

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



KINGFIELD MAINTENANCE SALT BUILDING

SPECIFICATIONS

Design:
-International Building Code 2009
-ACI 318-14

DESIGN LOADING

Live Load Impact of 30,000lb Vehicle
Ground Snow Load 100psf
Wind Velocity 100mph
General Exposure Category 'C', Risk Category I

MATERIALS

Reinforcing Steel ASTM A615, Grade 60, Epoxy Coated
Structural Steel:
All Material (U.N.O.) ASTM A36, Grade 36, Galvanized

BASIC DESIGN STRESSES

Concrete $f'c = 4,000$ psi
Reinforcing Steel $f_y = 60,000$ psi

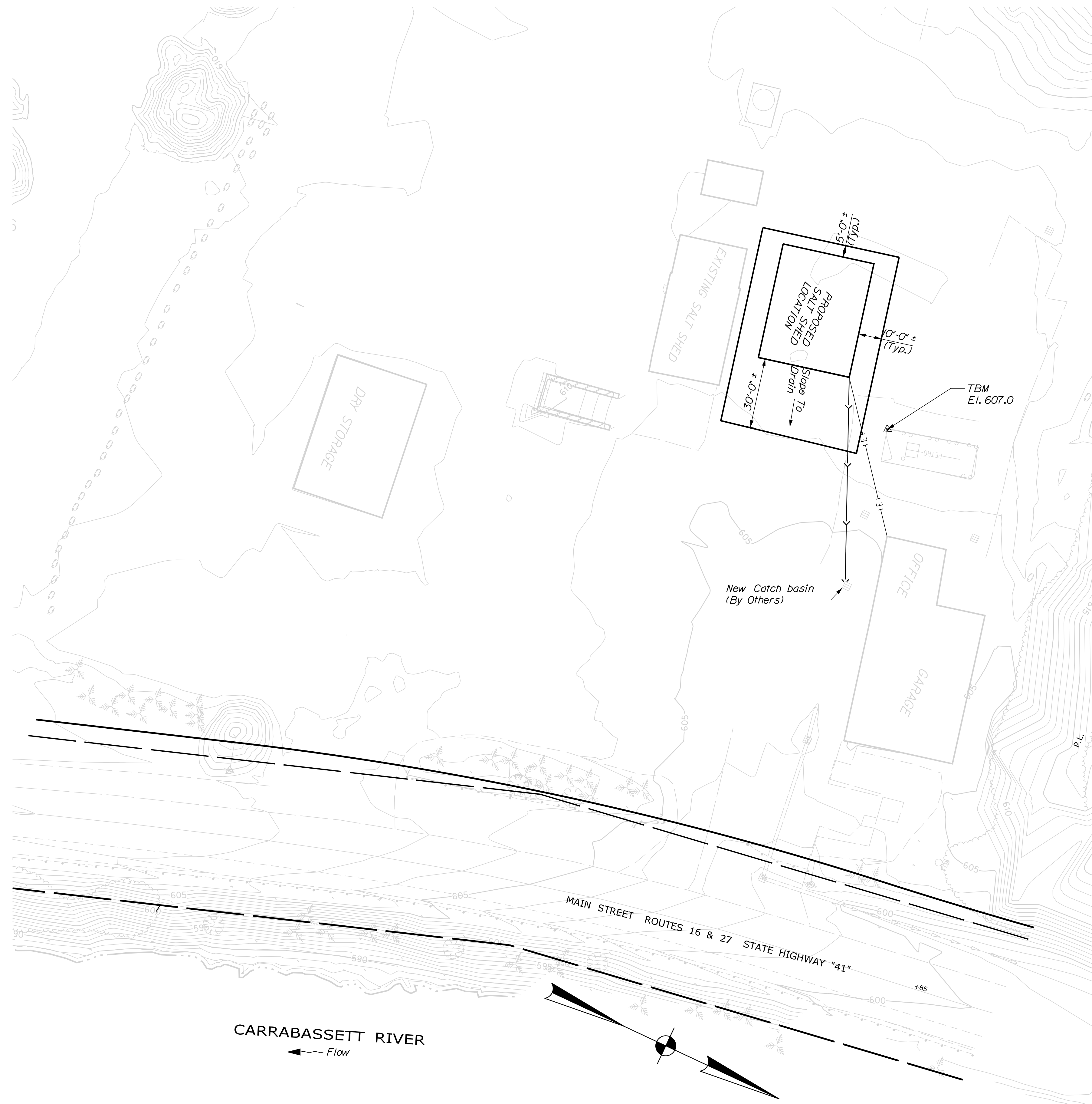
LIST OF DRAWINGS

Title Sheet	1
General Site Plan	2
Foundation Plan	3
Foundation Reinforcing Plan	4
East & West Sidewall Dimensional Details	5
East & West Sidewall Reinforcing Details	6
North (Front) Wall Dimensional Details	7
North (Front) Wall Reinforcing Details	8
South (Back) Wall Dimensional Details	9
South (Back) Wall Reinforcing Details	10
Typical Framing Details	11
North & South End Wall Framing Details	12
Electrical Plan	13

<u>PROJECT LOCATION:</u>	558 Main Street Kingfield, Maine 04947
<u>PROGRAM AREA:</u>	Highway Maintenance Program
<u>OUTLINE OF WORK:</u>	Construction of Salt Storage Building

WIN027221.00

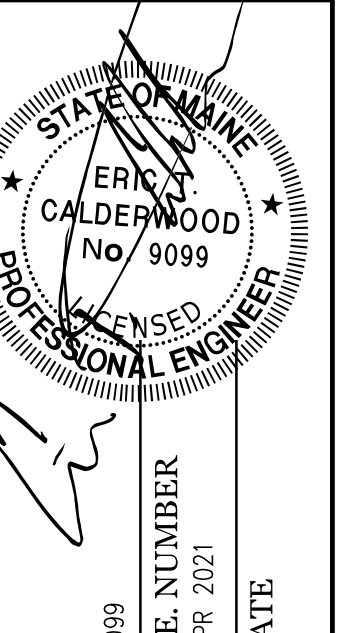
	SIGNATURE 9099 P. E. NUMBER APR 2021 DATE	APPROVED <i>[Signature]</i> COMMISSIONER CHIEF ENGINEER: <i>[Signature]</i>	STATE OF MAINE DEPARTMENT OF TRANSPORTATION DATE 10/8/21 B-12-2021
PROJECT INFORMATION PROGRAM: PROJECT MANAGER: P. MARTIN DESIGNER: CALDERWOOD ENGINEERING CONSULTANT: PROJECT RESIDENT CONTRACTOR: PROJECT COMPLETION DATE		KINGFIELD MAINTENANCE SALT BUILDING TITLE SHEET	
SHEET NUMBER 1		OF 13	



NOTES:

- 1.) Pavement Damaged Due To Excavation And Construction Is To Be Replaced By Contractor At No Additional Cost To Maine Dot.
- 2.) Underdrain Termination Will Be Located Approximately 85' Northeast Of The Northeast Corner Of The Proposed Salt Shed. Underdrain Termination To Be In Proposed Catch Basin As Shown.
- 3.) Contractor Will Be Required To Excavate, Supply, Install, Backfill And Compact Per National Electrical Code (Nec) Up To 300 Ft. Of Schedule 80, 2" ϕ Conduit. The Actual Location, Orientation, And Placement Of The Conduit Shall Be Determined By The Resident Engineer. The Contractor Will Be Required To Provide And Pull 3 Runs Of 1/0 Aluminum Cable And 1 Run Of #6 Aluminum Ground Cable From The Load Center Of The New Building. Payment For Electrical Supply, Conduit Installation And Related Work Shall Be Considered Incidental To The Salt Shed Building.
- 4.) Payment For Excavation And Backfill, Including Gravel, Shall Be Considered Incidental To Salt Shed Building.
- 5.) During Construction, If It Is Determined That There Is Excavation Material Suitable For Reuse, The Contractor May Use The Excavated Material For Backfill As Approved By The Resident. All Excavated Material Unsuited For Reuse Shall Be Stock Piled On Site For Future Use. Exact Location Of Stock Pile Shall Be Determined In The Field By The Resident.
- 6.) Building Location And Elevations Shown Are Approximate. Exact Location Of Building And Elevations To Be Determined In Field By Resident
- 7.) All Steel Shown In Plans Shall Be Galvanized Unless Noted Otherwise.

CALDERWOOD ENGINEERING, ETC.
 STRUCTURAL ENGINEERING • DETAILING SERVICES
 222 RIVER RD. RICHMOND, ME 04357 PH/FX (207) 737-2007/(207) 737-2008
 PREPARED FOR: **STATE OF MAINE DOT**
KINGFIELD, ME SALT SHED
 WIN 027221.00

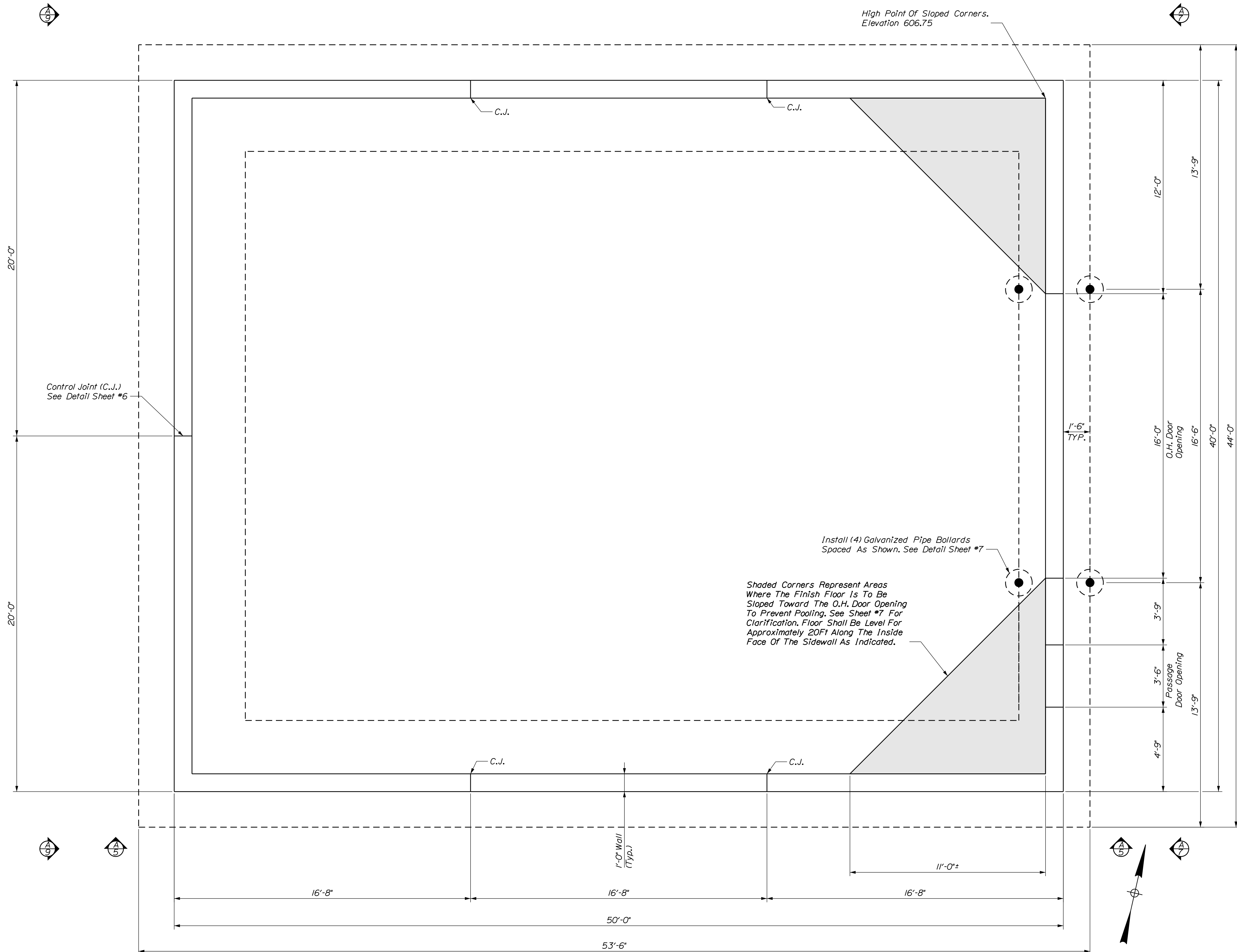


DESIGN-DETAILED	DATE	BY
CHECKED-REVIEWED	APR 2021	B/C PAM
REVISIONS 1	APR 2021	
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

KINGFIELD MAINTENANCE SALT BUILDING
GENERAL PLAN

SHEET NUMBER
2
 OF 13





High Point Of Sloped Corners.
Elevation 606.75

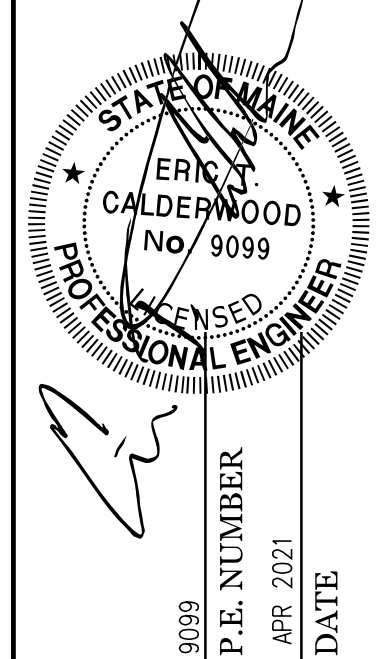
Control Joint (C.J.)
See Detail Sheet #6

Install (4) Galvanized Pipe Bollards
Spaced As Shown. See Detail Sheet #7

Shaded Corners Represent Areas
Where The Finish Floor Is To Be
Sloped Toward The O.H. Door Opening
To Prevent Pooling. See Sheet #7 For
Clarification. Floor Shall Be Level For
Approximately 20Ft Along The Inside
Face Of The Sidewall As Indicated.

