



TOWN OF GRAY
STAFF REVIEW COMMITTEE
AGENDA • MARCH 29, 2023

**Staff Review
Committee**

Henry Pennell Municipal Complex
24 Main St, Gray

4:00 PM

I. Meeting Commences

II. New Business

a.

State of Maine Department of Inland Fisheries and Wildlife

A request by the State of Maine Department of Inland Fisheries and Wildlife, represented by Jason Vafiades of Atlantic Resource Consultants, for minor site plan review of a proposal to construct a 2,100-square-foot storage barn and associated improvements on their property at 155 Weymouth Road, Map 14, Lot 016-003, in the Rural Residential and Agricultural zoning district, with part of the property (outside the project area) in the Shoreland Zoning Stream Protection zoning district.

b.

Jason Manley of LJM Properties, LLC

A request by Jason Manley of LJM Properties, LLC for review of plan details for development of Lot #1 of the Lewiston Road Subdivision (Plan Book 222, Page 249), at approximately 104 Lewiston Road, Map 28, Lot 26-02-01 in a Commercial Zoning District, as required per condition #12 of the subdivision Notice of Decision, issued by the Gray Planning Board on May 10, 2022.

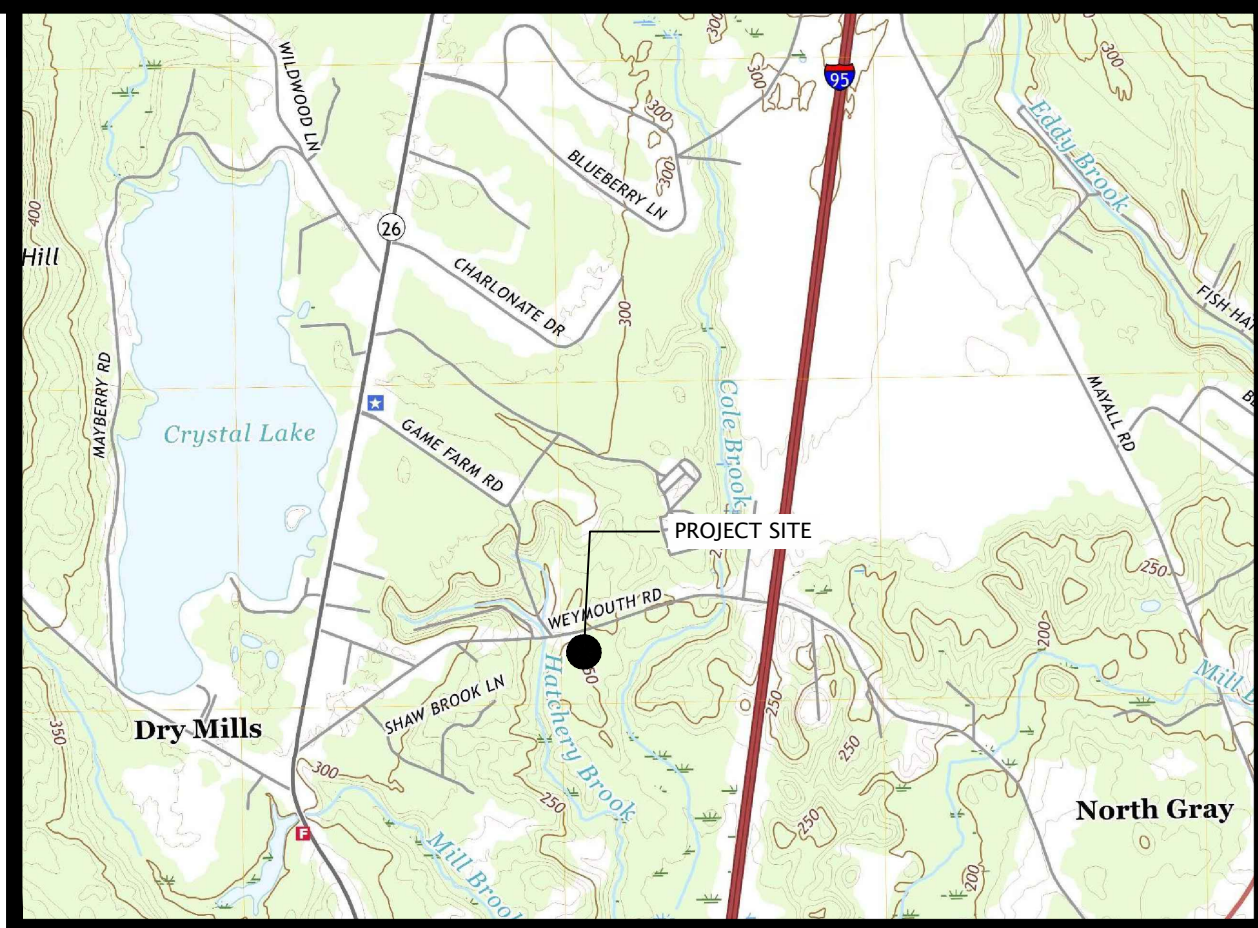
III. Adjournment

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





MDIFW DRY MILLS STORAGE BARN



LOCUS MAP:
1"=2000'

PREPARED FOR:
MAINE DEPT. OF INLAND FISHERIES & WILDLIFE
 284 STATE STREET
 AUGUSTA, MAINE 04333

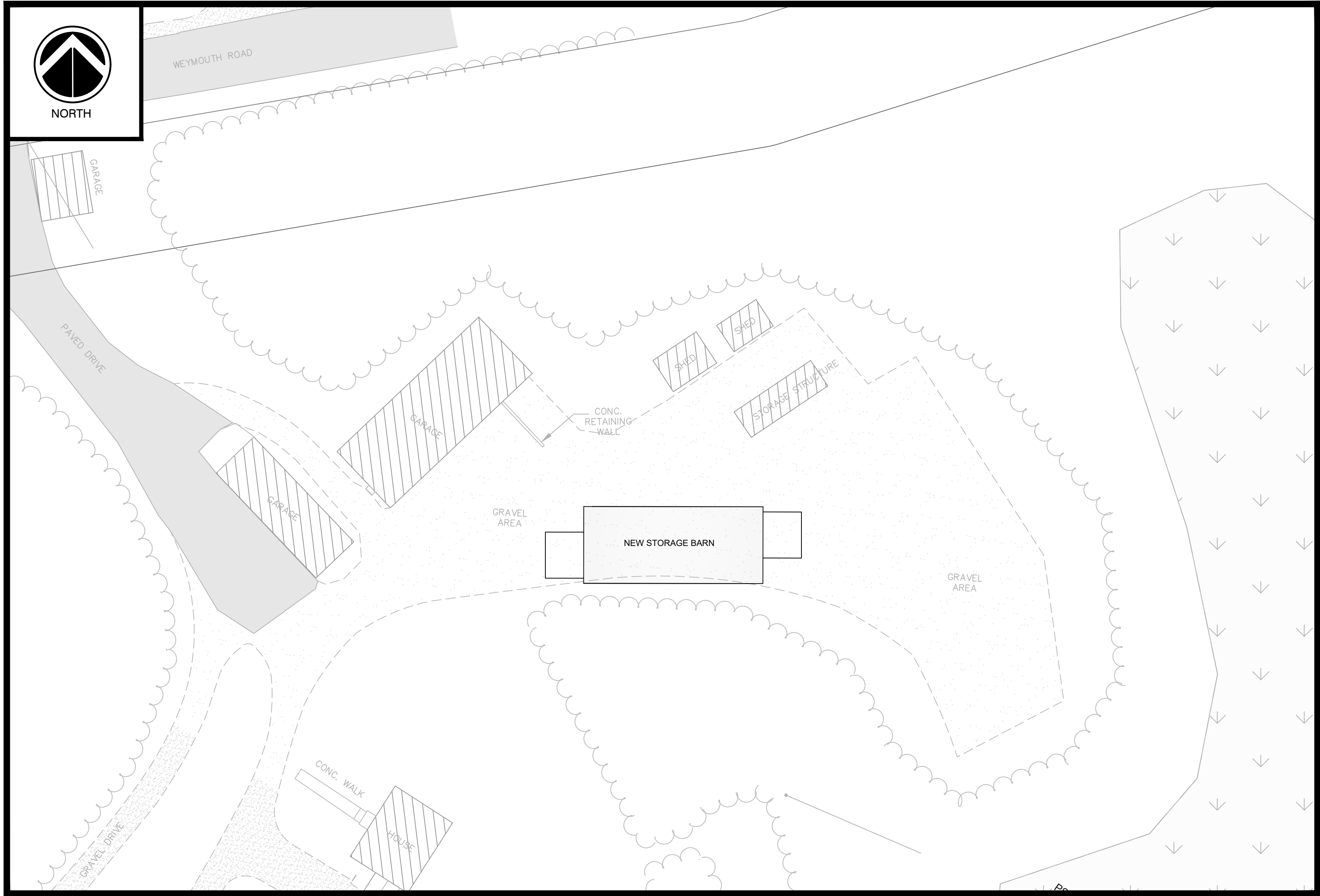
OWNER OF RECORD:
MAINE DEPT. OF INLAND FISHERIES & WILDLIFE
 284 STATE STREET
 AUGUSTA, MAINE 04333

CIVIL ENGINEERING & PERMITTING:



541 US ROUTE ONE, SUITE 21
 FREEPORT, MAINE 04032

SURVEY:
THAYER ENGINEERING
 17 Hasson Street
 Farmingdale, Maine 04344



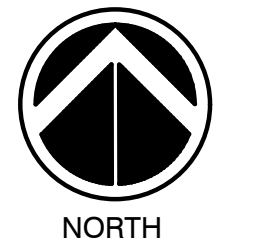
SHEET INDEX:

LIST	DESCRIPTION	SHEET
1 OF 6	COVER SHEET	1 OF 6
2 OF 6	EXISTING CONDITIONS PLAN	2 OF 6
3 OF 6	SITE DEVELOPMENT PLAN	3 OF 6
4 OF 6	EROSION CONTROL NOTES	4 OF 6
5 OF 6	EROSION CONTROL DETAILS	5 OF 6
6 OF 6	CIVIL SITE DETAILS	6 OF 6

SCALE: 1" = 50'

ISSUED TO TOWN OF GRAY, MAINE
 MARCH 2023
 REVISED MARCH 22, 2023

**FOR PERMITTING ONLY
 NOT FOR CONSTRUCTION**



LEGEND

EXISTING	DESCRIPTION
	BOUNDARY LINE/R.O.W.
	ABUTTER LINE
	SETBACK
	EASEMENT
	EDGE PAVEMENT
	GRAVEL
	CONTOURS
	CULVERT/STORM DRAIN
	OVERHEAD UTILITY
	UTILITY POLE
	GUY WIRE
	STREAM
	TREELINE
	MONUMENT
	WETLANDS

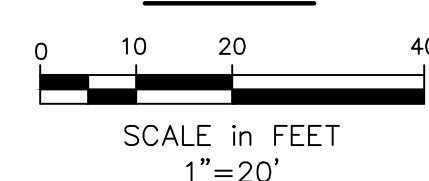
OWNER OF RECORD

Maine Department of Inland Fisheries & Wildlife
284 State Street
Augusta, ME 04333

PLAN NOTES:

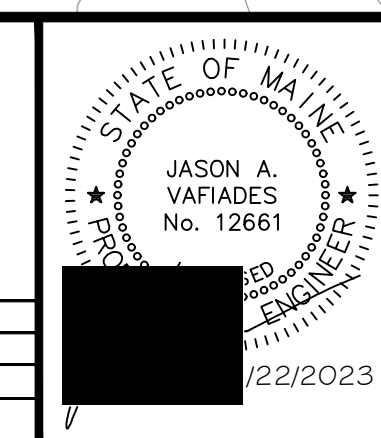
1. THE BASIS OF BEARING FOR THIS SURVEY IS MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE, NAD83, U.S. SURVEY FEET (ME83-WF).
2. CONTOURS AND ELEVATIONS SHOWN REFER TO NAVD88 DATUM.
3. THIS PROPERTY SHOWN HEREON IS LOCATED IN FEMA FLOOD ZONE "C", AREA OF MINIMAL FLOODING AS SHOWN ON FEMA COMMUNITY PANEL NUMBER, 230048 0005 A, EFFECTIVE DATE: JANUARY 6, 1982.
4. DIGITAL CAD FILE OF MEETS & BOUNDS, LOCATION AND LIMITS OF WETLANDS, AND ABUTTERS WAS PROVIDED BY THAYER ENGINEERING COMPANY, 17 HASSON STREET, FARMINGDALE, ME FROM "PLAN OF BOUNDARY SURVEY", DATED OCTOBER 23, 2014.

SCALE



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REV	DATE	DESCRIPTION
1	3-22-2023	REVISED PER STAFF COMMENT



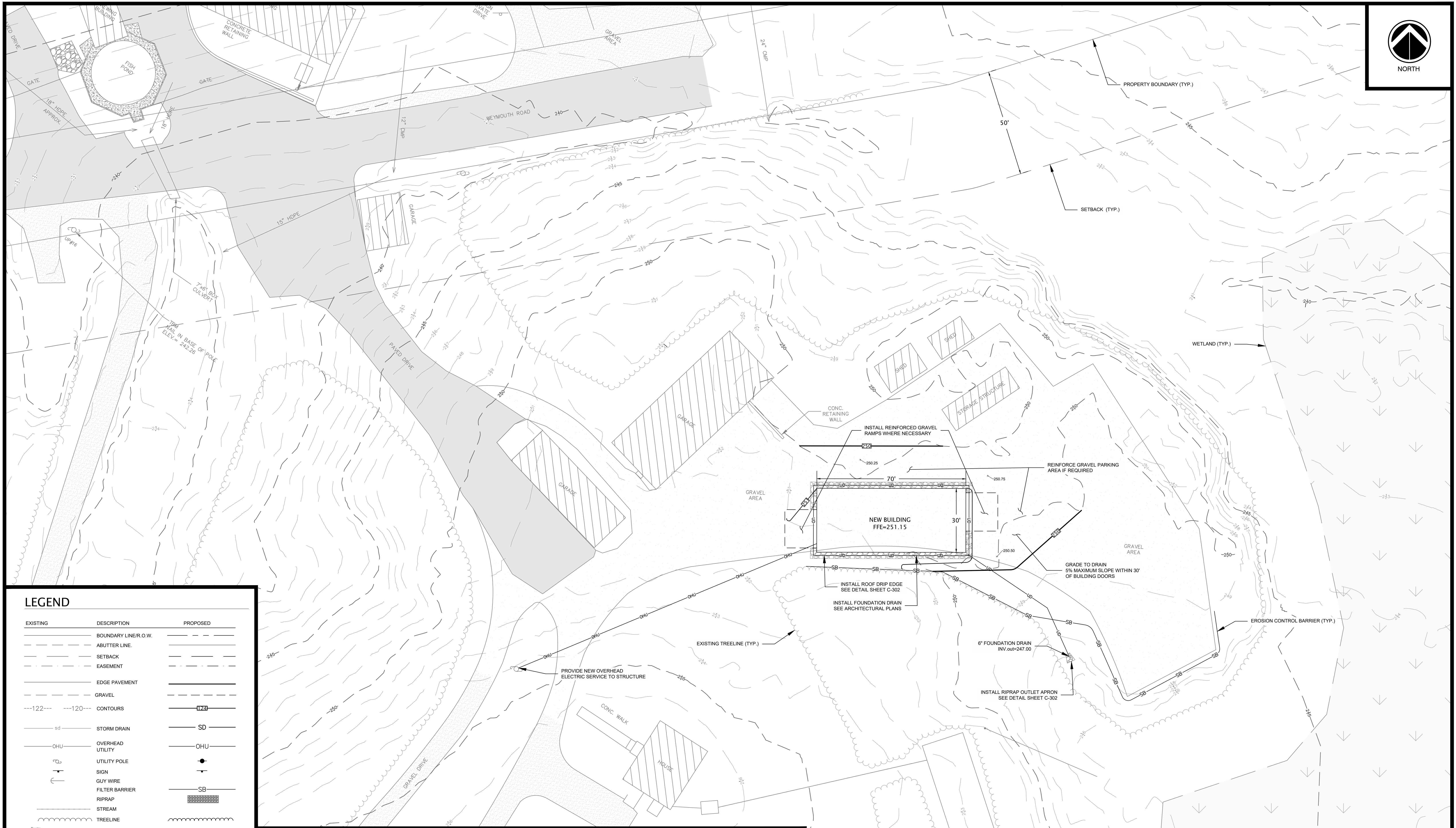
**MDIFW DRY MILLS
STORAGE BARN**

**EXISTING CONDITIONS
PLAN**

MDIFW
185 WEYMOUTH ROAD
GRAY, MAINE 04039

Atlantic Resource Consultants
541 US Route One
Freeport, ME 04032
Tel: 207.869.9050

DRAWN: ZWG	DATE: MARCH 2023
DESIGNED: JAV	SCALE: 1"=20'
CHECKED: JAV	JOB NO. 22-037
FILE NAME:	
SHEET: C-100	



LEGEND

EXISTING	DESCRIPTION	PROPOSED
---	BOUNDARY LINE/R.O.W.	---
---	ABUTTER LINE	---
---	SETBACK	---
---	EASEMENT	---
---	EDGE PAVEMENT	---
---	GRAVEL	---
---122---	CONTOURS	---
sd	STORM DRAIN	SD
OHU	OVERHEAD UTILITY	OHU
U	UTILITY POLE	U
S	SIGN	S
G	GUY WIRE	G
F	FILTER BARRIER	SB
R	RIPRAP	SB
---	STREAM	---
---	TREELINE	---
---	WETLANDS	---

ZONING SUMMARY

SUBJECT PARCEL: MAP 14, LOT 1 G-3
ZONE - RURAL RESIDENTIAL & AGRICULTURAL (RRA)

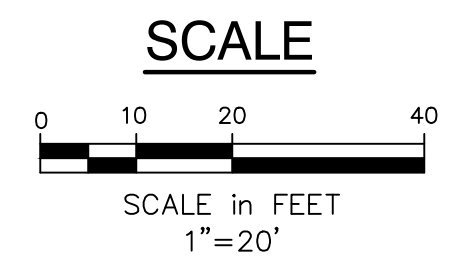
APPLICABLE SPACE & BULK REGULATIONS	REQUIRED	PROVIDED
MINIMUM LOT SIZE	80,000 S.F.	52 AC.
MINIMUM FRONTAGE	200 FT.	>200 FT.
FRONT SETBACK	50 FT.	50 FT.
SIDE SETBACK	25 FT.	25 FT.
REAR SETBACK	50 FT.	50 FT.
MAXIMUM BUILDING LOT COVERAGE	10%	---
MAXIMUM BUILDING HEIGHT	35 FT.	---

OWNER OF RECORD

Maine Department of Inland Fisheries & Wildlife
284 State Street
Augusta, ME 04333

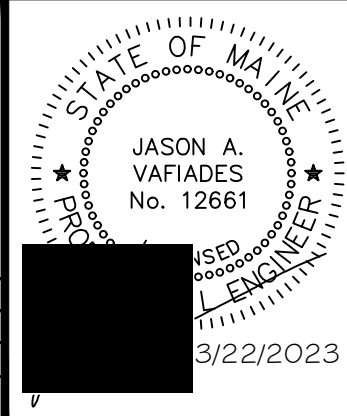
PLAN NOTES:

- THE BASIS OF BEARING FOR THIS SURVEY IS MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE, NAD83, U.S. SURVEY FEET (ME83-WF).
- CONTOURS AND ELEVATIONS SHOWN REFER TO NAVD88 DATUM.
- THIS PROPERTY SHOWN HEREON IS LOCATED IN FEMA FLOOD ZONE "C", AREA OF MINIMAL FLOODING AS SHOWN ON FEMA COMMUNITY PANEL NUMBER, 230048 0005 A, EFFECTIVE DATE: JANUARY 6, 1982.
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		REVISIONS



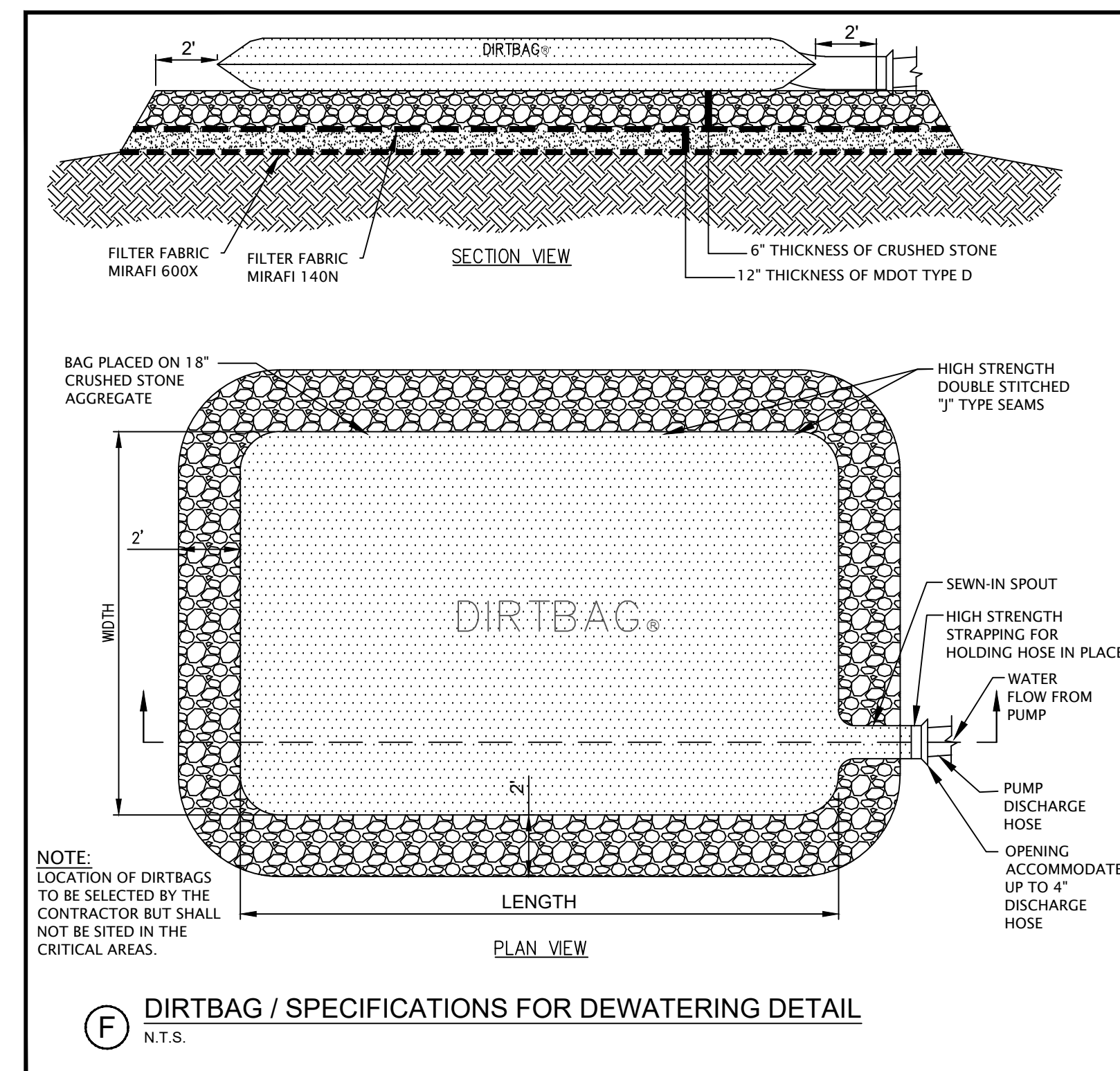
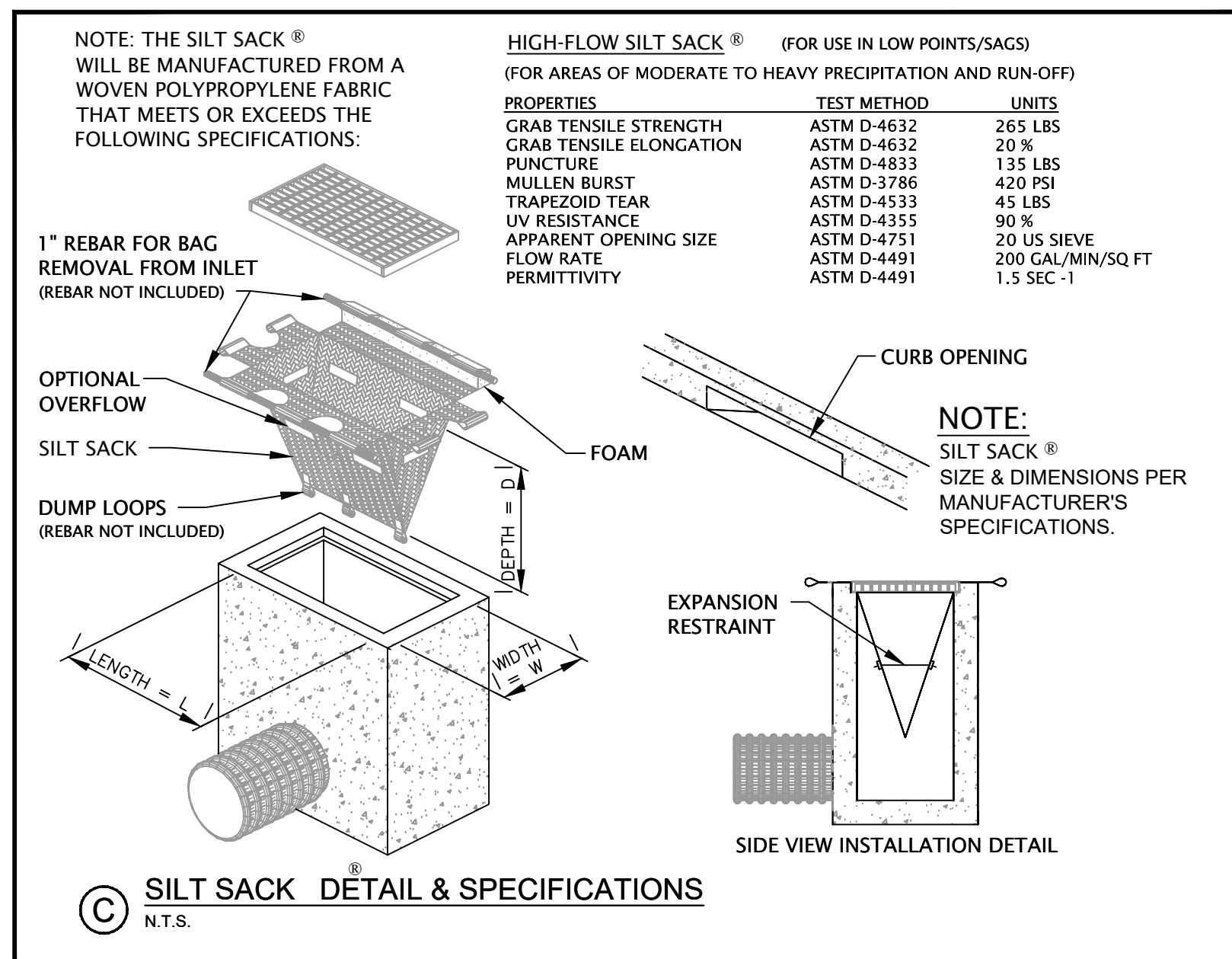
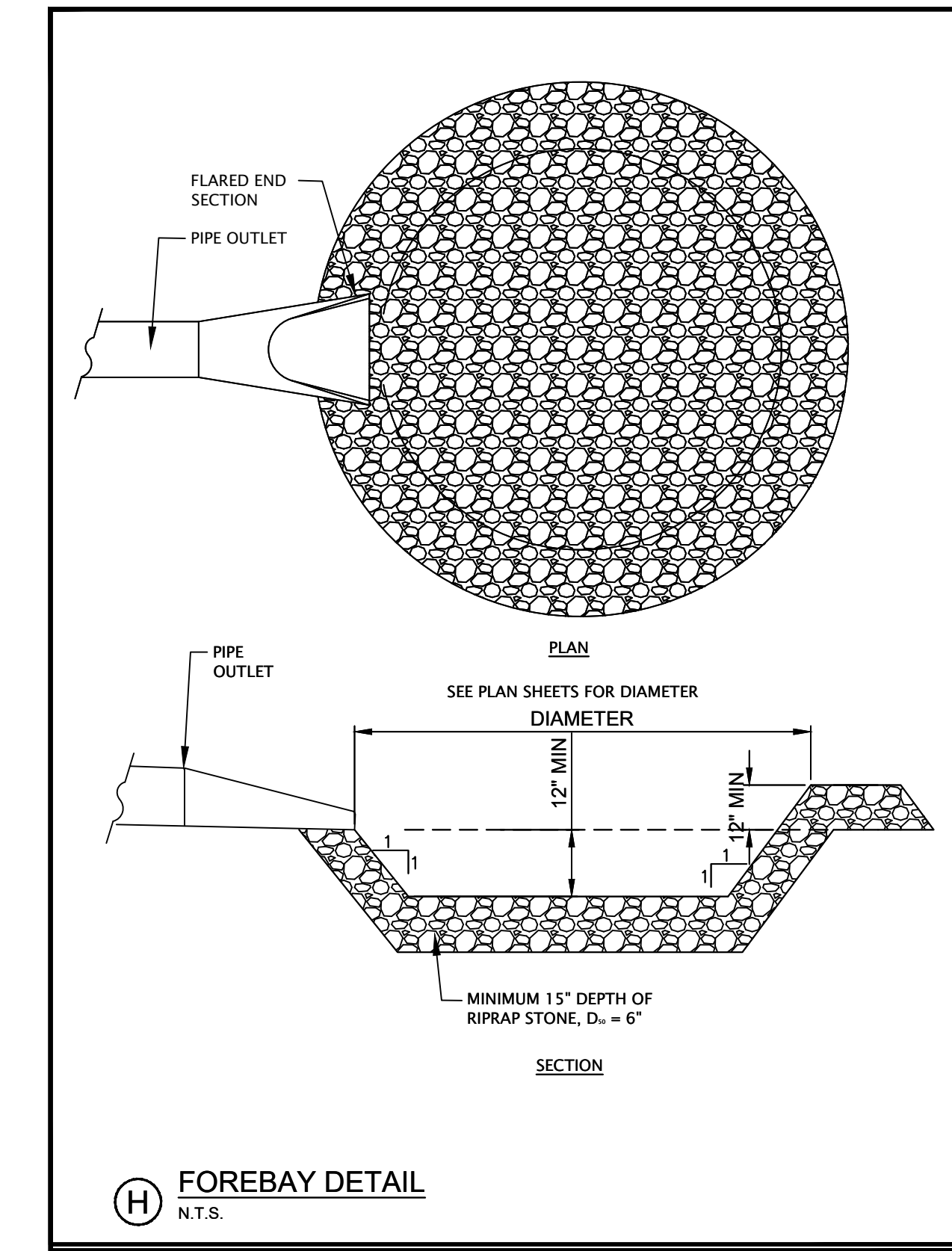
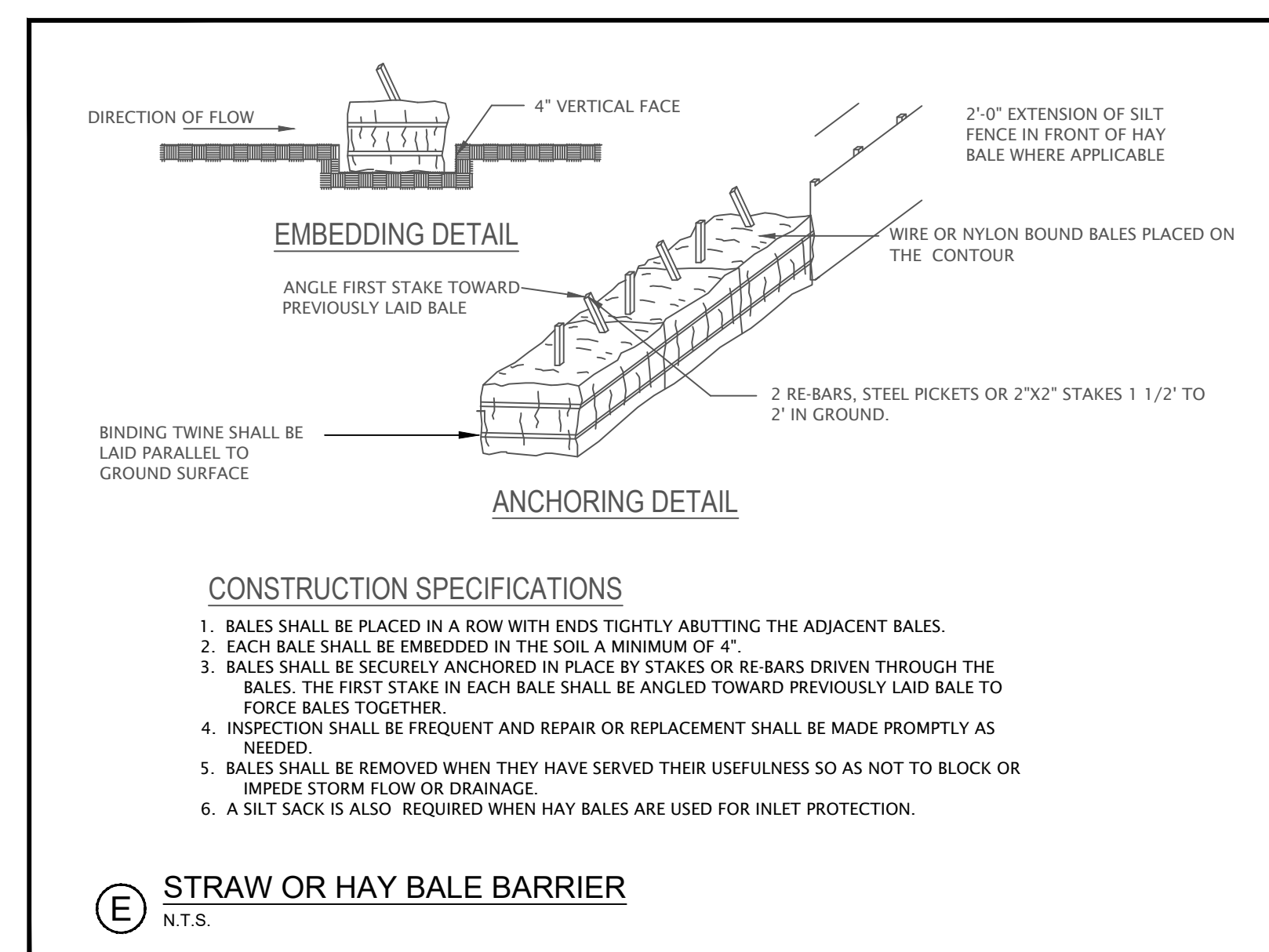
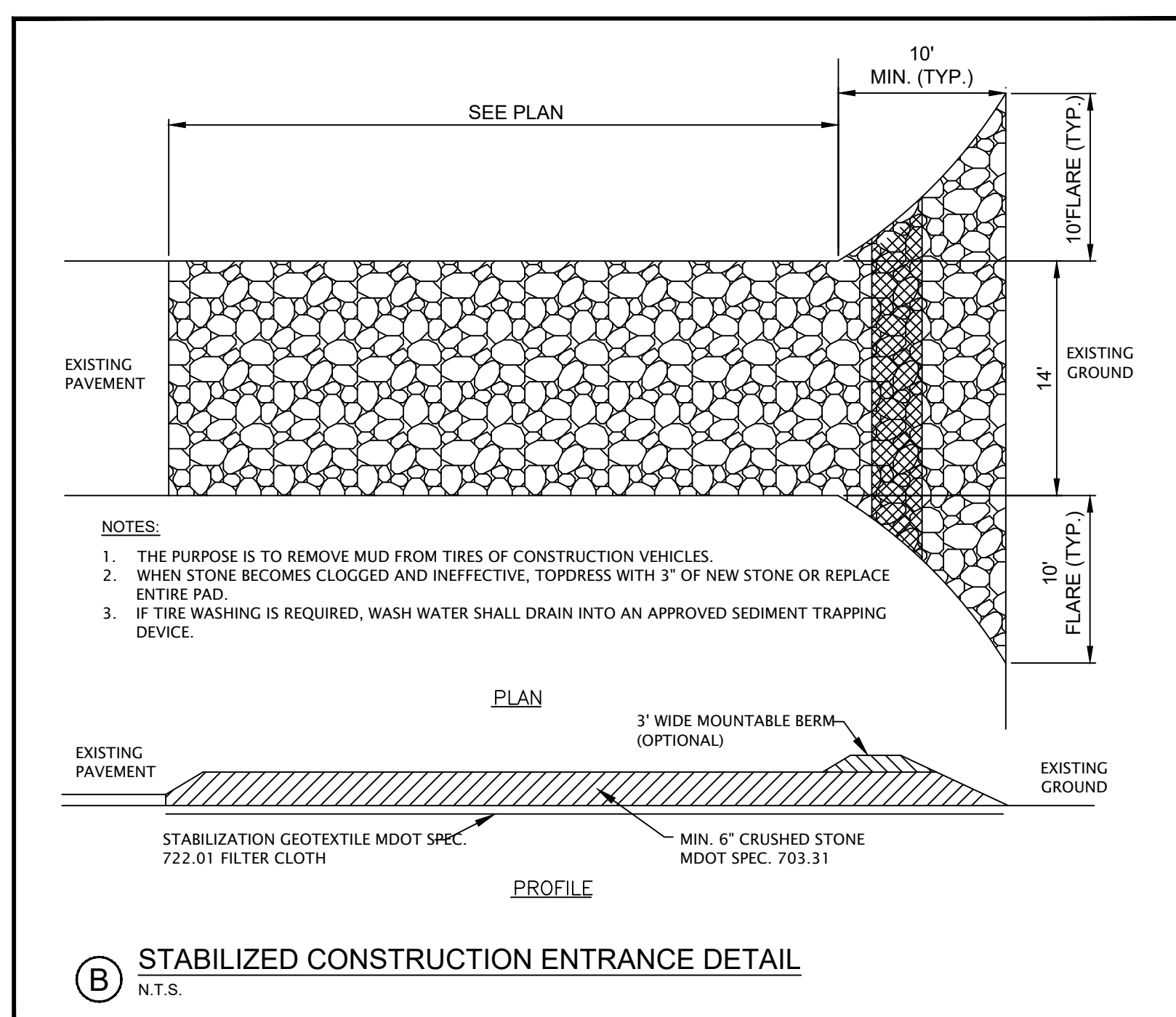
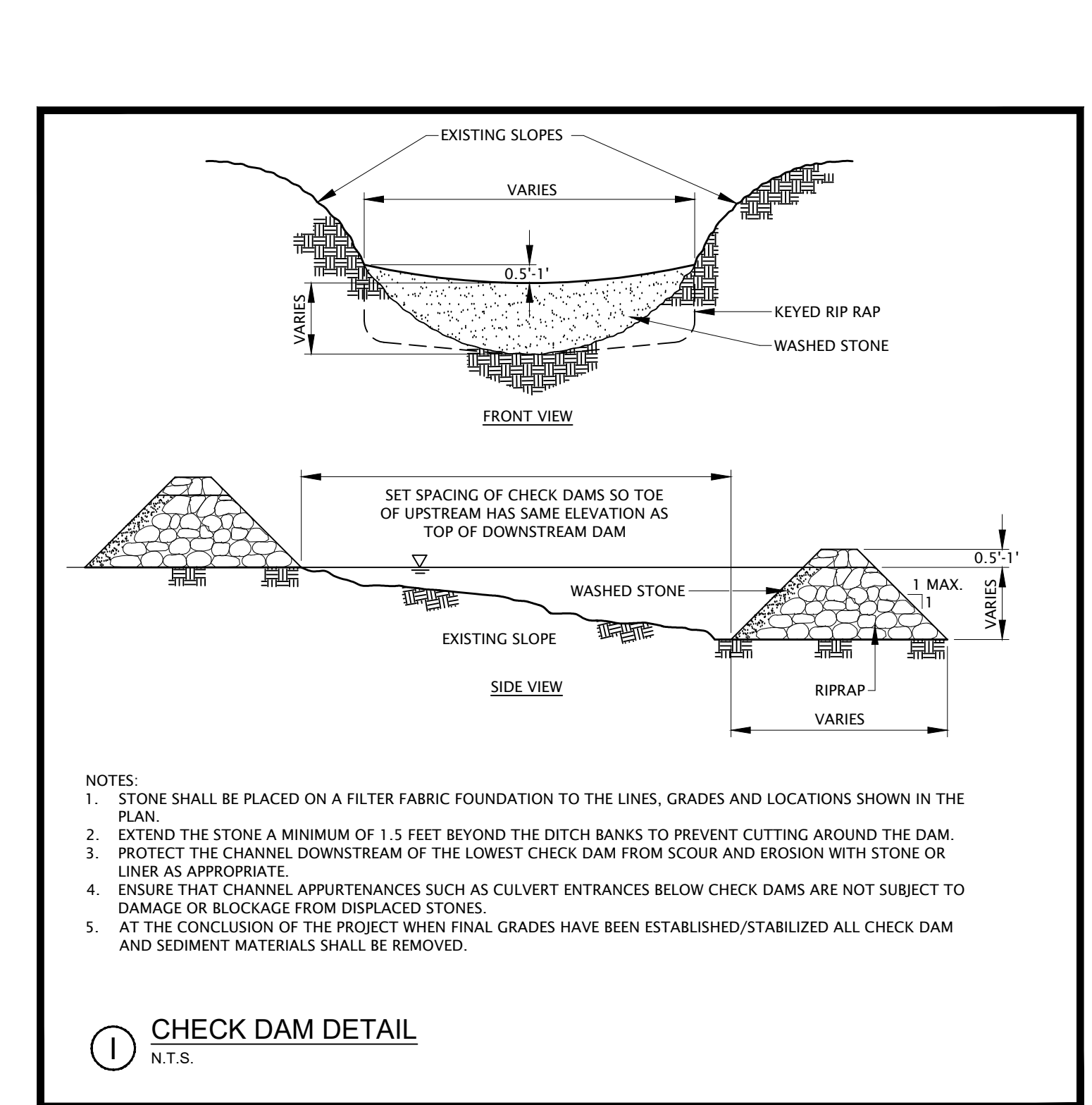
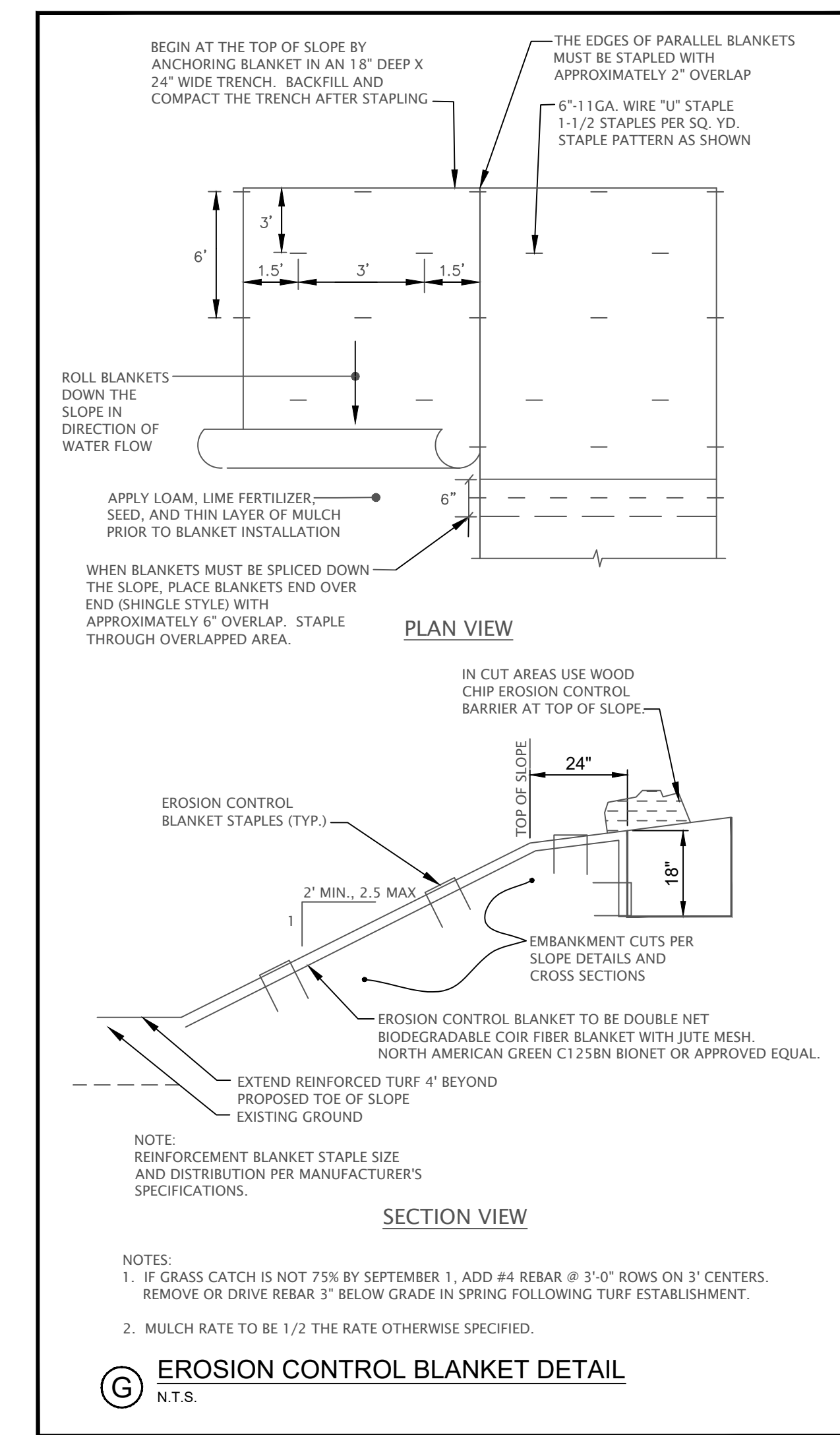
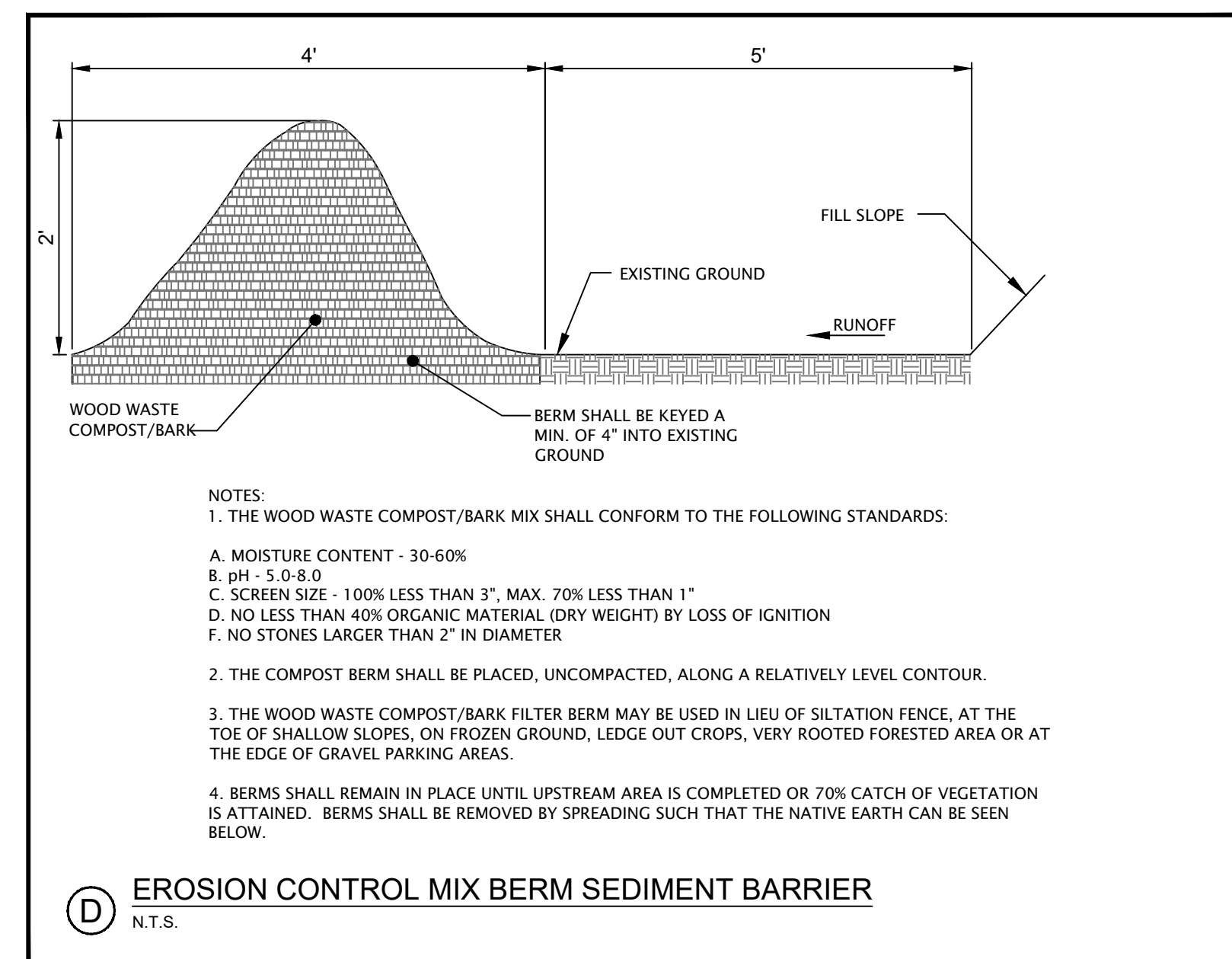
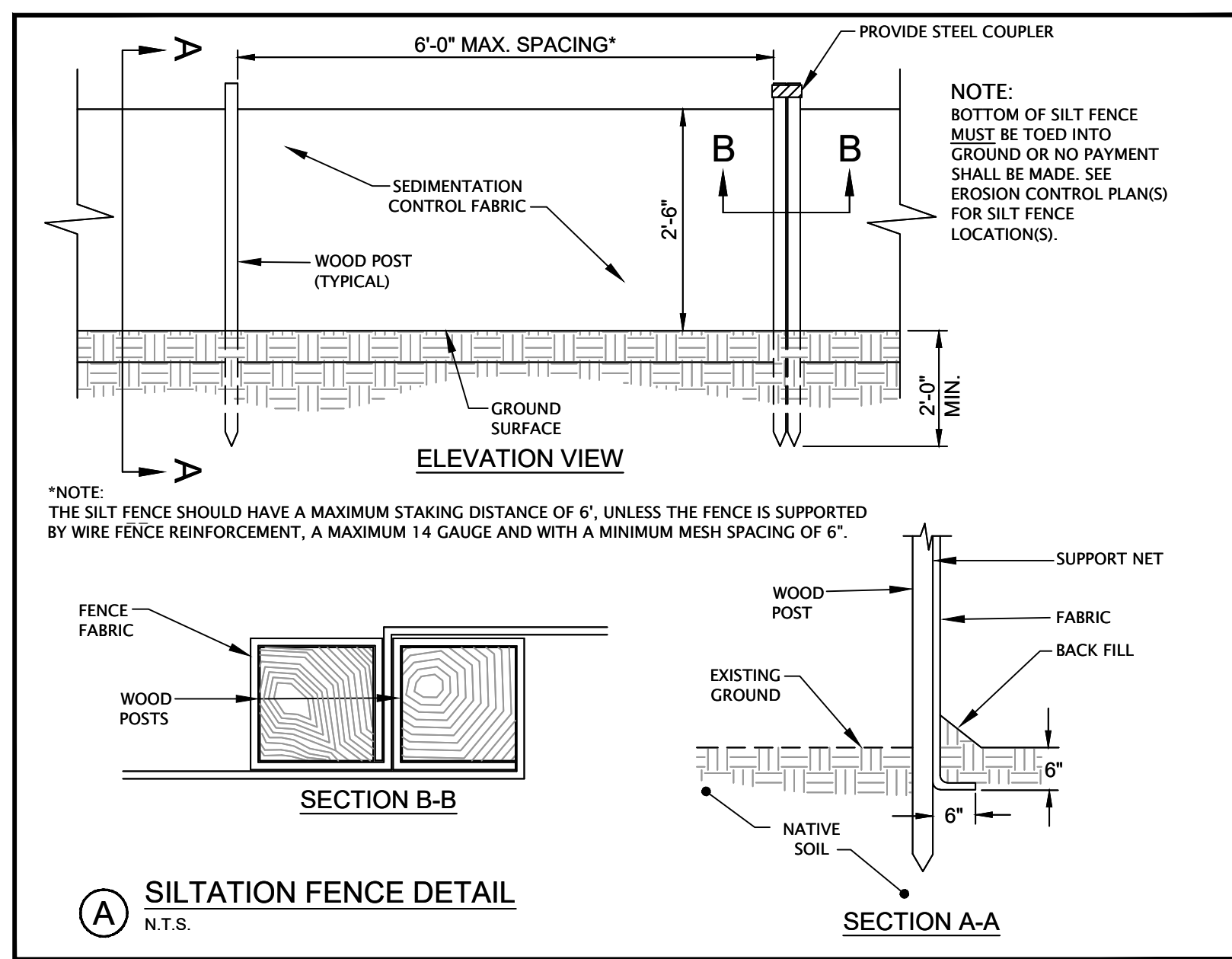
**MDIFW DRY MILLS
STORAGE BARN**

