TOWN OF GRAY

PLANNING BOARD

AGENDA • NOVEMBER 18, 2021

Planning Board **Regular Meeting**	**Online Via Zoom Videoconferencing:** **https://us06web.zoom.us/j/83799688361**	**7:00 PM**

I. MEETING COMMENCES

- Roll Call
- Elevate an alternate member into the vacant full member seat

II. MINUTES APPROVAL

a. Minutes of Oct. 21, 2021 Planning Board meeting

III. INFORMATION EXCHANGE

a. Planning Board Workshop of Nov. 18 2021: Avesta Meadowview major site plan review
- Public input provided from current Meadowview residents

b. MSAD 15 Outdoor classroom structures

c. Training/ Communications:
- GPCOG session with Town Council, TBD in December
- Maine Municipal Association live webinar, Dec. 8, 4-7:30 p.m.

IV. NEW BUSINESS

V. PUBLIC HEARINGS

a. <u>Cureton Self Storage Site Plan Review</u>
A request by Beth Cureton, represented by Jeff Amos of Terradyn Consultants, for site plan review for a proposed self-storage facility on 3.85 +/- acres located on properties currently owned by the Equity Trust Company (Custodian FBO Beth Ann Cureton Roth IRA) at approximately 119 Portland Road, as shown on Tax Map 59, Lot 31-10 & 31-14 in the Commercial Zoning District, with portions of the parcels in the Resource Protection Shoreland Zoning District. This project is subject to Site Plan and Conditional Use Review

b. <u>31 Main Street Site Plan Amendment</u>
A request by Kurt Johnson for an amendment to an approved site plan for the establishment of a personal services use for a barber shop at his property at 31 Main Street, Tax Map 35, Lot 403-

026. The parcel is located within the Village Center Proper zoning district and is subject to minor development site plan review.

c. Garrison Woods amendment to approved subdivision

A request by Jeremy Brown for an amendment to an approved subdivision, to combine lots 4 and 5 in the Garrison Woods subdivision into a single lot for residential use, Tax Map 47, Lot 318-10, sublots 4 and 5. Mr. Brown owns and resides at 16 Garrison Woods Road (Lot 4) and also owns the abutting vacant lot (Lot 5). The parcels are located in the Lake Zoning District. A portion of the subdivision is located in the Limited Residential Shoreland Zoning District.

d. Shoreland Zoning Permit review - proposed new road

A request by Michael & Jennifer Doten to construct 1,000 +/- feet of new road beginning near 332 Ramsdell Road and ending near 344 Ramsdell Road on property owned by the Dotens (Map 25, lot 8-1-4) and the Estate of Dennis Durgin/Cynthia Rogers (Map 25, lot 8-1) in the Lake and Limited Residential (Shoreland) zoning districts. The project requires a Shoreland Zoning Permit issued by the Planning Board and meeting town-wide erosion & sedimentation standards in Section 402.6.10 of the zoning ordinance.

VI. ADJOURNMENT

** The Town of Gray is an equal opportunity employer and complies with all applicable equal access to public accommodations law. If you are planning to attend a Town Council or Town committee or board meeting and need assistance with a physical disability, please contact the Town Manager's office at least 48 hours in advance of the meeting to have the Town assist you. 657-3339. TTY 657-3931.*

Town of Gray
Planning Board Minutes
October 21, 2021

Regular Meeting | **Henry Pennell Municipal Complex** | **7:00 PM**

24 Main Street, Gray, ME 04039

I. MEETING COMMENCED AT 7:06pm

This meeting took place virtually.

a. Roll Call

Attendee Name	Title	Status
Dan Cobb	Chair	Present
Catherine Caswell	Board Member	Absent
Tamara Lee Pinard	Board Member	Present
Kiersten Scarpati	Board Member	Present
Andrew Watson	Alternate	Present
Emanuel Archibald	Alternate	Present
Doug Webster	Community Development Director	Present
Kristen Muszynski	Town Planner	Present
Dan Maguire	Town Council Liaison	Present

b. Welcome To New Members

Chair Cobb welcomed Kiersten Scarpati as a new full board member and Emanuel (Manny) Archibald as a new alternate. He also welcomed Kristen Muszynski as the new Town Planner.

c. Elevate an alternate member into the vacant full member seat.

Motion to appoint Andrew Watson as a voting member for this meeting.

RESULT:	**APPROVED AS AMENDED [UNANIMOUS]**
MOVER:	Catherine Caswell, Board Member
SECONDER:	Tamara Lee Pinard, Board Member
AYES:	Cobb, Caswell, Pinard, Scarpati

d. Election of Vice Chairperson

At the last meeting, Chair Cobb had nominated Catherine Caswell to be Vice Chair. At that time, she asked to have time to think about it. She has declined the offer. Chair Cobb said he is inclined to just finish out the year without a Vice Chair and

will put the topic on the January agenda. This will provide time for new members to gain experience and think about if they might like to be a future Vice Chair.

II. MINUTES APPROVAL

a. Approve the Planning Board meeting minutes of Sept. 9, 2021, as held on Sept. 20, 2021.

Motion to approve the Planning Board Minutes of September 9, 2021, as held on September 20, 2021 2021.

Catherine Caswell requested an edit to reflect she had been present, not absent, at the meeting.

RESULT:	**APPROVED AS AMENDED [UNANIMOUS]**
MOVER:	Catherine Caswell, Board Member
SECONDER:	Kiersten Scarpati, Board Member
AYES:	Cobb, Caswell, Pinard, Scarpati, Watson

III. INFORMATION EXCHANGE

Chair Cobb said he received a letter from Loni Graiver who was concerned about information he received from the Code Enforcement Office. Mr. Cobb said the appropriate route would be for him to discuss this with Doug Webster and the Town Manager. Doug Webster said he made Mr. Graiver aware that board members receive agenda packets to review information prior to meetings.

a. Approve Planning Board schedule of meetings for 2022

Chair Cobb noted meetings are usually on the 2nd Thursday of each month.

Motion to approve the Planning Board meeting schedule for 2022.

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Catherine Caswell, Board Member
SECONDER:	Tamara Lee Pinard, Board Member
AYES:	Cobb, Caswell, Pinard, Scarpati, Watson

b. Staff Review Committee meeting of 10-21-21: Hill View Mini Barns minor site plan amendment

Doug Webster provided a summary; the Staff Review Committee met earlier today to discuss the amendments to the site plan. These amendments pertain to a 12x52 lean-to and a 1,000 gallon fuel tank. The Staff Review Committee said this is conditionally approved. The condition involves proactive steps for the buffer.

c. Staff/Planning Board Workshop of 10-21-21: Avesta Meadowview project

Doug Webster provided an update about the workshop held prior to this meeting regarding the Avesta project. This is on Hancock Street. They currently have 20 units, and 27 more units are proposed. As tonight's half-hour workshop was not long enough to discuss all matters, there will be another workshop before the November 18th Planning Board meeting from 6-7pm.

d. ISM (bypass) Solar Project - Altering Fencing

Doug Webster explained the submittals referenced 8 ft. fences but there is difficulty obtaining those. The fence will be 7 ft. tall. Chair Cobb inquired if the board had any concerns. No board members indicated any issues or concerns.

e. Minor Additions to Hannaford Signs

Doug Webster explained that when Hannaford (and also Norway Savings Bank) projects took place, the signs were in the BT category and the Planning Board had authority over the signs. Hannaford's upcoming sign revisions regarding Hannaford-To-Go will now be administered through the Code Enforcement Officer.

IV. PUBLIC HEARINGS

a. Bruns Properties LLC site plan amendment review:

A request by Bruns Properties LLC, represented by Robert Emerson, for an amendment to an approved Site Plan for a 3,500 sq. ft. addition to an existing building for manufacturing/processing use on their property at 175 Portland Road, Tax Map 59, lots 36-25 & 21, owned by Bruns Properties LLC, in an established Contract Zoning Agreement approved by the Gray Town Council on November 1, 2016. The parcel is partially located within a Shoreland Zoning District and was formerly in a Commercial Zoning District. This proposal triggers site plan review.

Robert (Bob) Emerson and Kenneth Bruns were present. Mr. Emerson provided a summary of the project for the new Planning Board members.

Doug Webster explained that one of the prior additions had triggered a Maine DEP stormwater permit. The applicants do have that valid permit and are working on underdrains. This addition is over the existing gravel portion of the site so no clearing will be done.

Chair Cobb noted the applicant had done more work on the buffering topic which was raised at a prior meeting. He asked the board if they had questions or input. Tamara Lee Pinard raised a question about stormwater. Mr. Emerson said all culverts, drains, etc. will go into ponds which have not been created yet.

Chair Cobb opened the public hearing at 7:35pm. There were no public comments, so the public hearing was closed at 7:35pm.

The board broached the topic of buffering. Tamara Lee Pinard expressed appreciation that the applicants addressed their prior comments about buffering, and Catherine Caswell echoed that comment. Chair Cobb felt condition #5 should be more specific and suggested putting the number of planters into the condition.

Doug Webster said that he and Kristen Muszynski met with Mr. Emerson and discussed buffering. Mr. Emerson informed the board that they took out two dead linden trees on the north end (planters are still there). They put a new magnolia on the north end and plan to have a stone planter around it. The stone mason has not yet worked on that. They hope to just have lindens and magnolias. They have tried different trees before, but it is hard to find trees which tolerate the road salt. Nursery supplies are low, and they hope to obtain the trees they want by spring.

Doug Webster suggested evergreens, but Ken Bruns does not like the look of evergreens in that area.

The topic of the stormwater permit was addressed. Chair Cobb said that is addressed by condition #3. All board members agreed with that condition of approval.

Doug Webster said he ran this topic by Gorrill-Palmer, the town's consulting engineer. The only comment was a question about the anticipated pavement which would potentially change the DEP stormwater permit. This is between DEP and Bruns Bros. to work out, but Mr. Webster wanted the board to know about it.

Webster provided the amended wording, "consisting of a total of 13 trees, one per planter" along with the completion date of July 4, 2022. Catherine Caswell (motioner) and Tamara Lee Pinard (seconder) agreed to that adjusted motion language.

Motion: The Planning Board approves the application by Bruns Bros. LLC, represented by Robert Emerson, for an amendment to an approved Site Plan for a 3,500 sq. ft. addition to an existing building for manufacturing/processing use on their property at 175 Portland Road, Tax Map 59, lots 36-25 & 21, owned by Bruns Properties LLC, in an established Contract Zoning Agreement approved by the Gray Town Council on November 1, 2016, as depicted on the submitted plans and documentation subject to the following conditions:

1. The project shall be constructed, operated, and maintained in accordance with the plans, submissions and testimony presented to the Planning Board by the applicant and its representatives.

2. All prior applicable standards and conditions of approval remain in effect.

3. The applicant is responsible for obtaining any necessary amendments to the MEDEP stormwater permit for the parcel and providing the code enforcement officer with a full copy of any changes.

4. In accordance with the submitted plan, the applicant will be adding a berm to the northerly portion of the property to screen parked commercial trailers from Portland Road.

5. The applicant will re-establish the buffer of woody vegetation, consisting of a total of 13 trees, one per planter, along Portland Road, with particular attention to the northerly and southerly portions, and may consider trees that are more salt-tolerant, by July 4, 2022.

6. The property owner is responsible for taking steps to minimize adverse impacts of stormwater onto Long Hill Road.

RESULT:	**APPROVED AS AMENDED [UNANIMOUS]**
MOVER:	Catherine Caswell, Board Member
SECONDER:	Tamara Lee Pinard, Board Member
AYES:	Cobb, Caswell, Pinard, Scarpati, Watson

V. ADJOURNMENT

Motion to adjourn at 7:54pm

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Catherine Caswell, Board Member
SECONDER:	Tamara Lee Pinard, Board Member
AYES:	Cobb, Caswell, Pinard, Scarpati, Watson

May 10, 2021

Town of Gray Planning Board
24 Main Street
Gray, Maine 04039

We are residents of Meadowview and we'd like to voice our concerns about the Avesta plans of turning our small parking area (with two 90° turns) into a roadway.

At this time we have 15 resident cars. Most come and go several times a day. Extra traffic throughout the week includes home health care, visitors, mail/package delivery, and sightseers. We would expect these numbers to at least double with the proposed new building.

It's very obvious our parking lot was never intended to be a thruway.There is not enough area to have two vehicles pass safely, especially with cars backing out of their parking spaces.

In an average week, we have 5 or more delivery trucks. Often these trucks park in the middle of the lot to deliver packages. Our fire/rescue vehicles also park in the middle of the lot for ease of handling emergency calls.

Many of our residents use canes and walkers and often walk across the lot to visit neighbors. Two way traffic through this area would be a huge safety concern for the seniors living here and would greatly impact our quality of living. It would turn our beautiful rural setting into a very unpleasant setting.

Sincerely, Sandra L McDowell

Lloyd Scott
Nancy Mason
[illegible]
Fred Whitney
Elaine [illegible]
Nancy King
Cyndie Rogers (but I am on the fence)
Alice Hamilton
Marcia J. Hildreth
Joseph P Mathew
Linda LaDouceur
Doris Mathew
Edna S. Noble
[illegible]
Johanna Smith
Elizabeth [illegible]
Martha Spaulding
June O'Donnell

Nancy Mason
16 Hancock Street #10
Gray, Maine 04039

May 10, 2021

Town of Gray Planning Board
24 Main Street
Gray, Maine 04039

We are residents of Meadowview and we'd like to voice our concerns about the Avesta plans of turning our small parking area (with two 90° turns) into a roadway.

At this time we have 15 resident cars. Most come and go several times a day. Extra traffic throughout the week includes home health care, visitors, mail/package delivery, and sightseers. We would expect these numbers to at least double with the proposed new building.

It's very obvious our parking lot was never intended to be a thruway.There is not enough area to have two vehicles pass safely, especially with cars backing out of their parking spaces.

In an average week, we have 5 or more delivery trucks. Often these trucks park in the middle of the lot to deliver packages. Our fire/rescue vehicles also park in the middle of the lot for ease of handling emergency calls.

Many of our residents use canes and walkers and often walk across the lot to visit neighbors. Two way traffic through this area would be a huge safety concern for the seniors living here and would greatly impact our quality of living. It would turn our beautiful rural setting into a very unpleasant setting.

Please, consider another roadway option.

Sincerely,

May 24, 2021

Town of Gray Planning Board
24 Main Street
Gray, Maine 04039

Thank you for including our first letter in your workshop meeting.

Again we want to appeal to you not to allow ingress or egress through our parking lot - front yards. We have recently had a meeting with Avesta (after 3 years of canceled meetings).

They informed us they will be building a road from the Plaza to the new site for construction purposes. Ideally, they would keep that roadway. Two completely separate entrance/exits to each building. No traffic, only green space and walkways connecting the two areas. How exquisite and safe would that be! Certainly a senior housing complex that would make any town proud.

If that is not possible, our hopes continue to be with a roadway behind the existing apartments, not through our parking area. That would also allow only green space and walkways between the two areas, no additional traffic.

I can easily get every neighbor to sign this but I'd rather not bother them at this time. If you'd like to see signatures, please just let me know.

Sincerely,

Nancy Mason

Nancy Mason
16 Hancock Street #10
Gray, Maine 04039

Oct 26, 2021

Town of Gray Planning Board
24 Main Street
Gray, Maine 04039

A follow up to your discussion meeting on 21 Oct with Avesta Housing

I am very happy to see the new plans include a roadway to be built behind apartments 15-20. I don't understand why it's one way. Making this a two way road will alleviate added traffic to our area and allow us to continue to walk across our lot and drive in and out of our parking spots safely. This has been our major concern from the beginning.

I feel the daily traffic we experience will double with the new building. Let that traffic enter and exit the most convenient way for them. I'm sure they will choose straight down the new road rather than making the two 90° turns to go through our front yard, residential parking area.

Sincerely,

Nancy Mason

GRAY SELF STORAGE

PORTLAND ROAD - GRAY, MAINE

PREPARED BY:

CIVIL ENGINEER:
TERRADYN CONSULTANTS, LLC
41 CAMPUS DR. SUITE 301
NEW GLOUCESTER, MAINE 04260
(207)926-5111

SURVEYOR:
WAYNE T. WOOD & COMPANY
30 WOOD DRIVE
GRAY, MAINE 04039
(207) 657-3330

WETLANDS SURVEY:
MARK CENCI GEOLOGIC INC.
NORTH YARMOUTH, MAINE 04097
(207) 329-3524

APPLICANT:
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, MAINE 04097

OWNERS:
EQUITY TRUST COMPANY CUSTODIAN
FBO BETH CURETON

PROJECT PARCEL SITE
TOWN OF GRAY TAX ASSESSOR'S MAP & LOT NUMBERS

MAP	LOT
59	31-10
	31-14

APPROVED: TOWN OF GRAY
PLANNING BOARD

_____ DATE

_____

_____

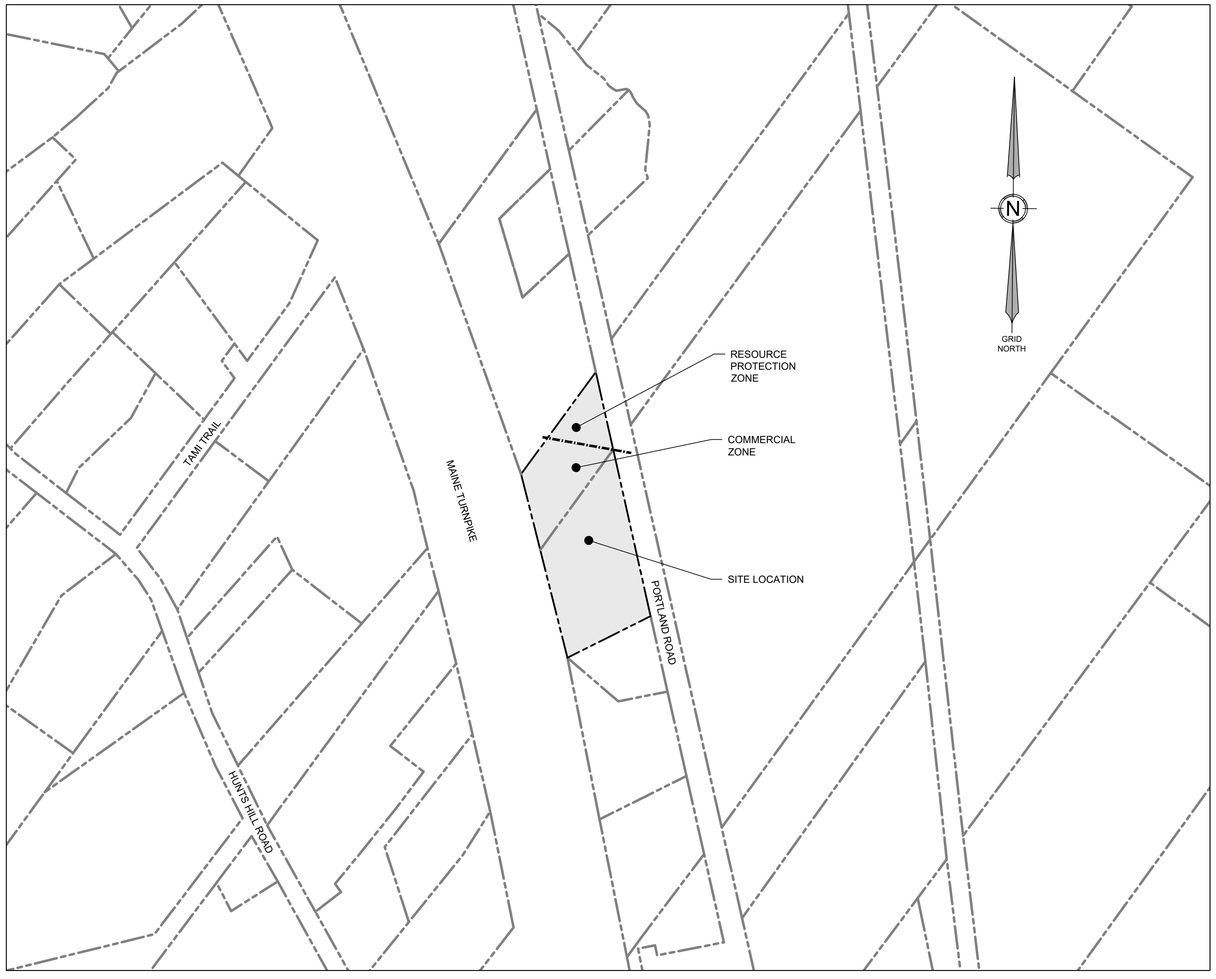
_____

_____

_____

_____

_____



LOCATION MAP
1" = 200'

SHEET INDEX

LEGEND

- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- PROPOSED SETBACK LINE
- EXISTING SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- ROAD CENTERLINE
- 124 EXISTING MINOR CONTOUR
- 124 EXISTING MAJOR CONTOUR
- 124 PROPOSED CONTOUR
- SD EXISTING STORMDRAIN
- SD PROPOSED STORMDRAIN
- OHE EXISTING OVERHEAD ELECTRIC & TELEPHONE
- OHE PROPOSED OVERHEAD ELECTRIC & TELEPHONE
- UGE EXISTING UNDERGROUND ELECTRIC & TELEPHONE
- UGE PROPOSED UNDERGROUND ELECTRIC & TELEPHONE
- EXISTING EDGE OF PAVEMENT
- PROPOSED EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL
- PROPOSED EDGE OF GRAVEL
- EXISTING TREE LINE
- PROPOSED TREE LINE
- CHAIN LINK FENCE
- PROPOSED FENCE
- EXISTING GUARDRAIL
- PROPOSED GUARDRAIL
- MB MULCH BERM
- PROPOSED TRANSFORMER
- PROPOSED LIGHT POLE
- EXISTING UTILITY POLE
- PROPOSED CATCH BASIN
- 30.20 EXISTING SPOT GRADE
- 30.20 PROPOSED SPOT GRADE
- EXISTING SIGN
- PROPOSED SIGN
- EXISTING BUILDING
- PROPOSED BUILDING
- WETLAND AREA
- PROPOSED PAVEMENT
- RIPRAP
- PROPOSED GRAVEL

STATE OF MAINE — JEFFREY D. AMOS 10167 — LICENSED PROFESSIONAL ENGINEER

DATE: 10/26/2021
P.E.: 10167

NO.	DATE	REVISIONS	APP'D BY

CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 301
NEW GLOUCESTER, ME 04260

OFFICE: (207) 926-5111
www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: GRAY SELF STORAGE
PORTLAND ROAD,GRAY, ME

SHEET TITLE: COVER/LOCATION MAP

CLIENT: BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	
DESIGNED:	JDA
JOB NO:	2125
FILE:	2125 C.DWG
SHEET	C-0.0

NOTES

1. Owner of record are the heirs of Dorothy M. Wood by deed of Whitfield P. Wood recorded in the Cumberland County Registry of Deeds in Book 2226 on Page 72..
2. All bearings are referenced to Magnetic North of the Year 2004 per the plan in Plan Reference #2 and are calculated from angles of an actual on the ground survey.
3. The subject parcel is shown on the Town of Gray Maine Tax Map #59 as Lot #31-10.
4. The wetlands shown on this plan were delineated by Mark Cenci Geologic, Inc. in March & April 2021.
5. The current deed to this property references only the shared entrance as shown on the plan recorded in plan book 205 page 451 witn no mention of the additional 20' in depth in mentioned in the abutters deed.

STATE OF MAINE
WAYNE T. WOOD
1328
PROFESSIONAL LAND SURVEYOR

PLAN REFERENCES

1. "Minor Subdivision on Hunts Hill Road in Gray, Maine for Will Plummer & Frank Pecoraro" dated February 2017 by Wayne T. Wood & Co.
2. "Standard Boundary Survey 1st Revised Property Plan of Property 130 Portland Road ~ Gray, Maine made for record owner David Welch D/B/A Awesome Auto, Inc." dated April 2013 by John D. Palmiter, recorded in Plan Book 213 on Page 350.
3. "Amended Site Plan of 136 Portland Road ~ Gray, Maine for Gray Mini Storage, Inc." dated November 1997 by Wayne T. Wood & Co.
4. "Standard Boundary Survey and Division of Land for Michael Cobb ~ Route 100 ~ Gray, Maine" dated October 1988 by John D. Palmiter.
5. "Maine Turnpike Authority ~ Maine Turnpike Section 2 ~ Portland to Augusta ~ Town of Gray, Cumberland County" Supplemental Sheets dated January 1955 and Sheets 3 and 4 of 8 dated December 1953.
6. "Plan of Land on Portland Road in Gray, Maine For Whitfield Wood" dated January 2018 by Wayne T. Wood & Co.

Existing Conditions Plan
On
Portland Road
In
Gray, Maine
For
Terradyn Consultants
41 Campus Drive, Suite 101 ~ New Gloucester, ME 04260

WAYNE T. WOOD & CO.
Gray, Maine 04039
(207)657-3330

Drawn By: KLW/WTW	Date July 2021
Scale: 1" = 20'	Job No. 221097
Checked By: WTW	
Field Crew: JW/BR	

GENERAL NOTES:

1. THE RECORD OWNER OF THE PARCELS IS EQUITY TRUST COMPANY, FBO BETH CURETON BY DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 38,413, PAGE 249 & BOOK 38,125 PAGE 201.

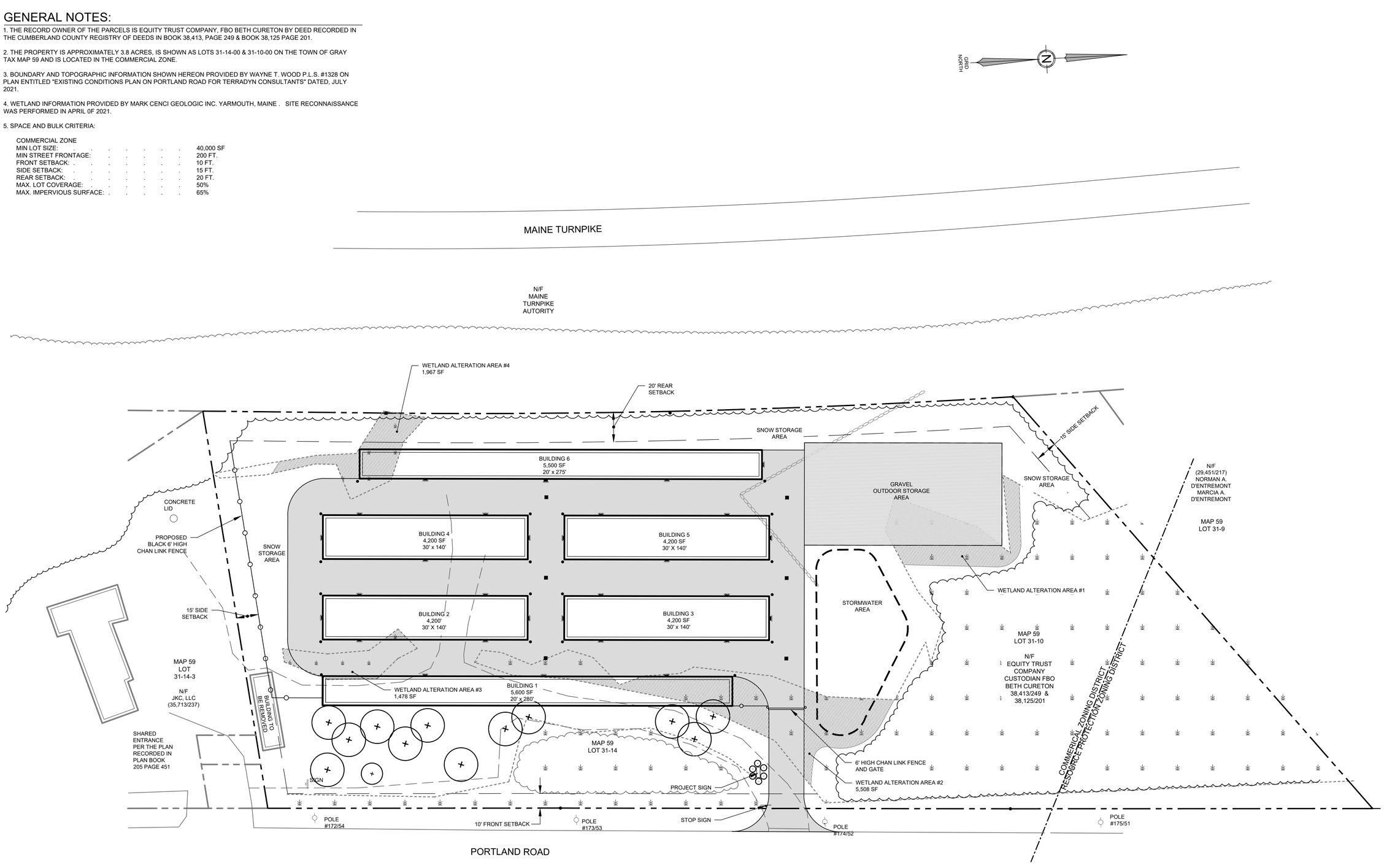
2. THE PROPERTY IS APPROXIMATELY 3.8 ACRES, IS SHOWN AS LOTS 31-14-00 & 31-10-00 ON THE TOWN OF GRAY TAX MAP 59 AND IS LOCATED IN THE COMMERCIAL ZONE.

3. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON PROVIDED BY WAYNE T. WOOD P.L.S. #1328 ON PLAN ENTITLED "EXISTING CONDITIONS PLAN ON PORTLAND ROAD FOR TERRADYN CONSULTANTS" DATED, JULY 2021.

4. WETLAND INFORMATION PROVIDED BY MARK CENCI GEOLOGIC INC. YARMOUTH, MAINE . SITE RECONNAISSANCE WAS PERFORMED IN APRIL 0F 2021.

5. SPACE AND BULK CRITERIA:

COMMERCIAL ZONE	
MIN LOT SIZE:	40,000 SF
MIN STREET FRONTAGE:	200 FT.
FRONT SETBACK:	10 FT.
SIDE SETBACK:	15 FT.
REAR SETBACK:	20 FT.
MAX. LOT COVERAGE:	50%
MAX. IMPERVIOUS SURFACE:	65%



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

STATE OF MAINE
JEFFREY D. MOSS
10167
LICENSED PROFESSIONAL ENGINEER

DATE: 10/26/2021
P.E.: 10167

NO.	DATE	REVISIONS	APP'D BY

PERMIT DRAWING
NOT FOR CONSTRUCTION

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 310
NEW GLOUCESTER, ME 04260

OFFICE: (207) 926-5111
www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC

CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING

PROJECT:
GRAY SELF STORAGE
PORTLAND ROAD,GRAY, ME

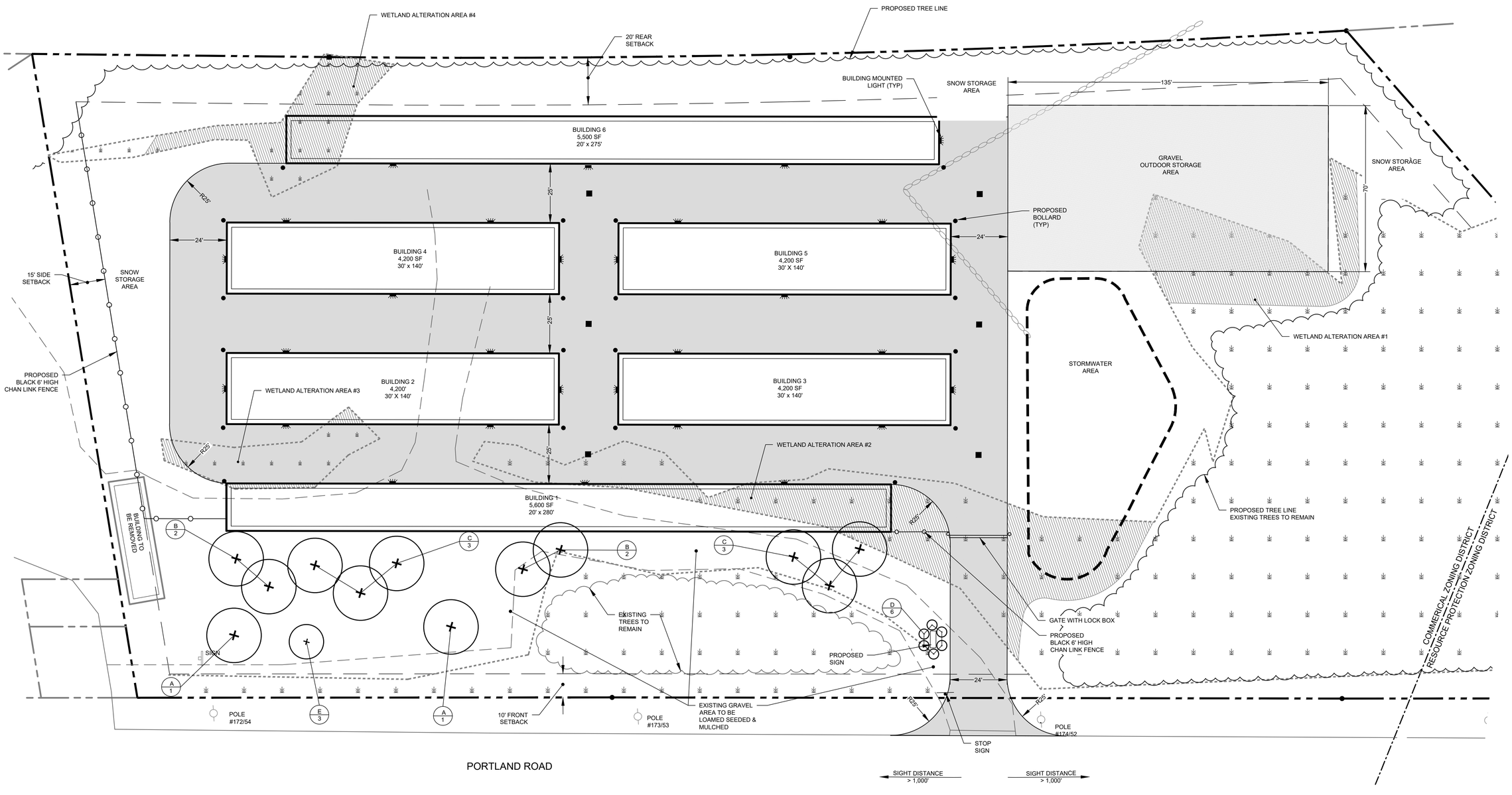
SHEET TITLE:
OVERALL PLAN

CLIENT:
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	1"=30'
DESIGNED:	JDA
JOB NO:	2125
FILE:	
SHEET	C-1.0

PLANT LIST:

KEY	COMMON & BOTANICAL NAME	SIZE	ROOT	QTY	NOTES
A	RED MAPLE - ACER RUBRUM	2 ½" CAL.	B & B	2	
B	WHITE SPRUCE - P. GLAUCA	5'-6' HT..	B & B	4	
C	WHITE PINE - P. STROBUS	4'-5' HT.	B & B	6	
D	N. BAYBERRY - M. PENSLVANICA	30" HT.	CONT.	6	3 CANES
E	DOGWOOD (OR SIMILAR FLOWERING TREE)	5'-6' HT..	B & B	1	



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

STATE OF MAINE
JEFFREY D. KMISS
10167
LICENSED PROFESSIONAL ENGINEER

DATE: 10/26/2021
P.E.: 10167

NO.	DATE	REVISIONS	APP'D BY

TERRADYN CONSULTANTS, LLC
CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING
565 CONGRESS STREET SUITE 303 PORTLAND, ME 04102
41 CAMPUS DRIVE SUITE #3 NEW GLOUCESTER, ME 04260
OFFICE: (207) 926-5111
www.terradynconsultants.com

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
GRAY SELF STORAGE
PORTLAND ROAD,GRAY, ME

SHEET TITLE:
SITE LAYOUT & LANDSCAPING PLAN

CLIENT:
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	1"=20'
DESIGNED:	JDA
JOB NO:	2125
FILE:	
SHEET	C-1.1

HOUSEKEEPING NOTES:

1. SPILL PREVENTION. CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.

2. GROUNDWATER PROTECTION. DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS.

3. FUGITIVE SEDIMENT AND DUST. ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL.

4. DEBRIS AND OTHER MATERIALS. LITTER, CONSTRUCTION DEBRIS, AND CHEMICALS EXPOSED TO STORMWATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

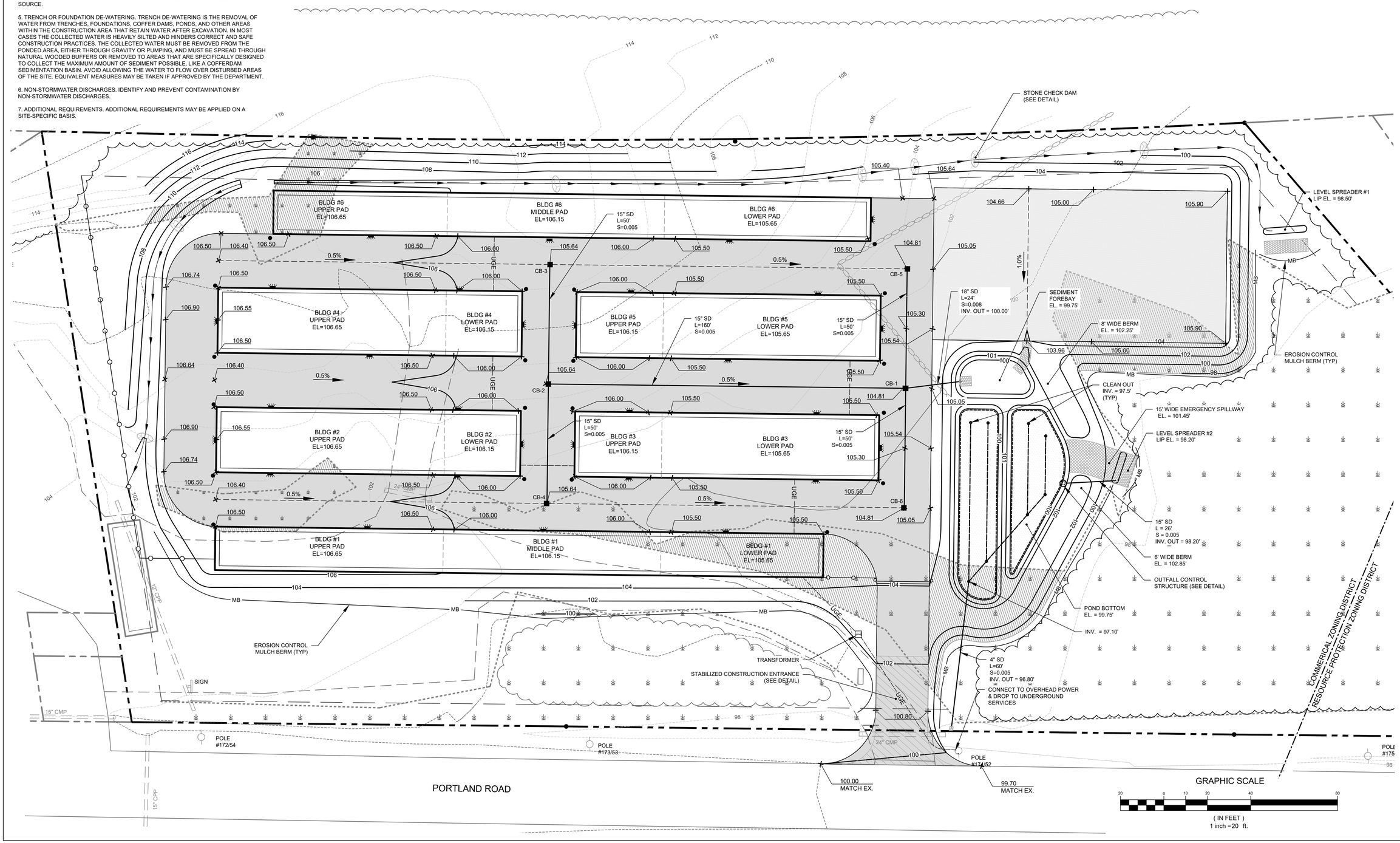
5. TRENCH OR FOUNDATION DE-WATERING. TRENCH DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER MUST BE REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, AND MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.

6. NON-STORMWATER DISCHARGES. IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES.

7. ADDITIONAL REQUIREMENTS. ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.

CATCH BASIN TABLE:

NAME	RIM	INV. IN	INV. OUT
CB-1	104.71	100.20(3)	100.20
CB-2	105.54	101.00(2)	101.00
CB-3	105.54	----------	101.25
CB-4	105.54	----------	101.25
CB-5	104.71	----------	100.45
CB-6	104.71	----------	100.45



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

DATE: 10/26/2021
P.E.: 10167

NO.	DATE	REVISIONS	APP'D BY

41 CAMPUS DRIVE
SUITE 201
NEW GLOUCESTER, ME 04260

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SUITE 201
PORTLAND, ME 04102

CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
GRAY SELF STORAGE
PORTLAND ROAD,GRAY, ME

SHEET TITLE:
GRADING & UTILITY PLAN

CLIENT:
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	1"=20'
DESIGNED:	JDA
JOB NO:	2125
FILE:	
SHEET	C-2.0

EROSION AND SEDIMENT CONTROL PLAN

PRE-CONSTRUCTION PHASE
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 MRSA § 480-B. EROSION 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. THE SITE MUST BE MAINTAINED TO PREVENT UNREASONABLE EROSION AND SEDIMENTATION. MINIMIZE DISTURBED AREAS AND PROTECT NATURAL DOWNGRADIENT BUFFER AREAS TO THE EXTENT PRACTICABLE.

BMP CONSTRUCTION PHASE
A. SEDIMENT BARRIERS. PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, PROPERLY INSTALL SEDIMENT BARRIERS AT THE EDGE OF ANY DOWNGRADIENT DISTURBED AREA AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE PROPOSED DISTURBED AREA. MAINTAIN THE SEDIMENT BARRIERS UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.

B. CONSTRUCTION ENTRANCE: PRIOR TO ANY CLEARING OR GRUBBING, A CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT THE INTERSECTION WITH THE PROPOSED ACCESS DRIVE AND THE EXISTING ROADWAY TO AVOID TRACKING OF MUD, DUST AND DEBRIS FROM THE SITE.

C. RIPRAP: SINCE RIPRAP IS USED WHERE EROSION POTENTIAL IS HIGH, CONSTRUCTION MUST BE SEQUENCED SO THAT THE RIPRAP IS PUT IN PLACE WITH THE MINIMUM DELAY. DISTURBANCE OF AREAS WHERE RIPRAP IS TO BE PLACED SHOULD BE UNDERTAKEN ONLY WHEN FINAL PREPARATION AND PLACEMENT OF THE RIPRAP CAN FOLLOW IMMEDIATELY BEHIND THE INITIAL DISTURBANCE. WHERE RIPRAP IS USED FOR OUTLET PROTECTION, THE RIPRAP SHOULD BE PLACED BEFORE OR IN CONJUNCTION WITH THE CONSTRUCTION OF THE PIPE OR CHANNEL SO THAT IT IS IN PLACE WHEN THE PIPE OR CHANNEL BEGINS TO OPERATE. MAINTAIN TEMPORARY RIPRAP, SUCH AS TEMPORARY CHECK DAMS UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.

D. TEMPORARY STABILIZATION. STABILIZE WITH TEMPORARY SEEDING, MULCH, OR OTHER NON-ERODABLE COVER ANY EXPOSED SOILS THAT WILL REMAIN UNWORKED FOR MORE THAN 14 DAYS EXCEPT, STABILIZE AREAS WITHIN 100 FEET OF A WETLAND OR WATERBODY WITHIN 7 DAYS OR PRIOR TO A PREDICTED STORM EVENT, WHICHEVER COMES FIRST. IF HAY OR STRAW MULCH IS USED, THE APPLICATION RATE MUST BE 2 BALES (70-90 POUNDS) PER 1000 SF OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75 TO 90% OF THE GROUND SURFACE. HAY MULCH MUST BE KEPT MOIST OR ANCHORED TO PREVENT WIND BLOWING. AN EROSION CONTROL BLANKET OR MAT SHALL BE USED AT THE BASE OF GRASSED WATERWAYS, STEEP SLOPES (15% OR GREATER) AND ON ANY DISTURBED SOIL WITHIN 100 FEET OF LAKES, STREAMS AND WETLANDS. GRADING SHALL BE PLANNED SO AS TO MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL SOIL EXPOSURE AND FINAL GRADING. ON LARGE PROJECTS THIS SHOULD BE ACCOMPLISHED BY PHASING THE OPERATION AND COMPLETING THE FIRST PHASE UP TO FINAL GRADING AND SEEDING BEFORE STARTING THE SECOND PHASE, AND SO ON.

E. VEGETATED WATERWAY. UPON FINAL GRADING, THE DISTURBED AREAS SHALL BE IMMEDIATELY SEEDED TO PERMANENT VEGETATION AND MULCHED AND WILL NOT BE USED AS OUTLETS UNTIL A DENSE, VIGOROUS VEGETATIVE COVER HAS BEEN OBTAINED. ONCE SOIL IS EXPOSED FOR WATERWAY CONSTRUCTION, IT SHOULD BE IMMEDIATELY SHAPED, GRADED AND STABILIZED. VEGETATED WATERWAYS NEED TO BE STABILIZED EARLY DURING THE GROWING SEASON (PRIOR TO SEPTEMBER 15). IF FINAL SEEDING OF WATERWAYS IS DELAYED PAST SEPTEMBER 15, EMERGENCY PROVISIONS SUCH AS SOD OR RIPRAP MAY BE REQUIRED TO STABILIZE THE CHANNEL. WATERWAYS SHOULD BE FULLY STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.

PERMANENT STABILIZATION DEFINED
A. SEEDED AREAS. FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS AN 90% COVER OF THE DISTURBED AREA WITH MATURE, HEALTHY PLANTS WITH NO EVIDENCE OF WASHING OR RILLING OF THE TOPSOIL.

B. SODDED AREAS. FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THE COMPLETE BINDING OF THE SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE-OFF.

C. PERMANENT MULCH. FOR MULCHED AREAS, PERMANENT MULCHING MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL. EROSION CONTROL MIX MAY BE USED AS MULCH FOR PERMANENT STABILIZATION ACCORDING TO THE APPROVED APPLICATION RATES AND LIMITATIONS.

D. RIPRAP. FOR AREAS STABILIZED WITH RIPRAP, PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIPRAP HAVE AN APPROPRIATE BACKING OF A WELL-GRADED GRAVEL OR APPROVED GEOTEXTILE TO PREVENT SOIL MOVEMENT FROM BEHIND THE RIPRAP. STONE MUST BE SIZED APPROPRIATELY. IT IS RECOMMENDED THAT ANGULAR STONE BE USED.

E. AGRICULTURAL USE. FOR CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL PURPOSES (E.G., PIPELINES ACROSS CROP LAND), PERMANENT STABILIZATION MAY BE ACCOMPLISHED BY RETURNING THE DISTURBED LAND TO AGRICULTURAL USE.

F. PAVED AREAS. FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE COMPACTED GRAVEL SUBBASE IS COMPLETED.

G. DITCHES, CHANNELS, AND SWALES. FOR OPEN CHANNELS, PERMANENT STABILIZATION MEANS THE CHANNEL IS STABILIZED WITH MATURE VEGETATION AT LEAST THREE INCHES IN HEIGHT, WITH WELL-GRADED RIPRAP, OR WITH ANOTHER NON-EROSIVE LINING CAPABLE OF WITHSTANDING THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHOUT RELIANCE ON CHECK DAMS TO SLOW FLOW. THERE MUST BE NO EVIDENCE OF SLUMPING OF THE LINING, UNDERCUTTING OF THE BANKS, OR DOWN-CUTTING OF THE CHANNEL.

GENERAL CONSTRUCTION PHASE
THE FOLLOWING EROSION CONTROL MEASURES SHALL BE FOLLOWED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION OF THIS PROJECT:

A. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, SEEDED WITH RYE AT 3 POUNDS/1,000 SF AND MULCHED, AND REUSED AS REQUIRED. SILT FENCING SHALL BE PLACED DOWN GRADIENT FROM THE STOCKPILED LOAM. STOCKPILE TO BE LOCATED BY DESIGNATION OF THE OWNER AND INSPECTING ENGINEER.

B. THE INSPECTING ENGINEER AT HIS/HER DISCRETION, MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES AND/OR SUPPLEMENTAL VEGETATIVE PROVISIONS TO MAINTAIN STABILITY OF EARTHWORKS AND FINISH GRADED AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY SUPPLEMENTAL MEASURES AS DIRECTED BY THE INSPECTING ENGINEER. FAILURE TO COMPLY WITH THE ENGINEER'S DIRECTIONS WILL RESULT IN DISCONTINUATION OF CONSTRUCTION ACTIVITIES.

C. EROSION CONTROL MESH SHALL BE APPLIED IN ACCORDANCE WITH THE PLANS OVER ALL FINISH SEEDED AREAS AS SPECIFIED ON THE DESIGN PLANS.

D. ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN UNTIL THEY ARE ADEQUATELY STABILIZED.

E. ALL EROSION, AND SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

F. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIALS.

G. AREAS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 INCHES PRIOR TO PLACEMENT OF TOPSOIL.

H. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC., SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

I. ALL FILLS SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS.

J. EXCEPT FOR APPROVED LANDFILLS OR NON-STRUCTURAL FILLS, FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING DEBRIS AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY LIFTS.

K. FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILL SLOPES OR STRUCTURAL FILLS.

L. FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION.

M. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED APPROPRIATELY.

N. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.

O. REMOVE ANY TEMPORARY CONTROL MEASURES, SUCH AS SILT FENCE, WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED. REMOVE ANY ACCUMULATED SEDIMENTS AND STABILIZE.

PERMANENT VEGETATION
PERMANENT VEGETATIVE COVER SHOULD BE ESTABLISHED ON DISTURBED AREAS WHERE PERMANENT, LONG LIVED VEGETATIVE COVER IS NEEDED TO STABILIZE THE SOIL, TO REDUCE DAMAGES FROM SEDIMENT AND RUNOFF, AND TO ENHANCE THE ENVIRONMENT.

SEEDBED PREPARATION
A. GRADE AS FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE.

B. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY THE UNIVERSITY OF MAINE SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 POUNDS PER ACRE OR 18.4 POUNDS PER 1,000 SQUARE FEET USING 10-20-20 (N-P2O5-K2O) OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT
A RATE OF 3 TONS PER ACRE (138 LB. PER 1,000 SQ. FT).

C. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.D. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.

E. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED; THE AREA MUST BE TILLED AND FIRMED AS ABOVE.

F. PERMANENT SEEDING SHOULD BE MADE 45 DAYS PRIOR TO THE FIRST KILLING FROST OR AS A DORMANT SEEDING WITH MULCH AFTER THE FIRST KILLING FROST AND BEFORE SNOWFALL. WHEN CROWN VETCH IS SEEDED IN LATER SUMMER, AT LEAST 35% OF THE SEED SHOULD BE HARD SEED (UNSCARIFIED). IF SEEDING CANNOT BE DONE WITHIN THE SEEDING DATES, MULCH ACCORDING TO THE TEMPORARY MULCHING BMP AND OVERWINTER STABILIZATION AND CONSTRUCTION TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.

G. FOLLOWING SEED BED PREPARTATION, SWALE AREAS, FILL AREAS AND BACK SLOPES SHALL BE SEEDED AT A RATE OF 3 LBS./1,000 S.F. WITH A MIXTURE OF 35% CREEPING RED FESCUE, 6% RED TOP, 24% KENTUCKY BLUEGRASS, 10% PERENNIAL RYEGRASS, 20% ANNUAL RYEGRASS AND 5% WHITE DUTCH CLOVER.

I. AREAS WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING.

J. AREAS WHICH CANNOT BE SEEDED WITHIN THE GROWING SEASON SHALL BE MULCHED FOR OVER-WINTER PROTECTION AND THE AREA SHOULD BE SEEDED AT THE BEGINNING OF THE GROWING SEASON.

WINTER CONSTRUCTION PHASE
IF AN AREA IS NOT STABILIZED WITH TEMPORARY OR PERMANENT MEASURES BY NOVEMBER 15, THEN THE SITE MUST BE PROTECTED WITH ADDITIONAL STABILIZATION MEASURES.

A. PERMANENT STABILIZATION CONSISTS OF AT LEAST 90% VEGETATION, PAVEMENT/GRAVEL BASE OR RIPRAP.

B. DO NOT EXPOSE SLOPES OR LEAVE SLOPES EXPOSED OVER THE WINTER OR FOR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY PROTECTED WITH MULCH.

C. APPLY HAY MULCH AT TWICE THE STANDARD RATE (150 LBS. PER 1,000 SF). THE MULCH MUST BE THICK ENOUGH SUCH THAT THE GROUND SURFACE WILL NOT BE VISIBLE AND MUST BE ANCHORED.

D. USE MULCH AND MULCH NETTING OR AN EROSION CONTROL MULCH BLANKET OR ALL SLOPES GREATER THAN 8 % OR OTHER AREAS EXPOSED TO DIRECT WIND.

E. INSTALL AN EROSION CONTROL BLANKET IN ALL DRAINAGEWAYS (BOTTOM AND SIDES) WITH A SLOPE GREATER THAN 3 %.

F. SEE THE VEGETATION MEASURES FOR MORE INFORMATION ON SEEDING DATES AND TYPES.

G. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SO THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.

H. AN AREA WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIER.

I. TEMPORARY MULCH MUST BE APPLIED WITHIN 7 DAYS OF SOIL EXPOSURE OR PRIOR TO ANY STORM EVENT, BUT AFTER EVERY WORKDAY IN AREAS WITHIN 100 FEET FROM A PROTECTED NATURAL RESOURCE.

J. AREAS THAT HAVE BEEN BROUGHT TO FINAL GRADE MUST BE PERMANENTLY MULCHED THAT SAME DAY.

K. IF SNOWFALL IS GREATER THAN 1 INCH (FRESH OR CUMULATIVE), THE SNOW SHALL BE REMOVED FROM THE AREAS DUE TO BE SEEDED AND MULCHED.

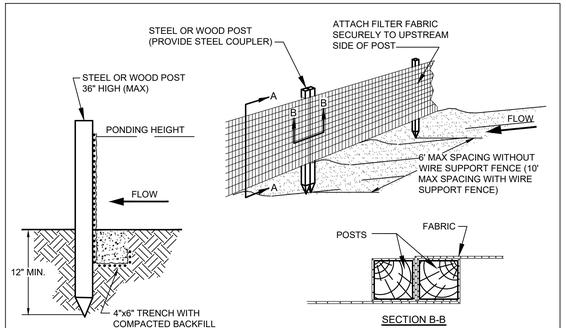
L. LOAM SHALL BE FREE OF FROZEN CLUMPS BEFORE IT IS APPLIED.

M. ALL VEGETATED DITCH LINES THAT HAVE NOT BEEN STABILIZED BY NOVEMBER 1, OR WILL BE WORKED DURING THE WINTER CONSTRUCTION PERIOD, MUST BE STABILIZED WITH AN APPROPRIATE STONE LINING BACKED BY AN APPROPRIATE GRAVEL BED OR GEOTEXTILE UNLESS SPECIFICALLY RELEASED FROM THIS STANDARD BY THE DEPARTMENT.

MAINTENANCE AND INSPECTION PHASE
A. MINIMUM EROSION CONTROL MEASURES WILL NEED TO BE IMPLEMENTED AND THE APPLICANT WILL BE RESPONSIBLE TO MAINTAIN ALL COMPONENTS OF THE EROSION CONTROL PLAN UNTIL THE SITE IS FULLY STABILIZED. HOWEVER, BASED ON SITE AND WEATHER CONDITIONS DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL MEASURES MAY NEED TO BE IMPLEMENTED. ALL AREAS OF INSTABILITY AND EROSION MUST BE REPAIRED IMMEDIATELY DURING CONSTRUCTION AND NEED TO BE MAINTAINED UNTIL THE SITE IS FULLY STABILIZED OR VEGETATION IS ESTABLISHED. A CONSTRUCTION LOG MUST BE MAINTAINED FOR THE EROSION AND SEDIMENTATION CONTROL INSPECTIONS AND MAINTENANCE

B. A LOG (REPORT) MUST BE KEPT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF THE PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, AND MAJOR OBSERVATIONS RELATING TO OPERATION OF EROSION AND SEDIMENTATION CONTROLS AND POLLUTION PREVENTION MEASURES. MAJOR OBSERVATIONS MUST INCLUDE: BMPS THAT NEED TO BE MAINTAINED; LOCATION(S) OF BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION; AND LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION. FOLLOW-UP TO CORRECT DEFICIENCIES OR ENHANCE CONTROLS MUST ALSO BE INDICATED IN THE LOG AND DATED, INCLUDING WHAT ACTION WAS TAKEN AND WHEN.

DEWATERING
A DEWATERING PLAN IS NEEDED TO ADDRESS EXCAVATION DE-WATERING FOLLOWING HEAVY RAINFALL EVENTS OR WHERE THE EXCAVATION MAY INTERCEPT THE GROUNDWATER TABLE DURING CONSTRUCTION. THE COLLECTED WATER NEEDS TREATMENT AND A DISCHARGE POINT THAT WILL NOT CAUSE DOWNGRADIENT EROSION AND OFFSITE SEDIMENTATION OR WITHIN A RESOURCE.

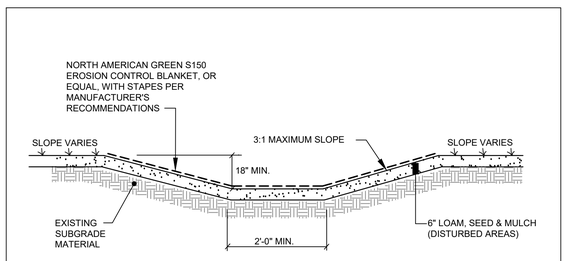


SECTION A-A

SECTION B-B

SILT FENCE

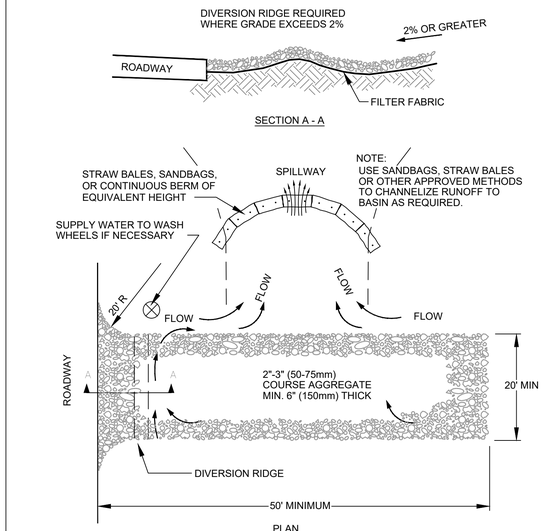
NOT TO SCALE



NOTE: REFER TO GRADING PLAN FOR DITCH WIDTH AND SIDE SLOPES

GRASSED SWALE

NOT TO SCALE



SECTION A - A

PLAN

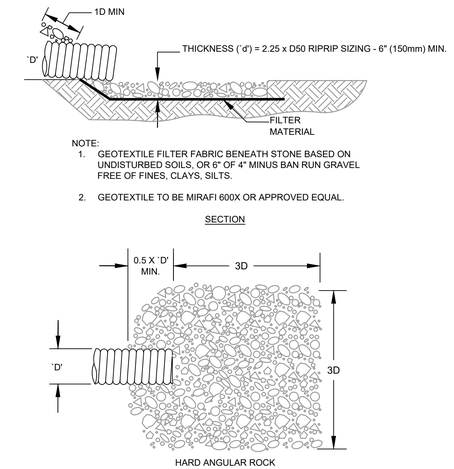
NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.

2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.

3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



NOTE:
1. GEOTEXTILE FILTER FABRIC BENEATH STONE BASED ON UNDISTURBED SOILS, OR 6" OF 4" MINUS BAN RUN GRAVEL FREE OF FINES, CLAYS, SILTS.

2. GEOTEXTILE TO BE MIRAFI 600X OR APPROVED EQUAL.

SECTION

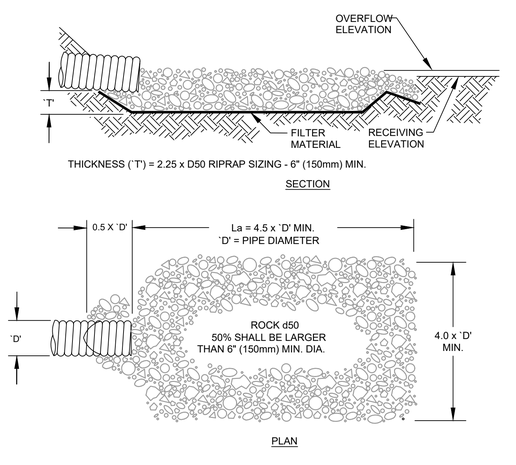
PLAN

PIPE INLET PROTECTION SIZING TABLE

PIPE SIZE (IN)	RIRAP SIZING (D50)	LENGTH (FT)	WIDTH (FT)
6	3	2.0	1.5
12	5	3.5	3.0
15	6	4.5	3.75
18	8	5.25	4.5
24	10	7.0	6.0
30	12	8.75	7.5
36	14	10.5	9.0

NOTES:
1. IN DEFINED CHANNELS, APRON SHALL EXTEND FULL WIDTH OF BOTTOM AND ONE FOOT ABOVE MAX. HEADWATER OR UP TO BANK FULL, WHICHEVER IS LESS.

PIPE INLET PROTECTION



SECTION

PLAN

PIPE OUTLET PROTECTION SIZING TABLE

PIPE SIZE (IN)	RIP RAP SIZING (D50)	LENGTH (FT)	WIDTH (FT)
6	3	2.5	2.0
12	5	5.0	4.0
15	6	6.25	5.0
18	8	7.5	6.0
24	10	10.0	8.0
30	12	13.0	10.0
36	14	15.0	12.0

NOTES:
1. `La' = LENGTH OF APRON. DISTANCE `La' SHALL BE OF SUFFICIENT LENGTH TO DISSIPATE ENERGY.

