Town of Freeport
Site Plan Review Application

New Boat Storage Building
at
33 Allen Range Road

Prepared for: 33 Allen Range Road, LLC

March 27, 2024

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
PO BOX Q | 69 MAIN ST
LIVERMORE FALLS, MAINE 04254
367 ROUTE 1
FALMOUTH, MAINE 04105
(207) 897-6752

TABLE OF CONTENTS

New Storage Building at 33 Allen Range Road, Freeport

Tab Number **Section**

Please also complete and submit the applicable checklist to supplement this form.

Town of Freeport
Planning Department
30 Main Street
Freeport, ME 04032
(207) 865-4743 ext. 107

1. **SUBMISSIONS**
   - Twelve (12) copies each of the completed application form and a copy of the recorded deed(s) for the property. If the applicant is not the property owner, a purchase and sale agreement or a lease agreement shall also be submitted to show that the applicant has a serious interest in the project and sufficient title, right, and/or interest to complete the project. *The amount being paid for the property may be blacked out.*

   - For applications to the Project Review Board, you must also submit twelve (12) copies of all other supplemental materials collated into individual packets which will fit into a large manila envelope. Please clip materials together; do not use special binding or binders. If copies of plans are being submitted, please include 2 full size sets (24" x 36") and 10 copies reduced to 11" x 17". The scale of any site plans shall be sufficient to allow review under the Criteria and Standards of Section 602.G of the Freeport Zoning Ordinance, but at not more than 50 feet to the inch for that portion of the total tract of land being proposed for development. **All plan sheets must also be submitted electronically in a pdf format**. For a complete list of detailed submission requirements, please refer to the applicable ordinance(s) which may include the Design Review Ordinance, the Subdivision Ordinance or the Zoning Ordinance (Section 602 – Site Plan Review).

     For applications to the Planning Board, you must also submit eight (8) copies of all other supplemental materials.

   - Payment of application fee and abutter fee (if applicable)

   - This application form, along with the required accompanying materials, must be submitted to the Town Planner at least 21 days prior to the meeting at which it is to be considered.

   - The applicant or an agent needs to be present at the meeting to present the application to the Board. If the applicant is going to be represented by someone other than themselves, they must submit a signed letter of authorization.

2. **ABUTTERS**

   Abutters will be notified as required by State and Town regulations. Abutters will be determined by the Freeport Planning Department using most recent Assessing Records. If there are other people that you would like notified of the meeting, their contact information (either mailing address or email address) must be submitted with the application form. A fee of $2.50 per abutter will be charged.

3. **FEES**

   Refer to current fee schedule.

Town of Freeport
Planning Department

Application for Review

Project Type: (check all applicable)

X
_____ Site Plan Review _____ Design Review Certificate _____ Subdivision

_____ Zoning Ordinance Amendment _____ Other (please explain)_____

Name of Project: Boat Storage Building at 33 Allen Range Road

Proposed Use of Property: Boatyard (current use of property)

1) Applicant Information:

Name: 33 Allen Range Road, LLC (Steve Arnold) Tel: 207-232-5792

(If a Company, provide name of person also)

Address: 72 Lafayette Street, Yarmouth, ME 04096

Email: steve@ybyboats.com

2) Interest in Property: Please attach a copy of the recorded deed for the property. If the applicant is not the property owner, a purchase and sale agreement or a lease agreement shall also be submitted to show that the applicant has a serious interest in the project and sufficient title, right, and/or interest to complete the project. The amount being paid for the property may be blacked out. This application will not be processed without this information.

3) Do you own any abutting property? Yes (No)

If yes, please explain:_____

4) Property Information:

Present Use of Property Boatyard - outdoor storage and light maintenance of boats in an existing garage

Location: Street Address 33 Allen Range Road LLC

Assessor's Office Map: Map 18 Lot: 28

Size of Parcel (acres): 10.15 Zoning District (s): MD-A

5) Design Review Information (please circle one from each category)

Design Review District: One Two (Not in the Design Review District)

Building Class, as designated on the Design Review District Map(s): A B C

Is this building in the Color Overly District: Yes (No)

Please describe the proposed changes: Construction of a new 10,000 square foot building for indoor boat storage.

6) Other Information:

Proposed # of Buildings: 1 new building Gross Square Footage of Non-Residential Buildings: 10,000 sf - new building 3,821 sf - existing buildings

Is Zoning Board of Appeals Approval Required? Yes (No)

If YES, provide reason _____

7) Subdivision Approval or a Subdivision Amendment: (if applicable)

Proposed Number of Lots _____

Does the applicant intend to request any waivers of Subdivision or Site Review provisions?

NO _____ YES _____

If YES, list and give reasons why _____

_____

_____

_____

8) Applicant's Engineer, Land Surveyor, Landscape Architect and/or Planner:

Name: Esther Bizier, PE 14236, Main-Land Development Consultants, Inc Tel: 207-897-6752 (office)

Po Box Q, Livermore Falls, ME 04254 207-931-8484 (cell)

Address: _____

Email: esther@main-landdci.com or shane@main-landdci.com (if after June 2024)

9) Billing Contact (If different than applicant information)

Name: 33 Allen Range Road LLC Tel: 207-232-5792

Address: 72 Lafayette Street, Yarmouth, ME 04096

Email: steve@ybyboats.com

Application Fee: $ 715 **Abutter Fee**: $ 37.50

***Submission**: This application form, along with required accompanying materials, must be submitted to the Town Planner at least 21 days prior to the meeting at which it is to be considered.*

The undersigned, being the applicant, owner or legally authorized representative, states that all information in this application is true and correct to the best of his/her knowledge and hereby does submit the information for review by the town and in accordance with applicable ordinances, statutes and regulations of the Town, State and Federal governments.

March 25, 2024 _____

DATE SIGNATURE OF APPLICANT/OWNER/REPRESENTATIVE

Project Name New Boat Storage Building - 33 Allen Range Road, LLC Date 2024-03-25

Town of Freeport
Site Plan Review Submission Checklist – Larger Projects
Per Section 602 of the Freeport Zoning Ordinance

Submission Requirements: When the owner of the property or authorized agent makes formal application for Site Plan Review to the Staff Review Board and/or the Project Review Board, the application for the Site Plan or an amendment to an approved site plan shall contain at least an application, a deed for the property, plans, building elevations, and a cover letter. In addition to the paper copies required below, all application materials must be submitted in digital PDF form. More details on each of these items are listed below. The Town Planner shall make an initial review of the application to determine if it is complete.

Requirements	Check if included	If the item has not been included with the submission, a waiver must be requested. Please explain the reason:
Application: A fully executed and signed copy of the Planning Department Application for Review. The application form will be provided by the Planning Department.	☑	
Proof of right, title and/or interest in the property: A copy of the recorded deed for the property. If the applicant is not the property owner, a purchase and sale agreement or a lease agreement shall also be submitted to show that the applicant has a serious interest in the project and sufficient title, right, and/or interest to complete the project. The amount being paid for the property may be omitted.	☑	
Cover letter: A cover letter explaining the project should include details on any proposed construction or change of use that can't be explained by the plans. The cover letter should also list other local, state, or federal permits or licenses that will be required.	☑	
Plans: Two (2) sets of the full-size plan drawn at a scale sufficient to allow review under the Criteria and Standards of Section (F) of Section 602, but at not more than 40 feet to the inch for that portion of the total tract of land being proposed for development and ten (10) copies for the Project Review Board, or seven (7) copies for the Staff Review Board of the plan set on 11 X 17" size sheets. All plans shall include the following information:	☐	
a. Owner's name, address and signature;	☑	
b. Assigned address and Tax Assessor Map and Lot(s) of each parcel(s)- existing at the time the application is submitted;	☑	

c. *Boundaries* of all contiguous property under the control of the owner or applicant regardless of whether all or part is being developed at this time;	☑	
d. The *bearings and distances* of all property lines, and easements and the location of the adjacent right-of-way. A formal survey is recommended for new developments; however, the Project Review Board may waive the requirement of a formal boundary survey when sufficient information is available to establish, on the ground, all property boundaries;	☑	
e. *Zoning classification*(s) of the property and the location of Zoning District boundaries if the property is located in two or more Zoning Districts;	☑	
f. The *lot area* of the parcel and the *road frontage*;	☑	
g. The *location, size, and type of all existing and proposed buildings* and structures (including size and height) and:	☑	
The setbacks from property lines	☑	
Driveways	☑	
Sidewalks	☑	
Parking spaces	☑	
Loading areas	☑	
Open spaces	☑	
Large trees	☑	
Open drainage courses	☑	
Signs	☑	
Exterior lighting	☑	
Service areas	☑	
Easements	☑	
Landscaping	☐	
Developments proposed on land that hasn't been previously developed, redevelopment of property, and or significant expansion shall also include the following additional information. The Town Planner may determine what additional information will need to be submitted. The Project Review Board may require additional information or may waive the additional submission requirements required by the Town Planner.		
h. Sketch map showing general location of the site within the town;	☑	
i. The location of all *buildings within 150 feet* of the parcel to be developed and the location of *intersecting roads or driveways within 200 feet* of the parcel;	☑	

j. Existing and proposed *topography* of the site at two foot contour intervals if major changes to the existing topography are being proposes;	☑	
k. A *stormwater drainage* plan showing:	☑	
(1) the existing and proposed method of handling stormwater run-off;	☑	
(2) the direction of flow of the run-off through the use of arrows;	☑	
(3) the location, elevation and size of all catch basins, dry wells, drainage ditches, swales, retention basins, and storm sewers;	☑	
(4) engineering calculations used to determine the increased rate of drainage based upon the pre and post development conditions of a two year, ten (10) year and twenty-five (25) year storm frequency. The drainage plan shall result in no increase to the rate of off site- drainage from the pre-development rate.	☑	
(5) Plan for maintaining and/or improving stormwater quality. Retention of the first one-half inch of run-off from a storm event for 24 hours may be required.	☑	
(6) Compliance with Section 529.4 of the Freeport Zoning Ordinance, if applicable.	☑	
l. A *utility plan* showing provisions for water supply and wastewater disposal, including the size and location of all piping, holding tanks, leach fields, etc., and showing the location and nature of any solid waste collection facility and all electrical, telephone and any other utility services to be installed on the site. Impact on groundwater shall be evaluated. All utilities shall be underground whenever feasible as determined by the Project Review Board.	☑	
m. *Lighting* showing the location, type, radius and intensity in foot candles of all exterior lighting, including sidewalk lighting in the Village Commercial 1 and 2 Districts.	☑	
n. A *landscaping* schedule keyed to the site plan and indicating the varieties, sizes, and the locations of trees, shrubs, plants and any other landscaping elements to be retained or to be planted or placed on the site. It should include proposed methods of protecting existing trees and growth during and after construction.	☐	No landscape plan is provided and we are asking for a waiver from this requirement. Please see project narrative for description of existing site vegetation, fencing and see the photos provided in Section 9 of the Application.

o. If a new entrance is proposed; *sight distances* at the entrance is required in both directions	☐	as described in the narrative, no new entrance is proposed.
p. *Building elevations*: For new building construction, building elevation drawings of all sides of the building including the description of type, color, and texture of all buildings.	☑	
q. Estimated *peak-hour traffic* to be generated by the proposal.	☑	
r. The *type and size of all permanent machinery* likely to generate appreciable noise at the lot lines.	☑	
s. The amount and type of any raw, finished *or waste materials to be stored* outside of roofed buildings, including their physical and chemical properties, if applicable.	☐	There will be no waste material stored outside. Only boats.
t. A *list of construction items* that will be included in the performance guarantee and the estimated or actual cost of completing those items.	☑	
u. Provisions for *maintenance agreements* of all common areas, if applicable.	☐	N/A
v. *Condominium declarations*, if applicable, including, but not limited to, organization of the homeowners' association and provisions for maintenance of common areas.	☐	N/A
w. *An Erosion and Sediment Control Plan*, as applicable:	☐	
(1) For sites that disturb between 5,000 and 43,559 square feet of land, an erosion and sediment control plan prepared in accordance with the *Maine Erosion and Sediment Control Practices Field Guide for Contractors* published by the Maine Department of Environmental Protection, dated 2014 or most recent revision and approved by the Town Engineer, or their designee.	☑	
(2) For a sites that disturb one or more acres of land, including phased site plans where all disturbance exceeds one or more acres even if no single phase will disturb one or more acres of land, the Erosion and Sediment Control Plan associated with the Maine Department of Environmental Protection Chapter 500 application or Maine Construction General Permit Application.	☐	N/A

March 15, 2024

To Whom It May Concern:

MAIN-LAND DEVELOPMENT CONSULTANTS, INC. is hereby authorized to act on behalf of 33 Allen Range Road LLC, in obtaining applicable local permits including attending meetings, signing forms, and generally representing project interests for the proposed, located at 33 Allen Range Road in Freeport, Maine.

Sincerely,

Signed	Steve Arnold	3/18/24
	Printed	Date

MAIN-LAND
DEVELOPMENT
CONSULTANTS, INC.

ENGINEERS, SURVEYORS, SCIENTISTS

P.O. BOX Q LIVERMORE FALLS, ME 04254
TEL: (207) 897-6752/FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

Project Overview
Permit for Site Plan Review
For 33 Allen Range Road LLC
Allen Range Road, Freeport, ME

Main-Land Development Consultants is assisting 33 Allen Range Road LLC in their Site Plan Review Permit with the Town of Freeport. The property is 10.15 acres and Tax Map 18, Lot 28. It is located at 33 Allen Range Road.

33 Allen Range Road LLC purchased the property in 2022 and applied for a Change of Use through the Staff Review Process with the Town of Freeport to use the property as a boatyard. Main-Land completed a boundary and partial topographic survey, as well as a natural resource delineation of the property in 2022 for the original Change of Use Permit. Prior to the 2022 purchase by 33 Allen Range Road, the property was used as Freeport Auto Parts Salvage Yard. There are two existing buildings on site, a small office building and a 3,046 square foot garage. The office building is served by a private well and septic system. The garage only has electric service and is not connected to water or septic. There is also a large gravel area with concrete pads. The site is screened along the frontage with Allen Range Road by a 6-foot to 8-foot-tall opaque fence with gate at the gravel entrance. All this infrastructure is from the original automobile salvage yard.

Under the new use as a boatyard, the site is primarily used for outdoor boat storage, with boats stored on site fall through spring. Light maintenance such as sanding, buffing and minor electronic repair is also performed in the existing garage on site. There are typically one or two employees on site for these maintenance activities during normal business hours with a maximum of three employees. No customers come to the property.

This application proposes a new 100-foot by 100-foot boat storage building. Though outdoor storage will continue, this will provide indoor storage for some boats on site. The building will contain one garage door entrance on the western side and emergency man doors on the south and east sides of the building. The building will be 22.2 feet tall and sit on a concrete slab foundation. There will be metal siding and roofing of a light brown/tan color (same color as a similar building at Middle Road in Cumberland, a photo is included in the site photograph section). No water or septic connection is required as the building is solely for storage.

The building will be located on the north side of the existing garage, primarily over existing gravel and concrete areas. For the 10,000 square foot building, only 1,794 square feet of new impervious area will be added to the site. Roof dripline filters and a level spreader followed by forested buffer are proposed as shown on the Site Plan to provide stormwater treatment from the new building. In total, the site will contain 0.97 acres of impervious area which results in 9.5% impervious lot coverage. This is only a 0.4% increase from the existing condition.

Site work for construction of the new building/foundation, stormwater treatment features and erosion control on site is anticipated to cost $93,900. The project is planned for construction in summer 2024 so that the indoor storage can be utilized for the winter 2025. Other than permits from the Town of Freeport, no permits are required from the Maine Department of Environmental Protection or other State or Federal agencies.

Per the Freeport Site Plan Review Ordinance, the standards from 602.F must be met. Please see below for a summary of these standards and description of how the application meets requirements.

a) Preservation of Landscape

Existing vegetation on site is preserved to the greatest extent possible. The proposed building is located on an already cleared and developed area. Only 1,742 square feet of new clearing is required for building construction. This clearing is related to grading association with the north-eastern building corner and the proposed stone berm level spreader used for stormwater treatment. 5.94 acres of the 10.15-acre site are and will remain vegetated/forested.

b) Relation of Proposed Buildings to the Environment

The proposed storage building exceeds all property setbacks and is located fifteen feet off of the northern edge of the existing garage structure to provide access between and around the buildings. Though a larger footprint, the storage building is similar and compatible in use to the garage on site. The location of the new building beside the garage will help minimize the scale of the new building since they are a similar height, and the garage will help to screen the new building. Additionally, minimal clearing is required for the new structure, so vegetation along the property lines will remain in place.

c) Vehicular Access

The site is accessed via a two-way, 35-foot gravel entrance onto the property from Allen Range Road. The property is located at the dead-end of Allen Range Road so there is little traffic along the roadway. Overall, there are very few trips per day on and off the property. During the spring and fall, approximately five boats per day may be trailered off and onto the site. During the summer there may be no trips on and off the site as there will be very few boats remaining on site. During the winter, no boats will come on and off the site, but the three employees will be on site most weekdays during normal working hours. The new building is being placed so that boats can be maneuvered in and out of the new building.

d) Parking and Circulation

Three employee parking spaces within the existing gravel area were designated during the Change of Use Process. These spaces are shown on the Site Plan, though are not striped due to the gravel surface. Boats are stored on site to allow circulation and turnaround of vehicles.

e) Surface Water Drainage

Please see Section 7 of the application for the Stormwater Management Plan.

f) Utilities

Other than a new electric service coming from the existing garage, no new water or septic connection are required for the storage building as it does not contain bathrooms or have any other water needs.

g) Advertising Features

There is no existing signage on site and no new signage is proposed. As no customers visit the

property, signage is not required.

h) Special Features

All outdoor storage areas meet the 60-foot front or 40-foot side setback areas. Setbacks generally contain natural vegetation. Along the frontage with Allen Range Road, the existing office building and septic field are located within the 60-foot front setback. No changes are proposed, and the building is completely screened by 8-foot-tall fencing.

i) Exterior Lighting

New exterior lighting on the storage building is proposed on the storage building. Light fixture locations are shown on the site plan and a cut sheet of the proposed RAB Slim LED wall mounted light pack is included in Section 8 of the Application. This light fixture will be downcast and a full cutoff light to prevent light trespass and glare. No photometrics plan was prepared as the building is over 147 feet from the property line with Allen Range Road and over 200 feet from the property line with the residence to the west. Due to the fixtures selected, light will not extend past the property line.

j) Emergency Vehicle Access

Emergency vehicles are able to access the site.

k) Landscaping

No new landscape planting is proposed. Outdoor storage and the proposed structure all meet or exceed property line setbacks and setbacks contain natural vegetation. The portion of the western property line, generally located between the residence on lot 28A and the project site, though vegetated, contains smaller deciduous vegetation. This area was once an access between the two properties which has been and will continue to be allowed to revegetate. From Allen Range Road, storage and the proposed structure are not readily visible, especially adjacent to the site as fencing screens property development.

l) Environmental Considerations

The property is not located within known significant wildlife habitat or near any known historic or archaeological resources. Development on site is not within the floodplain and the property is not within the shoreland zone. Main-Land completed a natural resource delineation on site as part of the work on the property in 2022 and no impacts to wetlands or streams are proposed. An existing septic system treats wastewater generated from the three employees on site.

m) Erosion and Sedimentation

Please see Section 6 of the Application.

MAINE REAL ESTATE TAX-Paid

QUITCLAIM DEED
WITH COVENANT
MAINE STATUTORY SHORT FORM

DLN: 1002240208462

I, Catheryn M. Ingerson of Durham, Maine for consideration paid, hereby, give, grant and Quitclaim to 33 Allen Range Road LLC, a Maine Limited Liability Company of 72 Lafayette Street, Yarmouth, ME 04096, with Covenants, my interest in real property in Freeport, Cumberland County, ME described as follows:

A certain lot or parcel of land, with buildings thereon, situated on the northerly side of Allen Range Road, so-called, in the Town of Freeport, County of Cumberland, and State of Maine, being more particularly bounded and described as follows, to wit:

Beginning at a 5/8 inch rebar, capped "Buker 2397" to be set, on the northerly side of Allen Range Road at the apparent easterly terminus of the Allen Range Road with the westerly side of Maine Central Railroad;

Thence, from the Point of Beginning, North 43° 44' 15" West, along the said northerly side of Allen Range Road, a distance of 63.90 feet to a point;

Thence, North 47° 20' 18" West, along the said northerly side of Allen Range Road, a distance of 208.39 feet to a point;

Thence, North 50° 31' 23" West, along the said northerly side of Allen Range Road, a distance of 290.34 feet to a 5/8 inch rebar, capped "Buker 2397" to be set;

Thence, North 39° 28' 37" East, along remaining land of the Grantor herein, a distance of 100.00 feet to a 5/8 inch rebar capped "Buker 2397" to be set;

Thence, North 13° 47' 37" East, along said remaining land of the Grantor herein, a distance of 678.51 feet to a 5/8 inch rebar capped "Buker 2397" to be set;

Thence, South 75° 09' 45" East, along said remaining land of the Grantor herein, a distance of 497.28 feet to a 5/8 inch rebar capped "Buker 2397" to be set on the said westerly side of Maine Central Railroad;

Thence, South 14° 50' 15" West, along the said westerly side of Maine Central Railroad, a distance of 599.83 feet to a point;

DOC :45959 BK:39700 PG:39
RECEIVED - RECORDED, CUMBERLAND COUNTY REGISTER OF DEEDS
09/08/2022, 08:10:22A
Register of Deeds Jessica M. Spaulding E-RECORDED

Thence, in a general southerly direction, along the said westerly side of Maine Central Railroad and a curve to the right, a distance of 422.10 feet to the Point of Beginning, said curve having a radius of 3,769.72 feet;

The above-described parcel of land contains 10.15 acres, more or less.

All bearings are referenced to Maine State Grid, West Zone, NAD 83 and based on a plan entitled, "Plan showing a Lot Division Land of Ingerson", dated July 28, 2022, made for Maine Watersports, LLC, surveyed by Main-Land Development Consultants, Inc., and to be recorded.

All Book and Pages refer to the Cumberland County Registry of Deeds.

Meaning and intending to convey a parcel of land conveyed to John Edward Ingerson, a/k/a Jon Edward Ingerson from Florence G. Ingerson, by a deed dated September 16, 1996, and recorded in Book 12735, Page 157 on September 24, 1996 and a portion, and only a portion, of a parcel of land conveyed to Catheryn M. Ingerson from Judith D. Tenzyk and Deanne Rosselli, by a deed dated April 13, 2018, and recorded in Book 34798, Page 342 on April 25, 2018.

See Deed of distribution from the Estate of Jon E. Ingerson a/k/a John Edward Ingerson of even date, to be recorded herewith.

IN WITNESS WHEREOF, the said Catheryn M. Ingerson has caused this instrument to be signed and sealed on this 1 day of September, 2022.

Witness

Catheryn M. Ingerson

STATE OF MAINE
CUMBERLAND, ss.

September 1, 2022

Personally appeared the above-named Catheryn M. Ingerson and acknowledged the foregoing instrument to be her free act and deed.