**SITE DEVELOPMENT
PLAN**

MDIFW
185 WEYMOUTH ROAD
GRAY, MAINE 04039

Atlantic Resource Consultants
541 US Route One
Freeport, ME 04032
Tel: 207.869.9050

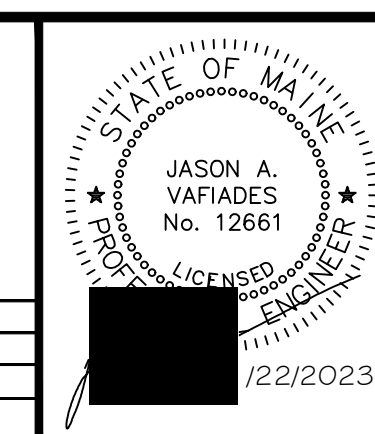
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DESIGNED: JAV	SCALE: 1"=20'
CHECKED: JAV	JOB NO. 22-037
FILE NAME:	
SHEET: C-101	



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REV	DATE	DESCRIPTION
1	3-22-2023	REVISED PER STAFF COMMENT
2		

REVISIONS

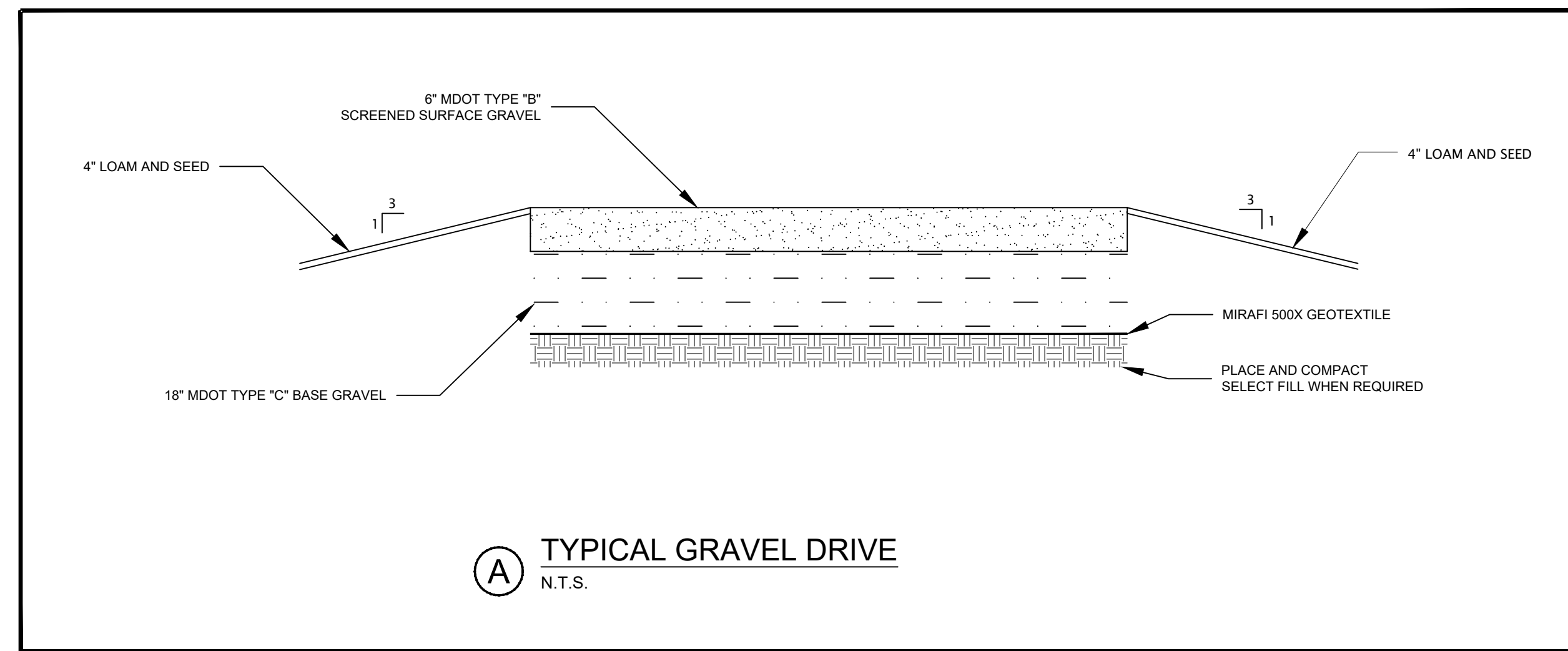


MDIFW DRY MILLS STORAGE BARN
EROSION CONTROL DETAILS

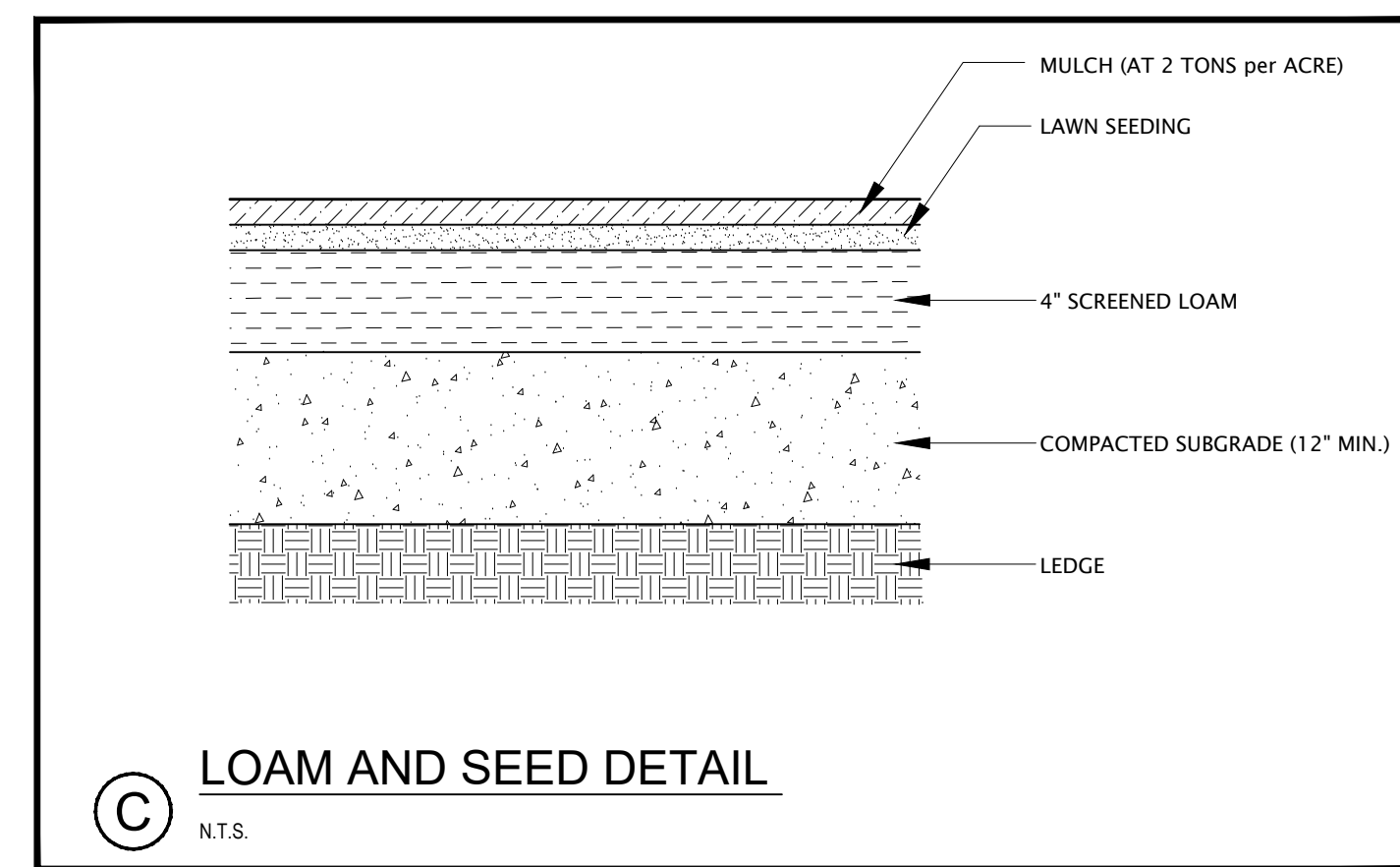
MDIFW
185 WEYMOUTH ROAD
GRAY, MAINE 04039

Atlantic Resource Consultants
541 US Route One
Freeport, ME 04032
Tel: 207.869.9050

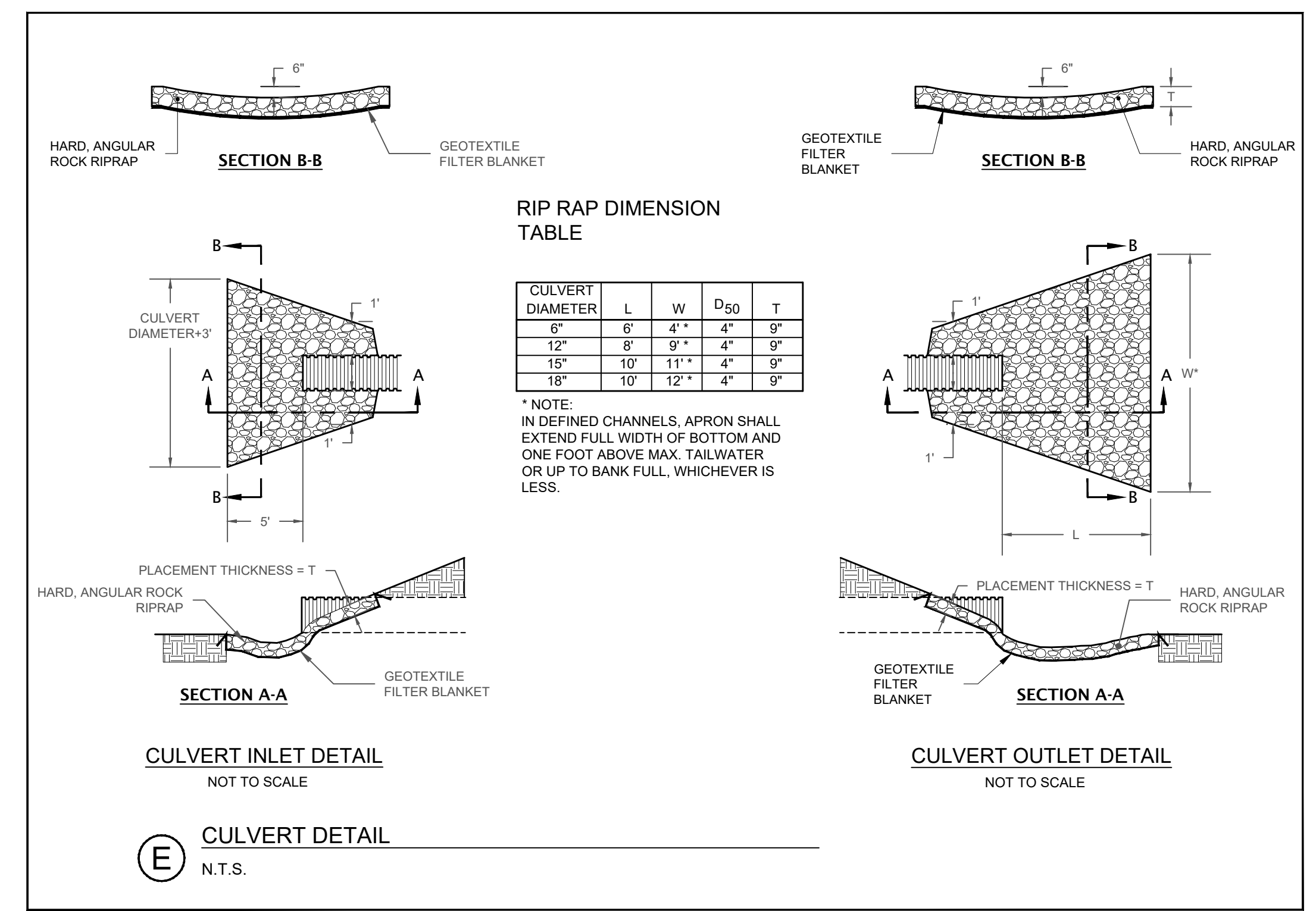
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DESIGNED: JAV SCALE:
CHECKED: JAV JOB NO. 22-037
FILE NAME:
SHEET: C-301



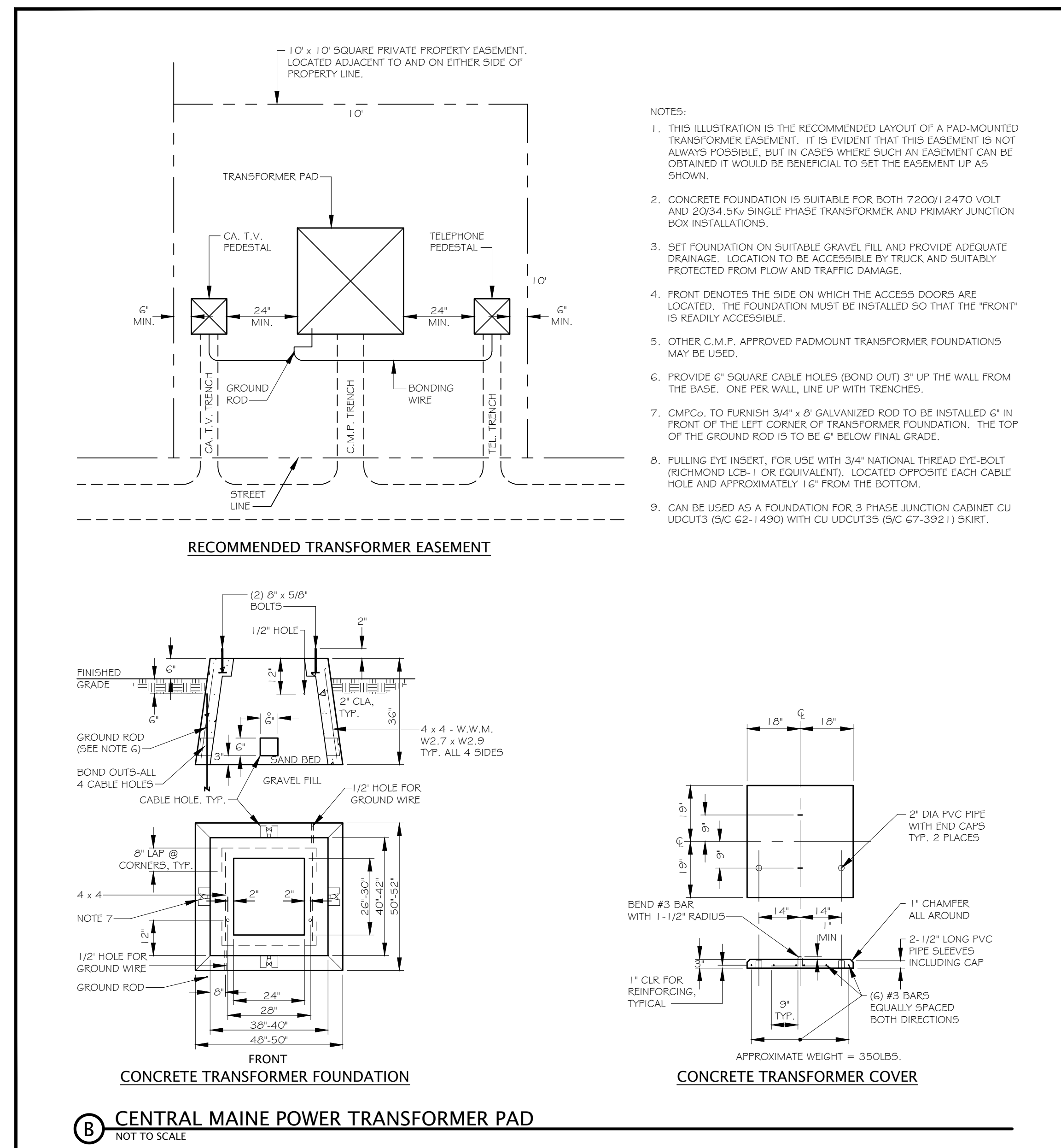
(A) TYPICAL GRAVEL DRIVE
N.T.S.



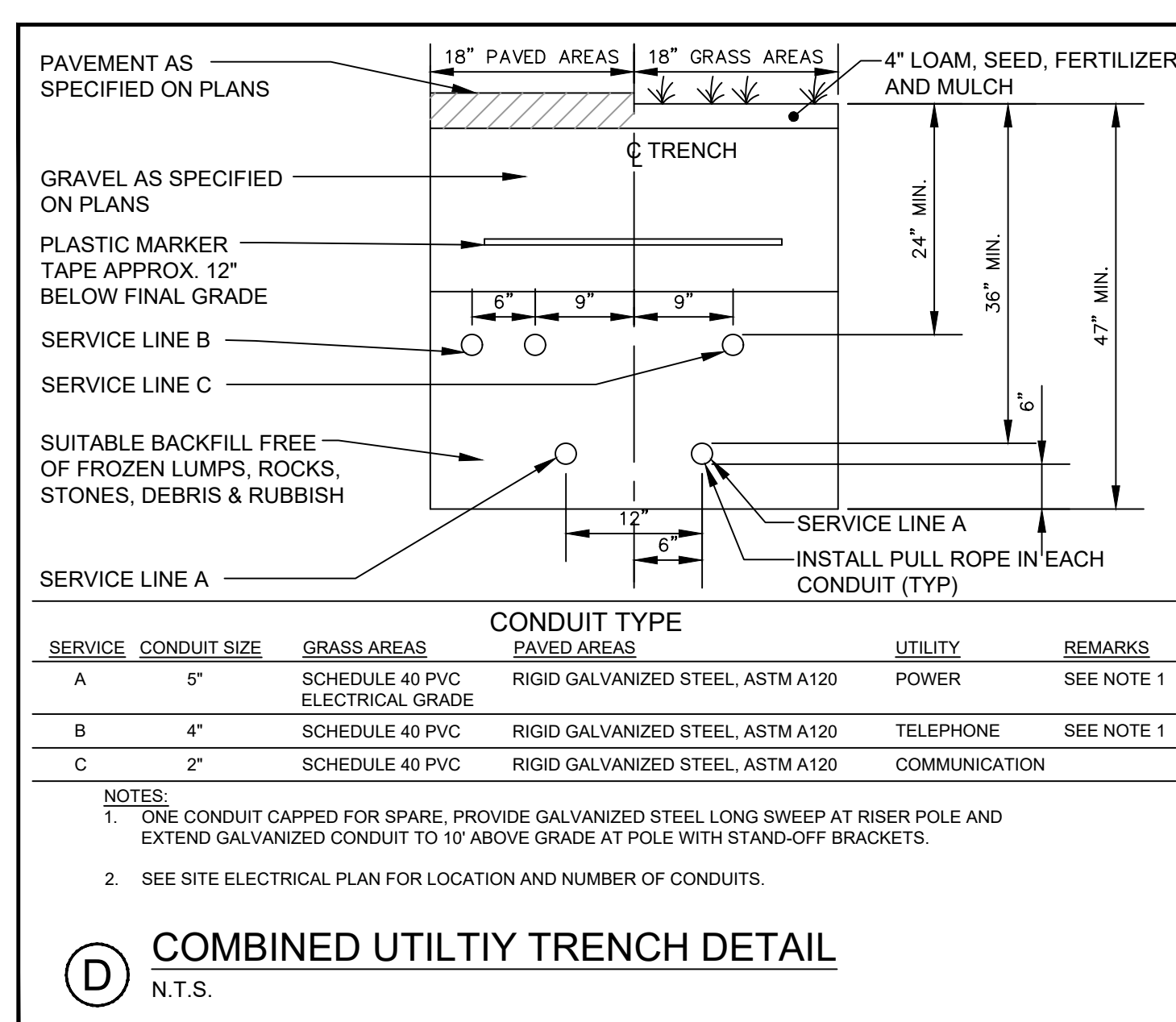
(C) LOAM AND SEED DETAIL
N.T.S.



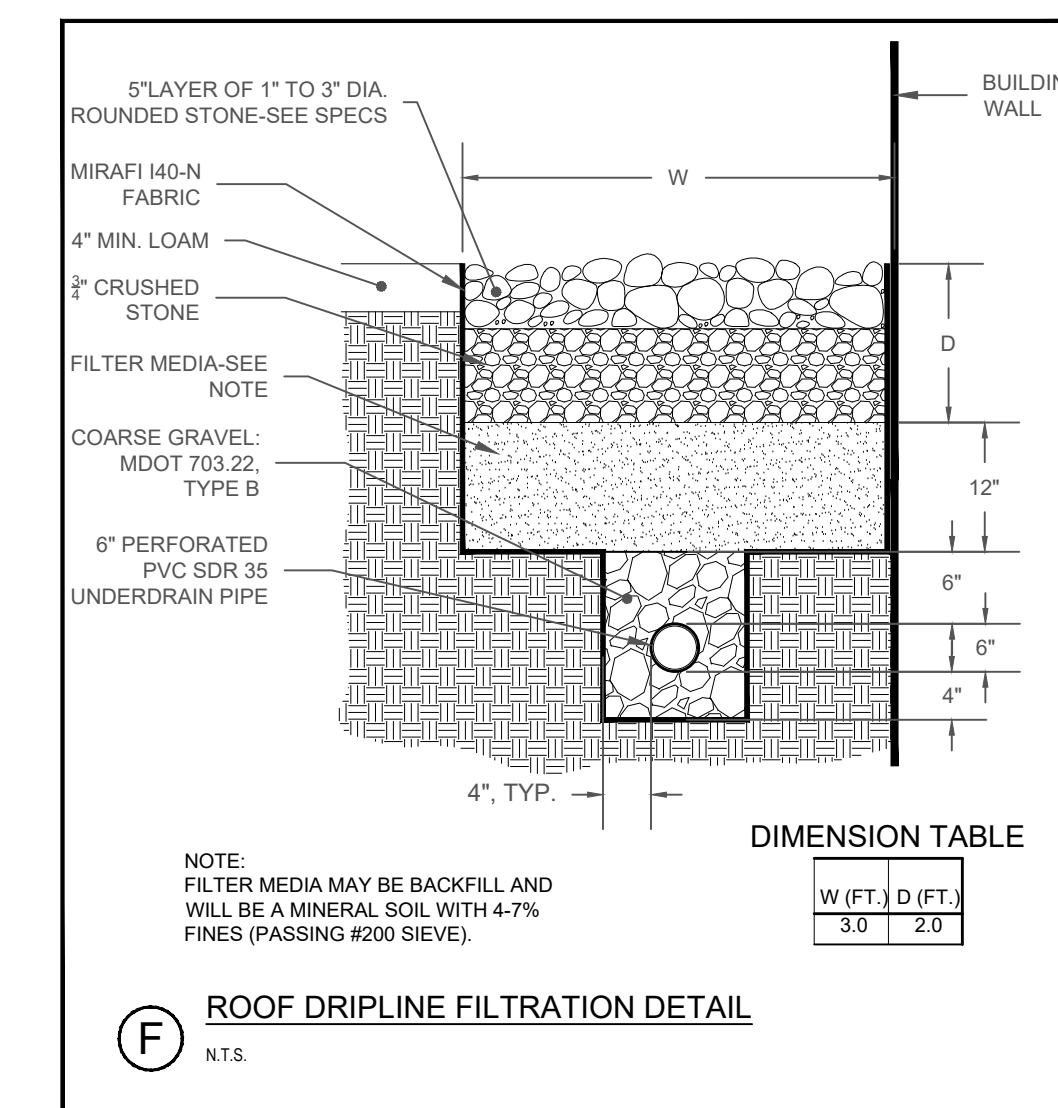
(E) CULVERT DETAIL
N.T.S.



(B) CENTRAL MAINE POWER TRANSFORMER PAD
NOT TO SCALE



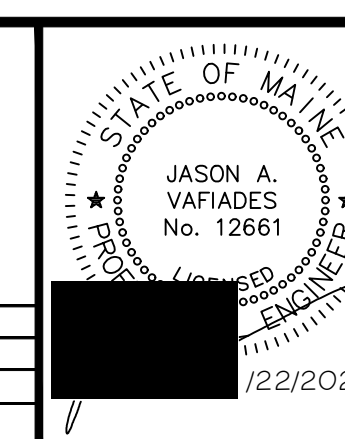
(D) COMBINED UTILITY TRENCH DETAIL
N.T.S.



(F) ROOF DRIPLINE FILTRATION DETAIL
N.T.S.

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REV	DATE	DESCRIPTION
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MDIFW DRY MILLS STORAGE BARN

SITE CIVIL DETAILS

MDIFW
185 WEYMOUTH ROAD
GRAY, MAINE 04039

Atlantic Resource Consultants
541 US Route One
Freeport, ME 04032
Tel: 207.869.9050

DRAWN: ZWG
DESIGNED: JAV
CHECKED: JAV
FILE NAME:
SHEET: C-302

DATE: MARCH 2023
SCALE:
JOB NO. 22-037

MAINE DEPARTMENT OF INLAND FISHERIES & WILDLIFE

DRY MILLS STORAGE BARN

Gray, Maine

TOWN OF GRAY, MAINE
MINOR SITE PLAN APPLICATION

March 2023

Prepared for
Maine Department of Inland Fisheries & Wildlife
41 State House Station
Augusta, Maine 04333

Prepared by
Atlantic Resource Consultants, LLC
541 US Route One, Suite 21
Freeport, Maine 04032



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APPLICATION FORM & CHECKLIST

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SECTION 4 TECHNICAL & FINANCIAL CAPACITY

SECTION 5 MAINE DEP APPROVAL

SECTION 6 ABUTTERS

SECTION 7 FLOODING

SECTION 8 SOILS

SECTION 9 ARCHITECTURALS & LIGHTING

SECTION 10 PLAN SET

APPLICATION FORM & CHECKLIST



PLANNING BOARD/STAFF REVIEW COMMITTEE APPLICATION TOWN OF GRAY MAINE

PROPERTY TO BE DEVELOPED

Property Location/Address	Property Map/Lot
Zoning District	Lot Acreage
Owner Name	Tax Sheet
Owner Address	Owner Phone

APPLICANT

Name (IF different than owner)	Contact Phone Number
Mailing Address	Alternate Phone Number
Mailing City/State/Zip	Fax Number
Email Address	

AGENT/CONSULTANT

Name	Contact Phone Number
Mailing Address	Alternate Phone Number
Mailing City/State/Zip	Fax Number
Email Address	

PROJECT

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

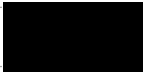
- | | |
|--|--|
| <input type="checkbox"/> Subdivision
<input type="checkbox"/> Sketch Plan Review
<input type="checkbox"/> Preliminary Plan Review (Major)
<input type="checkbox"/> Final Plan Review (Major)
<input type="checkbox"/> Minor

<input type="checkbox"/> Site Plan Review
<input type="checkbox"/> Pre-Application Conference
<input type="checkbox"/> Minor
<input type="checkbox"/> Major

<input type="checkbox"/> Shoreland Zoning Permit | <input type="checkbox"/> Other (specify)
<input type="checkbox"/> Conditional Use
<input type="checkbox"/> Amendment
<input type="checkbox"/> Extension
<input type="checkbox"/> Workshop
<input type="checkbox"/> Contract Zone Request |
|--|--|

Project Description / Comments:

Applicant Signature



Date 03/02/2023



SITE PLAN REVIEW CHECKLIST TOWN OF GRAY MAINE

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

APPLICANT/PROJECT

Name	Date
------	------

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

SITE PLAN REVIEW SUBMISSION REQUIREMENTS

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

402.10.10.B SITE ANALYSIS PLAN

B.1 Fourteen (14) copies of a site analysis plan identifying:					
a. Portions of the site that are unsuitable for development or use;					
b. Portions of the site that are unsuitable for on- site sewage disposal;					
c. Areas of the site that have environmental limitations that must be addressed in the development plan;					
d. Areas that may be subject to off-site conflicts or concerns; and which areas are well suited to the proposed use.					
B.2 Fourteen (14) copies of site description narrative					
B.3 Submission requirement waiver requests, if any					

402.10.10.C APPLICATION SUBMISSION REQUIREMENTS

C.1 Signed/Executed Application					
C.2 Evidence of payment of the application fee and technical review escrow.					
C.3 Fourteen (14) copies of written materials and maps/drawings					
C.4 Report/Maps/Drawings: General Information					
a. Owner contact information					
b. Setback, yard, and buffer locations					
c. Abutter contact information					
d. Map: general site location					
e. Contiguous property boundaries					
f. Map/Lot Number					
g. Deed/proof of ownership/interest in property					
h. Plan preparer name, registration #, seal					
i. Evidence of technical & financial means					
C.5 Reports/Maps/Drawings: Existing Conditions					
a. Zoning Classification					
b. Property lines bearings & length					
c. Location of utilities (water, sewer, electric, etc.)					
d. Street name(s), location(s), width(s)					
e. Building location(s), dimensions, and photo(s)					
f. Driveway location(s), dimensions					
g. Location of intersecting roads/driveways					
h. Location of important or unique natural site features					
i. Direction of surface water drainage					
j. Sign location(s), front view(s), dimensions					
k. Easement location, dimensions, documents					

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

Design Memorandum

To: Doug Webster, AICP, Town of Gray

From: Jason A Vafiades, PE LEED AP

cc: MDIFW

Date: March 3, 2023

Re: MDIFW Dry Mills Storage Barn – Stormwater Assessment

As part of the Minor Site Plan Application for the above-referenced project, we have performed a drainage assessment to determine what, if any, impacts will result from the addition of the proposed storage barn for the Maine Dept. of Inland Fisheries and Wildlife Maine Wildlife Park, zoned as Rural Residential and Agricultural (RRA) on Weymouth Road.

Based on our assessment, it is our opinion that there will be no measurable stormwater impacts as a result of the proposed building. Currently, the lot is compacted gravel and the location of the proposed building will simply be a change of cover from gravel to roof. Since there will be no change in cover type, the stormwater runoff peak rates will remain unchanged.

Thank you for your attention to this project.

Sincerely,

Atlantic Resource Consultants



Jason A Vafiades, PE, LEED AP

Principal

SECTION 1

PROJECT DESCRIPTION & SUBMISSION REQUIREMENTS

PROJECT DESCRIPTION

Maine Department of Inland Fisheries and Wildlife is proposing the construction of a 2,100 square foot Storage Barn and its associated site improvements on property located at 155 Weymouth Road in the Town of Gray, Maine. The parcel is identified by Map 14 Lot 16-3 on the Town of Gray Assessor's Tax Maps and has a total area of 52+/- acres. The site is currently used as part of the dry mills hatchery.

The project site has previously obtained a Site Location of Development Act Application (L-27044-26-A-N). The applicant was approved after-the-fact for approximately 8.42 acres of structure and 12.8 acres of developed area, as well as construction of a new Division A Headquarters, a parking expansion, additional developed area associated with the wildlife exhibits, and a 2,100-square foot garage on the south parcel. The south parcel references the parcel mentioned above, identified by Gray Tax Map 14 Lot 16-3. The applicant was also approved for a minor amendment (L-27044-26-B-B) to the above Site Location of Development Act Application for redesign of the Headquarters building and BMP improvements. Copies of both approvals can be found in Section 5 DEP approval.

SITE PLAN REVIEW SUBMISSION REQUIREMENTS

Deed/Proof of Ownership: Please see Section 3.

Technical & Financial Means: Please see Section 4.

Soil Survey: Please see Section 8.

Water & Sewer: The proposed storage barn will strictly be used for storage and has no proposed water or sewer.

Solid Waste: There are no proposed changes to the solid waste disposal, or generation of solid waste.

Traffic Analysis: The proposed project will not generate any additional trips and therefore will not impact off-site traffic.

Stormwater: All proposed work is taking place on existing impervious area, therefore new stormwater treatment of proposed improvements is not required, but an infiltration drip edge will be installed.

Soil Erosion and Sedimentation Control: Please reference Plan Sheets C-300 & C-301 under Section 10.

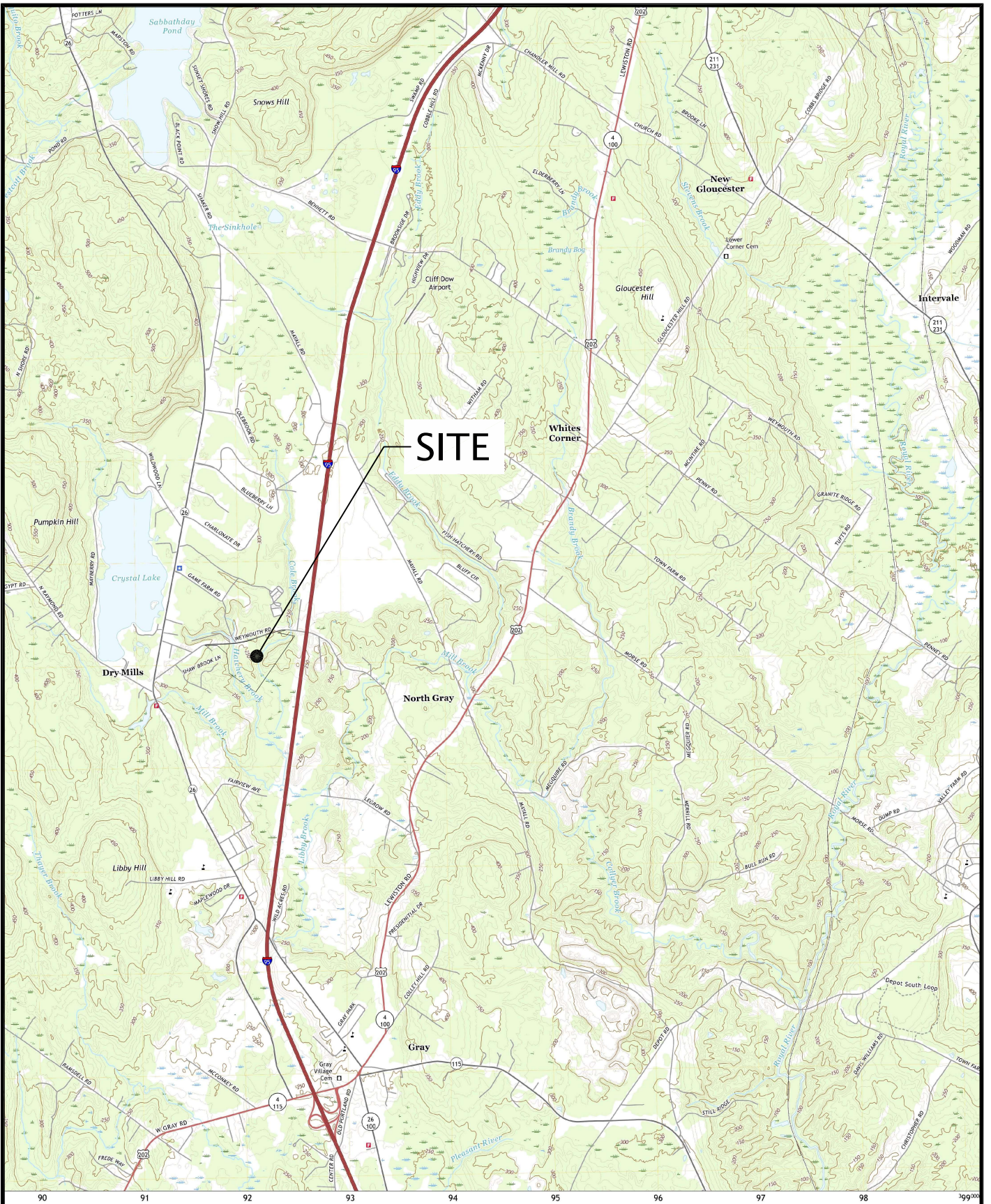
Abutters: See Section 6.

Signage: No proposed signage.

SECTION 2

LOCATION MAP

An excerpt of the USGS Topographic Map with the project site delineated is attached following this page.



MAINE DEPARTMENT OF INLAND
FISH & WILDLIFE
GRAY, MAINE 04333

SITE LOCATION MAP
TAX MAP: 14 LOT 16-3



DRAWN: VMW	DATE: 03/02/2023
DESIGNED: JAV	SCALE: N/A
CHECKED: JAV	JOB NO. 20-025
FILE NAME: 20-025 USGS	

FIGURE
1

SECTION 3

TITLE, RIGHT, OR INTEREST

The proposed parking expansion is entirely located on the land owned by The State of Maine, and is currently the location of the Maine Department of Inland Fisheries and Wildlife dry mill hatchery. The project site parcel has a total area of approximately 52+/- acres and is identified on Tax Map 14, Lot 16-3 on the Town of Gray's Assessors database.

The property deed is attached following this page.

A boundary survey is attached within Section 10

Know all Men by these Presents, That

I, Thomas W. Dutton, -----

in consideration of one dollar (\$1.00) and other valuable considerations, paid by the State of Maine (Inland Fisheries and Game Commission)

the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said State of Maine (Inland Fisheries and Game Commission) and assigns forever, a certain lot or parcel of land located in Dry Mills, in the Town of Gray, County of Cumberland, State of Maine; Beginning at a point on the south side of the road leading from Dry Mills to North Gray, which is the westerly corner of property now owned by the State of Maine, (Inland Fisheries and Game Commission); thence along this property line a distance of three hundred fifty-five feet (355 ft.) S37_- 05"E. to a concrete monument. Then beginning at this monument and continuing on same bearing (S 37_- 05"E) a distance of three hundred forty-six feet (346 ft.) to corner with stake; thence on a property line of the said State of Maine, (Inland Fisheries and Game Commission), a distance of three hundred sixty-six feet (366 ft.) and S 49_- 55"W to a four inch cherry tree; thence N 7_- 55"E and a distance five hundred seventeen feet (517 ft.) to concrete monument and point of beginning. This parcel of land to include 1.6 acres of land more or less, and to be a part of a whole parcel of land now owned by Thomas W. Dutton, and meaning to include the land on which is located the second brood pond, so-called.

~~In~~ ~~have~~ and ~~in~~ ~~hold~~ the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said State of Maine (Inland Fisheries and Game Commission) ~~heirs~~ and assigns, to it and its ~~heirs~~ use and behoof forever. And I do covenant with the said grantee, ~~heirs~~ and assigns, that I am lawfully seized in fee of the premises; that they are free of all incumbrances;

that I have good right to sell and convey the same to the said grantee to hold as aforesaid; and that I and my heirs, shall and will warrant and defend the same to the said grantee, its ~~heirs~~ and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, the said Thomas W. Dutton (single)

his hand and seal this twenty-ninth day of October one thousand nine hundred and thirty-five.

has hereunto set in the year of our Lord

Signed, Sealed and Delivered
in presence of

H. C. Marsden

Thomas W. Dutton

Seal

State of Maine, CUMBERLAND, SS.
the above named Thomas W. Dutton

October 29th, 1935.

Personally appeared

and acknowledged the above instrument to be his free act and deed.

Before me, Horace C. Marsden, *Justice of the Peace.*
Approved: Nov. 14, 1935 as to form. Sanford L. Fogg, Deputy Attorney General.
Received December 27, 1935, at 9 o'clock 10 m. A. M., and recorded according to the original.

Know all Men by these Presents, That

I, Daisy Bird Emery Carson, in the County of Cumberland, and State of Maine, and Town of Gray,

in consideration of one dollar and other valuable consideration paid by the State of Maine, Department of --- Fisheries and Game

the receipt whereof - do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said said State of Maine, Department of --- Fisheries and Game and assigns forever, a certain lot or parcel of land situated in said Gray and described as follows:-
Being all lot No. 84 in the second division of land in said Gray lying on the South side of road leading from Dry Mills in the town of Gray, to North Gray and containing about one hundred (110) and ten square rods, being the same premises conveyed to me by my late husband, Albert L. Emery, and also by deed of Nellie L. Verrill, dated Sept. 17, 1923, and recorded in Cumberland County Registry of Deeds in Book 1149, Page 275.

On ~~have~~ and in ~~hold~~ the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said State of Maine, Department of --- Fisheries and Game ~~heirs~~ and assigns, to it_ and their use and behoof forever. And - do covenant with the said Grantee ~~heirs~~ and assigns, that I am lawfully seized in fee of the premises; that they are free of all incumbrances;

that I have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that I and my heirs, shall and will warrant and defend the same to the said Grantee ~~heirs~~ and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, I the said Daisy Bird Emery Carson, wife of the said Albert L. Emery, (Deceased)

my hand and seal this third day of October in the year of our Lord one thousand nine hundred and thirty-four.

Signed, Sealed and Delivered
in presence of

Carl H. Crane

Daisy Bird Emery Carson Seal

Cumb.
State of ~~Maine~~, CUMBERLAND, ss. Oct. 3 3, 1934 Personally appeared
the above named Daisy B.E. Carson
and acknowledged the above instrument to be her free act and deed.

Before me, George A. Morrill *Justice of the Peace.*
Approved October 11, 1934 as to form. Sanford L. Fogg Deputy Attorney General.
Received October 18 19 34, at 9 o'clock 35m. A. M., and recorded according to the original.

Know all Men by these Presents, That

I Thomas W. Dutton of Gray, in the County of Cumberland, State of Maine,

in consideration of One dollar and other valuable consideration paid by the State of Maine, Department of Inland Fisheries and Game,

the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said State of Maine, Department of Inland Fisheries and Game and assigns forever,

A certain parcel of land situated in Gray in the County of Cumberland and State of Maine, described as follows; Being all that part of lot numbered one hundred and twenty two (122) in the second division of lots in said Gray which lies on the easterly side of the road leading from Dry Mills to Fosters' Mills so called, containing forty (40) acres, more or less, and being the same premises conveyed to Catherine M. Dutton by Thomas Dutton January 8th, 1862, and recorded in Cumberland County Registry of Deeds, Book 317, page 52. That I, Thomas W. Dutton do reserve all timber and wood, either hard or soft, to be cleared by myself, excepting when the Inland Fisheries and Game Department of Augusta may wish to clear any portion of this parcel of land for any project or development that the Inland Fisheries and Game Department may propose, and may be cleared by the said Inland Fisheries and Game or by myself at any time.

This parcel of land being the same conveyed to me, Thomas W. Dutton of Gray Maine, by Paulena G. Clough of Sidney, Nebraska, Eben L. Dutton of Holstein, Nebraska, Mary A. Morrill, George H. Dutton and Kate M. Tufts of New Gloucester, County of Cumberland State of Maine, by deed dated August 20th, 1895, and recorded in Cumberland Registry of Deeds, October 23d, 1896, Book 641, P. 2613.

~~On~~ ~~have~~ and in ~~hold~~ the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said State of Maine, Department of Inland Fisheries and Game heirs and assigns, to **it and** their use and behoof forever. And I do covenant with the said Grantee

~~heirs~~ and assigns, that I am lawfully seized in fee of the premises; that they are free of all in cumberances;

that I have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that I and my heirs, shall and will warrant and defend the same to the said Grantee heirs and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, the said Thomas W. Dutton being a single man, and relinquishing and conveying -- rights by descent and all other rights in the above described premises,

my hand and seal this thirteenth day of June have hereunto set one thousand nine hundred and thirty four. in the year of our Lord

Signed, Sealed and Delivered
in presence of

Carl H. Crane

Thomas W. Dutton Seal

State of Maine, CUMBERLAND, SS. Gray Maine, June 13, 1934

Personally appeared

the above named Thomas W. Dutton

and acknowledged the above instrument to be his free act and deed.

Before me, Chester T. Winslow, Justice of the Peace.
Approved June 14, 1934, as to form, Sanford L. Fogg, Deputy Attorney General.
Received June 26, 1934, at 8 o'clock 30 m. A. M., and recorded according to the original.

Know all Men by these Presents, That

I, Mary E. Baird of Portland in the county of Cumberland and State of Maine,

in consideration of four hundred (400) dollars, paid by
the State of Maine,

the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said

State of Maine, its successors and assigns forever, a certain piece or parcel of land situated in Gray in the county of Cumberland and State of Maine, lying on the right hand side of the road leading from Dry Mills to North Gray, bounded and described as follows, viz: Commencing at an apple tree standing near the above named road, thence running easterly by the line of said road five hundred seventy-two and one-half (572½) feet to a stake, thence running south thirty-eight and one-half (38½) degrees east, along the line of land formerly owned by George Frank two hundred thirty-one (231) feet to a split stone; thence running south fifty-one and one-half (51½) degrees west along the line of land of Thomas W. Dutton four hundred sixteen (416) feet to a stake; thence running north thirty-five and one-half (35½) degrees west along the line of land formerly of Lewis Verrill to the point begun at.

The above described premises were the property of Alvah M. Shaw, late of said Gray, deceased, and were devised to me by said Alvah M. Shaw, by his Last Will and Testament approved and allowed by the Probate Court for said county of Cumberland on the eleventh day of May A. D. 1927.

~~On Have and in Hold~~ the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said State of Maine, its successors heirs and assigns, to its and their use and behoof forever. And I do covenant with the said Grantee, its successors

~~heirs and assigns, that~~ I am lawfully seized in fee of the premises; that they are free of all in cumbrances;

that I have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that I and my heirs, shall and will warrant and defend the same to the said Grantee, its successors heirs and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, I the said Mary E. Baird, unmarried,

my hand and seal this twenty-fifth day of May have hereunto set
one thousand nine hundred and thirty-one. in the year of our Lord

Signed, Sealed and Delivered
in presence of

John B. Kehoe

Mary E. Baird Seal

State of Maine, CUMBERLAND, SS. May 25, 1931 . Personally appeared

the above named Mary E. Baird

and acknowledged the above instrument to be her free act and deed.

Before me, John B. Kehoe, *Justice of the Peace.*
Approved June 2, 1931 as to form, Sanford L. Fogg, Deputy Attorney General
Received June 4, 1931, at 9 o'clock 40 m. A. M., and recorded according to the original.

SECTION 4

TECHNICAL ABILITY & FINANCIAL CAPACITY

TECHNICAL ABILITY

Project Team

Atlantic Resource Consultants is the primary consultant involved with the site permitting of the project and has assembled the materials in this application. The following firms are acting as consultants to Maine Department of Inland Fisheries and Wildlife or as sub-consultants for the project:

Firm	Services	Contact
Atlantic Resource Consultants, LLC 541 US Route One, Suite 21 Freeport, ME 04032	Site/Civil Engineering, Site Permitting,	Jason Vafiades, PE jasonv@arc-maine.com (207)-266-5618
A.E.Hodsdon Consulting Engineers 10 Common Street Waterville, ME 04901	Site Planning Elevation & Floor Plans	Benjamin E. Murray (207)-873-5164 (207)872-0645

Experience of Project Team

The team of consultants retained by the Applicant has expertise and experience in the design of similar facilities throughout the State of Maine and New England.

Ability of the Applicant

The Applicant is a State Agency that has experience in maintenance and management of similar facilities that they own, including but not limited to, all facilities within the Maine Wildlife Park in Gray, Maine.

FINANCIAL CAPACITY

The applicant is a State Agency that already has funding in place.

SECTION 5

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

APPLICATION APPROVAL

Herein this section are copies of the Site Location of Development Act and Minor Amendment approvals received from the Maine DEP for the construction of the 2,100 square foot garage (storage barn).



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

September 2016

Richard Parker
Maine Department of Inland Fisheries and Wildlife
284 State Street
Augusta Maine 04333

RE: Site Location of Development Act Application, Gray, DEP #L-27044-26-A-N

Dear Mr. Parker:

Please find enclosed a signed copy of your Department of Environmental Protection land use permit. You will note that the permit includes a description of your project, findings of fact that relate to the approval criteria the Department used in evaluating your project, and conditions that are based on those findings and the particulars of your project. Please take several moments to read your permit carefully, paying particular attention to the conditions of the approval. The Department reviews every application thoroughly and strives to formulate reasonable conditions of approval within the context of the Department's environmental laws. You will also find attached some materials that describe the Department's appeal procedures for your information.

If you have any questions about the permit please contact me at (207) 615-6426 or at christine.woodruff@maine.gov.

Sincerely,

Christine Woodruff, Project Manager
Bureau of Land Resources

pc: File
Jason Vafiades, P.E.



DEPARTMENT ORDER

IN THE MATTER OF

DEPARTMENT OF INLAND)	SITE LOCATION OF DEVELOPMENT ACT
FISHERIES AND WILDLIFE)	
Gray, Cumberland County)	
DIVISION A HEADQUARTERS AND)	
GRAY WILDLIFE PARK)	
L-27044-26-A-N (partial after-the-fact)	
approval))	FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S.A. Sections 481 *et seq.*, the Department of Environmental Protection has considered the application of DEPARTMENT OF INLAND FISHERIES AND WILDLIFE with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. History of Project: The State of Maine owns 243.8 acres on both sides of Weymouth Road in the Town of Gray. The portion of the parcel on the northerly side of Weymouth Road has 193.9 acres and belongs to the Maine Department of Inland Fisheries and Wildlife; this parcel also has frontage on the east side of Shaker Road (Route 26). This portion of the parcel will be referred to as the “main parcel”. The other portion of the parcel is on the south side of Weymouth Road contains 49.9 acres and is referred to in this document as the “south parcel”. A plan titled “State of Maine, Department of Inland Fisheries and Game, Augusta, Maine, Property Survey, Dry Mills Hatchery and Game Farm, Gray, Maine,” dated July 17, 1956 and revised April 5, 1971, shows the fish hatchery, existing interior roads, and existing buildings. Prior to 1970, approximately 6.29 acres of structure and 26.8 acres of developed area had been created that included: the farmhouse, the wildlife park office building (which was previously used for other purposes), the fish hatchery complex and associated housing, pheasant pens, various barns, the gamekeeper’s house, brooder houses, several outbuildings associated with the wildlife park site, Game Farm Road, parking areas, a small gravel extraction area, and the Forest Service facility.

Between 1981 and 1995, an additional 3.96 acres of structure and 7.93 acres of developed area was created for the construction of the applicant’s Division A Headquarters, expansion of the Forest Service facility, construction of the State Police Barracks, a parking lot expansion at the wildlife park, the relocation of a historic school house onto the property, and additional developed area in the hatchery storage yards.

Between 1995 and the present, an additional 4.46 acres of structure and 4.86 acres of development was created by construction of storage yards, and for parking, structures, and paths in the wildlife park.

The total amount of development created since 1975 is approximately 8.42 acres of structure and 12.8 acres of developed area.

B. Summary: The applicant seeks after-the-fact approval for approximately 8.42 acres of structure and 12.8 acres of developed area as discussed above and also seeks approval for construction of a new Division A Headquarters, a parking lot expansion and additional developed area associated with the wildlife exhibits in the wildlife park on the main parcel, and a 2,100-square foot garage on the south parcel. The proposed projects include 1.99 acres of new structure and 4.23 acres of new developed area. As part of this project, the existing Division A Headquarters will be removed and converted to meadow.

The project is shown on a set of plans, the first of which is titled "Site Location of Development After the Fact Permit Compliance for Maine Department of Inland Fisheries & Wildlife, Gray, Maine, June 10, 2016 Permit Documents," prepared by Stantec Consulting Services, Inc. and dated May 18, 2016, with a last revision date on any of the plans of August 23, 2016.

The applicant is also proposing to remove a gravel path in the wildlife park that was constructed after 1995 within 75 feet of a stream, with portions within 25 feet of the stream, and restore it to a natural condition. The applicant proposes to complete the removal and restoration of the path prior to reopening of the wildlife park in the spring of 2017. This same area of stream is impounded with an earthen berm for a waterfowl viewing area with another gravel path to the impounded area; this gravel path and earthen berm were constructed prior to the Natural Resources Protection Act.

C. Current Use of Site: The project site contains 243.8 acres and is partially developed as described above and also has fields and woodland. The site has two streams named Cole Brook and Hatchery Brook flowing through it. There are many structures on the property and they are shown on the Existing Conditions and Removals Plans of the plan set referenced above.

2. FINANCIAL CAPACITY:

The cost of the new Division A Headquarters project is estimated to be \$1.9 million. The cost of installing stormwater management improvements is anticipated to be roughly \$75,000. The Division A Headquarters project will be funded through the applicant's capital improvement budget which has been augmented by grants and other internal funding sources. The funds for retrofitting the stormwater improvements will be provided by MDIFW's maintenance budget.

The Department finds that the applicant has demonstrated adequate financial capacity to comply with Department standards.

3. TECHNICAL ABILITY:

The applicant has retained the services of Stantec Consulting Services, Inc., a professional engineering firm, to assist in the civil engineering of the project. PDT Architects, P.A. was retained for design of the Division A Headquarters building. Longview Partners, Inc. was retained for soil scientist and site evaluator services. Thayer Engineering Company was retained for boundary survey services.

The Department finds that the applicant has demonstrated adequate technical ability to comply with Department standards.

4. NOISE:

The primary sources of noise from the existing site are from general maintenance, vehicular traffic, and minor noises from the wildlife exhibits and the visitors of those exhibits. Sound from motor vehicles that are registered and inspected are exempt from the control of noise regulations. The proposed Division A Headquarters and wildlife park are located in the center of the site along the interior road and are buffered from adjacent properties by wooded areas. The sources and types of noise are not expected to change with the projects proposed and are not expected to exceed the Site Location of Developments standards for the control of noise.

Construction of the project will be restricted to between the hours of 7:00 a.m. to 7:00 p.m. with no activity at the site prior to 6:30 a.m. Sound from the construction of development between the hours of 7:00 a.m. to 7:00 p.m. is not regulated pursuant to 38 M.R.S.A. § 484(3)(A).

The Department finds that the applicant has made adequate provision for the control of excessive environmental noise from the proposed project.