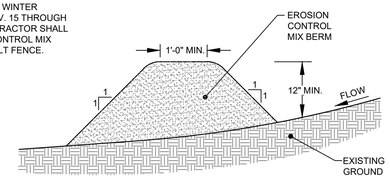
2. APRON SHALL BE SET AT A ZERO GRADE AND ALIGNED STRAIGHT.

3. FILTER MATERIAL SHALL BE FILTER FABRIC (MIRAFI 600X OR APPROVED EQUAL) OR 6" (150mm) THICK MINIMUM GRADED GRAVEL LAYER.

PIPE OUTLET PROTECTION

NOT TO SCALE

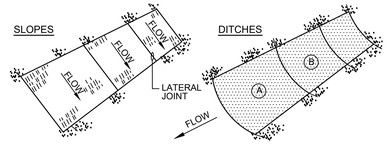
NOTE:
DURING PERIODS OF WINTER CONSTRUCTION (NOV. 15 THROUGH APRIL 15), THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.



EROSION CONTROL MIX:
EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES & MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:
- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80% - 100% DRY WEIGHT BASIS
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70%, MAXIMUM OF 85% PASSING A 0.75" SCREEN
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
- SOLUBLE SALTS CONTENT SHALL BE < 4.0 mmhos/cm.
- ph SHALL FALL BETWEEN 5.0 - 8.0.

EROSION CONTROL MIX BERM

NOT TO SCALE



NOTES:
1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.

2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.

3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 18" ON CENTER.

4. STAPLE OUTSIDE LATERAL EDGE 2' ON CENTER.

5. WIRE STAPLES TO BE MIN. OF #11 WIRE, 6" LONG & 1-1/2" WIDE.

6. USE NORTH AMERICAN GREEN DS 150 (OR APPROVED EQUAL) ON SLOPES BETWEEN 4:1-2:1. USE NORTH AMERICAN GREEN VMAX SC250 PERMANENT TURF REINFORCEMENT MAT (OR APPROVED EQUAL) ON SLOPES 2:1 AND STEEPER..

EROSION CONTROL BLANKET

NOT TO SCALE

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STATE OF MAINE
JESSICA D. HAMOS
10167
LICENSED
PROFESSIONAL ENGINEER

DATE: 10/26/2021
P.E.: 10167

NO.	DATE	REVISIONS	APP'D BY

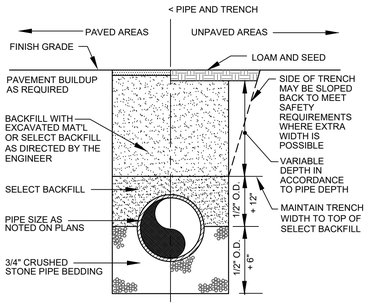
PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
GRAY SELF STORAGE
PORTLAND ROAD,GRAY, ME

SHEET TITLE:
EROSION CONTROL NOTES & DETAILS

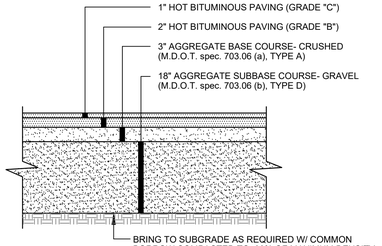
CLIENT:
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	AS NOTED
DESIGNED:	JDA
JOB NO:	2125
FILE:	2125-D
SHEET	C-3.0



TYPICAL TRENCH SECTION

NOT TO SCALE

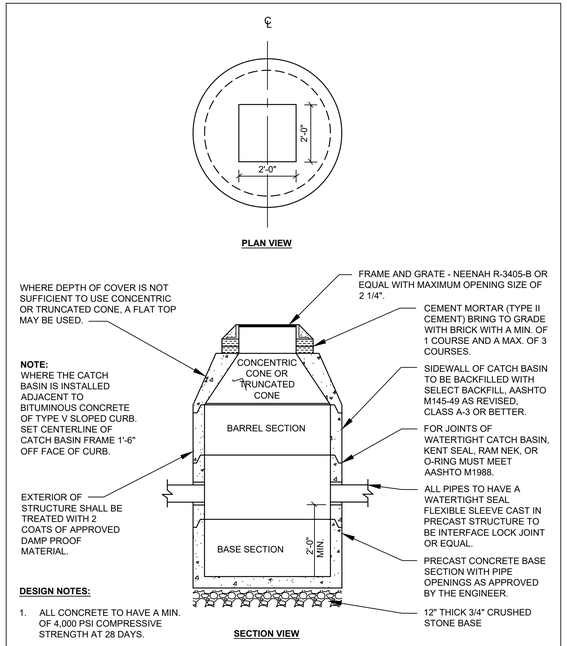


NOTES:

1. COMPACT GRAVEL SUBBASE COURSE TO 92% OF MAXIMUM DENSITY USING HEAVY ROLLER COMPACTION.
2. CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.

TYP. PAVED PARKING LOT SECTION

NOT TO SCALE



NOTE:
WHERE THE CATCH BASIN IS INSTALLED ADJACENT TO BITUMINOUS CONCRETE OF TYPE V SLOPED CURB. SET CENTERLINE OF CATCH BASIN FRAME 1'-6" OFF FACE OF CURB.

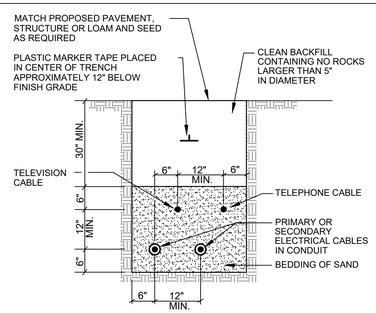
DESIGN NOTES:

1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.12 IN SQ./LF..

NOTE:
CASCADE GRATES SHALL BE INSTALLED ON GRADIENT OF GUTTER IF PROFILE GRADE EXCEEDS 5% GRATES SHALL BE DEPRESSED 2" BELOW NORMAL GUTTER GRADE UNLESS THIS DEPRESSION INTERFERES WITH TRAFFIC. PARALLEL BAR GRATES SHALL BE INSTALLED ON A LEVEL GRADIENT.

TYPICAL CATCH BASIN

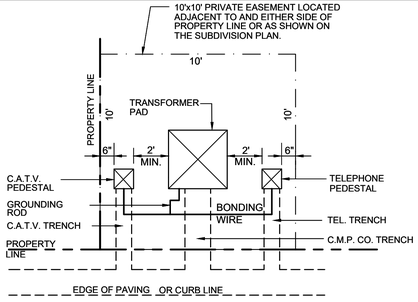
NOT TO SCALE



CABLES TO BE ENCASED IN SCHEDULE 40 PVC CONDUIT WHEN RUN BENEATH PAVED AREAS.

TYPICAL UNDERGROUND CABLE INSTALLATION

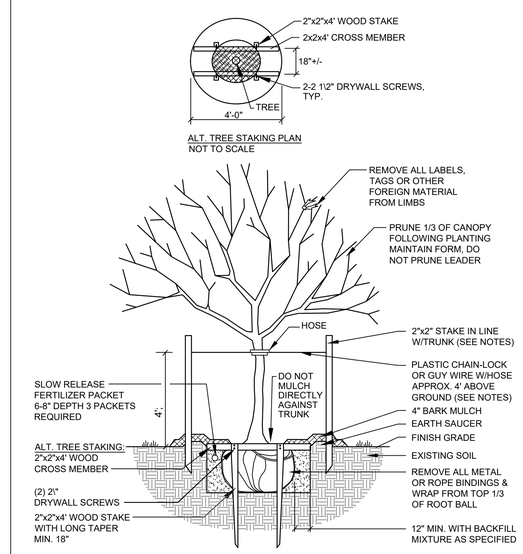
NOT TO SCALE



NOTE:
TRANSFORMER PAD AND COVER TO BE FIBERGLASS MEETING CENTRAL MAINE POWER SPECIFICATIONS.

TRANSFORMER DETAIL

NOT TO SCALE

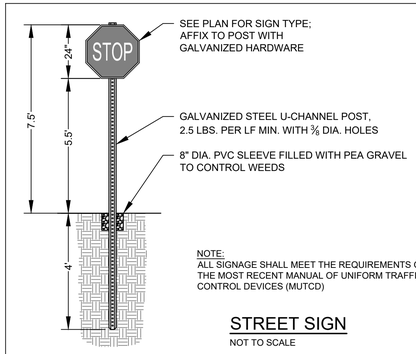


ALT. TREE STAKING PLAN
NOT TO SCALE

NOTES:
INSTALL STAKES AND GUYS TO TREES IF THE FOLLOWING APPLY:
1. THE TREE IS OF SUBSTANTIAL SIZE.
2. THE PLANTING LOCATION IS EXTREMELY WINDY, AS ON OPEN UNDEVELOPED SITES.
3. THE PLANTING LOCATION IS COMPRISED OF SAND OR OTHER LOOSE TEXTURED SOILS.
4. IF STAKES AND GUYS ARE REQUIRED, REMOVE AFTER ONE YEAR TIME.

DECIDUOUS TREES 2" TO 4" CALIPER

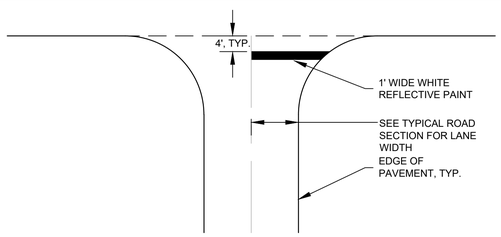
NOT TO SCALE



NOTE:
ALL SIGNAGE SHALL MEET THE REQUIREMENTS OF THE MOST RECENT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

STREET SIGN

NOT TO SCALE

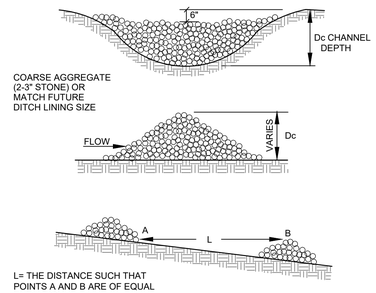


STOP BAR DETAIL

NOT TO SCALE

CONSTRUCTION NOTES:

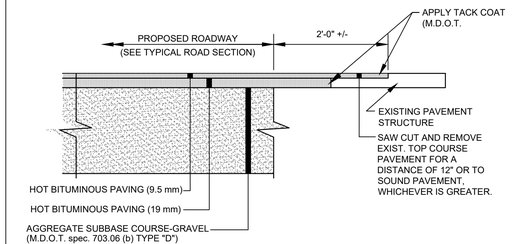
1. CHECK DAMS SHALL BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE.
2. THE AREA AROUND EACH CHECK DAM SHALL BE FREE OF DEBRIS.
3. THE MAXIMUM HEIGHT OF A STONE CHECK DAM SHALL BE 2 FEET WITH A 6-INCH DEPRESSION AT ITS CENTER FRO OVERFLOW. THE EDGES OF THE DAM SHALL BE KEYED INTO THE EMBANKMENTS TO PREVENT SIDE EROSION.
4. MECHANICAL PLACEMENT FOLLOWED BY HAND PLACEMENT WILL BE NECESSARY TO ACHIEVE A TIGHT MASS WITHIN THE CHANNEL AND ENSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES.
5. ANY EROSION DOWNGRADIENT OR AROUND THE EDGES OF THE STONE CHECK DAMS SHALL BE CORRECTED IMMEDIATELY.
6. THE CHECK DAM MAY BE REMOVED WHEN THE SWALE IS STABILIZED WITH VEGETATION (90% COVERAGE).



L= THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

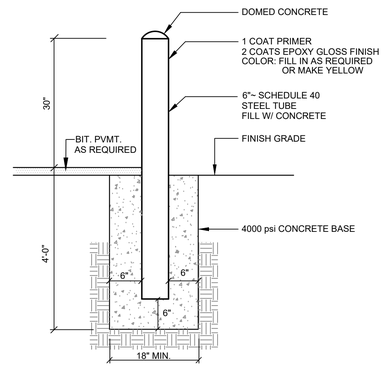
STONE CHECK DAM

NOT TO SCALE



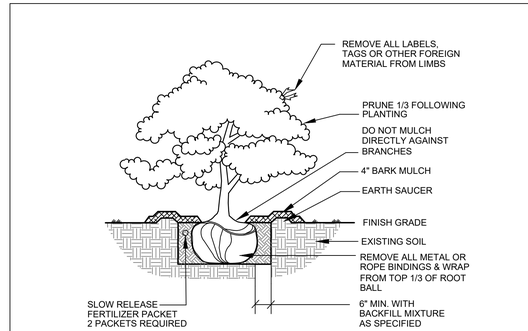
TYPICAL PAVEMENT JOINT

NOT TO SCALE



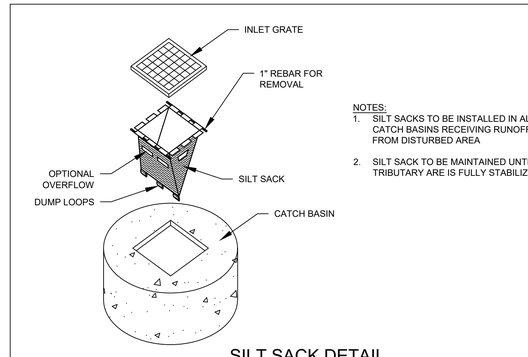
METAL BOLLARD

NOT TO SCALE



DECIDUOUS & EVERGREEN SHRUB

NOT TO SCALE



NOTES:
1. SILT SACKS TO BE INSTALLED IN ALL CATCH BASINS RECEIVING RUNOFF FROM DISTURBED AREA
2. SILT SACK TO BE MAINTAINED UNTIL TRIBUTARY ARE IS FULLY STABILIZED

SILT SACK DETAIL

NOT TO SCALE

STATE OF MAINE — JEFFREY D. AMOS — 10167 — LICENSED PROFESSIONAL ENGINEER

DATE: 10/26/2021
P.E.: 10167

NO.	DATE	REVISIONS	APP'D BY

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
GRAY SELF STORAGE
PORTLAND ROAD,GRAY, ME

SHEET TITLE:
SITE DETAILS

CLIENT:
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	AS NOTED
DESIGNED:	JDA
JOB NO:	2125
FILE:	2125-D
SHEET	C-3.1

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CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING

CONSTRUCTION NOTES

1. ALL WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES.

2. CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIM OR HERSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIM OR HERSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

3. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND IN THE FIELD.

4. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND OWNER'S REQUIREMENTS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

5. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.

6. CONTRACTOR SHALL CLEAN AND REMOVE DEBRIS AND SEDIMENT DEPOSITED ON PUBLIC STREETS, SIDEWALKS, ADJACENT AREAS, OR OTHER PUBLIC WAYS DUE TO CONSTRUCTION.

7. CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES, PHYSICAL FEATURES, AND MAINTAIN SITE STABILITY DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE ALL AREAS TO ORIGINAL CONDITION AND AS DIRECTED BY DESIGN DRAWINGS.

8. SITE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.

9. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES" PUBLISHED BY THE CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2016 OR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.

10. THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES SHOWN HEREON ARE BASED ON FIELD OBSERVATIONS BY THE SURVEYOR AND BY INFORMATION PROVIDED BY UTILITY COMPANIES. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT DIG SAFE (1-888-DIGSAFE) AT LEAST THREE (3) BUT NOT MORE THAN THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES.

11. CONTRACTOR SHALL BE AWARE THAT DIG SAFE ONLY NOTIFIES ITS "MEMBER" UTILITIES ABOUT THE DIG. WHEN NOTIFIED, DIG SAFE WILL ADVISE CONTRACTOR OF MEMBER UTILITIES IN THE AREA. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND CONTACTING NON-MEMBER UTILITIES DIRECTLY. NON-MEMBER UTILITIES MAY INCLUDE TOWN OR CITY WATER AND SEWER DISTRICTS AND SMALL LOCAL UTILITIES, AS WELL AS USG PUBLIC WORKS SYSTEMS.

12. CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF 23 MRSA 3360-A. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE APPROPRIATE UTILITIES TO OBTAIN AUTHORIZATION PRIOR TO RELOCATION OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS. IF A UTILITY CONFLICT ARISES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, THE MUNICIPALITY AND APPROPRIATE UTILITY COMPANY PRIOR TO PROCEEDING WITH ANY RELOCATION.

13. ALL PAVEMENT MARKINGS AND DIRECTIONAL SIGNAGE SHOWN ON THE PLAN SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.

14. ALL PAVEMENT JOINTS SHALL BE SAWCUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.

15. NO HOLES, TRENCHES OR STRUCTURES SHALL BE LEFT OPEN OVERNIGHT IN ANY EXCAVATION ACCESSIBLE TO THE PUBLIC OR IN PUBLIC RIGHTS-OF-WAY.

16. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL REQUIRE A M.D.O.T. PERMIT AS WELL AS PERMITS FROM THE TOWN AS APPLICABLE.

17. THE PROPOSED LIMITS OF CLEARING SHOWN HEREON ARE APPROXIMATE BASED UPON THE PROPOSED LIMITS OF SITE GRADING. THE APPLICANT RESERVES THE RIGHT TO PERFORM NORMAL FOREST MANAGEMENT ACTIVITIES OUTSIDE OF THE CLEARING LIMIT AS SHOWN. TREE REMOVAL OUTSIDE OF THE LIMITS OF CLEARING MAY BE NECESSARY TO REMOVE DEAD OR DYING TREES OR TREE LIMBS. THIS REMOVAL IS DUE TO POTENTIAL SAFETY HAZARDS AND TO PROMOTE PROPER FOREST GROWTH.

18. IMMEDIATELY UPON COMPLETION OF CUTS/FILLS, THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH EROSION CONTROL NOTES AND AS SPECIFIED ON PLANS.

19. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR THE REMOVAL, REPLACEMENT AND RECTIFICATION OF ALL DAMAGED AND DEFECTIVE MATERIAL AND WORKMANSHIP IN CONNECTION WITH THE CONTRACT WORK. THE CONTRACTOR SHALL REPLACE OR REPAIR AS DIRECTED BY THE OWNER ALL SUCH DAMAGED OR DEFECTIVE MATERIALS WHICH APPEAR WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.

20. ALL WORK PERFORMED BY THE GENERAL CONTRACTOR AND/OR TRADE SUBCONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF LOCAL, STATE OR FEDERAL LAWS, AS WELL AS ANY OTHER GOVERNING REQUIREMENTS, WHETHER OR NOT SPECIFIED ON THE DRAWINGS.

21. WHERE THE TERMS "APPROVED EQUAL", "OTHER APPROVED", "EQUAL TO", "ACCEPTABLE" OR OTHER GENERAL QUALIFYING TERMS ARE USED IN THESE NOTES, IT SHALL BE UNDERSTOOD THAT REFERENCE IS MADE TO THE RULING AND JUDGMENT OF TERRADYN CONSULTANTS, LLC.

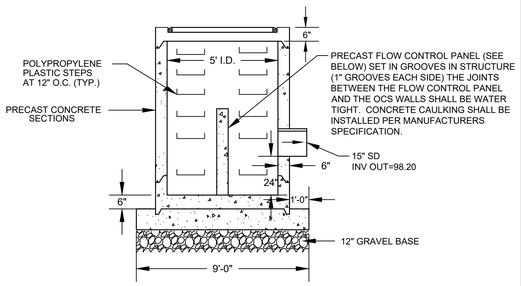
22. THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION FOR THE WORK UNTIL TURNED OVER TO THE OWNER.

23. THE GENERAL CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DRAWINGS ON SITE DURING ALL PHASES OF CONSTRUCTION FOR USE OF ALL TRADES.

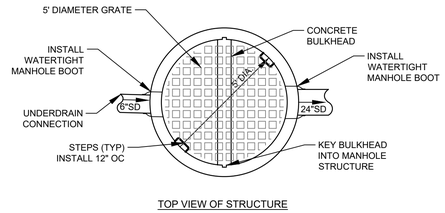
24. THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ANY CHANGES AND DEVIATION OF APPROVED PLANS NOT AUTHORIZED BY THE ARCHITECT/ENGINEER AND/OR CLIENT/OWNER.

25. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. ANY MODIFICATION TO SUIT FIELD DIMENSION AND CONDITION SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY WORK.

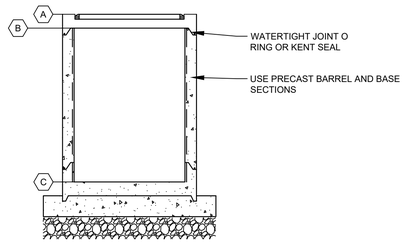
26. BEFORE THE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND MATERIALS, REPAIR OR REPLACE PRIVATE OR PUBLIC PROPERTY WHICH MAY HAVE BEEN DAMAGED OR DESTROYED DURING CONSTRUCTION, CLEAN THE AREAS WITHIN AND ADJACENT TO THE PROJECT WHICH HAVE BEEN OBSTRUCTED BY HIS/HER OPERATIONS, AND LEAVE THE PROJECT AREA NEAT AND PRESENTABLE.



SIDE VIEW OF STRUCTURE



TOP VIEW OF STRUCTURE

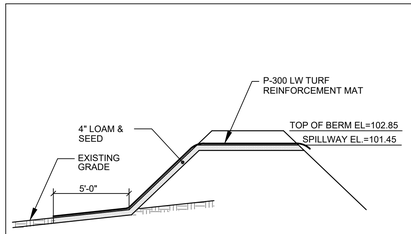


SIDE VIEW & WEIR WALL

NOTES:
1. SUBMIT SHOP DRAWINGS FOR OWNER/ ENGINEER APPROVAL.
2. STRUCTURE SHALL BE DESIGNED FOR H-20 LOADING.
3. CASTINGS SHALL PROVIDE FOR A 24" CLEAR OPENING.

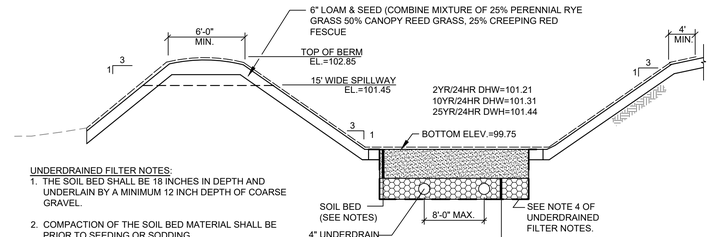
SCHEDULE A OUTLET CONTROL STRUCTURE	
ITEM DESCRIPTION	DIMENSION / ELEVATION
A. TOP OF STRUCTURE	101.00
B. UNDERSIDE OF SLAB	100.50
C. BOTTOM OF STRUCTURE	96.20

OUTLET CONTROL STRUCTURE WITH GRATE (OCS)
NOT TO SCALE



EMBANKMENT CONSTRUCTION
1. CONSTRUCTION OF COMMON BORROW MATERIAL MEETING M.D.O.T. SPECIFICATION 703.
2. PLACE BORROW MATERIAL IN 12" LIFTS COMPACTED TO 95% OF MAXIMUM DRY DENSITY.
3. INSTALL RIPRAP AND EROSION CONTROL MESH WHERE SPECIFIED ON PLANS
4. LOAM, SEED, AND STABILIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.

SPILLWAY SECTION - FILTER BASIN
NOT TO SCALE

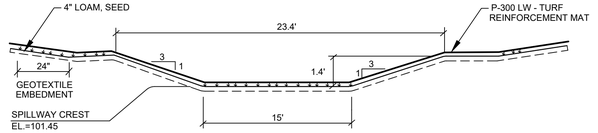


UNDERDRAINED FILTER NOTES:
1. THE SOIL BED SHALL BE 18 INCHES IN DEPTH AND UNDERLAIN BY A MINIMUM 12 INCH DEPTH OF COARSE GRAVEL.
2. COMPACTION OF THE SOIL BED MATERIAL SHALL BE PRIOR TO SEEDING OR SODDING.
3. A DENSE COVER OF GRASS OR SOD SHALL BE ESTABLISHED AND MAINTAINED ON THE SURFACE TO PREVENT CLOGGING.
4. PLACE NON WOVEN GEOTEXTILE FABRIC (MIRIFI S600 OR APPROVED EQUAL) ON ALL SIDES AND BOTTOM OF SOIL & GRAVEL FILTER AREA.
5. SOIL FILTER BED SHALL MEET THE SPECIFICATIONS SHOWN IN SOIL FILTER MEDIA TABLE.

FILTER BASIN
NOT TO SCALE

CONSTRUCTION PHASE NOTES:
Construction Sequence: The soil filter media and vegetation must not be installed until the area that drains to the filter has been permanently stabilized with pavement or other structure, 90% vegetation cover, or other permanent stabilization unless the runoff from the contributing drainage area is diverted around the filter until stabilization is completed.
Compaction of Soil Filter: Filter soil media and underdrain bedding material must be compacted to between 90% and 92% standard proctor. The bed should be installed in at least 2 lifts of 9 inches to prevent pockets of loose media.
Construction Oversight: Inspection by a professional engineer will occur at a minimum:
- After the preliminary construction of the filter grades and once the underdrain pipes are installed but not backfilled,
- After the drainage layer is constructed and prior to the installation of the filter media,
- After the filter media has been installed and seeded. Bio-retention cells must be stabilized per the provided planting scheme and density for the canopy coverage of 30 and 50%.
- After one year to inspect health of the vegetation and make corrections, and
- All the material used for the construction of the filter basin must be confirmed as suitable by the design engineer. Testing must be done by a certified laboratory to show that they are passing DEP specifications.

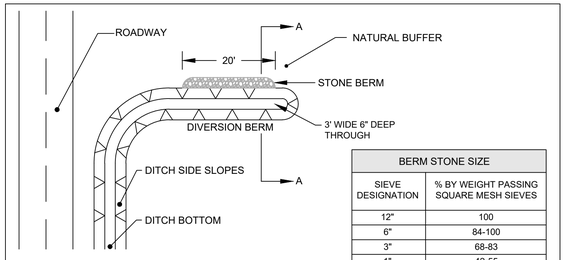
Testing and Submittals: The contractor shall identify the location of the source of each component of the filter media. All results of field and laboratory testing shall be submitted to the project engineer for confirmation. The contractor shall:
- Select samples for sampling of each type of material to be blended for the mixed filter media and samples of the underdrain bedding material. Samples must be a composite of three different locations (grabs) from the stockpile or pit face. Sample size required will be determined by the testing laboratory.
- Perform a sieve analysis conforming to STM C136 (Standard Test Method for Sieve Analysis of fine and Course Aggregates 1996A) on each type of the sample material. The resulting soil filter media mixture must have 8% to 12% by weight passing the #200 sieve, a clay content of less than 2% (determined hydrometer grain size analysis) and have 10% dry weight of organic matter.
- Perform a permeability test on the soil filter media mixture conforming to ASTM D2434 with the mixture compacted to 90-92% of maximum dry density based on ASTM D698.



SPILLWAY CROSS-SECTION - FILTER BASIN
NOT TO SCALE

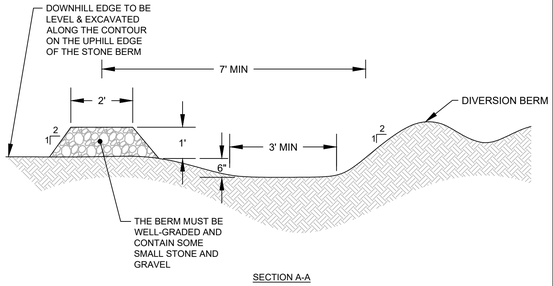
SOIL FILTER MEDIA TABLE		
FILTER MEDIA	MIXTURE BY VOLUME	SPECIFICATION
SAND	50%-55%	MEDOT SPEC. 703.01 FINE AGGREGATE FOR CONCRETE
TOPSOIL	20%-30%	LOAMY SAND TOPSOIL WITH MINIMAL CLAY CONTENT AND BETWEEN 15-25% FINES PASSING THE #200 SIEVE.
MULCH	20%-30%	MODERATELY FINE, SHREDDED BARK OR WOOD FIBER MULCH WITH LESS THAN 5% PASSING THE #200 SIEVE

GRASSED UNDERDRAINED SOIL FILTER BASIN DETAILS
NOT TO SCALE



PLAN VIEW

BERM STONE SIZE	
SIEVE DESIGNATION	% BY WEIGHT PASSING SQUARE MESH SIEVES
12"	100
6"	84-100
3"	68-83
1"	42-55
#4	8-12



SECTION A-A

CONSTRUCTION & POST-CONSTRUCTION PHASE NOTES:
Buffers - General
General forest use means that the land must be maintained with a forest cover and undisturbed soil, duff layer ground cover vegetation, and understory vegetation. Timber may be harvested on a selective basis provided that no more than 40% of the volume is harvested within any 10 year period.

Stone Bermed Level Lip Spreader
Inspections by a professional engineer shall consist of weekly visits to the site to inspect each level spreaders construction, stone berm material and placement, settling basin from initial ground disturbance to final stabilization of the level spreader.

Road Ditch Turnouts
Inspections by a professional engineer shall consist of weekly visits to the site to inspect each turnout construction, turnout's stone berm material and placement, from initial ground disturbance to final stabilization of the level spreader.

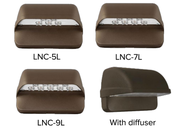
TYPICAL DITCH TURNOUT BUFFER
NOT TO SCALE

HUBBELL Outdoor Lighting

DATE: LOCATION:
TYPE: PROJECT:
CATALOG #:

LNC
COMPACT LED LITEPAK

FEATURES
- Compact LNC LED is designed for perimeter illumination and available in 3 lumen packages for safety, security and identity
- 3000K, 4000K, 5000K and Amber color temperatures
- Up to 4:1 spacing to mounting height ratio means fewer fixtures to install
- Acrylic diffuser included! Use for applications near entrances or locations where reduced brightness is desired. (Maximum spacing with diffuser 30ft)
- Die-cast aluminum housing with decorative Laredo styling
- Full cut-off neighbor friendly
- Listed to UL1598 for use in wet locations



RELATED PRODUCTS
LNC2 LNC3 LNC4

*3000K and warmer CCTs only

SPECIFICATIONS
CONSTRUCTION
- Decorative die-cast aluminum housing and door
- Rugged design protects internal components and provides excellent thermal management for long life
- Powder paint finishes provide lasting appearance in outdoor environments
- Full cut-off distribution; Ambient diffuser included, use for applications near enterances or locations where reduced brightness is desired

OPTICS
- Drivers are 120-277V, 50/60Hz Type II, III and Type IV lenses provide wide lateral spread
- 3000K - 80 CRI, 4000K - 70 CRI, and 5000K - 70 CRI, CCT nominal
- Drivers have greater than .90 power factor and less than 20% Total Harmonic Distortion

INSTALLATION
- Quick mount adapter provides quick installation, designed for recessed box 4" square junction box

ELECTRICAL
- 60,000 hours minimum LED life at L96 rating per IESNA TM-21-11
- Minimum operating temperature is -40°C/-40°F
- 0-10V dimming 120-277V only
- LNC5L – 5 LEDs, Types II, III or IV available, see page 2 for electrical details
- LNC7L – 7 LEDs, Type II, III or IV available, see page 2 for electrical details
- LNC9L – 9 LEDs, Types II, III or IV available, see page 2 for electrical details

CONTROLS
- Photocontrol option is available to provide dusk-to-dawn control for additional energy savings

CERTIFICATIONS
- DLC® DesignLights Consortium Qualified, with some Premium Qualified configurations. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Listed and labeled to UL 1598 for wet locations, 25°C ambient environments

WARRANTY
- 5 year limited warranty
- See HLI Standard Warranty for additional information

KEY DATA	
Lumen Range	800–2100
Wattage Range	13–22
Efficacy Range (LPW)	64–95
Fixture Projected Life (Hours)	L96>60K
Weights lbs. (kg)	9.6 (24.5)

HUBBELL Lighting

6' LNC PSG PAGE
6' LNC BROCHURE
6' LED BUILDING GUIDE
6' INSTALLATION INSTRUCTIONS

TERRADYN CONSULTANTS, LLC
CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING
41 CAMPUS DRIVE
SUITE 201
NEW GLOUCESTER, ME 04260
OFFICE: (207) 926-5111
www.terradynconsultants.com
565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

DATE: 10/26/2021
P.E.: 10167

NO.	DATE	REVISIONS	APP'D BY

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: GRAY SELF STORAGE
PORTLAND ROAD, GRAY, ME
SHEET TITLE: DETAILS & NOTES
CLIENT: BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	AS NOTED
DESIGNED:	JDA
JOB NO:	2125
FILE:	2125-D
SHEET	C-3.2

TERRADYN CONSULTANTS, LLC

Pineland
Cumberland Hall
41 Campus Drive, Suite 101
New Gloucester, ME 04260

Portland
565 Congress Street, Suite 201
Portland, ME 04101

October 27, 2021 2125

Ms Kristen Muszynski, Town Planner
Town of Gray Planning Department
Henry Pennell Municipal Complex
24 Main Street
Gray, ME 04039

Site Plan Application: Gray Self Storage, Portland Road

Dear Kristen,

Terradyn Consultants LLC, on behalf of Beth Cureton, is pleased to submit this site plan application for the proposed Gray Self Storage Project. The development parcel is approximately 4.1 acres and is shown as lots 31-10 & 31-14 on the Town of Gray Tax Map 59 and is approximately located at 119 Portland Road. The property is located within the Commercial (C) Zone. See attached Figure 1 for USGS Location Map.

The property contains an old driveway that connects Portland Road to a small (<10,000 SF) cleared area that is located directly adjacent to the neighboring commercial property to the south. The rest of the property is undeveloped forest and wetland area. See attached Figure 2 for Aerial Map.

Proposed Project:
The applicant is proposing to create a self-storage facility that will feature six self-storage buildings & a small outdoor storage area along with the associated maneuvering area, utility infrastructure, landscaping and stormwater facilities. The buildings provide a total of 27,900 SF of indoor storage while the outdoor storage area will feature a gravel pad (approximately 9,000 SF). Facility rentals will be managed by a website. No rental office is proposed onsite which means that the facility does not require any water, sewage or employee parking facilities.

The applicant is proposing to construct metal buildings featuring earth tone colors. The applicant is currently planning on tan buildings with hunter green doors and trim. There will be a new sign adjacent to the entrance that will conform to all requirements of the land use ordinance. It will likely be externally lit. Additional detail will be provided under separate cover.

The project will be accessed by a new driveway off Portland Road (Route 100) that will be in the same location as the existing access. The driveway leads to leads to a front gate that is approximately 100' off the edge of the road. This distance provides more than enough stacking opportunity. The gate will be controlled with a keypad mechanism. The applicant will provide the access code to the Gray Fire & Rescue Department. A black chain link security fence will surround the front & southerly sides of the development area.

The existing vegetation in the wetlands will be preserved and will provide substantial buffering between the road & the development area. Additional landscaping will be installed in the open area at the south end of the site.

Environmental Permits:

The applicant will need to obtain a Maine DEP Stormwater permit prior to construction since the new impervious area is greater than one acre. The stormwater management system will likely feature an under-drained filter basin that will provide both stormwater quality & quantity control for the site. Site runoff eventually drains to the Pleasant River. A Tier 1 wetland alteration permit is also necessary since site alteration exceeds 4,300 SF and is less than 15,000 SF.

Site Utilities:
The project will not need to connect to the Town water main nor will a septic system be necessary. The applicant will connect to the Central Maine Power the overhead power lines that run along the project frontage. A transformer will be placed onsite that will provide power to the facility.

Stormwater Management:
Almost all of the development will drain to a new under-drained filter basin. The filter basin also provides control of the peak rate of runoff to below existing levels. The design meets the MDEP & Town of Gray ordinance requirements. A full stormwater analysis is provided in Attachment 6. The Maine Department of Environmental Protection will review the stormwater design as part of their review of our Stormwater Permit Application.

Fire Protection:
There are hydrants both north and south of the new entrance. Both hydrants are approximately 750' away from the proposed property entrance.

Traffic:
According to the ITE Trip Generation 10th Edition – mini-warehousing (Section 151) results in slightly higher traffic on weekends rather than during the work week:

Monday-Friday
- 1.51 trips per day per 1,000 SF of G.F.A. (41 trips)
- 0.10 trips per AM Peak hour per 1,000 SF of G.F.A. (3 trips)
- 0.17 trips per PM Peak hour per 1,000 SF of G.F.A. (5 trips)

Weekend (Saturday)
- 1.95 trips per day per 1,000 SF of G.F.A. (53 trips)
- 0.31 trips per Peak hour per 1,000 SF of G.F.A. (9 trips)

Property Owner and Applicant:

Record owner of the property:	Applicant:
Equity Trust Company FBO Beth Cureton	Same
29 Derby Lane	
North Yarmouth, ME 04039	

Technical Capacity & Project Consultants:

The enclosed plan set is based upon a boundary and topographic survey performed by Wayne T. Wood, PLS of Wayne T. Wood & Co. The survey was prepared in the summer of 2021. The site natural resources mapping was performed by Mark Cenci of Mark Cenci Geologic, who provided the wetland delineation and field determination of the boundary of the resource protection boundary.

The applicant will hire experienced local contractors to construct the project and is purchasing the metal buildings from an experience manufacturer. The applicant has hired the following project consultants:

Jeff Amos, P.E.
Terradyn Consultants, LLC
41 Campus Drive, Suite 101
New Gloucester, ME 04260
Ph. 207-688-3109
Cell 207-272-7571
Fax 207-221-1317

Natural Resources Mapping:
Mark Cenci Geologic
93 Mill Road
North Yarmouth, ME 04097
(207) 329-3524

Surveyor:
Wayne T. Wood & Associates
30 Wood Drive
Gray, ME 04039
(207) 657-3330

Both Wayne Wood & Jeff Amos have been involved with many similar projects across the State of Maine. Terradyn Consultants, LLC was established in 2005 and has completed hundreds of projects in that time ranging from residential & commercial subdivisions, site plans, watershed studies, and environmental permitting. We have worked & secured permits within the Town of Gray several times and have professional references available from MDEP, CCSWCD, contractors & private developers.

Waiver Requests:

We hereby request a waiver from Section 401.10.10.A.4.j of the submission requirements. That section requires that a Class B High Intensity Soil Survey be provided for Major Developments that have more than 10% of the site identified as wetlands. A wetland delineation was performed and the development is located on the upland portions of the property. The medium intensity soils were used for the stormwater analysis. A net residential density calculation is not required for this project. We don't believe that any useful information would be gained from a Class B Soil Survey.

❖ **REQUIRED SUBMISSIONS – CHAPTER 402 ZONING ORDINANCE**

402.10.10 Required Submissions for Site Plan Review

Site Inventory and Analysis

A. Site Inventory Plan – ***See Attachment 4***
   1. The names, addresses, and phone numbers of the record owner and the applicant are provided on the plans and in this letter.
   2. Names and addresses of all consultants working on the project are provided on the plans and in this letter.
   3. Evidence of Right, Title and Interest in the property ***– See Attachment 3***
   4. The Site Inventory Plan shows the required information as listed on the enclosed Site Plan Review Checklist – ***See Attachment 4***
      a. Name of the Development, north arrow, date and scale. ***Shown on plan.***
      b. Boundaries of the parcel and existing zoning ***Boundaries are shown on the plan. The property is located within the Commercial Zone.***
      c. Relationship of the site to the surrounding area (i.e. access roads and abutting uses) – ***Property bounded by Portland Road to the east, a residential property to the north, the Maine Turnpike to the west and a commercial development to the south. The area across Portland Road is undeveloped.***
      d. Topography of the site is shown at 2-foot contour intervals. ***Provided on plans.***
      e. The major natural features of the site are shown on the plan. ***All significant natural features are shown on the plans and in Attachment 4.***
      f. Existing buildings, structures or other improvements on the site – ***There are no existing structures on the site.***
      g. Existing restrictions or easements on the site. ***None***
      h. The location and size of existing utilities or improvements serving the site – ***See above narrative and attached plans.***
      i. Wetlands as delineated by Summit Geoengineering Services are shown on the plan. No potential vernal pools were identified by the wetland scientist.
      j. A Class B high intensity soil survey: ***We've requested a waiver from the Class B High Intensity Soil Survey. We don't believe that it provides any useful information for this project.***
      k. The Class D medium intensity soil survey: ***See Attachment 6 for the soil map. The soils information is also shown on the Inventory Plan.***

B. Site Analysis Plan – ***Attachment 4***
   1. The Site Analysis Plan (same quantity, size and scale as the Inventory Plan) highlights the opportunities and constraints of the site as follows:
      a. Portions of the site that are unsuitable for development
      b. Portions of the site that are unsuitable for on-site sewage disposal
      c. Areas of the site that have environmental limitations that must be addressed in the development plan
      d. Areas that may be subject to off-site conflicts or concerns (i.e. noise, lighting, traffic, etc.) and which areas are well suited to the proposed use.
   2. Site Analysis Narrative (14 copies) describing the existing conditions of the site, the proposed use and the constraints or opportunities created by the site – ***See Attachment 4***

3. Requests for waivers from submission requirements of the site plan review application: ***The applicant has only addressed one waiver. See above narrative.***

C. Site Plan Review Application Submission Requirements
   1. Signed and executed copy of the application (first page following this letter)
   2. Payment of the application and technical review fees (check enclosed with application).
   3. Twelve (12) copies of written materials and maps or drawings.
   4. Reports, Maps or drawings containing the following general information (Note: Items followed by asterisks (*) shall be included on the Site Plan drawings):
      a. Record owner's name, address and phone number and applicant's name, address and phone number.* ***See Sheet 0.0***
      b. Locations of all required building setbacks, yards and buffers.* See ***Sheet C-1.0 & 1.1.***
      c. Names and addresses of all property owners within five hundred (500) feet of any and all property boundaries. ***Provided by the Town***
      d. Sketch map showing general location of the site within the municipality based upon a reduction of the tax maps. ***See Sheet C-0.0***
      e. Boundaries of all contiguous property under the total or partial control of the owner or applicant regardless of whether all or part is being developed at this time. ***See Sheet C-1.0 & S-1.0.***
      f. Tax map and lot number of the parcel(s) on which the project is to be located.* ***See Sheets S-0.0 and S-1.0***
      g. Documentation to demonstrate right, title or interest in the property on the part of the applicant – ***See property deeds in Attachment 3***
      h. Name, license number and seal of the person who prepared the plan.* ***Plans are stamped by licensed professionals***
      i. Evidence of the applicant's technical and financial capacity to carry out the project as proposed. ***Will be submitted under separate cover***

   5. Reports, maps or drawings shall contain the following information on existing conditions of the site:
      a. Zoning classification of the property, including overlay and/or sub-districts.* ***See Sheet C-1.0***
      b. Bearings and lengths of all property lines of the property to be developed and the source of this information.* ***See Sheet S-1.0***
      c. Location and size of any existing sewer or water mains, culverts and drains, on-site disposal systems, wells, underground tanks or installations, and power and telephone lines and poles on the property and on abutting streets or land that may serve the development and an assessment of their adequacy and condition to serve the proposed use – ***See Sheet S-1.0 for all existing utility information.***
      d. Locations, names and present widths of existing public and/or private streets and rights-of-way on or adjacent to the proposed development.* ***See Sheet C-1.0***

e. Locations, dimensions and photographs of all existing buildings on the site. ***See Sheet S-1.0. There are no existing buildings on the site.***
f. Location and dimensions of existing driveways, parking and loading areas, walkways and sidewalks on or immediately adjacent to the site. ***See Sheet S-1.0 and Sheet C-1.0***
g. Locations of intersection roads or driveways within two hundred (200) feet of the site. ***See Sheet S-1.0***
h. The location of open drainage courses, wetlands, stone walls, graveyards, fences, stands of trees, and other important or unique natural areas and site features, including but not limited to floodplains, deer wintering areas, unique natural communities and natural areas, sand and gravel aquifers, and historical or archaeological resources, together with a description of such features. ***Relevant features from this list are shown on Sheet S-1.0***
i. The direction of surface water drainage across the site. ***Surface water flows to the Portland Road drainage system. See Attachment 6 for the Stormwater Report.***
j. The location, front view, dimensions and lighting of existing signs. ***N/A***
k. Locations and dimensions of any existing easements and copies of existing covenants or deed restrictions. ***N/A***
l. The location of the nearest fire hydrant, dry hydrant or other water supply for fire protection. ***See Attachment 4.***

6. Reports, maps and drawings shall contain the following information on proposed development of the site:
   a. Estimated demand for water supply and wastewater disposal, together with the location and dimensions of all provisions for water supply and wastewater disposal, and evidence of their adequacy for the proposed use, including soil test pit data for on-site sewage disposal. ***There are no proposed water service connections, wells or septic systems on the proposed site. The facility is un-manned.***
   b. The direction of proposed surface water drainage across the site, and from the site, with an assessment of downstream impacts. ***See Attachment 6 for a Stormwater Report.***
   c. Provisions for handling all solid wastes, including hazardous and special wastes, and the location and proposed screening of any on-site collection or storage facilities.* ***The facility is not proposed to have a dumpster. The renters will be responsible for disposal of their own trash.***
   d. The location, dimensions, and materials to be used in the construction of proposed driveways, parking and loading areas, and walkways and any changes in traffic flow onto or off site.* ***See attached construction plans.***
   e. Proposed landscaping and buffering. ***See Sheet C-1.1***
   f. The location, dimensions, ground floor plan and architectural elevations of all proposed buildings or building expansion proposed on the site.* ***See Attachment 5 for examples of the proposed buildings.***

g. Location, front view, materials, and dimensions of proposed signs together with method for securing the sign(s). ***See Additional Information for sign details.***
h. Location and type of exterior lighting.* ***See Sheet C-1.1 for lighting information.***
i. Location of all utilities, including fire protection systems. ***See Sheet 2.0. No fire protection systems are proposed.***
j. A general description of the proposed use or activity. ***See narrative above***
k. An estimate of the peak hour and daily traffic to be generated by the project. ***See narrative above***
l. Stormwater calculations, erosion and sedimentation control measures. ***See Attachment 6: Stormwater Report.***

Additional Engineering Information required for Major Developments

7. A narrative and/or plan describing how the proposed development plan relates to the site inventory and analysis. ***See Attachment 4***
8. A grading plan showing the existing and proposed topography of the site at 2-foot contour intervals. ***See Sheet C-2.0***
9. A stormwater drainage and erosion control program. ***See plans for erosion control plan. See Attachment 6 for Stormwater Report.***
10. A groundwater impact analysis prepared by groundwater hydrologist. ***Not Applicable***
11. The name, registration number and seal of the architect, engineer, landscape architect or similar professional who prepared the plan. ***Plans are stamped by licensed professionals.***
12. A utility plan, showing, in addition to provisions for water supply and wastewater disposal, the location and nature of electrical, telephone, cable TV and any other utility services to be installed on the site. ***See Sheet C-2.0. The only necessary utility is power. There will be no water service, well or septic system on the proposed site.***
13. A planting plan keyed to the site plan. ***See Sheet C-1.1, Site Plan***
14. A traffic impact analysis. ***Not Applicable – Traffic volume information has been provided in this letter. The use is a low traffic generator.***
15. A written statement from the Gray Water District as to the adequacy of the water supply (quantity and pressure) for both domestic and fire flows, if public water will be utilized. ***Not applicable.***
16. Estimated cost of the proposed development and evidence of the applicant's financial capacity to complete it. ***Estimated cost and evidence of the applicant's financial capacity to complete the project will be provided under separate cover.***

D. Waiver of Submission Requirements – ***See narrative above.***

The following items are attached as required by the Site Plan Application procedures:

- Conditional Use/Major Site Plan Review Fee ($750)
- Abutter Notification Fee & Legal Ad Fee ($56)
- Attachment 1: Site Plan Application
- Attachment 2: Site Plan Review Checklist
- Attachment 3: Property Deed
- Attachment 4: Site Inventory Analysis Plan and Narrative
- Attachment 5: Examples of Proposed Buildings
- Attachment 6: Stormwater Report
- Attachment 7: Conditional Use Criteria

We are hopeful that this application can be placed on the agenda for the November 18, 2021 Planning Board Meeting. Thank you for your consideration, and please call me if you have any questions as you review the enclosed plans and information.

TERRADYN CONSULTANTS, LLC

[redacted]

Jeff Amos, P.E.
President

PLANNING BOARD/STAFF REVIEW COMMITTEE APPLICATION
TOWN OF GRAY MAINE

PROPERTY TO BE DEVELOPED			
Property Location/Address	Portland Road	Property Map/Lot	59 . 31 . 10&14 .
Zoning District	Commercial	Lot Acreage	3.65
Owner Name	Equity Trust Company	Tax Sheet	59
Owner Address	42 Portland Rd. Gray, ME 04039	Owner Phone	207-317-2014
APPLICANT			
Name (IF different than owner)	Beth Cureton	Contact Phone Number	207-317-2014
Mailing Address	29 Derby Lane	Alternate Phone Number	
Mailing City/State/Zip	North Yarmouth, ME 04097	Fax Number	
Email Address	erincureton@gmail.com		
AGENT/CONSULTANT			
Name	Jeff Amos, P.E.	Contact Phone Number	207-272-7571
Mailing Address	41 Campus Drive, Suite 101	Alternate Phone Number	207-926-5111
Mailing City/State/Zip	New Gloucester, ME 04260	Fax Number	
Email Address	jeff@terradynconsultants.com		

PROJECT

The undersigned requests that the Town of Gray Planning Board consider the following application for:

☐ **Subdivision**
- Sketch Plan Review
- Preliminary Plan Review (Major)
- Final Plan Review (Major)
- Minor

☒ **Site Plan Review**
- Pre-Application Conference
- Minor
- × Major

☐ **Shoreland Zoning Permit**

☐ **Other (specify)**
- Conditional Use
- Amendment
- Extension
- Workshop
- Contract Zone Request

Project Description / Comments:

Applicant proposes to construct a self-storage facility featuring 7 self storage buildings and an outdoor storage area.

[redacted]

Applicant Signature | **Date** 10/25/2021

SITE PLAN REVIEW CHECKLIST
TOWN OF GRAY MAINE

For Office Use Only
Date Received: _____
Received by: _____

APPLICANT/PROJECT

Name	Gray Self Storage	Date	10/25/2021

This checklist has been prepared to assist applicants in developing their applications. It should be used as a guide in assembling the information necessary for a complete application. The checklist, however, does not substitute for the requirements of Article 10 of the Zoning Ordinance. The Planning Board will also use the checklist to ensure your application is complete. Indicate if the information has been submitted or if a waiver is requested. If you feel that information is not applicable to your project, please indicate in the second column. The perimeter survey, subdivision plan and engineering plans may be contained on the same drawing. Detailed engineering drawings such as road profiles, drainage swales and erosion/sedimentation plans, however, may best be presented on a separate sheet or sheets.
This checklist does not address the standards that the site plan must meet.

SITE PLAN REVIEW SUBMISSION REQUIREMENTS

	Submitted by Applicant	Not Applicable	Applicant Request to be Waived	Reviewed by Planner/ Engineer	Waived by Planning Board
402.10.10.A SITE INVENTORY PLAN					
A.1 Owner name(s), address(es), phone number(s)	✓				
A.2 Consultant name(s) & address(es)	✓				
A.3 Evidence of right, title, or interest in property	✓				
A.4 Fourteen (14) copies of accurate scale inventory plan showing:	✓				
a. The name of the development, north arrow, date and scale.	✓				
b. The boundaries of the parcel and existing zoning.	✓				
c. The relationship of the site to the surrounding area .	✓				
d. The topography of the site at an appropriate contour interval depending on the nature of the use and character of the site.	✓				
e. The major natural features of the site and within five hundred (500) feet of the site, including wetlands, streams, ponds, floodplains, groundwater aquifers, significant wildlife habitats and fisheries or other important natural features (if none, so state).	✓				
f. Existing buildings, structures, or other improvements on the site (if none, so state).	✓				
g. Existing restrictions or easements on the site (if none, so state).	✓				
h. The location and size of existing utilities or improvements servicing the site (if none, so state).	✓				
i. Mapping of all wetlands and/or potential vernal pools on site regardless of size.	✓				
j. A Class B high intensity soil survey if any portion of the site is located in a resource protection district or has wetlands covering more than ten (10%) percent of the site.			✓		
k. A Class D medium intensity soil survey if vernal pools and/or significant wetlands are not present.	✓				

402.10.10.B SITE ANALYSIS PLAN					
B.1 Fourteen (14) copies of a site analysis plan identifying:	✓				
a. Portions of the site that are unsuitable for development or use;	✓				
b. Portions of the site that are unsuitable for on- site sewage disposal;	✓				
c. Areas of the site that have environmental limitations that must be addressed in the development plan;	✓				
d. Areas that may be subject to off-site conflicts or concerns; and which areas are well suited to the proposed use.	✓				
B.2 Fourteen (14) copies of site description narrative	✓				
B.3 Submission requirement waiver requests, if any	✓				
402.10.10.C APPLICATION SUBMISSION REQUIREMENTS					
C.1 Signed/Executed Application	✓				
C.2 Evidence of payment of the application fee and technical review escrow.	✓				
C.3 Fourteen (14) copies of written materials and maps/drawings	✓				
C.4 Report/Maps/Drawings: General Information	✓				
a. Owner contact information	✓				
b. Setback, yard, and buffer locations	✓				
c. Abutter contact information	✓				
d. Map: general site location	✓				
e. Contiguous property boundaries	✓				
f. Map/Lot Number	✓				
g. Deed/proof of ownership/interest in property	✓				
h. Plan preparer name, registration #, seal	✓				
i. Evidence of technical & financial means	✓				
C.5 Reports/Maps/Drawings: Existing Conditions	✓				
a. Zoning Classification	✓				
b. Property lines bearings & length	✓				
c. Location of utilities (water, sewer, electric, etc.)	✓				
d. Street name(s), location(s), width(s)	✓				
e. Building location(s), dimensions, and photo(s)	✓				
f. Driveway location(s), dimensions	✓				
g. Location of intersecting roads/driveways	✓				
h. Location of important or unique natural site features	✓				
i. Direction of surface water drainage	✓				
j. Sign location(s), front view(s), dimensions	✓				
k. Easement location, dimensions, documents	✓				

l. Fire hydrant or fire protection water supply location	✓				
C.6 Reports/Maps/Drawings: Proposed Development	✓				
a. Water/Sewage estimated demands/provisions	✓				
b. Direction of proposed surface water drainage	✓				
c. Solid waste disposal provisions	✓				
d. Driveway/parking plans/provisions	✓				
e. Proposed landscaping & buffering	✓				
f. Proposed building/building expansion plans	✓				
g. Proposed sign plans	✓				
h. Proposed exterior lighting	✓				
i. Location of utilities & fire protection systems	✓				
j. General description of proposed use/activity	✓				
k. Traffic estimates	✓				
l. Stormwater, erosion & sedimentation control, and water quality management provisions	✓				
C.7 Reports/Maps/Drawings: Site Plan	✓				
402.10.10.D ADDITIONAL REQUIREMENTS FOR MAJOR DEVELOPMENTS					
D.1 Proposed development narrative	✓				
D.2 Grading plan	✓				
D.3 Stormwater drainage & erosion control program	✓				
D.4 Groundwater impact analysis		✓			
D.5 Plan preparer name/registration number/seal	✓				
D.6 Utility plan	✓				
D.7 Planting schedule	✓				
D.8 Traffic impact analysis	✓				
D.9 Gray Water District statement of supply adequacy		✓			
D.10 Estimated cost of development/proof of financial capacity	✓				
402.10.10.E WAIVER OF SUBMISSION REQUIREMENTS [WRITE IN WAIVER REQUESTS]					
402.10.10.A.4.j - Class B HISS	✓				

MAINE REAL ESTATE TAX-Paid

1002140152513

DEED OF SALE BY
PERSONAL REPRESENTATIVE (TESTATE)
(Statutory Short Form)

CHRISTOPHER WOOD, duly appointed and acting Personal Representative of the **ESTATE OF DOROTHY M. WOOD**, deceased, as shown by the probate records of Cumberland County, Maine (Docket No. 2011-0735), having given notice to each person succeeding to an interest in the real property described below at least 10 days prior to sale, by the power conferred by law and every other power, for consideration paid, grants to **EQUITY TRUST COMPANY CUSTODIAN FBO BETH ANN CURETON ROTH IRA**, of North Yarmouth, Maine whose mailing address is 29 Derby Lane, N. Yarmouth, ME 04097, the real property located on the westerly side of Portland Road (Route 100) in Gray, Cumberland County, Maine more particularly described as follows:

Reference is made to the premises described on Exhibit A attached hereto and incorporated herein.

Dated: June 24, 2021.

Estate of Dorothy M. Wood

By: [redacted]
Christopher Wood, Personal Representative

STATE OF ~~MAINE~~ Connecticut
~~CUMBERLAND~~, SS. Torrington Litchfield June 24, 2021

Personally appeared before me the above-named Christopher Wood in his said capacity and acknowledged the foregoing instrument to be his free act and deed.

[redacted]
Notary Public

MONICA S. DiUlio
Print Name

MONICA S. DIULIO
NOTARY PUBLIC
My Commission Expires Aug. 31, 2025

640.01

DOC :49240 BK:38413 PG:250
RECEIVED - RECORDED, CUMBERLAND COUNTY REGISTER OF DEEDS
07/09/2021, 02:32:09P
Register of Deeds Jessica M. Spaulding E-RECORDED

EXHIBIT A

A certain lot or parcel of land located on the westerly side of the Portland Road (Route 100) in Gray, Cumberland County, Maine more particularly described as follows:

Beginning at a 5/8th inch capped rebar (#1328) set on the westerly sideline of Portland Road at the northerly corner of land now or formerly of Welch (Deed recorded at the Cumberland County Registry of Deeds in Book 16350, Page 203);

Thence S 52° 55' 30" W along the northwesterly sideline of Welch 358.18 feet to a 3/4 inch Iron pipe 12 inches tall on the easterly sideline of land of Maine Turnpike Authority;

Thence in a northerly direction along the sideline of said Maine Turnpike Authority land 235.53 feet to a 5/8th inch capped rebar (#1328) set at a corner of land now or formerly of D'Entremont (29451/217);

Thence N 52° 29' 09 E along D'Entremont land 373.57 feet to a 5/8th inch capped rebar (#1328) set on the westerly sideline of the Portland Road;

Thence S 03° 34' 06" W along the westerly sideline of Portland Road 247.50 feet to the point of beginning.

Being a parcel of land containing 1.56 acres and being a portion and a potion only of the premises conveyed to Dorothy Wood by deed recorded at the Cumberland County Registry of Deeds in Book 2226, Page 72.

1002140141429

MAINE REAL ESTATE TAX-Paid

WARRANTY DEED

David S. Welch and Terri L. Welch of Windham, Cumberland County, Maine, for consideration paid, grant(s) to **Equity Trust Company Custodian FBO Beth Cureton IRA**, of North Yarmouth, Cumberland County, Maine (whose mailing address is 29 Derby Lane, North Yarmouth, ME 04097) with Warranty Covenants, the following described real estate:

See "Exhibit A" Attached

For grantors' source of title, reference may be had to a deed from Robert D. Morgan and David T. Burroughs to the grantor(s) herein, dated May 22, 2001, recorded in Cumberland Registry of Deeds, Book 16350, Page 203.

Any and all other rights, easements, privileges and appurtenance belonging to the granted estate are hereby conveyed.

This conveyance is made subject to the property taxes assessed against the premises, which said taxes are to be prorated between the parties hereto as of the date of delivery of this deed in accordance with 36 M.R.S.A., sec. 558.

Witness my/our hand(s) and seal(s) this 28 day of April, 2021.

WITNESS:

_____ [redacted]
David S. Welch

_____ [redacted]
Terri L. Welch

STATE OF MAINE
Androscoggin, ss

April 28, 2021

Then personally appeared the above named David S. Welch and Terri L. Welch and acknowledged the foregoing instrument to be his/her free act and deed.

Before me,

[redacted]
Notary Public/Justice of the Peace
Commission Expiration:

File No.: 2021-2893

SAMANTHA R. TIBBETTS
Notary Public - Maine
My Commission Expires
April 21, 2024

DOC :30327 BK:38125 PG:202
RECEIVED - RECORDED, CUMBERLAND COUNTY REGISTER OF DEEDS
04/28/2021, 09:06:13A
Register of Deeds Nancy A. Lane E-RECORDED

File No: 2021-2893

"Exhibit A"

A certain lot or parcel of land, together with any buildings or improvements thereon, situated in the Town of Gray, County of Cumberland, and State of Maine, more particularly bounded and described as follows:

Lot B as depicted on Standard Boundary Survey, Property Plan of Lot Division dated June 3, 2005, recorded in the Cumberland County Registry of Deeds in Plan Book 205, Page 451.

TERRADYN
CONSULTANTS, LLC

Pineland
Cumberland Hall
41 Campus Drive, Suite 101
New Gloucester, ME 04260

Portland
565 Congress Street, Suite 201
Portland, ME 04101

Gray Self Storage: Site Description Narrative

The Gray Self Storage development property is approximately 4.1 acres and is shown as lots 31-10 & 31-14 on the Town of Gray Tax Map 59 and is approximately located at 119 Portland Road. The property is located within the Commercial (C) Zone. See attached Figure 1 for USGS Location Map.

The property contains an old driveway that connects Portland Road to a small (<10,000 SF) cleared area that is located directly adjacent to the neighboring commercial property to the south. The rest of the property is undeveloped forest and wetland area. See attached Figure 2 for Aerial Map. The site is bound to the east by Portland Road, the north by a residential property, the west by the Maine Turnpike and the south by a commercial business. The most environmentally sensitive area of the property is the large forested wetland located in the northeast corner of the property. That wetland area will be largely preserved in the post development condition and provides significant buffering from the residence to the north as well as vehicles on Portland Road.

The site does not contain any significant wildlife habitats including deer yards or wading bird & waterfowl habitats. The property is not located over a sand or gravel aquifer and the development area is not located within the resource protection district. There is a portion of the forested wetland in the northeast corner of the property that is located within the Resource Protection District.

The site does not contain any developed utilities. Overhead electric and water services are available from Portland Road.

The property appears to be suitable for development outside of the northeast corner.

