CITY OF DOVER

PLANNING TECHNICAL REVIEW COMMITTEE –AGENDA

Meeting Type: Regular Meeting
Meeting Location: Council Conference Room, City Hall, 288 Central Ave, Dover NH 03820
Meeting Date: **Thursday, May 15, 2025**
Meeting Time: **10:30 AM**

1. Site Plan for Crosby 180, LLC, Assessor's Map G, Lot 1-A, zoned CM, located at 180 Crosby Road. (Proposal is to construct a loading dock addition to an existing manufacturing facility, along with site improvements.) (SITE-2025-0005)

PLAN SNAPSHOT REPORT SITE-2025-0005
FOR CITY OF DOVER, N.H.

Plan Type:	Site Plan - Major	**Project:**		**App Date:**	04/24/2025
Work Class:	Alteration / Addition	**District:**	None	**Exp Date:**	06/28/2025
Status:	In Review	**Square Feet:**	0.00	**Completed:**	NOT COMPLETED
Valuation:	$0.00	**Assigned To:**	Blonigen, Rachel	**Approval Expire Date:**	

Description: Loading Dock Addition to Existing Manufacturing Facility

Parcel:	**Address:**	**Zone:**
G0001-A00000 Main	180 Crosby Rd Main Dover, NH	

Applicant
Dan Cook
P.O. Box 4064
Portsmouth, NH 03802
Mobile: (781) 859-7323

Applicant
Civilworks New England
Steve Haight
181 Watson Road PO Box 1166
Dover, NH 03820
Business: (603) 749-0443
Mobile: (603) 817-6651

Surveyor
McEneaney Survey Associates
P.O. Box 1166
DOVER, NH 03821
Business: (603) 742-0911

Owner
Dan Cook
P.O. Box 4064
Portsmouth, NH 03802
Mobile: (781) 859-7323

Plan Custom Fields

Total	0	Total2	0	Total3	0
Total4	0	Total5	0	Total6	0
Total7	0	Total8	0	Total9	0
Street Classification Type	Municipal	Net Change in # Parking Spaces (+/-)	-18	Water Service	Municipal
Recording Number		Sewer Service	Municipal	Deed Book	5249
Total SQFT	0	Deed Page	451	Deed Date	
Proposed Property Use	Loading dock addition to existing manufacturing facility.	Area of Parcel to be Developed (SQFT)	40858	Number of Parking Spaces Existing	57
Number of Parking Spaces Proposed	39	Number of Employees in Max Shift	1	Distance to City Water	25
Distance to City Sewer	25	Type of Building to be Built	Loading dock using similar building materials of existing commercial building.	Estimated Construction Value	150000.00
Refuse Removal	Private	Is there an existing Conservation Easement?	No	Existing Conservation Easement Details	
TotalImpactFeeSDTOD	0.00	TotalImpactFeeTHTOD	0.00	TotalImpactFee23FTOD	0.00
TotalImpactFeeA4TOD	0.00	TotalImpactFeeMHTOD	0.00	TotalImpactFeeADUTOD	0.00
TotalImpactFeeAONRTOD	0.00	TotalImpactFeeAR55TOD	0.00	TotalImpactFeeAR62TOD	0.00
Sub Total Residential	0.00	TotalImpactFeeRIRCTOD	0.00	TotalImpactFeeOCSTOD	0.00
TotalImpactFeeITWCTOD	0.00	TotalImpactFeeNHALTOD	0.00	TotalImpactFeeOIUTOD	0.00
TotalImpactFeeAFAOTOD	0.00	Sub Total Non-Residential	0.00	Total of Impact Fees to be Assessed	0.00

Attachment File Name	**Added On**	**Added By**	**Attachment Group**	**Notes**
Signature_Steve_Haight_4/24/2025.jpg	04/24/2025 12:14	Haight, Steve		Uploaded via CSS

Invoice No.	**Fee**	**Fee Amount**	**Amount Paid**
INV-2025012141	Planning General Application Fee	$200.00	$0.00
	Total for Invoice INV-2025012141	**$200.00**	**$0.00**

PLAN SNAPSHOT REPORT (SITE-2025-0005)

	Grand Total for Plan	**$200.00**	**$0.00**

Workflow Step / Action Name	Action Type	Start Date	End Date
Review v.1		04/25/2025 12:47	
Confirm application complete v.1	Generic Action		04/25/2025 12:47
Technical Review Committee Meeting Agenda v.1	Task	04/25/2025 12:47	
Land Use Plan Technical Review v.1	Receive Submittal		
Technical Review Committee Meeting v.1	Hold Meeting		
Planning Board v.1			
Planning Board Agenda v.1	Task		
Invoice for Notices v.1	Task		
Send Notices v.1	Task		
Planner Creates Staff Recommendations v.1	Plan Activity		
Distribute Planning Board Materials v.1	Task		
Planning Board Hearing v.1	Hold Hearing		
Planning Board Decision v.1	Plan Activity		
NOD Sent to Applicant v.1	Create Report		
Final Plan v.1			
Land Use Plan Stamped and Signed v.1	Generic Action		
Recording v.1	Task		
Document Archival v.1	Generic Action		
Internal Notification of Plan Completion v.1	Generic Action		
Building Official Notifies Address v.1	Generic Action		
Pre-Con Meeting v.1	Hold Meeting		
Create/Link to Records v.1			
Create / Link to Permit - Building Major v.1	Create Sub Permit		
Create / Link to Permit - Site Work, Construction v.1	Create Sub Permit		

PROJECT NARRATIVE

for

Coda Products, Inc.

Site Plan Review

Loading Dock Addition
Tax Map G, Lot 1A
180 Crosby Road

PROJECT OVERVIEW & SITE CHARACTERISTICS

The proposed project is for the construction of a 3-bay loading dock area with associated site improvements for truck maneuverability located at 180 Crosby Road. The parcel is identified as Tax Map G, Lot 1A and is currently developed as light manufacturing. The existing developed area consists of a 26,567+/- sf building and 29,101+/- associated parking areas. The remaining undeveloped area of the parcel is tree covered. The lot is bounded by light commercial manufacturing facilities to the north and east, and Crosby Road to the south and west.

The proposed site design includes the construction of a proposed 1,620 square foot loading dock addition, construction of additional pavement for truck movements, removal of paved areas, and the replacement of the existing culvert at the site entrance.

The project site consists of the following general improvement plan:

- Clear the site, as necessary, for construction.
- Construction of the loading dock addition
- Construction of on-site stormwater system
- Construction of additional pavement for truck movements
- Existing paved areas to remain will be reclaimed, repaved, and reshaped
- Replacement of existing 36” CMP culvert.
- Convert paved areas to green space (as shown on the site plan)
- Stabilize remaining areas with loam and seed.

In addition to a Site Plan Review application the project proponent is seeking a Conditional Use Permit for 1,352 sf of impacts within the 50’ Wetland Buffer.

SITE ACCESS AND PARKING LOT

The parcel currently has one site access on Crosby Road and this project will maintain that access. The site currently has 57 parking spaces with 1 ADA accessible parking space. The proposed site design includes 39 parking spaces with 1 ADA accessible parking spaces. The reduction of parking spaces results from the reduction of 3,141 sf of paved areas.

WETLAND PROTECTION DISTRICT SETBACK & IMPACT

There are wetland areas throughout the site and along the roadside ditch of Crosby Road, and therefore portions of the parcel are within the City of Dover’s Wetland Protection Overlay District. The proposed loading dock addition will be located on existing paved areas, and approximately 20 sf will be located within the 50’ wetland buffer. Existing paved areas in this location currently extend into the wetland buffer. As part of this proposal, approximately 3,141 sf of the impervious area will be converted into green space, which creates a reduction of 966± sf impervious area within the 50’ Wetland Buffer.

DRAINAGE

The proposed stormwater improvements include a proposed 15” trench drain along the front of the loading dock discharges to a 4,000-gallon pump chamber. The trench drain has been designed to capture stormwater runoff from 13,731 sf of existing and new paved areas, and 7,363 sf of existing roof runoff. The 4000-gallon pump chamber is located downstream and has been designed with dual APEX 6HP pumps. Each pump will have a 4” DR41 PVC force main that will discharge to a riprap swale located along the perimeter of the truck turnaround area. The system has been designed for a 10-year storm event and can accommodate up to a 50-year storm event without flooding. The project proponent will replace in place the existing 36” concrete culvert located under the site access with a new 36” HDPE ADS N-12 and will replace existing stone headwall with a concrete headwall.

TRAFFIC

A traffic assessment was completed for the project and is attached as a report to this submittal. The traffic assessment indicates that this proposed project will have no truck or passenger vehicle trips added. Therefore, the proposed project is not anticipated to add new traffic to Crosby Road or Route 9.

UTILITIES

The existing site currently is serviced by public utilities within the Crosby Road right-of-way. The proposed loading dock area will be serviced by the utilities in the existing building.

City of Dover, New Hampshire
CONDITIONAL USE PERMIT APPLICATION

[Revision Date: October 19, 2020]

Office Use Only	Project #:		Date Received:	
	Amount Paid:		Time Received:	

APPLICANT AND OWNER INFORMATION

Name of Applicant: Coda Products, Inc. Telephone # 781-859-7323

Address of Applicant: PO Box 4064 Portsmouth, NH 03802

E-Mail Address: dan@coda-products.com

Name of Property Owner (if different from applicant): Crosby 180, LLC Telephone # 781-859-7323

Address of Property Owner: PO Box 4064 Portsmouth, NH 03802

PROPERTY INFORMATION

Assessor's Map # G Lot(s) # 1A

Address of Property: 180 Crosby Road

Zoning District(s) CM Overlay District(s) N/A

Existing Use of Property: Existing Manufacturing Facility

CONDITIONAL USE PERMIT INFORMATION

Type of Conditional Use Permit (Check All That Apply):

☐ Conservation District	☐ RCM Use Overlay District	☐ Gateway District
☐ Groundwater Protection	☐ Off-Street Parking and Loading	☐ Alternative Treatment Center
☒ Wetland Protection District	☐ Central Business District	☐ Heritage Residential District

Describe Proposed Use or Activity That Requires Conditional Use Permit and Describe Any Impacts:

To allow 20 sf of the proposed loading dock addition to fall within the 50' wetland buffer. There will be no further impact to the wetland buffer associated with the site design for this addition.

List Any Associated State or Federal Permits That Have Been or Will Be Applied For and Indicate Their Status: N/A

Name of Professional That Prepared Plans: Stephen J. Haight, PE - Civilworks New England

Address PO Box 1166 Dover, NH 03821 Telephone #: 603-749-0443

Professional License #: NH PE #7978 E-mail address: shaight@civilworksne.com

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

Signature of Property Owner: _____ Date: 4/24/25
Dan Cook - Crosby 180, LLC

Signature of Applicant (if different from owner): _____ Date: _____
Dan Cook - Coda Products, Inc.

Signature of Agent: _____ Date: _____

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: 4/24/25
Dan Cook - Crosby 180, LLC

CONDITIONAL USE NARRATIVE
§170-27.1
WETLAND PROTECTION DISTRICT
CONDITIONAL USE APPROVAL REQUIREMENTS
for
Coda Products, Inc.
Loading Dock Addition
Tax Map G, Lot 1A
180 Crosby Road

F. Conditional use approval.

(1) Conditional use approval may be granted by the PLANNING BOARD (RSA 674:21II) after proper public notice and public hearing, for construction within the Wetland Protection District or buffer. Said construction may include but is not limited to a road or other accessway, utility right-of-way, communication lines, power lines and pipelines, structures, and parking lots provided that the proposed construction complies with the following standards:

(a) Practicable Alternative: There is no practicable alternative that would have a less adverse impact on the area. **The site design will not impact any wetlands. The proposed loading dock addition will be located on existing paved areas, and approximately 20 sf will be located within the 50' wetland buffer. Existing paved areas in this location currently extend into the wetland buffer. The loading dock addition has been located to impact the least amount of buffer as possible. Due to the existing building and parking layout there are no other alternative locations for the loading dock addition. As part of this proposal, approximately 3,141 sf of the impervious area will be converted into green space, which includes a reduction of 966± sf impervious area within the 50' Wetland Buffer.**

(b) Avoidance: The potential impacts have been avoided to the maximum extent practicable. The APPLICANT will demonstrate by plan and example that the proposed construction represents the least impacting alternative. **The proposed loading dock addition will be located on existing paved areas, and approximately 20 sf will be located within the 50' wetland buffer. The remaining buffer impacts are associated with existing impervious being converted into greenspace and the reconstruction of the existing cross-culvert at the site entrance.**

(c) Minimization: Any unavoidable impacts have been minimized. No reasonable Alternative to the proposed construction exists which does not impact a wetland, or which has less detrimental impact on a wetland. Design, construction, and maintenance methods will be prepared by a registered engineer to minimize detrimental impacts to the wetlands and include restoration of the site as nearly as possible to its original grade. **There are no proposed impacts to wetlands.**

(d) Mitigation: If the APPLICANT is required by State rules to prepare a compensatory mitigation plan, the APPLICANT shall provide the Conservation Commission and PLANNING BOARD with one copy each of said plan for their review. **Mitigation is not required. There will be no impacts to wetlands.**

(e) Approval for the wetlands impact has been received from the NHDES Wetlands Bureau pursuant to Section G (3), below. **There are no proposed impacts to wetlands.**

G. Specific provisions.

(1) Wetland Buffers.

(a) Buffers Established. Buffers are hereby established around and encircling all wetlands other than those that were created as legally permitted sedimentation/detention basins or roadside drainage ditches. The minimum width of the wetland buffers shall be fifty (50) feet horizontal distance as measured outward from the perimeter edge of the wetland. Wherever a permit to fill a wetland has been issued by either the New Hampshire Department of Environmental Services (NHDES) or the U.S. Army Corps of Engineers (USACOE), the perimeter of the wetland shall be deemed to be the new edge between the fill as placed in accordance with the permit and the remaining wetland. If there is no remaining wetland, there is no buffer. All other wetland edges shall be determined in accordance with Section D (1) above. **There are no proposed impacts to wetlands. A 50-foot wetland buffer is shown on the site plan, a portion of which will be impacted by the project design, for approximately 20 sf of a proposed loading dock addition that is located on existing pavement, existing impervious areas being converted to green space, and the reconstruction of the existing cross-culvert at the site entrance.**

(b) Natural Conditions to be Maintained within Buffers. Where wetland buffer disturbance is allowed pursuant to a state or federal permit, or a conditional use permit, restoration of the disturbed area is required. Restoration is defined as filling ruts or excavated areas with similar soils while maintaining original grade. Applications for a City of Dover BUILDING permit that includes a temporary disturbance of wetlands buffers, pursuant to Section G (1) (e) (iv) below, shall include a "Wetlands Buffer Encroachment and Restoration Plan." Said plan shall be submitted, reviewed, and approved by Building Inspector, in consultation with City staff, prior to the disturbance. Replanting to restore buffers shall be with native non-invasive species specified in the "Wetlands Buffer Encroachment and Restoration Plan". Implementation of the plan shall include the clear delineation of the boundaries of wetland buffers in the field using construction tape or other clear marking devise. Mowing to maintain an existing lawn or field within a wetland buffer area is allowed without a permit, as specified in Section G (1)(e), below, provided the roots of the vegetation are not disturbed and the ground is frozen or sufficiently dry to avoid making ruts. **The wetland buffer impact for this project will be primarily of a permanent nature as allowed by obtaining a Conditional Use Permit. The areas that are being converted into green space will be planted with non-invasive species and will be mowed regularly as part of the landscaping maintenance.**

(c) Certain Uses Prohibited in Buffers. The following uses and activities are prohibited within a wetland buffer: DOVER CODE P 170-107 (i) The establishment or expansion of salt storage, JUNKYARDs, resource recovery facilities, transfer stations, landfills, or solid or hazardous waste facilities; (ii) The BULK storage of chemicals, petroleum products, or toxic and hazardous materials; (iii) The dumping or disposal of snow and ice collected from roadways and parking LOTs; **Not applicable.**

(d) Uses Allowed Only with a Conditional Use Permit. The following uses and activities are allowed within a wetland buffer only if a conditional use permit is obtained in accordance with Section F above: (i) All uses not specifically prohibited in Section G (1)(c) above or specifically exempted in Section G (1) (e) below. (ii) The erection or construction of a BUILDING or STRUCTURE, excluding FENCEs that meet the requirements of 170-33, or the construction of parking LOTs or loading areas. (iii) Timber harvesting, except as conducted in accordance with the terms and provisions of RSA 227-J, Timber Harvesting. (iv) The removal of stumps and roots (grubbing), the recontouring or grading of the land, or the placement of impervious surfaces or creation of storm water detention ponds. (v) The installation of water, sewer, or buried electrical or telecommunications cables. (vi) The installation of water supply wells. **A Conditional Use Permit is being requested for the construction of approximately 20 sf of a loading dock addition that is located on existing pavement, impacts associated with existing pavement being converted to green space and the reconstruction of the existing cross-culvert located at the site entrance.**

(e) Uses Allowed Without a Conditional Use Permit. The following uses and activities are allowed within a wetland buffer with the noted conditions: (i) Activities within wetlands jurisdictional areas that are allowed without a State of New Hampshire Dredge and Fill Permit, in accordance with NHDES Rules Env-Wt 308.01(a) and 308.02 – repair of an existing legal STRUCTURE; or successor rules. (ii) The removal of vegetation in accordance with NHDES Rules Env-Wt 303.05(b), or successor rules, provided the roots of the vegetation are ZONING P 170-108 not disturbed, and the ground is frozen or sufficiently dry to avoid making ruts. (iii) The installation of monitoring or test wells or geotechnical borings completed in accordance with NHDES Rules Env-Wt 309.02(i) or successor rules. (iv) Temporary disturbance of the wetland buffer to facilitate construction activities completed under a valid City of Dover BUILDING permit, provided the temporary disturbance is restored in accordance with Section G (1) (b) above. **Not applicable.**

(2) No septic tank or leach field may be constructed or enlarged closer than seventy-five (75) feet to any Wetland Protection District. In new subdivisions approved subsequent to adoption of this section, there must be sufficient LOT size to place a house, a state-approved septic system, where applicable, and a state-approved well, where applicable, without locating them in a wetland. This provision can be waived if conditional use approval is obtained from the PLANNING BOARD. **Not applicable.**

(3) A state dredge and fill application shall be submitted for any proposed change to a wetland (RSA 482-A). **Not applicable.**

Coda Products, Inc.
Crosby 180, LLC
P.O. Box 4064
Portsmouth, NH 03802

April 23, 2025

City of Dover
288 Central Avenue
Dover, NH 03820

Attn: Planning Board

Re: LETTER OF APPLICANT/OWNER AUTHORIZATION
Site Plan Review & Conditional Use Permit Applications
180 Crosby Road – Tax Map G, Lot 1A

I, Dan Cook, authorize Civilworks New England and McEneaney Survey Associates to represent all applications made on behalf of me as Member of both Coda Products, Inc. and Crosby 180, LLC (APPLICANT/OWNER) to the City of Dover Planning Board and any other Dover Board or Committee, as well as any State of NH departments, as necessary, relative to the pursuit of approvals and permits for the development of the subject parcel.

Sincerely,

Dan Cook, Member
Coda Products, Inc.
Crosby 180, LLC

CIVILWORKS NEW ENGLAND
181 WATSON ROAD
P.O. BOX 1166
DOVER, NH 03821-1166
PHONE: 603.749.0443

TRAFFIC ASSESSMENT MEMORANDUM

April 24, 2025

INTRODUCTION

Civilworks New England has prepared this traffic assessment memorandum (TAM) in regard to the proposed loading dock addition at 180 Crosby Road in Dover, NH. The property is identified as Map G, Lot 1A.

EXISTING SITE DESCRIPTION

The site:

- is occupied by a building occupied by Coda Products, Inc. for use in support of their door and window weather seal product business.
- has an existing driveway intersecting the west side of Crosby Road that provides full, unrestricted access/egress to the building, loading area and parking.
- has sight distances from the driveway on the order of 600 feet to the northeast and around 400 feet to the southwest (with tree pruning potentially being appropriate).

PROPOSED PROJECT DESCRIPTION

The project will provide:

- a new 1,620 SF loading dock addition on the northwest (rear) corner of the building.
- refurbished pavement surfaces and a larger truck turning area for access to the new dock.
- a driveway that will be retained in its current location and configuration.
- no increase in the number of trucks serving the facility, nor the number of employees.

ROAD DESCRIPTION

Crosby Road:

- is under the jurisdiction of the City.
- has a 30 MPH posted speed limit.
- is oriented about north-south at project location with a relatively straight horizontal alignment and minor vertical grades.
- has one travel lane per direction, with a pavement width of about 28 ft and centerline markings.

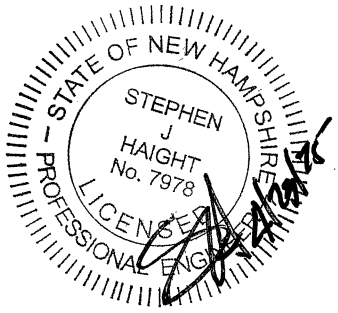
POTENTIAL TRAFFIC IMPACTS

No truck or passenger vehicle trips are being added. Therefore, the proposed project is not anticipated to add new traffic to Crosby Road or Route 9.

CIVILWORKS NEW ENGLAND

Sincerely,

Stephen J. Haight, PE



Cc: Coda Products, Inc.

DRAINAGE MEMORANDUM

LOADING DOCK ADDITION
180 CROSBY ROAD
DOVER, NH

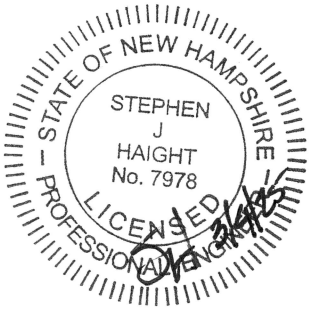
APRIL 2025

Prepared For:

Coda Products, Inc.
PO Box 4064
Portsmouth, NH 03802

Prepared By:

Civilworks New England
PO Box 1166
181 Watson Road
Dover, NH 03821



CONTENTS

1.0 INTRODUCTION

This is an analysis for the design of a stormwater pump to accommodate stormwater collected in a sunken loading dock located at 180 Crosby Road, Dover NH. The parcel is identified as Tax Map G, Lot 1A and is currently developed as light manufacturing. The developed area consists of a 26,567± sf building and 29,101± sf associated parking areas. The remaining undeveloped area of the parcel is tree covered. The lot is bounded by light commercial manufacturing facilities to the north and east, and Crosby Road to the south and west.

An existing swale captures stormwater runoff from the undeveloped area along the north and easterly portions of the parcel and the on-site paved parking areas and approximately half of the building area. The swale discharges to the existing 24" concrete pipe located at the easterly property corner. The remaining site area drains to the roadside ditch in Crosby Road that discharges to a 36" corrugated metal pipe culvert located under the existing site access. Both existing culverts discharge to an existing catch basin located in Crosby Road, that discharges to the south side of Crosby Road to a drainage system that eventually discharges to Kelly Brook.

The project is for the construction of a 3-bay loading dock area with associated site improvements for truck maneuverability. The proposed loading dock has been located in existing paved areas. Approximately 20 sf of the proposed loading dock will be located within the 50' wetland buffer, with existing paved areas in this location that currently extend into the wetland buffer. As part of this proposal, approximately 3,141 sf of the impervious area will be converted into green space, which includes a reduction of 966± sf impervious area within the 50' Wetland Buffer.

The proposed stormwater improvements include a proposed 15" trench drain along the front of the loading dock discharges to a 4,000-gallon pump chamber. The trench drain has been designed to capture stormwater runoff from 13,731 sf of existing and new paved areas, and 7,363 sf of existing roof runoff. The 4000-gallon pump chamber is located downstream and has been designed with dual APEX 6HP pumps. Each pump will have a 4" DR41 PVC force main that will discharge to a riprap swale located along the perimeter of the truck turnaround area. The system has been designed for 10-year storm event and can accommodate up to a 50-year storm event without flooding. The project proponent will replace in place the existing 36" concrete culvert located under the site access with a new 36" HDPE ADS N-12 and will replace existing stone headwall with a concrete headwall.

The proposed project in conjunction with the proposed stormwater improvements and stormwater inspection and maintenance plan will have minimal impact on the watershed.

2.0 DRAINAGE STUDY

A comprehensive hydrologic study of the proposed pump chamber system has been performed utilizing nationally recognized runoff estimating techniques developed by the USDA, Soil Conservation Services (SCS). The technique and runoff models are described in various SCS publications and references as follows:

- "Stormwater Management and Erosion Sediment Control Handbook for Urban and Developing Areas in New Hampshire"
- "New Hampshire Stormwater Manual Volume 2 - Post-Construction Best Management Practices Selection & Design"
- "Civil Engineering Reference Manual, Fifth Edition"
- "Open-Channel Hydraulics" Chow.
- "Stormwater Modeling System" HydroCAD Ver. 10.10

2.1 DRAINAGE STUDY PARAMETERS

A brief review of the procedures and parameters used in the drainage study follows:

2.1.1 Watersheds

The watershed was delineated using on site topographic and as built survey data field located by McEneaney Survey Associates of New England.

2.1.2 Soils

Soil types were determined utilizing the NRCS Web Soil Survey (WSS) mapping tool at http://websoilsurvey.nrcs.usda.gov. The soil survey area is Strafford County, NH, the soil survey data is Version 25, dated September 3rd, 2024 and the aerial images are dated June 19th to September 20th, 2020.

Hydrologic Drainage Class C/D:

Map Unit Symbol	Slopes	Map Unit Name
ScA	0 to 3 %	Scantic Silt Loam

2.1.3 Rainfall Data

Extreme precipitation estimate values from the Northeast Regional Climate Center were utilized in this drainage study. This studied analyzed the pump chamber system for the 10-year, and 50-year storm events with 4.73, and 7.16" rainfall depths respectively.

2.1.4 Runoff Curve Numbers

The SCS runoff curve numbers were used and are summarized within each sub-catchment drainage summary in Appendix A.

APPENDIX A

HYDROLOGIC STUDY

Extreme Precipitation in New York & New England

An Interactive Web Tool for Extreme Precipitation Analysis

About this Project | Data & Products | Daily Monitoring | Documentation

Select Product

- Extreme Precipitation Tables - HTML
- Extreme Precipitation Tables - Text/CSV
- Partial Duration Series - by Point
- Partial Duration Series - by Station
- Distribution Curves - Graphical
- Distribution Curves - Text/TBL
- Intensity Frequency Duration Graphs
- Precipitation Frequency Duration Graphs
- GIS Data Files
- Regional/State Maps

Select Location *Double-click map to place a marker, or enter address or latitude/longitude.*

Hybrid | Map | Satellite | Terrain

Locate by Address: 180 Crosby Road, Dove →

Locate by Lat/Lon: 43.17° N -70.91° W →

Locate by State/County:

Select Options

Smoothing: Yes

Delivery: Popup

Submit

Version 2.0 Copyright 2010-2022

This project is a joint collaboration between:

Northeast Regional Climate Center (NRCC) | Natural Resources Conservation Service (NRCS)

Cornell University

Contact: precip@cornell.edu

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Metadata for Point

Smoothing	Yes
State	
Location	
Latitude	43.179 degrees North
Longitude	70.915 degrees West
Elevation	20 feet
Date/Time	Wed Apr 16 2025 10:01:55 GMT-0400 (Eastern Daylight Time)

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.26	0.40	0.50	0.65	0.81	1.03	**1yr**	0.70	0.98	1.20	1.54	1.99	2.60	2.85	**1yr**	2.30	2.74	3.14	3.87	4.44	**1yr**
2yr	0.32	0.49	0.61	0.81	1.01	1.28	**2yr**	0.87	1.17	1.50	1.91	2.44	3.13	3.48	**2yr**	2.77	3.35	3.84	4.57	5.21	**2yr**
5yr	0.37	0.57	0.72	0.96	1.23	1.58	**5yr**	1.06	1.44	1.85	2.38	3.06	3.96	4.46	**5yr**	3.50	4.29	4.90	5.78	6.54	**5yr**
10yr	0.40	0.63	0.80	1.09	1.41	1.84	**10yr**	1.22	1.69	2.17	2.82	3.65	4.73	5.38	**10yr**	4.19	5.17	5.90	6.90	7.77	**10yr**
25yr	0.46	0.74	0.94	1.29	1.72	2.26	**25yr**	1.48	2.09	2.69	3.51	4.59	5.98	6.90	**25yr**	5.30	6.64	7.54	8.73	9.76	**25yr**
50yr	0.51	0.82	1.06	1.48	1.99	2.66	**50yr**	1.72	2.45	3.17	4.17	5.47	7.16	8.33	**50yr**	6.33	8.01	9.08	10.43	11.61	**50yr**
100yr	0.58	0.93	1.20	1.70	2.31	3.11	**100yr**	1.99	2.88	3.73	4.94	6.51	8.56	10.07	**100yr**	7.57	9.68	10.94	12.47	13.81	**100yr**
200yr	0.64	1.04	1.35	1.94	2.69	3.65	**200yr**	2.32	3.39	4.41	5.87	7.77	10.24	12.17	**200yr**	9.06	11.70	13.18	14.91	16.44	**200yr**
500yr	0.75	1.24	1.61	2.34	3.28	4.51	**500yr**	2.83	4.20	5.47	7.34	9.79	12.98	15.64	**500yr**	11.49	15.04	16.87	18.91	20.72	**500yr**

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.24	0.37	0.45	0.60	0.74	0.90	**1yr**	0.64	0.88	0.91	1.25	1.55	2.04	2.48	**1yr**	1.81	2.38	2.92	3.35	4.05	**1yr**
2yr	0.31	0.49	0.60	0.81	1.00	1.18	**2yr**	0.86	1.16	1.36	1.83	2.36	3.04	3.38	**2yr**	2.69	3.25	3.73	4.45	5.06	**2yr**
5yr	0.35	0.54	0.67	0.91	1.16	1.40	**5yr**	1.00	1.37	1.61	2.15	2.78	3.70	4.11	**5yr**	3.27	3.96	4.58	5.40	6.10	**5yr**
10yr	0.38	0.59	0.73	1.02	1.32	1.60	**10yr**	1.14	1.57	1.82	2.45	3.14	4.26	4.78	**10yr**	3.77	4.59	5.31	6.24	7.01	**10yr**
25yr	0.44	0.67	0.83	1.18	1.55	1.91	**25yr**	1.34	1.87	2.11	2.85	3.67	5.04	5.79	**25yr**	4.46	5.57	6.48	7.56	8.43	**25yr**
50yr	0.48	0.73	0.91	1.31	1.77	2.19	**50yr**	1.53	2.14	2.36	3.21	4.12	5.78	6.69	**50yr**	5.11	6.44	7.53	8.74	9.68	**50yr**
100yr	0.54	0.81	1.02	1.47	2.02	2.51	**100yr**	1.74	2.46	2.64	3.59	4.61	6.61	7.73	**100yr**	5.85	7.43	8.76	10.09	11.08	**100yr**
200yr	0.60	0.90	1.14	1.65	2.30	2.88	**200yr**	1.99	2.81	2.93	4.02	5.16	7.57	8.93	**200yr**	6.70	8.58	10.19	11.67	12.72	**200yr**
500yr	0.70	1.04	1.34	1.94	2.77	3.47	**500yr**	2.39	3.39	3.40	4.67	6.01	9.01	10.78	**500yr**	7.97	10.37	12.44	14.15	15.20	**500yr**

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.28	0.43	0.53	0.71	0.87	1.08	**1yr**	0.75	1.05	1.23	1.74	2.21	2.83	3.05	**1yr**	2.50	2.93	3.37	4.17	4.76	**1yr**
2yr	0.33	0.51	0.62	0.84	1.04	1.24	**2yr**	0.90	1.22	1.48	1.95	2.50	3.25	3.59	**2yr**	2.87	3.45	3.96	4.72	5.39	**2yr**
5yr	0.39	0.60	0.75	1.03	1.31	1.58	**5yr**	1.13	1.54	1.85	2.49	3.19	4.22	4.80	**5yr**	3.73	4.61	5.23	6.17	6.94	**5yr**
10yr	0.46	0.70	0.87	1.21	1.57	1.92	**10yr**	1.35	1.87	2.23	3.04	3.84	5.19	5.98	**10yr**	4.59	5.75	6.55	7.58	8.46	**10yr**
25yr	0.55	0.84	1.05	1.49	1.96	2.47	**25yr**	1.69	2.41	2.87	3.95	4.92	6.93	8.02	**25yr**	6.13	7.71	8.73	9.96	11.02	**25yr**
50yr	0.64	0.97	1.21	1.74	2.34	2.98	**50yr**	2.02	2.91	3.48	4.80	5.97	8.55	10.03	**50yr**	7.57	9.64	10.87	12.25	13.47	**50yr**
100yr	0.74	1.12	1.40	2.03	2.78	3.59	**100yr**	2.40	3.51	4.21	5.87	7.24	10.55	12.55	**100yr**	9.34	12.07	13.52	15.08	16.47	**100yr**
200yr	0.86	1.29	1.63	2.37	3.30	4.35	**200yr**	2.85	4.26	5.12	7.18	8.78	13.06	15.72	**200yr**	11.56	15.11	16.83	18.54	20.18	**200yr**
500yr	1.05	1.56	2.00	2.91	4.13	5.59	**500yr**	3.57	5.46	6.61	9.39	11.34	17.35	21.17	**500yr**	15.36	20.36	22.49	24.42	26.41	**500yr**

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Northeast Regional Climate Center

Hydrologic Soil Group—Strafford County, New Hampshire
(WSS-HSG)

Map Scale: 1:1,380 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

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

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil 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 1:20,000.

