VTrans Fall 2022 Transportation Alternatives (TA) Grant Application

Thoroughly read the ***Vermont Transportation Alternatives Fall 2022 Application Guide*** before you begin your application. It includes important program information and step-by-step instructions. Pay particular attention to the application process requirements. **Applications are due in hand or by e-mail by December 14, 2022.** Please e-mail the completed application to: Scott.robertson@vermont.gov

Wardsboro Salt Shed
(Project Name/Title)

Peter Sebastian, Selectboard
(Municipality contact person responsible for the management of this project)

Wardsboro
(Town)

05355
(Zip Code)

PO Box 48, Wardsboro, VT 05355
(Mailing Address)

802-896-6055
(Phone)

pds@myfairpoint.net
(e-mail address)

$ 90,226
Amount of **Federal Funds requested** (no more than 80% of the project cost estimate).

$22,556
Amount of Local Match. Example:
Federal Award = $300,000 (*80% of total*)
Local Match = $75,000 (*20% of total*)
Total Project Cost = $375,000 (*100% of the total*)

County: Windham

Town/Village/City: Wardsboro

Specific location, street, or road: 185 Dump Road

Regional Planning Commission: Windham Regional Commission

If a linear project, what is the length in feet? N/A

Is the project on or intersecting to a State maintained highway? Yes ☐ No ☒

- *Note: If yes, be sure to include documentation that you have notified the VTrans District Transportation Administrator of the intent to apply for TA funding and have provided them with a brief (one paragraph) description of the proposed project.*

Project type being applied for: ☐ **Scoping** ☒ **Design/Construction**

The municipality understands that a typical construction project utilizing Transportation Alternatives Program funds will take roughly three years (min.) in the Design and ROW phases prior to going to construction (as pointed out in the TA Program Application Guide)? Yes ☒ No ☐

Does this project have a previously completed scoping or feasibility study? Yes ☐ No ☒

Note:
Attach a map(s) of the project area and clearly show the limits of the project as well as surrounding benefits from the proposed improvement. If the project is within or adjacent to a designated downtown, village or growth center, clearly indicate the relationship of the proposed project to the boundary of the designated area. Color photos of the area are also recommended.

Fiscal Information:

Accounting System Automated ☐ Manual ☐ Combination ☒

SAM Unique Identifier # HD7JC7894JK4

Fiscal Year End Month June

Property Ownership:

If the proposed project is on private property that will need to be acquired by the Municipality through purchase, easement, or eminent domain (includes temporary construction rights) in accordance with the "Uniform Act", then the municipality is committed to exercising its right of ***eminent domain*** to acquire the rights to construct the project if necessary. Yes ☐ No ☒

Funding:
Does this project already have existing funding? If so, please describe. Yes ☒ No ☐

The Wardsboro Salt Shed Project has current funding through the Vermont Agency of Transportation, Municipal Mitigation Grant Program and the Transportation Alternatives Grant Program.

Municipal Mitigation
Grant # CA0566
Award Amount: Award: $300,000 Local Match $75,000

Transportation Alternatives FY22
Grant # CA0566 – Amendment 1
Award Amount: Award: $94,726 Local Match $23,682

Will you accept an award less than you applied for? Yes ☒ No ☐

- If yes, please indicate whether local funds will be used to make up the shortfall, or if the project scope will be reduced. If the project scope is to be reduced, describe what part of the project (please be specific) you would accept partial funding for.

  The Town of Wardsboro would accept a reduced award if it was cost-effective to pursue the project with the newly awarded amount plus the current project funding. A smaller funding gap

could potentially be addressed by increasing the local share or removing the electrical conduit to the shed. The Town of Wardsboro has already reduced the size of the sand/salt shed design after the initial estimate was produced.

A support letter from the governing body of the applicant municipality or organization and an acknowledgement and source of the local match and commitment to future maintenance responsibility for construction projects is required (must be dated within 1 year of the application). Is a letter of support attached?

Yes ☒ No ☐

Regional Planning Commission Letter of Support:
In order to apply, the project must have a letter of support from the regional planning commission. Is a letter of support attached?

* Windham Regional Commission, in addition to supporting this project from its inception, is also the Municipal Project Manager for the project.

Yes ☒ No ☐

Application Scoring Criteria:

1. **Please give a brief description of the project (be sure to indicate the primary facility type being applied for and be concise). (10 points max.)**
   The Town of Wardsboro is working to construct a new Salt Shed to replace a small existing lean-to salt shed structure. The new shed will prevent water intrusion and contaminated runoff from discharging into the stream across the road and associated wetlands, reduce the risk of groundwater contamination, eliminate the need for salt and sand to be dumped onto the ground upon delivery and then moved into the structure, and reduce waste.

   Wardsboro has been working with the engineering firm DuBois and King to complete designs for the new salt shed. Initially based off of Vtrans designs, DuBois & King has completed 100% designs and the project is ready to go out to bid pending sufficient funding is secured for the construction.

2. **What is the feasibility of this project? Feasibility (or Scoping) study applications will not be scored on this criterion. Also, please describe the extent of project development completed to date. (10 points max.)**
   Since receiving the initial Municipal Mitigation grant award for designing and constructing a salt shed, the Town has been working with Dubois & King to develop a design for the new salt shed**.** The original salt shed plans, based on sample plans from VTrans, were downsized to be covered by the limitation of the original grant and local match. A later opinion of probable cost in the design phase of the project indicated a rise in the cost estimates for the project and an additional grant was secured through the VTr ans Transportation Alternatives program to cover it. The project was bid out in March of 2022. Only one bid was received for $600,000 for the construction portion of the project. This bid was rejected at

that time by the Selectboard and VTrans as not being congruent with typical construction costs. With the continued rising cost of construction materials and labor, the newest total project cost estimate (based on the latest Opinion of Probable Cost from DuBois & King) is $606,190 The Opinion of Probable Cost shows a significant increase in construction costs and there is now a funding gap between the funds raised for this project and the new estimated construction/project costs.

The current Opinion of Probable Cost from DuBois & King is attached in the appendix. The budget and funding request later in the application shows the funds committed to the project and the shortfall.

3. **Does this project address a need identified in a local or regional planning document? If so, please describe. (5 points max.)**Please see the attached prior application for additional information about the Salt Shed.

4. **Does this project benefit a State Designated Center per the link below (i.e., downtowns, villages, or neighborhood growth centers recognized by the Vermont Department of Economic, Housing and Community Development? (10 Points Max.)**
http://maps.vermont.gov/ACCD/PlanningAtlas/index.html?viewer=PlanningAtlas

Please see the attached prior application for information to the question about the Salt Shed.

5. **Provide a project cost estimate below (project costs below include both federal dollars and local dollars). Projects will be scored based on whether the cost appears realistic for the size and scope of the project. For scoping studies, use PE and Local Project Management lines only.**
Note: If you are applying for additional funds for an existing project, show the amount being requested for this grant in the PE, ROW, Construction, Construction Engineering, and Municipal Project Management rows below. Also, be clear regarding total project cost and other funding amounts and sources in the additional funding comments box below. **(10 points max.)**

Preliminary Engineering (PE) *(Engineering, Surveying, Permitting)*	$ 51,886
Right-of-way / Acquisition (ROW) *(appraisals, land acquisition and legal fees)*	$ 500
Construction *(construction costs with reasonable contingency)*	$ 489,523 *
Construction Engineering *(cost to provide inspection during construction)*	$ 51,081 *
Municipal Project Management Costs *(minimum of 10% of total PE, ROW and Construction Phases).*	$ 13,200

Total Project Cost ***$*** 606,190

Current Grant and Town Match Funding Secured ***$*** 493,408

Total Requested ***$*** **112,782**
(90,226 TAP and 22,556 Local Match)

Addition Funding Comments: (ex. Total and additional funding for existing projects)

* **Additional TAP funding and local match would be used to cover additional expenses in Construction and Construction Engineering.**

Preliminary Engineering: Contract with DuBois & King already secured
ROW: Lawyer for ROW documentation completed plus contingency for future
Construction: Based on 10.12.2022 Opinion of Probably Cost from DuBois & King and a 15% Construction Contingency
Construction Engineering: 12% of Construction Costs
Municipal Project Management: Contract with Windham Regional Commission already Secured

6. **Select the eligibility category below (A, B, C or D) that best fits your project and answer the corresponding questions for that category (choose only one category). 10 bonus points will be awarded to projects that are primarily Bicycle or Pedestrian facilities.**

☐ **A. Bicycle and Pedestrian Facilities (includes Safe Routes for Non-Drivers and Conversion of abandoned railroad corridors.**

(i) Will the project contribute to a system of pedestrian and/or bicycle facilities? **(10 points max.)**
Click here to enter text.

(ii) Will the project provide access to likely generators of pedestrian and/or bicyclist activity? **(10 points max.)**
Click here to enter text.

(iii) Will the project address a known, documented safety concern? **(10 points max.)**
Click here to enter text.

☐ **B. Community Improvement Activities:**

i. Explain how the project improves the economic wellbeing of the community and/or provide a benefit to state tourism? **(10 points max.**
Click here to enter text.

ii. Describe the anticipated impact to the public; degree of visibility, public exposure and/or public use. **(10 points max.)**
Click here to enter text.

iii. Answer only one of the following based on the type of project:

a) Construction of turnouts, overlooks, and viewing areas as related to scenic or historic sites. *To what extent will the project provide a view of a highly unique and scenic area?* **(10 points max.)**

Click here to enter text.

b) Preservation or rehabilitation of historic transportation facilities. *Describe the historic significance of the historic transportation facility and the importance of the facility to the state.* **(10 points max.)**
Click here to enter text.

c) Archeological planning and research related to impacts from a transportation project. *Describe the associated transportation project and benefit of the proposed activities.* **(10 points max.)**
Click here to enter text.

d) Vegetation management in transportation rights of way to improve roadway safety, prevent invasive species, and provide erosion control. *Describe the extent of the current problem and the impact on the site and surrounding area.* **(10 points max.)**
Click here to enter text.

☒ **C. Environmental Mitigation Activity Related to Stormwater and Highways**

i. Please describe how this application provides environmental mitigation relating to stormwater and highways. **(10 points max.)**

Please see the attached prior application for additional information about the Salt Shed.

ii. What information or data is provided to substantiate the current stormwater problem and associated environmental impacts? **(10 points max.)**

Please see the attached prior application for additional information about the Salt Shed.

iii. What substantiating data or information is provided to show that the proposed application is an effective and maintainable solution to the problem? **(10 points max.)**

Please see the attached prior application for additional information about the Salt Shed.

☐ **D. Environmental Mitigation Activity Related to Wildlife**

i. Please describe how this application will reduce vehicle-caused wildlife mortality or will restore and maintain connectivity among terrestrial or aquatic habitats. **(10 points max.)**
Click here to enter text.

ii. What information or data is provided to substantiate the current problem and associated environmental impacts? **(10 points max.)**
Click here to enter text.

iii. What substantiating data or information is provided to show that the proposed application is an effective and manageable solution to the problem? **(10 points max.)**
Click here to enter text.

TOWN OF WARDSBORO
SELECTBOARD
PO BOX 48 WARDSBORO VERMONT 05355

November 15, 2022

Scott Robertson, P.E.
Vermont Agency of Transportation
Barre City Place, 219 North Main Street – 4th floor
Barre, VT 05641

Dear Mr. Robertson,

Thank you for considering our application for the VTrans Transportation Alternatives Grant. The selectboard is applying for this grant to cover project cost shortfalls from previous grants for a salt shed replacement. The original salt shed plans, based on sample plans from VTrans, were downsized to be covered by the limitation of the original grant and local match. A later cost estimate indicated another shortfall of $94,000 and a grant was secured to cover it. The project was bid out in March of 2022. Only one bid was received for $600,000 for the construction portion of the project. This bid was rejected by the selectboard and VTrans as not being congruent with typical construction costs. With the continued rising cost of construction materials and labor, the newest total project cost estimate is $605,690 indicating a significant funding gap.

The town held public informational/input meetings for the salt shed on 4/10/20, 11/24/20, and again on 11/23/21. The salt shed has been on the selectboard's written agenda continuously for more than 3 years and updates were given at most meetings. All planning and environmental reviews have been completed and approved by VTrans as part of the previous grant.

If we are awarded this grant, the local matching funds will be provided with property tax dollars. Wardsboro is looking forward to a much-needed salt shed.

Sincerely,

Peter Sebastian
Co-chair, Wardsboro Selectboard

Cc: Windham Regional Commission
Wardsboro Town Office

WINDHAM
REGIONAL
COMMISSION

July 9, 2018

Joel Perrigo
Vermont Agency of Transportation
1 National Life Drive
Montpelier, VT 05633

Dear Joel:

I am pleased to provide this letter for the Town of Wardsboro's request for Stormwater Mitigation Grant funds to replace the municipal salt shed. The town seeks to replace its existing salt shed with one that will not risk chloride contamination of the Wardsboro Brook and its surrounding streams and related wetlands. This project will contribute to improving the water quality of the Wardsboro Brook. The project is consistent with the following policies of the Windham Regional Plan, adopted September 30, 2014:

1. Maintain and restore chemical, biological, and physical quality of the region's surface water per the objective in the State water regulations.

The project is located on hydrologically connected segment number 58023.1 and has an estimated road gradient of 3%. The Windham Regional Commission will assist the Town of Wardsboro on compliance with the new Clean Water act and towards the Municipal Roads General Permit.

Sincerely,

Erica Roper

Erica Roper
Transportation Planner
Windham Regional Commission

VERMONT

State of Vermont
Department of Environmental Conservation
Watershed Management Division
Springfield Regional Office
100 Mineral Street, Suite 303
Springfield, VT 05156-3168
http://dec.vermont.gov/watershed

Agency of Natural Resources

Marie Levesque Caduto
Watershed Coordinator

[phone] 802-289-0633
[cell] 802-490-6142
[fax] 802-885-8890
[Email] Marie.Caduto@vermont.gov

Erica Roper
Windham Regional Commission
139 Main Street, Suite 505
Brattleboro, VT 05301

November 17, 2017

Erica,

This is to follow-up on our visit of 10/25/17 to the Wardsboro salt shed to review the need for replacement.

While the existing shed is over 100 feet from the tributary to Wardsboro Brook, the entire site, including the shed discharge, drains into a 60-foot-long culvert that discharges directly into the tributary. This tributary is only 350 feet from the mainstem of Wardsboro Brook.

The condition of the shed allows water to reach the salt pile causing it to dissolve and run out of the shed where it is carried to the culvert. The amount of discharge from the site is evident in the accumulation of sediment in the road ditch along South Wardsboro Road and the pile that was dredged from it after the recent rain event.

The site drainage should be addressed by re-grading to control runoff and direct it into a sediment basin at the inlet end of the parking lot culvert. The road ditch should be rock lined and the lower culvert replaced with an appropriately sized structure. Stable headers are needed on both culverts.

If you have any questions or concerns please contact me.

Sincerely,

VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION

Marie Levesque Caduto, *Watershed Coordinator*
Springfield Regional Office
100 Mineral Street, Suite 303
Springfield, VT 05156-3168
Marie.Caduto@state.vt.us
www.vtwaterquality.org

DuBois & King inc.

ENGINEERING ● PLANNING ● MANAGEMENT ● DEVELOPMENT

Project: Sand & Salt Shed - Wardsboro, VT

Calculated By: CJR

Checked By: ATH

Date: 10/10/2021

NOTE: In providing opinions of probable construction costs, the Client understands that DuBois & King, Inc. has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's methods of pricing, and that our Opinion of Probable Construction Costs are made on the basis of our professional judgment and experience. DuBois & King, Inc. makes no warranty, expressed or implied, that the bids or the negotiated costs of the Work will not vary from the Opinion of Probable Construction Cost provided herein.

OPINION OF PROBABLE CONSTRUCTION COST

					Sand & Salt Shed		
UNIT NO.	**VTrans Item NO.**	**DESCRIPTION**	**UNIT**	**UNIT COST**	**QUANTITY**	**AMOUNT**	**TOTAL**
1	635.11	Mobilization/Demobilization	LS	$ 18,148.15	1	$ 18,148.15	$18,148.15
2	203.15	Common Excavation	CY	$ 15.00	1350	$ 20,250.00	$20,250.00
3		Building Construction					
3A	204.25	Structure Excavation	CY	$ 25.00	655	$ 16,375.00	$16,375.00
3B	301.28	Subbase of Crushed Gravel, Fine Graded (Vtrans 704.05B)	TON	$ 30.00	120	$ 3,600.00	$3,600.00
3C	404.65	Emulsified Asphalt	CWT	$ 30.00	3	$ 90.00	$90.00
3C	406.35	Superpave Bituminous Concrete Pavement	TON	$ 250.00	62	$ 15,500.00	$15,500.00
3D	522.35	Non-structural Lumber, Treated	MFBM	$ 12,000.00	4	$ 48,000.00	$48,000.00
3E	649.31	Geotextile Under Stone Fill	SY	$ 3.50	420	$ 1,470.00	$1,470.00
3F	629.54	Crushed Stone Bedding (Vtrans 704.02B)	TON	$ 30.00	145	$ 4,350.00	$4,350.00
3G	900.608	Special Provision (Structural Fill)	CY	$ 30.00	218	$ 6,540.00	$6,540.00
3H	900.608	Special Provision (Concrete, American Concrete Institute Standard)	CY	$ 600.00	281	$ 168,600.00	$168,600.00
4		Roof Structure					
4A	900.62	Special Provision (Prefabricated Wooden Roof Trusses)	EA	$ 1,000.00	35	$ 35,000.00	$35,000.00
4B	900.68	Special Provision (Metal Roofing)	SY	$ 85.00	300	$ 25,500.00	$25,500.00
5	609.10	Dust Control with Water	MGAL	$ 20.00	5	$ 100.00	$100.00
6	613.10	Stone Fill, Type I	CY	$ 50.00	10	$ 500.00	$500.00
7	631.16	Testing Equipment, Concrete	LS	$ 1,000.00	1	$ 1,000.00	$1,000.00
8	651.35	Topsoil	CY	$ 35.00	120	$ 4,200.00	$4,200.00
9	651.15	Seed	LB	$ 8.00	15	$ 120.00	$120.00
10	641.11	Traffic Control, All Inclusive	LS	$ 5,000.00	1	$ 5,000.00	$5,000.00
11	653.475	Silt Fence, Type I	LF	$ 4.54	450	$ 2,043.00	$2,043.00
12	653.55	Project Demarcation Fence	LF	$ 1.00	400	$ 400.00	$400.00
13	653.20	Rolled Erosion Control Product, Type I	SY	$ 1.75	1,100	$ 1,925.00	$1,925.00
14	653.35	Stabilized Construction Entrance	CY	$ 55.00	40	$ 2,200.00	$2,200.00
15	653.42	Inlet Protection Device, Type III	CY	$ 100.00	2	$ 200.00	$200.00
Construction Subtotal							**$381,111.15**
16		Construction Inspection	LS	$ 38,111.12	1	$ 38,111.12	$38,111.12
Construction Subtotal							**$419,222.27**

Alternate #1 - Electrical

UNIT NO.	**VTrans Item NO.**	**DESCRIPTION**	**UNIT**	**UNIT COST**	**QUANTITY**	**AMOUNT**	**TOTAL**
Alt. 1A	678.21	Electrical Conduit	LF	$ 40.00	100	$ 4,000.00	$4,000.00
Alt. 1B	678.30	Electrical Conduit Sleeve	LF	$ 70.00	35	$ 2,450.00	$2,450.00
Construction total							**$6,450.00**

SFY 2019 Environmental Mitigation Grant Application

Applications are DUE July 13, 2018

Submission Format:

Applications may be mailed or sent electronically, preferably sent electronically in a single PDF file.

Send to: Joel Perrigo
VTrans Municipal Assistance Bureau
1 National Life Drive
Montpelier, VT 05633

Joel.Perrigo@vermont.gov
(802) 828-2583

Organization:

Please organize your application using the following order.

1. Application form (completely and accurately filled in)
2. Map of project location with sketch, or plans of proposed project
3. Pictures
4. Scoping Study/Engineering Plans (if available)
5. Letters of Support (RPC letter required, DTA correspondence if applicable)
6. Any other miscellaneous supporting documentation

SFY 2019 Environmental Mitigation Grant Application

Greg Donna
(Municipal Contact Person)

802-896-6542
(Phone)

85 Dump Rd Wardsboro VT, 05355
(Mailing Address)

Wardsborohighway@myfairpoint.net
(e-mail address)

$ $ 300,000
Amount of **Federal Funds requested** (no more than 80% of the total estimated project cost).

