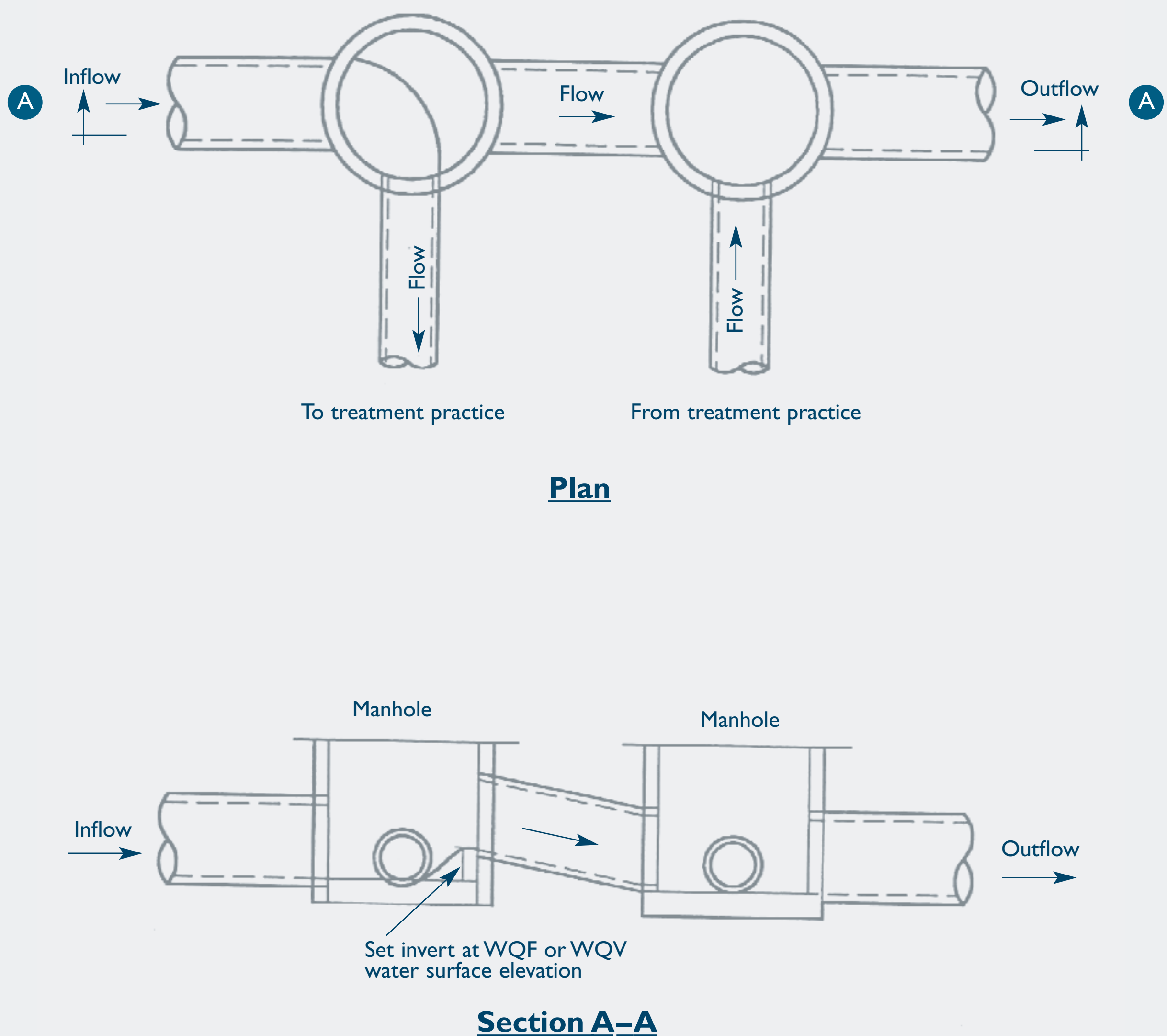
Source: Adapted from Washington, 2000.

Figure B-2 Flow Diversion Structure Design Option 2



Source: Adapted from City of Sacramento, 2000.

Figure B-3 Flow Diversion Structure Design Option 3



References

U.S. Department of Agriculture, Natural Resources Conservation Service (formerly Soil Conservation Service), *Urban Hydrology for Small Watersheds, Technical Release No. 55*, Washington, D.C., June 1986.

Claytor, R.A. and T.R. Schueler, Design of Stormwater Filtering Systems, The Center for Watershed Protection, Silver Spring, Maryland, December 1996.

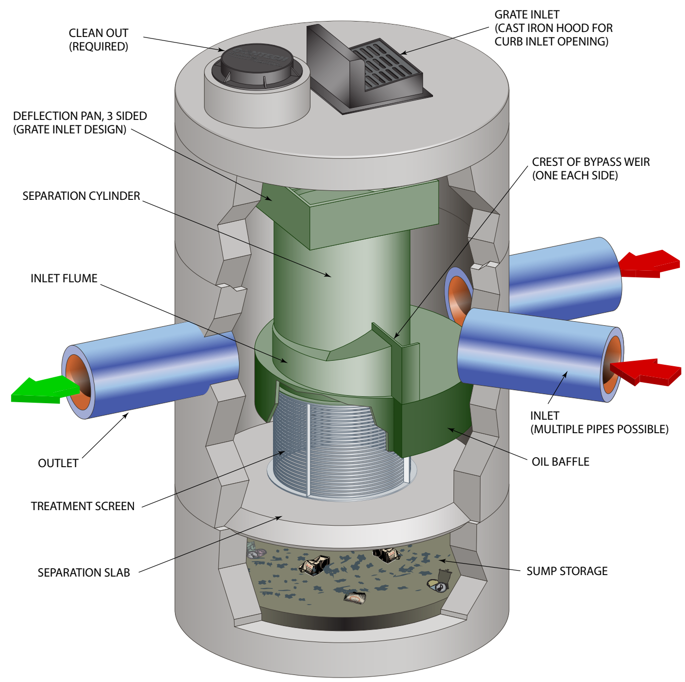
CONTECH®
ENGINEERED SOLUTIONS

CDS®

Solutions Guide

Continuous Deflective Separation - CDS®

Superior Stormwater Trash and Sediment Removal



The CDS is a swirl concentrator hybrid technology that uses continuous deflective separation – a combination of swirl concentration and indirect screening to screen, separate and trap debris, sediment, and hydrocarbons from stormwater runoff. The indirect screening capability of the system allows for 100% removal of floatables and neutrally buoyant material debris 2.4 mm or larger, without binding. CDS retains all captured pollutants, even at high flow rates, and provides easy access for maintenance.

CDS is used to meet trash Total Maximum Daily Load (TMDL) requirements, for stormwater quality control, inlet and outlet pollution control, and as pretreatment for filtration, detention/infiltration, bioretention, rainwater harvesting systems, and a variety of green infrastructure practices.

Learn more about the CDS system at www.ContechES.com/CDS

CDS® Approvals

CDS has been verified by some of the most stringent stormwater technology evaluation organizations in North America, including:

- Washington State Department of Ecology
- New Jersey Department of Environmental Protection
- Canadian Environmental Technology Verification (ETV)
- California Statewide Trash Amendments Full Capture System Certified*

CANADA VERIFIED VERIFIÉ
Performance Claim Verified by the Canadian ETV Program

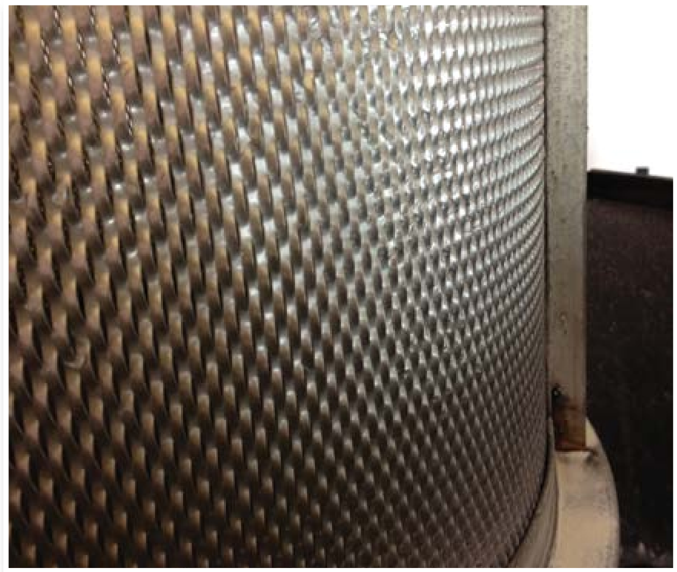
State of Washington TAPE GULD Pretreatment

** The CDS System has been certified by the California State Water Resources Control Board as a Full Capture System provided that it is sized to treat the peak flow rate from the region specific 1-year, 1-hour design storm, or the peak flow capacity of the corresponding storm drain, whichever is less.*

CDS® Features & Benefits

Feature	Benefit
1. Captures and retains 100% of floatables and neutrally buoyant debris 2.4 mm or larger	1. Superior pollutant removal
2. Self-cleaning screen	2. Ease of maintenance
3. Isolated storage sump eliminates scour potential	3. Excellent pollutant retention
4. Internal bypass	4. Eliminates the need for additional structures
5. Multiple pipe inlets and 90-180° angles	5. Design flexibility
6. Numerous regulatory approvals	6. Proven performance

The CDS® Screen



Traditional approaches to trash control typically involve "direct screening" that can easily become clogged, as trash is pinned to the screen as water passes through. Clogged screens can lead to flooding as water backs up.

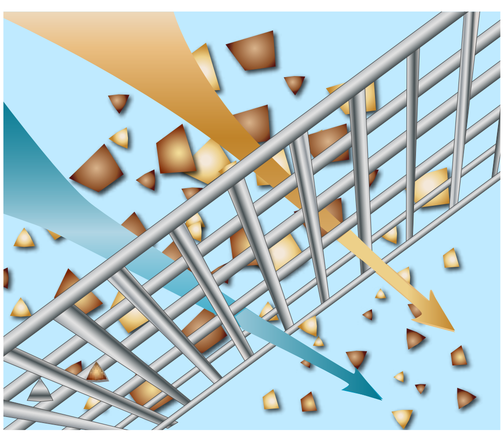
The design of the CDS screen is fundamentally different. Flow is introduced to the screen face which is louvered so that it is smooth in the downstream direction. The effect created is called "Continuous Deflective Separation." The power of the incoming flow is harnessed to continually shear debris off the screen and to direct trash and sediment toward the center of the separation cylinder.

Key Features:

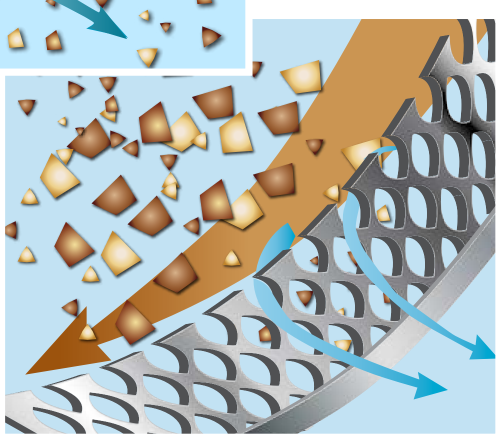
Self-Cleaning Screening Technology

- CDS Screen captures neutrally buoyant materials missed by other separator systems.
- Screen is hydraulically designed to be self-cleaning.
- Runoff entering the separation cylinder must pass through the screen prior to discharge, eliminating potential for scouring previously captured trash at high flow rates.

The CDS Screen – Self-Cleaning Screening Technology ❖ ❖ ❖



Direct Screening – particles that are larger than the aperture size of the screen can cause clogging, resulting in flooding if not maintained frequently.



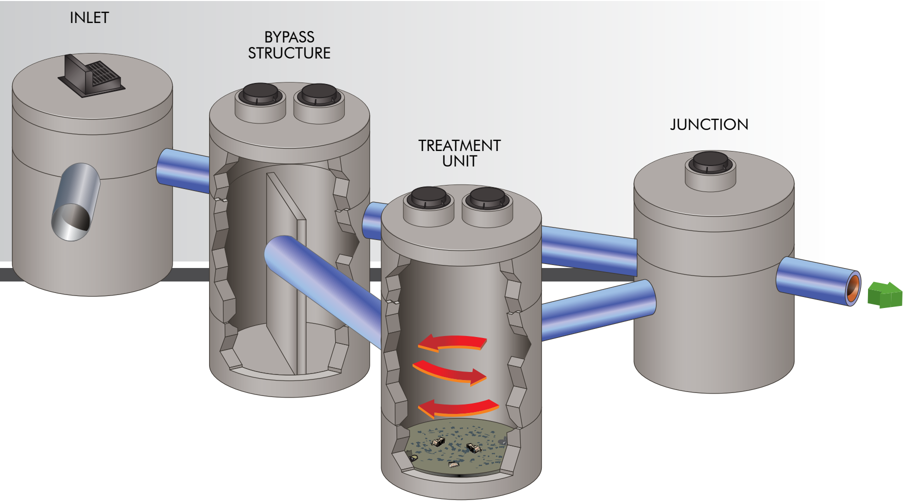
Continuous Deflective Separation Indirect Screening – water velocities within the swirl chamber continually shear debris off the screen to keep it clean.

CDS® Configuration - One System that Can Do It All!

The CDS effectively treats stormwater runoff while reducing the number of structures on your site.

WHY GO THROUGH ALL THIS?

TRADITIONAL STORMWATER TREATMENT SITE DESIGN

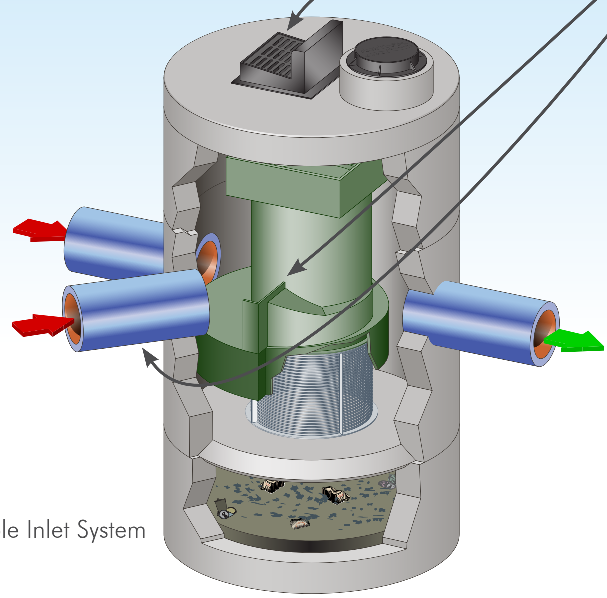


ONE SYSTEM CAN DO IT ALL!

- Inline, offline, grate inlet, and drop inlet configurations available
- Internal and external peak bypass options available

Save Time, Space, and Money with CDS®

- Grate inlet option available
- Internal bypass weir
- Accepts multiple inlets at a variety of angles
- Advanced hydrodynamic separator
- Captures and retains 100% of floatables and neutrally buoyant debris 2.4 mm or larger
- Indirect screening capability keeps screen from clogging
- Retention of all captured pollutants, even at high flows
- Performance verified by NJCAT, WA Ecology, and ETV Canada



CDS® Multiple Inlet System

CDS® Applications

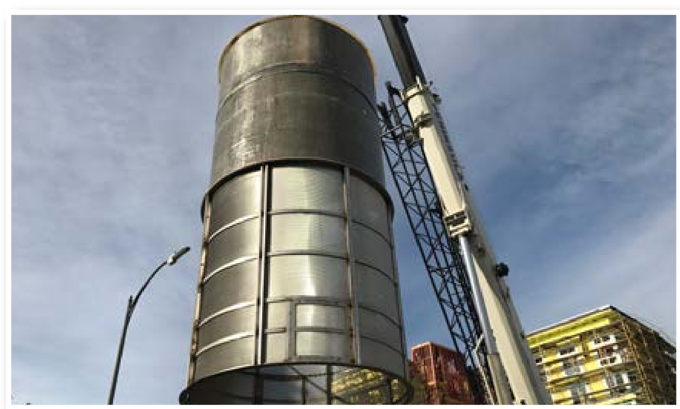
CDS is commonly used in the following stormwater applications:

- Stormwater quality control – trash, debris, sediment, and hydrocarbon removal
- Urban retrofit and redevelopment
- Inlet and outlet protection
- Pretreatment for filtration, detention/infiltration, bioretention, rainwater harvesting systems, and Low Impact Development designs.

CDS provides trash control.

CDS pretreats a bioswale.

CDS pretreats a rainwater harvesting cistern.



CDS standalone system removes trash and sediment.

CDS® Models and Capacities

	CDS MODEL	Treatment Flow Rates[1] 75 microns (cfs)/(L/s)	Treatment Flow Rates[1] 125 microns[2] (cfs)/(L/s)	Treatment Flow Rates[1] Trash & Debris (cfs)/(L/s)	Estimated Maximum Peak Conveyance Flow[3] (cfs)/(L/s)	Minimum Sump Storage Capacity[4] (yd^3)/(m^3)	Minimum Oil Storage Capacity[4] (gal)/(L)
PRECAST	CDS2015-4	0.5 (14.2)	0.7 (19.8)	1.0 (28.3)	10 (283)	0.9 (0.7)	61 (232)
	CDS2015-5	0.5 (14.2)	0.7(19.8)	1.0 (28.3)	10 (283)	1.5 (1.1)	83 (313)
	CDS2020-5	0.7 (19.8)	1.1 (31.2)	1.5 (42.5)	14 (396)	1.5 (1.1)	99 (376)
	CDS2025-5	1.1 (31.2)	1.6 (45.3)	2.2 (62.3)	14 (396)	1.5 (1.1)	116 (439)
	CDS3020-6	1.4 (39.6)	2.0 (56.6)	2.8 (79.3)	20 (566)	2.1 (1.6)	184 (696)
	CDS3025-6	1.7 (48.1)	2.5 (70.8)	3.5 (99.2)	20 (566)	2.1 (1.6)	210 (795)
	CDS3030-6	2.0 (56.6)	3.0 (85.0)	4.2 (118.9)	20 (566)	2.1 (1.6)	236 (895)
	CDS3035-6	2.6 (73.6)	3.8 (106.2)	5.3 (150.0)	20 (566)	2.1 (1.6)	263 (994)
	CDS4030-8	3.1 (87.7)	4.5 (127.4)	6.3 (178.3)	30 (850)	5.6 (4.3)	426 (1612)
	CDS4040-8	4.1 (116.1)	6.0 (169.9)	8.4 (237.8)	30 (850)	5.6 (4.3)	520 (1970)
	CDS4045-8	5.1 (144.4)	7.5 (212.4)	10.5 (297.2)	30 (850)	5.6 (4.3)	568 (2149)
	CDS5640-10	6.1 (172.7)	9.0 (254.9)	12.6 (356.7)	50 (1416)	8.7 (6.7)	758 (2869)
	CDS5653-10	9.5 (268.9)	14.0 (396.5)	19.6 (554.8)	50 (1416)	8.7 (6.7)	965 (3652)
	CDS5668-10	12.9 (365.1)	19.0 (538.1)	26.6 (752.9)	50 (1416)	8.7 (6.7)	1172 (4435)
	CDS5678-10	17.0 (481.2)	25.0 (708.0)	35.0 (990.7)	50 (1416)	8.7 (6.7)	1309 (4956)
	CDS9280-12	27.2 (770.2)	40.0 (1132.7)	56.0 (1585.7)	Offline	16.8 (12.8)	N/A
	CDS9290-12	35.4 (1002.4)	52.0 (1472.5)	72 (2038.8)		16.8 (12.8)	
	CDS92100-12	42.8 (1212.0)	63.0 (1783.9)	88 (2491.9)		16.8 (12.8)	
CAST-IN-PLACE	CDS150134-22	100.7 (2851.5)	148.0 (4190.9)	270 (7645.6)		56.3 (43.0)	
	CDS200164-26	183.6 (5199.0)	270.0 (7645.6)	378.0 (10703.8)		78.7 (60.2)	
	CDS240160-32	204 (5776.6)	300.0 (8495.1)	420.0 (8495.1)		119.1 (91.1)	
	Additional Cast-in-Place models available upon request.						

1. Alternative PSD/D_{50} sizing is available upon request.
2. 125 micron flows are based on the CDS Washington State Department of Ecology approval for 80% removal of a particle size distribution (PSD) having a mean particle size (D_{50}) of 125 microns.
3. Estimated maximum peak conveyance flow is calculated using conservative values and may be exceeded on sites with lower inflow velocities and sufficient head over the weir.
4. Sump and oil capacities can be customized to meet site needs

CDS® Maintenance

Systems vary in their maintenance needs, and the selection of a cost-effective and easy-to-access treatment system can mean a huge difference in maintenance expenses for years to come.

A CDS unit is designed to minimize maintenance and make it as easy and inexpensive as possible to keep our systems working properly.

Most CDS units can easily be cleaned in 30 minutes.

Inspection

Inspection is the key to effective maintenance. Pollutant deposition and transport may vary from year to year and site to site. Semi-annual inspections will help ensure that the system is cleaned out at the appropriate time. Inspections should be performed more frequently where site conditions may cause rapid accumulation of pollutants.

Recommendations for CDS Maintenance

The recommended cleanout of solids within the CDS unit's sump should occur at 75% of the sump capacity. Access to the CDS unit is typically achieved through two manhole access covers – one allows inspection and cleanout of the separation chamber and sump, and another allows inspection and cleanout of sediment captured and retained behind the screen. A vacuum truck is recommended for cleanout of the CDS unit and can be easily accomplished in less than 30 minutes for most installations.

DYOHDS™ Tool

Design Your Own Hydrodynamic Separator

Features

- Choose from three HDS technologies - CDS®, Vortechs® and VortSentry® HS
- Site specific questions ensure the selected unit will comply with site constraints
- Unit size based on selected mean particle size and targeted removal percentage
- Localized rainfall data allows for region specific designs
- PDF report includes detailed performance calculations, specification and standard drawing for the unit that was sized

DYO Project design made easy.

Design Your Own (DYO) Hydrodynamic Separator online at www.ContechES.com/dyohds

Next Steps

Learn more

See our CDS systems in action at **www.ContechES.com/videos**

Connect with Us

We're here to make your job easier – and that includes being able to get in touch with us when you need to. **www.ContechES.com/localresources**

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Contech Engineered Solutions LLC provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, retaining walls, sanitary sewer, stormwater, erosion control and soil stabilization products.

The product(s) described may be protected by one or more of the following US patents: 5,322,629; 5,624,576; 5,707,527; 5,759,415; 5,788,848; 5,985,157; 6,027,639; 6,350,374; 6,406,218; 6,641,720; 6,511,595; 6,649,048; 6,991,114; 6,998,038; 7,186,058; 7,296,692; 7,297,266 related foreign patents or other patents pending.

CDS is a resgistered trademark or licensed trademark of Contech Engineered Solutions LLC.

CONTECH® ENGINEERED SOLUTIONS

COMPLETE SITE SOLUTIONS

TREAT REUSE STORE DRAIN CONVEY RELINE SPAN PROTECT

Stormwater Solutions

Helping to satisfy stormwater management requirements on land development projects

- Stormwater Treatment
- Detention/Infiltration
- Rainwater Harvesting
- Biofiltration/Bioretention

Pipe Solutions

Meeting project needs for durability, hydraulics, corrosion resistance, and stiffness

- Corrugated Metal Pipe (CMP)
- Steel Reinforced Polyethylene (SRPE)
- High Density Polyethylene (HDPE)
- Polyvinyl Chloride (PVC)

Structures Solutions

Providing innovative options and support for crossings, culverts, and bridges

- Plate, Precast & Truss bridges
- Hard Armor
- Retaining Walls
- Tunnel Liner Plate

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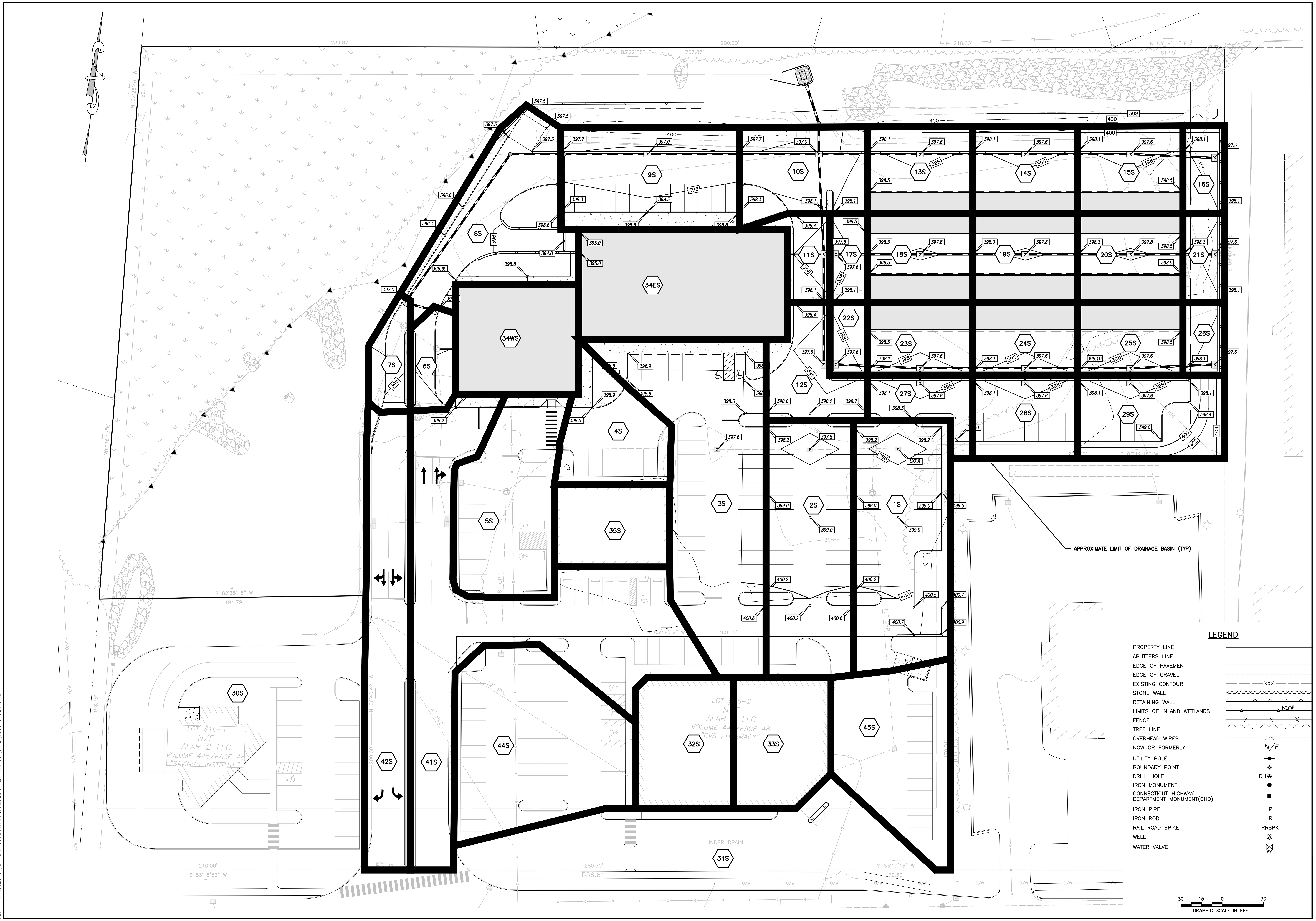
PROPOSED CONDITIONS DRAINAGE CALCULATIONS



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CHA

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SITE DEVELOPMENT PLAN
PREPARED FOR:

TOWNSEND
DEVELOPMENT
ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

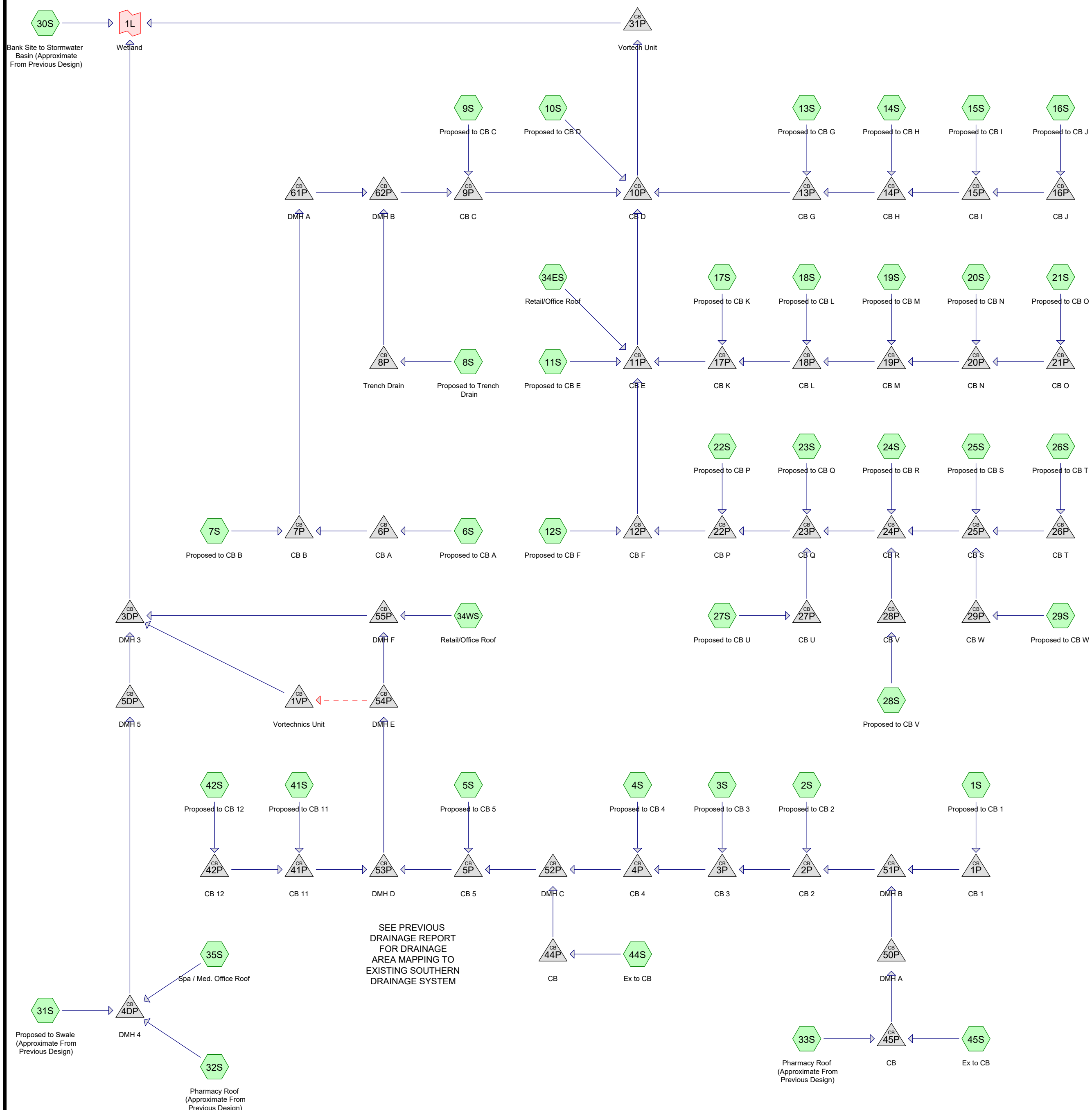
No.	Submittal / Revision	App'd.	By	Date

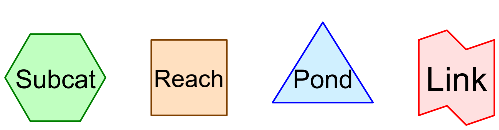
DRAINAGE BASIN MAP

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date:	Project No:	Scale:
05/05/2023	080849	1" = 30'

Drawing No.:

1





Routing Diagram for 080849 Townsend
Prepared by CHA Consulting, Inc, Printed 5/19/2023
HydroCAD® 10.20-2d s/n 00409 © 2021 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-yr	CT_Brooklyn 24-hr S1	2-yr	Default	24.00	1	3.38	2
2	10-yr	CT_Brooklyn 24-hr S1	10-yr	Default	24.00	1	5.05	2
3	25-yr	CT_Brooklyn 24-hr S1	25-yr	Default	24.00	1	6.10	2
4	100-yr	CT_Brooklyn 24-hr S1	100-yr	Default	24.00	1	7.71	2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
45,760	61	>75% Grass cover, Good, HSG B (1S, 2S, 3S, 4S, 5S, 6S, 7S, 8S, 9S, 10S, 12S, 13S, 14S, 15S, 16S, 27S, 28S, 29S, 30S, 31S, 41S, 44S, 45S)
257,785	98	Paved parking & roofs (1S, 2S, 3S, 4S, 5S, 6S, 7S, 8S, 9S, 10S, 11S, 12S, 13S, 14S, 15S, 16S, 17S, 18S, 19S, 20S, 21S, 22S, 23S, 24S, 25S, 26S, 27S, 28S, 29S, 30S, 31S, 32S, 33S, 34ES, 34WS, 35S, 41S, 42S, 44S, 45S)
2,975	98	Roof (30S)
306,520	**92**	**TOTAL AREA**

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Proposed to CB 1 Runoff Area=12,715 sf 77.86% Impervious Runoff Depth=2.34"
Tc=5.0 min CN=90 Runoff=0.93 cfs 2,475 cf

Subcatchment2S: Proposed to CB 2 Runoff Area=11,985 sf 90.40% Impervious Runoff Depth=2.72"
Tc=5.0 min CN=94 Runoff=0.99 cfs 2,715 cf

Subcatchment3S: Proposed to CB 3 Runoff Area=18,370 sf 90.36% Impervious Runoff Depth=2.72"
Tc=5.0 min CN=94 Runoff=1.52 cfs 4,162 cf

Subcatchment4S: Proposed to CB 4 Runoff Area=5,750 sf 94.70% Impervious Runoff Depth=2.93"
Tc=5.0 min CN=96 Runoff=0.50 cfs 1,402 cf

Subcatchment5S: Proposed to CB 5 Runoff Area=9,870 sf 87.84% Impervious Runoff Depth=2.72"
Tc=5.0 min CN=94 Runoff=0.82 cfs 2,236 cf

Subcatchment6S: Proposed to CB A Runoff Area=2,265 sf 59.38% Impervious Runoff Depth=1.76"
Tc=5.0 min CN=83 Runoff=0.13 cfs 332 cf

Subcatchment7S: Proposed to CB B Runoff Area=2,135 sf 56.67% Impervious Runoff Depth=1.68"
Tc=5.0 min CN=82 Runoff=0.11 cfs 300 cf

Subcatchment8S: Proposed to Trench Runoff Area=10,255 sf 77.13% Impervious Runoff Depth=2.34"
Tc=5.0 min CN=90 Runoff=0.75 cfs 1,996 cf

Subcatchment9S: Proposed to CB C Runoff Area=9,675 sf 76.95% Impervious Runoff Depth=2.25"
Tc=5.0 min CN=89 Runoff=0.69 cfs 1,811 cf

Subcatchment10S: Proposed to CB D Runoff Area=6,090 sf 72.74% Impervious Runoff Depth=2.16"
Tc=5.0 min CN=88 Runoff=0.42 cfs 1,096 cf

Subcatchment11S: Proposed to CB E Runoff Area=2,220 sf 100.00% Impervious Runoff Depth=3.15"
Tc=5.0 min CN=98 Runoff=0.20 cfs 582 cf

Subcatchment12S: Proposed to CB F Runoff Area=4,475 sf 94.19% Impervious Runoff Depth=2.93"
Tc=5.0 min CN=96 Runoff=0.39 cfs 1,091 cf

Subcatchment13S: Proposed to CB G Runoff Area=4,830 sf 73.08% Impervious Runoff Depth=2.16"
Tc=5.0 min CN=88 Runoff=0.33 cfs 869 cf

Subcatchment14S: Proposed to CB H Runoff Area=4,850 sf 73.20% Impervious Runoff Depth=2.16"
Tc=5.0 min CN=88 Runoff=0.33 cfs 873 cf

Subcatchment15S: Proposed to CB I Runoff Area=4,870 sf 72.28% Impervious Runoff Depth=2.16"
Tc=5.0 min CN=88 Runoff=0.33 cfs 876 cf

Subcatchment16S: Proposed to CB J Runoff Area=1,940 sf 71.13% Impervious Runoff Depth=2.07"
Tc=5.0 min CN=87 Runoff=0.13 cfs 335 cf

Subcatchment17S: Proposed to CB K Runoff Area=1,790 sf 100.00% Impervious Runoff Depth=3.15"
Tc=5.0 min CN=98 Runoff=0.16 cfs 469 cf

Subcatchment18S: Proposed to CB L Runoff Area=4,985 sf 100.00% Impervious Runoff Depth=3.15"
Tc=5.0 min CN=98 Runoff=0.45 cfs 1,307 cf

Subcatchment19S: Proposed to CB M Runoff Area=4,985 sf 100.00% Impervious Runoff Depth=3.15"
Tc=5.0 min CN=98 Runoff=0.45 cfs 1,307 cf

Subcatchment20S: Proposed to CB N Runoff Area=4,985 sf 100.00% Impervious Runoff Depth=3.15"
Tc=5.0 min CN=98 Runoff=0.45 cfs 1,307 cf

Subcatchment21S: Proposed to CB O Runoff Area=1,980 sf 100.00% Impervious Runoff Depth=3.15"
Tc=5.0 min CN=98 Runoff=0.18 cfs 519 cf

Subcatchment22S: Proposed to CB P Runoff Area=1,470 sf 100.00% Impervious Runoff Depth=3.15"
Tc=5.0 min CN=98 Runoff=0.13 cfs 385 cf

Subcatchment23S: Proposed to CB Q Runoff Area=4,100 sf 100.00% Impervious Runoff Depth=3.15"
Tc=5.0 min CN=98 Runoff=0.37 cfs 1,075 cf

Subcatchment24S: Proposed to CB R Runoff Area=4,100 sf 100.00% Impervious Runoff Depth=3.15"
Tc=5.0 min CN=98 Runoff=0.37 cfs 1,075 cf

Subcatchment25S: Proposed to CB S Runoff Area=4,100 sf 100.00% Impervious Runoff Depth=3.15"
Tc=5.0 min CN=98 Runoff=0.37 cfs 1,075 cf

Subcatchment26S: Proposed to CB T Runoff Area=1,630 sf 100.00% Impervious Runoff Depth=3.15"
Tc=5.0 min CN=98 Runoff=0.15 cfs 427 cf

Subcatchment27S: Proposed to CB U Runoff Area=2,945 sf 86.76% Impervious Runoff Depth=2.62"
Tc=5.0 min CN=93 Runoff=0.24 cfs 643 cf

Subcatchment28S: Proposed to CB V Runoff Area=4,625 sf 77.95% Impervious Runoff Depth=2.34"
Tc=5.0 min CN=90 Runoff=0.34 cfs 900 cf

Subcatchment29S: Proposed to CB W Runoff Area=6,465 sf 48.72% Impervious Runoff Depth=1.47"
Tc=5.0 min CN=79 Runoff=0.30 cfs 794 cf

Subcatchment30S: Bank Site to Runoff Area=29,845 sf 83.28% Impervious Runoff Depth=2.52"
Tc=5.0 min CN=92 Runoff=2.34 cfs 6,273 cf

Subcatchment31S: Proposed to Swale Runoff Area=19,335 sf 45.44% Impervious Runoff Depth=1.41"
Tc=5.0 min CN=78 Runoff=0.85 cfs 2,267 cf

Subcatchment32S: Pharmacy Roof Runoff Area=6,615 sf 100.00% Impervious Runoff Depth=3.15"
Tc=5.0 min CN=98 Runoff=0.59 cfs 1,735 cf

Subcatchment33S: Pharmacy Roof Runoff Area=6,610 sf 100.00% Impervious Runoff Depth=3.15"
Tc=5.0 min CN=98 Runoff=0.59 cfs 1,733 cf

Subcatchment34ES: Retail/Office Roof Runoff Area=12,100 sf 100.00% Impervious Runoff Depth=3.15"
Tc=5.0 min CN=98 Runoff=1.09 cfs 3,173 cf

Subcatchment34WS: Retail/Office Roof Runoff Area=7,200 sf 100.00% Impervious Runoff Depth=3.15"
Tc=5.0 min CN=98 Runoff=0.65 cfs 1,888 cf

Subcatchment35S: Spa / Med. Office Roof Runoff Area=5,050 sf 100.00% Impervious Runoff Depth=3.15"
Tc=5.0 min CN=98 Runoff=0.45 cfs 1,324 cf

Subcatchment41S: Proposed to CB 11 Runoff Area=23,300 sf 91.50% Impervious Runoff Depth=2.82"
Tc=5.0 min CN=95 Runoff=1.98 cfs 5,478 cf

Subcatchment42S: Proposed to CB 12 Runoff Area=10,920 sf 100.00% Impervious Runoff Depth=3.15"
Tc=5.0 min CN=98 Runoff=0.98 cfs 2,864 cf

Subcatchment44S: Ex to CB Runoff Area=15,040 sf 92.69% Impervious Runoff Depth=2.82"
Tc=5.0 min CN=95 Runoff=1.28 cfs 3,536 cf

Subcatchment45S: Ex to CB Runoff Area=10,050 sf 76.87% Impervious Runoff Depth=2.25"
Tc=5.0 min CN=89 Runoff=0.71 cfs 1,881 cf

Pond 1P: CB 1 Peak Elev=394.73' Inflow=0.93 cfs 2,475 cf
15.0" Round Culvert n=0.012 L=15.0' S=0.0253 '/' Outflow=0.93 cfs 2,475 cf

Pond 1VP: Vortechnics Unit Peak Elev=392.20' Inflow=3.82 cfs 24,440 cf
15.0" Round Culvert n=0.012 L=53.0' S=0.0049 '/' Outflow=3.82 cfs 24,440 cf

Pond 2P: CB 2 Peak Elev=394.48' Inflow=3.24 cfs 8,805 cf
15.0" Round Culvert n=0.012 L=59.0' S=0.0049 '/' Outflow=3.24 cfs 8,805 cf

Pond 3DP: DMH 3 Peak Elev=391.78' Inflow=12.85 cfs 35,697 cf
36.0" Round Culvert n=0.012 L=14.0' S=0.0100 '/' Outflow=12.85 cfs 35,697 cf

Pond 3P: CB 3 Peak Elev=394.19' Inflow=4.76 cfs 12,967 cf
18.0" Round Culvert n=0.012 L=112.0' S=0.0050 '/' Outflow=4.76 cfs 12,967 cf

Pond 4DP: DMH 4 Peak Elev=393.70' Inflow=1.89 cfs 5,326 cf
18.0" Round Culvert n=0.012 L=135.0' S=0.0048 '/' Outflow=1.89 cfs 5,326 cf

Pond 4P: CB 4 Peak Elev=393.74' Inflow=5.26 cfs 14,370 cf
24.0" Round Culvert n=0.012 L=50.0' S=0.0050 '/' Outflow=5.26 cfs 14,370 cf

Pond 5DP: DMH 5 Peak Elev=391.88' Inflow=1.89 cfs 5,326 cf
18.0" Round Culvert n=0.012 L=78.0' S=0.0046 '/' Outflow=1.89 cfs 5,326 cf

Pond 5P: CB 5 Peak Elev=393.31' Inflow=7.36 cfs 20,142 cf
30.0" Round Culvert n=0.012 L=12.0' S=0.0050 '/' Outflow=7.36 cfs 20,142 cf

Pond 6P: CB A Peak Elev=392.83' Inflow=0.13 cfs 332 cf
15.0" Round Culvert n=0.012 L=19.0' S=0.0053 '/' Outflow=0.13 cfs 332 cf

Pond 7P: CB B Peak Elev=392.76' Inflow=0.24 cfs 631 cf
15.0" Round Culvert n=0.012 L=128.0' S=0.0051 '/' Outflow=0.24 cfs 631 cf

Pond 8P: Trench Drain Peak Elev=394.24' Inflow=0.75 cfs 1,996 cf
8.0" Round Culvert n=0.012 L=55.0' S=0.0391 '/' Outflow=0.75 cfs 1,996 cf

Pond 9P: CB C Peak Elev=392.38' Inflow=1.68 cfs 4,439 cf
15.0" Round Culvert n=0.012 L=120.0' S=0.0050 '/' Outflow=1.68 cfs 4,439 cf

Pond 10P: CB D Peak Elev=392.22' Inflow=8.83 cfs 24,621 cf
24.0" Round Culvert n=0.012 L=19.0' S=0.0105 '/' Outflow=8.83 cfs 24,621 cf

Pond 11P: CB E Peak Elev=393.14' Inflow=5.61 cfs 16,132 cf
15.0" Round Culvert n=0.012 L=68.0' S=0.0074 '/' Outflow=5.61 cfs 16,132 cf

Pond 12P: CB F Peak Elev=393.35' Inflow=2.65 cfs 7,467 cf
15.0" Round Culvert n=0.012 L=75.0' S=0.0073 '/' Outflow=2.65 cfs 7,467 cf

Pond 13P: CB G Peak Elev=392.33' Inflow=1.12 cfs 2,954 cf
15.0" Round Culvert n=0.012 L=68.0' S=0.0125 '/' Outflow=1.12 cfs 2,954 cf

Pond 14P: CB H Peak Elev=392.82' Inflow=0.79 cfs 2,085 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0120 '/' Outflow=0.79 cfs 2,085 cf

Pond 15P: CB I Peak Elev=393.61' Inflow=0.46 cfs 1,212 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0120 '/' Outflow=0.46 cfs 1,212 cf

Pond 16P: CB J Peak Elev=394.27' Inflow=0.13 cfs 335 cf
12.0" Round Culvert n=0.012 L=57.0' S=0.0123 '/' Outflow=0.13 cfs 335 cf

Pond 17P: CB K Peak Elev=393.22' Inflow=1.68 cfs 4,910 cf
15.0" Round Culvert n=0.012 L=5.0' S=0.0200 '/' Outflow=1.68 cfs 4,910 cf

Pond 18P: CB L Peak Elev=393.28' Inflow=1.52 cfs 4,441 cf
15.0" Round Culvert n=0.012 L=57.0' S=0.0105 '/' Outflow=1.52 cfs 4,441 cf

Pond 19P: CB M Peak Elev=393.44' Inflow=1.07 cfs 3,134 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0099 '/' Outflow=1.07 cfs 3,134 cf

Pond 20P: CB N Peak Elev=393.86' Inflow=0.62 cfs 1,826 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0099 '/' Outflow=0.62 cfs 1,826 cf

Pond 21P: CB O Peak Elev=394.36' Inflow=0.18 cfs 519 cf
12.0" Round Culvert n=0.012 L=57.0' S=0.0105 '/' Outflow=0.18 cfs 519 cf

Pond 22P: CB P Peak Elev=393.49' Inflow=2.26 cfs 6,375 cf
15.0" Round Culvert n=0.012 L=5.0' S=0.0200 '/' Outflow=2.26 cfs 6,375 cf

Pond 23P: CB Q Peak Elev=393.63' Inflow=2.12 cfs 5,990 cf
15.0" Round Culvert n=0.012 L=57.0' S=0.0079 '/' Outflow=2.12 cfs 5,990 cf

Pond 24P: CB R Peak Elev=393.82' Inflow=1.52 cfs 4,272 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0077 '/' Outflow=1.52 cfs 4,272 cf

Pond 25P: CB S Peak Elev=394.06' Inflow=0.81 cfs 2,296 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0077 '/' Outflow=0.81 cfs 2,296 cf

Pond 26P: CB T Peak Elev=394.24' Inflow=0.15 cfs 427 cf
12.0" Round Culvert n=0.012 L=57.0' S=0.0079 '/' Outflow=0.15 cfs 427 cf

Pond 27P: CB U Peak Elev=394.84' Inflow=0.24 cfs 643 cf
12.0" Round Culvert n=0.012 L=7.0' S=0.0214 '/' Outflow=0.24 cfs 643 cf

Pond 28P: CB V Peak Elev=394.89' Inflow=0.34 cfs 900 cf
12.0" Round Culvert n=0.012 L=7.0' S=0.0214 '/' Outflow=0.34 cfs 900 cf

Pond 29P: CB W Peak Elev=394.87' Inflow=0.30 cfs 794 cf
12.0" Round Culvert n=0.012 L=7.0' S=0.0214 '/' Outflow=0.30 cfs 794 cf

Pond 31P: Vortech Unit Peak Elev=391.79' Inflow=8.83 cfs 24,621 cf
24.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=8.83 cfs 24,621 cf

Pond 41P: CB 11 Peak Elev=393.28' Inflow=2.96 cfs 8,342 cf
18.0" Round Culvert n=0.012 L=27.0' S=0.0100 '/' Outflow=2.96 cfs 8,342 cf

Pond 42P: CB 12 Peak Elev=393.43' Inflow=0.98 cfs 2,864 cf
15.0" Round Culvert n=0.012 L=53.0' S=0.0100 '/' Outflow=0.98 cfs 2,864 cf

Pond 44P: CB Peak Elev=393.66' Inflow=1.28 cfs 3,536 cf
15.0" Round Culvert n=0.012 L=115.0' S=0.0059 '/' Outflow=1.28 cfs 3,536 cf

Pond 45P: CB Peak Elev=396.42' Inflow=1.31 cfs 3,615 cf
15.0" Round Culvert n=0.012 L=182.0' S=0.0100 '/' Outflow=1.31 cfs 3,615 cf

Pond 50P: DMH A Peak Elev=394.68' Inflow=1.31 cfs 3,615 cf
15.0" Round Culvert n=0.012 L=50.0' S=0.0050 '/' Outflow=1.31 cfs 3,615 cf

Pond 51P: DMH B Peak Elev=394.62' Inflow=2.24 cfs 6,090 cf
15.0" Round Culvert n=0.012 L=42.0' S=0.0050 '/' Outflow=2.24 cfs 6,090 cf

Pond 52P: DMH C Peak Elev=393.55' Inflow=6.54 cfs 17,906 cf
24.0" Round Culvert n=0.012 L=31.0' S=0.0052 '/' Outflow=6.54 cfs 17,906 cf

Pond 53P: DMH D Peak Elev=393.10' Inflow=10.32 cfs 28,484 cf
30.0" Round Culvert n=0.012 L=48.0' S=0.0050 '/' Outflow=10.32 cfs 28,484 cf

Pond 54P: DMH E Peak Elev=392.53' Inflow=10.32 cfs 28,484 cf
Primary=6.51 cfs 4,043 cf Secondary=3.82 cfs 24,440 cf Outflow=10.32 cfs 28,484 cf

Pond 55P: DMH F Peak Elev=392.19' Inflow=7.15 cfs 5,931 cf
30.0" Round Culvert n=0.012 L=30.0' S=0.0177 '/' Outflow=7.15 cfs 5,931 cf

Pond 61P: DMH A Peak Elev=392.46' Inflow=0.24 cfs 631 cf
15.0" Round Culvert n=0.012 L=37.0' S=0.0054 '/' Outflow=0.24 cfs 631 cf

Pond 62P: DMH B Peak Elev=392.45' Inflow=0.99 cfs 2,628 cf
15.0" Round Culvert n=0.012 L=57.0' S=0.0053 '/' Outflow=0.99 cfs 2,628 cf

Link 1L: Wetland Inflow=24.02 cfs 66,591 cf
Primary=24.02 cfs 66,591 cf

Total Runoff Area = 306,520 sf Runoff Volume = 66,591 cf Average Runoff Depth = 2.61"
14.93% Pervious = 45,760 sf 85.07% Impervious = 260,760 sf

Summary for Subcatchment 1S: Proposed to CB 1

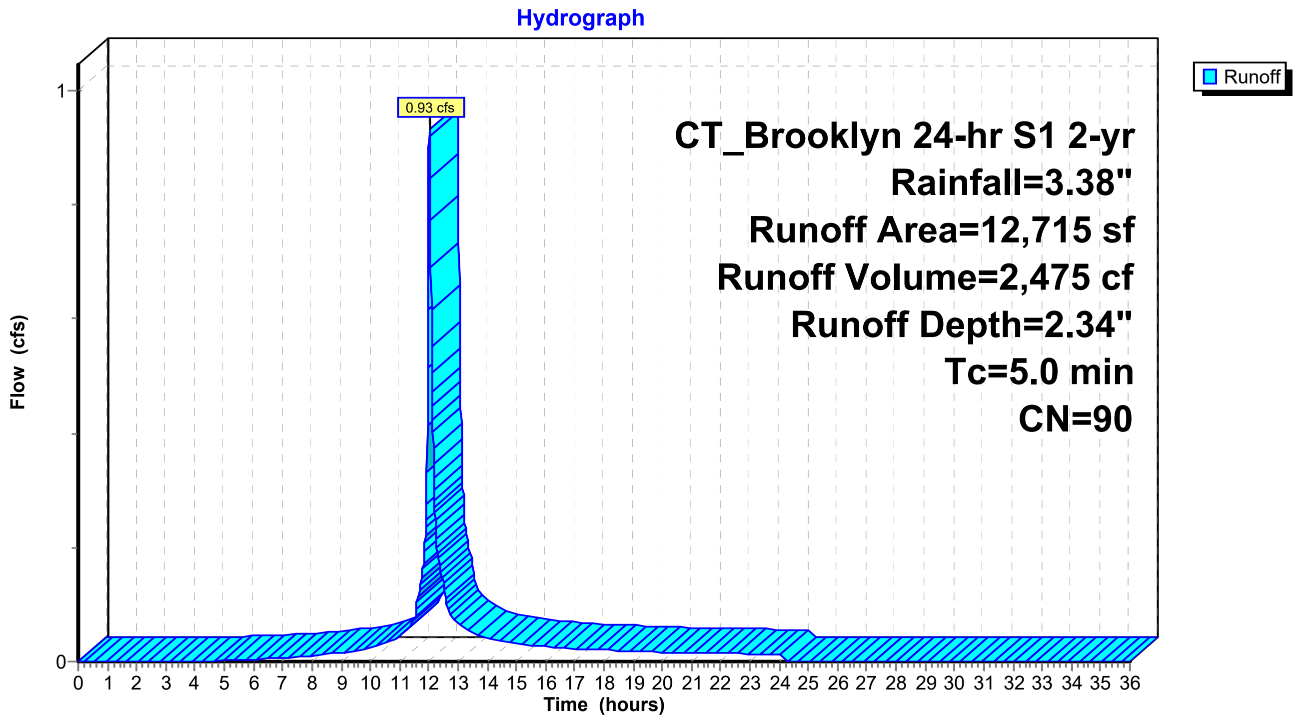
Runoff = 0.93 cfs @ 12.03 hrs, Volume= 2,475 cf, Depth= 2.34"
Routed to Pond 1P : CB 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
9,900	98	Paved parking & roofs
2,815	61	>75% Grass cover, Good, HSG B
12,715	90	Weighted Average
2,815		22.14% Pervious Area
9,900		77.86% Impervious Area

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

Subcatchment 1S: Proposed to CB 1



Summary for Subcatchment 2S: Proposed to CB 2

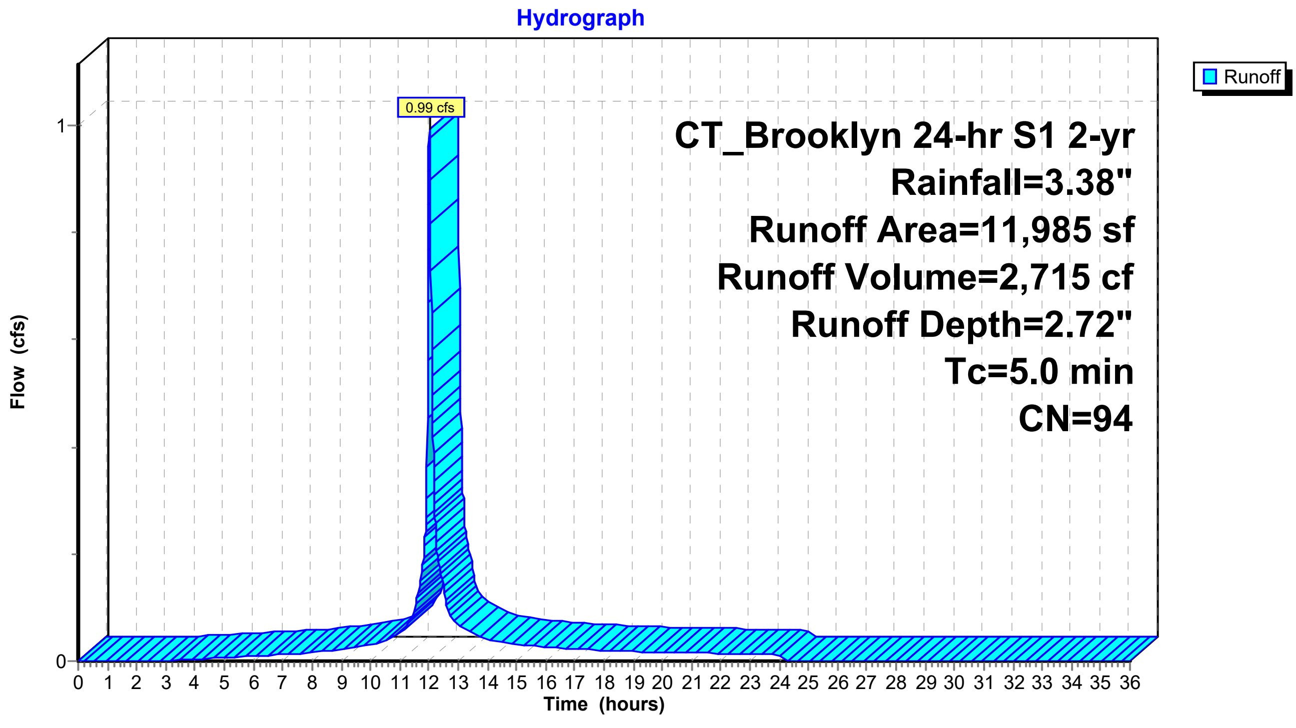
Runoff = 0.99 cfs @ 12.03 hrs, Volume= 2,715 cf, Depth= 2.72"
Routed to Pond 2P : CB 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
10,835	98	Paved parking & roofs
1,150	61	>75% Grass cover, Good, HSG B
11,985	94	Weighted Average
1,150		9.60% Pervious Area
10,835		90.40% Impervious Area

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

Subcatchment 2S: Proposed to CB 2



Summary for Subcatchment 3S: Proposed to CB 3

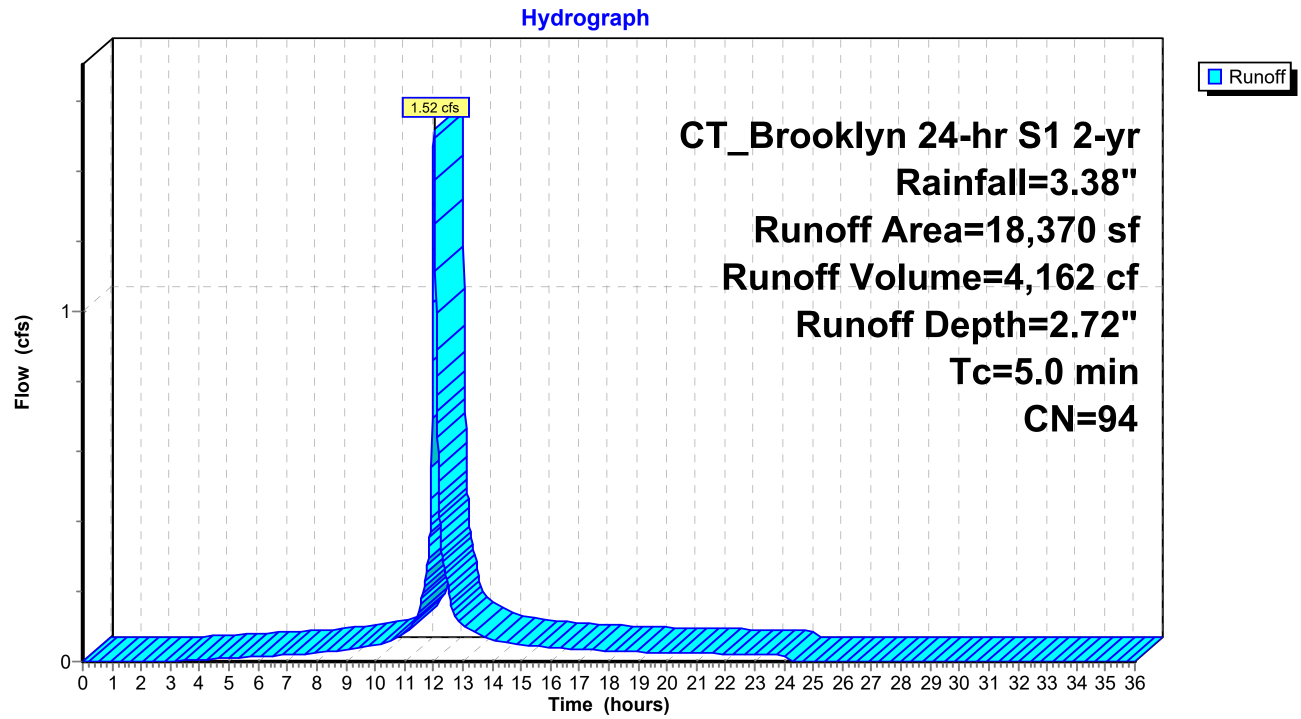
Runoff = 1.52 cfs @ 12.03 hrs, Volume= 4,162 cf, Depth= 2.72"
Routed to Pond 3P : CB 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
16,600	98	Paved parking & roofs
1,770	61	>75% Grass cover, Good, HSG B
18,370	94	Weighted Average
1,770		9.64% Pervious Area
16,600		90.36% Impervious Area

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

Subcatchment 3S: Proposed to CB 3



Summary for Subcatchment 4S: Proposed to CB 4

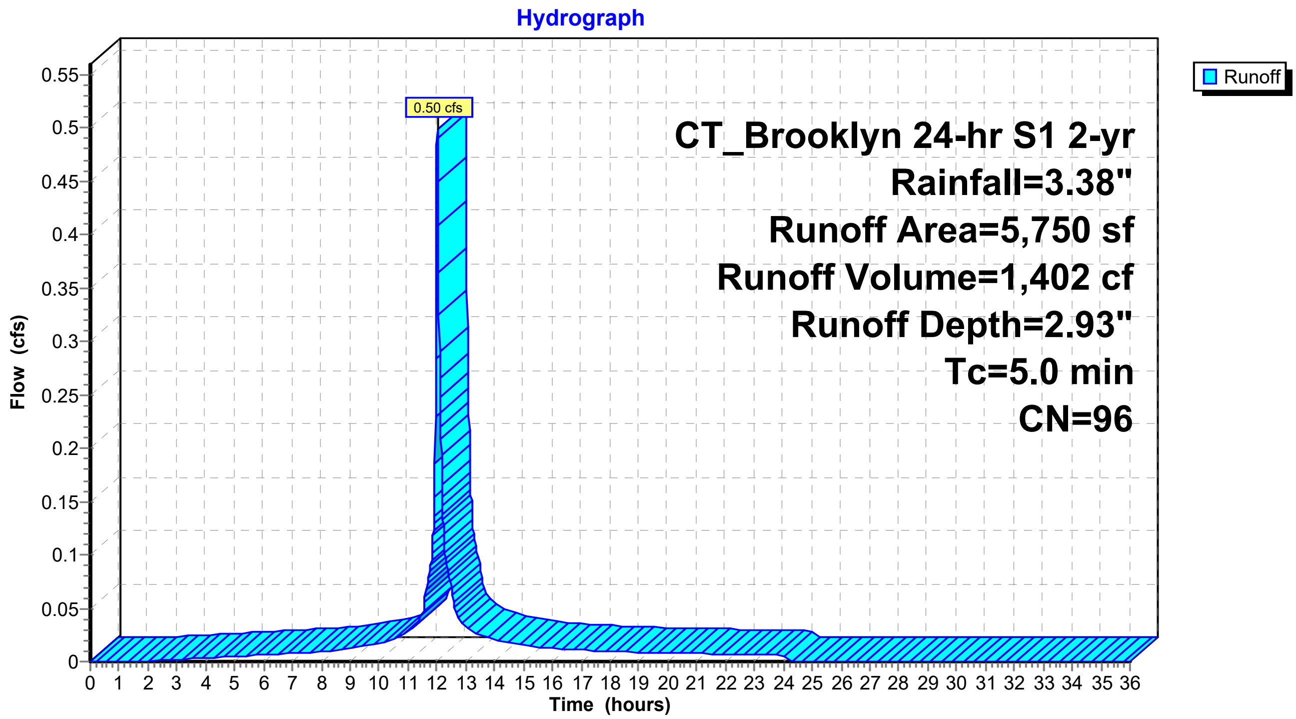
Runoff = 0.50 cfs @ 12.03 hrs, Volume= 1,402 cf, Depth= 2.93"
Routed to Pond 4P : CB 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
5,445	98	Paved parking & roofs
305	61	>75% Grass cover, Good, HSG B
5,750	96	Weighted Average
305		5.30% Pervious Area
5,445		94.70% Impervious Area

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

Subcatchment 4S: Proposed to CB 4



Summary for Subcatchment 5S: Proposed to CB 5

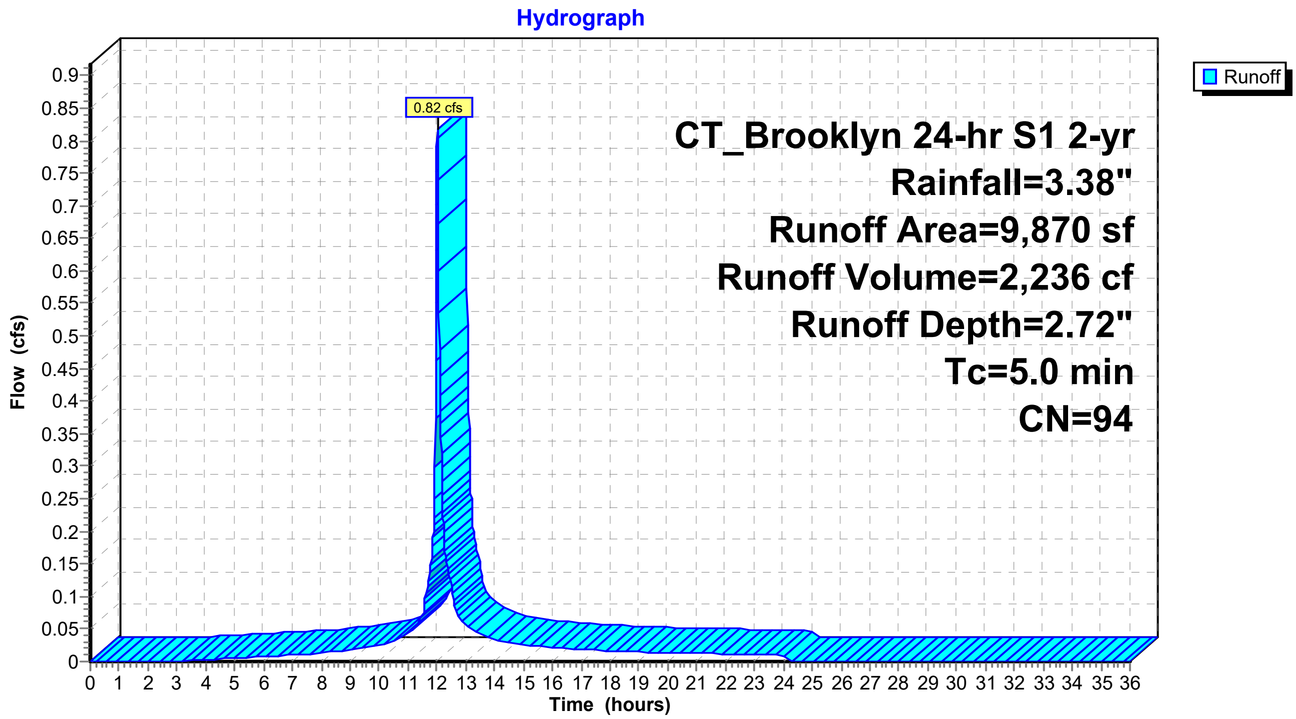
Runoff = 0.82 cfs @ 12.03 hrs, Volume= 2,236 cf, Depth= 2.72"
Routed to Pond 5P : CB 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
8,670	98	Paved parking & roofs
1,200	61	>75% Grass cover, Good, HSG B
9,870	94	Weighted Average
1,200		12.16% Pervious Area
8,670		87.84% Impervious Area

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

Subcatchment 5S: Proposed to CB 5



Summary for Subcatchment 6S: Proposed to CB A

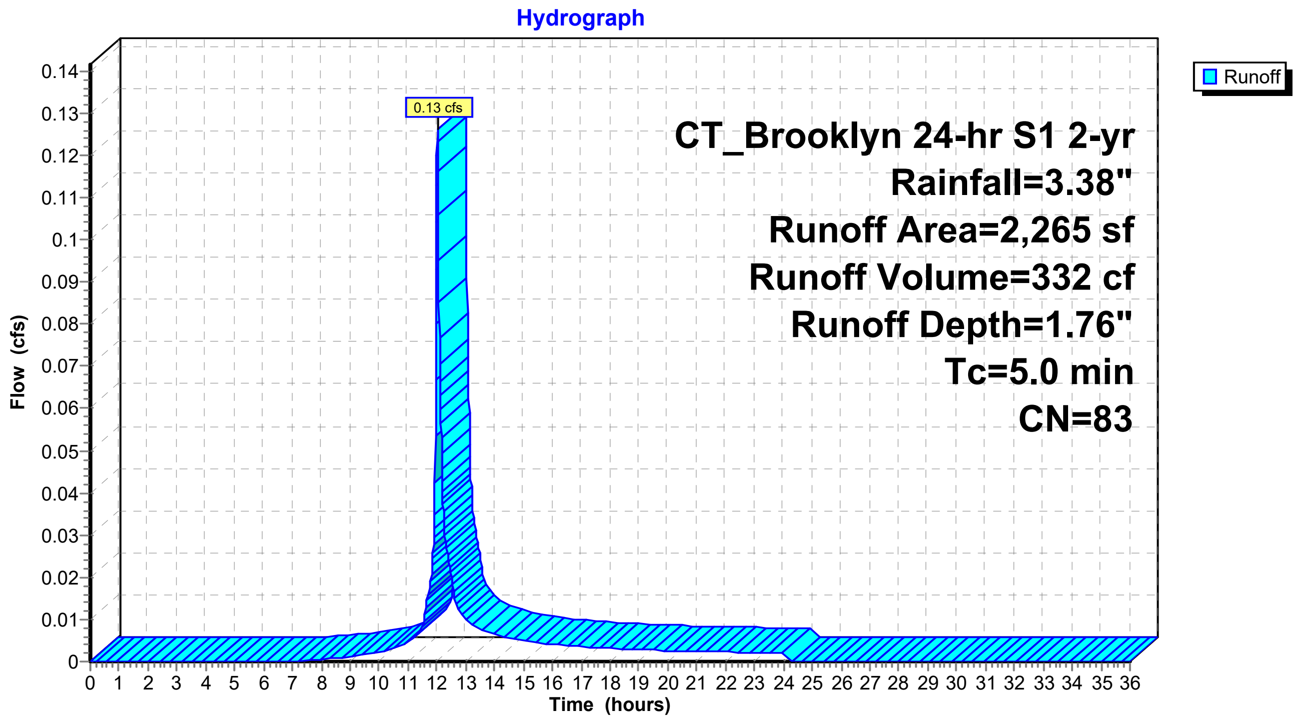
Runoff = 0.13 cfs @ 12.03 hrs, Volume= 332 cf, Depth= 1.76"
Routed to Pond 6P : CB A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
1,345	98	Paved parking & roofs
920	61	>75% Grass cover, Good, HSG B
2,265	83	Weighted Average
920		40.62% Pervious Area
1,345		59.38% Impervious Area

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

Subcatchment 6S: Proposed to CB A



Summary for Subcatchment 7S: Proposed to CB B

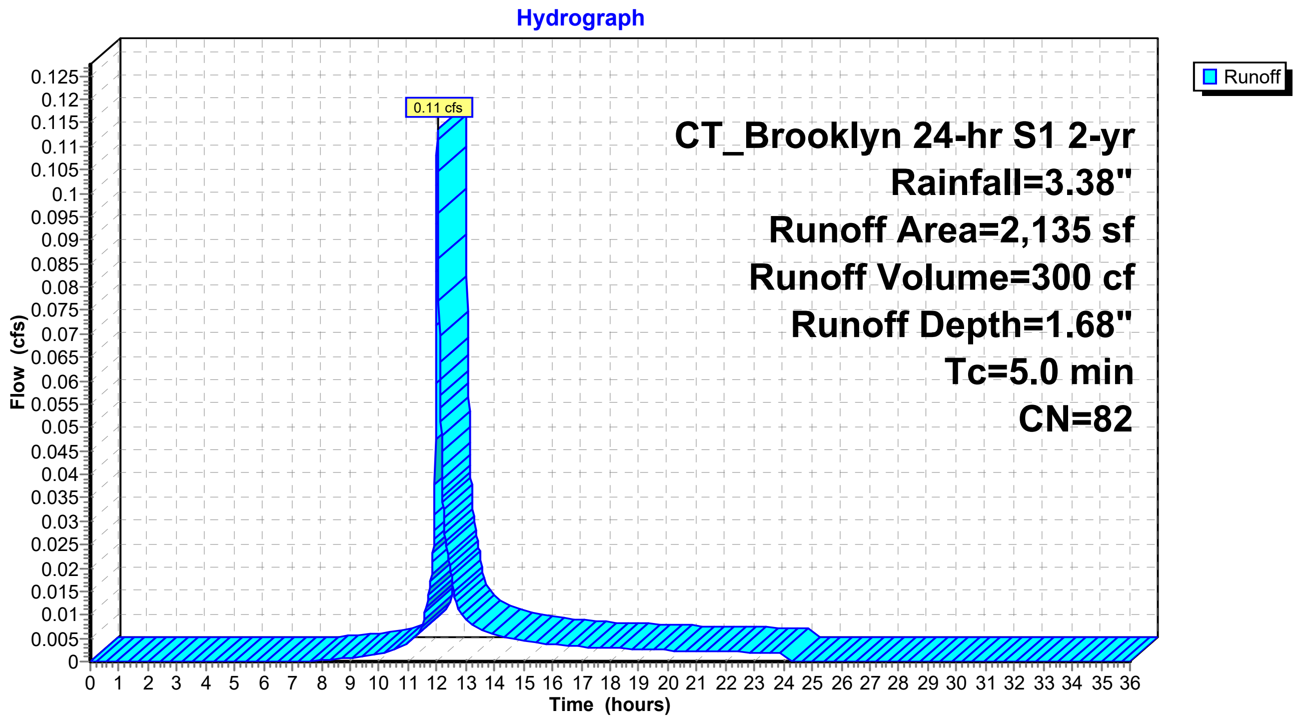
Runoff = 0.11 cfs @ 12.03 hrs, Volume= 300 cf, Depth= 1.68"
Routed to Pond 7P : CB B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
1,210	98	Paved parking & roofs
925	61	>75% Grass cover, Good, HSG B
2,135	82	Weighted Average
925		43.33% Pervious Area
1,210		56.67% Impervious Area

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

Subcatchment 7S: Proposed to CB B



Summary for Subcatchment 8S: Proposed to Trench Drain

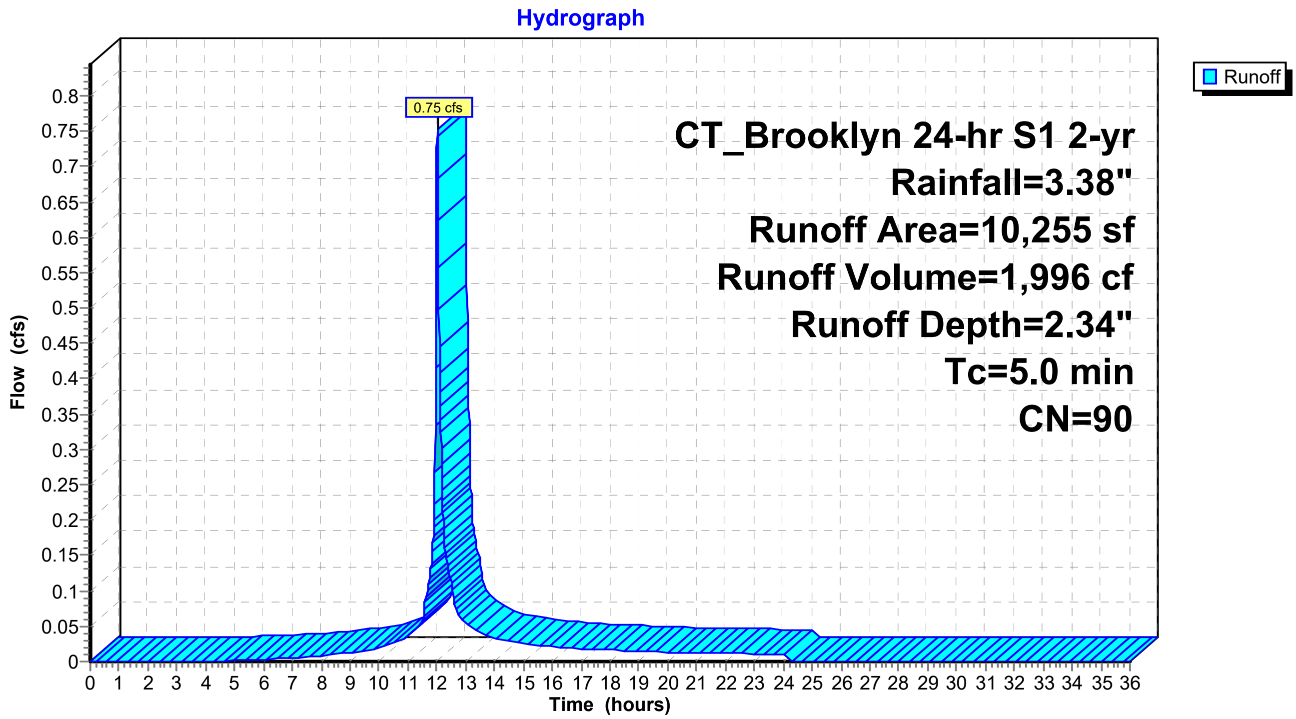
Runoff = 0.75 cfs @ 12.03 hrs, Volume= 1,996 cf, Depth= 2.34"
Routed to Pond 8P : Trench Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
7,910	98	Paved parking & roofs
2,345	61	>75% Grass cover, Good, HSG B
10,255	90	Weighted Average
2,345		22.87% Pervious Area
7,910		77.13% Impervious Area

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

Subcatchment 8S: Proposed to Trench Drain



Summary for Subcatchment 9S: Proposed to CB C

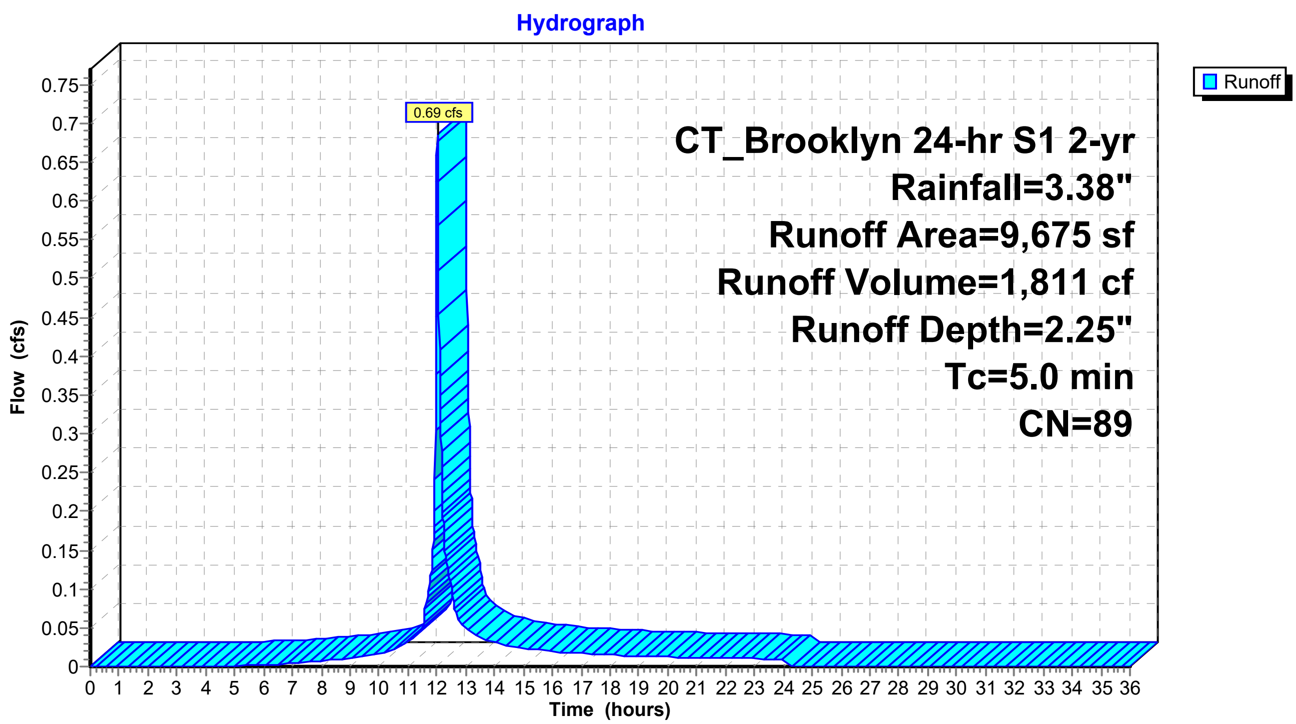
Runoff = 0.69 cfs @ 12.03 hrs, Volume= 1,811 cf, Depth= 2.25"
Routed to Pond 9P : CB C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
7,445	98	Paved parking & roofs
2,230	61	>75% Grass cover, Good, HSG B
9,675	89	Weighted Average
2,230		23.05% Pervious Area
7,445		76.95% Impervious Area

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

Subcatchment 9S: Proposed to CB C



Summary for Subcatchment 10S: Proposed to CB D

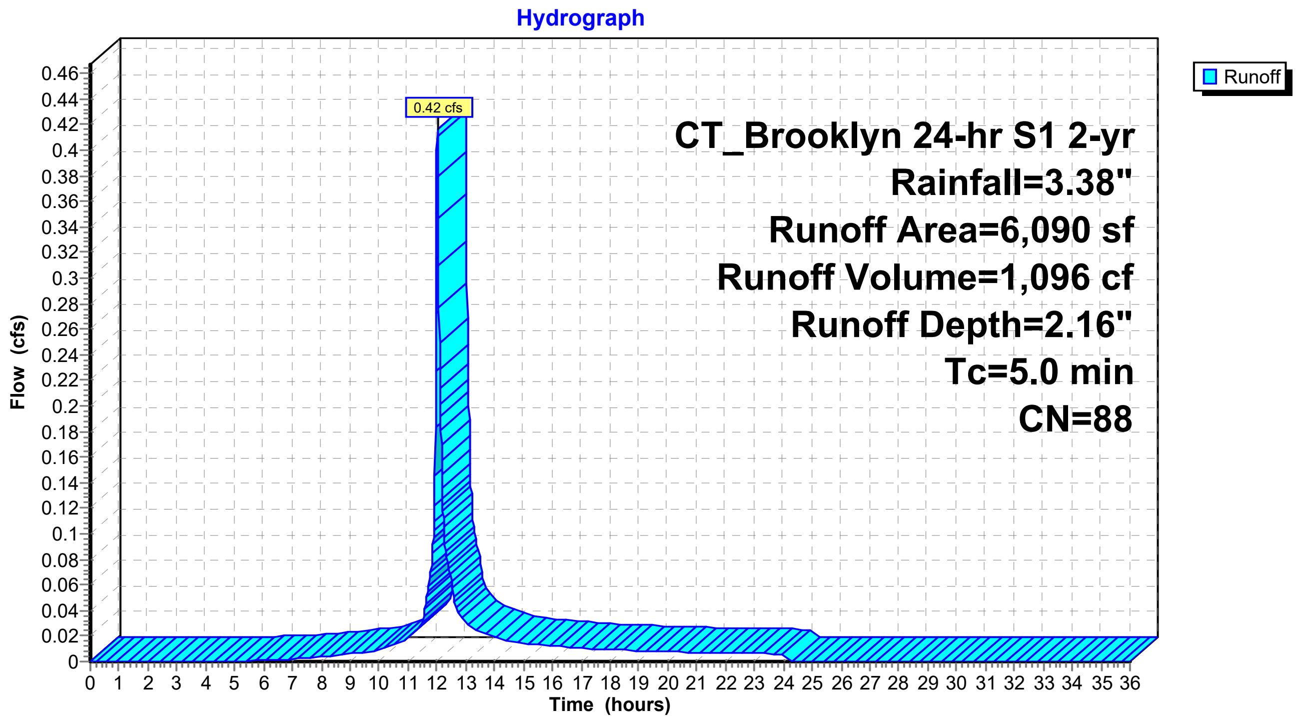
Runoff = 0.42 cfs @ 12.03 hrs, Volume= 1,096 cf, Depth= 2.16"
Routed to Pond 10P : CB D

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
4,430	98	Paved parking & roofs
1,660	61	>75% Grass cover, Good, HSG B
6,090	88	Weighted Average
1,660		27.26% Pervious Area
4,430		72.74% Impervious Area

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

Subcatchment 10S: Proposed to CB D



Summary for Subcatchment 11S: Proposed to CB E

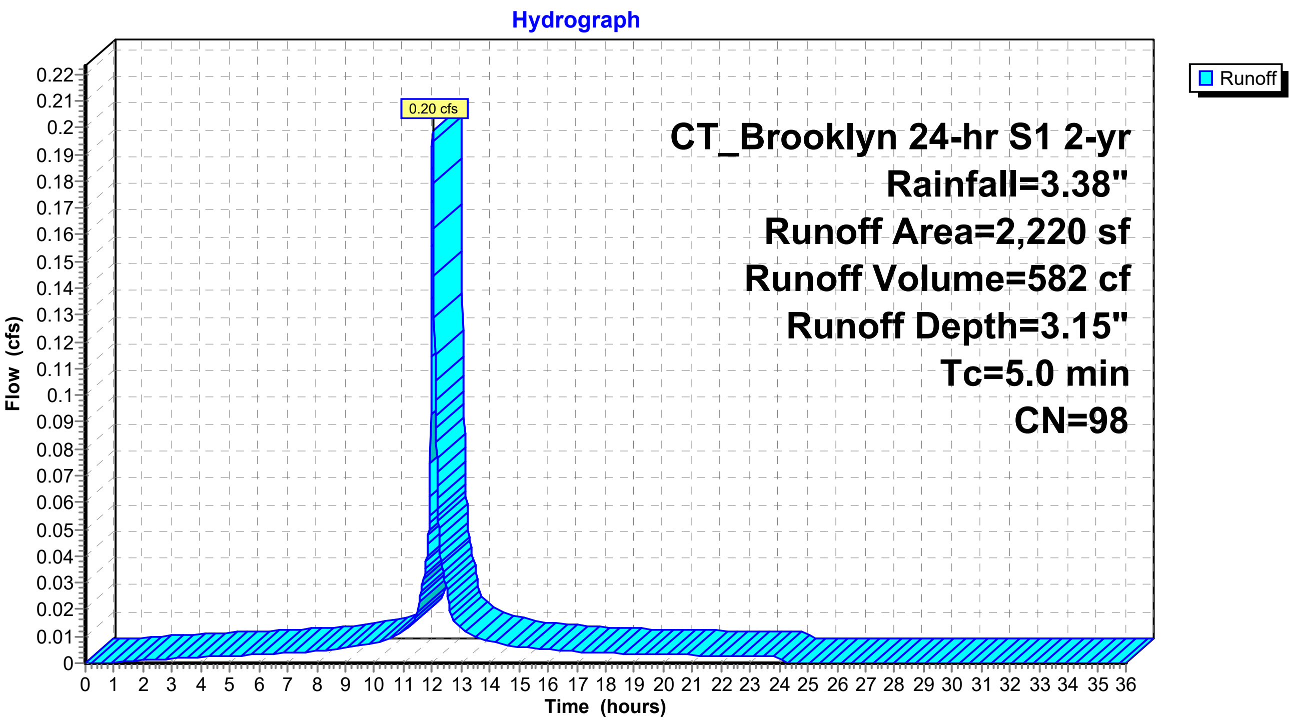
Runoff = 0.20 cfs @ 12.03 hrs, Volume= 582 cf, Depth= 3.15"
Routed to Pond 11P : CB E

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
2,220	98	Paved parking & roofs
2,220		100.00% Impervious Area

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

Subcatchment 11S: Proposed to CB E



Summary for Subcatchment 12S: Proposed to CB F

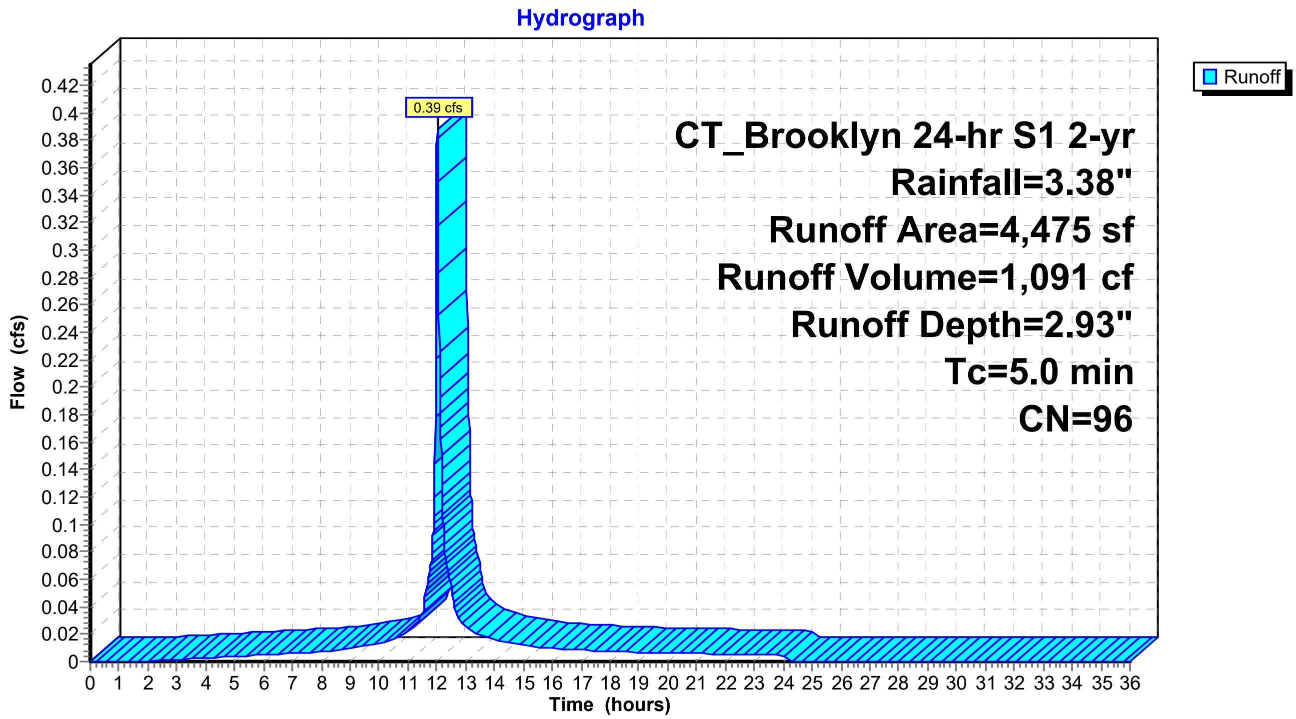
Runoff = 0.39 cfs @ 12.03 hrs, Volume= 1,091 cf, Depth= 2.93"
Routed to Pond 12P : CB F

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
4,215	98	Paved parking & roofs
260	61	>75% Grass cover, Good, HSG B
4,475	96	Weighted Average
260		5.81% Pervious Area
4,215		94.19% Impervious Area

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

Subcatchment 12S: Proposed to CB F



Summary for Subcatchment 13S: Proposed to CB G

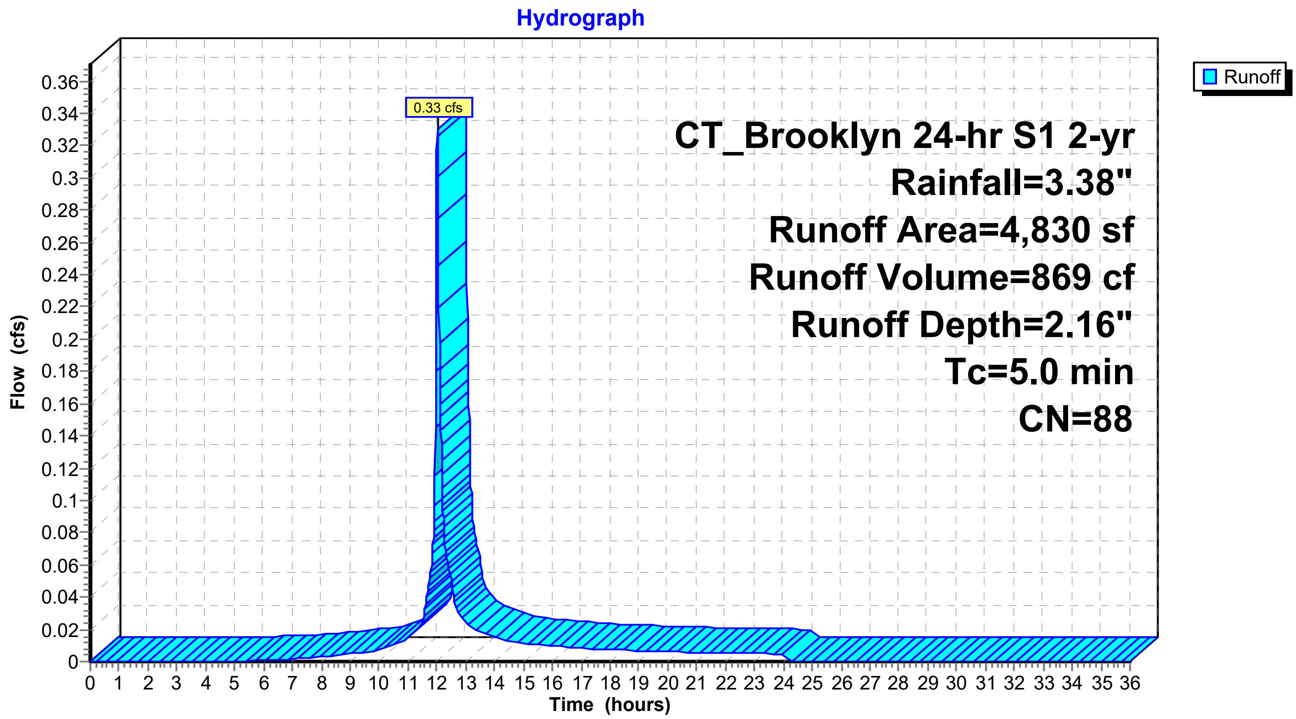
Runoff = 0.33 cfs @ 12.03 hrs, Volume= 869 cf, Depth= 2.16"
Routed to Pond 13P : CB G

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
3,530	98	Paved parking & roofs
1,300	61	>75% Grass cover, Good, HSG B
4,830	88	Weighted Average
1,300		26.92% Pervious Area
3,530		73.08% Impervious Area

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

Subcatchment 13S: Proposed to CB G



Summary for Subcatchment 14S: Proposed to CB H

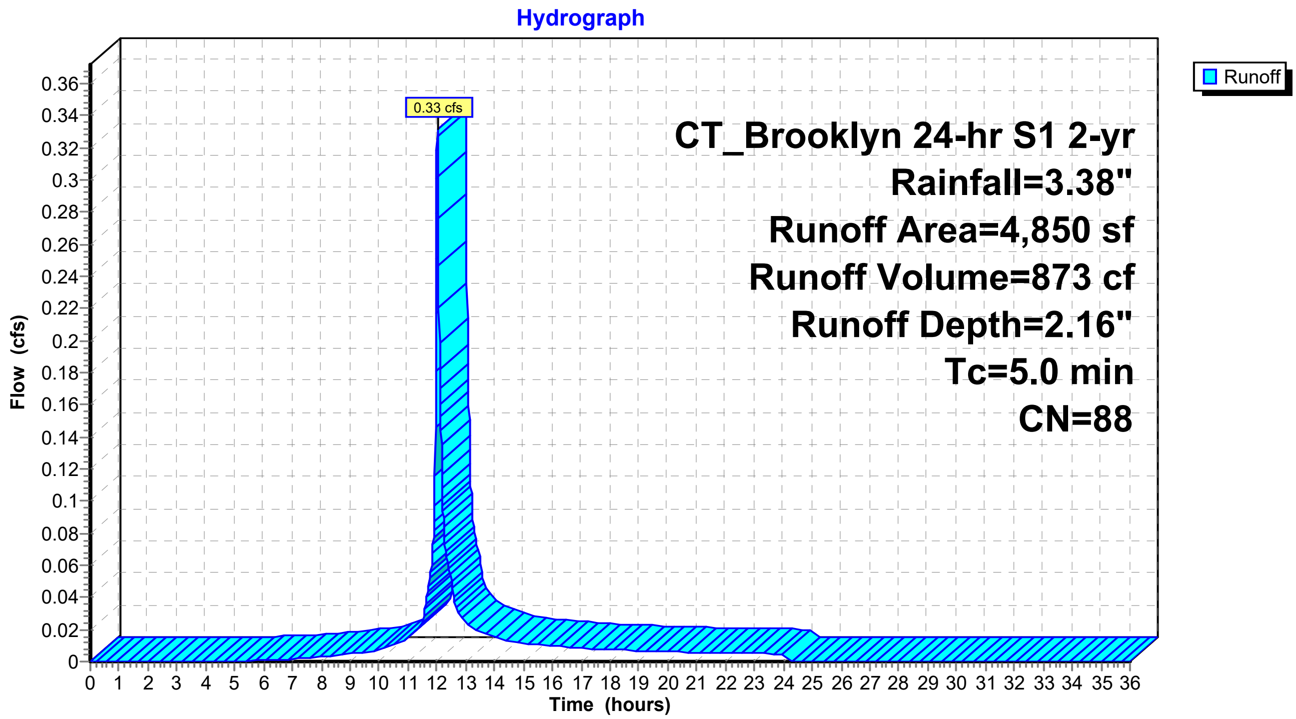
Runoff = 0.33 cfs @ 12.03 hrs, Volume= 873 cf, Depth= 2.16"
Routed to Pond 14P : CB H

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
3,550	98	Paved parking & roofs
1,300	61	>75% Grass cover, Good, HSG B
4,850	88	Weighted Average
1,300		26.80% Pervious Area
3,550		73.20% Impervious Area

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

Subcatchment 14S: Proposed to CB H



Summary for Subcatchment 15S: Proposed to CB I

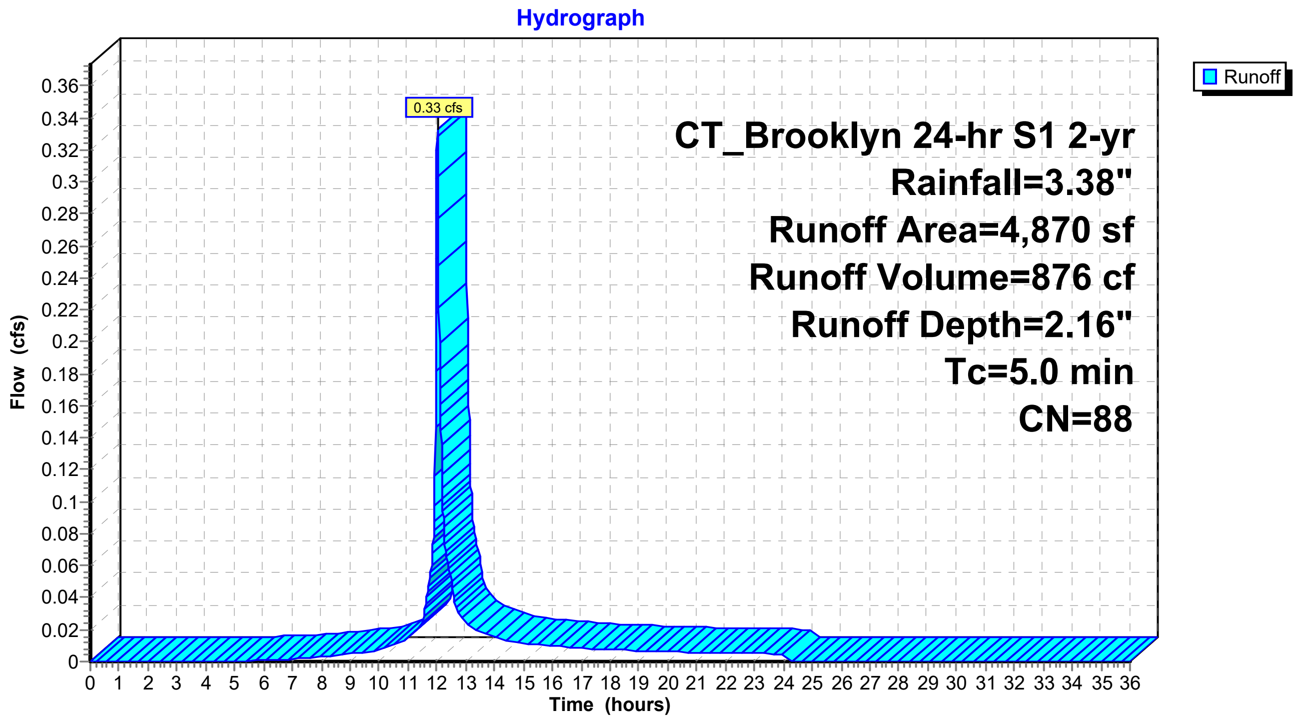
Runoff = 0.33 cfs @ 12.03 hrs, Volume= 876 cf, Depth= 2.16"
Routed to Pond 15P : CB I

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
3,520	98	Paved parking & roofs
1,350	61	>75% Grass cover, Good, HSG B
4,870	88	Weighted Average
1,350		27.72% Pervious Area
3,520		72.28% Impervious Area

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

Subcatchment 15S: Proposed to CB I



Summary for Subcatchment 16S: Proposed to CB J

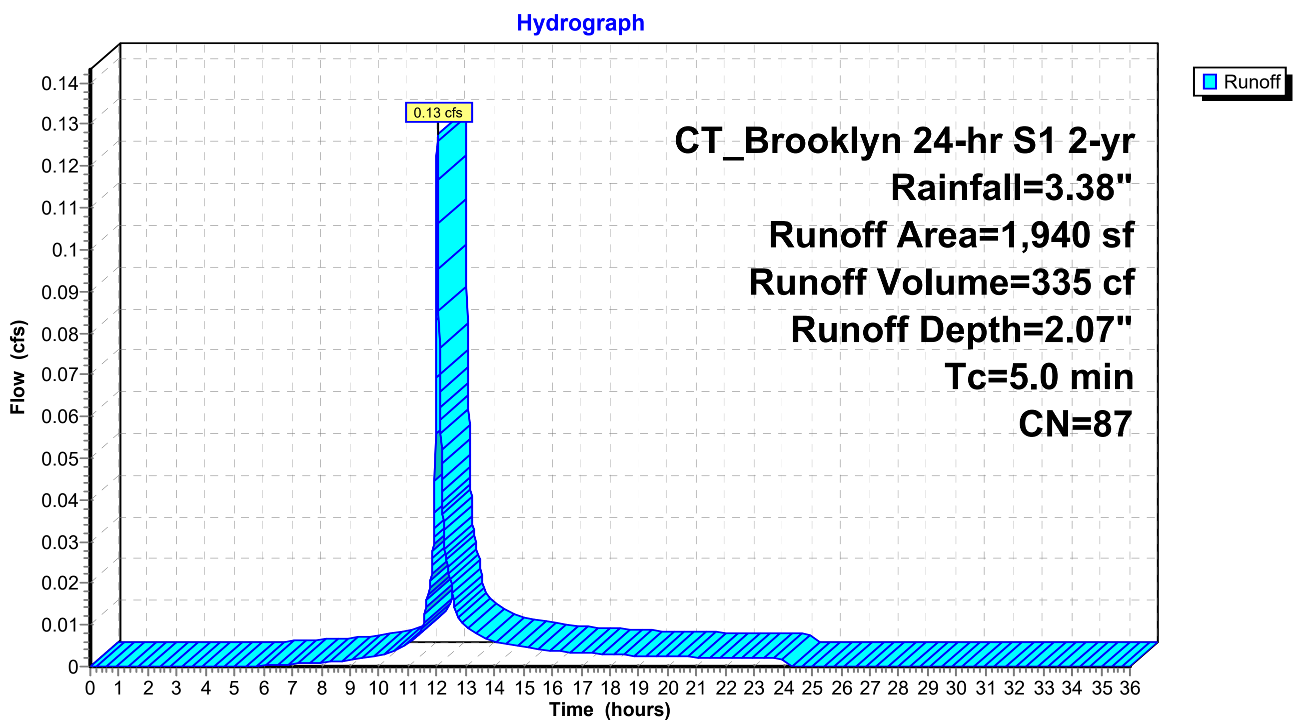
Runoff = 0.13 cfs @ 12.03 hrs, Volume= 335 cf, Depth= 2.07"
Routed to Pond 16P : CB J

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
1,380	98	Paved parking & roofs
560	61	>75% Grass cover, Good, HSG B
1,940	87	Weighted Average
560		28.87% Pervious Area
1,380		71.13% Impervious Area

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

Subcatchment 16S: Proposed to CB J



Summary for Subcatchment 17S: Proposed to CB K

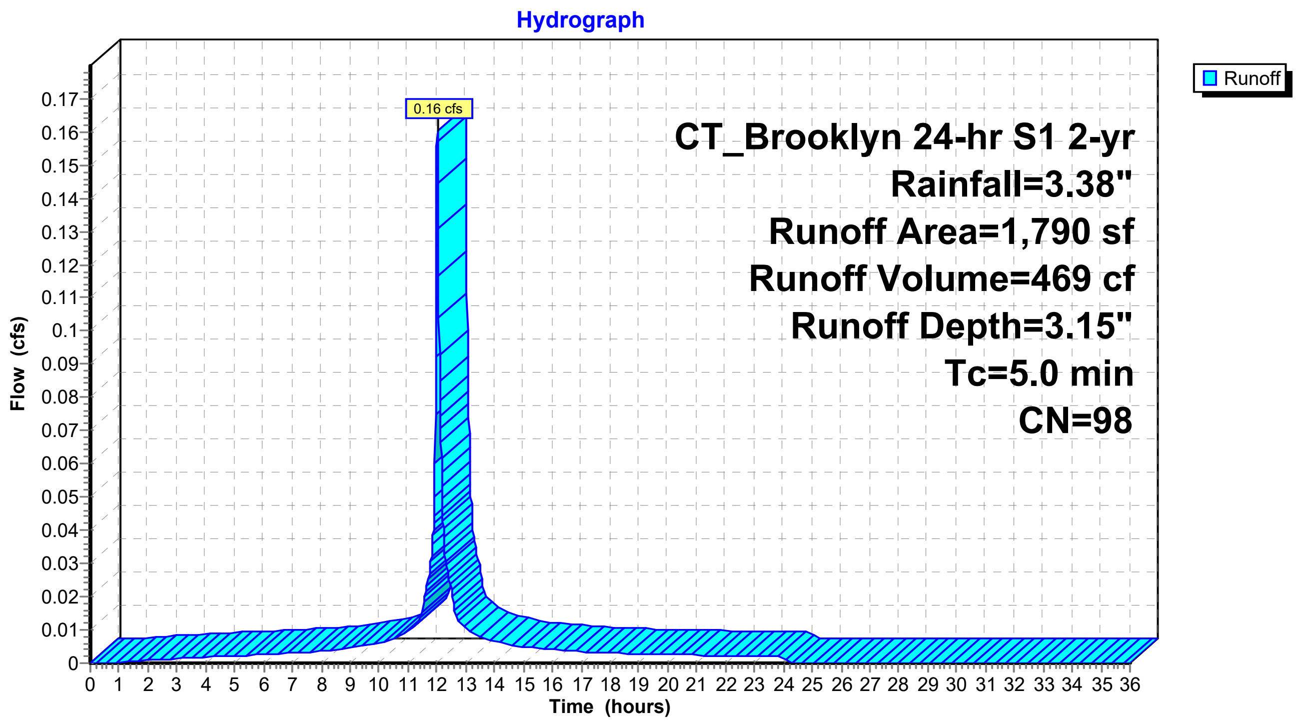
Runoff = 0.16 cfs @ 12.03 hrs, Volume= 469 cf, Depth= 3.15"
Routed to Pond 17P : CB K

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
1,790	98	Paved parking & roofs
1,790		100.00% Impervious Area

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

Subcatchment 17S: Proposed to CB K



Summary for Subcatchment 18S: Proposed to CB L

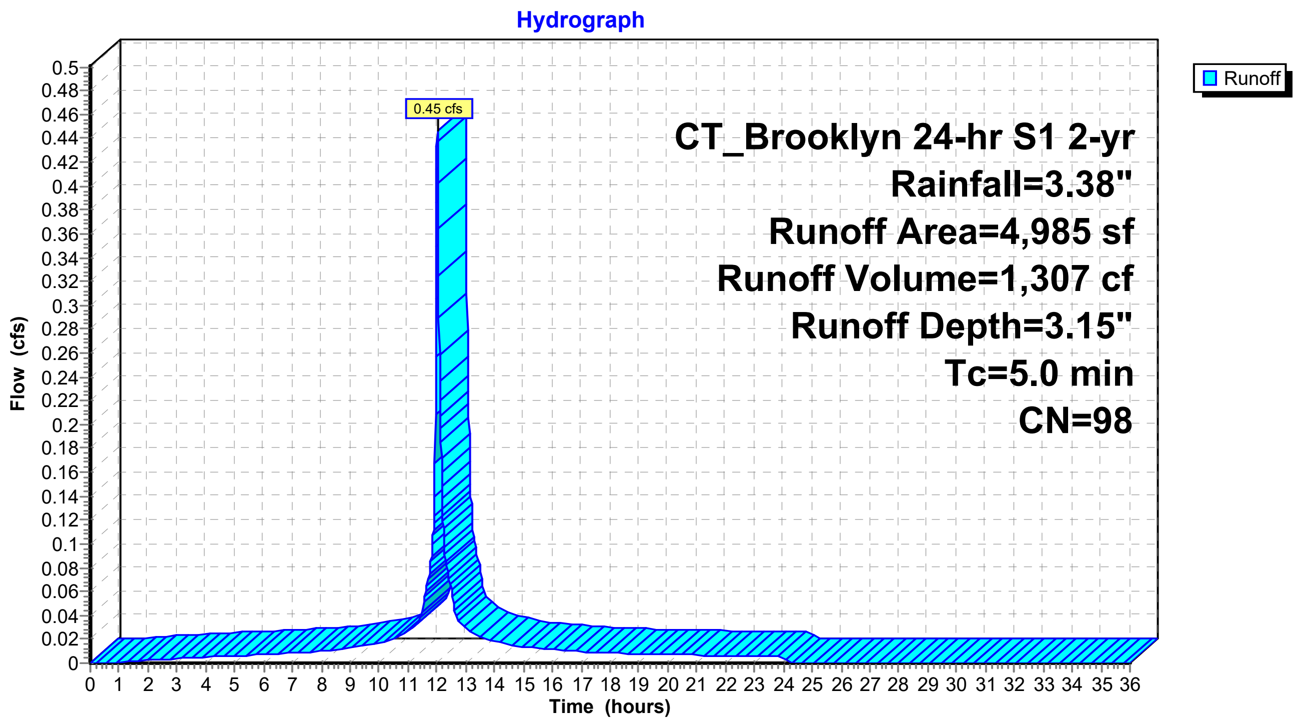
Runoff = 0.45 cfs @ 12.03 hrs, Volume= 1,307 cf, Depth= 3.15"
Routed to Pond 18P : CB L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
4,985	98	Paved parking & roofs
4,985		100.00% Impervious Area

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

Subcatchment 18S: Proposed to CB L



Summary for Subcatchment 19S: Proposed to CB M

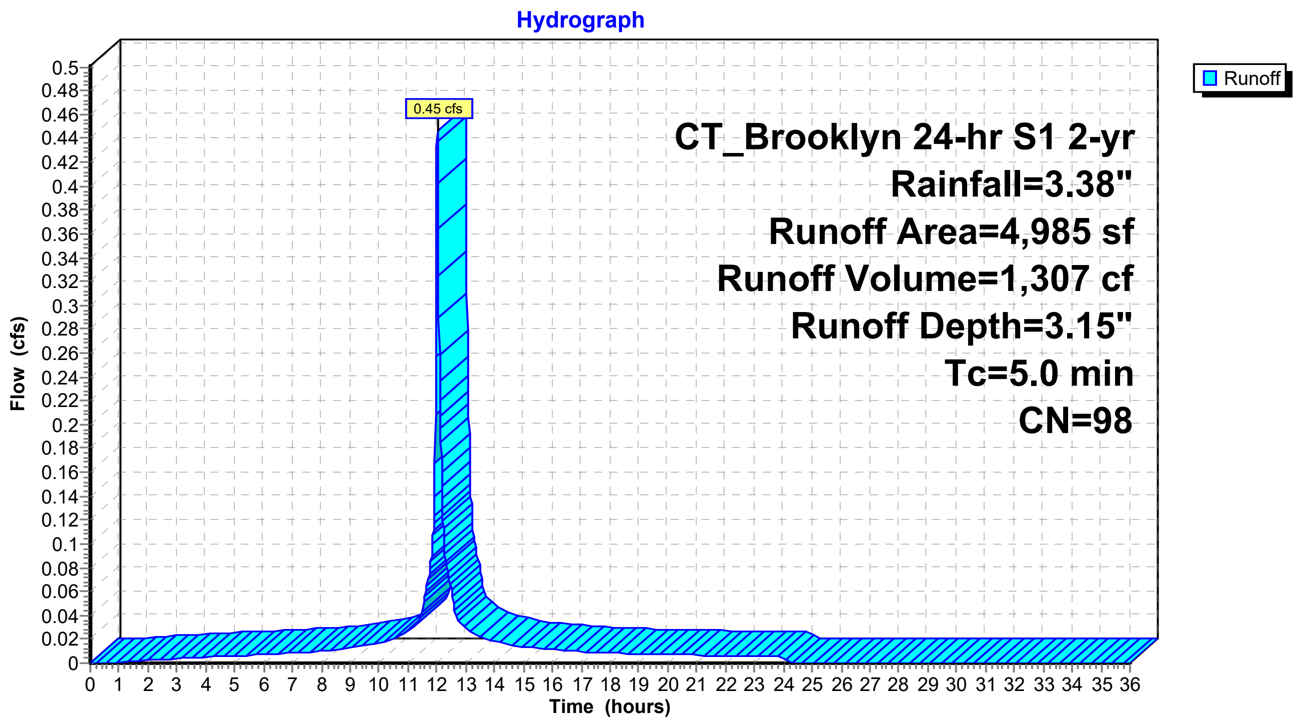
Runoff = 0.45 cfs @ 12.03 hrs, Volume= 1,307 cf, Depth= 3.15"
Routed to Pond 19P : CB M

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
4,985	98	Paved parking & roofs
4,985		100.00% Impervious Area

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

Subcatchment 19S: Proposed to CB M



Summary for Subcatchment 20S: Proposed to CB N

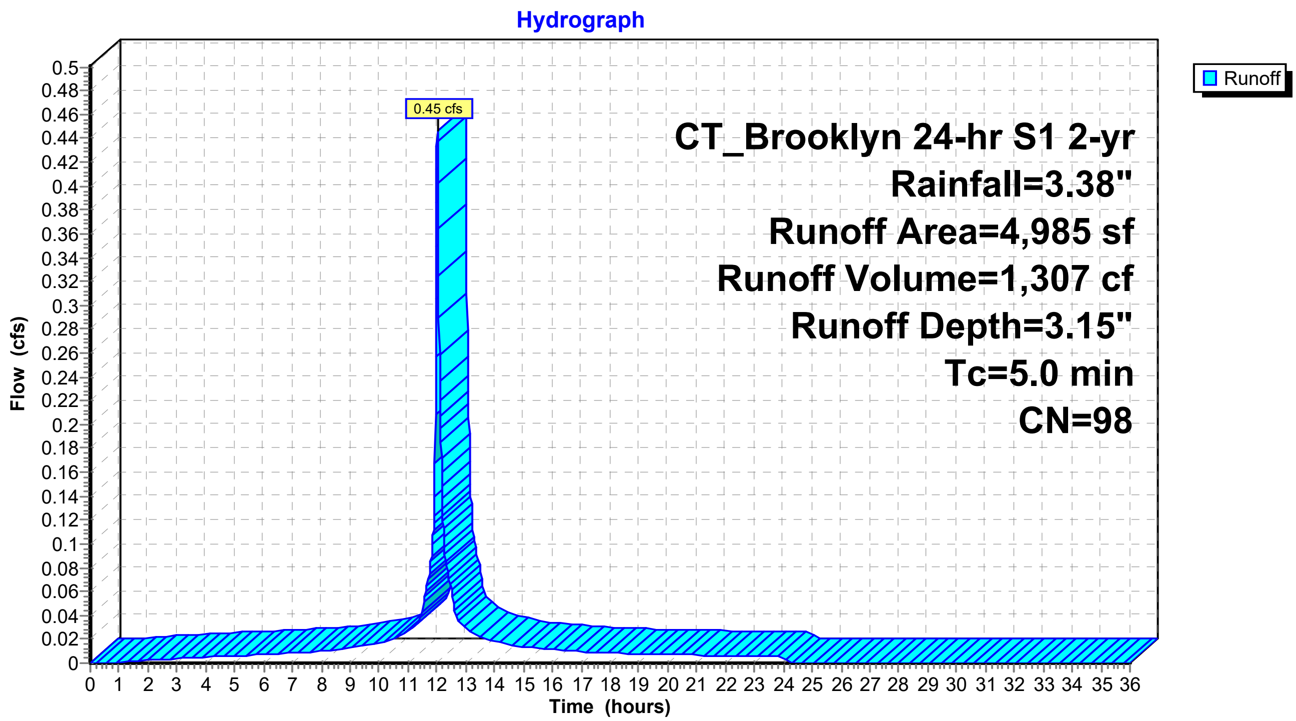
Runoff = 0.45 cfs @ 12.03 hrs, Volume= 1,307 cf, Depth= 3.15"
Routed to Pond 20P : CB N

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
4,985	98	Paved parking & roofs
4,985		100.00% Impervious Area

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

Subcatchment 20S: Proposed to CB N



Summary for Subcatchment 21S: Proposed to CB O

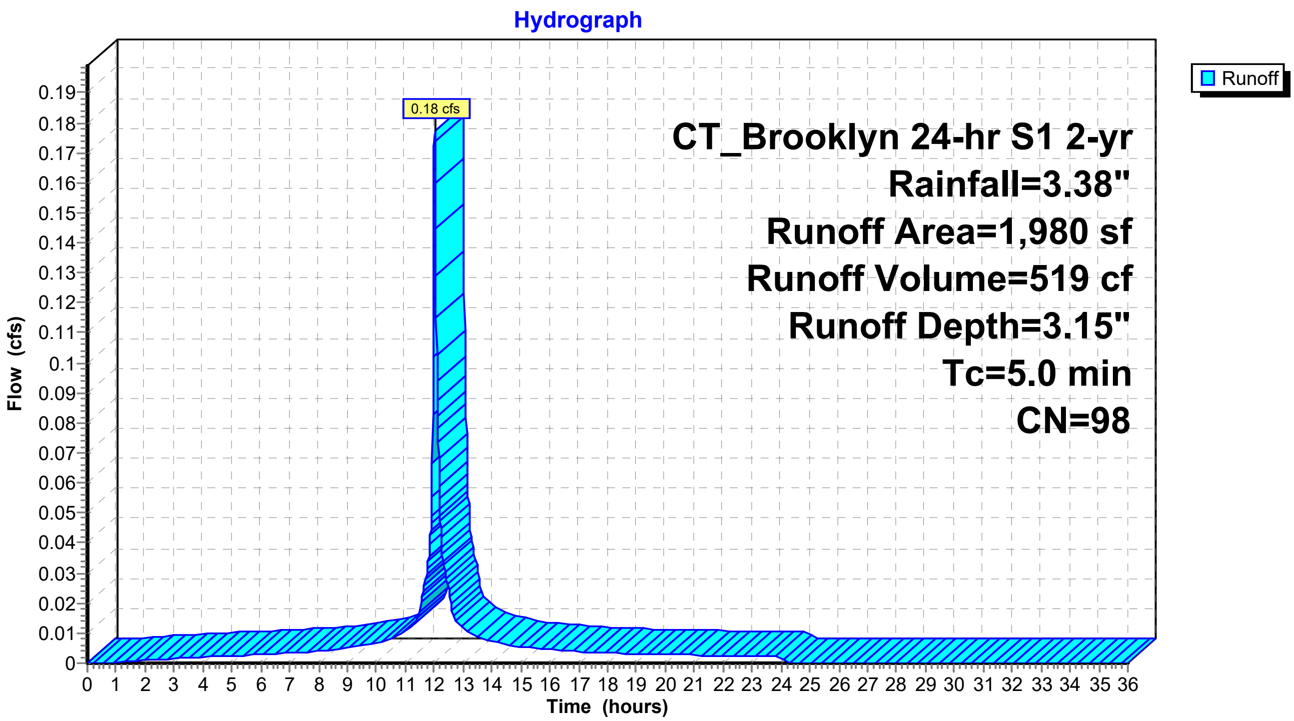
Runoff = 0.18 cfs @ 12.03 hrs, Volume= 519 cf, Depth= 3.15"
Routed to Pond 21P : CB O

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
1,980	98	Paved parking & roofs
1,980		100.00% Impervious Area

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

Subcatchment 21S: Proposed to CB O



Summary for Subcatchment 22S: Proposed to CB P

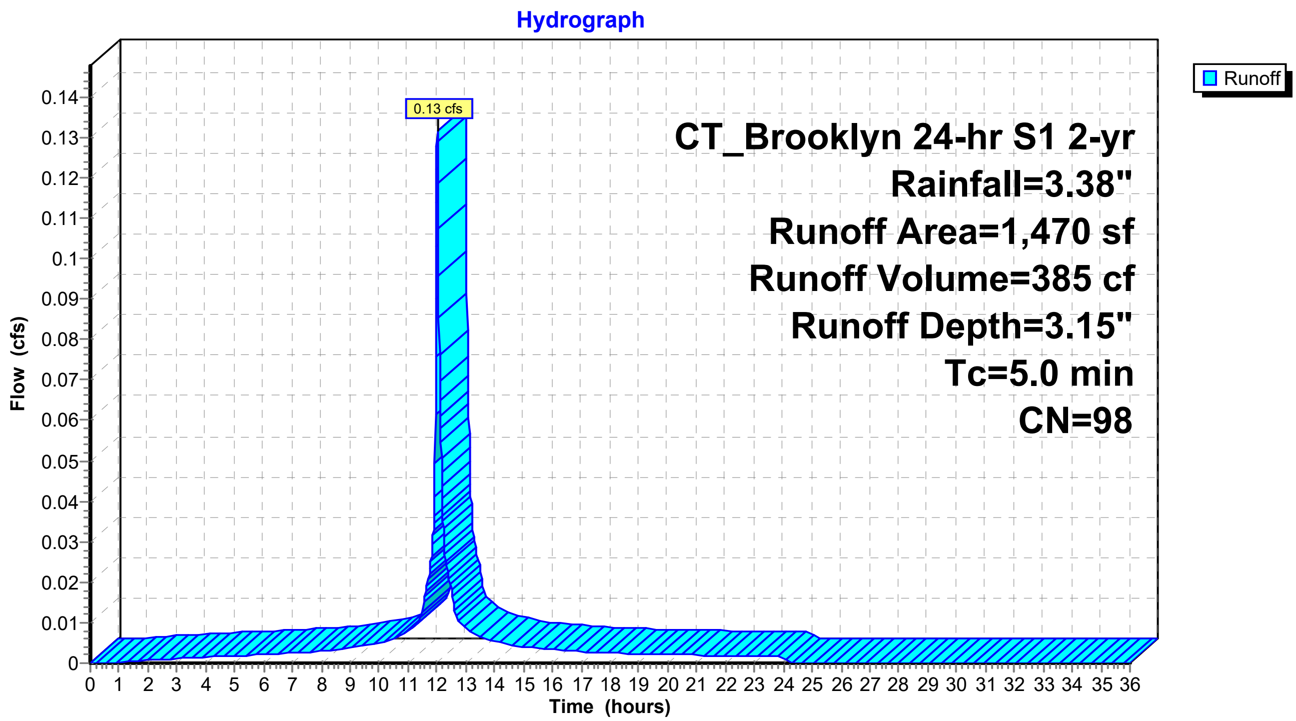
Runoff = 0.13 cfs @ 12.03 hrs, Volume= 385 cf, Depth= 3.15"
Routed to Pond 22P : CB P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
1,470	98	Paved parking & roofs
1,470		100.00% Impervious Area

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

Subcatchment 22S: Proposed to CB P



Summary for Subcatchment 23S: Proposed to CB Q

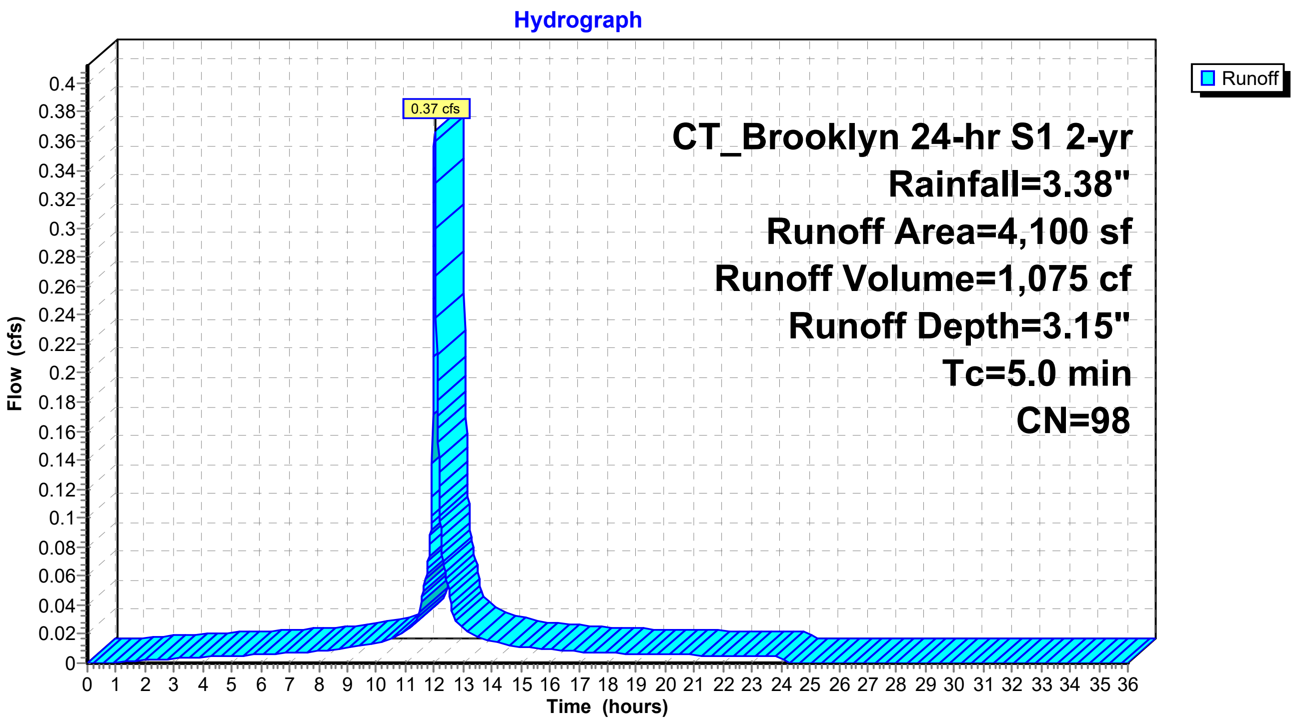
Runoff = 0.37 cfs @ 12.03 hrs, Volume= 1,075 cf, Depth= 3.15"
Routed to Pond 23P : CB Q

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
4,100	98	Paved parking & roofs
4,100		100.00% Impervious Area

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

Subcatchment 23S: Proposed to CB Q



Summary for Subcatchment 24S: Proposed to CB R

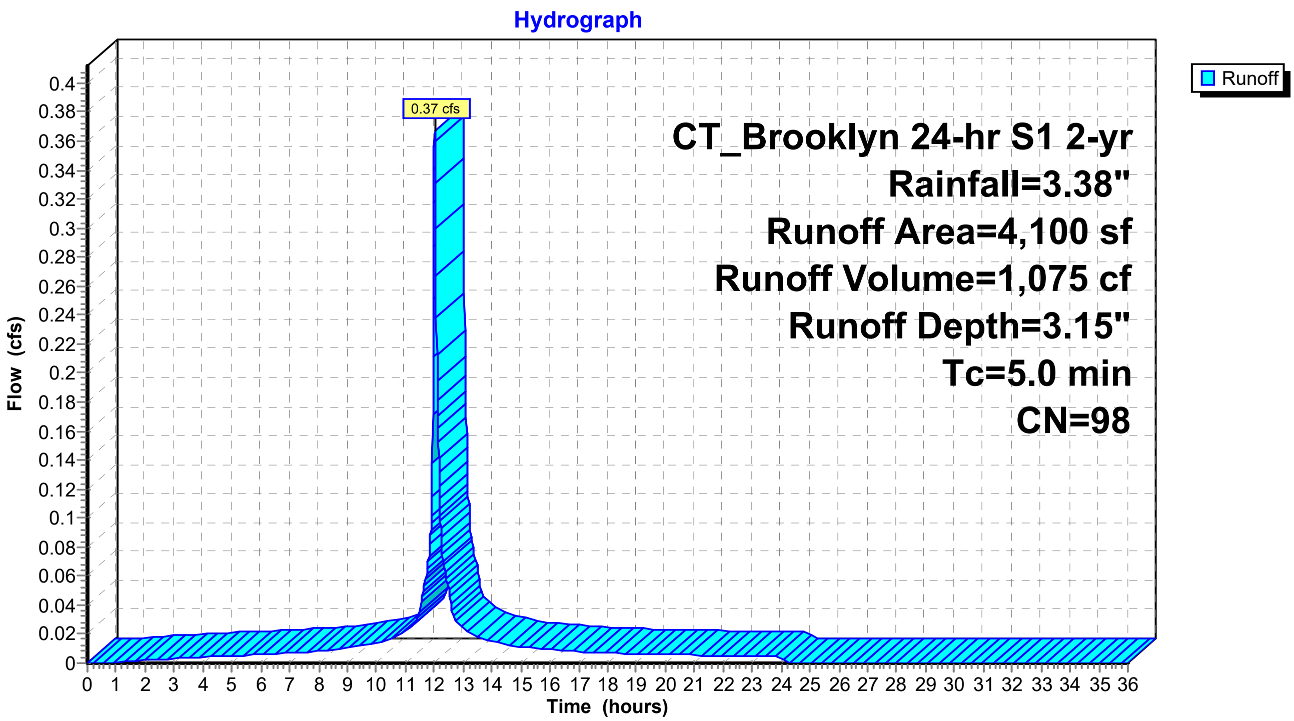
Runoff = 0.37 cfs @ 12.03 hrs, Volume= 1,075 cf, Depth= 3.15"
Routed to Pond 24P : CB R

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
4,100	98	Paved parking & roofs
4,100		100.00% Impervious Area

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

Subcatchment 24S: Proposed to CB R



Summary for Subcatchment 25S: Proposed to CB S

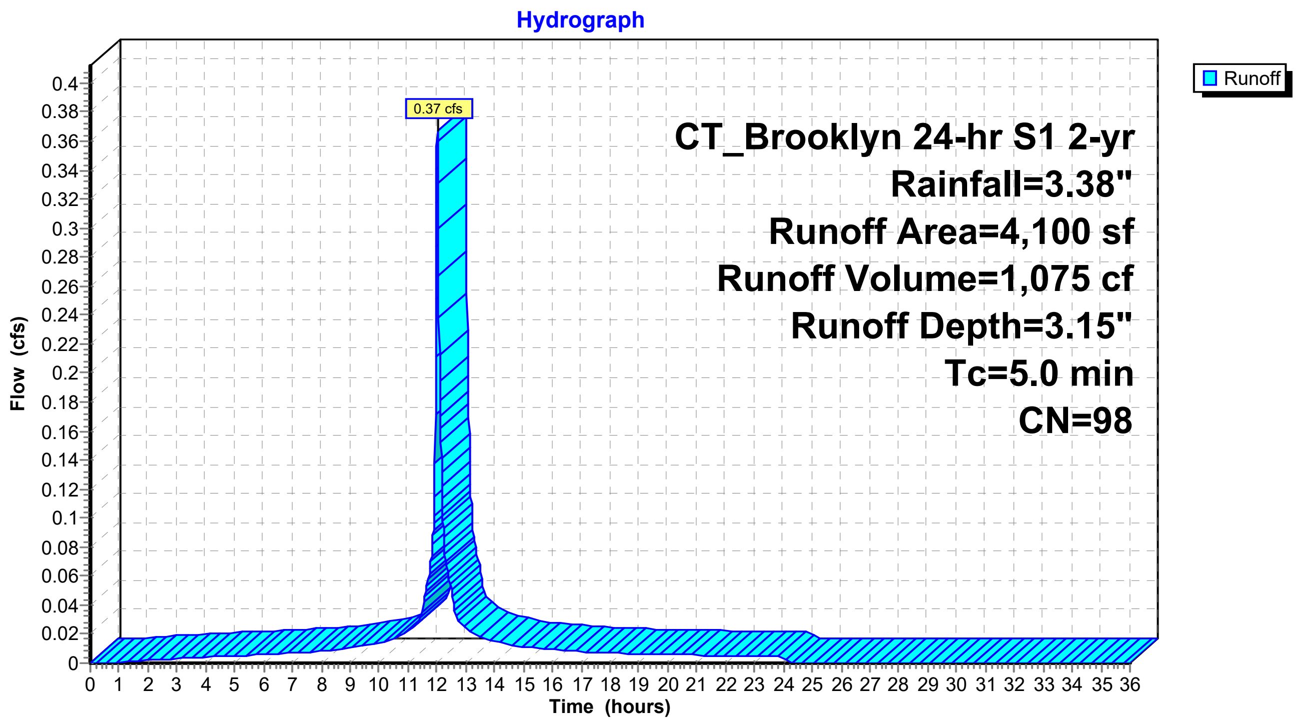
Runoff = 0.37 cfs @ 12.03 hrs, Volume= 1,075 cf, Depth= 3.15"
Routed to Pond 25P : CB S

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
4,100	98	Paved parking & roofs
4,100		100.00% Impervious Area

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

Subcatchment 25S: Proposed to CB S



Summary for Subcatchment 26S: Proposed to CB T

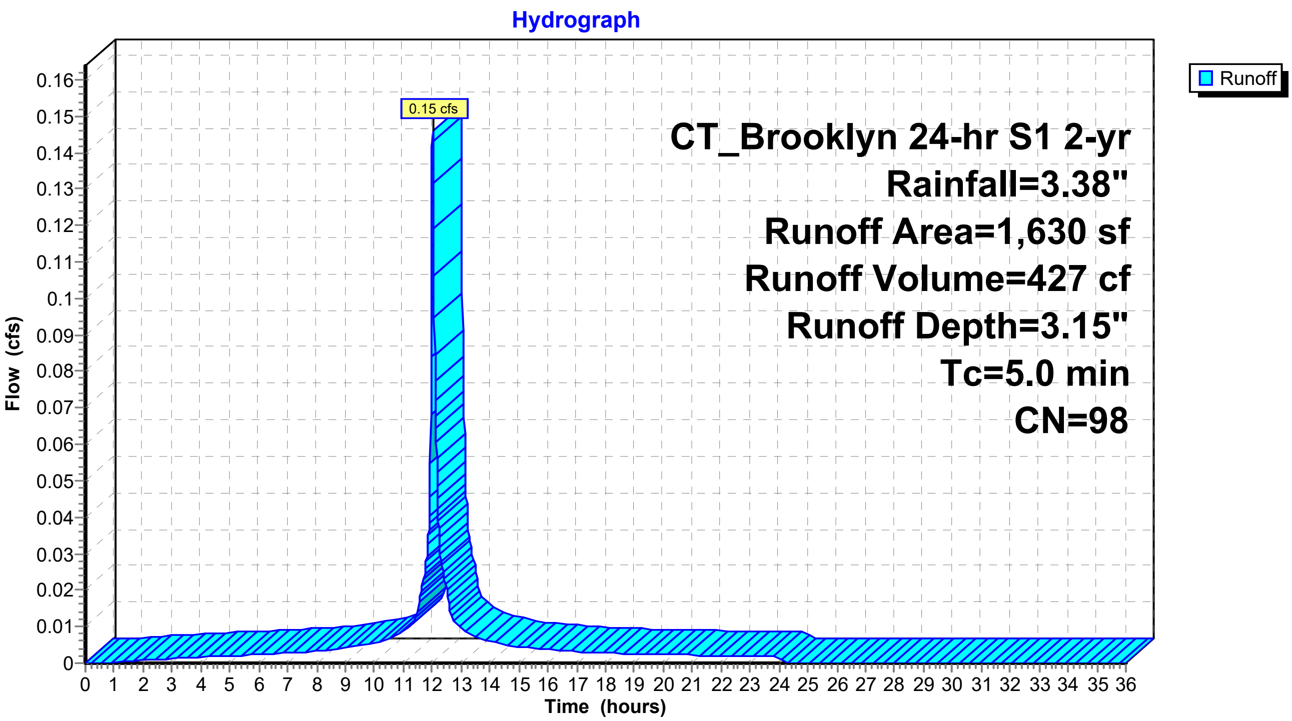
Runoff = 0.15 cfs @ 12.03 hrs, Volume= 427 cf, Depth= 3.15"
Routed to Pond 26P : CB T

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
1,630	98	Paved parking & roofs
1,630		100.00% Impervious Area

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

Subcatchment 26S: Proposed to CB T



Summary for Subcatchment 27S: Proposed to CB U

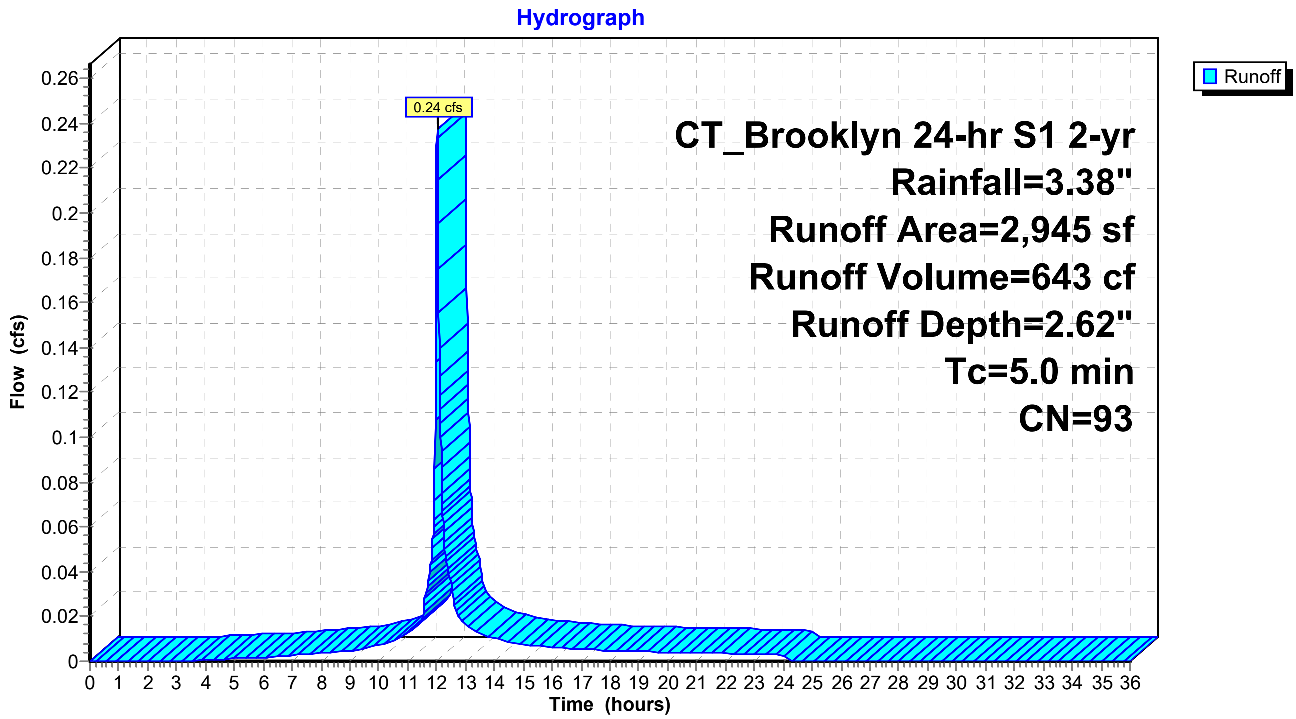
Runoff = 0.24 cfs @ 12.03 hrs, Volume= 643 cf, Depth= 2.62"
Routed to Pond 27P : CB U

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
2,555	98	Paved parking & roofs
390	61	>75% Grass cover, Good, HSG B
2,945	93	Weighted Average
390		13.24% Pervious Area
2,555		86.76% Impervious Area

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

Subcatchment 27S: Proposed to CB U



Summary for Subcatchment 28S: Proposed to CB V

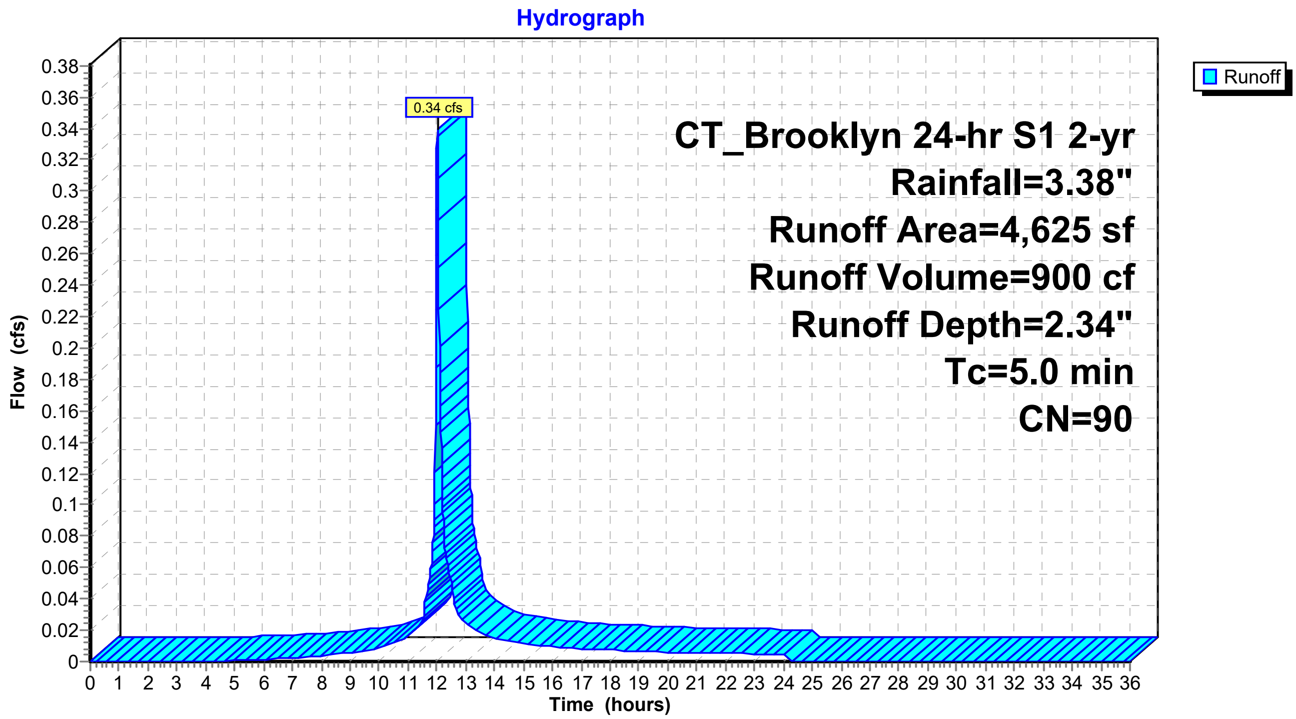
Runoff = 0.34 cfs @ 12.03 hrs, Volume= 900 cf, Depth= 2.34"
Routed to Pond 28P : CB V

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
3,605	98	Paved parking & roofs
1,020	61	>75% Grass cover, Good, HSG B
4,625	90	Weighted Average
1,020		22.05% Pervious Area
3,605		77.95% Impervious Area

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

Subcatchment 28S: Proposed to CB V



Summary for Subcatchment 29S: Proposed to CB W

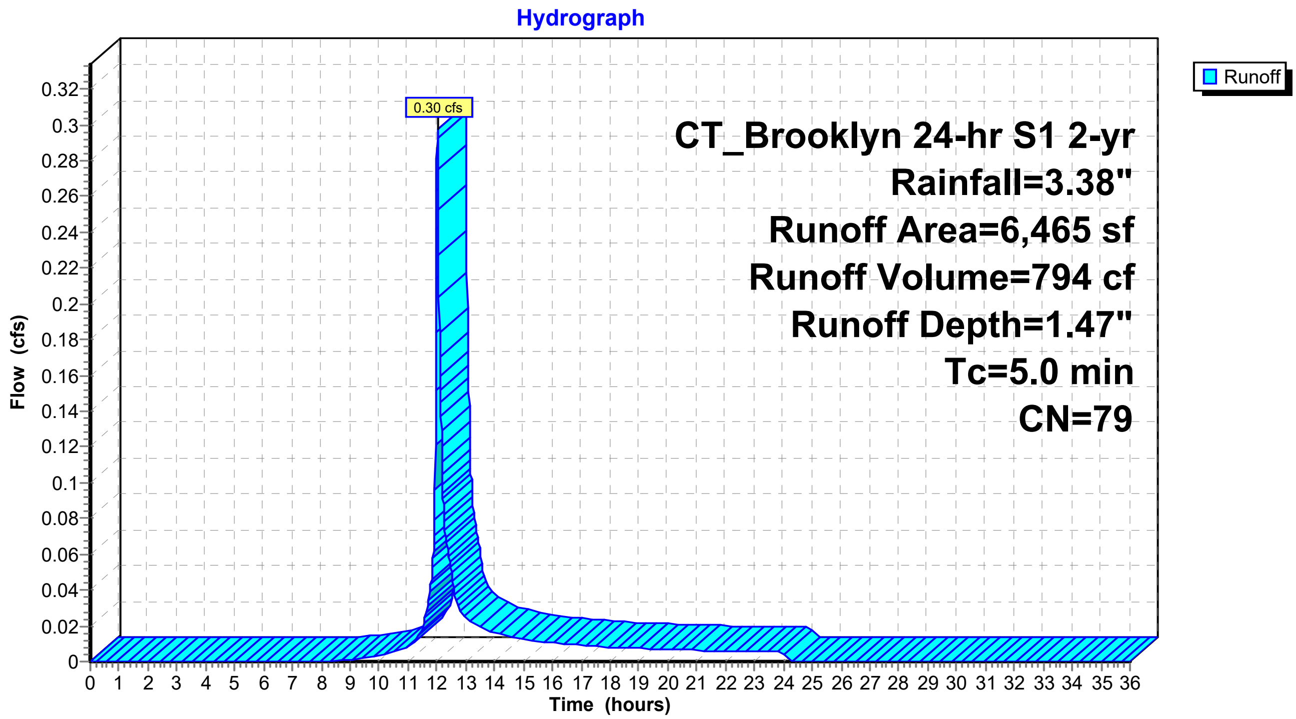
Runoff = 0.30 cfs @ 12.03 hrs, Volume= 794 cf, Depth= 1.47"
Routed to Pond 29P : CB W

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
3,150	98	Paved parking & roofs
3,315	61	>75% Grass cover, Good, HSG B
6,465	79	Weighted Average
3,315		51.28% Pervious Area
3,150		48.72% Impervious Area

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

Subcatchment 29S: Proposed to CB W



Summary for Subcatchment 30S: Bank Site to Stormwater Basin (Approximate From Previous Design)

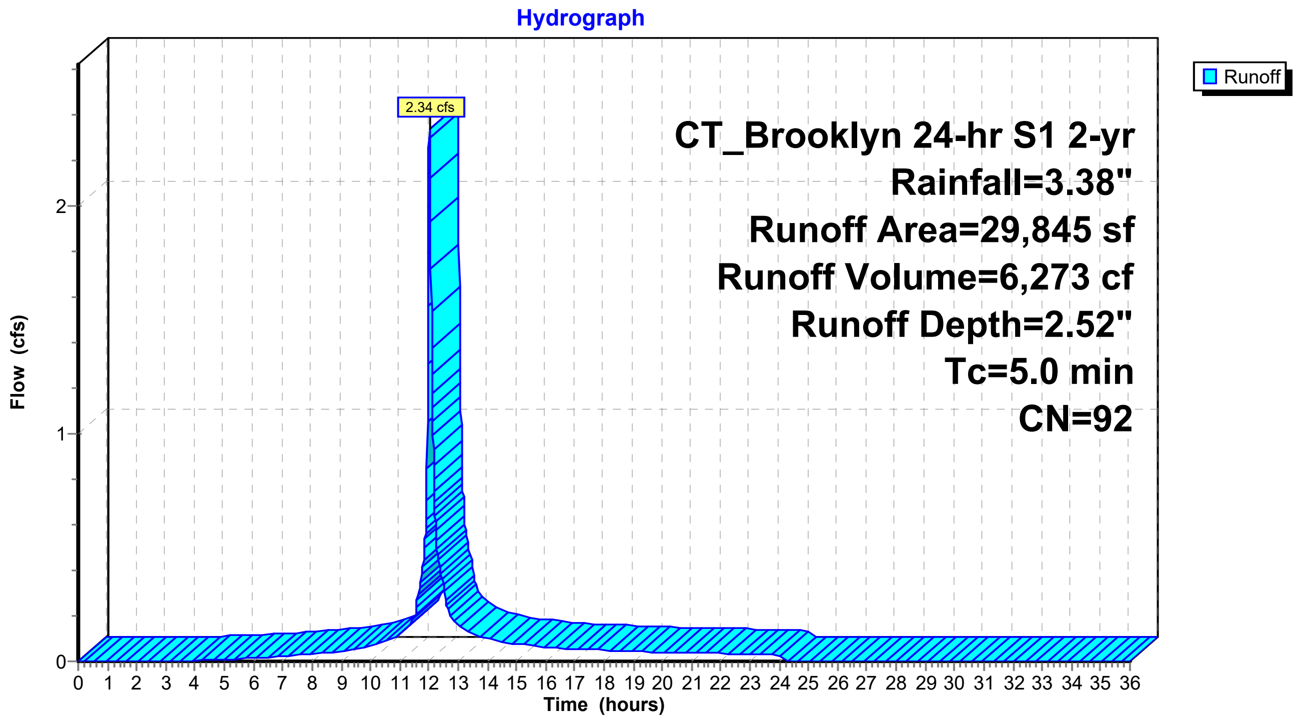
Runoff = 2.34 cfs @ 12.03 hrs, Volume= 6,273 cf, Depth= 2.52"
Routed to Link 1L : Wetland

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

	Area (sf)	CN	Description
*	2,975	98	Roof
	21,880	98	Paved parking & roofs
	4,990	61	>75% Grass cover, Good, HSG B
	29,845	92	Weighted Average
	4,990		16.72% Pervious Area
	24,855		83.28% Impervious Area

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

Subcatchment 30S: Bank Site to Stormwater Basin (Approximate From Previous Design)



Summary for Subcatchment 31S: Proposed to Swale (Approximate From Previous Design)

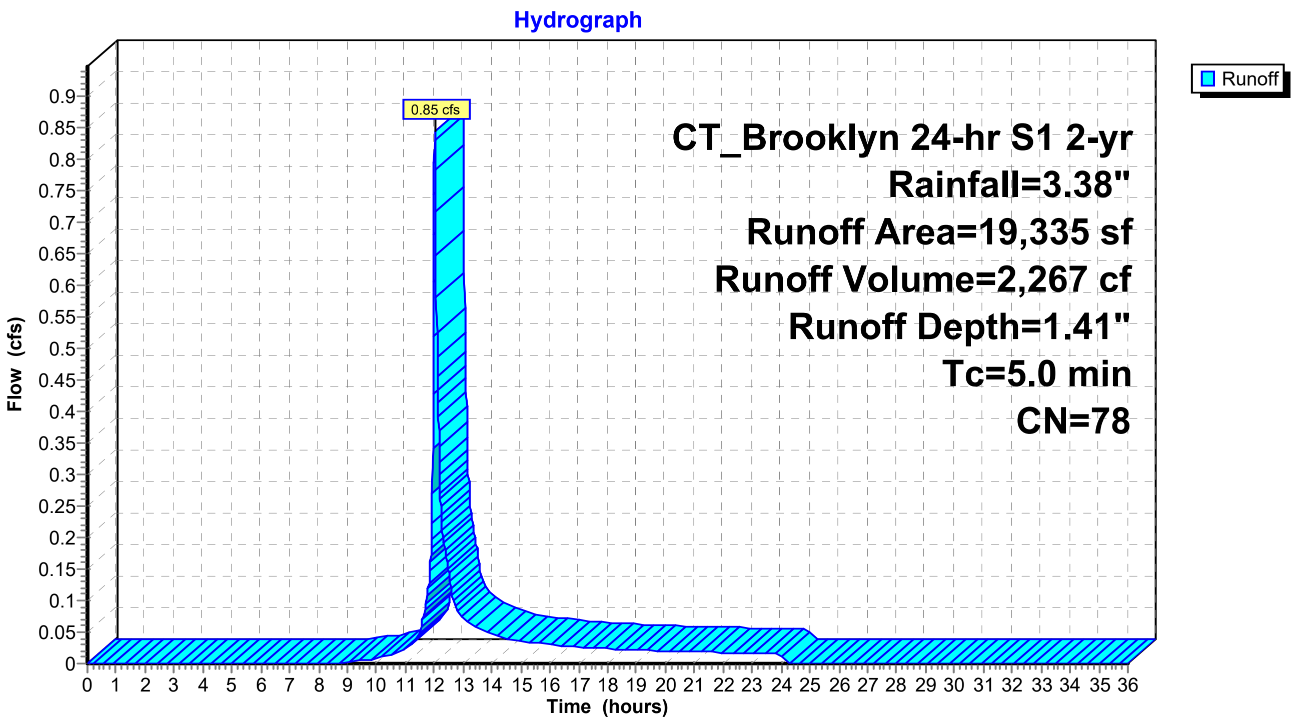
Runoff = 0.85 cfs @ 12.03 hrs, Volume= 2,267 cf, Depth= 1.41"
Routed to Pond 4DP : DMH 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
8,785	98	Paved parking & roofs
10,550	61	>75% Grass cover, Good, HSG B
19,335	78	Weighted Average
10,550		54.56% Pervious Area
8,785		45.44% Impervious Area

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

Subcatchment 31S: Proposed to Swale (Approximate From Previous Design)



Summary for Subcatchment 32S: Pharmacy Roof (Approximate From Previous Design)

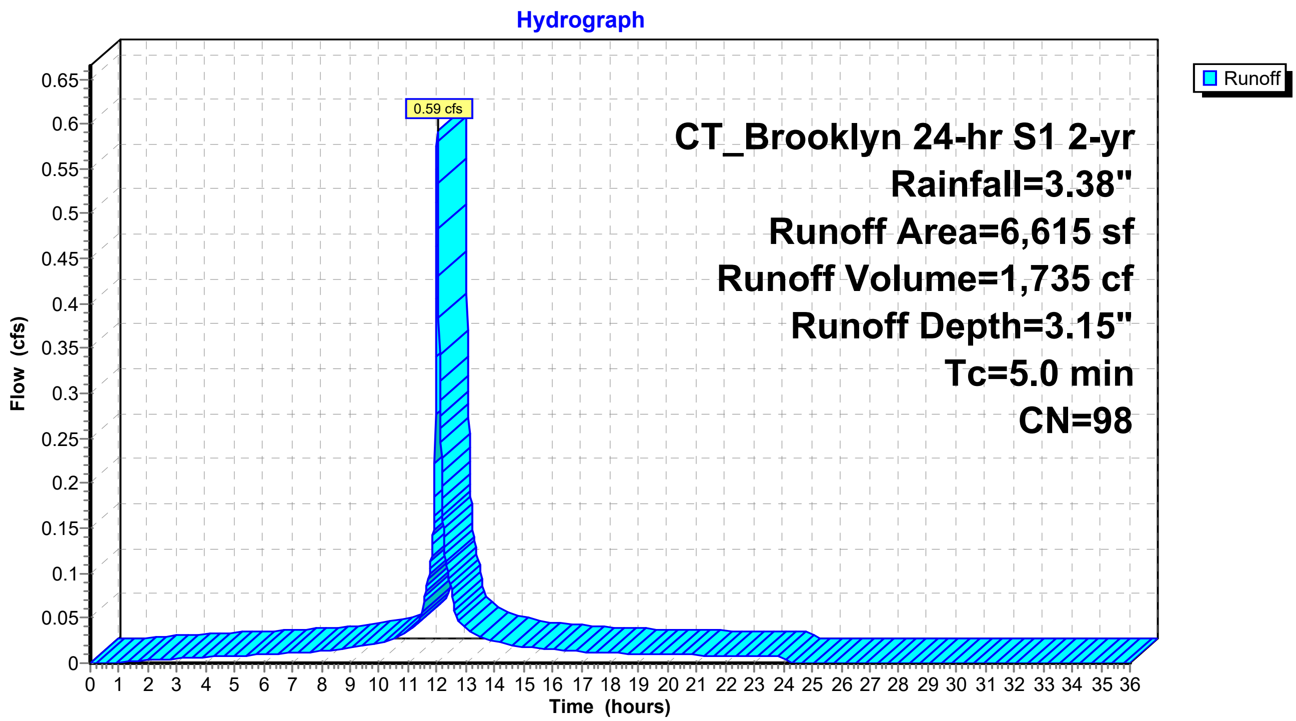
Runoff = 0.59 cfs @ 12.03 hrs, Volume= 1,735 cf, Depth= 3.15"
Routed to Pond 4DP : DMH 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
6,615	98	Paved parking & roofs
6,615		100.00% Impervious Area

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

Subcatchment 32S: Pharmacy Roof (Approximate From Previous Design)



Summary for Subcatchment 33S: Pharmacy Roof (Approximate From Previous Design)

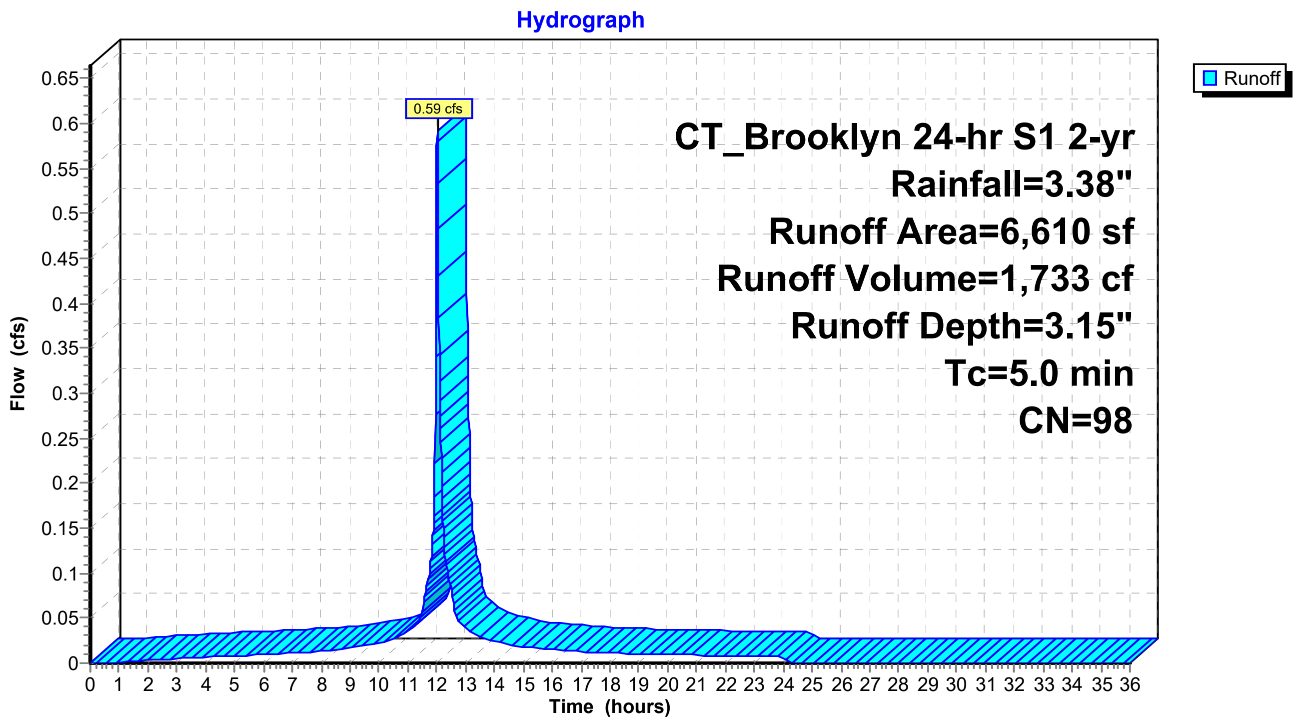
Runoff = 0.59 cfs @ 12.03 hrs, Volume= 1,733 cf, Depth= 3.15"
Routed to Pond 45P : CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
6,610	98	Paved parking & roofs
6,610		100.00% Impervious Area

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

Subcatchment 33S: Pharmacy Roof (Approximate From Previous Design)



Summary for Subcatchment 34ES: Retail/Office Roof

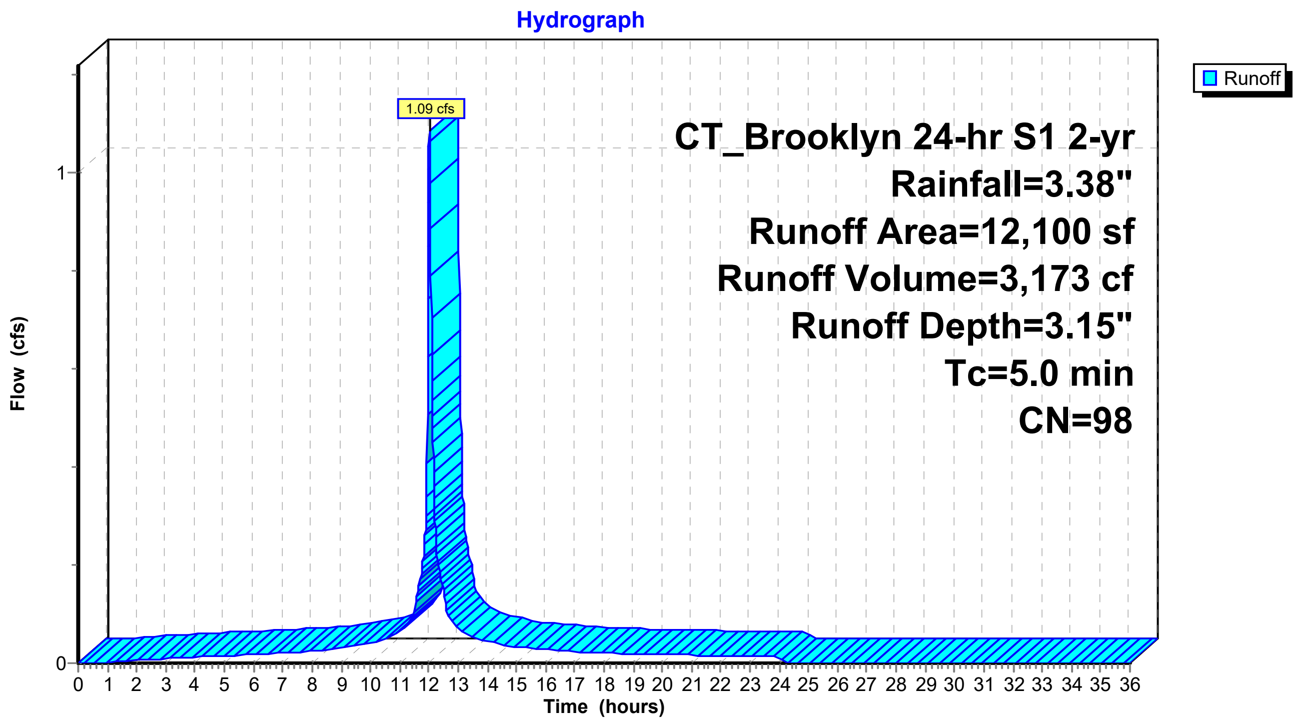
Runoff = 1.09 cfs @ 12.03 hrs, Volume= 3,173 cf, Depth= 3.15"
Routed to Pond 11P : CB E

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
12,100	98	Paved parking & roofs
12,100		100.00% Impervious Area

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

Subcatchment 34ES: Retail/Office Roof



Summary for Subcatchment 34WS: Retail/Office Roof

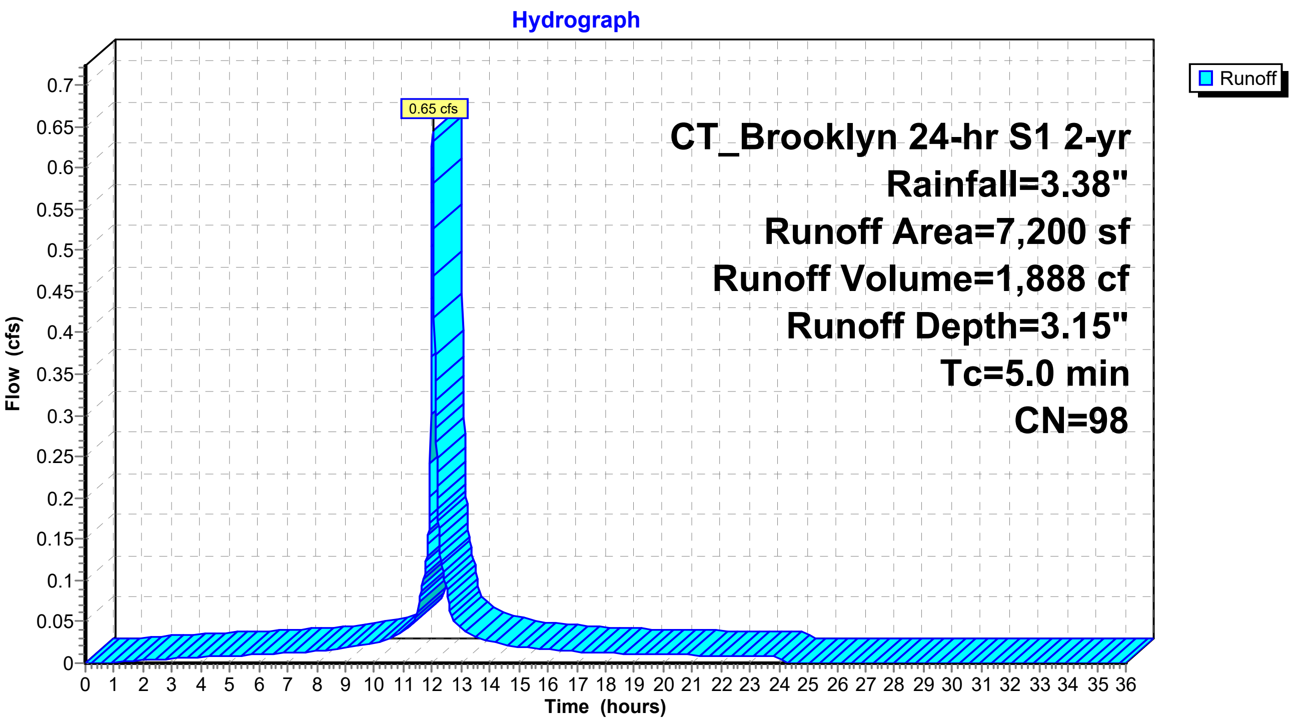
Runoff = 0.65 cfs @ 12.03 hrs, Volume= 1,888 cf, Depth= 3.15"
Routed to Pond 55P : DMH F

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
7,200	98	Paved parking & roofs
7,200		100.00% Impervious Area

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

Subcatchment 34WS: Retail/Office Roof



Summary for Subcatchment 35S: Spa / Med. Office Roof

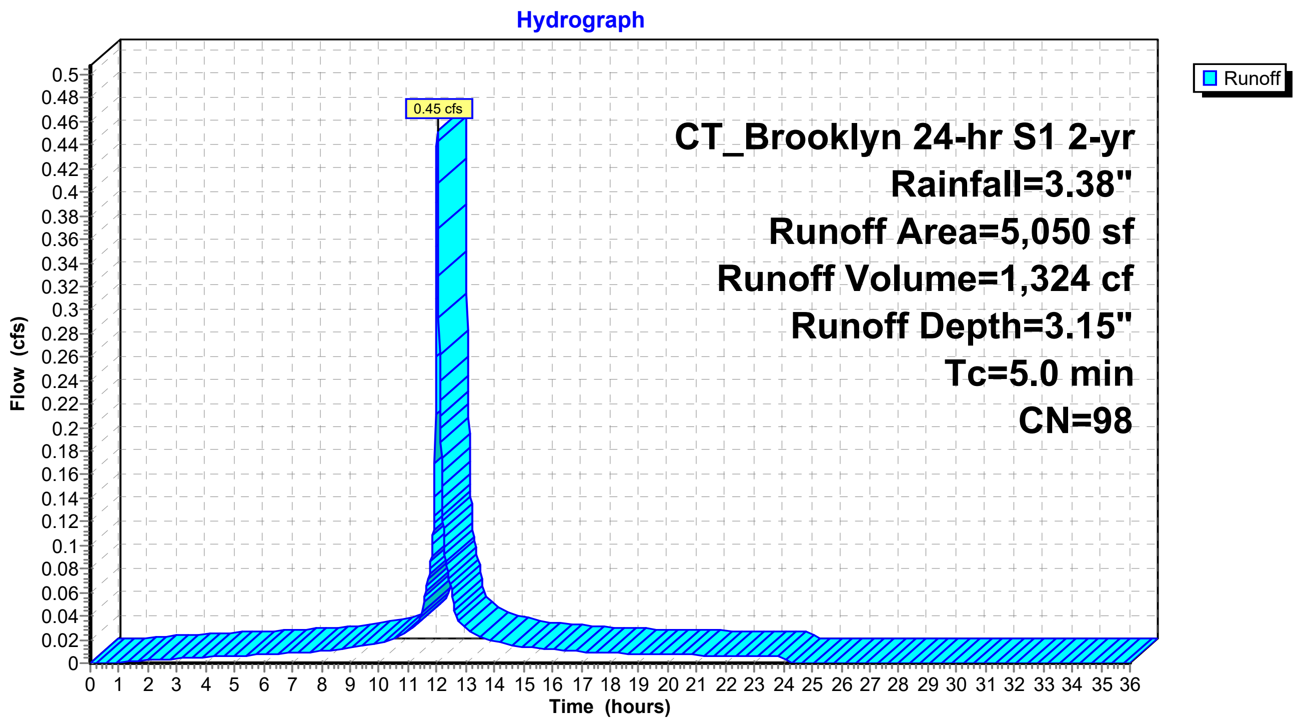
Runoff = 0.45 cfs @ 12.03 hrs, Volume= 1,324 cf, Depth= 3.15"
Routed to Pond 4DP : DMH 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
5,050	98	Paved parking & roofs
5,050		100.00% Impervious Area

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

Subcatchment 35S: Spa / Med. Office Roof



Summary for Subcatchment 41S: Proposed to CB 11

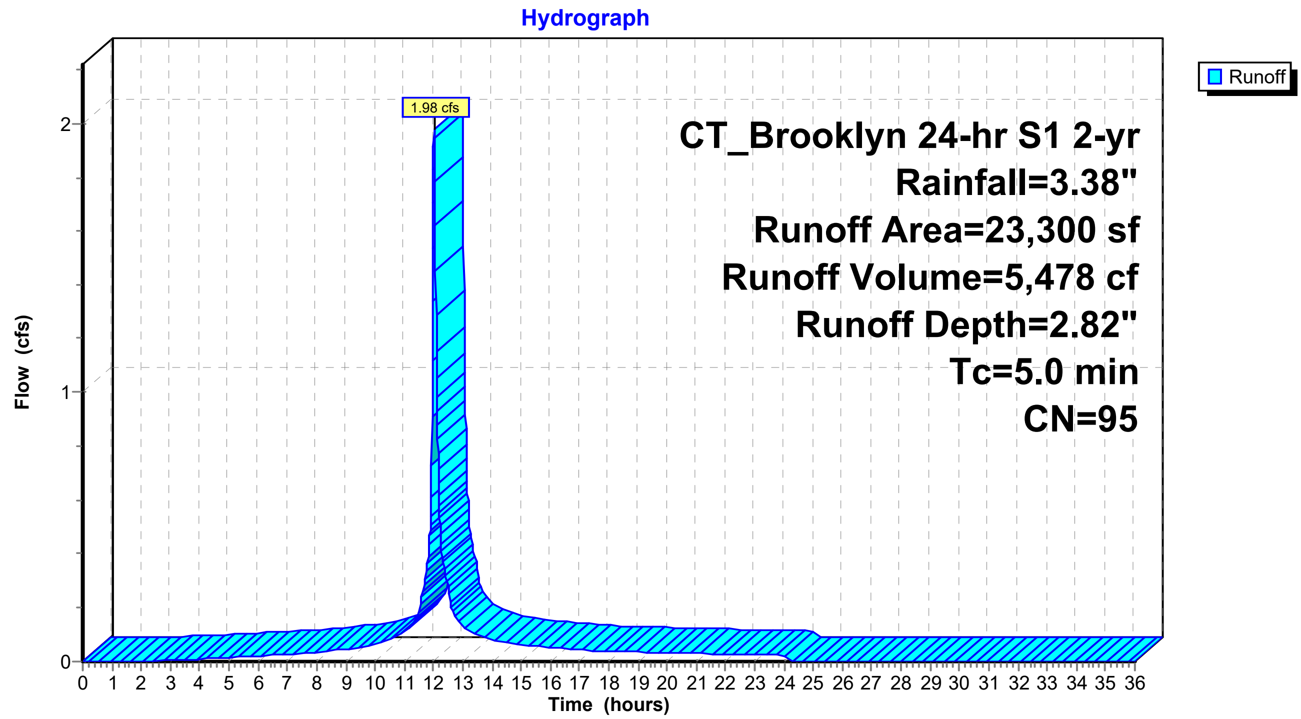
Runoff = 1.98 cfs @ 12.03 hrs, Volume= 5,478 cf, Depth= 2.82"
Routed to Pond 41P : CB 11

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
21,320	98	Paved parking & roofs
1,980	61	>75% Grass cover, Good, HSG B
23,300	95	Weighted Average
1,980		8.50% Pervious Area
21,320		91.50% Impervious Area

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

Subcatchment 41S: Proposed to CB 11



Summary for Subcatchment 42S: Proposed to CB 12

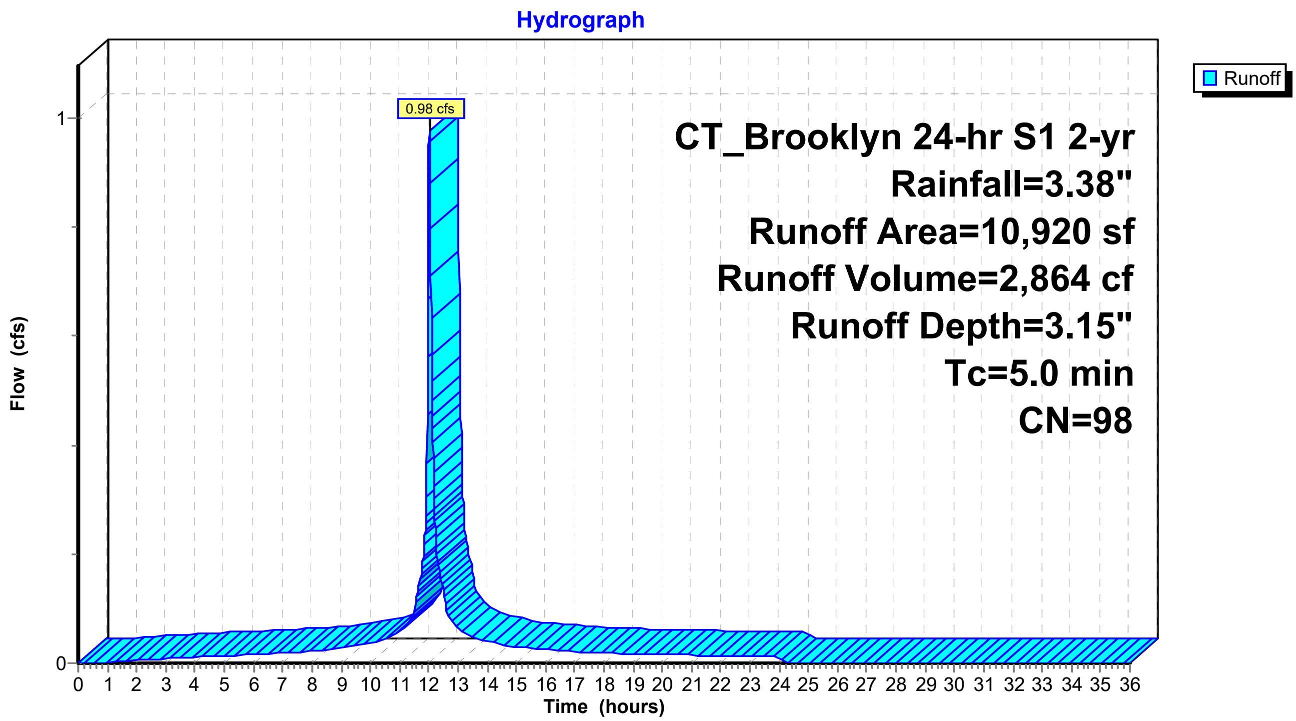
Runoff = 0.98 cfs @ 12.03 hrs, Volume= 2,864 cf, Depth= 3.15"
Routed to Pond 42P : CB 12

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
10,920	98	Paved parking & roofs
10,920		100.00% Impervious Area

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

Subcatchment 42S: Proposed to CB 12



Summary for Subcatchment 44S: Ex to CB

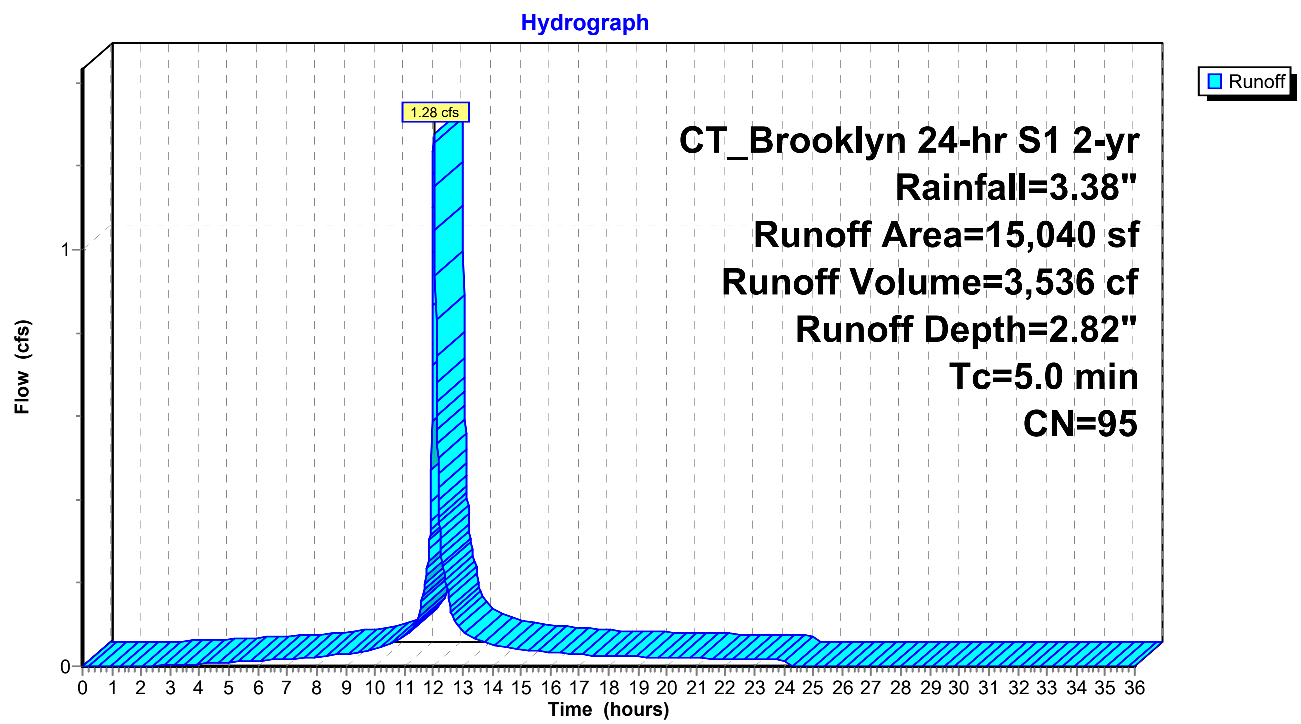
Runoff = 1.28 cfs @ 12.03 hrs, Volume= 3,536 cf, Depth= 2.82"
Routed to Pond 44P : CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
13,940	98	Paved parking & roofs
1,100	61	>75% Grass cover, Good, HSG B
15,040	95	Weighted Average
1,100		7.31% Pervious Area
13,940		92.69% Impervious Area

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

Subcatchment 44S: Ex to CB



Summary for Subcatchment 45S: Ex to CB

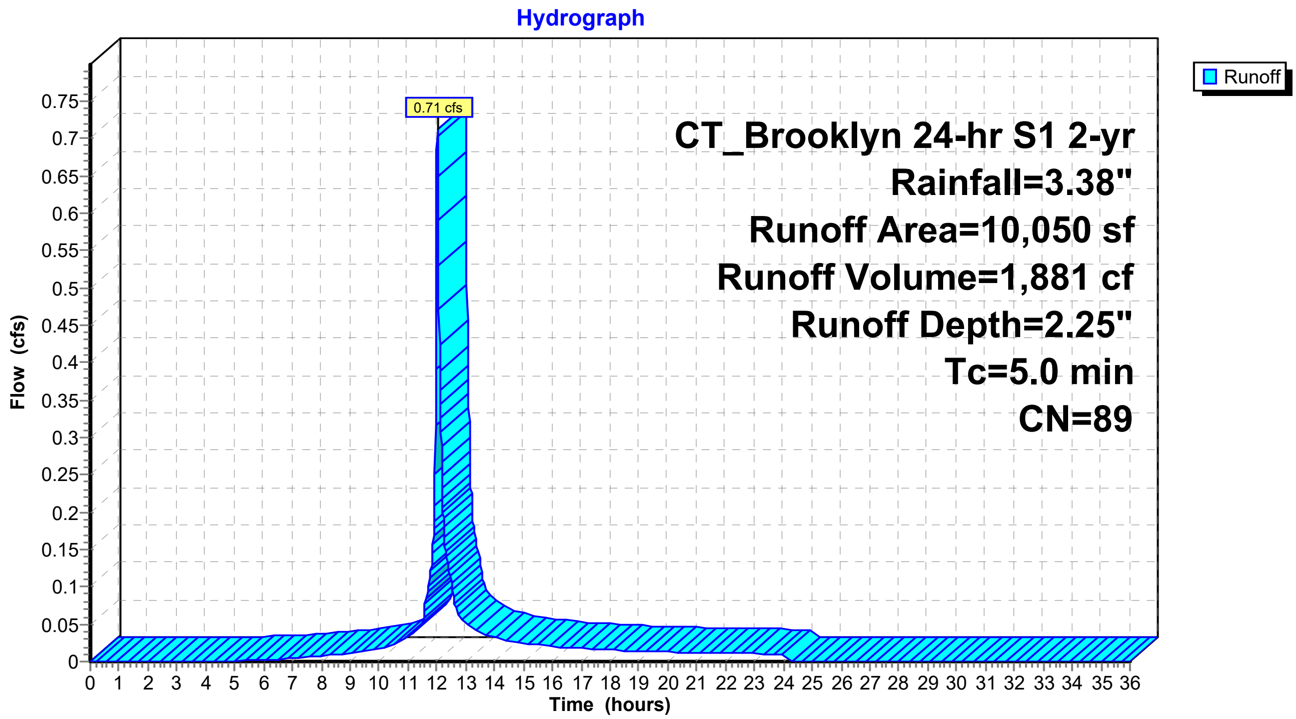
Runoff = 0.71 cfs @ 12.03 hrs, Volume= 1,881 cf, Depth= 2.25"
Routed to Pond 45P : CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 2-yr Rainfall=3.38"

Area (sf)	CN	Description
7,725	98	Paved parking & roofs
2,325	61	>75% Grass cover, Good, HSG B
10,050	89	Weighted Average
2,325		23.13% Pervious Area
7,725		76.87% Impervious Area

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

Subcatchment 45S: Ex to CB



Summary for Pond 1P: CB 1

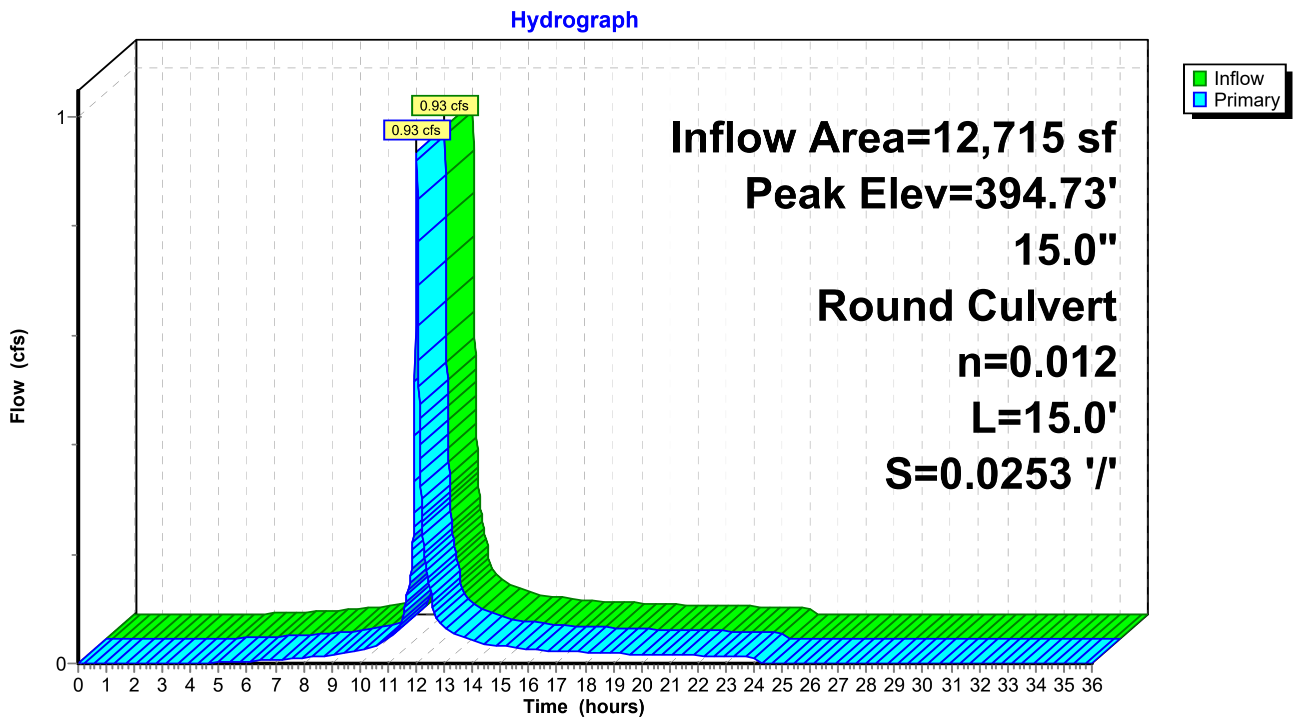
Inflow Area = 12,715 sf, 77.86% Impervious, Inflow Depth = 2.34" for 2-yr event
Inflow = 0.93 cfs @ 12.03 hrs, Volume= 2,475 cf
Outflow = 0.93 cfs @ 12.03 hrs, Volume= 2,475 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.93 cfs @ 12.03 hrs, Volume= 2,475 cf
Routed to Pond 51P : DMH B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.73' @ 12.04 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.05'	**15.0" Round Culvert** L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.05' / 393.67' S= 0.0253 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.86 cfs @ 12.03 hrs HW=394.70' TW=394.59' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.86 cfs @ 1.93 fps)

Pond 1P: CB 1



Summary for Pond 1VP: Vortechnics Unit

Inflow	=	3.82 cfs @	12.02 hrs,	Volume=	24,440 cf
Outflow	=	3.82 cfs @	12.02 hrs,	Volume=	24,440 cf, Atten= 0%, Lag= 0.0 min
Primary	=	3.82 cfs @	12.02 hrs,	Volume=	24,440 cf

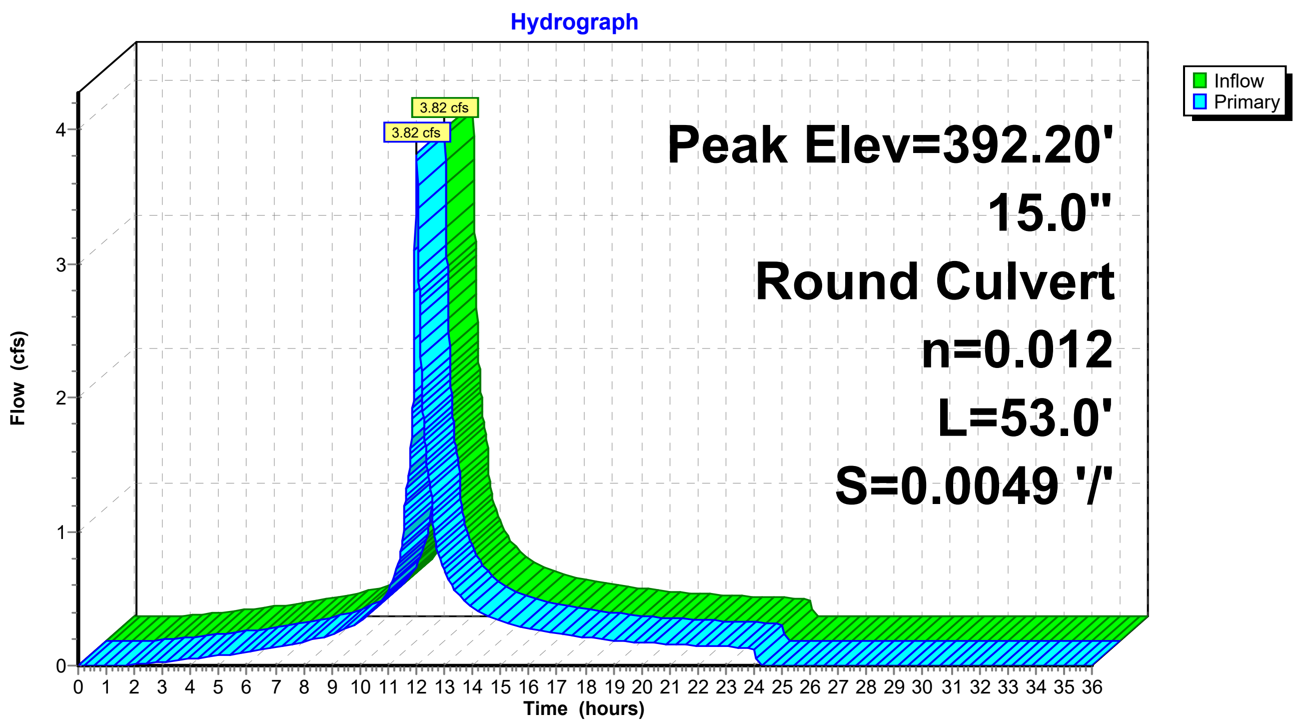
Routed to Pond 3DP : DMH 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.20' @ 12.02 hrs
Flood Elev= 397.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.50'	**15.0" Round Culvert** L= 53.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.50' / 390.24' S= 0.0049 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=3.82 cfs @ 12.02 hrs HW=392.19' TW=391.77' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 3.82 cfs @ 3.11 fps)

Pond 1VP: Vortechnics Unit



Summary for Pond 2P: CB 2

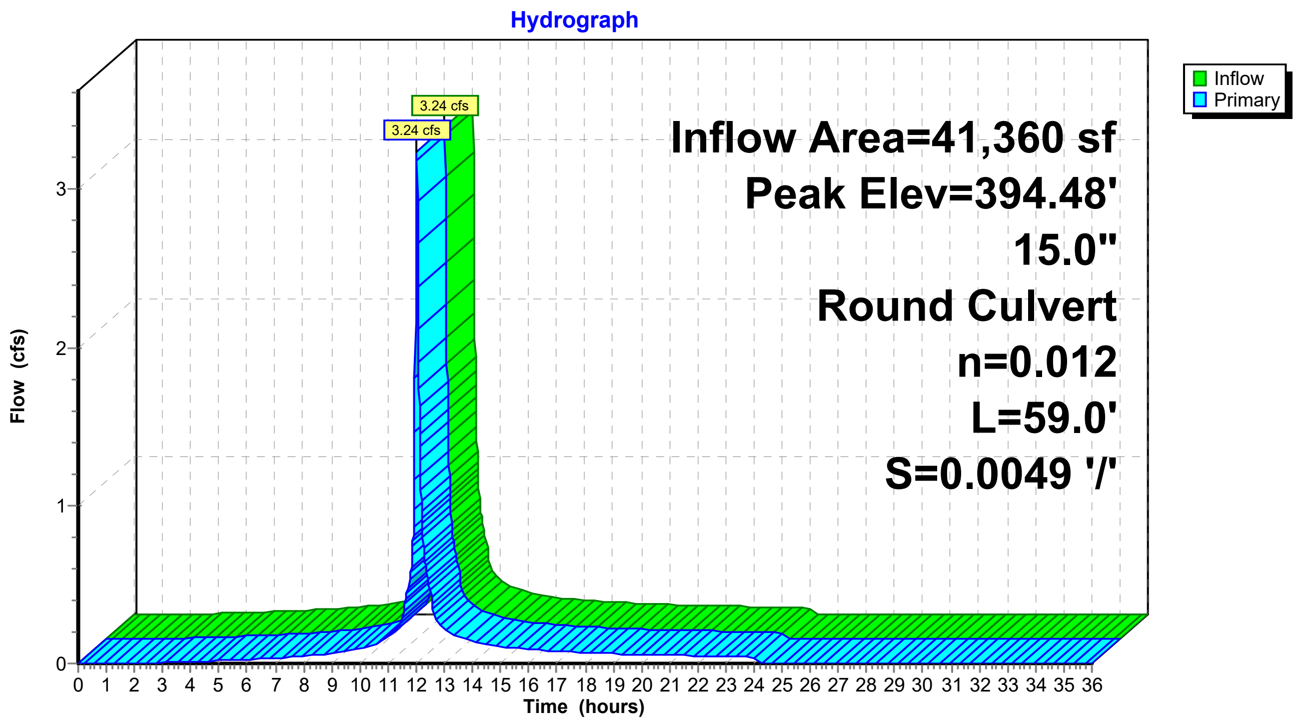
Inflow Area = 41,360 sf, 84.79% Impervious, Inflow Depth = 2.55" for 2-yr event
Inflow = 3.24 cfs @ 12.03 hrs, Volume= 8,805 cf
Outflow = 3.24 cfs @ 12.03 hrs, Volume= 8,805 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.24 cfs @ 12.03 hrs, Volume= 8,805 cf
Routed to Pond 3P : CB 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.48' @ 12.03 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.94'	**15.0" Round Culvert** L= 59.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.94' / 392.65' S= 0.0049 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=3.15 cfs @ 12.03 hrs HW=394.47' TW=394.18' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 3.15 cfs @ 2.57 fps)

Pond 2P: CB 2



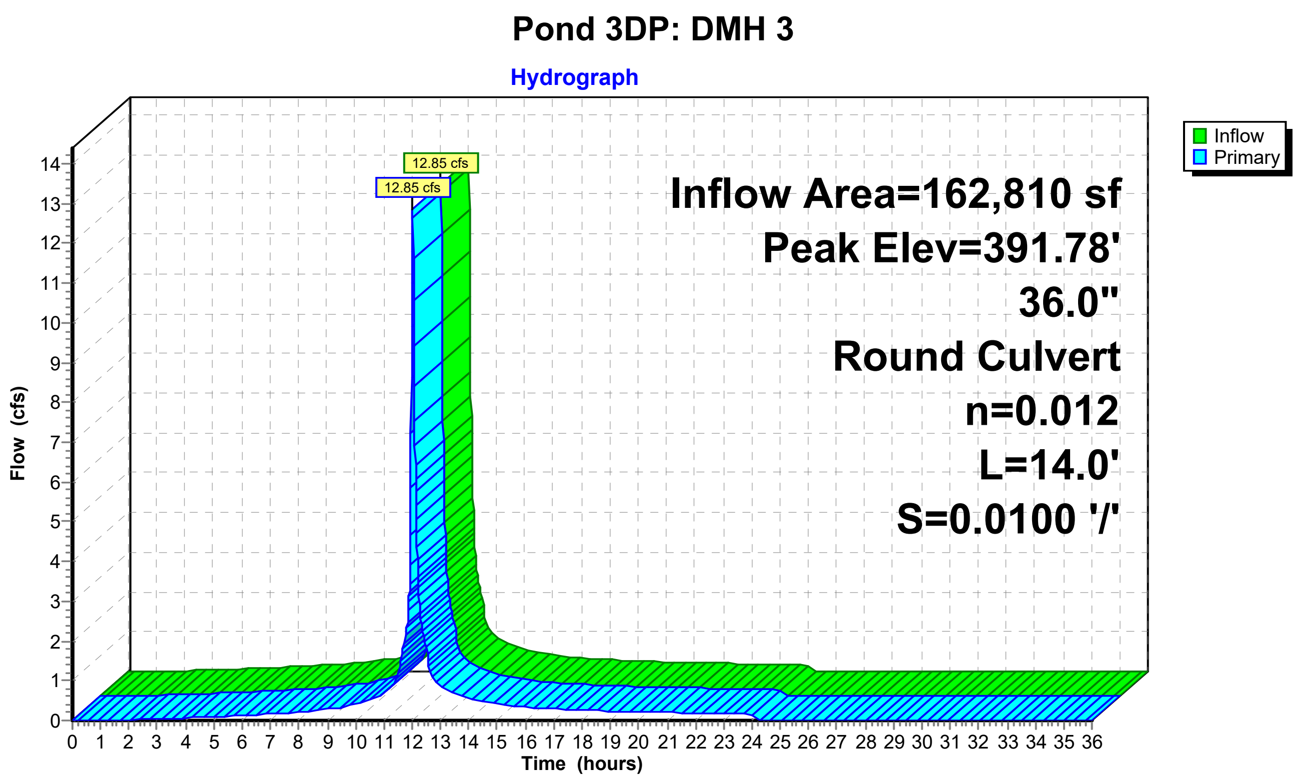
Summary for Pond 3DP: DMH 3

Inflow Area = 162,810 sf, 85.75% Impervious, Inflow Depth = 2.63" for 2-yr event
Inflow = 12.85 cfs @ 12.03 hrs, Volume= 35,697 cf
Outflow = 12.85 cfs @ 12.03 hrs, Volume= 35,697 cf, Atten= 0%, Lag= 0.0 min
Primary = 12.85 cfs @ 12.03 hrs, Volume= 35,697 cf
Routed to Link 1L : Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 391.78' @ 12.03 hrs
Flood Elev= 396.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.14'	**36.0" Round Culvert** L= 14.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.14' / 390.00' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 7.07 sf

Primary OutFlow Max=12.80 cfs @ 12.03 hrs HW=391.78' TW=0.00' (Dynamic Tailwater)
1=Culvert (Barrel Controls 12.80 cfs @ 4.70 fps)



Summary for Pond 3P: CB 3

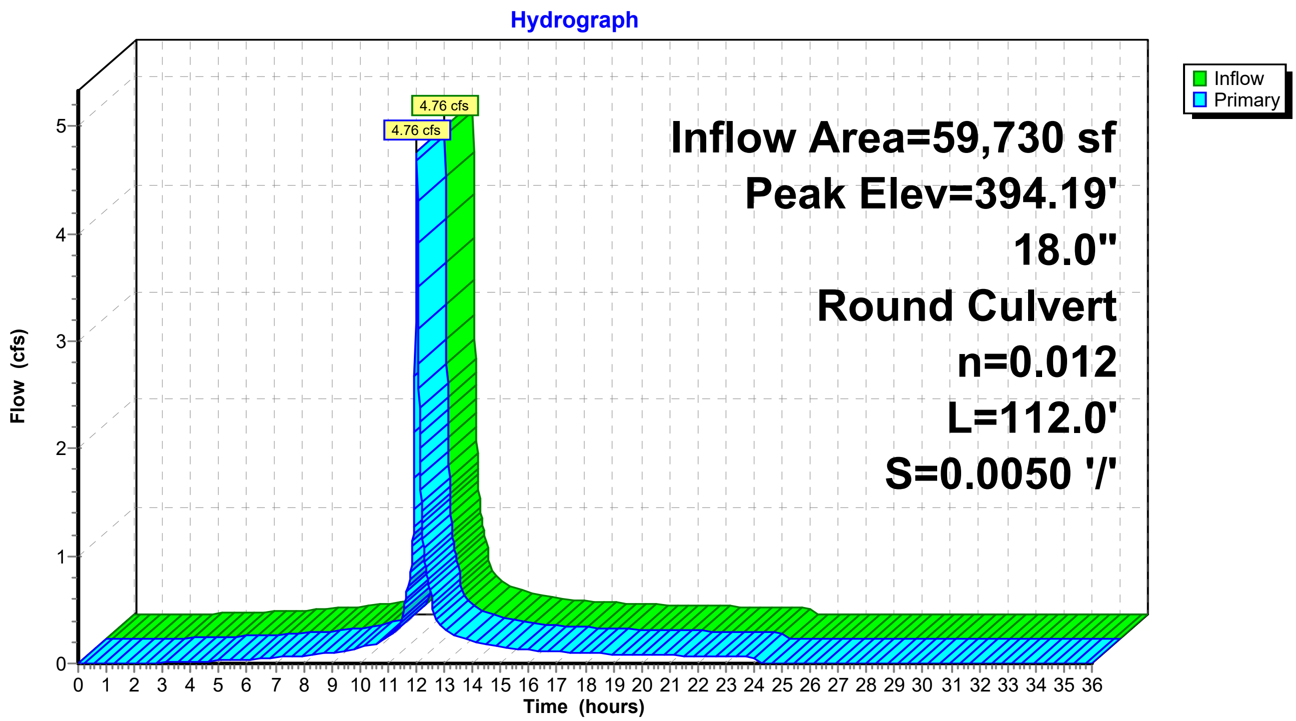
Inflow Area = 59,730 sf, 86.51% Impervious, Inflow Depth = 2.61" for 2-yr event
Inflow = 4.76 cfs @ 12.03 hrs, Volume= 12,967 cf
Outflow = 4.76 cfs @ 12.03 hrs, Volume= 12,967 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.76 cfs @ 12.03 hrs, Volume= 12,967 cf
Routed to Pond 4P : CB 4

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.19' @ 12.03 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.65'	**18.0" Round Culvert** L= 112.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.65' / 392.09' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=4.67 cfs @ 12.03 hrs HW=394.18' TW=393.73' (Dynamic Tailwater)
1=Culvert (Outlet Controls 4.67 cfs @ 3.21 fps)

Pond 3P: CB 3



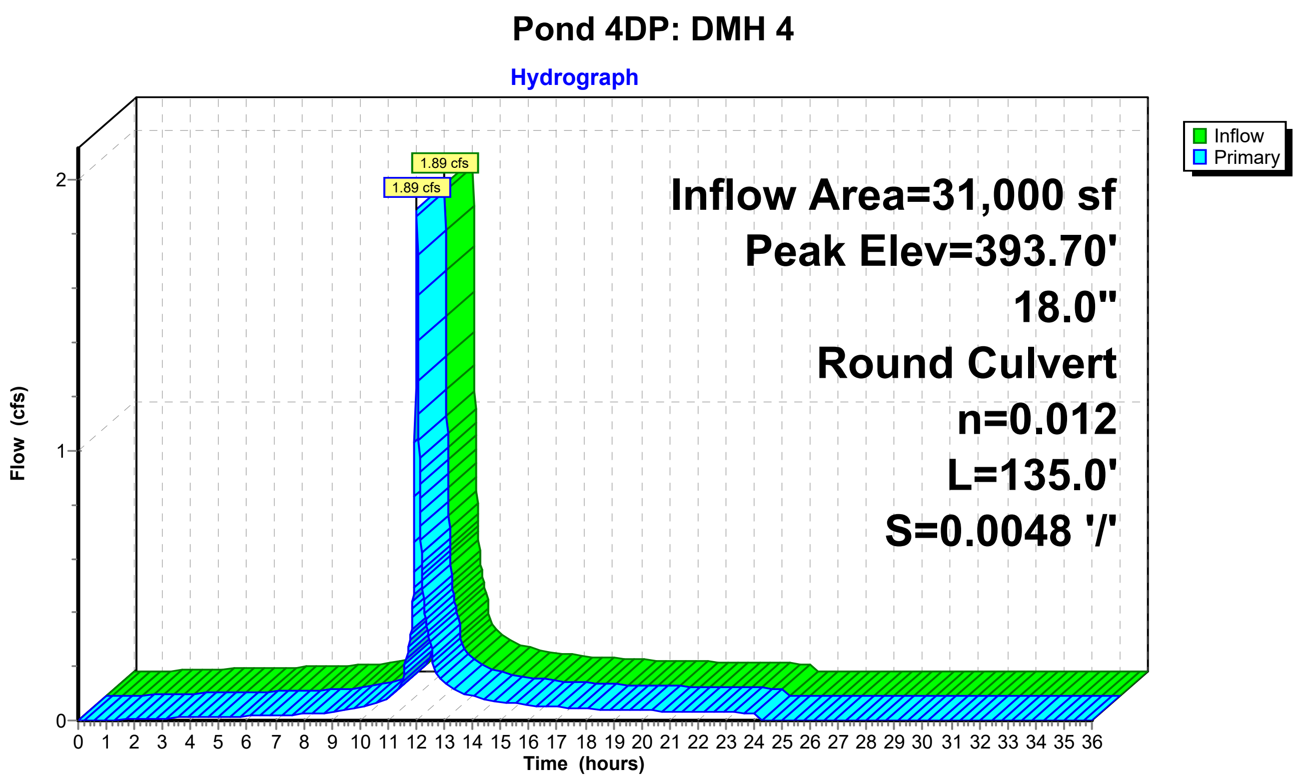
Summary for Pond 4DP: DMH 4

Inflow Area = 31,000 sf, 65.97% Impervious, Inflow Depth = 2.06" for 2-yr event
Inflow = 1.89 cfs @ 12.03 hrs, Volume= 5,326 cf
Outflow = 1.89 cfs @ 12.03 hrs, Volume= 5,326 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.89 cfs @ 12.03 hrs, Volume= 5,326 cf
Routed to Pond 5DP : DMH 5

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.70' @ 12.03 hrs
Flood Elev= 397.14'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.00'	**18.0" Round Culvert** L= 135.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.00' / 392.35' S= 0.0048 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=1.89 cfs @ 12.03 hrs HW=393.70' TW=391.88' (Dynamic Tailwater)
1=Culvert (Barrel Controls 1.89 cfs @ 3.44 fps)



Summary for Pond 4P: CB 4

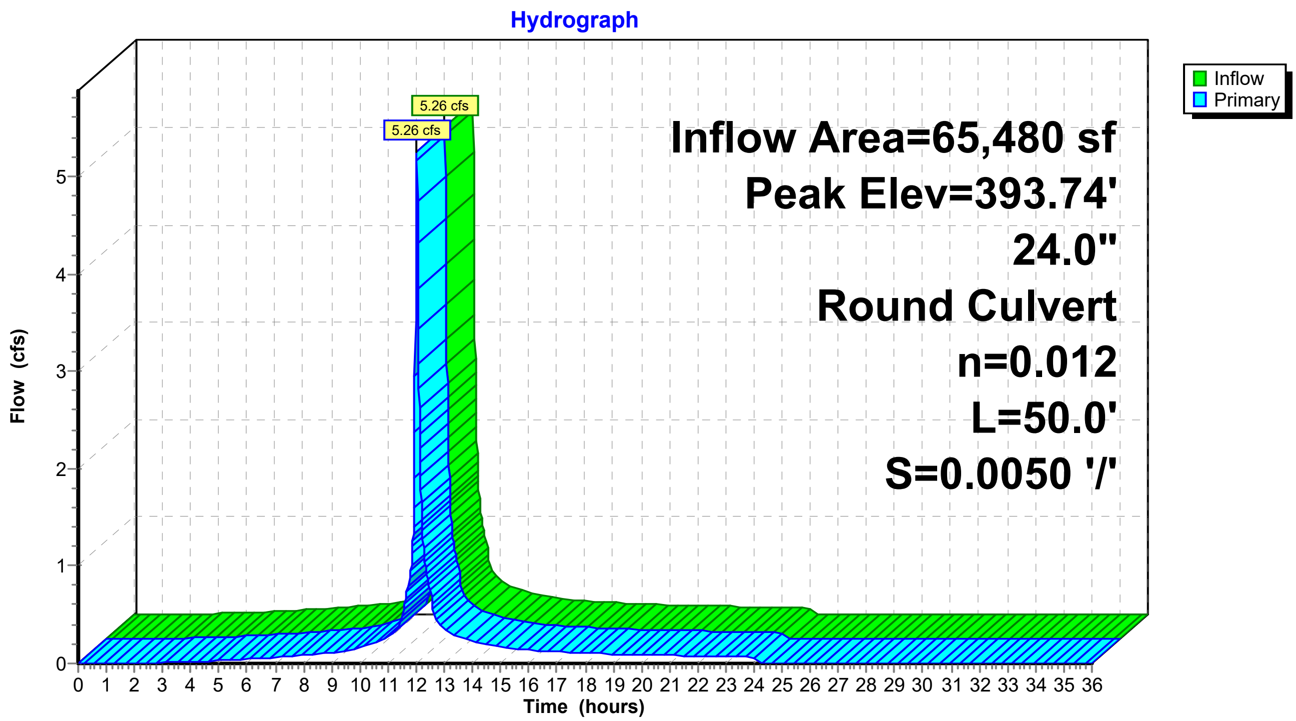
Inflow Area = 65,480 sf, 87.23% Impervious, Inflow Depth = 2.63" for 2-yr event
Inflow = 5.26 cfs @ 12.03 hrs, Volume= 14,370 cf
Outflow = 5.26 cfs @ 12.03 hrs, Volume= 14,370 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.26 cfs @ 12.03 hrs, Volume= 14,370 cf
Routed to Pond 52P : DMH C

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.74' @ 12.03 hrs
Flood Elev= 398.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.09'	**24.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.09' / 391.84' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=5.03 cfs @ 12.03 hrs HW=393.73' TW=393.54' (Dynamic Tailwater)
1=Culvert (Outlet Controls 5.03 cfs @ 2.49 fps)

Pond 4P: CB 4



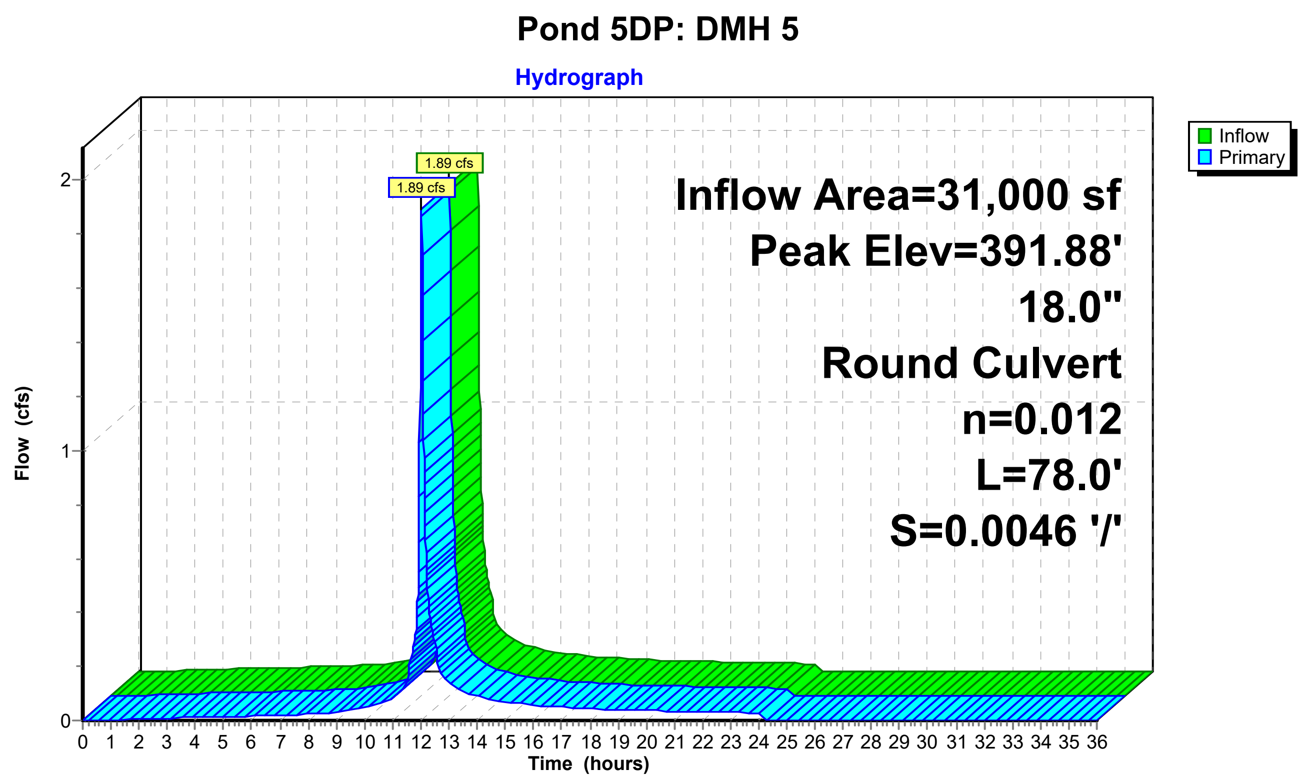
Summary for Pond 5DP: DMH 5

Inflow Area = 31,000 sf, 65.97% Impervious, Inflow Depth = 2.06" for 2-yr event
Inflow = 1.89 cfs @ 12.03 hrs, Volume= 5,326 cf
Outflow = 1.89 cfs @ 12.03 hrs, Volume= 5,326 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.89 cfs @ 12.03 hrs, Volume= 5,326 cf
Routed to Pond 3DP : DMH 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 391.88' @ 12.03 hrs
Flood Elev= 396.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.60'	**18.0" Round Culvert** L= 78.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.60' / 390.24' S= 0.0046 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=1.89 cfs @ 12.03 hrs HW=391.88' TW=391.78' (Dynamic Tailwater)
1=Culvert (Outlet Controls 1.89 cfs @ 1.58 fps)



Summary for Pond 5P: CB 5

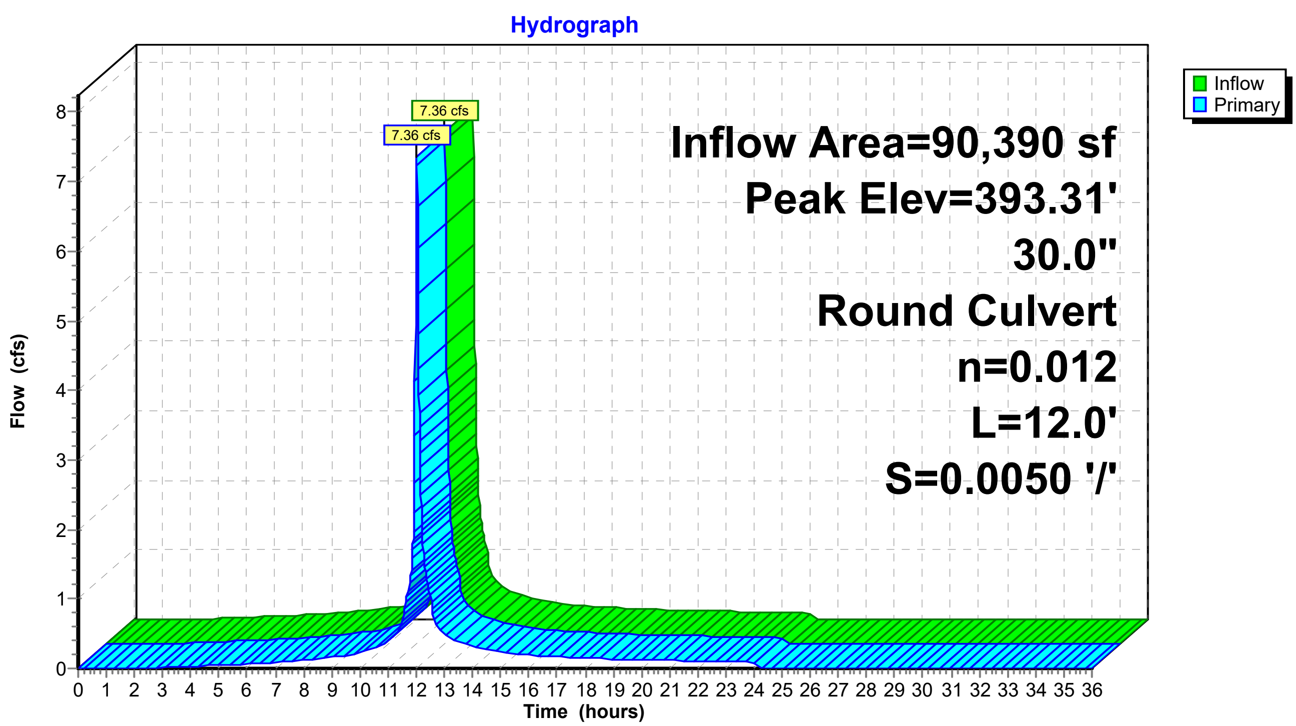
Inflow Area = 90,390 sf, 88.20% Impervious, Inflow Depth = 2.67" for 2-yr event
Inflow = 7.36 cfs @ 12.03 hrs, Volume= 20,142 cf
Outflow = 7.36 cfs @ 12.03 hrs, Volume= 20,142 cf, Atten= 0%, Lag= 0.0 min
Primary = 7.36 cfs @ 12.03 hrs, Volume= 20,142 cf
Routed to Pond 53P : DMH D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.31' @ 12.03 hrs
Flood Elev= 396.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.64'	**30.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.64' / 391.58' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=7.09 cfs @ 12.03 hrs HW=393.30' TW=393.09' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 7.09 cfs @ 2.91 fps)

Pond 5P: CB 5



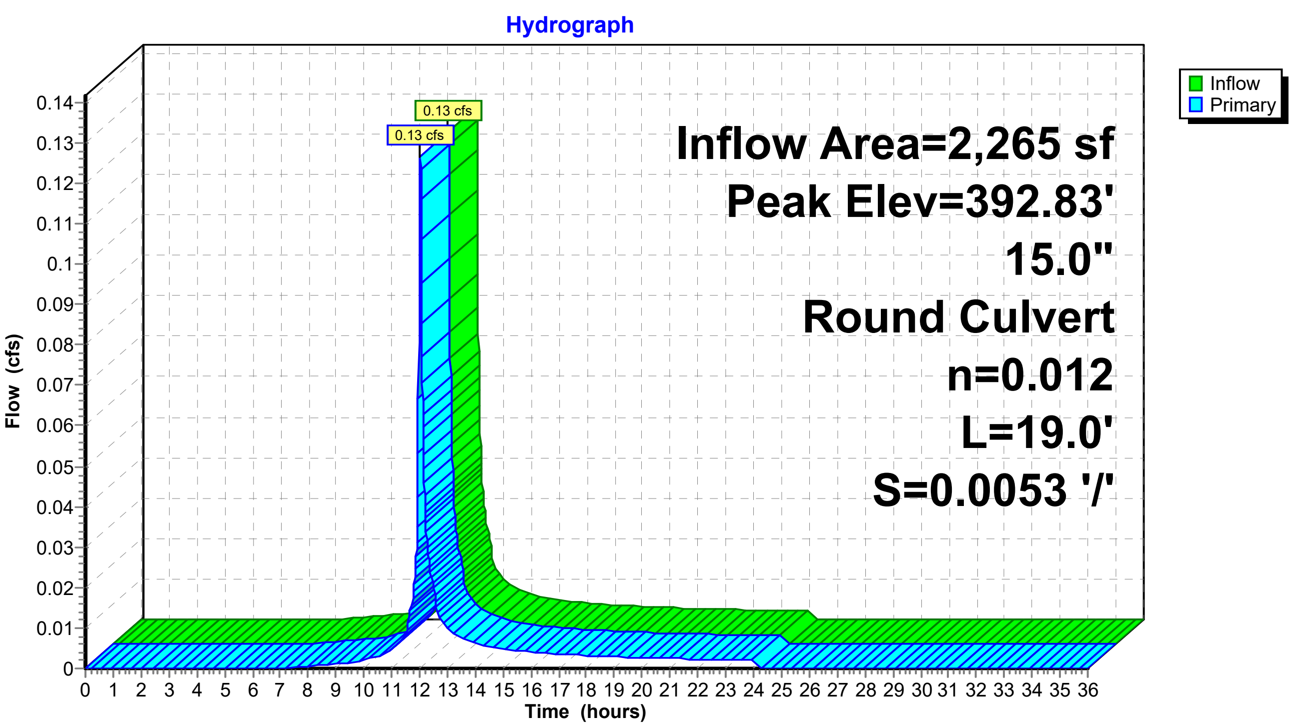
Summary for Pond 6P: CB A

Inflow Area = 2,265 sf, 59.38% Impervious, Inflow Depth = 1.76" for 2-yr event
Inflow = 0.13 cfs @ 12.03 hrs, Volume= 332 cf
Outflow = 0.13 cfs @ 12.03 hrs, Volume= 332 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.13 cfs @ 12.03 hrs, Volume= 332 cf
Routed to Pond 7P : CB B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.83' @ 12.04 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.60'	**15.0" Round Culvert** L= 19.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.60' / 392.50' S= 0.0053 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.12 cfs @ 12.03 hrs HW=392.83' TW=392.76' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.12 cfs @ 1.21 fps)



Summary for Pond 7P: CB B

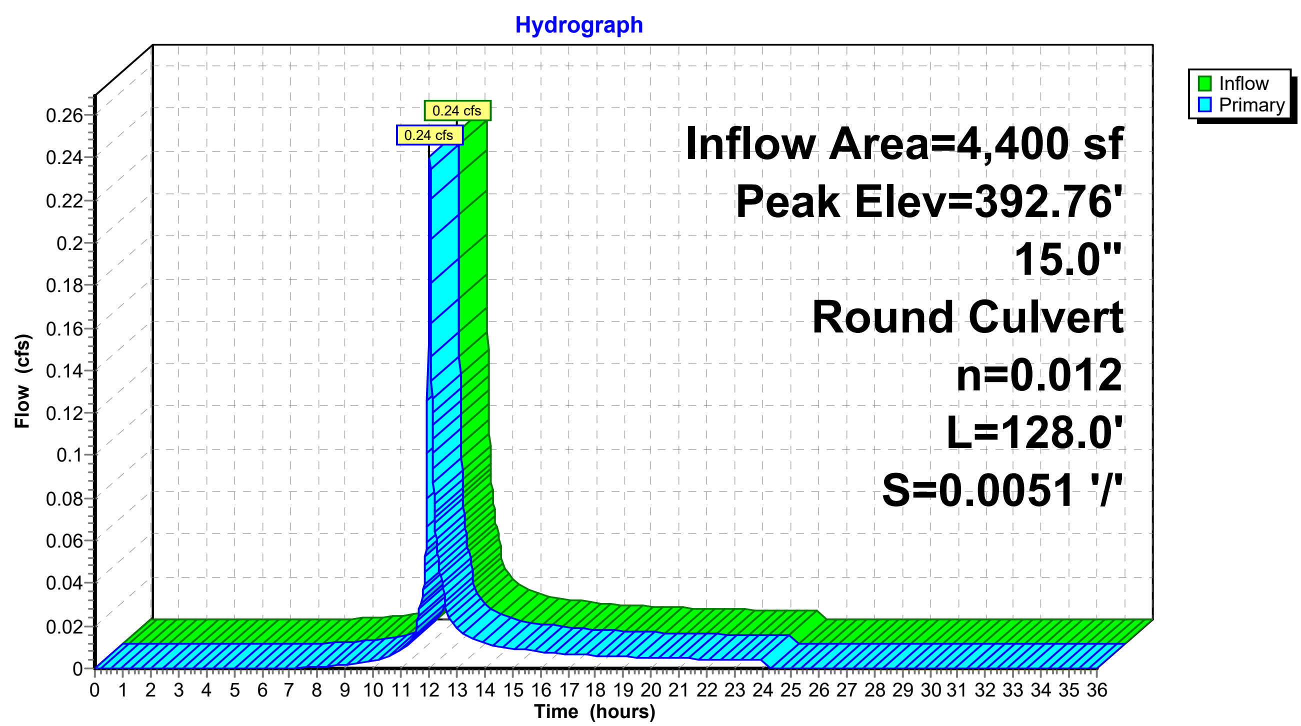
Inflow Area = 4,400 sf, 58.07% Impervious, Inflow Depth = 1.72" for 2-yr event
Inflow = 0.24 cfs @ 12.03 hrs, Volume= 631 cf
Outflow = 0.24 cfs @ 12.03 hrs, Volume= 631 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.24 cfs @ 12.03 hrs, Volume= 631 cf
Routed to Pond 61P : DMH A

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.76' @ 12.04 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.45'	**15.0" Round Culvert** L= 128.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.45' / 391.80' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.24 cfs @ 12.03 hrs HW=392.76' TW=392.44' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 0.24 cfs @ 1.51 fps)

Pond 7P: CB B



Summary for Pond 8P: Trench Drain

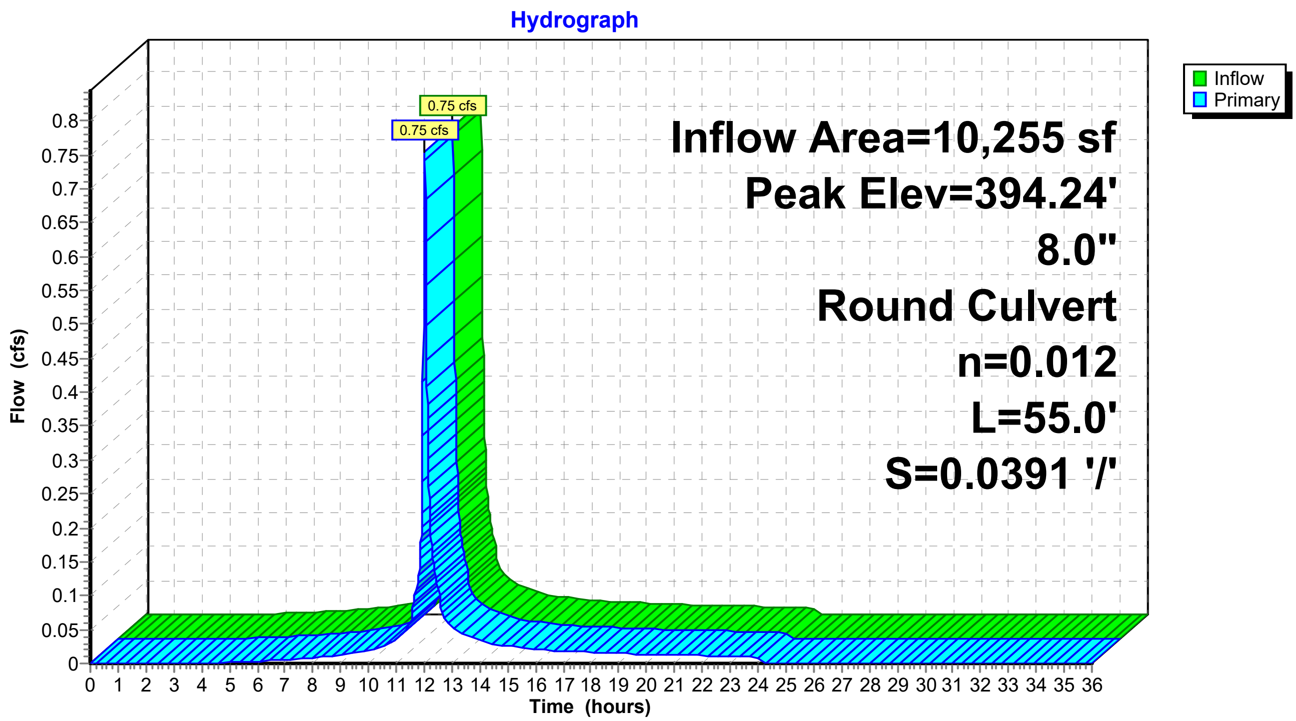
Inflow Area = 10,255 sf, 77.13% Impervious, Inflow Depth = 2.34" for 2-yr event
Inflow = 0.75 cfs @ 12.03 hrs, Volume= 1,996 cf
Outflow = 0.75 cfs @ 12.03 hrs, Volume= 1,996 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.75 cfs @ 12.03 hrs, Volume= 1,996 cf
Routed to Pond 62P : DMH B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.24' @ 12.03 hrs
Flood Elev= 394.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.70'	**8.0" Round Culvert** L= 55.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.70' / 391.55' S= 0.0391 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf

Primary OutFlow Max=0.75 cfs @ 12.03 hrs HW=394.24' TW=392.44' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 0.75 cfs @ 2.49 fps)

Pond 8P: Trench Drain



Summary for Pond 9P: CB C

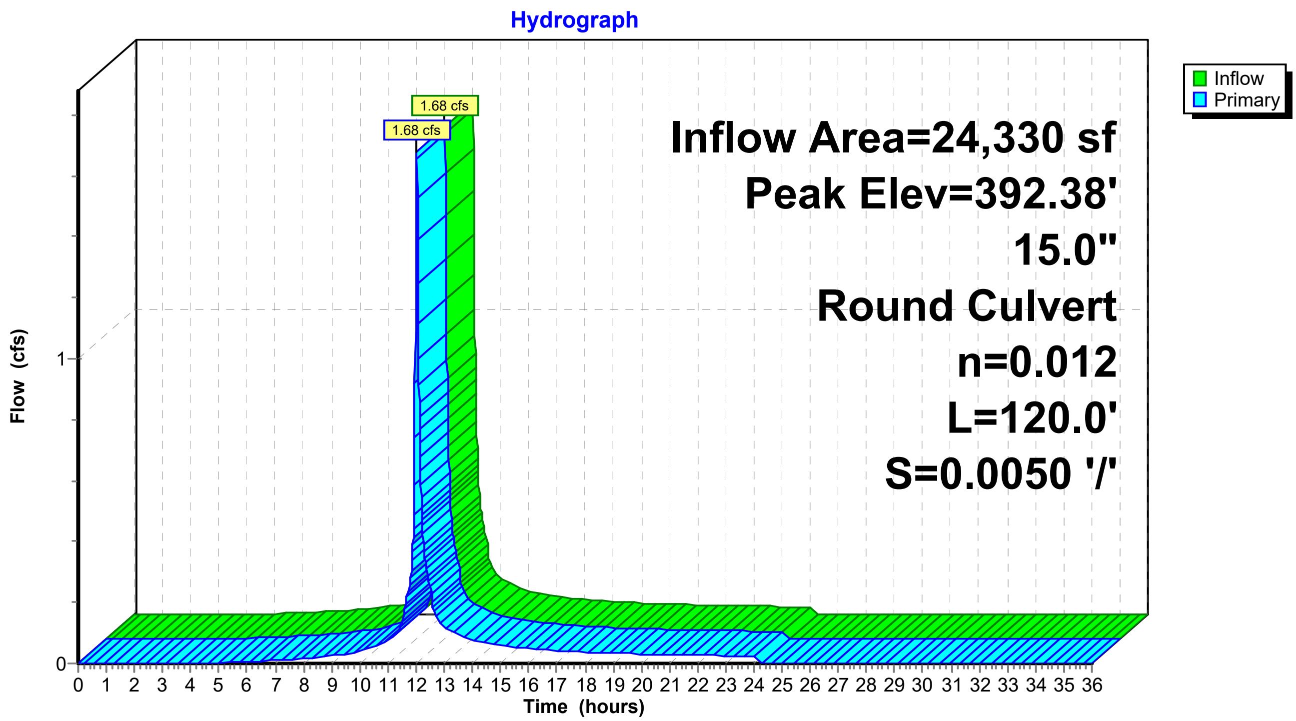
Inflow Area = 24,330 sf, 73.61% Impervious, Inflow Depth = 2.19" for 2-yr event
Inflow = 1.68 cfs @ 12.03 hrs, Volume= 4,439 cf
Outflow = 1.68 cfs @ 12.03 hrs, Volume= 4,439 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.68 cfs @ 12.03 hrs, Volume= 4,439 cf
Routed to Pond 10P : CB D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.38' @ 12.03 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.15'	**15.0" Round Culvert** L= 120.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.15' / 390.55' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.64 cfs @ 12.03 hrs HW=392.37' TW=392.22' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 1.64 cfs @ 1.70 fps)

Pond 9P: CB C



Summary for Pond 10P: CB D

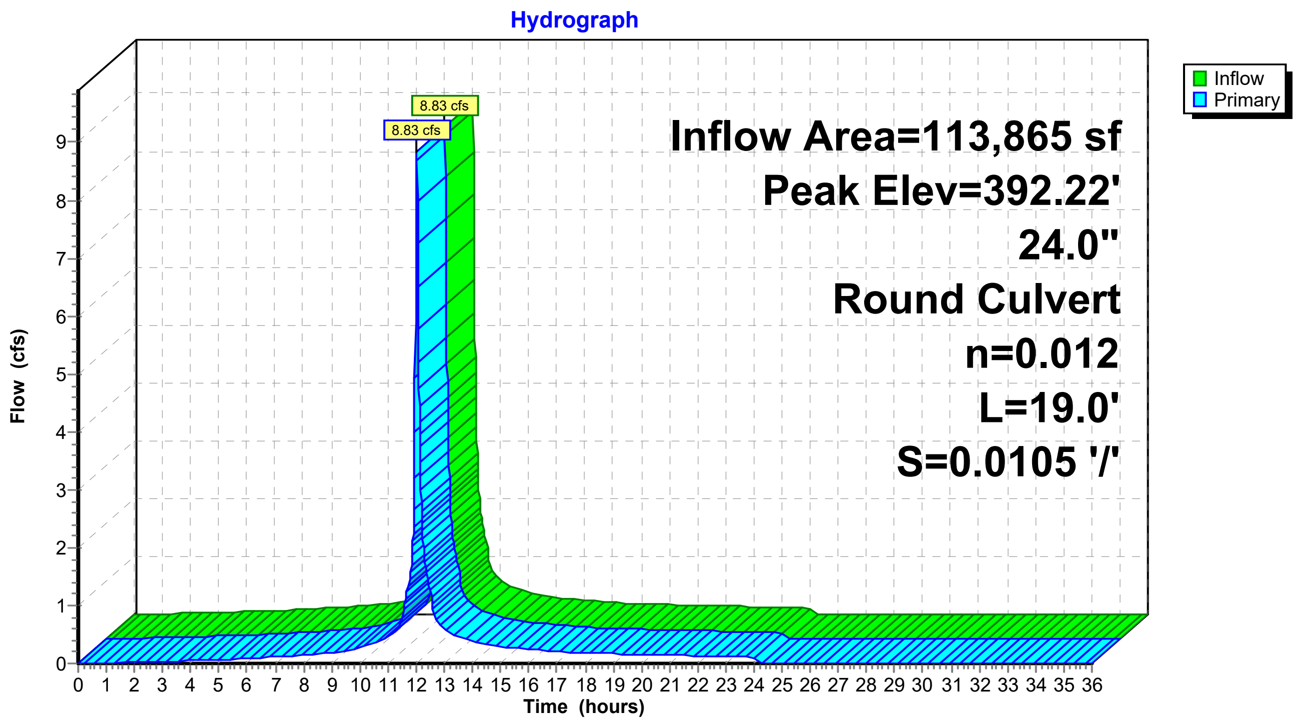
Inflow Area = 113,865 sf, 84.57% Impervious, Inflow Depth = 2.59" for 2-yr event
Inflow = 8.83 cfs @ 12.03 hrs, Volume= 24,621 cf
Outflow = 8.83 cfs @ 12.03 hrs, Volume= 24,621 cf, Atten= 0%, Lag= 0.0 min
Primary = 8.83 cfs @ 12.03 hrs, Volume= 24,621 cf
Routed to Pond 31P : Vortech Unit

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.22' @ 12.03 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.50'	**24.0" Round Culvert** L= 19.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.50' / 390.30' S= 0.0105 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=8.80 cfs @ 12.03 hrs HW=392.22' TW=391.78' (Dynamic Tailwater)
1=Culvert (Outlet Controls 8.80 cfs @ 4.11 fps)

Pond 10P: CB D



Summary for Pond 11P: CB E

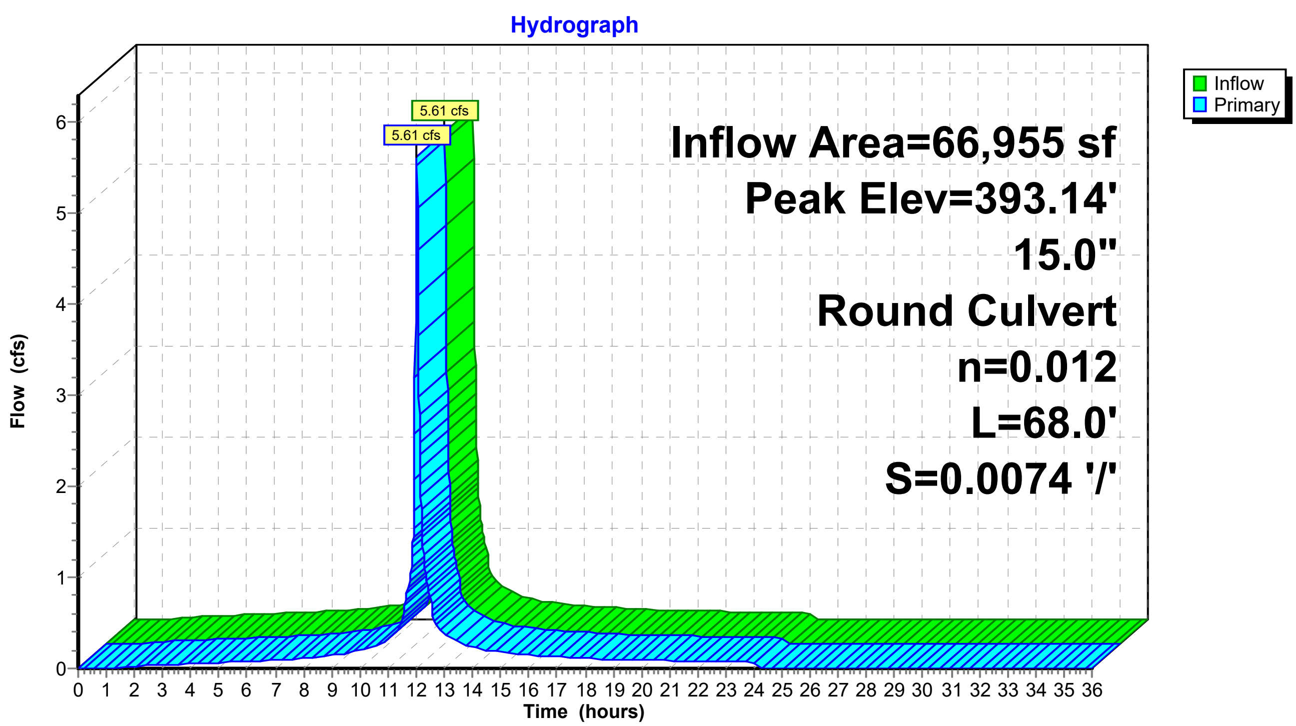
Inflow Area = 66,955 sf, 92.55% Impervious, Inflow Depth = 2.89" for 2-yr event
Inflow = 5.61 cfs @ 12.03 hrs, Volume= 16,132 cf
Outflow = 5.61 cfs @ 12.03 hrs, Volume= 16,132 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.61 cfs @ 12.03 hrs, Volume= 16,132 cf
Routed to Pond 10P : CB D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.14' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.05'	**15.0" Round Culvert** L= 68.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.05' / 390.55' S= 0.0074 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=5.56 cfs @ 12.03 hrs HW=393.13' TW=392.22' (Dynamic Tailwater)
1=Culvert (Outlet Controls 5.56 cfs @ 4.53 fps)

Pond 11P: CB E



Summary for Pond 12P: CB F

[80] Warning: Exceeded Pond 22P by 0.01' @ 12.00 hrs (0.42 cfs 15 cf)

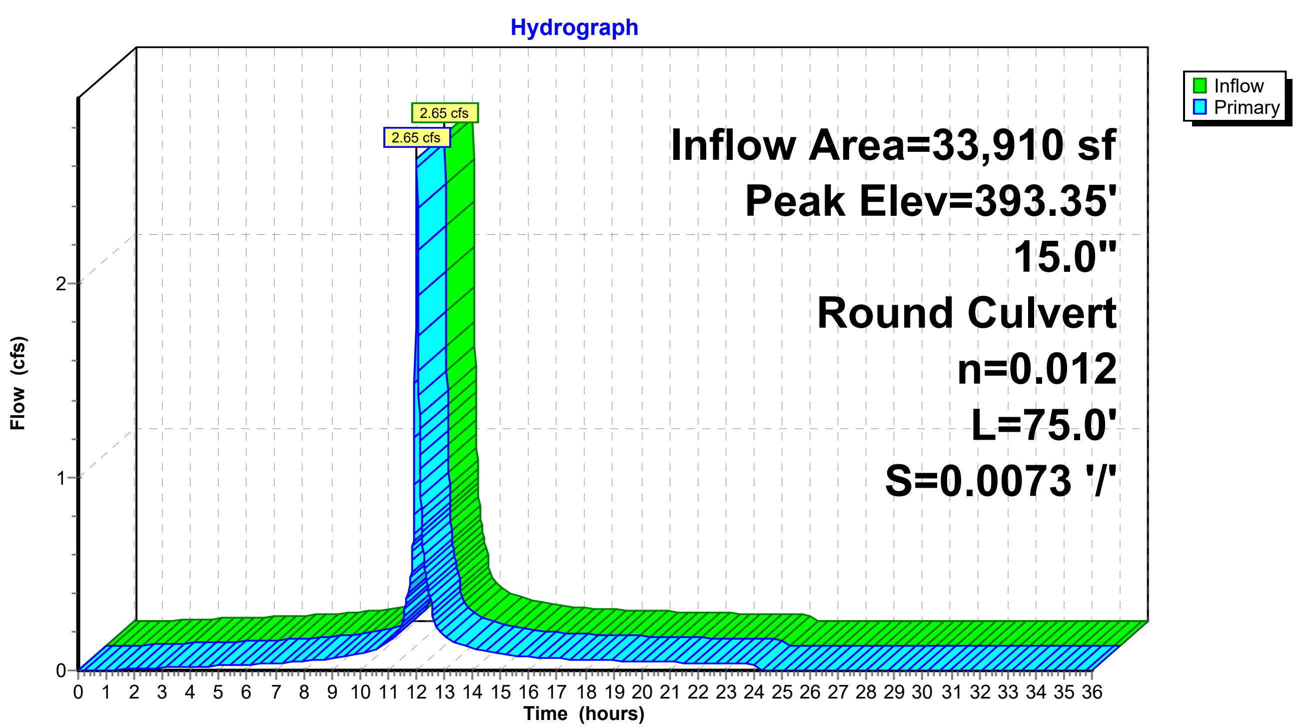
Inflow Area = 33,910 sf, 85.30% Impervious, Inflow Depth = 2.64" for 2-yr event
Inflow = 2.65 cfs @ 12.03 hrs, Volume= 7,467 cf
Outflow = 2.65 cfs @ 12.03 hrs, Volume= 7,467 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.65 cfs @ 12.03 hrs, Volume= 7,467 cf
Routed to Pond 11P : CB E

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.35' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.65'	**15.0" Round Culvert** L= 75.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.65' / 391.10' S= 0.0073 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.57 cfs @ 12.03 hrs HW=393.33' TW=393.13' (Dynamic Tailwater)
1=Culvert (Outlet Controls 2.57 cfs @ 2.09 fps)

Pond 12P: CB F



Summary for Pond 13P: CB G

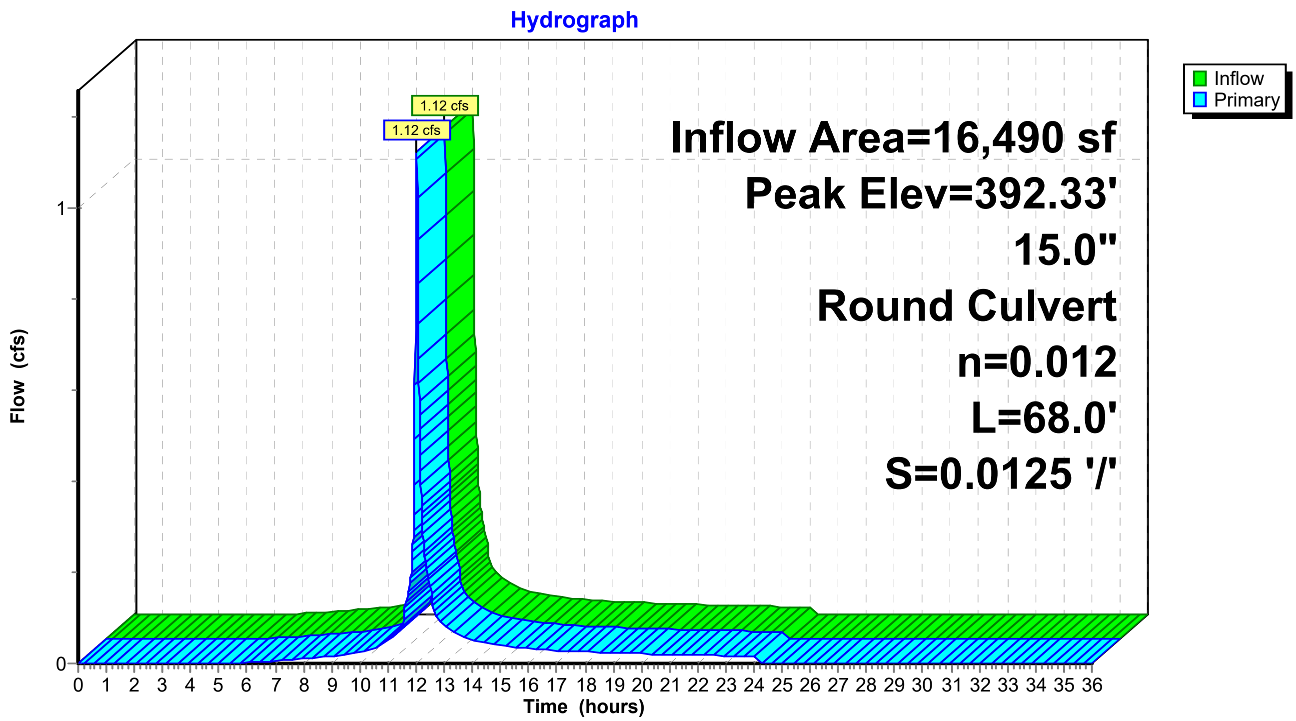
Inflow Area = 16,490 sf, 72.65% Impervious, Inflow Depth = 2.15" for 2-yr event
Inflow = 1.12 cfs @ 12.03 hrs, Volume= 2,954 cf
Outflow = 1.12 cfs @ 12.03 hrs, Volume= 2,954 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.12 cfs @ 12.03 hrs, Volume= 2,954 cf
Routed to Pond 10P : CB D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.33' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.40'	**15.0" Round Culvert** L= 68.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.40' / 390.55' S= 0.0125 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.09 cfs @ 12.03 hrs HW=392.32' TW=392.22' (Dynamic Tailwater)
1=Culvert (Outlet Controls 1.09 cfs @ 1.56 fps)