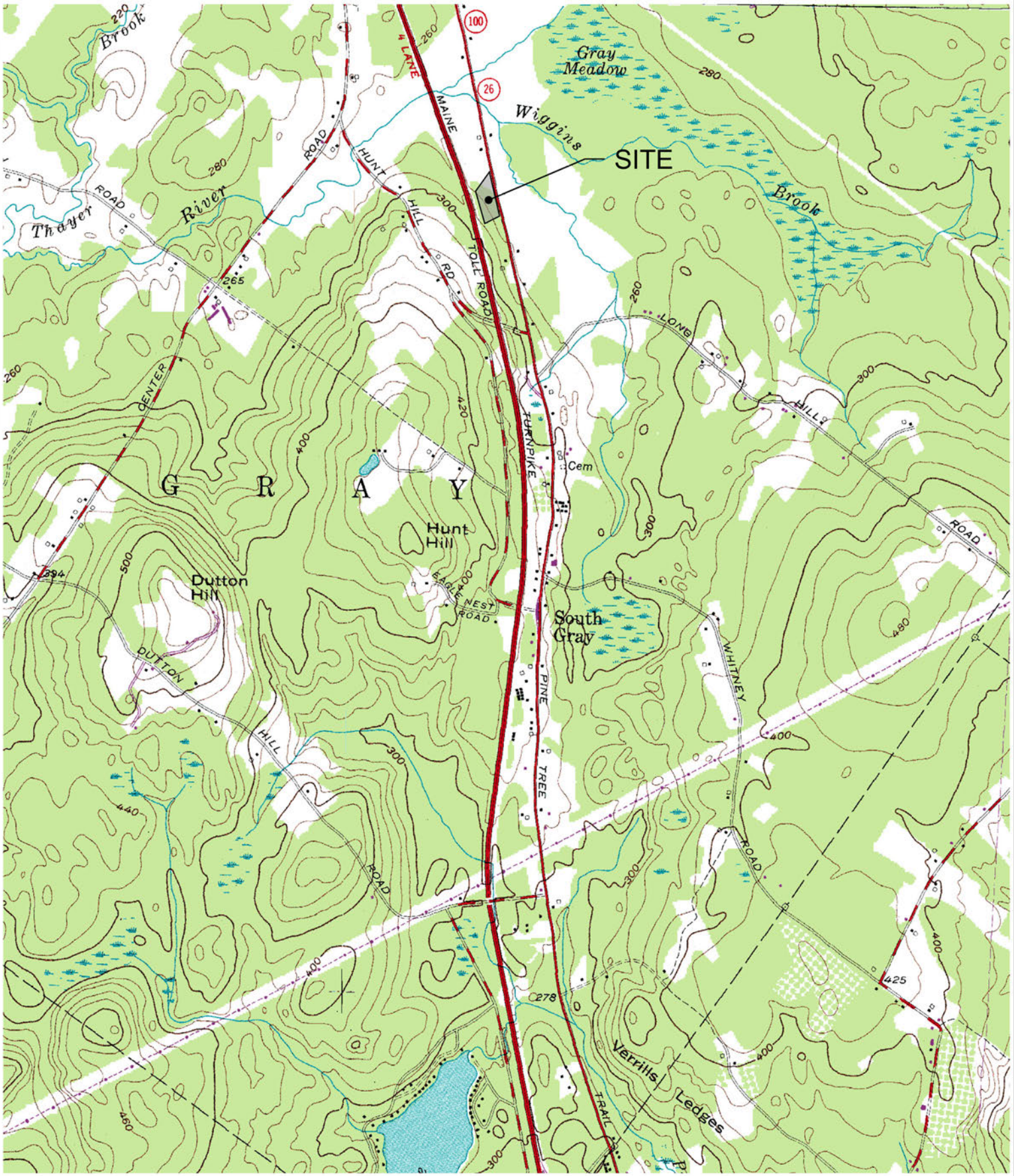


FIGURE 1:U.S.G.S. QUADRANGLE MAP	TERRADYN CONSULTANTS, LLC 207.926.5111 • info@terradynconsultants.com • www.terradynconsultants.com	PROJECT NO. 2125	SHEET 1
PROJECT: CURETON SELF STORAGE	PINELAND 41 CAMPUS DRIVE, SUITE 101 NEW GLOUCESTER, ME 04260 PORTLAND 565 CONGRESS STREET, SUITE 201 PORTLAND, ME 04101	DATE 4/21/2021	OF 2
PREPARED FOR: BETH CURETON 29 DERBY LANE NORTH YARMOUTH, ME 04097		SCALE 1"=2,000'	

FIGURE 2: AERIAL MAP

PROJECT:
CURETON SELF STORAGE

PREPARED FOR:
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

TERRADYN CONSULTANTS, LLC

PINELAND
41 CAMPUS DRIVE, SUITE 101
NEW GLOUCESTER, ME 04260

PORTLAND
565 CONGRESS STREET, SUITE 201
PORTLAND, ME 04101

207.926.5111 • Info@terradynconsultants.com • www.terradynconsultants.com

PROJECT NO.	SHEET
2125	2
DATE	OF
4/21/2021	2
SCALE	
1"=200'	

APPLICANT:

BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, MAINE 04097

OWNERS:

EQUITY TRUST COMPANY CUSTODIAN
FBO BETH CURETON

PROJECT PARCEL SITE

TOWN OF GRAY TAX ASSESSOR'S MAP & LOT NUMBERS

MAP	LOT
59	31-10
	31-14

GENERAL NOTES:

1. THE RECORD OWNER OF THE PARCELS IS EQUITY TRUST COMPANY, FBO BETH CURETON BY DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 38,413, PAGE 249 & BOOK 38,125 PAGE 201.

2. THE PROPERTY IS APPROXIMATELY 3.8 ACRES, IS SHOWN AS LOTS 31-14-00 & 31-10-00 ON THE TOWN OF GRAY TAX MAP 59 AND IS LOCATED IN THE COMMERCIAL ZONE.

3. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON PROVIDED BY WAYNE T. WOOD P.L.S. #1328 ON PLAN ENTITLED "EXISTING CONDITIONS PLAN ON PORTLAND ROAD FOR TERRADYN CONSULTANTS" DATED, JULY 2021.

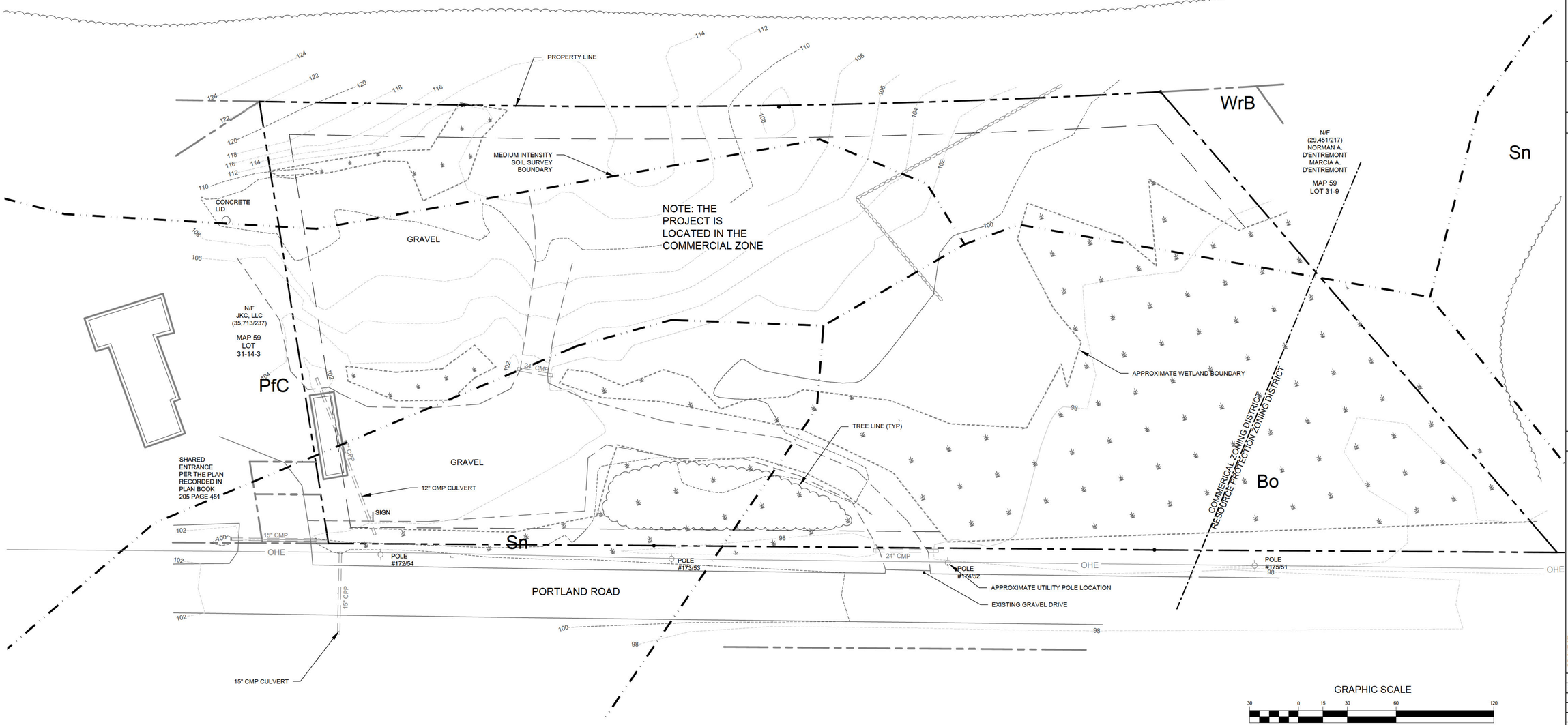
4. WETLAND INFORMATION PROVIDED BY MARK CENCI GEOLOGIC INC. YARMOUTH, MAINE . SITE RECONNAISSANCE WAS PERFORMED IN APRIL 0F 2021.

HYDROLOGIC SOIL GROUP:

MAP UNIT SYMBOL	RATING
Bo	D
PfC	C
Sn	D
WrB	C

LEGEND

- EXISTING PROPERTY LINE
- SITE PROPERTY LINE
- EXISTING SETBACK LINE
- EXISTING EASEMENT
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING OVERHEAD ELECTRIC & TELEPHONE
- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL
- EXISTING TREE LINE
- EXISTING UTILITY POLE
- EXISTING SIGN
- EXISTING BUILDING
- WETLAND AREA
- MEDIUM INTENSITY SOILS BOUNDARY



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

DATE: 10/26/2021
P.E.: 10167

NO.	DATE	REVISIONS	APP'D BY

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 301
NEW GLOUCESTER, ME 04260

OFFICE: (207) 926-5111
www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC

CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
GRAY SELF STORAGE
PORTLAND ROAD,GRAY, ME

SHEET TITLE:
SITE INVENTORY PLAN

CLIENT:
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	1"=30'
DESIGNED:	JDA
JOB NO:	2125
FILE:	2125 INV
SHEET	I-1.0


6
7
PEAK STEEL
BUILDINGS


PEAK STEEL
BUILDINGS

STORMWATER MANAGEMENT PLAN

Gray Self Storage
Gray, Maine

The following Stormwater Management Plan has been prepared for the Gray Self Storage Projectt to evaluate stormwater runoff and erosion control for the proposed self-storage project to be located at 986 Portland Road in Gray, Maine.

Site Calculations

Total Property Area	4.1 Ac (+/-)
Total Project Impervious Area	1.53 Ac
Total Developed Area	2.06 Ac

Existing Conditions

The development parcel is located on the west side of Portland Road, near 119 Portland Road. The Maine Turnpike is located along the back property line. See attached Figure 1: USGS Quadrangle Map. The development parcel is approximately 4.1 acres and is shown as lots 31-10 & 31-14 on the Town of Gray Tax Map 59. The property contains an old driveway that connects Portland Road to a small <10,000 SF cleared area that is located directly adjacent to the neighboring commercial property to the south. The rest of the property is undeveloped forest & wetland areas. See attached Figure 2: Aerial Map.

The property drains to the Portland Road drainage system. The southern edge of the property drains to a culvert that located at the southeast corner of the property. This location is modeled as Study Point #1 in this report. The remainder of the site drains to a wetland system that is located on the northeast corner of the property. This corner is modeled as Study Point #2. Both areas drain across Portland Road where they're intercepted by Wiggins Brook before flowing into the Pleasant River.

Flooding

The development area is not located within an area of flood hazard according to the Federal Insurance Rate Map 230048 0015 A. See Figure 3: FEMA Floodmap.

Modeling Assumptions

The onsite stormwater facilities were sized utilizing the USDA Soil Conservation Service (SCS) TR-20 Runoff Simulation Model, as contained in the HydroCAD computer software program (Version 9.0). Runoff curve numbers were determined for each direct watershed by measuring the area of

each hydrologic soil group within each type of land cover. Weighted curve numbers were then calculated using curve numbers for various cover types and hydrologic soil groups, assuming "good" conditions as defined in U.S Soil Conservation Service (SCS) publications. Times of concentration and travel times were determined from site topographic maps in accordance with SCS procedures. A maximum length of 150 feet was used for sheet flow.

All of the watersheds' peak runoff rates were analyzed for the 2, 10, and 25-year frequency, 24-hour duration storm events. A Type III rainfall distribution was applied to these storms. The rainfall amounts for Cumberland County are as follows:

Storm Frequency Precipitation (in./24 hr)	
2-year	3.1
10-year	4.6
25-year	5.8

Onsite Soils

The area soils were delineated from the Cumberland County Medium Intensity Soil Survey as shown on the Soil Data Viewer on the NRCS website (See attached map). The soil survey reports the developable portion of the property consists of hydrologic group C soils. The wetlands are generally hydrologic group D soils. See Figure 4: Soils Map.

The soils are listed below:

Soil Name	Hydrologic Soil Group
Biddeford Mucky Peat (Bo)	D
Paxton (PfC)	C
Scantic (Sn)	D
Woodbridge (WrB)	C

Water Quantity (Flooding Standard)

The following table summarizes the results of stormwater calculations for the design storm events for the project areas. Calculations and computer modeling sheets are provided with this report.

Table 1 - Stormwater Runoff Summary Table
Pre-Development vs. Post-Development

Study Point #	2Yr/24Hr (cfs)		10Yr/24Hr (cfs)		25Yr/24Hr (cfs)	
	Pre	Post	Pre	Post	Pre	Post
1	0.8	0.8	1.8	1.7	2.6	2.5
2	2.6	2.2	5.4	4.4	7.8	6.2

As the above result table shows, the post-development flow rates for the 2, 10 and 25-year/24 hour design storm events do not exceed the pre-development conditions.

Water Quality (BMP Standard)

The water quality requirements will be met with the construction of an under-drained filter basin.

New Impervious Area: The project will result in the creation of approximately 66,824 SF of impervious area. The filter basin will result in the treatment of 65,000 SF of impervious area resulting in a treatment percentage of (65,000/66,824) =97.3%.

Percentage of Treatment of the Impervious Area =97.3% (95% req'd)

Project Developed Area: The project will result in the creation of approximately 89,552 SF of developed area. This figure includes 66,824 SF of impervious area and 22,728 SF of landscaped area. The filter basin will result in the treatment of approximately 75,228 SF of the developed area resulting in a treatment percentage of (75,228/89,552) x 100%= 84.0%.

Percentage of Treatment of the Developed Area = 84.0% (80% required)

Housekeeping and Maintenance & Inspection guidelines are attached to this report.

Filter Basin Sizing

Total Pond

STAGE (FT)	AREA (SF)	STORAGE (CF)
99.75	3915	0
100	4061	997
101	4643	5347
101.5	4934	7743
102	5225	10283
102.85	5720	14934

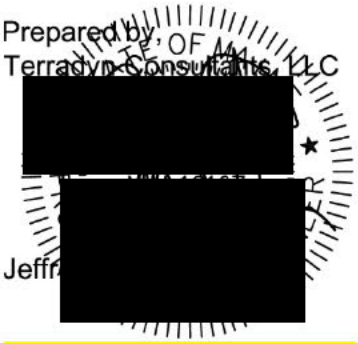
WATERSHED IMPERVIOUS AREA=	65000	SF
WATERSHED LANDSCAPED AREA=	10228	SF
REQUIRED WATER QUALITY VOLUME=	5299	CF
PROVIDED WATER QUALITY VOLUME=	5349	CF

The required water quality volume was calculated by multiplying the impervious area by 1.0" and the landscaped area by 0.4".

Summary

Based on the results of this evaluation, the proposed stormwater design is not expected to cause flooding, erosion or other significant adverse effects downstream of the site.

Prepared by,
Terradyn Consultants, LLC



Jeffr

Attached:

Site Figures:

- USGS Quadrangle Map
- Aerial Photo
- FEMA Floodmap
- Medium Intensity Soil Map

Pre Development Hydrocad Calculations
Post Development Hydrocad Calculations
Pond Spillway Check – 25 Year
Pond Spillway Check – 100 Year
Maintenance & Inspection of Stormwater Facilities
Housekeeping Plan
Pre Development Watershed Maps
Post Development Stormwater Treatment Map

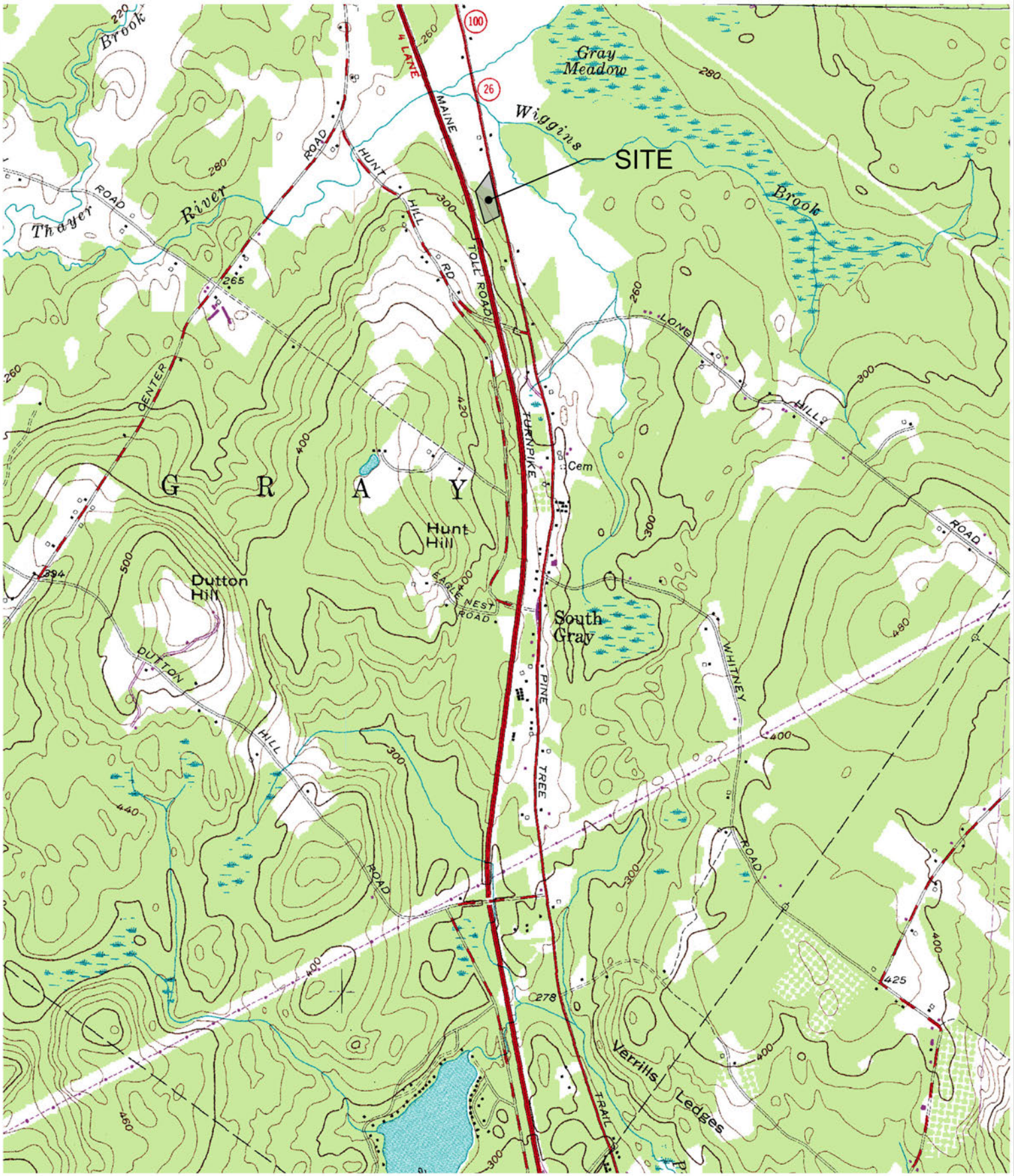


FIGURE 1:U.S.G.S. QUADRANGLE MAP	TERRADYN CONSULTANTS, LLC	PROJECT NO. 2125	SHEET 1
PROJECT: CURETON SELF STORAGE	PINELAND 41 CAMPUS DRIVE, SUITE 101 NEW GLOUCESTER, ME 04260	DATE 4/21/2021	OF 2
PREPARED FOR: BETH CURETON 29 DERBY LANE NORTH YARMOUTH, ME 04097	PORTLAND 565 CONGRESS STREET, SUITE 201 PORTLAND, ME 04101	SCALE 1"=2,000'	
	207.926.5111 • info@terradynconsultants.com • www.terradynconsultants.com		

FIGURE 2: AERIAL MAP

PROJECT:
CURETON SELF STORAGE

PREPARED FOR:
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

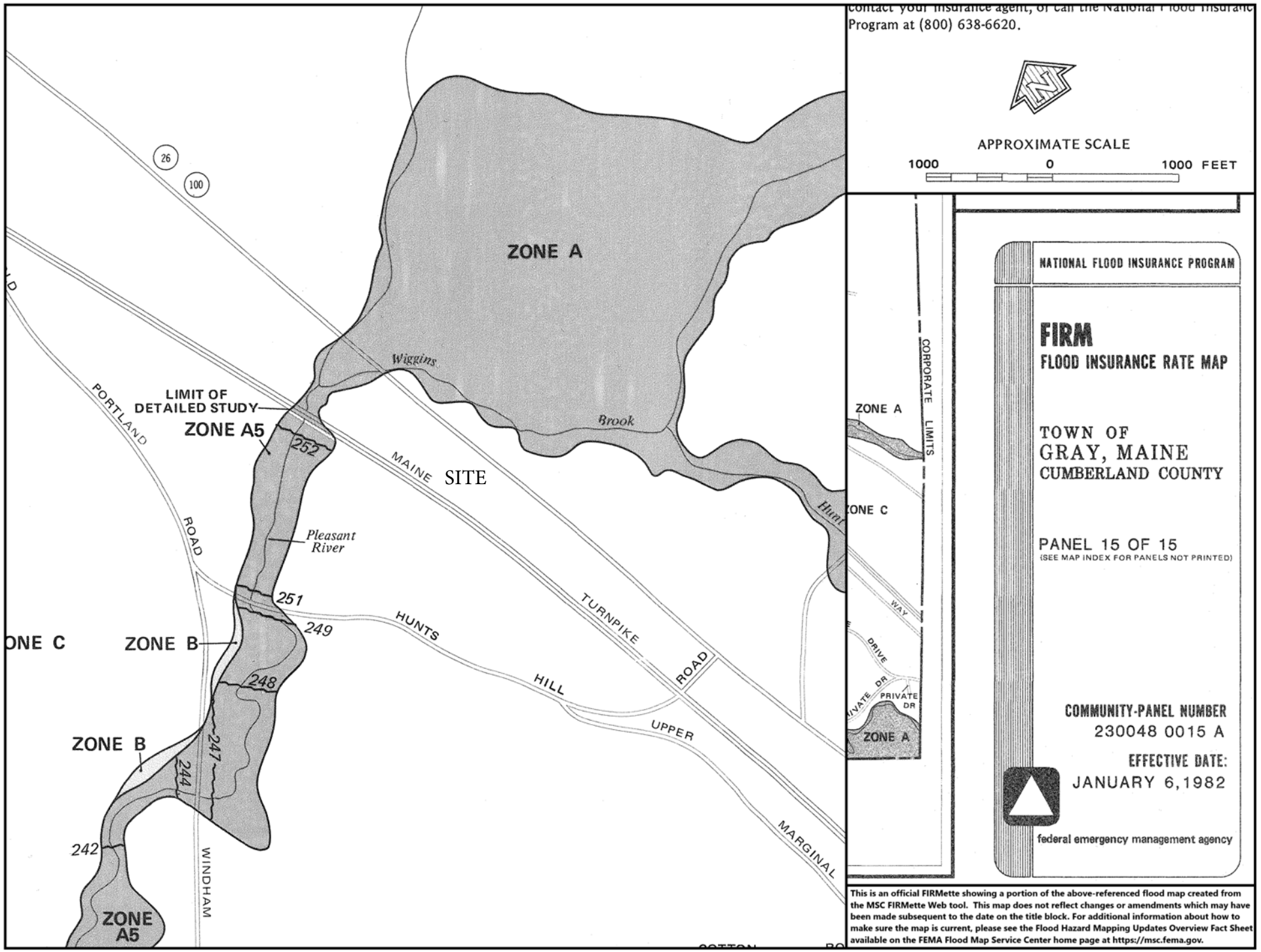
TERRADYN CONSULTANTS, LLC

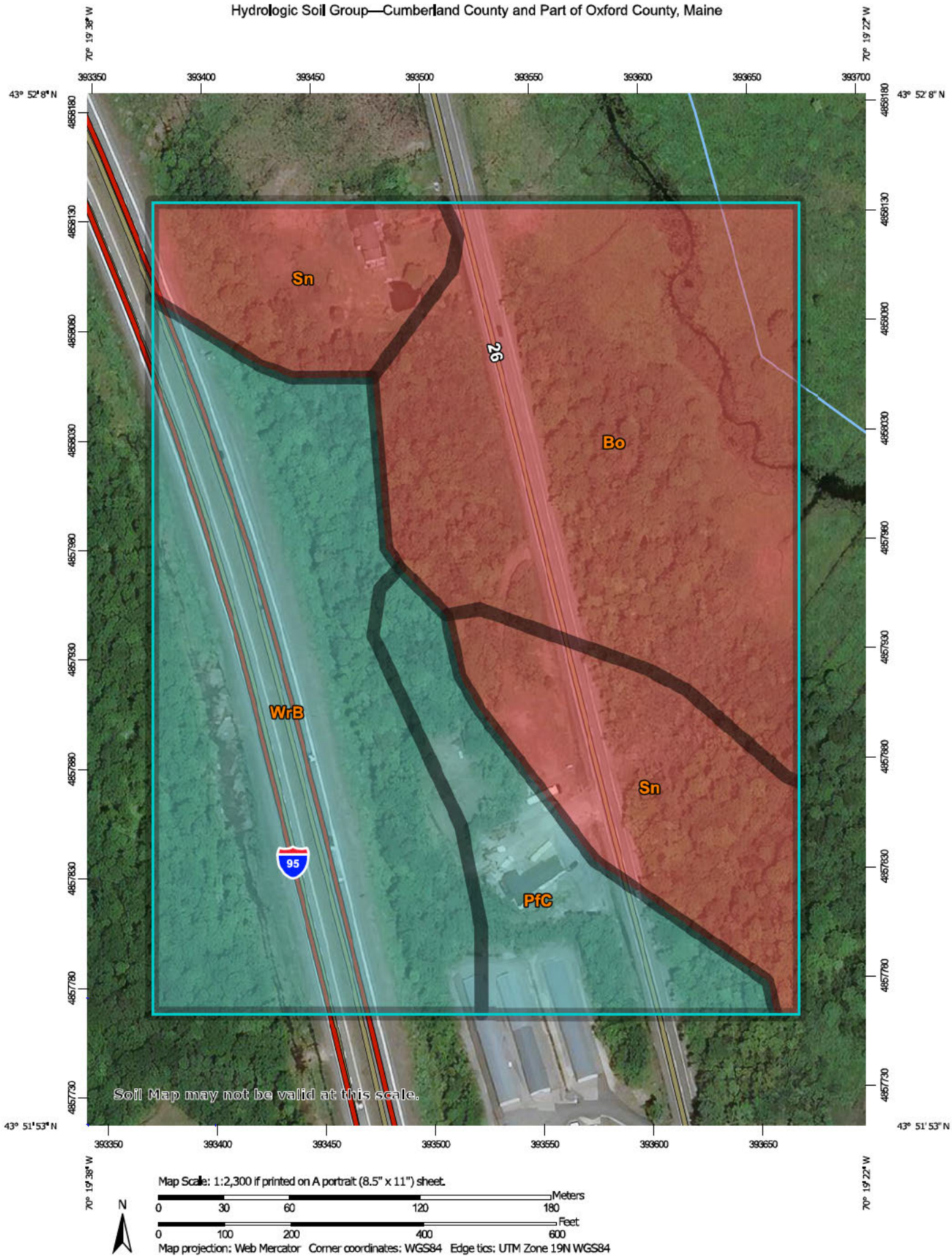
PINELAND
41 CAMPUS DRIVE, SUITE 101
NEW GLOUCESTER, ME 04260

PORTLAND
565 CONGRESS STREET, SUITE 201
PORTLAND, ME 04101

207.926.5111 • Info@terradynconsultants.com • www.terradynconsultants.com

PROJECT NO.	SHEET
2125	2
DATE	OF
4/21/2021	2
SCALE	
1"=200'	


contact your insurance agent, or call the National Flood Insurance Program at (800) 638-6620.
APPROXIMATE SCALE
1000 0 1000 FEET
NATIONAL FLOOD INSURANCE PROGRAM
FIRM
FLOOD INSURANCE RATE MAP
TOWN OF
GRAY, MAINE
CUMBERLAND COUNTY
PANEL 15 OF 15
(SEE MAP INDEX FOR PANELS NOT PRINTED)
COMMUNITY-PANEL NUMBER
230048 0015 A
EFFECTIVE DATE:
JANUARY 6,1982
federal emergency management agency
ZONE A
ZONE A5
ZONE B
ZONE C
LIMIT OF DETAILED STUDY
SITE
Wiggins Brook
Pleasant River
PORTLAND ROAD
MAINE TURNPIKE
HUNTS HILL ROAD
UPPER MARGINAL
WINDHAM
CORPORATE LIMITS
PRIVATE DR
252
251
249
248
247
244
242
26
100
This is an official FIRMette showing a portion of the above-referenced flood map created from the MSC FIRMette Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at https://msc.fema.gov.



Map Scale: 1:2,300 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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 17, Jun 5, 2020

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

Date(s) aerial images were photographed: Jun 7, 2019—Jul 2, 2019

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

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Bo	Biddeford mucky peat, 0 to 3 percent slopes	D	9.5	34.8%
PfC	Paxton very stony fine sandy loam, 8 to 15 percent slopes	C	3.0	10.9%
Sn	Scantic silt loam, 0 to 3 percent slopes	D	5.7	20.9%
WrB	Woodbridge fine sandy loam, 0 to 8 percent slopes	C	9.1	33.4%
Totals for Area of Interest			**27.2**	**100.0%**

Description

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

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

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

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

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

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

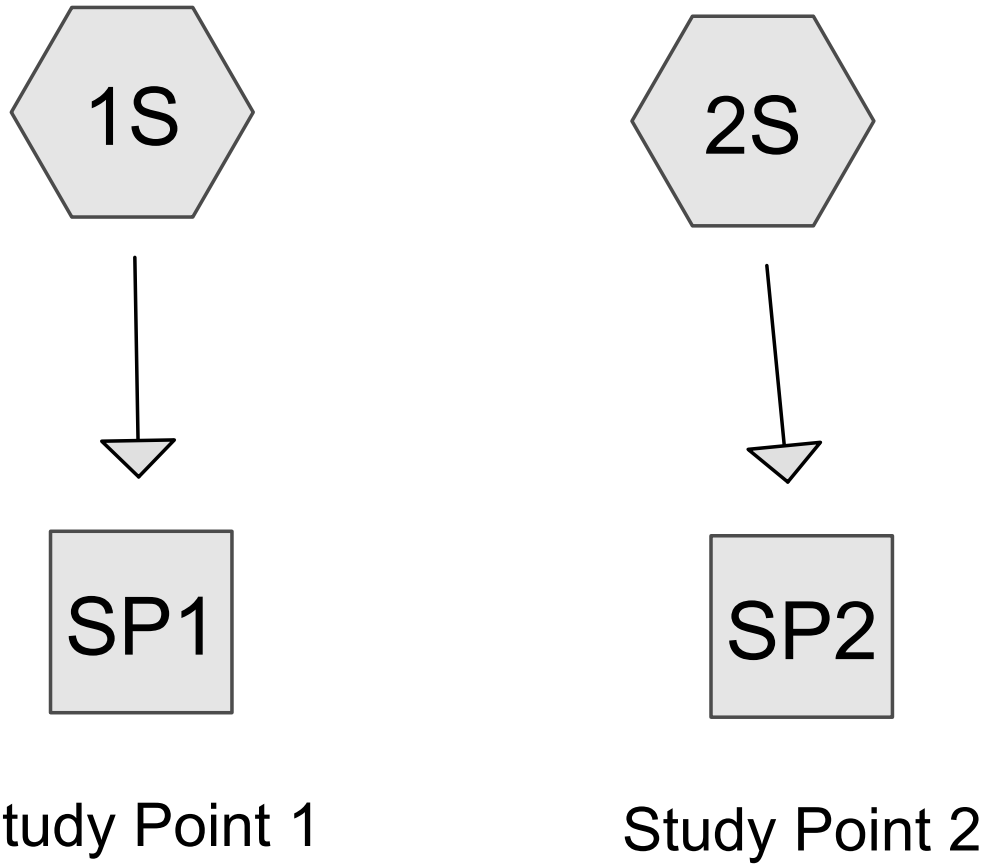
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



Subcat Reach Pond Link

Routing Diagram for 2125 Pre
Prepared by {enter your company name here}, Printed 10/25/2021
HydroCAD® 10.00-26 s/n 10466 © 2020 HydroCAD Software Solutions LLC

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Runoff Area=47,852 sf 17.54% Impervious Runoff Depth>0.98"
Flow Length=370' Tc=23.9 min CN=76 Runoff=0.83 cfs 0.090 af

Subcatchment 2S: Runoff Area=222,223 sf 10.67% Impervious Runoff Depth>1.02"
Flow Length=690' Tc=59.9 min CN=77 Runoff=2.59 cfs 0.434 af

Reach SP1: Study Point 1 Inflow=0.83 cfs 0.090 af
Outflow=0.83 cfs 0.090 af

Reach SP2: Study Point 2 Inflow=2.59 cfs 0.434 af
Outflow=2.59 cfs 0.434 af

Total Runoff Area = 6.200 ac Runoff Volume = 0.524 af Average Runoff Depth = 1.01"
88.12% Pervious = 5.463 ac 11.88% Impervious = 0.737 ac

Summary for Subcatchment 1S:

Runoff = 0.83 cfs @ 12.36 hrs, Volume= 0.090 af, Depth> 0.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 Year Rainfall=3.10"

	Area (sf)	CN	Description
	8,750	92	Paved roads w/open ditches, 50% imp, HSG C
*	4,017	98	Gravel Pad
	35,085	70	Woods, Good, HSG C
	47,852	76	Weighted Average
	39,460		82.46% Pervious Area
	8,392		17.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.5	125	0.1300	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
2.0	140	0.0570	1.19		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.4	105	0.0100	4.91	3.86	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
23.9	370	Total			

Summary for Subcatchment 2S:

Runoff = 2.59 cfs @ 12.86 hrs, Volume= 0.434 af, Depth> 1.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 Year Rainfall=3.10"

	Area (sf)	CN	Description
	23,750	92	Paved roads w/open ditches, 50% imp, HSG C
*	11,827	98	Gravel Pad
	96,547	70	Woods, Good, HSG C
	90,099	77	Woods, Good, HSG D
	222,223	77	Weighted Average
	198,521		89.33% Pervious Area
	23,702		10.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
33.9	150	0.0600	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
0.7	60	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
25.3	480	0.0040	0.32		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
59.9	690	Total			

Summary for Reach SP1: Study Point 1

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

Inflow Area = 1.099 ac, 17.54% Impervious, Inflow Depth > 0.98" for 2 Year event
Inflow = 0.83 cfs @ 12.36 hrs, Volume= 0.090 af
Outflow = 0.83 cfs @ 12.36 hrs, Volume= 0.090 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach SP2: Study Point 2

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

Inflow Area = 5.102 ac, 10.67% Impervious, Inflow Depth > 1.02" for 2 Year event
Inflow = 2.59 cfs @ 12.86 hrs, Volume= 0.434 af
Outflow = 2.59 cfs @ 12.86 hrs, Volume= 0.434 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Runoff Area=47,852 sf 17.54% Impervious Runoff Depth>2.04"
Flow Length=370' Tc=23.9 min CN=76 Runoff=1.76 cfs 0.186 af

Subcatchment 2S: Runoff Area=222,223 sf 10.67% Impervious Runoff Depth>2.09"
Flow Length=690' Tc=59.9 min CN=77 Runoff=5.37 cfs 0.887 af

Reach SP1: Study Point 1 Inflow=1.76 cfs 0.186 af
Outflow=1.76 cfs 0.186 af

Reach SP2: Study Point 2 Inflow=5.37 cfs 0.887 af
Outflow=5.37 cfs 0.887 af

Total Runoff Area = 6.200 ac Runoff Volume = 1.073 af Average Runoff Depth = 2.08"
88.12% Pervious = 5.463 ac 11.88% Impervious = 0.737 ac

Summary for Subcatchment 1S:

Runoff = 1.76 cfs @ 12.34 hrs, Volume= 0.186 af, Depth> 2.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Rainfall=4.60"

	Area (sf)	CN	Description
	8,750	92	Paved roads w/open ditches, 50% imp, HSG C
*	4,017	98	Gravel Pad
	35,085	70	Woods, Good, HSG C
	47,852	76	Weighted Average
	39,460		82.46% Pervious Area
	8,392		17.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.5	125	0.1300	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
2.0	140	0.0570	1.19		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.4	105	0.0100	4.91	3.86	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
23.9	370	Total			

Summary for Subcatchment 2S:

Runoff = 5.37 cfs @ 12.83 hrs, Volume= 0.887 af, Depth> 2.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Rainfall=4.60"

	Area (sf)	CN	Description
	23,750	92	Paved roads w/open ditches, 50% imp, HSG C
*	11,827	98	Gravel Pad
	96,547	70	Woods, Good, HSG C
	90,099	77	Woods, Good, HSG D
	222,223	77	Weighted Average
	198,521		89.33% Pervious Area
	23,702		10.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
33.9	150	0.0600	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
0.7	60	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
25.3	480	0.0040	0.32		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
59.9	690	Total			

Summary for Reach SP1: Study Point 1

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

Inflow Area = 1.099 ac, 17.54% Impervious, Inflow Depth > 2.04" for 10 Year event
Inflow = 1.76 cfs @ 12.34 hrs, Volume= 0.186 af
Outflow = 1.76 cfs @ 12.34 hrs, Volume= 0.186 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach SP2: Study Point 2

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

Inflow Area = 5.102 ac, 10.67% Impervious, Inflow Depth > 2.09" for 10 Year event
Inflow = 5.37 cfs @ 12.83 hrs, Volume= 0.887 af
Outflow = 5.37 cfs @ 12.83 hrs, Volume= 0.887 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Runoff Area=47,852 sf 17.54% Impervious Runoff Depth>2.97"
Flow Length=370' Tc=23.9 min CN=76 Runoff=2.58 cfs 0.272 af

Subcatchment 2S: Runoff Area=222,223 sf 10.67% Impervious Runoff Depth>3.03"
Flow Length=690' Tc=59.9 min CN=77 Runoff=7.78 cfs 1.287 af

Reach SP1: Study Point 1 Inflow=2.58 cfs 0.272 af
Outflow=2.58 cfs 0.272 af

Reach SP2: Study Point 2 Inflow=7.78 cfs 1.287 af
Outflow=7.78 cfs 1.287 af

Total Runoff Area = 6.200 ac Runoff Volume = 1.559 af Average Runoff Depth = 3.02"
88.12% Pervious = 5.463 ac 11.88% Impervious = 0.737 ac

Summary for Subcatchment 1S:

Runoff = 2.58 cfs @ 12.33 hrs, Volume= 0.272 af, Depth> 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

	Area (sf)	CN	Description
	8,750	92	Paved roads w/open ditches, 50% imp, HSG C
*	4,017	98	Gravel Pad
	35,085	70	Woods, Good, HSG C
	47,852	76	Weighted Average
	39,460		82.46% Pervious Area
	8,392		17.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.5	125	0.1300	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
2.0	140	0.0570	1.19		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.4	105	0.0100	4.91	3.86	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
23.9	370	Total			

Summary for Subcatchment 2S:

Runoff = 7.78 cfs @ 12.82 hrs, Volume= 1.287 af, Depth> 3.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

	Area (sf)	CN	Description
	23,750	92	Paved roads w/open ditches, 50% imp, HSG C
*	11,827	98	Gravel Pad
	96,547	70	Woods, Good, HSG C
	90,099	77	Woods, Good, HSG D
	222,223	77	Weighted Average
	198,521		89.33% Pervious Area
	23,702		10.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
33.9	150	0.0600	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
0.7	60	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
25.3	480	0.0040	0.32		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
59.9	690	Total			

Summary for Reach SP1: Study Point 1

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

Inflow Area = 1.099 ac, 17.54% Impervious, Inflow Depth > 2.97" for 25 Year event
Inflow = 2.58 cfs @ 12.33 hrs, Volume= 0.272 af
Outflow = 2.58 cfs @ 12.33 hrs, Volume= 0.272 af, Atten= 0%, Lag= 0.0 min

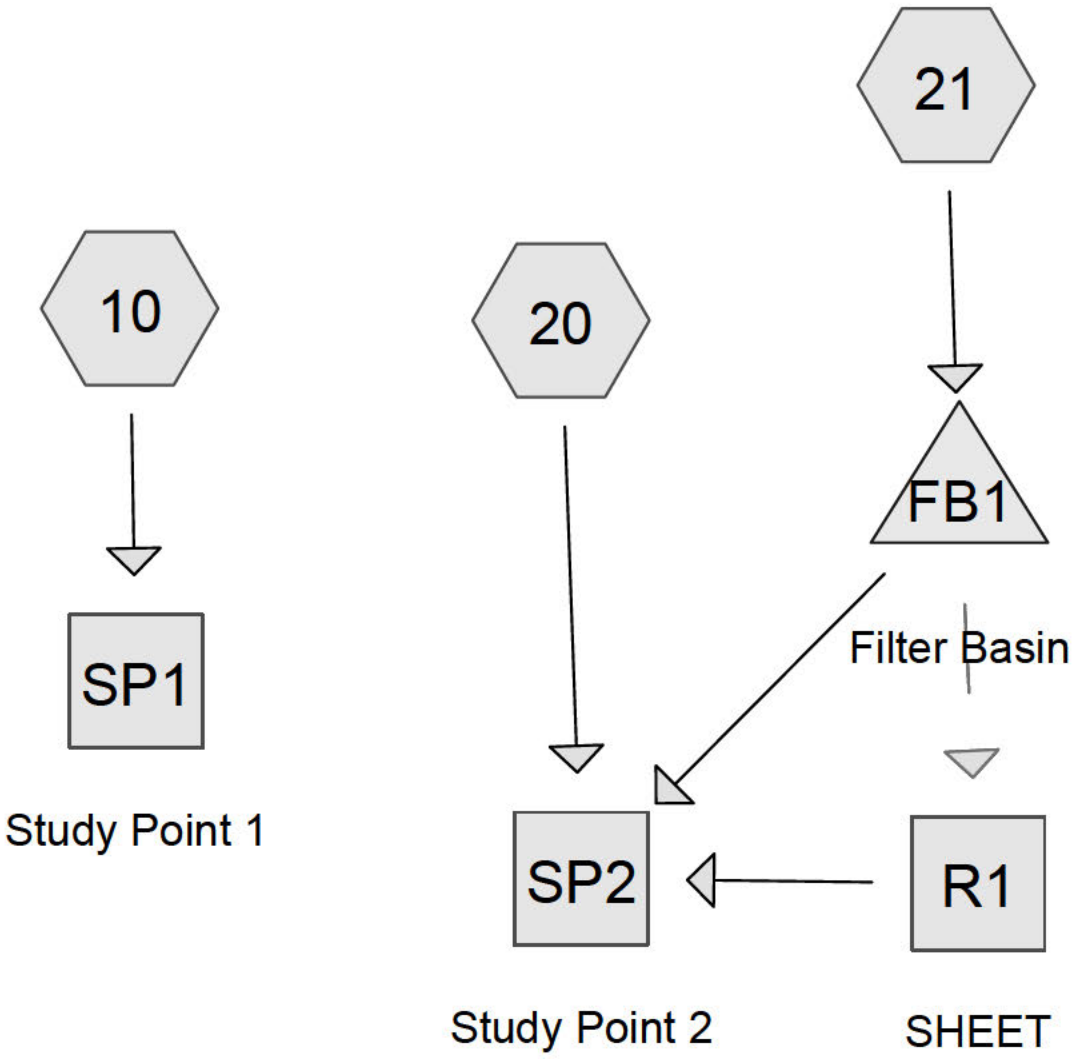
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach SP2: Study Point 2

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

Inflow Area = 5.102 ac, 10.67% Impervious, Inflow Depth > 3.03" for 25 Year event
Inflow = 7.78 cfs @ 12.82 hrs, Volume= 1.287 af
Outflow = 7.78 cfs @ 12.82 hrs, Volume= 1.287 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



Subcat Reach Pond Link

Routing Diagram for 2125 Post
Prepared by {enter your company name here}, Printed 10/26/2021
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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10: Runoff Area=48,485 sf 10.05% Impervious Runoff Depth>0.93"
Flow Length=370' Tc=23.9 min CN=75 Runoff=0.79 cfs 0.086 af

Subcatchment 20: Runoff Area=146,345 sf 9.02% Impervious Runoff Depth>0.99"
Flow Length=625' Tc=116.1 min CN=77 Runoff=1.09 cfs 0.278 af

Subcatchment 21: Runoff Area=75,228 sf 86.40% Impervious Runoff Depth>2.41"
Flow Length=376' Tc=3.0 min CN=95 Runoff=5.29 cfs 0.347 af

Reach R1: SHEET Avg. Flow Depth=0.89' Max Vel=0.08 fps Inflow=4.07 cfs 0.191 af
n=0.800 L=150.0' S=0.0067 '/' Capacity=0.24 cfs Outflow=1.30 cfs 0.185 af

Reach SP1: Study Point 1 Inflow=0.79 cfs 0.086 af
Outflow=0.79 cfs 0.086 af

Reach SP2: Study Point 2 Inflow=2.15 cfs 0.495 af
Outflow=2.15 cfs 0.495 af

Pond FB1: Filter Basin Peak Elev=101.21' Storage=6,354 cf Inflow=5.29 cfs 0.347 af
Primary=0.05 cfs 0.032 af Secondary=4.07 cfs 0.191 af Tertiary=0.00 cfs 0.000 af Outflow=4.12 cfs 0.223 af

Total Runoff Area = 6.200 ac Runoff Volume = 0.711 af Average Runoff Depth = 1.38"
69.24% Pervious = 4.293 ac 30.76% Impervious = 1.907 ac

Summary for Subcatchment 10:

Runoff = 0.79 cfs @ 12.36 hrs, Volume= 0.086 af, Depth> 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 Year Rainfall=3.10"

Area (sf)	CN	Description
9,750	92	Paved roads w/open ditches, 50% imp, HSG C
5,302	74	>75% Grass cover, Good, HSG C
33,433	70	Woods, Good, HSG C
48,485	75	Weighted Average
43,610		89.95% Pervious Area
4,875		10.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.5	125	0.1300	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
2.0	140	0.0570	1.19		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.4	105	0.0100	4.91	3.86	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
23.9	370	Total			

Summary for Subcatchment 20:

Runoff = 1.09 cfs @ 13.58 hrs, Volume= 0.278 af, Depth> 0.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 Year Rainfall=3.10"

	Area (sf)	CN	Description
	22,750	92	Paved roads w/open ditches, 50% imp, HSG C
*	1,824	98	Impervious
	12,500	74	>75% Grass cover, Good, HSG C
	40,588	70	Woods, Good, HSG C
	68,683	77	Woods, Good, HSG D
	146,345	77	Weighted Average
	133,146		90.98% Pervious Area
	13,199		9.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
33.9	150	0.0600	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
1.4	190	0.0230	2.27		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
75.8	150	0.0080	0.03		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
5.0	135	0.0080	0.45		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
116.1	625	Total			

Summary for Subcatchment 21:

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

Runoff = 5.29 cfs @ 12.05 hrs, Volume= 0.347 af, Depth> 2.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 Year Rainfall=3.10"

	Area (sf)	CN	Description
*	65,000	98	Impervious
	10,228	74	>75% Grass cover, Good, HSG C
	75,228	95	Weighted Average
	10,228		13.60% Pervious Area
	65,000		86.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	36	0.0200	1.10		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"
1.7	150	0.0050	1.44		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.8	190	0.0050	4.03	4.95	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
3.0	376	Total			

Summary for Reach R1: SHEET

[91] Warning: Storage range exceeded by 0.64'
[55] Hint: Peak inflow is 1692% of Manning's capacity
[79] Warning: Submerged Pond FB1 Secondary device # 4 INLET by 0.69'

Inflow = 4.07 cfs @ 12.11 hrs, Volume= 0.191 af
Outflow = 1.30 cfs @ 13.00 hrs, Volume= 0.185 af, Atten= 68%, Lag= 53.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.08 fps, Min. Travel Time= 32.8 min
Avg. Velocity = 0.05 fps, Avg. Travel Time= 51.9 min

Peak Storage= 2,562 cf @ 12.45 hrs
Average Depth at Peak Storage= 0.89'
Bank-Full Depth= 0.25' Flow Area= 4.4 sf, Capacity= 0.24 cfs

15.00' x 0.25' deep channel, n= 0.800
Side Slope Z-value= 10.0 '/' Top Width= 20.00'
Length= 150.0' Slope= 0.0067 '/'
Inlet Invert= 98.00', Outlet Invert= 97.00'

‡

Summary for Reach SP1: Study Point 1

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

Inflow Area = 1.113 ac, 10.05% Impervious, Inflow Depth > 0.93" for 2 Year event
Inflow = 0.79 cfs @ 12.36 hrs, Volume= 0.086 af
Outflow = 0.79 cfs @ 12.36 hrs, Volume= 0.086 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach SP2: Study Point 2

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

Inflow Area = 5.087 ac, 35.29% Impervious, Inflow Depth > 1.17" for 2 Year event
Inflow = 2.15 cfs @ 13.14 hrs, Volume= 0.495 af
Outflow = 2.15 cfs @ 13.14 hrs, Volume= 0.495 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond FB1: Filter Basin

[82] Warning: Early inflow requires earlier time span

Inflow Area = 1.727 ac, 86.40% Impervious, Inflow Depth > 2.41" for 2 Year event
Inflow = 5.29 cfs @ 12.05 hrs, Volume= 0.347 af
Outflow = 4.12 cfs @ 12.11 hrs, Volume= 0.223 af, Atten= 22%, Lag= 3.8 min
Primary = 0.05 cfs @ 12.11 hrs, Volume= 0.032 af
Secondary = 4.07 cfs @ 12.11 hrs, Volume= 0.191 af
Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 101.21' @ 12.11 hrs Surf.Area= 4,764 sf Storage= 6,354 cf

Plug-Flow detention time= 136.9 min calculated for 0.223 af (64% of inflow)
Center-of-Mass det. time= 65.3 min (817.1 - 751.7)

Volume	Invert	Avail.Storage	Storage Description
#1	99.75'	14,926 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
99.75	3,915	0	0
100.00	4,060	997	997
101.00	4,640	4,350	5,347
101.50	4,930	2,393	7,739
102.00	5,220	2,538	10,277
102.85	5,720	4,650	14,926

Device	Routing	Invert	Outlet Devices
#1	Primary	96.80'	**1.0" Vert. Endcap Orifice** C= 0.600
#2	Device 1	97.50'	**4.0" Round Underdrain** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 97.50' / 96.80' S= 0.0070 '/' Cc= 0.900 n= 0.011, Flow Area= 0.09 sf
#3	Device 2	99.75'	**2.410 in/hr Soil Filter over Surface area above 99.75'** Excluded Surface area = 3,915 sf
#4	Secondary	98.20'	**15.0" Round SD-7** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 98.20' / 98.00' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#5	Device 4	101.00'	**12.6' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#6	Tertiary	101.45'	**15.0' long x 10.0' breadth Emergency Spillway** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.05 cfs @ 12.11 hrs HW=101.21' (Free Discharge)
└**1=Endcap Orifice** (Passes 0.05 cfs of 0.05 cfs potential flow)
└**2=Underdrain** (Passes 0.05 cfs of 0.42 cfs potential flow)
└**3=Soil Filter** (Exfiltration Controls 0.05 cfs)

Secondary OutFlow Max=3.92 cfs @ 12.11 hrs HW=101.21' (Free Discharge)
└**4=SD-7** (Passes 3.92 cfs of 7.20 cfs potential flow)
└**5=Sharp-Crested Rectangular Weir** (Weir Controls 3.92 cfs @ 1.49 fps)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=99.75' (Free Discharge)
└**6=Emergency Spillway** (Controls 0.00 cfs)

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10: Runoff Area=48,485 sf 10.05% Impervious Runoff Depth>1.96"
Flow Length=370' Tc=23.9 min CN=75 Runoff=1.72 cfs 0.182 af

Subcatchment 20: Runoff Area=146,345 sf 9.02% Impervious Runoff Depth>2.03"
Flow Length=625' Tc=116.1 min CN=77 Runoff=2.29 cfs 0.569 af

Subcatchment 21: Runoff Area=75,228 sf 86.40% Impervious Runoff Depth>3.79"
Flow Length=376' Tc=3.0 min CN=95 Runoff=8.13 cfs 0.546 af

Reach R1: SHEET Avg. Flow Depth=1.83' Max Vel=0.08 fps Inflow=7.04 cfs 0.386 af
n=0.800 L=150.0' S=0.0067 '/' Capacity=0.24 cfs Outflow=2.87 cfs 0.376 af

Reach SP1: Study Point 1 Inflow=1.72 cfs 0.182 af
Outflow=1.72 cfs 0.182 af

Reach SP2: Study Point 2 Inflow=4.43 cfs 0.981 af
Outflow=4.43 cfs 0.981 af

Pond FB1: Filter Basin Peak Elev=101.31' Storage=6,826 cf Inflow=8.13 cfs 0.546 af
Primary=0.05 cfs 0.036 af Secondary=7.04 cfs 0.386 af Tertiary=0.00 cfs 0.000 af Outflow=7.09 cfs 0.422 af

Total Runoff Area = 6.200 ac Runoff Volume = 1.297 af Average Runoff Depth = 2.51"
69.24% Pervious = 4.293 ac 30.76% Impervious = 1.907 ac

Summary for Subcatchment 10:

Runoff = 1.72 cfs @ 12.34 hrs, Volume= 0.182 af, Depth> 1.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Rainfall=4.60"

Area (sf)	CN	Description
9,750	92	Paved roads w/open ditches, 50% imp, HSG C
5,302	74	>75% Grass cover, Good, HSG C
33,433	70	Woods, Good, HSG C
48,485	75	Weighted Average
43,610		89.95% Pervious Area
4,875		10.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.5	125	0.1300	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
2.0	140	0.0570	1.19		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.4	105	0.0100	4.91	3.86	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
23.9	370	Total			

Summary for Subcatchment 20:

Runoff = 2.29 cfs @ 13.56 hrs, Volume= 0.569 af, Depth> 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Rainfall=4.60"

	Area (sf)	CN	Description
	22,750	92	Paved roads w/open ditches, 50% imp, HSG C
*	1,824	98	Impervious
	12,500	74	>75% Grass cover, Good, HSG C
	40,588	70	Woods, Good, HSG C
	68,683	77	Woods, Good, HSG D
	146,345	77	Weighted Average
	133,146		90.98% Pervious Area
	13,199		9.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
33.9	150	0.0600	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
1.4	190	0.0230	2.27		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
75.8	150	0.0080	0.03		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
5.0	135	0.0080	0.45		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
116.1	625	Total			

Summary for Subcatchment 21:

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

Runoff = 8.13 cfs @ 12.05 hrs, Volume= 0.546 af, Depth> 3.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Rainfall=4.60"

	Area (sf)	CN	Description
*	65,000	98	Impervious
	10,228	74	>75% Grass cover, Good, HSG C
	75,228	95	Weighted Average
	10,228		13.60% Pervious Area
	65,000		86.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	36	0.0200	1.10		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"
1.7	150	0.0050	1.44		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.8	190	0.0050	4.03	4.95	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
3.0	376	Total			

Summary for Reach R1: SHEET

[91] Warning: Storage range exceeded by 1.58'
[55] Hint: Peak inflow is 2926% of Manning's capacity
[79] Warning: Submerged Pond FB1 Secondary device # 4 INLET by 1.63'

Inflow = 7.04 cfs @ 12.08 hrs, Volume= 0.386 af
Outflow = 2.87 cfs @ 12.84 hrs, Volume= 0.376 af, Atten= 59%, Lag= 45.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.08 fps, Min. Travel Time= 31.3 min
Avg. Velocity = 0.06 fps, Avg. Travel Time= 44.9 min

Peak Storage= 5,396 cf @ 12.32 hrs
Average Depth at Peak Storage= 1.83'
Bank-Full Depth= 0.25' Flow Area= 4.4 sf, Capacity= 0.24 cfs

15.00' x 0.25' deep channel, n= 0.800
Side Slope Z-value= 10.0 '/' Top Width= 20.00'
Length= 150.0' Slope= 0.0067 '/'
Inlet Invert= 98.00', Outlet Invert= 97.00'

‡

Summary for Reach SP1: Study Point 1

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

Inflow Area = 1.113 ac, 10.05% Impervious, Inflow Depth > 1.96" for 10 Year event
Inflow = 1.72 cfs @ 12.34 hrs, Volume= 0.182 af
Outflow = 1.72 cfs @ 12.34 hrs, Volume= 0.182 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach SP2: Study Point 2

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

Inflow Area = 5.087 ac, 35.29% Impervious, Inflow Depth > 2.31" for 10 Year event
Inflow = 4.43 cfs @ 13.02 hrs, Volume= 0.981 af
Outflow = 4.43 cfs @ 13.02 hrs, Volume= 0.981 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond FB1: Filter Basin

[82] Warning: Early inflow requires earlier time span

Inflow Area = 1.727 ac, 86.40% Impervious, Inflow Depth > 3.79" for 10 Year event
Inflow = 8.13 cfs @ 12.05 hrs, Volume= 0.546 af
Outflow = 7.09 cfs @ 12.08 hrs, Volume= 0.422 af, Atten= 13%, Lag= 2.2 min
Primary = 0.05 cfs @ 12.09 hrs, Volume= 0.036 af
Secondary = 7.04 cfs @ 12.08 hrs, Volume= 0.386 af
Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 101.31' @ 12.09 hrs Surf.Area= 4,821 sf Storage= 6,826 cf

Plug-Flow detention time= 109.5 min calculated for 0.422 af (77% of inflow)
Center-of-Mass det. time= 51.2 min (795.2 - 744.0)

Volume	Invert	Avail.Storage	Storage Description
#1	99.75'	14,926 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
99.75	3,915	0	0
100.00	4,060	997	997
101.00	4,640	4,350	5,347
101.50	4,930	2,393	7,739
102.00	5,220	2,538	10,277
102.85	5,720	4,650	14,926

Device	Routing	Invert	Outlet Devices
#1	Primary	96.80'	**1.0" Vert. Endcap Orifice** C= 0.600
#2	Device 1	97.50'	**4.0" Round Underdrain** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 97.50' / 96.80' S= 0.0070 '/' Cc= 0.900 n= 0.011, Flow Area= 0.09 sf
#3	Device 2	99.75'	**2.410 in/hr Soil Filter over Surface area above 99.75'** Excluded Surface area = 3,915 sf
#4	Secondary	98.20'	**15.0" Round SD-7** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 98.20' / 98.00' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#5	Device 4	101.00'	**12.6' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#6	Tertiary	101.45'	**15.0' long x 10.0' breadth Emergency Spillway** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.05 cfs @ 12.09 hrs HW=101.31' (Free Discharge)
└**1=Endcap Orifice** (Passes 0.05 cfs of 0.06 cfs potential flow)
└**2=Underdrain** (Passes 0.05 cfs of 0.43 cfs potential flow)
└**3=Soil Filter** (Exfiltration Controls 0.05 cfs)

Secondary OutFlow Max=6.95 cfs @ 12.08 hrs HW=101.31' (Free Discharge)
└**4=SD-7** (Passes 6.95 cfs of 7.35 cfs potential flow)
└**5=Sharp-Crested Rectangular Weir** (Weir Controls 6.95 cfs @ 1.81 fps)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=99.75' (Free Discharge)
└**6=Emergency Spillway** (Controls 0.00 cfs)

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10: Runoff Area=48,485 sf 10.05% Impervious Runoff Depth>2.88"
Flow Length=370' Tc=23.9 min CN=75 Runoff=2.53 cfs 0.267 af

Subcatchment 20: Runoff Area=146,345 sf 9.02% Impervious Runoff Depth>2.96"
Flow Length=625' Tc=116.1 min CN=77 Runoff=3.34 cfs 0.828 af

Subcatchment 21: Runoff Area=75,228 sf 86.40% Impervious Runoff Depth>4.90"
Flow Length=376' Tc=3.0 min CN=95 Runoff=10.39 cfs 0.705 af

Reach R1: SHEET Avg. Flow Depth=2.49' Max Vel=0.08 fps Inflow=7.54 cfs 0.543 af
n=0.800 L=150.0' S=0.0067 '/' Capacity=0.24 cfs Outflow=3.97 cfs 0.529 af