$75,000
Amount of Local Match.
Example: Federal Award = $500,000 (*80% of total*), Local Match = $125,000 (*20% of total*), Total Project Cost = $625,000 (*100% of the total*

Town/Village/City: Wardsboro

Specific location, street or road: Intersection of South Wardsboro Rd and Dump Rd North Side

Is the project on or intersecting with a State maintained highway? Yes ☐ No ☒

- *Note: If yes, be sure to include documentation that you have notified the VTrans District Transportation Administrator of the intent to apply for funding and have provided them with a brief (one paragraph) description of the proposed project.*

Does this project have a previously completed scoping or feasibility study? Yes ☐ No ☒
(If yes, please include executive summary)

Note: Attach a map(s)/illustrations of the project area and clearly show the limits of the project. Color photos of the area are recommended.

Fiscal Information:

Accounting System Automated ☒ Manual ☐ Combination ☒

DUNS # 949682264

Fiscal Year End Month June

Is the municipality committed to exercising its right of eminent domain to acquire the rights to construct the project if necessary? Yes ☐ No ☒

Does this project already have existing funding? If so, please describe. Yes ☐ No ☒

Click here to enter text.

Will you accept an award less than you applied for? Yes ☐ No ☒

- If yes, please indicate whether local funds will be used to make up the shortfall, or if the project scope will be reduced. If the project scope is to be reduced, describe what part of the project (please be specific) you would accept partial funding for.

  Click here to enter text.

Application Scoring Criteria:

1. Please give a detailed description of the project. If applying for a stormwater treatment facility please include the estimated amount of stormwater runoff from the highway as a percentage of the total stormwater being treated. **(15 points max.)**

   The existing small wooden lean-to salt shed structure will be replaced with a new, larger salt and sand shed based upon a VTrans design that will prevent water intrusion and contaminated runoff from discharging into the stream across the road and associated wetlands, reduce the risk of groundwater contamination, eliminate the need for salt and sand to be dumped on the ground upon delivery and then moved into the structure, and reduce waste. The new shed will also reduce emissions from the up to every 10 day salt deliveries required with the existing shed. The site is in immediate proximity to a stream, wetlands, and the state-delineated river corridor. A sediment retention pond will also be constructed before stormwater reaches the culvert which discharges directly into the stream. The feasibility of culvert realignment will also be considered.

2. Please describe how this improvement provides for pollution prevention and pollution abatement activities and mitigation to address stormwater management, control, and water pollution prevention or abatement related to highway construction or due to highway runoff **(35 points max.)**

   The existing salt shed is within 100 feet of a stream; and the slope of the site results in runoff that flows directly into the water resource from two directions. The existing grading of the site, and the existing shed design and orientation that requires salt to be dumped on the ground and then moved into the shed permits the intrusion of salt-contaminated stormwater directly into stream and associated wetlands, and likely results in salt intrusion into groundwater as well. The purpose of this project is to replace and reorient the shed, and regrade the site to eliminate or minimize risks

to surface water and groundwater. (See attachments D and C.) Replacing the shed with a waterproof structure will prevent salt solution from running off and re-grading the lot to prevent runoff will mitigate chloride pollution and improve water quality. A sediment retention pond will also be constructed to allow filtration and settling before stormwater reaches the culvert which discharges directly into the stream. Feasibility of culvert realignment will identify if it is possible to shift the outflow to allow for some additional filtration before reaching the stream.

3. What information or data is provided to substantiate the current pollution and/or stormwater problem and associated environmental impacts? **(15 points max.)**

   The existing shed is within 100 feet of a stream, the shed is not waterproof, the salt and sand must be transferred on the ground outside the shed, and the existing slope of lot runoff runs directly into the water resource. An email from ANR Watershed Coordinator, Marie Levesque Caduto, is attached which explains that the risks posed by the existing structure and current grading of the site, and the need for a more weatherproof structure and site grading. (See Attached Letters of Support.)

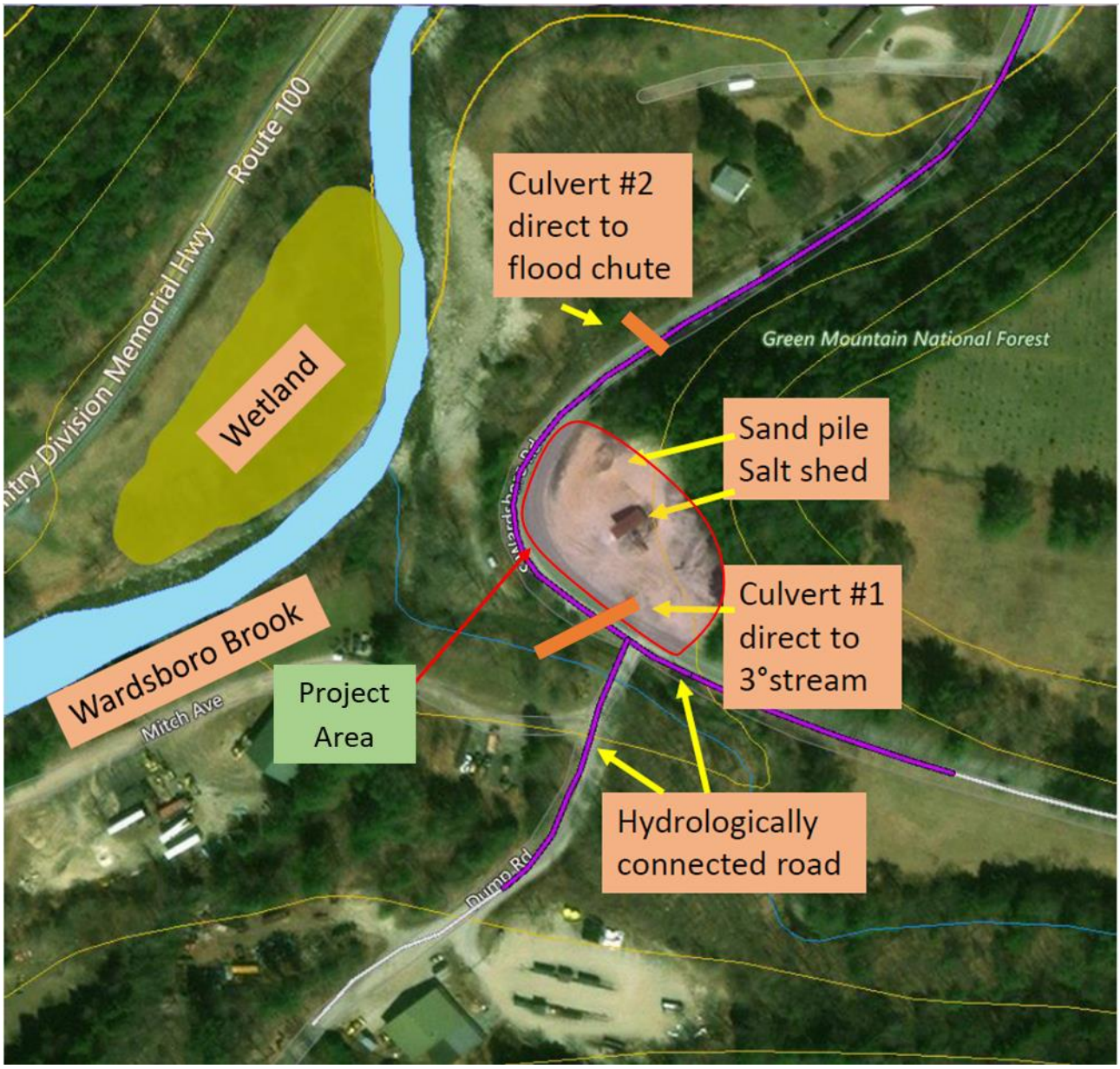
4. What substantiating data or information is provided to show that the proposed project is an effective and manageable solution to the problem? **(35 points max.)**

   The attached design is a standard VTrans design, which will be better oriented on the site to facilitate delivery and loading and eliminate stormwater intrusion; will preclude the need to have salt dumped on the ground and then moved into the shed; and will be weatherproof. Coupled with regrading of the site, the new shed should eliminate the runoff of salt contaminated water directly into the stream and associated wetlands. (See Attached Images.)

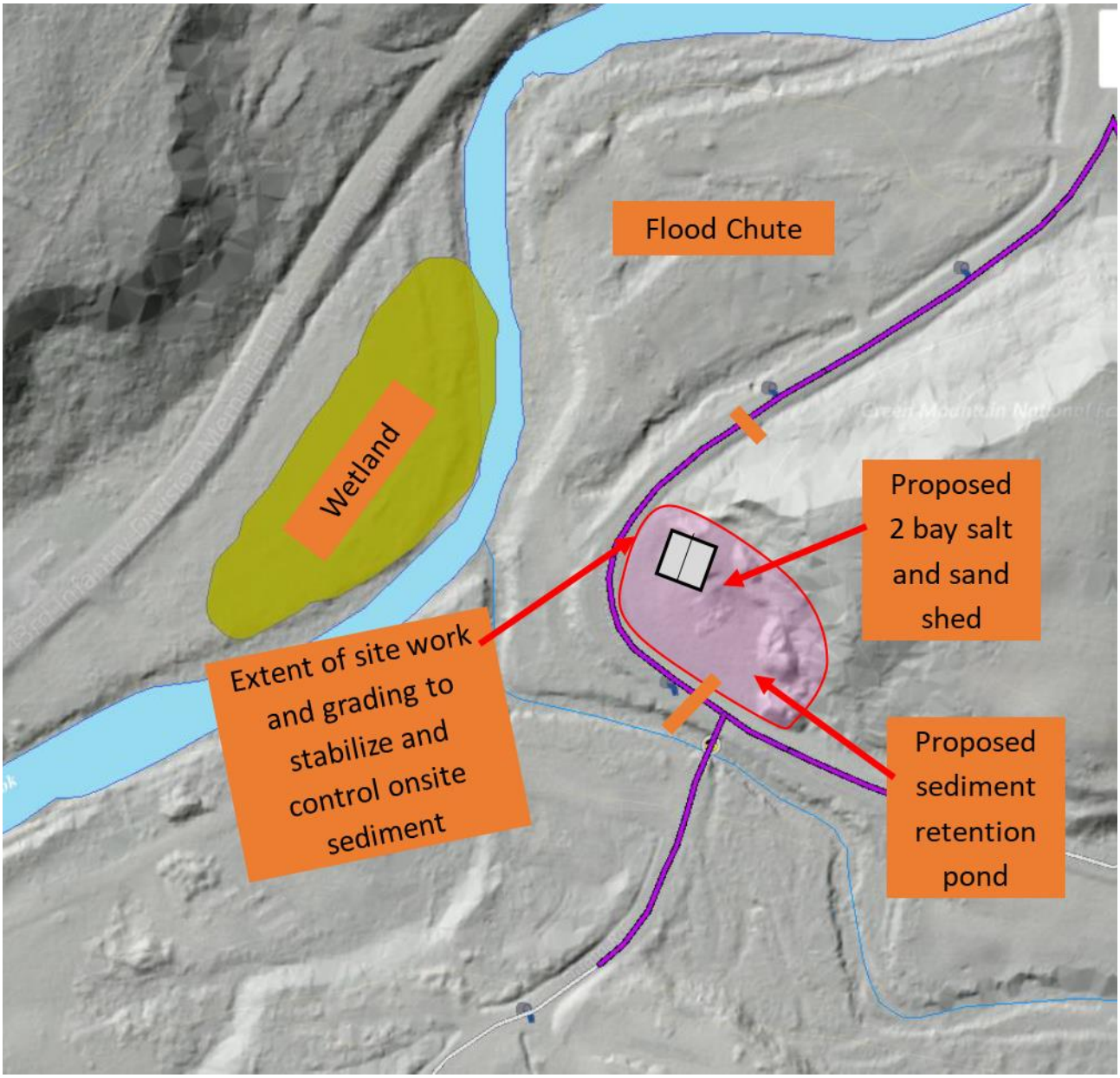
Provide a project cost estimate below (project costs below shall reflect total project costs which includes both grant and local funds). For scoping/planning studies use PE and Local Project Management lines only.

Preliminary Engineering (PE) *(Engineering, Surveying, Permitting)*	$ 45,000
Right-of-way / Acquisition (ROW) *(appraisals, land acquisition and legal fees)*	$ 1,500
Construction *(construction costs with reasonable contingency)*	$ 273,000
Construction Engineering *(cost to provide inspection during construction)*	$ 24,500
Municipal Project Management Costs *(10% of total PE, ROW and Construction Phases is a good estimate).*	$ 31,000
Total Project Cost	***$*** 375,000

Site Map


Route 100
Wetland
Culvert #2
direct to
flood chute
Green Mountain National Forest
Sand pile
Salt shed
Culvert #1
direct to
3°stream
Wardsboro Brook
Project
Area
Mitch Ave
Hydrologically
connected road
Dump Rd

Proposed Project Sketch



Plans will be utilizing standard Highway Garage Salt/Sand Shed Plans

State of Vermont
Agency of Transportation

NORTH MONTPELIER STATE HIGHWAY GARAGE
66'x84' SALT/SAND SHED

North Montpelier, Vermont

AGENCY OF TRANSPORTATION
OPERATIONS DIVISION
NATIONAL LIFE BUILDING
MONTPELIER, VERMONT 05633-5001
NEALE LUNDERVILLE, SECRETARY

AGENCY OF TRANSPORTATION
TRANSPORTATION DISTRICT #6
186 INDUSTRIAL LANE-BERLIN
BARRE, VERMONT 05641
ERNIE ENGLEHARDT, D.T.A.

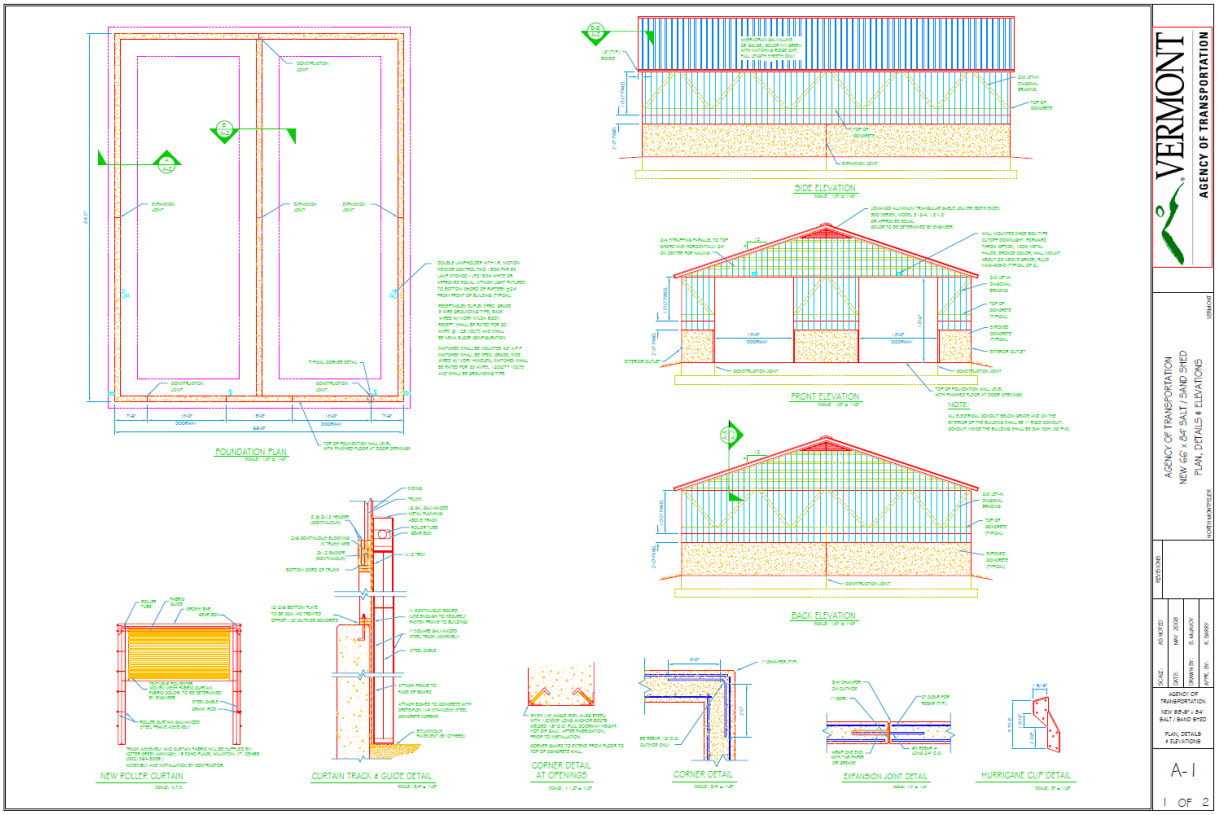
James Douglas
Governor

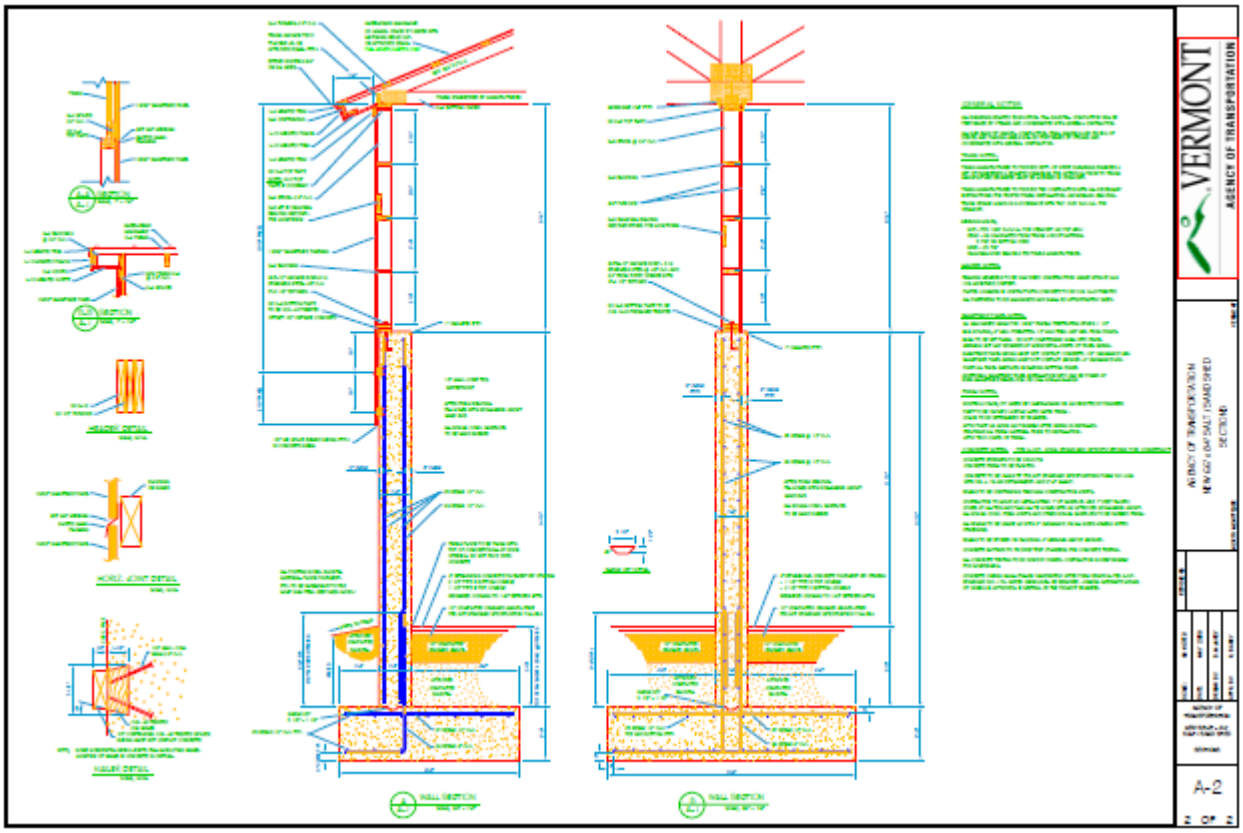
May 2008

INDEX OF SHEETS

CONCRETE BID ONLY

SET # _____
DO NOT COPY


VERMONT
AGENCY OF TRANSPORTATION
FOUNDATION PLAN
SIDE ELEVATION
FRONT ELEVATION
BACK ELEVATION
NEW ROLLER CURTAIN
CURTAIN TRACK & GUIDE DETAIL
CORNER DETAIL AT OPENINGS
CORNER DETAIL
EXPANSION JOINT DETAIL
HURRICANE CLIP DETAIL
AGENCY OF TRANSPORTATION
NEW 60 x 84' SALT / SAND SHED
PLAN, DETAILS & ELEVATIONS
A-1
1 OF 2


VERMONT
AGENCY OF TRANSPORTATION
A-2

Pictures - Condition of Shed

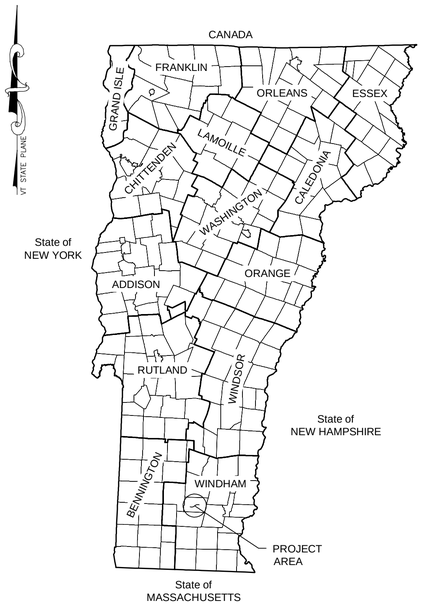
Pictures - On-Site Sediment Discharge

Pictures - Sediment Leaving Site (Proposed to be addressed on-site through site grading to reduce run off and with separate project addressing ditch and culvert)

Pictures - Culvert #1 Runoff Direct to Stream

Sediment addressed onsite through proposed sediment retention pond

TOWN OF WARDSBORO, VERMONT
WINDHAM COUNTY
WARDSBORO SALT SHED REPLACEMENT
STP MM19(15)



LOCATION MAP
NOT TO SCALE

PROJECT LOCATION PLAN
SCALE: 1 INCH = 200 FEET

PROJECT LOCATION: PROJECT SITE IS LOCATED APPROXIMATELY 100' EAST OF SOUTH WARDSBORO ROAD CENTERLINE AND APPROXIMATELY 150' NORTH OF DUMP ROAD CENTERLINE (CENTER OF EXISTING SAND SHED).