FOUNDATION PLAN
3/8" = 1'-0"

CALDERWOOD ENGINEERING, ETC.
STRUCTURAL ENGINEERING • DETAILING SERVICES
222 RIVER RD. RICHMOND, ME 04357 PH/FX (207) 737-2007/(207) 737-2008
PREPARED FOR: STATE OF MAINE DOT
KINGFIELD, ME SALT SHED
WIN 027221.00



DESIGN/DETAILED	DATE	BY	DATE
CHECKED-REVIEWED	APR 2021	B/C PAM	APR 2021
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

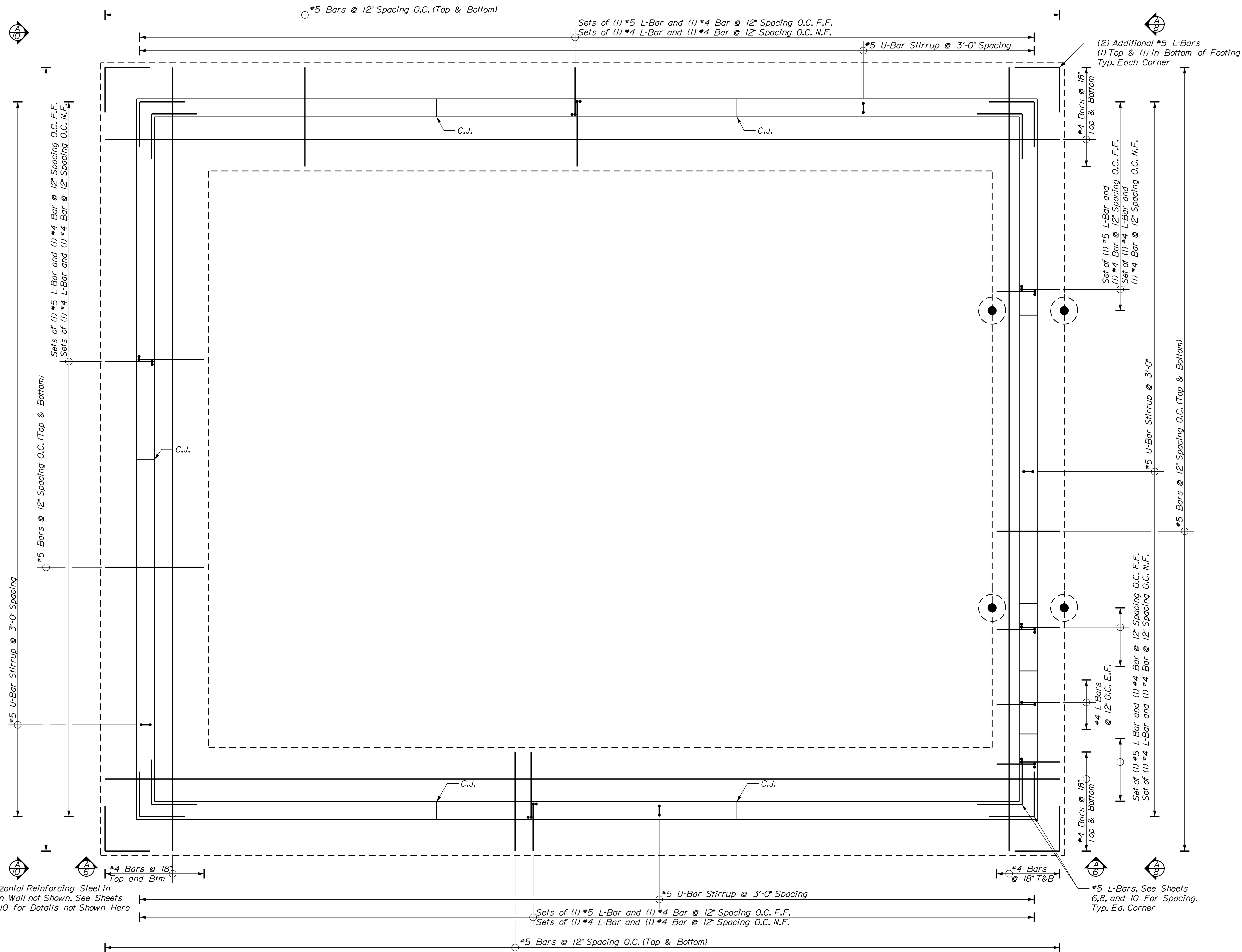
KINGFIELD MAINTENANCE
SALT BUILDING
FOUNDATION PLAN

SHEET NUMBER

3

OF 13

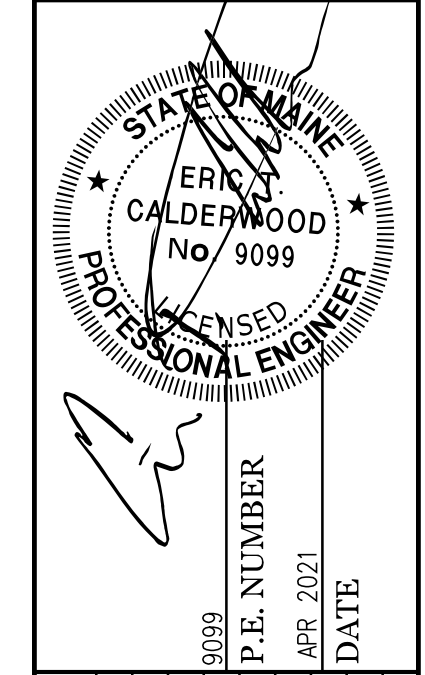




Note: Horizontal Reinforcing Steel in Foundation Wall not Shown. See Sheets 6, 8, and 10 for Details not Shown Here

FOUNDATION PLAN
3/8" = 1'-0"

CALDERWOOD ENGINEERING, ETC.
STRUCTURAL ENGINEERING • DETAILING SERVICES
222 RIVER RD. RICHMOND, ME 04357 PH: (207) 737-2007 (207) 737-2008
PREPARED FOR: STATE OF MAINE DOT
KINGFIELD, ME SALT SHED
WIN 027221.00

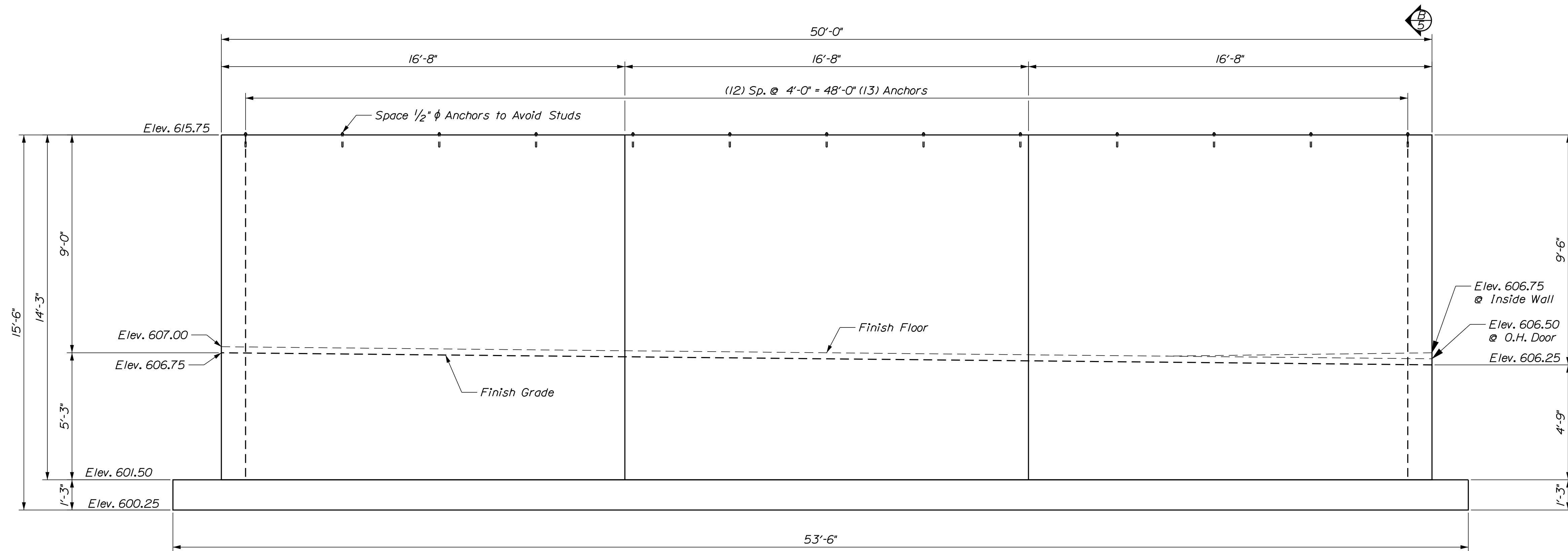


DATE	BY	REVISIONS
APR 2021	B/C	REVISIONS 1
APR 2021	P/M	REVISIONS 2
		REVISIONS 3
		REVISIONS 4
		FIELD CHANGES

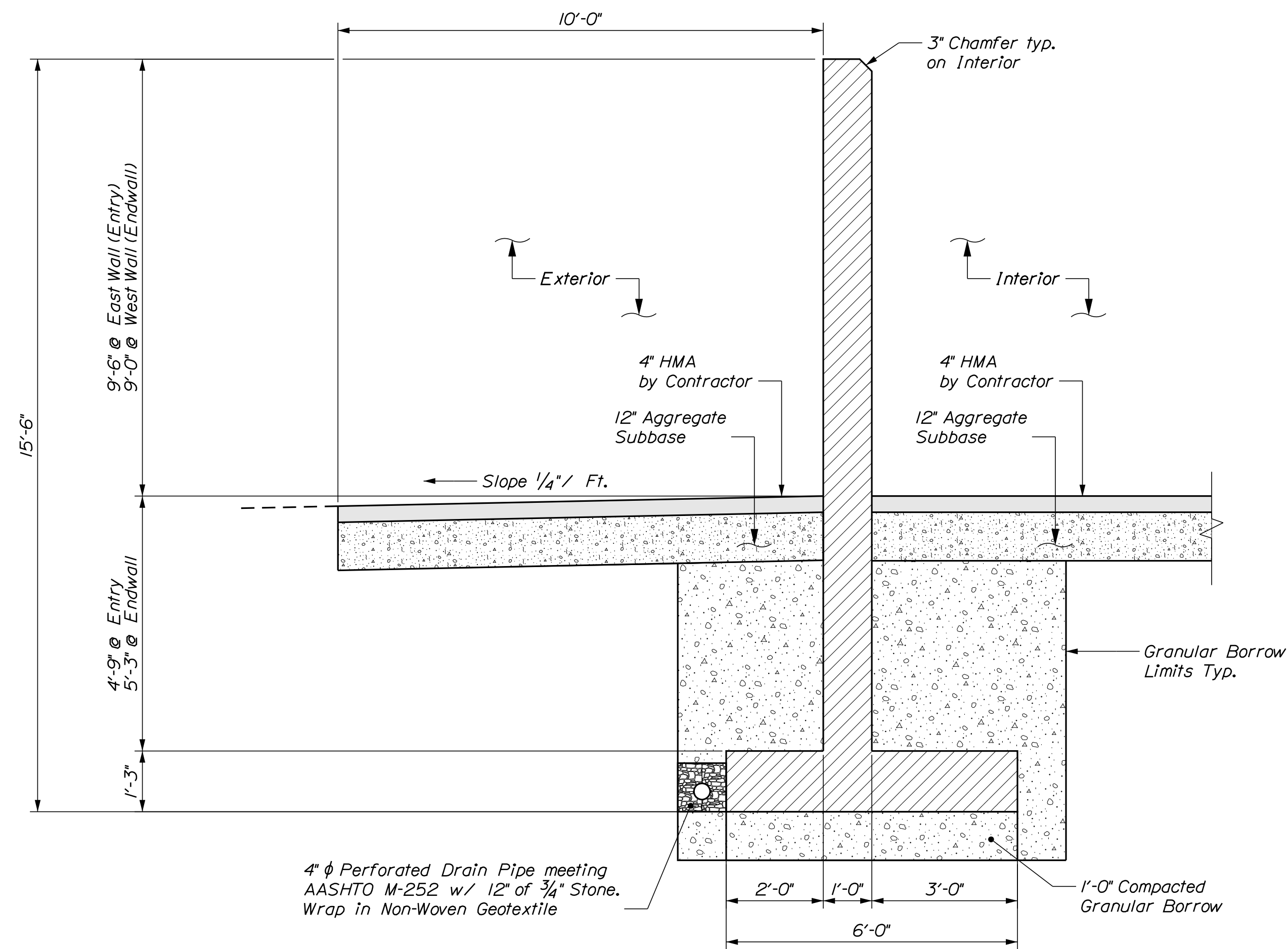
KINGFIELD MAINTENANCE
SALT BUILDING
FOUNDATION REINFORCING PLAN

SHEET NUMBER
4
OF 13



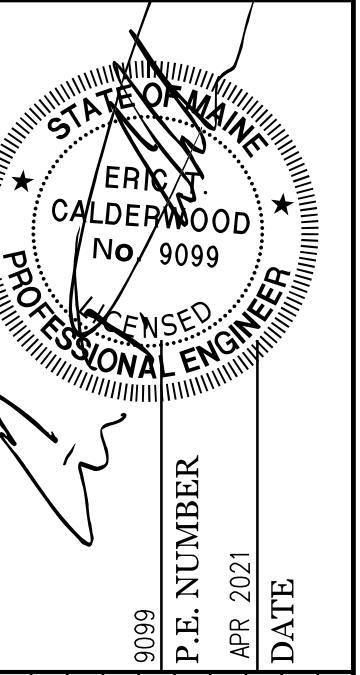


(A) SIDEWALL ELEVATION
 5 3/8" = 1'-0"



(B) SIDEWALL SECTION
 5 1/2" = 1'-0"

CALDERWOOD ENGINEERING, ETC.
 STRUCTURAL ENGINEERING • DETAILING SERVICES
 222 RIVER RD. RICHMOND, ME 04357 PH: (207) 737-2007 (207) 737-2008
 PREPARED FOR:
STATE OF MAINE DOT
 KINGFIELD, ME SALT SHED
 WIN 027221.00

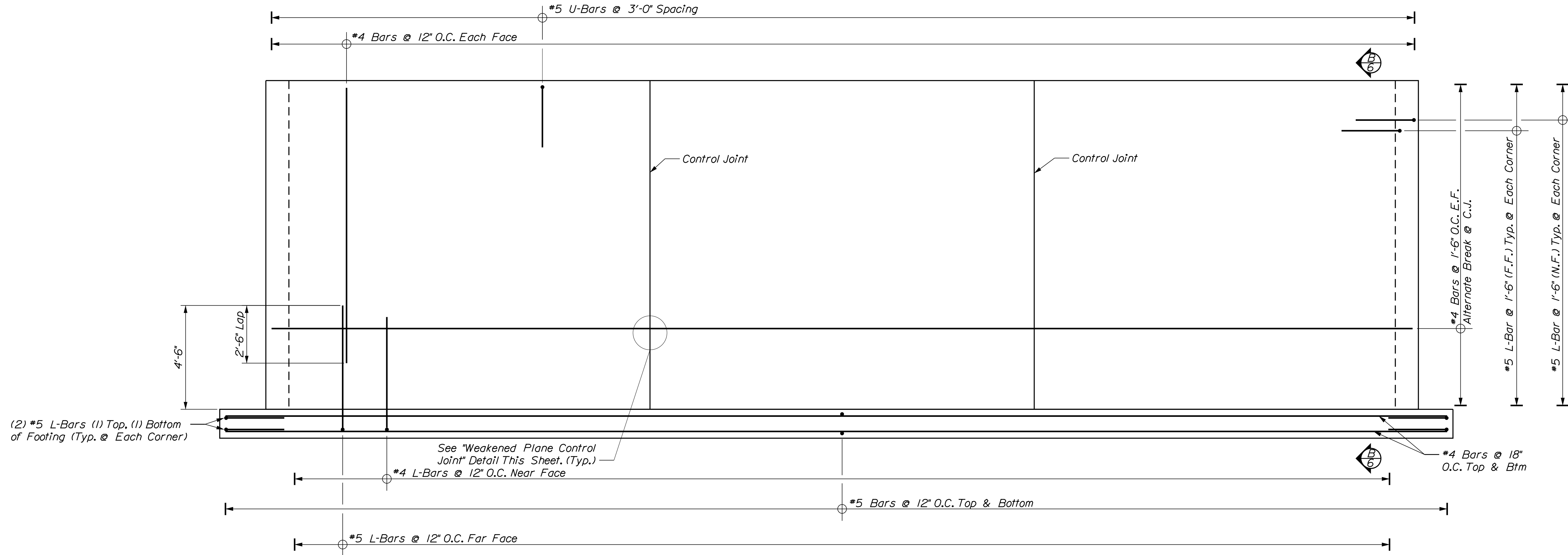


DATE	BY	REVISIONS
APR 2021	BAC	DESIGN-DETAILED
APR 2021	PAM	CHECKED-REVIEWED
		REVISIONS 1
		REVISIONS 2
		REVISIONS 3
		REVISIONS 4
		FIELD CHANGES