Pond 13P: CB G



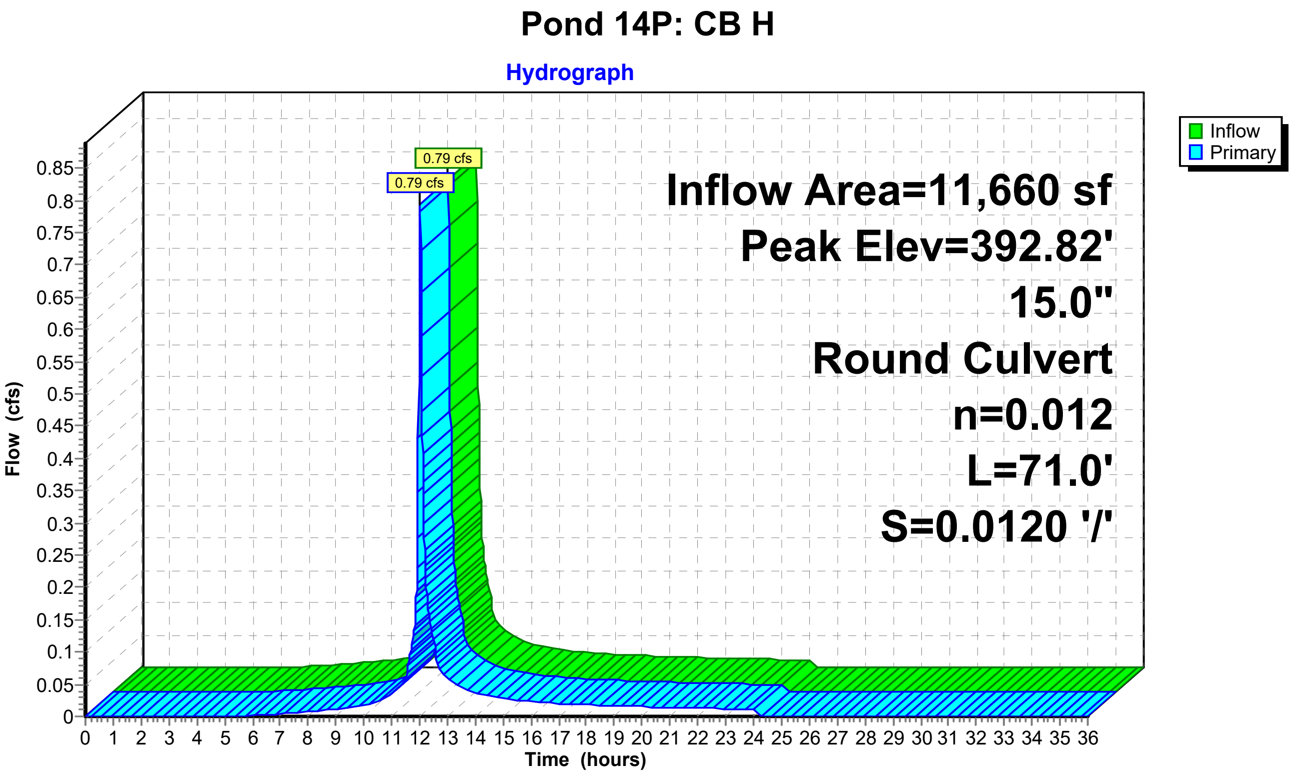
Summary for Pond 14P: CB H

Inflow Area = 11,660 sf, 72.47% Impervious, Inflow Depth = 2.15" for 2-yr event
Inflow = 0.79 cfs @ 12.03 hrs, Volume= 2,085 cf
Outflow = 0.79 cfs @ 12.03 hrs, Volume= 2,085 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.79 cfs @ 12.03 hrs, Volume= 2,085 cf
Routed to Pond 13P : CB G

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.82' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.35'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.35' / 391.50' S= 0.0120 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.79 cfs @ 12.03 hrs HW=392.82' TW=392.32' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.79 cfs @ 2.81 fps)



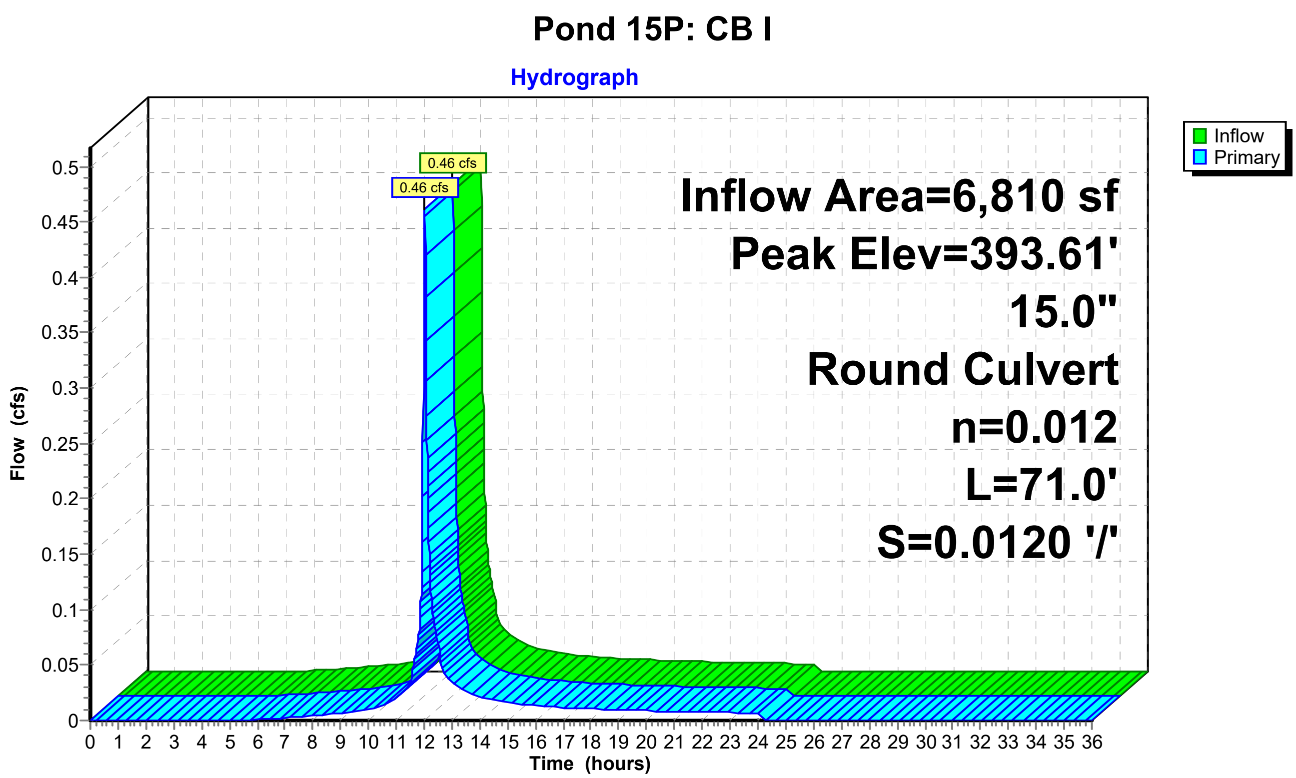
Summary for Pond 15P: CB I

Inflow Area = 6,810 sf, 71.95% Impervious, Inflow Depth = 2.14" for 2-yr event
Inflow = 0.46 cfs @ 12.03 hrs, Volume= 1,212 cf
Outflow = 0.46 cfs @ 12.03 hrs, Volume= 1,212 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.46 cfs @ 12.03 hrs, Volume= 1,212 cf
Routed to Pond 14P : CB H

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.61' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.30'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.30' / 392.45' S= 0.0120 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.46 cfs @ 12.03 hrs HW=393.61' TW=392.82' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 0.46 cfs @ 1.91 fps)



Summary for Pond 16P: CB J

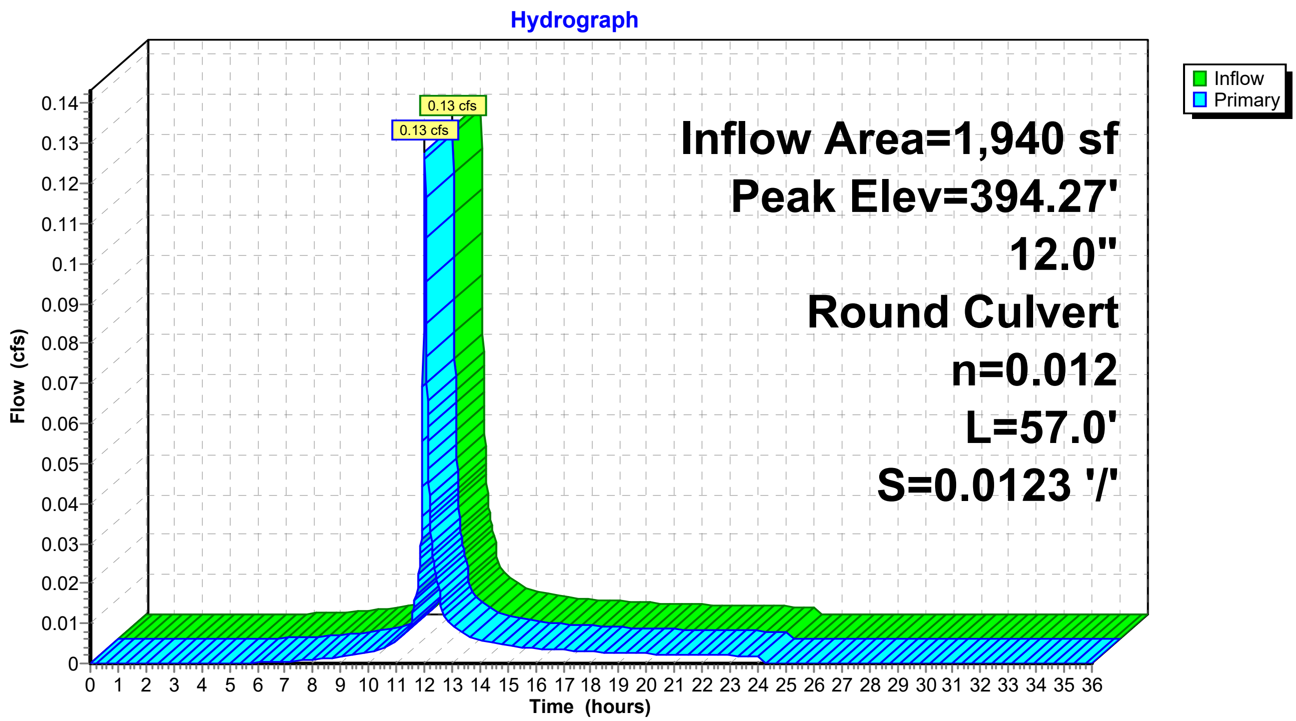
Inflow Area = 1,940 sf, 71.13% Impervious, Inflow Depth = 2.07" for 2-yr event
Inflow = 0.13 cfs @ 12.03 hrs, Volume= 335 cf
Outflow = 0.13 cfs @ 12.03 hrs, Volume= 335 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.13 cfs @ 12.03 hrs, Volume= 335 cf
Routed to Pond 15P : CB I

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.27' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.10'	**12.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.10' / 393.40' S= 0.0123 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.13 cfs @ 12.03 hrs HW=394.27' TW=393.61' (Dynamic Tailwater)
1=Culvert (Inlet Controls 0.13 cfs @ 1.41 fps)

Pond 16P: CB J



Summary for Pond 17P: CB K

[80] Warning: Exceeded Pond 18P by 0.05' @ 12.00 hrs (0.90 cfs 61 cf)

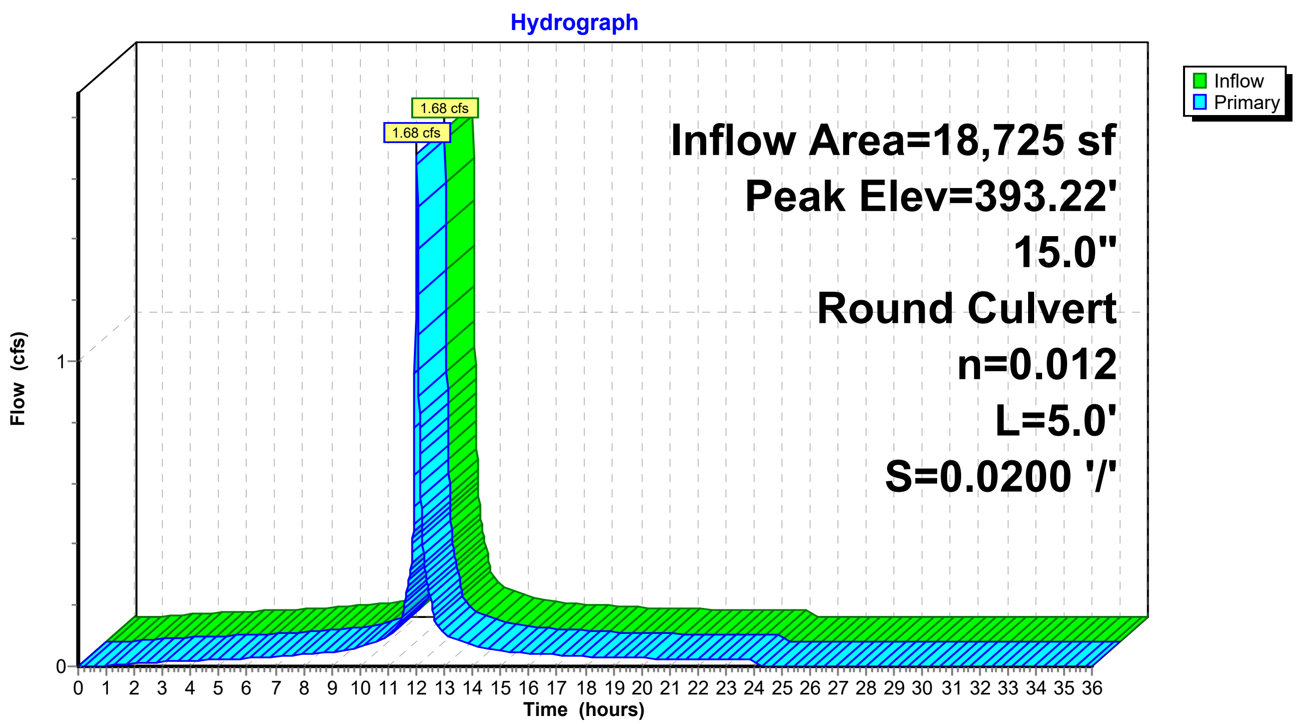
Inflow Area = 18,725 sf,100.00% Impervious, Inflow Depth = 3.15" for 2-yr event
Inflow = 1.68 cfs @ 12.03 hrs, Volume= 4,910 cf
Outflow = 1.68 cfs @ 12.03 hrs, Volume= 4,910 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.68 cfs @ 12.03 hrs, Volume= 4,910 cf
Routed to Pond 11P : CB E

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.22' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.20'	**15.0" Round Culvert** L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.20' / 391.10' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.58 cfs @ 12.03 hrs HW=393.20' TW=393.13' (Dynamic Tailwater)
1=Culvert (Inlet Controls 1.58 cfs @ 1.29 fps)

Pond 17P: CB K



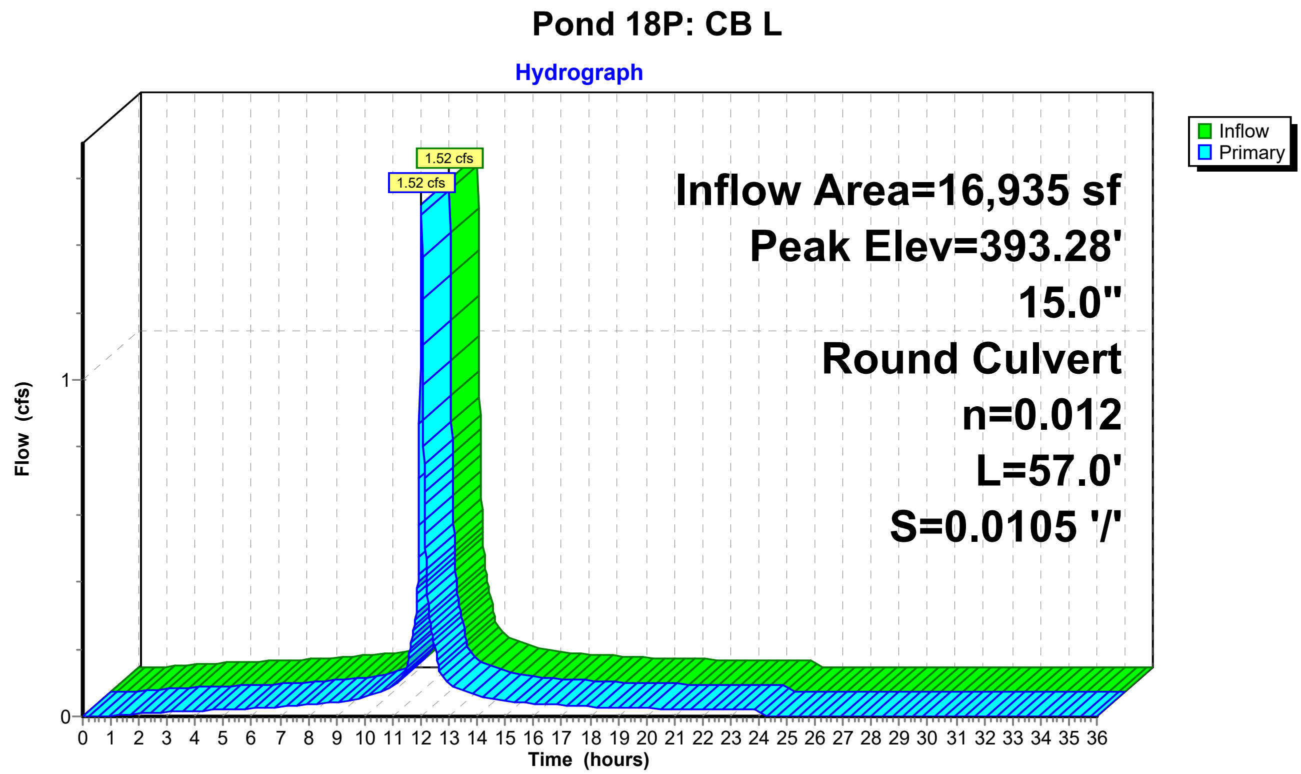
Summary for Pond 18P: CB L

Inflow Area = 16,935 sf,100.00% Impervious, Inflow Depth = 3.15" for 2-yr event
Inflow = 1.52 cfs @ 12.03 hrs, Volume= 4,441 cf
Outflow = 1.52 cfs @ 12.03 hrs, Volume= 4,441 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.52 cfs @ 12.03 hrs, Volume= 4,441 cf
Routed to Pond 17P : CB K

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.28' @ 12.04 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.85'	**15.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.85' / 391.25' S= 0.0105 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.89 cfs @ 12.03 hrs HW=393.22' TW=393.20' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.89 cfs @ 0.83 fps)



Summary for Pond 19P: CB M

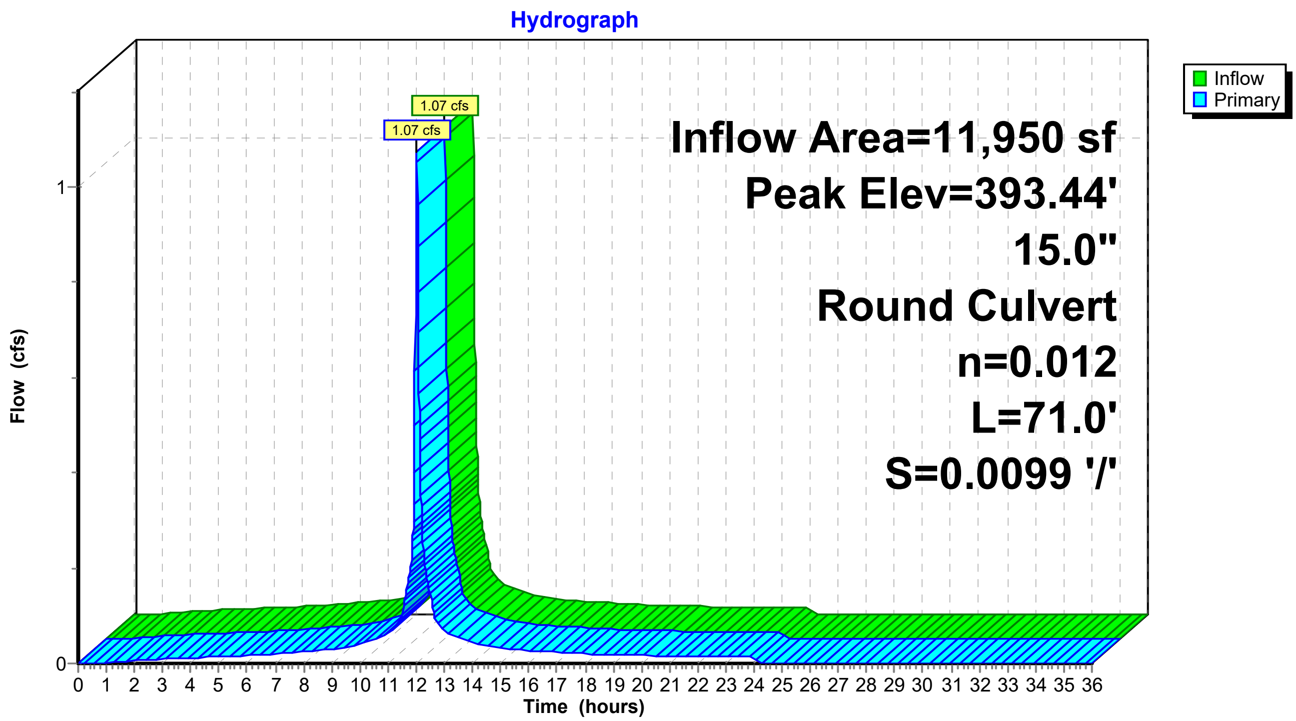
Inflow Area = 11,950 sf,100.00% Impervious, Inflow Depth = 3.15" for 2-yr event
Inflow = 1.07 cfs @ 12.03 hrs, Volume= 3,134 cf
Outflow = 1.07 cfs @ 12.03 hrs, Volume= 3,134 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.07 cfs @ 12.03 hrs, Volume= 3,134 cf
Routed to Pond 18P : CB L

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.44' @ 12.04 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.65'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.65' / 391.95' S= 0.0099 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.01 cfs @ 12.03 hrs HW=393.40' TW=393.22' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 1.01 cfs @ 1.91 fps)

Pond 19P: CB M



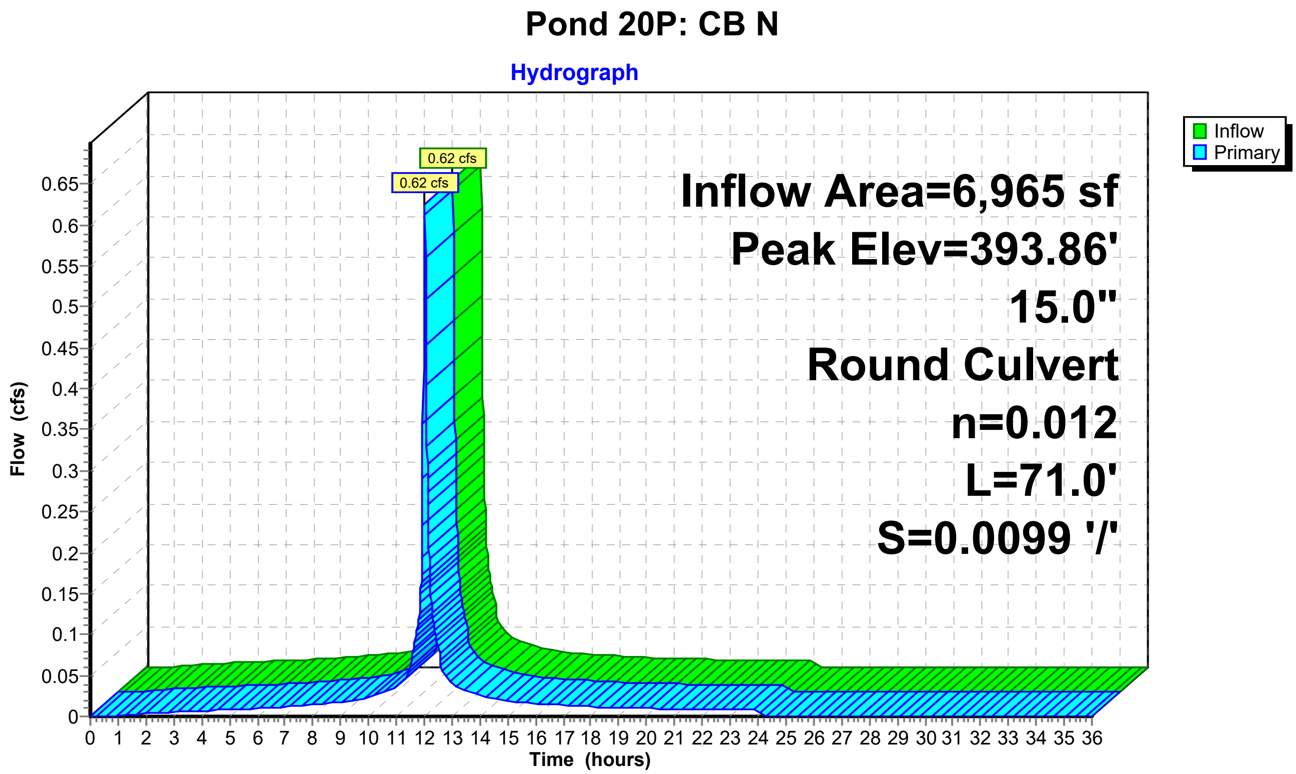
Summary for Pond 20P: CB N

Inflow Area = 6,965 sf,100.00% Impervious, Inflow Depth = 3.15" for 2-yr event
Inflow = 0.62 cfs @ 12.03 hrs, Volume= 1,826 cf
Outflow = 0.62 cfs @ 12.03 hrs, Volume= 1,826 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.62 cfs @ 12.03 hrs, Volume= 1,826 cf
Routed to Pond 19P : CB M

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.86' @ 12.04 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.45'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.45' / 392.75' S= 0.0099 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.59 cfs @ 12.03 hrs HW=393.86' TW=393.40' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 0.59 cfs @ 2.58 fps)



Summary for Pond 21P: CB O

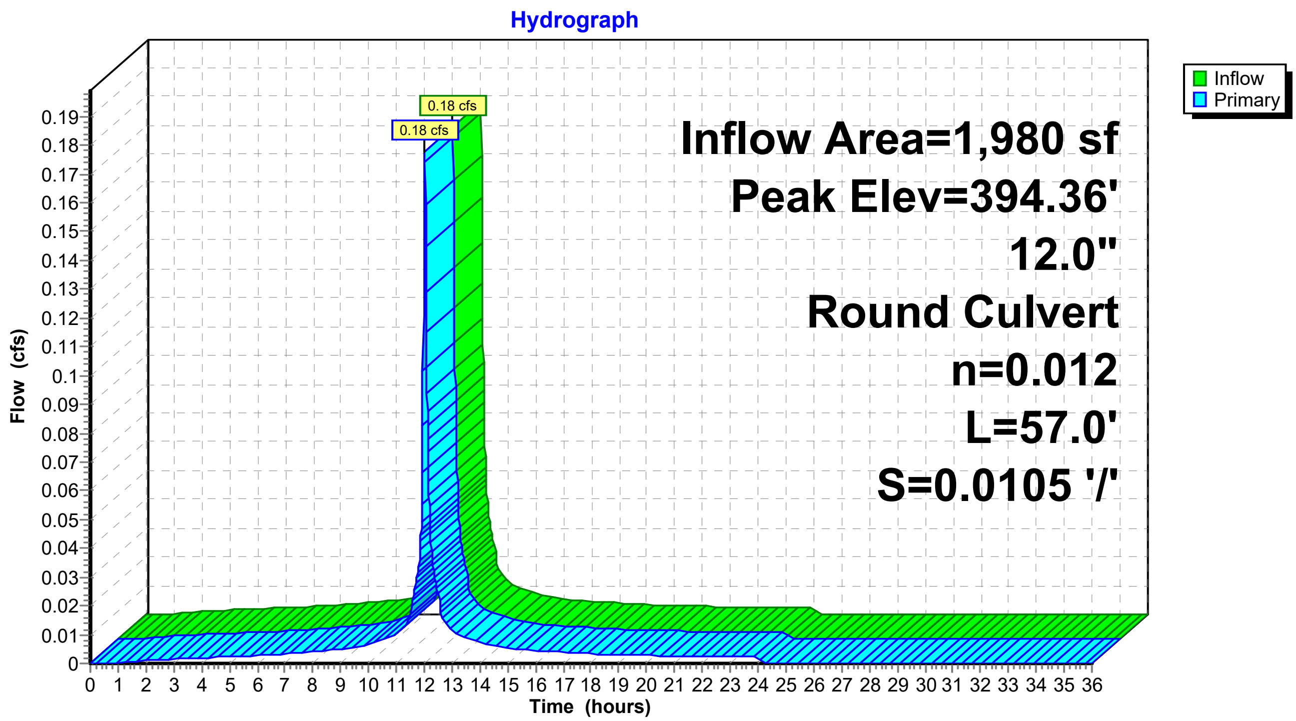
Inflow Area = 1,980 sf,100.00% Impervious, Inflow Depth = 3.15" for 2-yr event
Inflow = 0.18 cfs @ 12.03 hrs, Volume= 519 cf
Outflow = 0.18 cfs @ 12.03 hrs, Volume= 519 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.18 cfs @ 12.03 hrs, Volume= 519 cf
Routed to Pond 20P : CB N

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.36' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.15'	**12.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.15' / 393.55' S= 0.0105 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.18 cfs @ 12.03 hrs HW=394.36' TW=393.86' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 0.18 cfs @ 2.19 fps)

Pond 21P: CB O



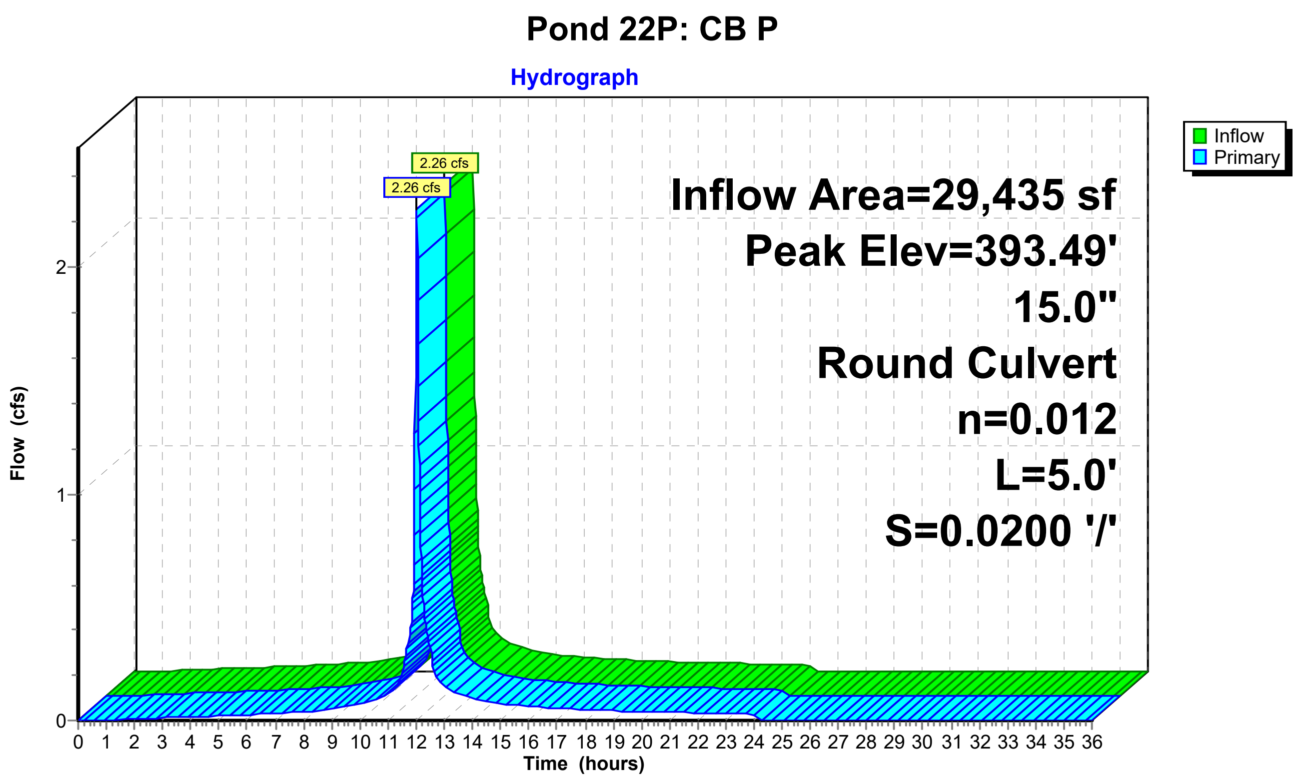
Summary for Pond 22P: CB P

Inflow Area = 29,435 sf, 83.95% Impervious, Inflow Depth = 2.60" for 2-yr event
Inflow = 2.26 cfs @ 12.03 hrs, Volume= 6,375 cf
Outflow = 2.26 cfs @ 12.03 hrs, Volume= 6,375 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.26 cfs @ 12.03 hrs, Volume= 6,375 cf
Routed to Pond 12P : CB F

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.49' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.80'	**15.0" Round Culvert** L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.80' / 391.70' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.88 cfs @ 12.03 hrs HW=393.43' TW=393.33' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 1.88 cfs @ 1.54 fps)



Summary for Pond 23P: CB Q

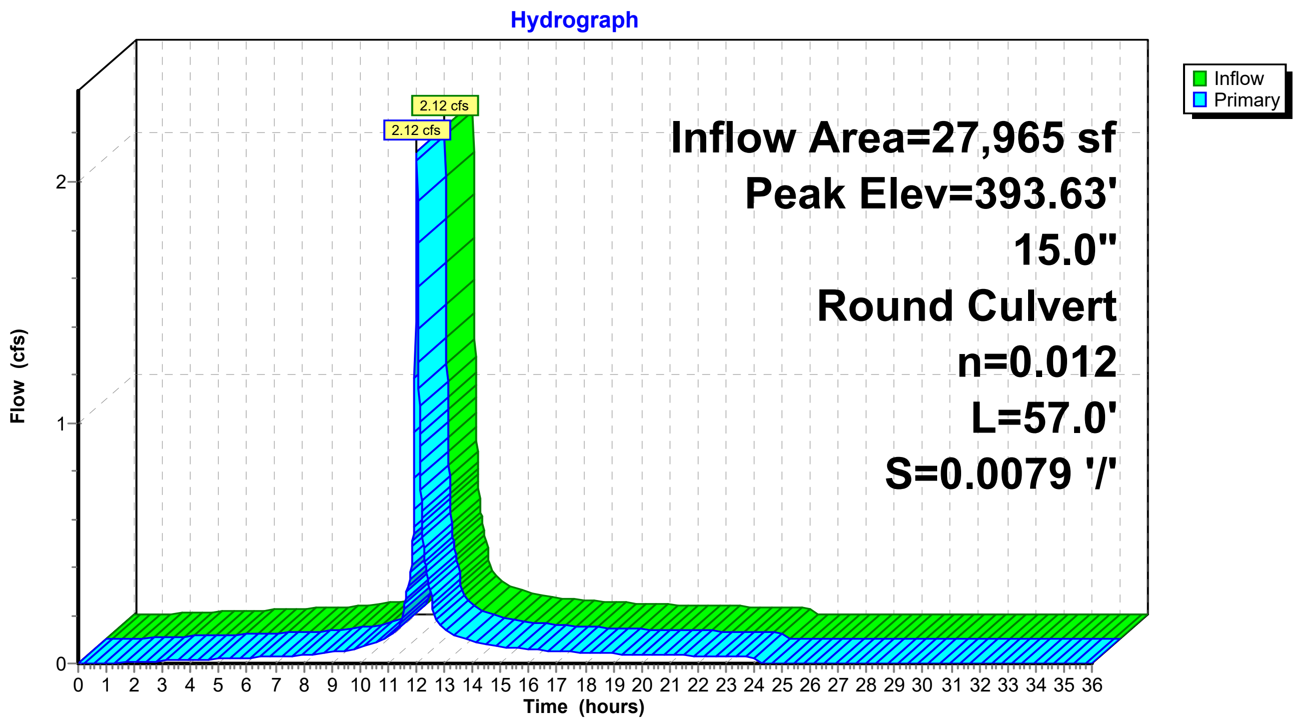
Inflow Area = 27,965 sf, 83.10% Impervious, Inflow Depth = 2.57" for 2-yr event
Inflow = 2.12 cfs @ 12.03 hrs, Volume= 5,990 cf
Outflow = 2.12 cfs @ 12.03 hrs, Volume= 5,990 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.12 cfs @ 12.03 hrs, Volume= 5,990 cf
Routed to Pond 22P : CB P

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.63' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.30'	**15.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.30' / 391.85' S= 0.0079 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.93 cfs @ 12.03 hrs HW=393.57' TW=393.43' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 1.93 cfs @ 1.92 fps)

Pond 23P: CB Q



Summary for Pond 24P: CB R

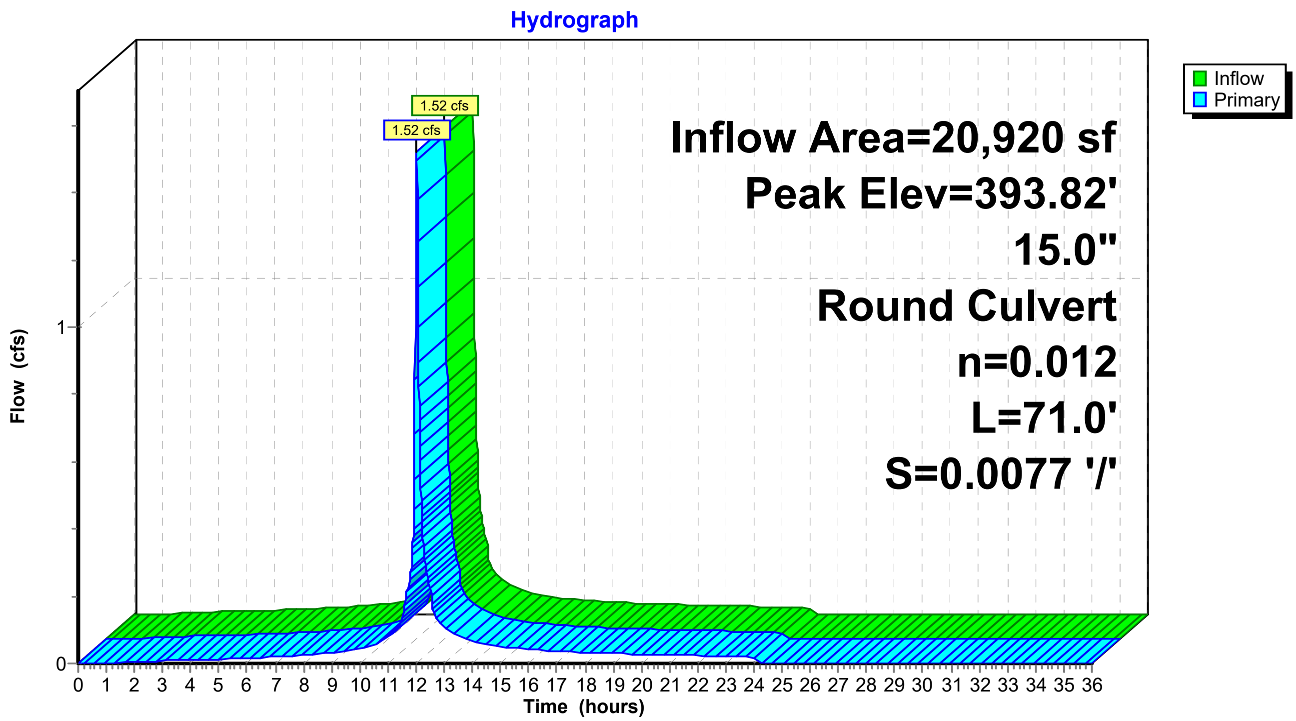
Inflow Area = 20,920 sf, 79.28% Impervious, Inflow Depth = 2.45" for 2-yr event
Inflow = 1.52 cfs @ 12.03 hrs, Volume= 4,272 cf
Outflow = 1.52 cfs @ 12.03 hrs, Volume= 4,272 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.52 cfs @ 12.03 hrs, Volume= 4,272 cf
Routed to Pond 23P : CB Q

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.82' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.90'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.90' / 392.35' S= 0.0077 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.30 cfs @ 12.03 hrs HW=393.76' TW=393.57' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 1.30 cfs @ 2.04 fps)

Pond 24P: CB R



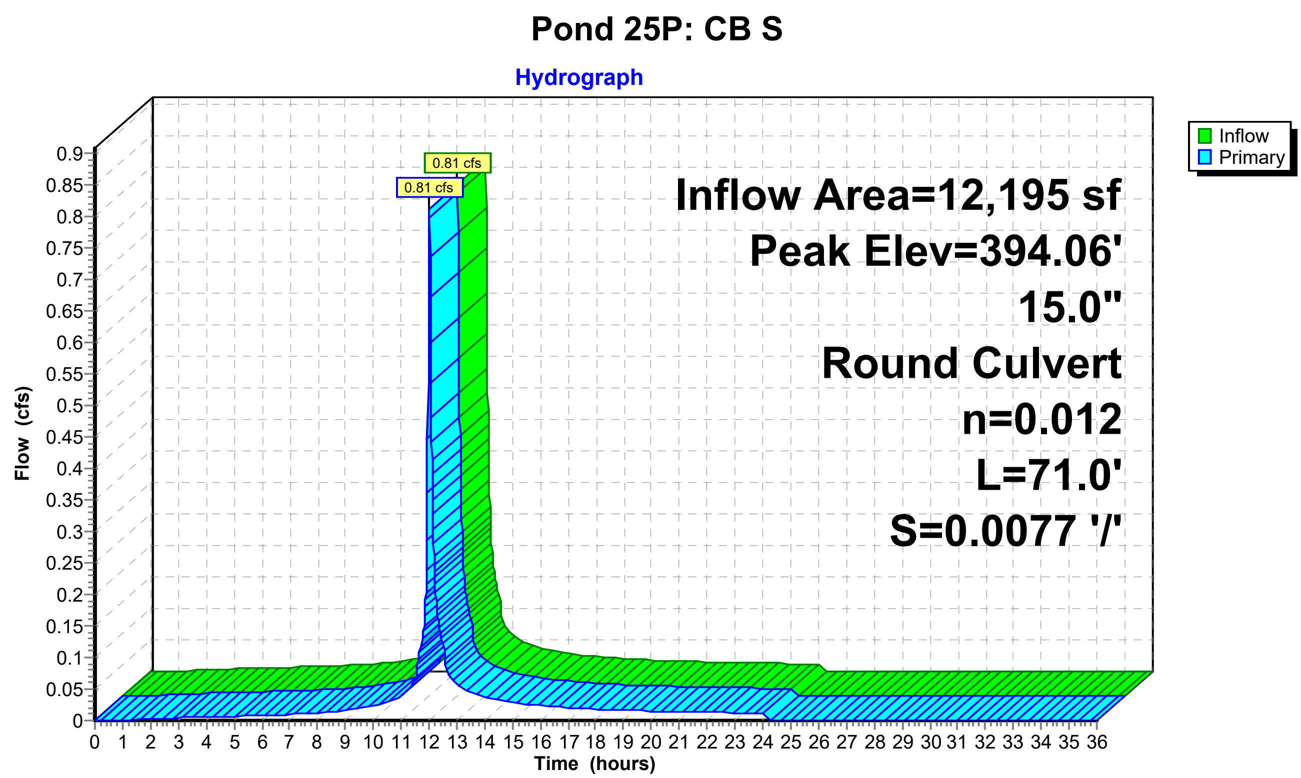
Summary for Pond 25P: CB S

Inflow Area = 12,195 sf, 72.82% Impervious, Inflow Depth = 2.26" for 2-yr event
Inflow = 0.81 cfs @ 12.03 hrs, Volume= 2,296 cf
Outflow = 0.81 cfs @ 12.03 hrs, Volume= 2,296 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.81 cfs @ 12.03 hrs, Volume= 2,296 cf
Routed to Pond 24P : CB R

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.06' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.50'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.50' / 392.95' S= 0.0077 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.79 cfs @ 12.03 hrs HW=394.05' TW=393.76' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.79 cfs @ 2.25 fps)



Summary for Pond 26P: CB T

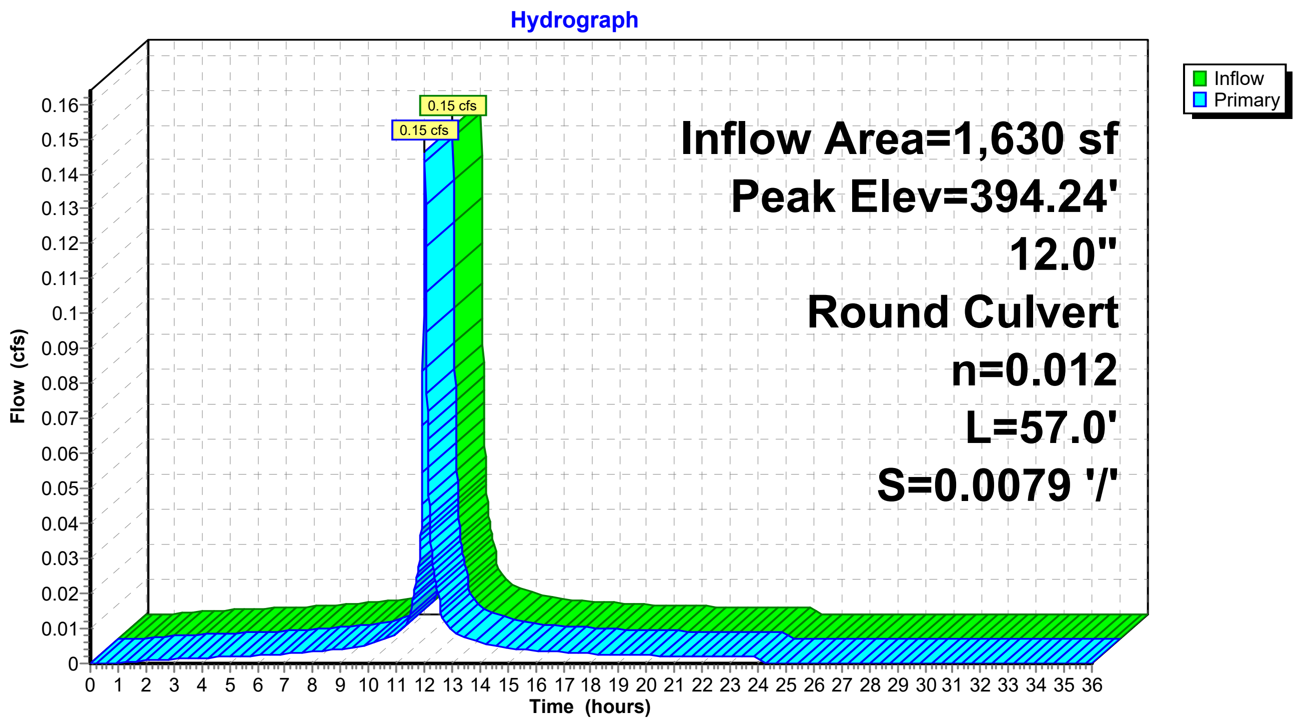
Inflow Area = 1,630 sf,100.00% Impervious, Inflow Depth = 3.15" for 2-yr event
Inflow = 0.15 cfs @ 12.03 hrs, Volume= 427 cf
Outflow = 0.15 cfs @ 12.03 hrs, Volume= 427 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.15 cfs @ 12.03 hrs, Volume= 427 cf
Routed to Pond 25P : CB S

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.24' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.00'	**12.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.00' / 393.55' S= 0.0079 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.14 cfs @ 12.03 hrs HW=394.24' TW=394.04' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.14 cfs @ 1.45 fps)

Pond 26P: CB T



Summary for Pond 27P: CB U

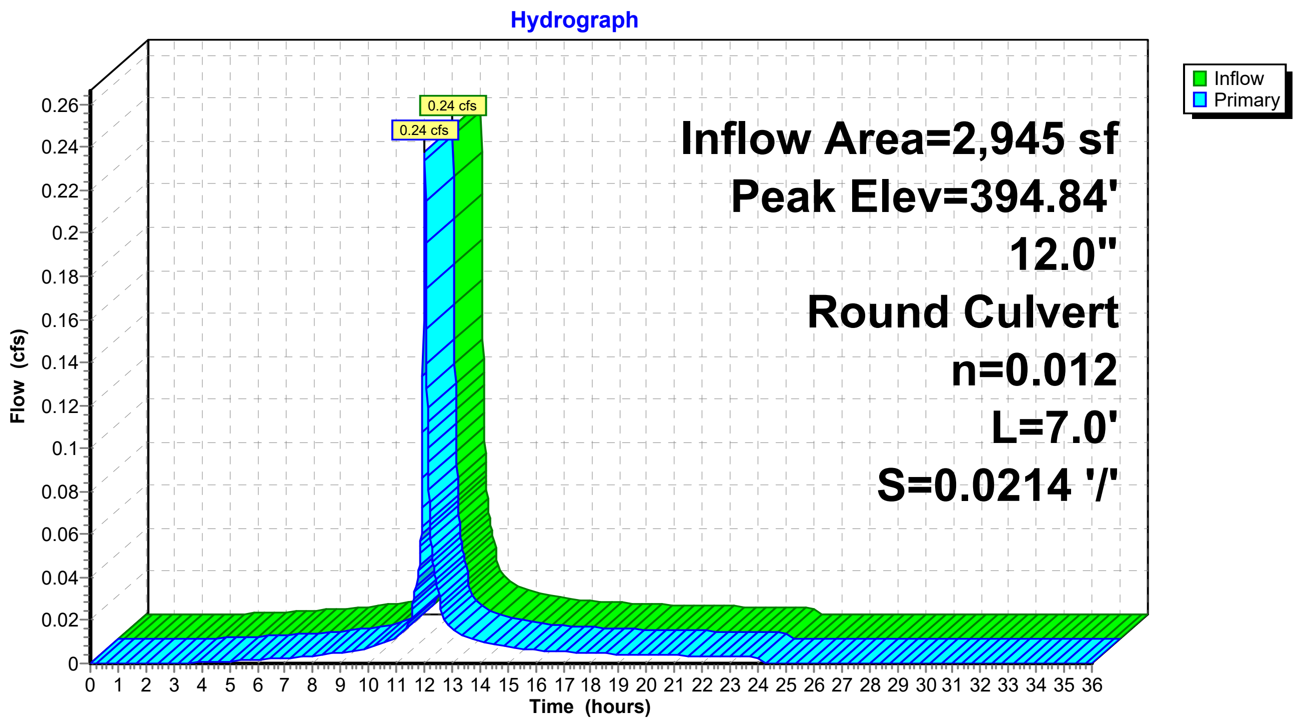
Inflow Area = 2,945 sf, 86.76% Impervious, Inflow Depth = 2.62" for 2-yr event
Inflow = 0.24 cfs @ 12.03 hrs, Volume= 643 cf
Outflow = 0.24 cfs @ 12.03 hrs, Volume= 643 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.24 cfs @ 12.03 hrs, Volume= 643 cf
Routed to Pond 23P : CB Q

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.84' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.60'	**12.0" Round Culvert** L= 7.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.60' / 394.45' S= 0.0214 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.24 cfs @ 12.03 hrs HW=394.84' TW=393.57' (Dynamic Tailwater)
1=Culvert (Inlet Controls 0.24 cfs @ 1.66 fps)

Pond 27P: CB U



Summary for Pond 28P: CB V

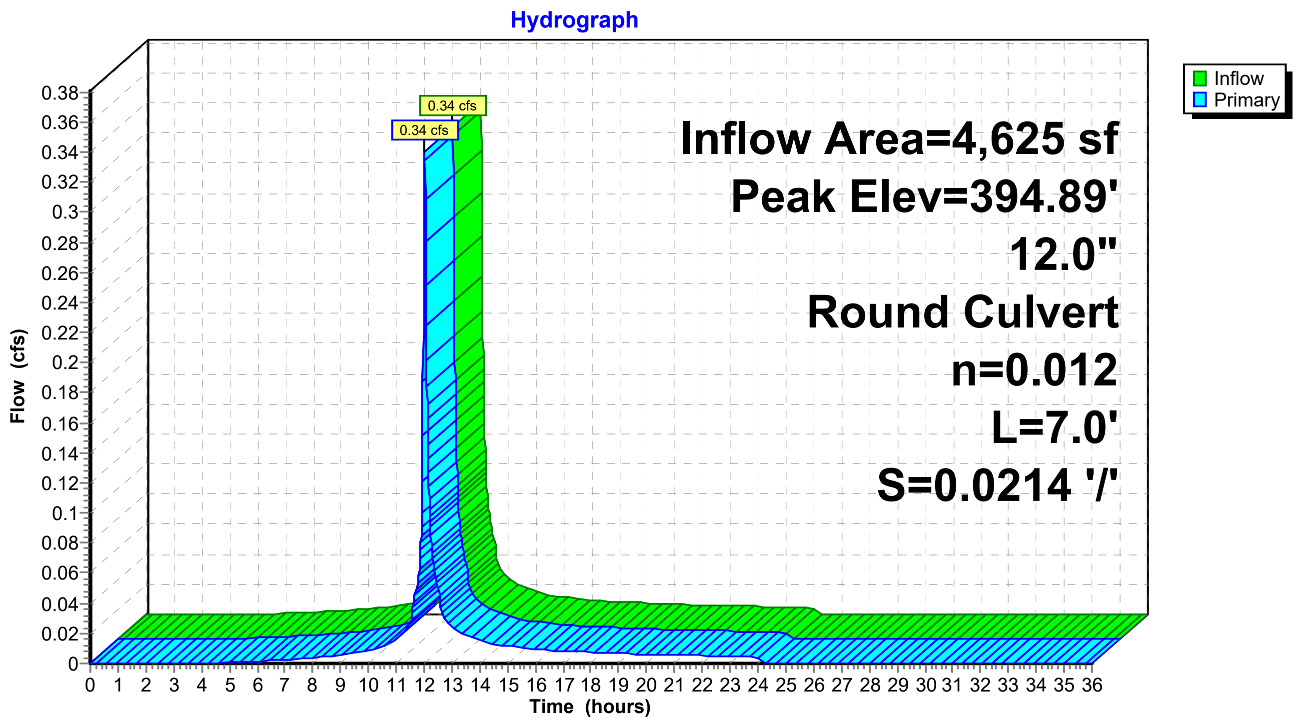
Inflow Area = 4,625 sf, 77.95% Impervious, Inflow Depth = 2.34" for 2-yr event
Inflow = 0.34 cfs @ 12.03 hrs, Volume= 900 cf
Outflow = 0.34 cfs @ 12.03 hrs, Volume= 900 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.34 cfs @ 12.03 hrs, Volume= 900 cf
Routed to Pond 24P : CB R

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.89' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.60'	**12.0" Round Culvert** L= 7.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.60' / 394.45' S= 0.0214 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.34 cfs @ 12.03 hrs HW=394.89' TW=393.76' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 0.34 cfs @ 2.71 fps)

Pond 28P: CB V



Summary for Pond 29P: CB W

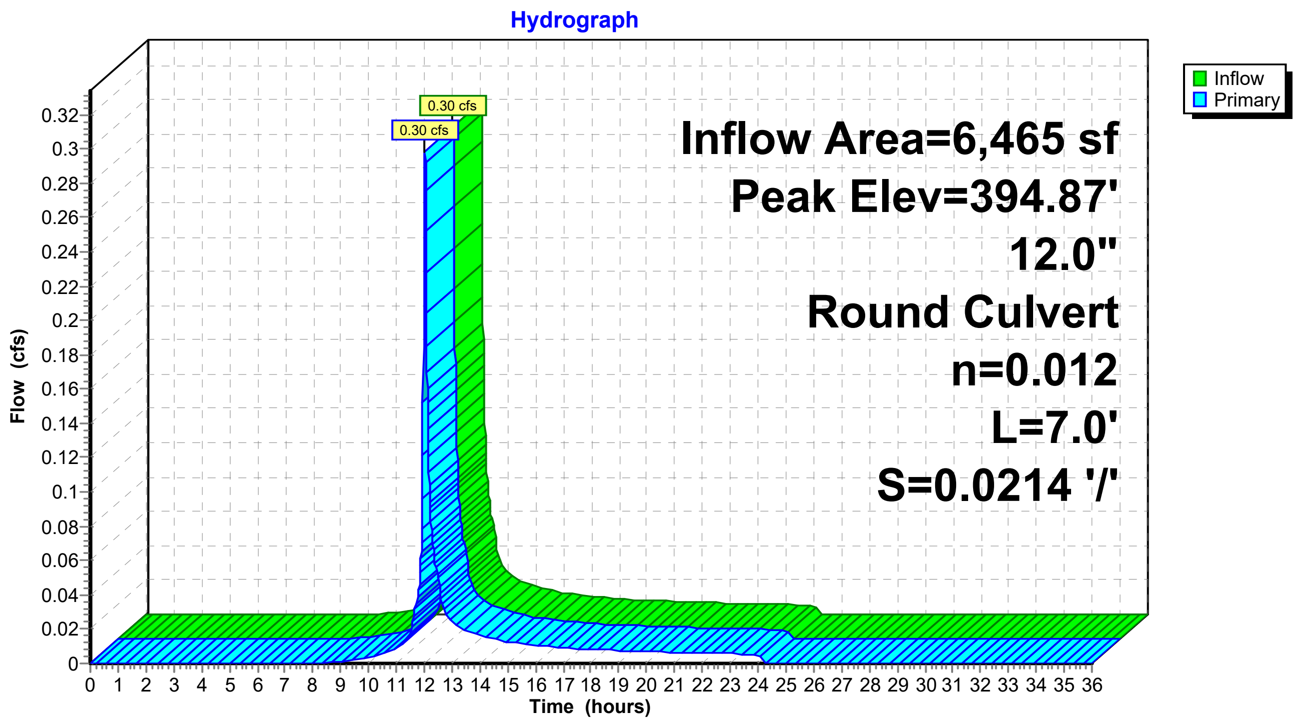
Inflow Area = 6,465 sf, 48.72% Impervious, Inflow Depth = 1.47" for 2-yr event
Inflow = 0.30 cfs @ 12.03 hrs, Volume= 794 cf
Outflow = 0.30 cfs @ 12.03 hrs, Volume= 794 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.30 cfs @ 12.03 hrs, Volume= 794 cf
Routed to Pond 25P : CB S

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.87' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.60'	**12.0" Round Culvert** L= 7.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.60' / 394.45' S= 0.0214 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.30 cfs @ 12.03 hrs HW=394.87' TW=394.05' (Dynamic Tailwater)
1=Culvert (Barrel Controls 0.30 cfs @ 2.65 fps)

Pond 29P: CB W



Summary for Pond 31P: Vortech Unit

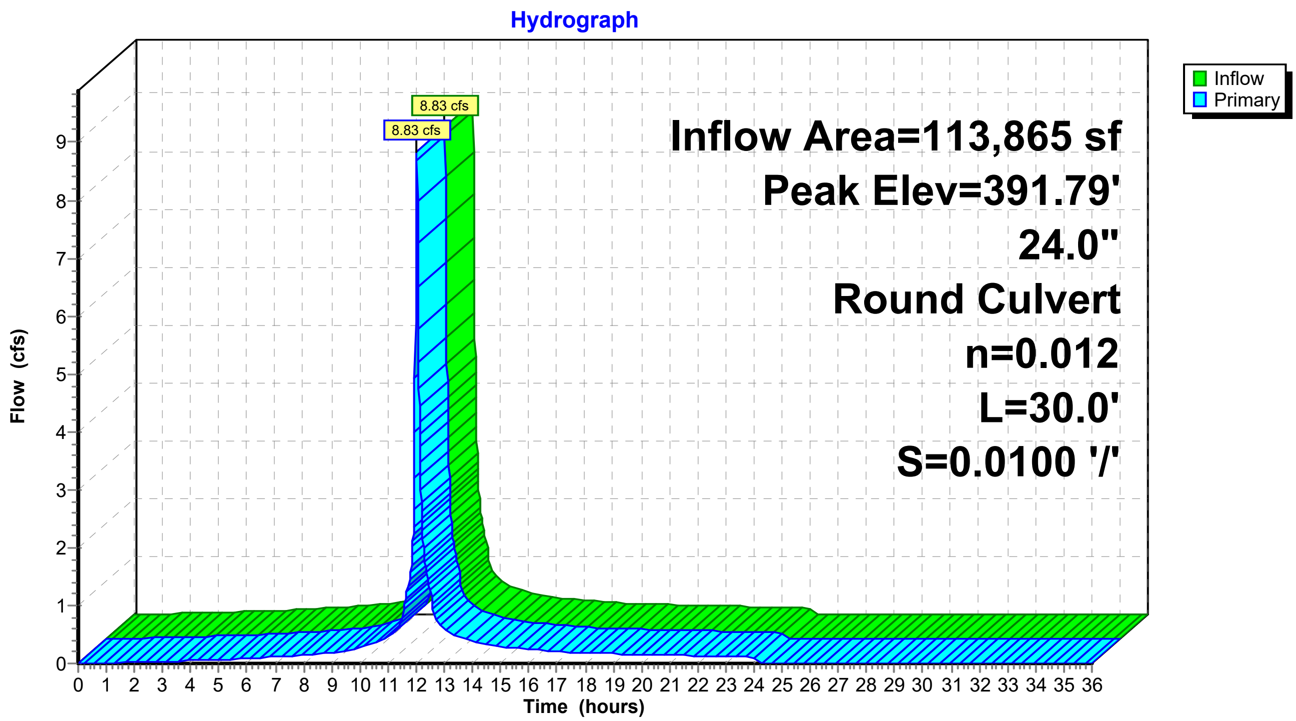
Inflow Area = 113,865 sf, 84.57% Impervious, Inflow Depth = 2.59" for 2-yr event
Inflow = 8.83 cfs @ 12.03 hrs, Volume= 24,621 cf
Outflow = 8.83 cfs @ 12.03 hrs, Volume= 24,621 cf, Atten= 0%, Lag= 0.0 min
Primary = 8.83 cfs @ 12.03 hrs, Volume= 24,621 cf
Routed to Link 1L : Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 391.79' @ 12.03 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.30'	**24.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.30' / 390.00' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=8.80 cfs @ 12.03 hrs HW=391.78' TW=0.00' (Dynamic Tailwater)
1=Culvert (Barrel Controls 8.80 cfs @ 4.91 fps)

Pond 31P: Vortech Unit



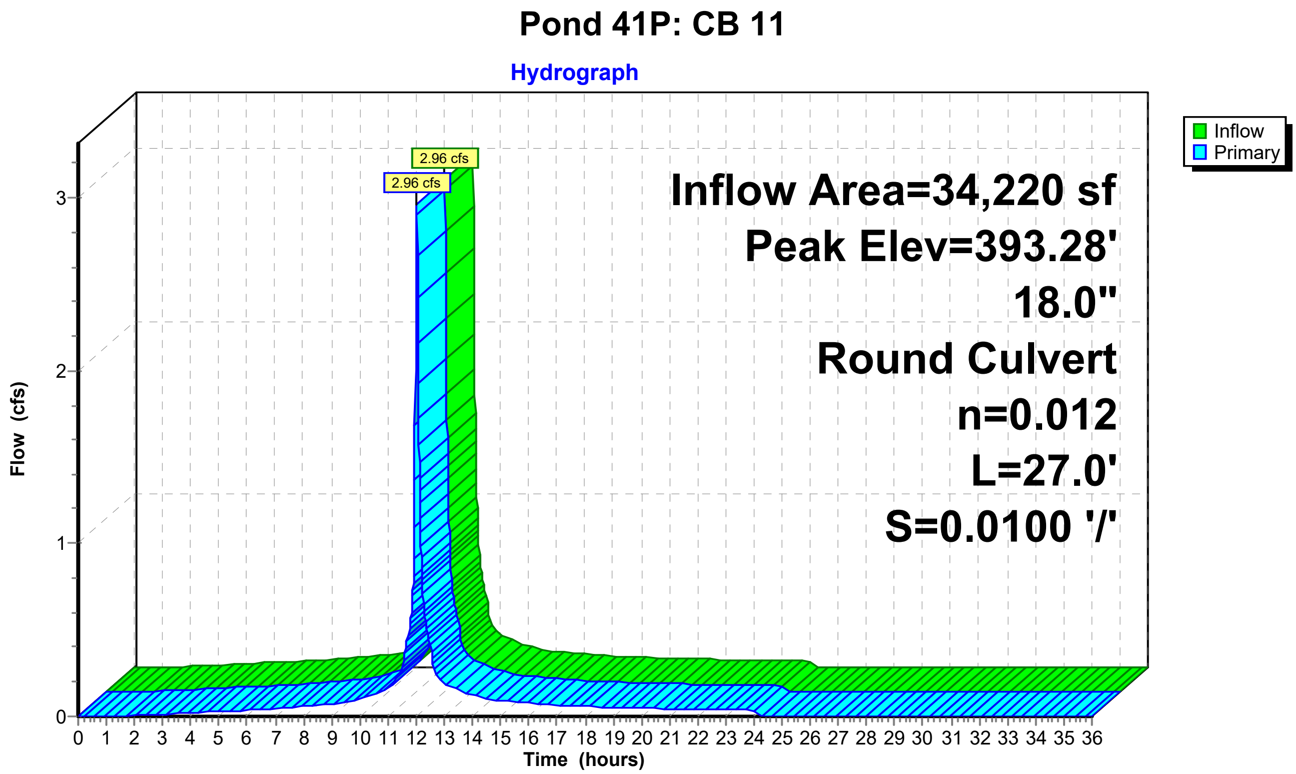
Summary for Pond 41P: CB 11

Inflow Area = 34,220 sf, 94.21% Impervious, Inflow Depth = 2.93" for 2-yr event
Inflow = 2.96 cfs @ 12.03 hrs, Volume= 8,342 cf
Outflow = 2.96 cfs @ 12.03 hrs, Volume= 8,342 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.96 cfs @ 12.03 hrs, Volume= 8,342 cf
Routed to Pond 53P : DMH D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.28' @ 12.03 hrs
Flood Elev= 396.37'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.07'	**18.0" Round Culvert** L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.07' / 391.80' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=2.84 cfs @ 12.03 hrs HW=393.28' TW=393.09' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 2.84 cfs @ 2.55 fps)



Summary for Pond 42P: CB 12

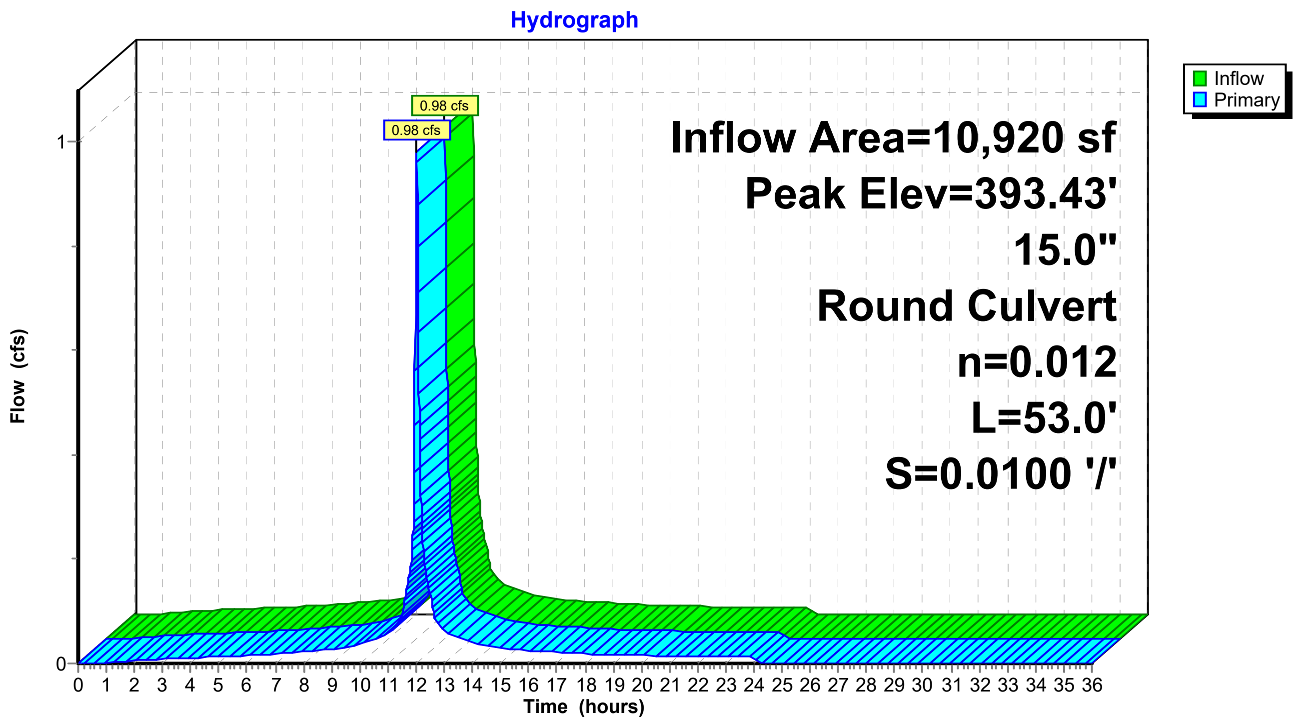
Inflow Area = 10,920 sf,100.00% Impervious, Inflow Depth = 3.15" for 2-yr event
Inflow = 0.98 cfs @ 12.03 hrs, Volume= 2,864 cf
Outflow = 0.98 cfs @ 12.03 hrs, Volume= 2,864 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.98 cfs @ 12.03 hrs, Volume= 2,864 cf
Routed to Pond 41P : CB 11

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.43' @ 12.03 hrs
Flood Elev= 396.36'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.70'	**15.0" Round Culvert** L= 53.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.70' / 392.17' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.95 cfs @ 12.03 hrs HW=393.42' TW=393.28' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.95 cfs @ 1.87 fps)

Pond 42P: CB 12



Summary for Pond 44P: CB

Inflow Area =	15,040 sf,	92.69% Impervious,	Inflow Depth = 2.82"	for 2-yr event
Inflow =	1.28 cfs @	12.03 hrs, Volume=	3,536 cf	
Outflow =	1.28 cfs @	12.03 hrs, Volume=	3,536 cf,	Atten= 0%, Lag= 0.0 min
Primary =	1.28 cfs @	12.03 hrs, Volume=	3,536 cf	

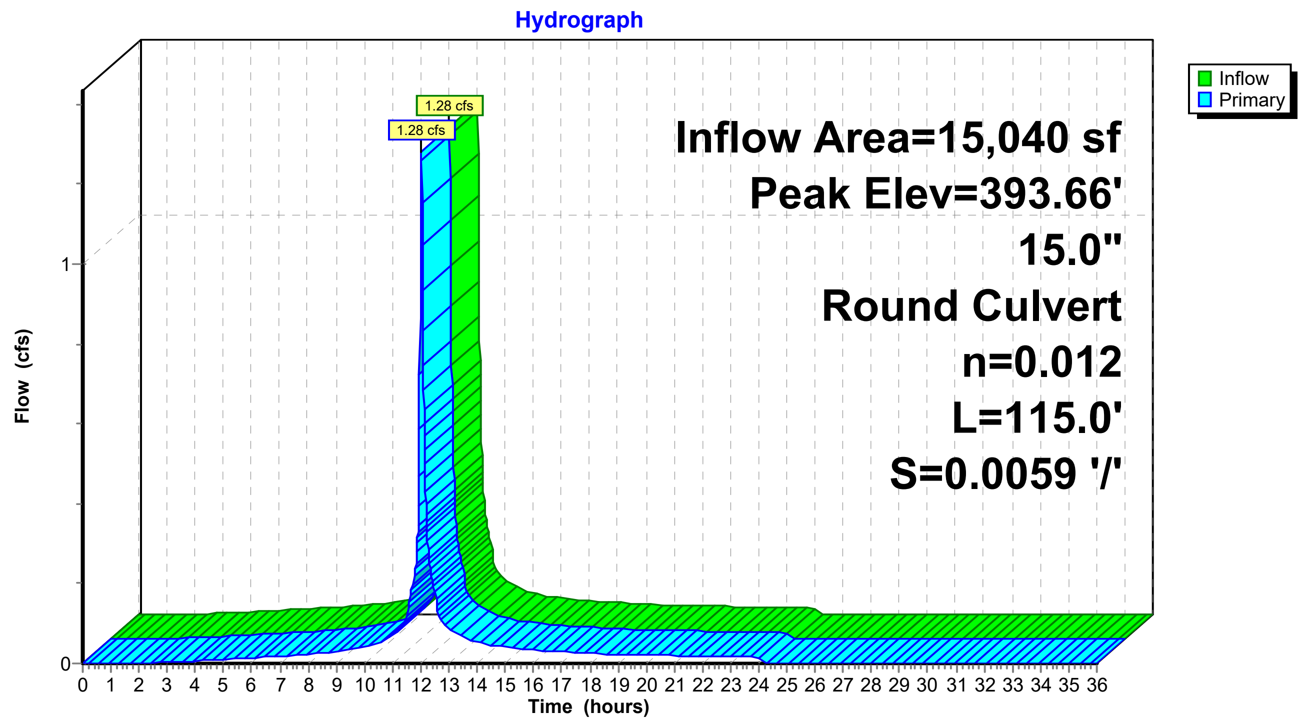
Routed to Pond 52P : DMH C

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.66' @ 12.03 hrs
Flood Elev= 398.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.58'	**15.0" Round Culvert** L= 115.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.58' / 391.90' S= 0.0059 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.19 cfs @ 12.03 hrs HW=393.65' TW=393.54' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 1.19 cfs @ 1.43 fps)

Pond 44P: CB



Summary for Pond 45P: CB

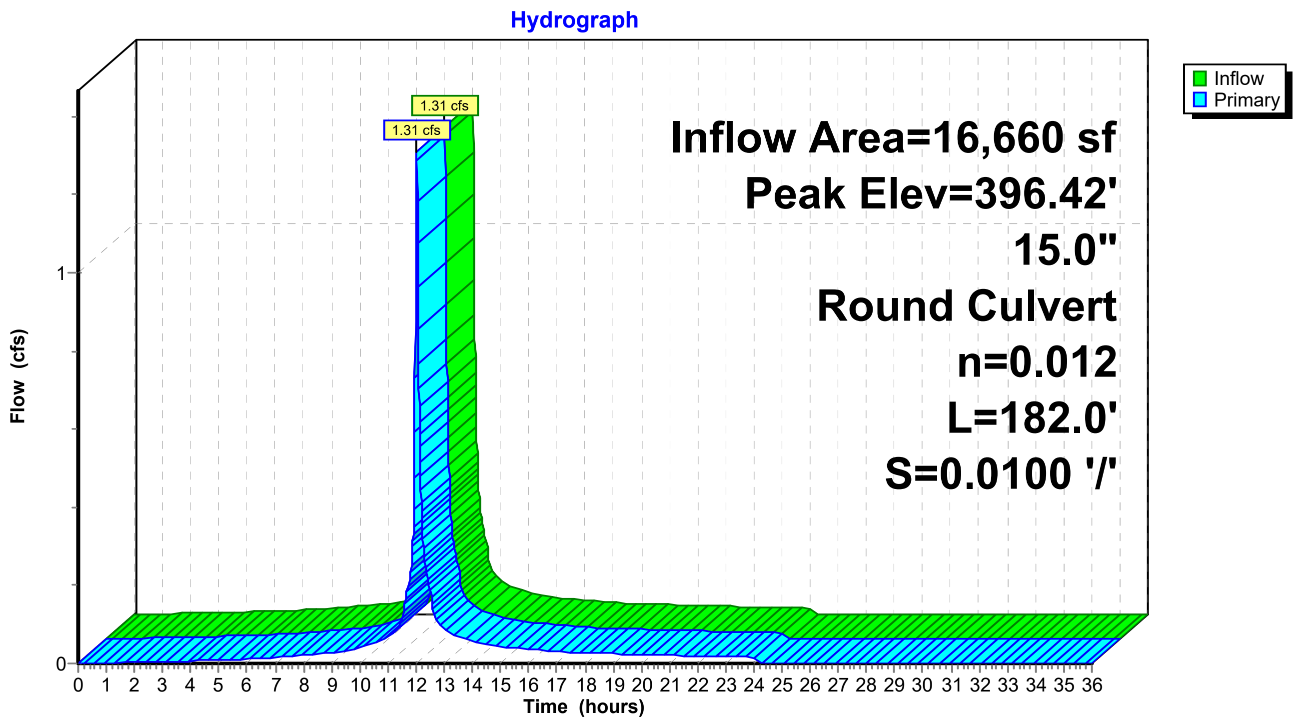
Inflow Area = 16,660 sf, 86.04% Impervious, Inflow Depth = 2.60" for 2-yr event
Inflow = 1.31 cfs @ 12.03 hrs, Volume= 3,615 cf
Outflow = 1.31 cfs @ 12.03 hrs, Volume= 3,615 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.31 cfs @ 12.03 hrs, Volume= 3,615 cf
Routed to Pond 50P : DMH A

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.42' @ 12.03 hrs
Flood Elev= 399.89'

Device	Routing	Invert	Outlet Devices
#1	Primary	395.87'	**15.0" Round Culvert** L= 182.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 395.87' / 394.05' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.30 cfs @ 12.03 hrs HW=396.42' TW=394.64' (Dynamic Tailwater)
1=Culvert (Inlet Controls 1.30 cfs @ 2.52 fps)

Pond 45P: CB



Summary for Pond 50P: DMH A

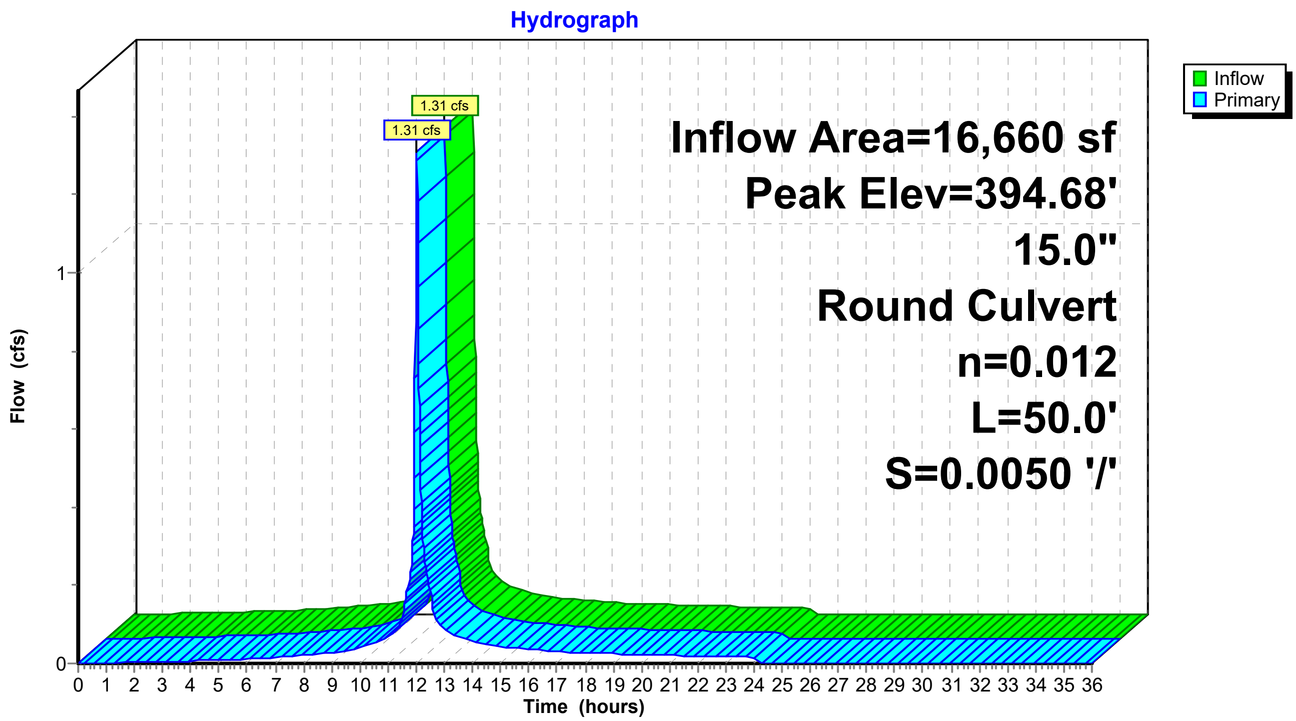
Inflow Area = 16,660 sf, 86.04% Impervious, Inflow Depth = 2.60" for 2-yr event
Inflow = 1.31 cfs @ 12.03 hrs, Volume= 3,615 cf
Outflow = 1.31 cfs @ 12.03 hrs, Volume= 3,615 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.31 cfs @ 12.03 hrs, Volume= 3,615 cf
Routed to Pond 51P : DMH B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.68' @ 12.04 hrs
Flood Elev= 398.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.50'	**15.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.50' / 393.25' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.11 cfs @ 12.03 hrs HW=394.64' TW=394.59' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 1.11 cfs @ 1.23 fps)

Pond 50P: DMH A



Summary for Pond 51P: DMH B

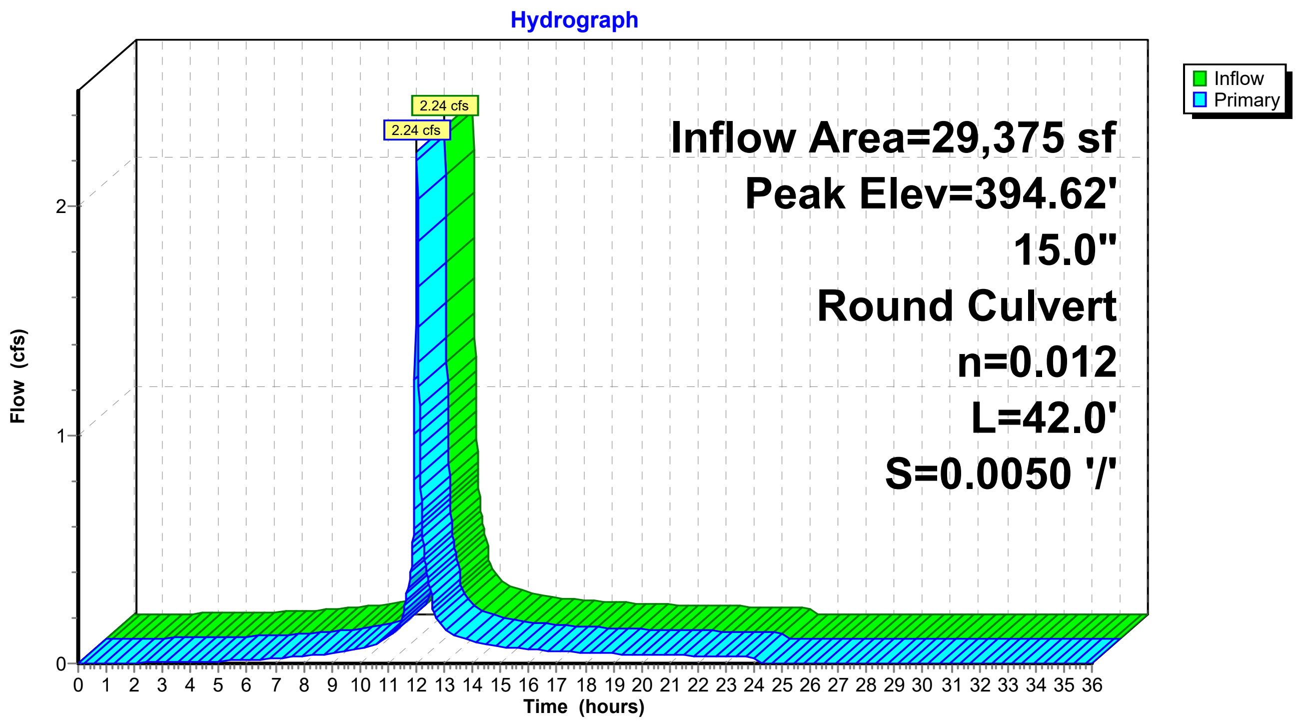
Inflow Area = 29,375 sf, 82.50% Impervious, Inflow Depth = 2.49" for 2-yr event
Inflow = 2.24 cfs @ 12.03 hrs, Volume= 6,090 cf
Outflow = 2.24 cfs @ 12.03 hrs, Volume= 6,090 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.24 cfs @ 12.03 hrs, Volume= 6,090 cf
Routed to Pond 2P : CB 2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.62' @ 12.04 hrs
Flood Elev= 398.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.15'	**15.0" Round Culvert** L= 42.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.15' / 392.94' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.04 cfs @ 12.03 hrs HW=394.59' TW=394.47' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 2.04 cfs @ 1.66 fps)

Pond 51P: DMH B



Summary for Pond 52P: DMH C

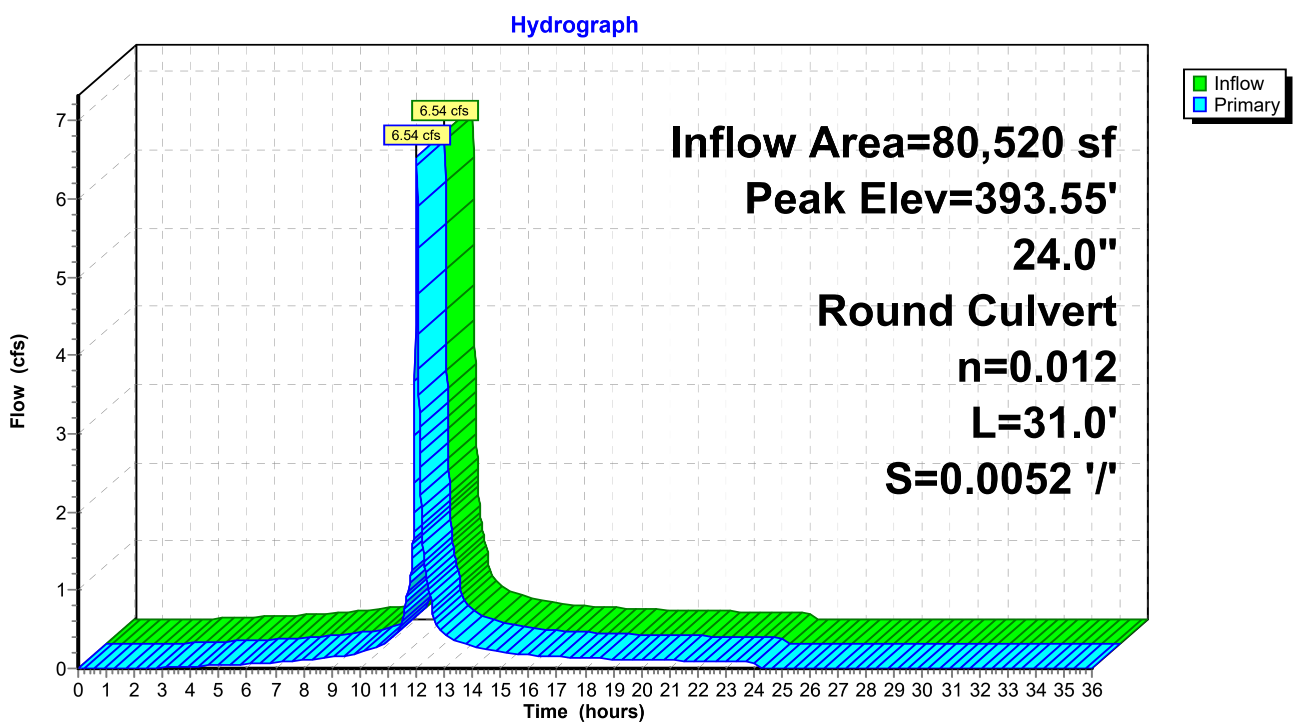
Inflow Area = 80,520 sf, 88.25% Impervious, Inflow Depth = 2.67" for 2-yr event
Inflow = 6.54 cfs @ 12.03 hrs, Volume= 17,906 cf
Outflow = 6.54 cfs @ 12.03 hrs, Volume= 17,906 cf, Atten= 0%, Lag= 0.0 min
Primary = 6.54 cfs @ 12.03 hrs, Volume= 17,906 cf
Routed to Pond 5P : CB 5

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.55' @ 12.03 hrs
Flood Elev= 397.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.80'	**24.0" Round Culvert** L= 31.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.80' / 391.64' S= 0.0052 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=6.42 cfs @ 12.03 hrs HW=393.54' TW=393.30' (Dynamic Tailwater)
1=Culvert (Outlet Controls 6.42 cfs @ 2.96 fps)

Pond 52P: DMH C



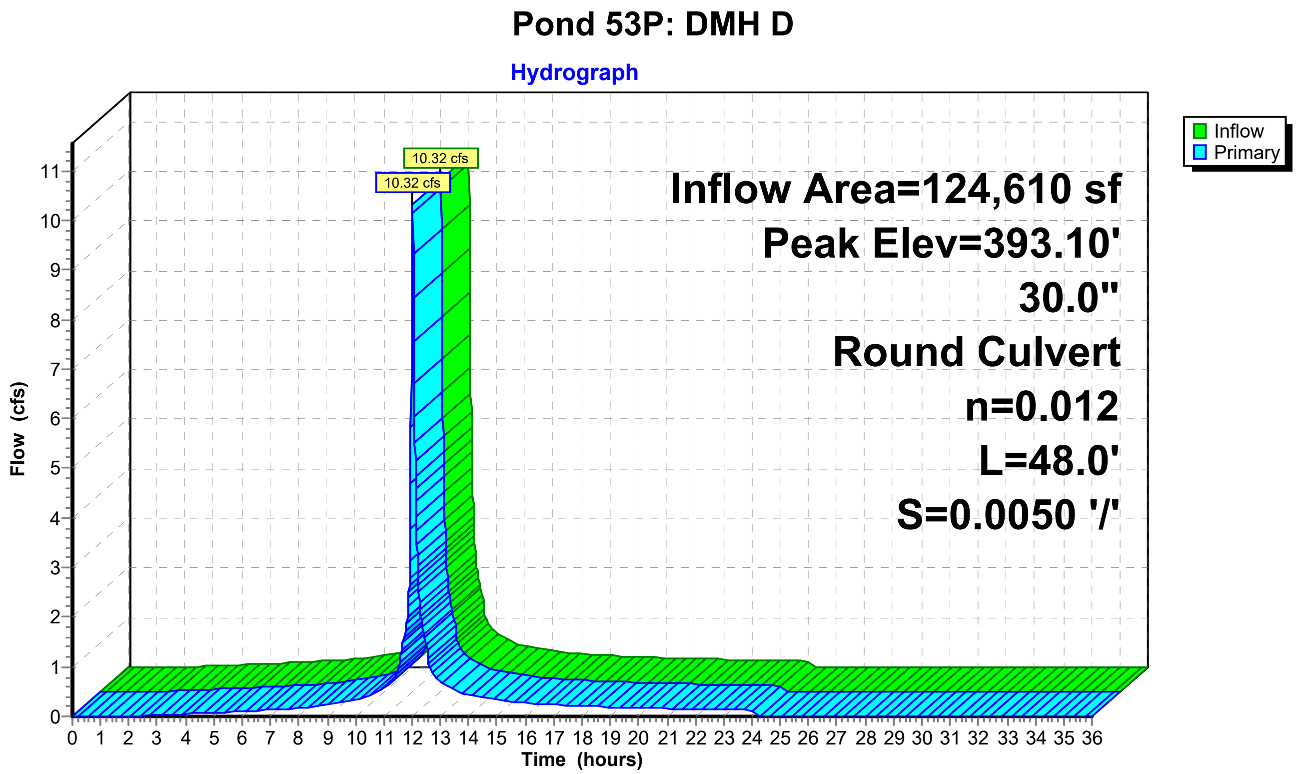
Summary for Pond 53P: DMH D

Inflow Area = 124,610 sf, 89.85% Impervious, Inflow Depth = 2.74" for 2-yr event
Inflow = 10.32 cfs @ 12.03 hrs, Volume= 28,484 cf
Outflow = 10.32 cfs @ 12.03 hrs, Volume= 28,484 cf, Atten= 0%, Lag= 0.0 min
Primary = 10.32 cfs @ 12.03 hrs, Volume= 28,484 cf
Routed to Pond 54P : DMH E

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.10' @ 12.03 hrs
Flood Elev= 396.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.48'	**30.0" Round Culvert** L= 48.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.48' / 391.24' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=10.30 cfs @ 12.03 hrs HW=393.09' TW=392.52' (Dynamic Tailwater)
1=Culvert (Outlet Controls 10.30 cfs @ 4.39 fps)



Summary for Pond 54P: DMH E

Inflow Area = 124,610 sf, 89.85% Impervious, Inflow Depth = 2.74" for 2-yr event
Inflow = 10.32 cfs @ 12.03 hrs, Volume= 28,484 cf
Outflow = 10.32 cfs @ 12.03 hrs, Volume= 28,484 cf, Atten= 0%, Lag= 0.0 min
Primary = 6.51 cfs @ 12.03 hrs, Volume= 4,043 cf
Routed to Pond 55P : DMH F
Secondary = 3.82 cfs @ 12.02 hrs, Volume= 24,440 cf
Routed to Pond 1VP : Vortechnics Unit

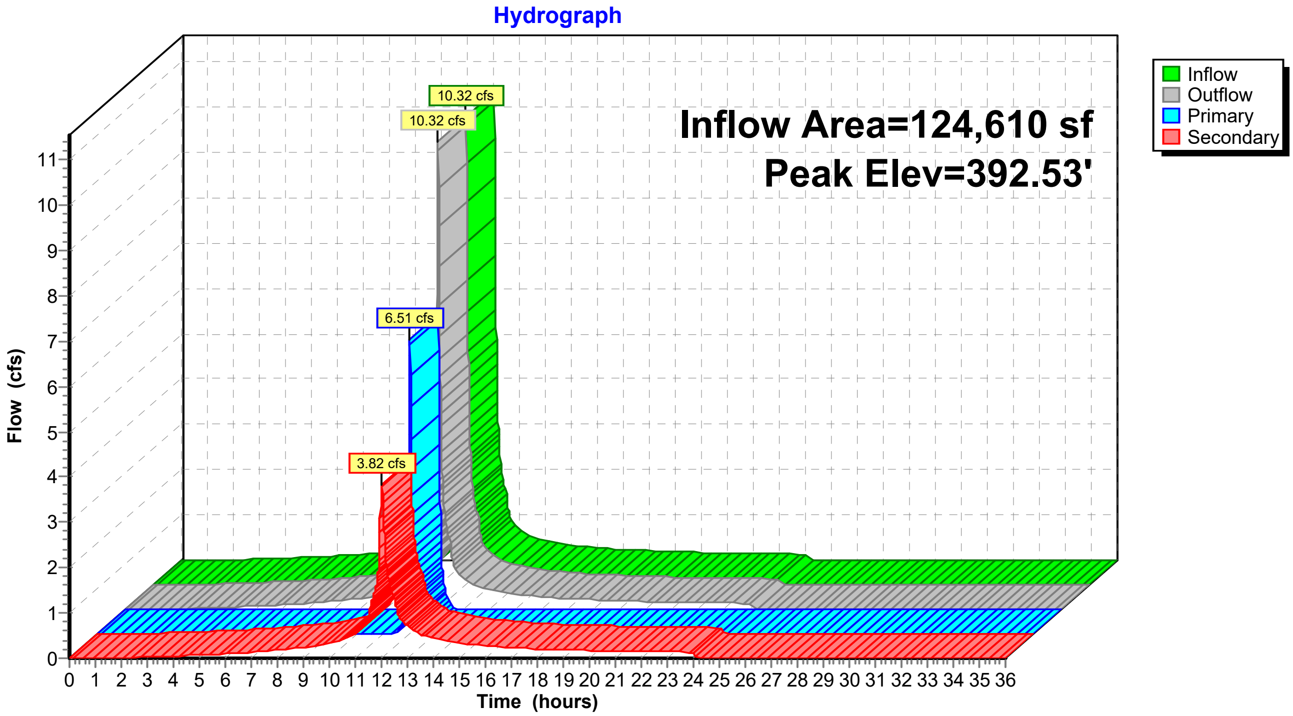
Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.53' @ 12.03 hrs
Flood Elev= 398.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.14'	**30.0" Round Culvert** L= 41.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.14' / 390.93' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Secondary	390.55'	**15.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.55' / 390.50' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=6.62 cfs @ 12.03 hrs HW=392.53' TW=392.18' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 6.62 cfs @ 3.43 fps)

Secondary OutFlow Max=3.33 cfs @ 12.02 hrs HW=392.51' TW=392.19' (Dynamic Tailwater)
└─**2=Culvert** (Inlet Controls 3.33 cfs @ 2.72 fps)

Pond 54P: DMH E



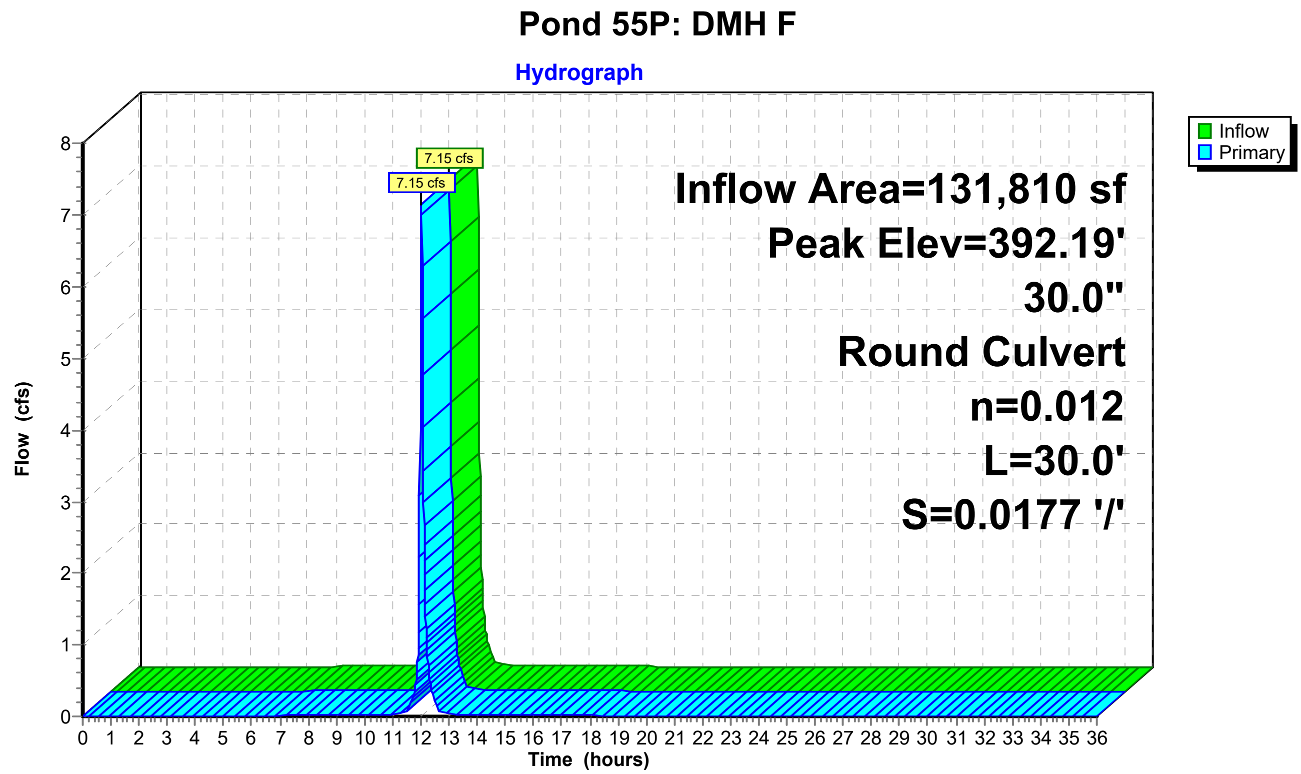
Summary for Pond 55P: DMH F

Inflow Area = 131,810 sf, 90.41% Impervious, Inflow Depth = 0.54" for 2-yr event
Inflow = 7.15 cfs @ 12.03 hrs, Volume= 5,931 cf
Outflow = 7.15 cfs @ 12.03 hrs, Volume= 5,931 cf, Atten= 0%, Lag= 0.0 min
Primary = 7.15 cfs @ 12.03 hrs, Volume= 5,931 cf
Routed to Pond 3DP : DMH 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.19' @ 12.03 hrs
Flood Elev= 397.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.83'	**30.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.83' / 390.30' S= 0.0177 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=7.12 cfs @ 12.03 hrs HW=392.18' TW=391.78' (Dynamic Tailwater)
1=Culvert (Outlet Controls 7.12 cfs @ 3.81 fps)



Summary for Pond 61P: DMH A

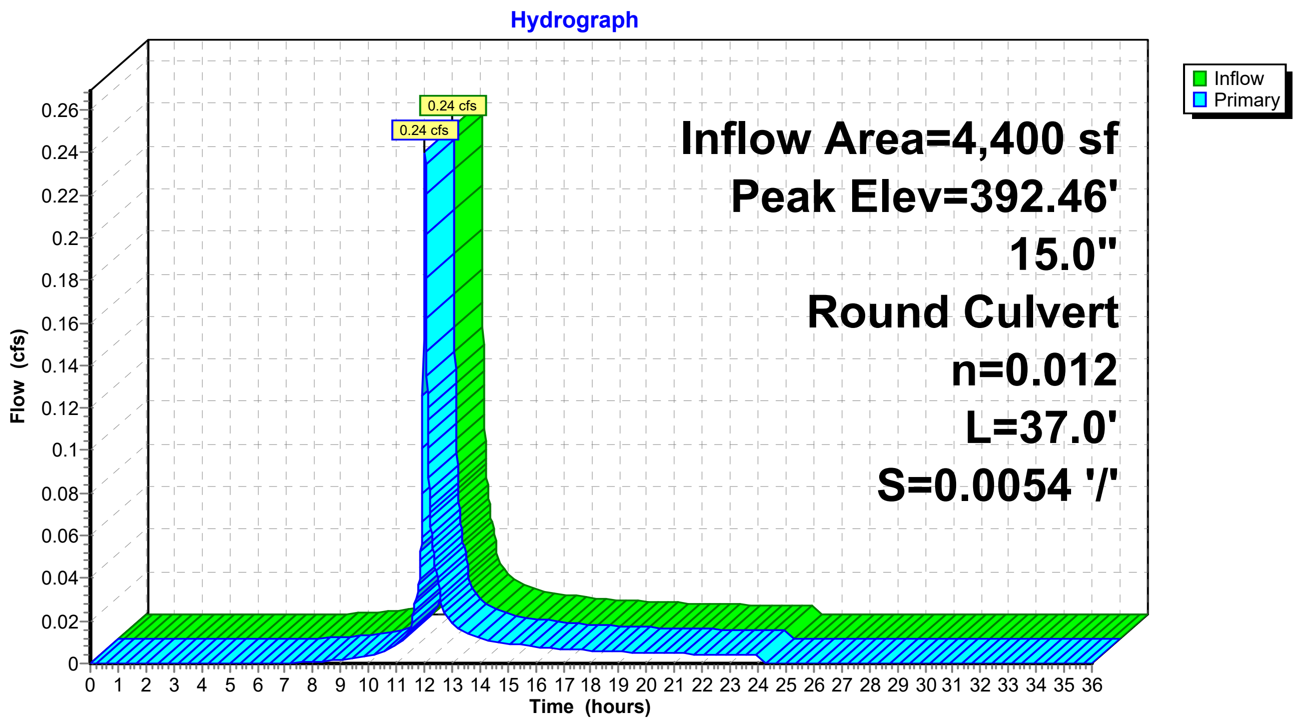
Inflow Area = 4,400 sf, 58.07% Impervious, Inflow Depth = 1.72" for 2-yr event
Inflow = 0.24 cfs @ 12.03 hrs, Volume= 631 cf
Outflow = 0.24 cfs @ 12.03 hrs, Volume= 631 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.24 cfs @ 12.03 hrs, Volume= 631 cf
Routed to Pond 62P : DMH B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.46' @ 12.04 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.75'	**15.0" Round Culvert** L= 37.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.75' / 391.55' S= 0.0054 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=392.44' TW=392.44' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)

Pond 61P: DMH A



Summary for Pond 62P: DMH B

[80] Warning: Exceeded Pond 61P by 0.02' @ 12.00 hrs (0.29 cfs 49 cf)

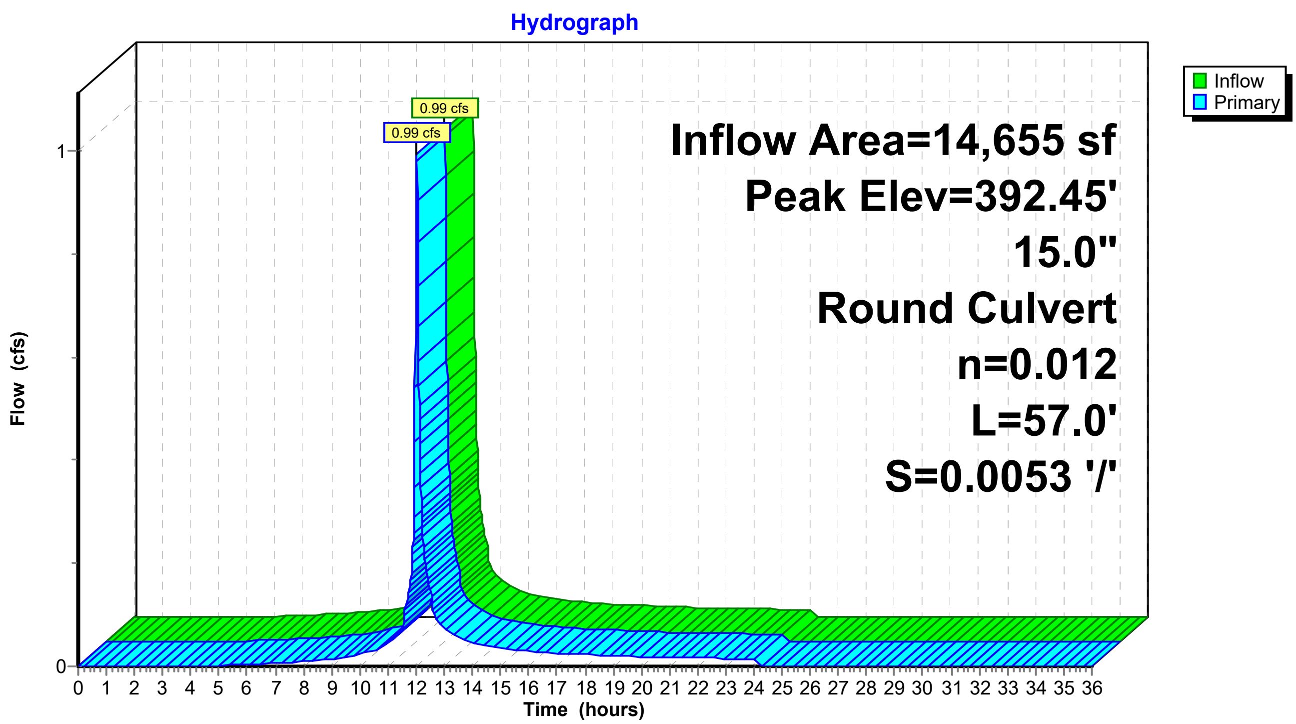
Inflow Area = 14,655 sf, 71.41% Impervious, Inflow Depth = 2.15" for 2-yr event
Inflow = 0.99 cfs @ 12.03 hrs, Volume= 2,628 cf
Outflow = 0.99 cfs @ 12.03 hrs, Volume= 2,628 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.99 cfs @ 12.03 hrs, Volume= 2,628 cf
Routed to Pond 9P : CB C

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.45' @ 12.03 hrs
Flood Elev= 397.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.50'	**15.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.50' / 391.20' S= 0.0053 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.96 cfs @ 12.03 hrs HW=392.44' TW=392.37' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.96 cfs @ 1.34 fps)

Pond 62P: DMH B

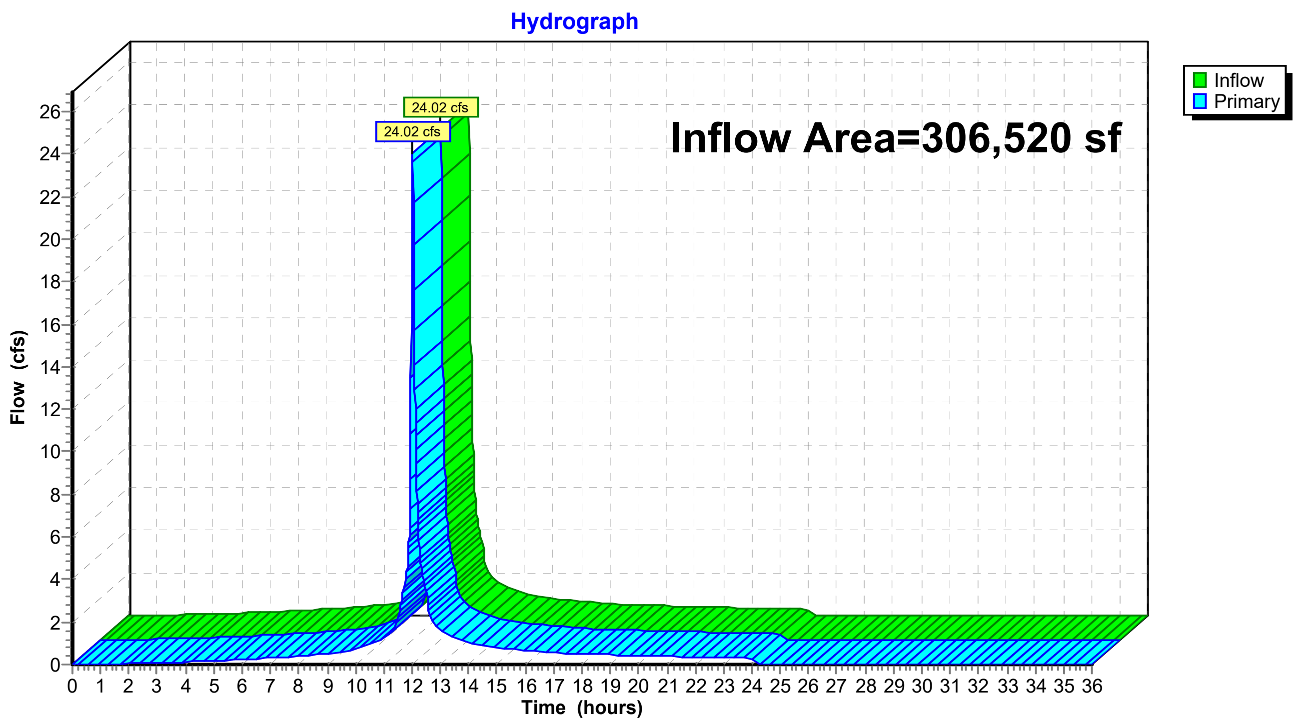


Summary for Link 1L: Wetland

Inflow Area = 306,520 sf, 85.07% Impervious, Inflow Depth = 2.61" for 2-yr event
Inflow = 24.02 cfs @ 12.03 hrs, Volume= 66,591 cf
Primary = 24.02 cfs @ 12.03 hrs, Volume= 66,591 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 1L: Wetland



Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Proposed to CB 1 Runoff Area=12,715 sf 77.86% Impervious Runoff Depth=3.92"
Tc=5.0 min CN=90 Runoff=1.51 cfs 4,158 cf

Subcatchment2S: Proposed to CB 2 Runoff Area=11,985 sf 90.40% Impervious Runoff Depth=4.36"
Tc=5.0 min CN=94 Runoff=1.53 cfs 4,352 cf

Subcatchment3S: Proposed to CB 3 Runoff Area=18,370 sf 90.36% Impervious Runoff Depth=4.36"
Tc=5.0 min CN=94 Runoff=2.34 cfs 6,670 cf

Subcatchment4S: Proposed to CB 4 Runoff Area=5,750 sf 94.70% Impervious Runoff Depth=4.58"
Tc=5.0 min CN=96 Runoff=0.75 cfs 2,196 cf

Subcatchment5S: Proposed to CB 5 Runoff Area=9,870 sf 87.84% Impervious Runoff Depth=4.36"
Tc=5.0 min CN=94 Runoff=1.26 cfs 3,584 cf

Subcatchment6S: Proposed to CB A Runoff Area=2,265 sf 59.38% Impervious Runoff Depth=3.22"
Tc=5.0 min CN=83 Runoff=0.23 cfs 608 cf

Subcatchment7S: Proposed to CB B Runoff Area=2,135 sf 56.67% Impervious Runoff Depth=3.12"
Tc=5.0 min CN=82 Runoff=0.21 cfs 556 cf

Subcatchment8S: Proposed to Trench Runoff Area=10,255 sf 77.13% Impervious Runoff Depth=3.92"
Tc=5.0 min CN=90 Runoff=1.22 cfs 3,354 cf

Subcatchment9S: Proposed to CB C Runoff Area=9,675 sf 76.95% Impervious Runoff Depth=3.82"
Tc=5.0 min CN=89 Runoff=1.13 cfs 3,080 cf

Subcatchment10S: Proposed to CB D Runoff Area=6,090 sf 72.74% Impervious Runoff Depth=3.72"
Tc=5.0 min CN=88 Runoff=0.70 cfs 1,886 cf

Subcatchment11S: Proposed to CB E Runoff Area=2,220 sf 100.00% Impervious Runoff Depth=4.81"
Tc=5.0 min CN=98 Runoff=0.30 cfs 890 cf

Subcatchment12S: Proposed to CB F Runoff Area=4,475 sf 94.19% Impervious Runoff Depth=4.58"
Tc=5.0 min CN=96 Runoff=0.59 cfs 1,709 cf

Subcatchment13S: Proposed to CB G Runoff Area=4,830 sf 73.08% Impervious Runoff Depth=3.72"
Tc=5.0 min CN=88 Runoff=0.55 cfs 1,496 cf

Subcatchment14S: Proposed to CB H Runoff Area=4,850 sf 73.20% Impervious Runoff Depth=3.72"
Tc=5.0 min CN=88 Runoff=0.55 cfs 1,502 cf

Subcatchment15S: Proposed to CB I Runoff Area=4,870 sf 72.28% Impervious Runoff Depth=3.72"
Tc=5.0 min CN=88 Runoff=0.56 cfs 1,508 cf

Subcatchment16S: Proposed to CB J Runoff Area=1,940 sf 71.13% Impervious Runoff Depth=3.61"
Tc=5.0 min CN=87 Runoff=0.22 cfs 584 cf

Subcatchment17S: Proposed to CB K	Runoff Area=1,790 sf 100.00% Impervious Runoff Depth=4.81" Tc=5.0 min CN=98 Runoff=0.24 cfs 718 cf
Subcatchment18S: Proposed to CB L	Runoff Area=4,985 sf 100.00% Impervious Runoff Depth=4.81" Tc=5.0 min CN=98 Runoff=0.66 cfs 1,999 cf
Subcatchment19S: Proposed to CB M	Runoff Area=4,985 sf 100.00% Impervious Runoff Depth=4.81" Tc=5.0 min CN=98 Runoff=0.66 cfs 1,999 cf
Subcatchment20S: Proposed to CB N	Runoff Area=4,985 sf 100.00% Impervious Runoff Depth=4.81" Tc=5.0 min CN=98 Runoff=0.66 cfs 1,999 cf
Subcatchment21S: Proposed to CB O	Runoff Area=1,980 sf 100.00% Impervious Runoff Depth=4.81" Tc=5.0 min CN=98 Runoff=0.26 cfs 794 cf
Subcatchment22S: Proposed to CB P	Runoff Area=1,470 sf 100.00% Impervious Runoff Depth=4.81" Tc=5.0 min CN=98 Runoff=0.20 cfs 590 cf
Subcatchment23S: Proposed to CB Q	Runoff Area=4,100 sf 100.00% Impervious Runoff Depth=4.81" Tc=5.0 min CN=98 Runoff=0.55 cfs 1,644 cf
Subcatchment24S: Proposed to CB R	Runoff Area=4,100 sf 100.00% Impervious Runoff Depth=4.81" Tc=5.0 min CN=98 Runoff=0.55 cfs 1,644 cf
Subcatchment25S: Proposed to CB S	Runoff Area=4,100 sf 100.00% Impervious Runoff Depth=4.81" Tc=5.0 min CN=98 Runoff=0.55 cfs 1,644 cf
Subcatchment26S: Proposed to CB T	Runoff Area=1,630 sf 100.00% Impervious Runoff Depth=4.81" Tc=5.0 min CN=98 Runoff=0.22 cfs 654 cf
Subcatchment27S: Proposed to CB U	Runoff Area=2,945 sf 86.76% Impervious Runoff Depth=4.25" Tc=5.0 min CN=93 Runoff=0.37 cfs 1,042 cf
Subcatchment28S: Proposed to CB V	Runoff Area=4,625 sf 77.95% Impervious Runoff Depth=3.92" Tc=5.0 min CN=90 Runoff=0.55 cfs 1,513 cf
Subcatchment29S: Proposed to CB W	Runoff Area=6,465 sf 48.72% Impervious Runoff Depth=2.84" Tc=5.0 min CN=79 Runoff=0.58 cfs 1,533 cf
Subcatchment30S: Bank Site to	Runoff Area=29,845 sf 83.28% Impervious Runoff Depth=4.14" Tc=5.0 min CN=92 Runoff=3.69 cfs 10,292 cf
Subcatchment31S: Proposed to Swale	Runoff Area=19,335 sf 45.44% Impervious Runoff Depth=2.75" Tc=5.0 min CN=78 Runoff=1.67 cfs 4,438 cf
Subcatchment32S: Pharmacy Roof	Runoff Area=6,615 sf 100.00% Impervious Runoff Depth=4.81" Tc=5.0 min CN=98 Runoff=0.88 cfs 2,653 cf
Subcatchment33S: Pharmacy Roof	Runoff Area=6,610 sf 100.00% Impervious Runoff Depth=4.81" Tc=5.0 min CN=98 Runoff=0.88 cfs 2,651 cf

Subcatchment34ES: Retail/Office Roof Runoff Area=12,100 sf 100.00% Impervious Runoff Depth=4.81"
Tc=5.0 min CN=98 Runoff=1.61 cfs 4,853 cf

Subcatchment34WS: Retail/Office Roof Runoff Area=7,200 sf 100.00% Impervious Runoff Depth=4.81"
Tc=5.0 min CN=98 Runoff=0.96 cfs 2,888 cf

Subcatchment35S: Spa / Med. Office Roof Runoff Area=5,050 sf 100.00% Impervious Runoff Depth=4.81"
Tc=5.0 min CN=98 Runoff=0.67 cfs 2,026 cf

Subcatchment41S: Proposed to CB 11 Runoff Area=23,300 sf 91.50% Impervious Runoff Depth=4.47"
Tc=5.0 min CN=95 Runoff=3.01 cfs 8,677 cf

Subcatchment42S: Proposed to CB 12 Runoff Area=10,920 sf 100.00% Impervious Runoff Depth=4.81"
Tc=5.0 min CN=98 Runoff=1.45 cfs 4,380 cf

Subcatchment44S: Ex to CB Runoff Area=15,040 sf 92.69% Impervious Runoff Depth=4.47"
Tc=5.0 min CN=95 Runoff=1.95 cfs 5,601 cf

Subcatchment45S: Ex to CB Runoff Area=10,050 sf 76.87% Impervious Runoff Depth=3.82"
Tc=5.0 min CN=89 Runoff=1.17 cfs 3,199 cf

Pond 1P: CB 1 Peak Elev=396.62' Inflow=1.51 cfs 4,158 cf
15.0" Round Culvert n=0.012 L=15.0' S=0.0253 '/' Outflow=1.51 cfs 4,158 cf

Pond 1VP: Vortechnics Unit Peak Elev=392.82' Inflow=4.41 cfs 36,978 cf
15.0" Round Culvert n=0.012 L=53.0' S=0.0049 '/' Outflow=4.41 cfs 36,978 cf

Pond 2P: CB 2 Peak Elev=396.23' Inflow=5.10 cfs 14,361 cf
15.0" Round Culvert n=0.012 L=59.0' S=0.0049 '/' Outflow=5.10 cfs 14,361 cf

Pond 3DP: DMH 3 Peak Elev=392.27' Inflow=20.04 cfs 57,473 cf
36.0" Round Culvert n=0.012 L=14.0' S=0.0100 '/' Outflow=20.04 cfs 57,473 cf

Pond 3P: CB 3 Peak Elev=395.54' Inflow=7.44 cfs 21,031 cf
18.0" Round Culvert n=0.012 L=112.0' S=0.0050 '/' Outflow=7.44 cfs 21,031 cf

Pond 4DP: DMH 4 Peak Elev=393.94' Inflow=3.22 cfs 9,116 cf
18.0" Round Culvert n=0.012 L=135.0' S=0.0048 '/' Outflow=3.22 cfs 9,116 cf

Pond 4P: CB 4 Peak Elev=394.67' Inflow=8.19 cfs 23,227 cf
24.0" Round Culvert n=0.012 L=50.0' S=0.0050 '/' Outflow=8.19 cfs 23,227 cf

Pond 5DP: DMH 5 Peak Elev=392.41' Inflow=3.22 cfs 9,116 cf
18.0" Round Culvert n=0.012 L=78.0' S=0.0046 '/' Outflow=3.22 cfs 9,116 cf

Pond 5P: CB 5 Peak Elev=393.96' Inflow=11.40 cfs 32,412 cf
30.0" Round Culvert n=0.012 L=12.0' S=0.0050 '/' Outflow=11.40 cfs 32,412 cf

Pond 6P: CB A Peak Elev=393.55' Inflow=0.23 cfs 608 cf
15.0" Round Culvert n=0.012 L=19.0' S=0.0053 '/' Outflow=0.23 cfs 608 cf

Pond 7P: CB B Peak Elev=393.55' Inflow=0.44 cfs 1,163 cf
15.0" Round Culvert n=0.012 L=128.0' S=0.0051 '/' Outflow=0.44 cfs 1,163 cf

Pond 8P: Trench Drain Peak Elev=394.56' Inflow=1.22 cfs 3,354 cf
8.0" Round Culvert n=0.012 L=55.0' S=0.0391 '/' Outflow=1.22 cfs 3,354 cf

Pond 9P: CB C Peak Elev=393.46' Inflow=2.79 cfs 7,597 cf
15.0" Round Culvert n=0.012 L=120.0' S=0.0050 '/' Outflow=2.79 cfs 7,597 cf

Pond 10P: CB D Peak Elev=393.16' Inflow=13.88 cfs 39,801 cf
24.0" Round Culvert n=0.012 L=19.0' S=0.0105 '/' Outflow=13.88 cfs 39,801 cf

Pond 11P: CB E Peak Elev=395.28' Inflow=8.52 cfs 25,227 cf
15.0" Round Culvert n=0.012 L=68.0' S=0.0074 '/' Outflow=8.52 cfs 25,227 cf

Pond 12P: CB F Peak Elev=395.79' Inflow=4.13 cfs 11,973 cf
15.0" Round Culvert n=0.012 L=75.0' S=0.0073 '/' Outflow=4.13 cfs 11,973 cf

Pond 13P: CB G Peak Elev=393.25' Inflow=1.88 cfs 5,091 cf
15.0" Round Culvert n=0.012 L=68.0' S=0.0125 '/' Outflow=1.88 cfs 5,091 cf

Pond 14P: CB H Peak Elev=393.37' Inflow=1.33 cfs 3,595 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0120 '/' Outflow=1.33 cfs 3,595 cf

Pond 15P: CB I Peak Elev=393.78' Inflow=0.77 cfs 2,093 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0120 '/' Outflow=0.77 cfs 2,093 cf

Pond 16P: CB J Peak Elev=394.33' Inflow=0.22 cfs 584 cf
12.0" Round Culvert n=0.012 L=57.0' S=0.0123 '/' Outflow=0.22 cfs 584 cf

Pond 17P: CB K Peak Elev=395.44' Inflow=2.49 cfs 7,510 cf
15.0" Round Culvert n=0.012 L=5.0' S=0.0200 '/' Outflow=2.49 cfs 7,510 cf

Pond 18P: CB L Peak Elev=395.58' Inflow=2.25 cfs 6,792 cf
15.0" Round Culvert n=0.012 L=57.0' S=0.0105 '/' Outflow=2.25 cfs 6,792 cf

Pond 19P: CB M Peak Elev=395.65' Inflow=1.59 cfs 4,793 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0099 '/' Outflow=1.59 cfs 4,793 cf

Pond 20P: CB N Peak Elev=395.67' Inflow=0.93 cfs 2,794 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0099 '/' Outflow=0.93 cfs 2,794 cf

Pond 21P: CB O Peak Elev=395.67' Inflow=0.26 cfs 794 cf
12.0" Round Culvert n=0.012 L=57.0' S=0.0105 '/' Outflow=0.26 cfs 794 cf

Pond 22P: CB P Peak Elev=396.12' Inflow=3.54 cfs 10,264 cf
15.0" Round Culvert n=0.012 L=5.0' S=0.0200 '/' Outflow=3.54 cfs 10,264 cf

Pond 23P: CB Q Peak Elev=396.44' Inflow=3.35 cfs 9,675 cf
15.0" Round Culvert n=0.012 L=57.0' S=0.0079 '/' Outflow=3.35 cfs 9,675 cf

Pond 24P: CB R Peak Elev=396.57' Inflow=2.43 cfs 6,988 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0077 '/' Outflow=2.43 cfs 6,988 cf

Pond 25P: CB S Peak Elev=396.64' Inflow=1.34 cfs 3,831 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0077 '/' Outflow=1.34 cfs 3,831 cf

Pond 26P: CB T Peak Elev=396.62' Inflow=0.22 cfs 654 cf
12.0" Round Culvert n=0.012 L=57.0' S=0.0079 '/' Outflow=0.22 cfs 654 cf

Pond 27P: CB U Peak Elev=396.42' Inflow=0.37 cfs 1,042 cf
12.0" Round Culvert n=0.012 L=7.0' S=0.0214 '/' Outflow=0.37 cfs 1,042 cf

Pond 28P: CB V Peak Elev=396.61' Inflow=0.55 cfs 1,513 cf
12.0" Round Culvert n=0.012 L=7.0' S=0.0214 '/' Outflow=0.55 cfs 1,513 cf

Pond 29P: CB W Peak Elev=396.63' Inflow=0.58 cfs 1,533 cf
12.0" Round Culvert n=0.012 L=7.0' S=0.0214 '/' Outflow=0.58 cfs 1,533 cf

Pond 31P: Vortech Unit Peak Elev=392.32' Inflow=13.88 cfs 39,801 cf
24.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=13.88 cfs 39,801 cf

Pond 41P: CB 11 Peak Elev=393.99' Inflow=4.47 cfs 13,057 cf
18.0" Round Culvert n=0.012 L=27.0' S=0.0100 '/' Outflow=4.47 cfs 13,057 cf

Pond 42P: CB 12 Peak Elev=394.06' Inflow=1.45 cfs 4,380 cf
15.0" Round Culvert n=0.012 L=53.0' S=0.0100 '/' Outflow=1.45 cfs 4,380 cf

Pond 44P: CB Peak Elev=394.53' Inflow=1.95 cfs 5,601 cf
15.0" Round Culvert n=0.012 L=115.0' S=0.0059 '/' Outflow=1.95 cfs 5,601 cf

Pond 45P: CB Peak Elev=396.99' Inflow=2.05 cfs 5,850 cf
15.0" Round Culvert n=0.012 L=182.0' S=0.0100 '/' Outflow=2.05 cfs 5,850 cf

Pond 50P: DMH A Peak Elev=396.67' Inflow=2.05 cfs 5,850 cf
15.0" Round Culvert n=0.012 L=50.0' S=0.0050 '/' Outflow=2.05 cfs 5,850 cf

Pond 51P: DMH B Peak Elev=396.57' Inflow=3.57 cfs 10,009 cf
15.0" Round Culvert n=0.012 L=42.0' S=0.0050 '/' Outflow=3.57 cfs 10,009 cf

Pond 52P: DMH C Peak Elev=394.41' Inflow=10.14 cfs 28,828 cf
24.0" Round Culvert n=0.012 L=31.0' S=0.0052 '/' Outflow=10.14 cfs 28,828 cf

Pond 53P: DMH D Peak Elev=393.73' Inflow=15.86 cfs 45,469 cf
30.0" Round Culvert n=0.012 L=48.0' S=0.0050 '/' Outflow=15.86 cfs 45,469 cf

Pond 54P: DMH E Peak Elev=393.16' Inflow=15.86 cfs 45,469 cf
Primary=11.47 cfs 8,490 cf Secondary=4.41 cfs 36,978 cf Outflow=15.86 cfs 45,469 cf

Pond 55P: DMH F Peak Elev=392.75' Inflow=12.43 cfs 11,378 cf
30.0" Round Culvert n=0.012 L=30.0' S=0.0177 '/' Outflow=12.43 cfs 11,378 cf

Pond 61P: DMH A Peak Elev=393.54' Inflow=0.44 cfs 1,163 cf
15.0" Round Culvert n=0.012 L=37.0' S=0.0054 '/' Outflow=0.44 cfs 1,163 cf

Pond 62P: DMH B Peak Elev=393.54' Inflow=1.66 cfs 4,517 cf
15.0" Round Culvert n=0.012 L=57.0' S=0.0053 '/' Outflow=1.66 cfs 4,517 cf

Link 1L: Wetland Inflow=37.61 cfs 107,566 cf
Primary=37.61 cfs 107,566 cf

Total Runoff Area = 306,520 sf Runoff Volume = 107,566 cf Average Runoff Depth = 4.21"
14.93% Pervious = 45,760 sf 85.07% Impervious = 260,760 sf

Summary for Subcatchment 1S: Proposed to CB 1

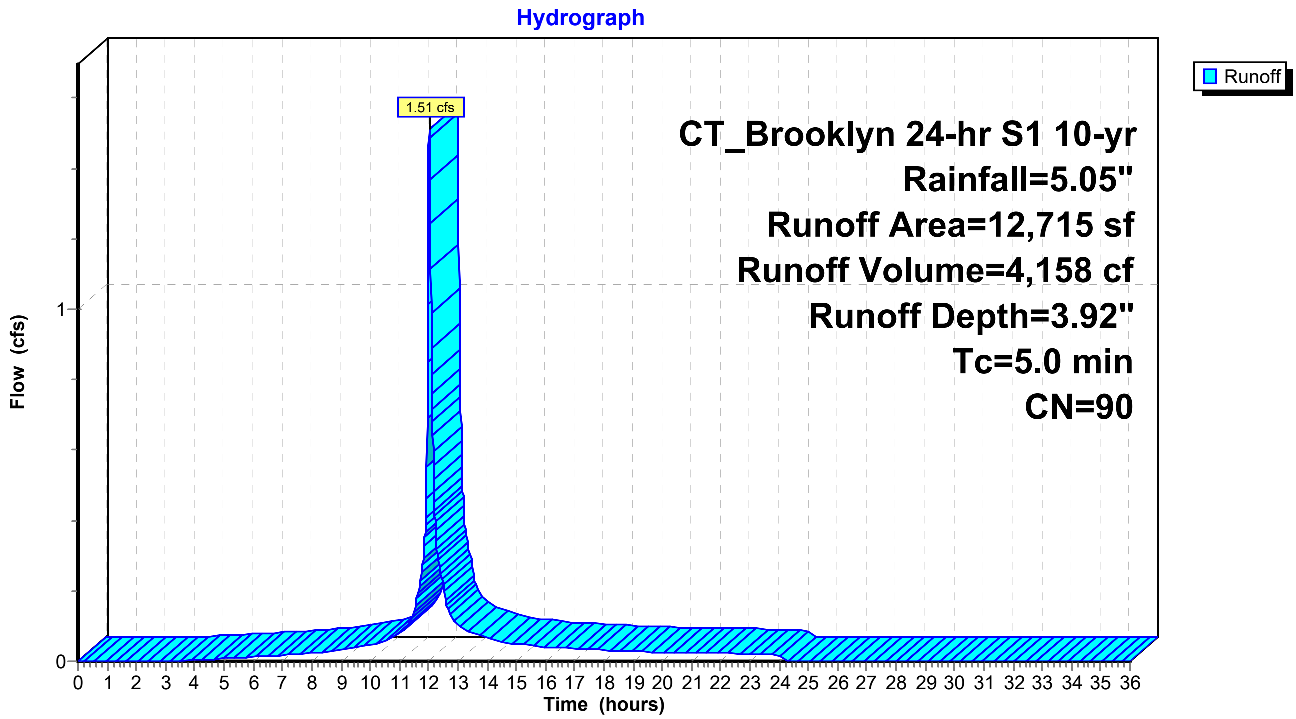
Runoff = 1.51 cfs @ 12.03 hrs, Volume= 4,158 cf, Depth= 3.92"
Routed to Pond 1P : CB 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
9,900	98	Paved parking & roofs
2,815	61	>75% Grass cover, Good, HSG B
12,715	90	Weighted Average
2,815		22.14% Pervious Area
9,900		77.86% Impervious Area

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

Subcatchment 1S: Proposed to CB 1



Summary for Subcatchment 2S: Proposed to CB 2

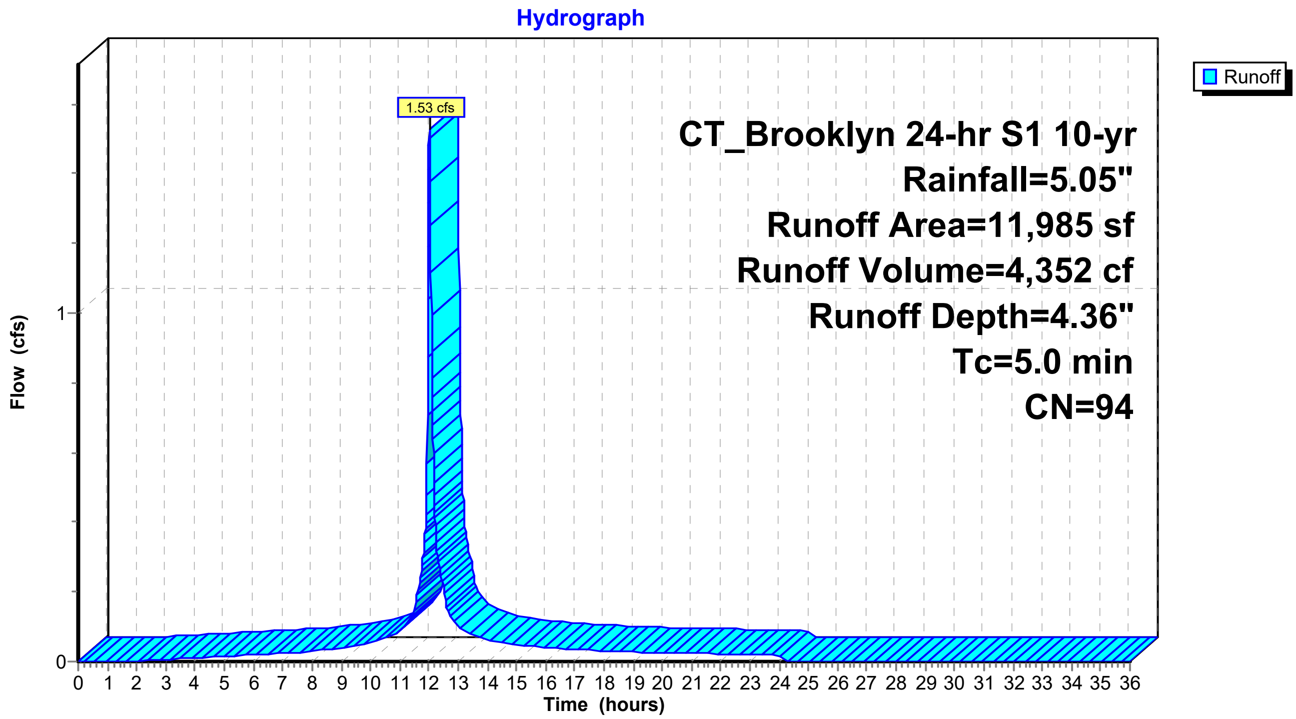
Runoff = 1.53 cfs @ 12.03 hrs, Volume= 4,352 cf, Depth= 4.36"
Routed to Pond 2P : CB 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
10,835	98	Paved parking & roofs
1,150	61	>75% Grass cover, Good, HSG B
11,985	94	Weighted Average
1,150		9.60% Pervious Area
10,835		90.40% Impervious Area

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

Subcatchment 2S: Proposed to CB 2



Summary for Subcatchment 3S: Proposed to CB 3

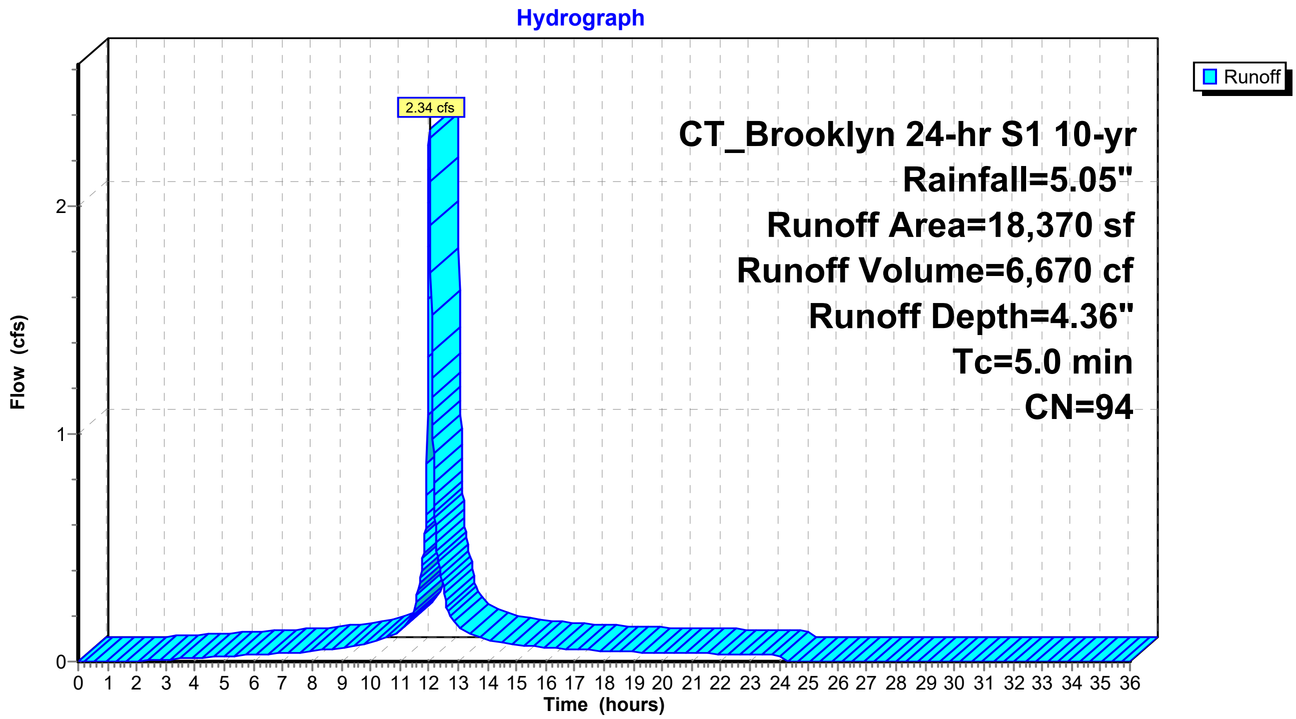
Runoff = 2.34 cfs @ 12.03 hrs, Volume= 6,670 cf, Depth= 4.36"
Routed to Pond 3P : CB 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
16,600	98	Paved parking & roofs
1,770	61	>75% Grass cover, Good, HSG B
18,370	94	Weighted Average
1,770		9.64% Pervious Area
16,600		90.36% Impervious Area

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

Subcatchment 3S: Proposed to CB 3



Summary for Subcatchment 4S: Proposed to CB 4

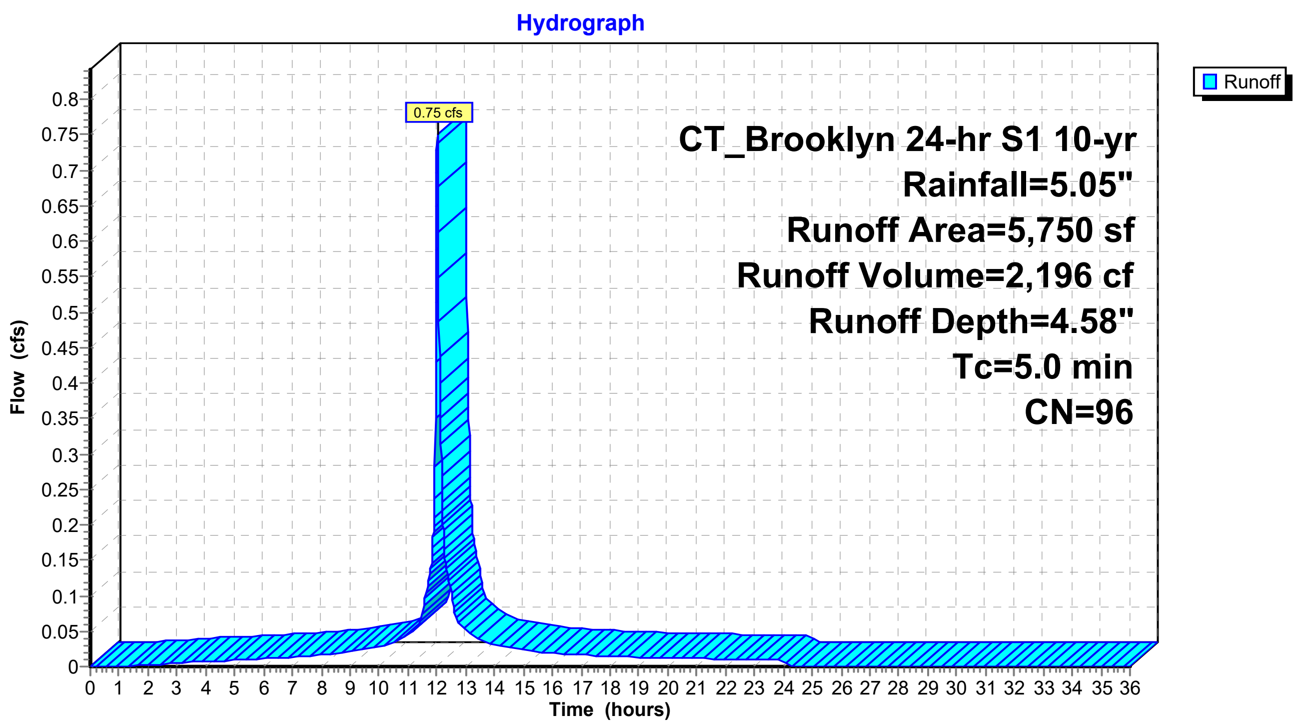
Runoff = 0.75 cfs @ 12.03 hrs, Volume= 2,196 cf, Depth= 4.58"
Routed to Pond 4P : CB 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
5,445	98	Paved parking & roofs
305	61	>75% Grass cover, Good, HSG B
5,750	96	Weighted Average
305		5.30% Pervious Area
5,445		94.70% Impervious Area

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

Subcatchment 4S: Proposed to CB 4



Summary for Subcatchment 5S: Proposed to CB 5

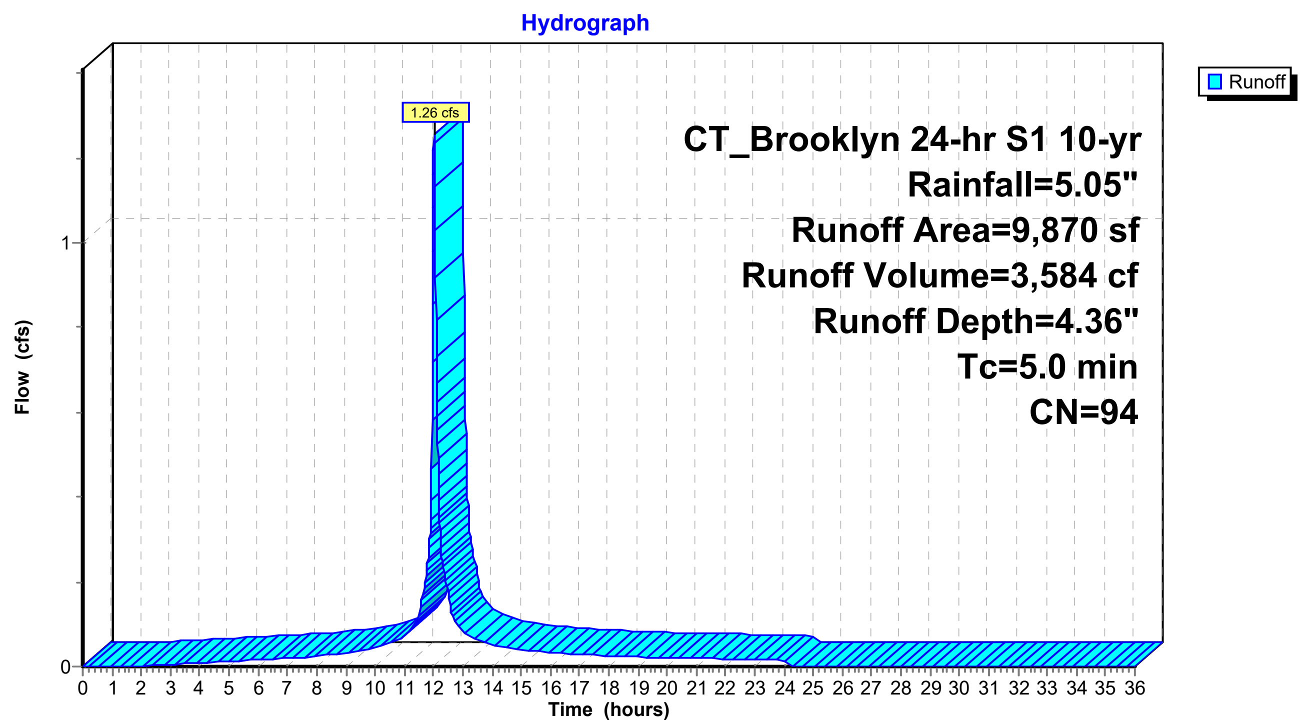
Runoff = 1.26 cfs @ 12.03 hrs, Volume= 3,584 cf, Depth= 4.36"
Routed to Pond 5P : CB 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
8,670	98	Paved parking & roofs
1,200	61	>75% Grass cover, Good, HSG B
9,870	94	Weighted Average
1,200		12.16% Pervious Area
8,670		87.84% Impervious Area

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

Subcatchment 5S: Proposed to CB 5



Summary for Subcatchment 6S: Proposed to CB A

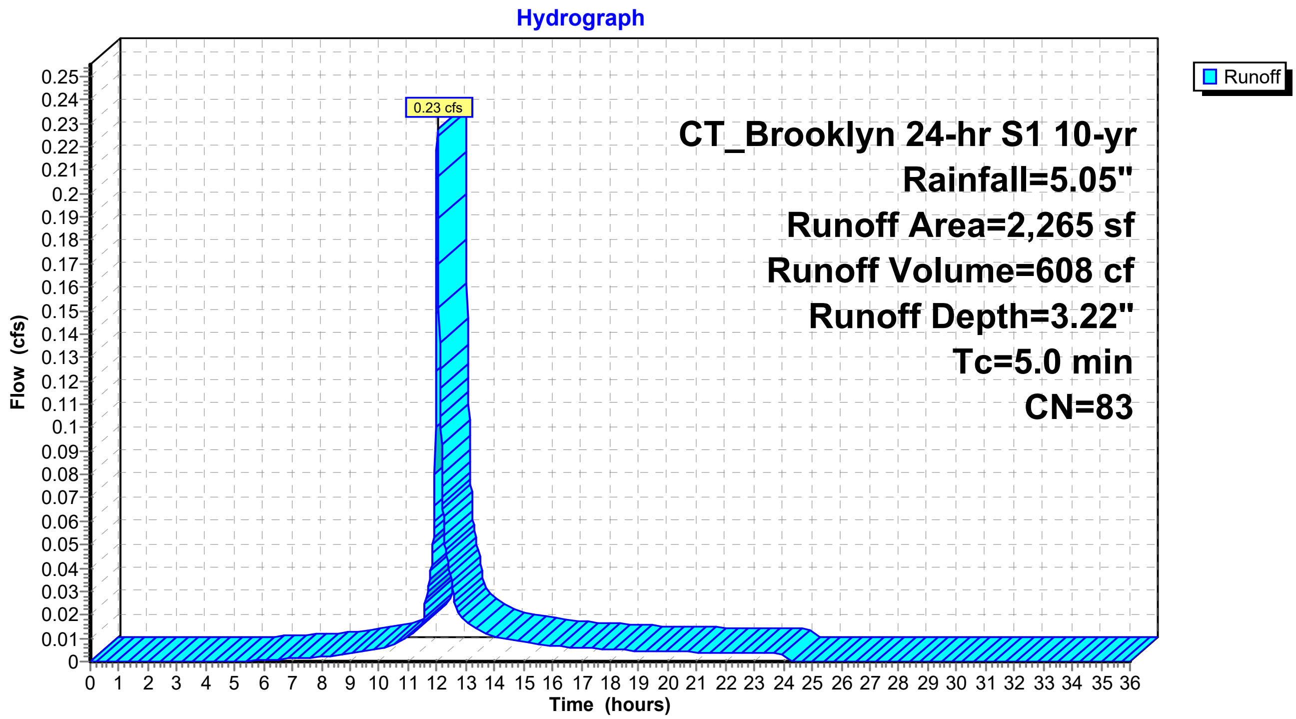
Runoff = 0.23 cfs @ 12.03 hrs, Volume= 608 cf, Depth= 3.22"
Routed to Pond 6P : CB A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
1,345	98	Paved parking & roofs
920	61	>75% Grass cover, Good, HSG B
2,265	83	Weighted Average
920		40.62% Pervious Area
1,345		59.38% Impervious Area

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

Subcatchment 6S: Proposed to CB A



Summary for Subcatchment 7S: Proposed to CB B

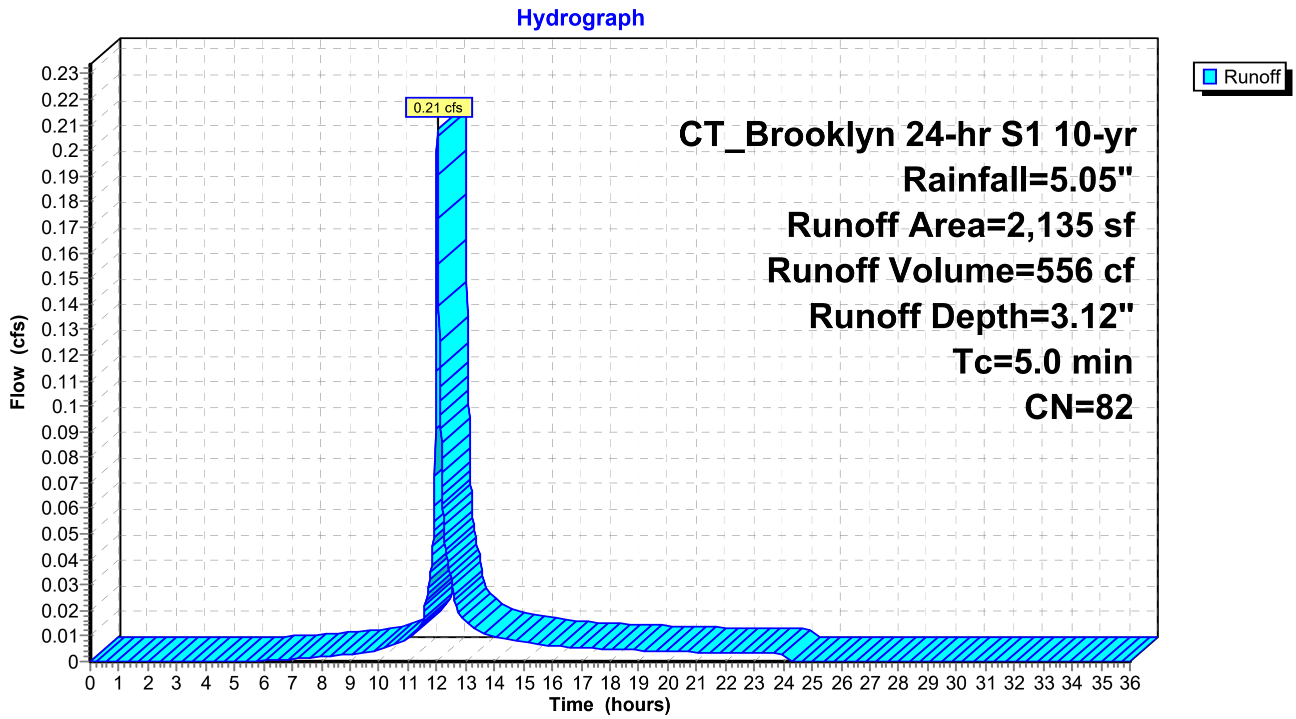
Runoff = 0.21 cfs @ 12.03 hrs, Volume= 556 cf, Depth= 3.12"
Routed to Pond 7P : CB B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
1,210	98	Paved parking & roofs
925	61	>75% Grass cover, Good, HSG B
2,135	82	Weighted Average
925		43.33% Pervious Area
1,210		56.67% Impervious Area

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

Subcatchment 7S: Proposed to CB B



Summary for Subcatchment 8S: Proposed to Trench Drain

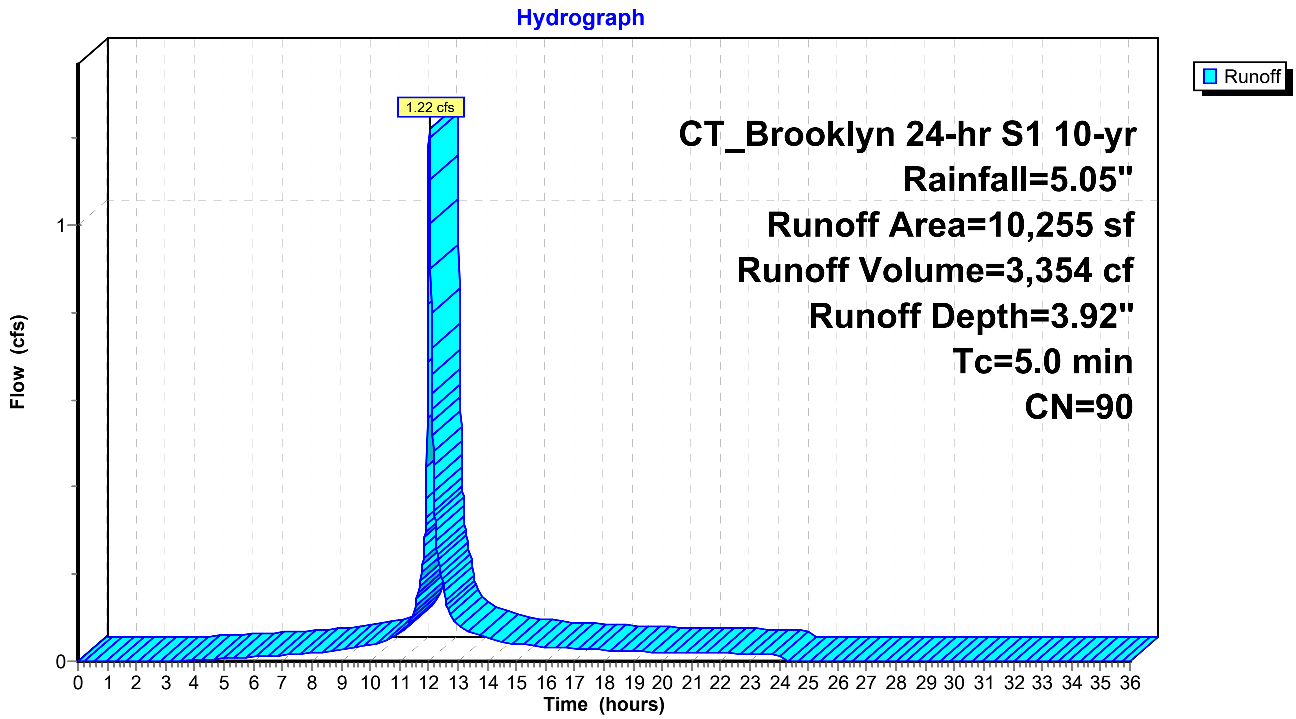
Runoff = 1.22 cfs @ 12.03 hrs, Volume= 3,354 cf, Depth= 3.92"
Routed to Pond 8P : Trench Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
7,910	98	Paved parking & roofs
2,345	61	>75% Grass cover, Good, HSG B
10,255	90	Weighted Average
2,345		22.87% Pervious Area
7,910		77.13% Impervious Area

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

Subcatchment 8S: Proposed to Trench Drain



Summary for Subcatchment 9S: Proposed to CB C

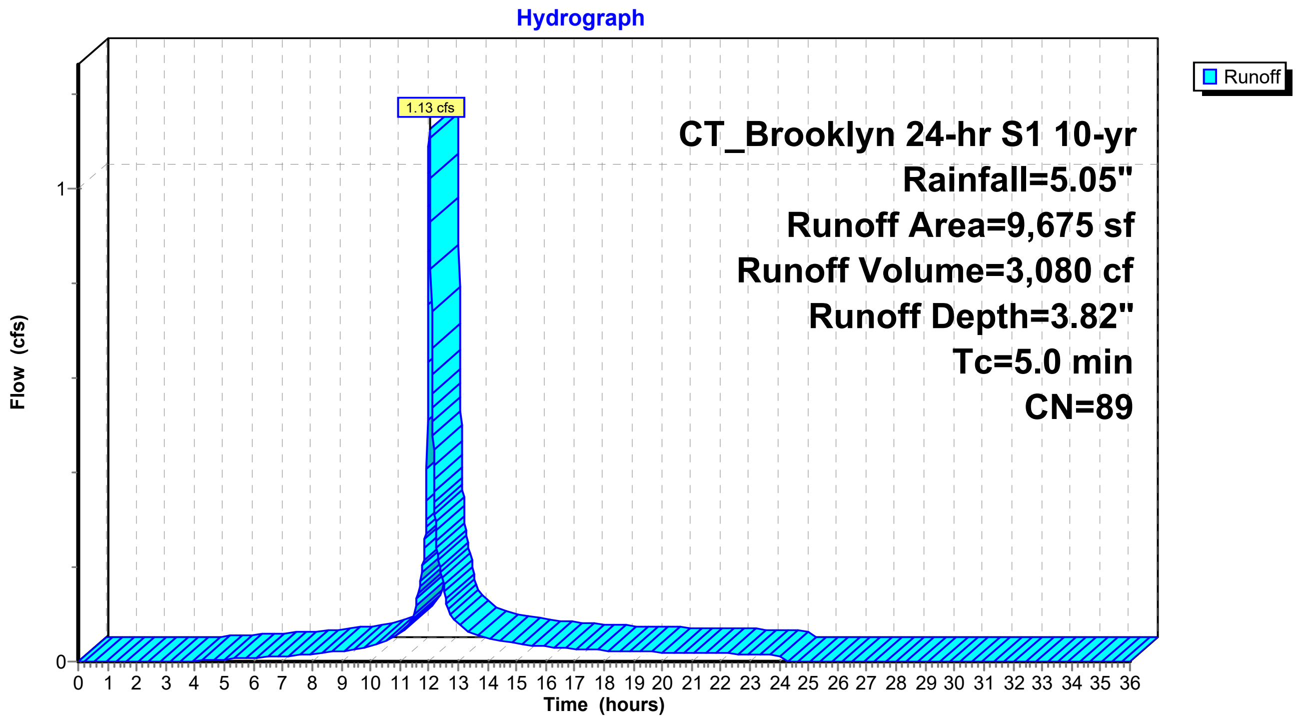
Runoff = 1.13 cfs @ 12.03 hrs, Volume= 3,080 cf, Depth= 3.82"
Routed to Pond 9P : CB C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
7,445	98	Paved parking & roofs
2,230	61	>75% Grass cover, Good, HSG B
9,675	89	Weighted Average
2,230		23.05% Pervious Area
7,445		76.95% Impervious Area

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

Subcatchment 9S: Proposed to CB C



Summary for Subcatchment 10S: Proposed to CB D

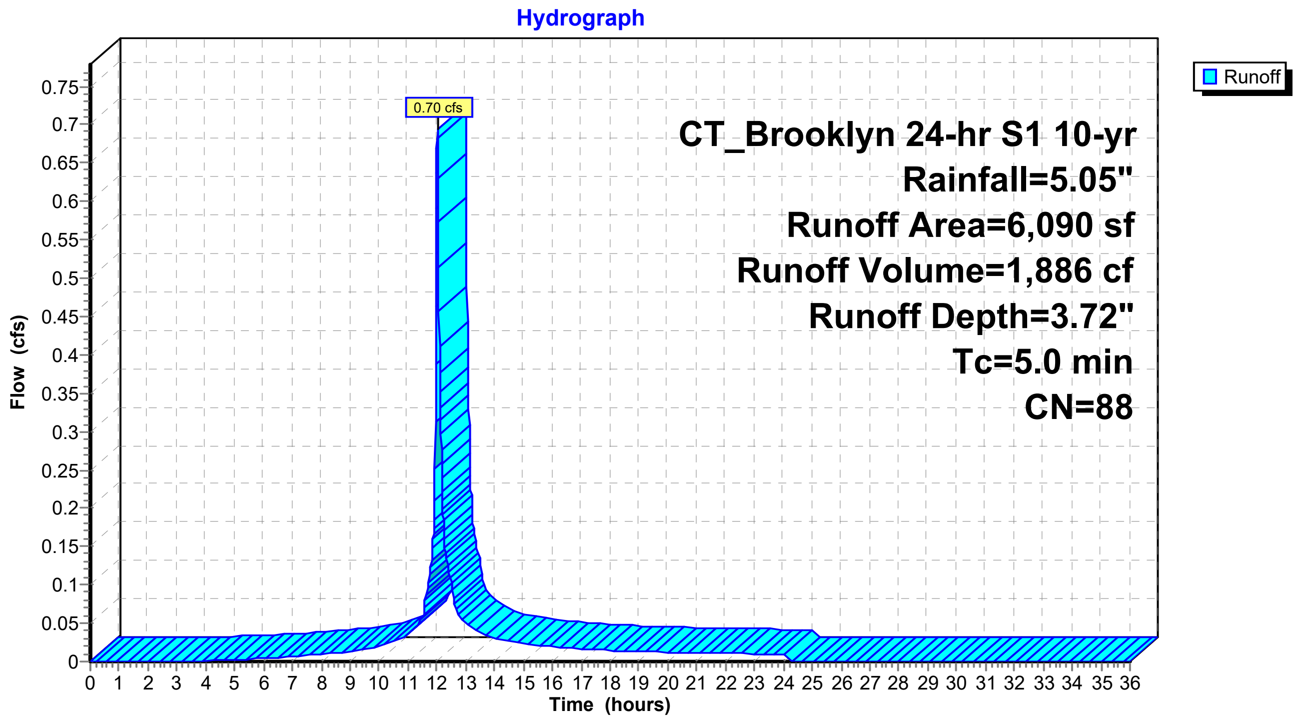
Runoff = 0.70 cfs @ 12.03 hrs, Volume= 1,886 cf, Depth= 3.72"
Routed to Pond 10P : CB D

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
4,430	98	Paved parking & roofs
1,660	61	>75% Grass cover, Good, HSG B
6,090	88	Weighted Average
1,660		27.26% Pervious Area
4,430		72.74% Impervious Area

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

Subcatchment 10S: Proposed to CB D



Summary for Subcatchment 11S: Proposed to CB E

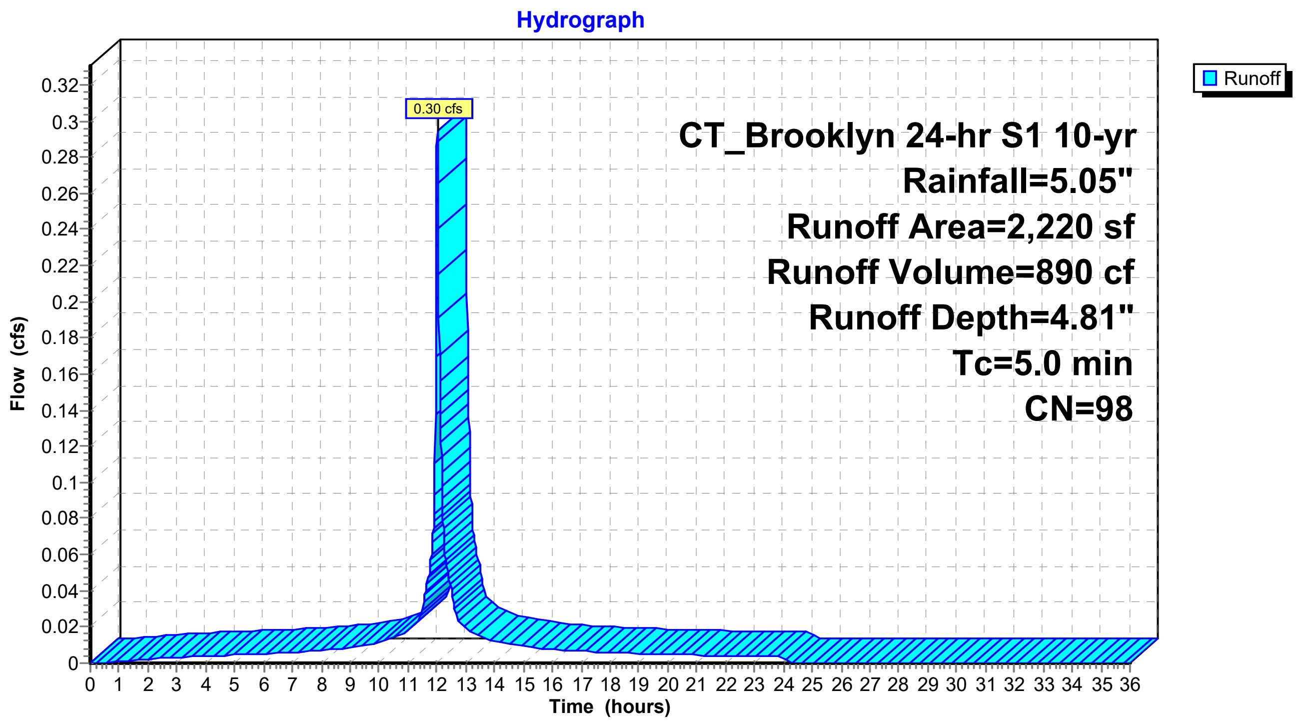
Runoff = 0.30 cfs @ 12.03 hrs, Volume= 890 cf, Depth= 4.81"
Routed to Pond 11P : CB E

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
2,220	98	Paved parking & roofs
2,220		100.00% Impervious Area

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

Subcatchment 11S: Proposed to CB E



Summary for Subcatchment 12S: Proposed to CB F

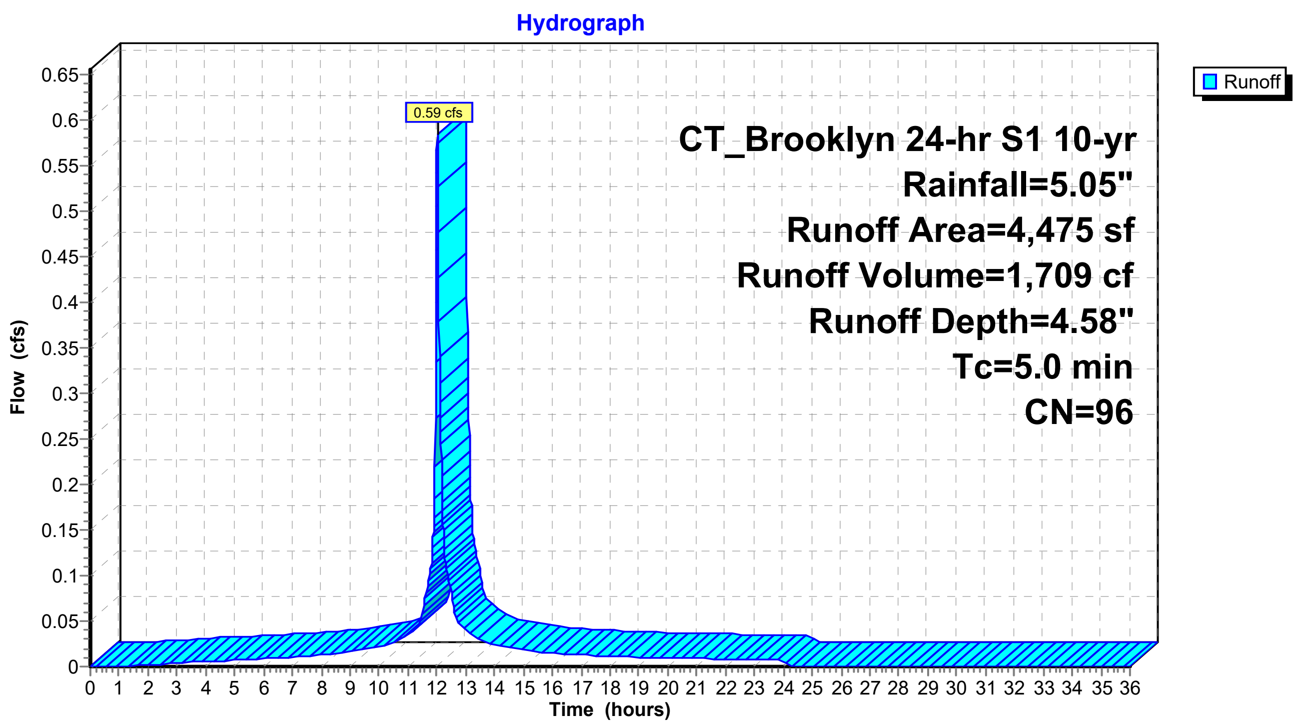
Runoff = 0.59 cfs @ 12.03 hrs, Volume= 1,709 cf, Depth= 4.58"
Routed to Pond 12P : CB F

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
4,215	98	Paved parking & roofs
260	61	>75% Grass cover, Good, HSG B
4,475	96	Weighted Average
260		5.81% Pervious Area
4,215		94.19% Impervious Area

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

Subcatchment 12S: Proposed to CB F



Summary for Subcatchment 13S: Proposed to CB G

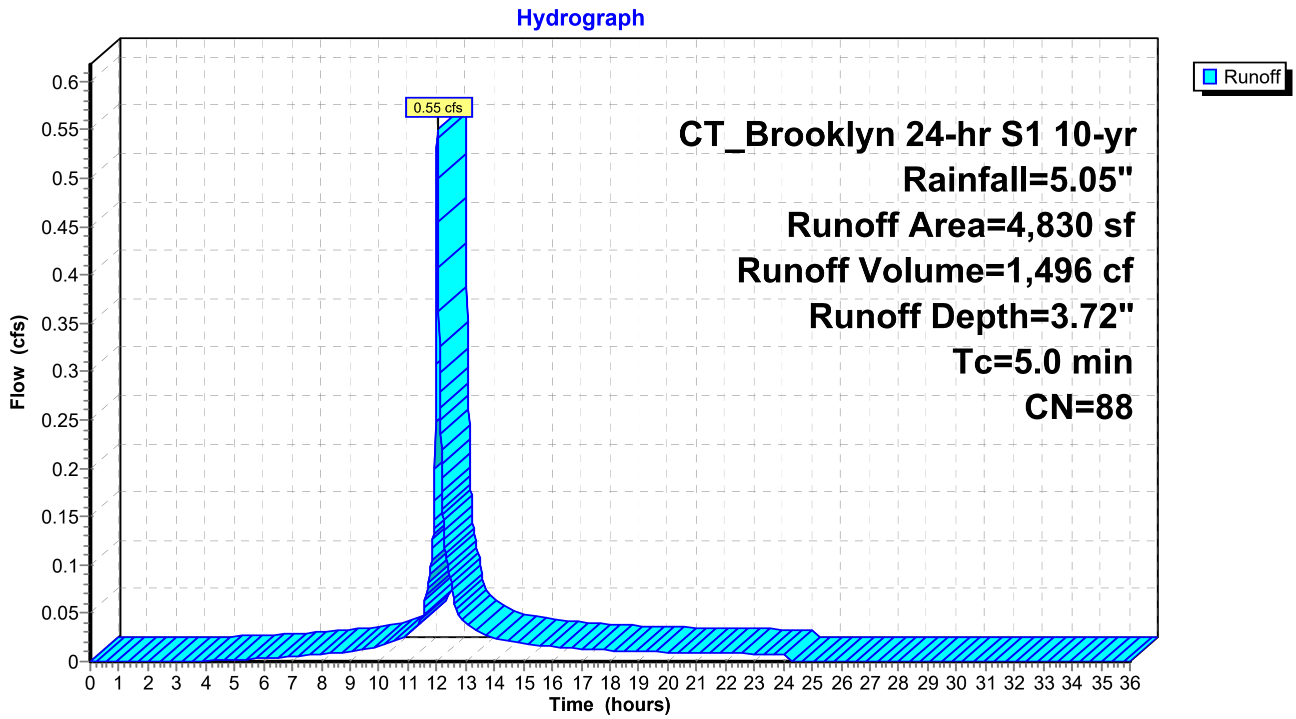
Runoff = 0.55 cfs @ 12.03 hrs, Volume= 1,496 cf, Depth= 3.72"
Routed to Pond 13P : CB G

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
3,530	98	Paved parking & roofs
1,300	61	>75% Grass cover, Good, HSG B
4,830	88	Weighted Average
1,300		26.92% Pervious Area
3,530		73.08% Impervious Area

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

Subcatchment 13S: Proposed to CB G



Summary for Subcatchment 14S: Proposed to CB H

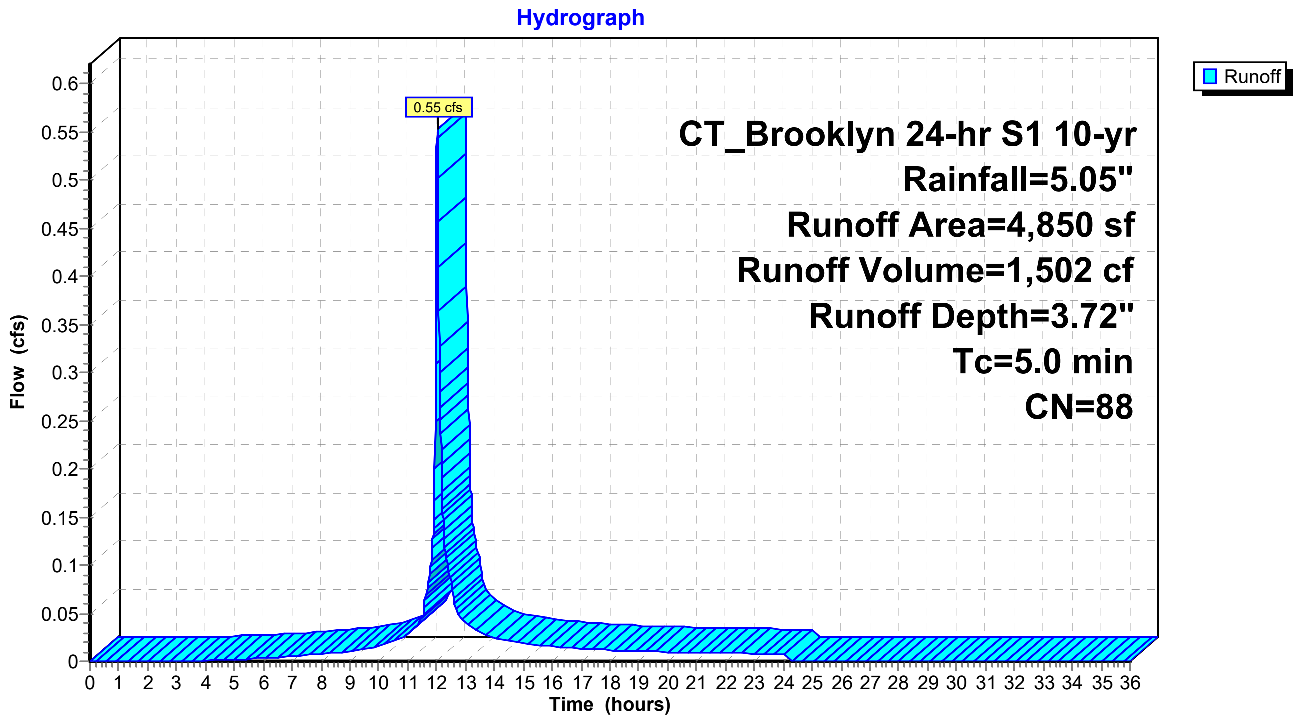
Runoff = 0.55 cfs @ 12.03 hrs, Volume= 1,502 cf, Depth= 3.72"
Routed to Pond 14P : CB H

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
3,550	98	Paved parking & roofs
1,300	61	>75% Grass cover, Good, HSG B
4,850	88	Weighted Average
1,300		26.80% Pervious Area
3,550		73.20% Impervious Area

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

Subcatchment 14S: Proposed to CB H



Summary for Subcatchment 15S: Proposed to CB I

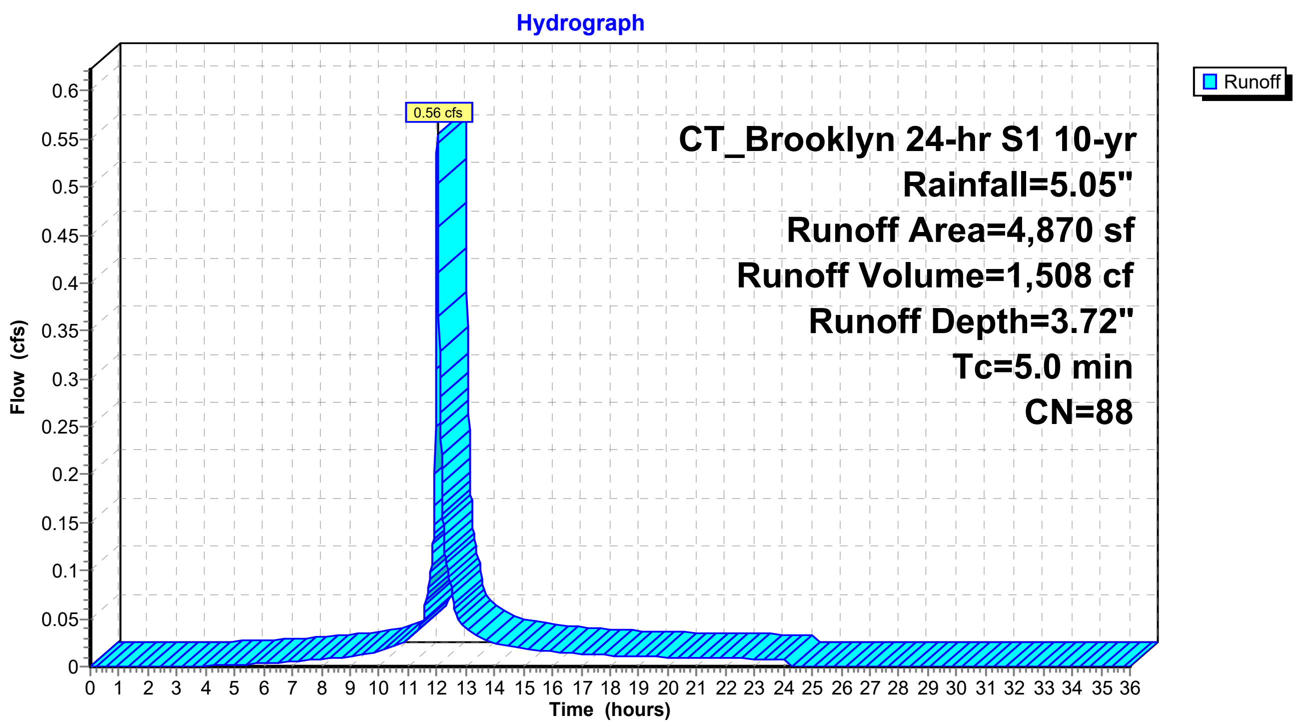
Runoff = 0.56 cfs @ 12.03 hrs, Volume= 1,508 cf, Depth= 3.72"
Routed to Pond 15P : CB I

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
3,520	98	Paved parking & roofs
1,350	61	>75% Grass cover, Good, HSG B
4,870	88	Weighted Average
1,350		27.72% Pervious Area
3,520		72.28% Impervious Area

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

Subcatchment 15S: Proposed to CB I



Summary for Subcatchment 16S: Proposed to CB J

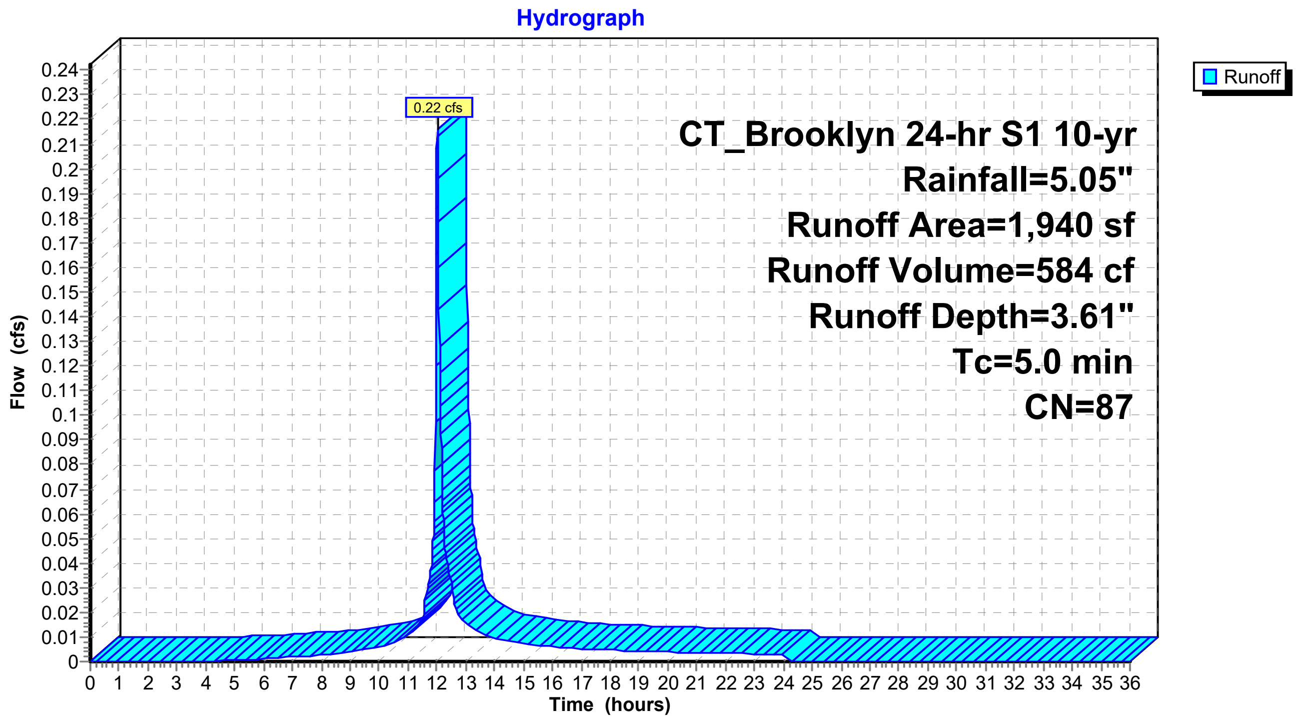
Runoff = 0.22 cfs @ 12.03 hrs, Volume= 584 cf, Depth= 3.61"
Routed to Pond 16P : CB J

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
1,380	98	Paved parking & roofs
560	61	>75% Grass cover, Good, HSG B
1,940	87	Weighted Average
560		28.87% Pervious Area
1,380		71.13% Impervious Area

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

Subcatchment 16S: Proposed to CB J



Summary for Subcatchment 17S: Proposed to CB K

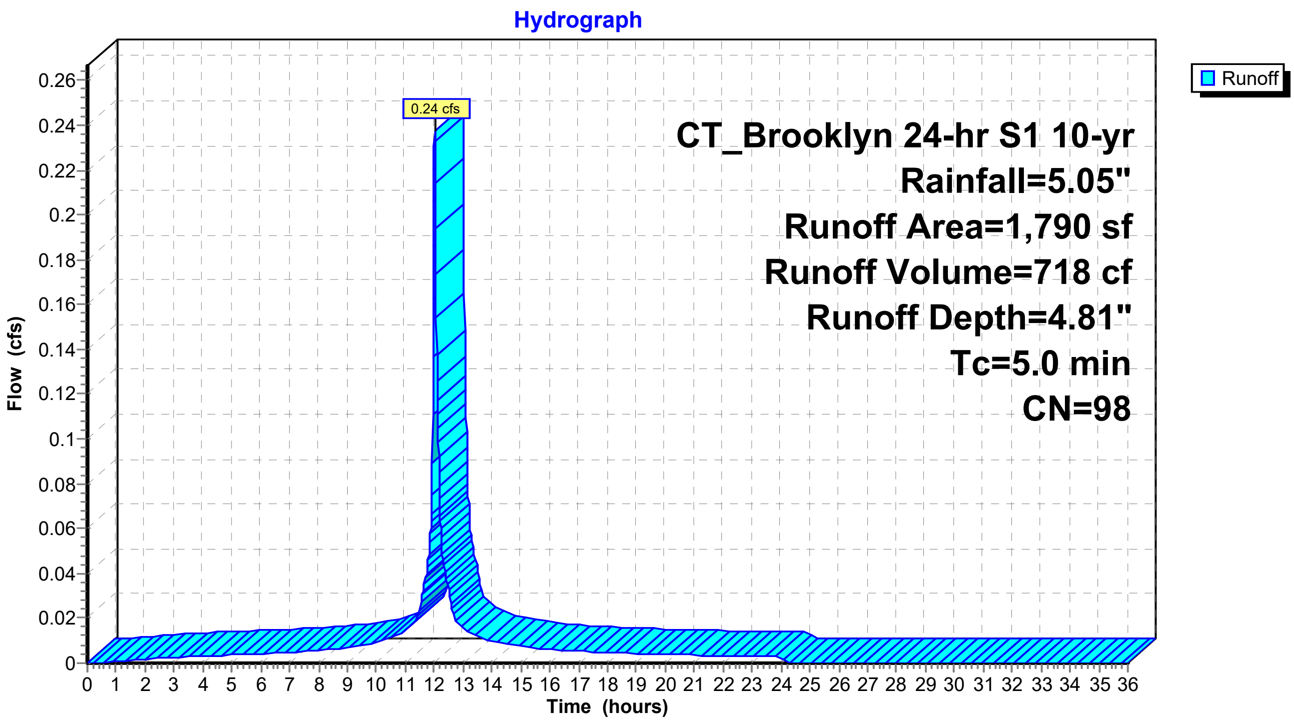
Runoff = 0.24 cfs @ 12.03 hrs, Volume= 718 cf, Depth= 4.81"
Routed to Pond 17P : CB K

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
1,790	98	Paved parking & roofs
1,790		100.00% Impervious Area

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

Subcatchment 17S: Proposed to CB K



Summary for Subcatchment 18S: Proposed to CB L

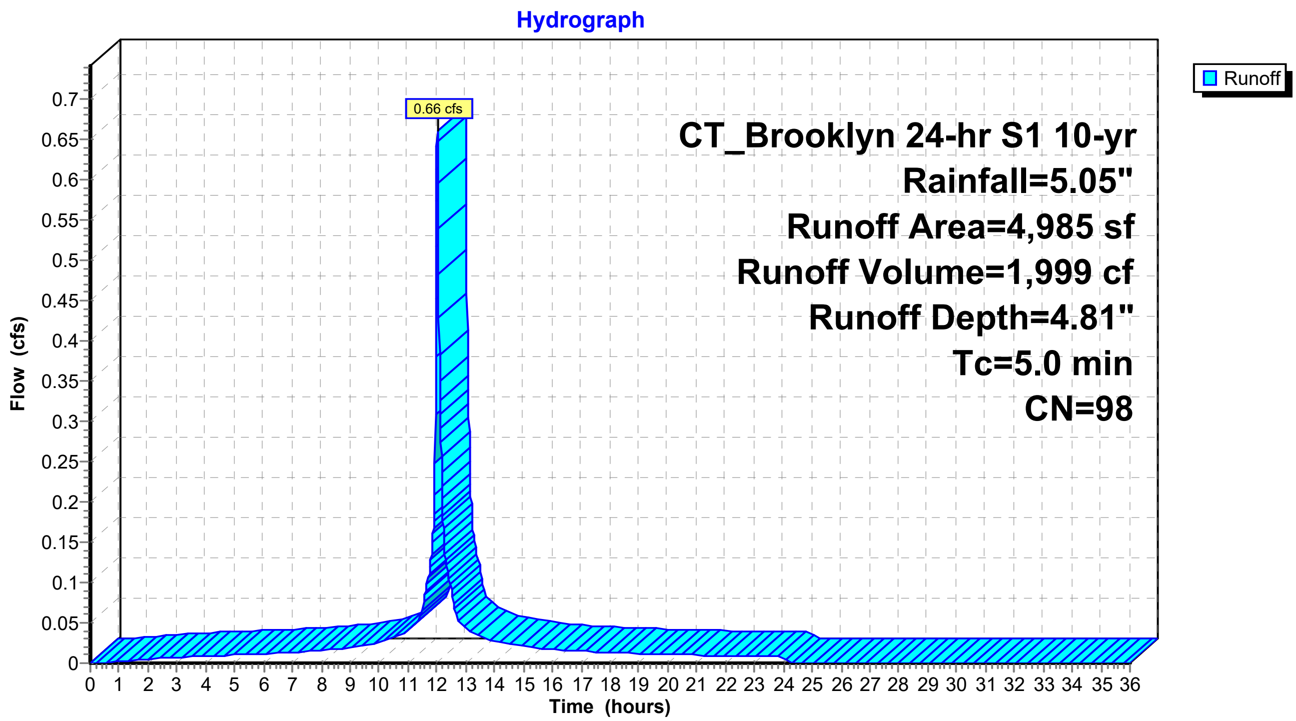
Runoff = 0.66 cfs @ 12.03 hrs, Volume= 1,999 cf, Depth= 4.81"
Routed to Pond 18P : CB L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
4,985	98	Paved parking & roofs
4,985		100.00% Impervious Area

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

Subcatchment 18S: Proposed to CB L



Summary for Subcatchment 19S: Proposed to CB M

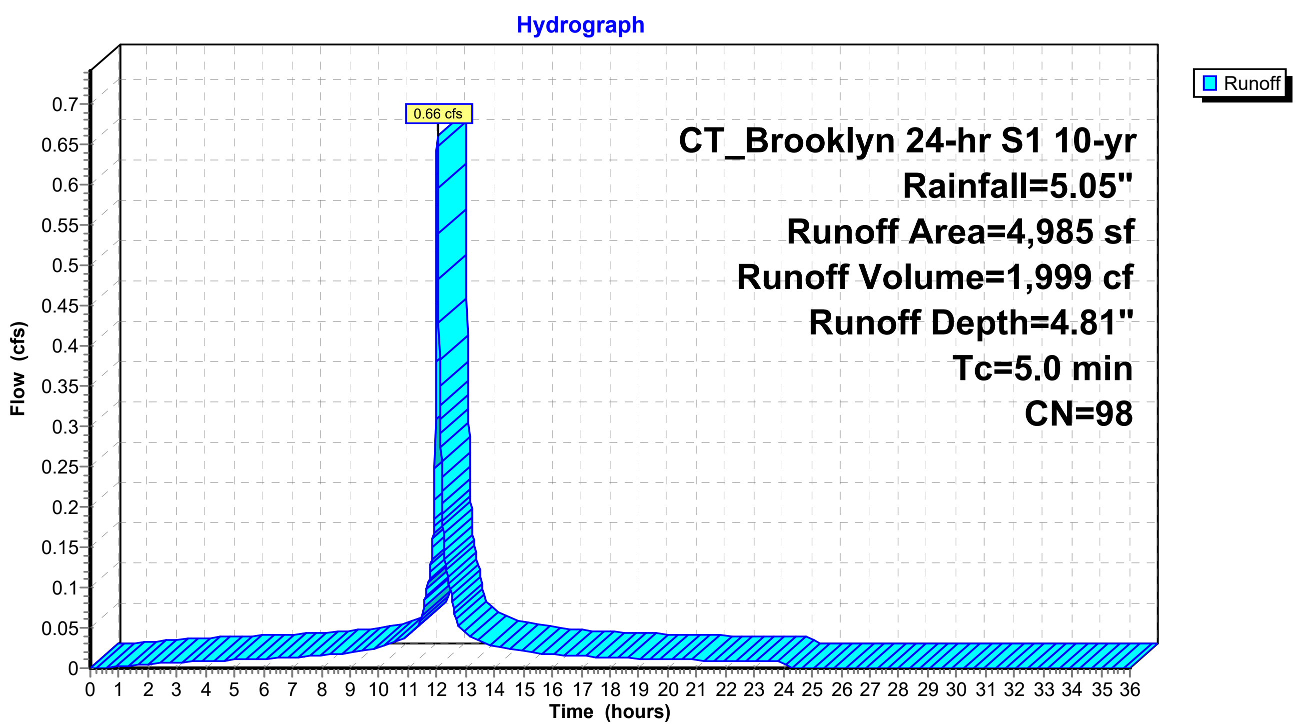
Runoff = 0.66 cfs @ 12.03 hrs, Volume= 1,999 cf, Depth= 4.81"
Routed to Pond 19P : CB M

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
4,985	98	Paved parking & roofs
4,985		100.00% Impervious Area

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

Subcatchment 19S: Proposed to CB M



Summary for Subcatchment 20S: Proposed to CB N

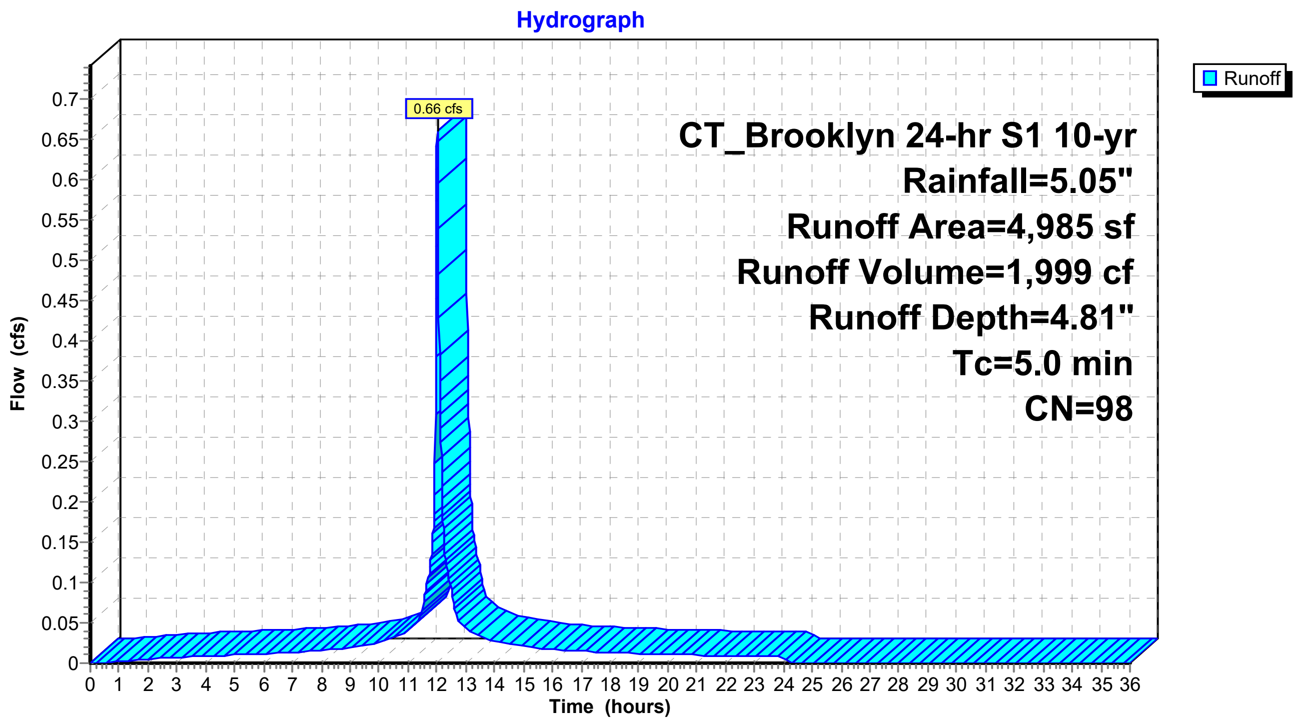
Runoff = 0.66 cfs @ 12.03 hrs, Volume= 1,999 cf, Depth= 4.81"
Routed to Pond 20P : CB N

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
4,985	98	Paved parking & roofs
4,985		100.00% Impervious Area

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

Subcatchment 20S: Proposed to CB N



Summary for Subcatchment 21S: Proposed to CB O

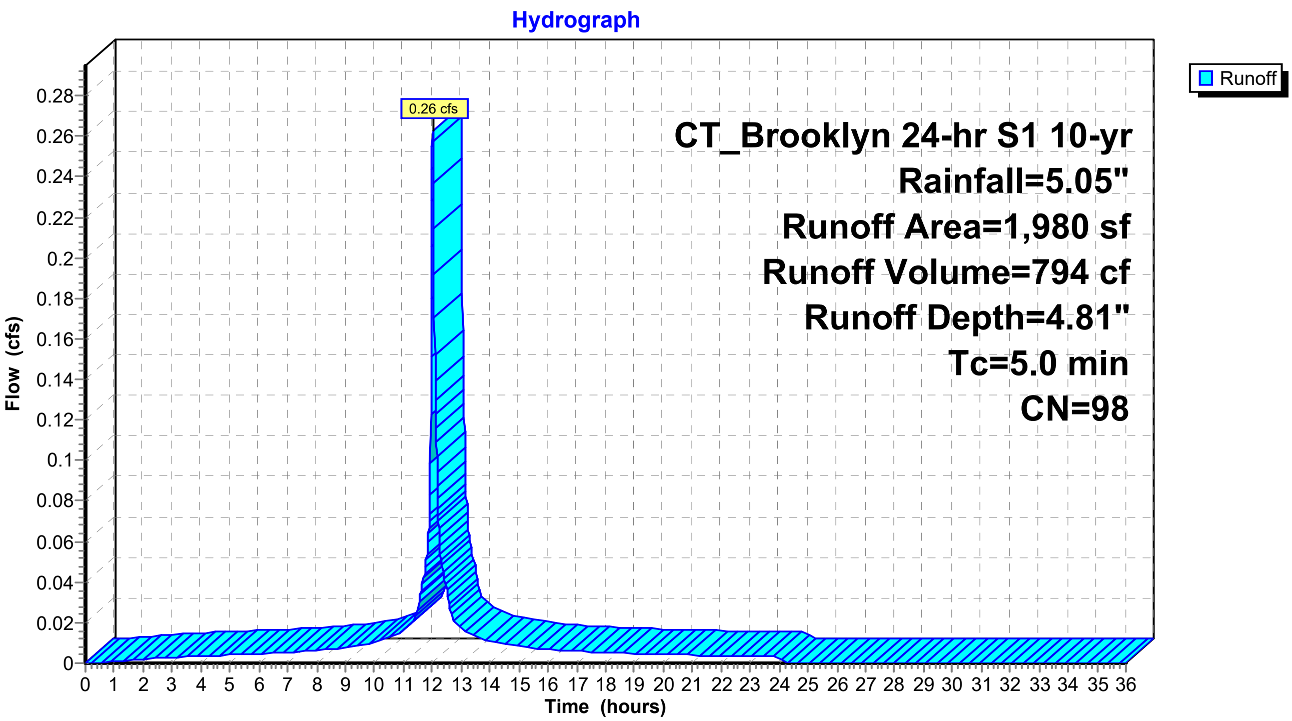
Runoff = 0.26 cfs @ 12.03 hrs, Volume= 794 cf, Depth= 4.81"
Routed to Pond 21P : CB O

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
1,980	98	Paved parking & roofs
1,980		100.00% Impervious Area

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

Subcatchment 21S: Proposed to CB O



Summary for Subcatchment 22S: Proposed to CB P

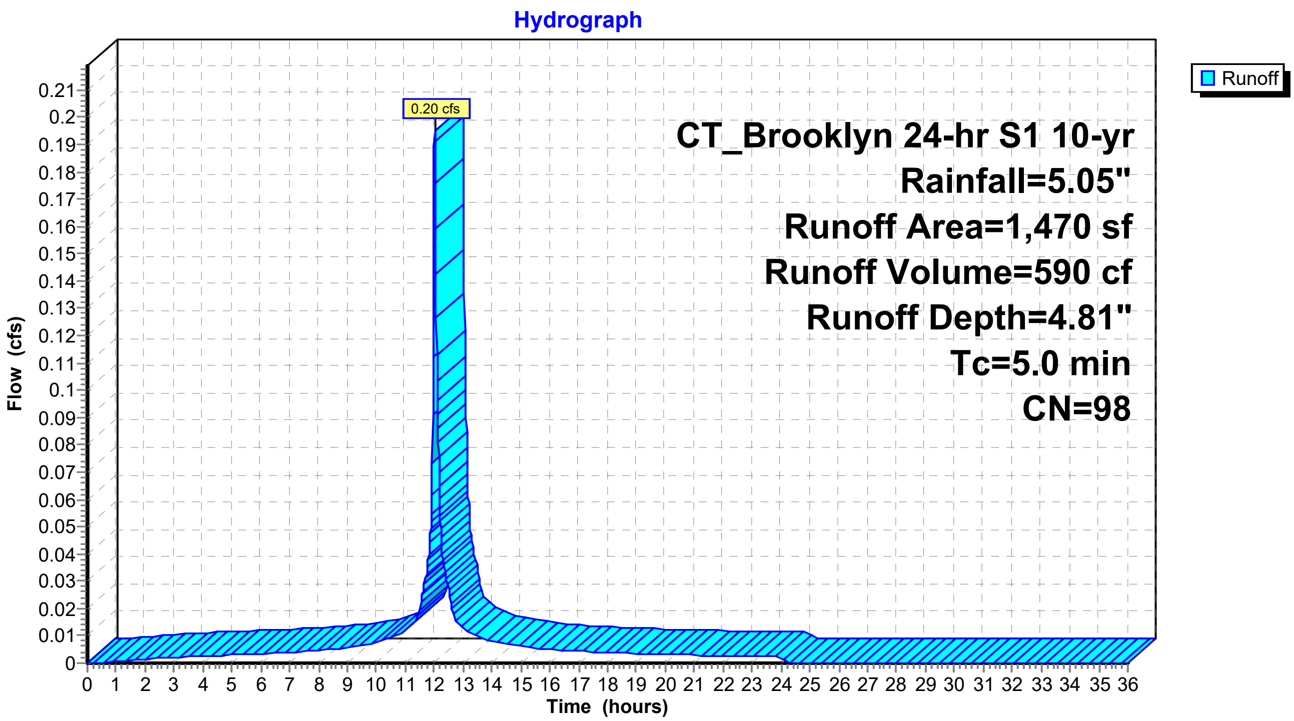
Runoff = 0.20 cfs @ 12.03 hrs, Volume= 590 cf, Depth= 4.81"
Routed to Pond 22P : CB P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
1,470	98	Paved parking & roofs
1,470		100.00% Impervious Area

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

Subcatchment 22S: Proposed to CB P



Summary for Subcatchment 23S: Proposed to CB Q

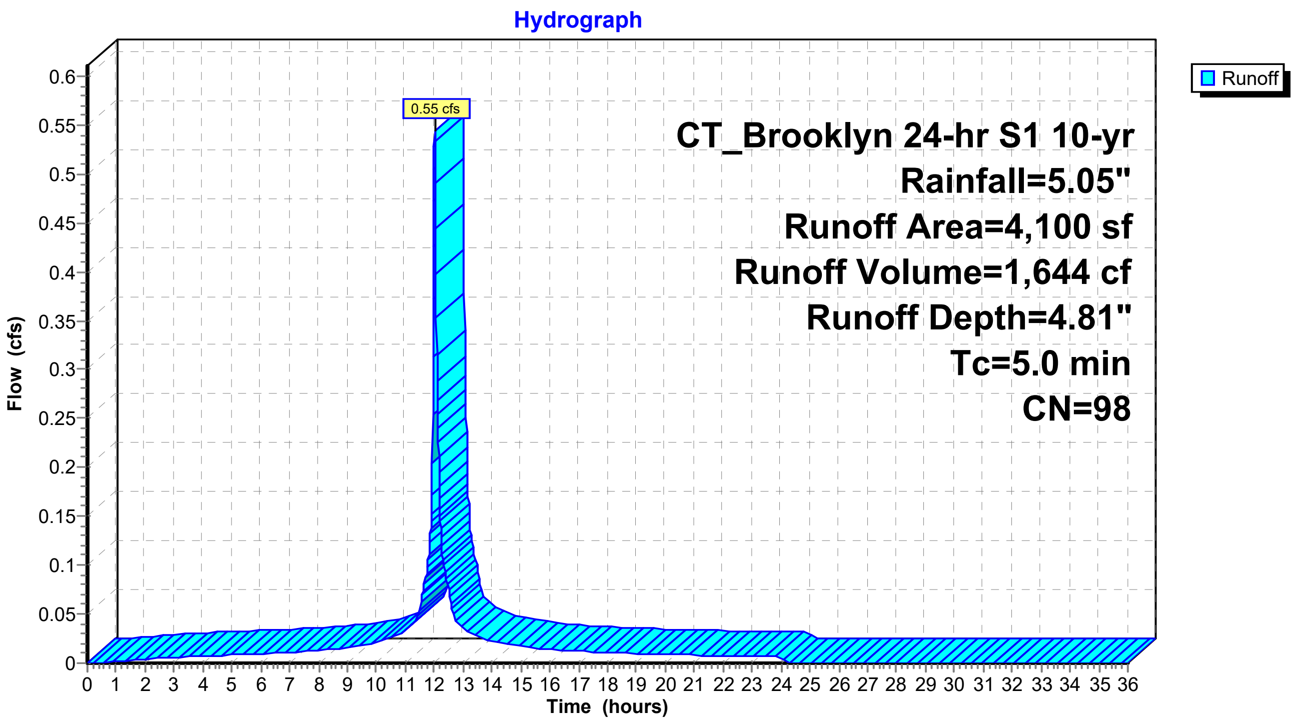
Runoff = 0.55 cfs @ 12.03 hrs, Volume= 1,644 cf, Depth= 4.81"
Routed to Pond 23P : CB Q

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
4,100	98	Paved parking & roofs
4,100		100.00% Impervious Area

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

Subcatchment 23S: Proposed to CB Q



Summary for Subcatchment 24S: Proposed to CB R

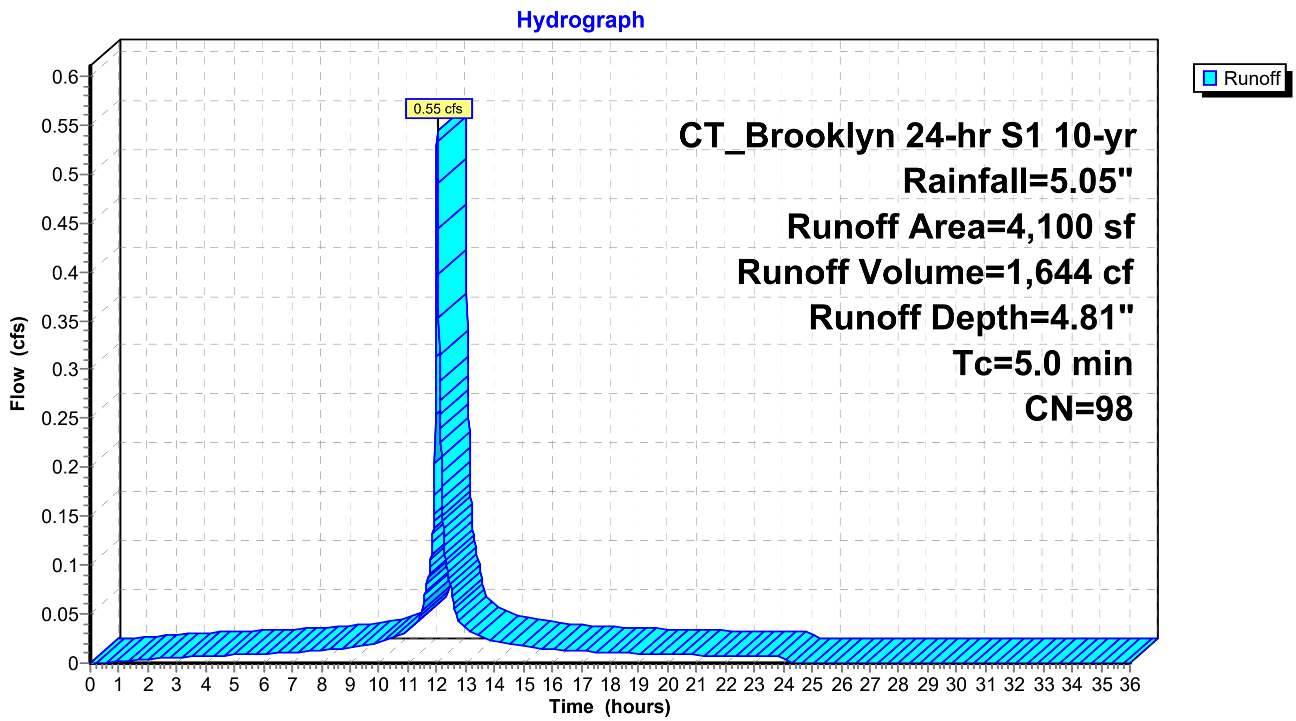
Runoff = 0.55 cfs @ 12.03 hrs, Volume= 1,644 cf, Depth= 4.81"
Routed to Pond 24P : CB R

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
4,100	98	Paved parking & roofs
4,100		100.00% Impervious Area

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

Subcatchment 24S: Proposed to CB R



Summary for Subcatchment 25S: Proposed to CB S

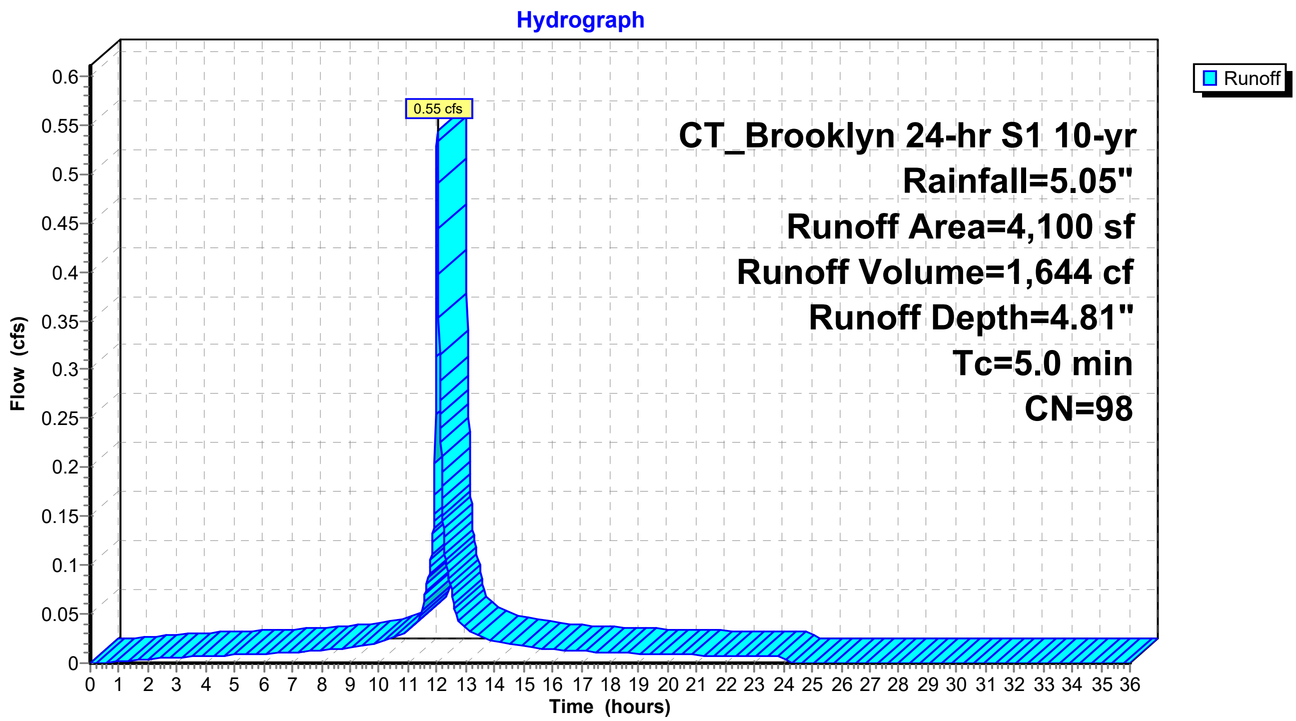
Runoff = 0.55 cfs @ 12.03 hrs, Volume= 1,644 cf, Depth= 4.81"
Routed to Pond 25P : CB S

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
4,100	98	Paved parking & roofs
4,100		100.00% Impervious Area

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

Subcatchment 25S: Proposed to CB S



Summary for Subcatchment 26S: Proposed to CB T

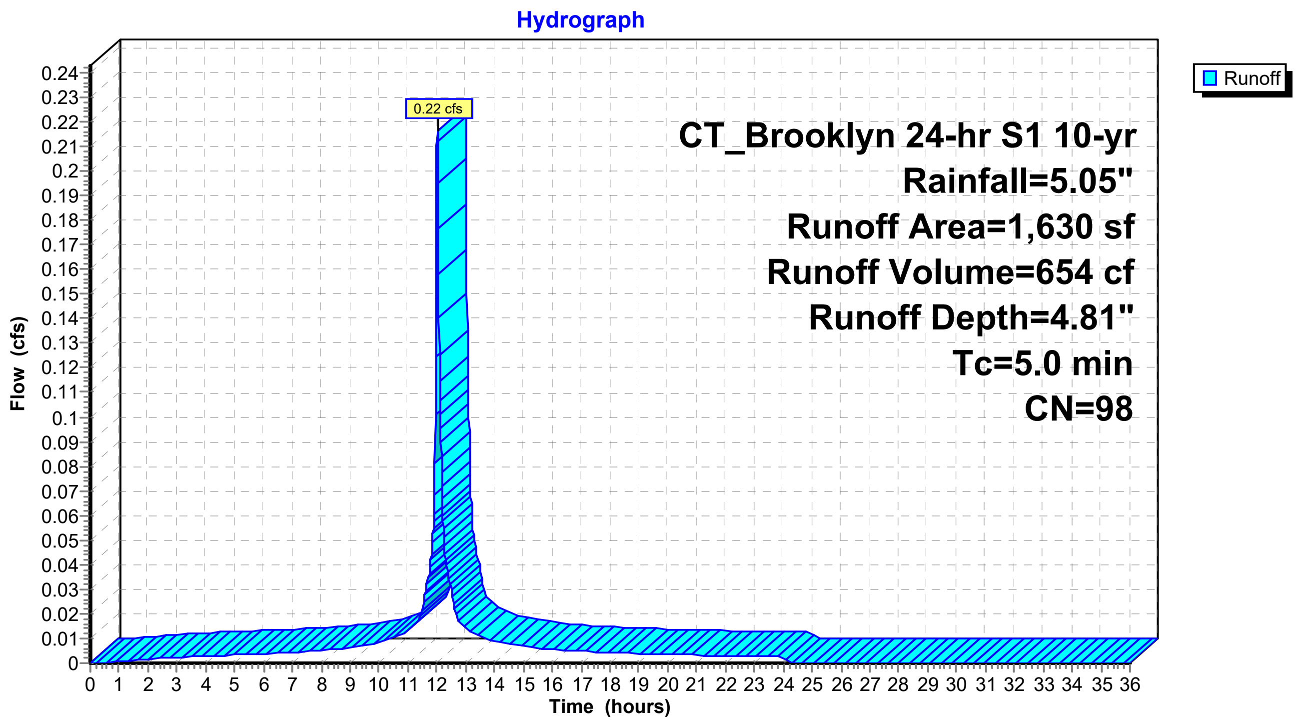
Runoff = 0.22 cfs @ 12.03 hrs, Volume= 654 cf, Depth= 4.81"
Routed to Pond 26P : CB T

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
1,630	98	Paved parking & roofs
1,630		100.00% Impervious Area

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

Subcatchment 26S: Proposed to CB T



Summary for Subcatchment 27S: Proposed to CB U

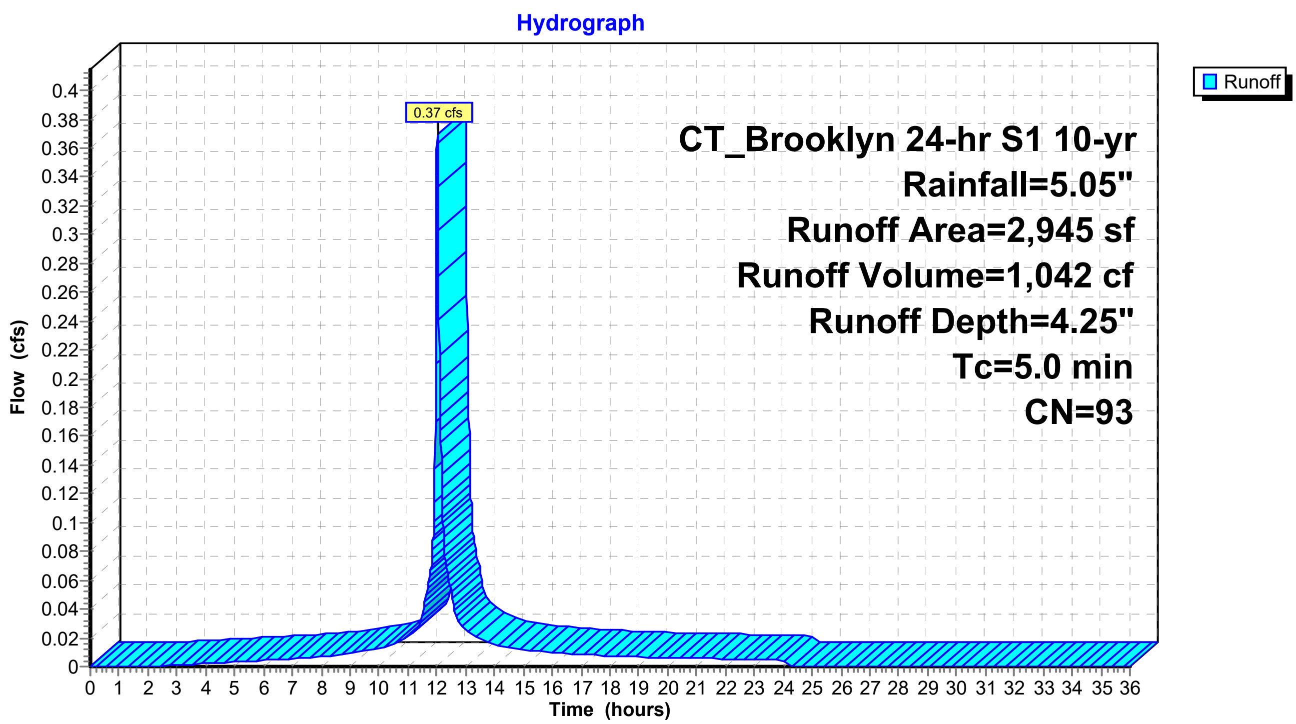
Runoff = 0.37 cfs @ 12.03 hrs, Volume= 1,042 cf, Depth= 4.25"
Routed to Pond 27P : CB U

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
2,555	98	Paved parking & roofs
390	61	>75% Grass cover, Good, HSG B
2,945	93	Weighted Average
390		13.24% Pervious Area
2,555		86.76% Impervious Area

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

Subcatchment 27S: Proposed to CB U



Summary for Subcatchment 28S: Proposed to CB V

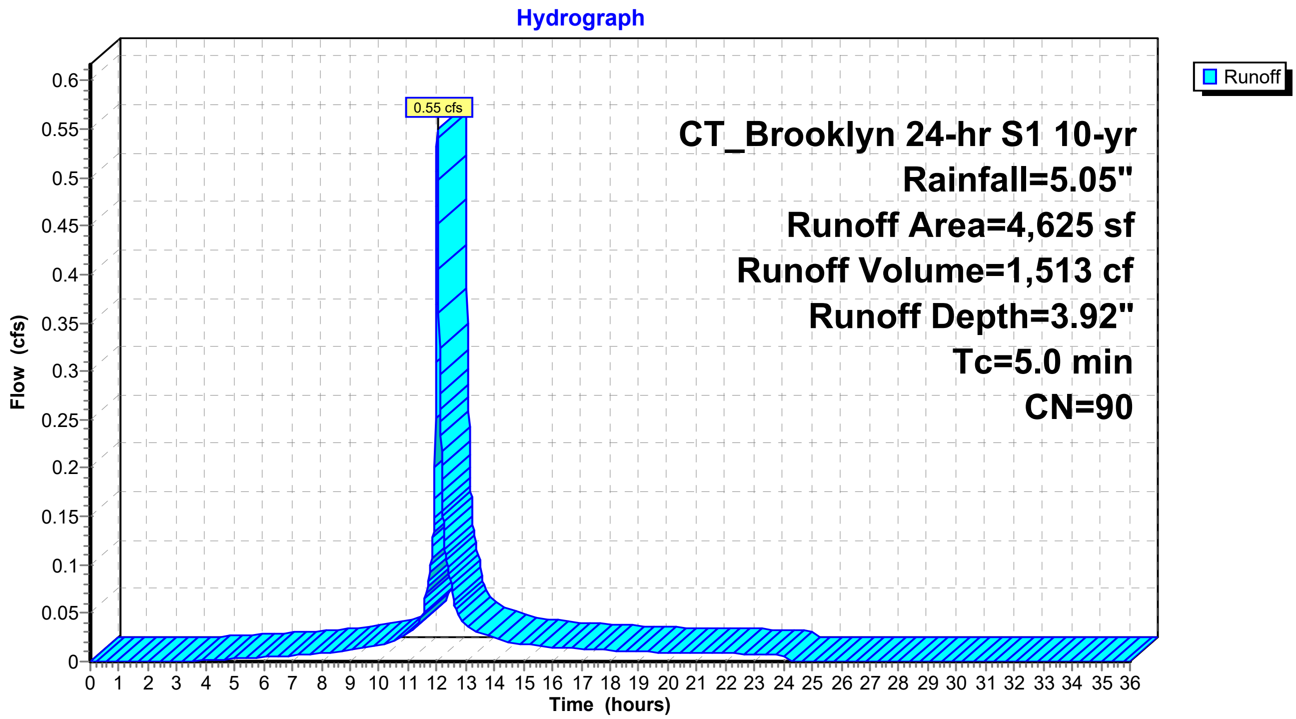
Runoff = 0.55 cfs @ 12.03 hrs, Volume= 1,513 cf, Depth= 3.92"
Routed to Pond 28P : CB V

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
3,605	98	Paved parking & roofs
1,020	61	>75% Grass cover, Good, HSG B
4,625	90	Weighted Average
1,020		22.05% Pervious Area
3,605		77.95% Impervious Area

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

Subcatchment 28S: Proposed to CB V



Summary for Subcatchment 29S: Proposed to CB W

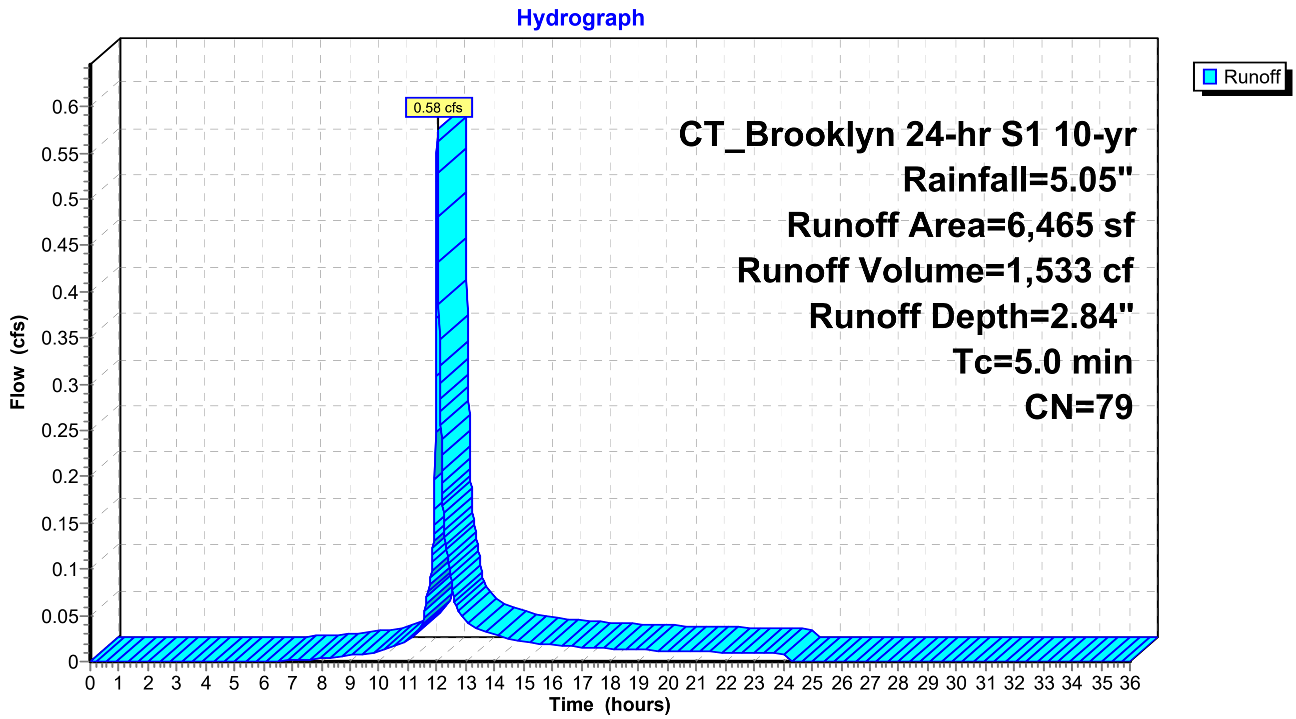
Runoff = 0.58 cfs @ 12.03 hrs, Volume= 1,533 cf, Depth= 2.84"
Routed to Pond 29P : CB W

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
3,150	98	Paved parking & roofs
3,315	61	>75% Grass cover, Good, HSG B
6,465	79	Weighted Average
3,315		51.28% Pervious Area
3,150		48.72% Impervious Area

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

Subcatchment 29S: Proposed to CB W



Summary for Subcatchment 30S: Bank Site to Stormwater Basin (Approximate From Previous Design)

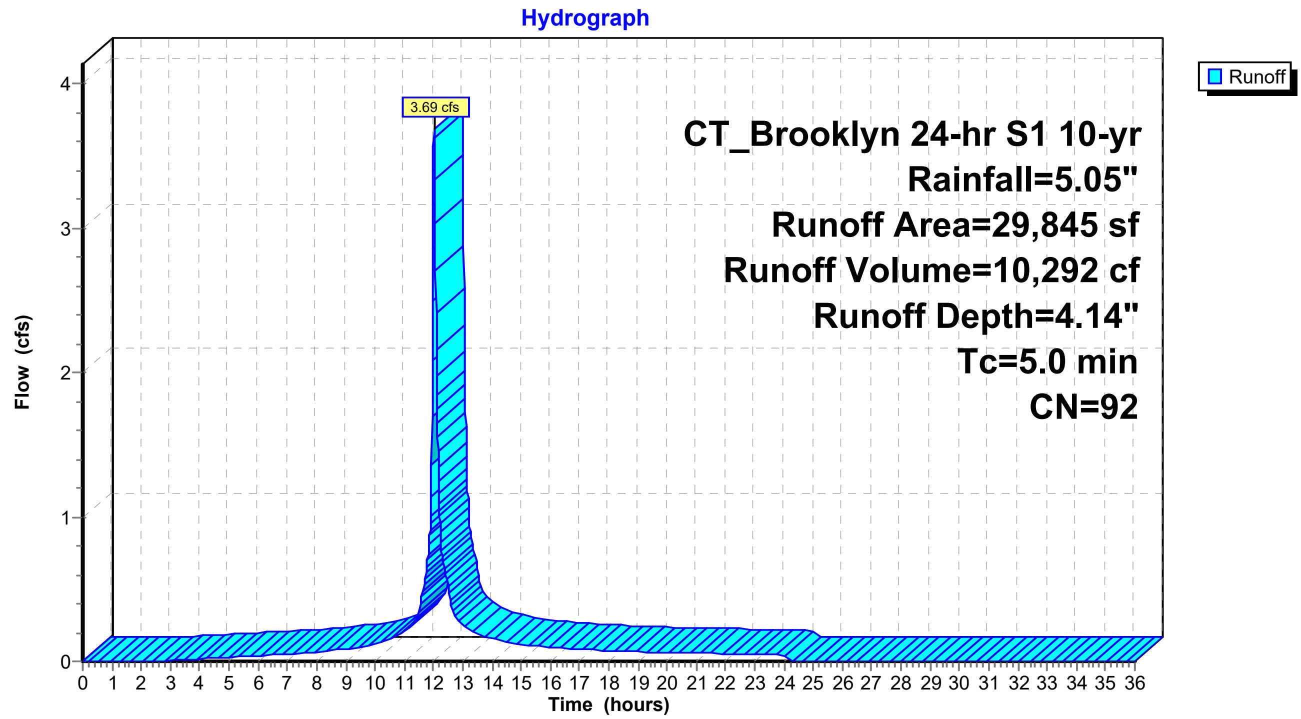
Runoff = 3.69 cfs @ 12.03 hrs, Volume= 10,292 cf, Depth= 4.14"
Routed to Link 1L : Wetland

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

	Area (sf)	CN	Description
*	2,975	98	Roof
	21,880	98	Paved parking & roofs
	4,990	61	>75% Grass cover, Good, HSG B
	29,845	92	Weighted Average
	4,990		16.72% Pervious Area
	24,855		83.28% Impervious Area

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

Subcatchment 30S: Bank Site to Stormwater Basin (Approximate From Previous Design)



Summary for Subcatchment 31S: Proposed to Swale (Approximate From Previous Design)

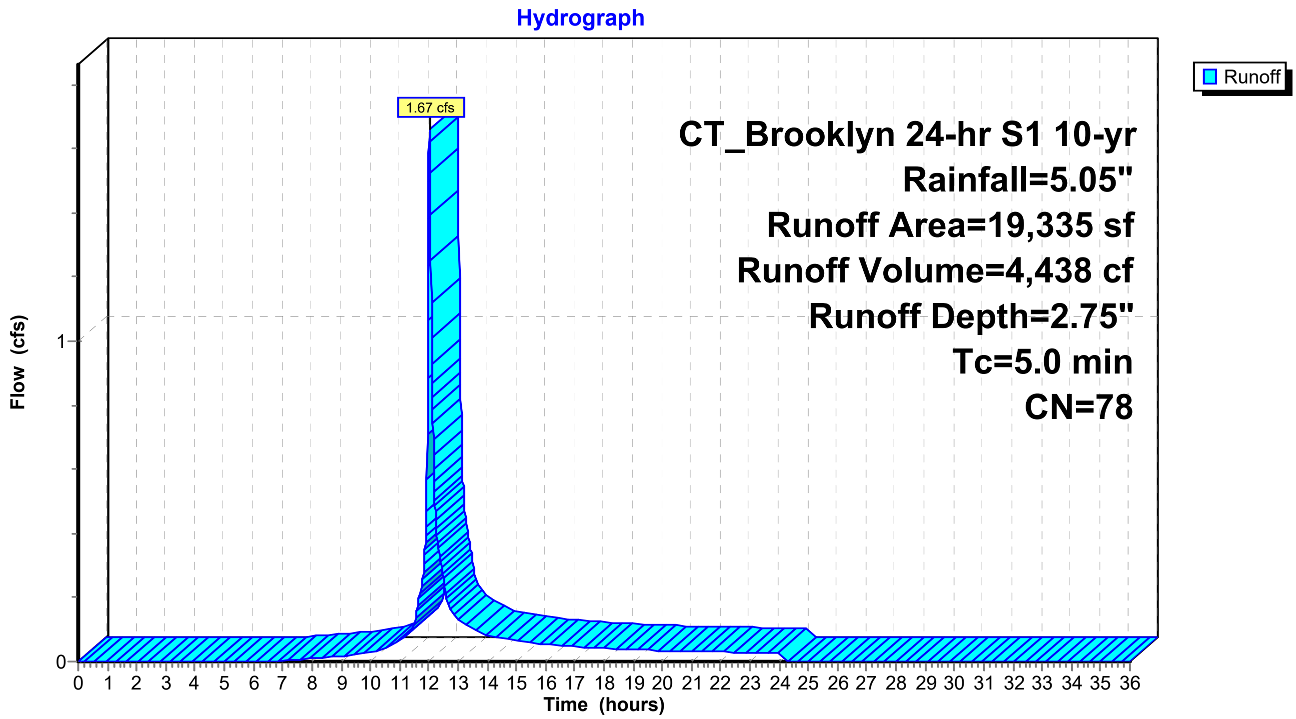
Runoff = 1.67 cfs @ 12.03 hrs, Volume= 4,438 cf, Depth= 2.75"
Routed to Pond 4DP : DMH 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
8,785	98	Paved parking & roofs
10,550	61	>75% Grass cover, Good, HSG B
19,335	78	Weighted Average
10,550		54.56% Pervious Area
8,785		45.44% Impervious Area

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

Subcatchment 31S: Proposed to Swale (Approximate From Previous Design)



Summary for Subcatchment 32S: Pharmacy Roof (Approximate From Previous Design)

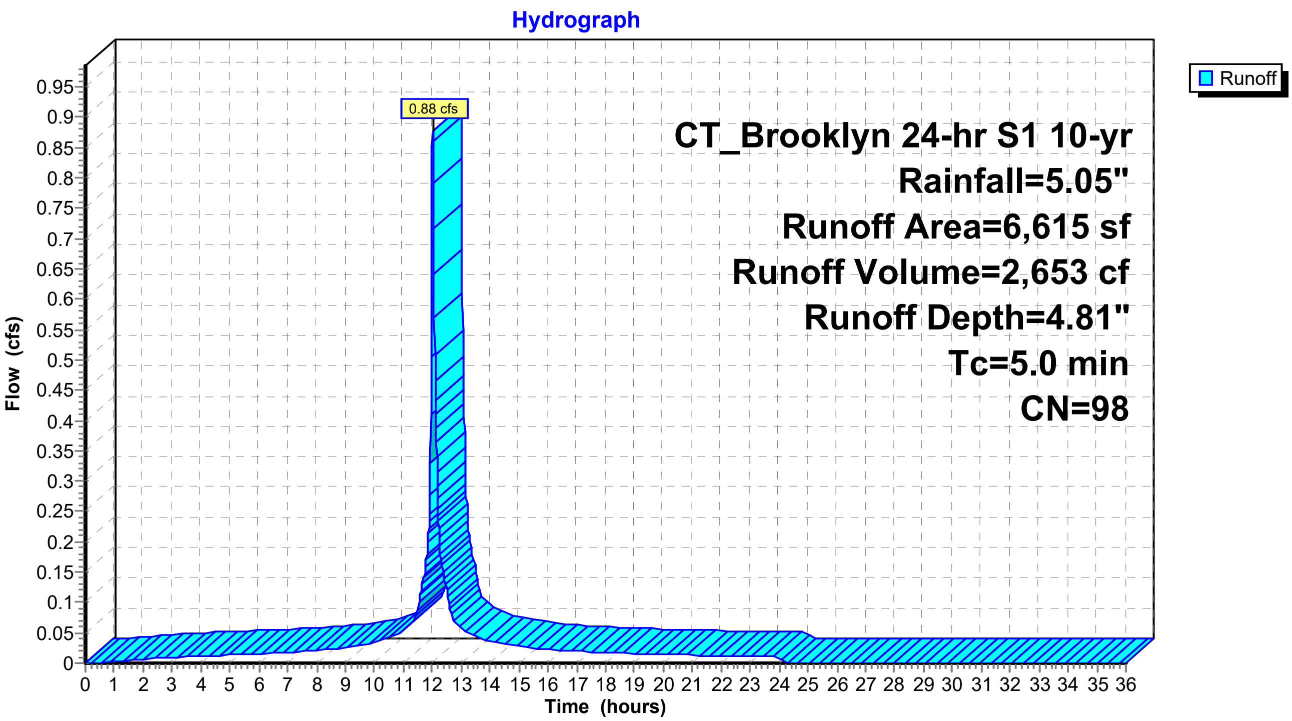
Runoff = 0.88 cfs @ 12.03 hrs, Volume= 2,653 cf, Depth= 4.81"
Routed to Pond 4DP : DMH 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
6,615	98	Paved parking & roofs
6,615		100.00% Impervious Area

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

Subcatchment 32S: Pharmacy Roof (Approximate From Previous Design)



Summary for Subcatchment 33S: Pharmacy Roof (Approximate From Previous Design)

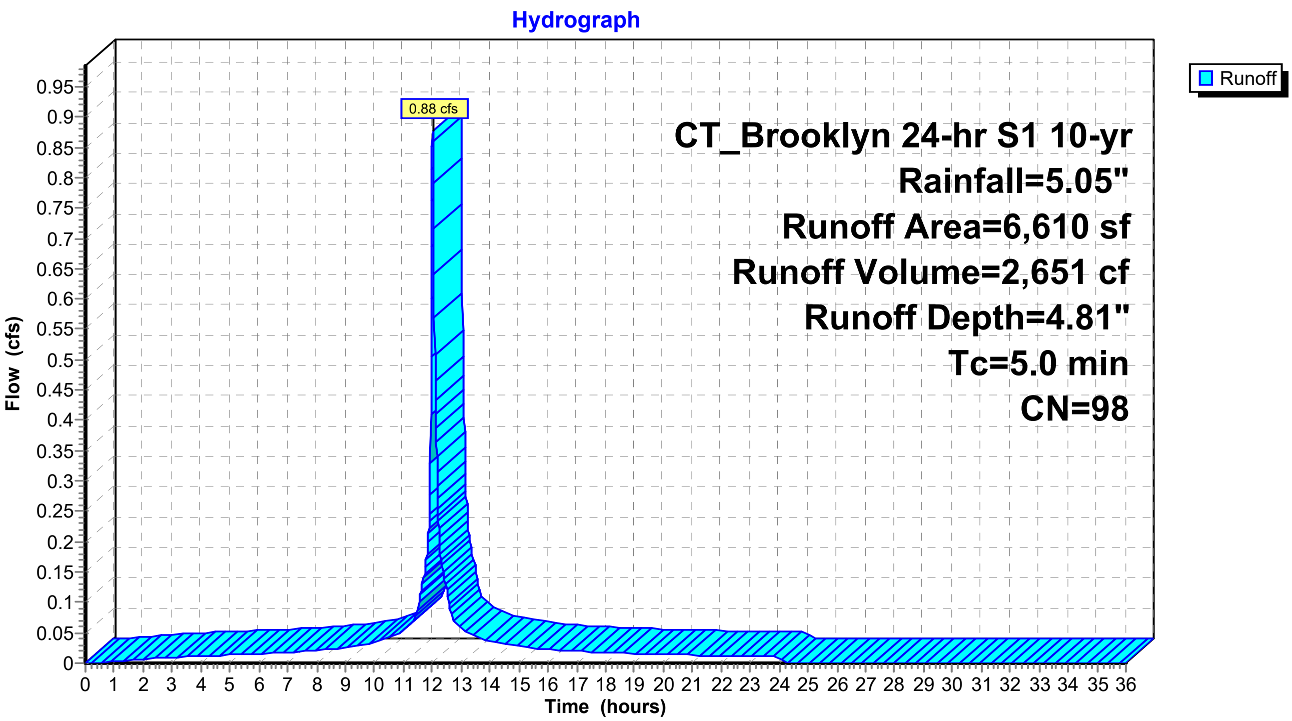
Runoff = 0.88 cfs @ 12.03 hrs, Volume= 2,651 cf, Depth= 4.81"
Routed to Pond 45P : CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
6,610	98	Paved parking & roofs
6,610		100.00% Impervious Area

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

Subcatchment 33S: Pharmacy Roof (Approximate From Previous Design)



Summary for Subcatchment 34ES: Retail/Office Roof

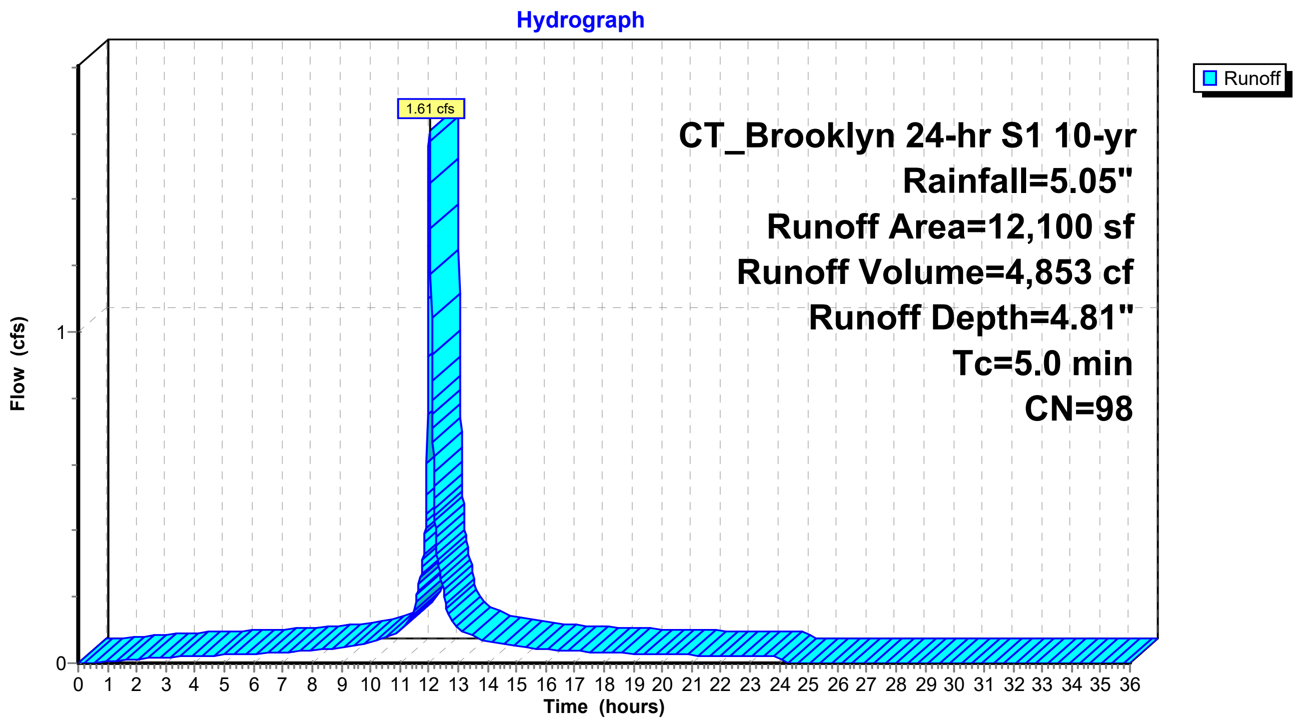
Runoff = 1.61 cfs @ 12.03 hrs, Volume= 4,853 cf, Depth= 4.81"
Routed to Pond 11P : CB E

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
12,100	98	Paved parking & roofs
12,100		100.00% Impervious Area

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

Subcatchment 34ES: Retail/Office Roof



Summary for Subcatchment 34WS: Retail/Office Roof

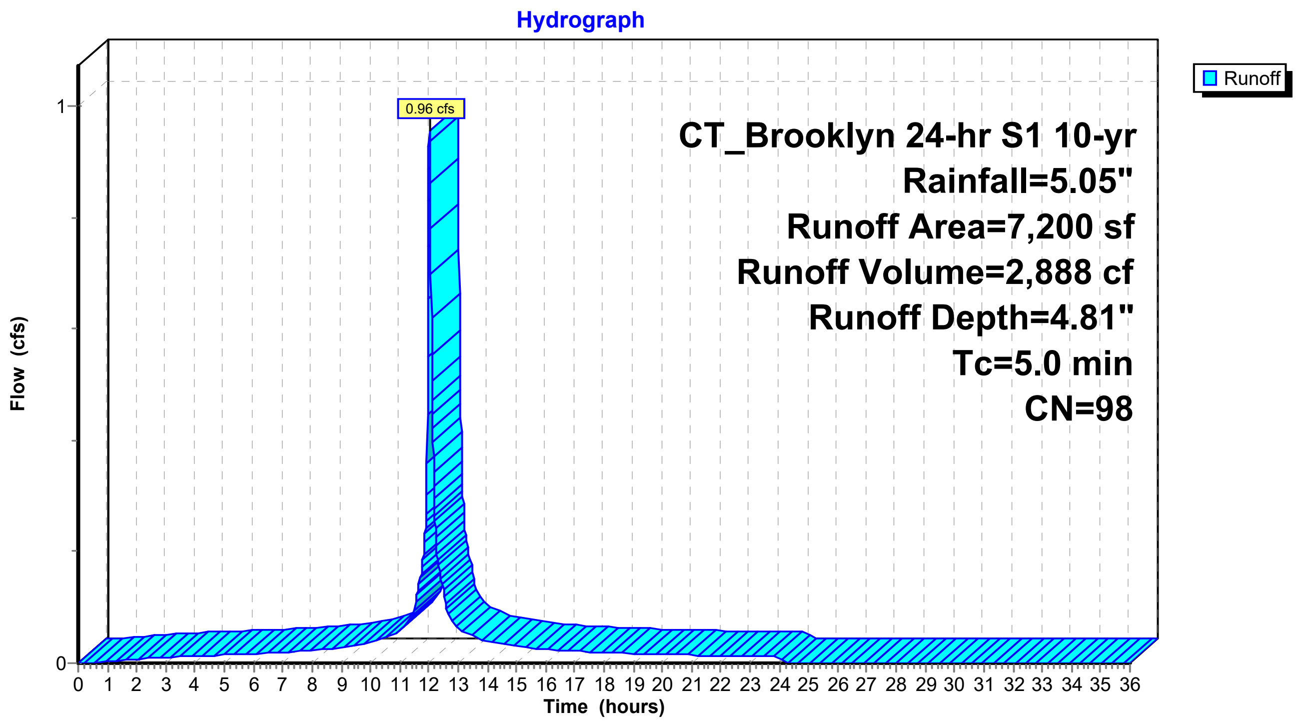
Runoff = 0.96 cfs @ 12.03 hrs, Volume= 2,888 cf, Depth= 4.81"
Routed to Pond 55P : DMH F

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
7,200	98	Paved parking & roofs
7,200		100.00% Impervious Area

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

Subcatchment 34WS: Retail/Office Roof



Summary for Subcatchment 35S: Spa / Med. Office Roof

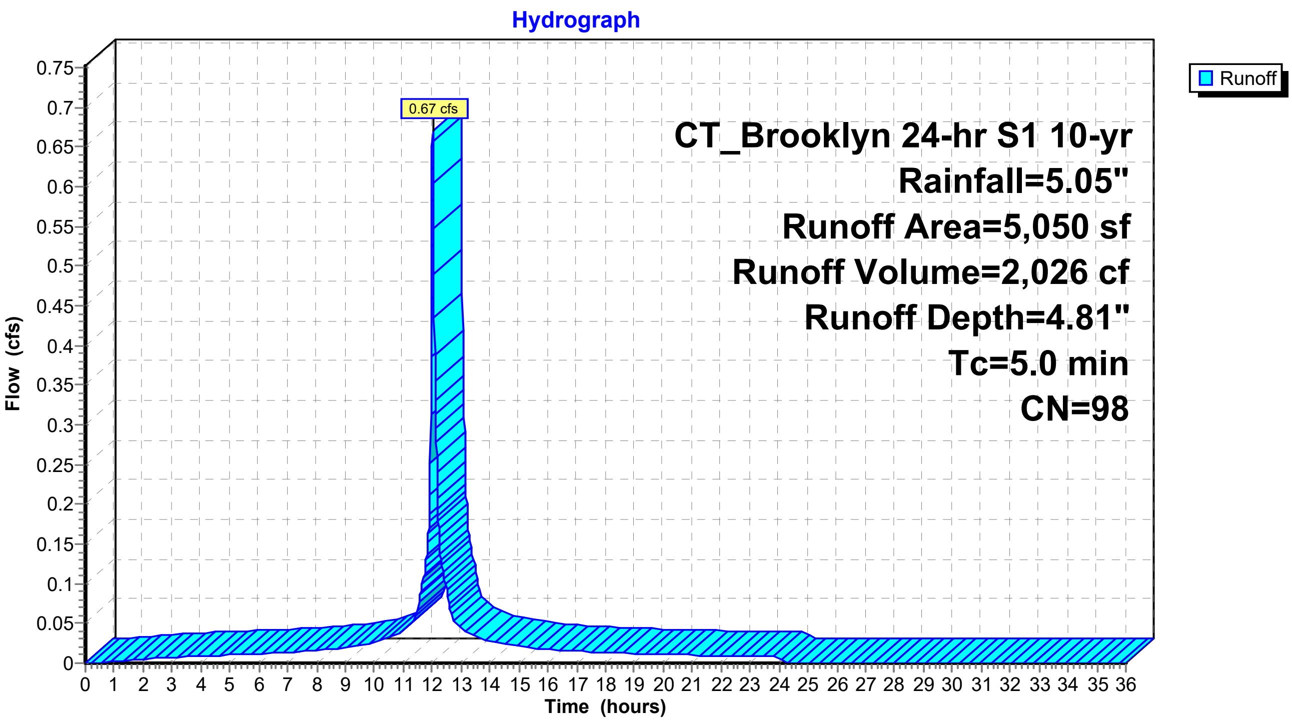
Runoff = 0.67 cfs @ 12.03 hrs, Volume= 2,026 cf, Depth= 4.81"
Routed to Pond 4DP : DMH 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
5,050	98	Paved parking & roofs
5,050		100.00% Impervious Area

