

# SOUTHERN MAINE VETERANS' CEMETERY

83 STANLEY ROAD, SPRINGVALE, MAINE

## 2024 CEMETERY EXPANSION

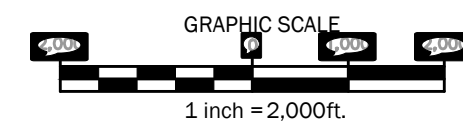
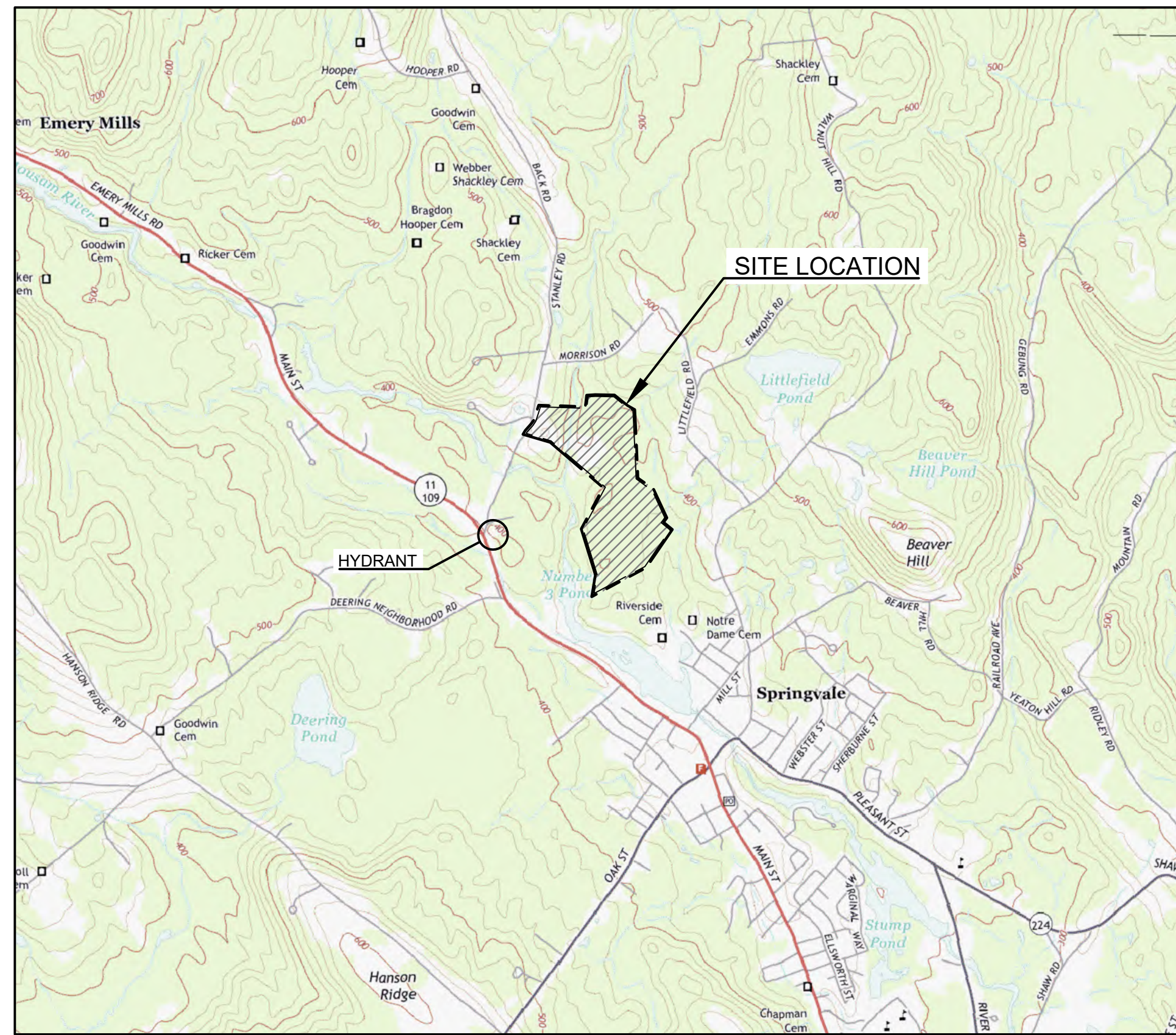
JANET T. MILLS, GOVERNOR

MAINE DEPARTMENT OF DEFENSE - VETERANS AND EMERGENCY MANAGEMENT, COMMISSIONER MAJOR GENERAL DIANE L. DUNN  
BUREAU OF MAINE VETERANS' SERVICES, DIRECTOR DAVID A. RICHMOND

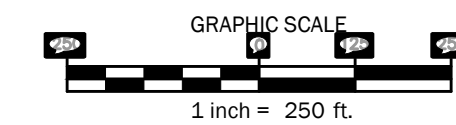
NATIONAL CEMETERY ADMINISTRATION PROJECT #FAI ME-23-24  
STATE OF MAINE, BUREAU OF GENERAL SERVICES PROJECT #3743

ISSUED FOR BID  
JULY 12, 2024

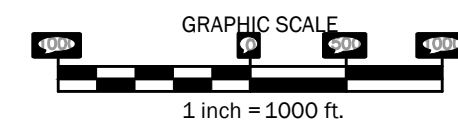
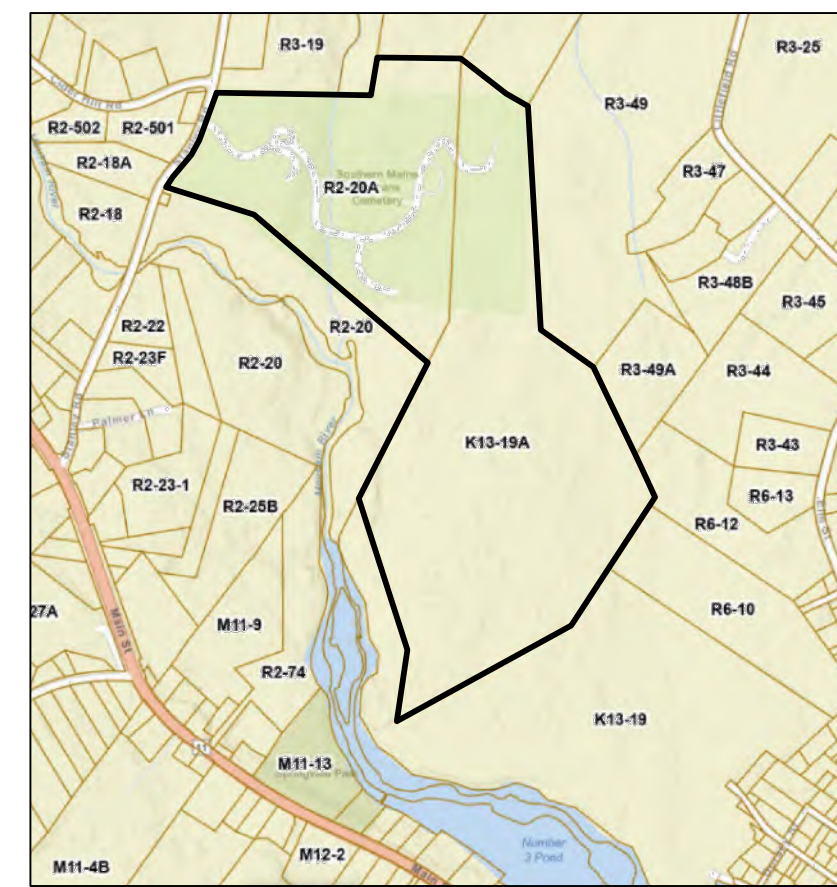
REGIONAL VICINITY MAP



LOCAL VICINITY MAP



TOWN OF SANFORD  
TAX MAP



### DRAWING LIST

- C0.0 Cover Sheet with Vicinity Maps
- C1.0 Overall Cemetery and Site Index Plan
- L1.2 Standard Boundary Survey - North
  
- C2.0 Area B - Existing Conditions & Removals Plan
- C2.1 Area B - Site Layout, Grading & Utilities Plan
- C2.2 Area B - Remains Numbering Plan
- C2.3 Area B - Erosion Control Plan
  
- C3.0 Area F - Existing Conditions & Removals Plan
- C3.1 Area F - Site Layout & Utilities Plan
- C3.2 Area F - Grading, Drainage & Erosion Control Plan
- C3.3 Area F - Landscape Plan
- C3.4 Area F - Phase 1 Columbaria Numbering Plan
- C3.5 Area F - Phase 2 Columbaria Numbering Plan
  
- C4.1 Alternates 1, 2 & 3
  
- C5.1 Site Details
- C5.2 Site Details
- C5.3 Site Details
- C5.4 Site Details
  
- Col-1 Area F, Columbarium Plans, Elevations & Details
- Col-2 Area F, Columbarium Foundation Plans, Details and Notes

### DESIGN CONSULTANTS

**LEAD / PROJECT ENGINEER**  
Walsh Engineering Associates, Inc.  
One Karen Drive, Suite 2A  
Westbrook, Maine 04092  
207.553.9898

**LANDSCAPE ARCHITECT**  
Scott Strynar Landscape Architect, LLC  
98 Meehan Lane  
North Berwick, Maine 03906  
207.957.4441

### OWNER

State of Maine Bureau of Veteran's Services  
125 State House Station, Augusta, ME 04333-0117  
(207)287-8830  
mainebvs@maine.gov

### PARCEL INFORMATION

TOWN OF SANFORD PARCEL: TAX MAP R2, LOT 20A  
TAX MAP K13 LOT 19  
TOTAL AREA OF PARCEL: 94.6 ACRES  
CURRENT ZONE: RURAL RESIDENTIAL

### PROJECT SUMMARY:

Existing:		Proposed:	
Total Acreage of Cemetery:	93.2± Acres	Area B: Cremains Burial:	
Developed Areas of Cemetery:	15.4 ± Acres	4'x4' plots:	503 Plots
Disturbed Area This Project:	0.7 ± Acres	Area F: Columbaria Walls:	
		4 Walls of 210 Niches:	840 Niches





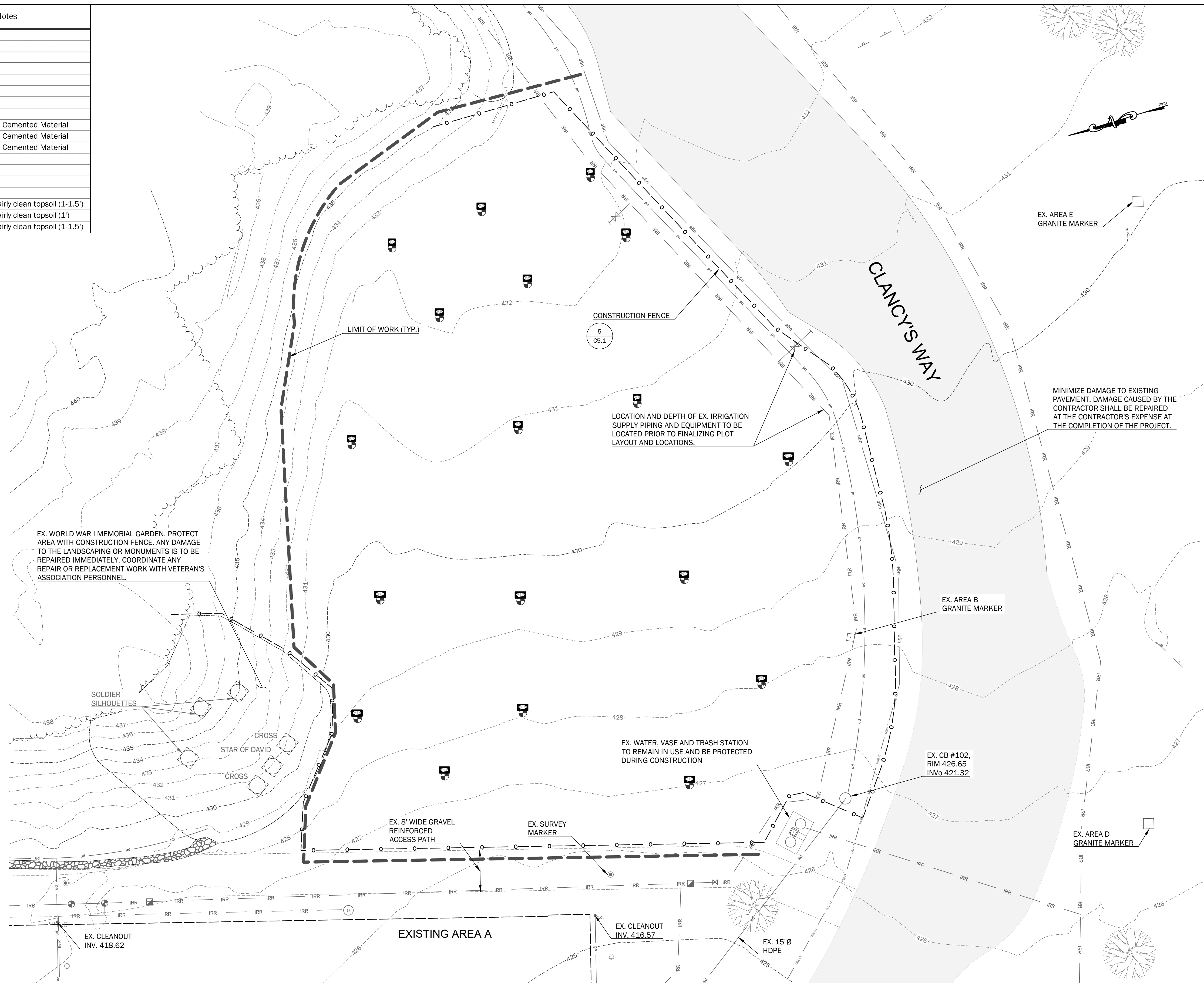
Test Pit ID	Northing	Easting	Existing Grade Elevation (ft)	Ledge/Refusal* Elevation (ft)	Depth of Overburden (ft)	Misc. Notes
1	236610.12	2782622.07	432.2	428.9	3.3	
2	236591.55	2782623.72	432.7	430.5	2.3	2-3' Boulder Removed
3	236569.53	2782623.90	432.2	0	> 4	No Refusal Encountered
4	236566.36	2782610.74	432.0	428.7	3.2	
5	236587.13	2782607.82	432.1	428.8	3.3	
6	236605.28	2782606.52	432.1	429.7	2.4	
7	236628.66	2782588.06	430.6	427.5	3.2	
8	236597.28	2782581.42	430.9	427.7	3.2	
9	236573.65	2782579.56	430.9	427.7	3.2	2-3' Boulder Removed, Hard Cemented Material
10	236549.02	2782560.26	430.0	427.3	2.8	2-3' Boulder Removed, Hard Cemented Material
11	236574.91	2782544.45	429.5	427.0	2.5	2-3' Boulder Removed, Hard Cemented Material
12	236606.32	2782549.77	429.4	426.6	2.8	
13	236632.16	2782557.79	429.7	426.8	2.9	
14	236642.98	2782537.22	428.8	425.6	3.2	
15	236612.22	2782528.96	428.1	424.9	3.2	
16	236566.58	2782520.74	428.0	425.2	2.8	Encountered thick layer of fairly clean topsoil (1-1.5')
17	236585.54	2782506.27	427.0	424.2	2.8	Encountered thick layer of fairly clean topsoil (1')
18	236630.17	2782521.72	427.5	425.3	2.2	Encountered thick layer of fairly clean topsoil (1-1.5')

**PROJECT NOTES:**

- SEE SHEET C1.0 FOR:  
PLAN REFERENCES  
GENERAL NOTES  
EXISTING UTILITY NOTES  
LAYOUT, MATERIALS, AND UTILITY NOTES  
LEGEND AND ABBREVIATIONS

**DEMOLITION NOTES:**

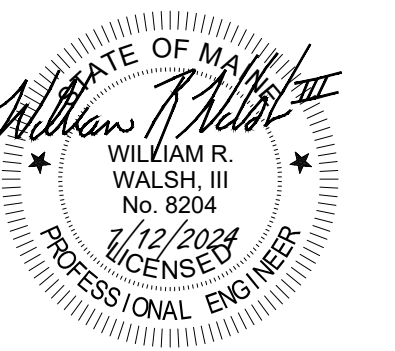
- TOPSOIL TO BE REMOVED AND STOCKPILED, SEE C2.3 FOR TEMPORARY STOCKPILE LOCATION.



**WALSH**  
ENGINEERING ASSOCIATES, INC.

One Karen Dr., Suite 2A | Westbrook, Maine 04092  
ph: 207.553.9898 | www.walsh-eng.com

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**2024 Cemetery Expansion**  
at

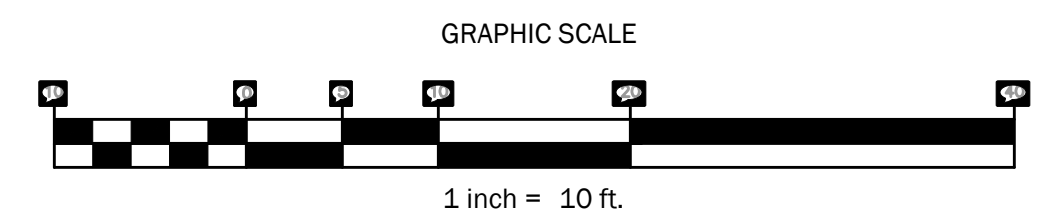
Southern Maine Veterans' Cemetery, 83 Stanley Road, Springvale, Maine  
Maine Department of Defense, Veterans & Emergency Management  
Bureau of Veterans' Services  
National Cemetery Administration Project #FAI ME-23-24  
Bureau of General Services Project Number #3743

Rev.	Date	Description	Drawn	Check

Sheet Title:  
**Area B - Existing Conditions and Removals Plan**

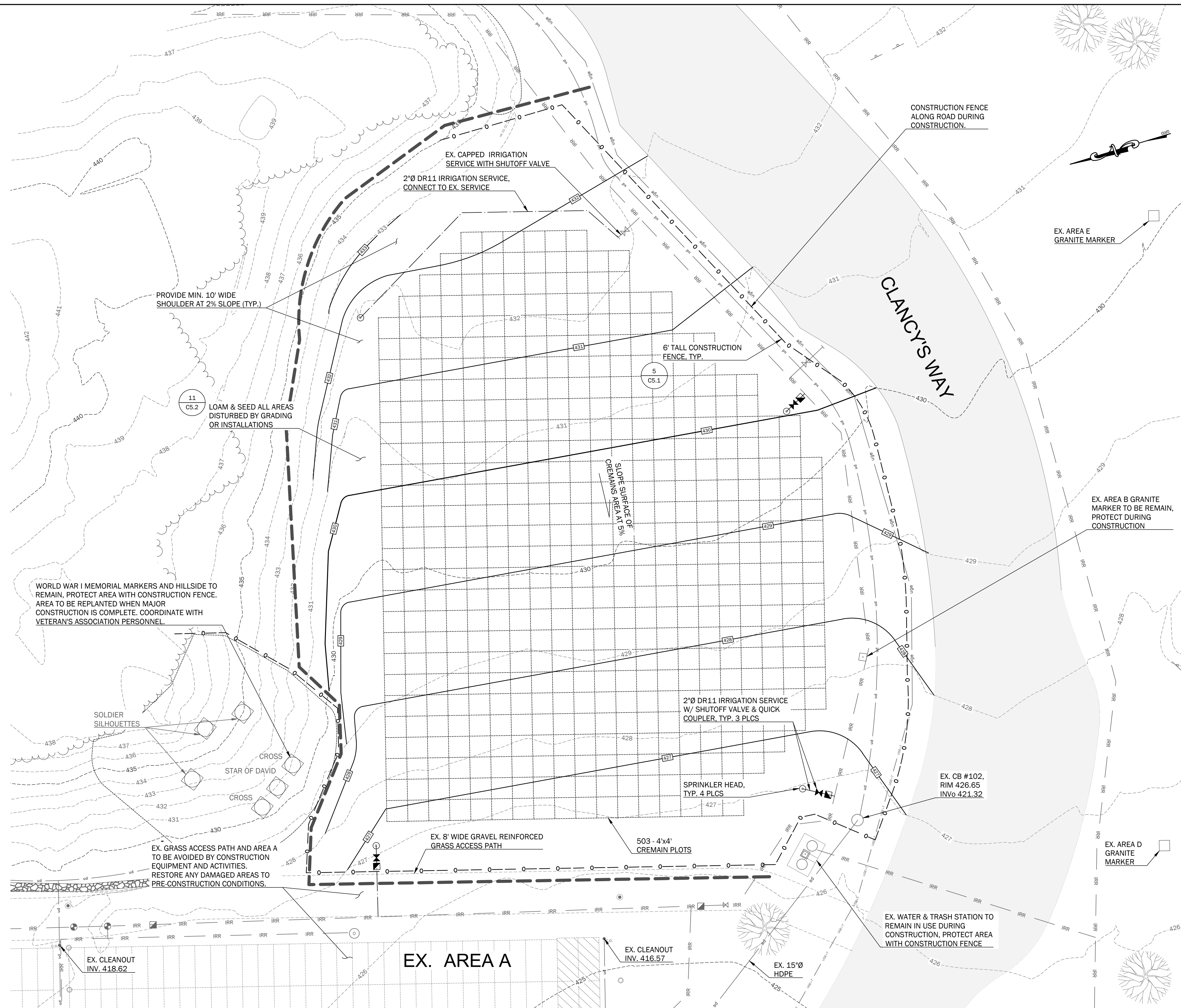
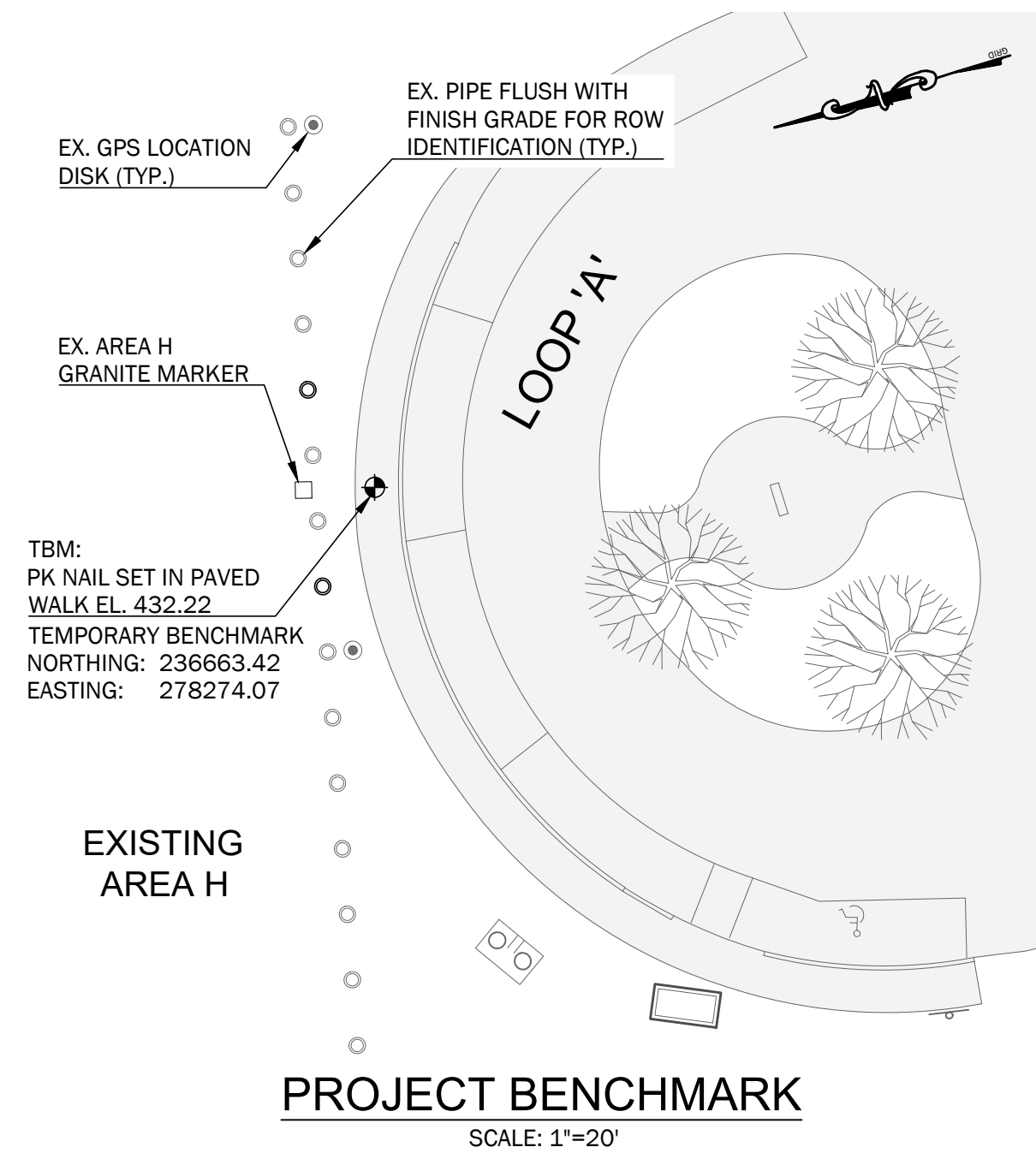
Job No.: 105.5  
Date: JULY 12, 2024  
Scale: AS SHOWN  
Drawn: JDC  
Checked: NGC