**KINGFIELD MAINTENANCE
 SALT BUILDING**
 NORTH & SOUTH SIDEWALL
 DIMENSIONAL DETAILS

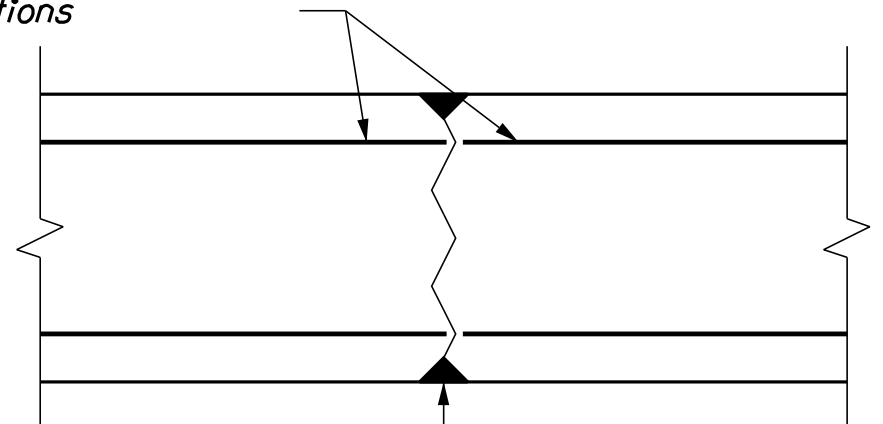
SHEET NUMBER
5
 OF 13





A SIDEWALL REINFORCING ELEVATION
 1/2" = 1'-0"

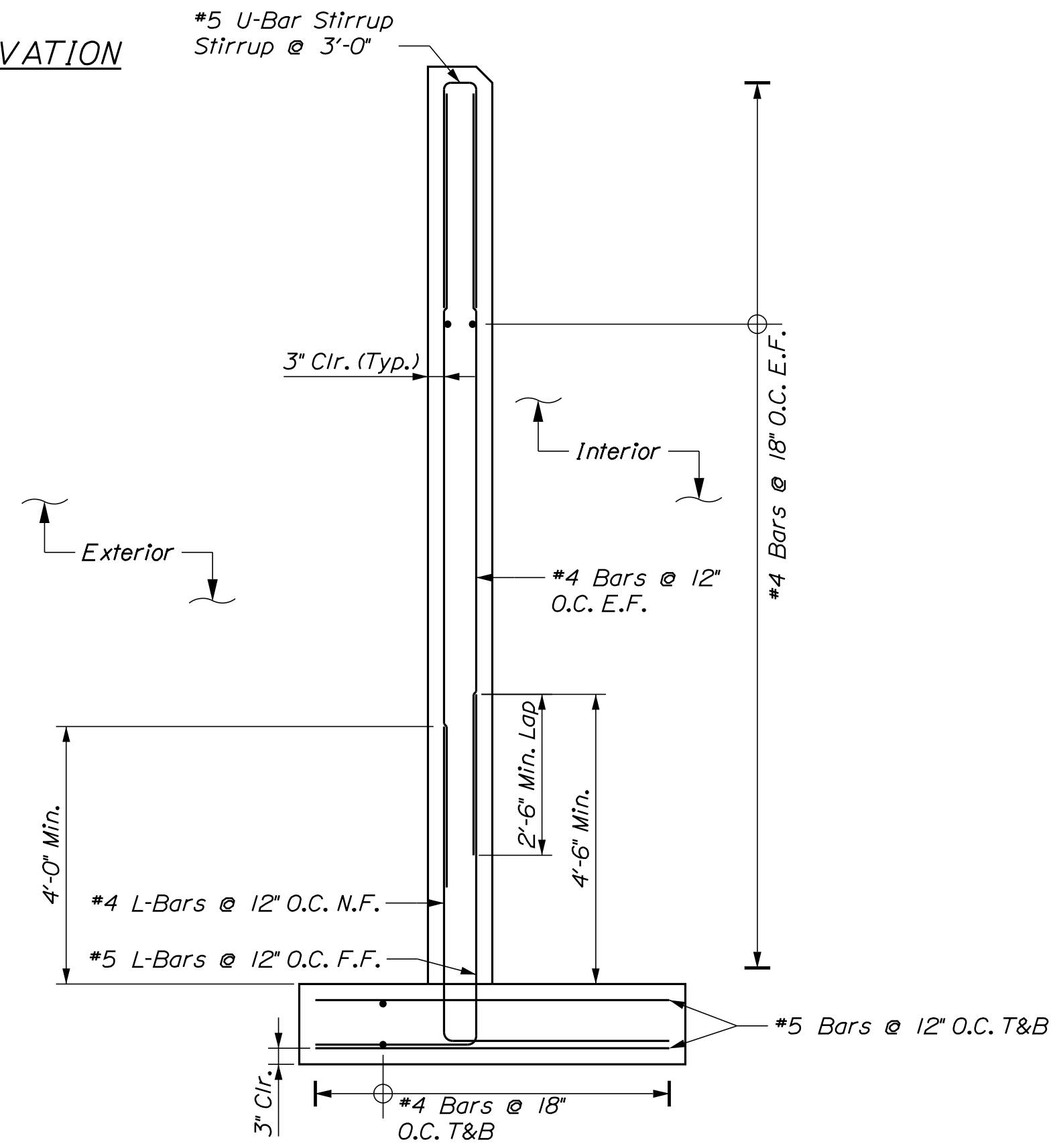
Cut or Butt Every Other Piece of Horizontal Reinforcing Steel @ Control Joint Locations



Install 1" Chamfer on Each Side of Wall Form for Full Height @ Control Joint Locations

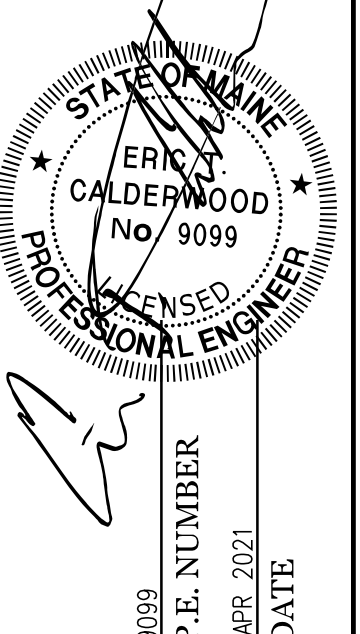
Clean Out Chamfer and Fill Joint Flush W/ Face of Wall Using Sikaflex 1A or Equivalent on the Inside Face of Wall and on the Outside Face From 6" Below Finish Grade to Top of Wall

WEAKENED PLANE CONTROL JOINT
 1/2" = 1'-0"



B SIDEWALL SECTION
 1/2" = 1'-0"

CALDERWOOD ENGINEERING, ETC.
 STRUCTURAL ENGINEERING • DETAILING SERVICES
 222 RIVER RD. RICHMOND, ME 04357 PH/FX (207) 737-2007/(207) 737-2008
 PREPARED FOR: STATE OF MAINE DOT
 KINGFIELD, ME SALT SHED
 WIN 027221.00



DATE	BY	DESIGN-DETAILED	CHECKED-REVIEWED	REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4	FIELD CHANGES
APR 2021	BAC							
APR 2021	PAM							

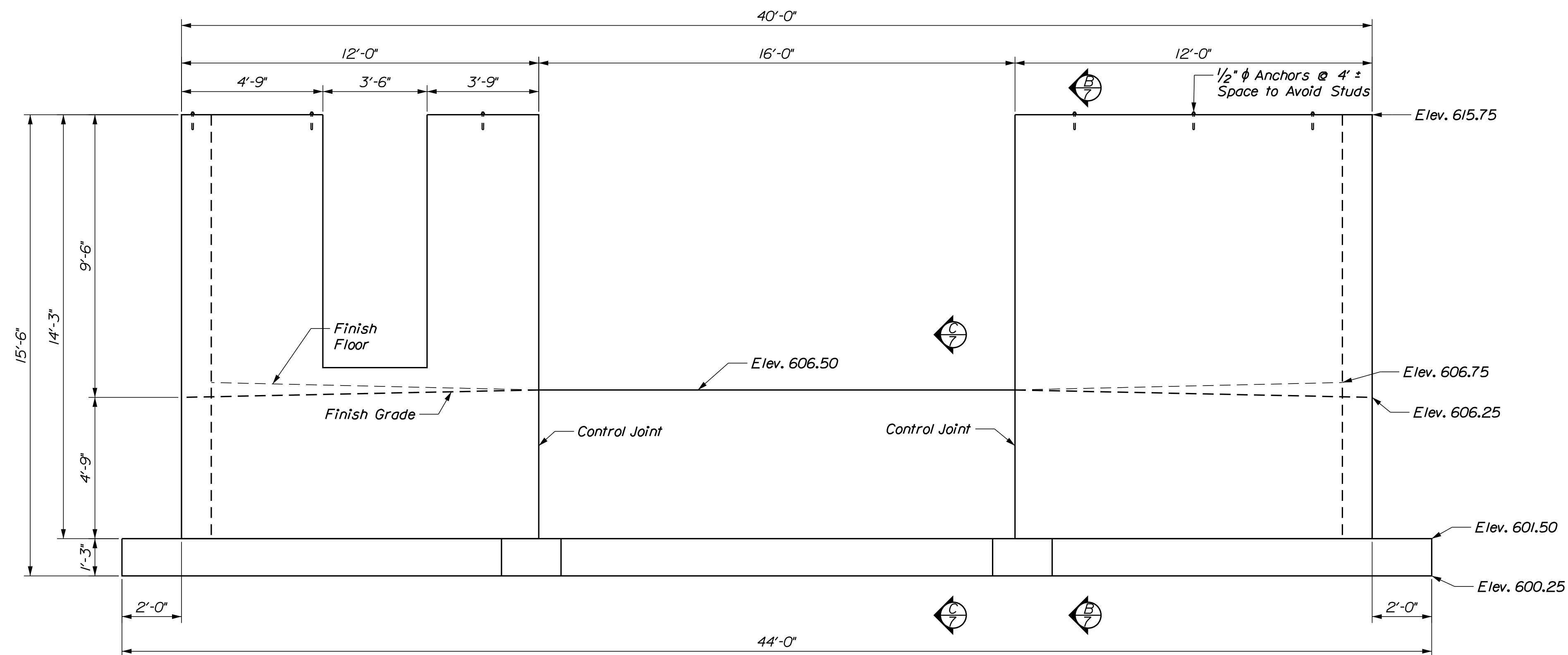
**KINGFIELD MAINTENANCE
 SALT BUILDING**
**NORTH & SOUTH SIDEWALL
 REINFORCING DETAILS**