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

Subcatchment 35S: Spa / Med. Office Roof



Summary for Subcatchment 41S: Proposed to CB 11

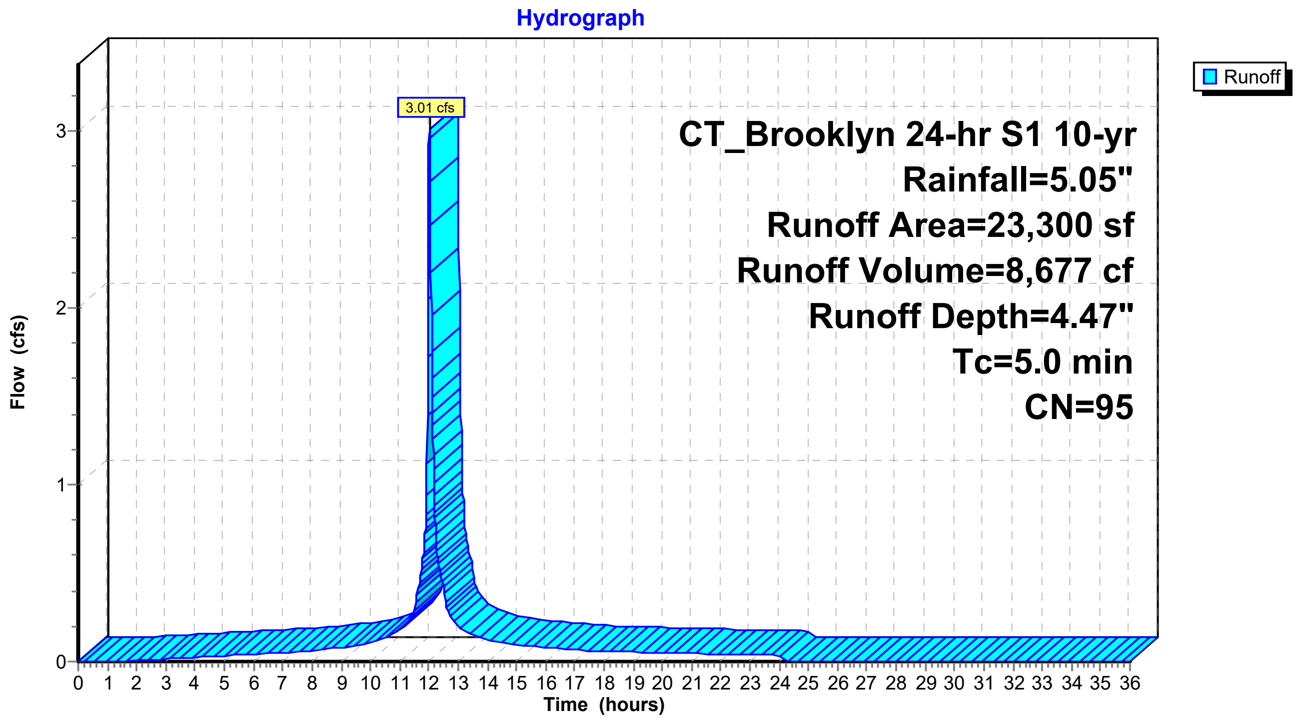
Runoff = 3.01 cfs @ 12.03 hrs, Volume= 8,677 cf, Depth= 4.47"
Routed to Pond 41P : CB 11

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
21,320	98	Paved parking & roofs
1,980	61	>75% Grass cover, Good, HSG B
23,300	95	Weighted Average
1,980		8.50% Pervious Area
21,320		91.50% Impervious Area

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

Subcatchment 41S: Proposed to CB 11



Summary for Subcatchment 42S: Proposed to CB 12

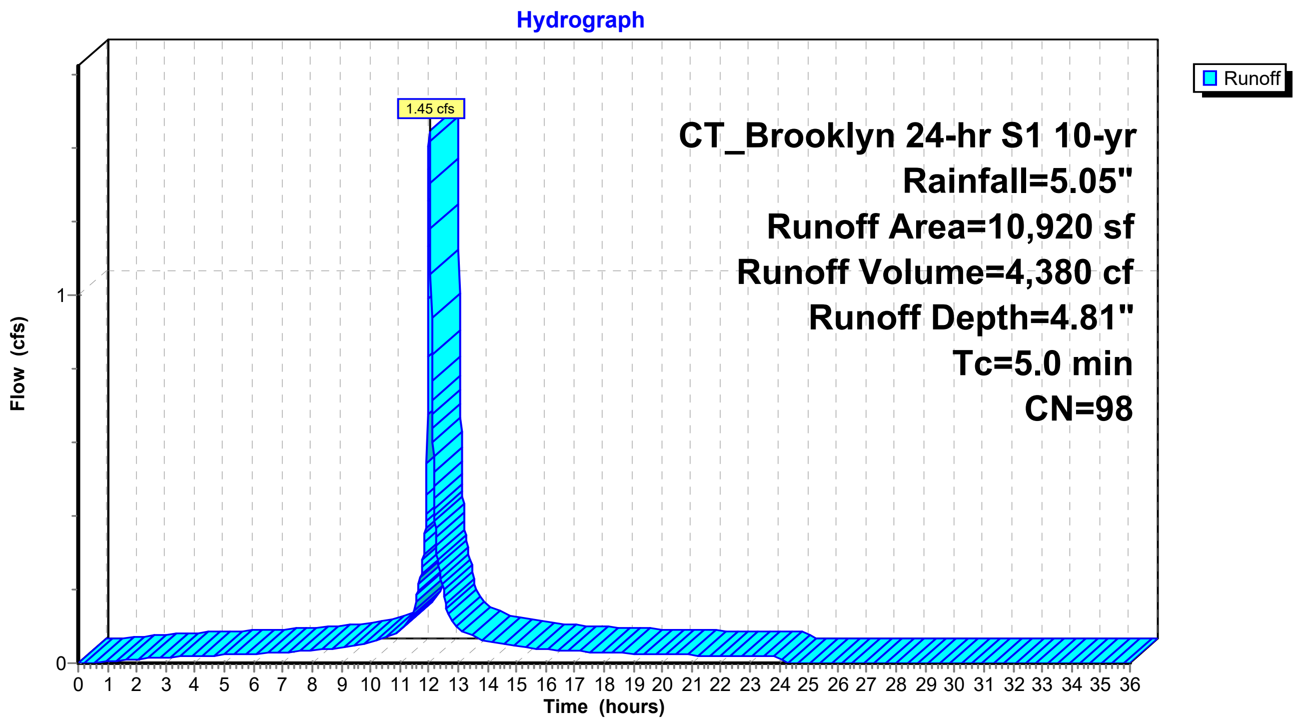
Runoff = 1.45 cfs @ 12.03 hrs, Volume= 4,380 cf, Depth= 4.81"
Routed to Pond 42P : CB 12

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
10,920	98	Paved parking & roofs
10,920		100.00% Impervious Area

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

Subcatchment 42S: Proposed to CB 12



Summary for Subcatchment 44S: Ex to CB

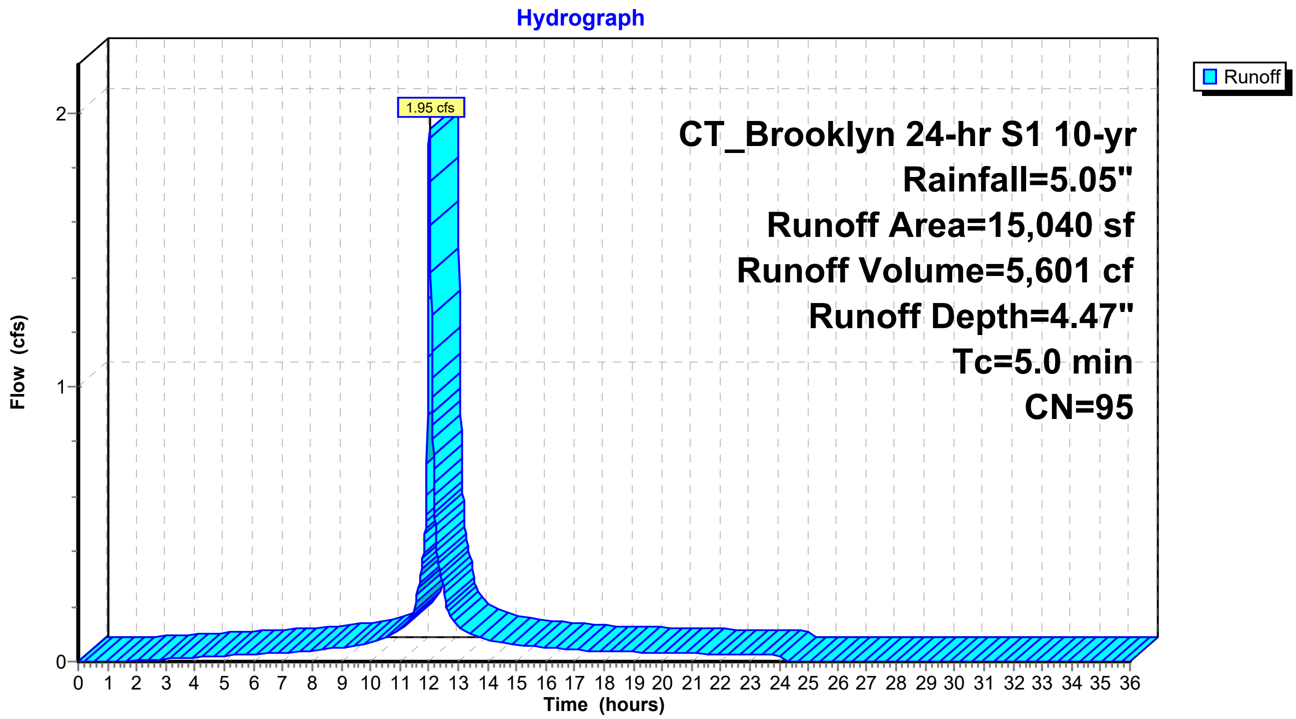
Runoff = 1.95 cfs @ 12.03 hrs, Volume= 5,601 cf, Depth= 4.47"
Routed to Pond 44P : CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
13,940	98	Paved parking & roofs
1,100	61	>75% Grass cover, Good, HSG B
15,040	95	Weighted Average
1,100		7.31% Pervious Area
13,940		92.69% Impervious Area

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

Subcatchment 44S: Ex to CB



Summary for Subcatchment 45S: Ex to CB

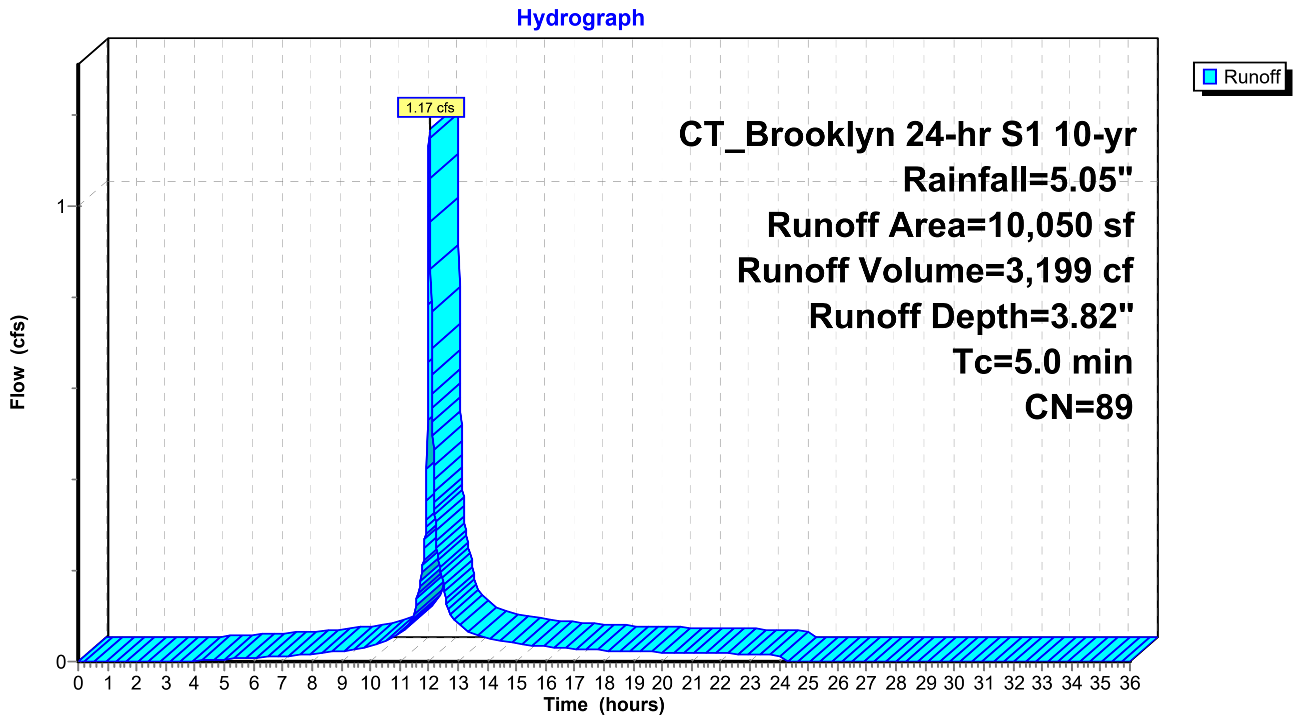
Runoff = 1.17 cfs @ 12.03 hrs, Volume= 3,199 cf, Depth= 3.82"
Routed to Pond 45P : CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 10-yr Rainfall=5.05"

Area (sf)	CN	Description
7,725	98	Paved parking & roofs
2,325	61	>75% Grass cover, Good, HSG B
10,050	89	Weighted Average
2,325		23.13% Pervious Area
7,725		76.87% Impervious Area

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

Subcatchment 45S: Ex to CB



Summary for Pond 1P: CB 1

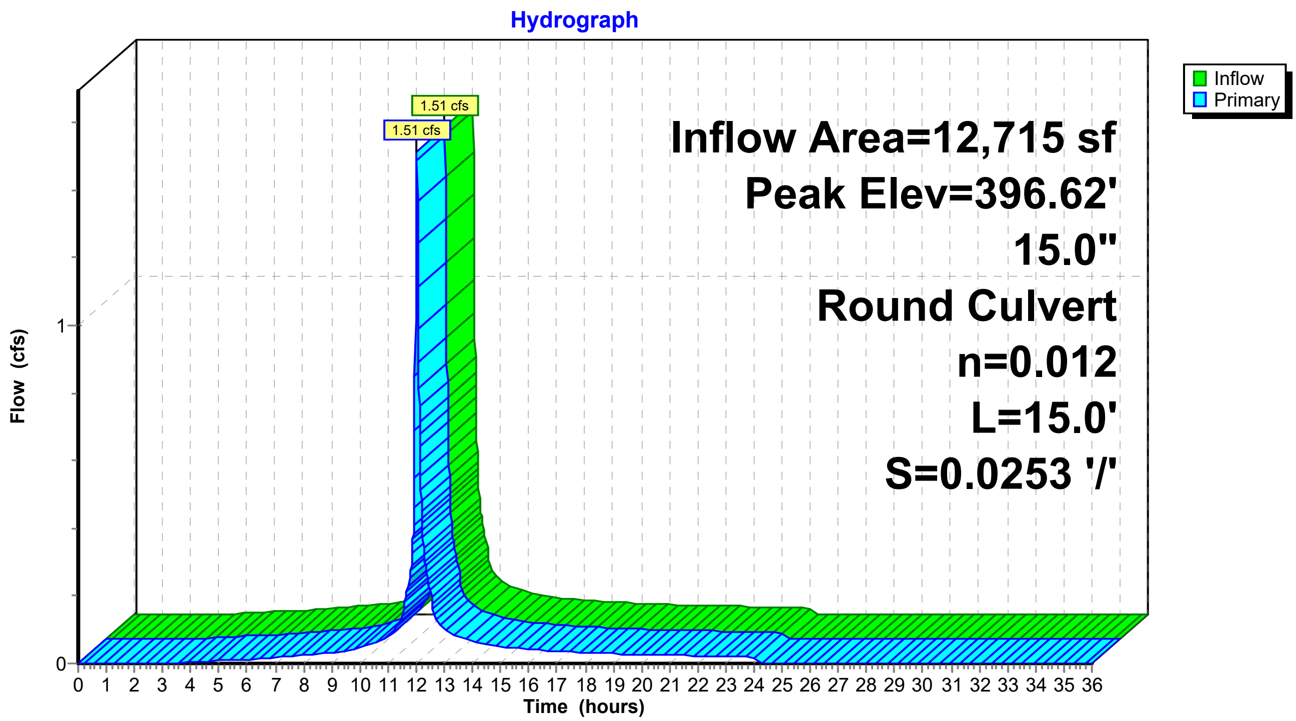
Inflow Area = 12,715 sf, 77.86% Impervious, Inflow Depth = 3.92" for 10-yr event
Inflow = 1.51 cfs @ 12.03 hrs, Volume= 4,158 cf
Outflow = 1.51 cfs @ 12.03 hrs, Volume= 4,158 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.51 cfs @ 12.03 hrs, Volume= 4,158 cf
Routed to Pond 51P : DMH B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.62' @ 12.04 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.05'	**15.0" Round Culvert** L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.05' / 393.67' S= 0.0253 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=396.38' TW=396.43' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)

Pond 1P: CB 1



Summary for Pond 1VP: Vortechnics Unit

Inflow	=	4.41 cfs @	12.02 hrs, Volume=	36,978 cf
Outflow	=	4.41 cfs @	12.02 hrs, Volume=	36,978 cf, Atten= 0%, Lag= 0.0 min
Primary	=	4.41 cfs @	12.02 hrs, Volume=	36,978 cf

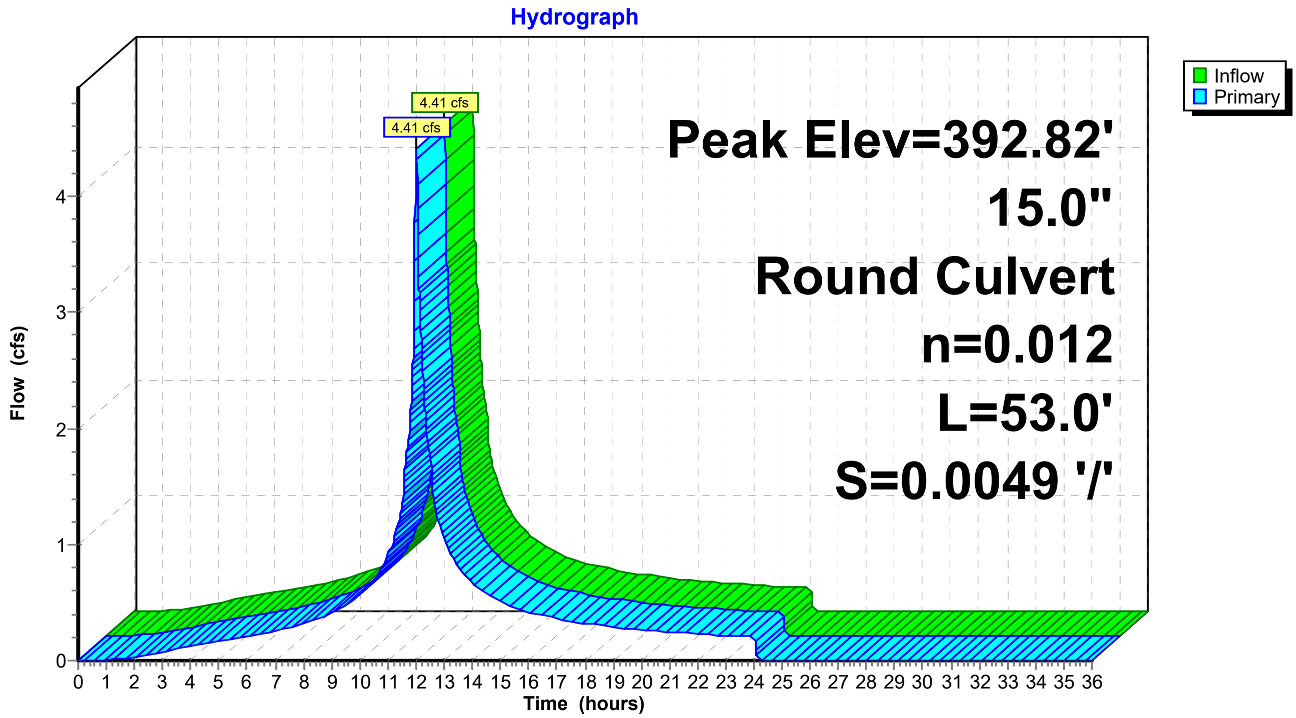
Routed to Pond 3DP : DMH 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.82' @ 12.02 hrs
Flood Elev= 397.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.50'	**15.0" Round Culvert** L= 53.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.50' / 390.24' S= 0.0049 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=4.40 cfs @ 12.02 hrs HW=392.81' TW=392.25' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 4.40 cfs @ 3.59 fps)

Pond 1VP: Vortechnics Unit



Summary for Pond 2P: CB 2

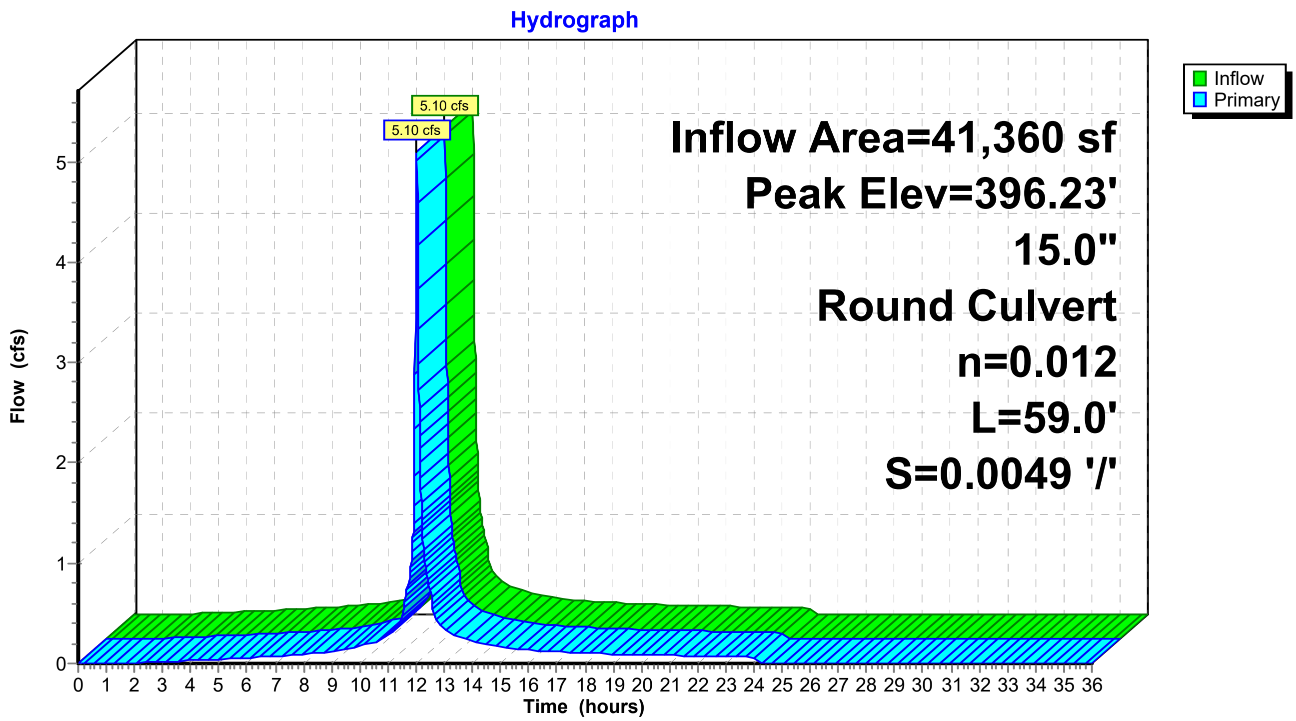
Inflow Area = 41,360 sf, 84.79% Impervious, Inflow Depth = 4.17" for 10-yr event
Inflow = 5.10 cfs @ 12.03 hrs, Volume= 14,361 cf
Outflow = 5.10 cfs @ 12.03 hrs, Volume= 14,361 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.10 cfs @ 12.03 hrs, Volume= 14,361 cf
Routed to Pond 3P : CB 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.23' @ 12.03 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.94'	**15.0" Round Culvert** L= 59.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.94' / 392.65' S= 0.0049 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=4.85 cfs @ 12.03 hrs HW=396.15' TW=395.48' (Dynamic Tailwater)
1=Culvert (Inlet Controls 4.85 cfs @ 3.95 fps)

Pond 2P: CB 2



Summary for Pond 3DP: DMH 3

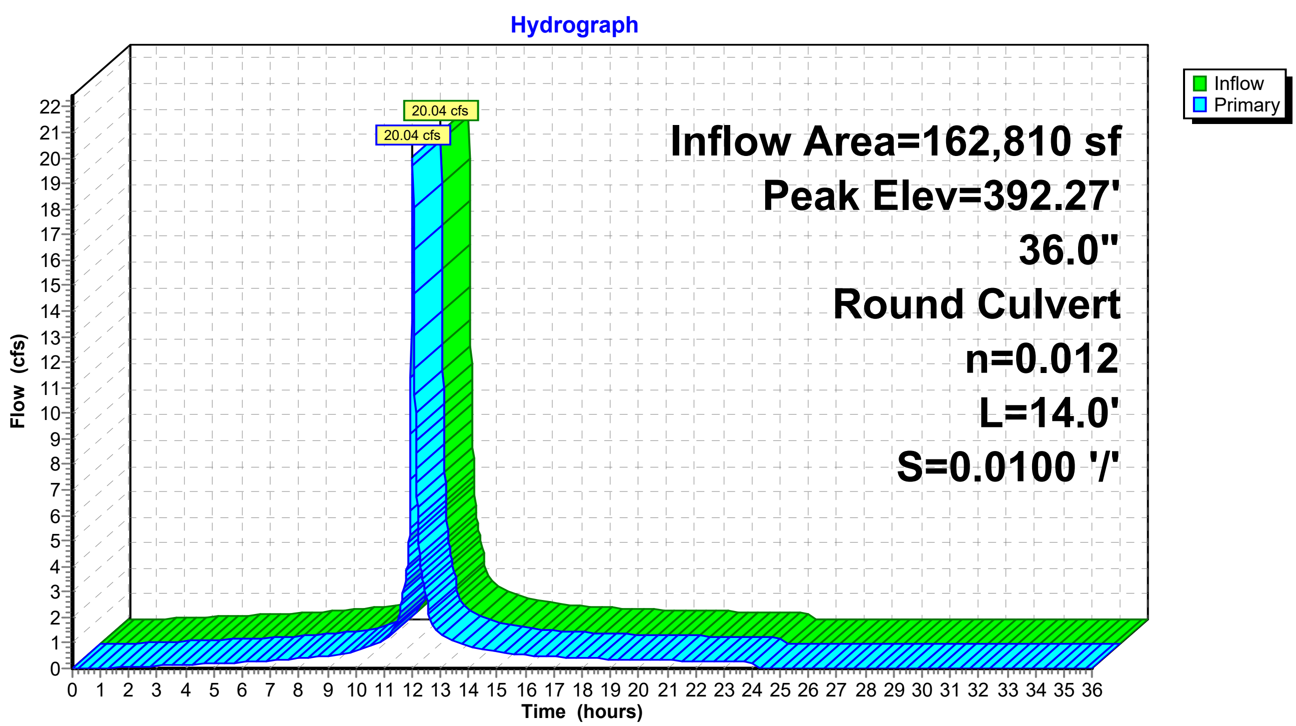
Inflow Area = 162,810 sf, 85.75% Impervious, Inflow Depth = 4.24" for 10-yr event
Inflow = 20.04 cfs @ 12.03 hrs, Volume= 57,473 cf
Outflow = 20.04 cfs @ 12.03 hrs, Volume= 57,473 cf, Atten= 0%, Lag= 0.0 min
Primary = 20.04 cfs @ 12.03 hrs, Volume= 57,473 cf
Routed to Link 1L : Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.27' @ 12.03 hrs
Flood Elev= 396.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.14'	**36.0" Round Culvert** L= 14.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.14' / 390.00' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 7.07 sf

Primary OutFlow Max=19.95 cfs @ 12.03 hrs HW=392.27' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 19.95 cfs @ 5.23 fps)

Pond 3DP: DMH 3



Summary for Pond 3P: CB 3

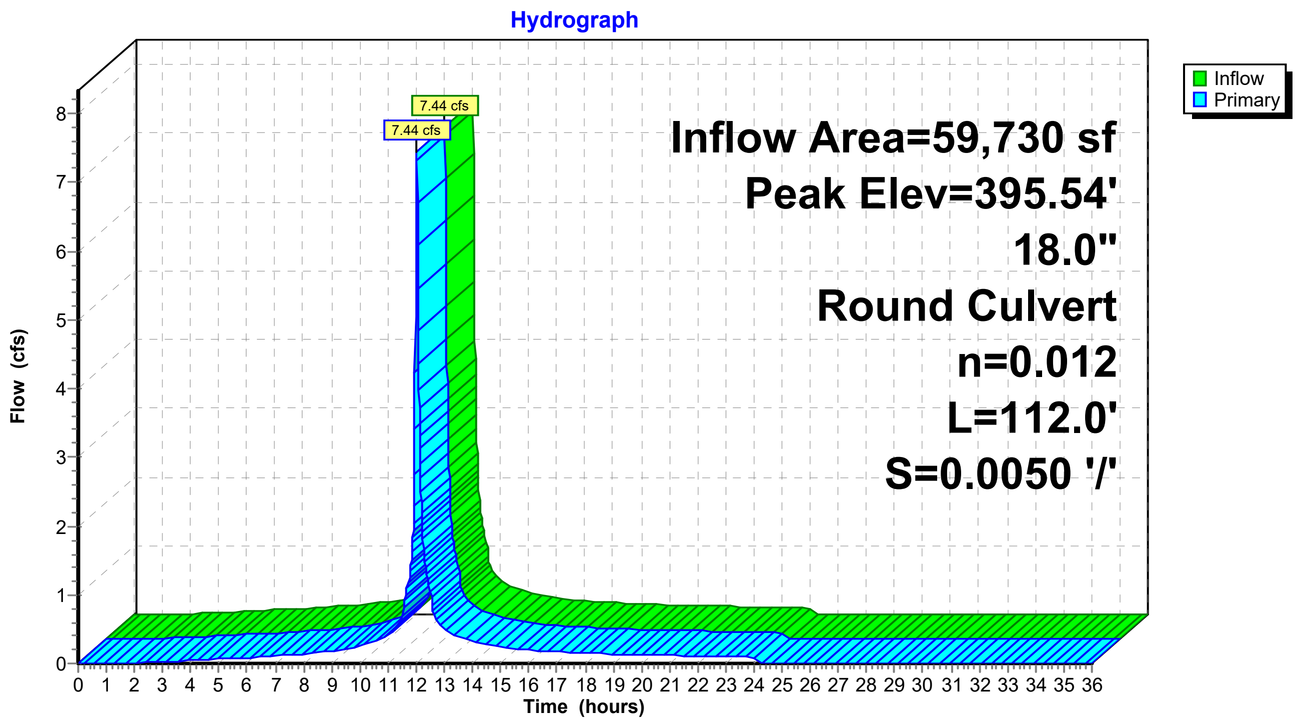
Inflow Area = 59,730 sf, 86.51% Impervious, Inflow Depth = 4.23" for 10-yr event
Inflow = 7.44 cfs @ 12.03 hrs, Volume= 21,031 cf
Outflow = 7.44 cfs @ 12.03 hrs, Volume= 21,031 cf, Atten= 0%, Lag= 0.0 min
Primary = 7.44 cfs @ 12.03 hrs, Volume= 21,031 cf
Routed to Pond 4P : CB 4

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 395.54' @ 12.03 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.65'	**18.0" Round Culvert** L= 112.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.65' / 392.09' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=7.25 cfs @ 12.03 hrs HW=395.48' TW=394.63' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 7.25 cfs @ 4.10 fps)

Pond 3P: CB 3



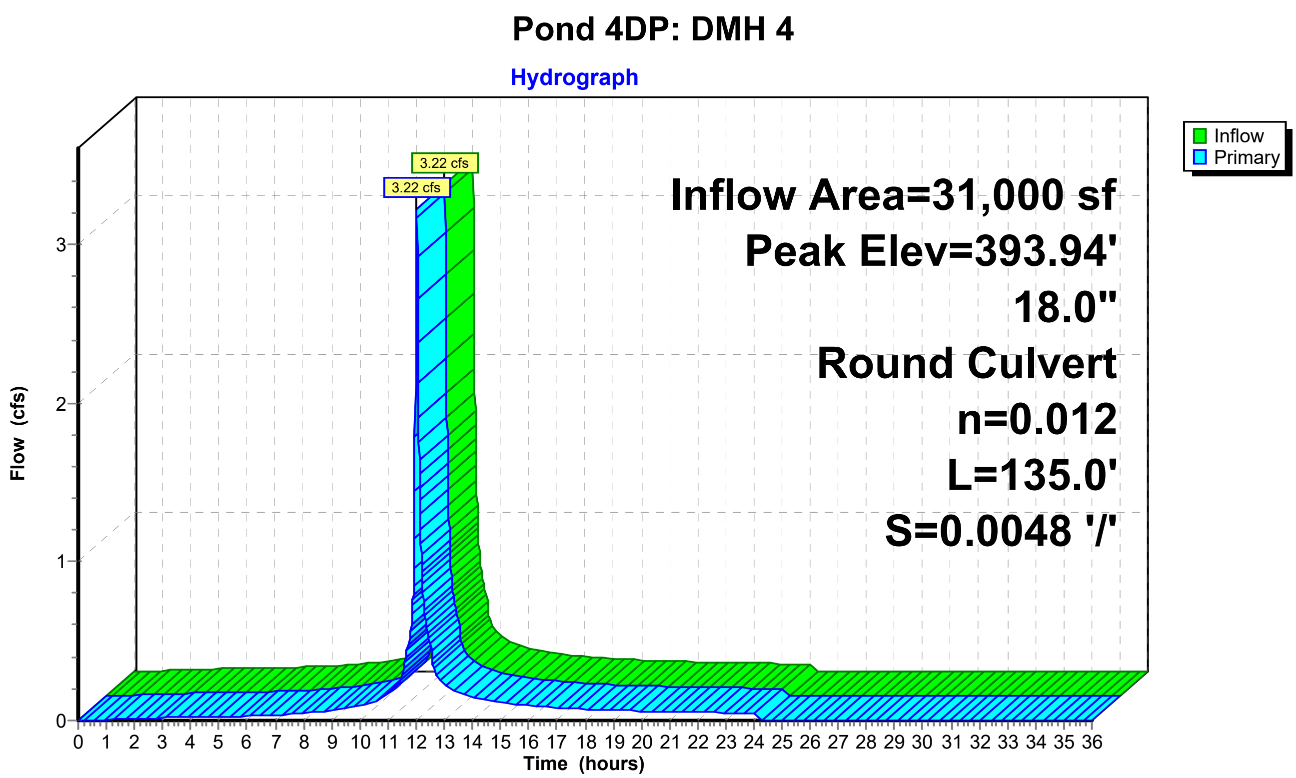
Summary for Pond 4DP: DMH 4

Inflow Area = 31,000 sf, 65.97% Impervious, Inflow Depth = 3.53" for 10-yr event
Inflow = 3.22 cfs @ 12.03 hrs, Volume= 9,116 cf
Outflow = 3.22 cfs @ 12.03 hrs, Volume= 9,116 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.22 cfs @ 12.03 hrs, Volume= 9,116 cf
Routed to Pond 5DP : DMH 5

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.94' @ 12.03 hrs
Flood Elev= 397.14'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.00'	**18.0" Round Culvert** L= 135.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.00' / 392.35' S= 0.0048 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=3.21 cfs @ 12.03 hrs HW=393.94' TW=392.41' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 3.21 cfs @ 3.92 fps)



Summary for Pond 4P: CB 4

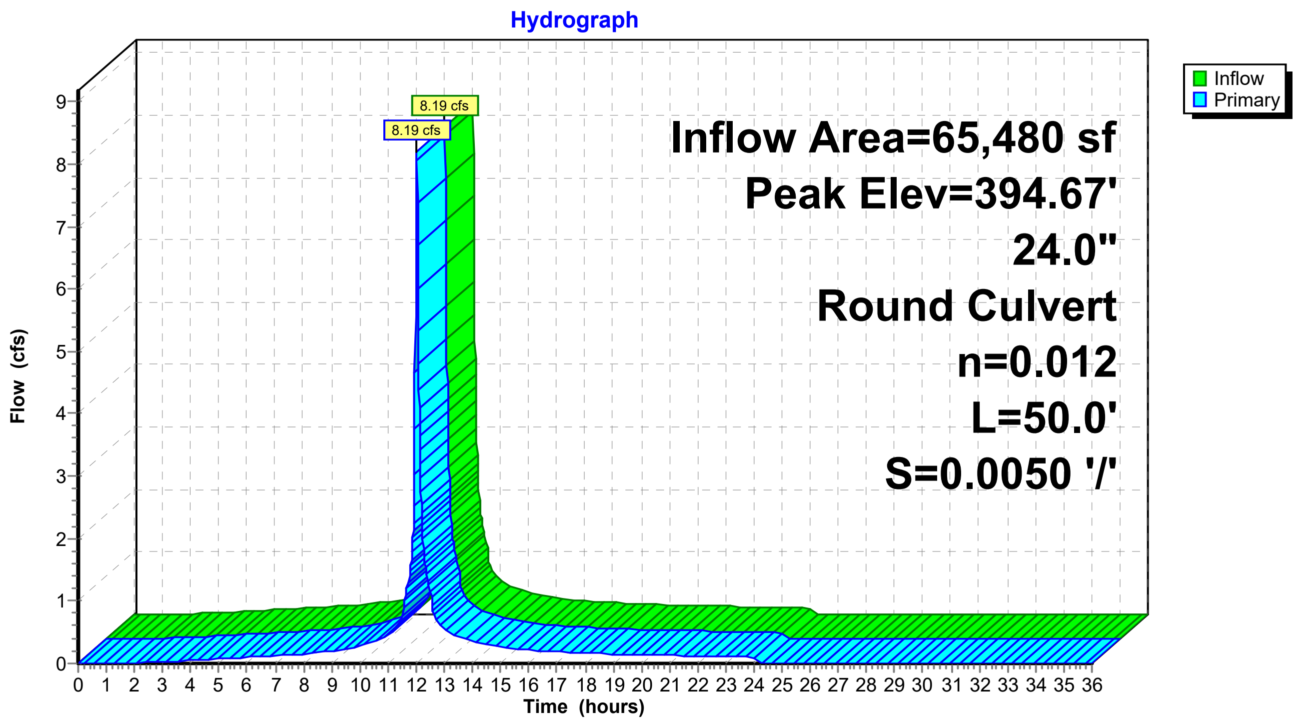
Inflow Area = 65,480 sf, 87.23% Impervious, Inflow Depth = 4.26" for 10-yr event
Inflow = 8.19 cfs @ 12.03 hrs, Volume= 23,227 cf
Outflow = 8.19 cfs @ 12.03 hrs, Volume= 23,227 cf, Atten= 0%, Lag= 0.0 min
Primary = 8.19 cfs @ 12.03 hrs, Volume= 23,227 cf
Routed to Pond 52P : DMH C

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.67' @ 12.03 hrs
Flood Elev= 398.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.09'	**24.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.09' / 391.84' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=7.58 cfs @ 12.03 hrs HW=394.63' TW=394.38' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 7.58 cfs @ 2.41 fps)

Pond 4P: CB 4



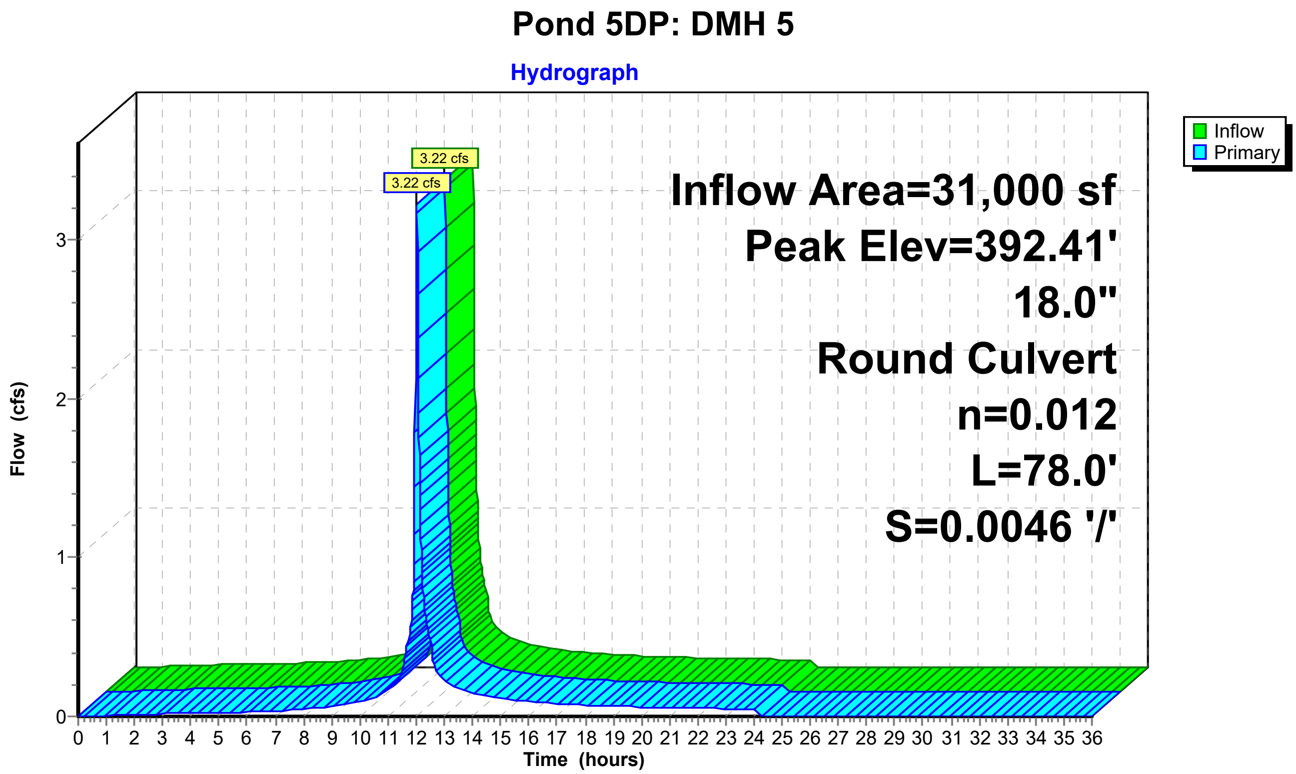
Summary for Pond 5DP: DMH 5

Inflow Area = 31,000 sf, 65.97% Impervious, Inflow Depth = 3.53" for 10-yr event
Inflow = 3.22 cfs @ 12.03 hrs, Volume= 9,116 cf
Outflow = 3.22 cfs @ 12.03 hrs, Volume= 9,116 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.22 cfs @ 12.03 hrs, Volume= 9,116 cf
Routed to Pond 3DP : DMH 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.41' @ 12.03 hrs
Flood Elev= 396.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.60'	**18.0" Round Culvert** L= 78.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.60' / 390.24' S= 0.0046 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=3.21 cfs @ 12.03 hrs HW=392.41' TW=392.27' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 3.21 cfs @ 1.81 fps)



Summary for Pond 5P: CB 5

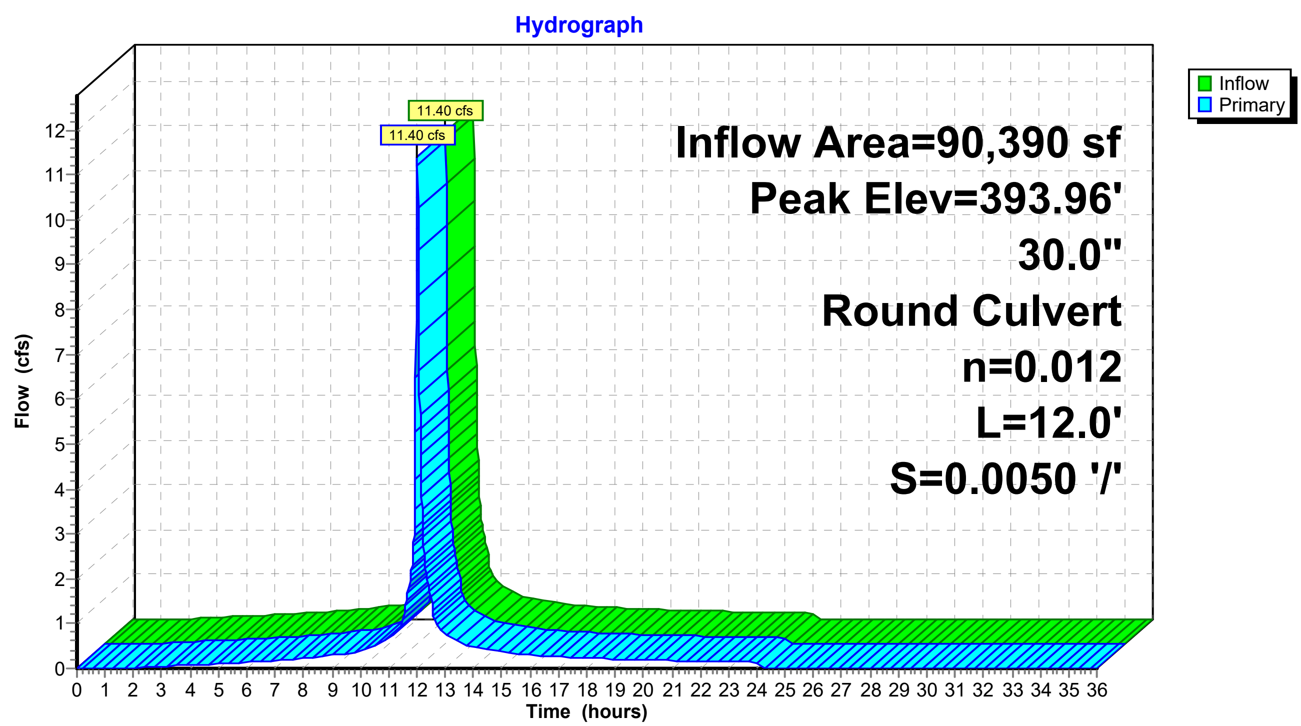
Inflow Area = 90,390 sf, 88.20% Impervious, Inflow Depth = 4.30" for 10-yr event
Inflow = 11.40 cfs @ 12.03 hrs, Volume= 32,412 cf
Outflow = 11.40 cfs @ 12.03 hrs, Volume= 32,412 cf, Atten= 0%, Lag= 0.0 min
Primary = 11.40 cfs @ 12.03 hrs, Volume= 32,412 cf
Routed to Pond 53P : DMH D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.96' @ 12.03 hrs
Flood Elev= 396.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.64'	**30.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.64' / 391.58' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=10.76 cfs @ 12.03 hrs HW=393.95' TW=393.72' (Dynamic Tailwater)
1=Culvert (Inlet Controls 10.76 cfs @ 2.27 fps)

Pond 5P: CB 5



Summary for Pond 6P: CB A

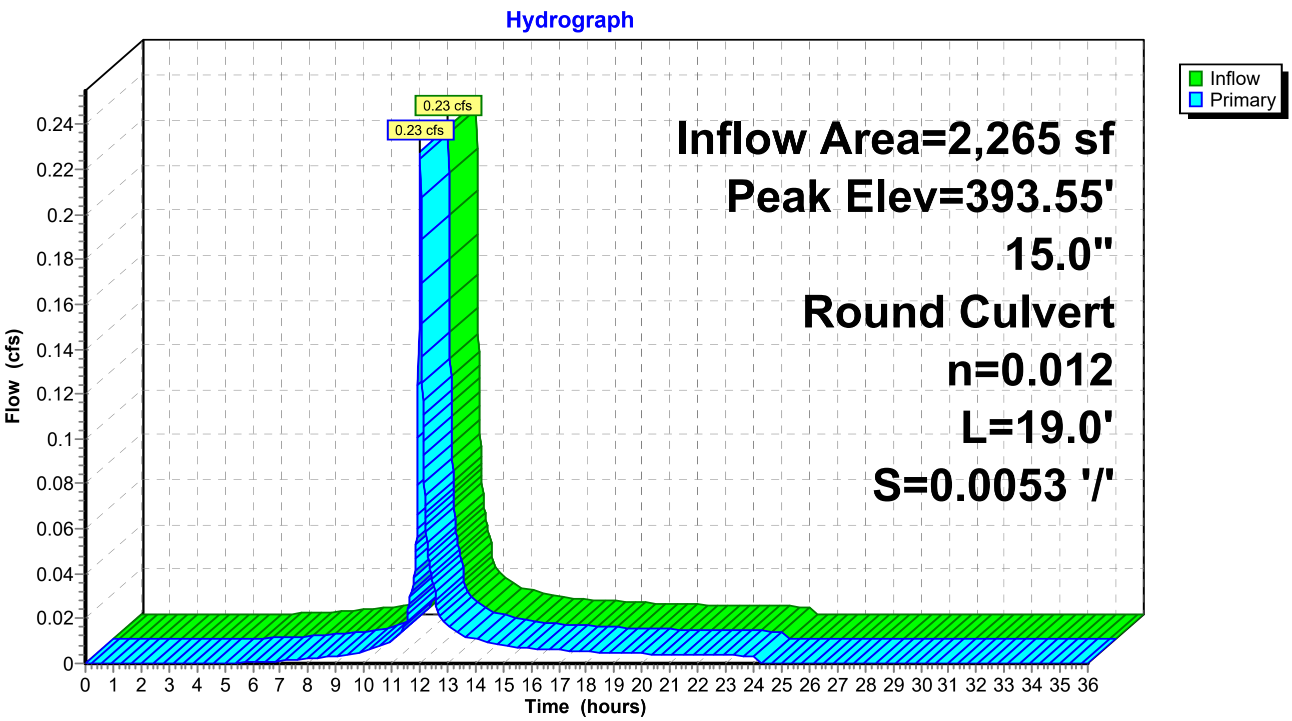
Inflow Area = 2,265 sf, 59.38% Impervious, Inflow Depth = 3.22" for 10-yr event
Inflow = 0.23 cfs @ 12.03 hrs, Volume= 608 cf
Outflow = 0.23 cfs @ 12.03 hrs, Volume= 608 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.23 cfs @ 12.03 hrs, Volume= 608 cf
Routed to Pond 7P : CB B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.55' @ 12.05 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.60'	**15.0" Round Culvert** L= 19.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.60' / 392.50' S= 0.0053 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=393.34' TW=393.42' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)

Pond 6P: CB A



Summary for Pond 7P: CB B

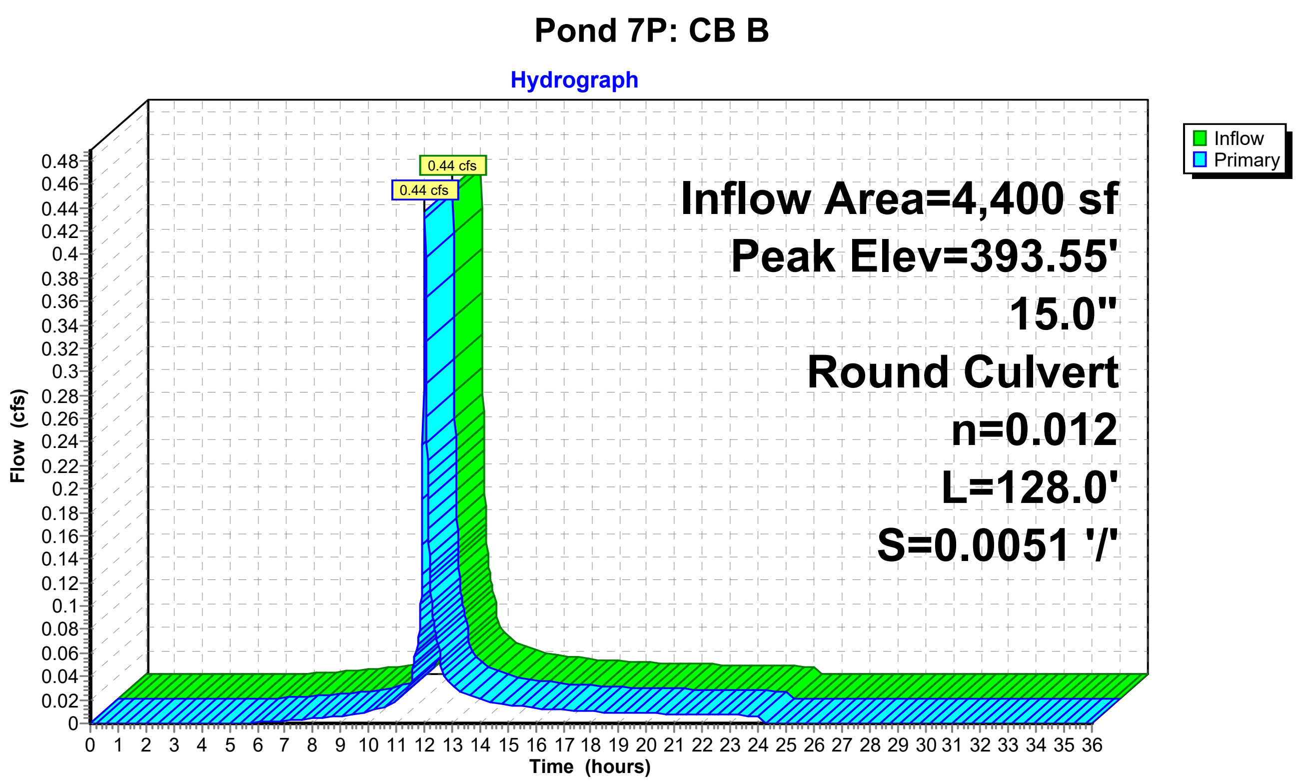
[80] Warning: Exceeded Pond 6P by 0.10' @ 12.02 hrs (0.89 cfs 118 cf)

Inflow Area = 4,400 sf, 58.07% Impervious, Inflow Depth = 3.17" for 10-yr event
Inflow = 0.44 cfs @ 12.03 hrs, Volume= 1,163 cf
Outflow = 0.44 cfs @ 12.03 hrs, Volume= 1,163 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.44 cfs @ 12.03 hrs, Volume= 1,163 cf
Routed to Pond 61P : DMH A

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.55' @ 12.04 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.45'	**15.0" Round Culvert** L= 128.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.45' / 391.80' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=393.42' TW=393.46' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)



Summary for Pond 8P: Trench Drain

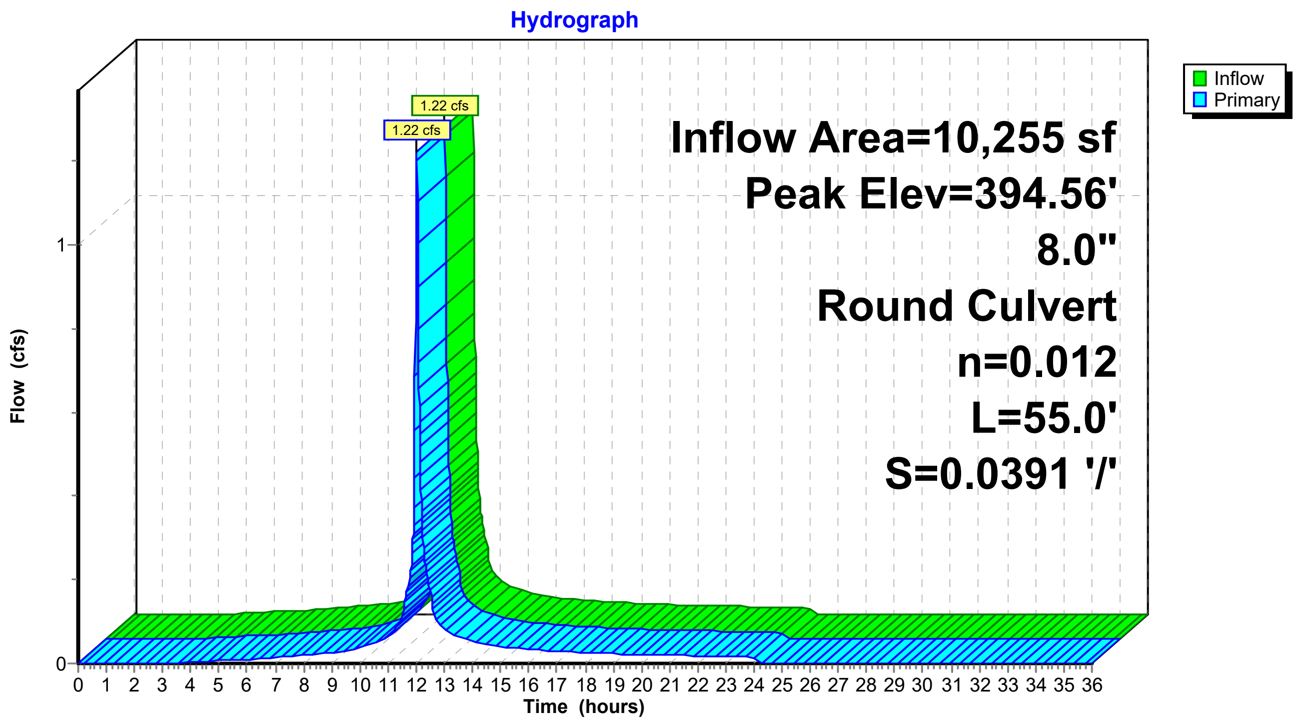
Inflow Area = 10,255 sf, 77.13% Impervious, Inflow Depth = 3.92" for 10-yr event
Inflow = 1.22 cfs @ 12.03 hrs, Volume= 3,354 cf
Outflow = 1.22 cfs @ 12.03 hrs, Volume= 3,354 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.22 cfs @ 12.03 hrs, Volume= 3,354 cf
Routed to Pond 62P : DMH B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.56' @ 12.03 hrs
Flood Elev= 394.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.70'	**8.0" Round Culvert** L= 55.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.70' / 391.55' S= 0.0391 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf

Primary OutFlow Max=1.22 cfs @ 12.03 hrs HW=394.56' TW=393.49' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 1.22 cfs @ 3.49 fps)

Pond 8P: Trench Drain



Summary for Pond 9P: CB C

[80] Warning: Exceeded Pond 62P by 0.06' @ 11.99 hrs (1.30 cfs 82 cf)

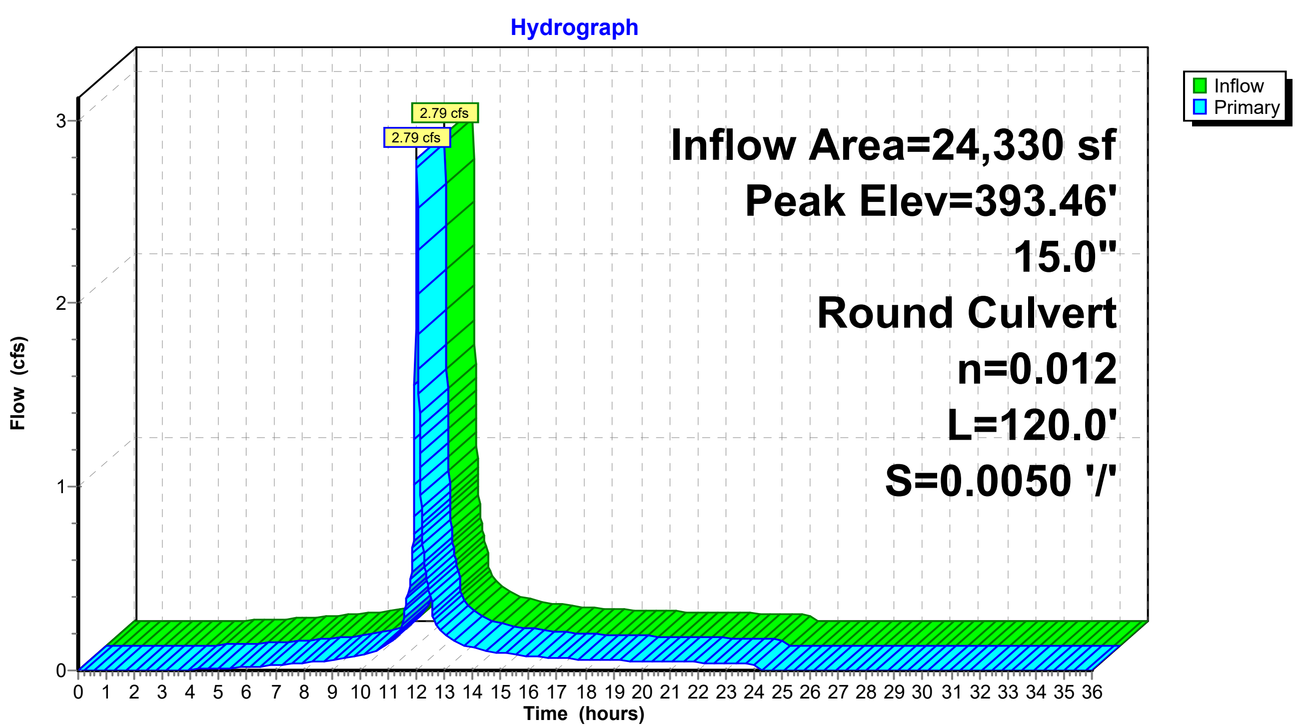
Inflow Area = 24,330 sf, 73.61% Impervious, Inflow Depth = 3.75" for 10-yr event
Inflow = 2.79 cfs @ 12.03 hrs, Volume= 7,597 cf
Outflow = 2.79 cfs @ 12.03 hrs, Volume= 7,597 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.79 cfs @ 12.03 hrs, Volume= 7,597 cf
Routed to Pond 10P : CB D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.46' @ 12.03 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.15'	**15.0" Round Culvert** L= 120.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.15' / 390.55' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.70 cfs @ 12.03 hrs HW=393.44' TW=393.15' (Dynamic Tailwater)
1=Culvert (Outlet Controls 2.70 cfs @ 2.20 fps)

Pond 9P: CB C



Summary for Pond 10P: CB D

[80] Warning: Exceeded Pond 13P by 0.03' @ 11.99 hrs (0.85 cfs 50 cf)

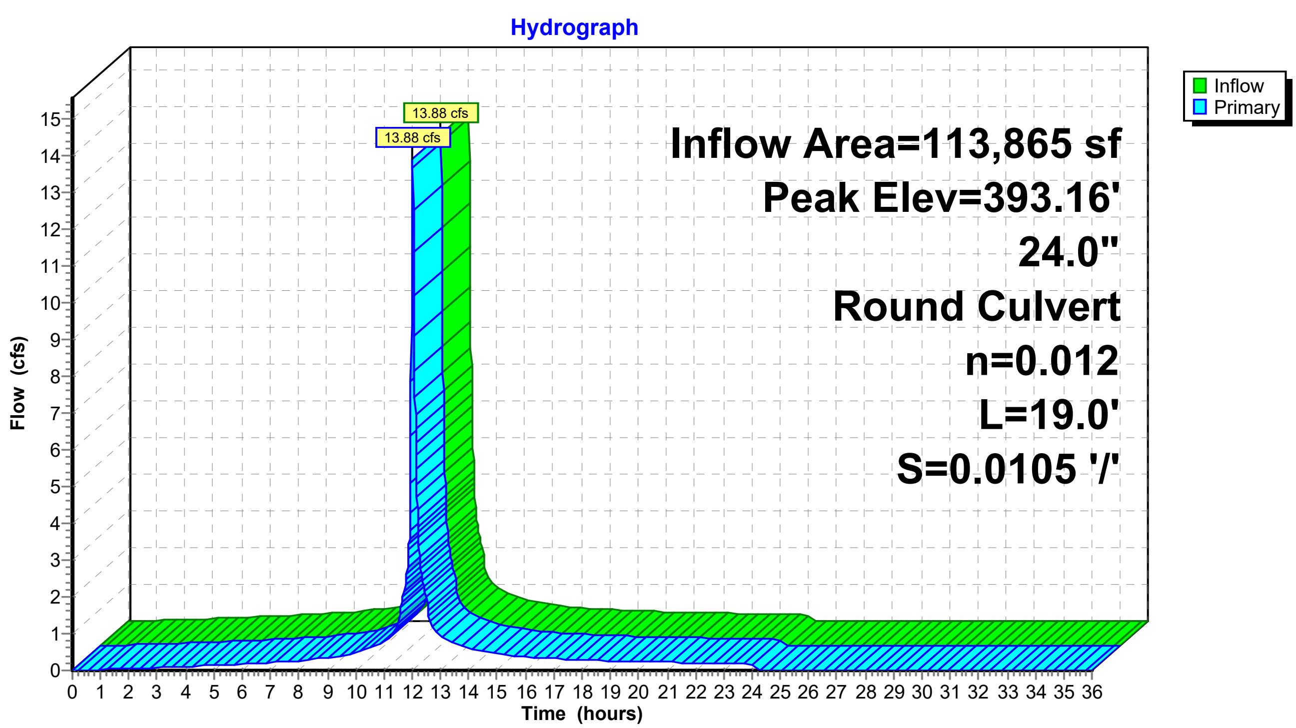
Inflow Area = 113,865 sf, 84.57% Impervious, Inflow Depth = 4.19" for 10-yr event
Inflow = 13.88 cfs @ 12.03 hrs, Volume= 39,801 cf
Outflow = 13.88 cfs @ 12.03 hrs, Volume= 39,801 cf, Atten= 0%, Lag= 0.0 min
Primary = 13.88 cfs @ 12.03 hrs, Volume= 39,801 cf
Routed to Pond 31P : Vortech Unit

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.16' @ 12.03 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.50'	**24.0" Round Culvert** L= 19.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.50' / 390.30' S= 0.0105 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=13.83 cfs @ 12.03 hrs HW=393.15' TW=392.31' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 13.83 cfs @ 4.40 fps)

Pond 10P: CB D



Summary for Pond 11P: CB E

[80] Warning: Exceeded Pond 17P by 0.04' @ 11.96 hrs (1.18 cfs 87 cf)

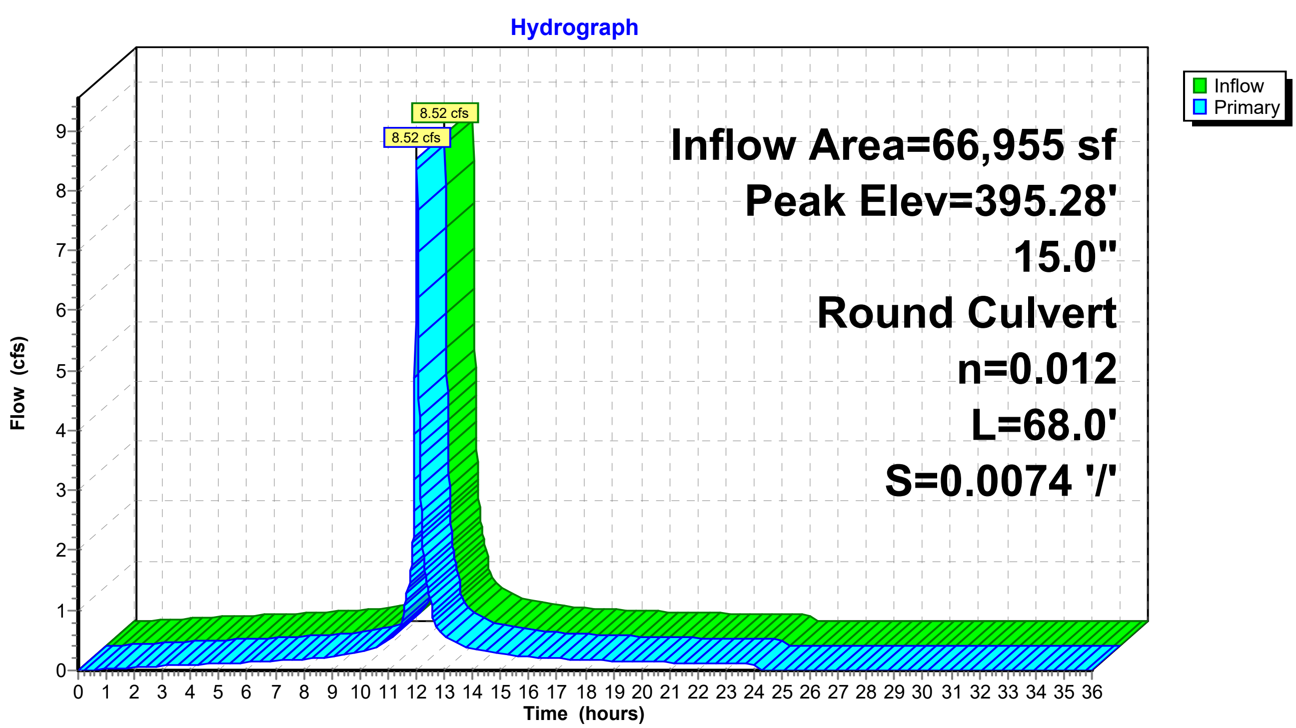
Inflow Area = 66,955 sf, 92.55% Impervious, Inflow Depth = 4.52" for 10-yr event
Inflow = 8.52 cfs @ 12.03 hrs, Volume= 25,227 cf
Outflow = 8.52 cfs @ 12.03 hrs, Volume= 25,227 cf, Atten= 0%, Lag= 0.0 min
Primary = 8.52 cfs @ 12.03 hrs, Volume= 25,227 cf
Routed to Pond 10P : CB D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 395.28' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.05'	**15.0" Round Culvert** L= 68.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.05' / 390.55' S= 0.0074 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=8.45 cfs @ 12.03 hrs HW=395.24' TW=393.15' (Dynamic Tailwater)
1=Culvert (Outlet Controls 8.45 cfs @ 6.88 fps)

Pond 11P: CB E



Summary for Pond 12P: CB F

[80] Warning: Exceeded Pond 22P by 0.19' @ 11.98 hrs (2.59 cfs 314 cf)

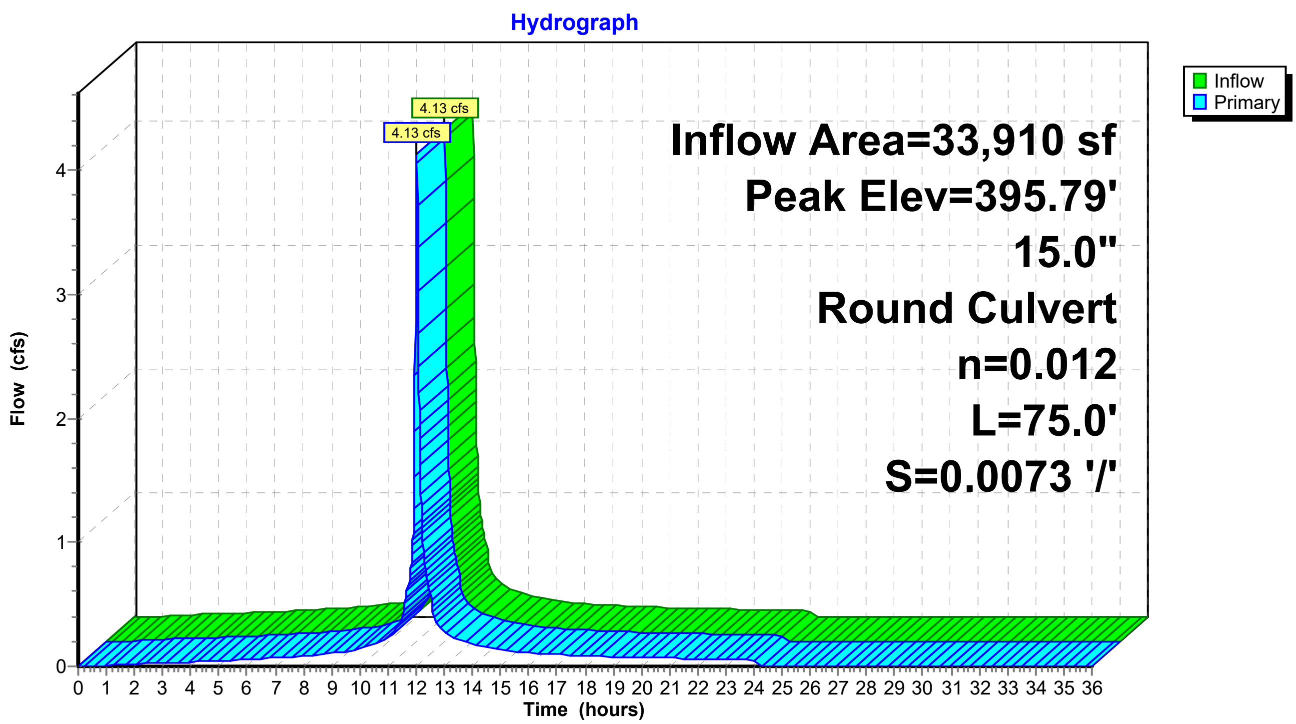
Inflow Area = 33,910 sf, 85.30% Impervious, Inflow Depth = 4.24" for 10-yr event
Inflow = 4.13 cfs @ 12.03 hrs, Volume= 11,973 cf
Outflow = 4.13 cfs @ 12.03 hrs, Volume= 11,973 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.13 cfs @ 12.03 hrs, Volume= 11,973 cf
Routed to Pond 11P : CB E

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 395.79' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.65'	**15.0" Round Culvert** L= 75.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.65' / 391.10' S= 0.0073 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=4.03 cfs @ 12.03 hrs HW=395.75' TW=395.25' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 4.03 cfs @ 3.28 fps)

Pond 12P: CB F



Summary for Pond 13P: CB G

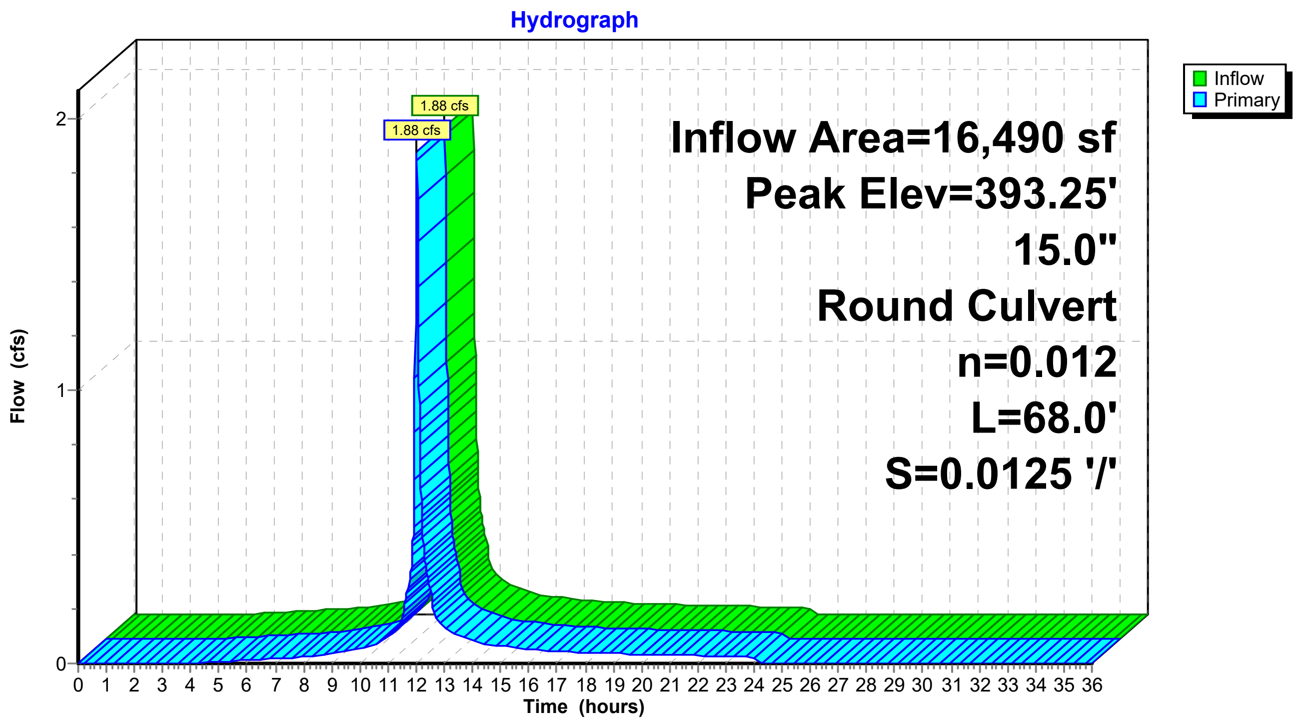
Inflow Area = 16,490 sf, 72.65% Impervious, Inflow Depth = 3.70" for 10-yr event
Inflow = 1.88 cfs @ 12.03 hrs, Volume= 5,091 cf
Outflow = 1.88 cfs @ 12.03 hrs, Volume= 5,091 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.88 cfs @ 12.03 hrs, Volume= 5,091 cf
Routed to Pond 10P : CB D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.25' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.40'	**15.0" Round Culvert** L= 68.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.40' / 390.55' S= 0.0125 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.71 cfs @ 12.03 hrs HW=393.23' TW=393.15' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 1.71 cfs @ 1.39 fps)

Pond 13P: CB G



Summary for Pond 14P: CB H

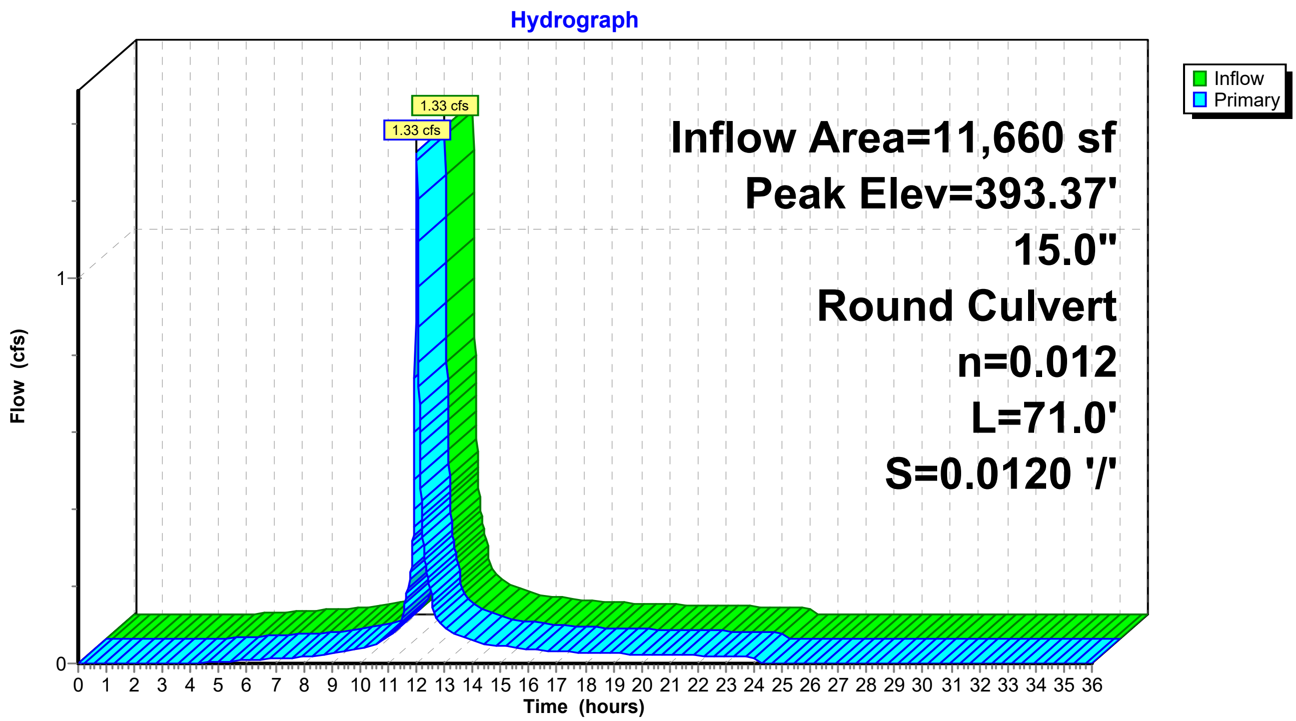
Inflow Area = 11,660 sf, 72.47% Impervious, Inflow Depth = 3.70" for 10-yr event
Inflow = 1.33 cfs @ 12.03 hrs, Volume= 3,595 cf
Outflow = 1.33 cfs @ 12.03 hrs, Volume= 3,595 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.33 cfs @ 12.03 hrs, Volume= 3,595 cf
Routed to Pond 13P : CB G

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.37' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.35'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.35' / 391.50' S= 0.0120 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.22 cfs @ 12.03 hrs HW=393.34' TW=393.23' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 1.22 cfs @ 1.60 fps)

Pond 14P: CB H



Summary for Pond 15P: CB I

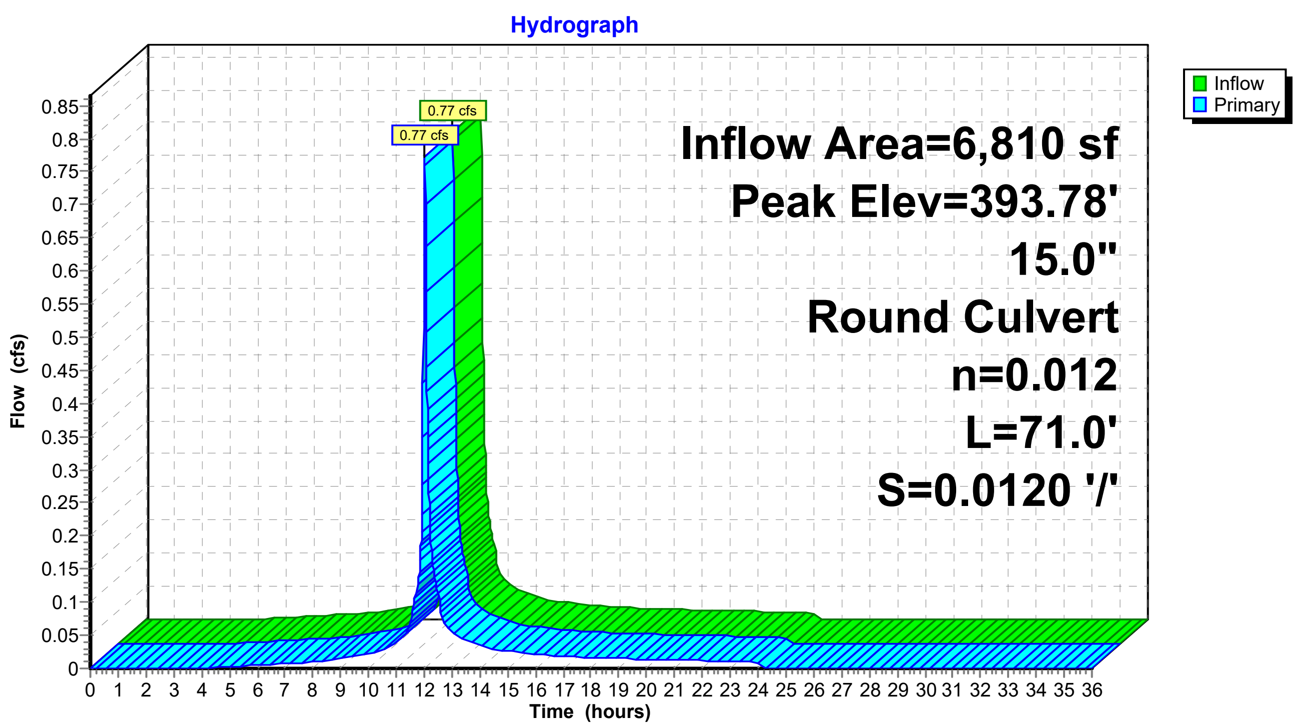
Inflow Area = 6,810 sf, 71.95% Impervious, Inflow Depth = 3.69" for 10-yr event
Inflow = 0.77 cfs @ 12.03 hrs, Volume= 2,093 cf
Outflow = 0.77 cfs @ 12.03 hrs, Volume= 2,093 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.77 cfs @ 12.03 hrs, Volume= 2,093 cf
Routed to Pond 14P : CB H

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.78' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.30'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.30' / 392.45' S= 0.0120 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.74 cfs @ 12.03 hrs HW=393.77' TW=393.34' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.74 cfs @ 2.61 fps)

Pond 15P: CB I



Summary for Pond 16P: CB J

Inflow Area =	1,940 sf, 71.13% Impervious,	Inflow Depth = 3.61"	for 10-yr event	
Inflow =	0.22 cfs @	12.03 hrs, Volume=	584 cf	
Outflow =	0.22 cfs @	12.03 hrs, Volume=	584 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.22 cfs @	12.03 hrs, Volume=	584 cf	

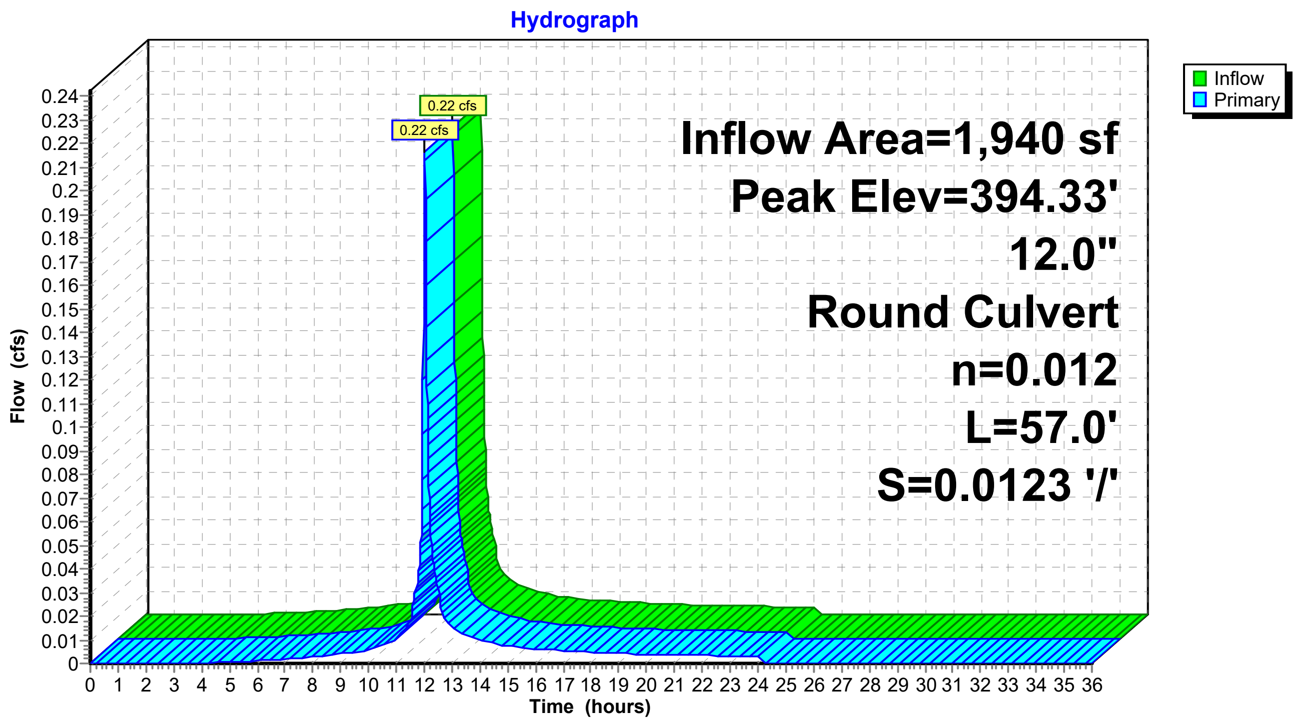
Routed to Pond 15P : CB I

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.33' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.10'	**12.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.10' / 393.40' S= 0.0123 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.21 cfs @ 12.03 hrs HW=394.33' TW=393.77' (Dynamic Tailwater)
└**1=Culvert** (Outlet Controls 0.21 cfs @ 2.38 fps)

Pond 16P: CB J



Summary for Pond 17P: CB K

[80] Warning: Exceeded Pond 18P by 0.32' @ 11.98 hrs (3.33 cfs 557 cf)

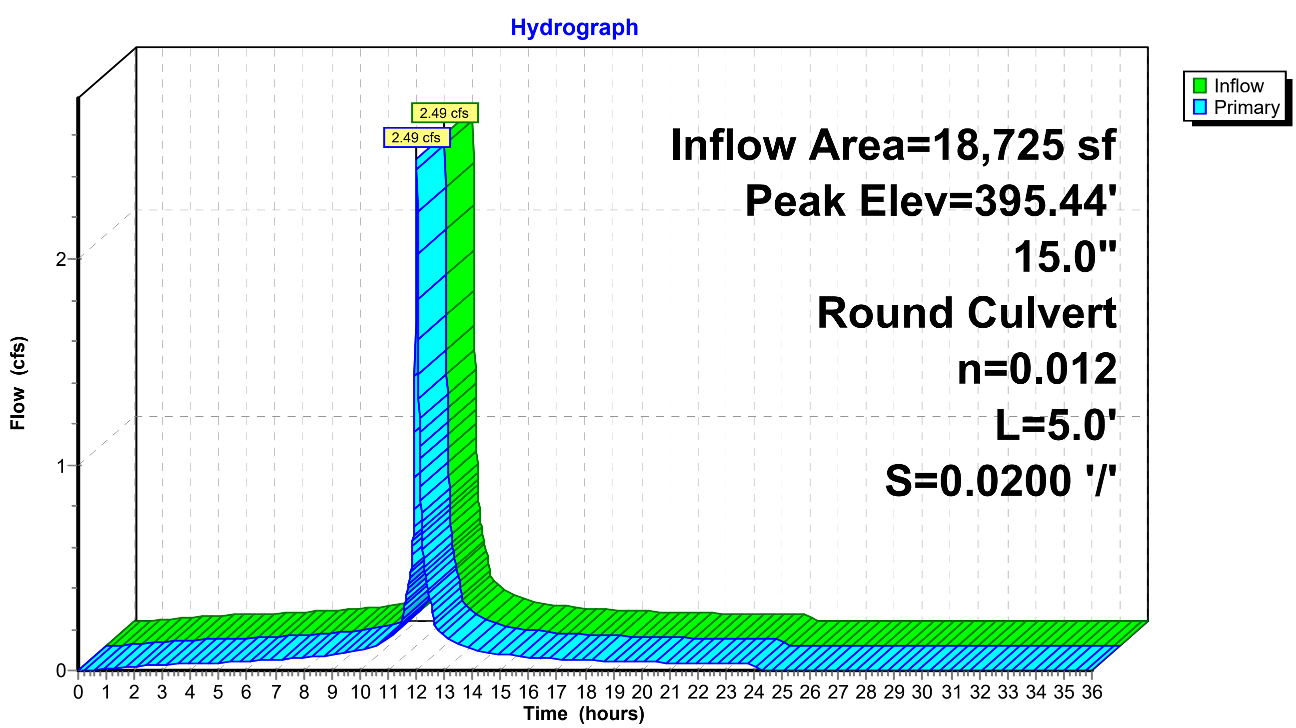
Inflow Area = 18,725 sf,100.00% Impervious, Inflow Depth = 4.81" for 10-yr event
Inflow = 2.49 cfs @ 12.03 hrs, Volume= 7,510 cf
Outflow = 2.49 cfs @ 12.03 hrs, Volume= 7,510 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.49 cfs @ 12.03 hrs, Volume= 7,510 cf
Routed to Pond 11P : CB E

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 395.44' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.20'	**15.0" Round Culvert** L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.20' / 391.10' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.30 cfs @ 12.03 hrs HW=395.39' TW=395.24' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 2.30 cfs @ 1.88 fps)

Pond 17P: CB K



Summary for Pond 18P: CB L

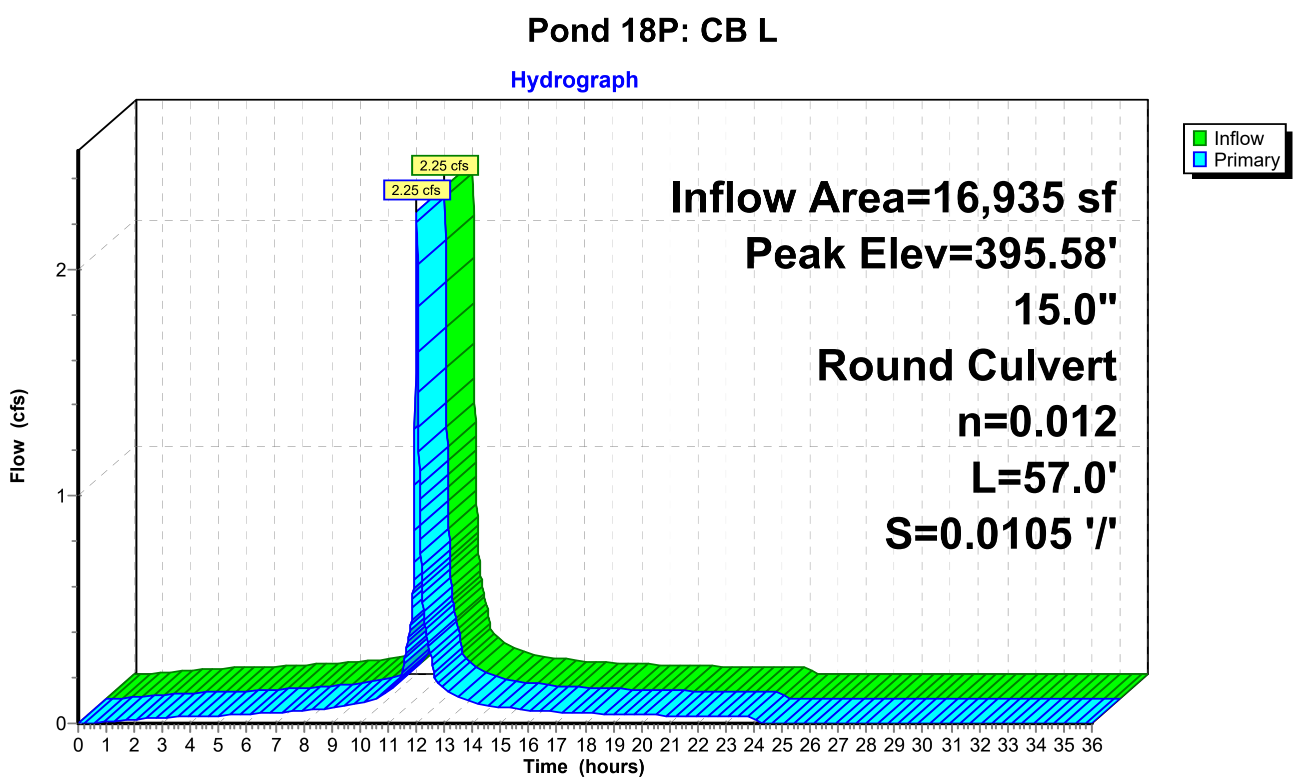
[80] Warning: Exceeded Pond 19P by 0.07' @ 12.00 hrs (1.52 cfs 142 cf)

Inflow Area = 16,935 sf,100.00% Impervious, Inflow Depth = 4.81" for 10-yr event
Inflow = 2.25 cfs @ 12.03 hrs, Volume= 6,792 cf
Outflow = 2.25 cfs @ 12.03 hrs, Volume= 6,792 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.25 cfs @ 12.03 hrs, Volume= 6,792 cf
Routed to Pond 17P : CB K

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 395.58' @ 12.04 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.85'	**15.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.85' / 391.25' S= 0.0105 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.09 cfs @ 12.03 hrs HW=395.43' TW=395.39' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 1.09 cfs @ 0.89 fps)



Summary for Pond 19P: CB M

[80] Warning: Exceeded Pond 20P by 0.33' @ 12.01 hrs (3.25 cfs 392 cf)

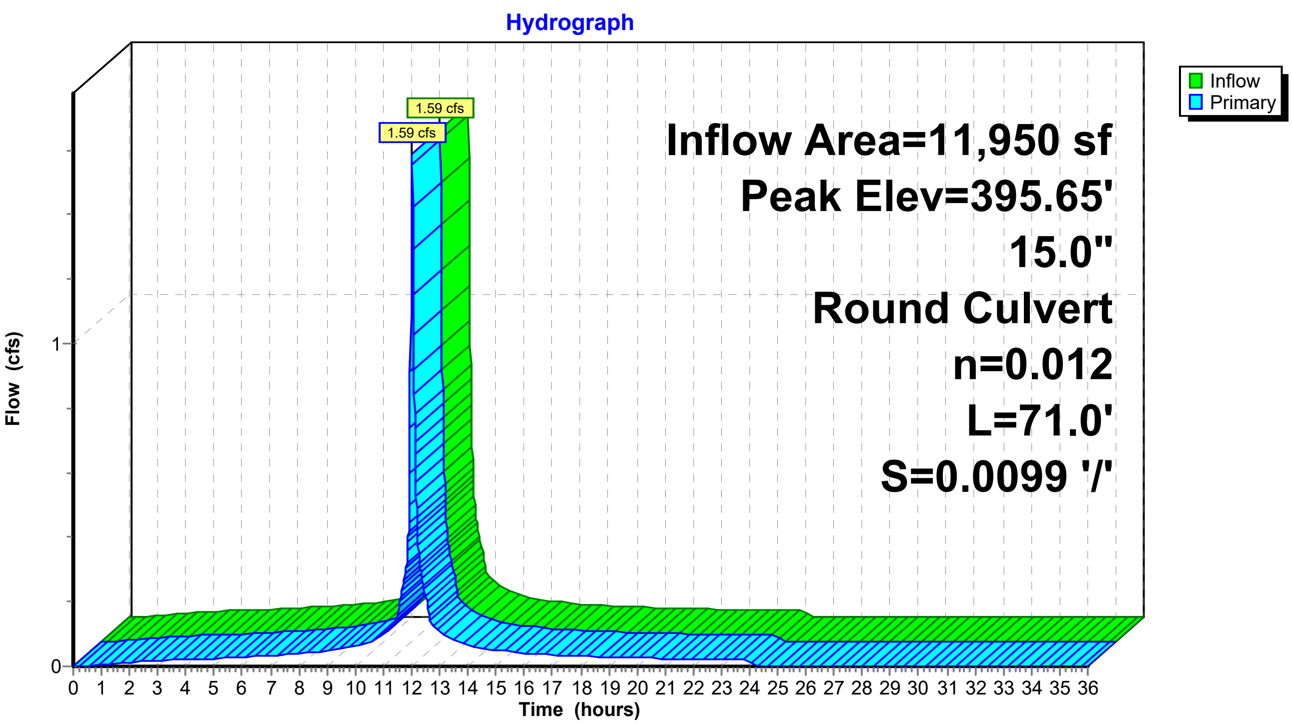
Inflow Area = 11,950 sf,100.00% Impervious, Inflow Depth = 4.81" for 10-yr event
Inflow = 1.59 cfs @ 12.03 hrs, Volume= 4,793 cf
Outflow = 1.59 cfs @ 12.03 hrs, Volume= 4,793 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.59 cfs @ 12.03 hrs, Volume= 4,793 cf
Routed to Pond 18P : CB L

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 395.65' @ 12.04 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.65'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.65' / 391.95' S= 0.0099 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.64 cfs @ 12.03 hrs HW=395.44' TW=395.43' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.64 cfs @ 0.52 fps)

Pond 19P: CB M



Summary for Pond 20P: CB N

[80] Warning: Exceeded Pond 21P by 0.10' @ 12.02 hrs (0.86 cfs 98 cf)

Inflow Area =	6,965 sf,100.00% Impervious,	Inflow Depth = 4.81"	for 10-yr event		
Inflow =	0.93 cfs @	12.03 hrs, Volume=	2,794 cf		
Outflow =	0.93 cfs @	12.03 hrs, Volume=	2,794 cf,	Atten= 0%,	Lag= 0.0 min
Primary =	0.93 cfs @	12.03 hrs, Volume=	2,794 cf		

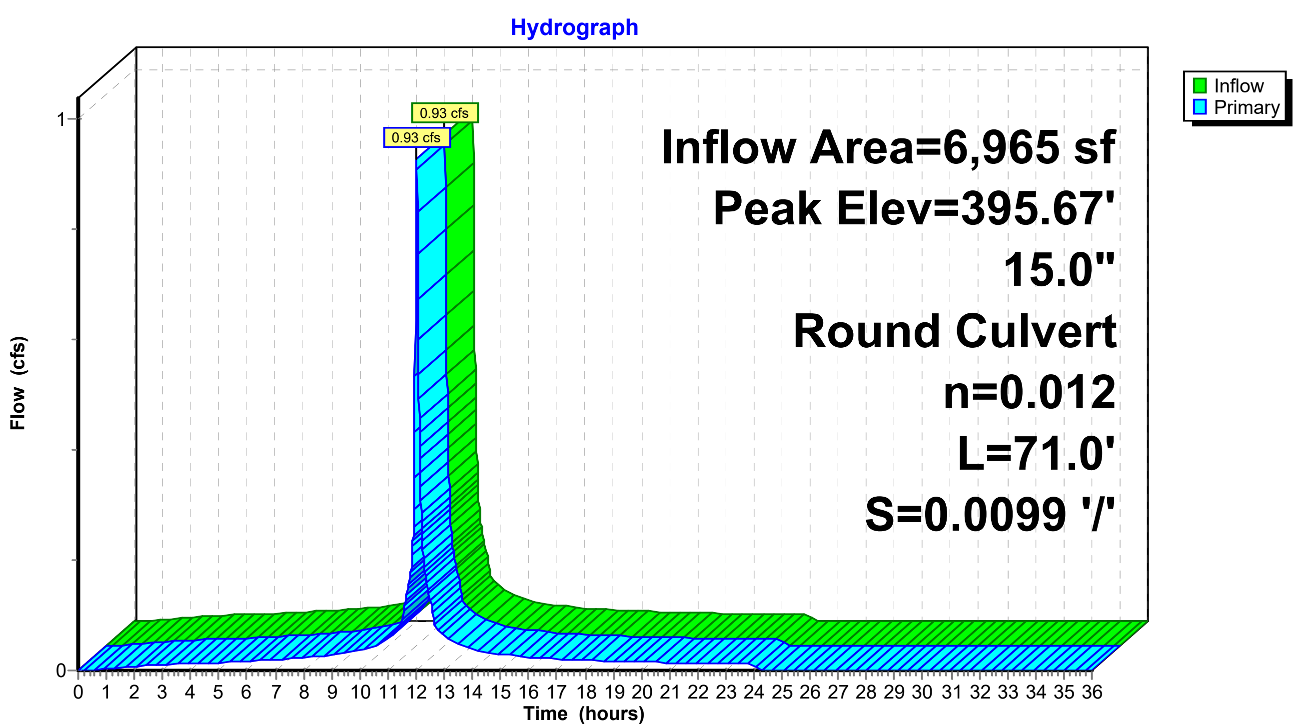
Routed to Pond 19P : CB M

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 395.67' @ 12.05 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.45'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.45' / 392.75' S= 0.0099 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=395.24' TW=395.44' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)

Pond 20P: CB N



Summary for Pond 21P: CB O

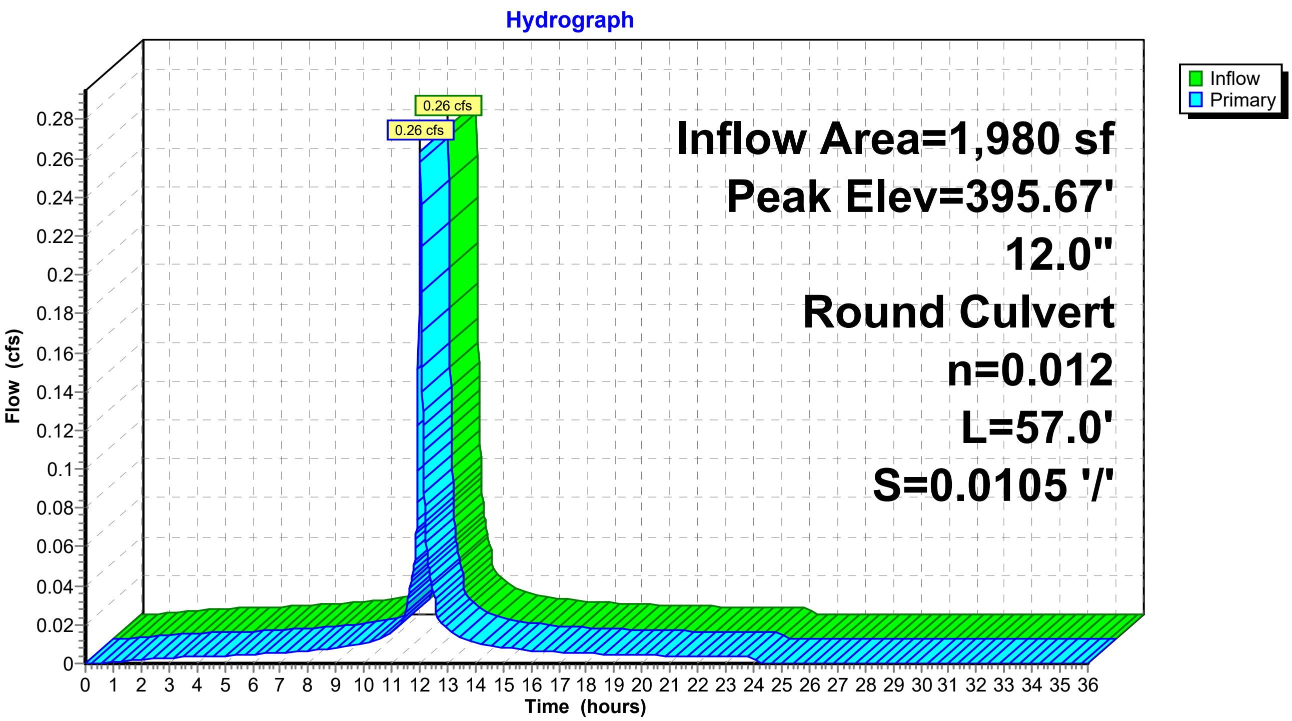
Inflow Area = 1,980 sf,100.00% Impervious, Inflow Depth = 4.81" for 10-yr event
Inflow = 0.26 cfs @ 12.03 hrs, Volume= 794 cf
Outflow = 0.26 cfs @ 12.03 hrs, Volume= 794 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.26 cfs @ 12.03 hrs, Volume= 794 cf
Routed to Pond 20P : CB N

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 395.67' @ 12.05 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.15'	**12.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.15' / 393.55' S= 0.0105 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=395.15' TW=395.24' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)

Pond 21P: CB O



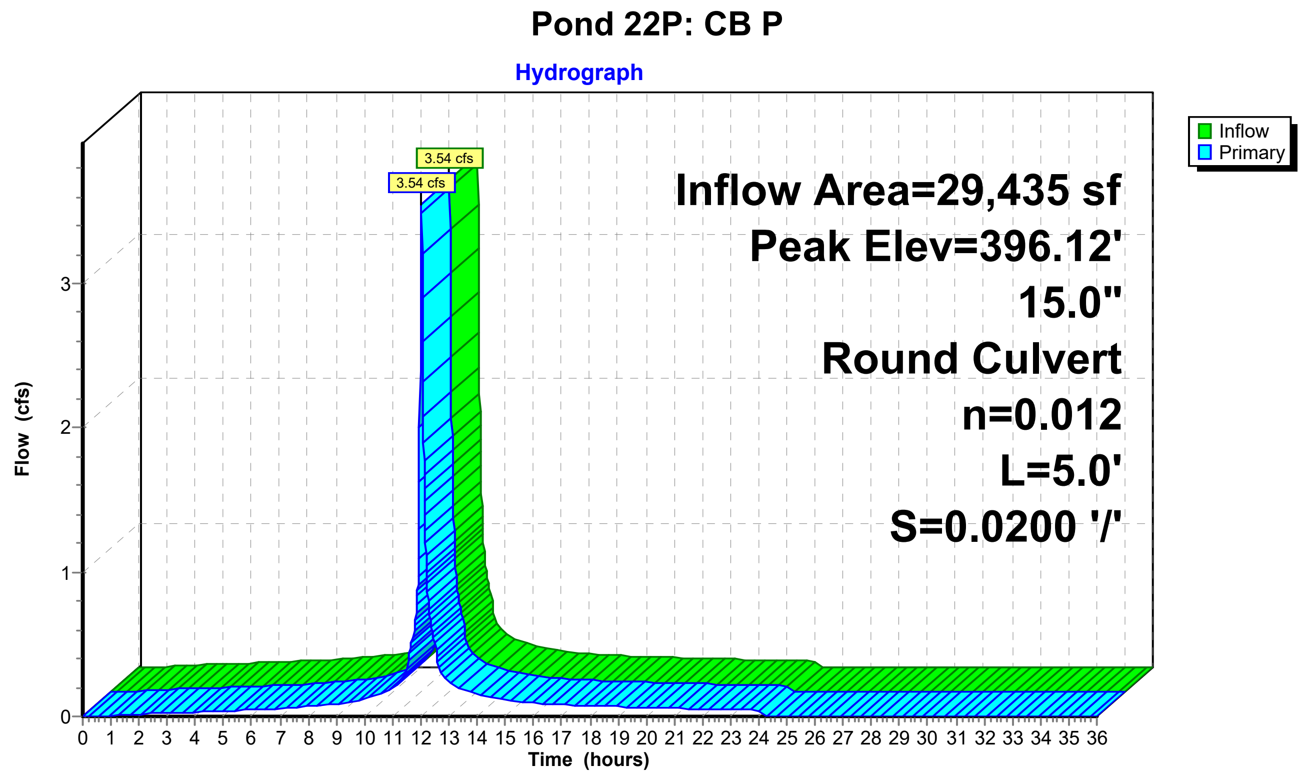
Summary for Pond 22P: CB P

Inflow Area = 29,435 sf, 83.95% Impervious, Inflow Depth = 4.18" for 10-yr event
Inflow = 3.54 cfs @ 12.03 hrs, Volume= 10,264 cf
Outflow = 3.54 cfs @ 12.03 hrs, Volume= 10,264 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.54 cfs @ 12.03 hrs, Volume= 10,264 cf
Routed to Pond 12P : CB F

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.12' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.80'	**15.0" Round Culvert** L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.80' / 391.70' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.99 cfs @ 12.03 hrs HW=396.00' TW=395.75' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 2.99 cfs @ 2.44 fps)



Summary for Pond 23P: CB Q

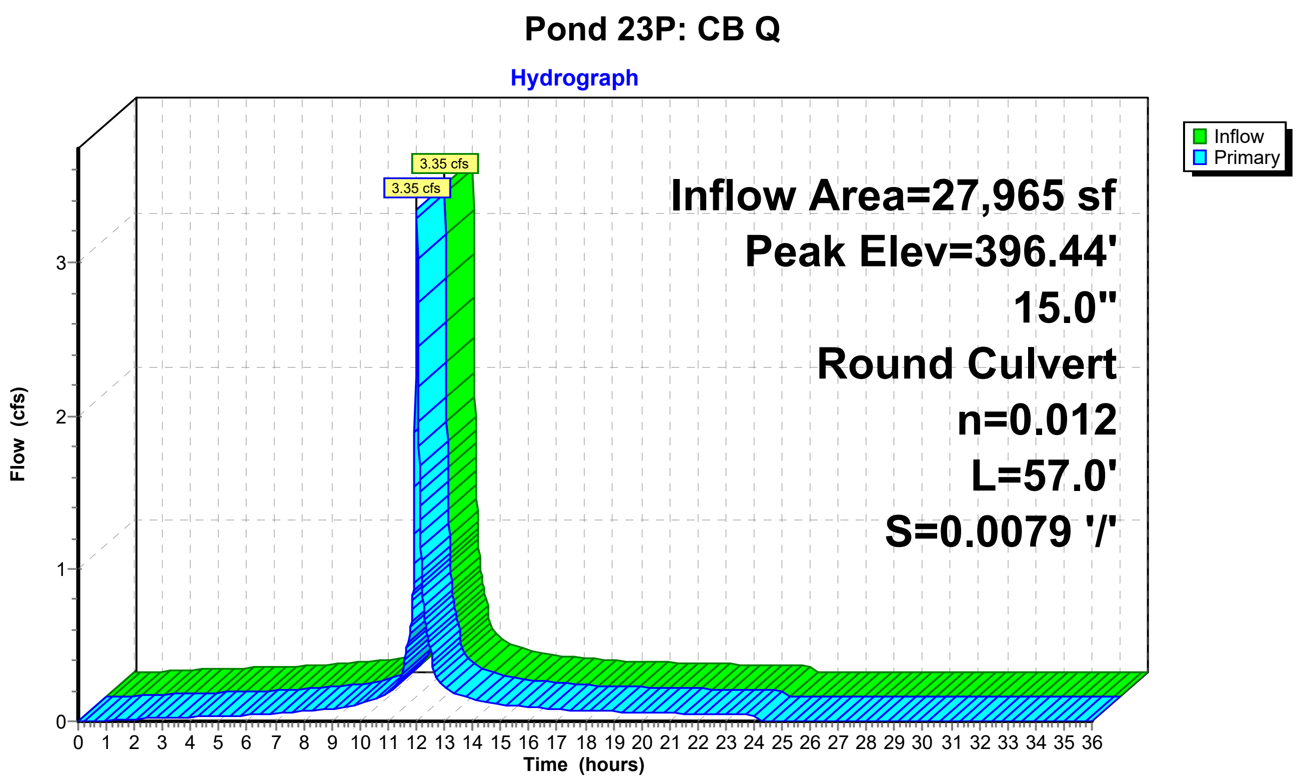
[80] Warning: Exceeded Pond 24P by 0.30' @ 12.00 hrs (3.15 cfs 401 cf)
[80] Warning: Exceeded Pond 27P by 0.37' @ 12.01 hrs (2.29 cfs 249 cf)

Inflow Area = 27,965 sf, 83.10% Impervious, Inflow Depth = 4.15" for 10-yr event
Inflow = 3.35 cfs @ 12.03 hrs, Volume= 9,675 cf
Outflow = 3.35 cfs @ 12.03 hrs, Volume= 9,675 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.35 cfs @ 12.03 hrs, Volume= 9,675 cf
Routed to Pond 22P : CB P

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.44' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.30'	**15.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.30' / 391.85' S= 0.0079 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.95 cfs @ 12.03 hrs HW=396.25' TW=396.00' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 2.95 cfs @ 2.40 fps)



Summary for Pond 24P: CB R

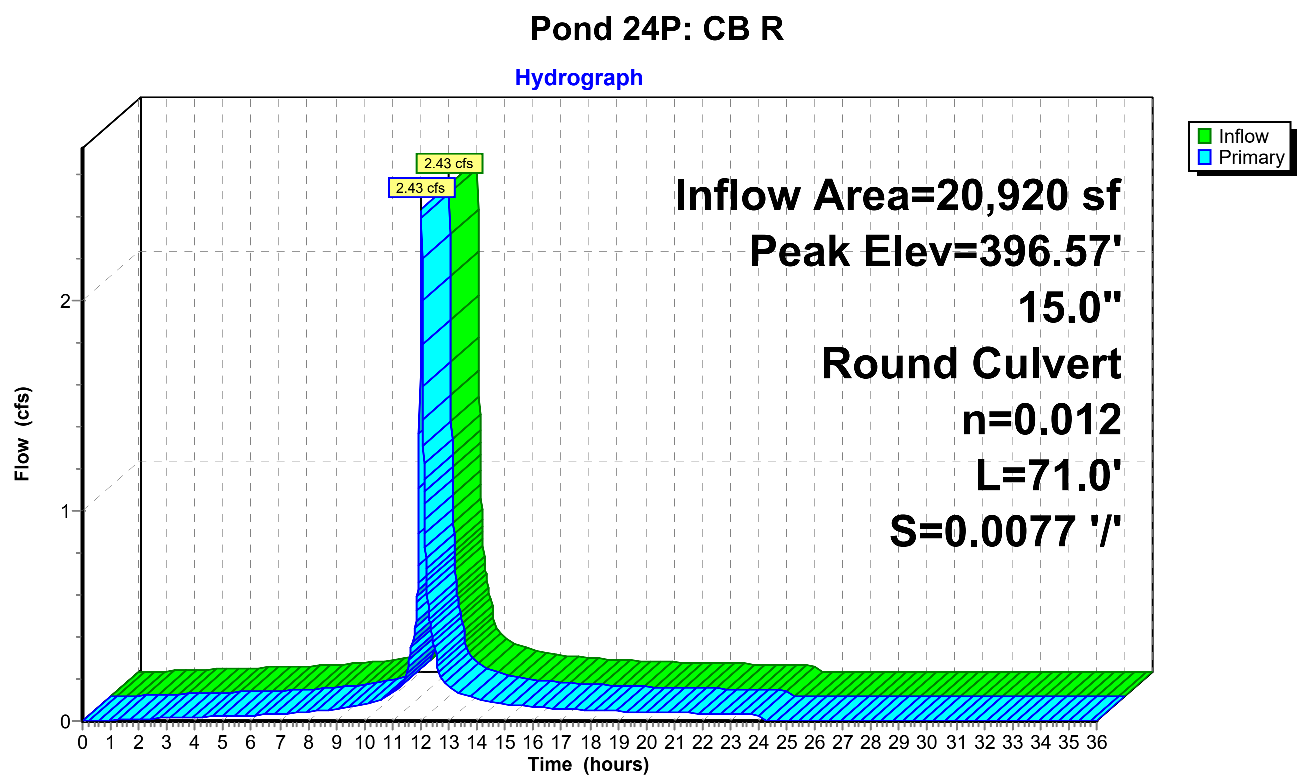
[80] Warning: Exceeded Pond 25P by 0.15' @ 12.01 hrs (2.25 cfs 255 cf)
[80] Warning: Exceeded Pond 28P by 0.15' @ 12.01 hrs (1.22 cfs 146 cf)

Inflow Area = 20,920 sf, 79.28% Impervious, Inflow Depth = 4.01" for 10-yr event
Inflow = 2.43 cfs @ 12.03 hrs, Volume= 6,988 cf
Outflow = 2.43 cfs @ 12.03 hrs, Volume= 6,988 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.43 cfs @ 12.03 hrs, Volume= 6,988 cf
Routed to Pond 23P : CB Q

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.57' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.90'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.90' / 392.35' S= 0.0077 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=396.21' TW=396.26' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)



Summary for Pond 25P: CB S

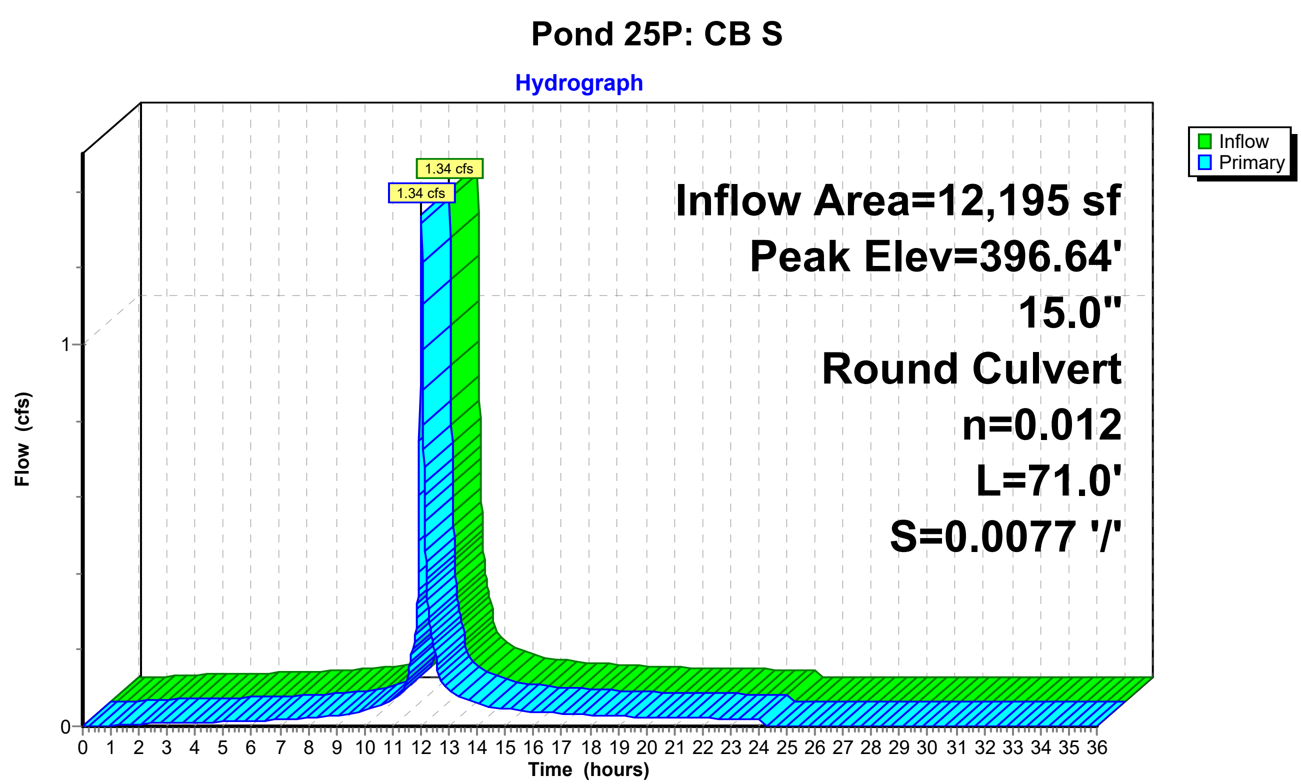
[80] Warning: Exceeded Pond 26P by 0.44' @ 12.01 hrs (2.47 cfs 330 cf)
[80] Warning: Exceeded Pond 29P by 0.37' @ 12.02 hrs (2.30 cfs 249 cf)

Inflow Area = 12,195 sf, 72.82% Impervious, Inflow Depth = 3.77" for 10-yr event
Inflow = 1.34 cfs @ 12.03 hrs, Volume= 3,831 cf
Outflow = 1.34 cfs @ 12.03 hrs, Volume= 3,831 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.34 cfs @ 12.03 hrs, Volume= 3,831 cf
Routed to Pond 24P : CB R

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.64' @ 12.05 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.50'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.50' / 392.95' S= 0.0077 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=396.16' TW=396.22' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)



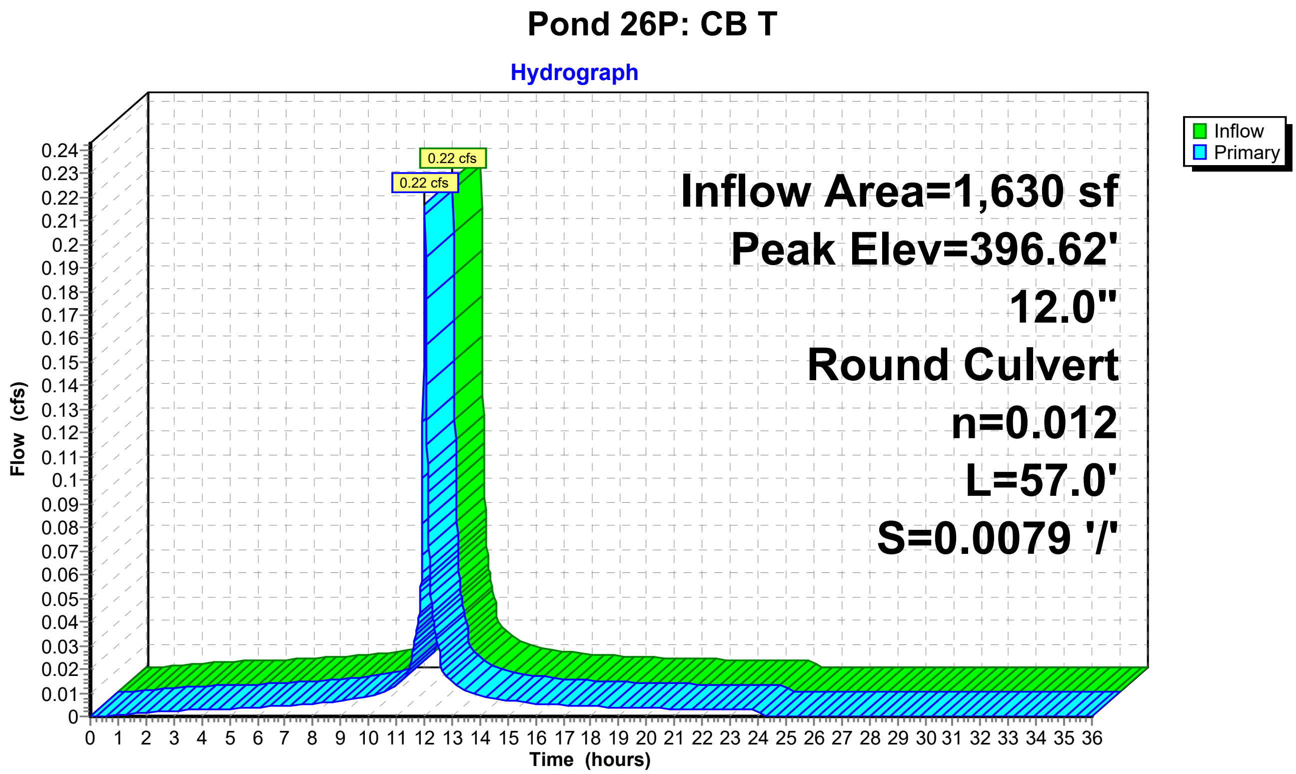
Summary for Pond 26P: CB T

Inflow Area = 1,630 sf,100.00% Impervious, Inflow Depth = 4.81" for 10-yr event
Inflow = 0.22 cfs @ 12.03 hrs, Volume= 654 cf
Outflow = 0.22 cfs @ 12.03 hrs, Volume= 654 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.22 cfs @ 12.03 hrs, Volume= 654 cf
Routed to Pond 25P : CB S

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.62' @ 12.05 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.00'	**12.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.00' / 393.55' S= 0.0079 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=395.76' TW=396.10' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)



Summary for Pond 27P: CB U

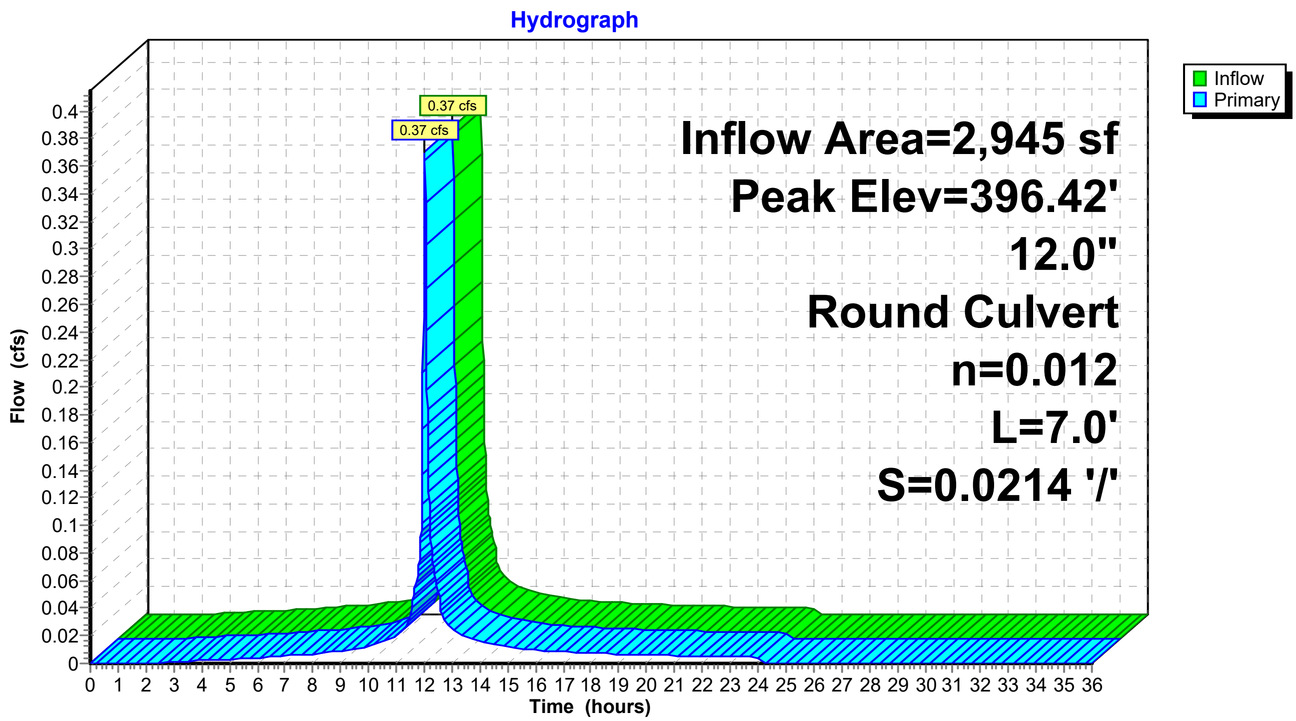
Inflow Area = 2,945 sf, 86.76% Impervious, Inflow Depth = 4.25" for 10-yr event
Inflow = 0.37 cfs @ 12.03 hrs, Volume= 1,042 cf
Outflow = 0.37 cfs @ 12.03 hrs, Volume= 1,042 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.37 cfs @ 12.03 hrs, Volume= 1,042 cf
Routed to Pond 23P : CB Q

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.42' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.60'	**12.0" Round Culvert** L= 7.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.60' / 394.45' S= 0.0214 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=396.03' TW=396.25' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)

Pond 27P: CB U



Summary for Pond 28P: CB V

Inflow Area =	4,625 sf,	77.95% Impervious,	Inflow Depth = 3.92"	for 10-yr event	
Inflow =	0.55 cfs @	12.03 hrs,	Volume=	1,513 cf	
Outflow =	0.55 cfs @	12.03 hrs,	Volume=	1,513 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.55 cfs @	12.03 hrs,	Volume=	1,513 cf	

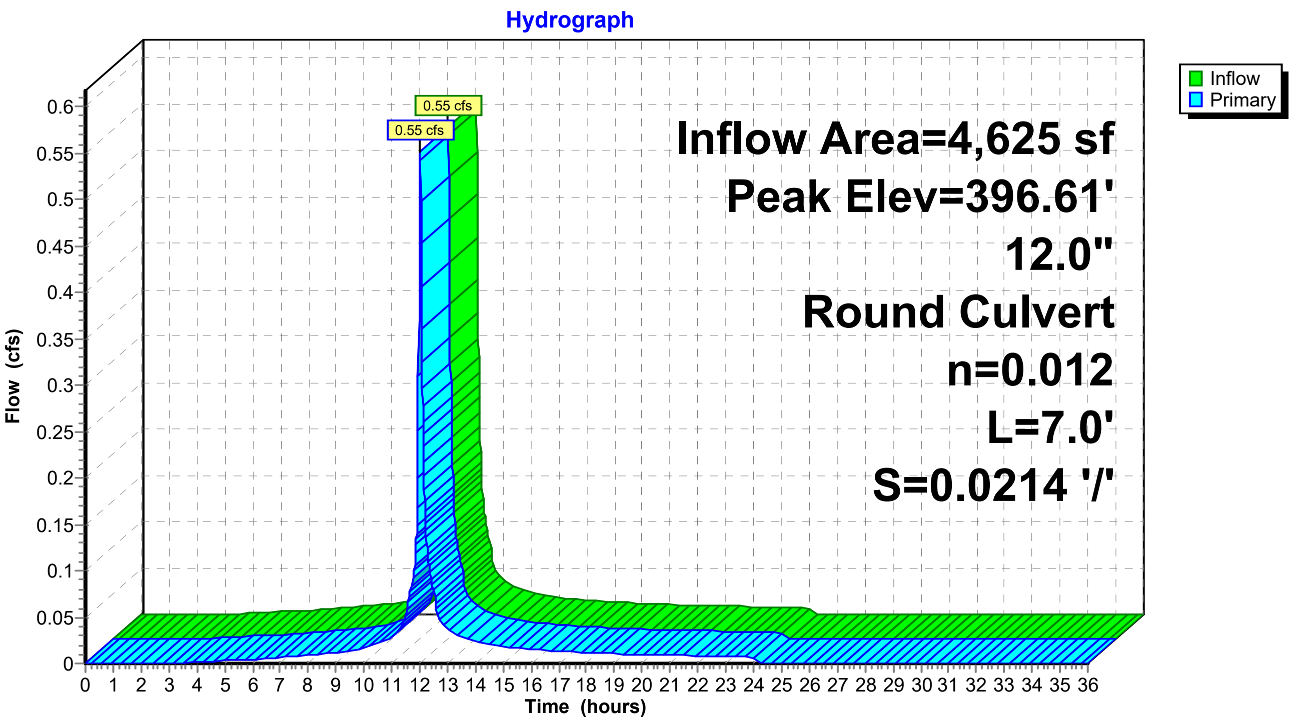
Routed to Pond 24P : CB R

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.61' @ 12.05 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.60'	**12.0" Round Culvert** L= 7.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.60' / 394.45' S= 0.0214 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=396.11' TW=396.21' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)

Pond 28P: CB V



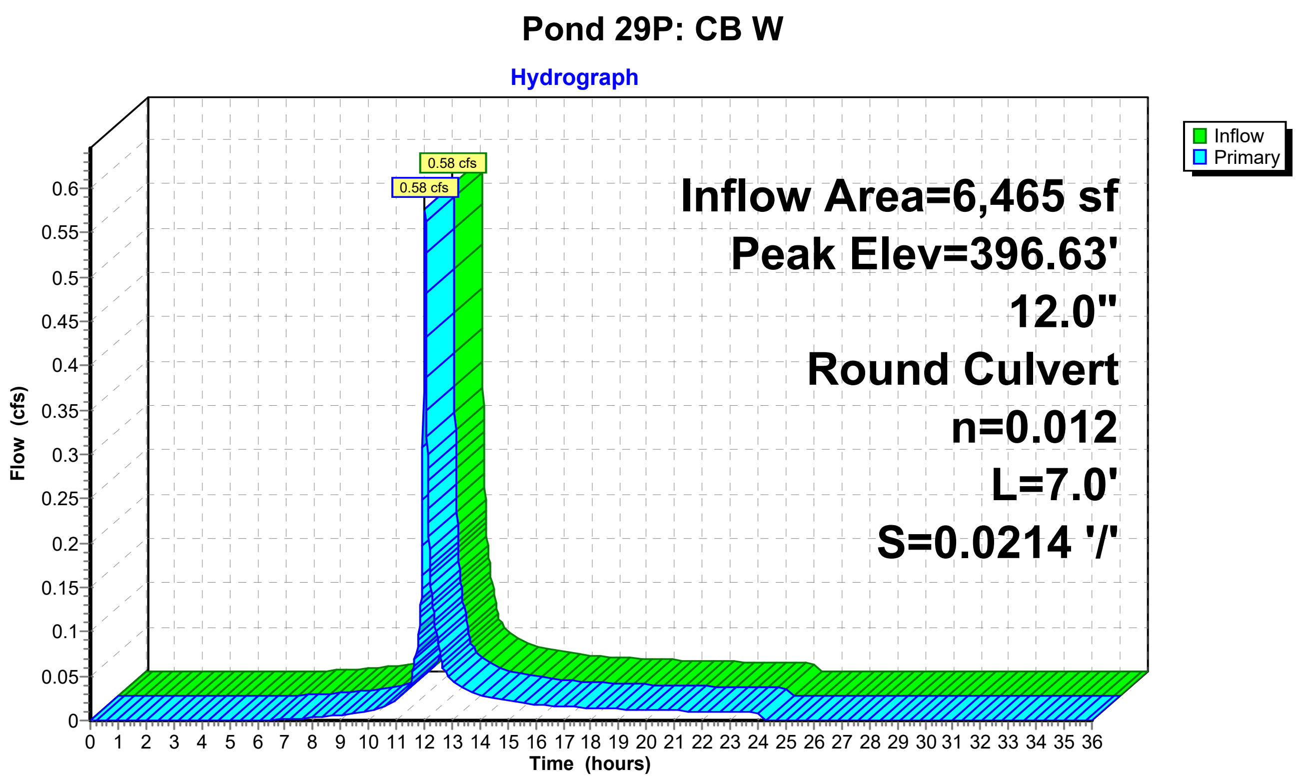
Summary for Pond 29P: CB W

Inflow Area = 6,465 sf, 48.72% Impervious, Inflow Depth = 2.84" for 10-yr event
Inflow = 0.58 cfs @ 12.03 hrs, Volume= 1,533 cf
Outflow = 0.58 cfs @ 12.03 hrs, Volume= 1,533 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.58 cfs @ 12.03 hrs, Volume= 1,533 cf
Routed to Pond 25P : CB S

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.63' @ 12.05 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.60'	**12.0" Round Culvert** L= 7.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.60' / 394.45' S= 0.0214 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=395.94' TW=396.23' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)



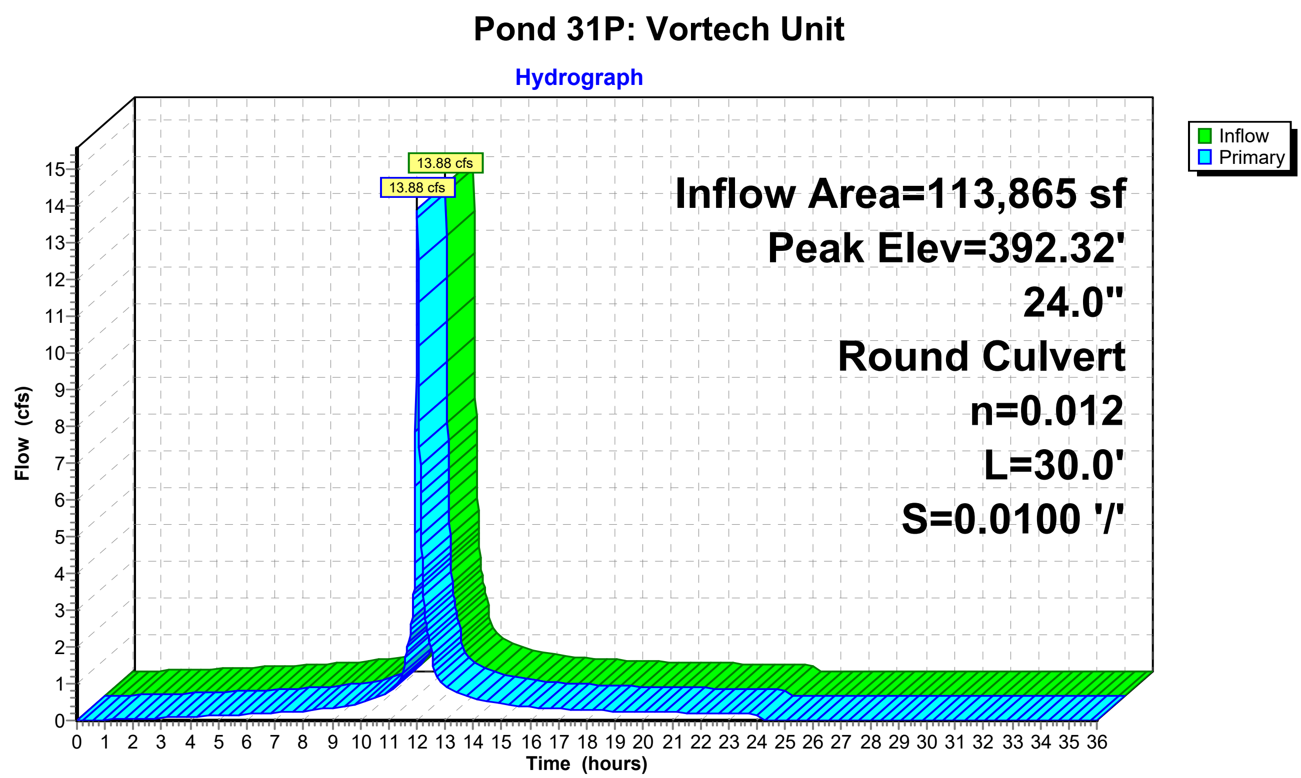
Summary for Pond 31P: Vortech Unit

Inflow Area = 113,865 sf, 84.57% Impervious, Inflow Depth = 4.19" for 10-yr event
Inflow = 13.88 cfs @ 12.03 hrs, Volume= 39,801 cf
Outflow = 13.88 cfs @ 12.03 hrs, Volume= 39,801 cf, Atten= 0%, Lag= 0.0 min
Primary = 13.88 cfs @ 12.03 hrs, Volume= 39,801 cf
Routed to Link 1L : Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.32' @ 12.03 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.30'	**24.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.30' / 390.00' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=13.83 cfs @ 12.03 hrs HW=392.31' TW=0.00' (Dynamic Tailwater)
1=Culvert (Barrel Controls 13.83 cfs @ 5.44 fps)



Summary for Pond 41P: CB 11

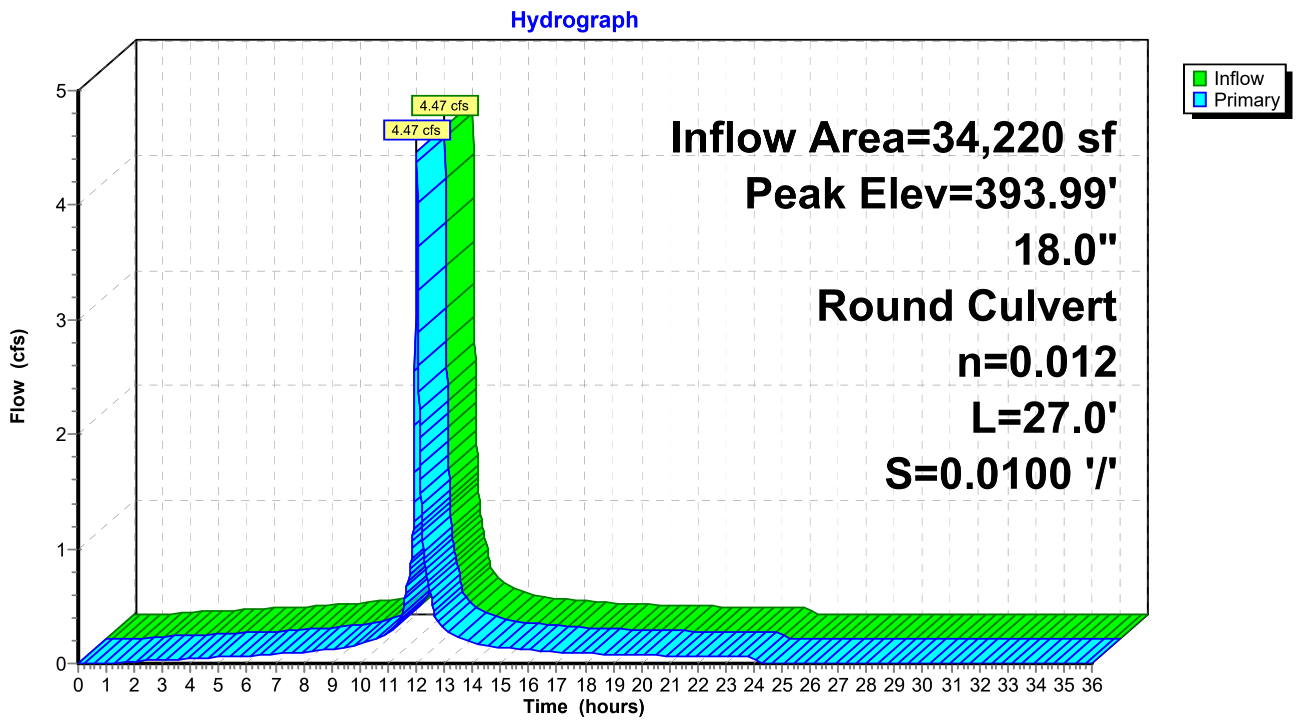
Inflow Area = 34,220 sf, 94.21% Impervious, Inflow Depth = 4.58" for 10-yr event
Inflow = 4.47 cfs @ 12.03 hrs, Volume= 13,057 cf
Outflow = 4.47 cfs @ 12.03 hrs, Volume= 13,057 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.47 cfs @ 12.03 hrs, Volume= 13,057 cf
Routed to Pond 53P : DMH D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.99' @ 12.03 hrs
Flood Elev= 396.37'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.07'	**18.0" Round Culvert** L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.07' / 391.80' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=4.23 cfs @ 12.03 hrs HW=393.97' TW=393.72' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 4.23 cfs @ 2.40 fps)

Pond 41P: CB 11



Summary for Pond 42P: CB 12

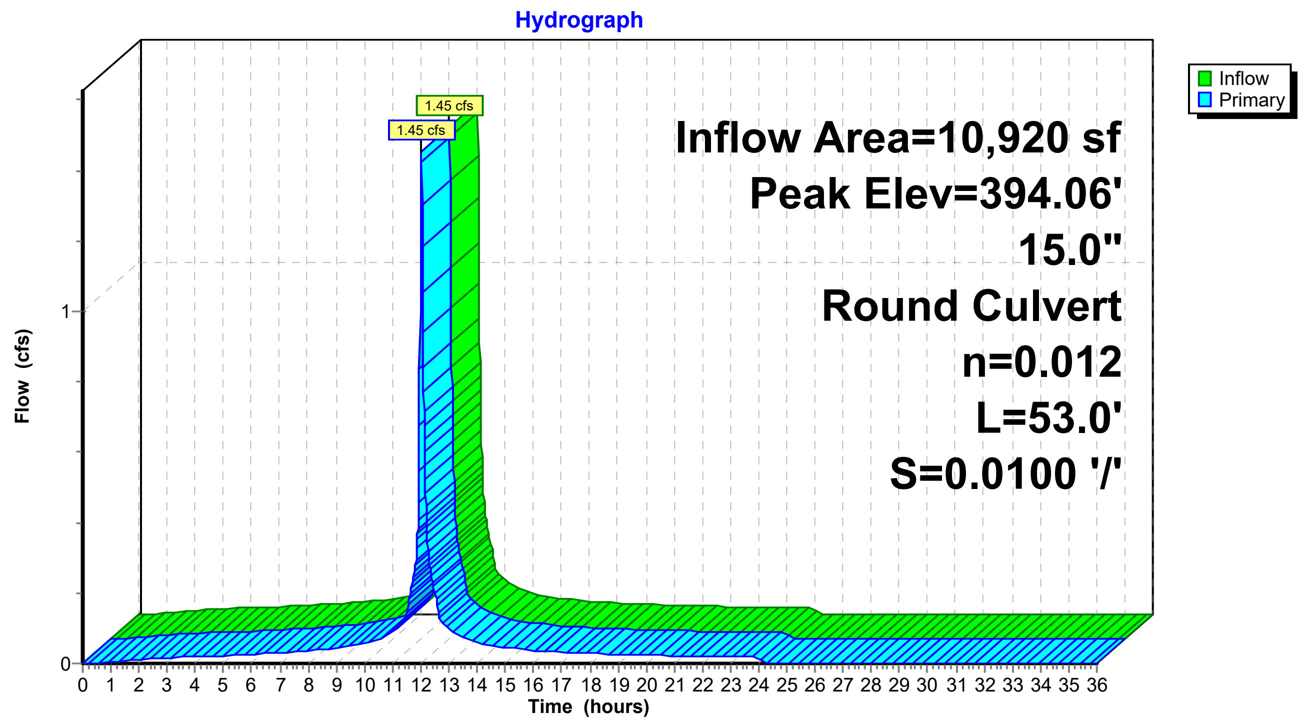
Inflow Area = 10,920 sf,100.00% Impervious, Inflow Depth = 4.81" for 10-yr event
Inflow = 1.45 cfs @ 12.03 hrs, Volume= 4,380 cf
Outflow = 1.45 cfs @ 12.03 hrs, Volume= 4,380 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.45 cfs @ 12.03 hrs, Volume= 4,380 cf
Routed to Pond 41P : CB 11

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.06' @ 12.03 hrs
Flood Elev= 396.36'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.70'	**15.0" Round Culvert** L= 53.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.70' / 392.17' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.30 cfs @ 12.03 hrs HW=394.02' TW=393.97' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 1.30 cfs @ 1.24 fps)

Pond 42P: CB 12



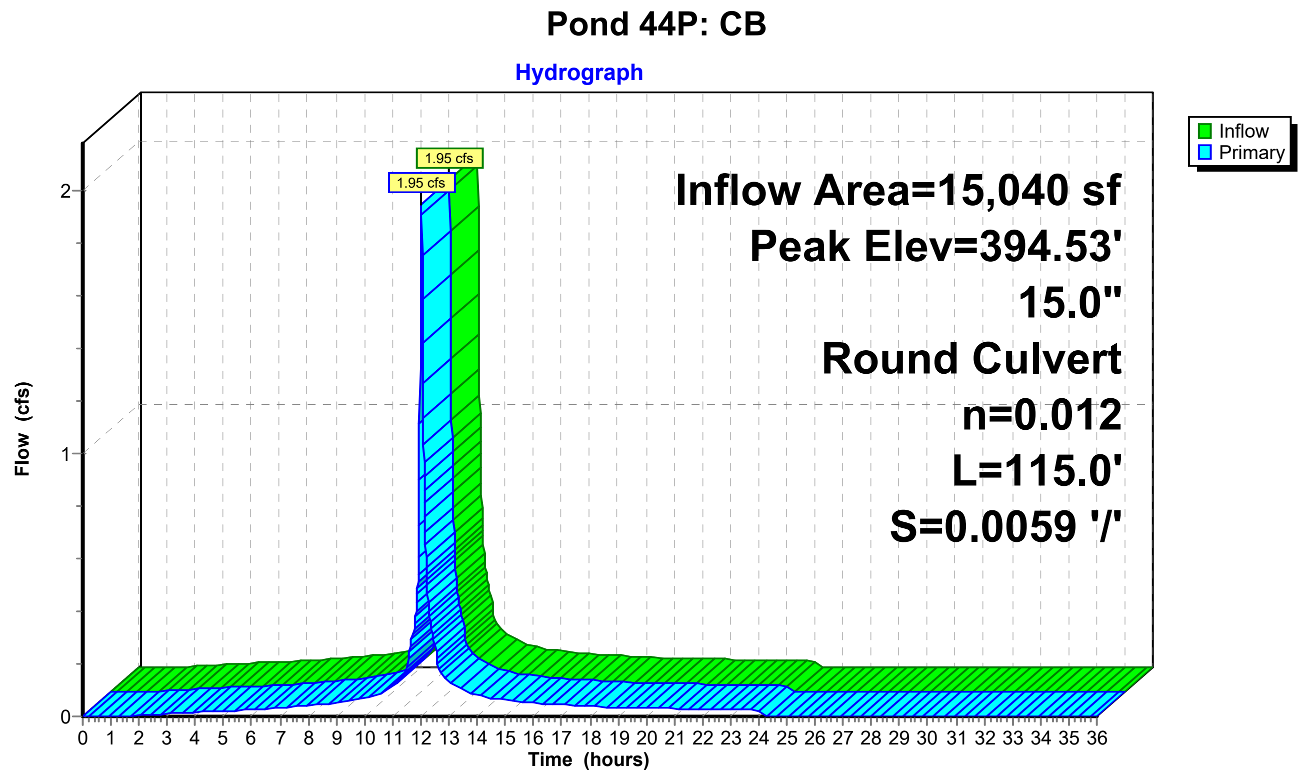
Summary for Pond 44P: CB

Inflow Area = 15,040 sf, 92.69% Impervious, Inflow Depth = 4.47" for 10-yr event
Inflow = 1.95 cfs @ 12.03 hrs, Volume= 5,601 cf
Outflow = 1.95 cfs @ 12.03 hrs, Volume= 5,601 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.95 cfs @ 12.03 hrs, Volume= 5,601 cf
Routed to Pond 52P : DMH C

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.53' @ 12.03 hrs
Flood Elev= 398.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.58'	**15.0" Round Culvert** L= 115.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.58' / 391.90' S= 0.0059 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.65 cfs @ 12.03 hrs HW=394.49' TW=394.38' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 1.65 cfs @ 1.34 fps)



Summary for Pond 45P: CB

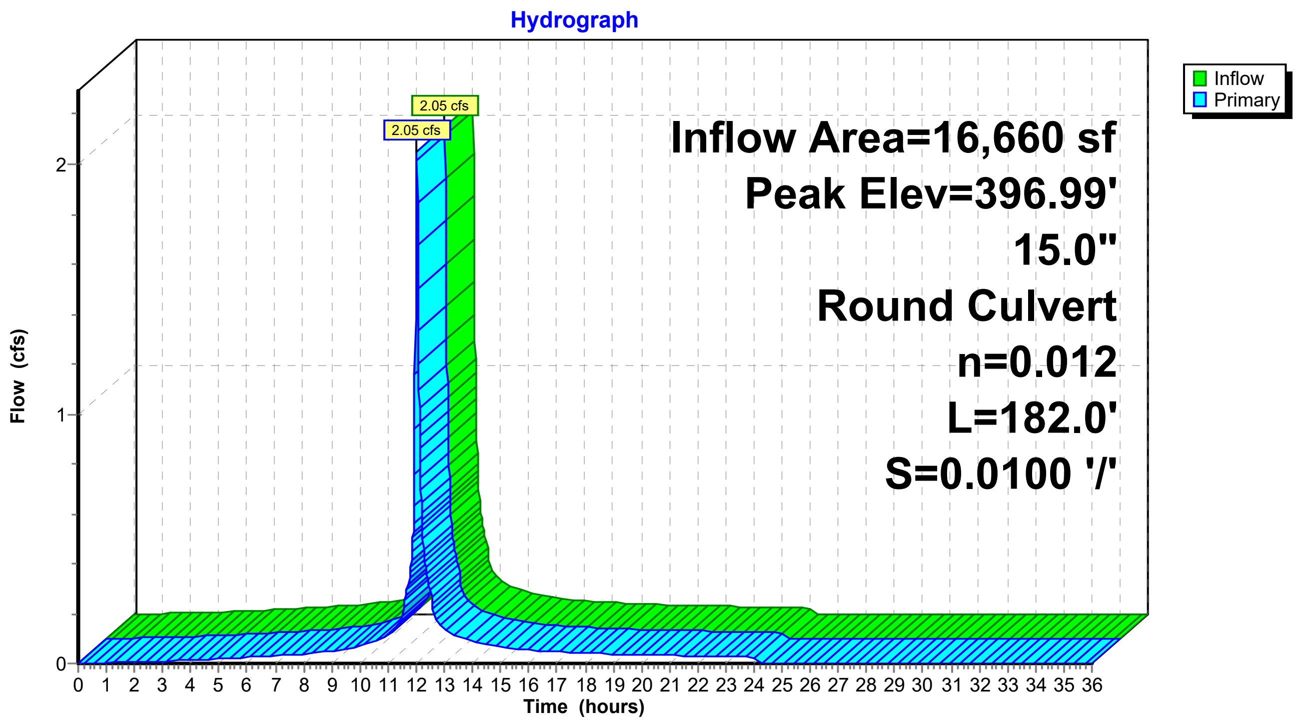
Inflow Area = 16,660 sf, 86.04% Impervious, Inflow Depth = 4.21" for 10-yr event
Inflow = 2.05 cfs @ 12.03 hrs, Volume= 5,850 cf
Outflow = 2.05 cfs @ 12.03 hrs, Volume= 5,850 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.05 cfs @ 12.03 hrs, Volume= 5,850 cf
Routed to Pond 50P : DMH A

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.99' @ 12.04 hrs
Flood Elev= 399.89'

Device	Routing	Invert	Outlet Devices
#1	Primary	395.87'	**15.0" Round Culvert** L= 182.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 395.87' / 394.05' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.75 cfs @ 12.03 hrs HW=396.84' TW=396.43' (Dynamic Tailwater)
1=Culvert (Outlet Controls 1.75 cfs @ 2.36 fps)

Pond 45P: CB



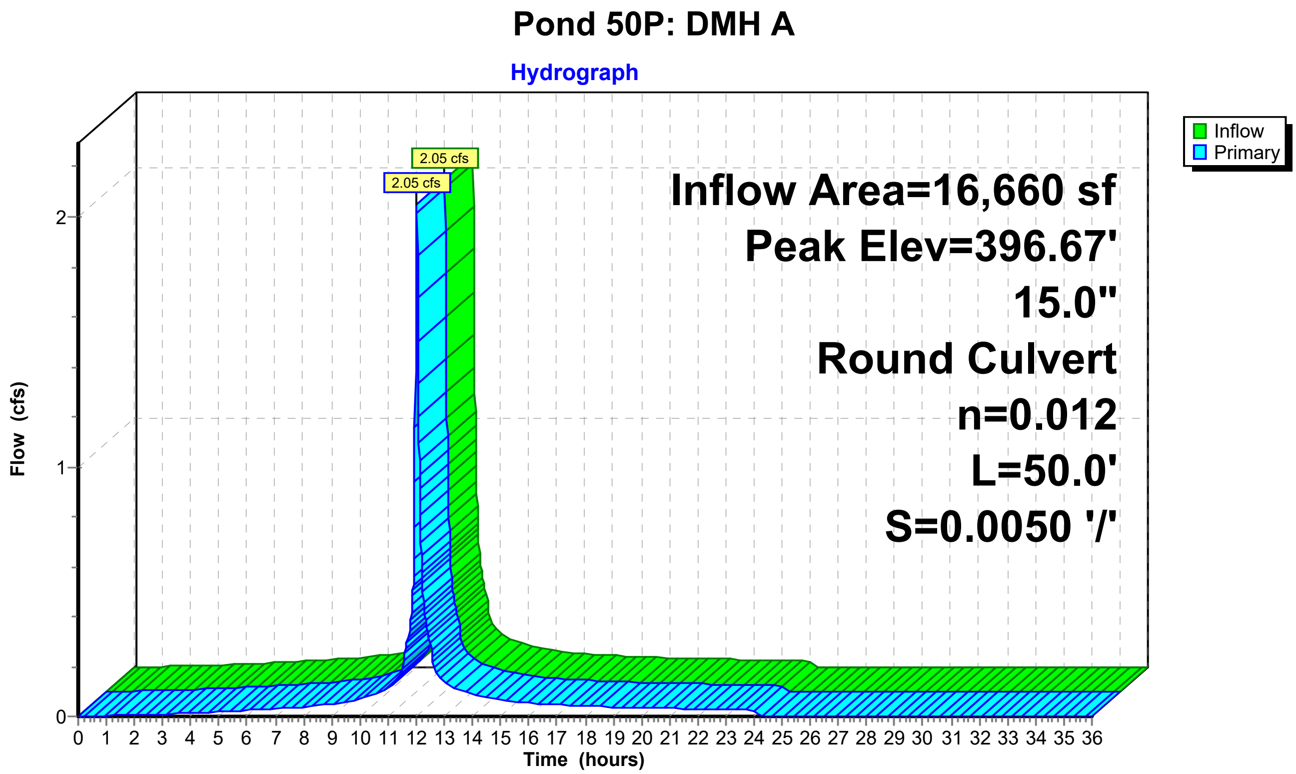
Summary for Pond 50P: DMH A

Inflow Area = 16,660 sf, 86.04% Impervious, Inflow Depth = 4.21" for 10-yr event
Inflow = 2.05 cfs @ 12.03 hrs, Volume= 5,850 cf
Outflow = 2.05 cfs @ 12.03 hrs, Volume= 5,850 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.05 cfs @ 12.03 hrs, Volume= 5,850 cf
Routed to Pond 51P : DMH B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.67' @ 12.04 hrs
Flood Elev= 398.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.50'	**15.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.50' / 393.25' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.54 cfs @ 12.03 hrs HW=396.43' TW=396.42' (Dynamic Tailwater)
└—**1=Culvert** (Inlet Controls 0.54 cfs @ 0.44 fps)



Summary for Pond 51P: DMH B

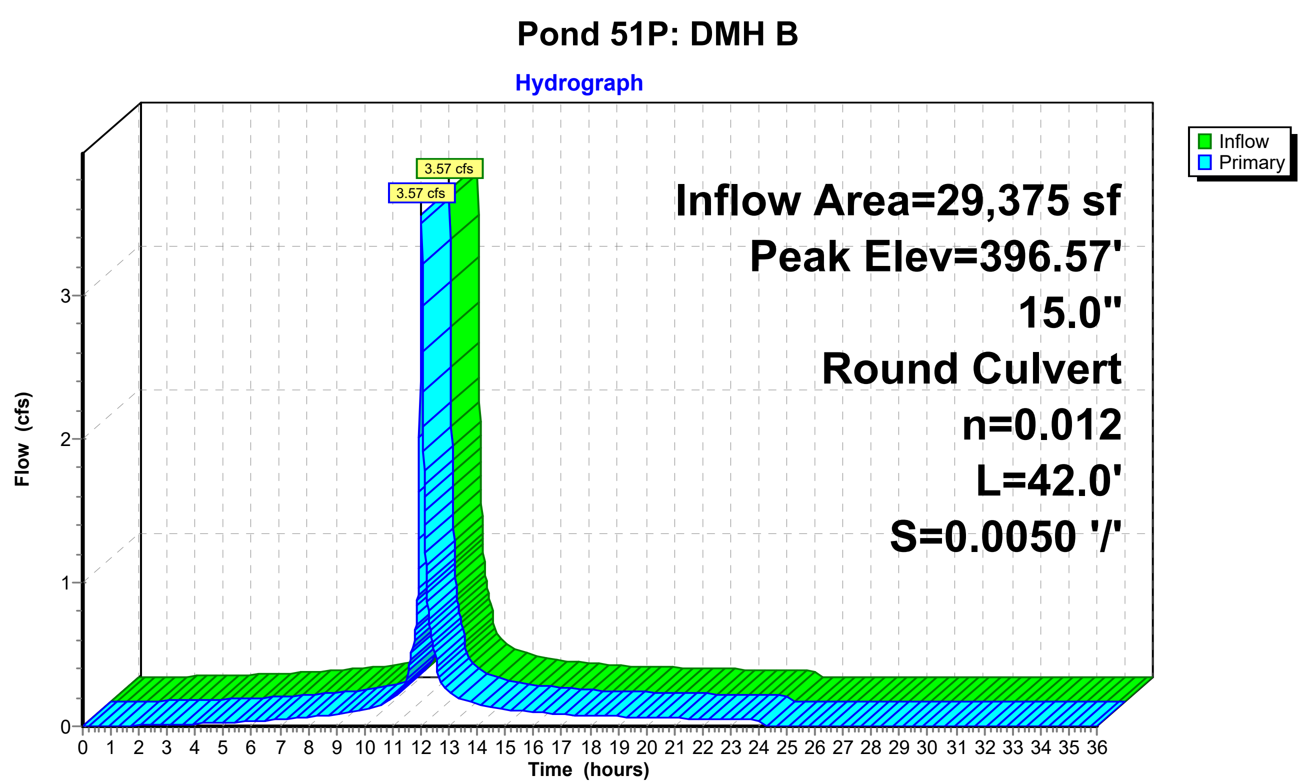
[80] Warning: Exceeded Pond 1P by 0.10' @ 12.01 hrs (1.91 cfs 296 cf)
[80] Warning: Exceeded Pond 50P by 0.06' @ 11.98 hrs (1.41 cfs 235 cf)

Inflow Area = 29,375 sf, 82.50% Impervious, Inflow Depth = 4.09" for 10-yr event
Inflow = 3.57 cfs @ 12.03 hrs, Volume= 10,009 cf
Outflow = 3.57 cfs @ 12.03 hrs, Volume= 10,009 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.57 cfs @ 12.03 hrs, Volume= 10,009 cf
Routed to Pond 2P : CB 2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.57' @ 12.04 hrs
Flood Elev= 398.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.15'	**15.0" Round Culvert** L= 42.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.15' / 392.94' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=3.06 cfs @ 12.03 hrs HW=396.42' TW=396.16' (Dynamic Tailwater)
1=Culvert (Inlet Controls 3.06 cfs @ 2.50 fps)



Summary for Pond 52P: DMH C

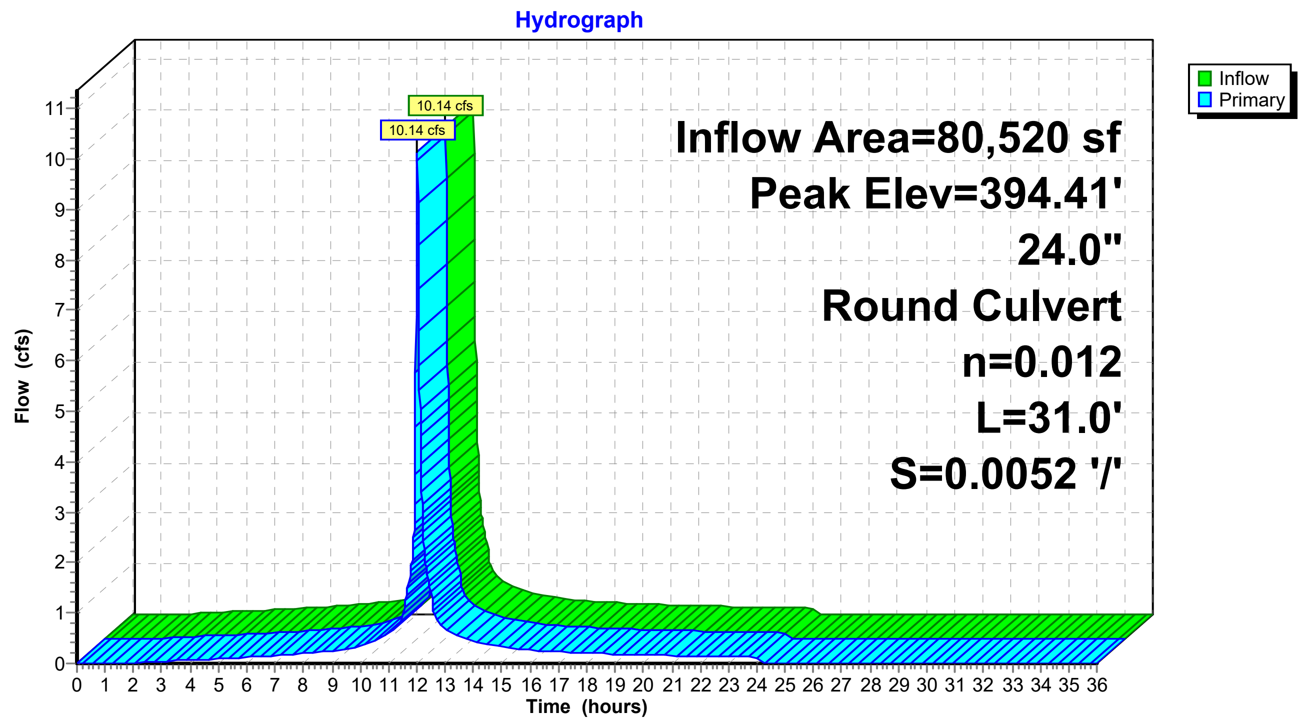
Inflow Area = 80,520 sf, 88.25% Impervious, Inflow Depth = 4.30" for 10-yr event
Inflow = 10.14 cfs @ 12.03 hrs, Volume= 28,828 cf
Outflow = 10.14 cfs @ 12.03 hrs, Volume= 28,828 cf, Atten= 0%, Lag= 0.0 min
Primary = 10.14 cfs @ 12.03 hrs, Volume= 28,828 cf
Routed to Pond 5P : CB 5

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.41' @ 12.03 hrs
Flood Elev= 397.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.80'	**24.0" Round Culvert** L= 31.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.80' / 391.64' S= 0.0052 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=9.97 cfs @ 12.03 hrs HW=394.38' TW=393.95' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 9.97 cfs @ 3.17 fps)

Pond 52P: DMH C



Summary for Pond 53P: DMH D

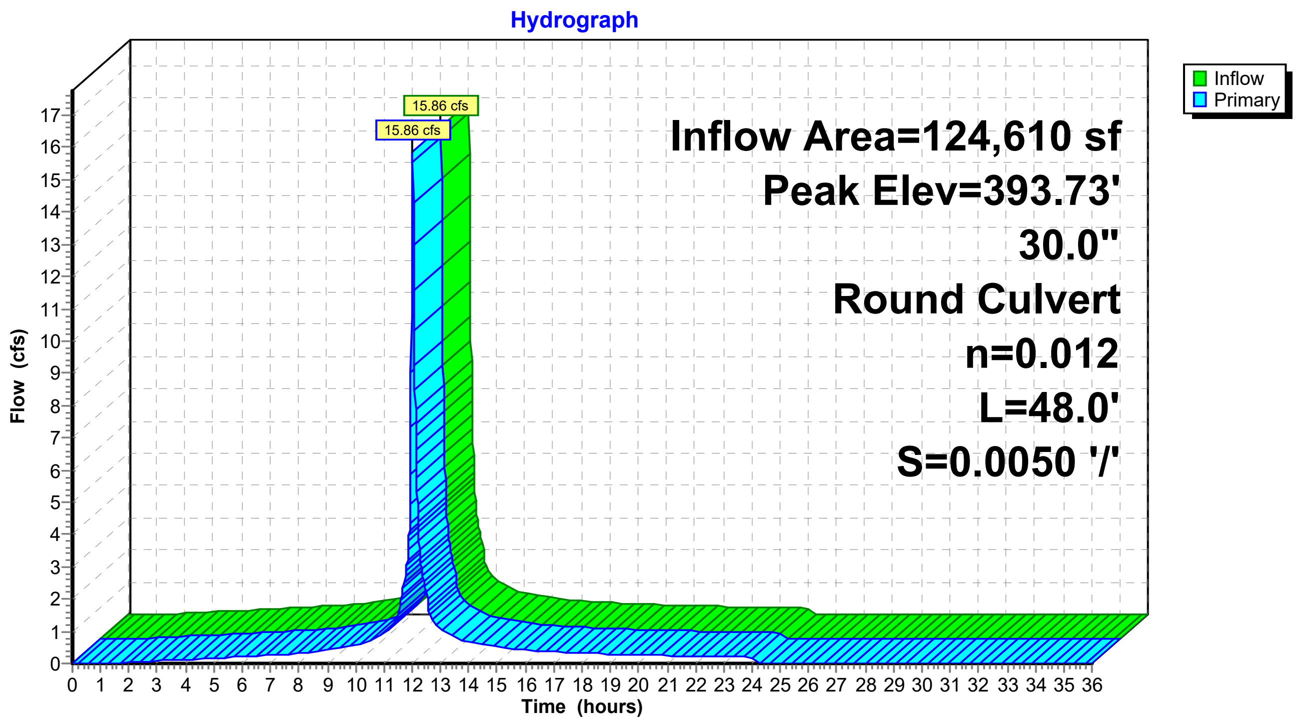
Inflow Area = 124,610 sf, 89.85% Impervious, Inflow Depth = 4.38" for 10-yr event
Inflow = 15.86 cfs @ 12.03 hrs, Volume= 45,469 cf
Outflow = 15.86 cfs @ 12.03 hrs, Volume= 45,469 cf, Atten= 0%, Lag= 0.0 min
Primary = 15.86 cfs @ 12.03 hrs, Volume= 45,469 cf
Routed to Pond 54P : DMH E

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.73' @ 12.03 hrs
Flood Elev= 396.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.48'	**30.0" Round Culvert** L= 48.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.48' / 391.24' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=15.86 cfs @ 12.03 hrs HW=393.72' TW=393.15' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 15.86 cfs @ 4.52 fps)

Pond 53P: DMH D



Summary for Pond 54P: DMH E

Inflow Area = 124,610 sf, 89.85% Impervious, Inflow Depth = 4.38" for 10-yr event
Inflow = 15.86 cfs @ 12.03 hrs, Volume= 45,469 cf
Outflow = 15.86 cfs @ 12.03 hrs, Volume= 45,469 cf, Atten= 0%, Lag= 0.0 min
Primary = 11.47 cfs @ 12.03 hrs, Volume= 8,490 cf
Routed to Pond 55P : DMH F
Secondary = 4.41 cfs @ 12.02 hrs, Volume= 36,978 cf
Routed to Pond 1VP : Vortechnics Unit

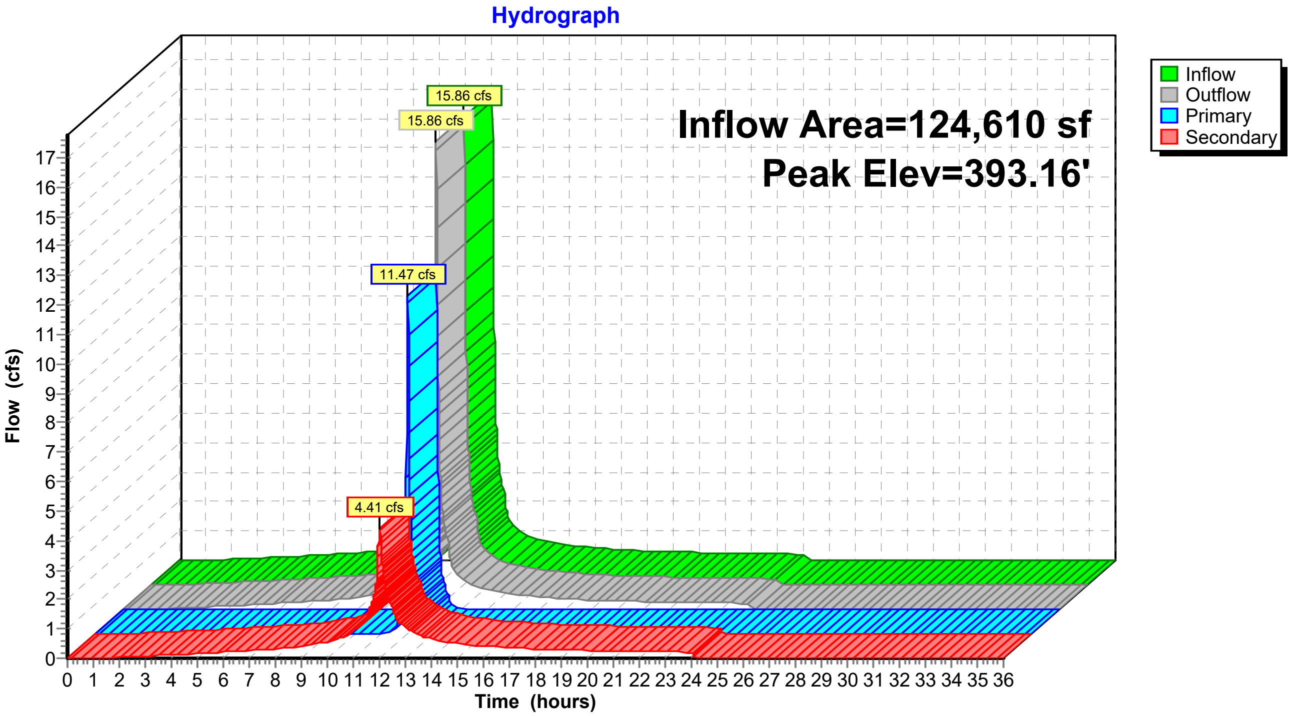
Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.16' @ 12.03 hrs
Flood Elev= 398.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.14'	**30.0" Round Culvert** L= 41.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.14' / 390.93' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Secondary	390.55'	**15.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.55' / 390.50' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=11.91 cfs @ 12.03 hrs HW=393.15' TW=392.74' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 11.91 cfs @ 3.84 fps)

Secondary OutFlow Max=3.30 cfs @ 12.02 hrs HW=393.12' TW=392.81' (Dynamic Tailwater)
└─**2=Culvert** (Inlet Controls 3.30 cfs @ 2.69 fps)

Pond 54P: DMH E



Summary for Pond 55P: DMH F

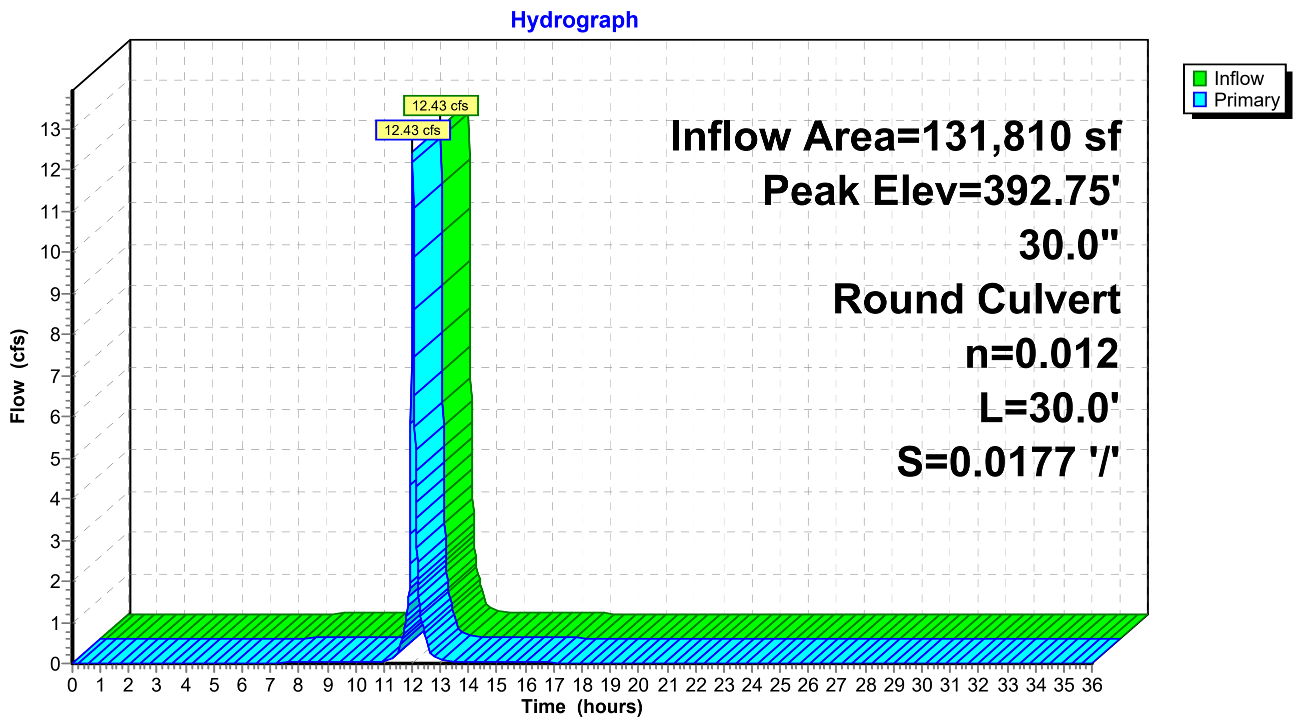
Inflow Area = 131,810 sf, 90.41% Impervious, Inflow Depth = 1.04" for 10-yr event
Inflow = 12.43 cfs @ 12.03 hrs, Volume= 11,378 cf
Outflow = 12.43 cfs @ 12.03 hrs, Volume= 11,378 cf, Atten= 0%, Lag= 0.0 min
Primary = 12.43 cfs @ 12.03 hrs, Volume= 11,378 cf
Routed to Pond 3DP : DMH 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.75' @ 12.03 hrs
Flood Elev= 397.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.83'	**30.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.83' / 390.30' S= 0.0177 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=12.37 cfs @ 12.03 hrs HW=392.74' TW=392.27' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 12.37 cfs @ 4.24 fps)

Pond 55P: DMH F



Summary for Pond 61P: DMH A

[80] Warning: Exceeded Pond 7P by 0.05' @ 12.02 hrs (0.62 cfs 57 cf)

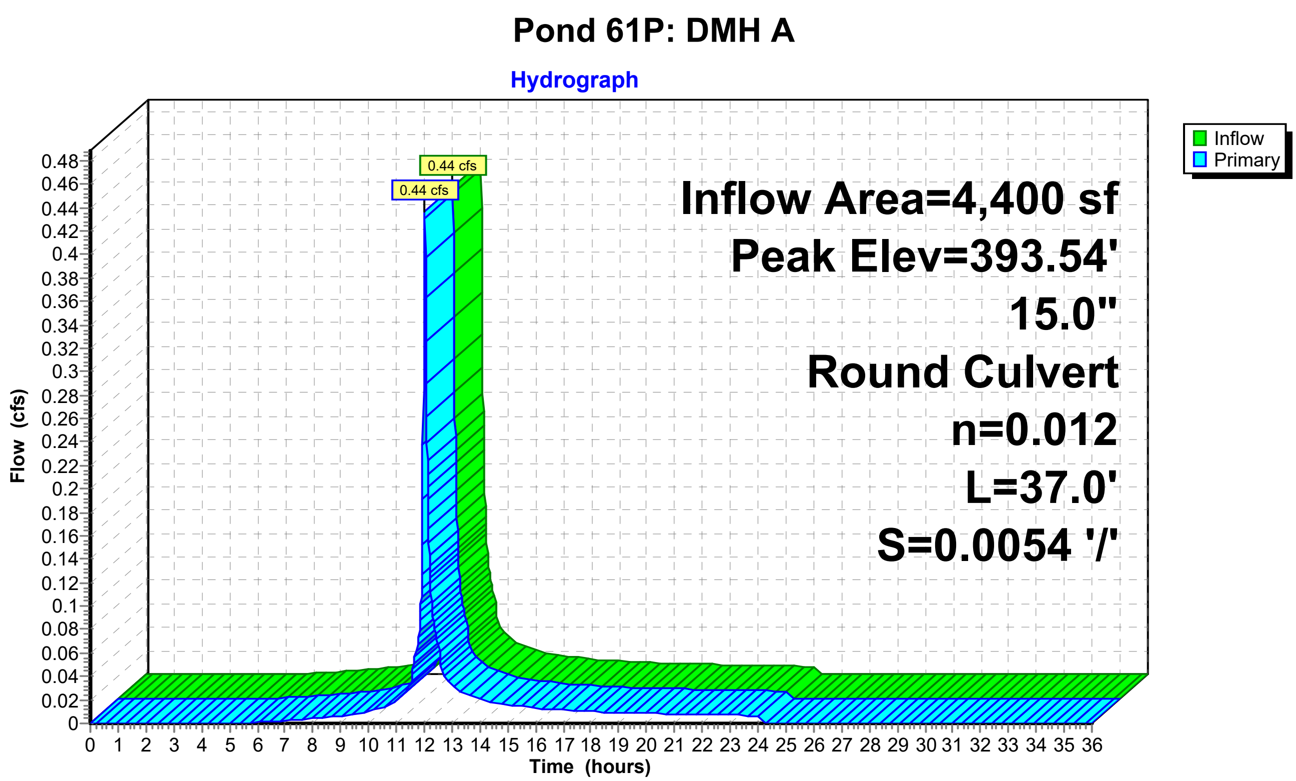
Inflow Area =	4,400 sf,	58.07% Impervious,	Inflow Depth = 3.17"	for 10-yr event	
Inflow =	0.44 cfs @	12.03 hrs,	Volume=	1,163 cf	
Outflow =	0.44 cfs @	12.03 hrs,	Volume=	1,163 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.44 cfs @	12.03 hrs,	Volume=	1,163 cf	

Routed to Pond 62P : DMH B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.54' @ 12.04 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.75'	**15.0" Round Culvert** L= 37.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.75' / 391.55' S= 0.0054 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=393.46' TW=393.51' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)



Summary for Pond 62P: DMH B

[80] Warning: Exceeded Pond 61P by 0.15' @ 12.00 hrs (2.21 cfs 372 cf)

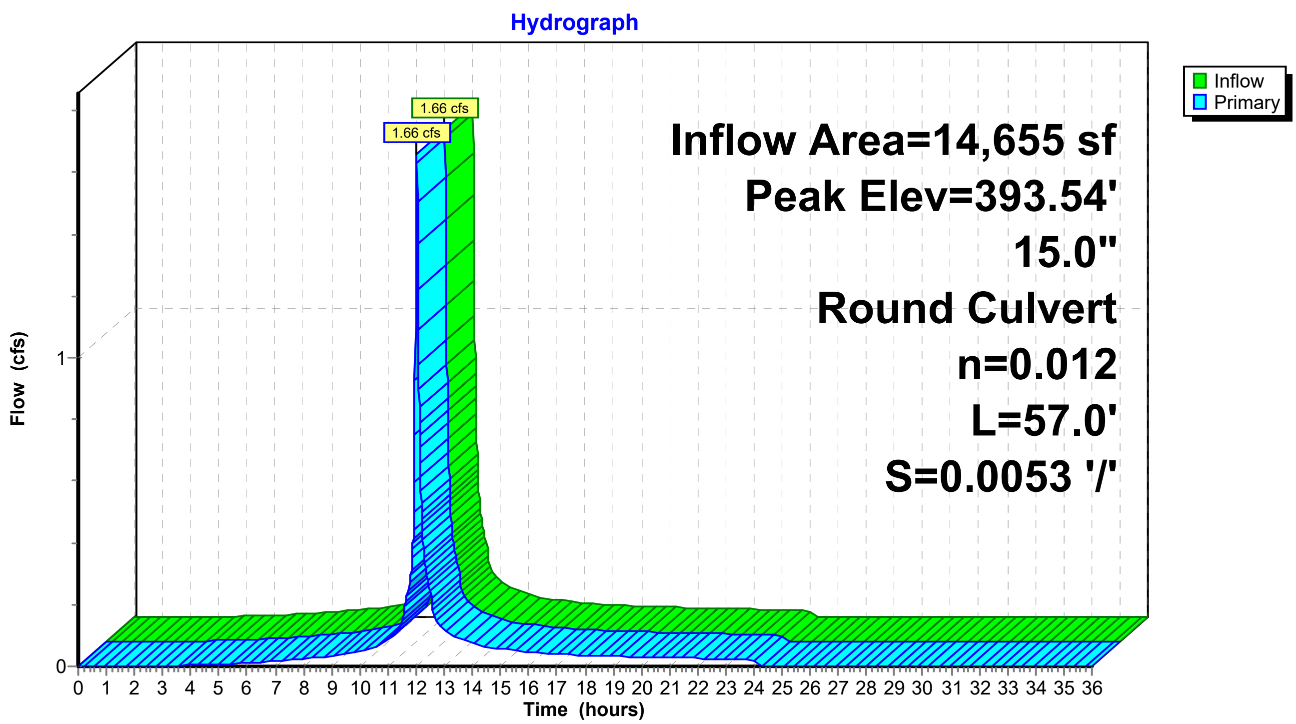
Inflow Area = 14,655 sf, 71.41% Impervious, Inflow Depth = 3.70" for 10-yr event
Inflow = 1.66 cfs @ 12.03 hrs, Volume= 4,517 cf
Outflow = 1.66 cfs @ 12.03 hrs, Volume= 4,517 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.66 cfs @ 12.03 hrs, Volume= 4,517 cf
Routed to Pond 9P : CB C

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.54' @ 12.03 hrs
Flood Elev= 397.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.50'	**15.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.50' / 391.20' S= 0.0053 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.43 cfs @ 12.03 hrs HW=393.50' TW=393.44' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 1.43 cfs @ 1.17 fps)

Pond 62P: DMH B

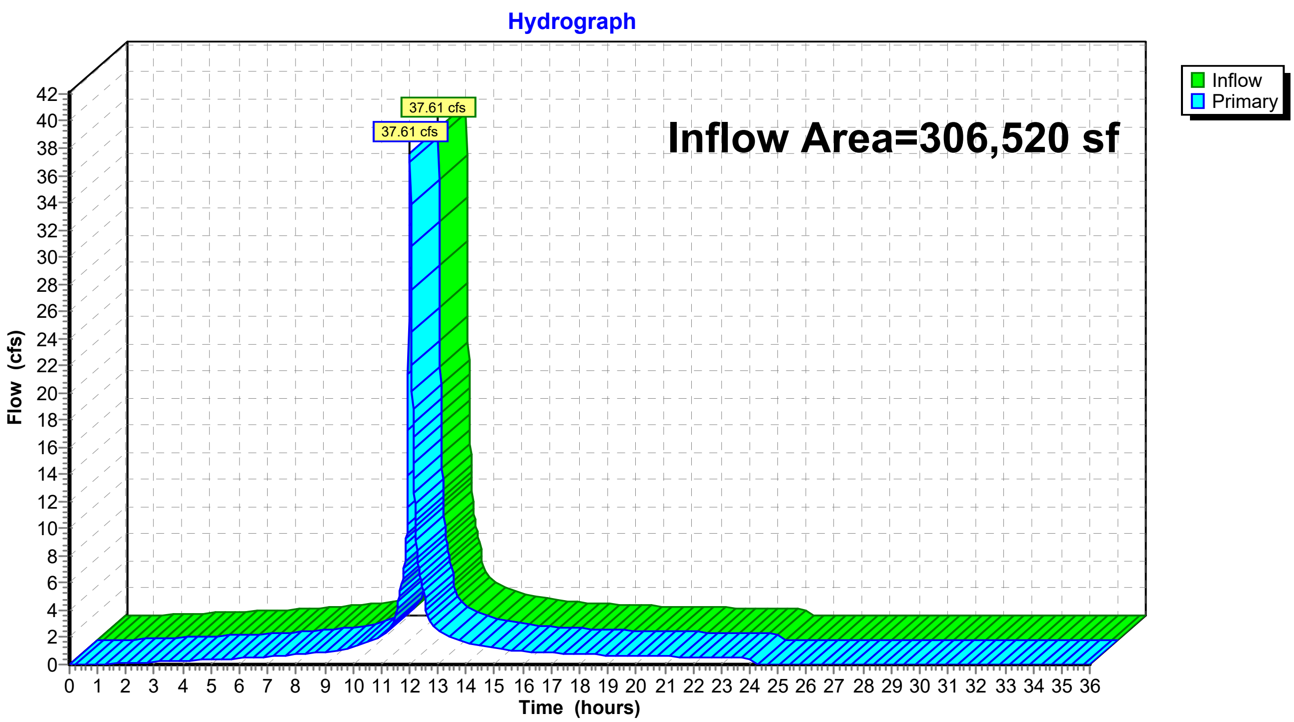


Summary for Link 1L: Wetland

Inflow Area =	306,520 sf, 85.07% Impervious,	Inflow Depth = 4.21"	for 10-yr event
Inflow =	37.61 cfs @ 12.03 hrs,	Volume=	107,566 cf
Primary =	37.61 cfs @ 12.03 hrs,	Volume=	107,566 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 1L: Wetland



Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Proposed to CB 1 Runoff Area=12,715 sf 77.86% Impervious Runoff Depth=4.94"
Tc=5.0 min CN=90 Runoff=1.87 cfs 5,238 cf

Subcatchment2S: Proposed to CB 2 Runoff Area=11,985 sf 90.40% Impervious Runoff Depth=5.40"
Tc=5.0 min CN=94 Runoff=1.86 cfs 5,389 cf

Subcatchment3S: Proposed to CB 3 Runoff Area=18,370 sf 90.36% Impervious Runoff Depth=5.40"
Tc=5.0 min CN=94 Runoff=2.85 cfs 8,260 cf

Subcatchment4S: Proposed to CB 4 Runoff Area=5,750 sf 94.70% Impervious Runoff Depth=5.63"
Tc=5.0 min CN=96 Runoff=0.91 cfs 2,696 cf

Subcatchment5S: Proposed to CB 5 Runoff Area=9,870 sf 87.84% Impervious Runoff Depth=5.40"
Tc=5.0 min CN=94 Runoff=1.53 cfs 4,438 cf

Subcatchment6S: Proposed to CB A Runoff Area=2,265 sf 59.38% Impervious Runoff Depth=4.18"
Tc=5.0 min CN=83 Runoff=0.29 cfs 790 cf

Subcatchment7S: Proposed to CB B Runoff Area=2,135 sf 56.67% Impervious Runoff Depth=4.08"
Tc=5.0 min CN=82 Runoff=0.27 cfs 726 cf

Subcatchment8S: Proposed to Trench Runoff Area=10,255 sf 77.13% Impervious Runoff Depth=4.94"
Tc=5.0 min CN=90 Runoff=1.51 cfs 4,224 cf

Subcatchment9S: Proposed to CB C Runoff Area=9,675 sf 76.95% Impervious Runoff Depth=4.83"
Tc=5.0 min CN=89 Runoff=1.40 cfs 3,896 cf

Subcatchment10S: Proposed to CB D Runoff Area=6,090 sf 72.74% Impervious Runoff Depth=4.72"
Tc=5.0 min CN=88 Runoff=0.87 cfs 2,397 cf

Subcatchment11S: Proposed to CB E Runoff Area=2,220 sf 100.00% Impervious Runoff Depth=5.86"
Tc=5.0 min CN=98 Runoff=0.36 cfs 1,084 cf

Subcatchment12S: Proposed to CB F Runoff Area=4,475 sf 94.19% Impervious Runoff Depth=5.63"
Tc=5.0 min CN=96 Runoff=0.71 cfs 2,098 cf

Subcatchment13S: Proposed to CB G Runoff Area=4,830 sf 73.08% Impervious Runoff Depth=4.72"
Tc=5.0 min CN=88 Runoff=0.69 cfs 1,901 cf

Subcatchment14S: Proposed to CB H Runoff Area=4,850 sf 73.20% Impervious Runoff Depth=4.72"
Tc=5.0 min CN=88 Runoff=0.69 cfs 1,909 cf

Subcatchment15S: Proposed to CB I Runoff Area=4,870 sf 72.28% Impervious Runoff Depth=4.72"
Tc=5.0 min CN=88 Runoff=0.69 cfs 1,916 cf

Subcatchment16S: Proposed to CB J Runoff Area=1,940 sf 71.13% Impervious Runoff Depth=4.61"
Tc=5.0 min CN=87 Runoff=0.27 cfs 746 cf

Subcatchment17S: Proposed to CB K Runoff Area=1,790 sf 100.00% Impervious Runoff Depth=5.86"
Tc=5.0 min CN=98 Runoff=0.29 cfs 874 cf

Subcatchment18S: Proposed to CB L Runoff Area=4,985 sf 100.00% Impervious Runoff Depth=5.86"
Tc=5.0 min CN=98 Runoff=0.80 cfs 2,435 cf

Subcatchment19S: Proposed to CB M Runoff Area=4,985 sf 100.00% Impervious Runoff Depth=5.86"
Tc=5.0 min CN=98 Runoff=0.80 cfs 2,435 cf

Subcatchment20S: Proposed to CB N Runoff Area=4,985 sf 100.00% Impervious Runoff Depth=5.86"
Tc=5.0 min CN=98 Runoff=0.80 cfs 2,435 cf

Subcatchment21S: Proposed to CB O Runoff Area=1,980 sf 100.00% Impervious Runoff Depth=5.86"
Tc=5.0 min CN=98 Runoff=0.32 cfs 967 cf

Subcatchment22S: Proposed to CB P Runoff Area=1,470 sf 100.00% Impervious Runoff Depth=5.86"
Tc=5.0 min CN=98 Runoff=0.24 cfs 718 cf

Subcatchment23S: Proposed to CB Q Runoff Area=4,100 sf 100.00% Impervious Runoff Depth=5.86"
Tc=5.0 min CN=98 Runoff=0.66 cfs 2,003 cf

Subcatchment24S: Proposed to CB R Runoff Area=4,100 sf 100.00% Impervious Runoff Depth=5.86"
Tc=5.0 min CN=98 Runoff=0.66 cfs 2,003 cf

Subcatchment25S: Proposed to CB S Runoff Area=4,100 sf 100.00% Impervious Runoff Depth=5.86"
Tc=5.0 min CN=98 Runoff=0.66 cfs 2,003 cf

Subcatchment26S: Proposed to CB T Runoff Area=1,630 sf 100.00% Impervious Runoff Depth=5.86"
Tc=5.0 min CN=98 Runoff=0.26 cfs 796 cf

Subcatchment27S: Proposed to CB U Runoff Area=2,945 sf 86.76% Impervious Runoff Depth=5.28"
Tc=5.0 min CN=93 Runoff=0.45 cfs 1,296 cf

Subcatchment28S: Proposed to CB V Runoff Area=4,625 sf 77.95% Impervious Runoff Depth=4.94"
Tc=5.0 min CN=90 Runoff=0.68 cfs 1,905 cf

Subcatchment29S: Proposed to CB W Runoff Area=6,465 sf 48.72% Impervious Runoff Depth=3.77"
Tc=5.0 min CN=79 Runoff=0.76 cfs 2,031 cf

Subcatchment30S: Bank Site to Runoff Area=29,845 sf 83.28% Impervious Runoff Depth=5.17"
Tc=5.0 min CN=92 Runoff=4.52 cfs 12,853 cf

Subcatchment31S: Proposed to Swale Runoff Area=19,335 sf 45.44% Impervious Runoff Depth=3.67"
Tc=5.0 min CN=78 Runoff=2.21 cfs 5,909 cf

Subcatchment32S: Pharmacy Roof Runoff Area=6,615 sf 100.00% Impervious Runoff Depth=5.86"
Tc=5.0 min CN=98 Runoff=1.06 cfs 3,231 cf

Subcatchment33S: Pharmacy Roof Runoff Area=6,610 sf 100.00% Impervious Runoff Depth=5.86"
Tc=5.0 min CN=98 Runoff=1.06 cfs 3,229 cf

Subcatchment34ES: Retail/Office Roof Runoff Area=12,100 sf 100.00% Impervious Runoff Depth=5.86"
Tc=5.0 min CN=98 Runoff=1.93 cfs 5,911 cf

Subcatchment34WS: Retail/Office Roof Runoff Area=7,200 sf 100.00% Impervious Runoff Depth=5.86"
Tc=5.0 min CN=98 Runoff=1.15 cfs 3,517 cf

Subcatchment35S: Spa / Med. Office Roof Runoff Area=5,050 sf 100.00% Impervious Runoff Depth=5.86"
Tc=5.0 min CN=98 Runoff=0.81 cfs 2,467 cf

Subcatchment41S: Proposed to CB 11 Runoff Area=23,300 sf 91.50% Impervious Runoff Depth=5.51"
Tc=5.0 min CN=95 Runoff=3.65 cfs 10,700 cf

Subcatchment42S: Proposed to CB 12 Runoff Area=10,920 sf 100.00% Impervious Runoff Depth=5.86"
Tc=5.0 min CN=98 Runoff=1.75 cfs 5,334 cf

Subcatchment44S: Ex to CB Runoff Area=15,040 sf 92.69% Impervious Runoff Depth=5.51"
Tc=5.0 min CN=95 Runoff=2.36 cfs 6,907 cf

Subcatchment45S: Ex to CB Runoff Area=10,050 sf 76.87% Impervious Runoff Depth=4.83"
Tc=5.0 min CN=89 Runoff=1.46 cfs 4,047 cf

Pond 1P: CB 1 Peak Elev=398.44' Inflow=1.87 cfs 5,238 cf
15.0" Round Culvert n=0.012 L=15.0' S=0.0253 '/' Outflow=1.87 cfs 5,238 cf

Pond 1VP: Vortechnics Unit Peak Elev=393.19' Inflow=4.73 cfs 44,569 cf
15.0" Round Culvert n=0.012 L=53.0' S=0.0049 '/' Outflow=4.73 cfs 44,569 cf

Pond 2P: CB 2 Peak Elev=397.86' Inflow=6.25 cfs 17,903 cf
15.0" Round Culvert n=0.012 L=59.0' S=0.0049 '/' Outflow=6.25 cfs 17,903 cf

Pond 3DP: DMH 3 Peak Elev=392.55' Inflow=24.52 cfs 71,363 cf
36.0" Round Culvert n=0.012 L=14.0' S=0.0100 '/' Outflow=24.52 cfs 71,363 cf

Pond 3P: CB 3 Peak Elev=396.85' Inflow=9.10 cfs 26,163 cf
18.0" Round Culvert n=0.012 L=112.0' S=0.0050 '/' Outflow=9.10 cfs 26,163 cf

Pond 4DP: DMH 4 Peak Elev=394.09' Inflow=4.07 cfs 11,607 cf
18.0" Round Culvert n=0.012 L=135.0' S=0.0048 '/' Outflow=4.07 cfs 11,607 cf

Pond 4P: CB 4 Peak Elev=395.56' Inflow=10.01 cfs 28,859 cf
24.0" Round Culvert n=0.012 L=50.0' S=0.0050 '/' Outflow=10.01 cfs 28,859 cf

Pond 5DP: DMH 5 Peak Elev=392.78' Inflow=4.07 cfs 11,607 cf
18.0" Round Culvert n=0.012 L=78.0' S=0.0046 '/' Outflow=4.07 cfs 11,607 cf

Pond 5P: CB 5 Peak Elev=394.51' Inflow=13.90 cfs 40,204 cf
30.0" Round Culvert n=0.012 L=12.0' S=0.0050 '/' Outflow=13.90 cfs 40,204 cf

Pond 6P: CB A Peak Elev=394.56' Inflow=0.29 cfs 790 cf
15.0" Round Culvert n=0.012 L=19.0' S=0.0053 '/' Outflow=0.29 cfs 790 cf

Pond 7P: CB B Peak Elev=394.56' Inflow=0.56 cfs 1,516 cf
15.0" Round Culvert n=0.012 L=128.0' S=0.0051 '/' Outflow=0.56 cfs 1,516 cf

Pond 8P: Trench Drain Peak Elev=395.66' Inflow=1.51 cfs 4,224 cf
8.0" Round Culvert n=0.012 L=55.0' S=0.0391 '/' Outflow=1.51 cfs 4,224 cf

Pond 9P: CB C Peak Elev=394.42' Inflow=3.48 cfs 9,636 cf
15.0" Round Culvert n=0.012 L=120.0' S=0.0050 '/' Outflow=3.48 cfs 9,636 cf

Pond 10P: CB D Peak Elev=393.96' Inflow=17.04 cfs 49,499 cf
24.0" Round Culvert n=0.012 L=19.0' S=0.0105 '/' Outflow=17.04 cfs 49,499 cf

Pond 11P: CB E Peak Elev=397.07' Inflow=10.35 cfs 30,995 cf
15.0" Round Culvert n=0.012 L=68.0' S=0.0074 '/' Outflow=10.35 cfs 30,995 cf

Pond 12P: CB F Peak Elev=397.84' Inflow=5.06 cfs 14,853 cf
15.0" Round Culvert n=0.012 L=75.0' S=0.0073 '/' Outflow=5.06 cfs 14,853 cf

Pond 13P: CB G Peak Elev=394.10' Inflow=2.35 cfs 6,471 cf
15.0" Round Culvert n=0.012 L=68.0' S=0.0125 '/' Outflow=2.35 cfs 6,471 cf

Pond 14P: CB H Peak Elev=394.19' Inflow=1.66 cfs 4,571 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0120 '/' Outflow=1.66 cfs 4,571 cf

Pond 15P: CB I Peak Elev=394.25' Inflow=0.97 cfs 2,662 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0120 '/' Outflow=0.97 cfs 2,662 cf

Pond 16P: CB J Peak Elev=394.44' Inflow=0.27 cfs 746 cf
12.0" Round Culvert n=0.012 L=57.0' S=0.0123 '/' Outflow=0.27 cfs 746 cf

Pond 17P: CB K Peak Elev=397.31' Inflow=2.99 cfs 9,147 cf
15.0" Round Culvert n=0.012 L=5.0' S=0.0200 '/' Outflow=2.99 cfs 9,147 cf

Pond 18P: CB L Peak Elev=397.52' Inflow=2.71 cfs 8,272 cf
15.0" Round Culvert n=0.012 L=57.0' S=0.0105 '/' Outflow=2.71 cfs 8,272 cf

Pond 19P: CB M Peak Elev=397.61' Inflow=1.91 cfs 5,837 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0099 '/' Outflow=1.91 cfs 5,837 cf

Pond 20P: CB N Peak Elev=397.65' Inflow=1.11 cfs 3,402 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0099 '/' Outflow=1.11 cfs 3,402 cf

Pond 21P: CB O Peak Elev=397.65' Inflow=0.32 cfs 967 cf
12.0" Round Culvert n=0.012 L=57.0' S=0.0105 '/' Outflow=0.32 cfs 967 cf

Pond 22P: CB P Peak Elev=398.35' Inflow=4.35 cfs 12,755 cf
15.0" Round Culvert n=0.012 L=5.0' S=0.0200 '/' Outflow=4.35 cfs 12,755 cf

Pond 23P: CB Q Peak Elev=398.82' Inflow=4.12 cfs 12,036 cf
15.0" Round Culvert n=0.012 L=57.0' S=0.0079 '/' Outflow=4.12 cfs 12,036 cf

Pond 24P: CB R Peak Elev=399.03' Inflow=3.01 cfs 8,738 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0077 '/' Outflow=3.01 cfs 8,738 cf

Pond 25P: CB S Peak Elev=399.13' Inflow=1.67 cfs 4,830 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0077 '/' Outflow=1.67 cfs 4,830 cf

Pond 26P: CB T Peak Elev=399.10' Inflow=0.26 cfs 796 cf
12.0" Round Culvert n=0.012 L=57.0' S=0.0079 '/' Outflow=0.26 cfs 796 cf

Pond 27P: CB U Peak Elev=398.79' Inflow=0.45 cfs 1,296 cf
12.0" Round Culvert n=0.012 L=7.0' S=0.0214 '/' Outflow=0.45 cfs 1,296 cf

Pond 28P: CB V Peak Elev=399.08' Inflow=0.68 cfs 1,905 cf
12.0" Round Culvert n=0.012 L=7.0' S=0.0214 '/' Outflow=0.68 cfs 1,905 cf

Pond 29P: CB W Peak Elev=399.13' Inflow=0.76 cfs 2,031 cf
12.0" Round Culvert n=0.012 L=7.0' S=0.0214 '/' Outflow=0.76 cfs 2,031 cf

Pond 31P: Vortech Unit Peak Elev=392.69' Inflow=17.04 cfs 49,499 cf
24.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=17.04 cfs 49,499 cf

Pond 41P: CB 11 Peak Elev=394.57' Inflow=5.40 cfs 16,035 cf
18.0" Round Culvert n=0.012 L=27.0' S=0.0100 '/' Outflow=5.40 cfs 16,035 cf

Pond 42P: CB 12 Peak Elev=394.67' Inflow=1.75 cfs 5,334 cf
15.0" Round Culvert n=0.012 L=53.0' S=0.0100 '/' Outflow=1.75 cfs 5,334 cf

Pond 44P: CB Peak Elev=395.35' Inflow=2.36 cfs 6,907 cf
15.0" Round Culvert n=0.012 L=115.0' S=0.0059 '/' Outflow=2.36 cfs 6,907 cf

Pond 45P: CB Peak Elev=398.81' Inflow=2.51 cfs 7,276 cf
15.0" Round Culvert n=0.012 L=182.0' S=0.0100 '/' Outflow=2.51 cfs 7,276 cf

Pond 50P: DMH A Peak Elev=398.51' Inflow=2.51 cfs 7,276 cf
15.0" Round Culvert n=0.012 L=50.0' S=0.0050 '/' Outflow=2.51 cfs 7,276 cf

Pond 51P: DMH B Peak Elev=398.38' Inflow=4.39 cfs 12,514 cf
15.0" Round Culvert n=0.012 L=42.0' S=0.0050 '/' Outflow=4.39 cfs 12,514 cf

Pond 52P: DMH C Peak Elev=395.17' Inflow=12.37 cfs 35,766 cf
24.0" Round Culvert n=0.012 L=31.0' S=0.0052 '/' Outflow=12.37 cfs 35,766 cf

Pond 53P: DMH D Peak Elev=394.20' Inflow=19.30 cfs 56,238 cf
30.0" Round Culvert n=0.012 L=48.0' S=0.0050 '/' Outflow=19.30 cfs 56,238 cf

Pond 54P: DMH E Peak Elev=393.53' Inflow=19.30 cfs 56,238 cf
Primary=14.58 cfs 11,669 cf Secondary=4.73 cfs 44,569 cf Outflow=19.30 cfs 56,238 cf

Pond 55P: DMH F Peak Elev=393.08' Inflow=15.73 cfs 15,186 cf
30.0" Round Culvert n=0.012 L=30.0' S=0.0177 '/' Outflow=15.73 cfs 15,186 cf

Pond 61P: DMH A Peak Elev=394.54' Inflow=0.56 cfs 1,516 cf
15.0" Round Culvert n=0.012 L=37.0' S=0.0054 '/' Outflow=0.56 cfs 1,516 cf

Pond 62P: DMH B Peak Elev=394.54' Inflow=2.07 cfs 5,740 cf
15.0" Round Culvert n=0.012 L=57.0' S=0.0053 '/' Outflow=2.07 cfs 5,740 cf

Link 1L: Wetland Inflow=46.08 cfs 133,714 cf
Primary=46.08 cfs 133,714 cf

Total Runoff Area = 306,520 sf Runoff Volume = 133,714 cf Average Runoff Depth = 5.23"
14.93% Pervious = 45,760 sf 85.07% Impervious = 260,760 sf

Summary for Subcatchment 1S: Proposed to CB 1

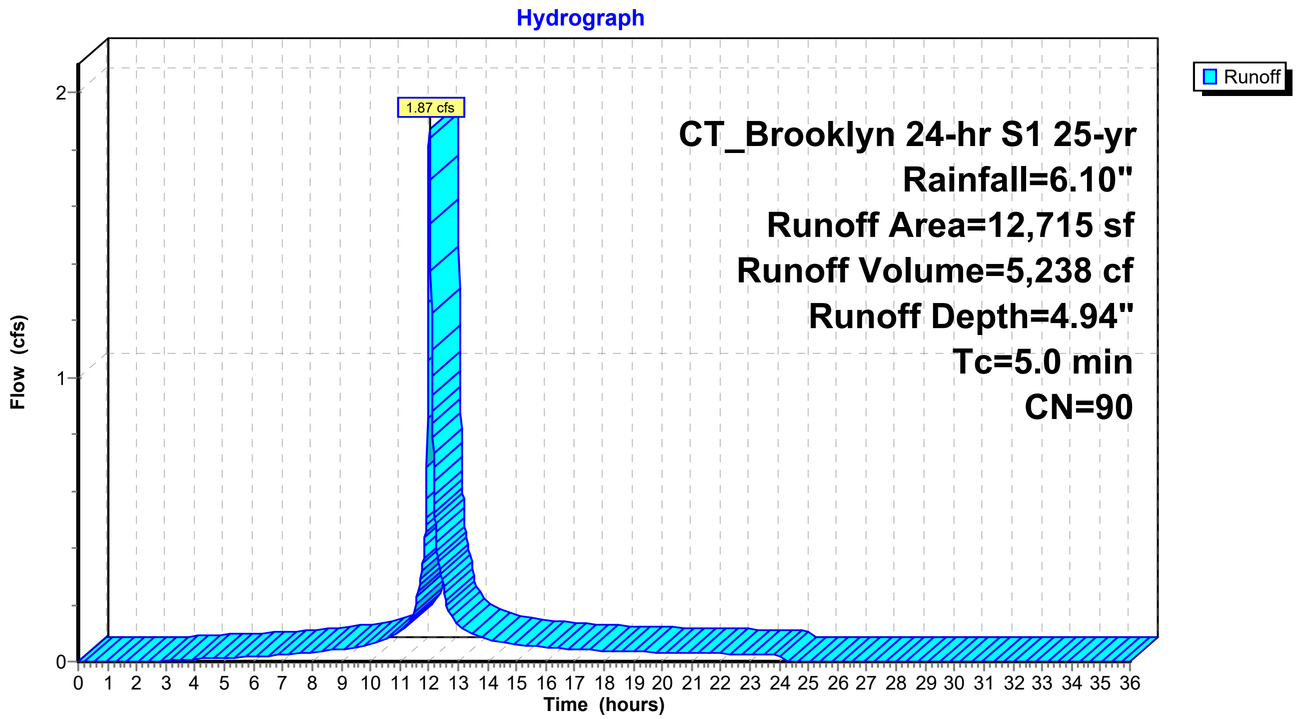
Runoff = 1.87 cfs @ 12.03 hrs, Volume= 5,238 cf, Depth= 4.94"
Routed to Pond 1P : CB 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
9,900	98	Paved parking & roofs
2,815	61	>75% Grass cover, Good, HSG B
12,715	90	Weighted Average
2,815		22.14% Pervious Area
9,900		77.86% Impervious Area

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

Subcatchment 1S: Proposed to CB 1



Summary for Subcatchment 2S: Proposed to CB 2

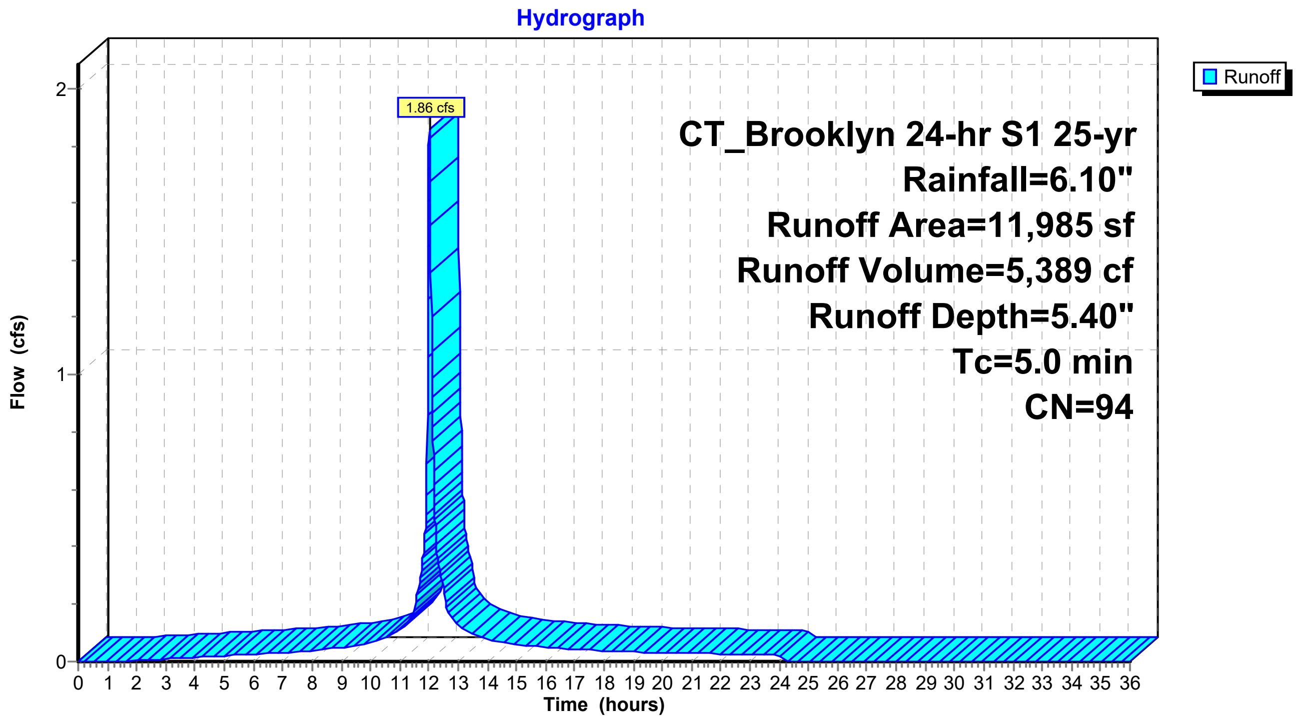
Runoff = 1.86 cfs @ 12.03 hrs, Volume= 5,389 cf, Depth= 5.40"
Routed to Pond 2P : CB 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
10,835	98	Paved parking & roofs
1,150	61	>75% Grass cover, Good, HSG B
11,985	94	Weighted Average
1,150		9.60% Pervious Area
10,835		90.40% Impervious Area

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

Subcatchment 2S: Proposed to CB 2



Summary for Subcatchment 3S: Proposed to CB 3

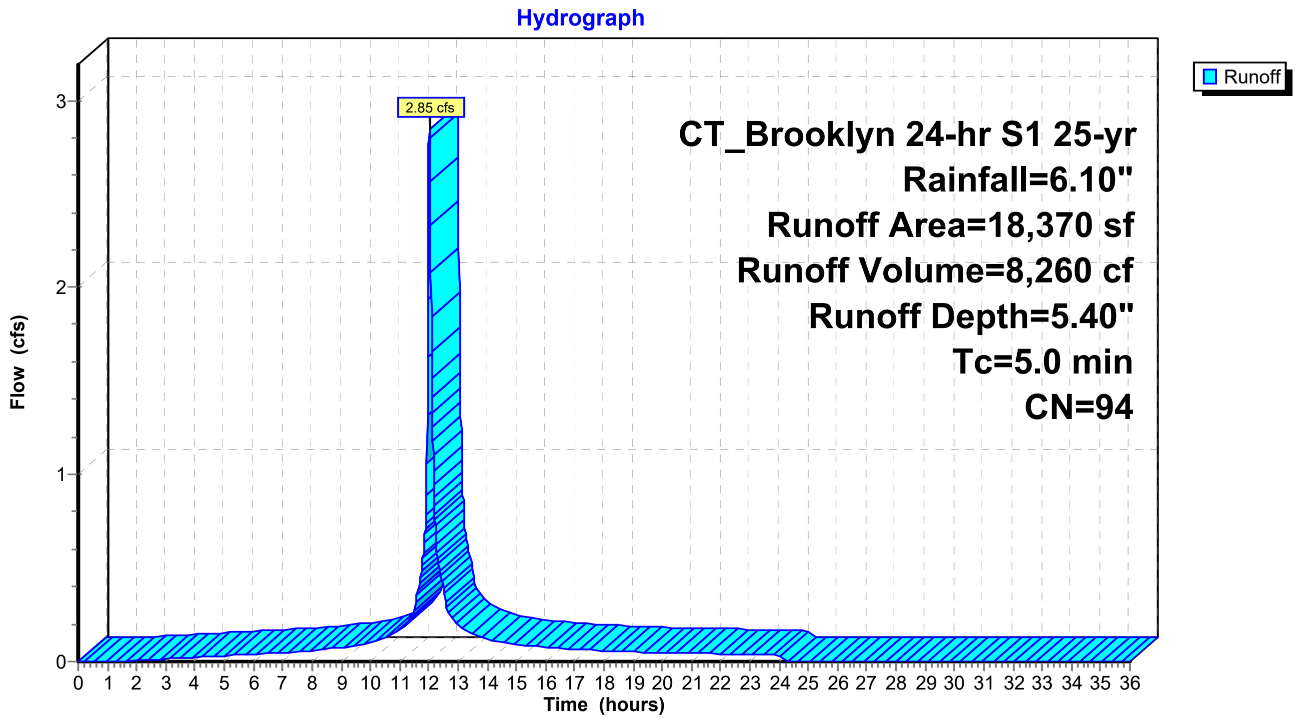
Runoff = 2.85 cfs @ 12.03 hrs, Volume= 8,260 cf, Depth= 5.40"
Routed to Pond 3P : CB 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
16,600	98	Paved parking & roofs
1,770	61	>75% Grass cover, Good, HSG B
18,370	94	Weighted Average
1,770		9.64% Pervious Area
16,600		90.36% Impervious Area

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

Subcatchment 3S: Proposed to CB 3



Summary for Subcatchment 4S: Proposed to CB 4

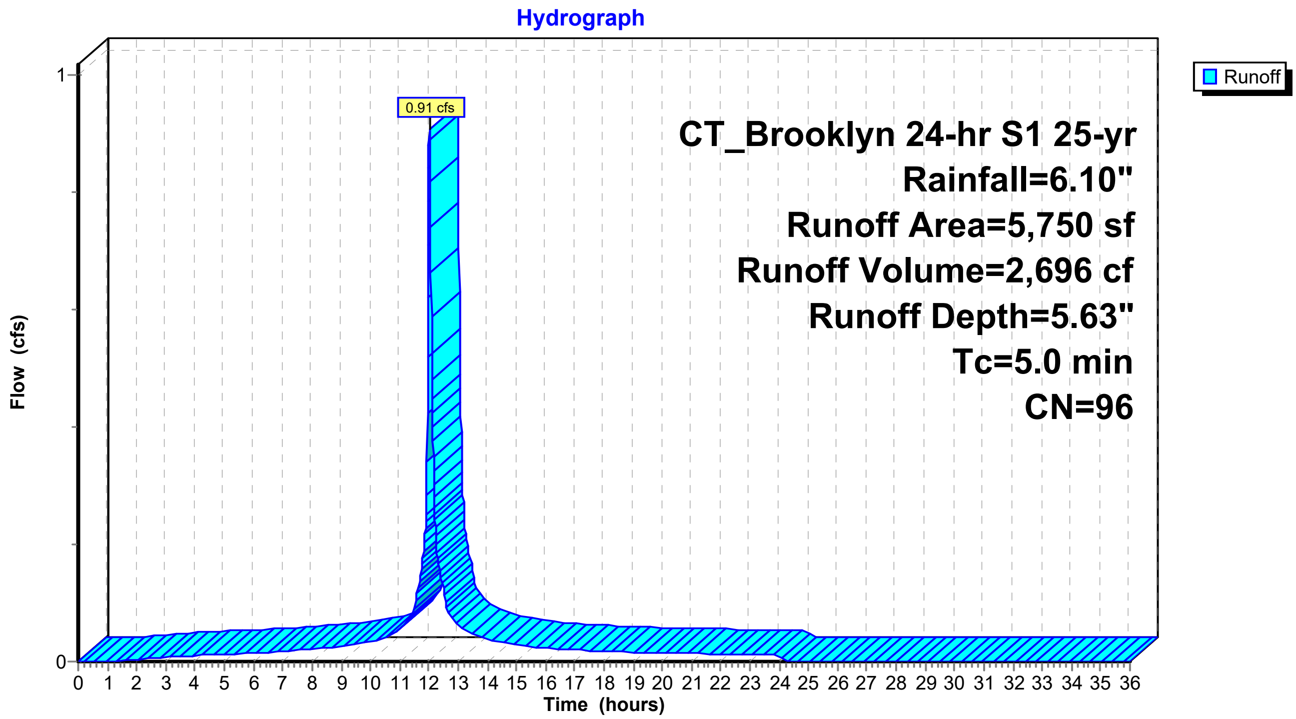
Runoff = 0.91 cfs @ 12.03 hrs, Volume= 2,696 cf, Depth= 5.63"
Routed to Pond 4P : CB 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
5,445	98	Paved parking & roofs
305	61	>75% Grass cover, Good, HSG B
5,750	96	Weighted Average
305		5.30% Pervious Area
5,445		94.70% Impervious Area

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

Subcatchment 4S: Proposed to CB 4



Summary for Subcatchment 5S: Proposed to CB 5

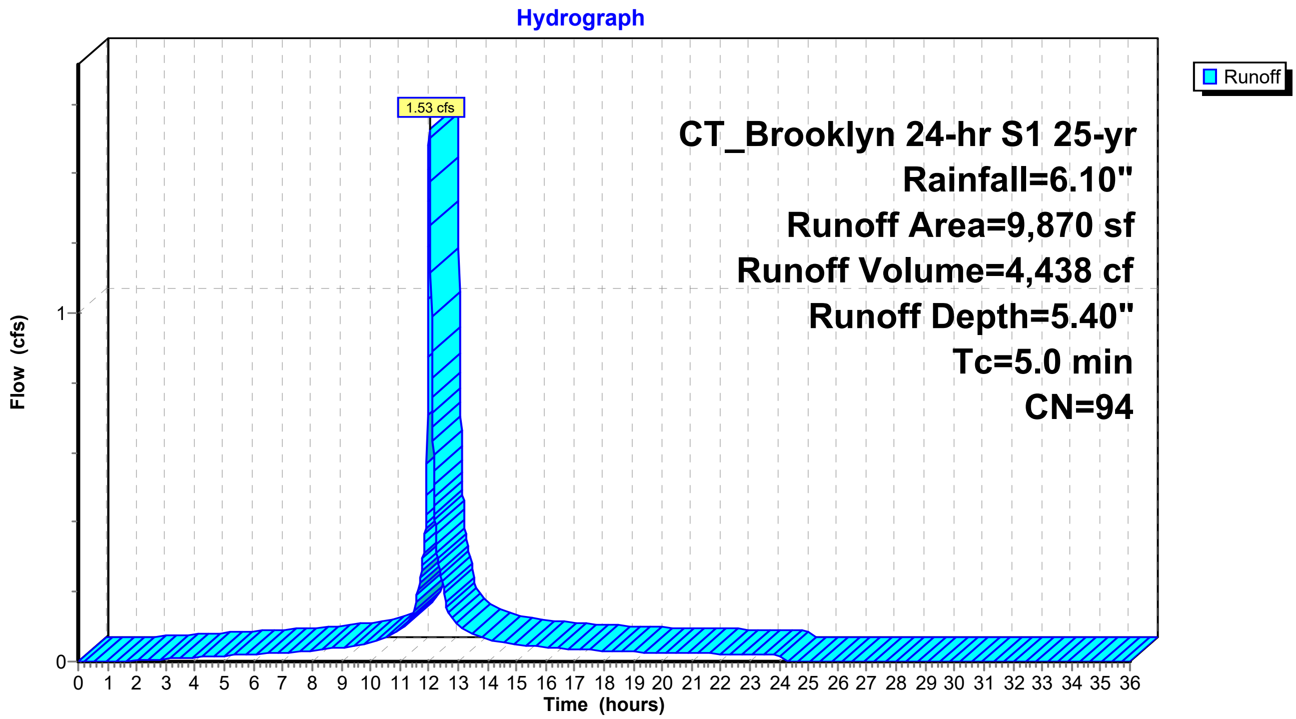
Runoff = 1.53 cfs @ 12.03 hrs, Volume= 4,438 cf, Depth= 5.40"
Routed to Pond 5P : CB 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
8,670	98	Paved parking & roofs
1,200	61	>75% Grass cover, Good, HSG B
9,870	94	Weighted Average
1,200		12.16% Pervious Area
8,670		87.84% Impervious Area

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

Subcatchment 5S: Proposed to CB 5



Summary for Subcatchment 6S: Proposed to CB A

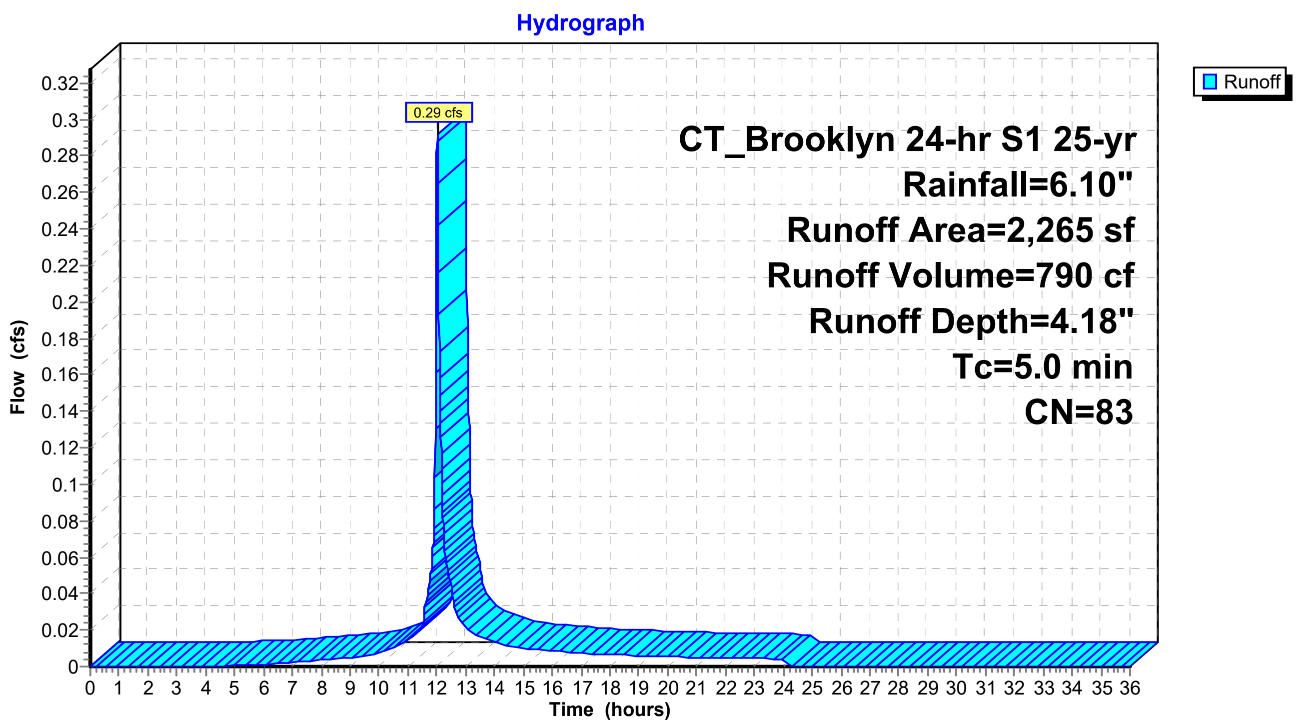
Runoff = 0.29 cfs @ 12.03 hrs, Volume= 790 cf, Depth= 4.18"
Routed to Pond 6P : CB A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
1,345	98	Paved parking & roofs
920	61	>75% Grass cover, Good, HSG B
2,265	83	Weighted Average
920		40.62% Pervious Area
1,345		59.38% Impervious Area

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

Subcatchment 6S: Proposed to CB A



Summary for Subcatchment 7S: Proposed to CB B

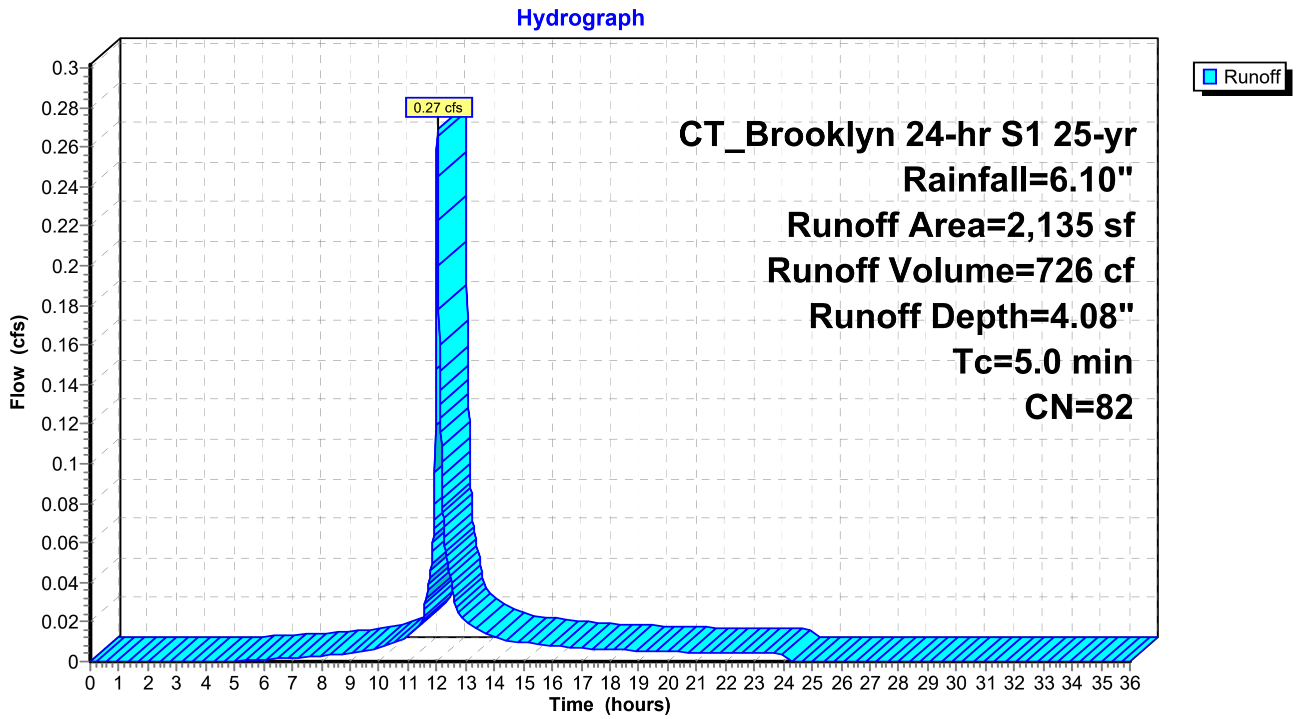
Runoff = 0.27 cfs @ 12.03 hrs, Volume= 726 cf, Depth= 4.08"
Routed to Pond 7P : CB B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
1,210	98	Paved parking & roofs
925	61	>75% Grass cover, Good, HSG B
2,135	82	Weighted Average
925		43.33% Pervious Area
1,210		56.67% Impervious Area

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

Subcatchment 7S: Proposed to CB B



Summary for Subcatchment 8S: Proposed to Trench Drain

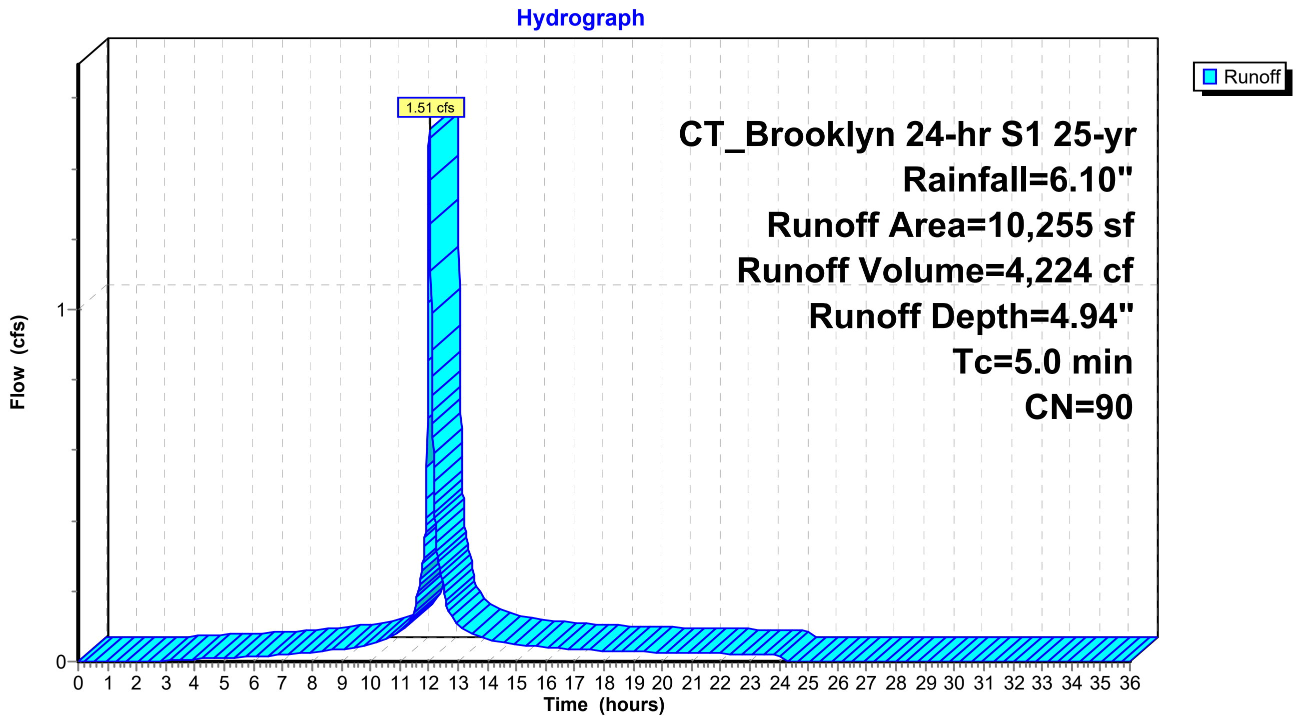
Runoff = 1.51 cfs @ 12.03 hrs, Volume= 4,224 cf, Depth= 4.94"
Routed to Pond 8P : Trench Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
7,910	98	Paved parking & roofs
2,345	61	>75% Grass cover, Good, HSG B
10,255	90	Weighted Average
2,345		22.87% Pervious Area
7,910		77.13% Impervious Area

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

Subcatchment 8S: Proposed to Trench Drain



Summary for Subcatchment 9S: Proposed to CB C

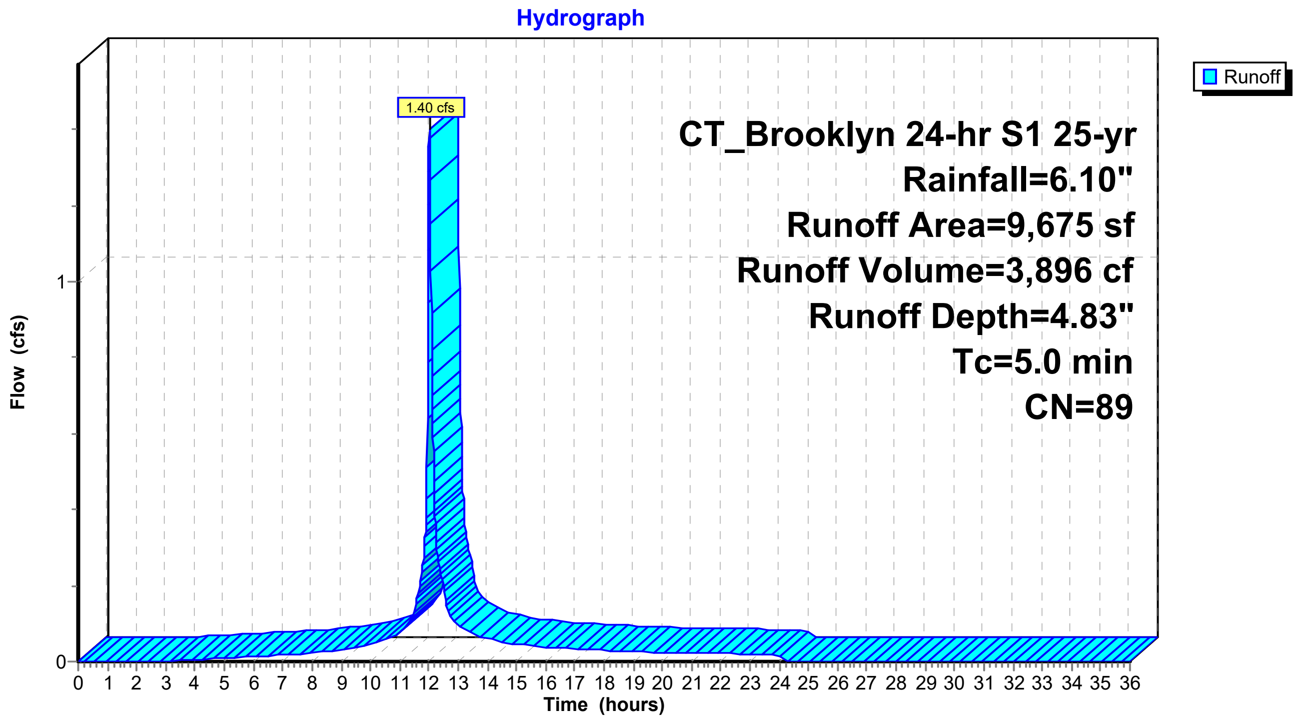
Runoff = 1.40 cfs @ 12.03 hrs, Volume= 3,896 cf, Depth= 4.83"
Routed to Pond 9P : CB C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
7,445	98	Paved parking & roofs
2,230	61	>75% Grass cover, Good, HSG B
9,675	89	Weighted Average
2,230		23.05% Pervious Area
7,445		76.95% Impervious Area

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

Subcatchment 9S: Proposed to CB C



Summary for Subcatchment 10S: Proposed to CB D

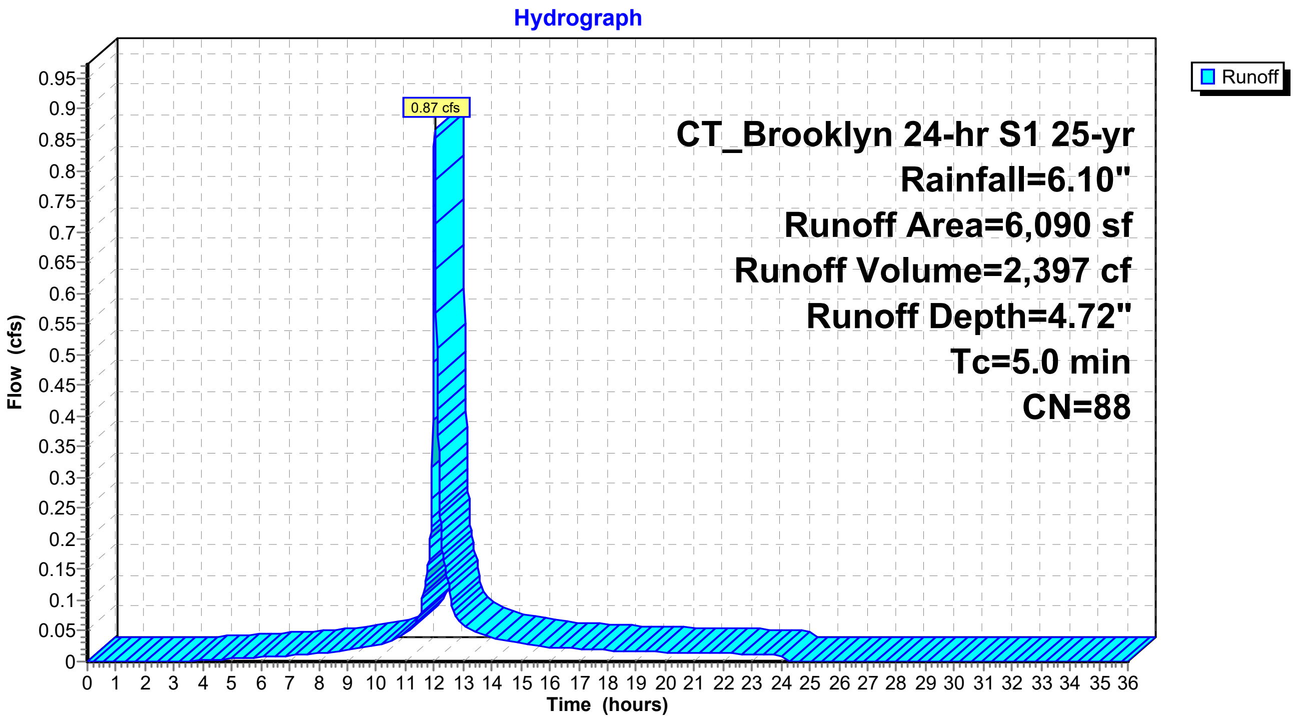
Runoff = 0.87 cfs @ 12.03 hrs, Volume= 2,397 cf, Depth= 4.72"
Routed to Pond 10P : CB D

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
4,430	98	Paved parking & roofs
1,660	61	>75% Grass cover, Good, HSG B
6,090	88	Weighted Average
1,660		27.26% Pervious Area
4,430		72.74% Impervious Area

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

Subcatchment 10S: Proposed to CB D



Summary for Subcatchment 11S: Proposed to CB E

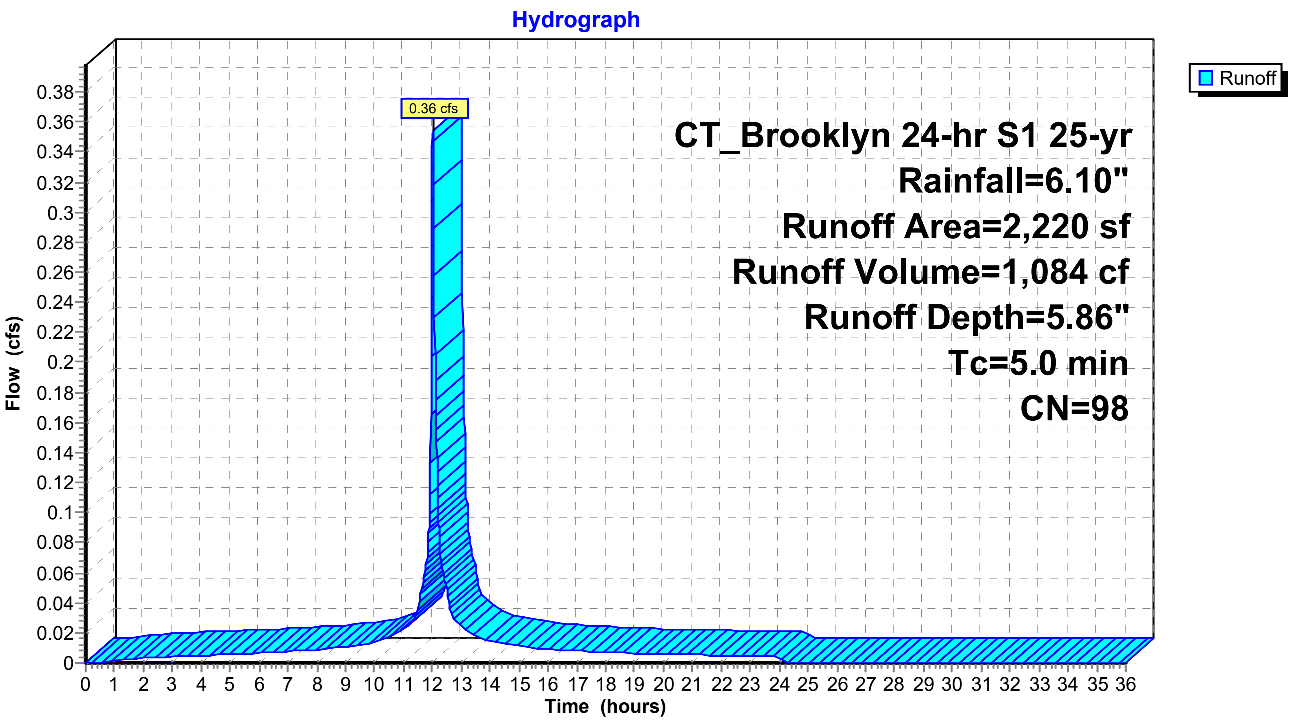
Runoff = 0.36 cfs @ 12.03 hrs, Volume= 1,084 cf, Depth= 5.86"
Routed to Pond 11P : CB E

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
2,220	98	Paved parking & roofs
2,220		100.00% Impervious Area

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

Subcatchment 11S: Proposed to CB E



Summary for Subcatchment 12S: Proposed to CB F

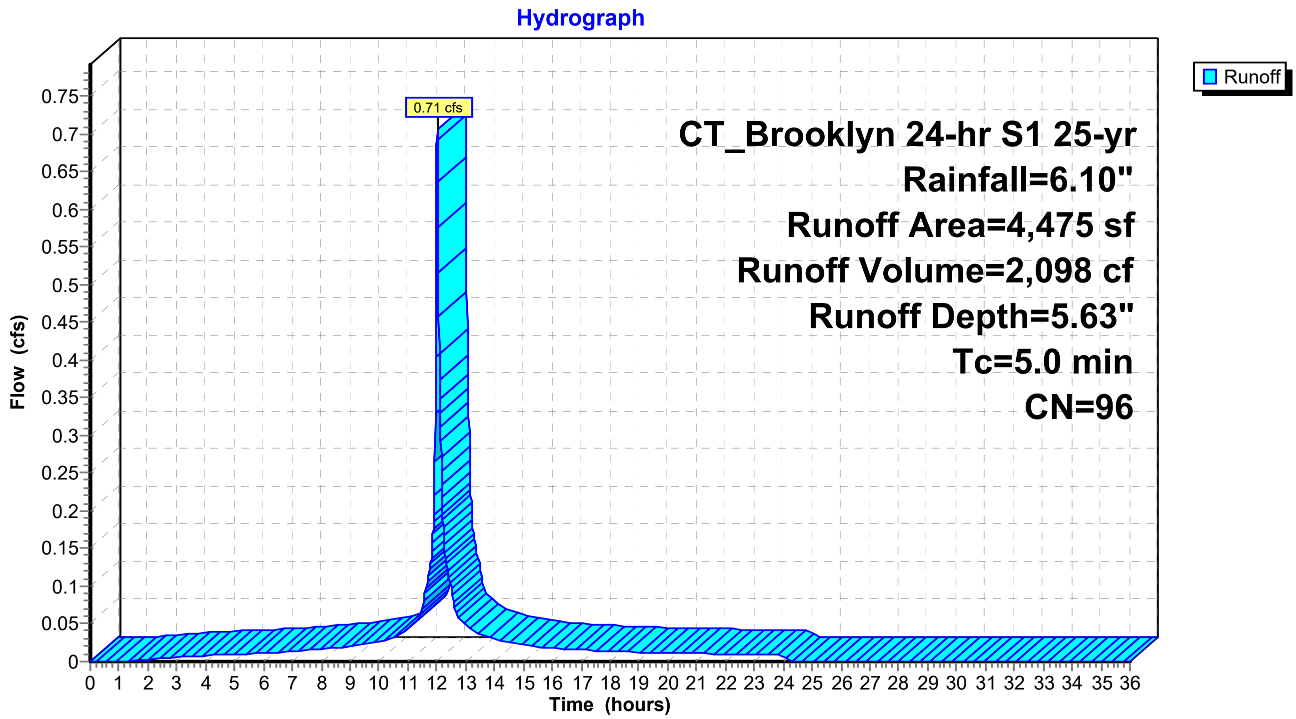
Runoff = 0.71 cfs @ 12.03 hrs, Volume= 2,098 cf, Depth= 5.63"
Routed to Pond 12P : CB F

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
4,215	98	Paved parking & roofs
260	61	>75% Grass cover, Good, HSG B
4,475	96	Weighted Average
260		5.81% Pervious Area
4,215		94.19% Impervious Area