Attorney at Law with Notarial Powers

Type/Print Name

Kerry E. Kimball
State of Maine
Attorney at Law
Bar #8577

Interactive Corporate Services

MAINE

Department of the Secretary of State

Bureau of Corporations, Elections and Commissions

Corporate Name Search

Information Summary

Subscriber activity report

This record contains information from the CEC database and is accurate as of: Fri Mar 22 2024 10:19:45. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
33 ALLEN RANGE ROAD LLC	20235883DC	LIMITED LIABILITY COMPANY	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
08/03/2022	N/A	MAINE

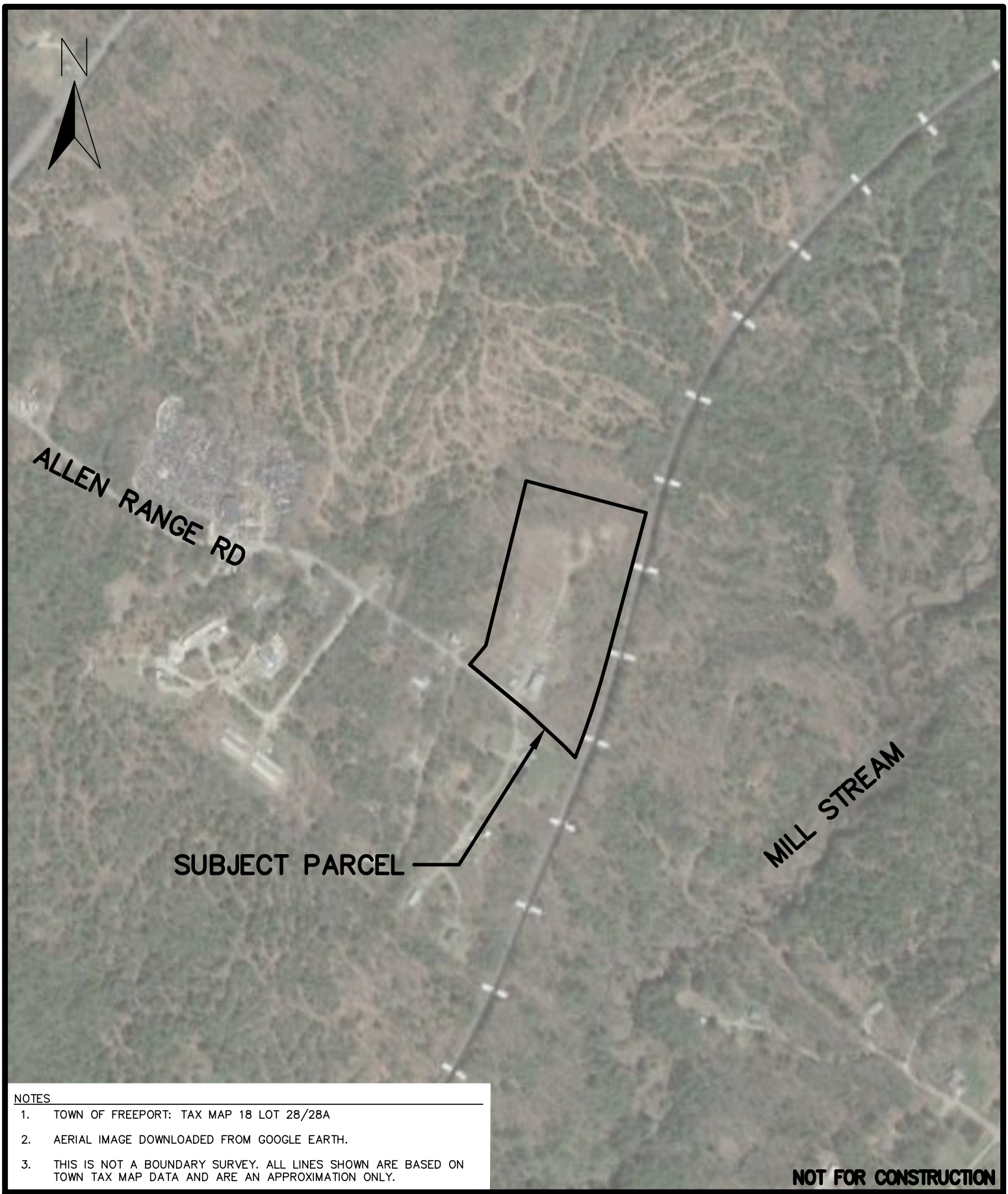
Other Names	(A=Assumed ; F=Former)
NONE	

Principal Home Office Address

Physical	Mailing

Clerk/Registered Agent

Physical	Mailing
HAWLEY R. STRAIT 100 MIDDLE STREET PORTLAND, ME 04101	HAWLEY R. STRAIT PO BOX 9729 PORTLAND, ME 04104-5029



NOTES

1. TOWN OF FREEPORT: TAX MAP 18 LOT 28/28A
2. AERIAL IMAGE DOWNLOADED FROM GOOGLE EARTH.
3. THIS IS NOT A BOUNDARY SURVEY. ALL LINES SHOWN ARE BASED ON TOWN TAX MAP DATA AND ARE AN APPROXIMATION ONLY.

NOT FOR CONSTRUCTION

PROJECT:

MAINE WATERSPORTS
33 ALLEN RANGE ROAD, FREEPORT, ME

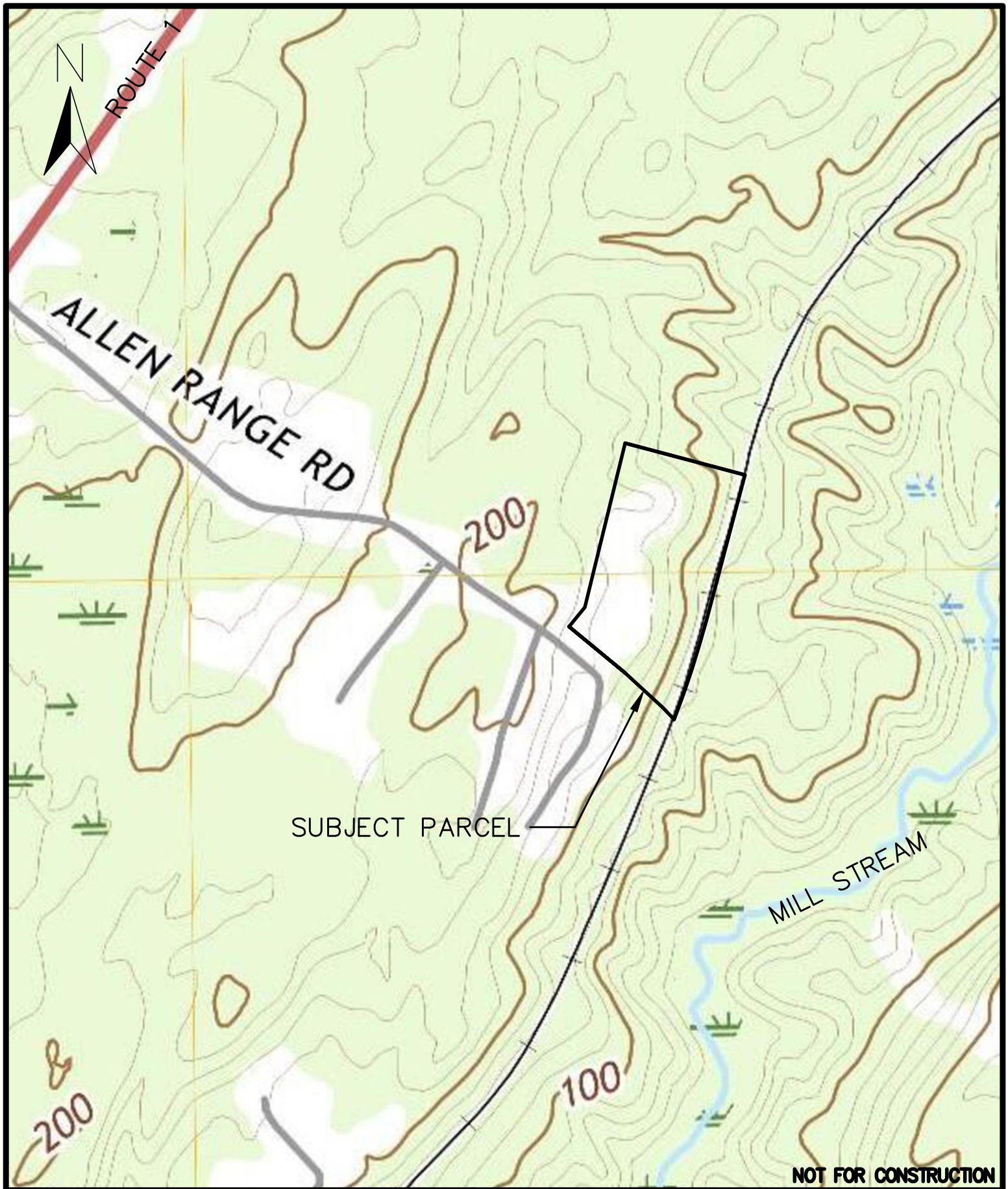
DRAWING:

AERIAL PHOTO

SCALE: 1" = 500'

MLDC NO.	23-339
PROJ. MGR:	EKB
DRAWN BY:	HRD
CHECKED BY:	EKB
REVISION NO.	N/A
ISSUE DATE:	2024-03-25
ISSUED FOR:	REVIEW

MAIN-LAND
DEVELOPMENT
CONSULTANTS, INC.
69 MAIN ST. LIVERMORE FALLS, MAINE
367 US ROUTE 1 FALMOUTH, MAINE
PH: (207) 897-6752 FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM



PROJECT:

MAINE WATERSPORTS

33 ALLEN RANGE ROAD, FREEPORT, ME

DRAWING:

USGS SITE MAP

SCALE: 1" = 500'

MLDC NO.	23-339
PROJ. MGR:	EKB
DRAWN BY:	HRD
CHECKED BY:	EKB
REVISION NO.	N/A
ISSUE DATE:	2024-03-25
ISSUED FOR:	REVIEW

MAIN-LAND
DEVELOPMENT
CONSULTANTS, INC.
69 MAIN ST. LIVERMORE FALLS, MAINE
367 US ROUTE 1 FALMOUTH, MAINE
PH: (207) 897-6752 FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

Soil Map—Cumberland County and Part of Oxford County, Maine

Map Scale: 1:1,910 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 25 50 100 150

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 1:24,000.

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

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

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

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

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

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

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 20, Sep 5, 2023

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

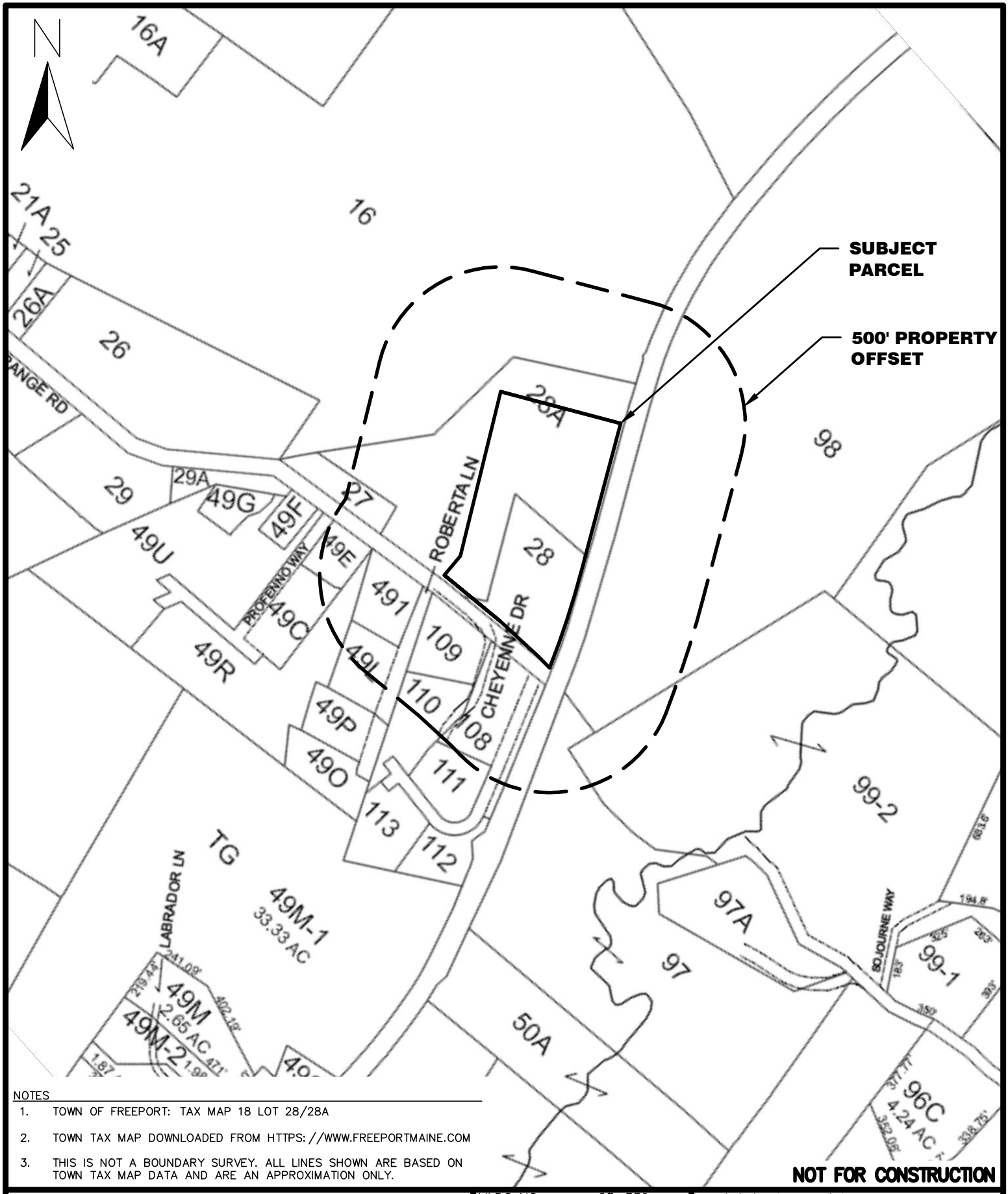
Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

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
BgB	Nicholville very fine sandy loam, 0 to 8 percent slopes	7.2	68.1%
BgC2	Nicholville very fine sandy loam, 8 to 15 percent slopes	2.8	27.0%
HrB	Lyman-Tunbridge complex, 0 to 8 percent slopes, rocky	0.2	1.8%
HrC	Lyman-Tunbridge complex, 8 to 15 percent slopes, rocky	0.2	2.2%
Sn	Scantic silt loam, 0 to 3 percent slopes	0.1	0.9%
Totals for Area of Interest		**10.5**	**100.0%**

First Name	Last Name	Address	City	State	Zip Code	Tax Map	Lot Numb	Book	Page
Beta Zeta Properties, LLC		9 Kimberley Circle	Brunswick	ME	04011	18	16	369	677
Michelle	Harrison	321 Auburn Pownal Road	Durham	ME	04222	18	27	30006	281
Catheryn	Ingerson	460 Pinkham Brook Road	Durham	ME	04222	18	28-A	34798	342
FSS Investments, LLC		15 Profenno Way	Freeport	ME	04032	18	49-C, 49-R, 49-U	385	961
Richard & Grace	Vreeland	9 Watts Landing	Litchfield	NH	03052	18	49-E	33456	121
Jacob	Collette	28 Allen Range Road	Freeport	ME	04032	18	49-F	3736	345
Macy	Galvan	32 Allen Range Road	Freeport	ME	04032	18	49-I	3852	215
Pamela	Duplissis	16 Roberta Lane	Freeport	ME	04032	18	49-L	3895	223
Andrew & Meredith	Williams	121 Marquis Road	Freeport	ME	04032	18	97	32799	258
Tyler Gagnon & Lea Beaulieu		100 Spencers Ridge Road	Freeport	ME	04032	18	98	393	182
Sabra Burdick & Catherine Ingalls		124 Marquis Road	Freeport	ME	04032	18	99-2	26353	132
Robert Jr.	Morency	101 Flamingo Road	Clearwater	FL	33764	18	108	22771	307
Peter	Davenport	PO Box 490	Henniker	NH	03242	18	109	33236	110
Matthew	Moeykens	10 Cheyenne Drive	Freeport	ME	04032	18	110	24062	317
Margaret	Moore	13 Cheyenne Drive	Freeport	ME	04032	18	111	371	378



NOTES

1. TOWN OF FREEPORT: TAX MAP 18 LOT 28/28A
2. TOWN TAX MAP DOWNLOADED FROM HTTPS://WWW.FREEPORTMAINE.COM
3. THIS IS NOT A BOUNDARY SURVEY. ALL LINES SHOWN ARE BASED ON TOWN TAX MAP DATA AND ARE AN APPROXIMATION ONLY.

NOT FOR CONSTRUCTION

PROJECT:

MAINE WATERSPORTS

33 ALLEN RANGE ROAD, FREEPORT, ME

DRAWING:

ABUTTER MAP

SCALE: 1" = 500'

MLDC NO.	23-339
PROJ. MGR:	EKB
DRAWN BY:	TLB
CHECKED BY:	EKB
REVISION NO.	N/A
ISSUE DATE:	2024-03-22
ISSUED FOR:	REVIEW

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
69 MAIN ST. LIVERMORE FALLS, MAINE
367 US ROUTE 1 FALMOUTH, MAINE
PH: (207) 897-6752 FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

EROSION AND SEDIMENTATION CONTROL PLAN

33 Allen Range Road LLC
Freeport, Maine

Prepared By:

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
Livermore Falls, Maine
March 22, 2024

1. INTRODUCTION:

"A person who conducts, or causes to be conducted, an activity that involves filling, displacing or exposing soil or other earthen materials shall take measures to prevent unreasonable erosion of soil or sediment beyond the project site or into a protected natural resource as defined in 38 M.R.S.A. §480-B. Sediment control measures must be in place before the activity begins. Measures must remain in place and functional until the site is permanently stabilized. Adequate and timely temporary and permanent stabilization measures must be taken." – Maine DEP Chapter 500 Rules, Appendix A.

This Plan has been developed to ensure that construction activities on this project site utilize sound erosion and sedimentation control measures. These measures will prevent or reduce the potential for the deposition of sediments down stream of site. The methods of control consist of preventive measures and remedial measures. Preventive measures are aimed at keeping the soils in their present location through mulching and through the reestablishment of vegetation. Remedial measures deal with the trapping and/or filtering of sediment laden stormwater run-off. Both types of measures will be utilized on this project.

The Erosion and Sedimentation Control Plan is best broken down into Temporary Measures, Winter Stabilization, and Permanent Measures.

2. TEMPORARY EROSION CONTROL:

Temporary control measures may consist of a combination of measures where appropriate and/or as shown on the plans.

A. Sediment Filter Berms:

Sediment Filter Berms are the preferred filtering device, but may not be used in wetland areas. The berms shall be placed down slope of all earth moving activities, where water from these disturbed areas will run off. These berms will be placed along an even contour, be at least 24 inches tall, and 3 feet wide at the base. Turn the ends of the berm up-grade to avoid runoff flowing around the berm. In areas of high erosion potential, the berm will be backed by hay bales or silt fencing, as shown on the filter berm detail.

B. Silt Fencing:

Silt fencing may be used in place of, or together with, the sediment filter barriers. The silt fencing will also be anchored at least four inches into the ground and placed along an even contour. Turn the ends of the fence up-grade to avoid runoff flowing around the fence. During frozen conditions, furnish and install Sediment Filter Berms in lieu of silt fencing or hay bales if frozen soil prevents the proper installation of silt fences and hay bales.

C. Stone Check dams:

Stone check dams shall be placed in the center of ditches immediately following excavation to provide a means of trapping sediments. (If the ditch has been immediately armored with rip-rap, check dams are not necessary.) The dams shall consist of small stone placed across the ditch, with a depression at the top of the dam to allow water over the top of the dam, should it become clogged with sediment. See the specifications on the Typical Details Plan for construction details of this measure.

D. Temporary Mulch:

Temporary mulch shall be placed on all disturbed areas where seeding, construction or stabilization activities will not take place for over 7 consecutive days. Temporary mulch will also be placed on areas within 75 feet of a natural resource (wetland, stream, etc.) where seeding will not take place for over 48 hours, and on all bare soils outside the road base prior to any predicted significant rain event. A significant rain event is considered to be at least ½ inch of rain or more. Temporary mulch may be hay and shall be applied at a rate of two bales per 1,000 square feet. Soil must not be visible upon completion of application, regardless of rate of application.

E. Topsoil Stockpiles:

Topsoil, removed as part of the construction, will be stockpiled on site for use in areas to be re-vegetated. The location of topsoil stockpiles must not be within 75 feet of a defined natural resource (wetland, stream, etc.), or within 75 feet of a swale or ditch.

Stockpiles shall be mulched with hay at two bales per 1,000 square feet. The area down slope from any stockpile areas will be protected by a sediment filter berm or silt fence placed directly below or down gradient from the stockpile. If the stockpile must be left for more than 30 days, the pile will be seeded with rye grass at a rate of two pounds per 1,000 square feet and mulched in accordance with this paragraph.

F. Maintenance of Temporary Measures:

All temporary measures described above shall be inspected weekly and before/after every significant storm event (1/2 inch of rain or greater) throughout the construction of the

project. Repairs or replacements of temporary measures will be made as necessary. Once the site is stable, all temporary devices such as hay bale barriers and silt fencing will be removed.

A log shall be kept summarizing the inspections and any corrective action taken. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, materials storage areas, and vehicles access points to the parcel. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and location(s) where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken.

The log must be made accessible to department staff and a copy must be provided upon request. The permittee shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.

3. WINTER STABILIZATION:

The winter construction period is from November 1 through April 15. If the construction site is not stabilized with a combination of pavement, a road gravel base, 90% mature vegetation cover or riprap by November 1 then the site needs to be protected with winter stabilization.

Winter excavation and earthwork shall be completed such that no more than 1 acre of the site is denuded at any one time. Limit the exposed area to those areas in which work is expected to be under taken during the following 15 days. Exposed area shall not be so large that it cannot be mulched in one day prior to any snow event.

Areas shall be considered to be denuded until the subbase gravel is installed in roadway areas or the areas of future loam and seed have been loamed and mulched. Hay and straw mulch rate shall be a minimum of 200 lbs./1,000 s.f. (3 tons/acre) and shall be properly anchored.

The contractor must install any added measures which may be necessary to control erosion/sedimentation from the site dependent upon the actual site and weather conditions.

Continuation of earthwork operations on additional areas shall not begin until the exposed soil surface on the area being worked has been stabilized, in order to minimize areas without erosion control protection.

1. Soil Stockpiles

   Stockpiles of soil or subsoil will be mulched for over winter protection with hay or straw at twice the normal rate or at 200 lbs/1,000 s.f. (3 tons per acre) or with a four-inch layer of woodwaste erosion control mix. This will be done within 24 hours of stocking and re-established prior to any rainfall or snowfall.

   Any new soil stockpile will not be placed (even covered with hay or straw) within 100 feet of any natural resources.

2. Natural Resource Protection

   Any areas within 100 feet from any natural resources, if not stabilized with a minimum of 90 % mature vegetation catch, shall be mulched by December 1 and anchored with plastic netting or protected with erosion control mats.

   During winter construction, a double line of sediment barriers (i.e. silt fence backed with hay bales or erosion control mix) will be placed between any natural resource and the disturbed area. Silt fencing may not be placed on frozen ground.

   Projects crossing the natural resource shall be protected a minimum distance of 100 feet on either side from the resource. Existing projects not stabilized by December 1 shall be protected with the second line of sediment barrier to ensure functionality during the spring thaw and rains.

3. Mulching

   Areas shall be considered denuded until loamed, seeded and mulched. Hay and straw mulch shall be applied at a rate of 200 lb. per 1.000 square feet or 3 tons/acre (twice the normal accepted rate) and shall be properly anchored. Mulch shall not be spread on top of snow. The snow will be removed down to a one-inch depth or less prior to application.