Reach SP1: Study Point 1 Inflow=2.53 cfs 0.267 af
Outflow=2.53 cfs 0.267 af

Reach SP2: Study Point 2 Inflow=6.20 cfs 1.396 af
Outflow=6.20 cfs 1.396 af

Pond FB1: Filter Basin Peak Elev=101.44' Storage=7,445 cf Inflow=10.39 cfs 0.705 af
Primary=0.05 cfs 0.038 af Secondary=7.54 cfs 0.543 af Tertiary=0.00 cfs 0.000 af Outflow=7.60 cfs 0.581 af

Total Runoff Area = 6.200 ac Runoff Volume = 1.801 af Average Runoff Depth = 3.49"
69.24% Pervious = 4.293 ac 30.76% Impervious = 1.907 ac

Summary for Subcatchment 10:

Runoff = 2.53 cfs @ 12.34 hrs, Volume= 0.267 af, Depth> 2.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

Area (sf)	CN	Description
9,750	92	Paved roads w/open ditches, 50% imp, HSG C
5,302	74	>75% Grass cover, Good, HSG C
33,433	70	Woods, Good, HSG C
48,485	75	Weighted Average
43,610		89.95% Pervious Area
4,875		10.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.5	125	0.1300	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
2.0	140	0.0570	1.19		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.4	105	0.0100	4.91	3.86	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
23.9	370	Total			

Summary for Subcatchment 20:

Runoff = 3.34 cfs @ 13.55 hrs, Volume= 0.828 af, Depth> 2.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

	Area (sf)	CN	Description
	22,750	92	Paved roads w/open ditches, 50% imp, HSG C
*	1,824	98	Impervious
	12,500	74	>75% Grass cover, Good, HSG C
	40,588	70	Woods, Good, HSG C
	68,683	77	Woods, Good, HSG D
	146,345	77	Weighted Average
	133,146		90.98% Pervious Area
	13,199		9.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
33.9	150	0.0600	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
1.4	190	0.0230	2.27		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
75.8	150	0.0080	0.03		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.10"
5.0	135	0.0080	0.45		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
116.1	625	Total			

Summary for Subcatchment 21:

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

Runoff = 10.39 cfs @ 12.05 hrs, Volume= 0.705 af, Depth> 4.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

	Area (sf)	CN	Description
*	65,000	98	Impervious
	10,228	74	>75% Grass cover, Good, HSG C
	75,228	95	Weighted Average
	10,228		13.60% Pervious Area
	65,000		86.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	36	0.0200	1.10		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"
1.7	150	0.0050	1.44		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.8	190	0.0050	4.03	4.95	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
3.0	376	Total			

Summary for Reach R1: SHEET

[91] Warning: Storage range exceeded by 2.24'
[55] Hint: Peak inflow is 3134% of Manning's capacity
[79] Warning: Submerged Pond FB1 Secondary device # 4 INLET by 2.29'

Inflow = 7.54 cfs @ 12.11 hrs, Volume= 0.543 af
Outflow = 3.97 cfs @ 12.82 hrs, Volume= 0.529 af, Atten= 47%, Lag= 42.7 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.08 fps, Min. Travel Time= 30.9 min
Avg. Velocity = 0.06 fps, Avg. Travel Time= 42.5 min

Peak Storage= 7,371 cf @ 12.30 hrs
Average Depth at Peak Storage= 2.49'
Bank-Full Depth= 0.25' Flow Area= 4.4 sf, Capacity= 0.24 cfs

15.00' x 0.25' deep channel, n= 0.800
Side Slope Z-value= 10.0 '/' Top Width= 20.00'
Length= 150.0' Slope= 0.0067 '/'
Inlet Invert= 98.00', Outlet Invert= 97.00'

‡

Summary for Reach SP1: Study Point 1

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

Inflow Area = 1.113 ac, 10.05% Impervious, Inflow Depth > 2.88" for 25 Year event
Inflow = 2.53 cfs @ 12.34 hrs, Volume= 0.267 af
Outflow = 2.53 cfs @ 12.34 hrs, Volume= 0.267 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach SP2: Study Point 2

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

Inflow Area = 5.087 ac, 35.29% Impervious, Inflow Depth > 3.29" for 25 Year event
Inflow = 6.20 cfs @ 13.00 hrs, Volume= 1.396 af
Outflow = 6.20 cfs @ 13.00 hrs, Volume= 1.396 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond FB1: Filter Basin

[82] Warning: Early inflow requires earlier time span

Inflow Area = 1.727 ac, 86.40% Impervious, Inflow Depth > 4.90" for 25 Year event
Inflow = 10.39 cfs @ 12.05 hrs, Volume= 0.705 af
Outflow = 7.60 cfs @ 12.11 hrs, Volume= 0.581 af, Atten= 27%, Lag= 3.6 min
Primary = 0.05 cfs @ 12.11 hrs, Volume= 0.038 af
Secondary = 7.54 cfs @ 12.11 hrs, Volume= 0.543 af
Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 101.44' @ 12.11 hrs Surf.Area= 4,895 sf Storage= 7,445 cf

Plug-Flow detention time= 95.5 min calculated for 0.579 af (82% of inflow)
Center-of-Mass det. time= 45.9 min (786.4 - 740.4)

Volume	Invert	Avail.Storage	Storage Description
#1	99.75'	14,926 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

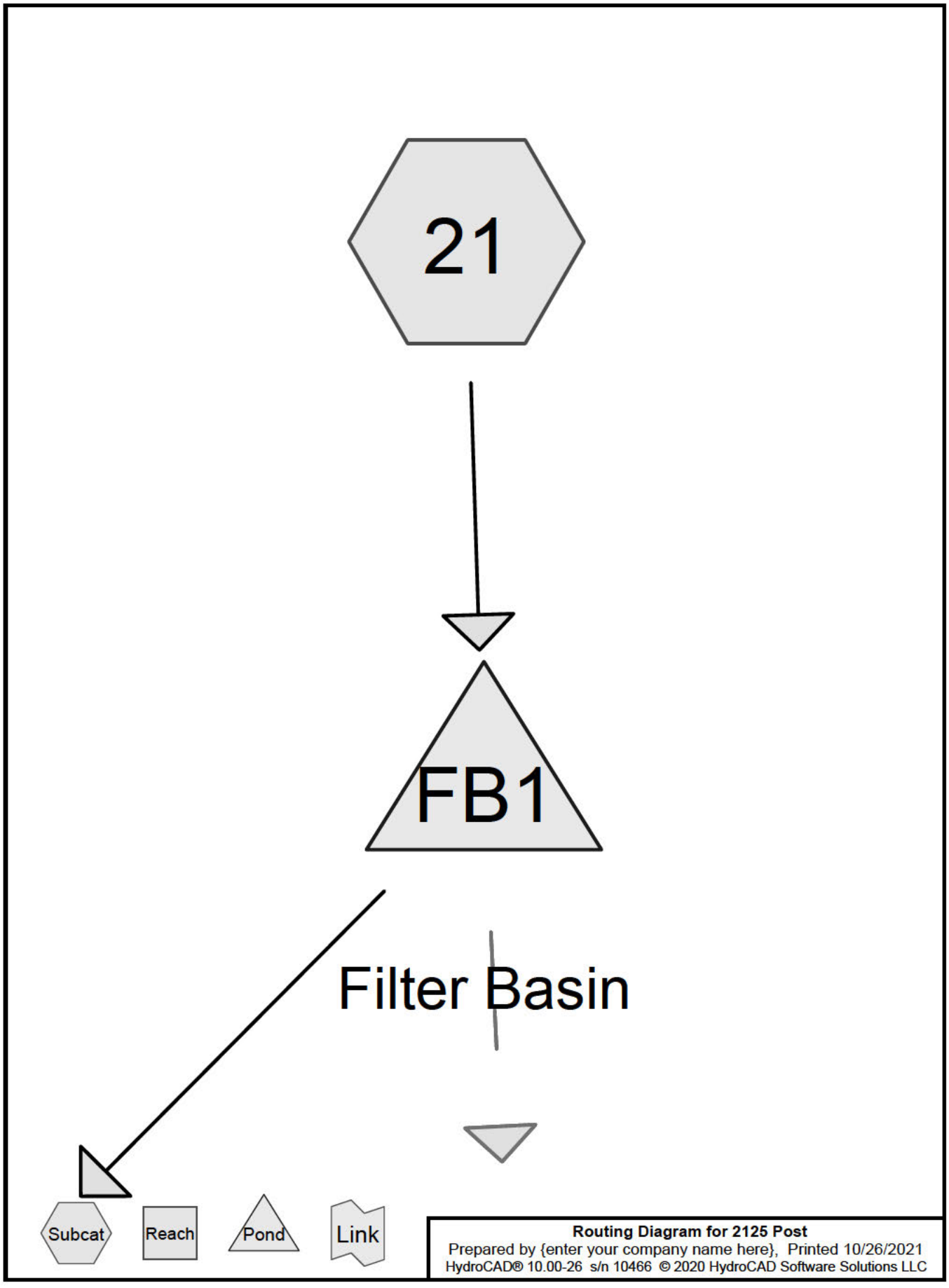
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
99.75	3,915	0	0
100.00	4,060	997	997
101.00	4,640	4,350	5,347
101.50	4,930	2,393	7,739
102.00	5,220	2,538	10,277
102.85	5,720	4,650	14,926

Device	Routing	Invert	Outlet Devices
#1	Primary	96.80'	**1.0" Vert. Endcap Orifice** C= 0.600
#2	Device 1	97.50'	**4.0" Round Underdrain** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 97.50' / 96.80' S= 0.0070 '/' Cc= 0.900 n= 0.011, Flow Area= 0.09 sf
#3	Device 2	99.75'	**2.410 in/hr Soil Filter over Surface area above 99.75'** Excluded Surface area = 3,915 sf
#4	Secondary	98.20'	**15.0" Round SD-7** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 98.20' / 98.00' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#5	Device 4	101.00'	**12.6' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#6	Tertiary	101.45'	**15.0' long x 10.0' breadth Emergency Spillway** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.05 cfs @ 12.11 hrs HW=101.44' (Free Discharge)
└**1=Endcap Orifice** (Passes 0.05 cfs of 0.06 cfs potential flow)
└**2=Underdrain** (Passes 0.05 cfs of 0.43 cfs potential flow)
└**3=Soil Filter** (Exfiltration Controls 0.05 cfs)

Secondary OutFlow Max=7.54 cfs @ 12.11 hrs HW=101.44' (Free Discharge)
└**4=SD-7** (Inlet Controls 7.54 cfs @ 6.14 fps)
└**5=Sharp-Crested Rectangular Weir** (Passes 7.54 cfs of 11.75 cfs potential flow)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=99.75' (Free Discharge)
└**6=Emergency Spillway** (Controls 0.00 cfs)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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment21: Runoff Area=75,228 sf 86.40% Impervious Runoff Depth>4.90"
Flow Length=376' Tc=3.0 min CN=95 Runoff=10.39 cfs 0.705 af

Pond FB1: Filter Basin Peak Elev=101.84' Storage=9,426 cf Inflow=10.39 cfs 0.705 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Tertiary=9.17 cfs 0.531 af Outflow=9.17 cfs 0.531 af

Total Runoff Area = 1.727 ac Runoff Volume = 0.705 af Average Runoff Depth = 4.90"
13.60% Pervious = 0.235 ac 86.40% Impervious = 1.492 ac

Summary for Subcatchment 21:

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

Runoff = 10.39 cfs @ 12.05 hrs, Volume= 0.705 af, Depth> 4.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=5.80"

	Area (sf)	CN	Description
*	65,000	98	Impervious
	10,228	74	>75% Grass cover, Good, HSG C
	75,228	95	Weighted Average
	10,228		13.60% Pervious Area
	65,000		86.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	36	0.0200	1.10		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"
1.7	150	0.0050	1.44		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.8	190	0.0050	4.03	4.95	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
3.0	376	Total			

Summary for Pond FB1: Filter Basin

[82] Warning: Early inflow requires earlier time span

Inflow Area = 1.727 ac, 86.40% Impervious, Inflow Depth > 4.90" for 25 Year event
Inflow = 10.39 cfs @ 12.05 hrs, Volume= 0.705 af
Outflow = 9.17 cfs @ 12.08 hrs, Volume= 0.531 af, Atten= 12%, Lag= 2.2 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Tertiary = 9.17 cfs @ 12.08 hrs, Volume= 0.531 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 101.84' @ 12.08 hrs Surf.Area= 5,125 sf Storage= 9,426 cf

Plug-Flow detention time= 117.5 min calculated for 0.529 af (75% of inflow)
Center-of-Mass det. time= 57.2 min (797.6 - 740.4)

Volume	Invert	Avail.Storage	Storage Description
#1	99.75'	14,926 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

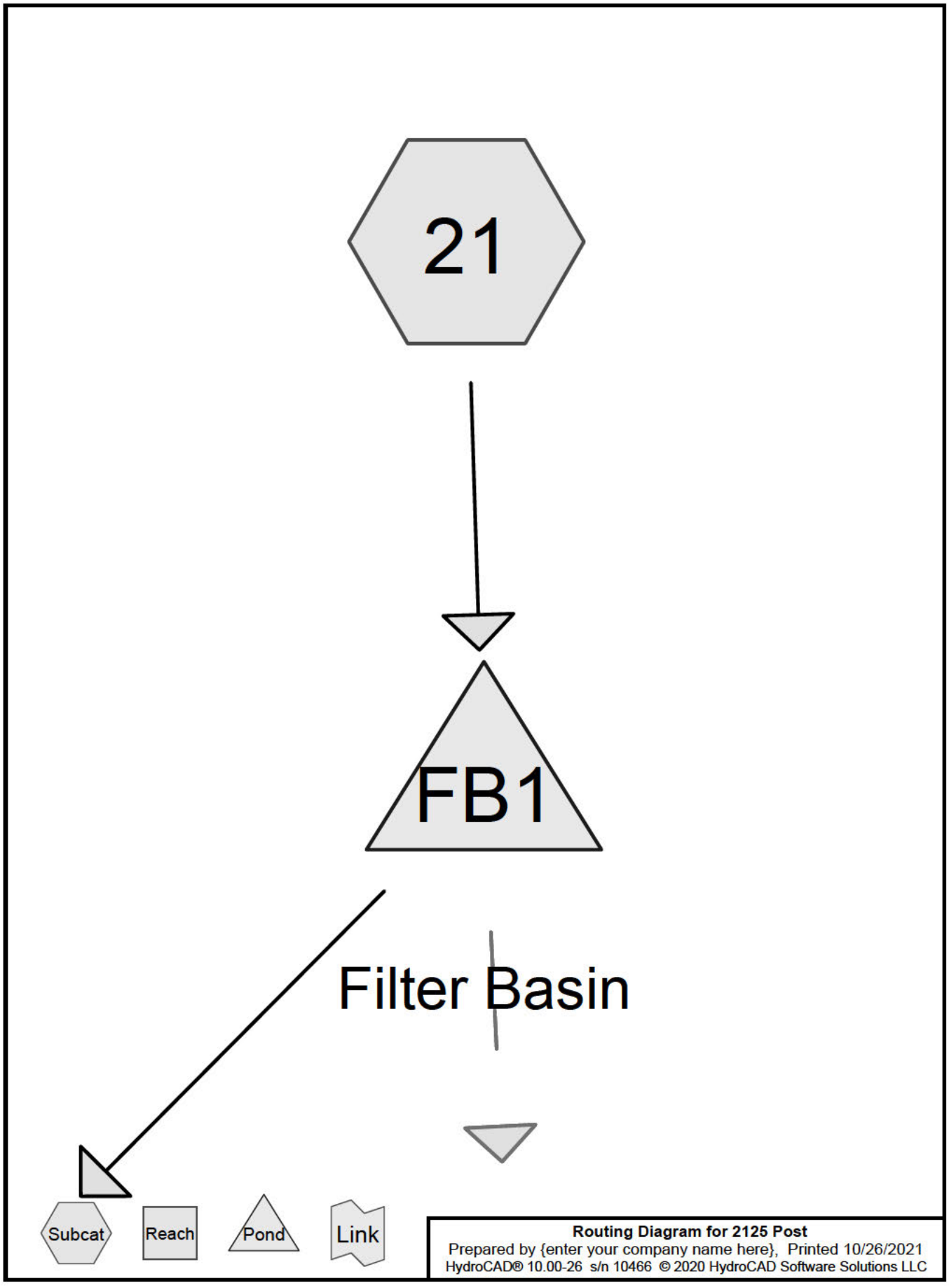
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
99.75	3,915	0	0
100.00	4,060	997	997
101.00	4,640	4,350	5,347
101.50	4,930	2,393	7,739
102.00	5,220	2,538	10,277
102.85	5,720	4,650	14,926

Device	Routing	Invert	Outlet Devices
#1	Primary	96.80'	**1.0" Vert. Endcap Orifice X 0.00** C= 0.600
#2	Device 1	97.50'	**4.0" Round Underdrain** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 97.50' / 96.80' S= 0.0070 '/' Cc= 0.900 n= 0.011, Flow Area= 0.09 sf
#3	Device 2	99.75'	**2.410 in/hr Soil Filter over Surface area above 99.75'** Excluded Surface area = 3,915 sf
#4	Secondary	98.20'	**15.0" Round SD-7 X 0.00** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 98.20' / 98.00' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#5	Device 4	101.00'	**12.6' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#6	Tertiary	101.45'	**15.0' long x 10.0' breadth Emergency Spillway** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=99.75' (Free Discharge)
└**1=Endcap Orifice** (Controls 0.00 cfs)
└**2=Underdrain** (Passes 0.00 cfs of 0.34 cfs potential flow)
└**3=Soil Filter** (Passes 0.00 cfs of 0.00 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=99.75' (Free Discharge)
└**4=SD-7** (Controls 0.00 cfs)
└**5=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Tertiary OutFlow Max=8.91 cfs @ 12.08 hrs HW=101.83' (Free Discharge)
└**6=Emergency Spillway** (Weir Controls 8.91 cfs @ 1.57 fps)


21
FB1
Filter Basin
Subcat
Reach
Pond
Link
Routing Diagram for 2125 Post
Prepared by {enter your company name here}, Printed 10/26/2021
HydroCAD® 10.00-26 s/n 10466 © 2020 HydroCAD Software Solutions LLC

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment21: Runoff Area=75,228 sf 86.40% Impervious Runoff Depth>7.01"
Flow Length=376' Tc=3.0 min CN=95 Runoff=14.67 cfs 1.009 af

Pond FB1: Filter Basin Peak Elev=101.66' Storage=8,550 cf Inflow=14.67 cfs 1.009 af
Primary=0.06 cfs 0.042 af Secondary=7.86 cfs 0.809 af Tertiary=3.68 cfs 0.034 af Outflow=11.59 cfs 0.884 af

Total Runoff Area = 1.727 ac Runoff Volume = 1.009 af Average Runoff Depth = 7.01"
13.60% Pervious = 0.235 ac 86.40% Impervious = 1.492 ac

Summary for Subcatchment 21:

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

Runoff = 14.67 cfs @ 12.05 hrs, Volume= 1.009 af, Depth> 7.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 Year Rainfall=8.10"

	Area (sf)	CN	Description
*	65,000	98	Impervious
	10,228	74	>75% Grass cover, Good, HSG C
	75,228	95	Weighted Average
	10,228		13.60% Pervious Area
	65,000		86.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	36	0.0200	1.10		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"
1.7	150	0.0050	1.44		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.8	190	0.0050	4.03	4.95	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
3.0	376	Total			

Summary for Pond FB1: Filter Basin

[82] Warning: Early inflow requires earlier time span

Inflow Area = 1.727 ac, 86.40% Impervious, Inflow Depth > 7.01" for 100 Year event
Inflow = 14.67 cfs @ 12.05 hrs, Volume= 1.009 af
Outflow = 11.59 cfs @ 12.10 hrs, Volume= 0.884 af, Atten= 21%, Lag= 3.5 min
Primary = 0.06 cfs @ 12.11 hrs, Volume= 0.042 af
Secondary = 7.86 cfs @ 12.11 hrs, Volume= 0.809 af
Tertiary = 3.68 cfs @ 12.10 hrs, Volume= 0.034 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 101.66' @ 12.11 hrs Surf.Area= 5,024 sf Storage= 8,550 cf

Plug-Flow detention time= 77.8 min calculated for 0.881 af (87% of inflow)
Center-of-Mass det. time= 38.5 min (775.0 - 736.5)

Volume	Invert	Avail.Storage	Storage Description
#1	99.75'	14,926 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
99.75	3,915	0	0
100.00	4,060	997	997
101.00	4,640	4,350	5,347
101.50	4,930	2,393	7,739
102.00	5,220	2,538	10,277
102.85	5,720	4,650	14,926

Device	Routing	Invert	Outlet Devices
#1	Primary	96.80'	**1.0" Vert. Endcap Orifice** C= 0.600
#2	Device 1	97.50'	**4.0" Round Underdrain** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 97.50' / 96.80' S= 0.0070 '/' Cc= 0.900 n= 0.011, Flow Area= 0.09 sf
#3	Device 2	99.75'	**2.410 in/hr Soil Filter over Surface area above 99.75'** Excluded Surface area = 3,915 sf
#4	Secondary	98.20'	**15.0" Round SD-7** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 98.20' / 98.00' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#5	Device 4	101.00'	**12.6' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#6	Tertiary	101.45'	**15.0' long x 10.0' breadth Emergency Spillway** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.06 cfs @ 12.11 hrs HW=101.66' (Free Discharge)
└**1=Endcap Orifice** (Orifice Controls 0.06 cfs @ 10.57 fps)
└**2=Underdrain** (Passes 0.06 cfs of 0.44 cfs potential flow)
└**3=Soil Filter** (Passes 0.06 cfs of 0.06 cfs potential flow)

Secondary OutFlow Max=7.85 cfs @ 12.11 hrs HW=101.66' (Free Discharge)
└**4=SD-7** (Inlet Controls 7.85 cfs @ 6.40 fps)
└**5=Sharp-Crested Rectangular Weir** (Passes 7.85 cfs of 21.67 cfs potential flow)

Tertiary OutFlow Max=3.52 cfs @ 12.10 hrs HW=101.66' (Free Discharge)
└**6=Emergency Spillway** (Weir Controls 3.52 cfs @ 1.13 fps)

HOUSEKEEPING PERFORMANCE STANDARDS

FOR:

GRAY SELF STORAGE

GRAY, MAINE

Project Developer: Equity Trust Company
29 Derby Lane
North Yarmouth, ME 04097

Responsible Party: Equity Trust Company
29 Derby Lane
North Yarmouth, ME 04097

Introduction:

The contractor shall be responsible for maintaining proper housekeeping standards throughout the construction phase of the project. After the construction phase has been completed, the owner or operator of the project will be responsible.

Standards:

In accordance with the housekeeping performance standards required by MDEP chapter 500 stormwater regulations, the following standards shall be met:

1. **Spill prevention.** Controls must be used to prevent pollutants from being discharged from materials on site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.
2. **Groundwater protection.** During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.
3. **Fugitive sediment and dust.** Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control.

   Operations during wet months that experience tracking of mud off the site onto public roads should provide for sweeping of road areas at least once a week and prior to significant storm events. Where chronic mud tracking occurs, a stabilized construction entrance should be provided. Operations during dry months, that experience fugitive dust problems, should wet down the access roads once a week or more frequently as needed.
4. **Debris and other materials.** Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.

   To prevent these materials from becoming a source of pollutants, construction and post-construction activities related to a project may be required to comply with applicable

provision of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine solid waste and hazardous waste management rules; Maine hazardous waste management rules; Maine oil conveyance and storage rules; and Maine pesticide requirements.

5. **Trench or foundation de-watering.** Trench de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the department.

6. **Authorized Non-stormwater discharges.** Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:

(a) Discharges from firefighting activity;

(b) Fire hydrant flushings;

(c) Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);

(d) Dust control runoff in accordance with permit conditions and Appendix (C)(3);

(e) Routine external building washdown, not including surface paint removal, that does not involve detergents;

(f) Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;

(g) Uncontaminated air conditioning or compressor condensate;

(h) Uncontaminated groundwater or spring water;

(i) Foundation or footer drain-water where flows are not contaminated;

(j) Uncontaminated excavation dewatering (see requirements in Appendix C(5));

(k) Potable water sources including waterline flushings; and

(l) Landscape irrigation.

7. **Unauthorized non-stormwater discharges .** The Department's approval under this Chapter does not authorize a discharge that is mixed with a source of non-stormwater, other than those discharges in compliance with Appendix C (6). Specifically, the Department's approval does not authorize discharges of the following:

(a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;

(b) Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance;

(c) Soaps, solvents, or detergents used in vehicle and equipment washing; and

(d) Toxic or hazardous substances from a spill or other release.

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MAINTENANCE PLAN OF STORMWATER MANAGEMENT FACILITIES

GRAY SELF STORAGE
GRAY, MAINE

Prepared by:
Jeffrey D. Amos, P.E. 10167

Project Developer: Equity Trust Company
29 Derby Lane
North Yarmouth, ME 04097

Responsible Party: Equity Trust Company
29 Derby Lane
North Yarmouth, ME 04097

List of Stormwater Measures:
Conveyance & Distribution System (Stormwater Channels & Culverts)
Roadways & Parking Surfaces
Level Lip Spreader
Grassed Underdrained Soil Filter

Introduction:
Regular inspection and maintenance of the entire stormwater management system is crucial to the long-term effectiveness of the system. The responsible party must provide regular inspection and maintenance of all permanent erosion control measures and stormwater management structures, establish any contract services required to implement the program, and keep records and a maintenance log book of inspection and maintenance activities. At a minimum, the inspection and maintenance activities outlined herein should be performed at the recommended intervals. All inspection and maintenance documentation shall be maintained for at least 5 years. This project is subject to the Maine Department of Environmental Protection's 5-year Recertification Process.

All measures must be maintained in effective operating condition. A person with knowledge of erosion and sedimentation practices, stormwater management, and the standards and conditions of all local, state and federal permits for the project shall conduct the inspections. The following areas, facilities, and measures must be inspected and identified deficiencies must be corrected.

Inspection & Maintenance Tasks:

Inspections should be performed by a qualified erosion control professional. NOTE: The following instruction are excerpts from the Maine Department of Environmental Protection's *Stormwater Management for Maine, Volume III BMPs Technical Design Manual*, dated January 2006.

1. Inspect **vegetated areas**, particularly slopes and embankments, early in the growing season or after storm events resulting in one inch of rain in 24 hours to identify active or potential erosion problems. Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.

2. Inspect **ditches, swales and other open stormwater channels** in the spring, in late fall, and after storm events resulting in one inch of rain in 24 hours to remove any obstructions to flow, remove accumulated sediments and debris, to control vegetated growth that could obstruct flow, and to repair any erosion of the ditch lining. Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity. Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable. If the ditch has a riprap lining, replace riprap on areas where any underlying filter fabric or underdrain gravel is showing through the stone or where stones have dislodged. The channel must receive adequate routine maintenance to maintain capacity and prevent or correct any erosion of the channel's bottom or sideslopes.

3. Inspect **resource and treatment buffers** once a year for evidence of erosion, concentrating flow, and encroachment by development. If flows are concentrating within a buffer, site grading, level spreaders, or ditch turn-outs must be used to ensure a more even distribution of flow into a buffer. Check down slope of all spreaders and turn-outs for erosion. If erosion is present, adjust or modify the spreader's or turnout's lip to ensure a better distribution of flow into a buffer. Clean-out any accumulation of sediment within the spreader bays or turn-out pools.

Recertification requirement:

Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the Department.

(a) All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.

(b) All aspects of the stormwater control system are operating as approved, have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the system, or portions of the system, as necessary.

(c) The stormwater maintenance plan for the site is being implemented as approved by the Department, and the maintenance log is being maintained.

(d) All proprietary systems have been maintained according to the manufacturer's recommendations. Where required by the Department, the permittee shall execute a 5-year maintenance contract with a qualified professional for the coming 5-year interval. The maintenance contract must include provisions for routine inspections, cleaning and general maintenance.

(e) The Department may waive some or all of these recertification requirements on a case-by-case basis for permittees subject to the Department's Multi-Sector General Permit ("MSGP") and/or Maine Pollutant Discharge Elimination System ("MEPDES") programs where it is demonstrated that these programs are providing stormwater control that is at least as effective as required pursuant to this Chapter.

Conveyance & Distribution Systems: (Stormwater Channels & Culverts, etc.)

1. Inspection schedule:

a. Inspect ditches, swales and other open stormwater channels in the spring, in late fall, and after heavy rains (one inch of rain in 24 hours) to remove any obstructions to flow, remove accumulated sediments and debris, to control vegetated growth that could obstruct flow, and to repair any erosion of the ditch lining. Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity. Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable. If the ditch has a riprap lining, replace riprap on areas where any underlying filter fabric or underdrain gravel is showing through the stone or where stones have dislodged. The channel must receive adequate routine maintenance to maintain capacity and prevent or correct any erosion of the channel's bottom or side-slopes.

b. Inspect culverts in the spring, in late fall, and after heavy rains to remove any obstructions to flow; remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit; and to repair any erosion damage at the culvert's inlet and outlet.

c. Inspect vegetated areas, particularly slopes and embankments, early in the growing season or after heavy rains to identify active or potential erosion problems. Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.

2. Mowing: Grass should not be trimmed extremely short, as this will reduce the filtering effect of the swale (MPCA, 1989). The cut vegetation should be removed to prevent the decaying organic litter from adding pollutants to the discharge from the swale. The mowed height of the grass should be 2-4 inches taller than the maximum flow depth of the design water quality storm. A minimum mow height of 6 inches is generally recommended (Galli, 1993).

3. Erosion: It is important to install erosion and sediment control measures to stabilize this area as soon as possible and to retain any organic matter in the bottom of the trench.

4. Fertilization: Routine fertilization and/or use of pesticides is strongly discouraged. If complete re-seeding is necessary, half the original recommended rate of fertilizer should be applied with a full rate of seed.

5. Sediment Removal: The level of sediment deposition in the channel should be monitored regularly, and removed from grassed channels before permanent damage is done to the grassed vegetation, or if infiltration times are longer than 12 hours. Sediment should be removed from riprap channels when it reduces the capacity of the channel.

Roadways & Parking Surfaces:

Paved surfaces shall be swept or vacuumed at least once annually in the Spring to remove all Winter sand, and periodically during the year on an as-needed basis to minimize transportation of sediment during rainfall events.

Vegetated Swales:

Mowing: Grass should not be trimmed extremely short, as this will reduce the filtering effect of the swale (MPCA, 1989). The cut vegetation should be removed to prevent the decaying organic litter from adding pollutants to the discharge from the swale. The mowed height of the grass should be 2-4 inches taller than the maximum flow depth of the design water quality storm. A minimum mow height of 6 inches is generally recommended (Galli, 1993).

Routine Maintenance and Inspection: The area should be inspected for failures following heavy rainfall (one inch of rain in 24 hours) and repaired as necessary for newly formed channels or gullies, reseeding/sodding of bare spots, removal of trash, leaves and/or accumulated sediments, the control of woody or other undesirable vegetation and to check the condition and integrity of the check dams.
Aeration: The buffer strip may require periodic mechanical aeration to restore infiltration capacity. This aeration must be done during a time when the area can be reseeded and mulched prior to any significant rainfall.

Erosion: It is important to install erosion and sediment control measures to stabilize this area as soon as possible and to retain any organic matter in the bottom of the trench.

Fertilization: Routine fertilization and/or use of pesticides is strongly discouraged. If complete re-seeding is necessary, half the original recommended rate of fertilizer should be applied with a full rate of seed.

Sediment Removal: The level of sediment deposition in the channel should be monitored regularly, and removed from grassed channels before permanent damage is done to the grassed vegetation, or if infiltration times are longer than 12 hours. Sediment should be removed from riprap channels when it reduces the capacity of the channel.

Level Lip Spreader:

Long term maintenance of the level spreader is essential to ensure its effectiveness. Spreaders constructed of wood, asphalt, stone or concrete curbing also require inspection and maintenance.

1. **Inspections:** At least once a year and following major storms (one inch of rain in 24 hours), the level spreader pool should be inspected for sand accumulation and debris that may reduce its capacity.
2. **Sediment Removal:** Sediment build-up within the swale should be removed when it has accumulated to approximately 25% of design volume or channel capacity. Dispose of the sediments appropriately.
3. **Debris:** Remove debris such as leaf litter, branches and tree growth from the spreader.
4. **Mowing:** Vegetated spreaders may require mowing.
5. **Snow Storage:** Do not store snow within the area of the level spreader.
6. **Level Spreader Replacement:** The reconstruction of the level spreader may be necessary when sheet flow from the spreader channelize into the buffer.

GRASSED UNDERDAINED SOIL FILTER:

During the first year, the basin will be inspected semi-annually and following major storm events. Debris and sediment buildup shall be removed from the forebay and basin as needed. Mowing of a grassed basin can occur semiannually to a height no less than 6 inches. Any bare area or erosion rills shall be repaired with new filter media or sandy loam then seeded and mulched. Maintaining good grass cover will minimize clogging with fine sediments and if ponding exceeds 48 hours, the top of the filter bed must be rototilled to reestablish the soil's filtration capacity.

Maintenance Agreement: A legal entity should be established with responsibility for inspecting and maintaining any underdrained filter. The legal agreement establishing the entity should list specific maintenance responsibilities (including timetables) and provide for the funding to cover long-term inspection and maintenance.

Soil Filter Inspection: The soil filter should be inspected after every major storm in the first year to be sure it is functioning properly. Thereafter, the filter should be inspected at least once every six months to ensure that it is draining within 48 hours following a one inch storm or greater. And that following a storms that fill the system to overflow, it drains in no less than 24 to 48 hours. If the system drains too fast, an orifice may need to be added on the underdrain outlet or, if already present, may need to be modified.

Soil Filter Replacement: The top several inches of the filter shall be replaced with fresh material when water ponds on the surface of the bed for more than 72 hours. The removed sediments should be disposed of in an acceptable manner.

Sediment Removal: Sediment and plant debris should be removed from the pretreatment structure at least annually.

Mowing: If mowing is desired, only hand held string trimmers or push-mowers are allowed on the filter (no tractor) and the grass bed should be mowed no more than 2 times per growing season to maintain grass heights of no less than 6 inches.

Fertilization: Fertilization of the underdrained filter area should be avoided unless absolutely necessary to establish vegetation.

Harvesting and Weeding: Harvesting and pruning of excessive growth will need to be done occasionally. Weeding to control unwanted or invasive plants may also be necessary. Add new mulch only as necessary for bioretention cell.

Enc.

Sample Maintenance Log Sheet

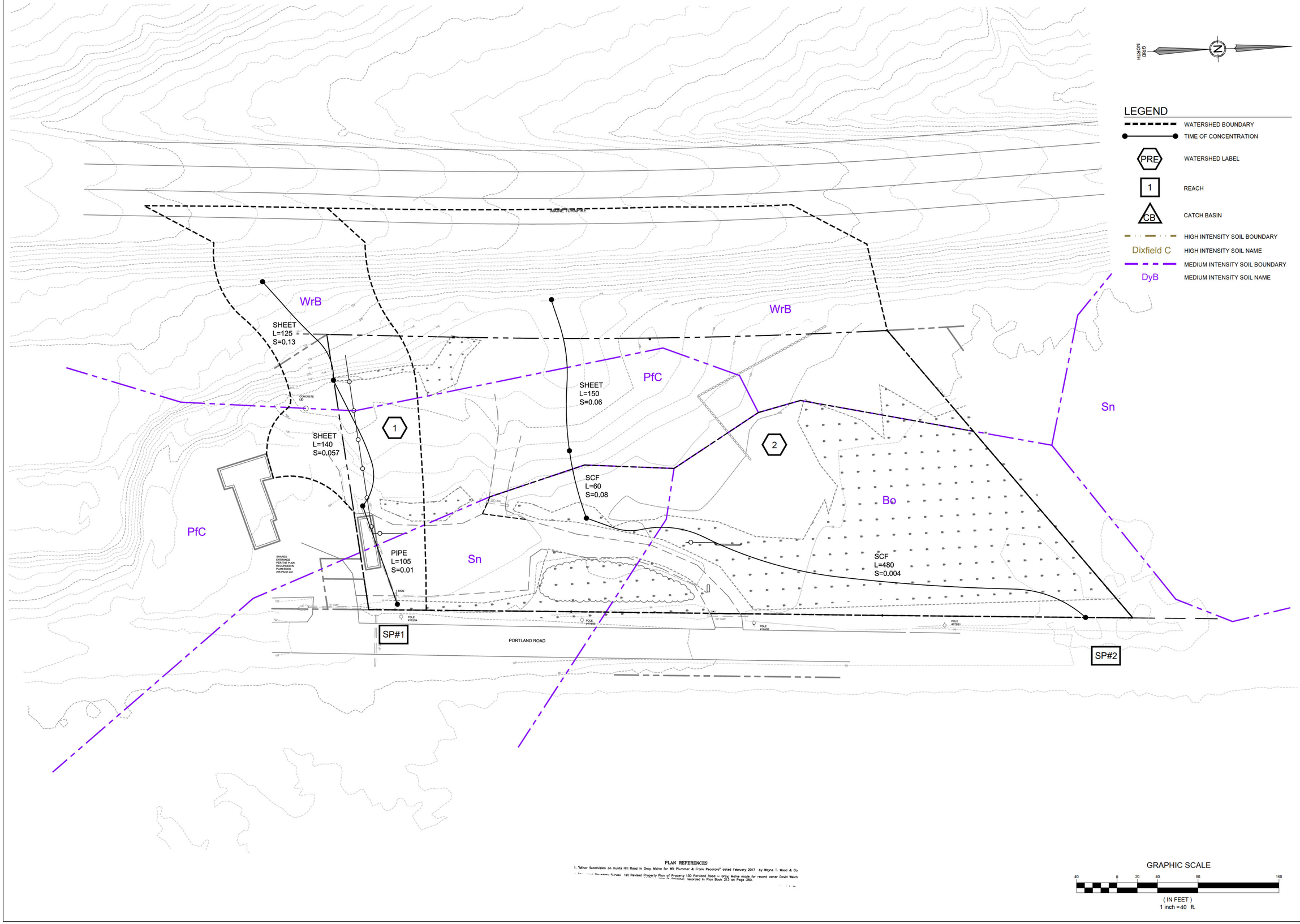
Sample Maintenance Log Sheet:

Stormwater Management Facilities Inspection & Maintenance Log Gray Self Storage		
General Information:		
Inspected by:	Date:	Weather:
Reason for Inspection: (Regular Inspection) (Major Rain Event)		

BMP	Conditions Observed	Repairs Needed ?
1. Vegetated Areas		
2. Ditches, Swales, Open Channels		
3. Roadway & Parking Surfaces		
4. Level Lip Spreader		
5. Soil Filter		

Detailed Repair Notes:

BMP Type	Date	Description of Repairs & Sediment Disposal



LEGEND

- WATERSHED BOUNDARY
- TIME OF CONCENTRATION
- PRE — WATERSHED LABEL
- 1 — REACH
- CB — CATCH BASIN
- HIGH INTENSITY SOIL BOUNDARY
- Dixfield C — HIGH INTENSITY SOIL NAME
- MEDIUM INTENSITY SOIL BOUNDARY
- DyB — MEDIUM INTENSITY SOIL NAME

PLAN REFERENCES

1. "Minor Subdivision on Hunts Hill Road in Gray, Maine for Bill Plummer & Frank Pecoraro" dated February 2017 by Wayne T. Wood & Co.
2. [illegible] Boundary Survey 1st Revised Property Plan of Property 130 Portland Road ~ Gray, Maine made for record owner David Welch [illegible] Rowsher, recorded in Plan Book 213 on Page 350.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch =40 ft.

STATE OF MAINE — JOSEPH D. ADAMS — 10167 — REGISTERED PROFESSIONAL ENGINEER

DATE: 10/26/2021
P.E.: 10167

NO.	DATE	REVISIONS	APP'D BY

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 201
NEW GLOUCESTER, ME 04260

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TERRADYN CONSULTANTS, LLC

CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING

PERMIT DRAWING
NOT FOR CONSTRUCTION

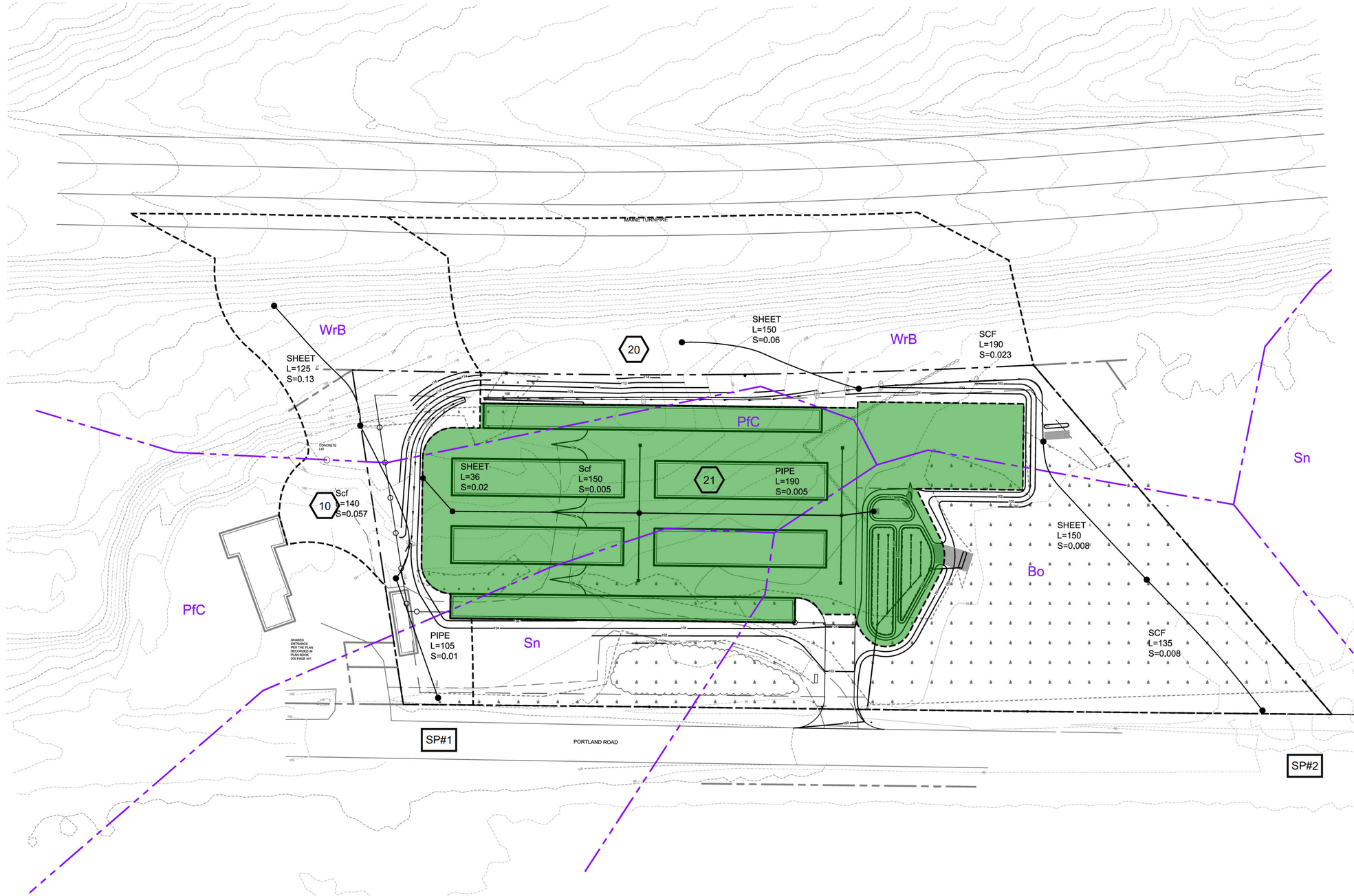
PROJECT:
GRAY SELF STORAGE
PORTLAND ROAD,GRAY, ME

SHEET TITLE:
PRE DEVELOPMENT WATERSHED PLAN

CLIENT:
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	1"=20'
DESIGNED:	JDA
JOB NO:	2125
FILE:	

SHEET SWP-1.0



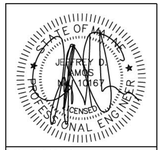
LEGEND

- WATERSHED BOUNDARY
- TIME OF CONCENTRATION
- PRE — WATERSHED LABEL
- 1 — REACH
- CB — CATCH BASIN
- HIGH INTENSITY SOIL BOUNDARY
- Dixfield C — HIGH INTENSITY SOIL NAME
- MEDIUM INTENSITY SOIL BOUNDARY
- DyB — MEDIUM INTENSITY SOIL NAME
- PROPOSED FORESTED BUFFER
- PROPOSED MEADOW BUFFER
- FILTER BASIN DRAINAGE AREA

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch =40 ft.



DATE: 10/26/2021
P.E.: 10167

NO.	DATE	REVISIONS	APP'D BY

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SUITE 201
PORTLAND, ME 04102

CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
GRAY SELF STORAGE
PORTLAND ROAD,GRAY, ME

SHEET TITLE:
POST DEVELOPMENT WATERSHED MAP

CLIENT:
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	1"=40'
DESIGNED:	JDA
JOB NO:	2125
FILE:	
SHEET	SWP-2.0

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ATTACHMENT 7 – Conformance to Conditional Use Standards

Gray Self Storage, Portland Road

402.9.3.F Standards Applicable to Conditional Use Permits

1. Will be compatible with the general character of the neighborhood with regard to design, scale, and bulk of proposed structures;

   Response: The project is compatible with the neighborhood. Another self storage facility is located one property away to the south. The property across the street is undeveloped and a large forested wetland lies between the proposed site and the residence to the north.

2. Will not have a significant detrimental effect on the use and peaceful enjoyment of abutting property as a result of noise, vibrations, fumes, odor, dust, light or glare.

   Response: The project will not have a significant impact to the neighboring properties. The development is a low traffic generator. Most of the site traffic will be during standard business hours. No fumes, vibrations, odor or dust will be created by the facility. The building mounted lights are full cut-off. The cut-sheet for the fixture is shown on Sheet C-3.2. The residence to the north is separated by a forested area.

3. Will not have a significant adverse effect on adjacent or nearby property values;

   Response: No adverse effect on adjacent or nearby property values is expected. The development is consistent with other commercial development in the immediate vicinity.

4. Will not result in significant hazards to pedestrian or vehicular traffic or significant traffic congestion;

   Response: The project is a very low traffic generator. It will not cause traffic congestion.

5. Will not result in significant fire danger;
   Response: Storage of petroleum products is prohibited. Uninhabited storage units on an unmanned site generally don't pose fire risk to people.

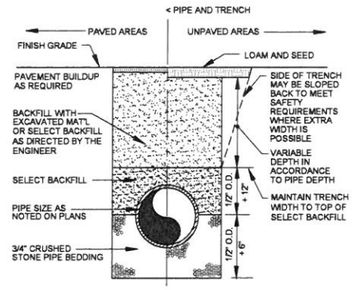
6. Will not result in significant flood hazards or flood damage, drainage problems, ground or surface water contamination, or soil erosion;

   Response: Stormwater calculations were provided that show that peak rates of runoff are controlled. The site is not located within a flood zone. No septic system is proposed and no

petroleum products are allowed to be stored on the site. There's no significant risk for either surface water or groundwater contamination.

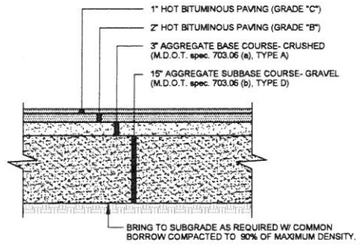
7. Will be served adequately by, but will not overburden, existing public services and facilities, including fire protection services, roads, water and storm drainage systems.

   Response: Access, circulation, utilities and storm drainage systems are designed to conform to the Ordinance. The facility will be a low traffic generator, will not use any public water, will not result in additional school children, and has been designed to control stormwater to an appropriate level.



TYPICAL TRENCH SECTION

NOT TO SCALE

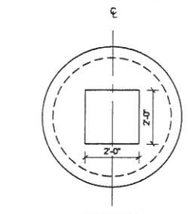


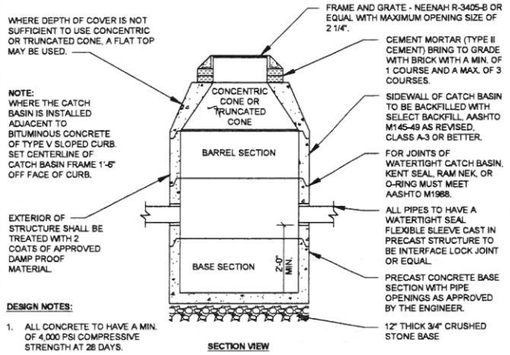
NOTES:

1. COMPACT GRAVEL SUBBASE COURSE TO 92% OF MAXIMUM DENSITY USING HEAVY ROLLER COMPACTION.
2. CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.

TYP. PAVED PARKING LOT SECTION

NOT TO SCALE





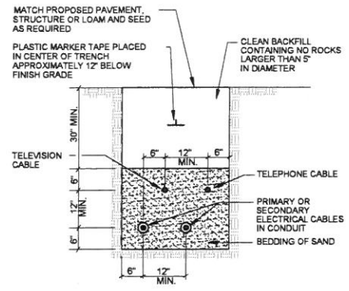
DESIGN NOTES:

1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.12 IN SQ./L.F..

NOTE:
CASCADE GRATES SHALL BE INSTALLED ON GRADIENT OF GUTTER IF PROFILE GRADE EXCEEDS 5% GRATES SHALL BE DEPRESSED 2" BELOW NORMAL GUTTER GRADE UNLESS THIS DEPRESSION INTERFERES WITH TRAFFIC. PARALLEL BAR GRATES SHALL BE INSTALLED ON A LEVEL GRADIENT.

TYPICAL CATCH BASIN

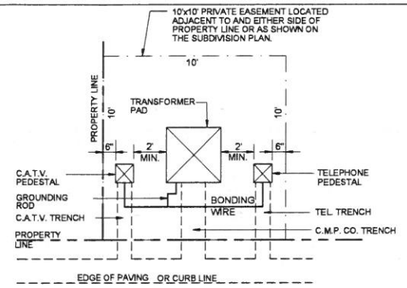
NOT TO SCALE



CABLES TO BE ENCASED IN SCHEDULE 40 PVC CONDUIT WHEN RUN BENEATH PAVED AREAS.

TYPICAL UNDERGROUND CABLE INSTALLATION

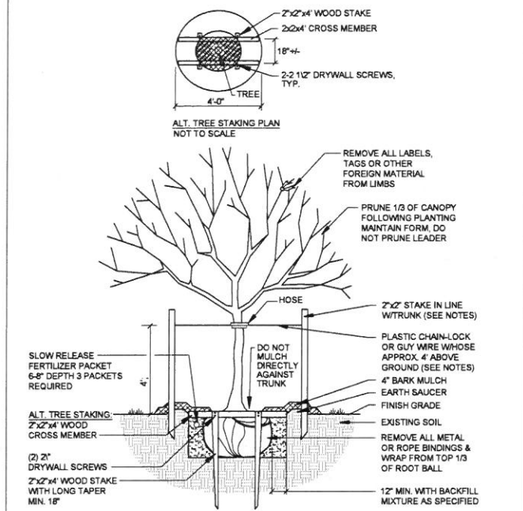
NOT TO SCALE



NOTE:
TRANSFORMER PAD AND COVER TO BE FIBERGLASS MEETING CENTRAL MAINE POWER SPECIFICATIONS.

TRANSFORMER DETAIL

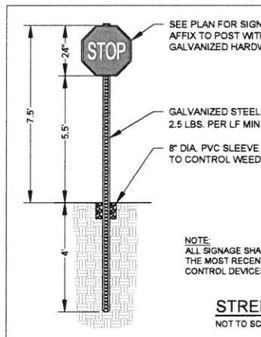
NOT TO SCALE



NOTES:
INSTALL STAKES AND GUYS TO TREES IF THE FOLLOWING APPLY:
1. THE TREE IS OF SUBSTANTIAL SIZE.
2. THE PLANTING LOCATION IS EXTREMELY WINDY, AS ON OPEN UNDEVELOPED SITES.
3. THE PLANTING LOCATION IS COMPRISED OF SAND OR OTHER LOOSE TEXTURED SOILS.
4. IF STAKES AND GUYS ARE REQUIRED, REMOVE AFTER ONE YEAR TIME.

DECIDUOUS TREES 2" TO 4" CALIPER

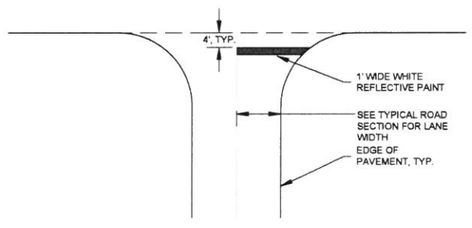
NOT TO SCALE



NOTE:
ALL SIGNAGE SHALL MEET THE REQUIREMENTS OF THE MOST RECENT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

STREET SIGN

NOT TO SCALE

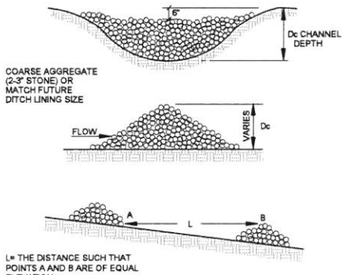


STOP BAR DETAIL

NOT TO SCALE

CONSTRUCTION NOTES:

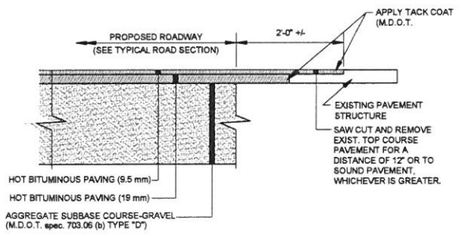
1. CHECK DAMS SHALL BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE.
2. THE AREA AROUND EACH CHECK DAM SHALL BE FREE OF DEBRIS.
3. THE MAXIMUM HEIGHT OF A STONE CHECK DAM SHALL BE 2 FEET WITH A 6-INCH DEPRESSION AT ITS CENTER FRO OVERFLOW. THE EDGES OF THE DAM SHALL BE KEYED INTO THE EMBANKMENTS TO PREVENT SIDE EROSION.
4. MECHANICAL PLACEMENT FOLLOWED BY HAND PLACEMENT WILL BE NECESSARY TO ACHIEVE A TIGHT MASS WITHIN THE CHANNEL AND ENSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES.
5. ANY EROSION DOWNGRADIENT OR AROUND THE EDGES OF THE STONE CHECK DAMS SHALL BE CORRECTED IMMEDIATELY.
6. THE CHECK DAM MAY BE REMOVED WHEN THE SWALE IS STABILIZED WITH VEGETATION (90% COVERAGE).



L= THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

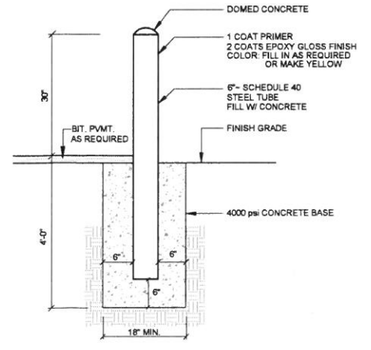
STONE CHECK DAM

NOT TO SCALE



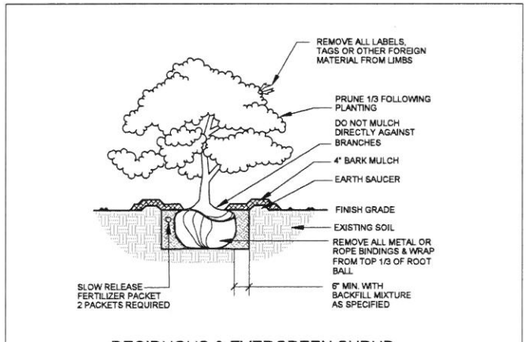
TYPICAL PAVEMENT JOINT

NOT TO SCALE



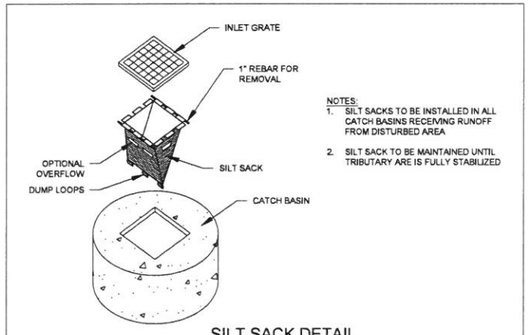
METAL BOLLARD

NOT TO SCALE



DECIDUOUS & EVERGREEN SHRUB

NOT TO SCALE



NOTES:
1. SILT SACKS TO BE INSTALLED IN ALL CATCH BASINS RECEIVING RUNOFF FROM DISTURBED AREA
2. SILT SACK TO BE MAINTAINED UNTIL TRIBUTARY ARE IS FULLY STABILIZED

SILT SACK DETAIL

NOT TO SCALE

STATE OF MAINE
JEFFREY D. AMES
10167
REGISTERED PROFESSIONAL ENGINEER

DATE: 11/10/2021
P.E.: 10167

NO.	DATE	REVISIONS	APP'D BY
1	11/10/2021	REVISED PER TOWN PLANNING & 3RD PARTY ENGINEERING REVIEW	

TERRADYN CONSULTANTS, LLC
CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING
41 CAMPUS DRIVE, SUITE 301, NEW GLOUCESTER, ME 04260
OFFICE: (207) 926-5111
www.terradynconsultants.com
585 CONGRESS STREET, SUITE 201, PORTLAND, ME 04102

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: GRAY SELF STORAGE
PORTLAND ROAD, GRAY, ME
SHEET TITLE: SITE DETAILS
CLIENT: BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	AS NOTED
DESIGNED:	JDA
JOB NO:	2125
FILE:	2125-D
SHEET	C-3.1

GRAY SELF STORAGE

PORTLAND ROAD - GRAY, MAINE

PREPARED BY:

CIVIL ENGINEER:
TERRADYN CONSULTANTS, LLC
41 CAMPUS DR. SUITE 301
NEW GLOUCESTER, MAINE 04260
(207)926-5111

SURVEYOR:
WAYNE T. WOOD & COMPANY
30 WOOD DRIVE
GRAY, MAINE 04039
(207) 657-3330

WETLANDS SURVEY:
MARK CENCI GEOLOGIC INC.
NORTH YARMOUTH, MAINE 04097
(207) 329-3524

APPLICANT:
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, MAINE 04097

OWNERS:
EQUITY TRUST COMPANY CUSTODIAN
FBO BETH CURETON

PROJECT PARCEL SITE
TOWN OF GRAY TAX ASSESSOR'S MAP & LOT NUMBERS

MAP	LOT
59	31-10
	31-14

APPROVED: TOWN OF GRAY
PLANNING BOARD

_____ DATE

_____

_____

_____

_____

_____

_____

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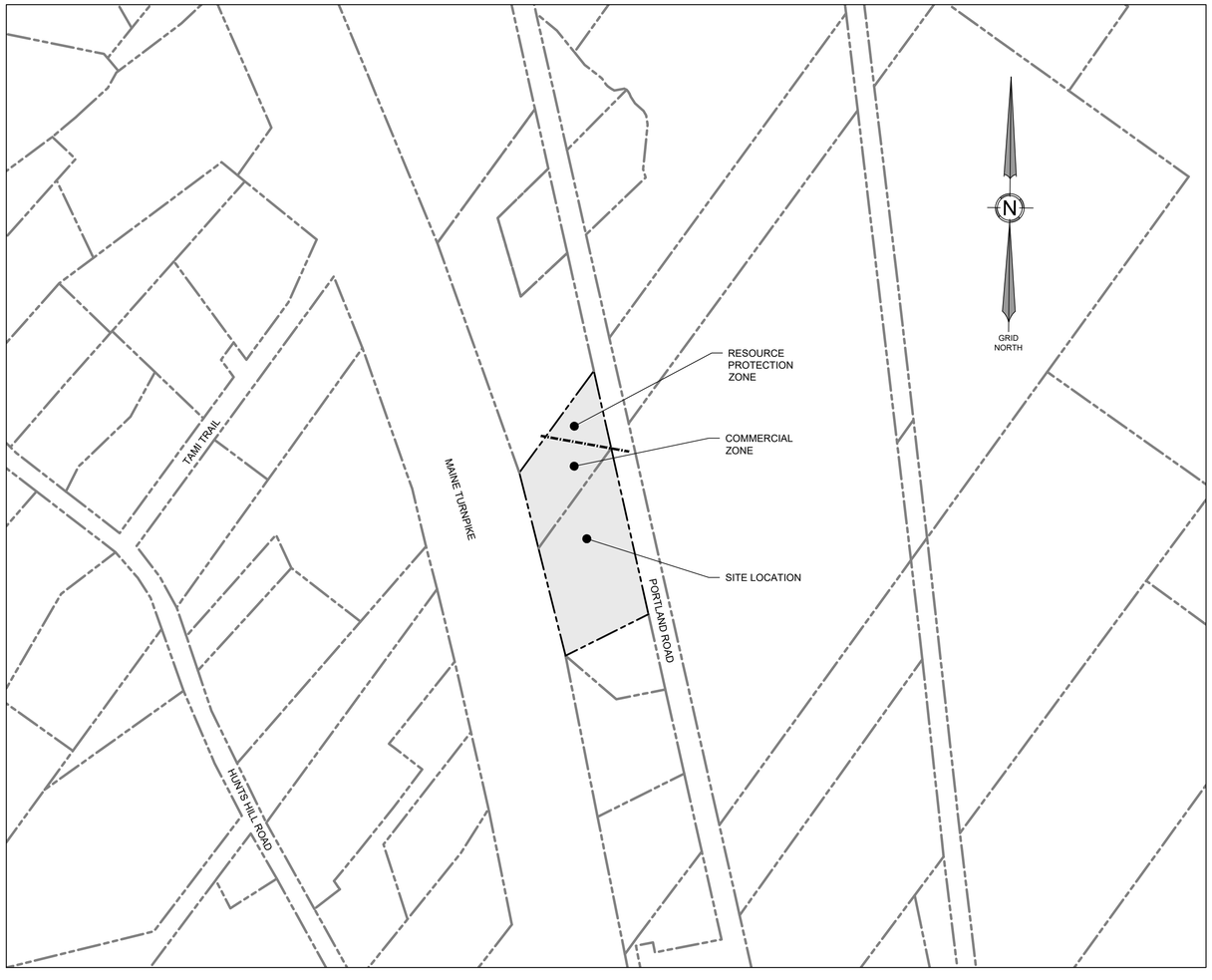


LOCATION MAP
1" = 200'

SHEET INDEX

LEGEND

- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- PROPOSED SETBACK LINE
- EXISTING SETBACK LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- ROAD CENTERLINE
- 124 EXISTING MINOR CONTOUR
- 124 EXISTING MAJOR CONTOUR
- 124 PROPOSED CONTOUR
- SD EXISTING STORMDRAIN
- SD PROPOSED STORMDRAIN
- OHE EXISTING OVERHEAD ELECTRIC & TELEPHONE
- OHE PROPOSED OVERHEAD ELECTRIC & TELEPHONE
- UGE EXISTING UNDERGROUND ELECTRIC & TELEPHONE
- UGE PROPOSED UNDERGROUND ELECTRIC & TELEPHONE
- EXISTING EDGE OF PAVEMENT
- PROPOSED EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL
- PROPOSED EDGE OF GRAVEL
- EXISTING TREE LINE
- PROPOSED TREE LINE
- CHAIN LINK FENCE
- PROPOSED FENCE
- EXISTING GUARDRAIL
- PROPOSED GUARDRAIL
- MB MULCH BERM
- PROPOSED TRANSFORMER
- PROPOSED LIGHT POLE
- EXISTING UTILITY POLE
- PROPOSED CATCH BASIN
- 30.20 EXISTING SPOT GRADE
- 30.20 PROPOSED SPOT GRADE
- EXISTING SIGN
- PROPOSED SIGN
- EXISTING BUILDING
- PROPOSED BUILDING
- WETLAND AREA
- PROPOSED PAVEMENT
- RIPRAP
- PROPOSED GRAVEL

STATE OF MAINE — JEFFREY D. AMOS — 10167 — LICENSED PROFESSIONAL ENGINEER

DATE: 11/10/2021
P.E.: 10167

NO.	DATE	REVISIONS	APP'D BY
1	11/10/2021	REVISED PER TOWN PLANNING & 3RD PARTY ENGINEERING REVIEW	

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 301
NEW GLOUCESTER, ME 04260

OFFICE: (207) 926-5111
www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC

CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: GRAY SELF STORAGE
PORTLAND ROAD,GRAY, ME

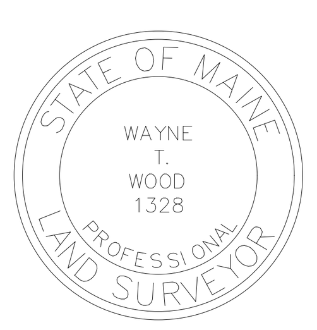
SHEET TITLE: COVER/LOCATION MAP

CLIENT: BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	
DESIGNED:	JDA
JOB NO:	2125
FILE:	2125 C.DWG
SHEET	C-0.0

NOTES

1. Owner of record are the heirs of Dorothy M. Wood by deed of Whitfield P. Wood recorded in the Cumberland County Registry of Deeds in Book 2226 on Page 72..
2. All bearings are referenced to Magnetic North of the Year 2004 per the plan in Plan Reference #2 and are calculated from angles of an actual on the ground survey.
3. The subject parcel is shown on the Town of Gray Maine Tax Map #59 as Lot #31-10.
4. The wetlands shown on this plan were delineated by Mark Cenci Geologic, Inc. in March & April 2021.
5. The current deed to this property references only the shared entrance as shown on the plan recorded in plan book 205 page 451 witn no mention of the additional 20' in depth in mentioned in the abutters deed.