5. SCENIC CHARACTER:

The proposed Division A Headquarters and wildlife parking lot will be located along the interior road. The Division A Headquarter will have signage on Route 26 and the beginning of the driveway and front lawn of the headquarters may be visible from Route 26 but the rest of the headquarters will be obscured by trees. The additional parking for the wildlife park and the other proposed projects will not be visible from beyond the project boundary. The land use of the abutting lands is single family homes.

Based on the project's location and design, the Department finds that the proposed project will not have an unreasonable adverse effect on the scenic character of the surrounding area.

6. WILDLIFE AND FISHERIES:

The Environmental Review Coordinator from the Maine Department of Inland Fisheries and Wildlife (MDIFW) Bureau of Resource Management reviewed the proposed project. In its comments, MDIFW stated that it found no records of any Essential or Significant Wildlife Habitats, or other wildlife habitats of special concern associated with this site. No fisheries concerns were identified.

The Department finds that the applicant has made adequate provision for the protection of wildlife and fisheries.

7. HISTORIC SITES AND UNUSUAL NATURAL AREAS:

The Maine Historic Preservation Commission reviewed the proposed project and stated that it will have no effect upon any structure or site of historic, architectural, or archaeological significance as defined by the National Historic Preservation Act of 1966. However, a prehistoric site is located on Cole Brook on land abutting the applicant's parcel. Because the soils and landforms are similar on the applicant's property, any activity in the future within 100 yards of the stream should be preceded by an archaeological survey.

The Maine Natural Areas Program database does not contain any records documenting the existence of rare or unique botanical features on the project site.

The Department finds that the proposed development will not have an adverse effect on the preservation of any historic sites or unusual natural areas either on or near the development site.

8. BUFFER STRIPS:

None of the proposed projects are within 200 feet of any property line or within 100 feet of any stream with the exception of the removal and restoration of a gravel walkway adjacent to the stream in the wildlife park. Some of the existing development, including a path in the wildlife park and portions of the hatchery, are in and adjacent to the stream and were constructed prior to the Natural Resources Protection Act.

The Department finds that the applicant has made adequate provision for buffer strips.

9. SOILS:

The applicant submitted a medium soil survey map from the USDA Soil Conservation Service with supplemental soils information from test pits provided by a certified soil scientist from Longview Partners. A wetlands report prepared by Jones Associates was submitted. The soils information was reviewed by staff from the Division of Environmental Assessment (DEA) of the Bureau of Water Quality (BWQ) and was found to be acceptable.

The Department finds that based on this information and the DEA's review, the soils on the project site present no limitations to the proposed project that cannot be overcome through standard engineering practices.

10. STORMWATER MANAGEMENT:

The project includes approximately 12.32 acres of developed area that was created after 1975 plus 4.23 acres of proposed developed area for a total of 16.55 acres of developed area created after 1975 that is required to provide stormwater treatment. The project includes approximately 7.95 acres of impervious area that was created after 1975 plus 1.99 acres of proposed impervious area for a total of 9.94 acres of impervious. These totals reflect a credit of 0.47 acres of impervious area given for the future removal of the existing Division A Headquarters. It lies within the watershed of the Royal River. The applicant submitted a stormwater management plan based on the Basic, General, and Flooding standards contained in Department Rules, Chapter 500. The proposed stormwater management system consists of eleven infiltration basins, a roof drip edge filter, and credit for removing the existing Division A Headquarters.

A. Basic Standards:

(1) Erosion and Sedimentation Control: The applicant submitted an Erosion and Sedimentation Control Plan that is based on the performance standards contained in Appendix A of Chapter 500 and the Best Management Practices outlined in the Maine Erosion and Sediment Control BMPs, which were developed by the Department. This plan and plan sheets containing erosion control details were reviewed by, and revised in response to the comments of, the Bureau of Land Resources (BLR).

Erosion control details will be included on the final construction plans and the erosion control narrative will be included in the project specifications to be provided to the construction contractor.

(2) Inspection and Maintenance: The applicant submitted a maintenance plan that addresses both short- and long-term maintenance requirements. The maintenance plan is based on the standards contained in Appendix B of Chapter 500. This plan was reviewed by, and revised in response to the comments of, BLR. The applicant will be responsible for the maintenance of all the stormwater management system.

(3) Housekeeping: The proposed project will comply with the performance standards outlined in Appendix C of Chapter 500.

Based on BLR's review of the erosion and sedimentation control plan and the maintenance plan, the Department finds that the proposed project meets the Basic Standards contained in Chapter 500(4)(B).

B. General Standards:

The applicant's stormwater management plan includes general treatment measures that will mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential thermal impacts. In some cases, stormwater treatment was proposed for pre-1975 developed area that does not require treatment in lieu of treating post-1975 areas that require treatment but are located in areas that would be difficult to treat pursuant to Department Rules, Chapter 500(4)(C)(2)(c). The applicant was also given credit for 0.47 acres of developed area (that includes 0.47 acres of impervious area) for the future removal of the existing Division A Headquarters and restoring 0.47 acres of impervious area to meadow. In order to qualify as an undeveloped meadow area, this area must not be mowed more than twice per year; this area may also be allowed to revert to a forested area. The applicant has agreed to remove the existing headquarters and restore the area to meadow by December 31, 2017. The stormwater mitigation is being achieved by using Best Management Practices (BMPs) that will effectively treat stormwater runoff from 97% of the impervious area and 100% of the developed area required to be treated.

The stormwater structures associated with the proposed Division A Headquarters will be constructed simultaneously with the Division A Headquarters. The applicant agreed to construct the remaining stormwater structures by December 31, 2018.

The proposed infiltration system was reviewed by staff from DEA. The applicant must insure that discharges of soluble pollutants to the infiltration areas are minimized and that the infiltration areas are maintained to assure that their capacity is unimpaired. Based on DEA's review, the Department does not anticipate that the infiltration areas will adversely impact groundwater quality.

The stormwater management system proposed by the applicant was reviewed by, and revised in response to comments from, BLR. After a final review, BLR commented that the proposed stormwater management system is designed in accordance with the General Standards contained in Chapter 500(4)(C) and recommended that the applicant's design engineer, or another qualified engineer, oversee the construction of the eleven infiltration basins and the roof drip edge filter to insure that they are installed in accordance with the details and notes specified on the approved plans. Within 30 days from completion of the infiltration basins and the roof drip edge filter or at least once per year, the applicant must submit a log of inspection reports detailing the items inspected, photographs taken, and the dates of each inspection to the BLR for review.

Based on the stormwater system's design and BLR's and DEA's review, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the General Standards contained in Chapter 500(4)(C) provided that construction of the eleven infiltration basins and the roof drip edge filter is overseen and documented as described above.

C. Flooding Standard:

The applicant is proposing to utilize a stormwater management system based on estimates of pre- and post-development stormwater runoff flows obtained by using Hydrocad, a stormwater modeling software that utilizes the methodologies outlined in Technical Releases #55 and #20 from the U.S.D.A. Soil Conservation Service and results in infiltration of stormwater from 24-hour storms of 2-, 10-, and 25-year frequency. The post-development peak flow from the site will not exceed the pre-development peak flow from the site and the peak flow of the receiving waters will not be increased as a result of stormwater runoff from the development site.

BLR commented that the proposed system is designed in accordance with the Flooding Standard contained in Chapter 500(4)(F).

Based on the system's design and BLR's review, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the Flooding Standard contained in Chapter 500(4)(F) for peak flow from the project site, and channel limits and runoff areas.

11. GROUNDWATER:

Portions of the site are located over a mapped sand and gravel aquifer with expected well water yields of ten to fifty gallons per minute. The proposed project does not propose any withdrawal from, or discharge to, the groundwater with the exception of stormwater infiltration basins. The DEA has reviewed the project and confirmed that there will not be an impact to the aquifer.

The Department finds that the proposed project will not pose an unreasonable risk that a discharge to a groundwater aquifer will occur. Therefore the Department further finds that the proposed project will not have an unreasonable adverse effect on ground water quality.

12. WATER SUPPLY:

The Gray Water District currently serves the project site with a six-inch water main located along Game Farm Road that extends into the Gray Wildlife Park. The Maine State Police Barracks, the Maine Forestry Service building, and the existing Division A Headquarters are served by individual water service lines from the water main in Route 26. Domestic water for the fish hatchery accessory buildings is from the Gray Water District and water used for all the fish culturing activities is from two springs that were developed when the hatcheries were built prior to 1970. The applicant's proposed Division A Headquarters is anticipated to use approximately 700 gallons of water per day. Water will be supplied by the Gray Water District. The applicant submitted a letter from the Gray Water District, dated August 11, 2016, stating that it has the ability to serve domestic water to the new Division A Headquarters.

The Department finds that the applicant has made adequate provision for securing and maintaining a sufficient and healthful water supply.

13. WASTEWATER DISPOSAL:

The existing sources of wastewater on the site are disposed of by individual subsurface wastewater disposal systems. The fish hatchery has a Maine Pollutant Discharge Elimination System Permit (#ME0001121) for fish rearing facilities. The applicant submitted all of the Subsurface Wastewater Disposal System Applications Forms (Form HHE-200) of record that were available.

Wastewater for the applicant's proposed Division A Headquarters was estimated to be 700 gallons per day and will be disposed of by an individual subsurface wastewater disposal system. The applicant submitted the soils map and test pits discussed in Finding 9 and a completed Subsurface Wastewater Disposal System Application (Form HHE-200) prepared by James Logan (Site Evaluator #237). This information was reviewed by, and revised in response to comments from, DEA.

Based on DEA's comments, the Department finds that the existing wastewater disposal systems have been built on suitable soil types and that the proposed wastewater disposal system for the new Division A Headquarters will be built on suitable soil types, and that Maine's Drinking Water Standard for nitrates will be met at the project's property lines.

14. SOLID WASTE:

General solid waste from the existing project is brought to the Gray transfer station by the staff. After the proposed Division A Headquarters is constructed, the staff will either continue to take general solid wastes to the Gray transfer station or hire a licensed non-hazardous waste transporter for routine removal. This method of disposal is currently in substantial compliance with the Maine Solid Waste Management Rules.

The proposed project will generate approximately 168 cubic yards of stumps and grubblings. This material will be ground and used for erosion control mix or in maintenance and landscaping projects at the facility. These methods of disposal are in compliance with the Maine Solid Waste Management Rules.

The proposed project will generate approximately 108 cubic yards of pavement, 20 cubic yards of demolition debris, and 40 cubic yards of construction debris. Separated wood will go to one of the following: Maine Wood Recycling in Ashland, Resources-Energy in Lewiston, the Gray Transfer Station, or Riverside Recycling in Portland. Mixed construction and demolition debris will be taken to the Gray Transfer Station or Riverside Recycling in Portland. Separated metals will be taken to Berwick Iron and Metal Recycling in Berwick. Transport for these material will be handled by Maine licensed non-hazardous waste transporters. Pavement will be processed for reuse as base material or granular fill. These methods of disposal and the proposed disposal facilities are currently in substantial compliance with the Maine Solid Waste Management Rules.

The applicant frequently handles animal carcasses due to the nature of the work of the agency. Portions of the carcasses are fed to the carnivores in the animal park and the remains are composted in a separate area of the facility using protocols developed by the Department of Agriculture, Conservation and Forestry that minimize the chance for vector attraction and odors in accordance with its operation manual.

Based on the above information, the Department finds that the applicant has made adequate provision for solid waste disposal.

15. FLOODING:

The entire property is not located within the 100-year flood plain of any river or stream.

The Department finds that the proposed project is unlikely to cause or increase flooding or cause an unreasonable flood hazard to any structure.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S.A. Sections 481 et seq.:

- A. The applicant has provided adequate evidence of financial capacity and technical ability to develop the project in a manner consistent with state environmental standards.
- B. The applicant has made adequate provision for fitting the development harmoniously into the existing natural environment and the development will not adversely affect existing uses, scenic character, air quality, water quality or other natural resources in the municipality or in neighboring municipalities.
- C. The proposed development will be built on soil types which are suitable to the nature of the undertaking and will not cause unreasonable erosion of soil or sediment nor inhibit the natural transfer of soil.
- D. The proposed development meets the standards for storm water management in Section 420-D and the standard for erosion and sedimentation control in Section 420-C provided that construction of the infiltration basins and roof drip edge filter is overseen and documented as described in Finding 10.
- E. The proposed development will not pose an unreasonable risk that a discharge to a significant groundwater aquifer will occur.
- F. The applicant has made adequate provision of utilities, including water supplies, sewerage facilities and solid waste disposal required for the development and the development will not have an unreasonable adverse effect on the existing or proposed utilities in the municipality or area served by those services.

- G. The activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties nor create an unreasonable flood hazard to any structure.

THEREFORE, the Department APPROVES the application of DEPARTMENT OF INLAND FISHERIES AND WILDLIFE for a new Division A Headquarters and other proposed projects and previously constructed projects as described in Finding 1, SUBJECT TO THE FOLLOWING CONDITIONS and all applicable standards and regulations:

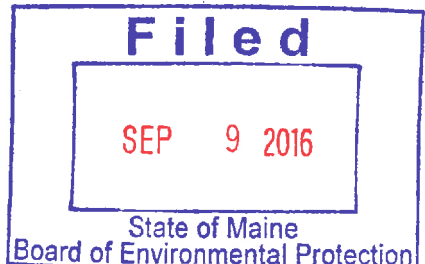
1. The Standard Conditions of Approval, a copy attached.
2. In addition to any specific erosion control measures described in this or previous orders, the applicant shall take all necessary actions to ensure that its activities or those of its agents do not result in noticeable erosion of soils or fugitive dust emissions on the site during the construction and operation of the project covered by this approval.
3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.
4. The applicant shall retain its design engineer or another qualified engineer to oversee the construction of the infiltration basins and the roof drip edge filter according to the details and notes specified on the approved plans. Within 30 days of completion of these items or at least once per year, the applicant shall submit a log of inspection reports detailing the items inspected, photographs taken, and dates of each inspection to the BLR for review.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 8TH DAY OF SEPTEMBER, 2016.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: 
 For: Paul Mercer, Commissioner



PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

CGW/L27044AN/ATS#80663

Department of Environmental Protection
SITE LOCATION OF DEVELOPMENT (SITE)
STANDARD CONDITIONS

- A. Approval of Variations from Plans.** The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation. Further subdivision of proposed lots by the applicant or future owners is specifically prohibited without prior approval of the Board, and the applicant shall include deed restrictions to that effect.
- B. Compliance with All Applicable Laws.** The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.
- C. Compliance with All Terms and Conditions of Approval.** The applicant shall submit all reports and information requested by the Board or the Department demonstrating that the applicant has complied or will comply with all preconstruction terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.
- D. Advertising.** Advertising relating to matters included in this application shall refer to this approval only if it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.
- E. Transfer of Development.** Unless otherwise provided in this approval, the applicant shall not sell, lease, assign or otherwise transfer the development or any portion thereof without prior written approval of the Board where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval shall be granted only if the applicant or transferee demonstrates to the Board that the transferee has the technical capacity and financial ability to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant.
- F. Time frame for approvals.** If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the Board for a new approval. The applicant may not begin construction or operation of the development until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.
- G. Approval Included in Contract Bids.** A copy of this approval must be included in or attached to all contract bid specifications for the development.
- H. Approval Shown to Contractors.** Work done by a contractor pursuant to this approval shall not begin before the contractor has been shown by the developer a copy of this approval.

(2/81)/Revised December 27, 2011

DEPLW 0429

STORMWATER STANDARD CONDITIONS

STRICT CONFORMANCE WITH THE STANDARD AND SPECIAL CONDITIONS OF THIS APPROVAL IS NECESSARY FOR THE PROJECT TO MEET THE STATUTORY CRITERIA FOR APPROVAL

Standard conditions of approval. Unless otherwise specifically stated in the approval, a department approval is subject to the following standard conditions pursuant to Chapter 500 Stormwater Management Law.

- (1) Approval of variations from plans. The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents must be reviewed and approved by the department prior to implementation. Any variation undertaken without approval of the department is in violation of 38 M.R.S.A. §420-D(8) and is subject to penalties under 38 M.R.S.A. §349.
- (2) Compliance with all terms and conditions of approval. The applicant shall submit all reports and information requested by the department demonstrating that the applicant has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.
- (3) Advertising. Advertising relating to matters included in this application may not refer to this approval unless it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.
- (4) Transfer of project. Unless otherwise provided in this approval, the applicant may not sell, lease, assign, or otherwise transfer the project or any portion thereof without written approval by the department where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval may only be granted if the applicant or transferee demonstrates to the department that the transferee agrees to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant. Approval of a transfer of the permit must be applied for no later than two weeks after any transfer of property subject to the license.
- (5) Time frame for approvals. If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the department for a new approval. The applicant may not begin construction or operation of the project until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.
- (6) Certification. Contracts must specify that "all work is to comply with the conditions of the Stormwater Permit." Work done by a contractor or subcontractor pursuant to this approval may not begin before the contractor and any subcontractors have been shown a copy of this approval with the conditions by the developer, and the owner and each contractor and subcontractor has certified, on a form provided by the department, that the approval and conditions have been received and read, and that the work will be carried out in accordance

- with the approval and conditions. Completed certification forms must be forwarded to the department.
- (7) Maintenance. The components of the stormwater management system must be adequately maintained to ensure that the system operates as designed, and as approved by the department.
- (8) Recertification requirement. Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the department.
- (a) All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.
 - (b) All aspects of the stormwater control system have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the facilities.
 - (c) The erosion and stormwater maintenance plan for the site is being implemented as written, or modifications to the plan have been submitted to and approved by the department, and the maintenance log is being maintained.
- (9) Severability. The invalidity or unenforceability of any provision, or part thereof, of this permit shall not affect the remainder of the provision or any other provisions. This permit shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

November 16, 2005 (revised December 27, 2011)



DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: March 2012

Contact: (207) 287-2811

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's ("DEP") Commissioner: (1) in an administrative process before the Board of Environmental Protection ("Board"); or (2) in a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S.A. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S.A. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S.A. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

This INFORMATION SHEET, in conjunction with a review of the statutory and regulatory provisions referred to herein, can help a person to understand his or her rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

The laws concerning the DEP's *Organization and Powers*, 38 M.R.S.A. §§ 341-D(4) & 346, the *Maine Administrative Procedure Act*, 5 M.R.S.A. § 11001, and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 CMR 2 (April 1, 2003).

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written appeal within 30 days of the date on which the Commissioner's decision was filed with the Board. Appeals filed after 30 calendar days of the date on which the Commissioner's decision was filed with the Board will be rejected.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by the Board's receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner a copy of the appeal documents and if the person appealing is not the applicant in the license proceeding at issue the applicant must also be sent a copy of the appeal documents. All of the information listed in the next section must be submitted at the time the appeal is filed. Only the extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

Appeal materials must contain the following information at the time submitted:

1. *Aggrieved Status.* The appeal must explain how the person filing the appeal has standing to maintain an appeal. This requires an explanation of how the person filing the appeal may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions or conditions objected to or believed to be in error.* Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.
3. *The basis of the objections or challenge.* If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.
5. *All the matters to be contested.* The Board will limit its consideration to those arguments specifically raised in the written notice of appeal.
6. *Request for hearing.* The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing on the appeal is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.
7. *New or additional evidence to be offered.* The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered by the Board in an appeal only when the evidence is relevant and material and that the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2.

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide opportunity for photocopying materials. There is a charge for copies or copying services.
2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer questions regarding applicable requirements.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed the license normally remains in effect pending the processing of the appeal. A license holder may proceed with a project pending the outcome of an appeal but the license holder runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge receipt of an appeal, including the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, and any materials submitted in response to the appeal will be sent to Board members with a recommendation from DEP staff. Persons filing appeals and interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, a license holder, and interested persons of its decision.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court, see 38 M.R.S.A. § 346(1); 06-096 CMR 2; 5 M.R.S.A. § 11001; & M.R. Civ. P 80C. A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. Failure to file a timely appeal will result in the Board's or the Commissioner's decision becoming final.

An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S.A. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board's Executive Analyst at (207) 287-2452 or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.



DEPARTMENT ORDER

IN THE MATTER OF

MAINE DEPARTMENT OF) SITE LOCATION OF DEVELOPMENT ACT
INLAND FISHERIES AND WILDLIFE)
Gray, Cumberland County)
STORMWATER BMP CHANGES) MINOR AMENDMENT
L-27044-26-B-B (approval)) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S. §§ 481–489-E and Chapters 375 and 500 of Department rules, the Department of Environmental Protection has considered the application of MAINE DEPARTMENT OF INLAND FISHERIES AND WILDLIFE with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. History of Project: The State of Maine owns 243.8 acres on both sides of Weymouth Road in the Town of Gray. The portion of the parcel on the northerly side of Weymouth Road has 193.9 acres; this parcel is referred to as the “main parcel” and also has frontage on the east side of Shaker Road (Route 26). The other portion of the parcel is on the south side of Weymouth Road, contains 49.9 acres and is referred to as the “south parcel.”

Prior to 1970, approximately 6.29 acres of structure and 26.8 acres of developed area existed on the parcel that included: the farmhouse, the wildlife park office building, the fish hatchery complex and associated housing, pheasant pens, various barns, the gamekeeper’s house, brooder houses, several outbuildings associated with the wildlife park site, Game Farm Road, parking areas, a small gravel extraction area, and the Forest Service facility. Between 1981 and 1995, an additional 3.96 acres of structure and 7.93 acres of developed area was created by the construction of the Region A Headquarters, an expansion of the Forest Service facility, construction of the State Police Barracks, a parking lot expansion at the wildlife park, the relocation of a historic school house onto the property, and additional developed area in the hatchery storage yards. Between 1995 and 2016, an additional 4.46 acres of structure and 4.86 acres of developed area was created for storage yards, parking, structures, and paths in the wildlife park.

In Department Order L-27044-26-A-N, September 9, 2016, the Department granted after-the-fact approval for approximately 8.42 acres of structure and 12.8 acres of developed area created since 1970 and approval for construction of a new Region A Headquarters, a parking lot expansion and additional developed area associated with the wildlife exhibits in the wildlife park all on the main parcel, and a 2,100-square foot garage on the south parcel. The projects proposed in this order included 1.99 acres of new structure and 4.23 acres of new developed area.

B. Summary: The applicant seeks after-the-fact approval for reconfiguring the Region A Headquarters building and the parking lot associated with it, and for a small bunkhouse and walkway with associated utilities that is used by Inland Fisheries and Wildlife staff that was constructed just north of the new Region A Headquarters Building. The applicant also proposes to reconfigure some of the previously approved stormwater management Best Management Practices (BMPs) in the area of the parking lot associated with the Maine Wildlife Park to better serve the operation needs of that facility. The applicant also requests an extension of the deadline to construct the remaining BMPs because of the proposed revisions to the BMPs and the time required to obtain design, review and approval of those revisions; this deadline is hereby extended to July 1, 2020. The project is shown on a set of plans; the first plan is titled “MDIF&W Gray Wildlife Park, Overall Site Plan,” prepared by Atlantic Resource Consultants, and dated August 2018, with a last revision date of October 18, 2018.

C. Current Use of Site: The project site contains 243.8 acres and is partially developed as described above and also has fields and forested areas. Cole Brook and Hatchery Brook flow through the site. There are many existing structures on the property, the Region A Headquarters and the bunkhouse have been constructed, and the old Region A Headquarters has been removed and converted to meadow.

2. STORMWATER MANAGEMENT:

The applicant proposes to revise the configuration and design of some of the previously proposed BMPs to better accommodate the activities and programming of the site. The proposed changes include: reconfiguration and enlargement of infiltration basins #3 and #4 near the Region A Headquarters to account for the bunkhouse and grading changes made during construction; enlarging infiltration basins #7, replacing infiltration basin #8 with an infiltration trench along the north and east sides of the wildlife park parking area, replacing infiltration basin #9 with an infiltration trench along the south side of the special events parking area; and relocation of infiltration basin #10 to the east side of the access drive to the wildlife park.

The proposed project includes no additional developed area and an additional 0.02 acres of impervious area for the bunk house. The project lies within the watershed of Royal River. The applicant submitted a revised stormwater management plan based on the Basic, General, and Flooding Standards contained in Chapter 500 Stormwater Management rules (06-096 C.M.R. Chapter 500, effective August 12, 2015).

A. Basic Standards:

(1) Erosion and Sedimentation Control: The proposed BMP changes will require relocation of sediment barriers but otherwise do not alter the previously approved erosion control plans, details, and notes for the project.

(2) Inspection and Maintenance: The applicant is still the responsible party for the maintenance of all common facilities including the stormwater management system.

(3) Housekeeping: The project with the proposed changes will comply with the performance standards outlined in Appendix C of Chapter 500.

Based on BLR's review of the erosion and sedimentation control plan and the maintenance plan, the Department finds that the proposed project continues to meet the Basic Standards contained in Chapter 500(4)(B).

B. General Standards:

The applicant's stormwater management plan for the project with the proposed changes includes general treatment measures that will mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential thermal impacts. This mitigation is being achieved by using BMPs that will continue to treat runoff from 97% of the impervious area required to be treated and 100% of the developed area required to be treated.

The proposed infiltration system was reviewed by staff from the Division of Environmental Assessment (DEA). The applicant must insure that the discharge of soluble pollutants to the infiltration area is minimized and that the infiltration area is maintained to assure that its capacity is unimpaired. Based on DEA's review, the Department does not anticipate that the infiltration area will adversely impact groundwater quality.

The stormwater management system proposed by the applicant was reviewed by, and revised in response to comments from, BLR. After a final review, BLR commented that the proposed revisions to the stormwater management system are designed in accordance with the General Standards contained in Chapter 500(4)(C).

Based on the stormwater system's design and BLR's review, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the General Standards contained in Chapter 500(4)(C).

C. Flooding Standard:

The applicant has updated the Hydrocad post-development stormwater runoff model to account for the changes to the infiltration methods, sizing, and locations. The results of the updated Hydrocad model indicates that the post-development peak flow from the site will not exceed the pre-development peak flow from the site and the peak flow of the receiving waters will not be increased as a result of stormwater runoff from the development site.

BLR commented that the proposed system is designed in accordance with the Flooding Standard contained in Chapter 500(4)(F).

Based on the system's design and BLR's review, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the Flooding Standard contained in Chapter 500(4)(F) for peak flow from the project site, and channel limits and runoff areas.

3. WATER SUPPLY:

The bunkhouse that was constructed is anticipated to use 180 gallons of water per day. Water is supplied by the Gray Water District; a water service line was extended to the bunkhouse from the water main located in Game Farm Road.

The Department finds that the applicant has made adequate provision for securing and maintaining a sufficient and healthful water supply.

4. WASTEWATER DISPOSAL:

The bunkhouse is anticipated to discharge 180 gallons of wastewater per day. This wastewater is being disposed of by an individual subsurface wastewater disposal system that was constructed southeast of the bunkhouse near the north side of the parking lot. The applicant submitted a copy of the completed Subsurface Wastewater Disposal System Application for the wastewater disposal system that was constructed. This information was reviewed by DEA. The DEA commented that the leach field was constructed closer to the stormwater infiltration basin #4 than allowed by Chapter 500 Appendix D section 3(b) standards. The applicant proposed to regrade the stormwater infiltration basin #4 to meet the required 100-foot setback between the subsurface wastewater disposal system and the infiltration as shown of the revised project plans.

Based on DEA's comments, the Department finds that the proposed wastewater disposal system was built on suitable soil types and meets Maine's Drinking Water Standard for nitrates at the project's property lines provided that the applicant regrades the stormwater infiltration basin #4 to meet the required wastewater disposal system setback by July 1, 2020.

5. ALL OTHER:

All other Findings of Fact, Conclusions and Conditions remain as approved in Department Order #L-27044-26-A-N, and subsequent Orders.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S. §§ 481–489-E:

- A. The applicant has provided adequate evidence of financial capacity and technical ability to develop the project in a manner consistent with state environmental standards.

- B. The applicant has made adequate provision for fitting the development harmoniously into the existing natural environment and the development will not adversely affect existing uses, scenic character, air quality, water quality or other natural resources in the municipality or in neighboring municipalities.
- C. The proposed development will be built on soil types which are suitable to the nature of the undertaking and will not cause unreasonable erosion of soil or sediment nor inhibit the natural transfer of soil.
- D. The proposed development meets the standards for storm water management in 38 M.R.S. § 420-D and the standard for erosion and sedimentation control in 38 M.R.S. § 420-C provided that all the proposed BMPs are constructed by June 1, 2020.
- E. The proposed development will not pose an unreasonable risk that a discharge to a significant groundwater aquifer will occur.
- F. The applicant has made adequate provision of utilities, including water supplies, sewerage facilities and solid waste disposal required for the development and the development will not have an unreasonable adverse effect on the existing or proposed utilities in the municipality or area served by those services provided that the applicant regrades the stormwater infiltration basin #4 as shown on the plans to the east of the bunkhouse prior to July 1, 2020.
- G. The activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties nor create an unreasonable flood hazard to any structure.

THEREFORE, the Department APPROVES the application of MAINE DEPARTMENT OF INLAND FISHERIES AND WILDLIFE to reconfigure the Region A Headquarters building and parking lot, revise stormwater management BMPs, and construct a bunkhouse as described herein, SUBJECT TO THE FOLLOWING CONDITIONS and all applicable standards and regulations:

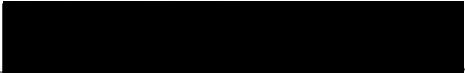
1. The Standard Conditions of Approval, a copy attached.
2. In addition to any specific erosion control measures described in this or previous orders, the applicant shall take all necessary actions to ensure that its activities or those of its agents do not result in noticeable erosion of soils or fugitive dust emissions on the site during the construction and operation of the project covered by this approval.
3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

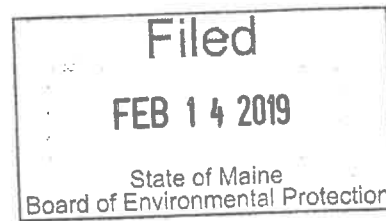
- 4. The applicant shall regrade infiltration basin #4 that is east of the bunkhouse as shown on the project plans prior to July 1, 2020.
- 5. All other Findings of Fact, Conclusions and Conditions remain as approved in Department Order #L-27044-26-A-N, and subsequent Orders, and are incorporated herein.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 12TH DAY OF FEBRUARY, 2019.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: 
 For: Gerald D. Reid, Commissioner



PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

CGW/L27044BB/ATS#83512

Department of Environmental Protection
SITE LOCATION OF DEVELOPMENT (SITE)
STANDARD CONDITIONS

- A. Approval of Variations from Plans.** The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation. Further subdivision of proposed lots by the applicant or future owners is specifically prohibited without prior approval of the Board, and the applicant shall include deed restrictions to that effect.
- B. Compliance with All Applicable Laws.** The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.
- C. Compliance with All Terms and Conditions of Approval.** The applicant shall submit all reports and information requested by the Board or the Department demonstrating that the applicant has complied or will comply with all preconstruction terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.
- D. Advertising.** Advertising relating to matters included in this application shall refer to this approval only if it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.
- E. Transfer of Development.** Unless otherwise provided in this approval, the applicant shall not sell, lease, assign or otherwise transfer the development or any portion thereof without prior written approval of the Board where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval shall be granted only if the applicant or transferee demonstrates to the Board that the transferee has the technical capacity and financial ability to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant.
- F. Time frame for approvals.** If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the Board for a new approval. The applicant may not begin construction or operation of the development until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.
- G. Approval Included in Contract Bids.** A copy of this approval must be included in or attached to all contract bid specifications for the development.
- H. Approval Shown to Contractors.** Work done by a contractor pursuant to this approval shall not begin before the contractor has been shown by the developer a copy of this approval.

(2/81)/Revised December 27, 2011

DEPLW 0429

STORMWATER STANDARD CONDITIONS

STRICT CONFORMANCE WITH THE STANDARD AND SPECIAL CONDITIONS OF THIS APPROVAL IS NECESSARY FOR THE PROJECT TO MEET THE STATUTORY CRITERIA FOR APPROVAL

Standard conditions of approval. Unless otherwise specifically stated in the approval, a department approval is subject to the following standard conditions pursuant to Chapter 500 Stormwater Management Law.

- (1) Approval of variations from plans. The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the permittee. Any variation from these plans, proposals, and supporting documents must be reviewed and approved by the department prior to implementation. Any variation undertaken without approval of the department is in violation of 38 M.R.S. §420-D(8) and is subject to penalties under 38 M.R.S. §349.
- (2) Compliance with all terms and conditions of approval. The applicant shall submit all reports and information requested by the department demonstrating that the applicant has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.
- (3) Advertising. Advertising relating to matters included in this application may not refer to this approval unless it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.
- (4) Transfer of project. Unless otherwise provided in this approval, the applicant may not sell, lease, assign, or otherwise transfer the project or any portion thereof without written approval by the department where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval may only be granted if the applicant or transferee demonstrates to the department that the transferee agrees to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant. Approval of a transfer of the permit must be applied for no later than two weeks after any transfer of property subject to the license.
- (5) Time frame for approvals. If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the department for a new approval. The applicant may not begin construction or operation of the project until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.
- (6) Certification. Contracts must specify that "all work is to comply with the conditions of the Stormwater Permit." Work done by a contractor or subcontractor pursuant to this approval may not begin before the contractor and any subcontractors have been shown a copy of this approval with the conditions by the permittee, and the permittee and each contractor and subcontractor has certified, on a form provided by the department, that the approval and conditions have been received and read, and that the work will be carried out in accordance with the approval and conditions. Completed certification forms must be forwarded to the department.

- (7) Maintenance. The components of the stormwater management system must be adequately maintained to ensure that the system operates as designed, and as approved by the Department. If maintenance responsibility is to be transferred from the permittee to another entity, a transfer request must be filed with the Department which includes the name and contact information for the person or entity responsible for this maintenance. The form must be signed by the responsible person or agent of the responsible entity.
- (8) Recertification requirement. Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the department.
- (a) All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.
 - (b) All aspects of the stormwater control system are operating as approved, have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the system, or portions of the system, as necessary.
 - (c) The stormwater maintenance plan for the site is being implemented as approved by the Department, and the maintenance log is being maintained.
 - (d) All proprietary systems have been maintained according to the manufacturer's recommendations. Where required by the Department, the permittee shall execute a 5-year maintenance contract with a qualified professional for the coming 5-year interval. The maintenance contract must include provisions for routine inspections, cleaning and general maintenance.
 - (e) The Department may waive some or all of these recertification requirements on a case-by-case basis for permittees subject to the Department's Multi-Sector General Permit ("MSGP") and/or Maine Pollutant Discharge Elimination System ("MEPDES") programs where it is demonstrated that these programs are providing stormwater control that is at least as effective as required pursuant to this Chapter.
- (9) Transfer of property subject to the license. If any portion of the property subject to the license containing areas of flow or areas that are flooded are transferred to a new property owner, restrictive covenants protecting these areas must be included in any deeds or leases, and recorded at the appropriate county registry of deeds. Also, in all transfers of such areas and areas containing parts of the stormwater management system, deed restrictions must be included making the property transfer subject to all applicable terms and conditions of the permit. These terms and conditions must be incorporated by specific and prominent reference to the permit in the deed. All transfers must include in the restrictions the requirement that any subsequent transfer must specifically include the same restrictions unless their removal or modification is approved by the Department. These restrictions must be written to be enforceable by the Department, and must reference the permit number.
- (10) Severability. The invalidity or unenforceability of any provision, or part thereof, of this permit shall not affect the remainder of the provision or any other provisions. This permit shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.



DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: November 2018

Contact: (207) 287-2452

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's (DEP) Commissioner: (1) an administrative process before the Board of Environmental Protection (Board); or (2) a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

This information sheet, in conjunction with a review of the statutory and regulatory provisions referred to herein, can help a person to understand his or her rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

The laws concerning the DEP's *Organization and Powers*, 38 M.R.S. §§ 341-D(4) & 346; the *Maine Administrative Procedure Act*, 5 M.R.S. § 11001; and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 C.M.R. ch. 2.

DEADLINE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written appeal within 30 days of the date on which the Commissioner's decision was filed with the Board. Appeals filed more than 30 calendar days after the date on which the Commissioner's decision was filed with the Board will be dismissed unless notice of the Commissioner's license decision was required to be given to the person filing an appeal (appellant) and the notice was not given as required.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017. An appeal may be submitted by fax or e-mail if it contains a scanned original signature. It is recommended that a faxed or e-mailed appeal be followed by the submittal of mailed original paper documents. The complete appeal, including any attachments, must be received at DEP's offices in Augusta on or before 5:00 PM on the due date; materials received after 5:00 pm are not considered received until the following day. The risk of material not being received in a timely manner is on the sender, regardless of the method used. The appellant must also send a copy of the appeal documents to the Commissioner of the DEP; the applicant (if the appellant is not the applicant in the license proceeding at issue); and if a hearing was held on the application, any intervenor in that hearing process. All of the information listed in the next section of this information sheet must be submitted at the time the appeal is filed.

INFORMATION APPEAL PAPERWORK MUST CONTAIN

Appeal materials must contain the following information at the time the appeal is submitted:

1. *Aggrieved Status.* The appeal must explain how the appellant has standing to maintain an appeal. This requires an explanation of how the appellant may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions, or conditions objected to or believed to be in error.* The appeal must identify the specific findings of fact, conclusions regarding compliance with the law, license conditions, or other aspects of the written license decision or of the license review process that the appellant objects to or believes to be in error.
3. *The basis of the objections or challenge.* For the objections identified in Item #2, the appeal must state why the appellant believes that the license decision is incorrect and should be modified or reversed. If possible, the appeal should cite specific evidence in the record or specific licensing requirements that the appellant believes were not properly considered or fully addressed.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.
5. *All the matters to be contested.* The Board will limit its consideration to those matters specifically raised in the written notice of appeal.
6. *Request for hearing.* If the appellant wishes the Board to hold a public hearing on the appeal, a request for public hearing must be filed as part of the notice of appeal, and must include an offer of proof in accordance with Chapter 2. The Board will hear the arguments in favor of and in opposition to a hearing on the appeal and the presentations on the merits of an appeal at a regularly scheduled meeting. If the Board decides to hold a public hearing on an appeal, that hearing will then be scheduled for a later date.
7. *New or additional evidence to be offered.* If an appellant wants to provide evidence not previously provided to DEP staff during the DEP's review of the application, the request and the proposed evidence must be submitted with the appeal. The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered in an appeal only under very limited circumstances. The proposed evidence must be relevant and material, and (a) the person seeking to add information to the record must show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process; or (b) the evidence itself must be newly discovered and therefore unable to have been presented earlier in the process. Specific requirements for supplemental evidence are found in Chapter 2 § 24.

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, and is made easily accessible by the DEP. Upon request, the DEP will make application materials available during normal working hours, provide space to review the file, and provide an opportunity for photocopying materials. There is a charge for copies or copying services.
2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer general questions regarding the appeal process.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed, the license normally remains in effect pending the processing of the appeal. Unless a stay of the decision is requested and granted, a license holder may proceed with a project pending the outcome of an appeal, but the license holder runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge receipt of an appeal, and will provide the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, any materials submitted in response to the appeal, and relevant excerpts from the DEP's application review file will be sent to Board members with a recommended decision from DEP staff. The appellant, the license holder if different from the appellant, and any interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. The appellant and the license holder will have an opportunity to address the Board at the Board meeting. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, the license holder, and interested persons of its decision.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court (see 38 M.R.S. § 346(1); 06-096 C.M.R. ch. 2; 5 M.R.S. § 11001; and M.R. Civ. P. 80C). A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board's Executive Analyst at (207) 287-2452, or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.

SECTION 6

ABUTTERS

Abutters within 500 feet of the subject parcel identified by Gray Tax Map 14 Lot 16-2 is attached herein.

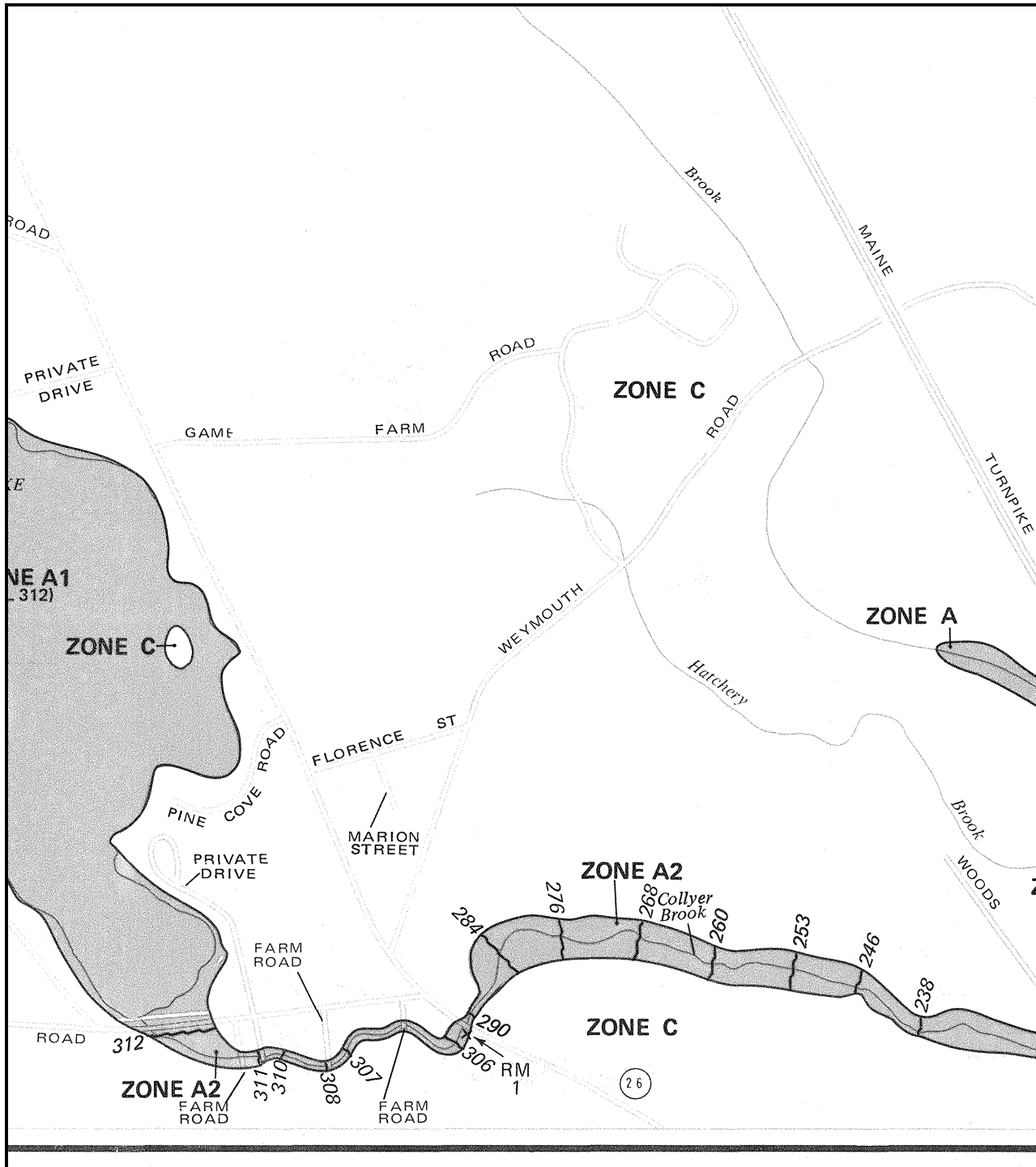
500' Abutters

Map	Lot	Owner	Address	Town	State	Zip Code
9	16-2	State of Maine	160 Weymouth Road	Gray	Maine	04039
14	102-9	Lance Lavoie Jr	178 Weymouth Road	Gray	Maine	04039
13	102-89	Mark & Sandra Guptill	180 Weymouth Road	Gray	Maine	04039
14	16-1	Kieth Stoddard	175 Weymouth Road	Gray	Maine	04039
14	16-1-1	Oswaldo & Jessica Mota	167 Weymouth Road	Gray	Maine	04039
14	16-1-2	Elizabeth Darling	169 Weymouth Road	Gray	Maine	04039
14	16-1-3	Eric & Emily Lunn	171 Weymouth Road	Gray	Maine	04039
14	16-1-4	Nicholas Anthony Leo	173 Weymouth Road	Gray	Maine	04039
14	102-86	Gary Foster	181 Weymouth Road	Gray	Maine	04039
14	15-26	Jacob Sullivan	4 Mckeen Lane	Gray	Maine	04039
14	15-26-6	Raymond & Jade Mckeen	8 Mckeen Lane	Gray	Maine	04039
14	15-294	John & Nancy Pratt	4 Breezy Meadow	Gray	Maine	04039
14	21-32	Bryant Wing	58 Shaw Brook Lane	Gray	Maine	04039
14	21-32-1	Bryant Wing	72 Shaw Brook Lane	Gray	Maine	04039
20	21-31	Kenneth Small	0 Shaw Brook Lane	Gray	Maine	04039
14	21-29	Drew Austen	0 Weymouth Road	Gray	Maine	04039
14	16-106-6	Deborah Bridges	1 Stave Mill Road	Gray	Maine	04039
14	16-105-7	Scott Wood & Christine Bradbury	3 Stave Mill Road	Gray	Maine	04039
14	16-98-2	Tommy Somerville	4 Stave Mill Road	Gray	Maine	04039
14	16-97-1	Karen & Carl Boudreau	2 Stave Mill Road	Gray	Maine	04039

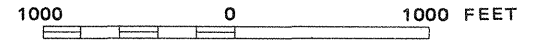
SECTION 7

FLOODING

FEMA FIRM attached herein.



APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWN OF
GRAY, MAINE
CUMBERLAND COUNTY

PANEL 5 OF 15
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230048 0005 A

EFFECTIVE DATE:
JANUARY 6, 1982



federal emergency management agency

This is an official FIRMette showing a portion of the above-referenced flood map created from the MSC FIRMette Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at <https://msc.fema.gov>.

SECTION 8

SOILS

Soil report provided by the USDA NRCS is attached herein.

Custom Soil Resource Report for Cumberland County and Part of Oxford County, Maine

MDIFW Storage Barn



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

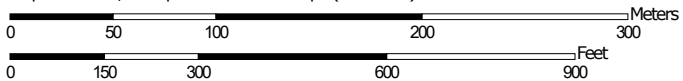
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map




Map Scale: 1:3,670 if printed on A landscape (11" x 8.5") sheet.



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


MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)




















Soils







 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features


Water Features

 Streams and Canals

Transportation

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

Background

 Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
 Survey Area Data: Version 19, Aug 30, 2022

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

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

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BuB	Lamoine silt loam, 3 to 8 percent slopes	19.9	37.6%
HID	Hinckley loamy sand, 15 to 25 percent slopes	0.5	1.0%
Ls	Limerick-Saco silt loams	1.4	2.7%
Sn	Scantic silt loam, 0 to 3 percent slopes	10.4	19.7%
SuC2	Suffield silt loam, 8 to 15 percent slopes, eroded	4.3	8.2%
SuD2	Suffield silt loam, 15 to 25 percent slopes, eroded	15.7	29.7%
WmD	Windsor loamy sand, 15 to 35 percent slopes	0.6	1.1%
Totals for Area of Interest		52.8	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor

components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Cumberland County and Part of Oxford County, Maine

BuB—Lamoine silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2t0kc

Elevation: 10 to 490 feet

Mean annual precipitation: 33 to 60 inches

Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Lamoine and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lamoine

Setting

Landform: Marine terraces, river valleys

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Fine glaciomarine deposits

Typical profile

Ap - 0 to 7 inches: silt loam

Bw - 7 to 13 inches: silt loam

Bg - 13 to 24 inches: silty clay loam

Cg - 24 to 65 inches: silty clay

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)

Depth to water table: About 6 to 17 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: C/D

Ecological site: F144BY401ME - Clay Flat

Hydric soil rating: No

HID—Hinckley loamy sand, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: 2svmc
Elevation: 0 to 1,460 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Hinckley and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Outwash plains, eskers, moraines, outwash terraces, outwash deltas, kame terraces, kames
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Head slope, nose slope, side slope, crest, riser
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 8 inches: loamy sand
Bw1 - 8 to 11 inches: gravelly loamy sand
Bw2 - 11 to 16 inches: gravelly loamy sand
BC - 16 to 19 inches: very gravelly loamy sand
C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e

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Hydrologic Soil Group: A
Ecological site: F144AY022MA - Dry Outwash
Hydric soil rating: No

Ls—Limerick-Saco silt loams

Map Unit Setting

National map unit symbol: blj2
Elevation: 10 to 1,750 feet
Mean annual precipitation: 34 to 48 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 80 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Limerick and similar soils: 55 percent
Saco and similar soils: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Limerick

Setting

Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse-silty alluvium derived from slate

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 16 inches: silt loam
H3 - 16 to 65 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: NoneFrequent
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very high (about 18.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: B/D
Ecological site: F144BY120ME - Small Floodplain Riparian Complex (reserved),
F144BY110ME - Broad Floodplain Riparian Complex
Hydric soil rating: Yes

Description of Saco

Setting

Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Coarse-silty alluvium

Typical profile

H1 - 0 to 12 inches: silt loam
H2 - 12 to 24 inches: silt loam
H3 - 24 to 65 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: NoneFrequent
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very high (about 15.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: B/D
Ecological site: F144BY120ME - Small Floodplain Riparian Complex (reserved),
F144BY110ME - Broad Floodplain Riparian Complex
Hydric soil rating: Yes

Sn—Scantic silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2slv3
Elevation: 10 to 900 feet
Mean annual precipitation: 33 to 60 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Scantic and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Scantic

Setting

Landform: Marine terraces, river valleys
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Glaciomarine deposits

Typical profile

Ap - 0 to 9 inches: silt loam
Bg1 - 9 to 16 inches: silty clay loam
Bg2 - 16 to 29 inches: silty clay
Cg - 29 to 65 inches: silty clay

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: D
Ecological site: F144BY304ME - Wet Clay Flat
Hydric soil rating: Yes

SuC2—Suffield silt loam, 8 to 15 percent slopes, eroded

Map Unit Setting

National map unit symbol: blk1
Elevation: 10 to 900 feet
Mean annual precipitation: 34 to 48 inches
Mean annual air temperature: 43 to 46 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Suffield and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Suffield

Setting

Landform: Coastal plains
Landform position (two-dimensional): Backslope

Custom Soil Resource Report

Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine glaciolacustrine deposits

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 23 inches: silt loam
H3 - 23 to 33 inches: silty clay
H4 - 33 to 65 inches: silty clay

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: F144BY402ME - Clay Hills
Hydric soil rating: No

SuD2—Suffield silt loam, 15 to 25 percent slopes, eroded

Map Unit Setting

National map unit symbol: blk2
Elevation: 10 to 900 feet
Mean annual precipitation: 34 to 48 inches
Mean annual air temperature: 43 to 46 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Suffield and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Suffield

Setting

Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine glaciolacustrine deposits

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 23 inches: silt loam
H3 - 23 to 33 inches: silty clay
H4 - 33 to 65 inches: silty clay

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: F144BY402ME - Clay Hills
Hydric soil rating: No

WmD—Windsor loamy sand, 15 to 35 percent slopes

Map Unit Setting

National map unit symbol: 2svl4
Elevation: 0 to 680 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Windsor and similar soils: 90 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Windsor

Setting

Landform: Outwash plains, outwash terraces, deltas, dunes
Landform position (three-dimensional): Tread, riser
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Parent material: Loose sandy glaciofluvial deposits derived from granite and/or loose sandy glaciofluvial deposits derived from schist and/or loose sandy glaciofluvial deposits derived from gneiss

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 3 inches: loamy sand

Custom Soil Resource Report

Bw - 3 to 25 inches: loamy sand

C - 25 to 65 inches: sand

Properties and qualities

Slope: 15 to 35 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Excessively drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: A

Ecological site: F144AY022MA - Dry Outwash

Hydric soil rating: No

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Custom Soil Resource Report

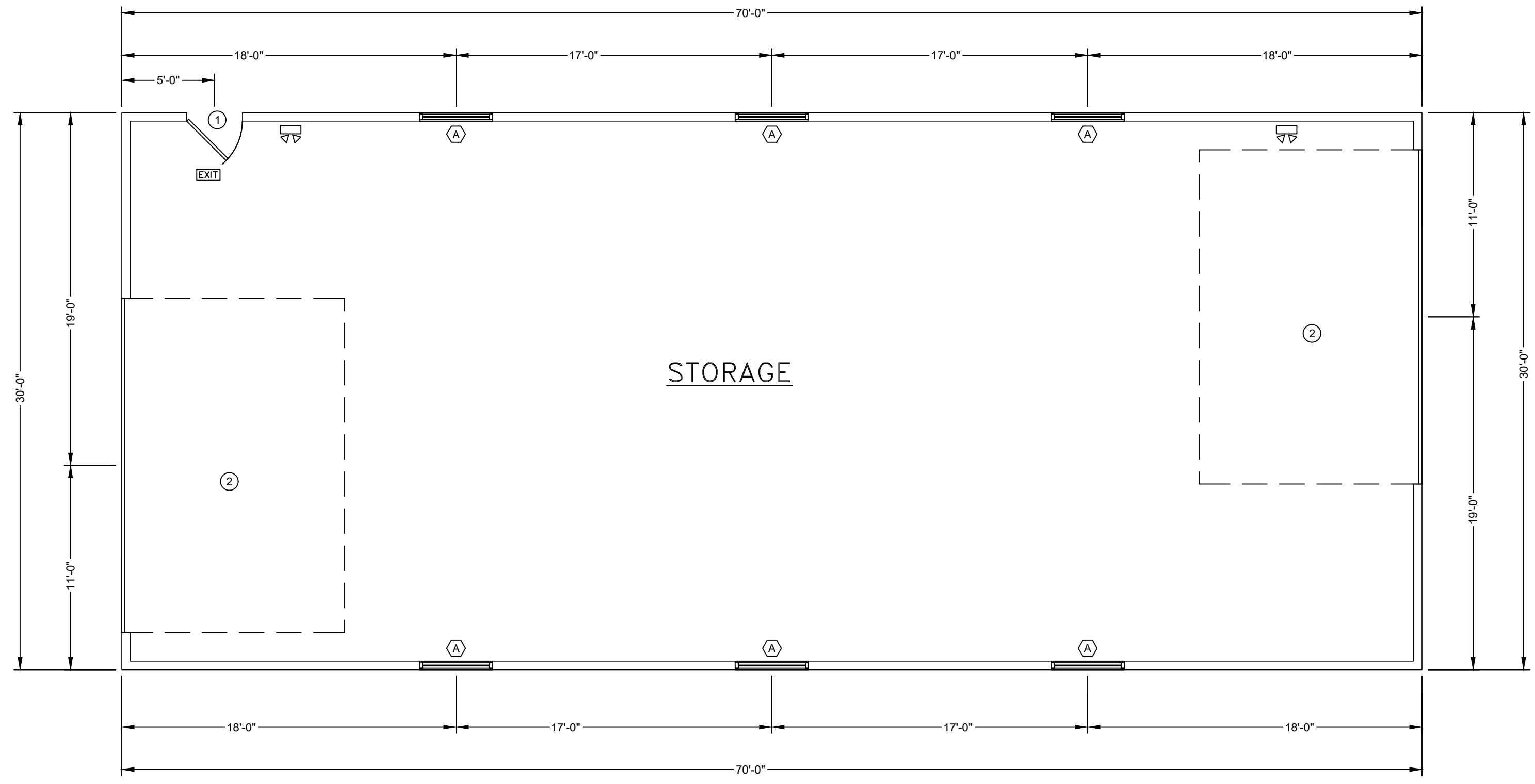
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SECTION 9

ARCHITECTURAL & LIGHTING



FIRST FLOOR PLAN
SCALE 3/16" = 1'-0"

WINDOW SCHEDULE					
NO.	QUANTITY	SIZE	TYPE	FRAME	REMARKS
(A)	6	5'-0" x 2'-0"	AWNING	ALUMINUM	

DOOR SCHEDULE					
NO.	QUANTITY	SIZE	TYPE	FRAME	REMARKS
(1)	1	3'-0" x 6'-8"	METAL INSULATED	METAL	HINGES, LEVER HARDWARE, ADA THRESHOLD, CLOSER, DEAD BOLT, ENTRY LOCKSET
(2)	2	18'-0" x 12'-0"	OVERHEAD	NA	TRACK, AUTOMATIC OPENER

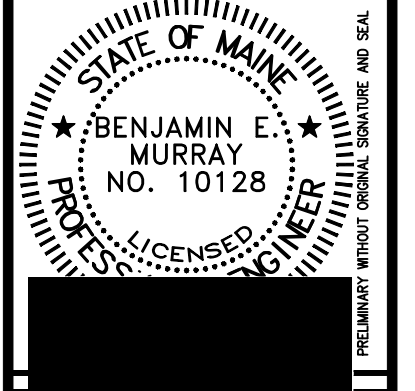
- PLAN SUBMISSION NOTES**
1. THIS PLAN IS FOR TOWN OF GRAY BUILDING CODE, LIFE SAFETY CODE AND OCCUPANCY APPROVAL ONLY.
 2. PLAN BASED ON PLAN PROVIDED BY THE OWNER.
 3. IBC 2015 USE GROUP: STORAGE (S)
 4. 2018 NFPA LIFE SAFETY OCCUPANCY: STORAGE
 5. CONSTRUCTION TYPE: TYPE V B (UNPROTECTED)

LEGEND

	PROPOSED WALL
	EXIT SIGN
	EMERGENCY LIGHTING

REV.	APPD	DATE	STATUS
3	BEM	08-26-2022	ISSUED FOR BID
2	BEM	07-11-2022	REVISED OHD LOCATION
1	BEM	06-08-2022	60% SUBMITTAL
	APPD		

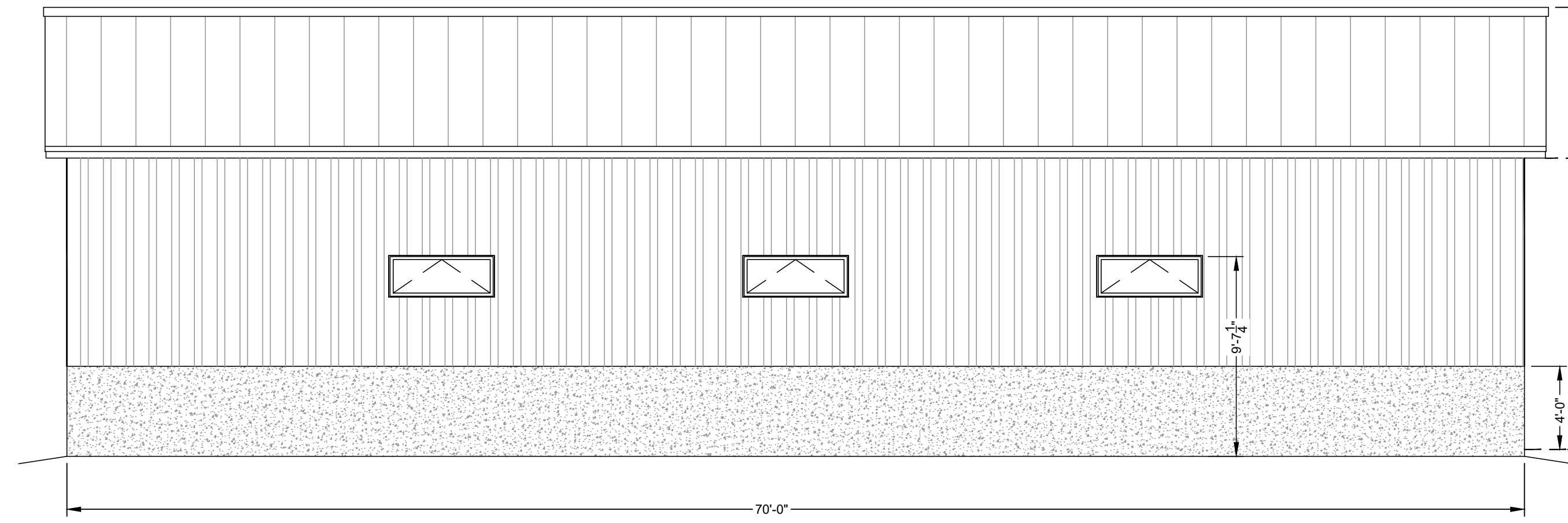
THIS PLAN SHALL NOT BE NOTIFIED WITHOUT WRITTEN PERMISSION FROM A/E/H/ODSDON CONSULTING ENGINEERS. ANY ALTERATIONS AUTHORIZED OR OTHERWISE SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO A/E/H/ODSDON CONSULTING ENGINEERS.