Sheet No.:  
**C2.0**



**IRRIGATION NOTES:**

1. ALL WORK IS TO BE IN COMPLIANCE WITH ALL LOCAL, STATE AND FEDERAL CODES AND ORDINANCES.
2. ALL ELECTRICAL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICIAN AND BE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE, CENTRAL MAINE POWER STANDARDS AND CITY OF SANFORD ELECTRICAL REQUIREMENTS.
3. ALL UNDERGROUND ELECTRICAL CONNECTIONS ARE TO BE MADE WITH DBY-6 WIRE CONNECTORS.
4. ALL REMOTE CONTROL VALVES ARE TO BE INSTALLED IN VALVE BOXES OF APPROPRIATE SIZE.
5. ALL CONTROL WIRING DOWNSTREAM OF THE CONTROLLER IS TO BE # 14/2 UF, GROUNDED EVERY 500'.
6. ALL ROTORS SHALL BE INSTALLED ON RIGID SWING JOINTS.
7. ANY CHANGES IN AVAILABILITY OF SUPPLY SHOULD BE NOTED AND MODIFICATIONS TO THE DESIGN SHOULD BE MADE.
8. CONTRACTOR TO VERIFY WATER PRESSURE AND AVAILABILITY PRIOR TO INSTALLATION.
9. THE LOCATION OF ALL IRRIGATION IS DIAGRAMMATIC AND SUBJECT TO FIELD VERIFICATION.
10. ANY IRRIGATION PIPING SHOWN OUTSIDE OF CURBS FOR CLARITY ONLY.

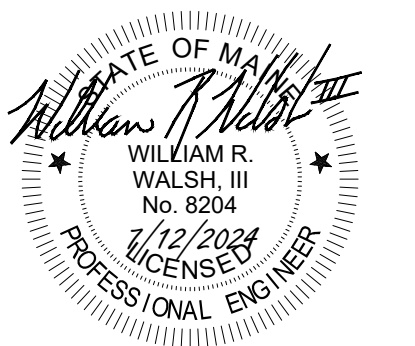
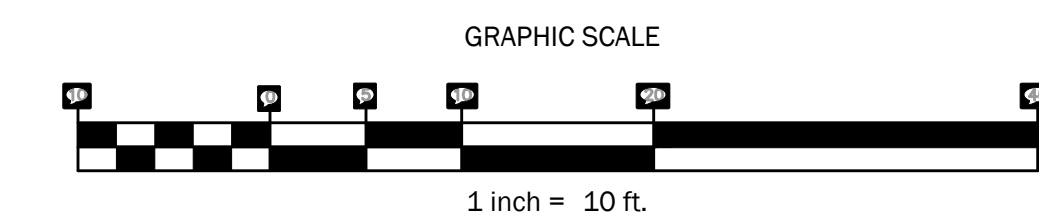


**PROJECT NOTES:**

1. SEE SHEET C1.0 FOR: PLAN REFERENCES, GENERAL NOTES, EXISTING UTILITY NOTES, LAYOUT, MATERIALS, AND UTILITY NOTES, LEGEND AND ABBREVIATIONS
2. REFERENCES TO USE OF A "SURVEYOR" ARE TO INDICATE A SURVEYOR LICENSED IN THE STATE OF MAINE.

**SCOPE OF WORK:**

1. EXCAVATE A MINIMUM OF 30 INCHES BELOW FINISH GRADE WITHIN CREMAINS PLOTS TO REMOVE ROCKS LARGER THAN APPROXIMATELY 6" AND PROCESS SOIL FOR EASE OF FUTURE BURIALS.
2. REGRADE SITE AND ADD FILL MATERIAL AS NEEDED TO BRING TO FINAL GRADE.
3. INSTALL IRRIGATION LATERALS, VALVES AND COUPLERS PER MANUFACTURERS REQUIREMENTS.
5. INSTALL ROW IDENTIFICATION MARKERS AND SURVEY MONUMENTATION AS SHOWN ON SHEET C2.2.
4. LOAM & SEED ALL AREAS DISTURBED BY INSTALLATIONS.



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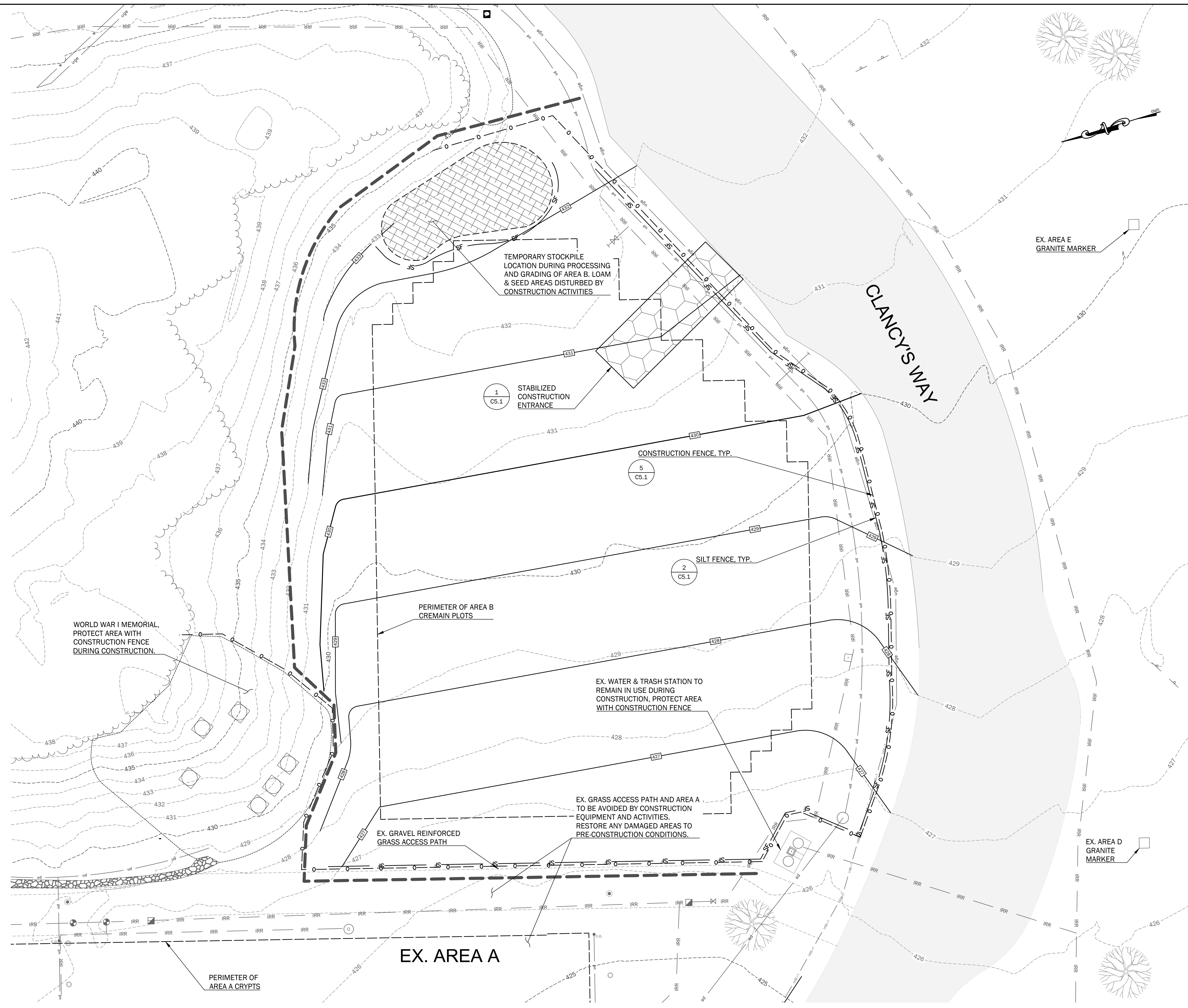
Rev.	Date	Description	Drawn	Check

Sheet Title:  
**Area B - Site Layout, Grading, and Utilities Plan**

Job No.:	105.5	Sheet No.:	<b>C2.1</b>	
Date:	JULY 12, 2024	Scale:		AS SHOWN
Drawn:	JDC	Checked:		NGC



- PROJECT NOTES:
- SEE SHEET C1.0 FOR:  
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 GENERAL NOTES  
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 LAYOUT, MATERIALS, AND UTILITY NOTES  
 LEGEND AND ABBREVIATIONS



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STATE OF MAINE  
 WILLIAM R. WALSH, III  
 No. 8204  
 12/2023  
 PROFESSIONAL ENGINEER

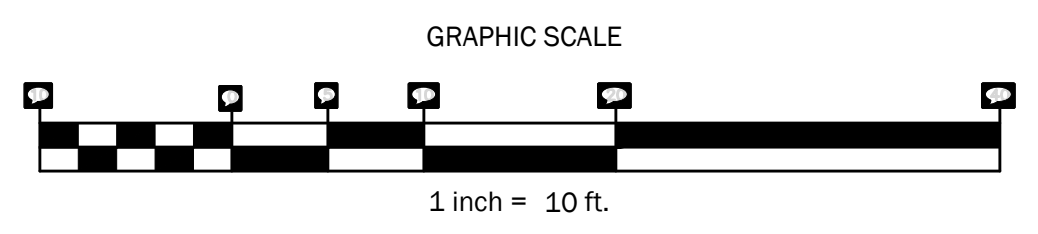
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Rev.	Date	Description	Drawn	Check

Sheet Title:  
**Area B -  
 Erosion Control Plan**

Job No.: 105.5 Sheet No.:  
 Date: JULY 12, 2024  
 Scale: AS SHOWN  
 Drawn: JDC  
 Checked: NGC

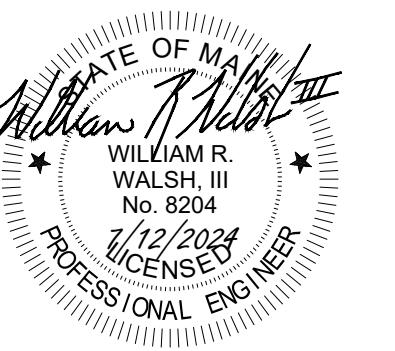
**C2.3**



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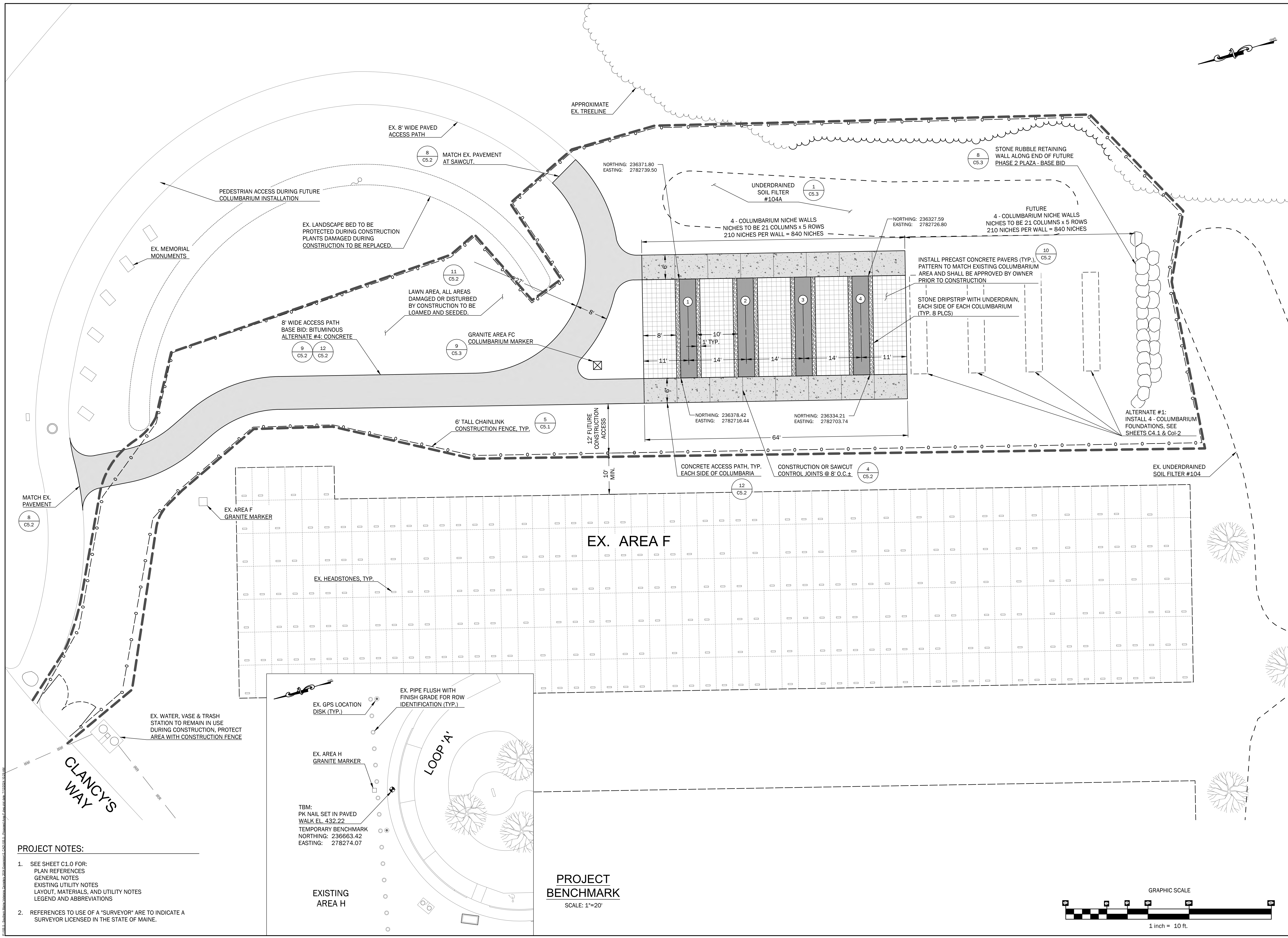






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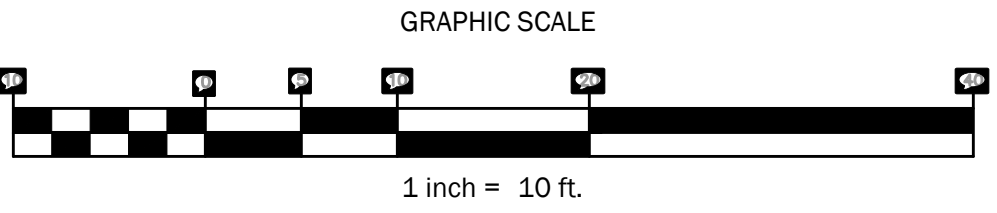


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EXISTING  
AREA H

**PROJECT  
BENCHMARK**  
SCALE: 1"=20'

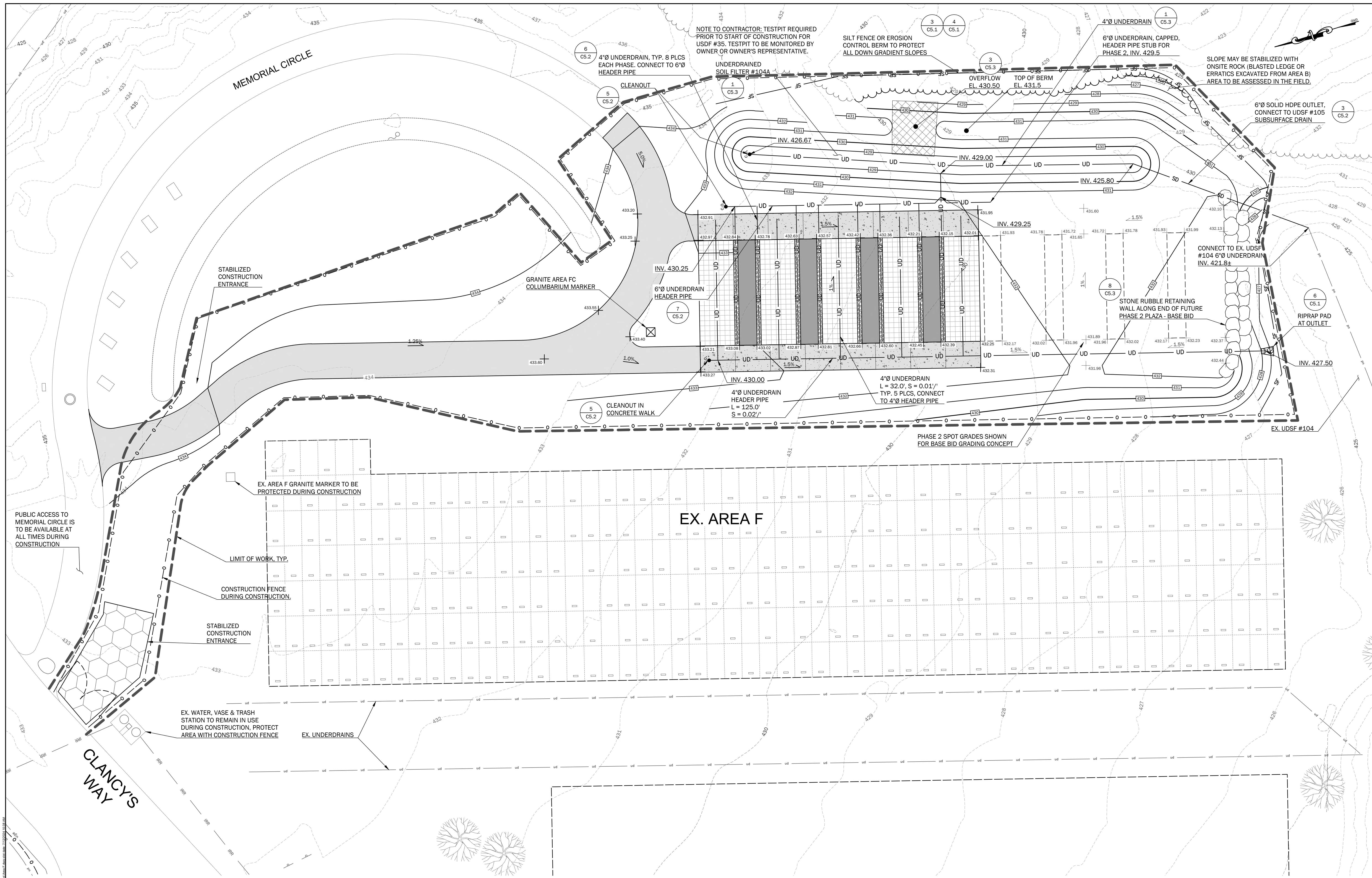


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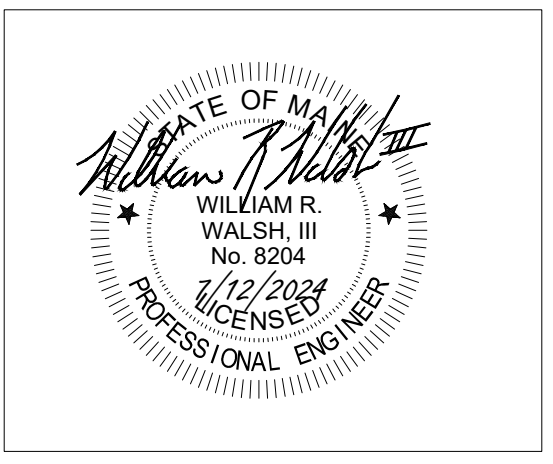
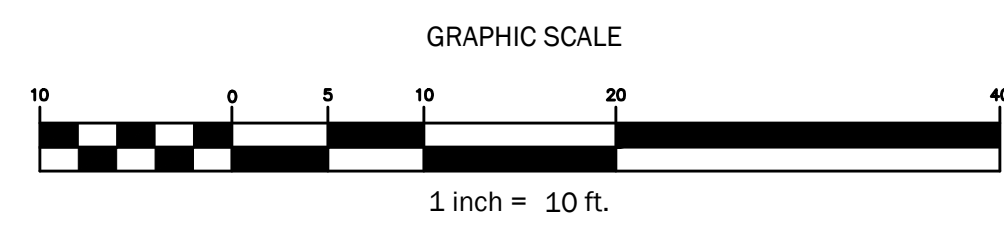
Sheet Title:  
**Area F -  
Site Layout and  
Utilities Plan**

Job No.: 105.5 Sheet No.:  
Date: JULY 12, 2024  
Scale: AS SHOWN  
Drawn: JDC  
Checked: NGC

**C3.1**



- PROJECT NOTES:**
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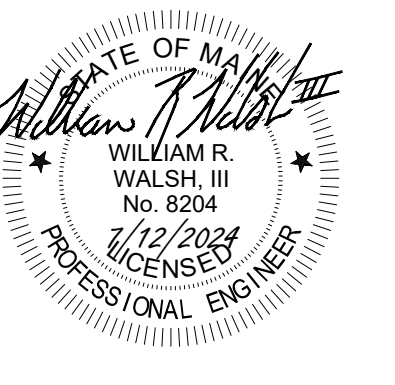