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

Subcatchment 12S: Proposed to CB F



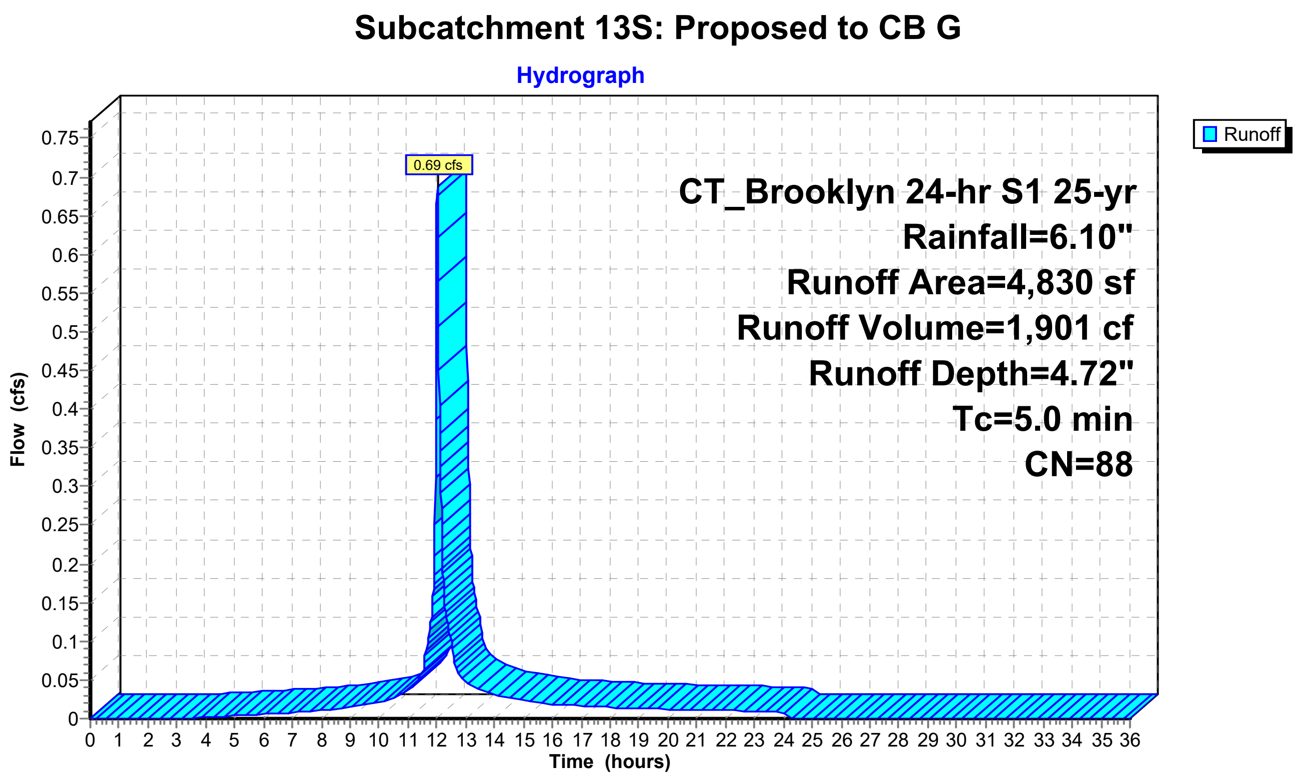
Summary for Subcatchment 13S: Proposed to CB G

Runoff = 0.69 cfs @ 12.03 hrs, Volume= 1,901 cf, Depth= 4.72"
Routed to Pond 13P : CB G

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
3,530	98	Paved parking & roofs
1,300	61	>75% Grass cover, Good, HSG B
4,830	88	Weighted Average
1,300		26.92% Pervious Area
3,530		73.08% Impervious Area

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



Summary for Subcatchment 14S: Proposed to CB H

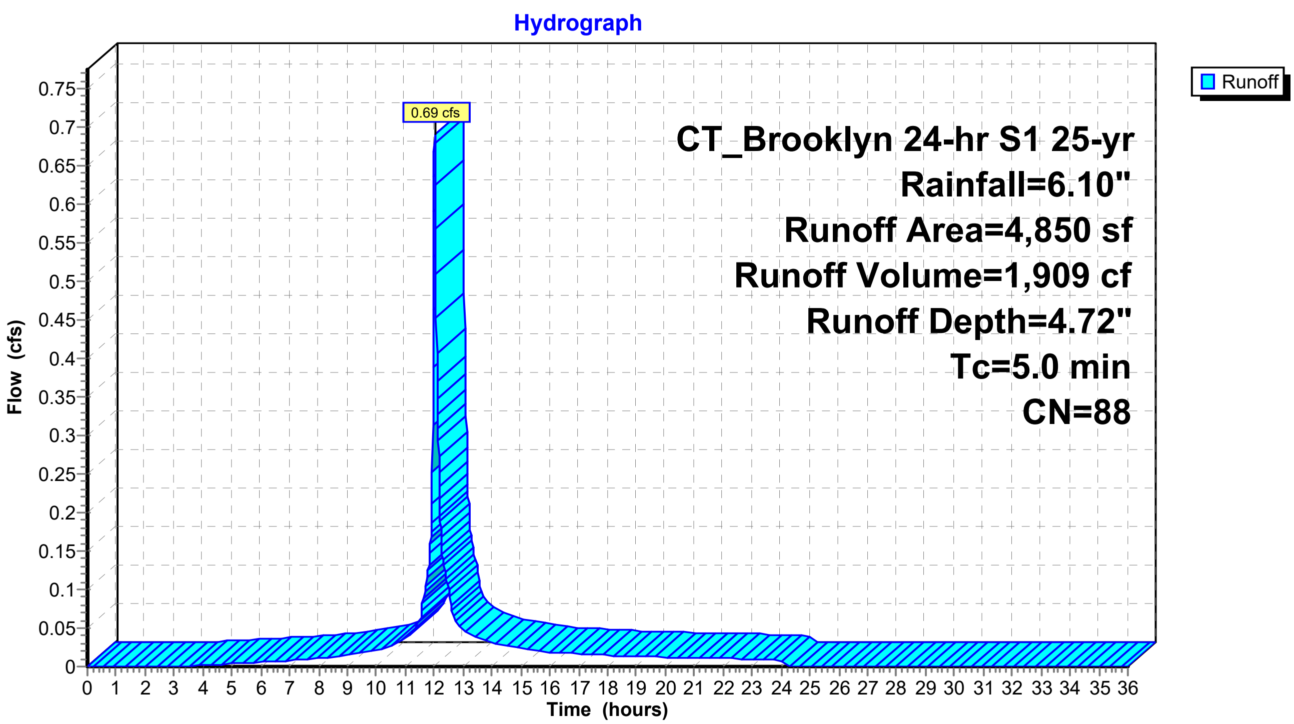
Runoff = 0.69 cfs @ 12.03 hrs, Volume= 1,909 cf, Depth= 4.72"
Routed to Pond 14P : CB H

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
3,550	98	Paved parking & roofs
1,300	61	>75% Grass cover, Good, HSG B
4,850	88	Weighted Average
1,300		26.80% Pervious Area
3,550		73.20% Impervious Area

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

Subcatchment 14S: Proposed to CB H



Summary for Subcatchment 15S: Proposed to CB I

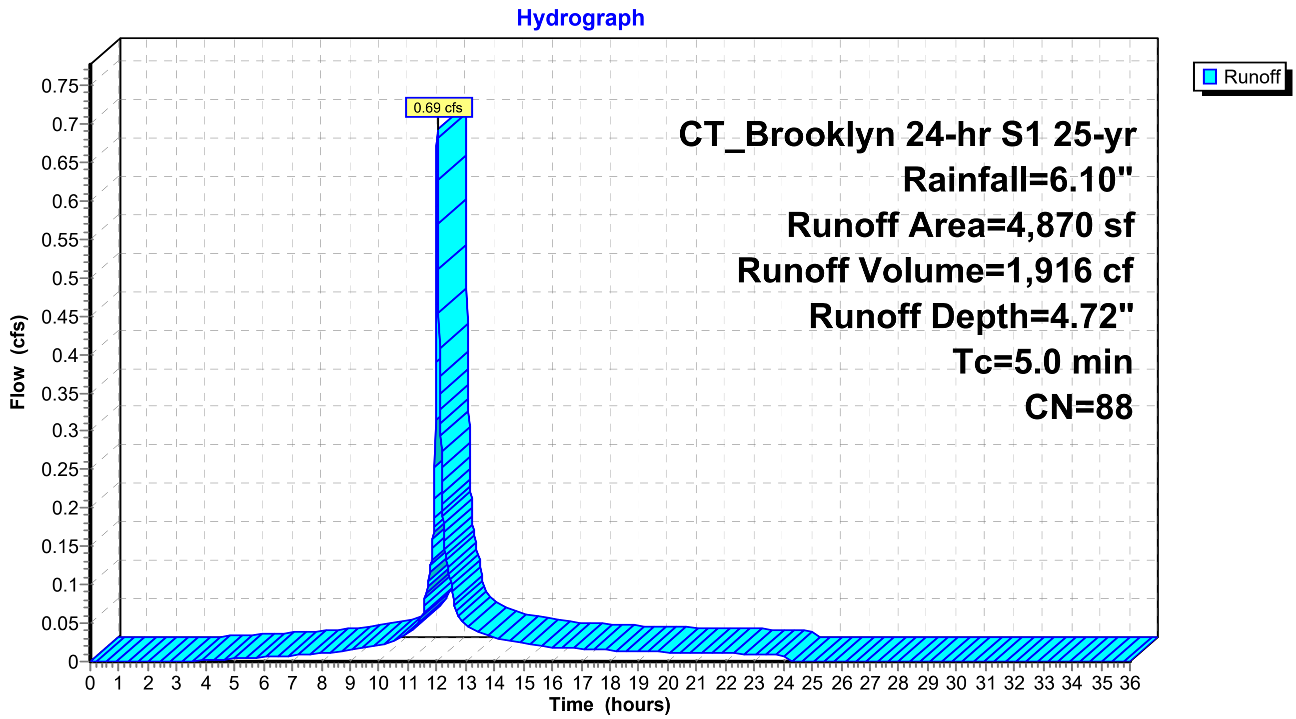
Runoff = 0.69 cfs @ 12.03 hrs, Volume= 1,916 cf, Depth= 4.72"
Routed to Pond 15P : CB I

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
3,520	98	Paved parking & roofs
1,350	61	>75% Grass cover, Good, HSG B
4,870	88	Weighted Average
1,350		27.72% Pervious Area
3,520		72.28% Impervious Area

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

Subcatchment 15S: Proposed to CB I



Summary for Subcatchment 16S: Proposed to CB J

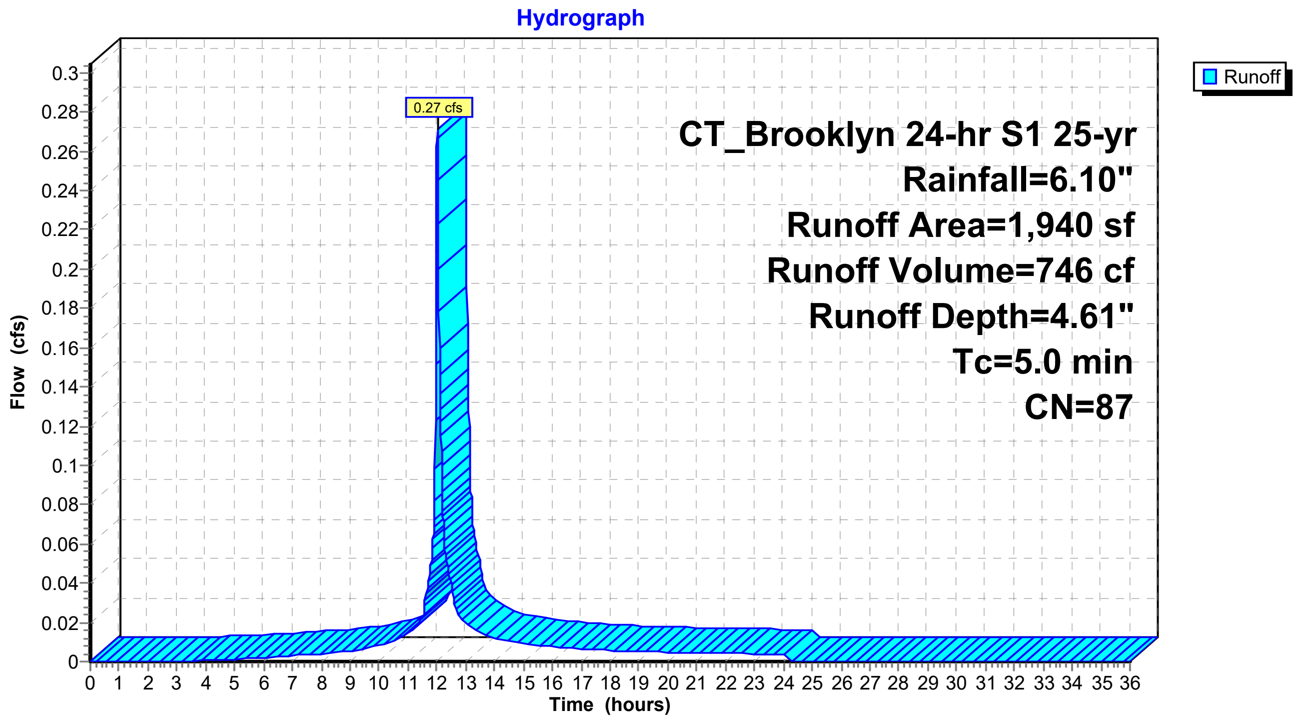
Runoff = 0.27 cfs @ 12.03 hrs, Volume= 746 cf, Depth= 4.61"
Routed to Pond 16P : CB J

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
1,380	98	Paved parking & roofs
560	61	>75% Grass cover, Good, HSG B
1,940	87	Weighted Average
560		28.87% Pervious Area
1,380		71.13% Impervious Area

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

Subcatchment 16S: Proposed to CB J



Summary for Subcatchment 17S: Proposed to CB K

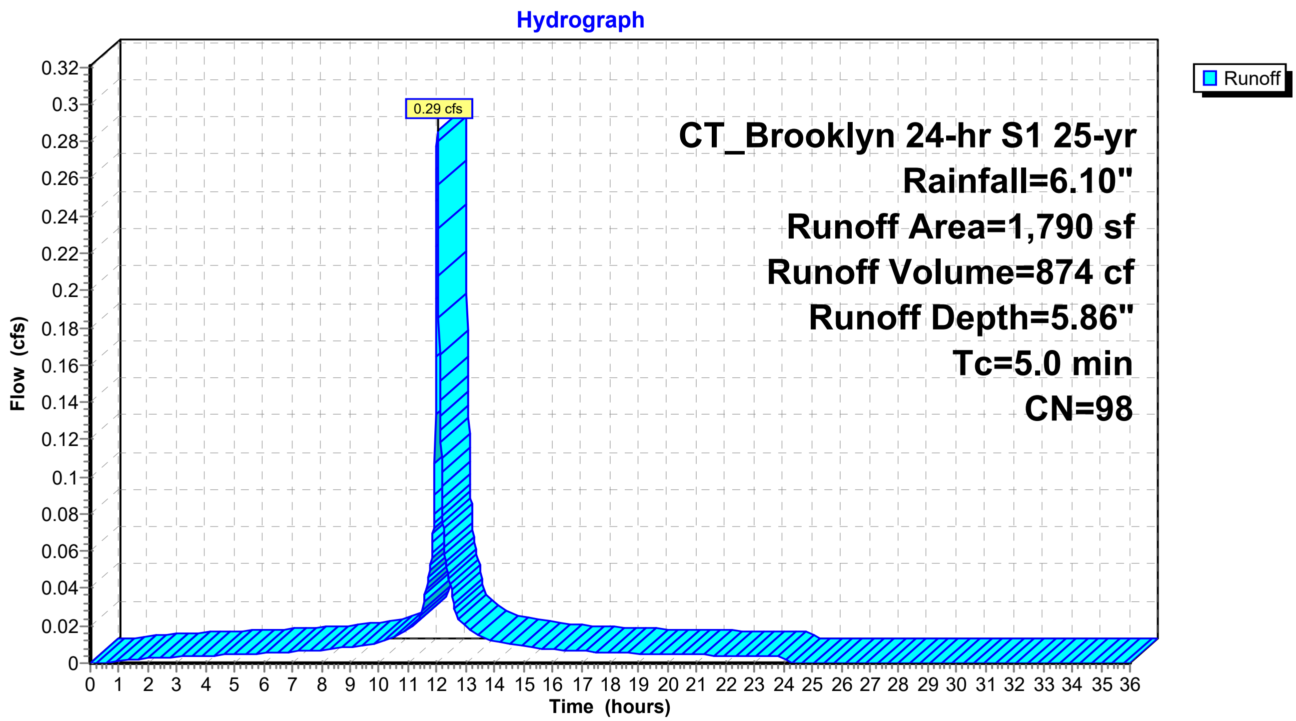
Runoff = 0.29 cfs @ 12.03 hrs, Volume= 874 cf, Depth= 5.86"
Routed to Pond 17P : CB K

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
1,790	98	Paved parking & roofs
1,790		100.00% Impervious Area

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

Subcatchment 17S: Proposed to CB K



Summary for Subcatchment 18S: Proposed to CB L

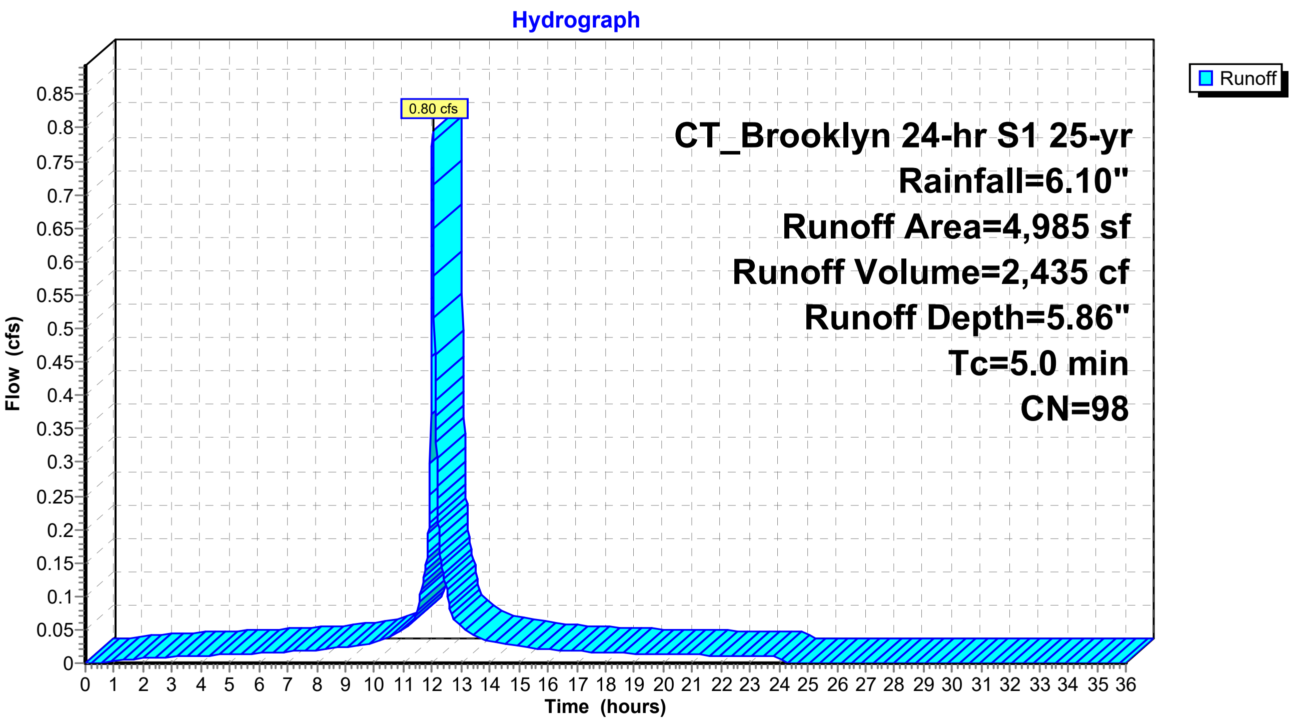
Runoff = 0.80 cfs @ 12.03 hrs, Volume= 2,435 cf, Depth= 5.86"
Routed to Pond 18P : CB L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
4,985	98	Paved parking & roofs
4,985		100.00% Impervious Area

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

Subcatchment 18S: Proposed to CB L



Summary for Subcatchment 19S: Proposed to CB M

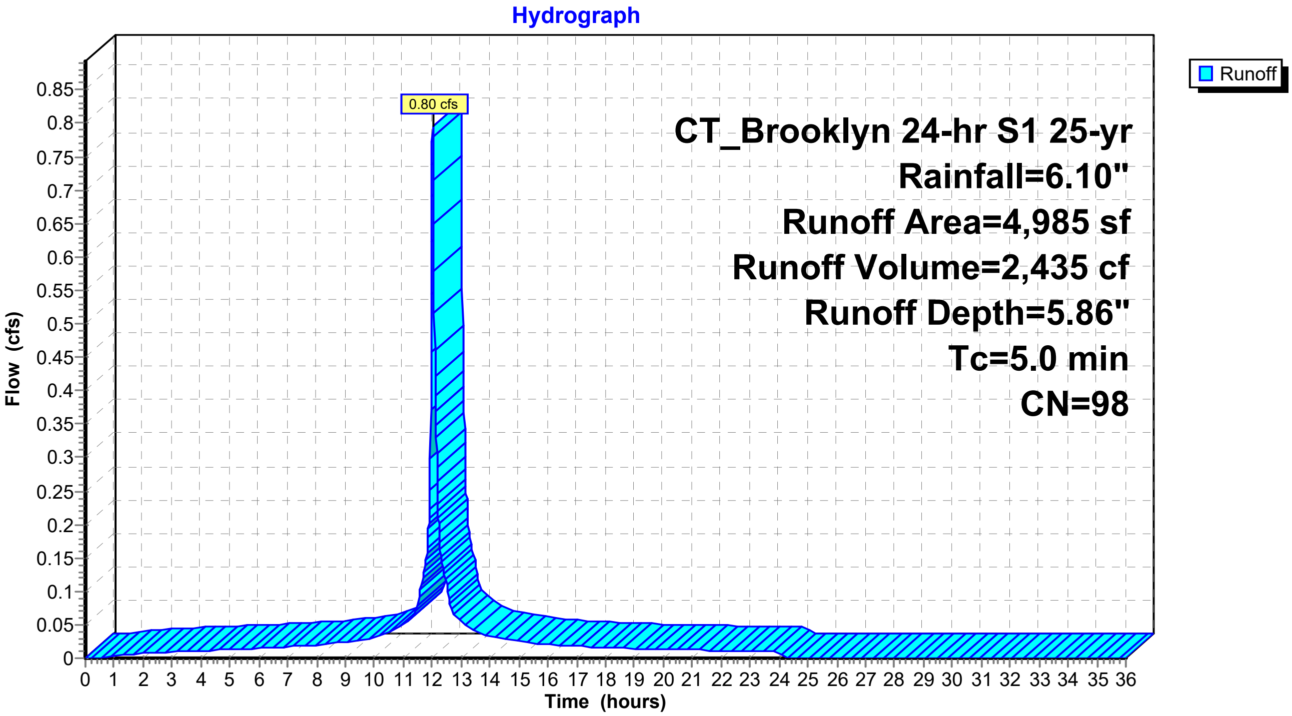
Runoff = 0.80 cfs @ 12.03 hrs, Volume= 2,435 cf, Depth= 5.86"
Routed to Pond 19P : CB M

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
4,985	98	Paved parking & roofs
4,985		100.00% Impervious Area

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

Subcatchment 19S: Proposed to CB M



Summary for Subcatchment 20S: Proposed to CB N

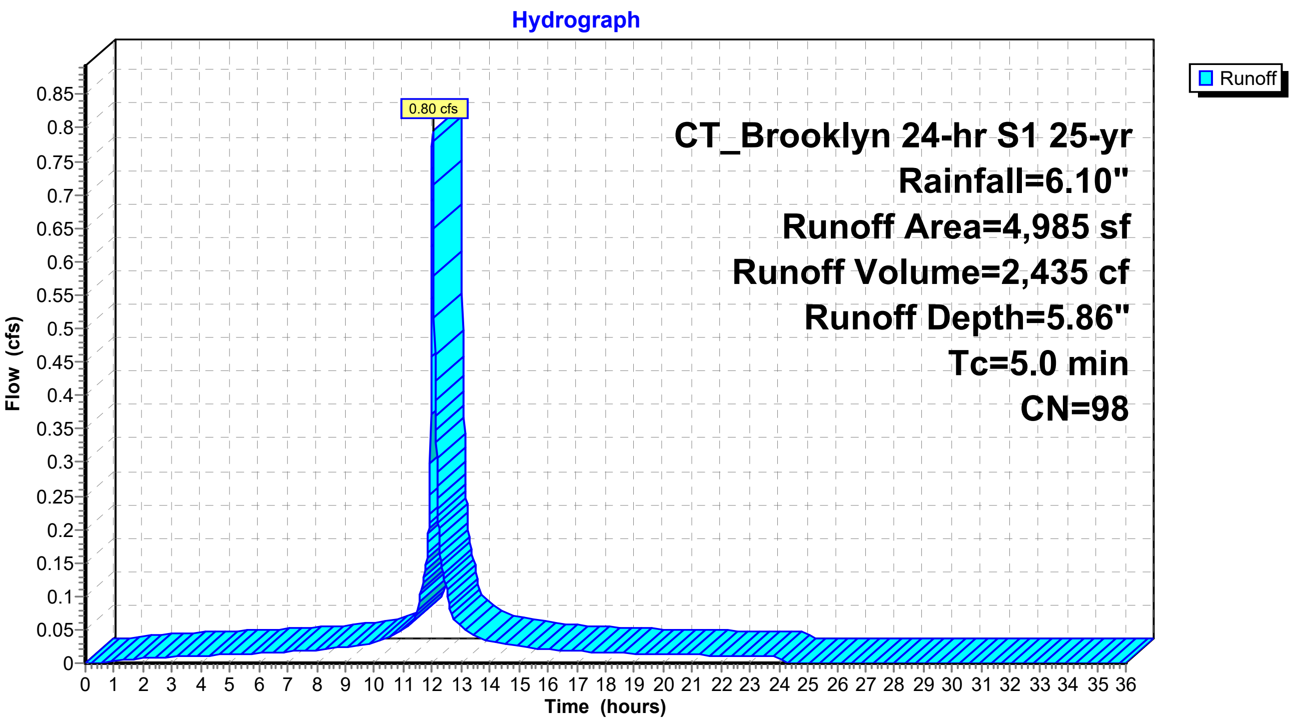
Runoff = 0.80 cfs @ 12.03 hrs, Volume= 2,435 cf, Depth= 5.86"
Routed to Pond 20P : CB N

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
4,985	98	Paved parking & roofs
4,985		100.00% Impervious Area

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

Subcatchment 20S: Proposed to CB N



Summary for Subcatchment 21S: Proposed to CB O

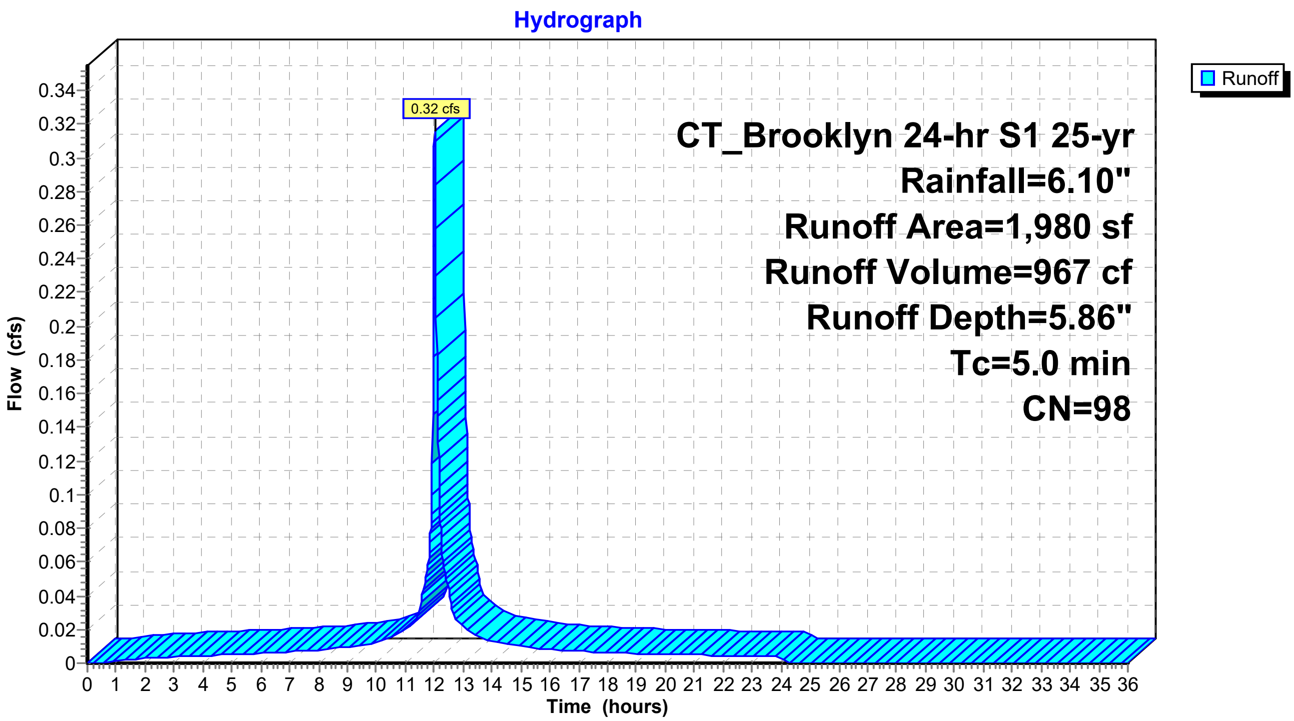
Runoff = 0.32 cfs @ 12.03 hrs, Volume= 967 cf, Depth= 5.86"
Routed to Pond 21P : CB O

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
1,980	98	Paved parking & roofs
1,980		100.00% Impervious Area

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

Subcatchment 21S: Proposed to CB O



Summary for Subcatchment 22S: Proposed to CB P

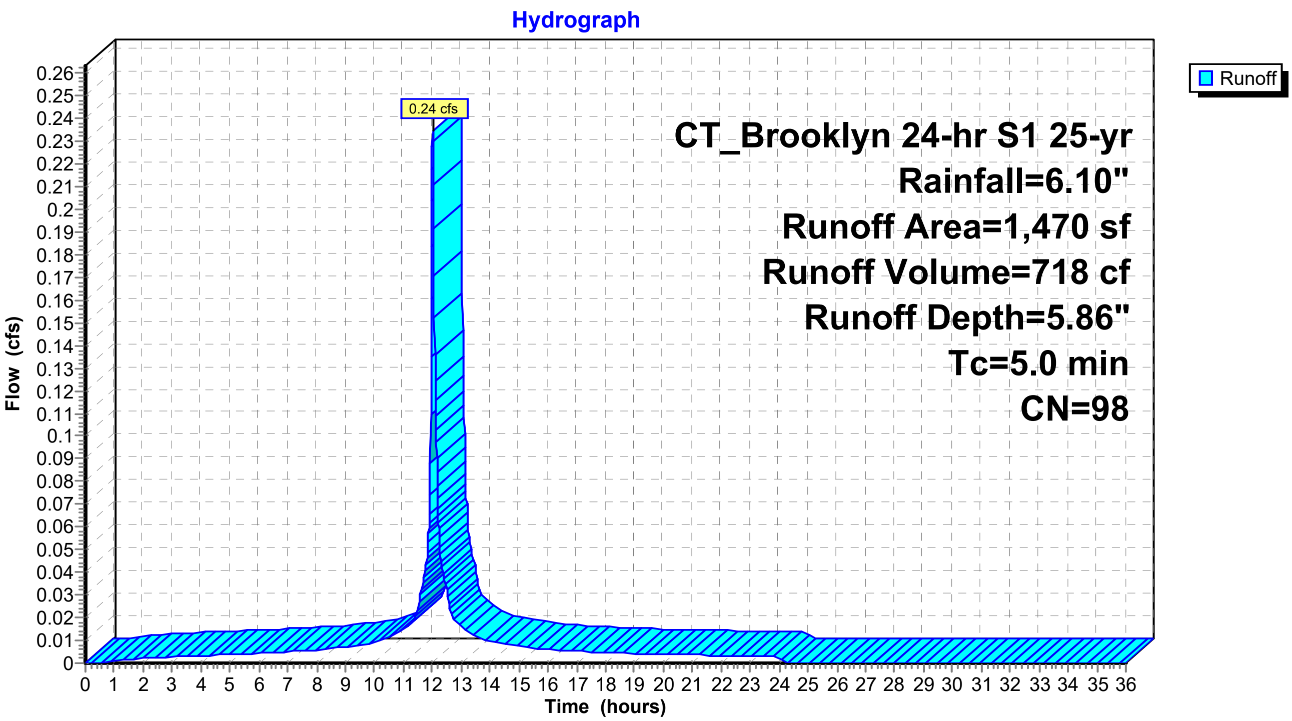
Runoff = 0.24 cfs @ 12.03 hrs, Volume= 718 cf, Depth= 5.86"
Routed to Pond 22P : CB P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
1,470	98	Paved parking & roofs
1,470		100.00% Impervious Area

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

Subcatchment 22S: Proposed to CB P



Summary for Subcatchment 23S: Proposed to CB Q

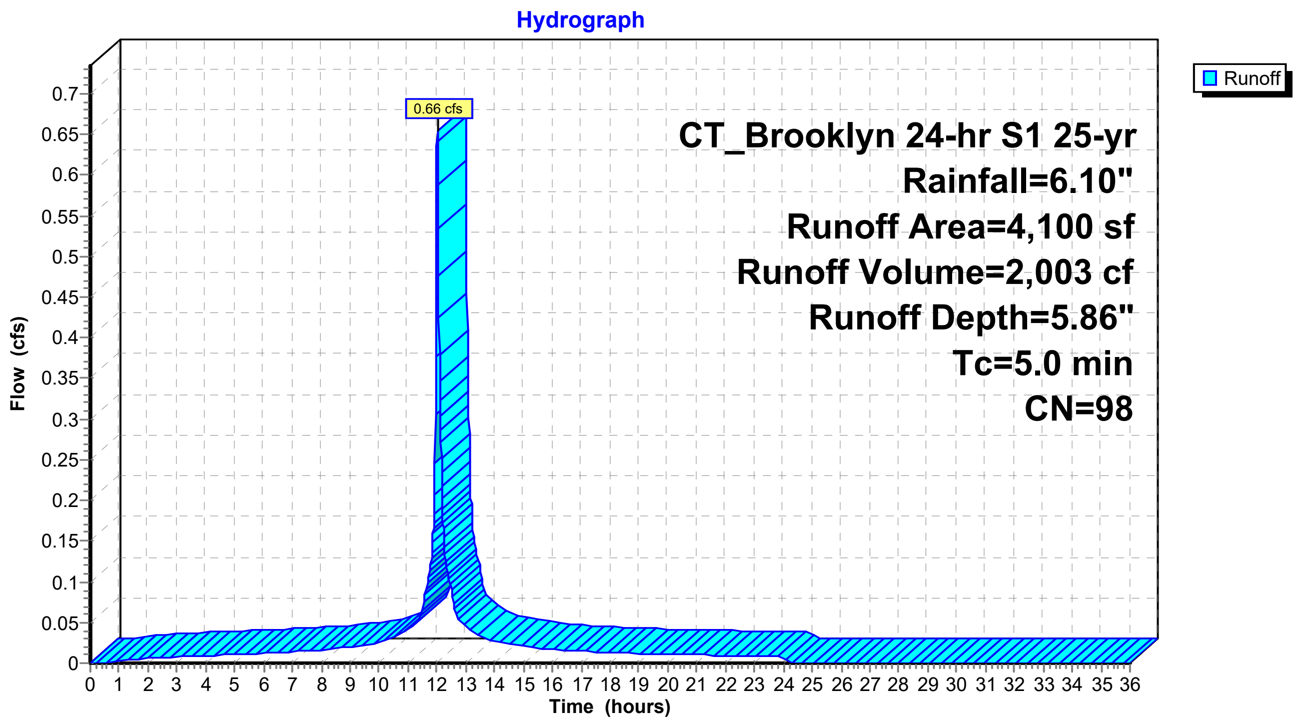
Runoff = 0.66 cfs @ 12.03 hrs, Volume= 2,003 cf, Depth= 5.86"
Routed to Pond 23P : CB Q

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
4,100	98	Paved parking & roofs
4,100		100.00% Impervious Area

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

Subcatchment 23S: Proposed to CB Q



Summary for Subcatchment 24S: Proposed to CB R

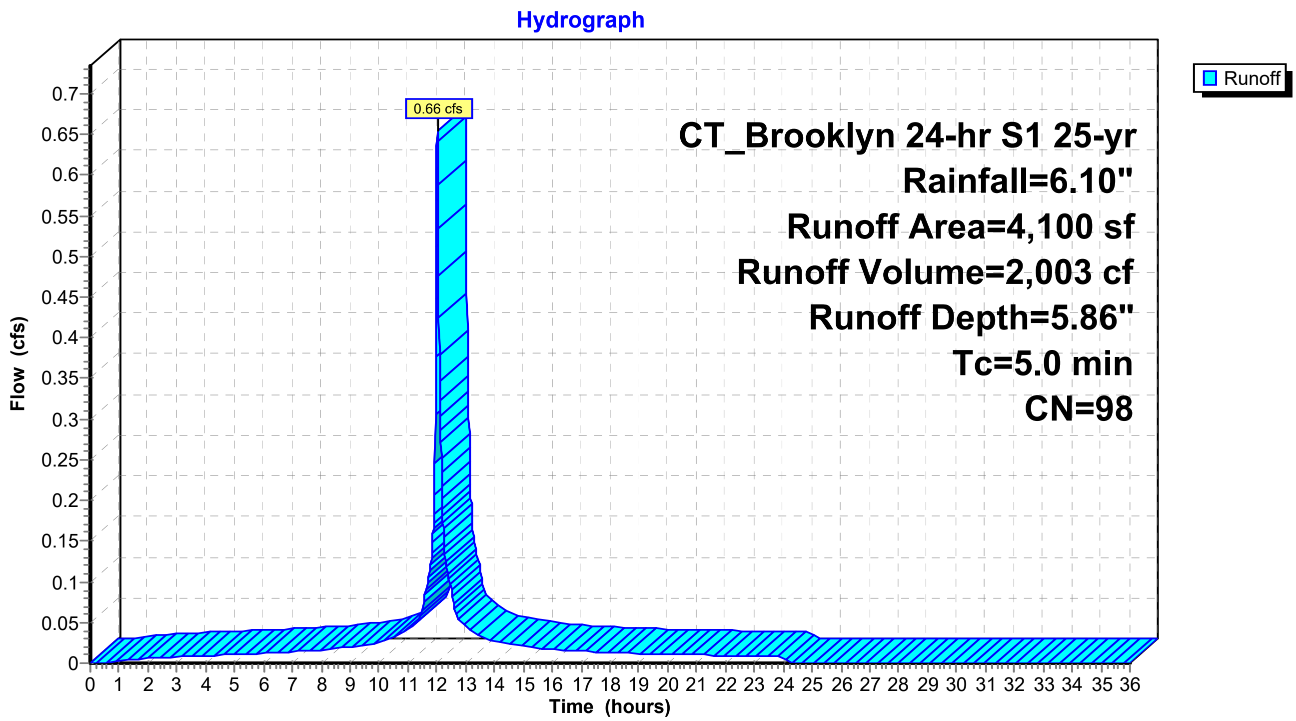
Runoff = 0.66 cfs @ 12.03 hrs, Volume= 2,003 cf, Depth= 5.86"
Routed to Pond 24P : CB R

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
4,100	98	Paved parking & roofs
4,100		100.00% Impervious Area

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

Subcatchment 24S: Proposed to CB R



Summary for Subcatchment 25S: Proposed to CB S

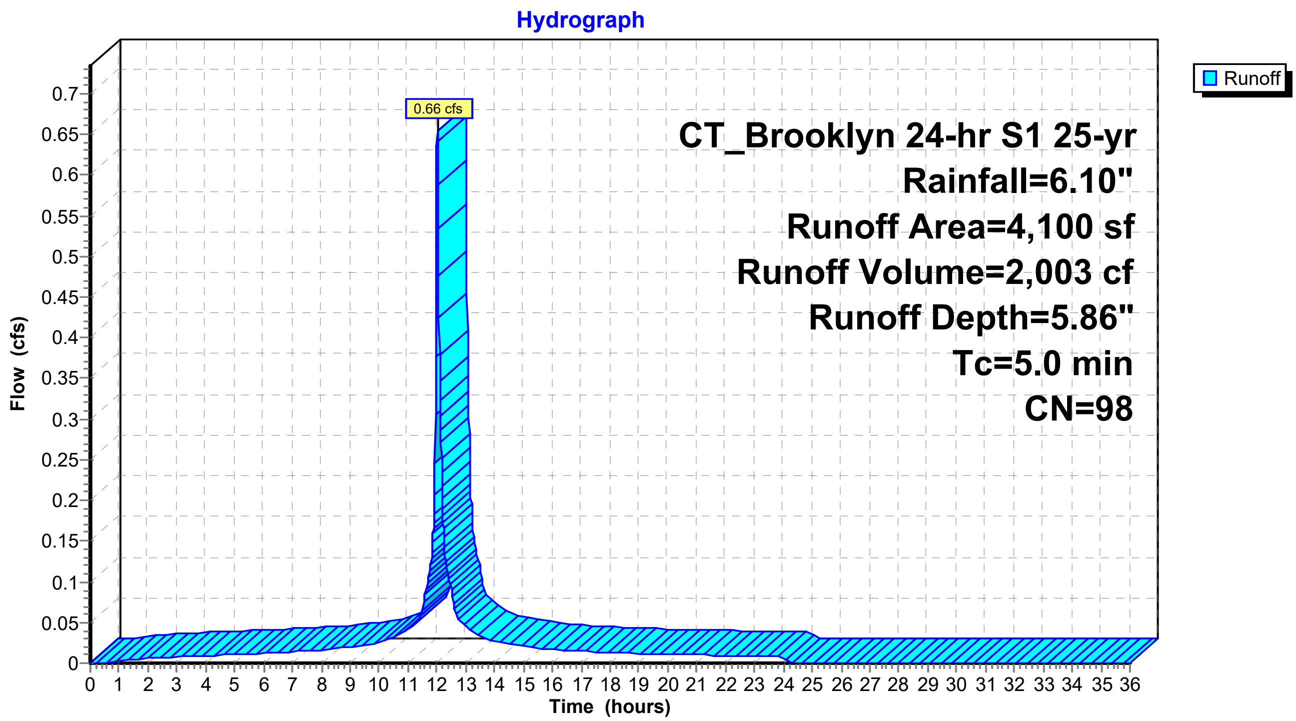
Runoff = 0.66 cfs @ 12.03 hrs, Volume= 2,003 cf, Depth= 5.86"
Routed to Pond 25P : CB S

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
4,100	98	Paved parking & roofs
4,100		100.00% Impervious Area

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

Subcatchment 25S: Proposed to CB S



Summary for Subcatchment 26S: Proposed to CB T

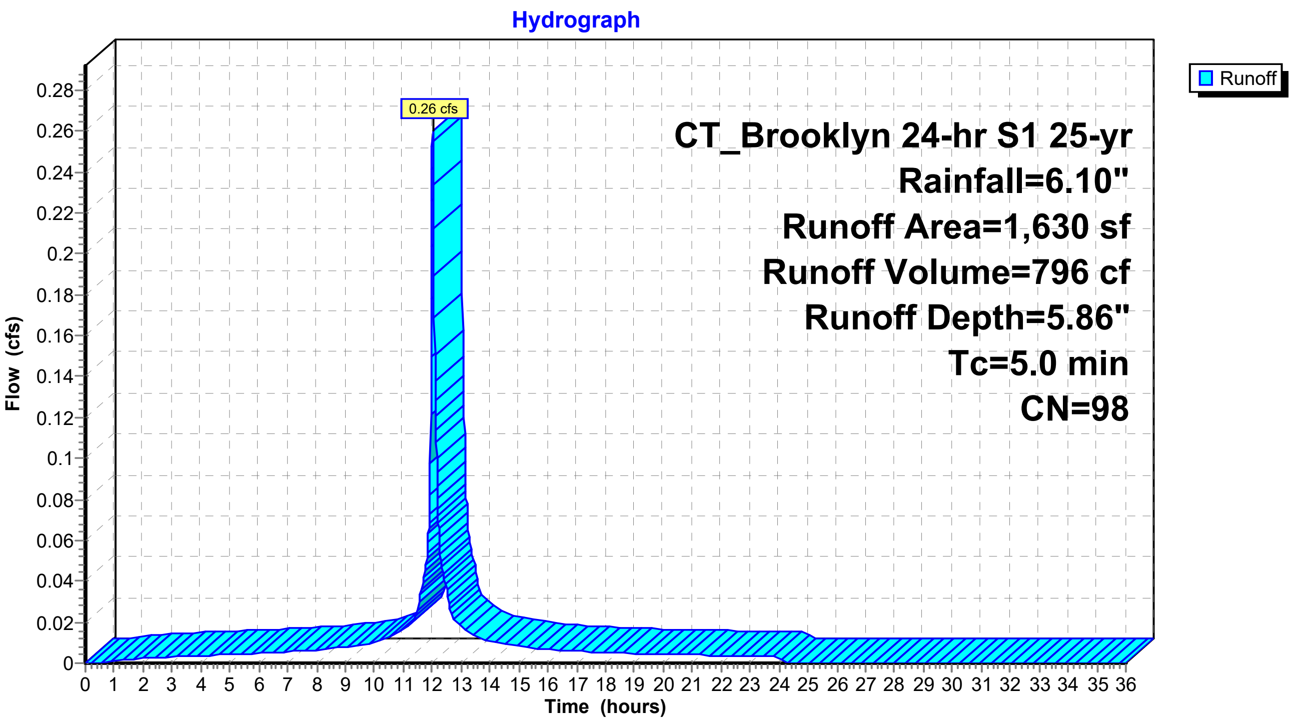
Runoff = 0.26 cfs @ 12.03 hrs, Volume= 796 cf, Depth= 5.86"
Routed to Pond 26P : CB T

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
1,630	98	Paved parking & roofs
1,630		100.00% Impervious Area

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

Subcatchment 26S: Proposed to CB T



Summary for Subcatchment 27S: Proposed to CB U

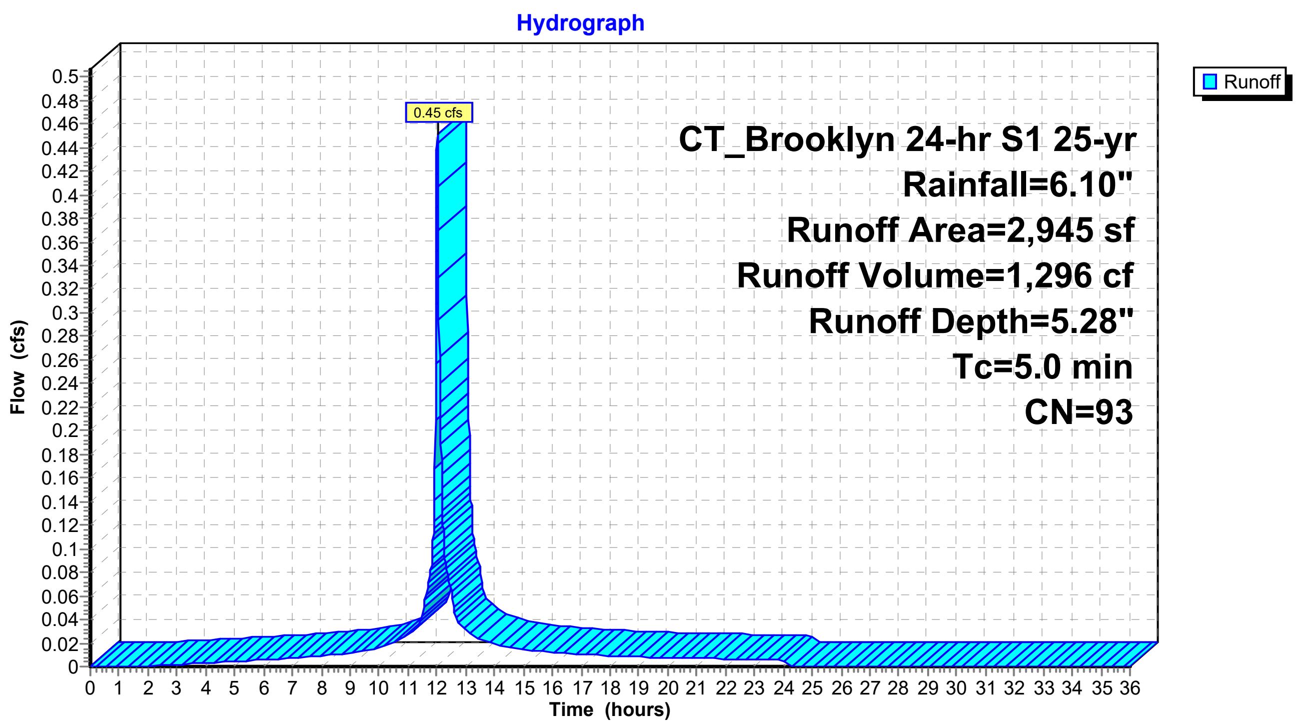
Runoff = 0.45 cfs @ 12.03 hrs, Volume= 1,296 cf, Depth= 5.28"
Routed to Pond 27P : CB U

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
2,555	98	Paved parking & roofs
390	61	>75% Grass cover, Good, HSG B
2,945	93	Weighted Average
390		13.24% Pervious Area
2,555		86.76% Impervious Area

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

Subcatchment 27S: Proposed to CB U



Summary for Subcatchment 28S: Proposed to CB V

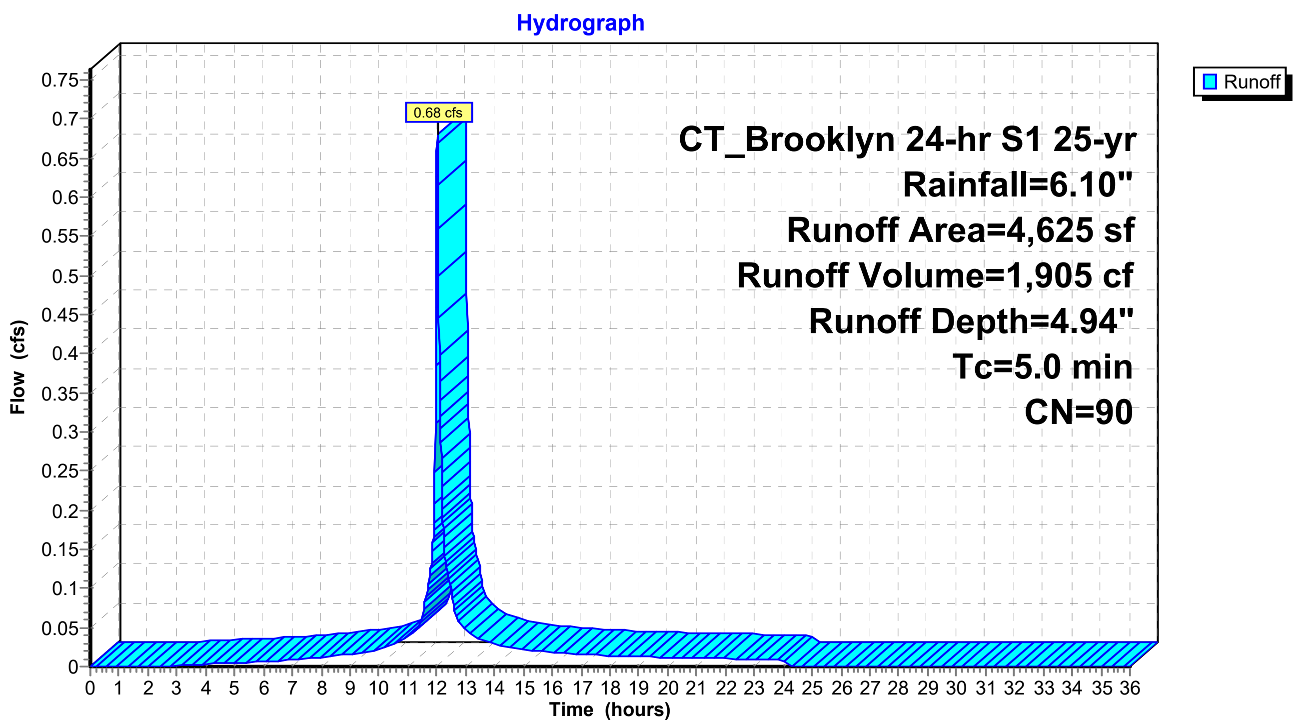
Runoff = 0.68 cfs @ 12.03 hrs, Volume= 1,905 cf, Depth= 4.94"
Routed to Pond 28P : CB V

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
3,605	98	Paved parking & roofs
1,020	61	>75% Grass cover, Good, HSG B
4,625	90	Weighted Average
1,020		22.05% Pervious Area
3,605		77.95% Impervious Area

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

Subcatchment 28S: Proposed to CB V



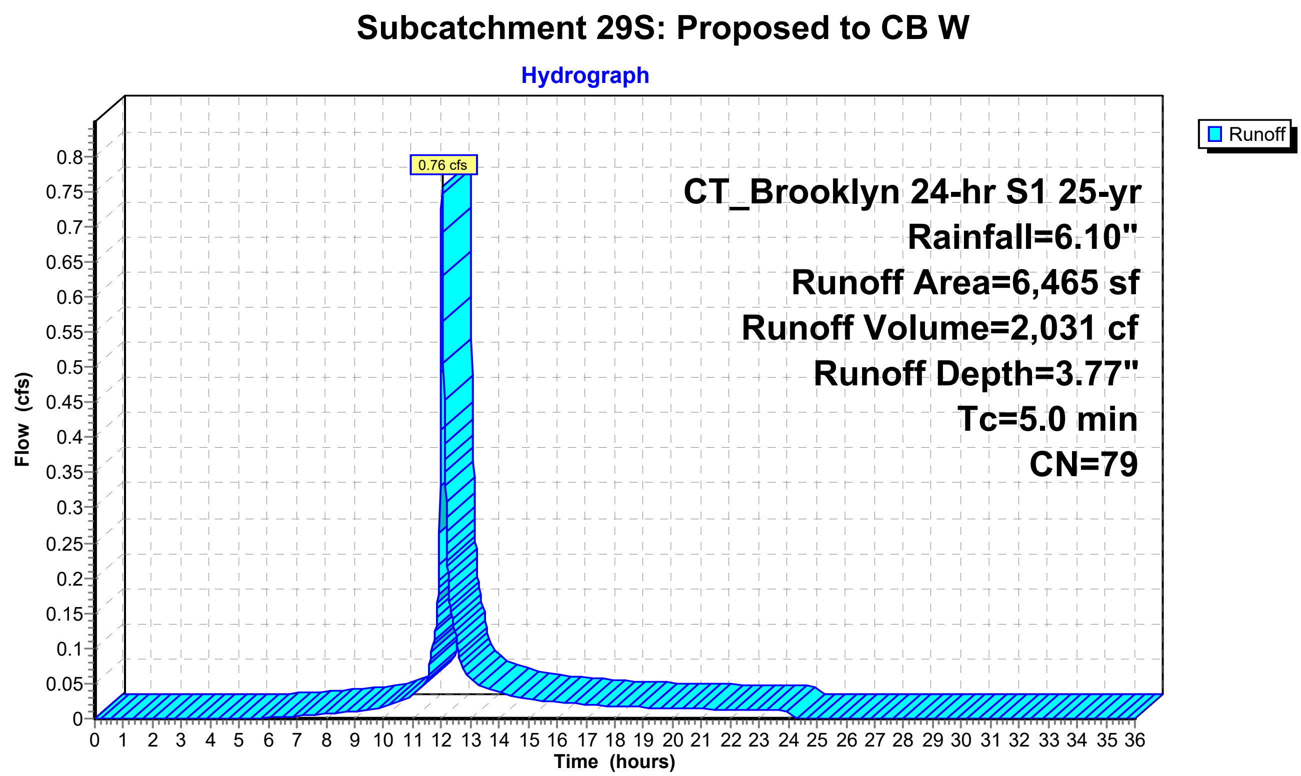
Summary for Subcatchment 29S: Proposed to CB W

Runoff = 0.76 cfs @ 12.03 hrs, Volume= 2,031 cf, Depth= 3.77"
Routed to Pond 29P : CB W

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
3,150	98	Paved parking & roofs
3,315	61	>75% Grass cover, Good, HSG B
6,465	79	Weighted Average
3,315		51.28% Pervious Area
3,150		48.72% Impervious Area

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



Summary for Subcatchment 30S: Bank Site to Stormwater Basin (Approximate From Previous Design)

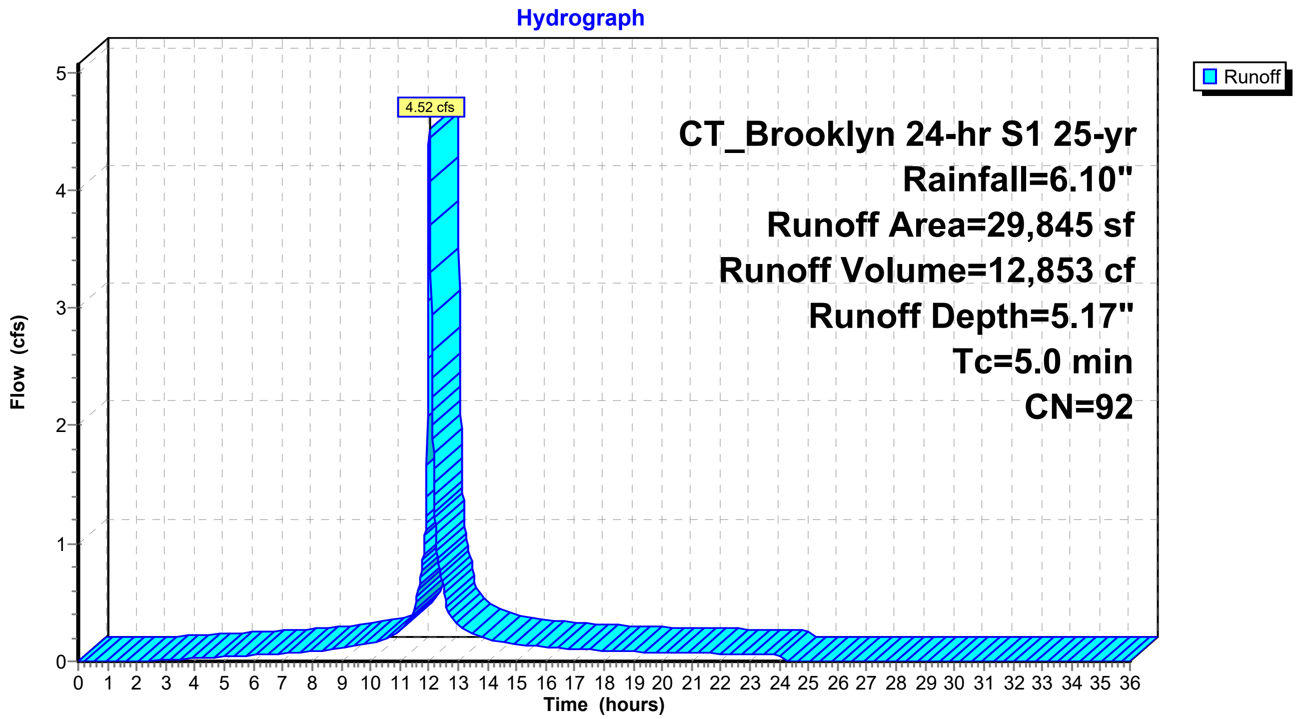
Runoff = 4.52 cfs @ 12.03 hrs, Volume= 12,853 cf, Depth= 5.17"
Routed to Link 1L : Wetland

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

	Area (sf)	CN	Description
*	2,975	98	Roof
	21,880	98	Paved parking & roofs
	4,990	61	>75% Grass cover, Good, HSG B
	29,845	92	Weighted Average
	4,990		16.72% Pervious Area
	24,855		83.28% Impervious Area

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

Subcatchment 30S: Bank Site to Stormwater Basin (Approximate From Previous Design)



Summary for Subcatchment 31S: Proposed to Swale (Approximate From Previous Design)

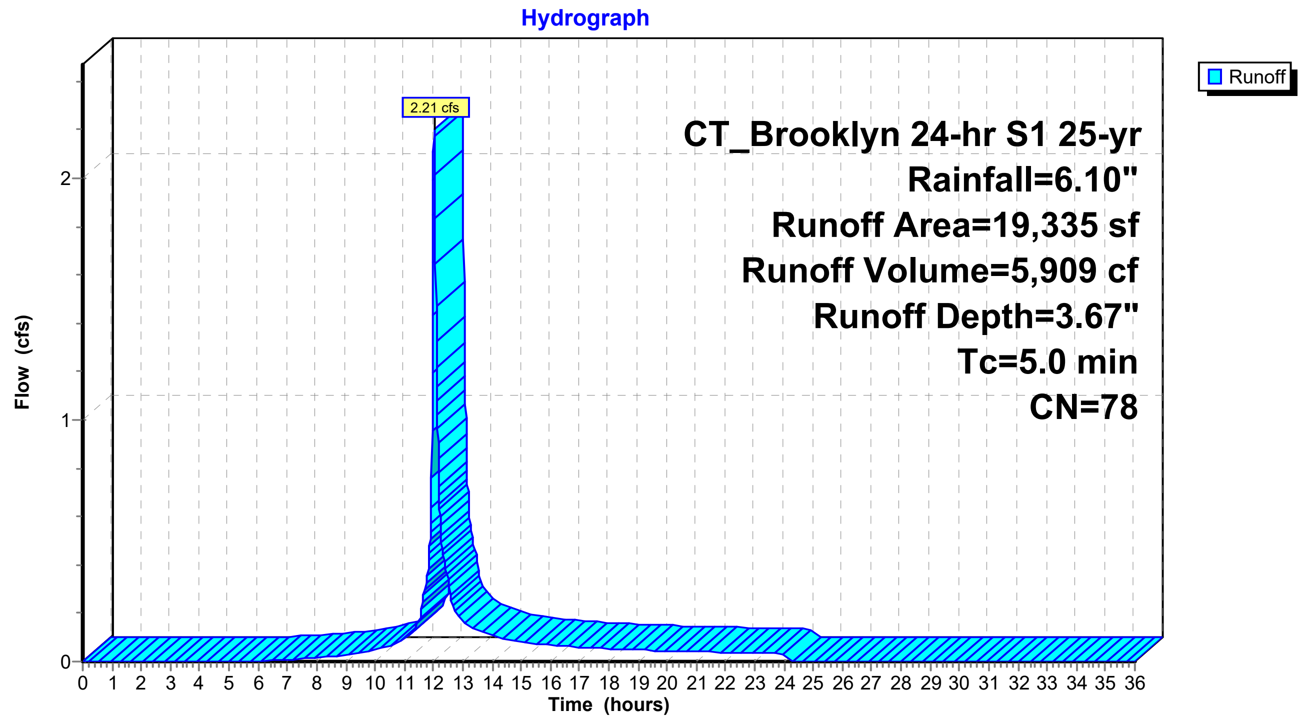
Runoff = 2.21 cfs @ 12.03 hrs, Volume= 5,909 cf, Depth= 3.67"
Routed to Pond 4DP : DMH 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
8,785	98	Paved parking & roofs
10,550	61	>75% Grass cover, Good, HSG B
19,335	78	Weighted Average
10,550		54.56% Pervious Area
8,785		45.44% Impervious Area

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

Subcatchment 31S: Proposed to Swale (Approximate From Previous Design)



Summary for Subcatchment 32S: Pharmacy Roof (Approximate From Previous Design)

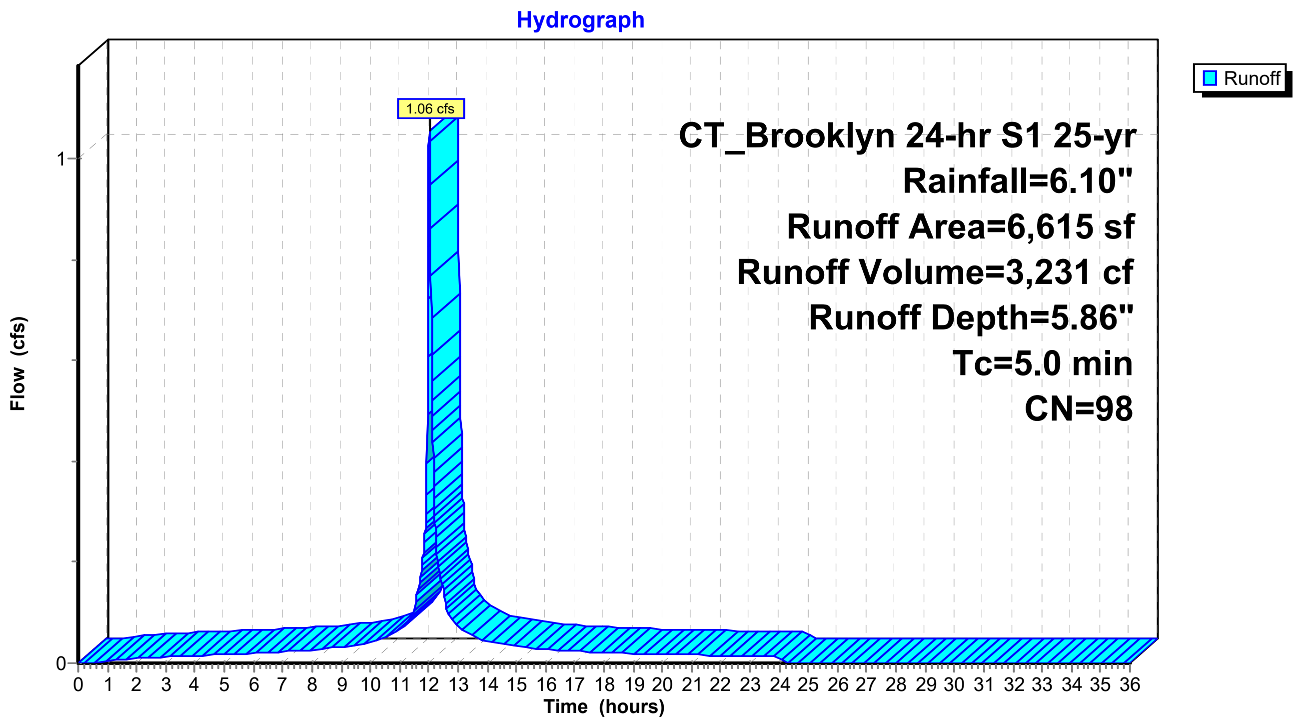
Runoff = 1.06 cfs @ 12.03 hrs, Volume= 3,231 cf, Depth= 5.86"
Routed to Pond 4DP : DMH 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
6,615	98	Paved parking & roofs
6,615		100.00% Impervious Area

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

Subcatchment 32S: Pharmacy Roof (Approximate From Previous Design)



Summary for Subcatchment 33S: Pharmacy Roof (Approximate From Previous Design)

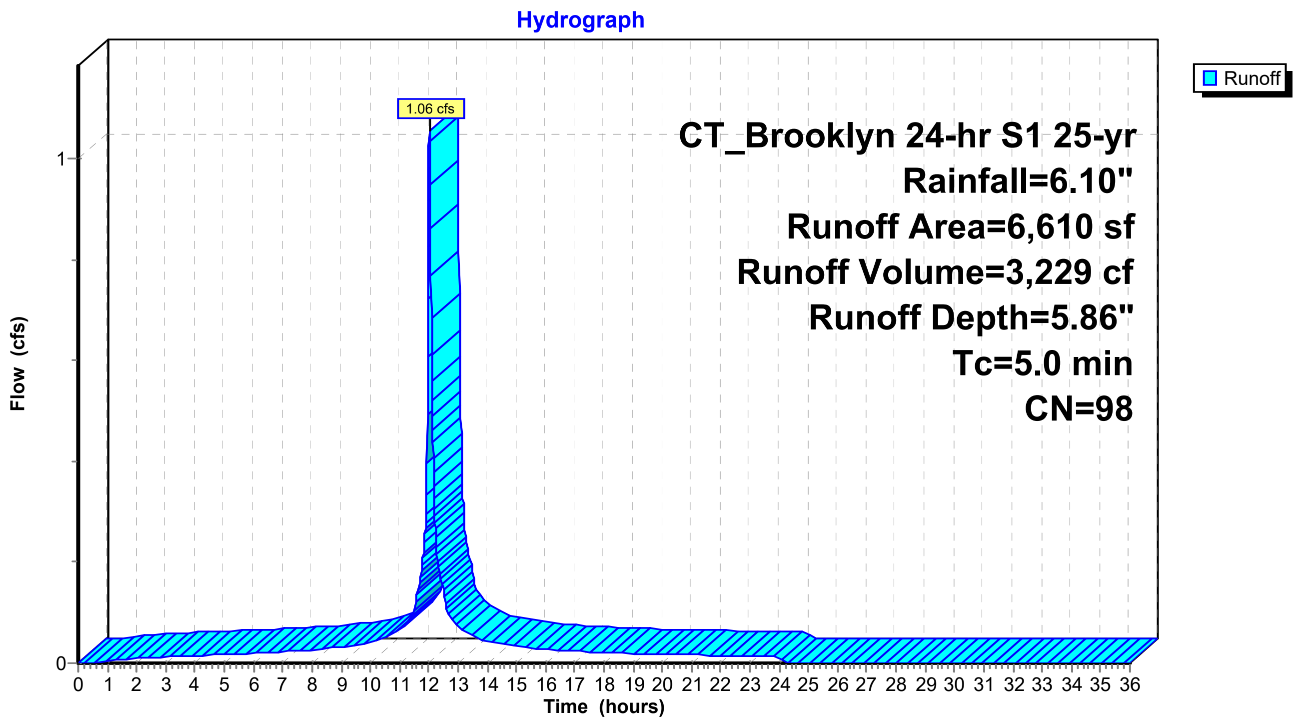
Runoff = 1.06 cfs @ 12.03 hrs, Volume= 3,229 cf, Depth= 5.86"
Routed to Pond 45P : CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
6,610	98	Paved parking & roofs
6,610		100.00% Impervious Area

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

Subcatchment 33S: Pharmacy Roof (Approximate From Previous Design)



Summary for Subcatchment 34ES: Retail/Office Roof

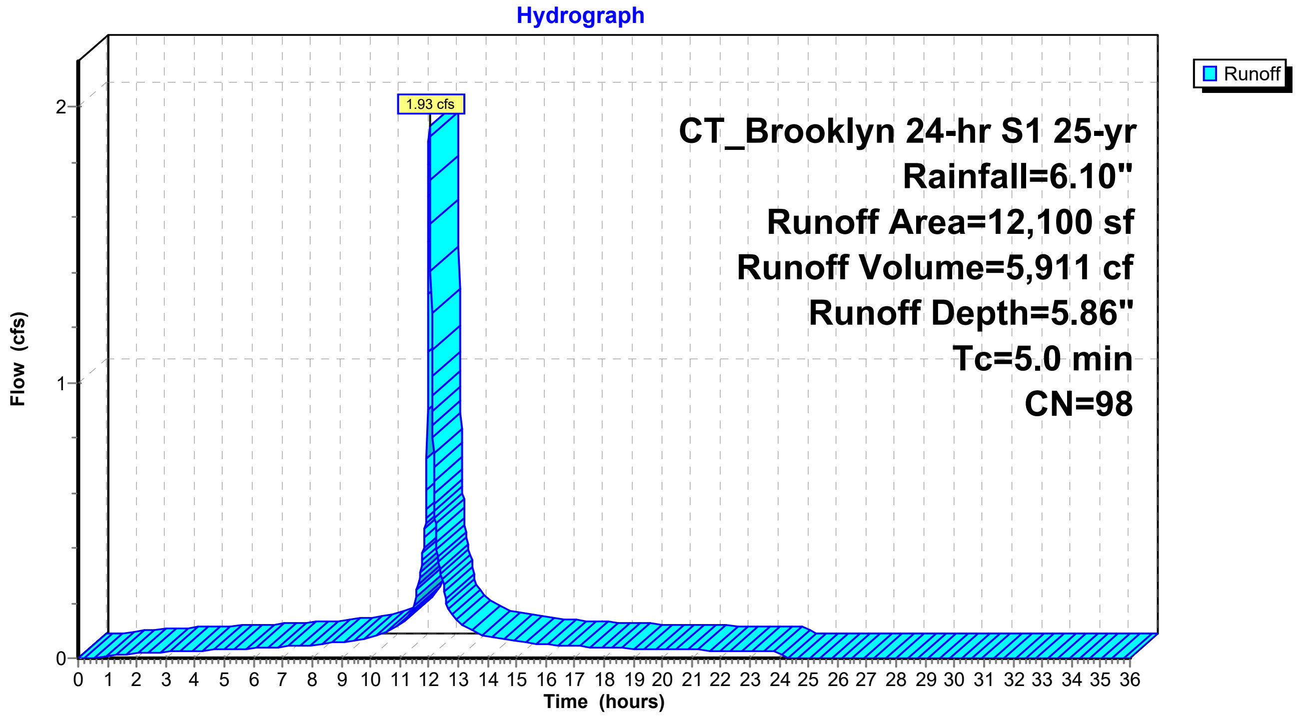
Runoff = 1.93 cfs @ 12.03 hrs, Volume= 5,911 cf, Depth= 5.86"
Routed to Pond 11P : CB E

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
12,100	98	Paved parking & roofs
12,100		100.00% Impervious Area

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

Subcatchment 34ES: Retail/Office Roof



Summary for Subcatchment 34WS: Retail/Office Roof

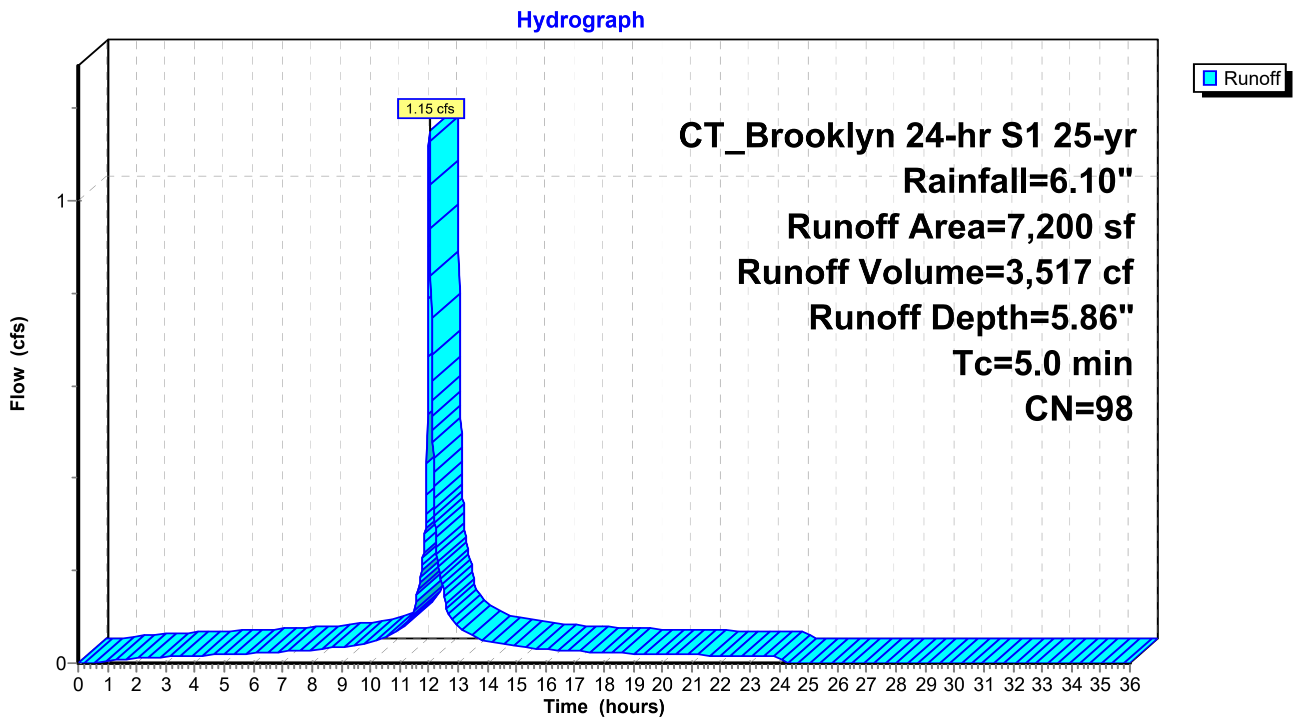
Runoff = 1.15 cfs @ 12.03 hrs, Volume= 3,517 cf, Depth= 5.86"
Routed to Pond 55P : DMH F

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
7,200	98	Paved parking & roofs
7,200		100.00% Impervious Area

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

Subcatchment 34WS: Retail/Office Roof



Summary for Subcatchment 35S: Spa / Med. Office Roof

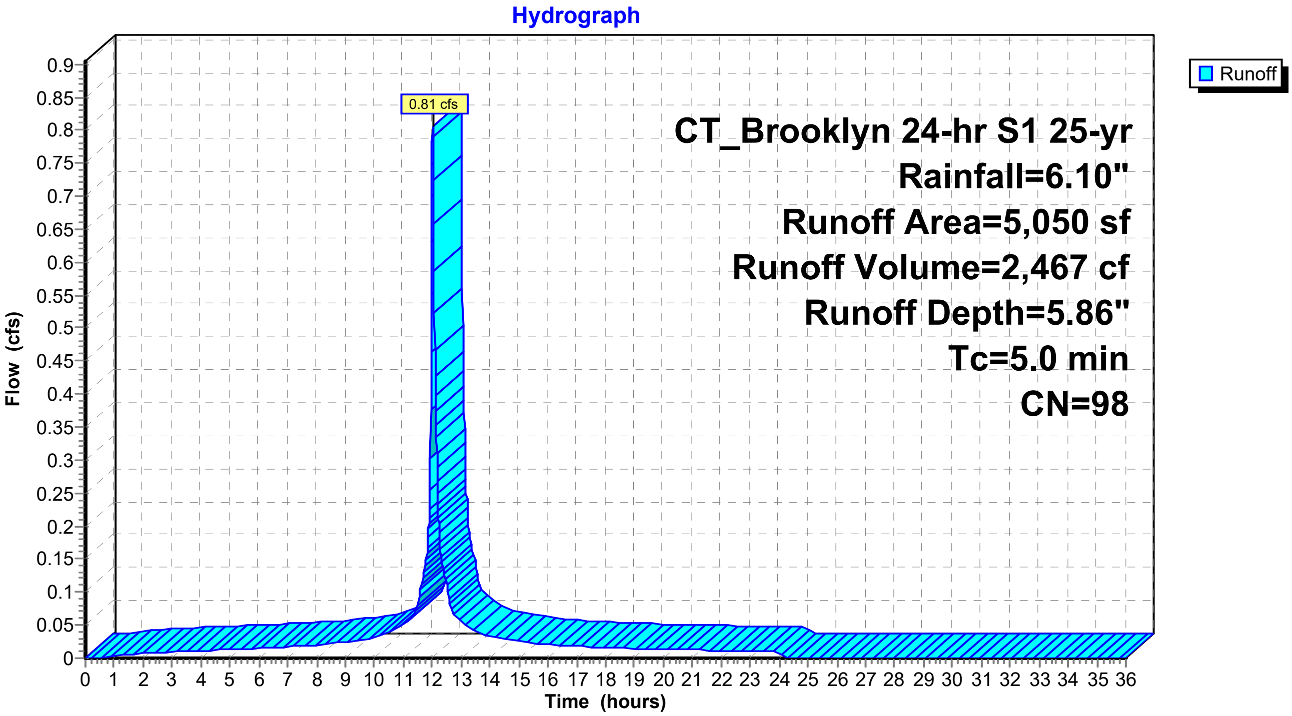
Runoff = 0.81 cfs @ 12.03 hrs, Volume= 2,467 cf, Depth= 5.86"
Routed to Pond 4DP : DMH 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
5,050	98	Paved parking & roofs
5,050		100.00% Impervious Area

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

Subcatchment 35S: Spa / Med. Office Roof



Summary for Subcatchment 41S: Proposed to CB 11

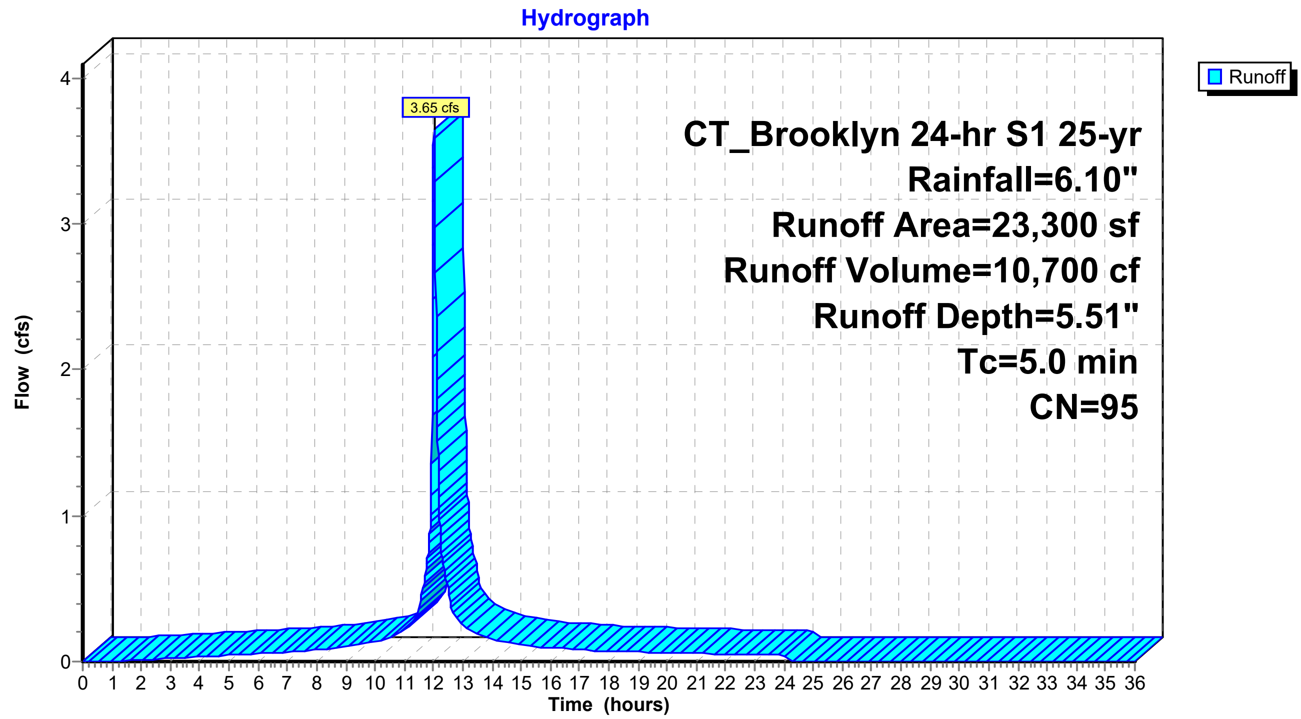
Runoff = 3.65 cfs @ 12.03 hrs, Volume= 10,700 cf, Depth= 5.51"
Routed to Pond 41P : CB 11

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
21,320	98	Paved parking & roofs
1,980	61	>75% Grass cover, Good, HSG B
23,300	95	Weighted Average
1,980		8.50% Pervious Area
21,320		91.50% Impervious Area

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

Subcatchment 41S: Proposed to CB 11



Summary for Subcatchment 42S: Proposed to CB 12

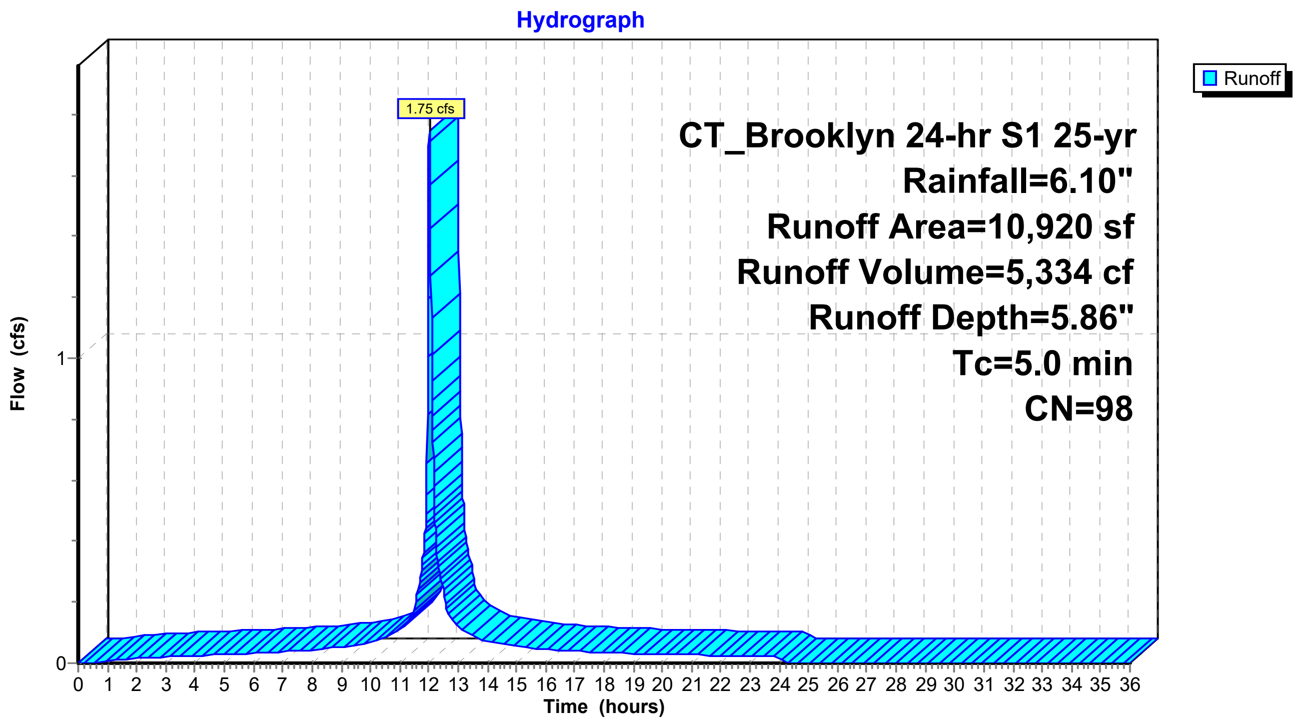
Runoff = 1.75 cfs @ 12.03 hrs, Volume= 5,334 cf, Depth= 5.86"
Routed to Pond 42P : CB 12

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
10,920	98	Paved parking & roofs
10,920		100.00% Impervious Area

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

Subcatchment 42S: Proposed to CB 12



Summary for Subcatchment 44S: Ex to CB

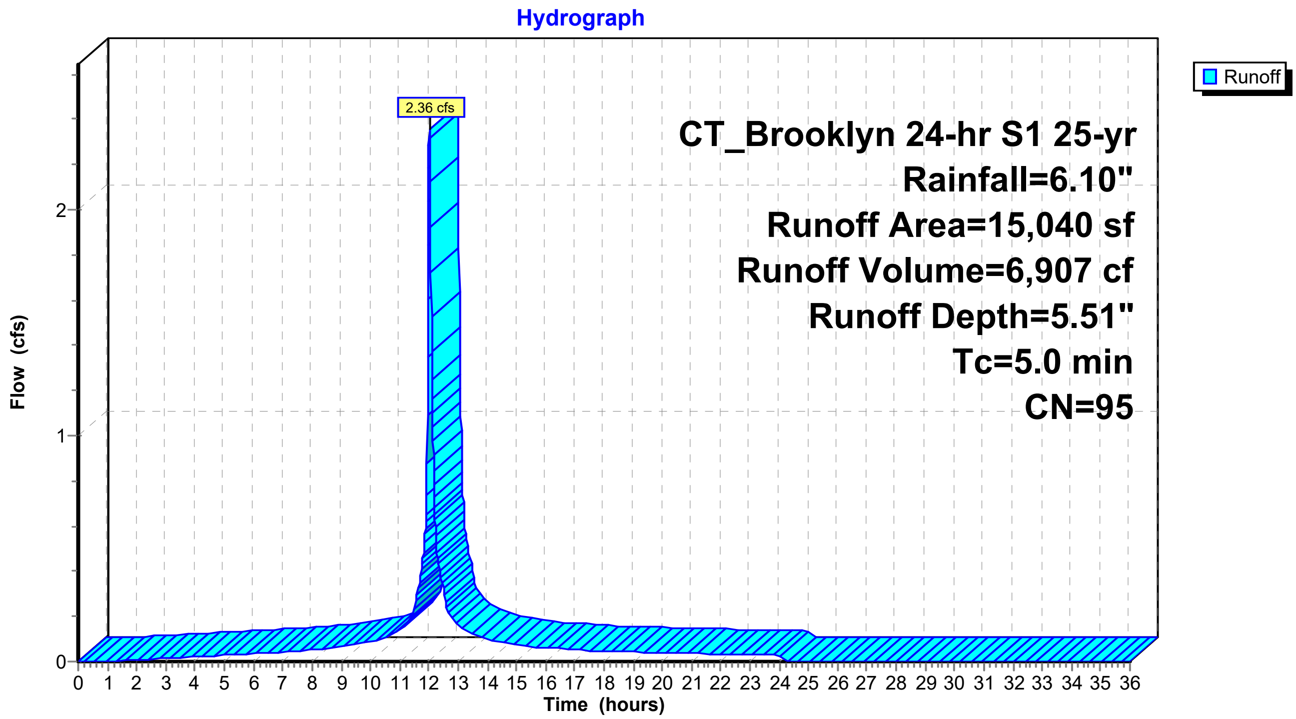
Runoff = 2.36 cfs @ 12.03 hrs, Volume= 6,907 cf, Depth= 5.51"
Routed to Pond 44P : CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
13,940	98	Paved parking & roofs
1,100	61	>75% Grass cover, Good, HSG B
15,040	95	Weighted Average
1,100		7.31% Pervious Area
13,940		92.69% Impervious Area

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

Subcatchment 44S: Ex to CB



Summary for Subcatchment 45S: Ex to CB

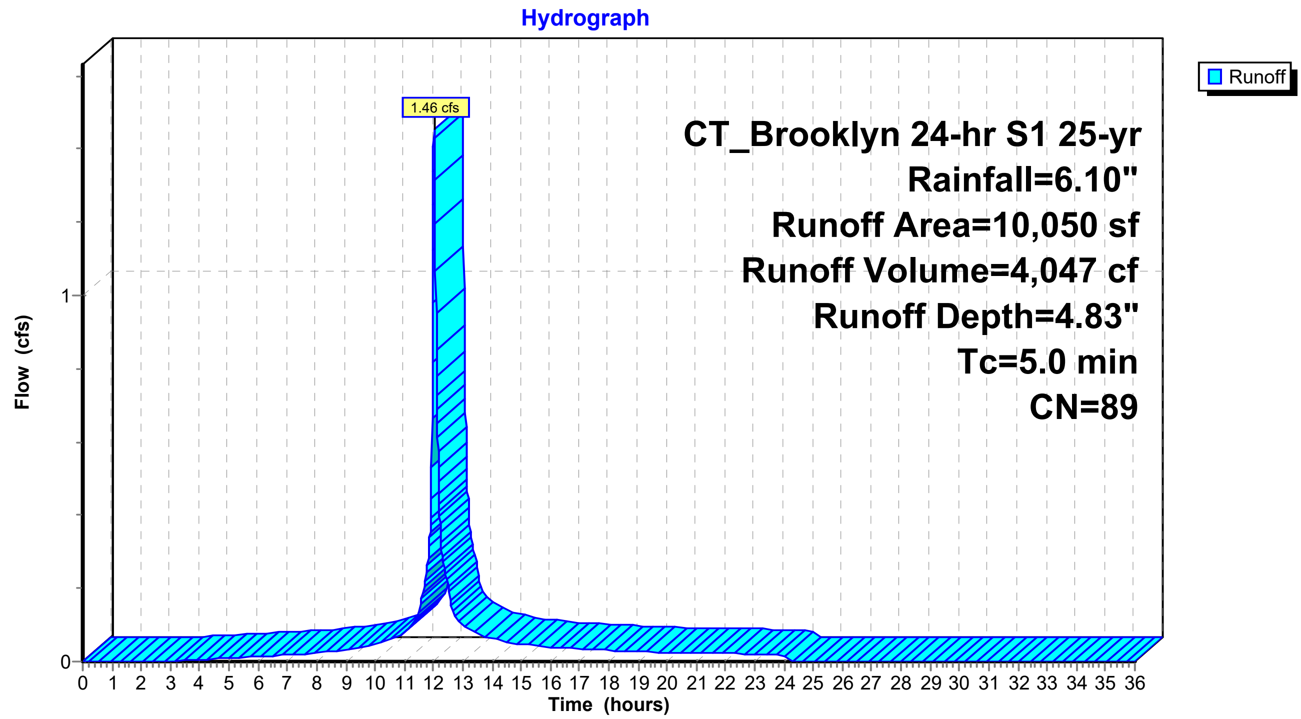
Runoff = 1.46 cfs @ 12.03 hrs, Volume= 4,047 cf, Depth= 4.83"
Routed to Pond 45P : CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 25-yr Rainfall=6.10"

Area (sf)	CN	Description
7,725	98	Paved parking & roofs
2,325	61	>75% Grass cover, Good, HSG B
10,050	89	Weighted Average
2,325		23.13% Pervious Area
7,725		76.87% Impervious Area

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

Subcatchment 45S: Ex to CB



Summary for Pond 1P: CB 1

[58] Hint: Peaked 0.64' above defined flood level

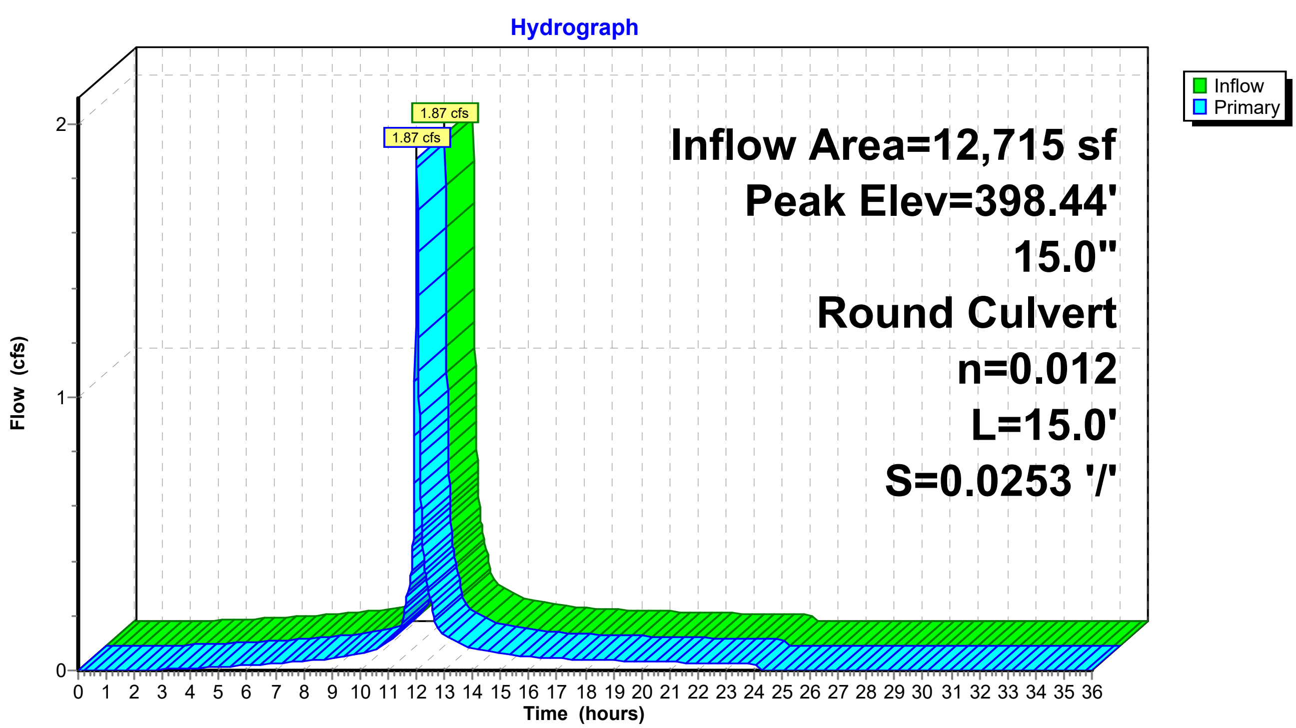
Inflow Area = 12,715 sf, 77.86% Impervious, Inflow Depth = 4.94" for 25-yr event
Inflow = 1.87 cfs @ 12.03 hrs, Volume= 5,238 cf
Outflow = 1.87 cfs @ 12.03 hrs, Volume= 5,238 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.87 cfs @ 12.03 hrs, Volume= 5,238 cf
Routed to Pond 51P : DMH B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 398.44' @ 12.04 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.05'	**15.0" Round Culvert** L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.05' / 393.67' S= 0.0253 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=398.08' TW=398.14' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)

Pond 1P: CB 1



Summary for Pond 1VP: Vortechnics Unit

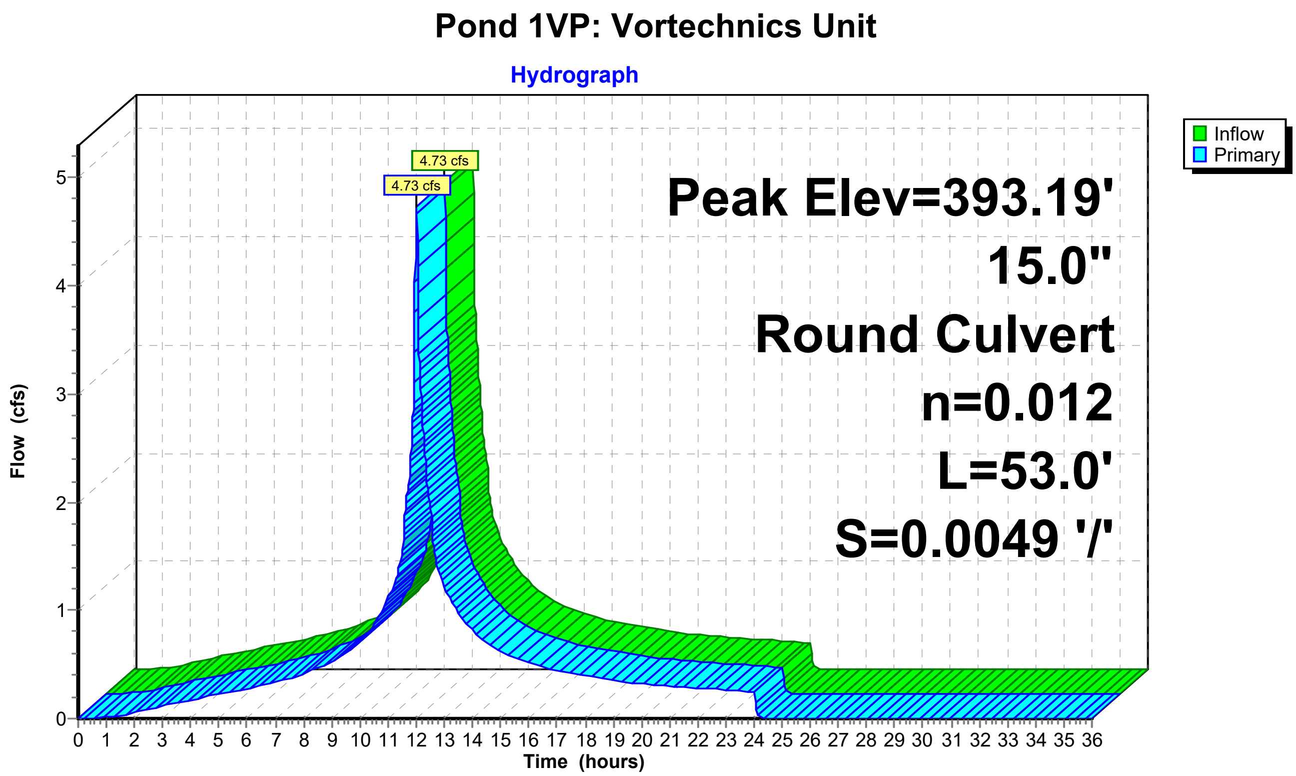
Inflow	=	4.73 cfs @	12.02 hrs, Volume=	44,569 cf
Outflow	=	4.73 cfs @	12.02 hrs, Volume=	44,569 cf, Atten= 0%, Lag= 0.0 min
Primary	=	4.73 cfs @	12.02 hrs, Volume=	44,569 cf

Routed to Pond 3DP : DMH 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.19' @ 12.02 hrs
Flood Elev= 397.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.50'	**15.0" Round Culvert** L= 53.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.50' / 390.24' S= 0.0049 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=4.72 cfs @ 12.02 hrs HW=393.17' TW=392.53' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 4.72 cfs @ 3.85 fps)



Summary for Pond 2P: CB 2

[58] Hint: Peaked 0.06' above defined flood level

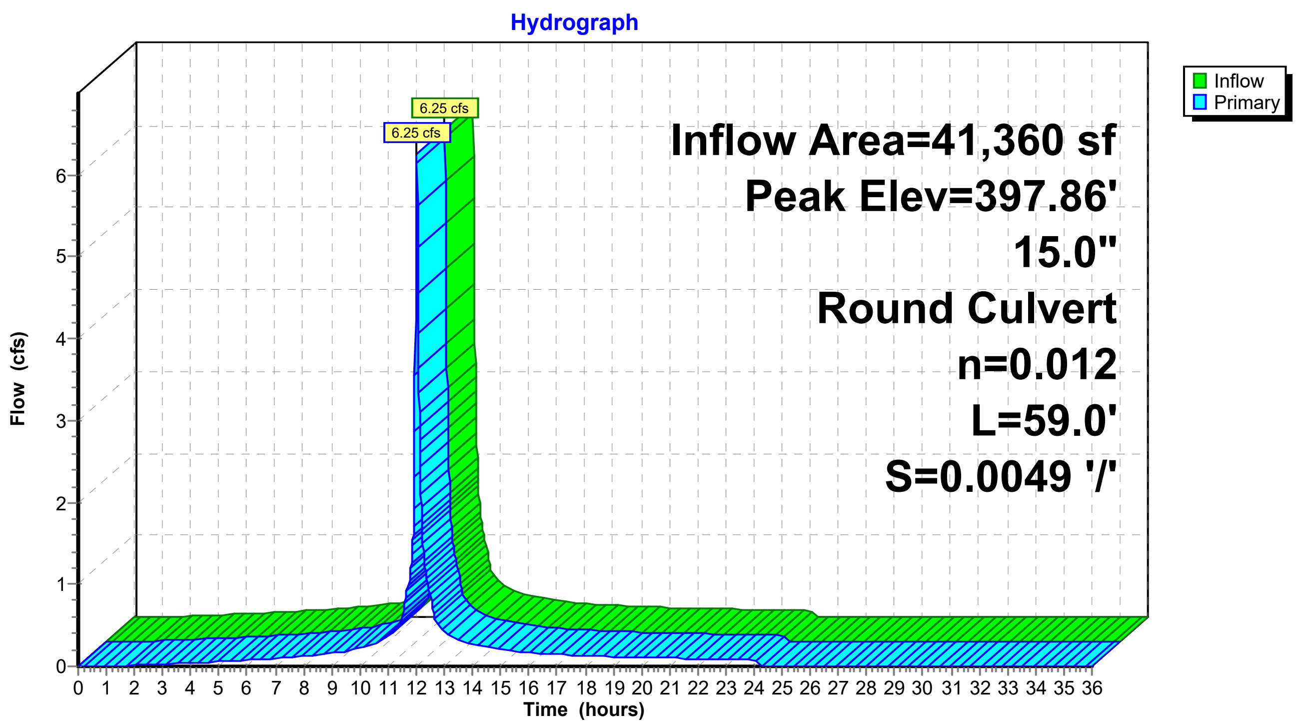
Inflow Area = 41,360 sf, 84.79% Impervious, Inflow Depth = 5.19" for 25-yr event
Inflow = 6.25 cfs @ 12.03 hrs, Volume= 17,903 cf
Outflow = 6.25 cfs @ 12.03 hrs, Volume= 17,903 cf, Atten= 0%, Lag= 0.0 min
Primary = 6.25 cfs @ 12.03 hrs, Volume= 17,903 cf
Routed to Pond 3P : CB 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 397.86' @ 12.04 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.94'	**15.0" Round Culvert** L= 59.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.94' / 392.65' S= 0.0049 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=5.89 cfs @ 12.03 hrs HW=397.72' TW=396.73' (Dynamic Tailwater)
1=Culvert (Inlet Controls 5.89 cfs @ 4.80 fps)

Pond 2P: CB 2



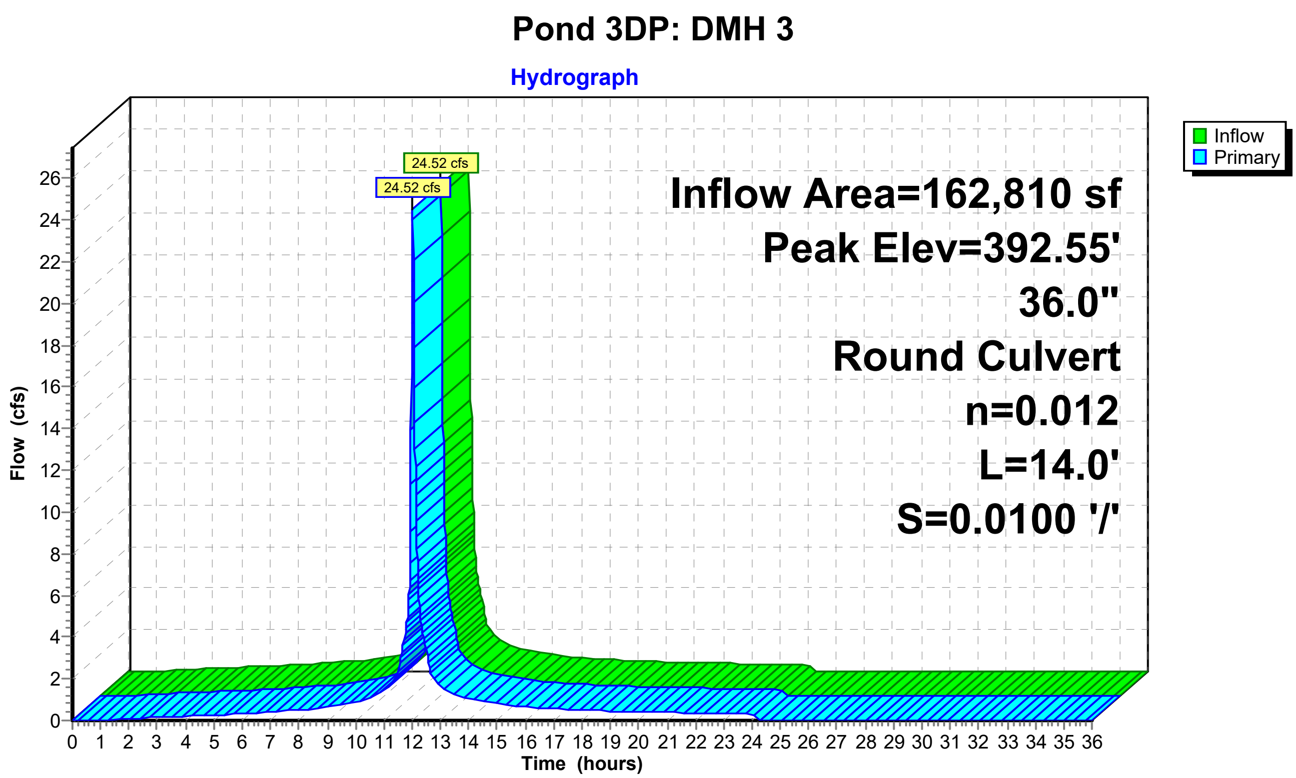
Summary for Pond 3DP: DMH 3

Inflow Area = 162,810 sf, 85.75% Impervious, Inflow Depth = 5.26" for 25-yr event
Inflow = 24.52 cfs @ 12.03 hrs, Volume= 71,363 cf
Outflow = 24.52 cfs @ 12.03 hrs, Volume= 71,363 cf, Atten= 0%, Lag= 0.0 min
Primary = 24.52 cfs @ 12.03 hrs, Volume= 71,363 cf
Routed to Link 1L : Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.55' @ 12.03 hrs
Flood Elev= 396.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.14'	**36.0" Round Culvert** L= 14.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.14' / 390.00' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 7.07 sf

Primary OutFlow Max=24.42 cfs @ 12.03 hrs HW=392.54' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 24.42 cfs @ 5.50 fps)



Summary for Pond 3P: CB 3

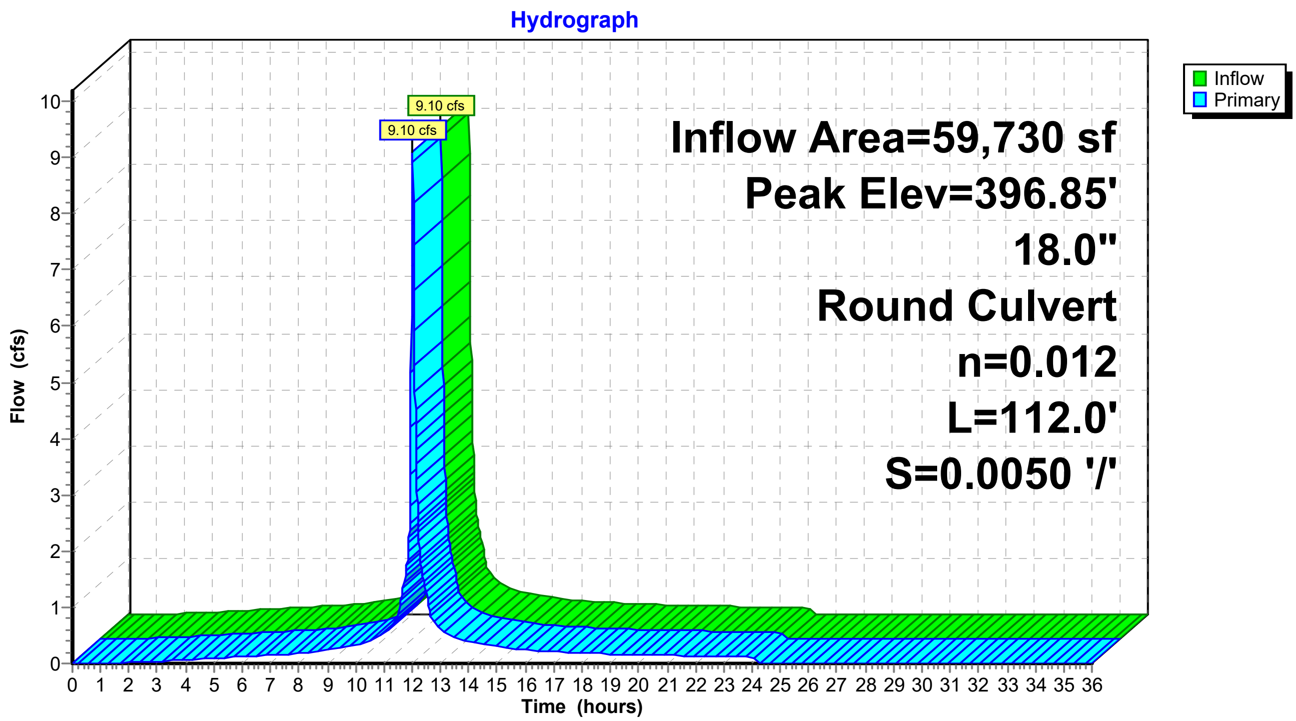
Inflow Area = 59,730 sf, 86.51% Impervious, Inflow Depth = 5.26" for 25-yr event
Inflow = 9.10 cfs @ 12.03 hrs, Volume= 26,163 cf
Outflow = 9.10 cfs @ 12.03 hrs, Volume= 26,163 cf, Atten= 0%, Lag= 0.0 min
Primary = 9.10 cfs @ 12.03 hrs, Volume= 26,163 cf
Routed to Pond 4P : CB 4

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.85' @ 12.04 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.65'	**18.0" Round Culvert** L= 112.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.65' / 392.09' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=8.83 cfs @ 12.03 hrs HW=396.73' TW=395.47' (Dynamic Tailwater)
1=Culvert (Outlet Controls 8.83 cfs @ 5.00 fps)

Pond 3P: CB 3



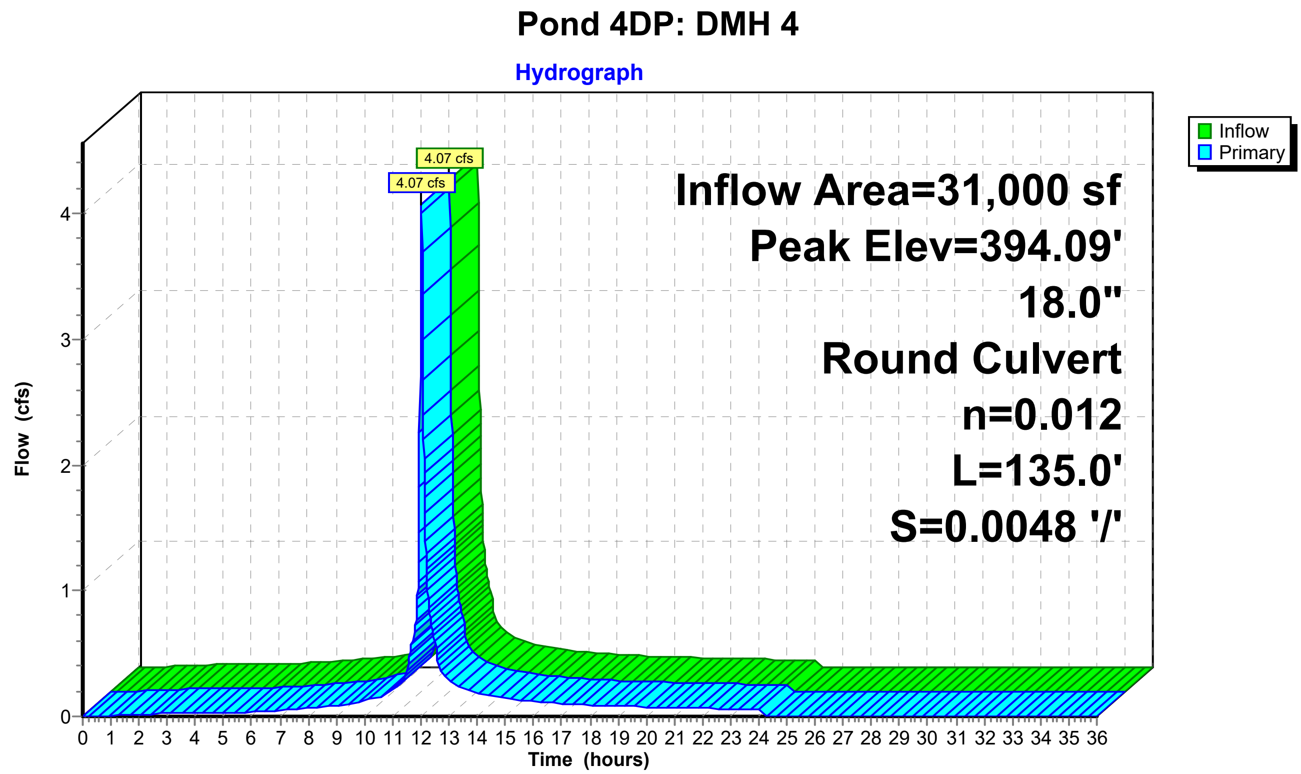
Summary for Pond 4DP: DMH 4

Inflow Area = 31,000 sf, 65.97% Impervious, Inflow Depth = 4.49" for 25-yr event
Inflow = 4.07 cfs @ 12.03 hrs, Volume= 11,607 cf
Outflow = 4.07 cfs @ 12.03 hrs, Volume= 11,607 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.07 cfs @ 12.03 hrs, Volume= 11,607 cf
Routed to Pond 5DP : DMH 5

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.09' @ 12.03 hrs
Flood Elev= 397.14'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.00'	**18.0" Round Culvert** L= 135.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.00' / 392.35' S= 0.0048 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=4.06 cfs @ 12.03 hrs HW=394.09' TW=392.77' (Dynamic Tailwater)
1=Culvert (Barrel Controls 4.06 cfs @ 4.14 fps)



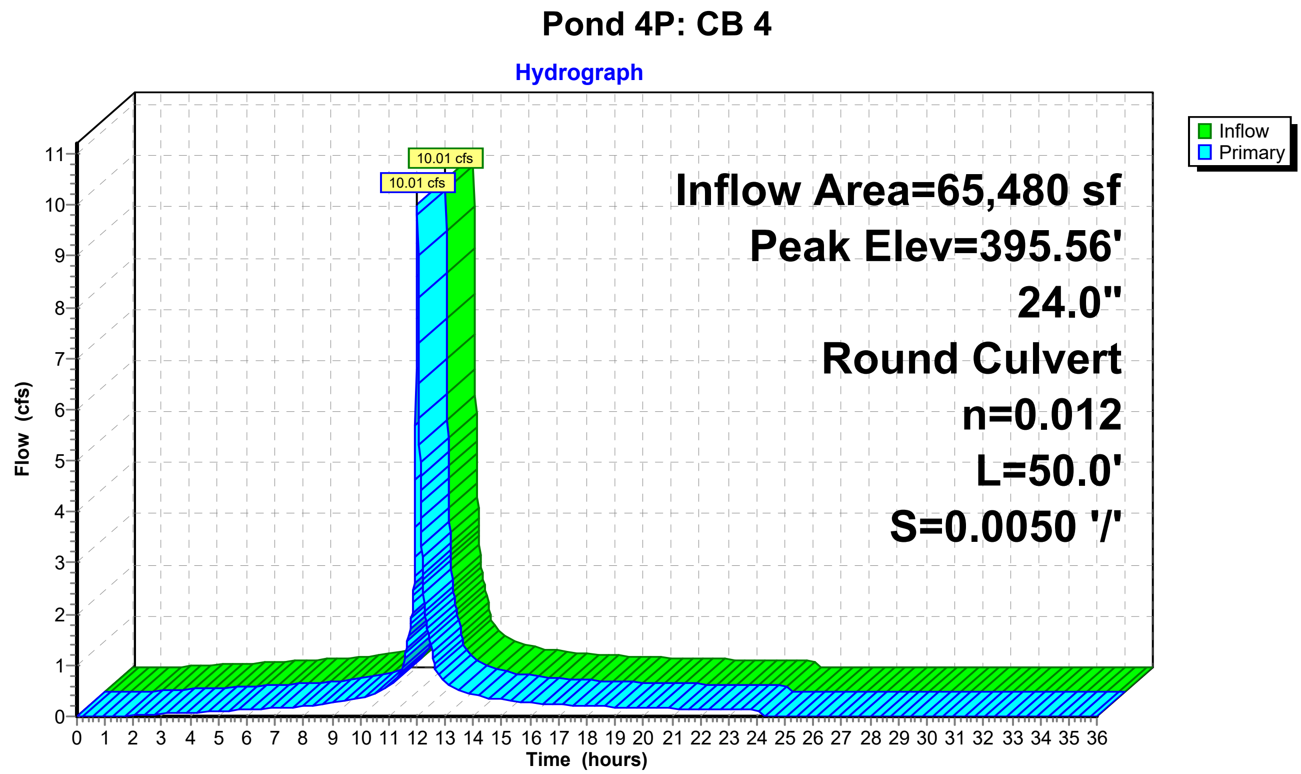
Summary for Pond 4P: CB 4

Inflow Area = 65,480 sf, 87.23% Impervious, Inflow Depth = 5.29" for 25-yr event
Inflow = 10.01 cfs @ 12.03 hrs, Volume= 28,859 cf
Outflow = 10.01 cfs @ 12.03 hrs, Volume= 28,859 cf, Atten= 0%, Lag= 0.0 min
Primary = 10.01 cfs @ 12.03 hrs, Volume= 28,859 cf
Routed to Pond 52P : DMH C

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 395.56' @ 12.04 hrs
Flood Elev= 398.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.09'	**24.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.09' / 391.84' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=8.98 cfs @ 12.03 hrs HW=395.47' TW=395.12' (Dynamic Tailwater)
1=Culvert (Inlet Controls 8.98 cfs @ 2.86 fps)



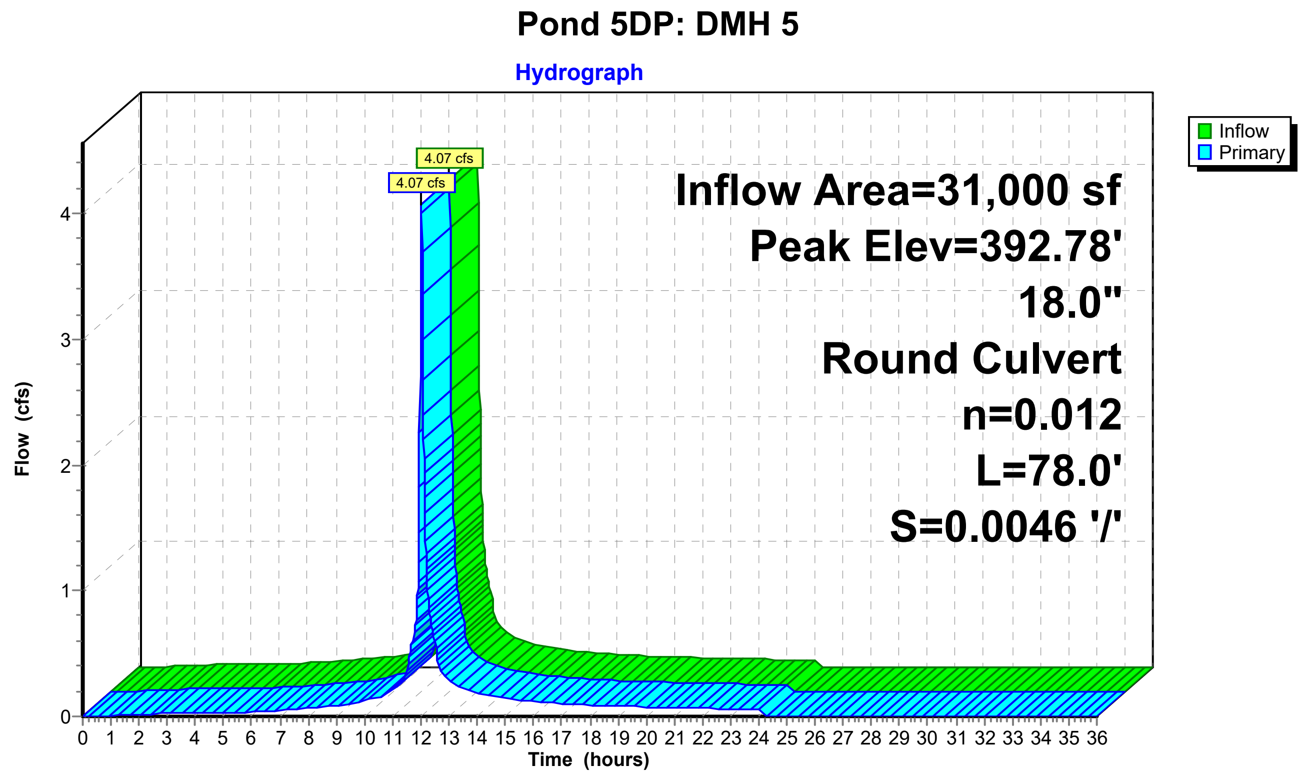
Summary for Pond 5DP: DMH 5

Inflow Area = 31,000 sf, 65.97% Impervious, Inflow Depth = 4.49" for 25-yr event
Inflow = 4.07 cfs @ 12.03 hrs, Volume= 11,607 cf
Outflow = 4.07 cfs @ 12.03 hrs, Volume= 11,607 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.07 cfs @ 12.03 hrs, Volume= 11,607 cf
Routed to Pond 3DP : DMH 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.78' @ 12.03 hrs
Flood Elev= 396.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.60'	**18.0" Round Culvert** L= 78.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.60' / 390.24' S= 0.0046 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=4.06 cfs @ 12.03 hrs HW=392.77' TW=392.54' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 4.06 cfs @ 2.30 fps)



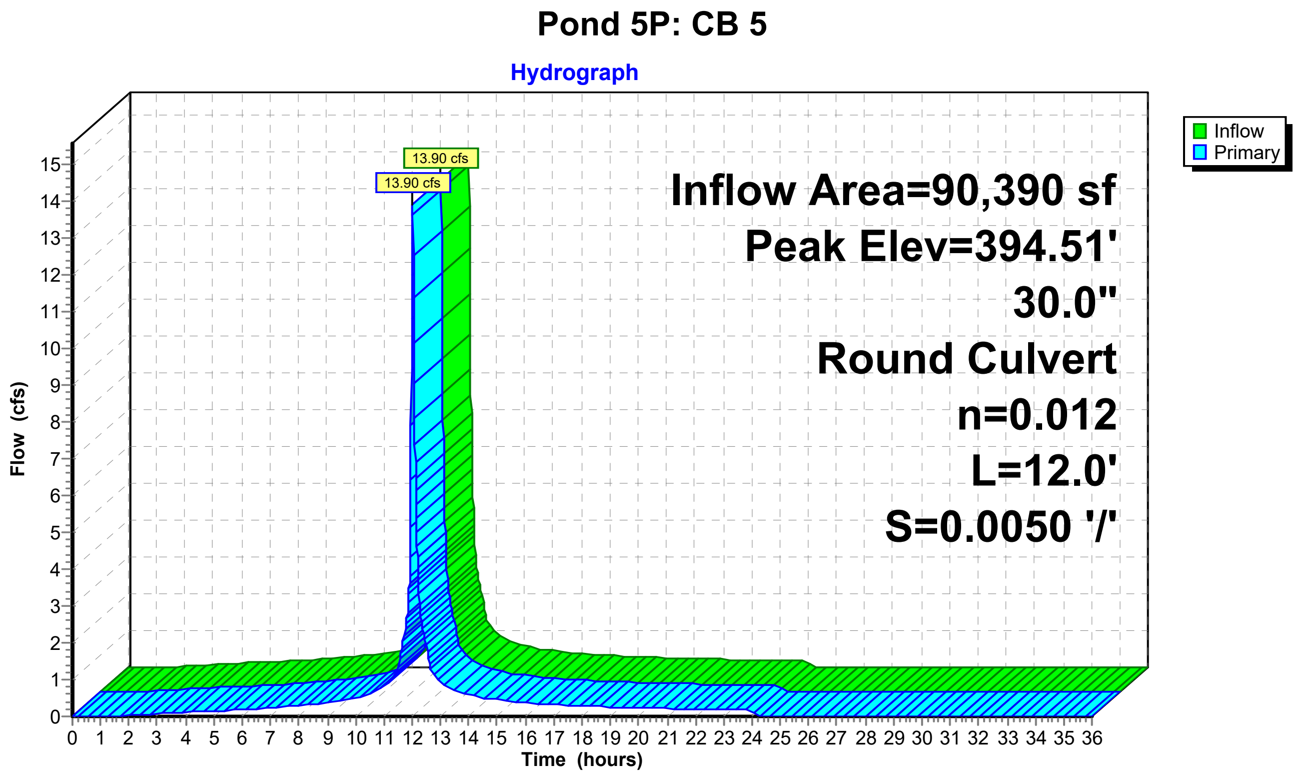
Summary for Pond 5P: CB 5

Inflow Area = 90,390 sf, 88.20% Impervious, Inflow Depth = 5.34" for 25-yr event
Inflow = 13.90 cfs @ 12.03 hrs, Volume= 40,204 cf
Outflow = 13.90 cfs @ 12.03 hrs, Volume= 40,204 cf, Atten= 0%, Lag= 0.0 min
Primary = 13.90 cfs @ 12.03 hrs, Volume= 40,204 cf
Routed to Pond 53P : DMH D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.51' @ 12.03 hrs
Flood Elev= 396.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.64'	**30.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.64' / 391.58' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=12.85 cfs @ 12.03 hrs HW=394.48' TW=394.18' (Dynamic Tailwater)
1=Culvert (Inlet Controls 12.85 cfs @ 2.62 fps)



Summary for Pond 6P: CB A

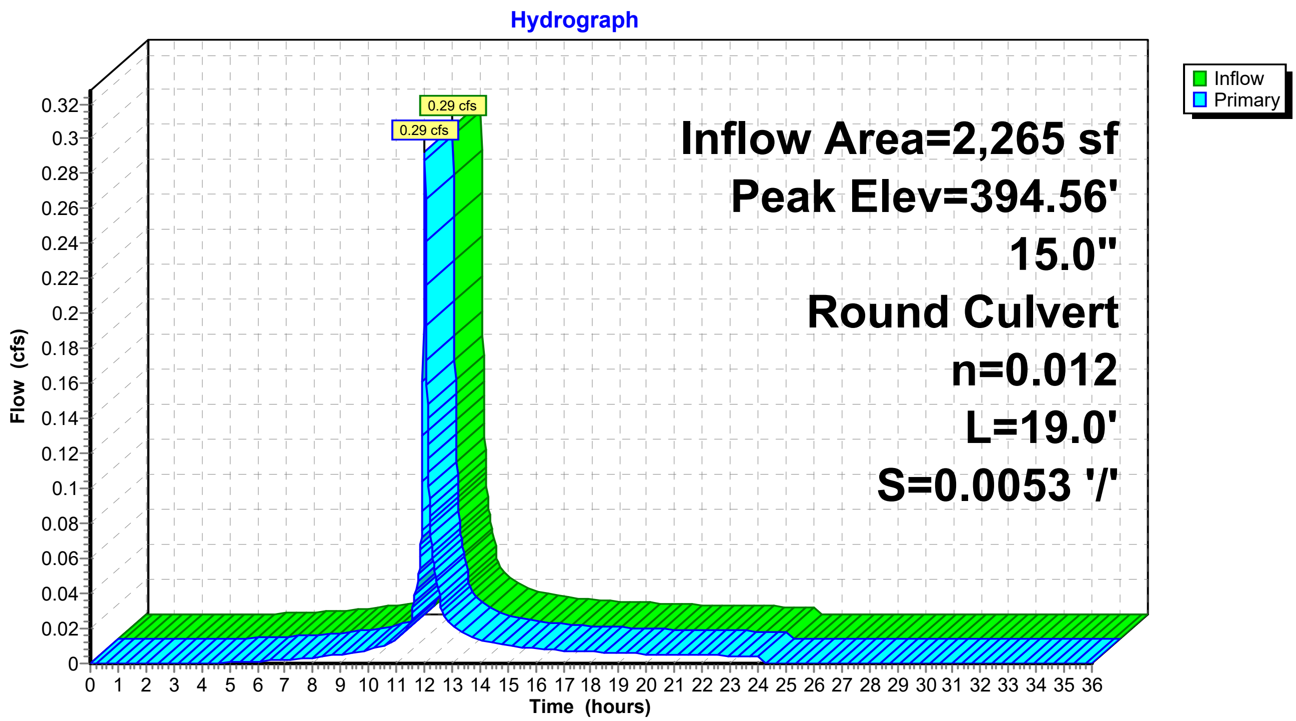
Inflow Area = 2,265 sf, 59.38% Impervious, Inflow Depth = 4.18" for 25-yr event
Inflow = 0.29 cfs @ 12.03 hrs, Volume= 790 cf
Outflow = 0.29 cfs @ 12.03 hrs, Volume= 790 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.29 cfs @ 12.03 hrs, Volume= 790 cf
Routed to Pond 7P : CB B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.56' @ 12.05 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.60'	**15.0" Round Culvert** L= 19.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.60' / 392.50' S= 0.0053 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=394.22' TW=394.35' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)

Pond 6P: CB A



Summary for Pond 7P: CB B

[80] Warning: Exceeded Pond 6P by 0.21' @ 12.00 hrs (1.79 cfs 390 cf)

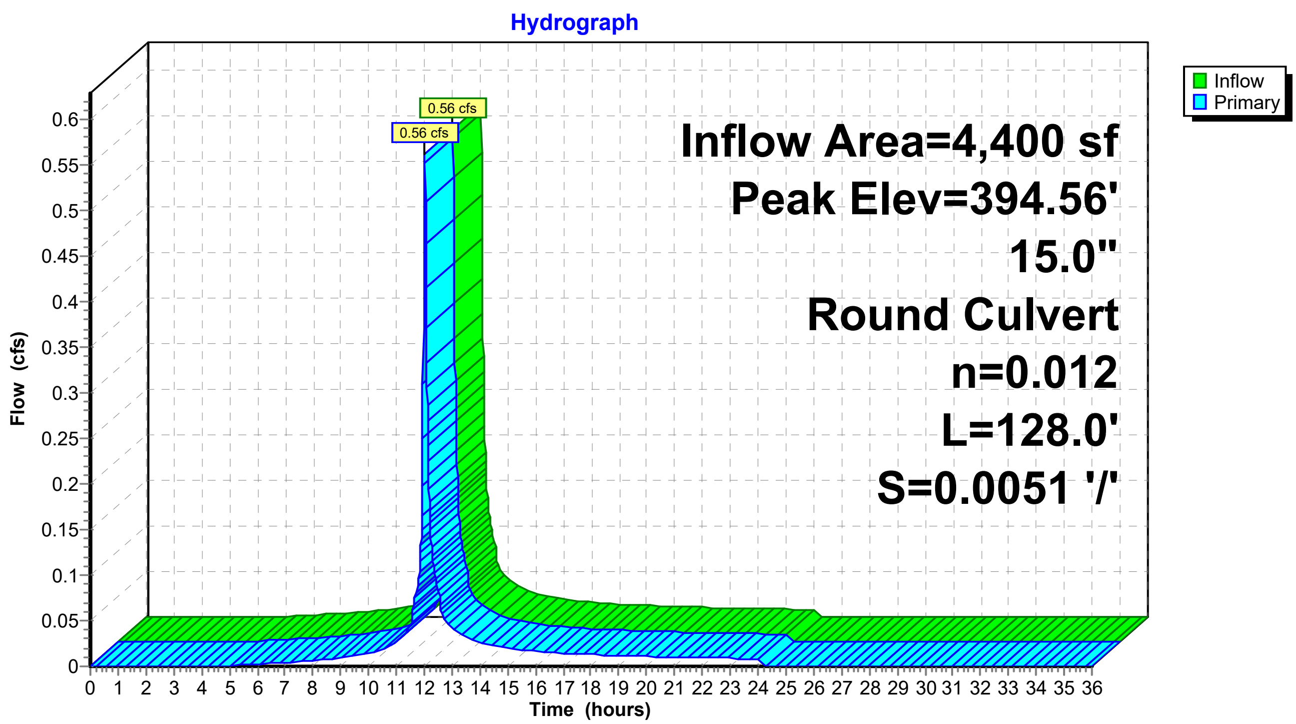
Inflow Area = 4,400 sf, 58.07% Impervious, Inflow Depth = 4.13" for 25-yr event
Inflow = 0.56 cfs @ 12.03 hrs, Volume= 1,516 cf
Outflow = 0.56 cfs @ 12.03 hrs, Volume= 1,516 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.56 cfs @ 12.03 hrs, Volume= 1,516 cf
Routed to Pond 61P : DMH A

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.56' @ 12.04 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.45'	**15.0" Round Culvert** L= 128.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.45' / 391.80' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=394.35' TW=394.42' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)

Pond 7P: CB B



Summary for Pond 8P: Trench Drain

[58] Hint: Peaked 0.86' above defined flood level

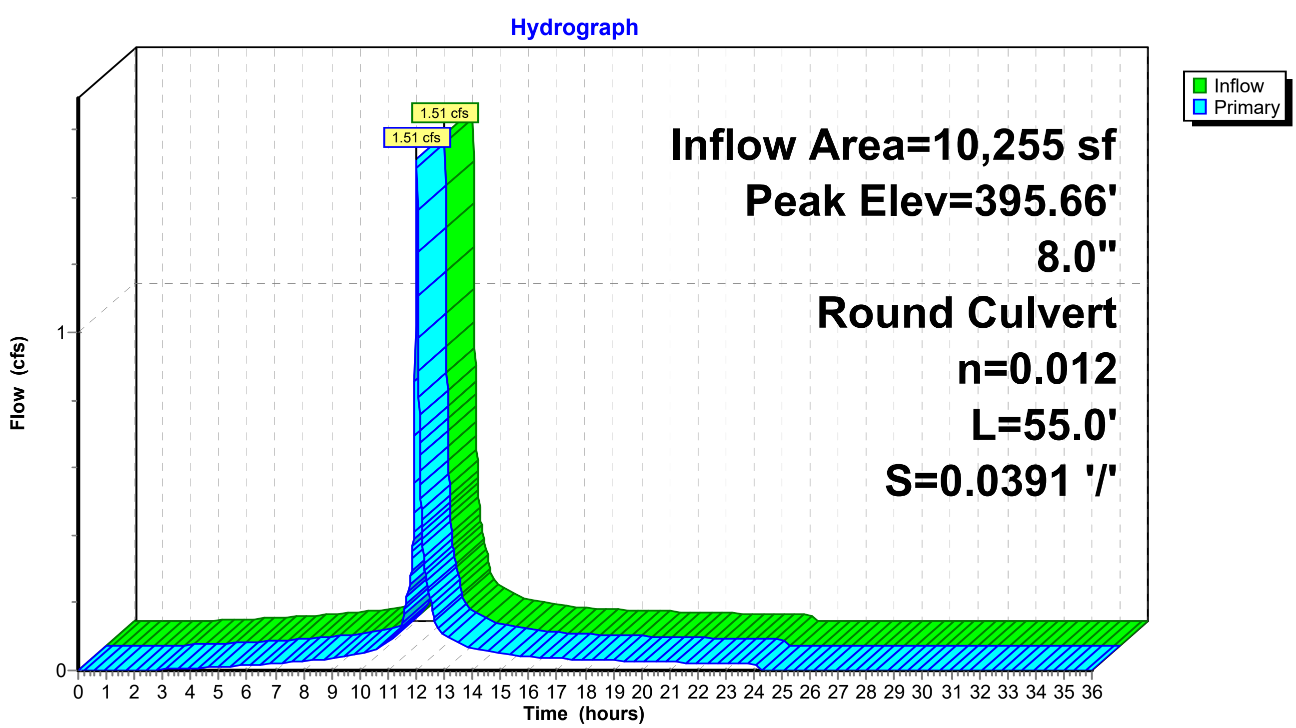
Inflow Area = 10,255 sf, 77.13% Impervious, Inflow Depth = 4.94" for 25-yr event
Inflow = 1.51 cfs @ 12.03 hrs, Volume= 4,224 cf
Outflow = 1.51 cfs @ 12.03 hrs, Volume= 4,224 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.51 cfs @ 12.03 hrs, Volume= 4,224 cf
Routed to Pond 62P : DMH B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 395.66' @ 12.03 hrs
Flood Elev= 394.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.70'	**8.0" Round Culvert** L= 55.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.70' / 391.55' S= 0.0391 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf

Primary OutFlow Max=1.45 cfs @ 12.03 hrs HW=395.55' TW=394.48' (Dynamic Tailwater)
1=Culvert (Outlet Controls 1.45 cfs @ 4.15 fps)

Pond 8P: Trench Drain



Summary for Pond 9P: CB C

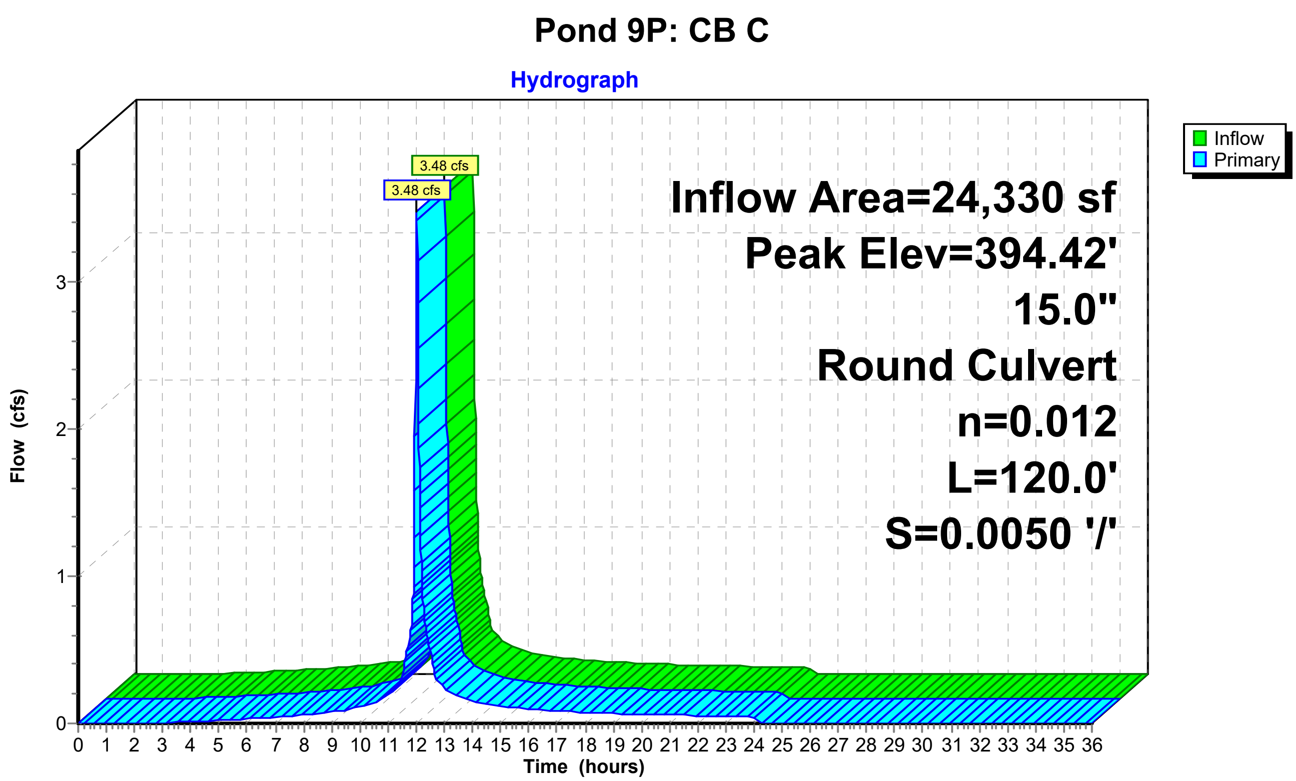
[80] Warning: Exceeded Pond 62P by 0.11' @ 11.98 hrs (1.96 cfs 197 cf)

Inflow Area = 24,330 sf, 73.61% Impervious, Inflow Depth = 4.75" for 25-yr event
Inflow = 3.48 cfs @ 12.03 hrs, Volume= 9,636 cf
Outflow = 3.48 cfs @ 12.03 hrs, Volume= 9,636 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.48 cfs @ 12.03 hrs, Volume= 9,636 cf
Routed to Pond 10P : CB D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.42' @ 12.03 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.15'	**15.0" Round Culvert** L= 120.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.15' / 390.55' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=3.37 cfs @ 12.03 hrs HW=394.39' TW=393.94' (Dynamic Tailwater)
1=Culvert (Outlet Controls 3.37 cfs @ 2.74 fps)



Summary for Pond 10P: CB D

[80] Warning: Exceeded Pond 13P by 0.08' @ 11.98 hrs (1.70 cfs 150 cf)

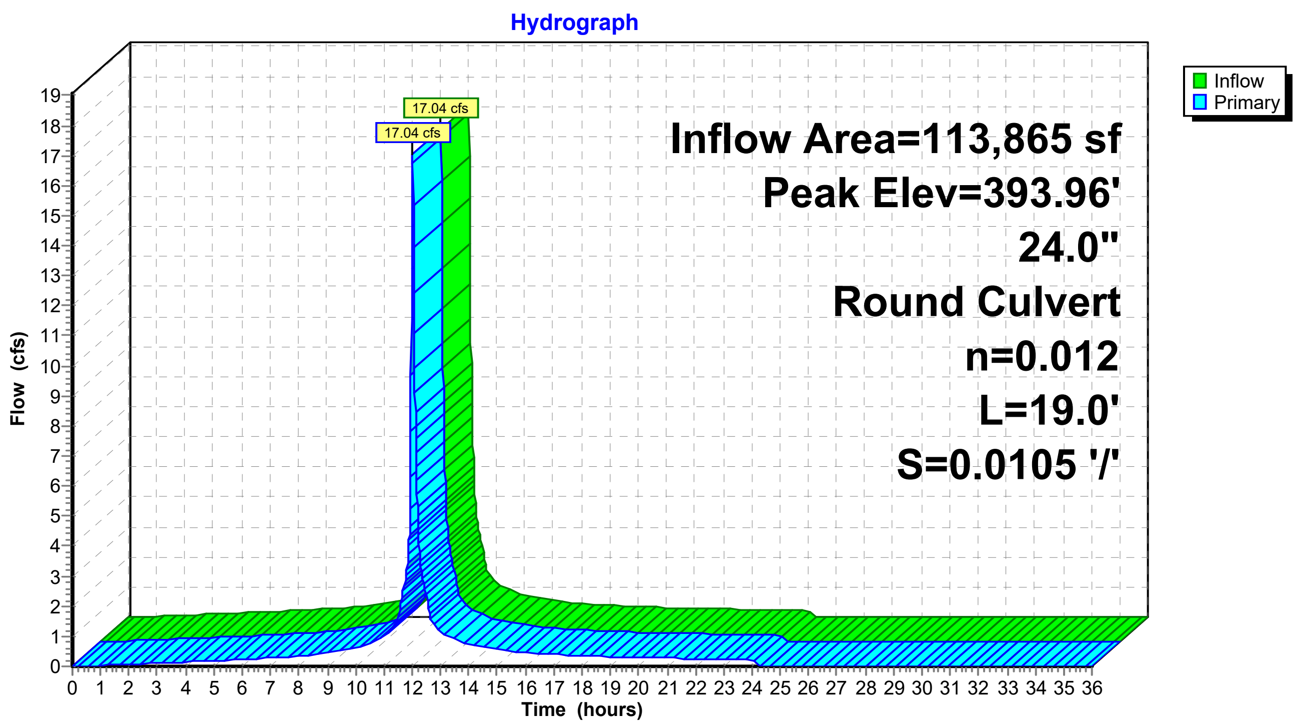
Inflow Area = 113,865 sf, 84.57% Impervious, Inflow Depth = 5.22" for 25-yr event
Inflow = 17.04 cfs @ 12.03 hrs, Volume= 49,499 cf
Outflow = 17.04 cfs @ 12.03 hrs, Volume= 49,499 cf, Atten= 0%, Lag= 0.0 min
Primary = 17.04 cfs @ 12.03 hrs, Volume= 49,499 cf
Routed to Pond 31P : Vortech Unit

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.96' @ 12.03 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.50'	**24.0" Round Culvert** L= 19.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.50' / 390.30' S= 0.0105 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=16.97 cfs @ 12.03 hrs HW=393.94' TW=392.68' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 16.97 cfs @ 5.40 fps)

Pond 10P: CB D



Summary for Pond 11P: CB E

[80] Warning: Exceeded Pond 17P by 0.04' @ 11.95 hrs (1.14 cfs 143 cf)

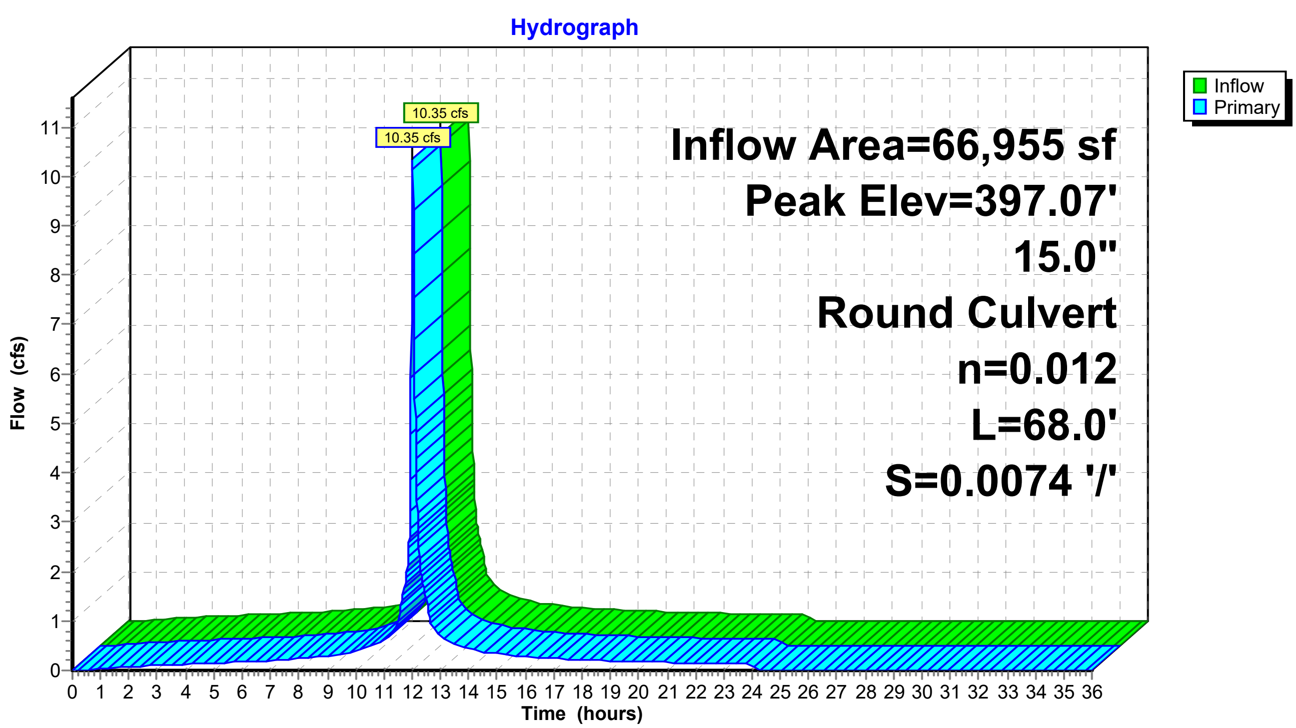
Inflow Area = 66,955 sf, 92.55% Impervious, Inflow Depth = 5.56" for 25-yr event
Inflow = 10.35 cfs @ 12.03 hrs, Volume= 30,995 cf
Outflow = 10.35 cfs @ 12.03 hrs, Volume= 30,995 cf, Atten= 0%, Lag= 0.0 min
Primary = 10.35 cfs @ 12.03 hrs, Volume= 30,995 cf
Routed to Pond 10P : CB D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 397.07' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.05'	**15.0" Round Culvert** L= 68.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.05' / 390.55' S= 0.0074 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=10.25 cfs @ 12.03 hrs HW=397.03' TW=393.94' (Dynamic Tailwater)
1=Culvert (Outlet Controls 10.25 cfs @ 8.35 fps)

Pond 11P: CB E



Summary for Pond 12P: CB F

[58] Hint: Peaked 0.24' above defined flood level
[80] Warning: Exceeded Pond 22P by 0.32' @ 11.98 hrs (3.33 cfs 479 cf)

Inflow Area =	33,910 sf, 85.30% Impervious,	Inflow Depth = 5.26" for 25-yr event		
Inflow =	5.06 cfs @	12.03 hrs, Volume=	14,853 cf	
Outflow =	5.06 cfs @	12.03 hrs, Volume=	14,853 cf,	Atten= 0%, Lag= 0.0 min
Primary =	5.06 cfs @	12.03 hrs, Volume=	14,853 cf	

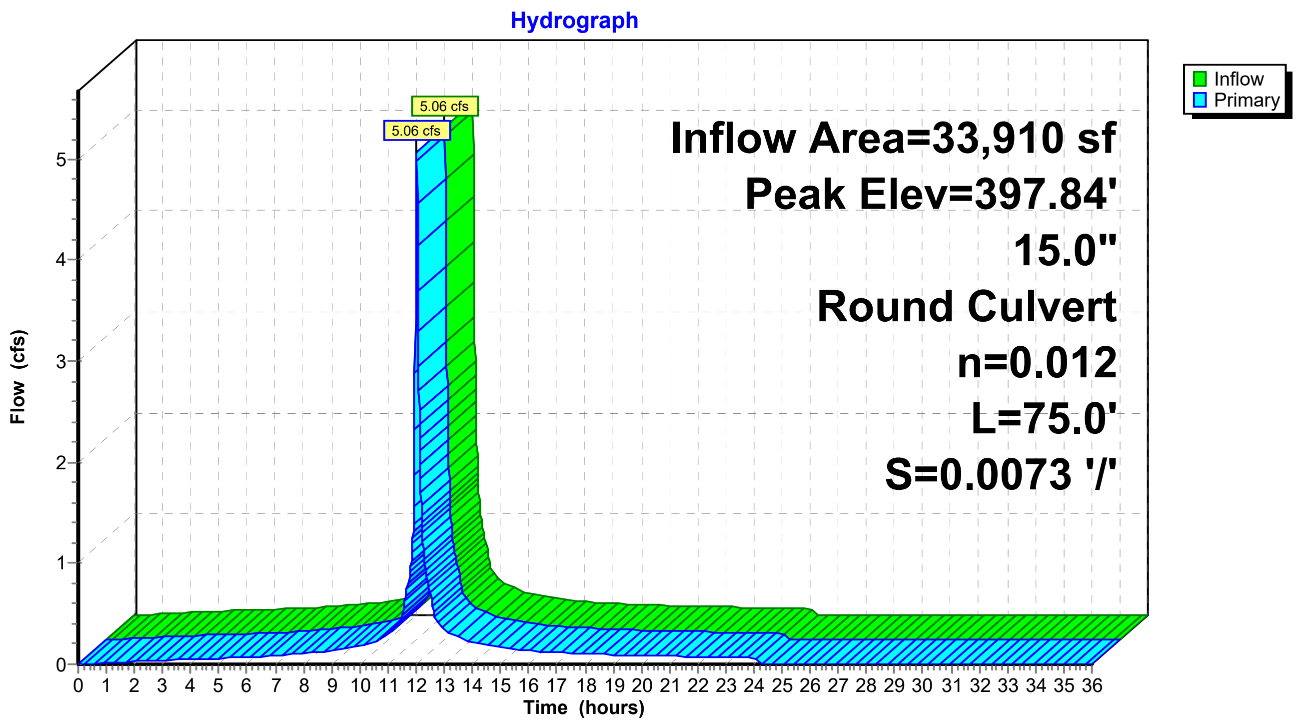
Routed to Pond 11P : CB E

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 397.84' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.65'	**15.0" Round Culvert** L= 75.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.65' / 391.10' S= 0.0073 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=4.93 cfs @ 12.03 hrs HW=397.78' TW=397.03' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 4.93 cfs @ 4.02 fps)

Pond 12P: CB F



Summary for Pond 13P: CB G

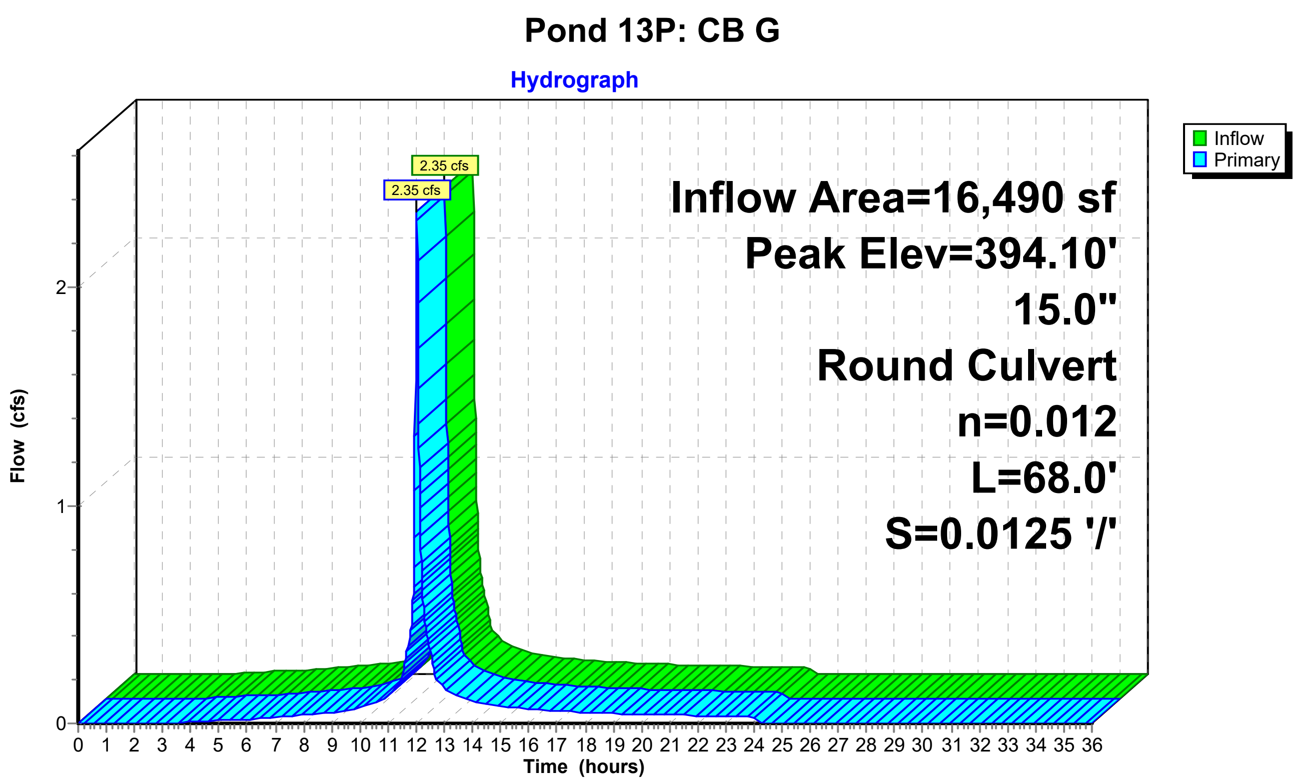
[80] Warning: Exceeded Pond 14P by 0.04' @ 12.00 hrs (1.01 cfs 83 cf)

Inflow Area = 16,490 sf, 72.65% Impervious, Inflow Depth = 4.71" for 25-yr event
Inflow = 2.35 cfs @ 12.03 hrs, Volume= 6,471 cf
Outflow = 2.35 cfs @ 12.03 hrs, Volume= 6,471 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.35 cfs @ 12.03 hrs, Volume= 6,471 cf
Routed to Pond 10P : CB D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.10' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.40'	**15.0" Round Culvert** L= 68.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.40' / 390.55' S= 0.0125 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.14 cfs @ 12.03 hrs HW=394.07' TW=393.94' (Dynamic Tailwater)
1=Culvert (Outlet Controls 2.14 cfs @ 1.74 fps)



Summary for Pond 14P: CB H

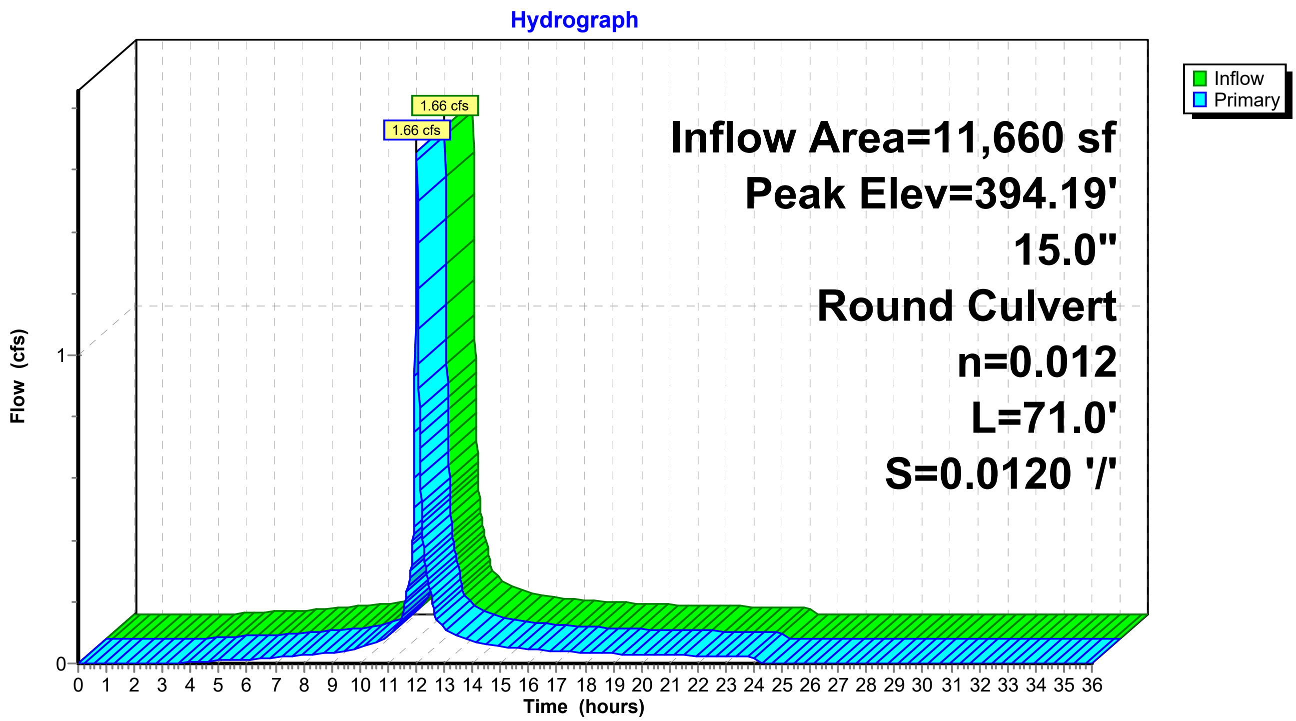
Inflow Area = 11,660 sf, 72.47% Impervious, Inflow Depth = 4.70" for 25-yr event
Inflow = 1.66 cfs @ 12.03 hrs, Volume= 4,571 cf
Outflow = 1.66 cfs @ 12.03 hrs, Volume= 4,571 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.66 cfs @ 12.03 hrs, Volume= 4,571 cf
Routed to Pond 13P : CB G

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.19' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.35'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.35' / 391.50' S= 0.0120 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.32 cfs @ 12.03 hrs HW=394.12' TW=394.07' (Dynamic Tailwater)
1=Culvert (Outlet Controls 1.32 cfs @ 1.08 fps)

Pond 14P: CB H



Summary for Pond 15P: CB I

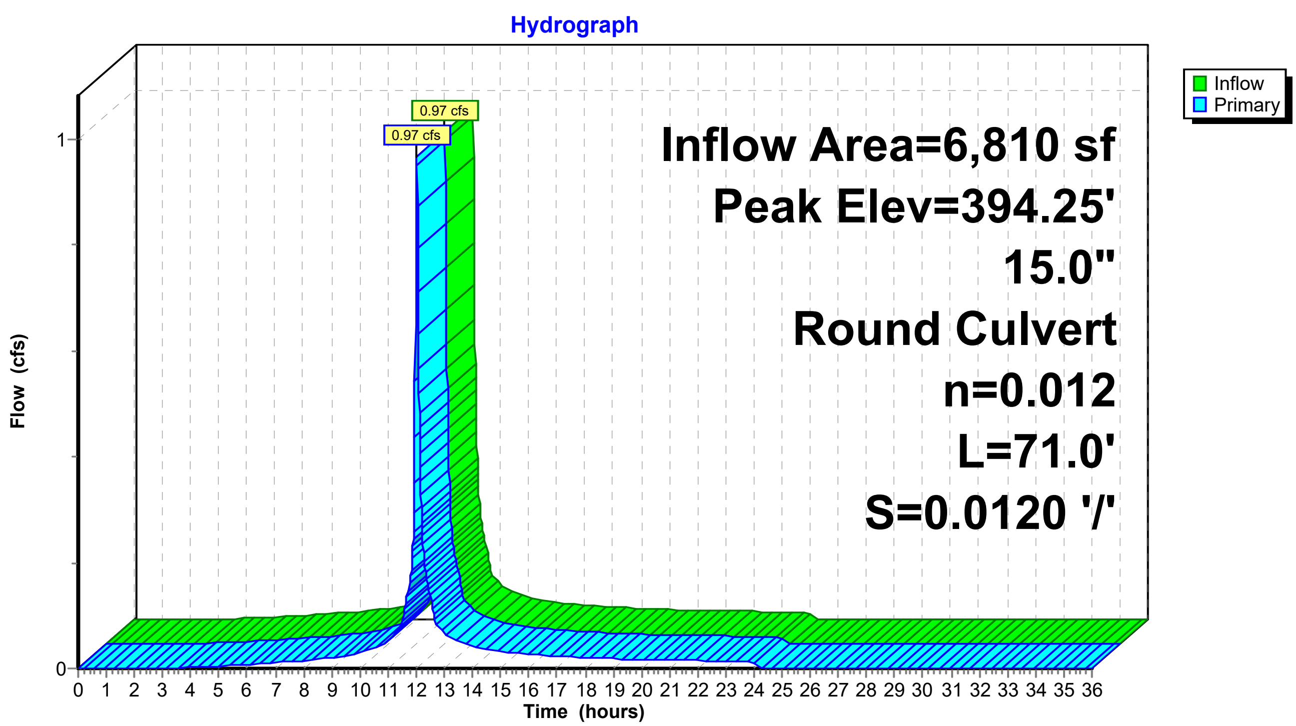
Inflow Area = 6,810 sf, 71.95% Impervious, Inflow Depth = 4.69" for 25-yr event
Inflow = 0.97 cfs @ 12.03 hrs, Volume= 2,662 cf
Outflow = 0.97 cfs @ 12.03 hrs, Volume= 2,662 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.97 cfs @ 12.03 hrs, Volume= 2,662 cf
Routed to Pond 14P : CB H

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.25' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.30'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.30' / 392.45' S= 0.0120 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.51 cfs @ 12.03 hrs HW=394.15' TW=394.12' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 0.51 cfs @ 0.81 fps)

Pond 15P: CB I



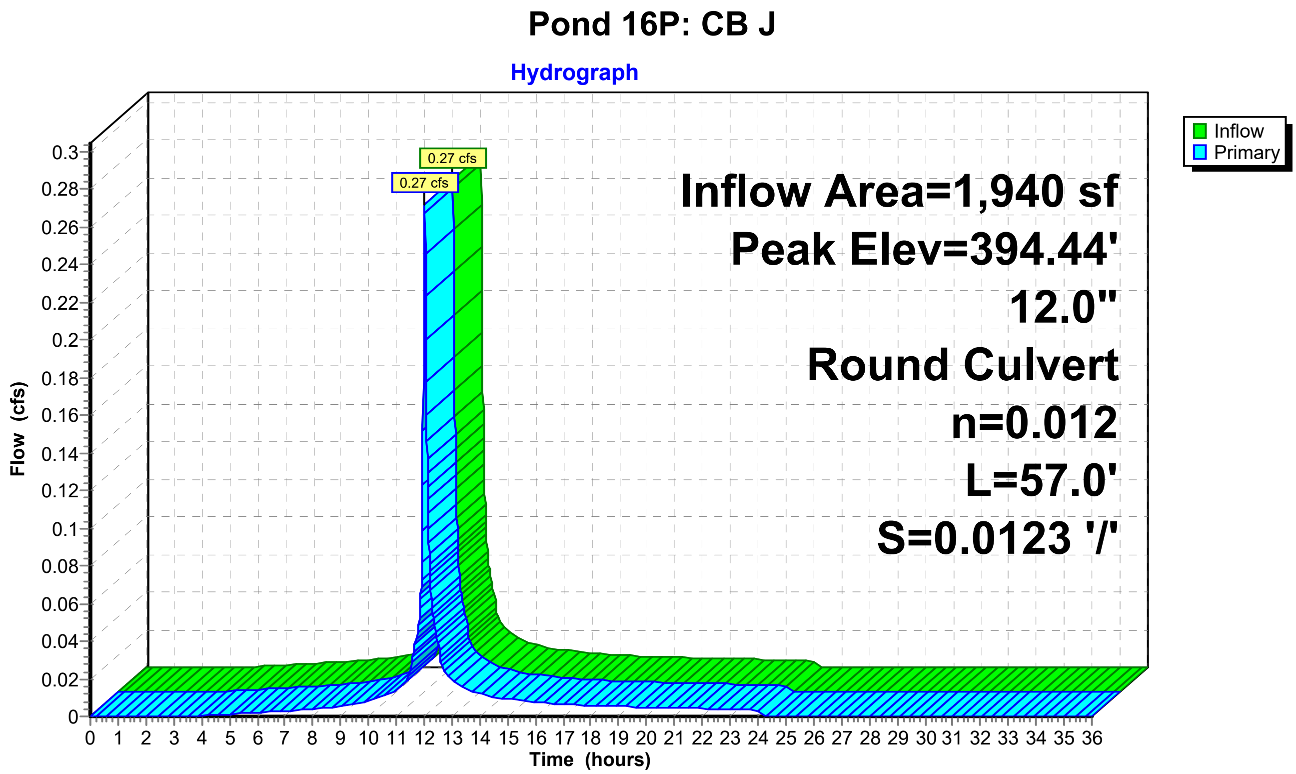
Summary for Pond 16P: CB J

Inflow Area = 1,940 sf, 71.13% Impervious, Inflow Depth = 4.61" for 25-yr event
Inflow = 0.27 cfs @ 12.03 hrs, Volume= 746 cf
Outflow = 0.27 cfs @ 12.03 hrs, Volume= 746 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.27 cfs @ 12.03 hrs, Volume= 746 cf
Routed to Pond 15P : CB I

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.44' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.10'	**12.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.10' / 393.40' S= 0.0123 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.25 cfs @ 12.03 hrs HW=394.41' TW=394.15' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.25 cfs @ 1.82 fps)



Summary for Pond 17P: CB K

[80] Warning: Exceeded Pond 18P by 0.52' @ 11.98 hrs (4.24 cfs 811 cf)

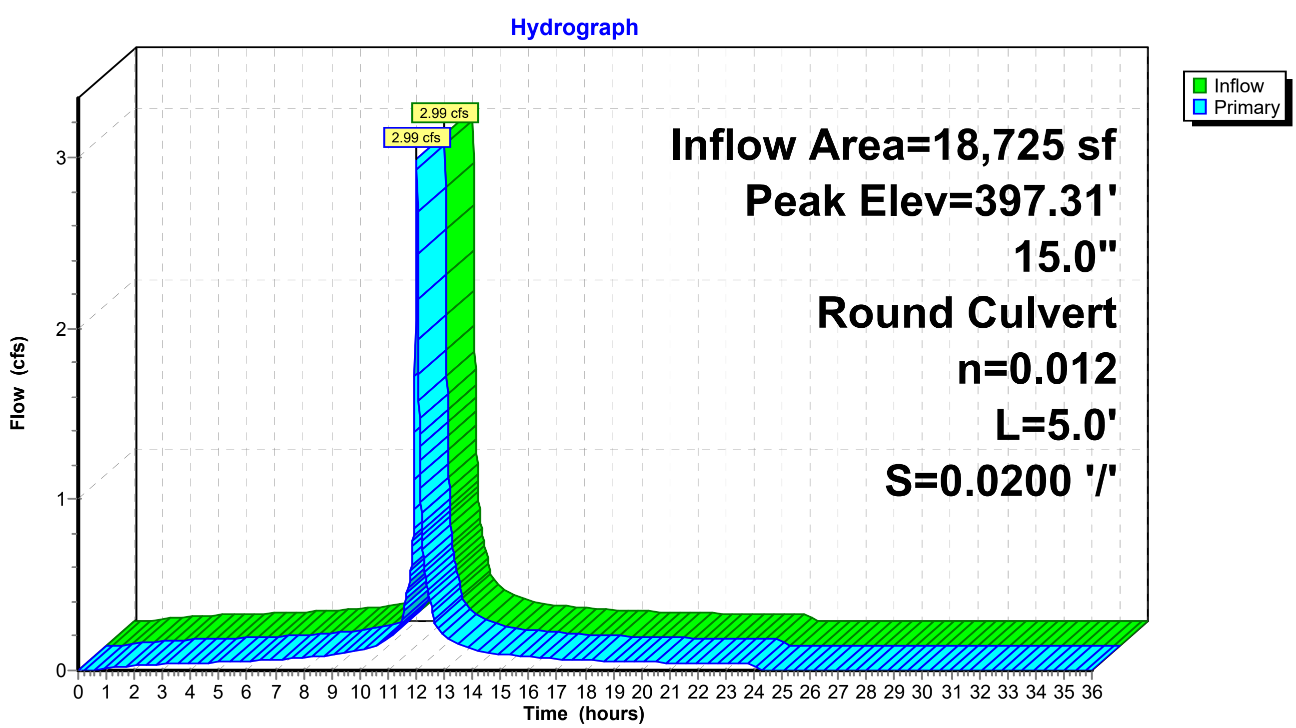
Inflow Area = 18,725 sf,100.00% Impervious, Inflow Depth = 5.86" for 25-yr event
Inflow = 2.99 cfs @ 12.03 hrs, Volume= 9,147 cf
Outflow = 2.99 cfs @ 12.03 hrs, Volume= 9,147 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.99 cfs @ 12.03 hrs, Volume= 9,147 cf
Routed to Pond 11P : CB E

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 397.31' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.20'	**15.0" Round Culvert** L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.20' / 391.10' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.77 cfs @ 12.03 hrs HW=397.24' TW=397.02' (Dynamic Tailwater)
1=Culvert (Inlet Controls 2.77 cfs @ 2.25 fps)

Pond 17P: CB K



Summary for Pond 18P: CB L

[80] Warning: Exceeded Pond 19P by 0.14' @ 11.99 hrs (2.13 cfs 285 cf)

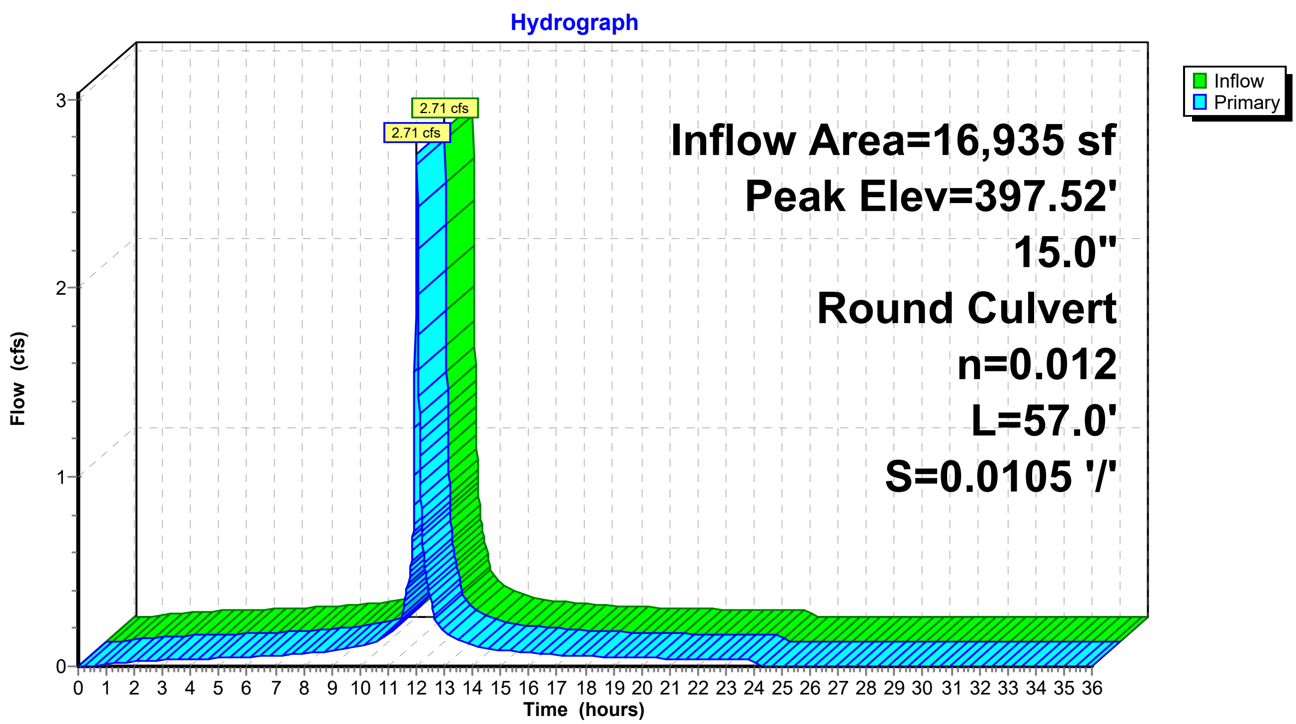
Inflow Area = 16,935 sf,100.00% Impervious, Inflow Depth = 5.86" for 25-yr event
Inflow = 2.71 cfs @ 12.03 hrs, Volume= 8,272 cf
Outflow = 2.71 cfs @ 12.03 hrs, Volume= 8,272 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.71 cfs @ 12.03 hrs, Volume= 8,272 cf
Routed to Pond 17P : CB K

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 397.52' @ 12.04 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.85'	**15.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.85' / 391.25' S= 0.0105 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.33 cfs @ 12.03 hrs HW=397.29' TW=397.24' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 1.33 cfs @ 1.08 fps)

Pond 18P: CB L



Summary for Pond 19P: CB M

[80] Warning: Exceeded Pond 20P by 0.60' @ 12.00 hrs (4.46 cfs 742 cf)

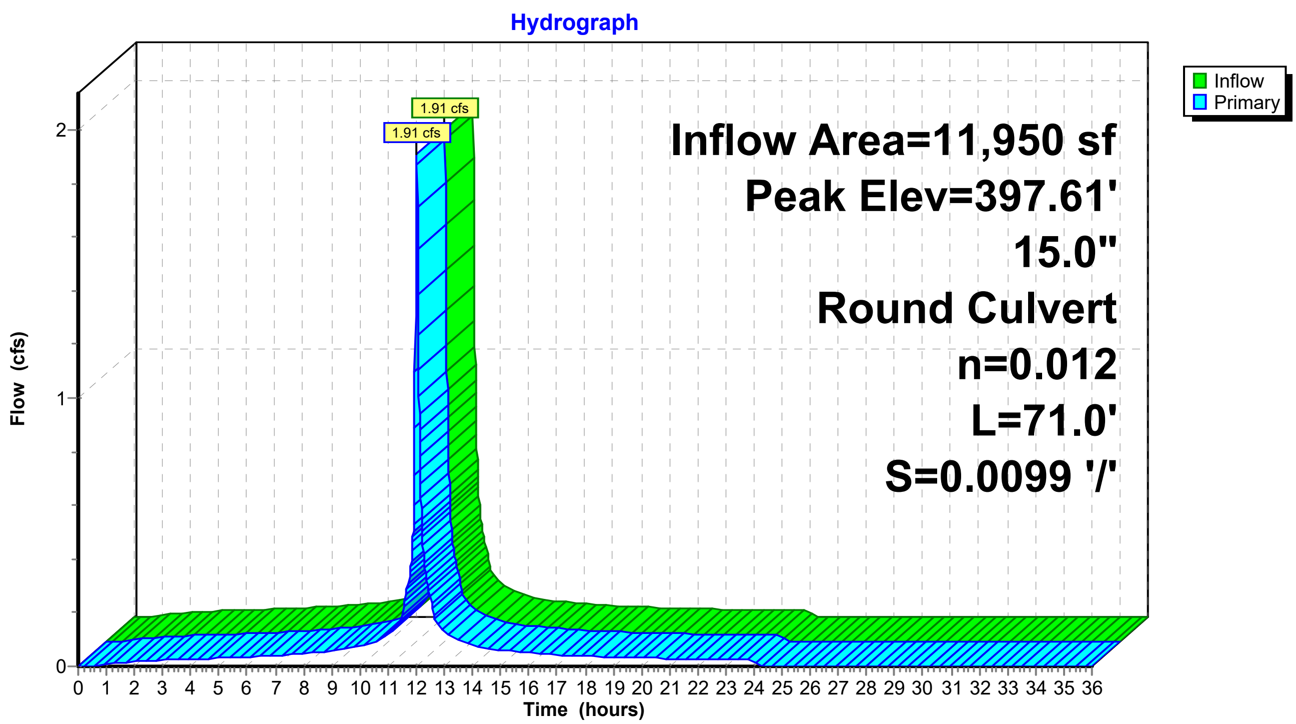
Inflow Area = 11,950 sf,100.00% Impervious, Inflow Depth = 5.86" for 25-yr event
Inflow = 1.91 cfs @ 12.03 hrs, Volume= 5,837 cf
Outflow = 1.91 cfs @ 12.03 hrs, Volume= 5,837 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.91 cfs @ 12.03 hrs, Volume= 5,837 cf
Routed to Pond 18P : CB L

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 397.61' @ 12.04 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.65'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.65' / 391.95' S= 0.0099 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.71 cfs @ 12.03 hrs HW=397.31' TW=397.29' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.71 cfs @ 0.58 fps)

Pond 19P: CB M



Summary for Pond 20P: CB N

[80] Warning: Exceeded Pond 21P by 0.22' @ 12.00 hrs (1.55 cfs 241 cf)

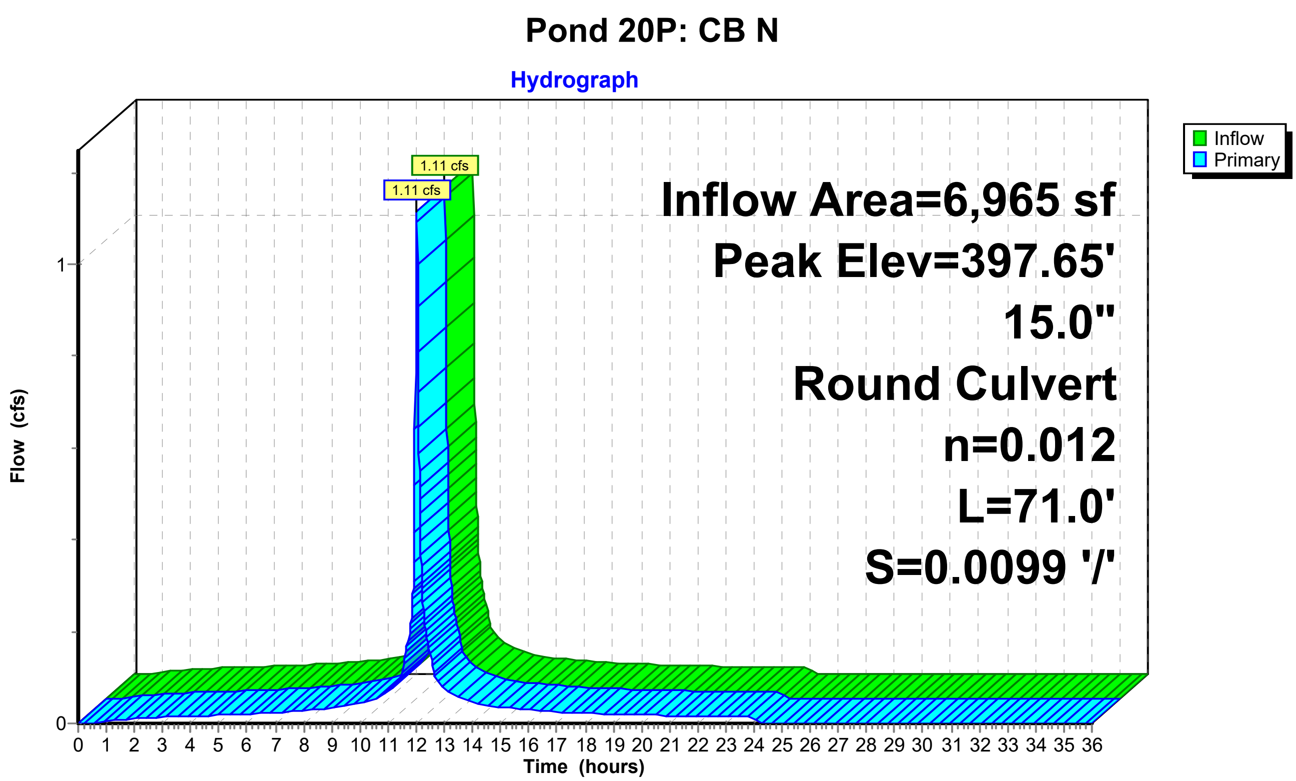
Inflow Area =	6,965 sf,100.00% Impervious,	Inflow Depth = 5.86"	for 25-yr event		
Inflow =	1.11 cfs @	12.03 hrs,	Volume=	3,402 cf	
Outflow =	1.11 cfs @	12.03 hrs,	Volume=	3,402 cf,	Atten= 0%, Lag= 0.0 min
Primary =	1.11 cfs @	12.03 hrs,	Volume=	3,402 cf	

Routed to Pond 19P : CB M

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 397.65' @ 12.05 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.45'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.45' / 392.75' S= 0.0099 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=397.02' TW=397.31' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)



Summary for Pond 21P: CB O

[58] Hint: Peaked 0.05' above defined flood level

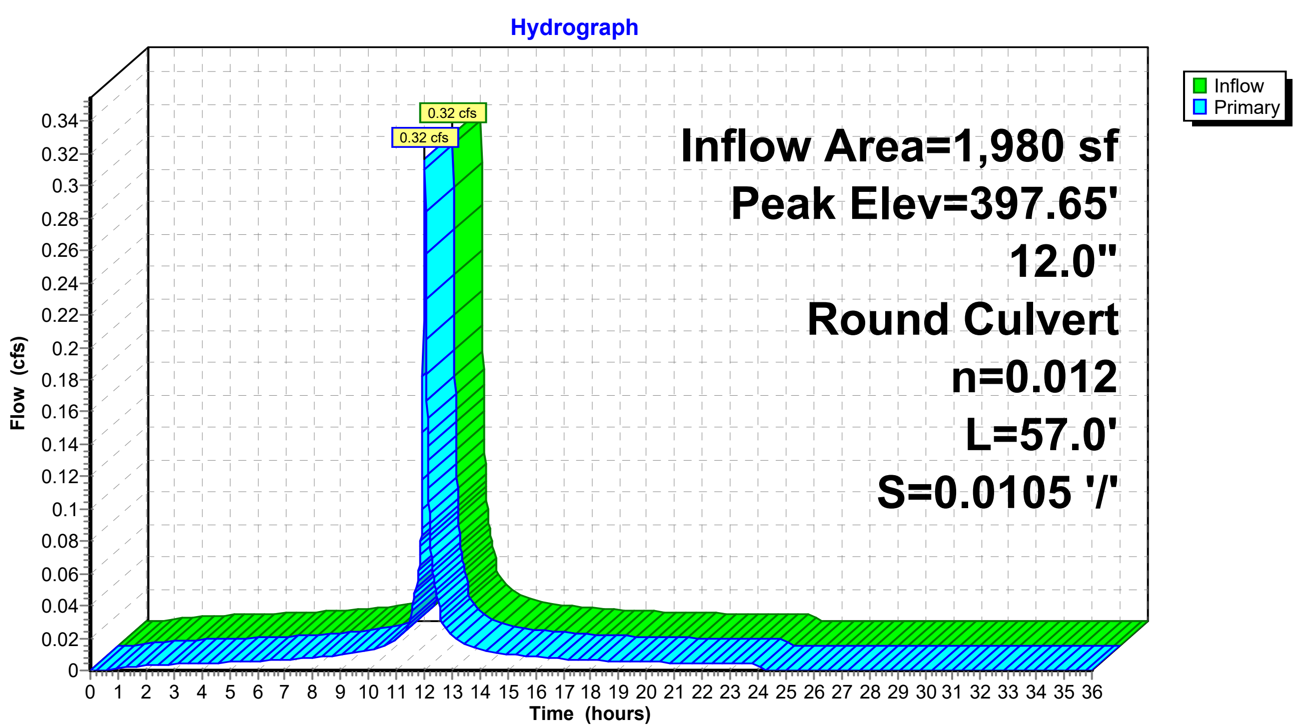
Inflow Area = 1,980 sf,100.00% Impervious, Inflow Depth = 5.86" for 25-yr event
Inflow = 0.32 cfs @ 12.03 hrs, Volume= 967 cf
Outflow = 0.32 cfs @ 12.03 hrs, Volume= 967 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.32 cfs @ 12.03 hrs, Volume= 967 cf
Routed to Pond 20P : CB N

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 397.65' @ 12.05 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.15'	**12.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.15' / 393.55' S= 0.0105 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=396.89' TW=397.02' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)

Pond 21P: CB O



Summary for Pond 22P: CB P

[58] Hint: Peaked 0.75' above defined flood level

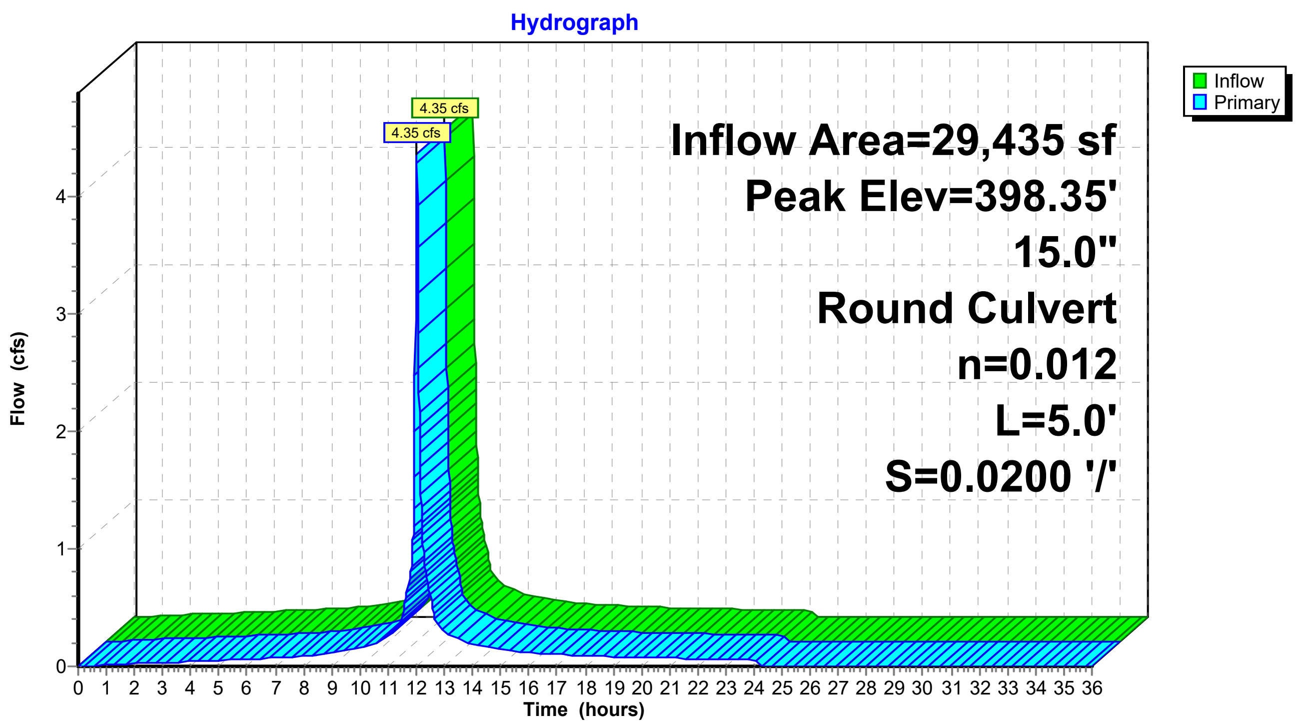
Inflow Area = 29,435 sf, 83.95% Impervious, Inflow Depth = 5.20" for 25-yr event
Inflow = 4.35 cfs @ 12.03 hrs, Volume= 12,755 cf
Outflow = 4.35 cfs @ 12.03 hrs, Volume= 12,755 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.35 cfs @ 12.03 hrs, Volume= 12,755 cf
Routed to Pond 12P : CB F

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 398.35' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.80'	**15.0" Round Culvert** L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.80' / 391.70' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=3.69 cfs @ 12.03 hrs HW=398.17' TW=397.78' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 3.69 cfs @ 3.01 fps)

Pond 22P: CB P



Summary for Pond 23P: CB Q

[58] Hint: Peaked 1.22' above defined flood level
[80] Warning: Exceeded Pond 24P by 0.52' @ 11.99 hrs (4.16 cfs 633 cf)
[80] Warning: Exceeded Pond 27P by 0.67' @ 11.99 hrs (3.10 cfs 495 cf)

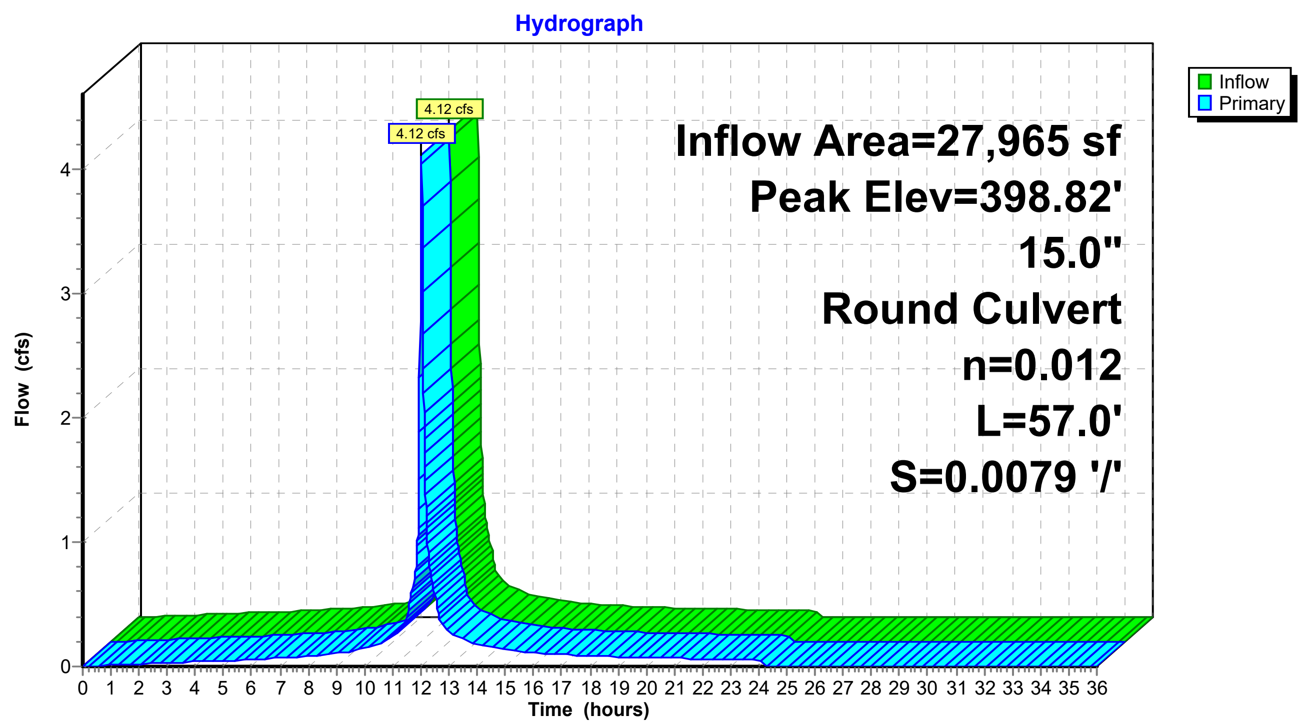
Inflow Area = 27,965 sf, 83.10% Impervious, Inflow Depth = 5.16" for 25-yr event
Inflow = 4.12 cfs @ 12.03 hrs, Volume= 12,036 cf
Outflow = 4.12 cfs @ 12.03 hrs, Volume= 12,036 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.12 cfs @ 12.03 hrs, Volume= 12,036 cf
Routed to Pond 22P : CB P

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 398.82' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.30'	**15.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.30' / 391.85' S= 0.0079 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=3.63 cfs @ 12.03 hrs HW=398.55' TW=398.17' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 3.63 cfs @ 2.96 fps)

Pond 23P: CB Q



Summary for Pond 24P: CB R

[58] Hint: Peaked 1.43' above defined flood level
[80] Warning: Exceeded Pond 25P by 0.27' @ 12.00 hrs (3.02 cfs 455 cf)
[80] Warning: Exceeded Pond 28P by 0.32' @ 12.00 hrs (2.13 cfs 309 cf)

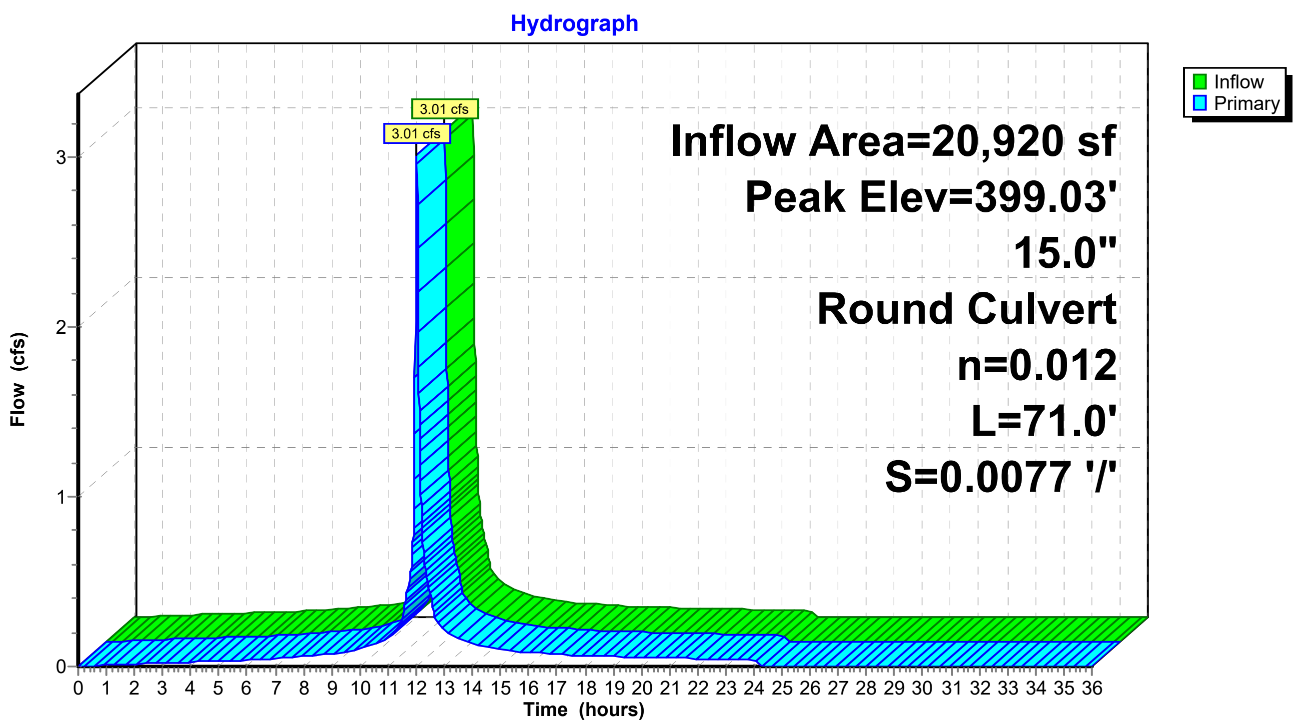
Inflow Area = 20,920 sf, 79.28% Impervious, Inflow Depth = 5.01" for 25-yr event
Inflow = 3.01 cfs @ 12.03 hrs, Volume= 8,738 cf
Outflow = 3.01 cfs @ 12.03 hrs, Volume= 8,738 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.01 cfs @ 12.03 hrs, Volume= 8,738 cf
Routed to Pond 23P : CB Q

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 399.03' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.90'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.90' / 392.35' S= 0.0077 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=398.50' TW=398.55' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)

Pond 24P: CB R



Summary for Pond 25P: CB S

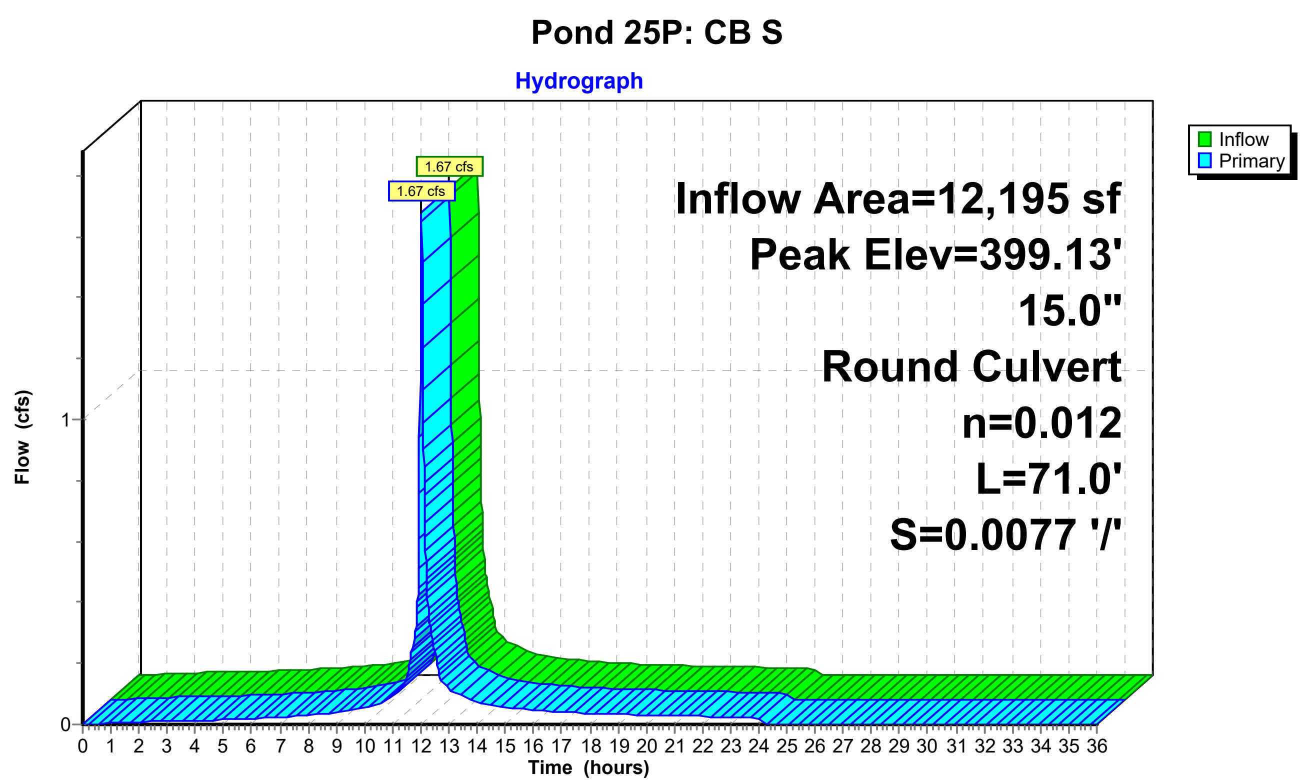
[58] Hint: Peaked 1.53' above defined flood level
[80] Warning: Exceeded Pond 26P by 0.74' @ 12.00 hrs (3.13 cfs 548 cf)
[80] Warning: Exceeded Pond 29P by 0.70' @ 12.00 hrs (3.16 cfs 472 cf)

Inflow Area = 12,195 sf, 72.82% Impervious, Inflow Depth = 4.75" for 25-yr event
Inflow = 1.67 cfs @ 12.03 hrs, Volume= 4,830 cf
Outflow = 1.67 cfs @ 12.03 hrs, Volume= 4,830 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.67 cfs @ 12.03 hrs, Volume= 4,830 cf
Routed to Pond 24P : CB R

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 399.13' @ 12.05 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.50'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.50' / 392.95' S= 0.0077 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=398.42' TW=398.52' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)