   An area shall be considered stabilized when exposed surfaces have been either mulched with straw or hay at a rate of 200 lb. per 1,000 square feet and adequately anchored, such that the ground surface is not visible though the mulch.

   Between the dates of November 1 and April 15, all mulch shall be anchored by either peg line, mulch netting, or wood cellulose fiber. The ground surface shall not be visible though the mulch.

   After November 1th, mulch and anchoring of all bare soil shall occur at the end of each final grading work day.

4. Mulching on Slopes and Ditches

Slopes shall not be left exposed for more than 7 days unless fully mulched and anchored. Slopes within 75 feet of a natural resource shall not be left exposed for more than 48 hours. Mulching shall be applied at a rate of 300 lbs/1,000 sq ft on all slopes greater than 8%. Erosion Control mesh shall be used to anchor mulch in all drainage ways and ditches, for slopes exposed to direct winds, and for all other slopes greater that 8 %. Erosion control blanket and check dams (or permanent Rip-Rap) shall be used in lieu of mulch in all drainage ways with slopes of 8 % or more.

A six inch layer of erosion control mix can be used to substitute erosion control blankets on all slopes except ditches.

5. Seeding

Between the dates of October 15 and April 1st, loam or seed will not be required. During periods of above freezing temperatures, finished areas shall be fine graded and either protected with mulch or temporarily seeded (see table below) and mulched until such time as the final treatment can be applied. If after November 1st the exposed area has been final graded and loamed, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched.

TEMPORARY SEED MIX

TYPE	% BY WEIGHT	% PURITY	% GERMINATION
Domestic Rye Grass	60	69.75	90
Perennial Rye Grass	20	28.00	85
Aroostook Rye Grass	20	28.00	85

Dormant seeding may be placed prior to the placement of mulch and fabric netting anchored with staples.

If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5lbs/1000 s.f. All areas seeded during the winter will be inspected in the spring for adequate catch. Areas not sufficiently vegetated (less than 90 % catch) shall be revegetated by replacing loam, seed and mulch.

If dormant seeding is not used, all disturbed areas shall be revegetated in the spring.

6. Trench Dewatering and Temporary Stream Diversion

   Water from construction trench dewatering or temporary stream diversion will pass first through a filter bag or secondary containment structure (e.g. hay bale lined pool) prior to discharge. The discharge site shall be selected to avoid flooding, icing, and sediment discharges to a protected resource. In no case shall the filter bag or containment structure be located within 100 feet of a protected natural resource.

7. Inspection and Monitoring

   Maintenance measures shall be applied as needed during the entire construction season. After each rainfall, snow storm or period of thawing and runoff, the site contractor shall perform a visual inspection of all installed erosion control measures and perform repairs as needed to insure their continuous function.

   In the spring, following the temporary/final seeding and mulching, the contractor shall inspect and repair any damages and/ or un-established spots. Established vegetative cover means a minimum of 90 % of areas vegetated with vigorous growth.

8. Standard for the timely stabilization of ditches and channels

   All stone-lined ditches and channels shall be constructed and stabilized by November 1. All grass-lined ditches and channels shall be constructed and stabilized by September 1. Failure to stabilize a ditch or channel to be grass-lined by September 1, will require one of the following actions to stabilize the ditch for late fall and winter.

   Install a sod lining in the ditch – Sod lining shall be installed in ditches by October 1. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, watering the sod to promote root growth into the disturbed soil, and anchoring the sod with jute or plastic mesh to prevent the sod strips from sloughing during flow conditions.

   Install a stone lining in the ditch –Ditches shall be lined with stone riprap by November 1, as presented below. If necessary, the applicant will regrade the ditch prior to placing the stone lining so to prevent the stone lining from reducing the ditch's cross-sectional area.

9. Standard for the timely stabilization of disturbed slopes

Construct and stabilize stone-covered slopes by November 1. The applicant will Seed and mulch all slopes to be vegetated by September 1. Slopes will be considered any area having a grade greater than 15% (6H:1V). If the applicant fails to stabilize any slope to be vegetated by September 1, then the applicant will take one of the following actions to stabilize the slope for late fall and winter.

Stabilize the soil with temporary vegetation and erosion control mats -- Seed the disturbed slope with winter rye at a seeding rate of 3 pounds per 1000 square feet and apply erosion control mats over the mulched slope October 1. The applicant will monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or cover at least 90% of the disturbed slope by November 1, cover the slope with a layer of wood waste compost or with stone riprap as described below.

Stabilize the slope with sod -- Stabilize the disturbed slope with properly installed sod by October 1. Proper installation includes pinning the sod onto the slope with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil. Sod stabilization shall not be used late-season to stabilize slopes having a grade greater than 33% (3H:1V).

Stabilize the slope with wood waste compost (erosion control mix) --Place a six-inch layer of wood waste compost on the slope by November 1. Prior to placing the wood waste compost, remove any snow accumulation on the disturbed slope. Wood waste compost will not be used to stabilize slopes having grades greater than 50% (2H:1V) or having groundwater seeps on the slope face.

Stabilize the slope with stone riprap -- Place a layer of stone riprap on the slope by November 1, similar to the Stone Lined Ditch the permanent erosion control section.

10. Standard for the timely stabilization of disturbed soils

Seed and mulch all disturbed soils on areas having a slope less than 15% by September 1. Failure to stabilize these soils by this date will require one of the following actions to stabilize the soil for late fall and winter.

Stabilize the soil with temporary vegetation -- Seed the disturbed soil with winter rye at a seeding rate of 3 pounds per 1000 square feet, lightly mulch the seeded soil with hay or straw at 75 pounds per 1000 square feet, and anchor the mulch with plastic netting by October 1. Growth of the rye will require monitoring over the following 30 days. If the rye fails to grow at least three inches or cover at

least 75% of the disturbed soil before November 1, then mulch the area for over-winter protection as described below.

Stabilize the soil with sod -- Stabilize the disturbed soil with properly installed sod by October 1. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.

Stabilize the soil with mulch -- Mulch the disturbed soil by spreading hay or straw at a rate of at least 150 pounds per 1000 square feet on the area so that no soil is visible through the mulch by November 1. Prior to applying the mulch, remove any snow accumulation on the disturbed area. Immediately after applying the mulch, anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.

4. PERMANENT EROSION CONTROL:

Permanent measures will consist of the placement of culverts; culvert inlet/outlet stabilization; the construction of grass/stone lined ditches; and the re-vegetation of all areas outside the traveled way of the road, and those areas designated as stone lined ditches.

A. Re-vegetation Measures:

All areas to be permanently re-vegetated with grass will first be covered with loam and then fertilized.

Loam will be placed on all areas to be re-vegetated. Loam will be placed to a minimum depth of 4 inches. Loam will be the stockpiled topsoil, if possible.

Test the loam samples for nutrients at a proficient testing laboratory (The University of Maine provides this service). The areas with loam will then be fertilized with the recommended application rate. Lime will also be applied at a rate of 50 pounds per 1,000 square feet. Both the lime and the fertilizer will be mixed thoroughly with the soil.

All areas to be re-vegetated with permanent grass are to be seeded with the seed mix shown on the table below. This mixture will be applied at a rate of 2 pounds per 1,000 square feet.

General Lawn Areas	Chewing Fescue "Dignity"	35%
	Pennlawn Creeping Red Fescue	35%
	Perennial Rye "Tourstar" (Nutrite)	30%

Mulch will then be spread on all seeded areas at a rate of two bales per 1,000 square feet. Regardless of application rate the soil shall not be visible through the mulch.

Seed and mulch will be placed within five days of final grading of topsoil.

Seeded areas will be inspected after 30 days to determine the success of the seeding. If the ground cover is less than 90%, the area will be reseeded.

B. Critical Areas:

Slopes in excess of 15% will require the placement of a biodegradable netting or matting over the mulch and seed (if the netting has no mulch in it). If stabilization is to take place after October 1, slopes over 8% will be treated with the matting.

C. Maintenance of Permanent Measures:

All measures will be inspected weekly and before and after every significant storm event during construction, and then at least once annually to insure proper function. Any damaged areas will be repaired or replaced as necessary. Any ditches or culverts not functioning as designed will be redesigned and reconstructed according to specifications prepared by a Professional Engineer.

In any event, seeding should take place either between May 1 and June 15, or August 15 and September 1.

STORMWATER MANAGEMENT PLAN

Boat Storage Facility at
33 Allen Range Road
Freeport, Maine

Prepared by:

MAIN-LAND DEVELOPMENT CONSULTANTS, INC.
P.O. Box Q, Livermore Falls, Maine

March 19, 2024

Main-Land is working with 33 Allen Range Road, LLC for their project to construct a new 10,000 square foot boat storage building on their property located at 33 Allen Range Road in Freeport. The existing site is already developed. The property was previously operated as an automobile salvage facility and contains a garage and office building, as well as large gravel areas and concrete pads. The automobile salvage facility was cleaned up and in 2022, the property was purchased by 33 Allen Range Road, LLC and a Change of Use permit was obtained from Town of Freeport staff to utilize the facility as a boatyard, for light maintenance in the garage and storage of boats in the cleared areas of the property.

As shown on the Survey Plan S1.1, the property is approximately 10 acres in size and is already developed with buildings, gravel and a large meadow area. Surrounding this area, the property is wooded with a few pockets of wetland. In general, soils are relatively well drained sandy loam though there are a few ledge outcroppings in the western portion of the property. The land generally slopes at gentle to moderate grade from west to east. The site is in the watershed of Mill Stream which is not listed as an Urban Impaired Stream. The automobile salvage facility was in existence prior to DEP Stormwater Management Law and therefore there is no existing treatment of impervious area other than the fact that runoff from developed areas does naturally run through approximately 200 feet of woods before reaching the property line.

33 Allen Range Road, LLC is now proposing to construct a 10,000 square foot building to use for indoor boat storage. The new building will be located primarily over existing gravel and concrete. In total, it will only result in an additional 1,794 square feet of new impervious area. Due to the square footage of the building, the project is required to go through Site Plan Review with the Town of Freeport project review board. As such, it is required to meet the Town of Freeport Stormwater requirements from Section 529.4 of the Ordinance. This project does not require Maine DEP review as it does not impact over one acre of area.

Stormwater from the entirety of the new building is proposed for treatment in a roof dripline filter and stone berm level spreader to forested buffer. The level spreader and buffer will also receive stormwater from a portion of the existing garage building and

adjacent landscape area. The proposed stormwater features were sized in accordance with Maine DEP Best Management Practices to treat the first 1" of stormwater runoff. This exceeds the Town of Freeports requirement to treat the first 0.5" of stormwater runoff. Sizing calculations are shown in the spreadsheet attached to this narrative.

In additional to treatment for water quality, post-development peak stormwater flowrates are required to be at or below the pre-development peak stormwater flowrate. To evaluate for stormwater quantity control Watershed Analysis Point A was identified along the eastern property boundary. In the pre-development condition, a significant portion of the impervious and developed area drains to this area. As the only site grading changes are within direct proximity to the proposed storage building, no changes to the subcatchment area boundary were made in the post-development condition though the additional 1,794 square feet of building area added.

The level spreader and subsequent forested buffer help to attenuate peak stormwater flowrate from the new building area so that peak flowrates are slightly lower in the post-development condition. See the table below for peak flowrates in the 2, 10 and 25-year storm events.

WAP	Storm Event	Pre-Develop.	Post-Develop.	Change
A	2-year	3.05	2.83	-0.22
	10-year	6.33	6.18	-0.15
	25-year	9.18	9.09	-0.09

As the peak flowrate is slightly reduced in the post-development condition the project has met the requirement of the ordinance and will not affect downstream properties.

Please see Stormwater Plans and HydroCAD Calculations attached to this narrative.

BUFFER TREATMENT DETAIL SHEET

Buffer #	Buffer Type	Soil Condition	Slope	Flow Path Length	LS Length Reqd	LS Length Design
Buffer A	Forested	HSG B (Nicholville)	11%	100'	21.54	50

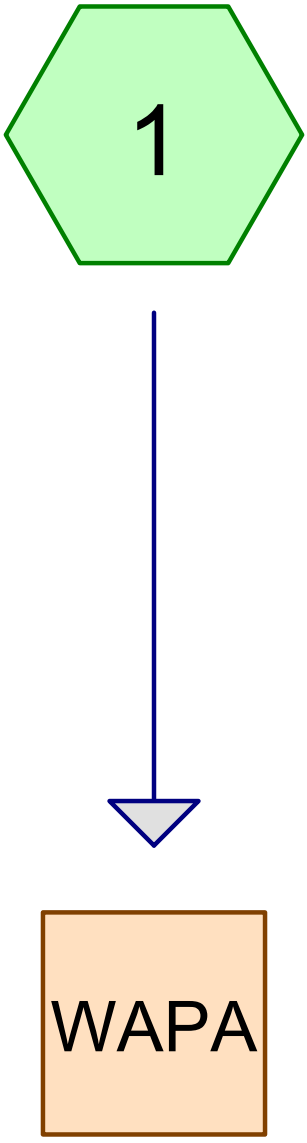
Dripline Filter

Building/Subcatchment	Area of Roof (S.F.)	Volume of Runoff	Media Volume	Filter Length	Width of Filter	Area of Filter	Depth BMP Standard (Feet)	Design Depth of Stone (Inches)
Storage Building	5000	400	1000	100	5	500	2.00	24

Porosity of stone	40%	

Note: Filter sized to treat first 1" of rainfall

1 inch of rain	0.08	ft



Subcat Reach Pond Link

Routing Diagram for pre-development
Prepared by Main-Land Development Consultant, Printed 3/20/2024

Summary for Subcatchment 1:

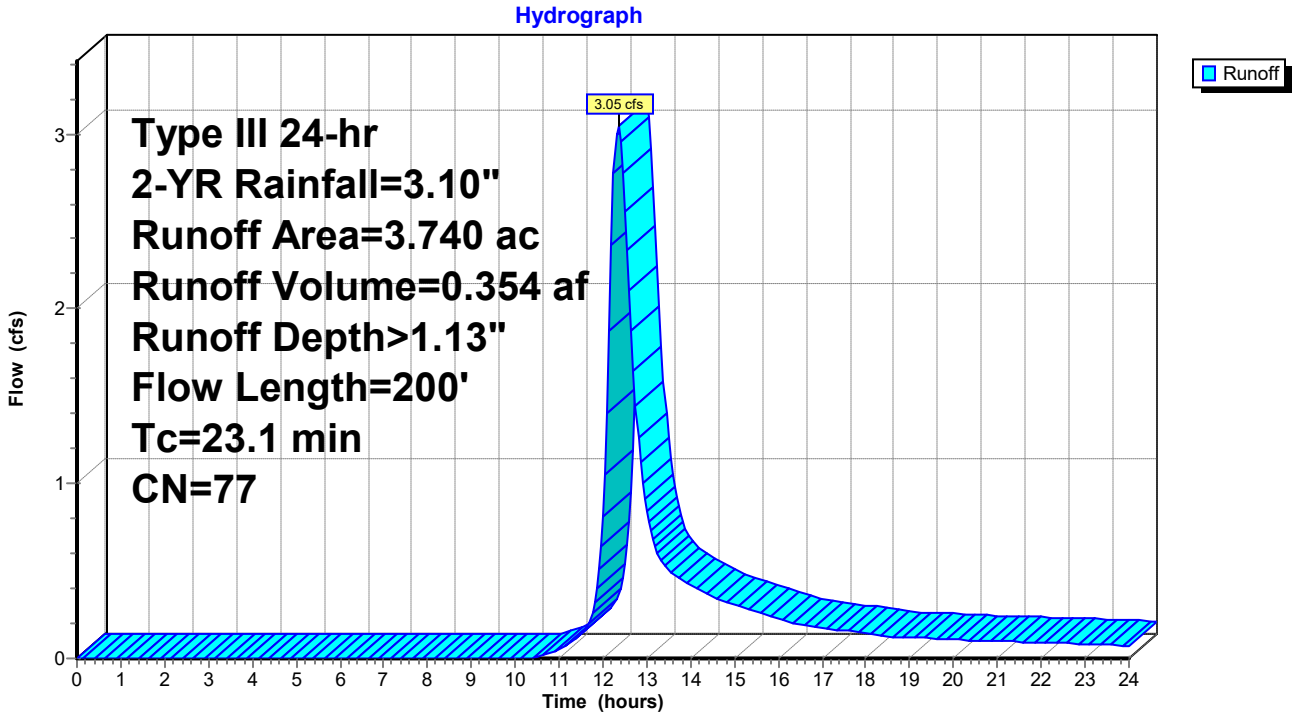
Runoff = 3.05 cfs @ 12.34 hrs, Volume= 0.354 af, Depth> 1.13"
Routed to Reach WAPA :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
2.030	70	Woods, Good, HSG C
0.190	71	Meadow, non-grazed, HSG C
0.730	79	50-75% Grass cover, Fair, HSG C
0.590	96	Gravel surface, HSG C
0.110	98	Paved parking, HSG C
0.090	98	Roofs, HSG C
3.740	77	Weighted Average
3.540		94.65% Pervious Area
0.200		5.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.8	125	0.1120	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
0.3	75	0.1860	4.85	48.53	**Parabolic Channel,** W=15.00' D=1.00' Area=10.0 sf Perim=15.2' n= 0.100 Earth, dense brush, high stage
23.1	200	Total			

Subcatchment 1:

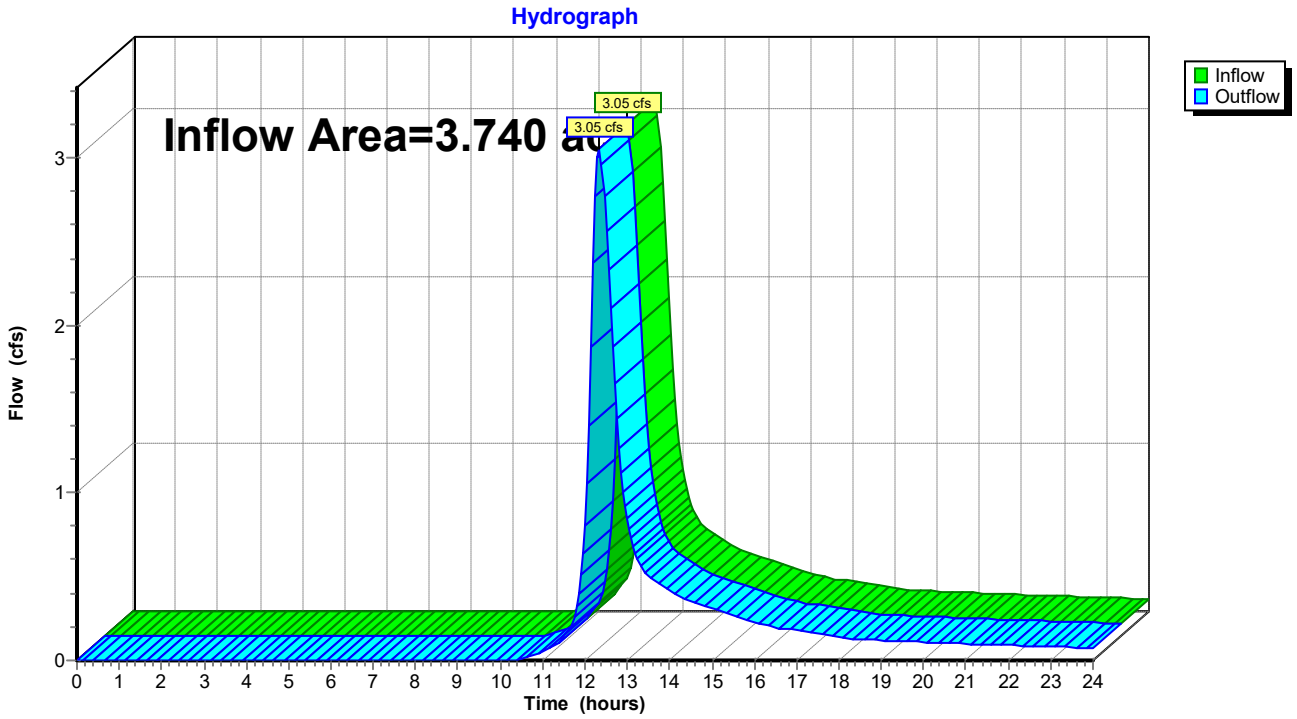


Summary for Reach WAPA:

Inflow Area = 3.740 ac, 5.35% Impervious, Inflow Depth > 1.13" for 2-YR event
Inflow = 3.05 cfs @ 12.34 hrs, Volume= 0.354 af
Outflow = 3.05 cfs @ 12.34 hrs, Volume= 0.354 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach WAPA:



Summary for Subcatchment 1:

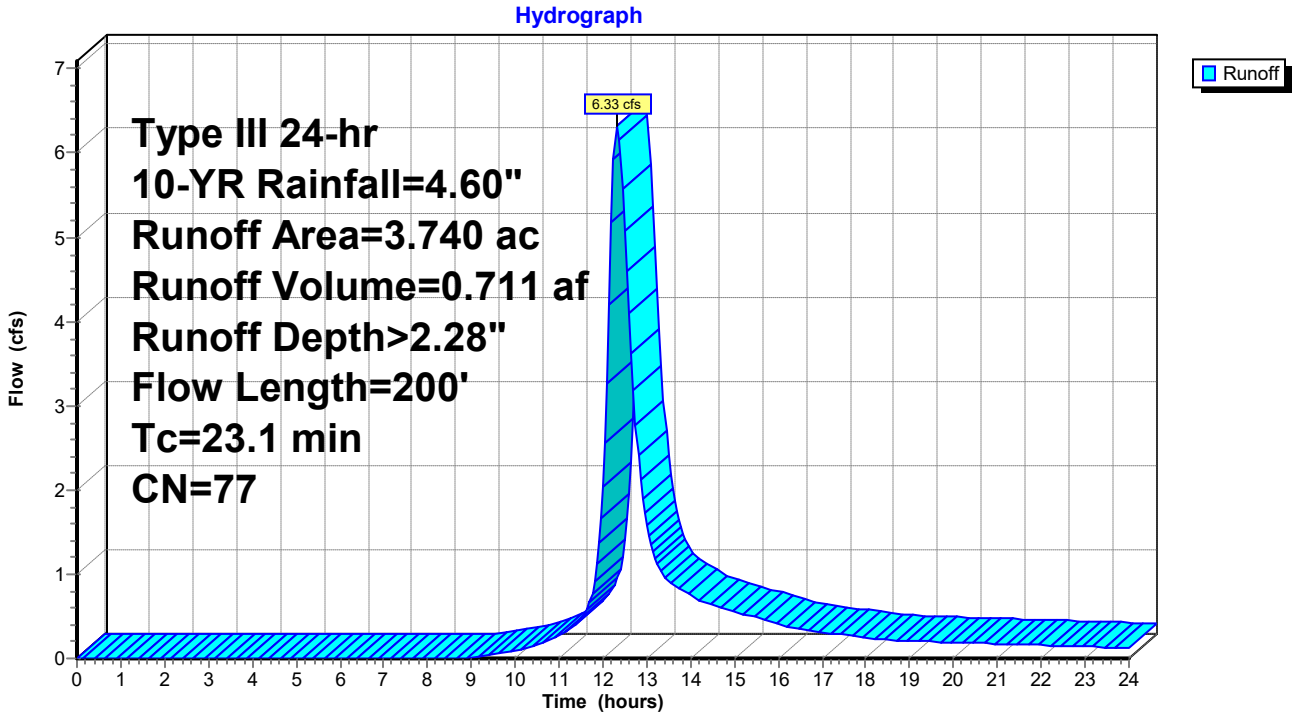
Runoff = 6.33 cfs @ 12.33 hrs, Volume= 0.711 af, Depth> 2.28"
Routed to Reach WAPA :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
2.030	70	Woods, Good, HSG C
0.190	71	Meadow, non-grazed, HSG C
0.730	79	50-75% Grass cover, Fair, HSG C
0.590	96	Gravel surface, HSG C
0.110	98	Paved parking, HSG C
0.090	98	Roofs, HSG C
3.740	77	Weighted Average
3.540		94.65% Pervious Area
0.200		5.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.8	125	0.1120	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
0.3	75	0.1860	4.85	48.53	**Parabolic Channel,** W=15.00' D=1.00' Area=10.0 sf Perim=15.2' n= 0.100 Earth, dense brush, high stage
23.1	200	Total			