PROJECT DESCRIPTION: CONSTRUCTION OF A NEW 55'X45' SALT SHED, AND ALL RELATED SITE WORK.

LIST OF DRAWINGS

VTRANS STANDARDS	DATE
B5: SLOPE GRADING, EMBANKMENT, MUCK	06/01/1994
E-14: INLET PROTECTION DEVICE, TYPE III	04/07/2020
T-1: TEMPORARY TRAFFIC CONTROL GENERAL NOTES	04/25/2016
T-81: VERMONT WARNING SIGN DETAILS	02/12/2016
VTRANS EROSION & SEDIMENT CONTROL STANDARDS	DATE
TURF ESTABLISHMENT DETAILS	01/12/2015 & 01/22/2015

QUALITY ASSURANCE PROGRAM: LEVEL 3

SURVEYED BY: DUBOIS & KING, INC.
JANUARY 16, 2020

DATUM

VERTICAL : NAVD 88

HORIZONTAL : NAD 83

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE VTRANS STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2018, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON OCTOBER 22, 2018, FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS ARE INCORPORATED IN THESE PLANS.

DuBois & King inc.
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LACONIA, NH

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PROFESSIONAL SEAL

FINAL DESIGN PLANS NOT FOR CONSTRUCTION

NO.	DESCRIPTION	DATE	BY	CK'D

TOWN OF WARDSBORO
PO BOX 48
WARDSBORO, VT 05355

WARDSBORO SALT SHED REPLACEMENT
STP MM19(15)

SHEET TITLE
TITLE SHEET

DRAWN BY	DATE
DSC	SEPT 2021
CHECKED BY	D&K PROJECT #
CJR	125955
PROJ. ENG.	D&K ARCHIVE #
MPH	

SHEET NUMBER
C1

SHEET 1 OF 12

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GENERAL NOTES

GENERAL CONDITIONS

1. THE PROJECT AND PROPERTY OWNER IS THE TOWN OF WARDSBORO. AN OWNER'S REPRESENTATIVE WILL BE APPOINTED PRIOR TO CONSTRUCTION TO REPRESENT THE OWNER AND PROVIDE DIRECTION DURING THE PROJECT.

2. SITE WORK SHALL BE CONSTRUCTED FROM A COMPLETE SET OF PLANS. THE ENGINEER IS TO BE NOTIFIED OF ANY CONFLICT WITHIN THIS PLAN SET. A SET OF CONSTRUCTION PLANS AND TECHNICAL SPECIFICATIONS SHALL BE ON SITE AND IN GOOD CONDITION AT ALL TIMES DURING CONSTRUCTION ACTIVITIES.

3. ALL PRIVATE PROPERTY OWNER COMMUNICATION SHALL BE CONDUCTED THROUGH THE OWNER'S REPRESENTATIVE. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL REVIEW CONDITIONS OF ENTRY AND ABIDE BY THEM.

4. CONTRACTOR SHALL INSTALL LIMIT OF DISTURBANCE FENCE PRIOR TO START OF CONSTRUCTION, AND THERE SHALL BE NO DISTURBANCE BEYOND THE LIMITS OF FENCE.

5. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY DUBOIS & KING INC. DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF THE SURVEYOR OR ENGINEER HERE ON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS, WHICH MAY BE REQUIRED BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR OTHER AGENCIES WITH AUTHORITY OVER THE PROJECT.

6. CONTRACTOR SHALL LAY OUT THE CONSTRUCTION BASELINES, STAKE OUT LIMITS OF PROPOSED WORK AND REVIEW WITH THE ENGINEER PRIOR TO CONSTRUCTION. ALL APPLICABLE EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO CONSTRUCTION.

7. CONTRACTOR SHALL INSTALL AND MAINTAIN TRAFFIC CONTROL DEVICES AS NECESSARY AND IN A MANNER CONSISTENT WITH THE MOST CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ITS LATEST REVISIONS.

8. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SHORING, WATER DIVERSION, AND DEWATERING REQUIREMENTS NEEDED FOR THE PROJECT IN ACCORDANCE WITH REGULATIONS AND PERMIT REQUIREMENTS.

9. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. IN CASE OF CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWING AND/OR TECHNICAL SPECIFICATIONS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION PRIOR TO PROCEEDING WITH CONSTRUCTION ACTIVITIES.

10. LOCATE STAGING AREAS AWAY FROM SENSITIVE AREAS INCLUDING WETLANDS AND STREAM BUFFERS IN COMPLIANCE WITH REGULATIONS AND PERMIT REQUIREMENTS

11. TO LIMIT INADVERTENT DAMAGE TO AND UNAUTHORIZED REMOVAL OF TREES ADJACENT TO THE WORK AREA, CONTRACTOR SHALL COORDINATE WITH OWNER AND OBTAIN APPROVAL PRIOR TO CUTTING OR TRIMMING TREES WITHIN AND ADJACENT TO THE WORK AREA.

12. IN CASE OF DISCREPANCY, REFER TO CONTRACT DOCUMENT PRECEDENCE IN THE VTRANS 2018 STANDARD SPECIFICATIONS FOR CONSTRUCTION, OR REFER TO APPLICABLE CODE, STANDARD, OR REGULATION, IF APPROPRIATE.

13. VERIFY ALL INDICATED CONDITIONS AND DIMENSIONS IN THE FIELD BEFORE COMMENCING ANY FABRICATION, ORDERING OF MATERIAL, OR PERFORMING ANY WORK. NOTIFY THE ENGINEER OF ANY CONDITIONS OR DIMENSIONS THAT WOULD PREVENT OR HAMPER THE PERFORMANCE OF THE WORK IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS.

14. THE PHRASES "REMOVE AND REPLACE" OR "REMOVE AND INSTALL" SHALL MEAN REMOVE EXISTING CONSTRUCTION AND REPLACE WITH NEW CONSTRUCTION MATERIALS AS NOTED ON THE DRAWINGS AND/OR SPECIFIED.

EXISTING INFORMATION

1. EXISTING TOPOGRAPHY AND SITE FEATURES WITHIN THE SURVEY BOUNDARY ARE BASED ON A GROUND SURVEY PERFORMED BY DUBOIS & KING, INC. (D&K) ON JANUARY 16, 2020.

2. EXISTING TOPOPGRAPHY OUTSIDE OF THE SURVEY BOUNDARY IS BASED ON LIDAR DATA OBTAINED FROM VERMONT CENTER FOR GEOGRAPHIC INFORMATION (VCGI) ON DECEMBER 30, 2019 (SOURCE DATE OCTOBER 31, 2014). ELEVATION DATUM IS NAVD88.

3. THE LOCATION AND EXTENT OF UTILITIES SHOWN ON THE SITE DRAWINGS ARE BASED ON AVAILABLE INFORMATION. DUBOIS & KING, INC INCLUDES INFORMATION WITHOUT WARRANTING ITS ACCURACY IN ANY WAY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE, AND ELEVATION OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHOULD NOTE THE OVERHEAD POWER LINES ALONG SOUTH WARDSBORO ROAD SHALL NOT BE DISTURBED DURING THE COURSE OF THE PROJECT. THE OWNER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION SHALL BE DETERMINED AND AGREED UPON BY OWNER OR OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH WORK.

4. THE CONTRACTOR SHALL FAMILIARIZE THEMSELF WITH THE EXISTING CONDITIONS OF THE SITE AND SURROUNDINGS PRIOR TO THE START OF ANY CONSTRUCTION.

5. PARCEL BOUNDARY INFORMATION DOWNLOADED FROM VCGI ON DECEMBER 30, 2019. SOURCE DATE JANUARY 23, 2018.

6. STREAM CENTERLINES BASED ON INFORMATION DOWNLOADED FROM VCGI ON DECEMBER 30, 2019. SOURCE DATE JUNE 8, 2010.

7. WETLAND BOUNDARY BASED ON INFORMATION DOWNLOADED FROM VCGI ON DECEMBER 30, 2019. SOURCE DATE JULY 8, 2015. 50-FOOT WETLAND BUFFER BOUNDARIES WERE APPROXIMATED BASED ON THE LOCATION OF THE VCGI WETLAND BOUNDARIES.

8. 50-FT WETLAND BUFFER BOUNDARIES AND 50-FT RIVER CORRIDOR BOUNDARIES WERE APPROXIMATED BASED ON THE INFORMATION DOWNLOADED FROM VCGI.

CODES & PERMITS

1. THE FOLLOWING PERMITS ARE BEING SECURED FOR THIS PROJECT:

   a. TOWN OF WARDSBORO ZONING PERMIT
   b. STATE OF VERMONT FIRE SAFETY PERMIT

2. THE CONTRACTOR IS RESPONSIBLE FOR BEING FAMILIAR WITH THE REQUIREMENTS OF THE PERMITS FOR COMPLIANCE DURING CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE PERMITS ON SITE DURING ALL CONSTRUCTION ACTIVITIES.

3. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK IN STRICT ACCORDANCE WITH ALL MUNICIPAL, STATE, & FEDERAL ORDINANCES, CODES, RULES, AND LAWS HAVING JURISDICTION. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK WHICH MANY NOT COMPLY COMPLETELY WITH ALL MUNICIPAL, STATE, & FEDERAL ORDINANCES, CODES, RULES, AND LAWS HAVING JURISDICTION. THESE MAY INCLUDE, BUT ARE NOT LIMITED TO:

   a. STATE OF VT ENVIRONMENTAL PROTECTION RULES, CHAPTER 22
   b. VERMONT FIRE AND BUILDING CODE, 2015 EDITION
   c. THE AMERICAN DISABILITY ACT WITH REGARDS TO DIMENSIONS AND GRADES
   d. VERMONT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
   e. TOWN PERMITS AS REQUIRED.

UTILITY & EXCAVATION

1. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND DETERMINING ALL UTILITIES (ABOVE AND BELOW GROUND) WITHIN THE PROJECT LIMITS, AND TO TAKE THE NECESSARY PRECAUTIONS TO PROTECT UTILITIES DURING CONSTRUCTION. CONTACT DIG-SAFE AT 1-800-DIG-SAFE (WWW.DIGSAFE.COM) A MINIMUM OF 72 HOURS BEFORE GROUND DISTURBANCE. ALL DISTURBANCE OR DAMAGE TO UTILITIES BY CONTRACTOR ACTIVITIES WILL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL REPAIRS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER OR MUNICIPALITY (TOWN OF WARDSBORO PHONE NUMBER: 802-896-6055).

2. CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL UTILITY RELOCATION AND INSTALLATION WITH THE APPROPRIATE UTILITY. THE APPROPRIATE UTILITY OR ITS AUTHORIZED REPRESENTATIVE WILL PERFORM ADJUSTMENTS OF ALL UTILITY STRUCTURES.

3. ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE UNLESS OTHERWISE NOTED ON THE PLANS. UTILITIES SHALL BE MAINTAINED IN ACTIVE OPERATION AT ALL TIMES. PROVIDE BYPASS PIPING AND PUMPING WHERE REQUIRED. ALL NEW UTILITY SYSTEMS SHALL BE OPERATIONAL BEFORE ANY EXISTING SYSTEMS ARE ABANDONED OR REMOVED. IF EXISTING UTILITIES ARE TAKEN OUT OF SERVICE FOR CONNECTIONS, THE TIMING SHALL BE APPROVED BY THE ENGINEER.

4. VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES WITHIN THE WORK PRIOR TO CONSTRUCTION.

   a. EXERCISE EXTREME CAUTION WHEN WORKING ADJACENT TO EXISTING POWER, COMMUNICATIONS, WATER OR GAS LINES TO PREVENT DAMAGE TO THESE LINES.
   b. IMMEDIATELY REPAIR ANY DAMAGE TO EXISTING UTILITIES IN A MANNER APPROVED BY THE ENGINEER, AT NO COST TO THE OWNER.
   c. ENSURE THAT ALL PIPES, CATCH BASINS, MANHOLES, SWALES, ETC. WITHIN AND NEAR THE AREA OF WORK ARE KEPT FREE FROM MATERIAL THAT WOULD HAMPER THE PERFORMANCE OF THE DRAINAGE SYSTEMS. FURNISH AND INSTALL SOIL EROSION AND SEDIMENTATION CONTROL DEVICES AS SHOWN ON THE CONTRACT DRAWINGS. UPON COMPLETION OF CONSTRUCTION, REMOVE ACCUMULATED SEDIMENT AND REMOVE CONTROL DEVICES.

MEETINGS, SUBMITTALS AND REQUIRED INSPECTIONS

1. THE CONTRACTOR SHALL PARTICIPATE IN A PRE-CONSTRUCTION CONFERENCE. PRIOR TO CONSTRUCTION ACTIVITY INCLUSIVE OF MOBILIZATION.

2. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER MATERIAL SLIPS FOR ALL MATERIALS AND ITEMS USED ON THE PROJECT PURSUANT TO THE TECHNICAL SPECIFICATIONS.

3. CONTRACTOR SHALL REFER TO SECTION 105.12 OF THE VTRANS 2018 STANDARD SPECIFICATIONS FOR CONSTRUCTION FOR THE INSPECTION OF WORK REQUIREMENTS.

RESTORATION OF SURFACES

1. AT THE COMPLETION OF WORK, THE CONTRACTOR MUST RESTORE ACCESS ROADS, TOWN HIGHWAYS AND STAGING AREAS TO PRE-CONSTRUCTION CONDITION. RESTORATION MAY INCLUDE BUT NOT LIMITED TO PLACEMENT OF PAVEMENT OR GRAVEL ON EXISTING DRIVES AND / OR APPLICATION OF TOPSOIL, GRASS SEED, FERTILIZER, AND MULCH TO AFFECTED GRASSED AREAS.

SITE MAINTENANCE

1. CONTRACTOR SHALL APPLY WATER TO SITE AREAS TO SUPPRESS POTENTIAL FUGITIVE DUST EMISSIONS, IF NEEDED.

2. PREVENT WATER PONDING RESULTING FROM CONSTRUCTION OPERATIONS. PROMPTLY REMOVE ANY PONDED WATER TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.

3. ALL AREAS OUTSIDE THE LIMITS OF CONSTRUCTION WHICH ARE DAMAGED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.

4. UPON COMPLETION OF THE WORK, REMOVE ALL DEBRIS, EQUIPMENT AND UNUSED MATERIALS FROM THE PROPERTY AND RESTORE THE "CONTRACTORS MATERIAL AND EQUIPMENT STAGING AREA" TO ITS ORIGINAL CONDITION, AS APPROVED BY THE OWNER'S REPRESENTATIVE.

CIVIL NOTES

GRADING

1. SUITABLE EXCAVATED ON-SITE MATERIAL SHALL BE UTILIZED IN LOCATIONS THAT REQUIRE FILL OR BACKFILL.

2. ANY EXCESS MATERIAL TO BE DISPOSED OF OFF SITE SHALL BE REMOVED AT NO ADDITIONAL COST UNLESS OTHERWISE APPROVED IN ADVANCE BY THE ENGINEER. MATERIAL SHALL BE DISPOSED OF IN AN APPROVED LOCATION AWAY FROM WETLANDS, FLOODPLAIN, OR OTHER SENSITIVE AREAS.

3. COMPACTION TESTING IS REQUIRED ON FILL AND BACKFILL AREAS. REFER TO APPLICABLE DETAILS.

4. PLACE 4 INCHES MINIMUM OF TOPSOIL AND SEED ON DISTURBED AREAS.

DRAINAGE

1. WHERE A STORMWATER COLLECTION, CONVEYANCE AND TREATMENT INFRASTRUCTURE IS TO BE CONSTRUCTED, VERIFY THE LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.

SOIL EROSION & SEDIMENTATION CONTROL

1. THIS PROJECT MAY QUALIFY AS A LOW RISK CONSTRUCTION PROJECT AND SHALL FOLLOW THE LOW RISK SITE HANDBOOK (2020) AT A MINIMUM.

2. CONTRACTOR SHALL CONSTRUCT PERIMETER CONTROL MEASURES PRIOR TO THE COMMENCEMENT OF EARTHWORK OPERATIONS. SEE EROSION AND SEDIMENTATION CONTROL PLAN AND EROSION SEDIMENTATION CONTROL NOTES & DETAIL SHEET.

3. THE CONTRACTOR SHALL MAINTAIN EROSION AND SEDIMENTATION CONTROL DEVICES THROUGHOUT THE PROJECT SITE FOR THE DURATION OF ALL CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL (DAILY OR AS REQUIRED BASIS) INSPECT AND RECORD FINDINGS OF ALL EROSION AND SEDIMENTATION CONTROL DEVICES TO ENSURE THAT ALL ITEMS ARE IN STABLE CONDITION. IN THE EVENT THAT SAID ITEMS ARE DETERMINED TO BE IN UNSATISFACTORY CONDITION, THE CONTRACTOR SHALL RECORD THE UNSATISFACTORY ISSUE, THE DATE OF THE UNSATISFACTORY FINDING, THE APPROPRIATE CORRECTIVE MEASURE AND THE DATE THE CORRECTIVE MEASURE WAS COMPLETED.

4. ALL DISTURBED AREAS MUST HAVE TEMPORARY OR FINAL STABILIZATION WITHIN 14 DAYS OF INITIAL DISTURBANCE TO MITIGATE EROSION OR SEDIMENTATION FROM EXITING THE LIMIT OF WORK AND SHALL BE RESTORED IN-KIND UPON COMPLETION OF THE PROJECT.

5. ALL SLOPES GREATER THAN 1V:3H SHALL BE PROTECTED FROM EROSION WITH ROLLED EROSION CONTROL PRODUCT. OTHER APPROPRIATE SLOPE STABILIZATION CONTROL MEASURES SHALL BE USED AS NEEDED WITHIN 48 HOURS OF COMPLETION PRIOR TO TOPSOIL, SEEDING AND MULCHING. CONTRACTOR SHALL MAINTAIN EROSION CONTROL PROTECTION UNTIL VEGETATION GROWTH HAS BEEN ESTABLISHED. ALL SLOPE STABILIZATION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION AND VERMONT BEST MANAGEMENT PRACTICES.

6. ALL SWALES AND DITCHES WITH SLOPES EXCEEDING 5% SLOPE SHALL BE PROTECTED FROM EROSION WITH MATTING. ALL MATTING SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION. ALL SWALES AND DITCHES SHALL BE PROPERLY STABILIZED PRIOR TO DIRECTING FLOW TO THEM.

7. THE CONTRACTOR SHALL NOT PLACE PERMANENT PLANTING AND SEEDING PRIOR TO MAY 1st AND AFTER SEPTEMBER 1st. TEMPORARY SEEDING SUCH AS WINTER RYE MAY BE USED OUTSIDE OF THIS PERIOD UNTIL PERMANENT SEEDING CAN BE PLACED.

8. ALL WORK MUST BE DONE IN A MANNER WHICH MINIMIZES THE POTENTIAL FOR THE DISCHARGE OF SEDIMENT-LADEN WATER. CONTRACTOR IS RESPONSIBLE FOR DIVERTING, PUMPING, OR OTHERWISE CONTROLLING WATER AS NECESSARY.

9. ANY EPSC MEASURES UTILIZED BY THE CONTRACTOR, BUT NOT SHOWN IN THIS PLAN SET, SHALL BE PERFORMED IN ACCORDANCE WITH THE VERMONT DEC LOW RISK SITE HANDBOOK FOR EROSION PREVENTION & SEDIMENT CONTROL.