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: Strafford County, New Hampshire
Survey Area Data: Version 25, Sep 3, 2024

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

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

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

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
ScA	Scantic silt loam, 0 to 3 percent slopes	C/D	5.3	100.0%
Totals for Area of Interest			**5.3**	**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

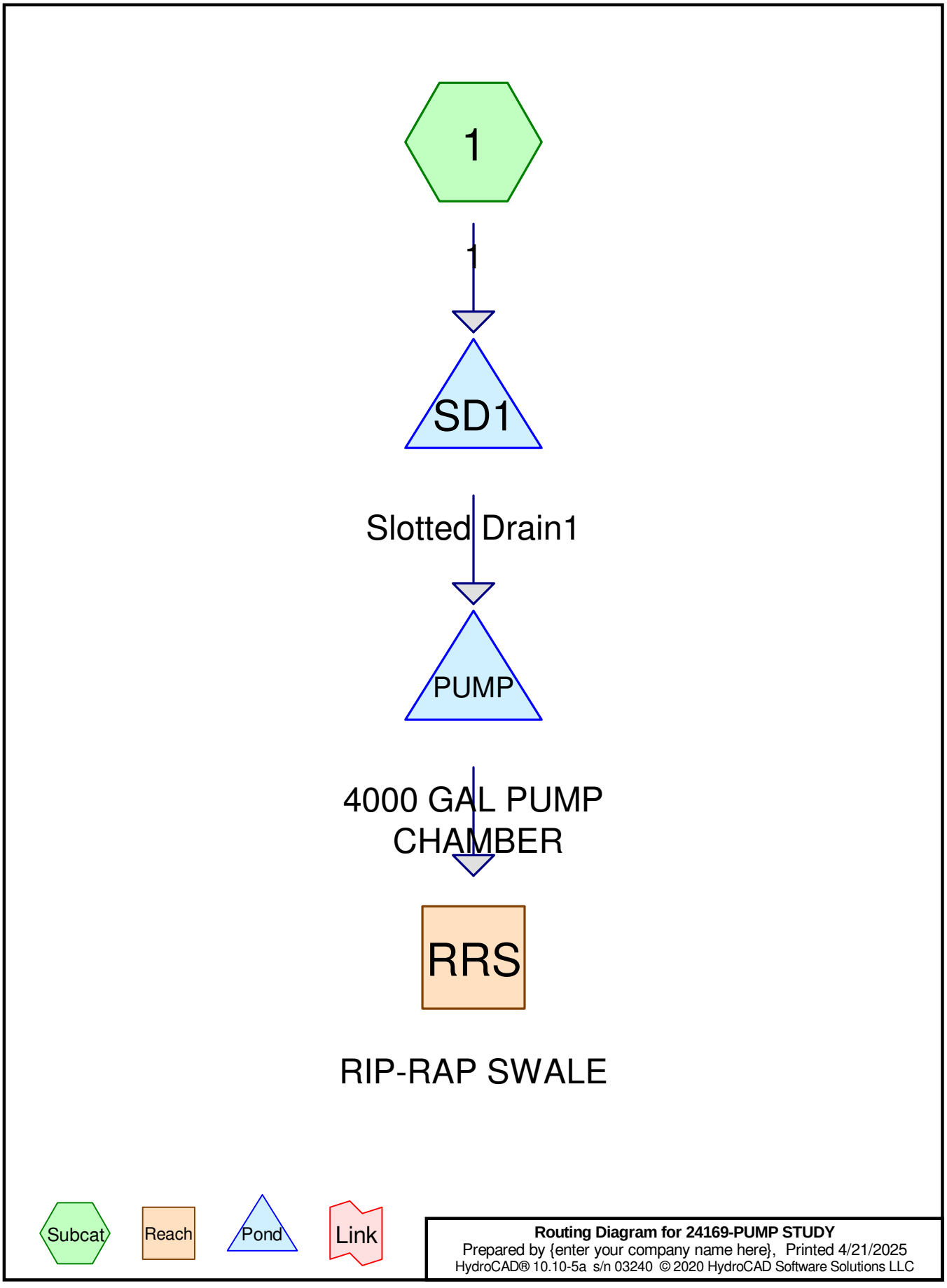
Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

A – 1

PUMP CHAMBER SYSTEM STUDY



Routing Diagram for 24169-PUMP STUDY
Prepared by {enter your company name here}, Printed 4/21/2025

A – 1

10-YR STORM SUMMARY

Summary for Subcatchment 1: 1

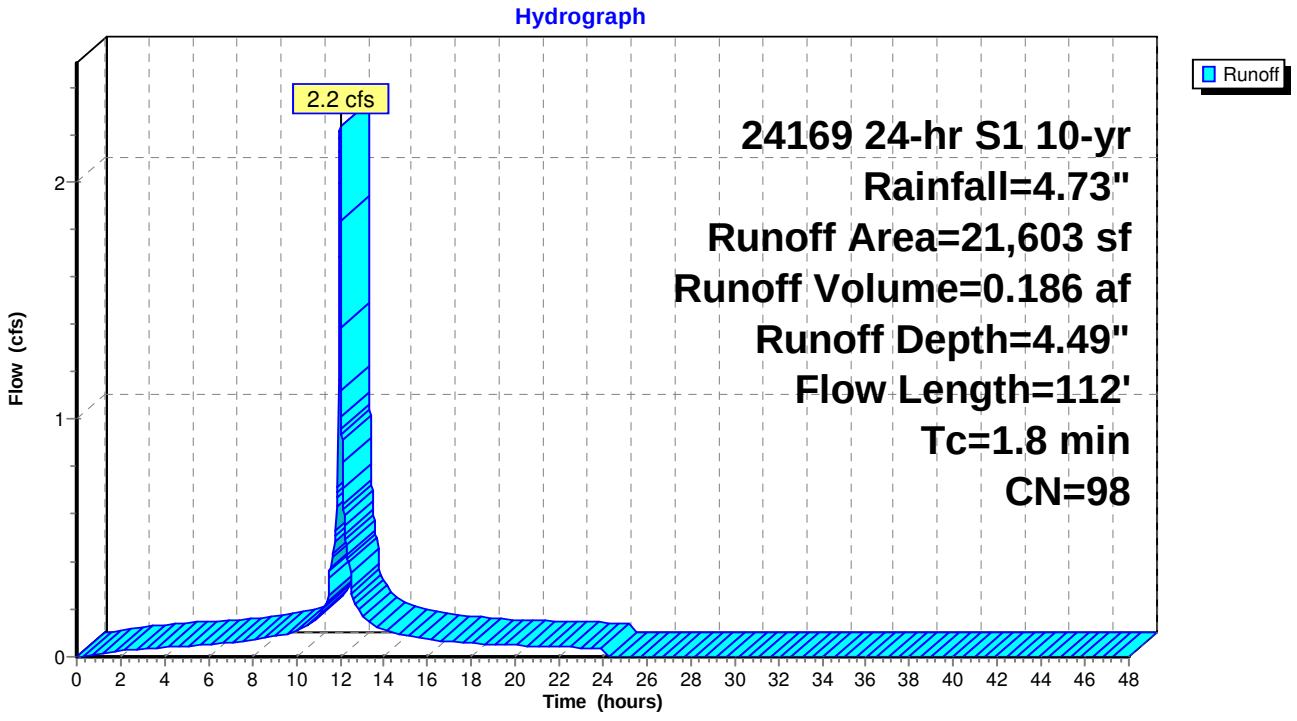
Runoff = 2.2 cfs @ 12.00 hrs, Volume= 0.186 af, Depth= 4.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
24169 24-hr S1 10-yr Rainfall=4.73"

Area (sf)	CN	Description
509	80	>75% Grass cover, Good, HSG D
13,731	98	Paved parking, HSG D
7,363	98	Roofs, HSG D
21,603	98	Weighted Average
509		2.36% Pervious Area
21,094		97.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	9	0.0500	0.11		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.60"
0.4	103	0.0357	3.84		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.8	112	Total			

Subcatchment 1: 1



Summary for Reach RRS: RIP-RAP SWALE

Inflow Area = 0.496 ac, 97.64% Impervious, Inflow Depth = 4.36" for 10-yr event
Inflow = 1.8 cfs @ 12.02 hrs, Volume= 0.180 af
Outflow = 1.7 cfs @ 12.13 hrs, Volume= 0.180 af, Atten= 3%, Lag= 6.7 min

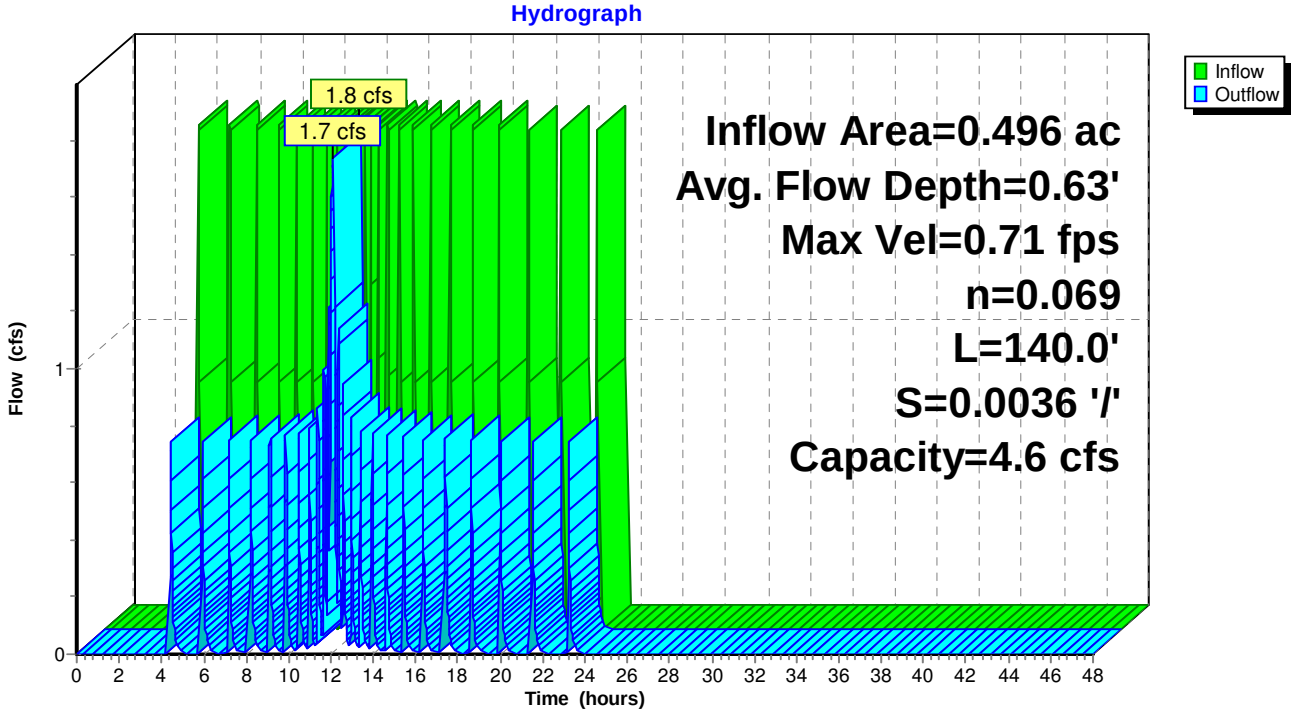
Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.71 fps, Min. Travel Time= 3.3 min
Avg. Velocity = 0.18 fps, Avg. Travel Time= 12.9 min

Peak Storage= 342 cf @ 12.13 hrs
Average Depth at Peak Storage= 0.63' , Surface Width= 5.77'
Bank-Full Depth= 1.00' Flow Area= 5.0 sf, Capacity= 4.6 cfs

2.00' x 1.00' deep channel, n= 0.069 Riprap, 6-inch
Side Slope Z-value= 3.0 '/' Top Width= 8.00'
Length= 140.0' Slope= 0.0036 '/'
Inlet Invert= 92.00', Outlet Invert= 91.50'

‡

Reach RRS: RIP-RAP SWALE



Summary for Pond PUMP: 4000 GAL PUMP CHAMBER

Inflow Area = 0.496 ac, 97.64% Impervious, Inflow Depth = 4.49" for 10-yr event
Inflow = 2.2 cfs @ 12.00 hrs, Volume= 0.186 af
Outflow = 1.8 cfs @ 12.02 hrs, Volume= 0.180 af, Atten= 20%, Lag= 1.3 min
Primary = 1.8 cfs @ 12.02 hrs, Volume= 0.180 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 88.29' @ 12.02 hrs Surf.Area= 144 sf Storage= 500 cf
Flood Elev= 89.82' Surf.Area= 144 sf Storage= 720 cf

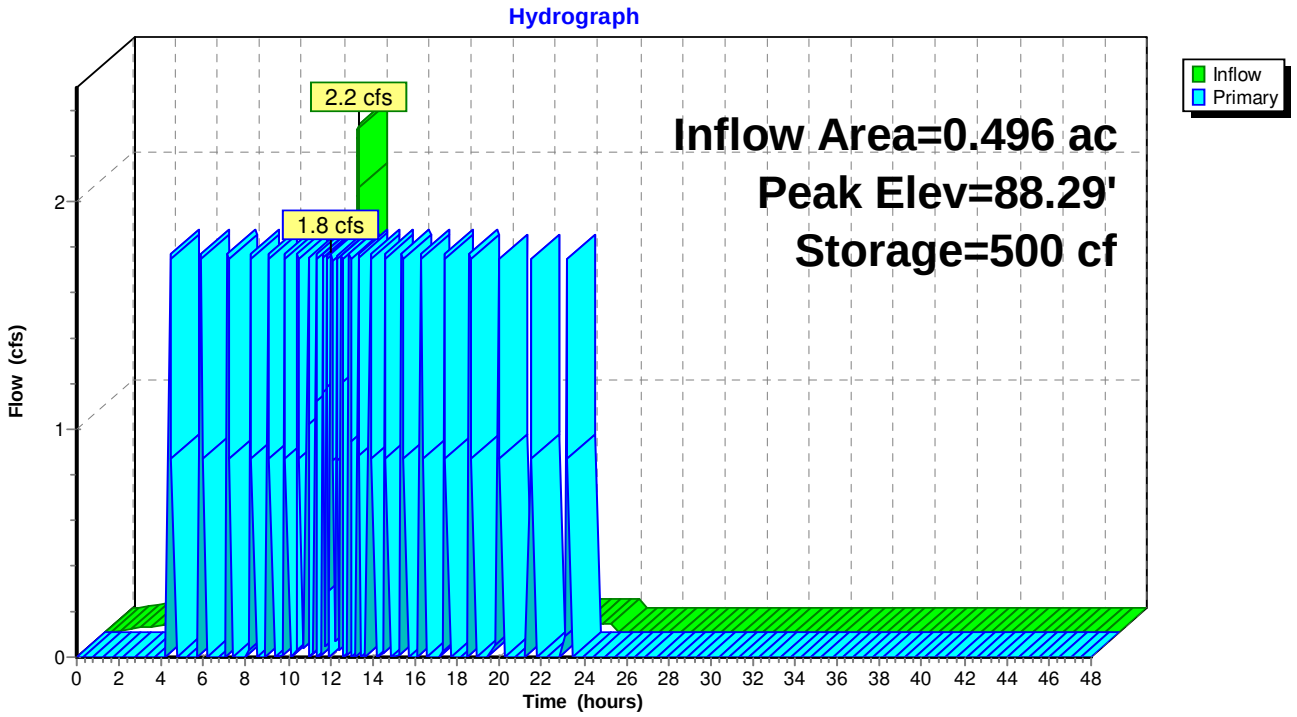
Plug-Flow detention time= 40.2 min calculated for 0.180 af (97% of inflow)
Center-of-Mass det. time= 20.9 min (768.7 - 747.8)

Volume	Invert	Avail.Storage	Storage Description
#1	84.82'	720 cf	**9.00'W x 16.00'L x 5.00'H 4000 GAL PUMP CHAMBER**

Device	Routing	Invert	Outlet Devices (Turned on 25 times)
#1	Primary	87.40'	**DUAL APEX SD65HV 6.0HP X 2.00** Discharges@92.00' Turns Off<85.82' 4.0" Diam. x 140.0' Long Discharge, Hazen-Williams C= 140 Flow (gpm)= 0.0 200.0 400.0 462.0 Head (feet)= 65.60 48.00 16.00 0.00 -Loss (feet)= 0.00 3.31 11.95 15.61 =Lift (feet)= 65.60 44.69 4.05 -15.61

Primary OutFlow Max=1.8 cfs @ 12.02 hrs HW=88.28' TW=92.59' (Dynamic Tailwater)
↑—**1=DUAL APEX SD65HV 6.0HP** (Pump Controls 1.8 cfs)

Pond PUMP: 4000 GAL PUMP CHAMBER



Summary for Pond SD1: Slotted Drain1

Inflow Area = 0.496 ac, 97.64% Impervious, Inflow Depth = 4.49" for 10-yr event
Inflow = 2.2 cfs @ 12.00 hrs, Volume= 0.186 af
Outflow = 2.2 cfs @ 12.00 hrs, Volume= 0.186 af, Atten= 0%, Lag= 0.0 min
Primary = 2.2 cfs @ 12.00 hrs, Volume= 0.186 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 89.46' @ 12.00 hrs Surf.Area= 53 sf Storage= 33 cf
Flood Elev= 90.47' Storage= 53 cf

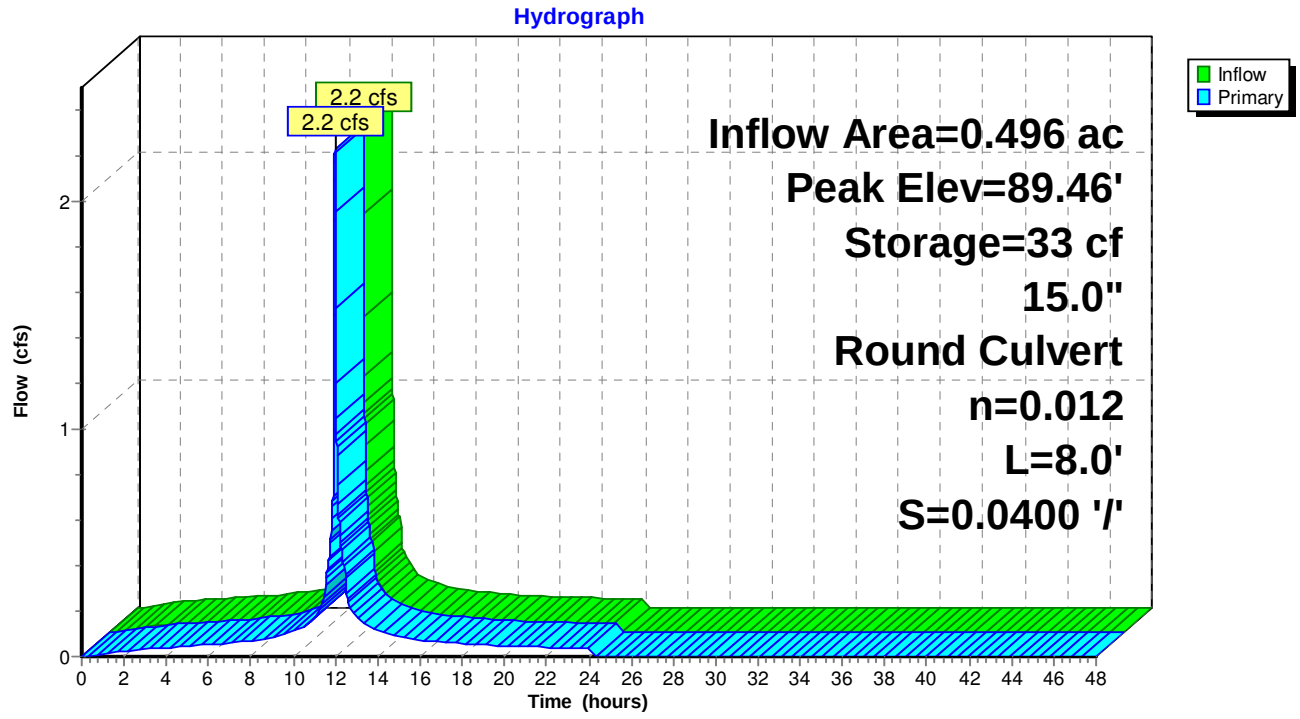
Plug-Flow detention time= 0.5 min calculated for 0.186 af (100% of inflow)
Center-of-Mass det. time= 0.5 min (747.8 - 747.3)

Volume	Invert	Avail.Storage	Storage Description
#1	88.72'	53 cf	**15.0" Round Pipe Storage** L= 43.0'

Device	Routing	Invert	Outlet Devices
#1	Primary	88.72'	**15.0" Round Culvert** L= 8.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 88.72' / 88.40' S= 0.0400 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.2 cfs @ 12.00 hrs HW=89.46' TW=88.10' (Dynamic Tailwater)
1=Culvert (Inlet Controls 2.2 cfs @ 2.93 fps)

Pond SD1: Slotted Drain1



A – 1

50-YR STORM SUMMARY

Summary for Subcatchment 1: 1

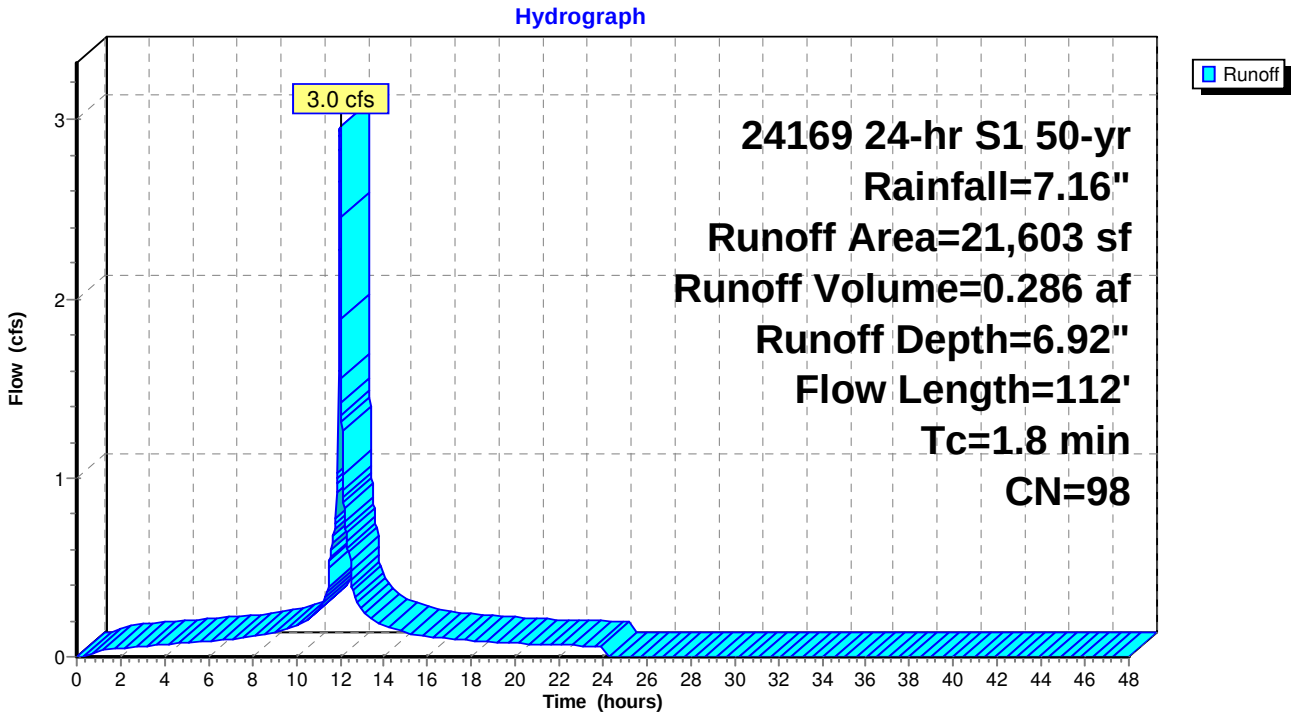
Runoff = 3.0 cfs @ 12.00 hrs, Volume= 0.286 af, Depth= 6.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
24169 24-hr S1 50-yr Rainfall=7.16"

Area (sf)	CN	Description
509	80	>75% Grass cover, Good, HSG D
13,731	98	Paved parking, HSG D
7,363	98	Roofs, HSG D
21,603	98	Weighted Average
509		2.36% Pervious Area
21,094		97.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	9	0.0500	0.11		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.60"
0.4	103	0.0357	3.84		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.8	112	Total			

Subcatchment 1: 1



Summary for Reach RRS: RIP-RAP SWALE

Inflow Area = 0.496 ac, 97.64% Impervious, Inflow Depth = 6.84" for 50-yr event
Inflow = 1.8 cfs @ 12.03 hrs, Volume= 0.283 af
Outflow = 1.8 cfs @ 12.14 hrs, Volume= 0.283 af, Atten= 1%, Lag= 6.7 min

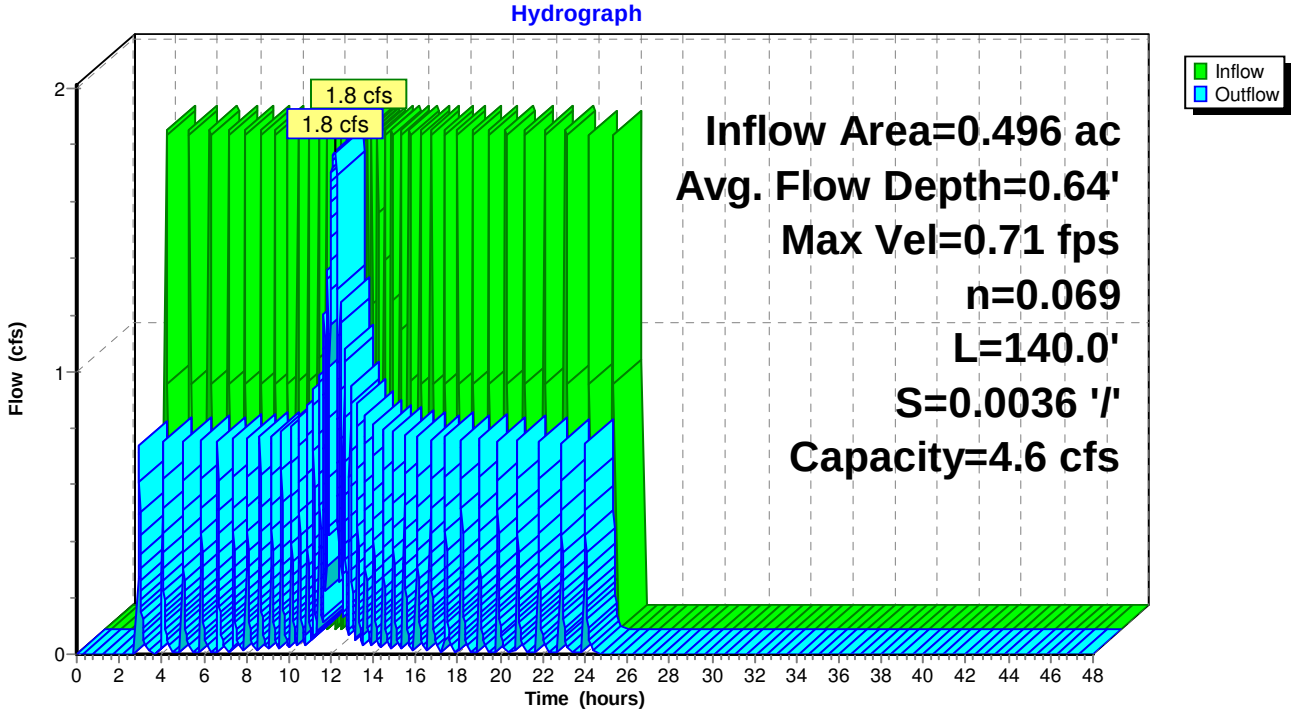
Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.71 fps, Min. Travel Time= 3.3 min
Avg. Velocity = 0.22 fps, Avg. Travel Time= 10.5 min

Peak Storage= 349 cf @ 12.14 hrs
Average Depth at Peak Storage= 0.64' , Surface Width= 5.83'
Bank-Full Depth= 1.00' Flow Area= 5.0 sf, Capacity= 4.6 cfs

2.00' x 1.00' deep channel, n= 0.069 Riprap, 6-inch
Side Slope Z-value= 3.0 '/' Top Width= 8.00'
Length= 140.0' Slope= 0.0036 '/'
Inlet Invert= 92.00', Outlet Invert= 91.50'

‡

Reach RRS: RIP-RAP SWALE



Summary for Pond PUMP: 4000 GAL PUMP CHAMBER

Inflow Area = 0.496 ac, 97.64% Impervious, Inflow Depth = 6.92" for 50-yr event
Inflow = 3.0 cfs @ 12.00 hrs, Volume= 0.286 af
Outflow = 1.8 cfs @ 12.03 hrs, Volume= 0.283 af, Atten= 39%, Lag= 1.9 min
Primary = 1.8 cfs @ 12.03 hrs, Volume= 0.283 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 89.78' @ 12.03 hrs Surf.Area= 144 sf Storage= 715 cf
Flood Elev= 89.82' Surf.Area= 144 sf Storage= 720 cf