Summary for Pond 26P: CB T

[58] Hint: Peaked 1.50' above defined flood level

```
Inflow Area =        1,630 sf,100.00% Impervious,  Inflow Depth =  5.86"   for  25-yr event
Inflow      =     0.26 cfs @  12.03 hrs,  Volume=          796 cf
Outflow     =     0.26 cfs @  12.03 hrs,  Volume=          796 cf,  Atten= 0%,  Lag= 0.0 min
Primary     =     0.26 cfs @  12.03 hrs,  Volume=          796 cf
   Routed to Pond 25P : CB S
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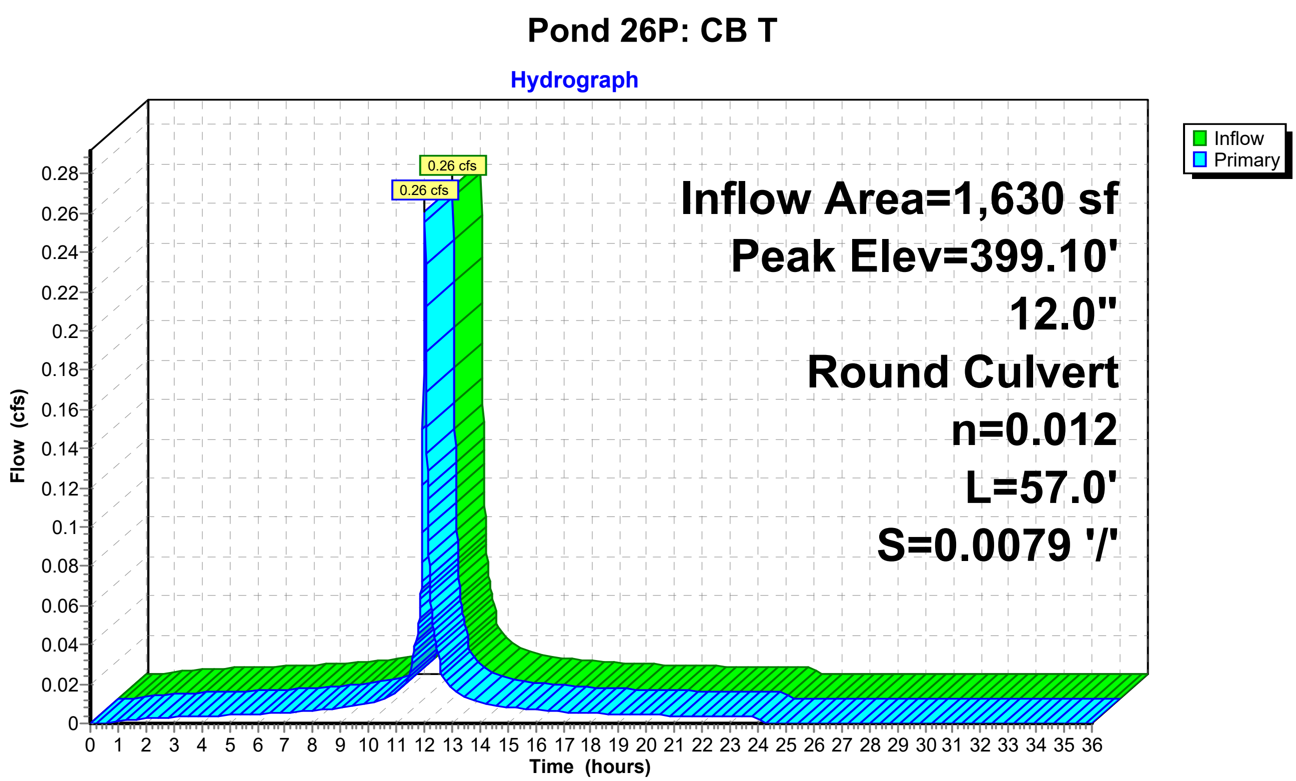
Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 399.10' @ 12.05 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.00'	**12.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.00' / 393.55' S= 0.0079 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=397.87' TW=398.35' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)



Summary for Pond 27P: CB U

[58] Hint: Peaked 1.19' above defined flood level

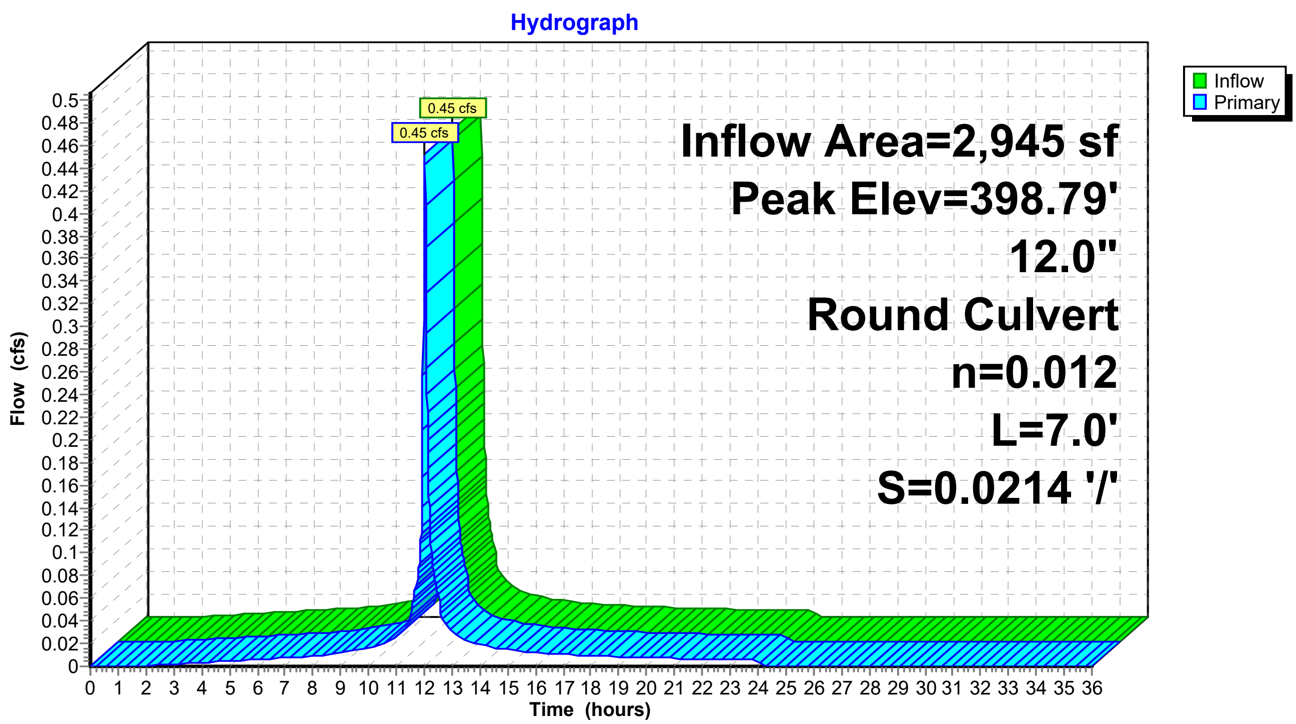
Inflow Area = 2,945 sf, 86.76% Impervious, Inflow Depth = 5.28" for 25-yr event
Inflow = 0.45 cfs @ 12.03 hrs, Volume= 1,296 cf
Outflow = 0.45 cfs @ 12.03 hrs, Volume= 1,296 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.45 cfs @ 12.03 hrs, Volume= 1,296 cf
Routed to Pond 23P : CB Q

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 398.79' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.60'	**12.0" Round Culvert** L= 7.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.60' / 394.45' S= 0.0214 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=398.23' TW=398.54' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)

Pond 27P: CB U



Summary for Pond 28P: CB V

[58] Hint: Peaked 1.48' above defined flood level

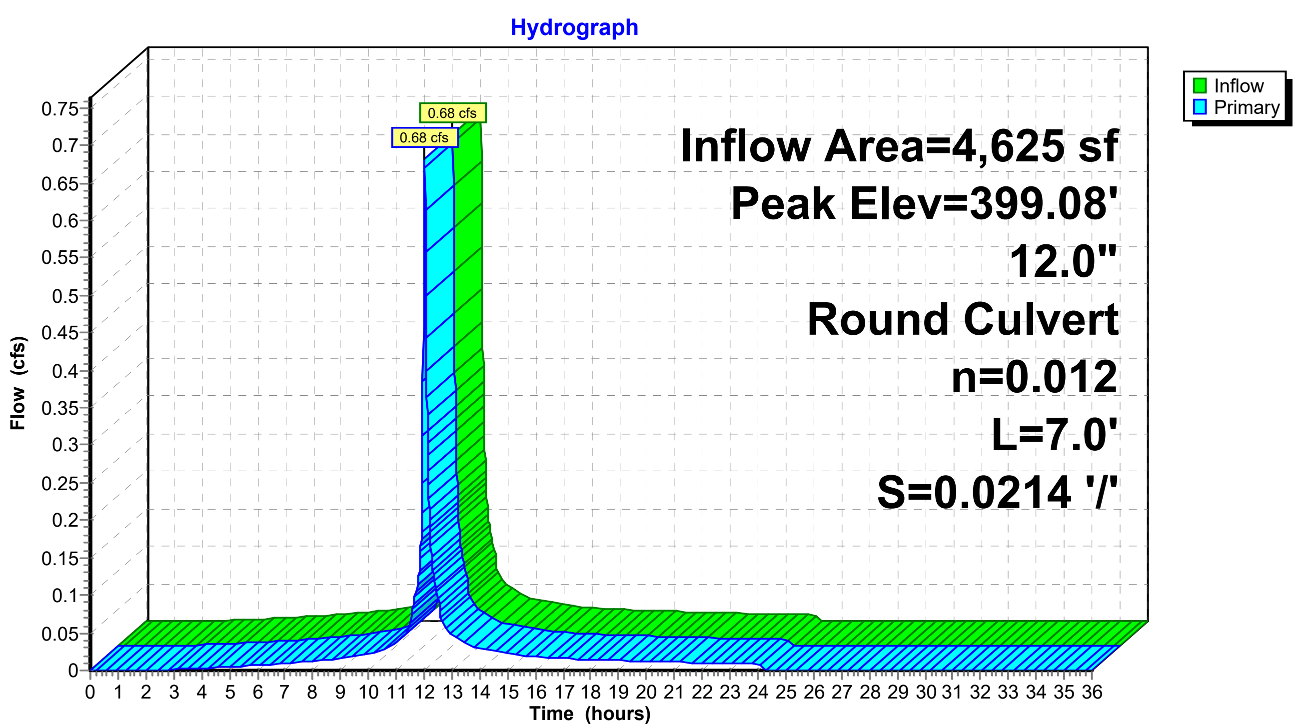
Inflow Area = 4,625 sf, 77.95% Impervious, Inflow Depth = 4.94" for 25-yr event
Inflow = 0.68 cfs @ 12.03 hrs, Volume= 1,905 cf
Outflow = 0.68 cfs @ 12.03 hrs, Volume= 1,905 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.68 cfs @ 12.03 hrs, Volume= 1,905 cf
Routed to Pond 24P : CB R

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 399.08' @ 12.05 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.60'	**12.0" Round Culvert** L= 7.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.60' / 394.45' S= 0.0214 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=398.35' TW=398.50' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)

Pond 28P: CB V



Summary for Pond 29P: CB W

[58] Hint: Peaked 1.53' above defined flood level

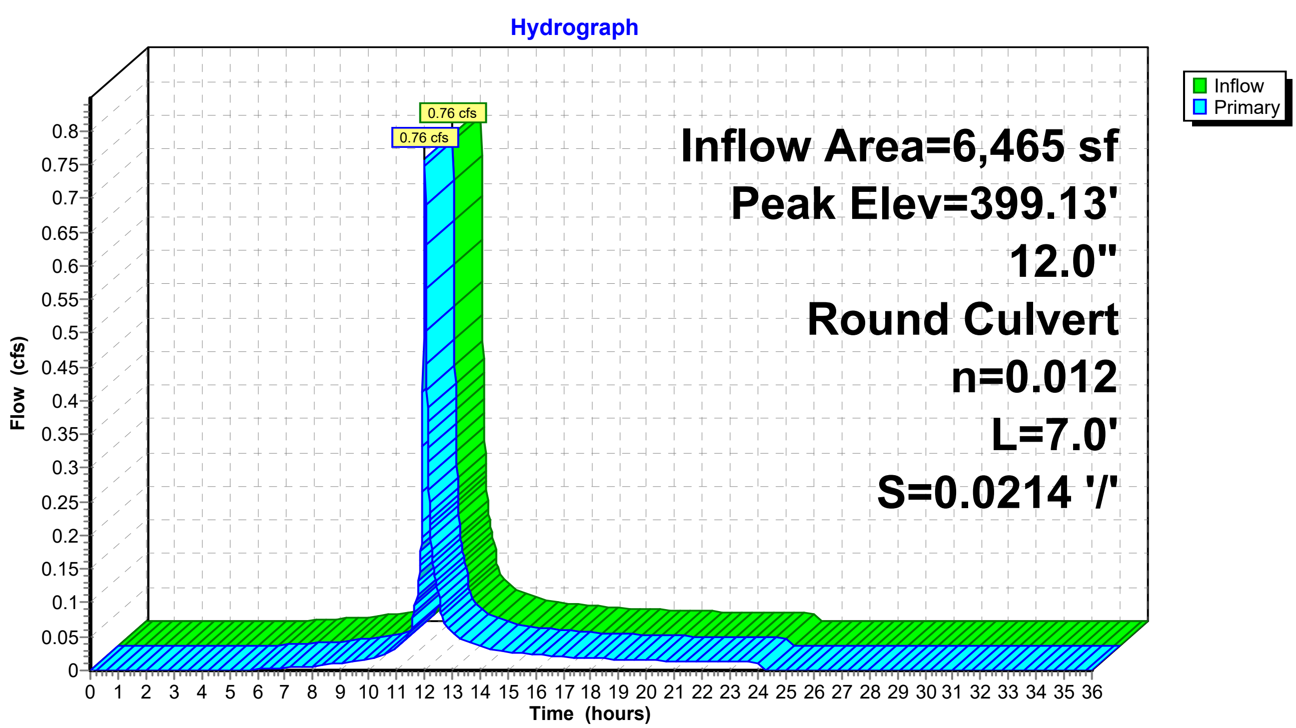
Inflow Area = 6,465 sf, 48.72% Impervious, Inflow Depth = 3.77" for 25-yr event
Inflow = 0.76 cfs @ 12.03 hrs, Volume= 2,031 cf
Outflow = 0.76 cfs @ 12.03 hrs, Volume= 2,031 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.76 cfs @ 12.03 hrs, Volume= 2,031 cf
Routed to Pond 25P : CB S

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 399.13' @ 12.05 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.60'	**12.0" Round Culvert** L= 7.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.60' / 394.45' S= 0.0214 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=398.08' TW=398.50' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)

Pond 29P: CB W



Summary for Pond 31P: Vortech Unit

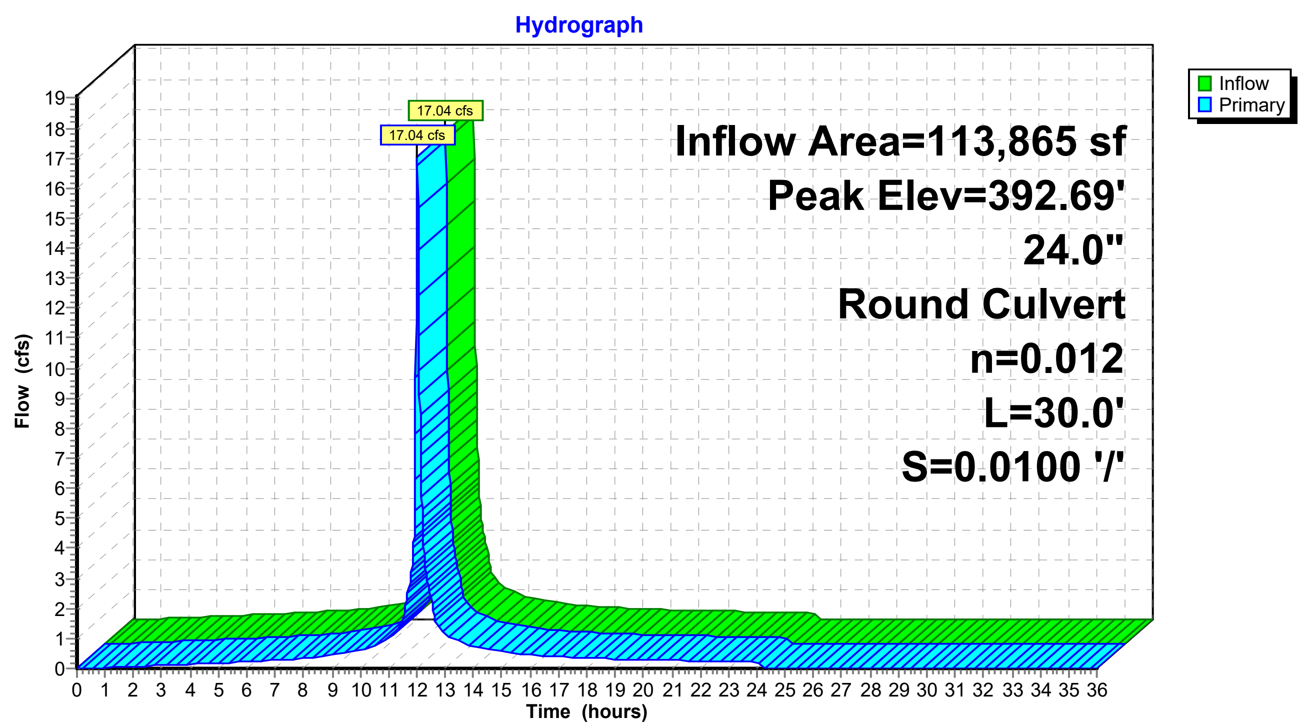
Inflow Area = 113,865 sf, 84.57% Impervious, Inflow Depth = 5.22" for 25-yr event
Inflow = 17.04 cfs @ 12.03 hrs, Volume= 49,499 cf
Outflow = 17.04 cfs @ 12.03 hrs, Volume= 49,499 cf, Atten= 0%, Lag= 0.0 min
Primary = 17.04 cfs @ 12.03 hrs, Volume= 49,499 cf
Routed to Link 1L : Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.69' @ 12.03 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.30'	**24.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.30' / 390.00' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=16.97 cfs @ 12.03 hrs HW=392.68' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 16.97 cfs @ 5.74 fps)

Pond 31P: Vortech Unit



Summary for Pond 41P: CB 11

[80] Warning: Exceeded Pond 42P by 0.02' @ 11.99 hrs (0.71 cfs 44 cf)

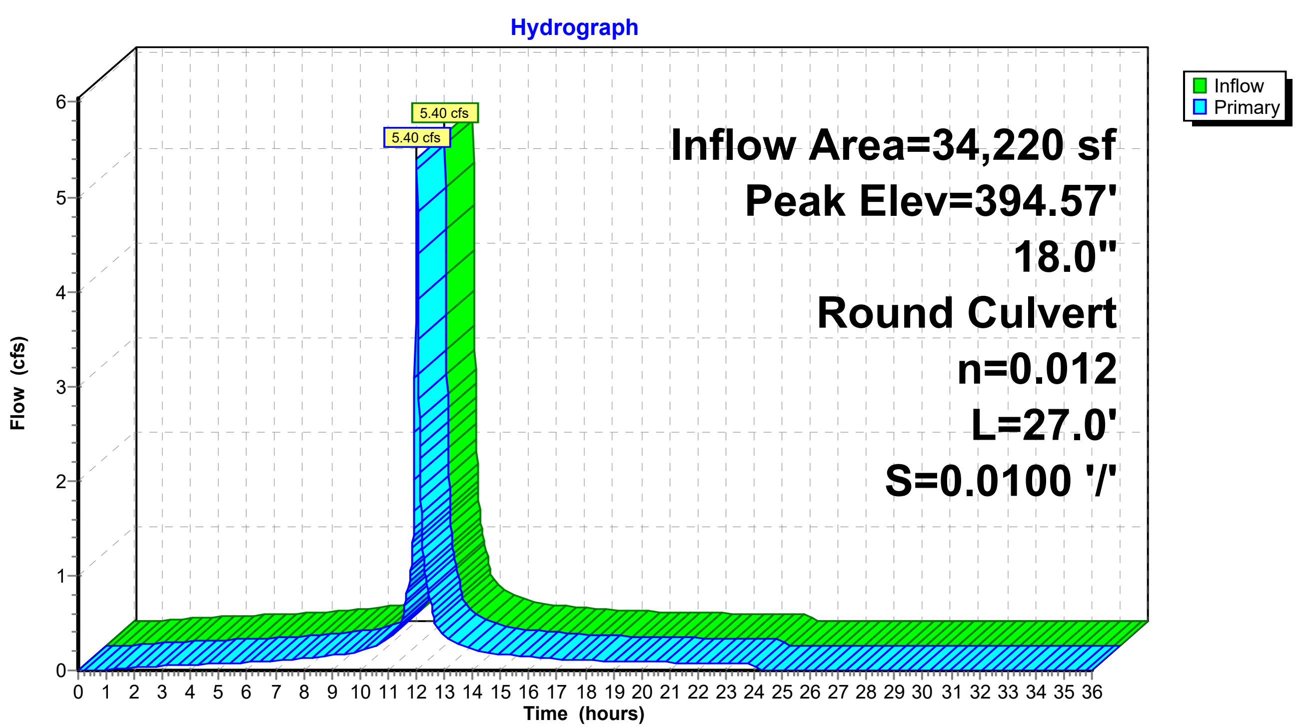
Inflow Area = 34,220 sf, 94.21% Impervious, Inflow Depth = 5.62" for 25-yr event
Inflow = 5.40 cfs @ 12.03 hrs, Volume= 16,035 cf
Outflow = 5.40 cfs @ 12.03 hrs, Volume= 16,035 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.40 cfs @ 12.03 hrs, Volume= 16,035 cf
Routed to Pond 53P : DMH D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.57' @ 12.03 hrs
Flood Elev= 396.37'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.07'	**18.0" Round Culvert** L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.07' / 391.80' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=5.04 cfs @ 12.03 hrs HW=394.53' TW=394.18' (Dynamic Tailwater)
1=Culvert (Inlet Controls 5.04 cfs @ 2.85 fps)

Pond 41P: CB 11



Summary for Pond 42P: CB 12

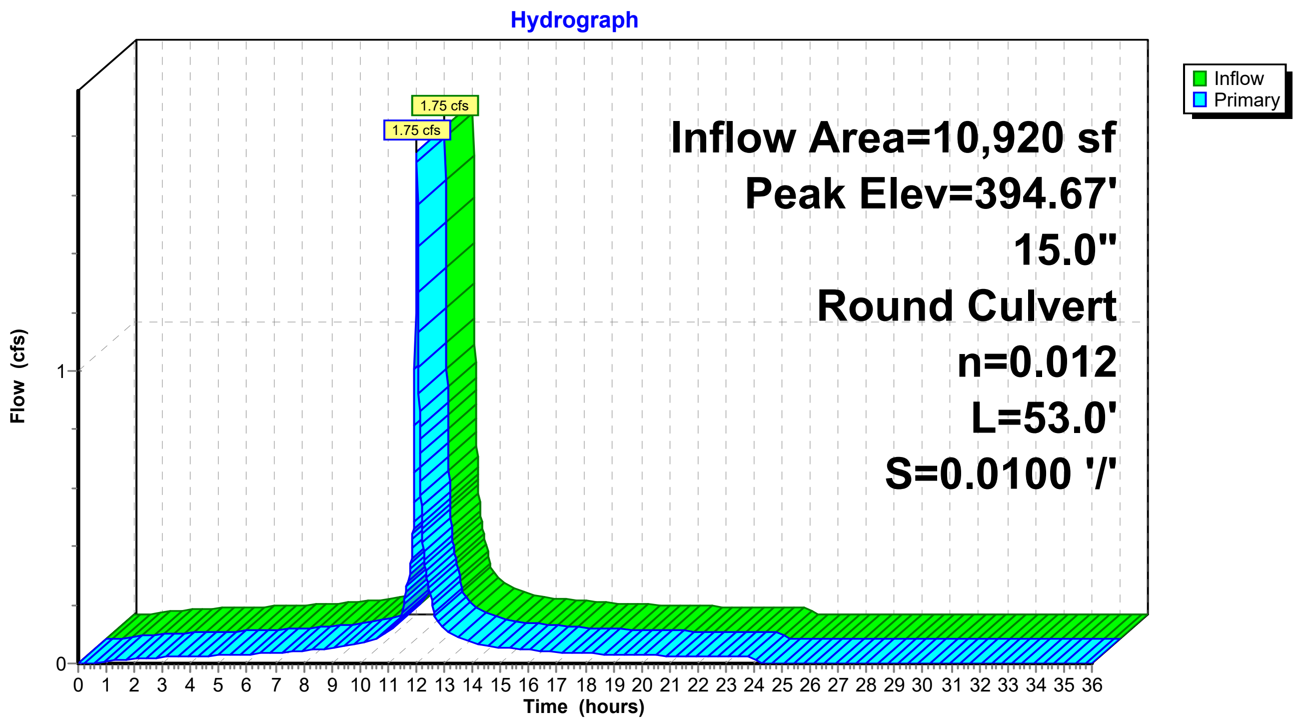
Inflow Area = 10,920 sf,100.00% Impervious, Inflow Depth = 5.86" for 25-yr event
Inflow = 1.75 cfs @ 12.03 hrs, Volume= 5,334 cf
Outflow = 1.75 cfs @ 12.03 hrs, Volume= 5,334 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.75 cfs @ 12.03 hrs, Volume= 5,334 cf
Routed to Pond 41P : CB 11

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.67' @ 12.04 hrs
Flood Elev= 396.36'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.70'	**15.0" Round Culvert** L= 53.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.70' / 392.17' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.46 cfs @ 12.03 hrs HW=394.59' TW=394.53' (Dynamic Tailwater)
1=Culvert (Inlet Controls 1.46 cfs @ 1.19 fps)

Pond 42P: CB 12



Summary for Pond 44P: CB

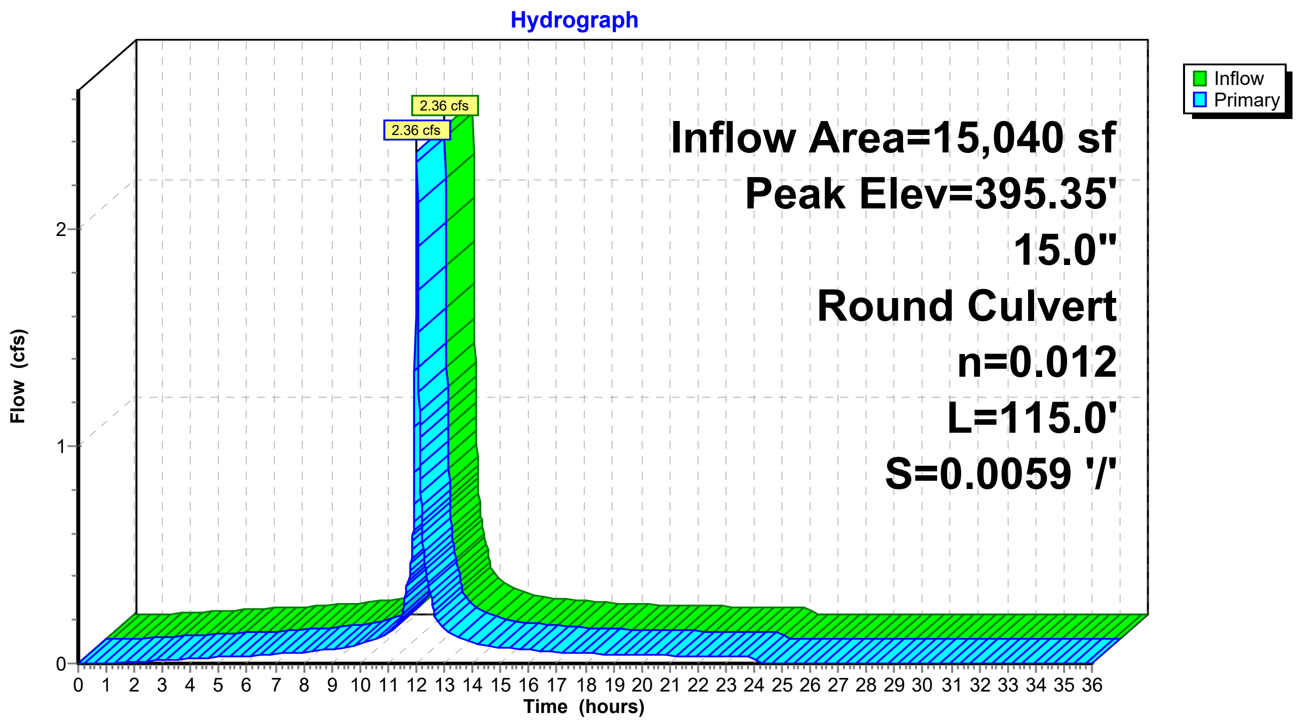
Inflow Area = 15,040 sf, 92.69% Impervious, Inflow Depth = 5.51" for 25-yr event
Inflow = 2.36 cfs @ 12.03 hrs, Volume= 6,907 cf
Outflow = 2.36 cfs @ 12.03 hrs, Volume= 6,907 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.36 cfs @ 12.03 hrs, Volume= 6,907 cf
Routed to Pond 52P : DMH C

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 395.35' @ 12.04 hrs
Flood Elev= 398.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.58'	**15.0" Round Culvert** L= 115.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.58' / 391.90' S= 0.0059 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.84 cfs @ 12.03 hrs HW=395.25' TW=395.11' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 1.84 cfs @ 1.50 fps)

Pond 44P: CB



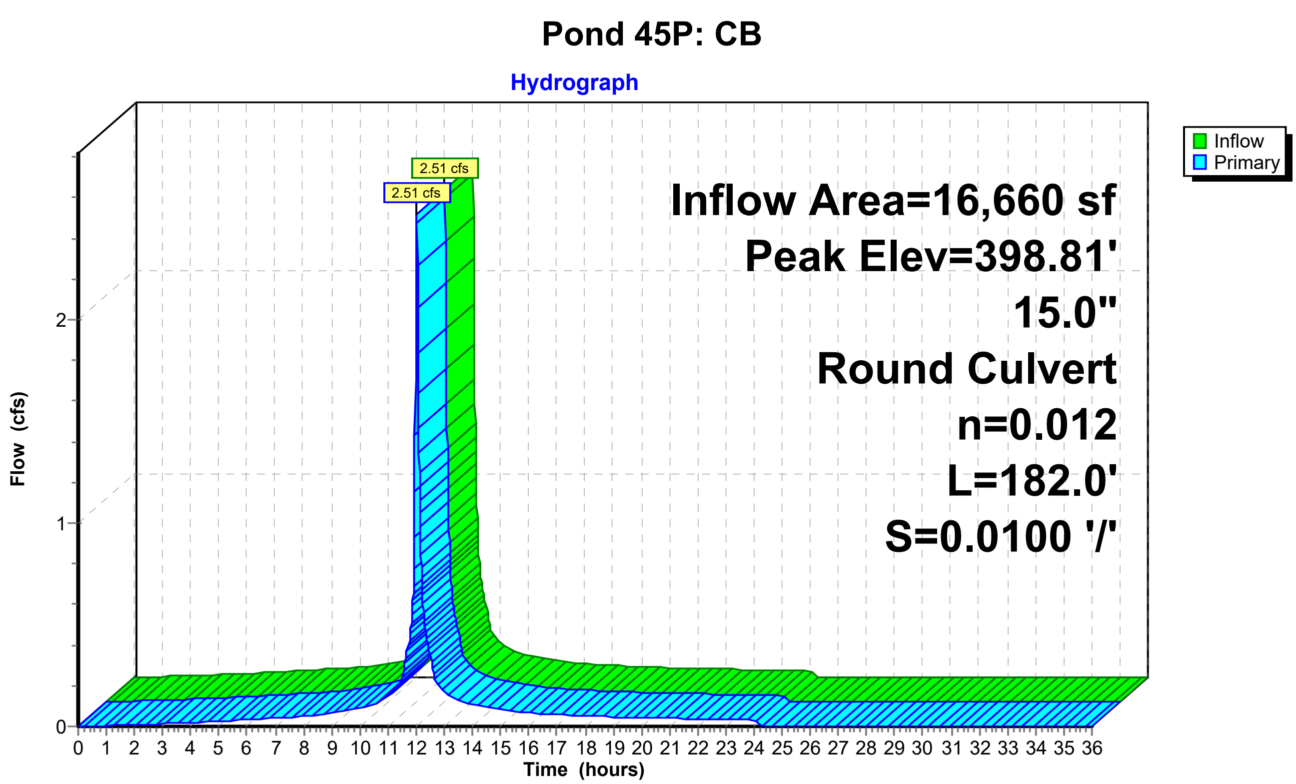
Summary for Pond 45P: CB

Inflow Area = 16,660 sf, 86.04% Impervious, Inflow Depth = 5.24" for 25-yr event
Inflow = 2.51 cfs @ 12.03 hrs, Volume= 7,276 cf
Outflow = 2.51 cfs @ 12.03 hrs, Volume= 7,276 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.51 cfs @ 12.03 hrs, Volume= 7,276 cf
Routed to Pond 50P : DMH A

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 398.81' @ 12.05 hrs
Flood Elev= 399.89'

Device	Routing	Invert	Outlet Devices
#1	Primary	395.87'	**15.0" Round Culvert** L= 182.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 395.87' / 394.05' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.28 cfs @ 12.03 hrs HW=398.23' TW=398.15' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 1.28 cfs @ 1.04 fps)



Summary for Pond 50P: DMH A

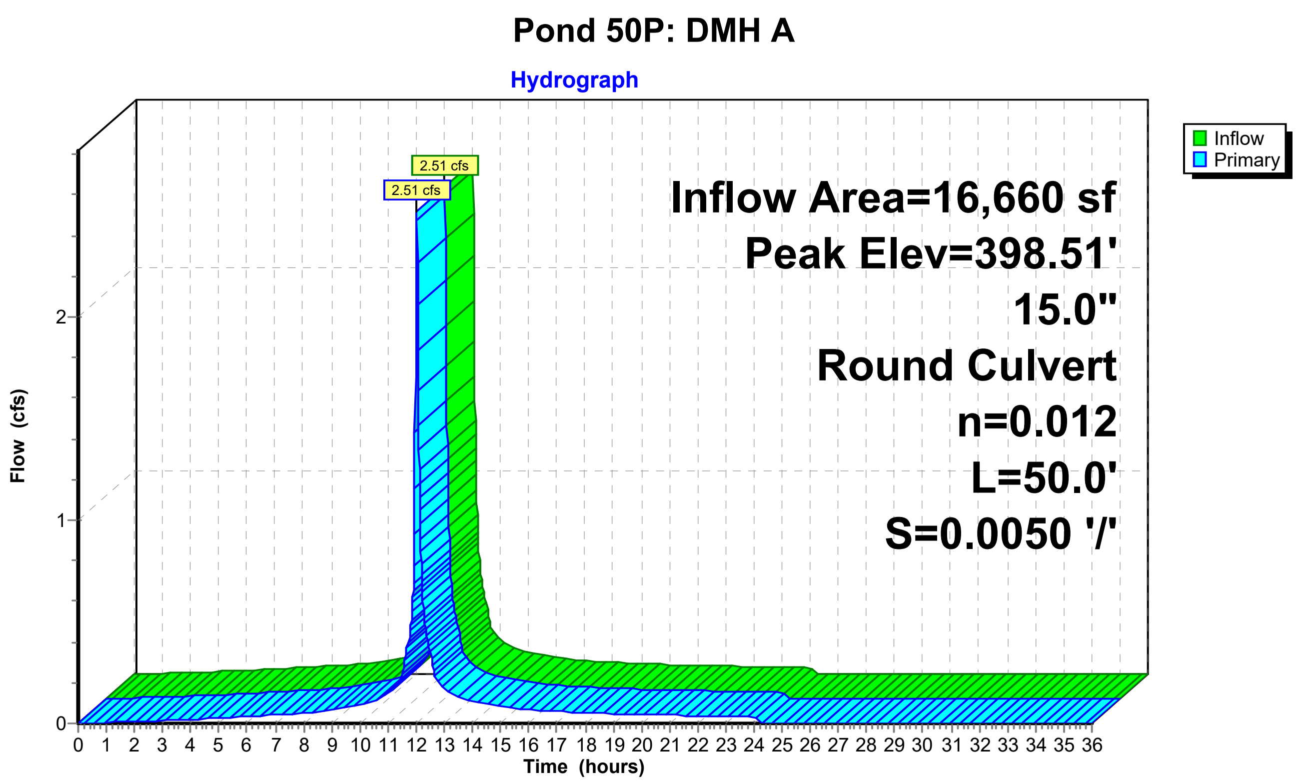
[80] Warning: Exceeded Pond 45P by 0.06' @ 12.01 hrs (1.06 cfs 38 cf)

Inflow Area = 16,660 sf, 86.04% Impervious, Inflow Depth = 5.24" for 25-yr event
Inflow = 2.51 cfs @ 12.03 hrs, Volume= 7,276 cf
Outflow = 2.51 cfs @ 12.03 hrs, Volume= 7,276 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.51 cfs @ 12.03 hrs, Volume= 7,276 cf
Routed to Pond 51P : DMH B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 398.51' @ 12.04 hrs
Flood Elev= 398.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.50'	**15.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.50' / 393.25' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.67 cfs @ 12.03 hrs HW=398.15' TW=398.13' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 0.67 cfs @ 0.55 fps)



Summary for Pond 51P: DMH B

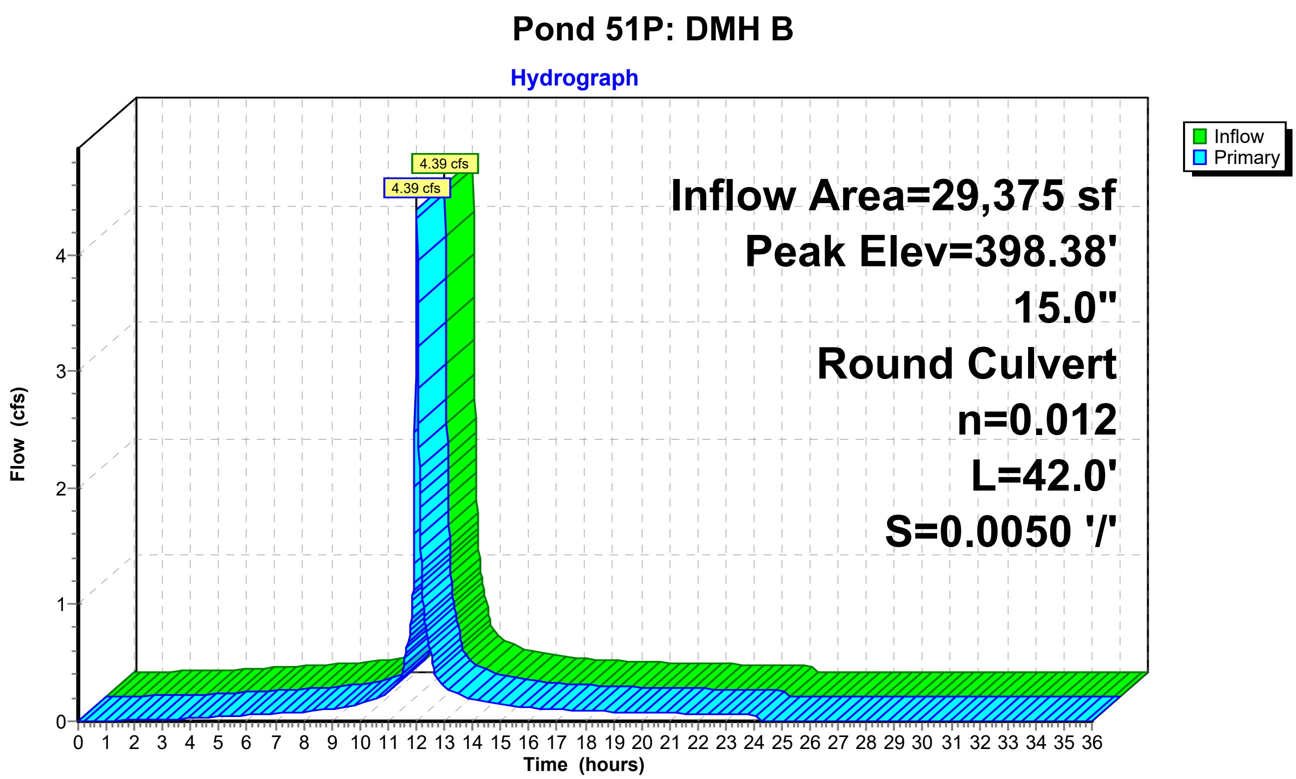
[80] Warning: Exceeded Pond 1P by 0.21' @ 12.00 hrs (2.72 cfs 513 cf)
[80] Warning: Exceeded Pond 50P by 0.14' @ 12.00 hrs (2.23 cfs 402 cf)

Inflow Area = 29,375 sf, 82.50% Impervious, Inflow Depth = 5.11" for 25-yr event
Inflow = 4.39 cfs @ 12.03 hrs, Volume= 12,514 cf
Outflow = 4.39 cfs @ 12.03 hrs, Volume= 12,514 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.39 cfs @ 12.03 hrs, Volume= 12,514 cf
Routed to Pond 2P : CB 2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 398.38' @ 12.04 hrs
Flood Elev= 398.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.15'	**15.0" Round Culvert** L= 42.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.15' / 392.94' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=3.78 cfs @ 12.03 hrs HW=398.14' TW=397.73' (Dynamic Tailwater)
1=Culvert (Inlet Controls 3.78 cfs @ 3.08 fps)



Summary for Pond 52P: DMH C

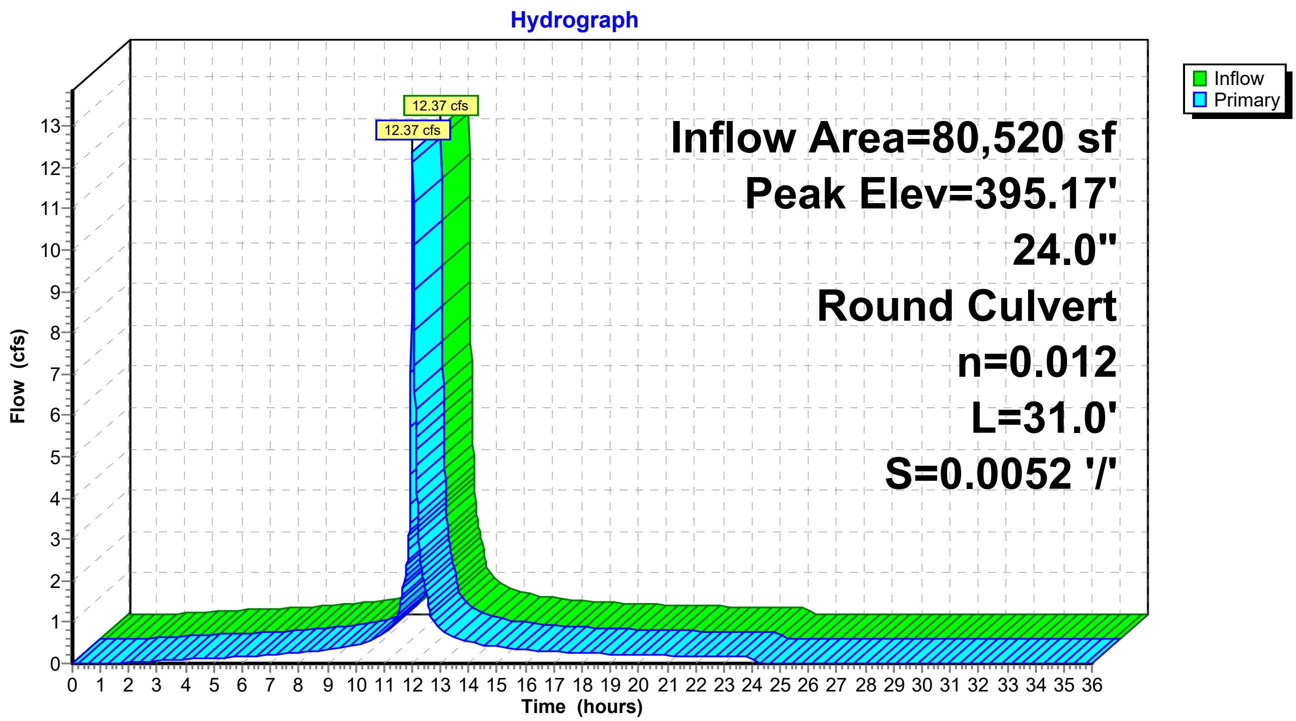
Inflow Area = 80,520 sf, 88.25% Impervious, Inflow Depth = 5.33" for 25-yr event
Inflow = 12.37 cfs @ 12.03 hrs, Volume= 35,766 cf
Outflow = 12.37 cfs @ 12.03 hrs, Volume= 35,766 cf, Atten= 0%, Lag= 0.0 min
Primary = 12.37 cfs @ 12.03 hrs, Volume= 35,766 cf
Routed to Pond 5P : CB 5

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 395.17' @ 12.03 hrs
Flood Elev= 397.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.80'	**24.0" Round Culvert** L= 31.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.80' / 391.64' S= 0.0052 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=12.09 cfs @ 12.03 hrs HW=395.12' TW=394.48' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 12.09 cfs @ 3.85 fps)

Pond 52P: DMH C



Summary for Pond 53P: DMH D

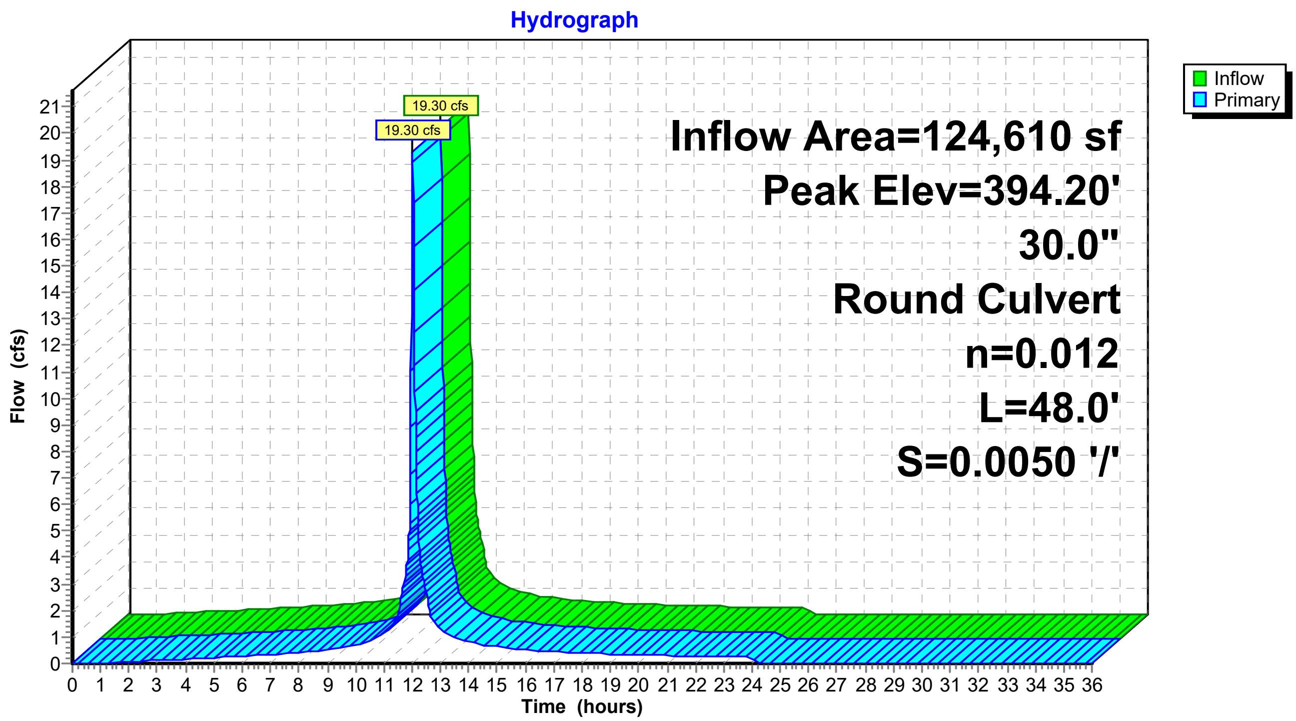
Inflow Area = 124,610 sf, 89.85% Impervious, Inflow Depth = 5.42" for 25-yr event
Inflow = 19.30 cfs @ 12.03 hrs, Volume= 56,238 cf
Outflow = 19.30 cfs @ 12.03 hrs, Volume= 56,238 cf, Atten= 0%, Lag= 0.0 min
Primary = 19.30 cfs @ 12.03 hrs, Volume= 56,238 cf
Routed to Pond 54P : DMH E

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.20' @ 12.03 hrs
Flood Elev= 396.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.48'	**30.0" Round Culvert** L= 48.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.48' / 391.24' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=19.27 cfs @ 12.03 hrs HW=394.18' TW=393.52' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 19.27 cfs @ 3.93 fps)

Pond 53P: DMH D



Summary for Pond 54P: DMH E

Inflow Area = 124,610 sf, 89.85% Impervious, Inflow Depth = 5.42" for 25-yr event
Inflow = 19.30 cfs @ 12.03 hrs, Volume= 56,238 cf
Outflow = 19.30 cfs @ 12.03 hrs, Volume= 56,238 cf, Atten= 0%, Lag= 0.0 min
Primary = 14.58 cfs @ 12.03 hrs, Volume= 11,669 cf
Routed to Pond 55P : DMH F
Secondary = 4.73 cfs @ 12.02 hrs, Volume= 44,569 cf
Routed to Pond 1VP : Vortechnics Unit

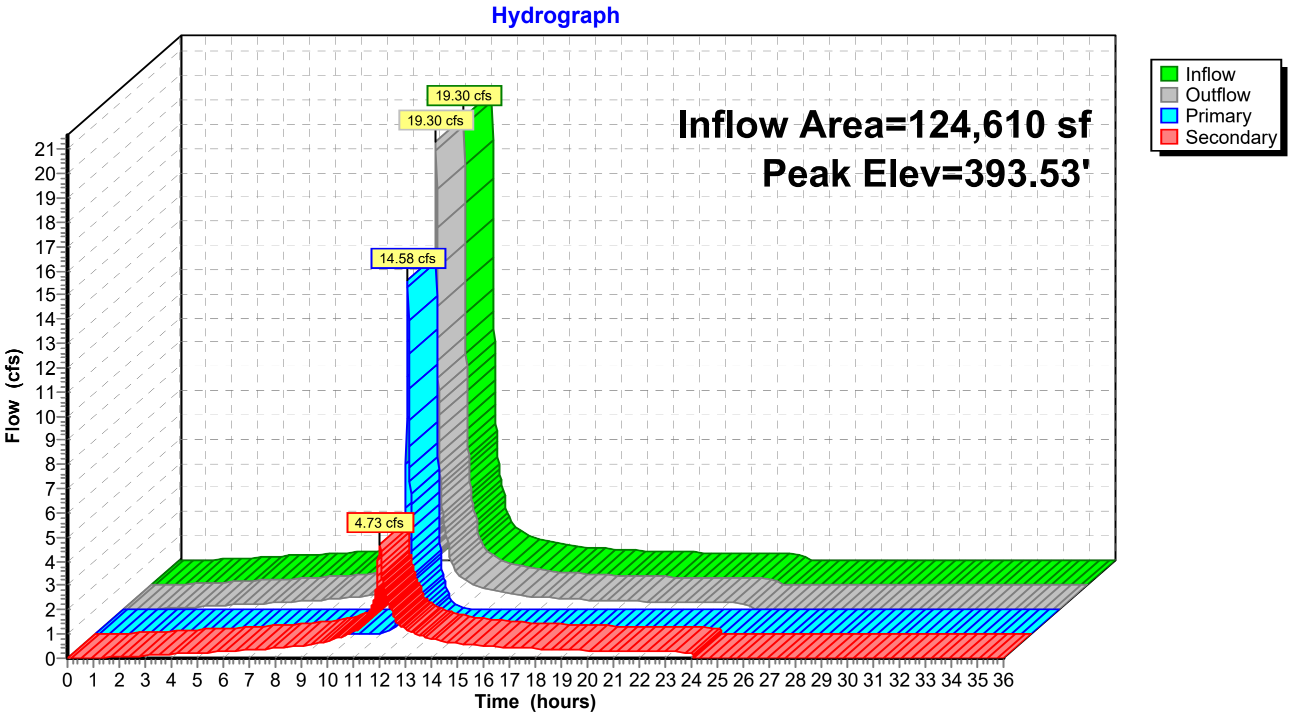
Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.53' @ 12.03 hrs
Flood Elev= 398.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.14'	**30.0" Round Culvert** L= 41.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.14' / 390.93' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Secondary	390.55'	**15.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.55' / 390.50' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=15.21 cfs @ 12.03 hrs HW=393.52' TW=393.07' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 15.21 cfs @ 4.06 fps)

Secondary OutFlow Max=3.32 cfs @ 12.02 hrs HW=393.49' TW=393.17' (Dynamic Tailwater)
└─**2=Culvert** (Inlet Controls 3.32 cfs @ 2.70 fps)

Pond 54P: DMH E



Summary for Pond 55P: DMH F

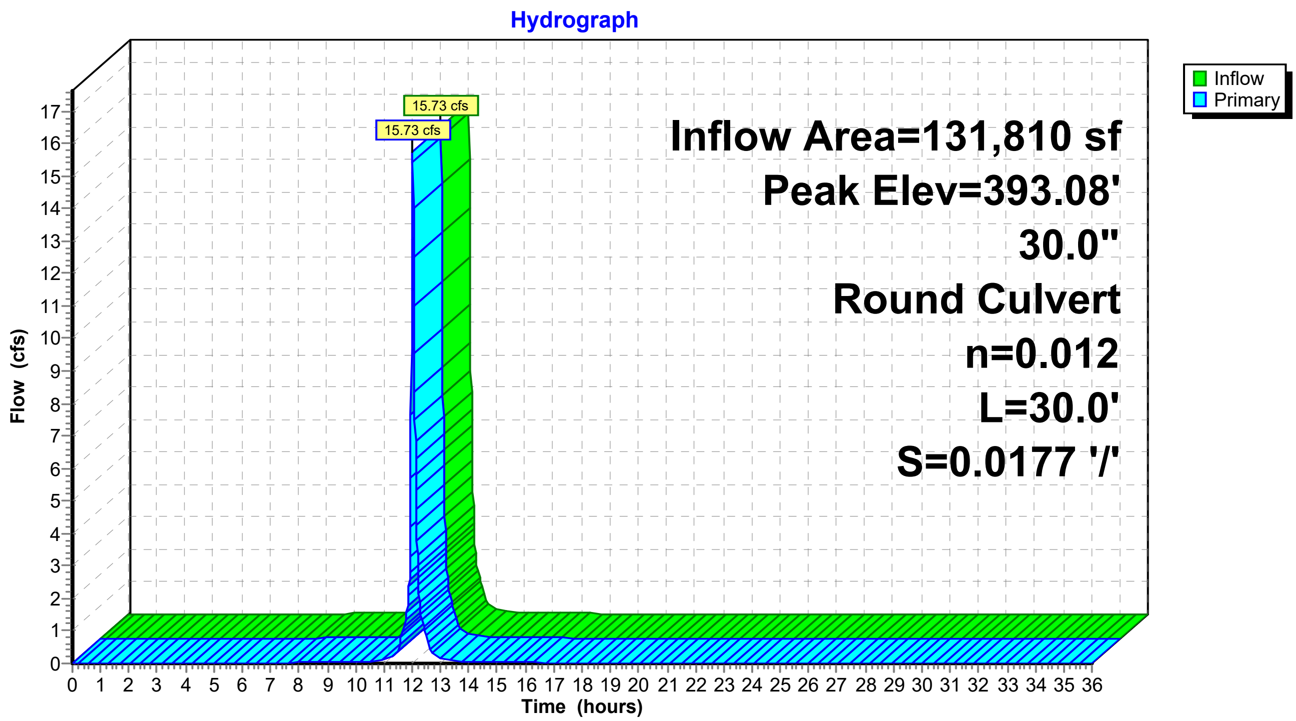
Inflow Area = 131,810 sf, 90.41% Impervious, Inflow Depth = 1.38" for 25-yr event
Inflow = 15.73 cfs @ 12.03 hrs, Volume= 15,186 cf
Outflow = 15.73 cfs @ 12.03 hrs, Volume= 15,186 cf, Atten= 0%, Lag= 0.0 min
Primary = 15.73 cfs @ 12.03 hrs, Volume= 15,186 cf
Routed to Pond 3DP : DMH 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.08' @ 12.03 hrs
Flood Elev= 397.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.83'	**30.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.83' / 390.30' S= 0.0177 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=15.66 cfs @ 12.03 hrs HW=393.07' TW=392.54' (Dynamic Tailwater)
1=Culvert (Outlet Controls 15.66 cfs @ 4.47 fps)

Pond 55P: DMH F



Summary for Pond 61P: DMH A

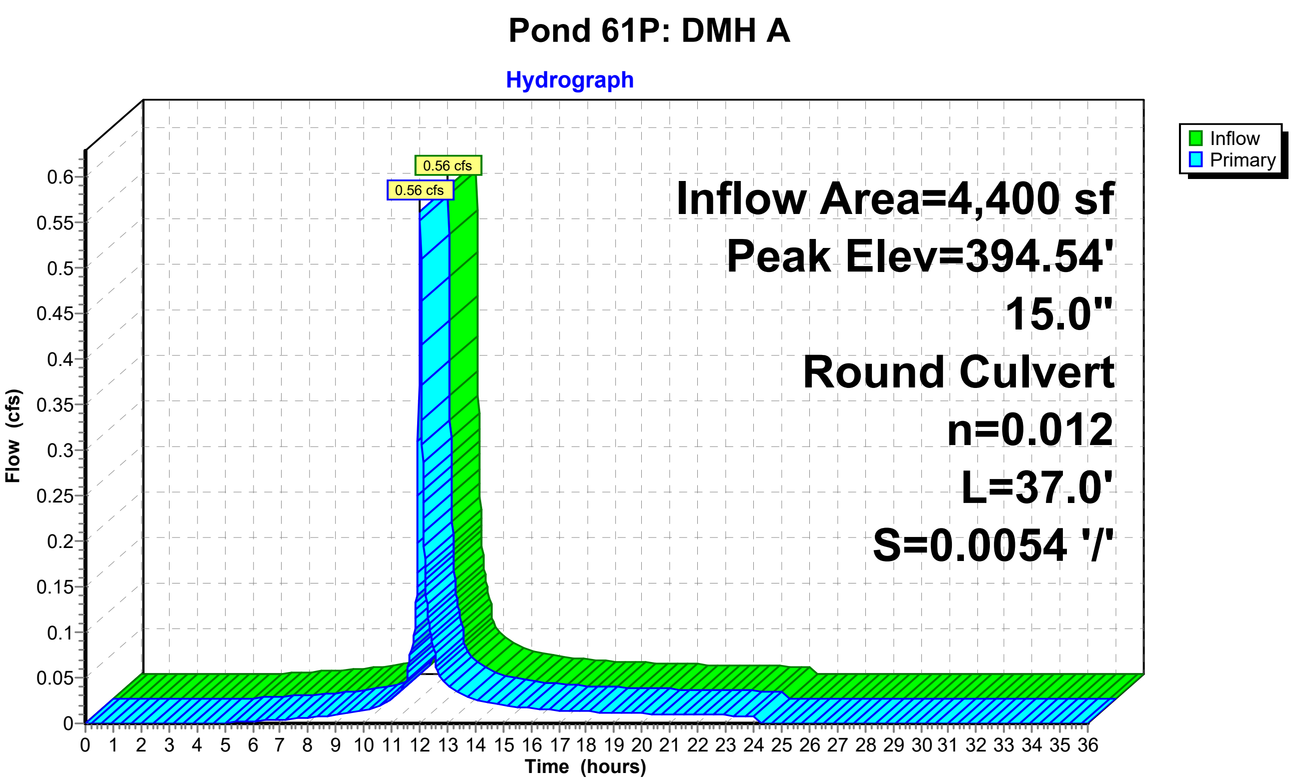
[80] Warning: Exceeded Pond 7P by 0.16' @ 12.00 hrs (1.64 cfs 251 cf)

Inflow Area = 4,400 sf, 58.07% Impervious, Inflow Depth = 4.13" for 25-yr event
Inflow = 0.56 cfs @ 12.03 hrs, Volume= 1,516 cf
Outflow = 0.56 cfs @ 12.03 hrs, Volume= 1,516 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.56 cfs @ 12.03 hrs, Volume= 1,516 cf
Routed to Pond 62P : DMH B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.54' @ 12.04 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.75'	**15.0" Round Culvert** L= 37.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.75' / 391.55' S= 0.0054 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=394.42' TW=394.49' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)



Summary for Pond 62P: DMH B

[80] Warning: Exceeded Pond 61P by 0.24' @ 11.98 hrs (2.71 cfs 577 cf)

Inflow Area =	14,655 sf,	71.41% Impervious,	Inflow Depth = 4.70"	for 25-yr event		
Inflow =	2.07 cfs @	12.03 hrs,	Volume=	5,740 cf		
Outflow =	2.07 cfs @	12.03 hrs,	Volume=	5,740 cf,	Atten= 0%,	Lag= 0.0 min
Primary =	2.07 cfs @	12.03 hrs,	Volume=	5,740 cf		

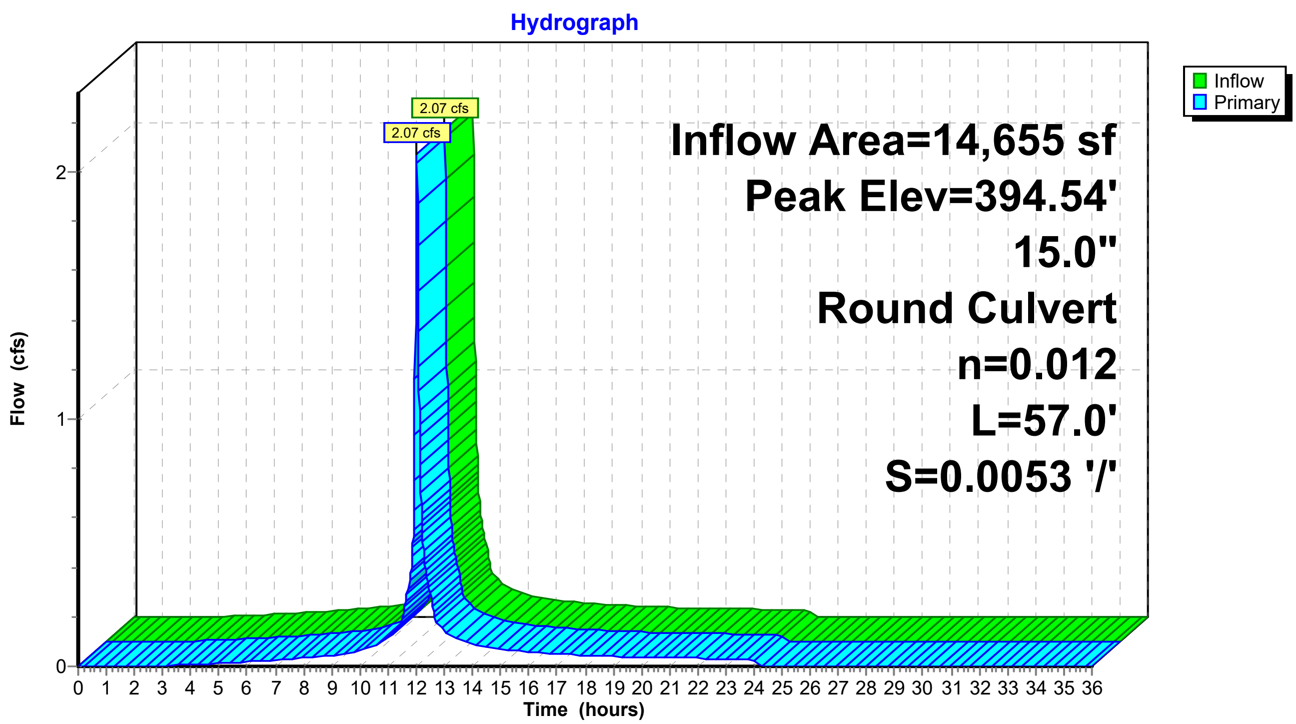
Routed to Pond 9P : CB C

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.54' @ 12.03 hrs
Flood Elev= 397.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.50'	**15.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.50' / 391.20' S= 0.0053 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.80 cfs @ 12.03 hrs HW=394.48' TW=394.39' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 1.80 cfs @ 1.47 fps)

Pond 62P: DMH B

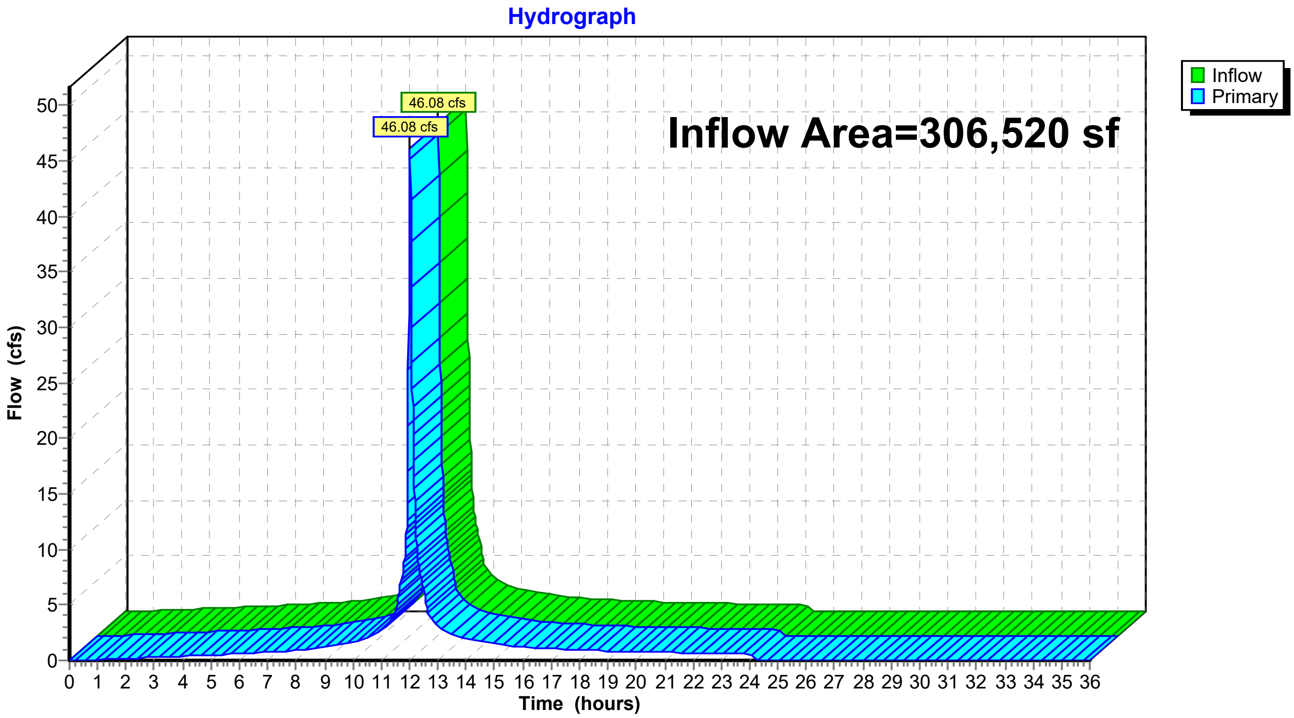


Summary for Link 1L: Wetland

Inflow Area =	306,520 sf, 85.07% Impervious,	Inflow Depth = 5.23"	for 25-yr event
Inflow =	46.08 cfs @ 12.03 hrs,	Volume=	133,714 cf
Primary =	46.08 cfs @ 12.03 hrs,	Volume=	133,714 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 1L: Wetland



Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: Proposed to CB 1 Runoff Area=12,715 sf 77.86% Impervious Runoff Depth=6.52"
Tc=5.0 min CN=90 Runoff=2.42 cfs 6,909 cf

Subcatchment2S: Proposed to CB 2 Runoff Area=11,985 sf 90.40% Impervious Runoff Depth=6.99"
Tc=5.0 min CN=94 Runoff=2.37 cfs 6,985 cf

Subcatchment3S: Proposed to CB 3 Runoff Area=18,370 sf 90.36% Impervious Runoff Depth=6.99"
Tc=5.0 min CN=94 Runoff=3.63 cfs 10,706 cf

Subcatchment4S: Proposed to CB 4 Runoff Area=5,750 sf 94.70% Impervious Runoff Depth=7.23"
Tc=5.0 min CN=96 Runoff=1.15 cfs 3,465 cf

Subcatchment5S: Proposed to CB 5 Runoff Area=9,870 sf 87.84% Impervious Runoff Depth=6.99"
Tc=5.0 min CN=94 Runoff=1.95 cfs 5,752 cf

Subcatchment6S: Proposed to CB A Runoff Area=2,265 sf 59.38% Impervious Runoff Depth=5.70"
Tc=5.0 min CN=83 Runoff=0.39 cfs 1,076 cf

Subcatchment7S: Proposed to CB B Runoff Area=2,135 sf 56.67% Impervious Runoff Depth=5.58"
Tc=5.0 min CN=82 Runoff=0.36 cfs 994 cf

Subcatchment8S: Proposed to Trench Runoff Area=10,255 sf 77.13% Impervious Runoff Depth=6.52"
Tc=5.0 min CN=90 Runoff=1.95 cfs 5,572 cf

Subcatchment9S: Proposed to CB C Runoff Area=9,675 sf 76.95% Impervious Runoff Depth=6.40"
Tc=5.0 min CN=89 Runoff=1.82 cfs 5,162 cf

Subcatchment10S: Proposed to CB D Runoff Area=6,090 sf 72.74% Impervious Runoff Depth=6.28"
Tc=5.0 min CN=88 Runoff=1.13 cfs 3,190 cf

Subcatchment11S: Proposed to CB E Runoff Area=2,220 sf 100.00% Impervious Runoff Depth=7.47"
Tc=5.0 min CN=98 Runoff=0.45 cfs 1,382 cf

Subcatchment12S: Proposed to CB F Runoff Area=4,475 sf 94.19% Impervious Runoff Depth=7.23"
Tc=5.0 min CN=96 Runoff=0.89 cfs 2,697 cf

Subcatchment13S: Proposed to CB G Runoff Area=4,830 sf 73.08% Impervious Runoff Depth=6.28"
Tc=5.0 min CN=88 Runoff=0.90 cfs 2,530 cf

Subcatchment14S: Proposed to CB H Runoff Area=4,850 sf 73.20% Impervious Runoff Depth=6.28"
Tc=5.0 min CN=88 Runoff=0.90 cfs 2,540 cf

Subcatchment15S: Proposed to CB I Runoff Area=4,870 sf 72.28% Impervious Runoff Depth=6.28"
Tc=5.0 min CN=88 Runoff=0.91 cfs 2,551 cf

Subcatchment16S: Proposed to CB J Runoff Area=1,940 sf 71.13% Impervious Runoff Depth=6.17"
Tc=5.0 min CN=87 Runoff=0.36 cfs 997 cf

Subcatchment17S: Proposed to CB K Runoff Area=1,790 sf 100.00% Impervious Runoff Depth=7.47"
Tc=5.0 min CN=98 Runoff=0.36 cfs 1,114 cf

Subcatchment18S: Proposed to CB L Runoff Area=4,985 sf 100.00% Impervious Runoff Depth=7.47"
Tc=5.0 min CN=98 Runoff=1.00 cfs 3,103 cf

Subcatchment19S: Proposed to CB M Runoff Area=4,985 sf 100.00% Impervious Runoff Depth=7.47"
Tc=5.0 min CN=98 Runoff=1.00 cfs 3,103 cf

Subcatchment20S: Proposed to CB N Runoff Area=4,985 sf 100.00% Impervious Runoff Depth=7.47"
Tc=5.0 min CN=98 Runoff=1.00 cfs 3,103 cf

Subcatchment21S: Proposed to CB O Runoff Area=1,980 sf 100.00% Impervious Runoff Depth=7.47"
Tc=5.0 min CN=98 Runoff=0.40 cfs 1,233 cf

Subcatchment22S: Proposed to CB P Runoff Area=1,470 sf 100.00% Impervious Runoff Depth=7.47"
Tc=5.0 min CN=98 Runoff=0.30 cfs 915 cf

Subcatchment23S: Proposed to CB Q Runoff Area=4,100 sf 100.00% Impervious Runoff Depth=7.47"
Tc=5.0 min CN=98 Runoff=0.83 cfs 2,552 cf

Subcatchment24S: Proposed to CB R Runoff Area=4,100 sf 100.00% Impervious Runoff Depth=7.47"
Tc=5.0 min CN=98 Runoff=0.83 cfs 2,552 cf

Subcatchment25S: Proposed to CB S Runoff Area=4,100 sf 100.00% Impervious Runoff Depth=7.47"
Tc=5.0 min CN=98 Runoff=0.83 cfs 2,552 cf

Subcatchment26S: Proposed to CB T Runoff Area=1,630 sf 100.00% Impervious Runoff Depth=7.47"
Tc=5.0 min CN=98 Runoff=0.33 cfs 1,015 cf

Subcatchment27S: Proposed to CB U Runoff Area=2,945 sf 86.76% Impervious Runoff Depth=6.87"
Tc=5.0 min CN=93 Runoff=0.58 cfs 1,687 cf

Subcatchment28S: Proposed to CB V Runoff Area=4,625 sf 77.95% Impervious Runoff Depth=6.52"
Tc=5.0 min CN=90 Runoff=0.88 cfs 2,513 cf

Subcatchment29S: Proposed to CB W Runoff Area=6,465 sf 48.72% Impervious Runoff Depth=5.24"
Tc=5.0 min CN=79 Runoff=1.04 cfs 2,822 cf

Subcatchment30S: Bank Site to Runoff Area=29,845 sf 83.28% Impervious Runoff Depth=6.76"
Tc=5.0 min CN=92 Runoff=5.80 cfs 16,804 cf

Subcatchment31S: Proposed to Swale Runoff Area=19,335 sf 45.44% Impervious Runoff Depth=5.12"
Tc=5.0 min CN=78 Runoff=3.05 cfs 8,255 cf

Subcatchment32S: Pharmacy Roof Runoff Area=6,615 sf 100.00% Impervious Runoff Depth=7.47"
Tc=5.0 min CN=98 Runoff=1.33 cfs 4,118 cf

Subcatchment33S: Pharmacy Roof Runoff Area=6,610 sf 100.00% Impervious Runoff Depth=7.47"
Tc=5.0 min CN=98 Runoff=1.33 cfs 4,115 cf

Subcatchment34ES: Retail/Office Roof Runoff Area=12,100 sf 100.00% Impervious Runoff Depth=7.47"
Tc=5.0 min CN=98 Runoff=2.44 cfs 7,533 cf

Subcatchment34WS: Retail/Office Roof Runoff Area=7,200 sf 100.00% Impervious Runoff Depth=7.47"
Tc=5.0 min CN=98 Runoff=1.45 cfs 4,482 cf

Subcatchment35S: Spa / Med. Office Roof Runoff Area=5,050 sf 100.00% Impervious Runoff Depth=7.47"
Tc=5.0 min CN=98 Runoff=1.02 cfs 3,144 cf

Subcatchment41S: Proposed to CB 11 Runoff Area=23,300 sf 91.50% Impervious Runoff Depth=7.11"
Tc=5.0 min CN=95 Runoff=4.63 cfs 13,810 cf

Subcatchment42S: Proposed to CB 12 Runoff Area=10,920 sf 100.00% Impervious Runoff Depth=7.47"
Tc=5.0 min CN=98 Runoff=2.20 cfs 6,798 cf

Subcatchment44S: Ex to CB Runoff Area=15,040 sf 92.69% Impervious Runoff Depth=7.11"
Tc=5.0 min CN=95 Runoff=2.99 cfs 8,914 cf

Subcatchment45S: Ex to CB Runoff Area=10,050 sf 76.87% Impervious Runoff Depth=6.40"
Tc=5.0 min CN=89 Runoff=1.89 cfs 5,362 cf

Pond 1P: CB 1 Peak Elev=402.34' Inflow=2.42 cfs 6,909 cf
15.0" Round Culvert n=0.012 L=15.0' S=0.0253 '/' Outflow=2.42 cfs 6,909 cf

Pond 1VP: Vortechnics Unit Peak Elev=393.89' Inflow=5.71 cfs 55,749 cf
15.0" Round Culvert n=0.012 L=53.0' S=0.0049 '/' Outflow=5.71 cfs 55,749 cf

Pond 2P: CB 2 Peak Elev=401.40' Inflow=8.01 cfs 23,371 cf
15.0" Round Culvert n=0.012 L=59.0' S=0.0049 '/' Outflow=8.01 cfs 23,371 cf

Pond 3DP: DMH 3 Peak Elev=392.96' Inflow=31.40 cfs 92,816 cf
36.0" Round Culvert n=0.012 L=14.0' S=0.0100 '/' Outflow=31.40 cfs 92,816 cf

Pond 3P: CB 3 Peak Elev=399.75' Inflow=11.64 cfs 34,077 cf
18.0" Round Culvert n=0.012 L=112.0' S=0.0050 '/' Outflow=11.64 cfs 34,077 cf

Pond 4DP: DMH 4 Peak Elev=394.31' Inflow=5.40 cfs 15,517 cf
18.0" Round Culvert n=0.012 L=135.0' S=0.0048 '/' Outflow=5.40 cfs 15,517 cf

Pond 4P: CB 4 Peak Elev=397.69' Inflow=12.78 cfs 37,542 cf
24.0" Round Culvert n=0.012 L=50.0' S=0.0050 '/' Outflow=12.78 cfs 37,542 cf

Pond 5DP: DMH 5 Peak Elev=393.36' Inflow=5.40 cfs 15,517 cf
18.0" Round Culvert n=0.012 L=78.0' S=0.0046 '/' Outflow=5.40 cfs 15,517 cf

Pond 5P: CB 5 Peak Elev=396.00' Inflow=17.72 cfs 52,208 cf
30.0" Round Culvert n=0.012 L=12.0' S=0.0050 '/' Outflow=17.72 cfs 52,208 cf

Pond 6P: CB A Peak Elev=396.50' Inflow=0.39 cfs 1,076 cf
15.0" Round Culvert n=0.012 L=19.0' S=0.0053 '/' Outflow=0.39 cfs 1,076 cf

Pond 7P: CB B Peak Elev=396.51' Inflow=0.75 cfs 2,070 cf
15.0" Round Culvert n=0.012 L=128.0' S=0.0051 '/' Outflow=0.75 cfs 2,070 cf

Pond 8P: Trench Drain Peak Elev=398.34' Inflow=1.95 cfs 5,572 cf
8.0" Round Culvert n=0.012 L=55.0' S=0.0391 '/' Outflow=1.95 cfs 5,572 cf

Pond 9P: CB C Peak Elev=396.26' Inflow=4.53 cfs 12,804 cf
15.0" Round Culvert n=0.012 L=120.0' S=0.0050 '/' Outflow=4.53 cfs 12,804 cf

Pond 10P: CB D Peak Elev=395.48' Inflow=21.87 cfs 64,489 cf
24.0" Round Culvert n=0.012 L=19.0' S=0.0105 '/' Outflow=21.87 cfs 64,489 cf

Pond 11P: CB E Peak Elev=400.52' Inflow=13.15 cfs 39,878 cf
15.0" Round Culvert n=0.012 L=68.0' S=0.0074 '/' Outflow=13.15 cfs 39,878 cf

Pond 12P: CB F Peak Elev=401.78' Inflow=6.49 cfs 19,306 cf
15.0" Round Culvert n=0.012 L=75.0' S=0.0073 '/' Outflow=6.49 cfs 19,306 cf

Pond 13P: CB G Peak Elev=395.72' Inflow=3.06 cfs 8,618 cf
15.0" Round Culvert n=0.012 L=68.0' S=0.0125 '/' Outflow=3.06 cfs 8,618 cf

Pond 14P: CB H Peak Elev=395.87' Inflow=2.16 cfs 6,088 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0120 '/' Outflow=2.16 cfs 6,088 cf

Pond 15P: CB I Peak Elev=395.90' Inflow=1.26 cfs 3,548 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0120 '/' Outflow=1.26 cfs 3,548 cf

Pond 16P: CB J Peak Elev=395.92' Inflow=0.36 cfs 997 cf
12.0" Round Culvert n=0.012 L=57.0' S=0.0123 '/' Outflow=0.36 cfs 997 cf

Pond 17P: CB K Peak Elev=400.89' Inflow=3.77 cfs 11,657 cf
15.0" Round Culvert n=0.012 L=5.0' S=0.0200 '/' Outflow=3.77 cfs 11,657 cf

Pond 18P: CB L Peak Elev=401.22' Inflow=3.41 cfs 10,543 cf
15.0" Round Culvert n=0.012 L=57.0' S=0.0105 '/' Outflow=3.41 cfs 10,543 cf

Pond 19P: CB M Peak Elev=401.37' Inflow=2.41 cfs 7,439 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0099 '/' Outflow=2.41 cfs 7,439 cf

Pond 20P: CB N Peak Elev=401.43' Inflow=1.40 cfs 4,336 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0099 '/' Outflow=1.40 cfs 4,336 cf

Pond 21P: CB O Peak Elev=401.43' Inflow=0.40 cfs 1,233 cf
12.0" Round Culvert n=0.012 L=57.0' S=0.0105 '/' Outflow=0.40 cfs 1,233 cf

Pond 22P: CB P Peak Elev=402.62' Inflow=5.60 cfs 16,609 cf
15.0" Round Culvert n=0.012 L=5.0' S=0.0200 '/' Outflow=5.60 cfs 16,609 cf

Pond 23P: CB Q Peak Elev=403.40' Inflow=5.30 cfs 15,694 cf
15.0" Round Culvert n=0.012 L=57.0' S=0.0079 '/' Outflow=5.30 cfs 15,694 cf

Pond 24P: CB R Peak Elev=403.76' Inflow=3.90 cfs 11,455 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0077 '/' Outflow=3.90 cfs 11,455 cf

Pond 25P: CB S Peak Elev=403.92' Inflow=2.19 cfs 6,389 cf
15.0" Round Culvert n=0.012 L=71.0' S=0.0077 '/' Outflow=2.19 cfs 6,389 cf

Pond 26P: CB T Peak Elev=403.88' Inflow=0.33 cfs 1,015 cf
12.0" Round Culvert n=0.012 L=57.0' S=0.0079 '/' Outflow=0.33 cfs 1,015 cf

Pond 27P: CB U Peak Elev=403.36' Inflow=0.58 cfs 1,687 cf
12.0" Round Culvert n=0.012 L=7.0' S=0.0214 '/' Outflow=0.58 cfs 1,687 cf

Pond 28P: CB V Peak Elev=403.84' Inflow=0.88 cfs 2,513 cf
12.0" Round Culvert n=0.012 L=7.0' S=0.0214 '/' Outflow=0.88 cfs 2,513 cf

Pond 29P: CB W Peak Elev=403.93' Inflow=1.04 cfs 2,822 cf
12.0" Round Culvert n=0.012 L=7.0' S=0.0214 '/' Outflow=1.04 cfs 2,822 cf

Pond 31P: Vortech Unit Peak Elev=393.39' Inflow=21.87 cfs 64,489 cf
24.0" Round Culvert n=0.012 L=30.0' S=0.0100 '/' Outflow=21.87 cfs 64,489 cf

Pond 41P: CB 11 Peak Elev=396.08' Inflow=6.83 cfs 20,608 cf
18.0" Round Culvert n=0.012 L=27.0' S=0.0100 '/' Outflow=6.83 cfs 20,608 cf

Pond 42P: CB 12 Peak Elev=396.22' Inflow=2.20 cfs 6,798 cf
15.0" Round Culvert n=0.012 L=53.0' S=0.0100 '/' Outflow=2.20 cfs 6,798 cf

Pond 44P: CB Peak Elev=397.34' Inflow=2.99 cfs 8,914 cf
15.0" Round Culvert n=0.012 L=115.0' S=0.0059 '/' Outflow=2.99 cfs 8,914 cf

Pond 45P: CB Peak Elev=402.92' Inflow=3.22 cfs 9,477 cf
15.0" Round Culvert n=0.012 L=182.0' S=0.0100 '/' Outflow=3.22 cfs 9,477 cf

Pond 50P: DMH A Peak Elev=402.45' Inflow=3.22 cfs 9,477 cf
15.0" Round Culvert n=0.012 L=50.0' S=0.0050 '/' Outflow=3.22 cfs 9,477 cf

Pond 51P: DMH B Peak Elev=402.22' Inflow=5.64 cfs 16,386 cf
15.0" Round Culvert n=0.012 L=42.0' S=0.0050 '/' Outflow=5.64 cfs 16,386 cf

Pond 52P: DMH C Peak Elev=397.05' Inflow=15.77 cfs 46,456 cf
24.0" Round Culvert n=0.012 L=31.0' S=0.0052 '/' Outflow=15.77 cfs 46,456 cf

Pond 53P: DMH D Peak Elev=395.48' Inflow=24.55 cfs 72,816 cf
30.0" Round Culvert n=0.012 L=48.0' S=0.0050 '/' Outflow=24.55 cfs 72,816 cf

Pond 54P: DMH E Peak Elev=394.42' Inflow=24.55 cfs 72,816 cf
Primary=18.84 cfs 17,067 cf Secondary=5.71 cfs 55,749 cf Outflow=24.55 cfs 72,816 cf

Pond 55P: DMH F Peak Elev=393.70' Inflow=20.29 cfs 21,549 cf
30.0" Round Culvert n=0.012 L=30.0' S=0.0177 '/' Outflow=20.29 cfs 21,549 cf

Pond 61P: DMH A Peak Elev=396.48' Inflow=0.75 cfs 2,070 cf
15.0" Round Culvert n=0.012 L=37.0' S=0.0054 '/' Outflow=0.75 cfs 2,070 cf

Pond 62P: DMH B Peak Elev=396.48' Inflow=2.71 cfs 7,642 cf
15.0" Round Culvert n=0.012 L=57.0' S=0.0053 '/' Outflow=2.71 cfs 7,642 cf

Link 1L: Wetland Inflow=59.07 cfs 174,109 cf
Primary=59.07 cfs 174,109 cf

Total Runoff Area = 306,520 sf Runoff Volume = 174,109 cf Average Runoff Depth = 6.82"
14.93% Pervious = 45,760 sf 85.07% Impervious = 260,760 sf

Summary for Subcatchment 1S: Proposed to CB 1

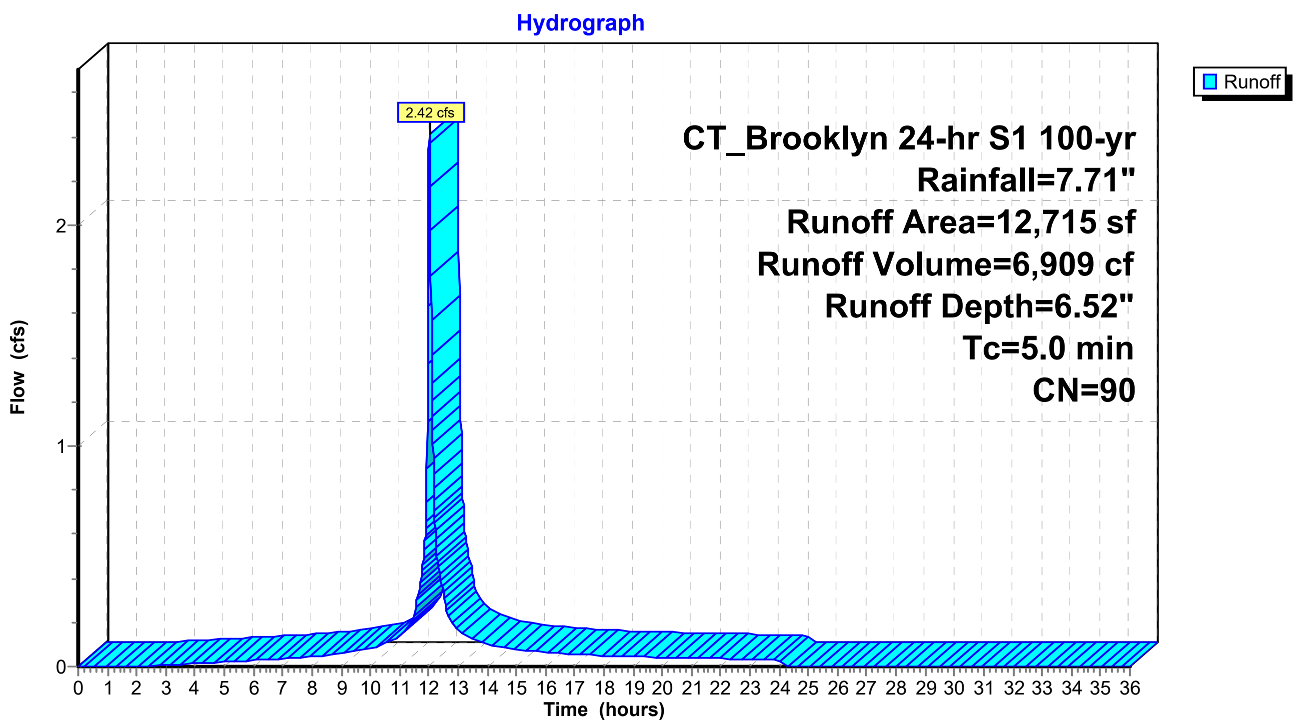
Runoff = 2.42 cfs @ 12.03 hrs, Volume= 6,909 cf, Depth= 6.52"
Routed to Pond 1P : CB 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
9,900	98	Paved parking & roofs
2,815	61	>75% Grass cover, Good, HSG B
12,715	90	Weighted Average
2,815		22.14% Pervious Area
9,900		77.86% Impervious Area

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

Subcatchment 1S: Proposed to CB 1



Summary for Subcatchment 2S: Proposed to CB 2

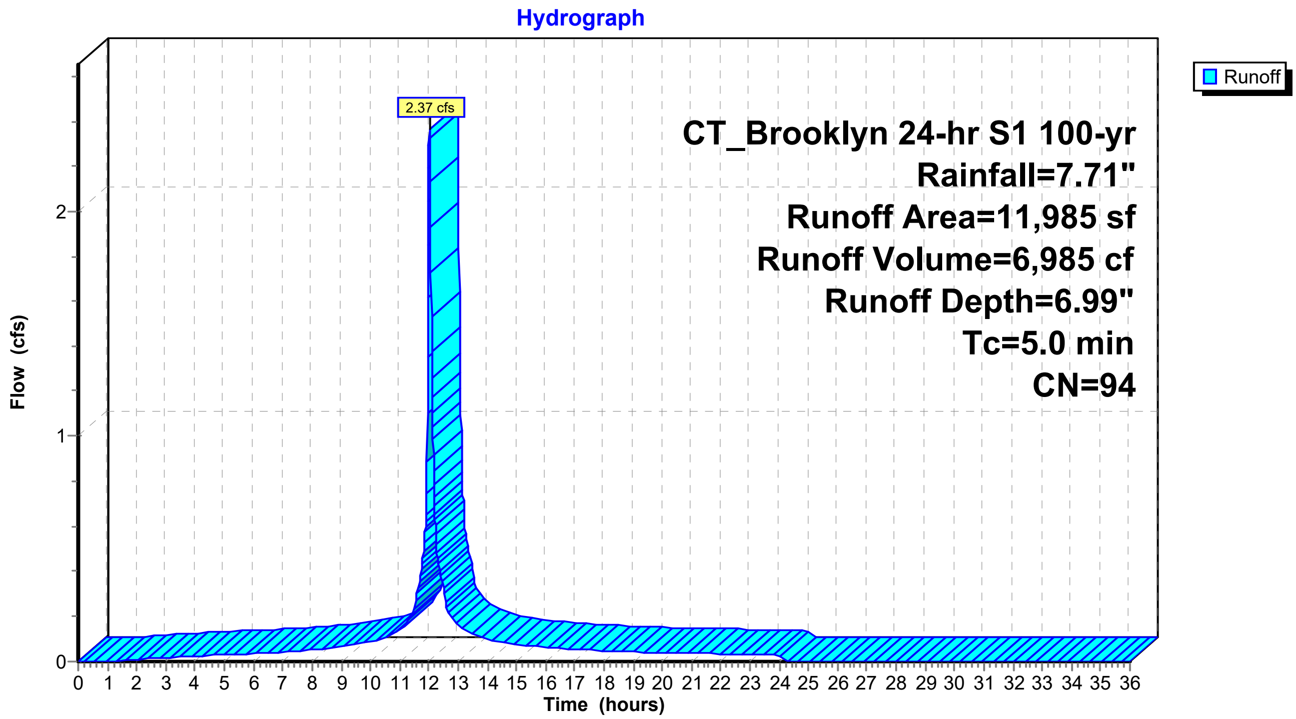
Runoff = 2.37 cfs @ 12.03 hrs, Volume= 6,985 cf, Depth= 6.99"
Routed to Pond 2P : CB 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
10,835	98	Paved parking & roofs
1,150	61	>75% Grass cover, Good, HSG B
11,985	94	Weighted Average
1,150		9.60% Pervious Area
10,835		90.40% Impervious Area

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

Subcatchment 2S: Proposed to CB 2



Summary for Subcatchment 3S: Proposed to CB 3

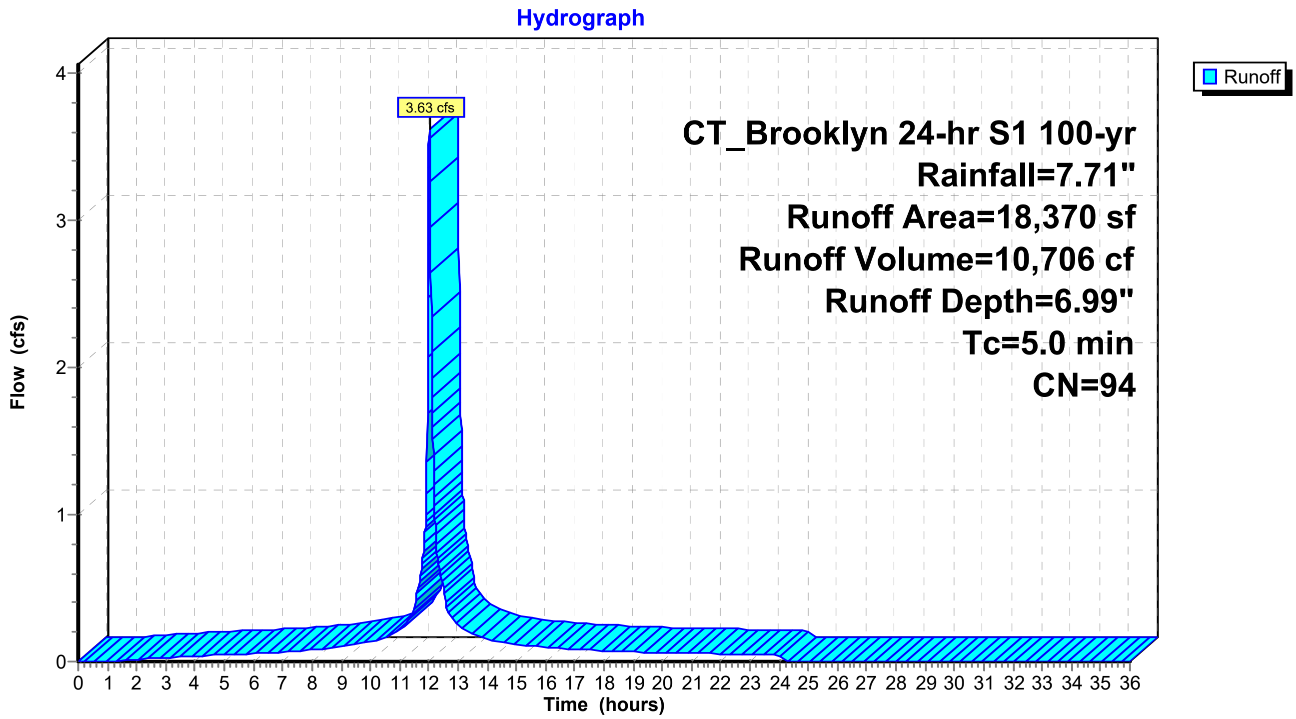
Runoff = 3.63 cfs @ 12.03 hrs, Volume= 10,706 cf, Depth= 6.99"
Routed to Pond 3P : CB 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
16,600	98	Paved parking & roofs
1,770	61	>75% Grass cover, Good, HSG B
18,370	94	Weighted Average
1,770		9.64% Pervious Area
16,600		90.36% Impervious Area

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

Subcatchment 3S: Proposed to CB 3



Summary for Subcatchment 4S: Proposed to CB 4

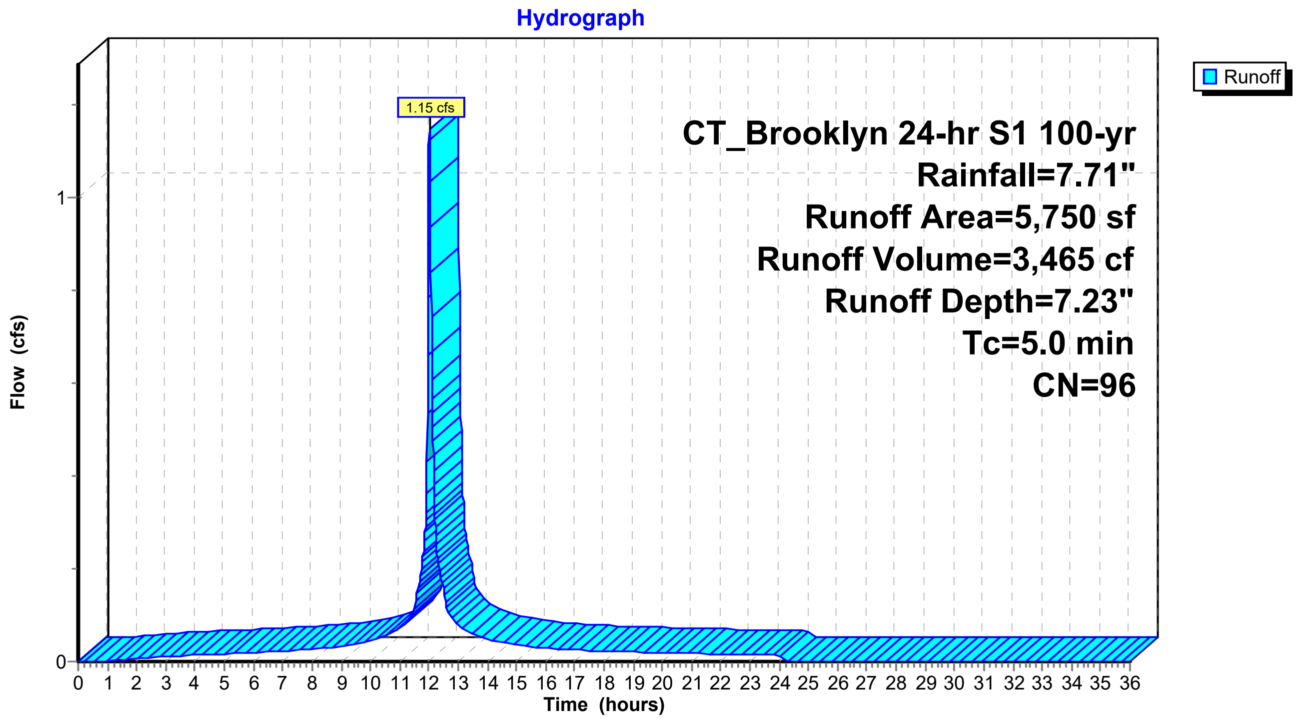
Runoff = 1.15 cfs @ 12.03 hrs, Volume= 3,465 cf, Depth= 7.23"
Routed to Pond 4P : CB 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
5,445	98	Paved parking & roofs
305	61	>75% Grass cover, Good, HSG B
5,750	96	Weighted Average
305		5.30% Pervious Area
5,445		94.70% Impervious Area

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

Subcatchment 4S: Proposed to CB 4



Summary for Subcatchment 5S: Proposed to CB 5

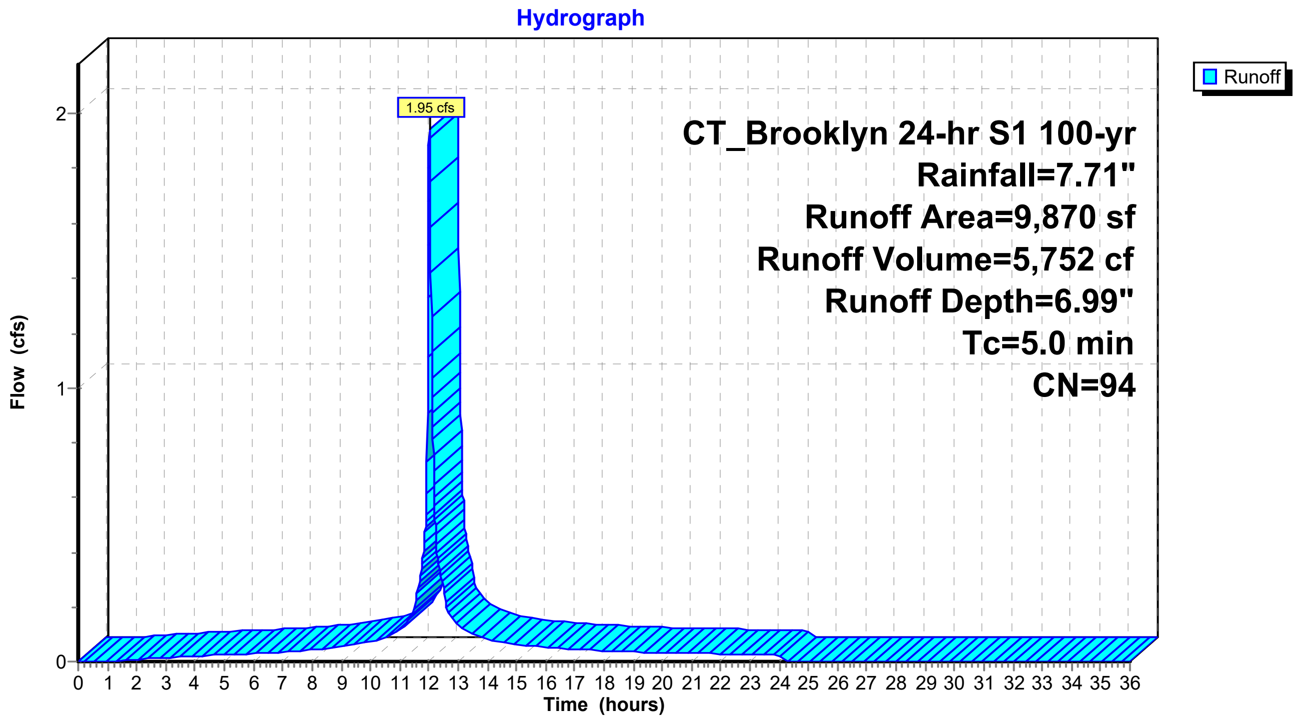
Runoff = 1.95 cfs @ 12.03 hrs, Volume= 5,752 cf, Depth= 6.99"
Routed to Pond 5P : CB 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
8,670	98	Paved parking & roofs
1,200	61	>75% Grass cover, Good, HSG B
9,870	94	Weighted Average
1,200		12.16% Pervious Area
8,670		87.84% Impervious Area

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

Subcatchment 5S: Proposed to CB 5



Summary for Subcatchment 6S: Proposed to CB A

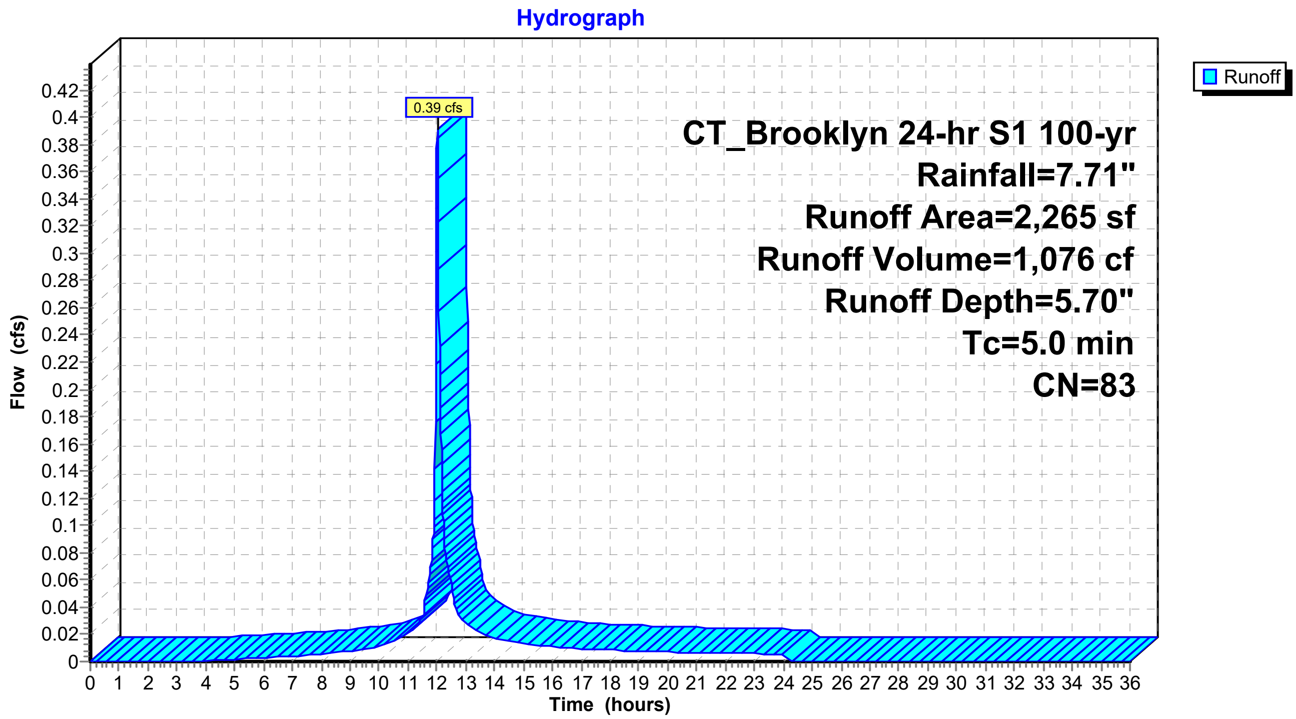
Runoff = 0.39 cfs @ 12.03 hrs, Volume= 1,076 cf, Depth= 5.70"
Routed to Pond 6P : CB A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
1,345	98	Paved parking & roofs
920	61	>75% Grass cover, Good, HSG B
2,265	83	Weighted Average
920		40.62% Pervious Area
1,345		59.38% Impervious Area

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

Subcatchment 6S: Proposed to CB A



Summary for Subcatchment 7S: Proposed to CB B

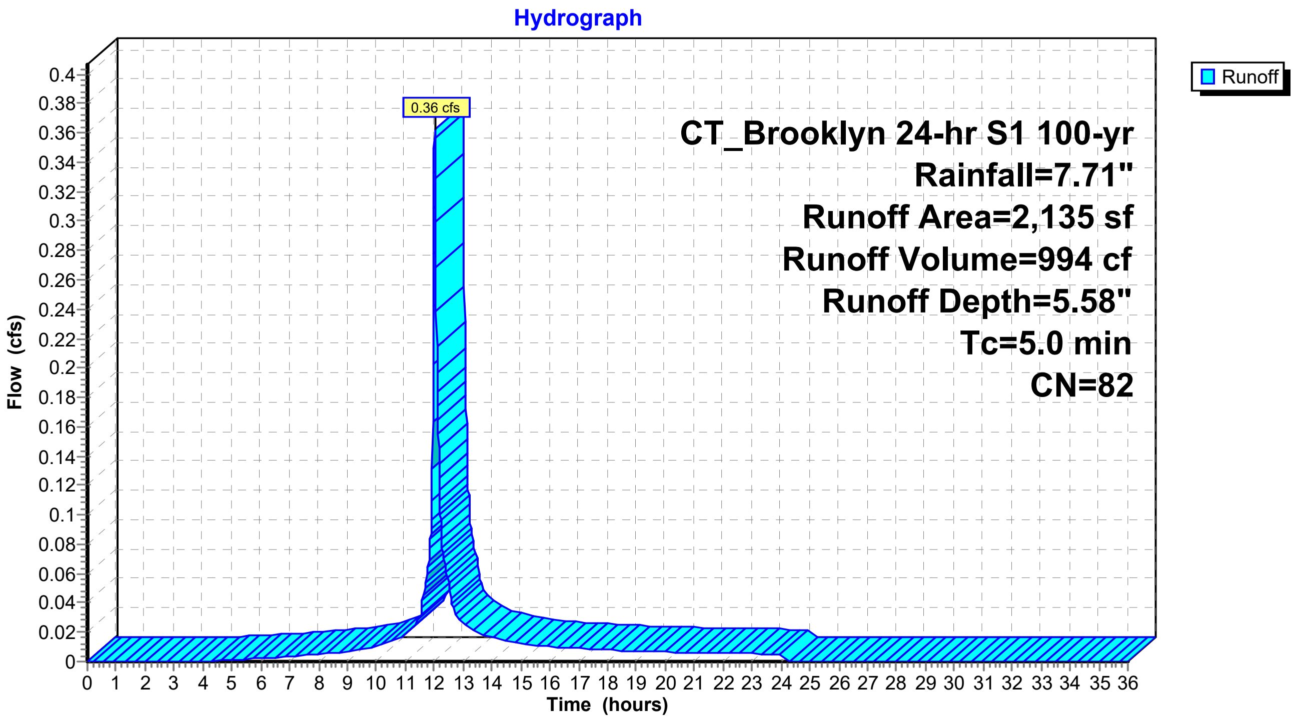
Runoff = 0.36 cfs @ 12.03 hrs, Volume= 994 cf, Depth= 5.58"
Routed to Pond 7P : CB B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
1,210	98	Paved parking & roofs
925	61	>75% Grass cover, Good, HSG B
2,135	82	Weighted Average
925		43.33% Pervious Area
1,210		56.67% Impervious Area

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

Subcatchment 7S: Proposed to CB B



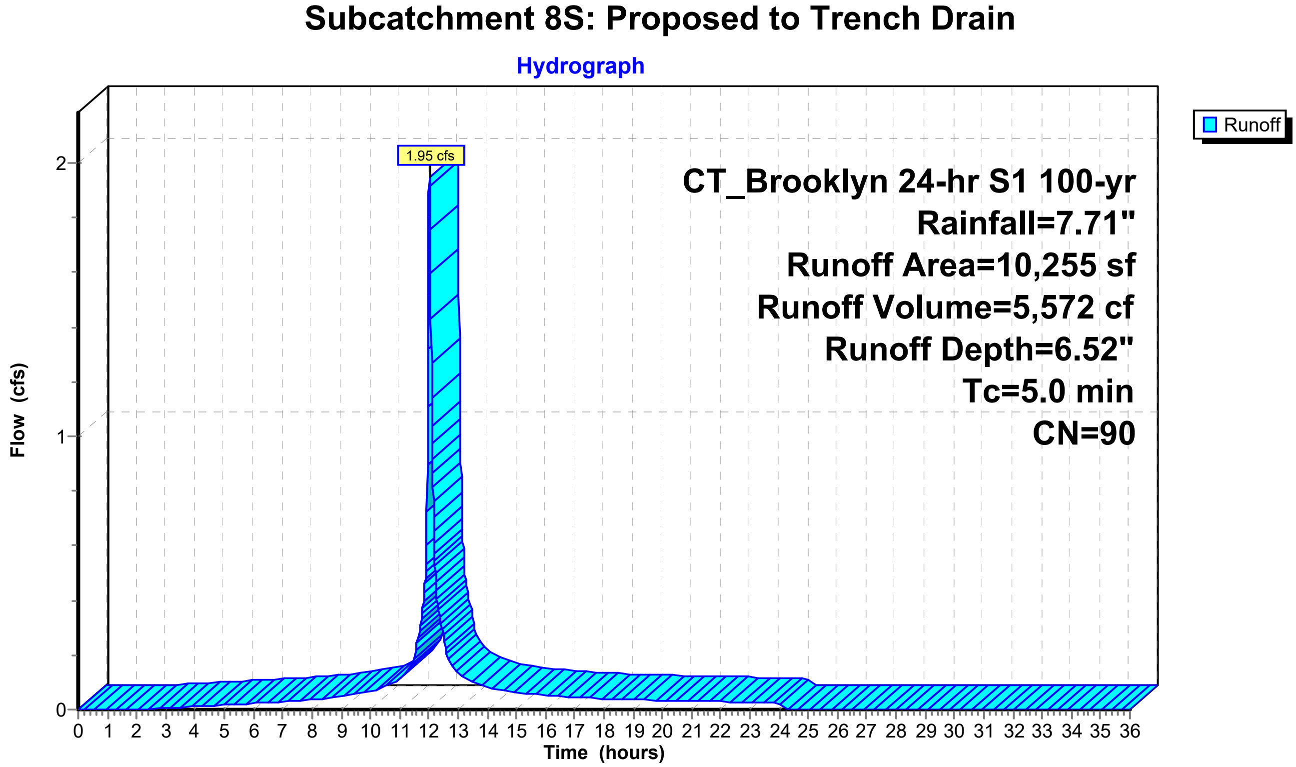
Summary for Subcatchment 8S: Proposed to Trench Drain

Runoff = 1.95 cfs @ 12.03 hrs, Volume= 5,572 cf, Depth= 6.52"
Routed to Pond 8P : Trench Drain

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
7,910	98	Paved parking & roofs
2,345	61	>75% Grass cover, Good, HSG B
10,255	90	Weighted Average
2,345		22.87% Pervious Area
7,910		77.13% Impervious Area

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



Summary for Subcatchment 9S: Proposed to CB C

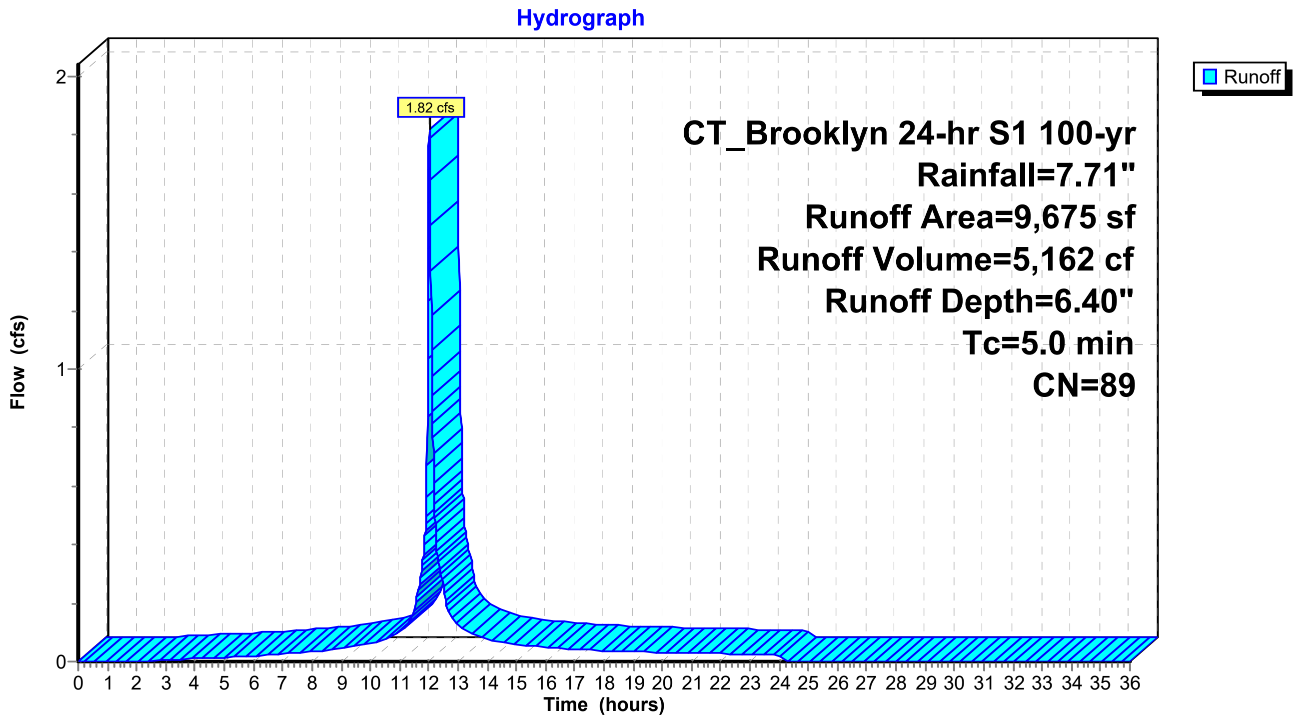
Runoff = 1.82 cfs @ 12.03 hrs, Volume= 5,162 cf, Depth= 6.40"
Routed to Pond 9P : CB C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
7,445	98	Paved parking & roofs
2,230	61	>75% Grass cover, Good, HSG B
9,675	89	Weighted Average
2,230		23.05% Pervious Area
7,445		76.95% Impervious Area

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

Subcatchment 9S: Proposed to CB C



Summary for Subcatchment 10S: Proposed to CB D

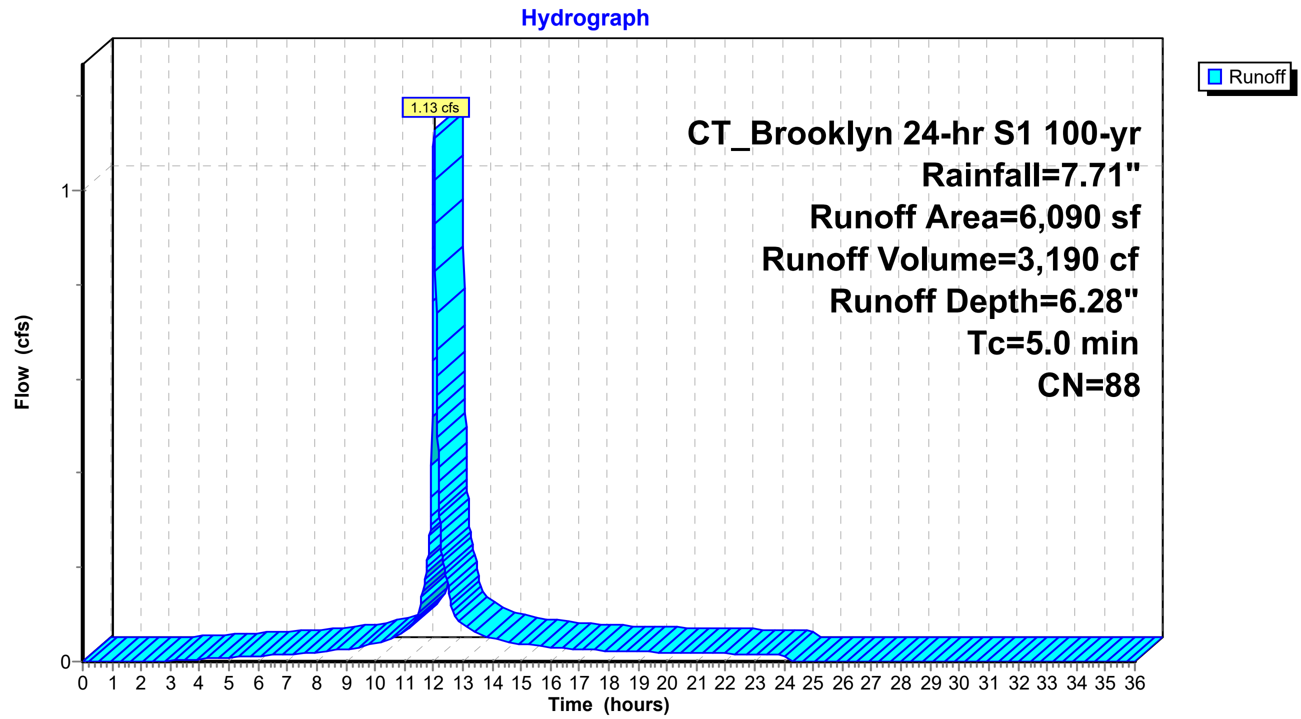
Runoff = 1.13 cfs @ 12.03 hrs, Volume= 3,190 cf, Depth= 6.28"
Routed to Pond 10P : CB D

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
4,430	98	Paved parking & roofs
1,660	61	>75% Grass cover, Good, HSG B
6,090	88	Weighted Average
1,660		27.26% Pervious Area
4,430		72.74% Impervious Area

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

Subcatchment 10S: Proposed to CB D



Summary for Subcatchment 11S: Proposed to CB E

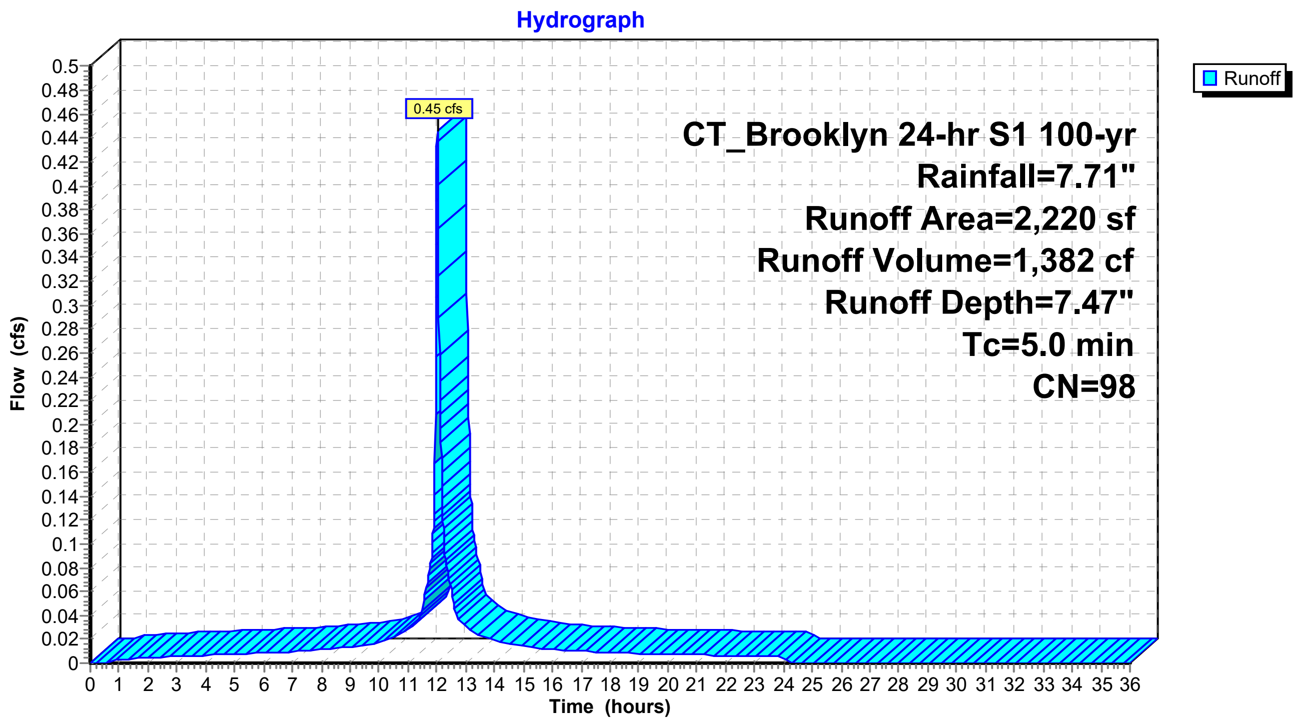
Runoff = 0.45 cfs @ 12.03 hrs, Volume= 1,382 cf, Depth= 7.47"
Routed to Pond 11P : CB E

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
2,220	98	Paved parking & roofs
2,220		100.00% Impervious Area

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

Subcatchment 11S: Proposed to CB E



Summary for Subcatchment 12S: Proposed to CB F

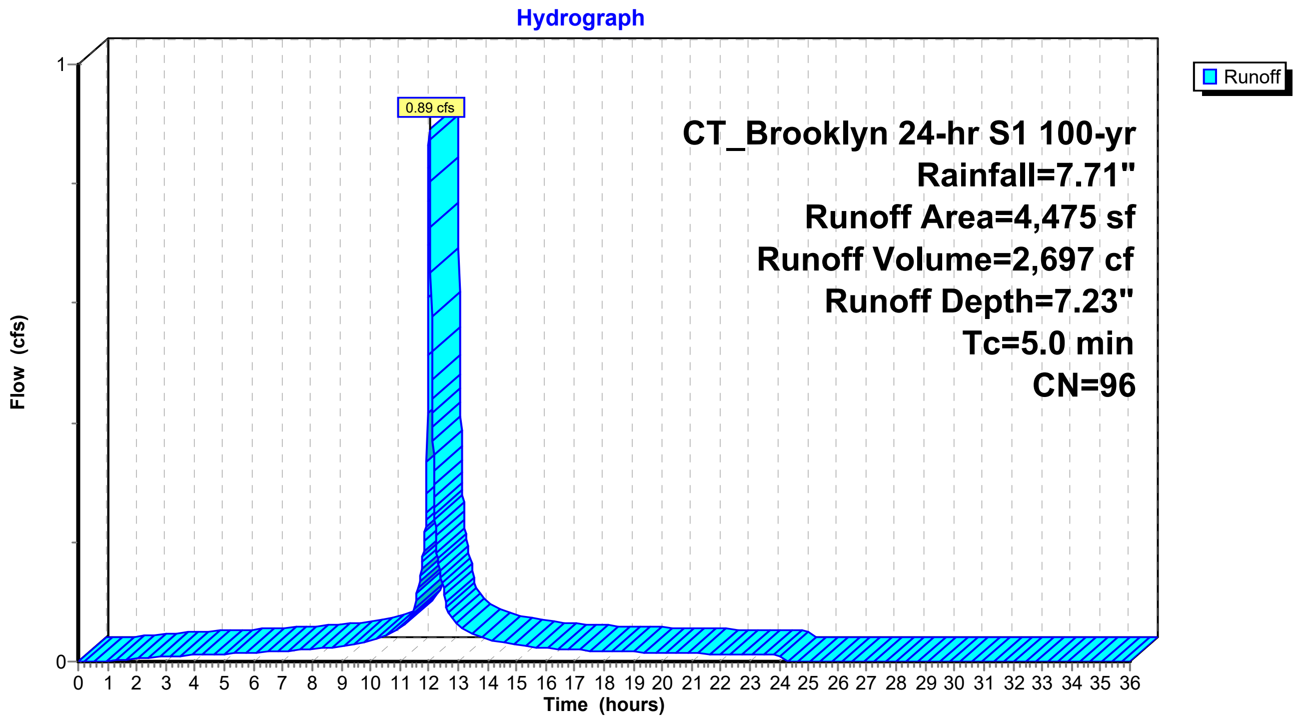
Runoff = 0.89 cfs @ 12.03 hrs, Volume= 2,697 cf, Depth= 7.23"
Routed to Pond 12P : CB F

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
4,215	98	Paved parking & roofs
260	61	>75% Grass cover, Good, HSG B
4,475	96	Weighted Average
260		5.81% Pervious Area
4,215		94.19% Impervious Area

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

Subcatchment 12S: Proposed to CB F



Summary for Subcatchment 13S: Proposed to CB G

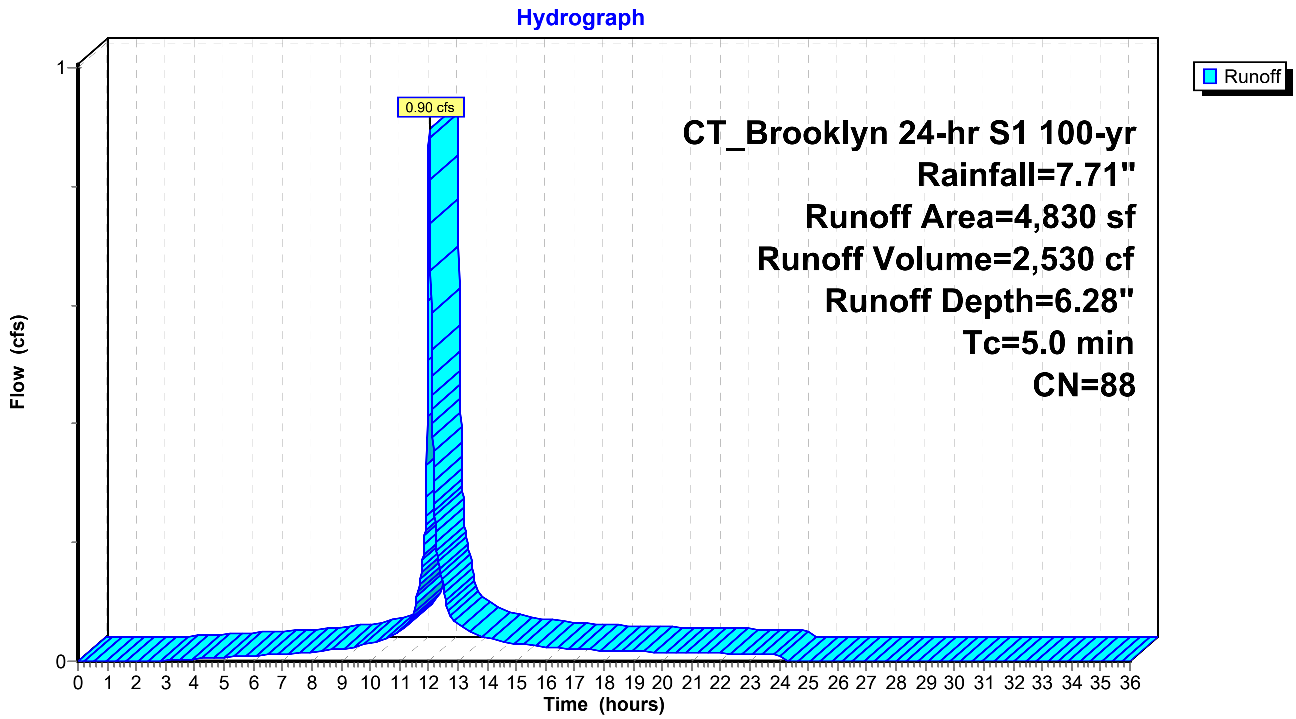
Runoff = 0.90 cfs @ 12.03 hrs, Volume= 2,530 cf, Depth= 6.28"
Routed to Pond 13P : CB G

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
3,530	98	Paved parking & roofs
1,300	61	>75% Grass cover, Good, HSG B
4,830	88	Weighted Average
1,300		26.92% Pervious Area
3,530		73.08% Impervious Area

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

Subcatchment 13S: Proposed to CB G



Summary for Subcatchment 14S: Proposed to CB H

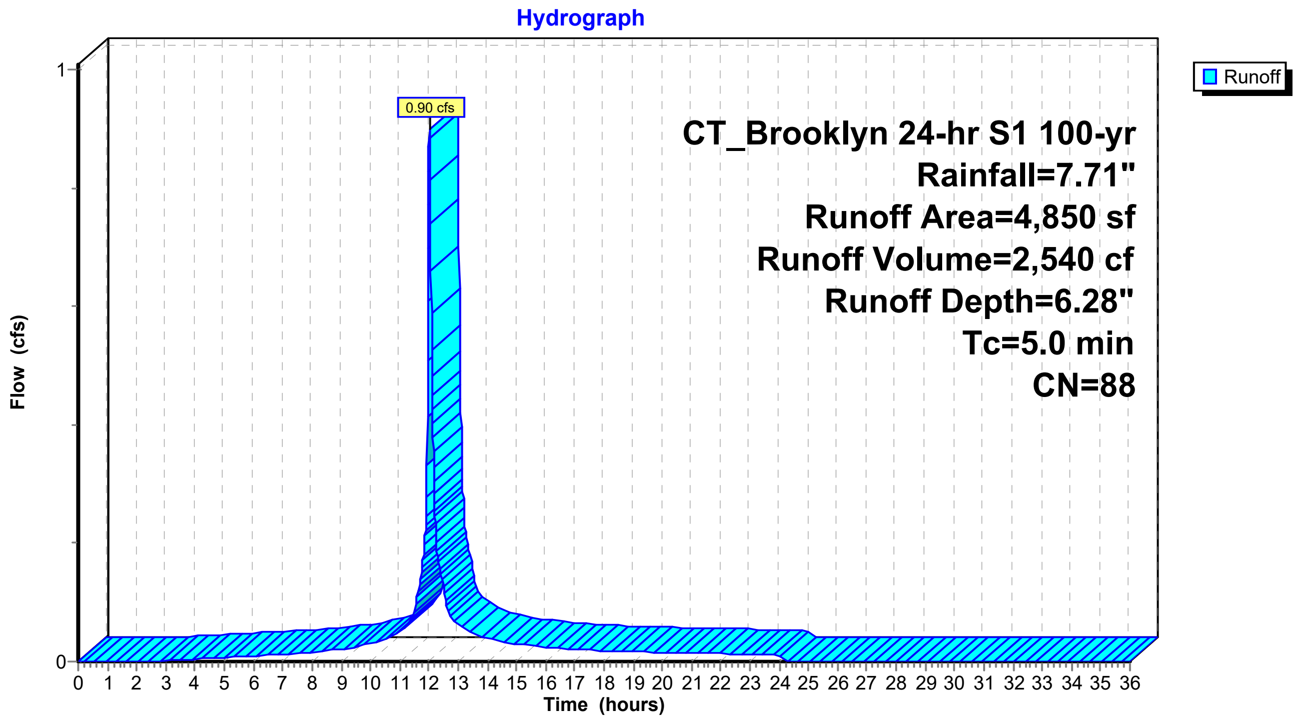
Runoff = 0.90 cfs @ 12.03 hrs, Volume= 2,540 cf, Depth= 6.28"
Routed to Pond 14P : CB H

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
3,550	98	Paved parking & roofs
1,300	61	>75% Grass cover, Good, HSG B
4,850	88	Weighted Average
1,300		26.80% Pervious Area
3,550		73.20% Impervious Area

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

Subcatchment 14S: Proposed to CB H



Summary for Subcatchment 15S: Proposed to CB I

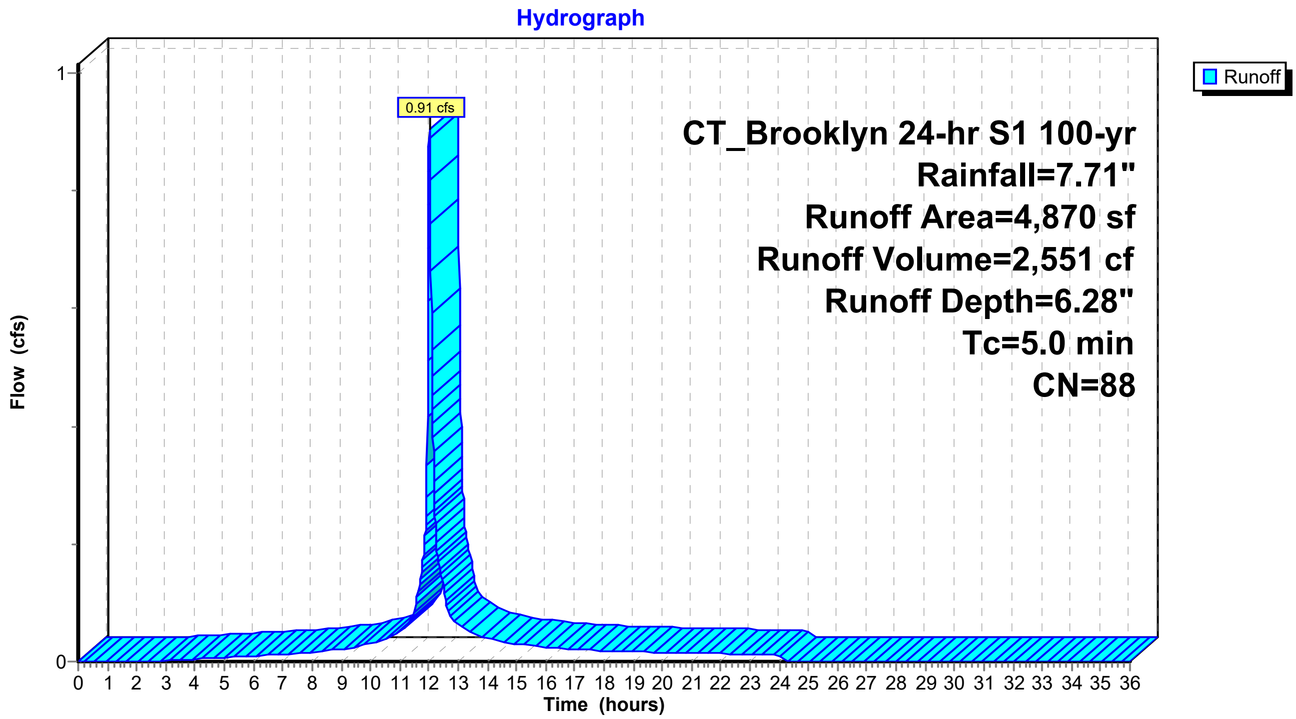
Runoff = 0.91 cfs @ 12.03 hrs, Volume= 2,551 cf, Depth= 6.28"
Routed to Pond 15P : CB I

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
3,520	98	Paved parking & roofs
1,350	61	>75% Grass cover, Good, HSG B
4,870	88	Weighted Average
1,350		27.72% Pervious Area
3,520		72.28% Impervious Area

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

Subcatchment 15S: Proposed to CB I



Summary for Subcatchment 16S: Proposed to CB J

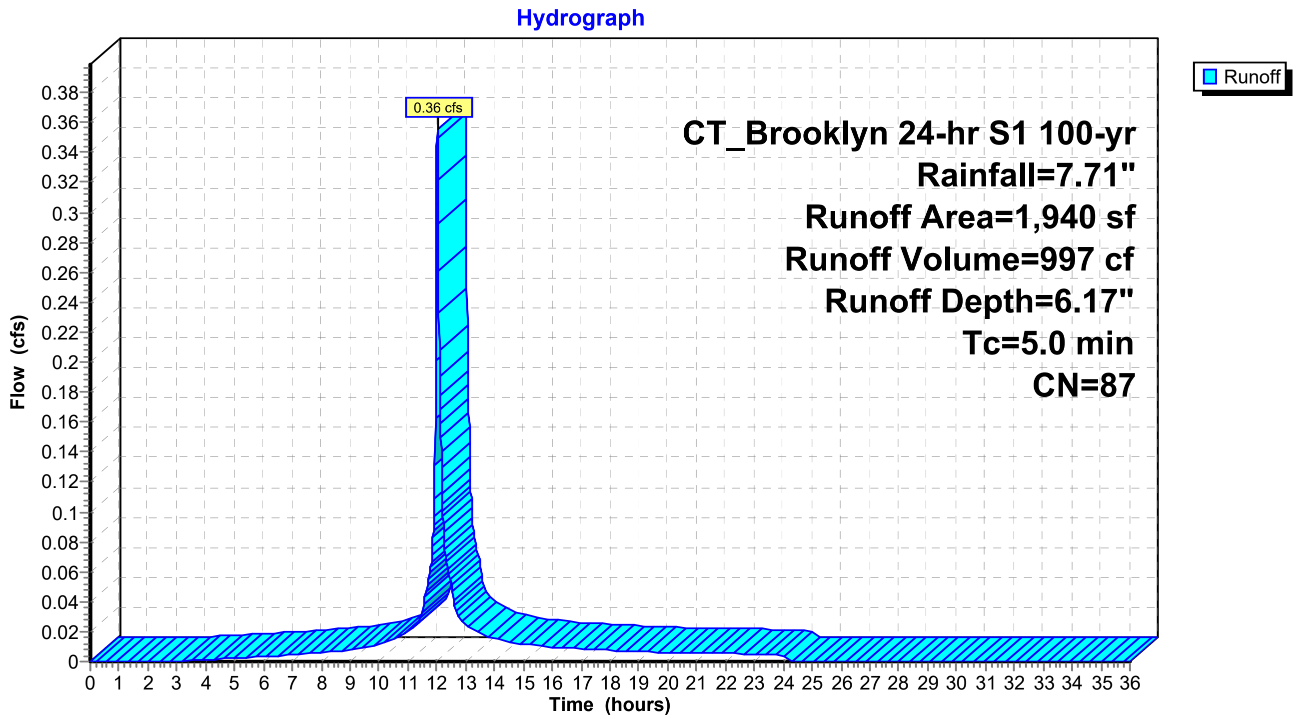
Runoff = 0.36 cfs @ 12.03 hrs, Volume= 997 cf, Depth= 6.17"
Routed to Pond 16P : CB J

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
1,380	98	Paved parking & roofs
560	61	>75% Grass cover, Good, HSG B
1,940	87	Weighted Average
560		28.87% Pervious Area
1,380		71.13% Impervious Area

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

Subcatchment 16S: Proposed to CB J



Summary for Subcatchment 17S: Proposed to CB K

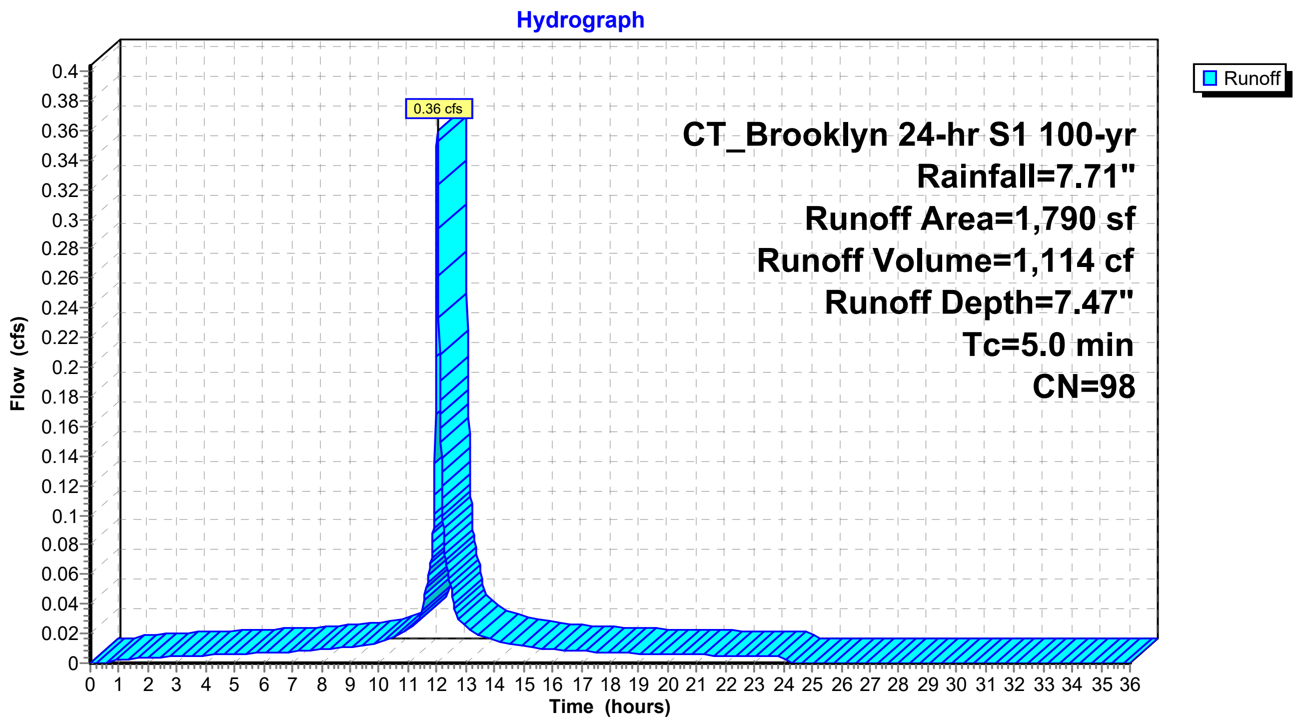
Runoff = 0.36 cfs @ 12.03 hrs, Volume= 1,114 cf, Depth= 7.47"
Routed to Pond 17P : CB K

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
1,790	98	Paved parking & roofs
1,790		100.00% Impervious Area

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

Subcatchment 17S: Proposed to CB K



Summary for Subcatchment 18S: Proposed to CB L

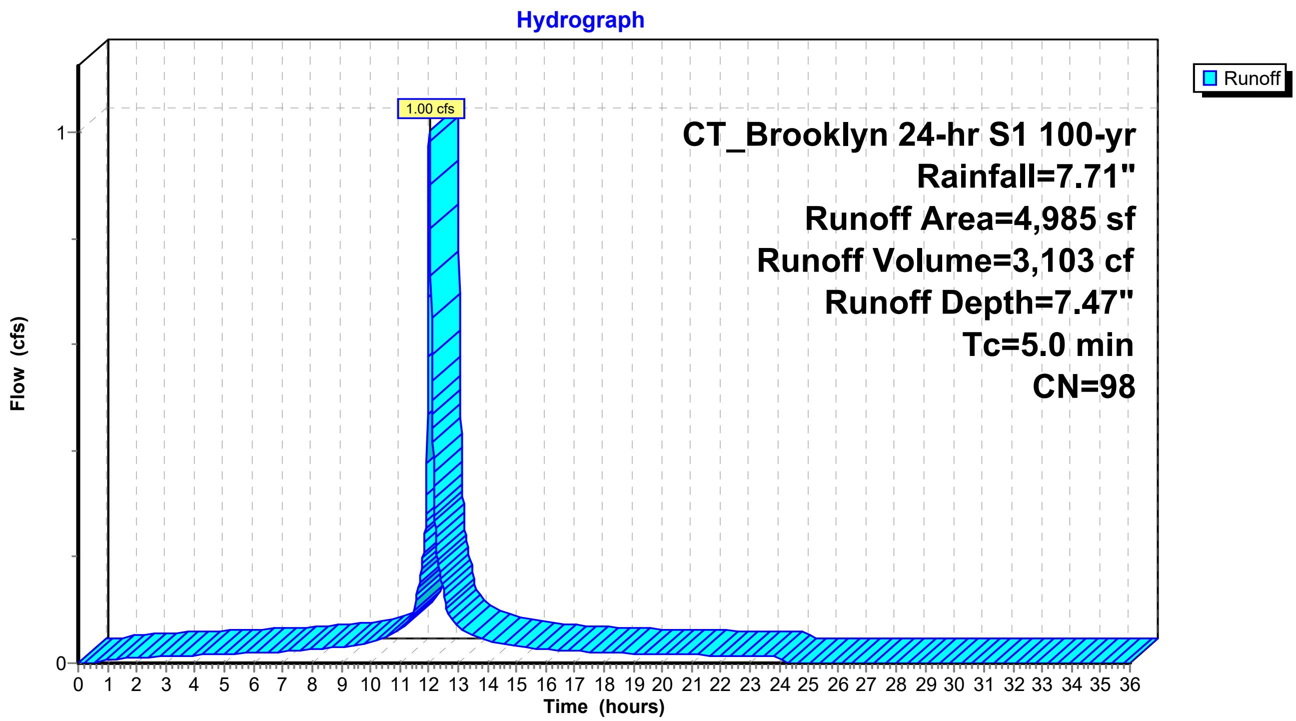
Runoff = 1.00 cfs @ 12.03 hrs, Volume= 3,103 cf, Depth= 7.47"
Routed to Pond 18P : CB L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
4,985	98	Paved parking & roofs
4,985		100.00% Impervious Area

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

Subcatchment 18S: Proposed to CB L



Summary for Subcatchment 19S: Proposed to CB M

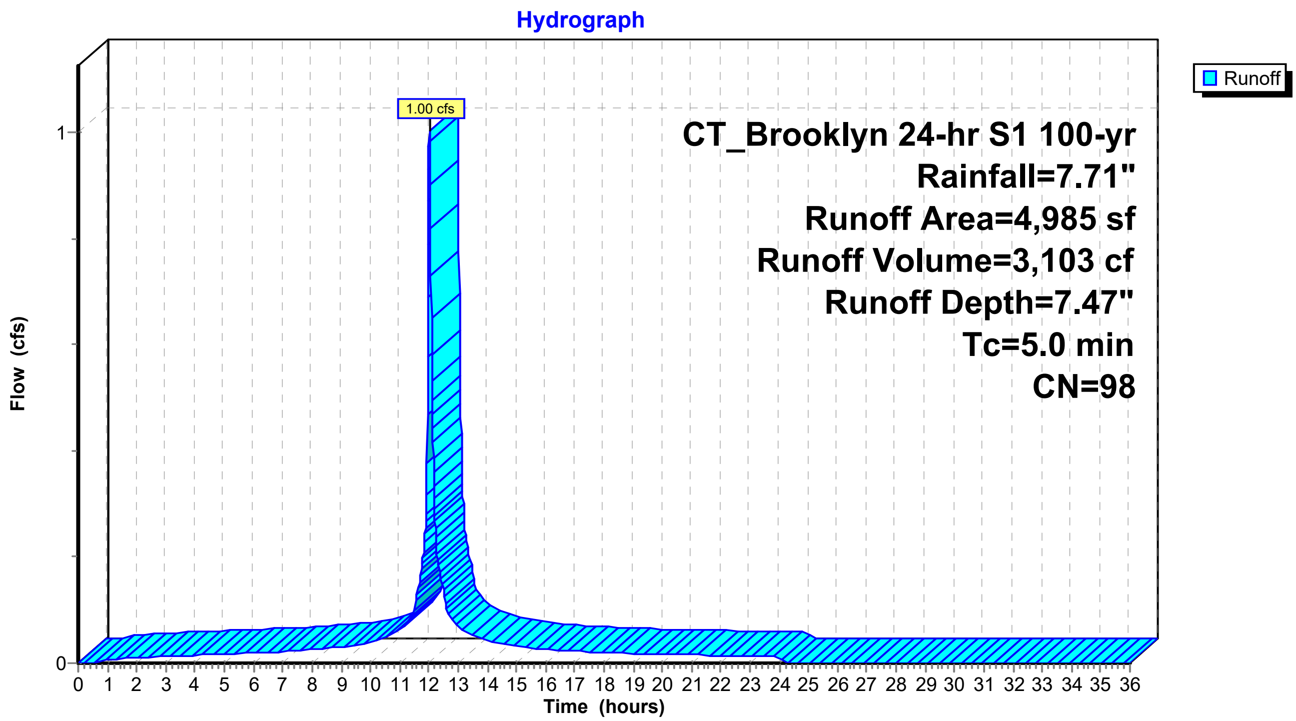
Runoff = 1.00 cfs @ 12.03 hrs, Volume= 3,103 cf, Depth= 7.47"
Routed to Pond 19P : CB M

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
4,985	98	Paved parking & roofs
4,985		100.00% Impervious Area

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

Subcatchment 19S: Proposed to CB M



Summary for Subcatchment 20S: Proposed to CB N

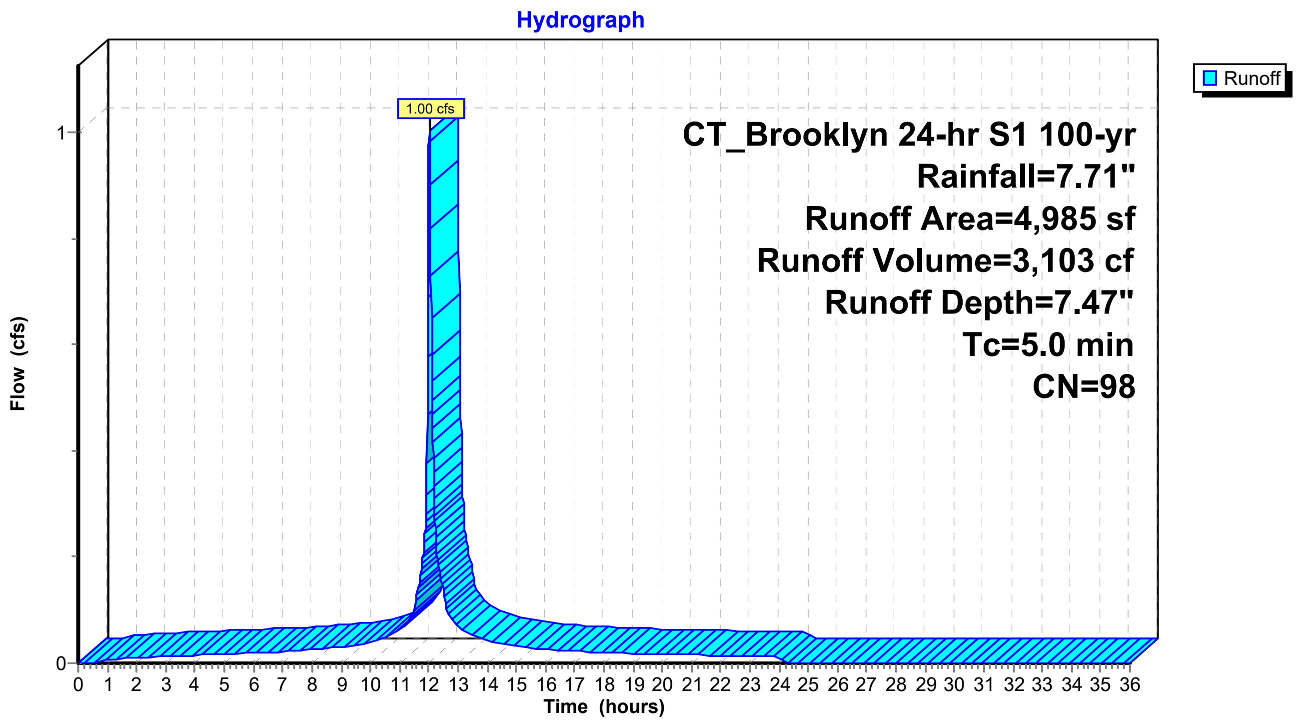
Runoff = 1.00 cfs @ 12.03 hrs, Volume= 3,103 cf, Depth= 7.47"
Routed to Pond 20P : CB N

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
4,985	98	Paved parking & roofs
4,985		100.00% Impervious Area

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

Subcatchment 20S: Proposed to CB N



Summary for Subcatchment 21S: Proposed to CB O

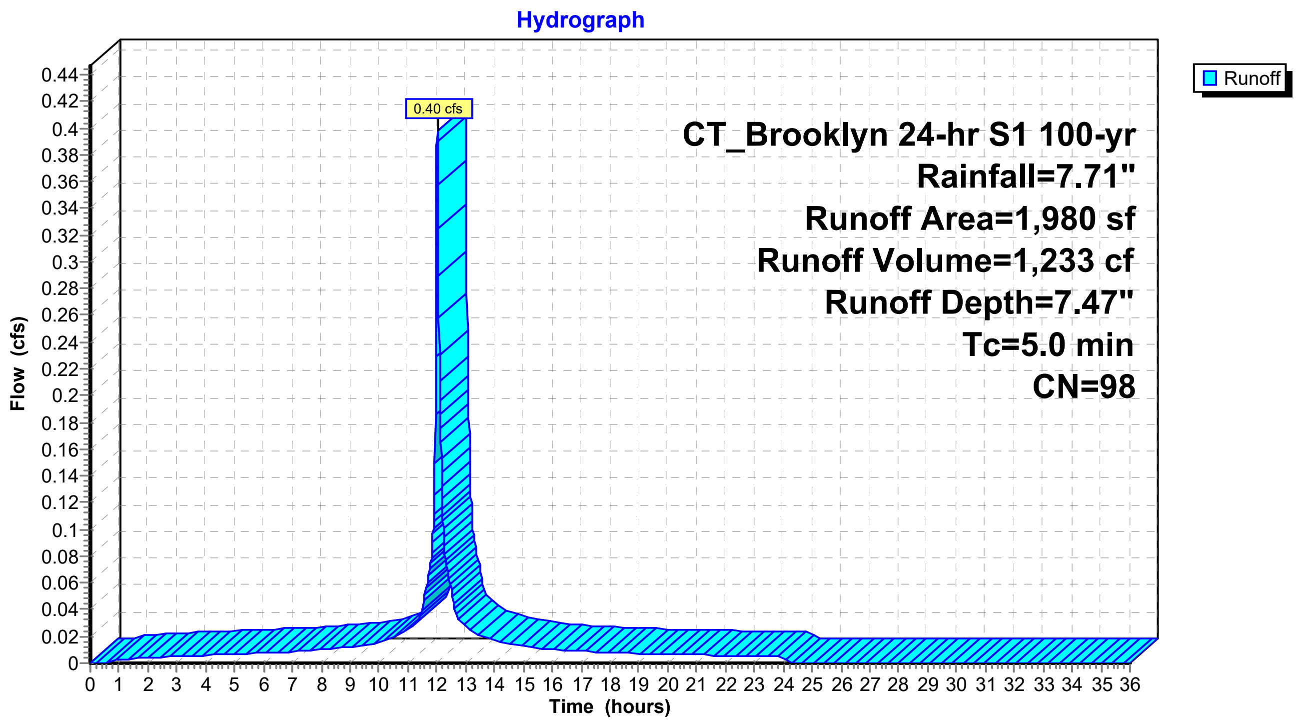
Runoff = 0.40 cfs @ 12.03 hrs, Volume= 1,233 cf, Depth= 7.47"
Routed to Pond 21P : CB O

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
1,980	98	Paved parking & roofs
1,980		100.00% Impervious Area

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

Subcatchment 21S: Proposed to CB O



Summary for Subcatchment 22S: Proposed to CB P

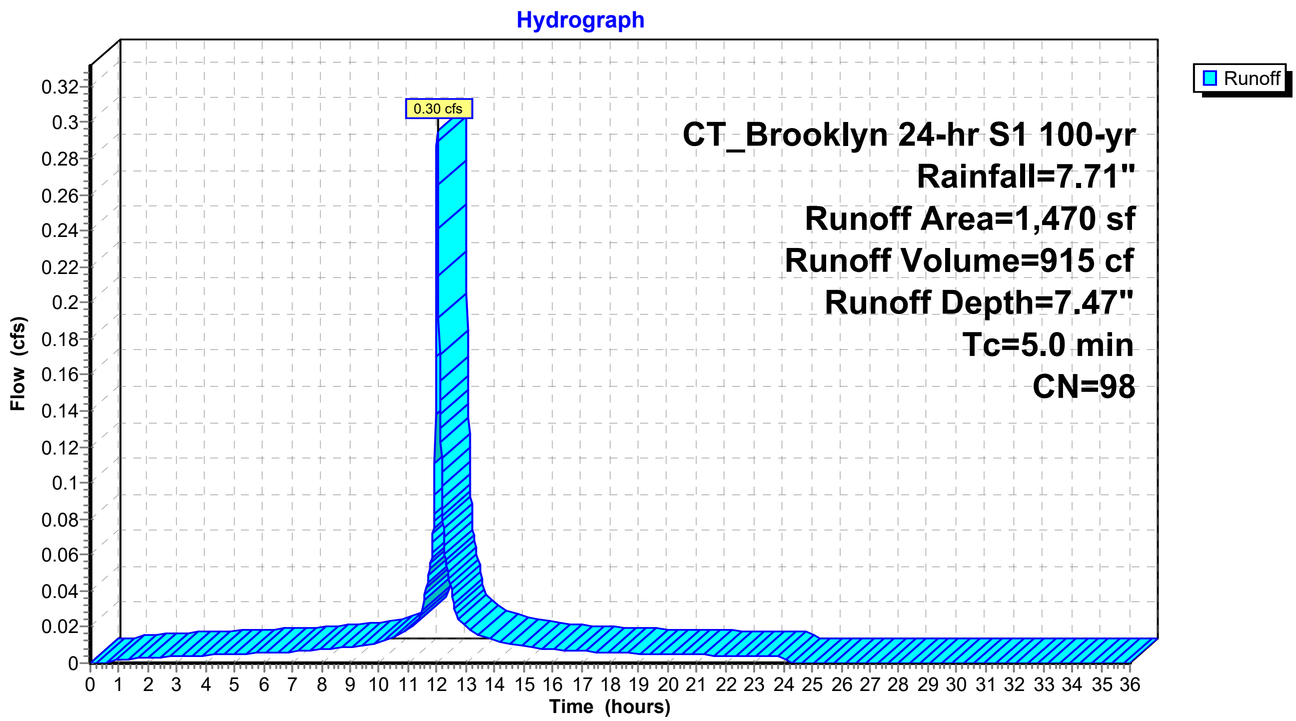
Runoff = 0.30 cfs @ 12.03 hrs, Volume= 915 cf, Depth= 7.47"
Routed to Pond 22P : CB P

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
1,470	98	Paved parking & roofs
1,470		100.00% Impervious Area

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

Subcatchment 22S: Proposed to CB P



Summary for Subcatchment 23S: Proposed to CB Q

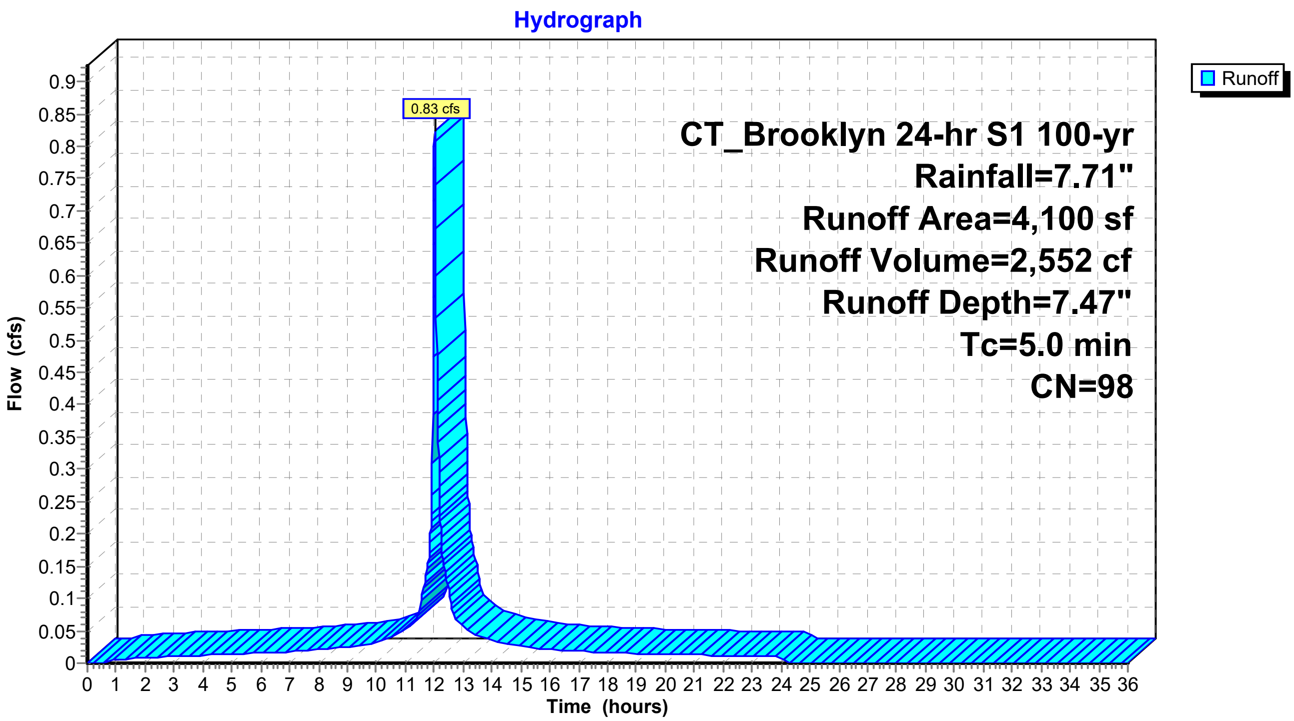
Runoff = 0.83 cfs @ 12.03 hrs, Volume= 2,552 cf, Depth= 7.47"
Routed to Pond 23P : CB Q

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
4,100	98	Paved parking & roofs
4,100		100.00% Impervious Area

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

Subcatchment 23S: Proposed to CB Q



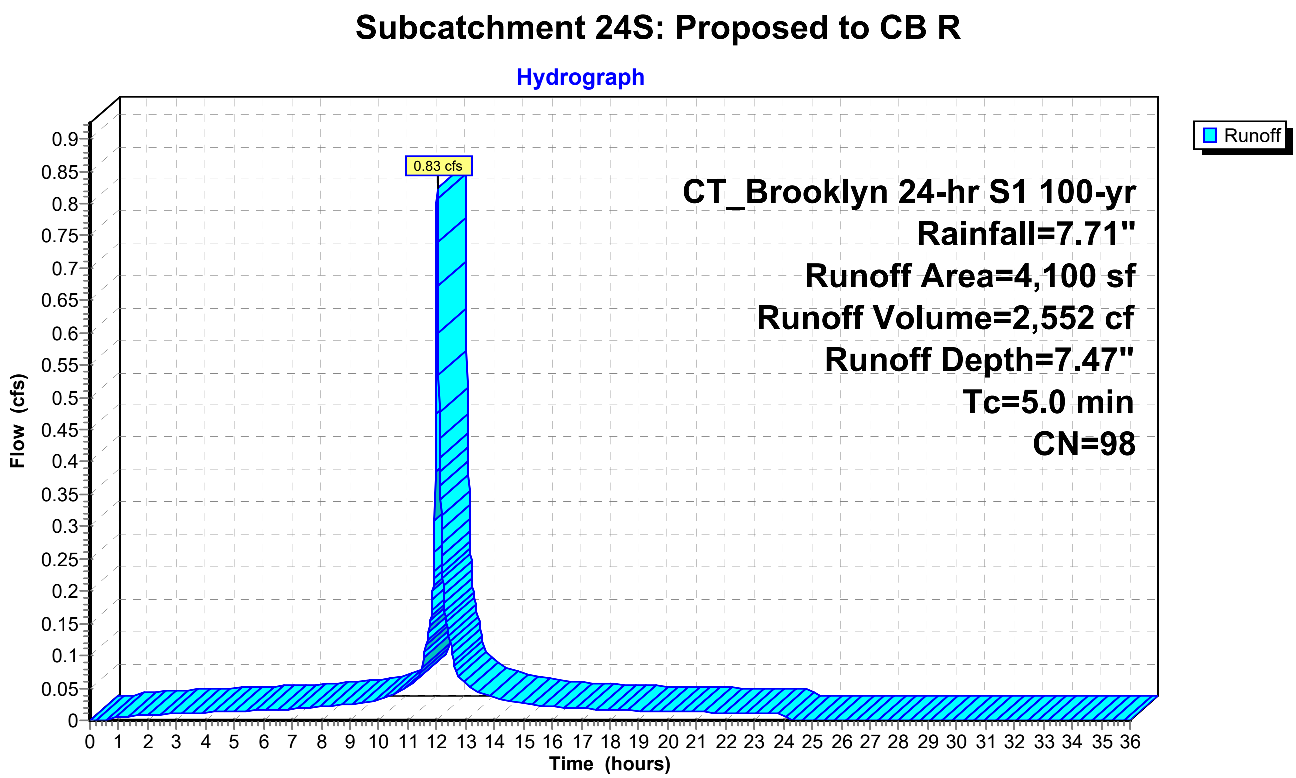
Summary for Subcatchment 24S: Proposed to CB R

Runoff = 0.83 cfs @ 12.03 hrs, Volume= 2,552 cf, Depth= 7.47"
Routed to Pond 24P : CB R

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
4,100	98	Paved parking & roofs
4,100		100.00% Impervious Area

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



Summary for Subcatchment 25S: Proposed to CB S

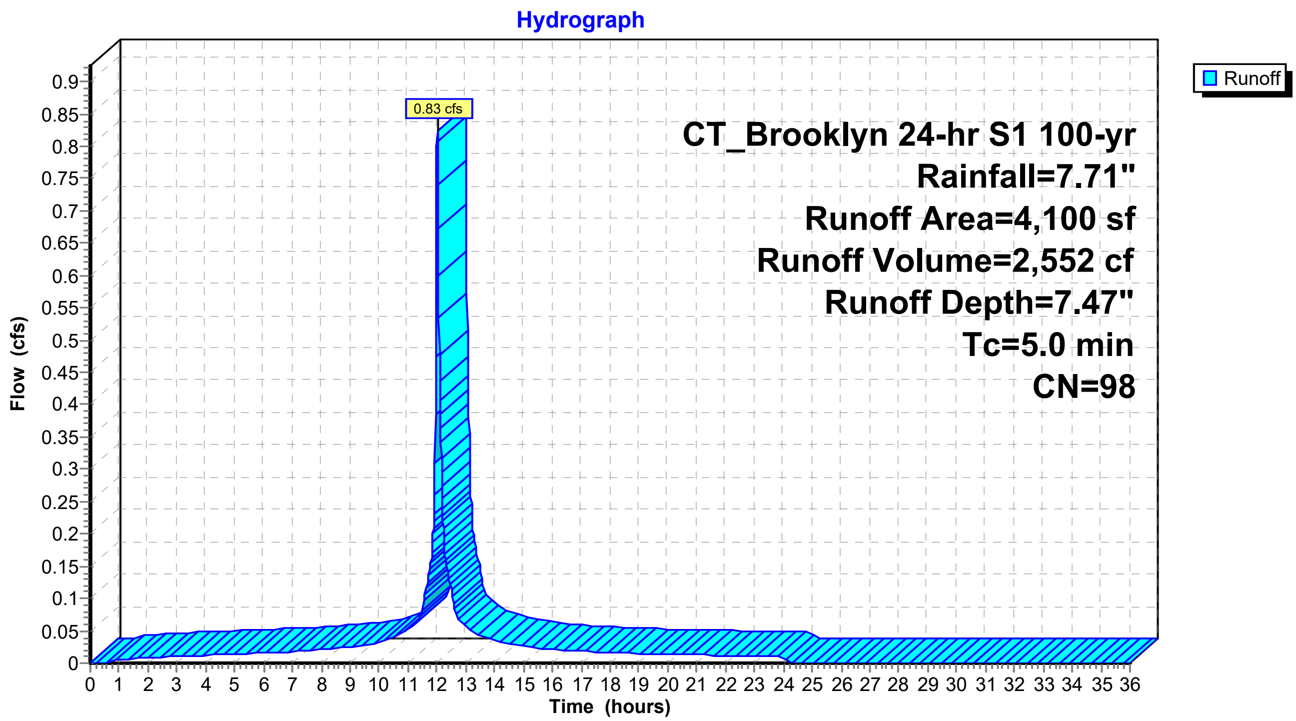
Runoff = 0.83 cfs @ 12.03 hrs, Volume= 2,552 cf, Depth= 7.47"
Routed to Pond 25P : CB S

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
4,100	98	Paved parking & roofs
4,100		100.00% Impervious Area

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

Subcatchment 25S: Proposed to CB S



Summary for Subcatchment 26S: Proposed to CB T

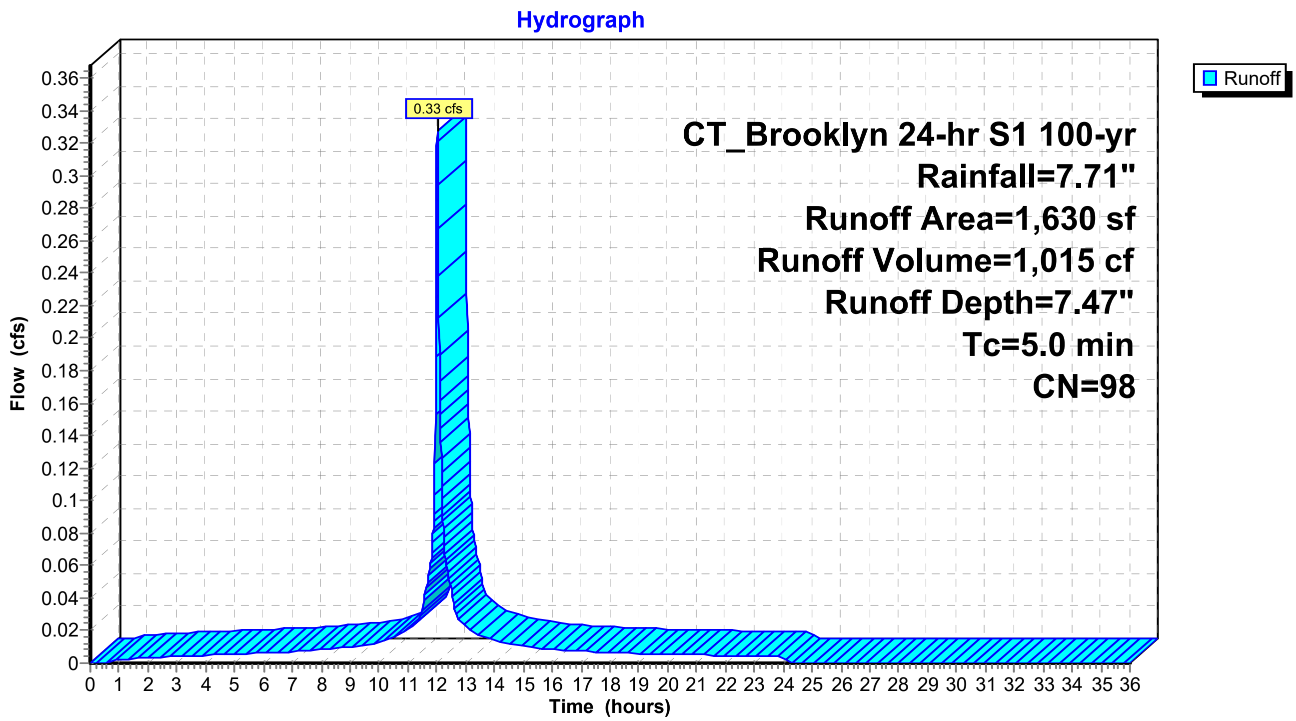
Runoff = 0.33 cfs @ 12.03 hrs, Volume= 1,015 cf, Depth= 7.47"
Routed to Pond 26P : CB T

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
1,630	98	Paved parking & roofs
1,630		100.00% Impervious Area

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

Subcatchment 26S: Proposed to CB T



Summary for Subcatchment 27S: Proposed to CB U

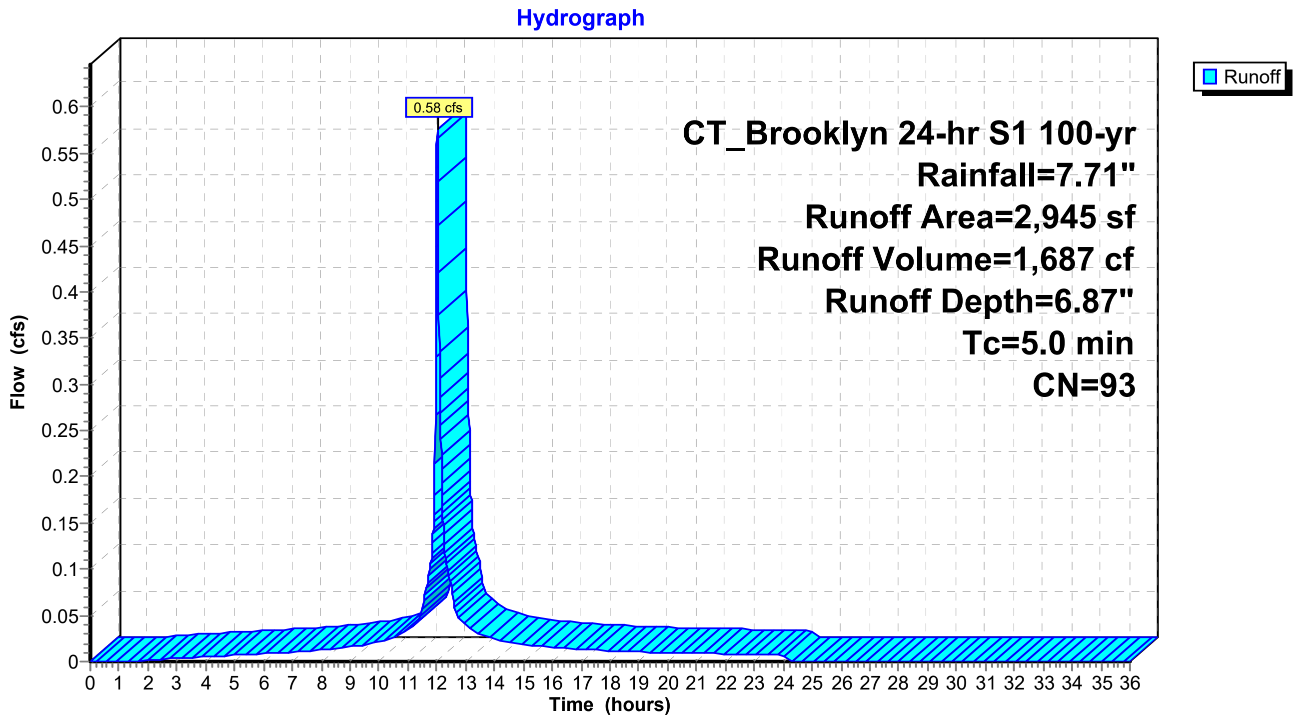
Runoff = 0.58 cfs @ 12.03 hrs, Volume= 1,687 cf, Depth= 6.87"
Routed to Pond 27P : CB U

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
2,555	98	Paved parking & roofs
390	61	>75% Grass cover, Good, HSG B
2,945	93	Weighted Average
390		13.24% Pervious Area
2,555		86.76% Impervious Area

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

Subcatchment 27S: Proposed to CB U



Summary for Subcatchment 28S: Proposed to CB V

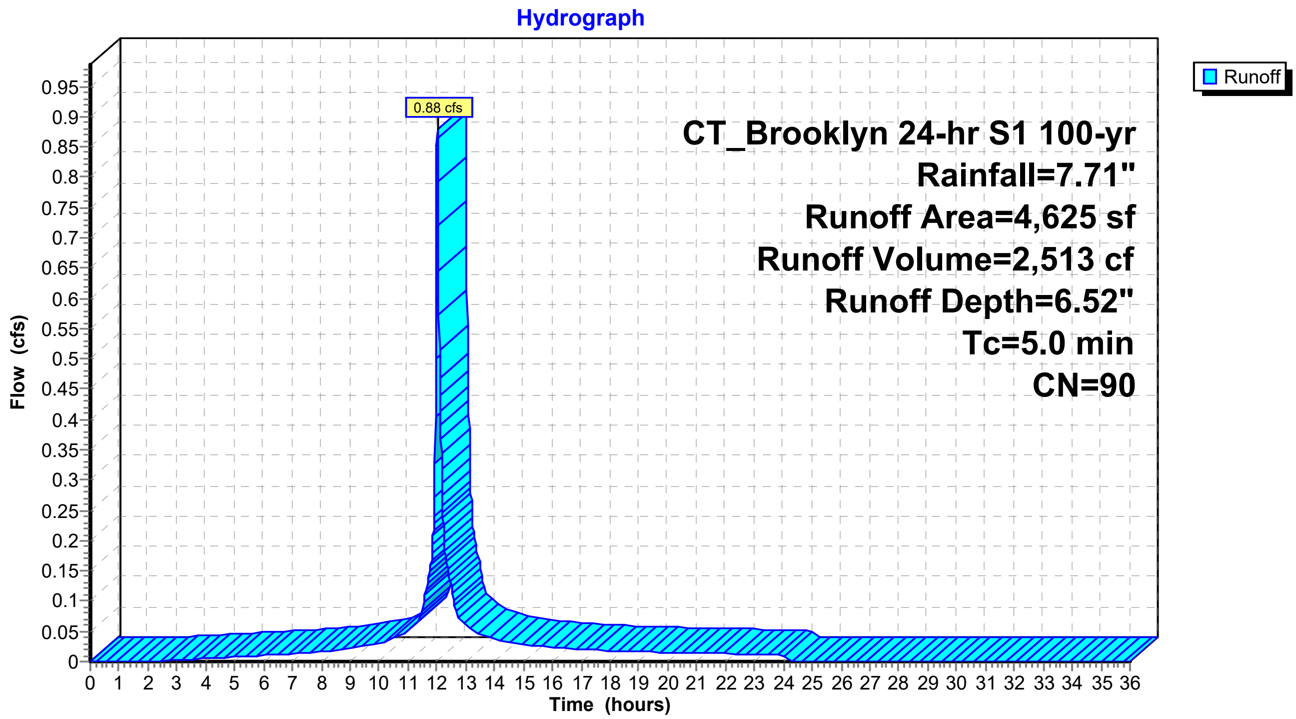
Runoff = 0.88 cfs @ 12.03 hrs, Volume= 2,513 cf, Depth= 6.52"
Routed to Pond 28P : CB V

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
3,605	98	Paved parking & roofs
1,020	61	>75% Grass cover, Good, HSG B
4,625	90	Weighted Average
1,020		22.05% Pervious Area
3,605		77.95% Impervious Area

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

Subcatchment 28S: Proposed to CB V



Summary for Subcatchment 29S: Proposed to CB W

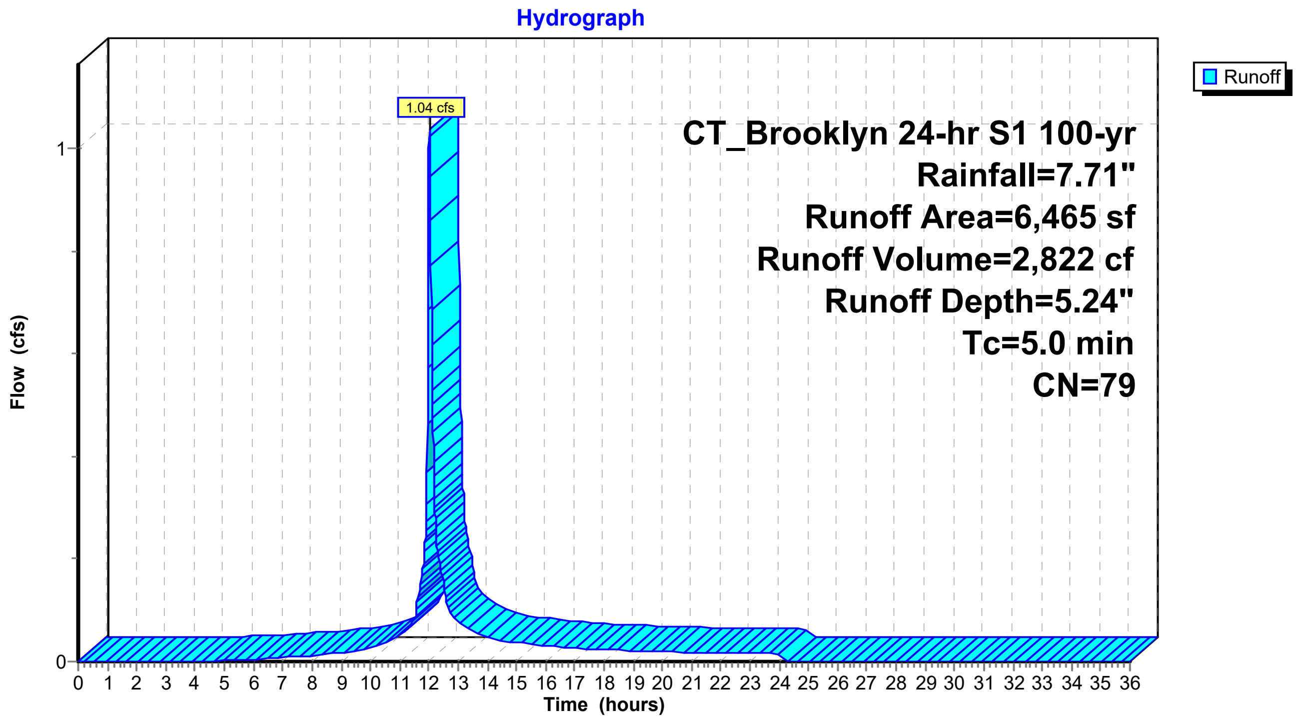
Runoff = 1.04 cfs @ 12.03 hrs, Volume= 2,822 cf, Depth= 5.24"
Routed to Pond 29P : CB W

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
3,150	98	Paved parking & roofs
3,315	61	>75% Grass cover, Good, HSG B
6,465	79	Weighted Average
3,315		51.28% Pervious Area
3,150		48.72% Impervious Area

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

Subcatchment 29S: Proposed to CB W



Summary for Subcatchment 30S: Bank Site to Stormwater Basin (Approximate From Previous Design)

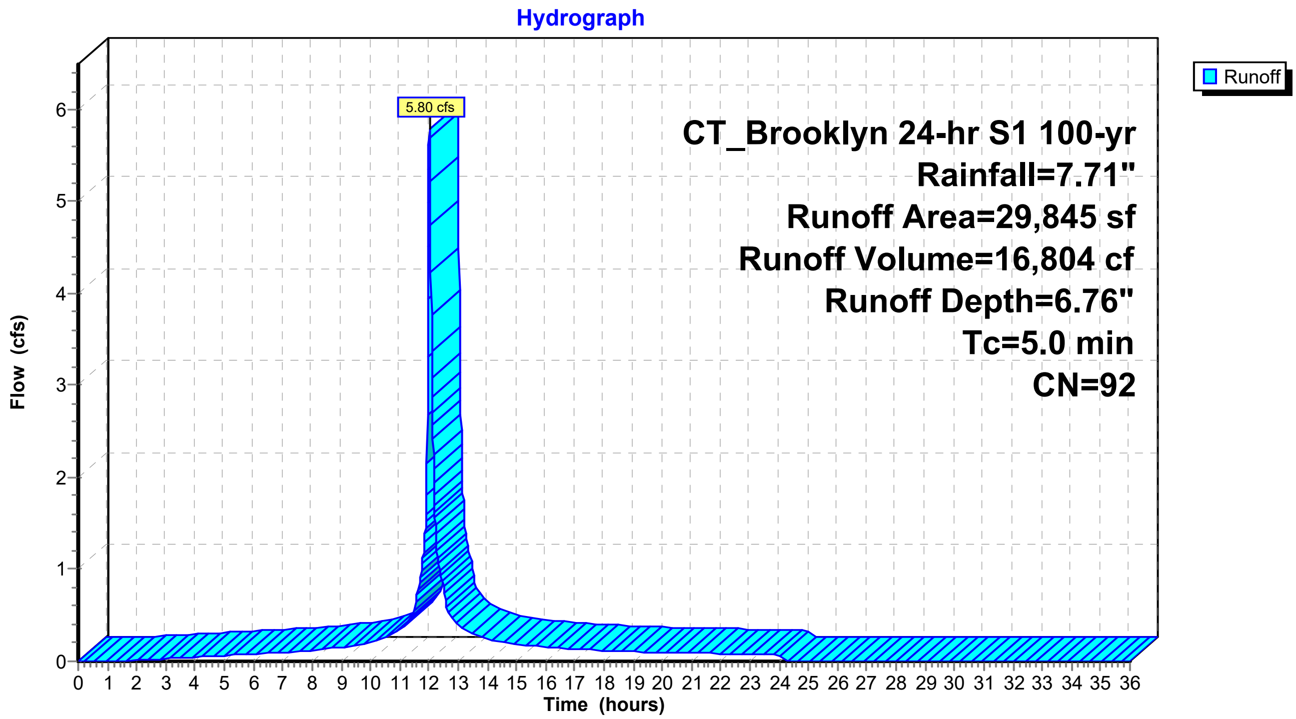
Runoff = 5.80 cfs @ 12.03 hrs, Volume= 16,804 cf, Depth= 6.76"
Routed to Link 1L : Wetland

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

	Area (sf)	CN	Description
*	2,975	98	Roof
	21,880	98	Paved parking & roofs
	4,990	61	>75% Grass cover, Good, HSG B
	29,845	92	Weighted Average
	4,990		16.72% Pervious Area
	24,855		83.28% Impervious Area

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

Subcatchment 30S: Bank Site to Stormwater Basin (Approximate From Previous Design)



Summary for Subcatchment 31S: Proposed to Swale (Approximate From Previous Design)

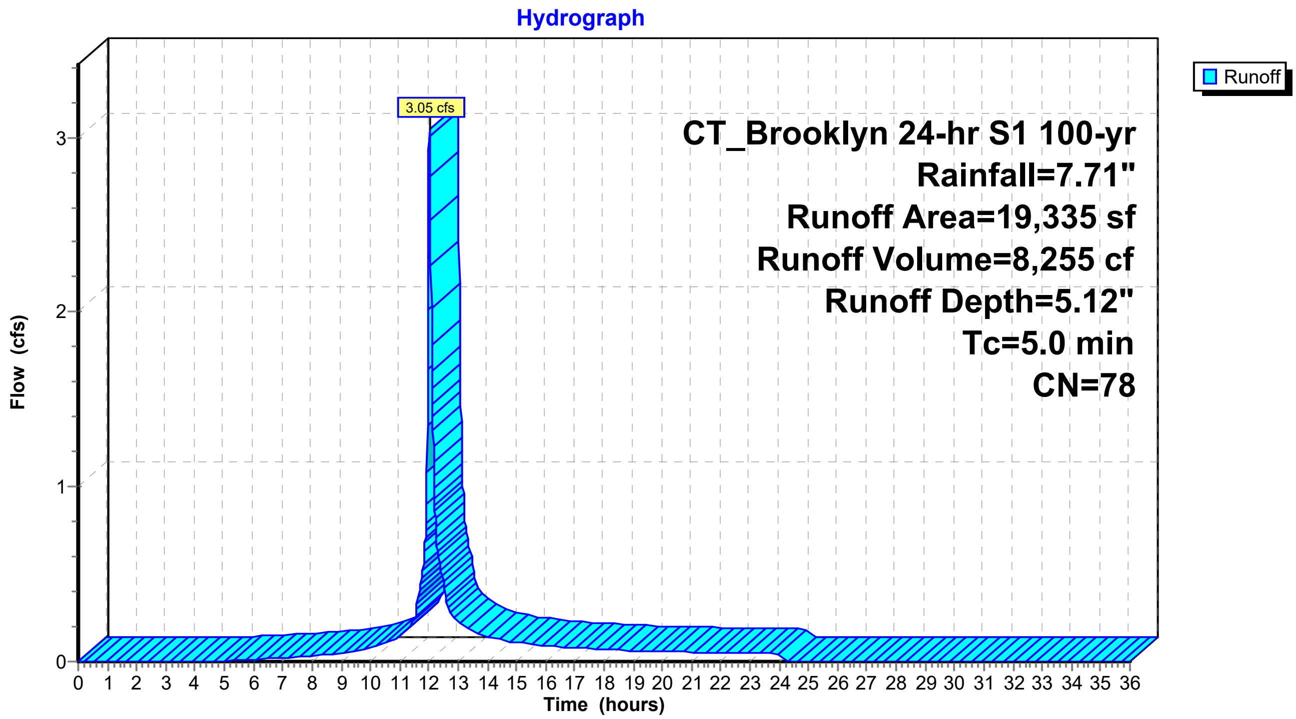
Runoff = 3.05 cfs @ 12.03 hrs, Volume= 8,255 cf, Depth= 5.12"
Routed to Pond 4DP : DMH 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
8,785	98	Paved parking & roofs
10,550	61	>75% Grass cover, Good, HSG B
19,335	78	Weighted Average
10,550		54.56% Pervious Area
8,785		45.44% Impervious Area

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

Subcatchment 31S: Proposed to Swale (Approximate From Previous Design)



Summary for Subcatchment 32S: Pharmacy Roof (Approximate From Previous Design)

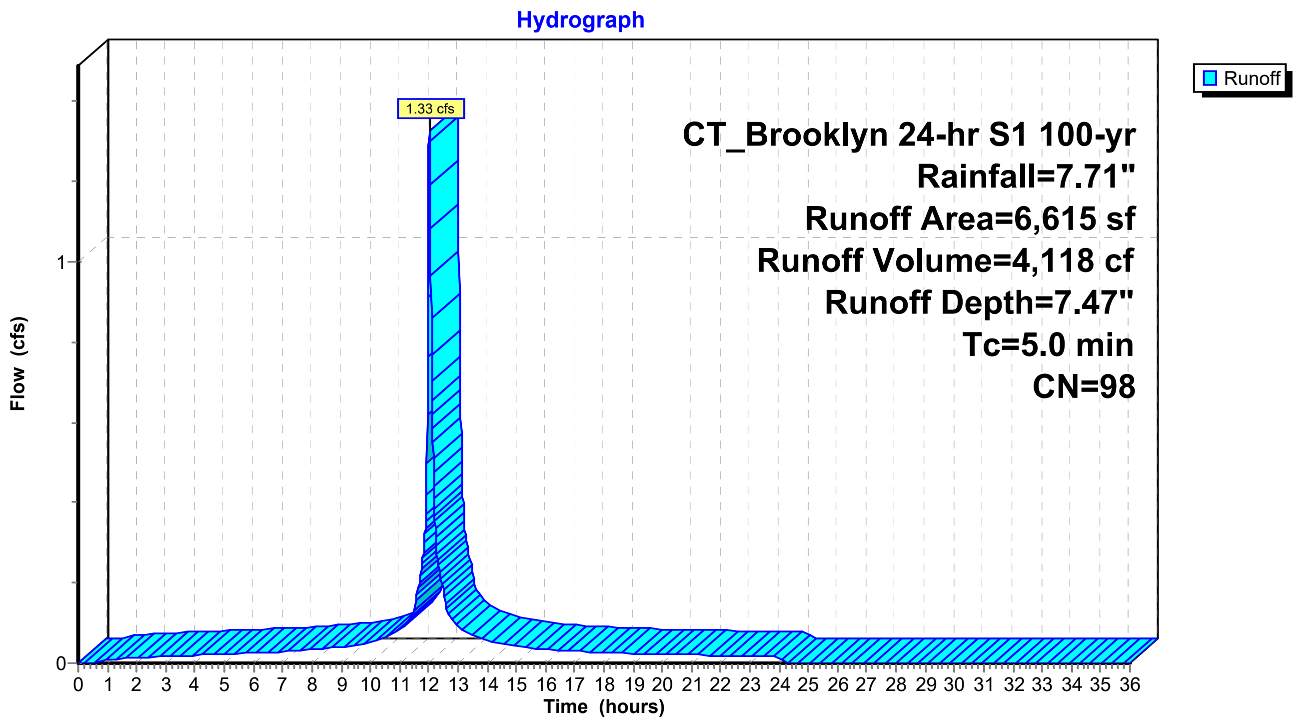
Runoff = 1.33 cfs @ 12.03 hrs, Volume= 4,118 cf, Depth= 7.47"
Routed to Pond 4DP : DMH 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
6,615	98	Paved parking & roofs
6,615		100.00% Impervious Area

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

Subcatchment 32S: Pharmacy Roof (Approximate From Previous Design)



Summary for Subcatchment 33S: Pharmacy Roof (Approximate From Previous Design)

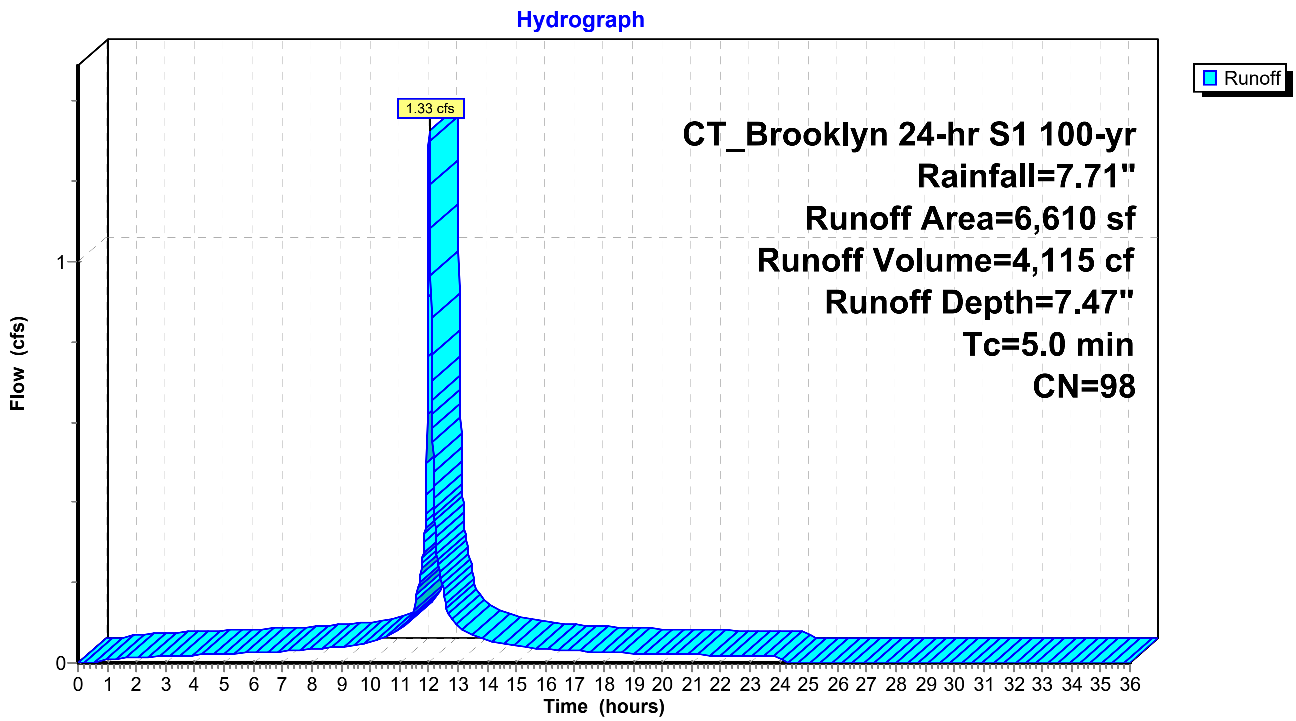
Runoff = 1.33 cfs @ 12.03 hrs, Volume= 4,115 cf, Depth= 7.47"
Routed to Pond 45P : CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
6,610	98	Paved parking & roofs
6,610		100.00% Impervious Area

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

Subcatchment 33S: Pharmacy Roof (Approximate From Previous Design)



Summary for Subcatchment 34ES: Retail/Office Roof

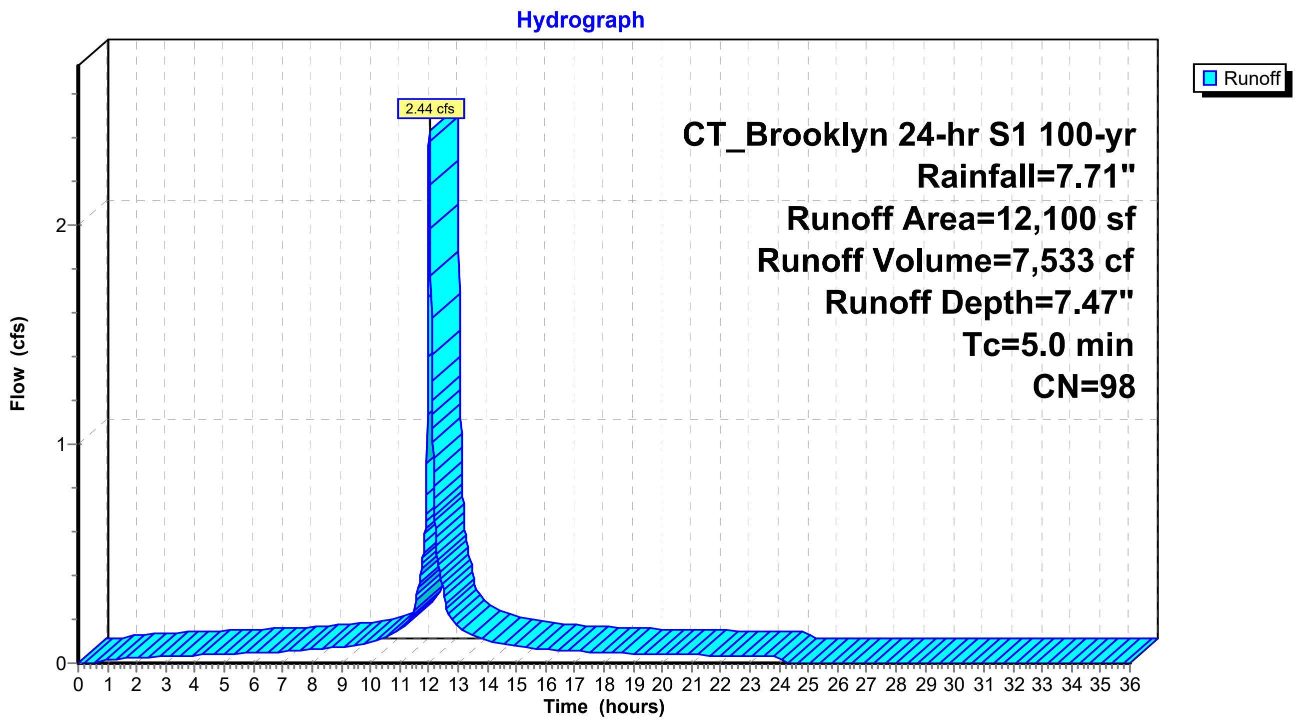
Runoff = 2.44 cfs @ 12.03 hrs, Volume= 7,533 cf, Depth= 7.47"
Routed to Pond 11P : CB E

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
12,100	98	Paved parking & roofs
12,100		100.00% Impervious Area

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

Subcatchment 34ES: Retail/Office Roof



Summary for Subcatchment 34WS: Retail/Office Roof

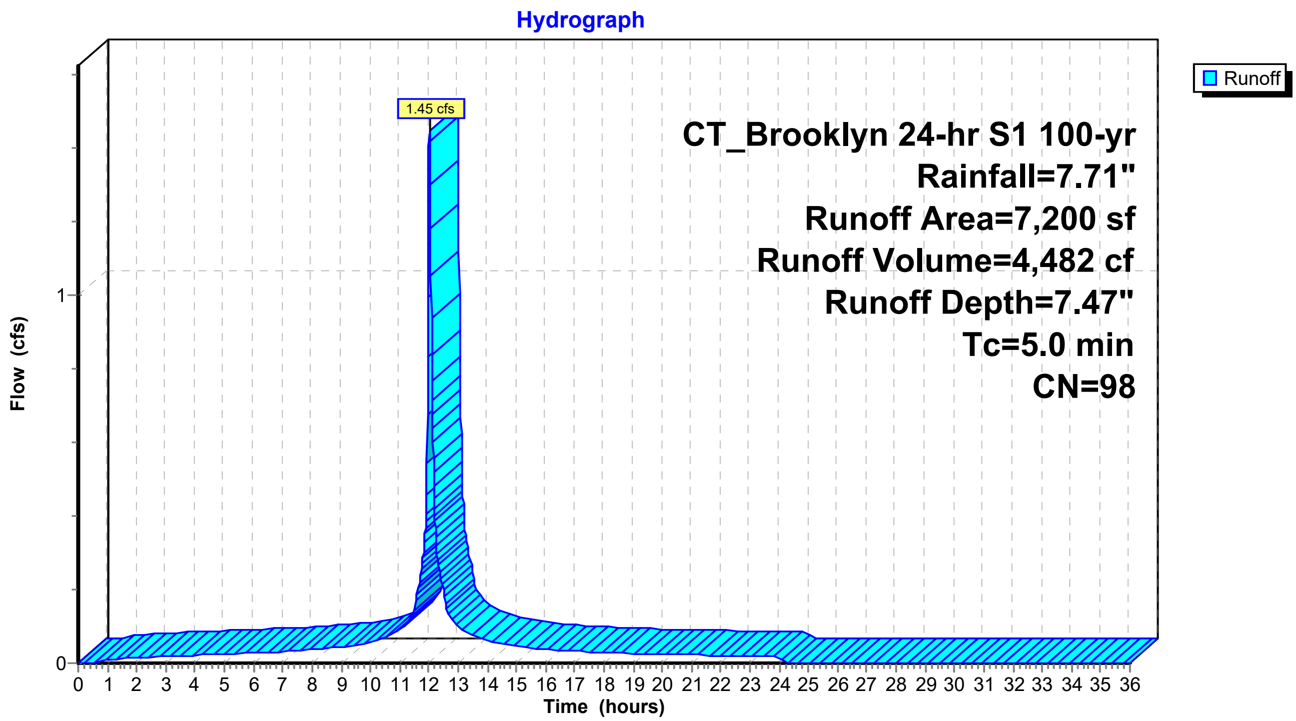
Runoff = 1.45 cfs @ 12.03 hrs, Volume= 4,482 cf, Depth= 7.47"
Routed to Pond 55P : DMH F

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
7,200	98	Paved parking & roofs
7,200		100.00% Impervious Area

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

Subcatchment 34WS: Retail/Office Roof



Summary for Subcatchment 35S: Spa / Med. Office Roof

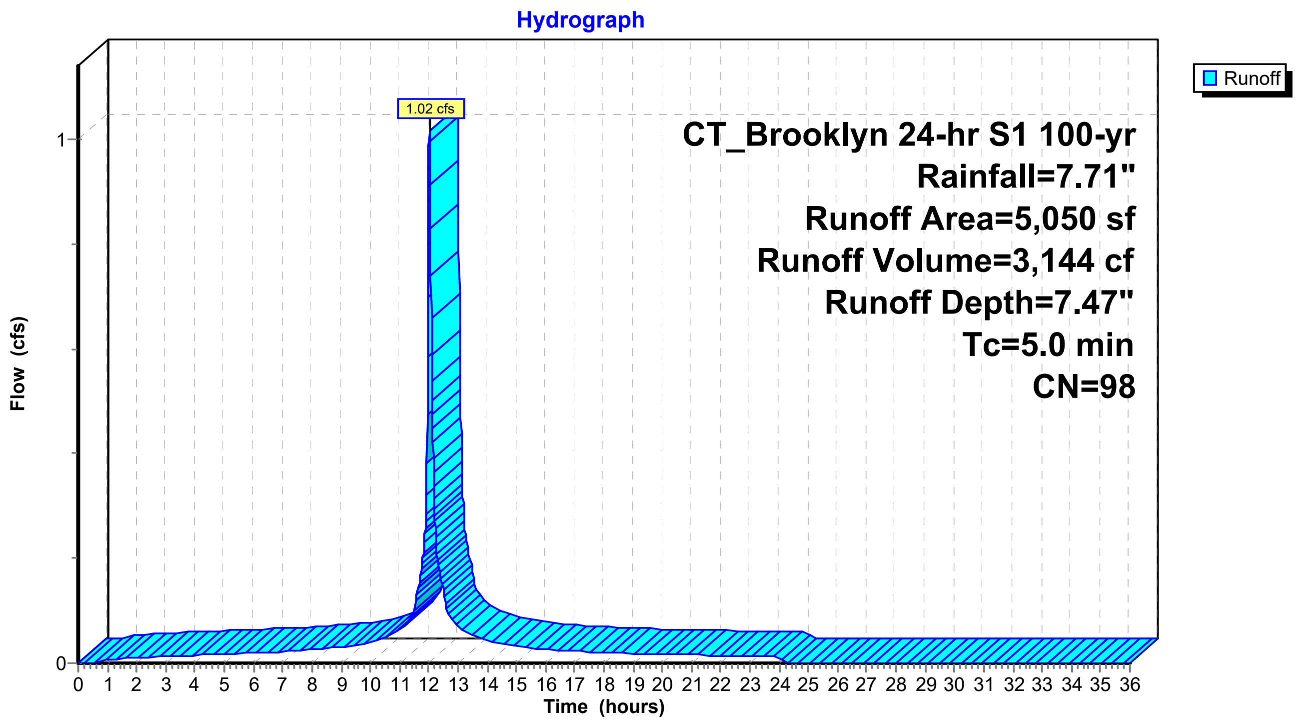
Runoff = 1.02 cfs @ 12.03 hrs, Volume= 3,144 cf, Depth= 7.47"
Routed to Pond 4DP : DMH 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
5,050	98	Paved parking & roofs
5,050		100.00% Impervious Area

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

Subcatchment 35S: Spa / Med. Office Roof



Summary for Subcatchment 41S: Proposed to CB 11

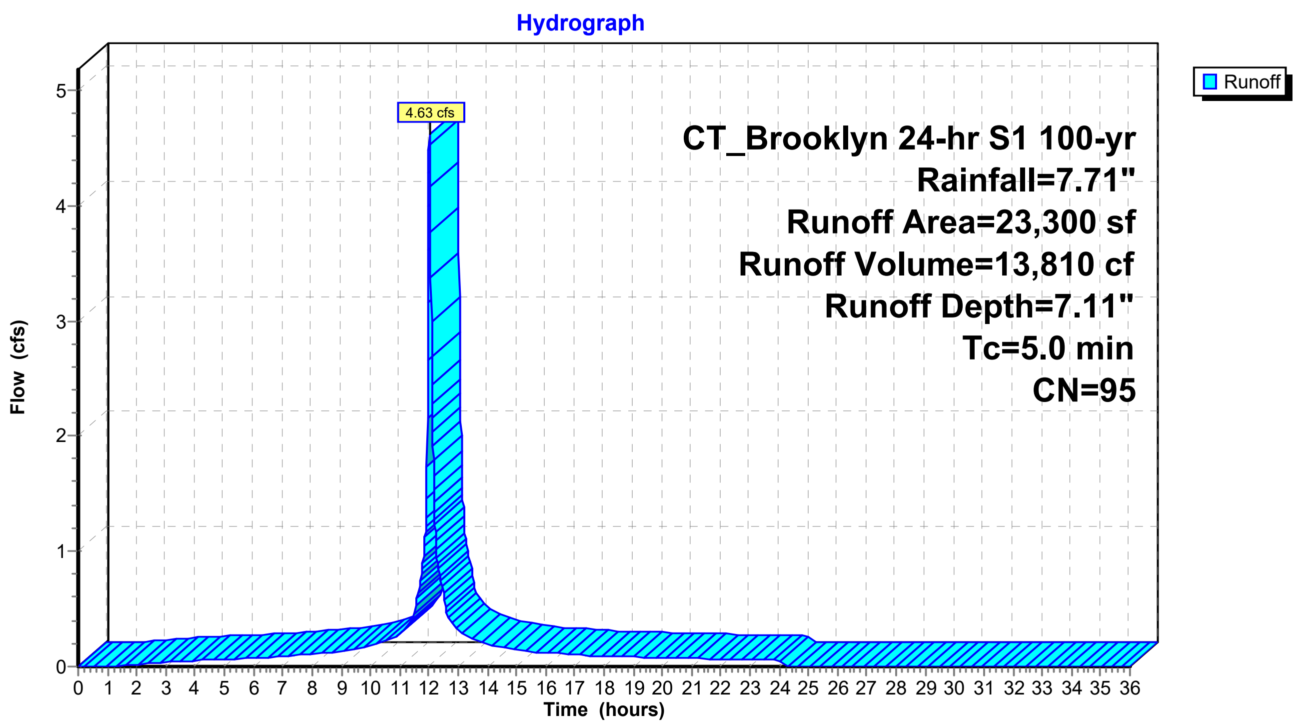
Runoff = 4.63 cfs @ 12.03 hrs, Volume= 13,810 cf, Depth= 7.11"
Routed to Pond 41P : CB 11

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
21,320	98	Paved parking & roofs
1,980	61	>75% Grass cover, Good, HSG B
23,300	95	Weighted Average
1,980		8.50% Pervious Area
21,320		91.50% Impervious Area

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

Subcatchment 41S: Proposed to CB 11



Summary for Subcatchment 42S: Proposed to CB 12

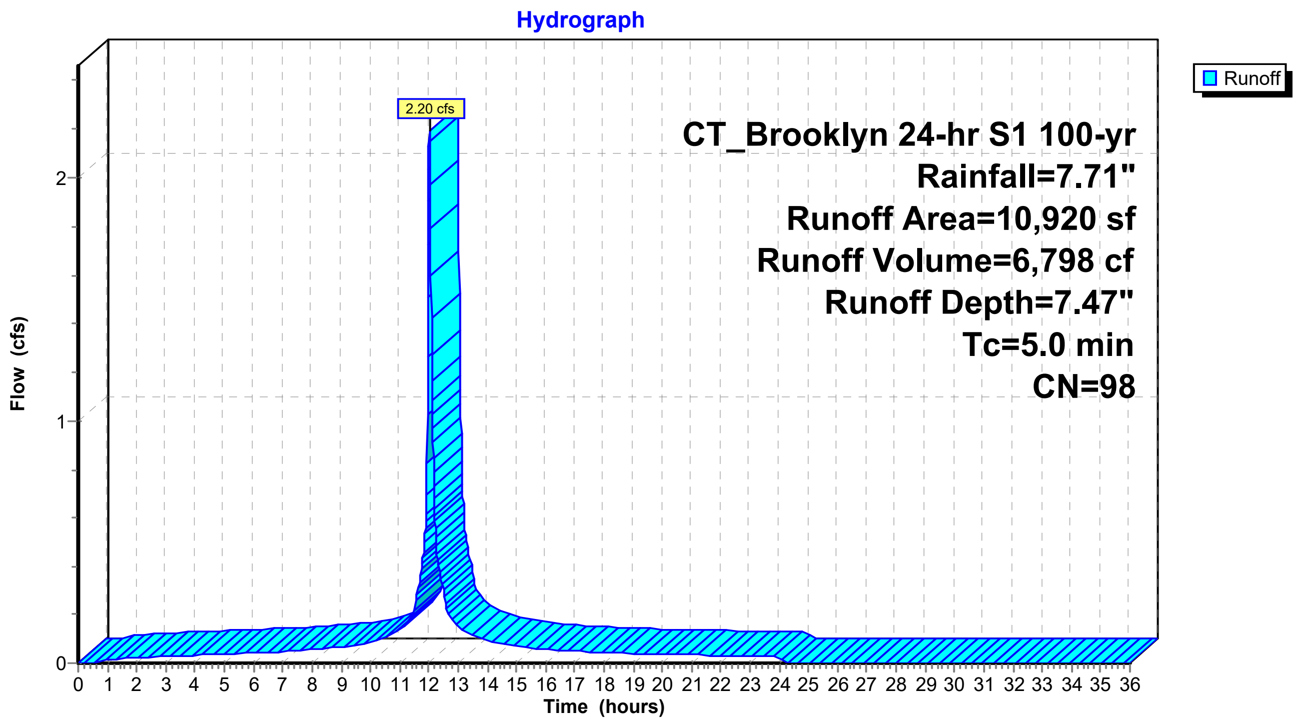
Runoff = 2.20 cfs @ 12.03 hrs, Volume= 6,798 cf, Depth= 7.47"
Routed to Pond 42P : CB 12

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
10,920	98	Paved parking & roofs
10,920		100.00% Impervious Area

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

Subcatchment 42S: Proposed to CB 12



Summary for Subcatchment 44S: Ex to CB

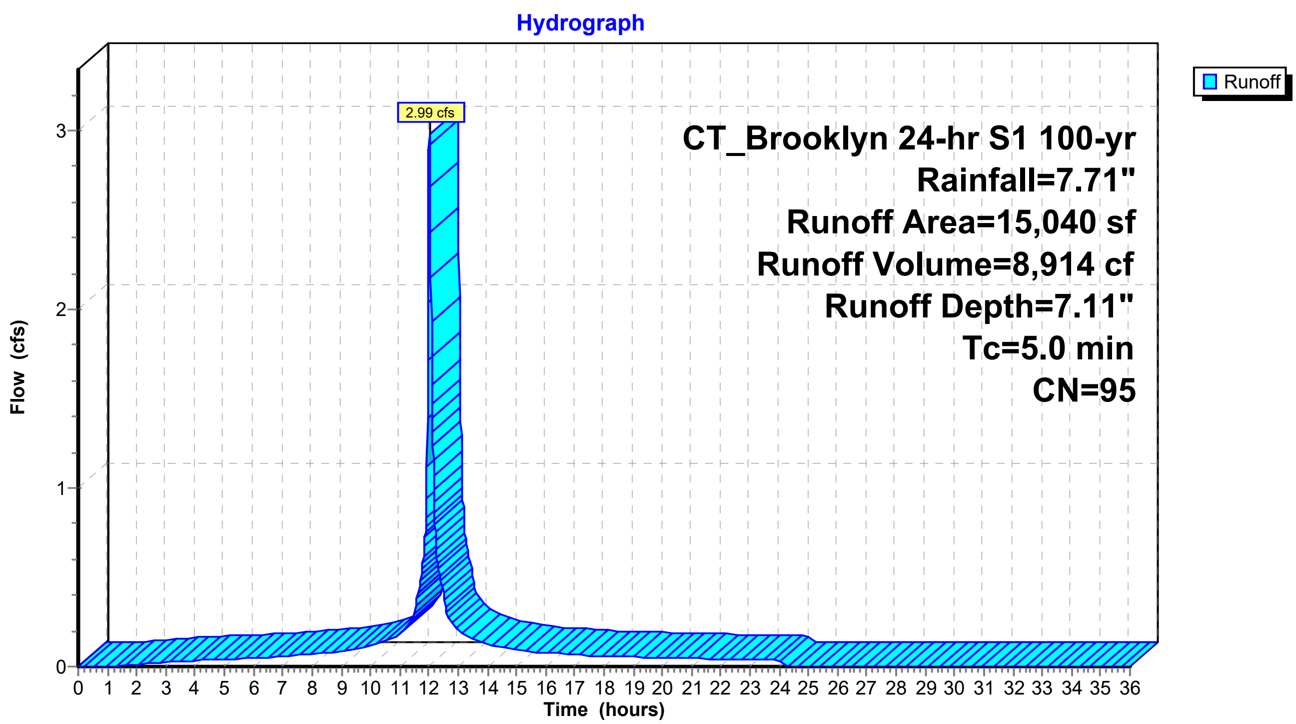
Runoff = 2.99 cfs @ 12.03 hrs, Volume= 8,914 cf, Depth= 7.11"
Routed to Pond 44P : CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
13,940	98	Paved parking & roofs
1,100	61	>75% Grass cover, Good, HSG B
15,040	95	Weighted Average
1,100		7.31% Pervious Area
13,940		92.69% Impervious Area

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

Subcatchment 44S: Ex to CB



Summary for Subcatchment 45S: Ex to CB

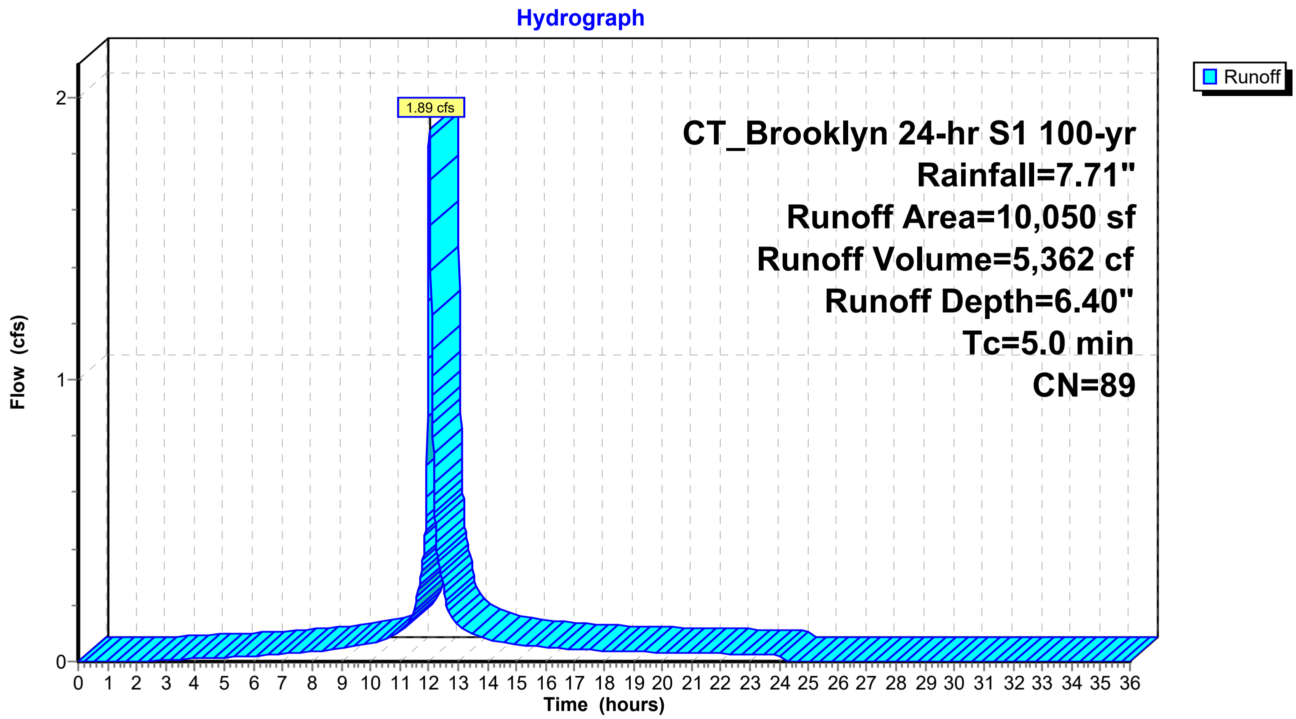
Runoff = 1.89 cfs @ 12.03 hrs, Volume= 5,362 cf, Depth= 6.40"
Routed to Pond 45P : CB

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
CT_Brooklyn 24-hr S1 100-yr Rainfall=7.71"

Area (sf)	CN	Description
7,725	98	Paved parking & roofs
2,325	61	>75% Grass cover, Good, HSG B
10,050	89	Weighted Average
2,325		23.13% Pervious Area
7,725		76.87% Impervious Area

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

Subcatchment 45S: Ex to CB



Summary for Pond 1P: CB 1

[58] Hint: Peaked 4.54' above defined flood level

Inflow Area =	12,715 sf,	77.86% Impervious,	Inflow Depth = 6.52"	for 100-yr event
Inflow =	2.42 cfs @	12.03 hrs, Volume=	6,909 cf	
Outflow =	2.42 cfs @	12.03 hrs, Volume=	6,909 cf,	Atten= 0%, Lag= 0.0 min
Primary =	2.42 cfs @	12.03 hrs, Volume=	6,909 cf	

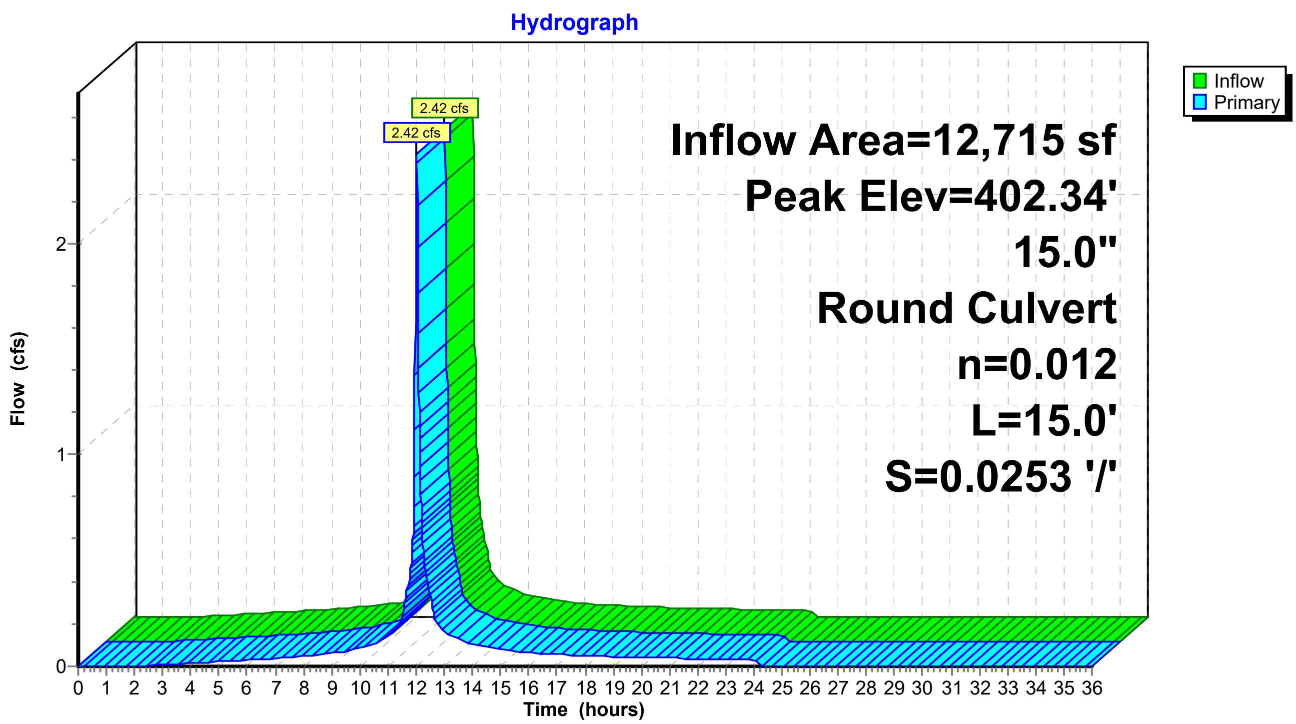
Routed to Pond 51P : DMH B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 402.34' @ 12.04 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.05'	**15.0" Round Culvert** L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.05' / 393.67' S= 0.0253 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=401.48' TW=401.66' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)

Pond 1P: CB 1



Summary for Pond 1VP: Vortechnics Unit

Inflow	=	5.71 cfs @	12.03 hrs, Volume=	55,749 cf
Outflow	=	5.71 cfs @	12.03 hrs, Volume=	55,749 cf, Atten= 0%, Lag= 0.0 min
Primary	=	5.71 cfs @	12.03 hrs, Volume=	55,749 cf

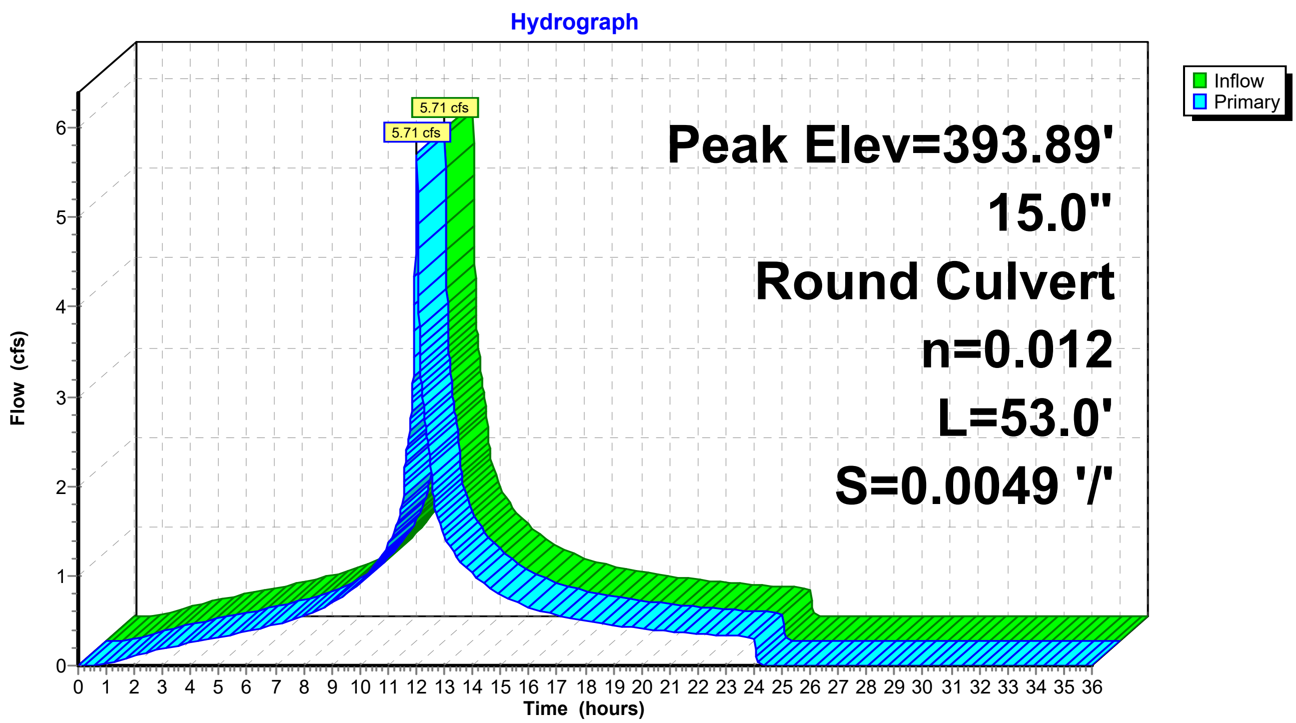
Routed to Pond 3DP : DMH 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.89' @ 12.03 hrs
Flood Elev= 397.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.50'	**15.0" Round Culvert** L= 53.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.50' / 390.24' S= 0.0049 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=5.69 cfs @ 12.03 hrs HW=393.88' TW=392.95' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 5.69 cfs @ 4.64 fps)

Pond 1VP: Vortechnics Unit



Summary for Pond 2P: CB 2

[58] Hint: Peaked 3.60' above defined flood level
[80] Warning: Exceeded Pond 51P by 0.06' @ 11.97 hrs (1.46 cfs 103 cf)

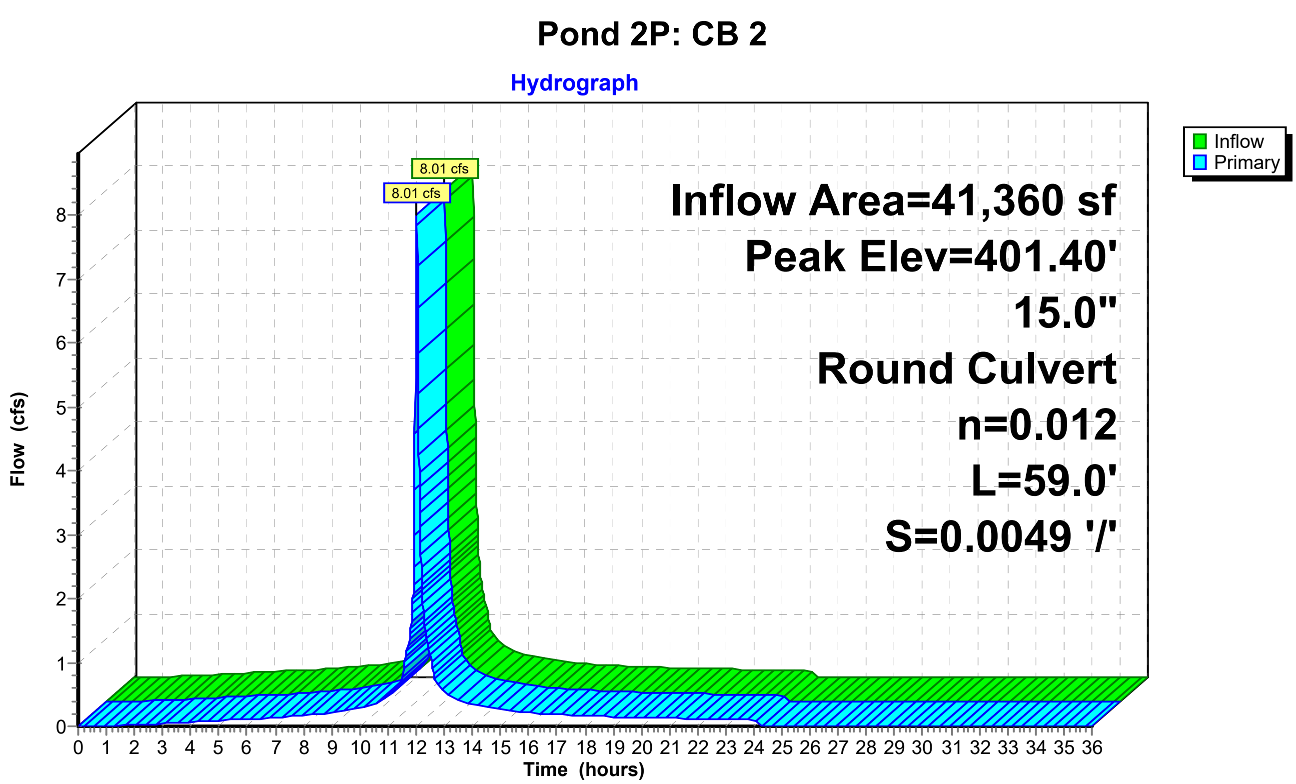
Inflow Area =	41,360 sf,	84.79% Impervious,	Inflow Depth = 6.78"	for 100-yr event
Inflow =	8.01 cfs @	12.03 hrs, Volume=	23,371 cf	
Outflow =	8.01 cfs @	12.03 hrs, Volume=	23,371 cf,	Atten= 0%, Lag= 0.0 min
Primary =	8.01 cfs @	12.03 hrs, Volume=	23,371 cf	

Routed to Pond 3P : CB 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 401.40' @ 12.04 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.94'	**15.0" Round Culvert** L= 59.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.94' / 392.65' S= 0.0049 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=7.43 cfs @ 12.03 hrs HW=401.05' TW=399.47' (Dynamic Tailwater)
1=Culvert (Inlet Controls 7.43 cfs @ 6.05 fps)



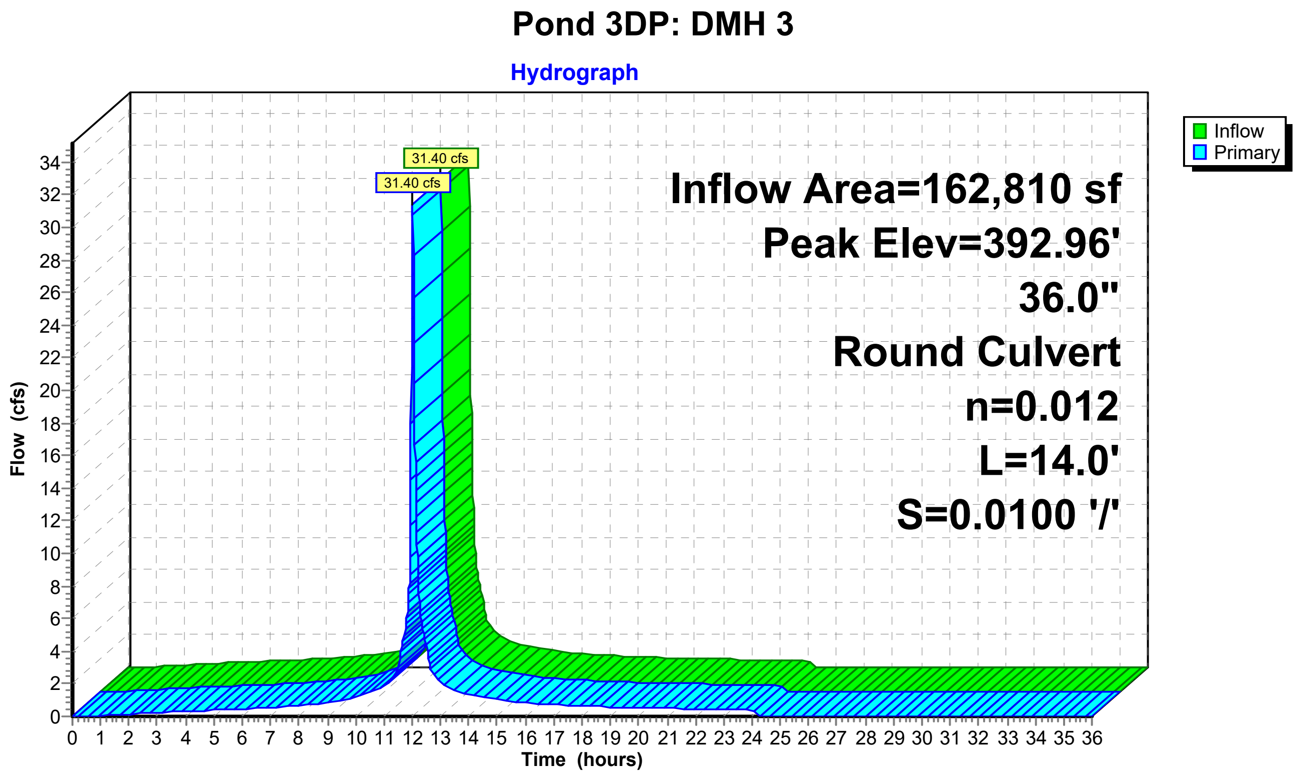
Summary for Pond 3DP: DMH 3

Inflow Area = 162,810 sf, 85.75% Impervious, Inflow Depth = 6.84" for 100-yr event
Inflow = 31.40 cfs @ 12.03 hrs, Volume= 92,816 cf
Outflow = 31.40 cfs @ 12.03 hrs, Volume= 92,816 cf, Atten= 0%, Lag= 0.0 min
Primary = 31.40 cfs @ 12.03 hrs, Volume= 92,816 cf
Routed to Link 1L : Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 392.96' @ 12.03 hrs
Flood Elev= 396.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.14'	**36.0" Round Culvert** L= 14.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.14' / 390.00' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 7.07 sf

Primary OutFlow Max=31.27 cfs @ 12.03 hrs HW=392.95' TW=0.00' (Dynamic Tailwater)
1=Culvert (Barrel Controls 31.27 cfs @ 5.88 fps)



Summary for Pond 3P: CB 3

[58] Hint: Peaked 1.95' above defined flood level

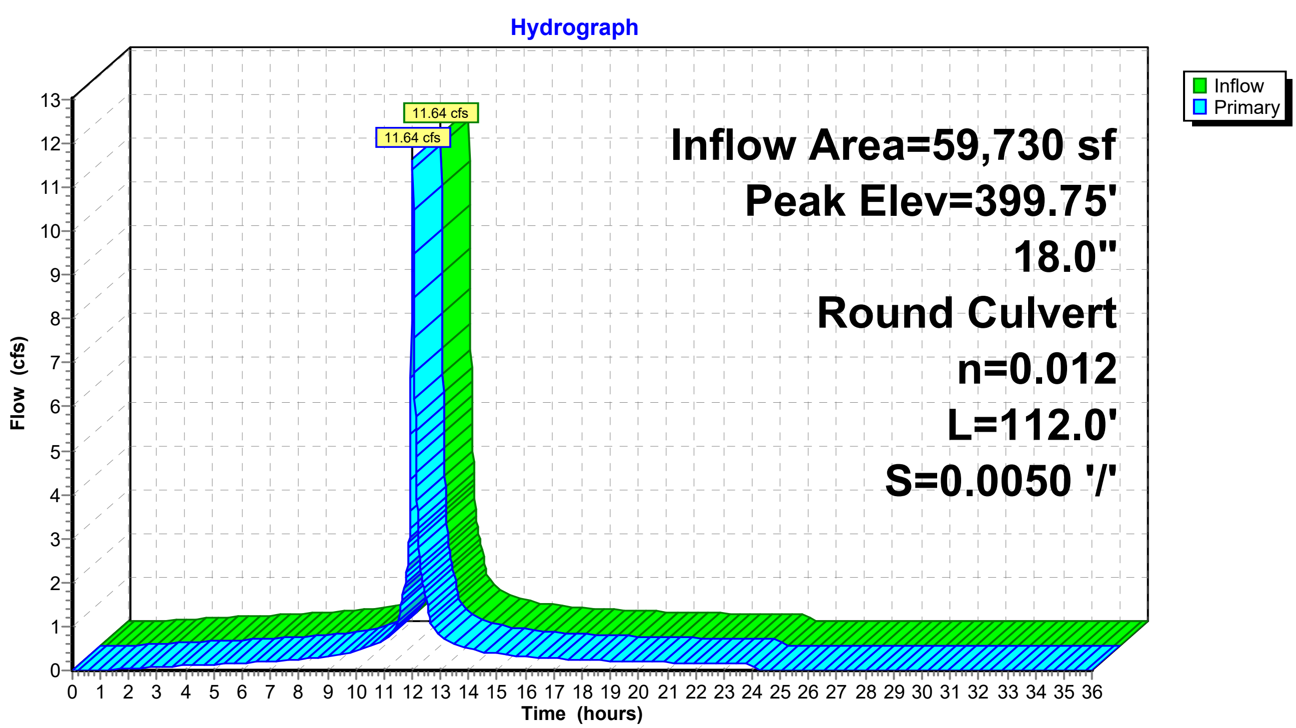
Inflow Area = 59,730 sf, 86.51% Impervious, Inflow Depth = 6.85" for 100-yr event
Inflow = 11.64 cfs @ 12.03 hrs, Volume= 34,077 cf
Outflow = 11.64 cfs @ 12.03 hrs, Volume= 34,077 cf, Atten= 0%, Lag= 0.0 min
Primary = 11.64 cfs @ 12.03 hrs, Volume= 34,077 cf
Routed to Pond 4P : CB 4

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 399.75' @ 12.04 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.65'	**18.0" Round Culvert** L= 112.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.65' / 392.09' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=11.11 cfs @ 12.03 hrs HW=399.47' TW=397.47' (Dynamic Tailwater)
1=Culvert (Outlet Controls 11.11 cfs @ 6.29 fps)

Pond 3P: CB 3



Summary for Pond 4DP: DMH 4

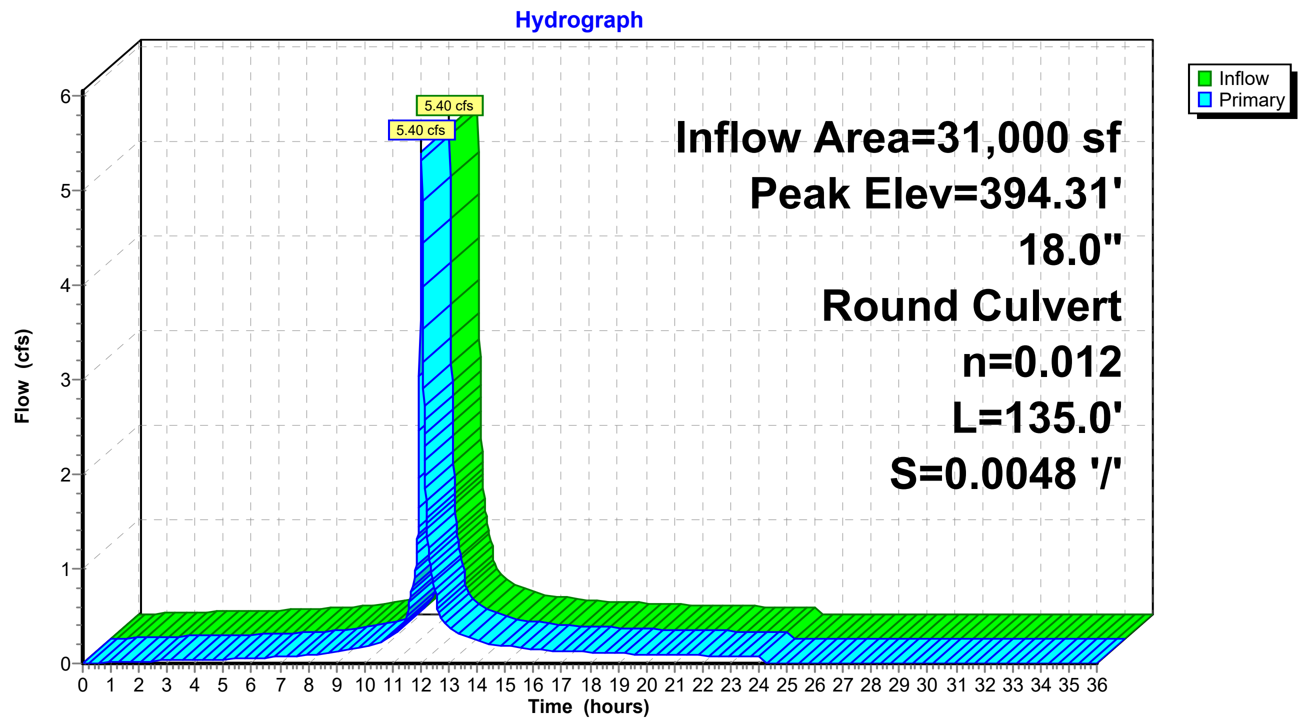
Inflow Area = 31,000 sf, 65.97% Impervious, Inflow Depth = 6.01" for 100-yr event
Inflow = 5.40 cfs @ 12.03 hrs, Volume= 15,517 cf
Outflow = 5.40 cfs @ 12.03 hrs, Volume= 15,517 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.40 cfs @ 12.03 hrs, Volume= 15,517 cf
Routed to Pond 5DP : DMH 5

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.31' @ 12.03 hrs
Flood Elev= 397.14'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.00'	**18.0" Round Culvert** L= 135.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.00' / 392.35' S= 0.0048 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=5.35 cfs @ 12.03 hrs HW=394.31' TW=393.35' (Dynamic Tailwater)
1=Culvert (Outlet Controls 5.35 cfs @ 4.36 fps)

Pond 4DP: DMH 4



Summary for Pond 4P: CB 4

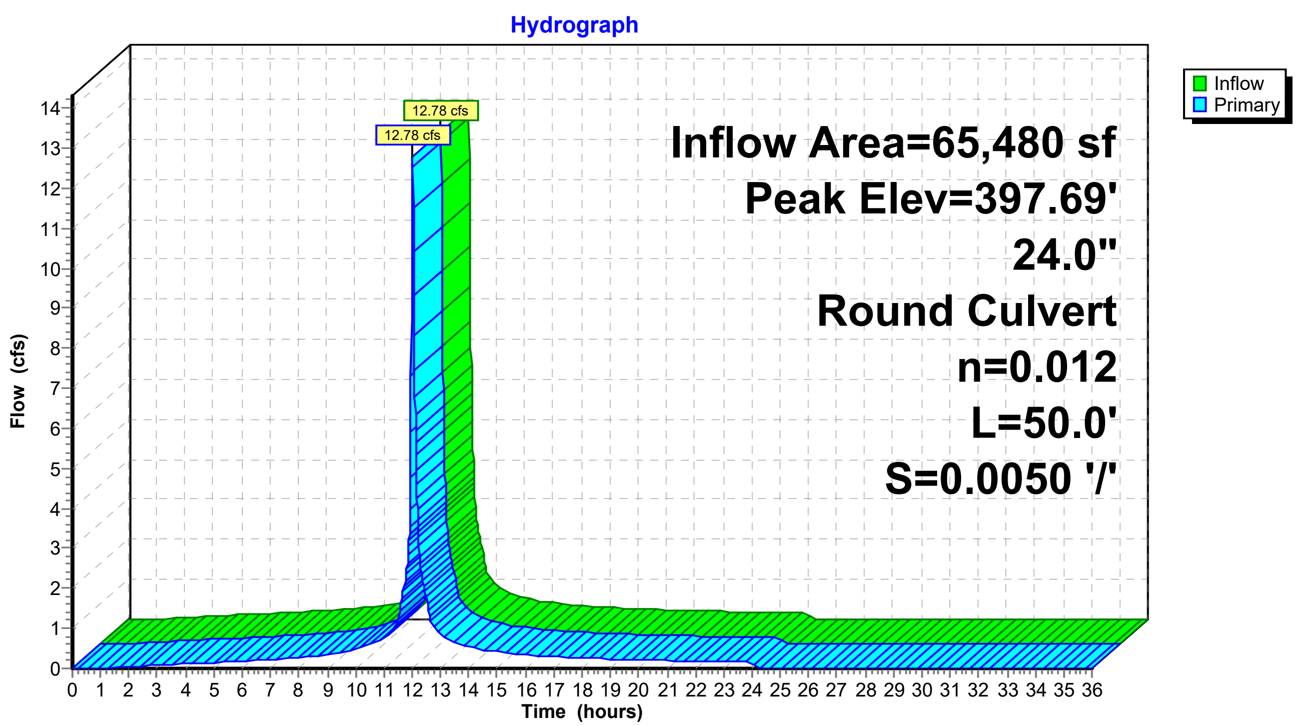
Inflow Area = 65,480 sf, 87.23% Impervious, Inflow Depth = 6.88" for 100-yr event
Inflow = 12.78 cfs @ 12.03 hrs, Volume= 37,542 cf
Outflow = 12.78 cfs @ 12.03 hrs, Volume= 37,542 cf, Atten= 0%, Lag= 0.0 min
Primary = 12.78 cfs @ 12.03 hrs, Volume= 37,542 cf
Routed to Pond 52P : DMH C

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 397.69' @ 12.04 hrs
Flood Elev= 398.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.09'	**24.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.09' / 391.84' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=11.28 cfs @ 12.03 hrs HW=397.47' TW=396.92' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 11.28 cfs @ 3.59 fps)

Pond 4P: CB 4



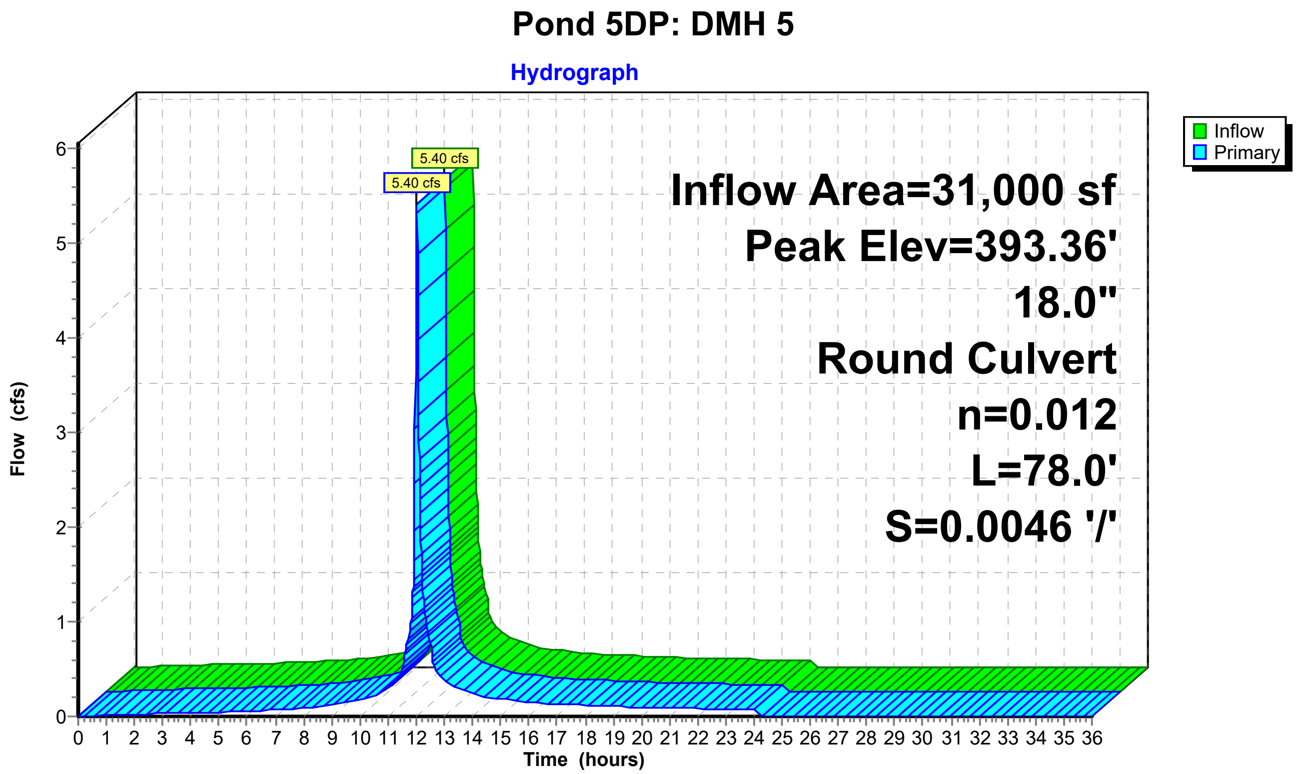
Summary for Pond 5DP: DMH 5

Inflow Area = 31,000 sf, 65.97% Impervious, Inflow Depth = 6.01" for 100-yr event
Inflow = 5.40 cfs @ 12.03 hrs, Volume= 15,517 cf
Outflow = 5.40 cfs @ 12.03 hrs, Volume= 15,517 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.40 cfs @ 12.03 hrs, Volume= 15,517 cf
Routed to Pond 3DP : DMH 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.36' @ 12.03 hrs
Flood Elev= 396.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.60'	**18.0" Round Culvert** L= 78.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.60' / 390.24' S= 0.0046 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=5.38 cfs @ 12.03 hrs HW=393.35' TW=392.95' (Dynamic Tailwater)
1=Culvert (Inlet Controls 5.38 cfs @ 3.04 fps)



Summary for Pond 5P: CB 5

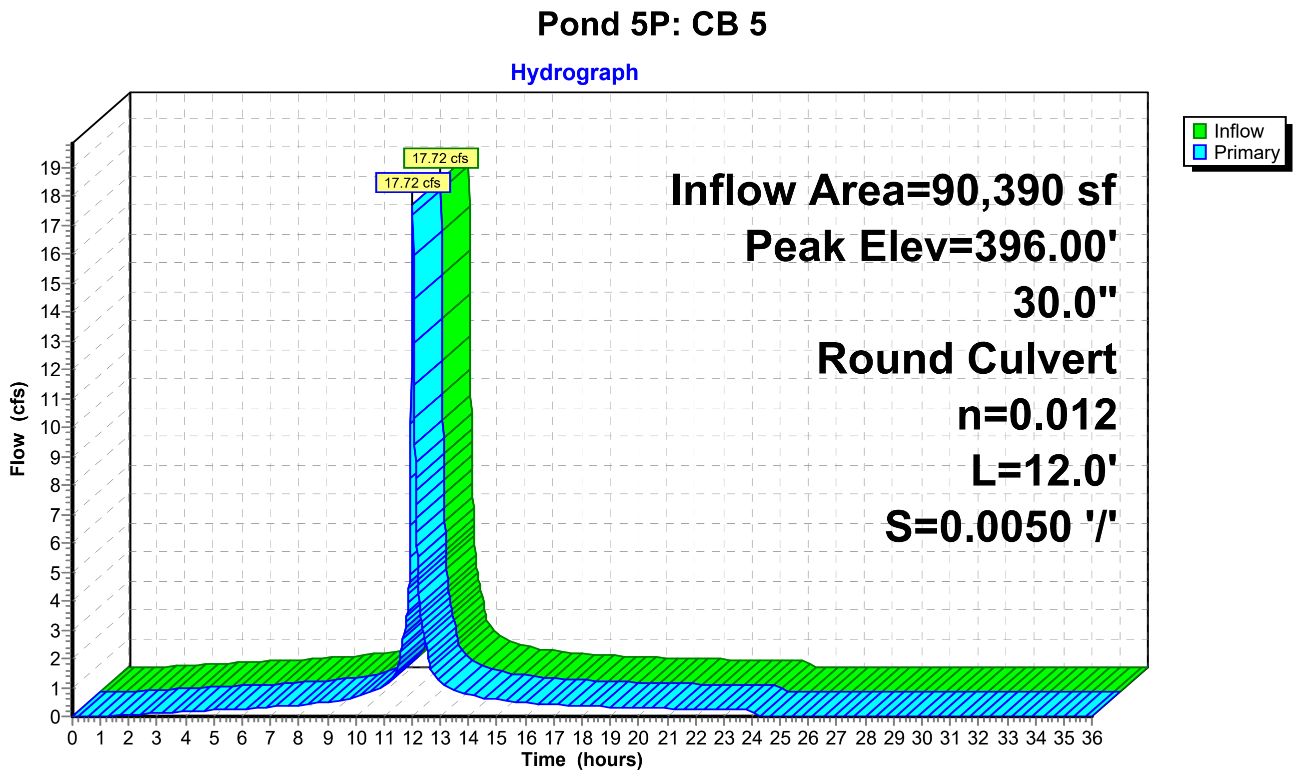
Inflow Area =	90,390 sf,	88.20% Impervious,	Inflow Depth = 6.93"	for 100-yr event	
Inflow =	17.72 cfs @	12.03 hrs,	Volume=	52,208 cf	
Outflow =	17.72 cfs @	12.03 hrs,	Volume=	52,208 cf,	Atten= 0%, Lag= 0.0 min
Primary =	17.72 cfs @	12.03 hrs,	Volume=	52,208 cf	

Routed to Pond 53P : DMH D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.00' @ 12.03 hrs
Flood Elev= 396.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.64'	**30.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.64' / 391.58' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=16.40 cfs @ 12.03 hrs HW=395.92' TW=395.44' (Dynamic Tailwater)
└—**1=Culvert** (Inlet Controls 16.40 cfs @ 3.34 fps)



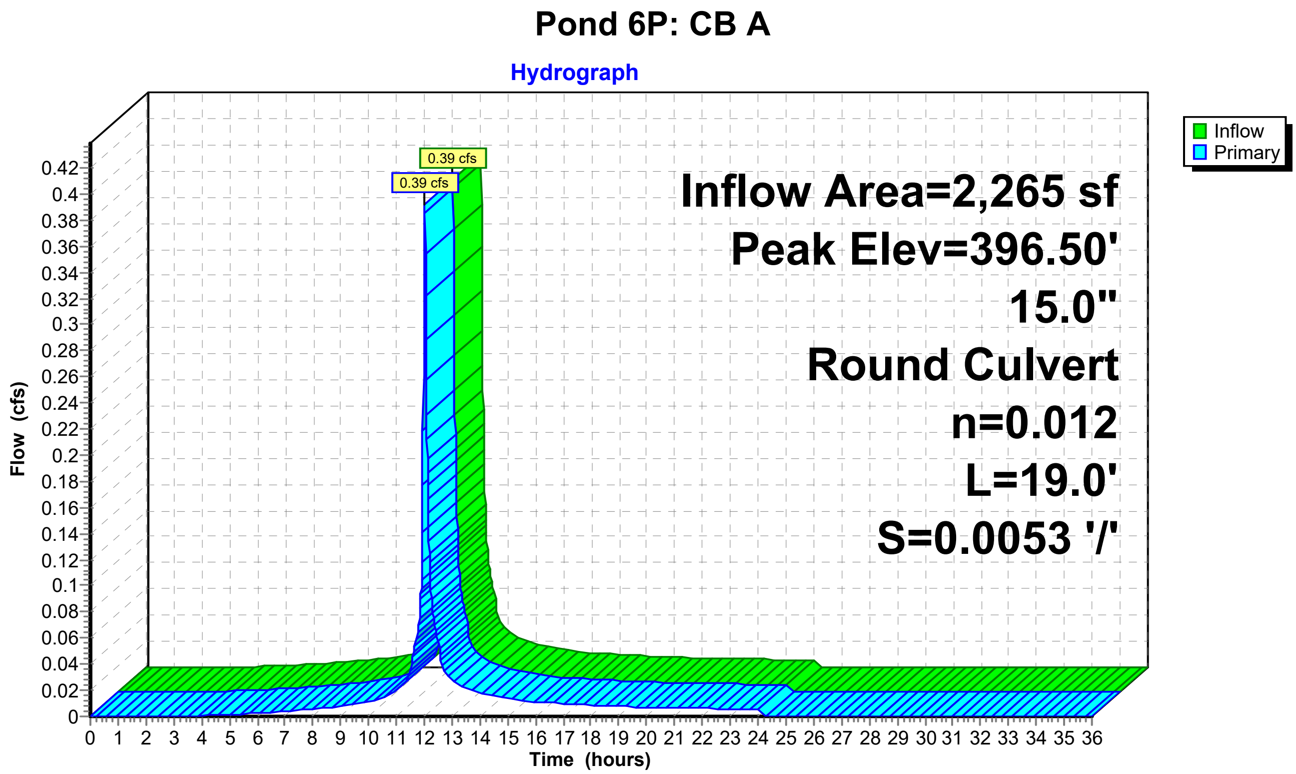
Summary for Pond 6P: CB A

Inflow Area = 2,265 sf, 59.38% Impervious, Inflow Depth = 5.70" for 100-yr event
Inflow = 0.39 cfs @ 12.03 hrs, Volume= 1,076 cf
Outflow = 0.39 cfs @ 12.03 hrs, Volume= 1,076 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.39 cfs @ 12.03 hrs, Volume= 1,076 cf
Routed to Pond 7P : CB B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.50' @ 12.05 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.60'	**15.0" Round Culvert** L= 19.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.60' / 392.50' S= 0.0053 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=396.00' TW=396.18' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)



Summary for Pond 7P: CB B

[80] Warning: Exceeded Pond 6P by 0.42' @ 12.01 hrs (3.83 cfs 699 cf)

Inflow Area =	4,400 sf,	58.07% Impervious,	Inflow Depth = 5.64"	for 100-yr event
Inflow =	0.75 cfs @	12.03 hrs, Volume=	2,070 cf	
Outflow =	0.75 cfs @	12.03 hrs, Volume=	2,070 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.75 cfs @	12.03 hrs, Volume=	2,070 cf	

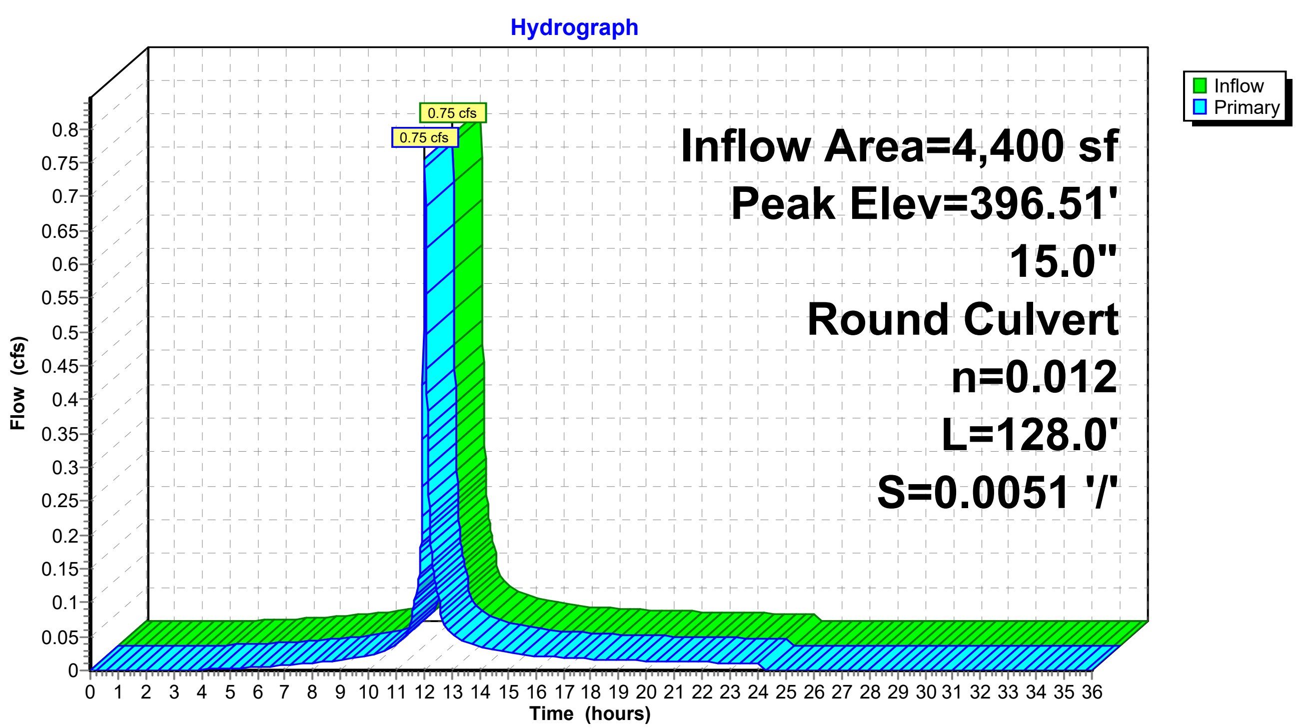
Routed to Pond 61P : DMH A

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.51' @ 12.04 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.45'	**15.0" Round Culvert** L= 128.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.45' / 391.80' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=396.18' TW=396.29' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)

Pond 7P: CB B



Summary for Pond 8P: Trench Drain

[58] Hint: Peaked 3.54' above defined flood level

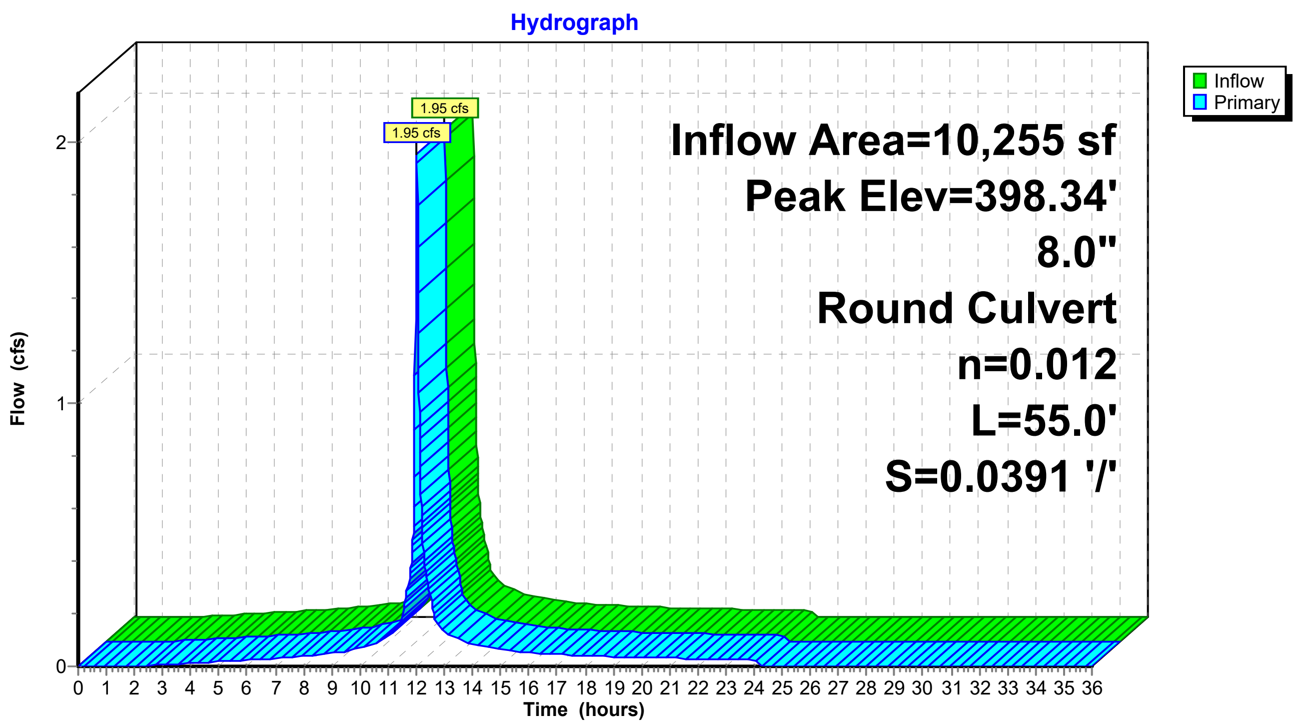
Inflow Area = 10,255 sf, 77.13% Impervious, Inflow Depth = 6.52" for 100-yr event
Inflow = 1.95 cfs @ 12.03 hrs, Volume= 5,572 cf
Outflow = 1.95 cfs @ 12.03 hrs, Volume= 5,572 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.95 cfs @ 12.03 hrs, Volume= 5,572 cf
Routed to Pond 62P : DMH B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 398.34' @ 12.03 hrs
Flood Elev= 394.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.70'	**8.0" Round Culvert** L= 55.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.70' / 391.55' S= 0.0391 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf

Primary OutFlow Max=1.88 cfs @ 12.03 hrs HW=398.20' TW=396.38' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 1.88 cfs @ 5.40 fps)

Pond 8P: Trench Drain



Summary for Pond 9P: CB C

[80] Warning: Exceeded Pond 62P by 0.19' @ 11.97 hrs (2.57 cfs 380 cf)

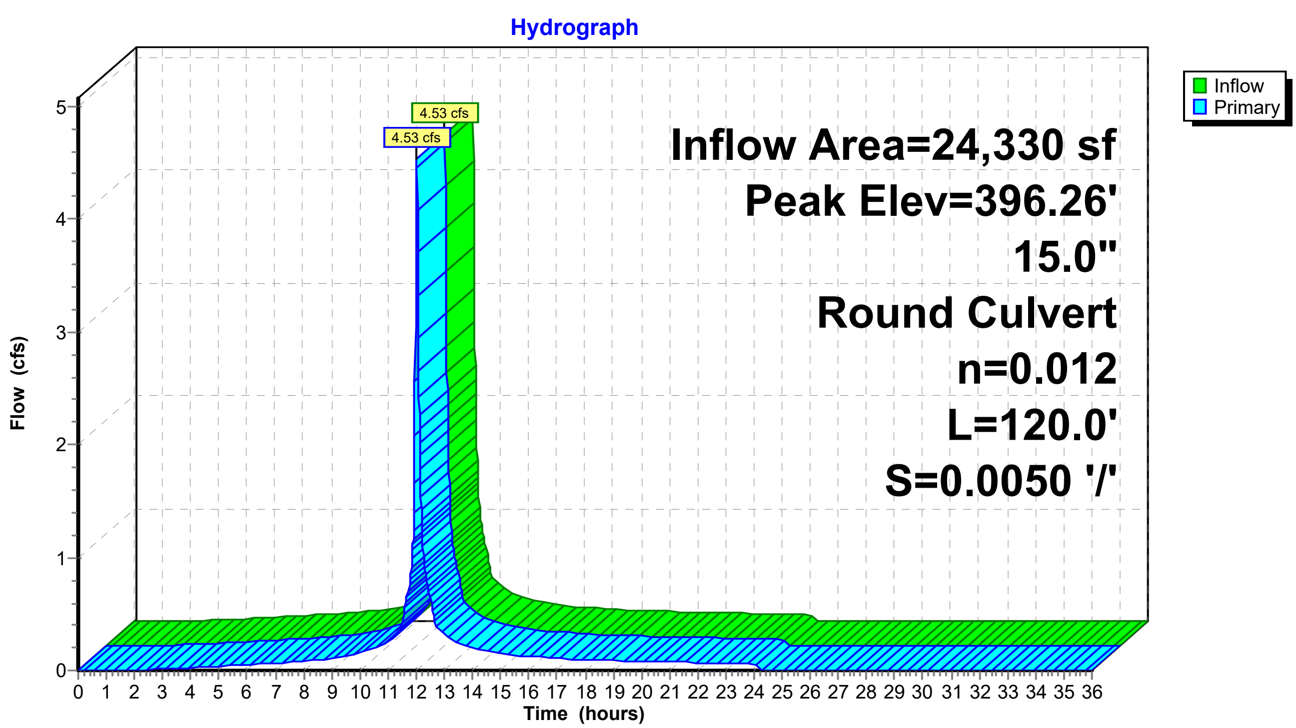
Inflow Area = 24,330 sf, 73.61% Impervious, Inflow Depth = 6.32" for 100-yr event
Inflow = 4.53 cfs @ 12.03 hrs, Volume= 12,804 cf
Outflow = 4.53 cfs @ 12.03 hrs, Volume= 12,804 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.53 cfs @ 12.03 hrs, Volume= 12,804 cf
Routed to Pond 10P : CB D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.26' @ 12.03 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.15'	**15.0" Round Culvert** L= 120.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.15' / 390.55' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=4.40 cfs @ 12.03 hrs HW=396.22' TW=395.45' (Dynamic Tailwater)
1=Culvert (Outlet Controls 4.40 cfs @ 3.58 fps)

Pond 9P: CB C



Summary for Pond 10P: CB D

[80] Warning: Exceeded Pond 13P by 0.14' @ 11.96 hrs (2.10 cfs 291 cf)

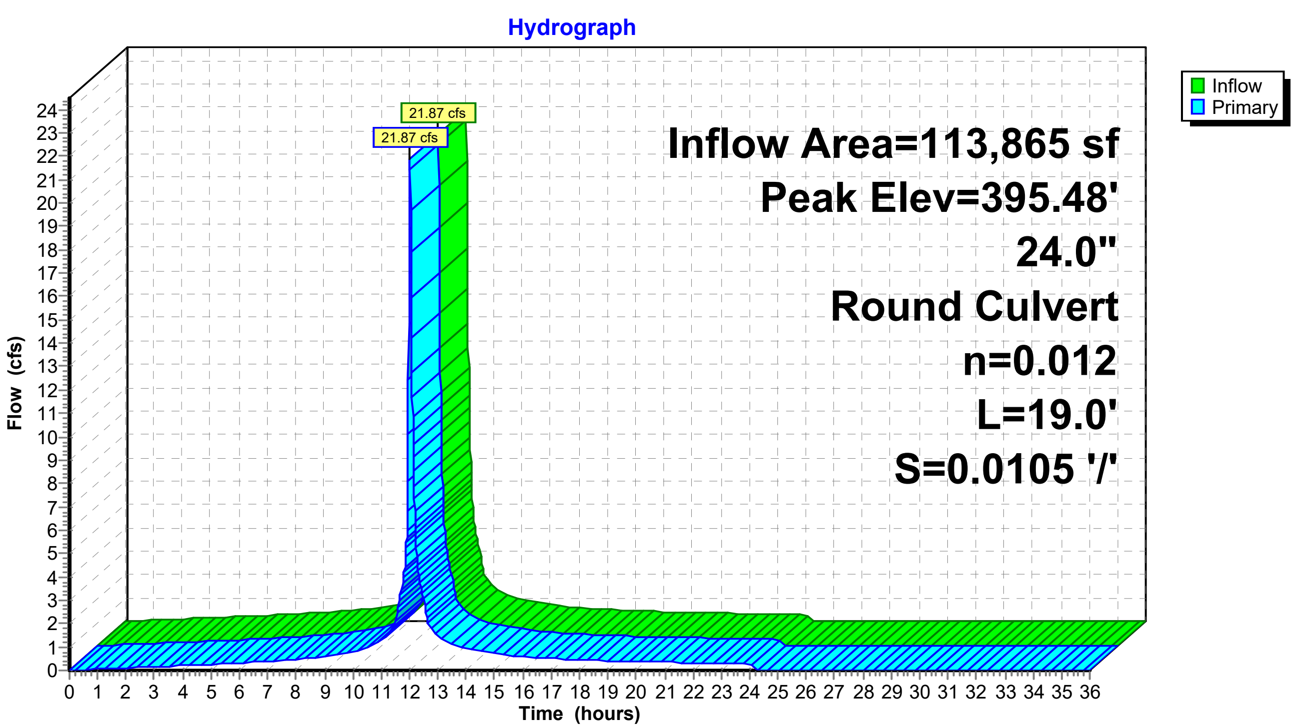
Inflow Area = 113,865 sf, 84.57% Impervious, Inflow Depth = 6.80" for 100-yr event
Inflow = 21.87 cfs @ 12.03 hrs, Volume= 64,489 cf
Outflow = 21.87 cfs @ 12.03 hrs, Volume= 64,489 cf, Atten= 0%, Lag= 0.0 min
Primary = 21.87 cfs @ 12.03 hrs, Volume= 64,489 cf
Routed to Pond 31P : Vortech Unit

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 395.48' @ 12.03 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.50'	**24.0" Round Culvert** L= 19.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.50' / 390.30' S= 0.0105 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=21.78 cfs @ 12.03 hrs HW=395.45' TW=393.37' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 21.78 cfs @ 6.93 fps)

Pond 10P: CB D



Summary for Pond 11P: CB E

[58] Hint: Peaked 2.92' above defined flood level
[80] Warning: Exceeded Pond 17P by 0.09' @ 11.97 hrs (1.81 cfs 261 cf)

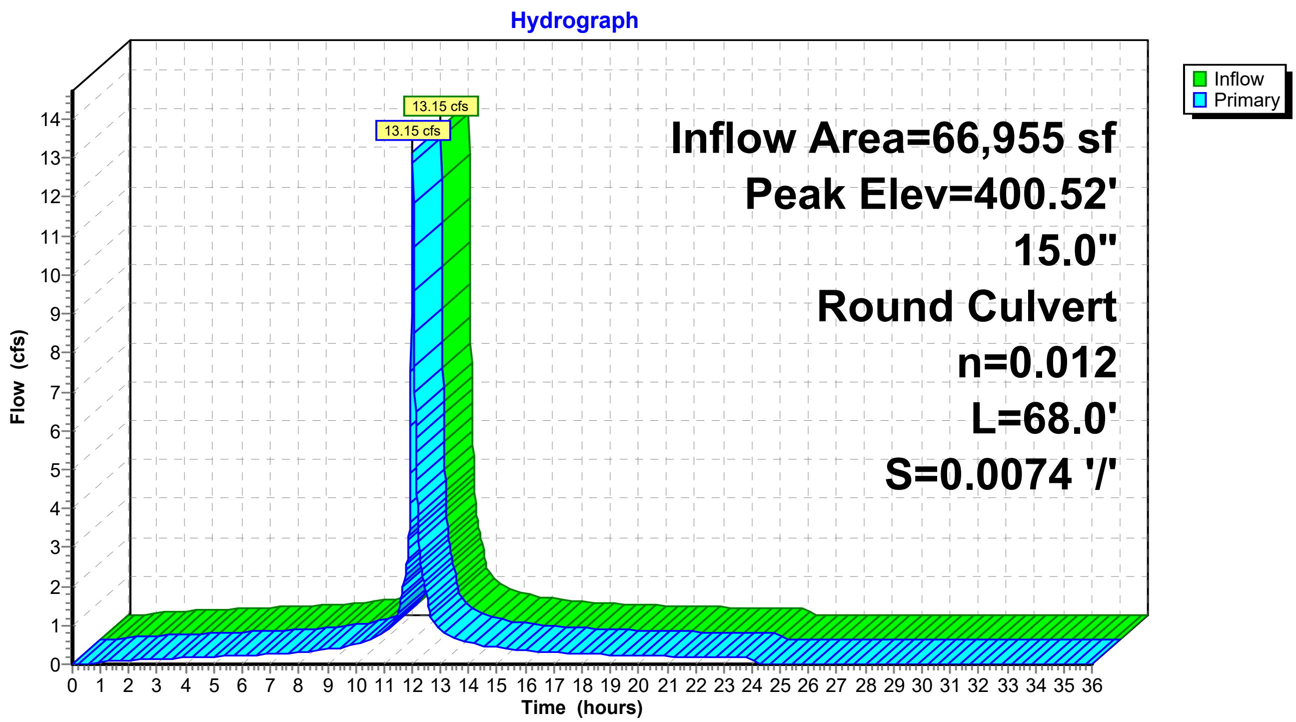
Inflow Area = 66,955 sf, 92.55% Impervious, Inflow Depth = 7.15" for 100-yr event
Inflow = 13.15 cfs @ 12.03 hrs, Volume= 39,878 cf
Outflow = 13.15 cfs @ 12.03 hrs, Volume= 39,878 cf, Atten= 0%, Lag= 0.0 min
Primary = 13.15 cfs @ 12.03 hrs, Volume= 39,878 cf
Routed to Pond 10P : CB D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 400.52' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.05'	**15.0" Round Culvert** L= 68.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.05' / 390.55' S= 0.0074 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=13.04 cfs @ 12.03 hrs HW=400.44' TW=395.45' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 13.04 cfs @ 10.62 fps)

Pond 11P: CB E



Summary for Pond 12P: CB F

[58] Hint: Peaked 4.18' above defined flood level
[80] Warning: Exceeded Pond 22P by 0.53' @ 11.97 hrs (4.30 cfs 730 cf)

Inflow Area =	33,910 sf, 85.30% Impervious,	Inflow Depth = 6.83" for 100-yr event		
Inflow =	6.49 cfs @	12.03 hrs, Volume=	19,306 cf	
Outflow =	6.49 cfs @	12.03 hrs, Volume=	19,306 cf,	Atten= 0%, Lag= 0.0 min
Primary =	6.49 cfs @	12.03 hrs, Volume=	19,306 cf	

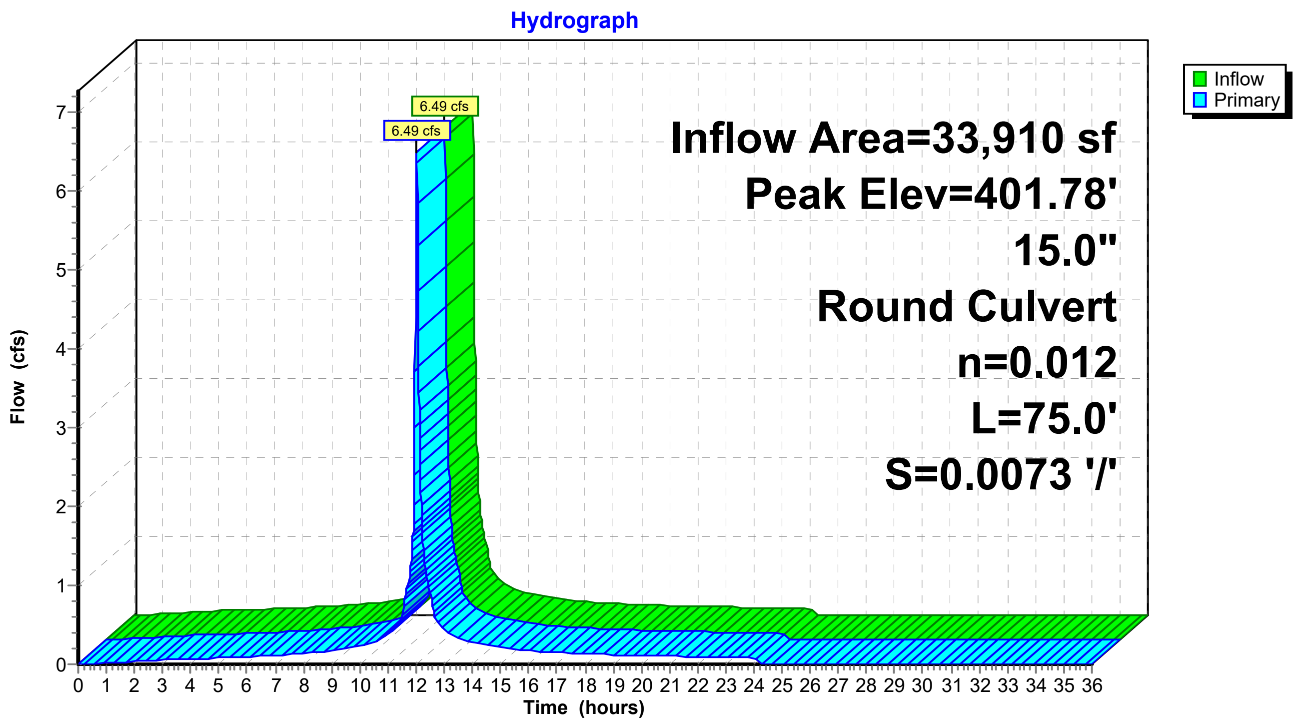
Routed to Pond 11P : CB E

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 401.78' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.65'	**15.0" Round Culvert** L= 75.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.65' / 391.10' S= 0.0073 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=6.33 cfs @ 12.03 hrs HW=401.68' TW=400.44' (Dynamic Tailwater)
1=Culvert (Outlet Controls 6.33 cfs @ 5.16 fps)

Pond 12P: CB F



Summary for Pond 13P: CB G

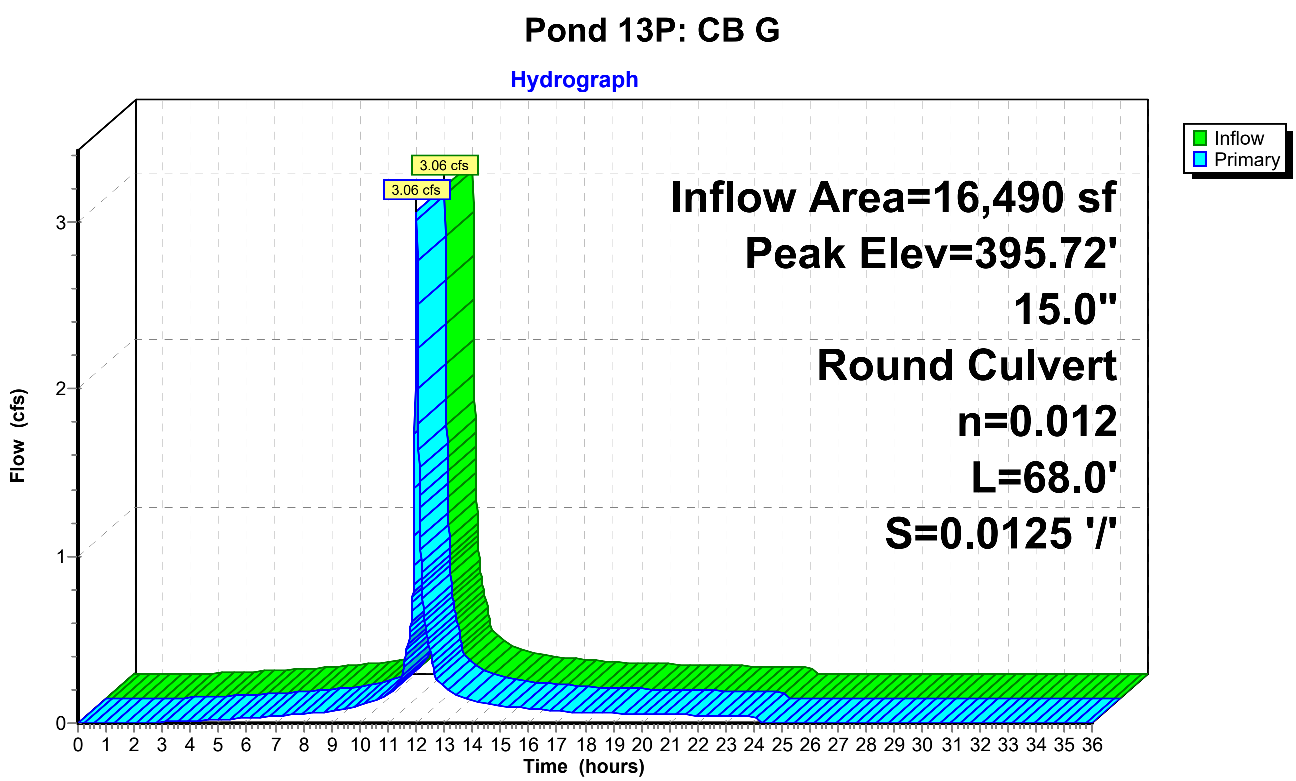
[80] Warning: Exceeded Pond 14P by 0.20' @ 11.98 hrs (2.56 cfs 322 cf)

Inflow Area = 16,490 sf, 72.65% Impervious, Inflow Depth = 6.27" for 100-yr event
Inflow = 3.06 cfs @ 12.03 hrs, Volume= 8,618 cf
Outflow = 3.06 cfs @ 12.03 hrs, Volume= 8,618 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.06 cfs @ 12.03 hrs, Volume= 8,618 cf
Routed to Pond 10P : CB D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 395.72' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.40'	**15.0" Round Culvert** L= 68.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.40' / 390.55' S= 0.0125 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.82 cfs @ 12.03 hrs HW=395.68' TW=395.45' (Dynamic Tailwater)
1=Culvert (Outlet Controls 2.82 cfs @ 2.30 fps)



Summary for Pond 14P: CB H

[80] Warning: Exceeded Pond 15P by 0.31' @ 12.00 hrs (3.29 cfs 344 cf)

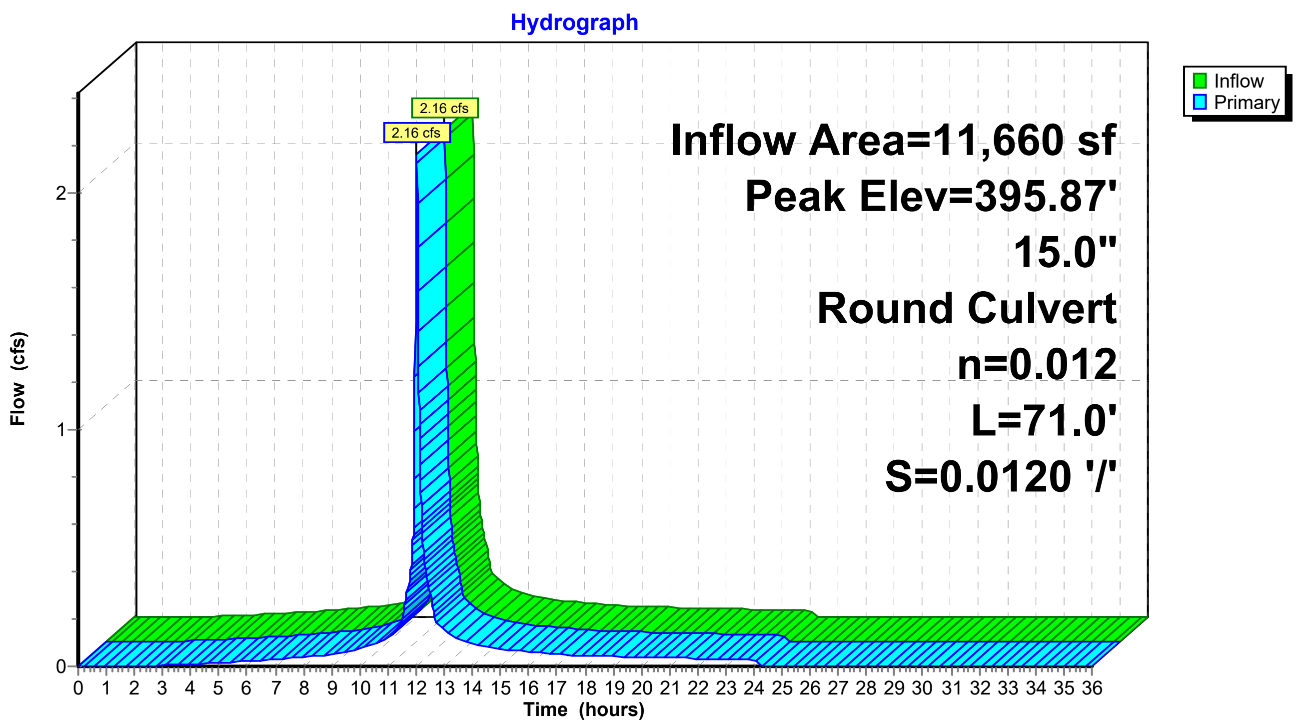
Inflow Area = 11,660 sf, 72.47% Impervious, Inflow Depth = 6.27" for 100-yr event
Inflow = 2.16 cfs @ 12.03 hrs, Volume= 6,088 cf
Outflow = 2.16 cfs @ 12.03 hrs, Volume= 6,088 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.16 cfs @ 12.03 hrs, Volume= 6,088 cf
Routed to Pond 13P : CB G

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 395.87' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.35'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.35' / 391.50' S= 0.0120 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.73 cfs @ 12.03 hrs HW=395.77' TW=395.68' (Dynamic Tailwater)
1=Culvert (Outlet Controls 1.73 cfs @ 1.41 fps)

Pond 14P: CB H



Summary for Pond 15P: CB I

[80] Warning: Exceeded Pond 16P by 0.23' @ 12.01 hrs (1.63 cfs 168 cf)

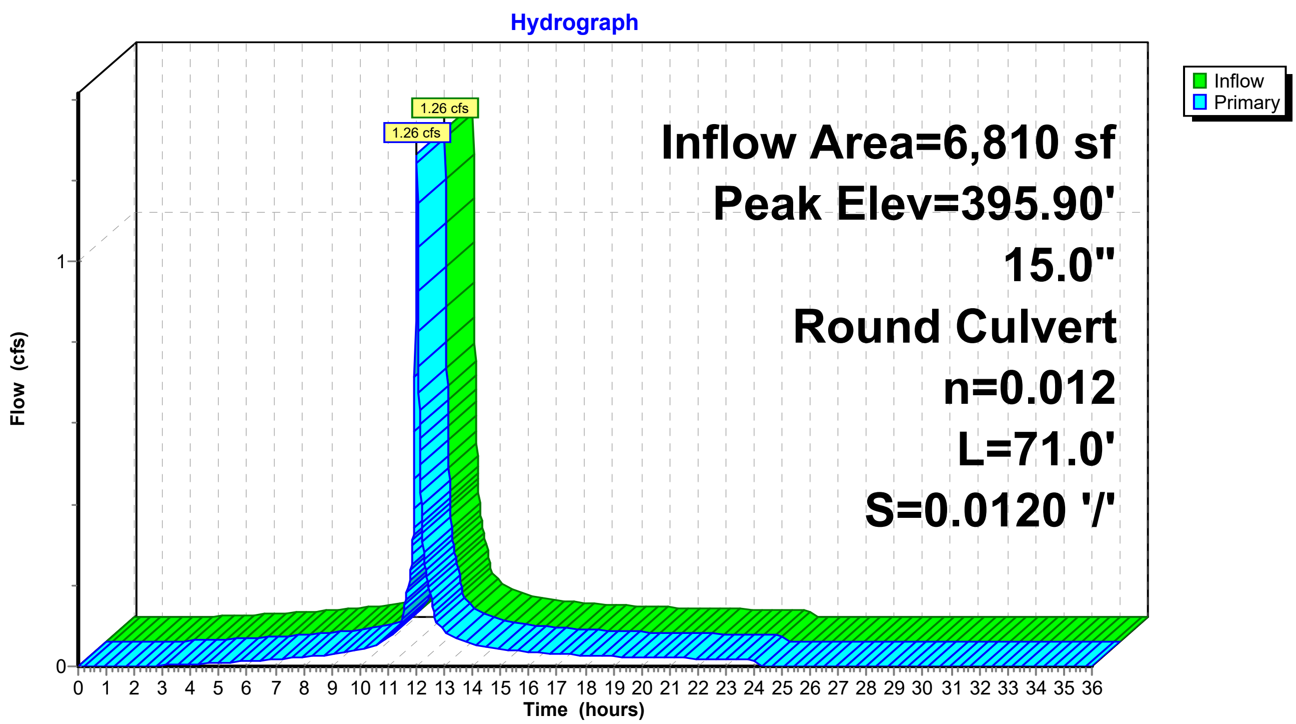
Inflow Area = 6,810 sf, 71.95% Impervious, Inflow Depth = 6.25" for 100-yr event
Inflow = 1.26 cfs @ 12.03 hrs, Volume= 3,548 cf
Outflow = 1.26 cfs @ 12.03 hrs, Volume= 3,548 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.26 cfs @ 12.03 hrs, Volume= 3,548 cf
Routed to Pond 14P : CB H

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 395.90' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.30'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.30' / 392.45' S= 0.0120 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=395.71' TW=395.77' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)

Pond 15P: CB I



Summary for Pond 16P: CB J

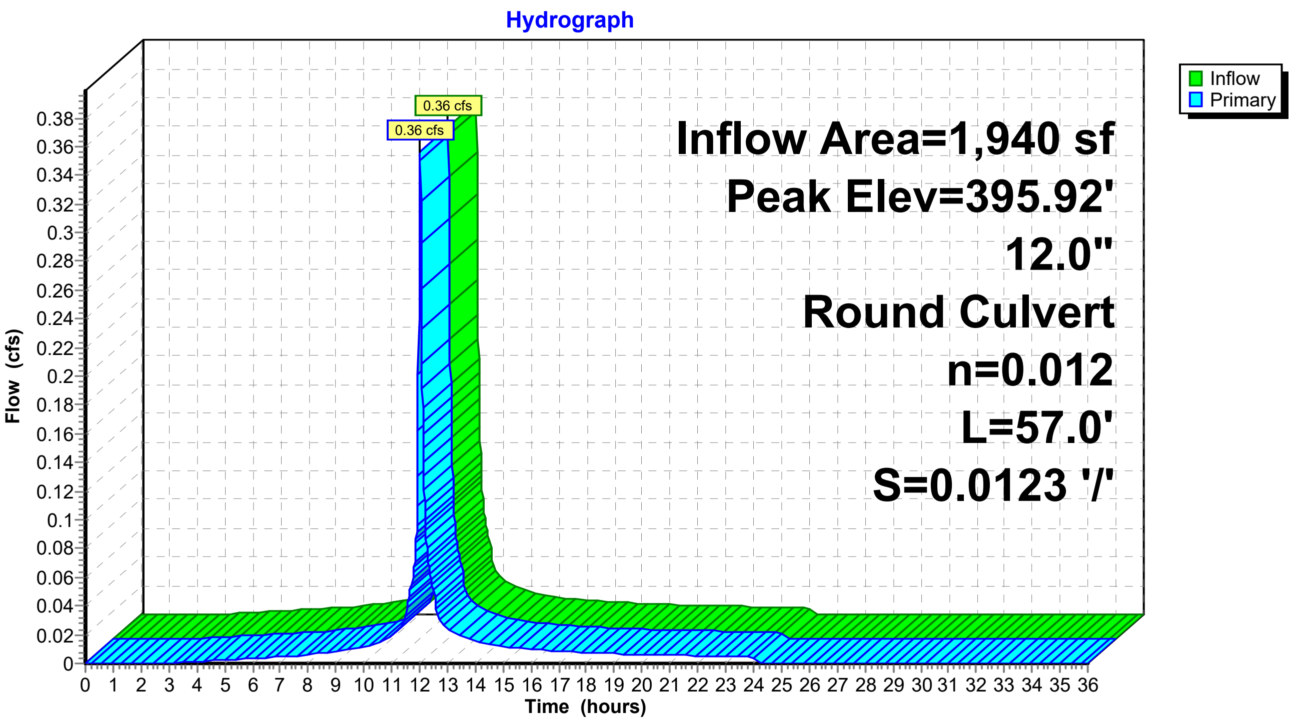
Inflow Area = 1,940 sf, 71.13% Impervious, Inflow Depth = 6.17" for 100-yr event
Inflow = 0.36 cfs @ 12.03 hrs, Volume= 997 cf
Outflow = 0.36 cfs @ 12.03 hrs, Volume= 997 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.36 cfs @ 12.03 hrs, Volume= 997 cf
Routed to Pond 15P : CB I

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 395.92' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.10'	**12.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.10' / 393.40' S= 0.0123 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=395.58' TW=395.72' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)

Pond 16P: CB J



Summary for Pond 17P: CB K

[58] Hint: Peaked 3.29' above defined flood level
[80] Warning: Exceeded Pond 18P by 0.79' @ 11.97 hrs (5.24 cfs 1,177 cf)

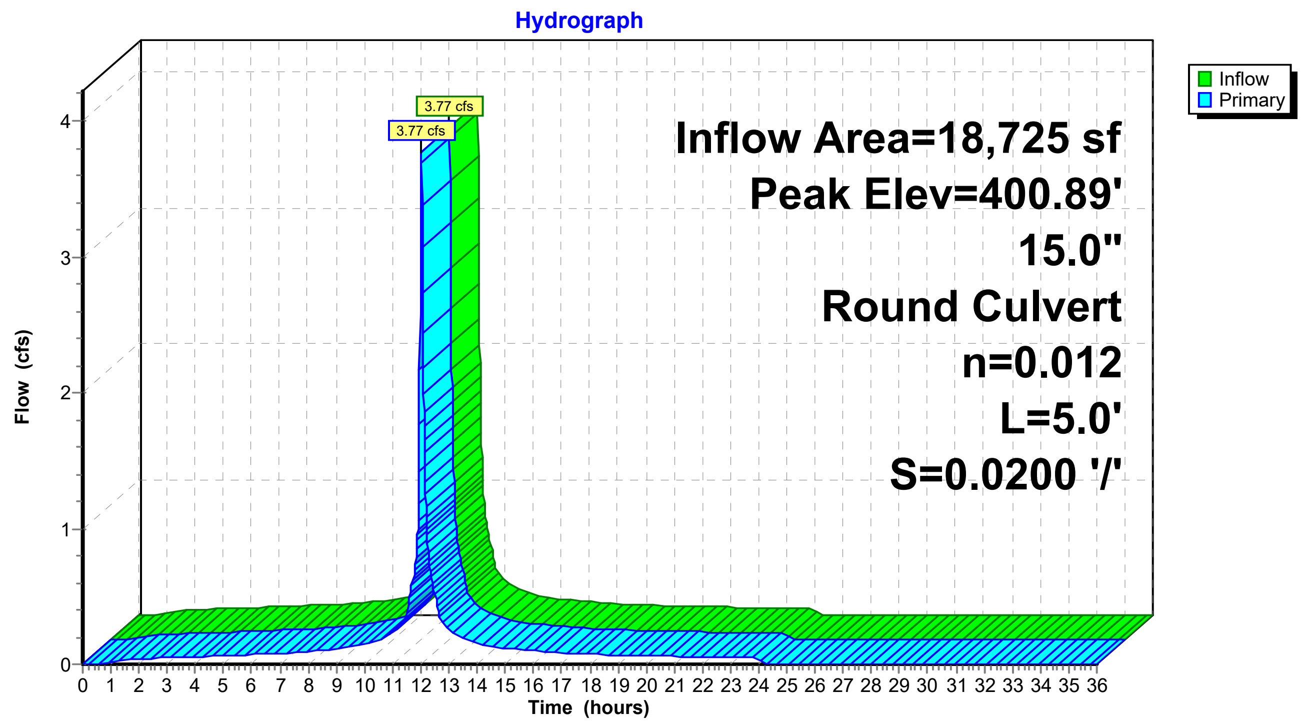
Inflow Area = 18,725 sf,100.00% Impervious, Inflow Depth = 7.47" for 100-yr event
Inflow = 3.77 cfs @ 12.03 hrs, Volume= 11,657 cf
Outflow = 3.77 cfs @ 12.03 hrs, Volume= 11,657 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.77 cfs @ 12.03 hrs, Volume= 11,657 cf
Routed to Pond 11P : CB E

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 400.89' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.20'	**15.0" Round Culvert** L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.20' / 391.10' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=3.48 cfs @ 12.03 hrs HW=400.79' TW=400.44' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 3.48 cfs @ 2.84 fps)

Pond 17P: CB K



Summary for Pond 18P: CB L

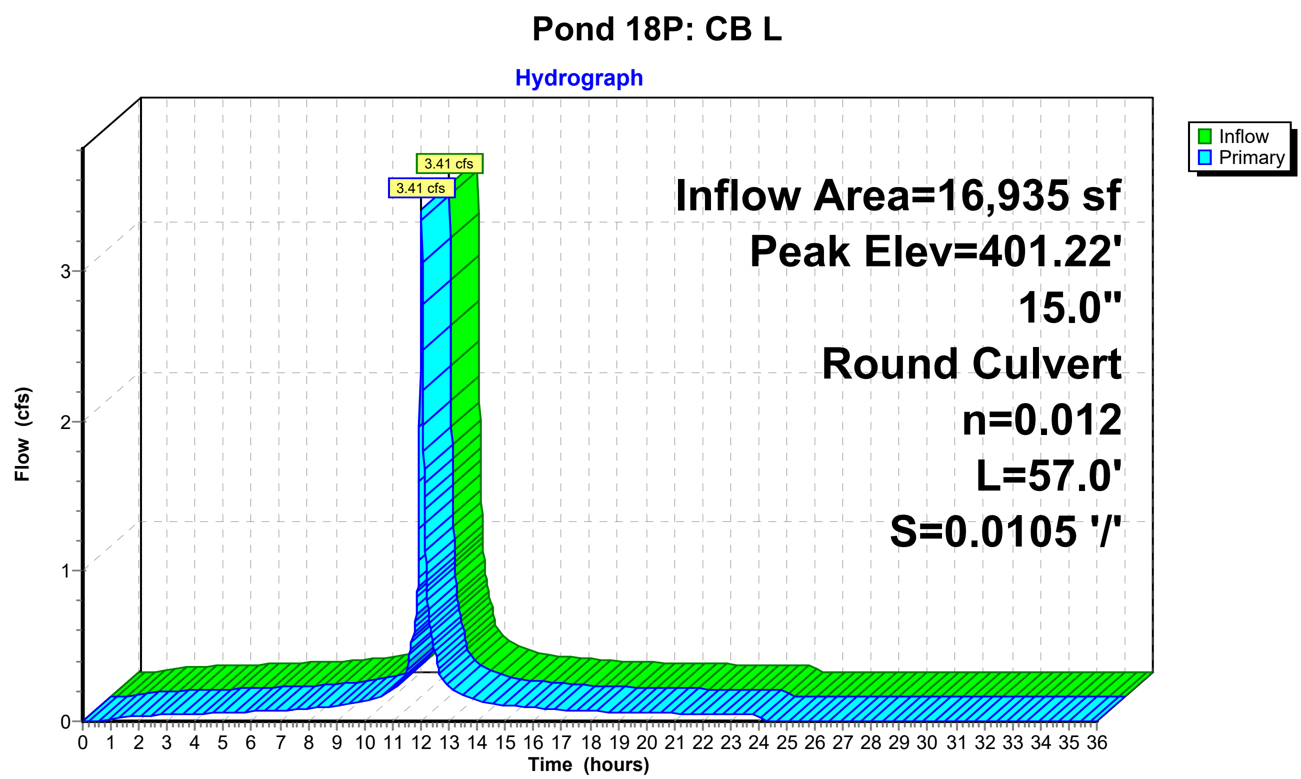
[58] Hint: Peaked 3.42' above defined flood level
[80] Warning: Exceeded Pond 19P by 0.24' @ 11.98 hrs (2.81 cfs 490 cf)

Inflow Area = 16,935 sf,100.00% Impervious, Inflow Depth = 7.47" for 100-yr event
Inflow = 3.41 cfs @ 12.03 hrs, Volume= 10,543 cf
Outflow = 3.41 cfs @ 12.03 hrs, Volume= 10,543 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.41 cfs @ 12.03 hrs, Volume= 10,543 cf
Routed to Pond 17P : CB K

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 401.22' @ 12.04 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.85'	**15.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.85' / 391.25' S= 0.0105 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.87 cfs @ 12.03 hrs HW=400.89' TW=400.79' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 1.87 cfs @ 1.52 fps)



Summary for Pond 19P: CB M

[58] Hint: Peaked 3.57' above defined flood level
[80] Warning: Exceeded Pond 20P by 0.99' @ 11.99 hrs (5.75 cfs 1,183 cf)

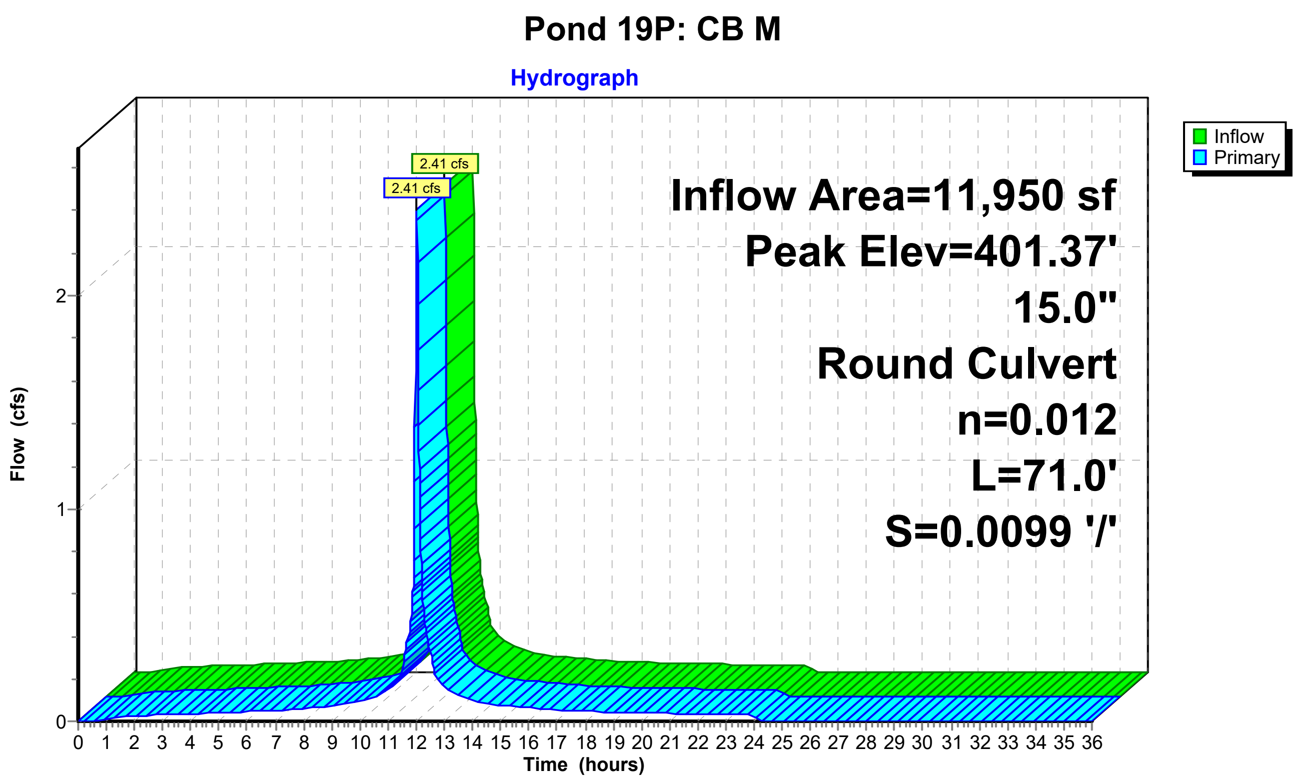
Inflow Area =	11,950 sf,100.00% Impervious,	Inflow Depth = 7.47"	for 100-yr event		
Inflow =	2.41 cfs @	12.03 hrs, Volume=	7,439 cf		
Outflow =	2.41 cfs @	12.03 hrs, Volume=	7,439 cf,	Atten= 0%,	Lag= 0.0 min
Primary =	2.41 cfs @	12.03 hrs, Volume=	7,439 cf		

Routed to Pond 18P : CB L

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 401.37' @ 12.04 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.65'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.65' / 391.95' S= 0.0099 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.83 cfs @ 12.03 hrs HW=400.91' TW=400.89' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.83 cfs @ 0.68 fps)



Summary for Pond 20P: CB N

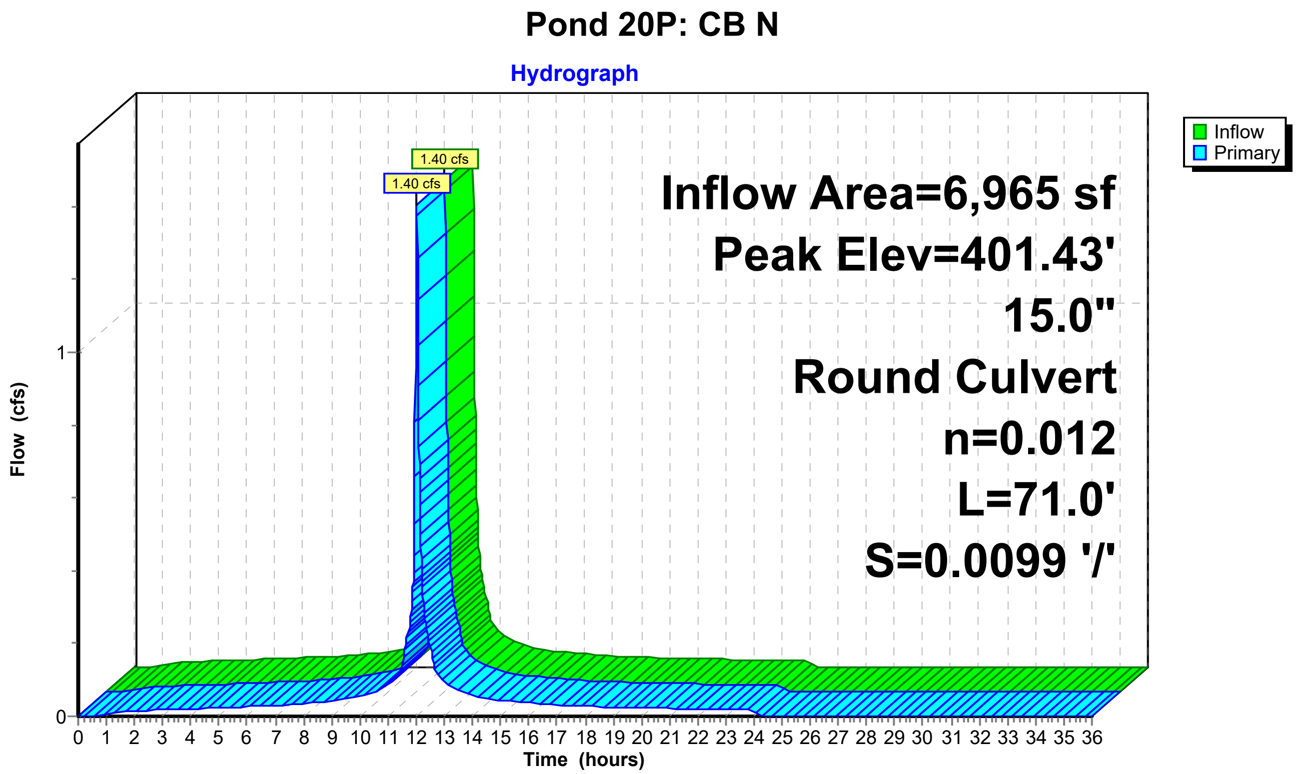
[58] Hint: Peaked 3.63' above defined flood level
[80] Warning: Exceeded Pond 21P by 0.37' @ 12.00 hrs (2.19 cfs 417 cf)

Inflow Area = 6,965 sf,100.00% Impervious, Inflow Depth = 7.47" for 100-yr event
Inflow = 1.40 cfs @ 12.03 hrs, Volume= 4,336 cf
Outflow = 1.40 cfs @ 12.03 hrs, Volume= 4,336 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.40 cfs @ 12.03 hrs, Volume= 4,336 cf
Routed to Pond 19P : CB M

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 401.43' @ 12.05 hrs
Flood Elev= 397.80'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.45'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.45' / 392.75' S= 0.0099 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=400.49' TW=400.91' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)



Summary for Pond 21P: CB O

[58] Hint: Peaked 3.83' above defined flood level

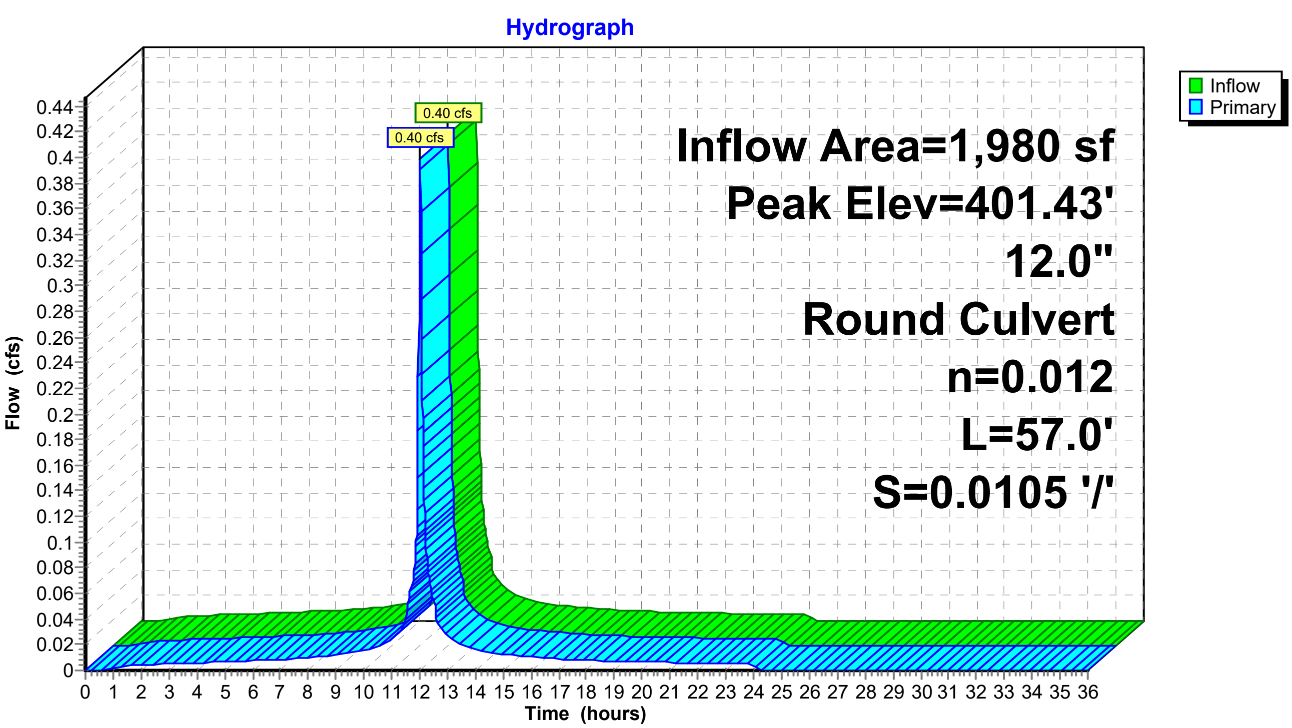
Inflow Area = 1,980 sf,100.00% Impervious, Inflow Depth = 7.47" for 100-yr event
Inflow = 0.40 cfs @ 12.03 hrs, Volume= 1,233 cf
Outflow = 0.40 cfs @ 12.03 hrs, Volume= 1,233 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.40 cfs @ 12.03 hrs, Volume= 1,233 cf
Routed to Pond 20P : CB N

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 401.43' @ 12.05 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.15'	**12.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.15' / 393.55' S= 0.0105 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=400.26' TW=400.49' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)

Pond 21P: CB O



Summary for Pond 22P: CB P

[58] Hint: Peaked 5.02' above defined flood level
[80] Warning: Exceeded Pond 23P by 0.02' @ 11.97 hrs (0.81 cfs 50 cf)

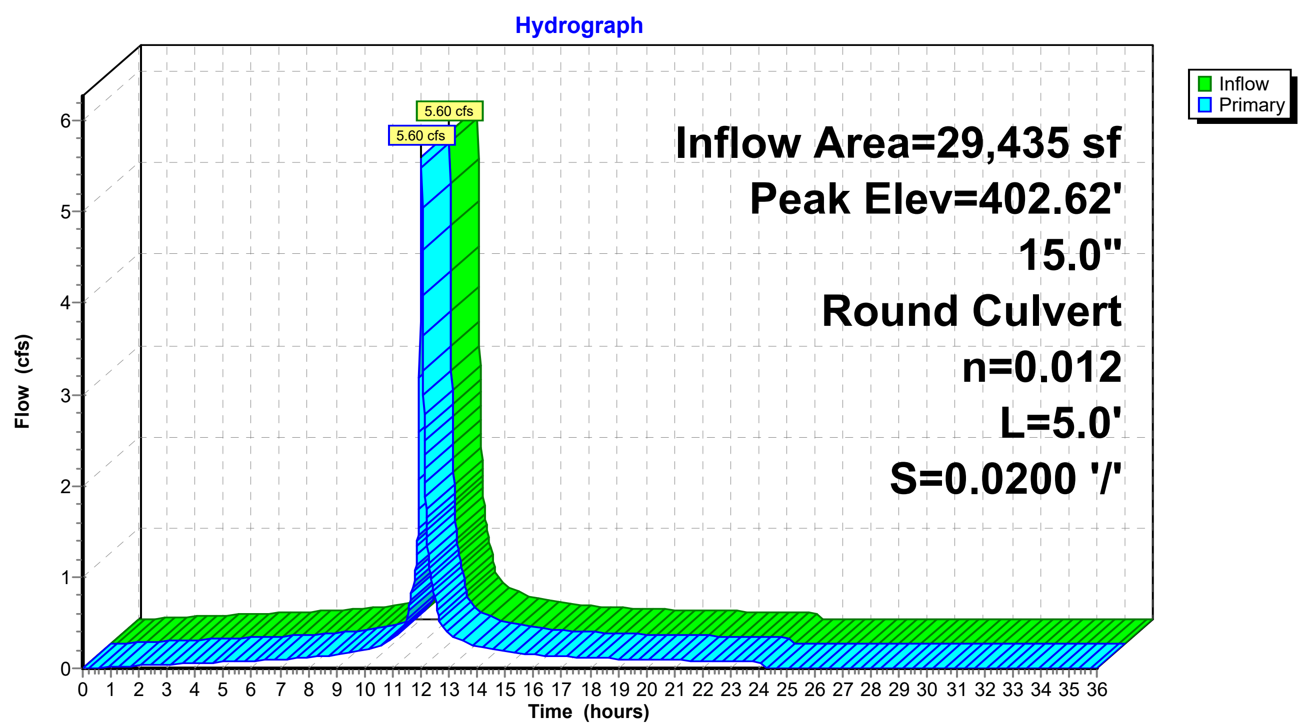
Inflow Area = 29,435 sf, 83.95% Impervious, Inflow Depth = 6.77" for 100-yr event
Inflow = 5.60 cfs @ 12.03 hrs, Volume= 16,609 cf
Outflow = 5.60 cfs @ 12.03 hrs, Volume= 16,609 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.60 cfs @ 12.03 hrs, Volume= 16,609 cf
Routed to Pond 12P : CB F

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 402.62' @ 12.03 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.80'	**15.0" Round Culvert** L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.80' / 391.70' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=4.84 cfs @ 12.03 hrs HW=402.35' TW=401.68' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 4.84 cfs @ 3.95 fps)

Pond 22P: CB P



Summary for Pond 23P: CB Q

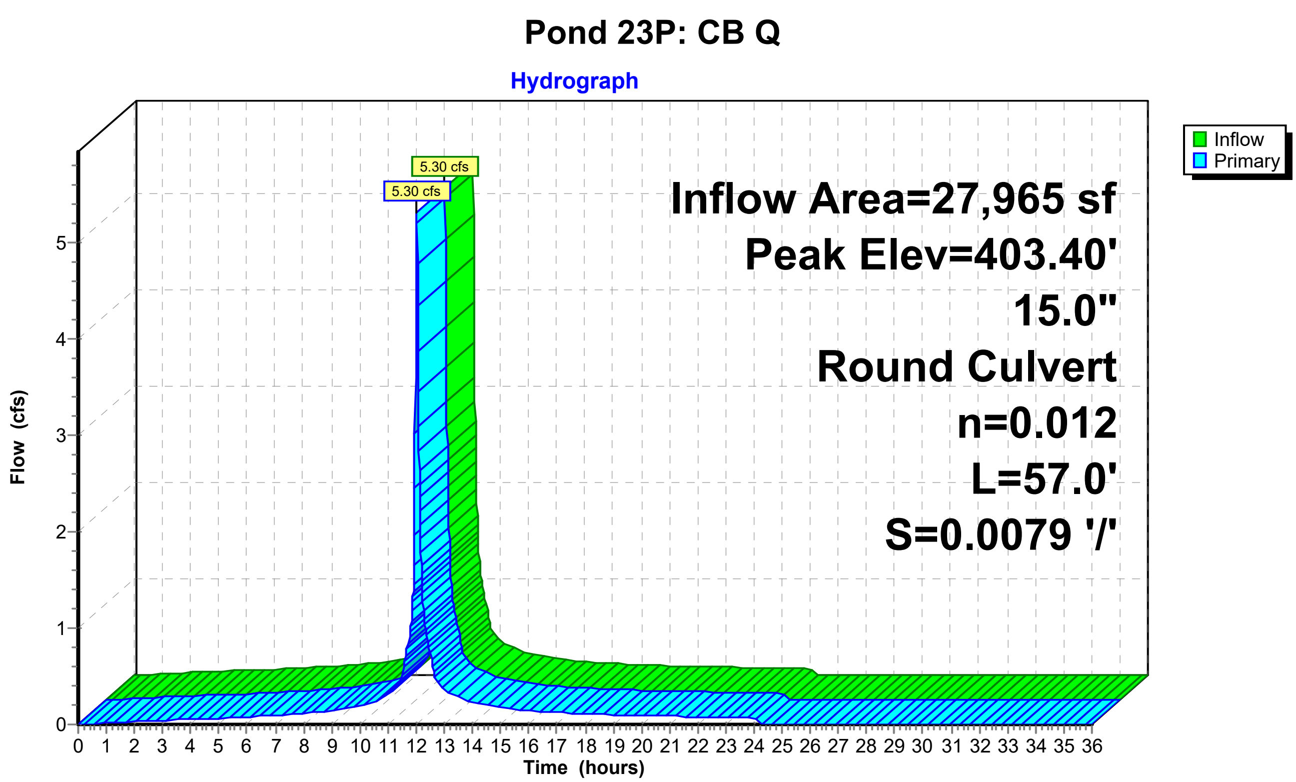
[58] Hint: Peaked 5.80' above defined flood level
[80] Warning: Exceeded Pond 24P by 0.80' @ 11.98 hrs (5.15 cfs 1,002 cf)
[80] Warning: Exceeded Pond 27P by 1.10' @ 11.99 hrs (3.96 cfs 808 cf)

Inflow Area = 27,965 sf, 83.10% Impervious, Inflow Depth = 6.73" for 100-yr event
Inflow = 5.30 cfs @ 12.03 hrs, Volume= 15,694 cf
Outflow = 5.30 cfs @ 12.03 hrs, Volume= 15,694 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.30 cfs @ 12.03 hrs, Volume= 15,694 cf
Routed to Pond 22P : CB P

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 403.40' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.30'	**15.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.30' / 391.85' S= 0.0079 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=4.68 cfs @ 12.03 hrs HW=402.98' TW=402.35' (Dynamic Tailwater)
1=Culvert (Inlet Controls 4.68 cfs @ 3.82 fps)



Summary for Pond 24P: CB R

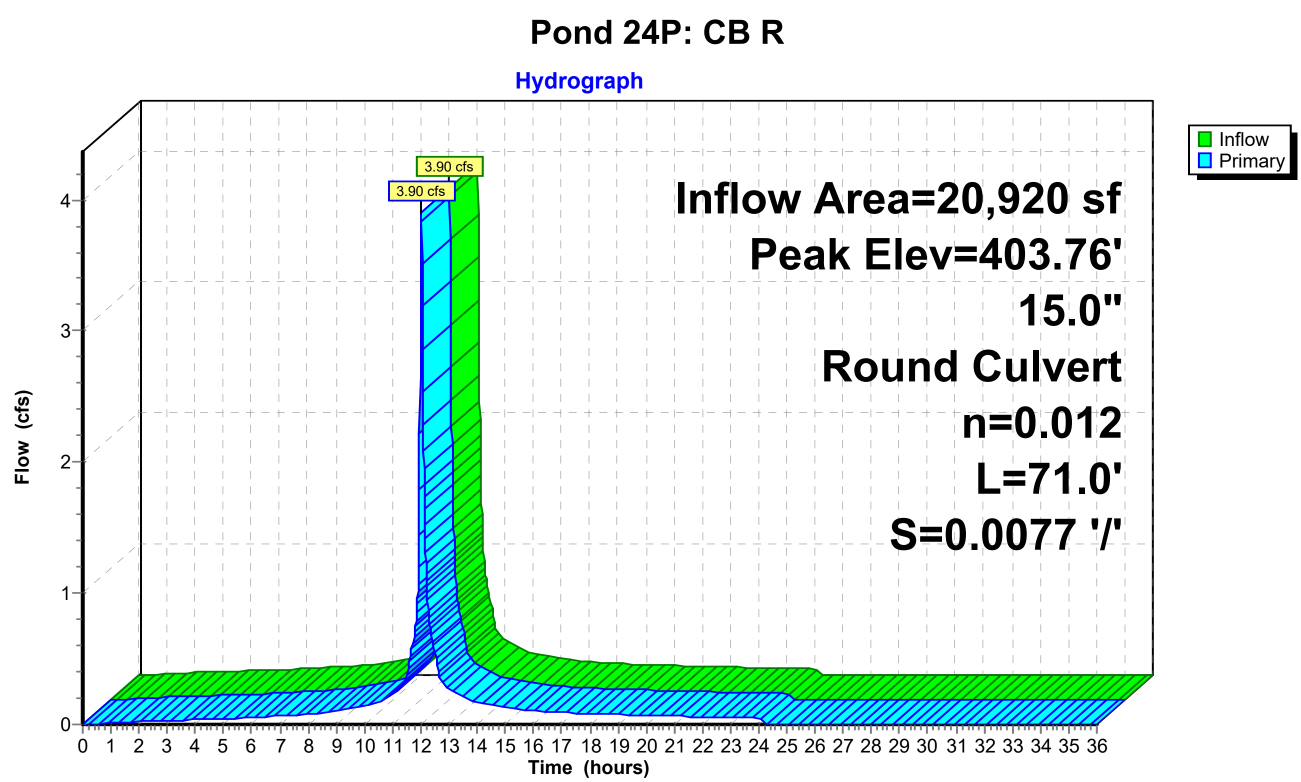
[58] Hint: Peaked 6.16' above defined flood level
[80] Warning: Exceeded Pond 25P by 0.48' @ 11.99 hrs (3.98 cfs 780 cf)
[80] Warning: Exceeded Pond 28P by 0.54' @ 11.99 hrs (2.78 cfs 537 cf)

Inflow Area = 20,920 sf, 79.28% Impervious, Inflow Depth = 6.57" for 100-yr event
Inflow = 3.90 cfs @ 12.03 hrs, Volume= 11,455 cf
Outflow = 3.90 cfs @ 12.03 hrs, Volume= 11,455 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.90 cfs @ 12.03 hrs, Volume= 11,455 cf
Routed to Pond 23P : CB Q

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 403.76' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.90'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.90' / 392.35' S= 0.0077 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=402.96' TW=402.99' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)



Summary for Pond 25P: CB S

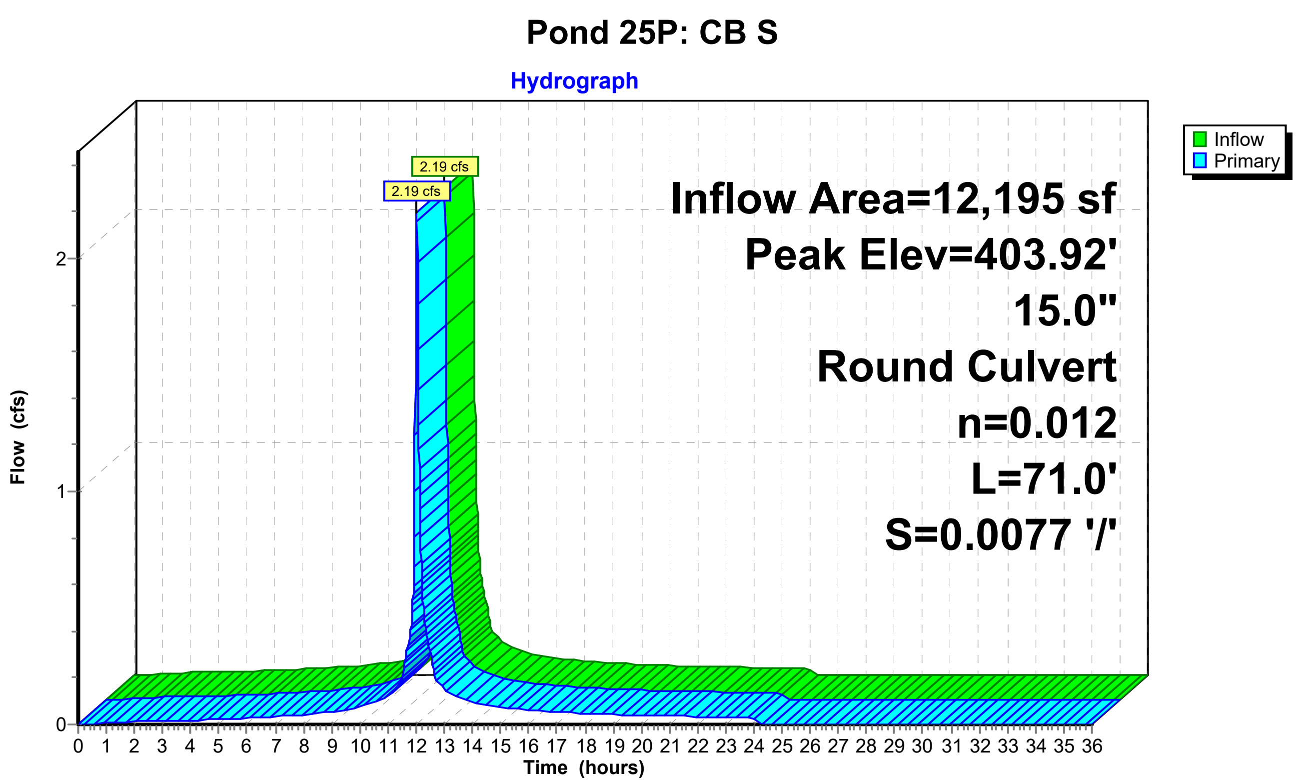
[58] Hint: Peaked 6.32' above defined flood level
[80] Warning: Exceeded Pond 26P by 1.16' @ 12.00 hrs (3.90 cfs 854 cf)
[80] Warning: Exceeded Pond 29P by 1.10' @ 12.00 hrs (3.97 cfs 818 cf)

Inflow Area = 12,195 sf, 72.82% Impervious, Inflow Depth = 6.29" for 100-yr event
Inflow = 2.19 cfs @ 12.03 hrs, Volume= 6,389 cf
Outflow = 2.19 cfs @ 12.03 hrs, Volume= 6,389 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.19 cfs @ 12.03 hrs, Volume= 6,389 cf
Routed to Pond 24P : CB R

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 403.92' @ 12.05 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.50'	**15.0" Round Culvert** L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.50' / 392.95' S= 0.0077 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=402.82' TW=402.98' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)



Summary for Pond 26P: CB T

[58] Hint: Peaked 6.28' above defined flood level

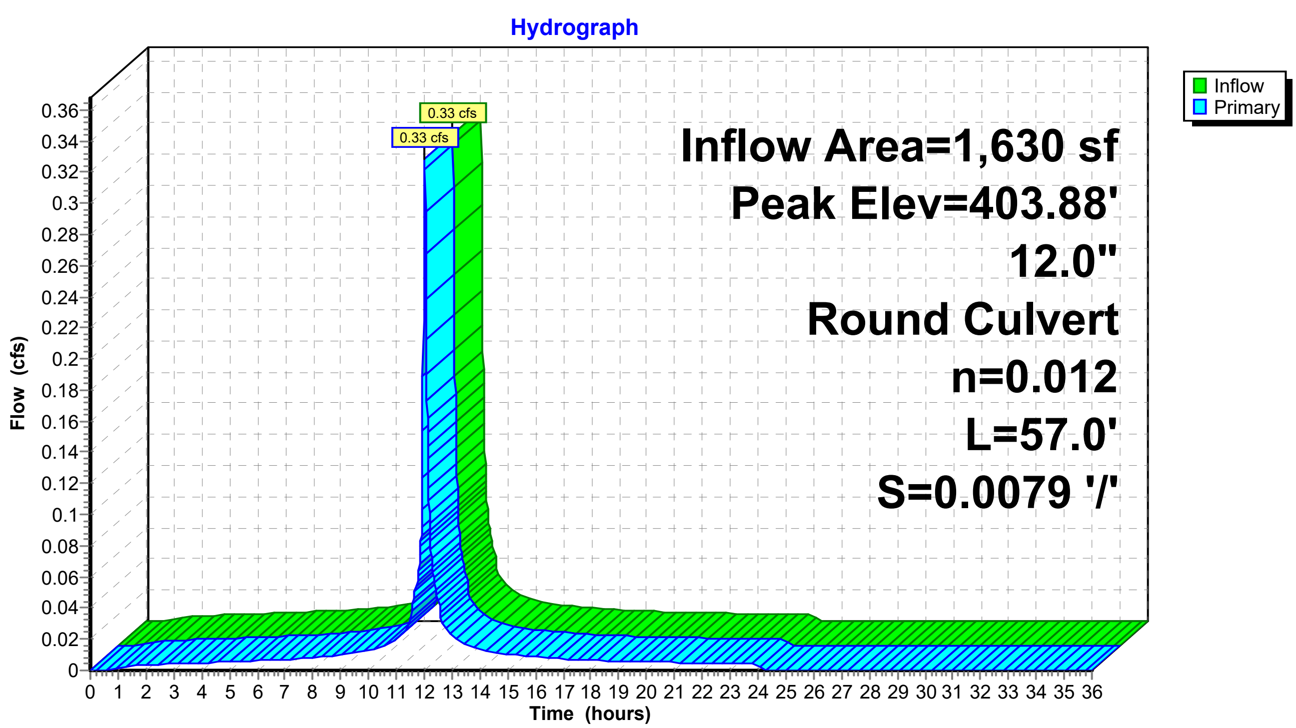
Inflow Area = 1,630 sf,100.00% Impervious, Inflow Depth = 7.47" for 100-yr event
Inflow = 0.33 cfs @ 12.03 hrs, Volume= 1,015 cf
Outflow = 0.33 cfs @ 12.03 hrs, Volume= 1,015 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.33 cfs @ 12.03 hrs, Volume= 1,015 cf
Routed to Pond 25P : CB S

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 403.88' @ 12.05 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.00'	**12.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.00' / 393.55' S= 0.0079 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=401.95' TW=402.74' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)

Pond 26P: CB T



Summary for Pond 27P: CB U

[58] Hint: Peaked 5.76' above defined flood level

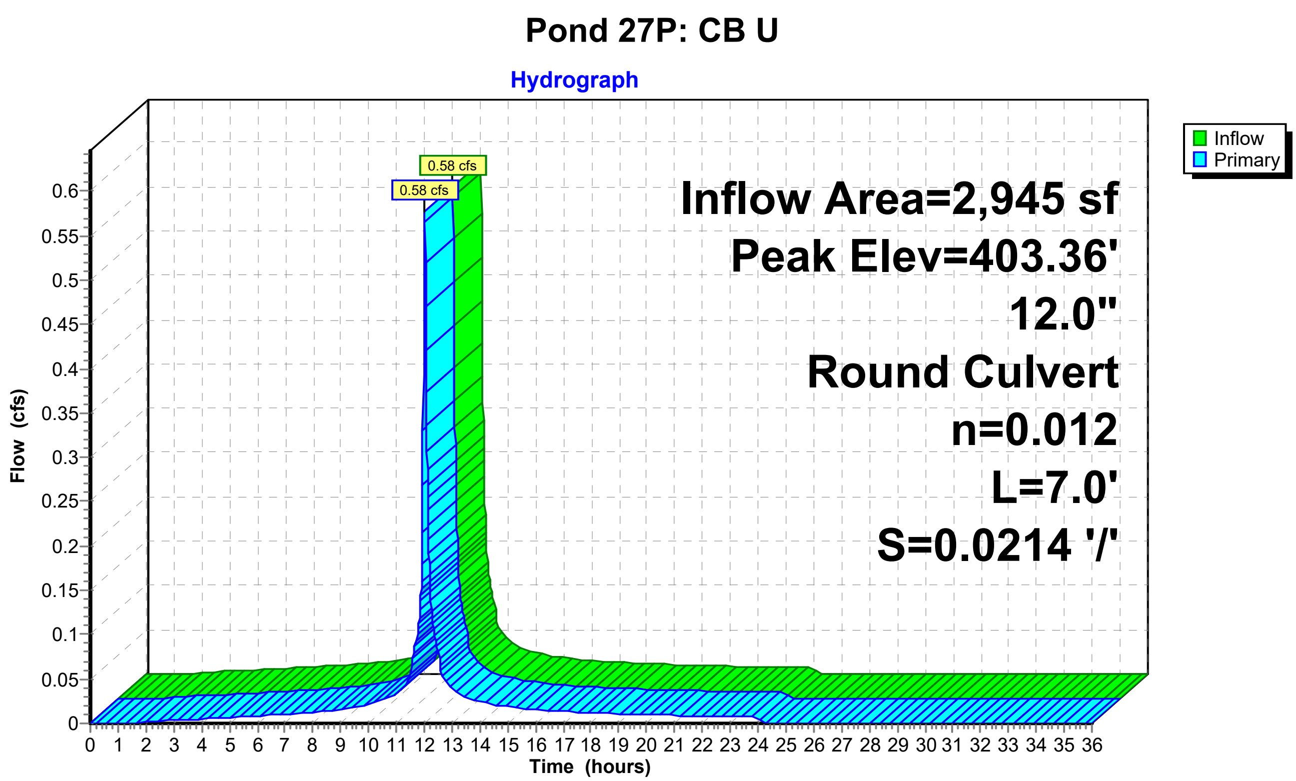
Inflow Area =	2,945 sf,	86.76% Impervious,	Inflow Depth = 6.87"	for 100-yr event
Inflow =	0.58 cfs @	12.03 hrs, Volume=	1,687 cf	
Outflow =	0.58 cfs @	12.03 hrs, Volume=	1,687 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.58 cfs @	12.03 hrs, Volume=	1,687 cf	

Routed to Pond 23P : CB Q

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 403.36' @ 12.04 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.60'	**12.0" Round Culvert** L= 7.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.60' / 394.45' S= 0.0214 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=402.50' TW=402.97' (Dynamic Tailwater)
└—**1=Culvert** (Controls 0.00 cfs)



Summary for Pond 28P: CB V

[58] Hint: Peaked 6.24' above defined flood level

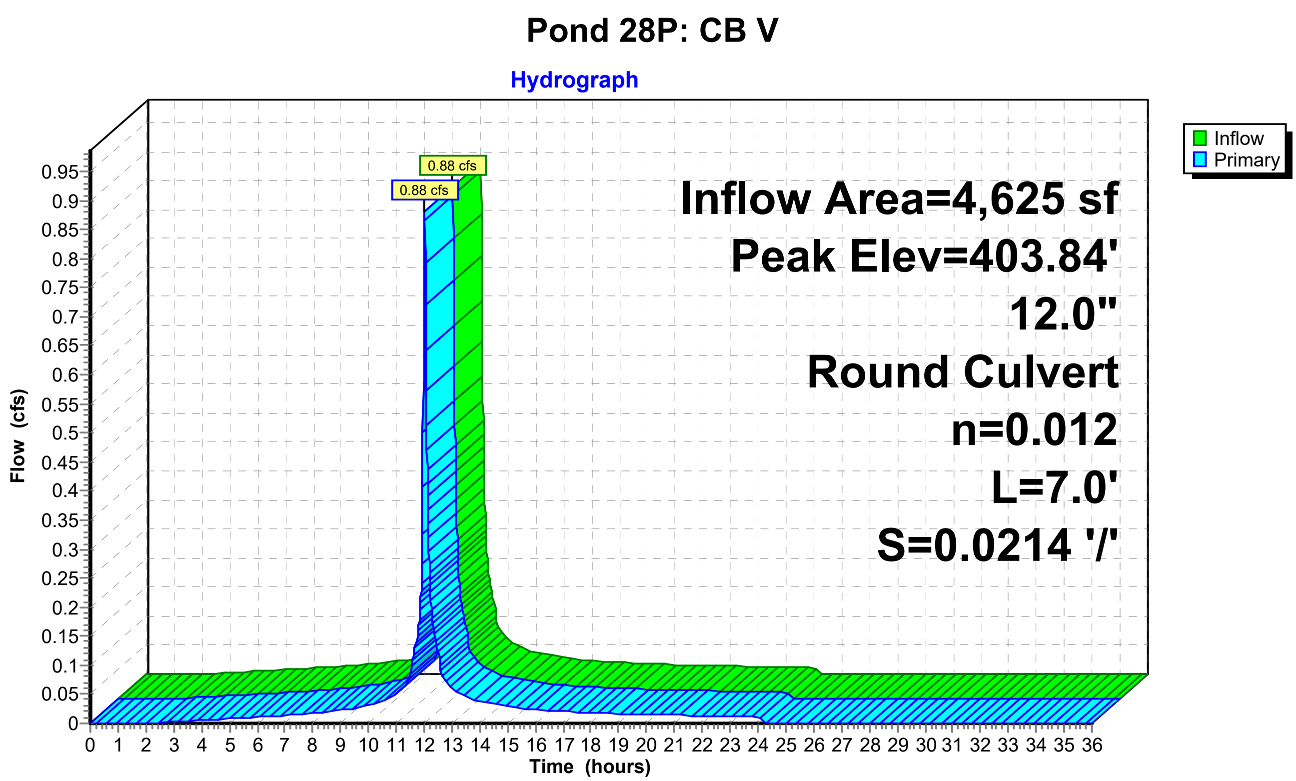
Inflow Area =	4,625 sf,	77.95% Impervious,	Inflow Depth = 6.52"	for 100-yr event
Inflow =	0.88 cfs @	12.03 hrs, Volume=	2,513 cf	
Outflow =	0.88 cfs @	12.03 hrs, Volume=	2,513 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.88 cfs @	12.03 hrs, Volume=	2,513 cf	

Routed to Pond 24P : CB R

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 403.84' @ 12.05 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.60'	**12.0" Round Culvert** L= 7.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.60' / 394.45' S= 0.0214 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=402.70' TW=402.95' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)



Summary for Pond 29P: CB W

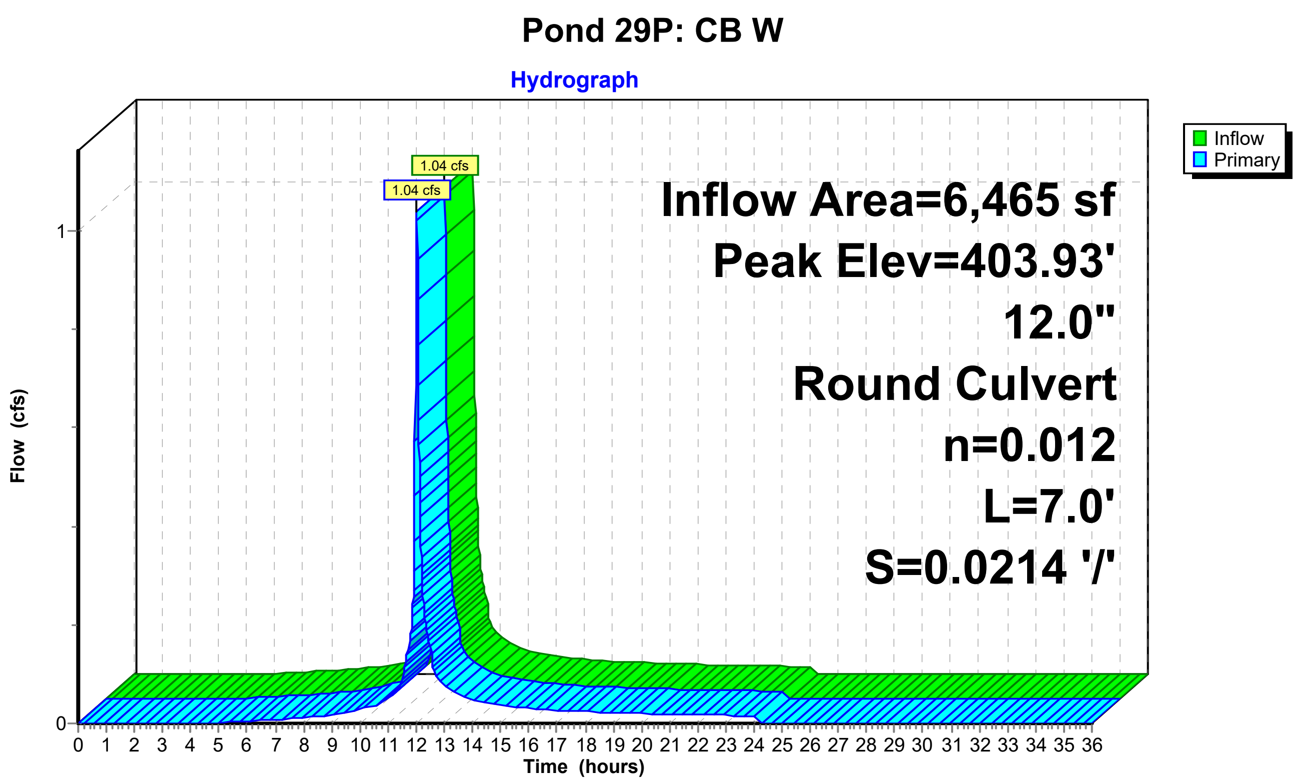
[58] Hint: Peaked 6.33' above defined flood level

Inflow Area = 6,465 sf, 48.72% Impervious, Inflow Depth = 5.24" for 100-yr event
Inflow = 1.04 cfs @ 12.03 hrs, Volume= 2,822 cf
Outflow = 1.04 cfs @ 12.03 hrs, Volume= 2,822 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.04 cfs @ 12.03 hrs, Volume= 2,822 cf
Routed to Pond 25P : CB S

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 403.93' @ 12.05 hrs
Flood Elev= 397.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	394.60'	**12.0" Round Culvert** L= 7.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 394.60' / 394.45' S= 0.0214 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=402.25' TW=402.91' (Dynamic Tailwater)
└─**1=Culvert** (Controls 0.00 cfs)



Summary for Pond 31P: Vortech Unit

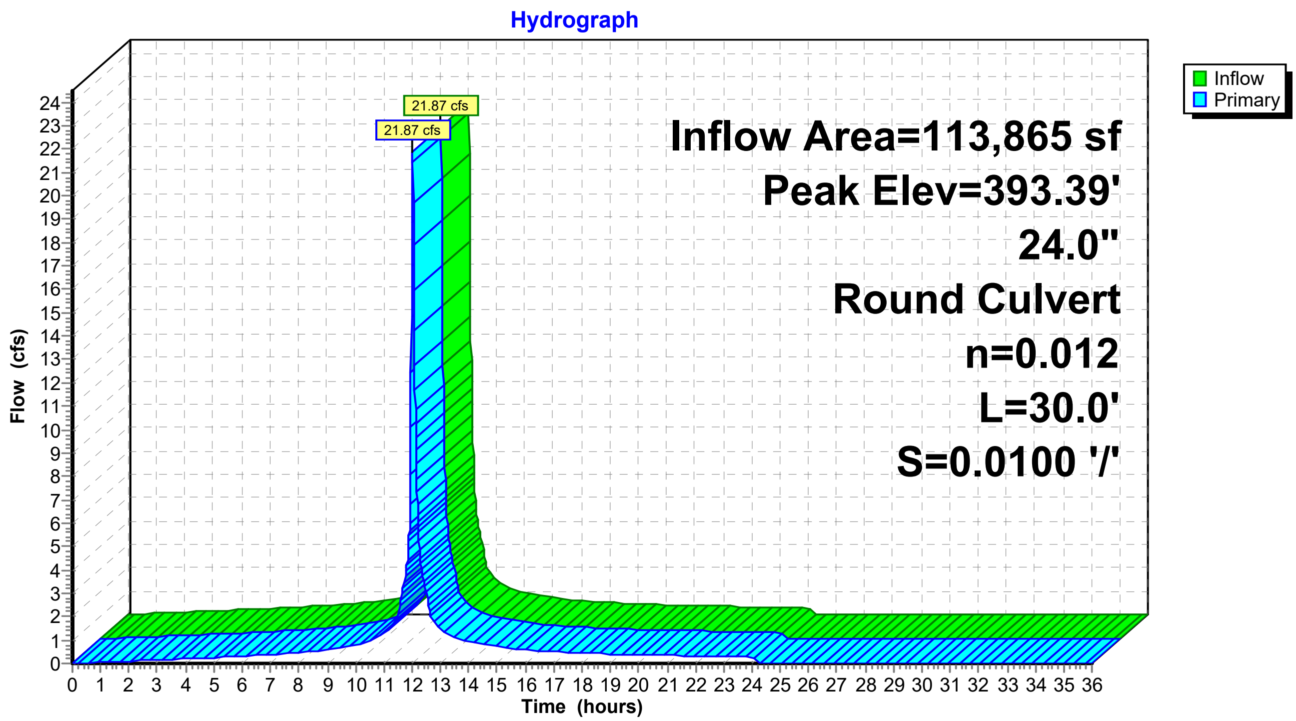
Inflow Area = 113,865 sf, 84.57% Impervious, Inflow Depth = 6.80" for 100-yr event
Inflow = 21.87 cfs @ 12.03 hrs, Volume= 64,489 cf
Outflow = 21.87 cfs @ 12.03 hrs, Volume= 64,489 cf, Atten= 0%, Lag= 0.0 min
Primary = 21.87 cfs @ 12.03 hrs, Volume= 64,489 cf
Routed to Link 1L : Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.39' @ 12.03 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.30'	**24.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.30' / 390.00' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=21.78 cfs @ 12.03 hrs HW=393.37' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 21.78 cfs @ 6.93 fps)

Pond 31P: Vortech Unit



Summary for Pond 41P: CB 11

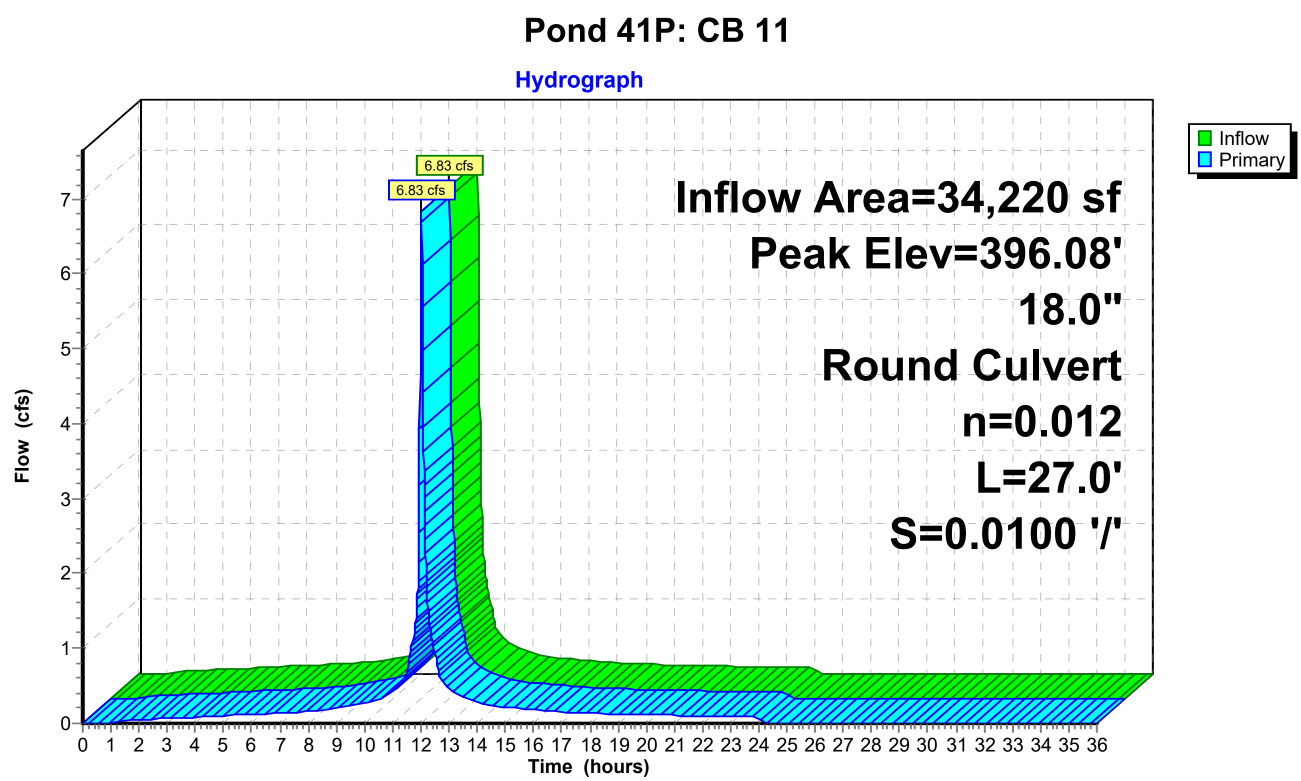
[80] Warning: Exceeded Pond 42P by 0.10' @ 11.99 hrs (1.88 cfs 264 cf)

Inflow Area = 34,220 sf, 94.21% Impervious, Inflow Depth = 7.23" for 100-yr event
Inflow = 6.83 cfs @ 12.03 hrs, Volume= 20,608 cf
Outflow = 6.83 cfs @ 12.03 hrs, Volume= 20,608 cf, Atten= 0%, Lag= 0.0 min
Primary = 6.83 cfs @ 12.03 hrs, Volume= 20,608 cf
Routed to Pond 53P : DMH D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.08' @ 12.03 hrs
Flood Elev= 396.37'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.07'	**18.0" Round Culvert** L= 27.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.07' / 391.80' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=6.38 cfs @ 12.03 hrs HW=396.00' TW=395.44' (Dynamic Tailwater)
└—**1=Culvert** (Inlet Controls 6.38 cfs @ 3.61 fps)



Summary for Pond 42P: CB 12

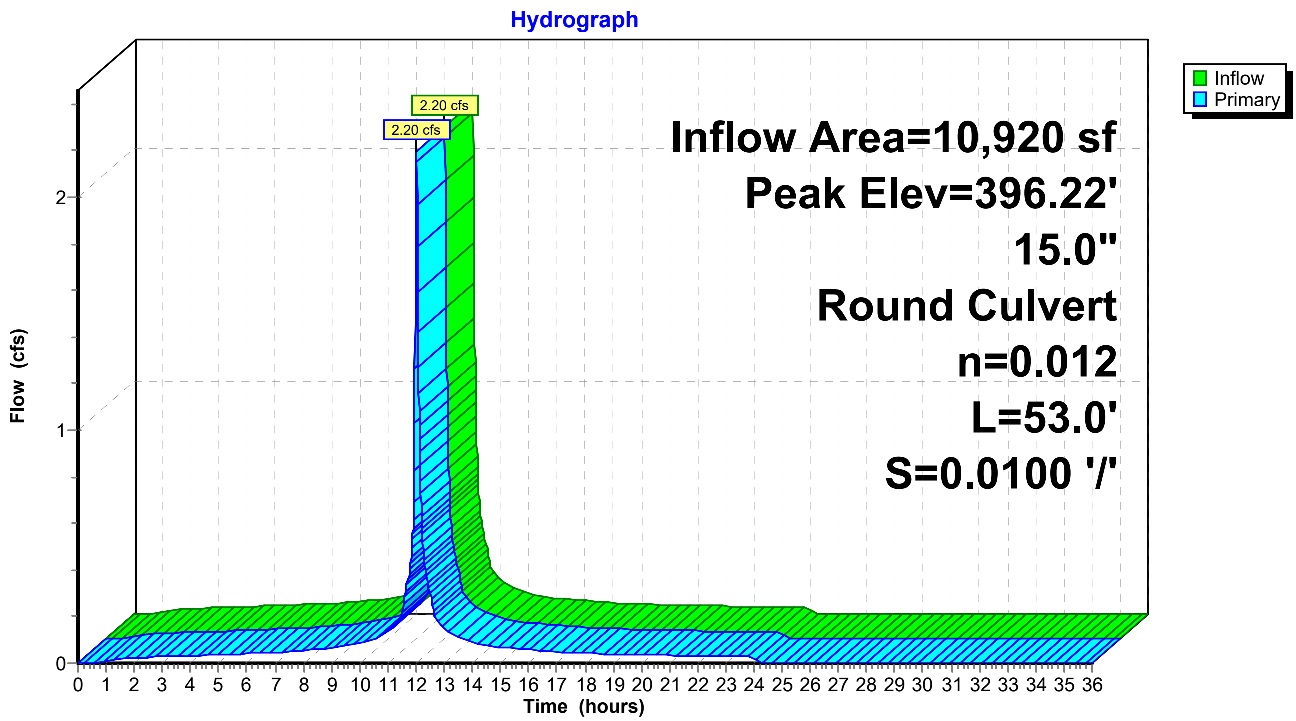
Inflow Area = 10,920 sf,100.00% Impervious, Inflow Depth = 7.47" for 100-yr event
Inflow = 2.20 cfs @ 12.03 hrs, Volume= 6,798 cf
Outflow = 2.20 cfs @ 12.03 hrs, Volume= 6,798 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.20 cfs @ 12.03 hrs, Volume= 6,798 cf
Routed to Pond 41P : CB 11

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.22' @ 12.04 hrs
Flood Elev= 396.36'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.70'	**15.0" Round Culvert** L= 53.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.70' / 392.17' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.36 cfs @ 12.03 hrs HW=396.05' TW=396.00' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 1.36 cfs @ 1.10 fps)

Pond 42P: CB 12



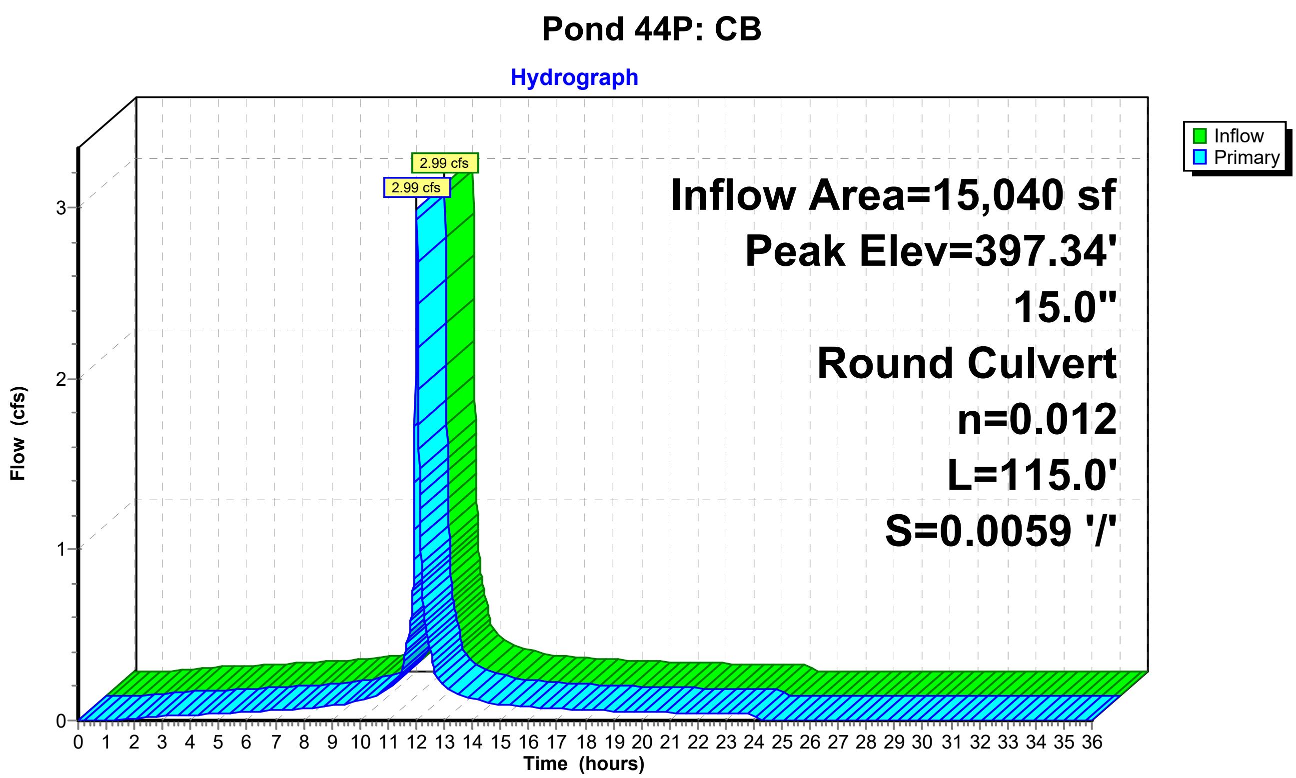
Summary for Pond 44P: CB

Inflow Area = 15,040 sf, 92.69% Impervious, Inflow Depth = 7.11" for 100-yr event
Inflow = 2.99 cfs @ 12.03 hrs, Volume= 8,914 cf
Outflow = 2.99 cfs @ 12.03 hrs, Volume= 8,914 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.99 cfs @ 12.03 hrs, Volume= 8,914 cf
Routed to Pond 52P : DMH C

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 397.34' @ 12.04 hrs
Flood Elev= 398.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	392.58'	**15.0" Round Culvert** L= 115.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 392.58' / 391.90' S= 0.0059 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.22 cfs @ 12.03 hrs HW=397.10' TW=396.91' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 2.22 cfs @ 1.81 fps)



Summary for Pond 45P: CB

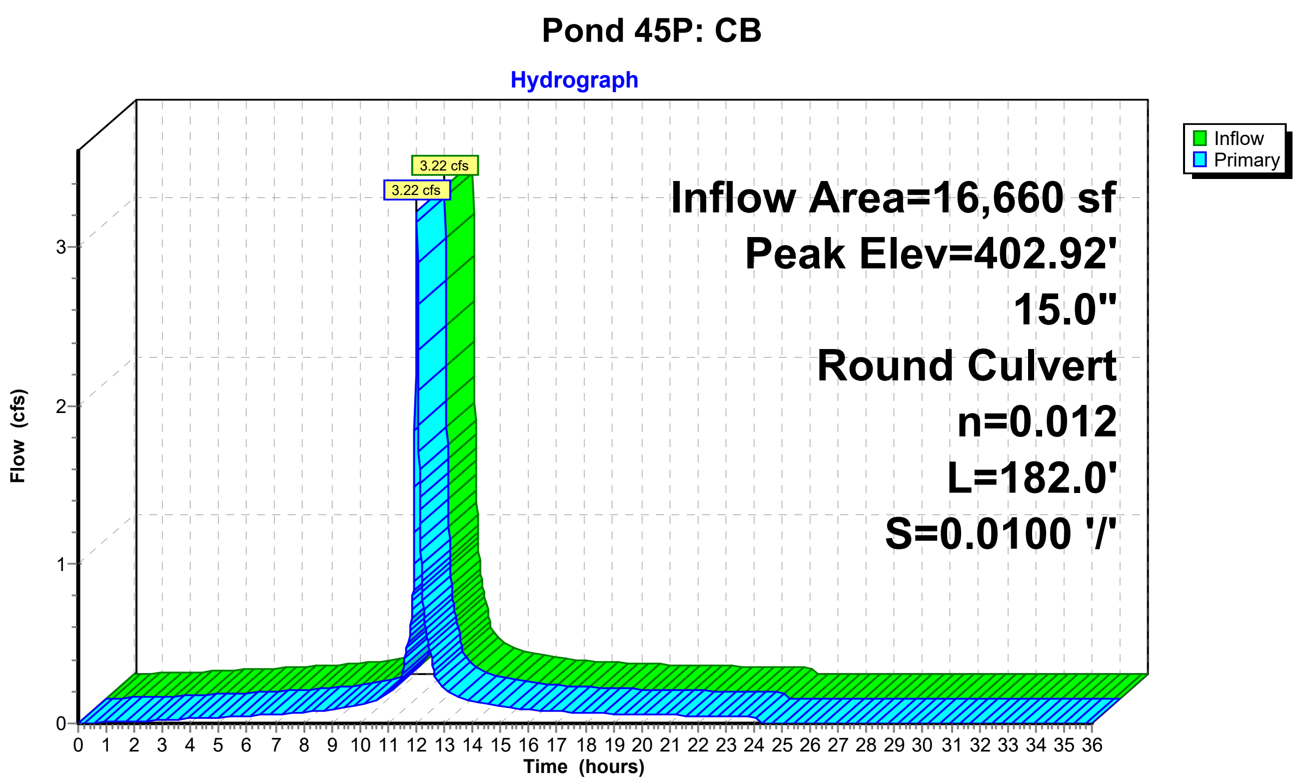
[58] Hint: Peaked 3.03' above defined flood level

Inflow Area = 16,660 sf, 86.04% Impervious, Inflow Depth = 6.83" for 100-yr event
Inflow = 3.22 cfs @ 12.03 hrs, Volume= 9,477 cf
Outflow = 3.22 cfs @ 12.03 hrs, Volume= 9,477 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.22 cfs @ 12.03 hrs, Volume= 9,477 cf
Routed to Pond 50P : DMH A

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 402.92' @ 12.05 hrs
Flood Elev= 399.89'

Device	Routing	Invert	Outlet Devices
#1	Primary	395.87'	**15.0" Round Culvert** L= 182.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 395.87' / 394.05' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.24 cfs @ 12.03 hrs HW=401.68' TW=401.60' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 1.24 cfs @ 1.01 fps)



Summary for Pond 50P: DMH A

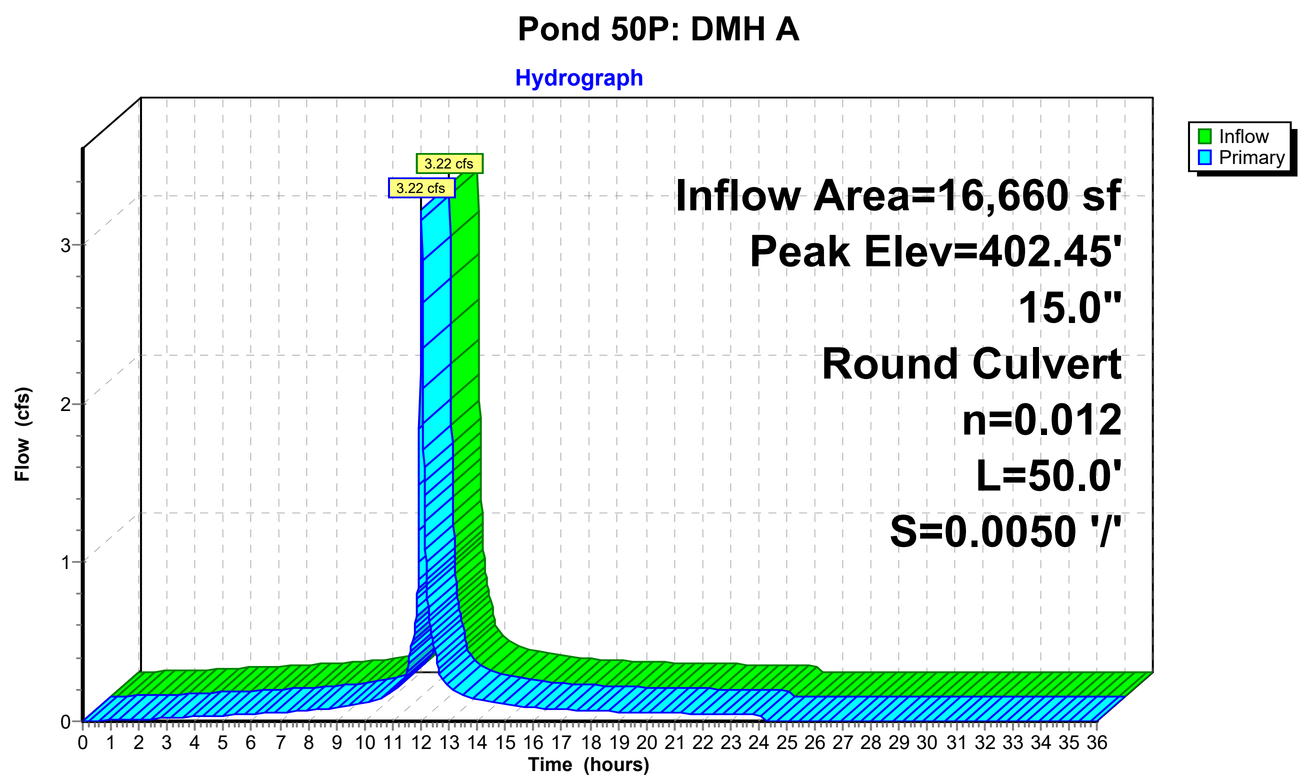
[58] Hint: Peaked 3.55' above defined flood level
[80] Warning: Exceeded Pond 45P by 0.36' @ 11.99 hrs (2.61 cfs 235 cf)

Inflow Area = 16,660 sf, 86.04% Impervious, Inflow Depth = 6.83" for 100-yr event
Inflow = 3.22 cfs @ 12.03 hrs, Volume= 9,477 cf
Outflow = 3.22 cfs @ 12.03 hrs, Volume= 9,477 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.22 cfs @ 12.03 hrs, Volume= 9,477 cf
Routed to Pond 51P : DMH B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 402.45' @ 12.04 hrs
Flood Elev= 398.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.50'	**15.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.50' / 393.25' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=401.60' TW=401.65' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)



Summary for Pond 51P: DMH B

[58] Hint: Peaked 3.72' above defined flood level
[80] Warning: Exceeded Pond 1P by 0.37' @ 11.99 hrs (3.59 cfs 852 cf)