WINTER CONSTRUCTION:

SITE CONSTRUCTION MAY CONTINUE THROUGH THE WINTER MONTHS ON THIS PROJECT. IT IS IMPERATIVE THAT ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES BE IN PLACE AND FUNCTIONING TO ENSURE THEIR EFFECTIVENESS THROUGH THE WINTER AND SPRING SEASON. WINTER IN VERMONT CAN DIMINISH THE EFFECTIVENESS OF CONTROLS AND PREDISPOSE A SITE TO SEVERE EROSION AND SEDIMENTATION. DISTURBED AND BARE SOIL THAT IS WELL-FROZEN IS QUITE RESISTANT TO EROSION. HOWEVER, SEVERE EROSION OCCURS DURING THE MIDWINTER AND SPRING THAWS WHEN MELTING SNOW, THAWING SOILS AND HEAVY RAINS PRODUCE INTENSE RUNOFF OVER SATURATED UNSTABLE SOILS. FOR THESE REASONS, SOIL DISTURBANCES SHALL BE STABILIZED BY PRIOR TO THE START OF THE WINTER CONSTRUCTION SEASON (OCTOBER, 15TH). ALL EARTHWORK CONTINUING DURING THE WINTER CONSTRUCTION SEASON SHALL BE STABILIZED IN ACCORDANCE WITH THE STATE OF VERMONT EROSION PREVENTION AND SEDIMENT CONTROL REQUIREMENTS FOR WINTER CONSTRUCTION.

INSPECTION AND MAINTENANCE:

INSPECT EROSION PREVENTION AND SEDIMENT CONTROL MEASURES MORE FREQUENTLY IN THE WINTER AND SPRING THAN IN THE SUMMER. PAY CAREFUL ATTENTION TO WEATHER PREDICTIONS. WATCH FOR PREDICTED THAWS OR HEAVY RAINS. BEFORE SUCH EVENTS, CHECK ALL CONTROL MEASURES TO BE SURE THAT STRUCTURES WILL MANAGE THE POTENTIALLY HEAVY AND INTENSE RUNOFF AND SEDIMENT. PRACTICALLY CONSTANT MAINTENANCE OF CRITICAL CONTROL MEASURES MAY BE NECESSARY DURING THE WINTER AND EARLY SPRING TO PREVENT FAILURE OR OVERLOADING OF CONTROL MEASURES. BE PREPARED TO QUICKLY INSTALL A SECOND LINE OF DEFENSE IF PROBLEMS OCCUR. BE PREPARED TO DEVOTE A SUBSTANTIAL AMOUNT OF TIME, EQUIPMENT AND MANPOWER TO EROSION PREVENTION AND SEDIMENT CONTROL.

FOLLOW-UP:

AS EARLY AS IS PRACTICAL, AT THE BEGINNING OF THE NEXT GROWING SEASON, INSTALL PERMANENT VEGETATIVE CONTROLS AS SPECIFIED IN THIS EPSC PLAN.

DEWATERING PROCEDURE:

DEWATERING WILL BE ACCOMPLISHED BY PLACEMENT OF CRUSHED STONE FILLED SUMPS IN LOW AREAS OF THE FOUNDATION EXCAVATION. WATER WILL BE PUMPED FROM THESE SUMPS THROUGH A SEDIMENTATION DEVICE AND DISCHARGE INTO THE STORMWATER PRACTICE. THE DETAILS OF DEWATERING, INCLUDING THE NUMBER AND LOCATION OF SUMPS; THE TYPE, NUMBER AND LOCATION OF THE SEDIMENTATION DEVICE(S) AND THE ASSOCIATED DISCHARGE POINTS AND OPERATING PROCEDURES WILL DEPEND ON THE CONDITIONS ENCOUNTERED DURING CONSTRUCTION, AS WELL AS THE SEASONAL WEATHER CONDITIONS. A PLAN WHICH DETAILS THE DEWATERING SYSTEM AND PROCEDURES WILL BE PROVIDED FOR REVIEW AND APPROVAL BY THE ON-SITE COORDINATOR PRIOR TO ITS IMPLEMENTATION.

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PROFESSIONAL SEAL

FINAL DESIGN PLANS NOT FOR CONSTRUCTION

NO.	DATE	DESCRIPTION	BY	CK'D

TOWN OF WARDSBORO
PO BOX 48
WARDSBORO, VT 05355

WARDSBORO SALT SHED REPLACEMENT
STP MM19(15)

SHEET TITLE

GENERAL CONSTRUCTION NOTES

DRAWN BY	DATE
DSC	SEPT 2021
CHECKED BY	D&K PROJECT #
CJR	125955
PROJ. ENG.	D&K ARCHIVE #
MPH	

SHEET NUMBER

C2

SHEET 2 OF 12

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QUANTITY SHEET

SUMMARY OF ESTIMATED QUANTITIES

	SALT SHED	QUANTITY	UNIT	DESCRIPTION	ITEM NO.	ROUNDING
		1,350	CY	COMMON EXCAVATION	203.15	
		655	CY	STRUCTURE EXCAVATION	204.25	
		120	TON	SUBBASE OF CRUSHED GRAVEL, FINE GRADED (VTRANS 704.05B)	301.28	
		3	CWT	EMULSIFIED ASPHALT	404.65	
		62	TON	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT	406.35	
		5	MGAL	DUST CONTROL WITH WATER	609.10	
		10	CY	STONE FILL, TYPE I	613.10	
		145	TON	CRUSHED STONE BEDDING	629.54	
		1	LS	TESTING EQUIPMENT, CONCRETE	631.16	
		1	LS	MOBILIZATION/DEMOBILIZATION	635.11	
		420	SY	GEOTEXTILE UNDER STONE FILL	649.31	
		1	LS	TRAFFIC CONTROL, ALL INCLUSIVE	641.11	
		15	LB	SEED	651.15	
		120	CY	TOPSOIL	651.35	
		1,100	SY	ROLLED EROSION CONTROL PRODUCT, TYPE I	653.20	
		40	CY	STABILIZED CONSTRUCTION ENTRANCE	653.35	
		2	CY	INLET PROTECTION DEVICE, TYPE III	653.42	
		450	LF	SILT FENCE, TYPE I	653.475	
		400	LF	PROJECT DEMARCATION FENCE	653.55	
		100	LF	ELECTRICAL CONDUIT	678.21	
		35	LF	ELECTRICAL CONDUIT SLEEVE	678.30	
		218	CY	SPECIAL PROVISION (STRUCTURAL FILL)	900.608	
		281	CY	SPECIAL PROVISION (CONCRETE, ACI STANDARD)	900.608	
		35	EA	SPECIAL PROVISION (PREFABRICATED WOODEN ROOF TRUSSES)	900.62	
		4	MFBM	SPECIAL PROVISION (WOOD FRAMING)	900.653	
		300	SY	SPECIAL PROVISION (METAL ROOFING)	900.68	

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

PROJECT NAME: WARDSBORO SALT SHED REPLACEMENT STP MM19(15)

PROJECT NUMBER: 125955

FILE NAME:	QUANTITY SHEET	PLOT DATE:	02/19/2021
PROJECT LEADER:	CJR	DRAWN BY:	DSC
DESIGNED BY:	DSC	CHECKED BY:	CJR

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QUANTITY SHEET

DRAWN BY	DATE
CJR	SEPT 2021
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MPH	

SHEET NUMBER

C3

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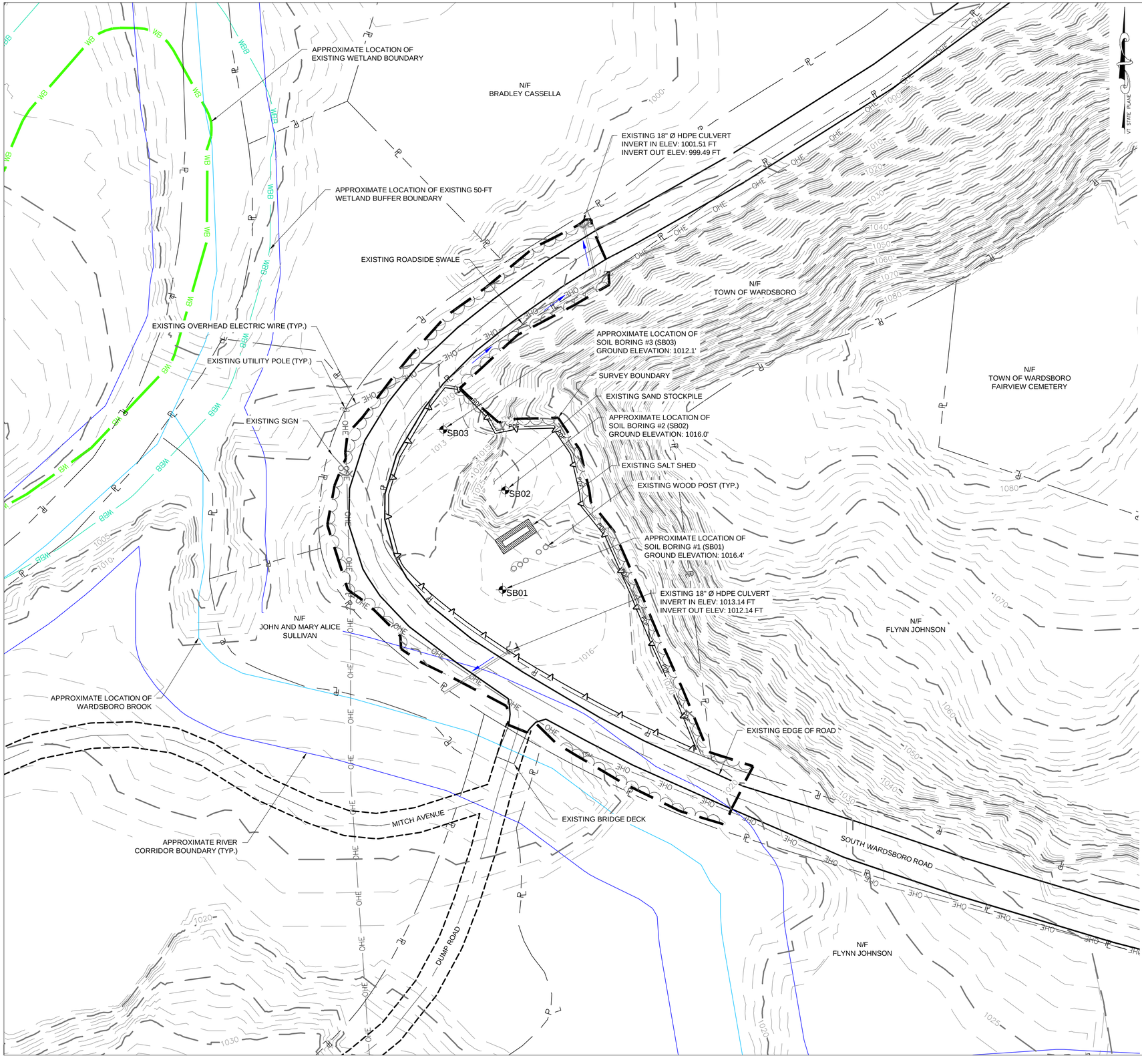

NOTES:

1. SEE SHEET 2 FOR NOTES AND ADDITIONAL INFORMATION.

LEGEND:

- EXISTING 5-FT LIDAR CONTOURS
- EXISTING 1-FT LIDAR CONTOURS
- EXISTING 5-FT SURVEY CONTOURS
- EXISTING 1-FT SURVEY CONTOURS
- APPROXIMATE PARCEL BOUNDARY LOCATION
- APPROXIMATE WETLAND BOUNDARY
- APPROXIMATE 50-FOOT WETLAND BUFFER BOUNDARY
- APPROXIMATE STREAM CENTERLINE
- APPROXIMATE STREAM CORRIDOR
- APPROXIMATE EDGE OF SITE ACCESS DRIVE
- EXISTING ROAD CENTERLINE
- EXISTING EDGE OF PAVED ROAD
- EXISTING EDGE OF GRAVEL ROAD
- EXISTING OVERHEAD ELECTRIC WIRE
- EXISTING TREELINE
- EDGE OF SURVEY BOUNDARY
- PROJECT DEMARCATION FENCE
- LIMIT OF DISTURBANCE
- EXISTING SALT SHED
- EXISTING BRIDGE DECK
- EXISTING UTILITY POLE
- EXISTING SIGN
- APPROXIMATE LOCATION OF EXISTING SOIL BORING
- EXISTING WOOD POST
- EXISTING CULVERT
- FLOW DIRECTION

40 0 20 40 80
SCALE IN FEET

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PROFESSIONAL SEAL

FINAL DESIGN PLANS NOT FOR CONSTRUCTION

NO.	DESCRIPTION	DATE	BY	CK'D

TOWN OF WARDSBORO
PO BOX 48
WARDSBORO, VT 05355

WARDSBORO SALT SHED REPLACEMENT
STP MM19(15)

SHEET TITLE

EXISTING CONDITIONS PLAN

DRAWN BY	DATE
DSC	SEPT 2021
CHECKED BY	D&K PROJECT #
CJR	125955
PROJ. ENG.	D&K ARCHIVE #
MPH	

SHEET NUMBER

C4

SHEET 4 OF 12

I:\11\125955 Wardsboro Sand Shed\Drawings\CAD\100% Design Plans\20210913 - Existing Conditions Plan.dwg 9/13/2021 10:16 AM

BORING LOG

PROJECT: Wardsboro Sand & Salt Shed
LOCATION: Dump Road - Wardsboro, Vermont
CONTRACTOR: Mike's Boring & Coring

	CASING	SAMPLE	CORE	GROUNDWATER		DEPTH TO		
TYPE	Hollow-Stem Auger			DATE	TIME	WATER	BOT. OF CASING	BOT. OF HOLE
SIZE ID	3.25"			02/17/20	9:50 AM	6.8'		16.8'
HAMMER WT.	140 lb.							
HAMMER FALL	30.0"							

JOB NO. 125955
HOLE NO. SB01
GRND ELEV. 1016.4'
START DATE 02/17/2020 @ 9:34 AM
FINISH DATE 02/17/2020 @ 10:50 AM
DRILLER Mike McGinley
HELPER Shaun Bijolle
INSPECTOR Christopher Rivet & David Clemmer

DEPTH IN FEET	CASING BLOWS PER FOOT	SAMPLE No.	Depth	Recovery	SAMPLE BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	SOIL DESCRIPTION
1		1	24"	22"	45	43			0-4": Snow, frost layer.
2							32	53	4"-2': Medium dense, gray, fine to coarse sand, some gravel, trace silt, moist. Note: High blow counts likely due to frost.
3		2	24"	22"	39	31			2-4': Medium dense, gray, fine to medium sand, little gravel, trace silt, apparent orange staining at 3'-6", moist. Note: High blow counts likely due to frost.
4							35	26	
5		3	24"	20"	14	18			4-6': Dense, gray, fine sand, little gravel, trace silt, moist.
							18	15	
		4	24"	23"	14	25			6-8': Dense, gray, fine sand, trace gravel, trace silt, wet.
							27	32	
		5	24"	22"	12	20			8-10': Very dense, gray, fine sand, trace silt, wet.
10							21	27	
		6	24"	20"	14	19			10-12': Dense, gray, fine sand, trace silt, wet.
							23	28	
15									
		7	24"	24"	7	34			15-16.8': Very dense, gray, fine to medium sand, trace silt, wet.
							68	100 for 5"	Note: Split Spoon refusal at 16.8' below ground surface (BGS).
20									
25									
30									
35									

NOTES: Operating Equipment: Ford 550 with mobile B-53 Drill Rig.
Active Standard: ASTM D1452/D1452M - 16, "*Standard Practice for Soil Exploration and Sampling by Auger Borings.*"

BORING LOG

PROJECT: Wardsboro Sand & Salt Shed
LOCATION: Dump Road - Wardsboro, Vermont
CONTRACTOR: Mike's Boring & Coring

	CASING	SAMPLE	CORE	GROUNDWATER		DEPTH TO		
TYPE	Hollow-Stem Auger			DATE	TIME	WATER	BOT. OF CASING	BOT. OF HOLE
SIZE ID	3.25"			02/17/20	11:38 AM	6.2'		25.6'
HAMMER WT.	140 lb.							
HAMMER FALL	30.0"							

JOB NO. 125955
HOLE NO. SB02
GRND ELEV. 1026.4'
START DATE 02/17/2020 @ 11:10 AM
FINISH DATE 02/17/2020 @ 12:45 PM
DRILLER Mike McGinley
HELPER Shaun Bijolle
INSPECTOR Christopher Rivet & David Clemmer

DEPTH IN FEET	CASING BLOWS PER FOOT	SAMPLE No.	Depth	Recovery	SAMPLE BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	SOIL DESCRIPTION
1		1	24"	17"	2	5			0-2': Medium dense, brown, fine to coarse sand, trace silt, moist.
2							8	12	
3		2	24"	16"	20	21			2-4': Dense, brown & gray, fine to medium sand, some gravel, trace silt, trace cobbles, moist.
4							17	10	
5		3	24"	14"	7	8			4-6': Medium dense, brown, fine to medium sand, trace gravels, trace silt, moist.
							8	8	
		4	24"	10"	6	6			6-8': Medium dense, brown, medium to coarse sand, some gravels, trace silt, wet.
							8	9	
		5	24"	18"	20	20			8-10': Very dense, gray, fine to coarse sand, some gravels, little silt, wet.
10							67	73	
		6	24"	21"	8	17			10-12': Very dense, gray, medium to coarse sand, some gravels, trace cobbles, trace silt, wet.
							36	45	
15									
		7	24"	23"	8	12			15-17': Dense, brown & gray, fine to coarse sand, trace gravels. trace silt, wet.
							32	44	
20									
25		8	24"	24"	14	46			20-22': Very dense, gray, fine to coarse sand, trace gravels, trace silt, wet.
							54	58	
30		9	7"	7"	36	100 for 1"			25-25.6': Very dense, brown & gray, fine sand, trace silt, wet. Note: Hollow Stem Auger refusal at 25.6' BGS.
35									

NOTES: Operating Equipment: Ford 550 with mobile B-53 Drill Rig.
Active Standard: ASTM D1452/D1452M - 16, "*Standard Practice for Soil Exploration and Sampling by Auger Borings.*"

BORING LOG

PROJECT: Wardsboro Sand & Salt Shed
LOCATION: Dump Road - Wardsboro, Vermont
CONTRACTOR: Mike's Boring & Coring

	CASING	SAMPLE	CORE	GROUNDWATER		DEPTH TO		
TYPE	Hollow-Stem Auger			DATE	TIME	WATER	BOT. OF CASING	BOT. OF HOLE
SIZE ID	3.25"			02/17/20	1:52 PM	4.2'		29.4'
HAMMER WT.	140 lb.							
HAMMER FALL	30.0"							

JOB NO. 125955
HOLE NO. SB03
GRND ELEV. 1012.1'
START DATE 02/17/2020 @ 1:30 PM
FINISH DATE 02/17/2020 @ 3:10 PM
DRILLER Mike McGinley
HELPER Shaun Bijolle
INSPECTOR David Clemmer

DEPTH IN FEET	CASING BLOWS PER FOOT	SAMPLE No.	Depth	Recovery	SAMPLE BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	18-24	SOIL DESCRIPTION
1		1	24"	21"	25	67			0-10": Ice, frozen layer.
2							27	29	10"-2': Medium dense, brown & gray, medium to coarse sand, trace gravels, trace silt, moist. Note: High blow counts likely due to frost.
3		2	24"	15"	27	32			2-4': Medium dense, brown & gray, medium sand, some gravels, trace silt, moist.
4							34	30	
5		3	24"	16"	53	29			4-6': Dense, gray, medium to coarse sand, some gravels, trace silt, wet.
							29	31	
		4	24"	23"	17	30			6-8': Very dense, brown & gray, fine to coarse sand, trace gravels, trace silt, wet.
							33	43	
		5	24"	21"	12	24			8-10': Very dense, gray, fine to coarse sand, little gravels, trace silt, wet.
10							34	32	
		6	24"	20"	37	55			10-12': Very dense, gray, fine to coarse sand, little gravels, trace silt, wet.
							55	34	
15									
		7	24"	24"	7	21			15-17': Dense, gray, medium to coarse sand, little gravels. trace silt, wet.
							28	34	
20									
25		8	24"	24"	17	30			20-22': Very dense, gray, fine to medium sand and silt, trace gravels, wet.
							34	43	
30		9	24"	24"	1	14			25-27': Dense, gray, fine to medium sand, little silt, wet.
							19	27	
		10	5"	5"	100 for 5"				29-29.4': Very dense, gray, fine to medium sand, little silt, wet.
35									Note: Hollow Stem Auger refusal at 29.4' BGS.

NOTES: Operating Equipment: Ford 550 with mobile B-53 Drill Rig.
Active Standard: ASTM D1452/D1452M - 16, "*Standard Practice for Soil Exploration and Sampling by Auger Borings.*"

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FINAL DESIGN PLANS NOT FOR CONSTRUCTION

CK'D | BY | DESCRIPTION | DATE | NO.