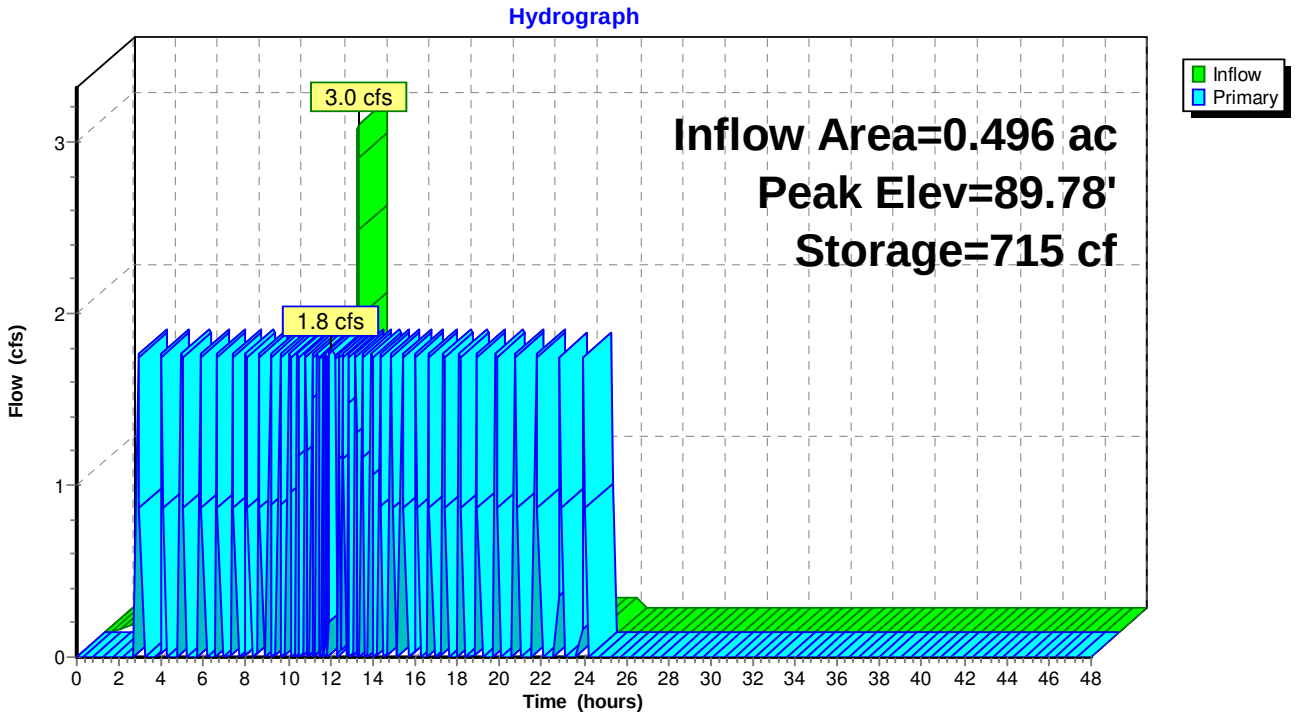
Plug-Flow detention time= 28.1 min calculated for 0.283 af (99% of inflow)
Center-of-Mass det. time= 20.5 min (761.0 - 740.4)

Volume	Invert	Avail.Storage	Storage Description
#1	84.82'	720 cf	**9.00'W x 16.00'L x 5.00'H 4000 GAL PUMP CHAMBER**

Device	Routing	Invert	Outlet Devices (Turned on 37 times)
#1	Primary	87.40'	**DUAL APEX SD65HV 6.0HP X 2.00** Discharges@92.00' Turns Off<85.82' 4.0" Diam. x 140.0' Long Discharge, Hazen-Williams C= 140 Flow (gpm)= 0.0 200.0 400.0 462.0 Head (feet)= 65.60 48.00 16.00 0.00 -Loss (feet)= 0.00 3.31 11.95 15.61 =Lift (feet)= 65.60 44.69 4.05 -15.61

Primary OutFlow Max=1.8 cfs @ 12.03 hrs HW=89.77' TW=92.62' (Dynamic Tailwater)
↑—**1=DUAL APEX SD65HV 6.0HP** (Pump Controls 1.8 cfs)

Pond PUMP: 4000 GAL PUMP CHAMBER



Summary for Pond SD1: Slotted Drain1

Inflow Area = 0.496 ac, 97.64% Impervious, Inflow Depth = 6.92" for 50-yr event
Inflow = 3.0 cfs @ 12.00 hrs, Volume= 0.286 af
Outflow = 3.0 cfs @ 12.00 hrs, Volume= 0.286 af, Atten= 0%, Lag= 0.0 min
Primary = 3.0 cfs @ 12.00 hrs, Volume= 0.286 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 89.86' @ 12.04 hrs Surf.Area= 31 sf Storage= 50 cf
Flood Elev= 90.47' Storage= 53 cf

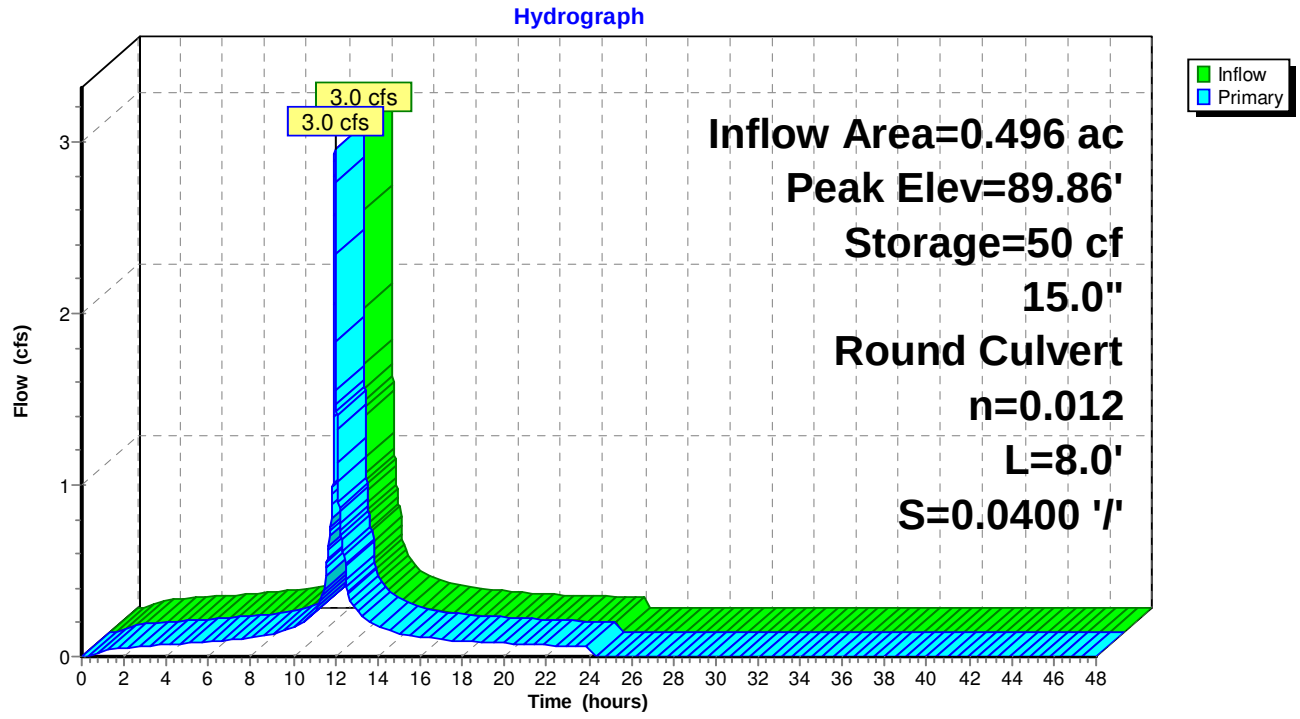
Plug-Flow detention time= 0.5 min calculated for 0.286 af (100% of inflow)
Center-of-Mass det. time= 0.5 min (740.4 - 739.9)

Volume	Invert	Avail.Storage	Storage Description
#1	88.72'	53 cf	**15.0" Round Pipe Storage** L= 43.0'

Device	Routing	Invert	Outlet Devices
#1	Primary	88.72'	**15.0" Round Culvert** L= 8.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 88.72' / 88.40' S= 0.0400 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.5 cfs @ 12.00 hrs HW=89.60' TW=89.25' (Dynamic Tailwater)
1=Culvert (Outlet Controls 2.5 cfs @ 3.72 fps)

Pond SD1: Slotted Drain1



APPENDIX B

INSPECTION AND MAINTENANCE

B – 1

STORMWATER MANAGEMENT SYSTEM INSPECTION & MAINTENANCE PLAN

Stormwater Management System Inspection & Maintenance Plan

For

LOADING DOCK ADDITION
Map G, Lot 1A

180 CROSBY ROAD
DOVER, NH
Strafford County

April 2025

Prepared For:

Coda Products, Inc.
PO Box 4064
Portsmouth, NH 03802

Prepared By:

CIVILWORKS NEW ENGLAND
P.O. Box 1166
181 Watson Road
Dover, New Hampshire 03820

Introduction

Civilworks NE, has prepared the following Stormwater Management System Inspection & Maintenance Plan for **Coda Products, Inc**. The intent of this plan is to provide a list of procedures that document the inspection and maintenance requirements of the Stormwater Management System for this site.

The following inspection and maintenance program is necessary in order to keep the Stormwater Management System functioning properly. These measures will also help to minimize potential environmental impacts to the areas surrounding the developed site. By following the enclosed procedures, the property owners, and maintenance personnel will be able to maintain the functional design of the Stormwater Management System and maximize its ability to remove sediment and other contaminants from site generated stormwater runoff while at the same time ensuring the recharge of groundwater resources through continued infiltration.

This plan also requires the Owner/Operator to prepare and implement a salt minimization plan to reduce salt usage on-site and ultimately within the watershed. This plan will allow the owner/operator to monitor and modify how much salt is needed, when it should be applied, where it needs to be applied, with the ultimate goal of reducing salt-use without compromising safety. It is expected that salt-use reduction will lead to long-term cost-savings as a result of purchasing less salt and reduced impacts on vegetation (e.g., landscaping) and corrosion of infrastructure.

The salt minimization plan should include the retention of a contractor who has completed the Green SnowPro Training course and obtained NH DES Salt Application Certification.

It is anticipated that this be a living document that will be updated at regular intervals. It is recommended to update annually in advance of the winter season in order to facilitate adjustments.

Owner

Coda Products, Inc.
PO Box 4064
Portsmouth, NH 03802

Contact / Responsible Party

Coda Products, Inc.
PO Box 4064
Portsmouth, NH 03802

Point of Contact: Dan Cook - Coda Products, Inc
Phone: (781)-859-7323
Email: dan@coda-products.com

The contact information for the Contact / Responsible Party shall be kept current.

Management Company

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PO Box 4064
Portsmouth, NH 03802

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Inspection Schedule / Record Retention

Inspection frequency should, at a minimum, be in accordance with New Hampshire Stormwater Manual, Volume 2, latest edition, as updated by NH DES. See the Inspection and Maintenance Plan for frequency requirements. A copy of the completed Stormwater Management System's Inspection & Maintenance Log and Deicing Salt Quantity Use Log shall be maintained, kept on-site, and be made available to local, state, or federal regulators as applicable by law.

Stormwater Management System Components

The Stormwater Management System associated with the project is designed to mitigate both the quantity and quality of site-generated stormwater runoff and to recharge the underlying groundwater resources. As a result, its design includes the following elements:

- Trench Drain
- Pump Chamber
- Stone Lined Conveyance Swale
- Pavement
- Litter / Trash Removal

Control of Invasive Species

During maintenance activities, check for the presence of invasive plants and remove in a safe manner. Invasive plants shall be controlled to prevent them from reproducing, spreading, or re-growing. See the University of New Hampshire – Cooperative Extension's "Method for Disposing Non-Native Invasive Plants", included at the end of this manual, for guidance on the removal and disposal of invasive species.

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By implementing the following procedures, the owners will be able to maintain the functional design of the Stormwater Management System and maximize the system's ability to remove sediment and other contaminants from site generated stormwater runoff and to effectively recharge the underlying groundwater resources.

TRENCH DRAIN:

- Inspect once per year.
- Inspect for clogging and sediment accumulation at the inlet.
- Remove all debris immediately and sediment accumulations ≥ 2 inches.

PUMP CHAMBER:

- Schedule inspections at least once a year (in the spring) to check for clogs, pump functionality, and overall system health.
- Ensure the pump is serviced according to the manufacturer's recommendations, typically every 3-5 years.
- If the pump fails, it may need to be repaired or replaced. Regular maintenance can help prevent this.
- If effluent is not flowing properly, check and clean the effluent filter.
- Backflow can indicate a blockage in the upstream stone lined swale. Inspect the system and clear any obstructions.
- Foul odors can signal a problem. Check for leaks or system malfunctions.
- Check Control Floats: Regularly inspect the control floats in the pump chamber to ensure they are working correctly. Faulty floats can lead to improper activation of the submersible pump or failure to alert you of high-water levels.
- Monitor Alarm System: Familiarize yourself with the high-water alarm system in the pump chamber. Regularly check the alarm to make sure it is in working order and take immediate action if it is triggered.

STONE LINED CONVEYANCE SWALES:

- Inspect once per year.
- Inspect for erosion, sediment accumulation, woody vegetation and presence of invasive species.
- Remove debris and accumulated sediment, based on inspection.
- Repair eroded areas as needed; remove invasive species and woody vegetation

PAVEMENT:

- Minimize sanding.
- Minimize application of salt for ice control.

LITTER / TRASH REMOVAL:

- Routinely patrol site for litter pick up.

DE-ICING AGENTS

- To address the concerns associated with the application of chlorides and other deicing materials, NHDES recommends that the Owner/Operator develop a Road Salt and Deicing Minimization Plan for the parking lots and roadways. The plan should develop the policies that the development will keep in place to minimize salt and other deicer use after the project has been completed. The plan should include tracking the use of salt and other deicers for each storm event and compiling salt use data annually. (See Anti-Icing Data Form in the appendix).
- Use sand as primary agent for driveway and access way safety during ice and snow conditions
- Minimize the use of salt during the winter
- Use de-icing or anti-caking agents, added to enhance performance and application characteristics of sand mixtures, only as necessary and at minimum application rates.
- Recommend using a certified Winter Operator (Green SnowPro Trained) for applying de-icing agents.
- Monitor weather and apply de-icing agents based on weather conditions and temperatures.

ANTI-ICING AND SALT MINIMIZATION

- Owner to develop a Road Salt and Deicing Minimization Plan.
- Provide a written policy that the “Development” will keep in place to minimize salt and other deicer use after the project has been completed.
- Use the attached form to track the use of salt and other deicers for each storm event and compiling salt use data annually

Inspection & Maintenance Table

System Component / BMP	Minimum Inspection Frequency	Minimum Inspection Requirements	Maintenance / Cleanout Threshold
Trench Drain	Annually	• Check for sediment accumulation • Check for debris accumulation	≥ 1 in. sediment Remove immediately
Pump Chamber	Annually	• Check for system clogs • Check for pump functionally • Check Control Floats • Check for sediment accumulation • Check for debris accumulation	The pump chamber shall be cleaned a minimum once per year during spring inspection and an additional times as required throughout the year if sediment accumulation is greater than 6 inches.
Stone Lined Conveyance Swales	Annually	• Check for sediment accumulation • Check for erosion • Inspect for woody vegetation Inspect for invasive species	≥ 1 in. sediment Repair immediately Remove/Dispose of accordingly Remove/Dispose of accordingly
Pavement • Sanding • Salt Applications • Sweep/Vacuum • Trash/Debris	Limit use As Req. As Necessary Periodically	• Minimize use to prevent tracking issues • RECORD APPLICATION RATES • Sweep or vacuum to prevent tracking issues • Check for trash/debris	Sweep to prevent issues Minimize as Req. Sweep/Vacuum as needed Remove when noticed
Litter / Trash Removal	Periodically	• Check for litter and trash	Remove when noticed

Inspection & Maintenance Checklist/Log

The following pages contains a blank copy of the Stormwater Management System's Inspection & Maintenance Log and a Deicing Salt Quantity Use Log. These forms are provided to assist the owners with the inspection and maintenance of the aforementioned Stormwater Management System.

Stormwater Management System's Inspection & Maintenance Log

Date of Inspection/Maintenance: ____________________ Inspector: ______________________

System Component / BMP	Cleaning / Repair Needed (List Items / Comments)	Date of Cleaning/Repair	Performed By

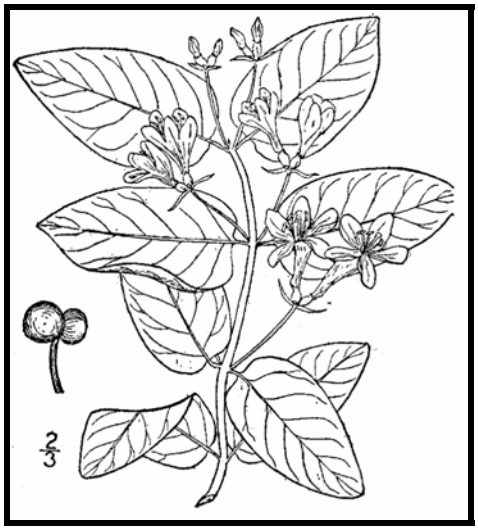
Deicing Salt Quantity Use Log

Date	Amount of Material Applied	Comments

University of New Hampshire Cooperative Extension

Methods for Disposing Non-Native Invasive Plants

Prepared by the Invasives Species Outreach Group, volunteers interested in helping people control invasive plants. Assistance provided by the Piscataquog Land Conservancy and the NH Invasives Species Committee. Edited by Karen Bennett, Extension Forestry Professor and Specialist.



Tatarian honeysuckle
Lonicera tatarica
USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. Vol. 3: 282.

Non-native invasive plants crowd out natives in natural and managed landscapes. They cost taxpayers billions of dollars each year from lost agricultural and forest crops, decreased biodiversity, impacts to natural resources and the environment, and the cost to control and eradicate them.

Invasive plants grow well even in less than desirable conditions such as sandy soils along roadsides, shaded wooded areas, and in wetlands. In ideal conditions, they grow and spread even faster. There are many ways to remove these non-native invasives, but once removed, care is needed to dispose the removed plant material so the plants don't grow where disposed.

Knowing how a particular plant reproduces indicates its method of spread and helps determine the appropriate disposal method. Most are spread by seed and are dispersed by wind, water, animals, or people. Some reproduce by vegetative means from pieces of stems or roots forming new plants. Others spread through both seed and vegetative means.

Because movement and disposal of viable plant parts is restricted (see NH Regulations), viable invasive parts can't be brought to most transfer stations in the state. Check with your transfer station to see if there is an approved, designated area for invasives disposal. This fact sheet gives recommendations for rendering plant parts non-viable.

Control of invasives is beyond the scope of this fact sheet. For information about control visit www.nhinvasives.org or contact your UNH Cooperative Extension office.

New Hampshire Regulations

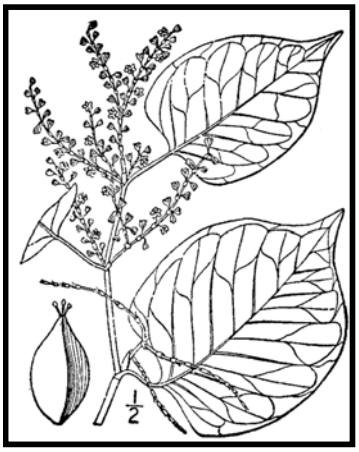
Prohibited invasive species shall only be disposed of in a manner that renders them nonliving and nonviable. (Agr. 3802.04)

No person shall collect, transport, import, export, move, buy, sell, distribute, propagate or transplant any living and viable portion of any plant species, which includes all of their cultivars and varieties, listed in Table 3800.1 of the New Hampshire prohibited invasive species list. (Agr 3802.01)

How and When to Dispose of Invasives?

To prevent seed from spreading remove invasive plants before seeds are set (produced). Some plants continue to grow, flower and set seed even after pulling or cutting. Seeds can remain viable in the ground for many years. If the plant has flowers or seeds, place the flowers and seeds in a heavy plastic bag "head first" at the weeding site and transport to the disposal site. The following are general descriptions of disposal methods. See the chart for recommendations by species.

Burning: Large woody branches and trunks can be used as firewood or burned in piles. For outside burning, a written fire permit from the local forest fire warden is required unless the ground is covered in snow. Brush larger than 5 inches in diameter can't be burned. Invasive plants with easily airborne seeds like black swallow-wort with mature seed pods (indicated by their brown color) shouldn't be burned as the seeds may disperse by the hot air created by the fire.



Japanese knotweed
Polygonum cuspidatum
USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. Vol. 1: 676.

Bagging (solarization): Use this technique with softer-tissue plants. Use heavy black or clear plastic bags (contractor grade), making sure that no parts of the plants poke through. Allow the bags to sit in the sun for several weeks and on dark pavement for the best effect.

Tarping and Drying: Pile material on a sheet of plastic and cover with a tarp, fastening the tarp to the ground and monitoring it for escapes. Let the material dry for several weeks, or until it is clearly nonviable.

Chipping: Use this method for woody plants that don't reproduce vegetatively.

Burying: This is risky, but can be done with watchful diligence. Lay thick plastic in a deep pit before placing the cut up plant material in the hole. Place the material away from the edge of the plastic before covering it with more heavy plastic. Eliminate as much air as possible and toss in soil to weight down the material in the pit. Note that the top of the buried material should be at least three feet underground. Japanese knotweed should be at least 5 feet underground!

Drowning: Fill a large barrel with water and place soft-tissue plants in the water. Check after a few weeks and look for rotted plant material (roots, stems, leaves, flowers). Well-rotted plant material may be composted. A word of caution- seeds may still be viable after using this method. Do this before seeds are set. This method isn't used often. Be prepared for an awful stink!

Composting: Invasive plants can take root in compost. Don't compost any invasives unless you know there is no viable (living) plant material left. Use one of the above techniques (bagging, tarping, drying, chipping, or drowning) to render the plants nonviable before composting. Closely examine the plant before composting and avoid composting seeds.

Be diligent looking for seedlings for *years* in areas where removal and disposal took place.

Suggested Disposal Methods for Non-Native Invasive Plants

This table provides information concerning the disposal of removed invasive plant material. If the infestation is treated with herbicide and left in place, these guidelines don't apply. Don't bring invasives to a local transfer station, unless there is a designated area for their disposal, or they have been rendered non-viable. This listing includes wetland and upland plants from the New Hampshire Prohibited Invasive Species List. The disposal of aquatic plants isn't addressed.

<table>
<tr><th>Woody Plants</th><th>Method of Reproducing</th><th>Methods of Disposal</th></tr>
<tr><td rowspan="2">Norway maple
(Acer platanoides)
European barberry
(Berberis vulgaris)
Japanese barberry
(Berberis thunbergii)
autumn olive
(Elaeagnus umbellata)
burning bush
(Euonymus alatus)
Morrow's honeysuckle
(Lonicera morrowii)
Tatarian honeysuckle
(Lonicera tatarica)
showy bush honeysuckle
(Lonicera x bella)
common buckthorn
(Rhamnus cathartica)
glossy buckthorn
(Frangula alnus)</td><td rowspan="2">Fruit and Seeds
  </td><td>Prior to fruit/seed ripening
Seedlings and small plants
▪ Pull or cut and leave on site with roots exposed. No special care needed.
Larger plants
▪ Use as firewood.
▪ Make a brush pile.
▪ Chip.
▪ Burn.</td></tr>
<tr><td>After fruit/seed is ripe
Don't remove from site.
▪ Burn.
▪ Make a covered brush pile.
▪ Chip once all fruit has dropped from branches.
▪ Leave resulting chips on site and monitor.</td></tr>
<tr><td rowspan="2">oriental bittersweet
(Celastrus orbiculatus)
multiflora rose
(Rosa multiflora)</td><td rowspan="2">Fruits, Seeds, Plant Fragments
  </td><td>Prior to fruit/seed ripening
Seedlings and small plants
▪ Pull or cut and leave on site with roots exposed. No special care needed.
Larger plants
▪ Make a brush pile.
▪ Burn.</td></tr>
<tr><td>After fruit/seed is ripe
Don't remove from site.
▪ Burn.
▪ Make a covered brush pile.
▪ Chip – only after material has fully dried (1 year) and all fruit has dropped from branches. Leave resulting chips on site and monitor.</td></tr>
</table>

<table>
<tr><th>Non-Woody Plants</th><th>Method of Reproducing</th><th>Methods of Disposal</th></tr>
<tr><td rowspan="2">garlic mustard
(Alliaria petiolata)
spotted knapweed
(Centaurea maculosa)
▪ Sap of related knapweed can cause skin irritation and tumors. Wear gloves when handling.
black swallow-wort
(Cynanchum nigrum)
▪ May cause skin rash. Wear gloves and long sleeves when handling.
pale swallow-wort
(Cynanchum rossicum)
giant hogweed
(Heracleum mantegazzianum)
▪ Can cause major skin rash. Wear gloves and long sleeves when handling.
dame’s rocket
(Hesperis matronalis)
perennial pepperweed
(Lepidium latifolium)
purple loosestrife
(Lythrum salicaria)
Japanese stilt grass
(Microstegium vimineum)
mile-a-minute weed
(Polygonum perfoliatum)</td><td rowspan="2">Fruits and Seeds
  </td><td>Prior to flowering
Depends on scale of infestation
Small infestation
▪ Pull or cut plant and leave on site with roots exposed.

Large infestation
▪ Pull or cut plant and pile. (You can pile onto or cover with plastic sheeting).
▪ Monitor. Remove any re-sprouting material.</td></tr>
<tr><td>During and following flowering
Do nothing until the following year or remove flowering heads and bag and let rot.

Small infestation
▪ Pull or cut plant and leave on site with roots exposed.

Large infestation
▪ Pull or cut plant and pile remaining material. (You can pile onto plastic or cover with plastic sheeting).
▪ Monitor. Remove any re-sprouting material.</td></tr>
<tr><td>common reed
(Phragmites australis)
Japanese knotweed
(Polygonum cuspidatum)
Bohemian knotweed
(Polygonum x bohemicum)</td><td>Fruits, Seeds, Plant Fragments
Primary means of spread in these species is by plant parts. Although all care should be given to preventing the dispersal of seed during control activities, the presence of seed doesn’t materially influence disposal activities.</td><td>Small infestation
▪ Bag all plant material and let rot.
▪ Never pile and use resulting material as compost.
▪ Burn.

Large infestation
▪ Remove material to unsuitable habitat (dry, hot and sunny or dry and shaded location) and scatter or pile.
▪ Monitor and remove any sprouting material.
▪ Pile, let dry, and burn.</td></tr>
</table>

January 2010

APPENDIX C

PLANS

C – 1

DRAINAGE EXHIBIT

LEGEND:

EX 2' CONTOUR

EX 10' CONTOUR

SUBCATCHMENT BOUNDARY

LONGEST FLOW PATH WITH DIRECTION OF FLOW

PROPOSED DUAL 4" DR41 PVC FORCE MAIN

REGRADE EXISTING SWALE

GRADE SWALE AROUND PUMP CHAMBER

PROPOSED 15" HDPE ADS N-12 L=8' S=0.04

TOW=94.0

PROPOSED 4,000 GAL. PUMP CHAMBER

PROPOSED 15" HDPE TRENCH DRAIN

F.F.=94.47

F.F. ELEV. =95.11'

TOW=94.9

F.F. ELEV.=94.47'

50' WETLAND BUFFER

TRANSFORMER

PROPOSED RIP-RAP SWALE

MATCH EXISTING GRADE

15°56'25"

SCRD PLAN 23A-108

NH STATE PLANE NAD 83 - CPS OBS.

EXISTING 24" RCP INV.=88.78'

F.F. ELEV.=94.63'

F.F.

PARCEL AREA

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

DRAINAGE EXHIBIT

No.	Appd	Date

REVISIONS

LOADING DOCK ADDITION
CODA PRODUCTS
DOVER, NH

DATE: 4-24-25
SCALE: 1"=30'
DESIGNED BY: JRG
DRAWN BY: JRG
APPROVED BY: SJH
PROJECT NO.: 24169
FILE: DRN

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

CIVILWORKS NEW ENGLAND
Civil & Environmental Consultants, LLC
181 Watson Road, P.O Box 1166
Dover, New Hampshire 03821
603.749.0443

D-1

Stormwater Management System Inspection & Maintenance Plan

For

LOADING DOCK ADDITION
Map G, Lot 1A

180 CROSBY ROAD
DOVER, NH
Strafford County

April 2025

Prepared For:

Coda Products, Inc.
PO Box 4064
Portsmouth, NH 03802

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Phone: (781)-859-7323
Email: dan@coda-products.com

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System Component / BMP	Cleaning / Repair Needed (List Items / Comments)	Date of Cleaning/Repair	Performed By

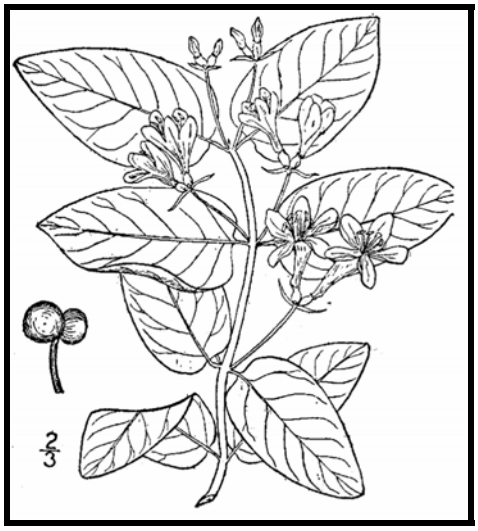
Deicing Salt Quantity Use Log

Date	Amount of Material Applied	Comments

University of New Hampshire Cooperative Extension

Methods for Disposing Non-Native Invasive Plants

Prepared by the Invasives Species Outreach Group, volunteers interested in helping people control invasive plants. Assistance provided by the Piscataquog Land Conservancy and the NH Invasives Species Committee. Edited by Karen Bennett, Extension Forestry Professor and Specialist.



Tatarian honeysuckle
Lonicera tatarica
USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. Vol. 3: 282.

Non-native invasive plants crowd out natives in natural and managed landscapes. They cost taxpayers billions of dollars each year from lost agricultural and forest crops, decreased biodiversity, impacts to natural resources and the environment, and the cost to control and eradicate them.

Invasive plants grow well even in less than desirable conditions such as sandy soils along roadsides, shaded wooded areas, and in wetlands. In ideal conditions, they grow and spread even faster. There are many ways to remove these non-native invasives, but once removed, care is needed to dispose the removed plant material so the plants don't grow where disposed.

Knowing how a particular plant reproduces indicates its method of spread and helps determine the appropriate disposal method. Most are spread by seed and are dispersed by wind, water, animals, or people. Some reproduce by vegetative means from pieces of stems or roots forming new plants. Others spread through both seed and vegetative means.

Because movement and disposal of viable plant parts is restricted (see NH Regulations), viable invasive parts can't be brought to most transfer stations in the state. Check with your transfer station to see if there is an approved, designated area for invasives disposal. This fact sheet gives recommendations for rendering plant parts non-viable.

Control of invasives is beyond the scope of this fact sheet. For information about control visit www.nhinvasives.org or contact your UNH Cooperative Extension office.

New Hampshire Regulations

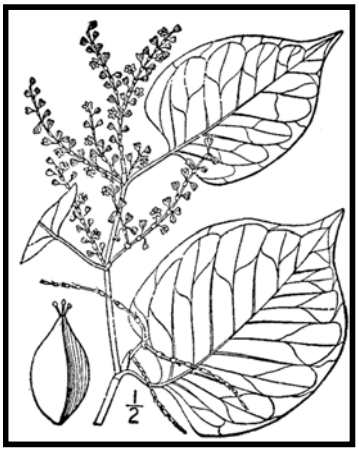
Prohibited invasive species shall only be disposed of in a manner that renders them nonliving and nonviable. (Agr. 3802.04)

No person shall collect, transport, import, export, move, buy, sell, distribute, propagate or transplant any living and viable portion of any plant species, which includes all of their cultivars and varieties, listed in Table 3800.1 of the New Hampshire prohibited invasive species list. (Agr 3802.01)

How and When to Dispose of Invasives?

To prevent seed from spreading remove invasive plants before seeds are set (produced). Some plants continue to grow, flower and set seed even after pulling or cutting. Seeds can remain viable in the ground for many years. If the plant has flowers or seeds, place the flowers and seeds in a heavy plastic bag "head first" at the weeding site and transport to the disposal site. The following are general descriptions of disposal methods. See the chart for recommendations by species.

Burning: Large woody branches and trunks can be used as firewood or burned in piles. For outside burning, a written fire permit from the local forest fire warden is required unless the ground is covered in snow. Brush larger than 5 inches in diameter can't be burned. Invasive plants with easily airborne seeds like black swallow-wort with mature seed pods (indicated by their brown color) shouldn't be burned as the seeds may disperse by the hot air created by the fire.