SHEET NUMBER

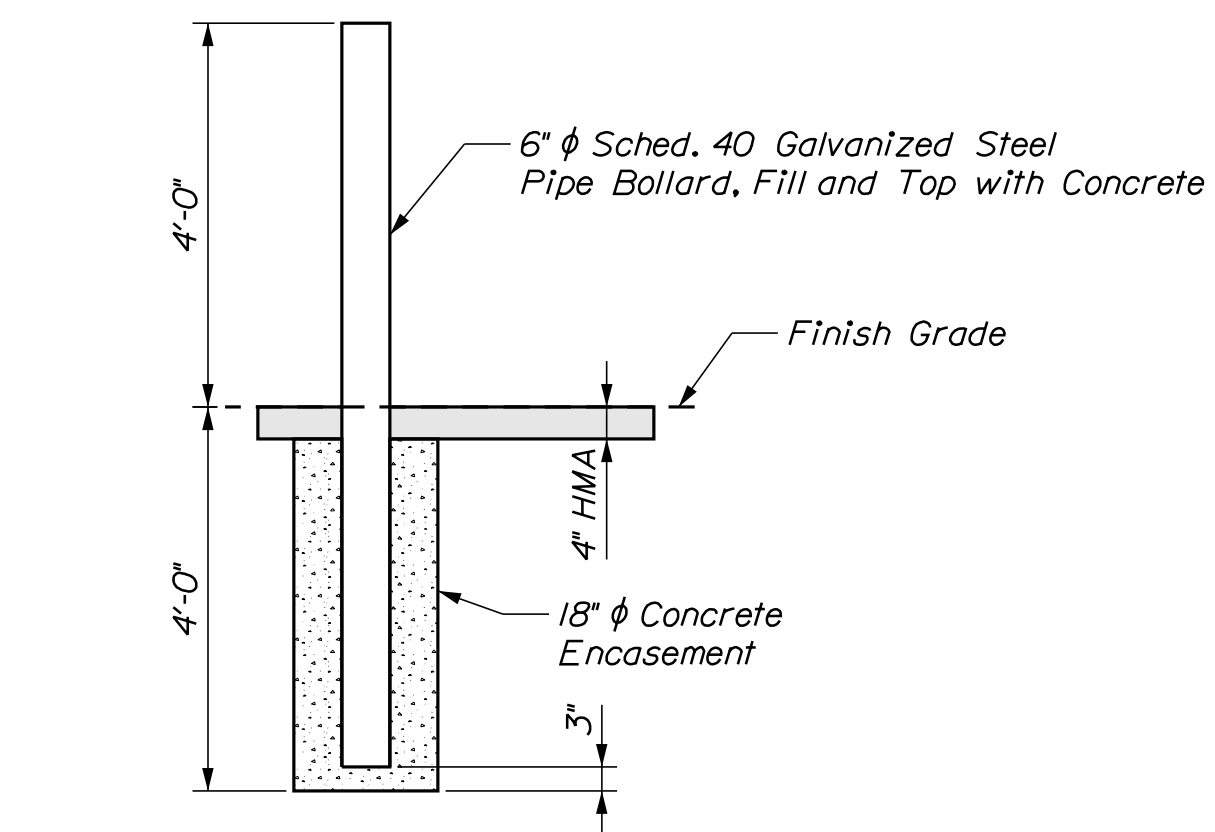
6

OF 13

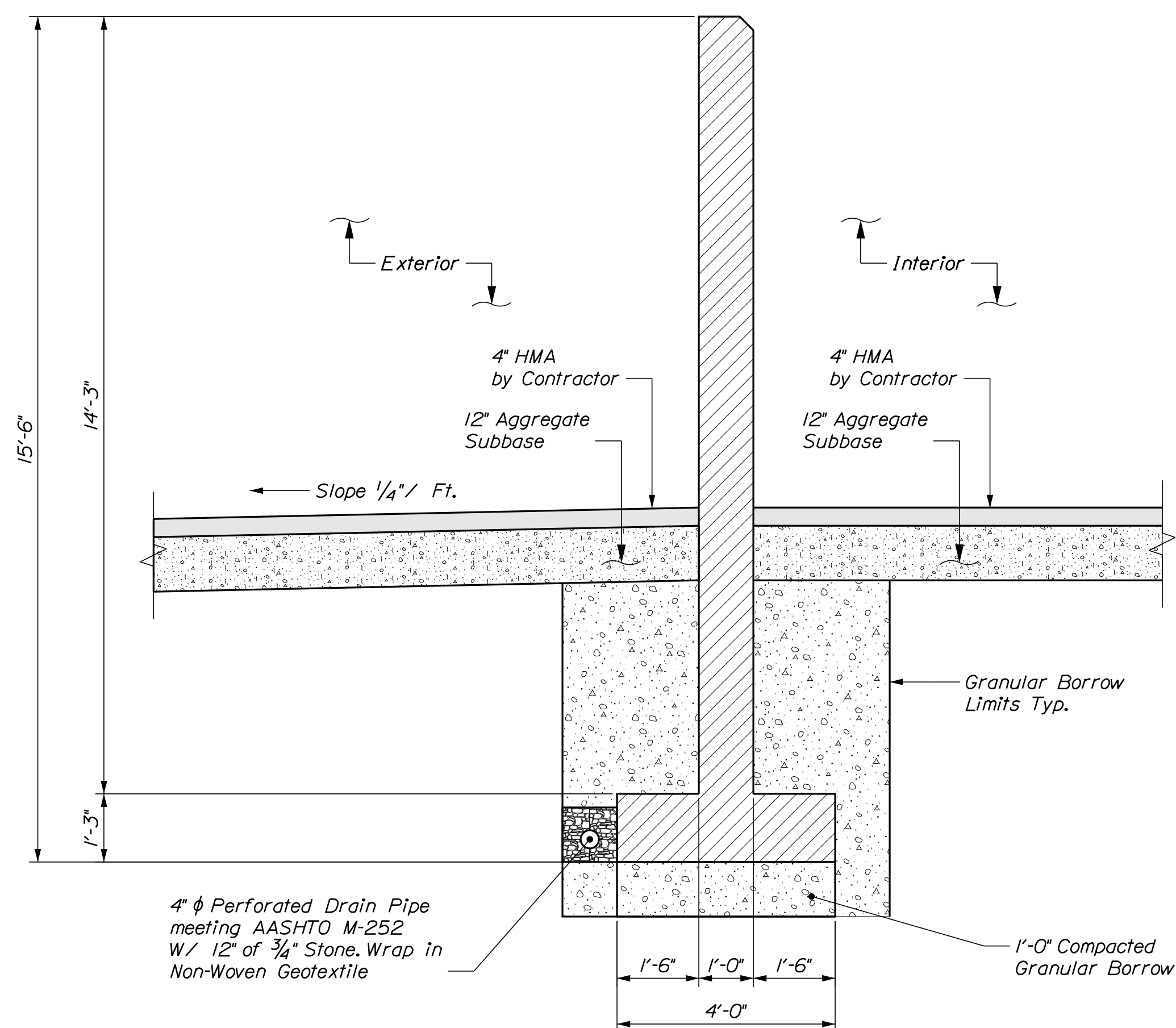




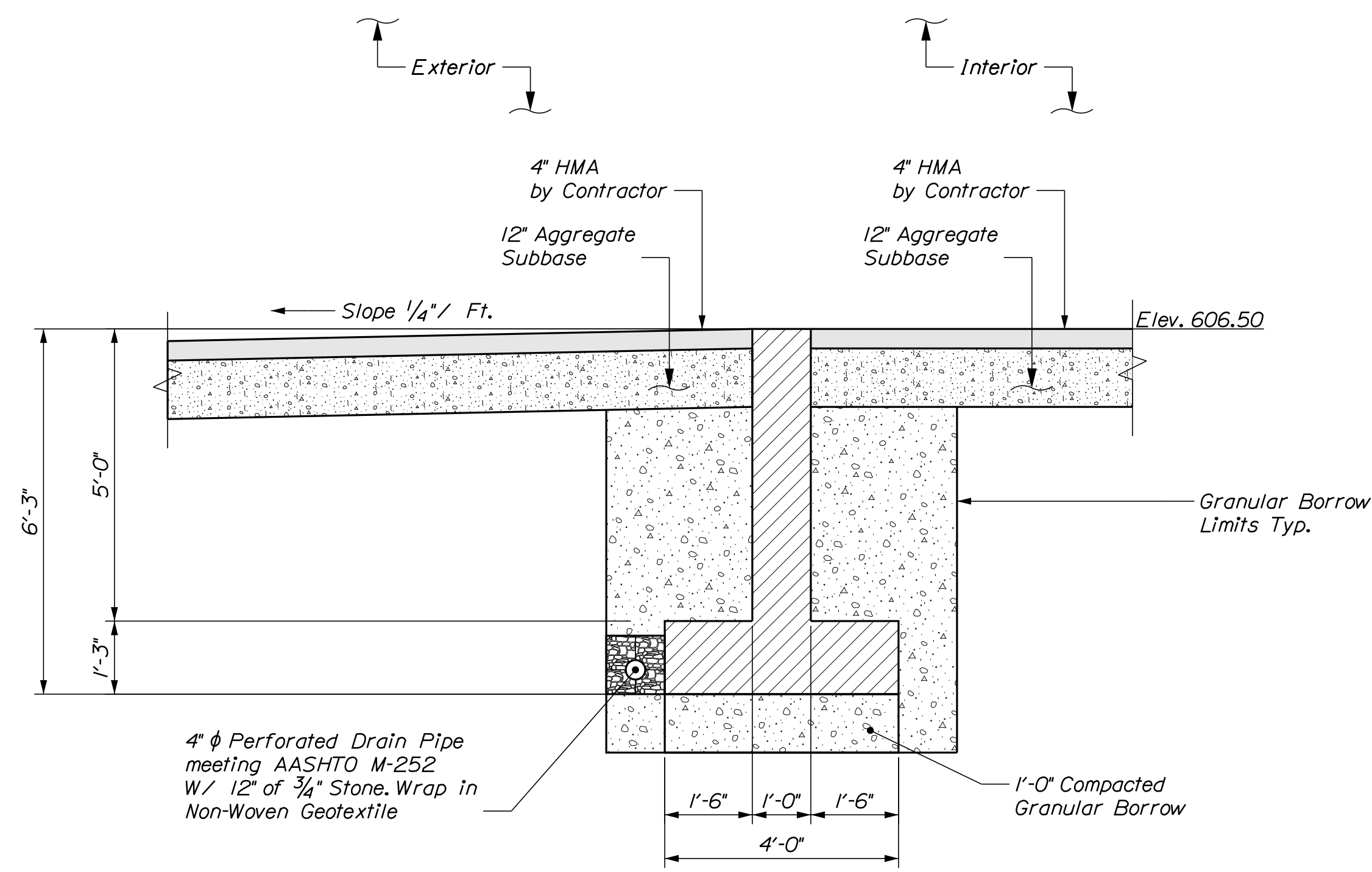
A FRONT WALL ELEVATION
 7/8" = 1'-0"



PIPE BOLLARD DETAIL
 1/2" = 1'-0"

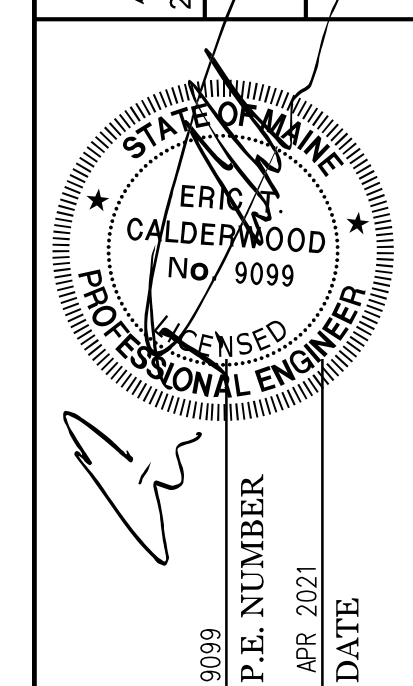


B FRONTWALL SECTION
 7/8" = 1'-0"



C SECTION @ OVERHEAD DOOR
 7/8" = 1'-0"

CALDERWOOD ENGINEERING, ETC.
 STRUCTURAL ENGINEERING • DETAILING SERVICES
 222 RIVER RD. RICHMOND, ME 04357 PH: (207) 737-2007 (207) 737-2008
 PREPARED FOR: STATE OF MAINE DOT
 KINGFIELD, ME SALT SHED
 WIN 027221.00