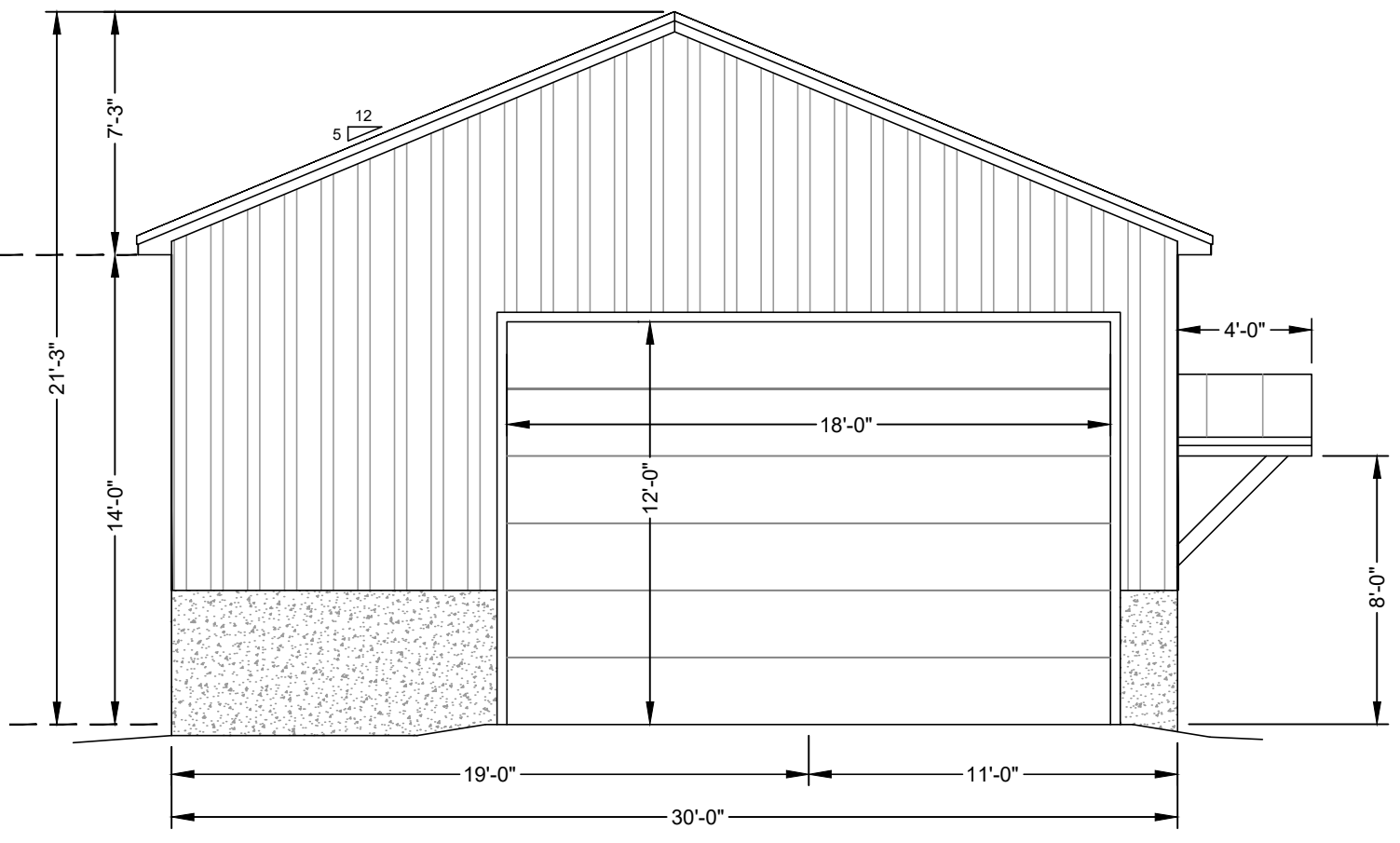
FLOOR PLAN
OF:
MIDIFW DRY MILLS STORAGE BARN
158 WEYMOUTH ROAD
GRAY, MAINE
FOR:
HDR ENGINEERING, INC.
9450 W. BRYN MAWR AVE.
ROSEMONT, IL

DRAWN	CHECKED
PLS	BEM
SCALE	DATE
AS NOTED	06-07-2022

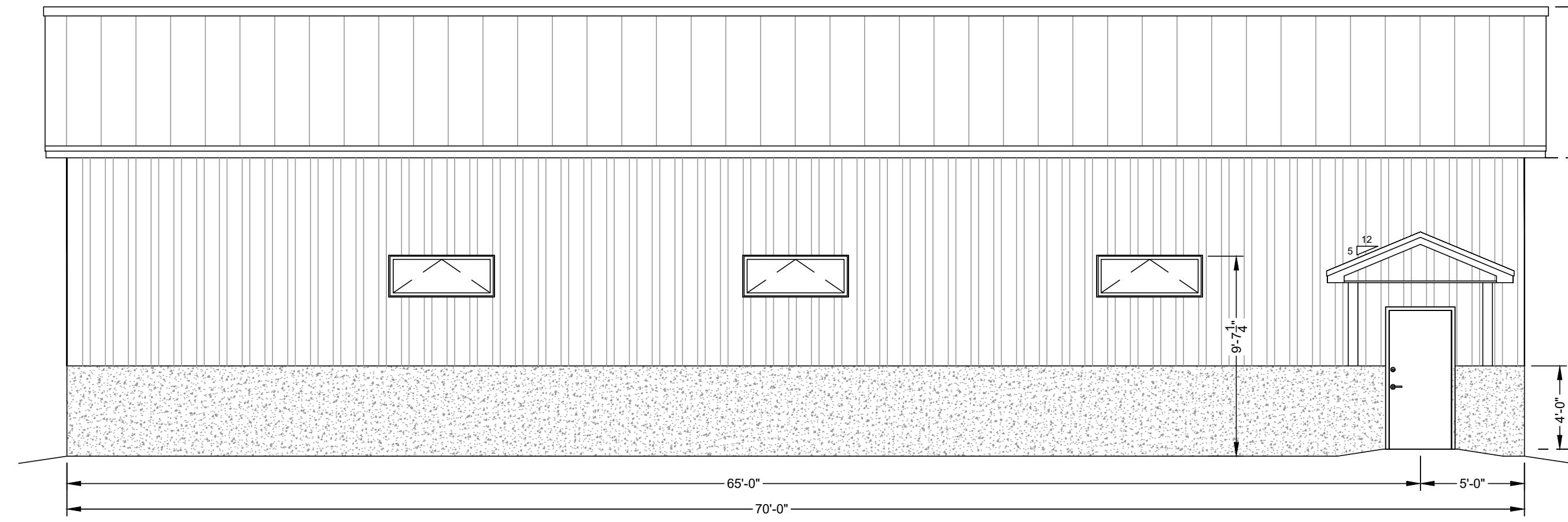
A1.0
PROJECT#: 124-22



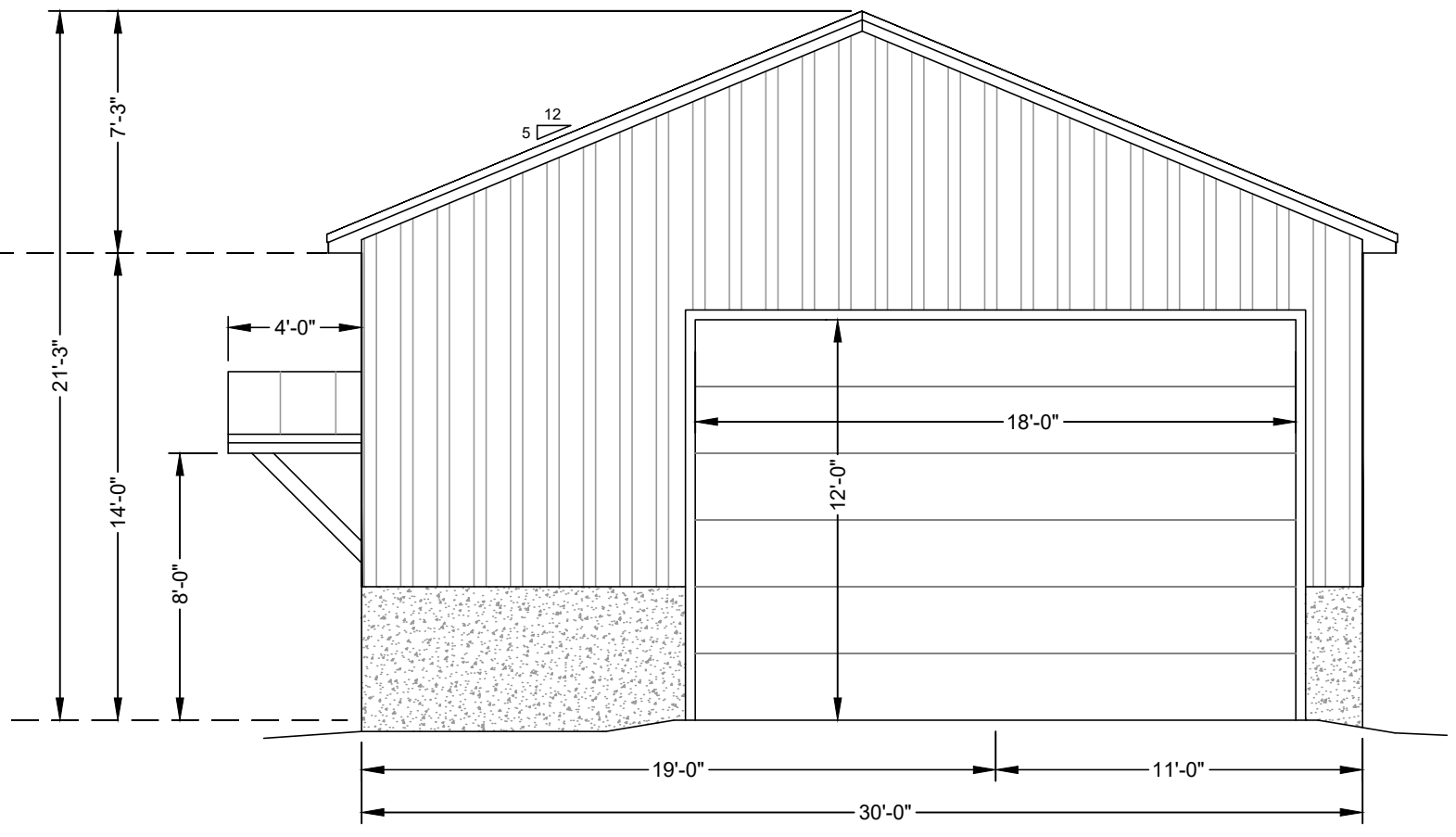
SOUTH ELEVATION
SCALE 3/16" = 1'-0"



EAST ELEVATION
SCALE 3/16" = 1'-0"



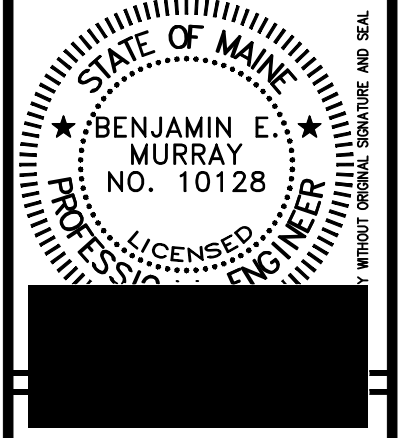
NORTH ELEVATION
SCALE 3/16" = 1'-0"



WEST ELEVATION
SCALE 3/16" = 1'-0"

3	BEM	08-26-2022	ISSUED FOR BID
2	BEM	07-11-2022	REVISED OHJ LOCATION
1	BEM	06-08-2022	60% SUBMITTAL
REV. / APPD.	DATE:	STATUS:	

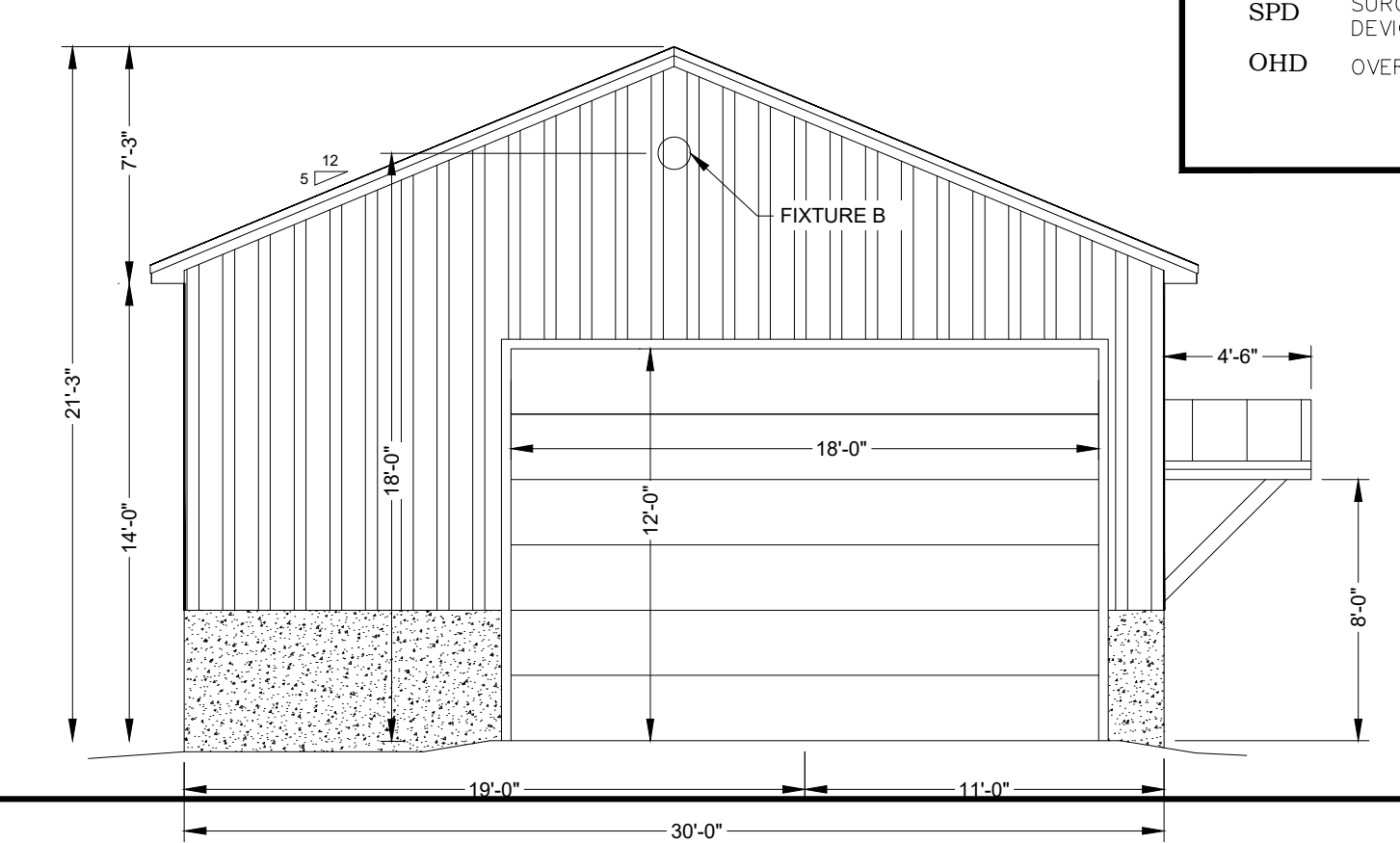
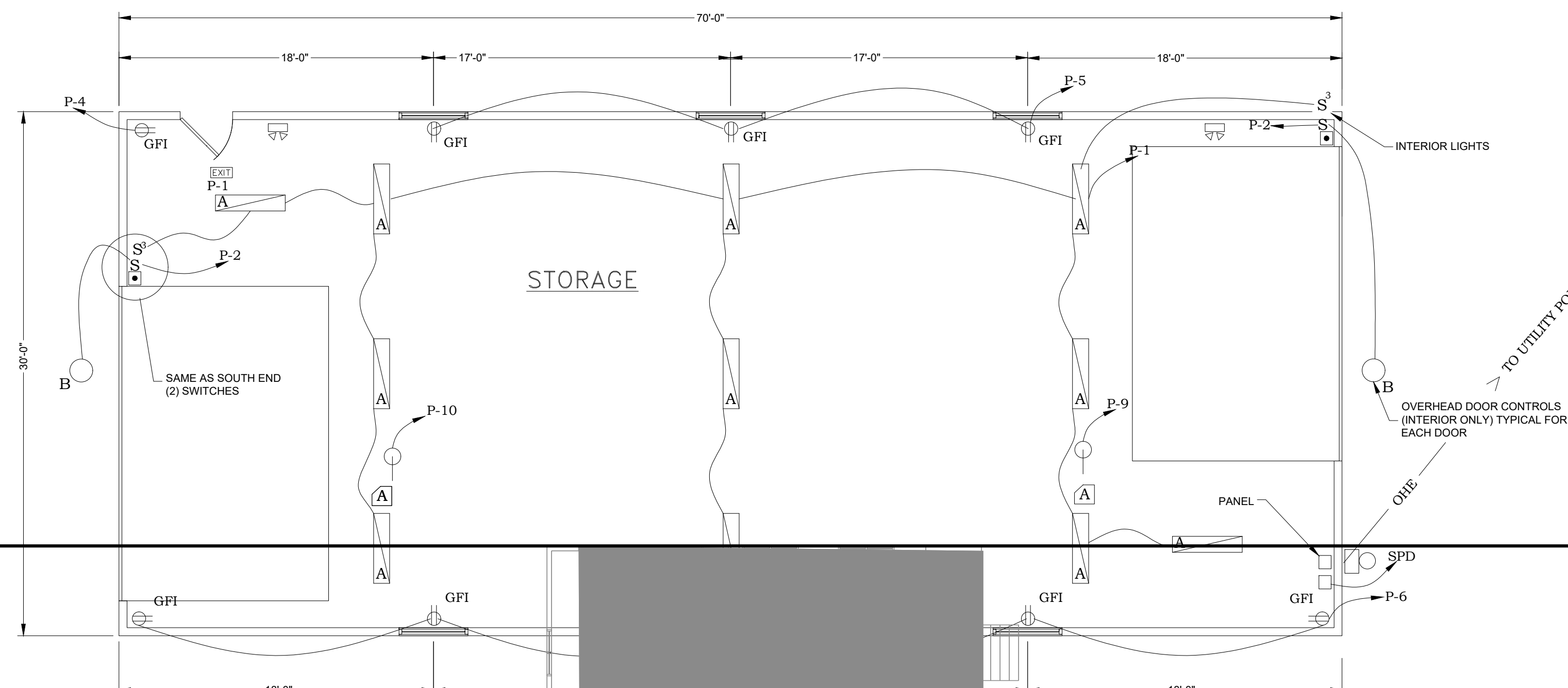
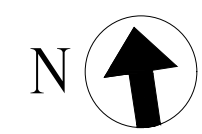
THIS PLAN SHALL NOT BE USED WITHOUT WRITTEN PERMISSION FROM A/E/H/ODSDON CONSULTING ENGINEERS. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO A/E/H/ODSDON CONSULTING ENGINEERS.



ELEVATION PLAN
OF:
MIDIFW DRY MILLS STORAGE BARN
158 WEYMOUTH ROAD
GRAY, MAINE
FOR:
HDR ENGINEERING, INC.
9450 W. BRYN MAWR AVE.
ROSEMONT, IL

DRAWN	CHECKED
PLS	BEM
SCALE	DATE
AS NOTED	06-07-2022

A1.1
PROJECT#: 124-22

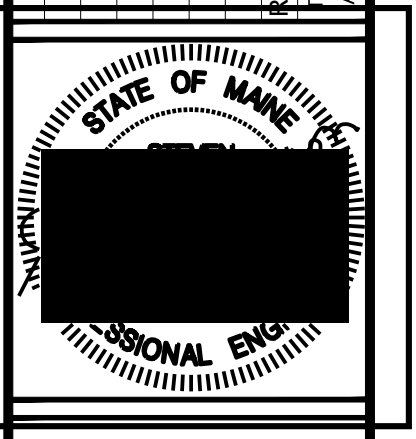


LEGEND

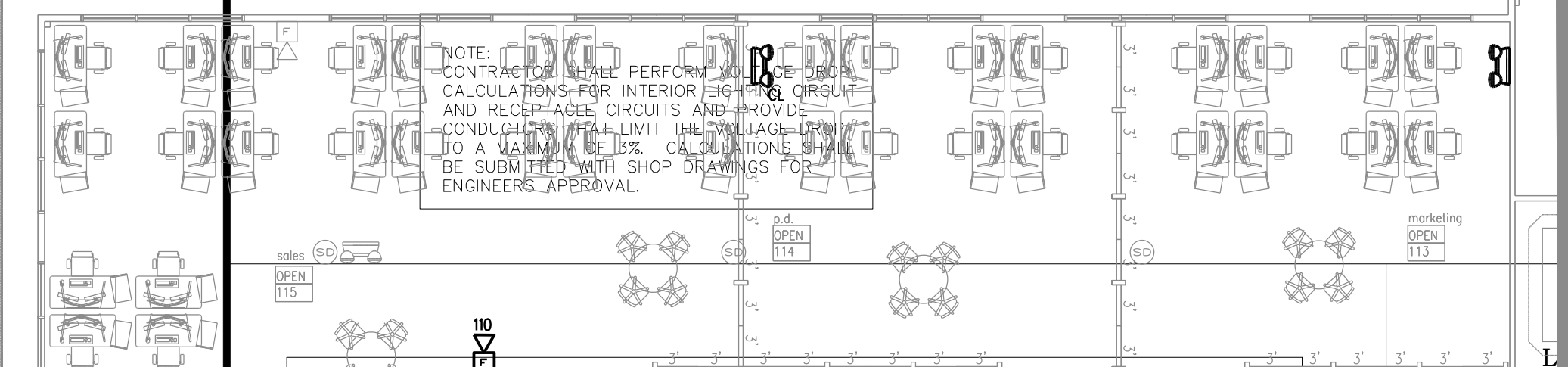
- LED LIGHTING FIXTURE; LETTER INDICATES TYPE
- DUPLEX 20A RECEPTACLE 48" AFF
- SINGLE POLE SWITCH 48" AFF
- 3-WAY SWITCH 48" AFF
- UTILITY METER
- OHE OVERHEAD ELECTRICAL WIRES
- OVERHEAD DOOR OPERATOR CONTROL
- PANEL OR AS LABELED
- AFF ABOVE FINISHED FLOOR
- AFG ABOVE FINISHED GRADE
- GFI GROUND FAULT CIRCUIT PROTECTOR
- SPD SURGE PROTECTIVE DEVICE
- OHD OVERHEAD DOOR

AEHodson
CONSULTING ENGINEERS
10 Common Street Waterville, Maine 04901
(207) 873-5164
(207) 872-0645

ISSUED FOR BID
REVISED OHD LOCATION
10% SUBMITTAL
DATE: 06-07-2022
APPLIED AT: 10% SUBMITTAL
DATE: 06-07-2022
THESE PLANS SHALL BE MODIFIED WITHOUT WRITTEN PERMISSION FROM A.E. HODSON CONSULTING ENGINEERS. ANY ALTERATIONS, ADDITIONS, DELETIONS, OR OMISSIONS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO A.E. HODSON CONSULTING ENGINEERS.



BENNETT ENGINEERING
MECHANICAL - ELECTRICAL
(207) 865-9475



FIXTURE SCHEDULE

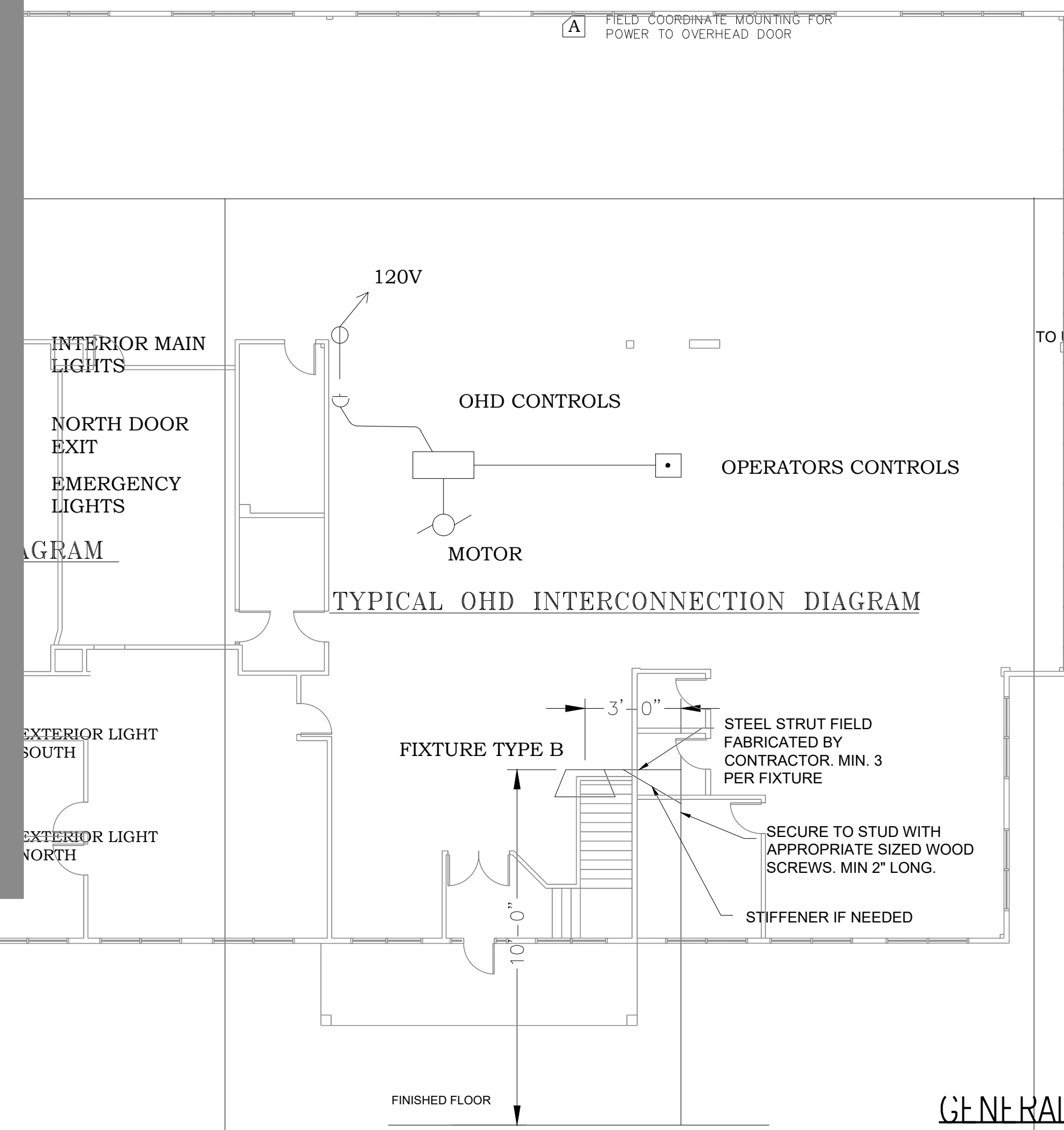
TYPE	FIXTURE MAKE	FIXTURE MODEL	MOUNTING	LAMPING
A	LITHONIA	2 LIN L48 5000LM FST MVOLT 50K 80 CRI WH	SURFACE ON BOTTOM OF TRUSS	21.7W/LED
B	RAB	WPLED:47 78 N WITH SMS 500 MIDION CONTROLLER	WALL 18 FT AFG	28W/LED
EXIT	LITHONIA	LV S W I R 120 UM CW	WALL ABOVE DOOR	2.3W/LED
EMRG	LITHONIA	EU2L	WALL 10 FT AFG	LED

PANEL SCHEDULE - A SURFACE MOUNTED
100 AMP MCB, 240/120 VOLT, 1 PHASE, 3 WIRE, 60 HZ

CIRCUIT NO.	DESCRIPTION	NO. POLES	RATING	LOAD
1	INTERIOR LIGHTS	1	20	1.9
2	INTERIOR BENCH AND EXTERIOR LIGHTS	1	20	0.3
3	RECEPT	1	20	0.4
4	RECEPT	1	20	0.6
5	RECEPT - E	1	20	1.0
6	RECEPT - W	1	20	0.4
7	RECEPT - S	1	20	0.4
8	RECEPT - S	1	20	0.5
9	OH DOORS	1	20	0.5
10	OH DOORS	1	20	0.5
11.13	SPD	2	20	-
12-14	SPARE	1	20	-
15,16	SPARE	1	20	-
17-24	SPARE	1	20	-

** RATING PER SPD MANUFACTURER RECOMMENDATION

FIRST FLOOR PLAN
SCALE: 3/32" = 1'-0"



TYPICAL WORK LIGHT MOUNTING PROPOSED

GENERAL NOTE

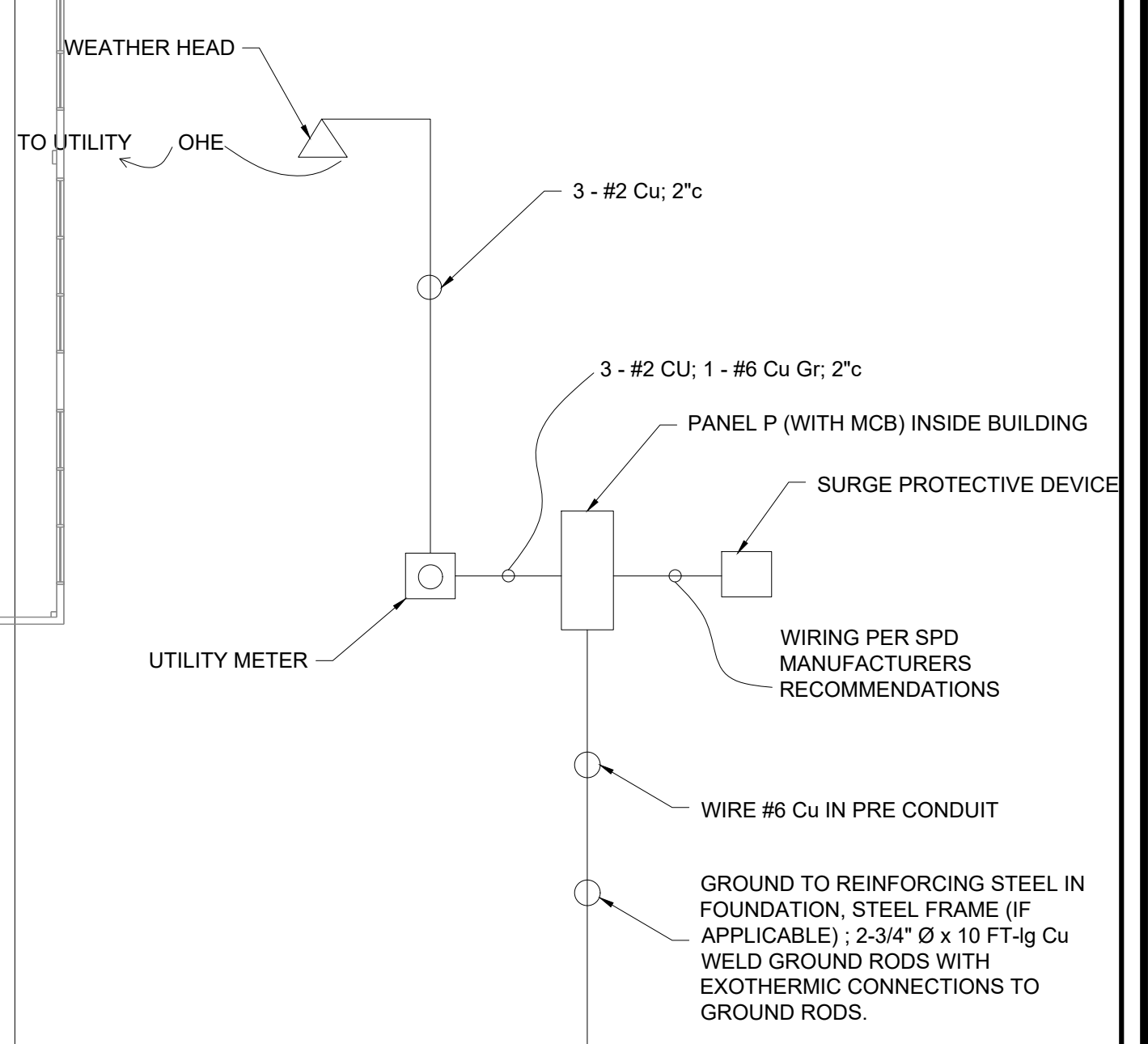
1. FIRE ALARM DEVICES ONLY SHOWN IN AREAS OF WORK. ALL NEW DEVICES SHALL BE CONNECTED TO EXISTING BUILDING SYSTEM. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING BUILDING FIRE ALARM CONTROL PANEL PRIOR TO ROUGH-IN.

WORK NOTE

① EXISTING RELOCATED DEVICE.

SYMBOL LEGEND

② SELF-CONTAINED EMERGENCY LIGHT WHO HEADS SHALL USE LED MODEL 1700N 07



WORK AND EXTERIOR LIGHTING WIRING DIAGRAM

TYPICAL WORK LIGHT MOUNTING PROPOSED

GENERAL NOTE

1. FIRE ALARM DEVICES ONLY SHOWN IN AREAS OF WORK. ALL NEW DEVICES SHALL BE CONNECTED TO EXISTING BUILDING SYSTEM. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING BUILDING FIRE ALARM CONTROL PANEL PRIOR TO ROUGH-IN.

WORK NOTE

① EXISTING RELOCATED DEVICE.

SYMBOL LEGEND

② SELF-CONTAINED EMERGENCY LIGHT WHO HEADS SHALL USE LED MODEL 1700N 07

ELECTRICAL PLAN
OF
MIDWAY WAYSIDE PUBLISHING BARN
158 WEYMOUTH ROAD
GREY, MAINE
FOR
HDR ENGINEERING
218 Greenwood Dr.,
9440 W BRYAN MAWR AVE.
FREETPORT, ME 04033
RECEIVED: 06-07-2022

SCALE	DATE
AS NOTED	06-07-2022

E1.0
PROJECT#: 124-22

REVISION NO.	DESCRIPTION

GENERAL NOTES:

- PART 1 - GENERAL
1.01 GENERAL
A. NO PROVISIONS HAVE BEEN MADE FOR ANY TEMPORARY CONDITIONS THAT MAY ARISE DURING CONSTRUCTION PRIOR TO THE COMPLETION OF THE STRUCTURE.

WOOD TRUSS NOTES

- PART 1 - GENERAL
1.01 STANDARD SPECIFICATION
A. THE LATEST ADDITION OF WTCA SHALL APPLY.
B. TRUSS MANUFACTURER TO DESIGN LATERAL LONGITUDINAL BRACING. FINAL TRUSS PLANS TO BE STAMPED BY MANUFACTURERS ENGINEER.

WOOD NOTES:

- PART 1 - GENERAL
1.01 STANDARD SPECIFICATIONS
A. THE CURRENT AITC SPECIFICATION SHALL APPLY.
PART 2 - PRODUCTS
2.01 MATERIAL
A. ALL TIMBER IN CONTACT WITH MASONRY AND CONCRETE OR FRAMING LABELED "P.T." SHALL BE PRESSURE TREATED SOUTHERN PINE GRADE #1 WITH A MINIMUM Fb OF 1,350 PSI AND E OF 1,500 KSI OR BETTER.

CONCRETE NOTES

- PART 1 - GENERAL
1.01 GENERAL
A. ADHERE TO ACI COLD WEATHER CONCRETE SPECIFICATIONS, WHEN APPLICABLE.
B. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.

- PART 2 - PRODUCTS
2.01 MATERIAL
A. REINFORCING:
1. SHALL BE GRADE 60, NEW DEFORMED BARS AND SHALL CONFORM TO ASTM A615. ALL REINFORCING BARS TO BE WELDED SHALL CONFORM TO ASTM A706.

- PART 3 - EARTHWORK
3.01 EARTHWORK
A. SITE WORK AND CONCRETE CONTRACTORS ARE REQUIRED TO REVIEW THE ONSITE SUBSURFACE SOIL CONDITIONS WITH THE OWNER AT THE START OF INITIAL CONSTRUCTION.

Table with 2 columns: FILL AND BACK FILL LOCATION, DENSITY. Lists various construction locations and their required densities.

- PART 4 - EXECUTION
4.01 SUBGRADE
A. ALL GRADING SHALL BE ACHIEVED AT SUBGRADE TO PROVIDE A CONSTANT THICKNESS OF CONCRETE.

Table with 2 columns: SCREEN OR SIEVE SIZE PERCENT FINER BY WEIGHT. Lists sieve sizes and corresponding percentages.

- 4.02 PLACEMENT
A. CONCRETE SLAB ON GRADE SHALL BE PLACED IN ONE CONTINUOUS PLACEMENT, WITH NO COLD JOINTS. IF COLD JOINTS ARE DESIRED, CONTRACTOR MUST PROVIDE PLACEMENT SEQUENCE AND JOINT DETAIL FOR ENGINEER'S APPROVAL, PRIOR TO PLACEMENT.

- 4.03 CONTROL JOINTS
A. PLACE CONTROL JOINTS WHERE SHOWN ON THE PLANS. SLAB SECTIONS FORMED WITH CONTROL JOINTS SHOULD BE SQUARE OR NEARLY SQUARE.

- 4.04 CONCRETE TESTING
A. FOUR CONCRETE TEST CYLINDERS TO BE SET ASIDE FOR LABORATORY TESTING EITHER EVERY 50 CUBIC YARDS FOR ONE CONTINUOUS PLACEMENT OR EACH NEW DAY PLACEMENT, WHICH EVER PRODUCES THE MOST CYLINDERS.

DESIGN LOADING

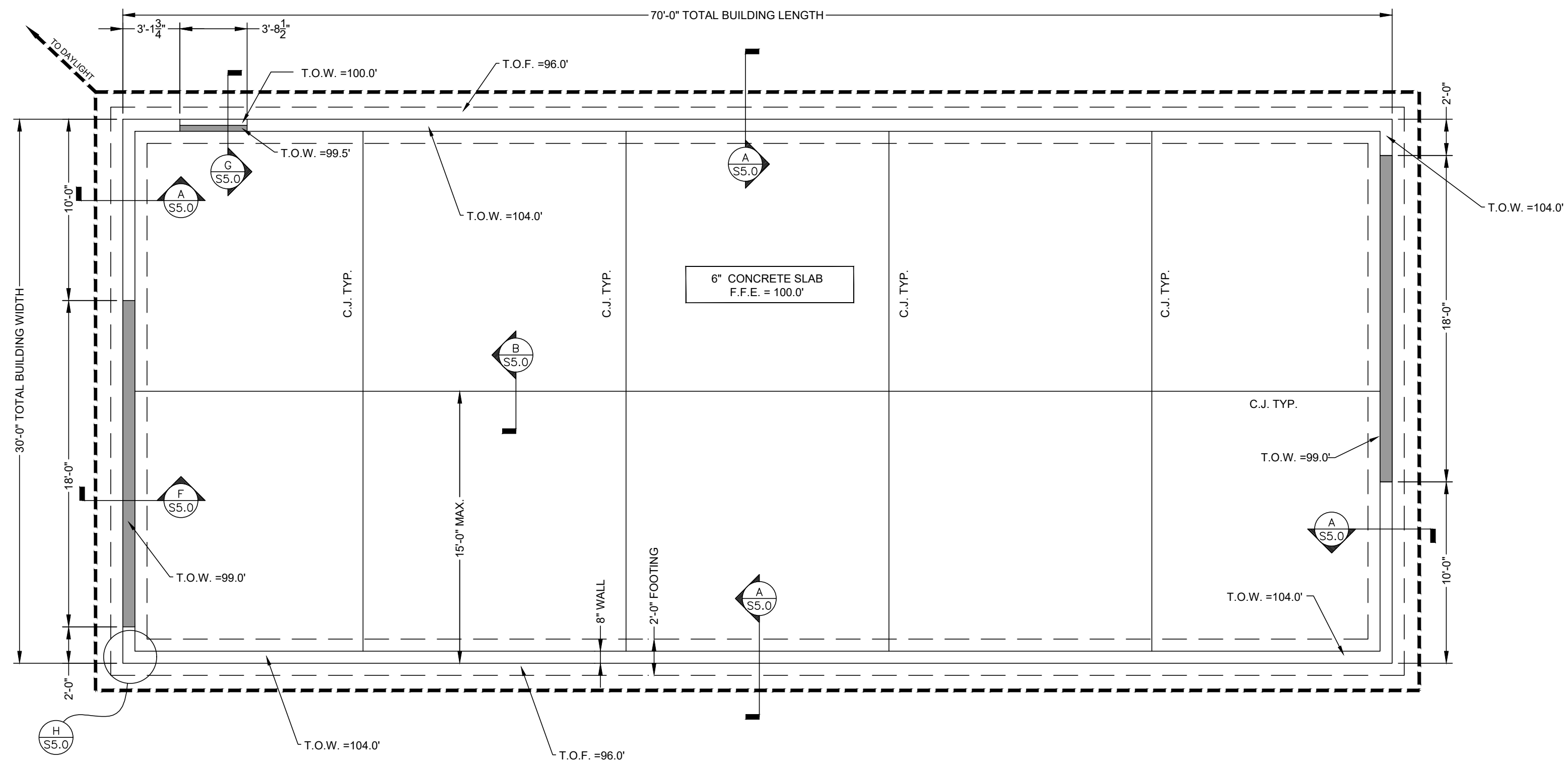
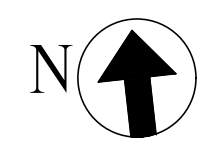
- PART 1 - LOADING
1.01 DESIGN SOIL BEARING PRESSURE
A. THE DESIGN SOIL BEARING PRESSURE IS ASSUMED TO BE 2,000 PSF.

AEHodsdon CONSULTING ENGINEERS logo and address: 10 Common Street Waterville, Maine 04901

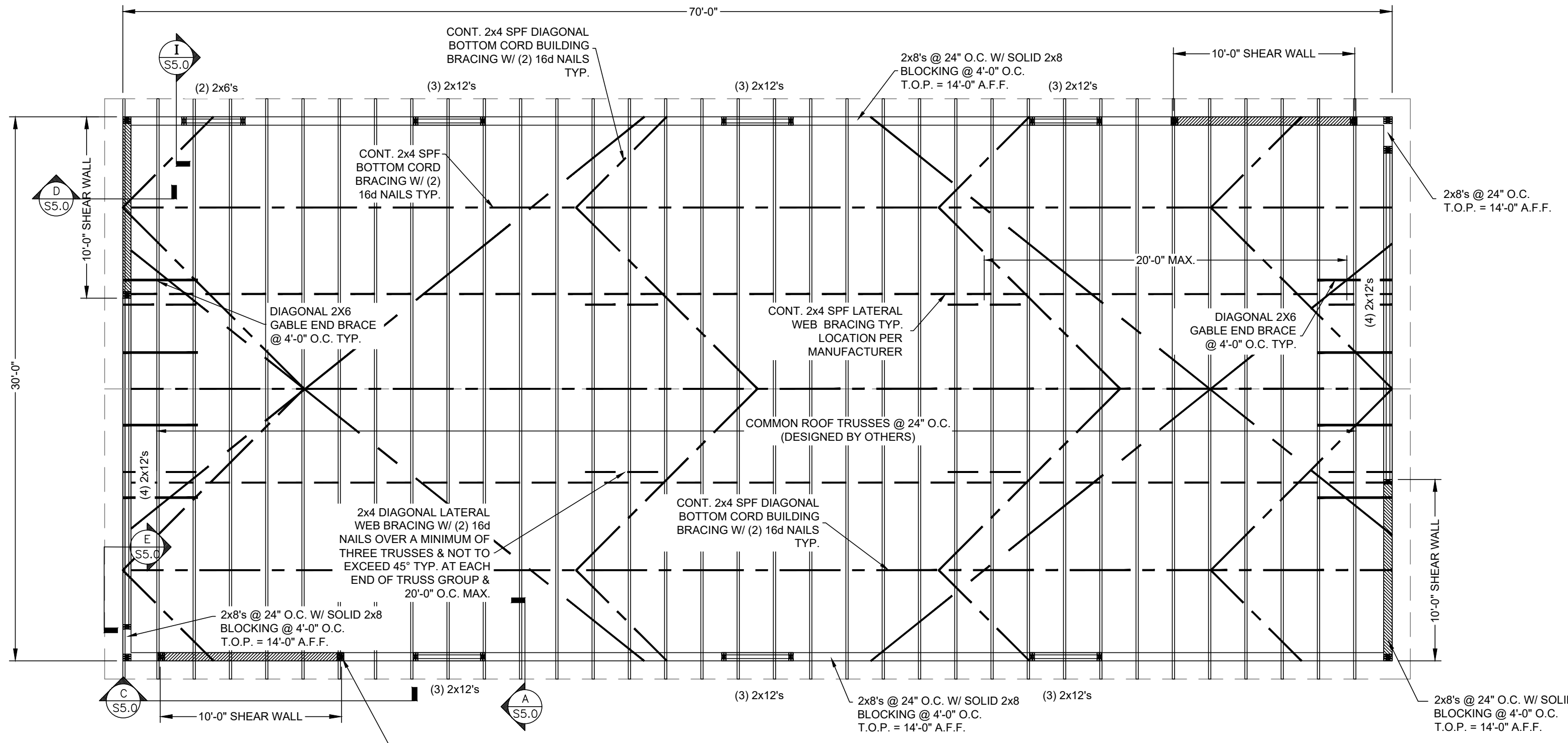
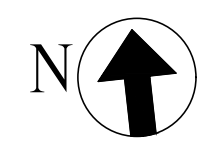
Table with columns for BID LOCATION, REVISIONS, and SUBMITTALS. Includes dates and descriptions of revisions.

Professional Engineer Seal for Benjamin E. Murray, No. 10128, State of Maine.

GENERAL NOTES OF MDIFW DRY MILLS STORAGE BARN FOR HDR ENGINEERING, INC. Includes project details, drawing/checked status, scale/date, and project number S0.1.