Japanese knotweed
Polygonum cuspidatum
USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. Vol. 1: 676.

Bagging (solarization): Use this technique with softer-tissue plants. Use heavy black or clear plastic bags (contractor grade), making sure that no parts of the plants poke through. Allow the bags to sit in the sun for several weeks and on dark pavement for the best effect.

Tarping and Drying: Pile material on a sheet of plastic and cover with a tarp, fastening the tarp to the ground and monitoring it for escapes. Let the material dry for several weeks, or until it is clearly nonviable.

Chipping: Use this method for woody plants that don't reproduce vegetatively.

Burying: This is risky, but can be done with watchful diligence. Lay thick plastic in a deep pit before placing the cut up plant material in the hole. Place the material away from the edge of the plastic before covering it with more heavy plastic. Eliminate as much air as possible and toss in soil to weight down the material in the pit. Note that the top of the buried material should be at least three feet underground. Japanese knotweed should be at least 5 feet underground!

Drowning: Fill a large barrel with water and place soft-tissue plants in the water. Check after a few weeks and look for rotted plant material (roots, stems, leaves, flowers). Well-rotted plant material may be composted. A word of caution- seeds may still be viable after using this method. Do this before seeds are set. This method isn't used often. Be prepared for an awful stink!

Composting: Invasive plants can take root in compost. Don't compost any invasives unless you know there is no viable (living) plant material left. Use one of the above techniques (bagging, tarping, drying, chipping, or drowning) to render the plants nonviable before composting. Closely examine the plant before composting and avoid composting seeds.

Be diligent looking for seedlings for *years* in areas where removal and disposal took place.

Suggested Disposal Methods for Non-Native Invasive Plants

This table provides information concerning the disposal of removed invasive plant material. If the infestation is treated with herbicide and left in place, these guidelines don't apply. Don't bring invasives to a local transfer station, unless there is a designated area for their disposal, or they have been rendered non-viable. This listing includes wetland and upland plants from the New Hampshire Prohibited Invasive Species List. The disposal of aquatic plants isn't addressed.

<table>
<tr><th>Woody Plants</th><th>Method of Reproducing</th><th>Methods of Disposal</th></tr>
<tr><td rowspan="2">Norway maple
(Acer platanoides)
European barberry
(Berberis vulgaris)
Japanese barberry
(Berberis thunbergii)
autumn olive
(Elaeagnus umbellata)
burning bush
(Euonymus alatus)
Morrow's honeysuckle
(Lonicera morrowii)
Tatarian honeysuckle
(Lonicera tatarica)
showy bush honeysuckle
(Lonicera x bella)
common buckthorn
(Rhamnus cathartica)
glossy buckthorn
(Frangula alnus)</td><td rowspan="2">Fruit and Seeds
  </td><td>Prior to fruit/seed ripening
Seedlings and small plants
▪ Pull or cut and leave on site with roots exposed. No special care needed.
Larger plants
▪ Use as firewood.
▪ Make a brush pile.
▪ Chip.
▪ Burn.</td></tr>
<tr><td>After fruit/seed is ripe
Don't remove from site.
▪ Burn.
▪ Make a covered brush pile.
▪ Chip once all fruit has dropped from branches.
▪ Leave resulting chips on site and monitor.</td></tr>
<tr><td rowspan="2">oriental bittersweet
(Celastrus orbiculatus)
multiflora rose
(Rosa multiflora)</td><td rowspan="2">Fruits, Seeds, Plant Fragments
  </td><td>Prior to fruit/seed ripening
Seedlings and small plants
▪ Pull or cut and leave on site with roots exposed. No special care needed.
Larger plants
▪ Make a brush pile.
▪ Burn.</td></tr>
<tr><td>After fruit/seed is ripe
Don't remove from site.
▪ Burn.
▪ Make a covered brush pile.
▪ Chip – only after material has fully dried (1 year) and all fruit has dropped from branches. Leave resulting chips on site and monitor.</td></tr>
</table>

<table>
<tr><th>Non-Woody Plants</th><th>Method of Reproducing</th><th>Methods of Disposal</th></tr>
<tr><td rowspan="2">garlic mustard
(Alliaria petiolata)
spotted knapweed
(Centaurea maculosa)
▪ Sap of related knapweed can cause skin irritation and tumors. Wear gloves when handling.
black swallow-wort
(Cynanchum nigrum)
▪ May cause skin rash. Wear gloves and long sleeves when handling.
pale swallow-wort
(Cynanchum rossicum)
giant hogweed
(Heracleum mantegazzianum)
▪ Can cause major skin rash. Wear gloves and long sleeves when handling.
dame’s rocket
(Hesperis matronalis)
perennial pepperweed
(Lepidium latifolium)
purple loosestrife
(Lythrum salicaria)
Japanese stilt grass
(Microstegium vimineum)
mile-a-minute weed
(Polygonum perfoliatum)</td><td rowspan="2">Fruits and Seeds
  </td><td>Prior to flowering
Depends on scale of infestation
Small infestation
▪ Pull or cut plant and leave on site with roots exposed.

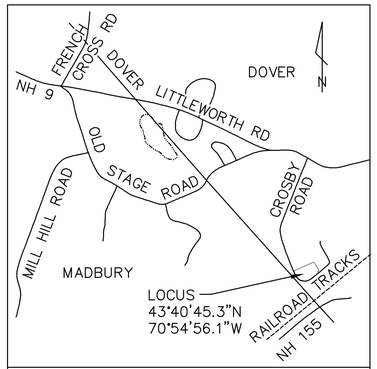
Large infestation
▪ Pull or cut plant and pile. (You can pile onto or cover with plastic sheeting).
▪ Monitor. Remove any re-sprouting material.</td></tr>
<tr><td>During and following flowering
Do nothing until the following year or remove flowering heads and bag and let rot.

Small infestation
▪ Pull or cut plant and leave on site with roots exposed.

Large infestation
▪ Pull or cut plant and pile remaining material. (You can pile onto plastic or cover with plastic sheeting).
▪ Monitor. Remove any re-sprouting material.</td></tr>
<tr><td>common reed
(Phragmites australis)
Japanese knotweed
(Polygonum cuspidatum)
Bohemian knotweed
(Polygonum x bohemicum)</td><td>Fruits, Seeds, Plant Fragments
Primary means of spread in these species is by plant parts. Although all care should be given to preventing the dispersal of seed during control activities, the presence of seed doesn’t materially influence disposal activities.</td><td>Small infestation
▪ Bag all plant material and let rot.
▪ Never pile and use resulting material as compost.
▪ Burn.

Large infestation
▪ Remove material to unsuitable habitat (dry, hot and sunny or dry and shaded location) and scatter or pile.
▪ Monitor and remove any sprouting material.
▪ Pile, let dry, and burn.</td></tr>
</table>

January 2010



LOCATION PLAN
(NO SCALE)

SITE PLAN
LOADING DOCK ADDITION
CODA PRODUCTS, INC.

TAX MAP G, LOT 1A

180 CROSBY ROAD

DOVER, NH

APRIL 24, 2025

OWNER

CROSBY 180, LLC
DAN COOK, MANAGER
P.O. BOX 4064
PORTSMOUTH, NH 03802

_____ DATE

APPLICANT

CODA PRODUCTS, INC.
P.O. BOX 4064
PORTSMOUTH, NH 03802

_____ DATE

SITE CIVIL ENGINEER

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

LAND SURVEYOR

MCENEANEY SURVEY ASSOCIATES OF NEW ENGLAND
P.O. BOX 1166
DOVER, NH 03821
(603) 742–0911

ARCHITECT

JOHN M. TUTTLE, ARCHITECT
TW DESIGNS, LLC
254 DRAKE HILL ROAD
STRAFFORD, NH 03884
(603) 664–2181

WETLAND SCIENTIST

FRAGGLE ROCK ENVIRONMENTAL SERVICES
DAMON E. BURT, CWS, CPESC
38 GARLAND ROAD
STRAFFORD, NH 03884
(603) 969–5574

PERMIT SUMMARY/ WAIVER SUMMARY:

1. THE FOLLOWING FEDERAL AND STATE PERMITS HAVE BEEN ISSUED FOR THE SUBJECT PROPERTY:

   – N/A

2. LIST ANY VARIANCES OR SPECIAL EXCEPTIONS GRANTED BY THE ZONING BOARD OF ADJUSTMENT OR CONDITIONAL USE PERMITS GRANTED BY THE PLANNING BOARD FOR THE PROPOSED USE OR STRUCTURE, INCLUDING THE CASE NUMBER AND DATE OF DECISION AND ANY CONDITIONS.

   SITE PLAN: PENDING

   CONDITIONAL USE PERMIT: PENDING

PLANNING FILE NO.: SITE–2025–

ABUTTERS LIST
(WITHIN 200 FT)

TAX MAP	LOT NO.	NAME & ADDRESS
G 1-A-0	1-A-0	CROSBY 180, LLC P.O. BOX 4064 PORTSMOUTH, NH 03802
G 1-D-0	1-D-0	BETTS-LEVINE DEREK S. TRUSTEE R AND R REAL ESTATE TRUST 6 FARADAY DRIVE DOVER, NH 03820
G 1-F-0	1-F-0	COGEBI INC 14 FARADAY DRIVE DOVER, NH 03820
G 1-G-0	1-G-0	140 CROSBY ROAD LLC 280A DOVER POINT ROAD DOVER, NH 03820
G 1-M-0	1-M-0	DBS HOLDING LLC 71 DANIELLE LANE DOVER, NH 03820
G 1-P-0	1-P-0	NASH GERALD & TAMPOSI SAMUEL C/O TANA PROPERTIES 40 TEMPLE STREET NASHUA, NH 03060
G 1-H-0	1-H-0	BAYHEAD REALTY LLC 173 CROSBY ROAD DOVER, NH 03820
G 1-B-0	1-B-0	MCQUADE REALTY INC. P.O. BOX 1409 DOVER, NH 03820
G 1-C-1	1-C-1	AI SOLUTIONS INC. 1735 FIFTH AVENUE MCKEESPORT, PA 15132

SYMBOL LEGEND

G / 4-1 — TAX MAP / LOT NUMBER

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)

PLANNING FILE NO.: SITE-2025-

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

CNE CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

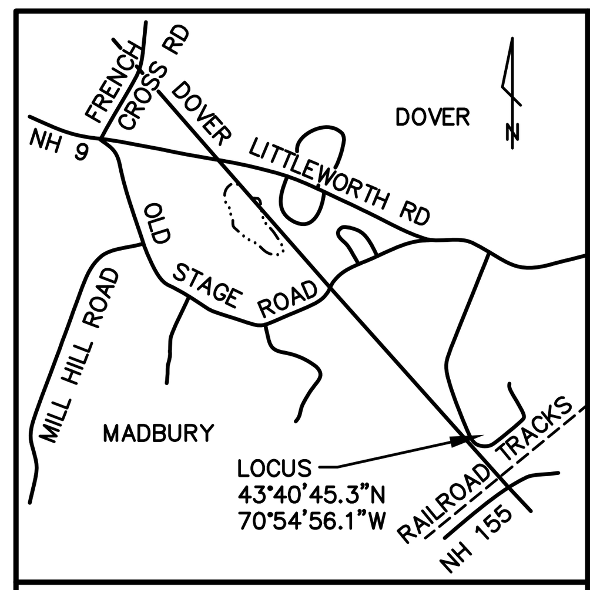
NO.	REVISION	APP'D	DATE

DATE: 4-24-25
SCALE: 1"=100'
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO: 24169
FILE: SITE.DWG

NEIGHBORHOOD PLAN

LOADING DOCK ADDITION
180 CROSBY ROAD
DOVER, NH 03820

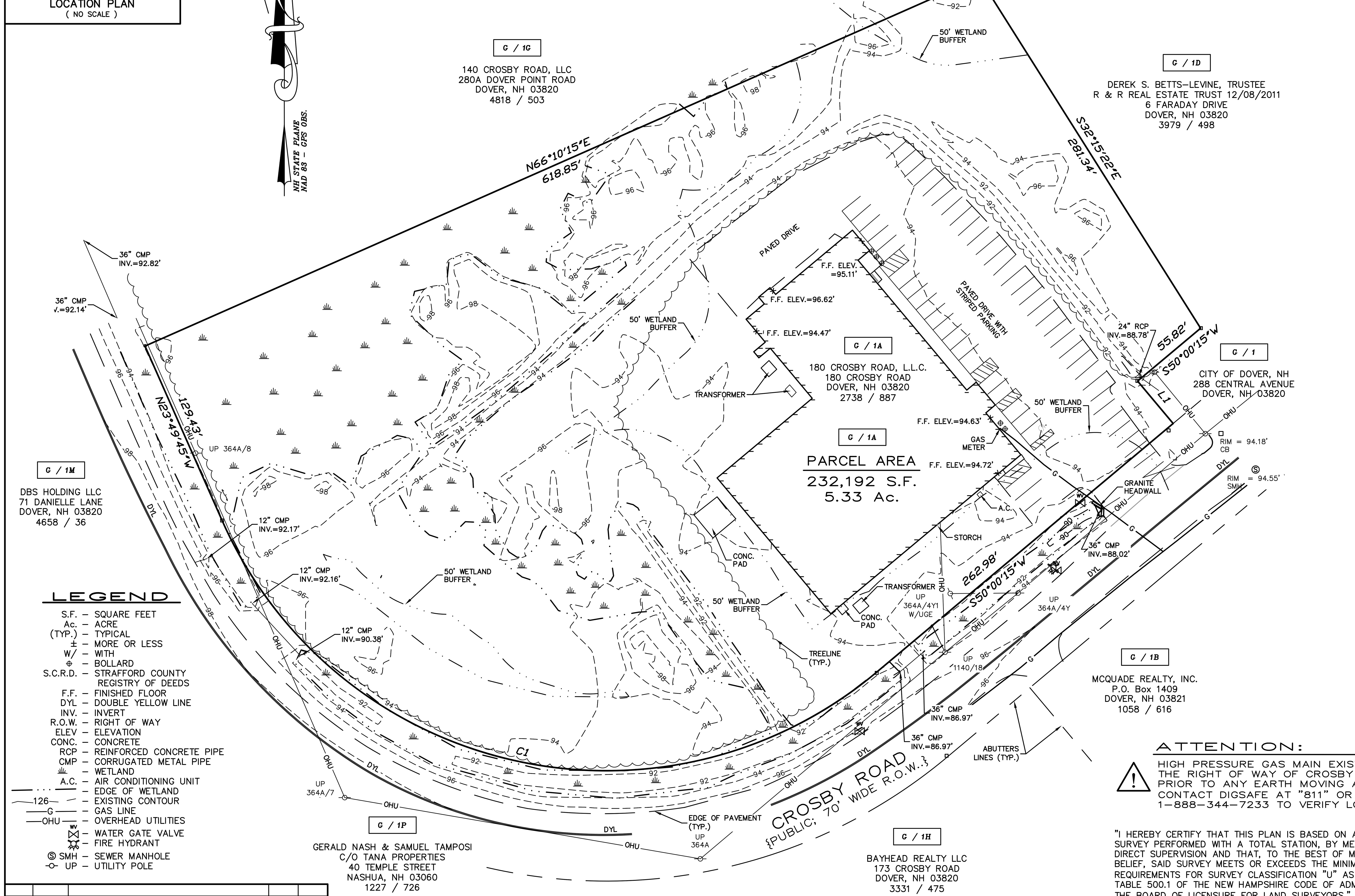
CROSBY 180, LLC
P.O. BOX 4064
PORTSMOUTH, NH 03802



LOCATION PLAN
(NO SCALE)

REFERENCE PLANS:

1.) SUBDIVISION OF LOT 4 CROSBY ROAD INDUSTRIAL PARK, DOVER, NH. SCALE: 1" = 100'; DATED: NOVEMBER 2, 1982; BY: LECLERC STOWELL ASSOCIATES. RECORDED S.C.R.D. PLAN 23A-108.



NOTES:

1.) OWNER OF RECORD:

180 CROSBY ROAD, L.L.C.
180 CROSBY ROAD
DOVER, NEW HAMPSHIRE 03820
S.C.R.D. VOLUME 2738, PAGE 887

2.) G / 1A – DENOTES TAX MAP AND PARCEL NUMBER.

3.) PARCEL AREA = 232,192 S.F. / 5.33 Ac.

4.) THE INTENT OF THIS PLAN IS TO DEPICT THE PARCELS BOUNDARIES AND EXISTING SITE CONDITIONS AS OF JANUARY 7, 2025.

5.) ZONING DISTRICT IS CM – COMMERCIAL (C) DISTRICT:

DIMENSIONAL REQUIREMENTS:	
MINIMUM LOT SIZE	= 20,000 S.F.
MINIMUM LOT COVERAGE	= 50 PERCENT
MINIMUM FRONTAGE	= 125 FEET
BUILDING SETBACK REQUIREMENTS:	
FRONT SETBACK	= 30 FEET
SIDE SETBACK	= 12 FEET
REAR SETBACK	= 15 FEET
MAXIMUM BUILDING HEIGHT	= 40 FEET MAXIMUM

6.) THE SUBJECT PARCEL IS OUTSIDE OF THE 0.2 PERCENT ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP COMMUNITY NUMBER 330145; PANEL 0320; SUFFIX E; MAP NUMBER 33017C0320E; EFFECTIVE DATE SEPTEMBER 30, 2015.

7.) BASIS OF BEARING IS NH STATE PLANE (NAD83) BASED ON GPS OBSERVATION DATED JANUARY 7, 2025. VERTICAL DATUM IS NAVD88 BASED ON GPS OBSERVATION DATED JANUARY 7, 2025.

8.) PROPERTY LINE INFORMATION HAS BEEN OBTAINED FROM A SURVEY PERFORMED BY MCENEANEY SURVEY ASSOCIATES OF NEW ENGLAND ON DURING JANUARY 2025 WITH AN ERROR NOT GREATER THAN 1 IN 10,000.

13.) ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AS SHOWN. THE CONTRACTOR SHALL VERIFY THEIR EXACT LOCATIONS WITH THE RESPECTIVE UTILITY OWNERS PRIOR TO ANY WORK BEING PERFORMED. CALL DIGSAFE AT 1-888-344-7233.

11.) WETLANDS FLAGGED LINES SHOWN WERE DELINEATED BY DAMON E. BURT, N.H.C.W.S. #163 OF FRAGGLE ROCK ENVIRONMENTAL SERVICES ON DECEMBER 19, 2024, IN ACCORDANCE WITH THE 1987 CORPS. OF ENGINEERS WETLANDS DELINEATION MANUAL AND LOCATED BY THIS OFFICE.

LEGEND

S.F. – SQUARE FEET
Ac. – ACRE
(TYP.) – TYPICAL
± – MORE OR LESS
W/ – WITH
⊕ – BOLLARD
S.C.R.D. – STRAFFORD COUNTY REGISTRY OF DEEDS
F.F. – FINISHED FLOOR
DYL – DOUBLE YELLOW LINE
INV. – INVERT
R.O.W. – RIGHT OF WAY
ELEV – ELEVATION
CONC. – CONCRETE
RCP – REINFORCED CONCRETE PIPE
CMP – CORRUGATED METAL PIPE
– WETLAND
A.C. – AIR CONDITIONING UNIT
– EDGE OF WETLAND
—126— – EXISTING CONTOUR
—G— – GAS LINE
—OHU— – OVERHEAD UTILITIES
– WATER GATE VALVE
– FIRE HYDRANT
Ⓢ SMH – SEWER MANHOLE
-○- UP – UTILITY POLE

No.	Central Angle	Radius	Arc Length	Chord Length	Chord Bearing
C1	106°10'00"	285.00	528.09	455.72	N76°54'45"W

No.	Bearing	Distance
L1	S39°59'44"E	37.58'

ATTENTION:

HIGH PRESSURE GAS MAIN EXISTS WITHIN THE RIGHT OF WAY OF CROSBY ROAD; PRIOR TO ANY EARTH MOVING ACTIVITY CONTACT DIGSAFE AT "811" OR 1-888-344-7233 TO VERIFY LOCATION.

"I HEREBY CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL GROUND SURVEY PERFORMED WITH A TOTAL STATION, BY ME OR THOSE UNDER MY DIRECT SUPERVISION AND THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, SAID SURVEY MEETS OR EXCEEDS THE MINIMUM PRECISION REQUIREMENTS FOR SURVEY CLASSIFICATION "U" AS SET FORTH IN TABLE 500.1 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS."

"I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN." (RSA 676:18)

DATE: / KEVIN M. McENEANEY LLS # 661

NO.	DATE	DESCRIPTION	BY	CHK
24169		REVISIONS		
24169	EXIST. COND.	24-12	63-70	
PROJECT NO	TYPE	FIELDBOOK & PAGES		

EXISTING CONDITIONS PLAN

PREPARED FOR
CODA PRODUCTS, INC.
TAX MAP G, LOT No.1A
180 CROSBY ROAD
CITY of DOVER
COUNTY of STRAFFORD
STATE of NEW HAMPSHIRE

DRAWN BY: JJH	FILE: P:24169\S\D\24169 FIELD
SCALE: 1" = 40'	DATE: JANUARY 23, 2025

40 20 0 20 40 80 120 160

STATE of NEW HAMPSHIRE No. 661 KEVIN M. McENEANEY LICENSED LAND SURVEYOR
SIGNATURE

McEneaney Survey Associates of NEW ENGLAND
P.O. Box 1166 – 181 WATSON ROAD
DOVER, NH 03820 (603) 742-0911
SURVEYING – PLANNING – CONSULTING

DOVER NOTES:

1. OWNER OF RECORD:

   CROSBY 180, LLC
   P.O. BOX 4064
   PORTSMOUTH, NH 03802
   S.C.R.D. VOLUME 5249, PAGE 451

2. G / 1A – DENOTES TAX MAP AND PARCEL NUMBER.
3. PARCEL AREA = 232,192 S.F. / 5.33 Ac.
4. THE INTENT OF THIS PLAN IS TO SHOW A 1,620 S.F. LOADING DOCK ADDITION, CONSTRUCTION OF ADDITIONAL PAVEMENT FOR TRUCK MOVEMENTS, REMOVAL OF PAVEMENT AREAS AND REPLACEMENT OF EXISTING CULVERT AT ENTRANCE.
5. ZONING DISTRICT IS CM – COMMERCIAL (C) DISTRICT:

DIMENSIONAL REQUIREMENTS:	EXISTING	PROPOSED
MINIMUM LOT SIZE	20,000 S.F	232,192
MINIMUM LOT COVERAGE	50%	12.12%
MINIMUM FRONTAGE	125 FEET	920.5 FEET
BUILDING SETBACK REQUIREMENTS:		
FRONT SETBACK	30 FEET	50.17 FEET
SIDE SETBACK	12 FEET	92.8 FEET
REAR SETBACK	15 FEET	87.53 FEET
MAXIMUM BUILDING HEIGHT	40 FEET MAXIMUM	<40 FEET

6. THE SUBJECT PARCEL IS OUTSIDE OF THE 0.2 PERCENT ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP COMMUNITY NUMBER 330145; PANEL 0320; SUFFIX E; MAP NUMBER 33017C0320E; EFFECTIVE DATE SEPTEMBER 30, 2015.
7. BASIS OF BEARING IS NH STATE PLANE (NAD83) BASED ON GPS OBSERVATION DATED JANUARY 7, 2025. VERTICAL DATUM IS NAVD88 BASED ON GPS OBSERVATION DATED JANUARY 7, 2025.
8. PROPERTY LINE INFORMATION HAS BEEN OBTAINED FROM A SURVEY PERFORMED BY MCENEANEY SURVEY ASSOCIATES OF NEW ENGLAND ON DURING JANUARY 2025 WITH AN ERROR NOT GREATER THAN 1 IN 10,000.
9. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AS SHOWN. THE CONTRACTOR SHALL VERIFY THEIR EXACT LOCATIONS WITH THE RESPECTIVE UTILITY OWNERS PRIOR TO ANY WORK BEING PERFORMED. CALL DIGSAFE AT 1–888–344–7233.
10. WETLANDS FLAGGED LINES SHOWN WERE DELINEATED BY DAMON E. BURT, N.H.C.W.S. #163 OF FRAGGLE ROCK ENVIRONMENTAL SERVICES ON DECEMBER 19, 2024, IN ACCORDANCE WITH THE 1987 CORPS. OF ENGINEERS WETLANDS DELINEATION MANUAL AND LOCATED BY THIS OFFICE.
11. AS–BUILT PLANS OF THE SUBDIVISION SHALL BE SUBMITTED ON PAPER AND IN DIGITAL FORMAT AUTOCAD DWG, AUTOCAD DXF OR ESRI FORMAT TO THE CITY OF DOVER ENGINEER'S OFFICE UPON COMPLETION OF PROJECT IF A STREET IS PROPOSED FOR CITY ACCEPTANCE. AS–BUILT PLANS SHALL BE PREPARED AND CERTIFIED CORRECT BY A L.L.S. OR P.E. DIGITAL FILES SHALL BE GEO–REFERENCED TO NEW HAMPSHIRE STATE PLANE COORDINATES NAD83 AND SHALL BE EXPRESSED IN FEET.
12. THE INSTALLATION OF ELECTRIC POWER, CABLE TELEVISION AND TELEPHONE LINES SHALL BE UNDERGROUND THROUGHOUT THE SITE FOR WHICH DEVELOPMENT IS PROPOSED.
13. THE SUBJECT PARCEL IS SERVED BY MUNICIPAL WATER AND SEWER.
14. ALL CONSTRUCTION SHALL CONFORM WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NHDOT) "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND WITH THE CITY OF DOVER COMMUNITY SERVICES REGULATIONS AND STANDARD SPECIFICATION FOR CONSTRUCTION. THE MORE STRINGENT SPECIFICATION SHALL APPLY.
15. EROSION CONTROL NOTES INCLUDE PROVISIONS FOR CONSTRUCTION SEQUENCING, TEMPORARY EROSION CONTROL MEASURES, AND PERMANENT STANDARDS SUCH AS LOAM SPREAD RATE FOR DISTURBED AREAS, RATES OF LIME, TYPE AND RATES FOR FERTILIZER, AND SEED AND MULCH MIXTURE WITH RATES OF APPLICATION.
16. THE LIMITS OF CONSTRUCTION DISTURBANCE THAT ARE LOCATED IN OR WITHIN 50 FT. OF CONSERVATION AND WETLAND DISTRICTS SHALL BE STAKED, FLAGGED AND CLEARLY IDENTIFIED PRIOR TO ANY EARTH DISTURBING ACTIVITY OCCURS.
17. ALL TREATMENT SWALES TO BE CONSTRUCTED SHALL HAVE SOD BOTTOMS.
18. A LETTER OF CREDIT FOR THE COST OF REVEGETATING ALL DISTURBED AREAS ON THE SITE SHALL BE SUBMITTED, AND THE APPROVED CONSTRUCTION SIGN INSTALLED PRIOR TO ANY EARTH DISTURBING ACTIVITY OCCURS.
19. A PRE–CONSTRUCTION CONFERENCE WITH THE DEVELOPER, THE DESIGN ENGINEER, THE EARTHWORK CONTRACTOR AND THE CITY ENGINEER SHALL OCCUR PRIOR TO ANY EARTH DISTURBING ACTIVITY.
20. SITE CONSTRUCTION HOURS SHALL BE LIMITED TO MONDAY–FRIDAY 7 AM–6 PM, SATURDAY 9 AM 4 PM. HOURS OF CONSTRUCTION MUST BE DOCUMENTED ON A SITE CONSTRUCTION SIGN ALONG WITH THE CONTACT INFORMATION FOR THE GENERAL CONTRACTOR. SAID SIGNAGE MUST BE LOCATED AND APPROVED BY THE CITY ENGINEER OR PLANNING DIRECTOR. WORK PRECLUDED ON SUNDAYS AND FEDERAL HOLIDAYS.
21. BUILDING ADDRESSES (INCLUDING APT/UNIT NUMBERS, IF APPLICABLE) SHALL BE ASSIGNED BY THE BUILDING OFFICIAL AT THE TIME OF ISSUANCE OF A BUILDING PERMIT.
22. THE PROPOSED USE FOR THE SITE IS SEASONAL AUTOMOTIVE STORAGE: AUTOMOTIVE SERVICE.
23. THE FOLLOWING FEDERAL AND STATE PERMINTS HAVE BEEN ISSUED FOR THE SUBJECT PROPERTY: (SEE PROJECT VARIANCE/PERMIT SECTION)

DOVER NOTES CONTINUED:

24. CODE OR BE COORDINATED WITH THE COMMUNITY SERVICES DIRECTOR.
25. ANY RETAINING WALL TALLER THAN FOUR FEET (4') REQUIRES THE ISSUANCE OF A BUILDING PERMIT FROM INSPECTION SERVICES.
26. ANY FENCE TALLER THAN SEVEN FEET (7') REQUIRES THE ISSUANCE OF A BUILDING PERMIT FROM INSPECTION SERVICES.
27. APPLICANT SHALL COMPLETE LAND USE DEVELOPMENT TRACKING FORM, MOST RECENTLY REVISED VERSION, UTILIZING THE ONLINE POLLUTION TRACKING AND ACCOUNTING PILOT PROJECT (PTAPP) PORTAL.HTTPS://PTAPP.UNH.EDU/
28. IF APPLICABLE, THE OWNER OF RECORD SHALL RECORD AT THE REGISTRY OF DEEDS DOCUMENTATION SUFFICIENT TO PROVIDE NOTICE TO ALL PERSONS/ENTITIES THAT MAY ACQUIRE ANY PROPERTY SUBJECT TO THE REQUIREMENTS AND RESPONSIBILITIES DESCRIBED IN THE APPROVED STORMWATER MANAGEMENT PLAN. THE NOTICE SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS FOR RECORDING CONTAINED IN RSA 477 AND 478. THE NOTICE NEED NOT SET FORTH THE REQUIREMENTS AT LENGTH, SO LONG AS IT IS SUFFICIENT TO PROVIDE NOTICE TO PROSPECTIVE PURCHASERS TO THE REQUIREMENTS FOR MAINTENANCE AND REPORTING.
29. FIRE DEPARTMENT ACCESS ROAD(S) SHALL BE INSTALLED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF FIRE APPARATUS IN ALL WEATHER CONDITIONS AT ALL TIMES.
30. THE EXISTING SITE HAS 59 PARKING SPACES INCLUDING 1 ADA ACCESSIBLE SPACE, THE PROPOSED PROJECT PROVIDES 35 SPACES, INCLUDING 2 ADA ACCESSIBLE SPACES.
31. EXTERIOR LIGHTING SHALL BE CUT–OFF TYPE FIXTURES PER CHAPTER 153–14–E AND SHALL PROVIDE LIGHTING DIRECTED ON–SITE ONLY.
32. TOPOGRAPHIC SURVEY PERFORMED BY MCENEANEY SURVEY ASSOCIATE, OCTOBER 2024.
33. A SECURITY SYSTEM SHALL BE INSTALLED AS REQUIRED BY CHAPTER 45, ARTICLE I, SECTION 45–2 OF THE CODE OF THE CITY OF DOVER. (AS APPLICABLE)
34. APPROVED BACKFLOW PREVENTERS SHALL BE PROVIDED FOR BOTH FIRE AND DOMESTIC WATER LINES.
35. THE PROPOSED STRUCTURES SHALL BE SERVED BY A SPRINKLER SYSTEM AS REQUIRED BY CHAPTER 81– 30 OF THE CODE OF THE CITY OF DOVER AND THE ADOPTED STATE OF NH BUILDING AND FIRE CODES.
36. SPRINKLER CONNECTIONS MUST BE FLUSHED IN ACCORDANCE WITH NFPA 24 AND A CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM MUST BE COMPLETED AND APPROVED BY INSPECTION SERVICES PRIOR TO CONNECTION OF THE BACKFLOW DEVICE.
37. FIRE DEPARTMENT CONNECTION(S) SHALL BE LOCATED ON THE STREET SIDE OF THE BUILDING PER NFPA 13. ACCESS TO THE FDC SHALL MAINTAIN A CLEAR AND UNOBSTRUCTED PATH AT ALL TIMES.
38. THE SITE LAYOUT IS DESIGNED IN COMPLIANCE WITH APPLICABLE ACCESSIBILITY REGULATIONS. THE PROPOSED STRUCTURE WILL ALSO BE DESIGNED IN ACCORDANCE WITH APPLICABLE ACCESSIBILITY REGULATIONS. (I.E. IBC, ANSI–117.1) AND NH RSA 155–A:5.
39. DESIGN ENGINEER SHALL PROVIDE SIGNED LETTER TO CITY ENGINEER CERTIFYING THAT THE STORMWATER MANAGEMENT SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS.
40. ALL MANHOLE COVERS SHALL BE LIFTMATE R–1743–LM OR APPROVED EQUAL WITH 90 DEGREE HINGE.
41. REQUIRED BLASTING AND EXCAVATION – DOVER FIRE DEPARTMENT SHALL BE NOTIFIED PRIOR TO ANY BLASTING ACTIVITIES AND A BLASTING PERMIT FROM THE DOVER FIRE DEPARTMENT MUST BE OBTAINED.
42. THE WATER MAIN SHALL BE POLY WRAPPED IN ACCORDANCE WITH THE CITY OF DOVER STANDARDS.
43. ALL SEWER MAINS AND MANHOLES SHALL BE TESTED IN ACCORDANCE WITH NHDES ENV–WQ 700 REQUIREMENTS. COPIES OF TEST RESULTS SHALL BE PROVIDED TO THE CITY OF DOVER ENGINEERING DEPARTMENT.
44. WETLAND PLACARDS SHOULD IDENTIFY THE NO CUT WETLAND BUFFER AND SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION AND AFTER.
45. ALL FITTINGS MUST BE CLASS 140 WATER FITTINGS.
46. ALL GATE VALVES MUST BE MANUFACTURED BY MUELLER OR CLOW.