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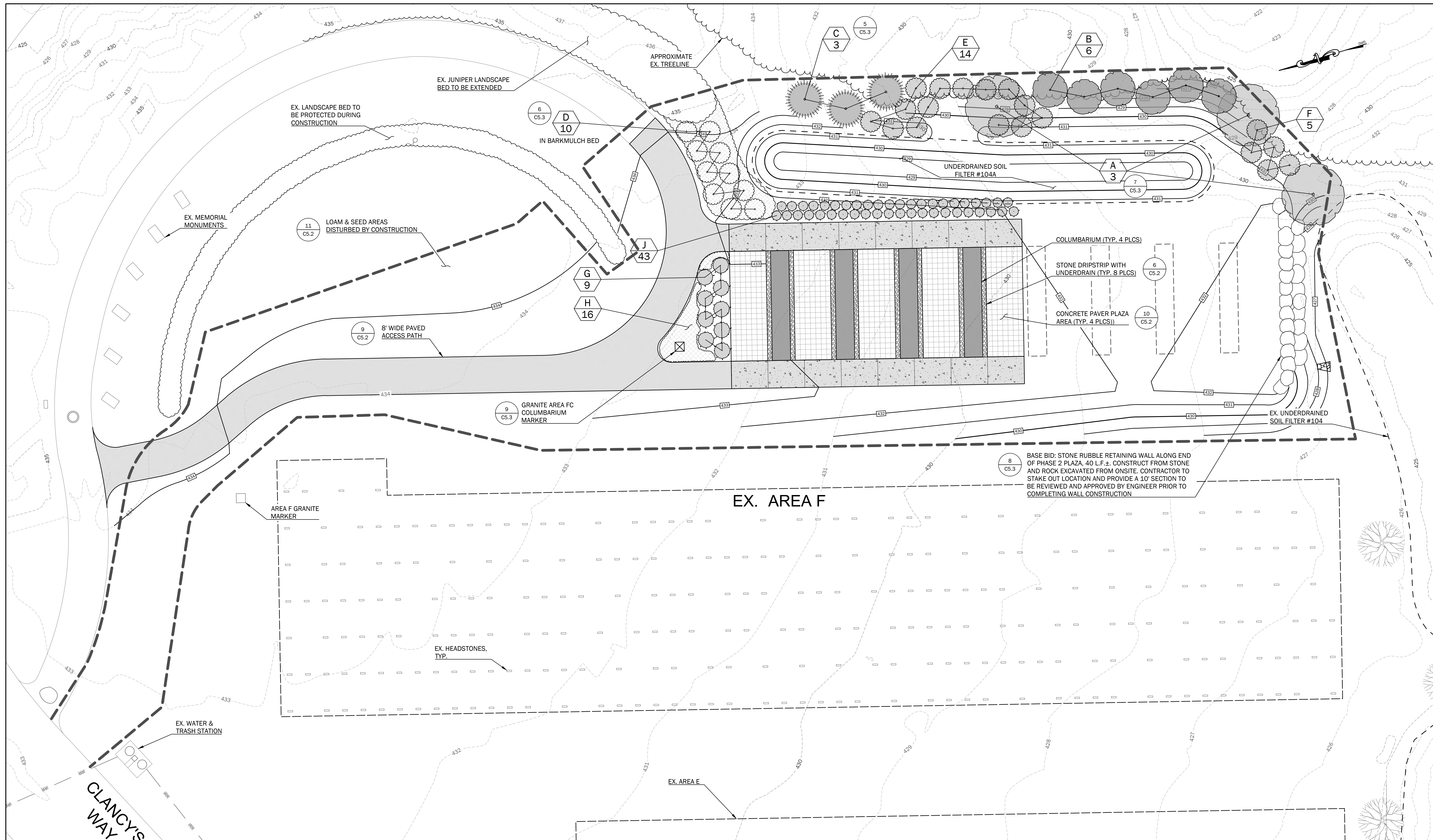
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**Area F -  
 Grading, Drainage &  
 Erosion Control Plan**

Job No.:	105.5	Sheet No.:	<b>C3.2</b>	
Date:	JULY 12, 2024	Scale:		AS SHOWN
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**PROJECT NOTES:**

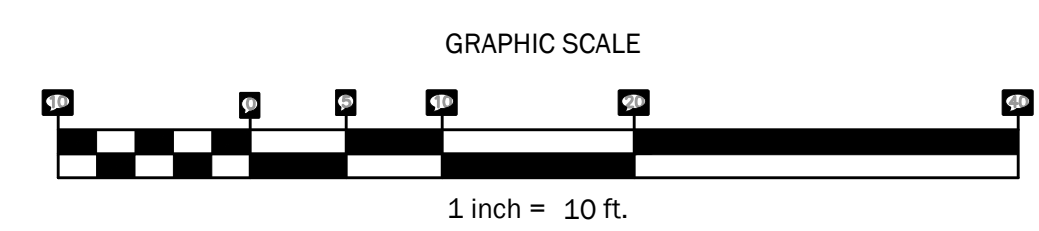
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  - PLAN REFERENCES
  - GENERAL NOTES
  - EXISTING UTILITY NOTES
  - LAYOUT, MATERIALS, AND UTILITY NOTES
  - LEGEND AND ABBREVIATIONS
- FOR LANDSCAPE PLANT SCHEDULE SEE SITE DETAIL SHEET C5.5.

**LANDSCAPE NOTES:**

- FOR LANDSCAPE PLANT SCHEDULE AND DETAILS SEE SITE DETAIL SHEET C5.5.
- ALL TOPOGRAPHIC AND EXISTING BASE INFORMATION PROVIDED BY WALSH ENGINEERING ASSOCIATES, INC.
- LIMIT OF WORK SHALL BE AT PROPERTY LINES UNLESS OTHERWISE NOTED.
- NO GRADING, CONSTRUCTION OR MATERIALS STORAGE SHALL OCCUR WITHIN TREE PROTECTION AREAS OR WITHIN DRIP-LINE OF EXISTING TREES.
- ALL DISTURBED AREAS NOT OTHERWISE DEVELOPED SHALL BE LOAMED WITH A MINIMUM DEPTH OF 6" OF TOPSOIL AND BE SEEDED AS SPECIFIED.
- ALL AREAS NOT REQUIRING GRADING SHALL BE LEFT UNDISTURBED. CONTRACTOR SHALL KEEP OUT OF THESE AREAS AND PRESERVE EXISTING PLANTINGS.
- UNDERGROUND AND ABOVE GROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVE GROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. UTILITY CONFLICTS SHALL BE REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT.

**PLANT LIST**

ID	QTY.	COMMON NAME	BOTANICAL NAME	SIZE	TYPE
<b>TREES</b>					
A	3	Red Sunset Maple	<i>Acer rubrum</i> 'Red sunset'	2-2.5' cal.	B&B
B	6	Serviceberry	<i>Amelanchier canadensis</i>	6-7 ft. ht.	B&B
<b>EVERGREENS</b>					
C	3	White Spruce	<i>Picea glauca</i>	7-8 ft. ht.	B&B
<b>SHRUBS</b>					
D	10	Juniper Shrub to match existng	<i>Juniperus</i> var.	3-4 ft sprd.	B&B
E	14	Red Chokeberry	<i>Aronia arbutifolia</i>	3-4 ft ht.	Cont.
F	5	Arrowwood Viburnum	<i>Viburnum dentatum</i>	3.5-4 ft ht	B&B
G	9	Karl Foerster Feather Reed Grass	<i>Calamagrostis acut.</i> 'Karl Foerster'	5 gal	Cont.
<b>PERENNIALS / GRASSES</b>					
H	16	Daylily (variety to match existng)	<i>Hemerocallis</i> var.	2 gal.	Cont.
J	43	Dwarf Hameln Grass	<i>Pennisetum alop.</i> 'Hameln'	2 gal.	Cont.

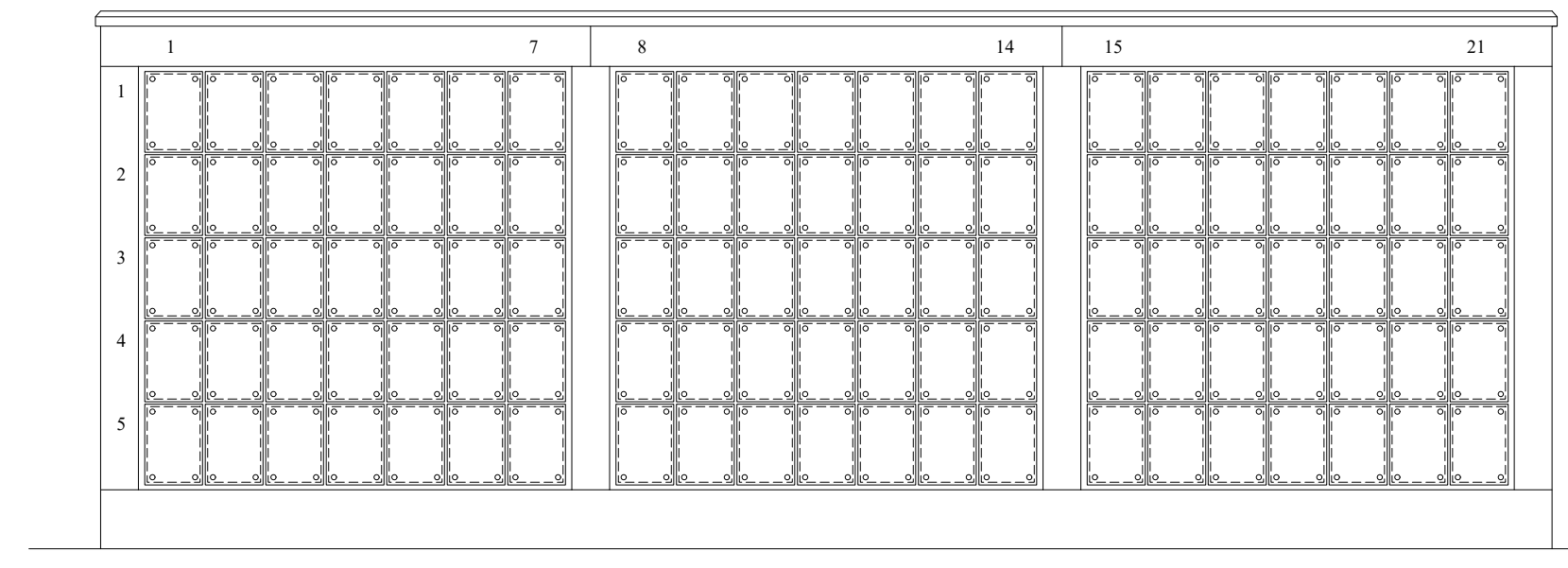
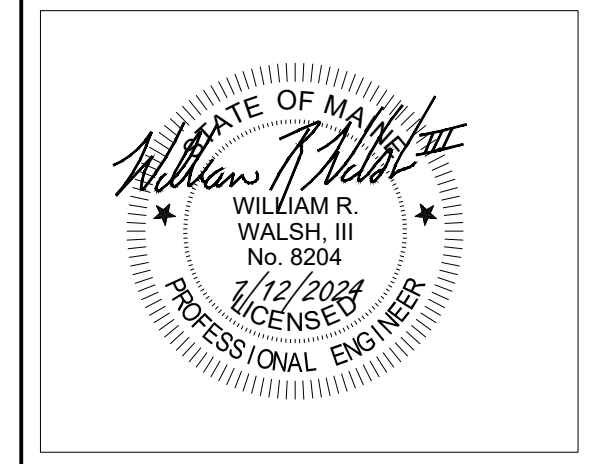


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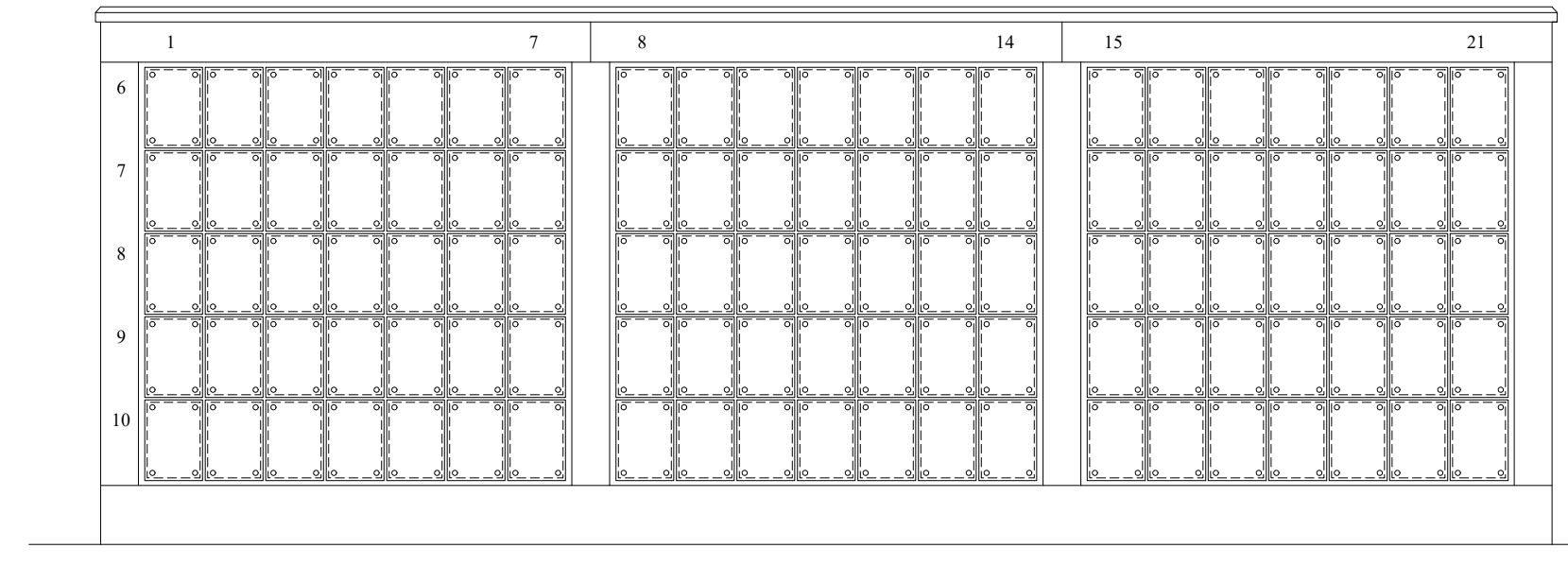
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**AREA F - Landscape Plan**

Job No.: 105.5 | Sheet No.:  
Date: JULY 12, 2024  
Scale: AS SHOWN  
Drawn: JDC  
Checked: NGC

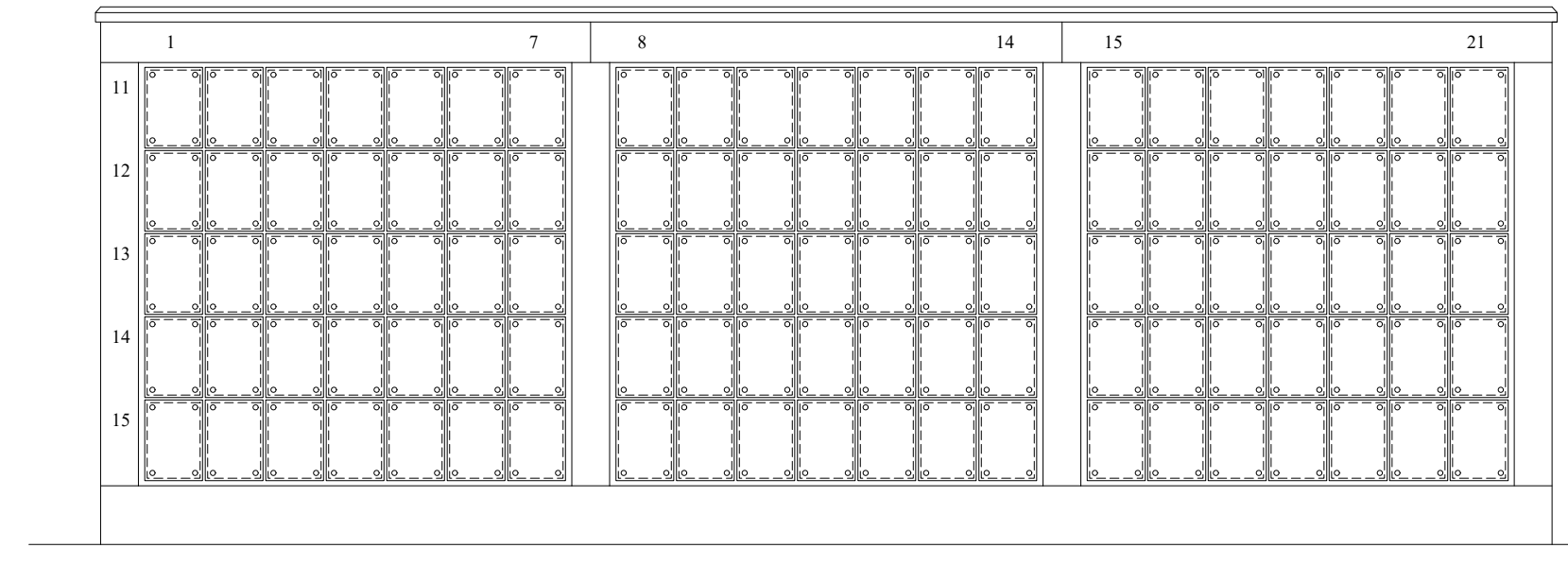
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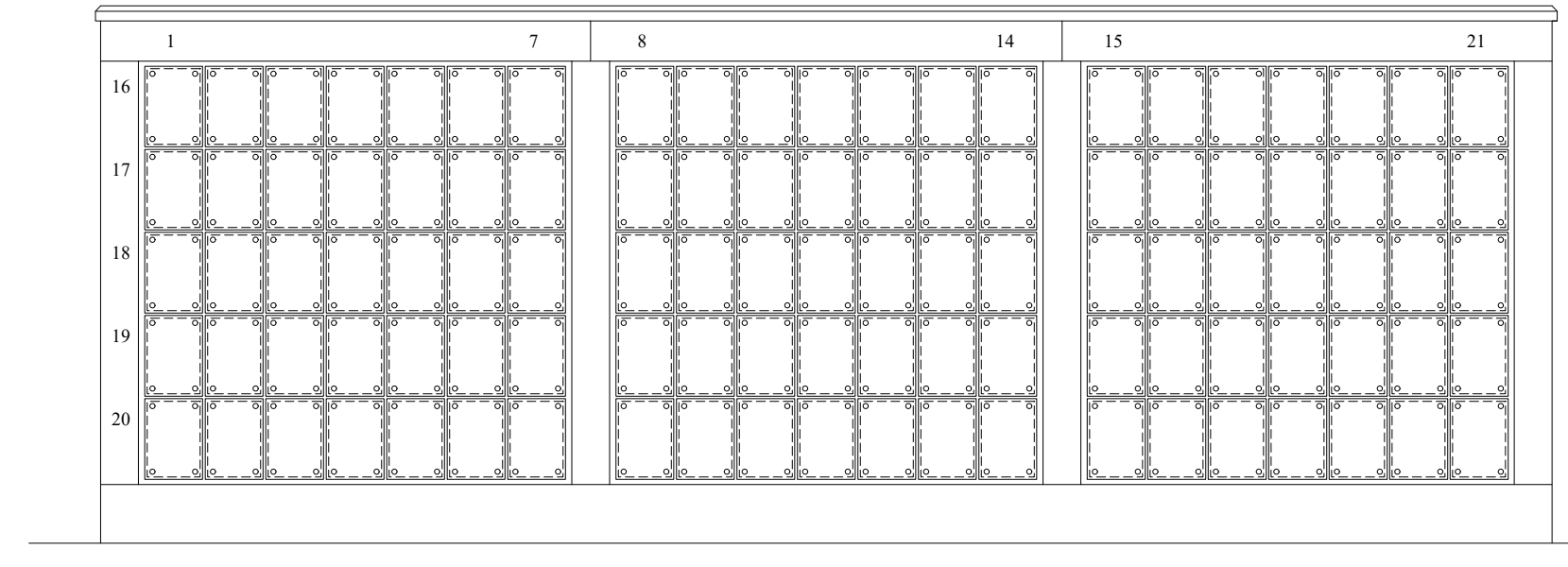
Columbarium 1 - North