FOUNDATION PLAN
SCALE 3/16" = 1'-0"



ROOF FRAMING PLAN
SCALE 3/16" = 1'-0"

BRACING LEGEND

- GABLE END BRACE
- - - LATERAL WEB BRACE
- - - LATERAL DIAGONAL WEB BRACE
- - - BOTTOM CHORD BRACE

AEHodsdon
CONSULTING ENGINEERS

10 Common Street Waterville, Maine 04901
(207) 873-5164
(207) 872-0645

3	BEM	08-26-2022	ISSUED FOR BID
2	BEM	07-11-2022	REVISED OHD LOCATION
1	BEM	06-08-2022	60% SUBMITTAL
REV.	APPD	DATE	STATUS

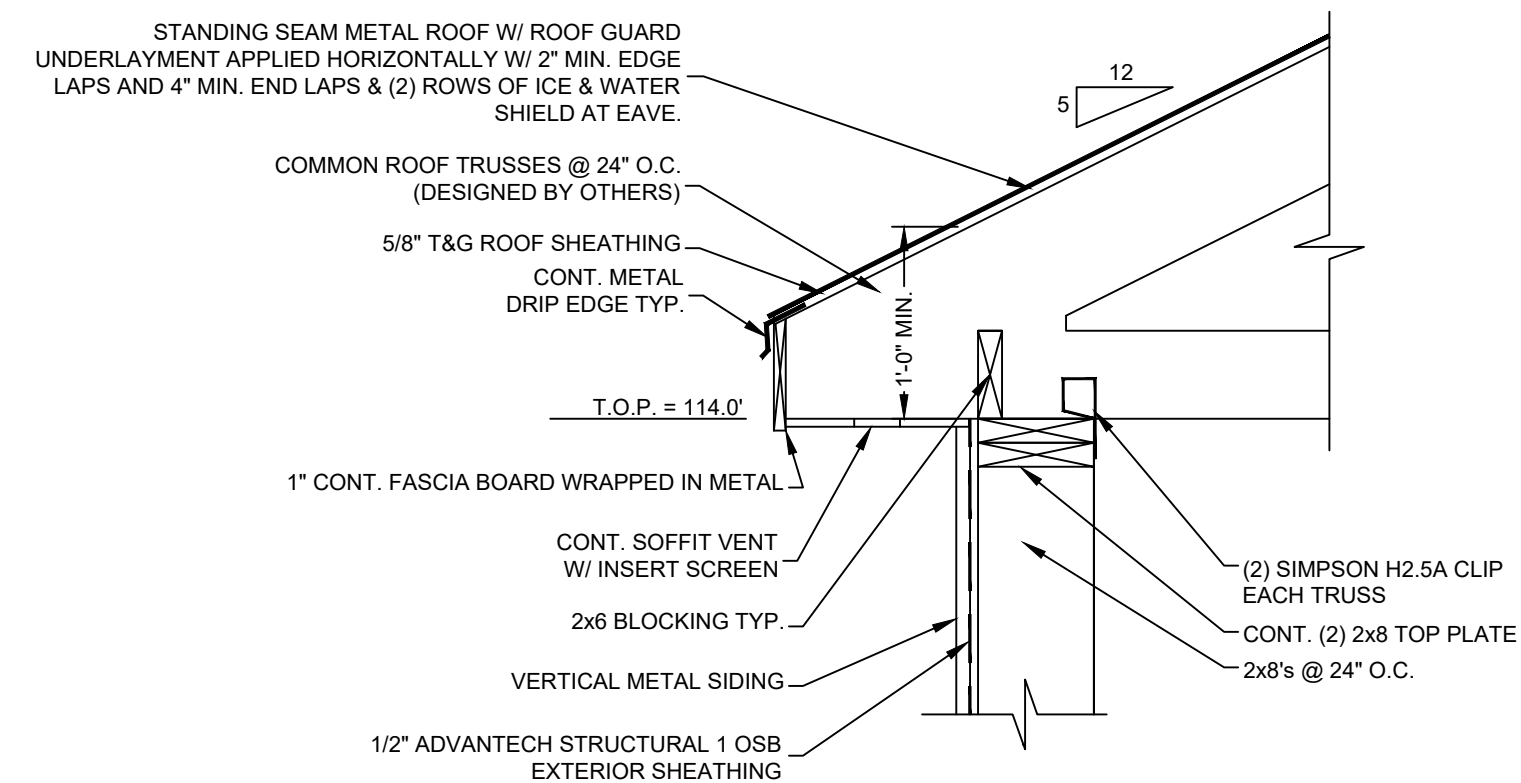
THIS PLAN SHALL NOT BE FORWARDED WITHOUT WRITTEN PERMISSION FROM A.E.H. HODSDON CONSULTING ENGINEERS. ANY ALTERATIONS AUTHORIZED OR OTHERWISE SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO A.E.H. HODSDON CONSULTING ENGINEERS.

STATE OF MAINE
BENJAMIN E. MURRAY
NO. 10128
LICENSED PROFESSIONAL ENGINEER

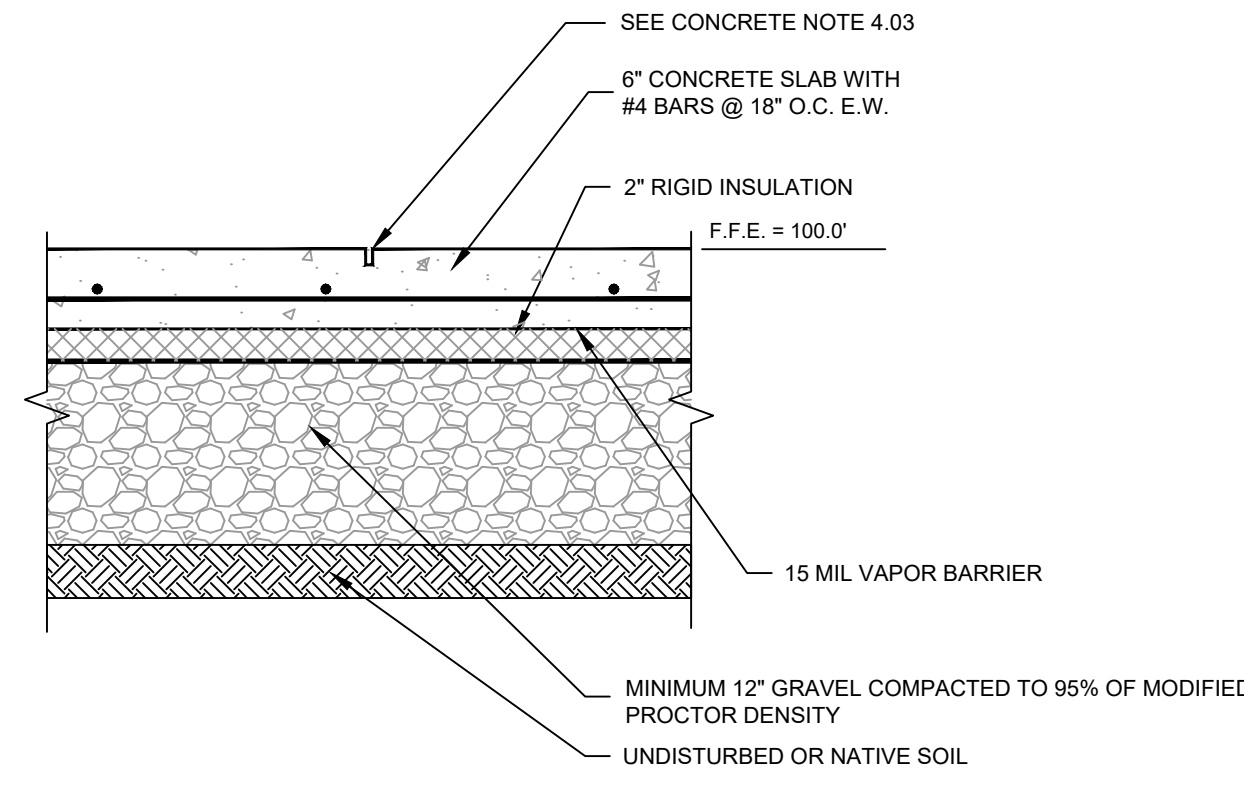
FOUNDATION & ROOF FRAMING PLAN
OF
MDIFW DRY MILLS STORAGE BARN
158 WEYMOUTH ROAD
GRAY, MAINE
FOR:
HDR ENGINEERING, INC.
9450 W BRYN MAWR AVE.
ROSEMONT, IL

DRAWN	CHECKED
PLS	BEM
SCALE	DATE
AS NOTED	06-07-2022

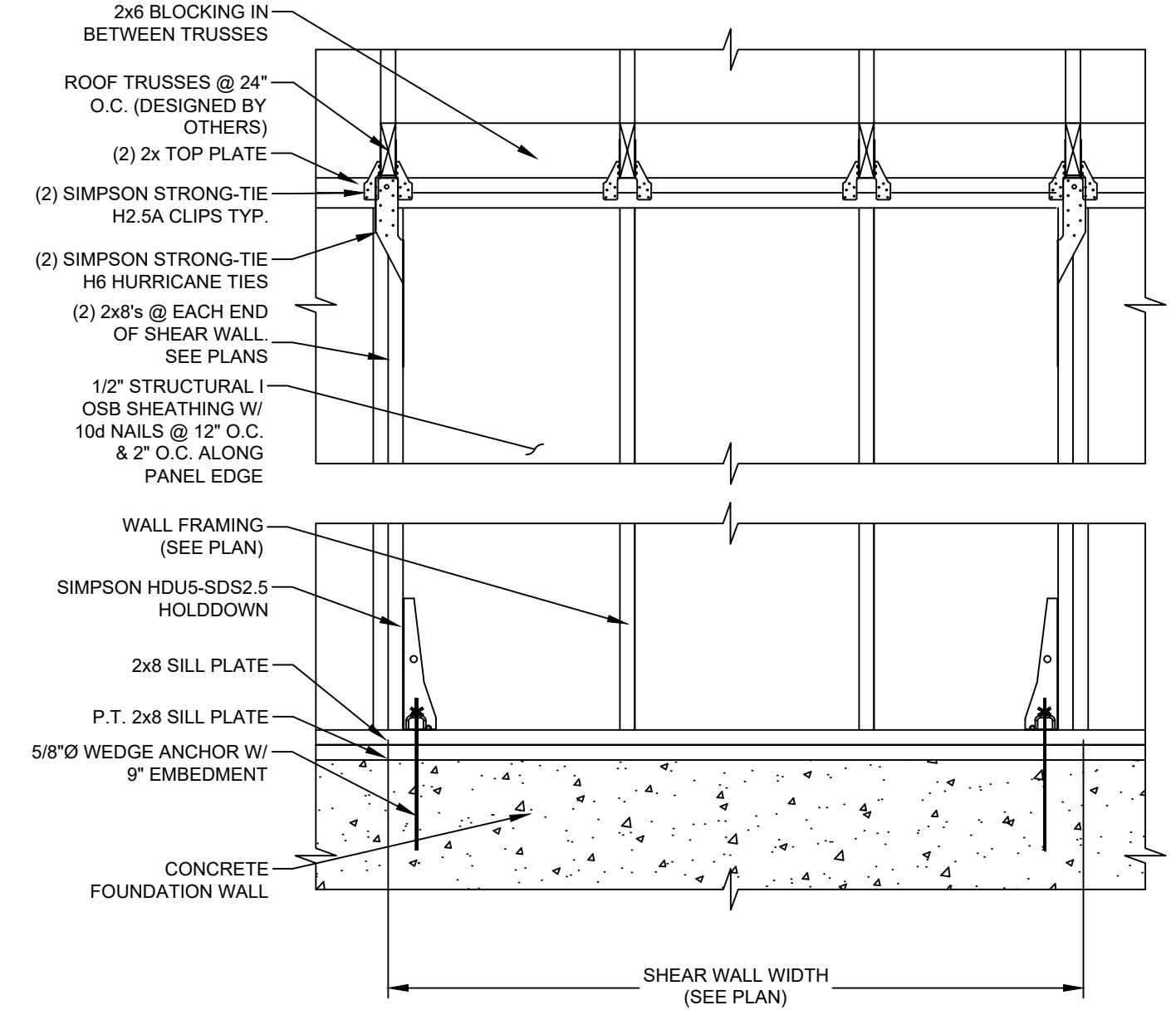
S1.0
PROJECT#: 124-22



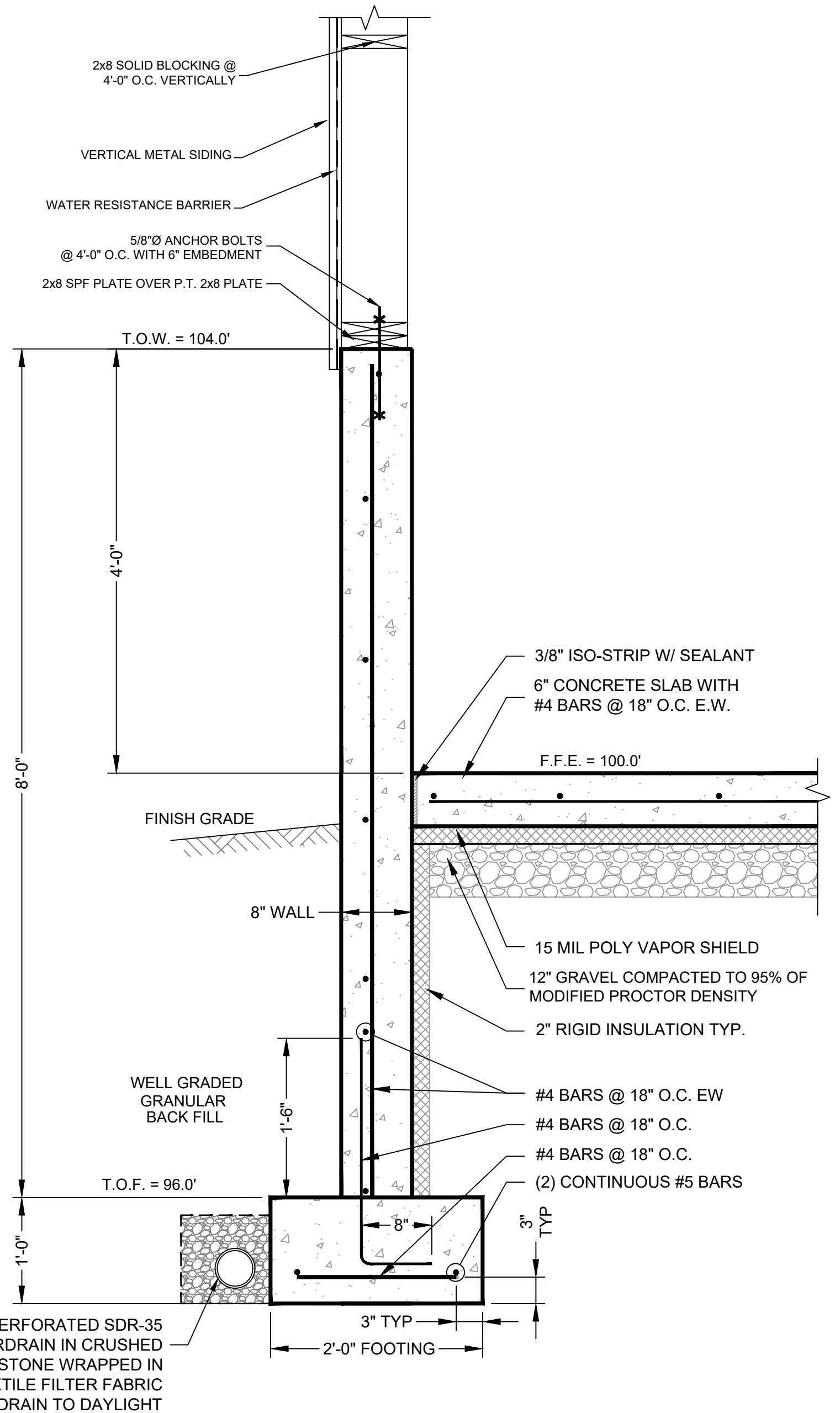
A SECTION
S1.0 SCALE 1" = 1'-0"



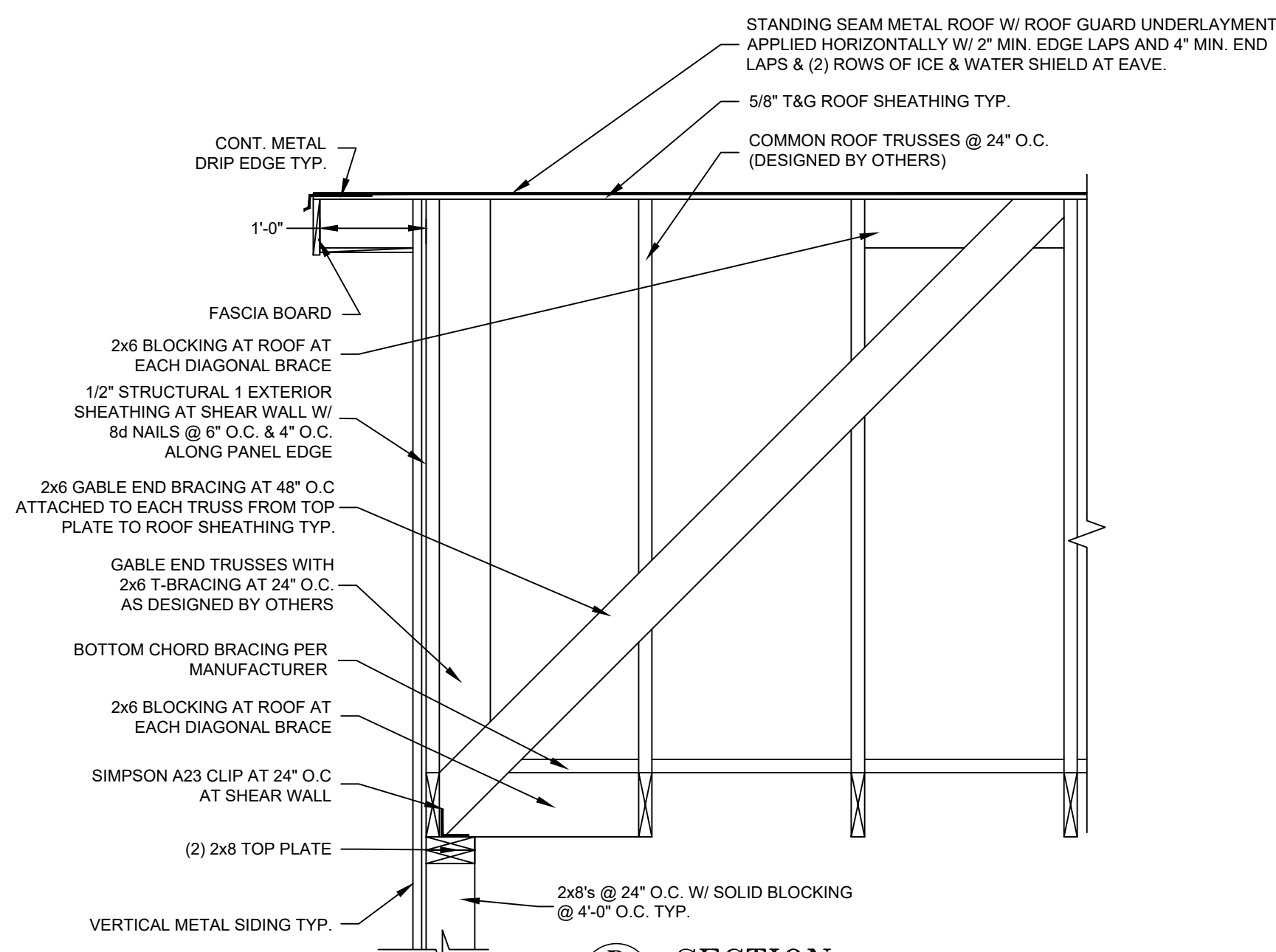
B SECTION
S1.0 SCALE 1" = 1'-0"



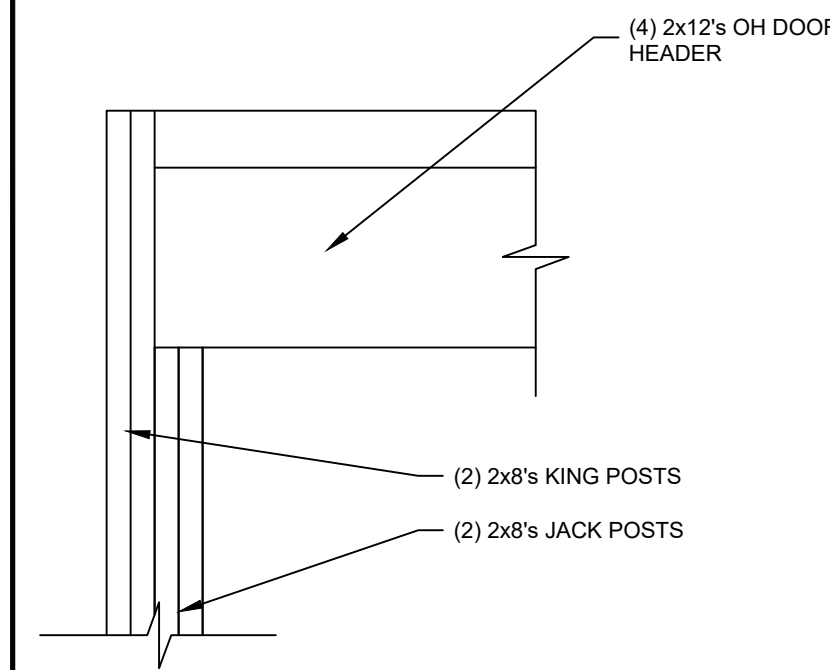
C SECTION
S1.0 SCALE 3/4" = 1'-0"



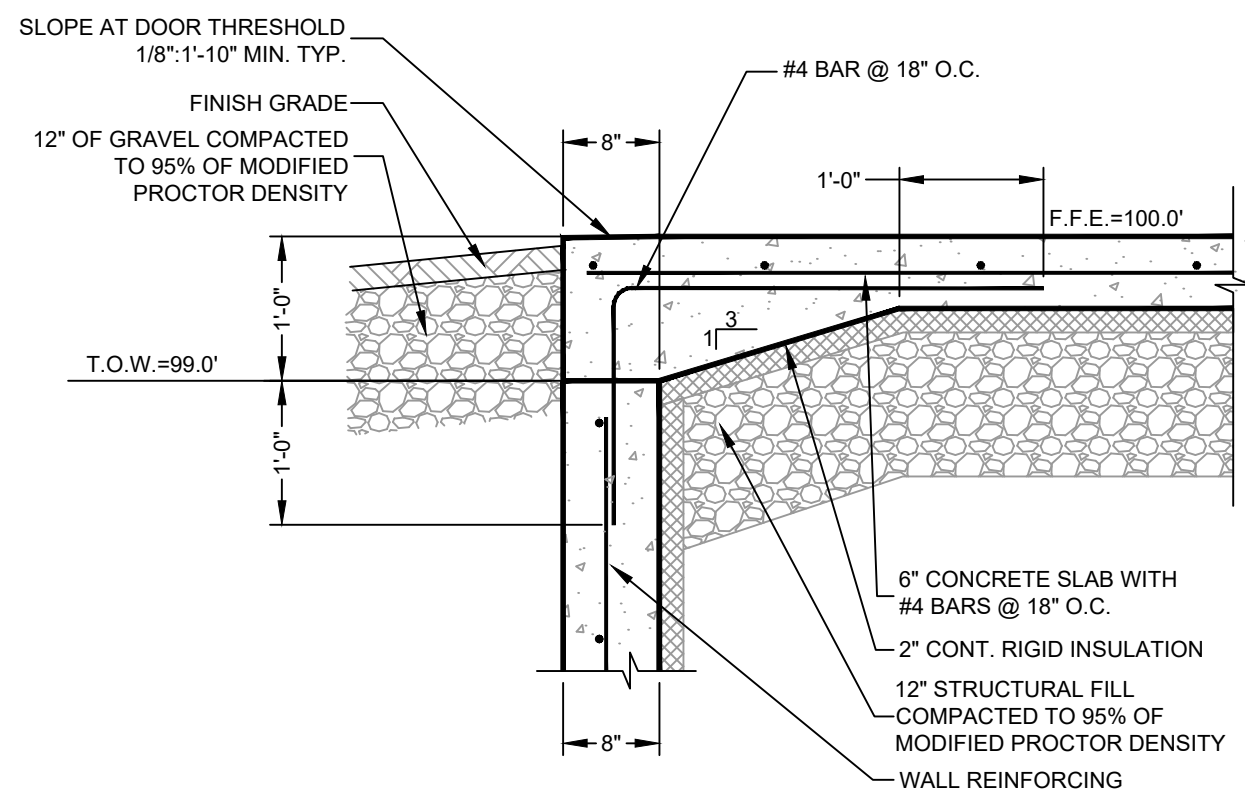
A SECTION
S1.0 SCALE 1" = 1'-0"



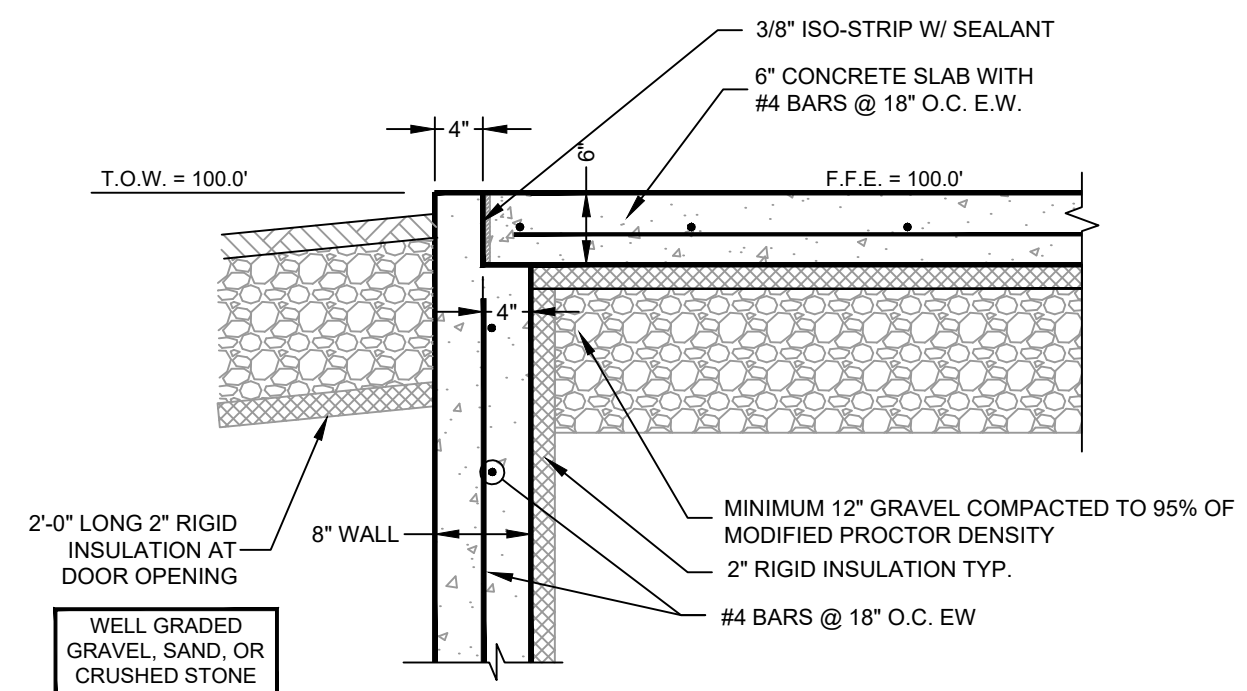
D SECTION
S1.0 SCALE 3/4" = 1'-0"



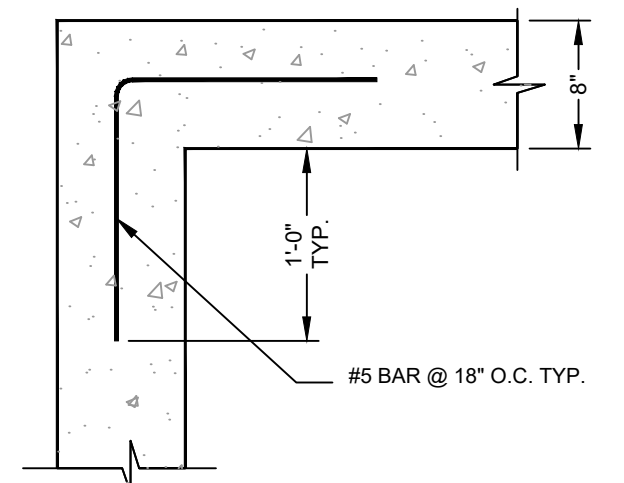
E SECTION
S1.0 SCALE 3/4" = 1'-0"



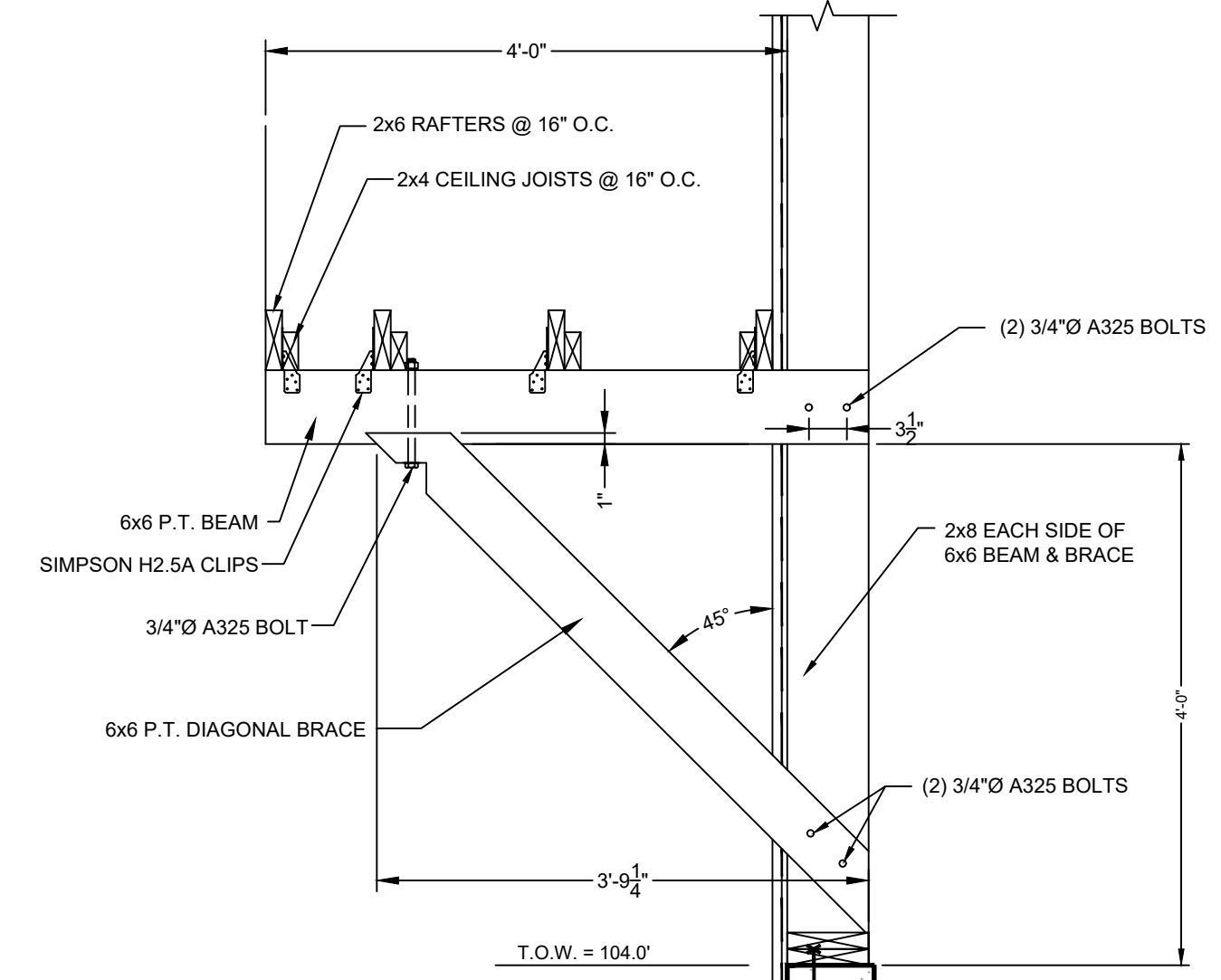
F SECTION
S1.0 SCALE 3/4" = 1'-0"



G SECTION
S1.0 SCALE 3/4" = 1'-0"

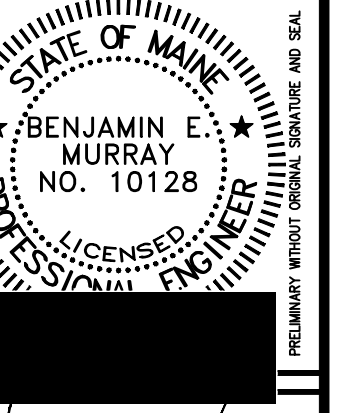


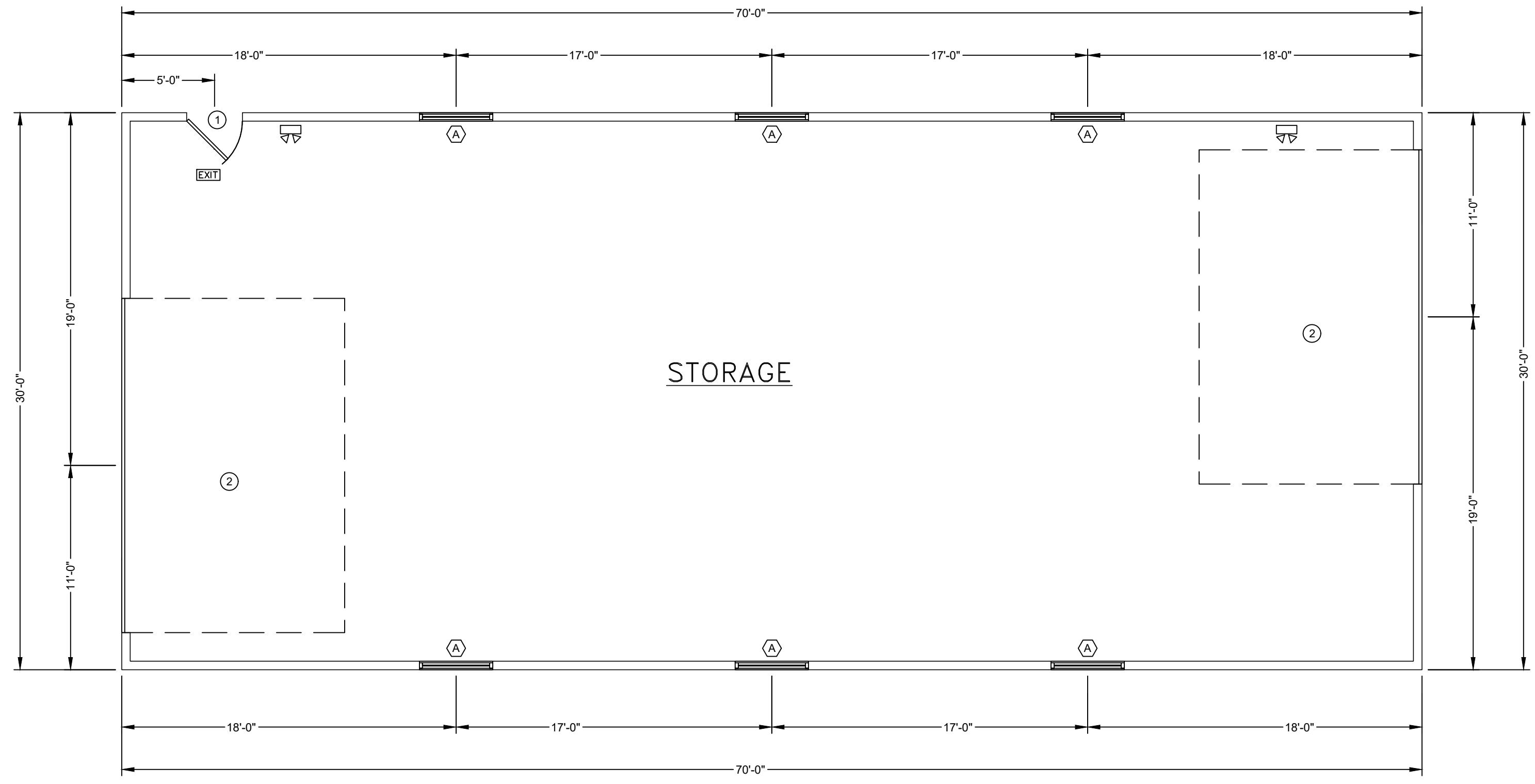
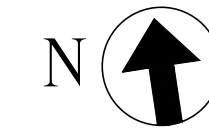
H SECTION
S1.0 SCALE 1" = 1'-0"



I SECTION
S1.0 SCALE 3/4" = 1'-0"

ISSUED FOR BID	08-26-2022	REVISED FOR BID LOCATION	07-11-2022	STATUS	60% SUBMITTAL
BEM	3	BEM	1	REV. / APPD	DATE
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FIRST FLOOR PLAN
SCALE 3/16" = 1'-0"

WINDOW SCHEDULE					
NO.	QUANTITY	SIZE	TYPE	FRAME	REMARKS
(A)	6	5'-0" x 2'-0"	AWNING	ALUMINUM	

DOOR SCHEDULE					
NO.	QUANTITY	SIZE	TYPE	FRAME	REMARKS
(1)	1	3'-0" x 6'-8"	METAL INSULATED	METAL	HINGES, LEVER HARDWARE, ADA THRESHOLD, CLOSER, DEAD BOLT, ENTRY LOCKSET
(2)	2	18'-0" x 12'-0"	OVERHEAD	NA	TRACK, AUTOMATIC OPENER

- PLAN SUBMISSION NOTES**
1. THIS PLAN IS FOR TOWN OF GRAY BUILDING CODE, LIFE SAFETY CODE AND OCCUPANCY APPROVAL ONLY.
 2. PLAN BASED ON PLAN PROVIDED BY THE OWNER.
 3. IBC 2015 USE GROUP: STORAGE (S)
 4. 2018 NFPA LIFE SAFETY OCCUPANCY: STORAGE
 5. CONSTRUCTION TYPE: TYPE V B (UNPROTECTED)

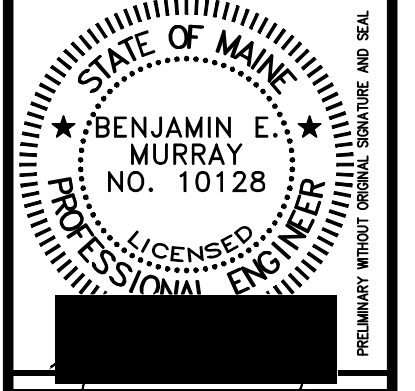
LEGEND

	PROPOSED WALL
	EXIT SIGN
	EMERGENCY LIGHTING

AEHodsdon
CONSULTING ENGINEERS
10 Common Street Waterville, Maine 04901
(207) 873-5164
(207) 872-0645

REV.	APPD	DATE	STATUS
3	BEM	08-26-2022	ISSUED FOR BID
2	BEM	07-11-2022	REVISED OHD LOCATION
1	BEM	06-08-2022	60% SUBMITTAL

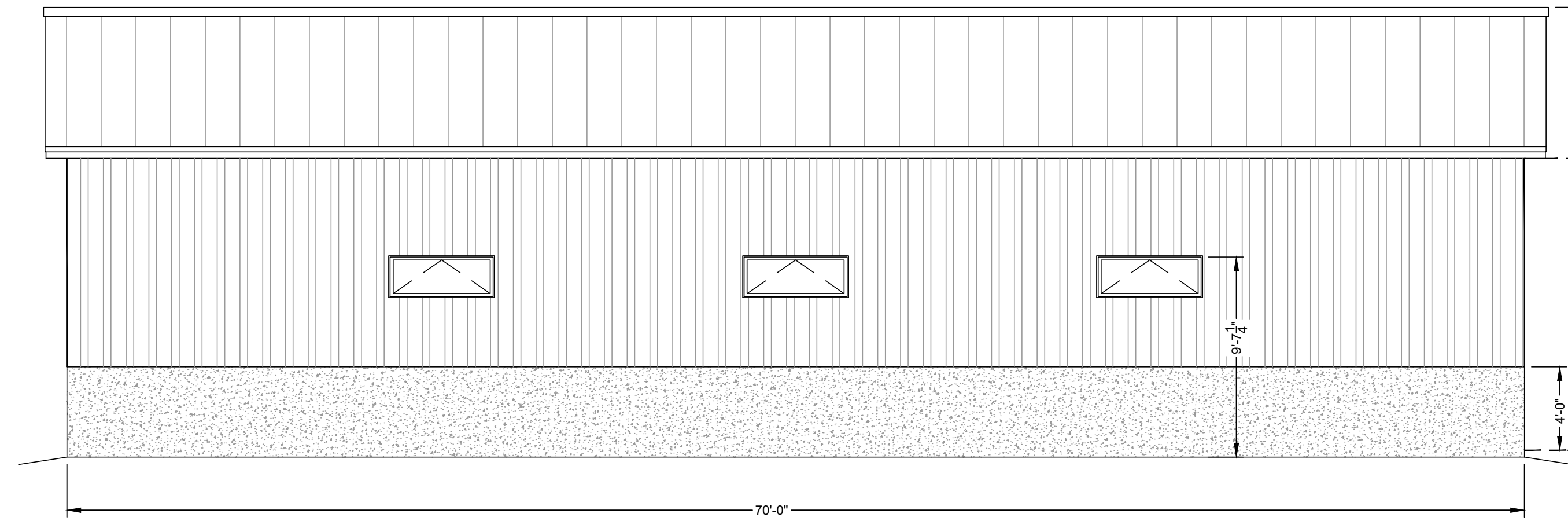
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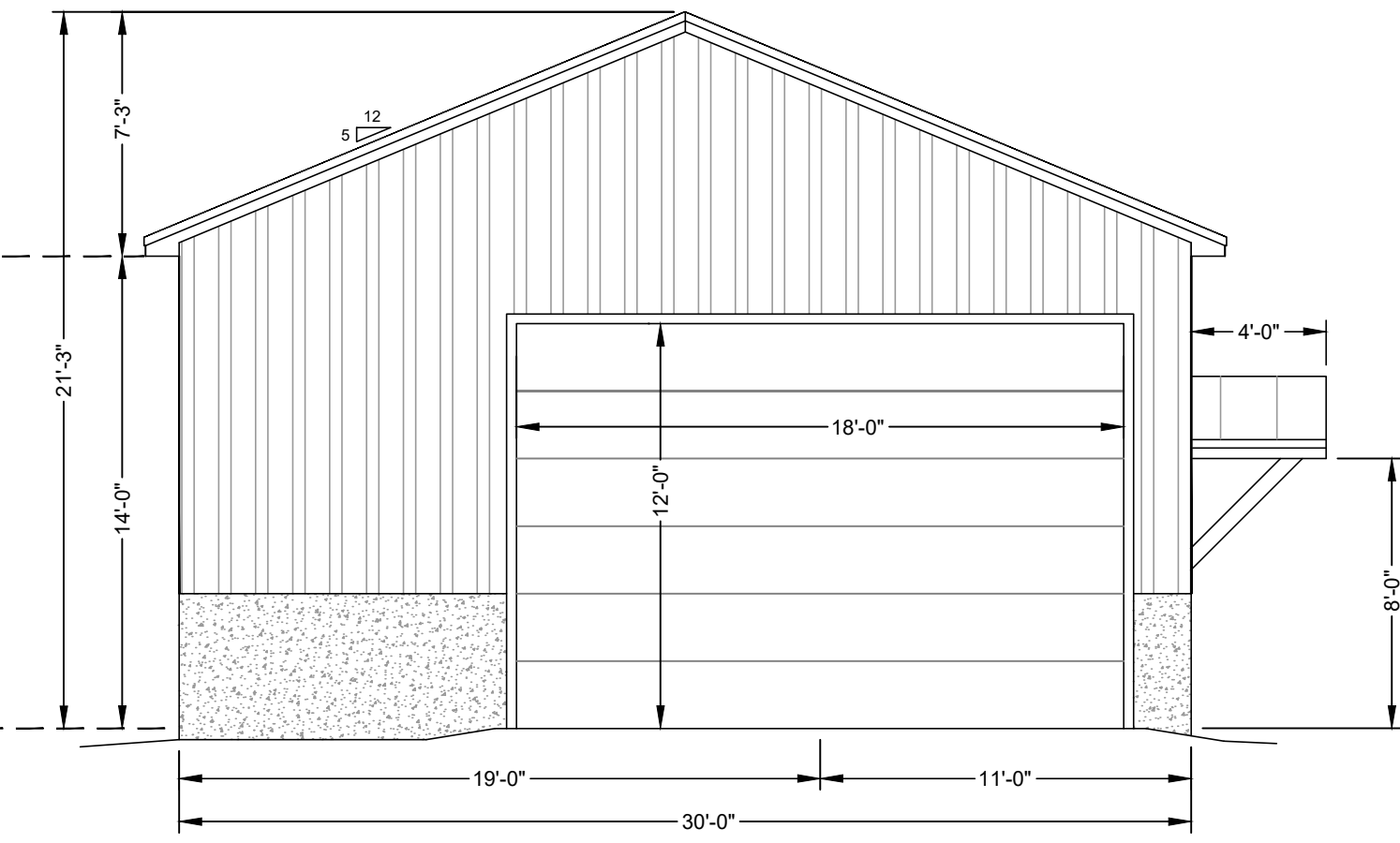
FLOOR PLAN
OF:
MIDIFW DRY MILLS STORAGE BARN
158 WEYMOUTH ROAD
GRAY, MAINE
FOR:
HDR ENGINEERING, INC.
9450 W. BRYN MAWR AVE.
ROSEMONT, IL

DRAWN	CHECKED
PLS	BEM
SCALE	DATE
AS NOTED	06-07-2022

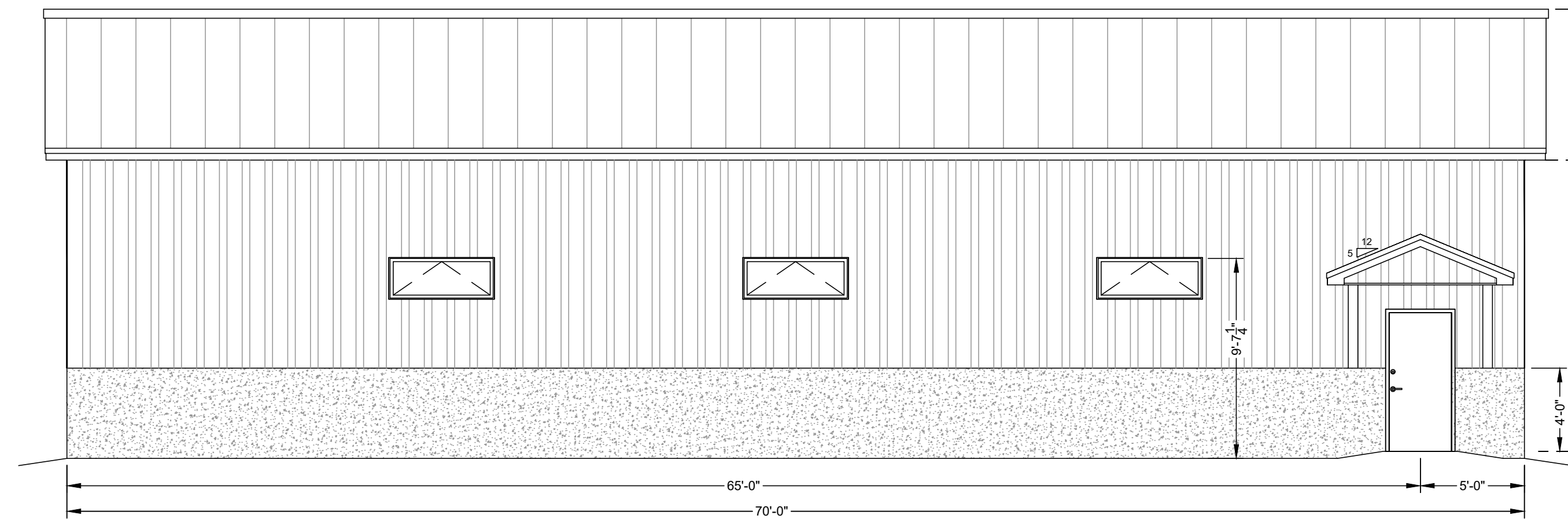
A1.0
PROJECT#: 124-22



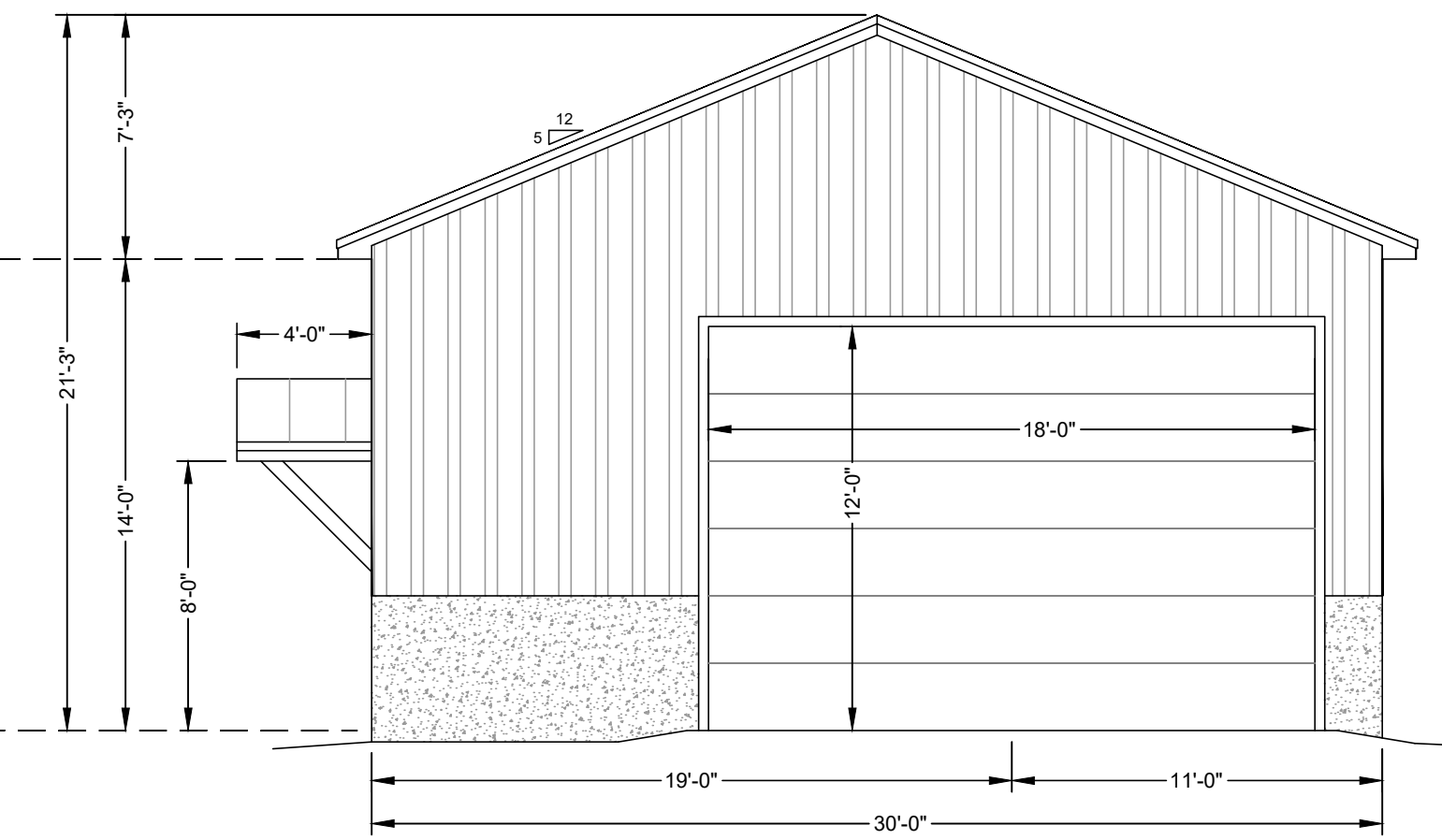
SOUTH ELEVATION
SCALE 3/16" = 1'-0"



EAST ELEVATION
SCALE 3/16" = 1'-0"



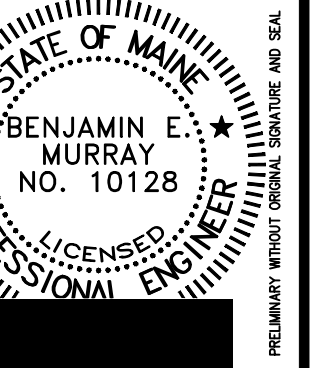
NORTH ELEVATION
SCALE 3/16" = 1'-0"



WEST ELEVATION
SCALE 3/16" = 1'-0"

3	BEM	08-26-2022	ISSUED FOR BID
2	BEM	07-11-2022	REVISED OHJ LOCATION
1	BEM	06-08-2022	60% SUBMITTAL
REV. / APPD.	DATE:	STATUS:	

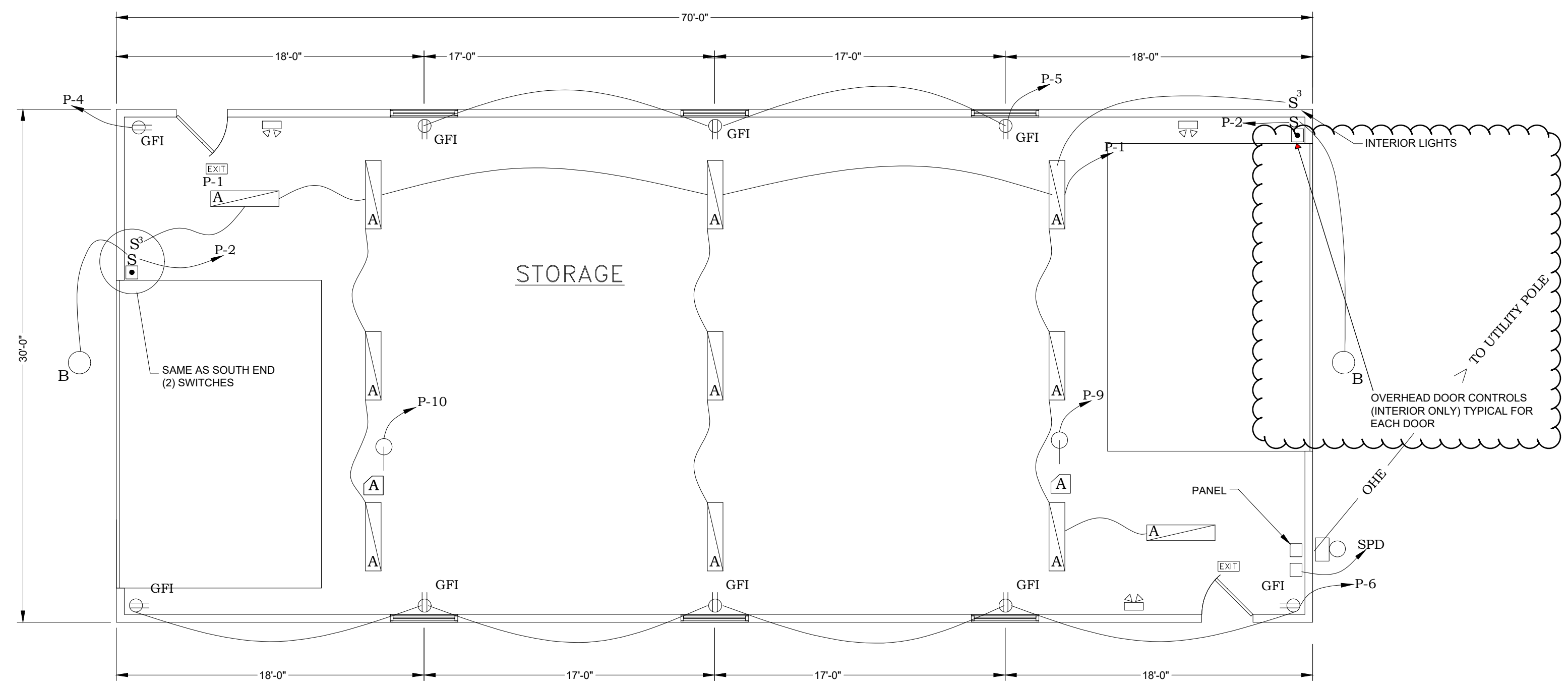
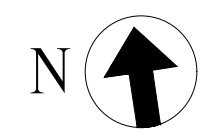
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ELEVATION PLAN
OF:
MIDIFW DRY MILLS STORAGE BARN
158 WEYMOUTH ROAD
GRAY, MAINE
FOR:
HDR ENGINEERING, INC.
9450 W. BRYN MAWR AVE.
ROSEMONT, IL

DRAWN	CHECKED
PLS	BEM
SCALE	DATE
AS NOTED	06-07-2022

A1.1
PROJECT#: 124-22



LEGEND

- LED LIGHTING FIXTURE; LETTER INDICATES TYPE
- DUPLEX 20A RECEPTACLE 48" AFF
- SINGLE POLE SWITCH 48" AFF
- 3-WAY SWITCH 48" AFF
- UTILITY METER
- OVERHEAD ELECTRICAL WIRES
- OVERHEAD DOOR OPERATOR CONTROL
- PANEL OR AS LABELED
- AFF ABOVE FINISHED FLOOR
- AFG ABOVE FINISHED GRADE
- GFI GROUND FAULT CIRCUIT PROTECTOR
- SPD SURGE PROTECTIVE DEVICE
- OHD OVERHEAD DOOR

NOTE: CONTRACTOR SHALL PERFORM VOLTAGE DROP CALCULATIONS FOR INTERIOR LIGHTING CIRCUIT AND RECEPTACLE CIRCUITS AND PROVIDE CONDUCTORS THAT LIMIT THE VOLTAGE DROP TO A MAXIMUM OF 3%. CALCULATIONS SHALL BE SUBMITTED WITH SHOP DRAWINGS FOR ENGINEER'S APPROVAL.