DEMOLITION NOTES:

1. COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
2. ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO MATCH ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL NOTIFY "DIG SAFE" PRIOR TO ANY DEMOLITION/ CONSTRUCTION ACTIVITIES. (811).
4. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, UTILITIES AND PAVEMENT ON THE SITE TO THE LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN.
5. IT IS THE CONTRACTORS RESPONSIBILITY TO FAMILIARIZE HIMSELF WITH THE CONDITIONS OF ALL OF THE PERMIT APPROVALS.
6. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS NOT ALREADY OBTAINED BY THE OWNER AND ARRANGE AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION AND OFF–SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK, EXCEPT FOR WORK NOTED TO BE COMPLETED BY OTHERS.
8. STONES FROM REMOVED STONEWALLS SHALL REMAIN ON–SITE. STONES SHALL BE REPURPOSED ON–SITE AND SHALL NOT BE USED AS FILL.
9. THE LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATION IS NOT GUARANTEED BY THE OWNER OR THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
10. ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF–SITE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES, AND CODES.
11. LEDGE REMOVAL VOLUMES ARE ENGINEERS ESTIMATES. CONTRACTOR IS RESPONSIBLE FOR CONDUCTING ADDITIONAL SUBSURFACE INVESTIGATIONS IF NECESSARY TO DETERMINE ESTIMATED VOLUMES.

SITE NOTES

1. REVIEW DOVER NOTES FOR ALL APPLICABLE NOTES.
2. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO APPLICABLE CITY AND STATE CODES.
3. ALL CONSTRUCTION LAYOUT SHALL BE DONE BY A LICENSED SURVEYOR UNDER CONTRACT WITH THE CONTRACTOR.
4. SEE DETAILS FOR SIGN LEGENDS.
5. ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", THE "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", AND THE AMERICAN WITH DISABILITIES ACT, LATEST EDITIONS.
6. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE CONSTRUCTION PROCEDURES AND SEQUENCE TO ENSURE THE SAFETY OF THE FACILITIES AND THEIR COMPONENTS DURING DEMOLITION AND CONSTRUCTION UNLESS OTHERWISE DIRECTED BY THE OWNERS REPRESENTATIVE. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIE–DOWNS. SUCH MATERIALS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AT THE COMPLETION OF THE PROJECT.
7. METHODS OF DEMOLITION, CONSTRUCTION AND ERECTION ARE THE CONTRACTOR'S RESPONSIBILITY UNLESS OTHERWISE SPECIFIED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND MAINTAIN ENVIRONMENTAL CONTROLS AS REQUIRED BY FEDERAL, STATE AND MUNICIPAL REGULATIONS AND PERMITS. ENVIRONMENTAL CONTROLS SHALL INCLUDE BUT SHALL NOT BE LIMITED TO DUST CONTROL AND SILT BARRIERS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO STRUCTURES OR UTILITIES OR INJURIES TO THE PUBLIC DURING THE CONSTRUCTION PHASE CAUSED BY HIMSELF, HIS EMPLOYEES, HIS SUBCONTRACTORS OR EMPLOYEES OF SAME. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL TEMPORARY FACILITIES FOR THE PROTECTION OF THE WORK, WORKERS AND PUBLIC SAFETY.
9. THE SITE SHALL BE MAINTAINED TO PROVIDE ACCESSIBILITY IN ALL WEATHER CONDITIONS.
10. REFUSE PICKUP WILL BE BY PRIVATE CONTRACTOR AND WILL BE VIA DUMPSTER ON–SITE.
11. SNOW STORAGE WILL BE ACCORDING TO THE OPERATION AND MAINTENANCE PLAN AND WITHIN AREAS AS INDICATED. ON–SITE SNOW STORAGE SHALL OCCUR ALONG THE EDGES OF PROPOSED PAVEMENT.
12. ALL EXTERIOR DOORS ARE MANUAL AND OPENED FROM THE INTERIOR BY PANIC HARDWARE. ALL EXTERIOR DOORS SHALL COMPLY WITH ADA AND ALL LOCAL BUILDING CODE REQUIREMENTS.

GRADING NOTES:

1. REVIEW DOVER NOTES FOR ALL APPLICABLE NOTES.
2. CONTRACTOR SHALL RETAIN A GEOTECHNICAL ENGINEERING CONSULTANT APPROVED BY THE OWNER, TO CONDUCT COMPACTION TESTING AND FILL GRADATION MONITORING.
3. SEE EROSION CONTROL NOTES & DETAIL SHEET FOR TEMPORARY AND PERMANENT EROSION CONTROL MEASURES.
4. ALL DRAINAGE PIPES SHALL BE HDPE OR APPROVED EQUAL UNLESS OTHERWISE NOTED.
5. ALL DISTURBED AREAS NOT OTHERWISE CALLED FOR SURFACE TREATMENT SHALL RECEIVE 6" OF HIGH QUALITY LOAM AND SHALL BE SEEDED WITH GRASS.
6. ALL SITEWORK CONSTRUCTION SHALL BE ADVANCED USING "BEST MANAGEMENT PRACTICES" SANCTIONED BY THE USDA, SCS AND NHDES.
7. TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED, UTILIZED AND MAINTAINED UNTIL BASE MATERIALS ARE CONSTRUCTED.
8. CONTRACTOR SHALL PROVIDE A FINISH GRADED SURFACE FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCE AND UNDER RAISED STRUCTURES.
9. PROVIDE INLET PROTECTION BARRIERS AROUND ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS WITHIN THE WORK LIMITS AND AS SHOWN ON PLAN. MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED AND UPSTREAM AREAS HAVE BEEN STABILIZED.
10. INSPECT SILT BARRIERS AFTER EACH RAIN STORM OF 1/4 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF THE FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE STRUCTURE HEIGHT.
11. A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED FOR THIS PROJECT. THE SWPPP MUST INCLUDE THE APPROPRIATE BEST MANAGEMENT PRACTICES (BMP'S) TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THE SITE. PARTIES RESPONSIBLE FOR DEVELOPING THE SWPPP SHOULD REFER TO THE EPA NPDES CONSTRUCTION GENERAL PERMITS NOTICE OF INTENT FOR A COMPLETE OUTLINE OF REQUIRED ELEMENTS. THESE PLANS AND THE STORMWATER MANAGEMENT SYSTEM INSPECTION & MAINTENANCE PLAN PREPARED FOR THIS PROJECT MAY BE UTILIZED IN FULFILLING THE REQUIREMENTS.
12. LIMIT TREE CLEARING TO ONLY THE EXTENT NECESSARY FOR CONSTRUCTION.
13. CONTRACTOR SHALL NOTIFY THE CITY OF DOVER AND THE DESIGN ENGINEER 48 HOURS PRIOR TO THE INSTALLATION OF PERMANENT STORMWATER BMP'S TO PROVIDE THE CITY AND THE ENGINEER THE OPPORTUNITY TO WITNESS THE CONSTRUCTION AND MATERIALS. THE DESIGN ENGINEER MUST CERTIFY THAT THE STORMWATER MANAGEMENT SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS.
14. DENSITY REQUIREMENTS:

LOCATION	MINIMUM DENSITY
BELOW PAVED OR CONCRETE AREAS	95%
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL BELOW LOAM AND SEED AREA	95% 90%

*ALL PERCENTAGES SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH AASHTO STANDARD 180, METHOD C. FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH AASHTO STANDARD T–191, T–204, OR T–238 AND T–239.

UTILITY CONTACTS

NATURAL GAS: – CONTACT: UNITIL CORPORATION
DAVID MACLEAN
325 WEST ROAD
PORTSMOUTH, NH 03801
TEL: (603)–294–5261
EMAIL: MACLEAND@UNITIL.COM

WATER & SEWER: – CONTACT: CITY OF DOVER COMMUNITY SERVICES DEPARTMENT
PUBLIC WORKS & UTILITIES
KEN MAVROGEORGE, PE
271 MAST ROAD
DOVER, NH 03820
TEL: (603)–516–6450
EMAIL: K.MAVROGEORGE@DOVER.NH.GOV

ELECTRIC: – CONTACT: EVERSOURCE
TREVER EMMONS
4 OLD DOVER ROAD
ROCHESTER, NH 03867
TEL: (603)–332–7515
EMAIL: TREVER.EMMONS@EVERSOURCE.COM

UTILITY NOTES

1. REVIEW DOVER NOTES FOR ALL APPLICABLE NOTES.
2. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES, AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
3. SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION.
4. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
5. SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.
6. ALL WATER MAIN INSTALLATIONS SHALL BE CLASS 52, DOUBLE CEMENT LINED DUCTILE IRON PIPE OR TYPE "K" COPPER, OR CITY APPROVED MATERIAL.
7. ALL WATER MAIN INSTALLATIONS SHALL BE PRESSURE TESTED AND CHLORINATED AFTER CONSTRUCTION PRIOR TO ACTIVATING THE SYSTEM. CONTRACTOR SHALL COORDINATE CHLORINATION AND TESTING WITH THE CITY OF DOVER WATER DEPARTMENT.
8. ALL GRAVITY SEWER PIPE SHALL BE PVC SDR 35 UNLESS OTHERWISE NOTED AND CONFORM TO THE REQUIREMENTS OF THE CITY OF DOVER SEWER DEPARTMENT STANDARDS.
9. EXISTING UTILITIES TO BE REMOVED SHALL BE CAPPED AT THE MAIN AND MEET THE CITY OF DOVER COMMUNITY SERVICES DEPARTMENT STANDARDS FOR CAPPING OF WATER AND SEWER SERVICES.
10. ALL ELECTRICAL MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, LATEST EDITION, AND ALL APPLICABLE STATE AND LOCAL CODES.
11. THE EXACT LOCATION OF NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE BUILDING DRAWINGS AND THE UTILITY COMPANIES.
12. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
13. THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO THE COMPLETION OF THIS PROJECT.
14. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL.
15. CONTRACTOR SHALL PROVIDE EXCAVATION, BEDDING, BACKFILL AND COMPACTION FOR NATURAL GAS SERVICES. COORDINATE WITH GAS COMPANY.
16. A 10–FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18–INCH MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/SANITARY SEWER CROSSINGS.
17. THE CONTRACTOR SHALL CONTACT "DIG–SAFE" 72 HOURS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL HAVE THE "DIG–SAFE" NUMBER ON SITE AT ALL TIMES.
18. SAWCUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN.
19. GATE VALVES, FITTINGS, ETC. SHALL MEET THE REQUIREMENTS OF THE CITY OF DOVER.
20. COORDINATE TESTING OF SEWER CONSTRUCTION WITH THE CITY OF DOVER.
21. CONTRACTOR SHALL COORDINATE ALL ELECTRIC WORK INCLUDING BUT NOT LIMITED TO: CONDUIT CONSTRUCTION, MANHOLE CONSTRUCTION, UTILITY POLE CONSTRUCTION, OVERHEAD WIRE RELOCATION, AND TRANSFORMER CONSTRUCTION WITH POWER COMPANY.
22. CONTRACTOR SHALL PHASE UTILITY CONSTRUCTION, PARTICULARLY WATER MAIN AND GAS MAIN CONSTRUCTION AS TO MAINTAIN CONTINUOUS SERVICE TO ABUTTING PROPERTIES. CONTRACTOR SHALL COORDINATE TEMPORARY SERVICES TO ABUTTERS WITH THE UTILITY COMPANY AND AFFECTED ABUTTER.
23. SITE LIGHTING SPECIFICATIONS, CONDUIT LAYOUT AND CIRCUITRY FOR PROPOSED SITE LIGHTING AND SIGN ILLUMINATION SHALL BE PREPARED BY THE PROJECT ELECTRICAL ENGINEER.
24. THE PROPOSED STRUCTURE SHALL COMPLY WITH CHAPTER 81, ARTICLE IV, SECTION 81–27 AND THE STATE BUILDING CODES OF THE CODE OF THE CITY OF DOVER.
25. FIRE SUPPRESSION PLANS SHALL BE PROVIDED TO THE FIRE/INSPECTION DEPARTMENT PRIOR TO INSTALLATION.
26. COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY COMPANY.
27. SEWAGE LOADING (PER NHDES ENV–WQ 1008.03)
    BUILDING :
    NO CHANGE FROM EXISTING
28. PUMP CHAMBERS ARE UNCLASSIFIED.

LEGEND

S.F.	SQUARE FEET
Ac.	ACRE
±	MORE OR LESS
(TYP.)	TYPICAL
S.C.R.D.	STRAFFORD REGISTRY OF DEEDS
NHHD	NEW HAMPSHIRE HIGHWAY DEPT.
TBR	TO BE REMOVED
ELEV.	ELEVATION
INV.	INVERT
V.I.F.	VERIFY IN FIELD
R.O.W.	RIGHT–OF–WAY
	EXISTING UTILITY POLE
	EXISTING SIGN
	EXISTING WATER SHUT–OFF
OHW	OVERHEAD UTILITIES
E	EXISTING ELECTRIC
W	EXISTING WATER LINE
S	EXISTING SEWER LINE
D	EXISTING DRAINAGE LINE
UGT	EXISTING UNDERGROUND TELEPHONE
	EXISTING WATER VALVE
	EXISTING GAS VALVE
	EXISTING HYDRANT
	EXISTING LIGHT/SIGNAL POLE
	EXISTING SEWER MANHOLE
	EXISTING DRAINAGE MANHOLE
	EXISTING CATCHBASIN
5'R	PAVEMENT RADIUS
BCC	BITUMINOUS CONRETE CURB
x 74.00	EXISTING SPOT GRADE
– – –94– – –	EXISTING GRADE
74	PROPOSED FINISH GRADE
x 74.00	PROPOSED SPOT GRADE
	PAVEMENT WITH CURB
	SILT BARRIER
PS	PROPOSED SEWER
PW	PROPOSED WATER
PUGU	PROPOSED UNDERGROUND UTILITIES
PG	PROPOSED GAS

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

PLANNING FILE NO.: SITE–2025–

NO.	REVISION	APP'D	DATE

DATE: 4–24–25
SCALE: N.T.S.
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO: 24169
FILE: SITE.DWG

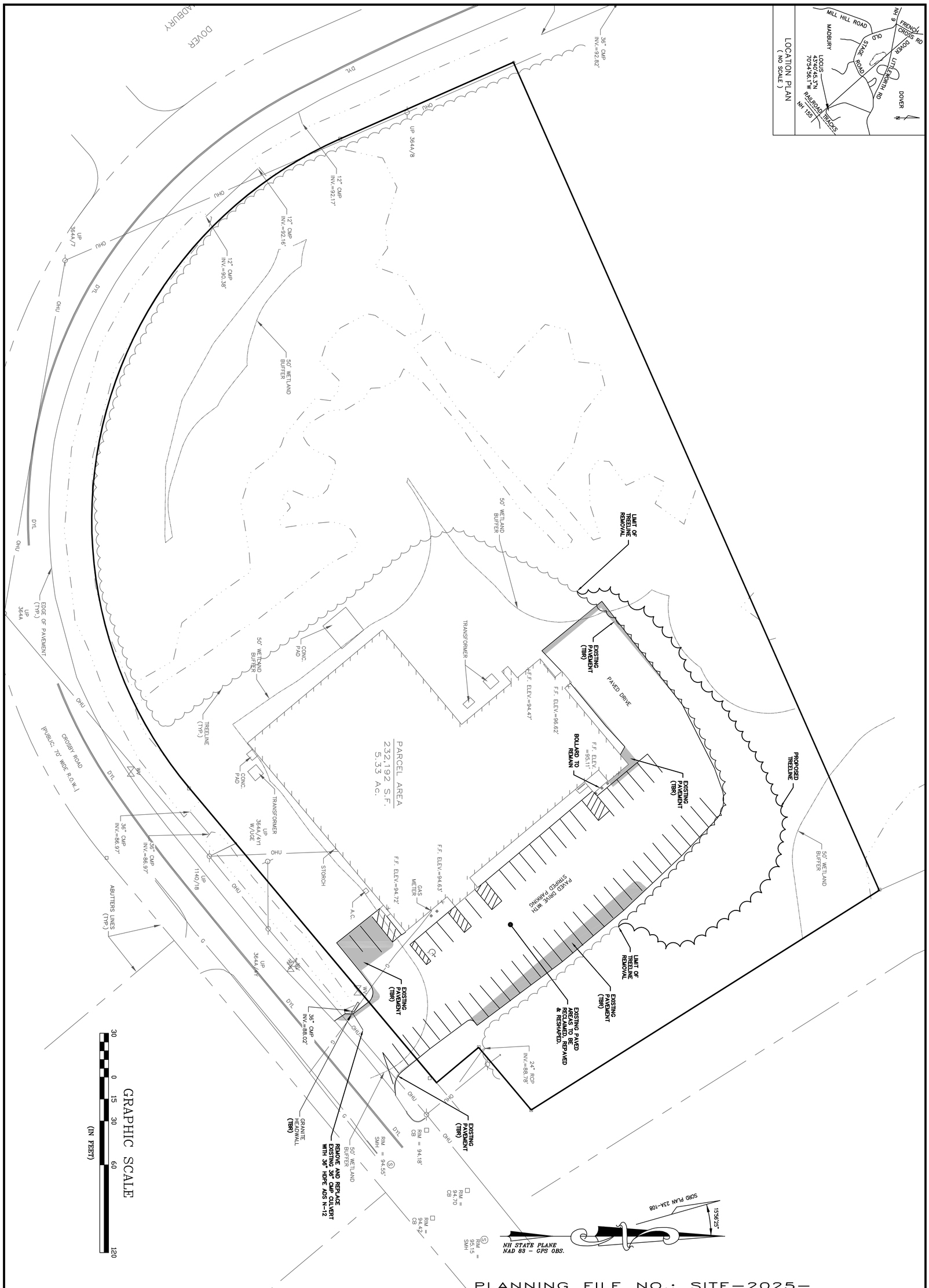
GNE
CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NOTE SHEET

CROSBY 180, LLC
P.O. BOX 4064
PORTSMOUTH, NH 03802

LOADING DOCK ADDITION
180 CROSBY ROAD
DOVER, NH 03820

4



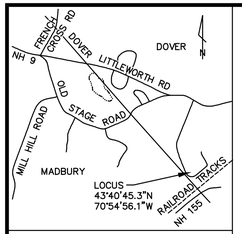
PLANNING FILE NO.: SITE—2025—

5	*DEMOLITION PLAN*		
	LOADING DOCK ADDITION *180 CROSBY ROAD* *DOVER, NH 03820*	*CROSBY 180, LLC* *P.O. BOX 4064* *PORTSMOUTH, NH 03802*	

DATE: 4—24—25				
SCALE: 1"=30'				
DRAWN BY: SRD				
DESIGN BY: SRD				
APPROVED BY:SJH				
PROJECT NO: 24169				
FILE: SITE.DEG	NO.	REVISION	APP'D	DATE

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

CNE
CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443



LOCATION PLAN
(NO SCALE)

PARKING CALCULATIONS
EXISTING = 57 SPACES WITH 1 ADA ACCESSIBLE
PROPOSED = 39 SPACES WITH 2 ADA ACCESSIBLE

SNOW STORAGE CALCULATION
PAVED AREA = 28,390 S.F.
SNOW STORAGE REQUIRED = 28,390 / 10 = 2,839
SNOW STORAGE PROVIDED = 3,569 S.F.

PAVEMENT AREA CALCULATIONS
EXISTING = 29,101 S.F.
PROPOSED = 28,390 S.F.

PLANNING FILE NO.: SITE-2025-

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CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE

DATE: 4-24-25
SCALE: 1"=30'
DRAWN BY: SRD
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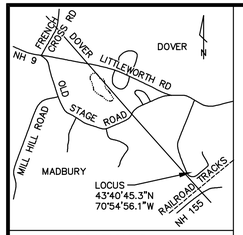
SITE PLAN

CROSBY 180, LLC
P.O. BOX 4064
PORTSMOUTH, NH 03802

LOADING DOCK ADDITION
180 CROSBY ROAD
DOVER, NH 03820

6



LOCATION PLAN
(NO SCALE)

CONDITIONAL USE
WETLAND BUFFER IMPACTS:
AREA A = 403 SF
AREA B = 949 SF
TOTAL = 1,352 SF

PROPOSED DUAL 4" DR41 PVC FORCE MAIN
PROPOSED CHECK DAM (TYP)
PROPOSED RIP-RAP SWALE
50' WETLAND BUFFER
END OF WALL TOW=94.0
REGRADE EXISTING SWALE
GRADE SWALE AROUND PUMP CHAMBER
PROPOSED 15" HDPE ADS N-12 L=8' S=0.04 INV.IN=88.6 INV.OUT=88.4
PROPOSED 4,000 GAL. PUMP CHAMBER
IMPACT AREA A=403 S.F.
PROPOSED 15" HDPE SLOTTED DRAIN (INV.=88.6)
TOW=94.0
TOW=94.9
F.F.=94.47
F.F. ELEV.=95.11'
F.F. ELEV.=96.62'
F.F. ELEV.=94.47'
F.F. ELEV.=94.63'
F.F. ELEV.=94.72'
MATCH EXISTING GRADE
PROPOSED SINGLE ROW 8" SILTSOXX
PROPOSED DOUBLE ROW 8" SILTSOXX
36" CMP INV.=92.82'
12" CMP INV.=92.17'
12" CMP INV.=92.16'
12" CMP INV.=90.38'
24" RCP INV.=88.78'
RECONSTRUCT INVERT INTO EXISTING CATCH BASIN (INV.IN V.I.F.)
RIM = 94.70 CB
RIM = 94.18' CB
RIM = 94.42 CB
REPLACE EXISTING 36" CMP CULVERT WITH 36" ADS N-12 CULVERT.
PROPOSED HEADWALL INV.IN=88.02 (V.I.F.) CONTRACTOR TO COORDINATE WITH CITY ENGINEER TO ESTABLISH INVERT DURING CONSTRUCTION.
PD-36" ADS-N-12
IMPACT AREA B=949 S.F.
TRANSFORMER
CONC. PAD
A.C.
50' WETLAND BUFFER
TREELINE (TYP.)
EDGE OF PAVEMENT (TYP.)
ABUTTERS LINES (TYP.)
CROSBY ROAD
(PUBLIC; 70' WIDE R.O.W.)
DOVER
MADBURY
PARCEL AREA
232,192 S.F.
5.33 Ac.
15°56'25"
SCRD PLAN 234-108
NH STATE PLANE NAD 83 - GPS OBS.

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)

PLANNING FILE NO.: SITE-2025-

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CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE

DATE: 4-24-25
SCALE: 1"=30'
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO: 24169
FILE: SITE.DEG

GRADING, DRAINAGE & EROSION CONTROL PLAN

LOADING DOCK ADDITION
180 CROSBY ROAD
DOVER, NH 03820

CROSBY 180, LLC
P.O. BOX 4064
PORTSMOUTH, NH 03802

7

DESCRIPTION
THE INTENT OF THIS PLAN IS TO SHOW A 1,620 S.F. LOADING DOCK ADDITION, CONSTRUCTION OF ADDITIONAL PAVEMENT FOR TRUCK MOVEMENTS, REMOVAL OF PAVEMENT AREAS AND REPLACEMENT OF EXISTING CULVERT AT ENTRANCE.

PROJECT NAME AND LOCATION
CODA PRODUCTS, INC.
TAX MAP G, LOT 1A — *LATITUDE* N43° 10' 14"
CROSBY ROAD — *LONGITUDE* W70° 54' 55"
DOVER, NH

DISTURBED AREA
±40,585 S.F..

NOTES:
1. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY TIME BEFORE DISTURBED AREAS ARE STABILIZED.
2. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.

SEQUENCE OF MAJOR ACTIVITIES
1. PLACE TEMPORARY EROSION AND SEDIMENT CONTROL BMP'S PRIOR TO EARTH MOVING ACTIVITIES.
2. ALL EROSION CONTROL AND PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO COMMENCING EARTH MOVING OPERATIONS.
3. SELECTIVE DEMOLITION.
4. REGRADE SITE TO SUBGRADE.
5. TEMPORARY WATER DIVERSION (SWALES, BASINS) MUST BE USED AS NECCESSARY UNTIL AREAS ARE STABILIZED.
6. SWALES AND PONDS (AS APPLICABLE) SHALL BE CONSTRUCTED EARLY ON IN THE CONSTRUCTION SEQUENCE AND BEFORE ROUGH GRADING OF THE SITE AND ALL DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
7. INSTALL DRAINAGE STRUCTURES AND CONTROLS.
8. INSTALL FOUNDATION FOOTINGS AND WALLS.
9. INSTALL UTILITIES.
10. PLACE GRAVELS AND FINE GRADE.
11. STABILIZE ROADWAYS AND PARKING AREAS WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
12. ALL CUT AND FILL SLOPES SHALL BE LOAMED AND SEEDED (AS APPLICABLE) WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
13. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EVERY 1/2" OF RAINFALL.
14. IN ALL CASES THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION AND IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.

DEFINITIONS
AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED.
1. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED
2. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED
3. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP-RAP HAS BEEN INSTALLED; OR
4. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED

INSTALLATION, MAINTENANCE, AND INSPECTION PROCEDURES OF EROSION AND SEDIMENT CONTROLS

A. SILT BARRIER
1. INSTALLATION
   a. USE SILT BARRIER AS PERIMETER CONTROLS, PARTICULARLY AT THE LOWER OR DOWN SLOPE EDGE OF A DISTURBED AREA.
   b. LEAVE SPACE FOR MAINTENANCE BETWEEN TOE AND SLOPE OF SILT BARRIER.
   c. TRENCH IN THE SILT BARRIER ON THE UPHILL SIDE (6 INCHES DEEP BY 6 INCHES WIDE).
   d. INSTALL STAKES ON THE DOWNHILL SIDE OF THE SILT BARRIER.
   e. CURVE THE END OF THE SILT BARRIER UP-GRADIENT TO HELP IT CONTAIN RUNOFF.
2. SEQUENCE OF INSTALLATION
   a. SEDIMENT BARRIERS SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM.
3. MAINTENANCE
   a. SILT BARRIERS SHOULD BE INSPECTED AND MAINTAINED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
   b. SILT BARRIERS HAVE A USEFUL LIFE OF ONE SEASON. ON LONGER CONSTRUCTION PROJECTS, SILT BARRIERS SHOULD BE REPLACED PERIODICALLY TO MAINTAIN EFFECTIVENESS.
   c. REMOVE SEDIMENT WHEN IT REACHES ONE-THIRD (1/3) THE HEIGHT OF THE SILT BARRIER.
   d. REPLACE THE SILT BARRIERS WHERE THEY ARE TORN, WORN, OR OTHERWISED DAMAGED AND MONITOR PERFORMANCE TO ENSURE EFFECTIVE PERFORMANCE.
   e. RETRENCH OR REPLACE ANY SILT BARRIER THAT IS NOT PROPERLY ANCHORED TO THE GROUND.
   f. IF THERE IS EVIDENCE OF END FLOW ON PROPERLY INSTALLED BARRIERS, EXTEND BARRIERS UPHILL OR CONSIDER REPLACING THEM WITH OTHER MEASURES, SUCH AS TEMPORARY DIVERSIONS AND SEDIMENT TRAPS.
   g. SILT BARRIERS SHOULD BE REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SILT BARRIERS SHOULD BE REPLACED WITH A TEMPORARY CHECK DAM.

B. MULCHING
1. TIMING
   a. APPLY MULCH PRIOR TO ANY STORM EVENT. IT WILL BE NECESSARY TO CLOSELY MONITOR WEATHER PREDICTIONS TO HAVE ADEQUATE WARNING OF SIGNIFICANT STORMS.
   b. IN OTHER AREAS, THE TIME PERIOD CAN RANGE FROM 14 TO 30 DAYS OF INACTIVITY ON A AREA. THE LENGTH OF TIME VARYING WITH SITE CONDITIONS. PROFESSIONAL JUDGEMENT SHALL BE USED TO EVALUATE THE INTERACTION OF SITE CONDITIONS (SOIL ERODIBILITY, SEASON OF YEAR, EXTENT OF DISTURBANCE, PROXIMITY TO SENSITIVE RESOURCES, ETC.) AND THE POTENTIAL IMPACT OF EROSION ON ADJACENT AREAS TO CHOOSE AN APPROPRIATE TIME RESTRICTION.
   c. WITHIN 100 FEET OF RIVERS, STREAMS, WETLANDS, AND IN LAKE AND POND WATERSHEDS, THE TIME PERIOD OF WHICH MULCHING SHOULD TAKE OCCUR SHOULD BE NO GREATER THAN SEVEN (7) DAYS. THIS SEVEN DAY LIMIT SHOULD BE REDUCED FURTHER DURING WET WEATHER PERIODS.
2. APPLICATION RATE
   a. MULCH SHALL BE APPLIED AT A RATE OF BETWEEN 1.5 TO 2 TONS PER ACRE, OR 70 TO 90 POUNDS PER 1000 SQUARE FEET.
   b. GUIDELINES FOR WINTER MULCH APPLICATION. WHEN MULCH IS APPLIED TO PROVIDE PROTECTION OVER WINTER (PAST THE GROWING SEASON) IT SHALL BE AT A RATE OF 150-200 POUNDS OF HAY OR STRAW PER ACRE WITH ABOUT 4 INCHES IN DEPTH. A TACKIFIER MAY BE ADDED TO THE MULCH.
3. MAINTENANCE
   a. ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS. CHECK FOR SIGNS OF EROSION OR DISPLACEMENT OF THE MULCH. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED.
   b. NETS MUST BE INSPECTED AFTER RAIN EVENTS FOR DISLOCATION OR FAILURE AND SHOULD BE REPAIRED AS NECCESSARY.
   c. INSPECTIONS SHOULD TAKE PLACE UNTIL THE SITE IS ESTABLISHED.
   d. EROSION CONTROL MIX MULCH USED FOR TEMPORARY STABILIZATION SHOULD BE LEFT IN PLACE. VEGETATION ADDS STABILITY AND SHOULD BE PROMOTED.