DATE	BY	REVISIONS
APR 2021	BUC	REVISIONS 1
APR 2021	PAM	REVISIONS 2
		REVISIONS 3
		REVISIONS 4
		FIELD CHANGES

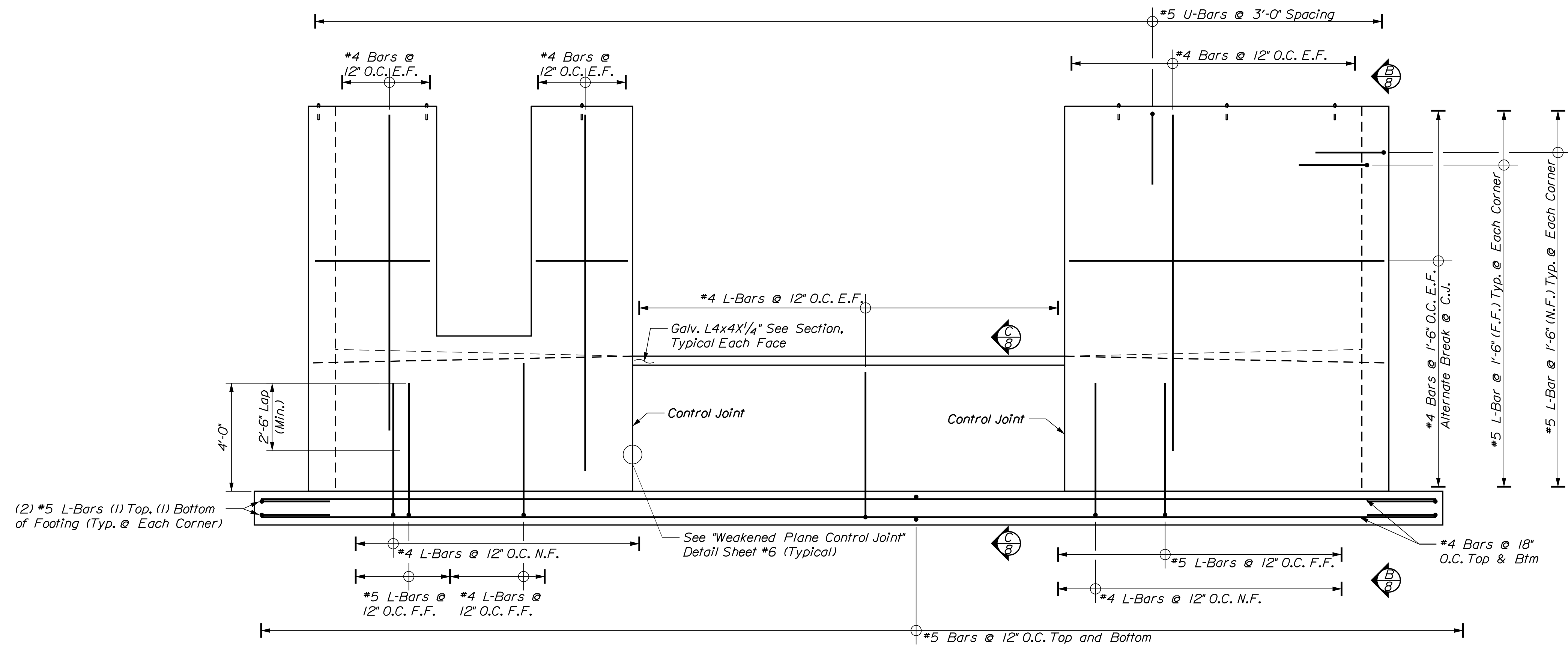
**KINGFIELD MAINTENANCE
 SALT BUILDING**
 EAST END WALL
 DIMENSIONAL DETAILS

SHEET NUMBER

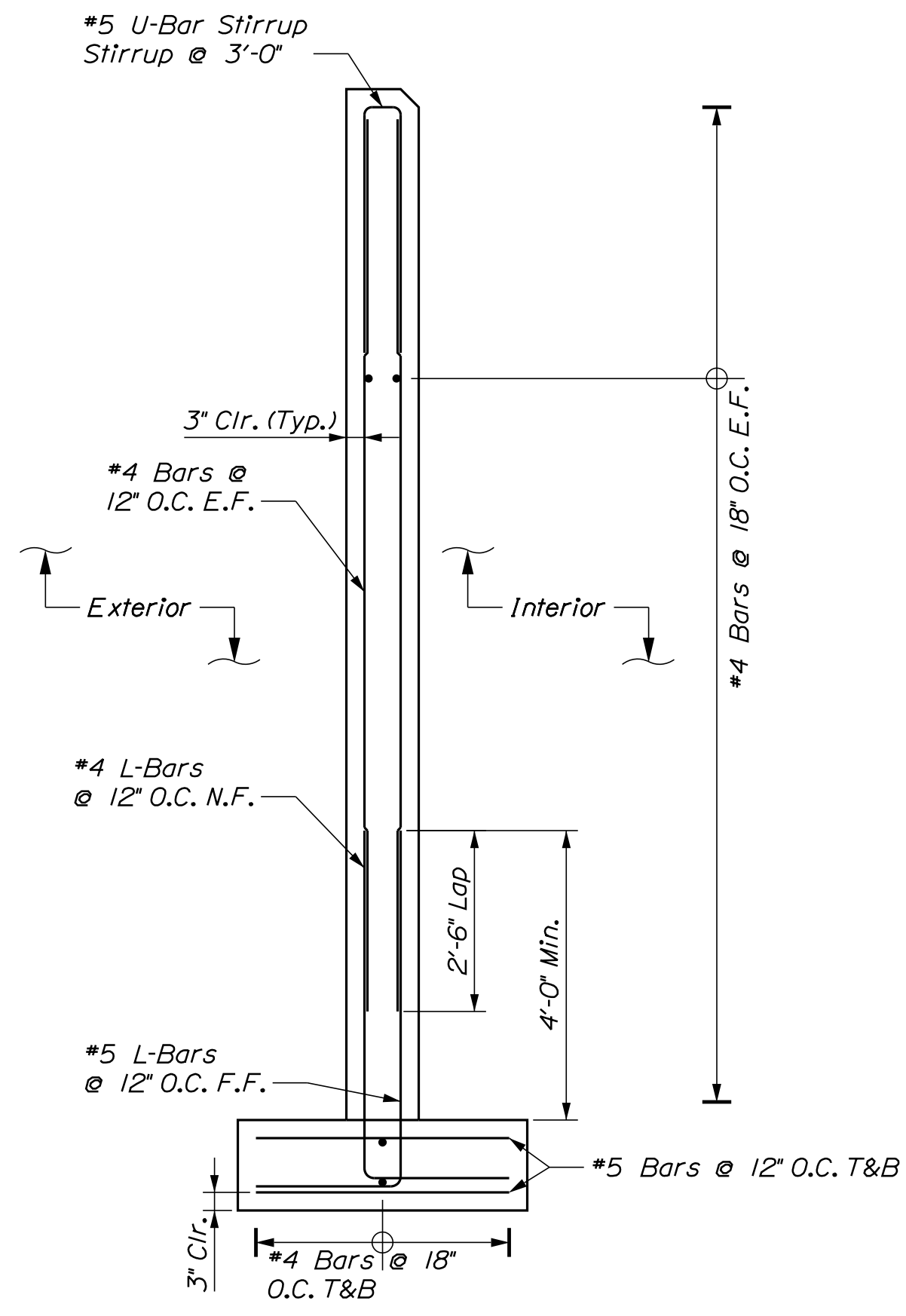
7

OF 13

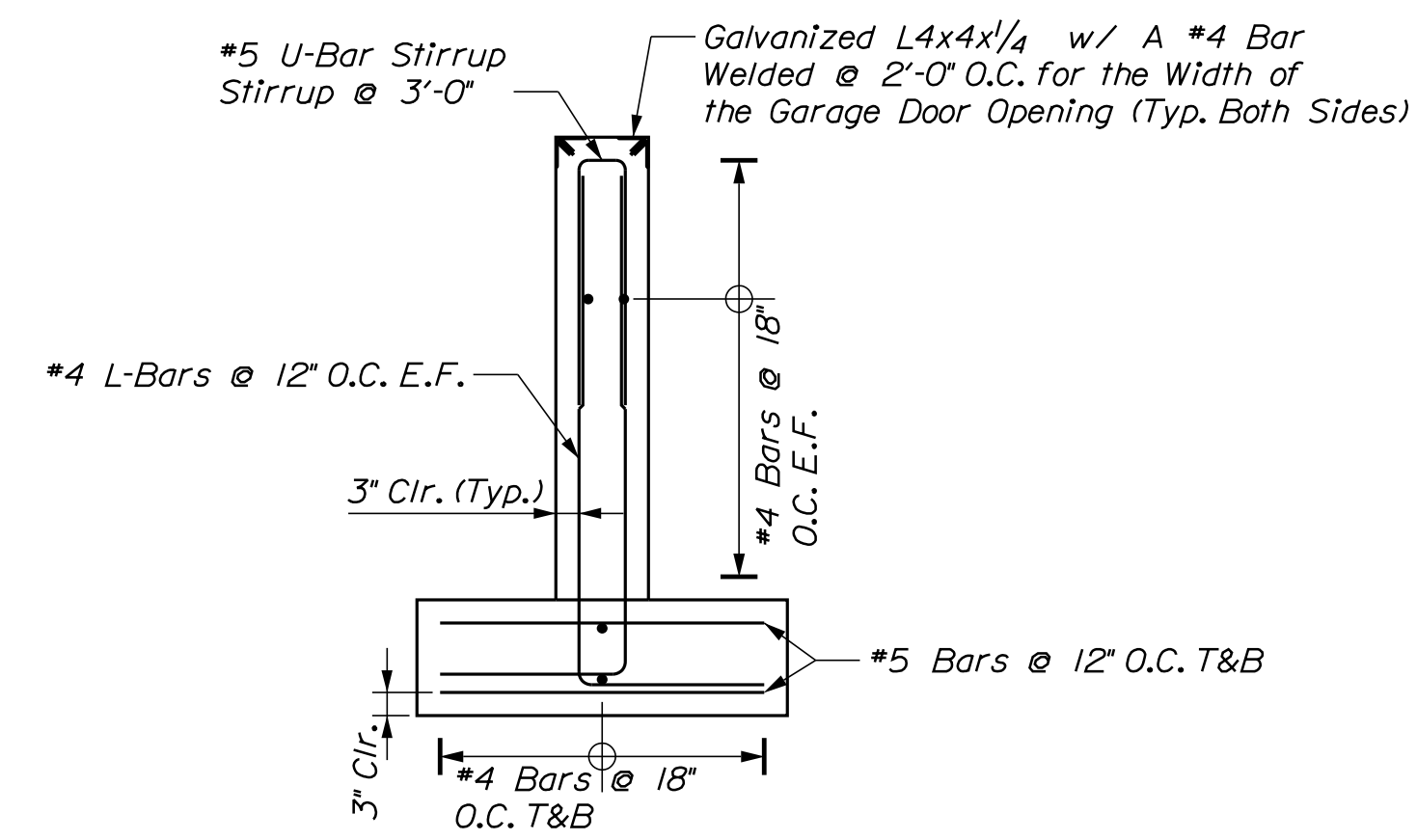




A FRONT WALL ELEVATION
8) 3/8" = 1'-0"

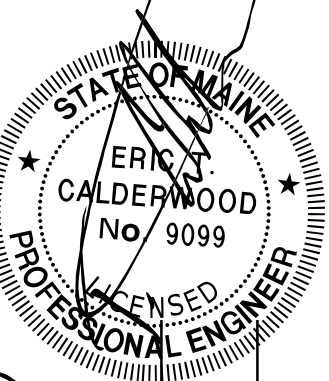


B FRONT WALL SECTION
8) 1/2" = 1'-0"



C OVERHEAD DOOR SECTION
8) 1/2" = 1'-0"

CALDERWOOD ENGINEERING, ETC.
STRUCTURAL ENGINEERING • DETAILING SERVICES
222 RIVER RD. RICHMOND, ME 04357 PH: (207) 737-2007 (207) 737-2008
PREPARED FOR: STATE OF MAINE DOT
KINGFIELD, ME SALT SHED
WIN 027221.00



P.E. NUMBER: 9099
DATE: APR 2021

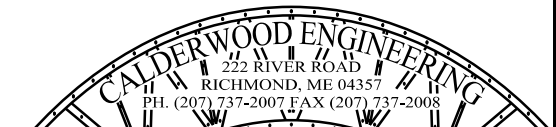
DESIGN/DETAILED	DATE
BY: BJC	APR 2021
BY: PAM	APR 2021
CHECKED/REVIEWED	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

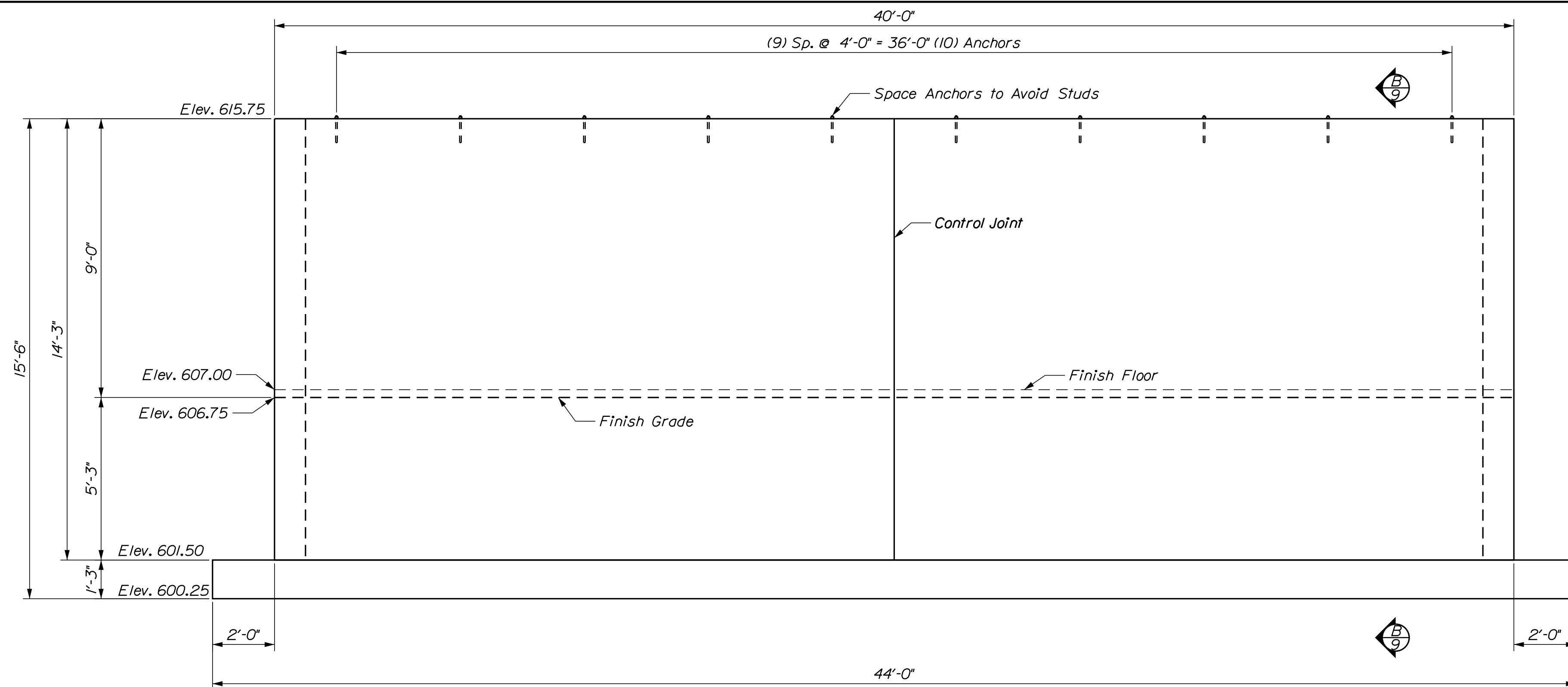
KINGFIELD MAINTENANCE
SALT BUILDING
EAST END WALL
REINFORCING DETAILS

SHEET NUMBER

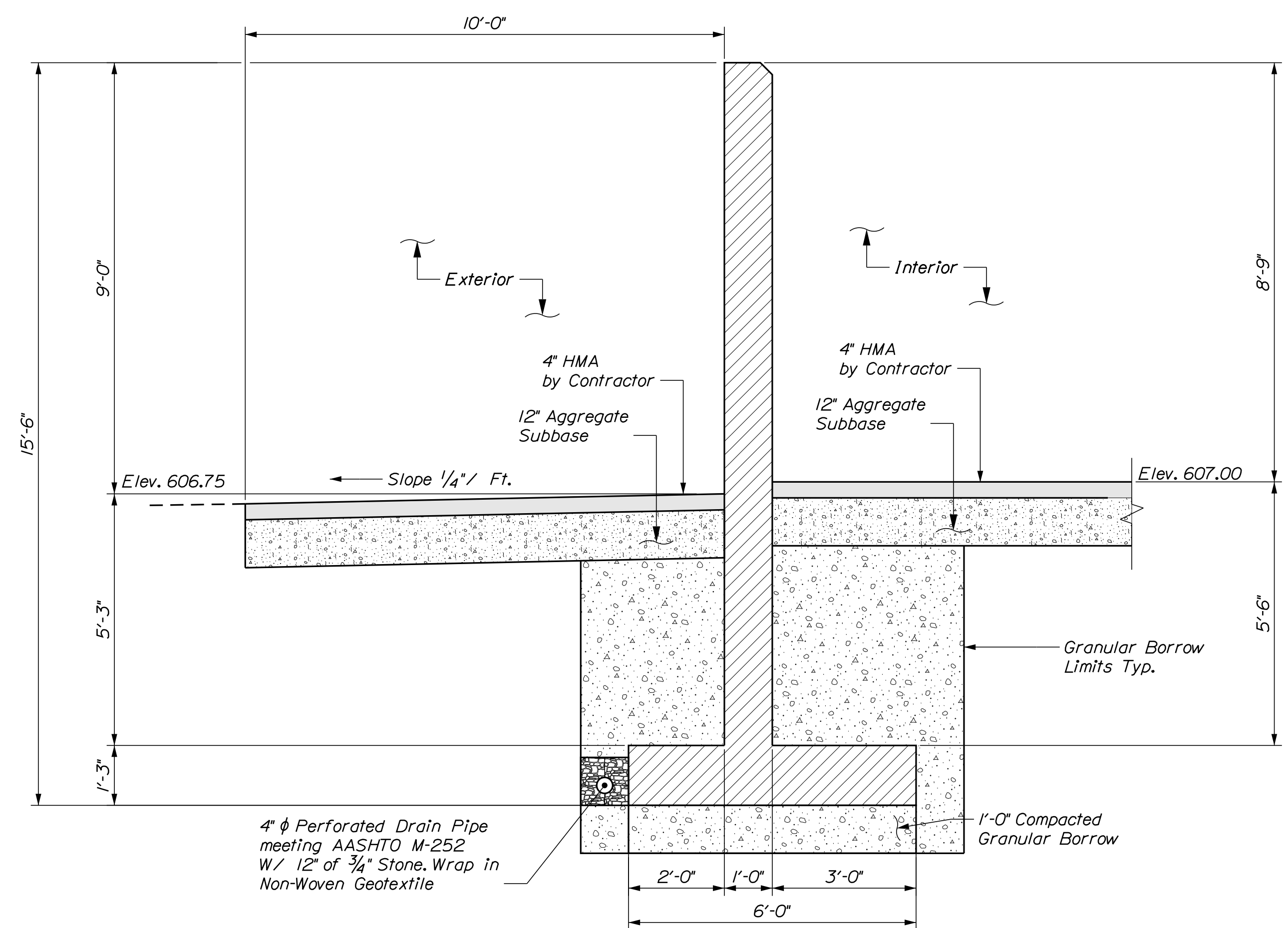
8

OF 13



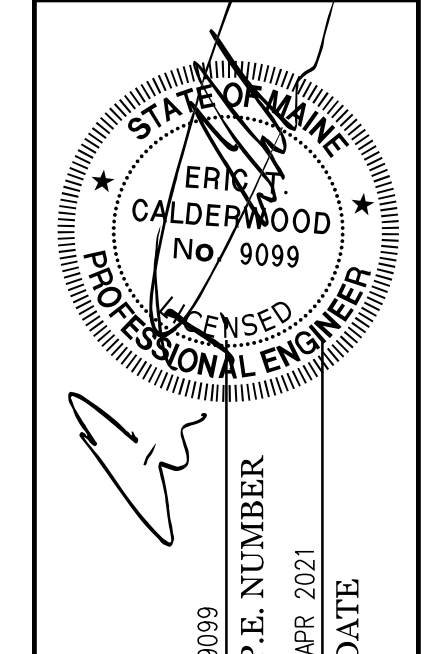


A BACK WALL ELEVATION
9 3/8" = 1'-0"



B BACKWALL SECTION
9 1/2" = 1'-0"

CALDERWOOD ENGINEERING, ETC.
STRUCTURAL ENGINEERING • DETAILING SERVICES
222 RIVER RD. RICHMOND, ME 04357 PH: (207) 737-2007 (207) 737-2008
PREPARED FOR: STATE OF MAINE DOT
KINGFIELD, ME SALT SHED
WIN 027221.00