PLAN REFERENCES

1. "Minor Subdivision on Hunts Hill Road in Gray, Maine for Will Plummer & Frank Pecoraro" dated February 2017 by Wayne T. Wood & Co.
2. "Standard Boundary Survey 1st Revised Property Plan of Property 130 Portland Road ~ Gray, Maine made for record owner David Welch D/B/A Awesome Auto, Inc." dated April 2013 by John D. Palmiter, recorded in Plan Book 213 on Page 350.
3. "Amended Site Plan of 136 Portland Road ~ Gray, Maine for Gray Mini Storage, Inc." dated November 1997 by Wayne T. Wood & Co.
4. "Standard Boundary Survey and Division of Land for Michael Cobb ~ Route 100 ~ Gray, Maine" dated October 1988 by John D. Palmiter.
5. "Maine Turnpike Authority ~ Maine Turnpike Section 2 ~ Portland to Augusta ~ Town of Gray, Cumberland County" Supplemental Sheets dated January 1955 and Sheets 3 and 4 of 8 dated December 1953.
6. "Plan of Land on Portland Road in Gray, Maine For Whitfield Wood" dated January 2018 by Wayne T. Wood & Co.

Existing Conditions Plan

On
Portland Road
In
Gray, Maine
For
Terradyn Consultants
41 Campus Drive, Suite 101 ~ New Gloucester, ME 04260

WAYNE T. WOOD &CO.
Gray, Maine 04039
(207)657-3330

Drawn By: KLW/WTW	Date July 2021
Scale: 1" = 20'	Job No. 221097
Checked By: WTW	
Field Crew: JW/BR	

GENERAL NOTES:

1. THE RECORD OWNER OF THE PARCELS IS EQUITY TRUST COMPANY, FBO BETH CURETON BY DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 38,413, PAGE 249 & BOOK 38,125 PAGE 201.

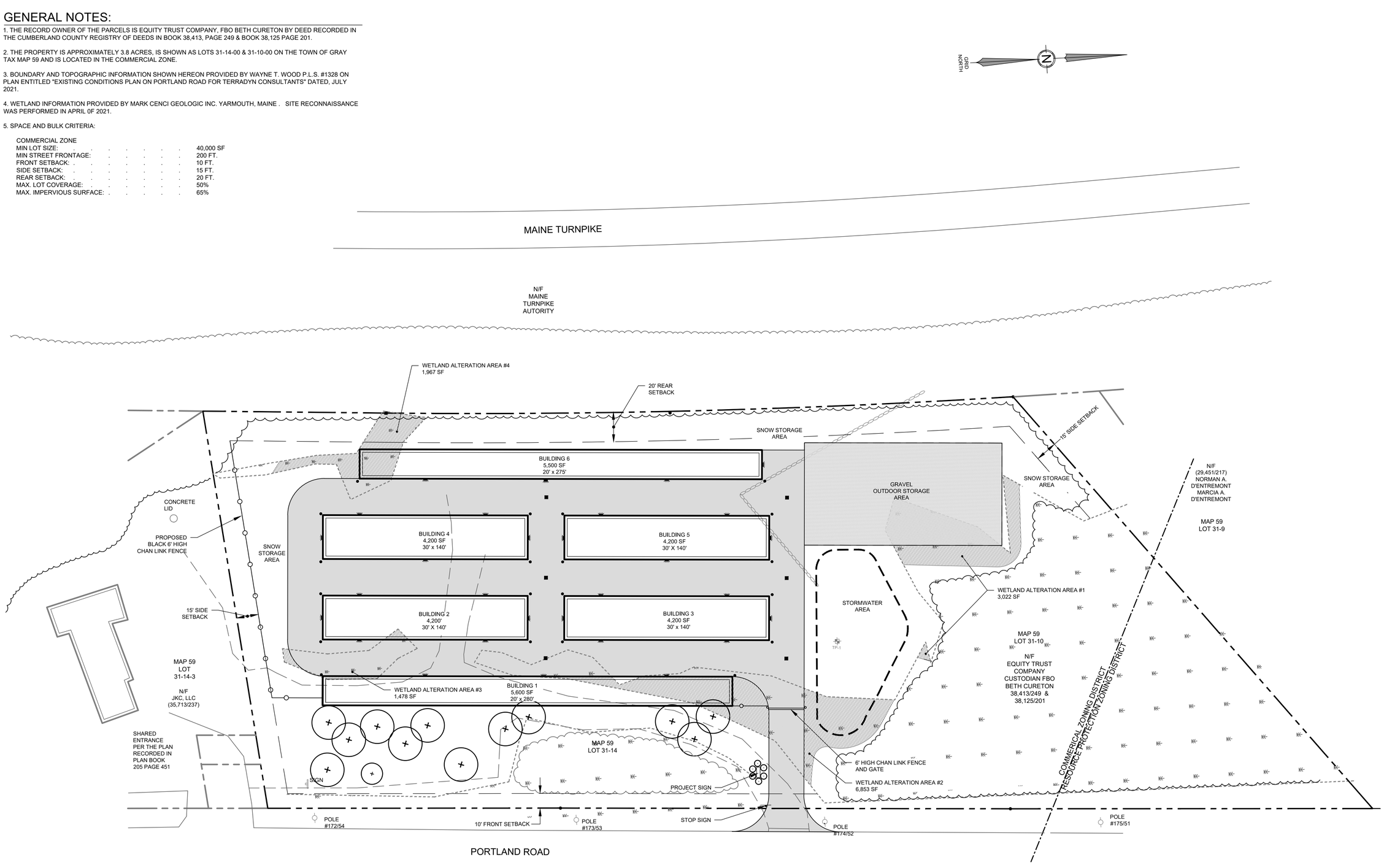
2. THE PROPERTY IS APPROXIMATELY 3.8 ACRES, IS SHOWN AS LOTS 31-14-00 & 31-10-00 ON THE TOWN OF GRAY TAX MAP 59 AND IS LOCATED IN THE COMMERCIAL ZONE.

3. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON PROVIDED BY WAYNE T. WOOD P.L.S. #1328 ON PLAN ENTITLED "EXISTING CONDITIONS PLAN ON PORTLAND ROAD FOR TERRADYN CONSULTANTS" DATED, JULY 2021.

4. WETLAND INFORMATION PROVIDED BY MARK CENCI GEOLOGIC INC. YARMOUTH, MAINE . SITE RECONNAISSANCE WAS PERFORMED IN APRIL 0F 2021.

5. SPACE AND BULK CRITERIA:

COMMERCIAL ZONE	
MIN LOT SIZE:	40,000 SF
MIN STREET FRONTAGE:	200 FT.
FRONT SETBACK:	10 FT.
SIDE SETBACK:	15 FT.
REAR SETBACK:	20 FT.
MAX. LOT COVERAGE:	50%
MAX. IMPERVIOUS SURFACE:	65%



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

DATE: 11/10/2021
P.E.: 10167

NO.	DATE	REVISIONS	APPD BY
1	11/10/2021	REVISED PER TOWN PLANNING & 3RD PARTY ENGINEERING REVIEW	

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 303
NEW GLOUCESTER, ME 04260

OFFICE: (207) 926-5111
www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC

CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
GRAY SELF STORAGE
PORTLAND ROAD,GRAY, ME

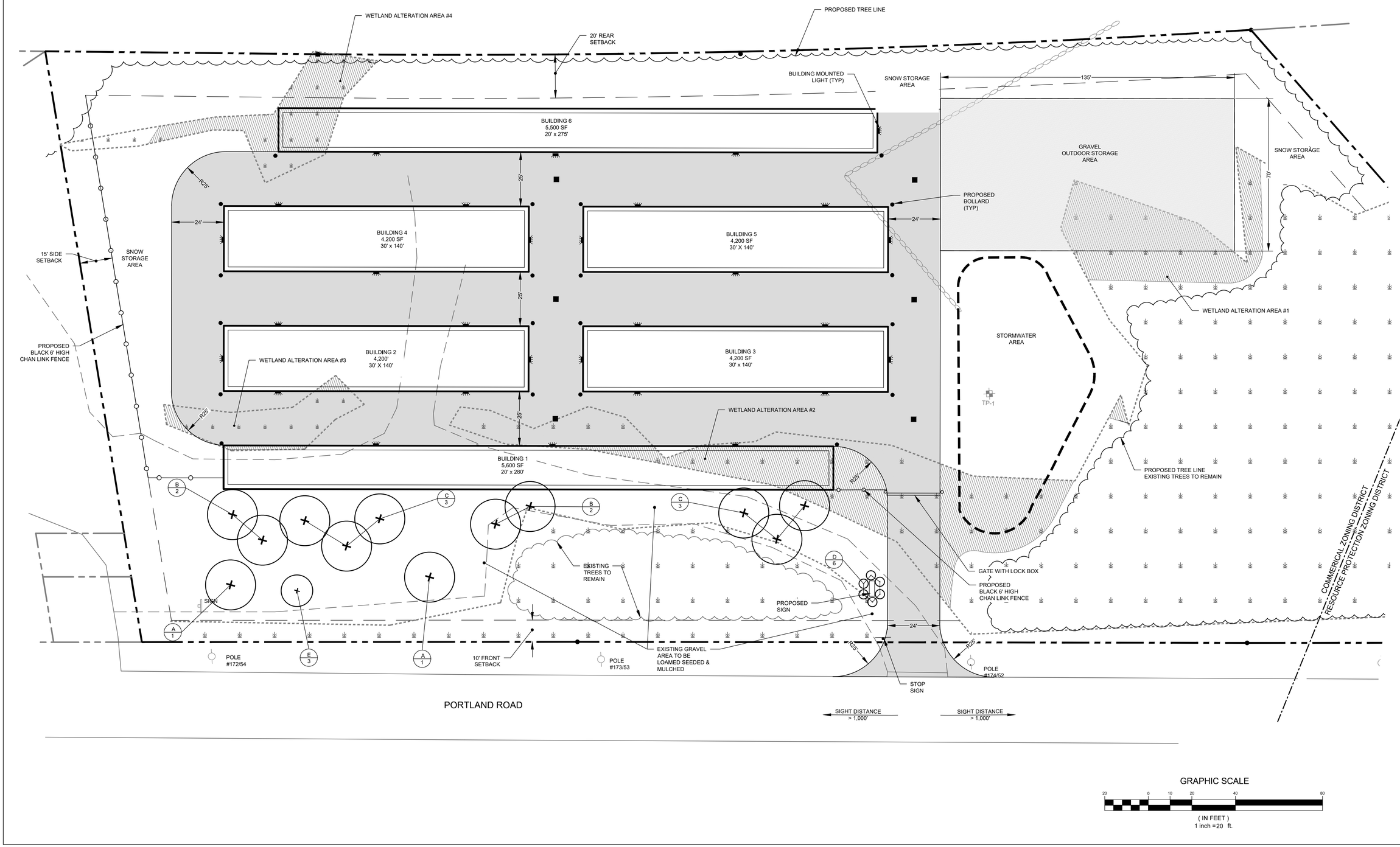
SHEET TITLE:
OVERALL PLAN

CLIENT:
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	1"=30'
DESIGNED:	JDA
JOB NO:	2125
FILE:	
SHEET	C-1.0

PLANT LIST:

KEY	COMMON & BOTANICAL NAME	SIZE	ROOT	QTY	NOTES
A	RED MAPLE - ACER RUBRUM	2 ½" CAL.	B & B	2	
B	WHITE SPRUCE - P. GLAUCA	5'-6" HT..	B & B	4	
C	WHITE PINE - P. STROBUS	4'-5' HT.	B & B	6	
D	N. BAYBERRY - M. PENSLVANICA	30" HT.	CONT.	6	3 CANES
E	DOGWOOD (OR SIMILAR FLOWERING TREE)	5'-6" HT..	B & B	1	



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

DATE: 11/10/2021
P.E.: 10167

NO.	DATE	REVISIONS	APPD BY
1	11/10/2021	REVISED PER TOWN PLANNING & 3RD PARTY ENGINEERING REVIEW	

565 CONGRESS STREET
SUITE 410
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 303
NEW GLOUCESTER, ME 04260

OFFICE: (207) 926-5111
www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC

CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
GRAY SELF STORAGE
PORTLAND ROAD,GRAY, ME

SHEET TITLE:
SITE LAYOUT & LANDSCAPING PLAN

CLIENT:
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	1"=20'
DESIGNED:	JDA
JOB NO:	2125
FILE:	
SHEET	C-1.1

HOUSEKEEPING NOTES:

1. SPILL PREVENTION. CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.

2. GROUNDWATER PROTECTION. DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS.

3. FUGITIVE SEDIMENT AND DUST. ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL.

4. DEBRIS AND OTHER MATERIALS. LITTER, CONSTRUCTION DEBRIS, AND CHEMICALS EXPOSED TO STORMWATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

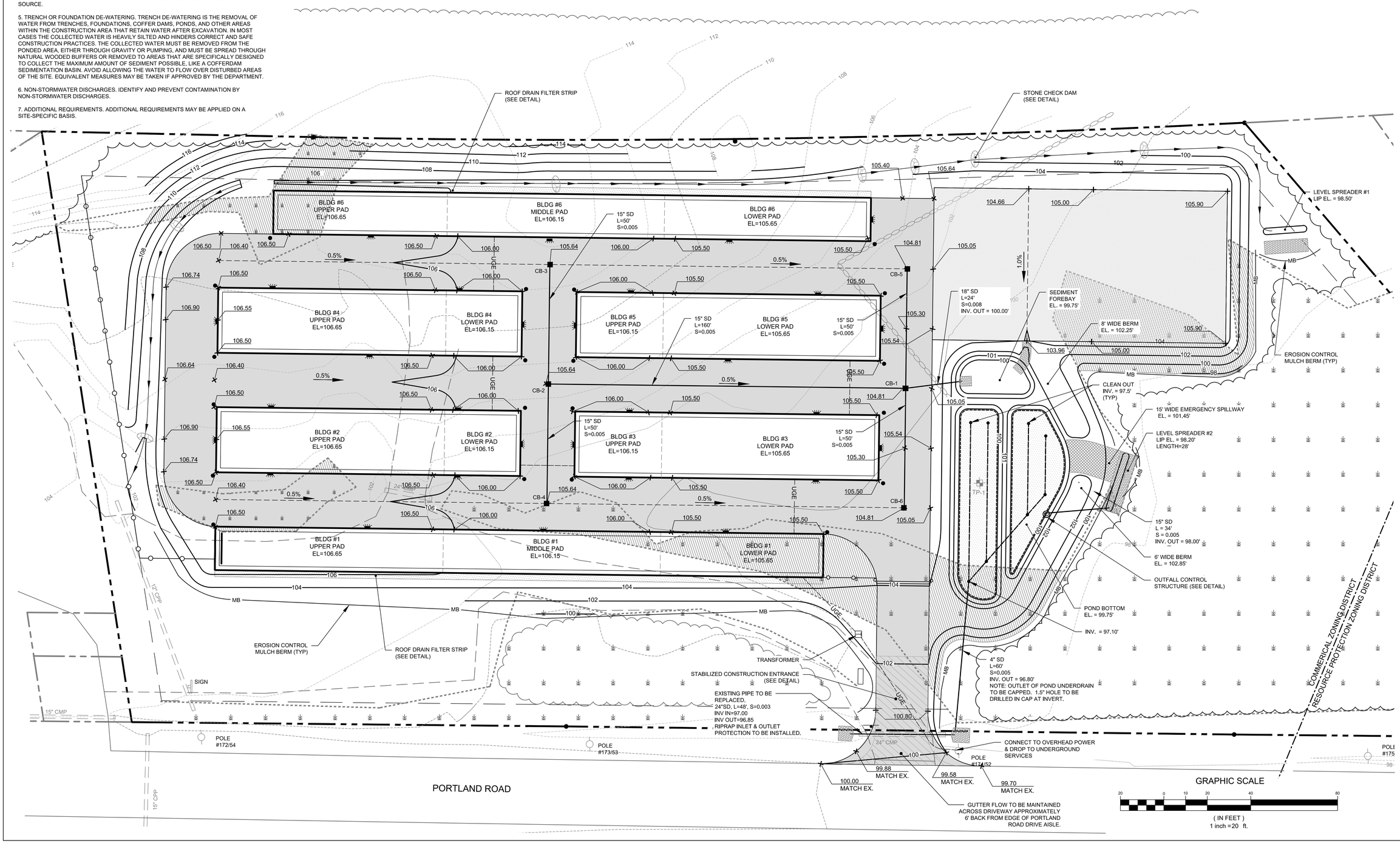
5. TRENCH OR FOUNDATION DE-WATERING. TRENCH DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER MUST BE REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, AND MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.

6. NON-STORMWATER DISCHARGES. IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES.

7. ADDITIONAL REQUIREMENTS. ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.

CATCH BASIN TABLE:

NAME	RIM	INV. IN	INV. OUT
CB-1	104.71	100.20(3)	100.20
CB-2	105.54	101.00(2)	101.00
CB-3	105.54	----------	101.25
CB-4	105.54	----------	101.25
CB-5	104.71	----------	100.45
CB-6	104.71	----------	100.45



GRID NORTH

DATE: 11/10/2021
P.E.: 10167

NO.	DATE	REVISIONS	APP'D BY
1	11/10/2021	REVISED PER TOWN PLANNING & 3RD PARTY ENGINEERING REVIEW	

TERRADYN CONSULTANTS, LLC
CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING
41 CAMPUS DRIVE, SUITE 201, NEW GLOUCESTER, ME 04260
OFFICE: (207) 926-5111
www.terradynconsultants.com
565 CONGRESS STREET, SUITE 201, PORTLAND, ME 04102

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: GRAY SELF STORAGE
PORTLAND ROAD,GRAY, ME

SHEET TITLE: GRADING & UTILITY PLAN

CLIENT: BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	1"=20'
DESIGNED:	JDA
JOB NO:	2125
FILE:	

SHEET C-2.0

EROSION AND SEDIMENT CONTROL PLAN

PRE-CONSTRUCTION PHASE
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 MRSA § 480-B. EROSION 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. THE SITE MUST BE MAINTAINED TO PREVENT UNREASONABLE EROSION AND SEDIMENTATION. MINIMIZE DISTURBED AREAS AND PROTECT NATURAL DOWNGRADIENT BUFFER AREAS TO THE EXTENT PRACTICABLE.

BMP CONSTRUCTION PHASE
A. SEDIMENT BARRIERS. PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, PROPERLY INSTALL SEDIMENT BARRIERS AT THE EDGE OF ANY DOWNGRADIENT DISTURBED AREA AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE PROPOSED DISTURBED AREA. MAINTAIN THE SEDIMENT BARRIERS UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.

B. CONSTRUCTION ENTRANCE: PRIOR TO ANY CLEARING OR GRUBBING, A CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT THE INTERSECTION WITH THE PROPOSED ACCESS DRIVE AND THE EXISTING ROADWAY TO AVOID TRACKING OF MUD, DUST AND DEBRIS FROM THE SITE.

C. RIPRAP: SINCE RIPRAP IS USED WHERE EROSION POTENTIAL IS HIGH, CONSTRUCTION MUST BE SEQUENCED SO THAT THE RIPRAP IS PUT IN PLACE WITH THE MINIMUM DELAY. DISTURBANCE OF AREAS WHERE RIPRAP IS TO BE PLACED SHOULD BE UNDERTAKEN ONLY WHEN FINAL PREPARATION AND PLACEMENT OF THE RIPRAP CAN FOLLOW IMMEDIATELY BEHIND THE INITIAL DISTURBANCE. WHERE RIPRAP IS USED FOR OUTLET PROTECTION, THE RIPRAP SHOULD BE PLACED BEFORE OR IN CONJUNCTION WITH THE CONSTRUCTION OF THE PIPE OR CHANNEL SO THAT IT IS IN PLACE WHEN THE PIPE OR CHANNEL BEGINS TO OPERATE. MAINTAIN TEMPORARY RIPRAP, SUCH AS TEMPORARY CHECK DAMS UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.

D. TEMPORARY STABILIZATION. STABILIZE WITH TEMPORARY SEEDING, MULCH, OR OTHER NON-ERODABLE COVER ANY EXPOSED SOILS THAT WILL REMAIN UNWORKED FOR MORE THAN 14 DAYS EXCEPT, STABILIZE AREAS WITHIN 100 FEET OF A WETLAND OR WATERBODY WITHIN 7 DAYS OR PRIOR TO A PREDICTED STORM EVENT, WHICHEVER COMES FIRST. IF HAY OR STRAW MULCH IS USED, THE APPLICATION RATE MUST BE 2 BALES (70-90 POUNDS) PER 1000 SF OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75 TO 90% OF THE GROUND SURFACE. HAY MULCH MUST BE KEPT MOIST OR ANCHORED TO PREVENT WIND BLOWING. AN EROSION CONTROL BLANKET OR MAT SHALL BE USED AT THE BASE OF GRASSED WATERWAYS, STEEP SLOPES (15% OR GREATER) AND ON ANY DISTURBED SOIL WITHIN 100 FEET OF LAKES, STREAMS AND WETLANDS. GRADING SHALL BE PLANNED SO AS TO MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL SOIL EXPOSURE AND FINAL GRADING. ON LARGE PROJECTS THIS SHOULD BE ACCOMPLISHED BY PHASING THE OPERATION AND COMPLETING THE FIRST PHASE UP TO FINAL GRADING AND SEEDING BEFORE STARTING THE SECOND PHASE, AND SO ON.

E. VEGETATED WATERWAY. UPON FINAL GRADING, THE DISTURBED AREAS SHALL BE IMMEDIATELY SEEDED TO PERMANENT VEGETATION AND MULCHED AND WILL NOT BE USED AS OUTLETS UNTIL A DENSE, VIGOROUS VEGETATIVE COVER HAS BEEN OBTAINED. ONCE SOIL IS EXPOSED FOR WATERWAY CONSTRUCTION, IT SHOULD BE IMMEDIATELY SHAPED, GRADED AND STABILIZED. VEGETATED WATERWAYS NEED TO BE STABILIZED EARLY DURING THE GROWING SEASON (PRIOR TO SEPTEMBER 15). IF FINAL SEEDING OF WATERWAYS IS DELAYED PAST SEPTEMBER 15, EMERGENCY PROVISIONS SUCH AS SOD OR RIPRAP MAY BE REQUIRED TO STABILIZE THE CHANNEL. WATERWAYS SHOULD BE FULLY STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.

PERMANENT STABILIZATION DEFINED
A. SEEDED AREAS. FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS AN 90% COVER OF THE DISTURBED AREA WITH MATURE, HEALTHY PLANTS WITH NO EVIDENCE OF WASHING OR RILLING OF THE TOPSOIL.

B. SODDED AREAS. FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THE COMPLETE BINDING OF THE SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE-OFF.

C. PERMANENT MULCH. FOR MULCHED AREAS, PERMANENT MULCHING MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL. EROSION CONTROL MIX MAY BE USED AS MULCH FOR PERMANENT STABILIZATION ACCORDING TO THE APPROVED APPLICATION RATES AND LIMITATIONS.

D. RIPRAP. FOR AREAS STABILIZED WITH RIPRAP, PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIPRAP HAVE AN APPROPRIATE BACKING OF A WELL-GRADED GRAVEL OR APPROVED GEOTEXTILE TO PREVENT SOIL MOVEMENT FROM BEHIND THE RIPRAP. STONE MUST BE SIZED APPROPRIATELY. IT IS RECOMMENDED THAT ANGULAR STONE BE USED.

E. AGRICULTURAL USE. FOR CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL PURPOSES (E.G., PIPELINES ACROSS CROP LAND), PERMANENT STABILIZATION MAY BE ACCOMPLISHED BY RETURNING THE DISTURBED LAND TO AGRICULTURAL USE.

F. PAVED AREAS. FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE COMPACTED GRAVEL SUBBASE IS COMPLETED.

G. DITCHES, CHANNELS, AND SWALES. FOR OPEN CHANNELS, PERMANENT STABILIZATION MEANS THE CHANNEL IS STABILIZED WITH MATURE VEGETATION AT LEAST THREE INCHES IN HEIGHT, WITH WELL-GRADED RIPRAP, OR WITH ANOTHER NON-EROSIVE LINING CAPABLE OF WITHSTANDING THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHOUT RELIANCE ON CHECK DAMS TO SLOW FLOW. THERE MUST BE NO EVIDENCE OF SLUMPING OF THE LINING, UNDERCUTTING OF THE BANKS, OR DOWN-CUTTING OF THE CHANNEL.

GENERAL CONSTRUCTION PHASE
THE FOLLOWING EROSION CONTROL MEASURES SHALL BE FOLLOWED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION OF THIS PROJECT:

A. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, SEEDED WITH RYE AT 3 POUNDS/1,000 SF AND MULCHED, AND REUSED AS REQUIRED. SILT FENCING SHALL BE PLACED DOWN GRADIENT FROM THE STOCKPILED LOAM. STOCKPILE TO BE LOCATED BY DESIGNATION OF THE OWNER AND INSPECTING ENGINEER.

B. THE INSPECTING ENGINEER AT HIS/HER DISCRETION, MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES AND/OR SUPPLEMENTAL VEGETATIVE PROVISIONS TO MAINTAIN STABILITY OF EARTHWORKS AND FINISH GRADED AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY SUPPLEMENTAL MEASURES AS DIRECTED BY THE INSPECTING ENGINEER. FAILURE TO COMPLY WITH THE ENGINEER'S DIRECTIONS WILL RESULT IN DISCONTINUATION OF CONSTRUCTION ACTIVITIES.

C. EROSION CONTROL MESH SHALL BE APPLIED IN ACCORDANCE WITH THE PLANS OVER ALL FINISH SEEDED AREAS AS SPECIFIED ON THE DESIGN PLANS.

D. ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN UNTIL THEY ARE ADEQUATELY STABILIZED.

E. ALL EROSION, AND SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

F. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIALS.

G. AREAS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 INCHES PRIOR TO PLACEMENT OF TOPSOIL.

H. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC., SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

I. ALL FILLS SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS.

J. EXCEPT FOR APPROVED LANDFILLS OR NON-STRUCTURAL FILLS, FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING DEBRIS AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY LIFTS.

K. FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILL SLOPES OR STRUCTURAL FILLS.

L. FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION.

M. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED APPROPRIATELY.

N. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.

O. REMOVE ANY TEMPORARY CONTROL MEASURES, SUCH AS SILT FENCE, WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED. REMOVE ANY ACCUMULATED SEDIMENTS AND STABILIZE.

PERMANENT VEGETATION
PERMANENT VEGETATIVE COVER SHOULD BE ESTABLISHED ON DISTURBED AREAS WHERE PERMANENT, LONG LIVED VEGETATIVE COVER IS NEEDED TO STABILIZE THE SOIL, TO REDUCE DAMAGES FROM SEDIMENT AND RUNOFF, AND TO ENHANCE THE ENVIRONMENT.

SEEDBED PREPARATION
A. GRADE AS FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE.

B. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY THE UNIVERSITY OF MAINE SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 POUNDS PER ACRE OR 18.4 POUNDS PER 1,000 SQUARE FEET USING 10-20-20 (N-P2O5-K2O) OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT
A RATE OF 3 TONS PER ACRE (138 LB. PER 1,000 SQ. FT).

C. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.D. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.

E. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED; THE AREA MUST BE TILLED AND FIRMED AS ABOVE.

F. PERMANENT SEEDING SHOULD BE MADE 45 DAYS PRIOR TO THE FIRST KILLING FROST OR AS A DORMANT SEEDING WITH MULCH AFTER THE FIRST KILLING FROST AND BEFORE SNOWFALL. WHEN CROWN VETCH IS SEEDED IN LATER SUMMER, AT LEAST 35% OF THE SEED SHOULD BE HARD SEED (UNSCARIFIED). IF SEEDING CANNOT BE DONE WITHIN THE SEEDING DATES, MULCH ACCORDING TO THE TEMPORARY MULCHING BMP AND OVERWINTER STABILIZATION AND CONSTRUCTION TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.

G. FOLLOWING SEED BED PREPARTATION, SWALE AREAS, FILL AREAS AND BACK SLOPES SHALL BE SEEDED AT A RATE OF 3 LBS./1,000 S.F. WITH A MIXTURE OF 35% CREEPING RED FESCUE, 6% RED TOP, 24% KENTUCKY BLUEGRASS, 10% PERENNIAL RYEGRASS, 20% ANNUAL RYEGRASS AND 5% WHITE DUTCH CLOVER.

I. AREAS WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING.

J. AREAS WHICH CANNOT BE SEEDED WITHIN THE GROWING SEASON SHALL BE MULCHED FOR OVER-WINTER PROTECTION AND THE AREA SHOULD BE SEEDED AT THE BEGINNING OF THE GROWING SEASON.

WINTER CONSTRUCTION PHASE
IF AN AREA IS NOT STABILIZED WITH TEMPORARY OR PERMANENT MEASURES BY NOVEMBER 15, THEN THE SITE MUST BE PROTECTED WITH ADDITIONAL STABILIZATION MEASURES.

A. PERMANENT STABILIZATION CONSISTS OF AT LEAST 90% VEGETATION, PAVEMENT/GRAVEL BASE OR RIPRAP.

B. DO NOT EXPOSE SLOPES OR LEAVE SLOPES EXPOSED OVER THE WINTER OR FOR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY PROTECTED WITH MULCH.

C. APPLY HAY MULCH AT TWICE THE STANDARD RATE (150 LBS. PER 1,000 SF). THE MULCH MUST BE THICK ENOUGH SUCH THAT THE GROUND SURFACE WILL NOT BE VISIBLE AND MUST BE ANCHORED.

D. USE MULCH AND MULCH NETTING OR AN EROSION CONTROL MULCH BLANKET OR ALL SLOPES GREATER THAN 8 % OR OTHER AREAS EXPOSED TO DIRECT WIND.

E. INSTALL AN EROSION CONTROL BLANKET IN ALL DRAINAGEWAYS (BOTTOM AND SIDES) WITH A SLOPE GREATER THAN 3 %.

F. SEE THE VEGETATION MEASURES FOR MORE INFORMATION ON SEEDING DATES AND TYPES.

G. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SO THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.

H. AN AREA WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIER.

I. TEMPORARY MULCH MUST BE APPLIED WITHIN 7 DAYS OF SOIL EXPOSURE OR PRIOR TO ANY STORM EVENT, BUT AFTER EVERY WORKDAY IN AREAS WITHIN 100 FEET FROM A PROTECTED NATURAL RESOURCE.

J. AREAS THAT HAVE BEEN BROUGHT TO FINAL GRADE MUST BE PERMANENTLY MULCHED THAT SAME DAY.

K. IF SNOWFALL IS GREATER THAN 1 INCH (FRESH OR CUMULATIVE), THE SNOW SHALL BE REMOVED FROM THE AREAS DUE TO BE SEEDED AND MULCHED.

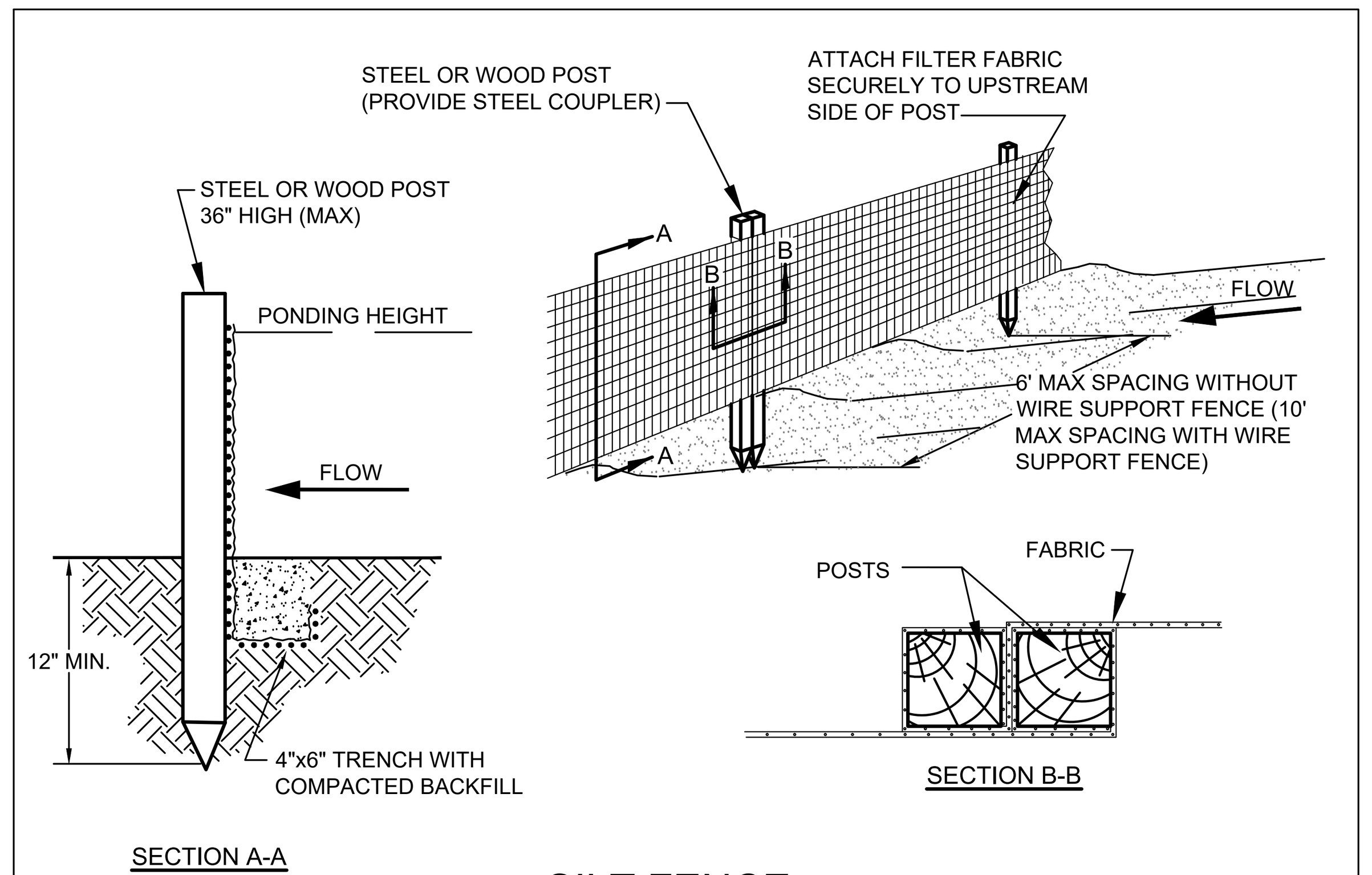
L. LOAM SHALL BE FREE OF FROZEN CLUMPS BEFORE IT IS APPLIED.

M. ALL VEGETATED DITCH LINES THAT HAVE NOT BEEN STABILIZED BY NOVEMBER 1, OR WILL BE WORKED DURING THE WINTER CONSTRUCTION PERIOD, MUST BE STABILIZED WITH AN APPROPRIATE STONE LINING BACKED BY AN APPROPRIATE GRAVEL BED OR GEOTEXTILE UNLESS SPECIFICALLY RELEASED FROM THIS STANDARD BY THE DEPARTMENT.

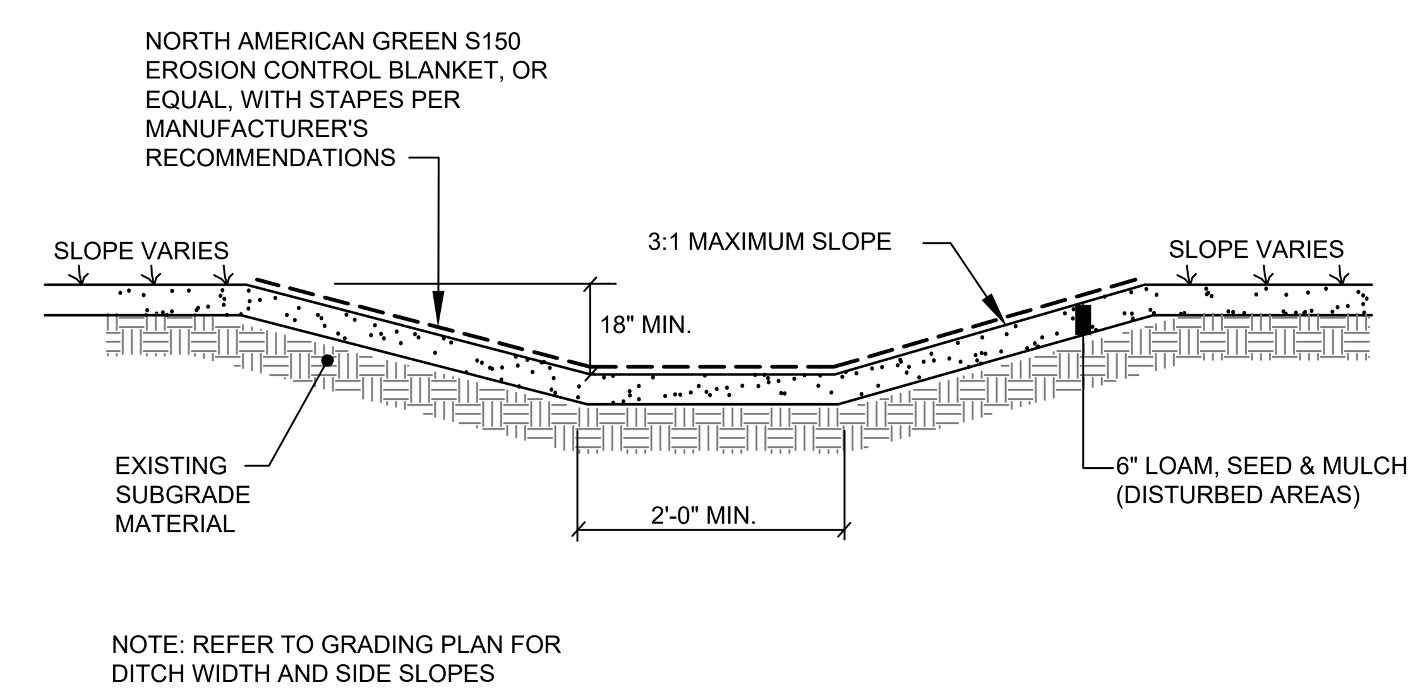
MAINTENANCE AND INSPECTION PHASE
A. MINIMUM EROSION CONTROL MEASURES WILL NEED TO BE IMPLEMENTED AND THE APPLICANT WILL BE RESPONSIBLE TO MAINTAIN ALL COMPONENTS OF THE EROSION CONTROL PLAN UNTIL THE SITE IS FULLY STABILIZED. HOWEVER, BASED ON SITE AND WEATHER CONDITIONS DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL MEASURES MAY NEED TO BE IMPLEMENTED. ALL AREAS OF INSTABILITY AND EROSION MUST BE REPAIRED IMMEDIATELY DURING CONSTRUCTION AND NEED TO BE MAINTAINED UNTIL THE SITE IS FULLY STABILIZED OR VEGETATION IS ESTABLISHED. A CONSTRUCTION LOG MUST BE MAINTAINED FOR THE EROSION AND SEDIMENTATION CONTROL INSPECTIONS AND MAINTENANCE

B. A LOG (REPORT) MUST BE KEPT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF THE PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, AND MAJOR OBSERVATIONS RELATING TO OPERATION OF EROSION AND SEDIMENTATION CONTROLS AND POLLUTION PREVENTION MEASURES. MAJOR OBSERVATIONS MUST INCLUDE: BMPS THAT NEED TO BE MAINTAINED; LOCATION(S) OF BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION; AND LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION. FOLLOW-UP TO CORRECT DEFICIENCIES OR ENHANCE CONTROLS MUST ALSO BE INDICATED IN THE LOG AND DATED, INCLUDING WHAT ACTION WAS TAKEN AND WHEN.

DEWATERING
A DEWATERING PLAN IS NEEDED TO ADDRESS EXCAVATION DE-WATERING FOLLOWING HEAVY RAINFALL EVENTS OR WHERE THE EXCAVATION MAY INTERCEPT THE GROUNDWATER TABLE DURING CONSTRUCTION. THE COLLECTED WATER NEEDS TREATMENT AND A DISCHARGE POINT THAT WILL NOT CAUSE DOWNGRADIENT EROSION AND OFFSITE SEDIMENTATION OR WITHIN A RESOURCE.

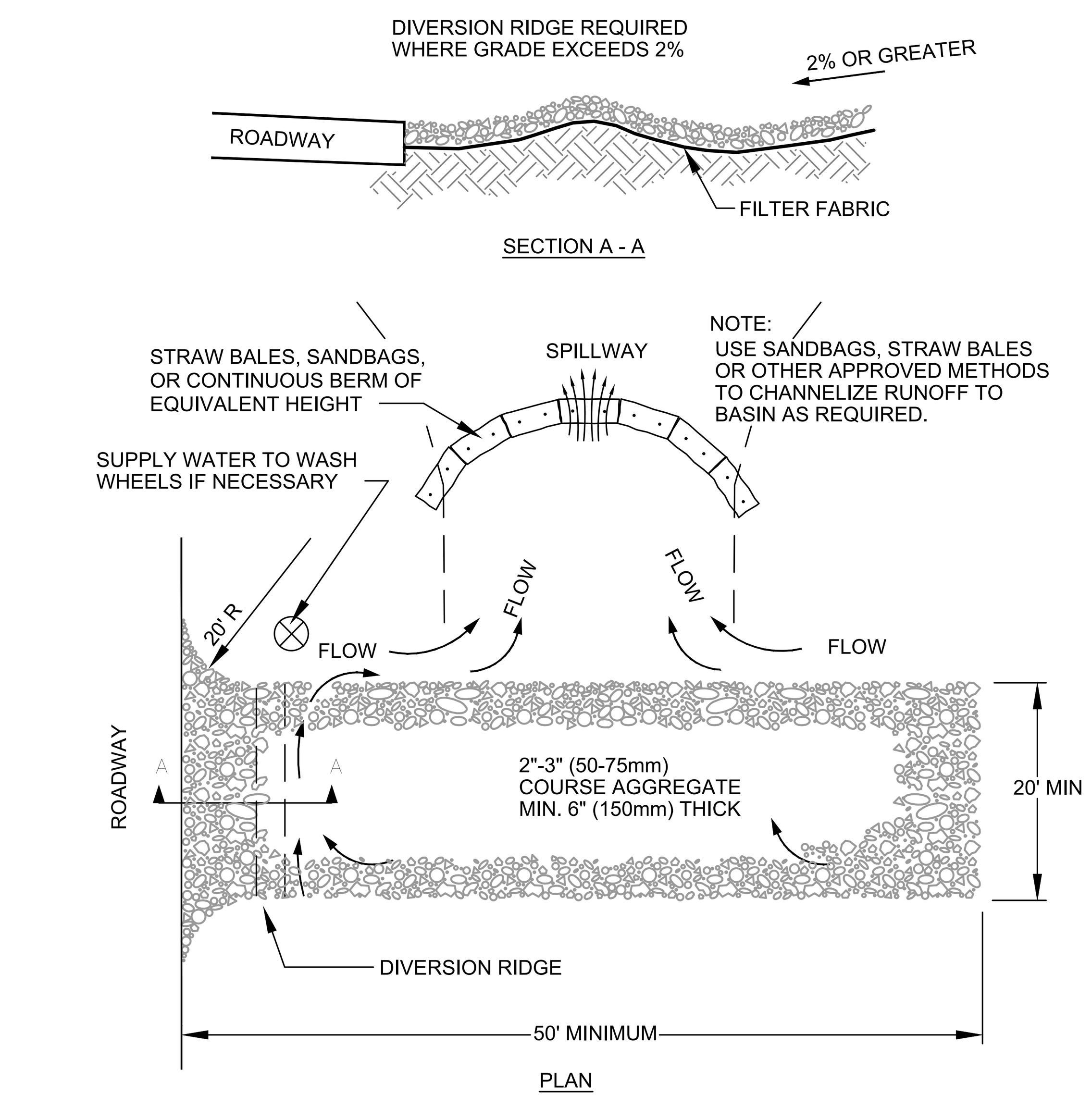


SILT FENCE
NOT TO SCALE



NOTE: REFER TO GRADING PLAN FOR DITCH WIDTH AND SIDE SLOPES

GRASSED SWALE
NOT TO SCALE

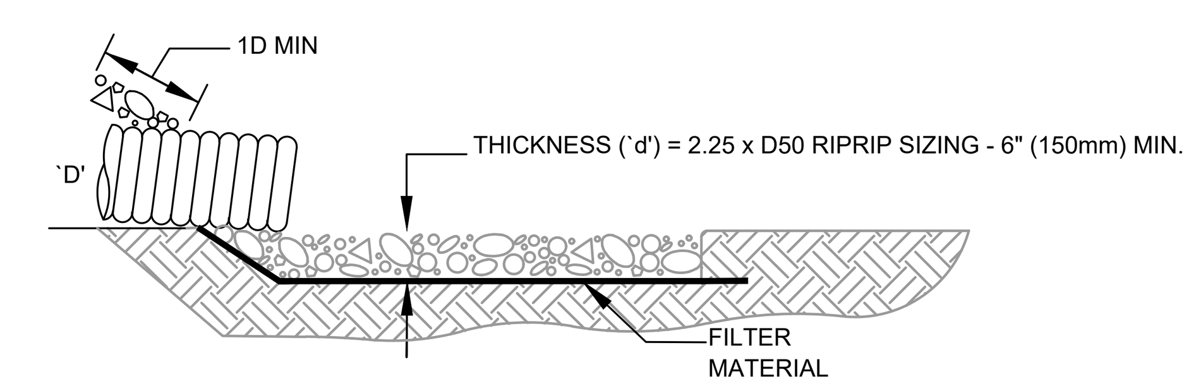


NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.

2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.

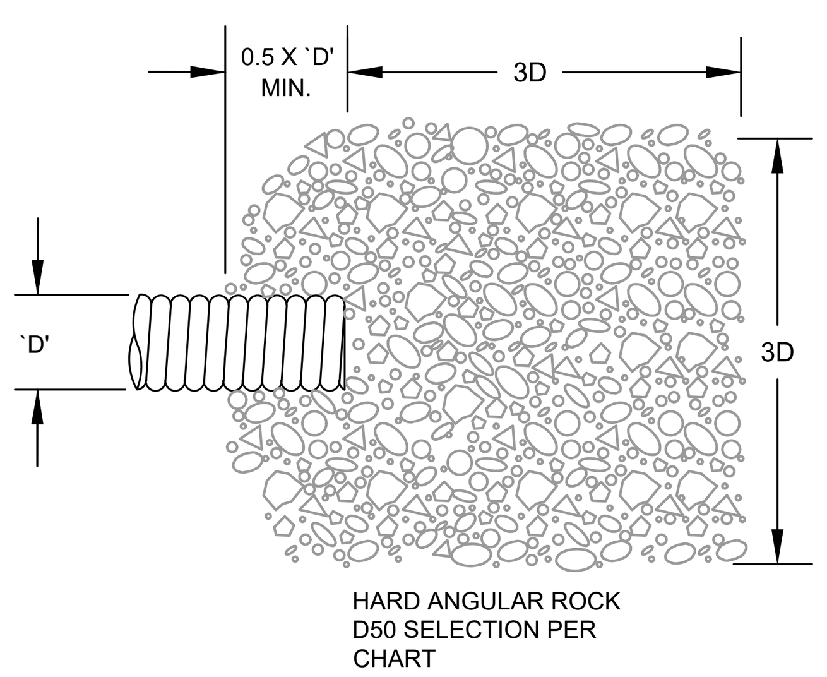
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



NOTE:
1. GEOTEXTILE FILTER FABRIC BENEATH STONE BASED ON UNDISTURBED SOILS, OR 6" OF 4" MINUS BAN RUN GRAVEL FREE OF FINES, CLAYS, SILTS.
2. GEOTEXTILE TO BE MIRAFI 600X OR APPROVED EQUAL.

SECTION



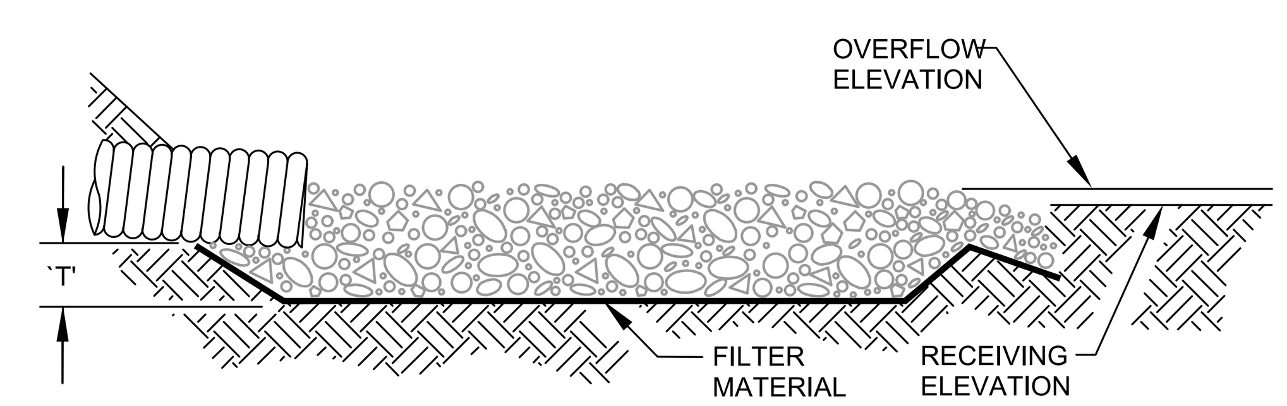
PLAN

PIPE INLET PROTECTION SIZING TABLE

PIPE SIZE (IN)	RIRAP SIZING (D50)	LENGTH (FT)	WIDTH (FT)
6	3	2.0	1.5
12	5	3.5	3.0
15	6	4.5	3.75
18	8	5.25	4.5
24	10	7.0	6.0
30	12	8.75	7.5
36	14	10.5	9.0

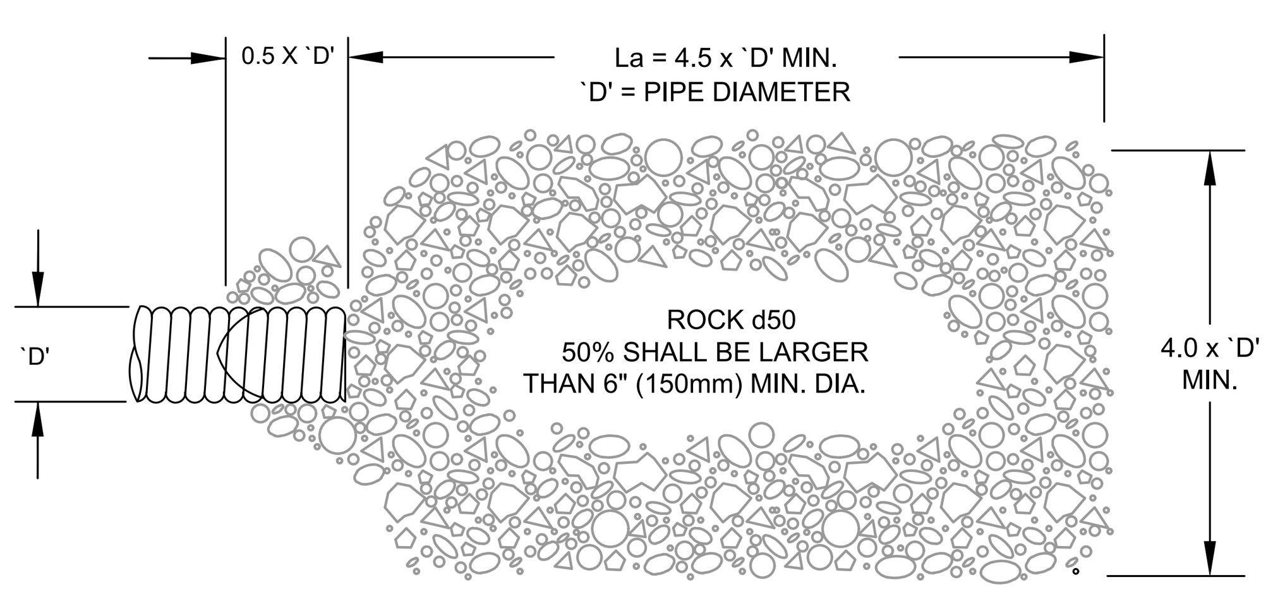
NOTES:
1. IN DEFINED CHANNELS, APRON SHALL EXTEND FULL WIDTH OF BOTTOM AND ONE FOOT ABOVE MAX. HEADWATER OR UP TO BANK FULL, WHICHEVER IS LESS.

PIPE INLET PROTECTION



THICKNESS ('T') = 2.25 x D50 RIPRAP SIZING - 6" (150mm) MIN.

SECTION



PLAN

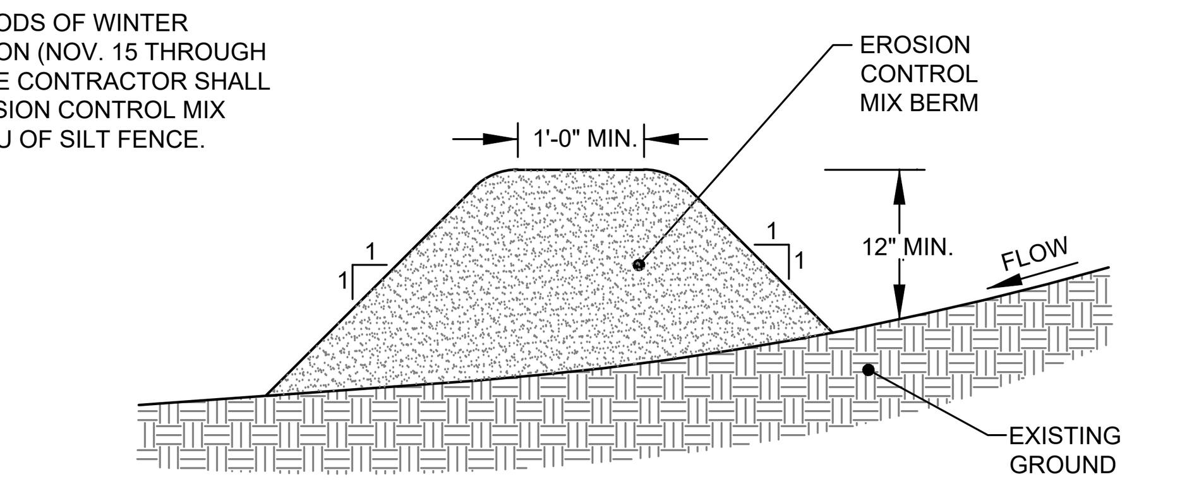
PIPE OUTLET PROTECTION SIZING TABLE

PIPE SIZE (IN)	RIP RAP SIZING (D50)	LENGTH (FT)	WIDTH (FT)
6	3	2.5	2.0
12	5	5.0	4.0
15	6	6.25	5.0
18	8	7.5	6.0
24	10	10.0	8.0
30	12	13.0	10.0
36	14	15.0	12.0

NOTES:
1. `La' = LENGTH OF APRON. DISTANCE `La' SHALL BE OF SUFFICIENT LENGTH TO DISSIPATE ENERGY.
2. APRON SHALL BE SET AT A ZERO GRADE AND ALIGNED STRAIGHT.
3. FILTER MATERIAL SHALL BE FILTER FABRIC (MIRAFI 600X OR APPROVED EQUAL) OR 6" (150mm) THICK MINIMUM GRADED GRAVEL LAYER.

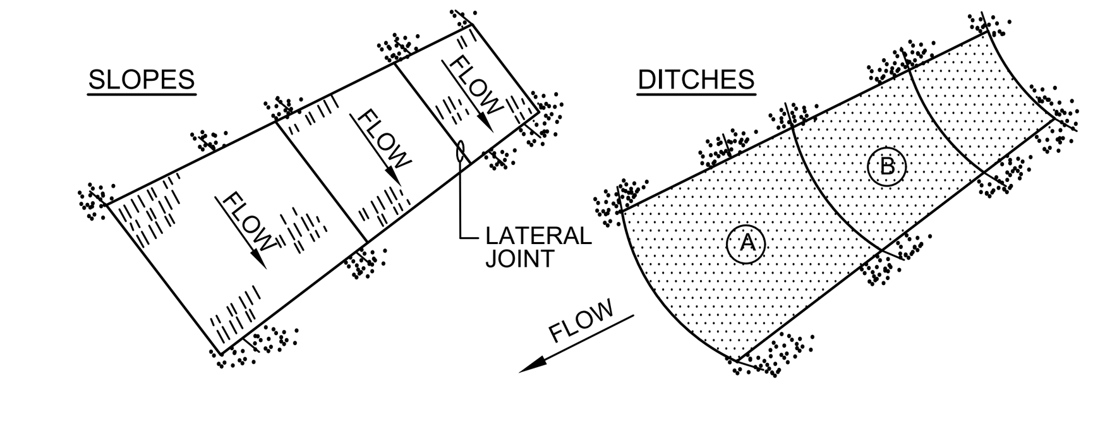
PIPE OUTLET PROTECTION
NOT TO SCALE

NOTE:
DURING PERIODS OF WINTER CONSTRUCTION (NOV. 15 THROUGH APRIL 15), THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.



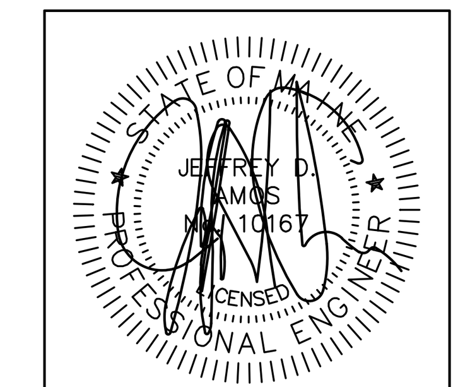
EROSION CONTROL MIX:
EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES & MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:
- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80% - 100% DRY WEIGHT BASIS
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70%,
MAXIMUM OF 85% PASSING A 0.75" SCREEN
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
- SOLUBLE SALTS CONTENT SHALL BE < 4.0 mmhos/cm.
- ph SHALL FALL BETWEEN 5.0 - 8.0.