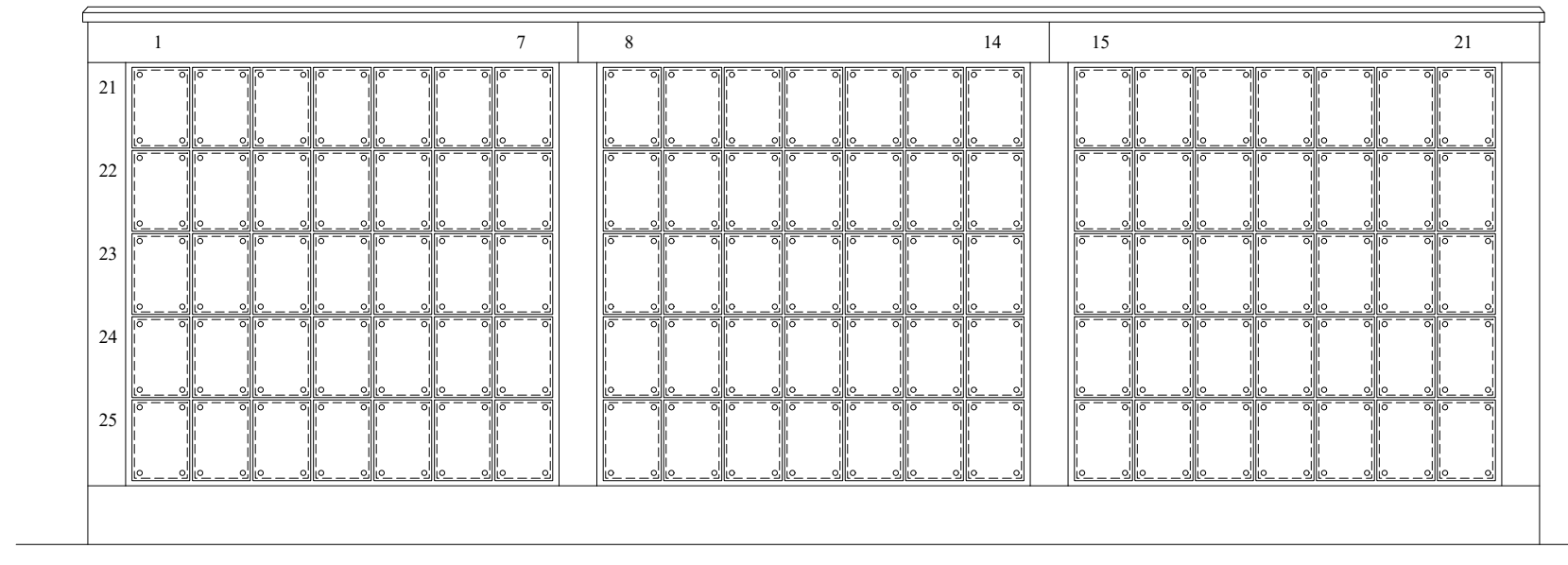
Columbarium 1 - South



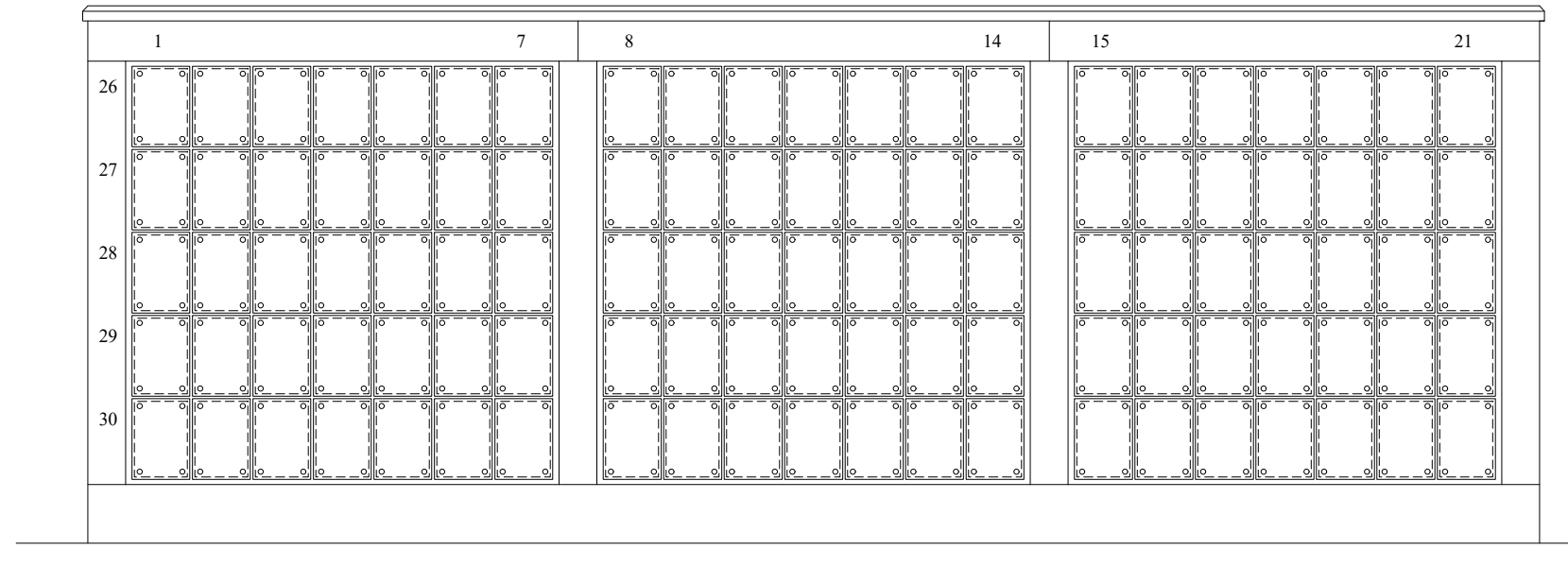
Columbarium 2 - North



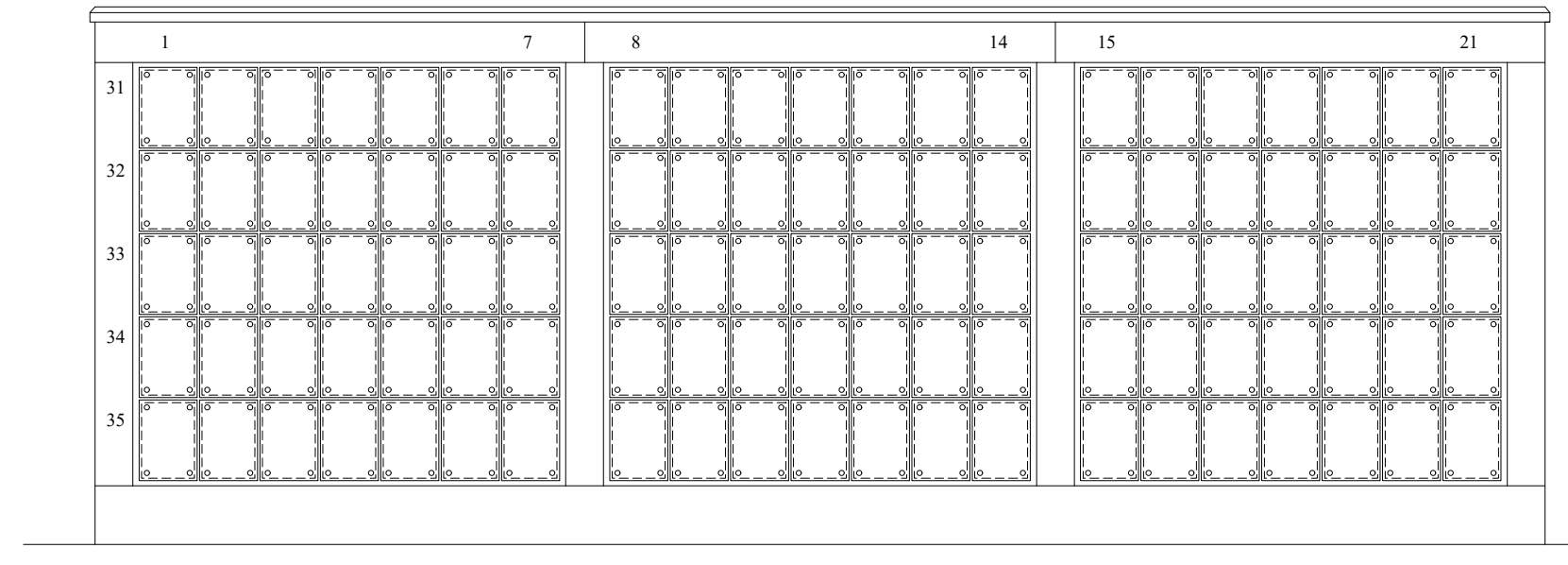
Columbarium 2 - South



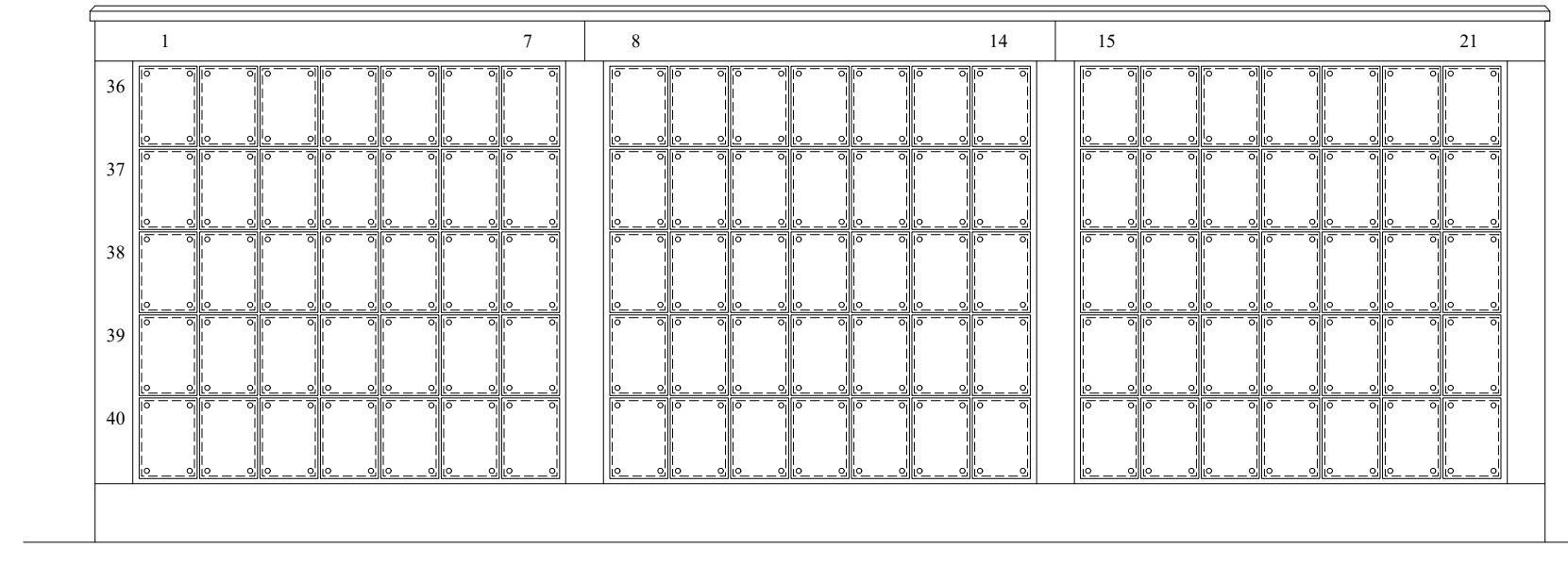
Columbarium 3 - North



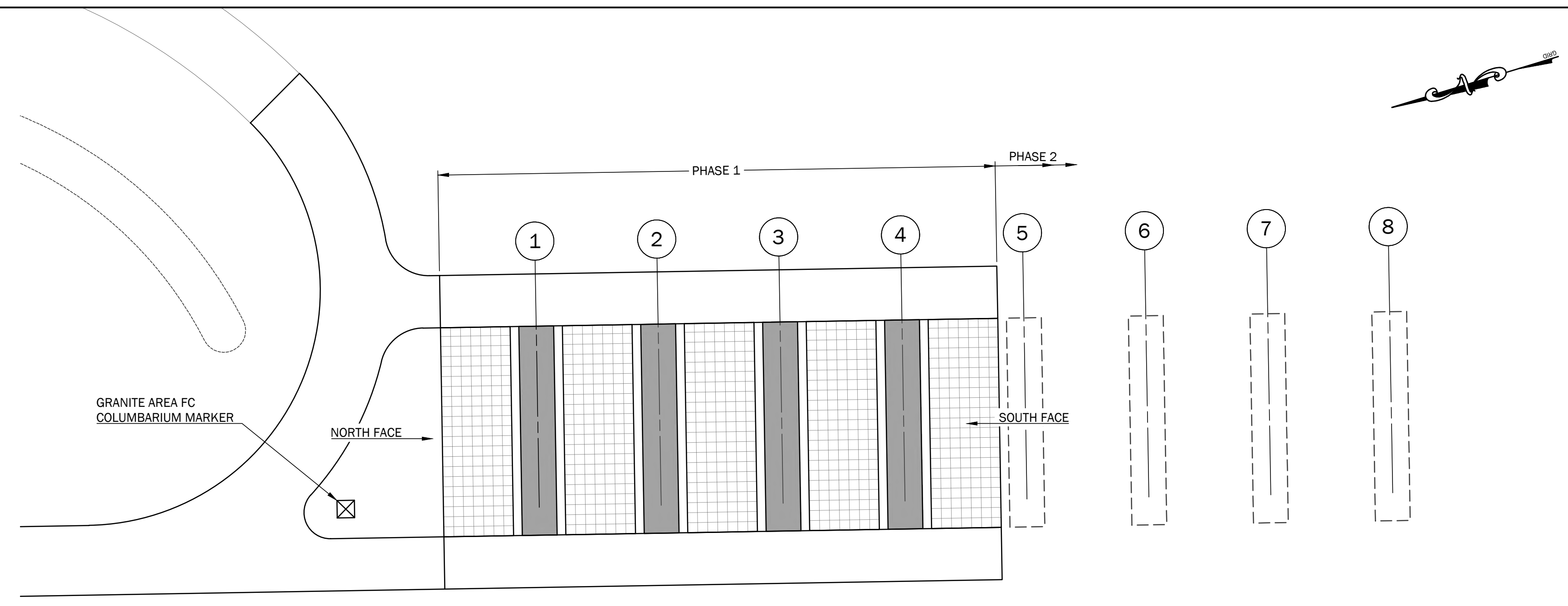
Columbarium 3 - South



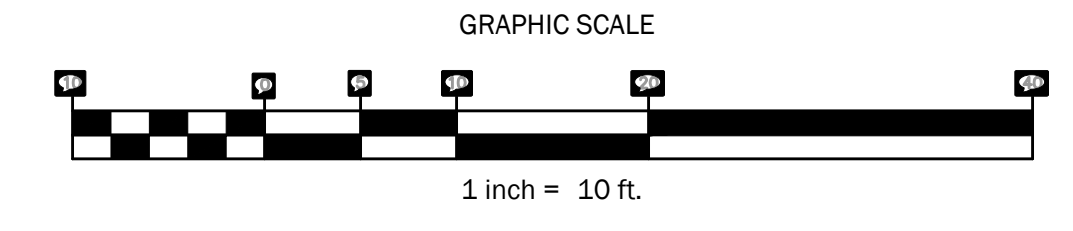
Columbarium 4 - North



Columbarium 4 - South



Columbarium Phase 1  
Numbering Plan



Numbering  
Layout



Numbering  
Detail

2 1/4" HIGH, TIMES NEW ROMAN ETCHED OR CHISELED NUMBERS AT THE TOP OF 1st & LAST COLUMNS OF EACH NICHE SECTION. MATCH STYLE, SIZE AND LOCATION TO EXISTING COLUMBARIA. SUBMIT LAYOUT FOR APPROVAL.

2 1/4" HIGH, TIMES NEW ROMAN CAST OR CHISELED NUMBERS AT THE SIDES OF EACH ROW. MATCH STYLE, SIZE AND LOCATION TO EXISTING COLUMBARIA. SUBMIT LAYOUT FOR APPROVAL.

**PROJECT NOTES:**

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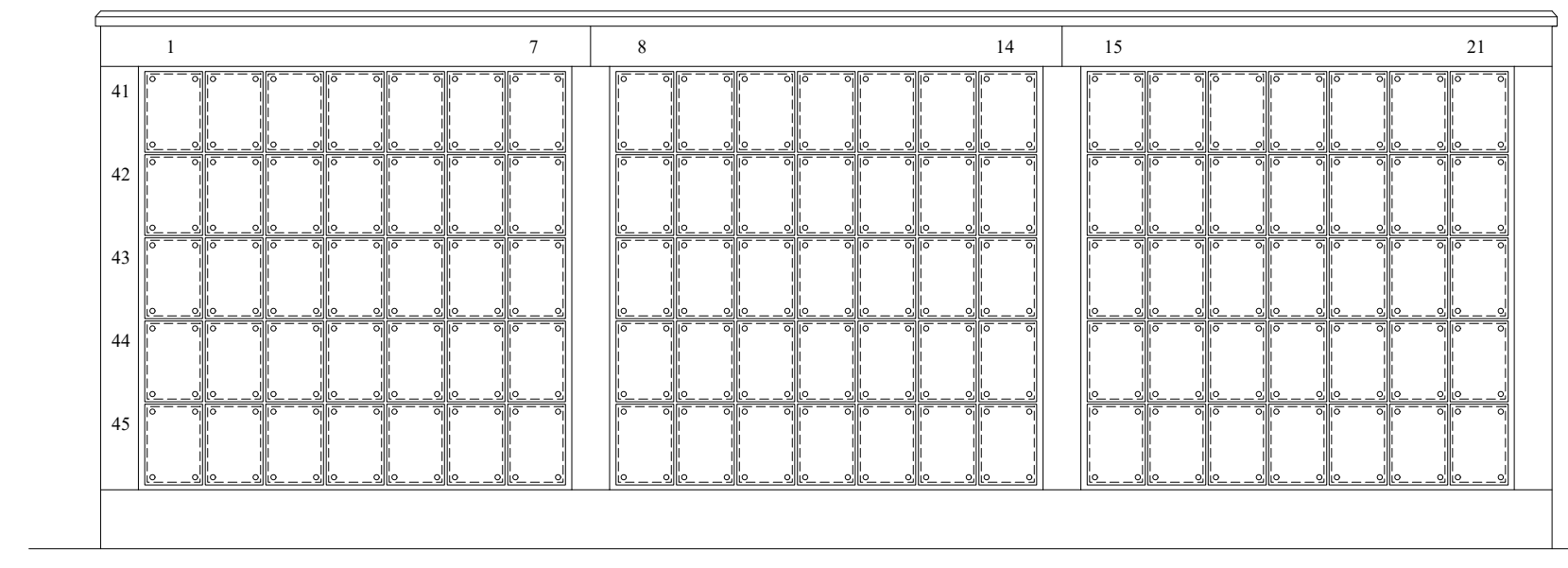
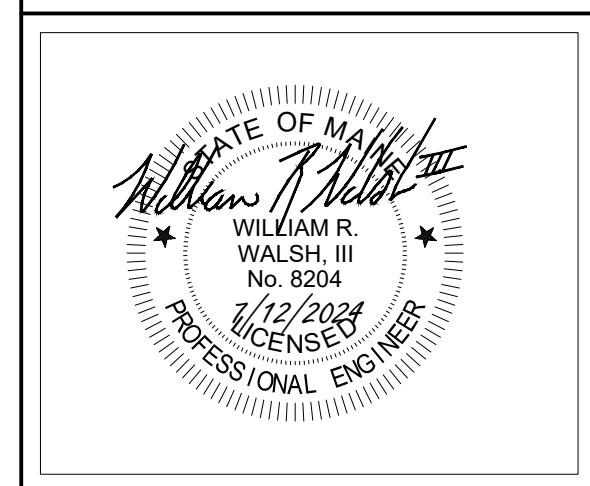
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at

Southern Maine Veterans' Cemetery, 83 Stanley Road, Springvale, Maine  
Maine Department of Defense, Veterans & Emergency Management  
Bureau of Veterans' Services  
National Cemetery Administration Project #FAI ME-23-24  
Bureau of General Services Project Number #3743

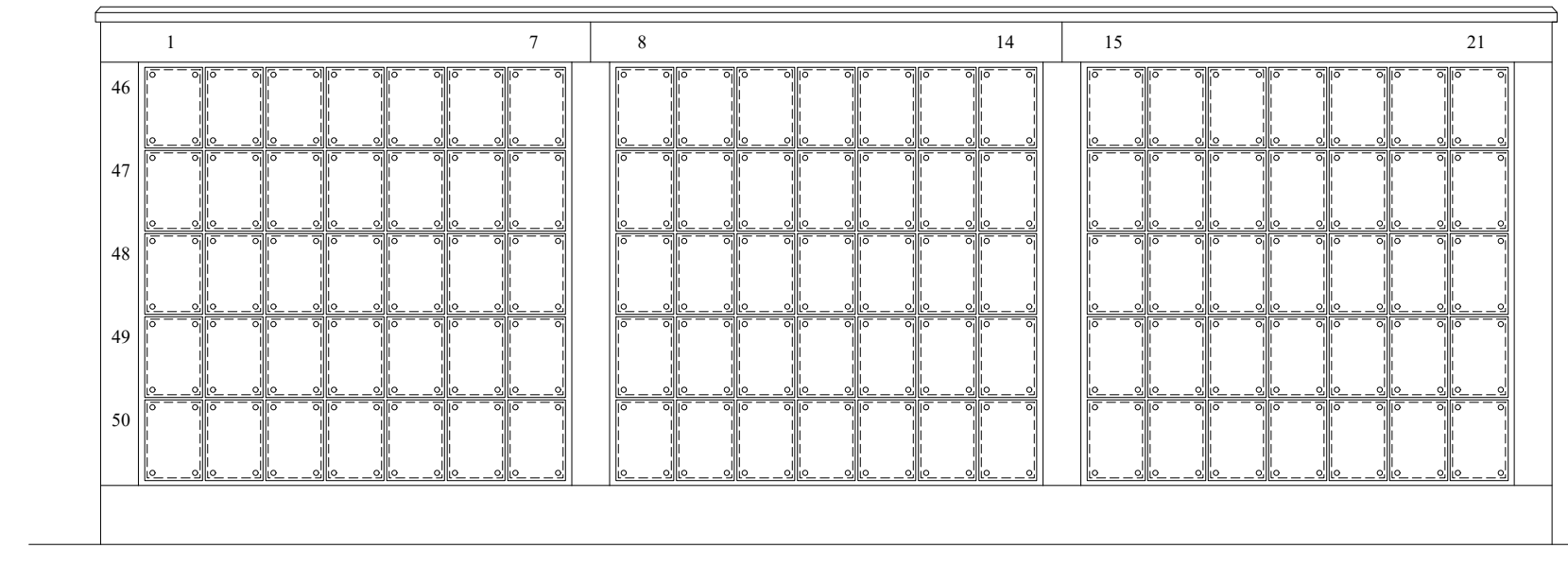
Rev.	Date	Description	Drawn	Check

Sheet Title:  
**Area F - Phase 1  
Columbaria  
Numbering Plan**

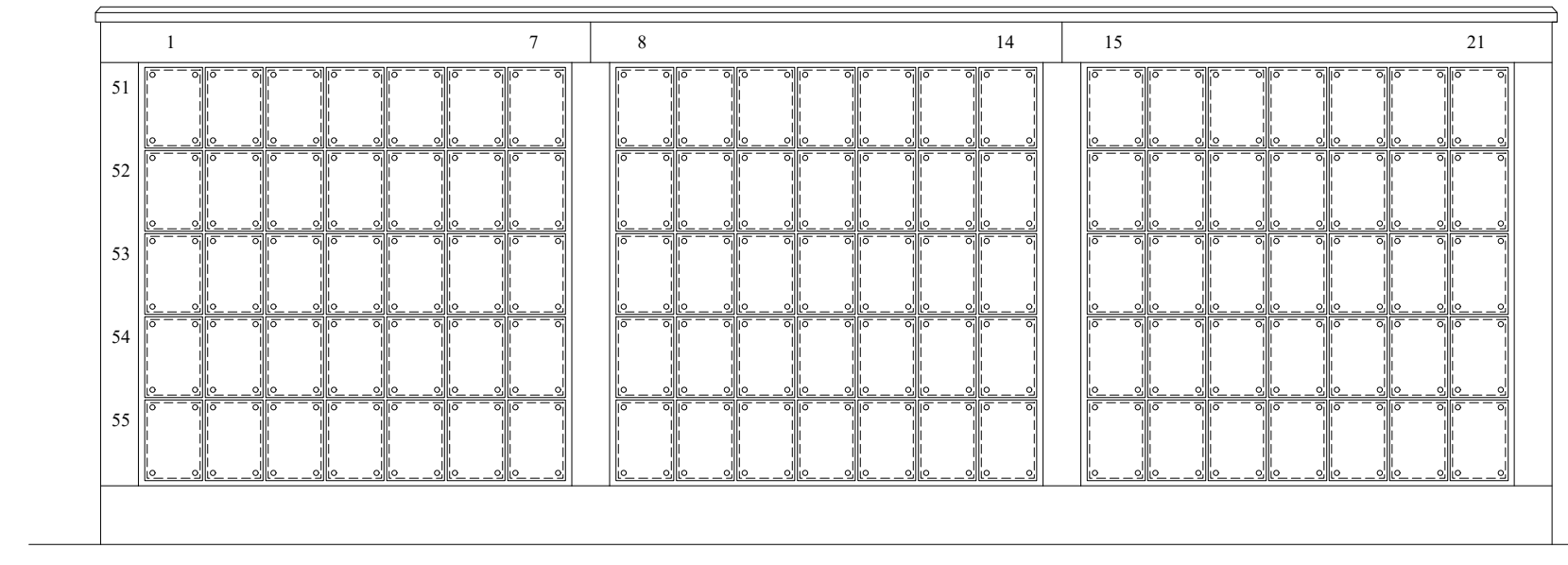
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Date:	JULY 12, 2024	Scale:		AS SHOWN
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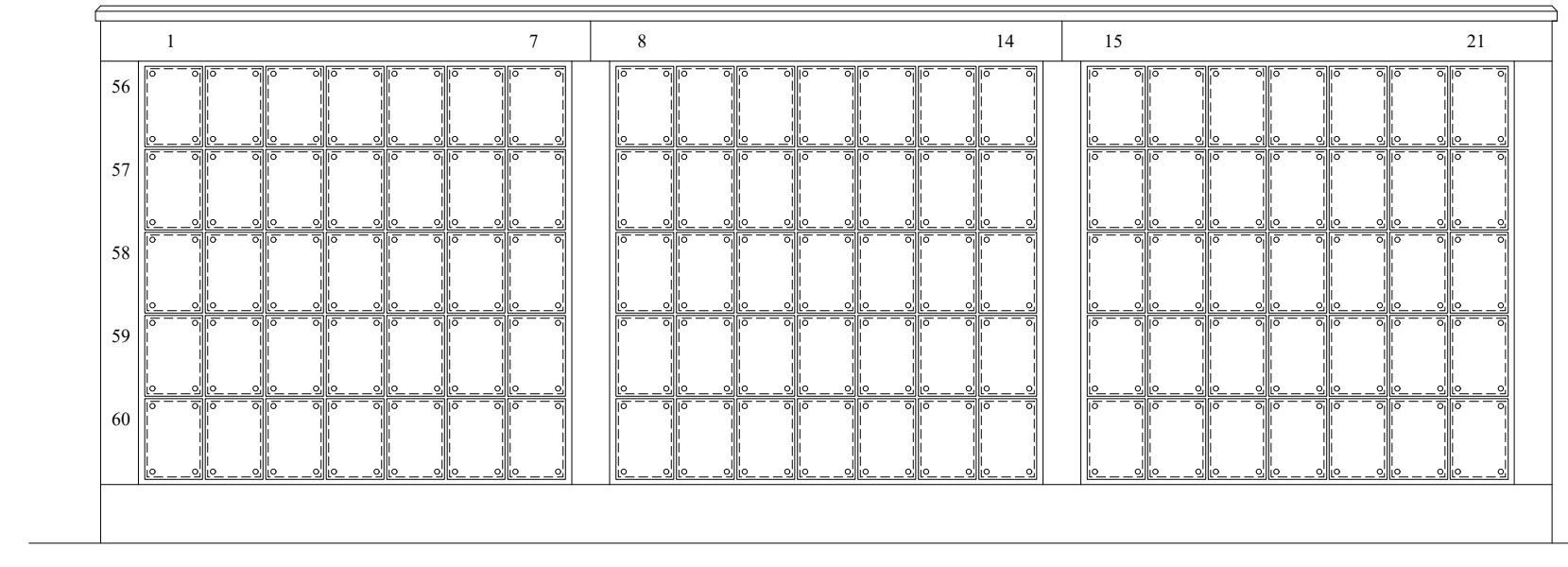
**Columbarium 5 - North**