ELECTRICAL PLAN
SCALE 3/16" = 1'-0"

A FIELD COORDINATE MOUNTING FOR POWER TO OVERHEAD DOOR

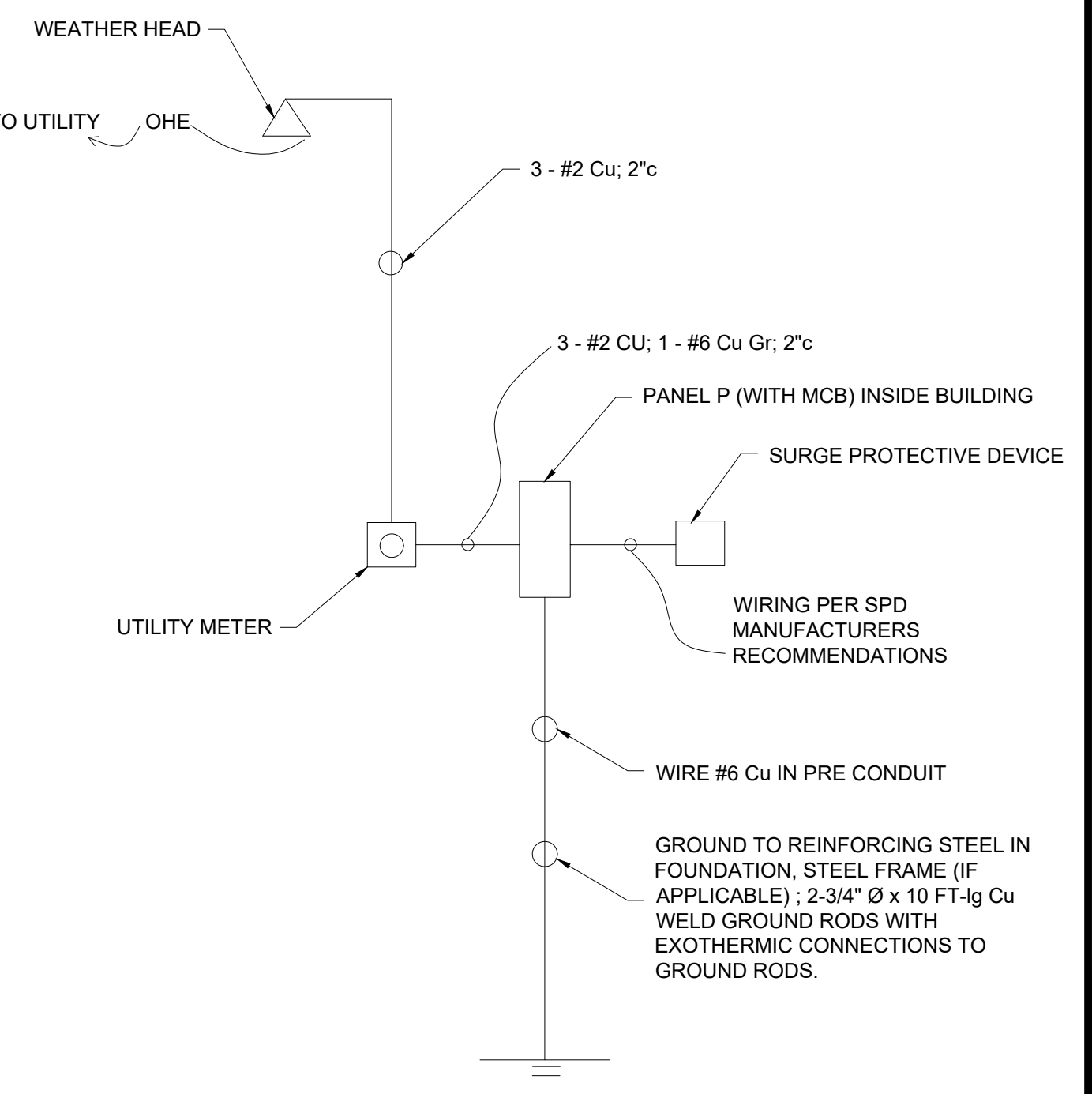
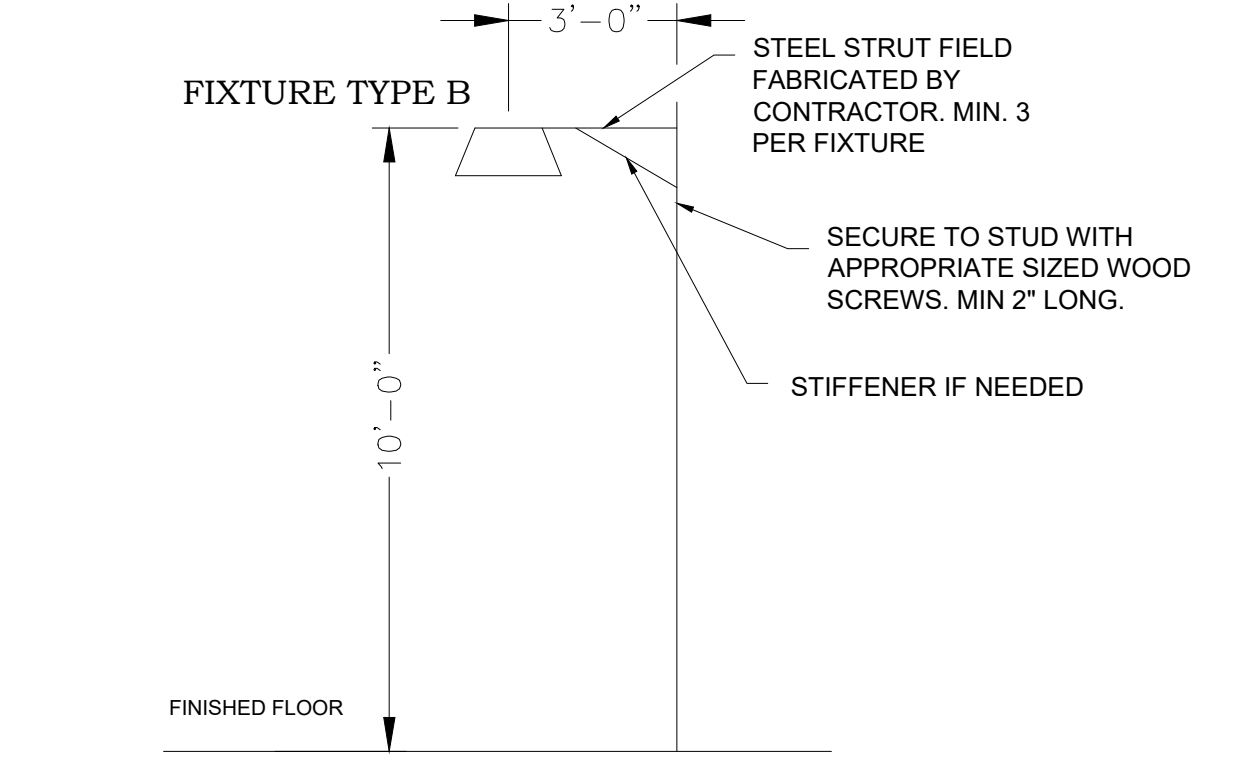
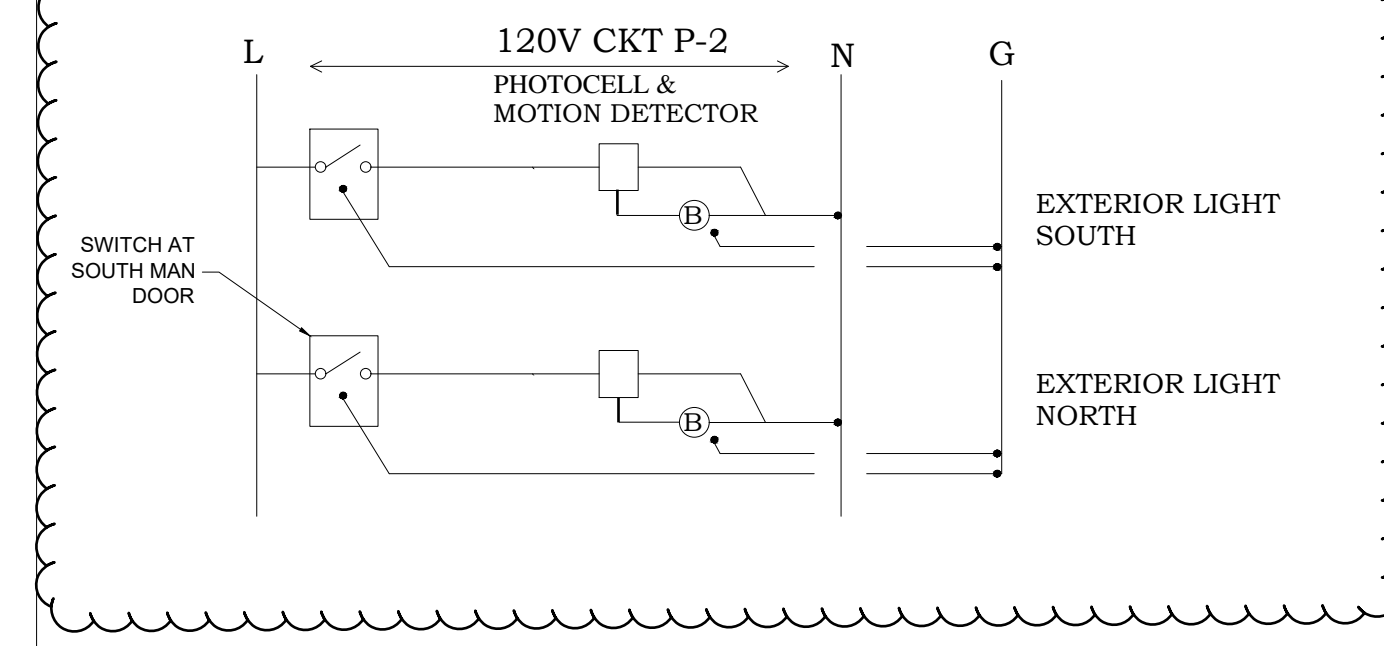
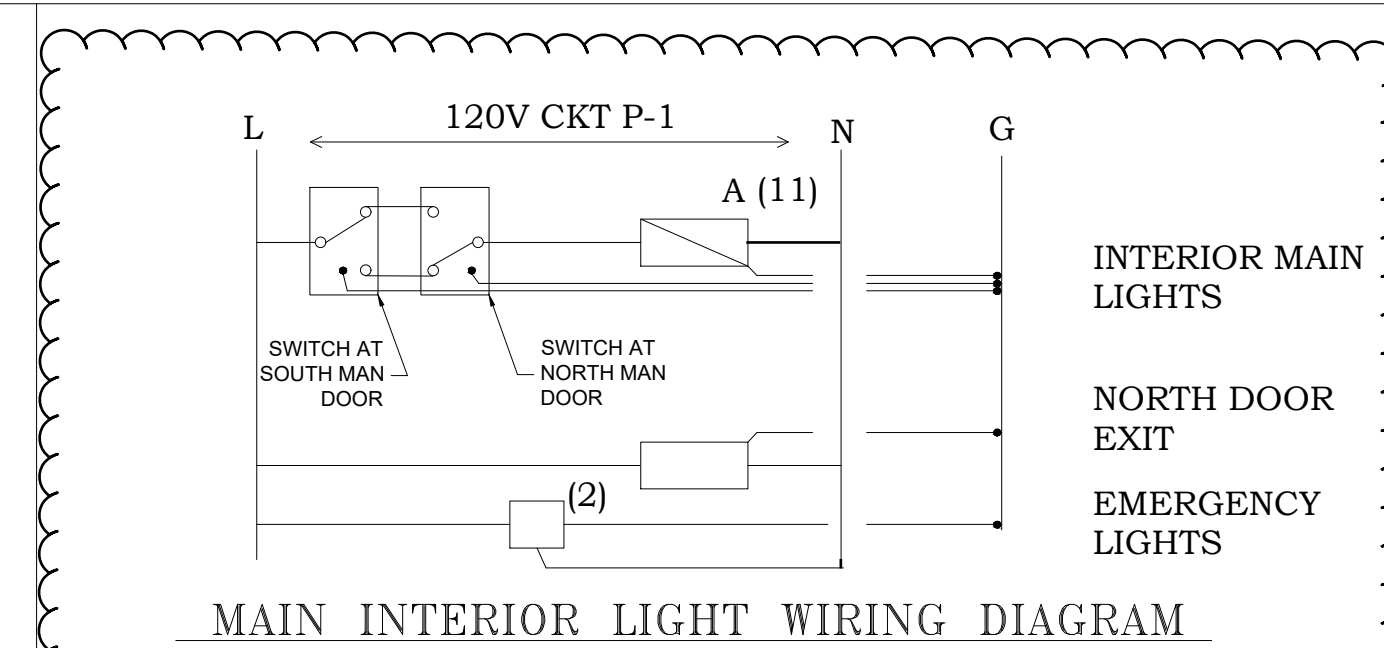
FIXTURE SCHEDULE

TYPE	FIXTURE MAKE	FIXTURE MODEL	MOUNTING	LAMPING
A	LITHONIA	ZLIN L48 5000LM FST MVOLT 50K 80 CRI WH WITH LSXR-LT OCCUPANCY SENSOR	SURFACE ON BOTTOM OF TRUSS	21.7W/LED
B	RAB	WPLED 4T 78 NPC WITH SMS 800 MOTION CONTROLLER AND PHOTOCELL	WALL 18 FT AFG	78W/LED
EXIT	LITHONIA	WLTE W 1 R EL SD	WALL ABOVE DOOR	2.3W/LED
EMRG	LITHONIA	INDL SP640L UVOLT LTP SDRT CW	WALL 10 FT AFG	LED

PANEL SCHEDULE - A SURFACE MOUNTED
100 AMP MCB, 240/120 VOLT, 1 PHASE, 3 WIRE, 60 HZ

CIRCUIT NO.	DESCRIPTION	NO. POLES	RATING	LOAD
1	INTERIOR LIGHTS	1	20*	1.9
2	EXTERIOR LIGHTS	1	20*	0.3
3	RECEPT - M	1	20	0.4
4	RECEPT - M	1	20	0.6
5	RECEPT - E	1	20	1.0
6	RECEPT - W	1	20	0.4
7	RECEPT - S	1	20	0.4
8	RECEPT - S	1	20	0.5
9	OH DOORS	1	20	0.5
10	OH DOOR N	1	20	
11,13	SPD	2	**	
12-14	SPARE	1	20	
15,16	SPARE	1	20	
17-24	SPARE	-	20	

* PROVIDE HANDLE LOCK ON CIRCUITS
** RATING PER SPD MANUFACTURER RECOMMENDATION



AEHodsdon
CONSULTING ENGINEERS
10 Common Street Waterville, Maine 04901
(207) 872-5164
(207) 872-0645

NO.	DATE	DESCRIPTION
4	12-09-2022	ADDENDUM 1
3	08-26-2022	ISSUED FOR BID
2	07-11-2022	REVISED OHD LOCATION
1	06-08-2022	80% SUBMITTAL

REV: APPD DATE: STATUS:
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ELECTRICAL PLAN

OF: **MDIFW DRY MILLS STORAGE BARN**
158 WEYMOUTH ROAD
GRAY, MAINE

FOR: **HDR ENGINEERING, INC.**
9450 W BRYAN MAWR AVE.
ROSEMONT, IL

DRAWN	CHECKED
PLS	BEM
SCALE	DATE
AS NOTED	06-07-2022

E1.0

PROJECT#: 124-22



Color: Bronze

Weight: 33.4 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type	Constant Current	Watts	78W
120V	0.66A	Color Temp	5000K (Cool)
208V	0.41A	Color Accuracy	71 CRI
240V	0.35A	L70 Lifespan	100,000 Hours
277V	0.30A	Lumens	7,564 lm
Input Watts	79.1W	Efficacy	95.6 lm/W

Technical Specifications

Other

WPLED4T78 with Bi-Level Operation:

Allows 33%-66%-100% output modes

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Patents:

The WPLED design is protected by patents pending in the U.S., Canada, China, Taiwan and Mexico.

Replacement:

Replaces 400W Metal Halide

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Compliance

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities. DLC Product Code: PS6SCK98

UL Listed:

Suitable for wet locations as a downlight

IP Rating:

Ingress protection rating of IP66 for dust and water

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80

Dark Sky Conformance:

Conforms to (allows for conformance to) the requirements for the IDA's "Fixture Seal of Approval" as of March 1, 2016.

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Wattage Equivalency:

Equivalent to 400W Metal Halide

Optical

Specification Grade Optics:

The Type IV distribution (also known as a Forward Throw) is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semiCircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

LED Characteristics

LEDs:

Six (6) Multi-chip, 13W, high-output, long-life LEDs

Technical Specifications (continued)

LED Characteristics

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warranted to shift no more than 200K in color temperature over a 5-year period

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Construction

Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Housing:

Die-cast aluminum housing, lens frame and mounting arm

Reflector:

Specular vacuum-metallized polycarbonate

Gaskets:

High-temperature silicone gaskets

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

Electrical

Driver:

(2) Drivers Constant Current, Class 2, 1050mA, 100-277V, 50/60Hz, 0.6A, Power Factor 99%

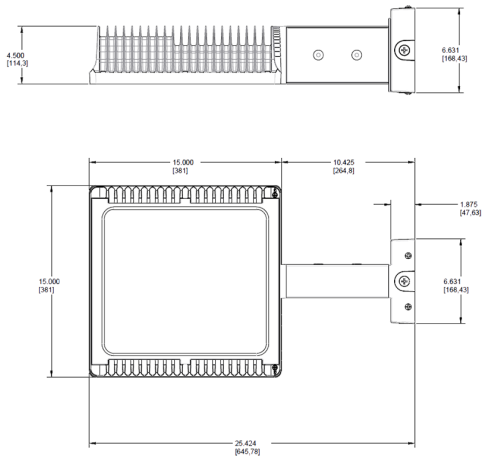
THD:

11.2% at 120V, 16% at 277V

Surge Protection:

6kV

Dimensions



Features

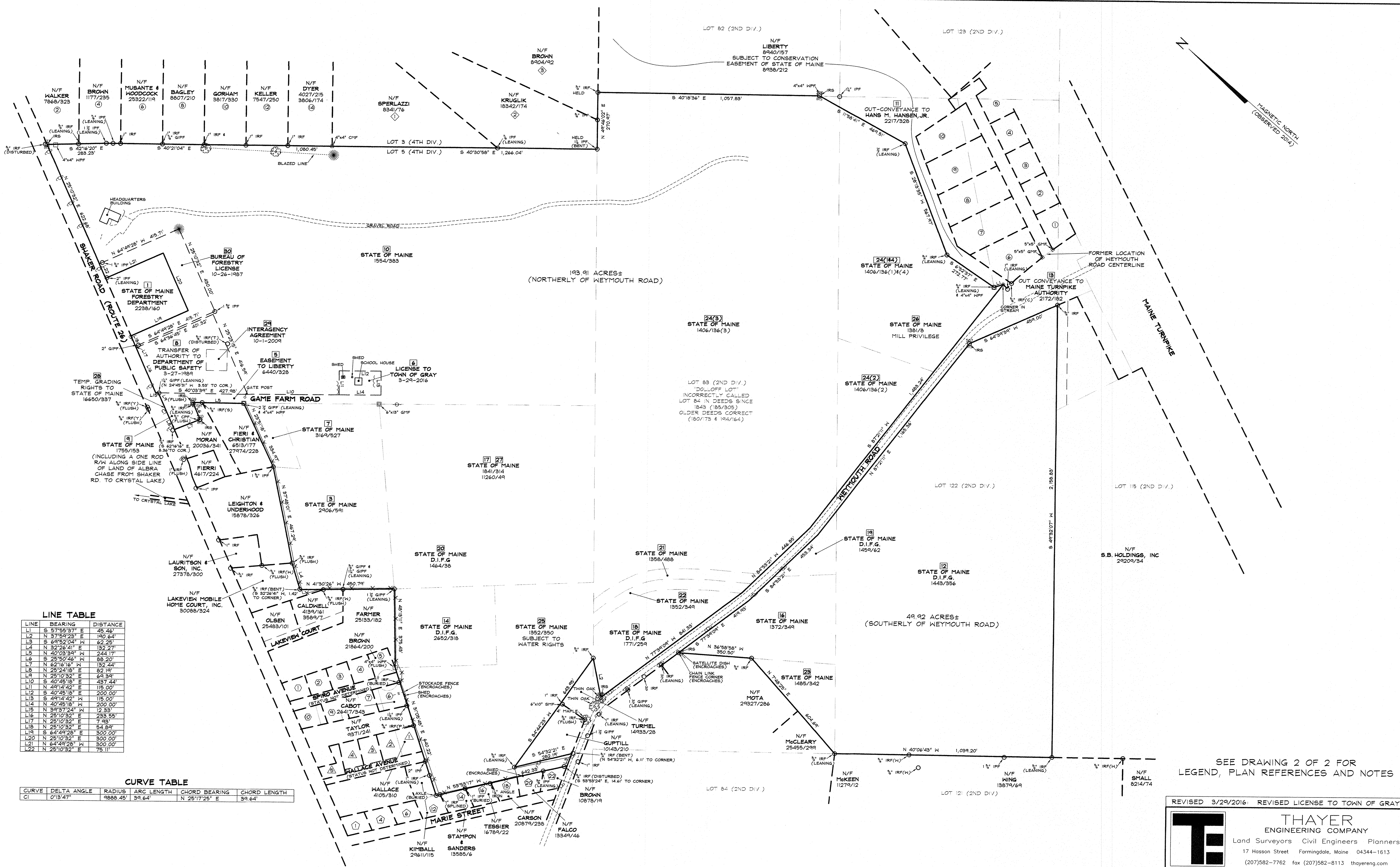
- High performance LED light engine
- Maintains 70% of initial lumens at 100,000-hours
- Weatherproof high temperature silicone gaskets
- Superior heat sinking with die cast aluminum housing and external fins
- Replaces 400W MH
- 100 up to 277 Volts
- 5-Year, No-Compromise Warranty

Ordering Matrix

Family	Optics	Wattage	Color Temp	Mounting	Finish	Driver Options	Other Options
WPLED	4T	78				/BL	
	4T = Type IV 3T = Type III 2T = Type II	50 = 50W 78 = 78W 105 = 105W 125 = 125W 150 = 150W	Blank = 5000K Cool N = 4000K Neutral Y = 3000K Warm	Blank = Arm FX = Flat Mount	Blank = Bronze W = White	Blank = Standard /480 = 480V /BL = Bi-Level /D10 = 0-10V Dimming /480/D10 = 480V 0-10V Dimming	Blank = Standard /PC = 120V Photocell /PC2 = 277V Photocell /PCT = 120-277V Twistlock Photocell /PCT4 = 480V Twistlock Photocell /PCS = 120V Swivel Photocell /PCS2 = 277V Swivel Photocell /PCS4 = 480V Swivel Photocell /WS = Multi-Level Motion Sensor /WS2 = Multi-Level Motion Sensor (20 ft. mt. ht.) /WS4 = Multi-Level Motion Sensor (40 ft. mt. ht.) /LC = Lightcloud® Controller

SECTION 10

PLAN SET



LINE TABLE

LINE	BEARING	DISTANCE
L1	S 57°55'37" E	45.46'
L2	N 37°54'23" E	190.64'
L3	S 64°52'04" W	62.25'
L4	N 32°26'41" E	192.27'
L5	N 40°03'34" W	244.17'
L6	S 25°50'46" W	88.20'
L7	N 62°16'10" W	192.44'
L8	N 25°24'18" E	82.19'
L9	N 25°10'32" E	69.39'
L10	S 40°25'18" E	487.44'
L11	N 49°14'42" E	115.00'
L12	S 40°45'18" E	200.00'
L13	S 49°14'42" W	115.00'
L14	N 40°45'18" W	200.00'
L15	N 39°37'24" W	12.33'
L16	N 25°10'32" E	238.55'
L17	N 25°10'32" E	7.53'
L18	N 25°10'32" E	54.89'
L19	S 64°49'28" E	300.00'
L20	N 25°10'32" E	300.00'
L21	N 64°49'28" W	300.00'
L22	N 25°10'32" E	75.11'

CURVE TABLE

CURVE	DELTA ANGLE	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C1	0°13'47"	9888.45'	39.64'	N 25°17'25" E	39.64'

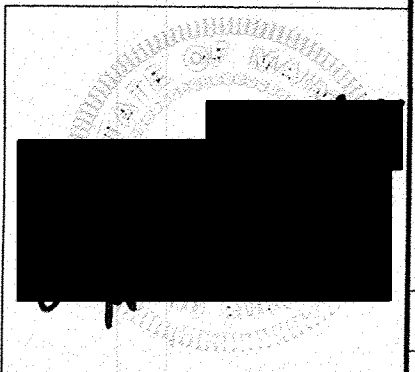
SEE DRAWING 2 OF 2 FOR LEGEND, PLAN REFERENCES AND NOTES

REVISED 3/29/2016: REVISED LICENSE TO TOWN OF GRAY

THAYER ENGINEERING COMPANY
 Land Surveyors Civil Engineers Planners
 17 Hasson Street Farmingdale, Maine 04344-1613
 (207)582-7762 fax (207)582-8113 thayereng.com

PLAN OF BOUNDARY SURVEY
STATE OF MAINE, DEPARTMENT OF INLAND FISHERIES & WILDLIFE
 SHAKER, GAME FARM & WEYMOUTH ROADS
 GRAY, CUMBERLAND COUNTY, MAINE

Date: OCTOBER 23, 2014 Drawn by: NM Chkd. by: AD
 Scale: 1" = 200' Drawing # 1 OF 2 Proj. # 110090





PLAN REFERENCES:

- 1.) "STATE OF MAINE, DEPARTMENT OF INLAND FISHERIES AND GAME, AUGUSTA, MAINE, PROPERTY SURVEY, DRY MILLS HATCHERY AND GAME FARM, GRAY, MAINE", DATED 7-17-56, REVISED THROUGH 4-5-71.
- 2.) "MAINE TURNPIKE AUTHORITY, MAINE TURNPIKE, SECTION 2 - PORTLAND TO AUGUSTA, PROPERTY PLAN, TOWN OF GRAY, CUMBERLAND COUNTY", DATED OCTOBER 1, 1953, REVISED THROUGH JANUARY 1982, SHEET NO. 7 OF 8 AND SUPPLEMENTAL SHEET NO. 2-GRAY.
- 3.) "PLAN OF LAND OFF WEYMOUTH ROAD, GRAY, MAINE, FOR RECORD OWNER DRY MILLS REALTY", DATED MAY 1990, REVISED THROUGH 1/25/93, RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 193, PAGE 65.
- 4.) "PLAN OF PROPERTY LINES AND PROPOSED WASTE PIPE FOR DRY MILLS HATCHERY", DATED SEPT. 19 1983. BY C.H. CRANE CIVIL ENGINEER FOR FISH & GAME DEPARTMENT.
- 5.) "FINAL PLAN, STAVE MILL DEVELOPMENT, WEYMOUTH ROAD, GRAY, MAINE", DATED 4/3/89, REVISED THROUGH 8/02/89, RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 181, PAGE 63 (1 OF 2).
- 6.) "PLAT OF LAND BELONGING TO M. V. FARREN, SUBDIVIDED INTO HOUSE LOTS, LOCATED IN GRAY, MAINE" DATED JUNE 13, 1956, RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 46, PAGE 17.
- 8.) "STANDARD BOUNDARY SURVEY, PLAN OF LAND ON RT. 26 AKA. SHAKER ROAD, GRAY, MAINE", DATED AUGUST 1995, RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 196, PAGE 169.
- 9.) "PLAN OF LAND IN GRAY, MAINE, SURVEYED FOR FRED PLUMMER", DATED SEPTEMBER 10, 1962, RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 61, PAGE 45.
- 10.) "PLAN OF LAND BELONGING TO FRANKLIN M. DAVIS, LAYED OUT WITH PROBABLE HOUSE LOTS, DATED JUNE 1955, RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 42, PAGE 46.
- 11.) "STATE OF MAINE, DEPARTMENT OF INLAND FISHERIES & GAME, AUGUSTA, MAINE, DRY MILLS SURVEY", DATED DECEMBER 5, 1961, REVISED FEB. 20, 1962.
- 12.) "SCATTERED PINES, IN GRAY, MAINE, FOR RICHARD RYERSON", DATED FEBRUARY 1977, RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 116, PAGE 2.
- 13.) "CHARLONATE TERRACE, CUMBERLAND COUNTY, GRAY, MAINE, DRAWN FOR PHILIP E. HUMPHREY", DATED JULY 1973, RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 98, PAGE 15.
- 14.) "STATE OF MAINE, DEPARTMENT OF TRANSPORTATION, RIGHT OF WAY MAP, STATE HIGHWAY '16' (ROUTE 26), GRAY, CUMBERLAND COUNTY, FEDERAL AID PROJECT NO. STP-9507(00)E", DATED JUNE 2001, D.O.T. FILE NO. 3-473, RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 204, PAGES 481-483.
- 15.) "PLAN OF EXISTING CONDITIONS SURVEY - TOWER SITE, ROUTE 26, GRAY MAINE, MADE FOR MAINE OFFICE OF INFORMATION TECHNOLOGY", DATED 7/06/09, REVISED THROUGH 9/25/09, BY TITCOMB ASSOCIATES.
- 16.) "PLAN OF LAND ON SHAKER ROAD IN GRAY MAINE FOR TERRY SANBORN", DATED AUGUST 2013, BY WAYNE T. WOOD, PLS.
- 17.) "T.S. MINOTT CO.", RECORDED JUNE 18, 1971 IN CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 85, PAGE 40.
- 18.) "STANDARD BOUNDARY SURVEY, PLAN OF PROPERTY, WEYMOUTH ROAD, GRAY, MAINE, MADE FOR SCOTT LIBERTY", DATED MAY 11, 1989, RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 181, PAGE 63. (2 OF 2).
- 19.) "DIVISION OF LAND ON SHAW BROOK ROAD IN GRAY, MAINE, FOR WILLIAM SMALL", DATED JULY 2010, RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS IN DEED BOOK 28202, PAGE 268.
- 20.) "PLAN OF THE TOWN OF GRAY", COMPILED AND DRAWN BY H.W. FOSTER, CE, DATED MAY 5, 1906, RETRACED MARCH 1982, RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 24, PAGE 6.

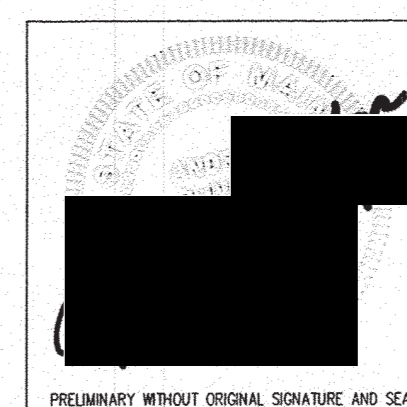
NOTES:

- 1.) MATTERS REGARDING TITLE AND LEGAL ASPECTS SHOULD BE REFERRED TO AN ATTORNEY.
- 2.) SUBJECT TO ANY FACTS THAT MAY BE DISCLOSED BY A TITLE SEARCH.
- 3.) STATEMENTS MADE HEREON ARE NOT STATEMENTS OF WARRANTY BUT ARE STATEMENTS OF OPINION MADE TO THE BEST OF THIS SURVEYOR'S KNOWLEDGE, INFORMATION AND BELIEF.
- 4.) UNDERGROUND UTILITIES HAVE NOT BEEN INVESTIGATED AS PART OF THIS SURVEY. CONTRACTORS SHALL VERIFY PRIOR TO COMMENCING ANY SUBSURFACE ACTIVITIES.

LEGEND

IRF(P)	IRON ROD FOUND CAPPED "RLS 1057"
IRF(W)	IRON ROD FOUND CAPPED "WAYNE T. WOOD, PLS 1328"
IRF(T)	IRON ROD FOUND CAPPED "TITCOMB ASSOC, PLS 2271"
IRF(S)	IRON ROD FOUND CAPPED "PLS 2390, SURVEY INC."
IRF(Y)	IRON ROD FOUND CAPPED "SET BY ROBERT A. YARUMIAN, PLS 1303, LAND SURVEY MONUMENT"
IRF(C)	IRON ROD FOUND CAPPED "RLS 1278"
IRF	IRON ROD FOUND
IPF	IRON PIPE FOUND
GIPF	GALVANIZED IRON PIPE FOUND
CPF	COPPER PIPE FOUND
CMF	CONCRETE MONUMENT FOUND
SMF	STONE MONUMENT FOUND
GMF	GRANITE MONUMENT FOUND
WPF	WOOD POST FOUND
R/W	RIGHT-OF-WAY
N/F	NOW OR FORMERLY OF
1554/383	BOOK 1554, PAGE 383, CUMBERLAND COUNTY REGISTRY OF DEEDS (FOR REFERENCE ONLY)
±	MORE OR LESS
⊙	UTILITY POLE
—OU—	OVERHEAD UTILITIES
	BLAZED DECIDUOUS TREE UNLESS OTHERWISE NOTED
	BLAZED CONIFEROUS TREE UNLESS OTHERWISE NOTED
—x—	WIRE FENCE
⑧	LOT NUMBER 8 (PER PLAN REF. 13)
②	LOT NUMBER 2 (PER PLAN REF. 12)
⑥	LOT NUMBER 6 (PER PLAN REF. 9)
⑦	LOT NUMBER 7 (PER PLAN REF. 5)
①	LOT NUMBER 1 (PER PLAN REF. 6)
⑭	LOT NUMBER 14 (PER PLAN REF. 10)
26	MAINE DEPARTMENT OF INLAND FISHERIES & WILDLIFE LOT IDENTIFICATION NUMBER 26

THAYER
ENGINEERING COMPANY
Land Surveyors Civil Engineers Planners
17 Hosson Street Farmingdale, Maine 04344-1613
(207)582-7762 fax (207)582-8113 thayereng.com



PLAN OF BOUNDARY SURVEY
STATE OF MAINE, DEPARTMENT OF INLAND FISHERIES & WILDLIFE
SHAKER, GAME FARM & WEYMOUTH ROADS
GRAY, CUMBERLAND COUNTY, MAINE

Date: OCTOBER 23, 2014	Drawn by: NM	Chkd. by: AD
Scale:	Drawing # 2 OF 2	Proj. # 110090

March 17th, 2023

Kristen Muszynski
Community Planner
Town of Gray
24 Main Street
Gray, Maine 04039

**RE: MDIF&W Dry Mills Storage Barn
Minor Site Plan Application
Town & Peer Review Comments**

Dear Kristen,

On behalf of our client, Maine Department of Inland Fisheries & Wildlife, we offer the following responses to Staff review comments and Peer review comments received from Kristen Muszynski via email on March 8, 2023, and March 16, 2023 respectively. The original comments are shown in bold/italic text, with each response directly following.

GENERAL COMMENTS

- **Can you provide a plan that shows the entirety of the developed area of the South Parcel, with existing buildings and the proposed building/driveway? That would help us understand the placement of development on the site and distances from the property lines, to confirm required setbacks.**
Response: Please see record MDEP SLODA Drawings in Attachment A and B. This will help orient the specific site review. Attachment A shows the stormwater subcatchments, Attachment B shows the project area and future building addition as approved by MDEP, which aligns with the current plans.
- **I know there is no water or septic proposed for the new building, but can you confirm that there is no well or septic existing on the “South Parcel”? I don’t see any shown on the plan- just checking.**
Response: A septic system to serve the residence south of the addition is shown on Attachment C – MDEP SLODA Existing conditions plan.
- **Where is the closest hydrant/cistern for fire protection?**

Response: There is a Gray Water District Hydrant approximately 200' due west from the project driveway on Weymouth Road.

- **The submittals state that this project will take place on existing impervious area (compacted gravel), but it appears from the site plan and on the Google Earth aerial view that the new building and its associated driveway are outside of the existing gravel area. Am I missing something? I did not find reference to this in the DEP review; it appears to be focused on the main parcel where most of the changes were proposed during that review period.**

Response: Please see Attachments A through C. At the time of the SLODA review and approval in 2016, The limits of gravel/impervious area were established. Over the last few years, weeds and other growth has developed over the gravel. The area is compacted fill material.

- **The site development plan in the plan set shows the garage on Weymouth Road; the site plan (CO.1) does not. The site development plan also shows the first part of the driveway as paved, while the site plan shows it as "existing gravel drive." Is it your intent to pave only up to that first interior garage and leave the rest gravel? I'm trying to get a clear understanding of the impervious on site in relation to what was considered in the DEP approval.**

Response: There are no plans for further paving at this time, and the surface conditions currently appear to be gravel. MDEP considers pavement and gravel to be the same impervious condition.

- **What type of storage will take place in the new building- any hazmat, vehicles, chemicals?**

Response: Only vehicles will be stored in the garage.

PEER REVIEW COMMENTS

- 1) **The Site Plan application states that there is no increase in impervious area. To be clear, there appears to be a small increase in impervious of approximately 130 square feet, however, this is unlikely to have an adverse impact to stormwater runoff.**

Response: We agree that the edge of the impervious/grass surface may be a bit fuzzy, and that a small portion of the building may be set in existing grass on the south facing side. A drip edge will be installed (see revised plans) to treat this structure per the MDEP approval.

- 2) **Section 1 of the Site Plan application states that an infiltration drip edge will be constructed. The plans do not depict the drip edge, and no details have been**

provided. The MDEP permit references a roof drip edge filter. Was the MDEP reference to the drip edge for this building?

Response: Please see revised plans.

- 3) A Site Plan by AE Hodsdon dated 8-26-2022 is included in Section 9. The plan shows a different building orientation and a new gravel drive. The extent of the existing gravel drive on the ARC plans does not match the AE Hodsdon plans. Explain the discrepancy. The AE Hodsdon Site Plan should be labelled to avoid confusion with the ARC site plan.**

Response: With apologies, we should not have included the A E Hodson Site Plan. The ARC site plan (see revised set in Attachment D) is the controlling plan. There were elements from the A E Hodson plan relating to the building only that apply to the project, but the site plan is shown by our office.

- 4) Section 9 also includes exterior lighting at the storage shed. Is this currently proposed for this project?**

Response: There will be LED wall mounted lights on the building, correct. The spec sheets were provided in Section 9.

- 5) Show the foundation drain outlet pipe and outlet apron on the plan sheets.**

Response: We have added the drip edge and drain outlets on our revised sheets.

If you need any additional information, please let us know.

Regards,



Atlantic Resource Consultants, LLC
Jason Vafiades, PE, Principal

Attachments:

- ATT A – MDEP SLODA WATERSHED SHEETS
- ATT B – MDEP SLODA FUTURE ADDITIONS
- ATT C – MDEP SLODA EXISTING CONDITIONS
- ATT D - ARC REVISED PLAN SET

ATTACHMENT A

Revision	By	Appr.	Y/M/D

File Name	DWN	CHKD	DSGN	DATE
195350329-WSHD	KS	SRB	JAV	16.03.18

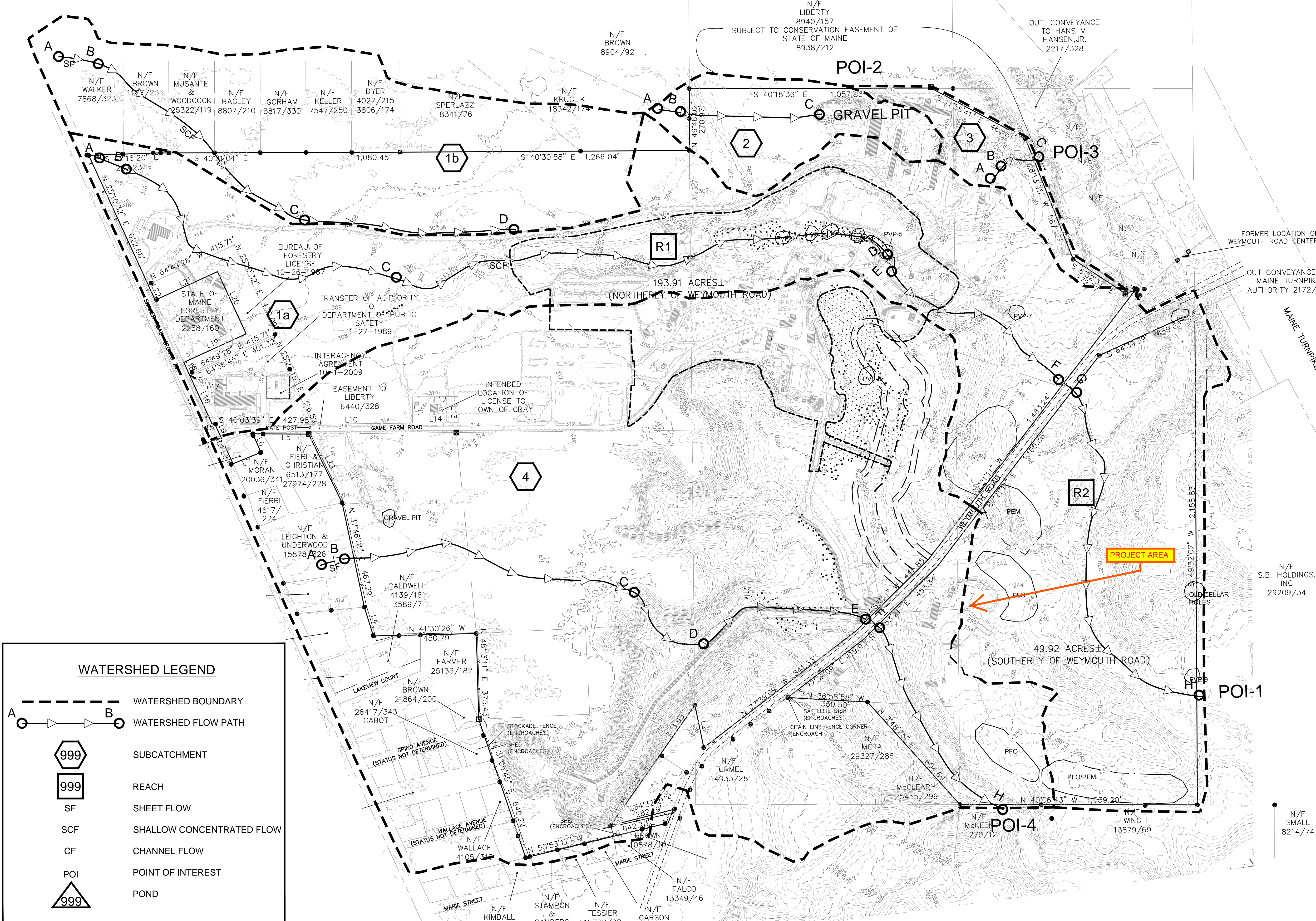


Client/Project
STATE OF MAINE
IF & W GRAY WILDLIFE PARK
GRAY, MAINE

Title
PRE DEVELOPMENT WATERSHED
MAP

Project No.	Scale
195350329	1" = 200'

Sheet



WATERSHED LEGEND

- WATERSHED BOUNDARY
- WATERSHED FLOW PATH
- SUBCATCHMENT
- REACH
- SHEET FLOW
- SHALLOW CONCENTRATED FLOW
- CHANNEL FLOW
- POINT OF INTEREST
- POND

PRELIMINARY - NOT FOR CONSTRUCTION

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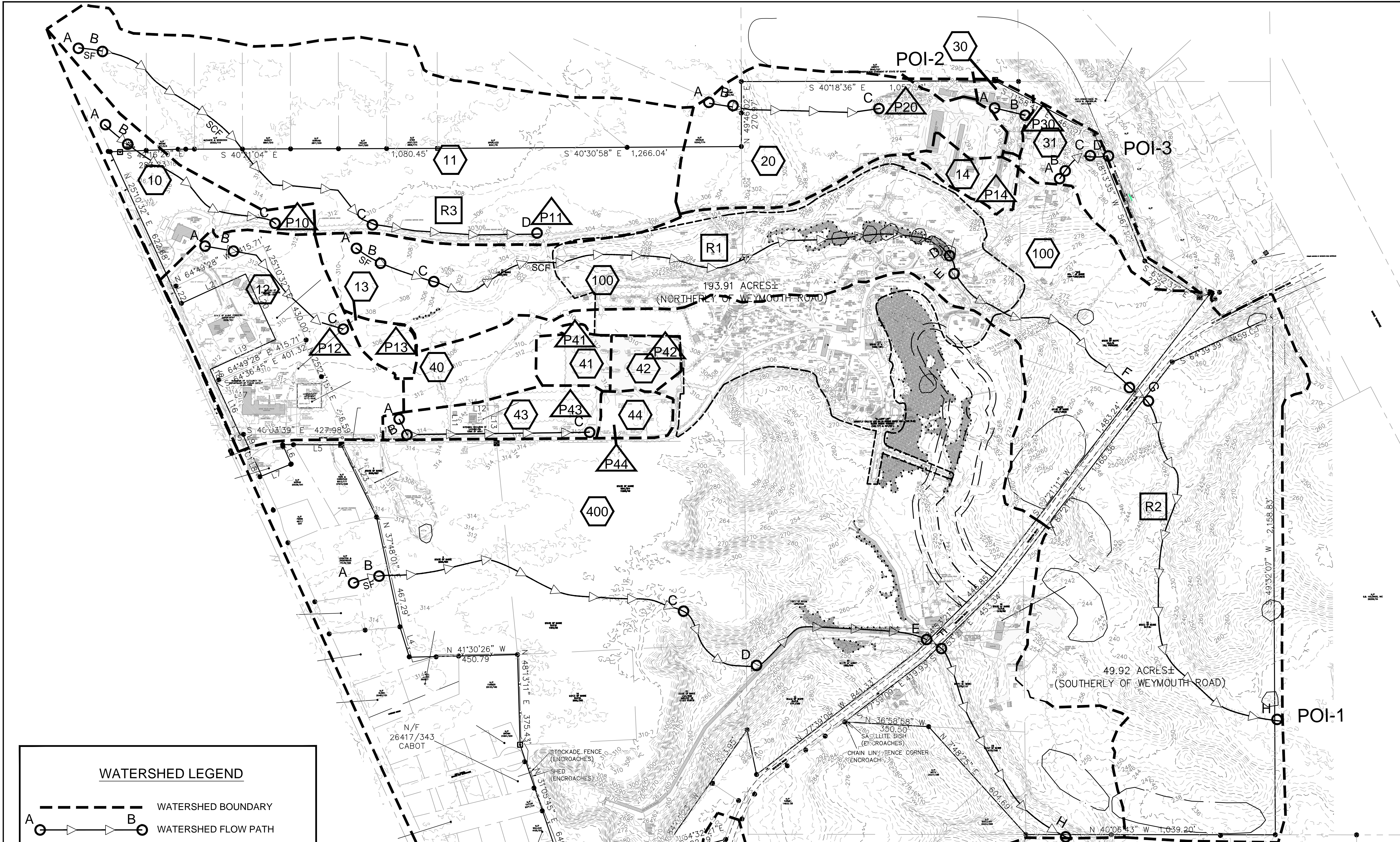
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www.stantec.com

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Consultants

Notes

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WATERSHED LEGEND

	WATERSHED BOUNDARY
	WATERSHED FLOW PATH
	SUBCATCHMENT
	REACH
	SHEET FLOW
	SHALLOW CONCENTRATED FLOW
	CHANNEL FLOW
	POINT OF INTEREST
	POND

PRELIMINARY - NOT
FOR CONSTRUCTION

Drainage Area ID	EXISTING		PROPOSED		TOTAL	
	SF	AC	SF	AC	SF	AC
10	11,896	0.27	0.00	0.00	11,896	0.27
11	24,580	0.56	0.00	0.00	24,580	0.56
12	82,328	1.89	38,568	0.89	120,896	2.78
13	0.00	0.00	15,261	0.35	15,261	0.35
14	38,942	0.89	0.00	0.00	38,942	0.89
20	44,478	1.02	0.00	0.00	44,478	1.02
30	5,739	0.13	0.00	0.00	5,739	0.13
40	0.00	0.00	4,913	0.11	4,913	0.11
41	69,440	1.59	0.00	0.00	69,440	1.59
42	62,432	1.43	0.00	0.00	62,432	1.43
43	11,956	0.27	0.00	0.00	11,956	0.27
44	9,319	0.21	0.00	0.00	9,319	0.21
100	0.00	0.00	0.00	0.00	0.00	0.00
400	0.00	0.00	0.00	0.00	0.00	0.00
	8.29		1.35		9.638	

Drainage Area ID	EXISTING		PROPOSED		TOTAL	
	SF	AC	SF	AC	SF	AC
10	15,189	0.35	0.00	0.00	15,189	0.35
11	53,534	1.23	0.00	0.00	53,534	1.23
12	112,820	2.59	72,397	1.66	185,217	4.25
13	0.00	0.00	16,520	0.38	16,520	0.38
14	39,942	0.92	0.00	0.00	39,942	0.92
20	90,975	2.09	0.00	0.00	90,975	2.09
30	16,975	0.39	0.00	0.00	16,975	0.39
40	0.00	0.00	0.00	0.00	0.00	0.00
41	69,440	1.59	0.00	0.00	69,440	1.59
42	62,432	1.43	0.00	0.00	62,432	1.43
43	11,956	0.27	0.00	0.00	11,956	0.27
44	44,849	1.03	0.00	0.00	44,849	1.03
100	0.00	0.00	0.00	0.00	0.00	0.00
400	0.00	0.00	0.00	0.00	0.00	0.00
	8.59		2.04		10.63	

Drainage Area ID	EXISTING		PROPOSED		TOTAL	
	SF	AC	SF	AC	SF	AC
10	27,085	0.62	0.00	0.00	27,085	0.62
11	78,114	1.79	0.00	0.00	78,114	1.79
12	195,149	4.48	110,965	2.55	306,114	7.03
13	0.00	0.00	31,781	0.73	31,781	0.73
14	78,884	1.81	0.00	0.00	78,884	1.81
20	135,453	3.11	0.00	0.00	135,453	3.11
30	22,714	0.52	0.00	0.00	22,714	0.52
40	0.00	0.00	4,913	0.11	4,913	0.11
41	69,440	1.59	0.00	0.00	69,440	1.59
42	62,432	1.43	0.00	0.00	62,432	1.43
43	11,956	0.27	0.00	0.00	11,956	0.27
44	54,168	1.24	0.00	0.00	54,168	1.24
100	0.00	0.00	0.00	0.00	0.00	0.00
400	0.00	0.00	0.00	0.00	0.00	0.00
	16.88		3.39		20.27	

POST DEVELOPMENT TREATMENT AREA TABLE

AFTER THE FACT/FUTURE DEVELOPMENT TABLE

Date	Description	Pre-1975		1975-1995		1995-Present		Cumulative post '75	
		IMP (ac)	DEV (ac)	IMP (ac)	DEV (ac)	IMP (ac)	DEV (ac)	IMP (ac)	DEV (ac)
		Pre 1975	6.29	26.8					6.29
1981	Wild Life Park								
1981	Div A Headquarters			0.78	1.46			0.78	1.46
1987	Maine Forestry Service			0.85	2.65			1.63	4.11
1987	State Police Barracks			1.04	1.83			2.67	5.94
1989	Expansion to Hatchery			1.24	1.91			3.91	7.85
1988	School House			0.05	0.08			3.96	7.93
1995	Add'l Development in Storage Yards					0.73	0.98	4.69	8.91
2000s	Parking Lot Expansion					2.33	2.48	7.02	11.39
2000s	Park Expansions (Paths and Buildings)					1.40	1.40	8.42	12.79
Future	Proposed Div A Headquarters					1.09	2.93	9.51	15.72
Future	Garage at Weymouth Road					0.15	0.15	9.66	15.87
Future	Wild Life Park Exhibits					0.25	0.50	9.91	16.37
Future	Parking Lot Expansion					0.50	0.65	10.41	17.02
Future	Credit: Existing Div A Headquarters to be restored to Meadow					-0.47	-0.47	9.94	16.55

Area Requiring Treatment:	IMP	DEV
Target Treatment %	9.94	16.55
Target Treatment Area	95%	80%
	9.443	13.24

File Name: 195350329-WSHD DWN CHKD DSGN DATE
KS SRB JAV 16.03.18

Permit-Seal



Client/Project

STATE OF MAINE

IF & W GRAY WILDLIFE PARK

GRAY, MAINE

Title

POST DEVELOPMENT WATERSHED
MAP

Project No.