C. TEMPORARY SEEDING
1. SEEDBED PREPARATION
   a. STONES AND TRASH SHOULD BE REMOVED SO AS NOT TO INTERFERE WITH THE SEEDING AREA.
   b. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
   c. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS.
      i) APPLY FERTILIZER AT A RATE OF 600 POUNDS PER ACRE OR 13.8 POUNDS PER 1,000 SQUARE FEET OF LOW PHOSPHATE FERTILIZER OR EQUIVALENT.
      ii) APPLY LIMESTONE AT A RATE OF 3 TONS PER ACRE OR 138 POUNDS PER 1,000 SQUARE FEET.
2. SEEDING
   a. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SUMMARY INCLUDING SEED AND FERTILIZER) WITH A SEEDING DEPTH FROM A QUARTER (1/4) TO A HALF (1/2) INCH.
   b. SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.
   c. TEMPORARY SEEDING BETWEEN MAY 15TH AND AUGUST 15TH SHOULD BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE.
   d. VEGETATED GROWTH COVERING 85% OF THE DISTURBED AREA SHOULD BE ACHIEVED PRIOR TO OCTOBER 15TH.
3. MAINTENANCE
   a. TEMPORARY SEEDING SHALL BE INSPECTED PERIODICALLY. AT A MINIMUM, 85% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES USED IN THE INTERIM (MULCH, FILTER FABRICS, CHECK DAMS, ETC.).

D. PERMANENT SEEDING
1. BEDDING - STONES LARGER THAN 2 INCHES, TRASH, ROOTS, AND OTHER DEBRIS INTERFERRING WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA SHOULD BE REMOVED. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF 4" TO PREPARE A SEEDBED AND MIX FERTILIZER INTO THE SOIL.
2. FERTILIZER
   a. LIME AND FERTILIZER SHOULD BE WORKED INTO THE SOIL TO A DEPTH OF 4 INCHES USING A DISC, SPRING TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT PRIOR TO OR AT THE SAME TIME OF SEEDING.
   b. FERTILIZER SHOULD BE RESTRICTED TO A LOW PHOSPHATE, SLOW RELEASE NITORGEN FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 FEET AND 250 FEET FROM A SURFACE WATER BODY. NO FERTILIZER EXCEPT LIMESTONE SHOULD BE APPLIED WITHIN 25 FEET OF THE SURFACE WATER.
   c. KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:
      AGRICULTURAL LIMESTONE @ 138 LBS. PER 1,000 S.F.
      LOW PHOSPHATE (N-P205-K20) FERTILIZER @ 13.8 LBS. PER 1,000 S.F.
3. SEED MIXTURE (RECOMMENDED)
   RATE:

TYPE	LBS. PER ACRE	LBS. PER 1,000 S.F.
TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
BIRDSFOOT TREFOIL	8	0.20
TOTAL	48	1.10

4. SEEDING
   a. SPRING SEEDING USUALLY GIVES THE BEST RESULTS FOR ALL SEED MIXES OR WITH LEGUMES. PERMANENT SEEDING SHOULD BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST.
   b. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER) WITH A SEEDING DEPTH FROM A QUARTER (1/4) TO A HALF (1/2) INCH.
   c. VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED SHOULD BE ACHIEVED PRIOR TO OCTOBER 15TH. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION.
5. HYDROSEEDING
   a. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF STRAW MULCH ON CRITICAL AREAS IS PREFERRED SINCE IT GRANTS BETTER SLOPE PROTECTION BY USING ADHESIVE MATERIALS.
   b. SLOPES MUST BE NO STEEPER THAN 2 TO 1 (2 FEET HORIZONTALLY TO 1 FOOT VERTICALLY).
   c. SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.
6. MAINTENANCE
   a. PERMANENT SEEDED AREAS SHOULD BE INSPECTED AT LEAST MONTHLY DURING THE COURSE OF CONSTRUCTION. INSPECTIONS, MAINTENANCE, AND CORRECTIVE ACTIONS SHOULD CONTINUE UNTIL THE OWNER ASSUMES PERMANENT OPERATION OF THE SITE.
   b. SEEDED AREAS SHOULD BE MOWED AS REQUIRED TO MAINTAIN A HEALTHY STAND OF VEGETATION, WITH MOWING HEIGHT AND FREQUENCY DEPENDENT ON TYPE OF GRASS COVER.
   c. BASED ON INSPECTION, AREAS SHOULD BE RESEEDED TO ACHIEVE FULL STABALIZATION OF EXPOSED SOILS.
   d. IF EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS RESEEDED. WITH OTHER TEMPORARY MEASURES USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.
   e. AT A MINIMUM, 85% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION.

E. STORM DRAIN INLET PROTECTION
1. SPECIFICATIONS
   a. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE BARRIER SHOULD BE LESS THAN ONE ACRE.
   b. ANY RESULTANT PONDING OF STORMWATER MUST NOT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.
2. INSTALLATION
   a. INSTALL INLET PROTECTION AS SOON AS STORM DRAIN INLETS ARE INSTALLED AND BEFORE LAND-DISTURBANCE ACTIVITIES BEGIN IN AREAS WITH EXISTING STORM DRAIN SYSTEMS.
   b. PROTECT ALL INLETS THAT COULD RECEIVE STORMWATER FROM YOUR CONSTRUCTION PROJECT.
   c. USE IN CONJUNCTION WITH OTHER EROSION PREVENTION AND SEDIMENT CONTROL BMPS.
   d. DESIGN YOUR INLET PROTECTION TO HANDLE THE VOLUME OF WATER FROM THE AREA BEING DRAINED. ENSURE THAT THE DESIGN IS SIZED APPROPRIATELY.
3. MAINTENANCE
   a. INSPECT INLETS BARRIERS FREQUENTLY, BEFORE AND AFTER EACH RAINFALL EVENT AND REPAIR WHEN NECESSARY.
   b. SEDIMENT SHOULD BE REMOVED AND THE STORM DRAIN SEDIMENT BARRIER RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE BARRIER.
   c. REMOVED SEDIMENT SHOULD BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
   d. SWEEP STREETS, SIDEWALKS, AND OTHER PAVED AREAS REGULARLY.
   e. ALL CATCH BASINS AND STORM DRAIN INLETS MUST BE CLEANED AT THE END OF CONSTRUCTION AND AFTER THE SITE HAS BEEN FULLY STABILIZED

TIMING OF CONTROLS/MEASURES
AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES THE SILT BARRIERS SHALL BE INSTALLED PRIOR TO COMMENCING ANY CLEARING OR GRADING OF THE SITE. STRUCTURAL CONTROLS SHALL BE INSTALLED CONCURRENTLY WITH THE APPLICABLE ACTIVITY. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN TWENTY ONE (21) DAYS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN FOURTEEN (14) DAYS OF THE LAST DISTURBANCE. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, SILT FENCES AND ANY EARTH/DIKES WILL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED. ALL AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.

WASTE DISPOSAL
a. WASTE MATERIALS
   ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN A DUMPSTER. NO CONSTRUCTION WASTE MATERIALS WILL BE BURIED ON SITE. ALL PERSONEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.
b. HAZARDOUS WASTE
   ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.
c. SANITARY WASTE
   ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

MAINTENACE OF STORMWATER MANAGEMENT FACILITIES
THE PROJECT PROPONENT IS RESPONSIBLE FOR THE MAINTENANCE OF ALL STORMWATER FACILITIES DURING CONSTRUCTION AND THE PROPERTY OWNER IS RESPONSIBLE AFTER CONSTRUCTION IS COMPLETE.

CATCH BASINS & STORMWATER TREATMENT STRUCTURES
1. CATCH BASINS & STORMWATER TREATMENT STRUCTURES SHOULD BE INSPECTED ON A MONTHLY BASIS AND/OR AFTER A MAJOR RAINFALL EVENT TO ASSURE THAT DEBRIS OR SEDIMENTS DO NOT REDUCE THE EFFECTIVENESS OF THE SYSTEM.

SPIL PREVENTION

A. MATERIAL MANAGEMENT PRACTICES
THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RICK OF SPILLS OR OTHER ACCIDENTAL SANITARY EXPOSURE OF MATERIALS AND SUBSTANCE DURING CONSTRUCTION TO STORMWATER RUNOFF:
GOOD HOUSEKEEPING:
THE FOLLOWING GOOD HOUSEKEEPING PRACTICES THAT WILL BE FOLLOWED ON SITE DURING
1. THE CONSTRUCTION PROJECT:
   a. AN EFFORT WILL BE MADE TO STORE ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB.
   b. ALL MATERIALS STORED ON SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
   c. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
   d. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS.
   e. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
   f. WHENEVER POSSIBLE ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
2. HAZARDOUS PRODUCTS:
   a. THE FOLLOWING PRACTICES WILL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:
   b. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
   c. ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED FOR IMPORTANT PRODUCT INFORMATION.
   d. SURPLUS PRODUCT THAT MUST BE DISPOSED OF WILL BE DISCARDED ACCORDING TO THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL.

B. PRODUCT SPECIFICATION PRACTICES
THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ON SITE:
1. PETROLEUM PRODUCTS:
   a. ALL ON SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTATIVE MAINTENACE TO REDUCE LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
2. FERTILIZERS:
   a. FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER. STORAGE WILL BE IN A COVERED SHED OR ENCLOSED TRAILERS. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.
3. PAINTS:
   a. ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE DISPOSED OF PROPERLY ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.
4. CONCRETE TRUCKS:
   a. CONCRETE TRUCKS WILL DISCHARGE AND WASH OUT SURPLUS CONCRETE OR DRUM WASH WATER IN A CONTAINED AREA ON SITE.

C. SPILL CONTROL PRACTICES
IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:
   a. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
   b. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
   c. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
   d. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
   e. SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OF LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.
   f. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM RECURRING AND HOW TO CLEANUP THE SPILL IF IT OCCURS. A DESCRIPTION OF THE SPILL, ITS CAUSE, AND THE CLEANUP MEASURES WILL BE INCLUDED.
   g. THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.

THE PROJECT PROPONENT IS REQUIRED TO MANAGE CONSTRUCTION TO MEET THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO CONTROLLING INVASIVE SPECIES AND CONTROLLING FUGITIVE DUST IN ACCORDANCE WITH ENV-A 1002.

AGR 3800 PROHIBITED INVASIVE PLANT SPECIES RULES

THE RULE, AGR 3800, STATES: NO PERSON SHALL COLLECT, TRANSPORT, IMPORT, EXPORT, MOVE, BUY SELL, DISTRIBUTE, PROPAGATE OR TRANSPLANT ANY LIVING AND VIABLE PORTION OF ANY PLANT SPECIES, WHICH INCLUDED ALL OF THEIR CULTIVARS AND VARIETIES, LISTED IN TABLE 3800.1, NEW HAMPSHIRE PROHIBITED INVASIVE SPECIES LIST'. A COMPLETE COPY OF THE RULES CAN BE ACCESSED ON THE INTERNET AT
HTTP://AGRICULTURE.NH.GOV/TOPICS/PLANTS_INSECTS.HTM.

ENV-A 1002 FUGITIVE DUST: PRECAUTIONS TO PREVENT, ABATE, AND CONTROL FUGITIVE DUST.

a. ANY PERSON ENGAGED IN ANY ACTIVITY WITHIN THE STATE EMITS FUGITIVE DUST, OTHER THAT THOSE LISTED IN ENV-A 1002.02 (b), SHALL TAKE PRECAUTIONS THROUGHOUT THE DURATION OF THE ACTIVITY IN ORDER TO PREVENT, ABATE, AND CONTROL THE EMISSION OF FUGITIVE DUST.
b. PRECAUTIONS REQUIRED BY (a) ABOVE, SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
   i) THE USE OF WATER OR HYDROPHILIC MATERIAL ON OPERATIONS OR SURFACES, OR BOTH;
   ii) THE APPLICATION OF ASPHALT, WATER, OR HYDROPHILIC MATERIAL, OR TARPS OR OTHER SUCH COVERS TO MATERIAL STOCKPILES;
   iii) THE USE OF HOODS, FANS, FABRIC FILTERS, OR OTHER DEVICES TO ENCLOSE AND VENT AREAS WHERE MATERIALS PRONE TO PRODUCING FUGITIVE DUST ARE HANDLED;
   iv) THE USE OF CONTAINMENT METHODS FOR SANDBLASTING OR SIMILAR OPERATIONS; AND
   v) THE USE OF VACUUMS OR OTHER SUCTION DEVICES TO COLLECT AIRBORNE PARTICULATE MATTER.

PER 153-10 F.
ALL SITE IMPROVEMENTS WHICH REQUIRE BLASTING OF LAND SHALL MEET THE FOLLOWING REQUIRMENTS PRIOR TO ANY BLASTING OCCURING.

1. THE APPLICANT SHALL PREPARE A PRE-BLAST SURVEY OF ALL STRUCTURES WITHIN FIVE HUNDRED (500) FEET OF THE EXTERNAL BOUNDARIES OF THE PROPOSED LOT TO BE DEVELOPED. THIS SURVEY, ALONG WITH A MONITORING PLAN, SHALL BE ON FILE WITH THE DOVER FIRE AND RESCUE. UPON RECOMMENDATIONS OF THE CHIEF, THE PLANNING BOARD MAY REQUIRE A PRE-BLAST SURVEY OF ALL STRUCTURES WITHIN ONE THOUSAND (1000) FEET.
2. THE APPLICANT SHALL HOLD A NEIGHBORHOOD MEETING TO REVIEW THE BLASTING PLAN AND PRE-BLAST SURVEY, WITH REPRESENTATIVES OF THE FIRE AND RESCUE AND THE BLASTING COMPANY IN ATTENDANCE, PRIOR TO ANY ON-SITE BLASTING. ABUTTERS WITHIN ONE THOUSAND (1000) FEET OF THE EXTERNAL BOUNDARY OF THE PROJECT PARCEL SHALL BE NOTIFIED BY THE CERTIFIED MAIL (PAID FOR BY THE APPLICANT) OF THE MEETING NO LESS THAN TEN (10) DAYS PRIOR TO THE MEETING AND NO MORE THAN FIFTEEN (15) DAYS PRIOR TO THE MEETING. THE NOTICE SHALL STATE THE TIME AND DATE OF THE BLASTING AND CONTAIN A MAP SHOWING THE BLASTING AREA, THE 1,000-FOOT-RADIUS AREA, AND THE 500-FOOT-RADIUS AREA.
3. PERMIT HOLDERS SHALL BE IN COMPLIANCE WITH NFPA 495, EXPLOSIVE MATERIALS CODE, IN ADDITION TO ALL OTHER ORDINANCES AND CODES SET FORTH IN THE CITY OF DOVER CODE, § 153-14A, STORMWATER MANAGEMENT, EROSION CONTROL AND FLOOD HAZARDS, OF THIS CHAPTER AND THE CITY OF DOVER FIRE PREVENTION CODE, WHICH SPECIFICALLY PROHIBITS THE OVERNIGHT STORAGE OF EXPLOSIVES OR BLASTING AGENTS. FURTHER, ALL STORAGE MAGAZINES SHALL BE LOOKED IN THE OPEN POSITION AT THE END OF THE DAYS OPERATION FOR EASY INSPECTION BY CITY OFFICIALS.
4. BLASTING PERMITS MAY BE OBTAINED BY CALLING THE DOVER FIRE AND RESCUE DURING NORMAL BUSINESS HOURS. THE PERMITS ARE ONLY ACTIVE FOR THE DATES AND TIME SPECIFIED ON THE PERMIT.
5. PERMIT HOLDERS SHALL HOLD INSURANCE AGAINST CLAIMS FOR DAMAGES FOR PERSONAL INJURY AND PROPERTY WHICH MAY ARISE FROM THE PERFORMANCE OF THE WORK.
6. HOURS OF OPERATION FOR THE BLASTING SHALL BE NO EARLIER THAN 8:00AM AND NO LATER THAN 6:00PM, MONDAY THROUGH FRIDAY, EXCLUDING FEDERAL HOLIDAYS.

WINTER CONSTRUCTION NOTES
1. ALL PROPOSED POST-DEVELOPMENT VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE PLACEMENT OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT.
2. ALL DITCHES & SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS.
3. AFTER OCTOBER 15TH, INCOMPLETE ROAD AND PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3-INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.

PLANNING FILE NO.: SITE-2025-

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE

DATE: 4-24-25
SCALE: N.T.S.
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO: 24169
FILE: SITE.DWG

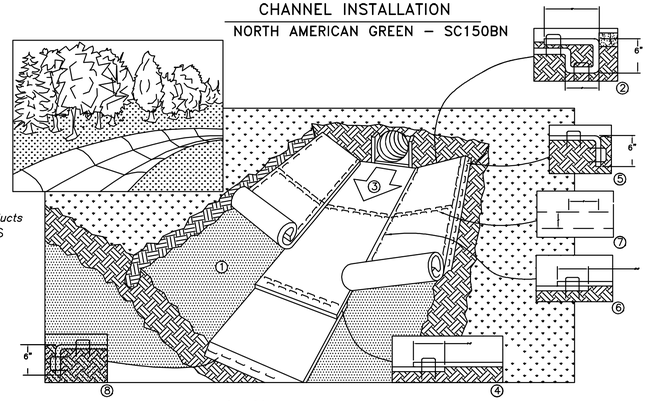
EROSION CONTROL NOTES

LOADING DOCK ADDITION
180 CROSBY ROAD
DOVER, NH 03820

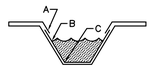
CROSBY 180, LLC
P.O. BOX 4064
PORTSMOUTH, NH 03802

CHANNEL INSTALLATION
NORTH AMERICAN GREEN – SC150BN

NORTH AMERICAN GREEN
EROSION CONTROL *Products* *Guaranteed* SOLUTIONS



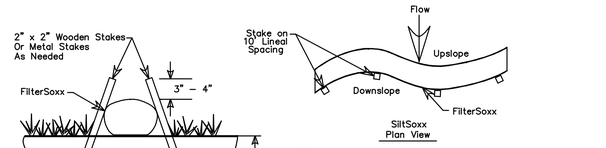
1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL–O–SEED DO NOT SEED PREPARED AREA. CELL–O–SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE RECP's IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP's EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" ACROSS THE WIDTH OF THE RECP's.
3. ROLL CENTER RECP's IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE RECP's END OVER END (SHINGLE STYLE) WITH A 4" – 6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE RECP's.
5. FULL LENGTH EDGE OF RECP's AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT RECP's MUST BE OVERLAPPED APPROXIMATELY 2" – 5" (DEPENDING ON RECP's TYPE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE RECP's MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. NOTE: * IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE RECP's.



CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

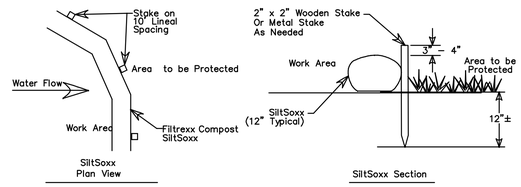
NOTE:
* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE RECP's.



Notes:
1. All material to meet Filtrexx specifications
2. FilterSoxx compost/soil/rock/seed fill to meet application requirements.
3. Compost material to be dispersed on site, as determined by Engineer.

FilterSoxx Staking Details

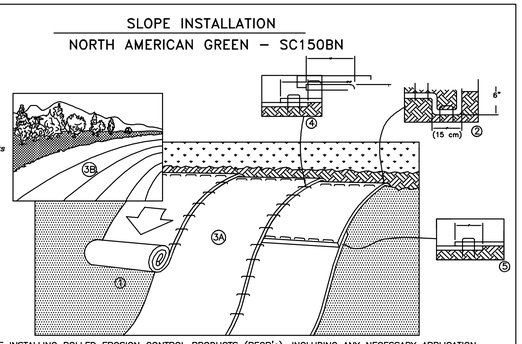


Notes:
1. All material to meet Filtrexx specifications
2. SiltSoxx compost/jsoil/rock/seed fill to meet application requirements.
3. SiltSoxx depicted is for minimum slopes. Greater slopes may require larger socks per the Engineer.
4. Compost material to be dispersed on site, as determined by Engineer.

SILTSOXX DETAILS
NOT TO SCALE

SLOPE INSTALLATION
NORTH AMERICAN GREEN – SC150BN

NORTH AMERICAN GREEN
EROSION CONTROL *Products* *Guaranteed* SOLUTIONS



1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
   NOTE: WHEN USING CELL–O–SEED DO NOT SEED PREPARED AREA. CELL–O–SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP's EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP's.
3. ROLL THE RECP's (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM™ , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" – 5" (5 CM – 12.5 CM) OVERLAP DEPENDING ON RECP's TYPE.
5. CONSECUTIVE RECP's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP's WIDTH.
   NOTE:
   *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

NOTE: THE USE OF WELDED PLASTIC OR BIODEGRADABLE PLASTIC NETTING OR THREAD IN EROSION CONTROL MATTING IS PROHIBITED. THE USE OF WILDLIFE FRIENDLY ORGANIC MATERIALS IS RECOMMENDED.

PLANNING FILE NO.: SITE–2025–

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

CNE CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE

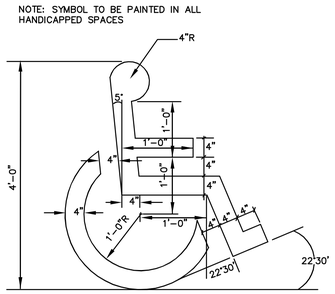
DATE: 4–24–25
SCALE: N.T.S.
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO: 24169
FILE: SITE.DWG

EROSION CONTROL DETAILS

CROSBY 180, LLC
P.O. BOX 4064
PORTSMOUTH, NH 03802

LOADING DOCK ADDITION
180 CROSBY ROAD
DOVER, NH 03820

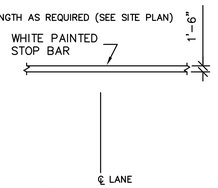
9



PAINTED

ACCESSIBLE PARKING SYMBOL

NOT TO SCALE

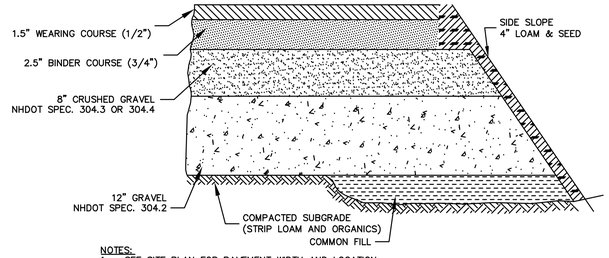


NOTE:
PAVEMENT MARKINGS TO BE INSTALLED IN LOCATIONS SHOWN ON THE PLANS. APPLY TWO COATS.

STOP BAR & LEGEND

PAVEMENT MARKINGS

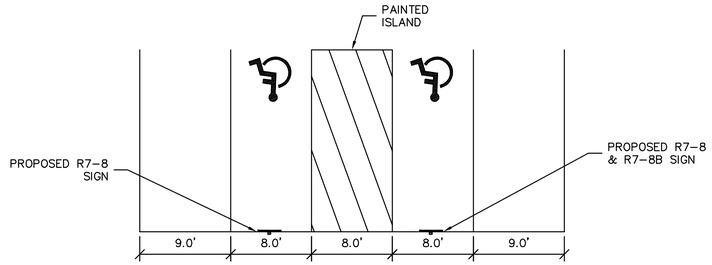
NOT TO SCALE



NOTES:
1. SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
2. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
3. GEOTEXTILE FABRIC MAYBE REQUIRED UNDER THE ROADWAY AND /OR THE PARKING AREAS AS REQUIRED BY THE ENGINEER BASED UPON SITE CONDITIONS.

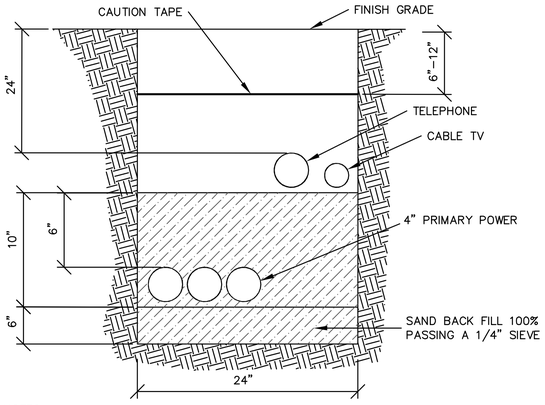
HEAVY DUTY TYPICAL PAVEMENT SECTION

NOT TO SCALE



ACCESSIBLE PARKING LAYOUT

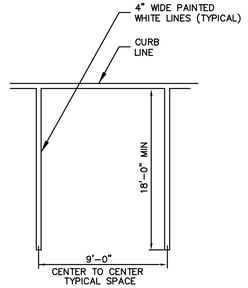
NOT TO SCALE



NOTES:
1. TELEPHONE CONDUIT SHALL BE 3" SCHEDULE 40 PVC, WITH STEEL SWEEPS AT RISER POLE, 90° BENDS AND AT BUILDING.
2. LEAVE PULL ROPE IN ALL CONDUITS FOR CABLE INSTALLATION.
3. FOR COMPLETE SPECIFICATIONS SEE "REQUIREMENTS FOR ELECTRIC SERVICE CONNECTIONS – INFORMATIONS AND REQUIREMENTS FOR ELECTRIC SUPPLY BY EVERSOURCE ENERGY".
4. CONTRACTOR SHOULD VERIFY THE NUMBER & SIZE OF CONDUIT WITH THE APPROPRIATE UTILITIES PROVIDERS.

UTILITY TRENCH

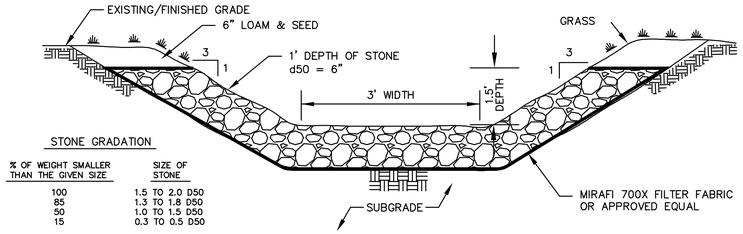
NOT TO SCALE



STANDARD

PARKING STALL

NOT TO SCALE



STONE GRADATION

% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE
100	1.5 TO 2.0 D50
85	1.3 TO 1.8 D50
50	1.0 TO 1.5 D50
15	0.3 TO 0.5 D50

STONE LINED CONVEYANCE SWALE DETAIL

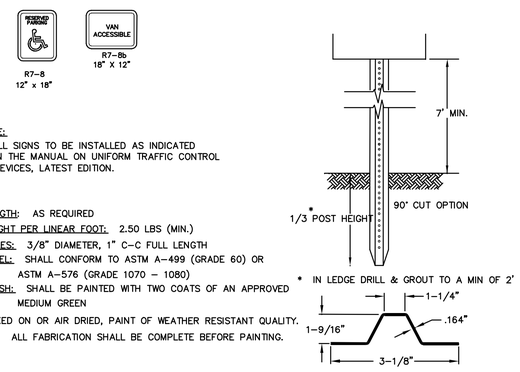
NO SCALE

MAINTENANCE

THE STONE LINED SWALE SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIPRAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING AND BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE CHANNEL.

CONSTRUCTION SPECIFICATIONS

1. THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIPRAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
2. THE ROCK OR GRAVEL USED FOR RIPRAP SHALL CONFORM TO THE SPECIFIED GRADATION.
3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIPRAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
4. STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

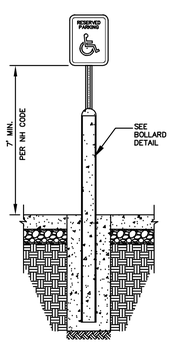


NOTE:
1. ALL SIGNS TO BE INSTALLED AS INDICATED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

LENGTH: AS REQUIRED
WEIGHT PER LINEAR FOOT: 2.50 LBS (MIN.)
HOLES: 3/8" DIAMETER, 1" C-C FULL LENGTH
STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASTM A-576 (GRADE 1070 – 1080)
FINISH: SHALL BE PAINTED WITH TWO COATS OF AN APPROVED MEDIUM GREEN
BAKED ON OR AIR DRIED, PAINT OF WEATHER RESISTANT QUALITY. ALL FABRICATION SHALL BE COMPLETE BEFORE PAINTING.

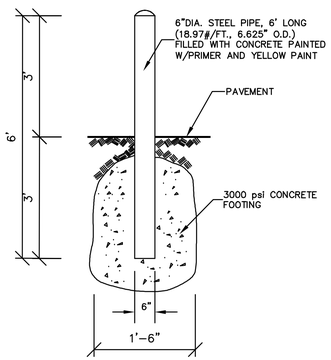
SIGN LEGEND & SIGN POST

NOT TO SCALE



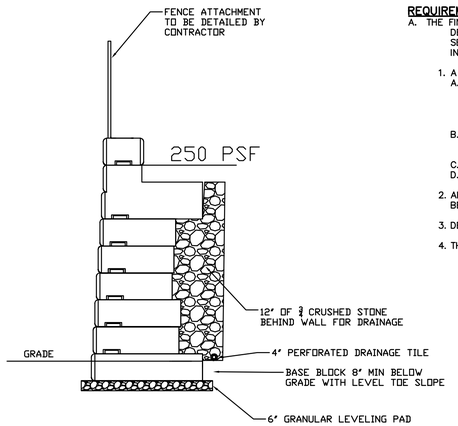
SIGN IN BOLLARD

NOT TO SCALE



BOLLARD DETAIL

NOT TO SCALE



TYPICAL BLOCK RETAINING WALL
CROSS SECTION WITH DOUBLE SIDED TOP

NOT TO SCALE

REQUIREMENTS FOR CONTRACTOR PREPARED DESIGN AND PLANS:

A. THE FINAL DESIGN TO BE SUBMITTED PRIOR TO AWARD OF CONTRACT AND SHALL INCLUDE DETAILED DESIGN COMPUTATIONS AND ALL DETAILS, DIMENSIONS, QUANTITIES AND CROSS SECTIONS NECESSARY TO CONSTRUCT THE WALL. THE PLANS TO BE SUBMITTED SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING ITEMS:

1. A PLAN AND ELEVATION SHEET OR SHEETS FOR EACH WALL, CONTAINING THE FOLLOWING:
   A. AN ELEVATION VIEW OF THE WALL WHICH SHALL INDICATE THE ELEVATION AT THE TOP OF THE WALL, AT ALL HORIZONTAL AND VERTICAL BREAK POINTS AND AT LEAST EVERY FIFTY (50) FEET ALONG THE WALL, ELEVATIONS AT THE TOP OF LEVELING PADS, THE DESIGNATION AS TO THE TYPE OF UNIT, AND THE LOCATION OF THE ORIGINAL AND FINAL GROUND LINE.
   B. A PLAN VIEW OF THE WALL WHICH SHALL INDICATE THE OFFSET FROM THE CONSTRUCTION CENTERLINE OR BASELINE TO THE FACE OF THE WALL AT ALL CHANGES IN HORIZONTAL ALIGNMENT AND THE LIMIT OF THE WIDEST UNIT.
   C. ANY GENERAL NOTES REQUIRED FOR DESIGN AND CONSTRUCTION OF THE WALL.
   D. ALL HORIZONTAL AND VERTICAL CURVE DATA AFFECTING WALL CONSTRUCTION.
2. ALL DETAILS FOR LEVELING PADS, AS WELL AS ALLOWABLE AND CALCULATED MAXIMUM BEARING PRESSURES.
3. DETAILED DESIGN COMPUTATIONS.
4. THE CONTRACTOR SHALL PROVIDE ENGINEERED SHOP DRAWINGS.

RETAINING WALL NOTES:

1. THE OWNER OR CONTRACTOR MAY PROPOSE AN ALTERNATIVE RETAINING WALL MATERIAL.
2. THE OWNER OR CONTRACTOR SHALL SUBMIT ENGINEERED SHOP DRAWINGS THAT ARE STAMPED AND SIGNED BY A NEW HAMPSHIRE LICENSED PROFESSIONAL STRUCTURAL ENGINEER TO THE DESIGN ENGINEER AND CITY ENGINEER FOR REVIEW.