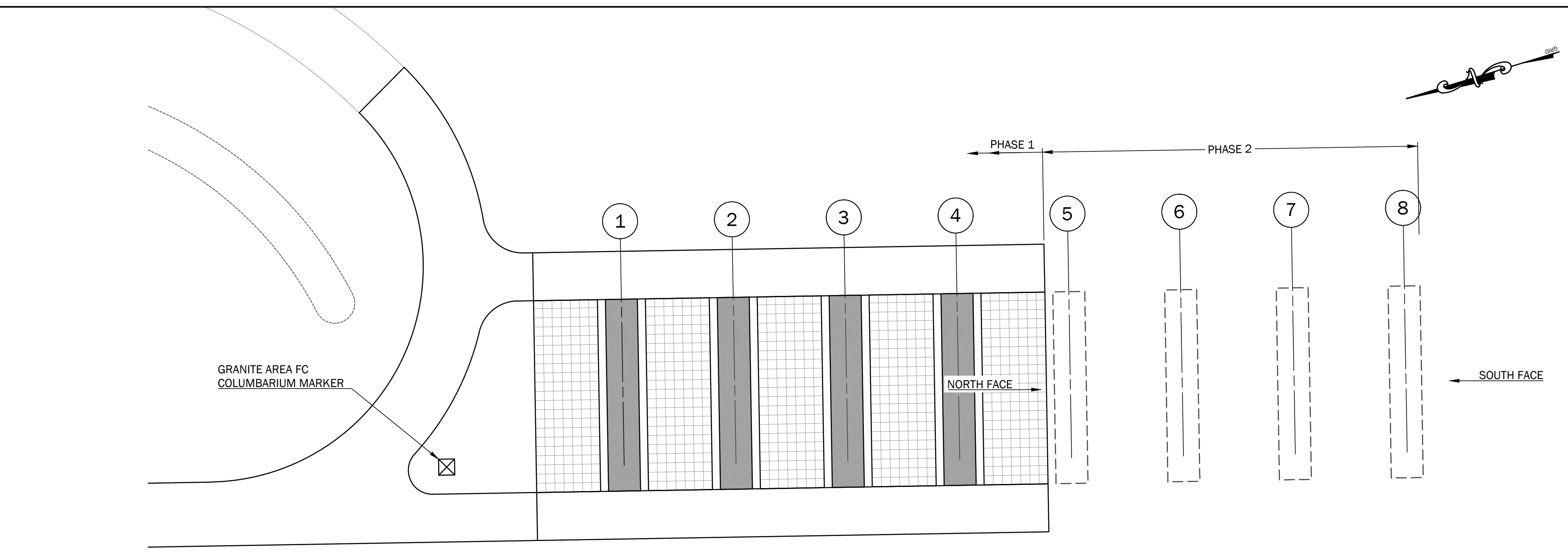
**Columbarium 5 - South**



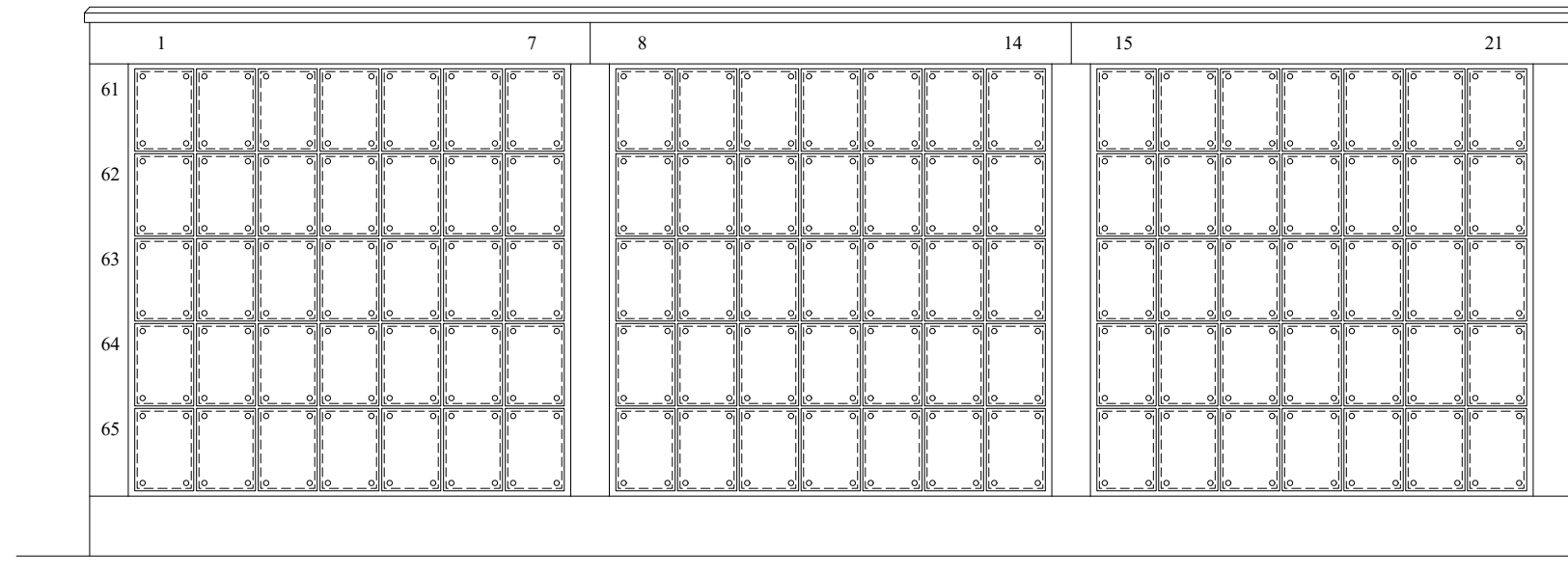
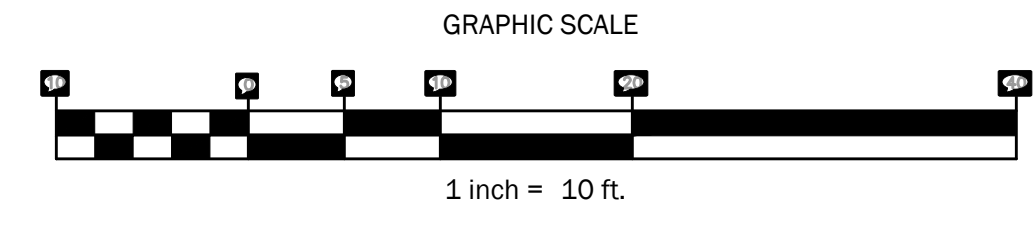
**Columbarium 6 - North**



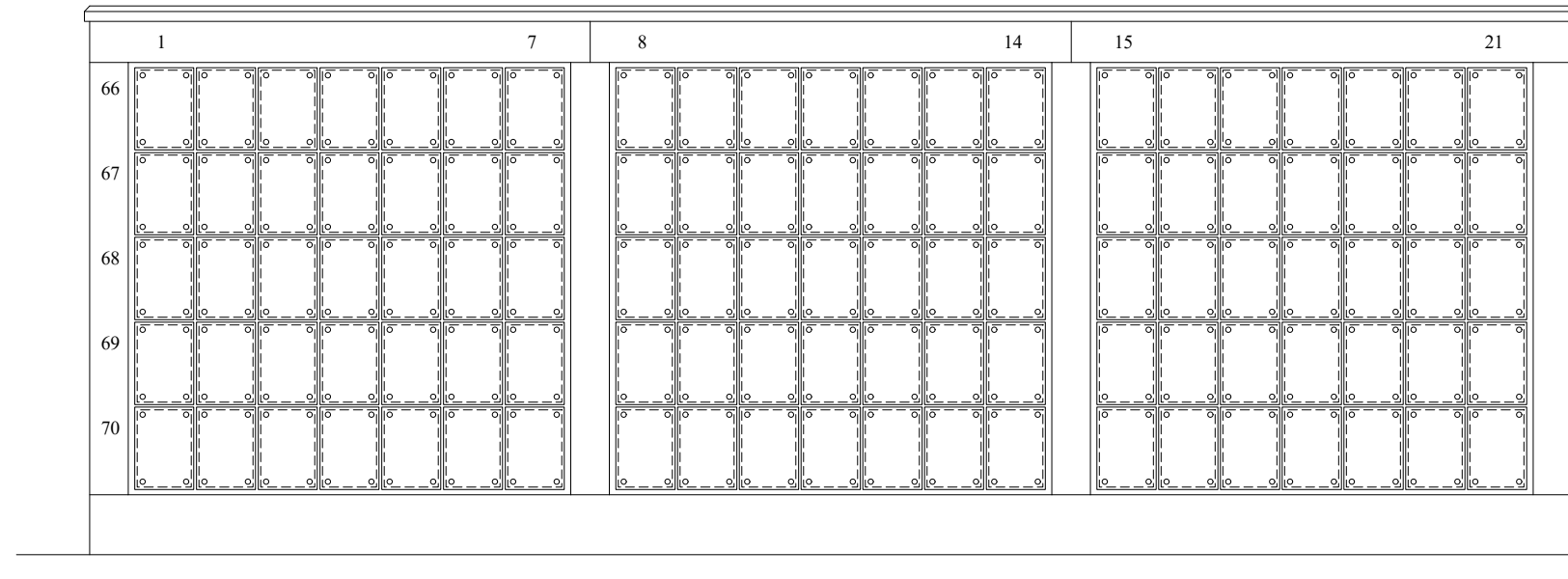
**Columbarium 6 - South**



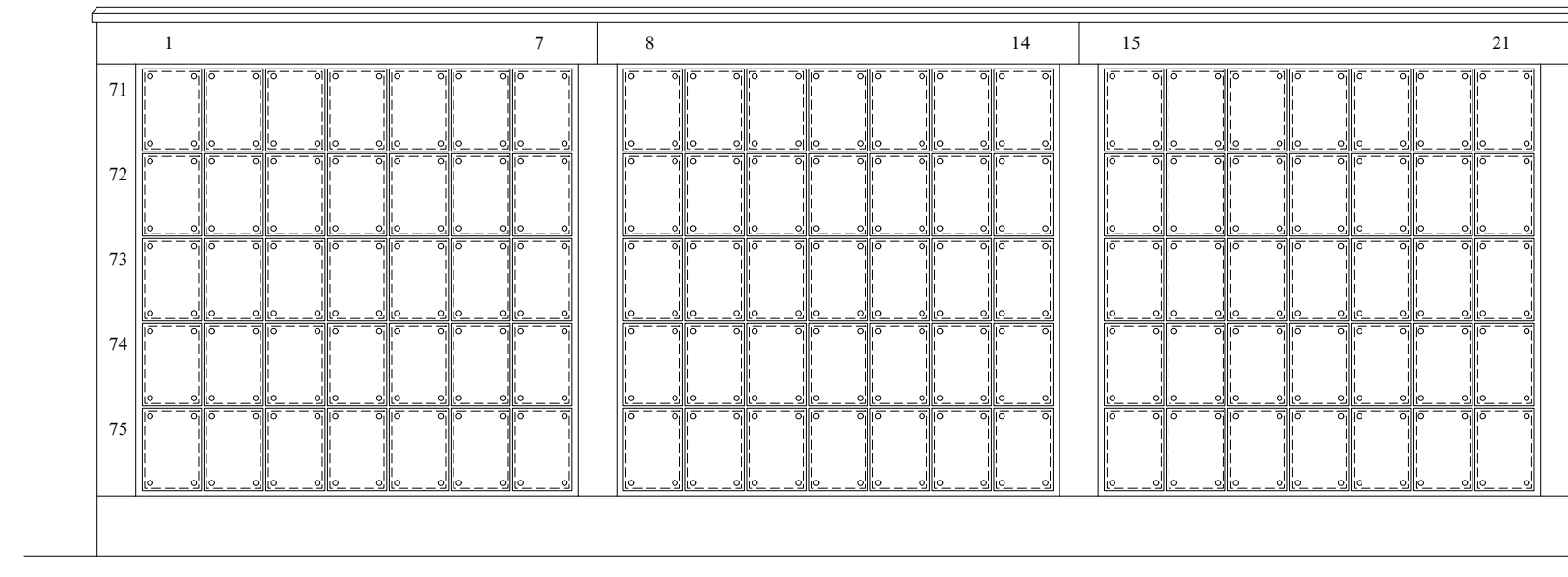
**Columbarium Phase 2 Numbering Plan**



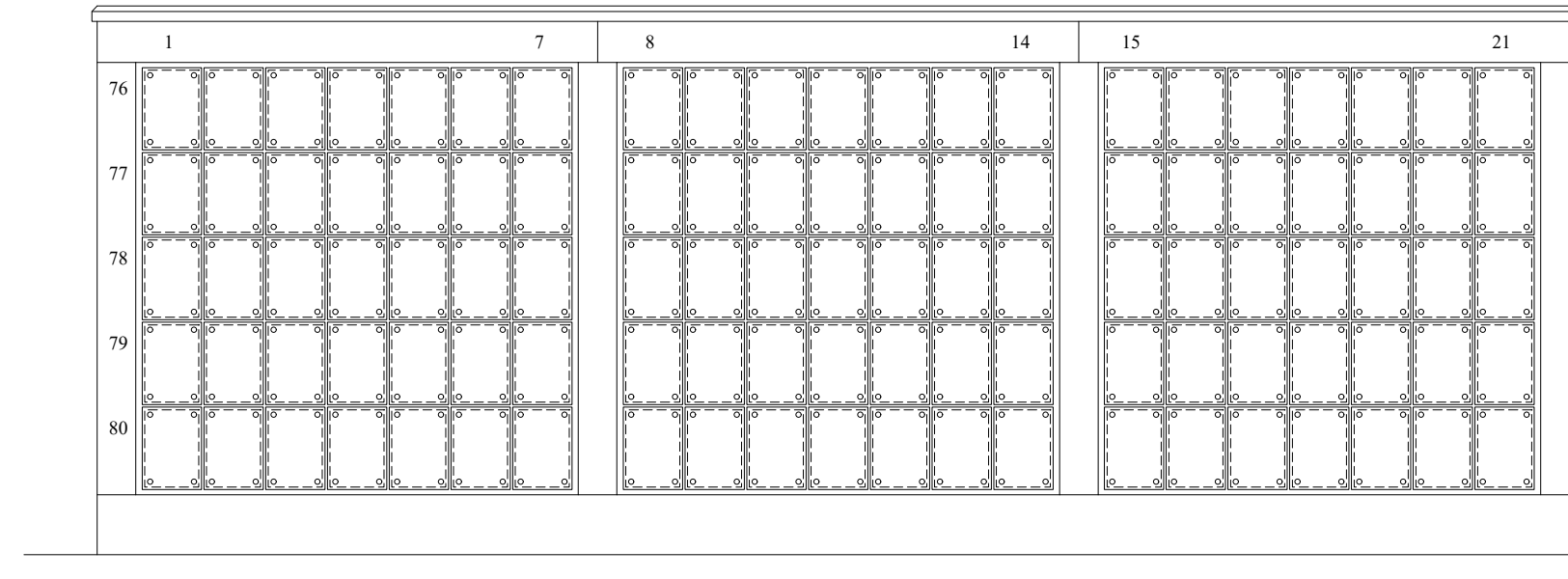
**Columbarium 7 - North**



**Columbarium 7 - South**



**Columbarium 8 - North**



**Columbarium 8 - South**

**PROJECT NOTES:**

- SEE SHEET C1.0 FOR:  
PLAN REFERENCES  
GENERAL NOTES  
EXISTING UTILITY NOTES  
LAYOUT, MATERIALS, AND UTILITY NOTES  
LEGEND AND ABBREVIATIONS
- REFERENCES TO USE OF A "SURVEYOR" ARE TO INDICATE A SURVEYOR LICENSED IN THE STATE OF MAINE.



**Numbering Layout**



**Numbering Detail**

2 1/4" HIGH, TIMES NEW ROMAN ETCHED OR CHISELED NUMBERS AT THE TOP OF 1st & LAST COLUMNS OF EACH NICHE SECTION. MATCH STYLE, SIZE AND LOCATION TO EXISTING COLUMBARIA. SUBMIT LAYOUT FOR APPROVAL.

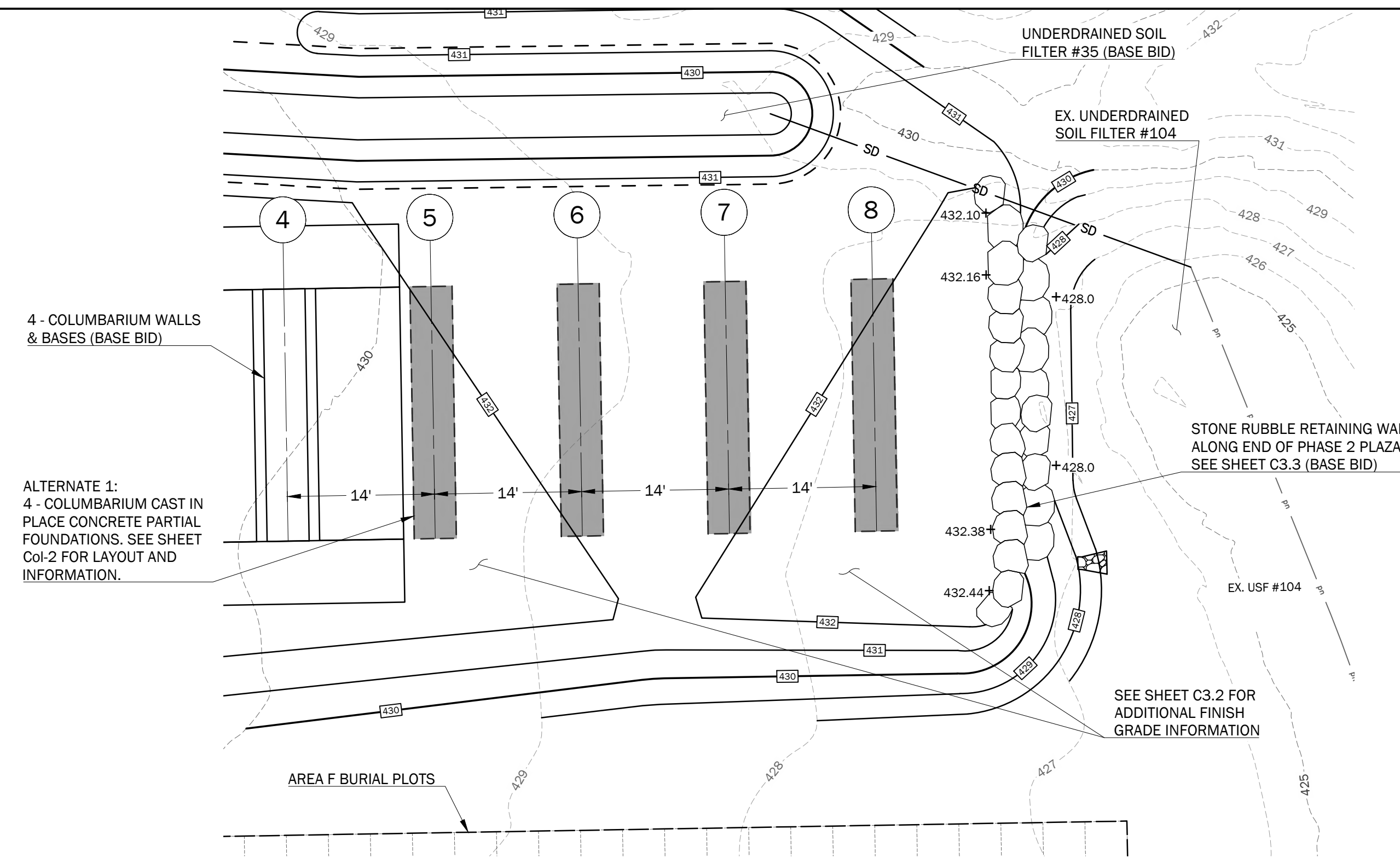
2 1/4" HIGH, TIMES NEW ROMAN CAST OR CHISELED NUMBERS AT THE SIDES OF EACH ROW. MATCH STYLE, SIZE AND LOCATION TO EXISTING COLUMBARIA. SUBMIT LAYOUT FOR APPROVAL.