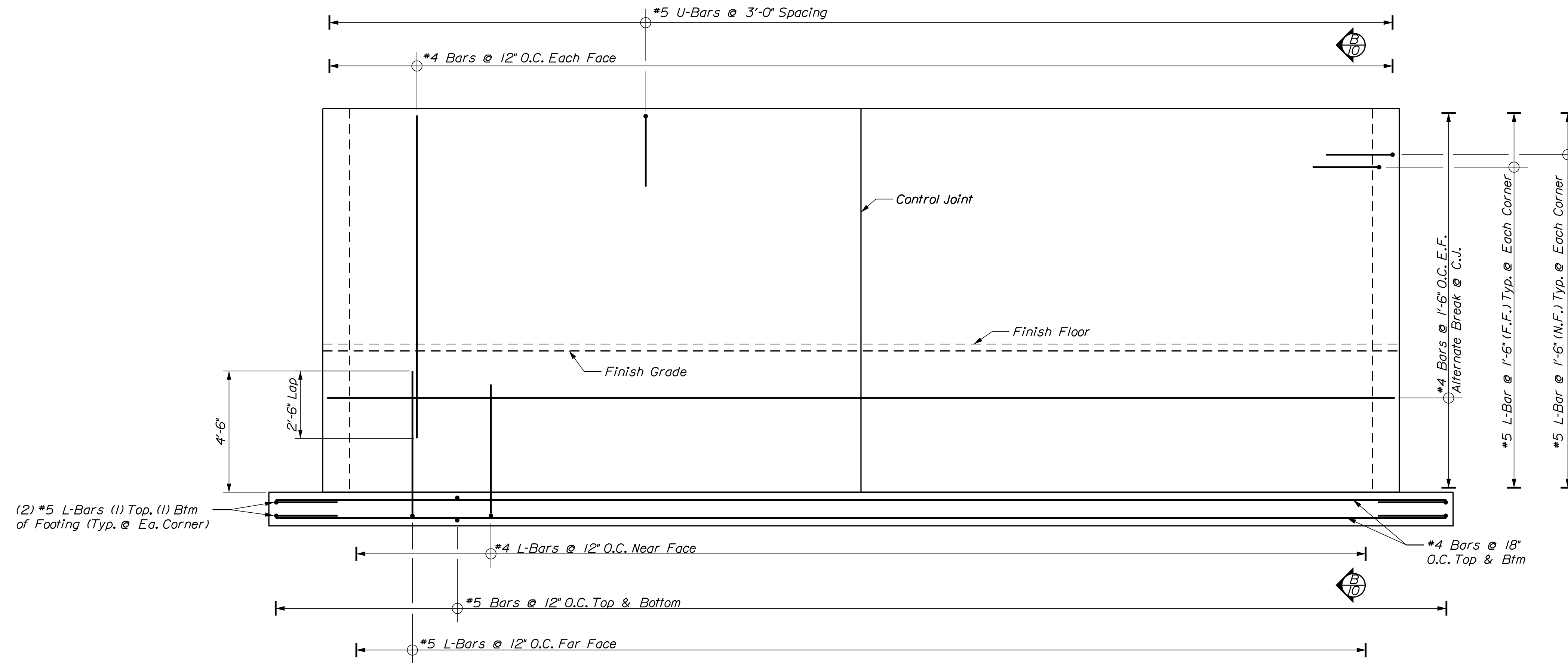


DATE	BY	REVISIONS
APR 2021	BAC	REVISIONS 1
APR 2021	PAM	REVISIONS 2
		REVISIONS 3
		REVISIONS 4
		FIELD CHANGES

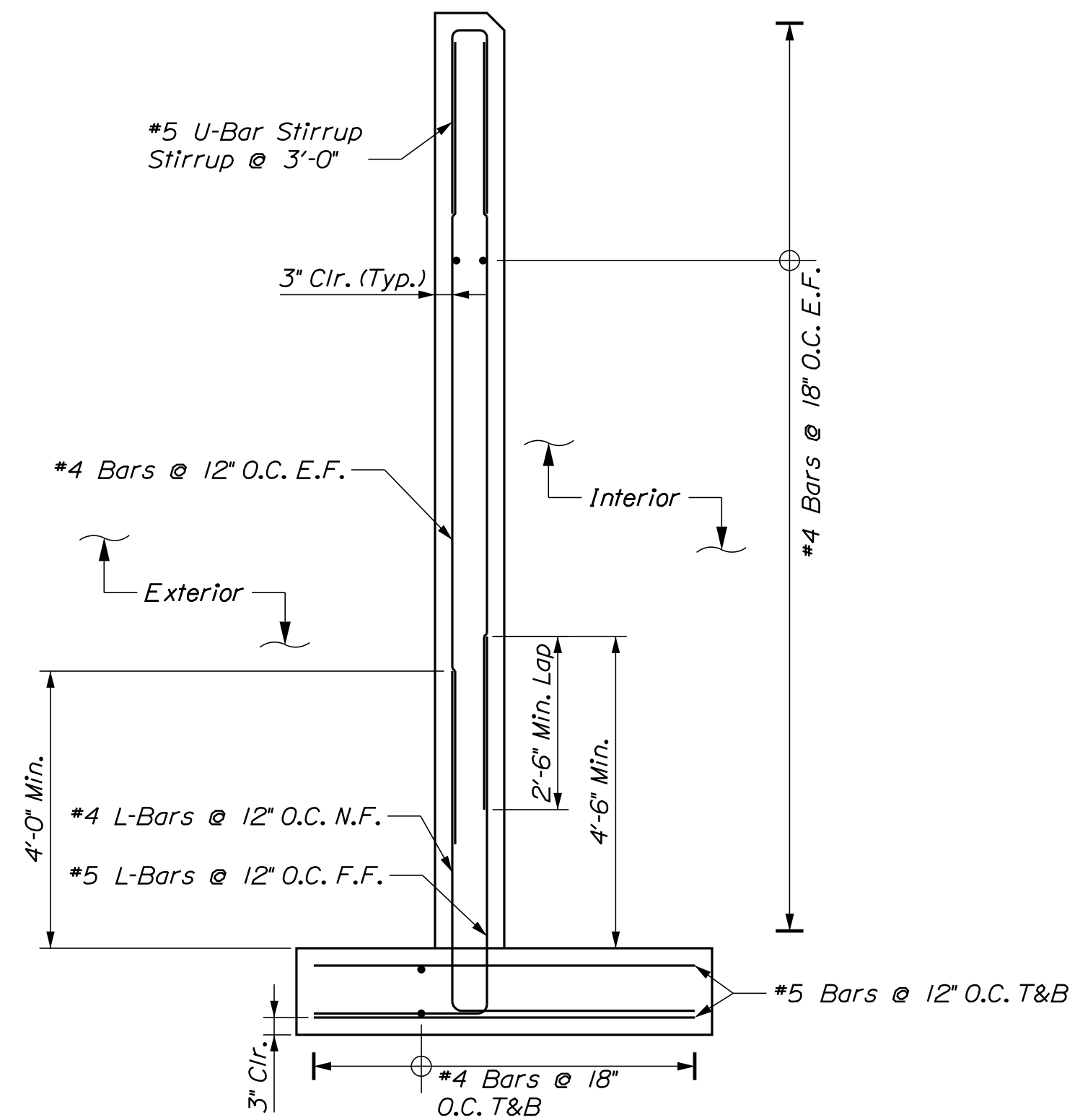
KINGFIELD MAINTENANCE
SALT BUILDING
WEST END WALL
DIMENSIONAL DETAILS

SHEET NUMBER
9
OF 13



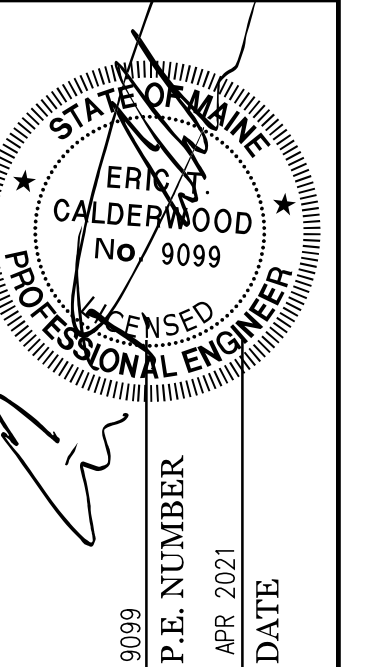


(A) BACK WALL REINFORCING ELEVATION
 1/8" = 1'-0"



(B) BACKWALL SECTION
 1/2" = 1'-0"

CALDERWOOD ENGINEERING, ETC.
 STRUCTURAL ENGINEERING • DETAILING SERVICES
 222 RIVER RD, RICHMOND, ME 04357 PH: (207) 737-2007 (207) 737-2008
 PREPARED FOR: STATE OF MAINE DOT
 KINGFIELD, ME SALT SHED
 WIN 027221.00



DESIGN-DETAILED	DATE	BY
CHECKED-REVIEWED	APR 2021	BAC
REVISIONS 1	APR 2021	PAM
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