PLANNING FILE NO.: SITE-2025-0001

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

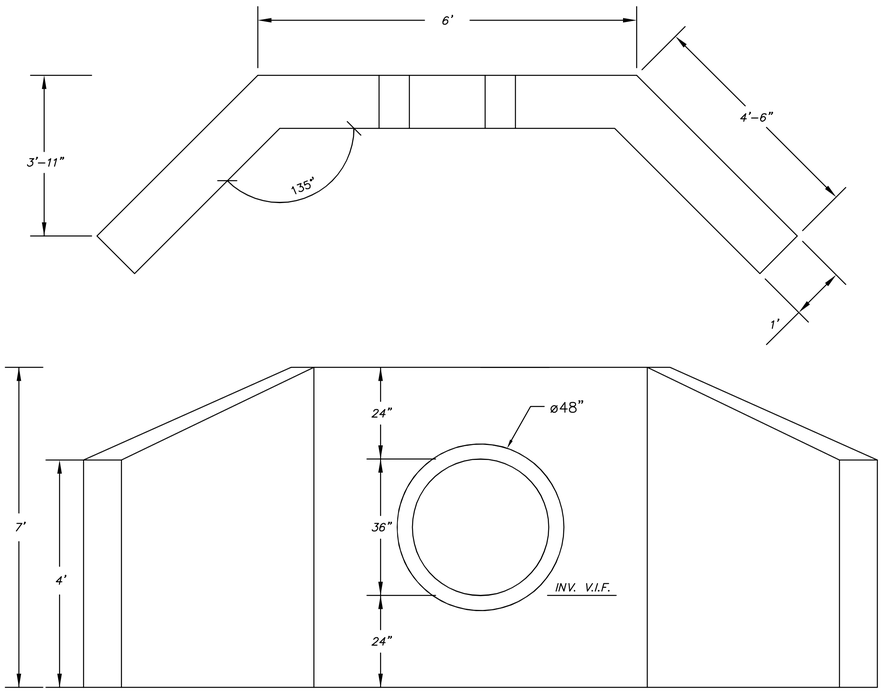
NO.	REVISION	APP'D	DATE

DATE: 4-24-25
SCALE: N.T.S
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO: 24169
FILE: SITE.DWG

CROSBY 180, LLC
P.O. BOX 4064
PORTSMOUTH, NH 03802

LOADING DOCK ADDITION
180 CROSBY ROAD
DOVER, NH 03820

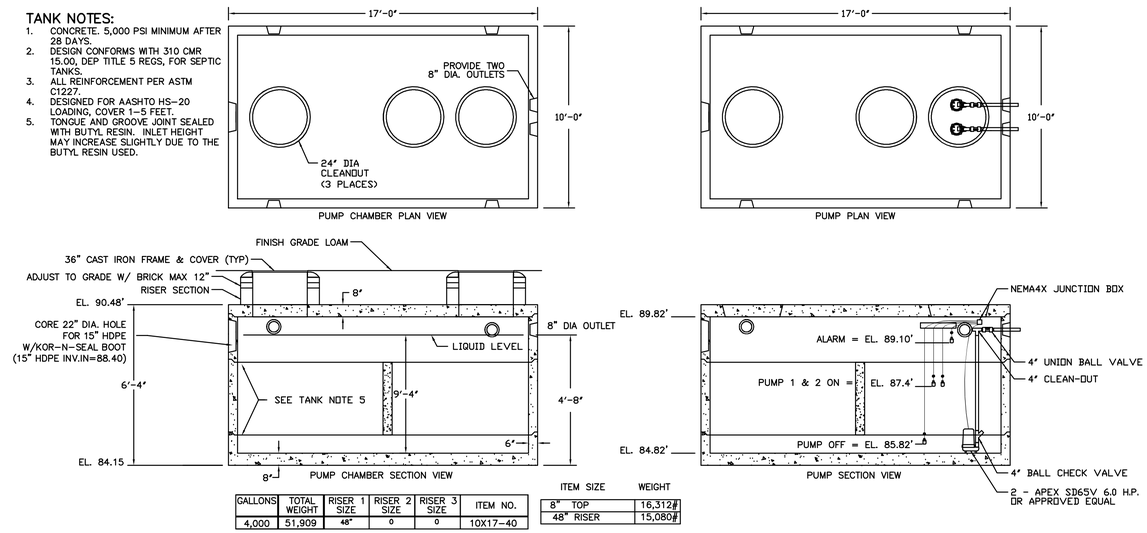
DETAIL SHEET



HEADWALL DETAIL
NOT TO SCALE

TANK NOTES:

1. CONCRETE. 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR SEPTIC TANKS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. DESIGNED FOR AASHTO HS-20 LOADING, COVER 1-5 FEET.
5. TONGUE AND GROOVE JOINT SEALED WITH BUTYL RESIN. INLET HEIGHT MAY INCREASE SLIGHTLY DUE TO THE BUTYL RESIN USED.

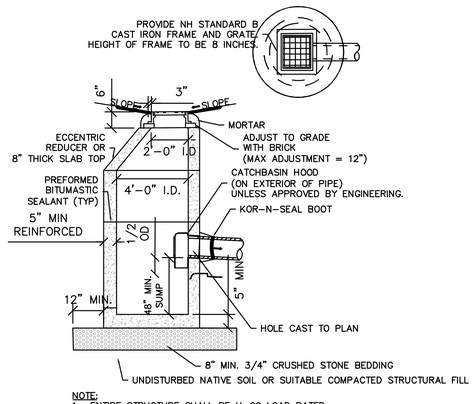


GALLONS	TOTAL WEIGHT	RISER 1 SIZE	RISER 2 SIZE	RISER 3 SIZE	ITEM NO.
4,000	51,909	48"	0	0	10X17-40

ITEM SIZE	WEIGHT
8" TOP	16,312#
48" RISER	15,080#

4,000 GALLON STORMWATER PUMP CHAMBER W/ DUPLEX PUMP SYSTEM
NOT TO SCALE

SHEA CONCRETE 4,000 GALLON TANK (ITEM # 10X17-40) OR APPROVED EQUAL. SHEA CONCRETE 1-800-696-7432.

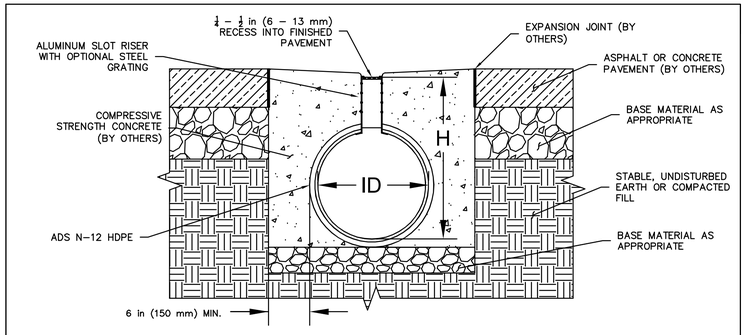


NOTE:
1. ENTIRE STRUCTURE SHALL BE H-20 LOAD RATED. PROVIDE MANUFACTURER REINFORCEMENT DETAILS TO THE CITY ENGINEER UPON REQUEST.

CITY OF DOVER D-19
CATCHBASIN DETAIL

SPECIFICATIONS

1. ALL CONSTRUCTION SHALL CONFORM WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NHDOT), "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS".
2. STORM DRAINS SHALL BE ADS N12 OR APPROVED EQUAL, AND SHALL BE JOINTED WITH NEOPRENE "O" RINGS.
3. CATCH BASINS AND MANHOLES SHALL BE PRE-CAST REINFORCED CONCRETE DESIGNED BY AN ENGINEER REGISTERED IN NEW HAMPSHIRE, AND ABLE TO WITHSTAND LOADINGS OF 8 TONS (H2O LOADING).
4. MANHOLES SHALL HAVE CAST IRON FRAMES AND COVERS WITH 30" INSIDE DIAMETER OPENINGS. A 3-INCH (MINIMUM) LETTER "D" FOR DRAIN SHALL BE PLAINLY CAST INTO THE CENTER OF EACH COVER.
5. CATCH BASINS AND MANHOLES SHALL BE ADJUSTED TO GRADE WITH COURSES OF BRICK. MAXIMUM ADJUSTMENT TO GRADE SHALL BE 12 INCHES. FRAMES SHALL BE SET ON A FULL BED OF MORTAR, TRUE TO GRADE AND CONCENTRIC WITH THE MASONRY. ALL VOIDS BETWEEN THE TOP OF THE STRUCTURE AND THE BOTTOM FLANGE OF THE FRAME SHALL BE COMPLETELY FILLED TO MAKE A WATERTIGHT FIT. A RING OF MORTAR AT LEAST ONE INCH THICK AND PITCHED TO SHED WATER AWAY FROM THE FRAME, SHALL BE PLACED OVER AND AROUND THE OUTSIDE OF THE BOTTOM FLANGE. THE MORTAR SHALL EXTEND TO THE OUTER EDGE OF THE MASONRY ALL AROUND ITS CIRCUMFERENCE AND SHALL BE FINISHED SMOOTH. NO VISIBLE LEAKAGE WILL BE PERMITTED.
6. INVERT CHANNELS OF SEWER MANHOLES SHALL BE FORMED SMOOTHLY TO THE LARGEST PIPE RADIUS. CHANGES IN GRADE SHALL BE FORMED SMOOTHLY AND EVENLY. THE FLOOR OF THE STRUCTURE OUTSIDE THE CHANNELS SHALL BE SLOPED TOWARDS THE CHANNELS AT APPROXIMATELY 1/2 INCH PER FOOT. THE FLOOR AT THE CHANNEL SHALL MATCH THE CROWN OF THE LARGEST PIPE.
7. TRENCH CONSTRUCTION WILL CONFORM WITH SECTION 603.3.1 OF THE STANDARD SPECIFICATIONS (1974).
8. WOOD SHEETING OR A SUITABLE TRENCH BOX SHALL BE USED TO SUPPORT THE TRENCH AS NECESSARY. IF WOOD SHEETING IS USED, IT SHALL BE DRIVEN AT A DISTANCE OF 1 FOOT FROM THE OUTSIDE DIAMETER OF THE PIPE TO A DEPTH 6 INCHES BELOW THE INVERT OF THE PIPE. WOOD SHEETING SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE, BUT NOT GREATER THAN 3 FEET BELOW THE FINISHED GRADE.
9. BEDDING SHALL CONFORM WITH SECTION 603.3.2 OF THE STANDARD SPECIFICATIONS (1974).
10. BACKFILL MATERIAL WILL CONFORM WITH SECTION 603.3.5 OF THE STANDARD SPECIFICATIONS (1974) AND, IN ADDITION, SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY. ALL EXCAVATED LEDGE MATERIAL, FROZEN MATERIAL, ALL ROCKS OVER 6 INCHES IN LARGEST DIMENSION, OR ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION. BACKFILL SHALL NOT BE PLACED ON FROZEN OR PREVIOUSLY FROZEN MATERIAL.
11. ALL BACKFILL AND BEDDING COMPACTION SHALL MEET THE REQUIREMENTS OF AASHO T 99 METHOD C. DENSITY SHALL BE 95 PERCENT. COMPACTION SHALL BE 6 INCH LIFTS FOR BEDDING AND BACKFILL TO A PLANE 1 FOOT ABOVE THE PIPE AND IN 12 INCH LIFTS THEREAFTER BY AN APPROVED MECHANICAL COMPACTOR.
12. SHOULD FROZEN MATERIAL BE ENCOUNTERED, IT SHALL NOT BE PLACED IN THE BACKFILL NOR SHALL BACKFILL BE PLACED UPON FROZEN MATERIAL. PREVIOUSLY FROZEN MATERIAL SHALL BE REMOVED AS REQUIRED BEFORE NEW BACKFILL IS PLACED.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO FRAMES AND GRATES DURING AND FROM THE TIME OF REMOVAL FROM THE EXISTING STRUCTURE TO AND DURING THE TIME OF RESETTING, AND SHALL REPLACE IN KIND ANY DAMAGED FRAMES OR GRATES AT NO ADDITIONAL COMPENSATION.
14. ALL TRENCHES WILL BE COVERED AND DEBRIS, INCLUDING ANY REJECTED MATERIALS, SHALL BE REMOVED DAILY. STRICT SAFETY PRECAUTIONS SHALL BE MAINTAINED AT ALL TIMES.
15. LOCATION OF UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE.
    A) THE CONTRACTOR SHALL, 48 HOURS PRIOR TO CONSTRUCTION, NOTIFY THE UTILITY COMPANIES AND HAVE ALL UTILITIES IN THE VICINITY OF THE CONSTRUCTION MARKED IN THE FIELD.
    B) AFTER THE UTILITIES HAVE BEEN LOCATED AND PRIOR TO CONSTRUCTION, THE CONTRACTOR WITH THE ENGINEER, SHALL LAYOUT THE PROPOSED DRAINAGE SYSTEM IN THE FIELD AND RECTIFY ANY UTILITY CONFLICTS WHICH MAY BE FOUND.
    C) ANY CONFLICTS WITH UTILITIES FOUND DURING CONSTRUCTION BY THE CONTRACTOR SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER AND THE UTILITY COMPANY AND PROPERLY RECTIFIED.
    D) THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF REPAIR FOR ANY UTILITIES DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANY TO REPAIR ANY DAMAGES, HOWEVER, THE CONTRACTOR MAY MAKE APPROPRIATE REPAIRS WITH THE UTILITY COMPANY'S PERMISSION.
16. COMPLETE SHOP DRAWINGS FOR PIPE, MANHOLES, CATCH BASINS, FRAMES, GRATES AND COVERS SHALL BE SUBMITTED IN TRIPLICATE FOR APPROVAL BY THE ENGINEER PRIOR TO THE START OF CONSTRUCTION. EACH SHOP DRAWING SHALL BE CHECKED AND INITIALIZED BY THE CONTRACTOR TO INDICATE APPROVAL BEFORE IT IS SUBMITTED TO THE ENGINEER.
17. SHOP DRAWINGS FOR FLAT CONCRETE COVERS SHALL BE STAMPED PRIOR TO SUBMISSION FOR APPROVAL BY A NEW HAMPSHIRE REGISTERED PROFESSIONAL ENGINEER.
18. BRICK MASONRY FOR SETTING FRAMES AND BRICK AND MORTAR PLUGS SHALL CONFORM TO THE STANDARD SPECIFICATION SECTION 604.2.4.



Nominal Diameter, ID, in. (mm)	Depth of Invert, H, in. (mm)	
	Minimum	Maximum
15 (375)	22.50 (572)	51.50 (1308)

NOTES:
1. BACKFILL DESIGN SHOULD BE USED FOR HS-20 LOADING APPLICATIONS.
2. SITE ENGINEER TO PROVIDE SITE SPECIFIC DETAILS, SUCH AS CONCRETE STRENGTH.
3. REFER TO ADS TECH NOTE 2.11 FOR ADDITIONAL DESIGN INFORMATION.

REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D
1	Updated Layers & Logo	KJS	01/09/25	-

ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

Duraslot Heavy Traffic Installation

DRAWING NUMBER: STD-11462A

ADS Advanced Drainage Systems, Inc.
4640 TRUEMAN BLVD
HILLIARD, OHIO 43026

DRAWN BY	KJS
DATE	07-05-2023
SCALE	-
UNITS	NTS
SHEET	1 OF 1

PLANNING FILE NO.: SITE-2025-

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE

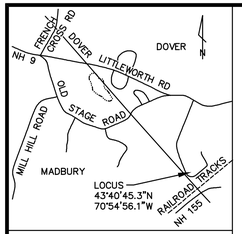
DATE: 4-24-25
SCALE: N.T.S.
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY: JH
PROJECT NO: 24169
FILE: SITE.DWG

DETAIL SHEET

CROSBY 180, LLC
P.O. BOX 4064
PORTSMOUTH, NH 03802

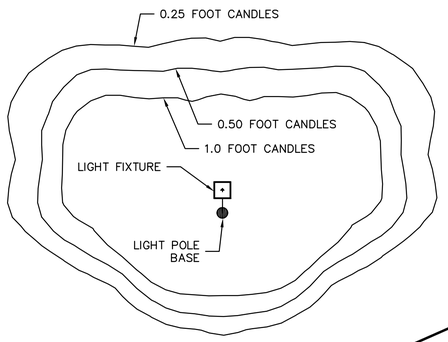
LOADING DOCK ADDITION
180 CROSBY ROAD
DOVER, NH 03820

11



LOCATION PLAN
(NO SCALE)

Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Description	Tag	[MANUFAC]
⊡	4	W	Single	XWS-LED-02L-FTW-UNV-DIM-30-80CRI-CXX	WALL MOUNTED 12' AFG	LSI INDUSTRIES, INC.



TYPICAL LIGHT SPREAD
NOT TO SCALE

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)

PLANNING FILE NO.: SITE-2025-

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE

DATE: 4-24-25
SCALE: 1"=30'
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO: 24169
FILE: SITE.DEG

LIGHTING PLAN

CROSBY 180, LLC
P.O. BOX 4064
PORTSMOUTH, NH 03802

LOADING DOCK ADDITION
180 CROSBY ROAD
DOVER, NH 03820

12

Catalog #: ______ Project: ______
Prepared By: ______ Date: ______ Type: ______

Mirada Small Wall Sconce (XWS)

Outdoor LED Wall Light

IP65 IK10

OVERVIEW	
Lumen Output Range	2,000 - 6,000
Wattage Range	15 - 52
Efficacy Range (LPW)	119 - 151
Luminaire Weight lbs (kg)	8 (3.6)

QUICK LINKS

Ordering Guide | Performance | Photometrics | Dimensions

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Extended housing available with 1/2" threaded hubs for surface conduit and rated wire.
- Standard luminaire shipping weight: 10 lbs in carton.
- Max luminaire shipping weight (with back housing): 20 lbs in carton.

Optical System

- Choice of acrylic lens or high impact resistant polycarbonate lens
- The lens is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP65 rating for the luminaire
- Reflector system with recessed light engine reduces glare and brightness.
- Forward Throw Wide and Medium distributions available.
- Optional diffused lens for reduced LED pixilation over the lens and maximum visual comfort.
- Zero uplight.
- Available in 5000K, 4000K, 3500K, 3000K and 2700K color temperatures per ANSI C78.377.
- Minimum CRI of 80

Electrical

- High-performance driver features over-voltage under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 VAC) Input 50/60 Hz or optional High Voltage (347-480 VAC).
- L70 Calculated Life: >60k Hours
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F).
- Power factor: >.90
- Input power stays constant over life.
- Optional 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Driver is fully encased in potting material for moisture resistance. Driver complies with FCC standards. Accessible driver and electrical components.
- Optional Dual Drivers/Circuit/Power Feeds.
- Optional battery backup provides 90-minutes of constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance. Standard battery rated for 0° to 50° with cold weather battery rated for -20°C to 50°. 120-277V Only.

Controls

- Optional integral passive infrared Bluetooth™ motion and photocell sensor. Fixtures operate independently and can be commissioned via iOS or Android configuration app.
- LSI's AirLink™ wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7.

Installation

- Universal wall mounting plate mounts directly to vertical surface or 4" junction box (octagonal or square).
- Luminaire hinges to the top of the mounting plate and is secured via two flush mount screws that help to conceal the hardware and prevent over tightening during installation.

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to https://www.lsicorp.com/resources/terms-conditions-warranty/ for more information.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 2700K or 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP65 rated luminaire per IEC 60598-1.
- IK10 rated luminiare per IEC 66262 mechanical impact code with clear polycarbonate lens (MTP).
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product are DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

Type: ______

Mirada Small Wall Sconce (XWS)

ORDERING GUIDE

Back to Quick Links

TYPICAL ORDER EXAMPLE: XWS LED 6L FTW UNV DIM 40 70CRI ALBCS1 BLK EH

Luminaire Prefix	Light Source	Lumen Package	Distribution/Lens	Voltage	Driver	Color Temp	Color Rendering
XWS - Mirada Small Wall Sconce	LED	2L - 2,000 lms 3L - 3,000 lms 5L - 5,000 lms 6L - 6,000 lms Custom Lumen Packages[1]	FTW - Forward Throw Wide Clear Acrylic MT - Medium Throw Clear Acrylic MTD - Medium Throw Diffuse Acrylic MTP - Medium Throw Clear Polycarbonate MTPD - Medium Throw Diffuse Polycarbonate	UNV - Universal Voltage (120-277V) HV - High Voltage (347-480V)[2]	DIM - 0-10v Dimming (0-10%)	50 - 5,000K 40 - 4,000K 35 - 3,500K 30 - 3,000K 27 - 2,700K	80CRI - 80 CRI

Controls	Finish	Options
(Blank) - None Wireless Controls[8] ALSC - Airlink Synapse Control System[3] ALSCS1 - AirLink Synapse Control System with 8-12' MH Motion Sensor[3,4] ALSCS2 - AirLink Synapse Control System with 12-20' MH Motion Sensor[3,4] ALBCS1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height)[3,4] Standalone Controls EXT - 0-10v Dimming leads extended to housing exterior IMSBT1 - Integral Bluetooth™ Motion and Photocell Sensor 8-24' MH[3,4,5] Button Type Photocells PCI120 - 120V PCI208-277 - 208-277V PCI347 - 347V	BLK - Black BRZ - Dark Bronze GMG - Gun Metal Gray GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus SVG - Satin Verde Green WHT - White	(Blank) - None 2DP - Dual Driver, Circuit & Power Feed[3,4,6,7] BB - Battery Back-up (0°C)[3,4,9] CWBB - Cold Weather Battery Backup(-20°C)[3,4,9] EH - Extended Housing[4] SP1 - 10kV Surge Protection Device TP - Tamper Proof[10]

ACCESSORY ORDERING INFORMATION[8]

Lens/Housing Accessories	
Description	Order Number
XWS Performance Lens (FTW)	758270
XWS Clear Acrylic Lens (MT)	758267
XWS Diffuse Acrylic Lens (MTD)	758268
XWS Polycarbonate Vandal Lens (MTP)	758271
XWS Extended Housing/Surface Conduit Wiring Box	758274CLR
XWS Spacer Plate/Wiring Box	760159CLR
XWS Tamper Resistant Hardware	783974
XWS Tamper Resistant Hardware Screw Driver	783975

FOOTNOTES:
1. Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.
2. Not available in 2L lumen package.
3. Option requires EH extended housing.
4. For applications with surface conduit, there is limited hub accessibility when ordering with controls, battery backup or dual driver options. Consult factory.
5. IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store.
6. Not available with controls.
7. Not available in 2L and 3L lumen packages.
8. Accessories are shipped separately and field installed.
9. Universal Voltage Only (120-277V).
10. Tamper-proof screwdriver must be ordered separately (see accessory ordering information)

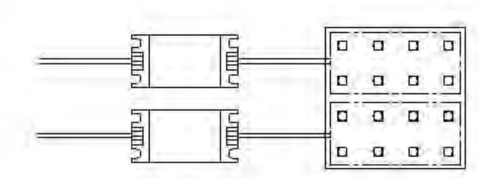
Battery Backup

Emergency battery system provides 90-minutes of constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance. The fixture delivers ~1200 lumens during emergency mode. Extended housing required.

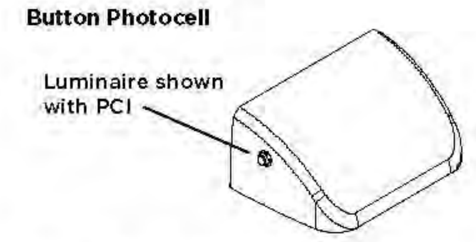
Luminaire shown with sensor & battery backup

Dual Driver, Circuit & Power Feed

Dual drivers and circuit provide redundant sources to ensure that failure of one component will not leave total darkness in any space. Dual power feeds allow for wiring to inverters to reduce load during emergency operation. Extended housing required.

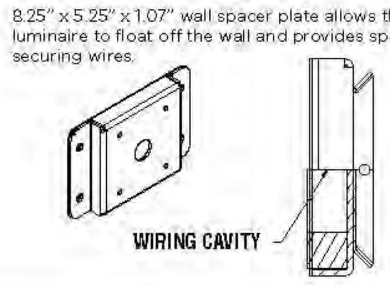


Button Photocell



Spacer Plate/Wiring Box

8.25" x 5.25" x 1.07" wall spacer plate allows the luminaire to float off the wall and provides space for securing wires.



Type: ______

Mirada Small Wall Sconce (XWS)

PHOTOMETRICS

Back to Quick Links

All published luminaire photometric testing performed to IESNA LM-79 standards. ISO footcandle plots below demonstrate the Mirada Wall Sconce (XWM) light patterns only. Not for total fixture output. For complete specifications and IES files, see website.

XWS-LED-5L-FTW-40

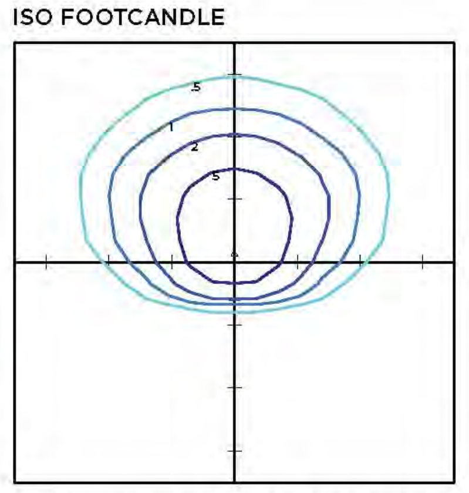
LUMINAIRE DATA

Type FTW Distribution	
Description	4000 Kelvin, 80 CRI
Delivered Lumens	5,454
Watts	39
Efficacy	140
IES Type	Type IV - Very Short
BUG Rating	B1-U0-G1

Zonal Lumen Summary

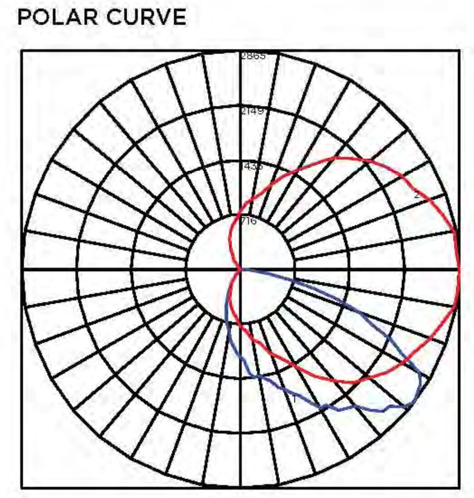
Zone	Lumens	%Luminaire
Low (0-30)°	1191	20%
Medium (30-60)°	2668	50%
High (60-80)°	1508	28%
Very High (80-90)°	87	1%
Uplight (90-180)°	0	0%
Total Flux	5454	100%

ISO FOOTCANDLE



10' Mounting Height/10' Grid Spacing
■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

POLAR CURVE



XWS-LED-5L-MT-40

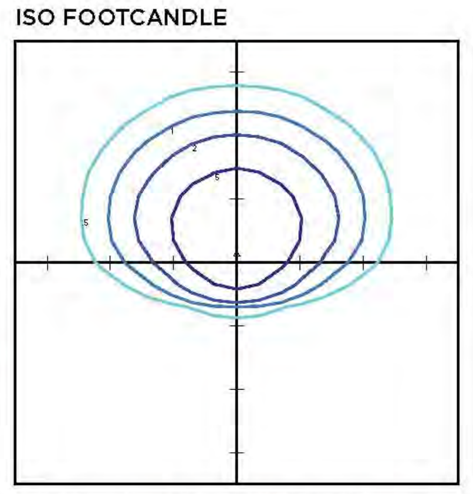
LUMINAIRE DATA

Type MT Distribution	
Description	4000 Kelvin, 80 CRI
Delivered Lumens	5,628
Watts	39
Efficacy	144
IES Type	Type III - Very Short
BUG Rating	B1-U0-G1

Zonal Lumen Summary

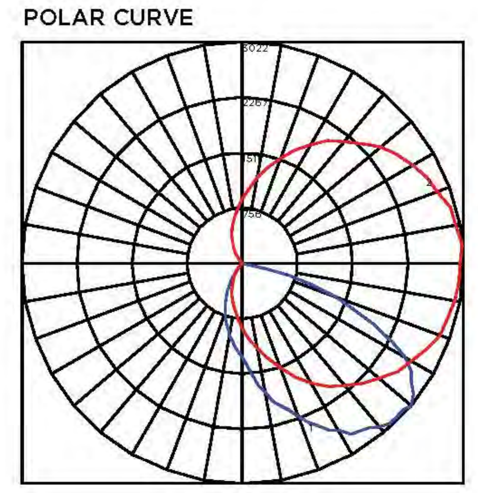
Zone	Lumens	%Luminaire
Low (0-30)°	1134	22%
Medium (30-60)°	2788	54%
High (60-80)°	1194	23%
Very High (80-90)°	11	0%
Uplight (90-180)°	0	0%
Total Flux	5127	100%

ISO FOOTCANDLE



10' Mounting Height/10' Grid Spacing
■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

POLAR CURVE



Type: ______

Mirada Small Wall Sconce (XWS)

PHOTOMETRICS (CONT.)