**2024 Cemetery Expansion**  
at  
Southern Maine Veterans' Cemetery, 83 Stanley Road, Springvale, Maine  
Maine Department of Defense, Veterans & Emergency Management  
Bureau of Veterans' Services  
National Cemetery Administration Project #FAI ME-23-24  
Bureau of General Services Project Number #3743

Rev.	Date	Description	Drawn	Check

Sheet Title:  
**Area F - Phase 2 Columbaria Numbering Plan**

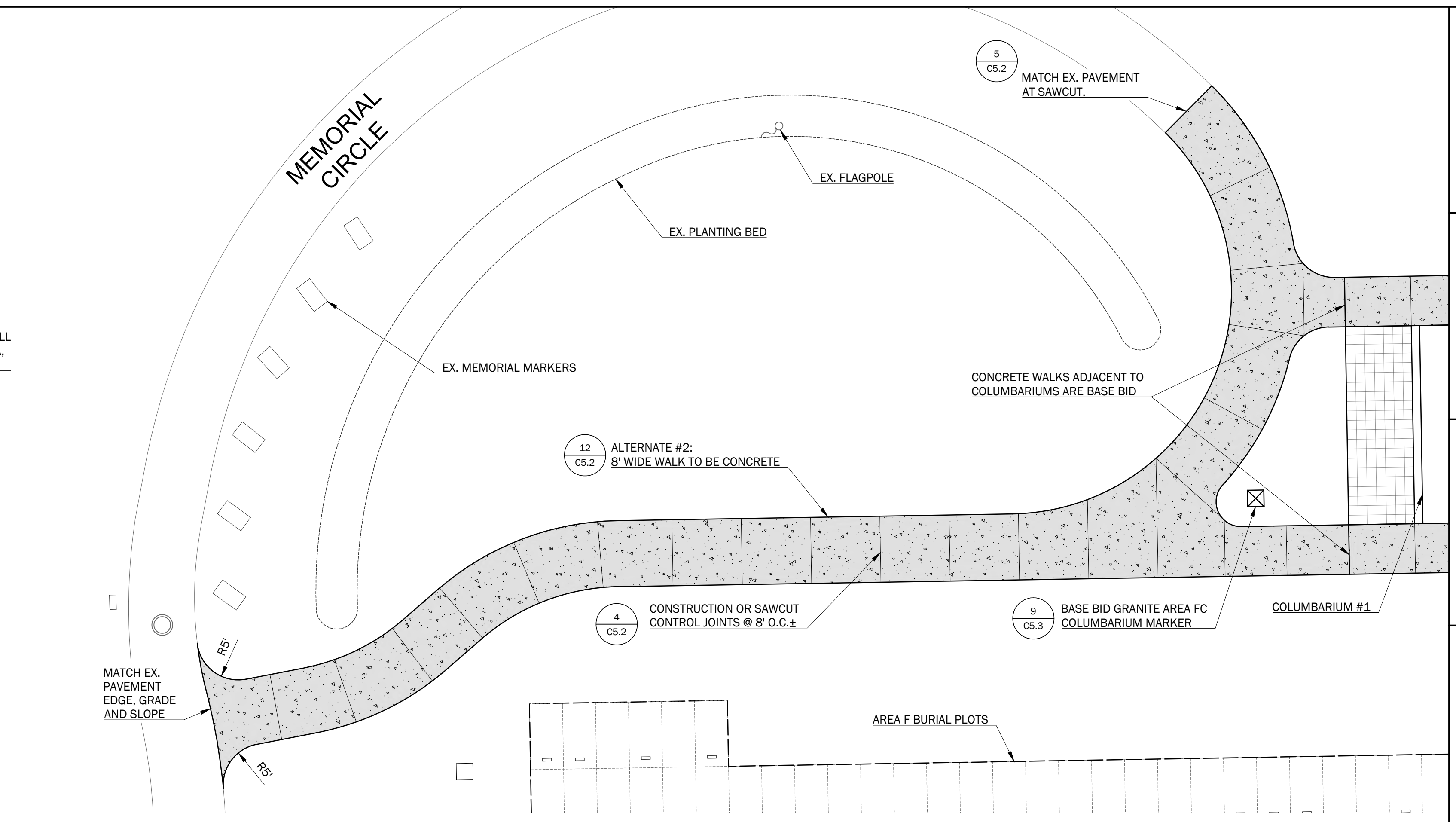
Job No.:	105.5	Sheet No.:	<b>C3.5</b>
Date:	JULY 12, 2024		
Scale:	AS SHOWN		
Drawn:	JDC		
Checked:	NGC		



**Phase 2 Columbarium Foundations Plan**

- ALTERNATE #1 REQUIREMENTS:**
1. INSTALL 4 - PHASE 2 COLUMBARIUM BASES TO 12" BELOW THE PERIMETER SHELF ELEVATION. SEE DETAILS ON SHEETS COL-1 & COL-2.
  2. LOAM AND SEED OVER FOUNDATIONS TO FINISH GRADES SHOWN ON C3.3.
  3. DO NOT RUN EQUIPMENT IN EXISTING UNDERDRAINED SOIL FILTER #104 OR BASE BID UNDERDRAINED SOIL FILTER #104A.
  4. LOAM & SEED AREAS DISTURBED BY INSTALLATIONS.

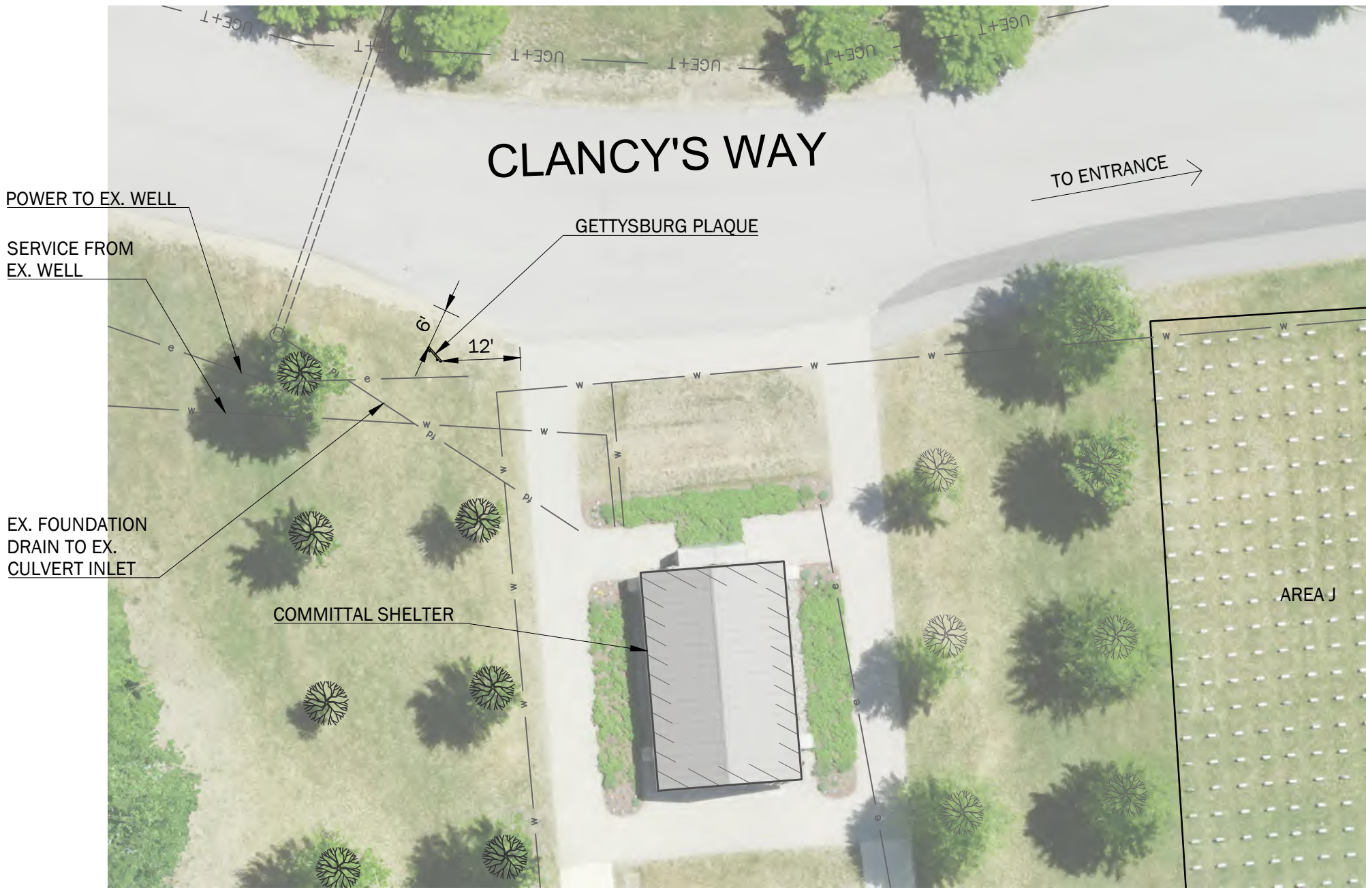
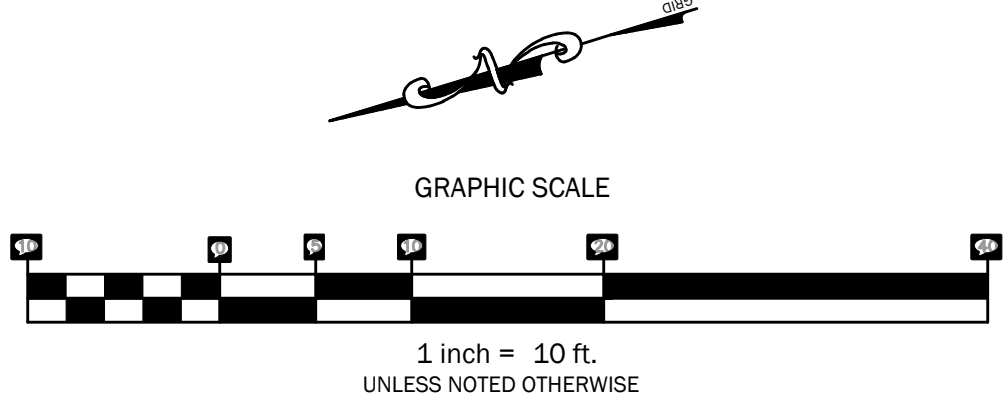
**Alternate #1 - Phase 2 Columbarium Partial Foundations**



**Concrete Walk Plan**

- ALTERNATE #2 REQUIREMENTS:**
1. REPLACE BASE BID BITUMINOUS WALK DESIGN WITH 8' WIDE CONCRETE WALK.
  2. LOAM & SEED AREAS DISTURBED BY INSTALLATION.

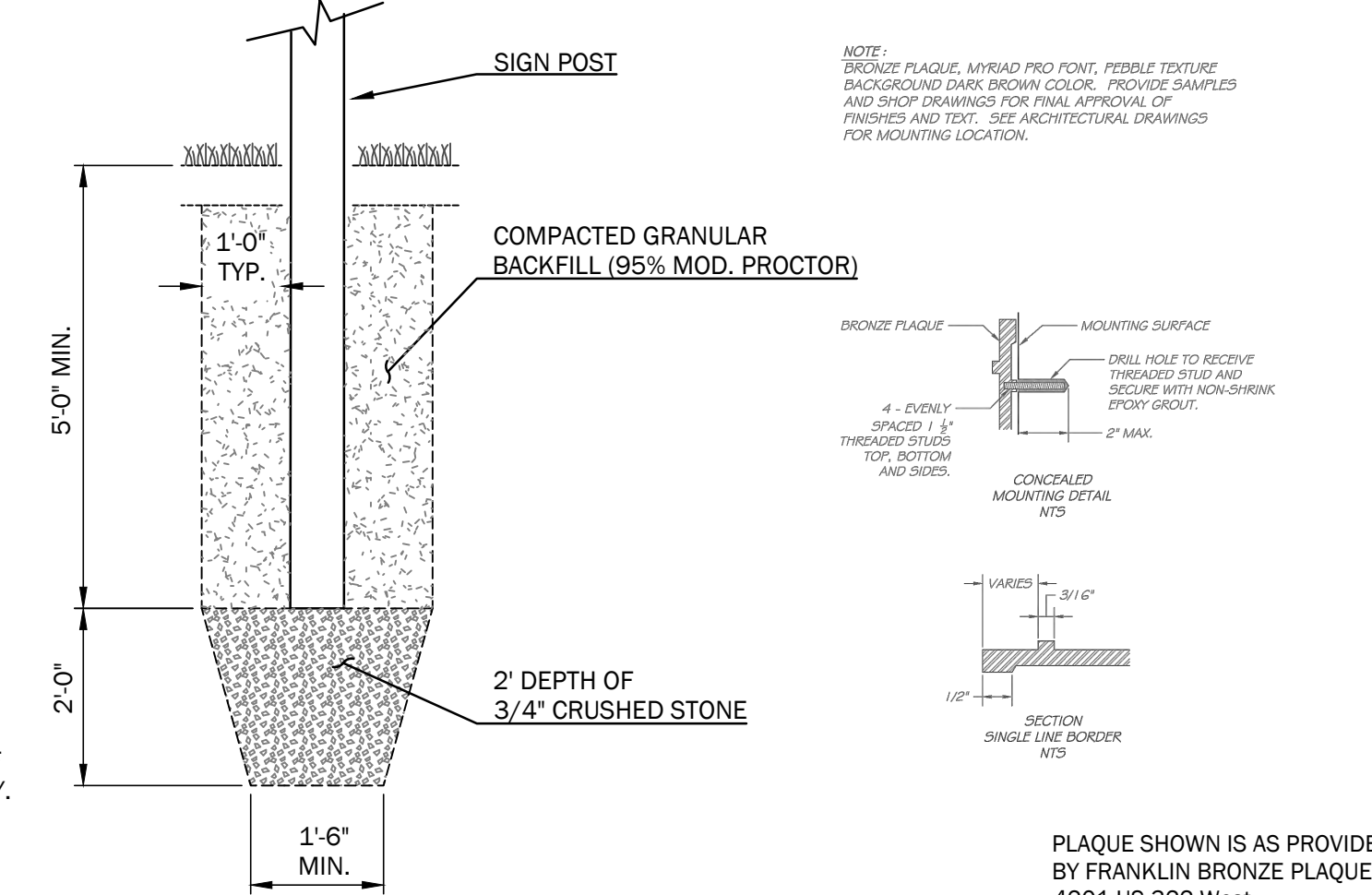
**Alternate #2 - Concrete Sidewalk**



**Plaque Location Plan**



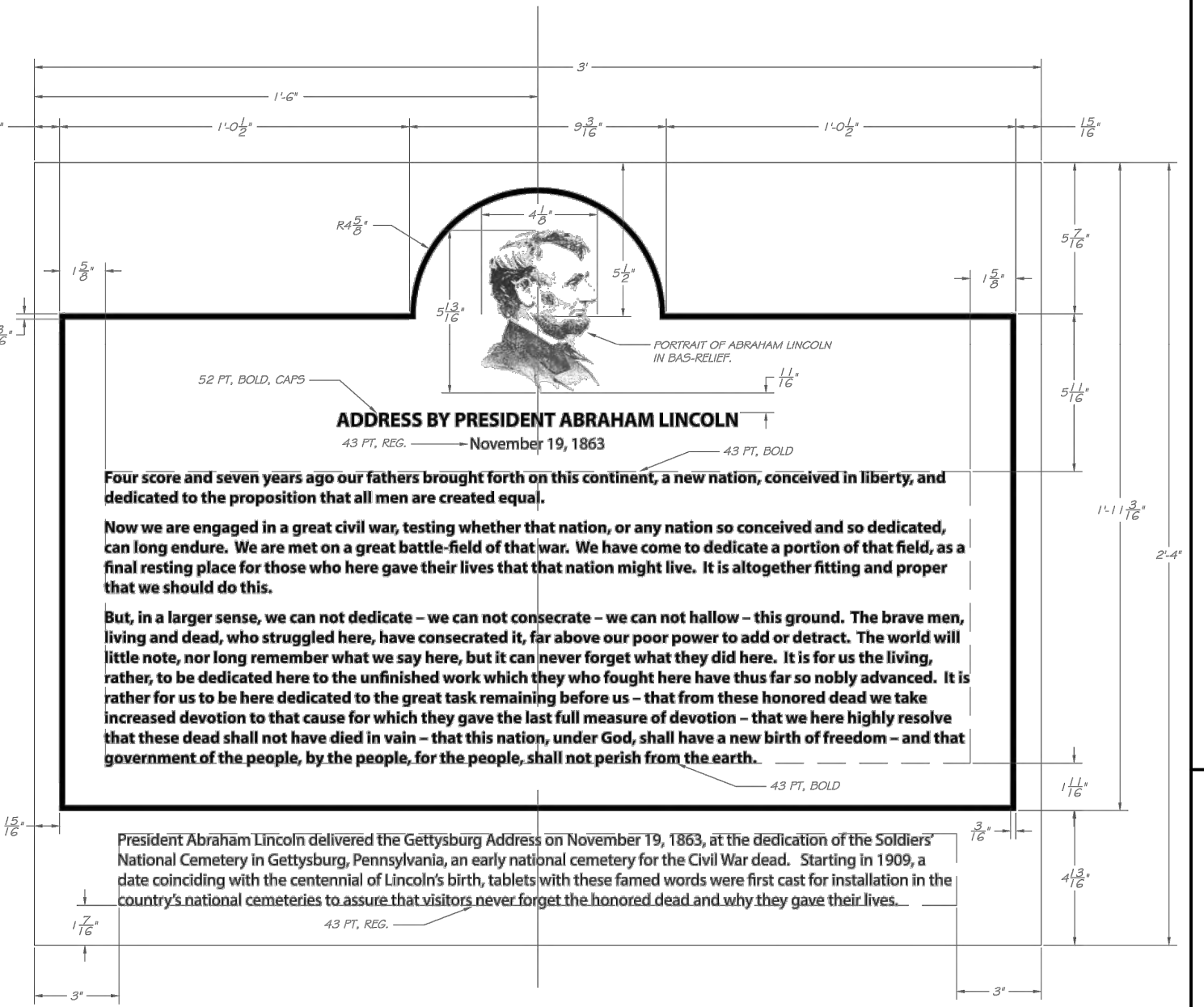
**Installation Sample**  
NOT TO SCALE



**Sign Post Installation Detail**  
NOT TO SCALE

- ALTERNATE #3 REQUIREMENTS:**
1. COORDINATE FOR PLAQUE TO BE CAST.
  2. INSTALL SUPPORTS.
  3. INSTALL PLAQUE.
  4. LOAM & SEED AREAS DISTURBED BY INSTALLATION.

**Alternate #3 - Gettysburg Plaque Installation**



**Plaque Detail**  
NOT TO SCALE

**PROJECT NOTES:**

1. SEE SHEET C1.0 FOR: PLAN REFERENCES, GENERAL NOTES, EXISTING UTILITY NOTES, LAYOUT, MATERIALS, AND UTILITY NOTES, LEGEND AND ABBREVIATIONS
2. REFERENCES TO USE OF A "SURVEYOR" ARE TO INDICATE A SURVEYOR LICENSED IN THE STATE OF MAINE.

**2024 Cemetery Expansion**

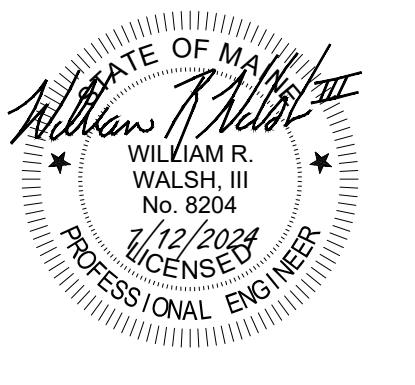
at  
Southern Maine Veterans' Cemetery, 83 Stanley Road, Springvale, Maine  
Maine Department of Defense, Veterans & Emergency Management  
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National Cemetery Administration Project #FAI ME-23-24  
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Rev.	Date	Description	Drawn	Check