[80] Warning: Exceeded Pond 50P by 0.27' @ 11.99 hrs (3.08 cfs 690 cf)

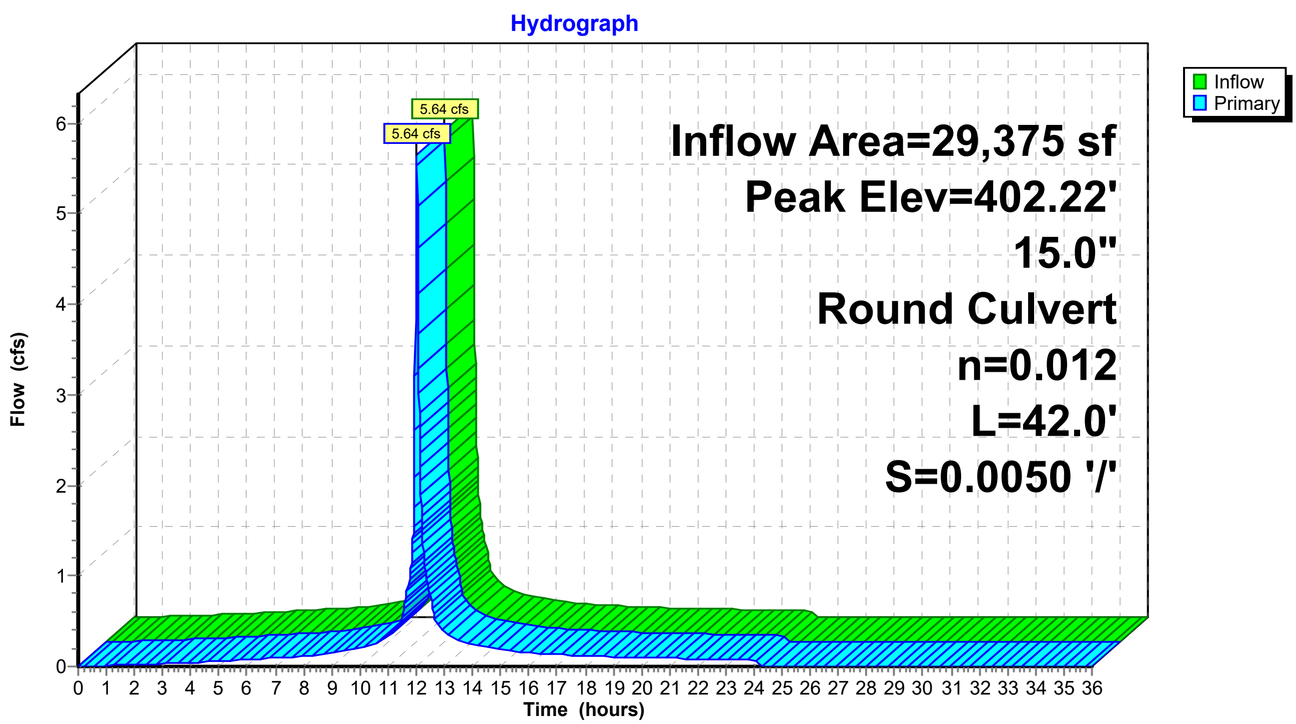
Inflow Area = 29,375 sf, 82.50% Impervious, Inflow Depth = 6.69" for 100-yr event
Inflow = 5.64 cfs @ 12.03 hrs, Volume= 16,386 cf
Outflow = 5.64 cfs @ 12.03 hrs, Volume= 16,386 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.64 cfs @ 12.03 hrs, Volume= 16,386 cf
Routed to Pond 2P : CB 2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 402.22' @ 12.04 hrs
Flood Elev= 398.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	393.15'	**15.0" Round Culvert** L= 42.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 393.15' / 392.94' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=4.59 cfs @ 12.03 hrs HW=401.66' TW=401.05' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 4.59 cfs @ 3.74 fps)

Pond 51P: DMH B



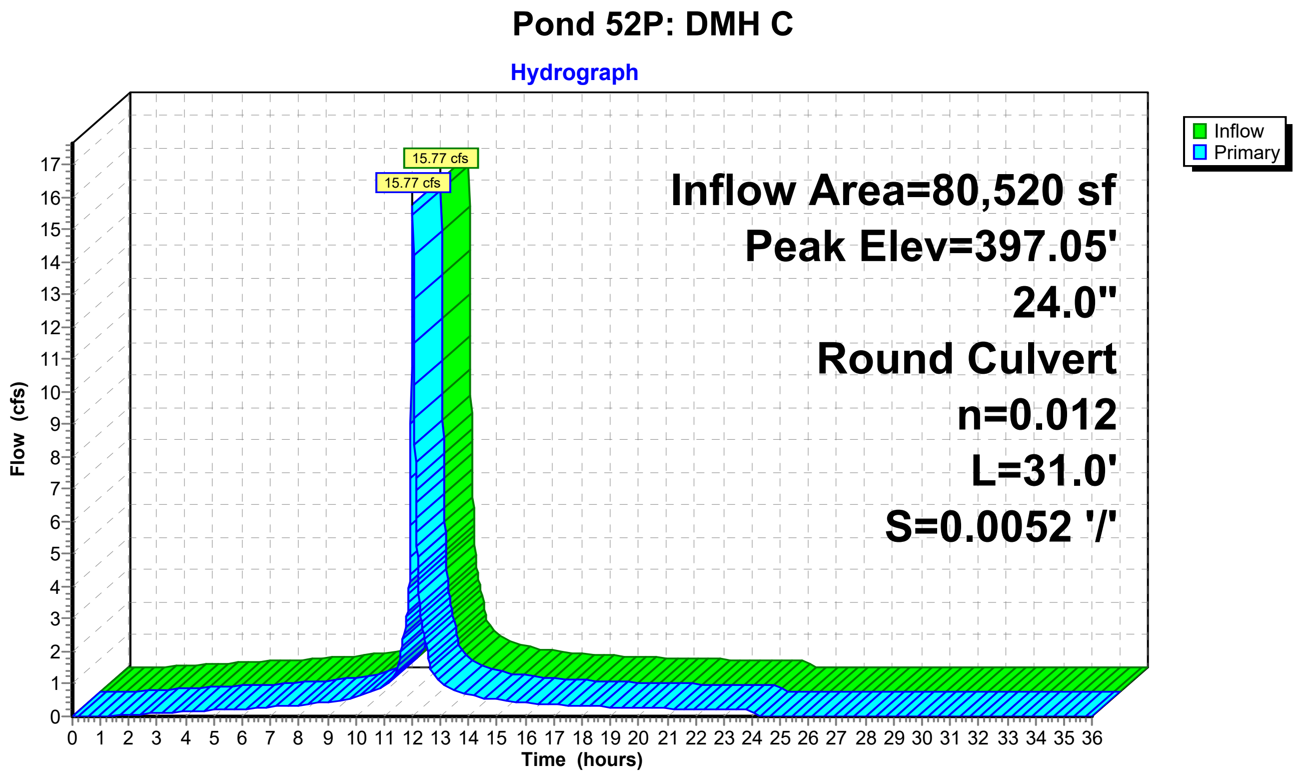
Summary for Pond 52P: DMH C

Inflow Area = 80,520 sf, 88.25% Impervious, Inflow Depth = 6.92" for 100-yr event
Inflow = 15.77 cfs @ 12.03 hrs, Volume= 46,456 cf
Outflow = 15.77 cfs @ 12.03 hrs, Volume= 46,456 cf, Atten= 0%, Lag= 0.0 min
Primary = 15.77 cfs @ 12.03 hrs, Volume= 46,456 cf
Routed to Pond 5P : CB 5

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 397.05' @ 12.03 hrs
Flood Elev= 397.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.80'	**24.0" Round Culvert** L= 31.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.80' / 391.64' S= 0.0052 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=15.09 cfs @ 12.03 hrs HW=396.91' TW=395.92' (Dynamic Tailwater)
1=Culvert (Inlet Controls 15.09 cfs @ 4.80 fps)



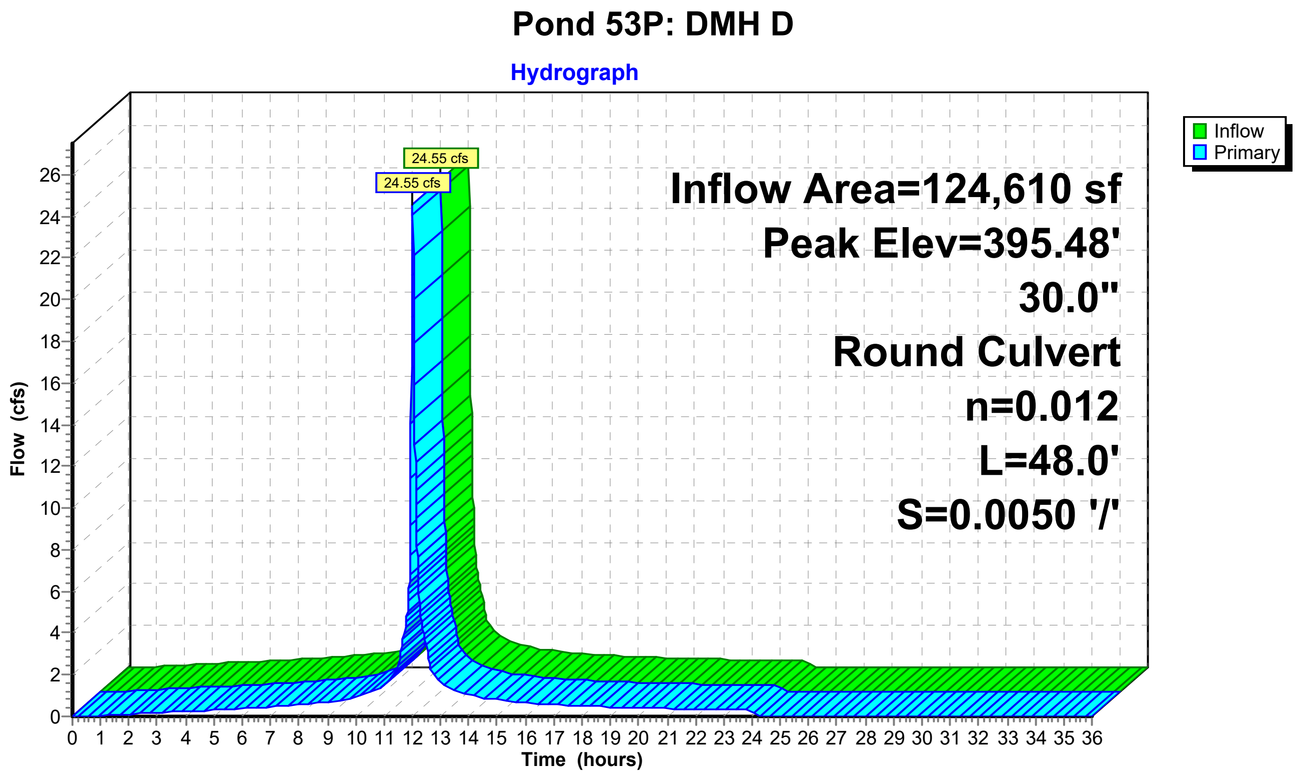
Summary for Pond 53P: DMH D

Inflow Area = 124,610 sf, 89.85% Impervious, Inflow Depth = 7.01" for 100-yr event
Inflow = 24.55 cfs @ 12.03 hrs, Volume= 72,816 cf
Outflow = 24.55 cfs @ 12.03 hrs, Volume= 72,816 cf, Atten= 0%, Lag= 0.0 min
Primary = 24.55 cfs @ 12.03 hrs, Volume= 72,816 cf
Routed to Pond 54P : DMH E

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 395.48' @ 12.03 hrs
Flood Elev= 396.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.48'	**30.0" Round Culvert** L= 48.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.48' / 391.24' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=24.16 cfs @ 12.03 hrs HW=395.44' TW=394.39' (Dynamic Tailwater)
1=Culvert (Inlet Controls 24.16 cfs @ 4.92 fps)



Summary for Pond 54P: DMH E

Inflow Area = 124,610 sf, 89.85% Impervious, Inflow Depth = 7.01" for 100-yr event
Inflow = 24.55 cfs @ 12.03 hrs, Volume= 72,816 cf
Outflow = 24.55 cfs @ 12.03 hrs, Volume= 72,816 cf, Atten= 0%, Lag= 0.0 min
Primary = 18.84 cfs @ 12.03 hrs, Volume= 17,067 cf
Routed to Pond 55P : DMH F
Secondary = 5.71 cfs @ 12.03 hrs, Volume= 55,749 cf
Routed to Pond 1VP : Vortechnics Unit

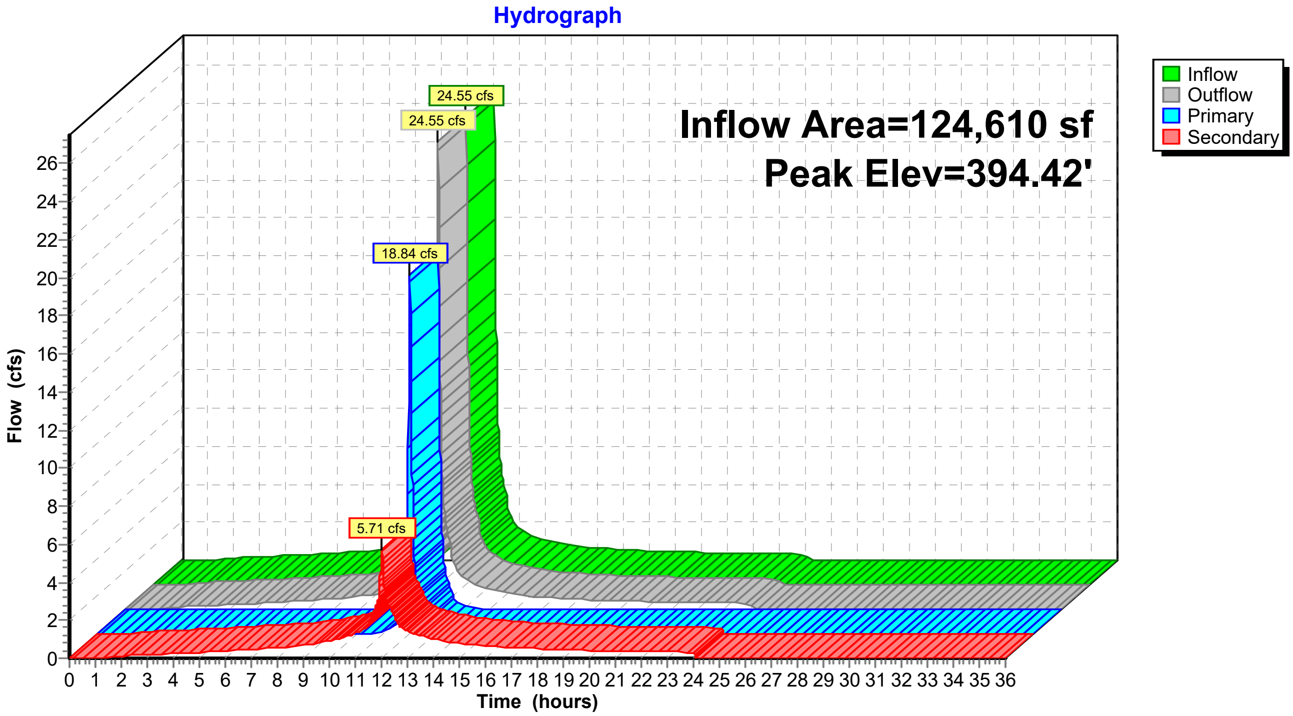
Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 394.42' @ 12.03 hrs
Flood Elev= 398.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.14'	**30.0" Round Culvert** L= 41.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.14' / 390.93' S= 0.0051 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Secondary	390.55'	**15.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.55' / 390.50' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=19.86 cfs @ 12.03 hrs HW=394.39' TW=393.68' (Dynamic Tailwater)
1=Culvert (Inlet Controls 19.86 cfs @ 4.05 fps)

Secondary OutFlow Max=4.25 cfs @ 12.03 hrs HW=394.40' TW=393.88' (Dynamic Tailwater)
2=Culvert (Inlet Controls 4.25 cfs @ 3.46 fps)

Pond 54P: DMH E



Summary for Pond 55P: DMH F

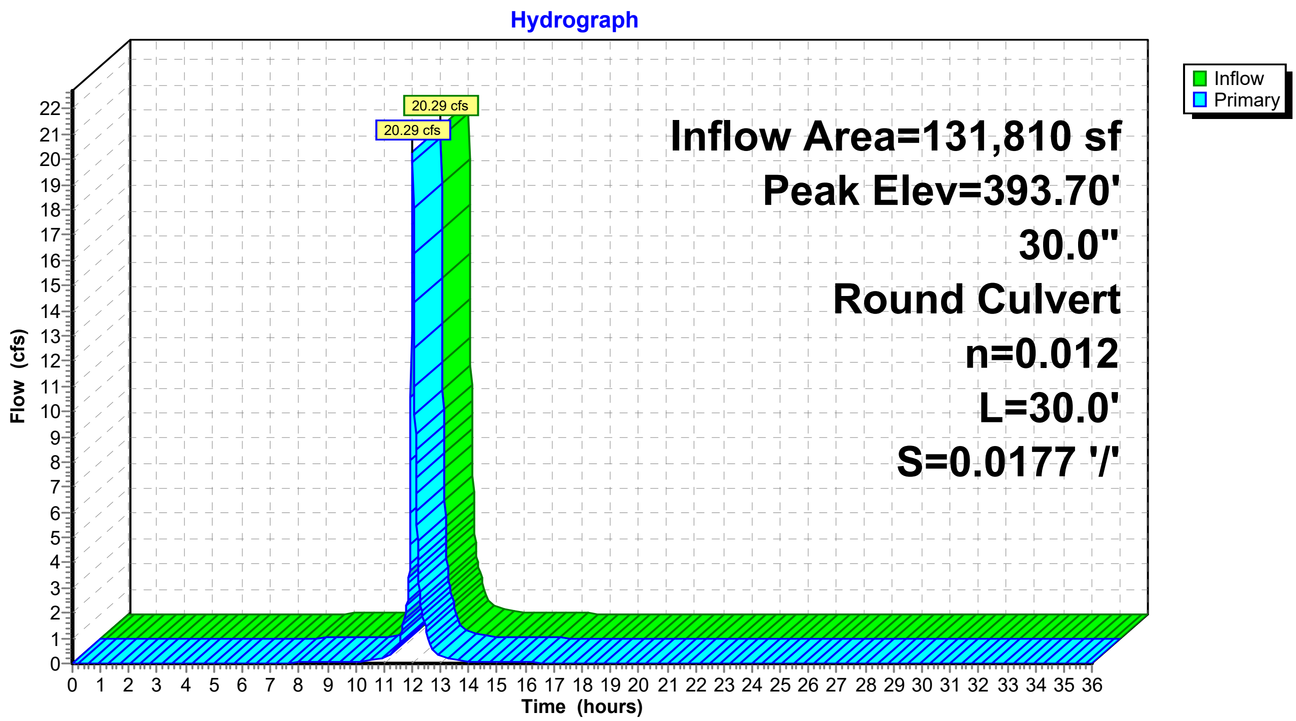
Inflow Area = 131,810 sf, 90.41% Impervious, Inflow Depth = 1.96" for 100-yr event
Inflow = 20.29 cfs @ 12.03 hrs, Volume= 21,549 cf
Outflow = 20.29 cfs @ 12.03 hrs, Volume= 21,549 cf, Atten= 0%, Lag= 0.0 min
Primary = 20.29 cfs @ 12.03 hrs, Volume= 21,549 cf
Routed to Pond 3DP : DMH 3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 393.70' @ 12.03 hrs
Flood Elev= 397.90'

Device	Routing	Invert	Outlet Devices
#1	Primary	390.83'	**30.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 390.83' / 390.30' S= 0.0177 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=20.20 cfs @ 12.03 hrs HW=393.68' TW=392.95' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 20.20 cfs @ 4.12 fps)

Pond 55P: DMH F



Summary for Pond 61P: DMH A

[80] Warning: Exceeded Pond 7P by 0.31' @ 11.99 hrs (2.75 cfs 480 cf)

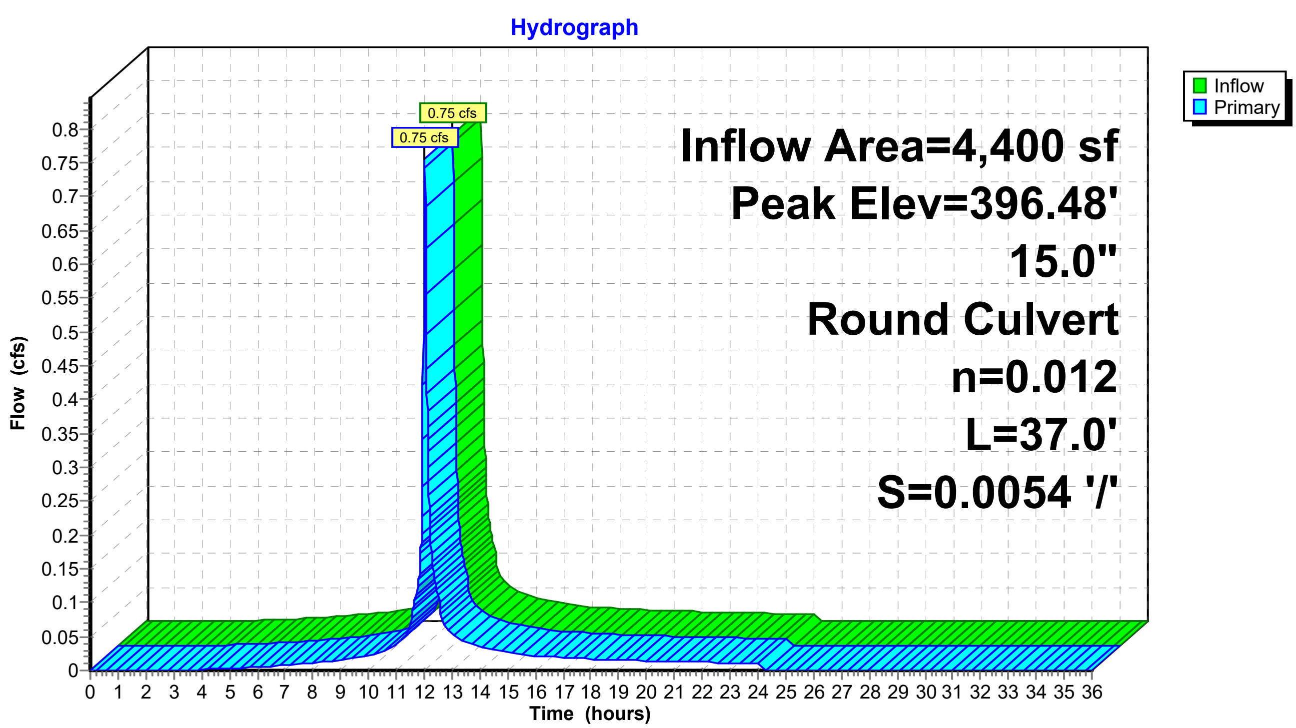
Inflow Area = 4,400 sf, 58.07% Impervious, Inflow Depth = 5.64" for 100-yr event
Inflow = 0.75 cfs @ 12.03 hrs, Volume= 2,070 cf
Outflow = 0.75 cfs @ 12.03 hrs, Volume= 2,070 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.75 cfs @ 12.03 hrs, Volume= 2,070 cf
Routed to Pond 62P : DMH B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.48' @ 12.04 hrs
Flood Elev= 397.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.75'	**15.0" Round Culvert** L= 37.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.75' / 391.55' S= 0.0054 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.00 cfs @ 12.03 hrs HW=396.29' TW=396.39' (Dynamic Tailwater)
1=Culvert (Controls 0.00 cfs)

Pond 61P: DMH A



Summary for Pond 62P: DMH B

[80] Warning: Exceeded Pond 61P by 0.41' @ 12.00 hrs (3.78 cfs 844 cf)

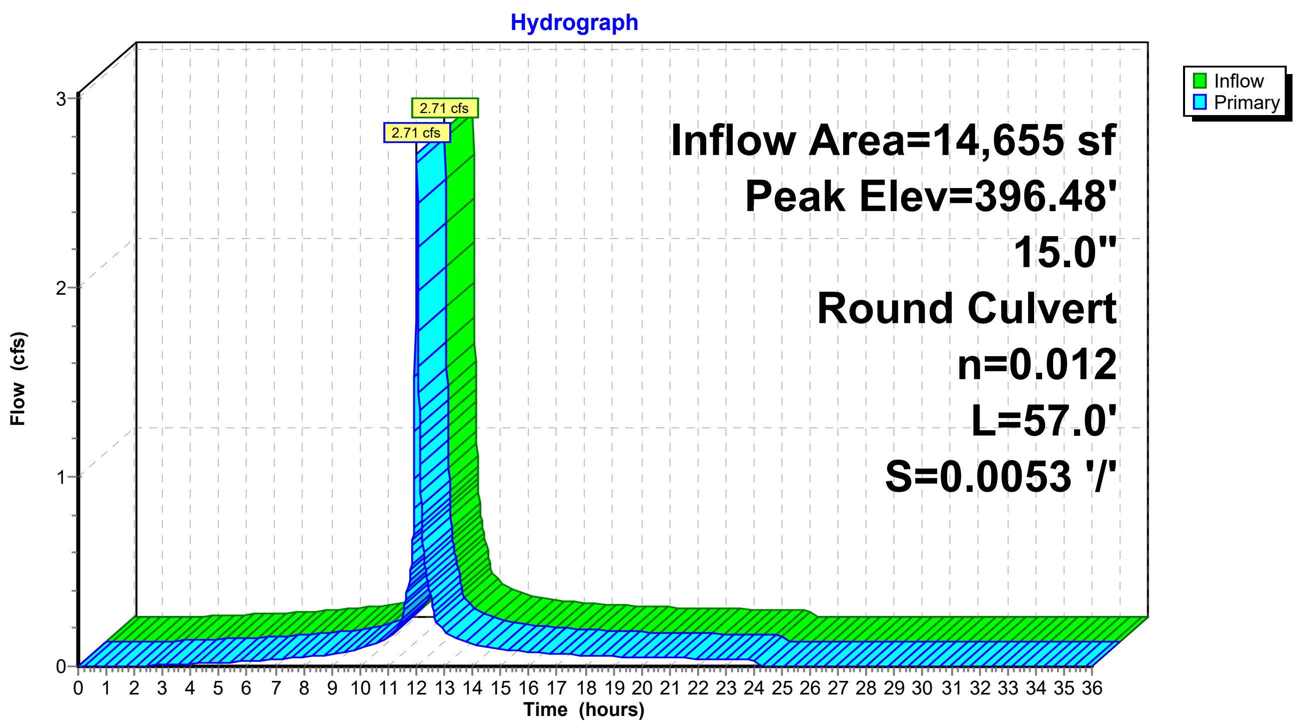
Inflow Area = 14,655 sf, 71.41% Impervious, Inflow Depth = 6.26" for 100-yr event
Inflow = 2.71 cfs @ 12.03 hrs, Volume= 7,642 cf
Outflow = 2.71 cfs @ 12.03 hrs, Volume= 7,642 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.71 cfs @ 12.03 hrs, Volume= 7,642 cf
Routed to Pond 9P : CB C

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 396.48' @ 12.03 hrs
Flood Elev= 397.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	391.50'	**15.0" Round Culvert** L= 57.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 391.50' / 391.20' S= 0.0053 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.36 cfs @ 12.03 hrs HW=396.38' TW=396.22' (Dynamic Tailwater)
1=Culvert (Inlet Controls 2.36 cfs @ 1.92 fps)

Pond 62P: DMH B

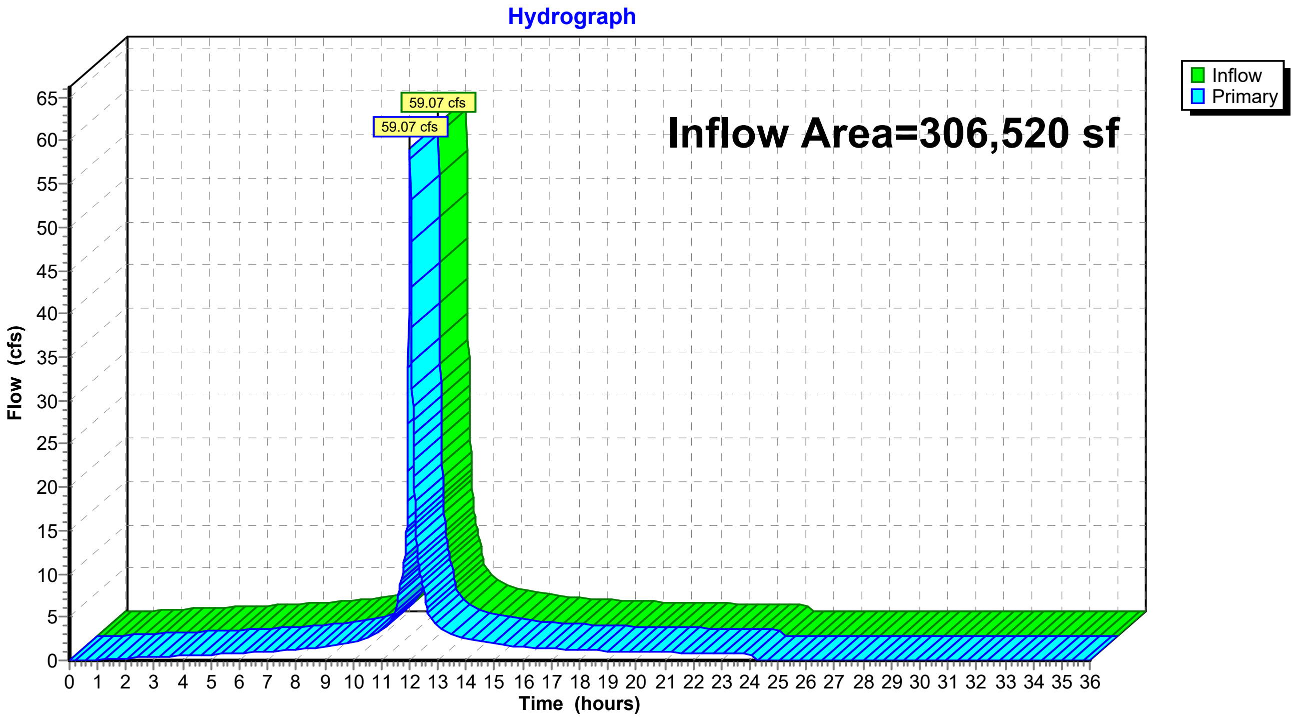


Summary for Link 1L: Wetland

Inflow Area = 306,520 sf, 85.07% Impervious, Inflow Depth = 6.82" for 100-yr event
Inflow = 59.07 cfs @ 12.03 hrs, Volume= 174,109 cf
Primary = 59.07 cfs @ 12.03 hrs, Volume= 174,109 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Link 1L: Wetland



DESIGN PLANS

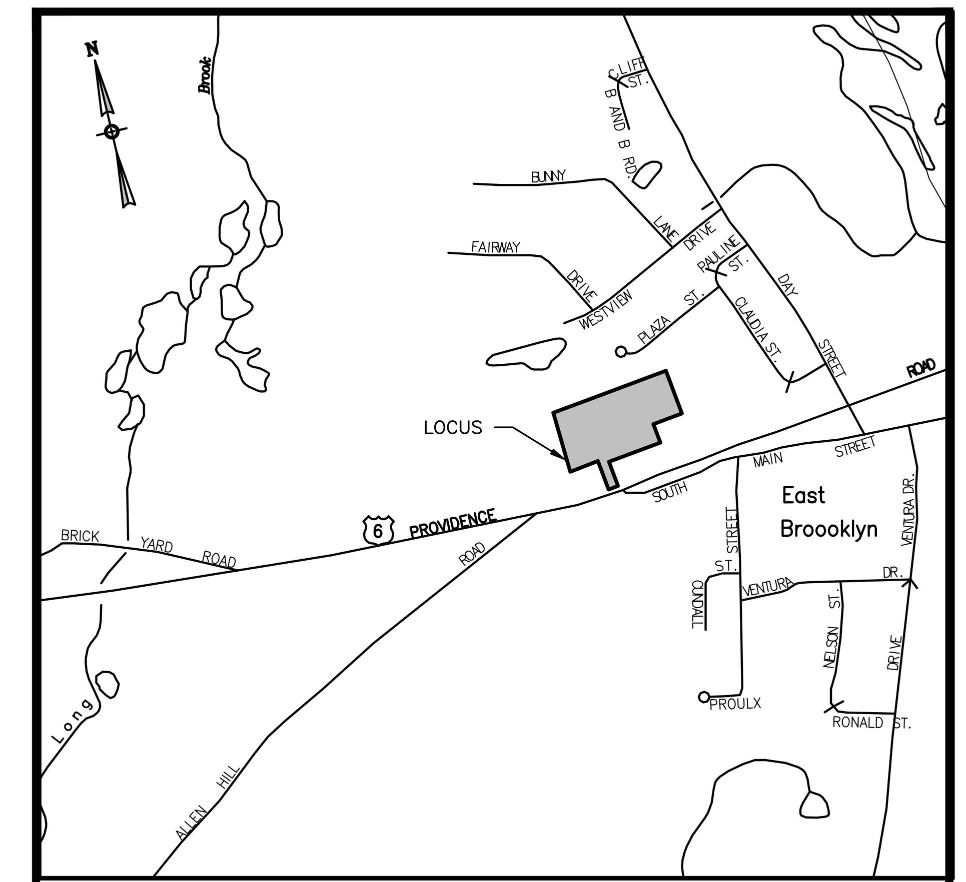
(Includes Construction Period Pollution Prevention Plan, Erosion & Sedimentation Control Plan, and Post Construction Operation & Maintenance Plan)

SPECIAL PERMIT
SITE DEVELOPMENT PLAN

PREPARED FOR

TOWNSEND DEVELOPMENT ASSOCIATES, LLC

PROVIDENCE ROAD (U.S. ROUTE 6)
BROOKLYN, CONNECTICUT
MAY 5, 2023



LOCATION MAP SCALE 1"=1000'

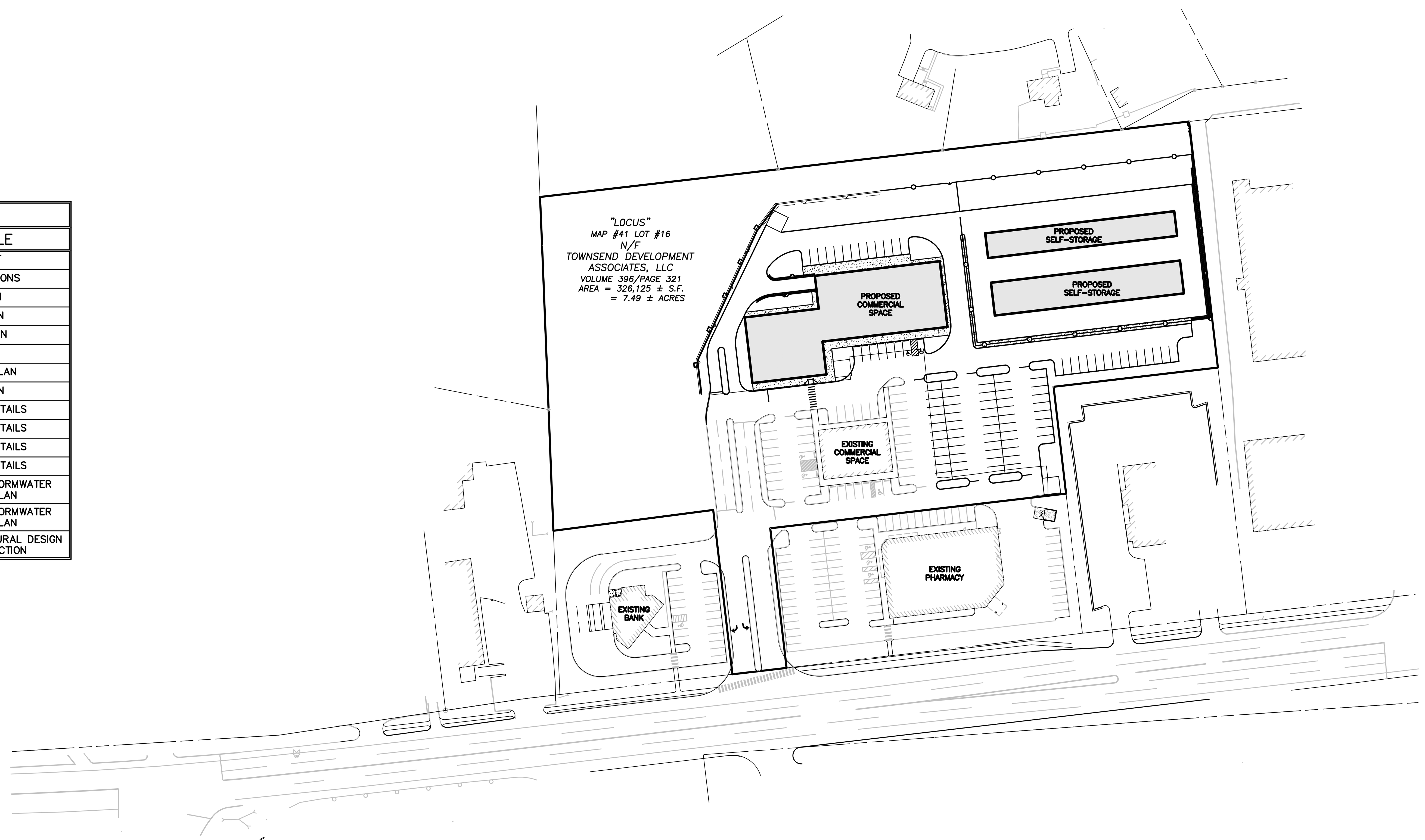
PROPERTY OWNER & APPLICANT: TOWNSEND DEVELOPMENT ASSOCIATES, LLC
169 BARRETT HILL ROAD
BROOKLYN, CT 06234

ZONING DISTRICT: PC = PLANNED COMMERCIAL ZONE

EXISTING USES: COMMERCIAL/MEDICAL OFFICE

PROPOSED USES: 19,640 S.F. COMMERCIAL SPACE
16,100 S.F. SELF STORAGE SPACE

DRAWING INDEX	
SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	EXISTING CONDITIONS
3	LAYOUT PLAN
4	GRADING PLAN
5	DRAINAGE PLAN
6	UTILITY PLAN
7	LANDSCAPING PLAN
8	LIGHTING PLAN
9	CONSTRUCTION DETAILS
10	CONSTRUCTION DETAILS
11	CONSTRUCTION DETAILS
12	CONSTRUCTION DETAILS
13	E&S CONTROL AND STORMWATER MAINTENANCE PLAN
14	E&S CONTROL AND STORMWATER MAINTENANCE PLAN
15	CONCEPTUAL ARCHITECTURAL DESIGN ELEVATIONS & SECTION



DIMENSIONAL REQUIREMENTS		
ZONING CRITERIA	REQUIRED	PROVIDED
LOT SIZE	30,000 SF	±326,125 SF
LOT FRONTAGE	100 FEET	65.92 FEET (REAR LOT)
FRONT YARD SETBACK	30 FEET / 45 FEET*	50.8 FEET
SIDE YARD SETBACK	20 FEET	30.4 FEET
REAR YARD SETBACK	20 FEET	105.7 FEET
LOT COVERAGE	65% IMPERVIOUS	±54% IMPERVIOUS
BUILDING HEIGHT	30 FEET / 40 FEET**	<30 FEET

* IF PARKING OR DRIVEWAY IS BETWEEN BUILDINGS AND STREET
** 30' FOR 1 & 2 STORY BUILDINGS, 40' FOR 3 STORY BUILDINGS

SELF STORAGE REQUIREMENTS		
ZONING CRITERIA	REQUIRED	PROVIDED
LOT	SITED ON A REAR LOT	SITED ON A REAR LOT
SETBACK	150' TO STREET LINE	>200' TO PLAZA STREEET
DENSITY	4,000 SF/ACRE	±2,150 SF/ACRE
MAXIMUM BUILDING SIZE	>20,000 SF	9,200 SF

PARKING CALCULATIONS			
BUILDING	PARKING REQUIREMENT	SPACES REQUIRED	SPACES PROVIDED
RETAIL USES (7.B.2.2)	3 SPACES PER 1,000 SF	38 SPACES	
PERSONAL SERVICES USES (7.B.2.2)		8 SPACES (EXISTING USE)	
LICENSED HEALTH SERVICES (7.B.2.4)		8 SPACES (EXISTING USE)	
RESTAURANT USES (7.B.2.5)	1 SPACE PER 3 SEATS	80 SPACES (ASSUMING 240 SEATS)	
	TOTAL	134 SPACES	134 SPACES (41 EXISTING)

PER ADA STANDARDS, PARKING AREAS WITH 101 TO 150 PARKING SPACES MUST PROVIDE A MINIMUM OF 5 ACCESSIBLE PARKING SPACES. THERE ARE 3 EXISTING AND TWO PROPOSED ACCESSIBLE SPACES TO MEET THIS REQUIREMENT.

ADJACENT POTENTIAL OVERFLOW PARKING			
BUILDING	GROSS SQUARE FOOTAGE	SPACES REQUIRED	SPACES PROVIDED
PHARMACY PRIOR APPROVAL	13,225 SF	67 SPACES	73 SPACES
BANK PRIOR APPROVAL	3,000 SF	15 SPACES	21 SPACES
	TOTAL	83 SPACES	94 SPACES

100 50 0 100
GRAPHIC SCALE IN FEET

SCALE: 1'=100'

CHA
400 Capital Boulevard, Suite 301
Rocky Hill, CT 06067
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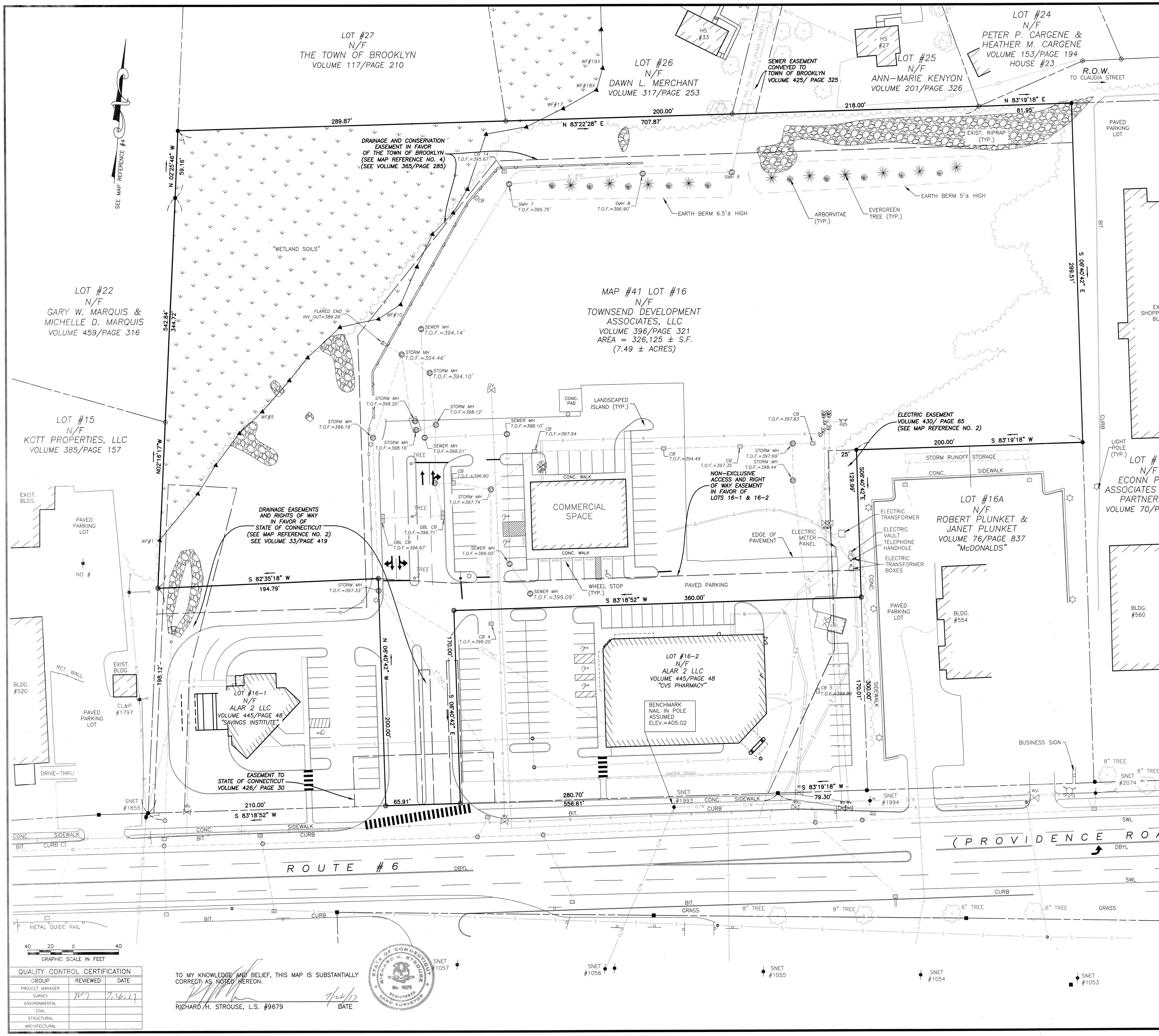
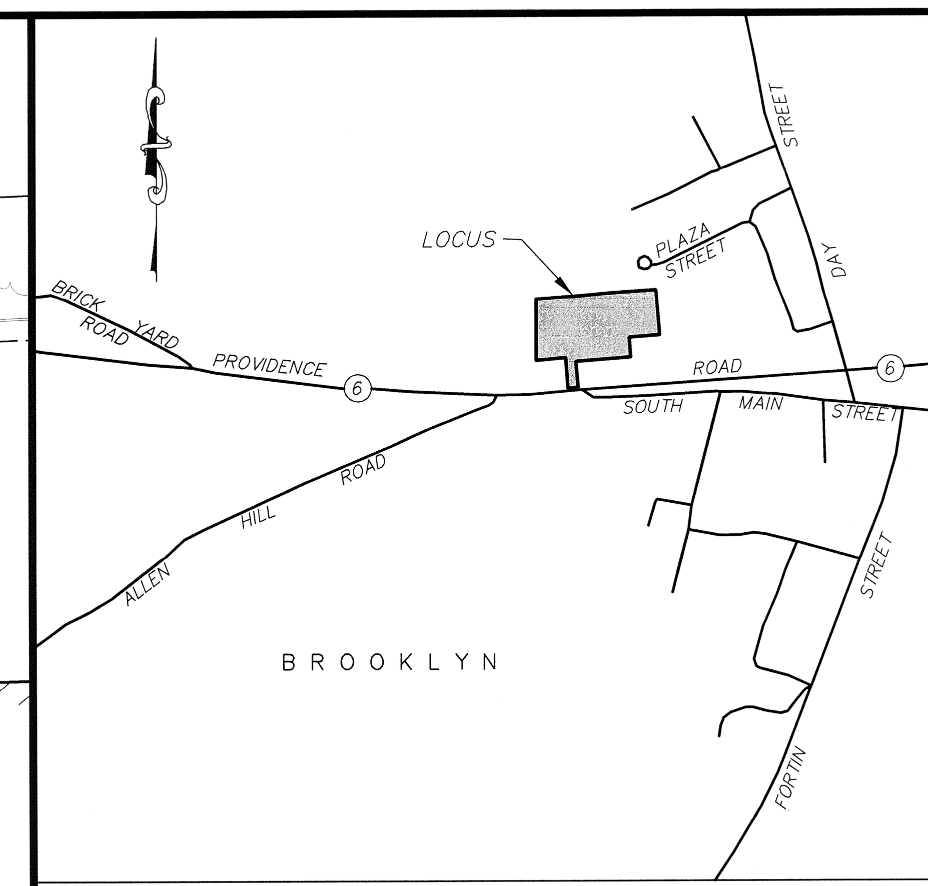
PER SECTION 8-26c OF THE CONNECTICUT GENERAL STATUTES, AS AMENDED APPROVAL AUTOMATICALLY EXPIRES __________ IF ALL PHYSICAL IMPROVEMENTS REQUIRED BY THIS PLAN ARE NOT COMPLETE BY THIS DATE.

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN DATE	CHAIRMAN OR SECRETARY DATE	CHAIRMAN OR SECRETARY DATE





LOCATION MAP SCALE 1"=1000'

MAP REFERENCES

1.) "SUBDIVISION MAP PREPARED FOR TOWNSEND DEVELOPMENT ASSOCIATES, LLC PROVIDENCE PIKE (US ROUTE #6) BROOKLYN, CONNECTICUT", SCALE: 1"=40', DATED: APRIL 2008, SHEET NO. 2, PREPARED BY ARCHER SURVEYING L.L.C.

2.) "COMPILATION PLAN MAP SHOWING EASEMENT AREA TO BE GRANTED TO THE CONNECTICUT LIGHT AND POWER COMPANY ACROSS THE PROPERTY OF TOWNSEND DEVELOPMENT ASSOCIATES, LLC LOT #16 (PROVIDENCE ROAD) U.S. ROUTE #6 BROOKLYN, CT", SCALE: 1"=40', DATED: NOVEMBER 6, 2007, PREPARED BY CME ASSOCIATES, INC.

3.) "EASEMENT MAP SURVEY, TOWN OF BROOKLYN MAP SHOWING EASEMENT ACQUIRED FROM TOWNSEND DEVELOPMENT ASSOCIATES, LLC BY THE STATE OF CONNECTICUT, PROVIDENCE ROAD & SOUTH MAIN STREET (ROUTE 6)", SCALE: 1'=20', DATED: JULY 2007, PREPARED BY CME ASSOCIATES, INC.

4.) "SITE DEVELOPMENT PLAN PREPARED FOR TOWNSEND DEVELOPMENT ASSOCIATES, LLC, LOT #16 (PROVIDENCE ROAD) U.S. ROUTE #6 BROOKLYN, CT", SCALE: 1"=40', DATED: OCTOBER 10, 2006, REVISED JANUARY 3, 2007, PREPARED BY CME ASSOCIATES, INC.

NOTES

1.) THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS PREPARED AND ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.

THE TYPE OF SURVEY PERFORMED IS AN IMPROVEMENT LOCATION SURVEY CONFORMING TO THE STANDARDS OF ACCURACY FOR A HORIZONTAL CLASS A-2 AND VERTICAL CLASS T-2 AND IS A DEPENDENT RESURVEY OF THE SUBJECT PROPERTY.

THIS SURVEY WAS PREPARED TO DEPICT THE EXISTING CONDITIONS OF THE SUBJECT PROPERTY.

2.) THE SUBJECT PARCEL WAS CONVEYED TO TOWNSEND DEVELOPMENT ASSOCIATES, LLC, THROUGH A CONVEYANCE DATED ON SEPTEMBER 20, 2006 AND IS RECORDED IN VOLUME 396, PAGE 321 OF THE BROOKLYN LAND RECORDS.

3.) THE SUBJECT PROPERTY IS SHOWN ON THE BROOKLYN TAX ASSESSOR MAP No. 19 AS LOT 16 OF BLOCK 41 AND HAS BEEN ASSIGNED ADDRESS OF PROVIDENCE PIKE ROUTE 6, BROOKLYN, CONNECTICUT.

4.) TOTAL AREA OF PROPERTY = 7.49 ± ACRES (326,125 ± SQUARE FEET).

5.) SITE IS LOCATED IN (PC) PLANNED COMMERCIAL ZONE.

6.) UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROL TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO CME ASSOCIATES, INC. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.

LEGEND

PROPERTY LINE
ABUTTERS LINE
EDGE OF PAVEMENT
EXISTING CONTOUR — 398
RETAINING WALL
LIMITS OF INLAND WETLANDS — WLF#
WOOD FENCE
CHAIN LINK FENCE
TREE LINE
OVERHEAD WIRES — O/W
ELECTRIC — E
GAS — G
SANITARY — S
TELEPHONE — T
WATER — W
SINGLE LIGHT POLE
DOUBLE LIGHT POLE
NOW OR FORMERLY — N/F
UTILITY POLE
BOUNDARY POINT
DRILL HOLE — DH
IRON MONUMENT
HYDRANT
WATER VALVE
CONNECTICUT HIGHWAY DEPARTMENT MONUMENT(CHD)

QUALITY CONTROL CERTIFICATION

GROUP	REVIEWED	DATE
PROJECT MANAGER		
SURVEY	RHS	7.24.17
ENVIRONMENTAL		
CIVIL		
STRUCTURAL		
ARCHITECTURAL		

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

RICHARD H. STROUSE, L.S. #9679 — 7/24/17 DATE

STATE OF CONNECTICUT · RICHARD H. STROUSE · No. 9679 · REGISTERED LAND SURVEYOR

CME ASSOCIATES, INC.
32 Crabtree Lane, Woodstock, CT 06281
333 East River Drive, East Hartford, CT 06108
50 Elm Street, Southbridge, MA 01550
888-291-3227 | www.cmeengineering.com

IMPROVEMENT LOCATION PLAN
PREPARED FOR
TOWNSEND DEVELOPMENT ASSOCIATES, LLC
LOT #16, PROVIDENCE ROAD (RT 6) BROOKLYN, CONNECTICUT

REVISIONS

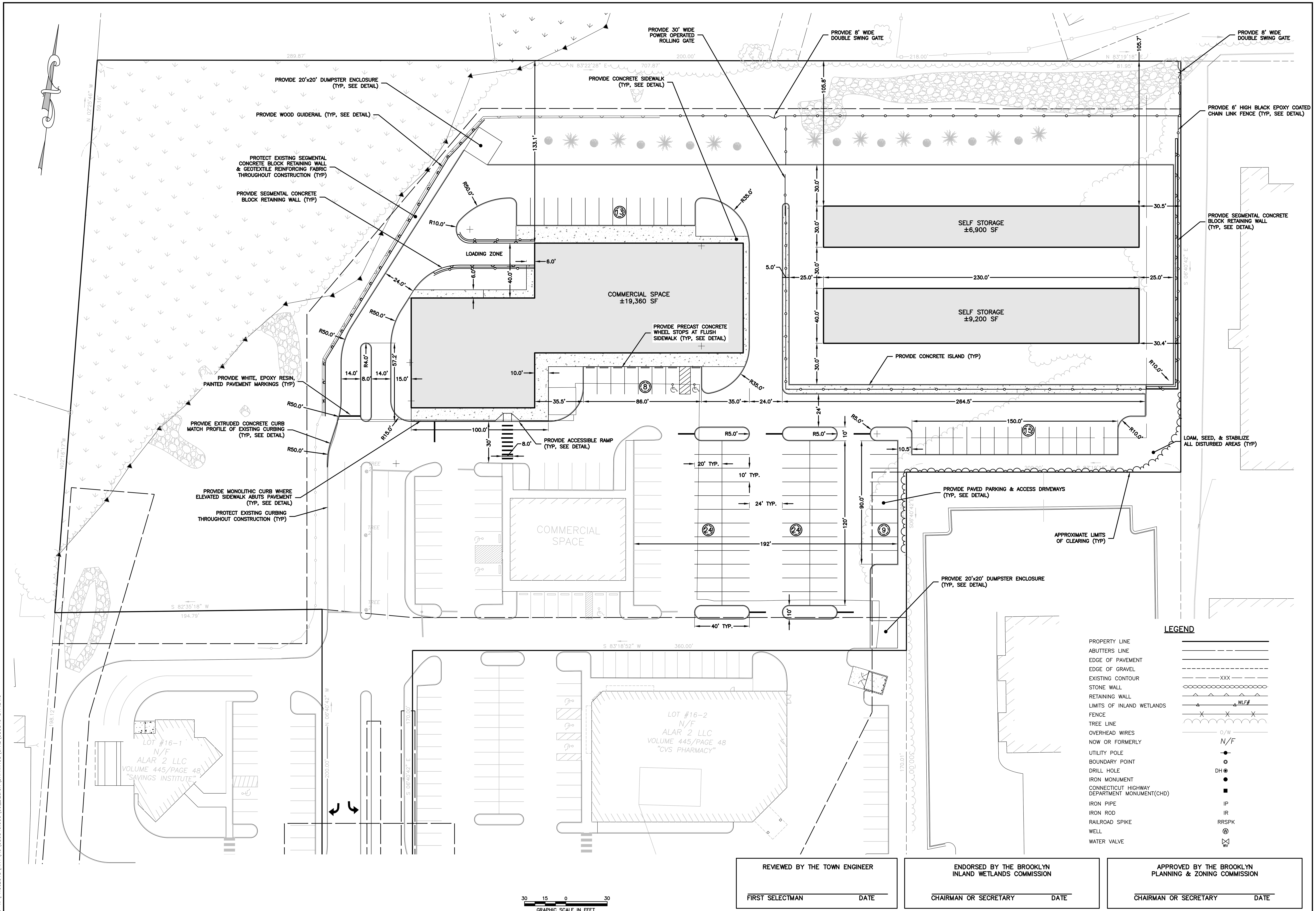
NO.	DATE	DESCRIPTION	BY

JOB DATA

PROJECT	2014090_TOWNSEND
BOOK NO.	179
DESIGNED	-
DRAWN	RAC
CHECKED	CB
COGO FILE	2014090_ALL
FILE	2014090_REC.dwg

DATE: 07/24/2017
SCALE: 1" = 40'
PROJECT: #2014090

SHEET 1 OF 1



REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN DATE	CHAIRMAN OR SECRETARY DATE	CHAIRMAN OR SECRETARY DATE

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SITE DEVELOPMENT PLAN PREPARED FOR:

TOWNSEND DEVELOPMENT ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

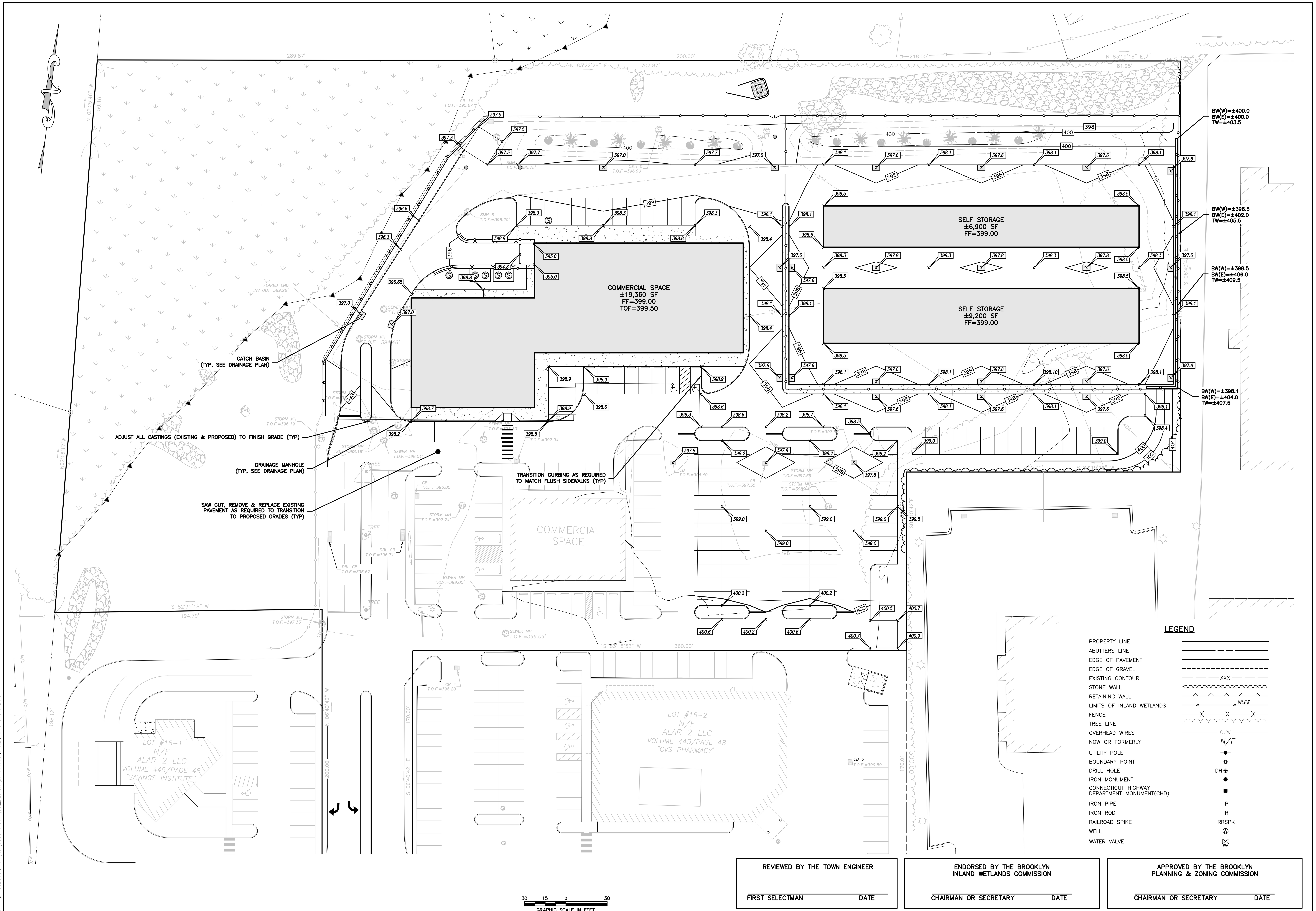
No.	Submittal / Revision	App'd.	By	Date

LAYOUT PLAN

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date:	Project No:	Scale:
05/05/2023	080849	1" = 30'

Drawing No.:

3



REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN DATE	CHAIRMAN OR SECRETARY DATE	CHAIRMAN OR SECRETARY DATE

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SITE DEVELOPMENT PLAN PREPARED FOR:
TOWNSEND DEVELOPMENT ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

No.	Submittal / Revision	App'd.	By	Date

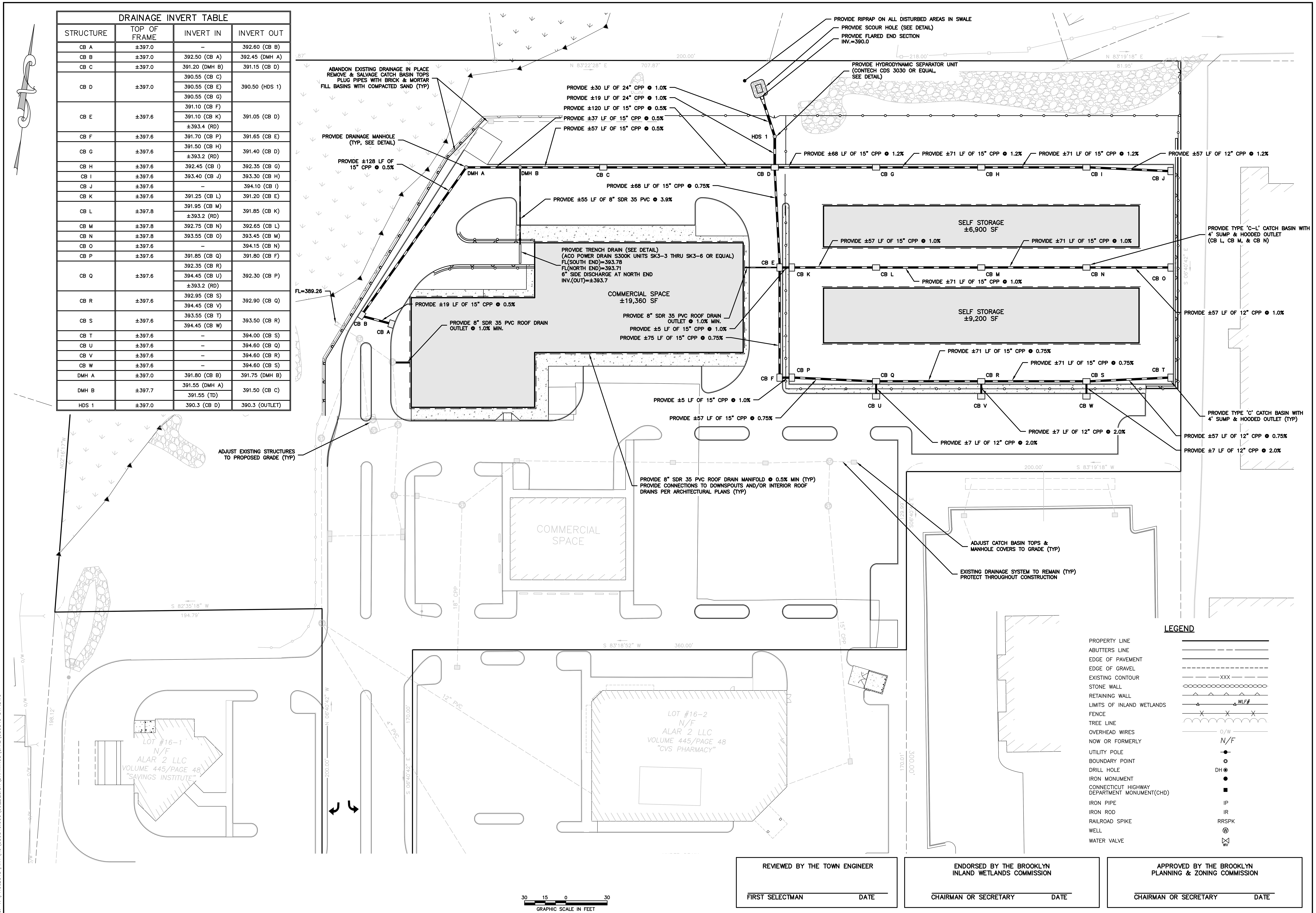
GRADING PLAN

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date:	Project No:	Scale:
05/05/2023	080849	1" = 30'

Drawing No.:
4

DRAINAGE INVERT TABLE

STRUCTURE	TOP OF FRAME	INVERT IN	INVERT OUT
CB A	±397.0	–	392.60 (CB B)
CB B	±397.0	392.50 (CB A)	392.45 (DMH A)
CB C	±397.0	391.20 (DMH B)	391.15 (CB D)
CB D	±397.0	390.55 (CB C) 390.55 (CB E) 390.55 (CB G)	390.50 (HDS 1)
CB E	±397.6	391.10 (CB F) 391.10 (CB K) ±393.4 (RD)	391.05 (CB D)
CB F	±397.6	391.70 (CB P)	391.65 (CB E)
CB G	±397.6	391.50 (CB H) ±393.2 (RD)	391.40 (CB D)
CB H	±397.6	392.45 (CB I)	392.35 (CB G)
CB I	±397.6	393.40 (CB J)	393.30 (CB H)
CB J	±397.6	–	394.10 (CB I)
CB K	±397.6	391.25 (CB L)	391.20 (CB E)
CB L	±397.8	391.95 (CB M) ±393.2 (RD)	391.85 (CB K)
CB M	±397.8	392.75 (CB N)	392.65 (CB L)
CB N	±397.8	393.55 (CB O)	393.45 (CB M)
CB O	±397.6	–	394.15 (CB N)
CB P	±397.6	391.85 (CB Q)	391.80 (CB F)
CB Q	±397.6	392.35 (CB R) 394.45 (CB U) ±393.2 (RD)	392.30 (CB P)
CB R	±397.6	392.95 (CB S) 394.45 (CB V)	392.90 (CB Q)
CB S	±397.6	393.55 (CB T) 394.45 (CB W)	393.50 (CB R)
CB T	±397.6	–	394.00 (CB S)
CB U	±397.6	–	394.60 (CB Q)
CB V	±397.6	–	394.60 (CB R)
CB W	±397.6	–	394.60 (CB S)
DMH A	±397.0	391.80 (CB B)	391.75 (DMH B)
DMH B	±397.7	391.55 (DMH A) 391.55 (TD)	391.50 (CB C)
HDS 1	±397.0	390.3 (CB D)	390.3 (OUTLET)



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REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN ____ DATE	CHAIRMAN OR SECRETARY ____ DATE	CHAIRMAN OR SECRETARY ____ DATE

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SITE DEVELOPMENT PLAN PREPARED FOR:

TOWNSEND DEVELOPMENT ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

No.	Submittal / Revision	App'd.	By	Date

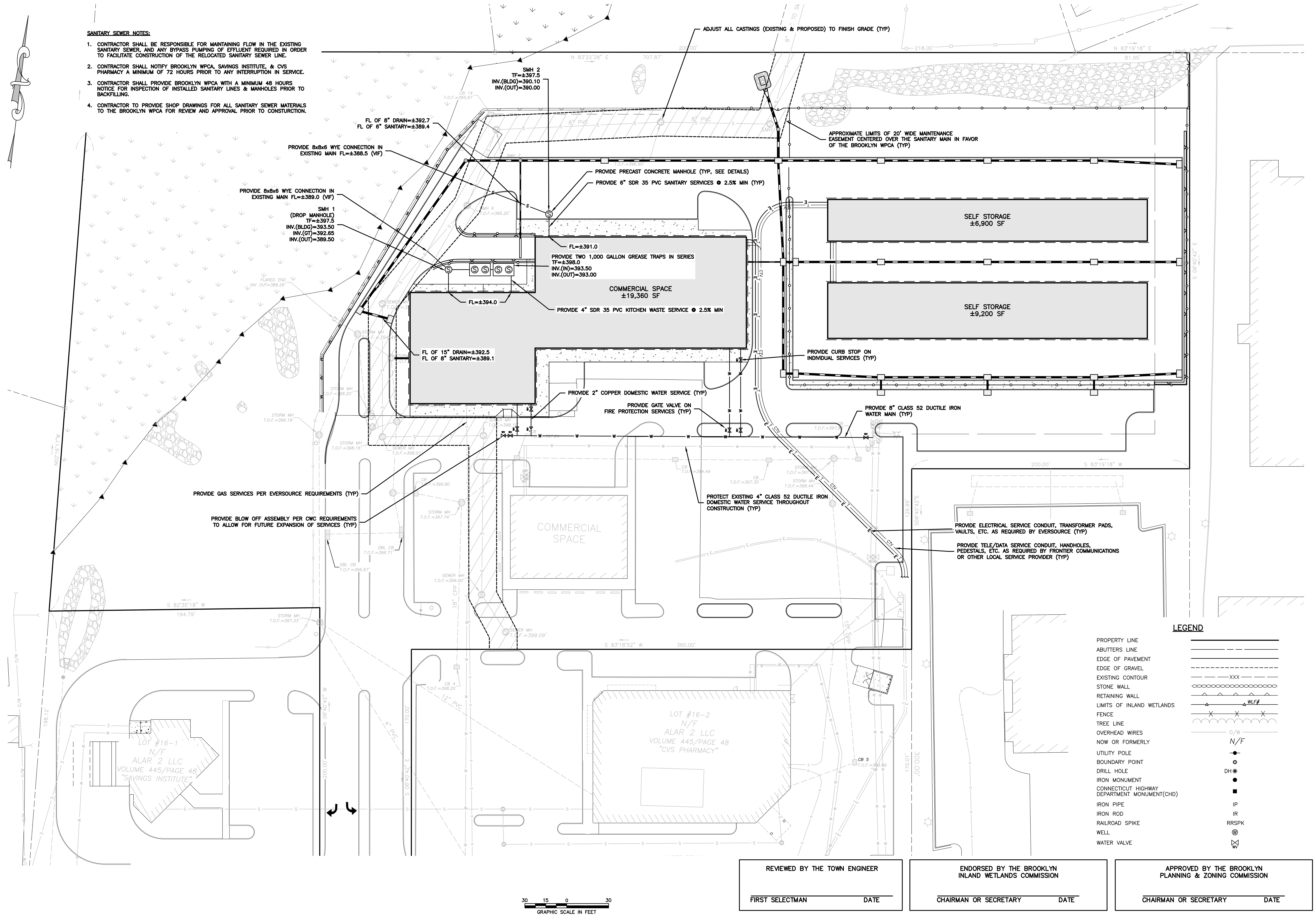
DRAINAGE PLAN

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date:	Project No:	Scale:
05/05/2023	080849	1" = 30'

Drawing No.:
5

SANITARY SEWER NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING FLOW IN THE EXISTING SANITARY SEWER, AND ANY BYPASS PUMPING OF EFFLUENT REQUIRED IN ORDER TO FACILITATE CONSTRUCTION OF THE RELOCATED SANITARY SEWER LINE.
2. CONTRACTOR SHALL NOTIFY BROOKLYN WPCA, SAVINGS INSTITUTE, & CVS PHARMACY A MINIMUM OF 72 HOURS PRIOR TO ANY INTERRUPTION IN SERVICE.
3. CONTRACTOR SHALL PROVIDE BROOKLYN WPCA WITH A MINIMUM 48 HOURS NOTICE FOR INSPECTION OF INSTALLED SANITARY LINES & MANHOLES PRIOR TO BACKFILLING.
4. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL SANITARY SEWER MATERIALS TO THE BROOKLYN WPCA FOR REVIEW AND APPROVAL PRIOR TO CONSTURCTION.



LEGEND

PROPERTY LINE	
ABUTTERS LINE	
EDGE OF PAVEMENT	
EDGE OF GRAVEL	
EXISTING CONTOUR	XXX
STONE WALL	
RETAINING WALL	
LIMITS OF INLAND WETLANDS	WLF#
FENCE	
TREE LINE	
OVERHEAD WIRES	O/W
NOW OR FORMERLY	N/F
UTILITY POLE	
BOUNDARY POINT	
DRILL HOLE	DH
IRON MONUMENT	
CONNECTICUT HIGHWAY DEPARTMENT MONUMENT(CHD)	
IRON PIPE	IP
IRON ROD	IR
RAILROAD SPIKE	RRSPK
WELL	W
WATER VALVE	WV

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
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SITE DEVELOPMENT PLAN
PREPARED FOR:
TOWNSEND
DEVELOPMENT
ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

No.	Submittal / Revision	App'd.	By	Date

UTILITY PLAN

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date:	Project No:	Scale:
05/05/2023	080849	1" = 30'

Drawing No.:
6

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PLANTING SCHEDULE

PLAN LABEL	COMMON NAME Botanical Name	QUANTITY	SIZE	NOTES
	SHRUBS			
AC	JUNIPER BUSH Juniperus Andorre Compacta	9	2 GAL.	CONT.
BK	DWARF KOREAN BOXWOOD Buxus Koreana	26	18"–24" HT.	CONT.
FI	FORSYTHIA Forsythia 'spring glory' x intermedia	3	2 GAL.	CONT.
KL	OLYMPIC FIRE MOUNTAIN LAUREL Kalmia latifolia 'Olympic Fire'	4	24"–30" HT.	B&B
MP	BAYBERRY Myrica pensylvanica	7	2'–3' HT.	CONT.
RP	PJM Rhododendron	4	2 GAL.	CONT.
RY	RHODODENDRON Rhododendron 'Commonwealth'	4	24"–30" HT.	B&B
VD	ARROWHEAD VIBURNUM Viburnum dentatum	15	24"–30" HT.	CONT.
	TREES			
PCC	CALLERY PEAR Pyus calleryana 'chanticleer'	3	2.5"–3" CAL.	B&B
CA	WHITE HYBRID DOGWOOD Cornus rutden 'Celestial'	11	2.5"–3" CAL.	B&B
GT	UPRIGHT PYRAMIDAL THORNLESS HONEY LOCUST Gleditsia triancanthos inermis 'Skyline'	4	2.5"–3" CAL.	B&B
PP	COLORADO BLUE SPRUCE Picca Pungens	2	3" CAL.	B&B
TP	GREEN GIANT ARBORVITAE Thuja Standishii x plicata	2	3" CAL.	B&B
	MULCHED BED	–	–	–
	GRASS SEEDED AREA	–	–	–

B&B = BALLED AND BURLAPPED
CAL. = CALIPER
CONT. = CONTAINER
GAL. = GALLON
HT. = HEIGHT

SEEDING: SEEDING SHALL TAKE PLACE BETWEEN MARCH 15 AND MAY 31 OR AUGUST 15 AND OCTOBER 15 ONLY. SEED SHALL BE PURE, LIVE, FRESH SEED FROM COMMERCIAL SOURCES MEETING AND LABELED IN ACCORDANCE WITH STATE AND FEDERAL RULES AND REGULATIONS. THE SEED MIXTURE STHALL BE:

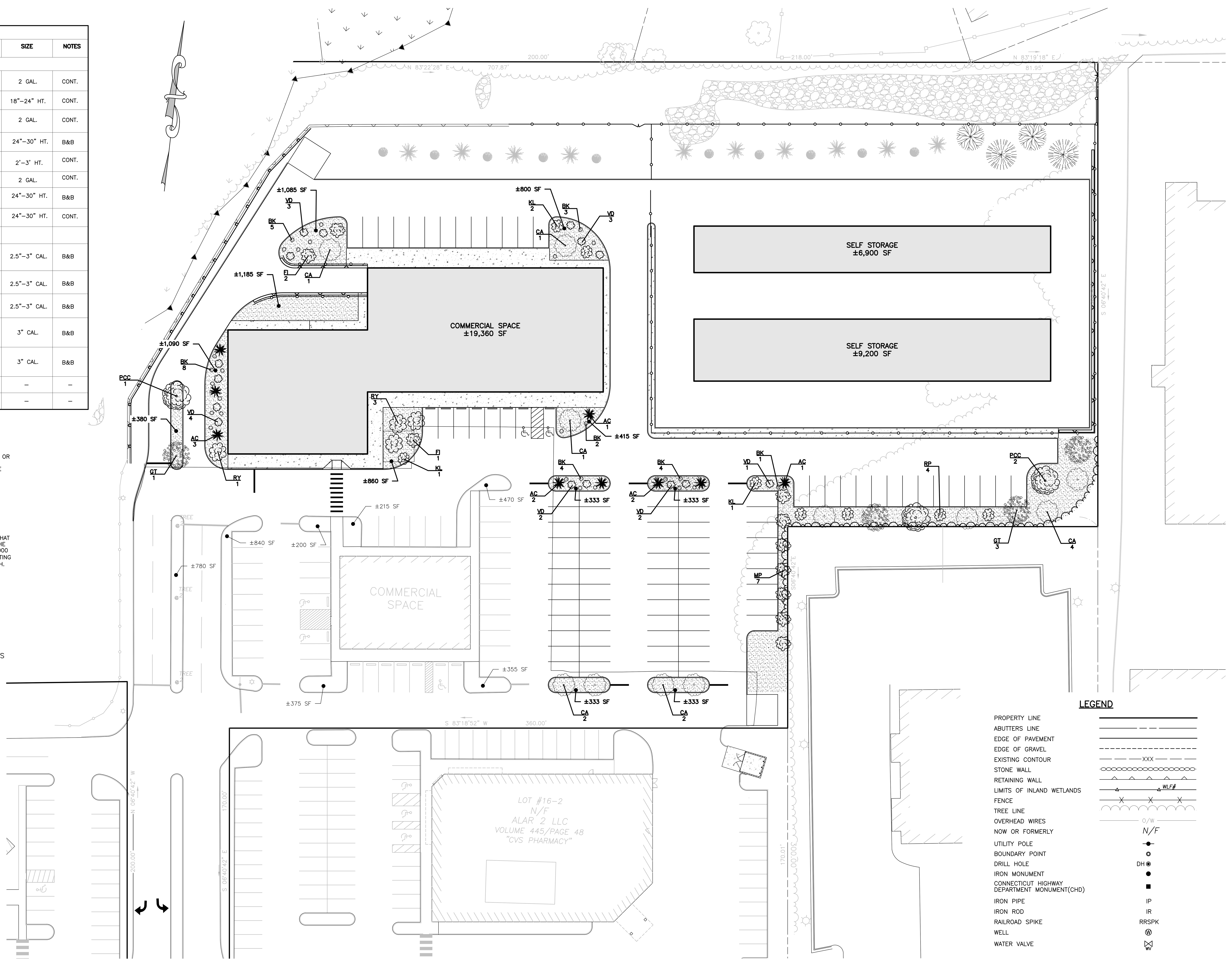
PROPORTION BY TYPE	WEIGHT	PUR.	GERM.
PALMER PERENNIAL RYEGRASS	20%	99%	90%
RANGER PERENNIAL RYEGRASS	20%	99%	90%
BARON KENTUCKY BLUEGRASS	30%	95%	85%
MERION KENTUCKY BLUEGRASS	30%	95%	85%

INERT MATERIALS 2.5% (MAXIMUM)

SEEDED AREAS SHALL, AT A MINIMUM, INCLUDE ALL AREAS OF THE SITE THAT HAVE BEEN DISTURBED OR ARE BARREN UNLESS OTHERWISE NOTED ON THE PLANS. SEED SHALL BE APPLIED AT A MINIMUM RATE OF 4 LBS. PER 1000 SQUARE FEET. PROVIDE 6" GOOD QUALITY FERTILE LOAM OR REUSE EXISTING SOIL AND PROVIDE ADDITIONAL LOAM AS REQUIRED FOR MINIMUM 6" DEPTH.

LANDSCAPE CALCULATIONS:
TOTAL REQUIRED PARKING = 134 SPACES
10 SQ FT OF LANDSCAPING PER PARKING SPACE
THEREFORE, 1,340 SQ FT OF LANDSCAPING REQUIRED
GREATER THAN 4,000 SQ FT PROVIDED

1 DECIDUOUS TREE PER 100 SQ FT OF LANDSCAPING
THEREFORE, 14 TREES REQUIRED
20 DECIDUOUS TREES PROVIDED PLUS 4 CONIFEROUS TREES



LEGEND

PROPERTY LINE
ABUTTERS LINE
EDGE OF PAVEMENT
EDGE OF GRAVEL
EXISTING CONTOUR
STONE WALL
RETAINING WALL
LIMITS OF INLAND WETLANDS
FENCE
TREE LINE
OVERHEAD WIRES
NOW OR FORMERLY — N/F
UTILITY POLE
BOUNDARY POINT
DRILL HOLE — DH
IRON MONUMENT
CONNECTICUT HIGHWAY DEPARTMENT MONUMENT(CHD)
IRON PIPE — IP
IRON ROD — IR
RAILROAD SPIKE — RRSPK
WELL
WATER VALVE

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN — DATE	CHAIRMAN OR SECRETARY — DATE	CHAIRMAN OR SECRETARY — DATE

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SITE DEVELOPMENT PLAN
PREPARED FOR:

TOWNSEND
DEVELOPMENT
ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

No.	Submittal / Revision	App'd.	By	Date

LANDSCAPE PLAN

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date:	Project No:	Scale:
05/05/2023	080849	1" = 30'

Drawing No.:
7

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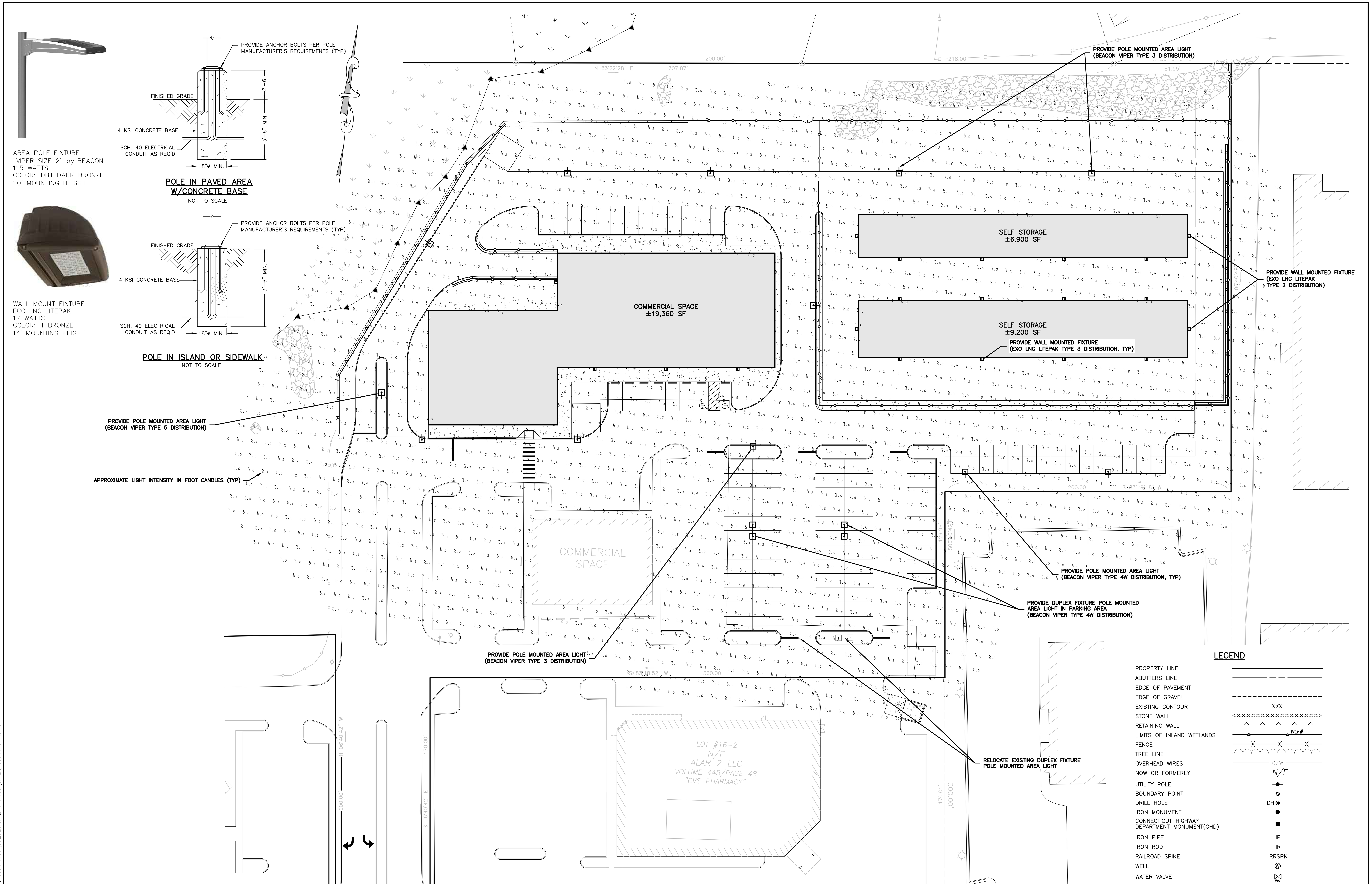

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN DATE	CHAIRMAN OR SECRETARY DATE	CHAIRMAN OR SECRETARY DATE

30 15 0 30
GRAPHIC SCALE IN FEET

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SITE DEVELOPMENT PLAN
PREPARED FOR:

TOWNSEND
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ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

No.	Submittal / Revision	App'd.	By	Date

LIGHTING PLAN

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date:	Project No:	Scale:
05/05/2023	080849	1" = 30'

Drawing No.:
8

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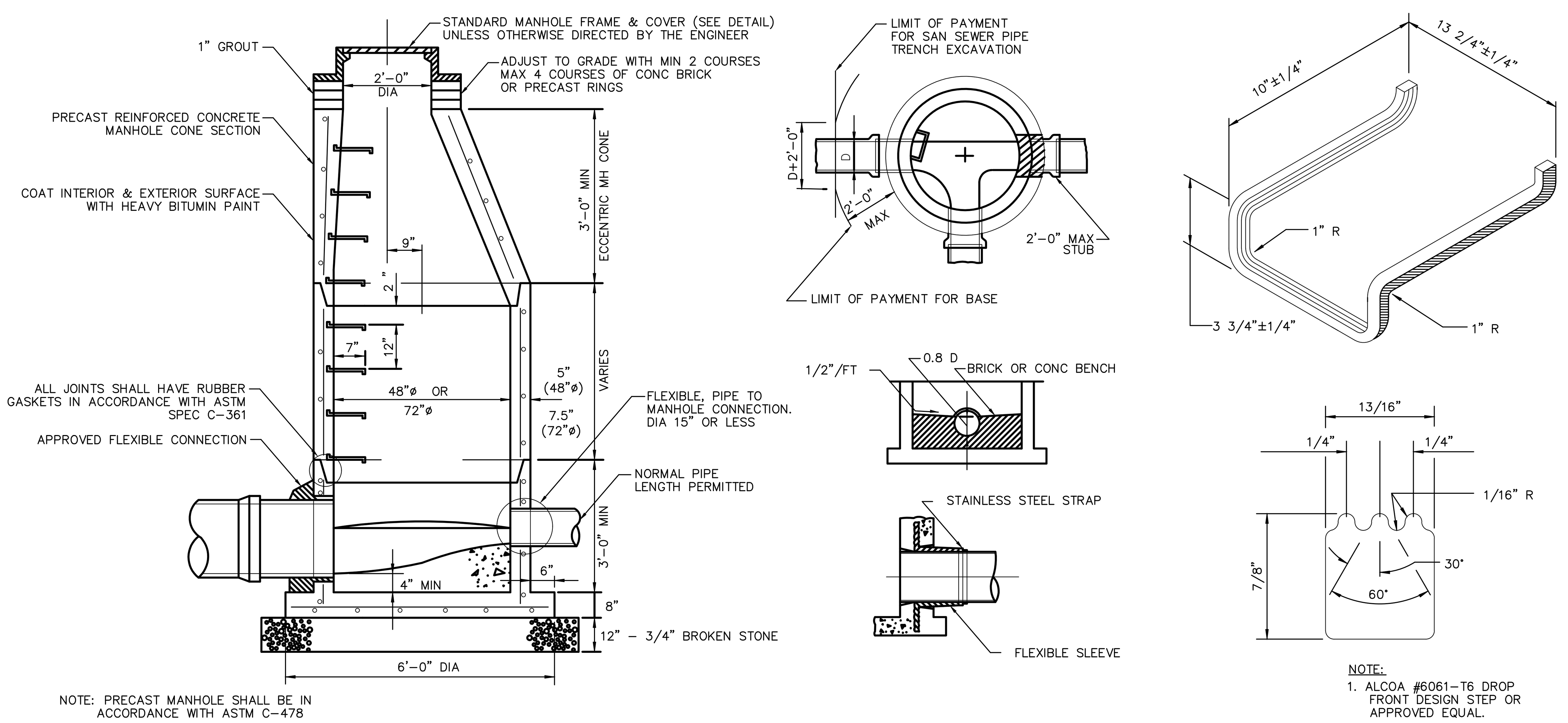
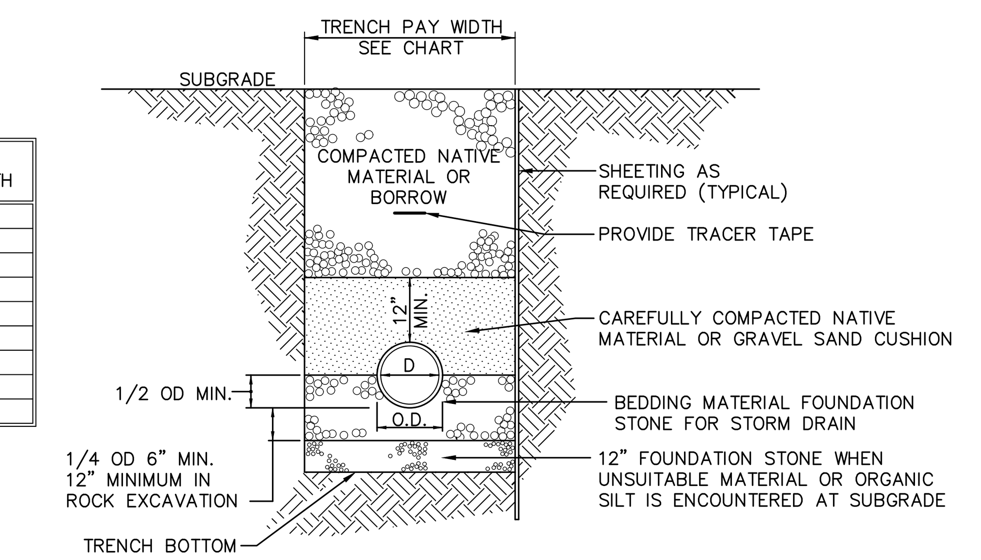


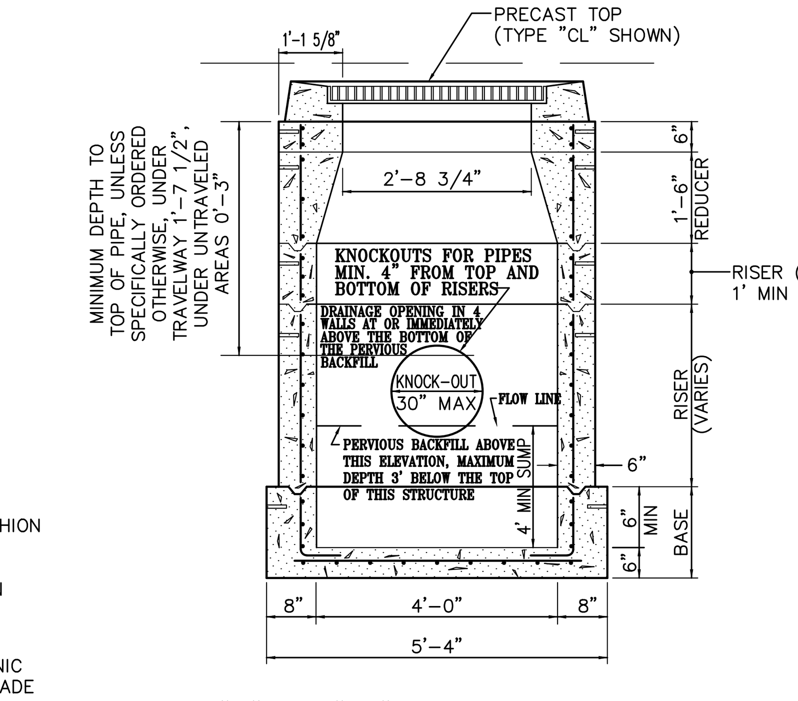
SANITARY MANHOLE
NTS

PIPE DIAMETER	MAXIMUM TRENCH WIDTH
6"	2'-6"
8"	3'-0"
10"	3'-0"
12"	3'-0"
15"	3'-3"
18"	3'-6"
21"	4'-0"
24"	4'-6"
30"	5'-0"



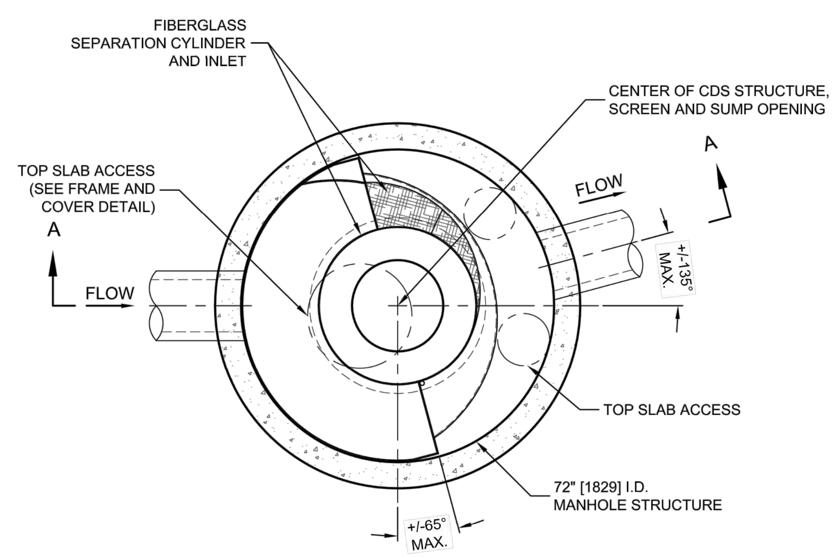
TRENCH SECTION FOR SANITARY SEWER & STORM DRAINS
NOT TO SCALE

NOTE:
BACKFILL MATERIAL TO BE PLACED IN 12" MAXIMUM LIFTS & COMPACTED TO 95% MAXIMUM DRY DENSITY (AS DETERMINED BY THE MODIFIED PROCTOR METHOD)

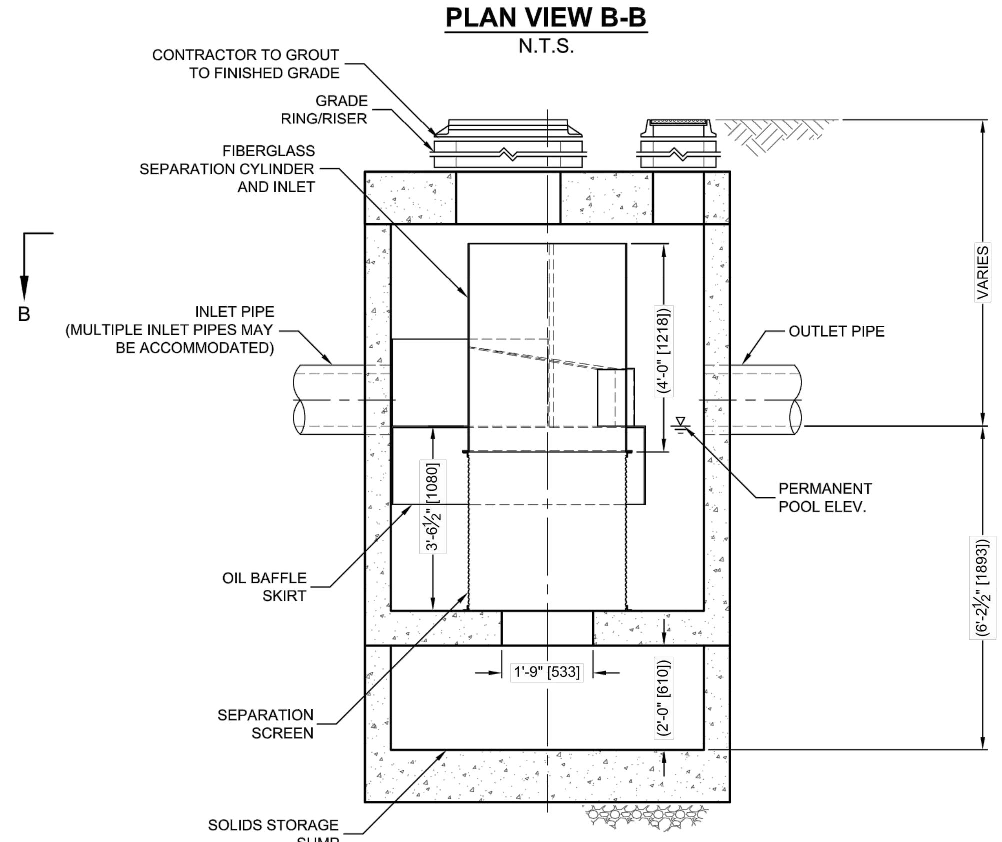


TYPE "C" OR "CL" STANDARD CATCH BASIN CROSS SECTION
NOT TO SCALE

NOTE: CATCH BASINS MUST BE PROVIDED WITH AN OUTLET HOOD ("ELIMINATOR" BY GROUNDWATER RESCUE INC. OR EQUAL)

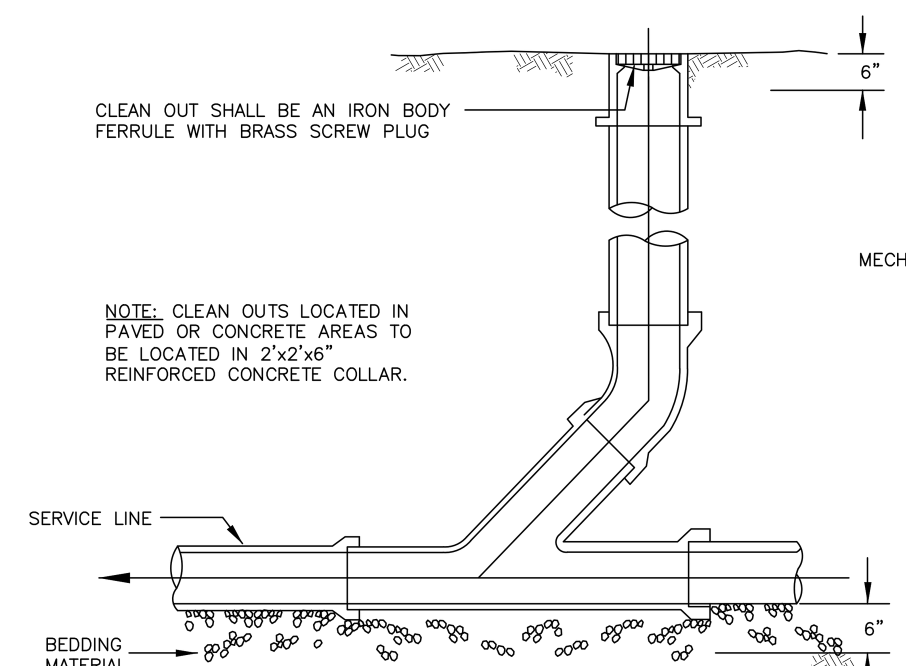


PLAN VIEW B-B
N.T.S.

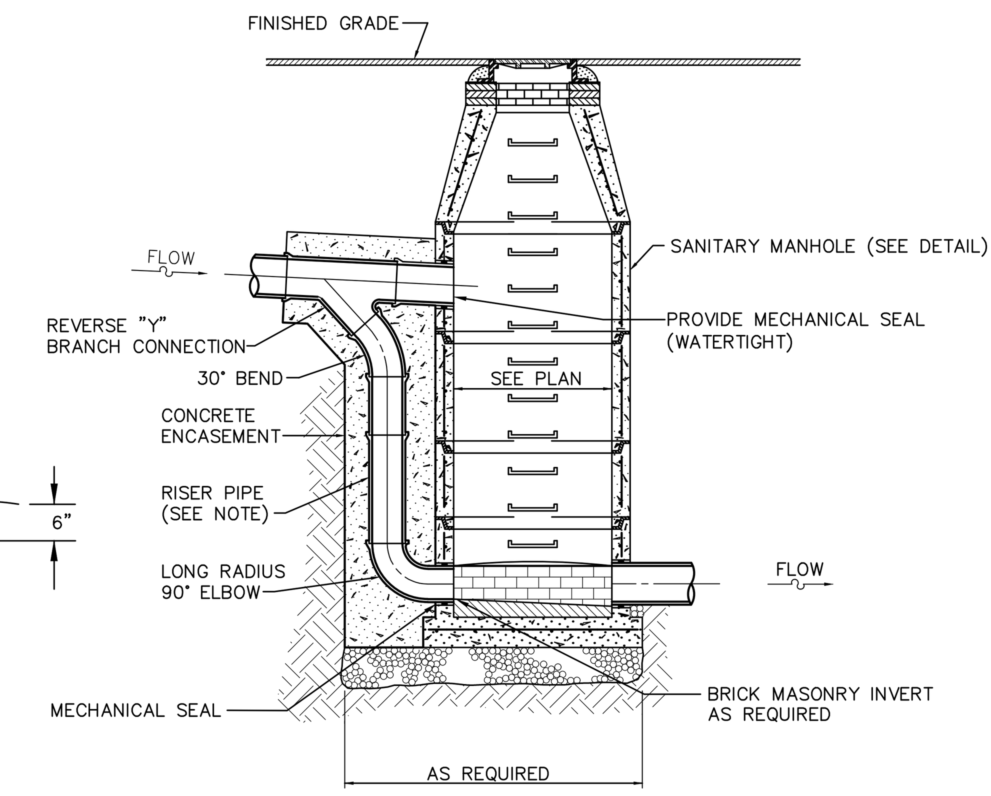


ELEVATION A-A
N.T.S.

HYDRODYNAMIC SEPARATOR
NTS

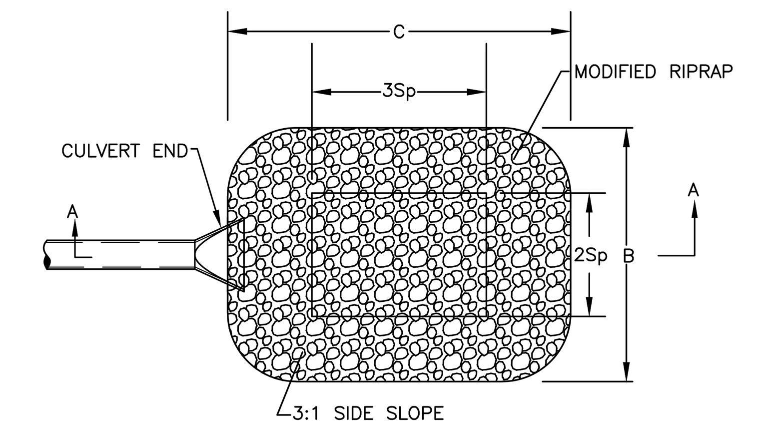


CLEAN-OUT DETAIL
NTS

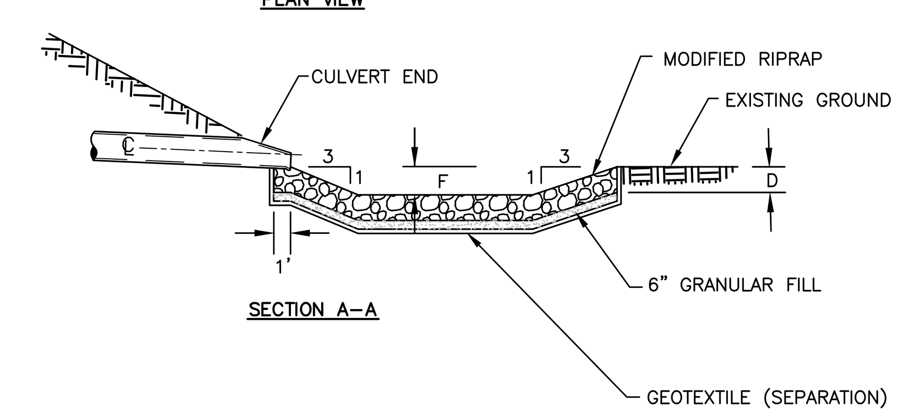


NOTE: USE 8" RISER PIPE AND BENDS FOR INCOMING SEWER OF 12" OR LESS. FOR INCOMING SEWER LARGER THAN 12", THE RISER PIPE AND BENDS SHALL BE 10"

DROP MANHOLE CROSS SECTION
NOT TO SCALE



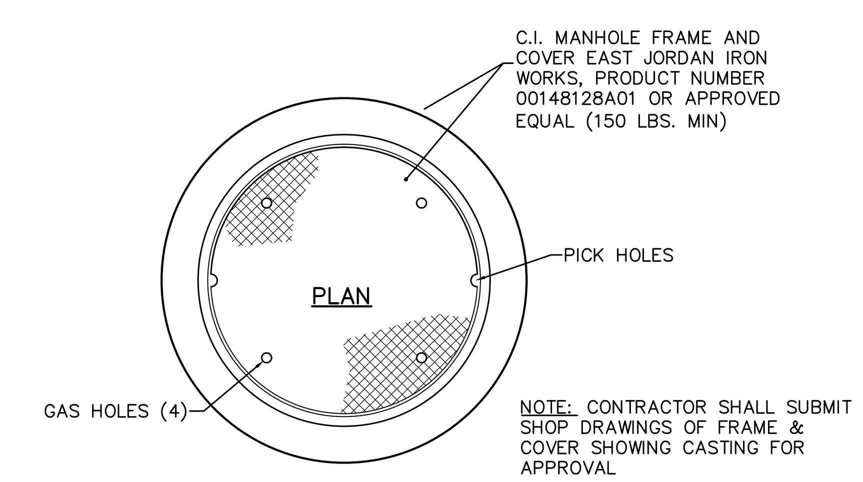
PLAN VIEW



SECTION A-A

PREFORMED SCOUR HOLE TYPE 1
NTS

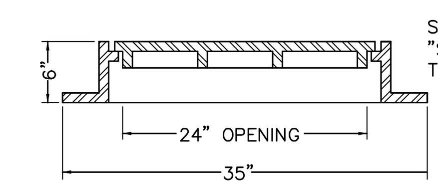
LOCATION	B	C	D	F	2Sp	3Sp
24" OUTLET	10'	12'	1'	1'	4'	6'



NOTE: CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF FRAME & COVER SHOWING CASTING FOR APPROVAL

DRAINAGE MANHOLE SHALL HAVE "DRAINAGE" OR "STORM" IMPRINTED ON COVER

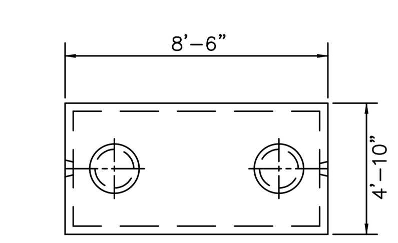
SEWER MANHOLE SHALL HAVE "SANITARY SEWER" IMPRINTED ON THE COVER



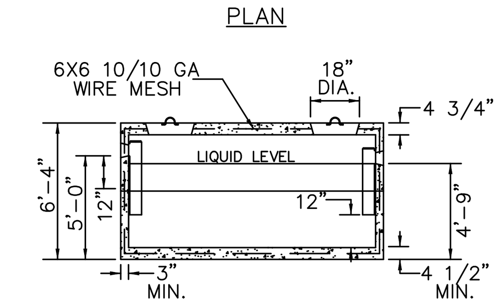
CROSS SECTION

STANDARD COVER SHOWN
BOLTED AND GASKET COVER SIMILAR

STANDARD MANHOLE FRAME AND COVER
NOT TO SCALE

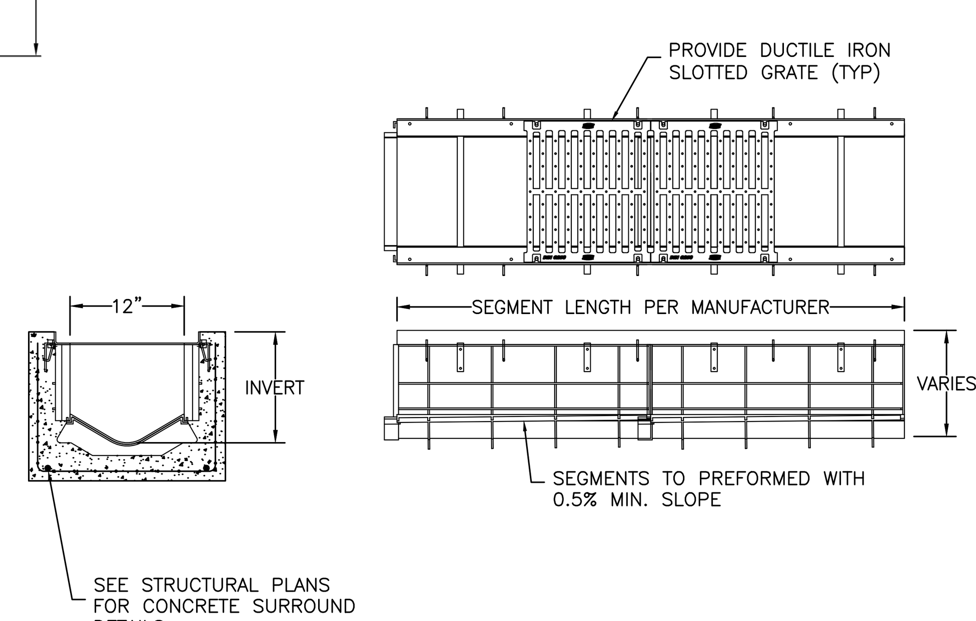


PLAN



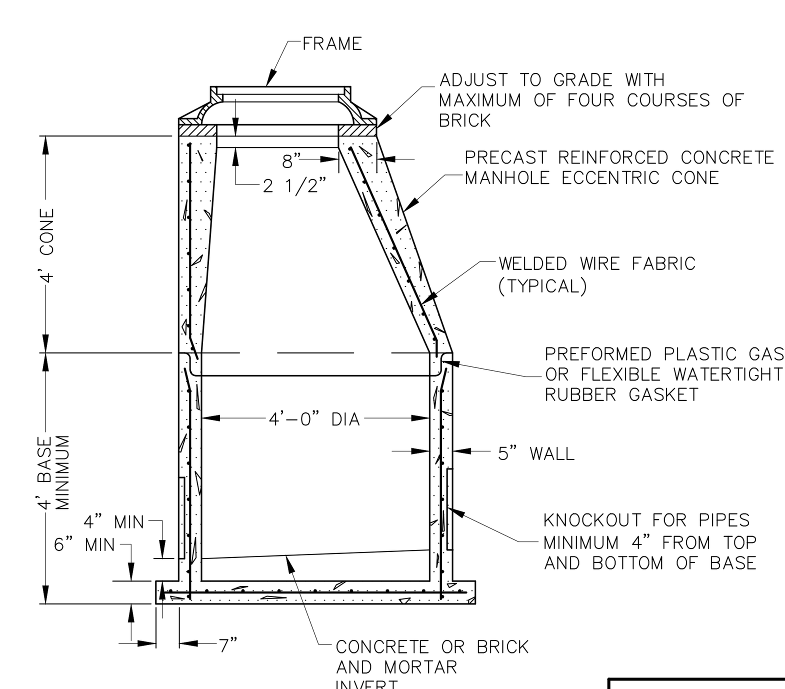
CROSS SECTION

1000 GALLON GREASE TRAP
NOT TO SCALE



TRENCH DRAIN
NTS

NOTE: STRUCTURE TO MEET H-20 LOADING REQUIREMENTS



DRAINAGE MANHOLE CROSS SECTION
NOT TO SCALE

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
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SITE DEVELOPMENT PLAN
PREPARED FOR:

TOWNSEND DEVELOPMENT ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

No.	Submittal / Revision	App'd.	By	Date

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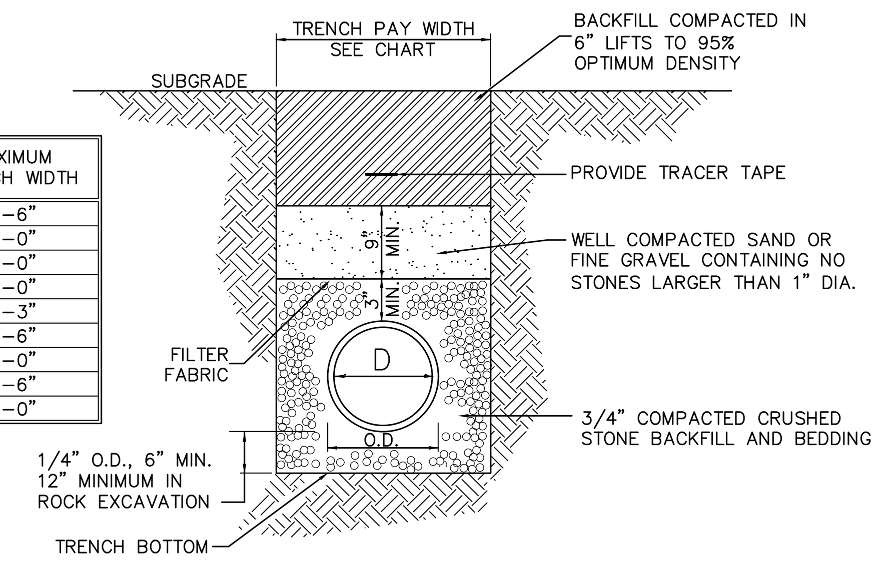
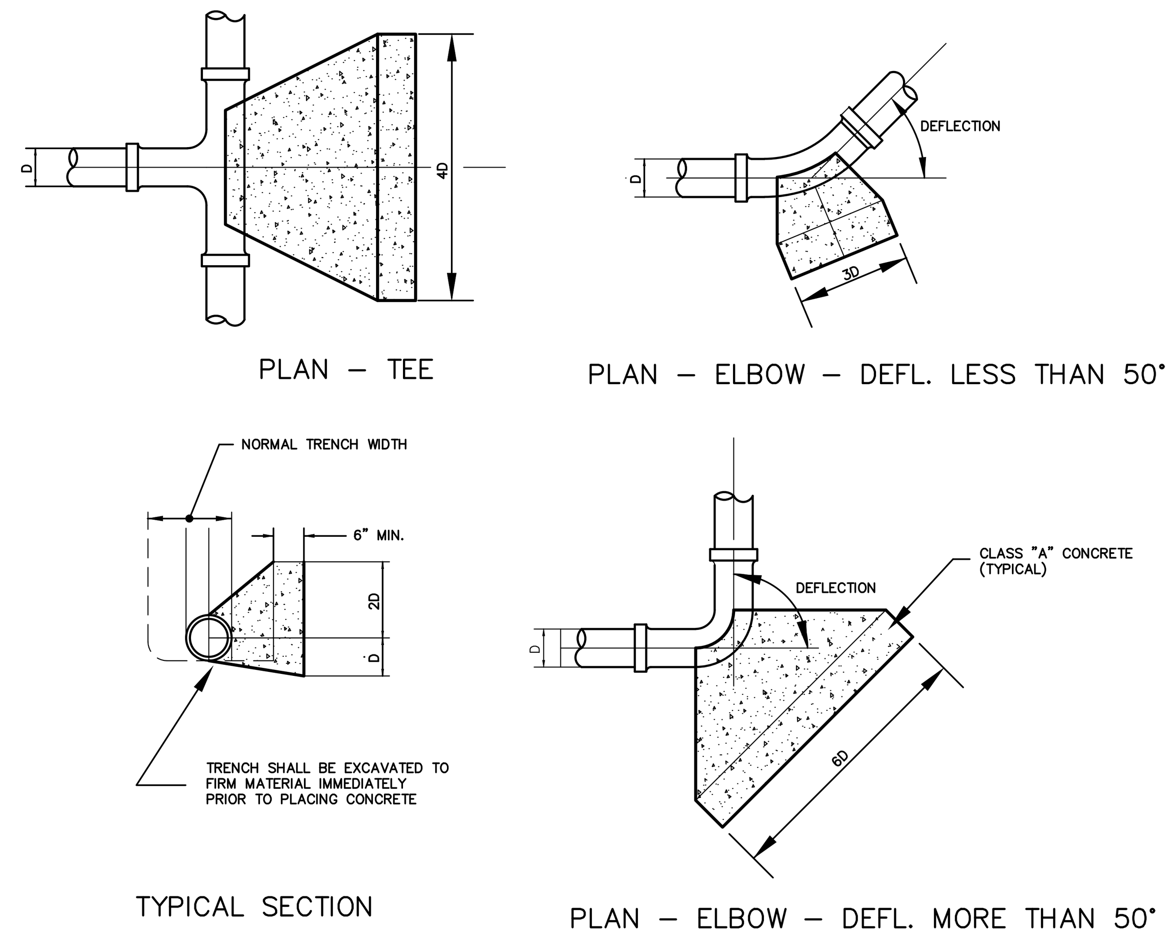
Drawing No.:
9

File: V:\PROJECTS\ANY\K6\080849.000\09_DESIGN\DRAWINGS\CIVIL\080849 STP.DWG



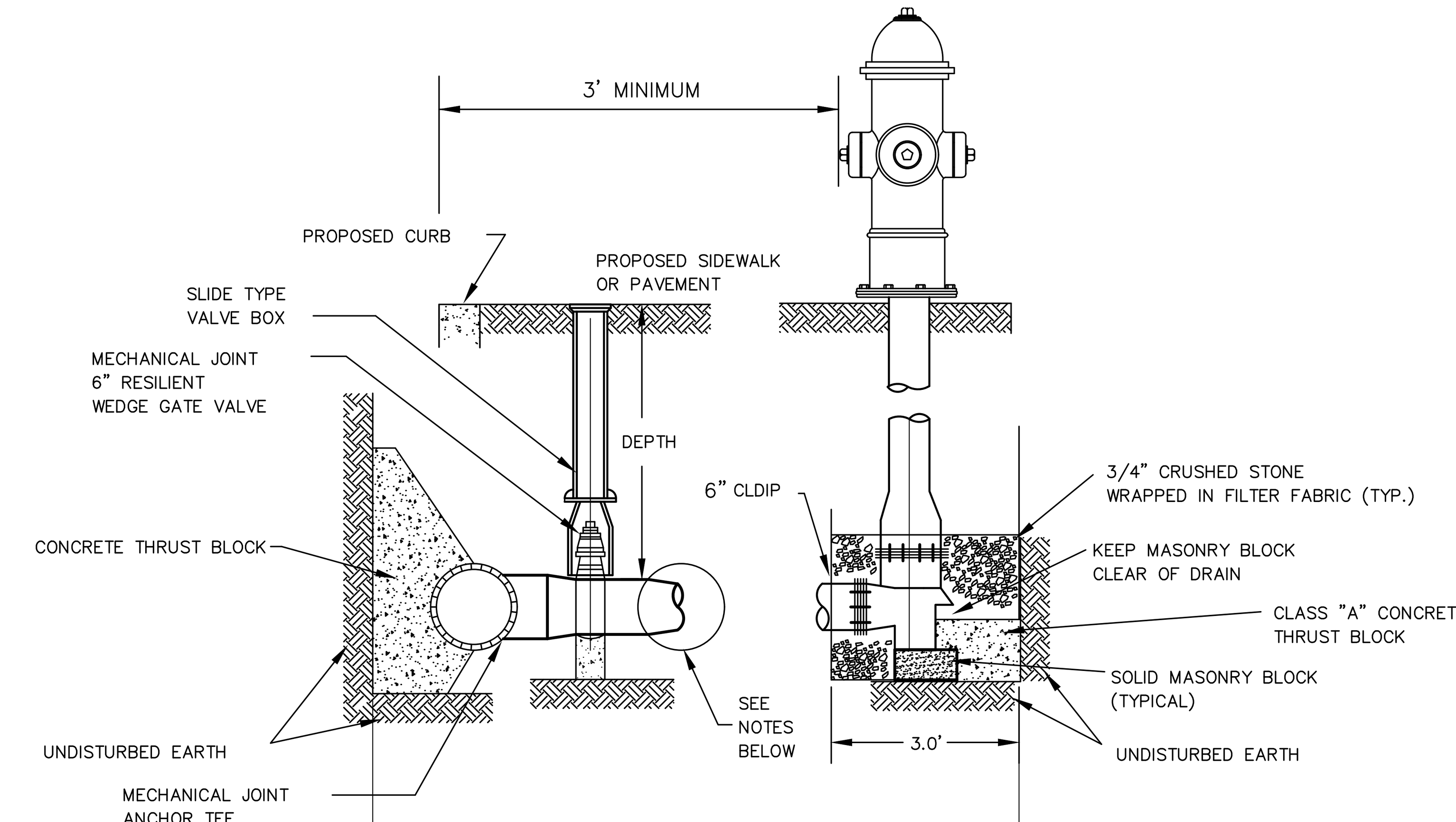
PIPE DIAMETER	MAXIMUM TRENCH WIDTH
6"	2'-6"
8"	3'-0"
10"	3'-0"
12"	3'-0"
15"	3'-3"
18"	3'-6"
21"	4'-0"
24"	4'-6"
30"	5'-0"

TRENCH SECTION FOR TYPICAL WATER MAIN TRENCH
NOT TO SCALE



CONCRETE THRUST BLOCKS
NOT TO SCALE

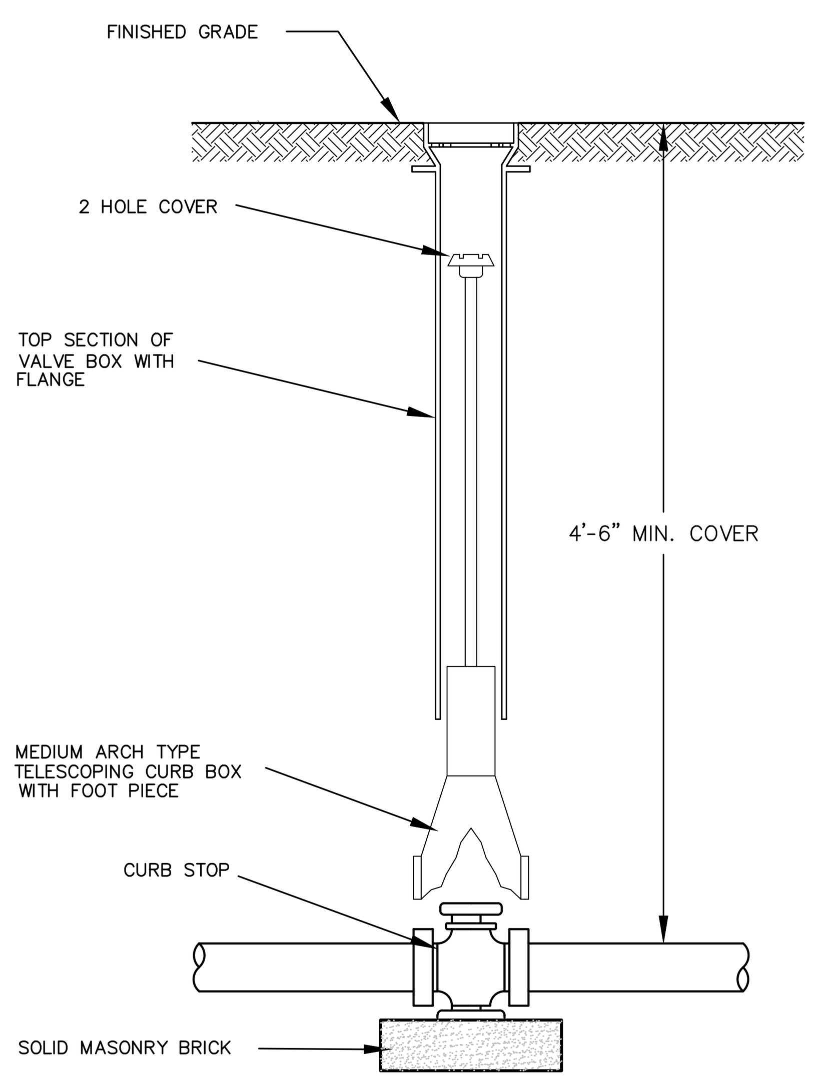
NOTE: THRUST BLOCK DIMENSIONS ASSUME:
ALLOWABLE SOIL BEARING PRESSURE = 1,650 PSI
WATER MAIN WORKING PRESSURE = 150 PSI



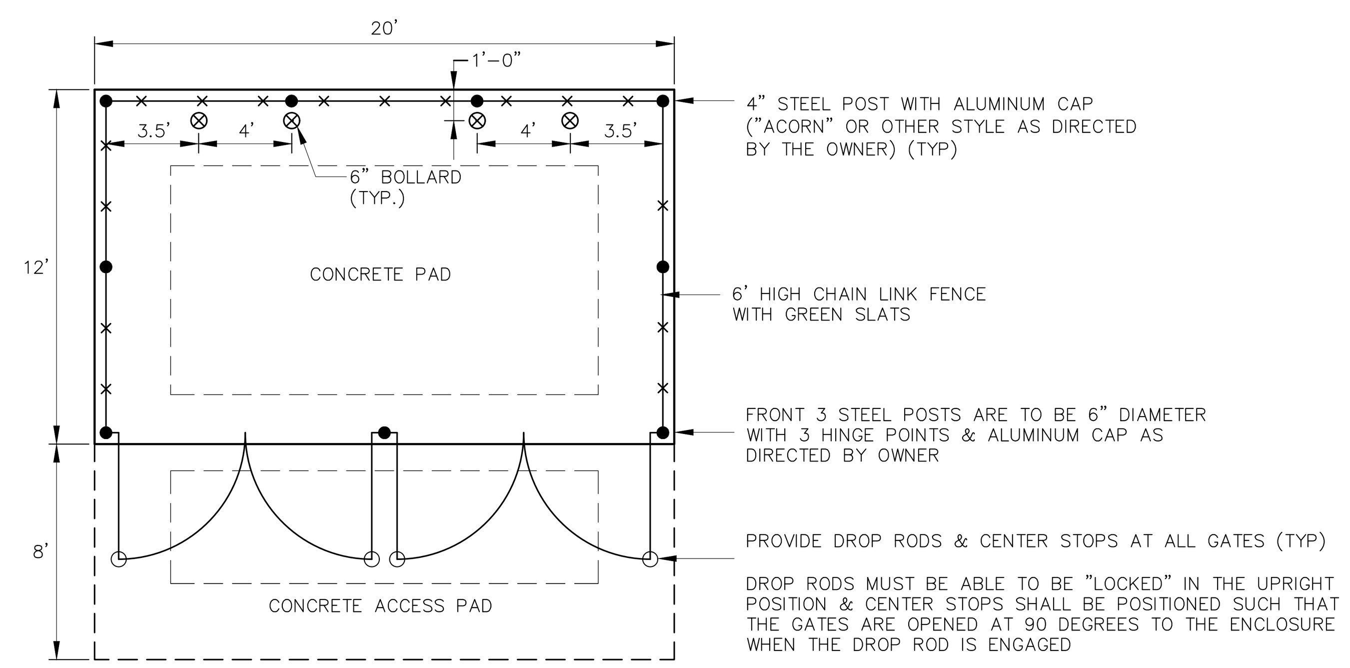
ALL MECHANICAL JOINTS WITHIN THESE LIMITS SHALL BE INSTALLED WITH DUCTILE IRON RETAINER GLANDS/MEGALUGS. ALL PUSH-ON JOINTS SHALL BE RESTRAINED BY MEANS OF COVERALL PIPE JOINT RESTRAINERS.

NOTE: HYDRANTS SHALL BE SET AT BACK OF SIDEWALKS ALLOWING 3.0' MINIMUM TO FACE OF CURB.

HYDRANT DETAIL
NOT TO SCALE

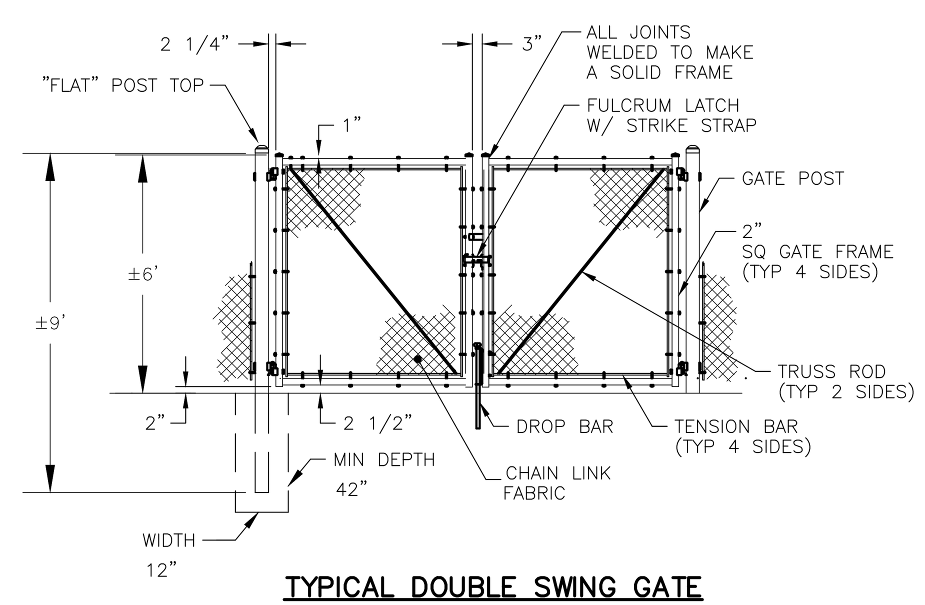


CURB STOP
NTS



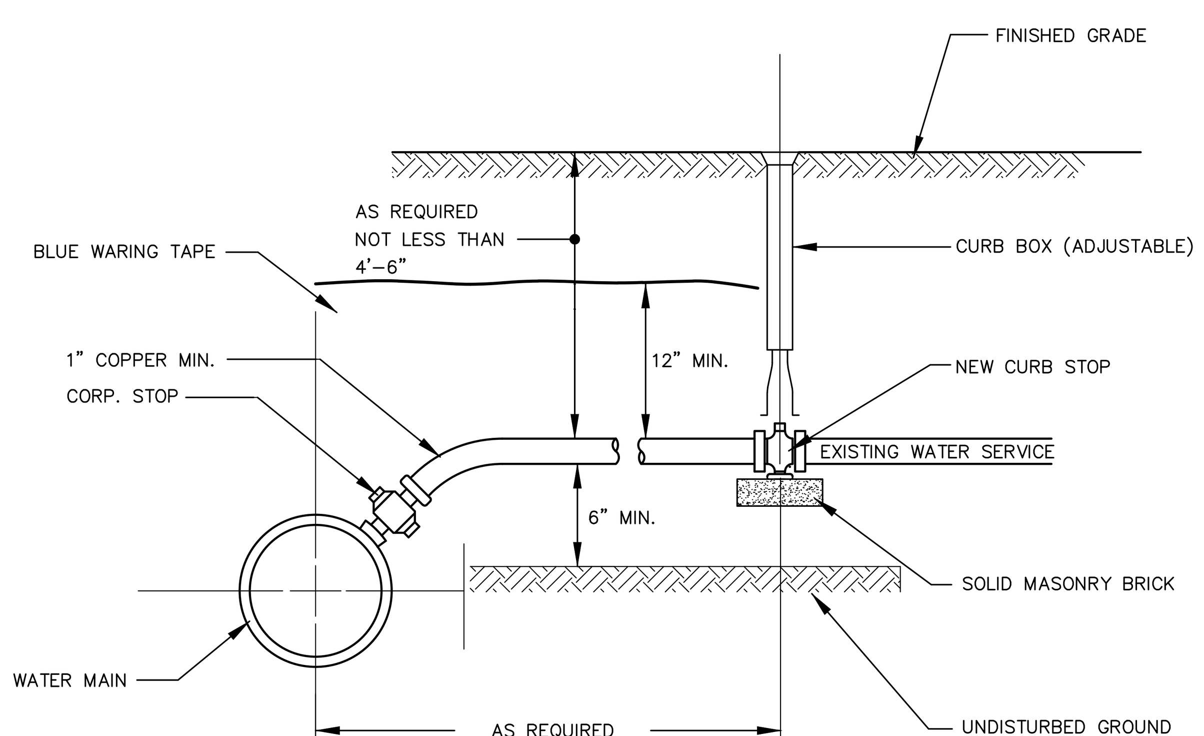
NOTES:
1.) GATE TO BE REINFORCED WITH GALVANIZED STEEL TUBING AND SHEATHED WITH MATERIALS CONSISTENT IN TYPE AND COLOR TO THE REMAINDER OF THE DUMPSTER ENCLOSURE.
2.) GATE POSTS AND BOLLARDS SHALL BE SET IN PLACE PRIOR TO CASTING SLAB.
3.) ENTIRE SLAB SHALL BE CAST ON MINIMUM OF 6" CRUSHED STONE OR COMPACTED GRAVEL.
4.) CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AND SHALL BE PLACED IN ACCORDANCE WITH ACI 318-02.
5.) WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM A 185.
6.) STEEL REINFORCING SHALL HAVE A YIELD STRENGTH OF 60ksi.

DUMPSTER ENCLOSURE DETAIL
NOT TO SCALE



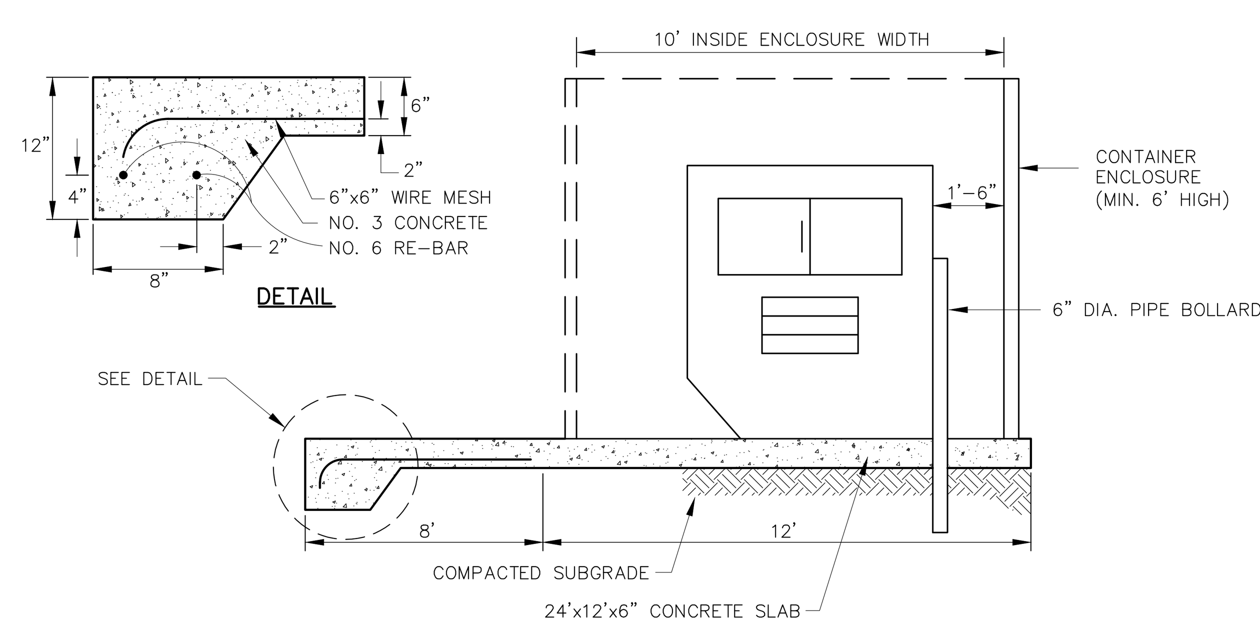
TYPICAL DOUBLE SWING GATE
NOT TO SCALE

NOTE:
1. ALL FENCE COMPONENTS SHALL BE BLACK PVC COATED
2. PROVIDE DROP BAR FOR EACH GATE & GROUND INSERT TO STABILIZE GATES IN BOTH CLOSED & OPEN CONDITIONS. PROVIDE LATCH POSTS TO STABILIZE GATES IN OPEN POSITION IF GROUND ELEVATIONS VARY.

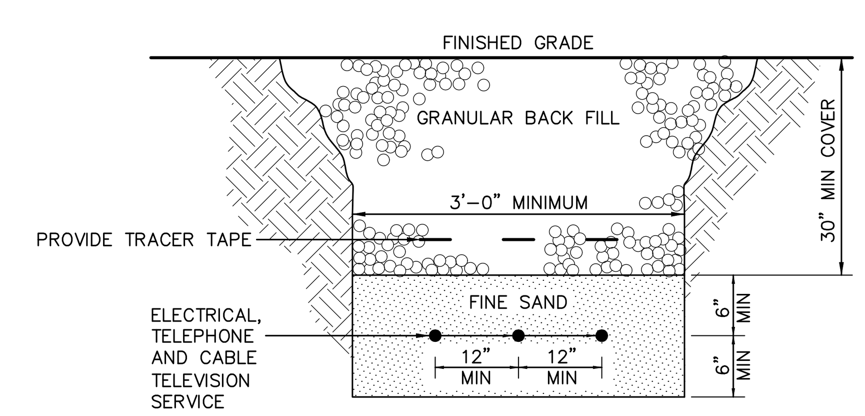


NOTE:
WATER SERVICE PIPE TO BE INSTALLED IN A BED OF FINE AGGREGATE SAND 6" MINIMUM BED AND 12" MINIMUM COVER AND BLUE WARNING TAPE ON TOP OF THE 12" FINE AGGREGATE BED.

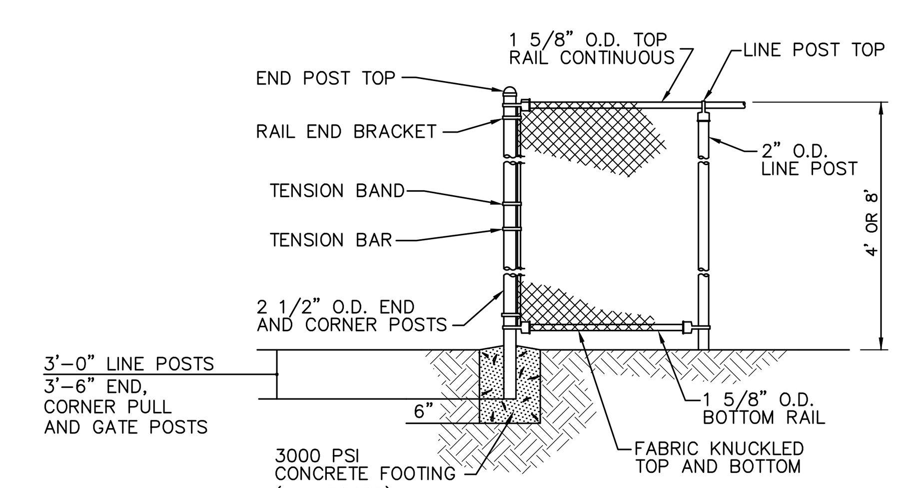
CORPORATION CURB STOP
NTS



DUMPSTER PAD SECTION
NOT TO SCALE



BURIED CABLE TRENCH
CROSS SECTION
NOT TO SCALE



NOTE: ALL COMPONENTS SHALL HAVE BLACK EPOXY COATING

TYPICAL CHAIN LINK FENCING
NOT TO SCALE

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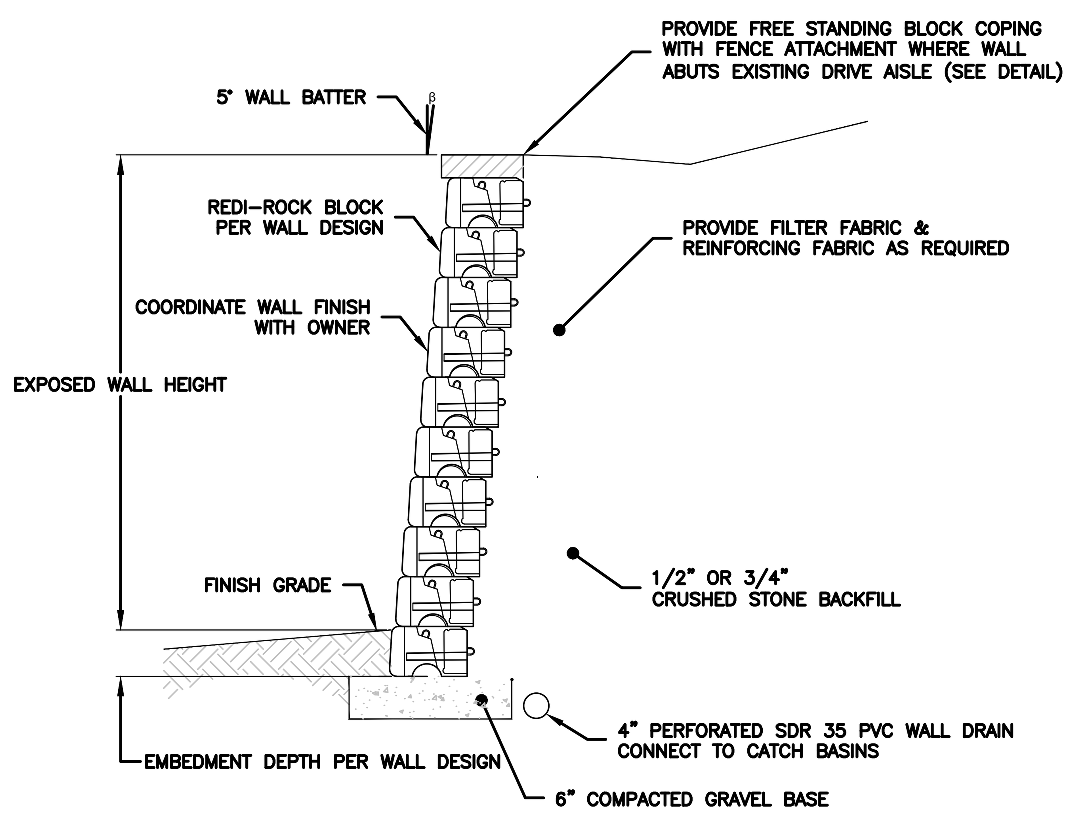
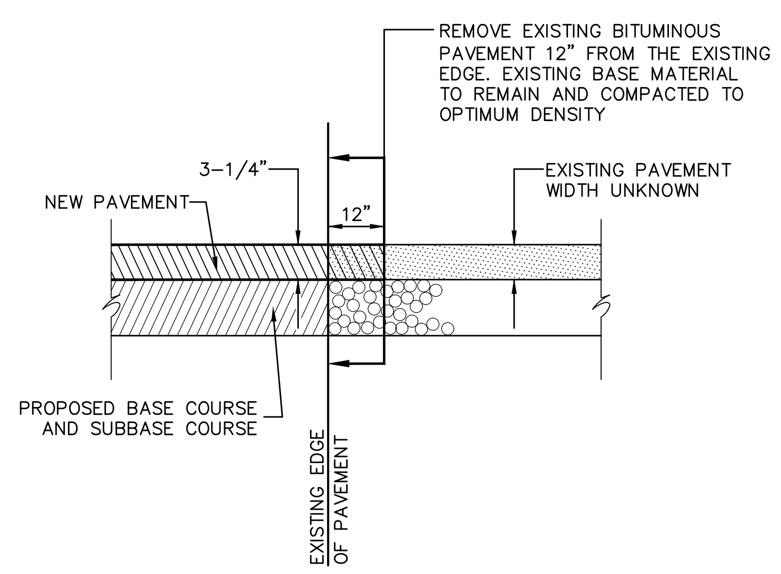


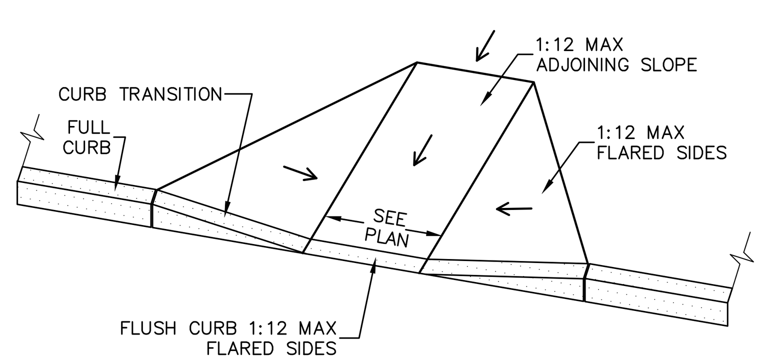
SEGMENTAL CONCRETE BLOCK RETAINING WALL
NOT TO SCALE

NOTES:
1. BASIS FOR DESIGN IS REDI-ROCK GRAVITY WALL SYSTEM.
2. PROVIDED DETAIL ILLUSTRATES TYPICAL WALL CONSTRUCTION. WALL MANUFACTURER MUST PROVIDE COMPLETE SIGNED & SEALED PLANS & CALCULATIONS FOR SUBMISSION TO TOWN BUILDING DEPARTMENT PRIOR TO CONSTRUCTION.

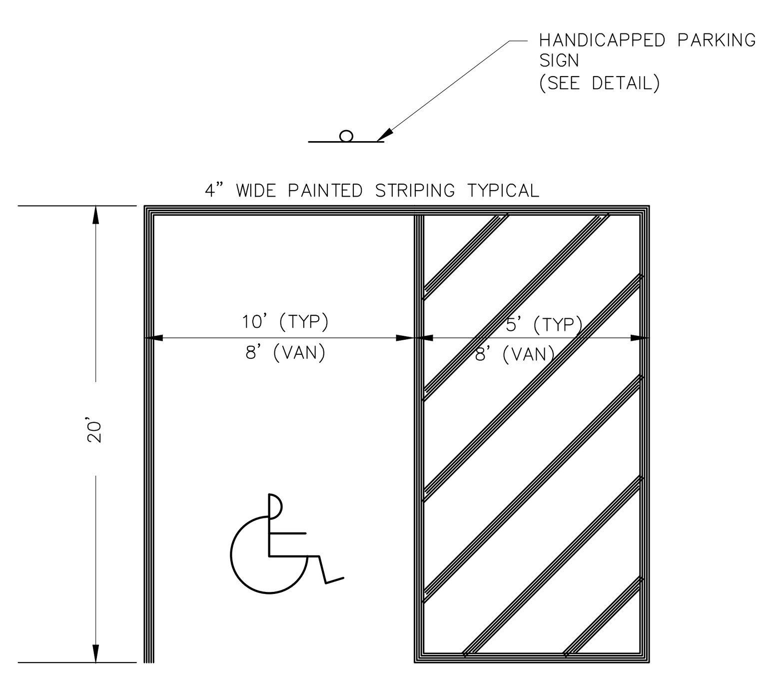


1.) SAW CUT PAVEMENT WITH POWER DRIVEN SAW 12" FROM THE EXISTING EDGE. SAW CUT TO BE PERPENDICULAR TO THE EXISTING SURFACE.
2.) REMOVE ENTIRE WIDTH OF PAVEMENT.
3.) CLEAN JOINT WITH COMPRESSED AIR HAVING A MINIMUM RATED CAPACITY OF 90 PSI
4.) APPLY TACK COAT TO THE SAW CUT EDGE AND MATCH THIS EDGE WITH THE PROPOSED EDGE.

TYPICAL CROSS SECTION FOR MATCHING EXISTING AND PROPOSED PAVEMENT
NOT TO SCALE

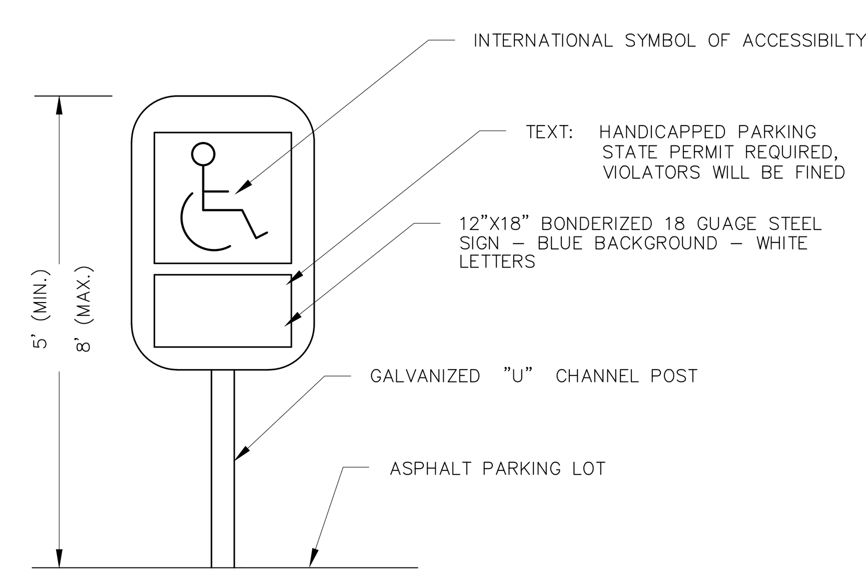


DEPRESSED CURB RAMP
NOT TO SCALE

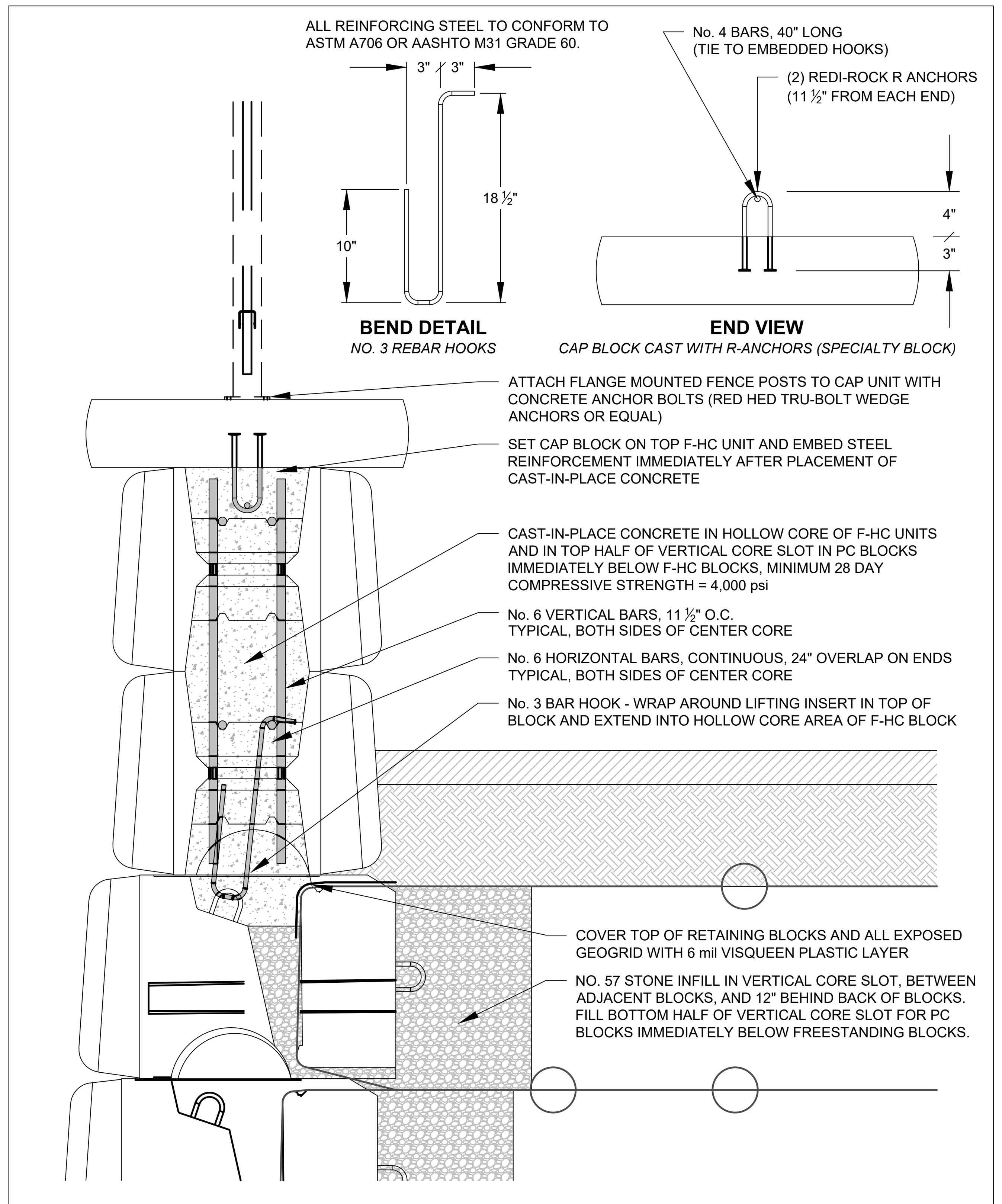


HANDICAP PARKING LAYOUT
NOT TO SCALE

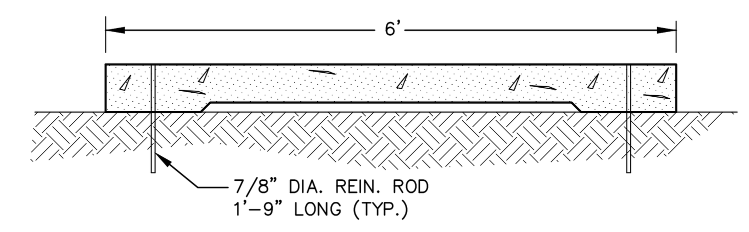
NOTES:
1. VAN ACCESSIBLE SPACES REQUIRE AN 8' SPACE WITH AN 8' HATCHED AREA.
2. ADJACENT SPACES CAN "SHARE" HATCHED ACCESS AISLES
3. MAXIMUM SLOPE IN ANY DIRECTION WITHIN PARKING SPACE & HATCHED AREA IS 2%



HANDICAPPED PARKING SIGN
NOT TO SCALE

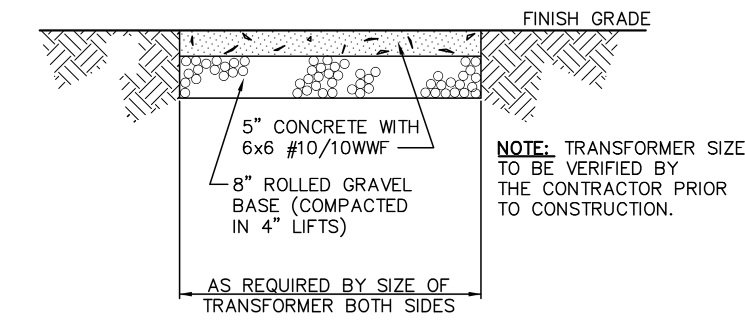


DRAWN BY: J. JOHNSON	TITLE: **F-HC FREESTANDING BLOCK COPING WITH FENCE ATTACHMENT**	REDI-ROCK® 05481 US 31 SOUTH, CHARLEVOIX, MI 49720 (866) 222-8400 ext 3010 • engineering@redi-rock.com www.redi-rock.com
APPROVED BY:		
DATE: 01/18/17		
SHEET: 2 OF 2	FILE: F-HC Coping with Fence Attachment R-Anchor Option 011817.dwg	

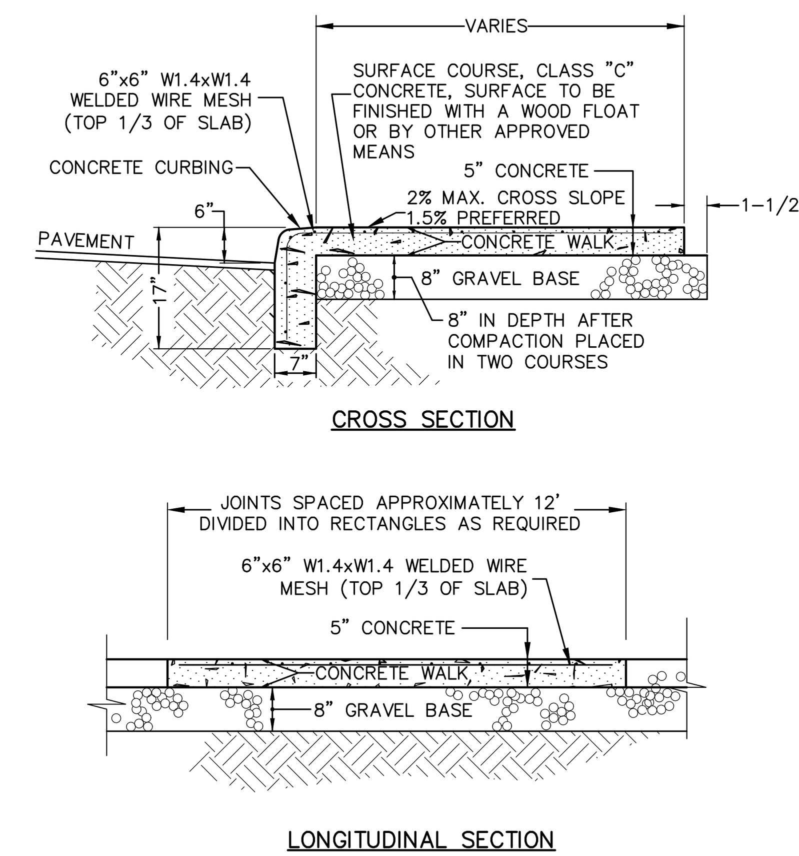


NOTE: INSTALL AS REQUIRED BY THE MANUFACTURER

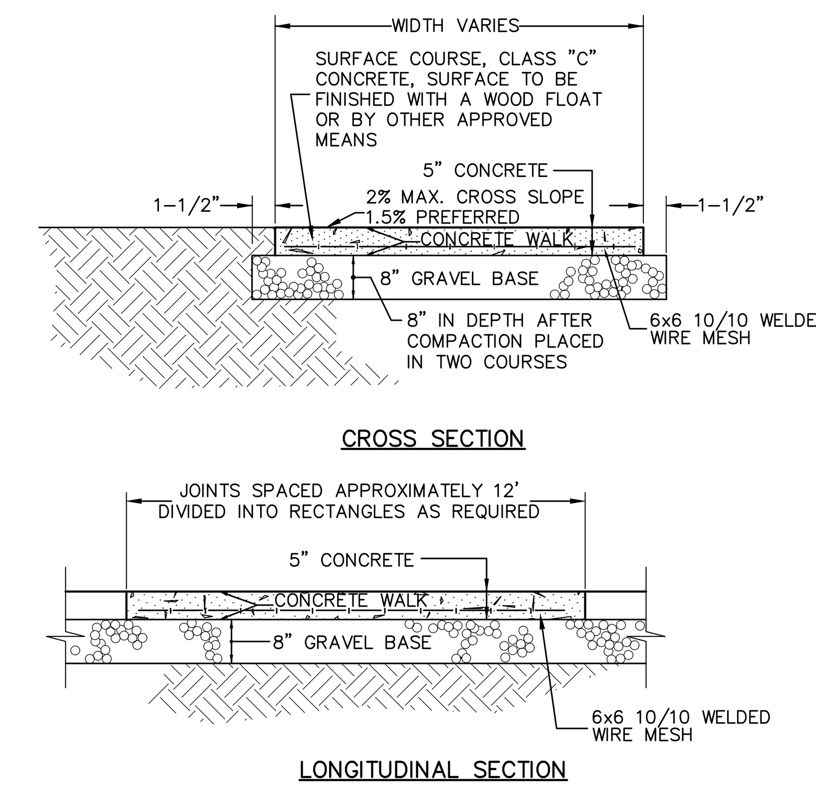
CONCRETE WHEEL STOP CROSS SECTION
NOT TO SCALE



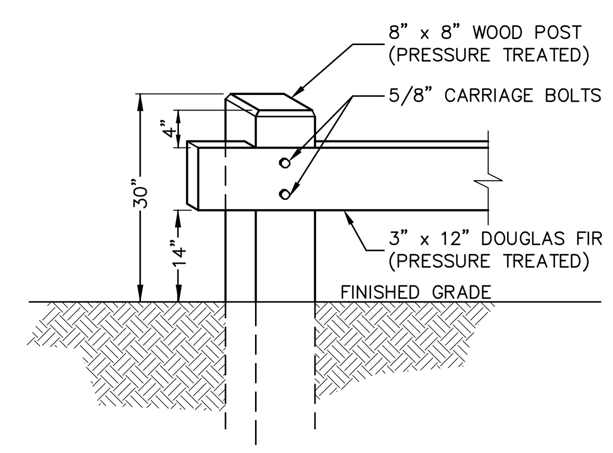
TRANSFORMER PAD
NOT TO SCALE



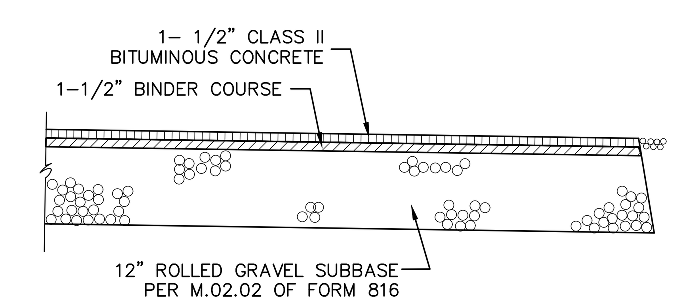
5" CONCRETE SIDEWALK WITH CONCRETE CURBING
NOT TO SCALE



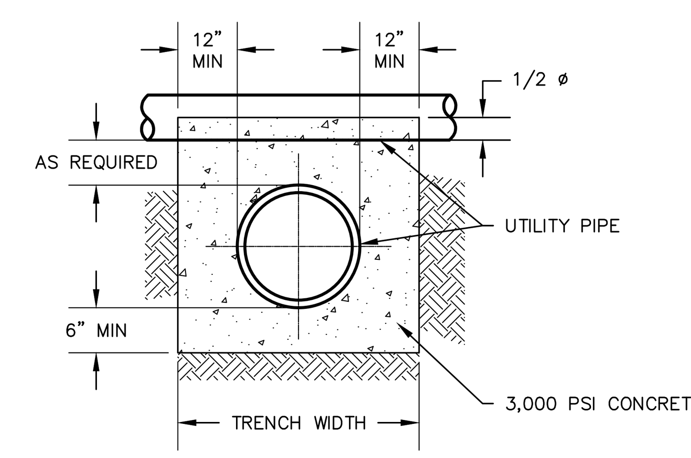
5" CONCRETE SIDEWALK
NOT TO SCALE



WOOD GUARD RAIL
NOT TO SCALE

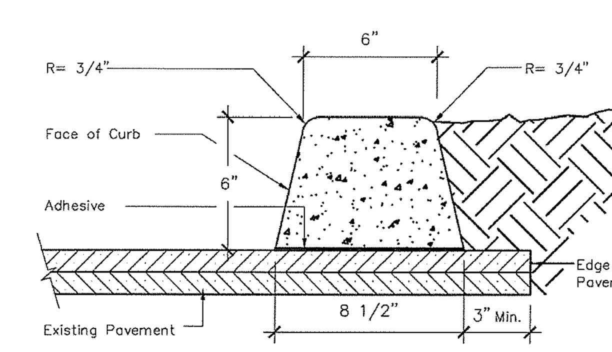


BITUMINOUS CONCRETE PAVEMENT
NOT TO SCALE



NOTE:
PROVIDE CONCRETE ENCASEMENT IN ALL LOCATIONS WHERE UTILITIES CROSS WITH LESS THAN 12" OF SEPARARTION OR AS DIRECTED BY THE ENGINEER

CONCRETE ENCASEMENT
NTS



FINISH COURSE STANDARD MOLD 6"
CONCRETE LIP CURBING DETAIL
NOT TO SCALE
NOTE: USE FINISH COURSE STANDARD MOLD 6" BY CONCRETE CRAFTERS OF CT. INC., NAUGATUCK, CT.

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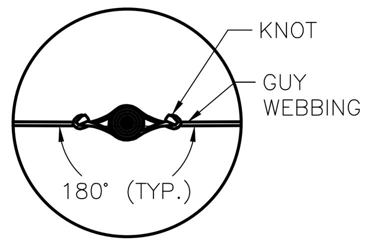
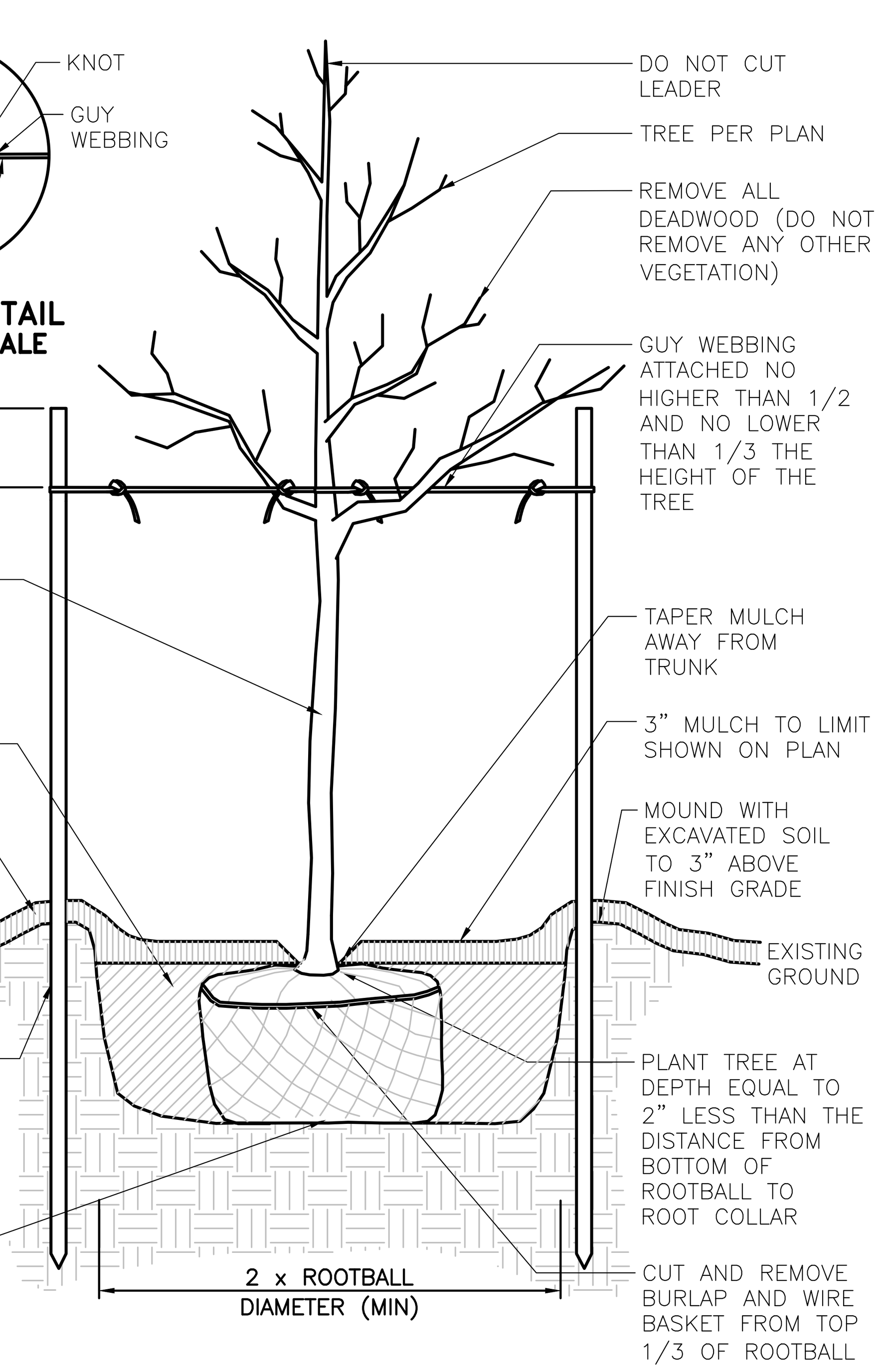
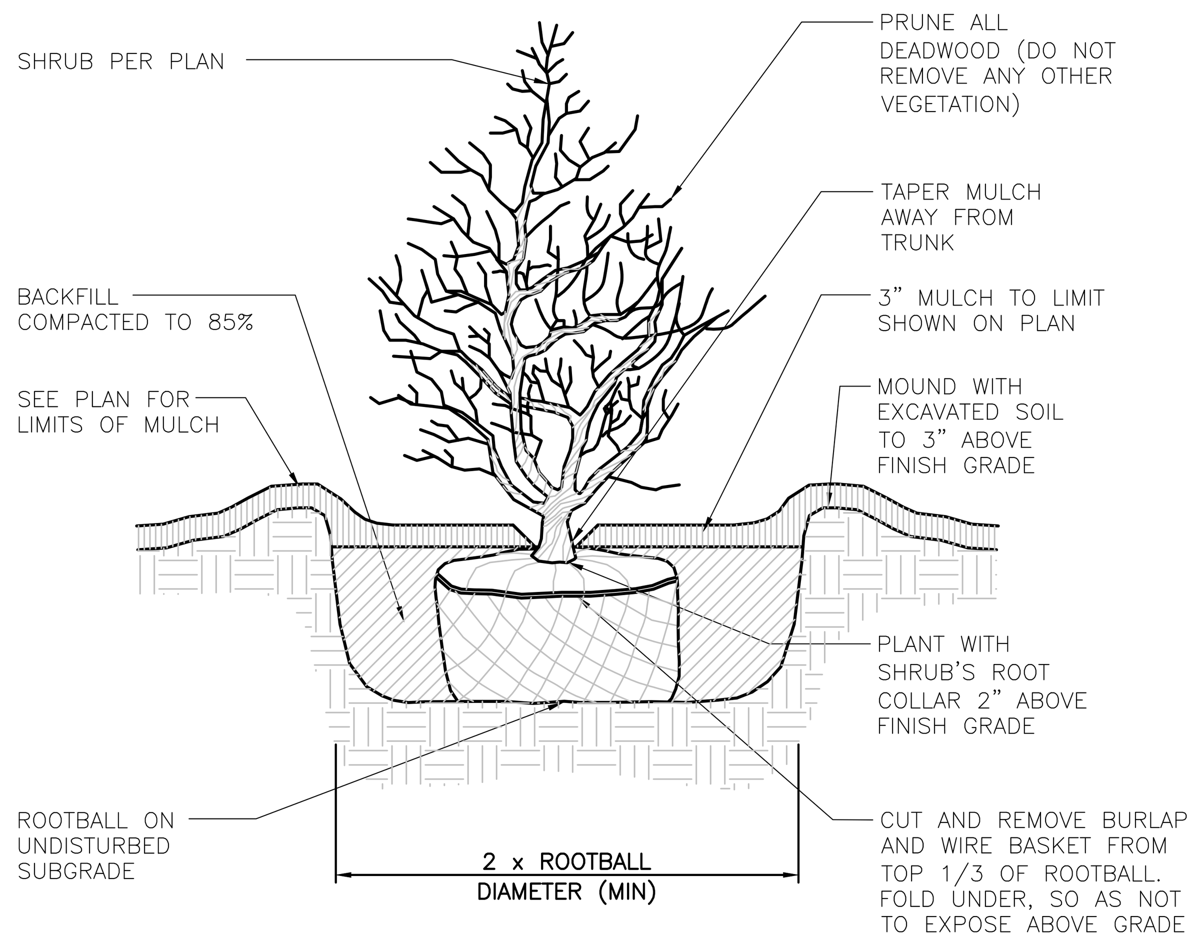


GUYING DETAIL
NOT TO SCALE

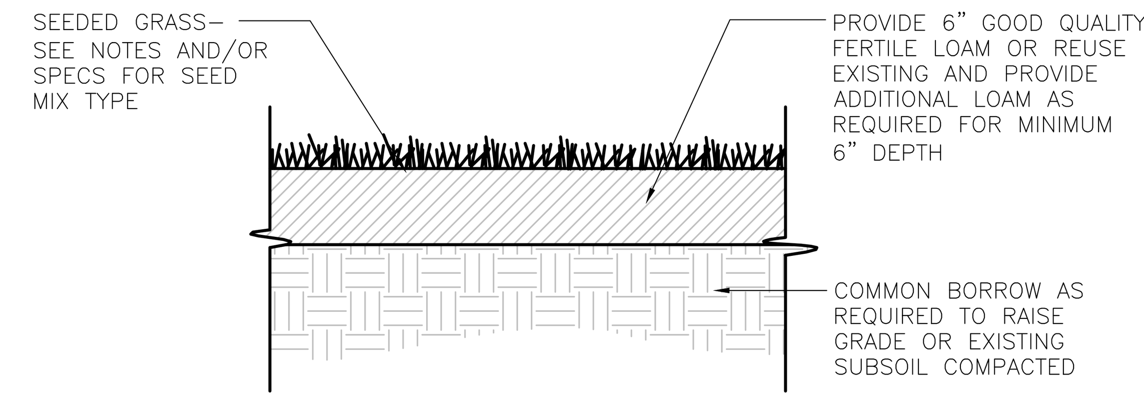


NOTE:
1. AFTER THE GUARANTEE PERIOD THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF STAKES AND GUY WEBBING.

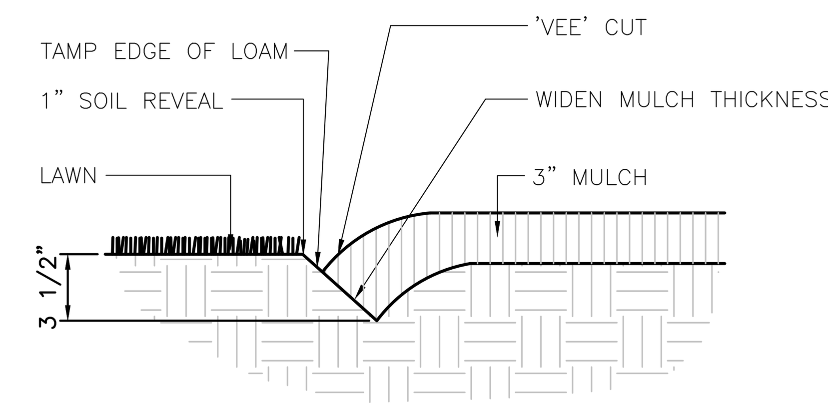
DECIDUOUS TREE
STAKING AND PLANTING DETAIL
NOT TO SCALE



SHRUB PLANTING DETAIL
NOT TO SCALE

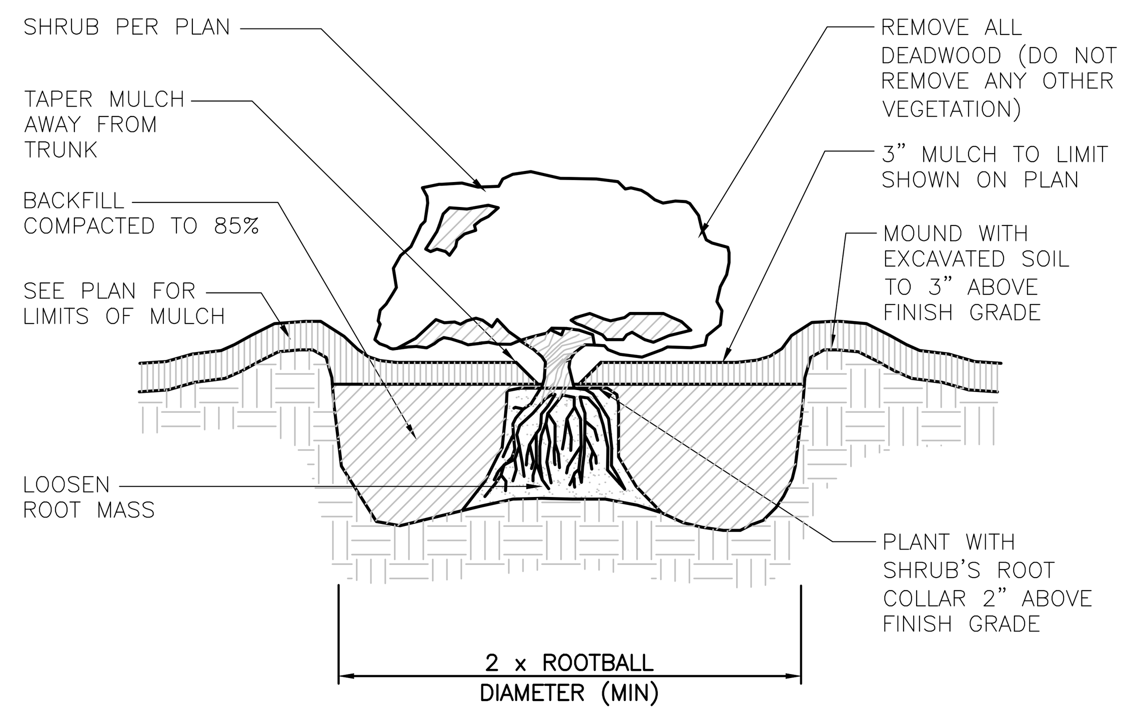


LOAM AND SEED DETAIL
NOT TO SCALE

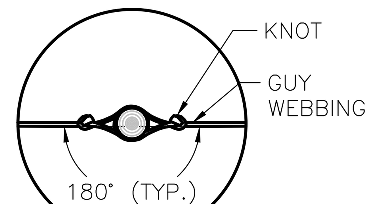


NOTE: LOCATE BEDLINE AS SHOWN ON PLAN.

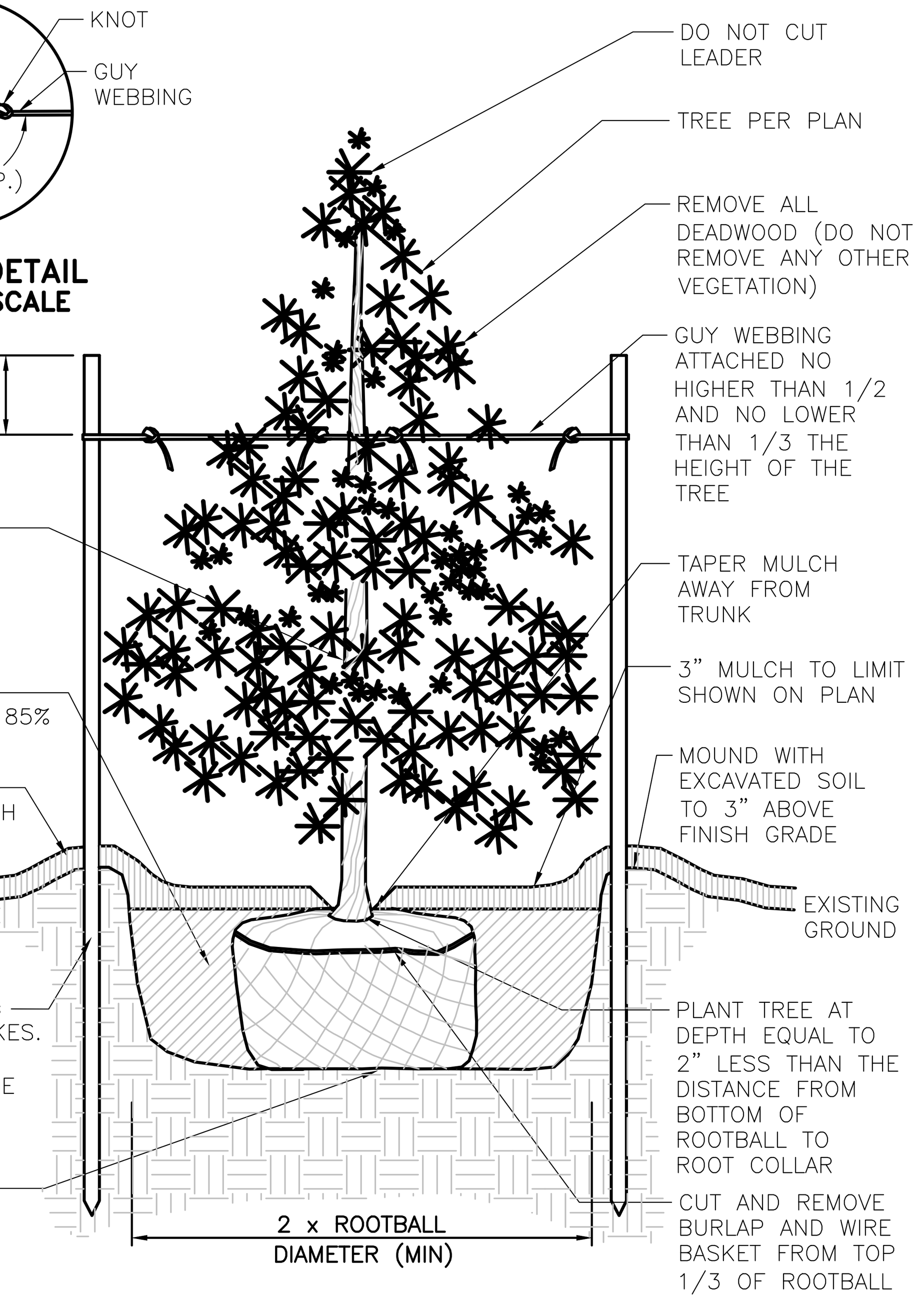
BEDLINE EDGE DETAIL
NOT TO SCALE



CONTAINER GROWN TREE AND
SHRUB PLANTING DETAIL
NOT TO SCALE

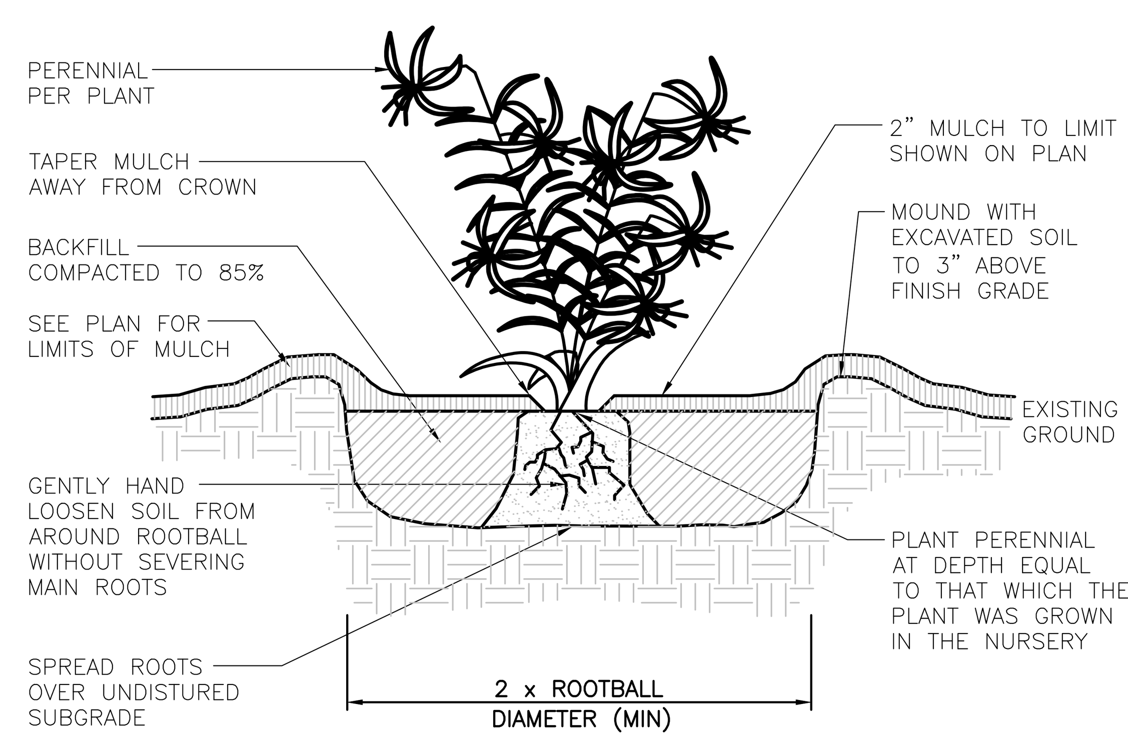


GUYING DETAIL
NOT TO SCALE



NOTE:
1. AFTER THE GUARANTEE PERIOD THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF STAKES AND GUY WEBBING.

EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



PERENNIAL PLANTING DETAIL
NOT TO SCALE

GENERAL NOTES:

1. ALL PLANT MATERIAL MUST BE TAGGED IN THE GROUND, AT THE NURSERY BY THE LANDSCAPE ARCHITECT. ALL PLANT MATERIAL SHALL BE COMMERCIALLY OBTAINED AND SHALL MEET THE AMERICAN ASSOCIATION OF NURSERYMAN STANDARDS FOR NURSERY STOCK, LATEST EDITION, AND ITS AMENDMENTS. PLANT ONLY DURING SEASON NORMAL TO THE PARTICULAR VARIETY. ALL PLANT INSPECTIONS WILL BE AT THE EXPENSE OF THE CONTRACTOR. PERMANENT SEALS WILL BE REQUIRED.
2. COVER ALL PLANTING BEDS WITH 3" SHREDDED HARDWOOD BARK MULCH WITHIN A SEVENTY-TWO HOUR PERIOD AFTER PLANTING. SEE PLAN FOR BED LAYOUT.
3. ALL EXISTING AND PROPOSED TREES SHOWN IN LAWN AREAS SHALL RECEIVE A 6' DIAMETER MULCH BED. MULCH SHALL BE PLACED TO A DEPTH OF 3". REMOVE ALL SOD, ROOTS, STICKS AND STONES PRIOR TO PLACEMENT OF MULCH.
4. ALL PLANT MATERIALS FURNISHED BY THE CONTRACTOR SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE OF LANDSCAPE WORK.
5. STAKE ALL TREES OVER 5' AS SHOWN ON DETAILS.
6. REMOVE STAKES AT THE END OF THE GUARANTEE PERIOD.
7. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE SITE CLEAN OF MISCELLANEOUS DEBRIS THROUGHOUT THE CONSTRUCTION PERIOD. ALL WASTE MATERIAL IS TO BE DISPOSED OF IMMEDIATELY TO AN OFF-SITE LOCATION, UNLESS OTHERWISE INDICATED ON THE PLANS.
8. THE CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS, AND SHALL OBTAIN ALL NECESSARY PERMITS FOR THIS PROJECT.
9. LAYOUT: ALL NOTES AND DIMENSIONS ARE TYPICAL UNLESS OTHERWISE NOTED. ALL DIMENSIONS ARE SQUARE (PARALLEL OR PERPENDICULAR) UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL NOTIFY THE OWNER/OWNER'S REPRESENTATIVE IMMEDIATELY IN THE EVENT OF ANY DISCREPANCIES FOUND IN THE CONTRACT DOCUMENTS AND/OR IN THE FIELD, OR OF CONDITIONS UNCOVERED IN THE WORK WHICH ARE NOT REFLECTED IN THE PLANS.
10. LOAM: LOAM MOVED DURING THE COURSE OF CONSTRUCTION SHALL BE RETAINED AND DISTRIBUTED WITHIN THE SITE IN ACCORDANCE WITH THE LANDSCAPE PLAN. STOCKPILED LOAM SHALL NOT BE MIXED WITH ANY SUBSOIL OR UNSUITABLE MATERIALS. ALL EXCESS LOAM SHALL REMAIN ON THE PROPERTY OF THE OWNER. NEW LOAM IF REQUIRED TO PROVIDE THE SPECIFIED DEPTH, SHALL BE A FERTILE, FRIABLE MEDIUM TEXTURED SANDY LOAM FREE OF MATERIAL TOXIC TO HEALTHY PLANT GROWTH. LOAM SHALL ALSO BE FREE OF ALL STUMPS, ROOTS, STONES AND OTHER EXTRANEOUS MATTER AN INCH (1") OR GREATER IN DIAMETER. THE PH SHALL BE BETWEEN 5.5 AND 7.5 WHEN TESTED.
11. LAWN PREPARATION: REMOVE ALL DEBRIS AND OTHER INORGANIC MATERIALS ON THE PREPARED SUBGRADE, RESHAPE AND DRESS ANY DAMAGED OR ERODED AREA PRIOR TO SPREADING THE LOAM. SCARIFY AND LOOSEN SUBGRADE IN ANY AREAS WHERE COMPACTION MAY HAVE OCCURRED. SPREAD STOCKPILED AND OFF-SITE LOAM ON ALL DISTURBED AREAS TO PRODUCE A DEPTH OF 6". FINE GRADE LOAMED AREAS TO PRODUCE A SMOOTH AND UNBROKEN FINISH GRADE TO THE REQUIRED DEPTH. APPLY A STARTER FERTILIZER (10-20-10) AT A RATE OF 20 LBS. PER 1000 SQUARE FEET AND LIME AT A RATE OF 40 LBS. PER 1000 SQUARE FEET. ONCE SPREAD, THE FERTILIZER AND LIME SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM. THE LOAM SHALL BE ROLLED, AND DEPRESSION SHALL BE TOP DRESSED AND RAKED TO CREATE A SMOOTH SURFACE.
12. PROTECTION OF EXISTING PLANTINGS: MAXIMUM EFFORT SHOULD BE MADE TO SAVE TREE OR OTHER PLANT SPECIMENS WHICH ARE LARGE FOR THEIR SPECIES, RARE TO THE AREA, OR OF SPECIAL HORTICULTURAL OR LANDSCAPE VALUE. CONTACT OWNER/LANDSCAPE ARCHITECT BEFORE REMOVING ANY SPECIMEN OF THIS TYPE UNLESS OTHERWISE NOTED ON THE PLANS. NO MATERIAL OR TEMPORARY SOIL DEPOSITS SHALL BE PLACED WITHIN THE DRIP LINE OF SHRUBS OR TREES DESIGNATED ON THE LANDSCAPE PLAN TO BE RETAINED. PROTECTIVE BARRIERS ARE TO BE INSTALLED AROUND EACH PLANT AND/OR GROUP OF PLANTS THAT ARE TO REMAIN ON THE SITE. BARRIERS SHALL NOT BE SUPPORTED BY THE PLANTS THEY ARE PROTECTING, BUT SHALL BE SELF SUPPORTING. THEY SHALL BE OF MINIMUM OF FOUR FEET (4') HIGH AND CONSTRUCTED OF A DURABLE MATERIAL, SUCH AS SNOW OR SILT FENCE, THAT WILL LAST UNTIL CONSTRUCTION IS COMPLETED.
13. PRUNING: THE CONTRACTOR SHALL CAREFULLY PRUNE BRANCHES IN THE WAY OF CONSTRUCTION BY USING ONLY APPROVED METHODS AND TOOLS. THE USE OF AXES FOR TRIMMING OR SPURS FOR CLIMBING WILL NOT BE PERMITTED.
14. EXISTING UTILITIES: IN ACCORDANCE WITH "CALL BEFORE YOU DIG" AT (1-800-922-4455), THE CONTRACTOR SHALL CONTACT ALL APPLICABLE UTILITY COMPANIES AND VERIFY UTILITY LINE LOCATIONS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY/ALL UTILITY DAMAGE. RECORD LOCATIONS OF "CALL BEFORE YOU DIG" UTILITY LINE MARKINGS ON PROJECT RECORD DOCUMENTS.
15. DISTURBED AREAS: ANY AREAS DISTURBED DURING THE COURSE OF CONSTRUCTION ARE TO BE RESTORED TO ORIGINAL (OR BETTER) CONDITION BY CONTRACTOR BEFORE COMPLETION OF THE PROJECT, AND ARE SUBJECT TO APPROVAL BY LANDSCAPE ARCHITECT AND OWNER. ALL GRASS AREAS DISTURBED DURING CONSTRUCTION SHALL BE YORK RAKED TO REMOVE STONES AND LOAMED AND SEEDED AS PER SPECIFICATIONS.
16. DRAINAGE SYSTEMS: CONTRACTOR IS RESPONSIBLE FOR GENERAL CLEAN-OUT OF ALL CATCH BASINS, MANHOLES, AND/OR OTHER DRAINAGE FEATURES ON THE SITE WHICH HAVE ACCUMULATED SEDIMENT AS A RESULT OF CONSTRUCTION ACTIVITIES.
17. CLEANING: CONTRACTOR IS RESPONSIBLE FOR KEEPING SITE CLEAN OF MISCELLANEOUS DEBRIS THROUGHOUT THE CONSTRUCTION PERIOD. ALL WASTE MATERIAL IS TO BE DISPOSED OF IMMEDIATELY TO AN OFF-SITE LOCATION, UNLESS OTHERWISE INDICATED ON THE PLAN.
18. PLANT MATERIAL SUBSTITUTIONS ALL PLANT SUBSTITUTIONS ARE SUBJECT TO APPROVAL BY LANDSCAPE ARCHITECT AND OWNER.
19. IRRIGATION TO BE PROVIDED ON ALL PLANTING BEDS AND LAWN AREAS. IRRIGATION PLAN BY OTHERS.

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN DATE	CHAIRMAN OR SECRETARY DATE	CHAIRMAN OR SECRETARY DATE

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400 Capital Boulevard, Suite 301
Rocky Hill, CT 06067
860-257-4557 | www.chacompanies.com

SITE DEVELOPMENT PLAN
PREPARED FOR:

TOWNSEND
DEVELOPMENT
ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

No.	Submittal / Revision	App'd.	By	Date

CONSTRUCTION DETAILS

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date: 05/05/2023	Project No: 080849	Scale: AS NOTED

Drawing No.:
12

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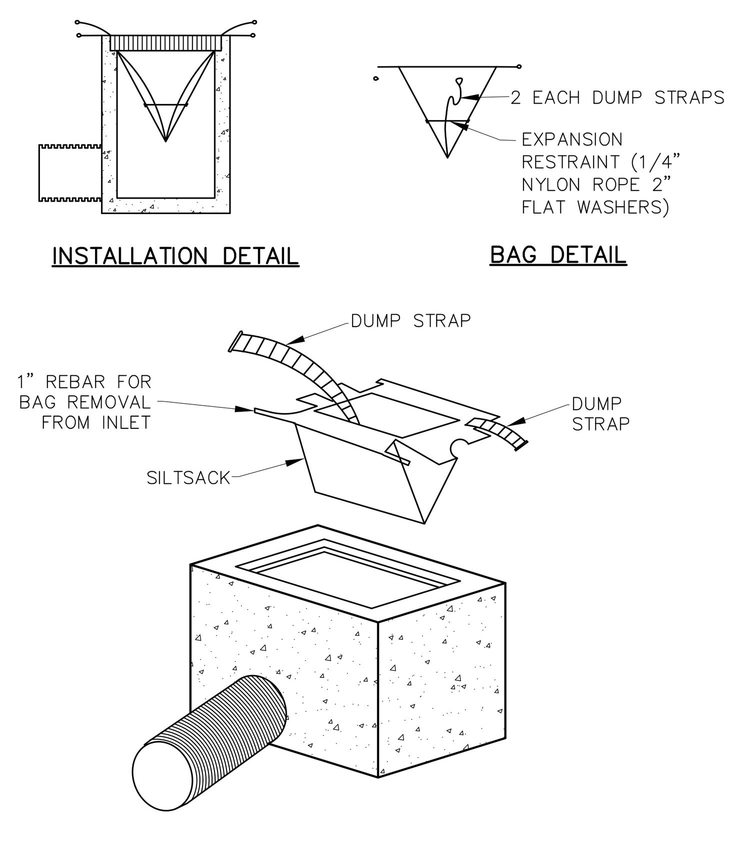
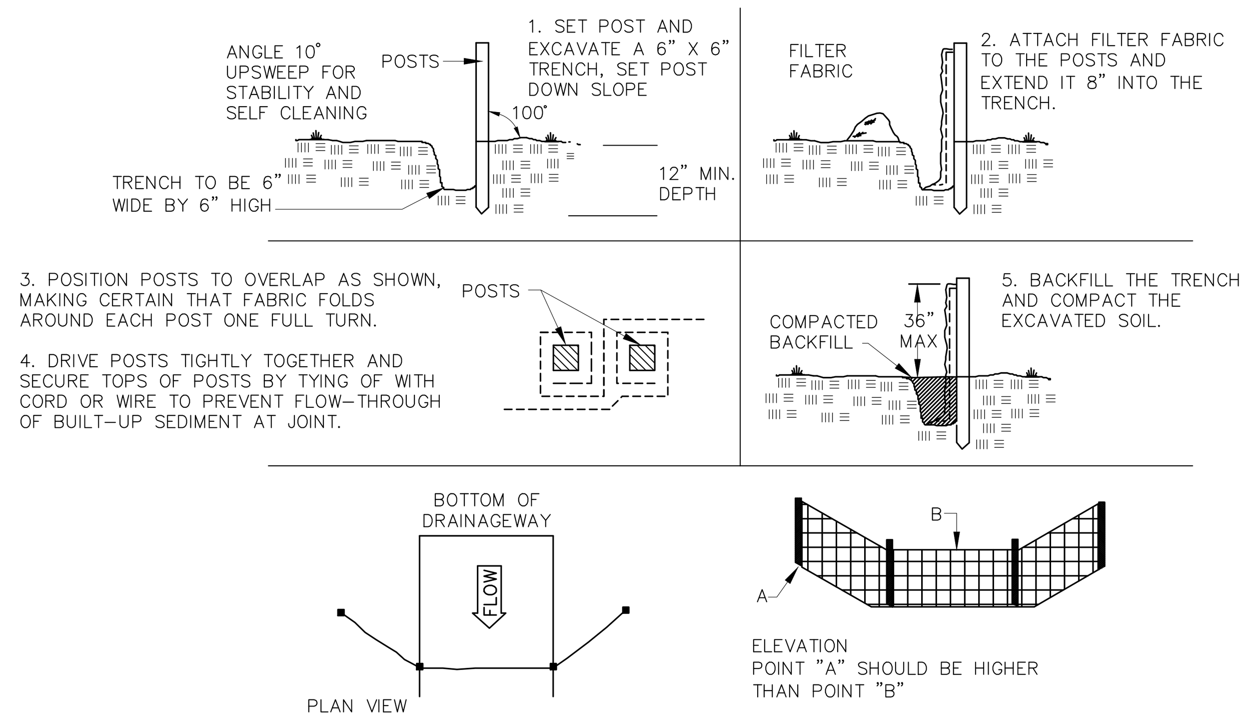
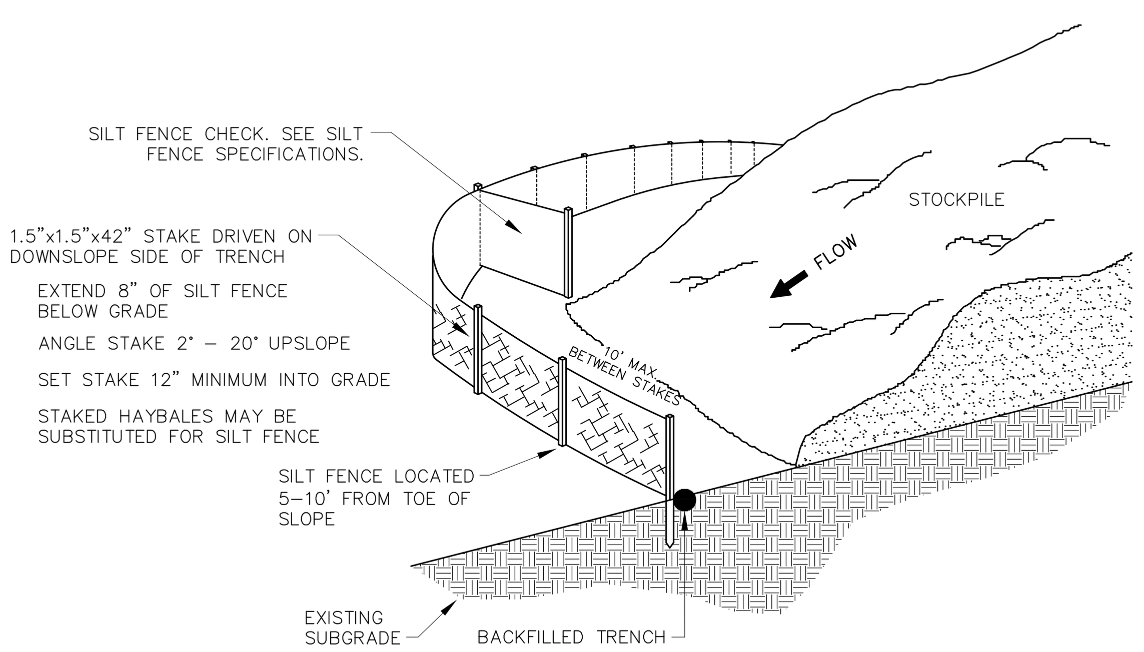
EROSION AND SEDIMENTATION CONTROL DETAILS



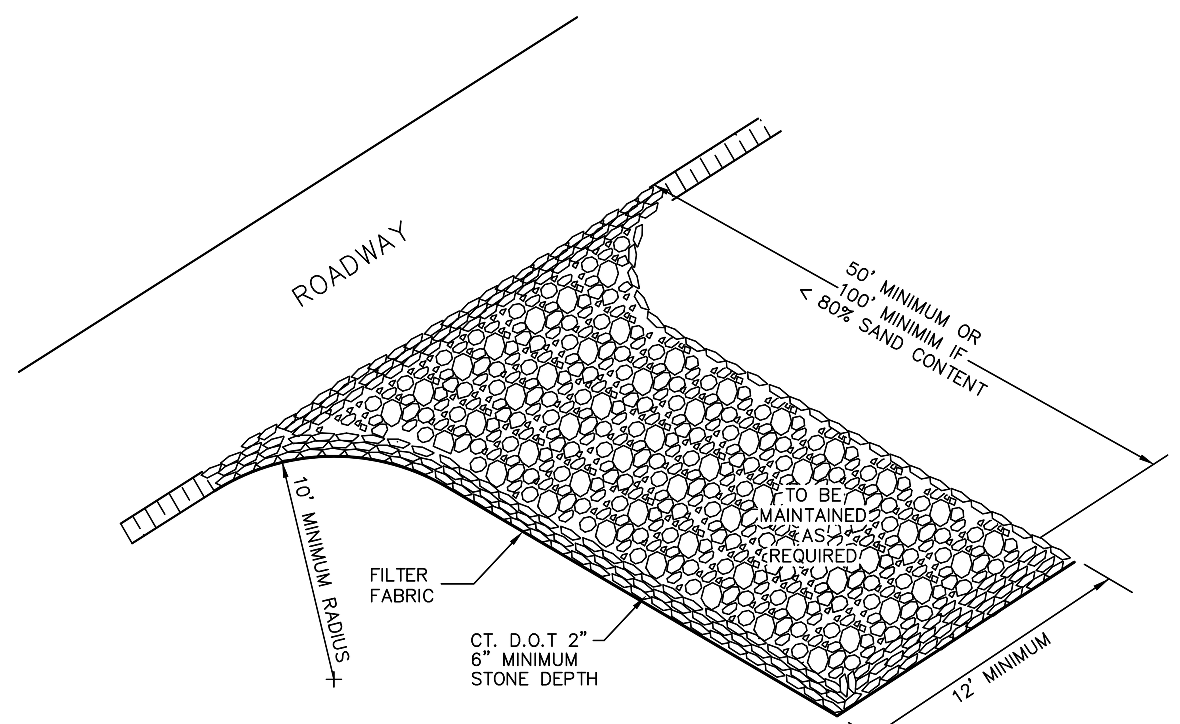
INLET SEDIMENT CONTROL DEVICE
NOT TO SCALE



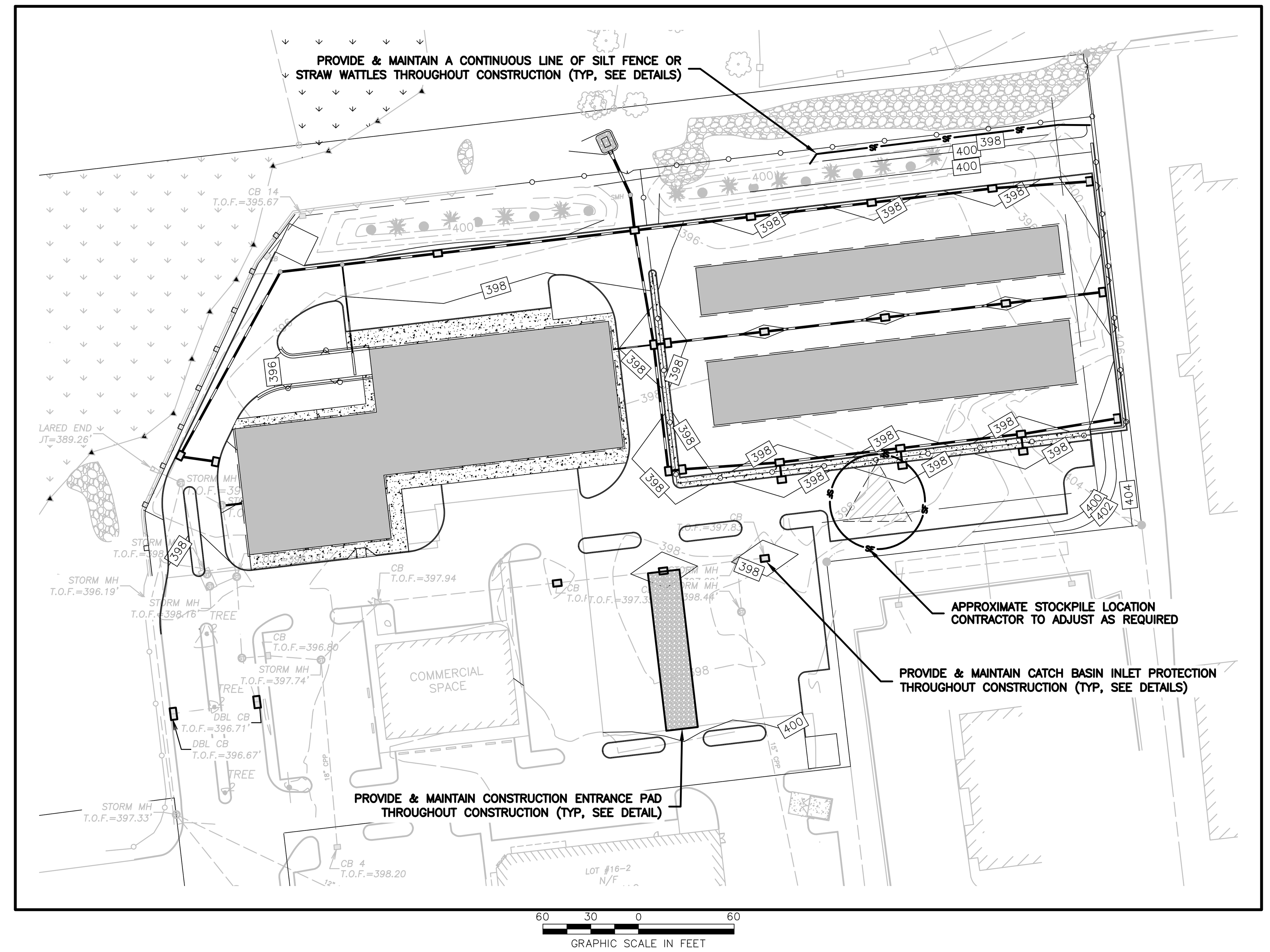
PLACEMENT AND CONSTRUCTION OF A SILT FENCE
NOT TO SCALE

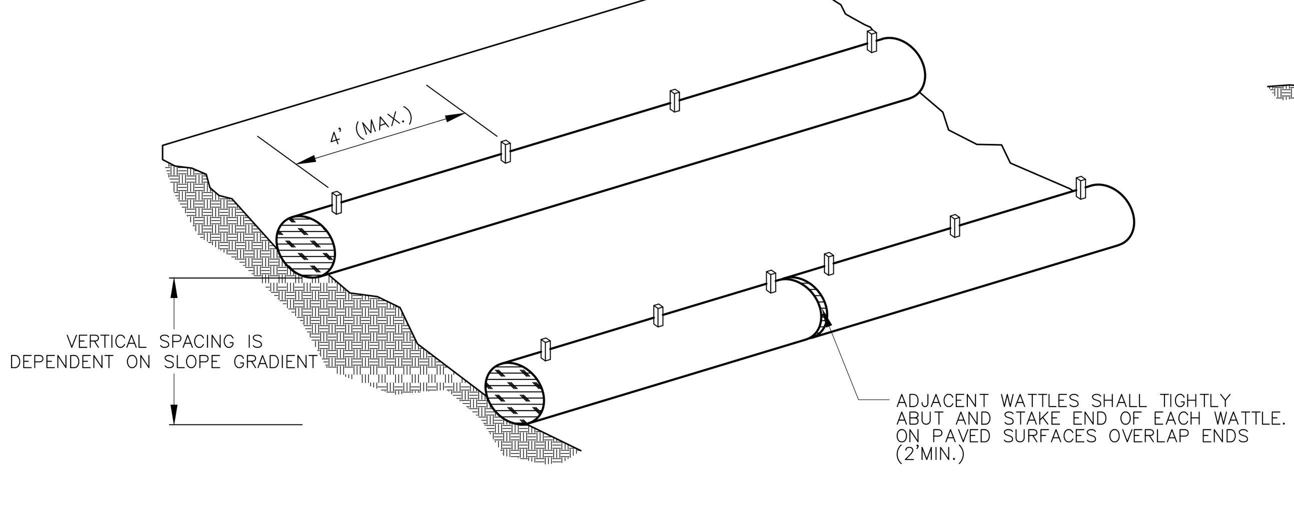


SILT FENCE AT TOE OF SLOPE APPLICATION
NOT TO SCALE

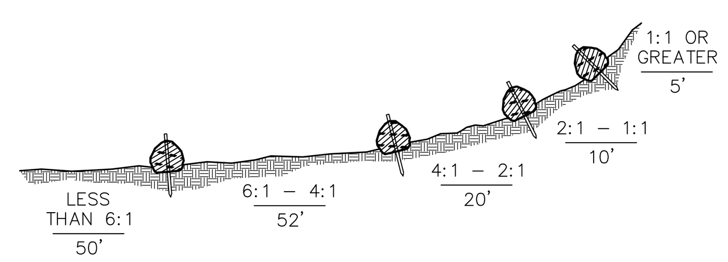


CONSTRUCTION ENTRANCE PAD
NTS

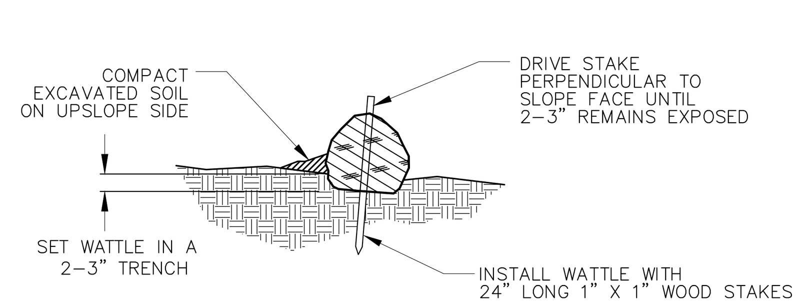




TYPICAL WATTLE INSTALLATION GUIDE



TYPICAL WATTLE SPACING BASED ON SLOPE GRADIENT



ENRICHMENT DETAIL

STRAW WATTLE NOTES:

1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2-3" DEEP BY 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT THE SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.
3. SECURE THE WATTLE WITH 24" LONG STAKES EVERY 3-4' WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLES LEAVING 2-3" OF STAKE EXTENDING ABOVE. THE WATTLE STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE.
4. SECURE WATTLES PLACED ON PAVED SURFACES WITH SANDBAGS SPACED AT AN INTERVAL SUFFICIENT TO PREVENT MOVEMENT OF WATTLE AND TO ENSURE THAT ENDS OF ADJACENT WATTLES REMAIN TIGHTLY ABUTTED.

STRAW WATTLE INSTALLATION
NOT TO SCALE

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN DATE	CHAIRMAN OR SECRETARY DATE	CHAIRMAN OR SECRETARY DATE

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Rocky Hill, CT 06067
860-257-4557 | www.chacompanies.com

SITE DEVELOPMENT PLAN PREPARED FOR:
TOWNSEND DEVELOPMENT ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

No.	Submittal / Revision	App'd.	By	Date

E&S CONTROL AND STORMWATER MAINTENANCE PLAN

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date:	Project No:	Scale:
05/05/2023	080849	AS NOTED

Drawing No.:
13

EROSION AND SEDIMENTATION CONTROL NARRATIVE & NOTES

PROJECT NARRATIVE

THIS PROJECT CONSISTS OF THE CONSTRUCTION OF 35,600 SF OF RETAIL/OFFICE SPACE AND A 5,000 SF RESTAURANT ON ±9.8 ACRES IN THE TOWN OF BROOKLYN, CONNECTICUT. THE LOCATION OF THE SITE IS ON THE NORTH SIDE OF PROVIDENCE ROAD (RT 6) APPROXIMATELY 1,300 FEET WEST OF DAY STREET. THIS PROJECT WILL CONSIST OF PAVED PARKING, DRAINAGE PIPING AND STRUCTURES, AND UNDERGROUND UTILITIES.

IT IS ANTICIPATED THAT APPROXIMATELY 4.8 ACRES OF THE 9.8 ACRE SITE WILL BE DISTURBED DURING THE CONSTRUCTION OF THE FACILITY.

THE PROJECT SHALL BE DEVELOPED IN A SINGLE PHASE, HOWEVER, DISTURBED AREAS SHALL BE STABILIZED AT MILESTONE POINTS DURING CONSTRUCTION. ALL WORK SHALL BE SCHEDULED SUCH THAT STABILIZATION COINCIDES WITH THE ABILITY TO VEGETATE DISTURBED AREAS, APRIL 1 THROUGH JUNE 15 AND AUGUST 15 THROUGH OCTOBER 1.

THIS PROJECT REQUIRES THE FOLLOWING PERMITS:
PLANNING & ZONING SPECIAL PERMIT
IWWWC PERMIT

ESTIMATED CONSTRUCTION SCHEDULE

A. INSTALL EROSION AND SEDIMENT CONTROL SYSTEMS – APRIL, 2016

B. ROUGH GRADE SITE – APRIL, 2016

C. INSTALL STORMWATER AND UTILITY SYSTEMS – MAY/JUNE, 2016

D. CONSTRUCT ACCESS ROADWAYS & PARKING – JULY, 2016

E. CONSTRUCT BUILDING STRUCTURES – APRIL–SEPTEMBER, 2016

F. FINISH GRADE SITE AND INSTALL LANDSCAPING – SEPTEMBER, 2016

GENERAL NOTES

1. ELEVATIONS ARE BASED ON AN ASSUMED DATUM.
2. INLAND WETLAND BOUNDARIES WERE DELINEATED IN THE FIELD BY CME ASSOCIATES, INC.
3. ALL UTILITIES SHALL BE APPROVED BY LOCAL UTILITY COMPANIES PRIOR TO CONSTRUCTION; ALL UTILITIES SHALL BE CONSTRUCTED TO UTILITY COMPANY SPECIFICATIONS.
4. ALL CONSTRUCTION SHALL BE TO TOWN SPECIFICATIONS & REGULATIONS.
5. NO CHANGES CAN BE MADE TO THESE PLANS WITHOUT THE TOWN ENGINEER'S APPROVAL.
6. CONTRACTOR SHALL OBTAIN ALL REQUIRED LOCAL & STATE PERMITS PRIOR TO BEGINNING ANY CONSTRUCTION.
7. FIELD CHANGES SHALL HAVE PRIOR APPROVAL OF THE TOWN ENGINEER.
8. CATCH BASIN TOPS SHALL NOT BE CEMENTED DOWN UNTIL FINAL GRADES ARE SET.
9. UNLESS OTHERWISE NOTED OR SPECIFIED, ALL ROADWAYS & STORM DRAINAGE SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE STATE OF CONNECTICUT, D.O.T. "STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION, FORM 816, 2004" AND ALL SUPPLEMENTS THERETO. SIMILARLY PERTINENT CONSTRUCTION DETAILS THAT ARE NOT INCLUDED WITH THESE DRAWINGS SHALL CONFORM TO THE STATE OF CONNECTICUT, D.O.T. STANDARD ROADWAY DRAWINGS.
10. CONTRACTOR SHALL NOTIFY THE TOWN ENGINEER OF CONSTRUCTION SCHEDULE SO THAT INSPECTION MAY BE PROVIDED.
11. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED ON PLANS HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROL TESTIMONY, FIELD MEASUREMENTS AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO CME ASSOCIATES, INC. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION.
12. CONTACT "CALL BEFORE YOU DIG" AT 1–800–922–4455 TWO (2) WORKING DAYS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.

SEEDING SPECIFICATIONS

A. IF GROUND HAS BEEN PREVIOUSLY MULCHED, MULCH MUST BE REMOVED OR ADDITIONAL NITROGEN MUST BE ADDED.

B. REMOVE ALL SURFACE STONES 2" OR LARGER AS WELL AS ALL DEBRIS SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, CLUMPS, OR OTHER UNSUITABLE MATERIAL.

C. APPLY FERTILIZER AT 7.5 POUNDS PER 1,000 SQUARE FEET AND LIME AT 200 POUNDS PER 1,000 SQUARE FEET UNLESS SOIL TESTING FOR REQUIREMENTS IS PERFORMED.

D. NO MOWING IS TO BE UNDERTAKEN UNTIL THE MAJORITY OF THE VEGETATION IS AT LEAST 6" HIGH. MOWING SHOULD CUT THE TOP 1/3 OF VEGETATION. DO NOT UNDER ANY CIRCUMSTANCES CUT VEGETATION BELOW 3".

E. DO NOT APPLY ANY FORM OF WEED CONTROL UNTIL GRASS HAS BEEN MOWED AT LEAST 4 TIMES.

F. THESE SEEDING MEASURES ARE NOT TO BE USED ON SLOPES IN EXCESS OF 2:1 GRADING.

G. PERMANENT SEEDING MEASURES ARE TO BE USED INSTEAD OF TEMPORARY SEEDING MEASURES WHERE WORK IS TO BE SUSPENDED FOR A PERIOD OF TIME LONGER THAN 1 YEAR.

H. IF THERE IS NO EROSION, BUT SEED SURVIVAL IS LESS THAN 100 PLANTS PER SQUARE FOOT AFTER 4 WEEKS OF GROWTH, RE–SEED AS PLANTING SEASON ALLOWS.

I. ALL DISTURBED AREAS OUTSIDE THE PAVEMENT AREA, WITHIN AND OUTSIDE THE ROAD RIGHT OF WAY, SHALL BE RESTORED IN ACCORDANCE WITH THE TOWN SUBDIVISION REGULATIONS.

CONSTRUCTION SEQUENCE

A. STAKEOUT LIMIT OF DISTURBANCE.

B. HOLD A PRECONSTRUCTION MEETING.

C. CONTACT "CALL BEFORE YOU DIG" AT 1–800–922–4455 TWO (2) WORKING DAYS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.

D. INSTALL THE CONSTRUCTION ENTRANCE.

E. INSTALL PERIMETER FILTER (SILT FENCE OR WATTLES)

F. PERFORM ALL NECESSARY CLEARING AND GRUBBING OPERATIONS.

G. EXCAVATE & DISPOSE OF ALL STUMPS OFF SITE.

H. STRIP ALL TOPSOIL WITHIN THE FOOTPRINT OF THE CONSTRUCTION SITE. STOCKPILE ALL TOPSOIL IN AN APPROVED AREA AND SECURE WITH EROSION AND SEDIMENT CONTROLS.

I. ROUGH GRADE SITE.

J. DIG FOUNDATIONS AND STOCKPILE MATERIAL AS REQUIRED.

K. PRIOR TO INSTALLATION OF SURFACE WATER CONTROLS SUCH AS TEMPORARY DIVERSIONS AND STONE DIKES, INSPECT EXISTING CONDITIONS TO ENSURE DISCHARGE LOCATIONS ARE STABLE. IF NOT STABLE, REVIEW DISCHARGE CONDITIONS WITH THE DESIGN ENGINEER AND IMPLEMENT ADDITIONAL STABILIZATION MEASURES PRIOR TO INSTALLING WATER SURFACE CONTROLS.

L. STABILIZE CUT AND FILL SLOPES.

M. CONSTRUCT FOUNDATION AND ERECT STRUCTURES.

N. INSTALL SERVICE UTILITIES.

O. CONSTRUCT CONCRETE SIDEWALKS.

P. FINISH GRADE ACCESS DRIVEWAYS & PARKING AREAS.

Q. PLACE TOPSOIL WHERE REQUIRED. INSTALL PERIMETER LANDSCAPE PLANTINGS.

R. FINISH GRADE SIDE SLOPES, SEED AND MULCH.

S. UPON SUBSTANTIAL COMPLETION OF THE BUILDING, COMPLETE THE BALANCE OF SITE WORK AND STABILIZATION OF ALL OTHER DISTURBED AREAS.

T. INSTALL BINDER COURSE OF PAVING.

U. WHEN ALL OTHER WORK HAS BEEN COMPLETED, REPAIR AND SWEEP ALL PAVED AREAS FOR THE TOP COURSE OF PAVING.

V. INSTALL TOP COURSE OF PAVEMENT.

W. ALL REMAINING EXPOSED AREAS SHALL BE LOAMED, SEEDED AND MULCHED OR SODDED WITHIN 14 DAYS OF FINAL GRADING.

X. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS.

Y. CONTRACTOR TO REMOVE ANY ACCUMULATED SEDIMENT FROM DRAINAGE STRUCTURES OR BASINS.

NOTE: SEVERAL OF THE ABOVE ACTIVITIES MAY BE DONE SIMULTANEOUSLY.

SILT FENCE SPECIFICATIONS

A. SYNTHETIC FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER, ETHYLENE, OR SIMILAR FILAMENTS AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE FOLLOWING MINIMUM REQUIREMENTS:

1. FILTERING EFFICIENCY	75 PERCENT (MIN)
2. GRAB TENSILE STRENGTH	100 POUNDS
3. ELONGATION AT FAILURE	15 PERCENT
4. MULLEN BURST STRENGTH	250 POUNDS PER SQUARE INCH
5. PUNCTURE STRENGTH	50 POUNDS
6. APPARENT OPENING SIZE	0.60mm< X <0.90mm
7. FLOW RATE	0.2 GALLONS PER SQUARE FOOT PER MINUTE
8. PERMITTIVITY	0.05 PER SECOND (MIN)
9. ULTRAVIOLET RADIATION STABILITY	70 PERCENT AFTER 500 HOURS OF EXPOSURE (MIN)

B. STAKES ARE TO BE MADE OUT OF HARDWOOD WITH A MINIMUM CROSS SECTIONAL AREA OF 1.5 SQUARE INCHES OR STEEL POSTS WITH A MINIMUM WEIGHT OF 0.5 POUNDS PER LINEAR FOOT.

C. TORN OR PUNCTURED GEOTEXTILES SHALL NOT BE USED.

D. ON SLOPES WHERE SURFACE FLOW FOLLOWS THE SILT FENCE LINE, PERPENDICULAR SILT FENCE CHECKS SHALL BE INSTALLED AT 50 FOOT INTERVALS.

E. LINES OF SILT FENCE SHOULD FOLLOW CONTOUR LINES 5–10 FEET DOWN GRADIENT FROM THE SLOPE. WHERE CONTOUR LINES CAN NOT BE FOLLOWED PERPENDICULAR WINGS SHOULD BE PLACED AT 50 FOOT INTERVALS.

EROSION & SEDIMENT CONTROL OPERATIONS AND MAINTENANCE

A. EROSION AND SEDIMENTATION CONTROL AND RESTORATION MEASURES SHALL CONFORM TO THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL", PUBLISHED BY THE CONNECTICUT COUNCIL OF SOIL AND WATER CONSERVATION AND THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION; AND TO TOWN REGULATIONS.

B. INSTALLATION OF SEDIMENT AND EROSION CONTROLS SUCH AS WATTLES AND SILT FENCES SHALL BE ESTABLISHED PRIOR TO COMMENCING ANY LAND DISTURBANCE ACTIVITIES.

C. ALL STOCKPILED MATERIAL SHALL BE RINGED WITH WATTLES OR SILT FENCES. ANY MATERIAL TO BE STOCKPILED LONGER THAN 14 DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING OR JUTE NETTING.

D. PAVEMENT AND CURBING SHOULD BE INSTALLED AS SOON AS POSSIBLE AFTER STORM DRAINAGE IS INSTALLED.

E. CATCH BASINS SHALL BE PROTECTED FROM SEDIMENTATION UNTIL ALL AREAS ARE PERMANENTLY VEGETATED OR STABILIZED.

F. CATCH BASIN SUMPS SHALL BE CLEANED OF SILT PERIODICALLY DURING CONSTRUCTION.

G. WATTLES OR SILT FENCE SHALL BE PLACED 5–10 FEET FROM THE TOE OF ALL CRITICAL SLOPES AS SHOWN ON THE PLAN. THESE SHALL BE CHECKED BY THE CONTRACTOR REGULARLY AND REPAIRED WHENEVER THEY FAIL TO ENSURE CLEAN RUN–OFF FROM THE SITE.

H. ADDITIONAL CONTROL MEASURES IF REQUESTED BY THE TOWN SHALL BE INSTALLED IMMEDIATELY UPON REQUEST.

I. ALL DISTURBED AREAS SHALL BE PROTECTED WITH A MINIMUM VEGETATION COVER AS SHOWN IN ACCOMPANYING CHART.

J. THE CONTRACTOR SHALL PLAN ALL LAND DISTURBING ACTIVITIES IN A MANNER AS TO MINIMIZE THE EXTENT OF THE DISTURBED AREAS.

K. THE CONTRACTOR SHALL MAKE DAILY INSPECTIONS OF THE SITE TO INSURE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES AND WILL IMMEDIATELY MAKE NECESSARY REPAIRS IF REQUIRED BY THE TOWN.

L. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED AT A MINIMUM OF ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.1 INCHES OR GREATER TO DETERMINE MAINTENANCE NEEDS.

M. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE REPLACED WITHIN 24 HOURS OF AN OBSERVED FAILURE.

N. ALL CONSTRUCTION TRAFFIC SHALL ENTER AND LEAVE BY THE DESIGNATED ENTRANCE. THIS ENTRANCE SHALL BE CONSTRUCTED OF CRUSHED STONE TO HELP FREE TIRES OF SOIL WHEN LEAVING THE SITE. THE CONTRACTOR SHALL INSTRUCT ALL VEHICLE DRIVERS TO CLEAN SOIL MATERIAL FROM TIRES IN FRONT OF THE SITE. ALL SOIL, MISCELLANEOUS DEBRIS, OR OTHER MATERIAL SPILLED, DUMPED OR OTHERWISE DEPOSITED ON PUBLIC STREETS, HIGHWAYS, SIDEWALKS OR OTHER PUBLIC THOROUGHFARES DURING TRANSIT TO OR FROM THE SITE SHALL BE REMOVED PROMPTLY.

O. THE CONTRACTOR HEREBY ACKNOWLEDGES HIS RESPONSIBILITY TO INSTALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ON THIS SITE AND THAT HIS FAILURE TO INSTALL AND MAINTAIN THESE DEVICES COULD RESULT IN FINES OR SUSPENSION OF WORK BY THE CITY/TOWN.

P. MINIMIZE OR ELIMINATE ANY UNNECESSARY LAND DISTURBANCE OR CLEARING.

PERSON RESPONSIBLE FOR MAINTAINING CONTROL MEASURES DURING CONSTRUCTION.

NAME	STEVE TOWNSEND
ADDRESS	169 BARRETT HILL ROAD BROOKLYN, CT
TELEPHONE #	(860)–774–5359

MAINTENANCE LOG

LOCATION	DESCRIPTION	DATE	INITIALS

PROJECT DATES	DATE	INITIALS
PROJECT GROUNDBREAKING		
FINAL STABILIZATION		

STORMWATER OPERATION AND MAINTENANCE

STORMWATER FACILITY
OPERATION AND MAINTENANCE PLAN:

CONSTRUCTION PHASE

GENERAL PROVISIONS:

1. CONTRACTOR TO INSTALL AND MAINTAIN DRAINAGE FACILITIES AS SHOWN ON THE PLAN SET TITLED: (SPECIAL PERMIT, SITE DEVELOPMENT PLAN, PREPARED FOR, TOWNSEND DEVELOPMENT ASSOCIATES, LLC, BY CME ASSOCIATES, INC., DATED JUNE 26, 2015)
2. PRIOR TO CONSTRUCTION, ALL EROSION/SILTATION CONTROL DEVICES SHOWN ON ABOVE PLAN SHALL BE INSTALLED. TO PREVENT SILT INTRUSION INTO THE DRAINAGE SYSTEM DURING CONSTRUCTION, THE CONTRACTOR IS TO INSTALL INLET PROTECTION AT ALL CATCH BASINS AND SET SILT FENCE AT ALL SLOPES WHICH MAY ERODE IN THE DIRECTION OF ANY OPEN DRAINAGE FACILITIES. SUCH PREVENTIVE MEASURES ARE TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS.
3. EROSION CONTROLS ARE TO BE INSPECTED ON A DAILY BASIS. UPON DISCOVERY, THE CONTRACTOR SHALL REMOVE ANY SEDIMENT FROM AN EROSION CONTROL STRUCTURE.
4. ALL EXPOSED SOILS SHALL BE IMMEDIATELY STABILIZED TO PREVENT EROSION.
5. UPON INSTALLATION OF CATCH BASINS, INLET PROTECTION SHALL BE INSTALLED AND MAINTAINED UNTIL READY FOR PAVING.
6. PRIOR TO CONSTRUCTION OF IMPERVIOUS AREAS, ALL DRAINAGE STRUCTURES AND PIPES SHALL BE INSTALLED AND INSPECTED FOR PROPER FUNCTION. DURING CONSTRUCTION OF OTHER SITE FEATURES, DRAINAGE FACILITIES SHALL BE INSPECTED ON A DAILY BASIS AND CLEANED/REPAIRED IMMEDIATELY UPON DISCOVERY OF SEDIMENT BUILD–UP OR DAMAGE.
7. AFTER PAVING IS INSTALLED, IT SHALL BE SWEPT CLEAN ON A MONTHLY BASIS.

GRASSED SWALES & DRAINAGE CHANNELS:

1. CONTRACTOR TO INSPECT SEVERAL TIMES DURING THE FIRST FEW MONTHS TO ENSURE THAT GRASS COVER IS ESTABLISHED. AFTER ESTABLISHMENT, INSPECTION TO OCCUR SEMI–ANNUALLY AND AFTER EVERY 0.5 INCH RAIN EVENT.
2. CONTRACTOR SHALL CLEAN SWALE AFTER SITE IS COMPLETELY STABILIZED AND PRIOR TO TRANSFER OF OWNERSHIP TO OWNER.

CATCH BASIN SUMPS:

1. CONTRACTOR TO INSPECT WEEKLY OR AFTER EACH 0.5 INCH RAIN EVENT AND CLEAN AS NEEDED.
2. CONTRACTOR SHALL CLEAN SUMPS AFTER SITE IS COMPLETELY STABILIZED AND PRIOR TO TRANSFER TO OWNER.

STONE CHECK DAMS:

1. CONTRACTOR TO INSPECT WEEKLY OR AFTER EACH 0.5 INCH RAIN EVENT.
2. CONTRACTOR SHALL REMOVE SEDIMENT FROM CHECK DAMS AFTER SITE IS COMPLETELY STABILIZED AND PRIOR TO TRANSFER TO OWNER.

HYDRODYNAMIC OIL & PARTICLE SEPARATOR:

1. PRIOR TO TURNOVER TO OWNER THE OIL WATER SEPARATOR WILL BE CLEANED USING A VACUUM TRUCK OR OTHER ORDINARY CATCH BASIN CLEANING EQUIPMENT. THE DEBRIS WILL BE REMOVED FROM THE SITE AND DISPOSED OF ACCORDING TO ALL LOCAL, STATE, AND FEDERAL REGULATIONS. THIS WORK WILL BE DONE BY A LICENSED HAULER OF CONTAMINATED MATERIALS.

POST–DEVELOPMENT PHASE

GENERAL PROVISIONS:

SNOW STOCKPILING:

SNOW ACCUMULATIONS REMOVED FROM STREETS AND PARKING LOTS SHALL BE PLACED IN UPLAND AREAS, WHERE SAND AND DEBRIS WILL REMAIN AFTER SNOW MELT FOR LATER REMOVAL. CARE SHOULD BE TAKEN NOT TO DEPOSIT SNOW IN THE IMMEDIATE VICINITY OF CATCH BASINS, DRAINAGE SWALES, OR SLOPES LEADING TO BODIES OF WATER, AND DRINKING WATER WELL SUPPLIES.

PAVEMENT SWEEPING:

STREETS AND PARKING LOTS SHOULD BE SWEPT CLEAN AT LEAST ONCE ANNUALLY, PREFERABLY IMMEDIATELY AFTER WINTER SNOW MELT AND BEFORE SPRING RAINS. SWEEPING DURING THIS PERIOD CAPTURES PEAK SEDIMENT LOADS AND EXTENDS THE SERVICE LIFE OF THE STORM WATER MANAGEMENT SYSTEM.

GRASSED SWALES & DRAINAGE CHANNELS:

GRASSED SWALES AND DRAINAGE CHANNELS SHALL BE INSPECTED AT LEAST ANNUALLY TO ENSURE THAT THEY ARE OPERATING AS INTENDED. POTENTIAL PROBLEMS THAT SHOULD BE CHECKED INCLUDE:
1. SLOPE INTEGRITY
2. EROSION
3. VEGETATIVE HEALTH
4. SOIL STABILITY
5. SEDIMENTATION

ANY NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY. TRASH SHALL BE REMOVED AND THE BANKS MOWED AS REQUIRED, BUT AT LEAST ONCE PER YEAR. GRASS SHALL BE KEPT BETWEEN FOUR AND SIX INCHES IN LENGTH. (MOWING SHOULD BE PERFORMED WHEN GROUND IS DRY TO AVOID RUTS AND COMPACTION.)

CATCH BASIN SUMPS:

CATCH BASINS SHALL BE INSPECTED BI–ANNUALLY AND CLEANED AT LEAST ANNUALLY, AFTER THE SNOW AND ICE SEASON, AND AS SOON AS POSSIBLE BEFORE SPRING RAINS. IN GENERAL, A CATCH BASIN SHOULD BE CLEANED IF THE DEPTH OF DEPOSITS IS GREATER THAN ONE HALF THE SUMP DEPTH. IF A CATCH BASIN SIGNIFICANTLY EXCEEDS THIS STANDARD THEN MORE FREQUENT CLEANINGS SHALL BE SCHEDULED. IN AREAS WITH HIGHER POLLUTANT LOADINGS OR DISCHARGES INTO SENSITIVE BODIES OF WATER, MORE FREQUENT CLEANINGS WILL BE NECESSARY.

STONE CHECK DAMS:

CHECK DAMS SHALL BE INSPECTED FOR SEDIMENTATION ON A QUARTERLY BASIS AND CLEANED AS REQUIRED.

HYDRODYNAMIC OIL & PARTICLE SEPARATOR:

THE OIL WATER SEPARATOR WILL BE INSPECTED QUARTERLY FOR THE PRESENCE OF ACCUMULATED OIL AND GREASE, FLOATABLES AND SEDIMENT, IF FOUND, THE STRUCTURE WILL BE CLEANED USING A VACUUM TRUCK OR OTHER ORDINARY CATCH BASIN CLEANING EQUIPMENT. THE DEBRIS WILL BE REMOVED FROM THE SITE AND DISPOSED OF ACCORDING TO ALL LOCAL, STATE, AND FEDERAL REGULATIONS. THIS WORK WILL BE DONE BY A LICENSED HAULER OF CONTAMINATED MATERIALS. THE SCHEDULE OF INSPECTIONS WILL BE ADJUSTED TO AN ANNUAL INSPECTION IF NO OIL OR GREASE IS FOUND ON A REGULAR BASIS. OWNER WILL BE RESPONSIBLE FOR THE INSPECTIONS AND CLEANING.

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN DATE	CHAIRMAN OR SECRETARY DATE	CHAIRMAN OR SECRETARY DATE

CHA
400 Capital Boulevard, Suite 301
Rocky Hill, CT 06067
860-257-4557 | www.chacompanies.com

SITE DEVELOPMENT PLAN PREPARED FOR:

TOWNSEND DEVELOPMENT ASSOCIATES
PROVIDENCE ROAD (RT 6)
BROOKLYN, CT

No.	Submittal / Revision	App'd.	By	Date

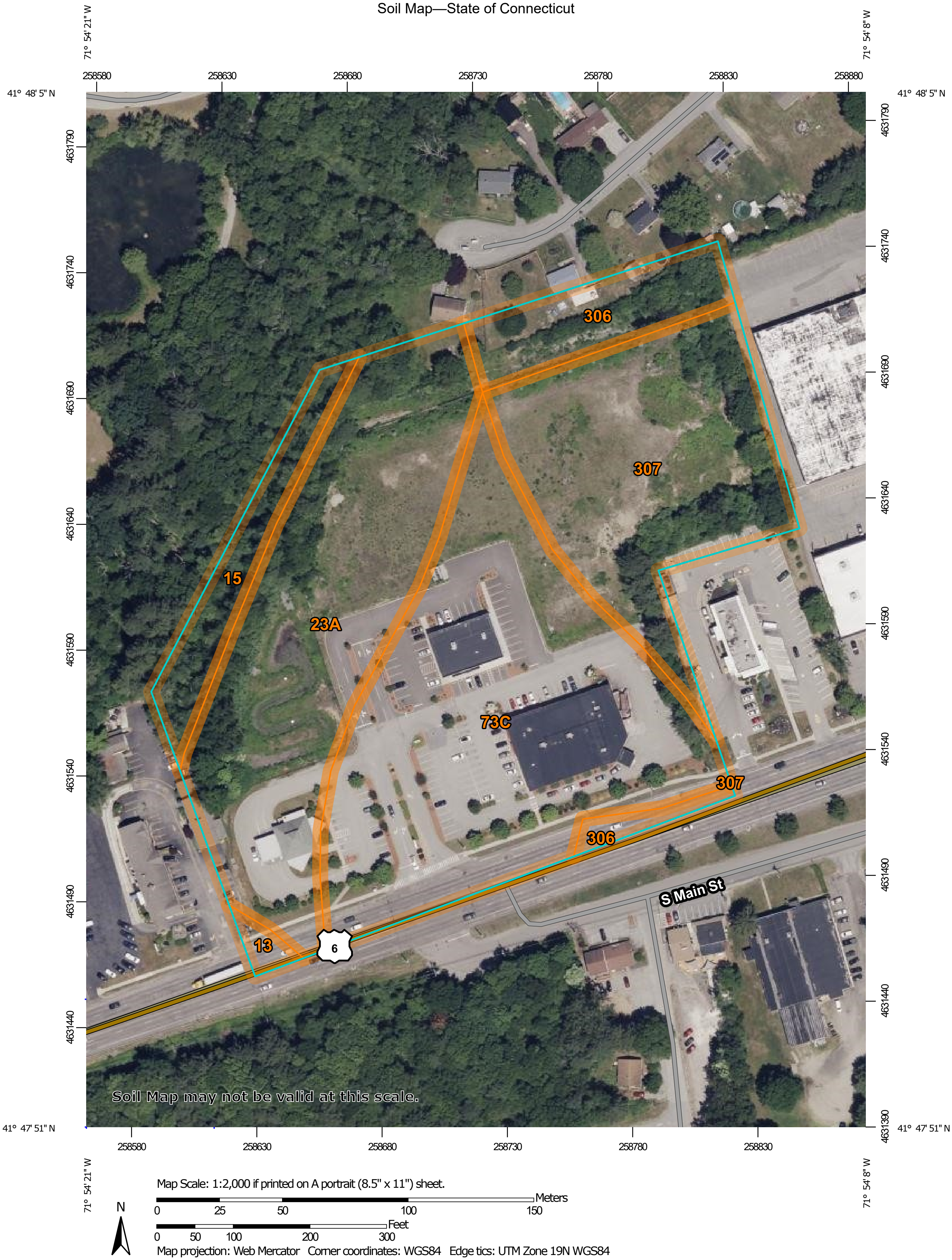
E&S CONTROL AND STORMWATER MAINTENANCE PLAN

Designed By:	Drawn By:	Checked By:
PMP	PMP	
Issue Date:	Project No:	Scale:
05/05/2023	080849	AS NOTED

Drawing No.: 14

File: V:\PROJECTS\ANY\K6\080849.000\05_DESIGN\DRAWINGS\CIVIL\080849_STP.DWG

SOILS MAPPING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41° 48' 5" N
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41° 47' 51" N
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258630
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258780
258830
71° 54' 21" W
71° 54' 8" W
Map Scale: 1:2,000 if printed on A portrait (8.5" x 11") sheet.
Meters
0 25 50 100 150
N
Feet
0 50 100 200 300
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

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 1:12,000.

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

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

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

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

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

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

Soil Survey Area: State of Connecticut
Survey Area Data: Version 22, Sep 12, 2022

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

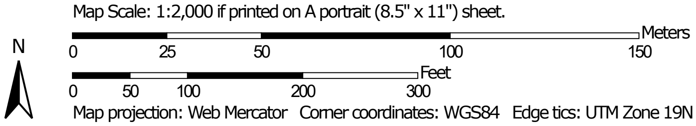
Date(s) aerial images were photographed: Jun 14, 2022—Jul 1, 2022

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
13	Walpole sandy loam, 0 to 3 percent slopes	0.1	0.7%
15	Scarboro muck, 0 to 3 percent slopes	0.6	5.3%
23A	Sudbury sandy loam, 0 to 5 percent slopes	3.3	28.8%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	4.2	36.3%
306	Udorthents-Urban land complex	0.8	7.2%
307	Urban land	2.5	21.6%
Totals for Area of Interest		**11.6**	**100.0%**

Map Scale: 1:2,000 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N 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 1:12,000.

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

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

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

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

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

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

Soil Survey Area: State of Connecticut
Survey Area Data: Version 22, Sep 12, 2022

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

Date(s) aerial images were photographed: Jun 14, 2022—Jul 1, 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
13	Walpole sandy loam, 0 to 3 percent slopes	B/D	0.1	0.7%
15	Scarboro muck, 0 to 3 percent slopes	A/D	0.6	5.3%
23A	Sudbury sandy loam, 0 to 5 percent slopes	B	3.3	28.8%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	B	4.2	36.3%
306	Udorthents-Urban land complex	B	0.8	7.2%
307	Urban land	D	2.5	21.6%
Totals for Area of Interest			**11.6**	**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

HYDROLOGIC DATA

NOAA Atlas 14, Volume 10, Version 3
Location name: Brooklyn, Connecticut, USA*
Latitude: 41.7996°, Longitude: -71.9042°
Elevation: m/ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.336** (0.257-0.436)	**0.399** (0.305-0.518)	**0.502** (0.383-0.654)	**0.587** (0.446-0.770)	**0.705** (0.519-0.958)	**0.794** (0.573-1.10)	**0.886** (0.622-1.26)	**0.985** (0.661-1.44)	**1.12** (0.726-1.69)	**1.23** (0.780-1.89)
10-min	**0.475** (0.364-0.618)	**0.565** (0.432-0.734)	**0.711** (0.542-0.927)	**0.832** (0.631-1.09)	**0.999** (0.735-1.36)	**1.13** (0.812-1.56)	**1.26** (0.881-1.79)	**1.40** (0.936-2.04)	**1.59** (1.03-2.40)	**1.75** (1.10-2.68)
15-min	**0.559** (0.428-0.727)	**0.664** (0.508-0.864)	**0.836** (0.638-1.09)	**0.979** (0.743-1.28)	**1.18** (0.865-1.60)	**1.32** (0.956-1.83)	**1.48** (1.04-2.11)	**1.64** (1.10-2.40)	**1.87** (1.21-2.82)	**2.05** (1.30-3.15)
30-min	**0.774** (0.592-1.00)	**0.919** (0.703-1.19)	**1.16** (0.882-1.51)	**1.35** (1.03-1.77)	**1.63** (1.20-2.21)	**1.83** (1.32-2.53)	**2.04** (1.43-2.91)	**2.27** (1.52-3.32)	**2.59** (1.67-3.90)	**2.84** (1.80-4.36)
60-min	**0.988** (0.756-1.28)	**1.17** (0.898-1.53)	**1.48** (1.13-1.93)	**1.73** (1.31-2.26)	**2.07** (1.53-2.82)	**2.34** (1.69-3.23)	**2.61** (1.83-3.72)	**2.90** (1.94-4.24)	**3.30** (2.14-4.98)	**3.62** (2.29-5.57)
2-hr	**1.26** (0.973-1.64)	**1.50** (1.15-1.94)	**1.89** (1.45-2.45)	**2.21** (1.69-2.88)	**2.65** (1.96-3.60)	**2.98** (2.17-4.12)	**3.33** (2.36-4.76)	**3.73** (2.51-5.42)	**4.30** (2.79-6.45)	**4.78** (3.03-7.29)
3-hr	**1.46** (1.13-1.88)	**1.73** (1.34-2.24)	**2.18** (1.68-2.82)	**2.55** (1.95-3.32)	**3.06** (2.28-4.14)	**3.44** (2.51-4.75)	**3.85** (2.74-5.50)	**4.32** (2.91-6.26)	**5.01** (3.26-7.48)	**5.59** (3.55-8.49)
6-hr	**1.87** (1.45-2.40)	**2.22** (1.72-2.85)	**2.79** (2.16-3.60)	**3.27** (2.51-4.23)	**3.92** (2.93-5.29)	**4.41** (3.24-6.06)	**4.93** (3.53-7.02)	**5.55** (3.75-7.99)	**6.47** (4.22-9.60)	**7.24** (4.62-10.9)
12-hr	**2.36** (1.84-3.01)	**2.81** (2.19-3.59)	**3.54** (2.75-4.54)	**4.15** (3.20-5.35)	**4.99** (3.75-6.69)	**5.62** (4.14-7.68)	**6.29** (4.52-8.90)	**7.07** (4.80-10.1)	**8.24** (5.39-12.1)	**9.22** (5.90-13.8)
24-hr	**2.82** (2.20-3.58)	**3.38** (2.64-4.29)	**4.29** (3.35-5.47)	**5.05** (3.92-6.47)	**6.10** (4.59-8.13)	**6.88** (5.09-9.35)	**7.71** (5.56-10.8)	**8.69** (5.92-12.4)	**10.1** (6.66-14.9)	**11.4** (7.30-16.9)
2-day	**3.17** (2.50-4.01)	**3.84** (3.02-4.86)	**4.94** (3.87-6.27)	**5.85** (4.55-7.45)	**7.10** (5.38-9.43)	**8.03** (5.97-10.9)	**9.03** (6.55-12.7)	**10.2** (6.98-14.4)	**12.0** (7.90-17.5)	**13.5** (8.70-20.0)
3-day	**3.44** (2.71-4.33)	**4.17** (3.28-5.26)	**5.36** (4.21-6.78)	**6.35** (4.96-8.07)	**7.72** (5.86-10.2)	**8.73** (6.51-11.8)	**9.82** (7.15-13.7)	**11.1** (7.61-15.7)	**13.1** (8.64-19.0)	**14.8** (9.54-21.8)
4-day	**3.68** (2.91-4.63)	**4.45** (3.52-5.61)	**5.72** (4.50-7.22)	**6.77** (5.30-8.59)	**8.22** (6.25-10.9)	**9.29** (6.94-12.5)	**10.5** (7.63-14.6)	**11.9** (8.12-16.7)	**14.0** (9.23-20.2)	**15.8** (10.2-23.2)
7-day	**4.35** (3.45-5.45)	**5.22** (4.14-6.55)	**6.65** (5.25-8.36)	**7.83** (6.15-9.90)	**9.46** (7.23-12.4)	**10.7** (8.00-14.3)	**12.0** (8.77-16.6)	**13.6** (9.31-18.9)	**16.0** (10.6-22.9)	**18.0** (11.7-26.3)
10-day	**5.03** (4.00-6.29)	**5.96** (4.74-7.46)	**7.48** (5.92-9.38)	**8.73** (6.88-11.0)	**10.5** (8.01-13.7)	**11.8** (8.82-15.7)	**13.1** (9.61-18.1)	**14.8** (10.2-20.6)	**17.3** (11.4-24.7)	**19.3** (12.5-28.2)
20-day	**7.20** (5.75-8.95)	**8.19** (6.54-10.2)	**9.81** (7.80-12.2)	**11.2** (8.82-14.0)	**13.0** (9.96-16.8)	**14.4** (10.8-18.9)	**15.9** (11.5-21.4)	**17.4** (12.1-24.1)	**19.6** (13.1-27.9)	**21.4** (13.9-30.9)
30-day	**9.02** (7.23-11.2)	**10.0** (8.03-12.4)	**11.7** (9.33-14.5)	**13.1** (10.4-16.3)	**15.0** (11.5-19.2)	**16.4** (12.3-21.4)	**17.9** (12.9-23.9)	**19.3** (13.4-26.6)	**21.2** (14.2-30.0)	**22.6** (14.8-32.6)
45-day	**11.3** (9.06-13.9)	**12.3** (9.89-15.2)	**14.0** (11.2-17.4)	**15.4** (12.3-19.2)	**17.4** (13.3-22.2)	**18.9** (14.2-24.5)	**20.4** (14.7-26.9)	**21.7** (15.1-29.7)	**23.3** (15.6-32.8)	**24.4** (15.9-35.0)
60-day	**13.1** (10.6-16.2)	**14.2** (11.4-17.6)	**16.0** (12.8-19.8)	**17.4** (13.9-21.7)	**19.4** (14.9-24.7)	**21.0** (15.8-27.1)	**22.5** (16.2-29.5)	**23.7** (16.6-32.4)	**25.2** (16.9-35.4)	**26.1** (17.1-37.3)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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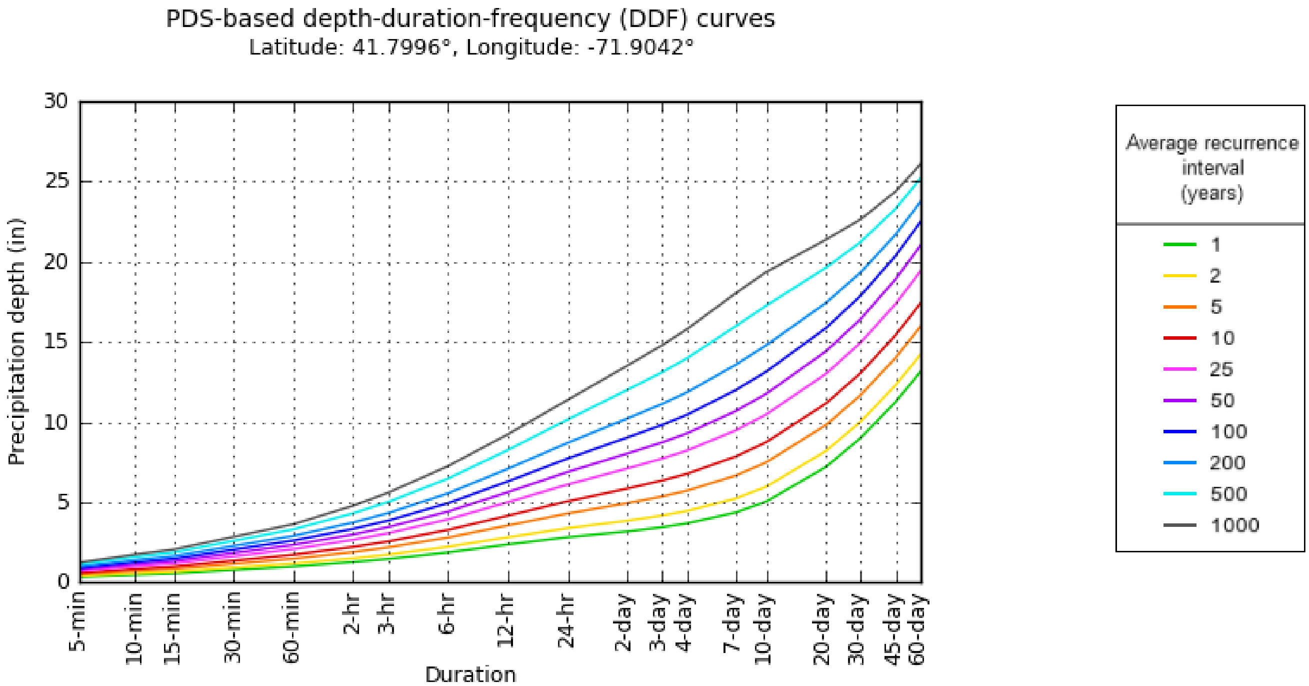
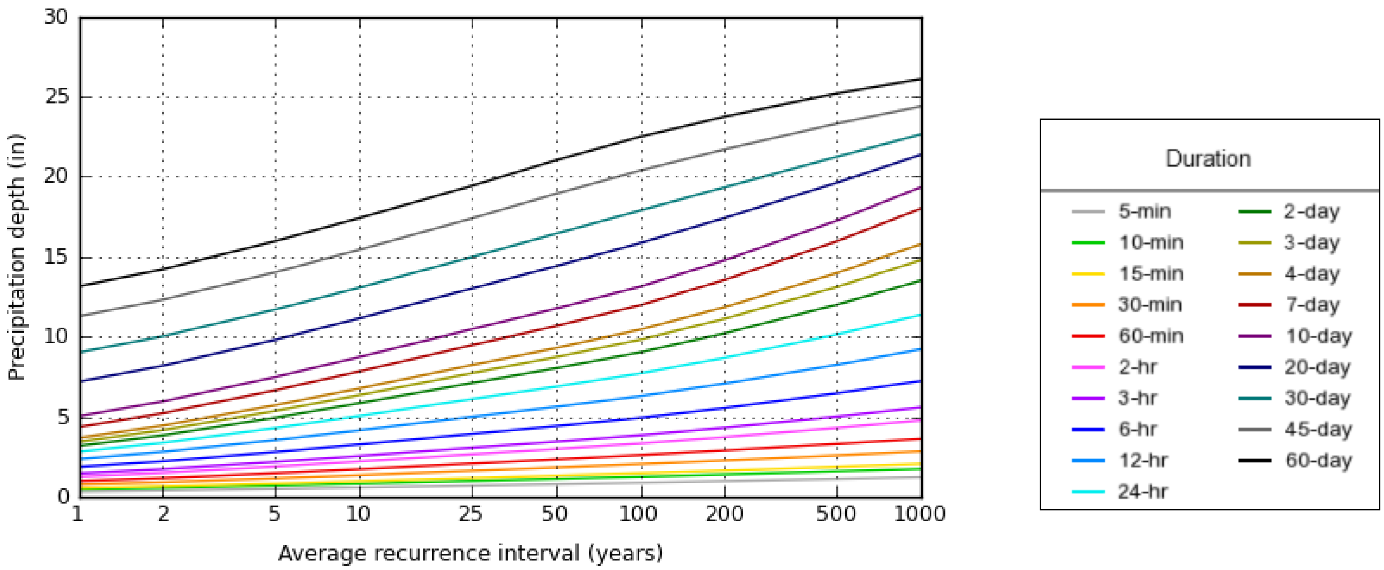
PF graphical





NOAA Atlas 14, Volume 10, Version 3

Created (GMT): Sun Apr 30 14:35:08 2023

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Maps & aerials

Small scale terrain

NOAA Atlas 14, Volume 10, Version 3
Location name: Brooklyn, Connecticut, USA*
Latitude: 41.7996°, Longitude: -71.9042°
Elevation: m/ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**4.03** (3.08-5.23)	**4.79** (3.66-6.22)	**6.02** (4.60-7.85)	**7.04** (5.35-9.24)	**8.46** (6.23-11.5)	**9.53** (6.88-13.2)	**10.6** (7.46-15.2)	**11.8** (7.93-17.3)	**13.5** (8.71-20.3)	**14.8** (9.36-22.7)
10-min	**2.85** (2.18-3.71)	**3.39** (2.59-4.40)	**4.27** (3.25-5.56)	**4.99** (3.79-6.55)	**5.99** (4.41-8.14)	**6.76** (4.87-9.35)	**7.54** (5.29-10.8)	**8.38** (5.62-12.2)	**9.55** (6.17-14.4)	**10.5** (6.62-16.1)
15-min	**2.24** (1.71-2.91)	**2.66** (2.03-3.46)	**3.34** (2.55-4.36)	**3.92** (2.97-5.13)	**4.70** (3.46-6.39)	**5.30** (3.82-7.33)	**5.91** (4.14-8.43)	**6.57** (4.40-9.60)	**7.48** (4.84-11.3)	**8.21** (5.20-12.6)
30-min	**1.55** (1.18-2.01)	**1.84** (1.41-2.39)	**2.31** (1.76-3.02)	**2.71** (2.05-3.55)	**3.25** (2.39-4.42)	**3.66** (2.64-5.07)	**4.09** (2.87-5.83)	**4.54** (3.05-6.64)	**5.17** (3.35-7.80)	**5.68** (3.59-8.72)
60-min	**0.988** (0.756-1.28)	**1.17** (0.898-1.53)	**1.48** (1.13-1.93)	**1.73** (1.31-2.26)	**2.07** (1.53-2.82)	**2.34** (1.69-3.23)	**2.61** (1.83-3.72)	**2.90** (1.94-4.24)	**3.30** (2.14-4.98)	**3.62** (2.29-5.57)
2-hr	**0.632** (0.486-0.818)	**0.751** (0.577-0.972)	**0.944** (0.724-1.23)	**1.11** (0.842-1.44)	**1.33** (0.982-1.80)	**1.49** (1.08-2.06)	**1.67** (1.18-2.38)	**1.87** (1.25-2.71)	**2.15** (1.40-3.22)	**2.39** (1.52-3.64)
3-hr	**0.486** (0.375-0.627)	**0.577** (0.445-0.745)	**0.726** (0.558-0.940)	**0.849** (0.649-1.11)	**1.02** (0.758-1.38)	**1.15** (0.836-1.58)	**1.28** (0.912-1.83)	**1.44** (0.969-2.08)	**1.67** (1.09-2.49)	**1.86** (1.18-2.83)
6-hr	**0.312** (0.242-0.400)	**0.371** (0.287-0.476)	**0.466** (0.360-0.601)	**0.546** (0.419-0.706)	**0.655** (0.489-0.883)	**0.737** (0.540-1.01)	**0.824** (0.590-1.17)	**0.927** (0.626-1.33)	**1.08** (0.704-1.60)	**1.21** (0.771-1.83)
12-hr	**0.196** (0.153-0.250)	**0.233** (0.181-0.298)	**0.294** (0.228-0.377)	**0.345** (0.266-0.444)	**0.415** (0.311-0.555)	**0.466** (0.344-0.637)	**0.522** (0.375-0.738)	**0.587** (0.398-0.840)	**0.684** (0.447-1.01)	**0.765** (0.490-1.15)
24-hr	**0.117** (0.092-0.149)	**0.141** (0.110-0.179)	**0.179** (0.139-0.228)	**0.211** (0.163-0.270)	**0.254** (0.191-0.339)	**0.287** (0.212-0.389)	**0.321** (0.232-0.452)	**0.362** (0.247-0.515)	**0.423** (0.277-0.619)	**0.474** (0.304-0.705)
2-day	**0.066** (0.052-0.084)	**0.080** (0.063-0.101)	**0.103** (0.081-0.131)	**0.122** (0.095-0.155)	**0.148** (0.112-0.196)	**0.167** (0.124-0.226)	**0.188** (0.136-0.264)	**0.213** (0.145-0.301)	**0.250** (0.164-0.364)	**0.281** (0.181-0.416)
3-day	**0.048** (0.038-0.060)	**0.058** (0.046-0.073)	**0.074** (0.058-0.094)	**0.088** (0.069-0.112)	**0.107** (0.081-0.142)	**0.121** (0.090-0.164)	**0.136** (0.099-0.191)	**0.155** (0.106-0.218)	**0.182** (0.120-0.264)	**0.205** (0.132-0.303)
4-day	**0.038** (0.030-0.048)	**0.046** (0.037-0.058)	**0.060** (0.047-0.075)	**0.071** (0.055-0.089)	**0.086** (0.065-0.113)	**0.097** (0.072-0.130)	**0.109** (0.079-0.152)	**0.123** (0.085-0.173)	**0.146** (0.096-0.210)	**0.164** (0.106-0.242)
7-day	**0.026** (0.021-0.032)	**0.031** (0.025-0.039)	**0.040** (0.031-0.050)	**0.047** (0.037-0.059)	**0.056** (0.043-0.074)	**0.063** (0.048-0.085)	**0.071** (0.052-0.099)	**0.081** (0.055-0.113)	**0.095** (0.063-0.137)	**0.107** (0.069-0.157)
10-day	**0.021** (0.017-0.026)	**0.025** (0.020-0.031)	**0.031** (0.025-0.039)	**0.036** (0.029-0.046)	**0.044** (0.033-0.057)	**0.049** (0.037-0.065)	**0.055** (0.040-0.076)	**0.062** (0.042-0.086)	**0.072** (0.048-0.103)	**0.081** (0.052-0.117)
20-day	**0.015** (0.012-0.019)	**0.017** (0.014-0.021)	**0.020** (0.016-0.025)	**0.023** (0.018-0.029)	**0.027** (0.021-0.035)	**0.030** (0.023-0.039)	**0.033** (0.024-0.045)	**0.036** (0.025-0.050)	**0.041** (0.027-0.058)	**0.045** (0.029-0.064)
30-day	**0.013** (0.010-0.016)	**0.014** (0.011-0.017)	**0.016** (0.013-0.020)	**0.018** (0.014-0.023)	**0.021** (0.016-0.027)	**0.023** (0.017-0.030)	**0.025** (0.018-0.033)	**0.027** (0.019-0.037)	**0.029** (0.020-0.042)	**0.031** (0.020-0.045)
45-day	**0.010** (0.008-0.013)	**0.011** (0.009-0.014)	**0.013** (0.010-0.016)	**0.014** (0.011-0.018)	**0.016** (0.012-0.021)	**0.018** (0.013-0.023)	**0.019** (0.014-0.025)	**0.020** (0.014-0.028)	**0.022** (0.014-0.030)	**0.023** (0.015-0.032)
60-day	**0.009** (0.007-0.011)	**0.010** (0.008-0.012)	**0.011** (0.009-0.014)	**0.012** (0.010-0.015)	**0.013** (0.010-0.017)	**0.015** (0.011-0.019)	**0.016** (0.011-0.021)	**0.016** (0.012-0.022)	**0.018** (0.012-0.025)	**0.018** (0.012-0.026)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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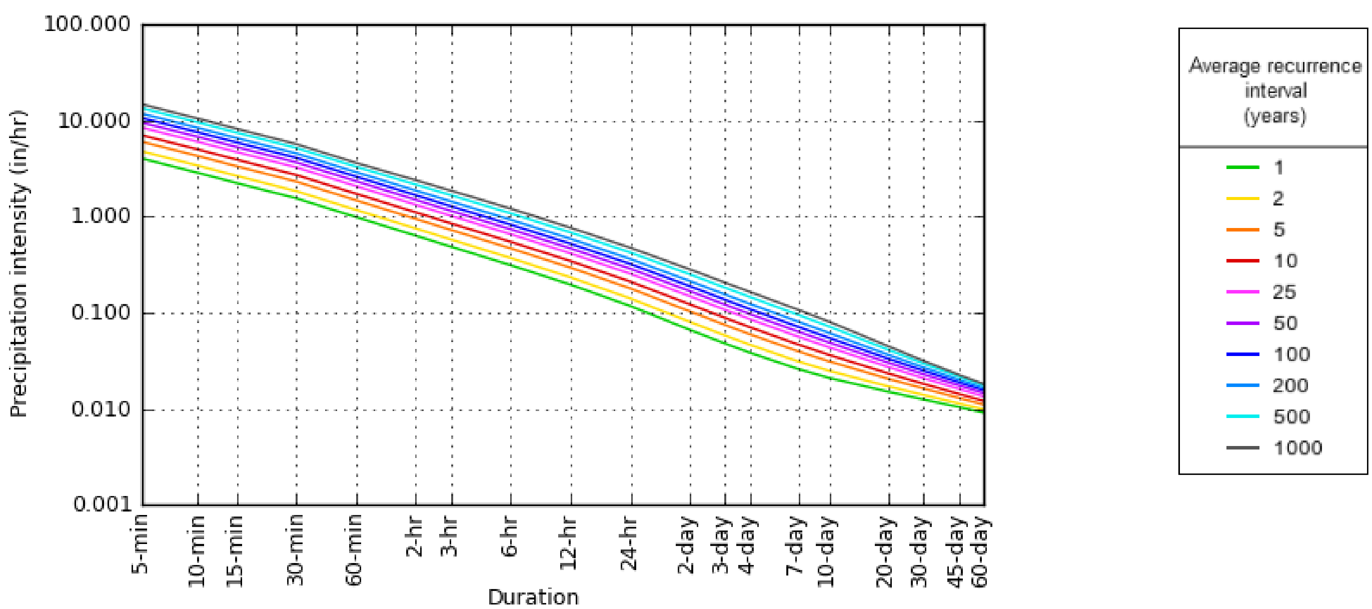
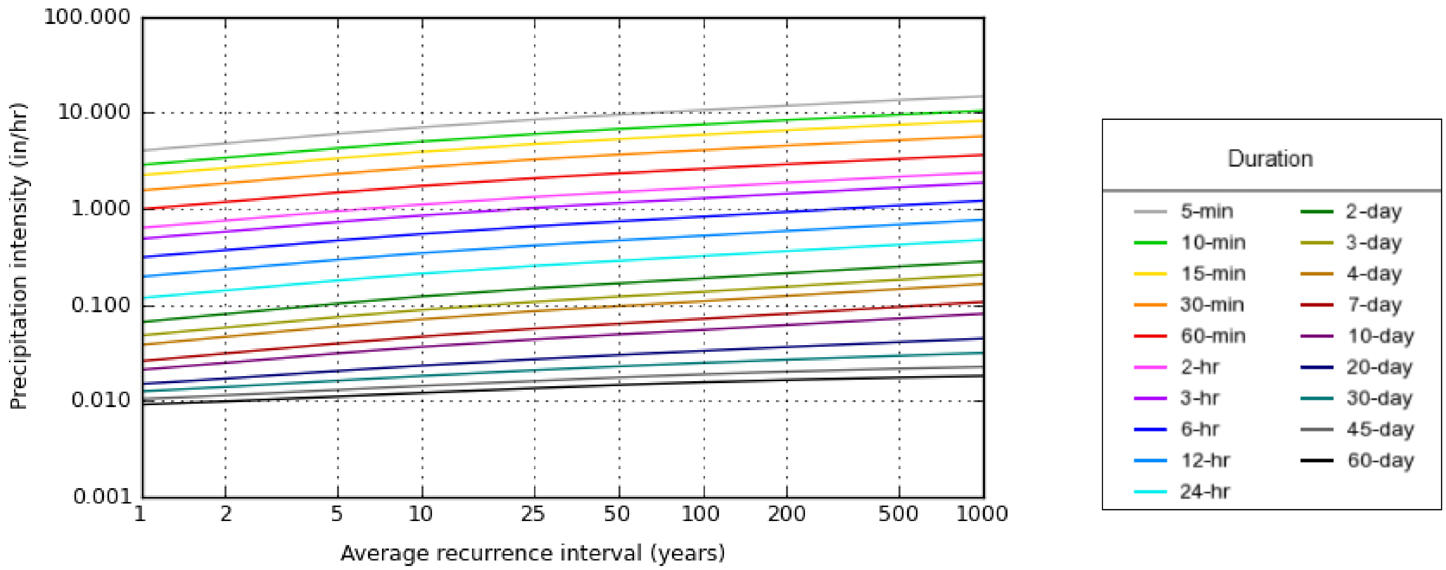
PF graphical

PDS-based intensity-duration-frequency (IDF) curves
Latitude: 41.7996°, Longitude: -71.9042°





NOAA Atlas 14, Volume 10, Version 3

Created (GMT): Sun Apr 30 14:38:37 2023

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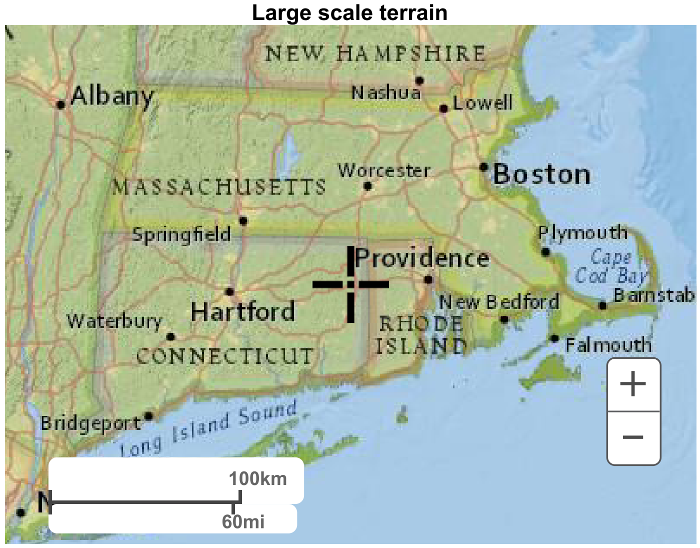
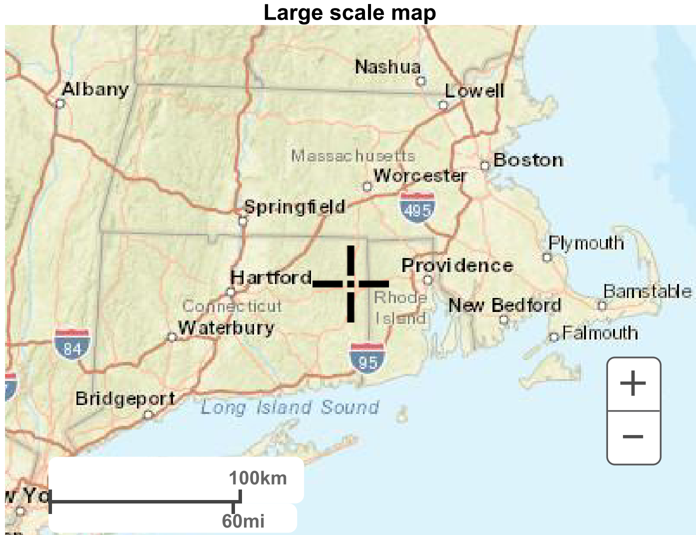
Maps & aerials

Small scale terrain

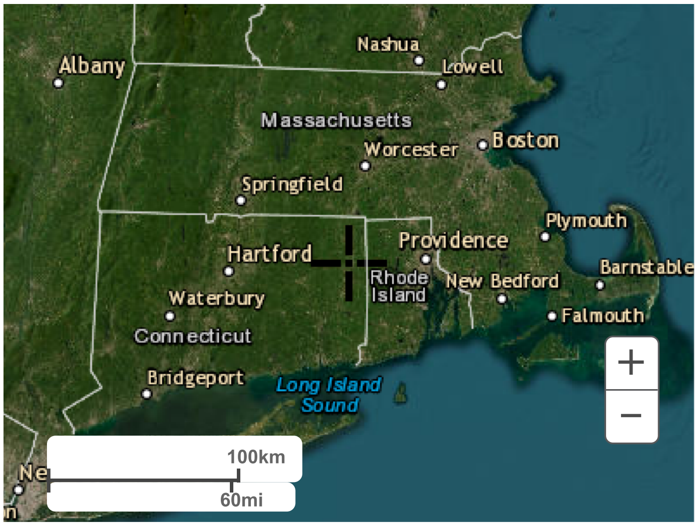
Large scale terrain



Large scale map



Large scale aerial



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Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

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DRAINAGE & CONSERVATION EASEMENT DOCUMENTS

8-3-2005

DRAINAGE AND CONSERVATION EASEMENT

THE DOWNES-PATTERSON CORPORATION, a Connecticut corporation, with a principal place of business in Westerly, Rhode Island, hereinafter known as Grantor, in lieu of being required to construct stormwater detention facilities with the purpose of reducing peak discharges, does hereby grant to the **TOWN OF BROOKLYN**, a municipality organized under the laws of the State of Connecticut, located in the County of Windham and State of Connecticut, hereinafter known as Grantee, a drainage and conservation easement over that piece or parcel of land in the Town of Brooklyn, County of Windham and State of Connecticut, as more particularly described in **Schedule A**, attached hereto.

The rights, responsibilities and restrictions of the parties regarding said drainage and conservation easement shall be as specified herein:

Article I Grantor's Rights and Responsibilities

a. The Grantor shall allow the Grantee to construct the water quality swales as shown on the plan entitled, "Klotz Property Regional BMPs, Town of Brooklyn, CT Stormwater Management Plan Sheets 4 & 5, by J & D Civil Engineers, Scale 1" = 40', dated June 30, 2003.

b. To provide access over any and all parts of its property as may be necessary for the Grantee to construct, clean, maintain, repair and replace the water quality swales.

c. Grantor agrees, at such time as the property is developed, to construct a chain link fence around the water quality swale on the western half of the property. The fence location, access gate locations, height and specific fence materials shall be determined as part of the site plan application and approval process.

d. The Grantor shall allow the Grantee to use soil materials stockpiled on-site for construction of the swales and/or allow surplus soil materials excavated from the construction to be spread on the property outside of the easement area.

e. To allow discharge from other properties into the swales, subject to approval of appropriate Town Boards and Commissions.

f. Grantor shall have the right to discharge its stormwater runoff into the water quality swales and the drainage and conservation easement in one or more locations subject to the approval of appropriate Town Commissions.

CONVEYANCE TAX RECEIVED
STATE $ -0- TOWN $ -0-
Merilyn L. Benson
ASST. TOWN CLERK

g. Grantor shall provide pre-treatment of stormwater from the developed portion of the Grantor's property prior to discharging to the water quality swales. The following performance standards for stormwater discharge shall apply.

1. Stormwater management conveyance systems must be designed to remove 80% of the annual average load of Total Suspended Solids (TSS). It shall be presumed that this standard is met when stormwater management best management practices (BMPs) are sized to treat 0.5 inches of runoff times the impervious area of the post-development project site. TSS removal rates of BMPs must be documented from current EPA or Connecticut DEP design guidelines.

2. Rooftop runoff except from flat industrial roofs made of galvanized metal or copper, may be considered uncontaminated and not require pre-treatment prior to discharge to the drainage and conservation easement.

Article II Grantee's Rights and Responsibilities

a. To construct the water quality swales, as shown on the plan entitled, "Klotz Property Regional BMP's, Town of Brooklyn, CT Stormwater Management Plan Sheets 4 & 5, by J & D Civil Engineers, Scale 1" = 40', dated June 30, 2003, at its sole cost and expense within 3 years of the date of this agreement.

b. To construct the upgrade to the Westview Drive drainage system, as shown on the plans entitled, 'Westview Drive Drainage System, Town of Brooklyn, CT Stormwater Management Plan Sheets 1-3, by J & D Civil Engineers, Scale 1" = 40', dated June 30, 2003, at its sole cost and expense within 3 years of the date of this agreement.

c. To allow the Grantor to discharge stormwater from the developed portion of the property into the Town's regional stormwater quality swales in one or more locations subject to the approval of appropriate Town Commissions. The Grantor shall not be required to construct stormwater detention facilities to reduce peak discharges.

d. To operate, maintain, repair and replace the water quality swales.

e. To restore any of the Grantor's property disturbed during said operation, maintenance, repair and replacement to an equal or better condition.

f. To not interfere with the Drainage Easement and Right-of-Way in favor of the State of Connecticut, as shown on the map referenced on Schedule A, attached hereto

g. To allow the Grantee reasonable access for construction and maintenance purposes for its proposed development near the perimeter of the easement, and in that context, to allow the Grantee reasonable rights to slope, as required for the proposed development near the perimeter of the easement.

Article III Grantor's Restrictions

The restrictions hereby imposed upon the use of said drainage and conservation easements, and the acts which the owners of the underlying fee interest of said drainage and conservation easements, its successors and assigns, so covenant to refrain from doing upon the drainage and conservation easements are and shall be as follows:

a. The construction or placing of buildings, trailers, signs, billboards, or other advertising on or above the ground

b. The dumping of trash, leaves, grass clippings, waste, ash, rubbish, garbage or any unsightly or offensive materials.

c. The removal, cutting or destruction of trees or shrubs, except to the extent approved by the Grantee for conservation purposes, for reasonable access to its proposed development near the perimeter of the easement, or for the creation of reasonable slopes to support the development near the perimeter of the easement.

d. The excavation, dredging or removal of loam, soil and other material substances in such manner as might adversely affect the natural drainage or surface; or the changing of the topography through the placing of soil or other substances or material, such as landfill, except to the extent approved by the Grantee for reasonable slopes and construction of the proposed development near the perimeter of the easement.

e. Any activities or uses detrimental to drainage, flood control, water conservation, erosion control, soil conservation, fish and wildlife or habitat preservation.

The herein Grantor expressly acknowledges that this instrument is executed subject to and in conformity with provisions of Connecticut General Statutes Sections 47-42a through 47-42c regarding conservation and preservation restrictions and enforcement. The Grantor further covenants and agrees for itself, its successors and assigns, that in addition to any other rights which may accrue to the TOWN OF BROOKLYN generally or to any of its entities, boards or commissions, that the Board of Selectmen of the TOWN OF BROOKLYN, its successors and assigns, shall be entitled to maintain an action for equitable relief specifically including prohibitory and mandatory injunctions to remedy any breech of this easement which shall constitute a covenant running with the land.

Article IV Grantee's Restrictions

The Grantee shall not interfere with the business operations of the Grantor during its maintenance of the swales.

Article V Miscellaneous Provisions

a. If the Town is unable to acquire funding to construct the water quality swales and upgrade to the Westview Drive drainage system, this agreement shall be null and void.

b. Each party shall bare their own costs of enforcement of this Agreement.

IN WITNESS WHEREOF, the undersigned has set its hand and seal to this Drainage and Conservation Easement this 11 day of July, 2005.

Signed, sealed and delivered in the presence of:

Marie T. Ackley
Marie T. Ackley

V.R.O. B.L
V.R.O. B.L

THE DOWNES-PATTERSON CORPORATION

Nancy S. Klotz, Pres.
Nancy S. Klotz
Its
Duly Authorized Pres.

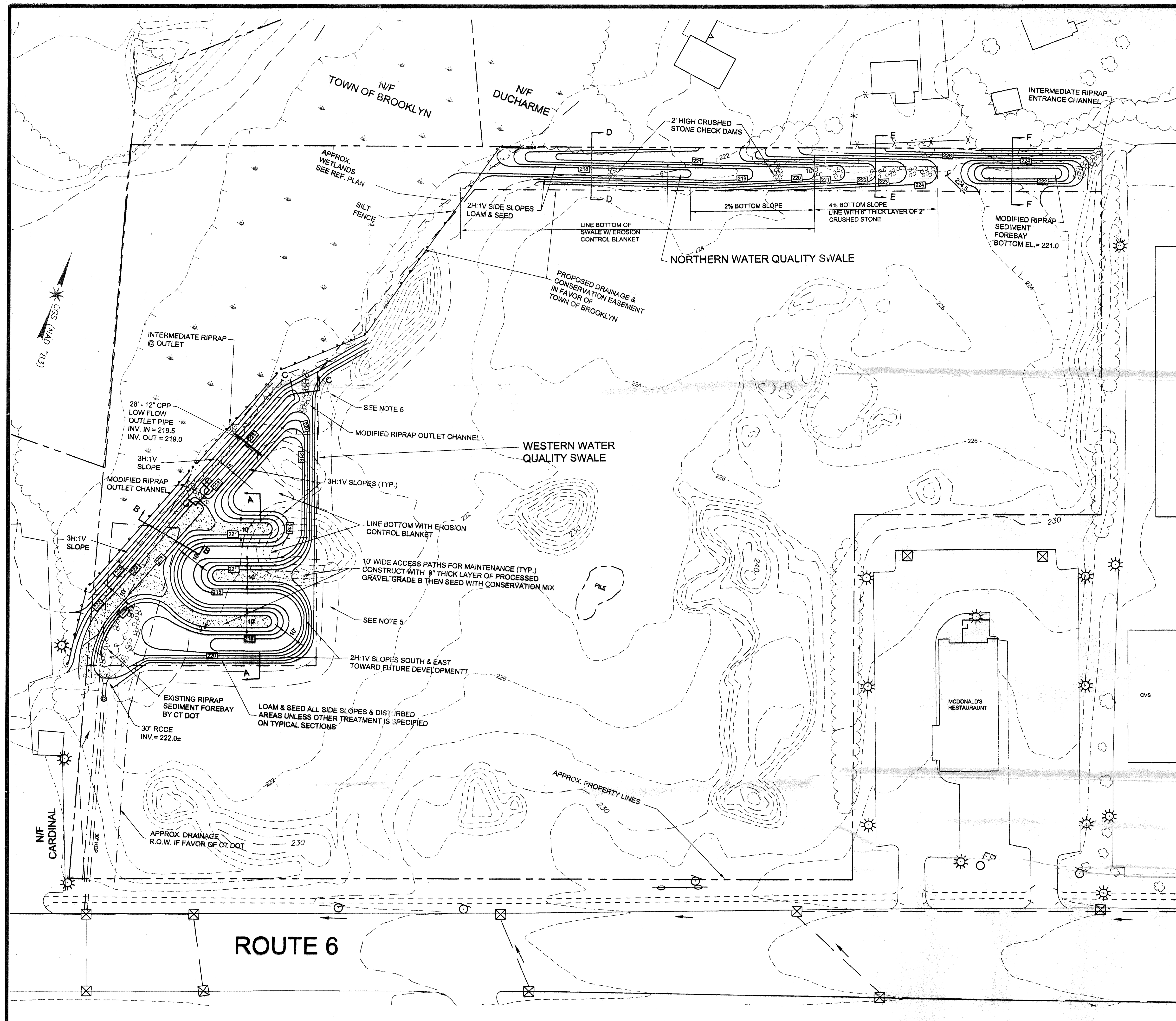
Signed, sealed and delivered in the presence of:

Marilyn L Benson
MARILYN L BENSON

Stephanie M Koloff
STEPHANIE M. KOGOFF

TOWN OF BROOKLYN

Maurice F. Brown
Its
Duly Authorized FIRST SELECTMAN



REFERENCE PLAN:

A PLAN ENTITLED "PROPERTY SURVEY AND EXISTING CONDITIONS PLAN, PROPERTY OF DOWNES PATTERSON CORPORATION, U.S. ROUTE 6 (EAST MAIN STREET) - BROOKLYN, CONNECTICUT." PLAN PREPARED BY: DICESARE-BENTLEY ENGINEERS, INC., DATE NOVEMBER 23,1994 - REVISED MARCH 23, 1995. SCALE 1" = 40'.

CONSTRUCTION NOTES:

1.) A 2' CONTOUR INTERVAL IS SHOWN FOR EXISTING CONTOURS. A 1' CONTOUR INTERVAL IS SHOWN FOR PROPOSED CONTOURS IN ORDER TO CLARIFY PROPOSED GRADES.

2.) CONSTRUCTION ACTIVITIES MUST BE STAKED OUT BY A LICENSED LAND SURVEYOR.

3.) VEGETATION MUST BE ESTABLISHED PRIOR TO PERMITTING STORMWATER TO ENTER WATER QUALITY SWALES. TEMPORARY BYPASSES SHALL BE PROVIDED UNTIL VEGETATION IS ESTABLISHED. LOCATIONS & METHODS OF BYPASSING MUST BE APPROVED BY THE ENGINEER.

4.) SEE SHEET 5 FOR CROSS SECTIONS.

5.) WESTERN WATER SWALE: PROPOSED GRADE ON THE SOUTH AND EAST SIDES AS SHOWN ENDS IN A FILL SITUATION WITH CONTOUR 223. IT WILL BE NECESSARY TO CONSTRUCT A TEMPORARY EARTHEN MOUND, UNTIL THE SITE IS DEVELOPED, TO CONTAIN RUNOFF WITHIN THE SWALE.

2006236

NO.	DATE	REVISION

DRAWN: LML
DESIGNED: JJB
CHECKED: DRB
APPROVED: JJB

SCALE 1" = 40' H

DATE JUNE 2003

J & D CIVIL ENGINEERS
401 RAVENELLE ROAD
THOMPSON, CONNECTICUT

TOWN OF BROOKLYN, CONNECTICUT