TOWN OF WARDSBORO
PO BOX 48
WARDSBORO, VT 05355

WARDSBORO SALT SHED REPLACEMENT
STP MM19(15)

SHEET TITLE

BORING LOGS

DRAWN BY	DATE
CJR	SEPT 2021
CHECKED BY	D&K PROJECT #
CJR	125955
PROJ. ENG.	D&K ARCHIVE #
MPH	

SHEET NUMBER

C5

SHEET 5 OF 12

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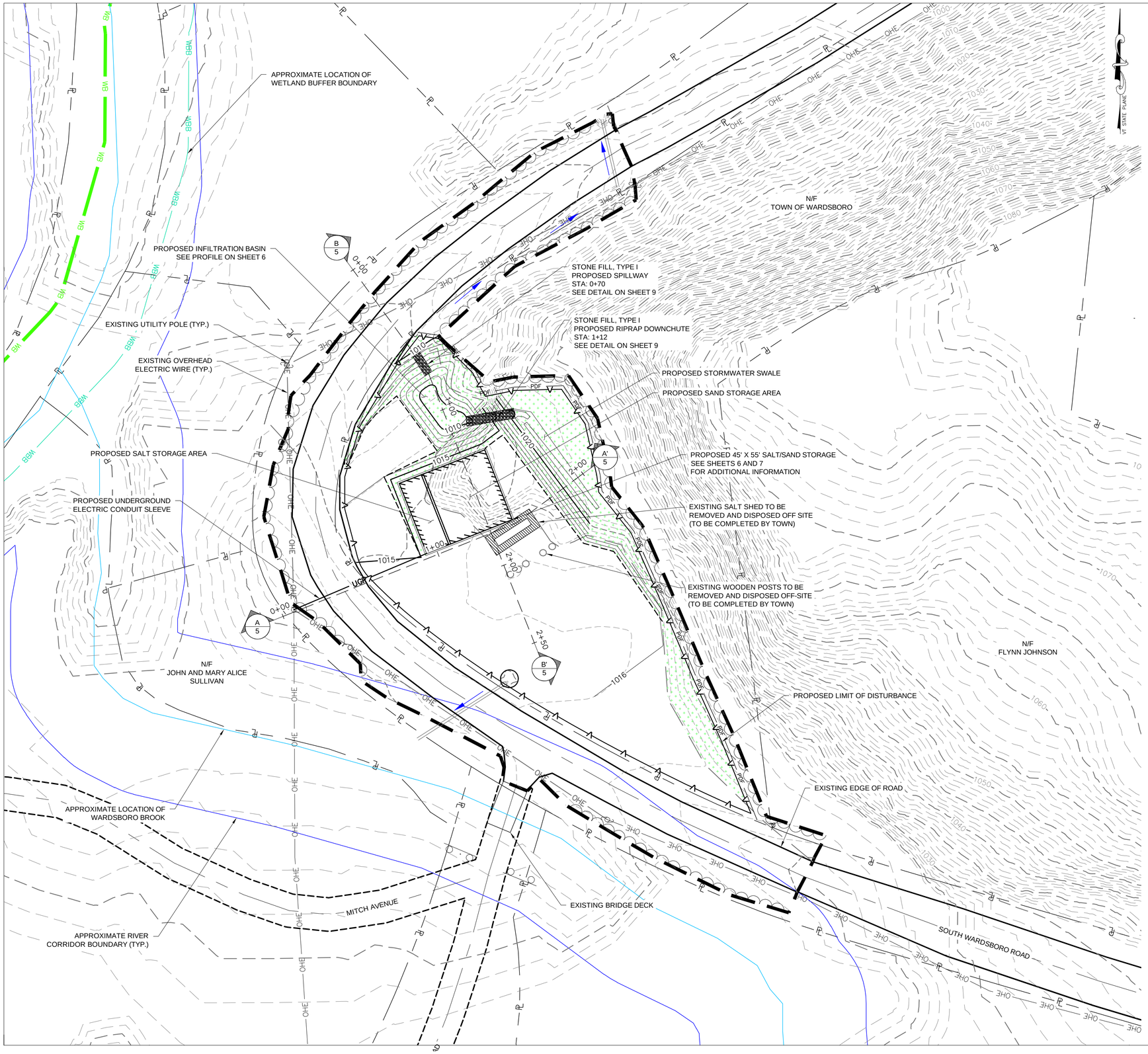

NOTES:

1. SEE SHEETS 2 AND 3 FOR ADDITIONAL NOTES AND LEGEND INFORMATION.

LEGEND:

- 1015 — PROPOSED 5-FT CONTOUR
- 1014 — PROPOSED 1-FT CONTOUR
- PROPOSED EDGE OF ACCESS DRIVE
- UGP — PROPOSED UNDERGROUND ELECTRIC WIRE
- PROPOSED SALT SHED FOOTPRINT
- PROPOSED VEGETATION AREA

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NO.	DATE	DESCRIPTION	BY	CK'D

TOWN OF WARDSBORO
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WARDSBORO, VT 05355

WARDSBORO SALT SHED REPLACEMENT
STP MM19(15)

SHEET TITLE

PROPOSED CONDITIONS PLAN

DRAWN BY	DATE
DSC	SEPT 2021
CHECKED BY	D&K PROJECT #
CJR	125955
PROJ. ENG.	D&K ARCHIVE #
MPH	

SHEET NUMBER

C6

SHEET 6 OF 12

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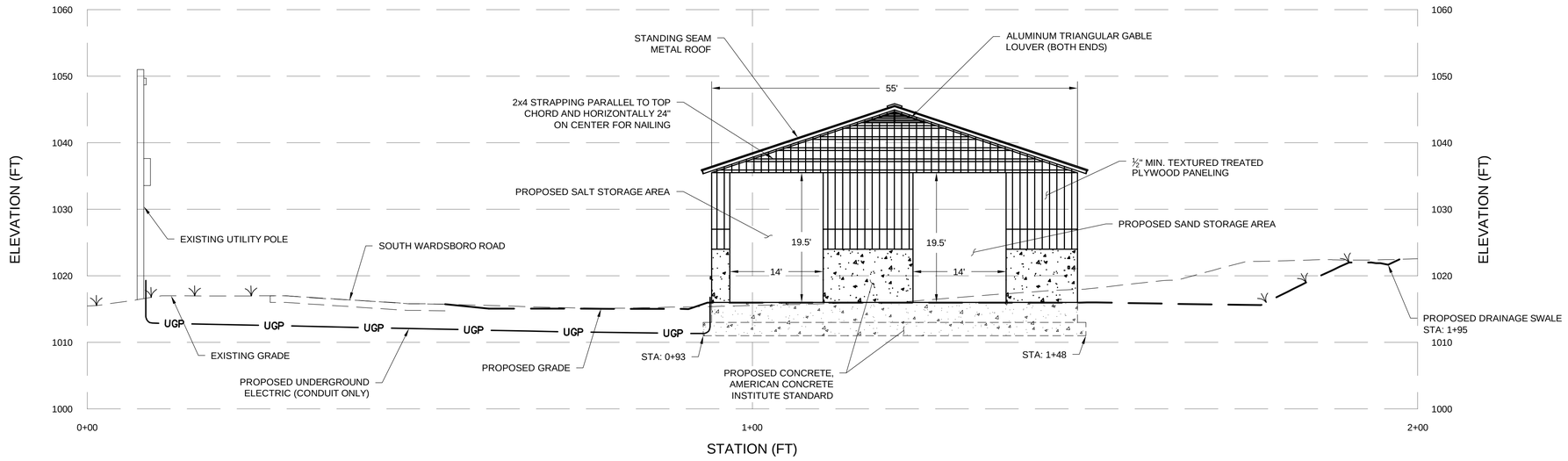
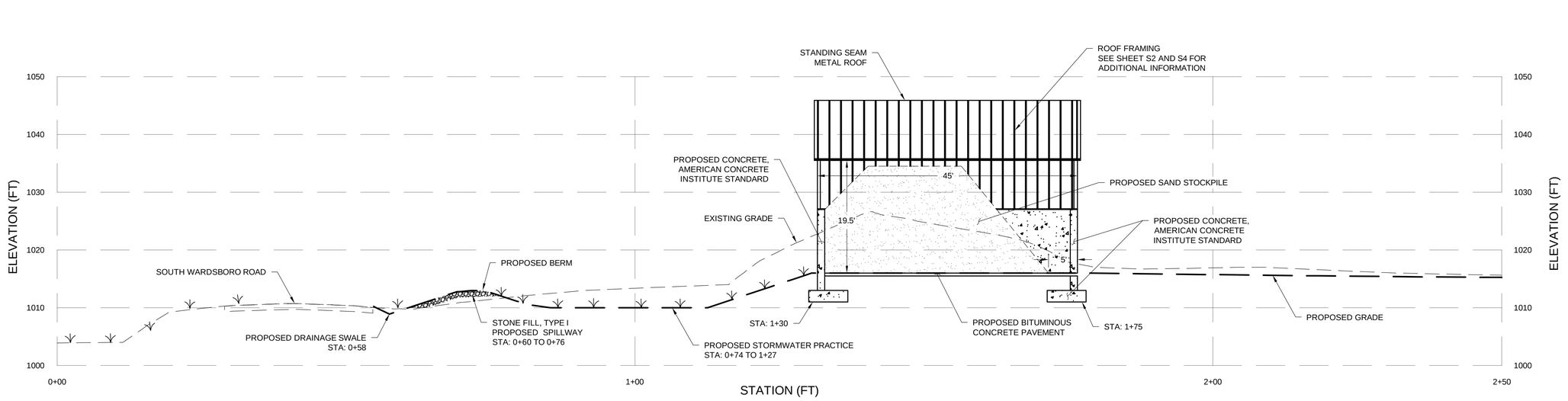


PROFILE A-A'



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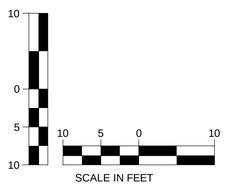

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FINAL DESIGN PLANS NOT FOR CONSTRUCTION

NO.	DATE	DESCRIPTION	BY	CK'D

TOWN OF WARDSBORO
PO BOX 48
WARDSBORO, VT 05355

WARDSBORO SALT SHED REPLACEMENT
STP MM19(15)

SHEET TITLE

PROFILES

DRAWN BY	DATE
DSC	SEPT 2021
CHECKED BY	D&K PROJECT #
CJR	125955
PROJ. ENG.	D&K ARCHIVE #
MPH	

SHEET NUMBER

C7

SHEET 7 OF 12

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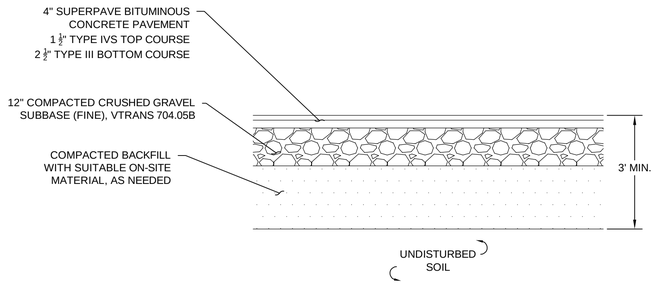

SAND SHED FLOOR SECTION

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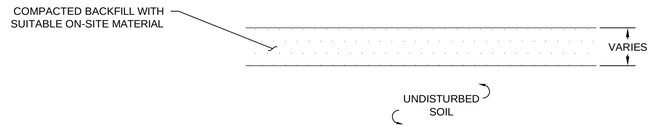

DRIVEWAY SECTION

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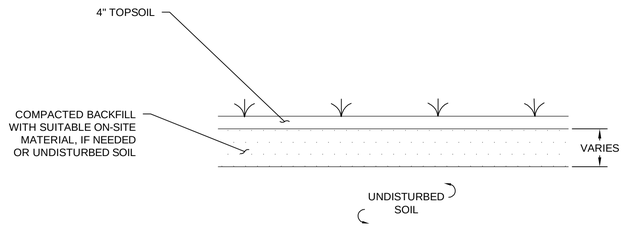

VEGETATED AREA SECTION

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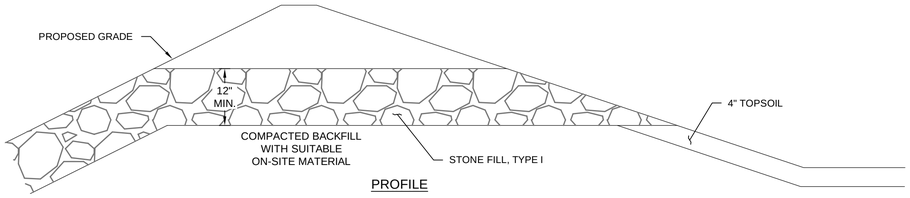
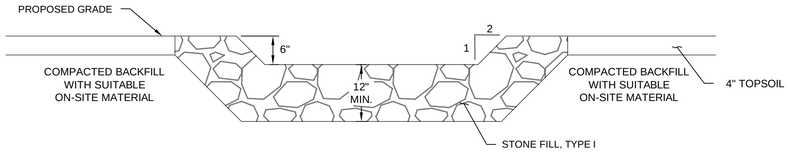


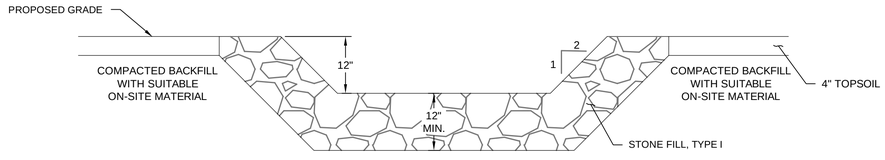
PROFILE



CROSS-SECTION

TYPICAL POND SPILLWAY

NOT TO SCALE



RIPRAP DOWNCHUTE

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FINAL DESIGN PLANS NOT FOR CONSTRUCTION

NO.	DATE	DESCRIPTION	BY	CK'D

TOWN OF WARDSBORO
PO BOX 48
WARDSBORO, VT 05355

WARDSBORO SALT SHED REPLACEMENT
STP MM19(15)

SHEET TITLE

CIVIL DETAILS

DRAWN BY	DATE
DSC	SEPT 2021
CHECKED BY	D&K PROJECT #
CJR	125955
PROJ. ENG.	D&K ARCHIVE #
MPH	

SHEET NUMBER

C8

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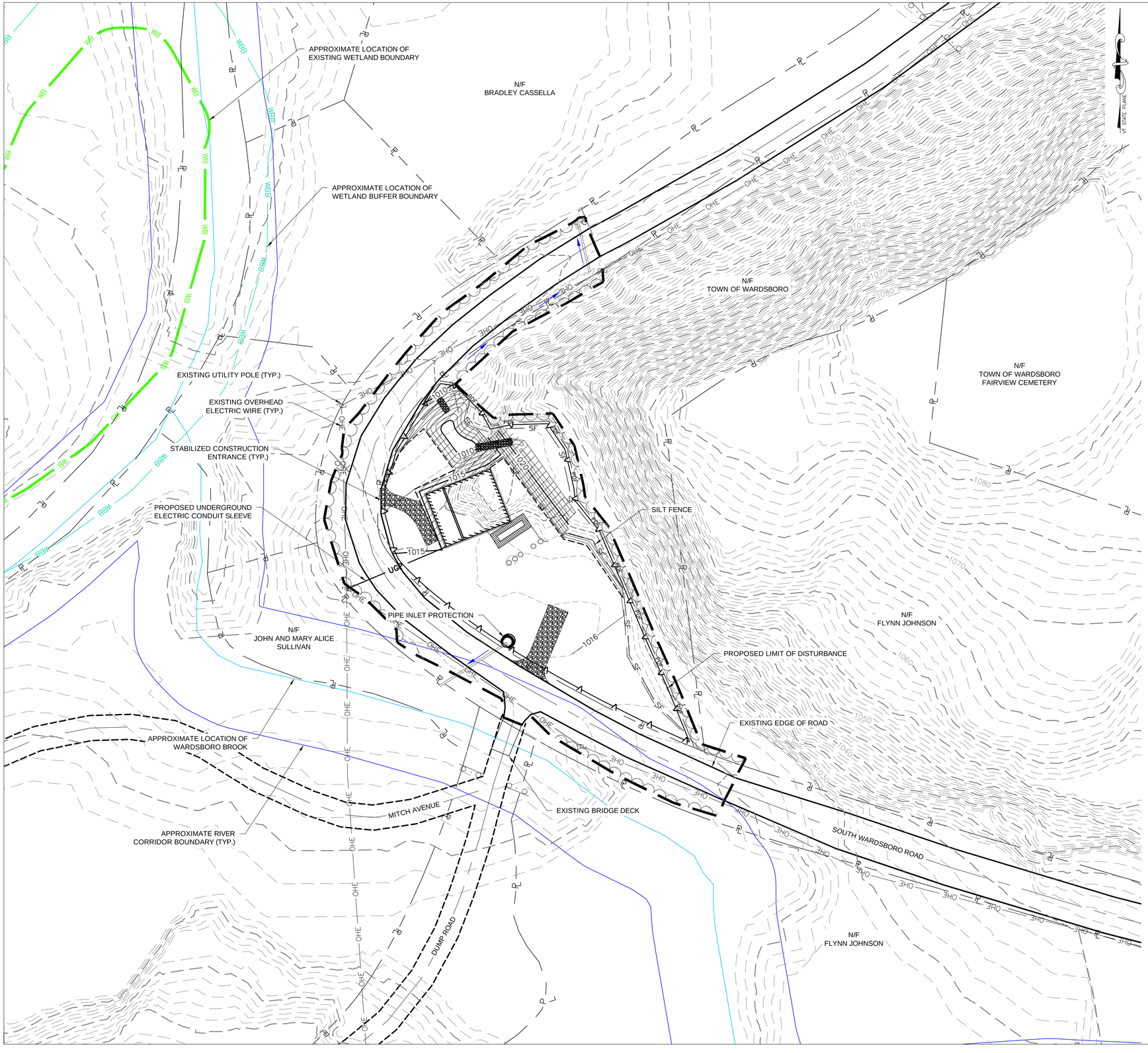

NOTES:

1. SEE SHEETS 2 AND 3 FOR ADDITIONAL NOTES AND LEGEND INFORMATION.

LEGEND:

SF SF — SILT FENCE

STABILIZED CONSTRUCTION ENTRANCE

ROLLED EROSION CONTROL PRODUCT

PIPE INLET PROTECTION

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PROFESSIONAL SEAL

FINAL DESIGN PLANS NOT FOR CONSTRUCTION

NO.	DATE	DESCRIPTION	BY	CK'D

TOWN OF WARDSBORO
PO BOX 48
WARDSBORO, VT 05355

WARDSBORO SALT SHED REPLACEMENT
STP MM19(15)

SHEET TITLE

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

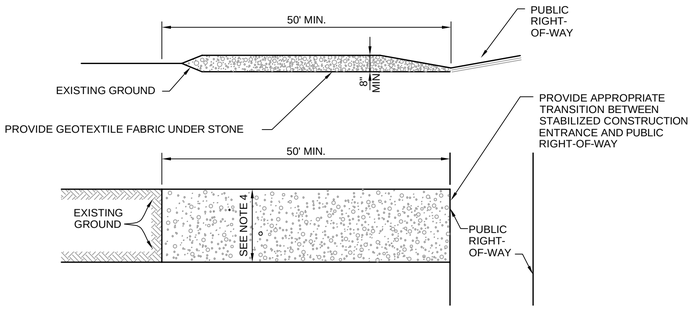
DRAWN BY	DATE
CJR	SEPT 2021
CHECKED BY	D&K PROJECT #
CJR	125955
PROJ. ENG.	D&K ARCHIVE #
MPH	

SHEET NUMBER

C9

SHEET 9 OF 12

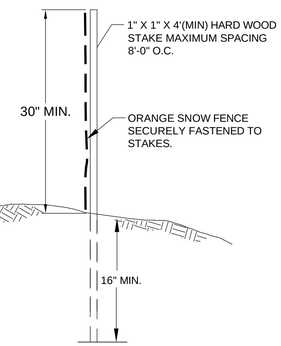
I:\11125955 Wardsboro Sand Shed\Drawings\CAD\100% Design Plans\20210913 - Proposed Conditions Plan.dwg 9/13/2021 10:25 AM



CONSTRUCTION SPECIFICATIONS:

1. LOCATION TO BE DETERMINED BY CONTRACTOR AND APPROVED BY ENGINEER. IF CONTRACTOR DOES NOT WANT TO INSTALL A CONSTRUCTION ENTRANCE, CONTRACTOR SHALL OBTAIN PERMISSION FROM THE ENGINEER. MATERIALS ASSOCIATED WITH INSTALLATION SHALL BE REMOVED FROM PAY ITEM.
2. STONE SIZE SHALL BE 3 TO 4 INCHES.
3. LENGTH SHALL NOT BE LESS THAN 50 FEET.
4. THICKNESS SHALL NOT BE LESS THAN 8 INCHES.
5. WIDTH SHALL BE 12' MINIMUM BUT NOT LESS THAN FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
6. GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
7. WASHING. WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE THROUGH USE OF SAND BAGS, GRAVEL, BOARDS, OR OTHER APPROVED METHODS.
8. MAINTENANCE. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



PROJECT DEMARCATION FENCE
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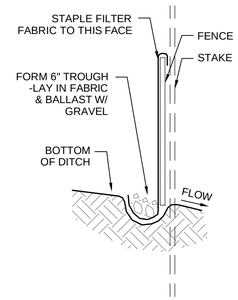


NOTES:

1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.