XWS-LED-5L-MTD-40

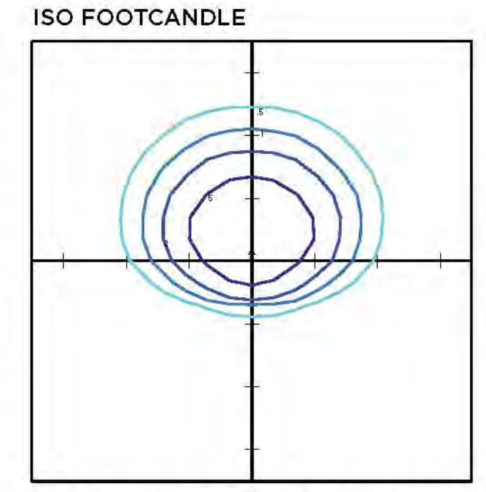
LUMINAIRE DATA

Type MTD Distribution	
Description	4000 Kelvin, 80 CRI
Delivered Lumens	4,330
Watts	39
Efficacy	135
IES Type	Type III - Very Short
BUG Rating	B2-U0-G1

Zonal Lumen Summary

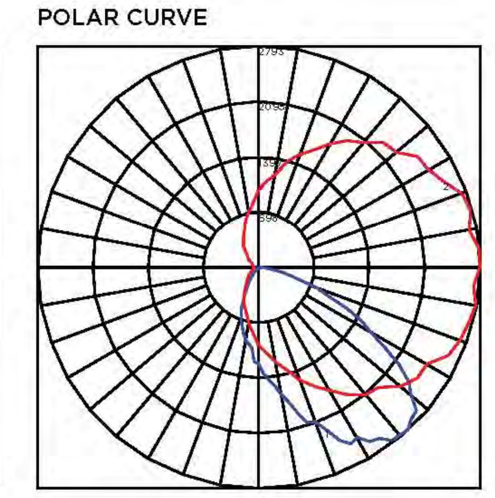
Zone	Lumens	%Luminaire
Low (0-30)°	1387	25%
Medium (30-60)°	2721.4	57%
High (60-80)°	1068	17%
Very High (80-90)°	86.8	1%
Uplight (90-180)°	0	0%
Total Flux	5263	100%

ISO FOOTCANDLE



10' Mounting Height/10' Grid Spacing
■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

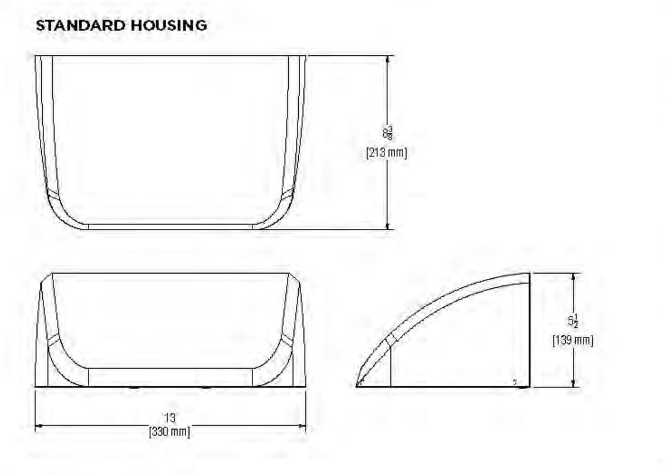
POLAR CURVE



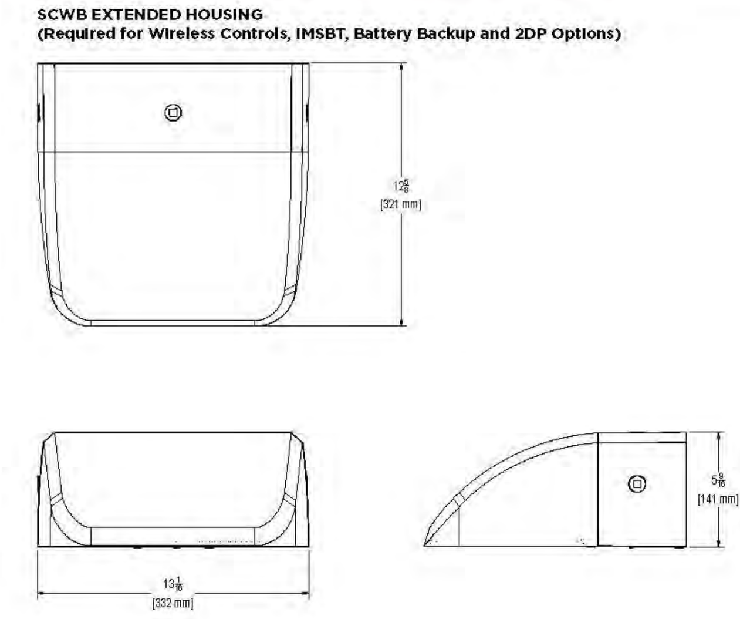
PRODUCT DIMENSIONS

Back to Quick Links

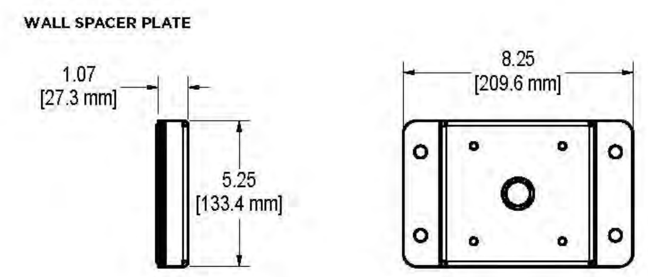
STANDARD HOUSING



SCWB EXTENDED HOUSING
(Required for Wireless Controls, IMSBT, Battery Backup and 2DP Options)



WALL SPACER PLATE



NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

CNE
CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE

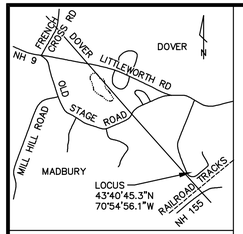
DATE: 4-24-25
SCALE: N.T.S.
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:JH
PROJECT NO: 24169
FILE: SITE.DWG

CROSBY 180, LLC
P.O. BOX 4064
PORTSMOUTH, NH 03802

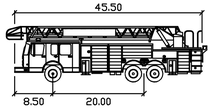
LIGHTING DETAILS

LOADING DOCK ADDITION
180 CROSBY ROAD
DOVER, NH 03820

13



LOCATION PLAN
(NO SCALE)



Dover ladder

	feet
Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 44.0

FRONT WHEEL PATH
REAR WHEEL PATH
FRONT OF AERIAL SQUARED TO TRUCK CORNERS

50' WETLAND BUFFER
50' WETLAND BUFFER
TRANSFORMER
PARCEL AREA
232,192 S.F.
5.33 Ac.
A.C.
50' WETLAND BUFFER
CONC. PAD
50' WETLAND BUFFER
TRANSFORMER
CONC. PAD
50' WETLAND BUFFER
TREELINE (TYP.)
DOVER
ADBURY
EDGE OF PAVEMENT (TYP.)
CROSBY ROAD
(PUBLIC; 70' WIDE R.O.W.)
ABUTTERS LINES (TYP.)
19
20
15°56'25"
SCRD PLAN 234-108
NH STATE PLANE
NAD 83 - GPS OBS.

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)

PLANNING FILE NO.: SITE-2025-

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

GNE CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE

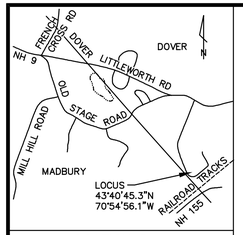
DATE: 4-24-25
SCALE: 1"=30'
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO: 24169
FILE: SITE.DEG

DOVER LADDER TRUCK MOVEMENT PLAN

LOADING DOCK ADDITION
180 CROSBY ROAD
DOVER, NH 03820

CROSBY 180, LLC
P.O. BOX 4064
PORTSMOUTH, NH 03802

14



LOCATION PLAN
(NO SCALE)

CONDITIONAL USE
WETLAND BUFFER IMPACTS:
AREA A = 403 SF
AREA B = 949 SF
TOTAL = 1,352 SF

▨ – IMPACT AREA

G.B.(fnd)
50' WETLAND BUFFER
NEW PAVEMENT 3,642 S.F.
N66°10'15"E 618.85'
S32°15'22"E 281.34'
NEW GREEN SPACE 342 S.F.
IMPACT AREA A=403 S.F.
F.F. ELEV. =95.11'
NEW GREEN SPACE 508 S.F.
F.F. ELEV.=96.62'
F.F. ELEV.=94.47'
NEW GREEN SPACE 1,387 S.F.
55.82'
S50°00'15"W
I.R.(fnd)
N23°49'45"W 129.43'
TRANSFORMER
F.F. ELEV.=94.63'
GAS METER
F.F. ELEV.=94.72'
NEW GREEN SPACE 40.4 S.F.
PARCEL AREA
232,192 S.F.
5.33 Ac.
PD-36" ADS-N-12
A.C.
NEW GREEN SPACE 899 S.F.
EXISTING 36" CMP TO BE REMOVED AND UPGRADED WITH A 36" HDPE ADS N-12
EXISTING GRANITE HEADWALL TO BE REMOVED AND UPGRADED WITH A CONCRETE HEADWALL
12" CMP INV.=92.17'
12" CMP INV.=92.16'
12" CMP INV.=90.38'
CONC. PAD
TRANSFORMER
262.98'
S50°00'15"W
IMPACT AREA B=949 S.F.
TREELINE (TYP.)
36" CMP INV.=86.97'
36" CMP INV.=86.97'
ABUTTERS LINES (TYP.)
EDGE OF PAVEMENT (TYP.)
CROSBY ROAD
(PUBLIC, 70' WIDE R.O.W.)
DOVER
ADBURY

15°56'25"
SCRD PLAN 234-108
NH STATE PLANE
NAD 83 - GPS OBS.

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)

PLANNING FILE NO.: SITE-2025-

NOT FOR CONSTRUCTION FOR PERMIT USE ONLY

GNE CIVILWORKS NEW ENGLAND
CIVIL & WATERFRONT ENGINEERING
181 Watson Road, PO Box 1166
Dover, New Hampshire 03821
603.749.0443

NO.	REVISION	APP'D	DATE

DATE: 4-24-25
SCALE: 1"=30'
DRAWN BY: SRD
DESIGN BY: SRD
APPROVED BY:SJH
PROJECT NO: 24169
FILE: SITE.DEG

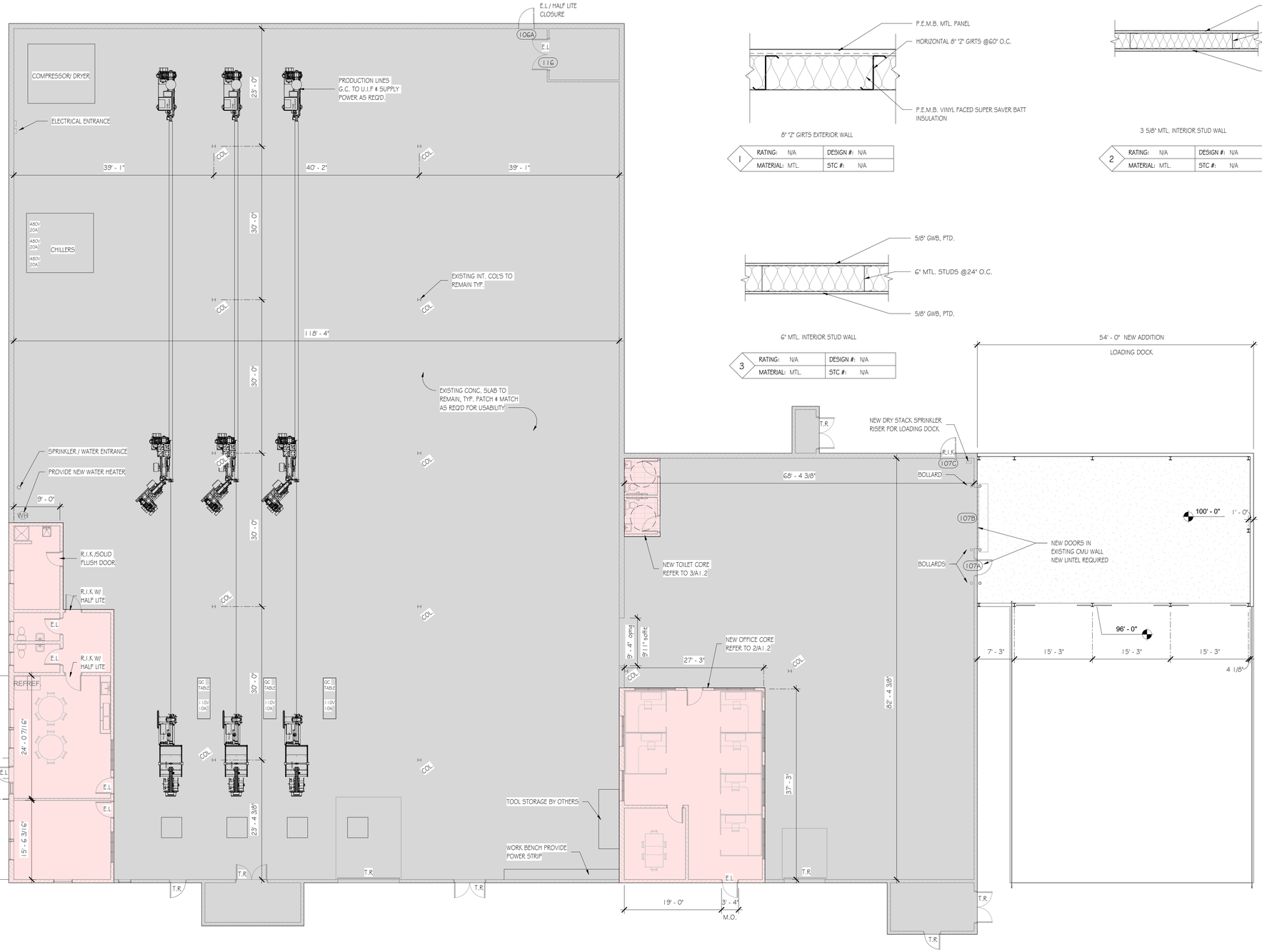
CONDITIONAL USE PERMIT PLAN

CROSBY 180, LLC
P.O. BOX 4064
PORTSMOUTH, NH 03802

LOADING DOCK ADDITION
180 CROSBY ROAD
DOVER, NH 03820

1 OF 1

TW DESIGNS LLC
254 DRAKE HILL RD. STRAFFORD, NH
P: 603.664.2181 | F: 603.664.9508



+/- 26,454 SF. EXISTING BUILDING

1 FIRST FLOOR PLAN
1" = 10'-0"

8" "Z" GIRTS EXTERIOR WALL

1	RATING: N/A	DESIGN #: N/A
	MATERIAL: MTL.	STC #: N/A

3 5/8" MTL. INTERIOR STUD WALL

2	RATING: N/A	DESIGN #: N/A
	MATERIAL: MTL.	STC #: N/A

6" MTL. INTERIOR STUD WALL

3	RATING: N/A	DESIGN #: N/A
	MATERIAL: MTL.	STC #: N/A

- EXISTING BUILDING STRUCTURE
- RENOVATED AREA W/I EXG'N BLD.
- NEW ADDITION (open air loading dock)

- FOR DOOR AND WINDOW NAMES SEE SHEET A1.2
- FOR DOOR AND WINDOW DETAILS SEE SHEET AG.1

GENERAL NOTES

1. DEMO EXISTING FLOORING AND ADD NEW FLOORING.
2. SEE ROOM SCHEDULE ON SHEET AG.1 FOR THE NEW FLOORING TYPES.
3. SEE DEMO PLAN FOR THE EXISTING PLUMBING FIXTURES TO BE REMOVED.
4. DEMOLISHED PLUMBING FIXTURES TO BE CAPPED AND SEALED.
5. THE OPENING TO BE ENLARGE ENOUGH TO ACCEPT A NEW 3GX84 DOOR AND NEW LINTEL AS REQUIRED SEE DOOR WINDOW SCHEDULE FOR DETAILS.

DOOR SOW

- (T.R.) EXISTING DOOR & FRAME TO REMAIN
- (R.I.K.) DEMO DOOR SLAB ONLY & REPLACE W/ NEW ONE. FRAME TO REMAIN
- (E.L.) DEMO DOOR & FRAME, ENLARGE FRAME HEAD HEIGHT YO 84" & PROVIDE NEW LINTEL PER STR. DWG.

DOORS WITHOUT DOOR TAGS ARE EXISTING TO REMAIN

WALL TYPE NOTES:

1. ALL INTERIOR METAL STUD GAUGE TO BE 20 GA.
2. FOR ALL EXTERIOR METAL STUD GAUGES, REFER TO LIGHT GAUGE STRUCTURAL DWG'S.
3. REFER TO LIGHT GAUGE STRUCTURAL DWG'S. FOR METAL STUD SPACING.
4. ALL GWB IN RATED ASSEMBLIES SHALL BE 5/8" TYPE-X U.N.O.
5. ALL GWB IN UNRATED ASSEMBLIES SHALL BE 5/8" U.N.O.
6. ALL GWB SHALL BE MUDDED & SANDED & PREPPED TO RECEIVE PRIMER & PAINT, EVEN IF NOT IN OCCUPIED SPACE.
7. ALL RATED WALLS SHALL EXTEND TO UNDER SIDE OF DECK ABOVE, & GWB SHALL BE FIRE CAULKED THERE TO. G.C. TO FIELD COORDINATE FIRE CAULKING W/ SUBCONTRACTORS & AUTHORITIES HAVING JURISDICTION.
8. ALL PENETRATIONS IN RATED ASSEMBLIES SHALL BE PROTECTED W/ FIRE CAULK, PUTTY PACKS OR COLLARS AS REQD. TO AFFORD SAME LEVEL OF RATING AS THE WALL IT PENETRATES.
9. ALL FIRE STOPPING, PENETRATION RATINGS & RATED WALL TERMINATIONS SHALL BE FIELD COORDINATED W/ G.C., SUBCONTRACTORS & AUTHORITIES HAVING JURISDICTION
10. INSULATE TOILET ROOM WALLS AND CLG.

Revision Schedule

No.	Description	Date

Project Info:
CODA Industries

180 CROSBY RD DOVER, NH

Sheet Status:
Latest Release:
Issued For: DOCK progress set
Org. Issue Date: March 25, 2025

JOB NO: 24072
DRAFTED: H.L
CHECKED: JMT
SCALE: As indicated

Sheet Title:
FLOOR PLAN

Sheet Number:
A1.1

DOCK PROGRESS SET
4/17/2025
8:07:37 AM

PROJECT NORTH

Printed on: 4/17/2025 8:07:37 AM

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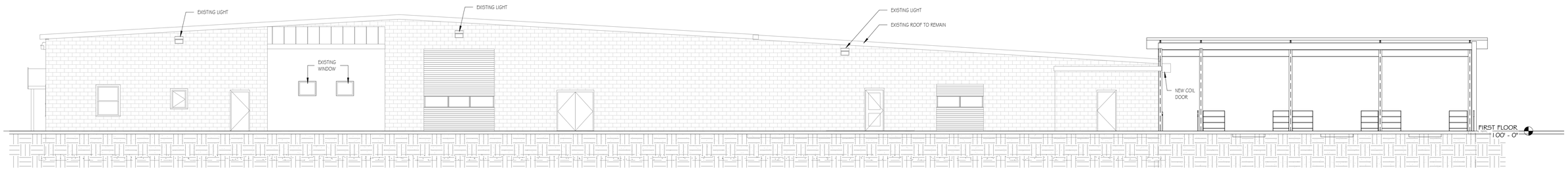
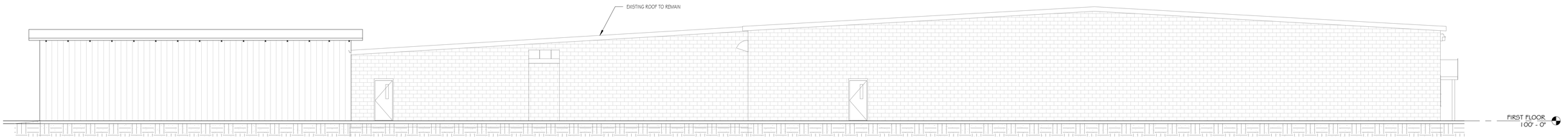
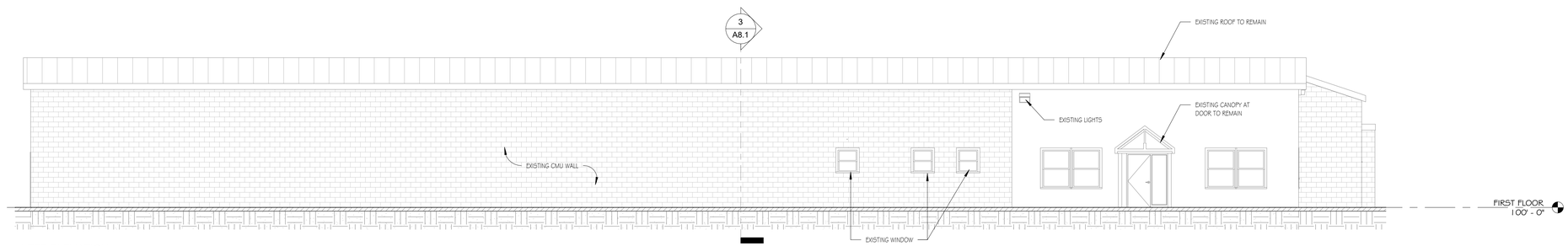
TW DESIGNS LLC
254 DRAKE HILL RD. STRAFFORD, NH
P: 603.664.2181 | F: 603.664.9508



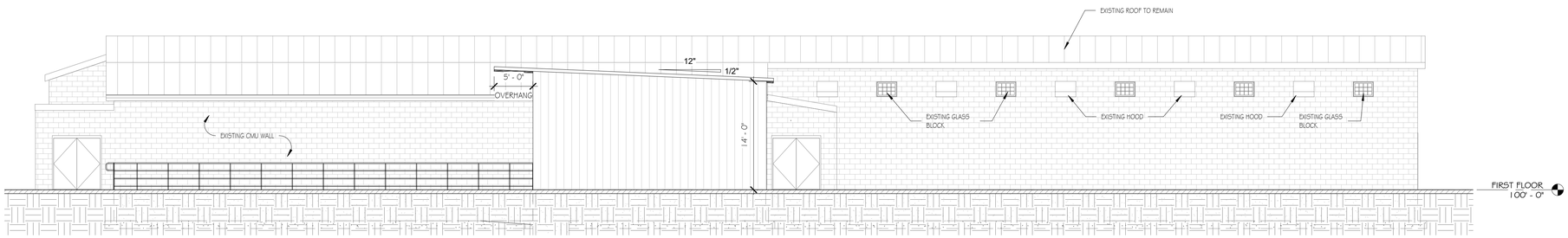
1 FRONT ELEVATION
1/8" = 1'-0"



2 REAR ELEVATION
1/8" = 1'-0"



3 LEFT ELEVATION
1/8" = 1'-0"



4 RIGHT ELEVATION
1/8" = 1'-0"

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No.	Description	Date

Revision Schedule

Project Info:

CODA Industries

180 CROSBY RD
DOVER, NH

Sheet Status:

Latest Release:	
Issued For:	DOCK progress set
Org. Issue Date:	March 25, 2025
JOB NO:	24072
DRAFTED:	H.L
CHECKED:	JMT
SCALE:	1/8" = 1'-0"

Sheet Title:

EXTERIOR ELEVATION

DOCK PROGRESS SET
4/17/2025
8:07:40 AM

Sheet Number:

A3.1

Printed on: 4/17/2025 8:07:40 AM

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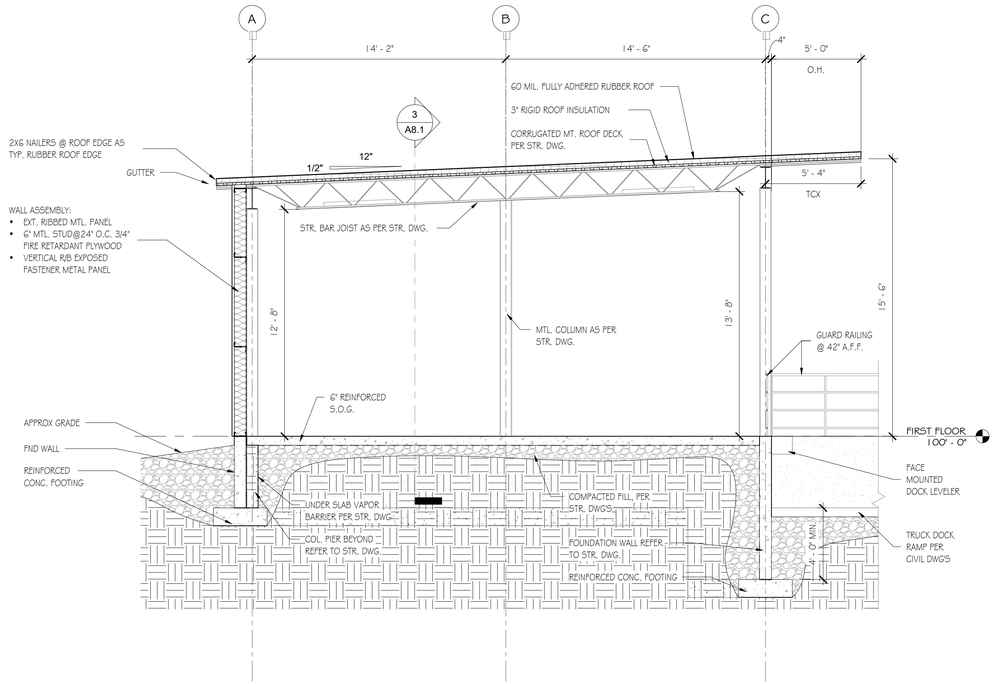
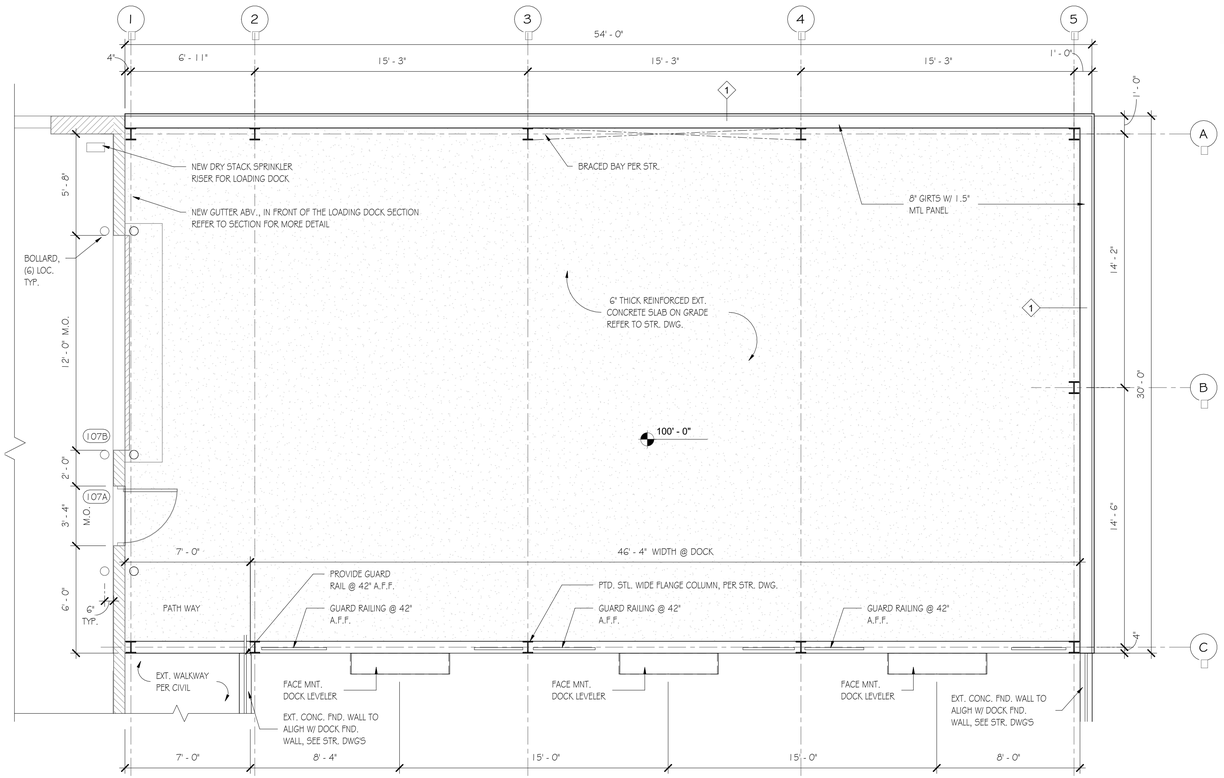
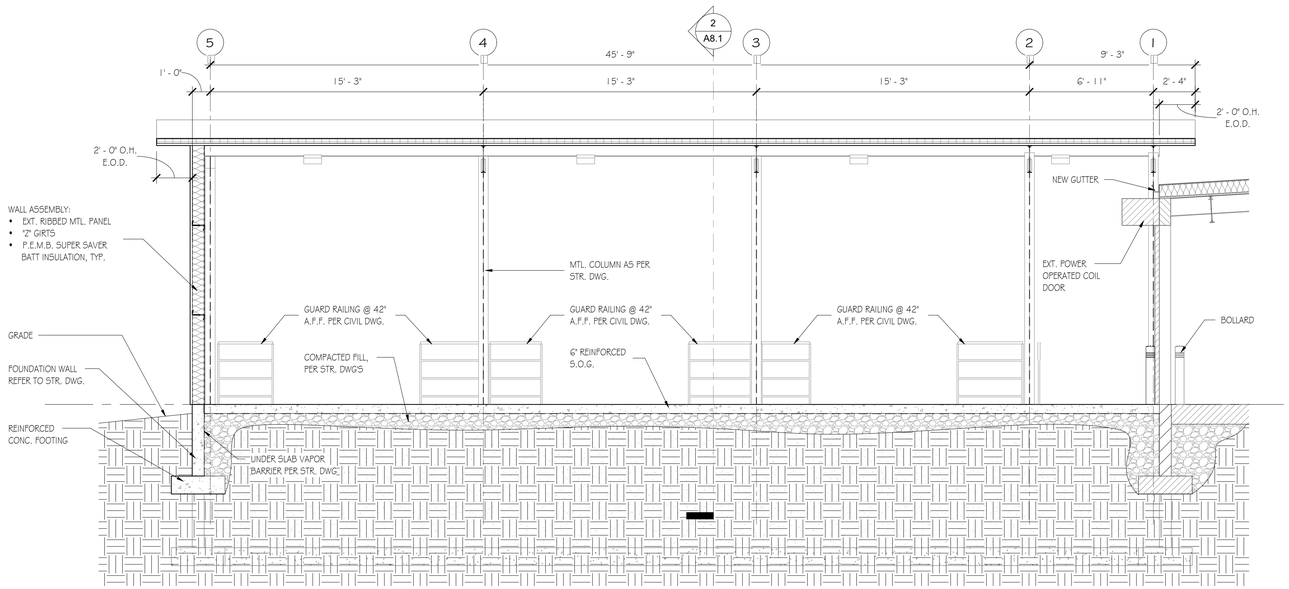


2 Section 1
1/4" = 1'-0"



1 LOADING DOCK ENLARGE PLAN
1/4" = 1'-0"



3 Section 2
1/4" = 1'-0"

GENERAL NOTES

1. DEMO EXISTING FLOORING AND ADD NEW FLOORING.
2. SEE ROOM SCHEDULE ON SHEET A6.1 FOR THE NEW FLOORING TYPES.
3. SEE DEMO PLAN FOR THE EXISTING PLUMBING FIXTURES TO BE REMOVED.
4. DEMOLISHED PLUMBING FIXTURES TO BE CAPPED AND SEALED.
5. THE OPENING TO BE ENLARGE ENOUGH TO ACCEPT A NEW 36X84 DOOR AND NEW LINTEL AS REQUIRED SEE DOOR WINDOW SCHEDULE FOR DETAILS.

DOOR SOW

T.R	EXISTING DOOR & FRAME TO REMAIN
R.I.K	DEMO DOOR SLAB ONLY & REPLACE W/ NEW ONE. FRAME TO REMAIN
E.L	DEMO DOOR & FRAME, ENLARGE FRAME HEAD HEIGHT YO 84" & PROVIDE NEW LINTEL PER STR. DWG.

DOORS WITHOUT DOOR TAGS ARE EXISTING TO REMAIN

WALL TYPE NOTES:

1. ALL INTERIOR METAL STUD GAUGE TO BE 20 GA.
2. FOR ALL EXTERIOR METAL STUD GAUGES, REFER TO LIGHT GAUGE STRUCTURAL DWGS.
3. REFER TO LIGHT GAUGE STRUCTURAL DWGS. FOR METAL STUD SPACING.
4. ALL GWB IN RATED ASSEMBLIES SHALL BE 5/8" TYPE-X U.N.O.
5. ALL GWB IN UNRATED ASSEMBLIES SHALL BE 5/8" U.N.O.
6. ALL GWB SHALL BE MUDDED & SANDED & PREPPED TO RECEIVE PRIMER & PAINT, EVEN IF NOT IN OCCUPIED SPACE.
7. ALL RATED WALLS SHALL EXTEND TO UNDER SIDE OF DECK ABOVE, & GWB SHALL BE FIRE CAULKED THERE TO. G.C. TO FIELD COORDINATE FIRE CAULKING W/ SUBCONTRACTORS & AUTHORITIES HAVING JURISDICTION.
8. ALL PENETRATIONS IN RATED ASSEMBLIES SHALL BE PROTECTED W/ FIRE CAULK, PUTTY PACKS OR COLLARS AS REQD. TO AFFORD SAME LEVEL OF RATING AS THE WALL IT PENETRATES.
9. ALL FIRE STOPPING, PENETRATION RATINGS & RATED WALL TERMINATIONS SHALL BE FIELD COORDINATED W/ G.C., SUBCONTRACTORS & AUTHORITIES HAVING JURISDICTION
10. INSULATE TOILET ROOM WALLS AND CLG.

DOCK PROGRESS SET
4/17/2025
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No.	Description	Date

Revision Schedule

Project Info:

CODA Industries

180 CROSBY RD
DOVER, NH

Sheet Status:

Latest Release:
Issued For: PROGRESS PRINT
Org. Issue Date: NFC: 032525

JOB NO: 24072
DRAFTED: H.L
CHECKED: JMT

SCALE: 1/4" = 1'-0"

Sheet Title:

FUTURE LOADING DOCK PLAN & SECTIONS

Sheet Number:

A8.1

Printed on: 4/17/2025 8:07:42 AM

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