Sheet Title:  
**Alternates 1, 2 & 3**

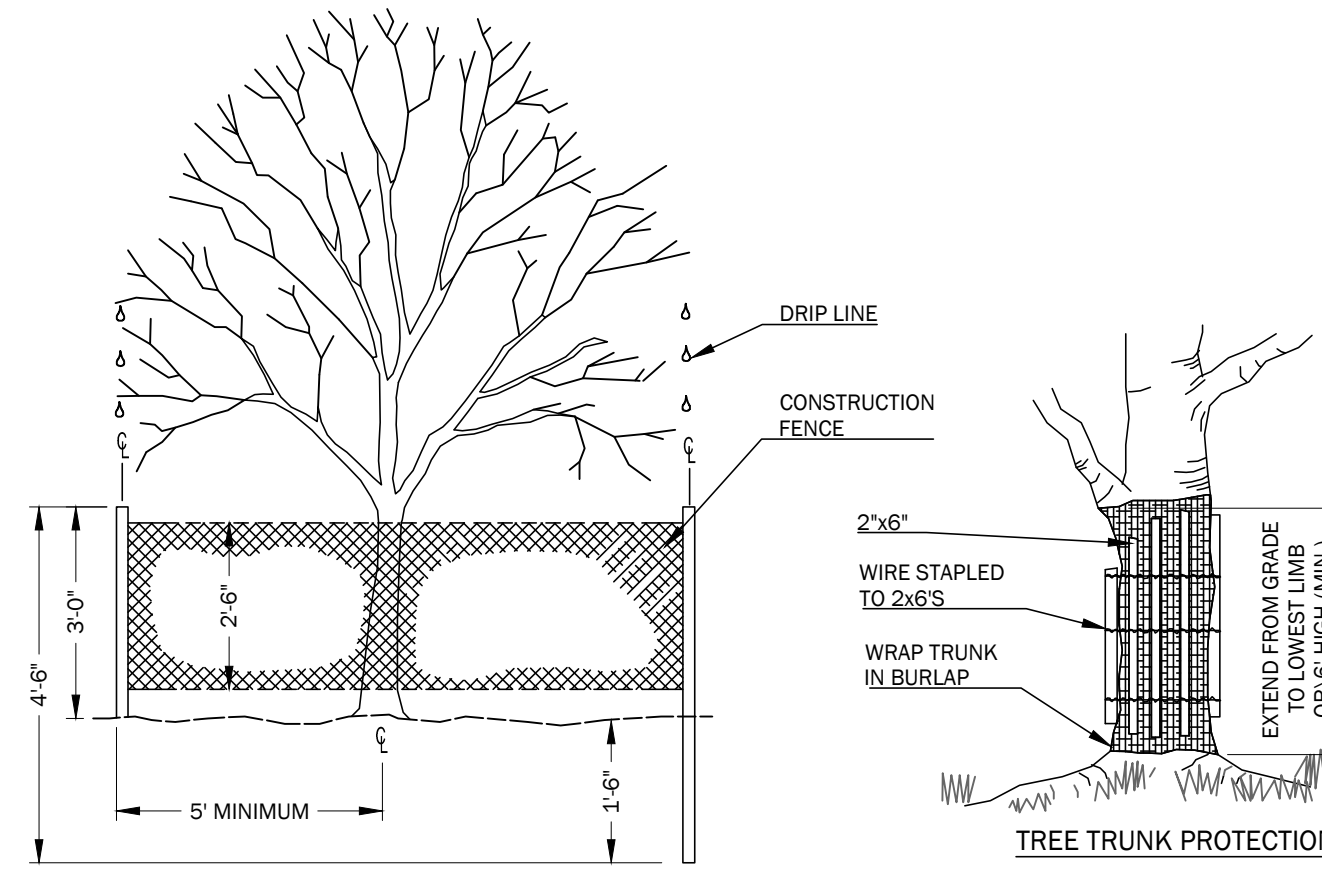
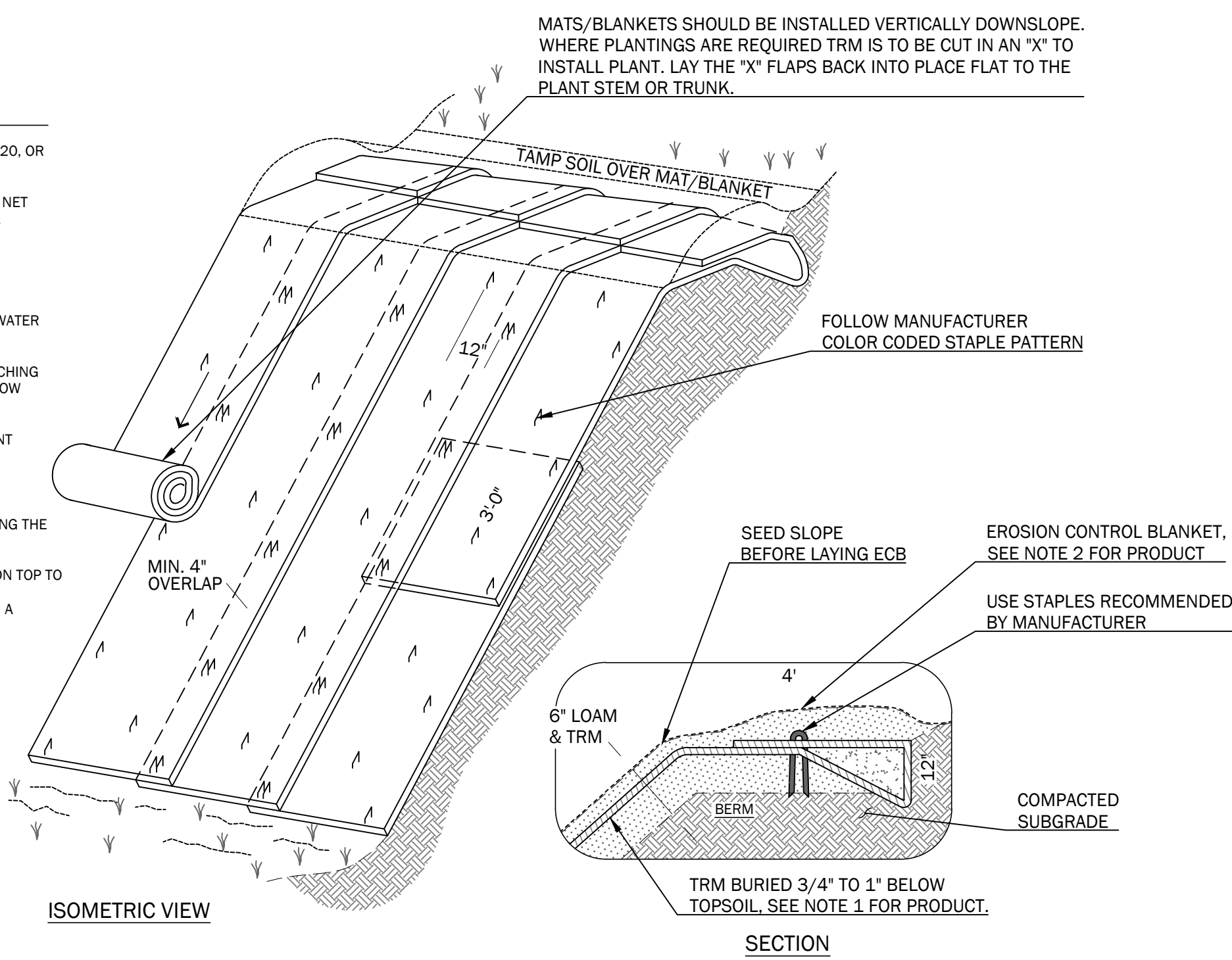
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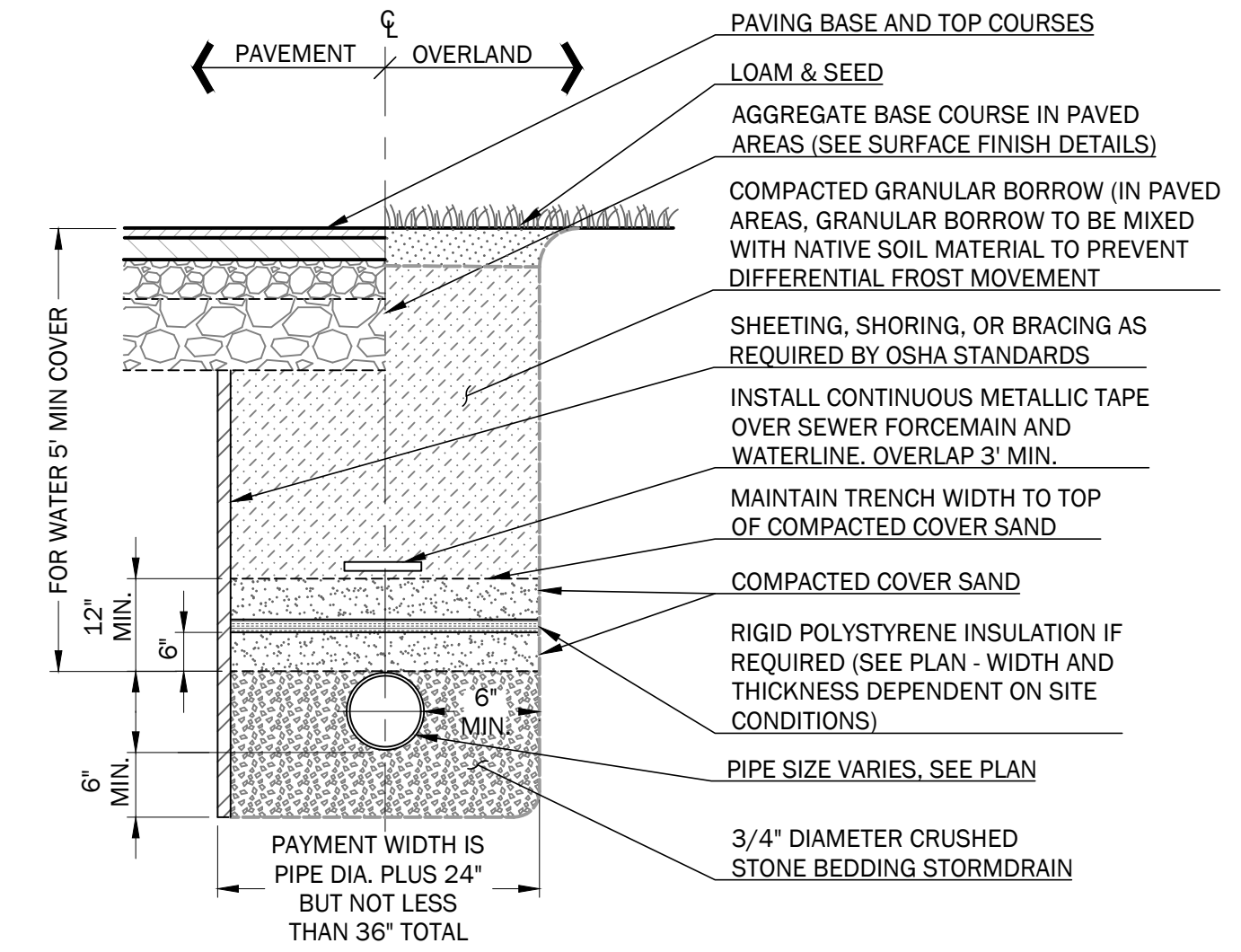
**INSTALLATION INSTRUCTIONS:**

- TURF REINFORCEMENT MAT (TRM) MATERIAL SHALL BE ENKAMAT 7020, OR APPROVED EQUAL.
- EROSION CONTROL BLANKET (ECB) SHALL BE BIONET S75BN SINGLE NET STRAW BLANKET BY NORTH AMERICAN GREEN OR APPROVED EQUAL.
- FOR TRM INSTALLATION ONLY:
  - APPLY 4" OF LOAM ONTO THE GROUND SURFACE.
  - OVER TOP THE 4" OF LOAM, UNROLL MAT IN THE DIRECTION OF WATER FLOW.
- MAT SHOULD LIE FLAT. DO NOT STRETCH MAT OVER GROUND. STRETCHING MAY CAUSE MAT TO BRIDGE DEPRESSIONS IN THE SURFACE AND ALLOW EROSION UNDERNEATH.
- BURY TRANSVERSE TERMINAL ENDS OF MAT TO SECURE AND PREVENT EROSION FLOW UNDERNEATH.
- SECURE MAT SNUGLY INTO ALL TRANSVERSE CHECK SLOTS.
- BACKFILL AND COMPACT TRENCHES AND CHECK SLOTS AFTER STAKING THE MAT IN BOTTOM OF TRENCH.
- OVERLAP ROLL ENDS BY THREE (3) FEET (MIN.) WITH UPSLOPE MAT ON TOP TO PREVENT UPDRI OF MAT END BY WATER FLOW. IF INSTALLING IN THE DIRECTION OF A CONCENTRATED WATER FLOW, START NEW ROLLS IN A TRANSVERSE DITCH.
- OVERLAP ADJACENT EDGES OF MAT BY 4 INCHES (MIN.) AND STAKE.
- USE WOOD STAKES OR STAPLES FOR PINNING MAT TO THE GROUND SURFACE, PER MANUFACTURER'S RECOMMENDATIONS.
- IN ALL TRANSVERSE TERMINAL TRENCHES AND CHECK SLOTS, STAKE EACH MAT AT ITS CENTER AND OVERLAP EDGES BEFORE BACKFILLING AND COMPACTING.
- STAKE OVERLAPS LONGITUDINALLY AT 3 TO 5 FOOT INTERVALS.
- WORK ADDITIONAL LOAM INTO THE MAT AND COVER THE MAT SURFACE WITH 3/4" TO 1" OF LOAM, THEN SEED AND COVER WITH ECB.



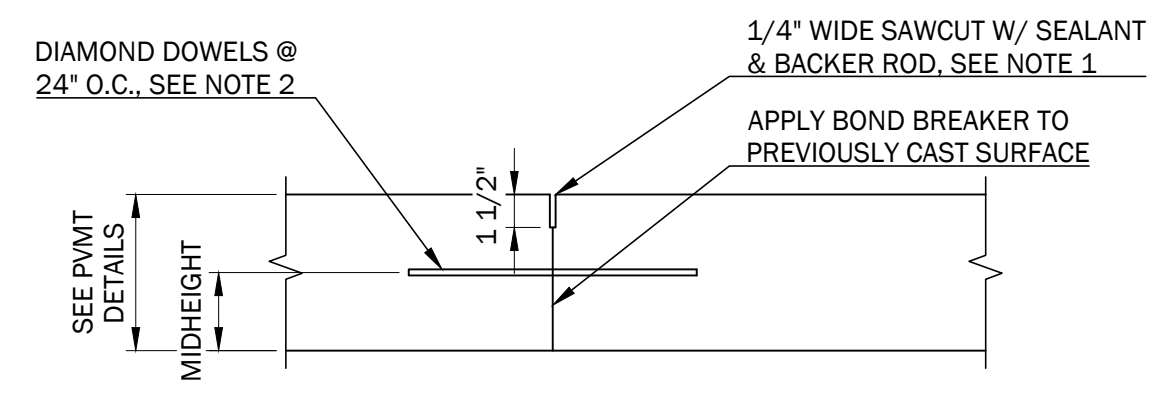
- NOTE:**
- INSTALL FENCING AT LEAST 10' FROM THE BASE OF ALL TREES TO BE PROTECTED.
  - ERECT TREE PROTECTIVE FENCING AROUND ALL TREES SHOWN ON DRAWING TO BE PROTECTED.
  - TAKE SPECIAL CARE NOT TO COMPACT OR STORE MATERIAL UNDER AREA WITHIN DRIP LINE OF EXISTING TREE.
  - REMOVE PROTECTION ONLY AFTER ALL GRADING INCLUDING SPREADING TOPSOIL IS COMPLETED.

**2 EXISTING TREE PROTECTION**  
NOT TO SCALE



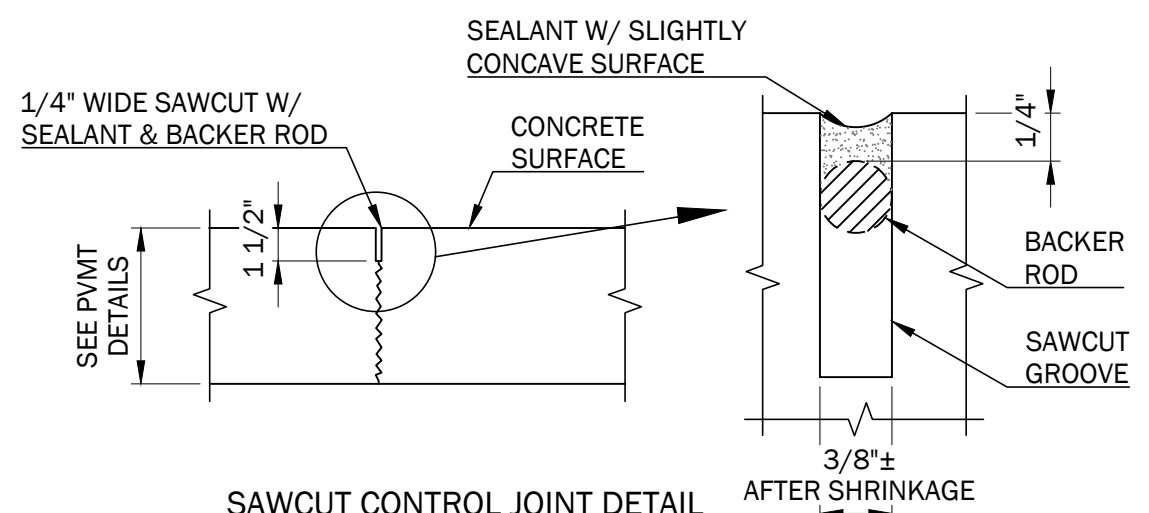
**3 TYPICAL PIPE TRENCH DETAIL**  
NOT TO SCALE

**1 STRAW MATTING (ECB) AND TURF REINFORCEMENT MAT (TRM) FOR SLOPE EROSION CONTROL DETAILS**  
NOT TO SCALE

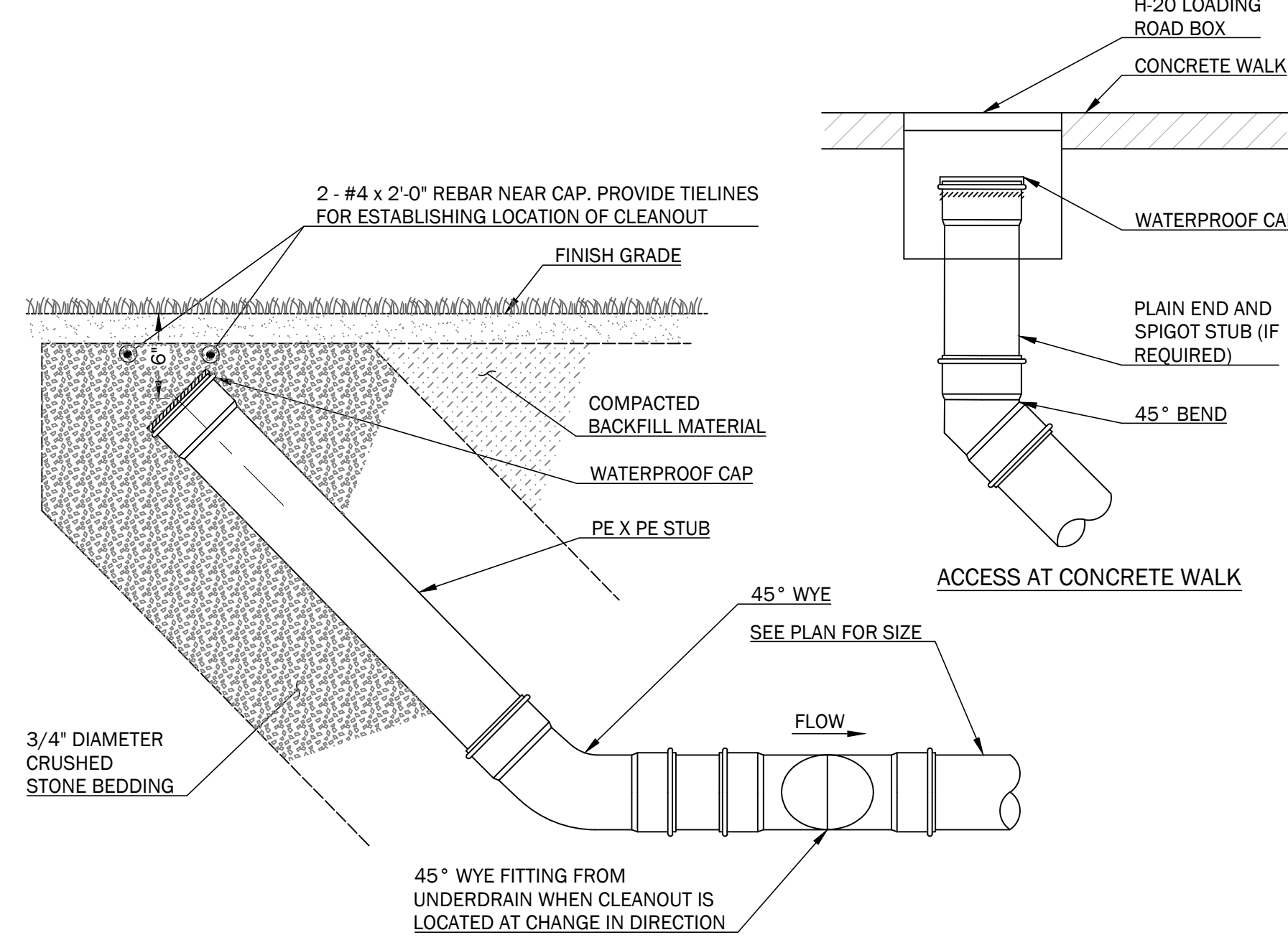


- NOTES:**
- MAKE SAWCUT AFTER SHRINKAGE CRACK FORMS AT SLAB SURFACE. FOLLOW CRACK WITH SAWCUT.
  - DIAMOND DOWELS FOR CONSTRUCTION JOINTS: DIAMOND DOWEL SYSTEM BY P.N.A. INC., INCLUDING 3/8" x 4 1/2" x 4 1/2" STAINLESS STEEL PLATES WITH PLASTIC BASES AND SLEEVES. INSTALL SLEEVES PARALLEL TO THE SLAB SURFACE AT SPACINGS INDICATED ON THE DRAWINGS AND IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