Subcatchment 1:

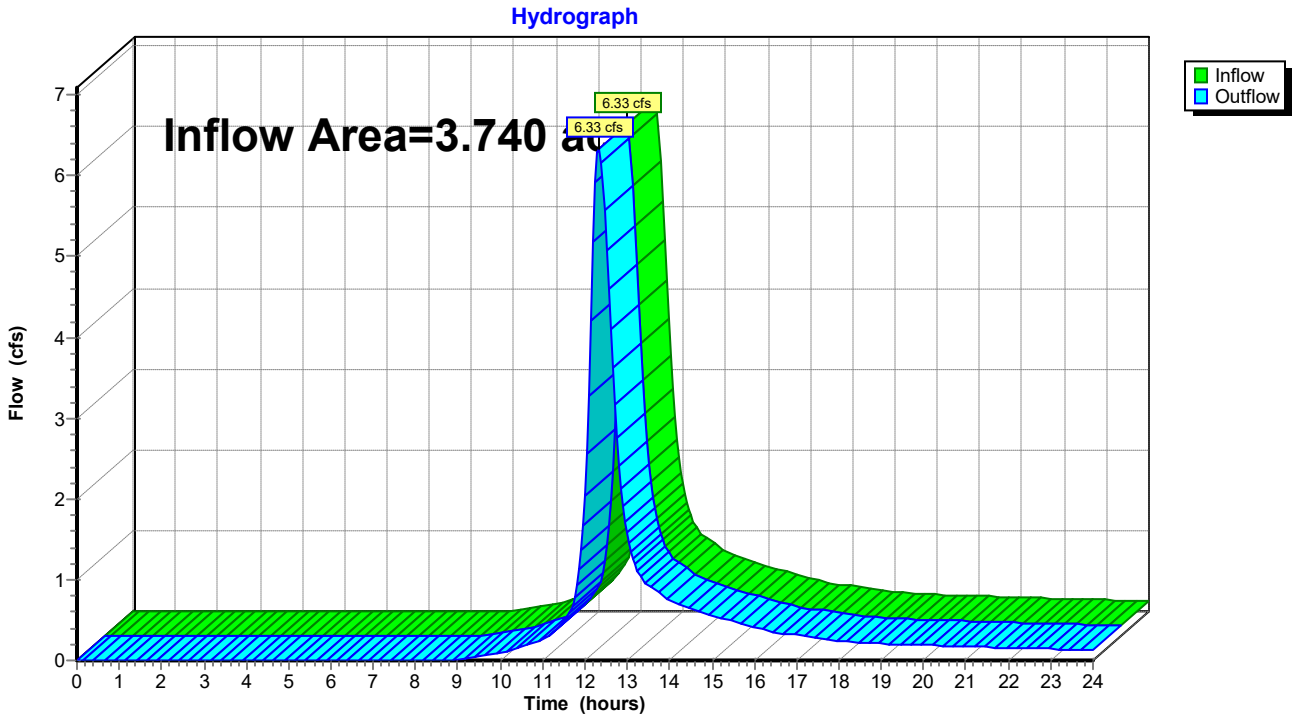


Summary for Reach WAPA:

Inflow Area = 3.740 ac, 5.35% Impervious, Inflow Depth > 2.28" for 10-YR event
Inflow = 6.33 cfs @ 12.33 hrs, Volume= 0.711 af
Outflow = 6.33 cfs @ 12.33 hrs, Volume= 0.711 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach WAPA:



Summary for Subcatchment 1:

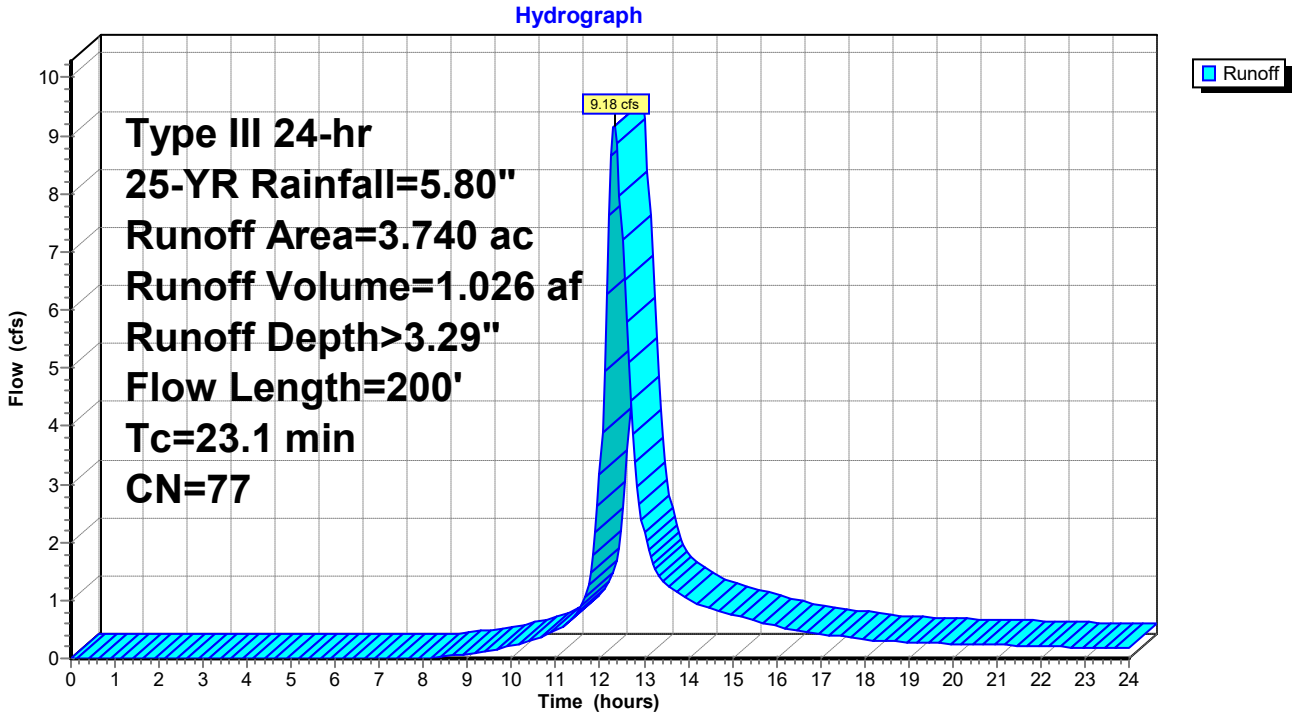
Runoff = 9.18 cfs @ 12.32 hrs, Volume= 1.026 af, Depth> 3.29"
Routed to Reach WAPA :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
2.030	70	Woods, Good, HSG C
0.190	71	Meadow, non-grazed, HSG C
0.730	79	50-75% Grass cover, Fair, HSG C
0.590	96	Gravel surface, HSG C
0.110	98	Paved parking, HSG C
0.090	98	Roofs, HSG C
3.740	77	Weighted Average
3.540		94.65% Pervious Area
0.200		5.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.8	125	0.1120	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
0.3	75	0.1860	4.85	48.53	**Parabolic Channel,** W=15.00' D=1.00' Area=10.0 sf Perim=15.2' n= 0.100 Earth, dense brush, high stage
23.1	200	Total			

Subcatchment 1:

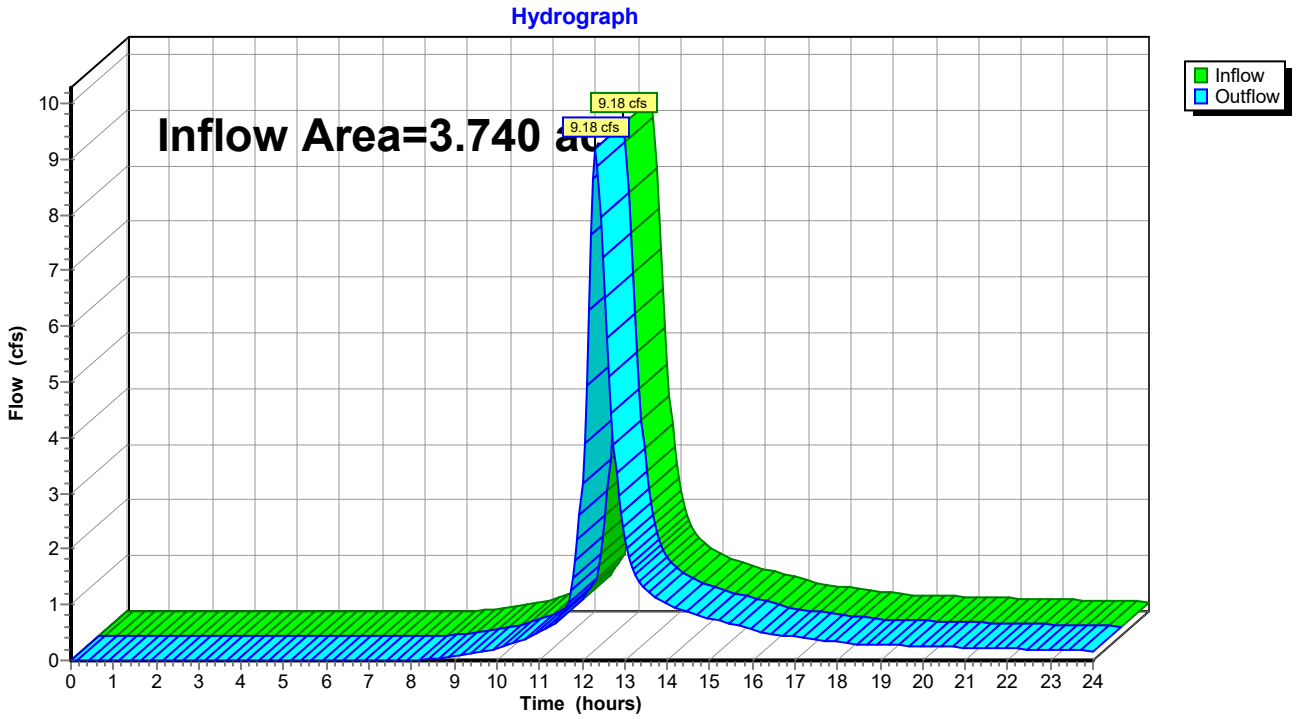


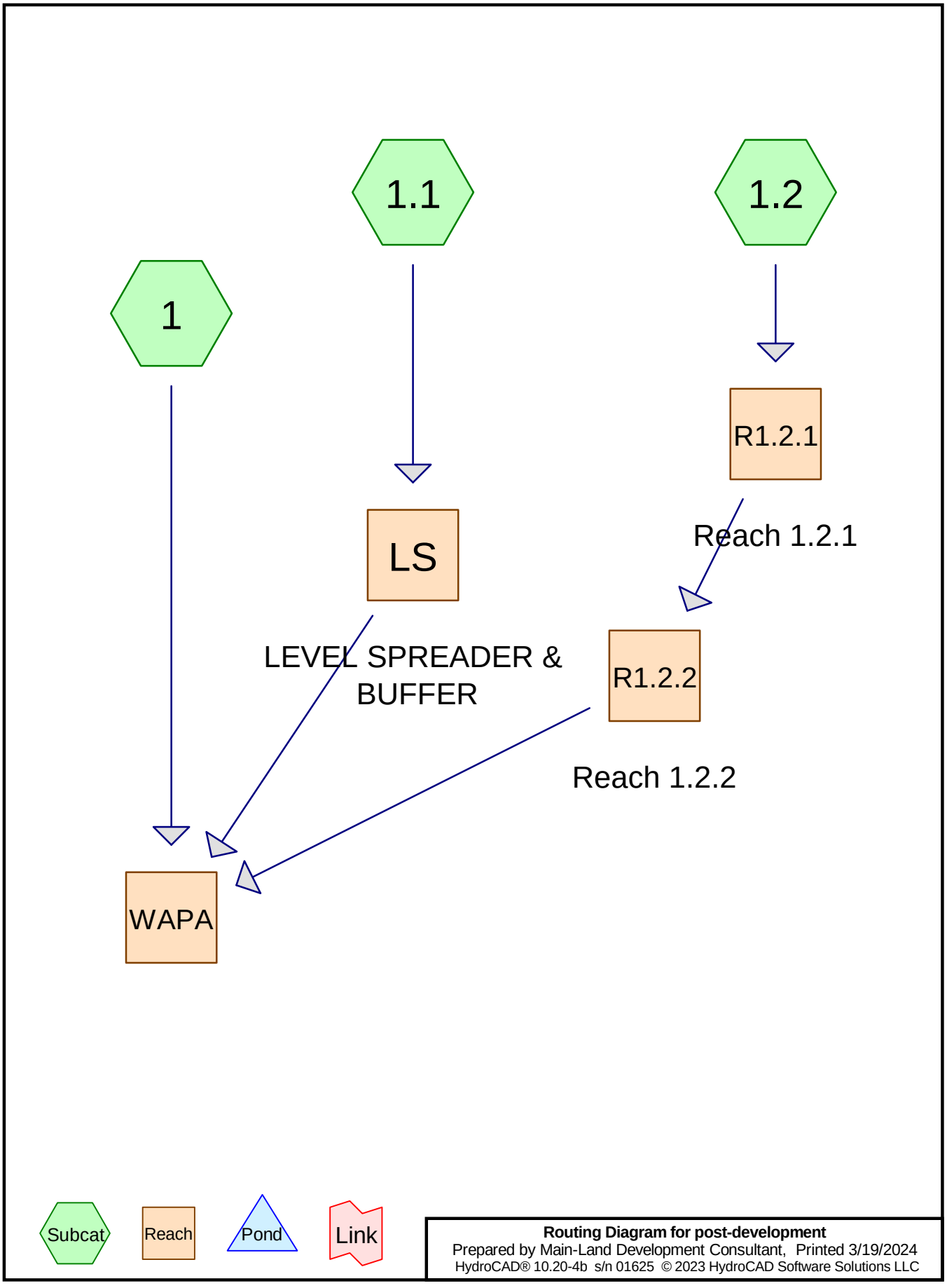
Summary for Reach WAPA:

Inflow Area = 3.740 ac, 5.35% Impervious, Inflow Depth > 3.29" for 25-YR event
Inflow = 9.18 cfs @ 12.32 hrs, Volume= 1.026 af
Outflow = 9.18 cfs @ 12.32 hrs, Volume= 1.026 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach WAPA:





Summary for Subcatchment 1:

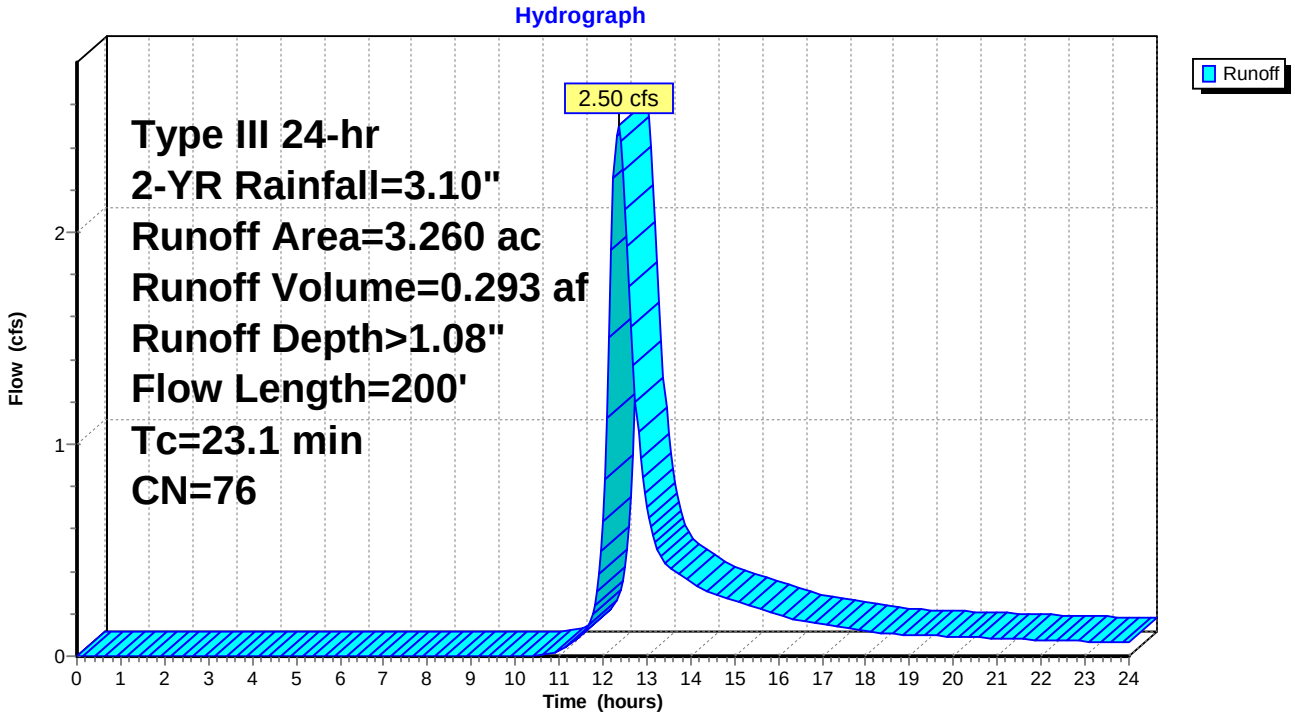
Runoff = 2.50 cfs @ 12.35 hrs, Volume= 0.293 af, Depth> 1.08"
Routed to Reach WAPA :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
1.930	70	Woods, Good, HSG C
0.190	71	Meadow, non-grazed, HSG C
0.620	79	50-75% Grass cover, Fair, HSG C
0.440	96	Gravel surface, HSG C
0.030	98	Paved parking, HSG C
0.050	98	Roofs, HSG C
3.260	76	Weighted Average
3.180		97.55% Pervious Area
0.080		2.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.8	125	0.1120	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
0.3	75	0.1860	4.85	48.53	**Parabolic Channel,** W=15.00' D=1.00' Area=10.0 sf Perim=15.2' n= 0.100 Earth, dense brush, high stage
23.1	200	Total			

Subcatchment 1:



Summary for Subcatchment 1.1:

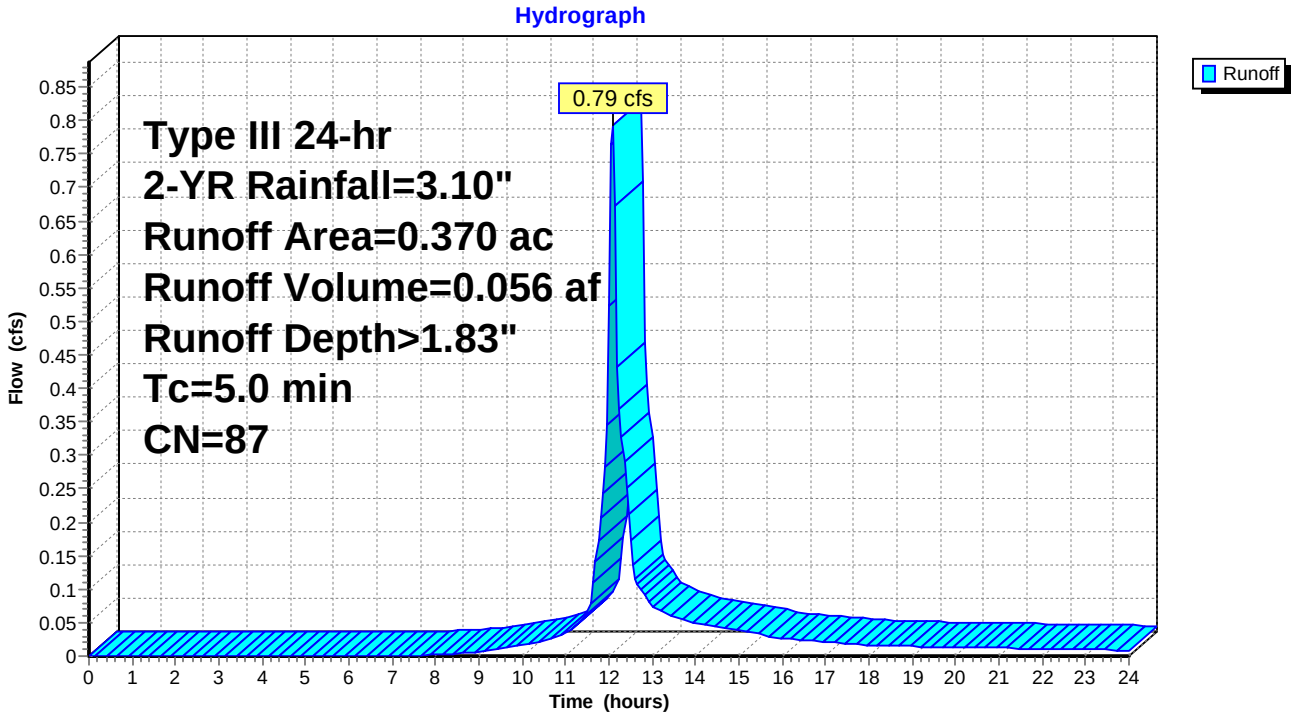
Runoff = 0.79 cfs @ 12.08 hrs, Volume= 0.056 af, Depth> 1.83"
Routed to Reach LS : LEVEL SPREADER & BUFFER

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.140	98	Roofs, HSG C
0.110	79	50-75% Grass cover, Fair, HSG C
0.070	70	Woods, Good, HSG C
0.050	96	Gravel surface, HSG C
0.370	87	Weighted Average
0.230		62.16% Pervious Area
0.140		37.84% Impervious Area

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

Subcatchment 1.1:



Summary for Subcatchment 1.2:

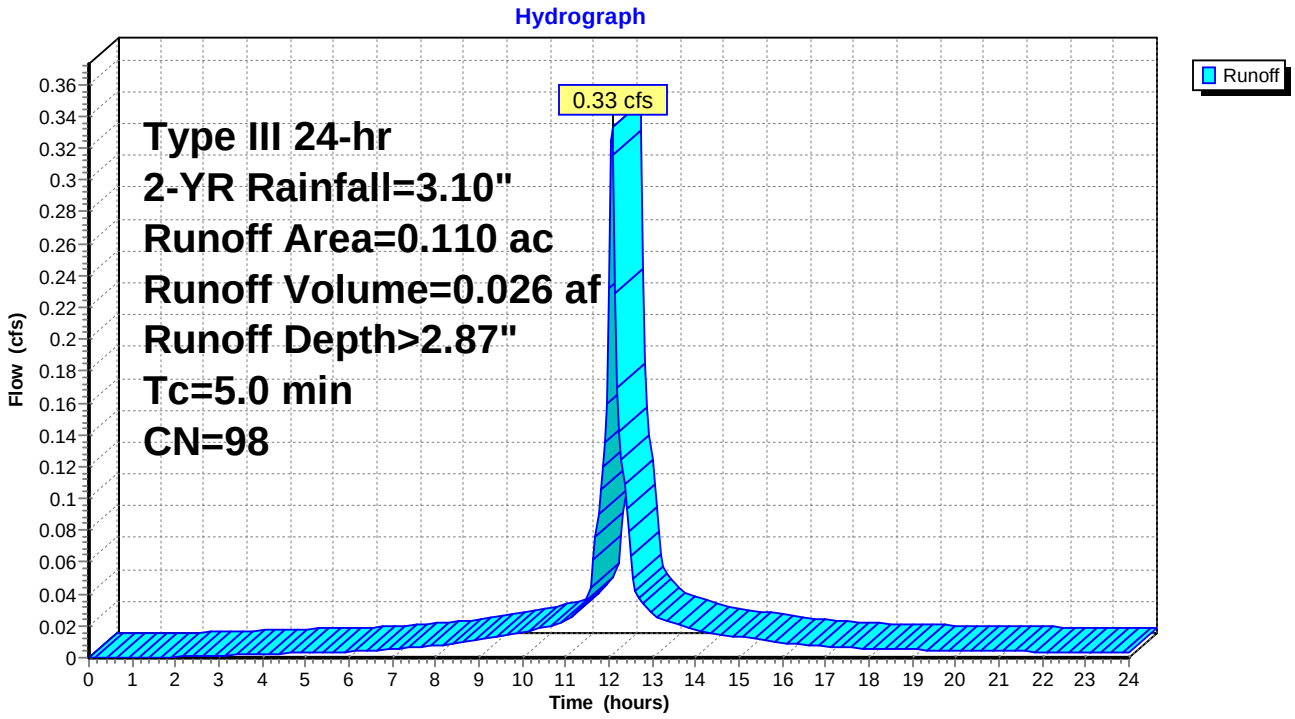
Runoff = 0.33 cfs @ 12.07 hrs, Volume= 0.026 af, Depth> 2.87"
Routed to Reach R1.2.1 : Reach 1.2.1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.110	98	Roofs, HSG C
0.110		100.00% Impervious Area

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

Subcatchment 1.2:



Summary for Reach LS: LEVEL SPREADER & BUFFER

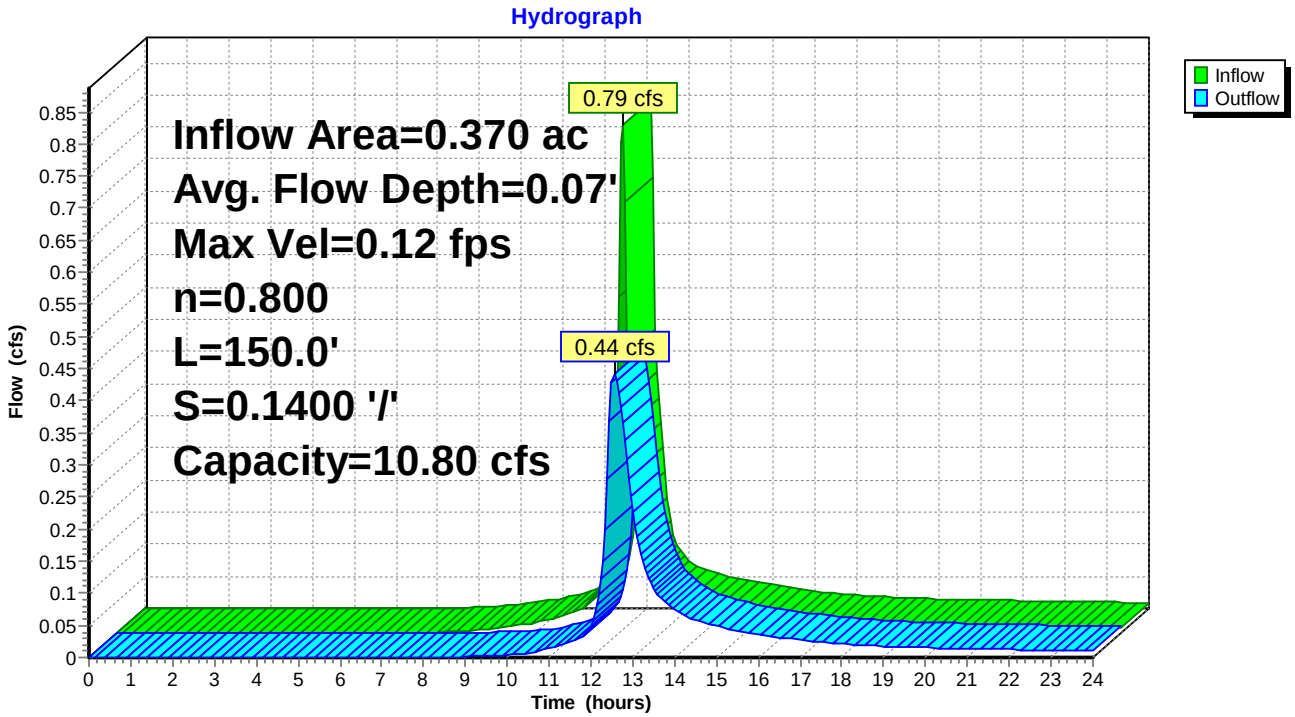
Inflow Area = 0.370 ac, 37.84% Impervious, Inflow Depth > 1.83" for 2-YR event
Inflow = 0.79 cfs @ 12.08 hrs, Volume= 0.056 af
Outflow = 0.44 cfs @ 12.55 hrs, Volume= 0.055 af, Atten= 44%, Lag= 28.6 min
Routed to Reach WAPA :

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.12 fps, Min. Travel Time= 20.6 min
Avg. Velocity = 0.04 fps, Avg. Travel Time= 63.5 min

Peak Storage= 548 cf @ 12.21 hrs
Average Depth at Peak Storage= 0.07' , Surface Width= 50.00'
Bank-Full Depth= 0.50' Flow Area= 25.0 sf, Capacity= 10.80 cfs

50.00' x 0.50' deep channel, n= 0.800 Sheet flow: Woods+dense brush
Length= 150.0' Slope= 0.1400 '/'
Inlet Invert= 167.00', Outlet Invert= 146.00'

Reach LS: LEVEL SPREADER & BUFFER



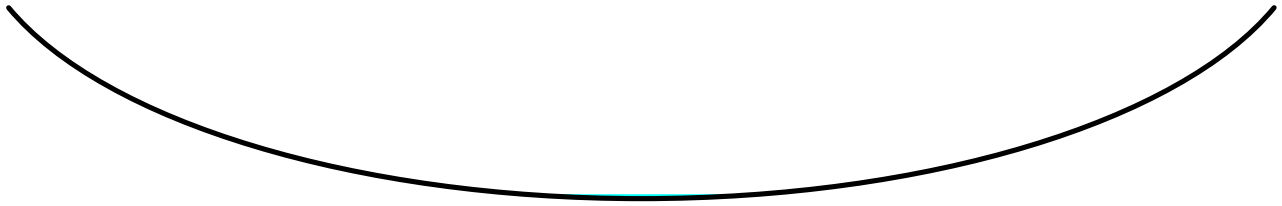
Summary for Reach R1.2.1: Reach 1.2.1

Inflow Area = 0.110 ac,100.00% Impervious, Inflow Depth > 2.87" for 2-YR event
Inflow = 0.33 cfs @ 12.07 hrs, Volume= 0.026 af
Outflow = 0.33 cfs @ 12.07 hrs, Volume= 0.026 af, Atten= 1%, Lag= 0.2 min
Routed to Reach R1.2.2 : Reach 1.2.2

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.62 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.10 fps, Avg. Travel Time= 0.2 min

Peak Storage= 2 cf @ 12.07 hrs
Average Depth at Peak Storage= 0.05' , Surface Width= 3.00'
Bank-Full Depth= 2.00' Flow Area= 26.7 sf, Capacity= 1,167.54 cfs

20.00' x 2.00' deep Parabolic Channel, n= 0.022 Earth, clean & straight
Length= 27.0' Slope= 0.2963 '/'
Inlet Invert= 178.00', Outlet Invert= 170.00'



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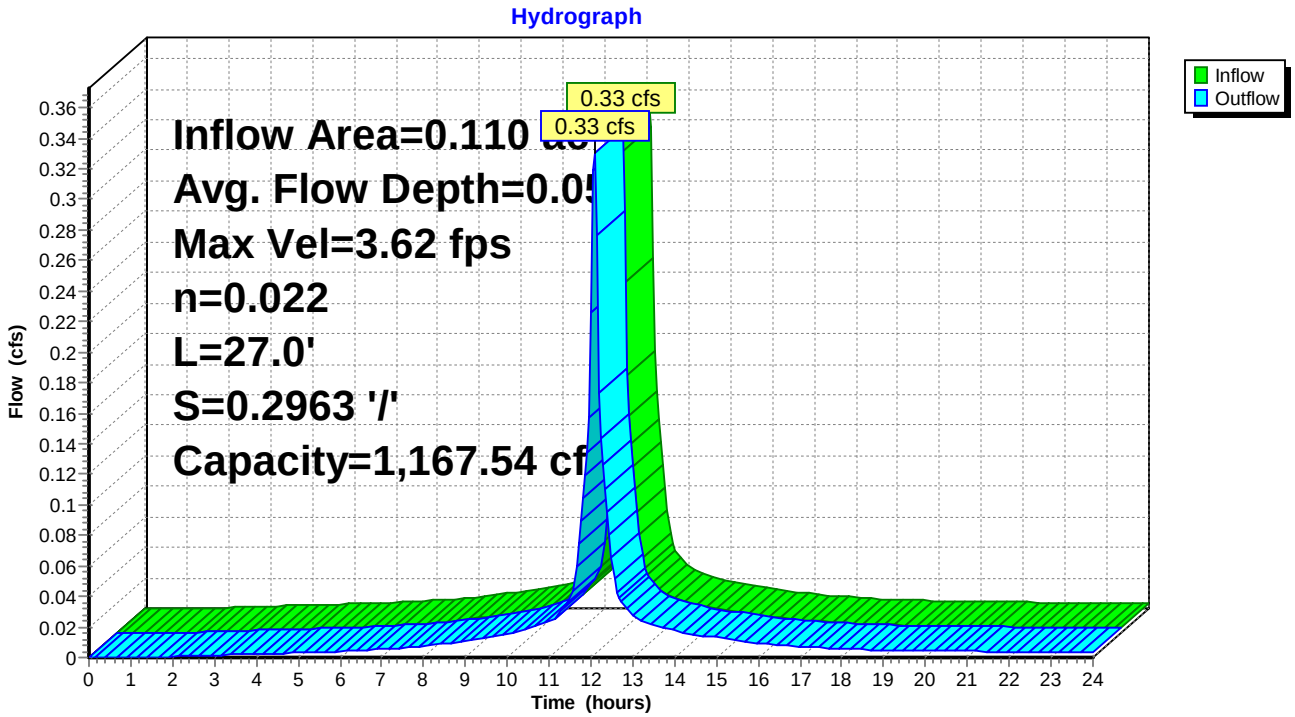
Reach R1.2.1: Reach 1.2.1



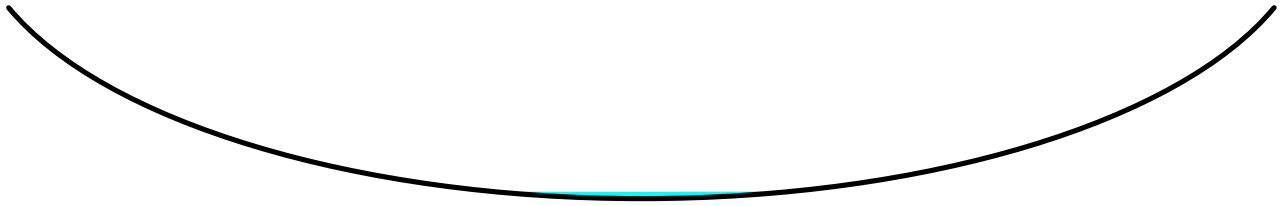
Summary for Reach R1.2.2: Reach 1.2.2

Inflow Area = 0.110 ac,100.00% Impervious, Inflow Depth > 2.87" for 2-YR event
Inflow = 0.33 cfs @ 12.07 hrs, Volume= 0.026 af
Outflow = 0.31 cfs @ 12.11 hrs, Volume= 0.026 af, Atten= 5%, Lag= 2.3 min
Routed to Reach WAPA :

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.25 fps, Min. Travel Time= 1.3 min
Avg. Velocity = 0.97 fps, Avg. Travel Time= 3.0 min

Peak Storage= 25 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.07' , Surface Width= 2.90'
Bank-Full Depth= 2.00' Flow Area= 20.0 sf, Capacity= 387.11 cfs

15.00' x 2.00' deep Parabolic Channel, n= 0.035 Earth, dense weeds
Length= 173.0' Slope= 0.1503 '/'
Inlet Invert= 170.00', Outlet Invert= 144.00'



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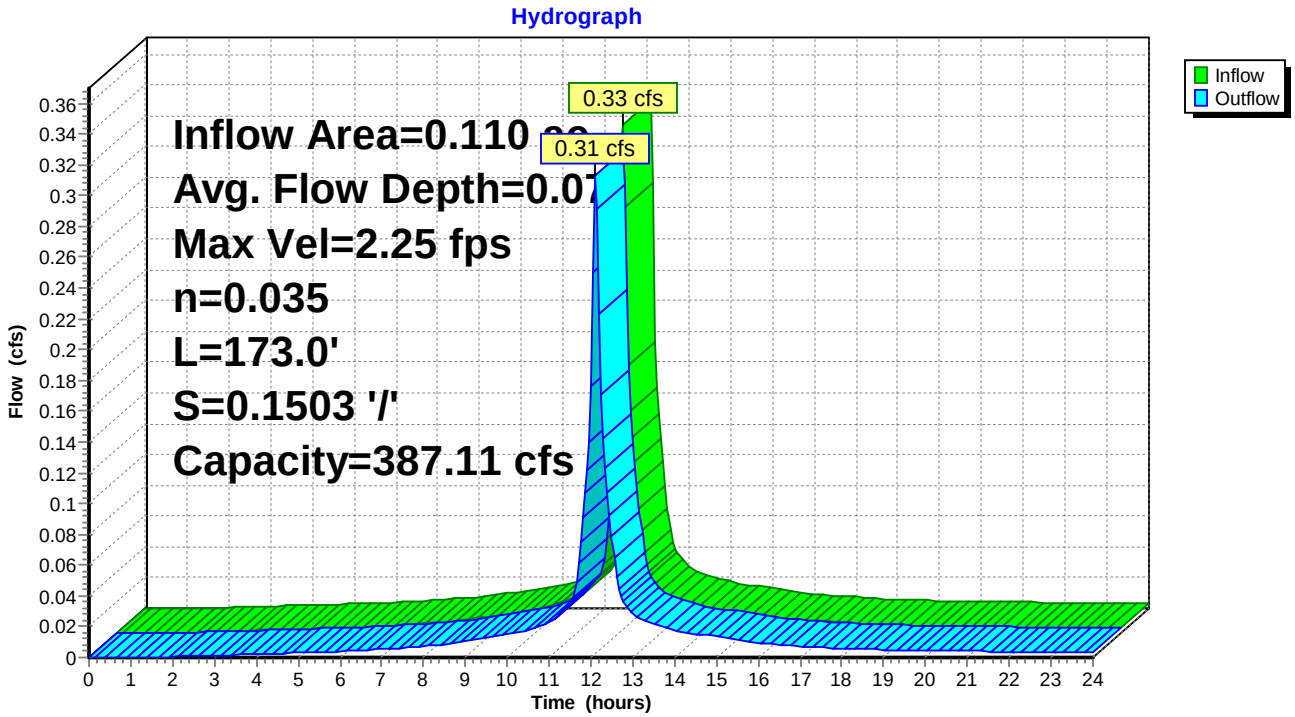
Reach R1.2.2: Reach 1.2.2

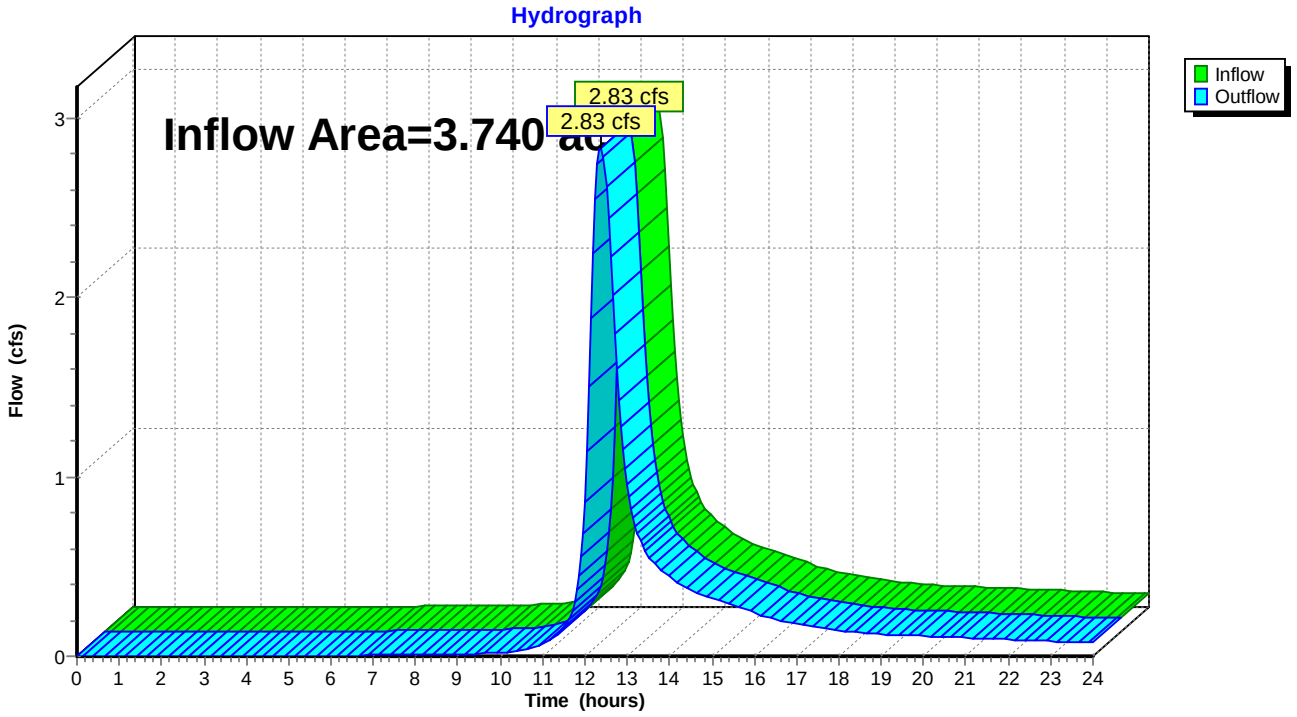


Summary for Reach WAPA:

Inflow Area = 3.740 ac, 8.82% Impervious, Inflow Depth > 1.20" for 2-YR event
Inflow = 2.83 cfs @ 12.37 hrs, Volume= 0.374 af
Outflow = 2.83 cfs @ 12.37 hrs, Volume= 0.374 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach WAPA:



Summary for Subcatchment 1:

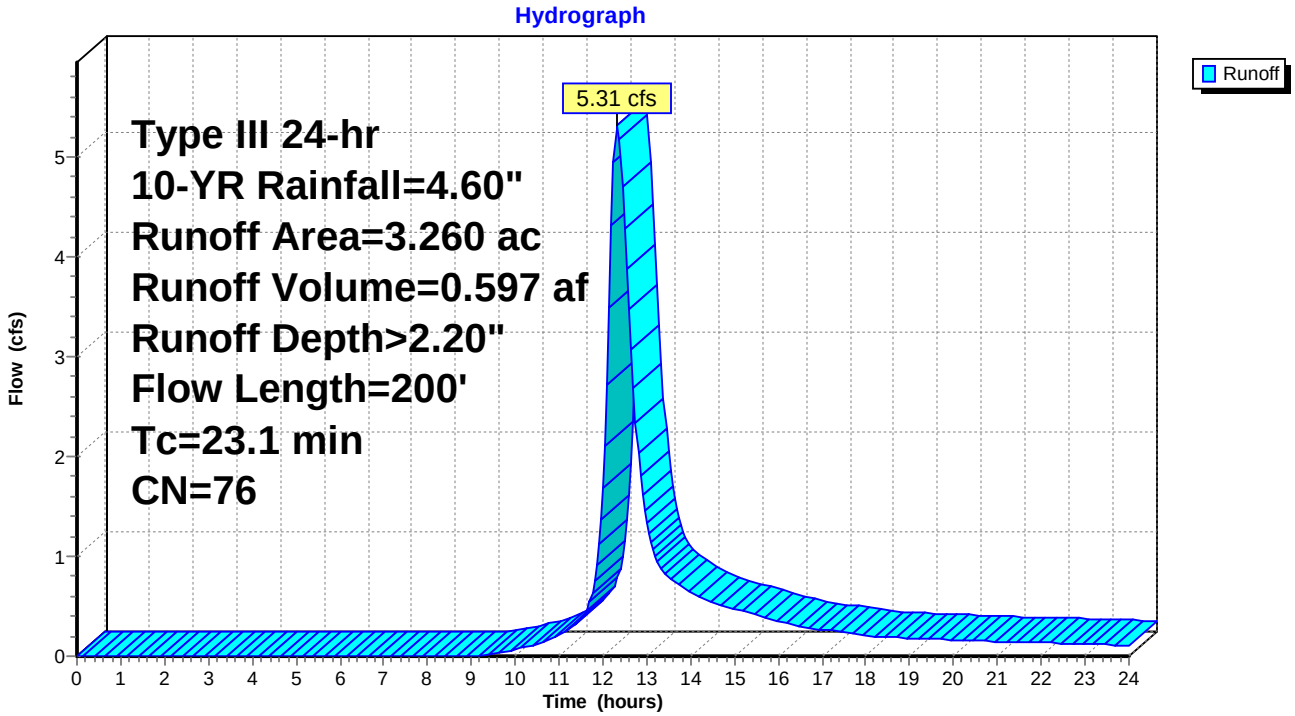
Runoff = 5.31 cfs @ 12.33 hrs, Volume= 0.597 af, Depth> 2.20"
Routed to Reach WAPA :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
1.930	70	Woods, Good, HSG C
0.190	71	Meadow, non-grazed, HSG C
0.620	79	50-75% Grass cover, Fair, HSG C
0.440	96	Gravel surface, HSG C
0.030	98	Paved parking, HSG C
0.050	98	Roofs, HSG C
3.260	76	Weighted Average
3.180		97.55% Pervious Area
0.080		2.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.8	125	0.1120	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
0.3	75	0.1860	4.85	48.53	**Parabolic Channel,** W=15.00' D=1.00' Area=10.0 sf Perim=15.2' n= 0.100 Earth, dense brush, high stage
23.1	200	Total			

Subcatchment 1:



Summary for Subcatchment 1.1:

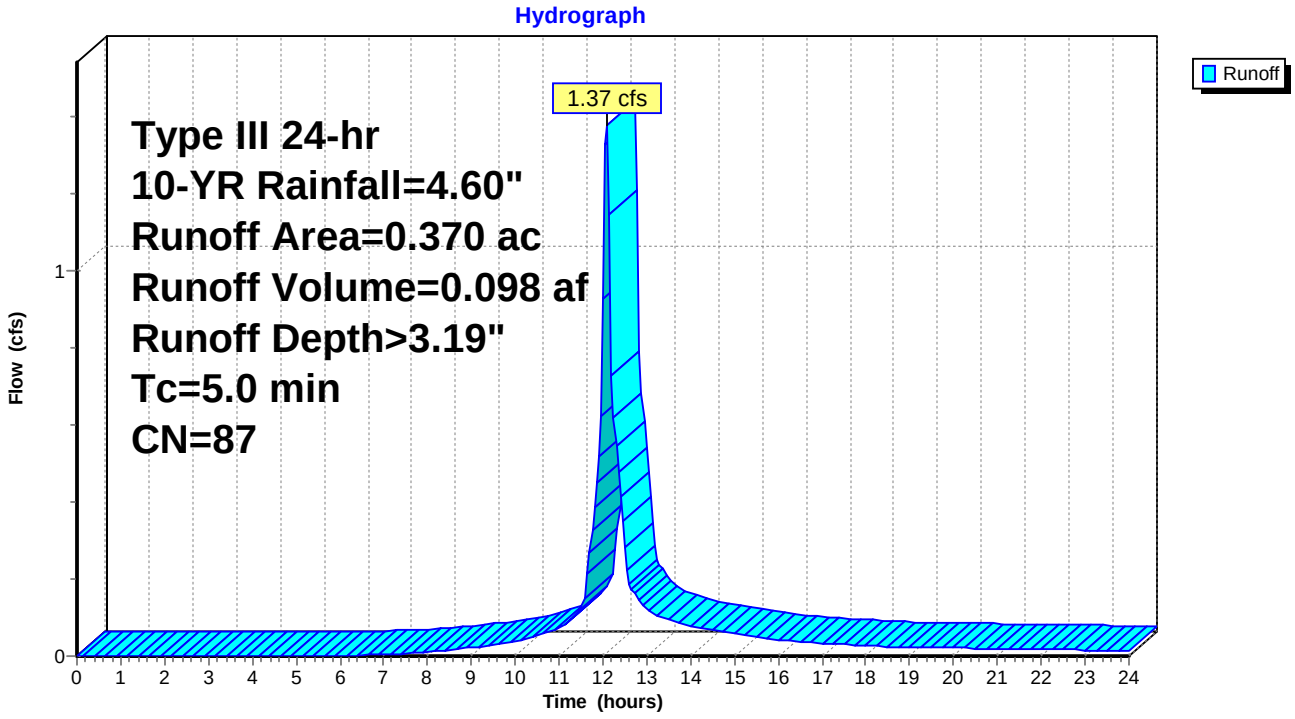
Runoff = 1.37 cfs @ 12.07 hrs, Volume= 0.098 af, Depth> 3.19"
Routed to Reach LS : LEVEL SPREADER & BUFFER

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.140	98	Roofs, HSG C
0.110	79	50-75% Grass cover, Fair, HSG C
0.070	70	Woods, Good, HSG C
0.050	96	Gravel surface, HSG C
0.370	87	Weighted Average
0.230		62.16% Pervious Area
0.140		37.84% Impervious Area

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

Subcatchment 1.1:



Summary for Subcatchment 1.2:

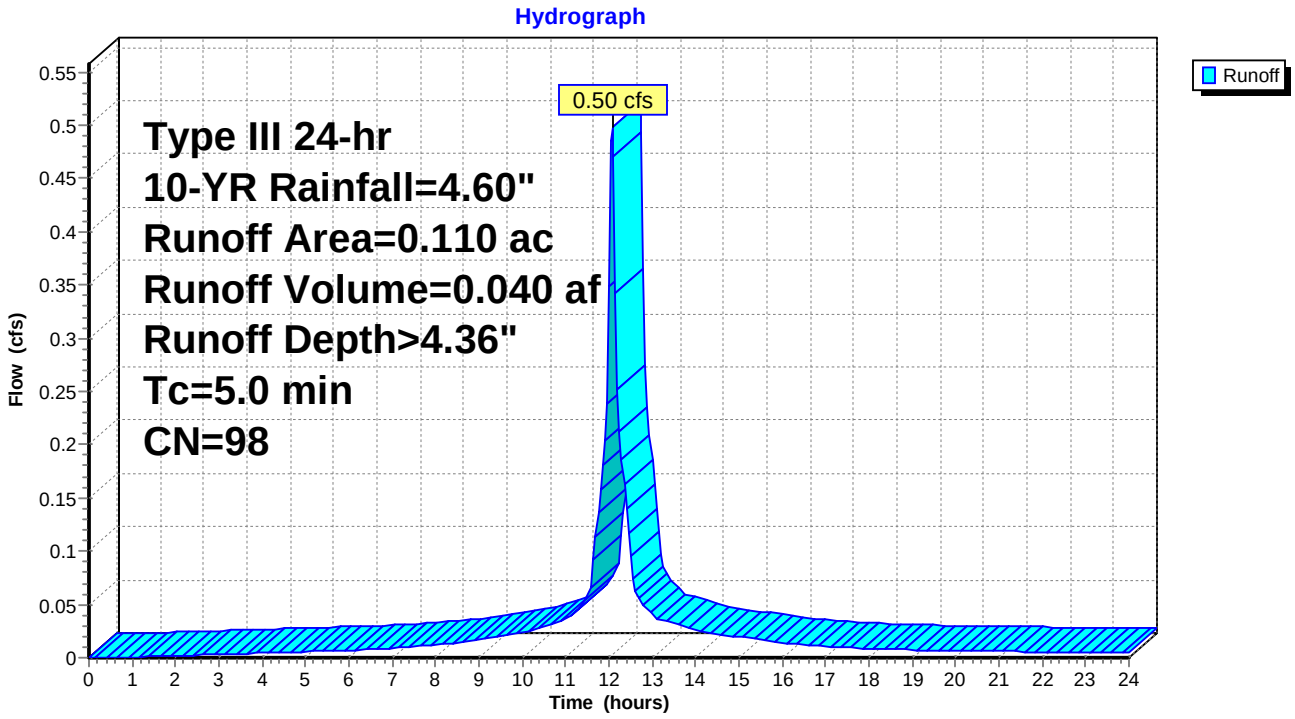
Runoff = 0.50 cfs @ 12.07 hrs, Volume= 0.040 af, Depth> 4.36"
Routed to Reach R1.2.1 : Reach 1.2.1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.110	98	Roofs, HSG C
0.110		100.00% Impervious Area

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

Subcatchment 1.2:



Summary for Reach LS: LEVEL SPREADER & BUFFER

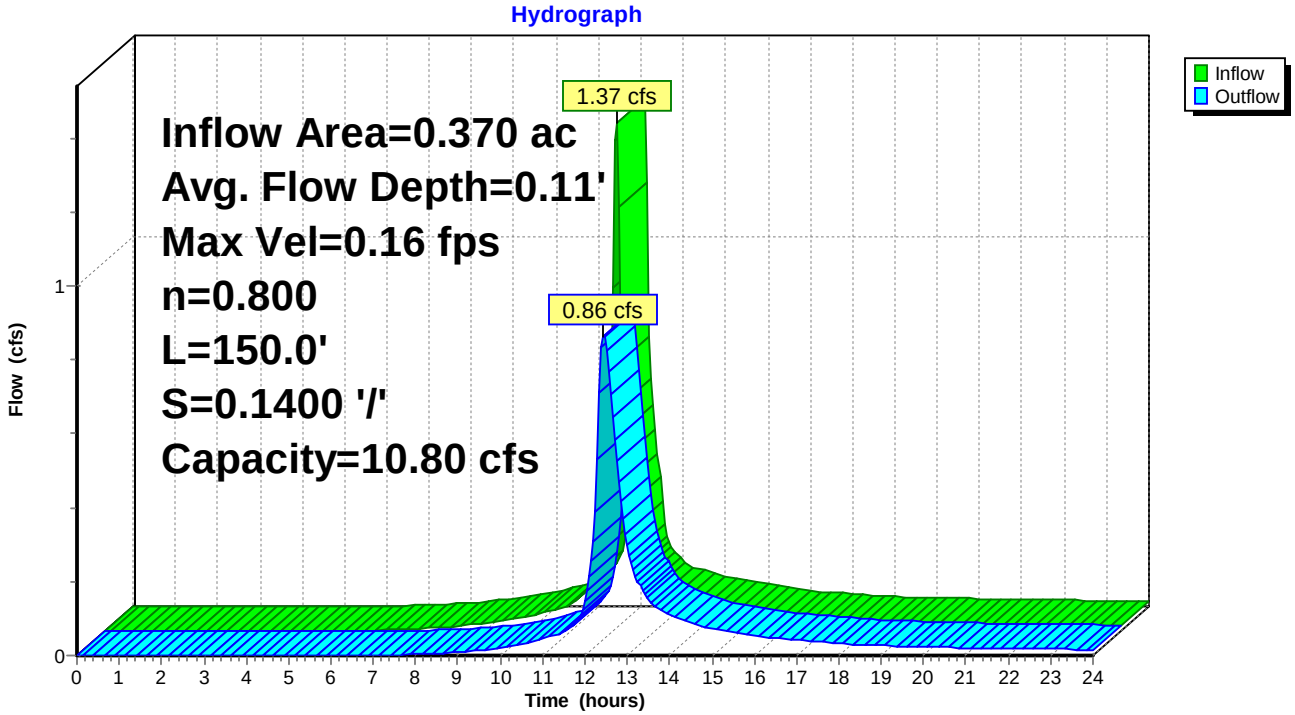
Inflow Area = 0.370 ac, 37.84% Impervious, Inflow Depth > 3.19" for 10-YR event
Inflow = 1.37 cfs @ 12.07 hrs, Volume= 0.098 af
Outflow = 0.86 cfs @ 12.44 hrs, Volume= 0.096 af, Atten= 37%, Lag= 22.3 min
Routed to Reach WAPA :

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.16 fps, Min. Travel Time= 15.8 min
Avg. Velocity = 0.05 fps, Avg. Travel Time= 54.3 min

Peak Storage= 825 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.11' , Surface Width= 50.00'
Bank-Full Depth= 0.50' Flow Area= 25.0 sf, Capacity= 10.80 cfs

50.00' x 0.50' deep channel, n= 0.800 Sheet flow: Woods+dense brush
Length= 150.0' Slope= 0.1400 '/'
Inlet Invert= 167.00', Outlet Invert= 146.00'

Reach LS: LEVEL SPREADER & BUFFER



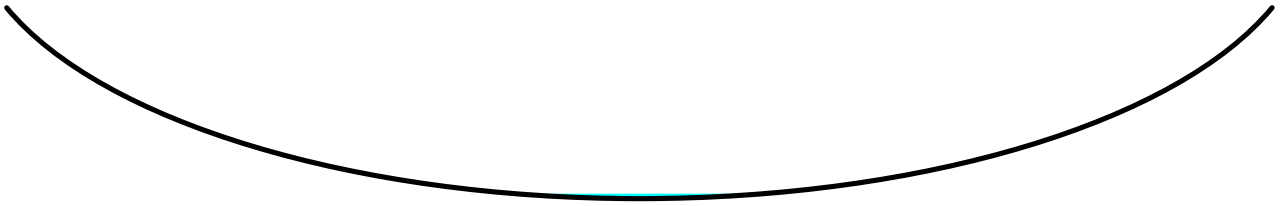
Summary for Reach R1.2.1: Reach 1.2.1

Inflow Area = 0.110 ac,100.00% Impervious, Inflow Depth > 4.36" for 10-YR event
Inflow = 0.50 cfs @ 12.07 hrs, Volume= 0.040 af
Outflow = 0.49 cfs @ 12.07 hrs, Volume= 0.040 af, Atten= 1%, Lag= 0.2 min
Routed to Reach R1.2.2 : Reach 1.2.2

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.09 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.11 fps, Avg. Travel Time= 0.2 min

Peak Storage= 3 cf @ 12.07 hrs
Average Depth at Peak Storage= 0.05' , Surface Width= 3.30'
Bank-Full Depth= 2.00' Flow Area= 26.7 sf, Capacity= 1,167.54 cfs

20.00' x 2.00' deep Parabolic Channel, n= 0.022 Earth, clean & straight
Length= 27.0' Slope= 0.2963 '/'
Inlet Invert= 178.00', Outlet Invert= 170.00'



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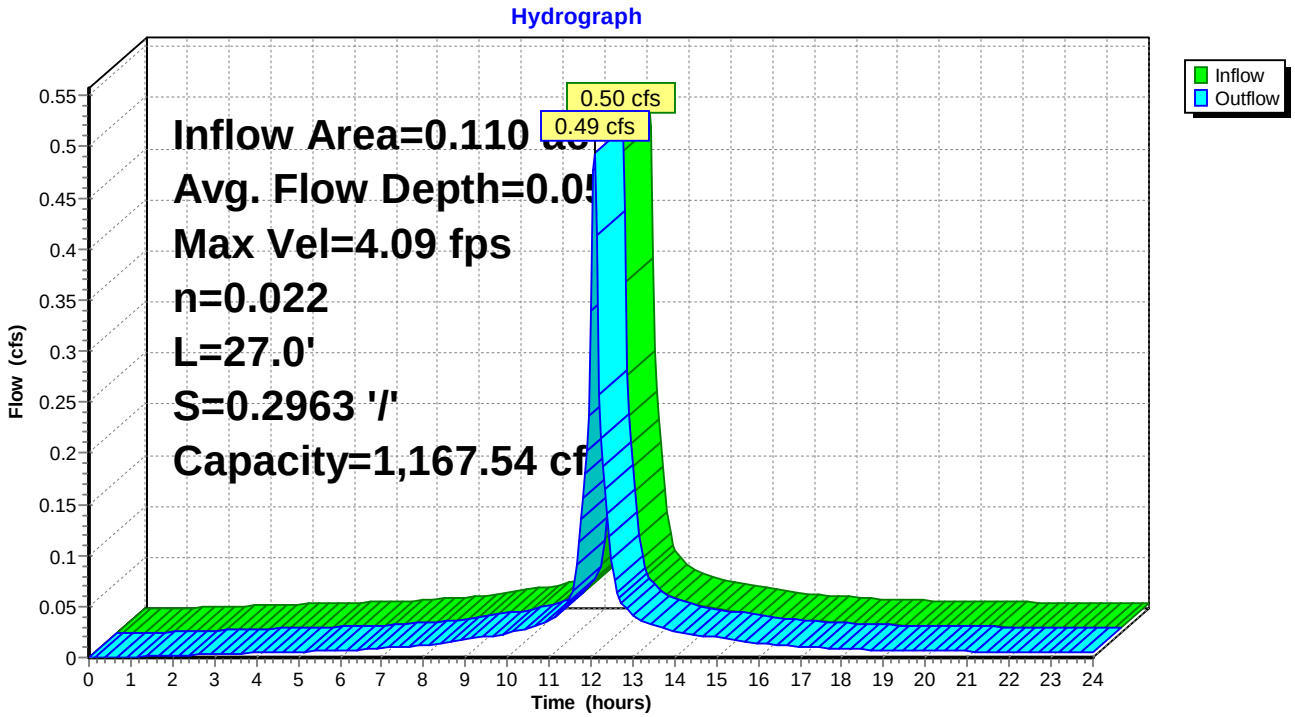
Reach R1.2.1: Reach 1.2.1



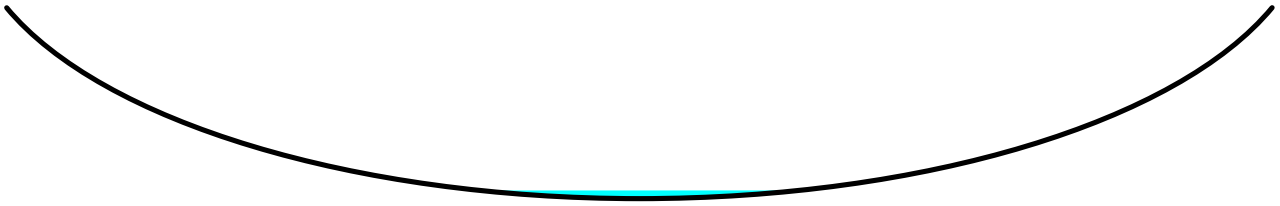
Summary for Reach R1.2.2: Reach 1.2.2

Inflow Area = 0.110 ac,100.00% Impervious, Inflow Depth > 4.36" for 10-YR event
Inflow = 0.49 cfs @ 12.07 hrs, Volume= 0.040 af
Outflow = 0.47 cfs @ 12.11 hrs, Volume= 0.040 af, Atten= 5%, Lag= 2.0 min
Routed to Reach WAPA :

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.55 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.01 fps, Avg. Travel Time= 2.9 min

Peak Storage= 33 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.09' , Surface Width= 3.18'
Bank-Full Depth= 2.00' Flow Area= 20.0 sf, Capacity= 387.11 cfs

15.00' x 2.00' deep Parabolic Channel, n= 0.035 Earth, dense weeds
Length= 173.0' Slope= 0.1503 '/'
Inlet Invert= 170.00', Outlet Invert= 144.00'



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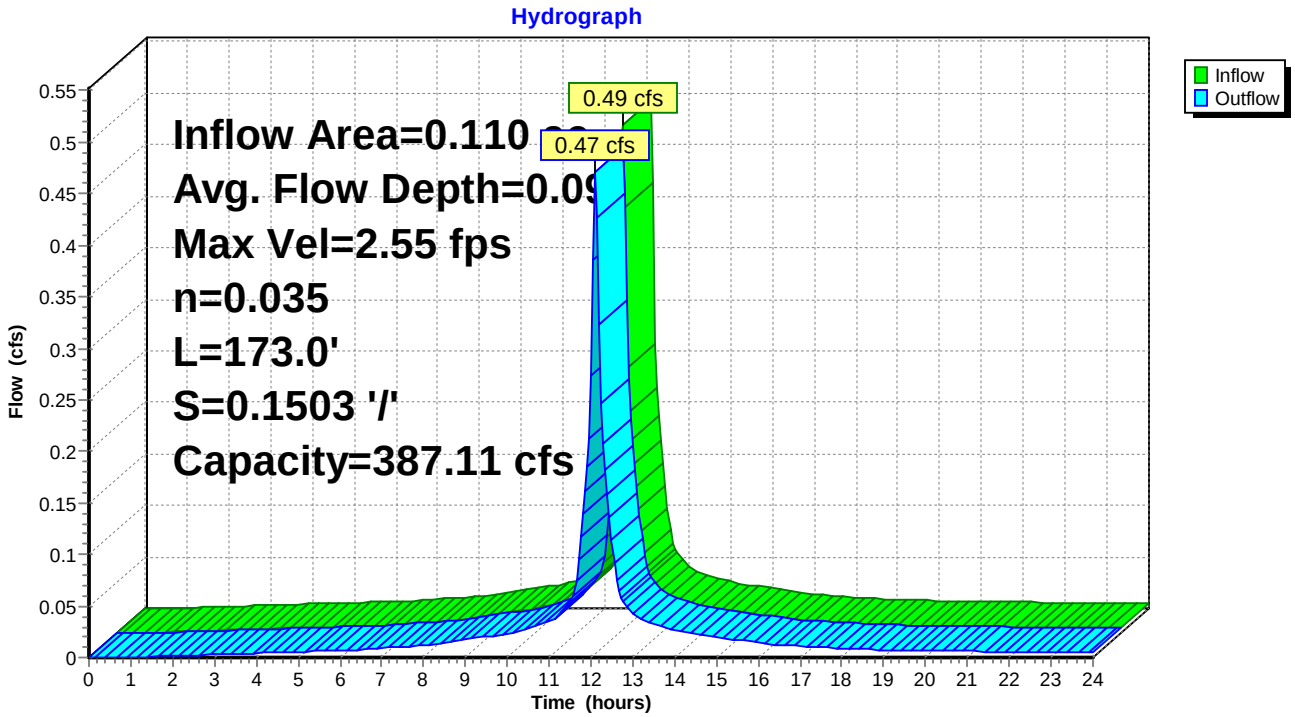
Reach R1.2.2: Reach 1.2.2

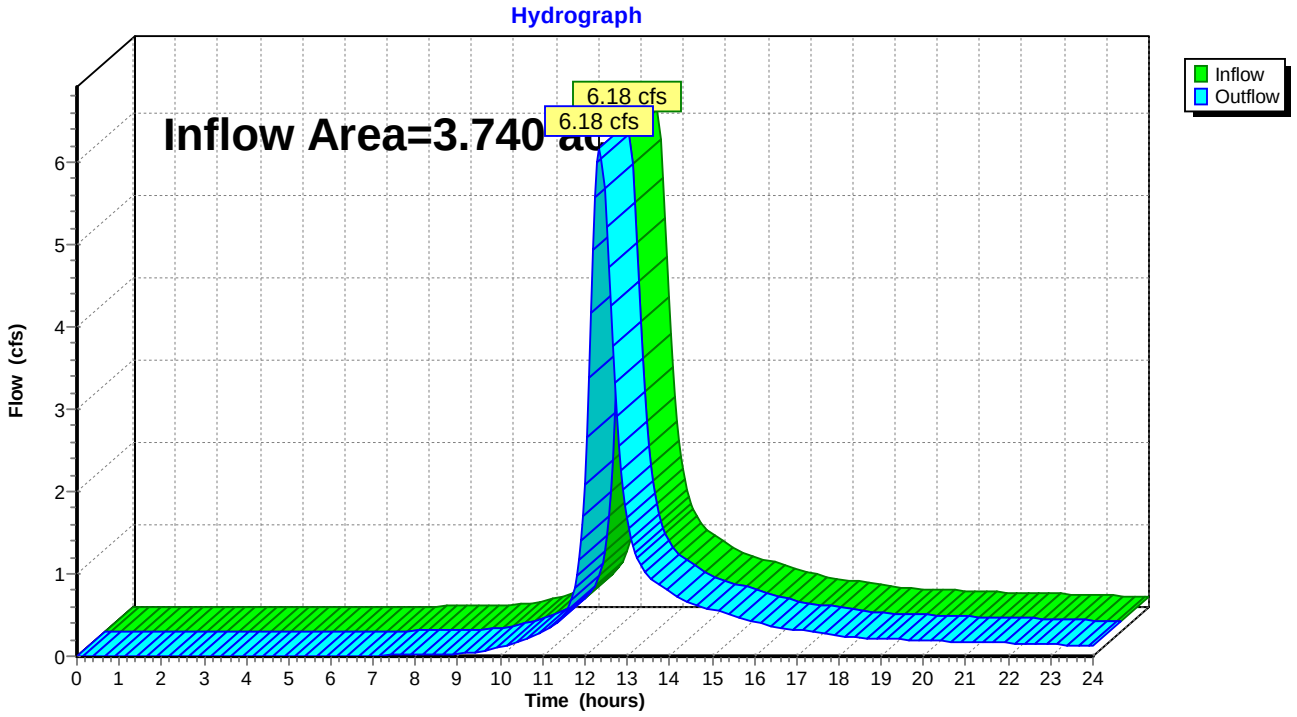


Summary for Reach WAPA:

Inflow Area = 3.740 ac, 8.82% Impervious, Inflow Depth > 2.35" for 10-YR event
Inflow = 6.18 cfs @ 12.35 hrs, Volume= 0.734 af
Outflow = 6.18 cfs @ 12.35 hrs, Volume= 0.734 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach WAPA:



Summary for Subcatchment 1:

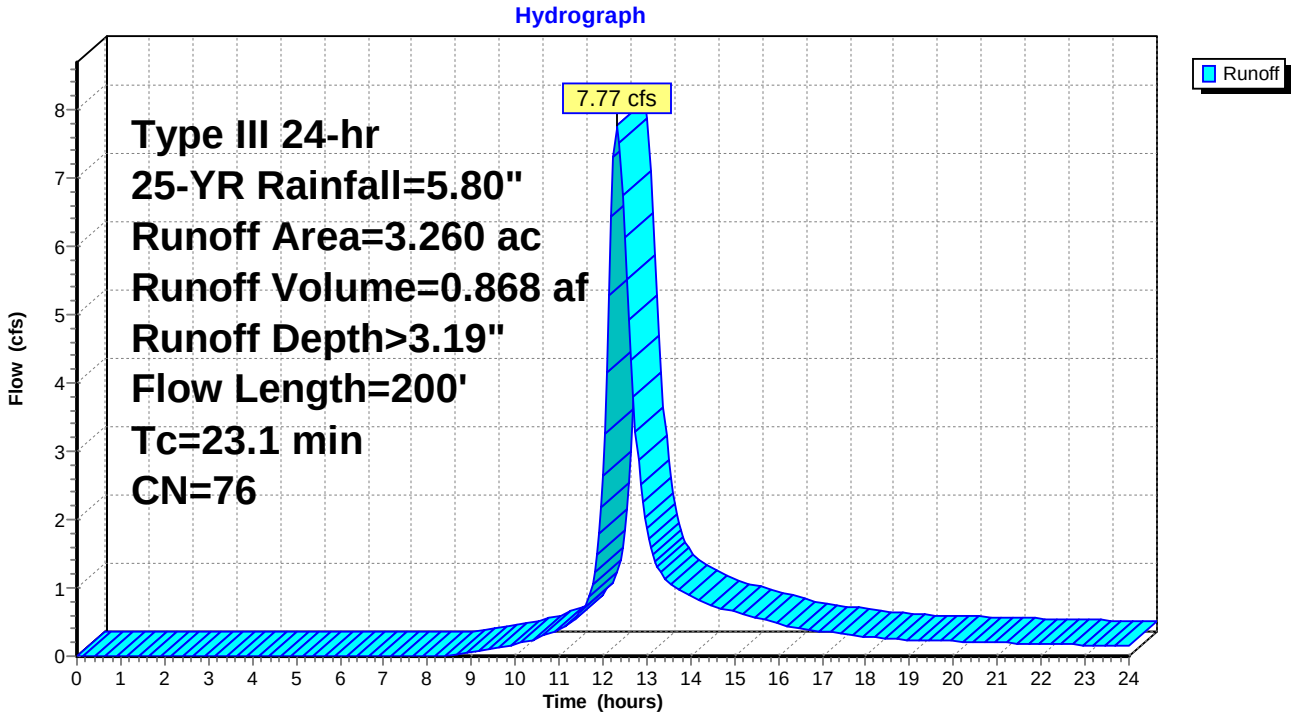
Runoff = 7.77 cfs @ 12.32 hrs, Volume= 0.868 af, Depth> 3.19"
Routed to Reach WAPA :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
1.930	70	Woods, Good, HSG C
0.190	71	Meadow, non-grazed, HSG C
0.620	79	50-75% Grass cover, Fair, HSG C
0.440	96	Gravel surface, HSG C
0.030	98	Paved parking, HSG C
0.050	98	Roofs, HSG C
3.260	76	Weighted Average
3.180		97.55% Pervious Area
0.080		2.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.8	125	0.1120	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
0.3	75	0.1860	4.85	48.53	**Parabolic Channel,** W=15.00' D=1.00' Area=10.0 sf Perim=15.2' n= 0.100 Earth, dense brush, high stage
23.1	200	Total			

Subcatchment 1:



Summary for Subcatchment 1.1:

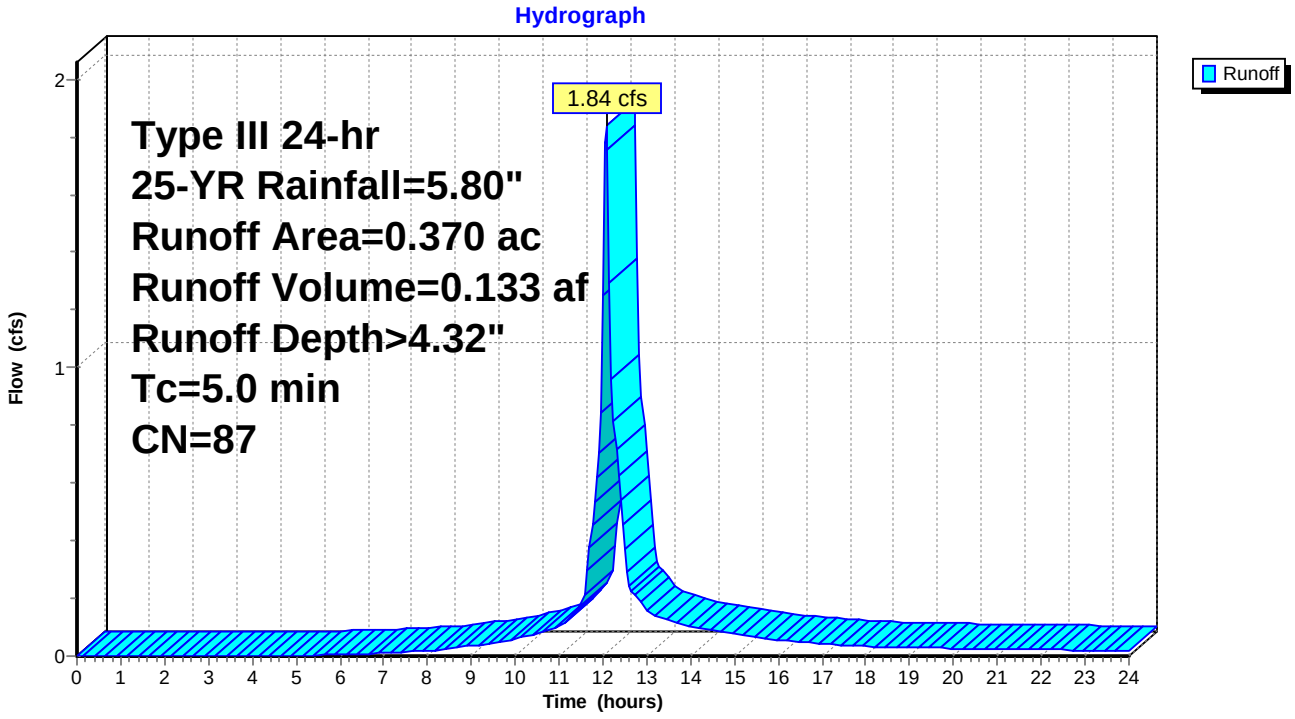
Runoff = 1.84 cfs @ 12.07 hrs, Volume= 0.133 af, Depth> 4.32"
Routed to Reach LS : LEVEL SPREADER & BUFFER

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.140	98	Roofs, HSG C
0.110	79	50-75% Grass cover, Fair, HSG C
0.070	70	Woods, Good, HSG C
0.050	96	Gravel surface, HSG C
0.370	87	Weighted Average
0.230		62.16% Pervious Area
0.140		37.84% Impervious Area

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

Subcatchment 1.1:



Summary for Subcatchment 1.2:

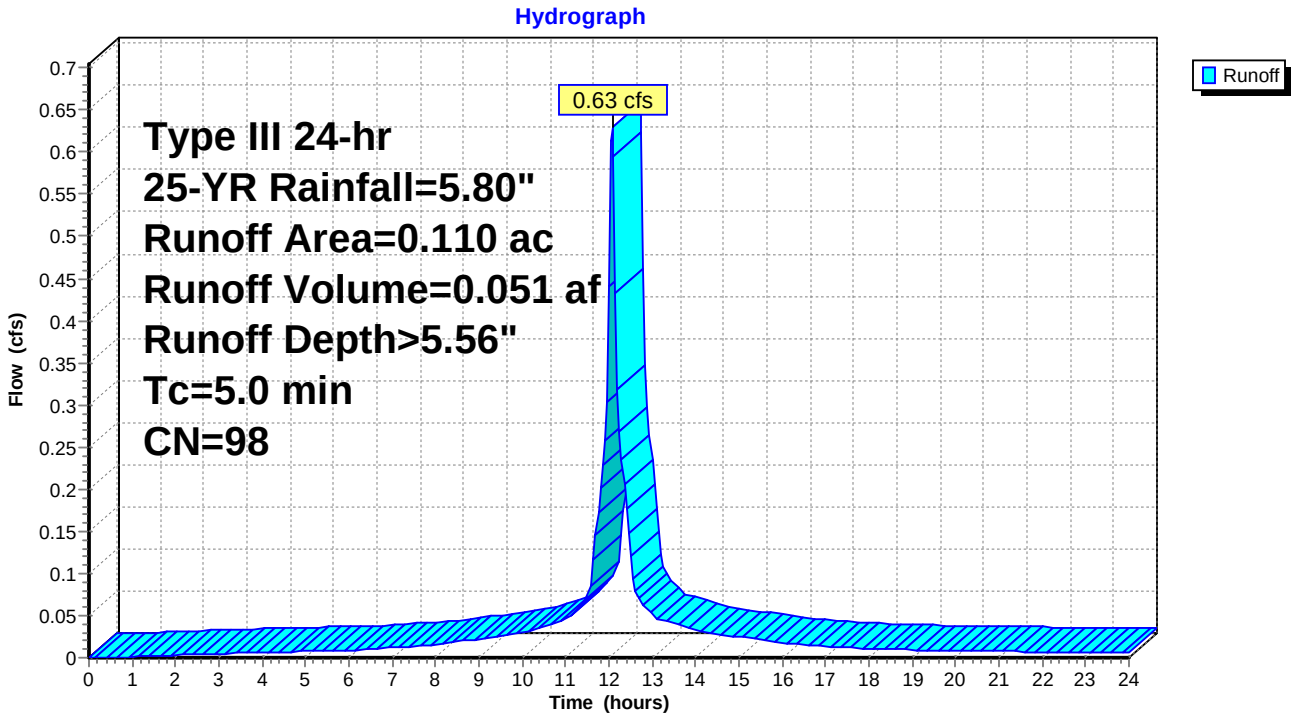
Runoff = 0.63 cfs @ 12.07 hrs, Volume= 0.051 af, Depth> 5.56"
Routed to Reach R1.2.1 : Reach 1.2.1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.110	98	Roofs, HSG C
0.110		100.00% Impervious Area

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

Subcatchment 1.2:



Summary for Reach LS: LEVEL SPREADER & BUFFER

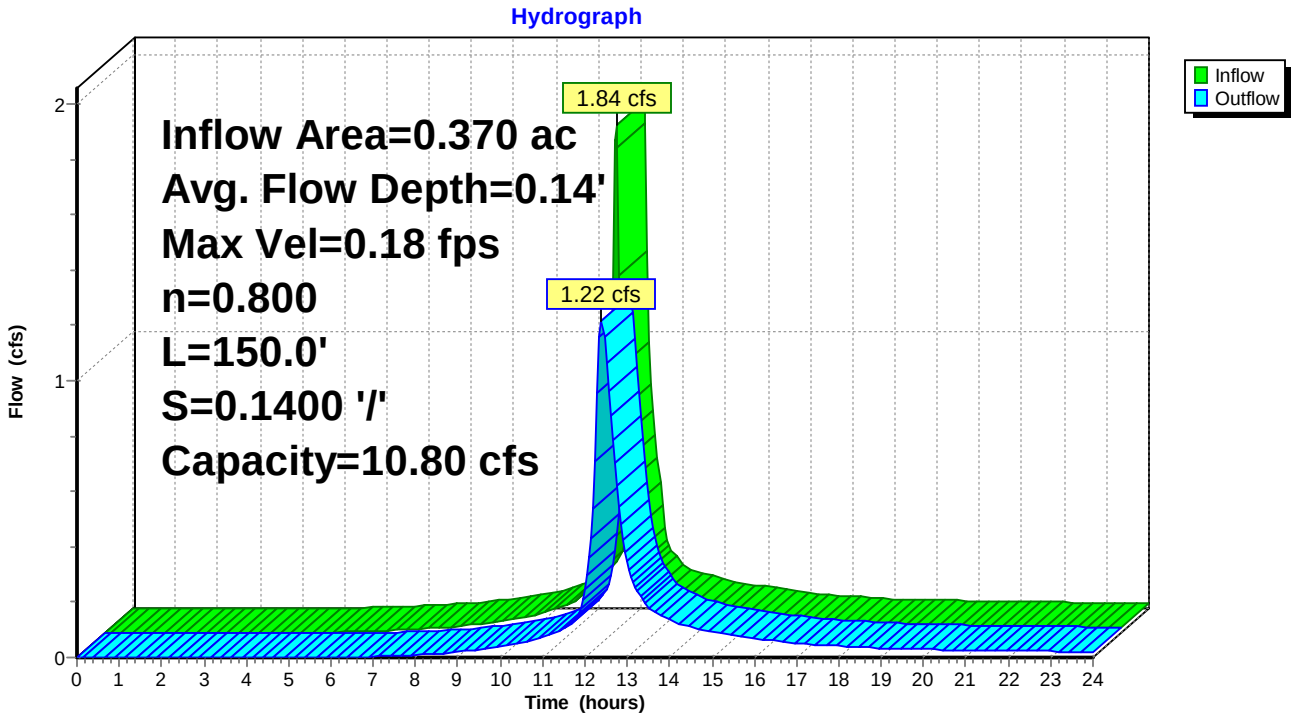
Inflow Area = 0.370 ac, 37.84% Impervious, Inflow Depth > 4.32" for 25-YR event
Inflow = 1.84 cfs @ 12.07 hrs, Volume= 0.133 af
Outflow = 1.22 cfs @ 12.40 hrs, Volume= 0.131 af, Atten= 34%, Lag= 19.6 min
Routed to Reach WAPA :

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.18 fps, Min. Travel Time= 13.7 min
Avg. Velocity = 0.05 fps, Avg. Travel Time= 49.6 min

Peak Storage= 1,017 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.14' , Surface Width= 50.00'
Bank-Full Depth= 0.50' Flow Area= 25.0 sf, Capacity= 10.80 cfs

50.00' x 0.50' deep channel, n= 0.800 Sheet flow: Woods+dense brush
Length= 150.0' Slope= 0.1400 '/'
Inlet Invert= 167.00', Outlet Invert= 146.00'

Reach LS: LEVEL SPREADER & BUFFER



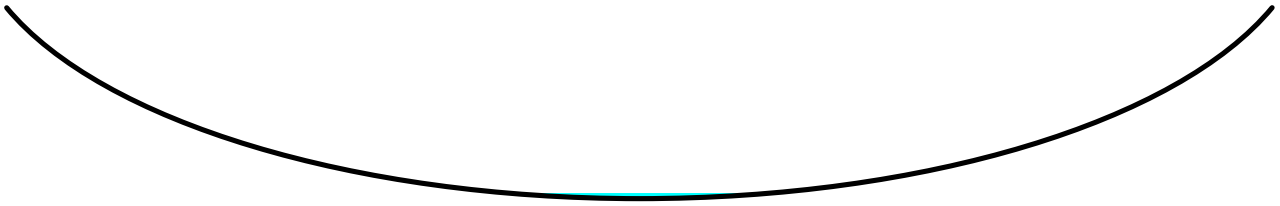
Summary for Reach R1.2.1: Reach 1.2.1

Inflow Area = 0.110 ac,100.00% Impervious, Inflow Depth > 5.56" for 25-YR event
Inflow = 0.63 cfs @ 12.07 hrs, Volume= 0.051 af
Outflow = 0.62 cfs @ 12.07 hrs, Volume= 0.051 af, Atten= 1%, Lag= 0.2 min
Routed to Reach R1.2.2 : Reach 1.2.2

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.34 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.13 fps, Avg. Travel Time= 0.2 min

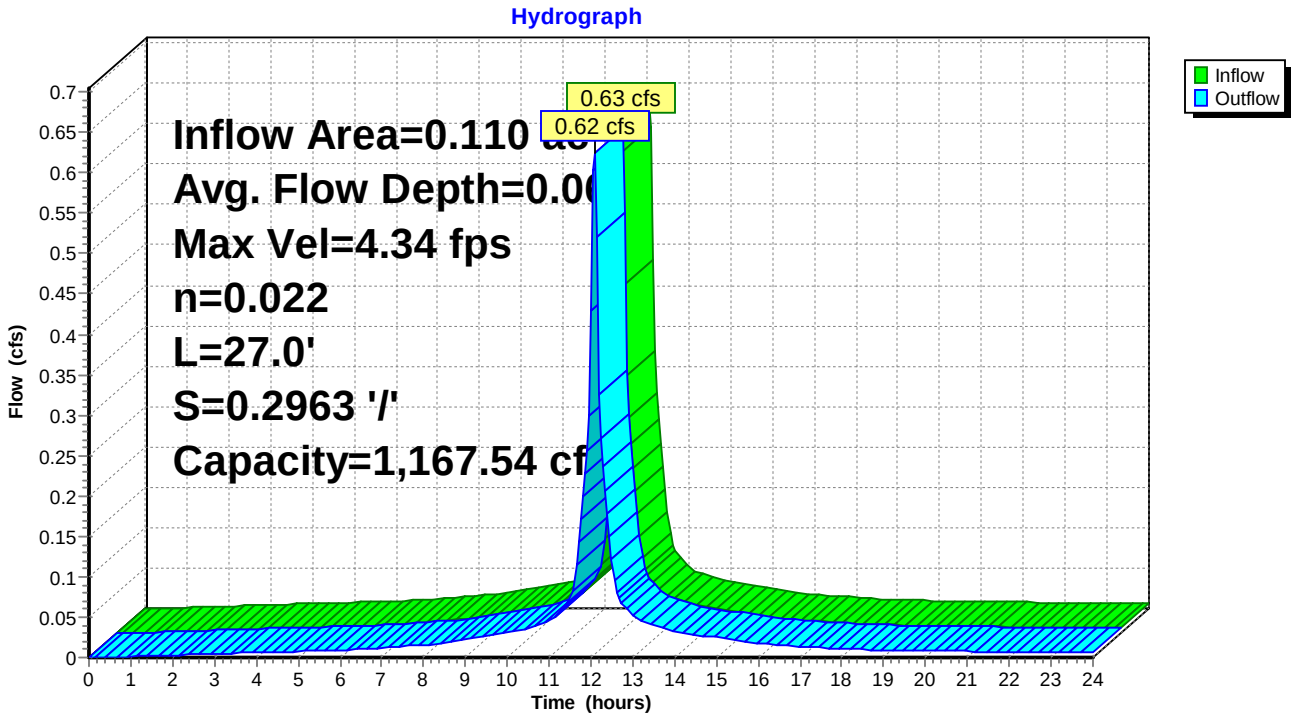
Peak Storage= 4 cf @ 12.07 hrs
Average Depth at Peak Storage= 0.06' , Surface Width= 3.51'
Bank-Full Depth= 2.00' Flow Area= 26.7 sf, Capacity= 1,167.54 cfs

20.00' x 2.00' deep Parabolic Channel, n= 0.022 Earth, clean & straight
Length= 27.0' Slope= 0.2963 '/'
Inlet Invert= 178.00', Outlet Invert= 170.00'



‡

Reach R1.2.1: Reach 1.2.1



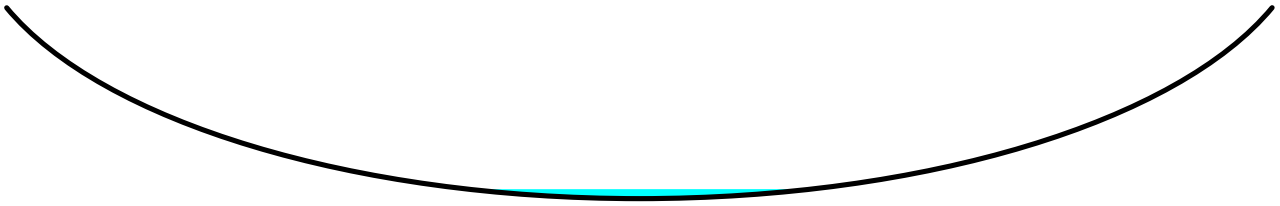
Summary for Reach R1.2.2: Reach 1.2.2

Inflow Area = 0.110 ac,100.00% Impervious, Inflow Depth > 5.56" for 25-YR event
Inflow = 0.62 cfs @ 12.07 hrs, Volume= 0.051 af
Outflow = 0.60 cfs @ 12.11 hrs, Volume= 0.051 af, Atten= 4%, Lag= 1.9 min
Routed to Reach WAPA :

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.72 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 1.04 fps, Avg. Travel Time= 2.8 min

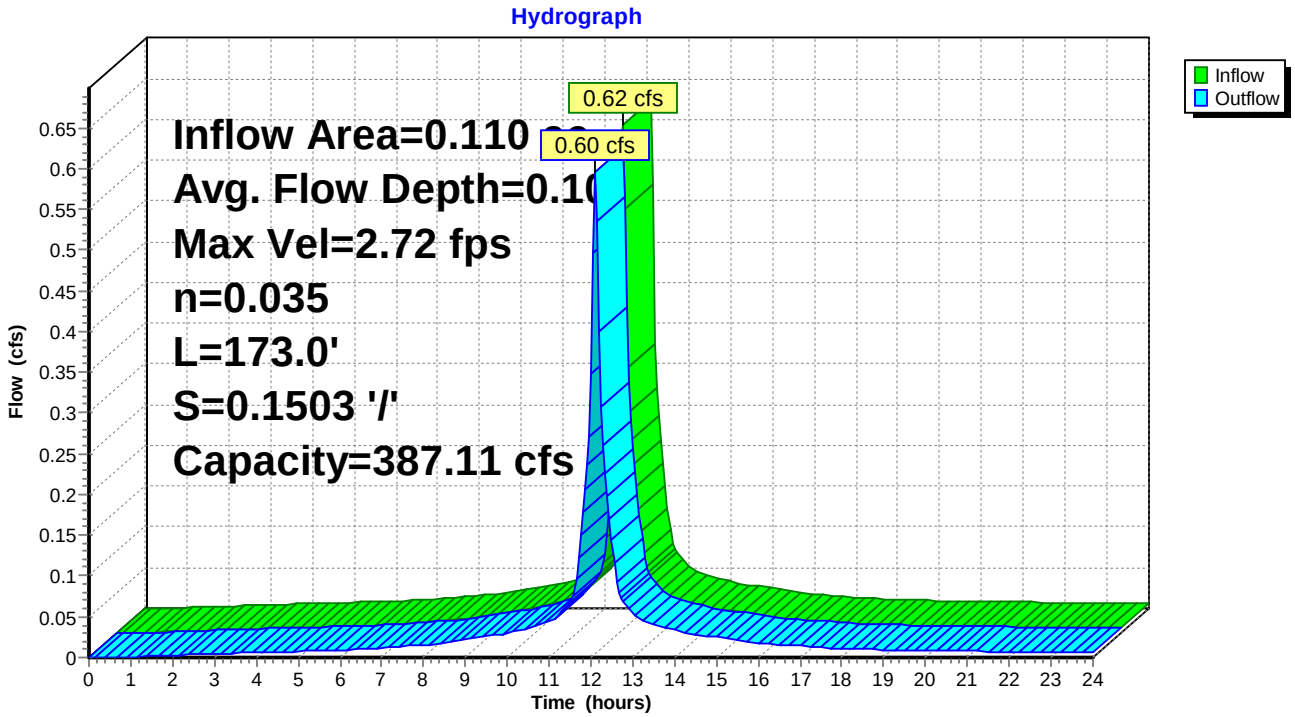
Peak Storage= 39 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.10' , Surface Width= 3.37'
Bank-Full Depth= 2.00' Flow Area= 20.0 sf, Capacity= 387.11 cfs