EROSION CONTROL MIX BERM
NOT TO SCALE



NOTES:
1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.
2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.
3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 18" ON CENTER.
4. STAPLE OUTSIDE LATERAL EDGE 2' ON CENTER.
5. WIRE STAPLES TO BE MIN. OF #11 WIRE, 6" LONG & 1-1/2" WIDE.
6. USE NORTH AMERICAN GREEN DS 150 (OR APPROVED EQUAL) ON SLOPES BETWEEN 4:1-2:1. USE NORTH AMERICAN GREEN VMAX SC250 PERMANENT TURF REINFORCEMENT MAT (OR APPROVED EQUAL) ON SLOPES 2:1 AND STEEPER..

EROSION CONTROL BLANKET
NOT TO SCALE



DATE: 11/10/2021
P.E.: 10167

NO.	DATE	REVISIONS	APP'D BY
1	11/10/2021	REVISED PER TOWN PLANNING & 3RD PARTY ENGINEERING REVIEW	

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PERMIT DRAWING
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PROJECT:
GRAY SELF STORAGE
PORTLAND ROAD,GRAY, ME
SHEET TITLE:
EROSION CONTROL NOTES & DETAILS
CLIENT:
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	AS NOTED
DESIGNED:	JDA
JOB NO:	2125
FILE:	2125-D
SHEET	C-3.0

CONSTRUCTION NOTES

1. ALL WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES.

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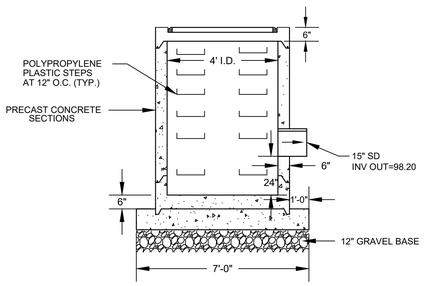
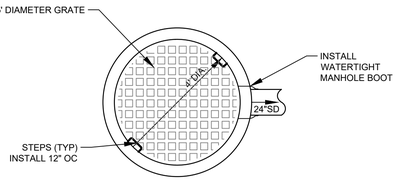
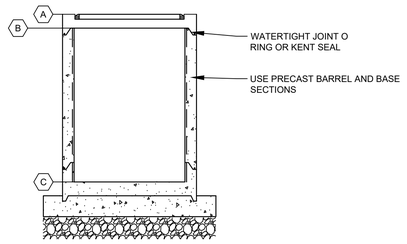


SIDE VIEW OF STRUCTURE



TOP VIEW OF STRUCTURE



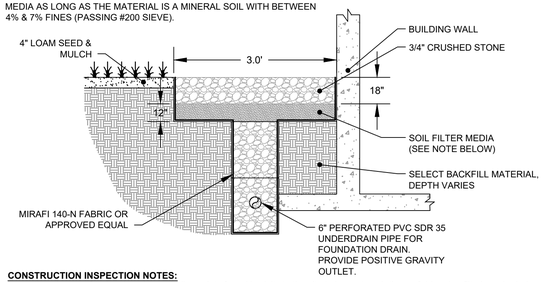
SIDE VIEW

NOTES:
1. SUBMIT SHOP DRAWINGS FOR OWNER/ ENGINEER APPROVAL.
2. STRUCTURE SHALL BE DESIGNED FOR H-20 LOADING.
3. CASTINGS SHALL PROVIDE FOR A 24" CLEAR OPENING.

SCHEDULE A OUTLET CONTROL STRUCTURE	
ITEM DESCRIPTION	DIMENSION / ELEVATION
A. TOP OF STRUCTURE	101.00
B. UNDERSIDE OF SLAB	100.50
C. BOTTOM OF STRUCTURE	96.20

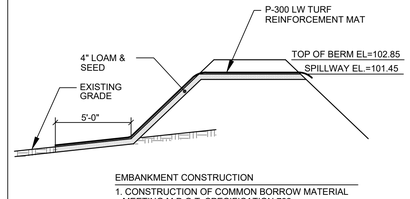
OUTLET CONTROL STRUCTURE WITH GRATE (OCS)
NOT TO SCALE

NOTE:
THE BACKFILL FOR THE FOUNDATION MAY BE USED AS THE FILTER MEDIA AS LONG AS THE MATERIAL IS A MINERAL SOIL WITH BETWEEN 4% & 7% FINES (PASSING #200 SIEVE).



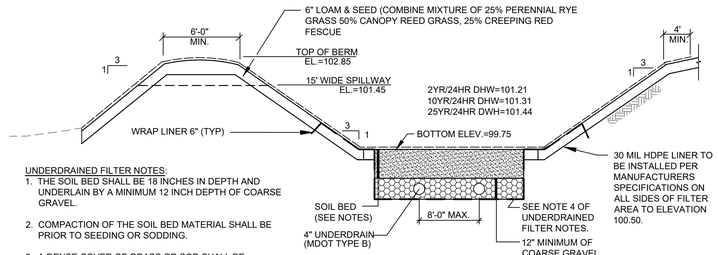
CONSTRUCTION INSPECTION NOTES:
Inspections by a professional engineer shall consist of weekly visits to the site to inspect each the roof drip edge filter's underdrain construction, filter material placement, and overflow from initial ground disturbance to final stabilization of the filter.

ROOF DRIPLINE FILTER BED
NOT TO SCALE



EMBANKMENT CONSTRUCTION
1. CONSTRUCTION OF COMMON BORROW MATERIAL MEETING M.D.O.T. SPECIFICATION 703.
2. PLACE BORROW MATERIAL IN 12" LIFTS COMPACTED TO 95% OF MAXIMUM DRY DENSITY.
3. INSTALL RIPRAP AND EROSION CONTROL MESH WHERE SPECIFIED ON PLANS
4. LOAM, SEED, AND STABILIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.

SPILLWAY SECTION - FILTER BASIN
NOT TO SCALE

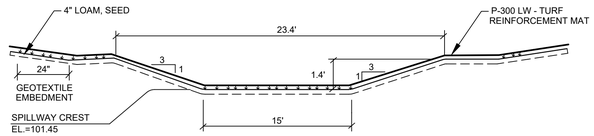


UNDERDRAINED FILTER NOTES:
1. THE SOIL BED SHALL BE 18 INCHES IN DEPTH AND UNDERLAIN BY A MINIMUM 12 INCH DEPTH OF COARSE GRAVEL.
2. COMPACTION OF THE SOIL BED MATERIAL SHALL BE PRIOR TO SEEDING OR SODDING.
3. A DENSE COVER OF GRASS OR SOD SHALL BE ESTABLISHED AND MAINTAINED ON THE SURFACE TO PREVENT CLOGGING.
4. PLACE NON WOVEN GEOTEXTILE FABRIC (MIRIFI S600 OR APPROVED EQUAL) ON ALL SIDES AND BOTTOM OF SOIL & GRAVEL FILTER AREA.
5. SOIL FILTER BED SHALL MEET THE SPECIFICATIONS SHOWN IN SOIL FILTER MEDIA TABLE.

FILTER BASIN
NOT TO SCALE

CONSTRUCTION PHASE NOTES:
Construction Sequence: The soil filter media and vegetation must not be installed until the area that drains to the filter has been permanently stabilized with pavement or other structure, 90% vegetation cover, or other permanent stabilization unless the runoff from the contributing drainage area is diverted around the filter until stabilization is completed.
Compaction of Soil Filter: Filter soil media and underdrain bedding material must be compacted to between 90% and 92% standard proctor. The bed should be installed in at least 2 lifts of 9 inches to prevent pockets of loose media.
Construction Oversight: Inspection by a professional engineer will occur at a minimum:
- After the preliminary construction of the filter grades and once the underdrain pipes are installed but not backfilled,
- After the drainage layer is constructed and prior to the installation of the filter media,
- After the filter media has been installed and seeded. Bio-retention cells must be stabilized per the provided planting scheme and density for the canopy coverage of 30 and 50%.
- After one year to inspect health of the vegetation and make corrections, and
- All the material used for the construction of the filter basin must be confirmed as suitable by the design engineer. Testing must be done by a certified laboratory to show that they are passing DEP specifications.

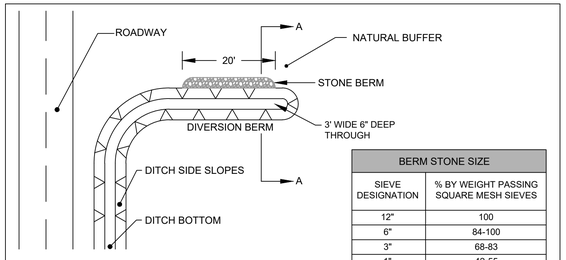
Testing and Submittals: The contractor shall identify the location of the source of each component of the filter media. All results of field and laboratory testing shall be submitted to the project engineer for confirmation. The contractor shall:
- Select samples for sampling of each type of material to be blended for the mixed filter media and samples of the underdrain bedding material. Samples must be a composite of three different locations (grabs) from the stockpile or pit face. Sample size required will be determined by the testing laboratory.
- Perform a sieve analysis conforming to STM C136 (Standard Test Method for Sieve Analysis of fine and Course Aggregates 1996A) on each type of the sample material. The resulting soil filter media mixture must have 8% to 12% by weight passing the #200 sieve, a clay content of less than 2% (determined hydrometer grain size analysis) and have 10% dry weight of organic matter.
- Perform a permeability test on the soil filter media mixture conforming to ASTM D2434 with the mixture compacted to 90-92% of maximum dry density based on ASTM D698.



SPILLWAY CROSS-SECTION - FILTER BASIN
NOT TO SCALE

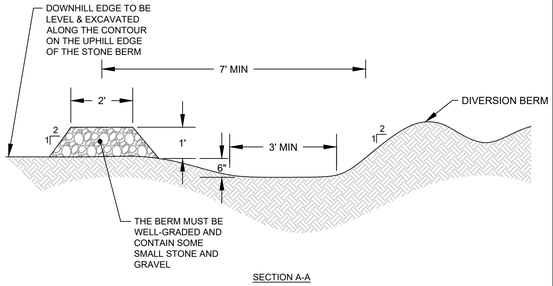
SOIL FILTER MEDIA TABLE		
FILTER MEDIA	MIXTURE BY VOLUME	SPECIFICATION
SAND	50%-55%	MEDOT SPEC. 703.01 FINE AGGREGATE FOR CONCRETE
TOPSOIL	20%-30%	LOAMY SAND TOPSOIL WITH MINIMAL CLAY CONTENT AND BETWEEN 15-25% FINES PASSING THE #200 SIEVE.
MULCH	20%-30%	MODERATELY FINE, SHREDDED BARK OR WOOD FIBER MULCH WITH LESS THAN 5% PASSING THE #200 SIEVE

GRASSED UNDERDRAINED SOIL FILTER BASIN DETAILS
NOT TO SCALE



PLAN VIEW

BERM STONE SIZE	
SIEVE DESIGNATION	% BY WEIGHT PASSING SQUARE MESH SIEVES
12"	100
6"	84-100
3"	68-83
1"	42-55
#4	8-12



SECTION A-A

CONSTRUCTION & POST-CONSTRUCTION PHASE NOTES:
Buffers - General
General forest use means that the land must be maintained with a forest cover and undisturbed soil, duff layer ground cover vegetation, and understory vegetation. Timber may be harvested on a selective basis provided that no more than 40% of the volume is harvested within any 10 year period.

Stone Bermed Level Lip Spreader
Inspections by a professional engineer shall consist of weekly visits to the site to inspect each level spreaders construction, stone berm material and placement, settling basin from initial ground disturbance to final stabilization of the level spreader.

Road Ditch Turnouts
Inspections by a professional engineer shall consist of weekly visits to the site to inspect each turnout construction, turnout's stone berm material and placement, from initial ground disturbance to final stabilization of the level spreader.

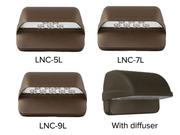
TYPICAL DITCH TURNOUT BUFFER
NOT TO SCALE

HUBBELL Outdoor Lighting

DATE: LOCATION:
TYPE: PROJECT:
CATALOG #:

LNC
COMPACT LED LITEPAK

FEATURES
- Compact LNC LED is designed for perimeter illumination and available in 3 lumen packages for safety, security and identity
- 3000K, 4000K, 5000K and Amber color temperatures
- Up to 4:1 spacing to mounting height ratio means fewer fixtures to install
- Acrylic diffuser included! Use for applications near entrances or locations where reduced brightness is desired. (Maximum spacing with diffuser 30ft)
- Die-cast aluminum housing with decorative Laredo styling
- Full cut-off neighbor friendly
- Listed to UL1598 for use in wet locations



RELATED PRODUCTS
LNC2 LNC3 LNC4

*3000K and warmer CCTs only

SPECIFICATIONS
CONSTRUCTION
- Decorative die-cast aluminum housing and door
- Rugged design protects internal components and provides excellent thermal management for long life
- Powder paint finishes provide lasting appearance in outdoor environments
- Full cut-off distribution; Ambient diffuser included, use for applications near enterances or locations where reduced brightness is desired

OPTICS
- Drivers are 120-277V, 50/60Hz Type II, III and Type IV lenses provide wide lateral spread
- 3000K - 80 CRI, 4000K - 70 CRI, and 5000K - 70 CRI, CCT nominal
- Drivers have greater than .90 power factor and less than 20% Total Harmonic Distortion

INSTALLATION
- Quick mount adapter provides quick installation, designed for recessed box 4" square junction box

ELECTRICAL
- 60,000 hours minimum LED life at L96 rating per IESNA TM-21-11
- Minimum operating temperature is -40°C/-40°F
- 0-10V dimming 120-277V only
- LNC5L – 5 LEDs, Types II, III or IV available, see page 2 for electrical details
- LNC7L – 7 LEDs, Type II, III or IV available, see page 2 for electrical details
- LNC9L – 9 LEDs, Types II, III or IV available, see page 2 for electrical details

CONTROLS
- Photocontrol option is available to provide dusk-to-dawn control for additional energy savings

CERTIFICATIONS
- DLC® DesignLights Consortium Qualified, with some Premium Qualified configurations. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Listed and labeled to UL 1598 for wet locations, 25°C ambient environments

WARRANTY
- 5 year limited warranty
- See HLI Standard Warranty for additional information

KEY DATA	
Lumen Range	800–2100
Wattage Range	13–22
Efficacy Range (LPW)	64–95
Fixture Projected Life (Hours)	L96>60K
Weights lbs. (kg)	9.6 (24.5)

HUBBELL Lighting

8' LNC PSKG PAGE
8' LNC BROCHURE
8' LED BUILDING GUIDE
8' INSTALLATION INSTRUCTIONS

STATE OF MAINE — JEFFREY D. AMOS — 10167 — LICENSED PROFESSIONAL ENGINEER

DATE: 11/10/2021
P.E.: 10167

NO.	DATE	REVISIONS	APP'D BY
1	11/10/2021	REVISED PER TOWN PLANNING & 3RD PARTY ENGINEERING REVIEW	

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 201
NEW GLOUCESTER, ME 04260

OFFICE: (207) 926-5111
www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC
CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: GRAY SELF STORAGE
PORTLAND ROAD, GRAY, ME

SHEET TITLE: DETAILS & NOTES

CLIENT: BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	AS NOTED
DESIGNED:	JDA
JOB NO:	2125
FILE:	2125-D
SHEET	C-3.2

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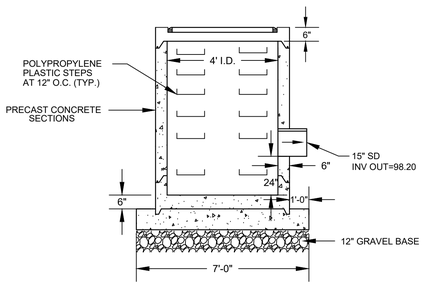
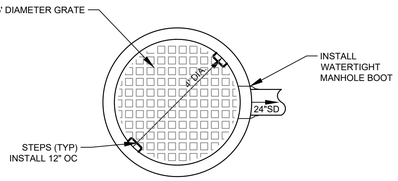
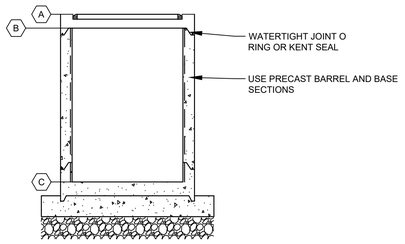
26. BEFORE THE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND MATERIALS, REPAIR OR REPLACE PRIVATE OR PUBLIC PROPERTY WHICH MAY HAVE BEEN DAMAGED OR DESTROYED DURING CONSTRUCTION, CLEAN THE AREAS WITHIN AND ADJACENT TO THE PROJECT WHICH HAVE BEEN OBSTRUCTED BY HIS/HER OPERATIONS, AND LEAVE THE PROJECT AREA NEAT AND PRESENTABLE.



SIDE VIEW OF STRUCTURE



TOP VIEW OF STRUCTURE



SIDE VIEW

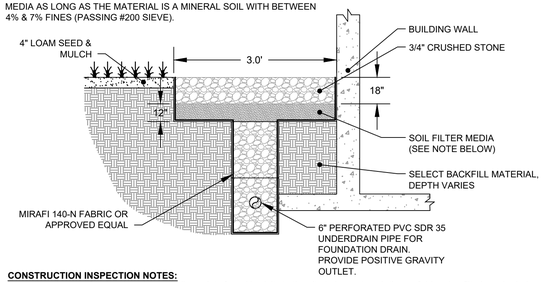
NOTES:
1. SUBMIT SHOP DRAWINGS FOR OWNER/ ENGINEER APPROVAL.
2. STRUCTURE SHALL BE DESIGNED FOR H-20 LOADING.
3. CASTINGS SHALL PROVIDE FOR A 24" CLEAR OPENING.

SCHEDULE A OUTLET CONTROL STRUCTURE	
ITEM DESCRIPTION	DIMENSION / ELEVATION
A. TOP OF STRUCTURE	101.00
B. UNDERSIDE OF SLAB	100.50
C. BOTTOM OF STRUCTURE	96.20

OUTLET CONTROL STRUCTURE WITH GRATE (OCS)

NOT TO SCALE

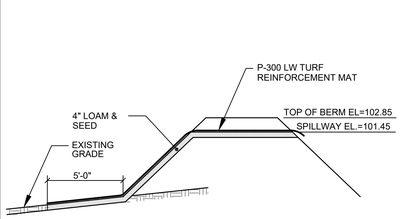
NOTE:
THE BACKFILL FOR THE FOUNDATION MAY BE USED AS THE FILTER MEDIA AS LONG AS THE MATERIAL IS A MINERAL SOIL WITH BETWEEN 4% & 7% FINES (PASSING #200 SIEVE).



CONSTRUCTION INSPECTION NOTES:
Inspections by a professional engineer shall consist of weekly visits to the site to inspect each the roof drip edge filter's underdrain construction, filter material placement, and overflow from initial ground disturbance to final stabilization of the filter.

ROOF DRIPLINE FILTER BED

NOT TO SCALE



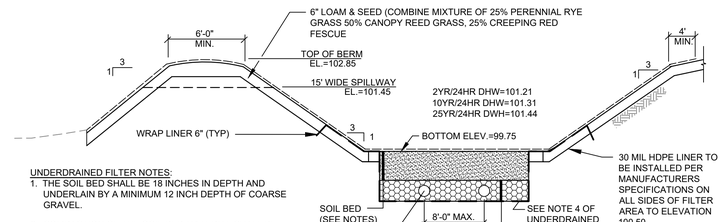
EMBANKMENT CONSTRUCTION
1. CONSTRUCTION OF COMMON BORROW MATERIAL MEETING M.D.O.T. SPECIFICATION 703.
2. PLACE BORROW MATERIAL IN 12" LIFTS COMPACTED TO 95% OF MAXIMUM DRY DENSITY.
3. INSTALL RIPRAP AND EROSION CONTROL MESH WHERE SPECIFIED ON PLANS
4. LOAM, SEED, AND STABILIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.

SPILLWAY SECTION - FILTER BASIN

NOT TO SCALE

CONSTRUCTION PHASE NOTES:
Construction Sequence: The soil filter media and vegetation must not be installed until the area that drains to the filter has been permanently stabilized with pavement or other structure, 90% vegetation cover, or other permanent stabilization unless the runoff from the contributing drainage area is diverted around the filter until stabilization is completed.
Compaction of Soil Filter: Filter soil media and underdrain bedding material must be compacted to between 90% and 92% standard proctor. The bed should be installed in at least 2 lifts of 9 inches to prevent pockets of loose media.
Construction Oversight: Inspection by a professional engineer will occur at a minimum:
- After the preliminary construction of the filter grades and once the underdrain pipes are installed but not backfilled,
- After the drainage layer is constructed and prior to the installation of the filter media,
- After the filter media has been installed and seeded. Bio-retention cells must be stabilized per the provided planting scheme and density for the canopy coverage of 30 and 50%.
- After one year to inspect health of the vegetation and make corrections, and
- All the material used for the construction of the filter basin must be confirmed as suitable by the design engineer. Testing must be done by a certified laboratory to show that they are passing DEP specifications.

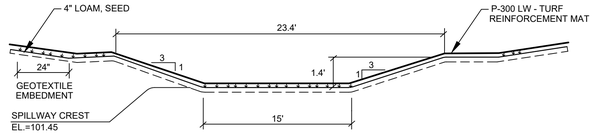
Testing and Submittals: The contractor shall identify the location of the source of each component of the filter media. All results of field and laboratory testing shall be submitted to the project engineer for confirmation. The contractor shall:
- Select samples for sampling of each type of material to be blended for the mixed filter media and samples of the underdrain bedding material. Samples must be a composite of three different locations (grabs) from the stockpile or pit face. Sample size required will be determined by the testing laboratory.
- Perform a sieve analysis conforming to STM C136 (Standard Test Method for Sieve Analysis of fine and Course Aggregates 1996A) on each type of the sample material. The resulting soil filter media mixture must have 8% to 12% by weight passing the #200 sieve, a clay content of less than 2% (determined hydrometer grain size analysis) and have 10% dry weight of organic matter.
- Perform a permeability test on the soil filter media mixture conforming to ASTM D2434 with the mixture compacted to 90-92% of maximum dry density based on ASTM D698.



UNDERDRAINED FILTER NOTES:
1. THE SOIL BED SHALL BE 18 INCHES IN DEPTH AND UNDERLAIN BY A MINIMUM 12 INCH DEPTH OF COARSE GRAVEL.
2. COMPACTION OF THE SOIL BED MATERIAL SHALL BE PRIOR TO SEEDING OR SODDING.
3. A DENSE COVER OF GRASS OR SOD SHALL BE ESTABLISHED AND MAINTAINED ON THE SURFACE TO PREVENT CLOGGING.
4. PLACE NON WOVEN GEOTEXTILE FABRIC (MIRIFI S600 OR APPROVED EQUAL) ON ALL SIDES AND BOTTOM OF SOIL & GRAVEL FILTER AREA.
5. SOIL FILTER BED SHALL MEET THE SPECIFICATIONS SHOWN IN SOIL FILTER MEDIA TABLE.

FILTER BASIN

NOT TO SCALE



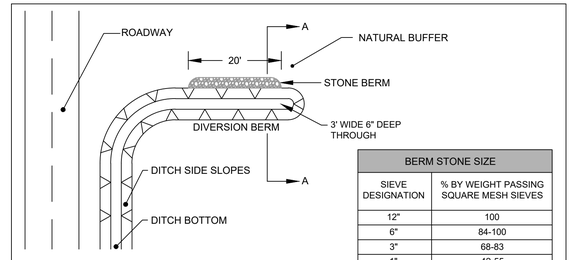
SPILLWAY CROSS-SECTION - FILTER BASIN

NOT TO SCALE

SOIL FILTER MEDIA TABLE		
FILTER MEDIA	MIXTURE BY VOLUME	SPECIFICATION
SAND	50%-55%	MEDOT SPEC. 703.01 FINE AGGREGATE FOR CONCRETE
TOPSOIL	20%-30%	LOAMY SAND TOPSOIL WITH MINIMAL CLAY CONTENT AND BETWEEN 15-25% FINES PASSING THE #200 SIEVE.
MULCH	20%-30%	MODERATELY FINE, SHREDDED BARK OR WOOD FIBER MULCH WITH LESS THAN 5% PASSING THE #200 SIEVE

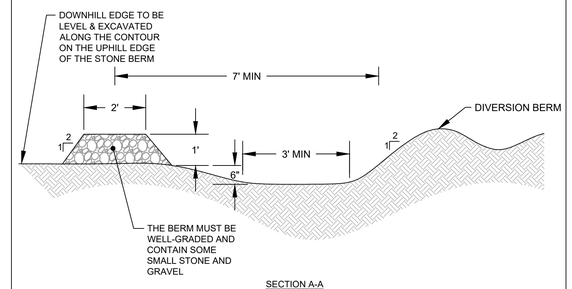
GRASSED UNDERDRAINED SOIL FILTER BASIN DETAILS

NOT TO SCALE



PLAN VIEW

BERM STONE SIZE	
SIEVE DESIGNATION	% BY WEIGHT PASSING SQUARE MESH SIEVES
12"	100
6"	84-100
3"	68-83
1"	42-55
#4	8-12



SECTION A-A

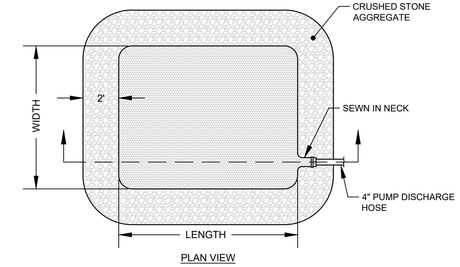
CONSTRUCTION & POST-CONSTRUCTION PHASE NOTES:
Buffers - General
General forest use means that the land must be maintained with a forest cover and undisturbed soil, duff layer ground cover vegetation, and understory vegetation. Timber may be harvested on a selective basis provided that no more than 40% of the volume is harvested within any 10 year period.

Stone Bermed Level Lip Spreader
Inspections by a professional engineer shall consist of weekly visits to the site to inspect each level spreaders construction, stone berm material and placement, settling basin from initial ground disturbance to final stabilization of the level spreader.

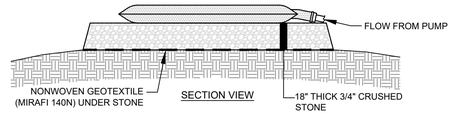
Road Ditch Turnouts
Inspections by a professional engineer shall consist of weekly visits to the site to inspect each turnout construction, turnout's stone berm material and placement, from initial ground disturbance to final stabilization of the level spreader.

TYPICAL DITCH TURNOUT BUFFER

NOT TO SCALE



PLAN VIEW



NOTES:
1. DIRTBAG BY ACF ENVIRONMENTAL
2. SEAMS MUST BE HIGH STRENGTH DOUBLE STITCHED "J" SEAMS.
3. CONSTRUCTION DEWATERING OF TURBID WATER SHALL BE PUMPED THROUGH A DIRTBAG AND RELEASED THROUGH A VEGETATED BUFFER AT LEAST 50' UPSTREAM OF WETLAND AREAS.
4. THE LOCATION OF THE DIRTBAG SHALL BE DETERMINED BY THE CONTRACTOR, BUT SHALL IT SHALL NOT BE SITED IN CRITICAL AREAS, SUCH AS WETLANDS.

DIRTBAG DETAIL

NOT TO SCALE

STATE OF MAINE — JEFFREY D. AMOS — 10167 — LICENSED PROFESSIONAL ENGINEER

DATE: 11/10/2021
P.E.: 10167

NO.	DATE	REVISIONS	APP'D BY
1	11/10/2021	REVISED PER TOWN PLANNING & 3RD PARTY ENGINEERING REVIEW	

TERRADYN CONSULTANTS, LLC
41 CAMPUS DRIVE, SUITE 201, NEW GLOUCESTER, ME 04260
OFFICE: (207) 926-5111
www.terradynconsultants.com
565 CONGRESS STREET, SUITE 201, PORTLAND, ME 04102

CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: GRAY SELF STORAGE
PORTLAND ROAD, GRAY, ME

SHEET TITLE: DETAILS & NOTES

CLIENT: BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	AS NOTED
DESIGNED:	JDA
JOB NO:	2125
FILE:	2125-D
SHEET	C-3.2

TERRADYN CONSULTANTS, LLC

Pineland
Cumberland Hall
41 Campus Drive, Suite 101
New Gloucester, ME 04260

Portland
565 Congress Street, Suite 310
Portland, ME 04101

November 11, 2021 2125

Ms Kristen Muszynski, Town Planner
Town of Gray Planning Department
Henry Pennell Municipal Complex
24 Main Street
Gray, ME 04039

Additional Information & Comment Response
Gray Self Storage
119 Portland Road, Gray, ME

Kristen,

You've asked us to provide you with additional information in support of the Gray Self Storage project as well provide responses to comments provided by the Town 3rd Party Review Engineer. The request/comment is shown below with our response in *italics.*

1. Please provide corporate information for Equity Trust Company including: company bylaws, a list of shareholders & confirmation that Beth Cureton has authority from the other involved parties to act on behalf of the company in this capacity.

   Response: See Attachment 1: Equity Trust Company Corporate Information.

2. Please provide a letter from Beth Cureton confirming that you are authorized to represent them in these planning board proceedings.

   Response: See Attachment 2: Beth Cureton Authorization.

3. A sketch of the storage buildings with dimensions -- height, design, materials, colors, roofing; side and front views – please also include a rendering view with the landscaping shown

   Response: The applicant intends to construct metal buildings with earth tone colors. They have tentatively chosen tan buildings with forest green doors and accents. See Attachment 3 for approximate elevations.

4. Exterior lighting details, including shielding from Rt. 100 (We anticipate that the Planning Board may be looking for a photometrics plan).

   Response: See Attachment 4 for a photometric plan. The cut sheet is shown on the plan.

5. Turning radius templates for public safety vehicles on internal accessways.

   Response: Turning template exhibits are shown in Attachment 5. We used a 38' long pumper truck with an 18' wheel base for the analysis. The simulation shows that the fire truck will be able to maneuver throughout the site.

6. A cross-section of the access road and information showing how sheet flow onto Route 100 will be diverted.

   Response: The parking lot & roadway material specifications are shown on C-3.1 as we've done on all past commercial projects. We've added additional spot grades at the entrance to show that we've maintained a low point 6' back from the edge of Portland Road.

7. Total acreage of the proposed wetland filling

   Response: The total area of wetland alteration is 13,320 sf as shown on the Site Plan.

8. Estimated cost of the project

   Response: A cost estimate is included in Attachment 6.

Below are our responses to comments that were provided by Will Haskell, P,E. of the Gorrill Palmer Consulting Engineers. Our responses to his comments are shown in *italics.*

1. The Applicant has requested a waiver from Section 401.10.10.A.4.J Class B High Intensity Soil Survey. We have no technical concerns with the waiver request.

   Response: Comment acknowledged.

2. The Erosion and Sedimentation Control Plan conforms to the Town requirements.

   Response: Comment acknowledged.

3. Provide copy of MDEP Stormwater Permit application.

   Response: A copy of the application will be forwarded to the Town later next week. MDEP just waived the pre-application conference yesterday after a lengthy delay.

4. Provide copy of the MDEP NRPA application.

   Response: A copy of the application will be forwarded to the Town later next week.

5. Identify source of topography on the survey plan. The Planning Board should consider requesting field topography in the area of the stormwater management system, if the topography that is provided is based on LiDAR. We often run into elevation discrepancies with LiDAR that result in difficulties during construction.

   Response: Wayne T. Wood & Company performed a topographic survey of the entire upland portion of the site. This survey encompassed all of the development area. This is documented in Note 3 on C-1.0.

6. Provide test pit at filter basin location with soil and seasonal high water table elevation (and bedrock if encountered).

   Response: Mark Cenci will be evaluating a test pit in the pond location in the next week. We will forward the test pit as part of the MDEP Stormwater Application.

7. Provide impervious liner for filter basin if the required separation (as required by Maine DEP) to the seasonal high water elevation (or bedrock) is not met.

   Response: 30 MIL HDPE liner now shown on pond cross section on C-3.2.

8. Provide detail/callout for underdrain (UD) cap orifice modelled in the stormwater analysis.

   Response: Callout for underdrain cap & orifice now called out on C-2.0.

9. Remove bulkhead from OCS Detail if not used in this project.

   Response: The OCS Detail has been corrected.

10. How was the 12'-6" weir length for the OCS determined?

    Response: Circumference of a 4' ID manhole. The OCS Detail has been corrected to show a 4' ID.

11. The assumed 2.41 inches per hour exfiltration of the soil media is the controlling factor for the underdrain outflow from the filter basin. How will the exfiltration rate be controlled to the assumed value?

    Response: We increased the infiltration rate to 10" per hour to properly model the material. The flow is controlled by the 1.5" orifice at the outlet of the 4" SD. We've updated the stormwater report narrative and have attached the drawdown analysis.

12. The 100 year storm should be run over the spillway without other outlets to determine the stage of the flow in relation to the berm.

    Response: The updated 100 year flow calculations are included in Attachment 7 – Updated Stormwater Report. The calculations show that there is still almost 1' of freeboard with the primary outlet plugged.

13. The outlet control structure and associated outlet pipe should be offset from the emergency spillway by a minimum 20 feet (per MDEP recommendations) to prevent short circuiting or washout around the OCS and pipe trench in overflow conditions.

    Response: The outlet control structure is now located 20' from the spillway. The outlet pipe is well away from the spillway.

14. The length of the level lip spreader at the filter basin outlet should be sized based upon 0.25 cfs/ft of spreader length for the 10-year storm flow (per MDEP recommendations), which would be approximately 28 feet.

    Response: The level spreader has been extended to account for 0.25 cfs/ft for the nearly 7 cfs of expected flow.

15. The post development watershed map shows all building roof runoff tributary to the soil filter. Based upon the submitted photos of storage buildings, the roofs are gable roofs, therefore half of buildings #1 and #6 are not tributary to the filter.

    Response: The applicant was still evaluating roofline options. Both exterior buildings now entirely drain away from the pavement. Roof drain filter strips have been added for each.

16. Is the existing 24" diameter CMP culvert at the driveway entrance in good condition, or does it need to be replaced with a new culvert? We are not clear on the existing culvert inverts. Is there adequate proposed cover over the culvert pipe?

    Response: The existing pipe is in poor condition and doesn't have proper inlet & outlet control. A new pipe is proposed. According to the survey points provided by the surveyor, the existing culvert has an upstream invert of 96.97 and a downstream invert of 96.88.

17. The outlet of the proposed soil filter underdrain pipe at the Portland Road ditch is 96.80'. Is the existing ditch elevation at this location deep enough to accept this inlet? The road ditch in the vicinity of this project is extremely flat and does not drain well. We recommend that the Director of Public Works review and weigh in on this underdrain outlet location.

    Response: The area is poorly drained, but the outlet of the pipe does daylight to the ditch.

The following items are attached:

- Attachment 1 – Equity Trust Company Corporate Information
- Attachment 2 – Beth Cureton Authorization
- Attachment 3 – Building Elevations
- Attachment 4 – Photometrics Plan
- Attachment 5 – Turning Template Exhibits
- Attachment 6 – Cost Estimate
- Attachment 7 – Updated Stormwater Narrative

RESOLUTION BY CORPORATION CONFERRING GENERAL SIGNING AUTHORITY ON OFFICERS and CORPORATE ALTERNATE SIGNERS

Resolved, that any one of the following named Officers and Corporate Alternate Signers:

(OFFICER)

Jeffrey Alan Desich	Executive Vice Chairman	Elizabeth A. Jerdonek	Chief Administrative Officer & General Counsel
George E. Sullivan	Chief Executive Officer	Matthew T. Gardner	Chief Financial Officer
Richard A. Desich	Vice President		

(CORPORATE ALTERNATE SIGNER)

David Roger Allen	Corporate Alternate Signer	Jeffrey S. Brown	Corporate Alternate Signer
Lindsay Louise Buchholzer	Corporate Alternate Signer	Matthew Collier	Corporate Alternate Signer
Hope Lynn Gonzales	Corporate Alternate Signer	Brandi Marie Greene	Corporate Alternate Signer
Jessica A. Hardon	Corporate Alternate Signer	Brian Anthony Hering	Corporate Alternate Signer
Mary Colleen Kilbane	Corporate Alternate Signer	Paula Marie Neuhoff	Corporate Alternate Signer

Are/is hereby authorized and empowered to sell, purchase, assign, and transfer any and all bonds, certificates of deposit, stocks, real property, satisfaction of mortgage, securities or other investments which may be registered in the name of this Corporation or which may now or hereafter be assigned to it. It is further *Resolved* that any and all such assignments of securities and investments registered in the name of or assigned to this Corporation, heretofore or hereafter made by the above-named Officer(s) or Corporate Alternate Signer(s), are hereby ratified and confirmed.

I hereby certify that the foregoing is a true and correct copy of a Resolution passed at a regular quarterly meeting of the Board of Directors, the governing body of Equity Trust Company, a duly authorized corporation. Said Resolution has not been amended or repealed, and it is presently in full force and effect.

Witness my signature this 4th **day of** March, 2020

[redacted]

Official Signature of an Officer

SIGNATURE GUARANTEED
MEDALLION GUARANTEED

[redacted]

(047) C9010942
SECURITIES TRANSFER AGENTS MEDALLION PROGRAM

SIGNATURE GUARANTEE ATTACHED

[redacted]

This document was prepared by
Equity Trust Company

SIGNATURE GUARANTEE
RESOLUTION BY CORPORATION CONFERRING GENERAL SIGNING AUTHORITY ON OFFICERS and CORPORATE ALTERNATE SIGNERS

[redacted]
Jeffrey Alan Desich, Executive Vice Chairman

[redacted]
Elizabeth A. Jerdonek, Chief Administrative Officer

[redacted]
George E. Sullivan, Chief Executive Officer

[redacted]
Matthew T. Gardner, Chief Financial Officer

[redacted]
Richard A. Desich, Vice President

[redacted]
David Roger Allen, Corporate Alternate Signer

[redacted]
Jeffrey S. Brown, Corporate Alternate Signer

[redacted]
Lindsay Louise Buchholzer, Corporate Alternate Signer

[redacted]
Matthew Collier, Corporate Alternate Signer

[redacted]
Hope Lynn Gonzales, Corporate Alternate Signer

[redacted]
Brandi Marie Greene, Corporate Alternate Signer

[redacted]
Jessica A. Hardon, Corporate Alternate Signer

[redacted]
Brian Anthony Hering, Corporate Alternate Signer

[redacted]
Mary Colleen Kilbane, Corporate Alternate Signer

[redacted]
Paula Marie Neuhoff, Corporate Alternate Signer

SUBSCRIBED TO before me this 4 **day of** March, 2020

(SEAL)

LINDA L. KINTER
NOTARY PUBLIC • STATE OF OHIO
RECORDED IN LORAIN COUNTY
MY COMMISSION EXPIRES JAN. 4, 2021

[redacted]
Notary Public
My Commission Expires: 1-4-21

State of South Dakota

Office of the Secretary of State

Certificate of Good Standing

Domestic Business Corporation

I, Steve Barnett, Secretary of State of the State of South Dakota, hereby certify that

EQUITY TRUST COMPANY

Business ID: DB046466

was authorized to transact business in this state on: February 11, 2003.

I, further certify that **EQUITY TRUST COMPANY** has complied with the laws of this State relative to the formation of Certificate of Good Standing/Authorizations of its kind and is now regularly and properly organized and existing under the laws of this State and is in Good Standing, as shown by the records of this office. This certificate is not to be construed as an endorsement, recommendation or notice of approval of its financial condition or business activities and practices. Such information is not available from this office.

IN TESTIMONY WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of South Dakota, in Pierre, the Capital City, this day, February 3, 2020.

[redacted]

Steve Barnett
Secretary of State

02/03/2020 9:32 AM

Verification #: 012601817

EQUITY TRUST COMPANY®

April 21, 2021

To Whom It May Concern:

This letter is to confirm that Equity Trust Company ("Equity") is the Custodian of the Beth Cureton Self-Directed Individual Retirement Account (IRA). The IRA was opened with Equity on 7/2/2020, and Beth Cureton's IRA is currently in full force and effect, and has not been amended or revoked.

This letter authorizes Beth Cureton to purchase or sell assets in the name of Equity Trust Company for the benefit of their IRA. It is permissible for Beth Cureton to sign agreements or other documents on behalf of their IRA. Although Equity may be asked to sign certain documents relating to the purchase, we reserve the right to refuse and/or request Beth Cureton to sign documents on behalf of their IRA.

Any asset that Beth Cureton purchases or sells for their IRA must be titled as follows: "Equity Trust Company Custodian FBO Beth Cureton IRA." Beth Cureton does not have authority to purchase assets solely in the name "Equity Trust Company."

Equity Trust Company serves as a passive, non-discretionary custodian of customer directed IRAs. As a passive custodian, Equity Trust Company does not solicit investments, nor do we provide advice or recommendations, to our customers with regard to their investments, acquired by or in, their IRA. As a passive custodian, Equity Trust Company has no authority to take any action with regard to their investments acquired by, or held in, their IRA without the express direction of the IRA owner.

If you have any questions, please contact Equity Trust Company directly at 888-382-4727 or via e-mail at help@trustetc.com.

Sincerely,

[redacted]

Hope Gonzales
Corporate Alternate Signer
Equity Trust Company

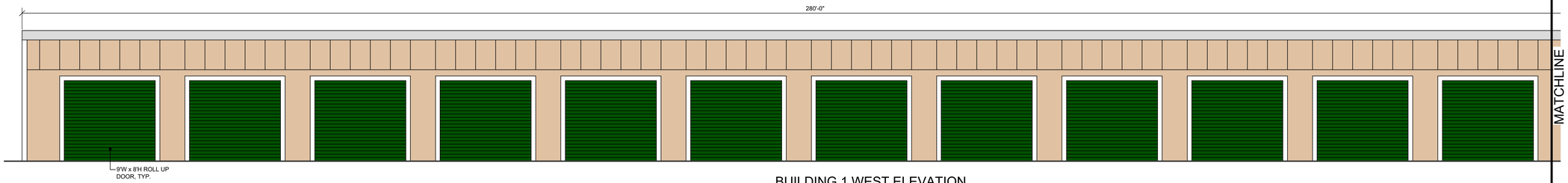
Equity Trust Company is a passive custodian and does not provide tax, legal or investment advice. Any information communicated by Equity Trust Company is for educational purposes only, and should not be construed as tax, legal or investment advice. Whenever making an investment decision, please consult with your tax attorney or financial professional.

NOVEMBER 8, 2021

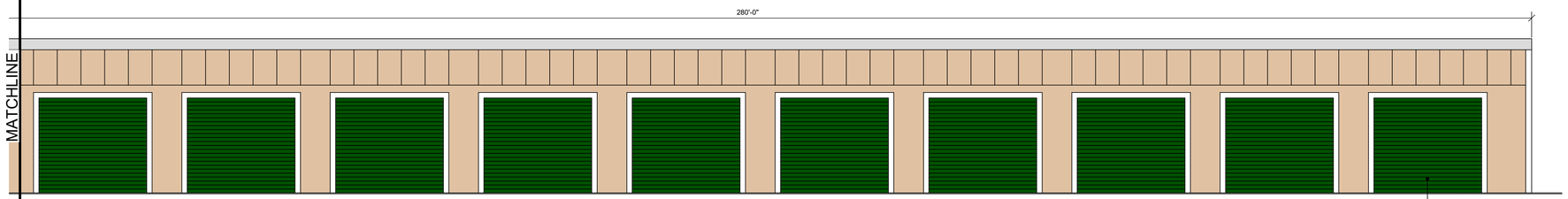
I hereby authorize Jeff Amos of Teredyne to act on my behalf as a consultant / engineer in presenting my storage facility project to the town of Arey, Maine the Maine DOT; the Maine EPA and any other bodies required to secure permits on my behalf.

[redacted] 11/8/21

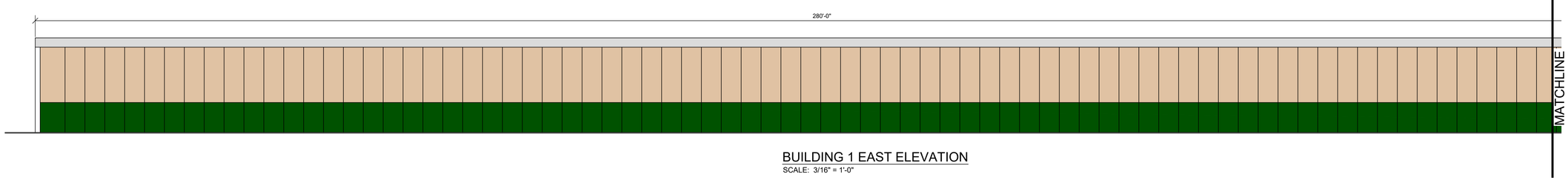
Beth Ann Cuneta



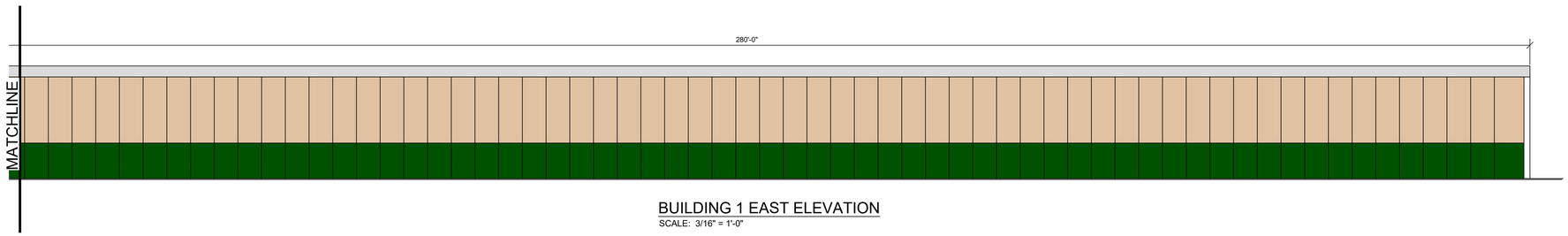
BUILDING 1 WEST ELEVATION
SCALE: 3/16" = 1'-0"



BUILDING 1 WEST ELEVATION
SCALE: 3/16" = 1'-0"



BUILDING 1 EAST ELEVATION
SCALE: 3/16" = 1'-0"



BUILDING 1 EAST ELEVATION
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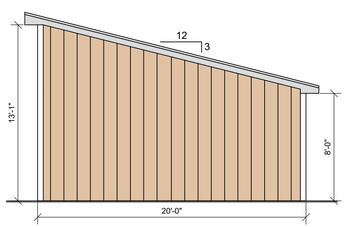
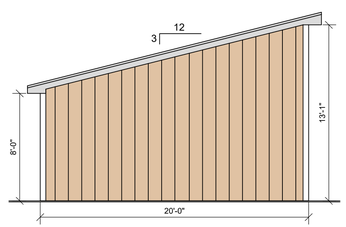


BUILDING 1 SOUTH ELEVATION
SCALE: 3/16" = 1'-0"



BUILDING 1 NORTH ELEVATION
SCALE: 3/16" = 1'-0"

DATE:	DATE
P.E.:	P.E.

NO.	DATE	REVISIONS	APP'D BY

41 CAMPUS DRIVE
SUITE 101
NEW GLOUCESTER, ME 04260

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC

Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

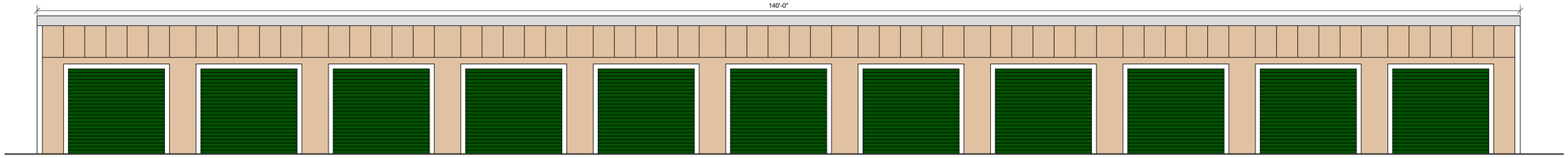
PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
GRAY SELF STORAGE
PORTLAND ROAD, GRAY, ME

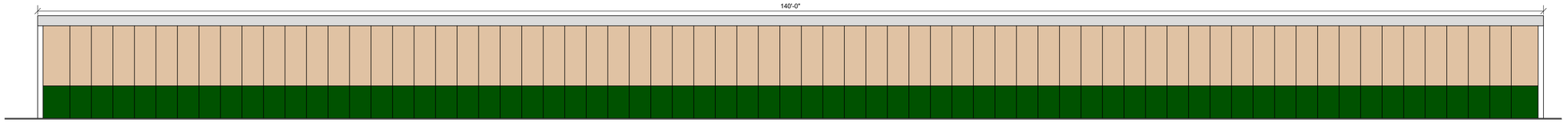
SHEET TITLE:
BUILDING 1 ELEVATIONS

CLIENT:
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

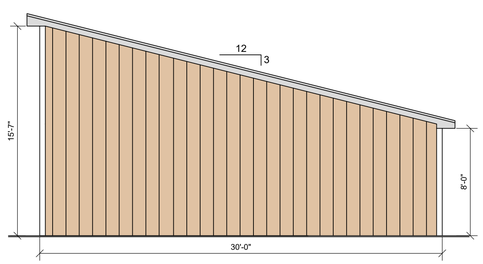
DATE:	11-10-2021
SCALE:	3/16" = 1'-0"
DESIGNED:	JDA
JOB NO:	21-25
FILE:	2125 elev
SHEET	A-1.1



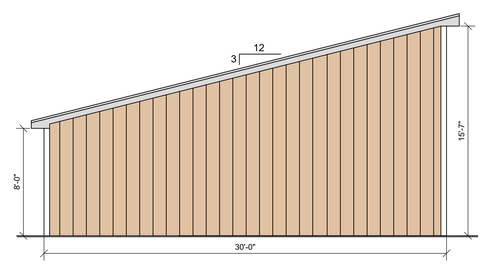
BUILDING 2 & 3 WEST ELEVATION
BUILDING 4 & 5 EAST ELEVATION
SCALE: 3/16" = 1'-0"



BUILDING 2 & 3 EAST ELEVATION
BUILDING 4 & 5 WEST ELEVATION
SCALE: 3/16" = 1'-0"



BUILDING 2 & 3 NORTH ELEVATION
BUILDING 4 & 5 SOUTH ELEVATION
SCALE: 3/16" = 1'-0"



BUILDING 2 & 3 SOUTH ELEVATION
BUILDING 4 & 5 NORTH ELEVATION
SCALE: 3/16" = 1'-0"

DATE:	DATE
P.E.:	P.E.

NO.	DATE	REVISIONS	APP'D BY

41 CAMPUS DRIVE
SUITE 101
NEW GLOUCESTER, ME 04260

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

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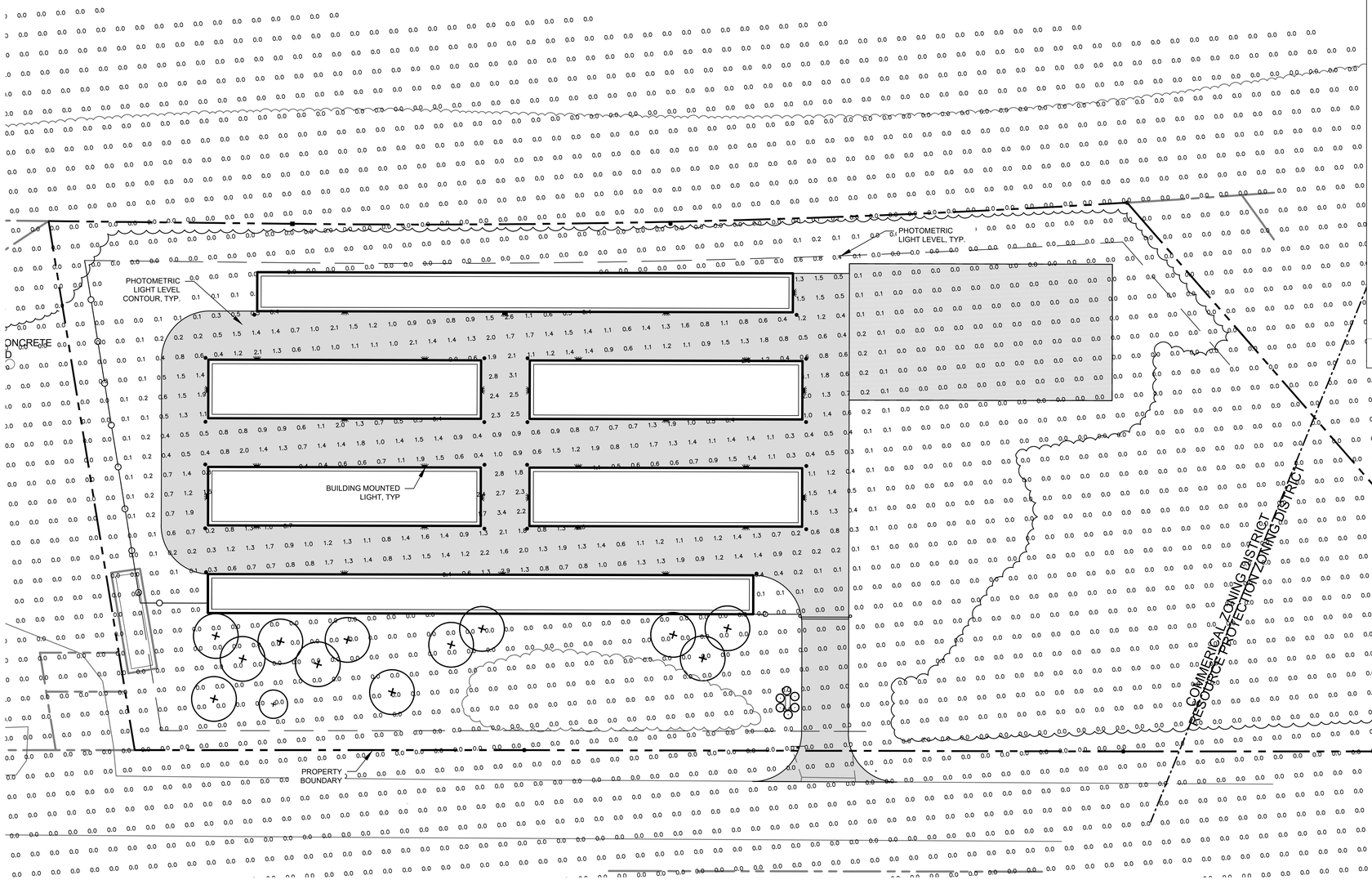
PROJECT:
GRAY SELF STORAGE
PORTLAND ROAD, GRAY, ME

SHEET TITLE:
BUILDING 2-5 ELEVATIONS

CLIENT:
BETH CURETON
20 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	11-10-2021
SCALE:	3/16" = 1'-0"
DESIGNED:	JDA
JOB NO:	21-25
FILE:	2125 elev

SHEET
A-1.2



LIGHT FIXTURE TABLE						
LABEL	LIGHT FIXTURE	MANUFACTURER	MANUFACTURERS ID	NUMBER OF LIGHTS	MOUNTING HEIGHT	MOUNTING LOCATION
A	LNC COMPACT LED LITEPAK	HUBBELL	LNC-9LU-3K-4	29	10'	WALL

NOTES:
1. LIGHTING PLAN PREPARED USING DESIGN MASTER PHOTOMETRICS SOFTWARE
2. ONLY PROPOSED LIGHTING FIXTURES ARE MODELED
3. DEPRECIATION FACTOR FOR LED IS 0.90
4. LIGHT LEVELS ARE ZERO AT THE PROPERTY LINE.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch =30 ft.