195350329

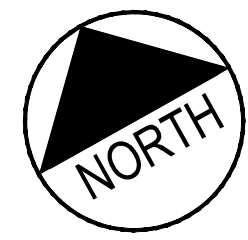
Scale

1" = 200'

Sheet

C-8.1

ATTACHMENT B

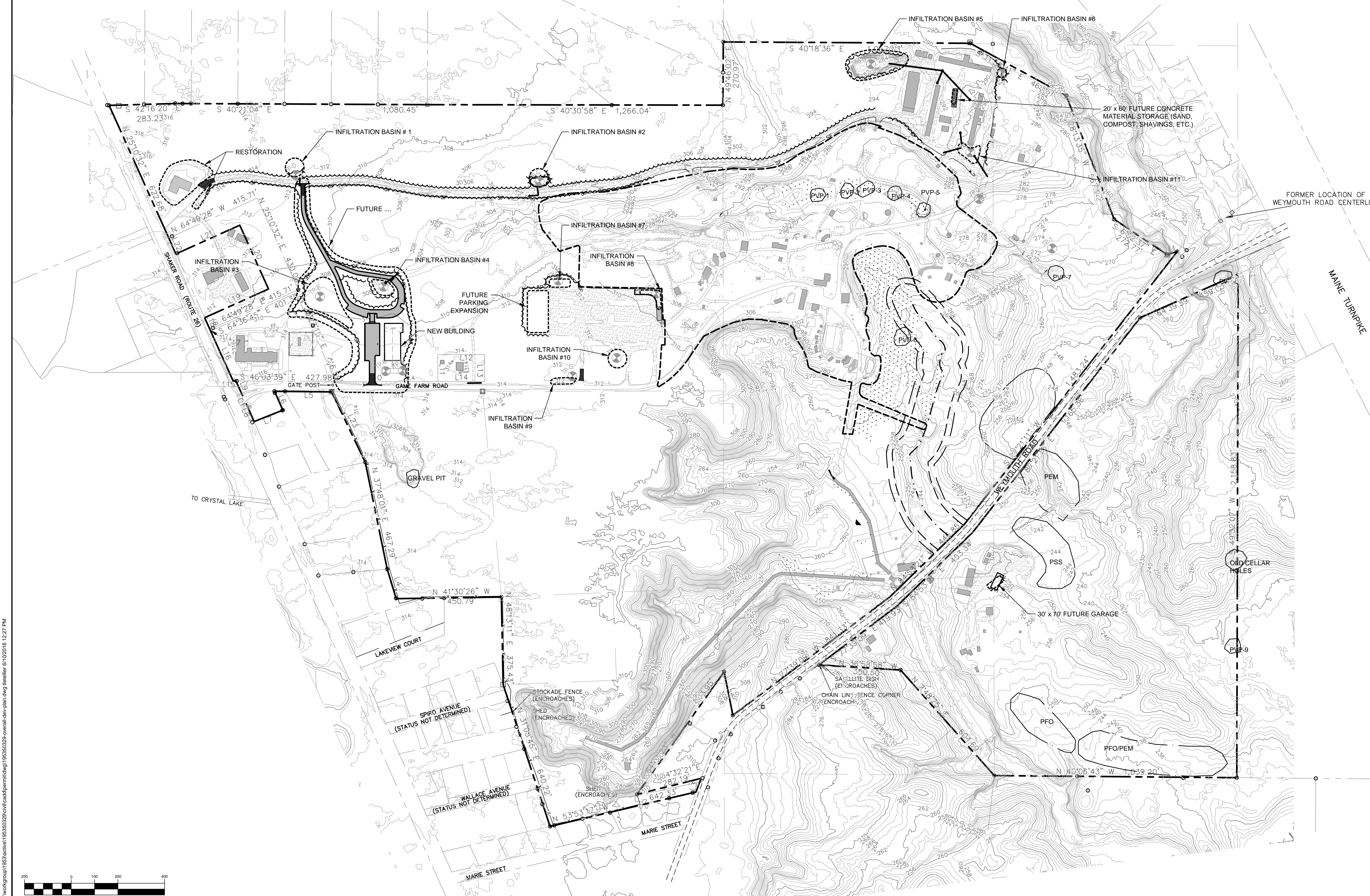


Copyright Reserved
The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay.
The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

Consultants

Notes

- SEE DETAIL SHEETS 7.4 THRU 7.7 FOR INFILTRATION POND CONSTRUCTION DETAILS

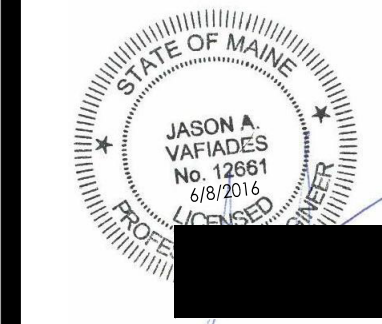


FORMER LOCATION OF WEYMOUTH ROAD CENTERLINE

MAINE TURNPIKE

File Name: 195350329-BASE	DWN	CHKD	DSGN	DATE
	DED	SRB	JAV	16.03.18

Permit-Seal



Client/Project
STATE OF MAINE

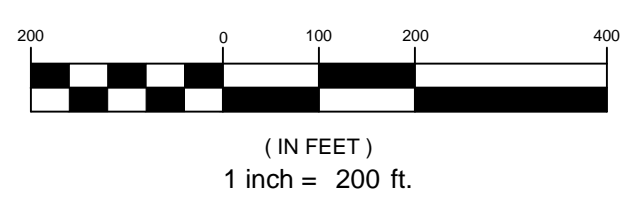
IF & W GRAY WILDLIFE PARK

GRAY, MAINE

Title
SITE PLAN AND STORMWATER IMPROVEMENTS PLAN

Project No. 195350329 Scale 1"=200'

Sheet C-5.0

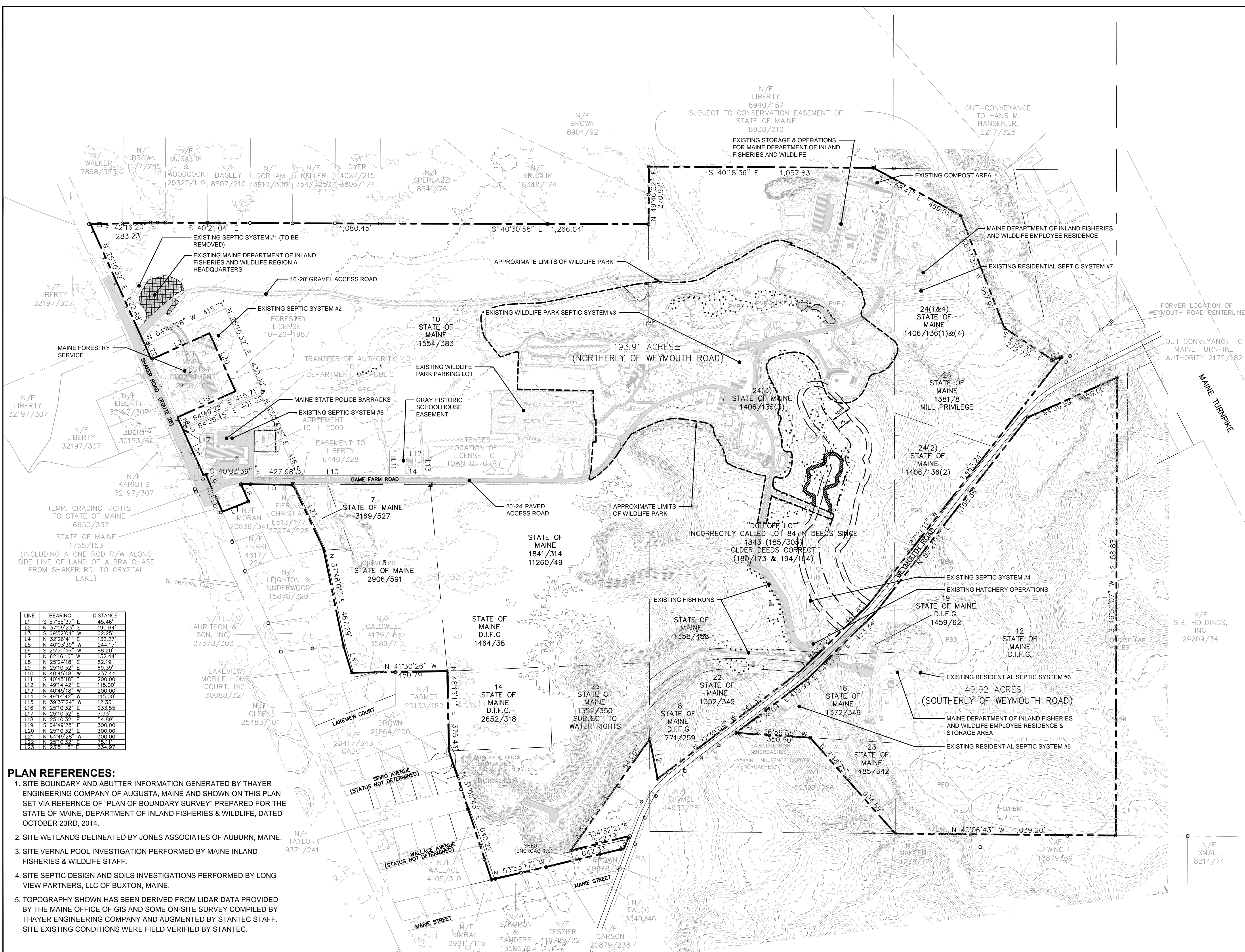
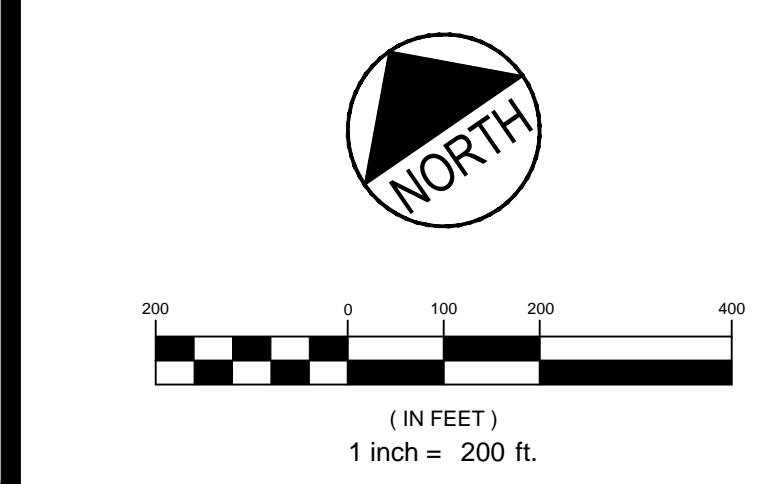


PRELIMINARY - NOT FOR CONSTRUCTION

I:\US\2018-FP\workgroup\195350329\civil\cad\perm\dwg\195350329-overall.dwg (sheet) 6/16/2018 12:27 PM

By	TYMMDD
Appr.	
Revision	

ATTACHMENT C



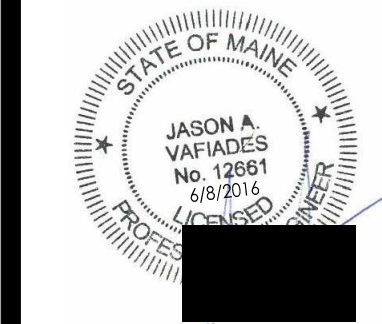
LINE	BEARING	DISTANCE
L1	S 87°53'27" E	45.46'
L2	N 37°59'23" E	190.64'
L3	S 69°52'04" W	62.25'
L4	N 32°26'41" E	132.27'
L5	N 40°33'59" W	244.17'
L6	S 25°50'46" W	88.20'
L7	N 62°16'16" W	132.44'
L8	N 25°24'18" E	82.19'
L9	N 25°10'12" E	69.39'
L10	N 40°45'18" W	237.44'
L11	S 40°45'18" E	200.00'
L12	N 49°14'42" E	115.00'
L13	N 40°45'18" W	200.00'
L14	S 49°14'42" W	115.00'
L15	N 39°37'24" W	12.33'
L16	N 25°10'32" E	233.55'
L17	N 25°10'32" E	7.93'
L18	N 25°10'32" E	54.89'
L19	S 64°49'28" E	300.00'
L20	N 25°10'32" E	300.00'
L21	N 64°49'28" W	300.00'
L22	N 25°10'32" E	75.11'
L23	N 49°51'18" E	334.97'

PLAN REFERENCES:

1. SITE BOUNDARY AND ABUTTER INFORMATION GENERATED BY THAYER ENGINEERING COMPANY OF AUGUSTA, MAINE AND SHOWN ON THIS PLAN SET VIA REFERENCE OF "PLAN OF BOUNDARY SURVEY" PREPARED FOR THE STATE OF MAINE, DEPARTMENT OF INLAND FISHERIES & WILDLIFE, DATED OCTOBER 23RD, 2014.
2. SITE WETLANDS DELINEATED BY JONES ASSOCIATES OF AUBURN, MAINE.
3. SITE VERNAL POOL INVESTIGATION PERFORMED BY MAINE INLAND FISHERIES & WILDLIFE STAFF.
4. SITE SEPTIC DESIGN AND SOILS INVESTIGATIONS PERFORMED BY LONG VIEW PARTNERS, LLC OF BUXTON, MAINE.
5. TOPOGRAPHY SHOWN HAS BEEN DERIVED FROM LIDAR DATA PROVIDED BY THE MAINE OFFICE OF GIS AND SOME ON-SITE SURVEY COMPILED BY THAYER ENGINEERING COMPANY AND AUGMENTED BY STANTEC STAFF. SITE EXISTING CONDITIONS WERE FIELD VERIFIED BY STANTEC.

File Name:	DWN	CHKD	DSGN	DATE
195350329-DEM0	DED	SRB	JAV	16.03.18

Permit-Seal



Client/Project
STATE OF MAINE

IF & W GRAY WILDLIFE PARK

GRAY, MAINE

Title
EXISTING CONDITIONS AND IDENTIFICATION PLAN

Project No. 195350329 Scale 1" = 200'

Sheet

PRELIMINARY - NOT FOR CONSTRUCTION

I:\US\2018-F\Workgroup\195350329\195350329-dem0.dwg Plotter: 6/16/2018 12:32 PM

Revision
By
Appr.
YMM/DD

ATTACHMENT D



DRIVEWAY/ENTRANCE PERMIT APPLICATION TOWN OF GRAY MAINE

For Office Use Only

Permit No: _____
Date Submitted: 3/10/23
Date Paid: _____

APPLICANT

In accordance with the **Town of Gray Entrance and Culvert Policy**, the following person/s make application to construct a driveway/entrance at the location specified below.

Name	<u>LJM Properties, LLC</u>	E-Mail Address	<u>LJM Properties, LLC</u>
Street Address	<u>18 Boulder Dr</u>	City/State/Zip	<u>Gray Me 04039</u>
Phone Number	<u>207 310 1990</u>	Work Phone	<u>207 310 1990</u>

LOCATION

Location/Address	<u>APPROX. 104 Lewiston RD</u>	Property Map/Lot	<u>28.26.2.2</u>
Owner Name	<u>LJM Properties</u>	Zoning District	<u>Commercial</u>
Number of entrances requested:	<u>1</u>	Proposed width of entrance(s):	<u>20'</u>
Entrance shall be no less than ten (10) feet from property line.		Minimum length of culvert shall be twenty-four (24) feet.	

SIGNATURES

The applicant hereby agrees:

- To pay for any culverts and/or drainage structure which may be necessary for drainage, the size type and length of culverts and size and type of other incidental structures to be as recommended by the Town Manager or Public Works Director of said Town of Gray.
- To construct said driveway approach and install culvert(s) in accordance with Town of Gray Rules and Regulations.
- To provide, erect and maintain all necessary barricades, lights, warning signs and other devices to safe guard traffic property while the work is in progress.
- That the road or street will at no time be closed to traffic.
- No building construction shall take place until Driveway Entrance has been completed and approved and all specifications met.
- A Certificate of Occupancy shall not be issued until Driveway Entrance has been approved and signed by the Road Commissioner or Public Works Director.
- Once driveway is properly staked, please call Code Officer at 657-3112 to leave message.

Further condition of the permit shall be that the applicant shall well and truly pay all damages, fines and penalties for which he shall become liable and shall indemnify and save harmless the Town of Gray against all suits, claims, damages and proceedings of every kind arising out of the construction of said entrance.

Applicant Signature: 

Date: 3/10/23

CODE ENFORCEMENT OFFICER APPROVAL

Signature/Title: _____

Date: _____

PUBLIC WORKS APPROVAL

Signature/Title: _____

Date: _____

Culvert(s) Needed: _____ (Qty) @ _____ inches X _____ feet



RESIDENTIAL BUILDING PERMIT APPLICATION - TOWN OF GRAY MAINE

For Office Use Only

Permit No: _____
 Date Submitted: 3/10/23
 Date Paid: _____

PERMIT EXPIRES ONE YEAR FROM ISSUANCE DATE, RENEWABLE ONE TIME
 PERMIT FEES ARE \$100 OR DOUBLED (WHICHEVER IS HIGHER) IF WORK BEGAN PRIOR TO

PROPERTY

Property Location/Address	LEWISTON RD	Property Map/Lot	28-26. 2.-2.
Zoning District	Commercial	Lot Acreage	
Number of Dwelling Units	1	Required Setbacks	Front 10 Rear 20 Side 15
Owner Name	LJM Properties, LLC	DIG SAFE # (CALL 811)	

APPLICANT

Name (IF different than owner)	Email Address
Mailing Address	Owner Phone Number
Mailing City/State/Zip	Alternate Phone Number
Contractor Name	Contractor Phone Number

LJM Properties, LLC
18 Boulder Pt
Gray Me 04039
LJM Properties

PROJECT

Approximate Project Dimensions	Estimated Construction Cost
Project Description	
Structure Type	
Project Description / Comments:	

28 x 48 = 1352 \$ *250,000* (Required)

New Construction Renovation Tear Down/Reconstruct Addition Demo

Home Garage Deck Shed Other (explain below)

New 28x48 split foyer with 2 car Drive under 10x14 Deck GARAGE

A COMPLETE APPLICATION REQUIRES

- Plot Plan/Survey Construction Documents Septic Design (3 Copies)

** FINAL OCCUPANCY INSPECTION IS REQUIRED FOR YOUR SAFETY **

I CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE

Applicant Signature	Date
---------------------	------

[Redacted Signature] 3/10/23

FOR CODE ENFORCEMENT OFFICE USE ONLY

Conditions	#	Price			
Administration Fee	1	x \$25.00	=	\$	_____
Minimum Permit Fee	_____	x \$25.00	=	\$	_____
Foundation / Unfinished (per sq ft)	_____	x \$0.30	=	\$	_____
Finished Floor (per sq ft)	_____	x \$0.35	=	\$	_____
Certificate of Occupancy	_____	x \$50.00	=	\$	_____
Heating System	_____	x \$50.00	=	\$	_____
New Dwelling Unit (per each)	_____	x \$400.00	=	\$	_____
Total Building Permit Fee					\$ _____
Separate Permits which may be applicable:					
Septic System (\$290)	1	x	=	\$	<u>290 -</u>
Driveway/entrance	1	x \$100.00	=	\$	<u>100 -</u>
Demo	_____	x \$100.00	=	\$	_____
Permit renewal (one time only)	_____	x \$100.00	=	\$	_____
Total					= \$ _____

CODE ENFORCEMENT OFFICER APPROVAL

Signature of CEO	Date	Conditions (if any)
------------------	------	---------------------

DEED WITH QUITCLAIM COVENANT

Maine Statutory Short Form

DLN: 1002340227659

Know all Persons by these Present,

That **ODESSA PROPERTIES LLC**, a Maine limited liability company with a principal place of business in Gray, Maine, grants to


LJM PROPERTIES, LLC

a Maine limited liability company with a mailing address 18 Boulder Drive, Gray, ME 04039, with QUITCLAIM COVENANTS, a certain lot or parcel of land, together with any improvements thereon, situated in the Town of Gray, County of Cumberland and State of Maine, more particularly described in the Exhibit A attached hereto and made a part hereof.

In Witness hereof Odessa Properties LLC has caused this instrument to be signed in its corporate name by Scott Liberty, its Manager, thereunto duly authorized on this 3 day of March, 2023.

Signed, Sealed and Delivered
in the presence of

ODESSA PROPERTIES LLC

By: 
Scott Liberty
Its: Manager

STATE OF MAINE
Cumberland, ss.

March 3, 2023

Then personally appeared before me the above named Scott Liberty, Manager, of Odessa Properties LLC and acknowledged the foregoing instrument to be his free act and deed in his said capacity and to be the free act and deed of Odessa Properties LLC.

Christopher J. McLain
Notary Public, Maine
My Commission Expires
November 10, 2026



Notary Public/Attorney-At-Law
Printed Name:.....

EXHIBIT A

A certain lot or parcel of land situated in the Town of Gray, County of Cumberland and State of Maine, more particularly described as follows:

Being Lot 1 on a plan titled "Lewiston Road Subdivision 100 & 104 Lewiston Road Gray Maine" dated June 1, 2022 for Odessa Properties LLC and recorded in the Cumberland County Registry of Deeds in Plan Book 222, Page 249.

Excepting and reserving from the above described lot the proposed stormwater easement shown on Lot 2 and Lot 1 on plan titled "Lewiston Road Subdivision 100 & 104 Lewiston Road Gray Maine" dated June 1, 2022 for Odessa Properties LLC and recorded in the Cumberland County Registry of Deeds in Plan Book 222, Page 249, which is intended to benefit Lot 2 and Lot 3 to ensure the perpetual property function of the existing detention basin and associated existing drainage channels.

Being a portion of the premises described in deed from 100 Lewiston Road, LLC to Odessa Properties LLC dated July 22, 2020 and recorded in the Cumberland County Registry of Deeds in Book 36981, Page 123.



Generated by REScheck-Web Software
Compliance Certificate

Project Lewiston rd gray

Energy Code: **2015 IECC**
 Location: **Cumberland County, Maine**
 Construction Type: **Single-family**
 Project Type: **New Construction**
 Conditioned Floor Area: **1,344 ft²**
 Glazing Area: **13%**
 Climate Zone: **6 (8499 HDD)**
 Permit Date:
 Permit Number:

Construction Site: Owner/Agent: Designer/Contractor:

Compliance: Passes using UA trade-off

Compliance: **6.7% Better Than Code** Maximum UA: **195** Your UA: **182**

The % Better or Worse Than Code Index reflects how close to compliance the house is based on code trade-off rules. It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

Slab-on-grade tradeoffs are no longer considered in the UA or performance compliance path in REScheck. Each slab-on-grade assembly in the specified climate zone must meet the minimum energy code insulation R-value and depth requirements.

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Prop. U-Factor	Req. U-Factor	Prop. UA	Req. UA
Ceiling: Flat Ceiling or Scissor Truss	1,344	19.0	30.0	0.020	0.026	27	35
Wall: Wood Frame, 16" o.c.	1,216	21.0	0.0	0.057	0.045	57	45
Door: Solid Door (under 50% glazing)	66			0.220	0.320	15	21
Window 3: Vinyl Frame	155			0.250	0.320	39	50
Floor: All-Wood Joist/Truss	1,344	30.0	0.0	0.033	0.033	44	44

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2015 IECC requirements in REScheck Version : REScheck-Web and to comply with the mandatory requirements listed in the REScheck Inspection Checklist.

Name - Title Jason Manly Signature [Redacted] Date 3/15/23



2015 IECC Energy Efficiency Certificate

Insulation Rating	R-Value
Above-Grade Wall	21.00
Below-Grade Wall	0.00
Floor	30.00
Ceiling / Roof	49.00
Ductwork (unconditioned spaces):	_____

Glass & Door Rating	U-Factor	SHGC
Window	0.25	
Door	0.22	

Heating & Cooling Equipment	Efficiency
Heating System: _____	_____
Cooling System: _____	_____
Water Heater: _____	_____

Name: _____ Date: _____

Comments

7389

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Div. Environmental Health, 11SHS
(207) 287-2070 Fax: (207) 287-4172

PROPERTY LOCATION		>> CAUTION: LPI APPROVAL REQUIRED <<	
City, Town, or Plantation	Gray	Town/City	<u>GRAY</u> Permit # _____
Street or Road	104 Lewiston Road	Date Permit Issued	___/___/___ Fee: \$ <u>290</u> - Double Fee Charged []
Subdivision, Lot #	Lot 1	Local Plumbing Inspector Signature _____ L.P.I. # _____	
OWNER/APPLICANT INFORMATION		Fee: \$ _____ state min fee \$ _____ Locally adopted fee _____	
Name (last, first, MI)	Manley, Jason	Copy: [] Owner [] Town [] State	
Mailing Address of Owner/Applicant	15 Scott Dyer Road Cape Elizabeth 04107	The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.	
Daytime Tel. #	310-1990	Municipal Tax Map # <u>28</u> Lot # <u>26-2-2</u>	
OWNER OR APPLICANT STATEMENT		CAUTION: INSPECTION REQUIRED	
I state and acknowledge that the information submitted is correct to the best of my knowledge and/or belief. No justification is reason for the Department Permit.		I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.	
Signature of Owner or Applicant _____ Date <u>3/10/23</u>		Local Plumbing Inspector Signature _____ (1st) date approved _____ _____ (2nd) date approved _____	

PERMIT INFORMATION		
TYPE OF APPLICATION	THIS APPLICATION REQUIRES	DISPOSAL SYSTEM COMPONENTS
1. First Time System 2. Replacement System Type replaced: _____ Year installed: _____ 3. Expanded System a. <25% Expansion b. >25% Expansion 4. Experimental System 5. Seasonal Conversion	1. No Rule Variance 2. First Time System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 3. Replacement System Variance a. Local Plumbing Inspector Approval b. State & Local Plumbing Inspector Approval 4. Minimum Lot Size Variance 5. Seasonal Conversion Permit	1. Complete Non-engineered System 2. Primitive System (graywater & alt. toilet) 3. Alternative Toilet, specify: _____ 4. Non-engineered Treatment Tank (only) 5. Holding Tank, _____ gallons 6. Non-engineered Disposal Field (only) 7. Separated Laundry System 8. Complete Engineered System (2000 gpd or more) 9. Engineered Treatment Tank (only) 10. Engineered Disposal Field (only) 11. Pre-treatment, specify: _____ 12. Miscellaneous Components
SIZE OF PROPERTY	DISPOSAL SYSTEM TO SERVE	TYPE OF WATER SUPPLY
1 SQ. FT. ACRES	1. Single Family Dwelling Unit, No. of Bedrooms: <u>3</u> 2. Multiple Family Dwelling, No. of Units: _____ 3. Other: _____ (specify) _____	1. Drilled Well 2. Dug Well 3. Private 4. Public 5. Other
SHORELAND ZONING	Current Use Seasonal Year Round <u>Undeveloped</u>	
Yes <input type="radio"/> No <input checked="" type="radio"/>		

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)			
TREATMENT TANK	DISPOSAL FIELD TYPE & SIZE	GARBAGE DISPOSAL UNIT	DESIGN FLOW
1. Concrete a. Regular b. Low Profile 2. Plastic 3. Other: _____ CAPACITY: <u>1000</u> GAL.	1. Stone Bed 2. Stone Trench 3. Proprietary Device a. cluster array <u>c. Linear</u> b. regular load d. H-20 load 4. Other: _____ SIZE: <u>960</u> sq. ft. lin. ft.	1. No 2. Yes 3. Maybe If Yes or Maybe, specify one below: a. multi-compartment tank b. ___ tanks in series c. increase in tank capacity d. Filter on Tank Outlet	<u>270</u> gallons per day BASED ON: 1. Table 4A (dwelling unit(s)) 2. Table 4C (other facilities) SHOW CALCULATIONS for other facilities
SOIL DATA & DESIGN CLASS	DISPOSAL FIELD SIZING	EFFLUENT/EJECTOR PUMP	LATITUDE AND LONGITUDE
PROFILE CONDITION <u>3 / C</u> at Observation Hole # <u>TP1</u> Depth <u>18</u> " of Most Limiting Soil Factor	1. Medium---2.6 sq. ft. / gpd <u>2. Medium---Large 3.3 sq. ft. / gpd</u> 3. Large---4.1 sq. ft. / gpd 4. Extra Large---5.0 sq. ft. / gpd	1. Not Required 2. May Be Required 3. Required Specify only for engineered systems: DOSE: _____ gallons	at center of disposal area Lat. <u>43</u> d <u>54</u> m <u>20</u> s Lon. <u>70</u> d <u>19</u> m <u>23</u> s if g.p.s, state margin of error: <u>15</u>

SITE EVALUATOR STATEMENT		
I certify that on <u>3/8/23</u> (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).		
Site Evaluator Signature <u>Hope Hampton</u>	SE # <u>427</u>	Date <u>3/8/23</u>
Site Evaluator Name Printed	Telephone Number <u>207-632-8125</u>	E-mail Address <u>hamptonsiteeval@gmail.com</u>

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
 Division of Environmental Health
 (207) 287-5672 Fax: (207) 287-3165

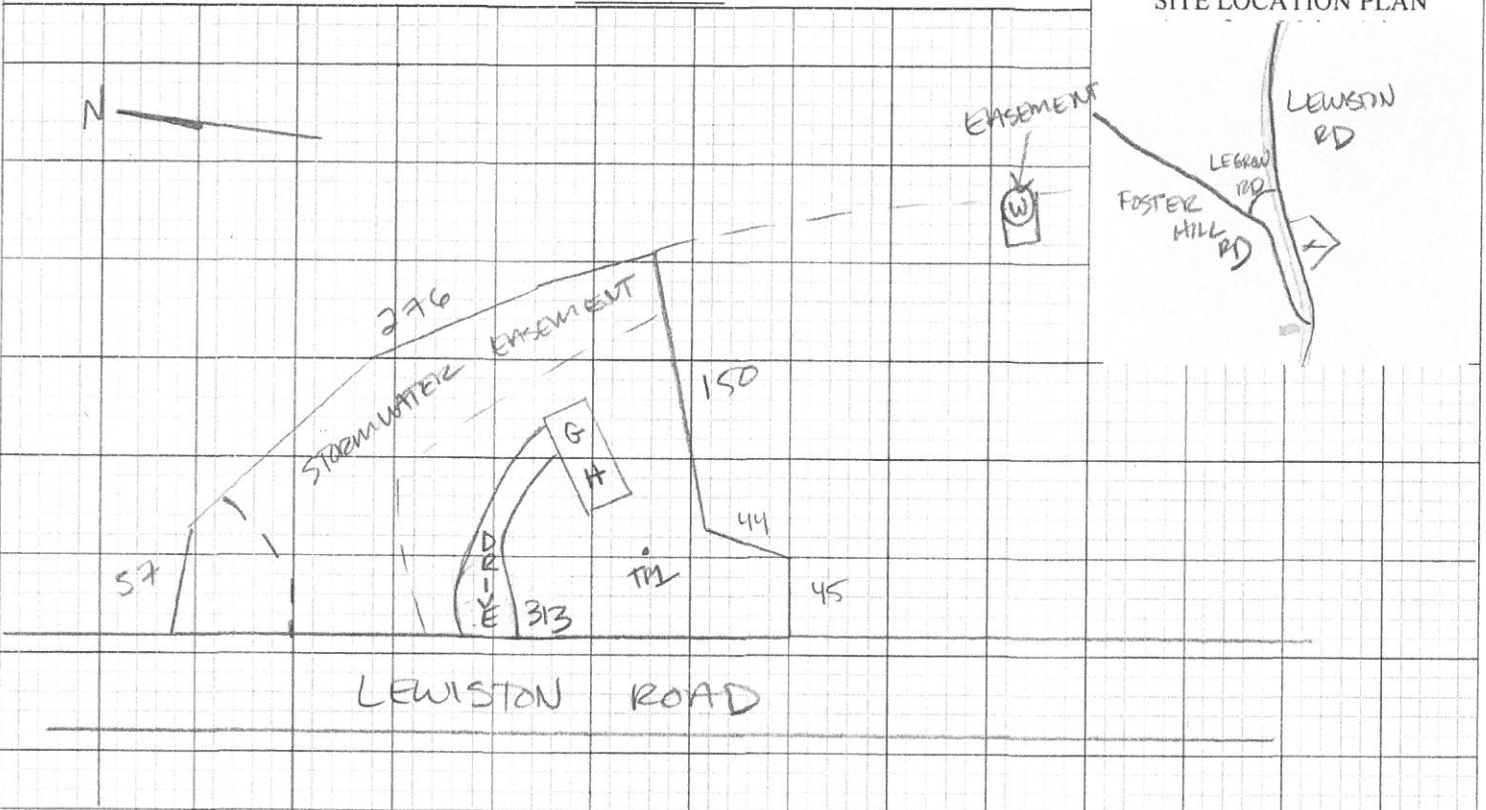
Town, City, Plantation: **Gray** Street, Road, Subdivision: **104 Lewiston Road Lot 1**

Owner's Name: **Jason Manley**

SITE PLAN

Scale 1" = 100 ft. or as shown

SITE LOCATION PLAN



SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP1 Test Pit Boring
 " Depth of Organic Horizon Above Mineral Soil

Observation Hole _____ Test Pit Boring
 " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0	Sandy Loam	Friable	Dark Brown	
10	Sandy Loam	Friable	Brown	
20	Sandy Loam	Firm	Olive	Common and Distinct
30				
40				
50				

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0				
10				
20				
30				
40				
50				

Soil Classification 3 C Profile Condition	Slope 10 %	Limiting Factor 18 "	<input checked="" type="checkbox"/> Ground Water <input checked="" type="checkbox"/> Restrictive Layer <input type="checkbox"/> Bedrock <input type="checkbox"/> Pit Depth
--	----------------------	--------------------------------	---

Soil Classification _____ Profile Condition	Slope _____%	Limiting Factor ____"	<input type="checkbox"/> Ground Water <input type="checkbox"/> Restrictive Layer <input type="checkbox"/> Bedrock <input type="checkbox"/> Pit Depth
---	-----------------	--------------------------	---

 Site Evaluator Signature

427
 SE #

3/8/23
 Date

7389

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health & Human Services
Division of Environmental Health
(207) 287-5672 Fax: (207) 287-3165

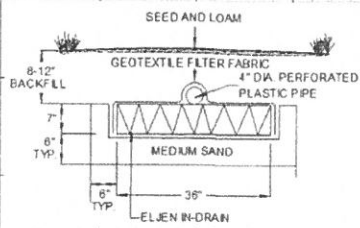
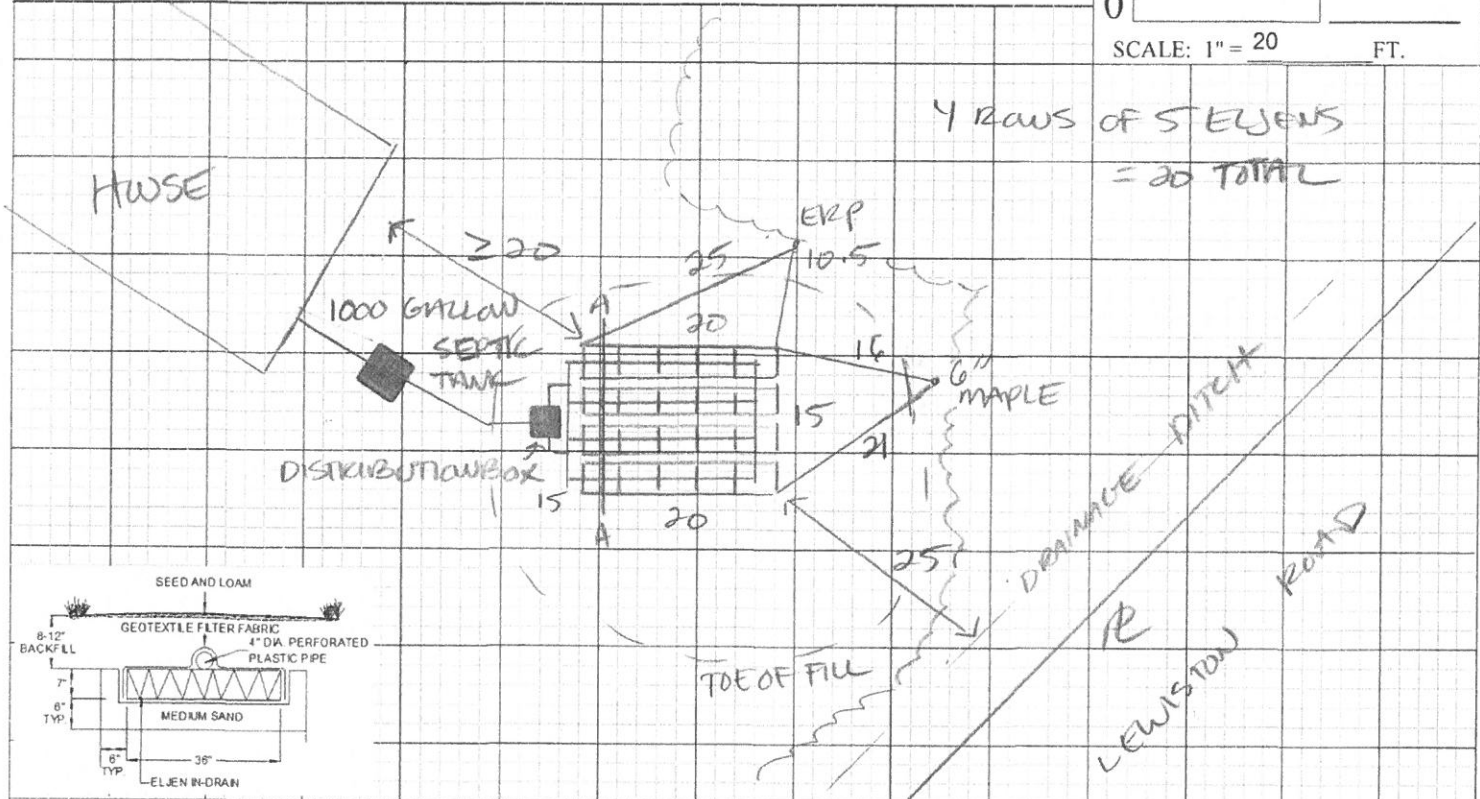
Town, City, Plantation
Gray

Street, Road, Subdivision
104 Lewiston Road Lot 1

Owner's Name
Jason Manley

SUBSURFACE WASTEWATER DISPOSAL PLAN

0 FT.
SCALE: 1" = 20 FT.



FILL REQUIREMENTS

Depth of Fill (Upslope) 15
Depth of Fill (Downslope) 40

CONSTRUCTION ELEVATIONS

Finished Grade Elevation -15
Top of Distribution Pipe or Proprietary Device -25
Bottom of Disposal Area -36

ELEVATION REFERENCE POINT

Location & Description: Nail 28" up 18" white pine
Reference Elevation: 0

Note: Materials and installation shall be in accordance with Maine Subsurface Wastewater Disposal Rules dated 08/15 as amended.

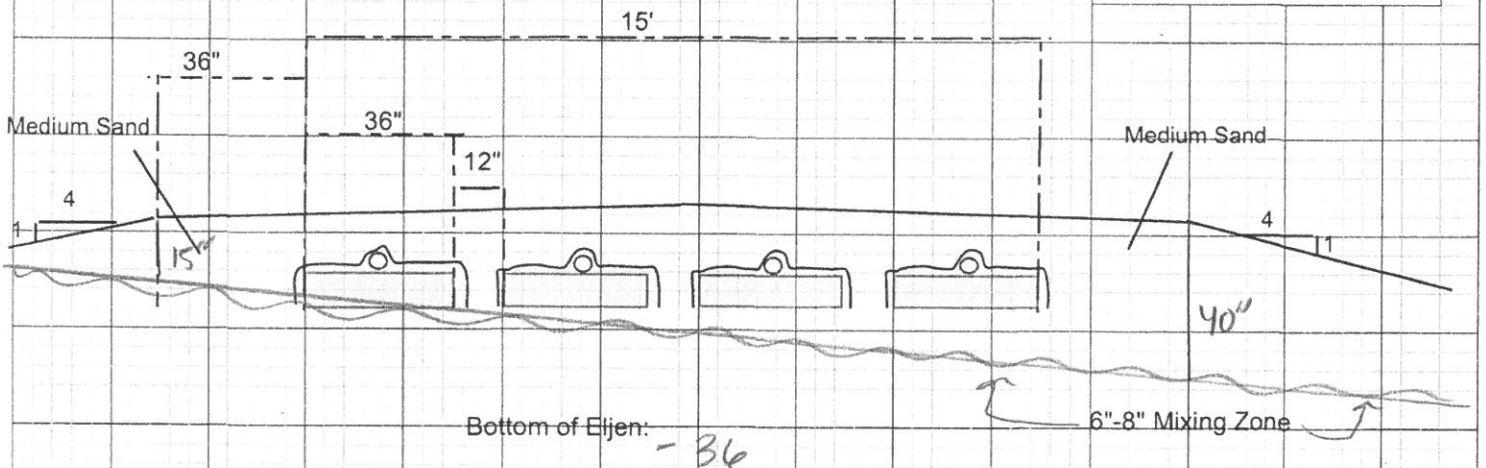
DISPOSAL AREA CROSS SECTION

A-A

Scale

Horizontal 1" = 4 ft.
Vertical 1" = 4 ft.

Note: All ground to be filled must be scarified



Site Evaluator Signature

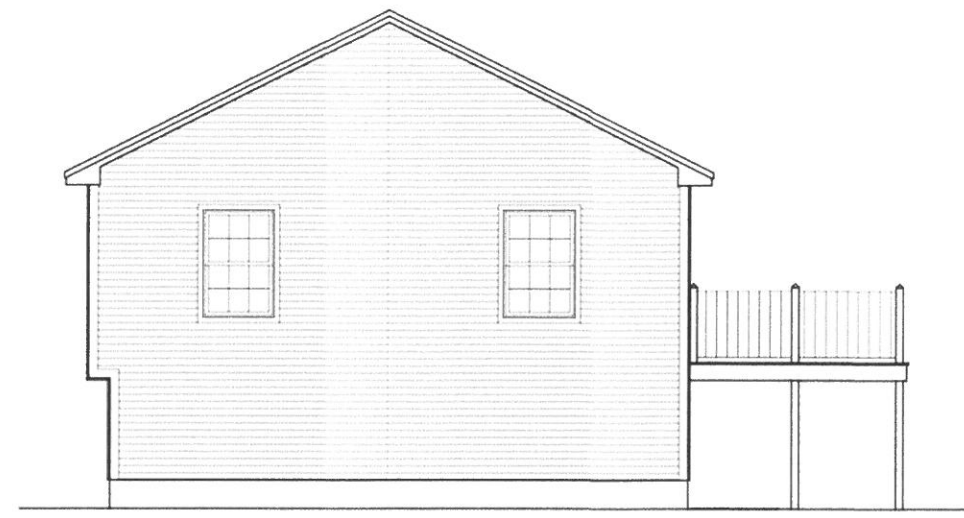
427

3/8/23

SE #

Date

THE INFORMATION PROVIDED TO OUR CUSTOMERS AS A SERVICE OF MAINE RESIDENTIAL DESIGN. CUSTOMERS SHOULD APPROPRIATELY UNDERSTAND THAT THE INFORMATION IS NOT THE PRODUCT OF ANY ARCHITECT NEITHER MAINE RESIDENTIAL DESIGN OR ANY OF ITS EMPLOYEES ARE REGISTERED ARCHITECTS WITH THE STATE OF MAINE AND CUSTOMERS MAY WANT TO CONSULT WITH AN ARCHITECT BEFORE TAKING FINAL ACTION WITH REGARD TO ANY BUILDING OR STRUCTURE. CUSTOMERS SHOULD ALSO APPRECIATE THAT BY PROVIDING YOU WITH THE INFORMATION MAINE RESIDENTIAL DESIGN DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE INFORMATION FOR ANY PURPOSE OF THE CUSTOMER.



RIGHT ELEVATION



BACK ELEVATION



LEFT ELEVATION

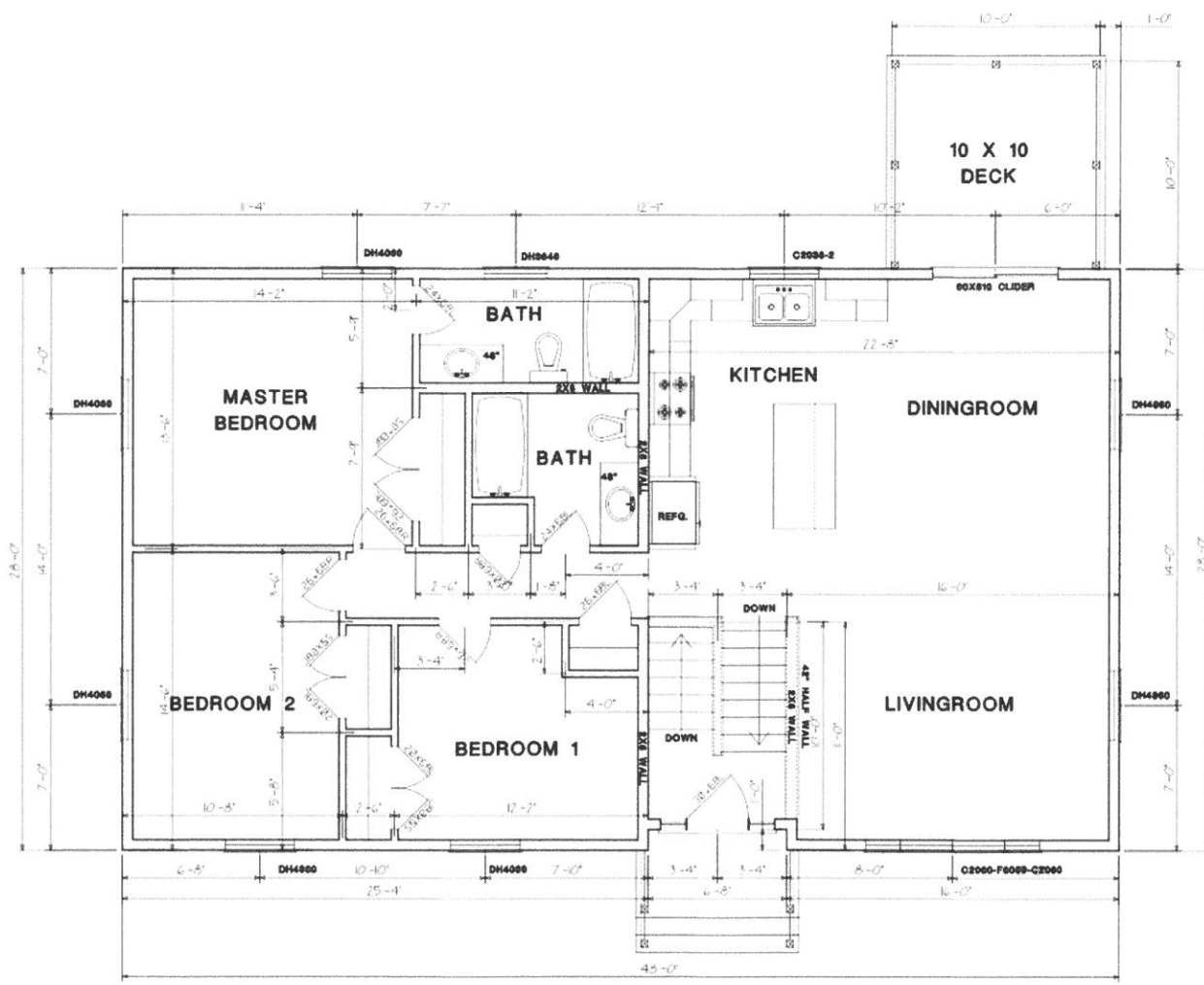


FRONT ELEVATION

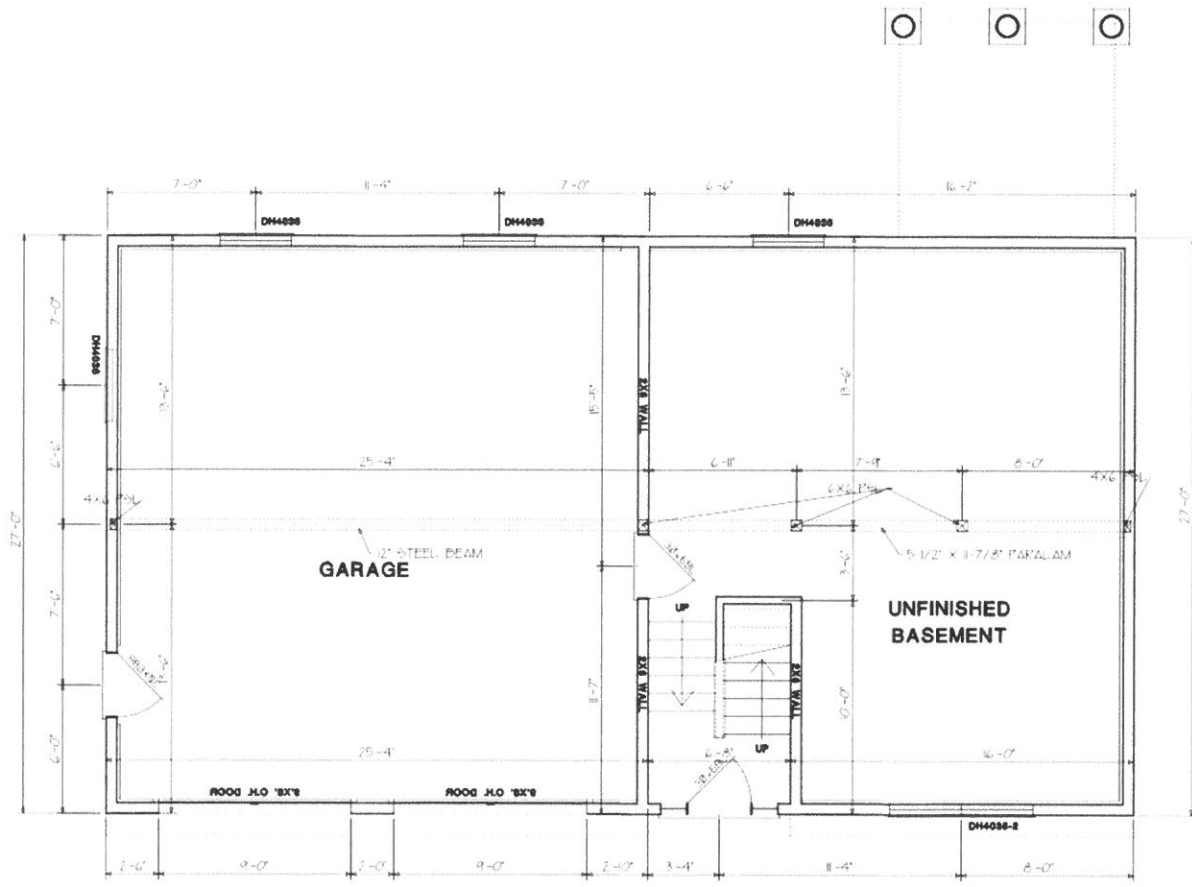


MAINE RESIDENTIAL DESIGN	FILE NAME
CASCO, ME. 207-627-3362	
JOB: 28'X X48' SPLIT B-LEFT	SCALE: 1/4"=1'-0"
DISCIPTION: GRAY MAINE	DATE: 8/13/2021
	DRAWN BY: MEJ
	APPROVED:

THE INFORMATION PROVIDED TO OUR CUSTOMER AS A SERVICE OF MAINE RESIDENTIAL DESIGN. CUSTOMERS SHOULD APPROPRIATELY UNDERSTAND THAT THIS INFORMATION IS NOT THE PRODUCT OF ANY ARCHITECT NEITHER MAINE RESIDENTIAL DESIGN OR ANY OF ITS EMPLOYEES ARE REGISTERED ARCHITECTS WITH THE STATE OF MAINE AND CUSTOMERS MAY WANT TO CONSULT WITH AN ARCHITECT BEFORE TAKING FINAL ACTION WITH REGARD TO ANY ERECTION OR STRUCTURE. CUSTOMERS SHOULD ALSO APPRECIATE THAT BY PROVIDING YOU WITH THIS INFORMATION MAINE RESIDENTIAL DESIGN DOES NOT GUARANTEE THE ACCURACY OR SUITABILITY OF THE INFORMATION FOR ANY PURPOSE OF THE CUSTOMER.