2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.

3. STAKE MATERIALS WILL BE STANDARD 2"X4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.

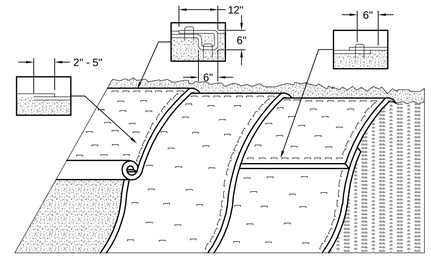
4. SPACE STAKES EVENLY AROUND THE INLET 3 FEET APART AND DRIVE A MINIMUM OF 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.

5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.

6. A 2"X4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.

7. MAXIMUM DRAINAGE AREA 1 ACRES

SILT FENCE SECTION
NOT TO SCALE



EROSION PREVENTION FOR SIDE SLOPES
(ROLLED EROSION CCONTROL PRODUCT)
NOT TO SCALE

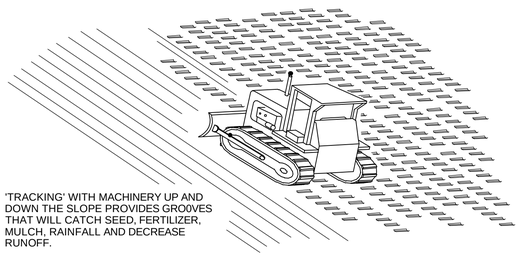
APPLICATION NOTES:

1. THE PURPOSE OF MATTING ON SIDE SLOPES IS TO REDUCE EROSION AND AID THE ESTABLISHMENT OF VEGETATION.
2. ROLLED EROSION CONTROL PRODUCT SHALL BE USED FOR THE FOLLOWING REASONS:

* SIDE SLOPES > 3:1 (H:V)
* AREAS WHERE SEED AND MULCH WILL NOT STAY IN PLACE ALONE
* WHERE SEEDING IS OUTSIDE THE GROWING SEASON.

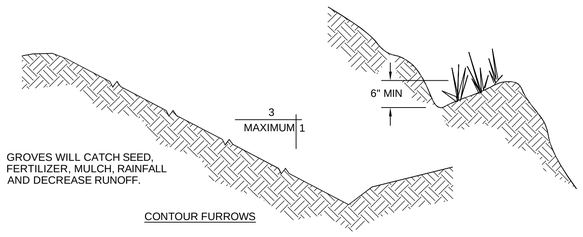
GENERAL NOTES:

1. GRADE AND SMOOTH THE SLOPE TO PROVIDE GOOD MATTING TO SOIL SURFACE CONTACT.
2. APPLY FERTILIZER, LIME, AND SEED PRIOR TO PLACING MATTING.
3. ANCHOR MATTING AS SHOWN, UTILIZING ANCHOR STAPLES. STAPLE PLACEMENT SHALL BE DETERMINED BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
4. UNROLL MATTING VERTICALLY DOWN SLOPE IN THE DIRECTION OF WATER FLOW.
5. OVERLAP UPPER MATTING OVER LOWER MATTING AS SHOWN.
6. OVERLAP ADJACENT MATTING AS SHOWN.
7. CUT EXCESS MATTING AT END OF SLOPE AND ANCHOR THE END.
8. EROSION CONTROL MATTING SHALL BE 100% BIODEGRADABLE.
9. MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS MINIMUM AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
10. MATTING SHALL BE REPAIRED AND RESTAPLED AS NECESSARY TO ENSURE PROPER FUNCTION.
11. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE INSTALLATION, INSPECTION AND MAINTENANCE OF ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES.



'TRACKING' WITH MACHINERY UP AND DOWN THE SLOPE PROVIDES GROOVES THAT WILL CATCH SEED, FERTILIZER, MULCH, RAINFALL AND DECREASE RUNOFF.

TRACKING



CONTOUR FURROWS

SURFACE ROUGHENING
NOT TO SCALE

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PROFESSIONAL SEAL

FINAL DESIGN PLANS NOT FOR CONSTRUCTION

NO.	DATE	DESCRIPTION	BY	CK'D

TOWN OF WARDSBORO
PO BOX 48
WARDSBORO, VT 05355

WARDSBORO SALT SHED REPLACEMENT
STP MM19(15)

SHEET TITLE

EROSION PREVENTION AND SEDIMENT CONTROL DETAILS

DRAWN BY	DATE
CJR	SEPT 2021
CHECKED BY	D&K PROJECT #
CJR	125955
PROJ. ENG.	D&K ARCHIVE #
MPH	

SHEET NUMBER

C10

SHEET 10 OF 12

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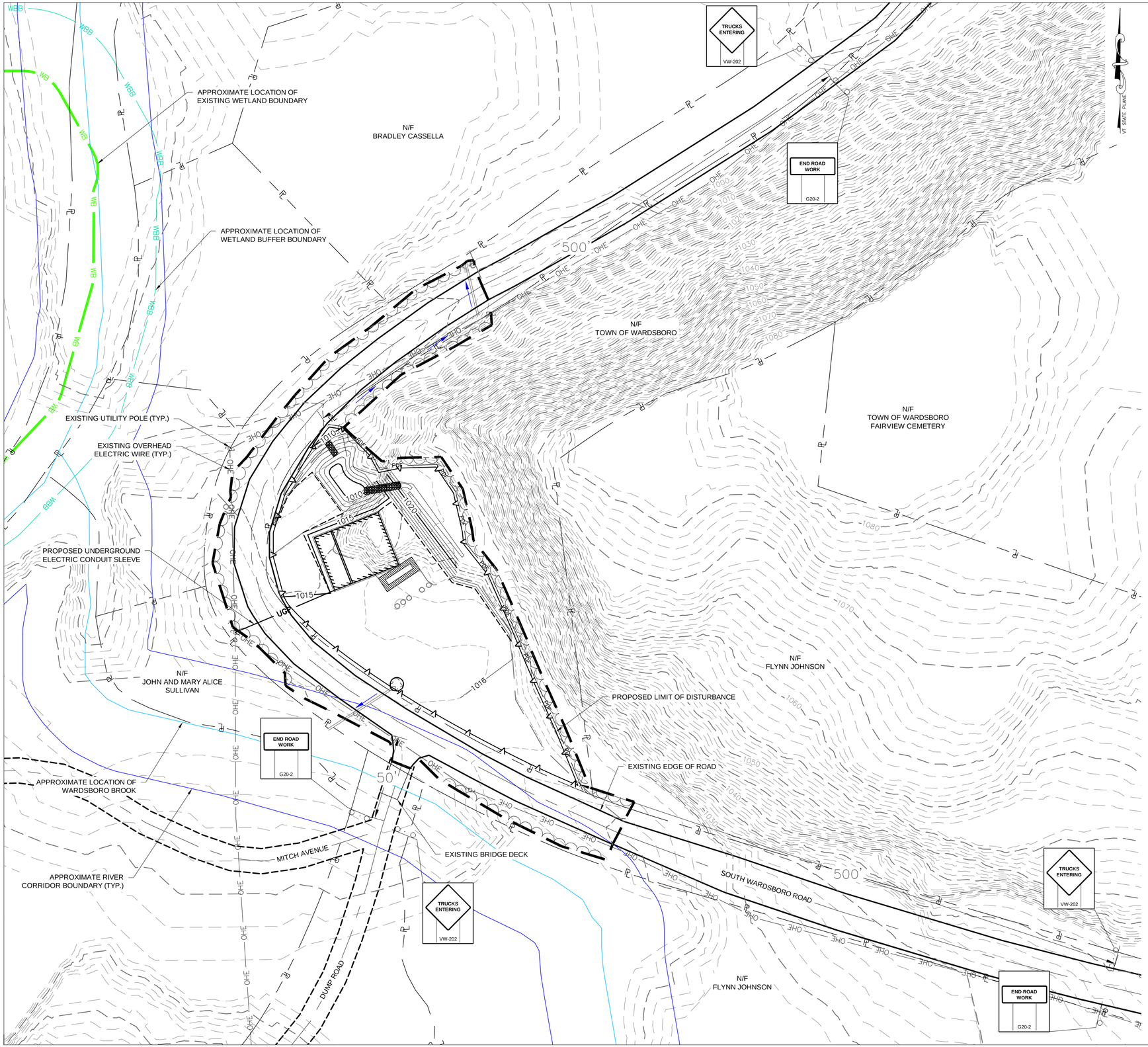

SCALE IN FEET: 40 0 20 40 80

TRAFFIC CONTROL NOTES:

1. FOR TRAFFIC CONTROL GENERAL NOTES, SEE VAOT STANDARD T-1.
2. TRAFFIC CONTROL TO BE PAID AS SEPARATE LUMP SUM ITEM 641.11, "TRAFFIC CONTROL, ALL-INCLUSIVE". THE BID PRICE FOR ITEM 641.11 SHALL INCLUDE ALL OF THE FOLLOWING, AS NEEDED: SITE SPECIFIC TRAFFIC CONTROL PLAN, APPROACH AND ON-PROJECT CONSTRUCTION SIGNING, PORTABLE ARROW BOARDS, BARRELS, CONES, BARRICADES, TEMPORARY REGULATORY AND WARNING SIGNS, AND POSTS AS DETAILED IN THE VAOT STANDARDS. ITEM 641.11 SHALL ALSO FLAGGERS, IF NEEDED.
3. THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN PER SUBSECTION 105.03 TO THE ENGINEER. CONSTRUCTION OPERATIONS SHALL NOT COMMENCE UNTIL THE PLAN HAS BEEN APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN PACKAGE FOR EXPECTED LANE CLOSURES, WORK ZONE SPEED REDUCTIONS AND PEDESTRIAN ACCESS. THE TRAFFIC CONTROL PLAN SHALL BE IN COMPLIANCE WITH VTRANS STANDARDS AND THE LATEST EDITION OF THE MUTCD. WHERE CONFLICTS EXIST, THE LATEST EDITION OF THE MUTCD SHALL GOVERN.
4. TRAFFIC CONTROL SIGNS SHALL BE ERECTED BEFORE THE START OF ANY WORK AND SHALL BE COVERED UNTIL WORK COMMENCES, DURING PERIODS OF INACTIVITY OR UPON COMPLETION OF WORK.
5. ALL TRAFFIC CONTROL SIGNAGE SHALL BE IN ACCORDANCE WITH THE 2009 EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND VTRANS STANDARD SHEETS (AND THEIR LATEST REVISIONS).
6. TRAFFIC CONTROL SIGNS SHALL BE INSTALLED AS TO NOT INTERFERE OR OBSTRUCT THE VIEW OF EXISTING TRAFFIC CONTROL DEVICES, STOPPING SIGHT DISTANCE, AND CORNER SIGHT DISTANCE FROM DRIVES AND TOWN HIGHWAYS. EXISTING SIGNS WHICH CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE COMPLETELY COVERED OR REMOVED. SIGN COVERING SHALL NOT DAMAGE THE RETRO-REFLECTIVITY OF THE SIGN FACE. ALSO, THE SIGN COVER SHALL NOT DETERIORATE FOR THE DURATION THAT THE SIGN IS COVERED.
7. TRAFFIC CONTROL SIGNS SHALL BE IN NEW OR LIKE NEW CONDITION PER VAOT STANDARDS.
8. DIAMOND SHAPED SIGNS SHALL BE 48" X 48" WITH BLACK TEXT AND BORDER ON A RETROREFLECTIVE FLOURESCENT ORANGE BACKGROUND. IF MOUNTED ON POSTS IT SHALL BE MOUNTED ON TWO 3 LBS/FT FLANGED CHANNEL POSTS. NO SIGN POSTS SHALL EXTEND OVER THE TOP EDGE OF THE SIGN INSTALLED ON SAID POSTS. NO SIGN POST STUB HEIGHT TO EXCEED 4" ABOVE THE GROUND HEIGHT. SEE STATE SPECIFICATIONS 2018 FOR MORE INFORMATION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING, ERECTING, AND MAINTAINING CONSTRUCTION SIGNS AND WARNING DEVICES FOR THE PLANNED METHODS OF OPERATION IN CONFORMANCE WITH THE MUTCD.
10. TRAFFIC CONTROL DEVICES SHALL BE REMOVED AND SIGNS SHALL BE COVERED AND/OR REMOVED WHEN THEY NO LONGER APPLY TO THE EXISTING CONDITIONS.
11. WORK ON THE PROJECT, OR ANY SEPARATE ACTIVITY THEREIN, SHALL NOT START UNTIL ALL REQUIRED SIGNS AND WARNING DEVICES ARE INSTALLED.
12. SIGN LOCATIONS SHOWN ON THESE PLANS ARE RECOMMENDED AND MAY BE ADJUSTED AS DETERMINED BY THE ON-SITE ENGINEER. TYPICAL LAYOUTS SHOWN ARE NOT TO SCALE.
13. SOUTH WARDSBORO ROAD SHALL BE KEPT OPEN DURING CONSTRUCTION. APPROPRIATE TRAFFIC CONTROL SHALL BE PROVIDED IF EQUIPMENT IS IN OPERATION IN THE ROADWAY.
14. CONTRACTOR SHALL MAINTAIN ACCESS THROUGH WORK ZONE FOR VEHICLES TRAVELING TO AND FROM DUMP ROAD, AS NEEDED.
15. CONTRACTOR SHALL PROVIDE ACCESS THROUGH WORK ZONE FOR EMERGENCY VEHICLES ALWAYS, AND SHALL COORDINATE EMERGENCY ROUTES.
16. BARRELS, CONES, TEMPORARY TRAFFIC BARRIERS, AND ENERGY ABSORPTION ATTENUATORS SHALL BE USED TO CLEARLY DEFINE THE TRAVEL SPACE AND PROVIDE SEPARATION FROM THE WORK SPACE ALONG ITS ENTIRE LENGTH. REFLECTORIZED CONES WILL BE USED TO DELINEATE COMMERCIAL DRIVES WITHIN THE WORK ZONE.
17. THE CONTRACTOR SHALL PROVIDE FLAGGERS FOR ONE LANE TRAFFIC CONTROL, AND AT LOCATIONS WHERE SITE DISTANCES ARE IMPAIRED BY CONSTRUCTION OPERATIONS OR OTHER SITUATIONS.
18. FLAGGERS SHALL BE REQUIRED TO USE TWO-WAY RADIOS, WALKIE TALKIES OR OTHER FORMS OF ENHANCED COMMUNICATION WHEN ONE FLAGGER IS NOT VISIBLE TO THE OTHER, OR IF THE ENGINEER DEEMS IT NECESSARY.
19. STOP/SLOW PADDLES SHALL BE USED FOR ALL FLAGGING, AND SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE MUTCD.
20. THE CONTRACTOR SHALL NOT PARK EQUIPMENT OR STORE MATERIAL WHERE IT IS DEEMED BY THE ENGINEER TO BE A SAFETY HAZARD.

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PO BOX 48
WARDSBORO, VT 05355

WARDSBORO SALT SHED REPLACEMENT
STP MM19(15)

SHEET TITLE

TRAFFIC CONTROL PLAN

DRAWN BY	DATE
CJR	SEPT 2021
CHECKED BY	D&K PROJECT #
CJR	125955
PROJ. ENG.	D&K ARCHIVE #
MPH	

SHEET NUMBER

C11

SHEET 11 OF 12

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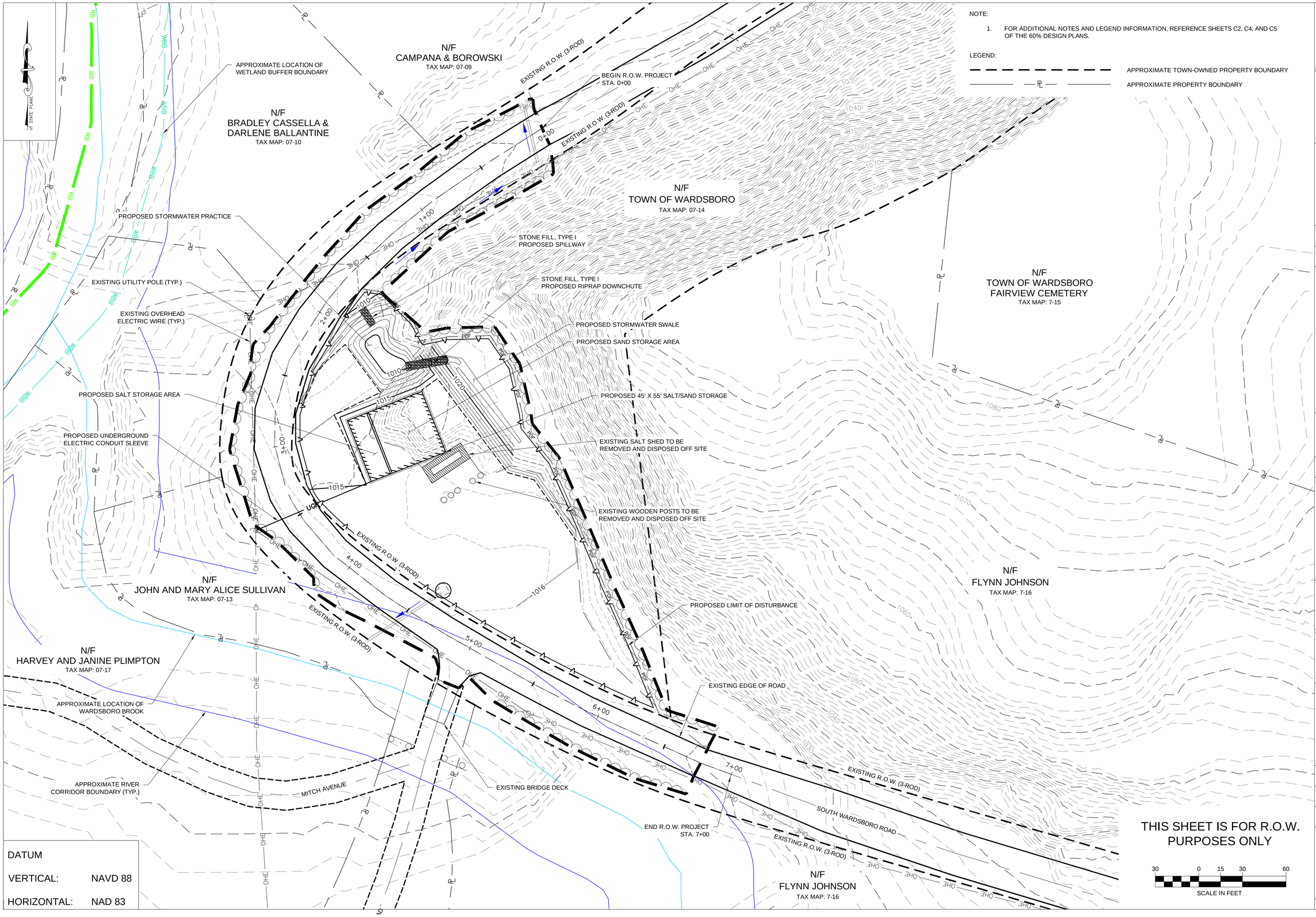

NOTE:

1. FOR ADDITIONAL NOTES AND LEGEND INFORMATION, REFERENCE SHEETS C2, C4, AND C5 OF THE 60% DESIGN PLANS.

LEGEND:

APPROXIMATE TOWN-OWNED PROPERTY BOUNDARY

APPROXIMATE PROPERTY BOUNDARY

DATUM

VERTICAL: NAVD 88

HORIZONTAL: NAD 83

THIS SHEET IS FOR R.O.W. PURPOSES ONLY

30 0 15 30 60

SCALE IN FEET

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WARDSBORO SALT SHED REPLACEMENT
STP MM19(15)