HUBBELL Outdoor Lighting

DATE: | LOCATION:
TYPE: | PROJECT:
CATALOG #:

LNC
COMPACT LED LITEPAK

FEATURES

- Compact LNC LED is designed for perimeter illumination and available in 3 lumen packages for safety, security and identity
- 3000K, 4000K, 5000K and Amber color temperatures
- Up to 4:1 spacing to mounting height ratio means fewer fixtures to install
- Acrylic diffuser included! Use for applications near entrances or locations where reduced brightness is desired. (Maximum spacing with diffuser 30ft)
- Die-cast aluminum housing with decorative Laredo styling
- Full cut-off neighbor friendly
- Listed to UL1598 for use in wet locations

RELATED PRODUCTS
LNC2 LNC3 LNC4

*3000K and warmer CCTs only

SPECIFICATIONS

CONSTRUCTION
- Decorative die-cast aluminum housing and door
- Rugged design protects internal components and provides excellent thermal management for long life
- Powder paint finishes provide lasting appearance in outdoor environments
- Full cut-off distribution; Ambient diffuser included, use for applications near enterances or locations where reduced brightness is desired

OPTICS
- Drivers are 120-277V, 50/60Hz Type II, III and Type IV lenses provide wide lateral spread
- 3000K - 80 CRI, 4000K - 70 CRI, and 5000K - 70 CRI, CCT nominal
- Drivers have greater than .90 power factor and less than 20% Total Harmonic Distortion

INSTALLATION
- Quick mount adapter provides quick installation, designed for recessed box 4" square junction box

ELECTRICAL
- 60,000 hours minimum LED life at L96 rating per IESNA TM-21-11
- Minimum operating temperature is -40°C/-40°F
- 0-10V dimming 120-277V only
- LNC5L – 5 LEDs, Types II, III or IV available, see page 2 for electrical details
- LNC7L – 7 LEDs, Type II, III or IV available, see page 2 for electrical details
- LNC9L – 9 LEDs, Types II, III or IV available, see page 2 for electrical details

CONTROLS
- Photocontrol option is available to provide dusk-to-dawn control for additional energy savings

CERTIFICATIONS
- Listed and labeled to UL 1598 for wet locations, 25°C ambient environments

WARRANTY
- 5 year limited warranty
- See HLI Standard Warranty for additional information

KEY DATA	
Lumen Range	800–2100
Wattage Range	13–22
Efficacy Range (LPW)	64–95
Fixture Projected Life (Hours)	L96>60K
Weights lbs. (kg)	9.6 (24.5)

HUBBELL Lighting

LNC PSG PAGE
LNC BROCHURE
LED BUILDING GUIDE
INSTALLATION INSTRUCTIONS

STATE OF MAINE
JEFFREY D. LAMOS
10167
LICENSED
PROFESSIONAL ENGINEER

DATE: 10/26/2021
P.E.: 10167

NO.	DATE	REVISIONS	APP'D BY

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 101
NEW GLOUCESTER, ME 04260

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TERRADYN CONSULTANTS, LLC

CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING

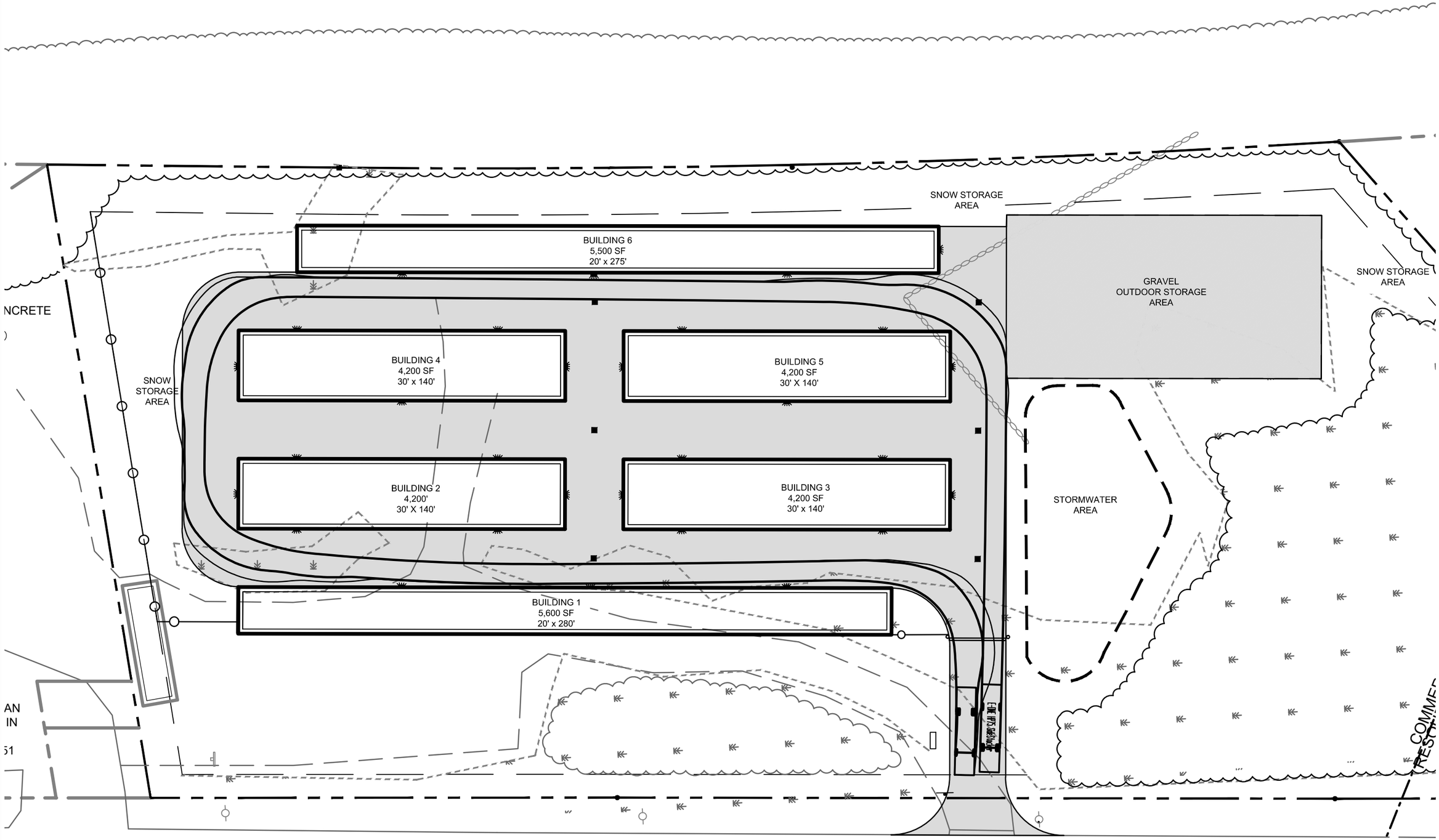
PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
GRAY SELF STORAGE
PORTLAND ROAD,GRAY, ME

SHEET TITLE:
PHOTOMETRIC LIGHTING PLAN

CLIENT:
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	1" = 30'
DESIGNED:	JDA
JOB NO:	2125
FILE:	
SHEET	P-1.0



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Portland, ME 04101

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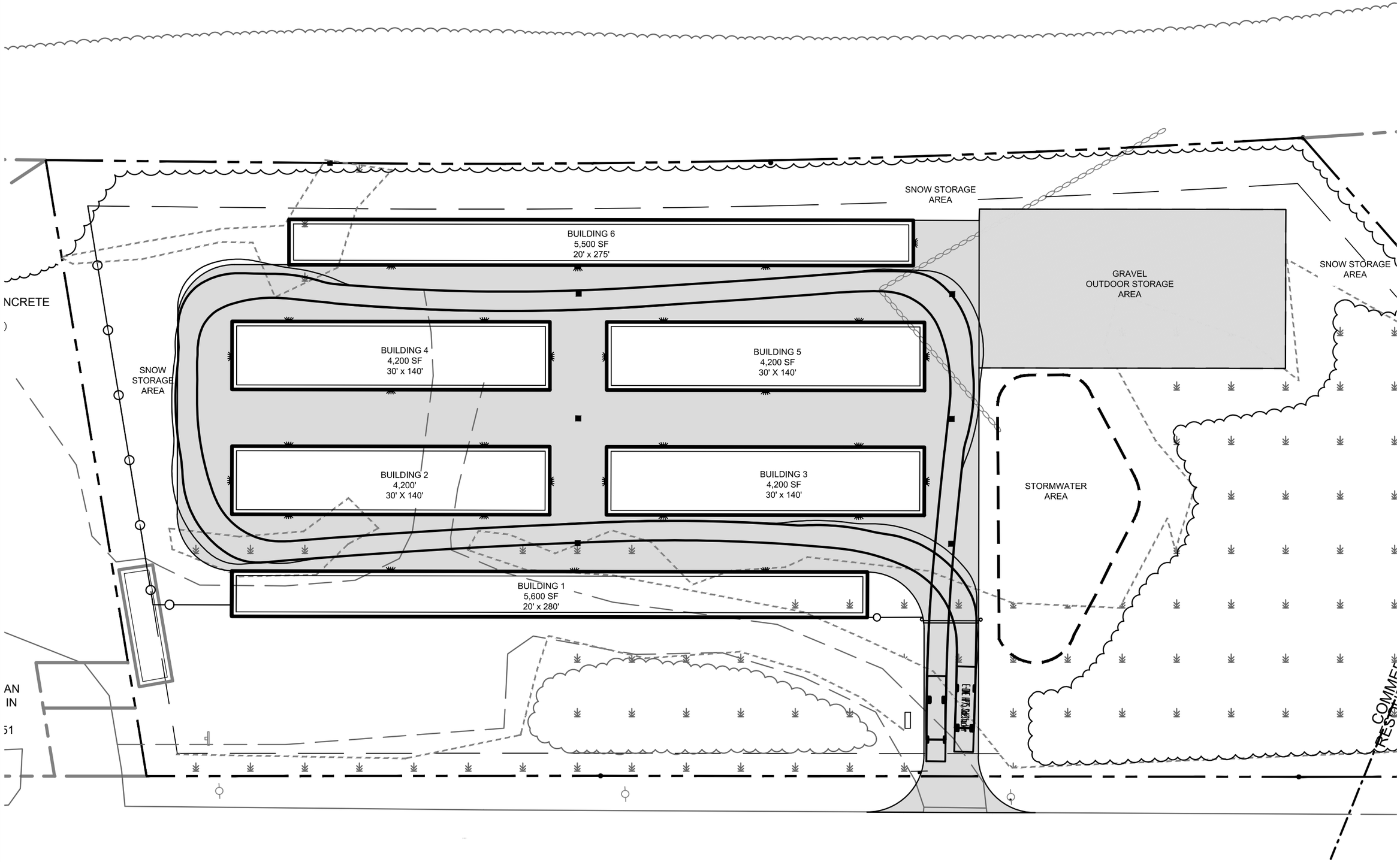
Civil Engineering - Land Planning - Stormwater Design - Environmental Perr

123

SHEET DESCRIPTION
ATTACHMENT 5 - TURNING TEMPLATE EXHIBIT
CUMBERLAND CENTER

PREPARED FOR
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, MAINE 04097

JOB NO.	21-25
DATE	11/11/2021
SCALE	1"=40'
SHEET	1
OF	3



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Portland, ME 04101

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CONSULTANTS, LLC

Civil Engineering - Land Planning - Stormwater Design - Environmental Permitting

SHEET DESCRIPTION
ATTACHMENT 5 - TURNING TEMPLATE EXHIBIT
CUMBERLAND CENTER

PREPARED FOR
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, MAINE 04097

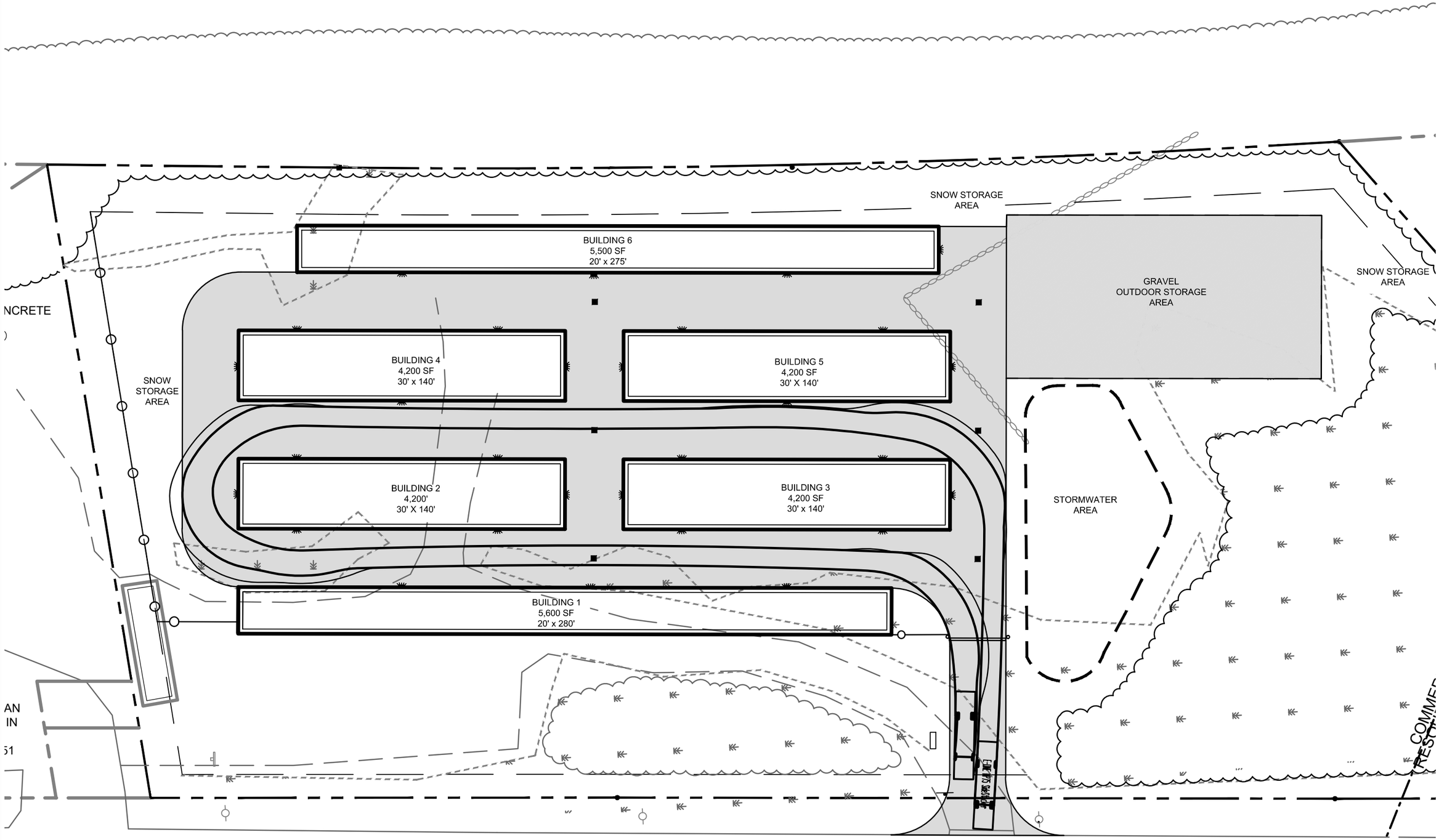
JOB NO.
21-25

DATE
11/11/2021

SCALE
1"=40'

SHEET
2

OF
3



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CONSULTANTS, LLC

Civil Engineering - Land Planning - Stormwater Design - Environmental Perr

125

SHEET DESCRIPTION
ATTACHMENT 5 - TURNING TEMPLATE EXHIBIT
CUMBERLAND CENTER

PREPARED FOR
BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, MAINE 04097

JOB NO.	21-25
DATE	11/11/2021
SCALE	1"=40'
SHEET	3
OF	3

TERRADYN CONSULTANTS, LLC
41 Campus Dr. Ste 301
New Gloucester, ME 04260
(207) 926-5111

JOB NO. 2025
SHEET NO. 1 OF 1
CALCULATED BY JDA DATE 11/10/2021

BUDGETARY COST ESTIMATE - SITE WORK
POLAND SELF STORAGE

ITEM	DESCRIPTION	UNIT	UNIT PRICE	QUANTITY	AMOUNT
	EARTHWORK				
1	GRUB OPEN AREA	AC	$2,500.00	2	$5,250.00
2	SITE FILLS WITH ONSITE MATERIAL	CY	$10.00	4600	$46,000.00
3	STORMWATER POND	LS	$60,000.00	1	$60,000.00
	PARKING & ACCESS				
4	HOT BITUMINOUS SURFACE PAVEMENT	TON	$100.00	210	$21,000.00
5	HOT BITUMINOUS BINDER PAVEMENT	TON	$90.00	410	$36,900.00
6	BASE GRAVEL MDOT TYPE A	CY	$30.00	403	$12,090.00
7	SUBBASE GRAVEL MDOT TYPE D	CY	$18.00	2015	$36,270.00
	SITE IMPROVEMENTS				
8	SIGNS	EA	$300.00	1	$300.00
9	FENCE	LF	$10.00	1300	$13,000.00
10	ENTRANCE GATES	EA	$1,200.00	1	$1,200.00
	DRAINAGE				
11	15" DIAMETER STORM DRAIN	LF	$40.00	360	$14,400.00
12	18" DIAMETER STORM DRAIN	LF	$55.00	24	$1,320.00
13	6" DIAMETER STORM DRAIN	LF	$20.00	24	$480.00
14	4' DIAMETER CATCH BASIN	EA	$4,000.00	6	$24,000.00
	UTILITIES				
15	TRANSFORMER PAD	LS	$3,000.00	1	$3,000.00
16	LIGHT POLE BASES	EA	$800.00	0	$0.00
17	SITE ELECTRICAL	LS	$15,000.00	1	$15,000.00
	EROSION & SEDIMENT CONTROL				
18	STABILIZED CONSTRUCTION ENTRANCE	EA	$2,000.00	1	$2,000.00
19	RIPRAP	CY	$40.00	16	$640.00
20	SILT FENCE/MULCH BERM	LF	$5.00	900	$4,500.00
21	DIRTBAG	EA	$300.00	1	$300.00
22	LOAM & SEED	CY	$12.00	285	$3,420.00
23	LANDSCAPE PLANTINGS	LS	$5,000.00	1	$5,000.00
				Total =	**$306,070.00**

NOTES

1. THE OPINION OF PROBABLE CONSTRUCTION COST IS BASED UPON THE PERMITTING PLANS DATED NOVEMBER 11, 2021 PREPARED BY TERRADYN CONSULTANTS, LLC. IT DOES NOT INCLUDE COST ASSOCIATED WITH THE BUILDING CONSTRUCTION, ENGINEERING DESIGN FEES, LAND ACQUISITION, LEGAL FEES, PERMITING FEES, TESTING SERVICES OR CONSTRUCTION PHASE SERVICES.

2. THE ONSITE PAVEMENT AND GRANULAR MATERIAL QUANTITIES ARE BASED UPON THE FOLLOWING SECTION:

MATERIAL DESCRIPTION	PAVEMENT BUILDUP (IN)
BITUMINOUS CONCRETE SURFACE COURSE (INCHES)	1
BITUMINOUS CONCRETE BINDER COURSE (INCHES)	2
AGGREGATE BASE GRAVEL (INCHES)	3
AGGREGATE SUBBASE GRAVEL (INCHES)	15

Revised 11-11-2021

STORMWATER MANAGEMENT PLAN

Gray Self Storage
Gray, Maine

The following Stormwater Management Plan has been prepared for the Gray Self Storage Projectt to evaluate stormwater runoff and erosion control for the proposed self-storage project to be located at 986 Portland Road in Gray, Maine.

Site Calculations

Total Property Area	4.1 Ac (+/-)
Total Project Impervious Area	1.53 Ac
Total Developed Area	2.06 Ac

Existing Conditions

The development parcel is located on the west side of Portland Road, near 119 Portland Road. The Maine Turnpike is located along the back property line. See attached Figure 1: USGS Quadrangle Map. The development parcel is approximately 4.1 acres and is shown as lots 31-10 & 31-14 on the Town of Gray Tax Map 59. The property contains an old driveway that connects Portland Road to a small <10,000 SF cleared area that is located directly adjacent to the neighboring commercial property to the south. The rest of the property is undeveloped forest & wetland areas. See attached Figure 2: Aerial Map.

The property drains to the Portland Road drainage system. The southern edge of the property drains to a culvert that located at the southeast corner of the property. This location is modeled as Study Point #1 in this report. The remainder of the site drains to a wetland system that is located on the northeast corner of the property. This corner is modeled as Study Point #2. Both areas drain across Portland Road where they're intercepted by Wiggins Brook before flowing into the Pleasant River.

Flooding

The development area is not located within an area of flood hazard according to the Federal Insurance Rate Map 230048 0015 A. See Figure 3: FEMA Floodmap.

Modeling Assumptions

The onsite stormwater facilities were sized utilizing the USDA Soil Conservation Service (SCS) TR-20 Runoff Simulation Model, as contained in the HydroCAD computer software program (Version 9.0). Runoff curve numbers were determined for each direct watershed by measuring the area of

each hydrologic soil group within each type of land cover. Weighted curve numbers were then calculated using curve numbers for various cover types and hydrologic soil groups, assuming "good" conditions as defined in U.S Soil Conservation Service (SCS) publications. Times of concentration and travel times were determined from site topographic maps in accordance with SCS procedures. A maximum length of 150 feet was used for sheet flow.

All of the watersheds' peak runoff rates were analyzed for the 2, 10, and 25-year frequency, 24-hour duration storm events. A Type III rainfall distribution was applied to these storms. The rainfall amounts for Cumberland County are as follows:

Storm Frequency Precipitation (in./24 hr)	
2-year	3.1
10-year	4.6
25-year	5.8

Onsite Soils

The area soils were delineated from the Cumberland County Medium Intensity Soil Survey as shown on the Soil Data Viewer on the NRCS website (See attached map). The soil survey reports the developable portion of the property consists of hydrologic group C soils. The wetlands are generally hydrologic group D soils. See Figure 4: Soils Map.

The soils are listed below:

Soil Name	Hydrologic Soil Group
Biddeford Mucky Peat (Bo)	D
Paxton (PfC)	C
Scantic (Sn)	D
Woodbridge (WrB)	C

Water Quantity (Flooding Standard)

The following table summarizes the results of stormwater calculations for the design storm events for the project areas. Calculations and computer modeling sheets are provided with this report.

Table 1 - Stormwater Runoff Summary Table
Pre-Development vs. Post-Development

Study Point #	2Yr/24Hr (cfs)		10Yr/24Hr (cfs)		25Yr/24Hr (cfs)	
	Pre	Post	Pre	Post	Pre	Post
1	0.8	0.8	1.8	1.7	2.6	2.5
2	2.6	2.2	5.4	4.4	7.8	6.2

As the above result table shows, the post-development flow rates for the 2, 10 and 25-year/24 hour design storm events do not exceed the pre-development conditions.

Water Quality (BMP Standard)

The water quality requirements will be met with the construction of an under-drained filter basin.

New Impervious Area: The project will result in the creation of approximately 66,824 SF of impervious area. The filter basin will result in the treatment of 53,900 SF of impervious area and the roof drain filters will treat approximately 11,100 SF, resulting in a treatment percentage of (65,000/66,824) =97.3%.

Percentage of Treatment of the Impervious Area =97.3% (95% req'd)

Project Developed Area: The project will result in the creation of approximately 89,552 SF of developed area. This figure includes 66,824 SF of impervious area and 22,728 SF of landscaped area. The filter basin will result in the treatment of approximately 75,228 SF of the developed area resulting in a treatment percentage of (75,228/89,552) x 100%= 84.0%.

Percentage of Treatment of the Developed Area = 84.0% (80% required)

Housekeeping and Maintenance & Inspection guidelines are attached to this report.

Filter Basin Sizing

Total Pond

STAGE (FT)	AREA (SF)	STORAGE (CF)
99.75	3915	0
100	4061	997
101	4643	5347
101.5	4934	7743
102	5225	10283
102.85	5720	14934

WATERSHED IMPERVIOUS AREA=	53900	SF
WATERSHED LANDSCAPED AREA=	10228	SF
REQUIRED WATER QUALITY VOLUME=	4853	CF
PROVIDED WATER QUALITY VOLUME=	5349	CF

The required water quality volume was calculated by multiplying the impervious area by 1.0" and the landscaped area by 0.4".

Roof Dripline Filter Bed

We propose to provide treatment for the roof runoff for buildings 1 & 6. The bed is required to provide volume for 1" of runoff from the contributing area and store it within a reservoir bed. The bed sizing is as follows:

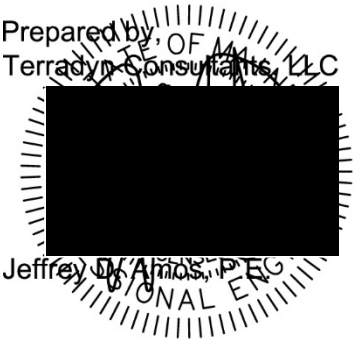
Area of Watershed: = 5,500 SF
Treatment Volume Required: Area x runoff depth: 5,500 SF x 1/12 FT = 460 CF
Bed Sizing:
Porosity = 40% Bed Length = 275' Bed Width = 3' Bed Depth = 1.5'
Available Volume= 275' x 3' x 2.0' x 0.40 = 495 CF.

The design is adequate since the available volume exceeds the required volume. The filter strips meet the standard sizing criteria and will have a corresponding treatment factor of 0.4.

Summary

Based on the results of this evaluation, the proposed stormwater design is not expected to cause flooding, erosion or other significant adverse effects downstream of the site.

Prepared by,
Terradyn Consultants, LLC

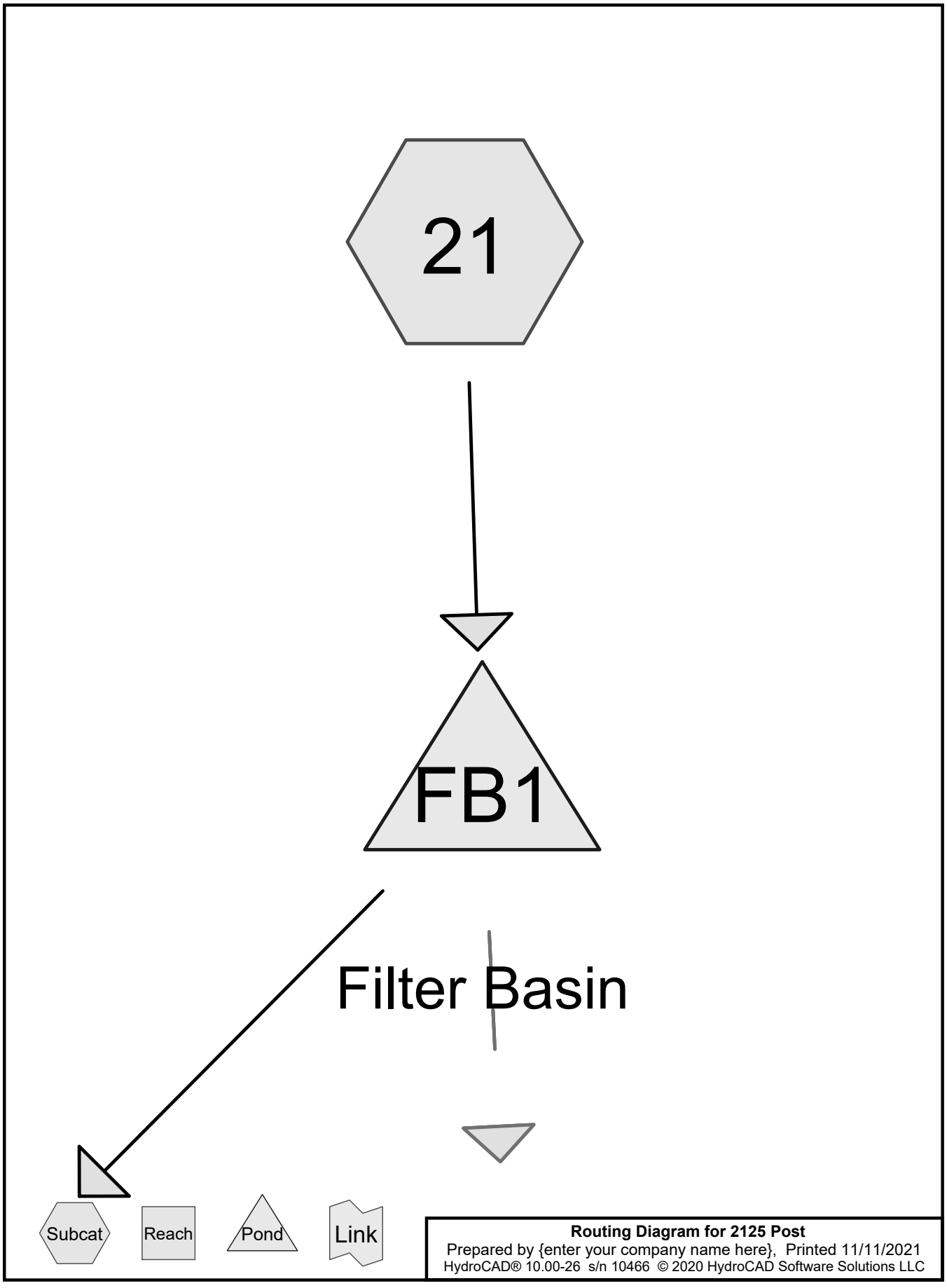


Jeffrey D. Amos, P.E.

Attached:

Site Figures:
- USGS Quadrangle Map
- Aerial Photo
- FEMA Floodmap
- Medium Intensity Soil Map

Pre Development Hydrocad Calculations
Post Development Hydrocad Calculations
Pond Spillway Check – 25 Year
Pond Spillway Check – 100 Year
Maintenance & Inspection of Stormwater Facilities
Housekeeping Plan
Pre Development Watershed Maps
Post Development Stormwater Treatment Map



Routing Diagram for 2125 Post
Prepared by {enter your company name here}, Printed 11/11/2021
HydroCAD® 10.00-26 s/n 10466 © 2020 HydroCAD Software Solutions LLC

Time span=5.00-72.00 hrs, dt=0.05 hrs, 1341 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment21: Runoff Area=75,228 sf 86.40% Impervious Runoff Depth>7.36"
Flow Length=376' Tc=3.0 min CN=95 Runoff=14.67 cfs 1.060 af

Pond FB1: Filter Basin Peak Elev=101.93' Storage=9,931 cf Inflow=14.67 cfs 1.060 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Tertiary=13.18 cfs 0.888 af Outflow=13.18 cfs 0.888 af

Total Runoff Area = 1.727 ac Runoff Volume = 1.060 af Average Runoff Depth = 7.36"
13.60% Pervious = 0.235 ac 86.40% Impervious = 1.492 ac

Summary for Subcatchment 21:

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

Runoff = 14.67 cfs @ 12.05 hrs, Volume= 1.060 af, Depth> 7.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 Year Rainfall=8.10"

	Area (sf)	CN	Description
*	65,000	98	Impervious
	10,228	74	>75% Grass cover, Good, HSG C
	75,228	95	Weighted Average
	10,228		13.60% Pervious Area
	65,000		86.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	36	0.0200	1.10		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.10"
1.7	150	0.0050	1.44		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.8	190	0.0050	4.03	4.95	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
3.0	376	Total			

Summary for Pond FB1: Filter Basin

[82] Warning: Early inflow requires earlier time span

Inflow Area = 1.727 ac, 86.40% Impervious, Inflow Depth > 7.36" for 100 Year event
Inflow = 14.67 cfs @ 12.05 hrs, Volume= 1.060 af
Outflow = 13.18 cfs @ 12.08 hrs, Volume= 0.888 af, Atten= 10%, Lag= 2.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Tertiary = 13.18 cfs @ 12.08 hrs, Volume= 0.888 af

Routing by Stor-Ind method, Time Span= 5.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 101.93' @ 12.08 hrs Surf.Area= 5,181 sf Storage= 9,931 cf

Plug-Flow detention time= 119.2 min calculated for 0.887 af (84% of inflow)
Center-of-Mass det. time= 52.9 min (816.7 - 763.9)

Volume	Invert	Avail.Storage	Storage Description
#1	99.75'	14,926 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

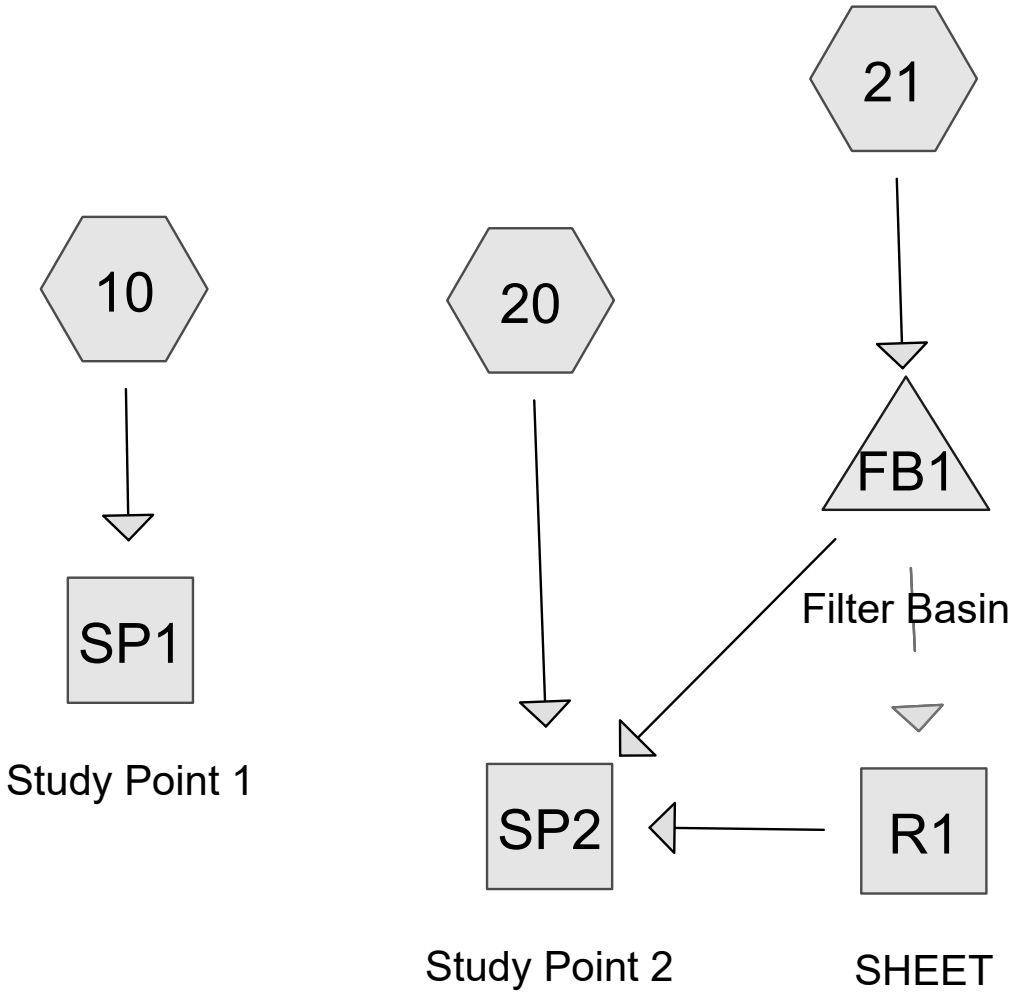
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
99.75	3,915	0	0
100.00	4,060	997	997
101.00	4,640	4,350	5,347
101.50	4,930	2,393	7,739
102.00	5,220	2,538	10,277
102.85	5,720	4,649	14,926

Device	Routing	Invert	Outlet Devices
#1	Primary	96.80'	**1.5" Vert. Endcap Orifice X 0.00** C= 0.600
#2	Device 1	97.50'	**4.0" Round Underdrain** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 97.50' / 96.80' S= 0.0070 '/' Cc= 0.900 n= 0.011, Flow Area= 0.09 sf
#3	Device 2	99.75'	**10.000 in/hr Soil Filter over Surface area above 99.75'** Excluded Surface area = 3,915 sf
#4	Secondary	98.20'	**15.0" Round SD-7 X 0.00** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 98.20' / 98.00' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#5	Device 4	101.00'	**12.6' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#6	Tertiary	101.45'	**15.0' long x 10.0' breadth Emergency Spillway** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=99.75' (Free Discharge)
└**1=Endcap Orifice** (Controls 0.00 cfs)
└**2=Underdrain** (Passes 0.00 cfs of 0.34 cfs potential flow)
└**3=Soil Filter** (Passes 0.00 cfs of 0.00 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=99.75' (Free Discharge)
└**4=SD-7** (Controls 0.00 cfs)
└**5=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

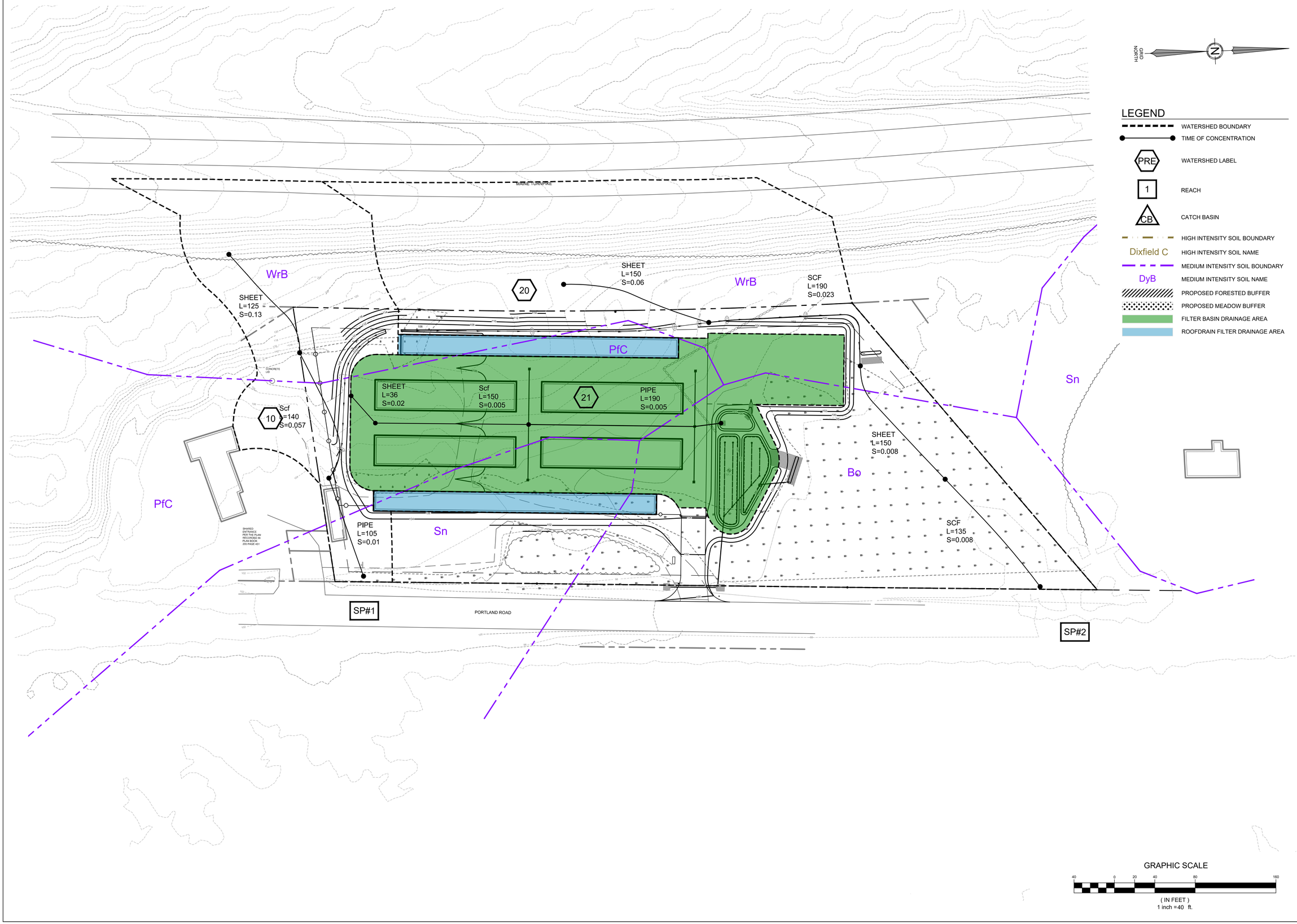
Tertiary OutFlow Max=12.77 cfs @ 12.08 hrs HW=101.92' (Free Discharge)
└**6=Emergency Spillway** (Weir Controls 12.77 cfs @ 1.80 fps)



Subcat Reach Pond Link

Routing Diagram for 2125 Post

Prepared by {enter your company name here}, Printed 11/11/2021



GRID NORTH

LEGEND

- WATERSHED BOUNDARY
- TIME OF CONCENTRATION
- PRE — WATERSHED LABEL
- 1 — REACH
- CB — CATCH BASIN
- HIGH INTENSITY SOIL BOUNDARY
- Dixfield C — HIGH INTENSITY SOIL NAME
- MEDIUM INTENSITY SOIL BOUNDARY
- DyB — MEDIUM INTENSITY SOIL NAME
- PROPOSED FORESTED BUFFER
- PROPOSED MEADOW BUFFER
- FILTER BASIN DRAINAGE AREA
- ROOFDRAIN FILTER DRAINAGE AREA

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch =40 ft.

STATE OF MAINE — JEFFREY D. SIMMS — 10167 — LICENSED PROFESSIONAL ENGINEER

DATE: 11/10/2021
P.E.: 10167

NO.	DATE	REVISIONS	APPD BY
1	11/10/2021	REVISED PER TOWN PLANNING & 3RD PARTY ENGINEERING REVIEW	

TERRADYN CONSULTANTS, LLC
CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING
41 CAMPUS DRIVE, SUITE 201, NEW GLOUCESTER, ME 04260
565 CONGRESS STREET, SUITE 201, PORTLAND, ME 04102
OFFICE: (207) 926-5111
www.terradynconsultants.com

PERMIT DRAWING
NOT FOR CONSTRUCTION

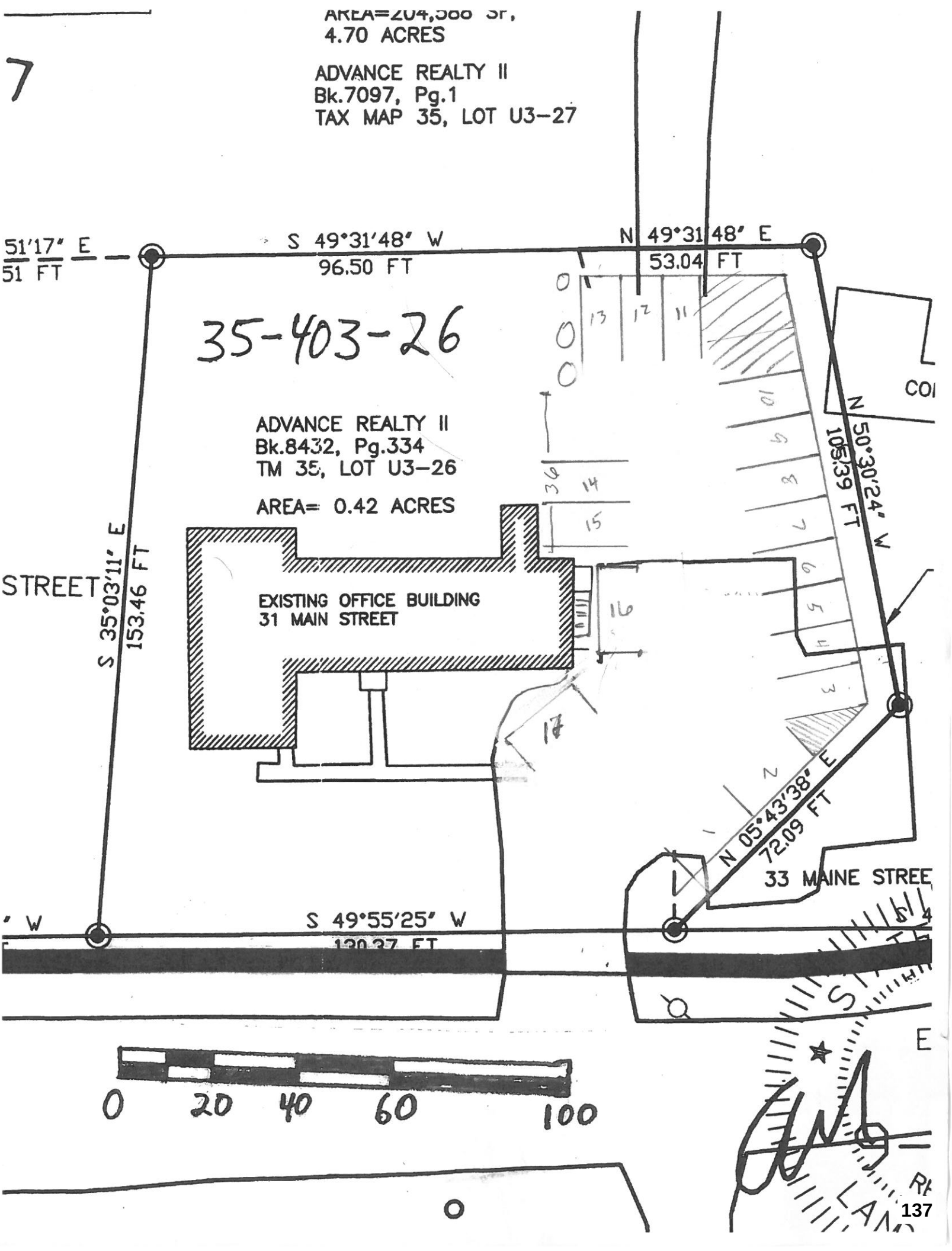
PROJECT: GRAY SELF STORAGE
PORTLAND ROAD,GRAY, ME

SHEET TITLE: POST DEVELOPMENT WATERSHED MAP

CLIENT: BETH CURETON
29 DERBY LANE
NORTH YARMOUTH, ME 04097

DATE:	10/26/2021
SCALE:	1"=40'
DESIGNED:	JDA
JOB NO:	2125
FILE:	

SHEET SWP-2.0


AREA=204,566 SF,
4.70 ACRES
7
ADVANCE REALTY II
Bk.7097, Pg.1
TAX MAP 35, LOT U3-27
51'17" E
51 FT
S 49°31'48" W
96.50 FT
N 49°31'48" E
53.04 FT
35-403-26
ADVANCE REALTY II
Bk.8432, Pg.334
TM 35, LOT U3-26
AREA= 0.42 ACRES
EXISTING OFFICE BUILDING
31 MAIN STREET
STREET
S 35°03'11" E
153.46 FT
N 50°30'24" W
105.39 FT
N 05°43'38" E
72.09 FT
33 MAINE STREE
S 49°55'25" W
130.37 FT
0 20 40 60 100

Floor Plans

Closet
Seats For mom or Dad
TV
Entrance Ramp
10 x 10
Waiting Room
19
Register Station
TV
Station
Seats for mom or Dads
TV
31 Main St Gray
13' 4"
10 x 10
Utility Sink
Station
Desk

Town of Gray

24 Main Street
Gray, Maine 04039
www.graymaine.org
communitydevelopment@graymaine.org

First Settled
1738

Notice of Decision
Gray Zoning Board of Appeals

Date of Board of Appeals Decision: October 27, 2021

Date of Decision issuance: November 1, 2021

Property Owner Address:
Sawyer House LLC
48 High View Drive
Poland, Maine 04274

Applicant Mailing Address:
Kurt Johnson
31 Main Street Suite 5
Gray, ME 04039

Parcel Identification:
31 Main Street
Gray Tax Map 35 Lot 403-26
Deed Reference: CCRD Book 37859 Page 177
Zoning District: Village Center Proper

Request:
Kurt T. Johnson, Sr. is requesting a practical difficulty variance for relief for lot size standard requirements for two principle uses, at 31 Main Street, Tax Map 35, Lot 403-26, located in Village Center Proper Zoning District. Village Center Proper District requires 20,000 sq ft per principle use.

Findings and Information from Gray Zoning Board of Appeals Meeting 10/27/2021:

1. A Public Hearing for this request was duly advertised and held at the 10/27/2021 ZBA meeting.
2. Survey Plans depicting existing and proposed conditions and plans dated September 18, 2014 compiled by Downeast Surveying & Development were submitted with the application.

Conclusions:

1. The application as presented does meet the Variance Appeal (Practical Difficulty) for undue hardship:
   A. 402.9.2.B.3 (a) **3-0 Motion Approved**
   Findings: The land in question cannot yield reasonable return unless the variance is granted.

B. 402.9.2.B.3 (b) **3-0 Motion Approved**
Findings: The granting of a variance will not produce an undesirable change in the character of the neighborhood and will not unreasonably detrimentally affect the use or market value of abutting properties.

C. 402.9.2.B.3 (c) **3-0 Motion Approved**
Findings: The granting of the variance will not produce an undesirable change in the character or the locality. The property is allowed to have two principle uses.

D. 402.9.2.B.3 (d) **3-0 Motion Approved**
Findings: The hardship is not a result of action taken by the owner.

E. 402.9.2.B.3 (e) **3-0 Motion Approved**
Findings: The granting of the variance will not unreasonably adversely affect the natural environment.

Action taken by Gray Zoning Board of Appeals on 10/27/2021:

Approved 3-0 *(Reichardt, Fogg, Swiger)*
The Gray Zoning Board of Appeals (ZBA) grants a practical difficulty variance to Sawyer House LLC, owner Kurt Johnson, Sr. The ZBA approved the variance for the property at 31 Main Street to allow two principle uses. The property is located on Tax Map 35, Lot 403-26, in Village Center Proper Zoning District.

Per 403.16.H.6: *Any party may take an appeal, within forty-five (45) days of the date of the vote on the original decision, to Superior Court from any order, relief or denial in accordance with the Maine Rules of Civil Procedure, Rule 80B. This time period may be extended by the court upon motion for good cause shown. The hearing before Superior Court must be without a jury.*

Signature & Notary:

[redacted]

Brad Fogg, Chairman
Gray Zoning Board of Appeals

11-1-2021
Date

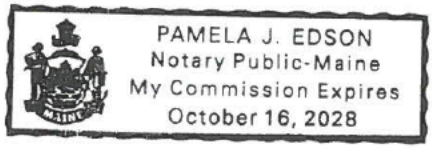
State of Maine
Cumberland County ss.

11/1/2021
Date

Personally, appeared the above-named Bradley Fogg and acknowledged the foregoing instrument to be of his free act and deed.

[redacted]

Pamela J. Edson, Notary Public
My Commission Expires: October 16, 2028



PLANNING BOARD/STAFF REVIEW COMMITTEE APPLICATION
TOWN OF GRAY MAINE

PROPERTY TO BE DEVELOPED

Property Location/Address	31 MAIN ST	Property Map/Lot	035 . 403 . 026 . 000
Zoning District	VPC	Lot Acreage	.57
Owner Name	KURT T. JOHNSON SR.	Tax Sheet	MAP 35 LOT 403-26
Owner Address	48 HIGH VIEW DR. Poland	Owner Phone	207 514 -4078

APPLICANT

Name (IF different than owner)		Contact Phone Number	
Mailing Address		Alternate Phone Number	
Mailing City/State/Zip		Fax Number	
Email Address			

AGENT/CONSULTANT

Name		Contact Phone Number	
Mailing Address		Alternate Phone Number	
Mailing City/State/Zip		Fax Number	
Email Address			

PROJECT

The undersigned requests that the Town of Gray Planning Board consider the following application for:

☐ **Subdivision**
- Sketch Plan Review
- Preliminary Plan Review (Major)
- Final Plan Review (Major)
- Minor

☒ **Site Plan Review**
- Pre-Application Conference
- (Minor)
- Major

☐ **Shoreland Zoning Permit**

☒ **Other (specify)**
- Conditional Use
- (Amendment)
- Extension
- Workshop
- Contract Zone Request

Project Description / Comments:

[redacted]

Applicant Signature **Date** 11/1/21

PLANNING BOARD/STAFF REVIEW COMMITTEE APPLICATION
TOWN OF GRAY MAINE

PROPERTY TO BE DEVELOPED			
Property Location/Address	Garrison Woods Dr.	Property Map/Lot	47.318.10.4 and 5
Zoning District	Lake District	Lot Acreage	1.84 (each)
Owner Name	Jeremy Brown	Tax Sheet	#47
Owner Address	16 Garrison Woods Dr	Owner Phone	207-233-7424

APPLICANT			
Name (IF different than owner)		Contact Phone Number	
Mailing Address		Alternate Phone Number	
Mailing City/State/Zip		Fax Number	
Email Address	jeremybrownlcsw@gmail.com		

AGENT/CONSULTANT			
Name		Contact Phone Number	
Mailing Address		Alternate Phone Number	
Mailing City/State/Zip		Fax Number	
Email Address			

PROJECT

The undersigned requests that the Town of Gray Planning Board consider the following application for:

- ☐ **Subdivision**
  - Sketch Plan Review
  - Preliminary Plan Review (Major)
  - Final Plan Review (Major)
  - Minor
- ☐ **Site Plan Review**
  - Pre-Application Conference
  - Minor
  - Major
- ☐ **Shoreland Zoning Permit**
- ☒ **Other (specify)**
  - Conditional Use
  - X Amendment to approved Subdivision
  - Extension
  - Workshop
  - Contract Zone Request

FEES PD ✓

Project Description / Comments:

Applicant Signature [redacted] **Date** 10/20/21

Letter of Intent

Kristen Muszynski
Community Planner
Town of Gray
207-657-3339 Ext. 114

October 21, 2021

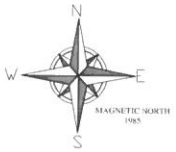
Dear Ms. Muszynski,

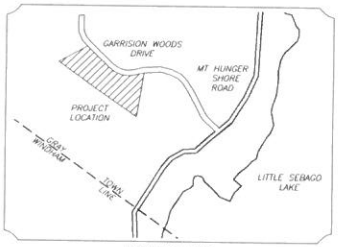
I currently own lots 4 and 5 in the Garrison Woods Drive subdivision. My permanent residence is on lot 4. I would like to build a cold storage garage on lot 5. To place this structure close to my house, I am asking to merge lots 4 and 5 into a single lot.

Please let me know if you have any questions.

Thank you,

16 Garrison Woods Drive
Gray, ME 04039
Jeremybrownlcsw@gmail.com
207-233-7424





LOCATION MAP
(NOT TO SCALE)

SURVEY NOTES

(1) THE OWNERS OF RECORD ARE JEREMY BROWN AND SARAH HAMBLEN AS DESCRIBED IN DEEDS RECORDED IN BOOK 34940/PAGE 300 (LOT 4 PLAN REFERENCE 2) AND BOOK 34940/PAGE 302 (LOT 5 PLAN REFERNCE 2) IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.

(2) THE PARCELS ARE DEPICTED AS LOTS 31B-10-4 AND 31B-10-4-5 ON THE TOWN OF GRAY ASSESSORS MAP 47.

(3) BEARINGS ARE MAGNETIC 1985 PER PLAN REFERENCE 2.

PLAN REFERENCES

(1) SUBDIVISION PLAN FOR GARY & JOY HAYES, GARRISON WOODS SUBDIVISION, MT. HUNGER ROAD DATED JUNE 13, 2007 BY A.R.C.C. LAND SURVEYORS, INC., RECORDED IN PLAN BOOK 207 PAGE 507 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.

(2) AMENDED SUBDIVISION PLAN FOR GARY & JOY HAYES, GARRISON WOODS SUBDIVISION REVISION 1, MT. HUNGER ROAD DATED MAY 21, 2016 BY DAVIS LAND SURVEYING, LLC RECORDED IN PLAN BOOK 216 PAGE 194 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.

(3) AMENDED SUBDIVISION PLAN FOR GARY & JOY HAYES, GARRISON WOODS SUBDIVISION REVISION 2 MT. HUNGER ROAD DATED MAY 21, 2016 BY DAVIS LAND SURVEYING, LLC RECORDED IN PLAN BOOK 220 PAGE 307 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.

APPROVED BY THE TOWN OF GRAY, MAINE
PLANNING BOARD

_____

_____

_____

_____

_____

DATE: _____

50 0 25 50 100
GRAPHIC SCALE
1" = 50'

CERTIFICATION:

I CERTIFY THAT THIS SURVEY CONFORMS TO THE STANDARDS OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS AND IS CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

_____
WILLIAM C. SHIPPEN P.L.S. 2118

PRELIMINARY

NOTE

THE PURPOSE OF THIS REVISION-3 AMENDED SUBDIVISION PLAN IS TO MERGE THE OWNERSHIP OF LOTS 4 AND 5 INTO ONE LOT. THE PROJECT SHALL BE CONSTRUCTED, OPERATED AND MAINTAINED IN ACCORDANCE WITH THE PLANS, TEXTUAL SUBMISSIONS AND TESTIMONY PRESENTED TO THE PLANNING BOARD BY THE APPLICANT.

REVISION- 3
AMENDED SUBDIVISION PLAN
GARRISON WOODS

MT HUNGER SHORE ROAD
GRAY, MAINE

FOR:
JEREMY BROWN
16 GARRISON WOODS DRIVE
GRAY, MAINE 04039
(OWNER OF RECORD)

SURVEY BY:
SURVEY, INC.
P.O. BOX 210
WINDHAM, ME 04062
(207) 892-2556
INFO@SURVEYINCORPORATED.COM

DWN: WCS
DATE: OCTOBER 2021

CHK: DRR
JOB NO. 21-280

Permitting Notes :

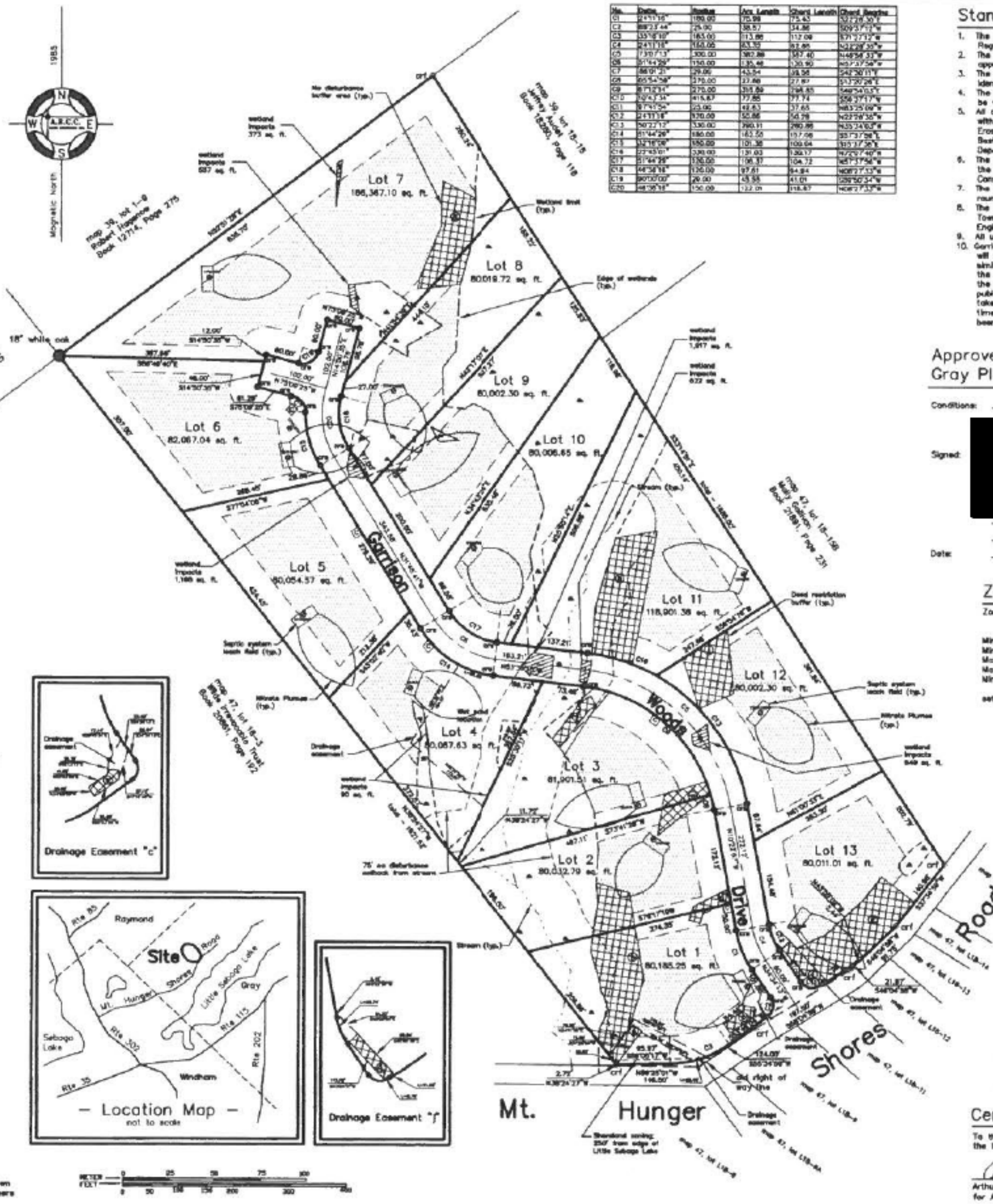
1. This project will be subject to the terms and conditions of a Maine DEP NRPA permits, Maine DEP Storm Water permit, MDEP Construction General Permit and Army Corps Maine Programmatic General Permit which will be made a part of the contract bid documents.
2. The 5,644 sq. ft. of wetlands impact as shown hereon shall not exceed those shown, without first obtaining the appropriate permits from the Maine Department of Environmental Protection and Army Corps of Engineers, and review by the Town of Gray Planning Department.
3. For storm water permitting purposes, Lot 4 – Lot 7 are restricted to a maximum of 3,735 sq. ft. (0.09 acres) of impervious surface and 13,000 sq. ft. (0.30 acres) of clearing. Any proposed development by an individual lot owner exceeding these limits shall require further review and approval by the Town, MDEP, and developer; at the responsibility of the individual lot owner.

Legend :

- crf — capped rebar found
- building setback lines
- crs — capped rebar to be set by owners representative.
- monuments to be set by owners representative.
- test pits
- no disturbance buffer
- wet lands
- building envelopes
- wetland impacts
- CMP easement — 15'x15' easement where CMP has them shown, location my change do to field adjustments to location acceptable to CMP.

Notes :

1. All Book and Page references as shown hereon are from the Registry of Deeds for Cumberland County.
2. Lines shown and not labeled (bearings & distances) are illustrative only, they are based on tax maps and are not verified by this surveyor.
3. A.R.C.C. Land Surveyors, Inc. takes responsibility for the internal division lines only. The boundary perimeter is based on information provided by the owner and information shown on a Standard Boundary Survey Plan made for Gary Hayes by John D. Palmiter, dated December 26, 2006, and Recorded in said Registry in Book 206, Page 832. No certifications are stated or implied regarding the accuracy or validity of the perimeter boundaries.
4. Area of subdivision is 29.77 acres.
5. Owners of record –
   Linda Chase, Trustee of the Chase Family Irrevocable Trust to Gary e. Hayes and Joy E. Hayes, by deed dated June 18, 2004, and recorded in said Registry in Book 21448, Page 84.
6. Parcel lies within the Lake District Zone (LD).
7. Boundary plan reference –
   a. Standard Boundary Survey made for Gary Hayes dated December 26, 2006, on file at the Registry of Deeds for Cumberland County Book of Plans, Book 206, Page 832.
8. This parcel is shown on the Town of Gray Tax Map L18, as Lot 10.
9. Bearings are referenced to Magnetic North 1985, as shown on recorded plan for Harold S. Jenkins Subdivision, dated April 13, 1999, and recorded in said Registry in Book of Plans, Book 199, Page 388.
10. There are 283,164 square feet (6.50 acres) of wetlands on this property as delineated and located by Tooth & Associates, Inc. Wetlands impacts = 5,644 square feet.
11. Property does not lie within the 100 year flood hazard zone, per the Flood Insurance Rate Maps for the Town of Gray, Community Panel Number 230048 0010 A, dated January 6, 1982.
12. Class A soils information by Tooth & Associates, Inc.
13. All lots are to be serviced by on-site wastewater disposal systems.
14. All driveways shall be constructed in accordance with Chapter 400, Section 5.3, of the Gray Town Ordinances.
15. No foundation drainage outlets will be allowed in road ditches.
16. All lots shall be serviced by underground utilities.
17. All lots shall be developed as single family residential units and no duplex units will be allowed.
18. The septic systems depicted on the Subdivision Plan are preliminary locations and are subject to change during the individual lot construction process. Any modification to the location of the septic systems shown on the Subdivision Plan will require approval from the Code Enforcement Office and a geologist.
19. Buffer Restrictions: All existing undergrowth, forest floor duff, and leaf litter must remain undisturbed and intact. One path may be allowed per the Maine DEP Phosphorus Standards. Pruning of live tree branches that do not exceed 12' in height above the ground level is permitted provided that at least the top two-thirds of the tree canopy is maintained. No cutting is allowed of trees except for normal maintenance of dead, windblown, or damaged trees. Buffers are not to be used for all-terrain vehicle or vehicular traffic.
20. Clearing limits is limited to 13,000 square feet for each lot.
21. Monumentation of road ROW and lot corners shall meet requirements as outlined in the Town of Gray's Street Construction Ordinance, section 2.10 monuments. Monuments and lot corners to be set by owners representative.



No.	Delta	Radius	Arc Length	Chord Length	Chord Bearing
C1	24°11'16"	180.00	75.99	75.43	S22°28'30"E
C2	88°23'44"	25.00	38.57	34.86	S09°37'12"W
C3	35°18'10"	185.00	113.88	112.09	S71°27'12"W
C4	24°11'16"	150.00	63.33	62.85	N22°28'30"W
C5	73°07'13"	300.00	382.88	357.40	N48°56'33"W
C6	51°44'29"	150.00	135.46	130.90	N57°37'56"W
C7	88°01'21"	29.00	43.54	39.56	S42°30'11"E
C8	05°54'58"	270.00	27.88	27.87	S13°20'26"E
C9	67°12'34"	270.00	316.69	298.85	S49°54'03"E
C10	10°43'34"	415.67	77.86	77.74	S56°37'17"W
C11	97°41'54"	25.00	42.63	37.65	N83°25'09"W
C12	24°11'16"	170.00	55.66	56.78	N22°28'30"W
C13	50°22'12"	330.00	290.11	280.86	N35°24'03"W
C14	51°44'29"	180.00	162.55	157.08	S57°37'56"E
C15	32°18'09"	180.00	101.38	100.04	S15°37'36"E
C16	22°43'01"	330.00	131.03	130.17	N72°07'40"W
C17	51°44'29"	120.00	108.37	104.72	N57°37'56"W
C18	46°38'16"	120.00	97.61	94.94	N08°27'33"W
C19	90°00'00"	29.00	45.55	41.01	S39°50'34"W
C20	46°38'16"	150.00	122.01	118.87	N08°27'33"W

Standard Private Street Notes :

1. The private street shall be recorded in the Cumberland County Registry of Deeds within thirty (30) days of approval.
2. The private street shall be given a name that meets with the approval of the public safety coordinator
3. The private street shall be marked with a Town approved sign identifying the private street.
4. The houses shall be properly numbered and the numbers shall be visible from the private street year-round.
5. All construction and site alterations shall be done in accordance with the erosion prevention provisions outlined in the "Maine Erosion and Sedimentation Control Handbook for Construction" Best Management Practices, "Cumberland County S.W.C.D. Department of Environmental Protection, dated March 2003.
6. The private street shall conform to, and be constructed to, the Standards for Private Street as presented in the Gray Street Construction Ordinance, Chapter 400, latest revision.
7. The private road shall be maintained for emergency vehicles year-round.
8. The construction of the private street shall be inspected by the Town Engineer or at the Town's option, a registered Professional Engineer hired by the Town at the developer's expense.
9. All utilities to be constructed underground.
10. Garrison Woods Drive will be a private road. The Town of Gray will not have any responsibility for plowing, maintenance or similar services for the private street shown on this plan, and if the private street has not been built to public street standards of the Gray Street Ordinance, the Town Council will not accept it as a public street. the homeowners association for the subdivision shall take over plowing and maintenance on the private road only at the time when at least 75% of the lots on Garrison Woods Drive have been sold.