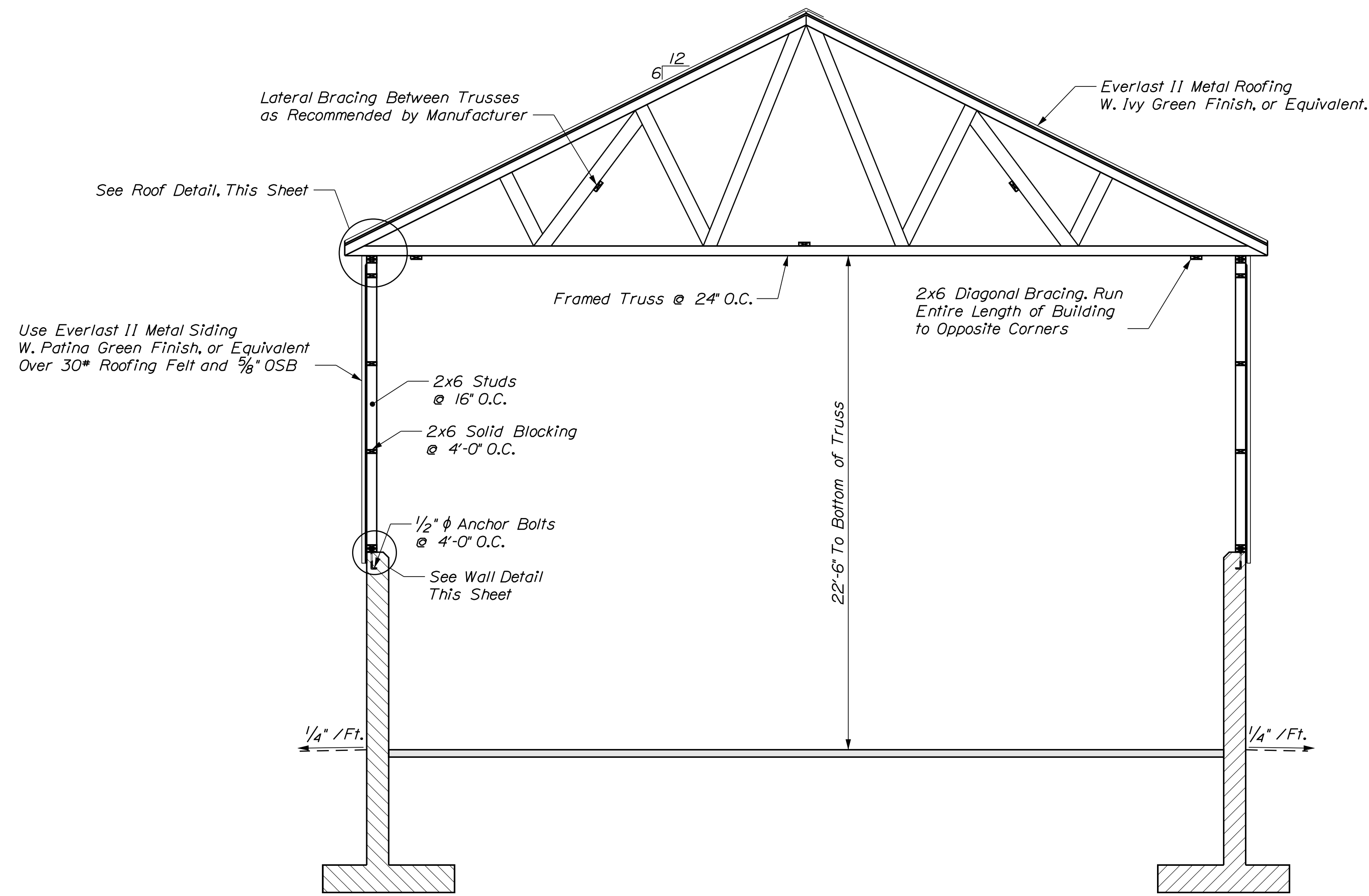
**KINGFIELD MAINTENANCE
 SALT BUILDING**
**WEST END WALL
 DIMENSIONAL DETAILS**

SHEET NUMBER

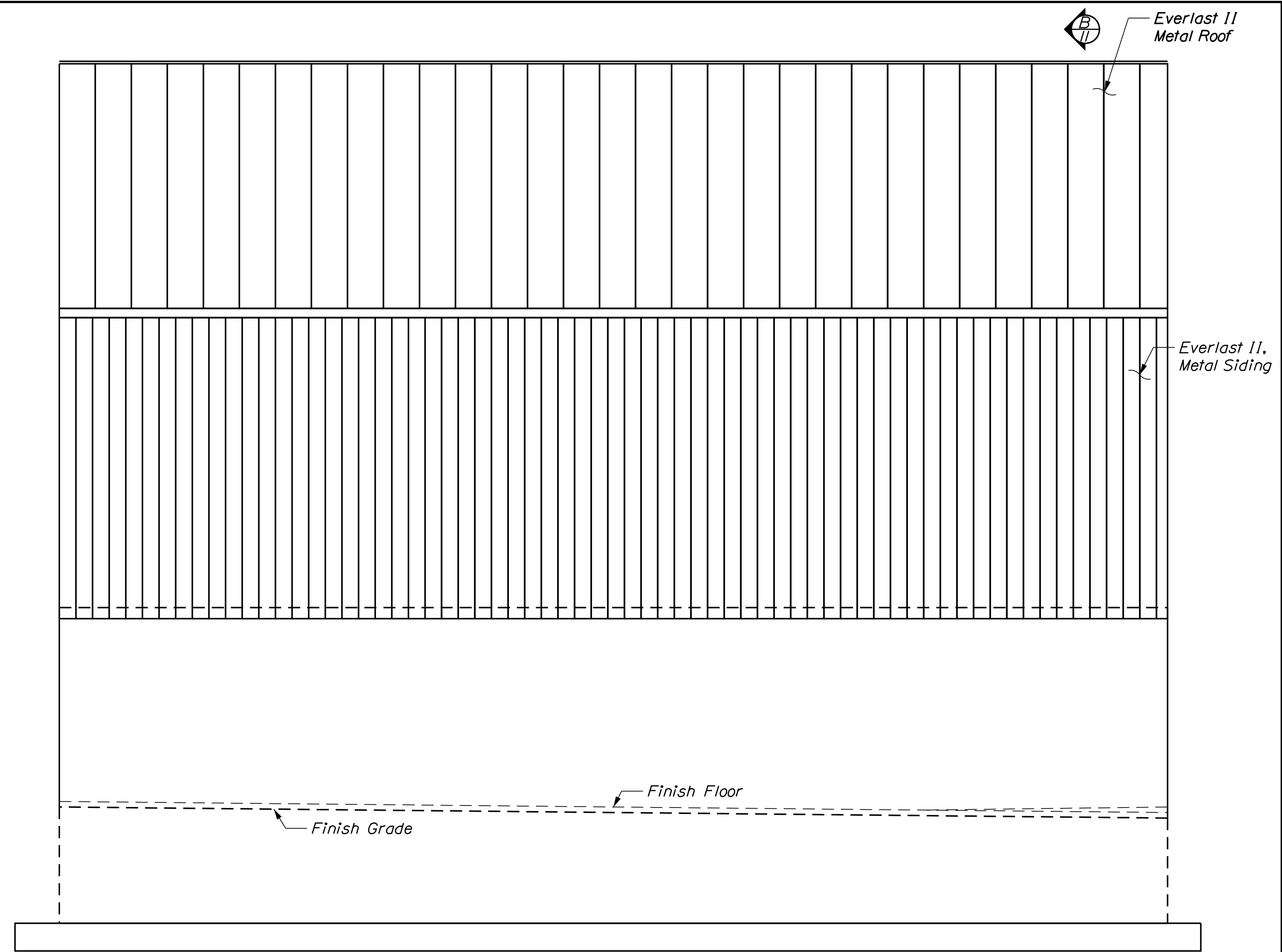
10

OF 13

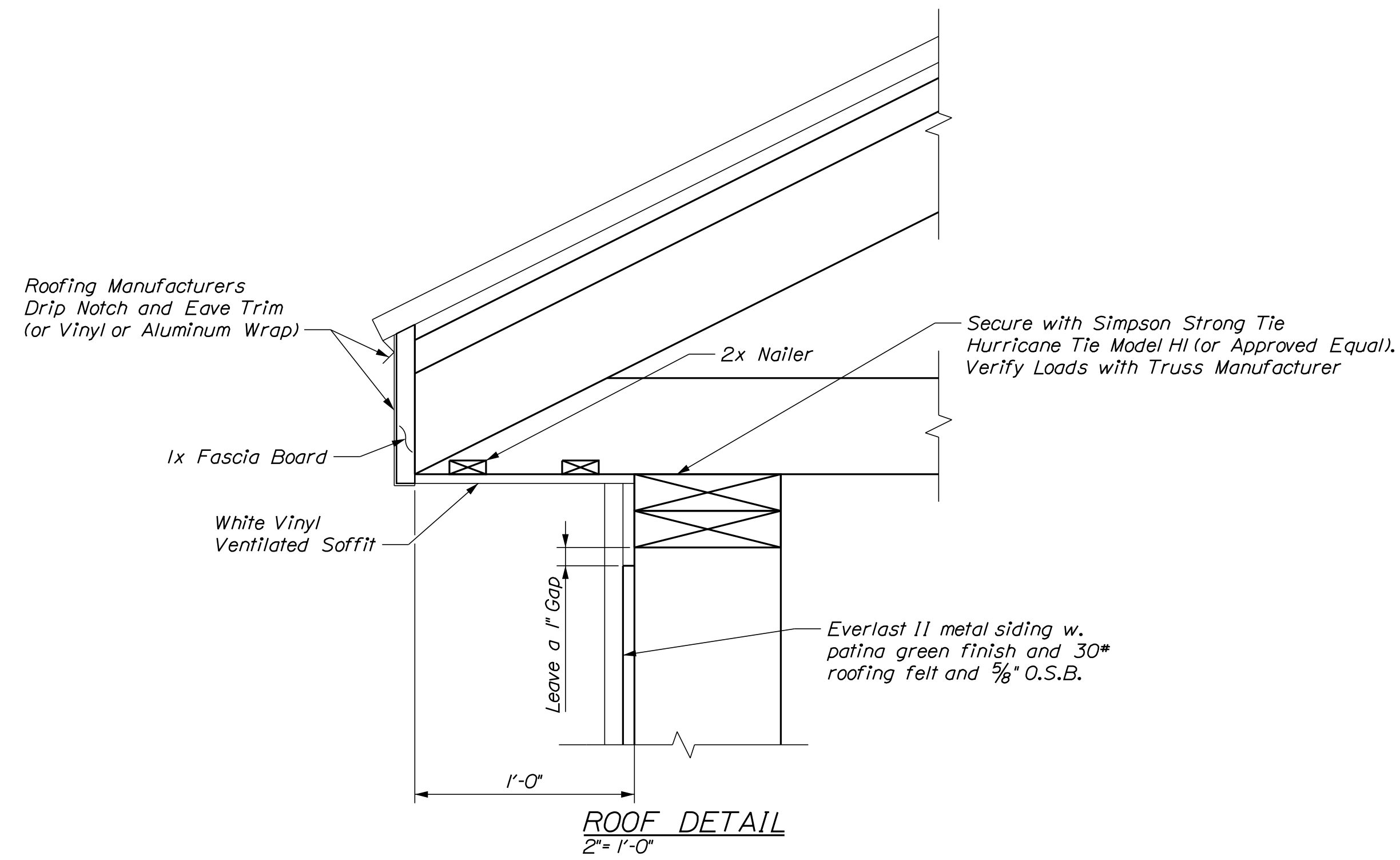




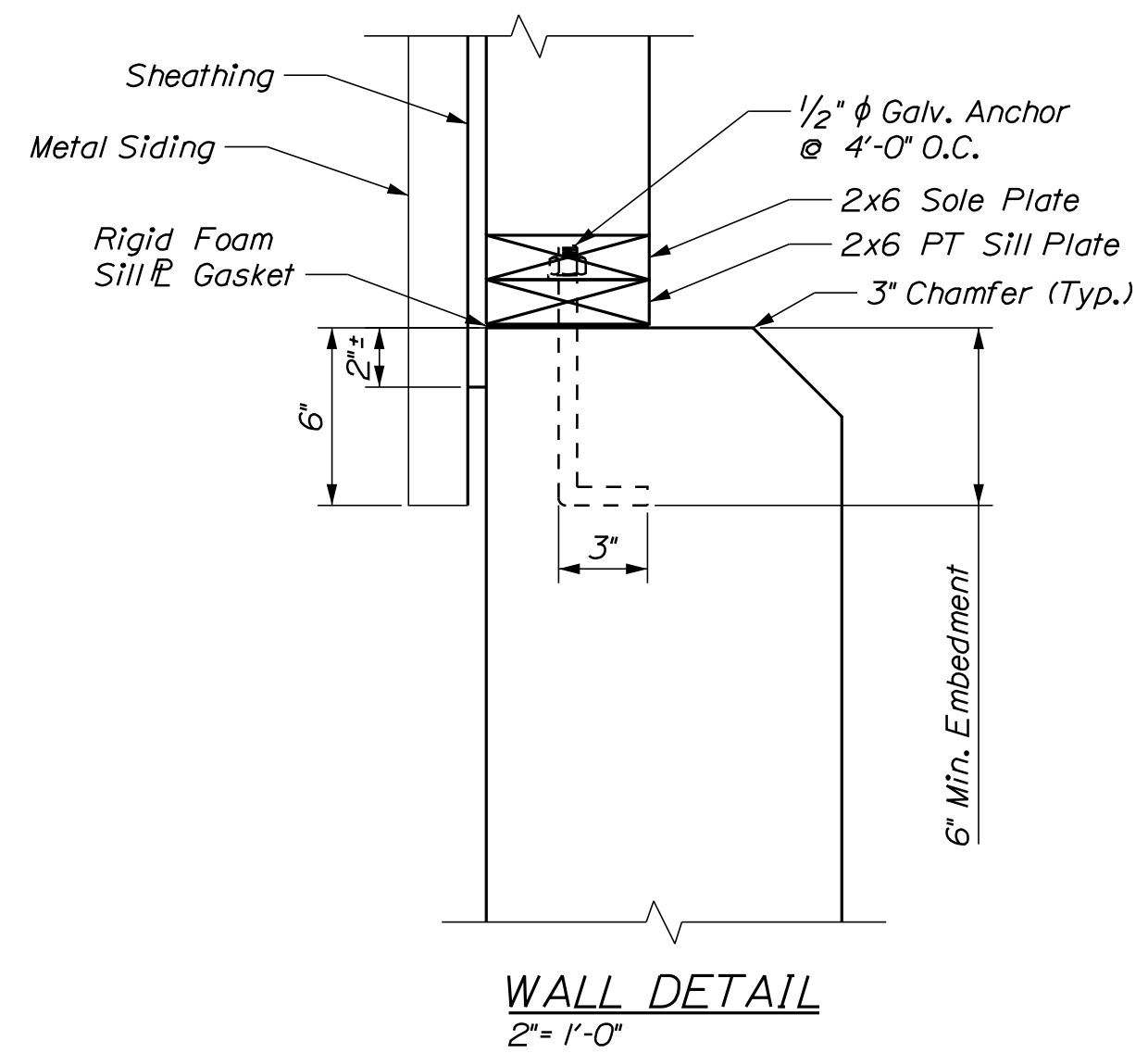
B TYPICAL SECTION
1/4" = 1'-0"



A SIDEWALL ELEVATION
1/4" = 1'-0" *East Elevation Shown

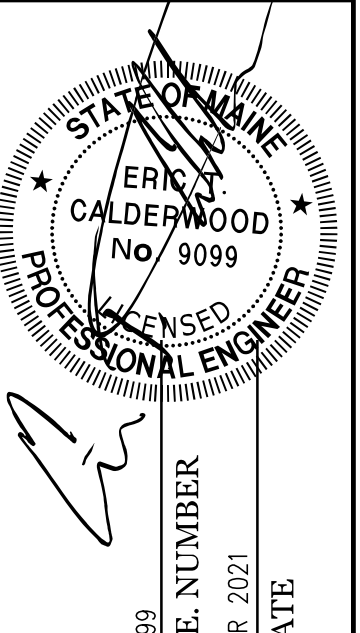


ROOF DETAIL
2' = 1'-0"



WALL DETAIL
2' = 1'-0"

CALDERWOOD ENGINEERING, ETC.
STRUCTURAL ENGINEERING • DETAILING SERVICES
222 RIVER RD. RICHMOND, ME 04357 PH: (207) 737-2008 (207) 737-2008
PREPARED FOR: STATE OF MAINE DOT
KINGFIELD, ME SALT SHED
WIN 027221.00

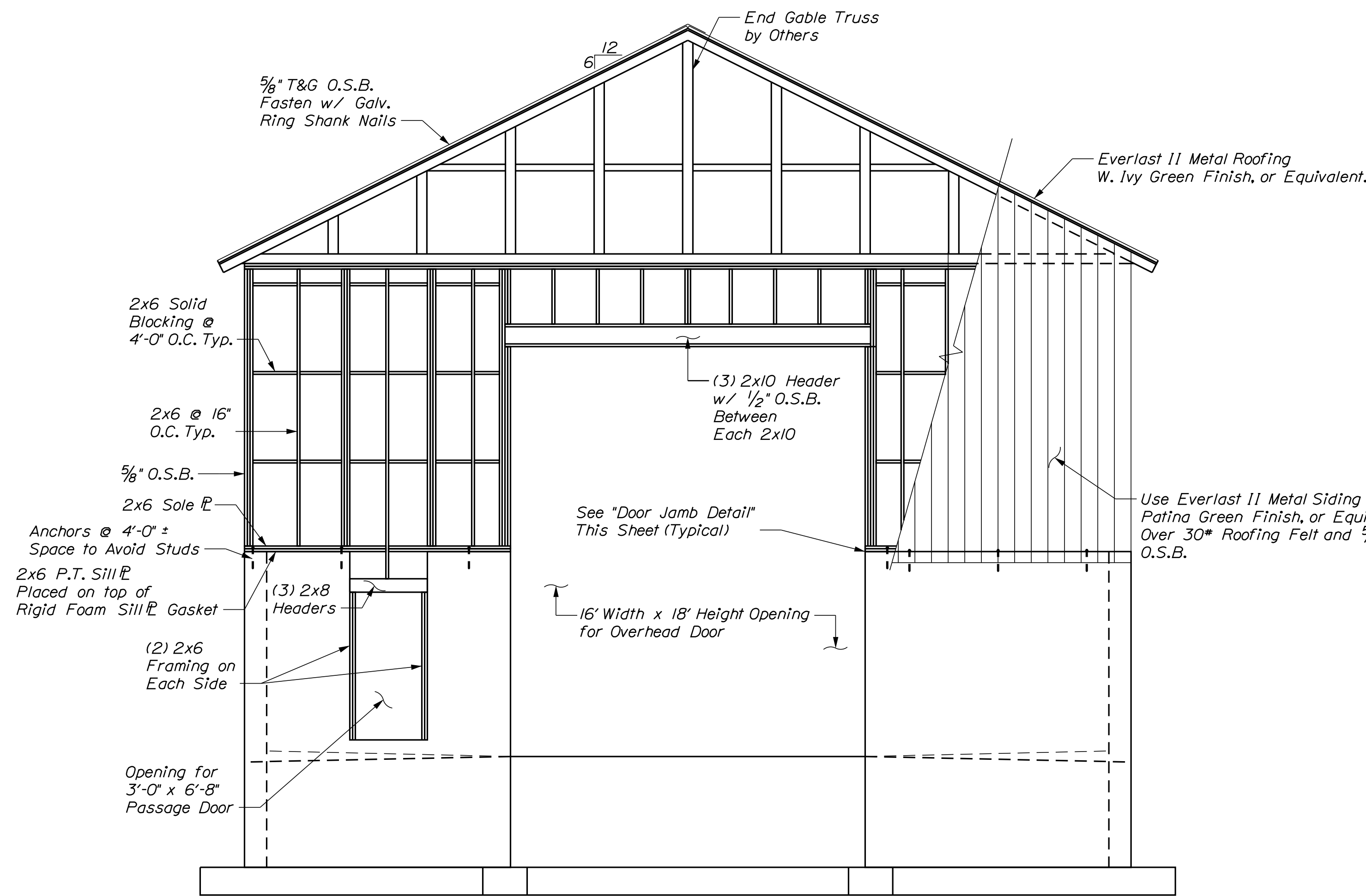


DATE	BY	DESIGN-DETAILED	CHECKED-REVIEWED	REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4	FIELD CHANGES
APR 2021	BAC							
APR 2021	PAM							