SHEET TITLE

RIGHT OF WAY LAYOUT PLAN

DRAWN BY	DATE
DSC	SEPT 2021
CHECKED BY	D&K PROJECT #
CJR	125955
PROJ. ENG.	D&K ARCHIVE #
MPH	

SHEET NUMBER

C12

SHEET 12 OF 12

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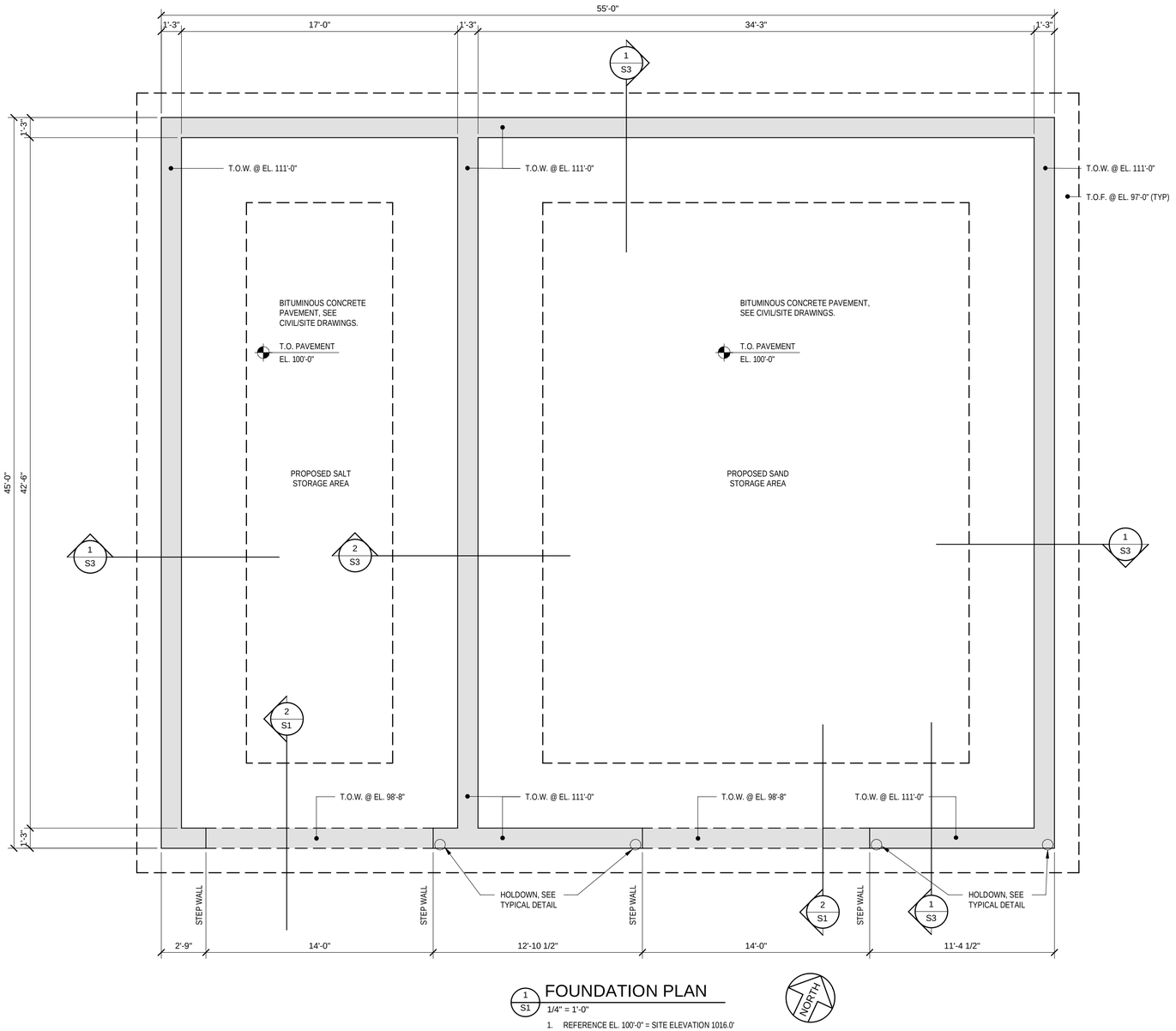
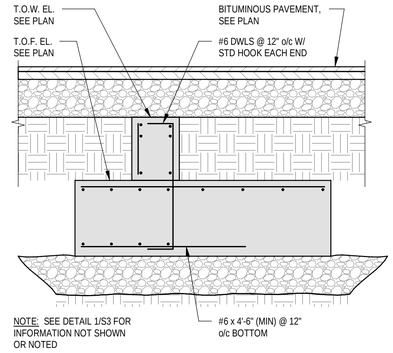
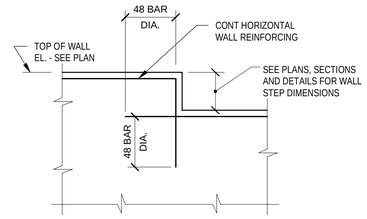


1 S1 FOUNDATION PLAN
1/4" = 1'-0"

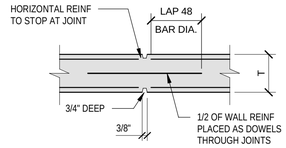
1. REFERENCE EL. 100'-0" = SITE ELEVATION 1016.0'
2. COORDINATE ELEVATIONS AND DIMENSIONS WITH EXISTING FIELD CONDITIONS AND OTHER DISCIPLINES.



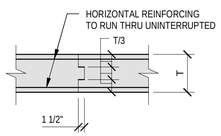
2 S1 SECTION
1/2" = 1'-0"



3 S1 TYPICAL WALL STEP DETAIL
1/2" = 1'-0"

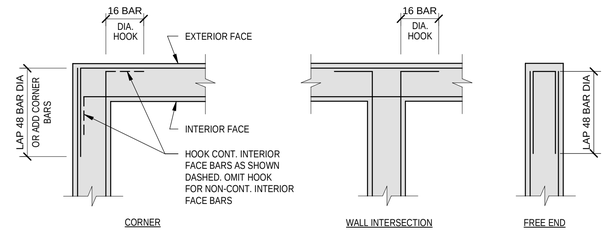


CONTROL JOINT



CONSTRUCTION JOINT

4 S1 TYPICAL WALL JOINT DETAILS
1/2" = 1'-0"



CORNER | WALL INTERSECTION | FREE END

5 S1 TYPICAL WALL REINFORCING
1/2" = 1'-0"

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FINAL DESIGN PLANS NOT FOR CONSTRUCTION

NO.	DATE	DESCRIPTION	BY	CK'D

TOWN OF WARDSBORO
PO BOX 48
WARDSBORO, VT 05355

WARDSBORO SALT SHED REPLACEMENT
STP MM19(15)

SHEET TITLE

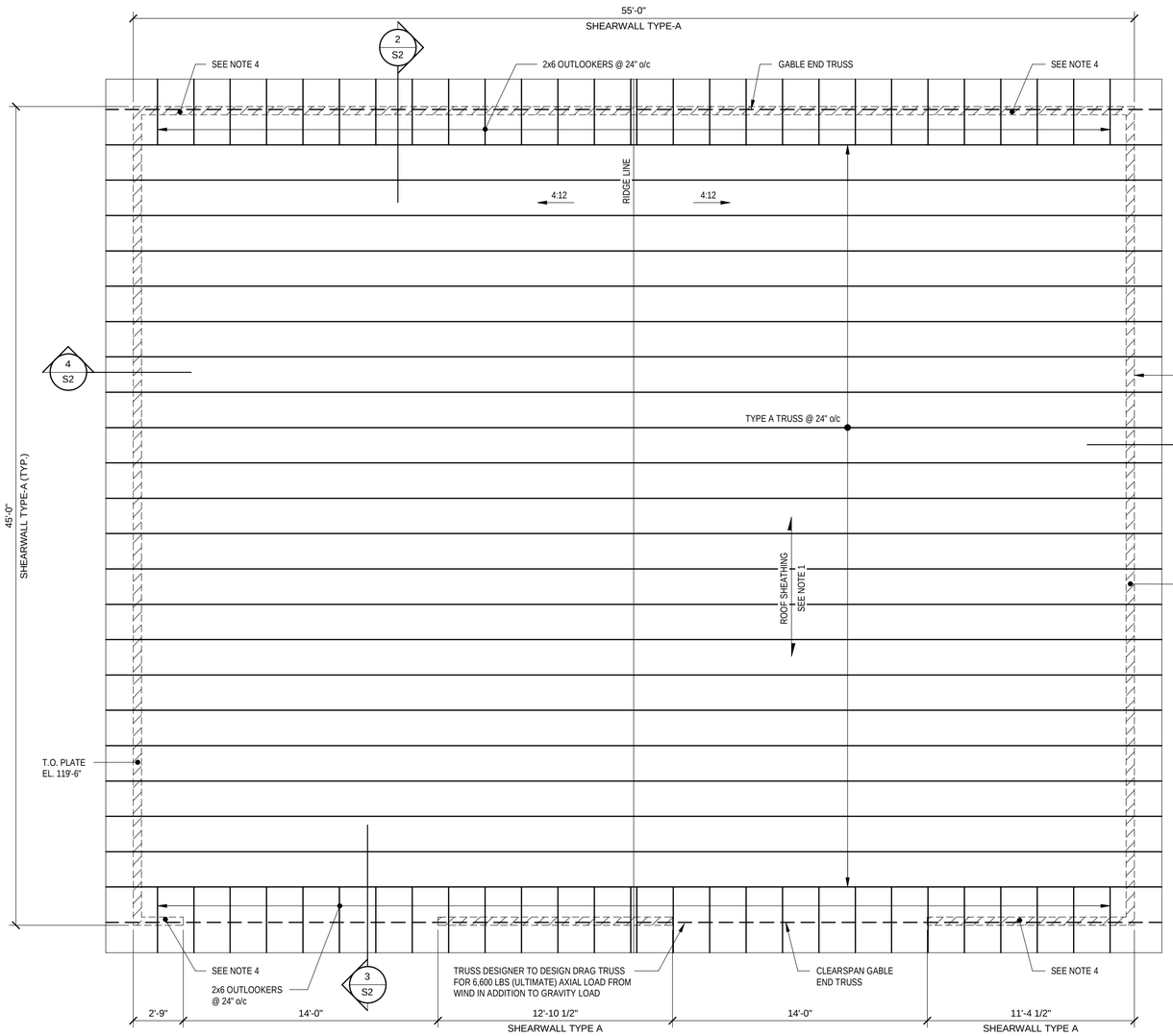
FOUNDATION PLAN & DETAILS

DRAWN BY	DATE
JJS	SEPT 2021
CHECKED BY	D&K PROJECT #
-	125955
PROJ. ENG.	
JJS	

SHEET NUMBER

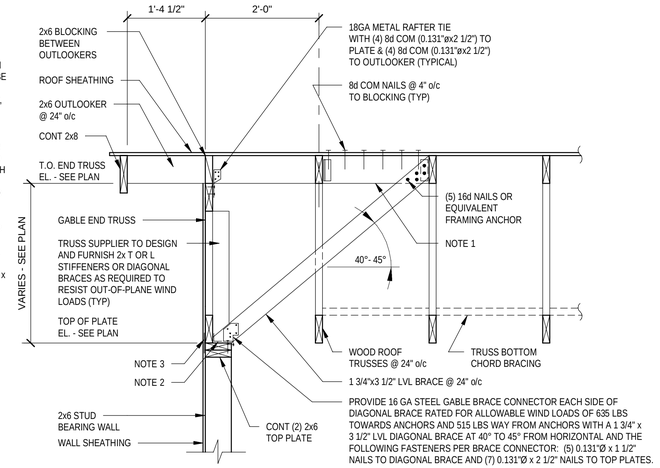
S1

SHEET OF



GABLE END WALL SECTION NOTES:

1. 2x6 BLOCKING, PROVIDE (1) FRAMING ANGLE EACH END TO TRUSS TOP CHORD, FRAMING ANGLE TO BE 18 GA STEEL RATED FOR ALLOWABLE WIND LOAD OF 560 LBS (MIN) WITH SPRUCE-PINE-FIR FRAMING, (6) 0.131"Ø x 1 1/2" NAILS TO TRUSS TOP CHORD AND (6) 0.131"Ø x 1 1/2" NAILS TO BLOCKING
2. PROVIDE FRAMING ANGLES @ 48" o/c AT INTERIOR FACE, FRAMING ANGLE TO BE 18 GA STEEL RATED FOR ALLOWABLE WIND LOAD OF 560 LBS (MIN) WITH SPRUCE-PINE-FIR FRAMING, (6) 0.131"Ø x 1 1/2" NAILS TO GABLE END TRUSS BOTTOM CHORD AND (6) 0.131"Ø x 1 1/2" NAILS TO WALL TOP PLATE
3. PROVIDE FRAMING PLATES @ 48" o/c AT EXTERIOR FACE ORIENTED WITH THE LONG DIMENSION HORIZONTAL, FRAMING PLATE TO BE 20 GA STEEL RATED FOR ALLOWABLE WIND LOAD OF 615 LBS (MIN) WITH SPRUCE-PINE-FIR FRAMING, (6) 0.131"Ø x 1 1/2" TO GABLE END TRUSS BOTTOM CHORD AND (6) 0.131"Ø x 1 1/2" TO WALL TOP PLATE



2/S2 GABLE END WALL SECTION

3/4" = 1'-0"

3/S2 GABLE END DRAG TRUSS SECTION

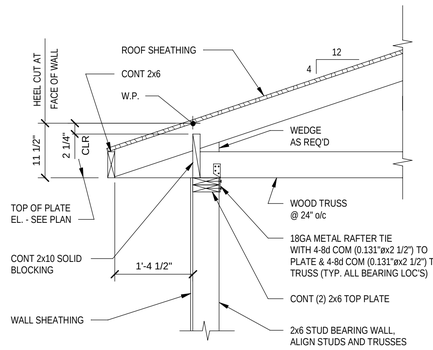
3/4" = 1'-0"

1/S2 ROOF FRAMING PLAN

1/4" = 1'-0"

NORTH

1. ROOF SHEATHING SHALL BE 5/8" APA RATED SHEATHING FASTENED TO FRAMING WITH 8d COM (0.131"ø x 2 1/2") NAILS SPACED AT 6" o/c AT EDGES AND 12" o/c AT INTERMEDIATE SUPPORTS.
2. STUD BEARING WALLS TO BE 2x6 @ 24" o/c. PROVIDE A STUD UNDER EACH TRUSS END. FOR SHEATHING AND FASTENING SEE INFORMATION AND DETAILS CORRESPONDING TO SHEAR WALLS AS CALLED OUT ON PLAN.
3. ZZZZ - INDICATES SHEAR WALL, SEE CORRESPONDING DETAILS ON SHEET S3.
4. GENERAL CONTRACTOR SHALL COORDINATE GABLE END TRUSS AND WALL ELEVATIONS WITH TRUSS MANUFACTURER.
5. THE INTERFACE BETWEEN THE STRUCTURE AND SAND/SALT STOCKPILES SHALL REMAIN AT AN ELEVATION BELOW THE TOP OF THE CONCRETE RETAINING WALLS. STOCKPILING MATERIAL ABOVE THIS POINT SUCH THAT SAND/SALT ACCUMULATES OVER TOP OF THE CONCRETE RETAINING WALLS AND AGAINST THE WOOD STUD WALLS CONSTITUTES AN OVER-FILLED CONDITION WHICH THE STRUCTURE IS NOT DESIGNED FOR; WOOD WALL FRAMING HAS NOT BEEN DESIGNED TO RETAIN SAND/SALT. SIMILARLY, THE SLOPE OF STOCKPILED MATERIAL SHALL NOT EXCEED THE SLOPE DEFINED ON SECTIONS 1 & 2 ON SHEET S3. STOCKPILING MATERIAL AT A STEEPER SLOPE CONSTITUTES AN OVER-FILLED CONDITION WHICH THE STRUCTURE IS NOT DESIGNED FOR. SUBJECTING THE STRUCTURE TO AN OVER-FILLED CONDITION MAY RESULT IN AN UNSTABLE, UNSAFE CONDITION AND MAY CAUSE DAMAGE TO THE STRUCTURE.



4/S2 EAVE SECTION

3/4" = 1'-0"

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PROFESSIONAL SEAL

FINAL DESIGN PLANS NOT FOR CONSTRUCTION

NO.	DATE	DESCRIPTION	BY	CK'D

TOWN OF WARDSBORO
PO BOX 48
WARDSBORO, VT 05355

WARDSBORO SALT SHED REPLACEMENT
STP MM19(15)

SHEET TITLE

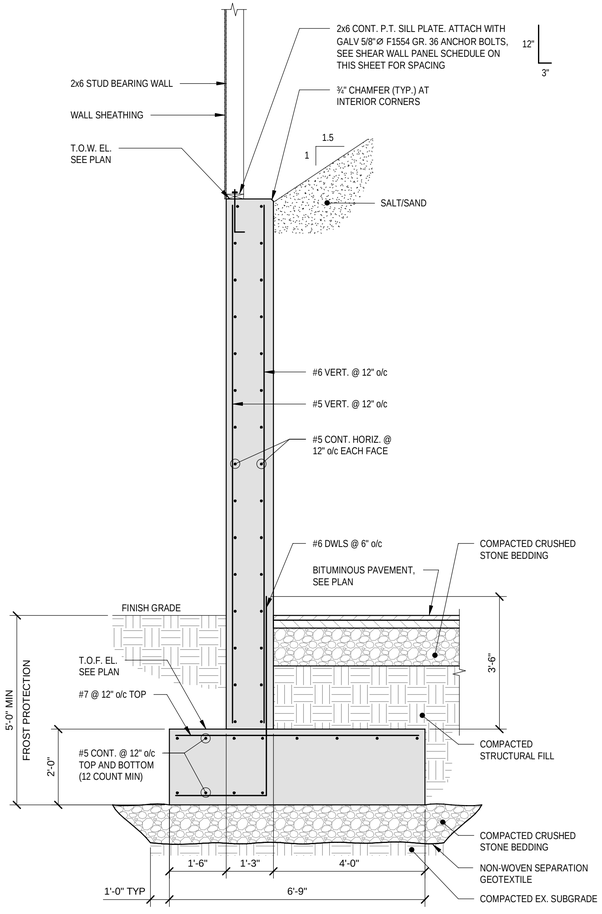
ROOF FRAMING PLAN & DETAILS

DRAWN BY	DATE
JJS	SEPT 2021
CHECKED BY	D&K PROJECT #
-	125955
PROJ. ENG.	
JJS	

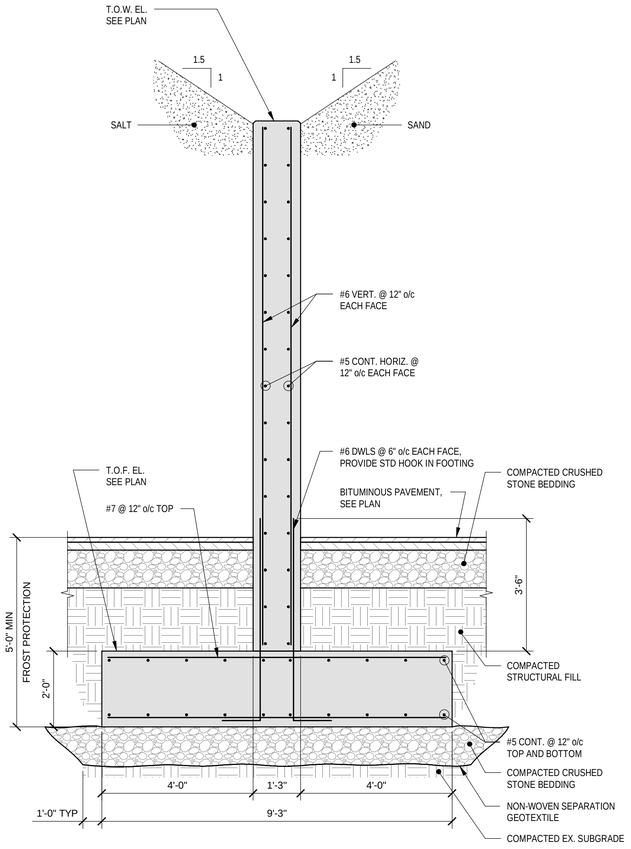
SHEET NUMBER

S2

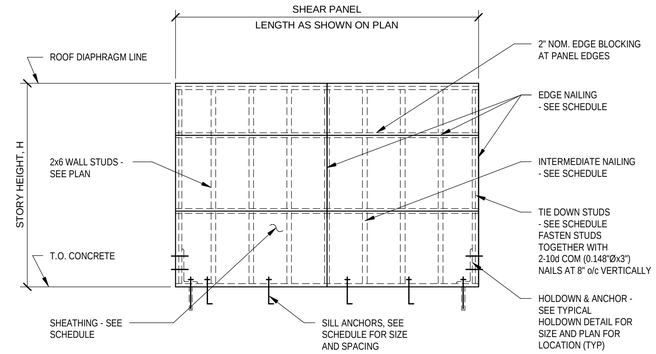
SHEET OF



1 S3 SECTION
1/2" = 1'-0"



2 S3 SECTION
1/2" = 1'-0"



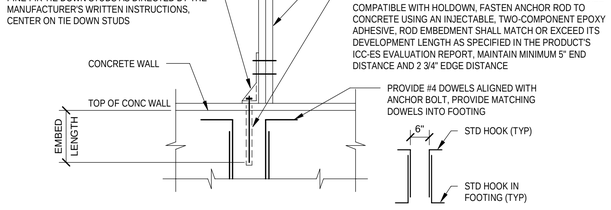
3 S3 TYPICAL SHEAR PANEL DETAIL
1/8" = 1'-0"

SHEAR WALL PANEL SCHEDULE

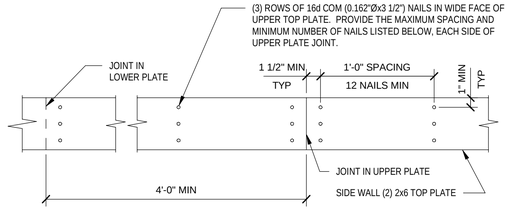
MARK	SHEATHING	NAILING			EDGE CHORD	SILL ANCHORS
		SIZE [1]	EDGE	INTERMEDIATE		
A	1/2" APA RATED, EXT. FACE	8d	6" o/c	12" o/c	(2) 2x6 SPF	5/8"Ø BOLTS @ 48" o/c

NOTES: 1. FASTENERS: 8d COMMON (0.131"øx2½").