Approved by the Town of Gray Planning Board

Conditions:

Signed: [redacted]

Date: August 8, 2007

Zoning Requirements :

Zoning District: Lake District "LD"

	required	provided
Minimum lot size:	80,000 S.F.	80,000 S.F.
Minimum street frontage:	200'	200'
Maximum building height:	35'	35'
Max. floor area/lot area ratio:	20%	20%
Min. land area per dwelling unit:	80,000 S.F.	80,000 S.F.
setback requirements:		
rear:	50'	50'
side:	25'	25'
front:	50'	50'

Cumberland County Registry of Deeds

Received August 29, 2007 at 10 H 21 M P M

and R[redacted]ge 507

Attest [redacted]

Registrar

This plan was prepared under the responsibility of Arthur W. Montano PLS 492, P.O. Box 294 Auburn, Maine.

Abutters List		
Map / Lot	Name	Book / Page
47 / L18-8	Kim Aldrich	12704 / 141
47 / L18-8A	Cheryl & Robert Bradley	8619 / 185
47 / L18-9	Margaret Marston	13424 / 188
47 / L18-11	Joseph & Barbara Giodno	16741 / 290
47 / L18-12	Alexander & Thelma Tentaimez	8202 / 139
47 / L18-13	David & Linda Bailey	18120 / 3
47 / L18-14	Chase Farms Cider Mills Inc.	9240 / 260
47 / L18-16	Chase Family Irrevocable Trust c/o Grace Chase Trustee	2006 / 283

Certification :

To the best of my knowledge and beliefs this survey conforms to the Maine Board of Registration for Land Surveyors.

Arthur W. Montano PLS 492
for A.R.C.C. Land Surveyors Inc.

6/13/07
Date

State of Maine — Arthur W. Montana — 492 — Land Surveyor

No.	Revisions	Date	By

A.R.C.C. LAND SURVEYORS INC. P.O. BOX 294 AUBURN, MAINE 04212-0294

Job Title: Garrison Woods Subdivision — Mt. Hunger Road — Cumberland County — Gray, Maine 04039

Drawn by: A.W.M. — Scale: 1"=100' — Date: June 13, 2007

Drawing Title: Subdivision Plan for Gary & Joy Hayes — Mt. Hunger Road — Gray, Maine 04039

Drawing No. One

Job No. 06-060-sub

Permitting Notes :

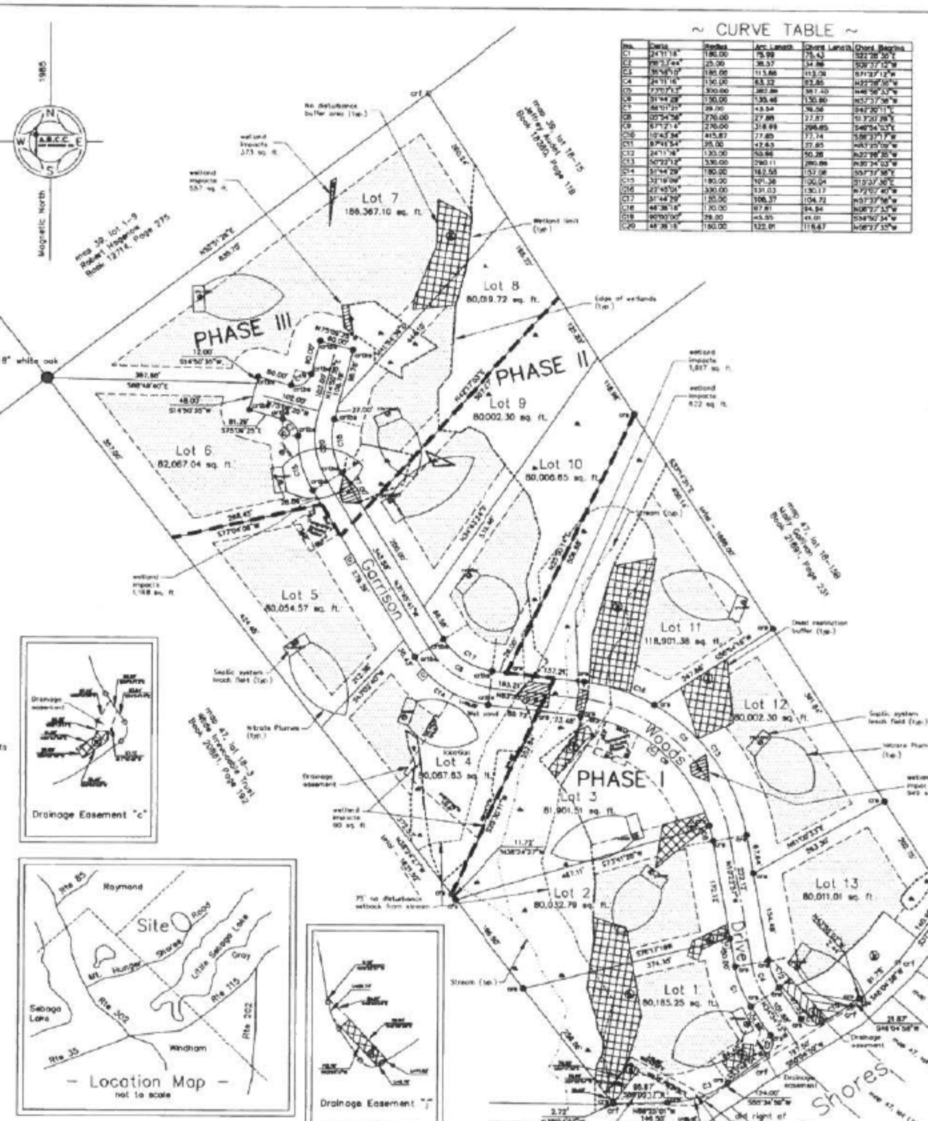
1. This project will be subject to the terms and conditions of a Maine DEP NRPA permits, Maine DEP Storm Water permit, MDEP Construction General Permit and Army Corps Maine Programmatic General Permit which will be made a part of the contract bid documents.
2. The 5,644 sq. ft. of wetlands impact as shown hereon shall not exceed those shown, without first obtaining the appropriate permits from the Maine Department of Environmental Protection and Army Corps of Engineers, and review by the Town of Gray Planning Department.
3. For storm water permitting purposes, lot 4 – lot 7 are restricted to a maximum of 3,735 sq. ft. (0.09 acres) of impervious surface and 13,000 sq. ft. (0.30 acres) of clearing. Any proposed development by an individual lot owner exceeding these limits shall require further review and approval by the Town, MDEP, and developer, at the responsibility of the individual lot owner.

Legend :

crf	capped rebar found
— — — —	building setback lines
crs	capped 3/4 inch rebar set I.D. #492
crtbs	capped rebar to be set by owners representative.
(square)	monuments to be set by owners representative.
(test pit symbol)	test pits
(cross-hatch)	no disturbance buffer
(triangles)	wet lands
(stipple)	building envelopes
(diagonal hatch)	wetland Impacts
C	CMP easement 15'x15' easement where CMP has them shown. location my change do to field adjustments to location acceptable to CMP.

Notes :

1. All Book and Page references as shown hereon are from the Registry of Deeds for Cumberland County
2. Lines shown and not labeled (bearings & distances) are illustrative only, they are based on tax maps and are not verified by this surveyor.
3. A.R.C.C. Land Surveyors, Inc. takes responsibility for the internal division lines only. The boundary perimeter is based on information provided by the owner and information shown on a Standard Boundary Survey Plan made for Gary Hayes by John D. Palmiter, dated December 26, 2006, and Recorded in said Registry in Book 206, Page 832. No certifications are stated or implied regarding the accuracy or validity of the perimeter boundaries.
4. Area of subdivision is 29.77 acres.
5. Owners of record –
   Linda Chase, Trustee of the Chase Family Irrevocable Trust to Gary e. Hayes and Joy E. Hayes, by deed dated June 18, 2004, and recorded in said Registry in Book 21448, Page 64.
6. Parcel lies within the Lake District Zone (LD) & Limited Residential (Shoreland) Zoning Districts
7. Boundary plan reference –
   a. Standard Boundary Survey made for Gary Hayes dated December 26, 2006, on file at the Registry of Deeds for Cumberland County Book of Plans, Book 206, Page 832.
8. This parcel is shown on the Town of Gray Tax Map L18, as Lot 10.
9. Bearings are referenced to Magnetic North 1985, as shown on recorded plan for Harold S. Jenkins Subdivision, dated April 13, 1999, and recorded in said Registry in Book of Plans, Book 199, Page 366.
10. There are 283,164 square feet (6.50 acres) of wetlands on this property as delineated and located by Tooth & Associates, inc. Wetlands impacts = 5,644 square feet.
11. Property does not lie within the 100 year flood hazard zone, per the Flood Insurance Rate Maps for the Town of Gray, Community Panel Number 230048 0010 A, dated January 6, 1982.
12. Class A soils information by Tooth & Associates, Inc.
13. All lots are to be serviced by on-site wastewater disposal systems.
14. All driveways shall be constructed in accordance with Chapter 401.13.17 of the Town of Gray Driveway Design Standards. Roads shall be constructed and inspected per the Town of Gray Subdivision Ordinance, specifically including Table 401.13.16-2.
15. No foundation drainage outlets will be allowed in road ditches.
16. All lots shall be serviced by underground utilities.
17. All lots shall be developed as single family residential units and no duplex units will be allowed.
18. The septic systems depicted on the Subdivision Plan are preliminary locations and are subject to change during the individual lot construction process. Any modification to the location of the septic systems shown on the Subdivision Plan will require approval from the Code Enforcement Office and a geologist.
19. Buffer Restrictions: All existing undergrowth, forest floor duff, and leaf litter must remain undisturbed and intact. One path may be allowed per the Maine DEP Phosphorus Standards. Pruning of live tree branches that do not exceed 12' in height above the ground level is permitted provided that at least the top two-thirds of the tree canopy is maintained. No cutting is allowed of trees except for normal maintenance of dead, windblown, or damaged trees. Buffers are not to be used for all-terrain vehicle or vehicular traffic.
20. Clearing limits is limited to 13,000 square feet for each lot.
21. Monumentation of road ROW and lot corners shall meet requirements as outlined in the Town of Gray's Street Construction Ordinance, 401.13.16.D 1-5. Monuments and lot corners to be set by owners representative.
22. The applicant intends to utilize a so-called Conditional Agreement in lieu of posting a financial performance guarantee for the construction of the road in this development, as allowed under Section 401.11.1.C of the Town of Gray Subdivision Ordinance. The agreement specifically prohibits the sale of lots and/or issuance of building permits until the required infrastructure improvements have first been completed or alternatively, a suitable financial surety has been duly established with the Town of Gray. Any person or firm intending to acquire title to any lot within this Subdivision should first verify the status of this agreement with the Town of Gray Staff before buying said lots.
23. Garrison Woods – Revision 1 -- being a revision of a plan of "Garrison Woods" as approved on August 8, 2007 and recorded in the Cumberland County Registry of Deeds in Plan Book 207, Page 507. Purpose of said revised plan as approved by the Town of Gray Planning Board on June ?? 2013 was to divide the project into 3 phases, add temporary turnarounds, revise notes 6, 14 and 21 and added notes 22 and 23 with conditional agreement.



~ CURVE TABLE ~

No.	Delta	Radius	Arc Length	Chord Length	Chord Bearing
C1	24°11'16"	180.00	75.99	75.43	S22°28'30"E
C2	88°21'44"	25.00	38.57	34.86	S30°37'12"W
C3	35°56'10"	180.00	113.88	113.0?	S71°37'12"W
C4	24°11'16"	130.00	55.32	53.86	N22°38'35"W
C5	73°07'13"	300.00	382.88	357.40	N46°58'33"W
C6	31°44'29"	130.00	130.46	130.80	N57°37'58"W
C7	88°01'21"	29.00	43.54	39.56	S41°30'11"E
C8	05°54'58"	270.00	27.88	27.87	S13°20'28"E
C9	67°12'14"	270.00	316.69	298.85	S46°54'03"E
C10	10°43'34"	415.87	77.85	77.74	S58°37'17"W
C11	97°45'54"	25.00	42.63	37.85	N57°25'09"W
C12	24°11'16"	130.00	50.86	50.28	N22°38'35"W
C13	50°22'12"	330.00	290.11	280.88	N30°34'03"W
C14	51°44'29"	180.00	162.55	157.08	S57°37'58"E
C15	33°19'09"	180.00	101.38	100.04	S13°37'30"E
C16	23°45'01"	330.00	131.03	130.17	N72°07'40"W
C17	51°44'29"	120.00	108.37	104.72	N57°37'58"W
C18	46°38'18"	120.00	97.81	94.94	N08°27'33"W
C19	90°00'00"	29.00	45.55	41.01	S38°50'34"W
C20	46°38'18"	150.00	122.01	118.87	N08°27'33"W

Standard Private Street Notes :

1. The private street shall be recorded in the Cumberland County Registry of Deeds within thirty (30) days of approval.
2. The private street shall be given a name that meets with the approval of the public safety coordinator.
3. The private street shall be marked with a Town approved sign identifying the private street.
4. The houses shall be properly numbered and the numbers shall be visible from the private street year-round.
5. All construction and site alterations shall be done in accordance with the erosion prevention provisions outlined in the "Maine Erosion and Sedimentation Control Handbook for Construction" Best Management Practices, "Cumberland County S.W.C.D. Department of Environmental Protection, dated March 2003.
6. The private street shall conform to, and be constructed to, the Standards for Private Street as presented in the Gray Street Construction Ordinance, Chapter 401.13.16.
7. The private road shall be maintained for emergency vehicles year-round.
8. The construction of the private street shall be inspected by the Town Engineer or at the Town's option, a registered Professional Engineer hired by the Town at the developer's expense.
9. All utilities to be constructed underground.
10. Garrison Woods Drive will be a private road. The Town of Gray will not have any responsibility for plowing, maintenance or similar services for the private street shown on this plan, and if the private street has not been built to public street standards of the Gray Street Ordinance, the Town Council will not accept it as a public street. the homeowners association for the subdivision shall take over plowing and maintenance on the private road only at the time when at least 75% of the lots on Garrison Woods Drive have been sold.

Approved by the Town of Gray Planning Board

Conditions:

Signed: [redacted]

Date: 6/9/2016 (see note 23)

Zoning Requirements :

Zoning District: Lake District (LD) & Limited Residential Shoreland Zone (LDR)

	required	provided
Minimum lot size:	80,000 S.F.	80,000 S.F.
Minimum street frontage:	200'	200'
Maximum building height:	35'	35'
Max. floor area/lot area ratio:	20%	20%
Min. land area per dwelling unit:	80,000 S.F.	80,000 S.F.
setback requirements:		
rear:	50'	50'
side:	25'	25'
front:	50'	50'

Cumberland County Registry of Deeds
Received June 14, 2016 at 10 h 06 m A M
and Recorded in [redacted] 216 Page 194
Attest [redacted]
Registrar

Abutters List		
Map / Lot	Name	Book / Page
47 / L18-6	Kim Aldrich	12704 / 141
47 / L18-6A	Cheryl & Robert Bradley	8818 / 165
47 / L18-9	Margaret Warston	12424 / 168
47 / L18-11	Joseph & Barbara Clavino	16741 / 280
47 / L18-12	Alexander & Thelma Kulesincz	6252 / 139
47 / L18-13	David & Linda Bailey	18120 / 3
47 / L18-14	Chase Farms Cider Mills Inc.	9240 / 285
47 / L18-18	Chase Family Irrevocable Trust c/o Grace Chase Trustee	2008 / 293

Scale: 1" = 100'

METER 0 25 50 75 100
FEET 0 50 100 150 200 300 400

No.	Revisions	Date
#1	Added phasing, revised notes 14, 21 added 22 & 23, revised note #6 Private Street Standards, added temporary turnarounds – revisions based on Plan of Garrison Woods – Approved 8-8-2007 and recorded in Plan Book 207, Page 507 – by A.R.C.C. Land Surveyors, Inc. Abutters not updated.	5-21-16

DAVIS LAND SURVEYING, LLC.
64 OLD COUNTY ROAD
OXFORD, MAINE 04270
346-9991 office – 782-3685 office
240-9949 cell
www.davislandsurveing.net

JOB TITLE: Garrison Woods -- Revision 1
Mt. Hunger Road
Cumberland County Gray, Maine 04039

DRAWING TITLE: Amended Subdivision Plan
for
Gary & Joy Hayes
Mt Hunger Road Gray, Maine 04039

FIELD BK: | JOB DWR: 152 | PCT. NO. 00-00-00 | DRAWN: R.W.G. | CHECKED: | SCALE: 1"=100' | DATE: May 21, 2016

DRAWING NO. One

JOB NO. 160405UB

Permitting Notes :

1. This project will be subject to the terms and conditions of a Maine DEP NRPA permits, Maine DEP Storm Water permit, MDEP Construction General Permit and Army Corps Maine Programmatic General Permit which will be made a part of the contract bid documents.
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◎ crf	capped rebar found
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(diagonal hatch)	wetland impacts
Ⓔ	CMP easement 15'x15' easement where CMP has them shown, location my change do to field adjustments to location acceptable to CMP.

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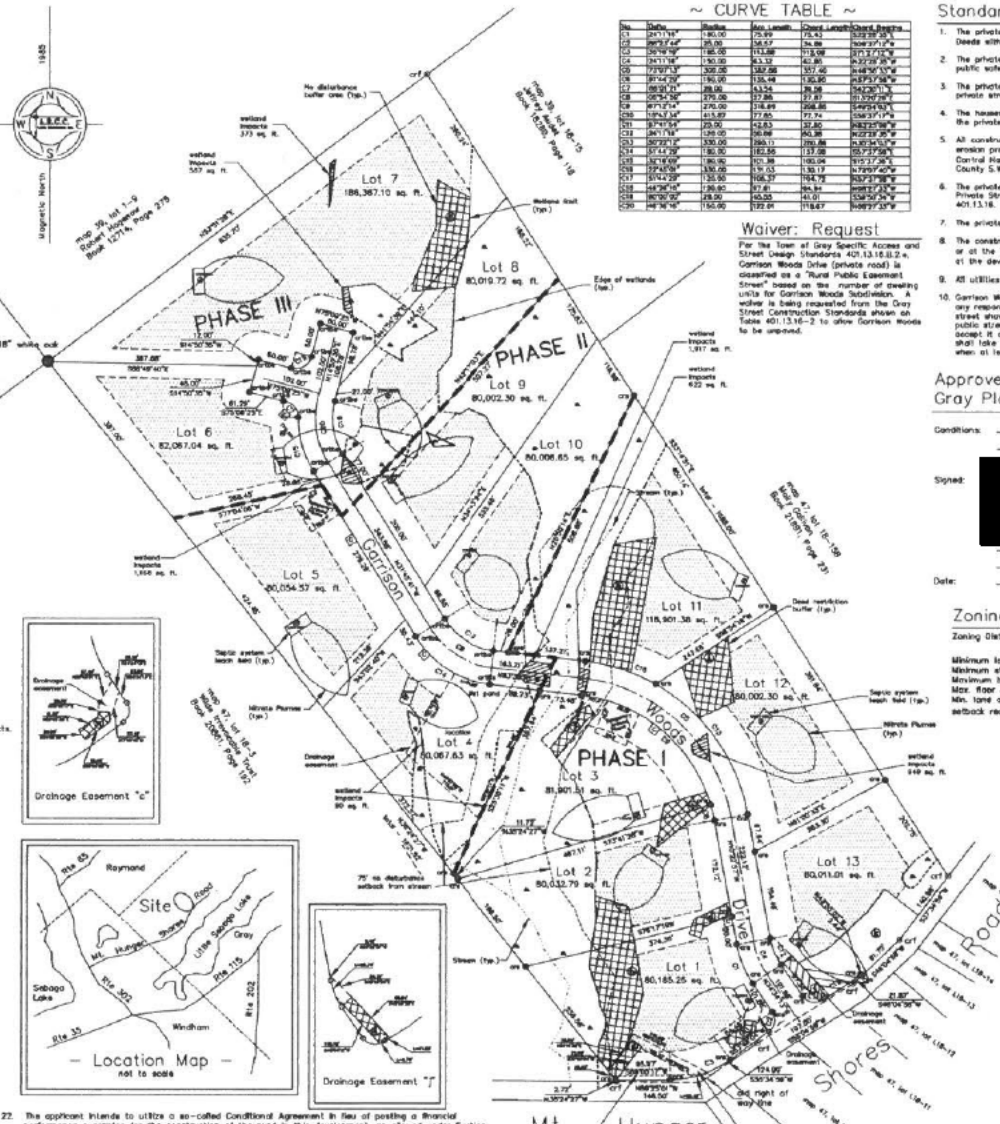
24. Garrison Woods – Revision 2 –– being a revision of a plan of "Garrison Woods – Revision 1" as approved on June 13, 2013 and recorded in the Cumberland County Registry of Deeds in Plan Book 216, Page 194. Purpose of said revised plan is to allow a Waiver of Gray Subdivision Ordinance 401.13.16-2 for Garrison Woods Drive (Private Road) to be unpaved.



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C19	90°00'00"	28.00	40.55	41.01	S38°50'34"W
C20	46°36'16"	150.00	122.01	118.67	N08°37'33"W

Waiver: Request

Per the Town of Gray Specific Access and Street Design Standards 401.13.16.B.2.e, Garrison Woods Drive (private road) is classified as a "Rural Public Easement Street" based on the number of dwelling units for Garrison Woods Subdivision. A waiver is being requested from the Gray Street Construction Standards shown on Table 401.13.16-2 to allow Garrison Woods to be unpaved.

Standard Private Street Notes :

1. The private street shall be recorded in the Cumberland County Registry of Deeds within thirty (30) days of approval.
2. The private street shall be given a name that meets with the approval of the public safety coordinator.
3. The private street shall be marked with a Town approved sign identifying the private street.
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5. All construction and site alterations shall be done in accordance with the erosion prevention provisions outlined in the "Maine Erosion and Sedimentation Control Handbook for Construction" Best Management Practices, "Cumberland County S.W.C.D. Department of Environmental Protection, dated March 2003.
6. The private street shall conform to, and be constructed to the Standards for Private Street as presented in the Gray Street Construction Ordinance, Chapter 401.13.16. with a waiver to allow Garrison Woods Drive to be unpaved.
7. The private road shall be maintained for emergency vehicles year-round.
8. The construction of the private street shall be inspected by the Town Engineer or at the Town's option, a registered Professional Engineer hired by the Town at the developer's expense.
9. All utilities to be constructed underground.
10. Garrison Woods Drive will be a private road. The Town of Gray will not have any responsibility for plowing, maintenance or similar services for the private street shown on this plan, and if the private street has not been built to public street standards of the Gray Street Ordinance, the Town Council will not accept it as a public street. The homeowners association for the subdivision shall take over plowing and maintenance on the private road only at the time when at least 75% of the lots on Garrison Woods Drive have been sold.

Approved by the Town of Gray Planning Board

Conditions: ____________________

Signed: [redacted]

Date: 9/10/2020

Zoning Requirements :

Zoning District: Lake District (LD) & Limited Residential Shoreland Zone (LDR)

	required	provided
Minimum lot size:	80,000 S.F.	80,000 S.F.
Minimum street frontage:	200'	200'
Maximum building height:	35'	35'
Max. floor area/lot area ratio:	20%	20%
Min. land area per dwelling unit:	80,000 S.F.	80,000 S.F.
setback requirements:		
rear:	50'	50'
side:	25'	25'
front:	50'	50'

RECORDING INFORMATION:

STATE OF MAINE, CUMBERLAND, ss
REGISTRY OF DEEDS

RECEIVED September 15 2020
AT 10HR 45MIN AM, AND RECORDED
IN PLAN BOOK 220 PAGE 307

ATTEST: [redacted]
REGISTER

Abutters List

Map / Lot	Name	Book / Page
47 / L18-6	Kim Aldrich	12704 / 141
47 / L18-8A	Cheryl & Robert Bradley	8879 / 165
47 / L18-9	Margaret Marston	13424 / 188
47 / L18-11	Joseph & Barbara Glovino	18741 / 290
47 / L18-12	Alexander & Thelma Turlatrez	8252 / 139
47 / L18-13	David & Linda Bailey	18930 / 3
47 / L18-14	Chase Forest Fiber Mills Inc.	9340 / 285
47 / L18-16	Chase Family Irrevocable Trust c/o Grace Chase Trustee	3008 / 263

Scale: 1" = 100'

METER 0 25 50 75 100
FEET 0 50 100 150 200 300 400

No.	Revisions	Date
#1	Added phasing, revised notes 14, 21 added 22 & 23, revised note #6 Private Street Standards, added temporary turnarounds – revisions based on Plan of Garrison Woods – Approved 8-8-2007 and recorded in Plan Book 207, Page 507 – by A.R.C.C. Land Surveyors, Inc. Abutters not updated.	6-21-18
#2	Added waiver Block, Revised Private Street Standards Note #6 & Added Note #23 to Notes. Garrison Woods Drive will be unpaved.	8-17-20

DAVIS LAND SURVEYING, LLC.
64 OLD COUNTY ROAD – OXFORD, MAINE 04270
990 MINOT AVENUE – AUBURN, MAINE 04210
346-9991 office – 782-3685 office
240-9949 cell
www.davislandsurveing.net

Job Title: Garrison Woods –– Revision 2
Mt. Hunger Road
Cumberland County Gray, Maine 04039

Drawing Title: Amended Subdivision Plan
for
Gary & Joy Hayes
Mt Hunger Road Gray, Maine 04039

Field bk.: | Job dwg.: 152 | Ref. dwg.: 00–00–00 | Drawn: R.W.C. | Checked: | Scale: 1"=100' | Date: May 21, 2016

Drawing no.: One
Job no.: 160405SUB

DECLARATION OF COVENANTS, RESTRICTIONS AND EASEMENTS
GARRISON WOODS SUBDIVISION
GRAY, CUMBERLAND COUNTY, MAINE

This DECLARATION is dated this 7th day of January, 2014, by Gary E. Hayes and Joy E. Hayes of Raymond, Cumberland County, Maine (hereinafter referred to as the "Declarants").

WITNESSETH;

WHEREAS, the Declarants are the owners of certain real estate located in Gray, Cumberland County, Maine as described in their deed recorded at the Cumberland County Registry of Deeds in Book 21448, Page 64 which they have subdivided into Thirteen (13) lots plus a road all as shown on a certain plan entitled "Garrison Woods Subdivision, Mt. Hunger Shores Road, Gray, Maine" (the "Plan") prepared by Taylor Engineering Associates recorded at the Cumberland County Registry of Deeds in Paln Book 207, Page 507; and

WHEREAS, the Declarants, being about to sell and convey lots in said subdivision, desire to assure to said purchasers and their heirs, successors and assigns owning such lots, the use, benefit and enjoyment of said lots in accordance with a harmonious plan, and to this end desire that the subdivision lots be subjected to certain restrictions, reservations, servitudes, covenants, agreements and easements as hereinafter set forth;

NOW THEREFORE, in consideration of the benefits described herein, the Declarants hereby declare that the property described on said Plan shall be held and conveyed subject to the restrictions, reservations, servitudes, covenants, agreements and easements as set forth in this Declaration, which shall inure to the benefit of and be binding upon the Declarants, their heirs, successors and assigns owning such lots.

ARTICLE A.
GENERAL RESTRICTIONS

Lots 1 through 13 in the Garrison Woods Subdivision ("Garrison Woods") are hereby made subject to the following covenants and restrictions, which shall run with the land:

1. Residential Use: No lot shall be improved or used except for single family residential purposes, unless otherwise approved by the Town of Gray and the Declarants. No temporary structure, mobile homes or tents shall be used as a residence. No lot shall be further subdivided without prior written approval of the Gray Planning Board and the Declarants. No temporary structure, house trailer, tents, shacks or carports shall be kept, maintained or stored on any part of any lot or parcel. The premises shall be used only for residential and ancillary purposes and, no commercial, industrial, business, professional use or enterprise of any nature or description shall be carried on the premises, unless (a) its conduct on the premises is permissible under town ordinance and conducted wholly within the residence located on the lot, (b) it has

no employees other than the lot owner and such owner's family members who reside on the lot, and (c) all advertising is limited to no more than one sign on each lot, which sign shall not exceed two (2) square feet in size.

2. Primary Structure: No structure shall be erected on any lot except a residential dwelling building with a garage and accessory structures, except in instances when Declarants shall give prior permission to the contrary in writing. All outbuildings shall be built in style and material similar to the dwelling structure.

3. Compliance with Ordinances: All uses and construction activities, including the location of buildings, shall be in accordance with all local and state laws, codes, ordinances and regulations.

4. Maintenance: All lots and buildings thereon shall be maintained in a neat, attractive manner and kept in good repair.

5. Animals: No livestock, animals or poultry, other than household pets, shall be kept, maintained or allowed on any of the lots.

6. Vehicles: No house trailer, business or commercial vehicle or vehicles of similar nature shall be brought upon, or maintained or be permitted to remain on any lot except a business vehicle normally used by a lot owner in his or her occupation. No stripped or junk vehicles shall be placed or maintained on any lot. No more than one unregistered motor vehicle maybe kept upon lot at any given time.

7. Nuisances: No owner of a lot shall do or permit to be done any act upon the lot which may be, or is, or may become a nuisance as defined by state or local law, ordinance or regulation.

8. Construction: When the construction of the buildings on a lot is once begun, work thereon must proceed diligently and must be completed within a reasonable time. All houses and other structures shall be completed on the exterior within one (1) year from start of construction, including two coats of paint, stain or varnish on any exterior wood surface. Exterior walls must be finished with siding materials compatible with the neighborhood. No building shall be occupied until an occupancy permit is granted. The prohibitions contained in paragraphs 1 and 6 herein shall not be construed to prevent the use of trailers, vehicles or temporary structures during the period of actual construction in connection with said construction.

9. Trash: No lot shall be used or maintained as a dumping ground for rubbish, trash, junk, cuttings or other refuse. Trash, garbage or other waste shall be kept in sanitary containers. Such containers shall not be visible from the street or from any other lot, except for limited periods coincident with trash collection.

10. Storage Tanks, Radio Towers and Antennas: Any storage tank, radio tower and antenna shall be placed and maintained in such a manner as not to be visible from any point on public roadways, the subdivision road or abutting lots.

11. Septic Disposal: All lots are to be serviced by on-site wastewater disposal systems. The septic systems depicted on the Subdivision Plan are preliminary locations and are subject to change during the individual lot construction process. Any modification to the location shown on the Subdivision Plan will require approval from the Plumbing Inspector and will not require approval from the Planning Board.

12. Driveway Standards: All driveways shall be constructed in accordance with Chapter 400, Section 5.3, of the Gray Town Ordinances.

13. Foundation Drainage: No foundation drainage outlets will be allowed in road ditches.

14. Utilities: All lots shall be serviced by underground utilities.

15. Single Family Use: All lots shall be developed as single family residential units and no duplex units will be allowed.

16. Buffer Restrictions: All existing undergrowth, forest floor duff, and leaf litter must remain undisturbed and intact. One path may be allowed per the Maine DEP Phosphorus Standards. Pruning of live tree branches that do not exceed 12' in height above the ground level is permitted provided that at least the top two-thirds of the tree canopy is maintained. No cutting is allowed of trees except for normal maintenance of dead, windblown, or damaged trees. Buffers are not to be used for all-terrain vehicle or vehicular traffic.

17. Wetlands: There are 8.02 acres of wetlands on the subdivided property as delineated by Tooth & Associates, Inc. No filling, alteration or disturbance of such wetlands shall be permitted.

18. Miscellaneous: Clotheslines, pet runs, pet shelters, equipment, storage sheds and fuel tanks shall be kept a minimum of twenty (20) feet from any property line and to the rear of dwellings.

19. Plan: In addition to the specific provisions set forth herein, each Lot shall be subject to the restrictions, conditions and easements indicated on the Plan.

ARTICLE B.
DECLARANTS RESERVED EASEMENT RIGHTS & NOTICE TO PURCHASERS

All lot conveyances in the Subdivision shall be and hereby are subject to the reservation by Declarants, of the right to the use and benefit of all easements referenced herein, including the following specific rights:

1. To install, relocate, modify, repair and maintain improvements incident to any easement, including without limitation, removal of vegetation and excavation.

2. To utilize and extend any easement for the benefit of the Declarants.

3. The right to conduct any other activity related to or within the scope of any easement referred to herein.

ARTICLE C.
EROSION CONTROL AND STORMWATER MANAGEMENT MAINTENANCE PLAN

1. Erosion Control and Stormwater Management Maintenance Plan: The Association shall be responsible for the maintenance requirements (and all costs and expenses associated therewith) of the Stormwater Management System in accordance with the Erosion Control and Stormwater Management Maintenance Plan approved by the Maine Department of Environmental Protection and attached hereto as Exhibit A. The Town of Gray shall not be responsible for the maintenance obligations detailed in Exhibit A. In the event the Association fails to maintain the Stormwater Management System in accordance with the requirements set forth in Exhibit A, and such failure continues after thirty days' written notice thereof to the Association, the Town of Gray may (in its sole discretion) provide the necessary maintenance for the Stormwater Management System, and the Association shall reimburse the Town of Gray for any reasonable costs and expenses incurred by the Town as a result of such necessary maintenance.

ARTICLE D.
THE ROAD, LIGHTING AND TRASH COLLECTION

Each of the 14 Lots as shown on the Plan, and the subdivision road known as "Garrison Woods Drive" as shown on the Plan, shall be subject to the following additional covenants, restrictions and easements, which shall run with the land:

1. It is not intended that the subdivision road within the property, shown on the Plan as "Garrison Woods Drive" (hereinafter referred to as the "Road") will be offered and dedicated to the Town of Gray, by Declarants, for acceptance as a public

way unless it should be brought up to Town standards and accepted by the Town at a future date.

2. Until such time as the Town of Gray may accept the Road as a public way, the Homeowner's Association referred to below, regardless of whether the Declarants or the Association is the record title holder of such Road, shall be solely responsible for: (A) the long term maintenance, emergency and regular repairs, snowplowing, salting and sanding of the Road, all costs and expenses associated with such work and the cost of liability insurance; (B) all costs of curbside trash collection, which the Association shall arrange to have performed by an independent trash collection company; (C) any real estate taxes assessed by the Town of Gray upon the Road. During any period of time in which the Association is responsible for arranging and paying for the costs of curbside trash collection, the Association may allocate the costs of such trash collection among the individual lot owners as it deems reasonable.

3. The Association shall accept any conveyance from Declarant of title to the Road.

ARTICLE E.
HOMEOWNERS' ASSOCIATION

1. Association: Every owner of a lot within the property shall be a member of the Garrison Woods Homeowners' Association (hereinafter referred to as the "Association"), which has or shall be created as a non-profit and non-stock corporation, duly organized under the laws of the State of Maine. Membership shall be appurtenant to and may not be separated from lot ownership. The lot owners shall be entitled to one vote for each lot owned. The Association shall be the governing body for all of the above-mentioned lot owners with respect to: (a) administering, managing, monitoring, enforcing and maintaining the covenants, restrictions and easements set forth in this Declaration; (b) the administration, management, maintenance, repair, snowplowing, salting and standing of the "Road", during such time as the Association remains liable for such work; (c) the administration and management of curbside trash collection by an independent trash collection company, during such time as the Association remains liable for such work; (d) the administration, management, and maintenance of the Stormwater Management System as further described herein and as indicated on the Erosion Control and Stormwater Management Maintenance Plan attached hereto as Exhibit A; and (e) the proper maintenance, repair and replacement of all wet ponds, ditch turn-outs, culverts, road ditches or similar structures or systems located within the Subdivision.

2. Bylaws: Where not inconsistent with the provisions of this Declaration, the Bylaws of the Association shall govern issues such as meetings, election and authority of officers, authority and power of the Association and its members, and annual and special assessments.

3. Assessments: Each owner of a subdivision lot, by acceptance of a deed therefore, whether or not it shall be so expressed in such deed, is deemed to covenant and agree to pay to the Association: (1) all regular assessments or charges, and (2) all special assessments for capital improvements, such assessments to be established and collected as hereinafter provided.

Owners of the 13 house lots within the property shall pay annually to the Association, or its authorized representative, their proportionate share of all costs and expenses incurred (or projected to be incurred) by the Association, including without limitation all costs and expenses associated with the activities set forth herein. Such proportionate share of expenses shall be evenly prorated for each lot upon transfer of title.

The annual budget shall be prepared by the Board of Directors and ratified by the lot owners in accordance with the Bylaws of the Association.

The Board of Directors shall fix the amount of the annual assessment against each applicable lot at least thirty (30) days in advance of each annual assessment period.

4. Assessment Lien: Assessments, both annual and special, and other proper charges authorized and billed by the Association shall be a charge on the lot and shall be a continuing lien upon the lot on which such assessment is made. If the assessment to the lot owner is not paid within thirty (30) days after the due date, then said assessment shall become delinquent and shall, together with interest at the rate of one and one-half percent (1½%) per month, or any portion thereof, costs of collection and reasonable attorneys' fees, become a continuing lien on the lot owned by the delinquent lot owner, which lien shall bind the lot, with the buildings and improvements thereon, as well as the delinquent lot owner, heirs, devisees, successors, personal representatives and assigns. Said lien may be enforced in the same manner as a lien for assessments against condominium units provided in the Maine statues, as the same may be amended. Said lien for unpaid assessments shall be prior to all of the liens and encumbrances on the lot other than mortgages recorded before the date on which the assessment which is sought to be enforced becomes delinquent and liens for real estate taxes and other governmental/ municipal assessments or similar charges against the lot. All such charges in addition to being a lien shall also constitute the personal liability of the owner of the lot so assessed at the time of the assessment.

ARTICLE F.
GENERAL PROVISIONS

1. Binding Effect: Each of the provisions set forth in Article A of this Declaration shall continue and be binding in perpetuity, subject to change from time to time, as provided below. Until such time as Declarant no longer owns any of the lots in Garrison Woods Subdivision, Declarant retains the right to amend the provisions set

forth in Article A, subject to Gray Planning Board approval. Thereafter, any such changes shall require the consent of sixty-six percent (66%) of the lot owners, subject to Gray Planning Board approval.

2. Right of Declarant: The Declarants will be Gary E. Hayes and Joy E. Hayes, or their heirs, successors or assigns, so long as it owns one or more lot. Until such time as Declarants no longer own any of the lots in Garrison Woods Subdivision, the Declarants reserve the right to:

a. Waive, change or cancel all or any of the size, number and location of lots, restrictions, covenants, easements, drainage easements, road right-of-way, layout and location of any lot, subject to Gray Planning Board approval; thereafter, any said changes shall require the consent of sixty-six percent (66%) of the lot owners in addition to Gray Planning Board approval. The change or changes shall be effective upon the recording of any amendment to this Declaration and/or the filing of a modified subdivision plan indicating the changes made.

b. Locate on the premises, even though not depicted on the Plan, and grant and reserve easements and rights of way for the installation, maintenance, repair, replacement and inspection of utility lines, wires, pipes, conduits and facilities.

c. Connect with and make use of utility lines, wires, pipes and conduits, located on any lot, for construction and sale purposes, provided that the Declarants will be responsible for the cost of the service so used.

d. Place "For Sale" signs or other signs to aid in the marketing of any unsold lots and dwellings thereon.

3. Enforcement: These covenants, easements and restrictions are imposed as part of a general scheme for the protection and benefit of the Declarant and each subsequent owner of a lot in the Subdivision.

The provisions herein set forth shall run with the land and bind Declarants, their heirs, successors or assigns, and all parties claiming by, through or under them. Declarants, or their heirs, successors or assigns, the Town of Gray, the Association and each owner or owners of any of the lots from time to time shall have the right, but not the obligation, jointly and separately, to sue for and obtain a prohibitive or mandatory injunction to prevent the breach of, or to enforce the observance of, the provisions above set forth, or any of them, in addition to the right to bring an ordinary legal action for damages and the right to collect attorneys' fees associated with the need to bring said suit. In no event shall the failure of Declarants, or their heirs, successors or assigns, and such owners to enforce any of the provisions herein set forth as to a

particular violation be deemed to be a waiver of the right to do so as to any continuing or subsequent violation.

4. Evidence of Compliance: Any changes by consent as permitted above shall be effective only if expressed in a written instrument or instruments executed and acknowledged by each of the consenting owners and recorded in the Cumberland County Registry of Deeds. Upon and after the effective date of any such change or changes, it or they shall be binding upon the lots subject to this Declaration and all persons then owning said lots in Garrison Woods Subdivision and shall run with the land and bind all persons claiming, by, through or under any one or more of them.

5. Separate Provision: If any part or provision of this Declaration shall be held invalid or unenforceable by a Court of Law, such holding shall not impair, invalidate or otherwise affect the remainder of this Declaration, which shall remain in full force and effect.

6. Successors and Assigns: All rights herein reserved to the Declarant shall benefit the Declarants and their successors and assigns so long as they should own any of the 13 lots or fee to the subdivision road.

IN WITNESS WHEREOF, Gary E. Hayes and Joy E. Hayes have caused this Declaration t be executed this 7 day of January ~~, 2013.~~ 2014

[redacted]

Gary E. Hayes

[redacted]

Joy E. Hayes

STATE OF MAINE
CUMBERLAND: SS.

January 7, 2014

Then personally appeared the above-named Gary E. Hayes and acknowledged the foregoing instrument to be his free act and deed.

[redacted]

Notary Public/ ~~Attorney-at-Law~~

Print Name

Ellen R. Faulkner
Notary Public, Maine
My Commission Expires Oct. 31, 2014

STATE OF MAINE
CUMBERLAND: SS.

January 7, 2014 ~~2013~~

Then personally appeared the above-named Joy E. Hayes and acknowledged the foregoing instrument to be her free act and deed.

[redacted]
Notary Public/ ~~Attorney at Law~~

Print Name

Ellen R. Faulkner
Notary Public, Maine
My Commission Expires Oct. 31, 2014

HayesG\929-01\Declaration

Received
Recorded Register of Deeds
Jan 09,2014 10:22:26A
Cumberland County
Pamela E. Lovley

Kristen Muszynski

From: gary <ghtoyman@hotmail.com>
Sent: Wednesday, November 10, 2021 7:25 PM
To: Kristen Muszynski; Jeremy Brown
Subject: Garrison Woods

Jeremy,
Neither Joy nor I nor any of our heirs, successors or assigns own any property at Garrison Woods Subdivision.
Gary Hayes
Joy Hayes

Sent from Mail for Windows

As an owner of a lot in the Garrison Woods Drive subdivision in Gray, ME, I hereby approve the proposed combination of lots 4 and 5 into a single lot.

[redacted] Lot Owner Signature	Bobby Bowen	11/5/21 Date	3 Lot #
[redacted] Lot Owner Signature	Corey Johnston	11/5/21 Date	12 Lot #
[redacted] Lot Owner Signature	Hannah Morrill	11/5/21 Date	10 Lot #
[redacted] Lot Owner Signature	Tyler Angell	11/5/21 Date	9 Lot #
[redacted] Lot Owner Signature	Priscilla Clapp	11/5/21 Date	11 Lot #
[redacted] Lot Owner Signature	Floyd Brown, Jr.	11-10-21 Date	6 Lot #
[redacted] Lot Owner Signature	Robert Hagenow	11/8/2021 Date	7 Lot #
[redacted] Lot Owner Signature	Jeremy Brown	11/15/21 Date	4 & 5 Lot #

To Whom it may concern,

Our home is located at 344 Ramsdell Road here in Gray. We also own 55+/- acres abutting this property which includes 800' of the existing private road that passes our home.

The issue we at this location is our home is located on a curved section of the private dirt road causing a blind spot for us and those traveling by. Add in the increased volume of vehicles driving by and the speed in which some travel, causing danger to us, our pets, our grandchildren and then dirt and rocks being thrown onto our vehicles and the driveway.

This section of Ramsdell road is also utilized heavily by ATV's, pedestrians walking or running with/without dogs, as well as equestrian's horseback riding. The Cumberland County Sheriff's department and the Town Code's officer are aware of the reckless driving problem in our area and have added more patrols trying to deal with problem. The Sheriff's Department can't be there 24/7, and we fully understand this, but it also leaves our family and other users of the road in a very unsafe condition.

Part of the reason we purchased the land and including the 800' of the existing private Road is with the hope to divert this dangerous section away from our home. Along with this we obtained a legal right-of-way, 100' wide by 200' long, from Cindy Rogers (our abutting neighbor) to be used to divert the existing road.

We're proposing to divert 900'+/- of this section of Ramsdell road to a new location approximately 150' +/- ,onto the property we purchased, proving a safer public passage from our home.

All legal rights of existing road will be conveyed to the newly diverted road and the existing section of road will become a dead-end road with access given to all abutters to their properties with no changes.

We are asking the Town of Gray to allow us (at our cost) to move forward with this road relocation, to provide safety to our home.

We have attached a land survey done by Wayne Wood, the highlighted in orange is the existing road and section in green highlight is the proposed diverted new road.

Sincerely, Yours

Michael and Jennifer Doten

Little Sebago Lake

Little Sebago Lake

N/F
Grape Island Associates
(7916/120)
2670 sq.ft.

N/F
Hanson
(18,067/300)

N/F
Clement
(15,792/404)

N/F
Rousselle
(23,260/208)

N/F
John V. Cloutier
(24,829/341)

N/F
McCusker
(12,229/307)

N/F
Terri A. McCabe
(22,012/38)

N/F
Michael Doten
(25,353/298)

N/F
Cynthia Rogers
(26,004/83)
Parcel 7

N/F
Trombley
(15,424/3)

N/F
Pollard
(32,324/28)

N/F
Carr, et.al.
(9491/72)

N/F
Stevens
(10,251/199)

N/F
May Meadow
Builders, Inc.
(35,916/ 261-267)

12,291 sq.ft.

Roadway Easement

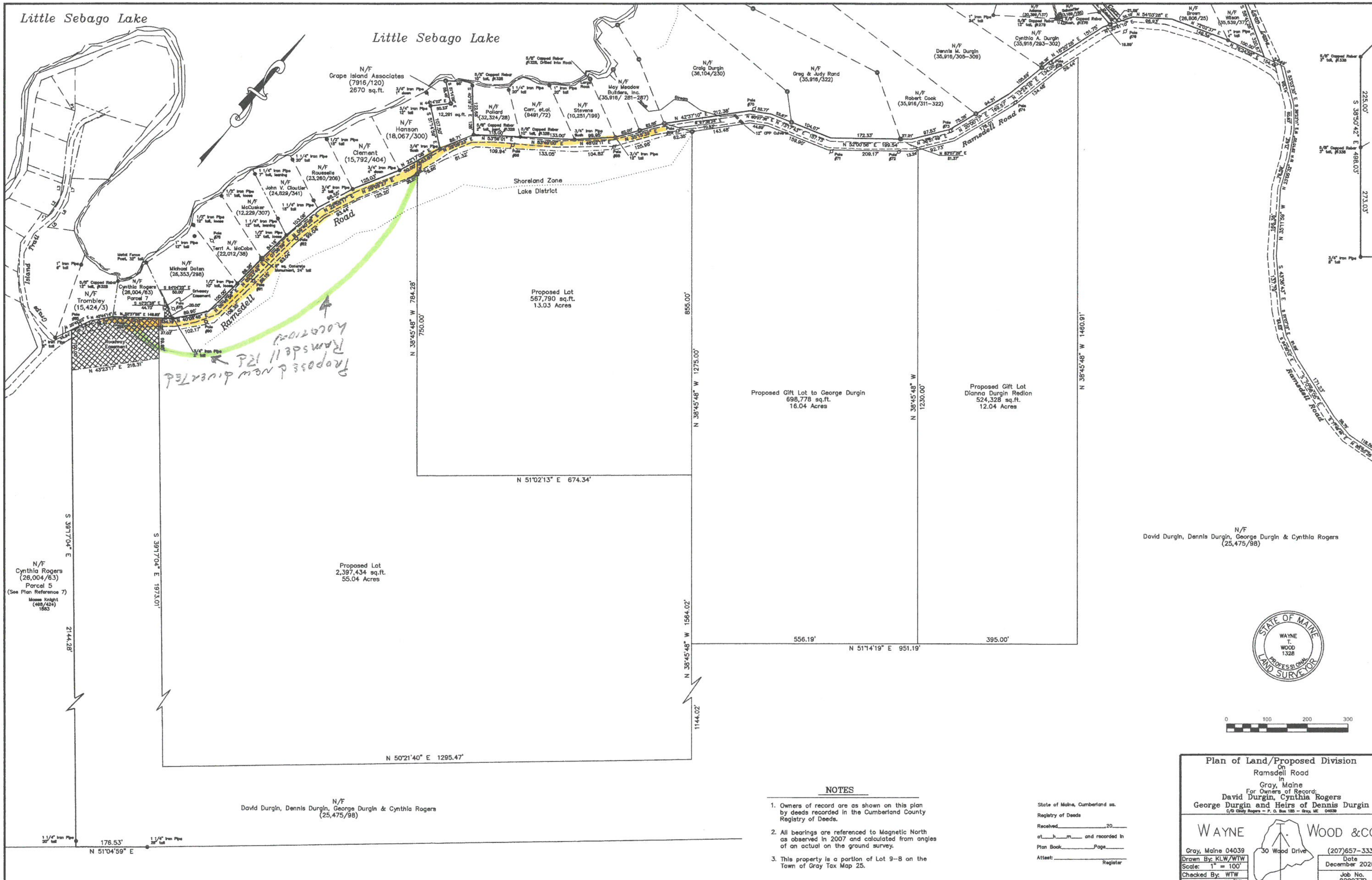
Island Trail

Ramsdell Road

Shoreland Zone
Lake District

Proposed Lot
567,790 sq.ft.
13.03 Acres

25-8-1-4



Little Sebago Lake
Little Sebago Lake
N/F Grape Island Associates (7916/120) 2670 sq.ft.
N/F Hanson (18,067/300)
N/F Clement (15,792/404)
N/F Rousselle (23,260/206)
N/F John V. Cloutier (24,829/341)
N/F McCusker (12,229/307)
N/F Terri A. McCabe (22,012/38)
N/F Michael Doten (26,353/298)
N/F Cynthia Rogers (26,004/63) Parcel 7
N/F Trombley (15,424/3)
N/F Pollard (32,324/28)
N/F Carr, et.al. (8491/72)
N/F Stevens (10,251/199)
N/F May Meadow Builders, Inc. (35,916/ 281-287)
N/F Craig Durgin (36,104/230)
N/F Greg & Judy Rand (35,916/322)
N/F Robert Cook (35,916/311-322)
N/F Dennis M. Durgin (35,916/305-309)
N/F Cynthia A. Durgin (35,916/293-302)
N/F Brown (26,806/25)
N/F Wilson (35,539/37)
Ramsdell Road
Ramsdell Road
Island Trail
Shoreland Zone
Lake District
Roadway Easement
Proposed Lot 567,790 sq.ft. 13.03 Acres
Proposed Gift Lot to George Durgin 698,778 sq.ft. 16.04 Acres
Proposed Gift Lot Dianna Durgin Redlon 524,328 sq.ft. 12.04 Acres
Proposed Lot 2,397,434 sq.ft. 55.04 Acres
N/F Cynthia Rogers (26,004/63) Parcel 5 (See Plan Reference 7)
N/F David Durgin, Dennis Durgin, George Durgin & Cynthia Rogers (25,475/98)
N/F David Durgin, Dennis Durgin, George Durgin & Cynthia Rogers (25,475/98)
N 51°02'13" E 674.34'
N 51°14'19" E 951.19'
N 50°21'40" E 1295.47'
N 51°04'59" E
Proposed new diverted Ramsdell Rd location
STATE OF MAINE WAYNE T. WOOD 1328 PROFESSIONAL LAND SURVEYOR
0 100 200 300
NOTES
1. Owners of record are as shown on this plan by deeds recorded in the Cumberland County Registry of Deeds.
2. All bearings are referenced to Magnetic North as observed in 2007 and calculated from angles of an actual on the ground survey.
3. This property is a portion of Lot 9-8 on the Town of Gray Tax Map 25.
State of Maine, Cumberland ss.
Registry of Deeds
Received________20___
at__h__m__ and recorded in
Plan Book_____Page____
Attest:________ Register
Plan of Land/Proposed Division
On
Ramsdell Road
In
Gray, Maine
For Owners of Record:
David Durgin, Cynthia Rogers
George Durgin and Heirs of Dennis Durgin
WAYNE T. WOOD &CO.
Gray, Maine 04039
30 Wood Drive
(207)657-3330
Drawn By: KLW/WTW
Scale: 1" = 100'
Checked By: WTW
Field Crew: JW/BR
Date December 2020
Job No. 220077B

PLANNING BOARD/STAFF REVIEW COMMITTEE APPLICATION
TOWN OF GRAY MAINE

PROPERTY TO BE DEVELOPED			
Property Location/Address	332 Ramsdell to 344 Ramsdell	Property Map/Lot	25-8-1 AND 25-8-1-4
Zoning District	Lake District + LR (Shoreland)	Lot Acreage	
Owner Name	Durgin Estate + Cynthia Rogers	Tax Sheet	25
Owner Address		Owner Phone	

APPLICANT			
Name (IF different than owner)	Michael & Jennifer Doten	Contact Phone Number	207-233-9004
Mailing Address	P.O. Box 494	Alternate Phone Number	
Mailing City/State/Zip	Yarmouth, Me. 04096	Fax Number	
Email Address	mike@dotens.com		

AGENT/CONSULTANT			
Name		Contact Phone Number	
Mailing Address		Alternate Phone Number	
Mailing City/State/Zip		Fax Number	
Email Address			

PROJECT

The undersigned requests that the Town of Gray Planning Board consider the following application for:

- ☐ **Subdivision**
  - Sketch Plan Review
  - Preliminary Plan Review (Major)
  - Final Plan Review (Major)
  - Minor
- ☐ **Site Plan Review**
  - Pre-Application Conference
  - Minor
  - Major
- ☒ **Shoreland Zoning Permit**
- ☒ **Other (specify)**
  - Conditional Use
  - Amendment
  - Extension
  - Workshop
  - Contract Zone Request

Divert existing Ramsdell Rd.

Project Description / Comments: Divert 800 +/- of existing section of Ramsdell Rd, which consists of dirt surface and is a Private/Public way of use. There is an existing logging road about 150' +/- in the abutting woods running parallel to existing Ramsdell Rd, which for the most part be the newly diverted Ramsdell Rd, The existing Ramsdell Rd would remain (but as a dead end) to serve access to abutters driveways.

The ~~section~~ 800' section of Ramsdell Rd. and abutting land (with Logging Rd) are both recently purchased and are owned by Michael & Jennifer Doten.

Applicant Signature [redacted] **Date** 11-5-2021

TRILLIUM
ENGINEERING GROUP

189 Main Street, Suite 200
Yarmouth, ME 04096

November 1, 2021

Michael Doten
392 US Route One
Freeport, Maine

Re: Ramsdell Road – Relocated Roadway
Engineering Services

Dear Michael:

Trillium Engineering Group has been retained by you to provide civil engineering services for the Ramsdell roadway relocation. We will plan to provide civil engineering services as required to meet the Town roadway standards for the project as required.

Please let me know if you have any other questions.

Sincerely,

[redacted]

Eric Dube, P.E.
Trillium Engineering Group

TOWN OF GRAY
SHORELAND ZONING PERMIT APPLICATION

For Office Use Only

Permit No: _____

Issue Date: _____

Fee Amount: _____

1. Applicant	2. Applicant Address	3. Applicant Phone Number
Michael & Jennifer Doten	P.O. Box 494, Yarmouth Maine 04096	207 233 9004
4. Property Owner	**5. Property Owner Address**	**6. Property Owner Phone Number**
Samse as above	344 Ramsdell Rd	207-233-9004
7. Contractor	**8. Contractor Address**	**9. Contractor's Phone Number**
Owner		
10. Location/Address of Property	**11. Tax Map & Lot Number; Date Lot was created**	**12. Zoning District**
344 Ramsdell Rd Gray	033-305-011-022	"L"

13. Description of property including a description of all proposed construction, e.g. Land Clearing, road, building, septic systems and wells (Please note that a site plan sketch is required on page 3)

We recently purchased 800'+/- of existing Ramsdell Rd. at our location as well as 55 Acres of abutting wooded land.

We asking to divert the existing Ramsdell Rd. to a new location on the 55 Acres purchased to provide safer distance at our home due to unsafe traffic conditions.

600'+/- of existing Ramsdell Rd. It will remain in place to serve access to our abutter to their driveways. There are two areas of the newly diverted road that will need shore land permitting, the beginning and exit of road, a total of 200'+/-

14. Proposed Use of Project	15. Estimated Cost of Construction
$50,000.00	$50,000.00

SHORELAND PROPERTY INFORMATION

16. Lot area (sq.ft.)	17. Frontage on Road (ft.)
N/A	1,000'
18. Sq. Ft. of lot to be covered by non-vegetated surfaces-worksheet pg 3	19. Elevation above 100 year flood
N/A	8'
20. Frontage on water body (ft.)	21. Height of proposed structure
0	N/A
22. Existing use of property	23. Proposed use of property
Wooded	Private/Public access road

NOTE: QUESTIONS 24 & 25 APPLY ONLY TO EXPANSIONS OF PORTIONS OF EXISTING STRUCTURES WHICH ARE LESS THAN THE REQUIRED SETBACK FROM THE HIGH WATER MARK.

24. A. Total floor area of portion of structure which is less than required setback as of 1/1/89 (sq.ft.)	25.A. Total volume of portion of structure which is less than required setback as of 1/1/89 (cu.ft.)
N/A	N/A
B. Floor area of expansions of portion of structure which is less than required setback from 1/1/89 (sq.ft.)	B. Volume of expansions of portion of structure which is less required setback from 1/1/89 to present (cu.ft.)
N/A	N/A
C. Floor area of proposed expansion of portion of structure which is less than required setback (sq.ft.)	C. Volume of proposed expansion of portion of structure which is less than required setback (cu.ft.)
N/A	N/A

Defintion of Structure: Anything built for support, shelter, or enclosure or persons, animals, goods or property of any kind, together with anything constructed or erected with a fixed location on or in the ground, exclusive of fences. The term includes structures temporarily or permanently located, such as decks and satellite dishes.

N/A

LOT COVERAGE CALCULATION WORKSHEET

OPEN SPACE – An area of land not developed with structures and used for recreation, agriculture, lawn or forestry or left in its natural state.

IMPERMEABLE SURFACE – Any roofed or other solid structure or material covering the ground through which water does not readily penetrate, including, but not limited to concrete, oil and stone, tar or asphalt pavement or compacted gravel .Regardless of the construction materials, any area, which is used for driveway or parking purposes, including disturbed grass, ground cover, or dirt, shall be considered impermeable. A deck with spaced boards at least 1/8 inch apart, a swimming pool surface, and a patio with a permeable paving system shall not be considered impermeable.

IMPERMEABLE SURFACE COVERAGE – The ratio between impermeable surface and total land area of a lot expressed as the percentage of land covered by impermeable surfaces.

IMPERMEABLE SURFACES		EXISTING		PROPOSED	
House	N/A		SF		SF
Accessory Structures	N/A		SF		SF
Driveway***			SF	1,600'	SF
Concrete Pads or Sidewalks	N/A		SF		SF
Other**	Road		SF	18,000'+/-	SF
Total Impermeable Surfaces		(a)	SF	(c)	SF
Total % of Impermeable Surface Coverage Total Impermeable surfaces ÷ Lot area = % impermeable surface			%		%
PERMEABLE SURFACES					
Swimming Pool Surface	N/A		SF		SF
Wood Deck w/Spaced Boards	N/A		SF		SF
Open joint Patio & Walks	N/A		SF		SF
Other – Paving Systems	N/A		SF		SF
Total Permeable Surfaces		(b)	SF	(d)	SF
OPEN SPACE CALCULATION					
Total Lot Coverages (Impermeable + Permeable)		(a+b)	SF	(c+d)	SF
***Lot Area** (in Square Feet. An acre = 43,560 SF)			SF		SF
Total % Open Space [(total lot coverage) ÷ lot area = Total Coverage %. 100% -Total Coverage % = % of open space]			%		%

* Lot area must be calculated to the road boundary or right-of-way, not the centerline. In the case of lakefront property, the area must be calculated to the mean lake line elevation.

** Storage sheds, detached garages, pole barns, etc.

*** All driveways must be calculated as impermeable

EXTERIOR ELEVATIONS

Draw a simple sketch showing both existing and proposed structures with dimensions:

Please See attached

Scale: 0 inches= 0 feet

ADDITIONAL PERMITS, APPROVALS, AND/OR REVIEW REQUIRED

Check if Required:

- ☒ Planning Board Review Approval (e.g. Subdivision, Site Plan Review)
- ☐ Board of Appeals Review Approval
- ☐ Flood Hazard Development Permit
- ☐ Exterior Plumbing Permit (Approved HHE-200 Application Form)
- ☐ Interior Plumbing Permit
- ☐ D.E.P. Permit (Site Location, Natural Resource Protection Act)
- ☐ Army Corps of Engineers Permit (e.g. Sec. 404 of Clean Waters Act)

Others:

- ☐ _____
- ☐ _____
- ☐ _____

Note: Applicant is advised to consult with the Code Enforcement Office and appropriate State and Federal agencies to determine whether additional permits, approvals, and reviews are required.

I certify that all information given in this application is accurate. All proposed uses shall be in conformance with this application and the Gray Shoreland Zoning Ordinance. I agree to future inspections by the Code Enforcement Officer at reasonable hours.

[redacted] 11/10/2021

Applicant Signature Date

[redacted] 11/10/2021

Agent Signature (if applicable) Date

* If the person signing the application is not the owner of lessee of the property, then that person shall submit a letter of authorization from the owner or lessee.

APPROVAL OR DENIAL OF APPLICATION

(for office use only)

This application is: MAP _____ LOT _____

____ Approved _____ Denied

If approved, the following conditions are prescribed:

If denied, reason for denial:

Note: In approving a shoreland zoning permit, the proposed use shall comply with the purposes and requirements of the shoreland zoning ordinance of the Town of Gray.

_____ _____

Code Enforcement Officer Date

* This permit will expire one year from the date of issuance, if not substantial start is made in construction.

INSPECTION LIST

- ❑ Prior to clearing and excavation
- ❑ Prior to Foundation Pour
- ❑ Prior to Final Landscaping
- ❑ Prior to Occupancy

Permit # _____

Fee Amount $_____