FLOOR PLAN

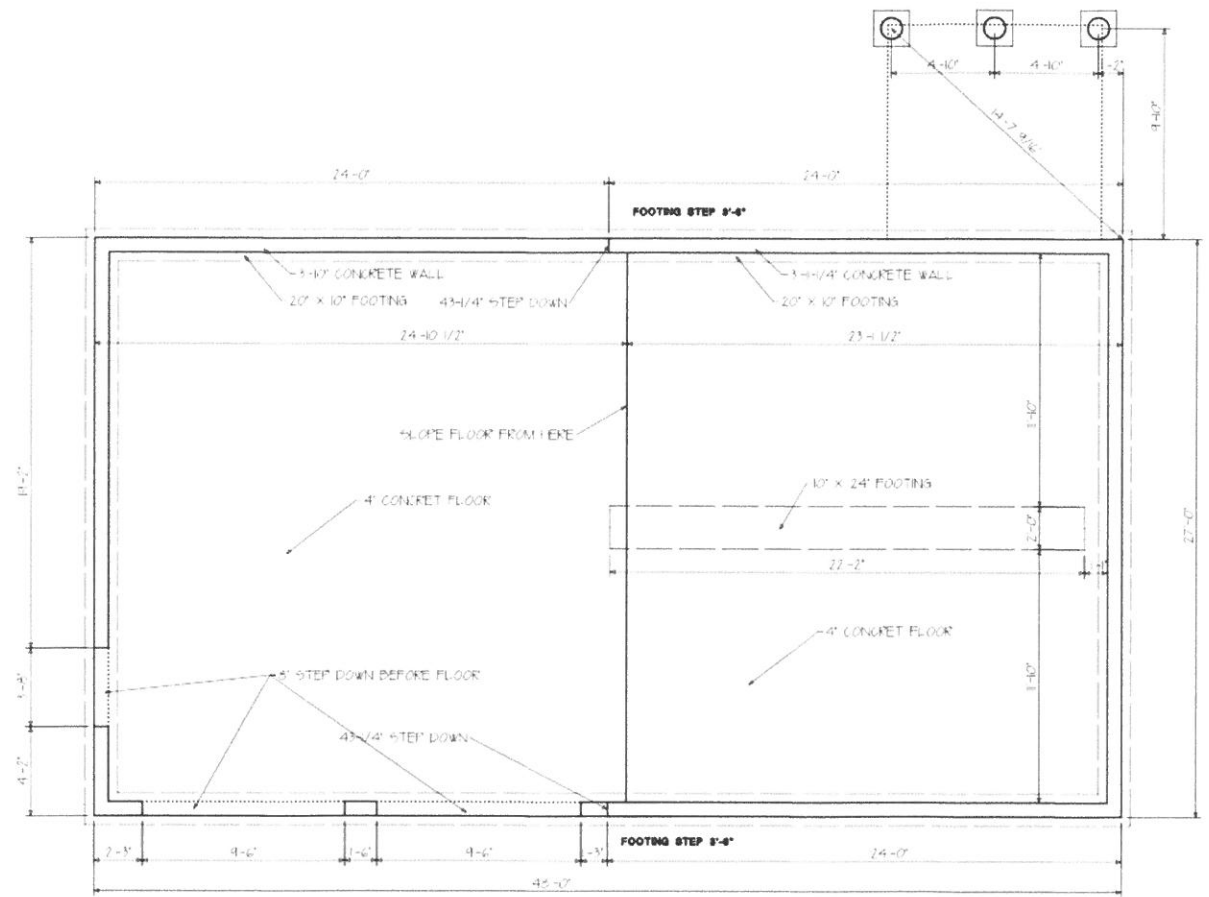


BASEMENT PLAN

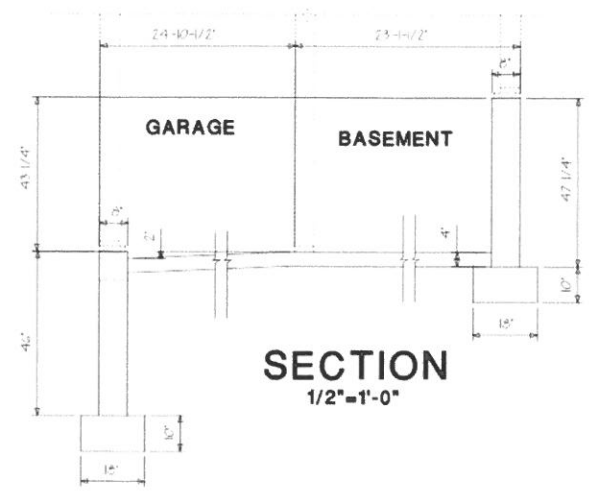


MAINE RESIDENTIAL DESIGN	FILE NAME
CASCO, ME. 207-627-3362	
JOB: 28'X X48' SPLIT B-LEFT	SCALE: 1/4"=1'-0"
DISCIPLINE: GRAY MAINE	DATE: 6/13/2021
	DRAWN BY: MEJ
	APPROVED:

THE INFORMATION PROVIDED TO OUR CUSTOMER AS A SERVICE OF MAINE RESIDENTIAL DESIGN. CUSTOMERS SHOULD APPRECIATE HOWEVER THAT THIS INFORMATION IS NOT THE PRODUCT OF AN ARCHITECT NEITHER MAINE RESIDENTIAL DESIGN OR ANY OF ITS EMPLOYEES ARE REGISTERED ARCHITECTS WITH THE STATE OF MAINE AND CUSTOMERS MAY WANT TO CONSULT WITH AN ARCHITECT BEFORE TAKING FINAL ACTION WITH REGARD TO ANY BUILDING OR STRUCTURE. CUSTOMERS SHOULD ALSO APPRECIATE THAT BY PROVIDING YOU WITH THIS INFORMATION MAINE RESIDENTIAL DESIGN DOES NOT GUARANTEE THE ACCURACY OR SUITABILITY OF THE INFORMATION FOR ANY PURPOSE OF THE CUSTOMER.



FOUNDATION PLAN

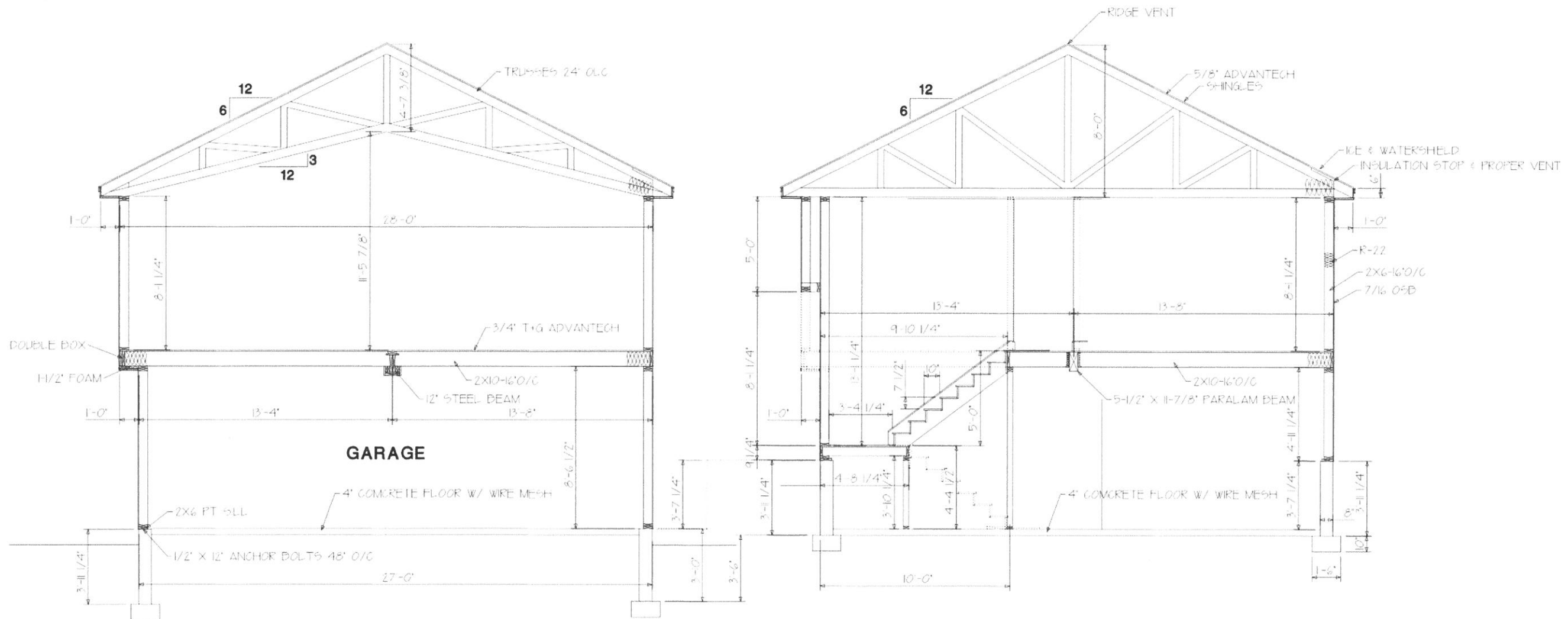


SECTION
1/2"=1'-0"



MAINE RESIDENTIAL DESIGN	FILE NAME
CASCO, ME. 207-627-3362	
JOB: 28'X X48' SPLIT B-LEFT	SCALE: 1/4"=1'-0"
DISCIPTION: GRAY MAINE	DATE: 6/13/2021
	DRAWN BY: MEJ
	APPROVED:

THE INFORMATION PROVIDED TO OUR CUSTOMERS AS A SERVICE OF MAINE RESIDENTIAL DESIGN. CUSTOMERS SHOULD APPROPRIATELY UNDERSTAND THAT THIS INFORMATION IS NOT THE PRODUCT OF AN ARCHITECT NEITHER MAINE RESIDENTIAL DESIGN OR ANY OF ITS EMPLOYEES ARE REGISTERED ARCHITECTS WITHIN THE STATE OF MAINE AND CUSTOMERS MAY WANT TO CONSULT WITH AN ARCHITECT BEFORE TAKING FINAL ACTION WITH REGARD TO ANY BUILDING OR STRUCTURAL. CUSTOMERS SHOULD ALSO APPRECIATE THAT BY PROVIDING YOU WITH THIS INFORMATION MAINE RESIDENTIAL DESIGN DOES NOT GUARANTEE THE ACCURACY OR SUITABILITY OF THE INFORMATION FOR ANY PURPOSE OF THE CUSTOMER.



MAINE RESIDENTIAL DESIGN	FILE NAME
CASCO, ME. 207-627-3362	
JOB: 28'X 48' SPLIT	SCALE: 3/8"=1'-0"
DISCIPLINE: GRAY MAINE	DATE: 6/16/2021
	DRAWN BY: MEJ
	APPROVED:

LEGEND

- EXISTING: PROPERTY LINE/R.O.W., ABUTTER PROPERTY LINE, SETBACK, EASEMENT LINE, GRANITE MONUMENT, IRON PIN/DRILL HOLE, CENTERLINE, BUILDING, EDGE OF PAVEMENT/CURB, EDGE OF CONCRETE, SIGN, EDGE OF WETLANDS, CENTERLINE OF STREAM, CONTOUR LINE, TREELINE, TEST PIT, CATCHBASIN, DRAINAGE MANHOLE, CULVERT/STORMDRAIN, UNDERDRAIN, SEWER MANHOLE, SANITARY SEWER PIPE, WELL, UTILITY POLE, LIGHT POLE, OVERHEAD UTILITIES, STONE WALL, RIPRAP.
- PROPOSED: PROPERTY LINE/R.O.W., ABUTTER PROPERTY LINE, SETBACK, EASEMENT LINE, GRANITE MONUMENT, IRON PIN/DRILL HOLE, CENTERLINE, BUILDING, EDGE OF PAVEMENT/CURB, EDGE OF CONCRETE, SIGN, EDGE OF WETLANDS, CENTERLINE OF STREAM, CONTOUR LINE, TREELINE, TEST PIT, CATCHBASIN, DRAINAGE MANHOLE, CULVERT/STORMDRAIN, UNDERDRAIN, SEWER MANHOLE, SANITARY SEWER PIPE, WELL, UTILITY POLE, LIGHT POLE, OVERHEAD UTILITIES, STONE WALL, RIPRAP.

GENERAL NOTES

- 1. THE OWNER OF RECORD OF THE PROPERTY IS GRAYLAND HOLDINGS LLC BY DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 35981 PAGE 120 AND ODESSA PROPERTIES LLC BY DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 36881 PAGE 123.
- 2. TOTAL AREA OF THE PARCEL IS APPROXIMATELY 4.35 ACRES.
- 3. PARCEL TAB MAP REFERENCE: TOWN OF GRAY ASSESSORS MAP 28, LOT 26-2 & 26-1.
- 4. PLAN REFERENCES: A) "PLAN OF PROPERTY - ROUTE 100", PREPARED FOR ROD BOYINGTON, PREPARED BY CULLENBERG LAND SURVEYING, DATED JULY 15, 2010. B) SURVEY WORKSHEET, PREPARED BY JOHN PALMITER DATED THRU DECEMBER 1, 2021.
- 5. HORIZONTAL DATUM: MAGNETIC NORTH OF 1990.
- 6. VERTICAL DATUM: LOCALIZED VERTICAL DATUM BASED ON PLAN REFERENCE 4A.
- 7. BOUNDARY SHOWN HEREON IS BASED ON PLAN REFERENCE 4A.
- 8. TOPOGRAPHIC CONTOURS SHOWN HEREON ARE BASED ON PLAN REFERENCE 4A, WITH SUPPLEMENTAL CONTOURS SHOWN BASED ON MAINE GIS LIDAR.
- 9. THE PROPERTY IS LOCATED IN THE COMMERCIAL DISTRICT.
- 10. SPACE AND BULK REQUIREMENTS: C DISTRICT.
- 11. WETLAND DELINEATION, NATURAL RESOURCES AND SOIL INVESTIGATION PERFORMED BY MAINELY SOILS IN MARCH & APRIL 2022.
- 12. PROPOSED UTILITY EASEMENT INTENDED TO PROVIDE CONTINUOUS USE OF EXISTING SEPTIC SYSTEM FOR THE BENEFIT OF LOT 3. IN THE EVENT THE PROPOSED UTILITY EASEMENT IS RELOCATED TO AN ALTERNATE LOCATION, THE CONSTRUCTED BUILDING SEWER IN PERPETUITY.
- 13. PROPOSED RESIDENTIAL BUILDING ON LOT 1 IS INTENDED TO BE CONSTRUCTED WITH FIRE SPRINKLERS MEETING NFPA STANDARDS. IN THE EVENT A FIRE SPRINKLER SYSTEM IS NOT INSTALLED, A FIRE CISTERN MEETING THE TOWN OF GRAY'S REQUIREMENTS OUTLINED IN SECTION 401.13.4.E SHALL BE INSTALLED.
- 14. PROPOSED STORMWATER EASEMENT SHOWN ON LOT 2 AND LOT 1 IS INTENDED TO BENEFIT LOT 2 AND LOT 1 TO ENSURE THE PERPETUAL PROPER FUNCTION OF THE EXISTING DETENTION BASIN AND ASSOCIATED EXISTING DRAINAGE CHANNELS.
- 15. CONSTRUCTION OF PROPOSED LOT 1 RESIDENTIAL BUILDING AND SITE LAYOUT SHALL SUBSTANTIALLY CONFORM TO THE DESIGN SHOWN HEREON. ANY CHANGES THAT DEVIATE FROM THIS PLAN'S DESIGN OF THE LOT 1 WILL REQUIRE PLANNING BOARD REVIEW AND APPROVAL AND BE CONSIDERED AS AN AMENDMENT TO A MINOR SUBDIVISION.
- 16. WELL LOCATION ASSOCIATED WITH LOT 1 IS LOCATED BASED ON THE LETTERS DATED MAY 16, 2022, AND MAY 23, 2022 FROM MARK CENCZ GEOLOGIC, INC.
- 17. PROPOSED SUBSURFACE WASTEWATER DISPOSAL FIELD LOCATION ASSOCIATED WITH LOT 1 IS AN APPROXIMATE SIZE AND LOCATION FOR SITE DESIGN AND COORDINATION. CONSTRUCTED SEPTIC SYSTEM LOCATION SHALL BE LOCATED BY A HYDROGEOLOGIC CONSULTANT AND FINAL SEPTIC DESIGN SHALL BE PERFORMED BY A MAINE LICENSED SITE EVALUATOR.
- 18. THE PROJECT IS SUBJECT TO A MAINE DEP NATURAL RESOURCES PROTECTION ACT PERMIT BY RULE FOR ACTIVITY ADJACENT TO A PROTECTED NATURAL RESOURCE, AS WELL AS A STORMWATER PERMIT BY RULE.

NET RESIDENTIAL DENSITY CALCULATIONS:

Table with columns for Gross Land Area (189,284± SF) and various deductions (100%, 50%, NET AREA SUBTOTAL) leading to a required minimum lot area of 40,005 SF for 3 residential lots.

CONDITIONS OF APPROVAL:

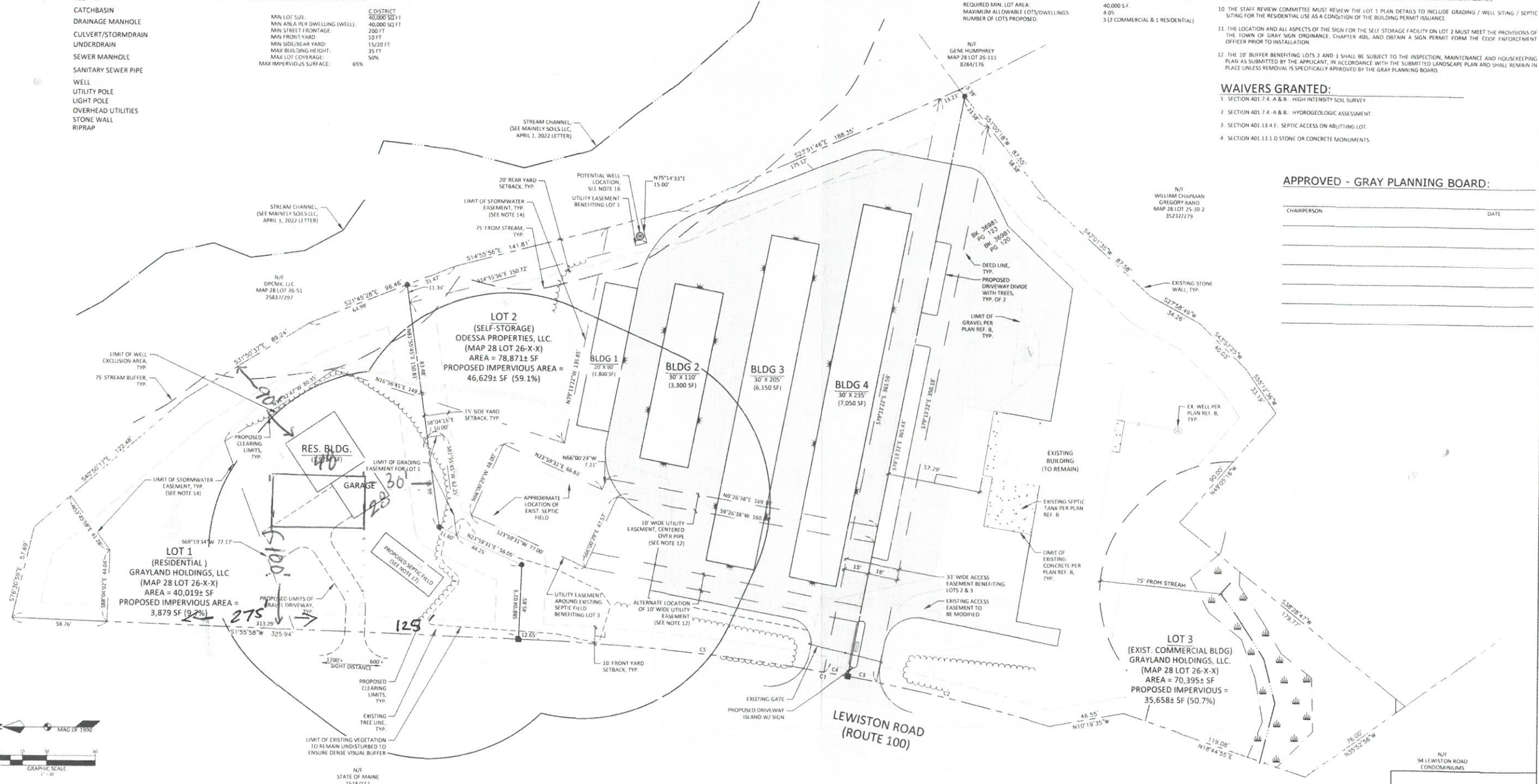
- 1. THE PROJECT SHALL BE CONSTRUCTED, OPERATED, AND MAINTAINED IN ACCORDANCE WITH THE PLANS, SUBMISSIONS AND TESTIMONY PRESENTED TO THE PLANNING BOARD BY THE APPLICANT AND ITS REPRESENTATIVES.
- 2. ALL PRIOR APPLICABLE STANDARDS AND CONDITIONS OF APPROVAL REMAIN IN EFFECT.
- 3. THE APPLICANT SHALL PROVIDE DOCUMENTATION/NOTATION FROM A HYDROGEOLOGIC CONSULTANT TO SPECIFY THE LOCATION OF THE WELL AND SEPTIC FIELD FOR LOT 1, PRIOR TO THE TOWN RELEASING THE FINAL NOTICE OF DECISION AND/OR THE SUBDIVISION PLAN FOR RECORDING AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
- 4. THE APPLICANT SHALL PROVIDE EVIDENCE OF THE NAPA PBR PERMIT AND THE MDEP STORMWATER PBR PERMIT TO THE TOWN, PRIOR TO CODE ENFORCEMENT OFFICER ISSUING BUILDING PERMITS.
- 5. A HIGH INTENSITY SOIL SURVEY AND HYDROGEOLOGIC ASSESSMENT IS WAIVED FOR THE PROPERTY AS A WHOLE AND REQUIRED ONLY FOR THE STORMWATER INFRASTRUCTURE AREAS AND THE AREA OF THE PROPOSED WELL, RESPECTIVELY.
- 6. THE APPLICANT SHALL PROVIDE A SIGNED AGREEMENT OUTLINING THE RESPONSIBLE PARTIES, AND THE REQUIRED MAINTENANCE AND INSPECTION OF THE STORMWATER CONTROL FACILITIES.
- 7. NOTE#1 ON THE LANDSCAPING PLAN HAS BEEN REVISED TO SPECIFY THAT THE PROPERTY OWNER OF LOT 2 IS THE RESPONSIBLE PARTY FOR THE BUFFER MAINTENANCE, WITH THE EXCEPTION OF THE BUFFER STRIP BETWEEN LOTS 2 AND 3, WHICH IS LOCATED ON LOT 3 AND IS TO BE MAINTAINED BY THE OWNER OF LOT 3.
- 8. PRIOR TO THE LOT DIVISION COMPLETION, ALL EASEMENTS FOR ACCESS, SEPTIC, UTILITY AND STORMWATER DRAINAGE, AS DESCRIBED IN THE SUBDIVISION NARRATIVE SUBMITTED TO THE BOARD, MUST BE INCLUDED AND REFLECTED IN THE DEEDS FOR ALL OF THE AFFECTED LOTS, AS NECESSARY, AND FILE AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
- 9. A WELL EXCLUSION ZONE HAS BEEN ADDED TO LOT 1 TO ENSURE THE PROPOSED WELL IS LOCATED WITHIN APPROPRIATE SETBACKS AND DISTANCES FROM THE ALL PROPOSED AND EXISTING SEPTIC AND STORMWATER FACILITIES.
- 10. THE STAFF REVIEW COMMITTEE MUST REVIEW THE LOT 1 PLAN DETAILS TO INCLUDE GRADING / WELL SITING / SEPTIC SITING FOR THE RESIDENTIAL USE AS A CONDITION OF THE BUILDING PERMIT ISSUANCE.
- 11. THE LOCATION AND ALL ASPECTS OF THE SIGN FOR THE SELF-STORAGE FACILITY ON LOT 2 MUST MEET THE PROVISIONS OF THE TOWN OF GRAY SIGN ORDINANCE, CHAPTER 406, AND OBTAIN A SIGN PERMIT FROM THE CODE ENFORCEMENT OFFICER PRIOR TO INSTALLATION.
- 12. THE 10' BUFFER BENEFITING LOTS 2 AND 3 SHALL BE SUBJECT TO THE INSPECTION, MAINTENANCE AND HOUSEKEEPING PLAN AS SUBMITTED BY THE APPLICANT, IN ACCORDANCE WITH THE SUBMITTED LANDSCAPE PLAN AND SHALL REMAIN IN PLACE UNLESS REMOVAL IS SPECIFICALLY APPROVED BY THE GRAY PLANNING BOARD.

WAIVERS GRANTED:

- 1. SECTION 401.7.4.A & B: HIGH INTENSITY SOIL SURVEY.
- 2. SECTION 401.7.4.A & B: HYDROGEOLOGIC ASSESSMENT.
- 3. SECTION 401.13.4.E: SEPTIC ACCESS ON ABUTTING LOT.
- 4. SECTION 401.13.1.D STONE OR CONCRETE MONUMENTS.

APPROVED - GRAY PLANNING BOARD:

Table with columns for Chairperson and Date for the Gray Planning Board approval.



CURVE TABLE with columns: CURVE #, LENGTH, RADIUS, DELTA, CHORD BRNG, CHORD LENGTH. Lists curves C1 through C5 with their respective measurements.

DM ROMA CONSULTING ENGINEERS logo and contact information: P.O. BOX 1116, WINDHAM, ME 04062, (207) 591-5055.

Table with columns: REV, DATE, BY, DESCRIPTION. Tracks revisions from A to G, including plan review and permit issuance.

SUBDIVISION PLAN information for LEWISTON ROAD SUBDIVISION, including address (100 R. 100 LEWISTON ROAD, GRAY, MAINE) and agent (FOR: ODESSA PROPERTIES LLC, PO BOX 983, GRAY, ME 04039).

Project identification: 21062 JOB NUMBER, 1" = 30' SCALE, 6-1-2022 DATE, SHEET 3 OF 7, and SB-1 identifier.





**PLANNING BOARD/STAFF REVIEW COMMITTEE APPLICATION
TOWN OF GRAY MAINE**

PROPERTY TO BE DEVELOPED

Property Location/Address	104 Lewiston Rd.	Property Map/Lot	028-026-002
Zoning District		Lot Acreage	
Owner Name	Jason Manley	Tax Sheet	LJM Properties LLC
Owner Address	18 Boulder Dr. Gray, ME 04039	Owner Phone	207-310-1990

APPLICANT

* Name (IF different than owner)	Jake Manley	Contact Phone Number	207-310-1990
Mailing Address		Alternate Phone Number	
Mailing City/State/Zip		Fax Number	
Email Address			

AGENT/CONSULTANT

Name		Contact Phone Number	
Mailing Address		Alternate Phone Number	
Mailing City/State/Zip		Fax Number	
Email Address			

PROJECT

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

<input type="checkbox"/> Subdivision Sketch Plan Review Preliminary Plan Review (Major) Final Plan Review (Major) Minor <input checked="" type="checkbox"/> Site Plan Review Pre-Application Conference <input checked="" type="checkbox"/> <u>Minor</u> Major <input type="checkbox"/> Shoreland Zoning Permit	<input type="checkbox"/> Other (specify) Conditional Use Amendment Extension Workshop Contract Zone Request
---	---

Project Description / Comments:

* Applicant Signature		Date	3/20/2023
-----------------------	--	------	-----------



Date: May 23, 2022

To: J.P. Connolly, Senior Project Engineer
DM Roma Consulting Engineers
PO Box 1116
Windham, ME 04062

RE: Well location at 104 Lewiston Road, Gray

On May 19, 2022, I had a telephone conversation with Doug Webster, Planning Director of the Town of Gray, in order to better understand his concerns regarding a proposed well to serve the residence on lot 1. Mr. Webster described the site characteristics that cause him to question the viability of the lot for a residence.

Specifically, he observed the proposed well location shown on the Grading and Utility plan of 5-5-2022 could potentially be down gradient of Lewiston Road and both the proposed residential septic system and the septic system designed by Richard Sweet for the Cyr Auction Barn. In the absence of a hydrogeological study, which was waived by the Planning Board this project, I do not necessarily agree with this analysis.

To alleviate these concerns, an alternate location for the residential well is proposed on lot 2, at a higher elevation. The well location is depicted on the Grading and Utility Plan, dated 5-23-2022.

This alternate well site will alleviate the concerns of the viability of lot 3, as expressed by Mr. Webster. A future hydrogeologic study of the site conditions, soils and bedrock characteristics may demonstrate the viability of other well locations and should be available as an option for the developer.

In summary, the well location depicted on the Grading and Utility Plan of DM Roma, dated 5-23-2022 satisfies the concerns of lot viability as expressed by Doug Webster.


Mark Cenci, LG # 467



**Memo to Accompany the Re-design
of the Existing Septic System
at 104 Lewiston Road, Gray**

Date: May 16, 2022

To: J.P. Connolly
Senior Project Engineer
DM Roma Consulting Engineers
PO Box 1116
Windham, ME 04062

RE: Hydrogeology relative to road salt, well setbacks and wastewater disposal

Background information:

In 1990 Richard Sweet designed a First-Time subsurface wastewater disposal system to serve an auction hall. The system was designed to serve 200 persons using the facility. The design flow was assumed to be 5 gallons of water use per person per day. The disposal capacity is 1090 gpd, using the current values from the *Rules*.

The system was installed and has been used sporadically since. It is comprised of septic tank(s) with a liquid capacity of 2000 gallons and 72 high-capacity plastic chambers in an array of 12 rows with 6 chambers per row. The rows are stepped down at 3 inches per row. The system is in good working order, having been seldom used since installation.

With regard to setback requirements, the system is categorized as being between 1,000 and 2,000 gallons per day of wastewater disposal, which requires a water well setback of 200 feet. This setback requirement presents a challenge to the proposed use of the property as a subdivision into three lots, one of which will be a residence.

The proposed residence will need a water well. There is a requirement in Gray to maintain a setback of a minimum of 150 feet from a new well to a road right-of-way to protect the water

supply from salt intrusion from road maintenance. When combined with the requirement of the subsurface wastewater disposal rules to maintain a 200-foot separation between a water well and a septic system disposing 1090 gpd, there is no location on the proposed residential lot for the well. To resolve this problem, a reduction in the permitted use of the existing disposal area is proposed.

Hydrogeology of the Site:

On-site soil testing by Richard Sweet and Alex Finnemore is consistent and reveals the soils of the site to be well drained, very deep to bedrock and moderately deep to restrictive horizons in the subsoil. The soils are mapped as Paxton fine sandy loam on the *National Cooperative Soil Survey*.

These soil and bedrock conditions are somewhat favorable to the protection of groundwater in the bedrock aquifer, as potential contaminants are somewhat prevented from a rapid flow to the water in bedrock fractures. The hydrogeologic processes on such sites favor a slow migration of the contaminants through the topsoils and subsoils, where they are retarded onto soil particles, diluted by near-surface groundwater, bio-chemically altered by plants and animals, and shunted to wetlands and surface drainages atop the restrictive horizons.

The Relations Among Water Levels, Specific Conductance, and Depth of Bedrock Fractures in Four Road-Salt Contaminated Wells in Maine, 2007-9 by Charles W. Schalk and Nicholas W. Stasulis, (USGS Scientific Investigations Report 2012-5205) provides a good summary of the problems of water wells in Maine affected by road salt. Whereas Paxton and other basal till soils offer protection to the bedrock aquifer from road salt, elevated chloride in soils persists and increases over time and can penetrate to the bedrock surface. They note that sodium readily attaches to soil particles but chloride is mobile in groundwater. The distance of wind borne and splash effects of chloride is measured to be as much as 120 feet, which seems pertinent to State Route 100 and the speed of vehicles there. Whereas a required setback of 150 feet from a road to a well may be excessive in a dead-end subdivision road that receives relatively less road salt, the setback from Route 100 may be appropriate.

Given the difficulty and inconclusiveness of a predictive study of the effects of road salt on a water well located closer to Route 100 than 150 feet, it seems more appropriate to review the installed septic system, its history of use and the proposed future with regard to that setback requirement.

Re-permitting of the Existing Septic System


The current use of the facility is an agricultural operation with two employees. The facility does not dispose of process water into the septic system. As such, the septic system is oversized for

the current use. This is a fortunate situation as prolonged use at the design flow deteriorates any septic system.

This system can be re-permitted for a design flow less than 1000 gallons per day, thereby reducing the required setback to the proposed residential water well to a minimum of 100 feet. Enclosed is a revised HHE-200 for the permit process. A restriction can be added to the deed of Lot 3 to limit the water use of the facility to less than 1000 gallons of per day. This is equivalent to 83 employees using 12 gpd each.

Conclusions:

Because the existing septic system serving 104 Lewiston Road is a modern design, installed correctly and permitted by the Town, it makes sense to continue using it. The original use is no longer valid and the system is oversized. The 200-foot water well setback is not pertinent or needed for the current and proposed use of this system. The system can be re-permitted for a lower gallons per day use, thereby allowing a reduced setback to a water well to serve a residence. In this way the 150-foot water well setback to Route 100 can be maintained, as the possible effects of road salt on a water well is much less understood and difficult to predict. A revised HHE-200 is enclosed.



Mark Cenci, LSE, LG

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Div of Environmental Health, 11 SHS
(207) 287-5672 Fax: (207) 287-4172

PROPERTY LOCATION

>> CAUTION: LPI APPROVAL REQUIRED <<

City, Town, or Plantation: GRAY
Street or Road: 104 LEWISTON ROAD
Subdivision, Lot #: LOT 3

Town/City: _____ Permit #: _____
Date Permit Issued: 1/1 Fee: \$ _____ Double Fee Charged []

OWNER/APPLICANT INFORMATION

Name (last, first, MI): ODESSA PROPERTIES, LLC Owner Applicant
Mailing Address of Owner/Applicant: P.O. BOX 963 GRAY, ME 04039
Daytime Tel. #: _____

Local Plumbing Inspector Signature: _____ L.P.I. #: _____
 Owner Town State

The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map #: _____ Lot #: _____

OWNER OR APPLICANT STATEMENT

I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.

Signature of Owner or Applicant: _____ Date: _____

CAUTION: INSPECTION REQUIRED

I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. (1st) date approved _____

Local Plumbing Inspector Signature: _____ (2nd) date approved _____

PERMIT INFORMATION

TYPE OF APPLICATION

1. First Time System
 2. Replacement System
Type replaced: _____
Year installed: _____
 3. Expanded System
 a. <25% Expansion
 b. >25% Expansion
 4. Experimental System
 5. Seasonal Conversion

THIS APPLICATION REQUIRES

1. No Rule Variance
 2. First Time System Variance
 a. Local Plumbing Inspector Approval
 b. State & Local Plumbing Inspector Approval
 3. Replacement System Variance
 a. Local Plumbing Inspector Approval
 b. State & Local Plumbing Inspector Approval
 4. Minimum Lot Size Variance
 5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS

1. Complete Non-engineered System
 2. Primitive System (graywater & alt. toilet)
 3. Alternative Toilet, specify: _____
 4. Non-engineered Treatment Tank (only)
 5. Holding Tank, _____ gallons
 6. Non-engineered Disposal Field (only)
 7. Separated Laundry System
 8. Complete Engineered System (2000 gpd or more)
 9. Engineered Treatment Tank (only)
 10. Engineered Disposal Field (only)
 11. Pre-treatment, specify: _____
 12. Miscellaneous Components

TYPE OF WATER SUPPLY

1. Drilled Well 2. Dug Well 3. Private
 4. Public 5. Other

SIZE OF PROPERTY

70,395 SQ. FT. 1.6 ACRES

DISPOSAL SYSTEM TO SERVE

1. Single Family Dwelling Unit, No. of Bedrooms: _____
 2. Multiple Family Dwelling, No. of Units: _____
 Other: AGRICULTURE / MANUFACTURING
(specify)
Current Use Seasonal Year Round Undeveloped

SHORELAND ZONING

Yes No

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK

1. Concrete USE EXISTING TANK(S)
 2. Regular
 b. Low Profile
 2. Plastic
 3. Other: _____
CAPACITY: 2000 GAL.

DISPOSAL FIELD TYPE & SIZE

1. Stone Bed 2. Stone Trench
 3. Proprietary Device
 a. cluster array Linear
 b. regular load d. H-20 load
 4. Other: _____
SIZE: 3000 sq. ft. 11 in. ft.

GARBAGE DISPOSAL UNIT

1. No 2. Yes 3. Maybe
If Yes or Maybe, specify one below:
 a. multi-compartment tank
 b. _____ tanks in series
 c. increase in tank capacity
 d. Filter on Tank Outlet

DESIGN FLOW

999 gallons per day
BASED ON:
 1. Table 4A (dwelling unit(s))
 2. Table 4C (other facilities)
83 EMPLOYERS AT 12 GPD EACH
 3. Section 4G (meter readings)
ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS

PROFILE CONDITION: 31 C
at Observation Hole # TR1
Depth 19"
of Most Limiting Soil Factor

DISPOSAL FIELD SIZING

1. Medium---2.6 sq. ft. / gpd
 2. Medium---Large 3.3 sq. ft. / gpd
 3. Large---4.1 sq. ft. / gpd
 4. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP

1. Not Required
 2. May Be Required
 3. Required
Specify only for engineered systems:
DOSE: _____ gallons

LATITUDE AND LONGITUDE

at center of disposal area
Lat. 43 d 54 m 18 s 94
Lon. 70 d 19 m 33 s 00
if g.p.s, state margin of error: _____

SITE EVALUATOR STATEMENT

I certify that on 5-16-22 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system complies with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

Site Evaluator Signature: _____

Site Evaluator Name Printed: MARK CENCI

SE #: 262

Telephone Number: 329-3524

E-mail Address: _____

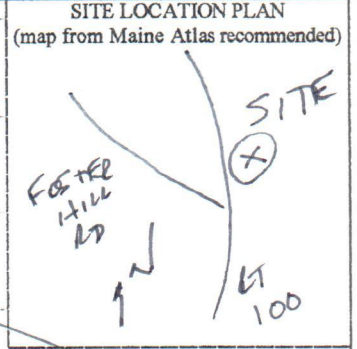
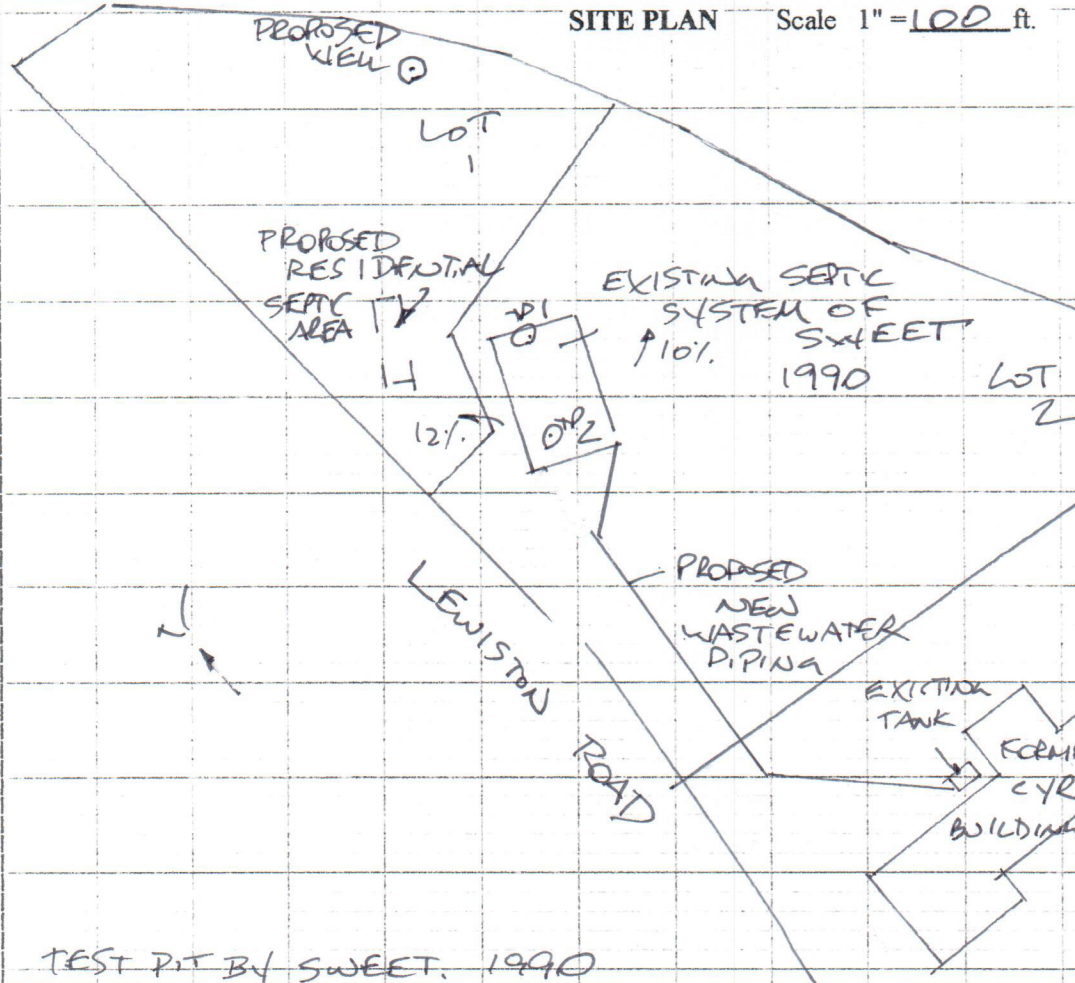
Date: 5-16-22

Note: Changes to or deviations from the design should be confirmed with the Site Evaluator.

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Department of Human Services
Division of Health Engineering, Station 10
(207) 287-5872 Fax: (207) 287-3165

Town, City, Plantation GRAY Street, Road, Subdivision 104 LEWISTON ROAD Owner or Applicant Name ODESSA PROPERTIES



SOIL PROFILE DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole # TP-1 Test Pit Boring

Depth of organic horizon above mineral soil _____"

Texture	Consistency	Color	Mottling
0		DARK BROWN	
6		RED	
12	FRIABLE	OLIVE	
18		OLIVE GRAY	Few
24	FIRM		
30	LIMIT		
36			
42			
48			

Soil Profile <u>3</u>	Classification <u>C</u>	Slope Percent <u>4</u>	Limiting Factor Depth <u>19</u>	<input checked="" type="checkbox"/> Groundwater
				<input type="checkbox"/> Restrictive Layer
				<input type="checkbox"/> Bedrock
				<input type="checkbox"/> Pit Depth

Observation Hole # TP-2 Test Pit Boring

Depth of organic horizon above mineral soil _____"

Texture	Consistency	Color	Mottling
0			
6			
12			
18			
24			
30			
36			
42			
48			

Soil Profile <u>3</u>	Classification <u>C</u>	Slope Percent _____	Limiting Factor Depth <u>21</u>	<input checked="" type="checkbox"/> Groundwater
				<input checked="" type="checkbox"/> Restrictive Layer
				<input type="checkbox"/> Bedrock
				<input type="checkbox"/> Pit Depth

Site Evaluator Signature _____ SE # 262 Date 5-16-22 Page 2 of 3 HHE-200 Rev. 10/02

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Department of Human Services
 Division of Health Engineering, Station 10
 (207) 287-5672 Fax: (207) 287-3165

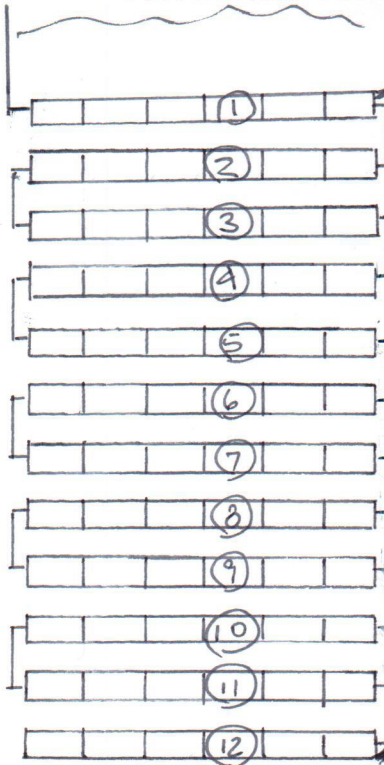
Town, City, Plantation **GRAY**

Street, Road, Subdivision **104 LEWISTON ROAD**

Owner or Applicant Name **ODESSA PROPERTIES**

SUBSURFACE WASTEWATER DISPOSAL PLAN

Scale: 1" = 20 ft



EXISTING 72
 HIGH CAPACITY
 PLASTIC CHAMBERS
 12 ROWS OF 6 CHAMBERS
 STEPPED DOWN 3"
 PER ROW SEPARATED
 BY 3' OF SAND.
 SERIAL DISTRIBUTION

RT
 100

96'

EXISTING
 FILL EXTENSION

BACKFILL REQUIREMENTS

CONSTRUCTION ELEVATIONS

ELEVATION REFERENCE POINT

Depth of Backfill (upslope) 16"
 Depth of Backfill (downslope) 23"

Finished Grade Elevation (at Row 1) _____
 Top of Proprietary Device (at Row 1) _____
 Bottom of Disposal Field (at Row 1) _____

Location & Description: SYSTEM IS INSTALLED
 Reference Elevation is 0.0' of _____

DISPOSAL FIELD CROSS SECTION

Scales:

Vertical: 1" = 10
 Horizontal: 1" = 10

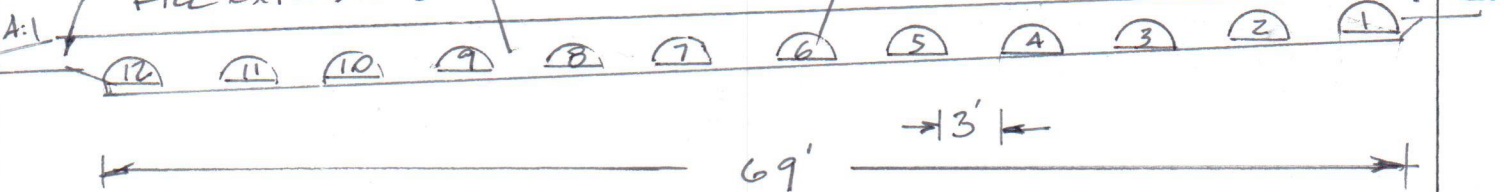
CHAMBER ROWS STEP
 DOWN 3" PER ROW

12 ROWS OF
 HIGH CAPACITY
 PLASTIC CHAMBERS
 15" HIGH
 3' X 6' EACH

EXISTING
 23" FILL
 AND
 FILL EXTENSIONS

3' SEPARATION
 BETWEEN ROWS

16" FILL



[Redacted Signature]

262

5-16-22

Site Evaluator Signature

SE #

Date

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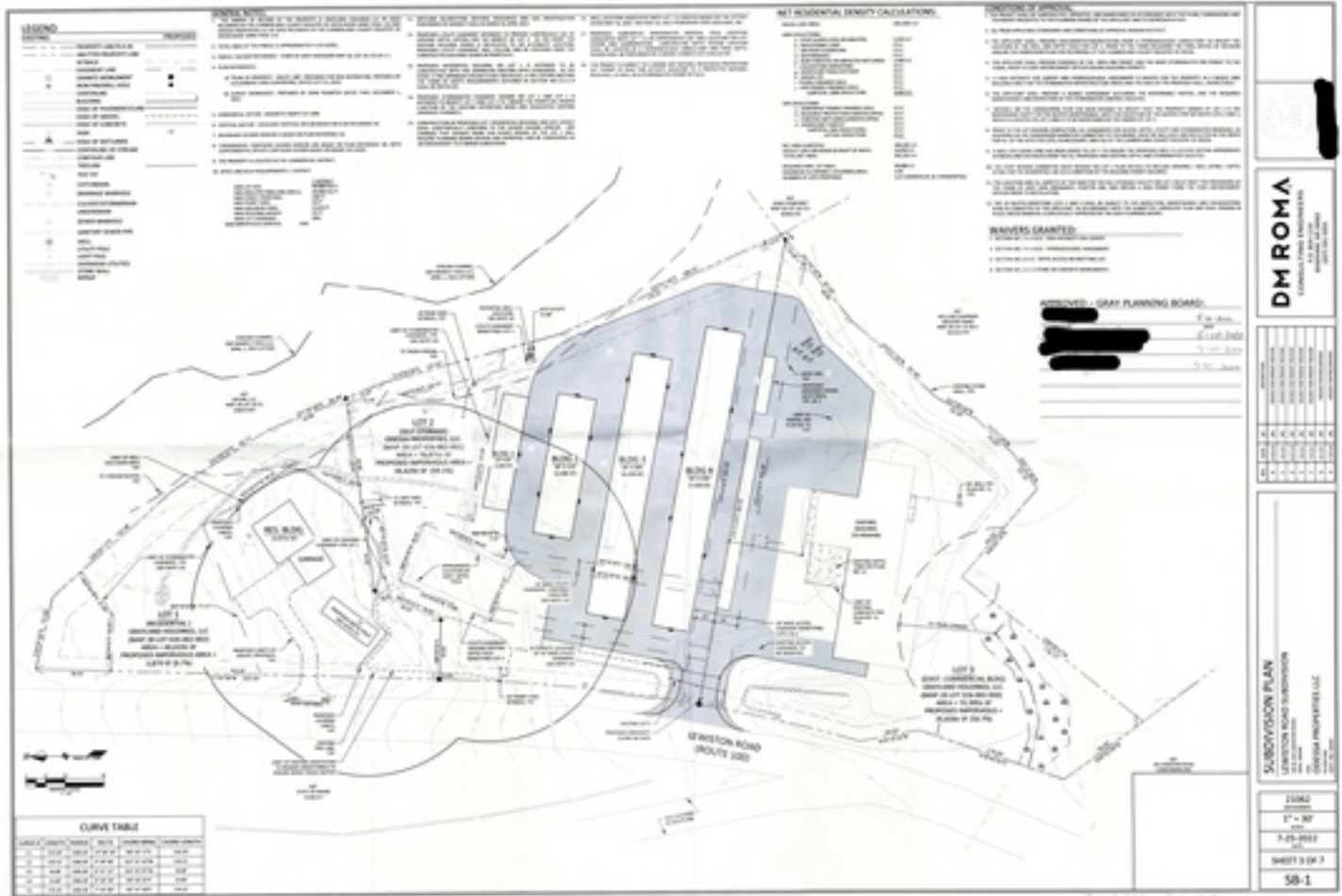
Drip Edge Sizing Calculations

WQV (Required) = 1.0"xImpervious Area + 0.4"xLandscaped Area

Void Ratio of Reservoir Layer 40%

Void Ratio of Filter Layer 30%

Building No.	Rooftop Flow Length to Dripedge (ft)	WQV (Required) (cf per 1' of roof length)	Dripedge Width (ft)	Reservoir Layer Depth (ft)	Filter Layer Depth (ft)	WQV (Required) (cf per 1' of roof width)
Residential	18	1.50	2.00	1.50	0.50	1.50
Self-storage	10	0.83	2.00	1.50	0.50	1.50



DM ROMA
 CONSULTING ENGINEERS & ARCHITECTS
 1000 10th Street, NW
 Atlanta, GA 30309
 (404) 525-1234

SUBDIVISION PLAN
 LINDSEY ROAD SUBDIVISION
 1000 10th Street, NW
 Atlanta, GA 30309
 (404) 525-1234

2002
 1" = 50'
 7-25-2002
 SHEET 3 OF 7
 58-1