4 S3 SHEARWALL SCHEDULE
1" = 1'-0"



5 S3 TYPICAL HOLDOWN DETAIL
1/2" = 1'-0"



6 S3 TYPICAL WALL TOP PLATE SPLICE DETAIL
1 1/2" = 1'-0"

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SHEET TITLE

DETAILS

DRAWN BY	DATE
JJS	SEPT 2021
CHECKED BY	D&K PROJECT #
-	125955
PROJ. ENG.	
JJS	

SHEET NUMBER

S3

SHEET OF

GENERAL

1. USE STRUCTURAL DRAWINGS IN CONJUNCTION WITH THE SPECIFICATIONS AND ELECTRICAL, MECHANICAL AND SITE/CIVIL DRAWINGS.
2. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES, STANDARDS, AND REGULATIONS.
3. DIMENSIONS SHALL NOT BE SCALED FROM DRAWINGS.
4. DETAILS SHOWN ARE TYPICAL. SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AND REPORT DISCREPANCIES TO ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK.
6. IN CASE OF DISCREPANCIES BETWEEN THE DRAWINGS AND THE SPECIFICATIONS, THE DRAWINGS GOVERN.

SHOP DRAWINGS AND PRODUCT DATA

1. SHOP DRAWINGS: SUBMIT ELECTRONICALLY TO THE ARCHITECT/ENGINEER FOR REVIEW. SHOP DRAWINGS WILL BE PROCESSED AND RETURNED ELECTRONICALLY.
2. PRODUCT DATA: SUBMIT ELECTRONICALLY TO THE ARCHITECT/ENGINEER, MARKING TO INDICATE ACTUAL PRODUCT TO BE PROVIDED. PRODUCT DATA WILL BE PROCESSED AND RETURNED ELECTRONICALLY.

EARTHWORK

1. SUBMITTALS: SUBMIT TEST REPORTS ON BORROW MATERIAL, VERIFICATION OF FOOTING SUBGRADE MATERIAL, IN-PLACE SOIL DENSITY TEST AND OPTIMUM MOISTURE-MAXIMUM DENSITY CURVES.
2. EXISTING UTILITIES: LOCATE BY HAND EXCAVATION AND PROVIDE PROTECTION FROM DAMAGE. COOPERATE WITH OWNER AND UTILITY COMPANIES FOR MAINTAINING SERVICES.
3. PROTECTIONS: PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES IN AREAS OF WORK. BARRICADE OPEN EXCAVATIONS AND PROVIDE WARNING LIGHTS. SLOPE SIDES OF EXCAVATIONS AS REQUIRED FOR SAFE WORKING CONDITIONS. COMPLY WITH REGULATIONS OF AUTHORITIES HAVING JURISDICTION INCLUDING OSHA REGULATIONS FOR ALL EXCAVATION AND BACKFILLING WORK.
4. SATISFACTORY SOIL MATERIALS: DEFINED AS THOSE COMPLYING WITH ASTM D 2487 SOIL GROUPS GW, GP, GM, SM, SW AND SP.
5. STRUCTURAL FILL: STRUCTURAL FILL SHOULD BE CLEAN, WELL-GRADED SANDS AND GRAVELS FREE OF ORGANICS, DEBRIS AND OTHER OBJECTIONABLE MATERIAL MEETING THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE SIZE	PERCENT FINER BY WEIGHT
4 INCH	100
3 INCH	90 TO 100
1/4 INCH	25 TO 90
#40	0 TO 30
#200	0 TO 6

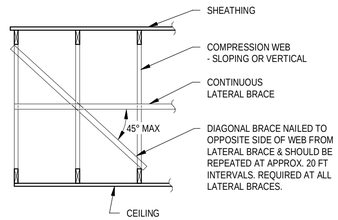
6. CRUSHED STONE BEDDING: WASHED, CRUSHED STONE FREE OF ORGANICS, DEBRIS AND OTHER OBJECTIONABLE MATERIAL MEETING REQUIREMENTS OF VTRANS ITEM 704.02B 3/4 INCH CRUSHED STONE.
7. NONWOVEN SEPARATION GEOTEXTILE: NONWOVEN SEPARATION GEOTEXTILE MEETING REQUIREMENTS OF VTRANS SECTION 720 AND MEETING THE MINIMUM REQUIREMENTS SPECIFIED IN TABLE 720.01A FOR "UNDER STONE FILL."
8. EXCAVATION: REMOVE AND DISPOSE OF MATERIAL ENCOUNTERED TO OBTAIN REQUIRED SUBGRADE ELEVATIONS.
9. DEWATERING: PREVENT SURFACE WATER AND GROUND WATER FROM ENTERING EXCAVATIONS, FROM PONDING ON PREPARED SUBGRADES AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA. PROTECT SUBGRADES FROM SOFTENING, UNDERMINING, WASHOUT AND DAMAGE BY RAIN OR WATER ACCUMULATION.
10. BACKFILL AND FILL: PLACE SATISFACTORY BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOOSE DEPTH, COMPACTING EACH LAYER TO REQUIRED MAXIMUM DENSITY. DO NOT PLACE MATERIALS ON SURFACES THAT ARE MUDDY, FROZEN, OR CONTAIN ICE OR FROST. USE COMPACTED CRUSHED STONE BEDDING UNDER SLABS, PAVEMENT AND FOOTINGS. USE COMPACTED STRUCTURAL FILL UNDER STRUCTURES AND WITHIN 5 FEET OF BUILDING LINES.
11. COMPACTION: COMPACT EACH LAYER OF BACKFILL AND FILL SOIL MATERIALS AND THE TOP 12 INCHES OF EXISTING SUBGRADE FOR SLABS AND PAVEMENTS TO 95 PERCENT MAXIMUM DENSITY AND FOR FOOTINGS TO 98 PERCENT MAXIMUM DENSITY AS DETERMINED BY ASTM D 698. FOR LAWN AND OTHER UNPAVED AREAS, COMPACT TO 92 PERCENT MAXIMUM DENSITY.
12. TESTING: OWNER SHALL ENGAGE SOILS TESTING AND INSPECTION SERVICE FOR QUALITY CONTROL TESTING DURING EARTHWORK OPERATIONS FROM A THIRD PARTY. TYPE AND QUANTITY OF TESTS SHALL BE AS DIRECTED BY THE ENGINEER.
13. FOOTINGS: FOUNDATION DESIGN BASED ON RECOMMENDATIONS CONTAINED IN GEOTECHNICAL REPORT PREPARED BY DUBOIS & KING, DATED 4/21/2020. PLACE FOOTINGS ON A 12" THICK LAYER OF COMPACTED CRUSHED STONE BEDDING (WRAPPED IN A NON-WOVEN GEOTEXTILE FABRIC) OVER SUBGRADE CAPABLE OF SUPPORTING A SUPERIMPOSED LOAD OF 6,000 POUNDS PER SQUARE FOOT. SUBGRADE TO BE INSPECTED BY QUALIFIED ENGINEER PRIOR TO FOOTING INSTALLATION. BACKFILL OVER-EXCAVATION AT FOOTINGS WITH COMPACTED STRUCTURAL FILL, AS DIRECTED BY ENGINEER.

CONCRETE

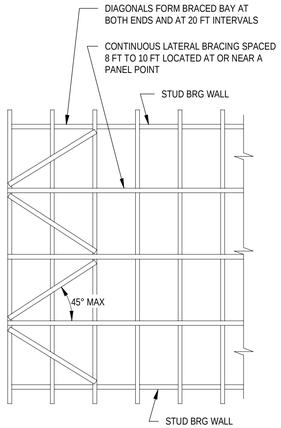
1. ALL CONCRETE SHALL CONFORM TO REQUIREMENTS AND RECOMMENDATIONS OF ACI 318 "BUILDING CODE REQUIREMENTS OF REINFORCED CONCRETE" AND ACI FIELD REFERENCE MANUAL SP-15.
2. CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301," SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS," EXCEPT AS MODIFIED OR SUPPLEMENTED BELOW.
3. SHOP DRAWINGS AND DATA: SUBMIT SHOP DRAWINGS COMPLYING WITH ACI SP-66 "ACI DETAILING MANUAL" AND PRODUCT DATA FOR ACCESSORIES, ADMIXTURES AND CURING COMPOUNDS.
4. CONCRETE COMPRESSIVE DESIGN STRENGTHS AND MIX PROPORTIONS SHALL BE AS OUTLINED BELOW. MIX PROPORTIONS AND DESIGNS SHALL BE SUBMITTED FOR APPROVAL. LIMIT MAXIMUM WATER-SOLUBLE CHLORIDE ION CONTENT IN CONCRETE BY WEIGHT OF CEMENT TO 0.15.

CONCRETE USAGE	CONCRETE CLASS	COMPRESSIVE STRENGTH	MAX W/CM RATIO	AIR
FOOTINGS	F2, S0, W0, C1	4,500 PSI AT 28 DAYS	0.45	6% +/- 1.5%
WALLS	F3, S0, W1, C2	5,000 PSI AT 28 DAYS	0.40	6% +/- 1.5%

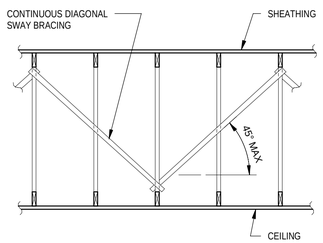
5. REINFORCING STEEL: ASTM A 615 GRADE 60.
6. ALL CONCRETE SHALL BE READY-MIX CONCRETE CONFORMING TO ASTM C 94 EXCEPT THAT ADDITION OF WATER WILL NOT BE PERMITTED.
7. ALL REINFORCING MARKED CONTINUOUS (CONT.) SHALL BE LAPPED 64 BAR DIAM. AT SPLICES AND CORNERS AND SHALL BE HOOKED OR EXTENDED 48 BAR DIAM. AT NON-CONTINUOUS ENDS.
8. REINFORCEMENT SHALL BE SECURELY TIED IN ITS PROPER PLACE BEFORE AND DURING CONCRETE PLACEMENT OPERATIONS USING APPROVED CHAIRS AND SPACERS AS REQUIRED.
9. THE CONCRETE CONTRACTOR SHALL INSTALL OR GIVE OTHER TRADES AMPLE OPPORTUNITY TO INSTALL ALL ANCHORS, BOLTS, PLATES, NAILERS, SLOTS, CHASES, PIPE SLEEVES, ETC., AS REQUIRED BY THESE TRADES. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE SETTING SCREEDS AND FORMS.
10. FOUNDATION WALLS SHALL BE PLACED IN ALTERNATE LENGTHS. CONSTRUCTION OR CONTROL JOINTS SHALL BE PLACED NOT MORE THAN 60 FEET APART NOR MORE THAN 30 FEET FROM A CORNER. NO HORIZONTAL JOINTS SHALL BE PERMITTED EXCEPT AS SHOWN ON PLANS. FOUNDATION WALLS SHALL BE BRACED DURING BACKFILLING OPERATIONS.
11. PROVIDE CLEARANCES FROM FACES OF CONCRETE TO REINFORCEMENT AS FOLLOWS (UNLESS NOTED OTHERWISE):
    a. CONCRETE CAST AGAINST EARTH: 3" (ALL BARS)
    b. CONCRETE EXPOSED TO EARTH OR WEATHER
        i. #6 AND LARGER: 2"
        ii. #5 AND SMALLER: 1-1/2"
12. ALL CONCRETE SHALL BE CONSOLIDATED USING MECHANICAL VIBRATING EQUIPMENT.
13. FORMED CONCRETE NOT EXPOSED TO VIEW SHALL RECEIVE A ROUGH FORM FINISH; FORMED CONCRETE EXPOSED TO VIEW SHALL RECEIVE A SMOOTH FORM FINISH.
14. TESTING: THE OWNER SHALL EMPLOY AN INDEPENDENT TESTING LABORATORY TO PERFORM TESTS FOR QUALITY CONTROL DURING PLACEMENT. TYPE AND FREQUENCY OF TESTS SHALL BE IN ACCORDANCE WITH ACI 301.



LATERAL BRACE
DIAGONAL BRACING DETAIL



TRUSS BOTTOM
CHORD BRACING DETAIL



CONTINUOUS DIAGONAL
SWAY BRACING DETAIL

1/S4 TYPICAL WOOD TRUSS DETAILS
1/8" = 1'-0"

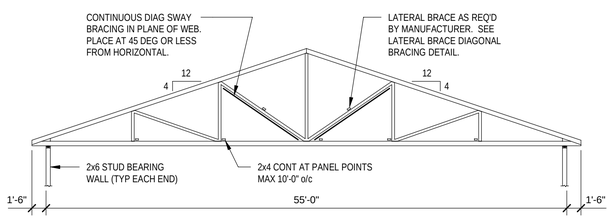
1. WOOD TRUSS BRACING DETAILS ARE CONCEPTUAL IN NATURE. GENERAL CONTRACTOR TO DESIGN TEMPORARY AND PERMANENT TRUSS BRACING. SUBMIT STAMPED CALCULATIONS AND DRAWINGS FOR REVIEW.

WOOD FRAMING

1. ALL WOOD CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" BY THE NATIONAL FOREST PRODUCTS ASSOCIATION AND TO LOCAL BUILDING CODES.
2. ALL WOOD MEMBERS SHALL BE SPRUCE-PINE-FIR NO. 2 GRADE AND BETTER, EXCEPT WHERE NOTED ON PLANS.
3. ALL PRESERVATIVE TREATED WOOD MEMBERS SHALL BE NO. 2 GRADE AND BETTER SOUTHERN PINE. ALL METAL CONNECTORS, ANCHORS AND FASTENERS USED FOR PRESERVATIVE TREATED WOOD SHALL BE STAINLESS STEEL OR GALVANIZED AS RECOMMENDED BY THE CONNECTOR, ANCHOR OR FASTENER MANUFACTURER.
4. SECURELY ATTACH WOOD FRAMING TO SUBSTRATE BY ANCHORING AND FASTENING AS INDICATED, COMPLYING WITH ICC INTERNATIONAL BUILDING CODE CHAPTER 23 TABLE TITLED "FASTENING SCHEDULE."
5. CONTINUITY IN FRAMING SHALL BE PROVIDED AT ALL BEARING WALLS IN ORDER TO TRANSFER THE LOADS TO THE FOUNDATION OR OTHER FRAMING.
6. WOOD TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER TO RESIST LOADS SHOWN ON PLANS. DESIGN OF TRUSSES SHALL CONFORM TO THE REQUIREMENTS OF THE "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION," TPI-14. THE DESIGN OF TRUSSES SHALL BE STAMPED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE PROJECT JURISDICTION AND SUBMITTED FOR APPROVAL. THE MANUFACTURER SHALL SHOW SPECIAL BEARINGS AND LATERAL BRACING AS REQUIRED. BRACING OF WOOD TRUSSES, INCLUDING TEMPORARY BRACING FOR TRUSS INSTALLATION, SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF TPI-DSB-89 "RECOMMENDED DESIGN SPECIFICATION FOR TEMPORARY BRACING OF METAL PLATE CONNECTED WOOD TRUSSES."
7. PLYWOOD SHEATHING SHALL BE APA RATED SHEATHING EXPOSURE 1. ALL PLYWOOD WHICH HAS ANY EDGE OR SURFACE PERMANENTLY EXPOSED TO THE WEATHER SHALL BE EXTERIOR TYPE. PANEL THICKNESS SHALL BE AS SHOWN ON PLANS AND MINIMUM PANEL SPAN RATING SHALL BE 42/20 FOR ROOFS AND 32/16 FOR SIDEWALLS. INSTALL SHEATHING WITH STRENGTH DIRECTION PERPENDICULAR TO SUPPORTING FRAMING. ALL PLYWOOD ROOF SHEATHING SHALL HAVE PLYCLIPS AT MIDSPAN. APPLICATIONS SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF THE AMERICAN PLYWOOD ASSOCIATION.

DESIGN CRITERIA

1. CODES: IBC 2015 AND ASCE 7-10, AS AMENDED BY 2015 VERMONT FIRE AND BUILDING SAFETY CODE
2. BUILDING OR STRUCTURE RISK CATEGORY: II
3. ROOF LOADS:
    - DEAD LOAD: SEE TRUSS DESIGN NOTES
    - GROUND SNOW LOAD (Pg): 70 PSF
    - FLAT ROOF SNOW LOAD (Pf): 59 PSF, PLUS DRIFT AND RIDGE SURCHARGE AS REQUIRED
    - SLOPED ROOF SNOW LOAD (Ps): Cs x Pf
    - EXPOSURE FACTOR (Ce): 1.0
    - THERMAL FACTOR (Ct): 1.2
    - IMPORTANCE FACTOR (Is): 1.0
4. WIND LOAD:
    - ULTIMATE WIND SPEED (Vult): 127 MPH
    - NOMINAL DESIGN WIND SPEED (Vasd): 98 MPH
    - IMPORTANCE FACTOR (Iw): 1.0
    - WIND EXPOSURE: B
    - INT. PRESSURE COEFFICIENT (GCpi): +/- 0.55
    - COMPONENTS/CLADDING: ASCE 7-10
5. SEISMIC LOAD:
    - IMPORTANCE FACTOR (Ie): 1.0
    - MAPPED SPECTRAL RESPONSE COEFFICIENTS: Ss = 0.188 AND S1 = 0.073
    - SITE CLASS: C
    - SPECTRAL RESPONSE COEFFICIENTS: Sds = 0.150 AND Sd1 = 0.083
    - SEISMIC DESIGN CATEGORY: B
    - SEISMIC FORCE-RESISTING SYSTEM: LIGHT-FRAME (WOOD) WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE WITH R=6.5
    - ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE METHOD



2/S4 TYPE A TRUSS
1/8" = 1'-0"

WOOD TRUSS DESIGN NOTES

1. TRUSS CONFIGURATION MAY VARY TO SUIT MANUFACTURER.
2. BRACING SHALL BE 2x4 MINIMUM SIZE AND SHALL BE NAILED TO ALL CROSSING TRUSSES WITH (2) 16d COMMON (0.162"øx3 1/2") NAILS. BRACING SHALL BE OVERLAPPED ONE TRUSS SPACING MINIMUM AT SPLICES.
3. TRUSSES SHALL BE DESIGNED TO SUPPORT LIVE LOAD AND UNBALANCED SNOW LOAD IN ACCORDANCE WITH 2015 IBC AND ASCE 7-10 USING A GROUND SNOW LOAD OF 70 PSF.

DESIGN LOADS:		
	TOP CHORD	DL = 10 PSF
		LL = 20 PSF
		SL = 59 PSF
	BOTTOM CHORD	DL = 10 PSF

IN ADDITION, TRUSS BOTTOM CHORDS ONLY SHALL BE ADEQUATE TO CARRY A 300 LBS CONCENTRATED DEAD LOAD PLACED ANYWHERE. LOAD DURATION FACTOR MAY BE INCREASED TO 1.50 WHEN THIS LOAD IS APPLIED.

4. TRUSS SUPPLIER TO DESIGN ALL WOOD TRUSS TO WOOD TRUSS CONNECTIONS.
5. MINIMUM TOP CHORD SIZE TO BE 2x6.

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PROFESSIONAL SEAL

FINAL DESIGN PLANS NOT FOR CONSTRUCTION

NO.	DATE	DESCRIPTION	BY	CK'D

TOWN OF WARDSBORO
PO BOX 48
WARDSBORO, VT 05355

WARDSBORO SALT SHED REPLACEMENT
STP MM19(15)

SHEET TITLE

STRUCTURAL NOTES & DETAILS

DRAWN BY	DATE
JJS	SEPT 2021
CHECKED BY	D&K PROJECT #
-	125955
PROJ. ENG.	
JJS	

SHEET NUMBER

S4

SHEET OF