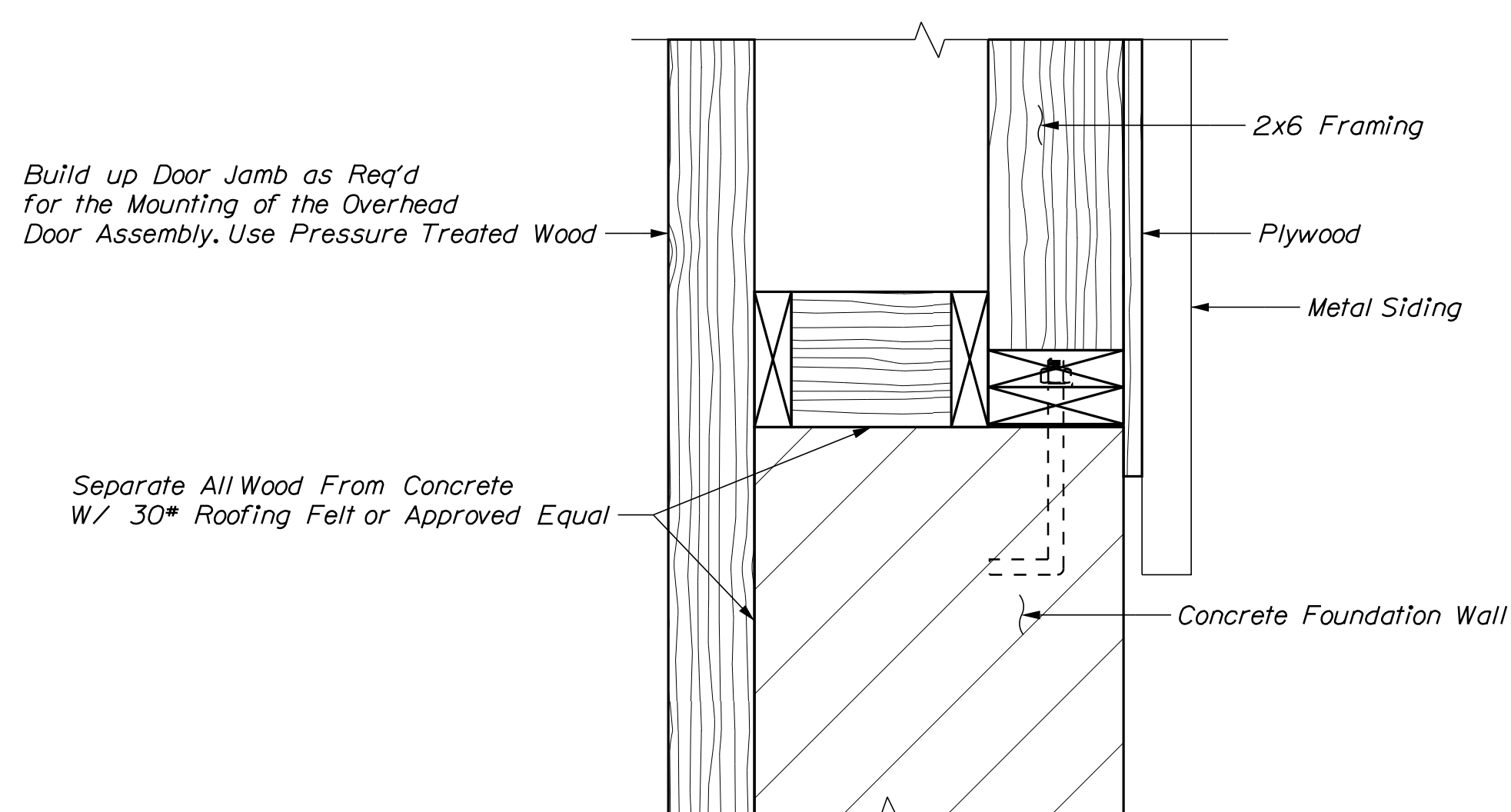
KINGFIELD MAINTENANCE
SALT BUILDING
TYPICAL FRAMING DETAILS

SHEET NUMBER
11
OF 13

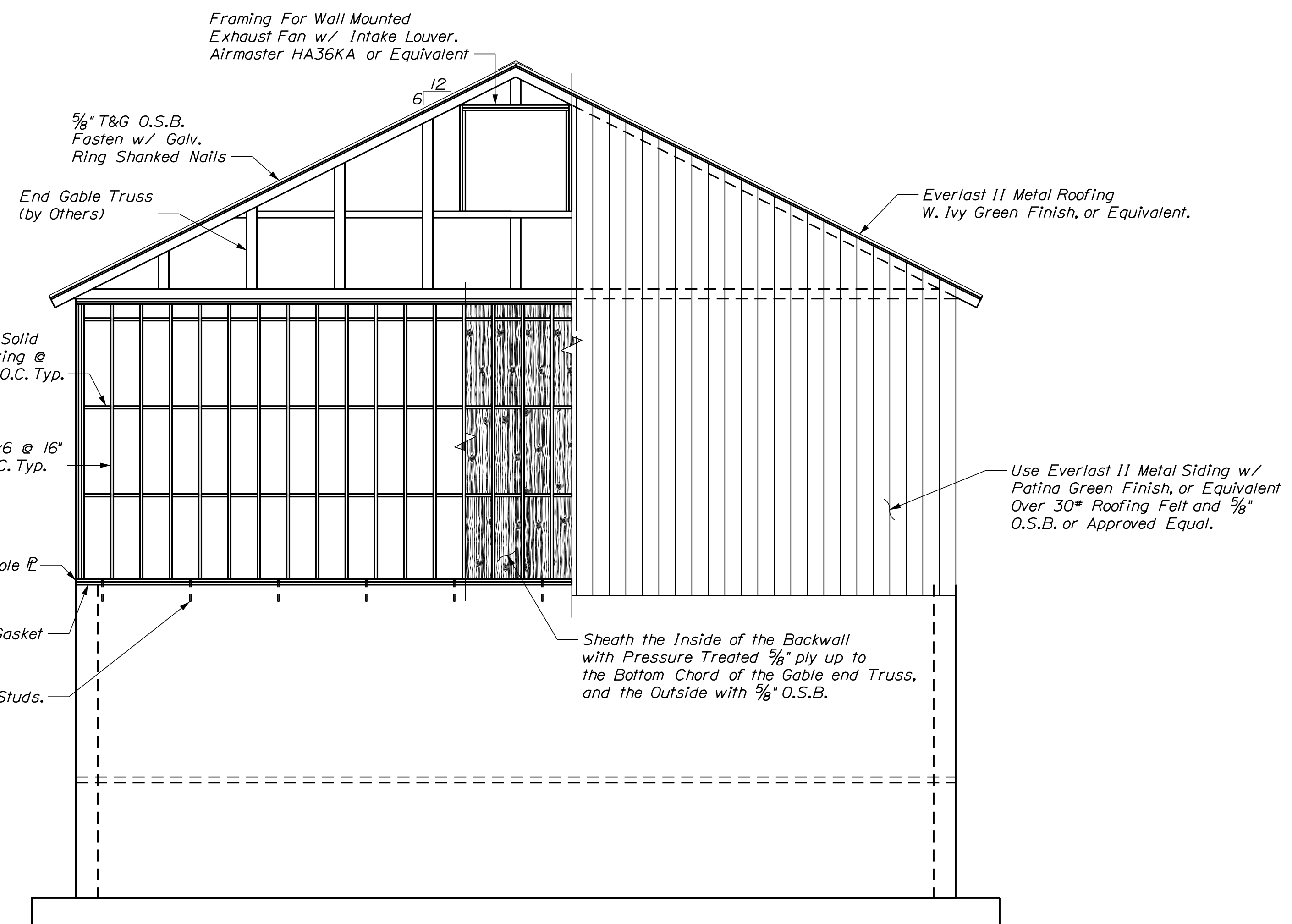




FRONT (EAST) WALL FRAMING
1/4" = 1'-0"

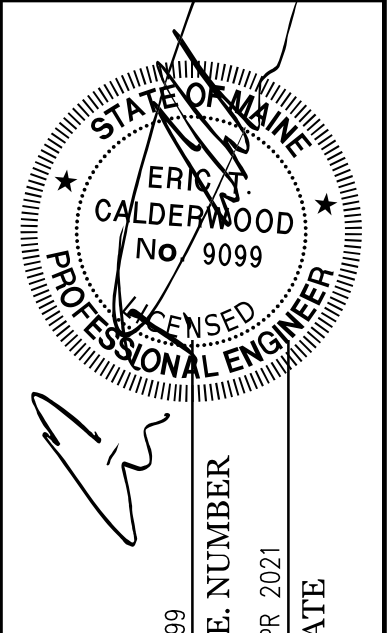


DOOR JAMB DETAIL
2" = 1'-0"



END (WEST) WALL FRAMING
1/4" = 1'-0"

CALDERWOOD ENGINEERING, ETC.
STRUCTURAL ENGINEERING • DETAILING SERVICES
222 RIVER RD. RICHMOND, ME 04357 PH: (207) 737-2007 (207) 737-2008
PREPARED FOR: STATE OF MAINE DOT
KINGFIELD, ME SALT SHED
WIN 027221.00

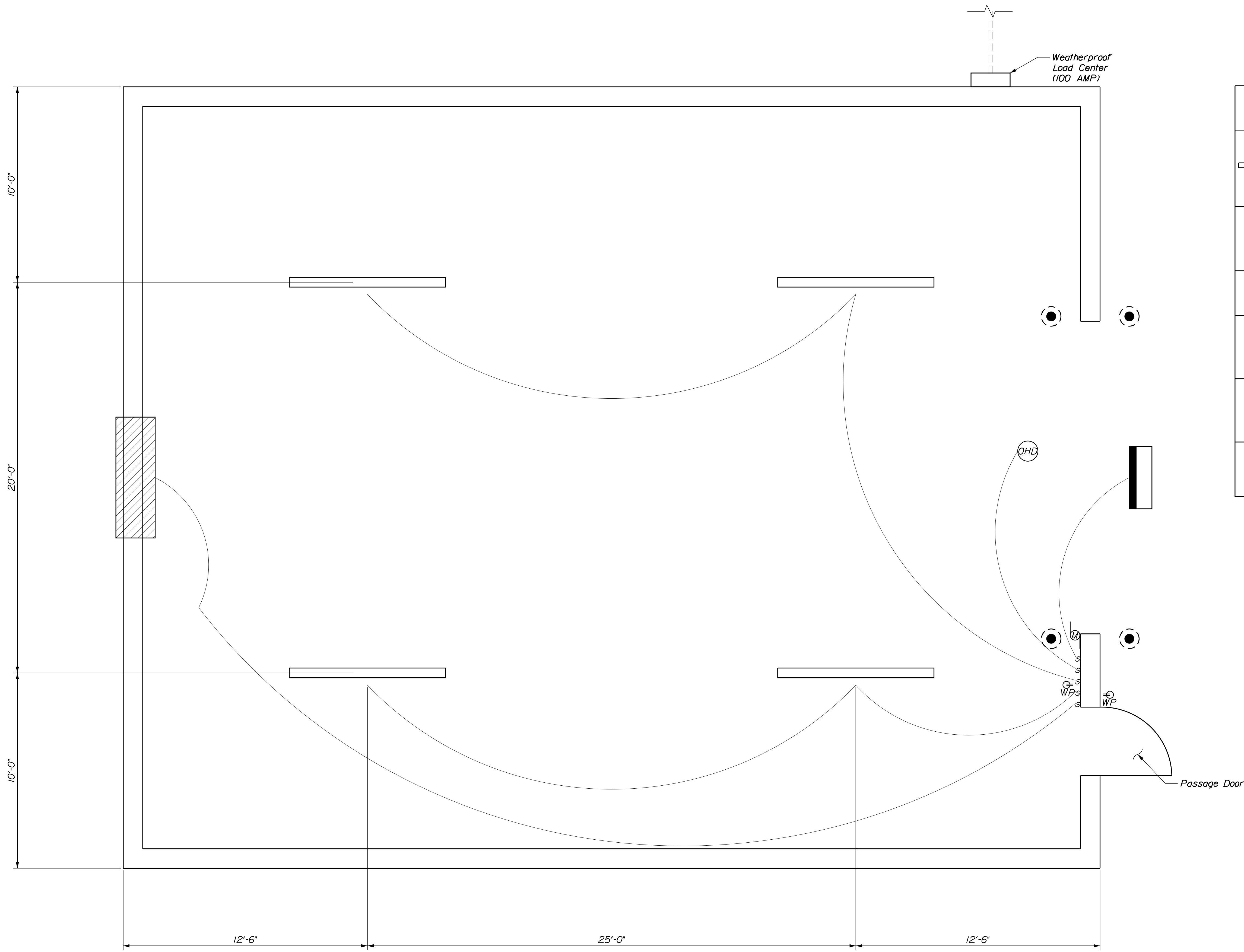


DATE	BY	DESIGN-DETAILED	CHECKED-REVIEWED	REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4	FIELD CHANGES
APR 2021	BLC							
APR 2021	PAM							

KINGFIELD MAINTENANCE
SALT BUILDING
TYPICAL FRAMING DETAILS

SHEET NUMBER
12
OF 13





ELECTRICAL FLOOR PLAN
 $\frac{3}{8}'' = 1'-0''$

ELECTRICAL LEGEND	
	H.E. Williams, Fully Enclosed & Gasketed Industrial LED Light Fixture, Model #96-8-L80/830-HIAFR-SSCMB/SS LATCH-DRV-120 W/ Occupancy Sensor *OCCWS HB350W-L4W-120
	Led Flood Light Equiv. To Lithonia D-Series Size 3 W/ Photocell And Switch
	Weatherproof Switch
	GFCI RECEPTACLE W/ WEATHERPROOF COVER
	Overhead Door Operator
	Exhaust Fan

Power to be Installed Underground if Possible, Contractor Shall Price as Such.

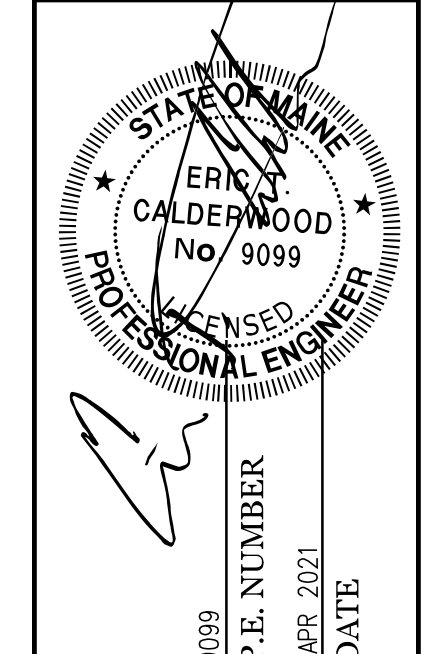
Contractor will be Req'd to Excavate, Supply, Install, Backfill, and Compact per National Electrical Code (NEC) an Underground Conduit. See Sheet 2 for Details.

Conduit Shall be Installed Below Grade. Each end of the Conduit Shall be Capped and protrude Above Finish Grade by 2 Ft.

Fan on Backwall, OHD Opener and Lights Shall be Wired and Hooked up for Power as Indicated

Suspend all Interior Lights a Min. of 1'-0" Below the Bottom Chord of the Framed Truss

CALDERWOOD ENGINEERING, ETC.
 STRUCTURAL ENGINEERING • DETAILING SERVICES
 222 RIVER RD. RICHMOND, ME 04357 PH: (207) 737-2007 FAX: (207) 737-2008
 PREPARED FOR: **STATE OF MAINE DOT**
KINGFIELD, ME SALT SHED
 WIN 027221.00



DATE	BY	REVISIONS
APR 2021	BIC	REVISIONS 1
APR 2021	PAM	REVISIONS 2
		REVISIONS 3
		REVISIONS 4
		FIELD CHANGES

KINGFIELD MAINTENANCE SALT BUILDING
ELECTRICAL PLAN

SHEET NUMBER
13
 OF 13