15.00' x 2.00' deep Parabolic Channel, n= 0.035 Earth, dense weeds
Length= 173.0' Slope= 0.1503 '/'
Inlet Invert= 170.00', Outlet Invert= 144.00'



‡

Reach R1.2.2: Reach 1.2.2

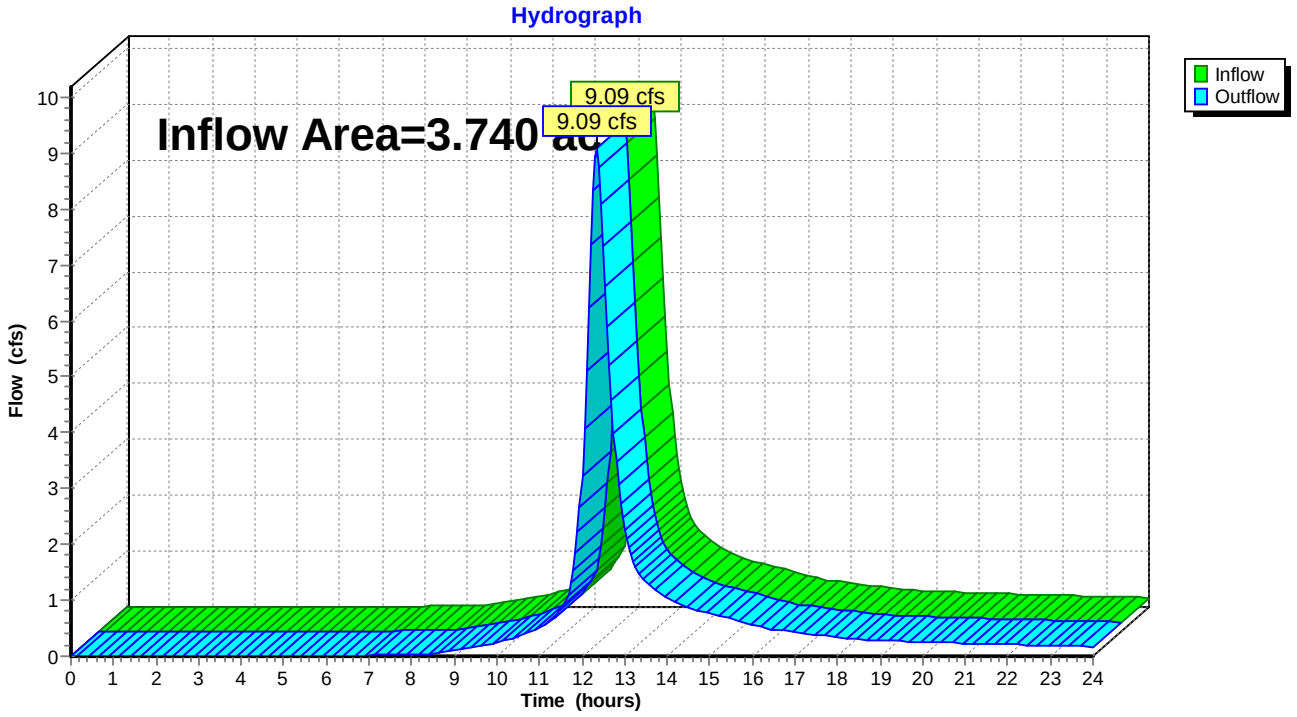


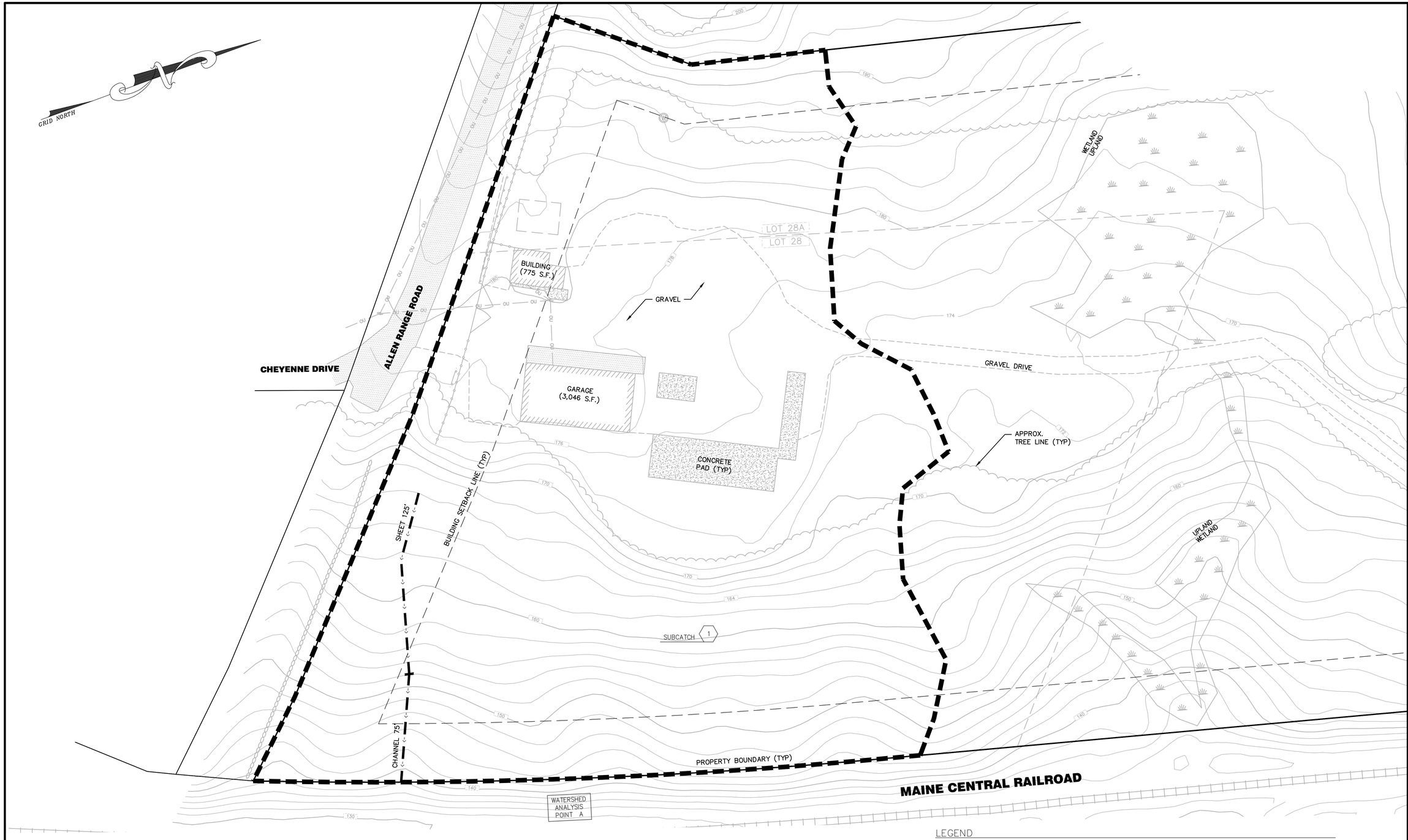
Summary for Reach WAPA:

Inflow Area = 3.740 ac, 8.82% Impervious, Inflow Depth > 3.37" for 25-YR event
Inflow = 9.09 cfs @ 12.34 hrs, Volume= 1.050 af
Outflow = 9.09 cfs @ 12.34 hrs, Volume= 1.050 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach WAPA:





NOTES

1. PLEASE SEE STORMWATER MANAGEMENT SECTION OF APPLICATION TO CITY OF AUBURN FOR MORE DETAILS.

LEGEND

- UTILITY POLE
- OVERHEAD UTILITY
- BOUNDARY LINE (SURVEYED)
- ABUTTING BOUNDARY LINES (APPROX.)
- DEED LINES (APPROX.)
- LOT 28 — TAX MAP LOT NUMBER
- GUARDRAIL
- CHAIN LINK FENCE
- EDGE OF GRAVEL
- TREELINE (APPROX.)
- STONEWALL
- PAVEMENT
- CONCRETE PAD
- TYPICAL WETLAND BOUNDARY
- PROPERTY SETBACK LINE
- 490 — MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- REACH 1 — REACH NUMBER
- SUBCATCH 1 — SUBCATCHMENT NUMBER
- WATERSHED ANALYSIS POINT 1 — WATERSHED ANALYSIS POINT
- SUBCATCHMENT BOUNDARY
- FLOW PATH
- >R> — REACH

MAIN-LAND
Development Consultants, Inc.
69 Main St. Livermore Falls, Maine
367 US Route 1 Falmouth, Maine
PH: (207) 897-6752 Fax: (207) 897-5404
www.main-landdci.com

SITE PLAN

MAINE WATERSPORTS, LLC

ALLEN RANGE ROAD,
TOWN OF FREEPORT, COUNTY OF CUMBERLAND, STATE OF MAINE

OWNER OF RECORD

33 ALLEN RANGE ROAD,LLC

72 LAFAYETTE STREET,
YARMOUTH, MAINE 04096

MADE FOR

33 ALLEN RANGE ROAD, LLC

72 LAFAYETTE STREET,
YARMOUTH, MAINE 04096

DRAWING SCALE:

20 0 10 20
(IN FEET)
1 INCH = 20 FT

SUBMISSION NOTES:

SUBMISSION 1: 2023-12-20 SDH
ISSUED FOR REVIEW.

SUBMISSION 2: 2024-03-19 SDH
ISSUES FOR PERMITTING

PROJ. MGR:	EKB
DRAWN BY:	SDH
CHECKED BY:	EKB
SUBMISSION NO.	2
SURVEY DATE:	2022-06-30
SUBMISSION DATE:	2024-03-19
SUBMITTED FOR:	PERMITTING

PRE-DEVELOPMENT DRAINAGE PLAN

SEAL:

STATE OF MAINE
ESTHER K. BIZIER
No. 14236
LICENSED PROFESSIONAL ENGINEER

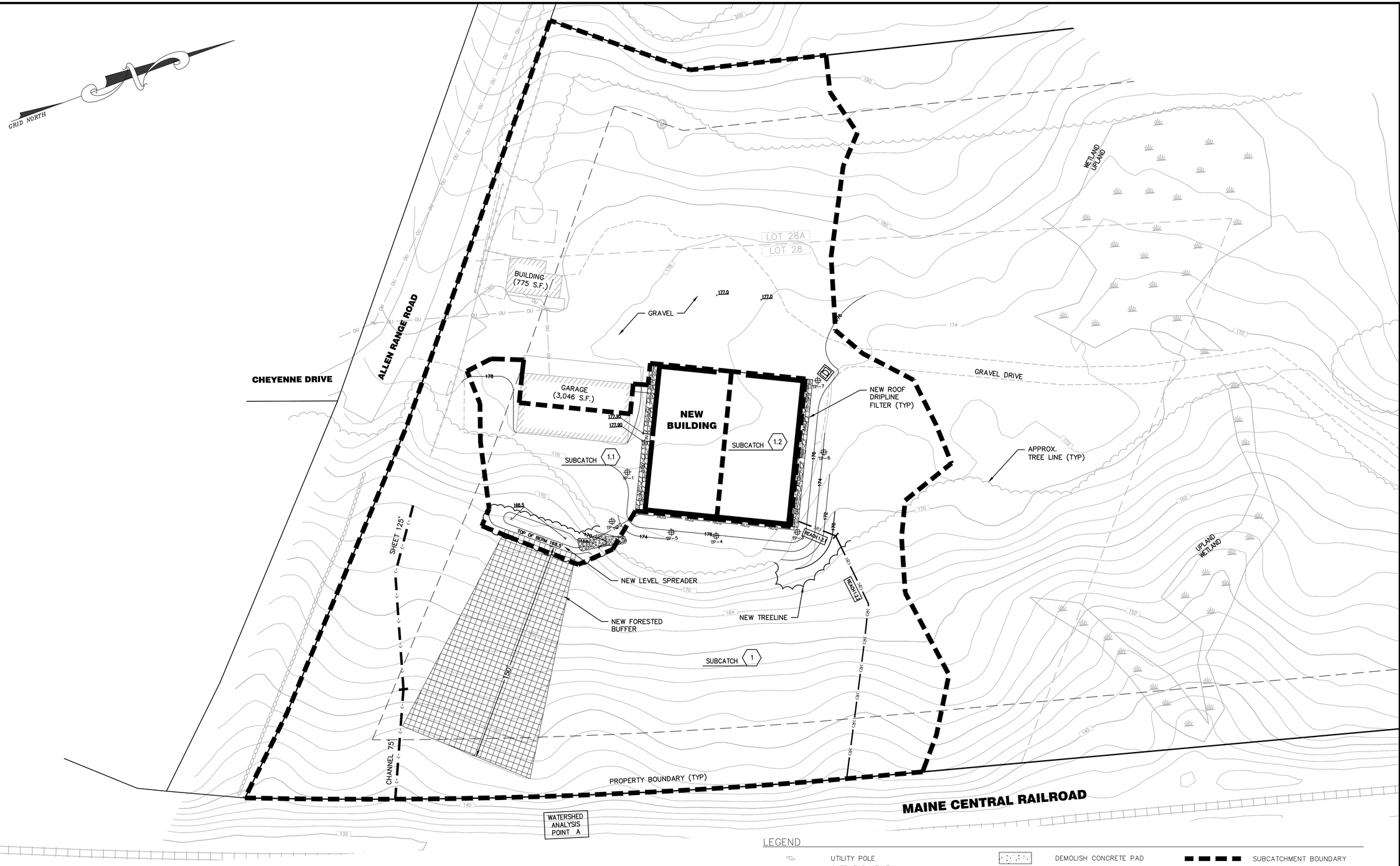
2024-03-19

ESTHER K. BIZIER ME PE#14236

DRAWING NO.

D1.1

MLDC NO. 23-339 1 OF 1



NOTES

1. TIME OF CONCENTRATION FOR SUBCATCHMENTS 1.1 AND 1.2 WAS LESS THAN THE MINIMUM OF 5 MINUTES. NO FLOW PATH IS SHOWN.
2. PLEASE SEE STORMWATER MANAGEMENT SECTION OF APPLICATION TO TOWN OF FREEPORT FOR NARRATIVE AND CALCULATIONS.

LEGEND

- UTILITY POLE
- OU — OVERHEAD UTILITY
- NAE — NEW AERIAL ELECTRIC LINE
- BOUNDARY LINE (SURVEYED)
- ABUTTING BOUNDARY LINES (APPROX.)
- DEED LINES (APPROX.)
- LOT 28 — TAX MAP LOT NUMBER
- GUARDRAIL
- CHAIN LINK FENCE
- EDGE OF GRAVEL
- TREELINE (APPROX.)
- STONEWALL
- PAVEMENT
- CONCRETE PAD
- DEMOLISH CONCRETE PAD
- TYPICAL WETLAND BOUNDARY
- PROPERTY SETBACK LINE
- 490 — MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- 490 — NEW MAJOR CONTOUR LINE
- NEW MINOR CONTOUR LINE
- NUD — NEW UNDERDRAIN
- REACH 1 — REACH NUMBER
- SUBCATCH 1 — SUBCATCHMENT NUMBER
- WATERSHED ANALYSIS POINT 1 — WATERSHED ANALYSIS POINT
- SUBCATCHMENT BOUNDARY
- FLOW PATH
- REACH

MAIN-LAND
DEVELOPMENT CONSULTANTS, INC.
69 MAIN ST. LIVERMORE FALLS, MAINE
367 US ROUTE 1 FALMOUTH, MAINE
PH: (207) 897-6752 FAX: (207) 897-5404
WWW.MAIN-LANDDCI.COM

SITE PLAN

MAINE WATERSPORTS, LLC

ALLEN RANGE ROAD,
TOWN OF FREEPORT, COUNTY OF CUMBERLAND, STATE OF MAINE

OWNER OF RECORD

33 ALLEN RANGE ROAD,LLC

72 LAFAYETTE STREET,
YARMOUTH, MAINE 04096

MADE FOR

MAINE WATERSPORTS, LLC

72 LAFAYETTE STREET,
YARMOUTH, MAINE 04096

DRAWING SCALE:

20 0 10 20
(IN FEET)
1 INCH = 20 FT

SUBMISSION NOTES:

SUBMISSION 1: 2023-12-20 SDH
ISSUED FOR REVIEW.

SUBMISSION 2: 2024-03-19 SDH
ISSUES FOR PERMITTING

PROJ. MGR:	EKB
DRAWN BY:	SDH
CHECKED BY:	EKB
SUBMISSION NO.	2
SURVEY DATE:	2022-06-30
SUBMISSION DATE:	2024-03-19
SUBMITTED FOR:	PERMITTING

POST-DEVELOPMENT DRAINAGE PLAN

SEAL:

STATE OF MAINE
ESTHER K. BIZIER
No. 14236
LICENSED
PROFESSIONAL ENGINEER
2024-03-19

ESTHER K. BIZIER ME PE#14236

DRAWING NO.

D2.1

MLDC NO. 23-339 1 OF 1

Replace traditional wallpacks with SLIM™ LED.

Same footprint. Better performance.

SLIM™ 62W

SLIM™ 57W

SLIM™ 37W

DLC QPL LISTED PREMIUM™

DLC QPL LISTED™

Visit rabweb.com to see which models are DLC or DLC Premium listed.

RAB® LIGHTING

RABWEB.COM • 888 722-1000

SLIM™

- Covers footprint of most traditional wallpacks
- 37W replaces 150W MH; 57W replaces 200W MH; 62W replaces 250W MH
- Easy installation with hinged access, bubble level and multiple conduit entries
- Ultra-high efficiency, up to 115 lm/W
- Available as cutoffs or full cutoffs
- Tight-lock gasket keeps elements out
- 100,000-Hour LED lifespan

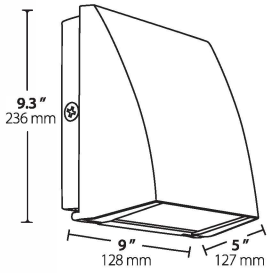
Full Cutoff Models Only

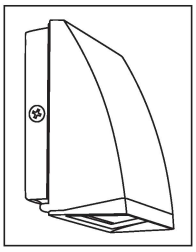
IP66 RATING

Dimensions and weight

SLIM™ 37W
Weight: 7.5 lbs

RAB WP1 wallpack measures 8.5" x 8.6"



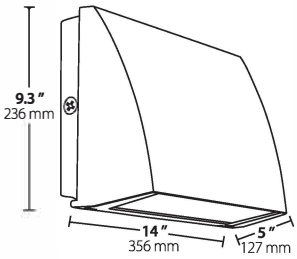


Full cutoff models available for all 3 wattages

Note: All full cutoff models are 9.5" high.

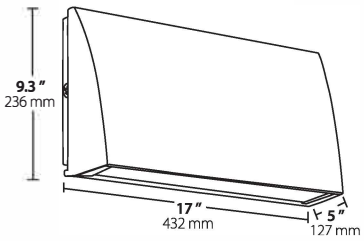
SLIM™ 57W
Weight: 11 lbs

RAB WP2 wallpack measures 14" x 9"



SLIM™ 62W
Weight: 13 lbs

RAB WP3 wallpack measures 17" x 9"
RAB WP4 wallpack measures 17 1/8" x 9"



Specifications

UL: Suitable for wet locations. Wall mount only.

LEDs: Long-life, high-efficiency, micro-power, surface mount LEDs; binned and mixed for uniform light output and color.

Lifespan: 100,000-hour LED lifespan based on IES LM-80 results & TM-21 calculations

Drivers: Constant Current, Class 2, 100-277V and 480V, 50/60HZ
37W: : 0.6A,
57W: Constant Current, Class 2, 100-277V and 480V, 50/60Hz, 100-277VAC: 0.8A,
62W: Constant Current, Class 2, 100-277V and 480V, 50/60Hz, 100-277VAC: 0.6A,

5000K Color Temperature

Nominal Watts	37W	57W	62W
Output Lumens (cutoff models)	3905	5579	6395
Lumens per Watt (cutoff models)	111	115	106
Color Accuracy (CRI)	73	73	73

4000K Color Temperature

Nominal Watts	37W	57W	62W
Output Lumens (cutoff models)	3873	5422	6215
Lumens per Watt (cutoff models)	112	114	106
Color Accuracy (CRI)	73	73	73

3000K Color Temperature

Nominal Watts	37W	57W	62W
Output Lumens (cutoff models)	3657	4977	6145
Lumens per Watt (cutoff models)	104	100	108
Color Accuracy (CRI)	71	72	72

Bi-Level Operation (Optional): Allows 50% and 100% output modes

Cold Weather Starting: Minimum starting temperature is -40°F / -40°C

Thermal Management: Superior thermal management with internal Air-Flow fins

Housing: Precision die-cast aluminum housing and door frame

Mounting: Die-cast back box with four (4) conduit entry points and knockout pattern for junction box or direct wall mounting. Hinged housing for hands-free installation.

Cutoff Options: Full Cutoff (0°) or Cutoff (10°)

Lens: Microprismatic diffusion lens for smooth and even light distribution

Reflector: Specular thermoplastic

Gaskets: High-temperature silicone

Finish: Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contain no VOC or toxic heavy metals.

Color Stability: LED color temperature warrantied not to shift more than 200K in CCT in 5 years

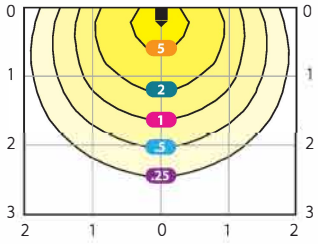
Color Uniformity: RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2015.

Green Technology: Mercury and UV free, and RoHS compliant. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

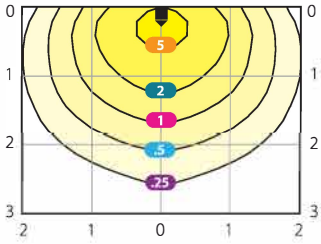
IESNA LM-79 & LM-80 Testing: RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80, and have received the Department of Energy "Lighting Facts" label.

Photometrics

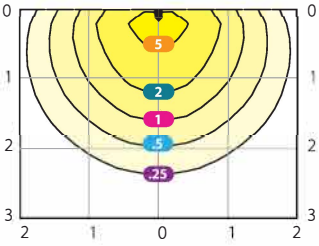
37W - 15' Mounting Height



57W - 18' Mounting Height



62W - 20' Mounting Height



Gride Scale: Multiples of Mounting Height
Values Shown in Footcandles
Photometric Reports RAB02437, RAB02604 and RAB02946MOD50

Ordering information

Product Family	Cutoff	Wattage	Color Temp	Finish	Driver Options	Photocell Options
SLIM	FC	37			BL	PC

Cutoff
Blank Cutoff (10°)
FC Full Cutoff (0°)

Wattage
37 37W
57 57W
62 62W

Color Temp
Blank 5000K
N 4000K
Y 3000K

Finish
Blank Bronze
W White

Driver Options
/BL Bi-Level
/480 480V

Photocell Options
/PC 120V Photocell
/PC2 277V Photocell
/PCS 120V Swivel Photocell
/PCS2 277V Swivel Photocell
/PCS4 480V Swivel Photocell

Site Photos

Photo 1. View down Allen Range Road from near driveway to adjacent residence (March 2024)

Photo 2. View from western property line from Allen Range Road (March 2024)

Photo 3. From Allen Range Road looking at entrance (March 2024)

Photo 4. Near western property line looking toward new building location (July 2022, debris has been removed from site)

Photo 5. From new building location looking toward western property line (July 2022, debris has been removed)