STORMWATER MANAGEMENT PLAN
DAY STREET/WESTVIEW DRIVE WATERSHED TO THE QUINEBAUG RIVER
CONNECTICUT DEP 319 NONPOINT SOURCE MANAGEMENT GRANT PROGRAM

KLOTZ PROPERTY
REGIONAL BMP'S

SHEET NO.: 4

01146

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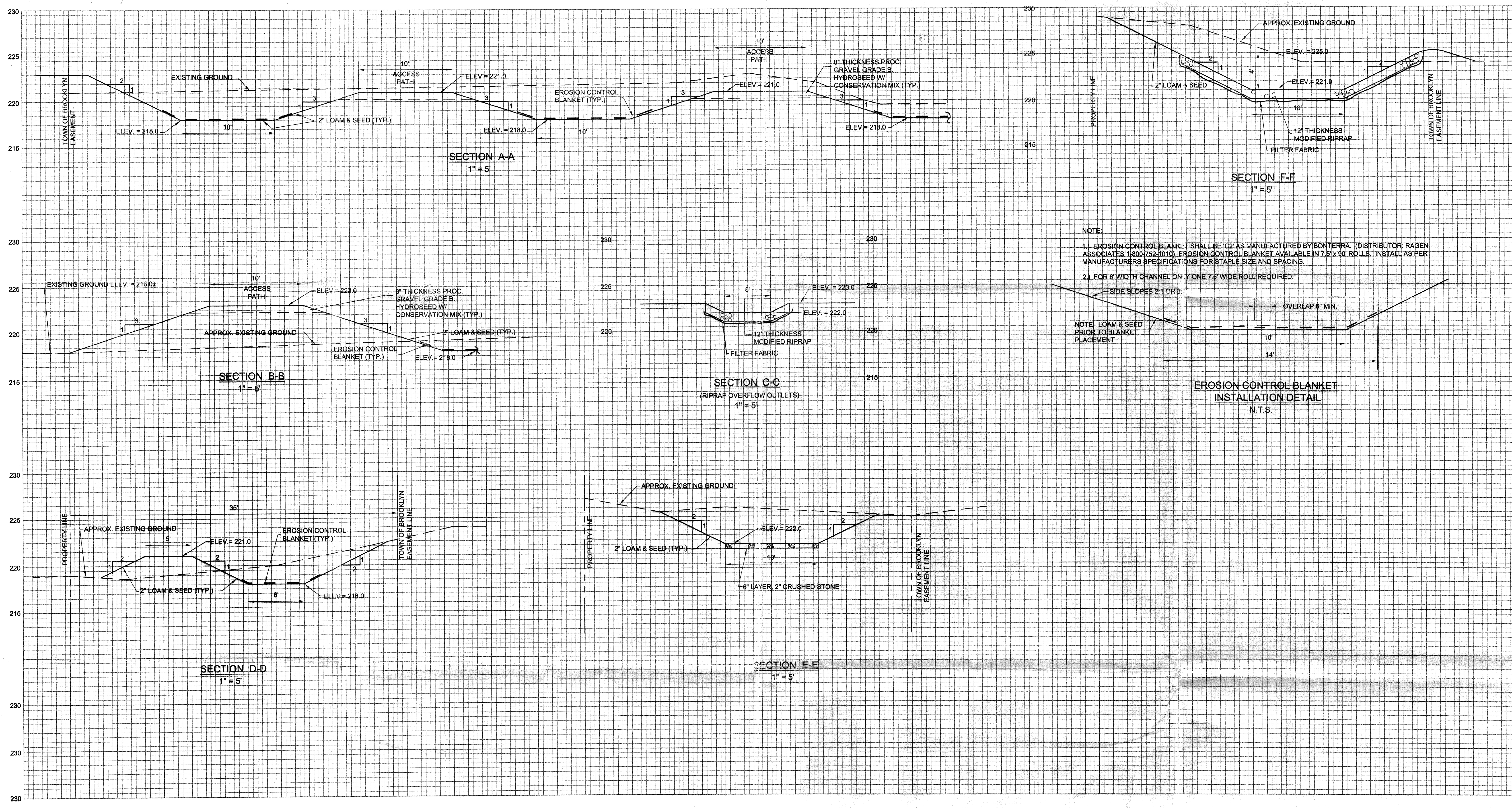

NO.	DATE	REVISION

DRAWN: LML
DESIGNED: JJB
CHECKED: DRB
APPROVED: JJB

SCALE: AS NOTED
DATE: JUNE 2003

J & D CIVIL ENGINEERS
401 RAVENELLE ROAD
THOMPSON, CONNECTICUT

TOWN OF BROOKLYN, CONNECTICUT
STORMWATER MANAGEMENT PLAN
DAY STREET/WESTVIEW DRIVE WATERSHED TO THE QUINEBAUG RIVER
CONNECTICUT DEP 319 NONPOINT SOURCE MANAGEMENT GRANT PROGRAM

DETAILS AND TYPICAL CROSS SECTIONS

SHEET NO.: 5
01146

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Evaluation and Selection of BMPs

Town Of Brooklyn Stormwater Management Plan

Day Street/Westview Drive Watershed to the Quinebaug River

Connecticut DEP
319 Nonpoint Source Management Grant Program
01-26SUP

April 2003
Revised June 2003

Prepared by:

J & D Civil Engineers
401 Ravenelle Road
No. Grosvenordale, CT 06255

Introduction

The Town of Brooklyn is participating in the Connecticut Department of Environmental Protection's (DEP) 319 Nonpoint Source Management Grant Program. The project area, a 200-acre watershed, contributes to the Quinebaug River and is part of the Thames River major basin. This report was prepared to evaluate structural and non-structural BMPs to improve water quality as part of a regional stormwater management plan.

The watershed contains the majority of commercially zoned land in the Town of Brooklyn. It also contains nearly fully developed residential neighborhoods with relatively small lot sizes (12,000 S.F. - 30,000 S.F.).

Non-Structural Best Management Practices

Watershed specific measures

The following additional measures will be specifically implemented in the Day Street/Westview Drive watershed.

1. **Promote Infill Development**

   One relatively large and several smaller commercially zoned properties remain undeveloped along Route 6. Route 6 is currently being widened by DOT and contains the utilities required for commercial development. These properties along Route 6 are important for the Town's economic development. The Town is encouraging development of these properties where the extensive infrastructure exists rather than extending utilities and infrastructure to other parts of the predominantly rural town. This concept is supported by both the Board of Selectmen and the Economic Development Commission.

2. **Land Conservation**

   The Town of Brooklyn acquired three key parcels of land adjacent to the Quinebaug River to protect them from future commercial or residential development. The parcels are contiguous and total approximately 41 acres. The Town can now manage activities along more than 3500 linear feet of the Quinebaug River. A 6-acre upper portion of the property has a conservation easement on it that limits any activities to passive recreation and stormwater maintenance.

   All of the runoff from the watershed ultimately travels through these properties prior to it entering the Quinebaug River. Preserving the most downstream segment of the watershed in a natural condition will help maintain a healthy hydrologic response in the watershed. All of the runoff from the 200-acre watershed must travel approximately 2000 feet through a densely vegetated wetland and intermittent stream prior to joining the Quinebaug River. This existing hydrologic reserve provides natural infiltration, interception of contaminants and natural storage of rainfall.

The Town also intends to obtain a drainage and conservation easement along the most downstream edge of the largest undeveloped commercial property. This will not only remove this portion of the watershed from commercial development but will allow the construction of some structural BMPs at a critical point in the watershed.

3. Public Outreach and Education

The Town of Brooklyn intends to prepare and distribute brochures to residences and businesses in the watershed. Two educational direct mailings will be performed. Each will be tailored to pollution prevention for the type of use on the property. The Town intends to use appropriate portions of the "Voluntary Pollution Prevention Program for Businesses" prepared for the Hokanum River Watershed to create a brochure for commercial areas of this watershed. The brochure will emphasize non-structural BMPs such as litter control, catchbasin maintenance, landscaping, etc. Both the residential and commercial brochures will be accompanied by a map describing specific watershed issues and the connection to the Quinebaug River.

Town-wide measures

1. Catchbasin Cleaning

The Town is developing a priority list for catch basin cleaning. In the past Brooklyn has rented a catchbasin vacuum every spring. This rental process somewhat limits the Town's ability to thoroughly clean all catchbasins because of the relatively short rental period. The Public Works Department is hoping to purchase a new piece of equipment that will both sweep the roads and clean catchbasins. These measures will help to improve stormwater quality on a town wide basis.

2. Update and Revise Town Regulations and Requirements

In April 2003 the Town's Conservation Commission revised its regulations to give it the ability to comment on all development projects and make recommendations on land that should be protected by conservation easements as well as recommendations on specific stormwater BMPs. Although the Commission's recommendations are advisory to the Planning and Zoning Commission, the P & Z Commission has the authority to require that the recommendations be followed.

Also the Town's Subdivision Regulations were revised to give the P & Z Commission the option of requesting payment in lieu of open space on subdivisions of three or more lots.

3. **Open Space Acquisition**

The Town established a group known as the "Brooklyn Open Space Acquisition Committee" (BOSAC). If the P & Z Commission requests payment in lieu of open space the funds are transferred to BOSAC. This mechanism will allow the Town to purchase sensitive environmental properties. Brooklyn also participated in the Green Valley Institute's "Open Space Inventory" program. This enabled Town officials, staff and volunteer commission members to become better educated on the value of preserving open space and its positive effects on region wide water quality.

Proposed Structural Best Management Practices

The non-wetland upper portion of the watershed is almost fully developed commercially and residentially. As development proceeded over the years and the percentage of impervious area increased the quality of the stormwater runoff diminished. Evidence of significant amounts of sediment and trash can be seen just downstream of the commercially developed areas and the main outlet pipe for Route 6. Stormwater quality BMPs are practically non-existent, particularly in the older areas. The runoff from most of the commercial portion of the watershed ultimately drains to the Westview Drive drainage system. This system in is approximately 30 years old and in fair condition. There is insufficient capacity in the Westview Drive drainage system to handle existing flows.

As Phase I of their structural improvements the Town intends to construct improvements near the middle of the watershed, just downstream of most of the commercial sites where the most improvements can be realized.

Numerous publications and technical journals were reviewed to investigate alternatives and the latest ideas in innovative stormwater management BMPs. Connecticut DEP has pending a publication which will be entitled "Connecticut Stormwater Quality Manual". One of the most practical sources reviewed was the 1997 Massachusetts DEP's Stormwater Management Handbook, Volumes One and Two. These volumes not only describe BMPs but also provide design guidelines and list effectiveness of various BMPs. The first two sheets of the appendix to this report are copies of tables from both Volume One and Volume Two of the MA DEP manual. All of the structural BMPs listed in the tables were initially considered for this project. The factors that weighed heavily in the selection of BMPs for this particular project included physical site constraints, pollutant removal efficiency, construction costs, and maintenance requirements.

Systems that rely on significant infiltration were ruled out due to the high ground water table and the relatively large size of the watershed. Filtration systems were not considered appropriate due to the high maintenance costs. Underground water quality chambers were not chosen because the large size of the watershed would have resulted in significant construction and maintenance expenses. The chosen BMPs can be readily maintained by the Town's Public Works Department.

The following BMPs were selected:

1. Sediment Forebays

The point discharges from Route 6, the Klotz property and the CVS/Job Lot plaza will be directed to sediment forebays prior to entering the water quality swale. The Route 6 runoff currently enters a newly installed riprap sediment forebay prior to entering the wetlands. These sediment forebays will provide pretreatment of the runoff.

2. Water Quality Swale

The Town intends to construct a 10-foot wide, approximately 800 feet long water quality swale to treat runoff from commercial properties prior to it entering the large wetland system north of Route 6. A 300-foot long portion of the swale will be constructed near the water table to function as a "wet" swale. Wetlands species will be planted or selectively allowed to "volunteer" in part of the swale. This swale will overflow into the large wetland system that drains towards Westview Drive. The upper portions of the water quality swale will be "dry" and will be constructed with bottom gradients of no greater than 2%. The bottom of the upper "dry" portion will be lined with riprap or crushed stone to prevent erosion and to trap particulates. Water quality swales have total suspended solids (TSS) removal rates between 60% and 80%.

3. Deep Sump Catch Basins

A new storm drainage system will be installed in Westview Drive. All of the new catch basins will be installed with four-foot sumps to minimize the probability of sediment transport to the Day Street outlet where the flow enters the natural wetland system owned by the Town that leads to the River.

These proposed BMPs can be seen on the plans entitled "Preliminary Drainage Design, Town of Brooklyn, CT Stormwater Mangement Plan, Day Street/Westview Drive Watershed to the Quinebaug River, CT DEP 319 Nonpoint Source Management Grant Program" prepared by J & D Civil Engineers, dated April 2003.

Future Best Management Practices

The BMPs described earlier in this report have either been undertaken or have a high probability of implementation because the funding is in place or it can occur on

Town owned or controlled property. Those BMPs listed below are appropriate for inclusion in the watershed and should be considered when the opportunity for implementation arises.

1. Sewer Construction

The Town is considering installing sewers in Westview Drive and lower Day Street. These fully developed areas consist of lots whose small sizes make on-site septic system repairs difficult to accomplish. Also, most of the homes are at the age where the lives of their existing leachfields have expired. It is suspected, that due to the close proximity of these lots' septic systems to the existing storm drains, that some sewage may be making its way into the storm drainage system. Also, residents have been known to pump their washing machine wastewater directly to their lawns to avoid overtaxing their septic systems.

2. Day Street Drainage

The Town has applied to CT DOT to participate in their "urban collector" road reconstruction program. The Town has an excellent chance of receiving grant money from DOT for the reconstruction of Day Street in 2005. This will give Brooklyn the opportunity to upgrade the drainage system. The existing system is about 50 years old and many of the catch basins have no sumps. Currently, significant amounts of sediment from this system are carried to the wetland at the drainage outlet northeast of the intersection with Westview Drive. The Town would like to install new deep sump catch basins on the road when it is reconstructed.

3. Require Incorporation of BMP's for additions/revisions to existing commercial properties

Most of the commercially zoned land in the upper watershed has already been developed. However, if the owners of these properties undertake renovations or wish to construct additions they may be required to get new wetlands or zoning permits. Under these circumstances the commissions could request or require new BMPs. This could include eliminating un-used pavement and putting in landscaping or water quality swales. It could also include retrofitting existing catchbasins with hooded inlet pipes or adding signs to discourage littering.

4. **Join a Regional Stormwater Utility**

Brooklyn has opened a dialog with NECCOG to investigate the feasibility of forming a regional Stormwater Utility in the 11 town northeastern Connecticut area.

APPENDIX

Evaluation and Selection of BMPs

Town Of Brooklyn Stormwater Management Plan

Day Street/Westview Drive Watershed to the Quinebaug River

TSS Removal Rates (adapted from Schueler, 1996 & EPA, 1993)

BMP List	Design Rate	Range of Average TSS Removal Rates	Brief Design Requirements
Extended Detention Pond	70%	60-80%	Sediment forebay.
Wet Pond (a)	70%	60-80%	Sediment forebay.
Constructed Wetland (b)	80%	65-80%	Designed to infiltrate or retain.
Water Quality Swale	70%	60-80%	Designed to infiltrate or retain.
Infiltration Trench	80%	75-80%	Pretreatment critical.
Infiltration Basin	80%	75-80% (predicted)	Pretreatment critical.
Dry Well	80%	80% (predicted)	Rooftop runoff (uncontaminated only.
Sand Filter (c)	80%	80%	Pretreatment.
Organic Filter (d)	80%	80% +	Pretreatment.
Water Quality Inlet	25%	15-35% w/cleanout	Off-line only; 0.1" minimum Water Quality Volume (WQV) storage.
Sediment Trap (Forebay)	25%	25% w/cleanout	Storm flows for 2 year event must not cause erosion; 0.1" minimum WQV storage.
Drainage Channel	25%	25%	Check dams; non-erosive for 2 yr.
Deep Sump and Hooded Catch Basin	25%	25% w/cleanout	Deep sump general rule = 4 x pipe diameter or 4.0' for pipes 18" or less.
Street Sweeping	**10%**	**10%**	**Discretionary non-structural credit, must be part of approved plan.**

Notes:
(a) Includes wet extended detention ponds, wet ponds, multiple pond designs.
(b) Includes shallow marsh, extended detention wetlands, pocket wetland, and pond/wetland designs.
(c) Includes surface, underground, pocket, and perimeter designs.
(d) Includes compost, peat/sand, and bio/filtration designs.

<u>Land Uses with Higher Potential Pollutant Loads (Standard 5)</u>

Residential, office, and institutional development and roads normally will not yield high potential pollutant loads. However, certain land uses generate higher concentrations of pollutants than found in typical runoff, based

Table 3.2: Comparison of Issues for BMP Selection (adapted from MWCOG, 1992)

BMP	Pollutant Removal Reliability	Longevity	Maintenance Requirements	Applicability to Sites	Environmental Concerns	Comparative Cost	Special Considerations
(Extended) Detention Basin	Moderate	20+ years	Low	Widely applicable, larger drainage areas (10+ acres)	Possible downstream warming; low bacteria removal	Low to Moderate	Available land area; design considerations; sediment forebay
Wet (Retention) Pond	Moderate to high	20+ years	Low to moderate	Widely applicable, larger drainage areas (7+ acres)	Possible downstream warming; low bacteria removal	Moderate to high	Available land area; design considerations; sediment forebay
Constructed Stormwater Wetland	Moderate to high	20+ years	Low to moderate	Widely applicable, larger drainage areas (7+ acres)	Possible downstream warming; wildlife benefits	Marginally higher than wet ponds	Available land area; design considerations; sediment forebay
Water Quality Swale	Moderate	20+ years	Low to moderate	Widely applicable	Restricted use for hotspots	Low to Moderate	Pretreatment; check dams; careful design
Infiltration Trench	Moderate to high	High rates of failure within first 5 years	High	Highly restricted: small sites, proper soils, depth to water table and bedrock, slopes	Potential for ground water contamination; restricted use for hotspots	High; rehabilitation costs can be considerable	Recommended with careful site (soils) evaluation and pretreatment
Infiltration Basin	Moderate	High rates of failure within first 5 years	High	Highly restricted: small sites, proper soils, depth to water table and bedrock, slopes	Potential for ground water contamination; restricted use for hotspots	Moderate; rehabilitation costs can be high	Not widely recommended until longevity is improved
Organic Filters	Moderate to high	20+ years	High	Widely applicable for small sites	Minor	High; frequent maintenance	Recommended with careful design; pretreatment
Sand Filters	Moderate to high	20+ years	High	Widely applicable for small sites	Minor	High; frequent maintenance	Recommended with careful design; pretreatment
Water Quality Inlets	Low	20+ years	Moderate to high	Small, highly impervious areas (<2 acres)	Resuspension of PAH loadings. Disposal of residuals.	Moderate to High	Pretreatment technology, off-line
Sediment Trap (Forebay)	Low	20+ years	Moderate	Widely applicable as pretreatment	Resuspension of accumulated sediment if not maintained	Low to moderate	Pretreatment technology
Drainage Channel	Low	20+ years	Low to moderate	Low density development and roads	Erosion, resuspension	Low	Pretreatment technology, with check dams
Deep Sump (Modified) Catch Basin	Low	20+ years	Moderate	Small, highly impervious areas (<2 acres)	Resuspension of accumulated sediment if not maintained	Low to Moderate	Pretreatment technology, design modified with sump

J & D CIVIL ENGINEERS
401 RAVENELLE ROAD
North Grosvenordale, CT 06255
(860) 923-2920 FAX (860) 923-3487

STORMWATER QUALITY CALCULATIONS

SEE WATERSHED MAP

INSTALL STRUCTURAL BMP'S BETWEEN COMMERCIAL DEVELOPMENT & LARGE WETLAND IN DRAINAGE BASINS F-2 & E.

TOTAL DRAINAGE AREA UP TO WETLAND IS

22 AC (F-1) + 17 AC (PORTION F-2 UP TO WETLAND) = 39 AC

FOR RUNOFF VOLUME (WQV) TO BE TREATED TO WATER QUALITY SWALE

IMPERVIOUS AREA* = 21 ACRES

* ASSUMES FULL BUILD OUT OF KLOTZ PROPERTY

- IF TREAT 0.5 IN RUNOFF VOLUME TO BE TREATED:

$$\frac{(0.5\ IN)(21\ AC)}{12\ IN} \frac{43560\ FT^2}{AC}(FT) = \underline{\underline{38,115\ FT^3}}$$

$$= \underline{\underline{0.88\ AC\text{-}FT}}$$

- IF TREAT 1" RUNOFF VOLUME =

$\underline{\underline{76,230\ FT^3}}$

$\underline{\underline{1.75\ AC\text{-}FT}}$

FOR WQV TO BE TREATED FOR SEDIMENT TRAP (FOREBAY) FROM 'JOB LOT' PROPERTY

IMPERVIOUS D.A = 6.8 AC

MA DEP GUIDLINES RECOMMEND TREATING 0.1"

$$\frac{0.1\ IN\ (6.8AC)(43560\ FT^2)(FT)}{12\ IN\ (AC)} = \underline{\underline{2470\ FT^3}}$$

JOB NO. 01146

DATE

BY

CH'D BY

J & D CIVIL ENGINEERS
401 RAVENELLE ROAD
North Grosvenordale, CT 06255
(860) 923-2920 FAX (860) 923-3487

JOB

SUBJECT

CLIENT

DESIGN SEDIMENT FOREBAY FOR RUNOFF FROM 'JOB LOT' PLAZA

COMMENTS: CONC BOTTOM PREFERABLE FOR MAINTAINENCE

OPEN UNIT EASIER TO MAINTAIN BUT NOT AS SAFE

IF DEPTH = 4' THE BOTTOM AREA = $\frac{2470}{4}$ = 617 FT^2

OR ABOUT 15' x 40'

WITH THIS LARGE SIZE CONC BOTTOM OR CLOSED UNITS PROBABLY NOT FINANCIALLY FEASIBLE

∴ DESIGN OPEN, RIPRAP UNIT SIMILAR TO DOT'S

SEE DESIGN PLAN: SET BOTTOM ELEV @ 221 w/ OVERFLOW EL INTO STORMWATER QUALITY SWALE @ 225.0

CHECK SIZE OF WATER QUALITY SWALE

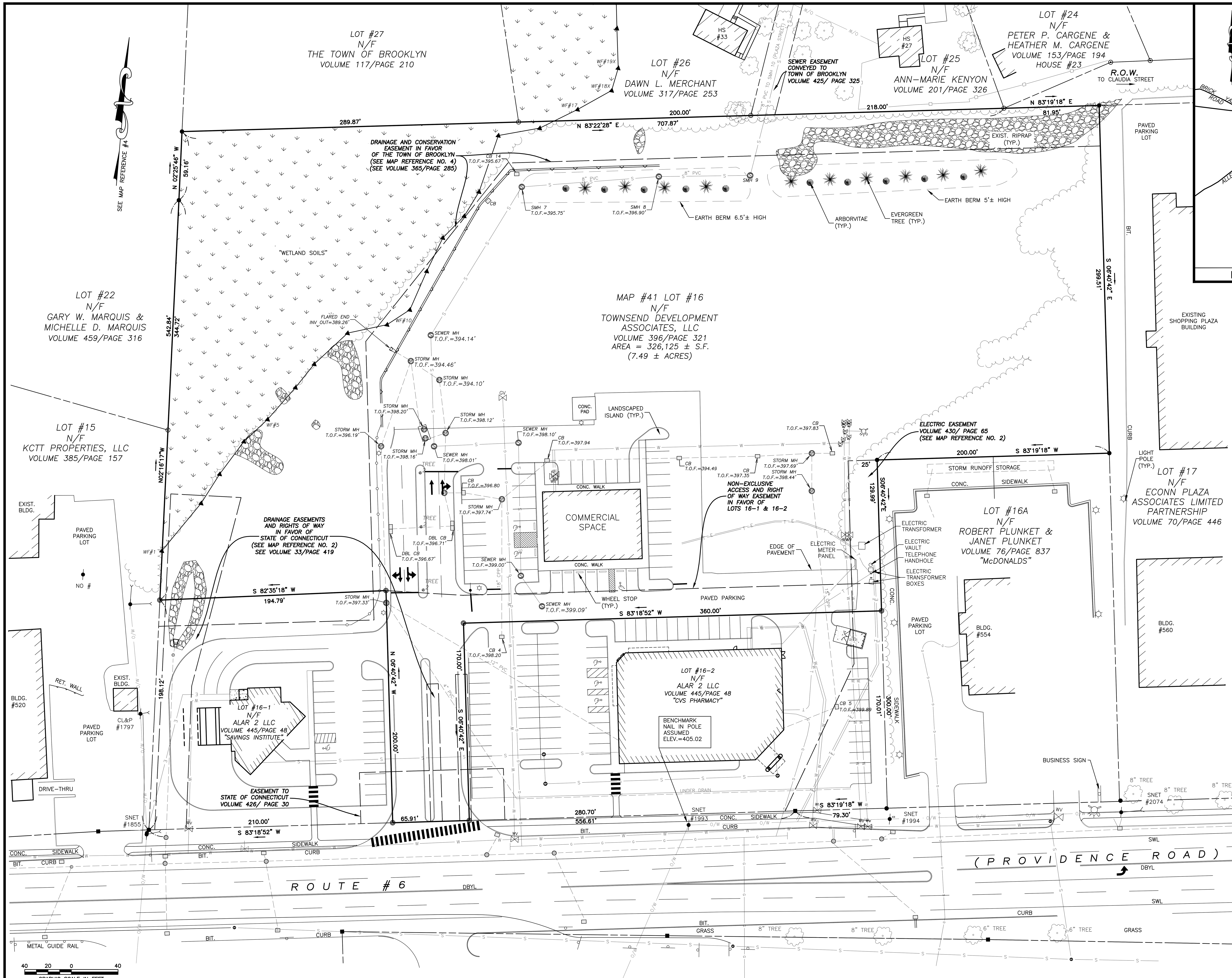
EFFECTIVE SIZE FROM EL 218-222

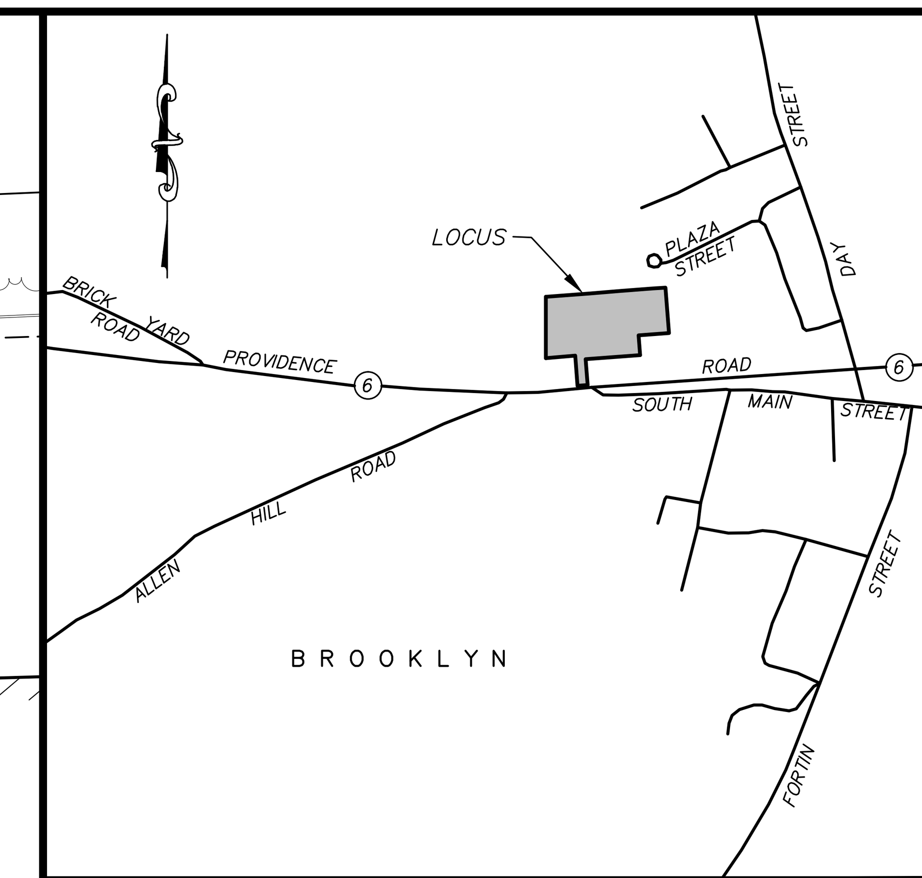
ELEV	AREA (FT^2)	AVE AREA	VOL (FT^3)	CUM VOL (FT^3)
218	3100		0	
		6460		
220	9820		12,920	12,920
		14,630		
222	19,440		29,260	42,180

∴ STORAGE / SIZE = 42,180 FT^3

> 38,115 ∴ OK → GOOD

CHA





LOCATION MAP SCALE 1"=1000'

QUALITY CONTROL CERTIFICATION

GROUP	REVIEWED	DATE
PROJECT MANAGER		
SURVEY		
ENVIRONMENTAL		
CIVIL		
STRUCTURAL		
ARCHITECTURAL		

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

RICHARD H. STROUSE, L.S. #9679 DATE

MAP REFERENCES

1.) "SUBDIVISION MAP PREPARED FOR TOWNSEND DEVELOPMENT ASSOCIATES, LLC PROVIDENCE PIKE (US ROUTE #6) BROOKLYN, CONNECTICUT", SCALE: 1"=40', DATED: APRIL 2008, SHEET NO. 2, PREPARED BY ARCHER SURVEYING L.L.C.

2.) "COMPILATION PLAN MAP SHOWING EASEMENT AREA TO BE GRANTED TO THE CONNECTICUT LIGHT AND POWER COMPANY ACROSS THE PROPERTY OF TOWNSEND DEVELOPMENT ASSOCIATES, LLC LOT #16 (PROVIDENCE ROAD) U.S. ROUTE #6 BROOKLYN, CT", SCALE: 1"=40', DATED: NOVEMBER 6, 2007, PREPARED BY CME ASSOCIATES, INC.

3.) "EASEMENT MAP SURVEY, TOWN OF BROOKLYN MAP SHOWING EASEMENT ACQUIRED FROM TOWNSEND DEVELOPMENT ASSOCIATES, LLC BY THE STATE OF CONNECTICUT, PROVIDENCE ROAD & SOUTH MAIN STREET (ROUTE 6)", SCALE: 1'=20', DATED: JULY 2007, PREPARED BY CME ASSOCIATES, INC.

4.) "SITE DEVELOPMENT PLAN PREPARED FOR TOWNSEND DEVELOPMENT ASSOCIATES, LLC, LOT #16 (PROVIDENCE ROAD) U.S. ROUTE #6 BROOKLYN, CT", SCALE: 1"=40', DATED: OCTOBER 10, 2006, REVISED JANUARY 3, 2007, PREPARED BY CME ASSOCIATES, INC.

NOTES

1.) THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS PREPARED AND ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.

THE TYPE OF SURVEY PERFORMED IS AN IMPROVEMENT LOCATION SURVEY CONFORMING TO THE STANDARDS OF ACCURACY FOR A HORIZONTAL CLASS A-2 AND VERTICAL CLASS T-2 AND IS A DEPENDENT RESURVEY OF THE SUBJECT PROPERTY.

THIS SURVEY WAS PREPARED TO DEPICT THE EXISTING CONDITIONS OF THE SUBJECT PROPERTY.

2.) THE SUBJECT PARCEL WAS CONVEYED TO TOWNSEND DEVELOPMENT ASSOCIATES, LLC, THROUGH A CONVEYANCE DATED ON SEPTEMBER 20, 2006 AND IS RECORDED IN VOLUME 396, PAGE 321 OF THE BROOKLYN LAND RECORDS.

3.) THE SUBJECT PROPERTY IS SHOWN ON THE BROOKLYN TAX ASSESSOR MAP No. 19 AS LOT 16 OF BLOCK 41 AND HAS BEEN ASSIGNED ADDRESS OF PROVIDENCE PIKE ROUTE 6, BROOKLYN, CONNECTICUT.

4.) TOTAL AREA OF PROPERTY = 7.49 ± ACRES (326,125 ± SQUARE FEET).

5.) SITE IS LOCATED IN (PC) PLANNED COMMERCIAL ZONE.

6.) UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROL TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO CME ASSOCIATES, INC. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.

LEGEND

PROPERTY LINE
ABUTTERS LINE
EDGE OF PAVEMENT
EXISTING CONTOUR — 398
RETAINING WALL
LIMITS OF INLAND WETLANDS — WLF#
WOOD FENCE
CHAIN LINK FENCE
TREE LINE
OVERHEAD WIRES — O/W
ELECTRIC — E
GAS — G
SANITARY — S
TELEPHONE — T
WATER — W
SINGLE LIGHT POLE
DOUBLE LIGHT POLE
NOW OR FORMERLY — N/F
UTILITY POLE
BOUNDARY POINT
DRILL HOLE — DH
IRON MONUMENT
HYDRANT
WATER VALVE — WV
CONNECTICUT HIGHWAY DEPARTMENT MONUMENT(CHD)

CME ASSOCIATES, INC.
32 Crabtree Lane, Woodstock, CT 06281
333 East River Drive, East Hartford, CT 06108
50 Elm Street, Southbridge, MA 01550
888-291-3227 | www.cmeengineering.com

IMPROVEMENT LOCATION PLAN
PREPARED FOR
TOWNSEND DEVELOPMENT ASSOCIATES, LLC
LOT #16, PROVIDENCE ROAD (RT 6) BROOKLYN, CONNECTICUT

REVISIONS

NO.	DATE	DESCRIPTION	BY

JOB DATA

PROJECT	2014090_TOWNSEND
BOOK NO.	179
DESIGNED	-
DRAWN	RAC
CHECKED	CB
COGO FILE	2014090 ALL
FILE	2014090_REC.dwg

DATE: 07/24/2017

SCALE: 1" = 40'

PROJECT: #2014090

SHEET 1 OF 1

Brooklyn Inland Wetlands
Commission
P.O. Box 356
Brooklyn, Connecticut 06234

September 16, 2015

RECEIVED
SEP 21 2015
CME

91 7108 2133 3933 2565 1679
CERTIFIED #

CME Associates, Inc.
Townsend Development Associates, LLC
P.O. Box 849
32 Crabtree Lane
Woodstock, CT 06281

RE: Notice of Decision 1. 071415A CME Associates, Inc./Townsend Development Associates, LLC., Providence Road, Map 41, Lot 16, PC Zone, 7.49 acres; Modification of previously approved commercial development. Prior permit included construction of retail space and parking lot for 58,000 sq. ft. of business and 275+ parking spaces. Current application reduces the new retail space to 41,600 sq. ft. and 187 parking spaces. Impervious coverage will be reduced from prior permitted use and drainage approach is unchanged, though storm water volumes will be reduced.

Dear CME Associates, Inc./Townsend Development Associates, LLC:

At a recent meeting on September 8, 2015 the Brooklyn Inland Wetlands and Watercourses Commission approved application 071415A CME Associates, Inc./Townsend Development Associates, LLC., Providence Road, Map 41, Lot 16, PC Zone, 7.49 acres; modification of previously approved commercial development. Prior permit included construction of retail space and parking lot for 58,000 sq. ft. of business and 275+ parking spaces. Current application reduces the new retail space to 41,600 sq. ft. and 187 parking spaces. Impervious coverage will be reduced from prior permitted use and drainage approach is unchanged.

A legal notice of this approval will be published in The Villager on September 18, 2015. Please note that this action of the Brooklyn Inland Wetlands and Watercourses Commission may be appealed for a fifteen-day period following the publication of the legal notice

If you have any questions, please call the office of the Inland Wetlands and Watercourses Agent at 860-779-3411 Ext 31.

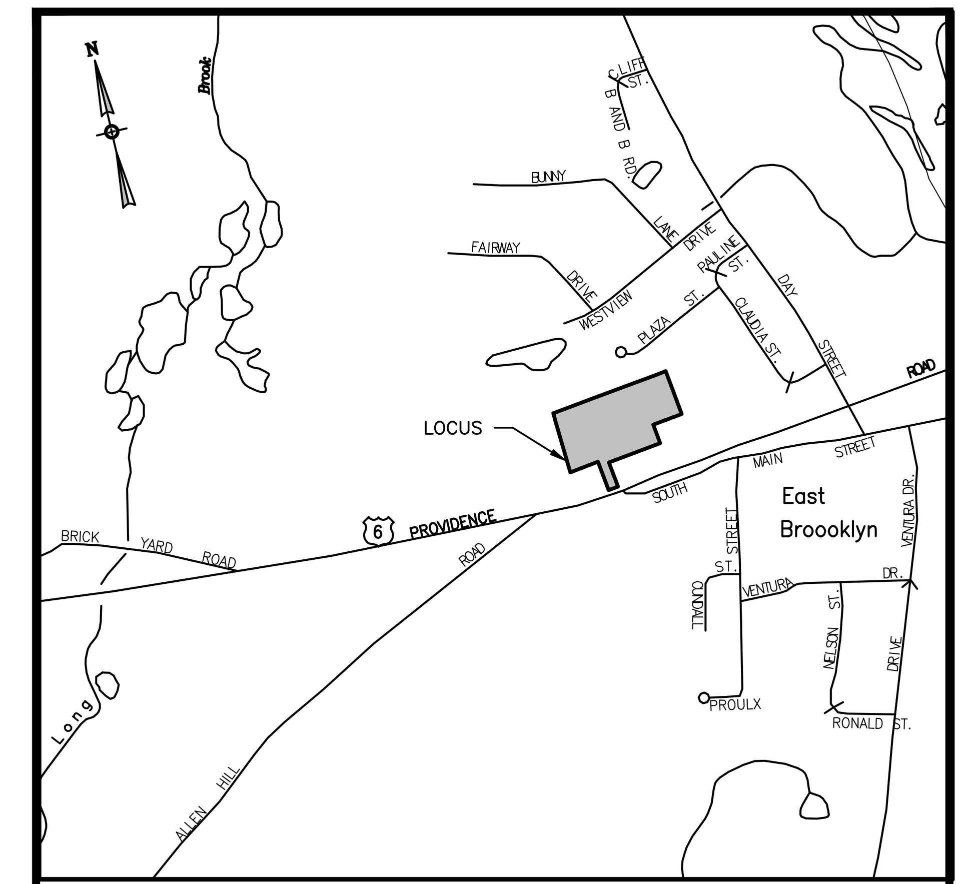
Sincerely,

Martha Fraenkel
Wetlands Agent

MF/acl

CC: File
Appendix:
Application 071415A
Site Plan dated 6-26-15; revised 9-1-15

SPECIAL PERMIT
SITE DEVELOPMENT PLAN
PREPARED FOR
TOWNSEND DEVELOPMENT ASSOCIATES, LLC
PROVIDENCE ROAD (U.S. ROUTE 6)
BROOKLYN, CONNECTICUT
JUNE 26, 2015
REVISED: OCTOBER 12, 2015



LOCATION MAP SCALE 1"=1000'

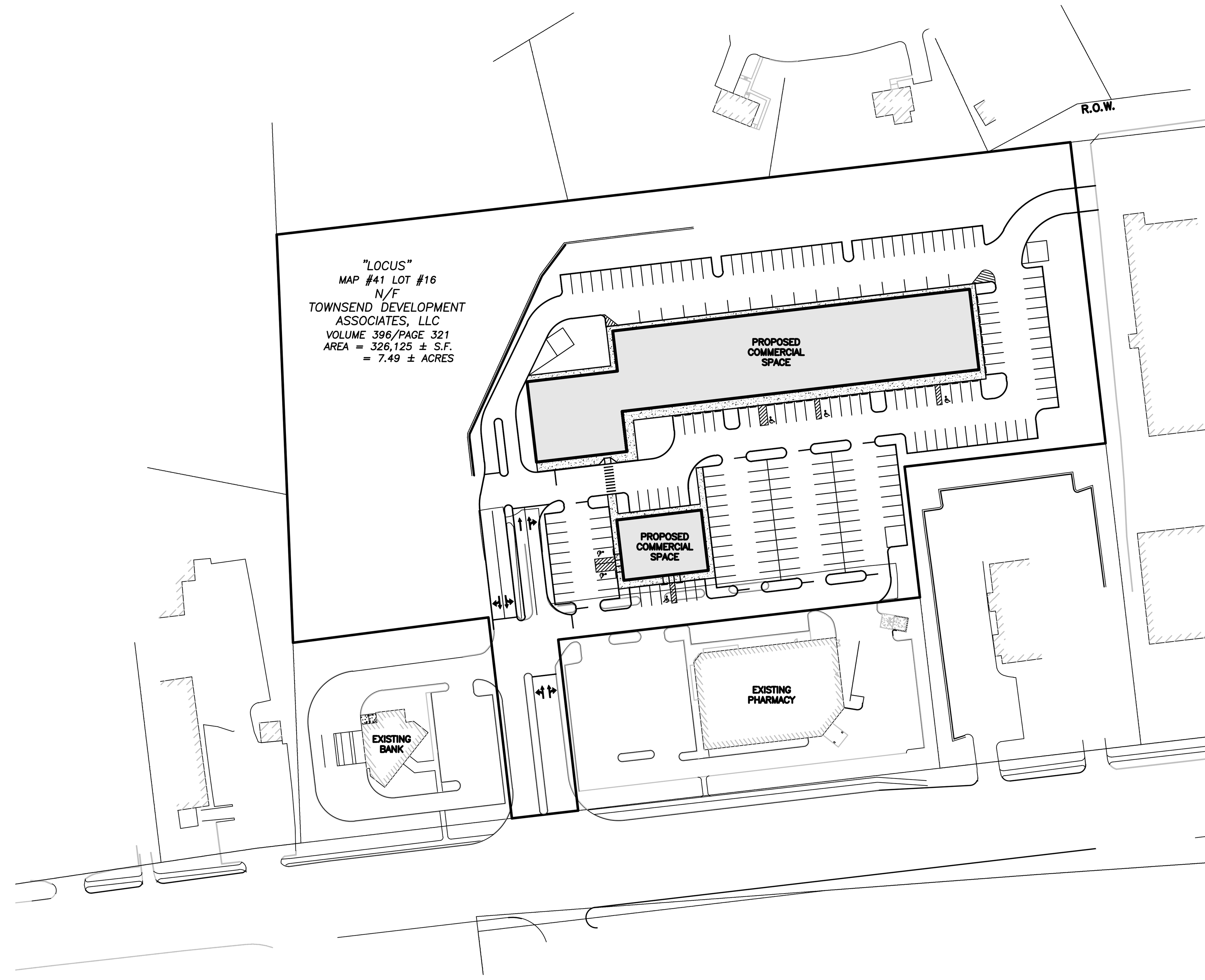
PROPERTY OWNER & APPLICANT: TOWNSEND DEVELOPMENT ASSOCIATES, LLC
169 BARRETT HILL ROAD
BROOKLYN, CT 06234

ZONING DISTRICT: PC = PLANNED COMMERCIAL ZONE

EXISTING USES: VACANT

PROPOSED USES: 40,640 S.F. COMMERCIAL SPACE (TOTAL TWO BUILDINGS)

DRAWING INDEX	
SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	EXISTING CONDITIONS
3	LAYOUT PLAN
4	GRADING PLAN
5	DRAINAGE PLAN
6	UTILITY PLAN
7	LANDSCAPING PLAN
8	LIGHTING PLAN
9	CONSTRUCTION DETAILS
10	CONSTRUCTION DETAILS
11	CONSTRUCTION DETAILS
12	CONSTRUCTION DETAILS
13	E&S CONTROL AND STORMWATER MAINTENANCE PLAN
14	E&S CONTROL AND STORMWATER MAINTENANCE PLAN
15	CONCEPTUAL ARCHITECTURAL DESIGN ELEVATIONS & SECTION



100 50 0 100
GRAPHIC SCALE IN FEET

SCALE: 1'=100'

DIMENSIONAL REQUIREMENTS		
ZONING CRITERIA	REQUIRED	PROVIDED
LOT SIZE	30,000 SF	±326,125 SF
LOT FRONTAGE	100 FEET	65.92 FEET (REAR LOT)
FRONT YARD SETBACK	30 FEET / 45 FEET*	50.8 FEET
SIDE YARD SETBACK	20 FEET	±115 FEET
REAR YARD SETBACK	20 FEET	±133 FEET
LOT COVERAGE	65% IMPERVIOUS	±54% IMPERVIOUS
BUILDING HEIGHT	30 FEET / 40 FEET**	<30 FEET

* IF PARKING OR DRIVEWAY IS BETWEEN BUILDINGS AND STREET

** 30' FOR 1 & 2 STORY BUILDINGS, 40' FOR 3 STORY BUILDINGS

PARKING CALCULATIONS			
BUILDING	PARKING REQUIREMENT	MAX. SQUARE FOOTAGE	SPACES REQUIRED
RETAIL USES (3.6.1.1) OFFICE USES (3.6.1.2)	1 SPACE PER 200 SF	30,000 SF	150 SPACES
RESTAURANT USES (3.6.1.3)	1 SPACE PER 3 SEATS	10,000 SF	100 SPACES (ASSUMING 300 SEATS)
FAST FOOD RESTAURANT USES (3.6.1.4)	1 SPACE PER 100 SF	5,000 SF	50 SPACES
MEDICAL OFFICE USES (3.6.1.5) HEALTH CLUB USES (3.6.1.8)	1 SPACE PER 150 SF	20,000 SF	133 SPACES
		TOTAL	433 SPACES*
		*ASSUMING EVEN DISTRIBUTION OF USES OVER 40,640 SF	271 SPACES**

**BASED ON AVERAGE PARKING DATA FROM "PARKING GENERATION, 4TH EDITION," INSTITUTE OF TRANSPORTATION ENGINEERS, 2010; A COMBINATION OF 24,000 SF OF RETAIL, 6,500 SF OF RESTAURANT, & 10,000 SF OF OFFICE SPACE WILL GENERATE A PEAK PARKING DEMAND OF 188 SPACES. THE PROPOSED PLAN INCLUDES 215 NEW SPACES. NO COMBINATION OF USES THAT CREATES A PEAK PARKING DEMAND GREATER THAN 215 SPACES WILL BE PROPOSED.

PURSUANT TO SECTION 3.6.2.5 OF THE ZONING REGULATIONS FEWER PARKING SPACES THAN ARE REQUIRED BY THE REGULATIONS CAN BE APPROVED IF IT IS DEMONSTRATED THAT FEWER SPACES ARE REQUIRED AND SUFFICIENT SPACE IS AVAILABLE TO PROVIDE ADDITIONAL FUTURE PARKING IF REQUIRED.

ADJACENT POTENTIAL OVERFLOW PARKING			
BUILDING	GROSS SQUARE FOOTAGE	SPACES REQUIRED	SPACES PROVIDED
PHARMACY PRIOR APPROVAL	13,225 SF	67 SPACES	73 SPACES
BANK PRIOR APPROVAL	3,000 SF	15 SPACES	21 SPACES
	TOTAL	83 SPACES	94 SPACES

Town of Brooklyn
Record of Special Permit

In accordance with Section 8-3d of the Connecticut General Statutes, a record of Special Permit shall be filed in the Office of the Town Clerk of Brooklyn before the Special Permit shall be considered valid. It shall be filed under the name of the record owner, who shall be responsible for all fees.

Name of Record Owner(s) Townsend Development Associates

Address: 169 Barrett Hill Road, Brooklyn, CT 06234

Property Location: Providence Road

Assessors Map Number: 41 Lot# 16 Zone PC

Section(s) of Regulations the Special Permit was Granted: Article 3 Section 3.4.8 Planned Commercial Zone; Article 5 Special Permit and Site Plan Review.

Conditions of Special Permit:
1. If any proposed use, and the size thereof, were to increase the final parking calculation on the plan, it is required that they come back to the Planning & Zoning Commission for authorization regarding Section 3.4.8.8 of the Regulations.
2. Modify the plan to show that the access to the northeast from the adjacent parcel be gated, locked and keys/code be provided to local emergency response agencies (fire, police, etc.) and the Town of Brooklyn.
3. Sewer lines be inspected and the Brooklyn WPCA be notified before the sewer lines are backfilled.

Reason for Granting the Special Permit: As modified the proposal is in conformance with the zoning regulations and special permit criteria.

Date of Issuance of Special Permit by the P & Z Commission: September 15, 2015.

I certify that the above is a true record of the Special Permit granted for the subject property by the Brooklyn Planning and Zoning Commission.

Town Planner or Zoning Enforcement Officer

Date 9/21/15

QUALITY CONTROL CERTIFICATION		
GROUP	REVIEWED	DATE
PROJECT MANAGER		
SURVEY		
ENVIRONMENTAL		
CIVIL		
STRUCTURAL		
ARCHITECTURAL		

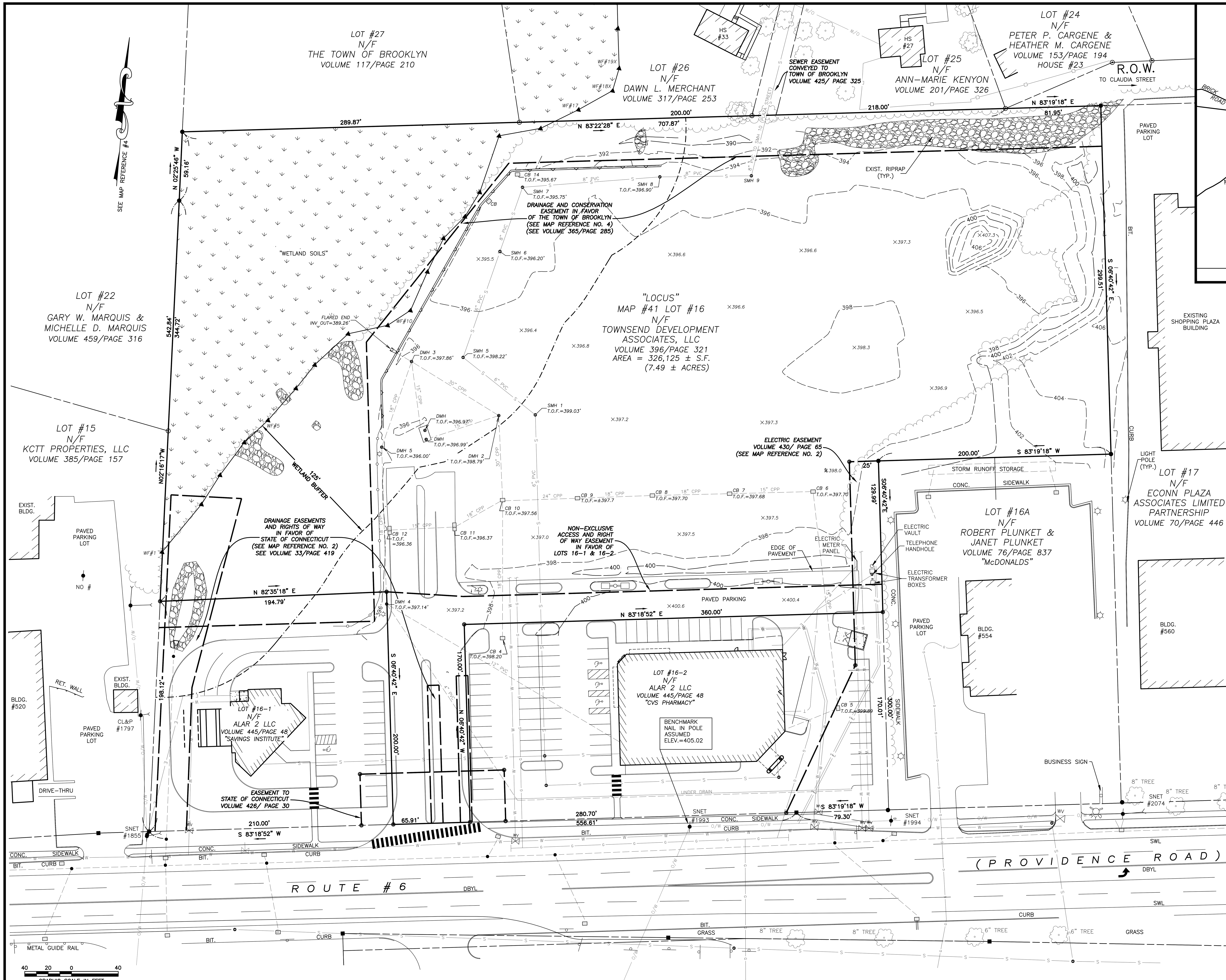
CME ASSOCIATES, INC.

32 Crabtree Lane, Woodstock, CT 06281
333 East River Drive, East Hartford, CT 06108
50 Elm Street, Southbridge, MA 01550

888-291-3227 | www.cmeengineering.com

PER SECTION 8-26c OF THE CONNECTICUT GENERAL STATUTES, AS AMENDED APPROVAL AUTOMATICALLY EXPIRES___________, IF ALL PHYSICAL IMPROVEMENTS REQUIRED BY THIS PLAN ARE NOT COMPLETE BY THIS DATE.

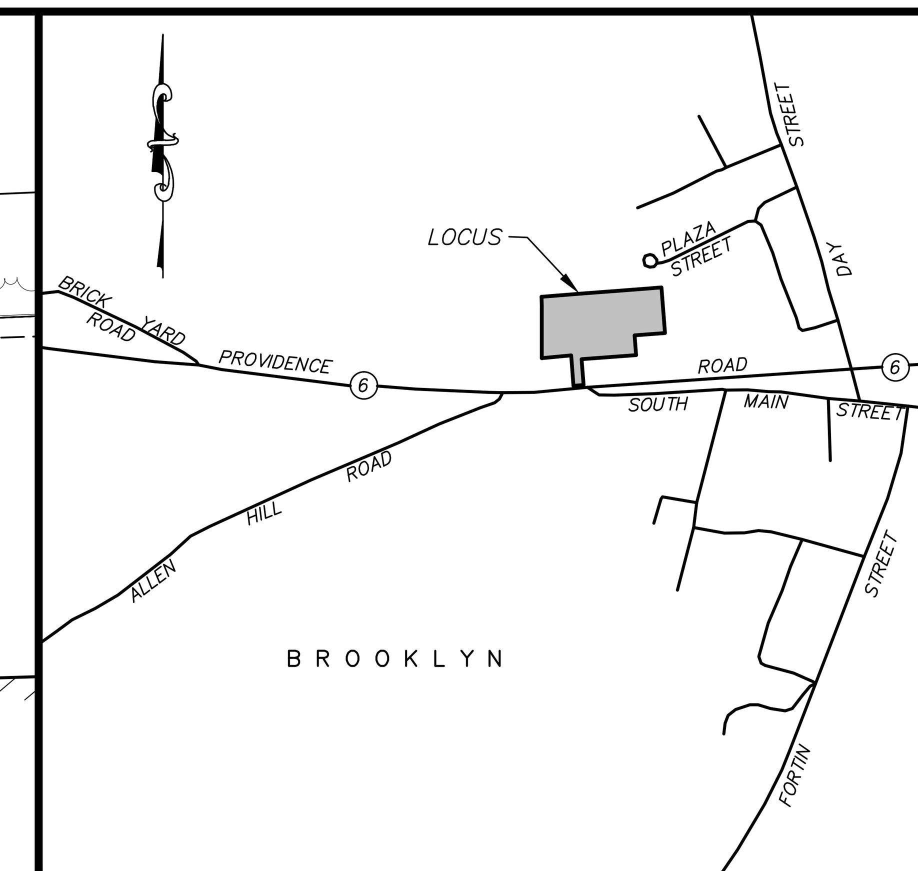
REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN DATE	CHAIRMAN OR SECRETARY DATE	CHAIRMAN OR SECRETARY DATE



QUALITY CONTROL CERTIFICATION		
GROUP	REVIEWED	DATE
PROJECT MANAGER		
SURVEY		
ENVIRONMENTAL		
CIVIL		
STRUCTURAL		
ARCHITECTURAL		

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

CRAIG P. BIGGER, L.S. #70413 DATE



LOCATION MAP SCALE 1"=1000'

MAP REFERENCES

1.) "SUBDIVISION MAP PREPARED FOR TOWNSEND DEVELOPMENT ASSOCIATES, LLC PROVIDENCE PIKE (US ROUTE #6) BROOKLYN, CONNECTICUT", SCALE: 1"=40', DATED: APRIL 2008, SHEET NO. 2, PREPARED BY ARCHER SURVEYING L.L.C.

2.) "COMPILATION PLAN MAP SHOWING EASEMENT AREA TO BE GRANTED TO THE CONNECTICUT LIGHT AND POWER COMPANY ACROSS THE PROPERTY OF TOWNSEND DEVELOPMENT ASSOCIATES, LLC LOT #16 (PROVIDENCE ROAD) U.S. ROUTE #6 BROOKLYN, CT", SCALE: 1"=40', DATED: NOVEMBER 6, 2007, PREPARED BY CME ASSOCIATES, INC.

3.) "EASEMENT MAP SURVEY, TOWN OF BROOKLYN MAP SHOWING EASEMENT ACQUIRED FROM TOWNSEND DEVELOPMENT ASSOCIATES, LLC BY THE STATE OF CONNECTICUT, PROVIDENCE ROAD & SOUTH MAIN STREET (ROUTE 6)", SCALE: 1'=20', DATED: JULY 2007, PREPARED BY CME ASSOCIATES, INC.

4.) "SITE DEVELOPMENT PLAN PREPARED FOR TOWNSEND DEVELOPMENT ASSOCIATES, LLC, LOT #16 (PROVIDENCE ROAD) U.S. ROUTE #6 BROOKLYN, CT", SCALE: 1"=40', DATED: OCTOBER 10, 2006, REVISED JANUARY 3, 2007, PREPARED BY CME ASSOCIATES, INC.

NOTES

1.) THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS PREPARED AND ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.

THE TYPE OF SURVEY PERFORMED IS A PROPERTY SURVEY CONFORMING TO THE STANDARDS OF ACCURACY FOR A HORIZONTAL CLASS A-2 AND VERTICAL CLASS T-2 AND IS A RESURVEY OF THE SUBJECT PROPERTY.

THIS SURVEY WAS PREPARED TO DEPICT THE EXISTING CONDITIONS OF THE SUBJECT PROPERTY.

2.) THE SUBJECT PARCEL WAS CONVEYED TO TOWNSEND DEVELOPMENT ASSOCIATES, LLC, THROUGH A CONVEYANCE DATED ON SEPTEMBER 20, 2006 AND IS RECORDED IN VOLUME 396, PAGE 321 OF THE BROOKLYN LAND RECORDS.

3.) THE SUBJECT PROPERTY IS SHOWN ON THE BROOKLYN TAX ASSESSOR MAP No. 19 AS LOT 16 OF BLOCK 41 AND HAS BEEN ASSIGNED ADDRESS OF PROVIDENCE PIKE ROUTE 6, BROOKLYN, CONNECTICUT.

4.) TOTAL AREA OF PROPERTY = 7.49 ± ACRES (326,125 ± SQUARE FEET).

5.) SITE IS LOCATED IN (PC) PLANNED COMMERCIAL ZONE.

6.) UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROL TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO CME ASSOCIATES, INC. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.

LEGEND

PROPERTY LINE	
ABUTTERS LINE	
EDGE OF PAVEMENT	
EXISTING CONTOUR	398
RETAINING WALL	
LIMITS OF INLAND WETLANDS	WLF#
WOOD FENCE	
CHAIN LINK FENCE	
TREE LINE	
OVERHEAD WIRES	O/W
ELECTRIC	E
GAS	G
SANITARY	S
TELEPHONE	T
WATER	W
SINGLE LIGHT POLE	
DOUBLE LIGHT POLE	
NOW OR FORMERLY	N/F
UTILITY POLE	
BOUNDARY POINT	
DRILL HOLE	DH
IRON MONUMENT	
HYDRANT	HYD
WATER VALVE	WV
CONNECTICUT HIGHWAY DEPARTMENT MONUMENT(CHD)	

CME ASSOCIATES, INC.

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PROPERTY SURVEY PLAN
PREPARED FOR
TOWNSEND DEVELOPMENT ASSOCIATES, LLC
LOT #16, PROVIDENCE ROAD (RT 6) BROOKLYN, CONNECTICUT

EXISTING CONDITIONS

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	07/14/2015	GENERAL REVISIONS	RAC
2	07/29/2015	ZONING TABLE UPDATES	PMP
3	08/17/2015	RESPONSE TO COMMENTS	PMP
4	09/01/2015	RESPONSE TO COMMENTS	PMP

JOB DATA

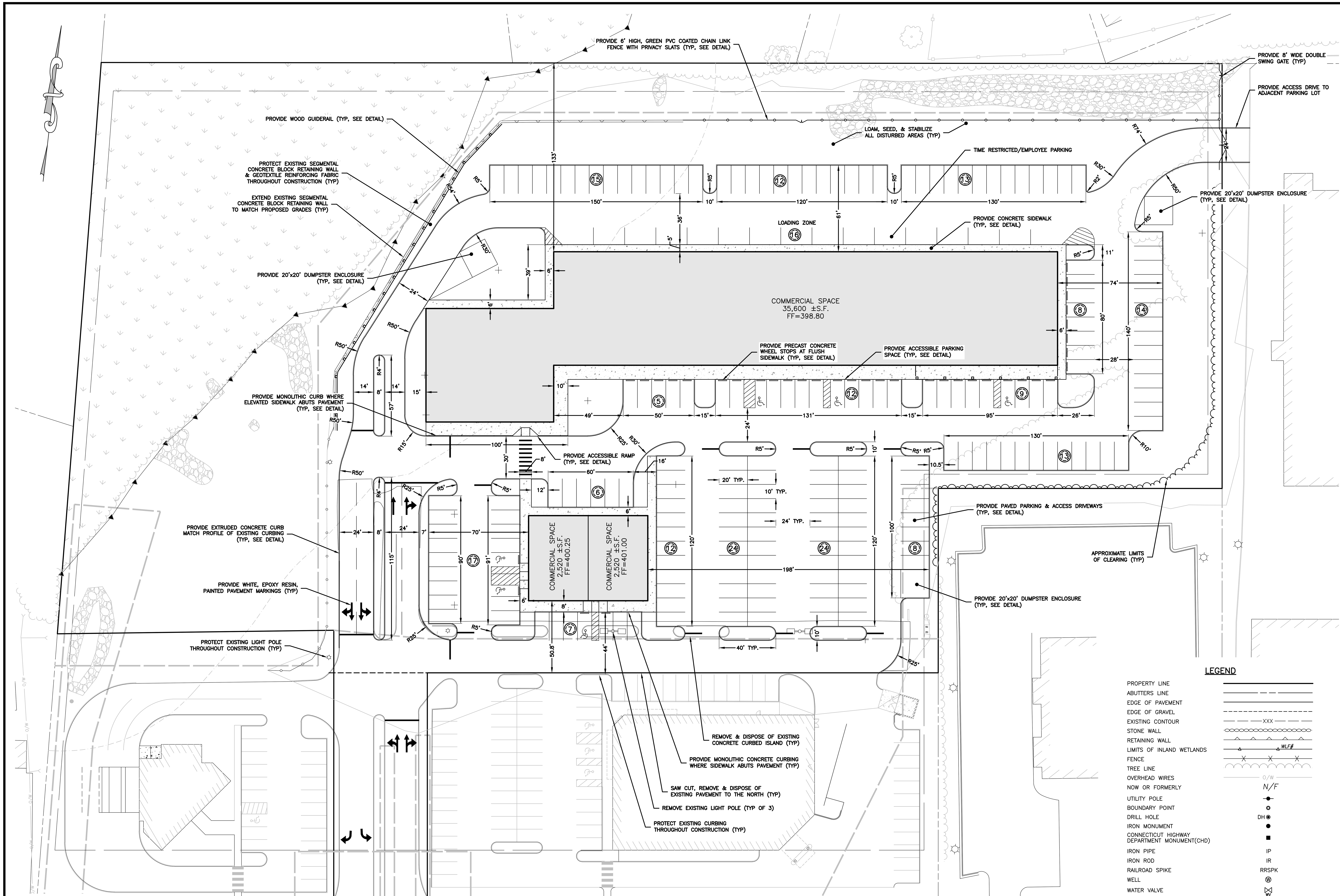
PROJECT	2014090_TOWNSEND
BOOK NO.	-
DESIGNED	-
DRAWN	RAC
CHECKED	CB
COGO FILE	-
FILE	2006236_BASE2015.dwg

DATE: 06/26/2015

SCALE: 1" = 40'

PROJECT: #2014090

2



QUALITY CONTROL CERTIFICATION		
GROUP	REVIEWED	DATE
PROJECT MANAGER		
SURVEY		
ENVIRONMENTAL		
CIVIL		
STRUCTURAL		
ARCHITECTURAL		

REVIEWED BY THE TOWN ENGINEER

FIRST SELECTMAN DATE

ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION

CHAIRMAN OR SECRETARY DATE

APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION

CHAIRMAN OR SECRETARY DATE

CME ASSOCIATES, INC.

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SITE DEVELOPMENT PLAN
PREPARED FOR

TOWNSEND DEVELOPMENT ASSOCIATES, LLC

LOT #16, PROVIDENCE ROAD (RT 6) BROOKLYN, CONNECTICUT

LAYOUT PLAN

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	07/14/2015	GENERAL REVISIONS	PMP
2	07/29/2015	ZONING TABLE UPDATES	PMP
3	08/17/2015	RESPONSE TO COMMENTS	PMP
4	09/01/2015	RESPONSE TO COMMENTS	PMP
5	09/15/2015	RESPONSE TO COMMENTS	PMP
6	10/12/2015	MYLARS FOR FILLING	PMP

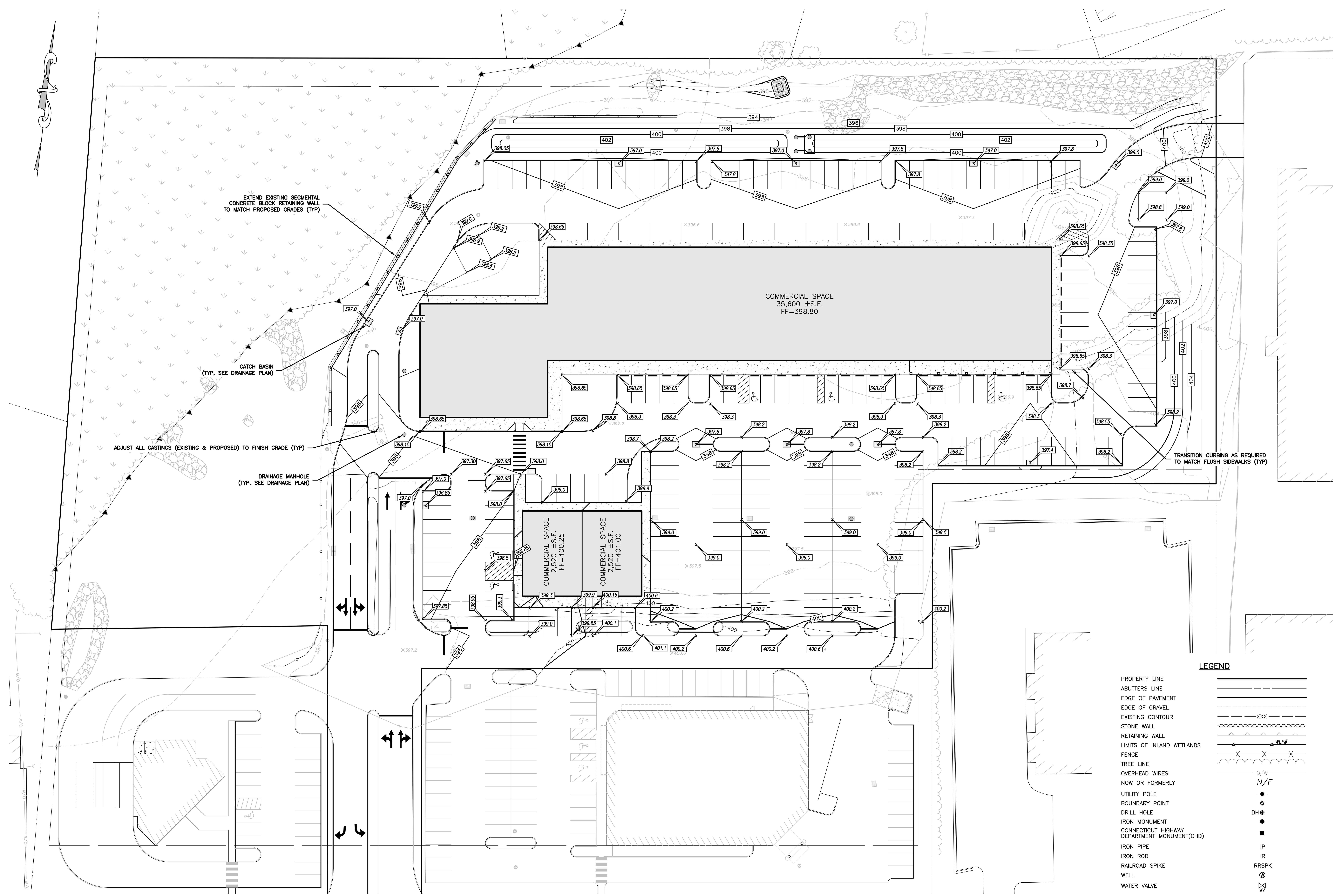
JOB DATA

PROJECT	2014090-TOWNSEND
BOOK NO.	–
DESIGNED	JPG/PMP
DRAWN	KR/RC/PMP
CHECKED	–
COGO FILE	–
FILE	2014090 STP.dwg

DATE: 06/26/2015

SCALE: 1" = 30'

PROJECT: #2014090



LEGEND

PROPERTY LINE	
ABUTTERS LINE	
EDGE OF PAVEMENT	
EDGE OF GRAVEL	
EXISTING CONTOUR	XXX
STONE WALL	
RETAINING WALL	
LIMITS OF INLAND WETLANDS	WLF#
FENCE	
TREE LINE	
OVERHEAD WIRES	O/W
NOW OR FORMERLY	N/F
UTILITY POLE	
BOUNDARY POINT	
DRILL HOLE	DH
IRON MONUMENT	
CONNECTICUT HIGHWAY DEPARTMENT MONUMENT(CHD)	
IRON PIPE	IP
IRON ROD	IR
RAILROAD SPIKE	RRSPK
WELL	
WATER VALVE	WV

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SITE DEVELOPMENT PLAN
PREPARED FOR

TOWNSEND DEVELOPMENT ASSOCIATES, LLC

LOT #16, PROVIDENCE ROAD (RT 6) BROOKLYN, CONNECTICUT

GRADING PLAN

JOB DATA

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BOOK NO.	–
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DRAWN	KR/RC/PMP
CHECKED	–
COGO FILE	–
FILE	2014090 STP.dwg

REVISIONS

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5	09/15/2015	RESPONSE TO COMMENTS	PMP
6	10/12/2015	MYLARS FOR FILLING	PMP

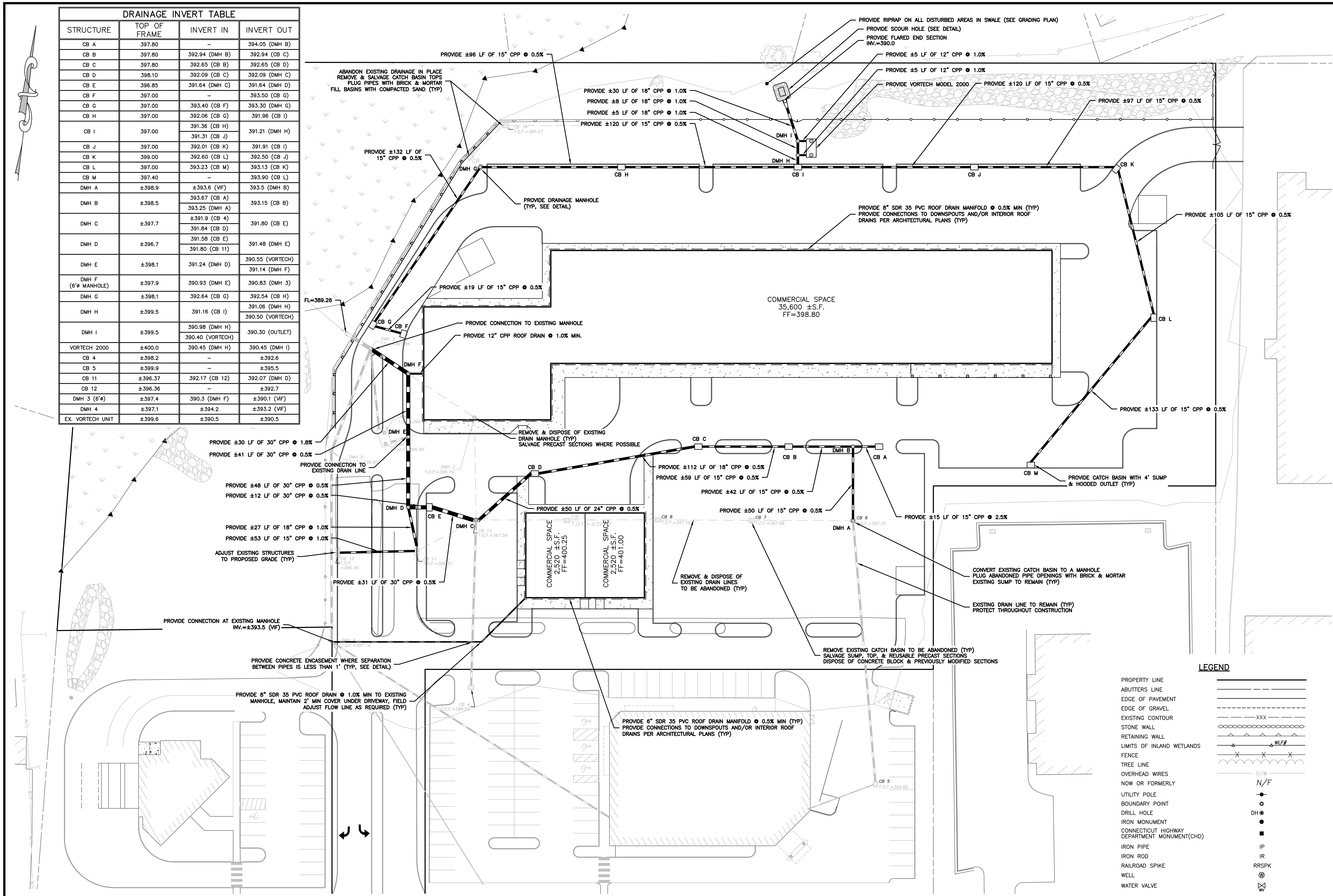
DATE: 06/26/2015

SCALE: 1" = 30'

PROJECT: #2014090

DRAINAGE INVERT TABLE

STRUCTURE	TOP OF FRAME	INVERT IN	INVERT OUT
CB A	397.80	–	394.05 (DMH B)
CB B	397.80	392.94 (DMH B)	392.94 (CB C)
CB C	397.80	392.65 (CB B)	392.65 (CB D)
CB D	398.10	392.09 (CB C)	392.09 (DMH C)
CB E	396.85	391.64 (DMH C)	391.64 (DMH D)
CB F	397.00	–	393.50 (CB G)
CB G	397.00	393.40 (CB F)	393.30 (DMH G)
CB H	397.00	392.06 (CB G)	391.96 (CB I)
CB I	397.00	391.36 (CB H) 391.31 (CB J)	391.21 (DMH H)
CB J	397.00	392.01 (CB K)	391.91 (CB I)
CB K	399.00	392.60 (CB L)	392.50 (CB J)
CB L	397.00	393.23 (CB M)	393.13 (CB K)
CB M	397.40	–	393.90 (CB L)
DMH A	±398.9	±393.6 (VIF)	393.5 (DMH B)
DMH B	±398.5	393.67 (CB A) 393.25 (DMH A)	393.15 (CB B)
DMH C	±397.7	±391.9 (CB 4) 391.84 (CB D)	391.80 (CB E)
DMH D	±396.7	391.58 (CB E) 391.80 (CB 11)	391.48 (DMH E)
DMH E	±398.1	391.24 (DMH D)	390.55 (VORTECH) 391.14 (DMH F)
DMH F (6'ø MANHOLE)	±397.9	390.93 (DMH E)	390.83 (DMH 3)
DMH G	±398.1	392.64 (CB G)	392.54 (CB H)
DMH H	±399.5	391.16 (CB I)	391.06 (DMH H) 390.50 (VORTECH)
DMH I	±399.5	390.98 (DMH H) 390.40 (VORTECH)	390.30 (OUTLET)
VORTECH 2000	±400.0	390.45 (DMH H)	390.45 (DMH I)
CB 4	±398.2	–	±392.6
CB 5	±399.9	–	±395.5
CB 11	±396.37	392.17 (CB 12)	392.07 (DMH D)
CB 12	±396.36	–	±392.7
DMH 3 (6'ø)	±397.4	390.3 (DMH F)	±390.1 (VIF)
DMH 4	±397.1	±394.2	±393.2 (VIF)
EX. VORTECH UNIT	±399.6	±390.5	±390.5



LEGEND

- PROPERTY LINE
- ABUTTERS LINE
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- EXISTING CONTOUR — XXX
- STONE WALL
- RETAINING WALL
- LIMITS OF INLAND WETLANDS — WLF#
- FENCE
- TREE LINE
- OVERHEAD WIRES — O/W
- NOW OR FORMERLY — N/F
- UTILITY POLE
- BOUNDARY POINT
- DRILL HOLE — DH
- IRON MONUMENT
- CONNECTICUT HIGHWAY DEPARTMENT MONUMENT(CHD)
- IRON PIPE — IP
- IRON ROD — IR
- RAILROAD SPIKE — RRSPK
- WELL
- WATER VALVE

30 15 0 30
GRAPHIC SCALE IN FEET

QUALITY CONTROL CERTIFICATION		
GROUP	REVIEWED	DATE
PROJECT MANAGER		
SURVEY		
ENVIRONMENTAL		
CIVIL		
STRUCTURAL		
ARCHITECTURAL		

REVIEWED BY THE TOWN ENGINEER

FIRST SELECTMAN — DATE

ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION

CHAIRMAN OR SECRETARY — DATE

APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION

CHAIRMAN OR SECRETARY — DATE

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SITE DEVELOPMENT PLAN
PREPARED FOR
TOWNSEND DEVELOPMENT ASSOCIATES, LLC
LOT #16, PROVIDENCE ROAD (RT 6) BROOKLYN, CONNECTICUT

DRAINAGE PLAN

JOB DATA	
PROJECT	2014090–TOWNSEND
BOOK NO.	–
DESIGNED	JPG/PMP
DRAWN	KR/RC/PMP
CHECKED	–
COGO FILE	–
FILE	2014090 STP.dwg

REVISIONS			
NO.	DATE	DESCRIPTION	BY
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5	09/15/2015	RESPONSE TO COMMENTS	PMP
6	10/12/2015	MYLARS FOR FILLING	PMP

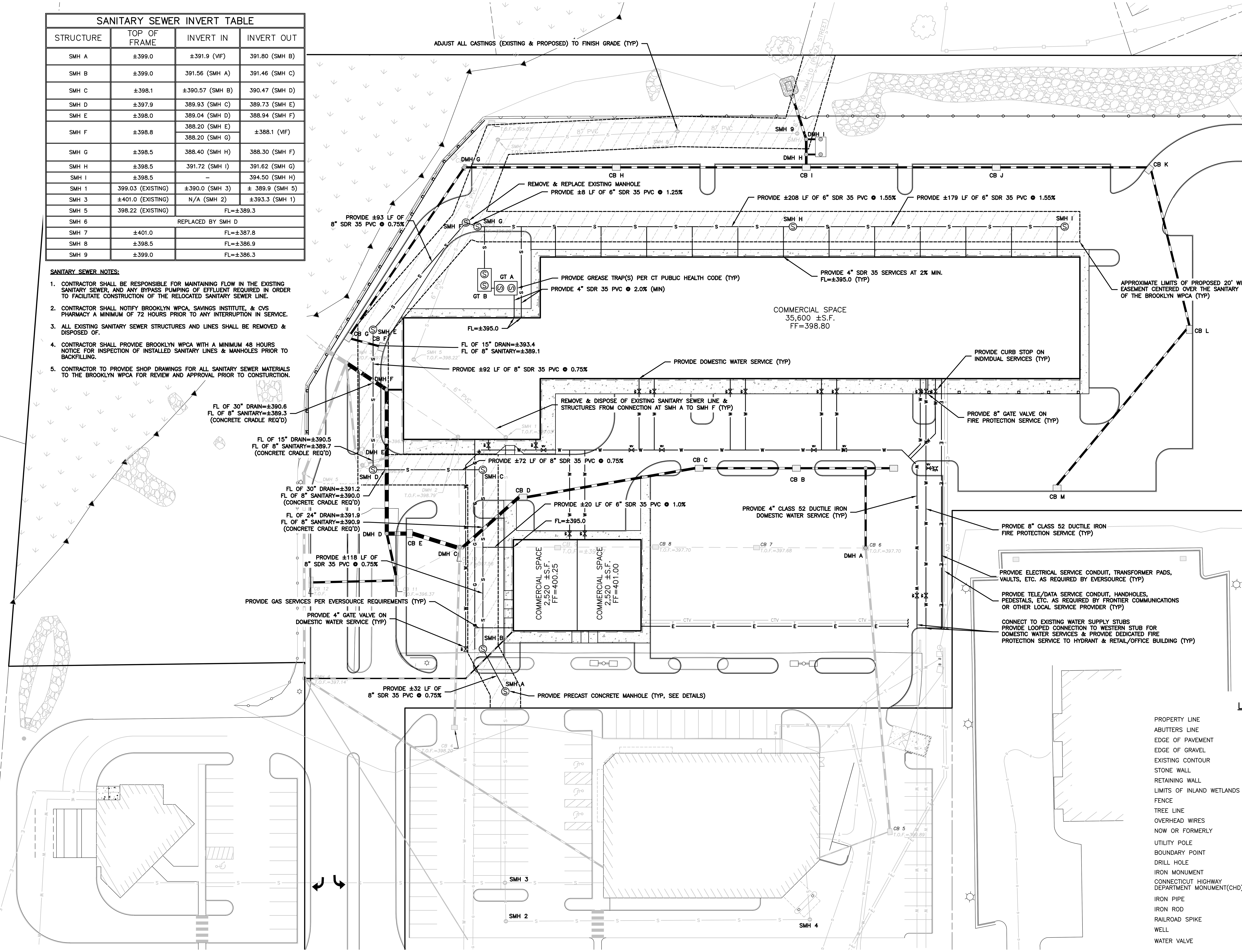
DATE: 06/26/2015
SCALE: 1" = 30'
PROJECT: #2014090

SANITARY SEWER INVERT TABLE

STRUCTURE	TOP OF FRAME	INVERT IN	INVERT OUT
SMH A	±399.0	±391.9 (VIF)	391.80 (SMH B)
SMH B	±399.0	391.56 (SMH A)	391.46 (SMH C)
SMH C	±398.1	±390.57 (SMH B)	390.47 (SMH D)
SMH D	±397.9	389.93 (SMH C)	389.73 (SMH E)
SMH E	±398.0	389.04 (SMH D)	388.94 (SMH F)
SMH F	±398.8	388.20 (SMH E) 388.20 (SMH G)	±388.1 (VIF)
SMH G	±398.5	388.40 (SMH H)	388.30 (SMH F)
SMH H	±398.5	391.72 (SMH I)	391.62 (SMH G)
SMH I	±398.5	–	394.50 (SMH H)
SMH 1	399.03 (EXISTING)	±390.0 (SMH 3)	± 389.9 (SMH 5)
SMH 3	±401.0 (EXISTING)	N/A (SMH 2)	±393.3 (SMH 1)
SMH 5	398.22 (EXISTING)	FL=±389.3	
SMH 6	REPLACED BY SMH D		
SMH 7	±401.0	FL=±387.8	
SMH 8	±398.5	FL=±386.9	
SMH 9	±399.0	FL=±386.3	

SANITARY SEWER NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING FLOW IN THE EXISTING SANITARY SEWER, AND ANY BYPASS PUMPING OF EFFLUENT REQUIRED IN ORDER TO FACILITATE CONSTRUCTION OF THE RELOCATED SANITARY SEWER LINE.
2. CONTRACTOR SHALL NOTIFY BROOKLYN WPCA, SAVINGS INSTITUTE, & CVS PHARMACY A MINIMUM OF 72 HOURS PRIOR TO ANY INTERRUPTION IN SERVICE.
3. ALL EXISTING SANITARY SEWER STRUCTURES AND LINES SHALL BE REMOVED & DISPOSED OF.
4. CONTRACTOR SHALL PROVIDE BROOKLYN WPCA WITH A MINIMUM 48 HOURS NOTICE FOR INSPECTION OF INSTALLED SANITARY LINES & MANHOLES PRIOR TO BACKFILLING.
5. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ALL SANITARY SEWER MATERIALS TO THE BROOKLYN WPCA FOR REVIEW AND APPROVAL PRIOR TO CONSTURCTION.



LEGEND

PROPERTY LINE	
ABUTTERS LINE	
EDGE OF PAVEMENT	
EDGE OF GRAVEL	
EXISTING CONTOUR	XXX
STONE WALL	
RETAINING WALL	
LIMITS OF INLAND WETLANDS	WLF#
FENCE	
TREE LINE	
OVERHEAD WIRES	O/W
NOW OR FORMERLY	N/F
UTILITY POLE	
BOUNDARY POINT	
DRILL HOLE	DH
IRON MONUMENT	
CONNECTICUT HIGHWAY DEPARTMENT MONUMENT(CHD)	
IRON PIPE	IP
IRON ROD	IR
RAILROAD SPIKE	RRSPK
WELL	
WATER VALVE	

30 15 0 30
GRAPHIC SCALE IN FEET

QUALITY CONTROL CERTIFICATION

GROUP	REVIEWED	DATE
PROJECT MANAGER		
SURVEY		
ENVIRONMENTAL		
CIVIL		
STRUCTURAL		
ARCHITECTURAL		

REVIEWED BY THE TOWN ENGINEER

FIRST SELECTMAN DATE

ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION

CHAIRMAN OR SECRETARY DATE

APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION

CHAIRMAN OR SECRETARY DATE

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SITE DEVELOPMENT PLAN
PREPARED FOR
TOWNSEND DEVELOPMENT ASSOCIATES, LLC
LOT #16, PROVIDENCE ROAD (RT 6) BROOKLYN, CONNECTICUT

UTILITY PLAN

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	07/14/2015	GENERAL REVISIONS	PMP
2	07/29/2015	ZONING TABLE UPDATES	PMP
3	08/17/2015	RESPONSE TO COMMENTS	PMP
4	09/01/2015	RESPONSE TO COMMENTS	PMP
5	09/15/2015	RESPONSE TO COMMENTS	PMP
6	10/12/2015	MYLARS FOR FILLING	PMP

JOB DATA

PROJECT	2014090–TOWNSEND
BOOK NO.	–
DESIGNED	JPG/PMP
DRAWN	KR/RC/PMP
CHECKED	–
COGO FILE	–
FILE	2014090 STP.dwg

DATE: 06/26/2015

SCALE: 1" = 30'

PROJECT: #2014090

6

PLANTING SCHEDULE

PLAN LABEL	COMMON NAME Botanical Name	QUANTITY	SIZE	NOTES
	SHRUBS			
AC	JUNIPER BUSH Juniperus Andorre Compacta	10	2 GAL.	CONT.
BK	DWARF KOREAN BOXWOOD Buxus Koreana	55	18"–24" HT.	CONT.
FI	FORSYTHIA Forsythia 'spring glory' x intermedia	3	2 GAL.	CONT.
KL	OLYMPIC FIRE MOUNTAIN LAUREL Kalmia latifolia 'Olympic Fire'	11	24"–30" HT.	B&B
MP	BAYBERRY Myrica pensylvanica	13	2'–3' HT.	CONT.
RP	PJM Rhododendron	3	2 GAL.	CONT.
RY	RHODODENDRON Rhododendron 'Commonwealth'	3	24"–30" HT.	B&B
VD	ARROWHEAD VIBURNUM Viburnum dentatum	6	24"–30" HT.	CONT.
	TREES			
PCC	CALLERY PEAR Pyus calleryana 'chanticleer'	5	2.5"–3" CAL.	B&B
CA	WHITE HYBRID DOGWOOD Cornus rutden 'Celestial'	14	2.5"–3" CAL.	B&B
GT	UPRIGHT PYRAMIDAL THORNLESS HONEY LOCUST Gleditsia triancanthos inermis 'Skyline'	6	2.5"–3" CAL.	B&B
PP	COLORADO BLUE SPRUCE Picca Pungens	10	3" CAL.	B&B
TP	GREEN GIANT ARBORVITAE Thuja Standishii x plicata	10	3" CAL.	B&B
	MULCHED BED	–	–	–
	GRASS SEEDED AREA	–	–	–

B&B = BALLED AND BURLAPPED
CAL. = CALIPER
CONT. = CONTAINER
GAL. = GALLON
HT. = HEIGHT

SEEDING: SEEDING SHALL TAKE PLACE BETWEEN MARCH 15 AND MAY 31 OR AUGUST 15 AND OCTOBER 15 ONLY. SEED SHALL BE PURE, LIVE, FRESH SEED FROM COMMERCIAL SOURCES MEETING AND LABELED IN ACCORDANCE WITH STATE AND FEDERAL RULES AND REGULATIONS. THE SEED MIXTURE STHALL BE:

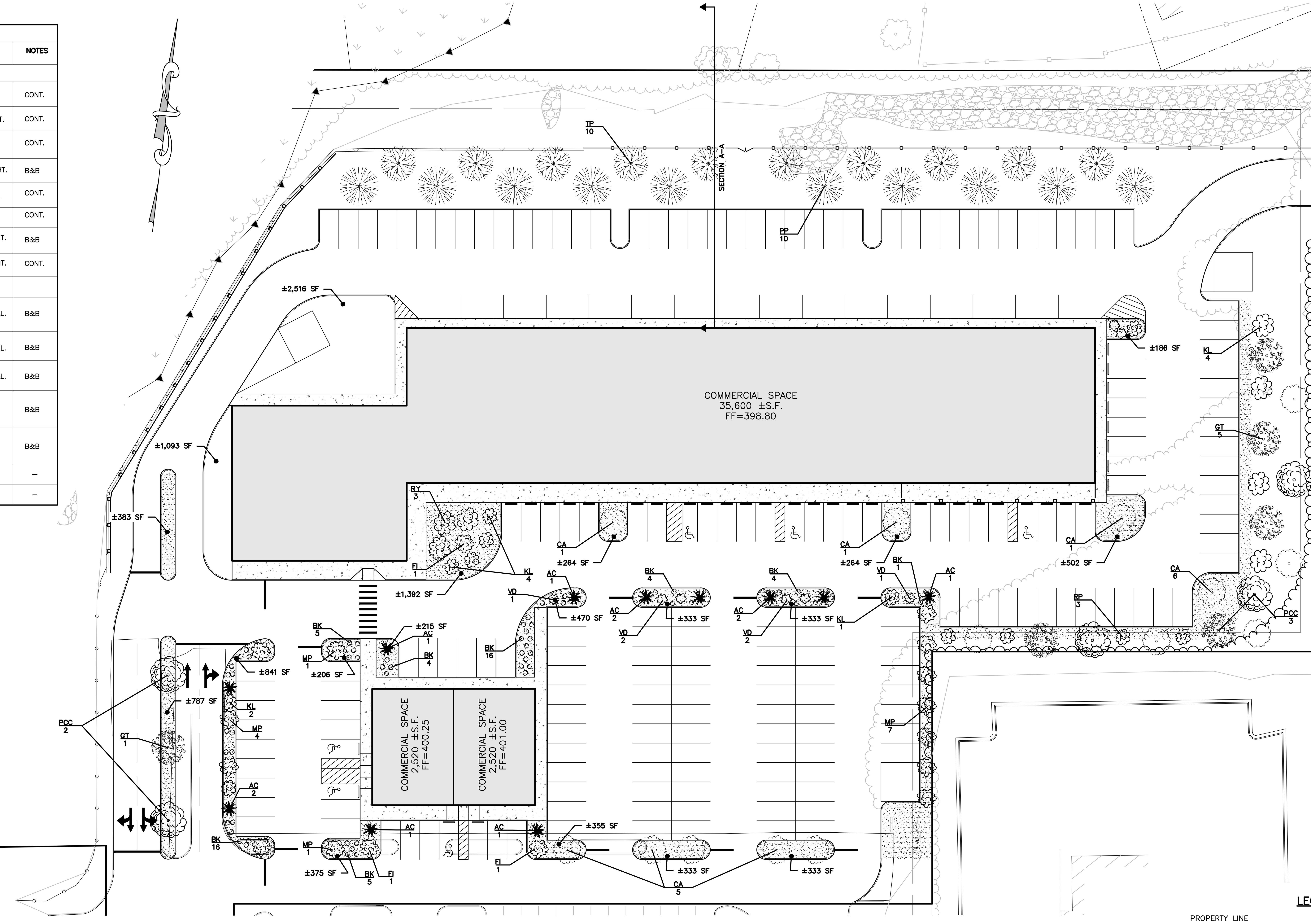
PROPORTION BY TYPE	WEIGHT	PUR.	GERM.
PALMER PERENNIAL RYEGRASS	20%	99%	90%
RANGER PERENNIAL RYEGRASS	20%	99%	90%
BARON KENTUCKY BLUEGRASS	30%	95%	85%
MERION KENTUCKY BLUEGRASS	30%	95%	85%

INERT MATERIALS 2.5% (MAXIMUM)

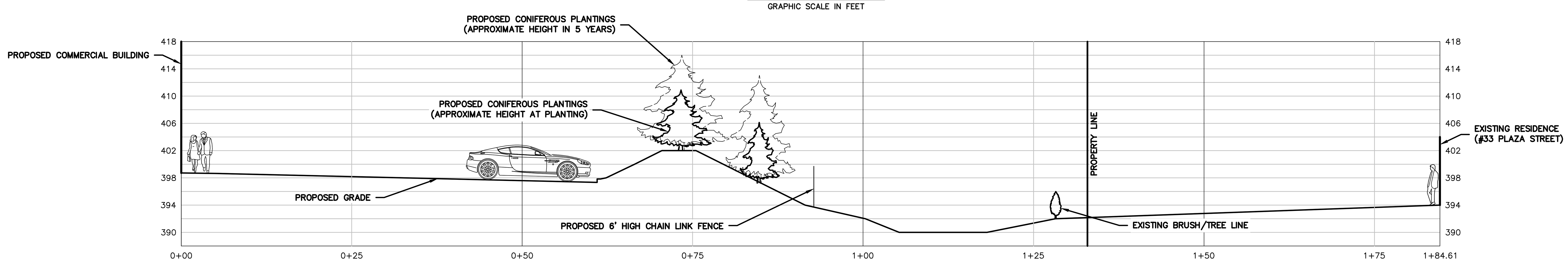
SEEDED AREAS SHALL, AT A MINIMUM, INCLUDE ALL AREAS OF THE SITE THAT HAVE BEEN DISTURBED OR ARE BARREN UNLESS OTHERWISE NOTED ON THE PLANS. SEED SHALL BE APPLIED AT A MINIMUM RATE OF 4 LBS. PER 1000 SQUARE FEET. PROVIDE 6" GOOD QUALITY FERTILE LOAM OR REUSE EXISTING SOIL AND PROVIDE ADDITIONAL LOAM AS REQUIRED FOR MINIMUM 6" DEPTH.

LANDSCAPE CALCULATIONS:
TOTAL REQUIRED PARKING = 245 SPACES
10 SQ FT OF LANDSCAPING PER PARKING SPACE
THEREFORE, 2,450 SQ FT OF LANDSCAPING REQUIRED
GREATER THAN 10,000 SQ FT PROVIDED

1 DECIDUOUS TREE PER 100 SQ FT OF LANDSCAPING
THEREFORE, 25 TREES REQUIRED
25 DECIDUOUS TREES PROVIDED PLUS 20 CONIFEROUS TREES



GRAPHIC SCALE IN FEET



SECTION A–A
SCALE: 1"=10'

GRAPHIC SCALE IN FEET

LEGEND

PROPERTY LINE
ABUTTERS LINE
EDGE OF PAVEMENT
EDGE OF GRAVEL
EXISTING CONTOUR — XXX
STONE WALL
RETAINING WALL
LIMITS OF INLAND WETLANDS — WLF#
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WATER VALVE — WV

QUALITY CONTROL CERTIFICATION		
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SURVEY		
ENVIRONMENTAL		
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CHAIRMAN OR SECRETARY — DATE

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LOT #16, PROVIDENCE ROAD (RT 6) — BROOKLYN, CONNECTICUT

LANDSCAPE PLAN

REVISIONS

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FILE	2014090 STP.dwg

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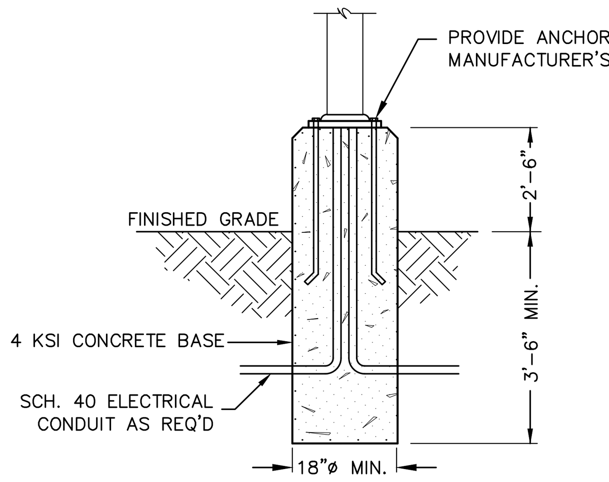
PROJECT: #2014090

7

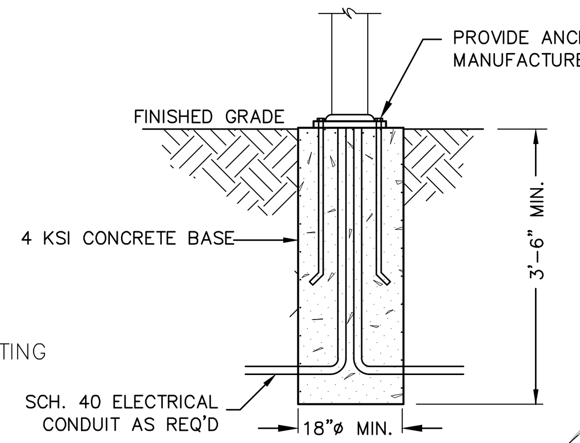
AREA POLE FIXTURE
"VIPER – LARGE" by BEACON
280 WATTS
COLOR: DBT DARK BRONZE
30' MOUNTING HEIGHT

WALL MOUNT FIXTURE
"LAREDO" by SPAULDING LIGHTING
70 WATTS
COLOR: 1 BRONZE
14' MOUNTING HEIGHT



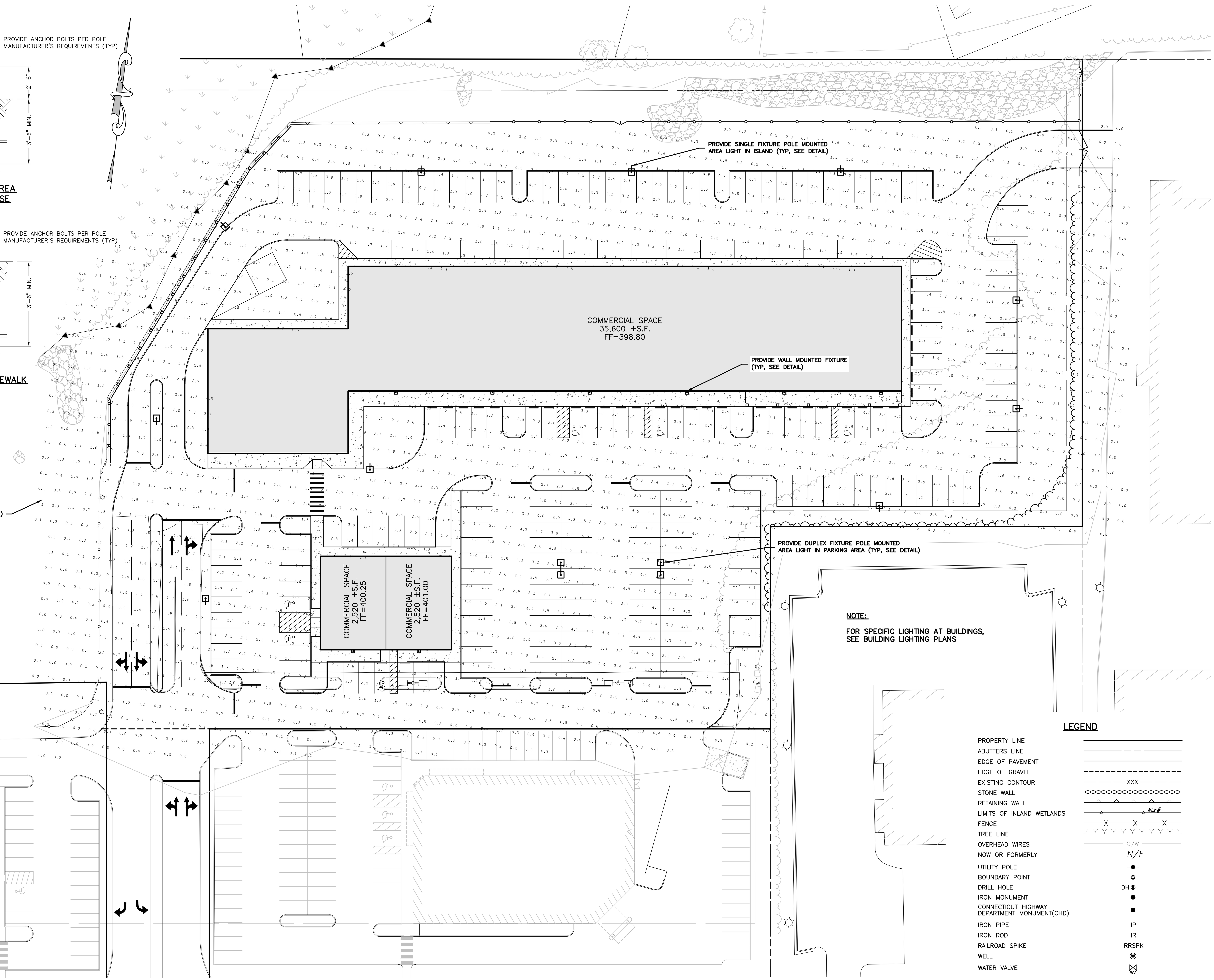
POLE IN PAVED AREA W/CONCRETE BASE

NOT TO SCALE



POLE IN ISLAND OR SIDEWALK

NOT TO SCALE



NOTE:

FOR SPECIFIC LIGHTING AT BUILDINGS, SEE BUILDING LIGHTING PLANS

LEGEND

PROPERTY LINE	
ABUTTERS LINE	
EDGE OF PAVEMENT	
EDGE OF GRAVEL	
EXISTING CONTOUR	XXX
STONE WALL	
RETAINING WALL	
LIMITS OF INLAND WETLANDS	WLF#
FENCE	
TREE LINE	
OVERHEAD WIRES	O/W
NOW OR FORMERLY	N/F
UTILITY POLE	
BOUNDARY POINT	
DRILL HOLE	DH
IRON MONUMENT	
CONNECTICUT HIGHWAY DEPARTMENT MONUMENT(CHD)	
IRON PIPE	IP
IRON ROD	IR
RAILROAD SPIKE	RRSPK
WELL	
WATER VALVE	

QUALITY CONTROL CERTIFICATION

GROUP	REVIEWED	DATE
PROJECT MANAGER		
SURVEY		
ENVIRONMENTAL		
CIVIL		
STRUCTURAL		
ARCHITECTURAL		

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN DATE	CHAIRMAN OR SECRETARY DATE	CHAIRMAN OR SECRETARY DATE

CME ASSOCIATES, INC.

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333 East River Drive, East Hartford, CT 06108
50 Elm Street, Southbridge, MA 01550

888-291-3227 | www.cmeengineering.com

SITE DEVELOPMENT PLAN
PREPARED FOR

TOWNSEND DEVELOPMENT ASSOCIATES, LLC

LOT #16, PROVIDENCE ROAD (RT 6) BROOKLYN, CONNECTICUT

LIGHTING PLAN

REVISIONS

NO.	DATE	DESCRIPTION	BY
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6	10/12/2015	MYLARS FOR FILLING	PMP

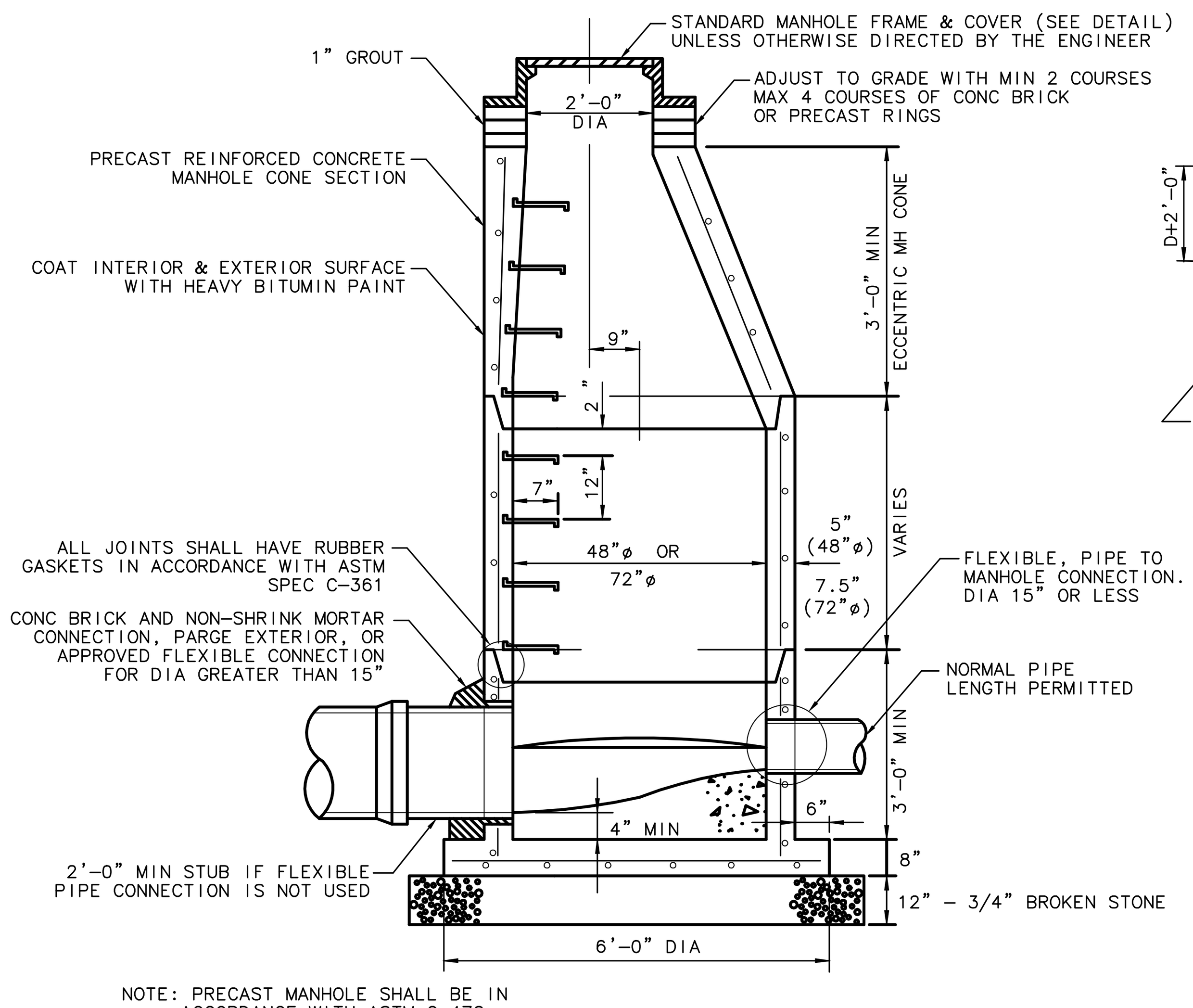
JOB DATA

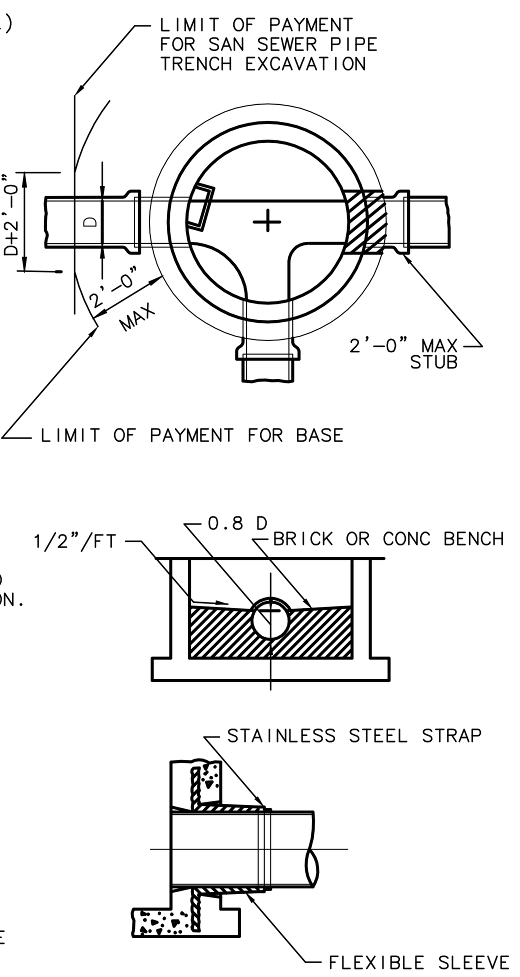
PROJECT	2014090-TOWNSEND
BOOK NO.	–
DESIGNED	JPG/PMP
DRAWN	KR/RC/PMP
CHECKED	–
COGO FILE	–
FILE	2014090 STP.dwg

DATE: 06/26/2015

SCALE: 1" = 30'

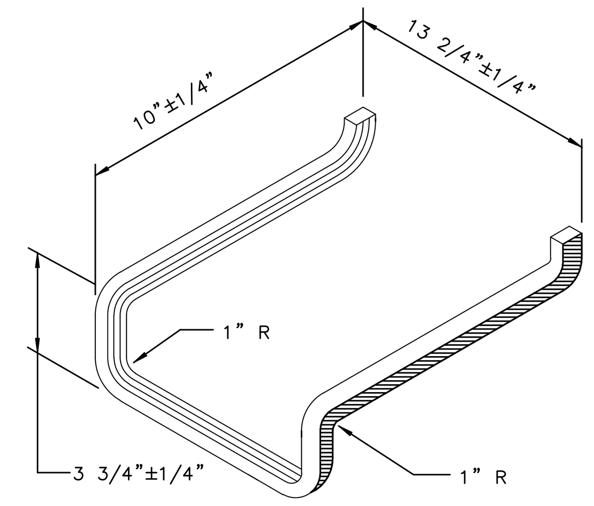
PROJECT: #2014090

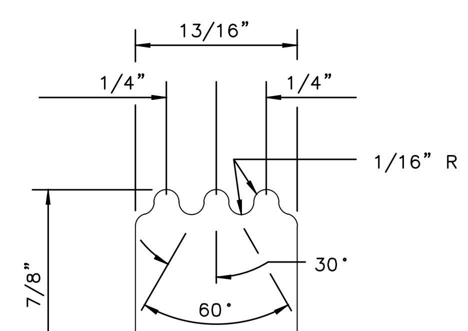




SANITARY MANHOLE

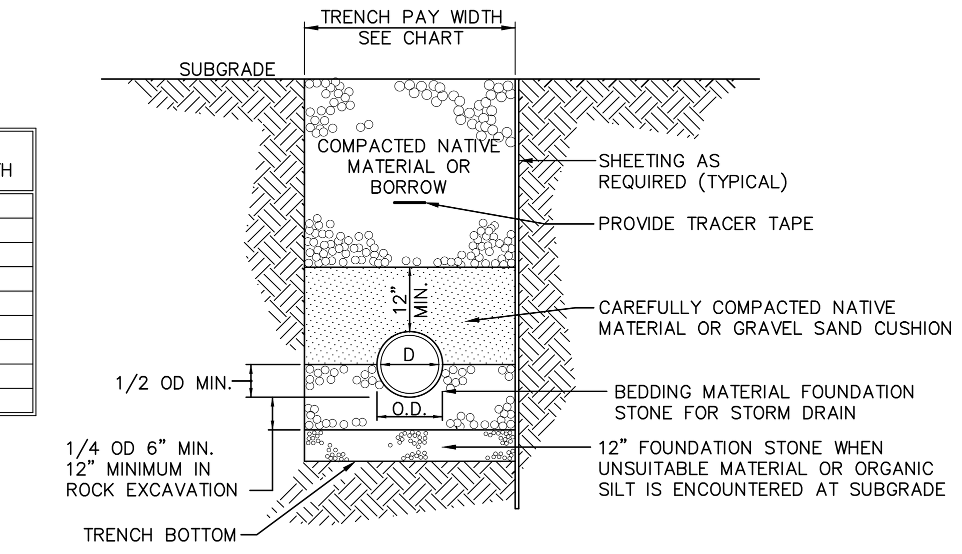
NTS





NOTE:
1. ALCOA #6061-T6 DROP FRONT DESIGN STEP OR APPROVED EQUAL.
2. PORTION OF ALUMINUM MH STEP TO BE EMBEDDED IN CONC SHALL BE COATED WITH A BITUMINOUS MATERIAL.

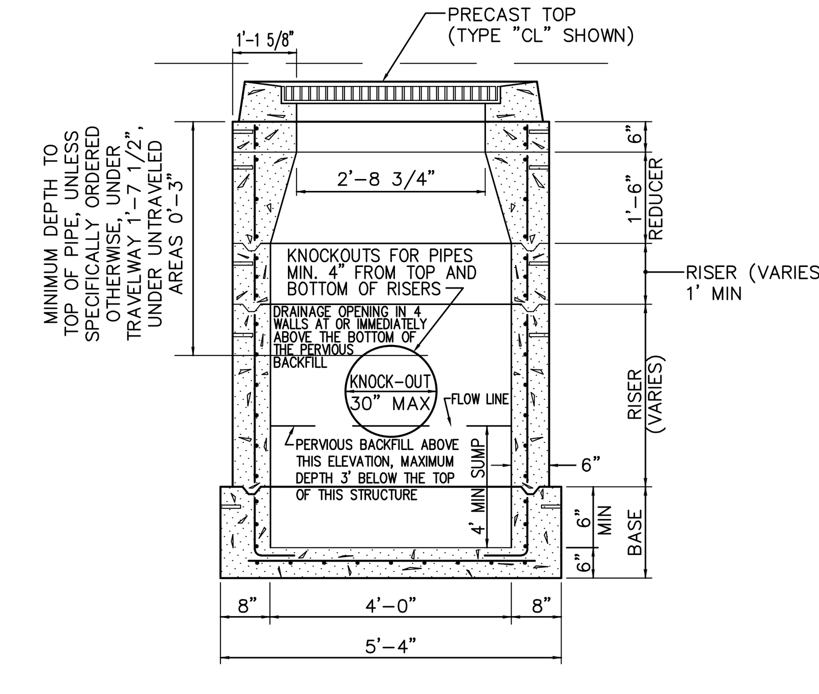
PIPE DIAMETER	MAXIMUM TRENCH WIDTH
6"	2'-6"
8"	3'-0"
10"	3'-0"
12"	3'-0"
15"	3'-3"
18"	3'-6"
21"	4'-0"
24"	4'-6"
30"	5'-0"



TRENCH SECTION FOR SANITARY SEWER & STORM DRAINS

NOT TO SCALE

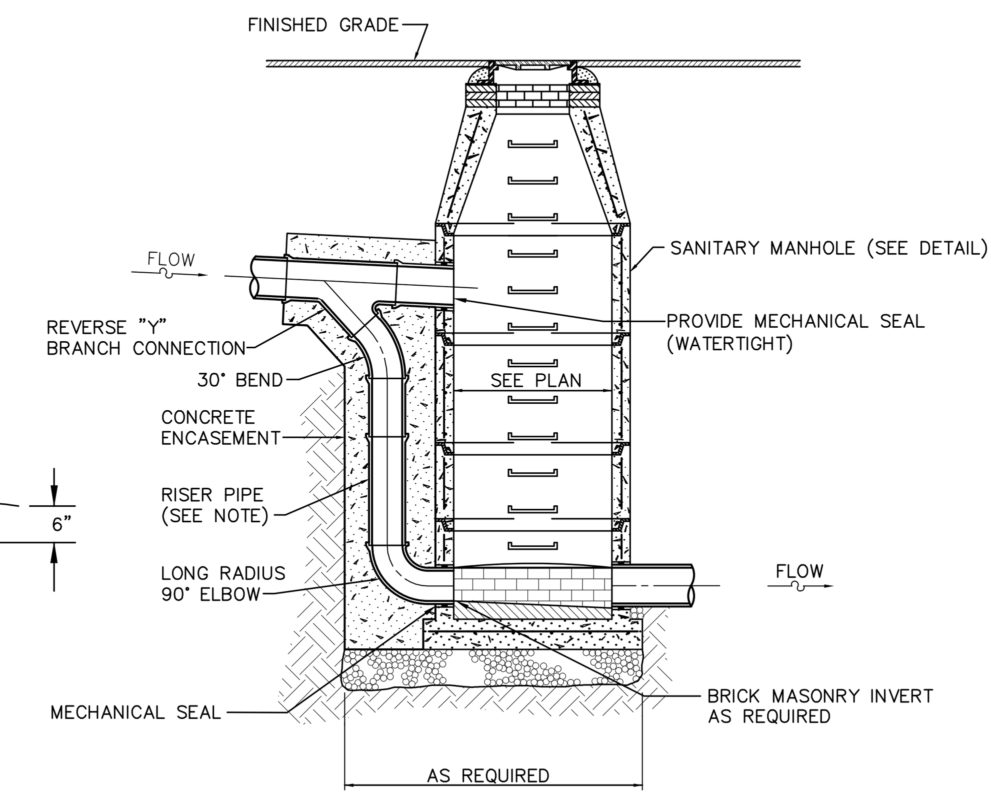
NOTE:
BACKFILL MATERIAL TO BE PLACED IN 12" MAXIMUM LIFTS & COMPACTED TO 95% MAXIMUM DRY DENSITY (AS DETERMINED BY THE MODIFIED PROCTOR METHOD)



TYPE "C" OR "CL" STANDARD CATCH BASIN CROSS SECTION

NOT TO SCALE

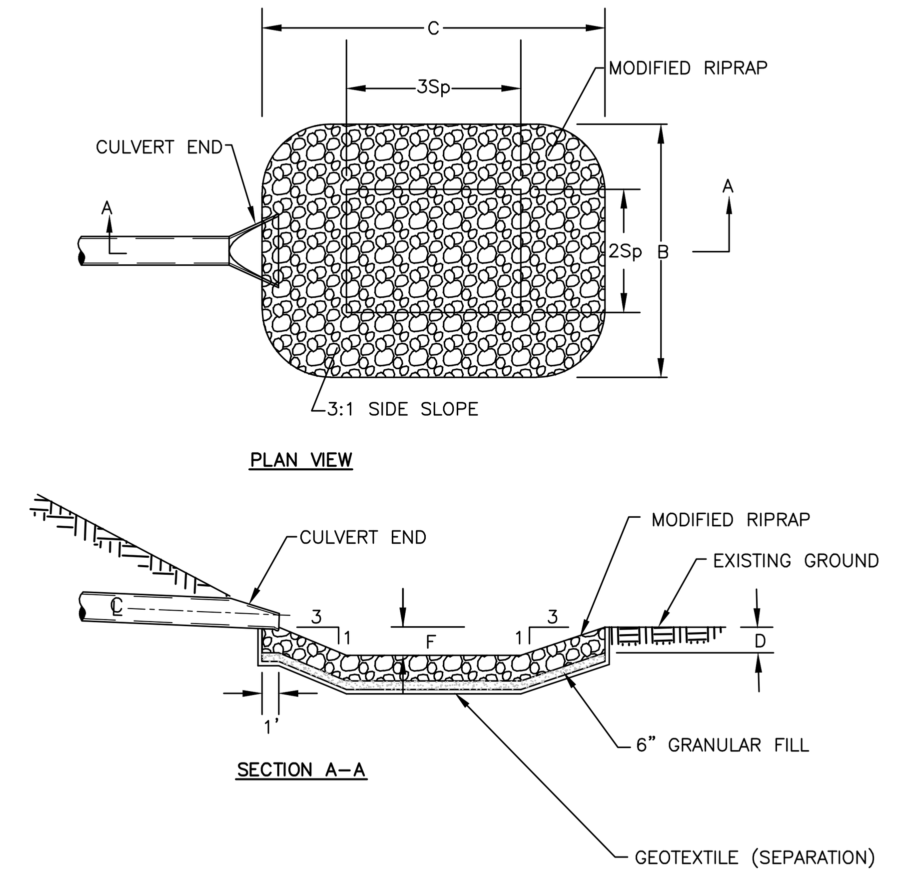
NOTE: CATCH BASINS MUST BE PROVIDED WITH AN OUTLET HOOD ("ELIMINATOR" BY GROUNDWATER RESCUE INC. OR EQUAL)



NOTE: USE 8" RISER PIPE AND BENDS FOR INCOMING SEWER OF 12" OR LESS. FOR INCOMING SEWER LARGER THAN 12", THE RISER PIPE AND BENDS SHALL BE 10"

DROP MANHOLE CROSS SECTION

NOT TO SCALE

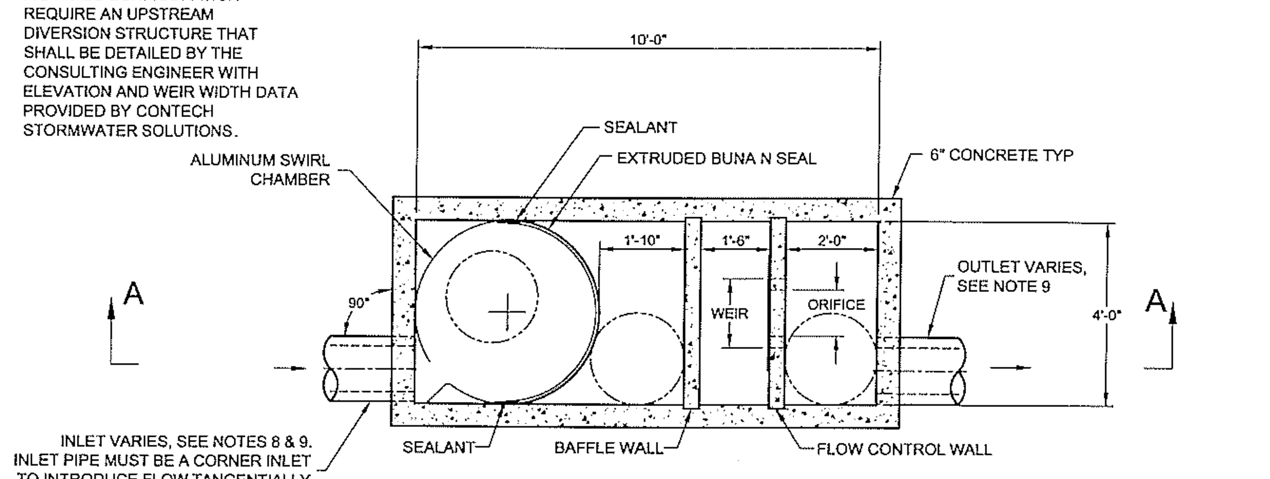


PREFORMED SCOUR HOLE TYPE 1

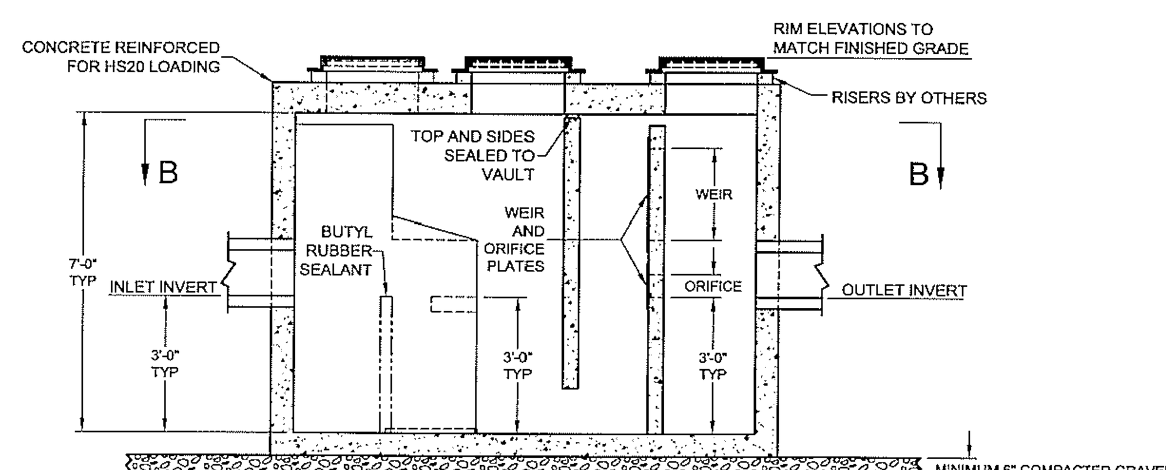
NTS

LOCATION	B	C	D	F	2Sp	3Sp
24" OUTLET	10'	12'	1'	1'	4'	6'

NOTE:
VORTECHS SYSTEMS INSTALLED IN A BYPASS CONFIGURATION REQUIRE AN UPSTREAM DIVERSION STRUCTURE THAT SHALL BE DETAILED BY THE CONSULTING ENGINEER WITH ELEVATION AND WEIR WIDTH DATA PROVIDED BY CONTECH STORMWATER SOLUTIONS.



PLAN VIEW B - B



SECTION A - A

NOTES:
1. STORMWATER TREATMENT SYSTEM (SWTS) SHALL HAVE:
   PEAK TREATMENT CAPACITY: 2.8 CFS
   SEDIMENT STORAGE: 1.2 CU YD
   SEDIMENT CHAMBER DIA: 4' MIN
2. SWTS SHALL BE CONTAINED IN ONE RECTANGULAR STRUCTURE
3. SWTS REMOVAL EFFICIENCY SHALL BE DOCUMENTED BASED ON PARTICLE SIZE
4. SWTS SHALL RETAIN FLOATABLES AND TRAPPED SEDIMENT UP TO AND INCLUDING PEAK TREATMENT CAPACITY
5. SWTS INVERTS IN AND OUT ARE TYPICALLY AT THE SAME ELEVATION
6. SWTS SHALL NOT BE COMPROMISED BY EFFECTS OF DOWNSTREAM TAILWATER
7. SWTS SHALL HAVE NO INTERNAL COMPONENTS THAT OBSTRUCT MAINTENANCE ACCESS
8. INLET PIPE MUST BE PERPENDICULAR TO THE STRUCTURE
9. PIPE ORIENTATION MAY VARY; SEE SITE PLAN FOR SIZE AND LOCATION
10. PURCHASER SHALL NOT BE RESPONSIBLE FOR ASSEMBLY OF UNIT
11. MANHOLE FRAMES AND PERFORATED COVERS SUPPLIED WITH SYSTEM, NOT INSTALLED
12. PURCHASER TO PREPARE EXCAVATION AND PROVIDE CRANE FOR OFF-LOADING AND SETTING AT TIME OF DELIVERY
13. VORTECHS SYSTEMS BY CONTECH STORMWATER SOLUTIONS; PORTLAND, OR (800) 548-4667; SCARBOROUGH, ME (877) 907-8676; ELKRIDGE, MD (866) 740-3318.

PROPRIETARY INFORMATION - NOT TO BE USED FOR CONSTRUCTION PURPOSES

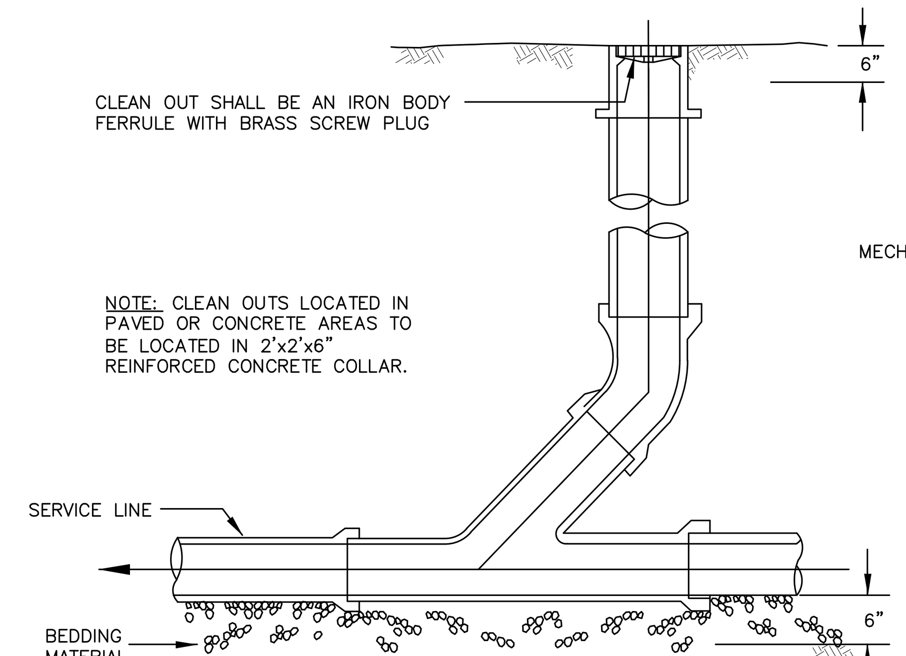
CONTECH STORMWATER SOLUTIONS
contechstormwater.com

STANDARD DETAIL
STORMWATER TREATMENT SYSTEM
VORTECHS® MODEL 2000

U.S. PATENT No. 5,759,415

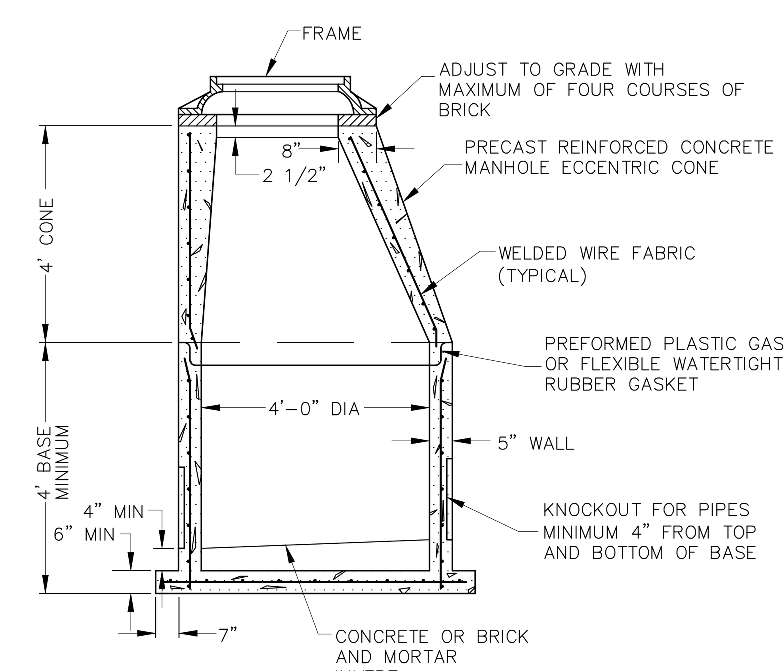
DATE: 4/4/05 | SCALE: NONE | FILE NAME: STD2K | DRAWN: GMC | CHECKED: NDG

QUALITY CONTROL CERTIFICATION		
GROUP	REVIEWED	DATE
PROJECT MANAGER		
SURVEY		
ENVIRONMENTAL		
CIVIL		
STRUCTURAL		
ARCHITECTURAL		



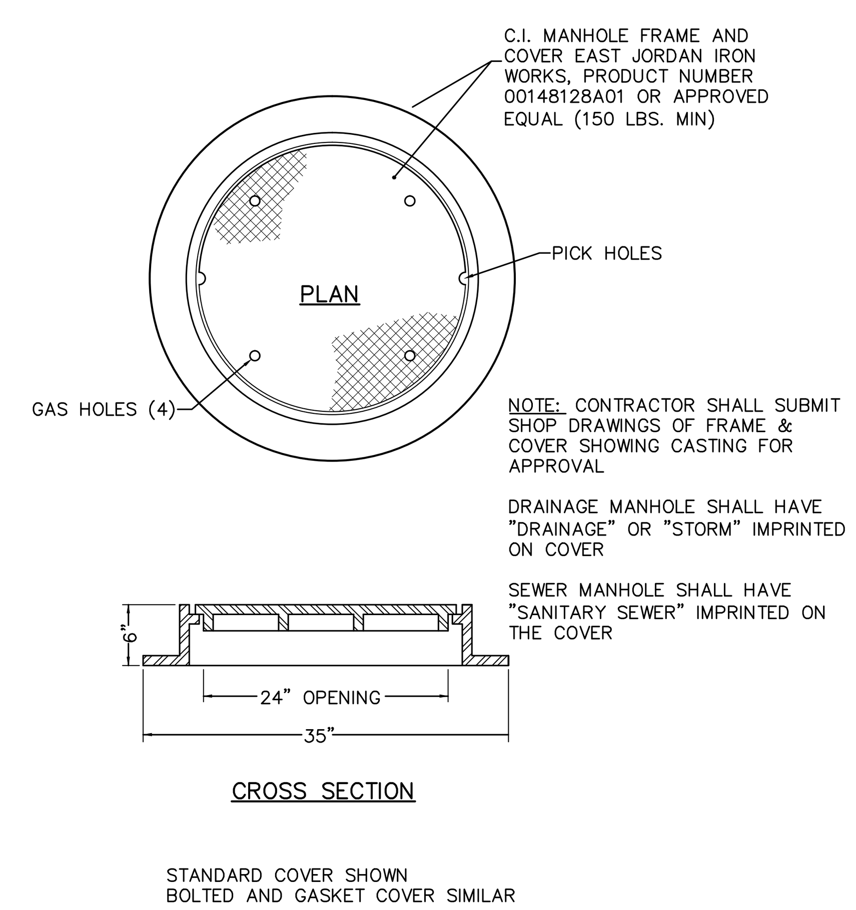
CLEAN-OUT DETAIL

NTS



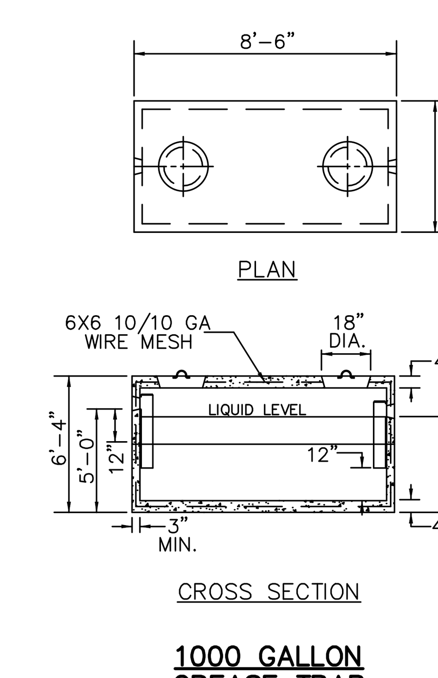
DRAINAGE MANHOLE CROSS SECTION

NOT TO SCALE



STANDARD MANHOLE FRAME AND COVER

NOT TO SCALE



1000 GALLON GREASE TRAP

NOT TO SCALE

REVIEWED BY THE TOWN ENGINEER	
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CONSTRUCTION DETAILS

JOB DATA

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BOOK NO.	-
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CHECKED	-
COGO FILE	-
FILE	2014090 DET.dwg

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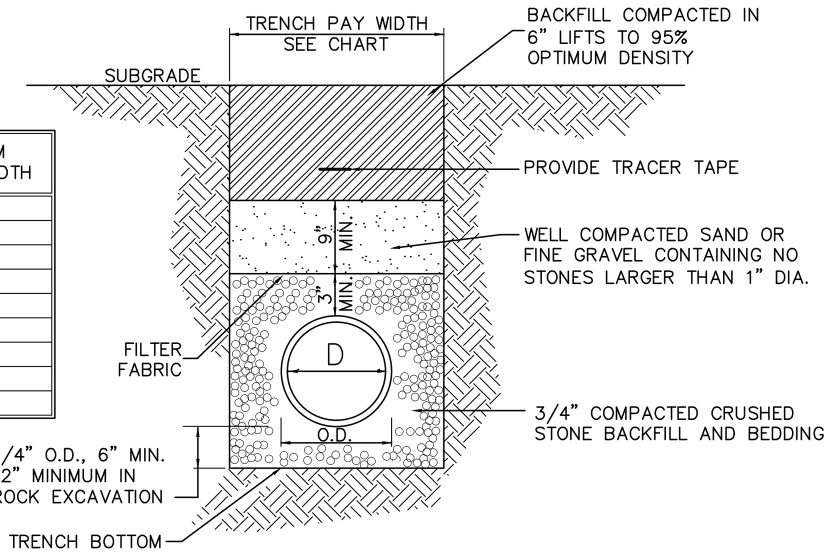
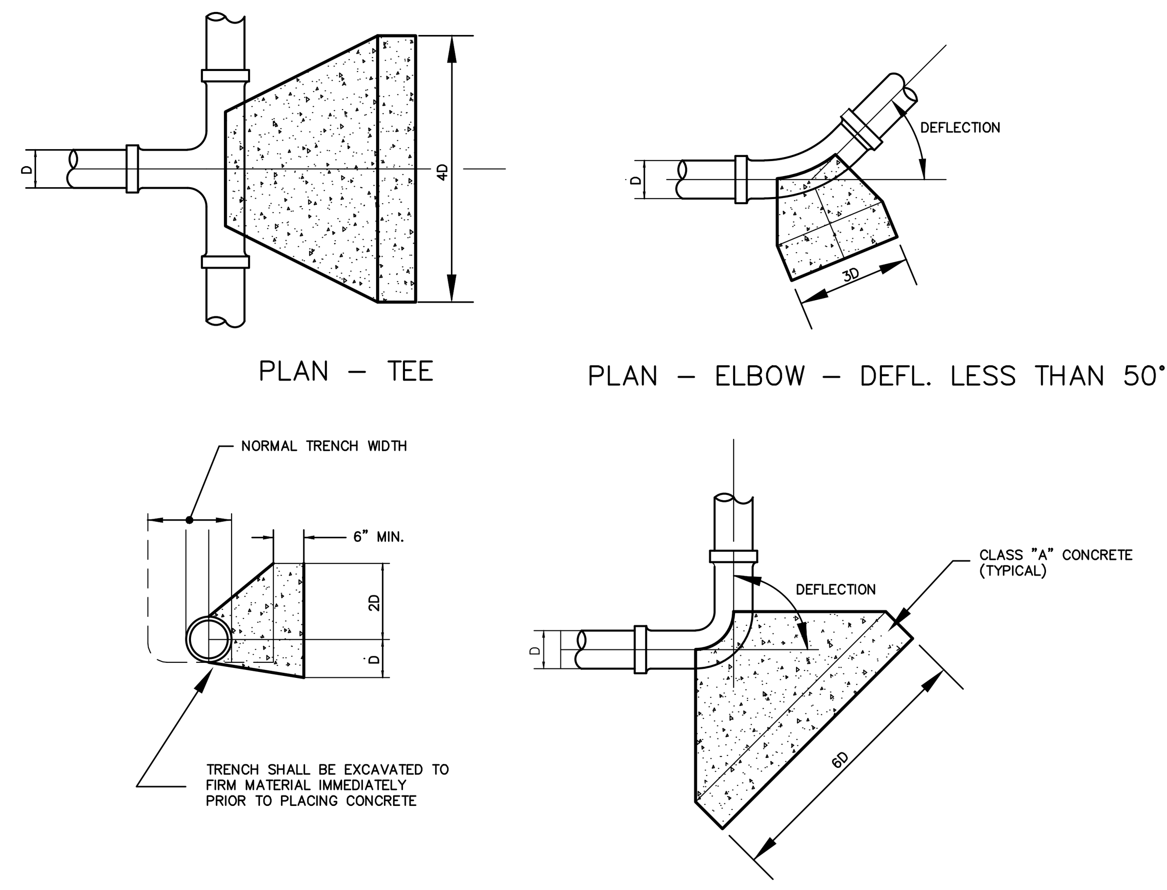
6	10/12/2015	MYLARS FOR FILLING	PMP

DATE: 06/26/2015
SCALE: AS NOTED
PROJECT: #2014090



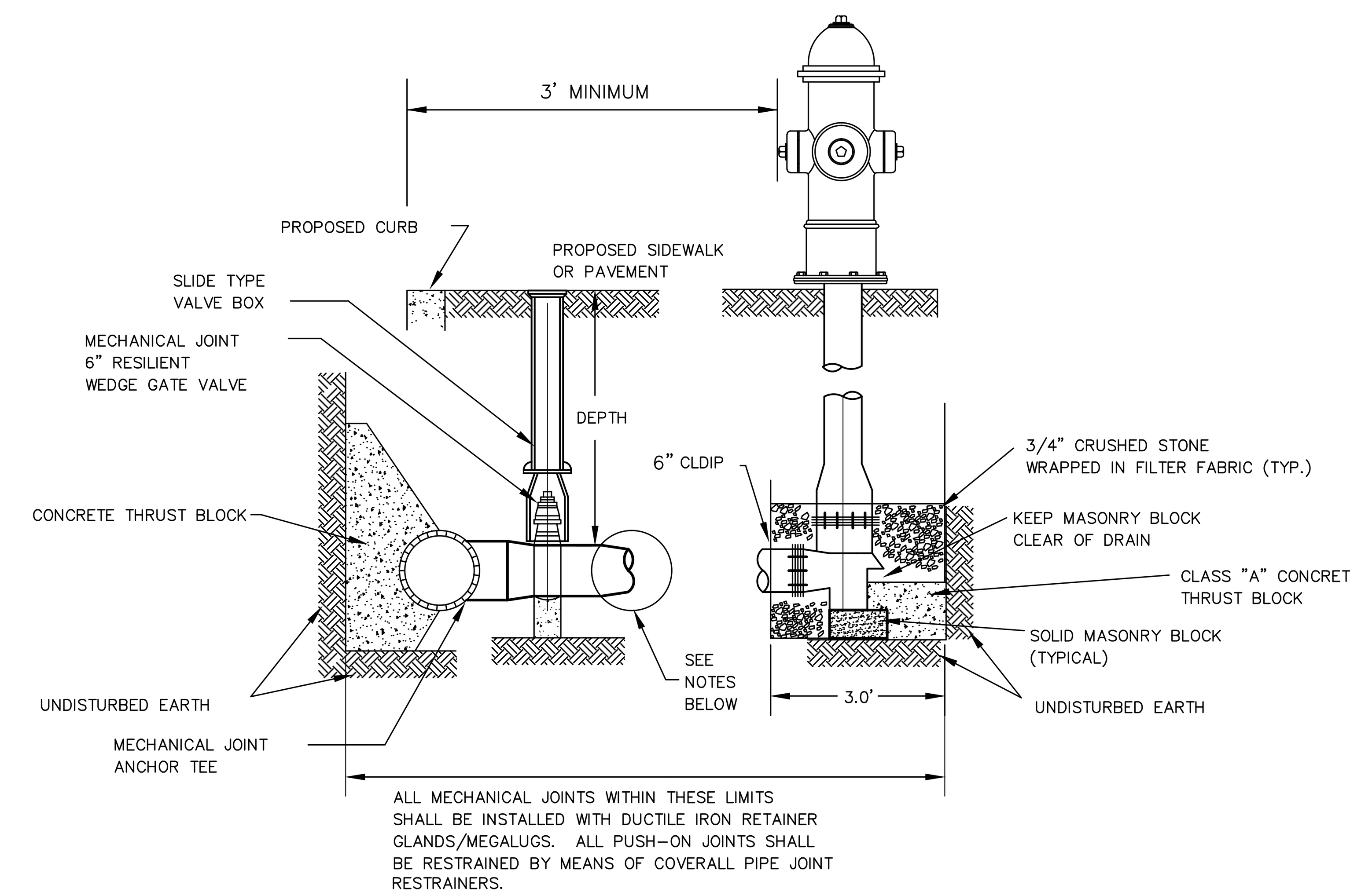
PIPE DIAMETER	MAXIMUM TRENCH WIDTH
6"	2'-6"
8"	3'-0"
10"	3'-0"
12"	3'-0"
15"	3'-3"
18"	3'-6"
21"	4'-0"
24"	4'-6"
30"	5'-0"

TRENCH SECTION FOR TYPICAL WATER MAIN TRENCH
NOT TO SCALE



CONCRETE THRUST BLOCKS
NOT TO SCALE

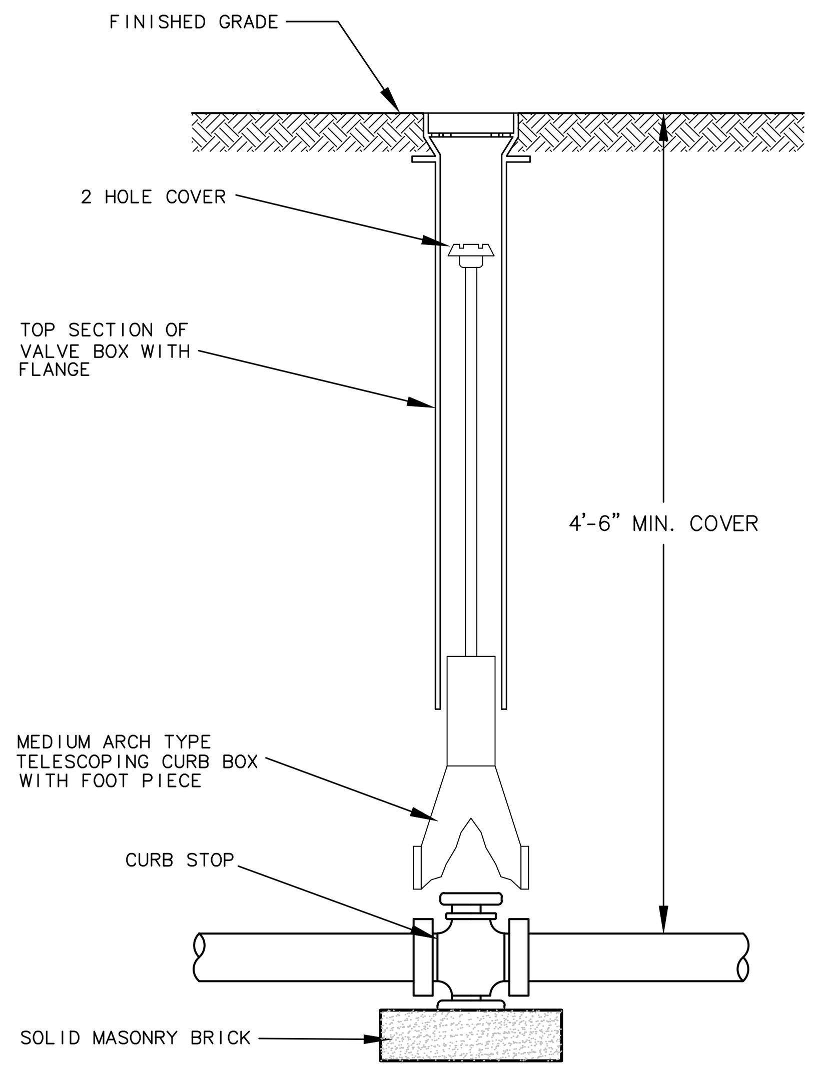
NOTE: THRUST BLOCK DIMENSIONS ASSUME:
ALLOWABLE SOIL BEARING PRESSURE = 1,650 PSI
WATER MAIN WORKING PRESSURE = 150 PSI



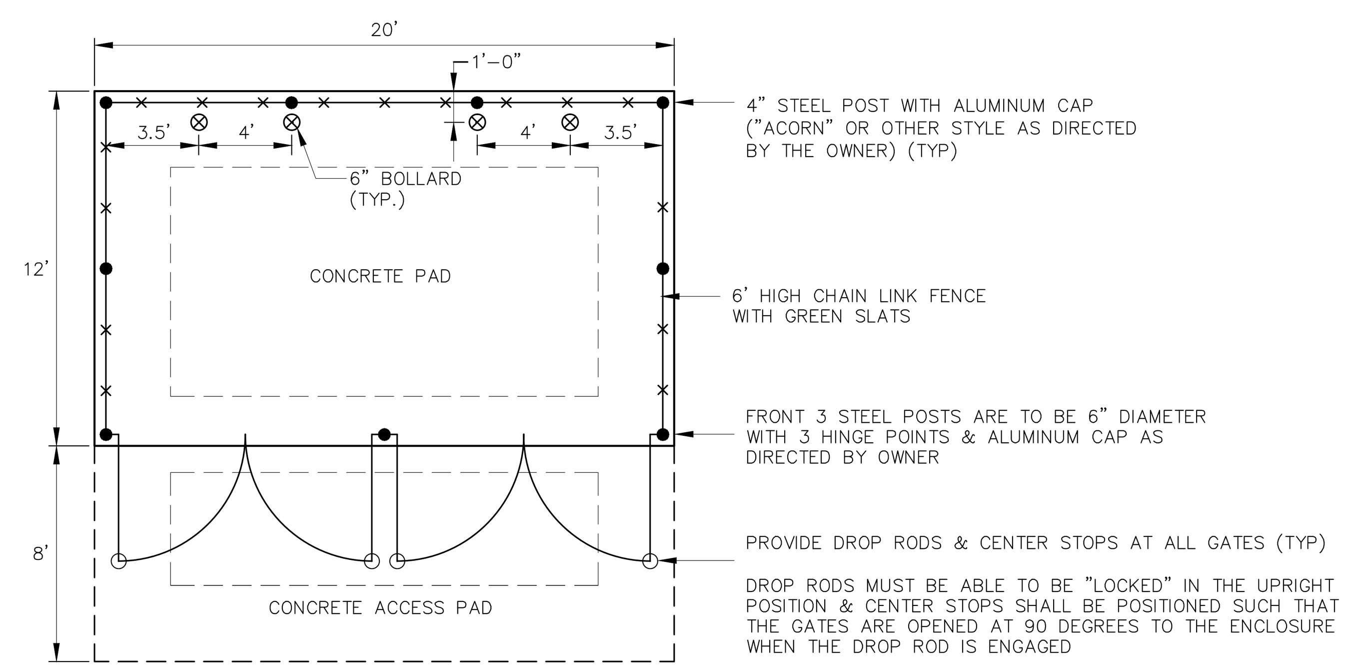
ALL MECHANICAL JOINTS WITHIN THESE LIMITS SHALL BE INSTALLED WITH DUCTILE IRON RETAINER GLANDS/MEGALUGS. ALL PUSH-ON JOINTS SHALL BE RESTRAINED BY MEANS OF COVERALL PIPE JOINT RESTRAINERS.

NOTE: HYDRANTS SHALL BE SET AT BACK OF SIDEWALKS ALLOWING 3.0' MINIMUM TO FACE OF CURB.

HYDRANT DETAIL
NOT TO SCALE

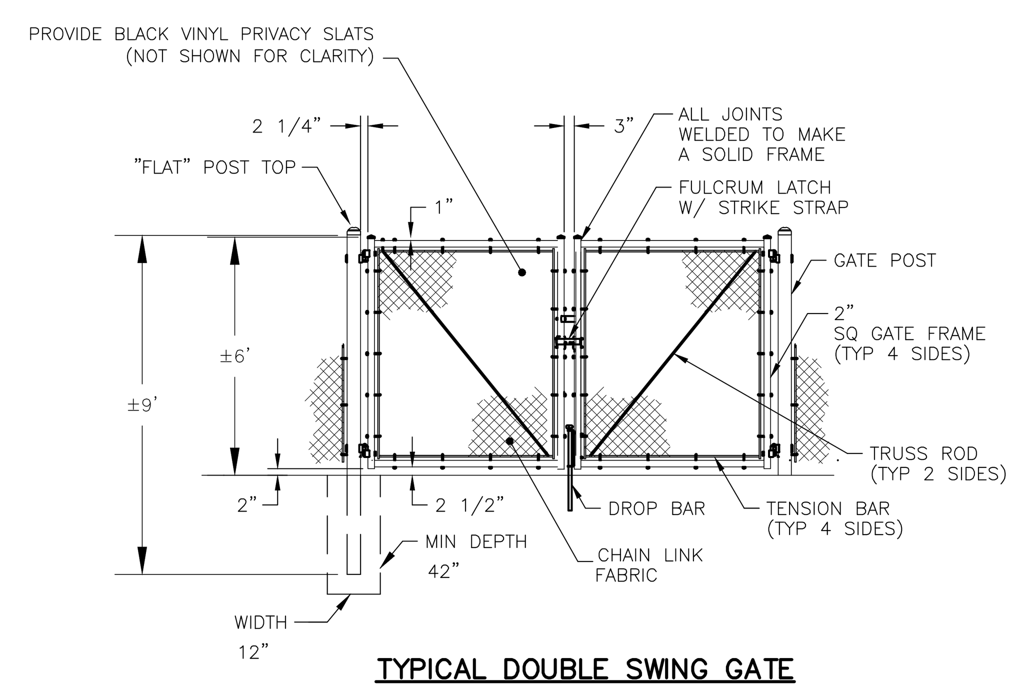


CURB STOP
NTS



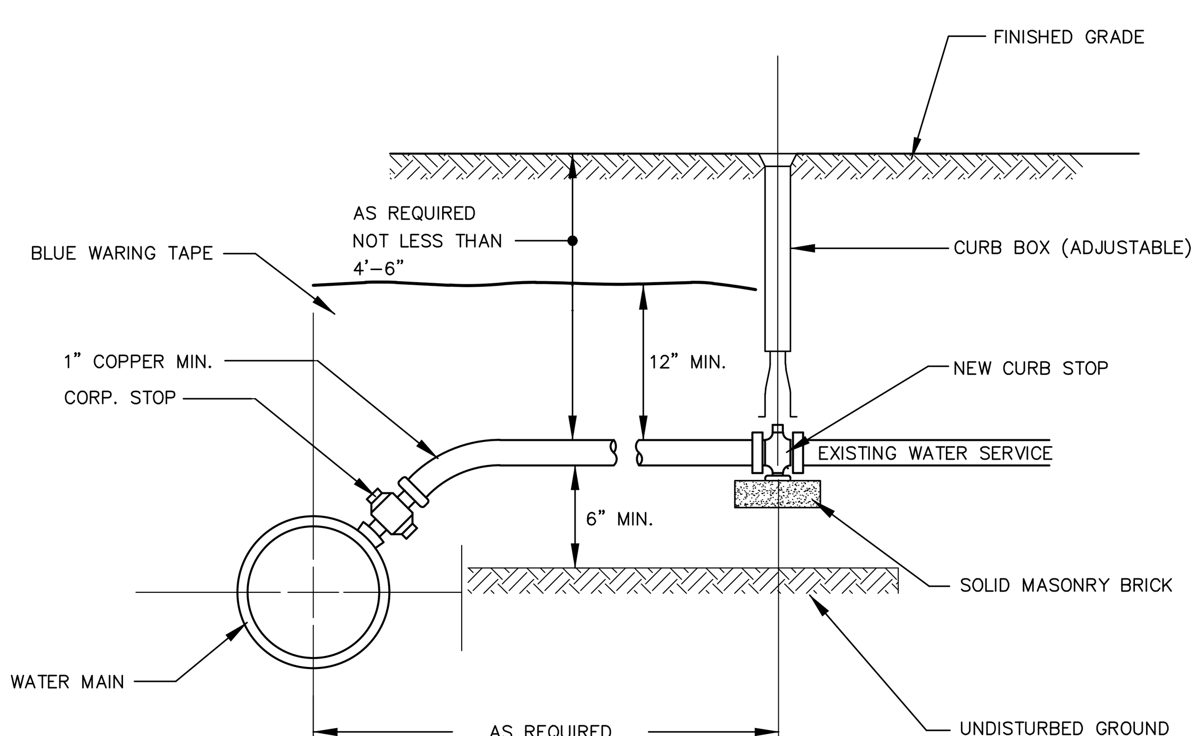
NOTES:
1.) GATE TO BE REINFORCED WITH GALVANIZED STEEL TUBING AND SHEATHED WITH MATERIALS CONSISTENT IN TYPE AND COLOR TO THE REMAINDER OF THE DUMPSTER ENCLOSURE.
2.) GATE POSTS AND BOLLARDS SHALL BE SET IN PLACE PRIOR TO CASTING SLAB.
3.) ENTIRE SLAB SHALL BE CAST ON MINIMUM OF 6" CRUSHED STONE OR COMPACTED GRAVEL.
4.) CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AND SHALL BE PLACED IN ACCORDANCE WITH ACI 318–02.
5.) WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM A 185.
6.) STEEL REINFORCING SHALL HAVE A YIELD STRENGTH OF 60ksi.

DUMPSTER ENCLOSURE DETAIL
NOT TO SCALE



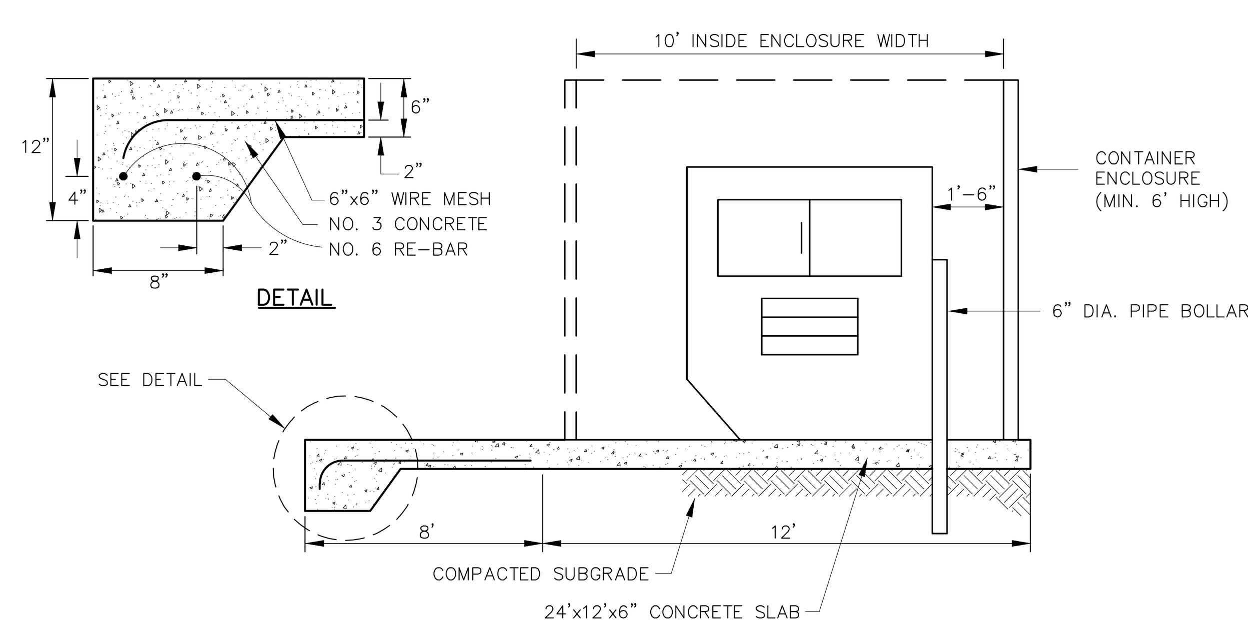
TYPICAL DOUBLE SWING GATE
NOT TO SCALE

NOTE:
1. ALL FENCE COMPONENTS SHALL BE BLACK PVC COATED
2. PROVIDE DROP BAR FOR EACH GATE & GROUND INSERT TO STABILIZE GATES IN BOTH CLOSED & OPEN CONDITIONS. PROVIDE LATCH POSTS TO STABILIZE GATES IN OPEN POSITION IF GROUND ELEVATIONS VARY.

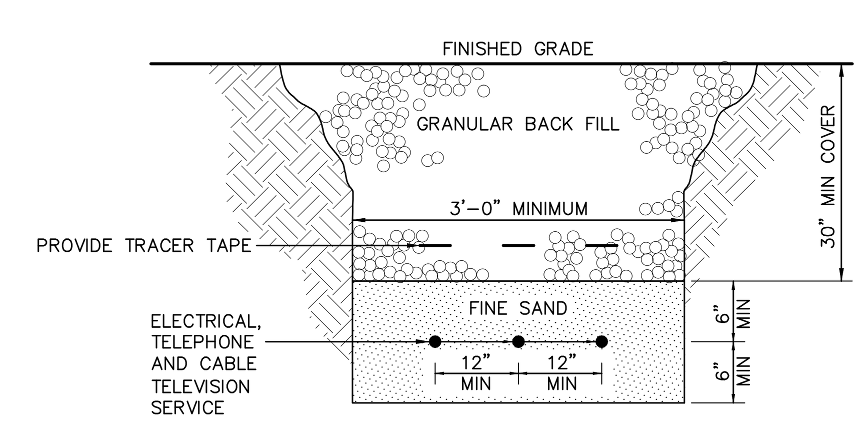


NOTE:
WATER SERVICE PIPE TO BE INSTALLED IN A BED OF FINE AGGREGATE SAND 6" MINIMUM BED AND 12" MINIMUM COVER AND BLUE WARNING TAPE ON TOP OF THE 12" FINE AGGREGATE BED.

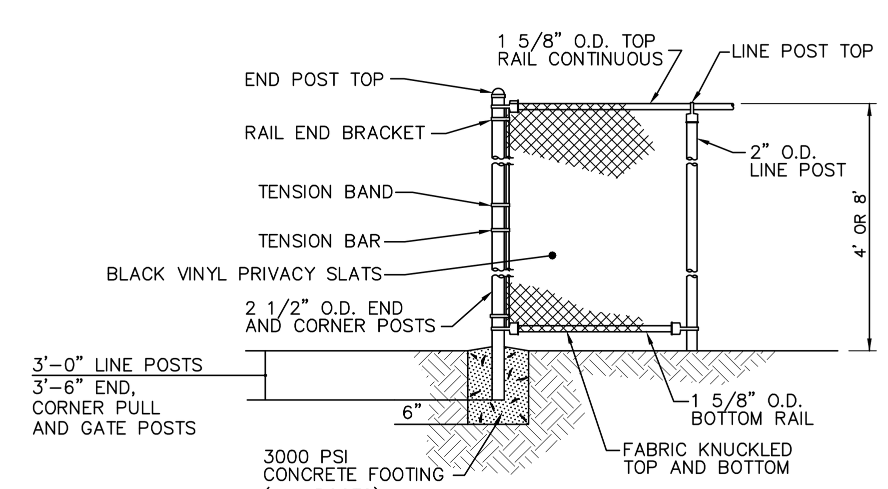
CORPORATION CURB STOP
NTS



DUMPSTER PAD SECTION
NOT TO SCALE



BURIED CABLE TRENCH CROSS SECTION
NOT TO SCALE



NOTE: ALL COMPONENTS SHALL HAVE BLACK EPOXY COATING

TYPICAL CHAIN LINK FENCING
NOT TO SCALE

QUALITY CONTROL CERTIFICATION		
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SCALE: AS NOTED
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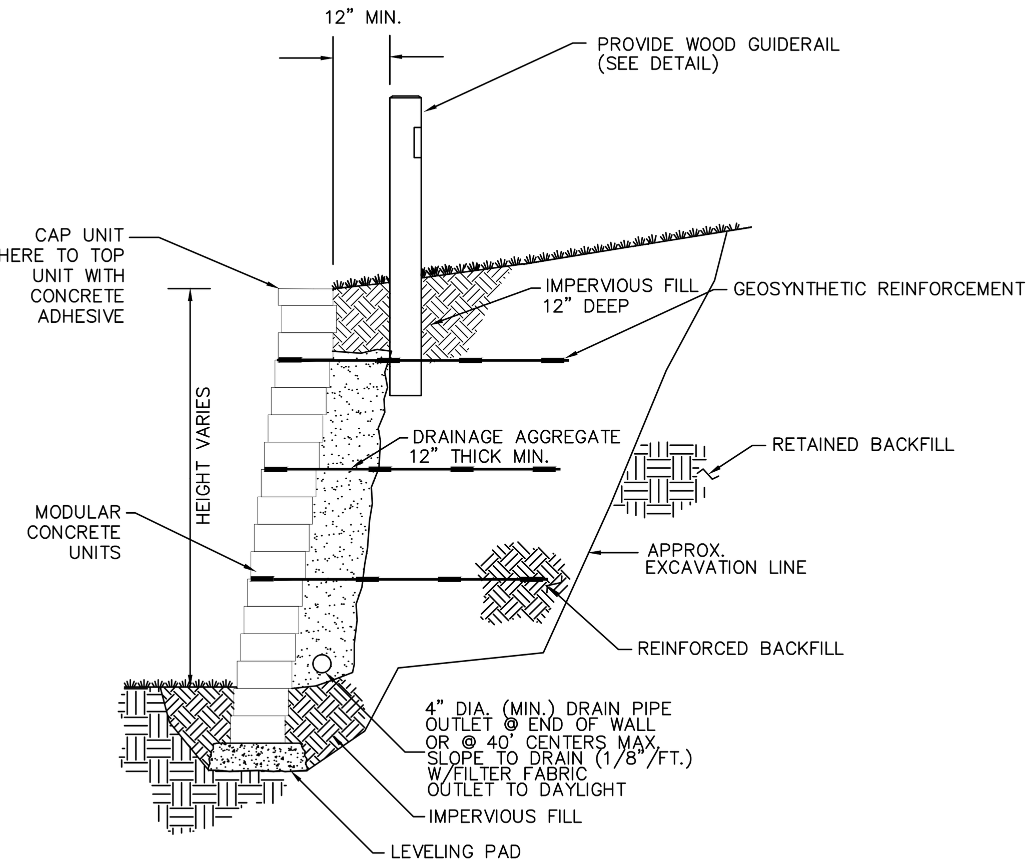
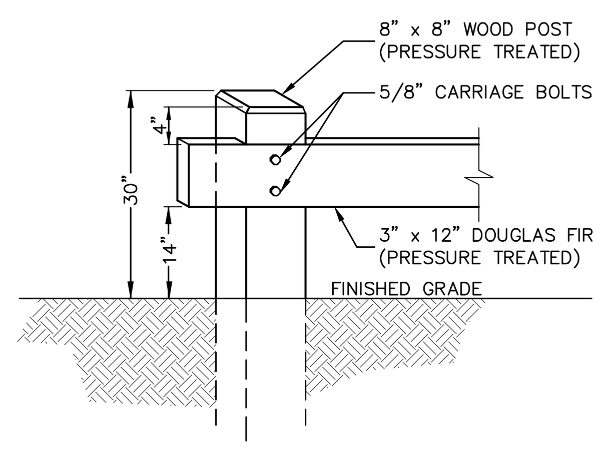
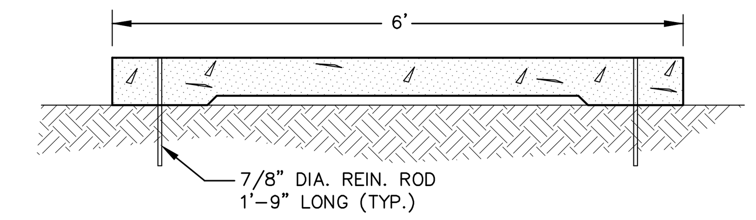


GENERAL NOTES:
CONTRACTOR TO PROVIDE CERTIFIED DESIGN AND WORKING DRAWINGS PRIOR TO INSTALLATION.

TYPICAL SECTION–REINFORCED RETAINING WALL
MODULAR CONCRETE UNIT
NOT TO SCALE

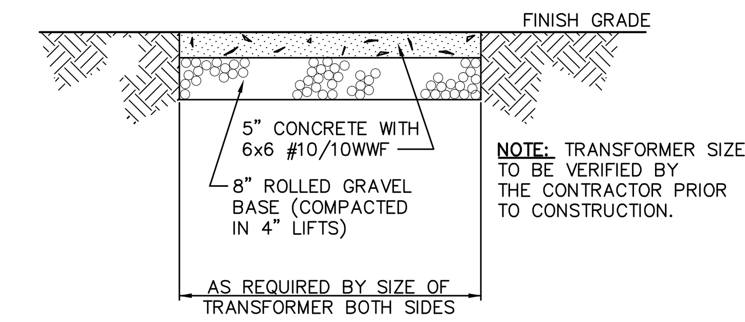


WOOD GUARD RAIL
NOT TO SCALE

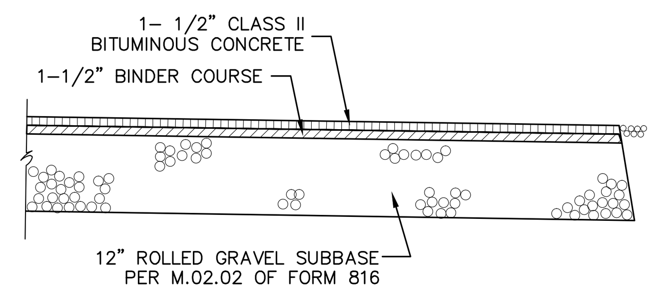


NOTE: INSTALL AS REQUIRED BY THE MANUFACTURER

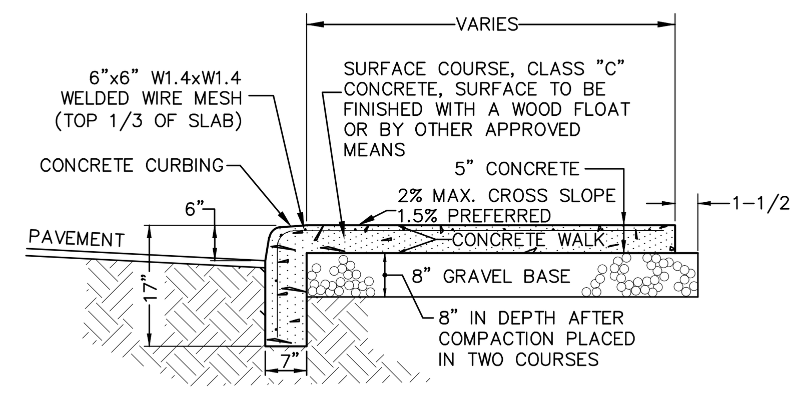
CONCRETE WHEEL STOP CROSS SECTION
NOT TO SCALE



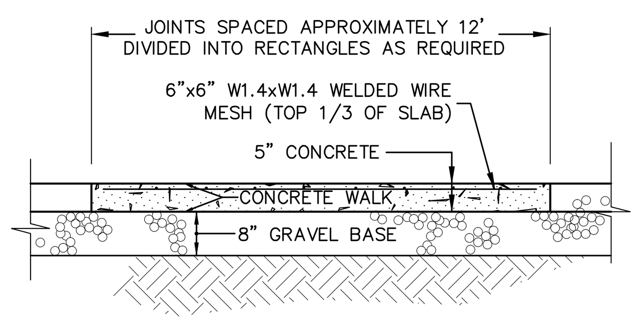
TRANSFORMER PAD
NOT TO SCALE



BITUMINOUS CONCRETE PAVEMENT
NOT TO SCALE

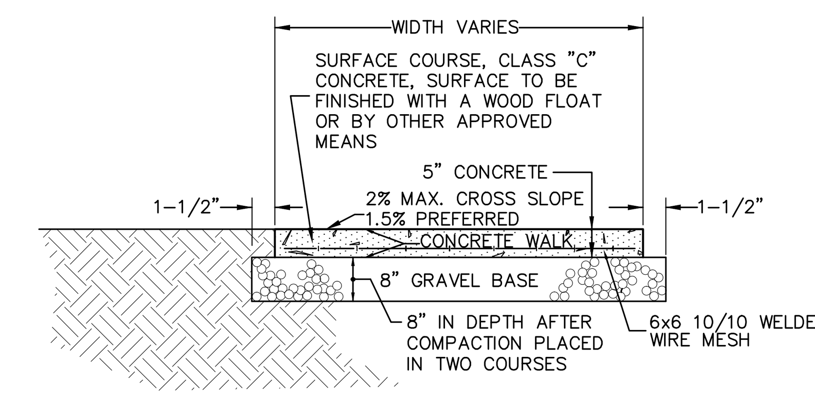


CROSS SECTION

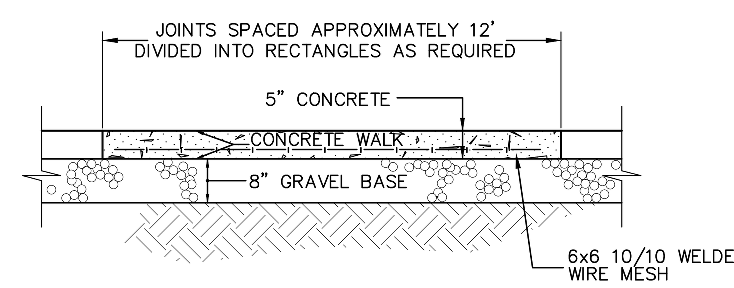


LONGITUDINAL SECTION

5" CONCRETE SIDEWALK WITH CONCRETE CURBING
NOT TO SCALE

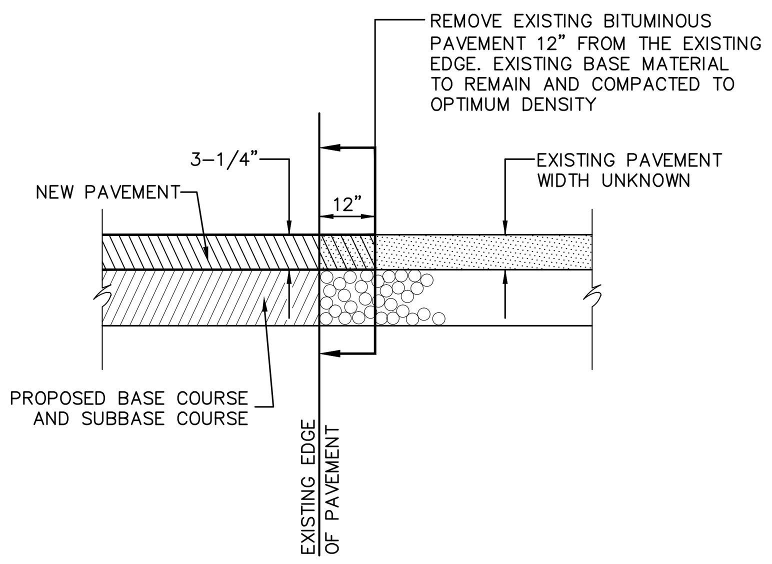


CROSS SECTION



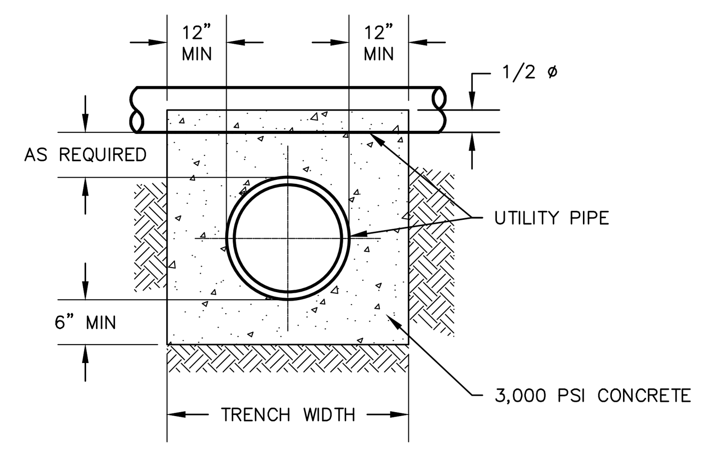
LONGITUDINAL SECTION

5" CONCRETE SIDEWALK
NOT TO SCALE



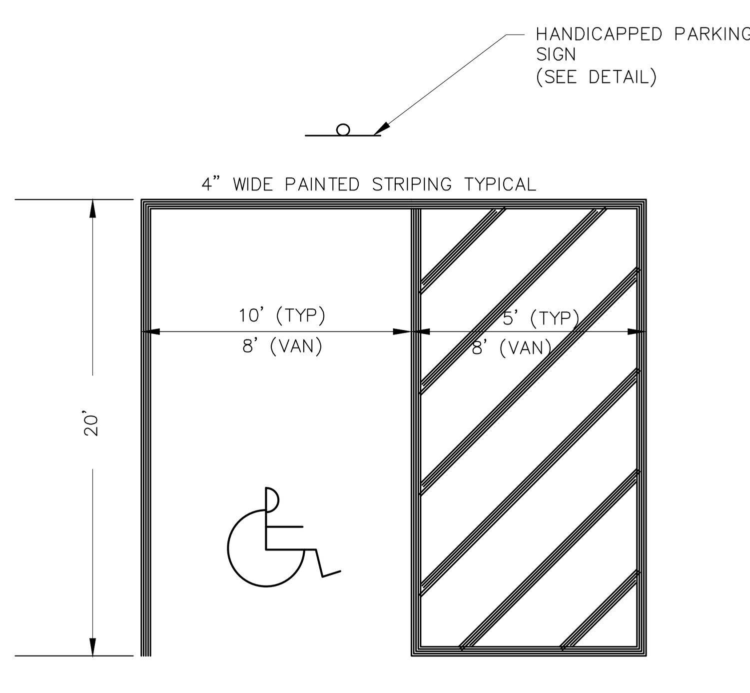
1.) SAW CUT PAVEMENT WITH POWER DRIVEN SAW 12" FROM THE EXISTING EDGE. SAW CUT TO BE PERPENDICULAR TO THE EXISTING SURFACE.
2.) REMOVE ENTIRE WIDTH OF PAVEMENT.
3.) CLEAN JOINT WITH COMPRESSED AIR HAVING A MINIMUM RATED CAPACITY OF 90 PSI
4.) APPLY TACK COAT TO THE SAW CUT EDGE AND MATCH THIS EDGE WITH THE PROPOSED EDGE.

TYPICAL CROSS SECTION FOR MATCHING EXISTING AND PROPOSED PAVEMENT
NOT TO SCALE



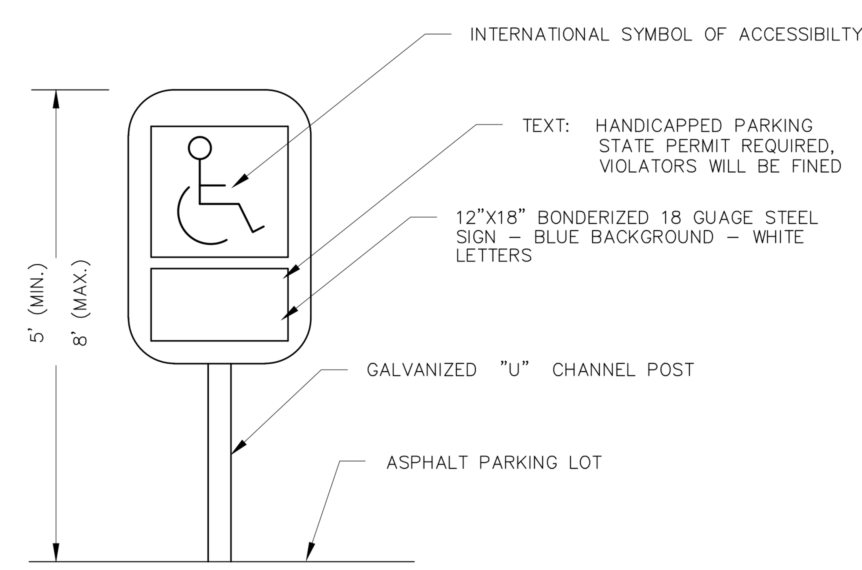
NOTE:
PROVIDE CONCRETE ENCASEMENT IN ALL LOCATIONS WHERE UTILITIES CROSS WITH LESS THAN 12" OF SEPARARTION OR AS DIRECTED BY THE ENGINEER

CONCRETE ENCASEMENT
NTS

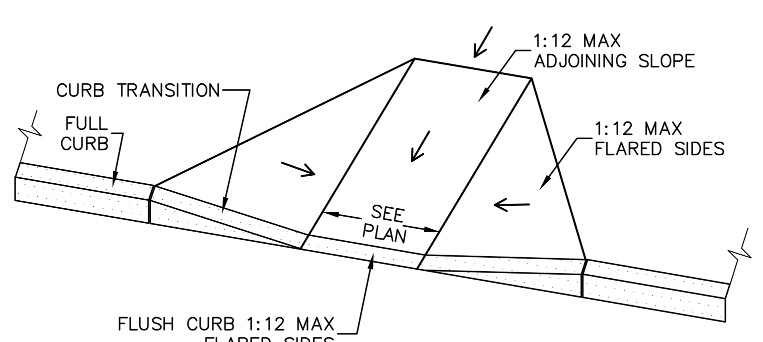


HANDICAP PARKING LAYOUT
NOT TO SCALE

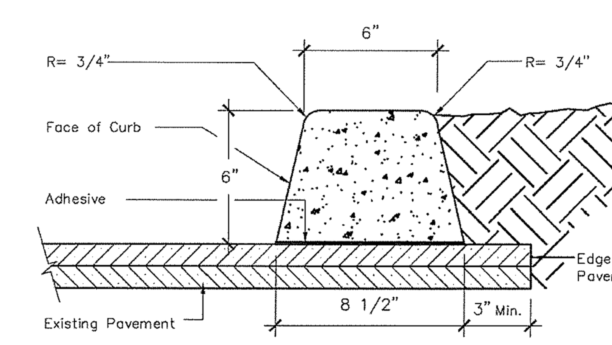
NOTES:
1. VAN ACCESSIBLE SPACES REQUIRE AN 8' SPACE WITH AN 8' HATCHED AREA.
2. ADJACENT SPACES CAN NOT "SHARE" HATCHED ACCESS AISLES
3. MAXIMUM SLOPE IN ANY DIRECTION WITHIN PARKING SPACE & HATCHED AREA IS 2%



HANDICAPPED PARKING SIGN
NOT TO SCALE



DEPRESSED CURB RAMP
NOT TO SCALE



FINISH COURSE STANDARD MOLD 6"

CONCRETE LIP CURBING DETAIL
NOT TO SCALE
NOTE: USE FINISH COURSE STANDARD MOLD 6" BY CONCRETE CRAFTERS OF CT. INC., NAUGATUCK, CT.

QUALITY CONTROL CERTIFICATION		
GROUP	REVIEWED	DATE
PROJECT MANAGER		
SURVEY		
ENVIRONMENTAL		
CIVIL		
STRUCTURAL		
ARCHITECTURAL		

REVIEWED BY THE TOWN ENGINEER	ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION	APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION
FIRST SELECTMAN — DATE	CHAIRMAN OR SECRETARY — DATE	CHAIRMAN OR SECRETARY — DATE

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SITE DEVELOPMENT PLAN
PREPARED FOR
TOWNSEND DEVELOPMENT ASSOCIATES, LLC
LOT #16, PROVIDENCE ROAD (RT 6) BROOKLYN, CONNECTICUT

CONSTRUCTION DETAILS

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JOB DATA

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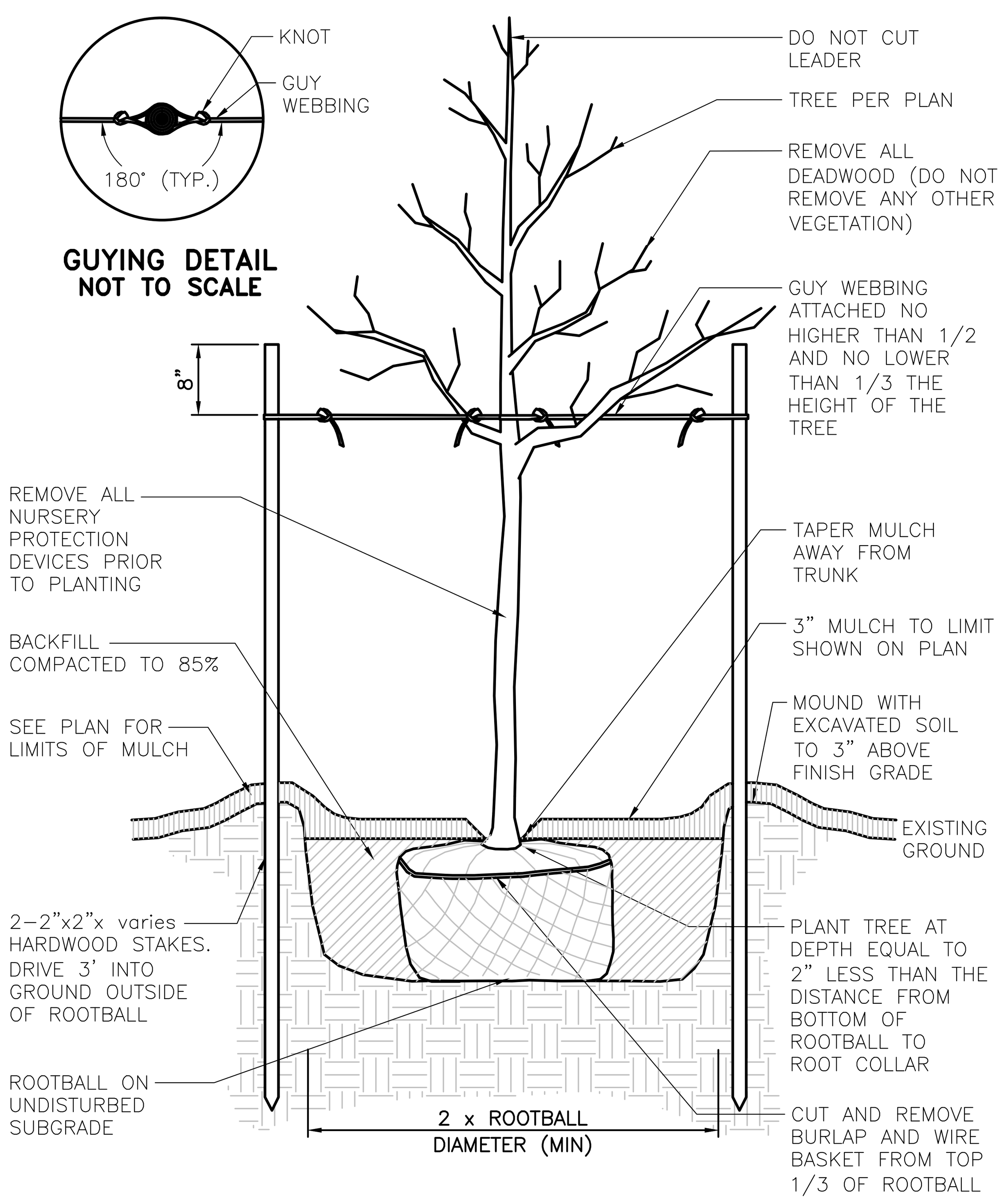
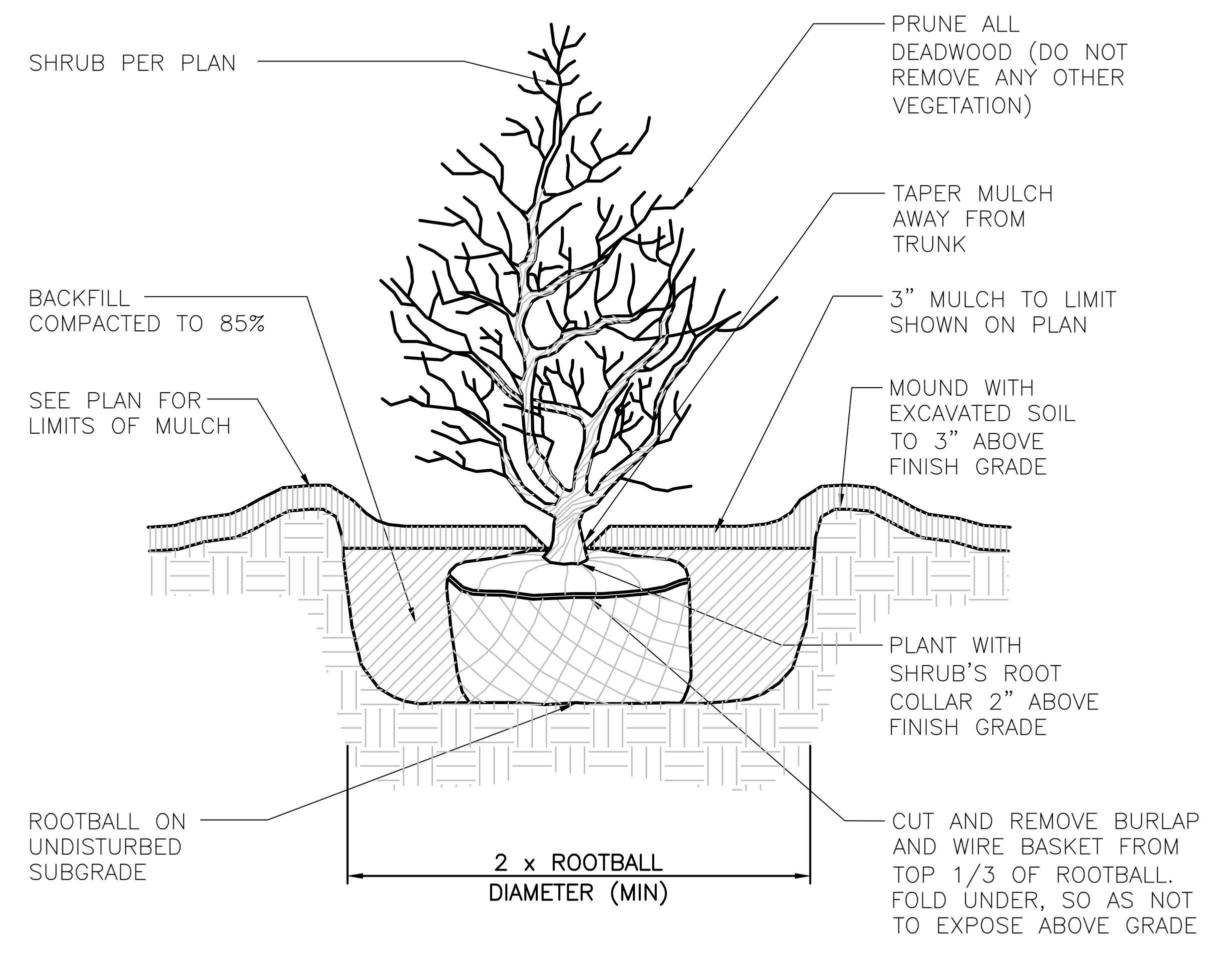
CHECKED	–
COGO FILE	–
FILE	2014090 DET.dwg

DATE: 06/26/2015
SCALE: AS NOTED
PROJECT: #2014090

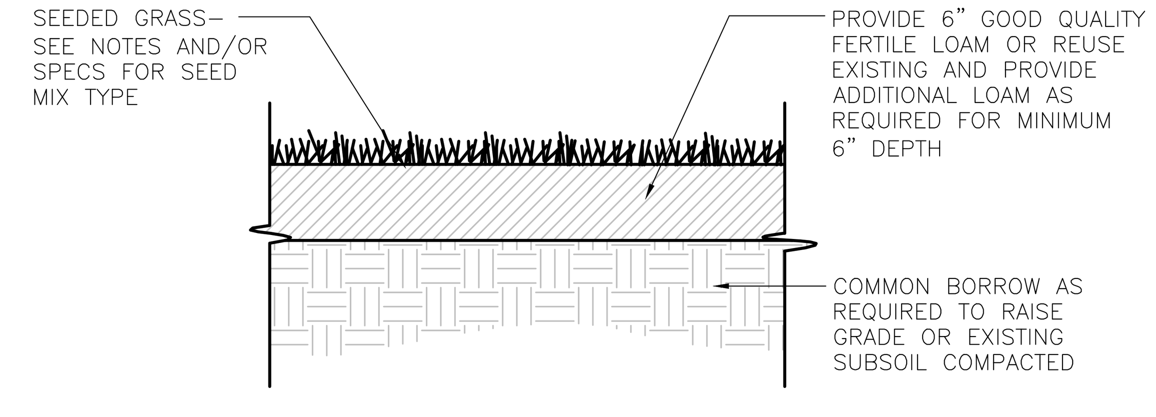


NOTE:
1. AFTER THE GUARANTEE PERIOD THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF STAKES AND GUY WEBBING.

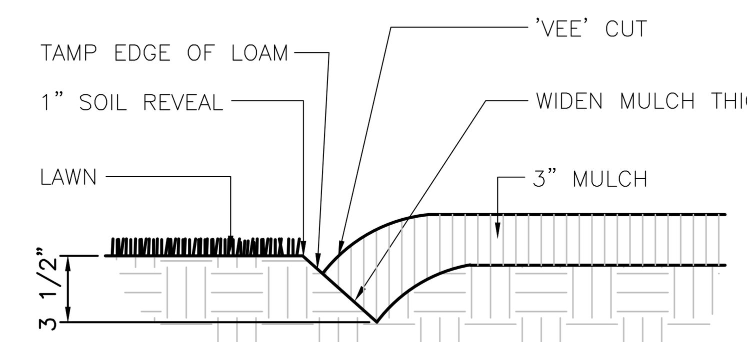
DECIDUOUS TREE STAKING AND PLANTING DETAIL
NOT TO SCALE



SHRUB PLANTING DETAIL
NOT TO SCALE

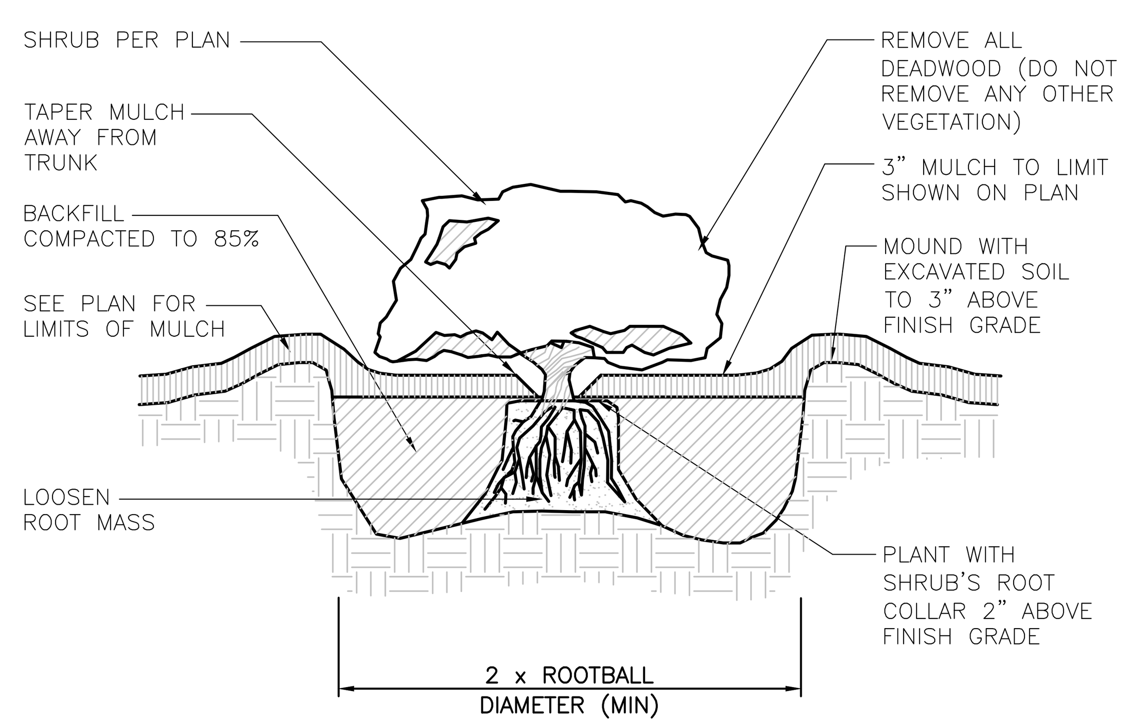


LOAM AND SEED DETAIL
NOT TO SCALE

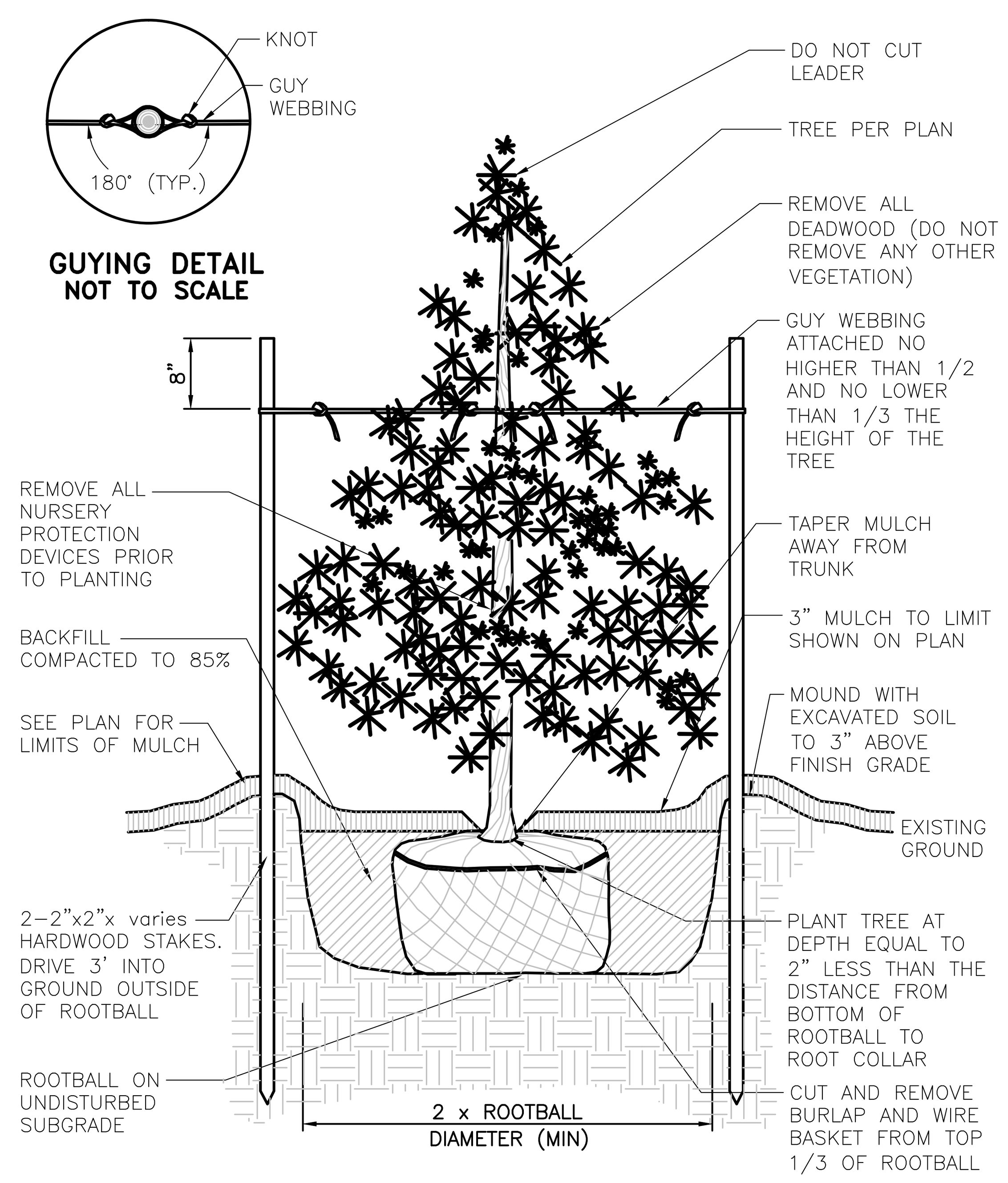


NOTE: LOCATE BEDLINE AS SHOWN ON PLAN.

BEDLINE EDGE DETAIL
NOT TO SCALE

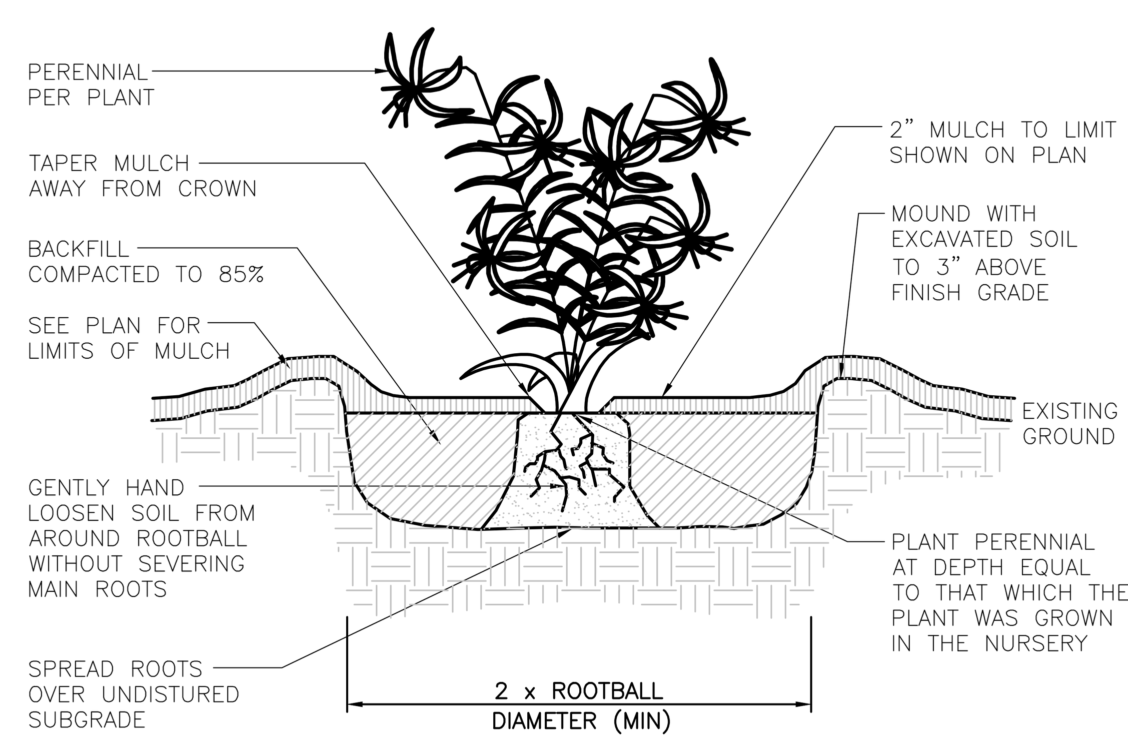


CONTAINER GROWN TREE AND SHRUB PLANTING DETAIL
NOT TO SCALE



NOTE:
1. AFTER THE GUARANTEE PERIOD THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF STAKES AND GUY WEBBING.

EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



PERENNIAL PLANTING DETAIL
NOT TO SCALE

GENERAL NOTES:

1. ALL PLANT MATERIAL MUST BE TAGGED IN THE GROUND, AT THE NURSERY BY THE LANDSCAPE ARCHITECT. ALL PLANT MATERIAL SHALL BE COMMERCIALLY OBTAINED AND SHALL MEET THE AMERICAN ASSOCIATION OF NURSERYMAN STANDARDS FOR NURSERY STOCK, LATEST EDITION, AND ITS AMENDMENTS. PLANT ONLY DURING SEASON NORMAL TO THE PARTICULAR VARIETY. ALL PLANT INSPECTIONS WILL BE AT THE EXPENSE OF THE CONTRACTOR. PERMANENT SEALS WILL BE REQUIRED.
2. COVER ALL PLANTING BEDS WITH 3" SHREDDED HARDWOOD BARK MULCH WITHIN A SEVENTY-TWO HOUR PERIOD AFTER PLANTING. SEE PLAN FOR BED LAYOUT.
3. ALL EXISTING AND PROPOSED TREES SHOWN IN LAWN AREAS SHALL RECEIVE A 6' DIAMETER MULCH BED. MULCH SHALL BE PLACED TO A DEPTH OF 3". REMOVE ALL SOD, ROOTS, STICKS AND STONES PRIOR TO PLACEMENT OF MULCH.
4. ALL PLANT MATERIALS FURNISHED BY THE CONTRACTOR SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE OF LANDSCAPE WORK.
5. STAKE ALL TREES OVER 5' AS SHOWN ON DETAILS.
6. REMOVE STAKES AT THE END OF THE GUARANTEE PERIOD.
7. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE SITE CLEAN OF MISCELLANEOUS DEBRIS THROUGHOUT THE CONSTRUCTION PERIOD. ALL WASTE MATERIAL IS TO BE DISPOSED OF IMMEDIATELY TO AN OFF-SITE LOCATION, UNLESS OTHERWISE INDICATED ON THE PLANS.
8. THE CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS, AND SHALL OBTAIN ALL NECESSARY PERMITS FOR THIS PROJECT.
9. LAYOUT: ALL NOTES AND DIMENSIONS ARE TYPICAL UNLESS OTHERWISE NOTED. ALL DIMENSIONS ARE SQUARE (PARALLEL OR PERPENDICULAR) UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL NOTIFY THE OWNER/OWNER'S REPRESENTATIVE IMMEDIATELY IN THE EVENT OF ANY DISCREPANCIES FOUND IN THE CONTRACT DOCUMENTS AND/OR IN THE FIELD, OR OF CONDITIONS UNCOVERED IN THE WORK WHICH ARE NOT REFLECTED IN THE PLANS.
10. LOAM: LOAM MOVED DURING THE COURSE OF CONSTRUCTION SHALL BE RETAINED AND DISTRIBUTED WITHIN THE SITE IN ACCORDANCE WITH THE LANDSCAPE PLAN. STOCKPILED LOAM SHALL NOT BE MIXED WITH ANY SUBSOIL OR UNSUITABLE MATERIALS. ALL EXCESS LOAM SHALL REMAIN ON THE PROPERTY OF THE OWNER. NEW LOAM IF REQUIRED TO PROVIDE THE SPECIFIED DEPTH, SHALL BE A FERTILE, FRIABLE MEDIUM TEXTURED SANDY LOAM FREE OF MATERIAL TOXIC TO HEALTHY PLANT GROWTH. LOAM SHALL ALSO BE FREE OF ALL STUMPS, ROOTS, STONES AND OTHER EXTRANEOUS MATTER AN INCH (1") OR GREATER IN DIAMETER. THE PH SHALL BE BETWEEN 5.5 AND 7.5 WHEN TESTED.
11. LAWN PREPARATION: REMOVE ALL DEBRIS AND OTHER INORGANIC MATERIALS ON THE PREPARED SUBGRADE, RESHAPE AND DRESS ANY DAMAGED OR ERODED AREA PRIOR TO SPREADING THE LOAM. SCARIFY AND LOOSEN SUBGRADE IN ANY AREAS WHERE COMPACTION MAY HAVE OCCURRED. SPREAD STOCKPILED AND OFF-SITE LOAM ON ALL DISTURBED AREAS TO PRODUCE A DEPTH OF 6". FINE GRADE LOAMED AREAS TO PRODUCE A SMOOTH AND UNBROKEN FINISH GRADE TO THE REQUIRED DEPTH. APPLY A STARTER FERTILIZER (10-20-10) AT A RATE OF 20 LBS. PER 1000 SQUARE FEET AND LIME AT A RATE OF 40 LBS. PER 1000 SQUARE FEET. ONCE SPREAD, THE FERTILIZER AND LIME SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM. THE LOAM SHALL BE ROLLED, AND DEPRESSION SHALL BE TOP DRESSED AND RAKED TO CREATE A SMOOTH SURFACE.
12. PROTECTION OF EXISTING PLANTINGS: MAXIMUM EFFORT SHOULD BE MADE TO SAVE TREE OR OTHER PLANT SPECIMENS WHICH ARE LARGE FOR THEIR SPECIES, RARE TO THE AREA, OR OF SPECIAL HORTICULTURAL OR LANDSCAPE VALUE. CONTACT OWNER/LANDSCAPE ARCHITECT BEFORE REMOVING ANY SPECIMEN OF THIS TYPE UNLESS OTHERWISE NOTED ON THE PLANS. NO MATERIAL OR TEMPORARY SOIL DEPOSITS SHALL BE PLACED WITHIN THE DRIP LINE OF SHRUBS OR TREES DESIGNATED ON THE LANDSCAPE PLAN TO BE RETAINED. PROTECTIVE BARRIERS ARE TO BE INSTALLED AROUND EACH PLANT AND/OR GROUP OF PLANTS THAT ARE TO REMAIN ON THE SITE. BARRIERS SHALL NOT BE SUPPORTED BY THE PLANTS THEY ARE PROTECTING, BUT SHALL BE SELF SUPPORTING. THEY SHALL BE OF MINIMUM OF FOUR FEET (4') HIGH AND CONSTRUCTED OF A DURABLE MATERIAL, SUCH AS SNOW OR SILT FENCE, THAT WILL LAST UNTIL CONSTRUCTION IS COMPLETED.
13. PRUNING: THE CONTRACTOR SHALL CAREFULLY PRUNE BRANCHES IN THE WAY OF CONSTRUCTION BY USING ONLY APPROVED METHODS AND TOOLS. THE USE OF AXES FOR TRIMMING OR SPURS FOR CLIMBING WILL NOT BE PERMITTED.
14. EXISTING UTILITIES: IN ACCORDANCE WITH "CALL BEFORE YOU DIG" AT (1-800-922-4455), THE CONTRACTOR SHALL CONTACT ALL APPLICABLE UTILITY COMPANIES AND VERIFY UTILITY LINE LOCATIONS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY/ALL UTILITY DAMAGE. RECORD LOCATIONS OF "CALL BEFORE YOU DIG" UTILITY LINE MARKINGS ON PROJECT RECORD DOCUMENTS.
15. DISTURBED AREAS: ANY AREAS DISTURBED DURING THE COURSE OF CONSTRUCTION ARE TO BE RESTORED TO ORIGINAL (OR BETTER) CONDITION BY CONTRACTOR BEFORE COMPLETION OF THE PROJECT, AND ARE SUBJECT TO APPROVAL BY LANDSCAPE ARCHITECT AND OWNER. ALL GRASS AREAS DISTURBED DURING CONSTRUCTION SHALL BE YORK RAKED TO REMOVE STONES AND LOAMED AND SEEDED AS PER SPECIFICATIONS.
16. DRAINAGE SYSTEMS: CONTRACTOR IS RESPONSIBLE FOR GENERAL CLEAN-OUT OF ALL CATCH BASINS, MANHOLES, AND/OR OTHER DRAINAGE FEATURES ON THE SITE WHICH HAVE ACCUMULATED SEDIMENT AS A RESULT OF CONSTRUCTION ACTIVITIES.
17. CLEANING: CONTRACTOR IS RESPONSIBLE FOR KEEPING SITE CLEAN OF MISCELLANEOUS DEBRIS THROUGHOUT THE CONSTRUCTION PERIOD. ALL WASTE MATERIAL IS TO BE DISPOSED OF IMMEDIATELY TO AN OFF-SITE LOCATION, UNLESS OTHERWISE INDICATED ON THE PLAN.
18. PLANT MATERIAL SUBSTITUTIONS ALL PLANT SUBSTITUTIONS ARE SUBJECT TO APPROVAL BY LANDSCAPE ARCHITECT AND OWNER.
19. IRRIGATION TO BE PROVIDED ON ALL PLANTING BEDS AND LAWN AREAS. IRRIGATION PLAN BY OTHERS.

QUALITY CONTROL CERTIFICATION

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CME

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CONSTRUCTION DETAILS

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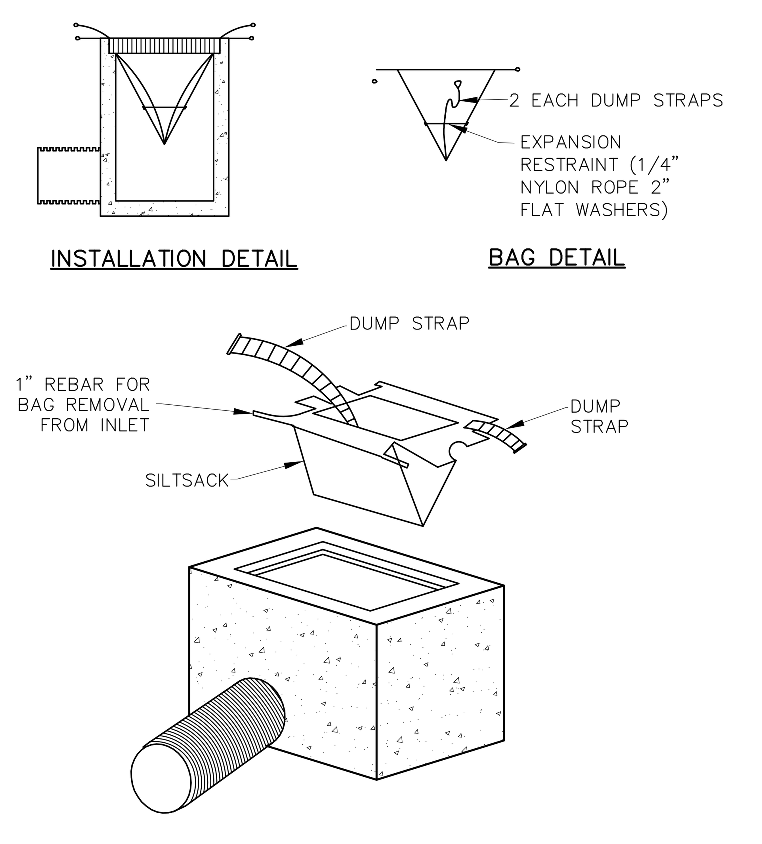
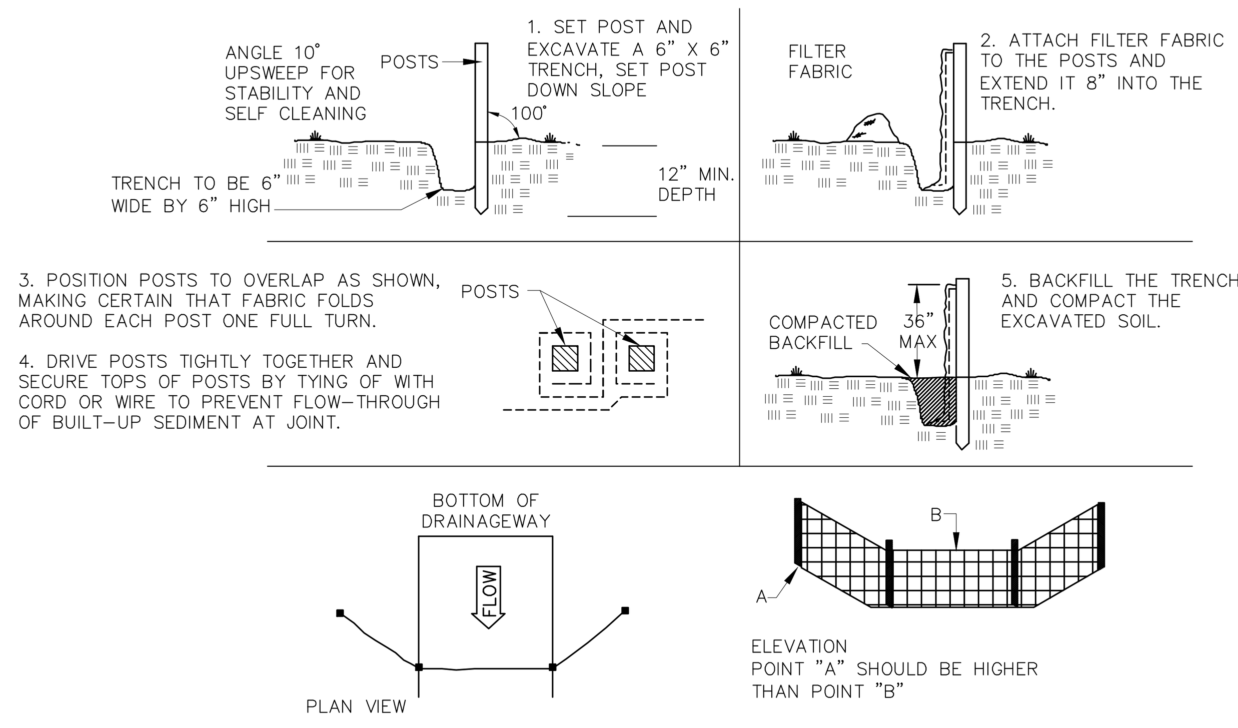
PROJECT: #2014090

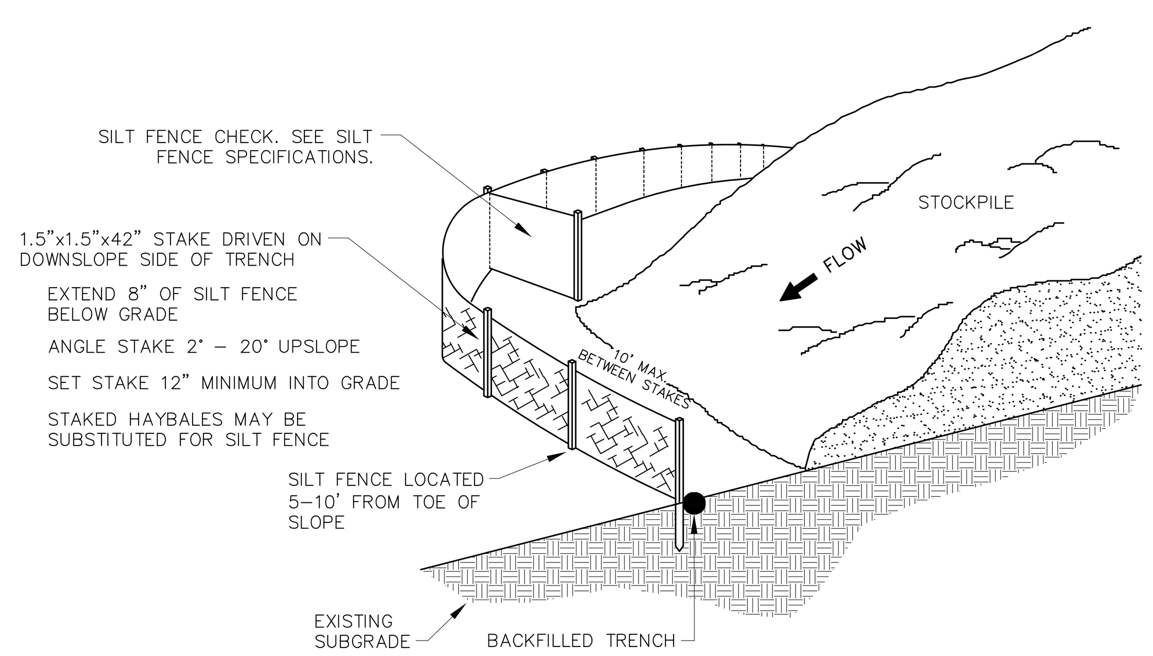
EROSION AND SEDIMENTATION CONTROL DETAILS



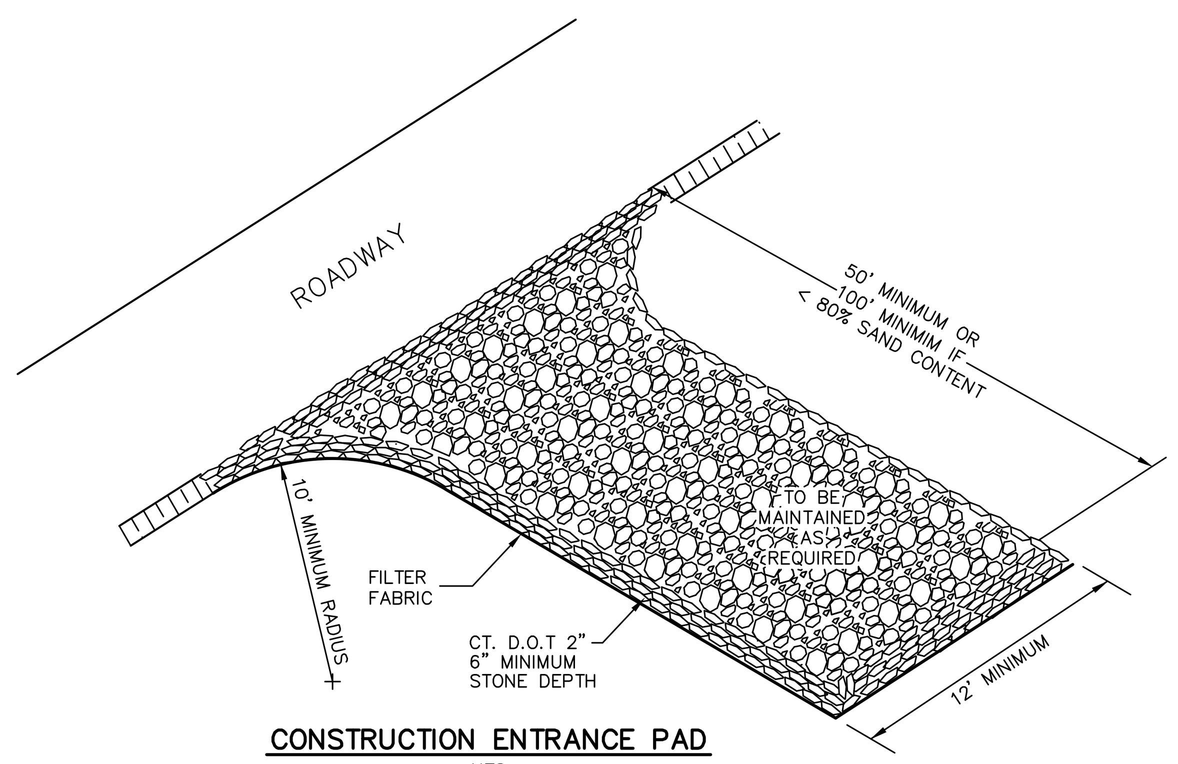
INLET SEDIMENT CONTROL DEVICE
NOT TO SCALE



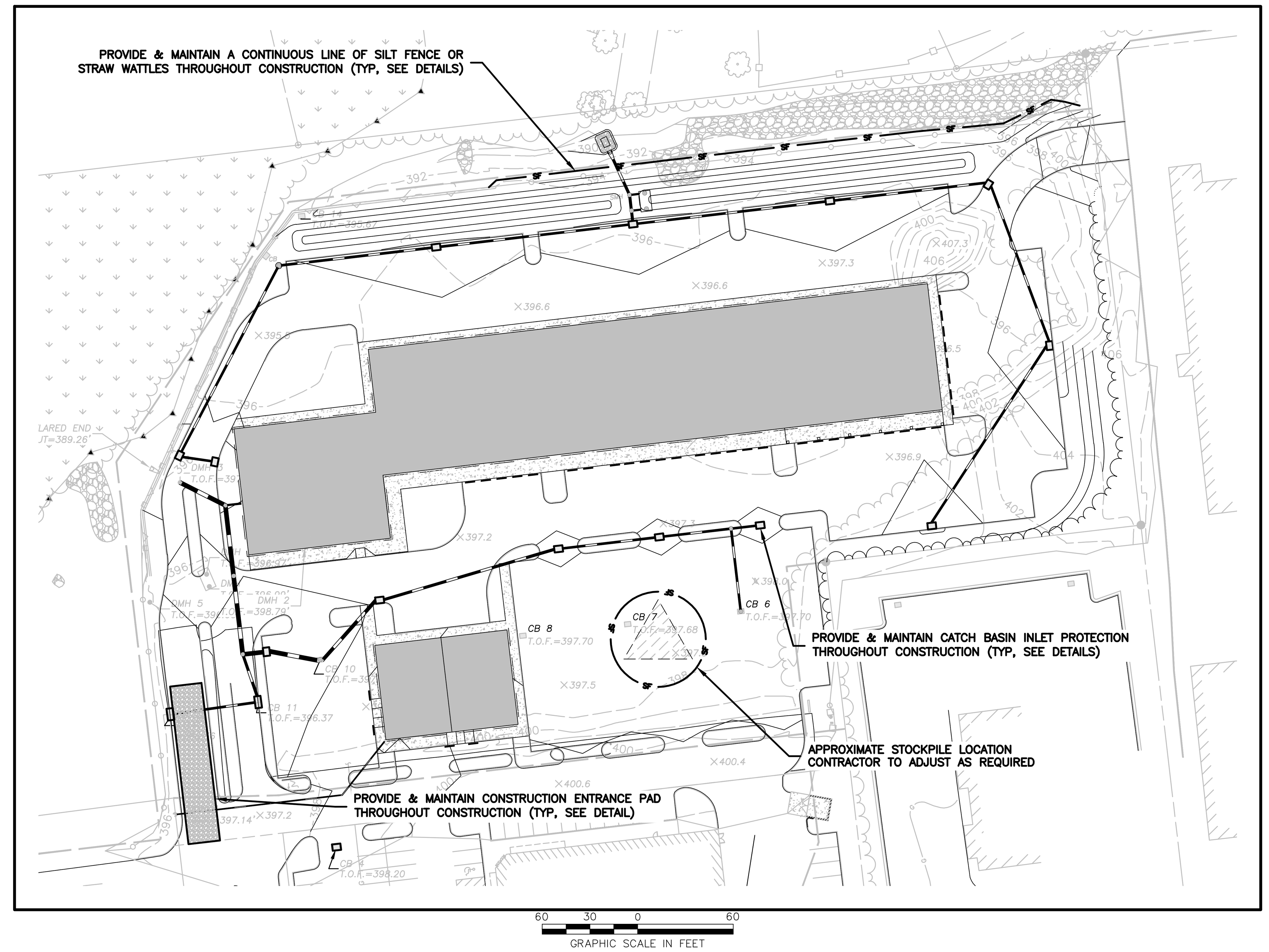
PLACEMENT AND CONSTRUCTION OF A SILT FENCE
NOT TO SCALE

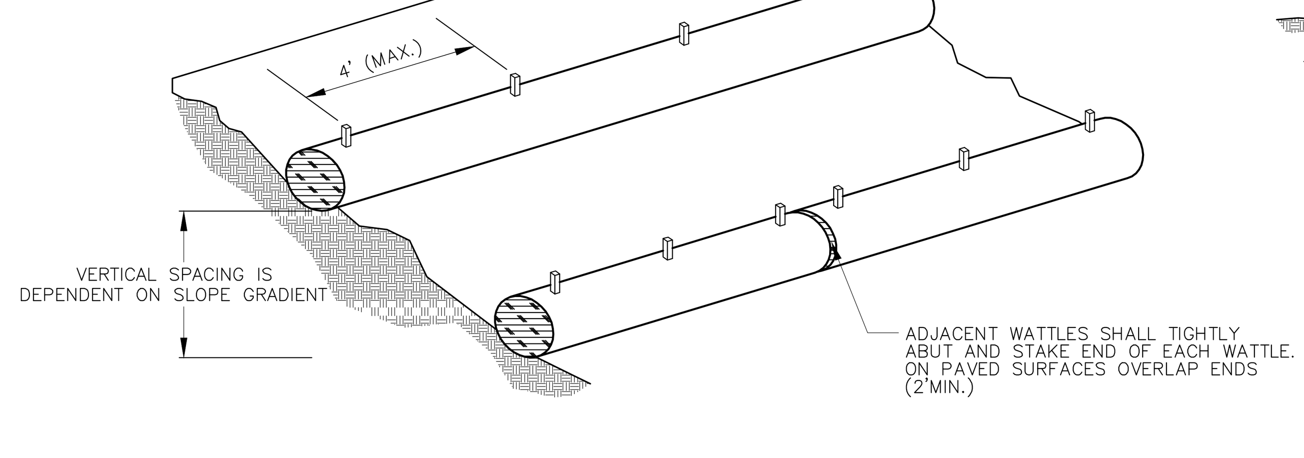


SILT FENCE AT TOE OF SLOPE APPLICATION
NOT TO SCALE

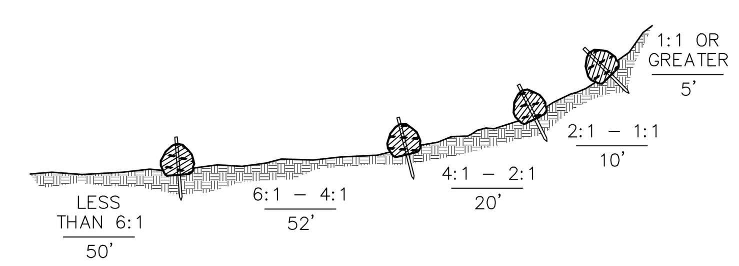


CONSTRUCTION ENTRANCE PAD
NTS

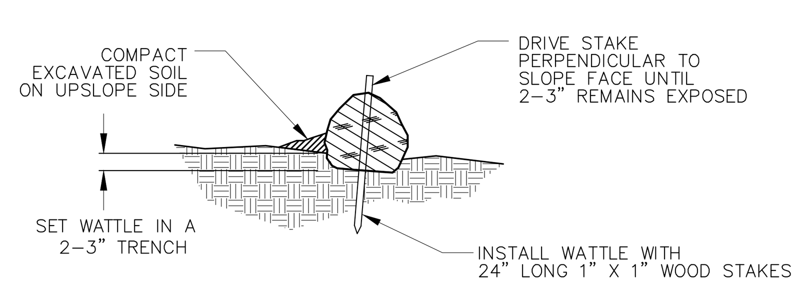




TYPICAL WATTLE INSTALLATION GUIDE



TYPICAL WATTLE SPACING BASED ON SLOPE GRADIENT



ENRICHMENT DETAIL

STRAW WATTLE INSTALLATION
NOT TO SCALE

STRAW WATTLE NOTES:

1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2-3" DEEP BY 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT THE SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.
3. SECURE THE WATTLE WITH 24" LONG STAKES EVERY 3-4' WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLES LEAVING 2-3" OF STAKE EXTENDING ABOVE. THE WATTLE STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE.
4. SECURE WATTLES PLACED ON PAVED SURFACES WITH SANDBAGS SPACED AT AN INTERVAL SUFFICIENT TO PREVENT MOVEMENT OF WATTLE AND TO ENSURE THAT ENDS OF ADJACENT WATTLES REMAIN TIGHTLY ABUTTED.

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E&S CONTROL AND STORMWATER MAINTENANCE PLAN

JOB DATA

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EROSION AND SEDIMENTATION CONTROL NARRATIVE & NOTES

PROJECT NARRATIVE

THIS PROJECT CONSISTS OF THE CONSTRUCTION OF 35,600 SF OF RETAIL/OFFICE SPACE AND A 5,000 SF RESTAURANT ON ±9.8 ACRES IN THE TOWN OF BROOKLYN, CONNECTICUT. THE LOCATION OF THE SITE IS ON THE NORTH SIDE OF PROVIDENCE ROAD (RT 6) APPROXIMATELY 1,300 FEET WEST OF DAY STREET. THIS PROJECT WILL CONSIST OF PAVED PARKING, DRAINAGE PIPING AND STRUCTURES, AND UNDERGROUND UTILITIES.

IT IS ANTICIPATED THAT APPROXIMATELY 4.8 ACRES OF THE 9.8 ACRE SITE WILL BE DISTURBED DURING THE CONSTRUCTION OF THE FACILITY.

THE PROJECT SHALL BE DEVELOPED IN A SINGLE PHASE, HOWEVER, DISTURBED AREAS SHALL BE STABILIZED AT MILESTONE POINTS DURING CONSTRUCTION. ALL WORK SHALL BE SCHEDULED SUCH THAT STABILIZATION COINCIDES WITH THE ABILITY TO VEGETATE DISTURBED AREAS, APRIL 1 THROUGH JUNE 15 AND AUGUST 15 THROUGH OCTOBER 1.

THIS PROJECT REQUIRES THE FOLLOWING PERMITS:
PLANNING & ZONING SPECIAL PERMIT
IWWWC PERMIT

ESTIMATED CONSTRUCTION SCHEDULE

A. INSTALL EROSION AND SEDIMENT CONTROL SYSTEMS – APRIL, 2016

B. ROUGH GRADE SITE – APRIL, 2016

C. INSTALL STORMWATER AND UTILITY SYSTEMS – MAY/JUNE, 2016

D. CONSTRUCT ACCESS ROADWAYS & PARKING – JULY, 2016

E. CONSTRUCT BUILDING STRUCTURES – APRIL–SEPTEMBER, 2016

F. FINISH GRADE SITE AND INSTALL LANDSCAPING – SEPTEMBER, 2016

GENERAL NOTES

1. ELEVATIONS ARE BASED ON AN ASSUMED DATUM.
2. INLAND WETLAND BOUNDARIES WERE DELINEATED IN THE FIELD BY CME ASSOCIATES, INC.
3. ALL UTILITIES SHALL BE APPROVED BY LOCAL UTILITY COMPANIES PRIOR TO CONSTRUCTION; ALL UTILITIES SHALL BE CONSTRUCTED TO UTILITY COMPANY SPECIFICATIONS.
4. ALL CONSTRUCTION SHALL BE TO TOWN SPECIFICATIONS & REGULATIONS.
5. NO CHANGES CAN BE MADE TO THESE PLANS WITHOUT THE TOWN ENGINEER'S APPROVAL.
6. CONTRACTOR SHALL OBTAIN ALL REQUIRED LOCAL & STATE PERMITS PRIOR TO BEGINNING ANY CONSTRUCTION.
7. FIELD CHANGES SHALL HAVE PRIOR APPROVAL OF THE TOWN ENGINEER.
8. CATCH BASIN TOPS SHALL NOT BE CEMENTED DOWN UNTIL FINAL GRADES ARE SET.
9. UNLESS OTHERWISE NOTED OR SPECIFIED, ALL ROADWAYS & STORM DRAINAGE SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE STATE OF CONNECTICUT, D.O.T. "STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION, FORM 816, 2004" AND ALL SUPPLEMENTS THERETO. SIMILARLY PERTINENT CONSTRUCTION DETAILS THAT ARE NOT INCLUDED WITH THESE DRAWINGS SHALL CONFORM TO THE STATE OF CONNECTICUT, D.O.T. STANDARD ROADWAY DRAWINGS.
10. CONTRACTOR SHALL NOTIFY THE TOWN ENGINEER OF CONSTRUCTION SCHEDULE SO THAT INSPECTION MAY BE PROVIDED.
11. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED ON PLANS HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROL TESTIMONY, FIELD MEASUREMENTS AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO CME ASSOCIATES, INC. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION.
12. CONTACT "CALL BEFORE YOU DIG" AT 1–800–922–4455 TWO (2) WORKING DAYS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.

SEEDING SPECIFICATIONS

A. IF GROUND HAS BEEN PREVIOUSLY MULCHED, MULCH MUST BE REMOVED OR ADDITIONAL NITROGEN MUST BE ADDED.

B. REMOVE ALL SURFACE STONES 2" OR LARGER AS WELL AS ALL DEBRIS SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, CLUMPS, OR OTHER UNSUITABLE MATERIAL.

C. APPLY FERTILIZER AT 7.5 POUNDS PER 1,000 SQUARE FEET AND LIME AT 200 POUNDS PER 1,000 SQUARE FEET UNLESS SOIL TESTING FOR REQUIREMENTS IS PERFORMED.

D. NO MOWING IS TO BE UNDERTAKEN UNTIL THE MAJORITY OF THE VEGETATION IS AT LEAST 6" HIGH. MOWING SHOULD CUT THE TOP 1/3 OF VEGETATION. DO NOT UNDER ANY CIRCUMSTANCES CUT VEGETATION BELOW 3".

E. DO NOT APPLY ANY FORM OF WEED CONTROL UNTIL GRASS HAS BEEN MOWED AT LEAST 4 TIMES.

F. THESE SEEDING MEASURES ARE NOT TO BE USED ON SLOPES IN EXCESS OF 2:1 GRADING.

G. PERMANENT SEEDING MEASURES ARE TO BE USED INSTEAD OF TEMPORARY SEEDING MEASURES WHERE WORK IS TO BE SUSPENDED FOR A PERIOD OF TIME LONGER THAN 1 YEAR.

H. IF THERE IS NO EROSION, BUT SEED SURVIVAL IS LESS THAN 100 PLANTS PER SQUARE FOOT AFTER 4 WEEKS OF GROWTH, RE–SEED AS PLANTING SEASON ALLOWS.

I. ALL DISTURBED AREAS OUTSIDE THE PAVEMENT AREA, WITHIN AND OUTSIDE THE ROAD RIGHT OF WAY, SHALL BE RESTORED IN ACCORDANCE WITH THE TOWN SUBDIVISION REGULATIONS.

CONSTRUCTION SEQUENCE

A. STAKEOUT LIMIT OF DISTURBANCE.

B. HOLD A PRECONSTRUCTION MEETING.

C. CONTACT "CALL BEFORE YOU DIG" AT 1–800–922–4455 TWO (2) WORKING DAYS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.

D. INSTALL THE CONSTRUCTION ENTRANCE.

E. INSTALL PERIMETER FILTER (SILT FENCE OR WATTLES)

F. PERFORM ALL NECESSARY CLEARING AND GRUBBING OPERATIONS.

G. EXCAVATE & DISPOSE OF ALL STUMPS OFF SITE.

H. STRIP ALL TOPSOIL WITHIN THE FOOTPRINT OF THE CONSTRUCTION SITE. STOCKPILE ALL TOPSOIL IN AN APPROVED AREA AND SECURE WITH EROSION AND SEDIMENT CONTROLS.

I. ROUGH GRADE SITE.

J. DIG FOUNDATIONS AND STOCKPILE MATERIAL AS REQUIRED.

K. PRIOR TO INSTALLATION OF SURFACE WATER CONTROLS SUCH AS TEMPORARY DIVERSIONS AND STONE DIKES, INSPECT EXISTING CONDITIONS TO ENSURE DISCHARGE LOCATIONS ARE STABLE. IF NOT STABLE, REVIEW DISCHARGE CONDITIONS WITH THE DESIGN ENGINEER AND IMPLEMENT ADDITIONAL STABILIZATION MEASURES PRIOR TO INSTALLING WATER SURFACE CONTROLS.

L. STABILIZE CUT AND FILL SLOPES.

M. CONSTRUCT FOUNDATION AND ERECT STRUCTURES.

N. INSTALL SERVICE UTILITIES.

O. CONSTRUCT CONCRETE SIDEWALKS.

P. FINISH GRADE ACCESS DRIVEWAYS & PARKING AREAS.

Q. PLACE TOPSOIL WHERE REQUIRED. INSTALL PERIMETER LANDSCAPE PLANTINGS.

R. FINISH GRADE SIDE SLOPES, SEED AND MULCH.

S. UPON SUBSTANTIAL COMPLETION OF THE BUILDING, COMPLETE THE BALANCE OF SITE WORK AND STABILIZATION OF ALL OTHER DISTURBED AREAS.

T. INSTALL BINDER COURSE OF PAVING.

U. WHEN ALL OTHER WORK HAS BEEN COMPLETED, REPAIR AND SWEEP ALL PAVED AREAS FOR THE TOP COURSE OF PAVING.

V. INSTALL TOP COURSE OF PAVEMENT.

W. ALL REMAINING EXPOSED AREAS SHALL BE LOAMED, SEEDED AND MULCHED OR SODDED WITHIN 14 DAYS OF FINAL GRADING.

X. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS.

Y. CONTRACTOR TO REMOVE ANY ACCUMULATED SEDIMENT FROM DRAINAGE STRUCTURES OR BASINS.

NOTE: SEVERAL OF THE ABOVE ACTIVITIES MAY BE DONE SIMULTANEOUSLY.

SILT FENCE SPECIFICATIONS

A. SYNTHETIC FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER, ETHYLENE, OR SIMILAR FILAMENTS AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE FOLLOWING MINIMUM REQUIREMENTS:

1. FILTERING EFFICIENCY	75 PERCENT (MIN)
2. GRAB TENSILE STRENGTH	100 POUNDS
3. ELONGATION AT FAILURE	15 PERCENT
4. MULLEN BURST STRENGTH	250 POUNDS PER SQUARE INCH
5. PUNCTURE STRENGTH	50 POUNDS
6. APPARENT OPENING SIZE	0.60mm< X <0.90mm
7. FLOW RATE	0.2 GALLONS PER SQUARE FOOT PER MINUTE
8. PERMITTIVITY	0.05 PER SECOND (MIN)
9. ULTRAVIOLET RADIATION STABILITY	70 PERCENT AFTER 500 HOURS OF EXPOSURE (MIN)

B. STAKES ARE TO BE MADE OUT OF HARDWOOD WITH A MINIMUM CROSS SECTIONAL AREA OF 1.5 SQUARE INCHES OR STEEL POSTS WITH A MINIMUM WEIGHT OF 0.5 POUNDS PER LINEAR FOOT.

C. TORN OR PUNCTURED GEOTEXTILES SHALL NOT BE USED.

D. ON SLOPES WHERE SURFACE FLOW FOLLOWS THE SILT FENCE LINE, PERPENDICULAR SILT FENCE CHECKS SHALL BE INSTALLED AT 50 FOOT INTERVALS.

E. LINES OF SILT FENCE SHOULD FOLLOW CONTOUR LINES 5–10 FEET DOWN GRADIENT FROM THE SLOPE. WHERE CONTOUR LINES CAN NOT BE FOLLOWED PERPENDICULAR WINGS SHOULD BE PLACED AT 50 FOOT INTERVALS.

EROSION & SEDIMENT CONTROL OPERATIONS AND MAINTENANCE

A. EROSION AND SEDIMENTATION CONTROL AND RESTORATION MEASURES SHALL CONFORM TO THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL", PUBLISHED BY THE CONNECTICUT COUNCIL OF SOIL AND WATER CONSERVATION AND THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION; AND TO TOWN REGULATIONS.

B. INSTALLATION OF SEDIMENT AND EROSION CONTROLS SUCH AS WATTLES AND SILT FENCES SHALL BE ESTABLISHED PRIOR TO COMMENCING ANY LAND DISTURBANCE ACTIVITIES.

C. ALL STOCKPILED MATERIAL SHALL BE RINGED WITH WATTLES OR SILT FENCES. ANY MATERIAL TO BE STOCKPILED LONGER THAN 14 DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING OR JUTE NETTING.

D. PAVEMENT AND CURBING SHOULD BE INSTALLED AS SOON AS POSSIBLE AFTER STORM DRAINAGE IS INSTALLED.

E. CATCH BASINS SHALL BE PROTECTED FROM SEDIMENTATION UNTIL ALL AREAS ARE PERMANENTLY VEGETATED OR STABILIZED.

F. CATCH BASIN SUMPS SHALL BE CLEANED OF SILT PERIODICALLY DURING CONSTRUCTION.

G. WATTLES OR SILT FENCE SHALL BE PLACED 5–10 FEET FROM THE TOE OF ALL CRITICAL SLOPES AS SHOWN ON THE PLAN. THESE SHALL BE CHECKED BY THE CONTRACTOR REGULARLY AND REPAIRED WHENEVER THEY FAIL TO ENSURE CLEAN RUN–OFF FROM THE SITE.

H. ADDITIONAL CONTROL MEASURES IF REQUESTED BY THE TOWN SHALL BE INSTALLED IMMEDIATELY UPON REQUEST.

I. ALL DISTURBED AREAS SHALL BE PROTECTED WITH A MINIMUM VEGETATION COVER AS SHOWN IN ACCOMPANYING CHART.

J. THE CONTRACTOR SHALL PLAN ALL LAND DISTURBING ACTIVITIES IN A MANNER AS TO MINIMIZE THE EXTENT OF THE DISTURBED AREAS.

K. THE CONTRACTOR SHALL MAKE DAILY INSPECTIONS OF THE SITE TO INSURE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES AND WILL IMMEDIATELY MAKE NECESSARY REPAIRS IF REQUIRED BY THE TOWN.

L. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED AT A MINIMUM OF ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.1 INCHES OR GREATER TO DETERMINE MAINTENANCE NEEDS.

M. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE REPLACED WITHIN 24 HOURS OF AN OBSERVED FAILURE.

N. ALL CONSTRUCTION TRAFFIC SHALL ENTER AND LEAVE BY THE DESIGNATED ENTRANCE. THIS ENTRANCE SHALL BE CONSTRUCTED OF CRUSHED STONE TO HELP FREE TIRES OF SOIL WHEN LEAVING THE SITE. THE CONTRACTOR SHALL INSTRUCT ALL VEHICLE DRIVERS TO CLEAN SOIL MATERIAL FROM TIRES IN FRONT OF THE SITE. ALL SOIL, MISCELLANEOUS DEBRIS, OR OTHER MATERIAL SPILLED, DUMPED OR OTHERWISE DEPOSITED ON PUBLIC STREETS, HIGHWAYS, SIDEWALKS OR OTHER PUBLIC THOROUGHFARES DURING TRANSIT TO OR FROM THE SITE SHALL BE REMOVED PROMPTLY.

O. THE CONTRACTOR HEREBY ACKNOWLEDGES HIS RESPONSIBILITY TO INSTALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ON THIS SITE AND THAT HIS FAILURE TO INSTALL AND MAINTAIN THESE DEVICES COULD RESULT IN FINES OR SUSPENSION OF WORK BY THE CITY/TOWN.

P. MINIMIZE OR ELIMINATE ANY UNNECESSARY LAND DISTURBANCE OR CLEARING.

PERSON RESPONSIBLE FOR MAINTAINING CONTROL MEASURES DURING CONSTRUCTION.

NAME	STEVE TOWNSEND
ADDRESS	169 BARRETT HILL ROAD BROOKLYN, CT
TELEPHONE #	(860)–774–5359

MAINTENANCE LOG

LOCATION	DESCRIPTION	DATE	INITIALS

PROJECT DATES	DATE	INITIALS
PROJECT GROUNDBREAKING		
FINAL STABILIZATION		

STORMWATER OPERATION AND MAINTENANCE

STORMWATER FACILITY
OPERATION AND MAINTENANCE PLAN:

CONSTRUCTION PHASE

GENERAL PROVISIONS:

1. CONTRACTOR TO INSTALL AND MAINTAIN DRAINAGE FACILITIES AS SHOWN ON THE PLAN SET TITLED: (SPECIAL PERMIT, SITE DEVELOPMENT PLAN, PREPARED FOR, TOWNSEND DEVELOPMENT ASSOCIATES, LLC, BY CME ASSOCIATES, INC., DATED JUNE 26, 2015)
2. PRIOR TO CONSTRUCTION, ALL EROSION/SILTATION CONTROL DEVICES SHOWN ON ABOVE PLAN SHALL BE INSTALLED. TO PREVENT SILT INTRUSION INTO THE DRAINAGE SYSTEM DURING CONSTRUCTION, THE CONTRACTOR IS TO INSTALL INLET PROTECTION AT ALL CATCH BASINS AND SET SILT FENCE AT ALL SLOPES WHICH MAY ERODE IN THE DIRECTION OF ANY OPEN DRAINAGE FACILITIES. SUCH PREVENTIVE MEASURES ARE TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS.
3. EROSION CONTROLS ARE TO BE INSPECTED ON A DAILY BASIS. UPON DISCOVERY, THE CONTRACTOR SHALL REMOVE ANY SEDIMENT FROM AN EROSION CONTROL STRUCTURE.
4. ALL EXPOSED SOILS SHALL BE IMMEDIATELY STABILIZED TO PREVENT EROSION.
5. UPON INSTALLATION OF CATCH BASINS, INLET PROTECTION SHALL BE INSTALLED AND MAINTAINED UNTIL READY FOR PAVING.
6. PRIOR TO CONSTRUCTION OF IMPERVIOUS AREAS, ALL DRAINAGE STRUCTURES AND PIPES SHALL BE INSTALLED AND INSPECTED FOR PROPER FUNCTION. DURING CONSTRUCTION OF OTHER SITE FEATURES, DRAINAGE FACILITIES SHALL BE INSPECTED ON A DAILY BASIS AND CLEANED/REPAIRED IMMEDIATELY UPON DISCOVERY OF SEDIMENT BUILD–UP OR DAMAGE.
7. AFTER PAVING IS INSTALLED, IT SHALL BE SWEPT CLEAN ON A MONTHLY BASIS.

GRASSED SWALES & DRAINAGE CHANNELS:

1. CONTRACTOR TO INSPECT SEVERAL TIMES DURING THE FIRST FEW MONTHS TO ENSURE THAT GRASS COVER IS ESTABLISHED. AFTER ESTABLISHMENT, INSPECTION TO OCCUR SEMI–ANNUALLY AND AFTER EVERY 0.5 INCH RAIN EVENT.
2. CONTRACTOR SHALL CLEAN SWALE AFTER SITE IS COMPLETELY STABILIZED AND PRIOR TO TRANSFER OF OWNERSHIP TO OWNER.

CATCH BASIN SUMPS:

1. CONTRACTOR TO INSPECT WEEKLY OR AFTER EACH 0.5 INCH RAIN EVENT AND CLEAN AS NEEDED.
2. CONTRACTOR SHALL CLEAN SUMPS AFTER SITE IS COMPLETELY STABILIZED AND PRIOR TO TRANSFER TO OWNER.

STONE CHECK DAMS:

1. CONTRACTOR TO INSPECT WEEKLY OR AFTER EACH 0.5 INCH RAIN EVENT.
2. CONTRACTOR SHALL REMOVE SEDIMENT FROM CHECK DAMS AFTER SITE IS COMPLETELY STABILIZED AND PRIOR TO TRANSFER TO OWNER.

HYDRODYNAMIC OIL & PARTICLE SEPARATOR:

1. PRIOR TO TURNOVER TO OWNER THE OIL WATER SEPARATOR WILL BE CLEANED USING A VACUUM TRUCK OR OTHER ORDINARY CATCH BASIN CLEANING EQUIPMENT. THE DEBRIS WILL BE REMOVED FROM THE SITE AND DISPOSED OF ACCORDING TO ALL LOCAL, STATE, AND FEDERAL REGULATIONS. THIS WORK WILL BE DONE BY A LICENSED HAULER OF CONTAMINATED MATERIALS.

POST–DEVELOPMENT PHASE

GENERAL PROVISIONS:

SNOW STOCKPILING:

SNOW ACCUMULATIONS REMOVED FROM STREETS AND PARKING LOTS SHALL BE PLACED IN UPLAND AREAS, WHERE SAND AND DEBRIS WILL REMAIN AFTER SNOW MELT FOR LATER REMOVAL. CARE SHOULD BE TAKEN NOT TO DEPOSIT SNOW IN THE IMMEDIATE VICINITY OF CATCH BASINS, DRAINAGE SWALES, OR SLOPES LEADING TO BODIES OF WATER, AND DRINKING WATER WELL SUPPLIES.

PAVEMENT SWEEPING:

STREETS AND PARKING LOTS SHOULD BE SWEPT CLEAN AT LEAST ONCE ANNUALLY, PREFERABLY IMMEDIATELY AFTER WINTER SNOW MELT AND BEFORE SPRING RAINS. SWEEPING DURING THIS PERIOD CAPTURES PEAK SEDIMENT LOADS AND EXTENDS THE SERVICE LIFE OF THE STORM WATER MANAGEMENT SYSTEM.

GRASSED SWALES & DRAINAGE CHANNELS:

GRASSED SWALES AND DRAINAGE CHANNELS SHALL BE INSPECTED AT LEAST ANNUALLY TO ENSURE THAT THEY ARE OPERATING AS INTENDED. POTENTIAL PROBLEMS THAT SHOULD BE CHECKED INCLUDE:
1. SLOPE INTEGRITY
2. EROSION
3. VEGETATIVE HEALTH
4. SOIL STABILITY
5. SEDIMENTATION

ANY NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY. TRASH SHALL BE REMOVED AND THE BANKS MOWED AS REQUIRED, BUT AT LEAST ONCE PER YEAR. GRASS SHALL BE KEPT BETWEEN FOUR AND SIX INCHES IN LENGTH. (MOWING SHOULD BE PERFORMED WHEN GROUND IS DRY TO AVOID RUTS AND COMPACTION.)

CATCH BASIN SUMPS:

CATCH BASINS SHALL BE INSPECTED BI–ANNUALLY AND CLEANED AT LEAST ANNUALLY, AFTER THE SNOW AND ICE SEASON, AND AS SOON AS POSSIBLE BEFORE SPRING RAINS. IN GENERAL, A CATCH BASIN SHOULD BE CLEANED IF THE DEPTH OF DEPOSITS IS GREATER THAN ONE HALF THE SUMP DEPTH. IF A CATCH BASIN SIGNIFICANTLY EXCEEDS THIS STANDARD THEN MORE FREQUENT CLEANINGS SHALL BE SCHEDULED. IN AREAS WITH HIGHER POLLUTANT LOADINGS OR DISCHARGES INTO SENSITIVE BODIES OF WATER, MORE FREQUENT CLEANINGS WILL BE NECESSARY.

STONE CHECK DAMS:

CHECK DAMS SHALL BE INSPECTED FOR SEDIMENTATION ON A QUARTERLY BASIS AND CLEANED AS REQUIRED.

HYDRODYNAMIC OIL & PARTICLE SEPARATOR:

THE OIL WATER SEPARATOR WILL BE INSPECTED QUARTERLY FOR THE PRESENCE OF ACCUMULATED OIL AND GREASE, FLOATABLES AND SEDIMENT, IF FOUND, THE STRUCTURE WILL BE CLEANED USING A VACUUM TRUCK OR OTHER ORDINARY CATCH BASIN CLEANING EQUIPMENT. THE DEBRIS WILL BE REMOVED FROM THE SITE AND DISPOSED OF ACCORDING TO ALL LOCAL, STATE, AND FEDERAL REGULATIONS. THIS WORK WILL BE DONE BY A LICENSED HAULER OF CONTAMINATED MATERIALS. THE SCHEDULE OF INSPECTIONS WILL BE ADJUSTED TO AN ANNUAL INSPECTION IF NO OIL OR GREASE IS FOUND ON A REGULAR BASIS. OWNER WILL BE RESPONSIBLE FOR THE INSPECTIONS AND CLEANING.

QUALITY CONTROL CERTIFICATION

GROUP	REVIEWED	DATE
PROJECT MANAGER		
SURVEY		
ENVIRONMENTAL		
CIVIL		
STRUCTURAL		
ARCHITECTURAL		

REVIEWED BY THE TOWN ENGINEER

FIRST SELECTMAN DATE

ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION

CHAIRMAN OR SECRETARY DATE

APPROVED BY THE BROOKLYN PLANNING & ZONING COMMISSION

CHAIRMAN OR SECRETARY DATE

CME ASSOCIATES, INC.
32 Crabtree Lane, Woodstock, CT 06281
333 East River Drive, East Hartford, CT 06108
50 Elm Street, Southbridge, MA 01550
888-291-3227 | www.cmeengineering.com

SITE DEVELOPMENT PLAN
PREPARED FOR
TOWNSEND DEVELOPMENT ASSOCIATES, LLC
LOT #16, PROVIDENCE ROAD (RT 6) BROOKLYN, CONNECTICUT

E&S CONTROL AND STORMWATER MAINTENANCE PLAN

JOB DATA

PROJECT	2014090–TOWNSEND
BOOK NO.	–
DESIGNED	JPG/PMP
DRAWN	KR/RC/PMP
CHECKED	–
COGO FILE	–
FILE	2014090 E&S.dwg

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	07/14/2015	GENERAL REVISIONS	PMP
2	07/29/2015	ZONING TABLE UPDATES	PMP
3	08/17/2015	RESPONSE TO COMMENTS	PMP
4	09/01/2015	RESPONSE TO COMMENTS	PMP
5	09/15/2015	RESPONSE TO COMMENTS	PMP
6	10/12/2015	MYLARS FOR FILLING	PMP

DATE: 06/26/2015
SCALE: AS NOTED
PROJECT: #2014090

1 CONCEPT ELEVATION
SCALE: 1/16" = 1'0"

2 CONCEPT DETAIL
SCALE: 1/8" = 1'0"

3 CONCEPT DETAIL
SCALE: 1/8" = 1'0"

CME ARCHITECTURE, INC.

32 Crabtree Lane, Woodstock, CT 06281
333 East River Drive, East Hartford, CT 06108
50 Elm Street, Southbridge, MA 01550

888-291-3227

www.cmeengineering.com

CONCEPTUAL DESIGN OF
TOWNSEND SQUARE
PREPARED FOR
TOWNSEND DEVELOPMENT ASSOCIATES LLC

NORTHEASTERN CONNECTICUT COUNCIL OF GOVERNMENTS

ENGINEERING SITE PLAN & DRAINAGE REPORT REVIEW
PERTAINING TO A
SPECIAL PERMIT SITE DEVELOPMENT PLAN
(ASSESSOR'S MAP 41, LOT 16)
PROVIDENCE ROAD (ROUTE 6)
BROOKLYN, CT

(July 5, 2023)

The comments contained herein pertain to my review of a set of plans, consisting of fifteen (15) sheets (sheet 15 architectural missing), entitled "Special Permit Site Development Plan Prepared for Townsend Development Associates, LLC, Providence Road (Route 6), Brooklyn, Connecticut, Dated: May 5, 2023, Revised: N/A," prepared by CHA and Drainage Report, dated May 24, 2023, by CHA.

Drawing No. 2 (Sheet 1 of 1) – Improvement Location Plan

1. Are all of the abutting property owners shown on the 2017 plan present today? If not, a new large scale plan or drawing needs to be included in the plan set with current owners, similar to the "inset site installation drawing" included in Drawing No. 13.

Drawing No. 3 – Layout Plan

1. Not all sidewalks shown are dimensioned. All sidewalk widths need to be specified on the plan.
2. If the sidewalk at the south end of the proposed crosswalk is not flush with the pavement, a sidewalk ramp will need to be constructed there and a construction detail provided — see Type 17 on CT DOT "Sheet 6 – Sidewalk Ramps."
3. The layout plan is missing some dimensions for curb radii, tangents, aisle widths, loading zone width, etc. All dimensions need to be shown to be able to call this a true layout plan. Scaling dimensions off the plan where no dimensions are shown is unacceptable as this is prone to reading error and distortion in a paper printing process.
4. The "Commercial Space" building footprint is missing dimensions; however, the "Self Storage" units do have dimensions shown. Add all dimensions to the commercial space.
5. The wood guard rail end treatments on the west side of the development need to be described on this plan or on the Construction Details plan.
6. If the wood guard rail is struck by a vehicle, has the impact to the segmental retaining wall adjacent to the posts been evaluated? The distance a post will be located from the back side of the wall needs to be shown in a construction detail. Furthermore, has the condition of the wall been inspected with respect to the development of this project and in consideration of the traffic (vibration) of heavy construction vehicles travelling close by?

7. If a tractor-trailer truck will be delivering merchandise/supplies to the restaurant and commercial space, a diagram needs to be submitted showing that it can maneuver throughout the site, especially for the 60± foot long loading zone to the rear of the restaurant portion of the proposed building.
8. Will this development be phased construction?

Drawing No. 4 – Grading Plan

1. Elevations need to be shown for the top of wall on each side of the Loading Zone.
2. What does the bold line around the scour hole at the rear of the property represent? This needs to be clarified on the plan.
3. Elevations on the entire top of the existing wall at the west boundary of the property need to be included on the plan.
4. There is inadequate information identifying existing contour lines to evaluate the proposed grading. The plan must be updated to include existing elevations on <u>all</u> existing contour lines and resubmitted for review.

Drawing No. 5 – Drainage Plan

1. Direction of flow arrows need to be included on the plan.

Drawing No. 6 – Utility Plan

1. For the restaurant operation, it is not evident from the plan where a bulk fat/oil/grease (FOG) recovery tank will be located on the site close to the restaurant. This location needs to be added to the plan in an enclosed area.
2. Who is going to be responsible for the maintenance of certain utilities (water, gas, electric, telephone, cable, etc.) on site? If utility companies will be responsible for maintenance and ownership, are easements necessary for their infrastructure on private property? If so, they need to be shown on the plan similar to the sewer maintenance easement.
3. In addition to the Brooklyn Water Pollution Control Authority, has the Killingly Water Pollution Control Authority provided written approval on accepting the additional anticipated sewage flow for from the proposed development?

Drawing No. 9 – Construction Details

1. In the "1,000 Gallon Grease Trap" detail, add a note that it is H20 load rated. Also, show risers at each access opening noting material spec and dimensions. It is not anticipated that buoyancy needs to be taken into account.

Drawing No. 11 – Construction Details

1. The "Depressed Curb Ramp" detail is lacking information in order to construct it. The ramp needs a "landing" and shall be modeled after a Connecticut Department of Transportation

(CT DOT) 48" wide ramp with landing detail drawing that can be found on their "Sheet 1 - Sidewalk Ramps."

2. In the "Typical Cross Section for Matching Existing and Proposed Pavement," the thickness of the new pavement is shown to be 3¼". Is this correct, as I have never ever seen pavement thickness called out to the quarter (1/4) inch? Incidentally, in the "Bituminous Concrete Pavement" detail, the total pavement thickness is only three (3) inches. Which detail is correct?
3. Any reference to State of Connecticut Department of Transportation Form 816 shall be changed to the most recent publication, Form 818.
4. In the "Concrete Encasement" detail, the length of concrete encasement on each side of the centerline of the crossing needs to be specified.
5. In the "Wood Guard Rail" detail, the depth of bury of the wood post needs to be specified as well as typical spacing between posts. Also, metal fasteners need to be specified as stainless steel.
6. Termination ends of the guard rail need to be shown in a construction detail.
7. There is a "Finish Course Standard Mold 6" Concrete Lip Curbing Detail" on this plan sheet, however, where this is located is not shown on any of the site plans. Where is this used? If it is not used it should be removed.

Drawing No. 13 – E&S Control and Stormwater Maintenance Plan

1. Any reference to State of CT DOT Form 816 shall be changed to the most recent publication, Form 818.
2. Straw wattles need to be installed in a shallow trench due to their light weight, which minimizes movement from heavy rain. Furthermore, the contractor responsible for digging the trench may neglect to dig the trench and will result in an improper installation. To avoid this and for better sediment control, replace straw wattles with silt socks, which are heavier and do not require a shallow trench to install but do need to be staked when installed on a bed of earth, and revise the detail and inset site installation drawing to reflect this.
3. The "construction entrance pad" location in the site inset drawing is unacceptable. It is in conflict with traffic movements generated by the existing pharmacy (Lot 16-2) and existing commercial space. Movement of heavy equipment to and from the construction site presents a safety hazard, accumulation of site debris (mud, rocks, etc.) that have the potential to damage customer vehicles, has a tight if not undoable turning egress movement, and poses an impediment to active businesses. The construction entrance needs to be relocated to the paved driveway with a center island along the west boundary line of the site to be developed to minimize these impacts as much as possible.

Drainage Report

1. No comments.

By: Syl Pauley, Jr., P.E.

Syl Pauley, Jr., P.E., NECCOG Regional Engineer

Townsend owns the Spa building and the road at CVS + the Bank were separated out.

Brooklyn Land Use Department

69 South Main Street
Brooklyn CT 06234
(860) 779-3411 x 31

Inland Wetlands ✓ Zoning Enforcement_______ Blight Enforcement________

SITE INSPECTION NUMBER 1 2 3 4 5

538 Providence Rd. — Address

6/21/23 — Date

I met Janet Booth, Pete Parent, inspected and took photos. The big pipe that discharges into the serpentine swale is half-full of sediment. The chain link fence around the swale is compromised near the Berkshire Bank. Who is responsible for fence maintenance? While we were there I observed a landscape maintainer dump a wheelie-bin full of plant clippings into the drainage swale area where the chain link fence ends (near the NW corner of the spa). There are lots of invasive plants, including Japanese Knotweed and mugwort. I had asked Pete Parent to bring a $50.00 check for publishing the Notice of Action in the Turnpike Buyer, but he will submit it at the next meeting. The serpentine swale needs sediment removed and mowed. The rear swale needs mowed.

Commission Representative M. Washburn

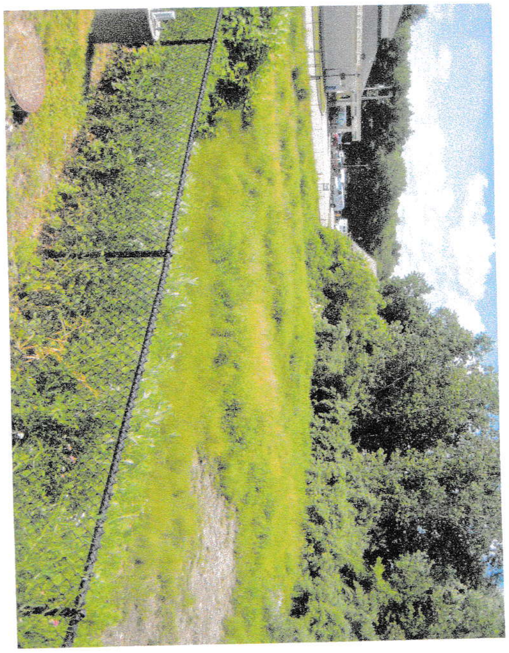
Owner or Authorized Signature ______________________

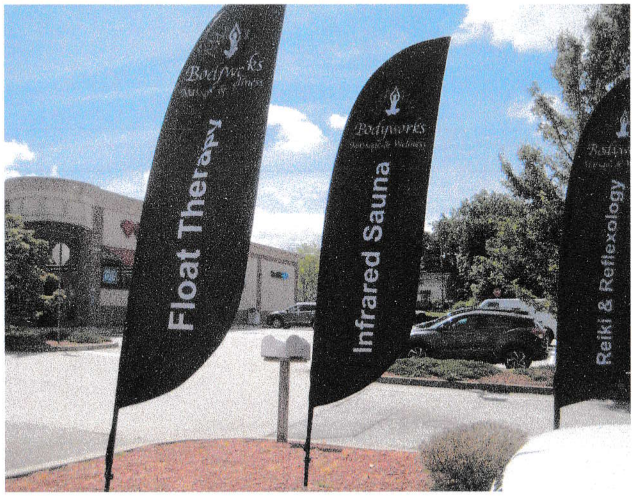




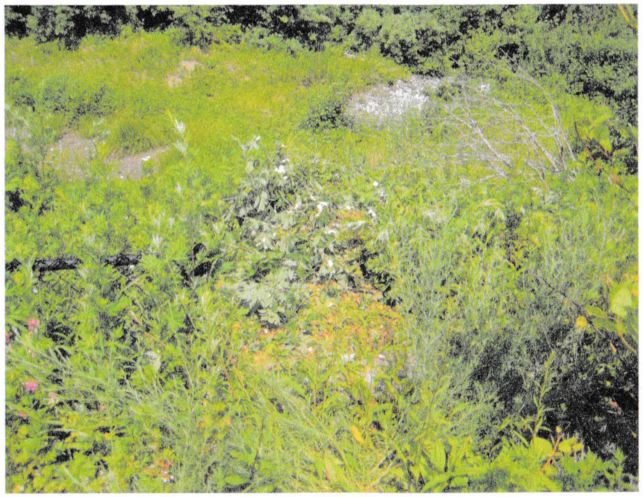






Bodyworks
Float Therapy
Bodyworks
Infrared Sauna
Reiki & Reflexology







Bodyworks
Reiki & Reflexology
Bodyworks
Massage

Killingly Engineering Associates
Civil Engineering & Surveying

P.O. Box 421 Killingly, CT 06241
Phone: 860-779-7299
www.killinglengineering.com

June 27, 2023

Proposed Single Family Home

Ryan Kelleher
404 Wolf Den Road
Brooklyn, CT

APPLICATION PACKAGE CONTENTS – Inland Wetlands

1. Application fee: $500
2. 5- full sized sets of plans dated 5/24/2023
3. Inland Wetlands Application
4. List of adjacent land owners including across the street
5. DEEP Reporting Form
6. Soil Scientist Delineation Report
7. Web Soil Survey Map
8. GIS mapping
9. Applicant's Certification
10. 1934 & 1951 historic aerial photos of property

COPY

INLAND WETLANDS & WATERCOURSES COMMISSION
TOWN OF BROOKLYN, CONECTICUT

Date ____________________ **Application #** ____________________

APPLICATION -- INLAND WETLANDS & WATERCOURSES

APPLICANT Ryan Kelleher MAILING ADDRESS 155 Lafontaisie Road Danielson, CT
APPLICANT'S INTEREST IN PROPERTY Owner PHONE: CELL 860-942-4268 HOME: ____________
E-MAIL rkelleher1637@gmail.com

PROPERTY OWNER IF DIFFERENT ____________________ PHONE: CELL: __________ HOME: __________
MAILING ADDRESS ____________________ EMAIL ____________________

ENGINEER/SURVEYOR (IF ANY)
Killingly Engineering Associates
ATTORNEY (IF ANY) ____________________

PROPERTY LOCATION/ADDRESS) 404 Wolf Den Road

MAP # 18 LOT # 22 ZONE RA TOTAL ACRES 41± ACRES OF WETLANDS ON PROPERTY ± 11.7AC

PURPOSE AND DESCRIPTION OF THE ACTIVITY
IMPROVEMENT OF AN EXISTING GRAVEL DRIVEWAY THROUGH A WETLAND TO ACCESS A PROPOSED SINGLE FAMILY HOME / ON 41 ACRES OF LAND.

WETLANDS EXCAVATION AND FILL:
FILL PROPOSED YES CUBIC YDS 165 SQ FT 4,470
EXCAVATION PROPOSED YES CUBIC YDS 80 SQ FT 2160 - COMPENSATORY FLOOD
LOCATION WHERE MATERIAL WILL BE PLACED: ON SITE ✓ OFF SITE __________
TOTAL REGULATED AREA ALTERED: SQ FT 4,470 ACRES 0.1

EXPLAIN ALTERNATIVES CONSIDERED (REQUIRED):
PROPERTY WAS PREVIOUSLY DESIGNED AS A 12-LOT SUBDIVISION WITH A 24' WIDE ROADWAY. THAT PROJECT RECEIVED ACOE APPROVAL BUT LOCAL APPROVAL WAS NOT PURSUED.

MITIGATION MEASURES (IF REQUIRED): WETLANDS/WATERCOURSES CREATED: CY 80 SQ FT 1870 ACRES 0.043

IS PARCEL LOCATED WITHIN 500FT OF AN ADJOINING TOWN? NO IF YES, WHICH TOWN(S)
____

IS THE ACTIVITY LOCATED WITHIN THE WATERSHED OF A WATER COMPANY AS DEFINED IN CT GENERAL STATUTES 25-32A? NO

The owner and applicant hereby grant the Brooklyn IWWC, the Board of Selectman and their Authorized Agents permission to enter the subject property for the purpose of inspection and enforcement of the IWWC Regulations of the Town of Brooklyn. If the Commission determines that outside review is required, applicant will pay consulting fee.

NOTE: DETERMINATION THAT THE INFORMATION PROVIDED IS INACCURATE MAY INVALIDATE THE IWWC DECISION AND RESULT IN ENFORCEMENT ACTION.

APPLICANT: ______________________ DATE 6/28/23

OWNER: ______________________ DATE 6/28/23

REQUIREMENTS

✓ STANDARD APPLICATION FEE $ ($150) 150 STATE FEE ($60) ✓ CHECK # ____

____ NOTICE OF ACTION PUBLICATION FEE $ ____ CHECK # ____

✓ PUBLIC HEARING PUBLICATION FEE ($100) $ 100 (SUBJECT TO CHANGE DEPENDING ON PAPER) CHECK# ____

✓ SIGNIFICANT ACTIVITY FEE (PUBLIC HEARING) ($250) $ 250.00 CHECK # ____

✓ COMPLETION OF CT DEEP REPORTING FORM

✓ ORIGINAL PLUS COPIES OF ALL MATERIALS REQUIRED - **NUMBER TO BE DETERMINED BY STAFF** 5 PROVIDED

____ PRE-APPLICATION MEETING WITH THE WETLANDS AGENT IS RECOMMENDED TO EXAMINE THE SCOPE OF THE ACTIVITY - DISCUSSED WITH IW AGENT

✓ SITE PLAN SHOWING LOCATION OF THE WETLANDS WITH EXISTING AND PROPOSED CONDITIONS. APPLICANT MAY BE REQUIRED TO HAVE A CERTIFIED **SOIL SCIENTIST IDENTIFY THE WETLANDS.**

✓ COMPLIANCE WITH THE CONNECTICUT EROSION & SEDIMENTATION CONTROL MANUAL

✓ IF THE PROPOSED ACTIVITY IS DEEMED TO BE A "SIGNIFICANT IMPACT ACTIVITY" A PUBLIC HEARING IS REQUIRED ALONG WITH THE FOLLOWING INFORMATION:

- ✓ NAMES AND ADDRESSES OF ABUTTING PROPERTY OWNERS
- ADDITIONAL INFORMATION AS CONTAINED IN IWWC REGULATIONS ARTICLE 7.6

ADDITIONAL INFORMATION/ACTION NEEDED:

SEE ATTACHED COVER SHEET

OTHER APPLICATIONS MAY BE REQUIRED. CONTACT THESE AGENCIES FOR FURTHER INFORMATION:

APPLICATION TO STATE OF CONNECTICUT DEEP

INLAND WATER RESOURCES DIVISION
79 ELM ST.
HARTFORD, CT. 06106
1-860-424-3019

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MA. 01742
1-860-343-4789

STAFF USE ONLY:

________ DECLARATORY RULING: AS OF RIGHT & NON-REGULATED USES (SEE IWWC REGULATIONS SECTION 4)

________ PERMIT REQUIRED:

_______ AUTHORIZED BY STAFF/CHAIR (NO ACTIVITY IN WETLANDS/WATERCOURSE AND MINIMAL IMPACT)

________________________________ ________________________________

CHAIR, BROOKLYN IWWC WETLANDS OFFICER

_______ AUTHORIZED BY IWWC

_______ SIGNIFICANT ACTIVITY/PUBLIC HEARING

________ NO PERMIT REQUIRED

_______ OUTSIDE OF UPLAND REVIEW AREA

_______ NO IMPACT

________________________________ ________________________________

CHAIR, BROOKLYN IWWC WETLANDS OFFICER

________ TIMBER HARVEST

LIST OF AJACENT LAND OWNERS as of 6/27/2023 GIS

Ryan Kelleher
404 Wolf Den Road
Brooklyn, CT

Job No. 23057

MAP/BLOCK/LOT **BROOKLYN**	NAME
Map 18, Lot 25	ANNALISA M. BRASSARD 395 WOLF DEN RD BROOKLYN, CT 06234
Map 18, Lot 16	JACQUELINE IGLIOZZI & JOSEPH IGLIOZZI 8 WOODWARD RD BROOKLYN, CT 06234
Map 18, Lot 21	DONALD K. GUDEAHN JR. & DIANE E. GUDEAHN 419 WOLF DEN HOLLOW RD BROOKLYN, CT 06234
Map 18, Lot 19B	THE LITTLE DIPPER FRAM, LLC 41 LYALL ST BOSTON, MA 02132
Map 17, Lot 23-5	CORSON FAMILY, LLC 160 STERLING RD STERLING, CT 06377
Map 17, Lot 23-4	AMANDA FRYE 229 HERRICK RD BROOKLYN, CT 06234
Map 17, Lot 23-3	ROBERT H. STONE JR. & KAREN J. STONE 234 HERRICK RD BROOKLYN, CT 06234
Map 18, Lot 23	TOWN OF BROOKLYN PO BOX 356 BROOKLYN, CT 06234

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

GIS CODE #: __ __ __ __ __ __ __ __ __
For DEEP Use Only

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete this form in accordance with the instructions on pages 2 and 3 and mail to:
DEEP Land & Water Resources Division, Inland Wetlands Management Program, 79 Elm Street, 3rd Floor, Hartford, CT 06106
Incomplete or incomprehensible forms will be mailed back to the inland wetlands agency.

PART I: Must Be Completed By The Inland Wetlands Agency

1. DATE ACTION WAS TAKEN: year: ____________ month: ____________
2. ACTION TAKEN (see instructions - one code only): ____________
3. WAS A PUBLIC HEARING HELD (check one)? yes ☐ no ☐
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:

(print name) ______________________ (signature) ______________________

PART II: To Be Completed By The Inland Wetlands Agency Or The Applicant

5. TOWN IN WHICH THE ACTIVITY IS OCCURRING (print name): Brooklyn

does this project cross municipal boundaries (check one)? yes ☐ no ☐

if yes, list the other town(s) in which the activity is occurring (print name(s)): ____________, ____________

6. LOCATION (see instructions for information): USGS quad name: Danielson or number: 43

subregional drainage basin number: ____________

7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (print name): Ryan Kelleher
8. NAME & ADDRESS OF ACTIVITY / PROJECT SITE (print information): 404 Wolf Den Road

briefly describe the action/project/activity (check and print information): temporary ☐ permanent ☑ description: Proposed construction of single family home with driveway through wetlands

9. ACTIVITY *PURPOSE* CODE (see instructions - one code only): A
10. ACTIVITY *TYPE* CODE(S) (see instructions for codes): 1, 2, 12, 14
11. WETLAND / WATERCOURSE AREA ALTERED (see instructions for explanation, must provide acres or linear feet):

wetlands: 0.10 acres open water body: 0 acres stream: 0 linear feet

12. UPLAND AREA ALTERED (must provide acres): 0.15 acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (must provide acres): 0 acres

PART III: To Be Completed By The DEEP

DATE RECEIVED:

DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO

FORM CORRECTED / COMPLETED: YES NO

Joseph R. Theroux

~ Certified Forester/ Soil Scientist ~
Phone 860-428-7992~ Fax 860-376-6842
426 Shetucket Turnpike, Voluntown, CT. 06384
Forestry Services ~ Environmental Impact Assessments
Wetland Delineations and Permitting ~ E&S/Site Monitoring
Wetland function and value assessments

5/2/23

Killingly Engineering Associates
P.O. Box 421
Dayville, CT. 06241

Re: Wetland delineation, Kelleher property, Wolf Den Road, Brooklyn, CT.

Dear Mr. Thibeault,

At your request I have delineated the inland wetlands/watercourse adjacent to the access road entering the property from Wolf Den Rd.

These wetlands have been delineated in accordance with the standards of the National Cooperative Soil Survey and the definitions of wetlands as found in the Connecticut Statutes, Chapter 440, Sections 22A-38.

Fluorescent pink flags with a corresponding location number delineate the boundary between the upland soils and the inland wetlands/watercourse that was found.

Flag numbers WF-1 through WF-28 delineate the western boundary of the palustrine scrub-shrub wetlands and Bush Hill Brook adjacent to the access road.

It should be noted that significant quantities of historic fill materials were found in and adjacent to the road bed and along the delineation line.

Flag numbers WF-1A through WF-8A delineate the eastern boundary of the Scrub-shrub wetland and Bush Hill Brook adjacent to the access road.

These wetland soils have formed from the prolonged wetness from the high seasonal water tables, ground water breakout and flows from Bush Hill Brook.

In conclusion, if you have any questions concerning the delineation or this report, please feel free to contact me.

Thank you,

Joseph R. Theroux

Joseph R. Theroux
Certified Soil Scientist
Member SSSSNE, NSCSS, SSSA.

Map Scale: 1:1,840 if printed on A landscape (11" x 8.5") sheet.

Meters: 0, 25, 50, 100, 150

Feet: 0, 50, 100, 200, 300

N

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

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 1:12,000.

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

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

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

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

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

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

Soil Survey Area: State of Connecticut
Survey Area Data: Version 22, Sep 12, 2022

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

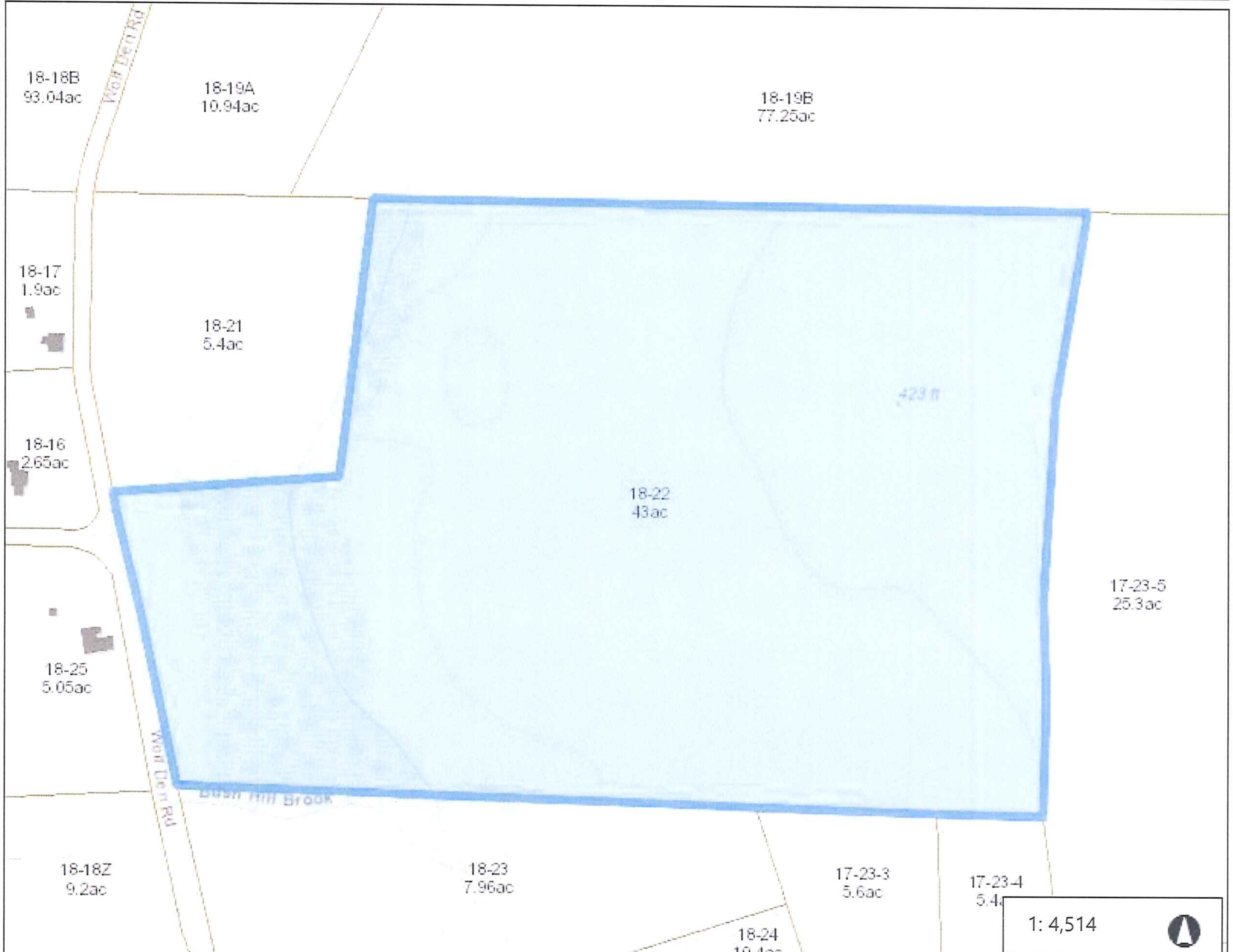
Date(s) aerial images were photographed: Jun 14, 2022—Jul 1, 2022

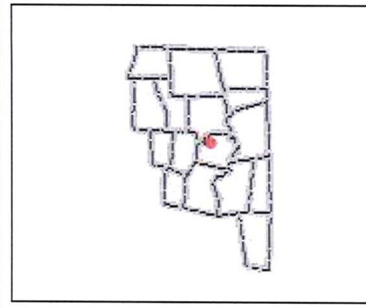
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2	Ridgebury fine sandy loam, 0 to 3 percent slopes	6.8	41.3%
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	0.9	5.5%
17	Timakwa and Natchaug soils, 0 to 2 percent slopes	0.4	2.3%
51B	Sutton fine sandy loam, 0 to 8 percent slopes, very stony	0.7	4.0%
58B	Gloucester gravelly sandy loam, 3 to 8 percent slopes, very stony	2.9	17.2%
61B	Canton and Charlton fine sandy loams, 0 to 8 percent slopes, very stony	4.9	29.6%
Totals for Area of Interest		**16.6**	**100.0%**

neccog Neccog GIS Site





Legend
Town
Buildings 2012
Parcels

Notes
Enter Map Description

0.1 0 0.07 0.1 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION

Killingly Engineering Associates

P.O. Box 421 Killingly, CT 06241
Phone: 860-779-7299
www.killinglyengineering.com

June 27, 2023

Ryan Kelleher
404 Wolf Den Road
Brooklyn, CT

Per Section 7.7 of the Inland Wetland and Watercourses regulations

The applicant certifies that:

a. The property on which the regulated activity is proposed is not located within 500 feet of the boundary of an adjoining municipality);

b. Traffic attributable to the completed project on the site will not use streets within the adjoining municipality to enter or exit the site;

c. Sewer or water drainage from the project site will not flow through and impact the sewage or drainage system within the adjoining municipality;

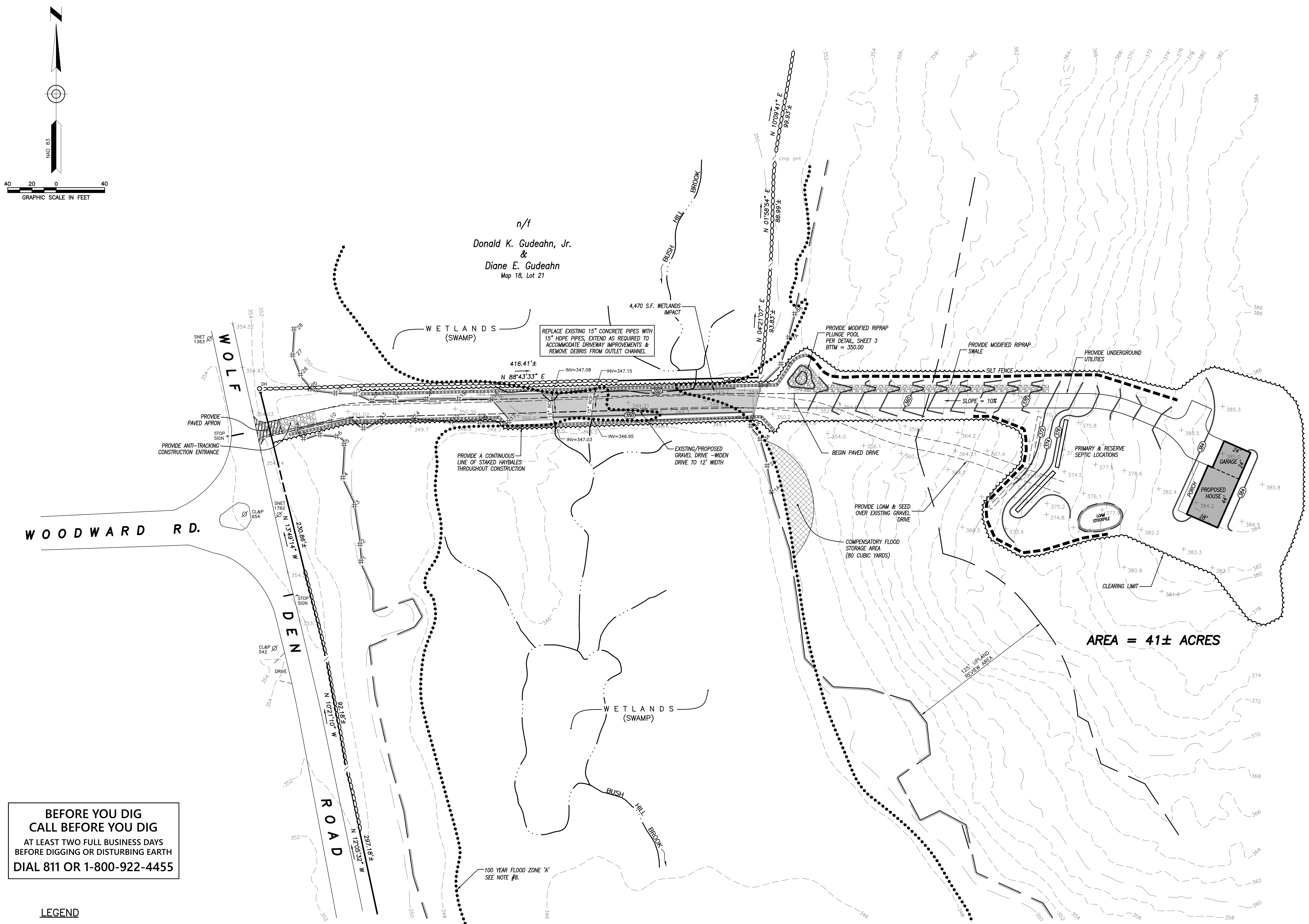
d. Water run-off from the improved site will not impact streets of other municipal or private property within the adjoining municipality.

6/28/23

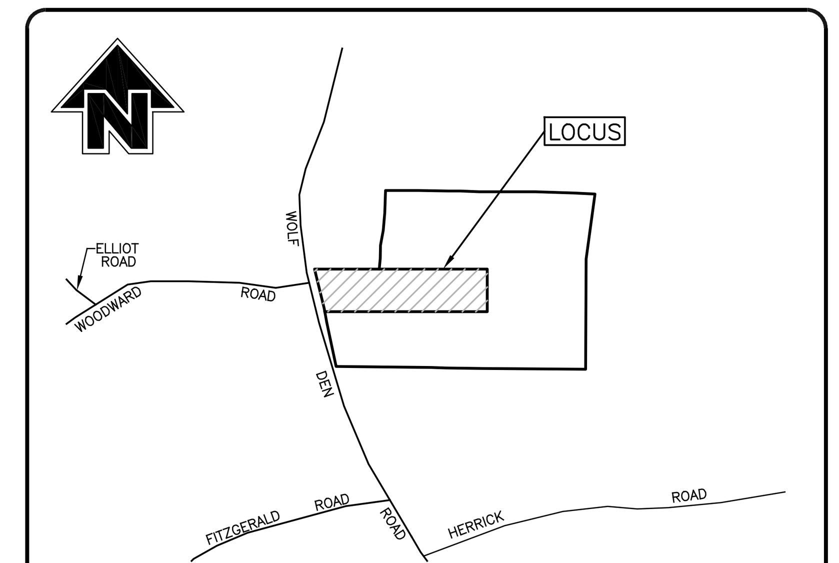
Applicant Date

1934 AERIAL PHOTO

1951 AERIAL PHOTO



BEFORE YOU DIG
CALL BEFORE YOU DIG
AT LEAST TWO FULL BUSINESS DAYS BEFORE DIGGING OR DISTURBING EARTH
DIAL 811 OR 1-800-922-4455



LOCATION MAP
SCALE: 1" = 1000'

NOTES:

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Sections 20—300b—1 through 20—300b—20 and the "Standards for Surveys and Maps in the State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. on September 26, 1996, Amended October 26, 2018;
   - This survey conforms to a Class "C" horizontal accuracy.
   - Field surveyed topographic features conform to a Class "T—2", "V—2" vertical accuracy.
   - LIDAR topographic features conform to a Class "T—D" vertical accuracy.
   - Survey Type: General Location Survey.

   This map was prepared from record research, other maps, limited field measurements and other sources, it is not to be construed as a Property/Boundary or Limited Property/Boundary Survey and is subject to such facts as said surveys may disclose.
2. Zone = RA.
3. Parcel is shown as Lot #22 on Assessors Map #18.
4. Owner of record: Ryan & Leah Kelleher &
   Judith & William Raitt
   155 Lafantasie Road
   Danielson, CT 06239
   See Volume 704, Page 126
5. Elevations shown are based on North American Vertical Datum of 1988 (NAVD 88). Contours shown are taken from Connecticut statewide LIDAR and supplemented with actual field survey. Contour interval = 2'.
6. Wetlands shown were delineated in the field by Joseph Theroux, Certified Soil Scientist, in 5/2/2023.
7. North orientation, bearings and coordinate values shown are based on North American Datum of 1983 (NAD 83) and are taken from GPS obeservations using the "Superior" statewide GPS network and RTK correction system.
8. 100 year flood zone shown was taken from the preliminary FIRM Winhdham County flood maps dated 7/17/2020, panel 090164 0236F.

MAP REFERENCES:

1. "Survey Plan — Prepared for — State of Connecticut Dept. of Agriculture Farmland Preservation Program — Map of Property of — Hillandale Family Limited Partnership & Estate of Georgy L. Booth — Wolfden & Bush Hill Road — Brooklyn, Connecticut Scale: 1" = 100' — Date: October, 1992 — Sheet 1 of 2 — Prepared by: Scott L. Neff". On file in the Brooklyn Land Records as Map #35.
2. Subdivision Map prepared for Meehan Builders, LLC — Wolf Den Road — Brooklyn, Connecticut — Date: 11/01/2004 — Revised to: 3/01/2005 — Scale: 1" = 80' — Sheet 2 of 17 — Prepared by Provost & Rovero, Inc." Not on file.

DATE	DESCRIPTION

REVISIONS

GENERAL LOCATION SURVEY
DRIVEWAY CROSSING DESIGN PLAN
PREPARED FOR

RYAN KELLEHER

404 WOLF DEN ROAD
BROOKLYN, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying
114 Westcott Road
P.O. Box 421
Killingly, Connecticut 06241
(860) 779-7299
www.killinglyengineering.com

DATE: 5/24/2023	DRAWN: NET
SCALE: 1" = 40'	DESIGN: NET
SHEET: 1 OF 3	CHK BY: GG
DWG. No: CLIENT FILE	JOB No: 23057

LEGEND

DH	DRILL HOLE FOUND
	UTILITY POLE
	PERCOLATION TEST HOLE
	TEST HOLE
100	EXISTING CONTOURS
100	PROPOSED CONTOURS
	INLAND WETLANDS FLAG
	BUILDING SETBACK LINE
	STONE WALL
	SILT FENCE

ANY CHANGES TO THESE PLANS WITHIN 200' OF WETLANDS OR WATERCOURSES MUST BE RESUBMITTED TO THE BROOKLYN INLAND WETLANDS COMMISSION.

THE APPLICANT WILL CONTACT THE BROOKLYN INLAND WETLANDS COMMISSION OR ITS AGENT AFTER ALL EROSION AND SEDIMENT CONTROL MEASURES ARE INSTALLED, PRIOR TO ANY CONSTRUCTION OR EXCAVATION ON THE PROPERTY.

ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION

CHAIRMAN DATE

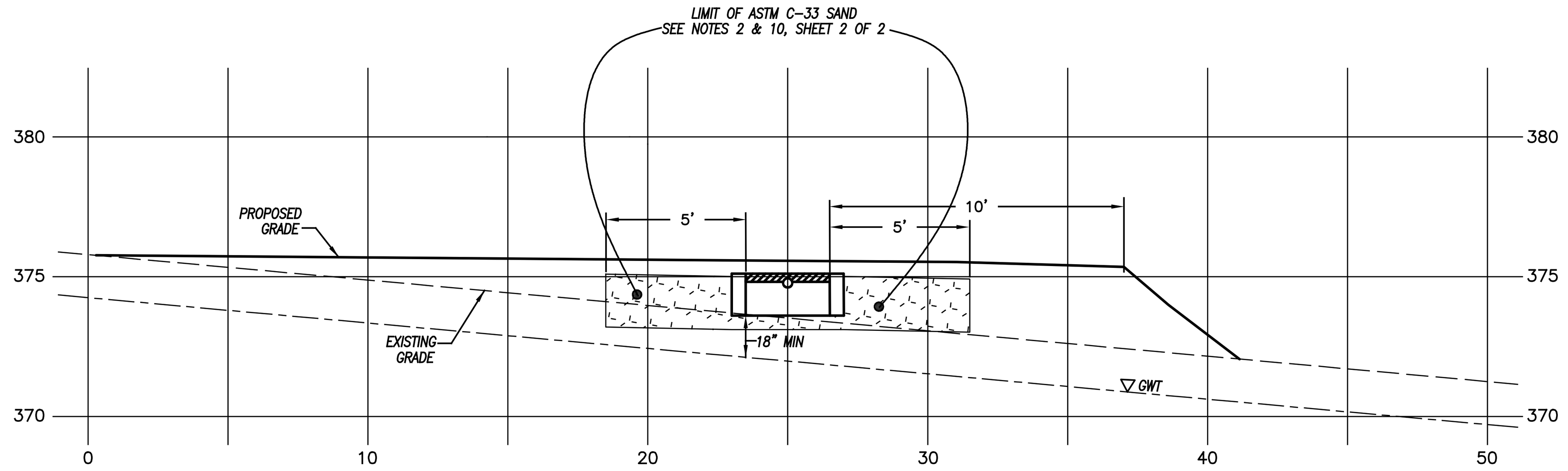
NORMAND E. THIBEAULT, JR., P.E. DATE
LIC #PEN 0022834

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON,

GREG A. GLAUDE, L.S. LIC. NO. 70191 DATE

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS THE ORIGINAL SEAL AND SIGNATURE OF THE LAND SURVEYOR.

K:\23057\Drawings\23057 01_DRIVE.dwg Jun 27, 2023 - 3:27 PM



CROSS SECTION "A–A"

SCALE: 1" = 5'

PERCOLATION TEST RESULT – September 28, 2022
NORTHEAST DISTRICT DEPARTMENT OF HEALTH.

HOLE A
Depth = 24" Rate = 10.1–20 min./in.

Time	Reading
9:38	9.5"
9:43	11"
9:53	13"
10:03	14.5"
10:13	16"
10:23	16.5"
10:33	17.5"

TEST HOLE DATA – September 28, 2022
Northeast District Department of Health

TEST PIT	DEPTH	PROFILE
1	0"–16"	Topsoil
	16"–20"	Tan, Brown Fine Sandy Loam
	20"–90"	Grey Tan Compact Mottled Fine Sandy Loam
	Ledge	N/A
	GWT	90"
	Roots	10"
	Mottling	20"
	Restrictive	20"
2	0"–28"	Topsoil
	28"–60"	Compact Mottled Gray Fine Sandy Loam
	Ledge	N/A
	GWT	N/A
	Mottling	28"
	Roots	28"
	Restrictive	28"

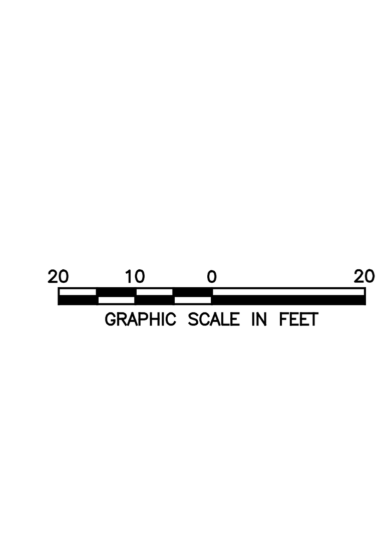
SEPTIC SYSTEM DESIGN DATA

Percolation Rate	=	10.1–20 min. / in.
5 bedroom house requires	=	900 s.f. effective leaching area
Effective Leaching area	=	11 s.f. / l.f. of trench
Length Required	=	900/11 = 81.8 l.f.
Length Provided	=	85 l.f.
Min. Leaching System Spread (MLSS)	=	26 x 2.0 x 1.25 = 65.00'
MLSS Provided	=	85'

LEACHING FIELD

85 L.F. (17 sections) of Eljen Mantis 536.8 Septic Leaching system

Maximum depth into existing grade = 2"



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4. Owner of record: Ryan & Leah Kelleher & Judith & William Raitt, 155 Lafantasie Road, Danielson, CT 06239, See Volume 704, Page 126
5. Elevations shown are based on North American Vertical Datum of 1988 (NAVD 88). Contours shown are taken from Connecticut statewide LIDAR and supplemented with actual field survey. Contour interval = 2'.
6. Wetlands shown were delineated in the field by Joseph Theroux, Certified Soil Scientist, in 5/2/2023.
7. North orientation, bearings and coordinate values shown are based on North American Datum of 1983 (NAD 83) and are taken from GPS obeservations using the "Superior" statewide GPS network and RTK correction system.
8. Before any construction is to commence contact "CALL BEFORE YOU DIG" at 1–800–922–4455 or 811.

MAP REFERENCES:

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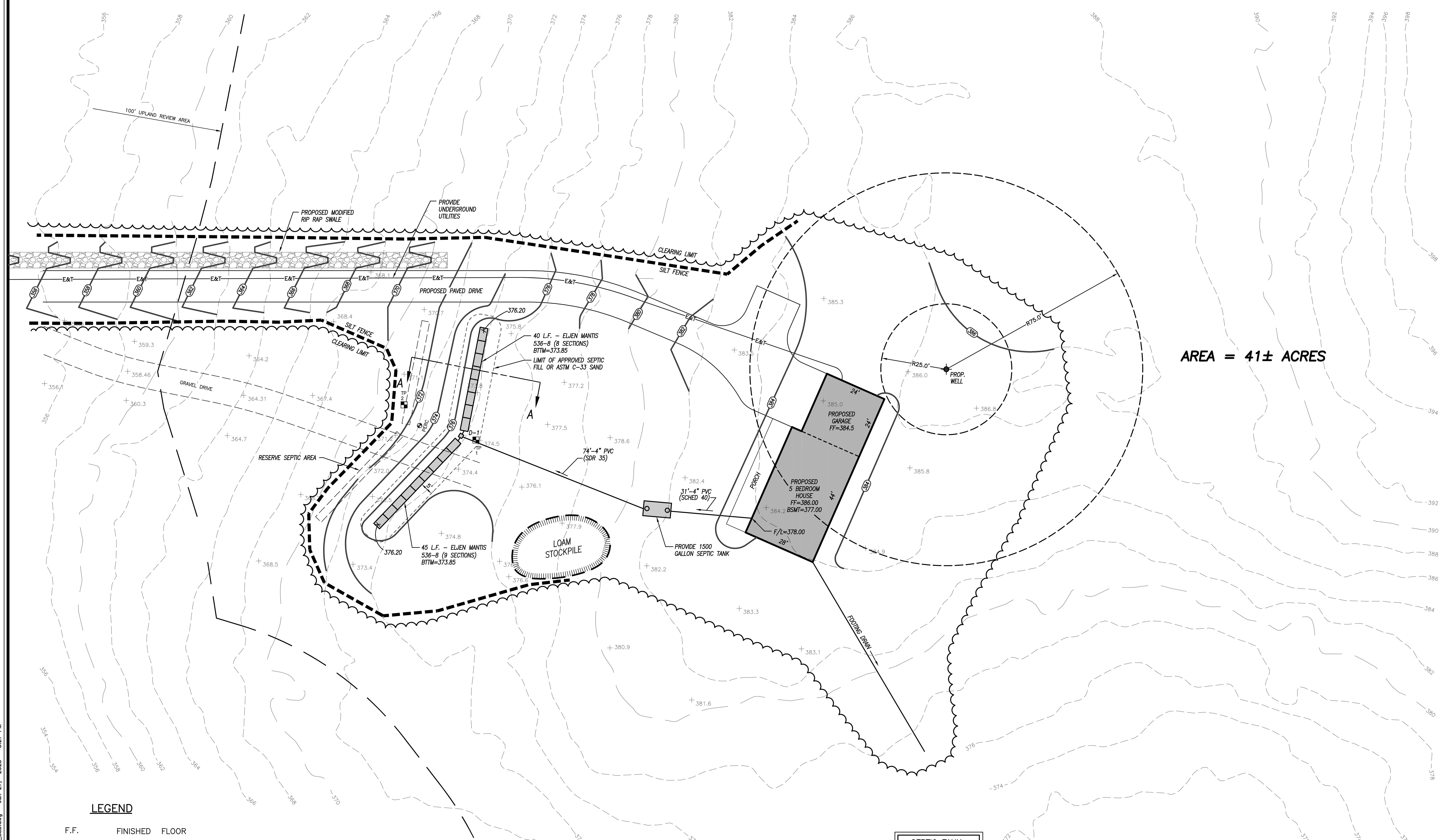
2. Subdivision Map prepared for Meehan Builders, LLC – Wolf Den Road – Brooklyn, Connecticut – Date: 11/01/2004 – Revised to: 3/01/2005 – Scale: 1" = 80' – Sheet 2 of 17 – Prepared by Provost & Rovero, Inc." Not on file.



LEGEND

F.F.	FINISHED FLOOR
Ø	UTILITY POLE
---100---	EXISTING CONTOURS
(100)	PROPOSED CONTOURS
	INLAND WETLANDS FLAG
	BUILDING SETBACK LINE
	PERCOLATION TEST HOLE
	TEST HOLE
	SILT FENCE

ANY CHANGES TO THESE PLANS WITHIN 200' OF WETLANDS OR WATERCOURSES MUST BE RESUBMITTED TO THE BROOKLYN INLAND WETLANDS COMMISSION.

THE APPLICANT WILL CONTACT THE BROOKLYN INLAND WETLANDS COMMISSION OR ITS AGENT AFTER ALL EROSION AND SEDIMENT CONTROL MEASURES ARE INSTALLED, PRIOR TO ANY CONSTRUCTION OR EXCAVATION ON THE PROPERTY.

ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION

CHAIRMAN DATE

SURVEYOR SHALL SET A BENCH MARK IN THE AREA OF THE SEPTIC SYSTEM AT THE TIME OF CONSTRUCTION STAKE–OUT.

SEPTIC TANK
1500 GALLON
TWO COMPARTMENT
F/L IN = 377.25
F/L OUT = 377.00

DISTRIBUTION BOXES
D–1 (STANDARD)
F/L IN = 375.02
F/L OUT = 374.85

NORMAND THIBEAULT, JR., P.E. No. 22834 DATE

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON,

GREG A. GLAUDE, L.S. LIC. NO. 70191 DATE

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS THE ORIGINAL SEAL AND SIGNATURE OF THE LAND SURVEYOR.

DATE	DESCRIPTION

REVISIONS

GENERAL LOCATION SURVEY
SEPTIC SYSTEM DESIGN PLAN
PREPARED FOR

RYAN KELLEHER

404 WOLF DEN ROAD
BROOKLYN, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying
114 Westcott Road
P.O. Box 421
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(860) 779-7299
www.killinglyengineering.com

DATE: 5/24/2023	DRAWN: RGS
SCALE: 1" = 20'	DESIGN: NET
SHEET: 2 OF 3	CHK BY: GG
DWG. No: CLINT FILE	JOB No: 23057

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EROSION AND SEDIMENT CONTROL NARRATIVE:

PRINCIPLES OF EROSION AND SEDIMENT CONTROL

The primary function of erosion and sediment controls is to absorb erosional energies and reduce runoff velocities that force the detachment and transport of soil and/or encourage the deposition of eroded soil particles before they reach any sensitive area.

KEEP LAND DISTURBANCE TO A MINIMUM

The more land that is in vegetative cover, the more surface water will infiltrate into the soil, thus minimizing stormwater runoff and potential erosion. Keeping land disturbance to a minimum not only involves minimizing the extent of exposure at any one time, but also the duration of exposure. Phasing, sequencing and construction scheduling are interrelated. Phasing divides a large project into distinct sections where construction work over a specific area occurs over distinct periods of time and each phase is not dependent upon a subsequent phase in order to be functional. A sequence is the order in which construction activities are to occur during any particular phase. A sequence should be developed on the premise of "first things first" and "last things last" with proper attention given to the inclusion of adequate erosion and sediment control measures. A construction schedule is a sequence with time lines applied to it and should address the potential overlap of actions in a sequence which may be in conflict with each other.

- Limit areas of clearing and grading. Protect natural vegetation from construction equipment with fencing, tree armoring, and retaining walls or tree wells.
- Route traffic patterns within the site to avoid existing or newly planted vegetation.
- Phase construction so that areas which are actively being developed at any one time are minimized and only that area under construction is exposed. Clear only those areas essential for construction.
- Sequence the construction of storm drainage systems so that they are operational as soon as possible during construction. Ensure all outlets are stable before outletting storm drainage flow into them.
- Schedule construction so that final grading and stabilization is completed as soon as possible.

SLOW THE FLOW

Detachment and transport of eroded soil must be kept to a minimum by absorbing and reducing the erosive energy of water. The erosive energy of water increases as the volume and velocity of runoff increases. The volume and velocity of runoff increases during development as a result of reduced infiltration rates caused by the removal of existing vegetation, removal of topsoil, compaction of soil and the construction of impervious surfaces.

- Use diversions, stone dikes, silt fences and similar measures to break flow lines and dissipate storm water energy.
- Avoid diverting one drainage system into another without calculating the potential for downstream flooding or erosion.

KEEP CLEAN RUNOFF SEPARATED

Clean runoff should be kept separated from sediment laden water and should not be directed over disturbed areas without additional controls. Additionally, prevent the mixing of clean off-site generated runoff with sediment laden runoff generated on-site until after adequate filtration of on-site waters has occurred.

- Segregate construction waters from clean water.
- Divert site runoff to keep it isolated from wetlands, watercourses and drainage ways that flow through or near the development until the sediment in that runoff is trapped or detained.

REDUCE ON SITE POTENTIAL INTERNALLY AND INSTALL PERIMETER CONTROLS

While it may seem less complicated to collect all waters to one point of discharge for treatment and just install a perimeter control, it can be more effective to apply internal controls to many small sub-drainage basins within the site. By reducing sediment loading from within the site, the chance of perimeter control failure and the potential off-site damage that it can cause is reduced. It is generally more expensive to correct off-site damage than it is to install proper internal controls.

- Control erosion and sedimentation in the smallest drainage area possible. It is easier to control erosion than to contend with sediment after it has been carried downstream and deposited in unwanted areas.
- Direct runoff from small disturbed areas to adjoining undisturbed vegetated areas to reduce the potential for concentrated flows and increase settlement and filtering of sediments.
- Concentrated runoff from development should be safely conveyed to stable outlets using rip rapped channels, waterways, diversions, storm drains or similar measures.
- Determine the need for sediment basins. Sediment basins are required on larger developments where major grading is planned and where it is impossible or impractical to control erosion at the source. Sediment basins are needed on large and small sites when sensitive areas such as wetlands, watercourses, and streets would be impacted by off-site sediment deposition. Do not locate sediment basins in wetlands or permanent or intermittent watercourses. Sediment basins should be located to intercept runoff prior to its entry into the wetland or watercourse.

SEPTIC SYSTEM CONSTRUCTION NOTES

1. The building, septic system and well shall be accurately staked in the field by a licensed Land Surveyor in the State of Connecticut, prior to construction.
2. Topsoil shall be removed and in the area of the primary leaching field scarified, prior to placement of septic fill. Septic fill specifications are as follows:

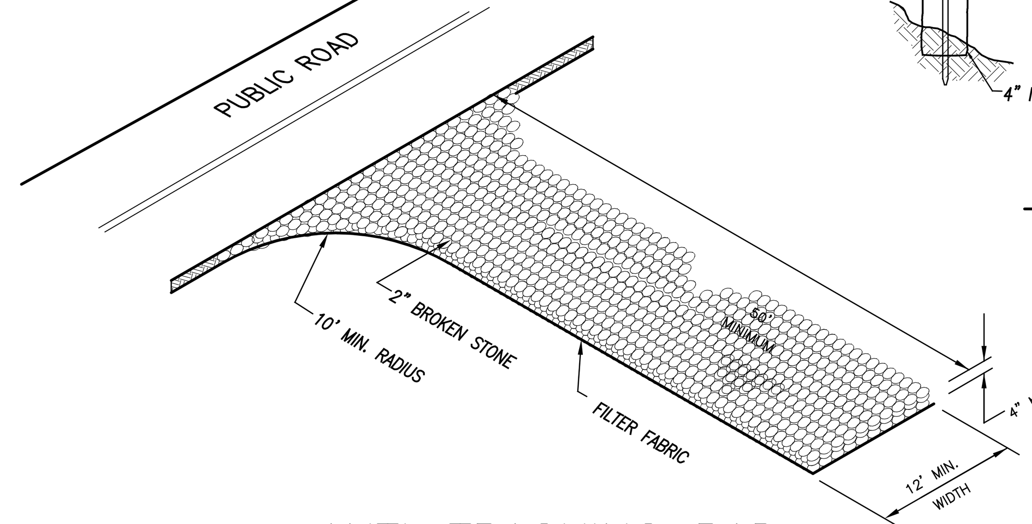
   – Max. percent of gravel (material between No. 4 & 3 inch sieves) = 45%

   GRADATION OF FILL (MINUS GRAVEL)

SIEVE SIZE	PERCENT PASSING (WET SIEVE)	PERCENT PASSING (DRY SIEVE)
No. 4	100%	100%
No. 10	70% – 100%	70% – 100%
No. 40	10% – 50%	10% – 75%
No. 100	0% – 20%	0% – 5%
No. 200	0% – 5%	0% – 2.5%

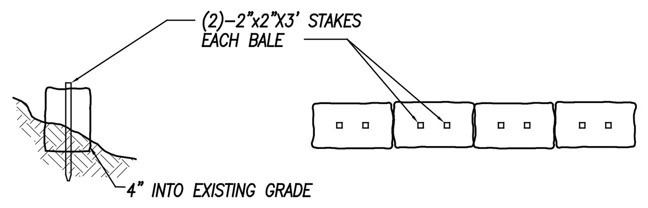
   Fill material shall be approved by the sanitarian prior to placement. It shall be compacted in 6" lifts and shall extend a minimum of five feet (5') around the perimeter of the system. Common fill shall extend an additional five feet (5') down gradient of the system (10' total) before tapering off at a maximum slope of 2H:1V.
3. Septic tank shall be two compartment precast 1500 gallon tank with gas deflector and outlet filter as manufactured by Jolley Precast, Inc. or equal.
4. Distribution boxes shall be 4 hole precast concrete as manufactured by Jolley Precast, Inc. or equal.
5. All precast structures such as septic tanks, distribution boxes, etc. shall be set level on six inches (6") of compacted gravel base at the elevations specified on the plans.
6. Solid distribution pipe shall be 4" diameter PVC meeting ASTM D-3034 SDR 35 with compression gasket joints. It shall be laid true to the lines and grades shown on the plans and in no case have a slope less than 0.125 inches per foot.
7. Perforated distribution pipe shall be 4" diameter PVC meeting ASTM D-3034 or ASTM F1760 for SDR 35, or ASTM F810 for SDR 38.
8. Sewer pipe from the foundation wall to the septic tank shall be schedule 40 PVC meeting ASTM D 1785. It shall be laid true to the grades shown on the plans and in no case shall have a slope less than 0.25 inches per foot.
9. Solid footing drain outlet pipe shall be 4" Diameter PVC meeting ASTM D 3034, SDR 35 with compression gasketed joints. Footing drain outlet pipe shall not be backfilled with free draining material, such as gravel, broken stone, rock fragments, etc.
10. Septic sand shall meet the requirements of ASTM C-33 with less than 10% passing a 100 sieve and less than 5% passing a 200 sieve

SIEVE SIZE	% PASSING
0.375	100
#4	95–100
#8	80–100
#16	60–85
#30	25–60
#50	10–30
#100	<10
#200	<5



ANTI-TRACKING PAD

NOT TO SCALE



HAYBALE BARRIER

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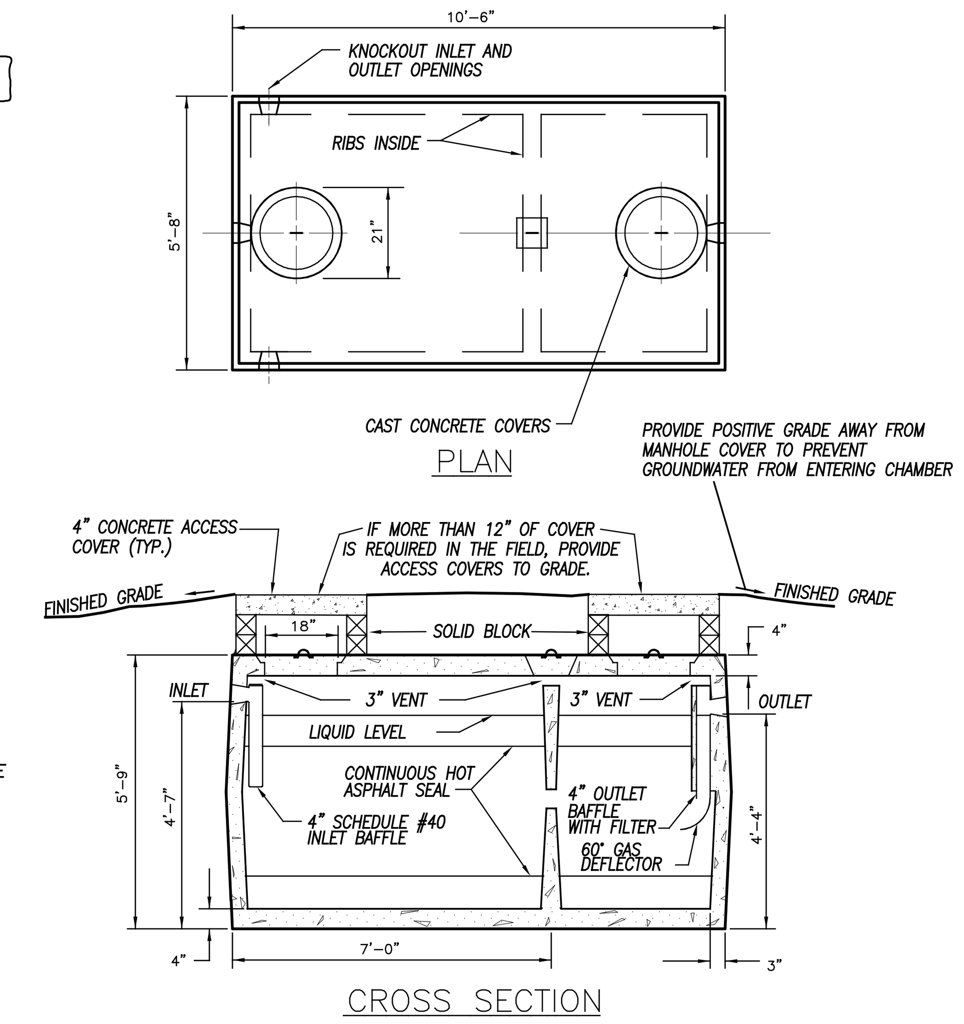
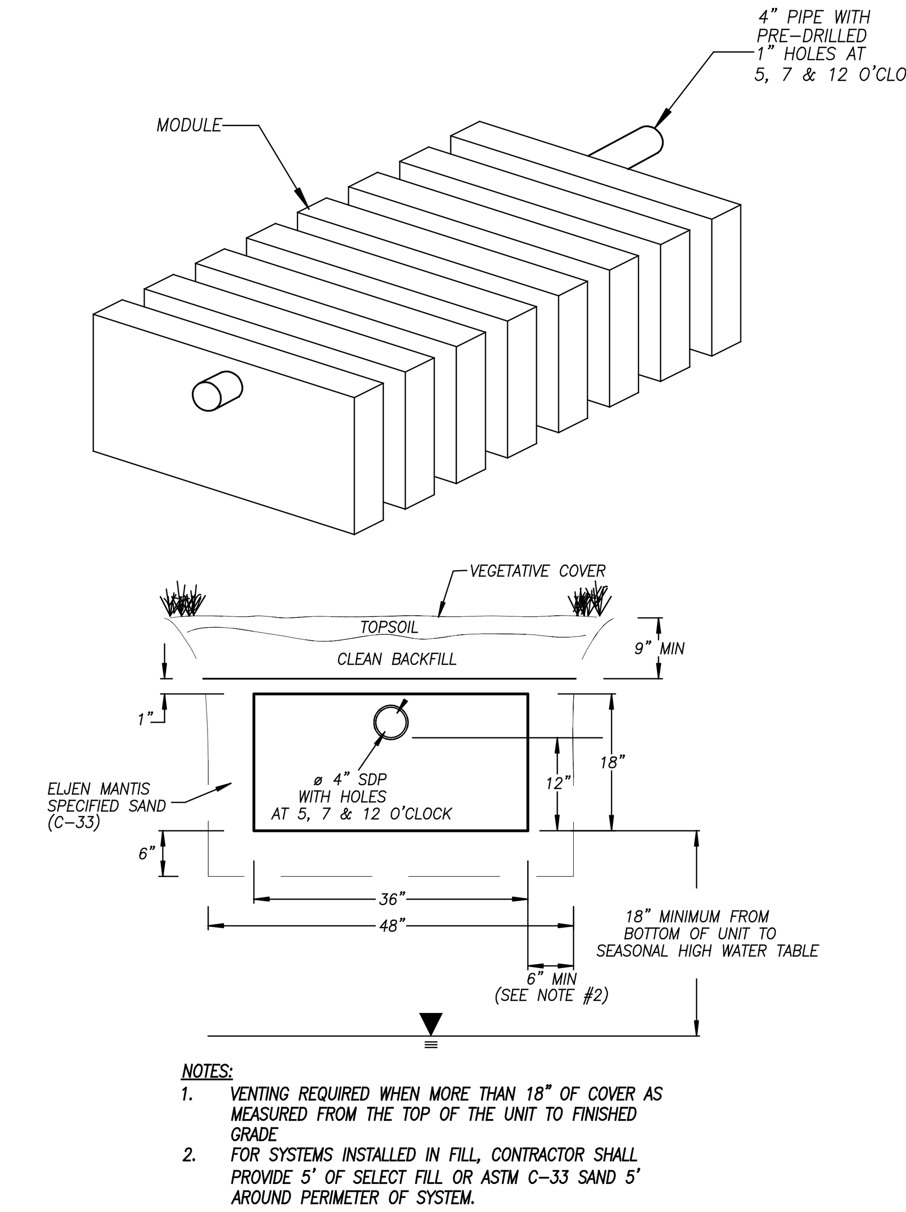
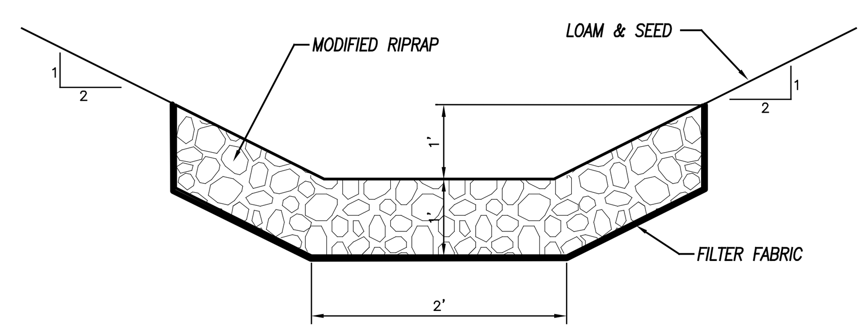


1500 GALLON 2 COMPARTMENT SEPTIC TANK

NOT TO SCALE

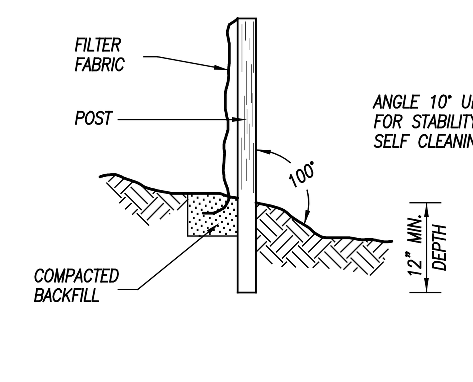


ELJEN 536-8 WASTEWATER LEACHING SYSTEM



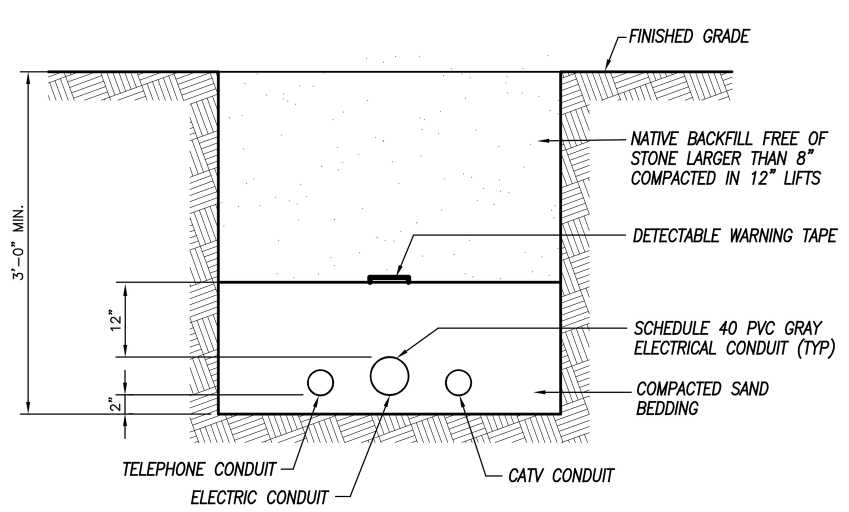
MODIFIED RIPRAP SWALE

NOT TO SCALE



SILT FENCE

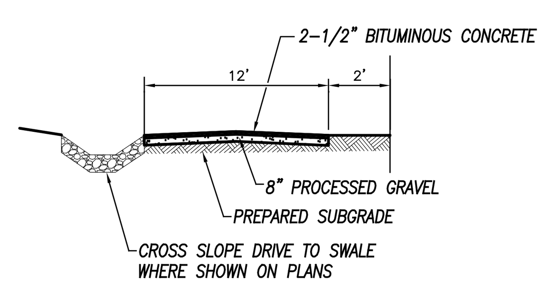
NOT TO SCALE



NOTE: CONTRACTOR SHALL PROVIDE SILT/CLAY DAMS AT 100' INTERVALS ALONG PROPOSED UTILITY TRENCH TO AVOID TRANSPORTING INTERCEPTED WATER.

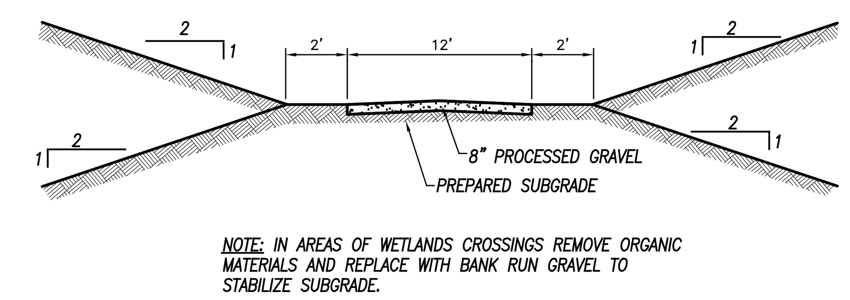
UNDERGROUND UTILITY TRENCH

NOT TO SCALE



PAVED DRIVE DETAIL

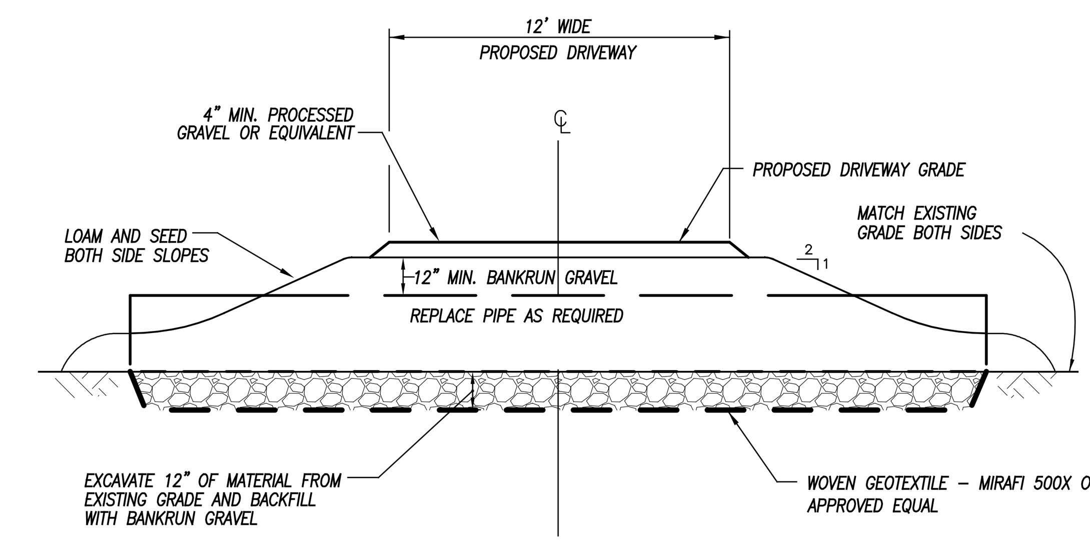
NOT TO SCALE



NOTE: IN AREAS OF WETLANDS CROSSINGS REMOVE ORGANIC MATERIALS AND REPLACE WITH BANK RUN GRAVEL TO STABILIZE SUBGRADE.

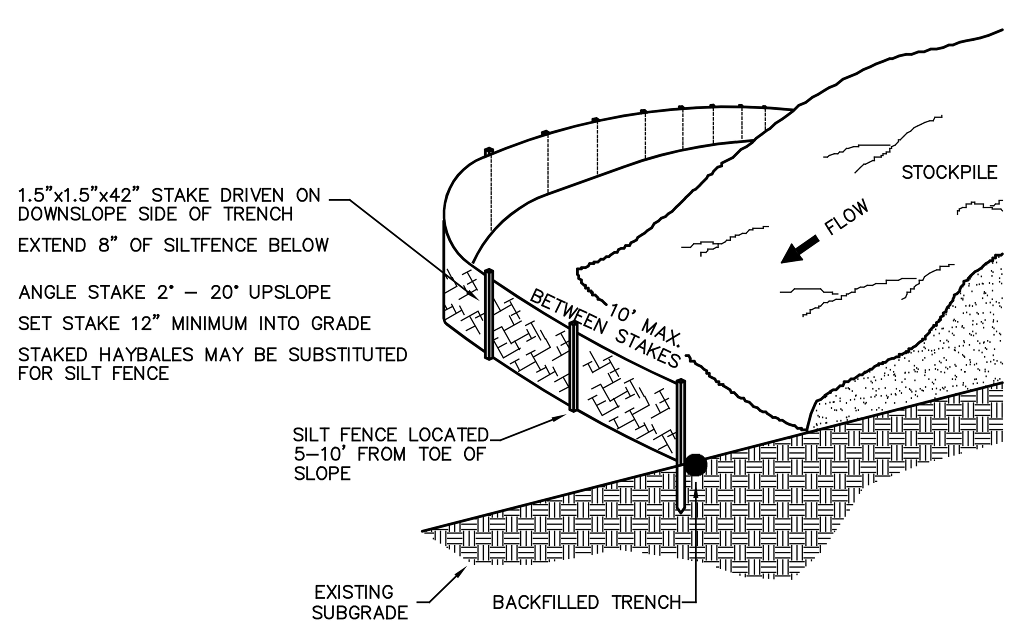
GRAVEL DRIVE DETAIL

NOT TO SCALE



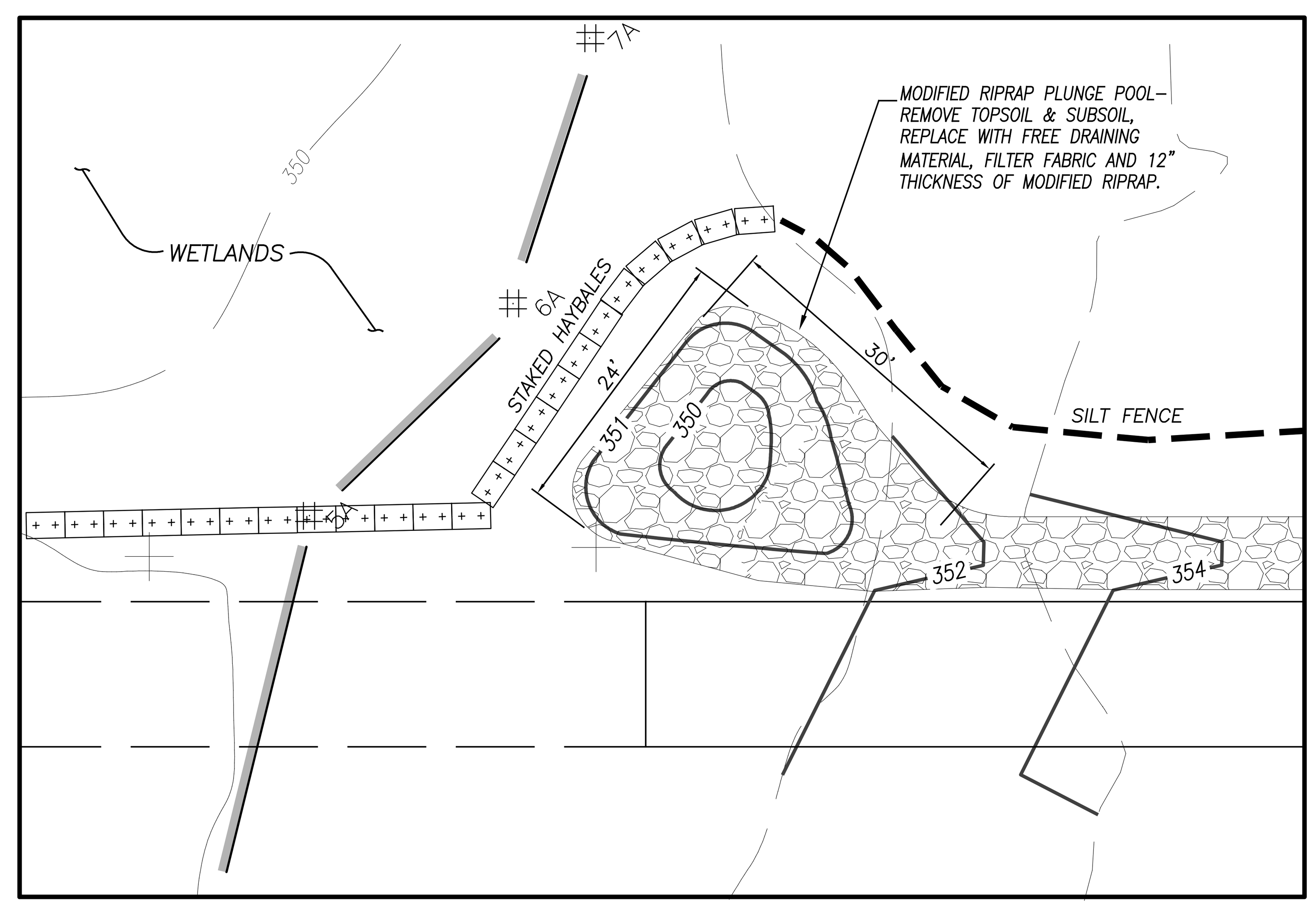
DRIVEWAY CULVERT DETAIL

NOT TO SCALE



SILT FENCE @ TOE OF SLOPE APPLICATION

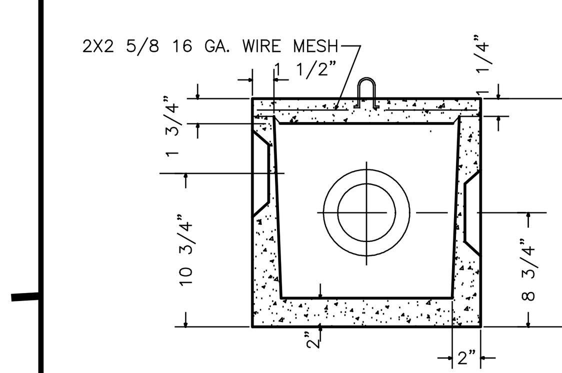
NOT TO SCALE



MODIFIED RIPRAP PLUNGE POOL DETAIL

NOT TO SCALE

FREE DRAINING MATERIAL SHALL CONFORM TO ARTICLE M.02.07 OF CTDOT FORM 818



STANDARD D-BOX

NOT TO SCALE

DATE	DESCRIPTION
REVISIONS	

DETAIL SHEET

PREPARED FOR

RYAN KELLEHER

WOLF DEN ROAD

BROOKLYN, CONNECTICUT

Killingly Engineering Associates

Civil Engineering & Surveying

114 Westcott Road
P.O. Box 421
Killingly, Connecticut 06241
(860) 779-7299
www.killinglyengineering.com

NORMAND THIBEAULT, JR., P.E. No. 22834 DATE

DATE: 5/24/2023	DRAWN: RGS
SCALE: NOT TO SCALE	DESIGN: NET
SHEET: 3 OF 3	CHK BY: GG
DWG. No: CLIENT FILE	JOB No: 23057

K:\23057\Drawings\23057 03 SSD_Det.dwg Jun 27, 2023 - 3:28 PM

Killingly Engineering Associates
Civil Engineering & Surveying

P.O. Box 421 Killingly, CT 06241
Phone: 860-779-7299
www.killinglengineering.com

June 26, 2023

Proposed Single Family Home

Tripp Hollow Investments, LLC
Tripp Hollow Road
Brooklyn, CT

APPLICATION PACKAGE CONTENTS – Inland Wetlands

1. Application fee: $210.00
2. 5- full sized sets of plans dated: 6/15/2023
3. Inland Wetlands Application
4. List of adjacent landowners including across the street
5. CT DEEP Reporting Form
6. Web Soil Survey Map
7. Town GIS map
8. Applicant's Certification

COPY

INLAND WETLANDS & WATERCOURSES COMMISSION
TOWN OF BROOKLYN, CONECTICUT

Date ____________ **Application #** ____________

APPLICATION -- INLAND WETLANDS & WATERCOURSES

APPLICANT TRIPP HOLLOW INVESTMENTS, LLC MAILING ADDRESS 89 WAUREGAN RD. BROOKLYN, CT. 06234
APPLICANT'S INTEREST IN PROPERTY OWNER PHONE: CELL 401-374-6543 HOME: ____________
E-MAIL bMEEHAN4@YAHOO.COM

PROPERTY OWNER IF DIFFERENT ____________ PHONE: CELL: ________ HOME: ________
MAILING ADDRESS ____________ EMAIL ____________

ENGINEER/SURVEYOR (IF ANY)
KILLINGLY ENGINEERING ASSOCIATES
ATTORNEY (IF ANY) ____________

PROPERTY LOCATION/ADDRESS) TRIPP HOLLOW RD.

MAP # 14 LOT # 10-1 ZONE RA TOTAL ACRES 4.26 ACRES OF WETLANDS ON PROPERTY 1.4

PURPOSE AND DESCRIPTION OF THE ACTIVITY
EXISTING SUBDIVISION LOT FROM 2004. PROPOSED HOUSE, WELL, SEPTIC SYSTEM AND SITE GRADING IN THE UPLAND REVIEW AREA.

WETLANDS EXCAVATION AND FILL:
FILL PROPOSED 0 CUBIC YDS ________ SQ FT ________
EXCAVATION PROPOSED 0 CUBIC YDS ________ SQ FT ________
LOCATION WHERE MATERIAL WILL BE PLACED: ON SITE N/A OFF SITE ________
TOTAL REGULATED AREA ALTERED: SQ FT ________ ACRES ________

EXPLAIN ALTERNATIVES CONSIDERED (REQUIRED):
____

MITIGATION MEASURES (IF REQUIRED): WETLANDS/WATERCOURSES CREATED: CY ______ SQ FT ______ ACRES ______

IS PARCEL LOCATED WITHIN 500FT OF AN ADJOINING TOWN? _____ IF YES, WHICH TOWN(S)
____

IS THE ACTIVITY LOCATED WITHIN THE WATERSHED OF A WATER COMPANY AS DEFINED IN CT GENERAL STATUTES 25-32A? NO

THE OWNER AND APPLICANT HEREBY GRANT THE BROOKLYN IWWC, THE BOARD OF SELECTMAN AND THEIR AUTHORIZED AGENTS PERMISSION TO ENTER THE SUBJECT PROPERTY FOR THE PURPOSE OF INSPECTION AND ENFORCEMENT OF THE IWWC REGULATIONS OF THE TOWN OF BROOKLYN. IF THE COMMISSION DETERMINES THAT OUTSIDE REVIEW IS REQUIRED, APPLICANT WILL PAY CONSULTING FEE.

NOTE: DETERMINATION THAT THE INFORMATION PROVIDED IS INACCURATE MAY INVALIDATE THE IWWC DECISION AND RESULT IN ENFORCEMENT ACTION.

APPLICANT: ______________________ DATE 6-28-23

OWNER: ______________________ DATE 6-28-23

REQUIREMENTS

X STANDARD APPLICATION FEE $ ($150) ✓ STATE FEE ($60) ✓ CHECK #______

________ NOTICE OF ACTION PUBLICATION FEE $______ CHECK #______

________ PUBLIC HEARING PUBLICATION FEE ($100) $______ (SUBJECT TO CHANGE DEPENDING ON PAPER) CHECK#______

________ SIGNIFICANT ACTIVITY FEE (PUBLIC HEARING) ($250) $______ CHECK #______

________ COMPLETION OF CT DEEP REPORTING FORM

________ ORIGINAL PLUS COPIES OF ALL MATERIALS REQUIRED - **NUMBER TO BE DETERMINED BY STAFF**

________ PRE-APPLICATION MEETING WITH THE WETLANDS AGENT IS RECOMMENDED TO EXAMINE THE SCOPE OF THE ACTIVITY

________ SITE PLAN SHOWING LOCATION OF THE WETLANDS WITH EXISTING AND PROPOSED CONDITIONS. APPLICANT MAY BE REQUIRED TO HAVE A CERTIFIED **SOIL SCIENTIST IDENTIFY THE WETLANDS.**

________ COMPLIANCE WITH THE CONNECTICUT EROSION & SEDIMENTATION CONTROL MANUAL

________ IF THE PROPOSED ACTIVITY IS DEEMED TO BE A "SIGNIFICANT IMPACT ACTIVITY" A PUBLIC HEARING IS REQUIRED ALONG WITH THE FOLLOWING INFORMATION:

- NAMES AND ADDRESSES OF ABUTTING PROPERTY OWNERS
- ADDITIONAL INFORMATION AS CONTAINED IN IWWC REGULATIONS ARTICLE 7.6

ADDITIONAL INFORMATION/ACTION NEEDED:

OTHER APPLICATIONS MAY BE REQUIRED. CONTACT THESE AGENCIES FOR FURTHER INFORMATION:
APPLICATION TO STATE OF CONNECTICUT DEEP

INLAND WATER RESOURCES DIVISION
79 ELM ST.
HARTFORD, CT. 06106
1-860-424-3019

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MA. 01742
1-860-343-4789

STAFF USE ONLY:

________ DECLARATORY RULING: AS OF RIGHT & NON-REGULATED USES (SEE IWWC REGULATIONS SECTION 4)

________ PERMIT REQUIRED:

______ AUTHORIZED BY STAFF/CHAIR (NO ACTIVITY IN WETLANDS/WATERCOURSE AND MINIMAL IMPACT)

________________________ ________________________

CHAIR, BROOKLYN IWWC WETLANDS OFFICER

______ AUTHORIZED BY IWWC

______ SIGNIFICANT ACTIVITY/PUBLIC HEARING

________ NO PERMIT REQUIRED

______ OUTSIDE OF UPLAND REVIEW AREA

______ NO IMPACT

________________________ ________________________

CHAIR, BROOKLYN IWWC WETLANDS OFFICER

________ TIMBER HARVEST

LIST OF AJACENT LAND OWNERS as of 6/26/2023 GIS

Meehan Builders, LLC
Tripp Hollow Road
Brooklyn, CT

Job No. 16069

MAP/BLOCK/LOT **BROOKLYN**	NAME
Map 14, Lot 10-2	ADAM TUCKER & BETHANY S. TUCKER 184 TRIPP HOLLOW RD BROOKLYN, CT 06234
Map 14, Lot 10-3	MICHAEL J. CAPUANO 192 TRIPP HOLLOW RD BROOKLYN, CT 06234
Map 14, Lot 10-4	DEANE RETTIG & ELIZABETH A. RETTIG 208 TRIPP HOLLOW RD BROOKLYN, CT 06234
Map 14, Lot 10	MEEHAN BUILDERS, LLC 89 WAUREGAN RD BROOKLYN, CT 06234
Map 14, Lot 10-59	TATNIC HILL INVESTMENTS, LLC 89 WAUREGAN RD BROOKLYN, CT 06234
Map 15, Lot 19-18	KEVIN FERRA 176 TRIPP HOLLOW RD BROOKLYN, CT 06234

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

GIS CODE #: __ __ __ __ __ __ __ __ __
For DEEP Use Only

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete this form in accordance with the instructions on pages 2 and 3 and mail to:
DEEP Land & Water Resources Division, Inland Wetlands Management Program, 79 Elm Street, 3rd Floor, Hartford, CT 06106
Incomplete or incomprehensible forms will be mailed back to the inland wetlands agency.

PART I: Must Be Completed By The Inland Wetlands Agency

1. DATE ACTION WAS TAKEN: year: ______ month: ______
2. ACTION TAKEN (see instructions - one code only): ______
3. WAS A PUBLIC HEARING HELD (check one)? yes ☐ no ☐
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:
(print name) ______ (signature) ______

PART II: To Be Completed By The Inland Wetlands Agency Or The Applicant

5. TOWN IN WHICH THE ACTIVITY IS OCCURRING (print name): Brooklyn
does this project cross municipal boundaries (check one)? yes ☐ no ☐
if yes, list the other town(s) in which the activity is occurring (print name(s)): ______, ______
6. LOCATION (see instructions for information): USGS quad name: Danielson or number: 43
subregional drainage basin number: ______
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (print name): Meehan Builders, LLC
8. NAME & ADDRESS OF ACTIVITY / PROJECT SITE (print information): Tripp Hollow Road
briefly describe the action/project/activity (check and print information): temporary ☐ permanent ☑ description: Proposed construction of a single family home
9. ACTIVITY *PURPOSE* CODE (see instructions - one code only): B
10. ACTIVITY *TYPE* CODE(S) (see instructions for codes): 1, 2, 12, 14
11. WETLAND / WATERCOURSE AREA ALTERED (see instructions for explanation, must provide acres or linear feet):
wetlands: 0 acres open water body: 0 acres stream: 0 linear feet
12. UPLAND AREA ALTERED (must provide acres): 0.45 acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (must provide acres): 0 acres

PART III: To Be Completed By The DEEP

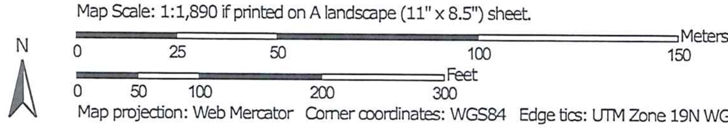
DATE RECEIVED:

DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO

FORM CORRECTED / COMPLETED: YES NO

Map Scale: 1:1,890 if printed on A landscape (11" x 8.5") sheet.

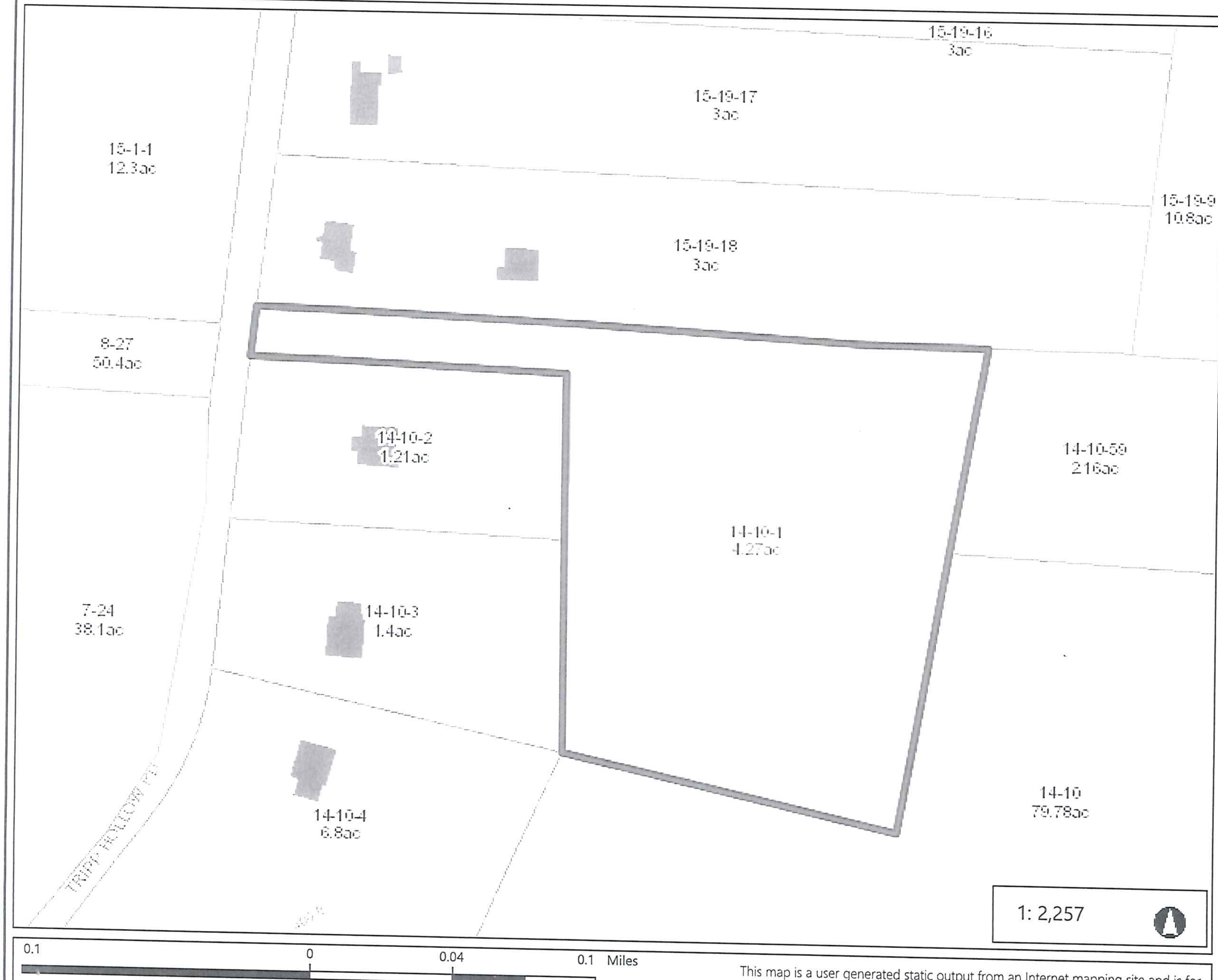


Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	0.2	1.0%
17	Timakwa and Natchaug soils, 0 to 2 percent slopes	2.4	14.3%
51B	Sutton fine sandy loam, 0 to 8 percent slopes, very stony	0.5	3.1%
52C	Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony	7.6	44.8%
59D	Gloucester gravelly sandy loam, 15 to 35 percent slopes, extremely stony	3.8	22.1%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	2.5	14.8%
Totals for Area of Interest		**17.0**	**100.0%**

neccog



WGS_1984_Web_Mercator_Auxiliary_Sphere

Legend

- Town
- Buildings 2012
- Parcels

Notes

Enter Map Description

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Killingly Engineering Associates

P.O. Box 421 Killingly, CT 06241
Phone: 860-779-7299
www.killinglyengineering.com

June 26, 2023

Meehan Builders, LLC
Tripp Hollow Road
Brooklyn, CT

Per Section 7.7 of the Inland Wetland and Watercourses regulations

The applicant certifies that:

a. The property on which the regulated activity is proposed is not located within 500 feet of the boundary of an adjoining municipality);

b. Traffic attributable to the completed project on the site will not use streets within the adjoining municipality to enter or exit the site;

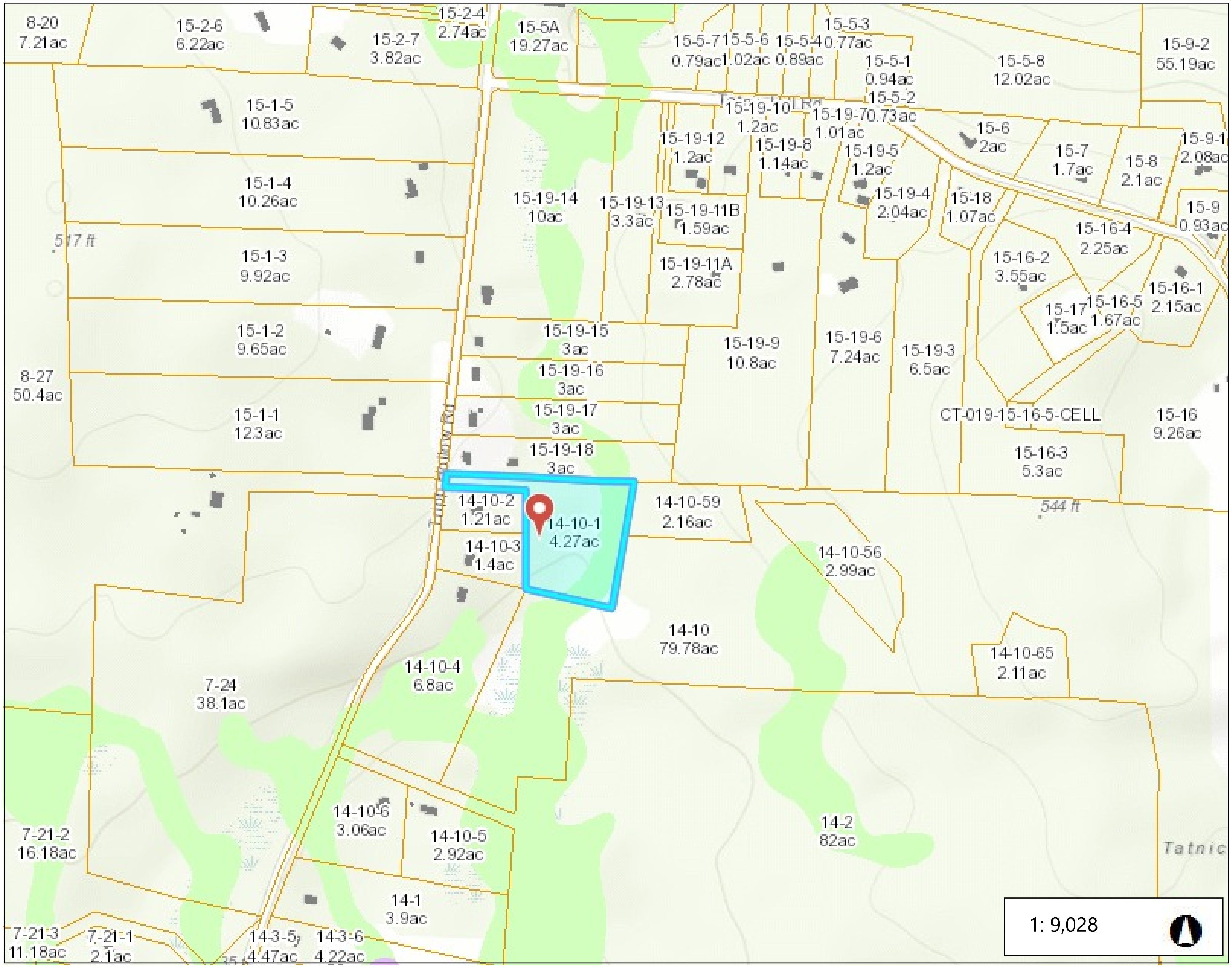
c. Sewer or water drainage from the project site will not flow through and impact the sewage or drainage system within the adjoining municipality;

d. Water run-off from the improved site will not impact streets of other municipal or private property within the adjoining municipality.

Applicant 6-28-23
Date

neccog

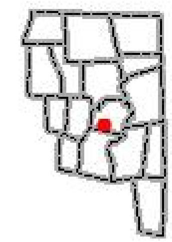
Neccog GIS Site



1: 9,028

0.3 | 0 | 0.14 | 0.3 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

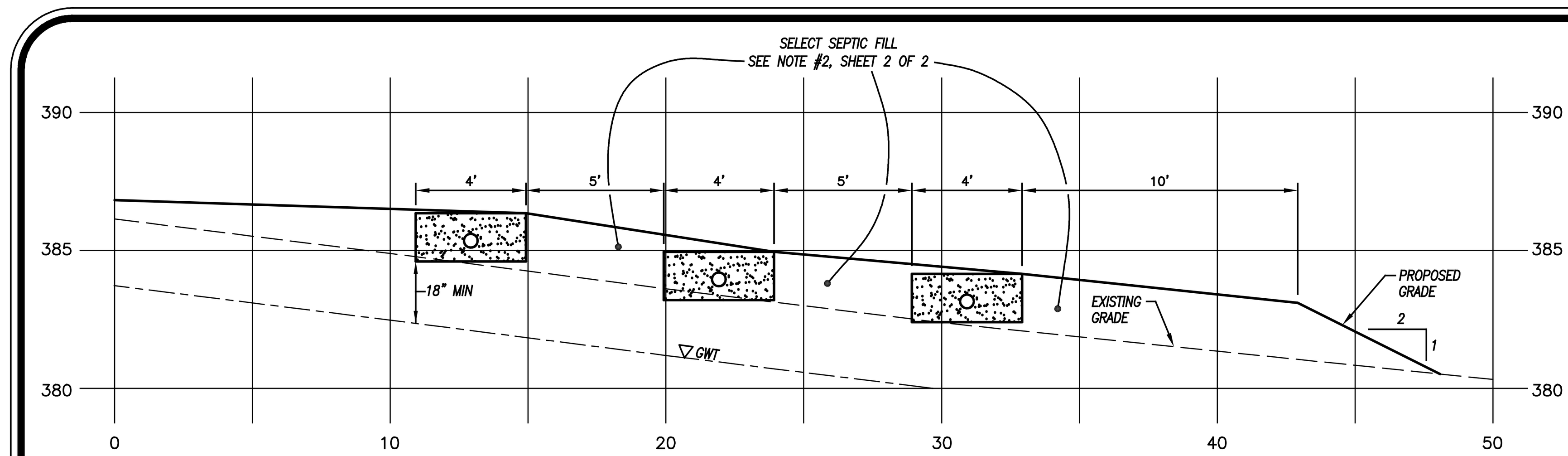


Legend

- Town
- Buildings 2012
- Parcels
- Wetlands
  - Alluvial and Floodplain Soils
  - Poorly Drained and Very Poorly Dra

Notes

Map 14 Lot 10-1 Kausch



CROSS SECTION "A–A"

SCALE: 1" = 5'

DEEP TEST HOLE EVALUATION – January 7, 2004
Northeast District Department of Health

TEST PIT	DEPTH	PROFILE
11	0"–10"	Topsoil Organics Roots
	10"–22"	V.F. Sandy Loam Roots
	22"–39"	F. Sandy Loam, Fine Roots
	39"–48"	Loamy Fine Sand / Gravel Compact Mottled
	48"–93"	Loamy V.F. Sand / Gravel Very Compact Mottles
	Ledge	N/A
	GWT	N/A
	Mottling	30"
12	0"–10"	Topsoil Roots Organics
	10"–24"	V.F. Sandy Loam Moist Roots
	24"–32"	F. Sandy Loam, Fine Roots, Mottles
	32"–39"	Loamy Sand / Gravel Mottled
	39"–52"	Loamy Sand / Gravel Stones Mottled
	52"–85"	Sand / Gravel Rocky Mottled Very Compact
	Ledge	N/A
	GWT	N/A
	Mottling	29"

SEPTIC SYSTEM DESIGN DATA

Percolation Rate = 8.0 min. / in.

3 bedroom house requires = 495 s.f. effective leaching area

Effective Leaching area = 3 s.f. / l.f. of trench

Length Required = 495/3 = 165 l.f.

Length Provided = 3 (55') = 165 l.f.

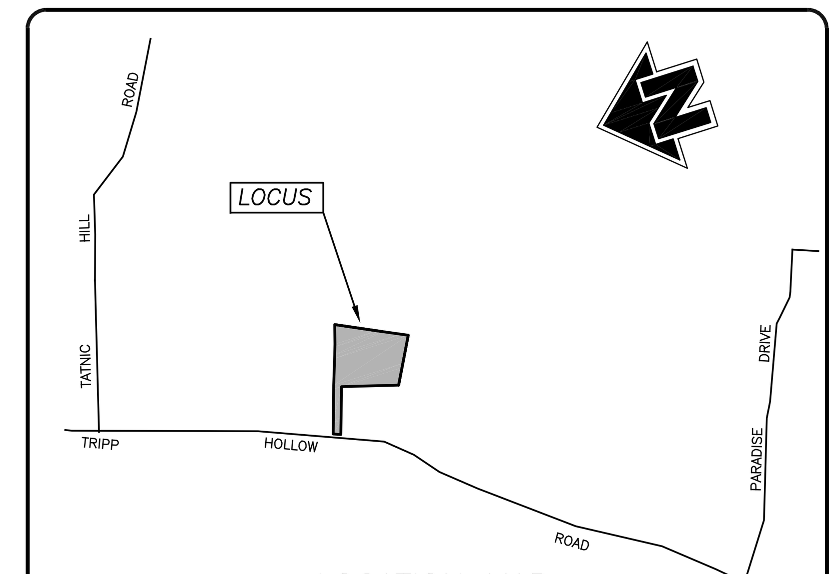
Min. Leaching System Spread (MLSS) = 26 x 1.5 x 1.0 = 39.0'

MLSS Provided = 55'

LEACHING FIELD

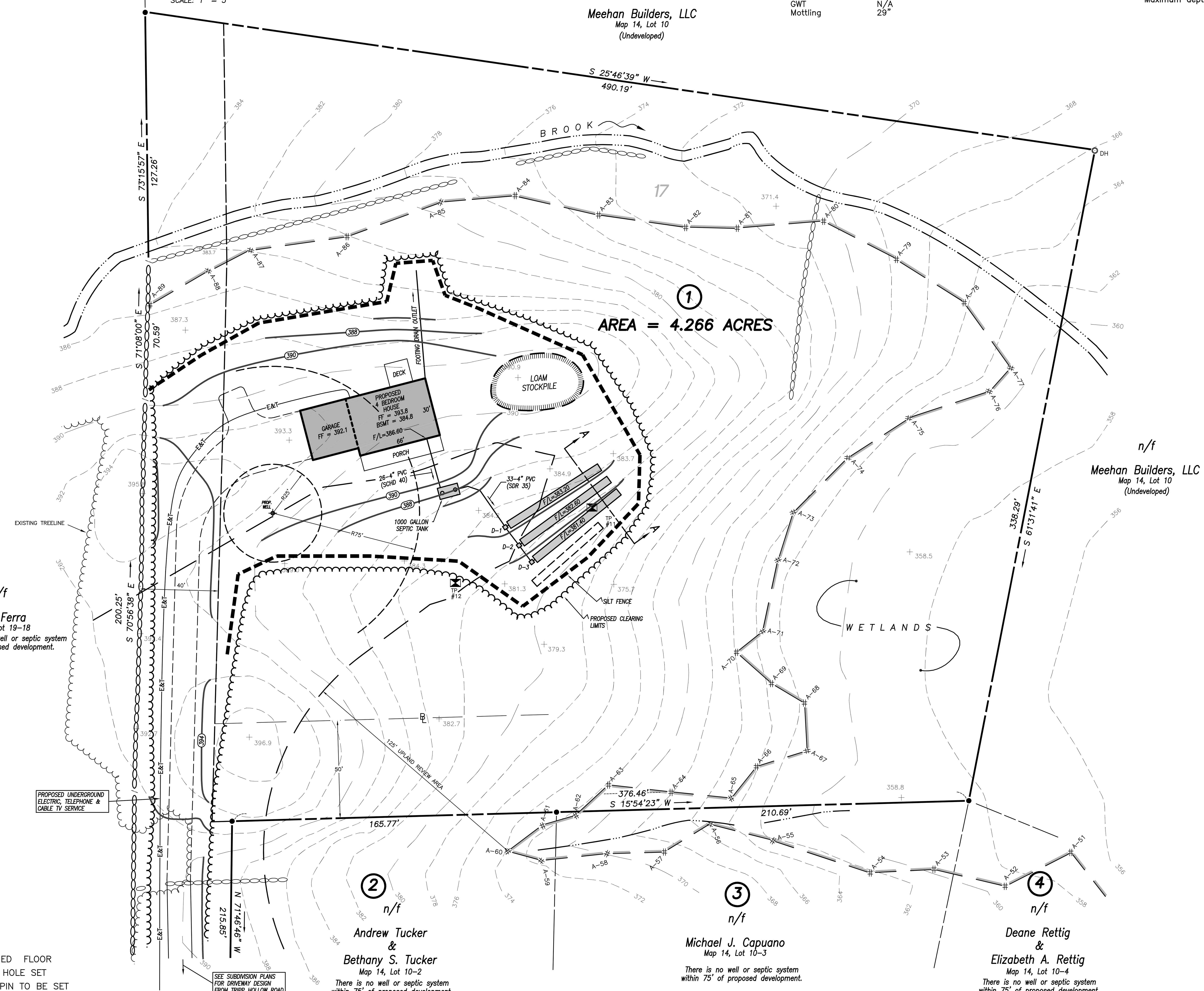
3 Trenches @ 55 l.f. each

Maximum depth into existing grade = 11"



LOCATION MAP

SCALE: 1" = 1000'



GRAPHIC SCALE IN FEET

SURVEYOR SHALL SET A BENCH MARK IN THE AREA OF THE SEPTIC SYSTEM AT THE TIME OF CONSTRUCTION STAKE–OUT.

SEPTIC TANK
1250 GALLON TWO COMPARTMENT F/L IN = 385.60 F/L OUT = 385.35
DISTRIBUTION BOXES
D–1 (OVERFLOW) F/L IN = 383.37 F/L OUT = 383.20
D–2 (OVERFLOW) F/L IN = 382.77 F/L OUT = 382.60
D–3 (STANDARD) F/L IN = 381.57 F/L OUT = 381.40

NOTES:

1. This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Sections 20–300b–1 through 20–300b–20 and the "Standards for Surveys and Maps in the State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. on September 26, 1996;

   This map was prepared from record research, other maps, limited field measurements and other sources, It is not to be construed as a Property/Boundary or Limited Property/Boundary Survey and is subject to such facts as said surveys may disclose.

   – This survey conforms to a Class "C" horizontal accuracy.

   – Topographic features conform to a Class "T–2", "V–2" vertical accuracy.

   – Survey Type: General Location Survey.

2. Zone = RA.
3. Owner of record: Tripp Hollow Investments, LLC
   89 Wauregan Road, Brooklyn, CT 06234
4. Parcel shown is as Lot #10–1 on Assessors Map #14.
5. Parcel lies within Flood Hazard Zone 'C' (areas of minimal flooding as shown on FIRM Map # 090164 Panel 0008A Effective date: Jan. 3, 1985.
6. Northeast District Department of Health file number: 04003693.
7. Elevations based on National Geodetic Vertical Datum of 1929. Contours taken from aerial photogrammetry and supplemented with actual field survey. Contour interval = 2'.
8. Wetlands shown were flagged in the field by Pinecrest Environmental Services, LLC in November 2003.
9. Before any construction is to commence contact "CALL BEFORE YOU DIG" at 1–800–922–4455.

MAP REFERENCES:

1. "Subdivision Map – prepared for – Meehan Builders, LLC – Tripp Hollow Road – Brooklyn, Connecticut – Scale: 1" = 80' – Dated: 3/11/2004 Revised to: 12/14/2004 – Provost & Rovero, Inc." On file in the Brooklyn Land Records.
2. "Property Survey – Showing Boundary Line Adjustment – Between – Lots 1 & 4 Prepared for – Meehan Builders, LLC – Tripp Hollow Road – Brooklyn Brooklyn, Connecticut – Scale: 1" = 80' – Dated: 6/21/2005 – Prepared by: Provost & Rovero, Inc." On file in the Brooklyn Land Records.

DATE	DESCRIPTION

REVISIONS

GENERAL LOCATION SURVEY
SEPTIC SYSTEM DESIGN PLAN - LOT 1

PREPARED FOR

TRIPP HOLLOW INVESTMENTS, LLC

TRIPP HOLLOW ROAD
BROOKLYN, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying
114 Westcott Road
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DATE: 6/15/2023	DRAWN: AMR
SCALE: 1" = 30'	DESIGN: NET
SHEET: 1 OF 2	CHK BY: ---
DWG. No: CLIENT FILE	JOB No: 16069

LEGEND

- F.F. — FINISHED FLOOR
- DH — DRILL HOLE SET
- IRON PIN TO BE SET
- 100 — EXISTING CONTOURS
- 100 — PROPOSED CONTOURS
- INLAND WETLANDS FLAG
- BUILDING SETBACK LINE
- PERCOLATION TEST HOLE
- TEST HOLE
- STONE WALL
- SILT FENCE

ENDORSED BY THE BROOKLYN INLAND WETLANDS COMMISSION

CHAIRMAN DATE

ANY CHANGES TO THESE PLANS WITHIN 200' OF WETLANDS OR WATERCOURSES MUST BE RESUBMITTED TO THE BROOKLYN INLAND WETLANDS COMMISSION.

THE APPLICANT WILL CONTACT THE BROOKLYN INLAND WETLANDS COMMISSION OR ITS AGENT AFTER ALL EROSION AND SEDIMENT CONTROL MEASURES ARE INSTALLED, PRIOR TO ANY CONSTRUCTION OR EXCAVATION ON THE PROPERTY.

NORMAND E. THIBEAULT, JR., P.E. DATE

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON,

GREG A. GLAUDE, L.S. LIC. NO. 70191 DATE

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS THE ORIGINAL SEAL AND SIGNATURE OF THE LAND SURVEYOR.

K:\16069\Drawings\2023 Phase 1 - Lot 1\16069 SSD 1.dwg Jun 29, 2023 - 8:47 AM

EROSION AND SEDIMENT CONTROL PLAN:

REFERENCE IS MADE TO:

1. Connecticut Guidelines for Soil Erosion and Sediment Control 2002 (2002 Guidelines).
2. Soil Survey of Windham County Connecticut, U.S.D.A. Soil Conservation Service 1983.

SOILS:

The proposed development area is comprised mainly of three soil types;
Timakwa and Natchaug (17), Sutton (52C) and Gloucester (59D)

17 Timakwa and Natchaug soils, 0–2% slopes

Included with these soils in mapping are areas of very poorly drained Catden soils where the muck is more than 51 inches thick over mineral substratum. Also included are areas of very poorly drained Whitman, Menlo, Scarboro, Maybid, and Saco soils. Whitman and Menlo soils formed in loamy glacial till. Scarboro soils are sandy and Maybid soils are silty and clayey. Saco soils are on flood plains and are silty. Minor components make up about 15 percent of the map unit
Slope: nearly level
Landscape: depressions
Size of map unit: Areas commonly range from 3 to 150 acres.

52C Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony

Included with this soil in mapping are areas of well drained Canton, Charlton, and Paxton soils that are higher on the landscape. Canton soils are loamy over sandy, Charlton soils are sandy loam throughout, and Paxton soils have a dense substratum. Also included are small areas of poorly drained Leicester soils in depressions and drainageways. Small areas of moderately well drained Woodbridge soils are included in areas with a dense substratum. Some areas have a silt loam surface layer and subsoil. A few areas in New London County include well drained Narragansett soils and moderately well drained Rainbow soils. Minor components make up about 20 percent of this map unit.
Slope: nearly level to strongly sloping
Landscape: drainageways on uplands, depressions on uplands
Surface cover: 3 to 15 percent stones
Size of map unit: Areas commonly range from 3 to 50 acres.

59D—Gloucester gravelly sandy loam, 15 to 35 percent slopes, extremely stony

Included with these soils in mapping are areas of moderately well drained Sutton soils in slight depressions on the landscape, and poorly drained Leicester soils in depressions and drainageways. Also included are areas of moderately deep, somewhat excessively drained and well drained Chatfield soils where bedrock is 20 to 40 inches below the surface. Shallow, somewhat excessively drained and well drained Hollis soils are in small areas where bedrock is 10 to 20 inches below the surface. Minor components make up about 20 percent of the map unit.

DEVELOPMENT SCHEDULE:

1. Construction will begin with clearing, grubbing and rough grading of the proposed site. The work will be confined to areas adjacent to the proposed buildings, septic systems and driveways. Topsoil will be stockpiled on site and utilized during final grading.
2. The site will be graded so that all possible trees on site will be saved to provide buffers to adjoining lots.

DEVELOPMENT CONTROL PLAN:

1. Development of the site will be performed by the individual lot owner, who will be responsible for the installation and maintenance of erosion and sediment control measures required throughout construction.
2. The sedimentation control mechanisms shall remain in place from start of construction until permanent vegetation has been established. The representative for the Town of Brooklyn will be notified when sediment and erosion control structures are initially in place. Any additional soil & erosion control measures requested by the Town or its agent, shall be installed immediately. Once the proposed development, seeding and planting have been completed, the representative shall again be notified to inspect the site. The control measures will not be removed until this inspection is complete.
3. All stripping is to be confined to the immediate construction area. Topsoil shall be stockpiled so that slopes do not exceed 2 to 1. A hay bale sediment barrier is to surround each stockpile and a temporary vegetative cover shall be provided.
4. Dust control will be accomplished by spraying with water and if necessary, the application of calcium chloride.
5. The proposed planting schedule is to be adhered to during the planting of disturbed areas throughout the proposed construction site.
6. Final stabilization of the site is to follow the procedures outlined in "Permanent Vegetative Cover". If necessary a temporary vegetative cover is to be provided until a permanent cover can be applied.

FILTER BARRIER INSTALLATION AND MAINTENANCE:

1. Dig a 6" deep trench on the uphill side of the barrier location.
2. Position the posts on the downhill side of the barrier and drive the posts 1.5 feet into the ground.
3. Lay the bottom 6" of the fabric in the trench to prevent undermining and backfill.
4. Inspect and repair barrier after heavy rainfall.
5. Inspections will be made at least once per week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater to determine maintenance needs.
6. Sediment deposits are to be removed when they reach a height of 1 foot behind the barrier or half the height of the barrier and are to be deposited in an area which is not regulated by the inland wetlands commission.
7. Replace or repair the fence within 24 hours of observed failure. Failure of the fence has occurred when sediment fails to be retained by the fence because:
– the fence has been overtopped, undercut or bypassed by runoff water,
– the fence has been moved out of position (knocked over), or
– the geotextile has decomposed or been damaged.

HAY BALE INSTALLATION AND MAINTENANCE:

1. Bales shall be placed as shown on the plans with the ends of the bales tightly abutting each other.
2. Each bale shall be securely anchored with at least 2 stakes and gaps between bales shall be wedged with straw to prevent water from passing between the bales.
3. Inspect bales at least once per week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs.
4. Remove sediment behind the bales when it reaches half the height of the bale and deposit in an area which is not regulated by the Inland Wetlands Commission.
5. Replace or repair the barrier within 24 hours of observed failure. Failure of the barrier has occurred when sediment fails to be retained by the barrier because:
– the barrier has been overtopped, undercut or bypassed by runoff water,
– the barrier has been moved out of position, or
– the hay bales have deteriorated or been damaged.

TEMPORARY VEGETATIVE COVER:

SEED SELECTION

Grass species shall be appropriate for the season and site conditions. Appropriate species are outlined in Figure TS–2 in the 2002 Guidelines.

TIMING CONSIDERATIONS

Seed with a temporary seed mixture within 7 days after the suspension of grading work in disturbed areas where the suspension of work is expected to be more than 30 days but less than 1 year.

SITE PREPARATION

Install needed erosion control measures such as diversions, grade stabilization structures, sediment basins and grassed waterways.

Grade according to plans and allow for the use of appropriate equipment for seedbed preparation, seeding, mulch application, and mulch anchoring.

SEEDBED PREPARATION

Loosen the soil to a depth of 3–4 inches with a slightly roughened surface. If the area has been recently loosened or disturbed, no further roughening is required. Soil preparation can be accomplished by tracking with a bulldozer, discing, harrowing, raking or dragging with a section of chain link fence. Avoid excessive compaction of the surface by equipment traveling back and forth over the surface. If the slope is tracked, the cleat marks shall be perpendicular to the anticipated direction of the flow of surface water.

If soil testing is not practical or feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 300 pounds per acre or 7.5 pounds per 1,000 square feet of 10–10–10 or equivalent. Additionally, lime may be applied using rates given in Figure TS–1 in the 2002 Guidelines.

SEEDING

Apply seed uniformly by hand cyclone seeder, drill, cultipacker type seeder or hydroseeder at a minimum rate for the selected species. Increase seeding rates by 10% when hydroseeding.

MULCHING

Temporary seedings made during optimum seeding dates shall be mulched according to the recommendations in the 2002 Guidelines. When seeding outside of the recommended dates, increase the application of mulch to provide 95%–100% coverage.

MAINTENANCE

Inspect seeded area at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for seed and mulch movement and rill erosion.

Where seed has moved or where soil erosion has occurred, determine the cause of the failure. Repair eroded areas and install additional controls if required to prevent reoccurrence of erosion.

Continue inspections until the grasses are firmly established. Grasses shall not be considered established until a ground cover is achieved which is mature enough to control soil erosion and to survive severe weather conditions (approximately 80% vegetative cover).

PERMANENT VEGETATIVE COVER:

Refer to Permanent Seeding Measure in the 2002 Guidelines for specific applications and details related to the installation and maintenance of a permanent vegetative cover. In general, the following sequence of operations shall apply:

1. Topsoil will be replaced once the excavation and grading has been completed. Topsoil will be spread at a minimum compacted depth of 4".
2. Once the topsoil has been spread, all stones 2" or larger in any dimension will be removed as well as debris.
3. Apply agricultural ground limestone at a rate of 2 tons per acre or 100 lbs. per 1000 s.f. Apply 10–10–10 fertilizer or equivalent at a rate of 300 lbs. per acre or 7.5 lbs. per 1000 s.f. Work lime and fertilizer into the soil to a depth of 4".
4. Inspect seedbed before seeding. If traffic has compacted the soil, retill compacted areas.
5. Apply the chosen grass seed mix. The recommended seeding dates are: April 1 to June 15 & August 15 – October 1.
6. Following seeding, firm seedbed with a roller. Mulch immediately following seeding. If a permanent vegetative stand cannot be established by September 30, apply a temporary cover on the topsoil such as netting, mat or organic mulch.

EROSION AND SEDIMENT CONTROL NARRATIVE:

PRINCIPLES OF EROSION AND SEDIMENT CONTROL

The primary function of erosion and sediment controls is to absorb erosional energies and reduce runoff velocities that force the detachment and transport of soil and/or encourage the deposition of eroded soil particles before they reach any sensitive area.

KEEP LAND DISTURBANCE TO A MINIMUM

The more land that is in vegetative cover, the more surface water will infiltrate into the soil, thus minimizing stormwater runoff and potential erosion. Keeping land disturbance to a minimum not only involves minimizing the extent of exposure at any one time, but also the duration of exposure. Phasing, sequencing and construction scheduling are interrelated. Phasing divides a large project into distinct sections where construction work over a specific area occurs over distinct periods of time and each phase is not dependent upon a subsequent phase in order to be functional. A sequence is the order in which construction activities are to occur during any particular phase. A sequence should be developed on the premise of "first things first" and "last things last" with proper attention given to the inclusion of adequate erosion and sediment control measures. A construction schedule is a sequence with time lines applied to it and should address the potential overlap of actions in a sequence which may be in conflict with each other.

– Limit areas of clearing and grading. Protect natural vegetation from construction equipment with fencing, tree armoring, and retaining walls or tree wells.
– Route traffic patterns within the site to avoid existing or newly planted vegetation.
– Phase construction so that areas which are actively being developed at any one time are minimized and only that area under construction is exposed. Clear only those areas essential for construction.
– Sequence the construction of storm drainage systems so that they are operational as soon as possible during construction. Ensure all outlets are stable before outletting storm drainage flow into them.
– Schedule construction so that final grading and stabilization is completed as soon as possible.

SLOW THE FLOW

Detachment and transport of eroded soil must be kept to a minimum by absorbing and reducing the erosive energy of water. The erosive energy of water increases as the volume and velocity of runoff increases. The volume and velocity of runoff increases during development as a result of reduced infiltration rates caused by the removal of existing vegetation, removal of topsoil, compaction of soil and the construction of impervious surfaces.

– Use diversions, stone dikes, silt fences and similar measures to break flow lines and dissipate storm water engery.
– Avoid diverting one drainage system into another without calculating the potential for downstream flooding or erosion.

KEEP CLEAN RUNOFF SEPARATED

Clean runoff should be kept separated from sediment laden water and should not be directed over disturbed areas without additional controls. Additionally, prevent the mixing of clean off–site generated runoff with sediment laden runoff generated on–site until after adequate filtration of on–site waters has occurred.

– Segregate construction waters from clean water.
– Divert site runoff to keep it isolated from wetlands, watercourses and drainage ways that flow through or near the development until the sediment in that runoff is trapped or detained.

REDUCE ON SITE POTENTIAL INTERNALLY AND INSTALL PERIMETER CONTROLS

While it may seem less complicated to collect all waters to one point of discharge for treatment and just install a perimeter control, it can be more effective to apply internal controls to many small sub–drainage basins within the site. By reducing sediment loading from within the site, the chance of perimeter control failure and the potential off–site damage that it can cause is reduced. It is generally more expensive to correct off–site damage than it is to install proper internal controls.

– Control erosion and sedimentation in the smallest drainage area possible. It is easier to control erosion than to contend with sediment after it has been carried downstream and deposited in unwanted areas.
– Direct runoff from small disturbed areas to adjoining undisturbed vegetated areas to reduce the potential for concentrated flows and increase settlement and filtering of sediments.
– Concentrated runoff from development should be safely conveyed to stable outlets using rip rapped channels, waterways, diversions, storm drains or similar measures.
– Determine the need for sediment basins. Sediment basins are required on larger developments where major grading is planned and where it is impossible or impractical to control erosion at the source. Sediment basins are needed on large and small sites when sensitive areas such as wetlands, watercourses, and streets would be impacted by off–site sediment deposition. Do not locate sediment basins in wetlands or permanent or intermittent watercourses. Sediment basins should be located to intercept runoff prior to its entry into the wetland or watercourse.
– Grade and landscape around buildings and septic systems to divert water away from them.

SEPTIC SYSTEM CONSTRUCTION NOTES

1. The building, septic system and well shall be accurately staked in the field by a licensed Land Surveyor in the State of Connecticut, prior to construction.
2. Topsoil shall be removed and in the area of the primary leaching field scarified, prior to placement of septic fill. Septic fill specifications are as follows:

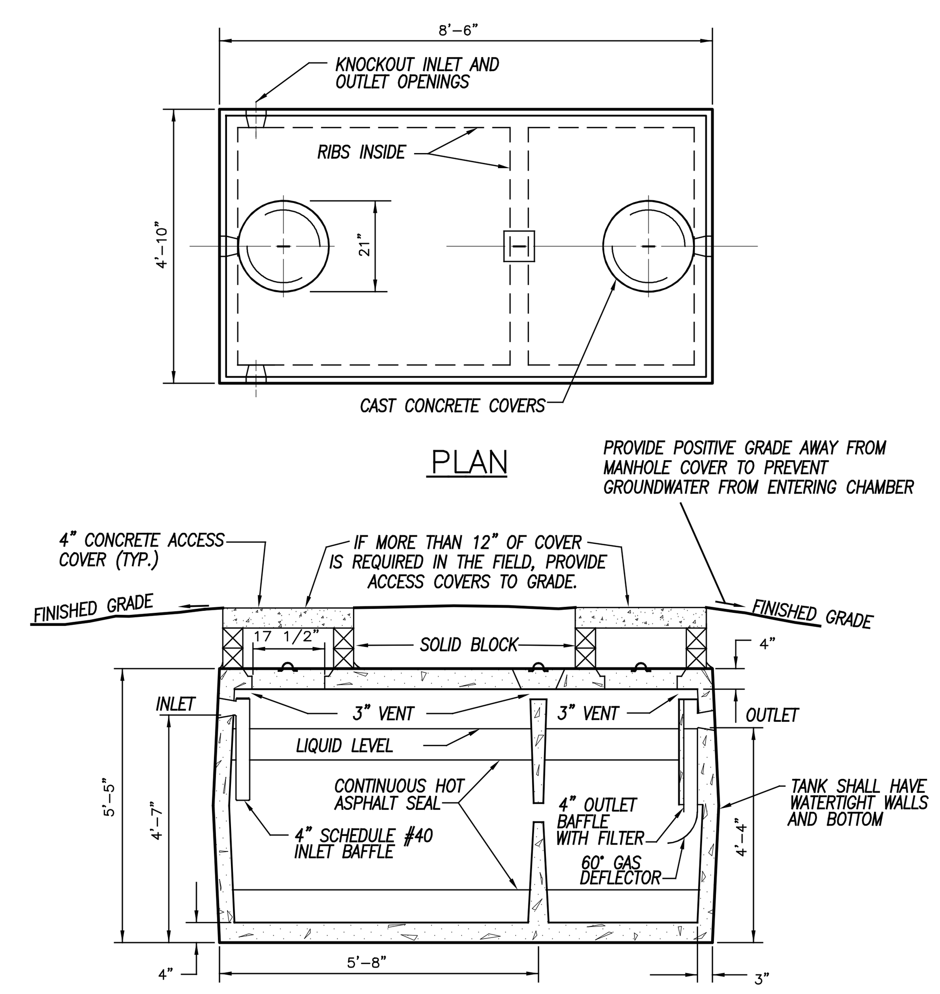
– Max. percent of gravel (material between No. 4 & 3 inch sieves) = 45%

GRADATION OF FILL (MINUS GRAVEL)

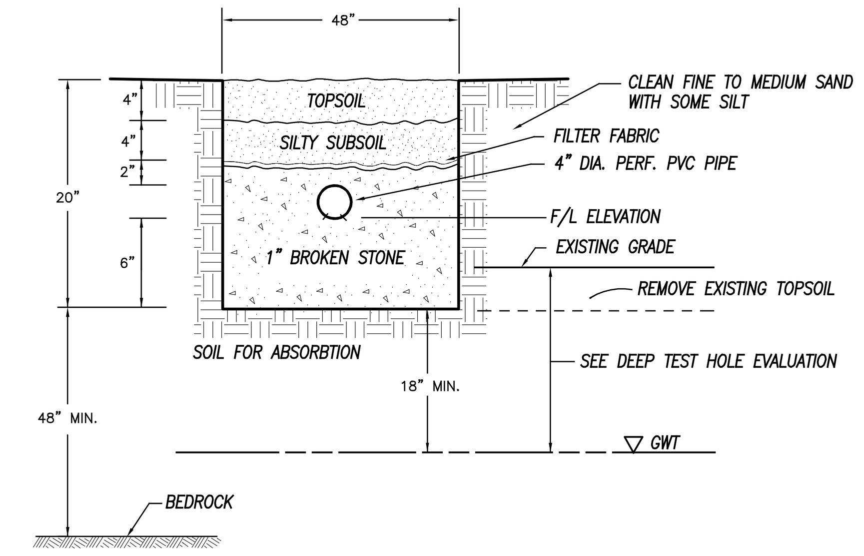
SIEVE SIZE	PERCENT PASSING (WET SIEVE)	PERCENT PASSING (DRY SIEVE)
No. 4	100%	100%
No. 10	70% – 100%	70% – 100%
No. 40	10% – 50%	10% – 75%
No. 100	0% – 20%	0% – 5%
No. 200	0% – 5%	0% – 2.5%

Fill material shall be approved by the sanitarian prior to placement. It shall be compacted in 6" lifts and shall extend a minimum of ten feet (10') beyond the last leaching trench before tapering off.

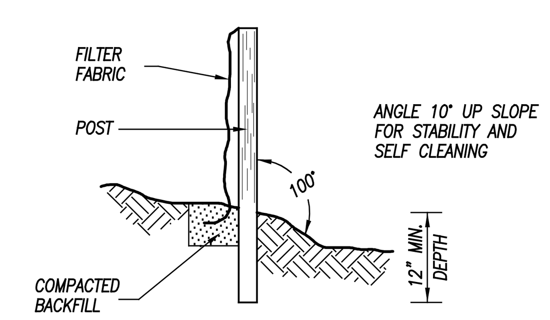
3. Septic tank shall be two compartment precast 1000 gallon tank with gas deflector and outlet filter as manufactured by Jolley Precast, Inc. or equal.
4. Distribution boxes shall be 4 hole precast concrete as manufactured by Jolley Precast, Inc. or equal.
5. All precast structures such as septic tanks, distribution boxes, etc. shall be set level on six inches (6") of compacted gravel base at the elevations specified on the plans.
6. Solid distribution pipe shall be 4" diameter PVC meeting ASTM D–3034 SDR 35 with compression gasket joints. It shall be laid true to the lines and grades shown on the plans and in no case have a slope less than 0.125 inches per foot.
7. Perforated distribution pipe shall be 4" diameter PVC meeting ASTM D–2729 or ASTM D–3350, 1500 lb. minimum crush.
8. Sewer pipe from the foundation wall to the septic tank shall be schedule 40 PVC meeting ASTM D 1785. It shall be laid true to the grades shown on the plans and in no case shall have a slope less than 0.25 inches per foot.
9. Force main pressure pipe from pump chamber to the leaching field shall be 2" diameter pvc meeting ASTM D 2241 SDR 21.
10. Solid footing drain outlet pipe shall be 4" Diameter PVC meeting ASTM D 3034, SDR 35 with compression gasketed joints. Footing drain outlet pipe shall not be backfilled with free draining material, such as gravel, broken stone, rock fragments, etc.



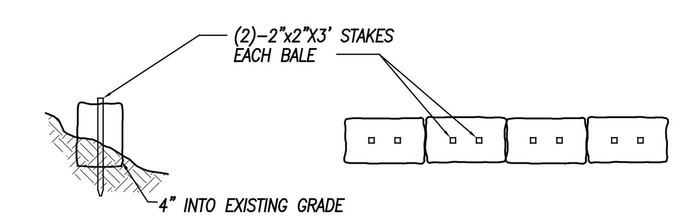
1000 GALLON
2 COMPARTMENT
SEPTIC TANK
NOT TO SCALE



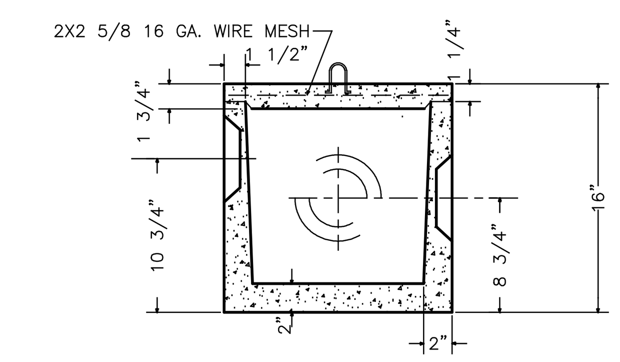
TYPICAL LEACHING
TRENCH SECTION
NOT TO SCALE



SILT FENCE
NOT TO SCALE



HAYBALE BARRIER
NOT TO SCALE



STANDARD D–BOX
NOT TO SCALE

DATE	DESCRIPTION
REVISIONS	

DETAIL SHEET - LOT 1
PREPARED FOR

TRIPP HOLLOW INVESTMENTS, LLC

TRIPP HOLLOW ROAD
BROOKLYN, CONNECTICUT

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NORMAND THIBEAULT, JR., P.E. No. 22834 DATE

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