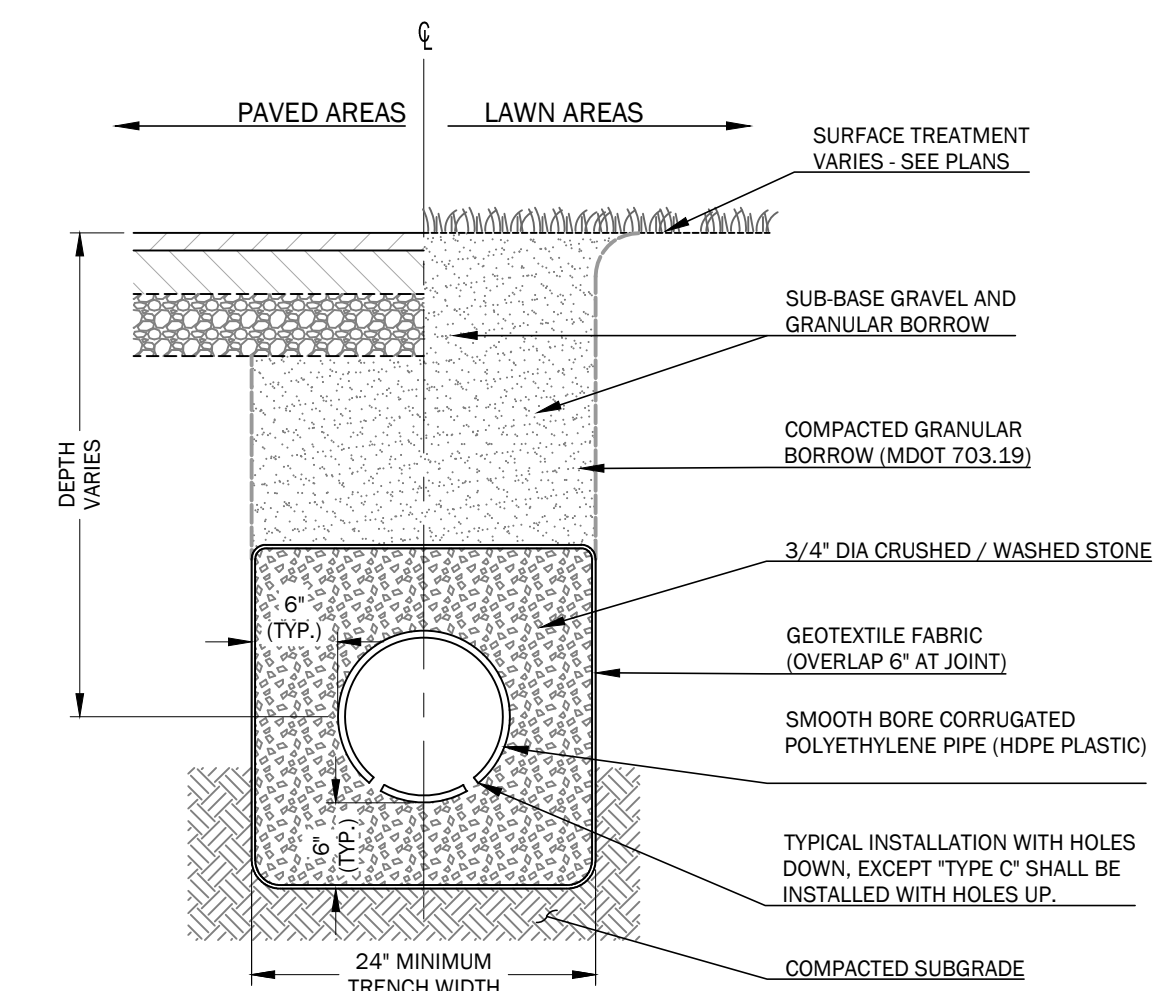
**CONSTRUCTION JOINT DETAIL**



**4 SITE CONCRETE JOINT DETAILS**  
C3.1 NOT TO SCALE  
C4.1

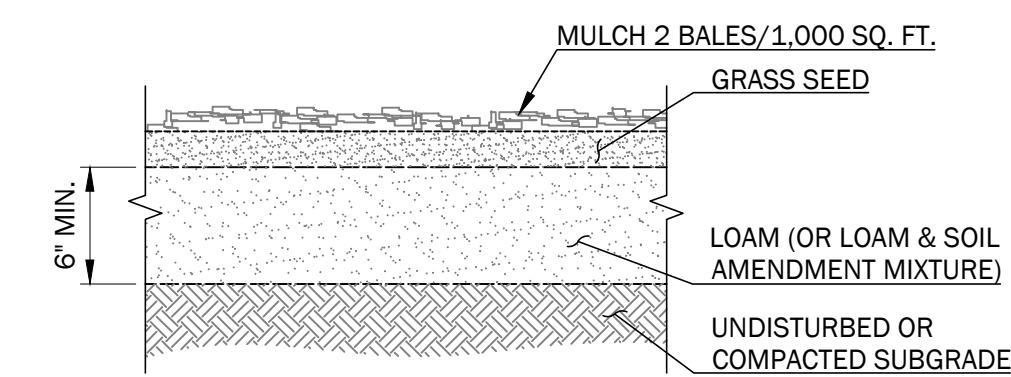


**6 DRIPSTRIP AT COLUMBARIUMS DETAIL**  
C3.2 NOT TO SCALE  
C3.3



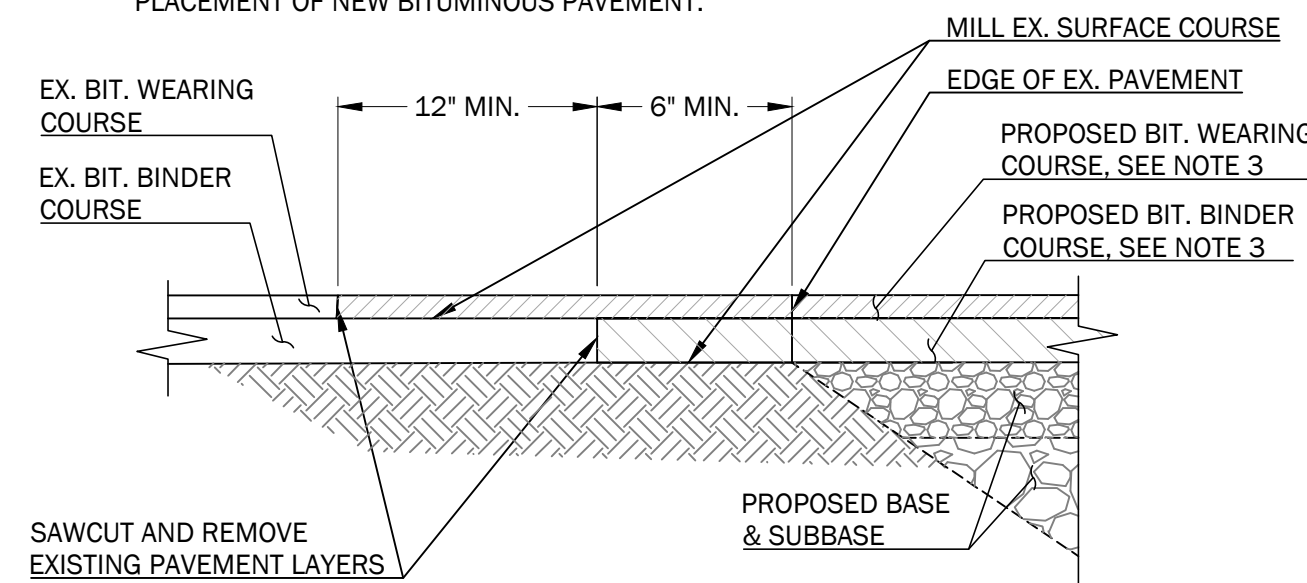
- NOTES:**
- BACKFILL MATERIAL WITHIN TRENCH BEYOND UNDERDRAIN LATERAL LIMITS SHALL, AS A MINIMUM, CONFORM TO THE REQUIREMENTS OF GRANULAR BORROW.
  - UNDERDRAIN SHALL CONFORM TO THE REQUIREMENTS OF MDOT 605.04, TYPE 'B', EXCEPT AS NOTED.
  - OUTLETS SHALL BE CONNECTED TO THE STORM DRAIN SYSTEM AS SHOWN ON THE PLANS.

**7 UNDERDRAIN TRENCH DETAIL**  
C3.2 NOT TO SCALE



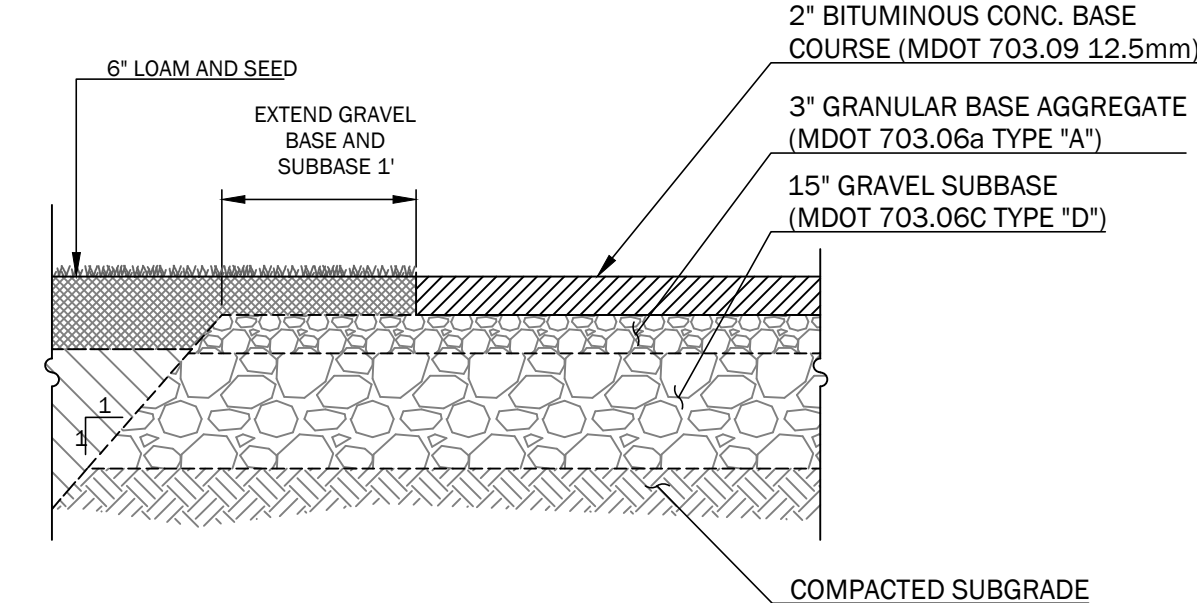
**11 LOAM AND SEED DETAIL**  
NOT TO SCALE

- NOTES:**
- HMA = HOT MIX ASPHALT
  - MILL EXPOSED SURFACE OF EXISTING PAVEMENT.
  - APPLY BITUMINOUS TACK COAT PRIOR TO PLACEMENT OF NEW BITUMINOUS PAVEMENT.

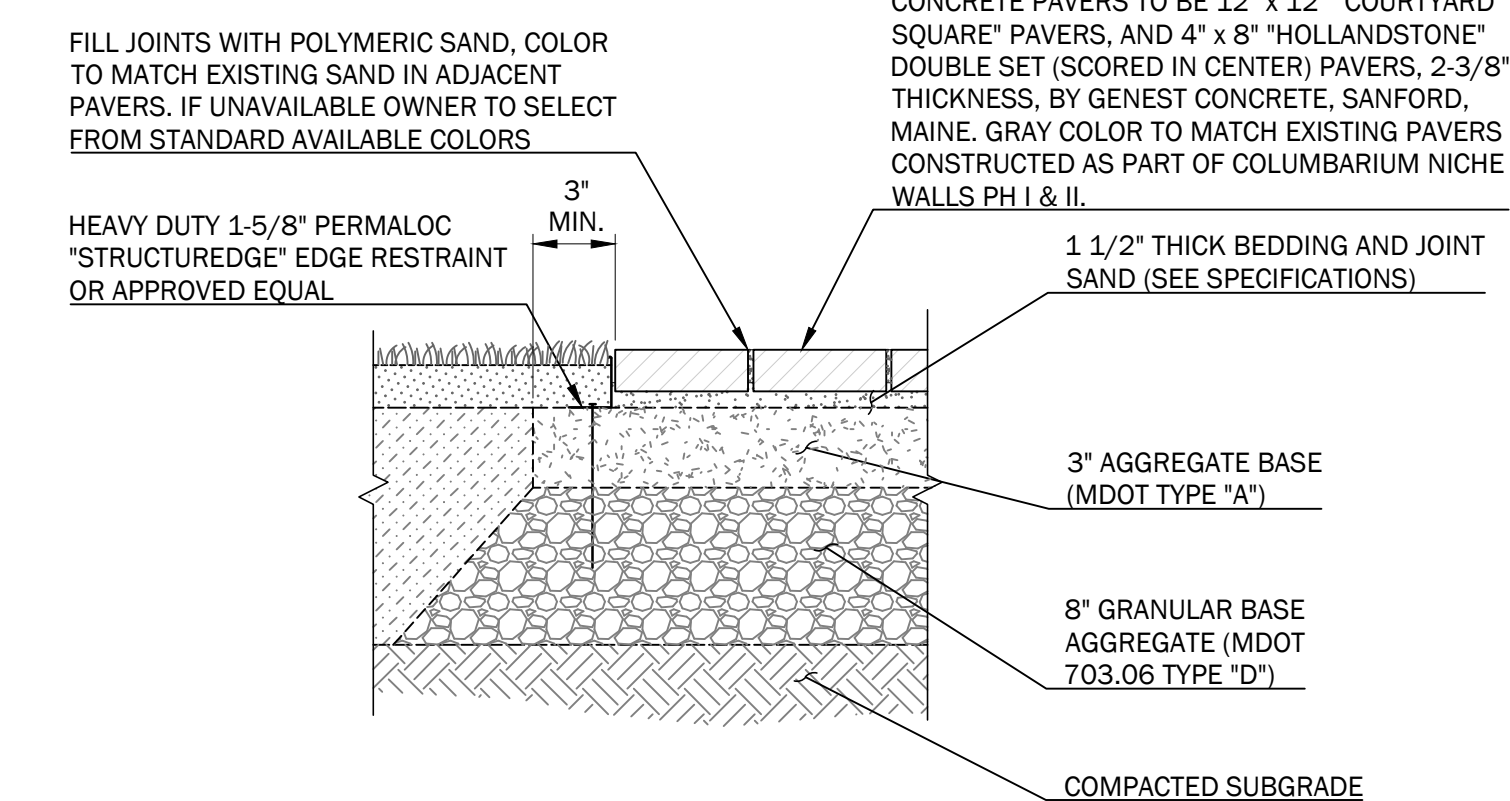


**8 HMA PAVEMENT BUTT JOINT DETAIL**  
C3.1 NOT TO SCALE  
C4.1

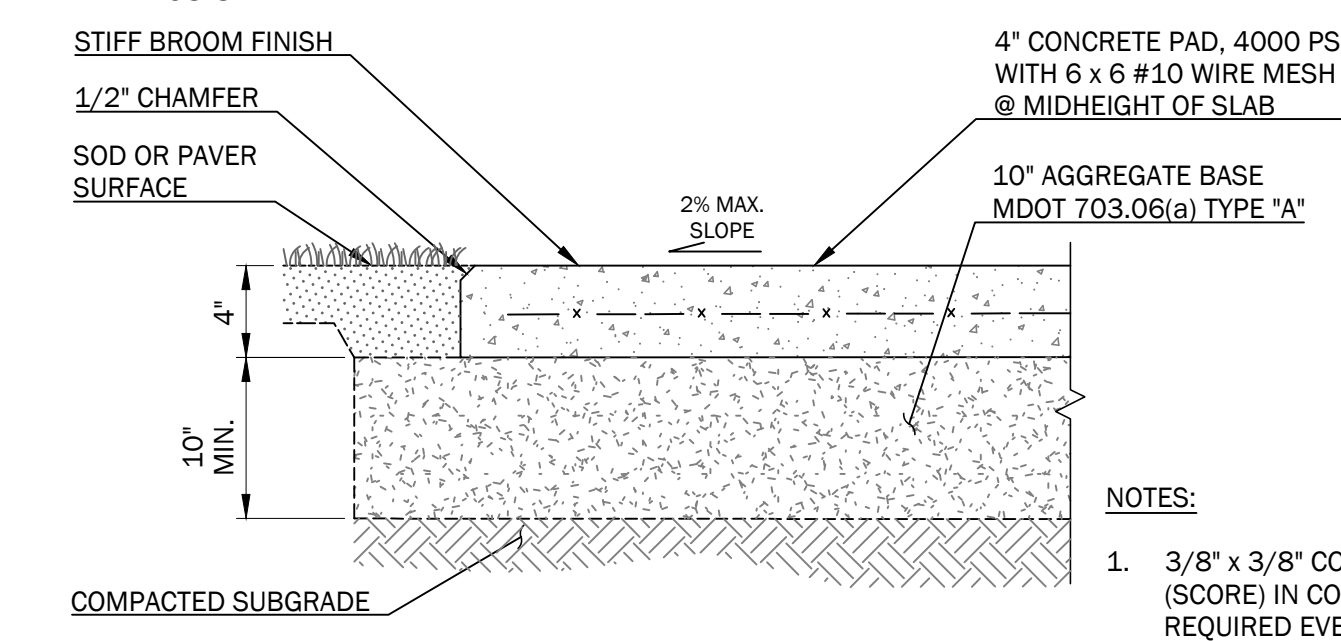
**5 UNDERDRAIN CLEANOUT AT LAWN - AREA F**  
C3.2 NOT TO SCALE



**9 PAVEMENT SECTION**  
C3.1 NOT TO SCALE  
C3.3



**10 PRECAST CONCRETE PAVERS DETAIL**  
C3.1 NOT TO SCALE  
C3.3



**12 CONCRETE WALKWAY SECTION**  
C3.1 NOT TO SCALE  
C4.1

**2024 Cemetery Expansion**

at  
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Bureau of Veterans' Services  
National Cemetery Administration Project #FAI ME-23-24  
Bureau of General Services Project Number #3743

Rev.	Date	Description	Drawn	Check

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**Site Details**

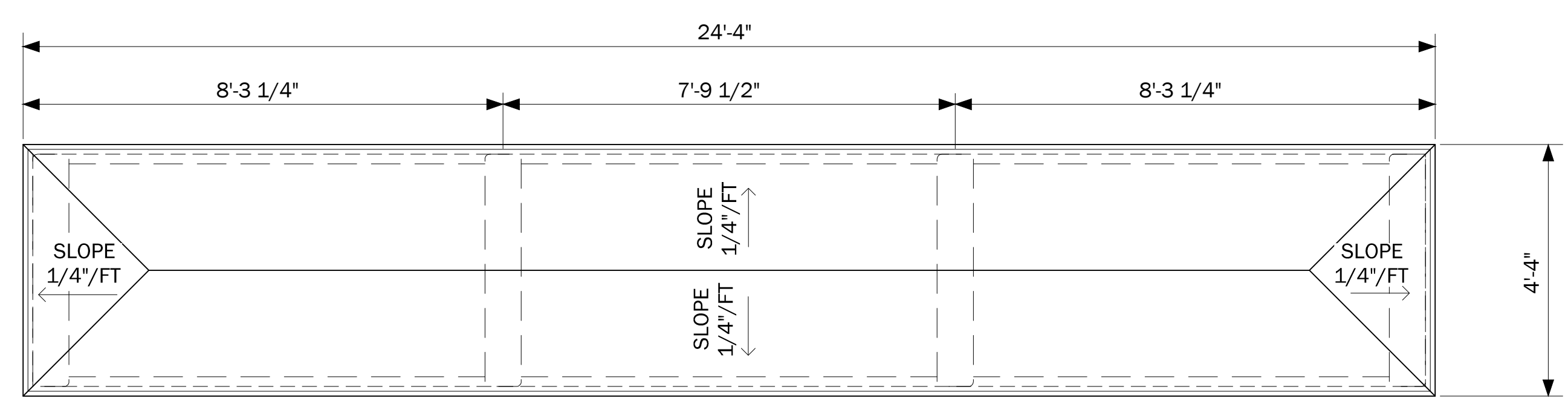
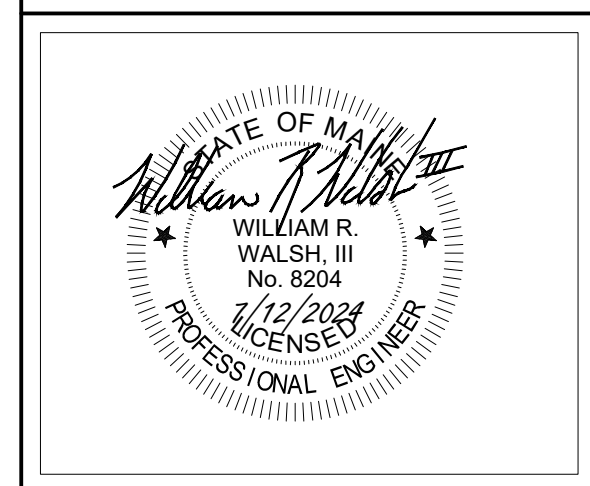
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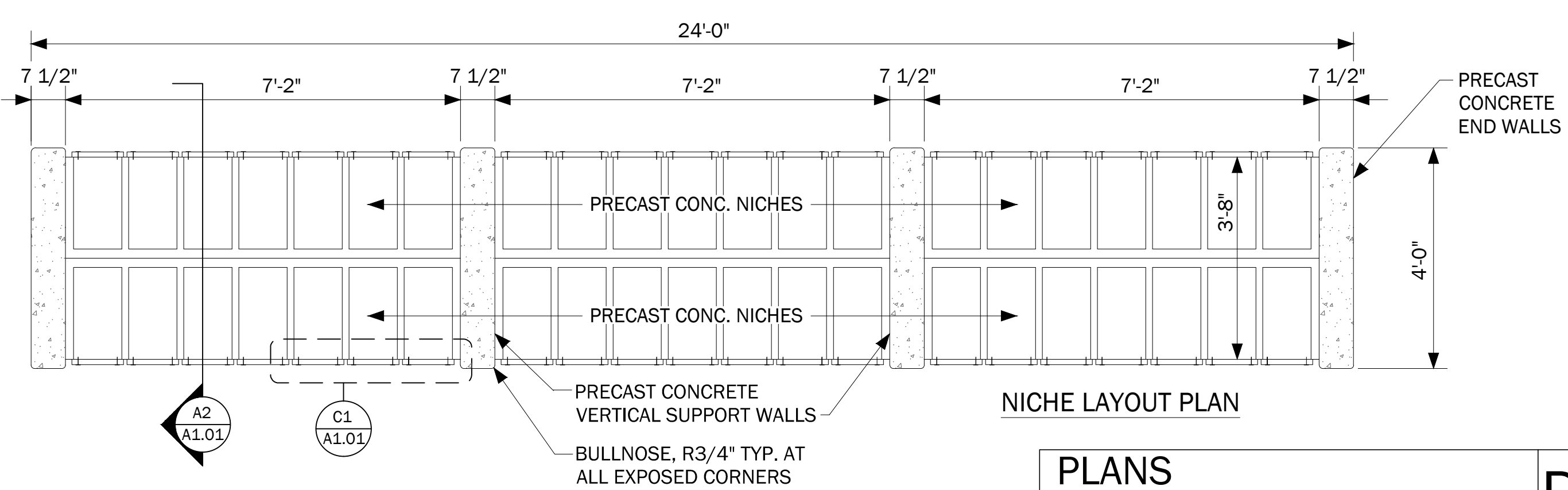






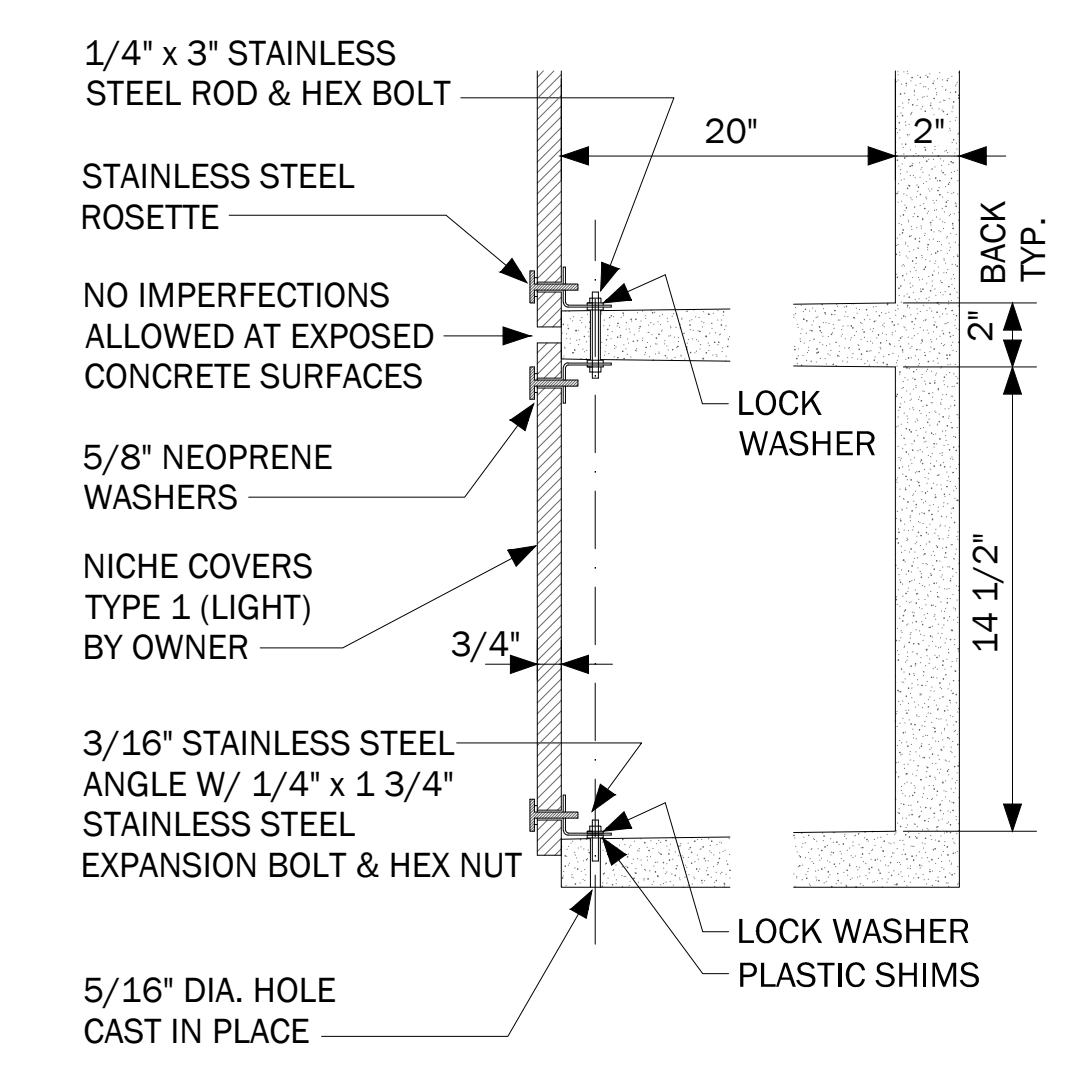


GRANITE CAP PLAN

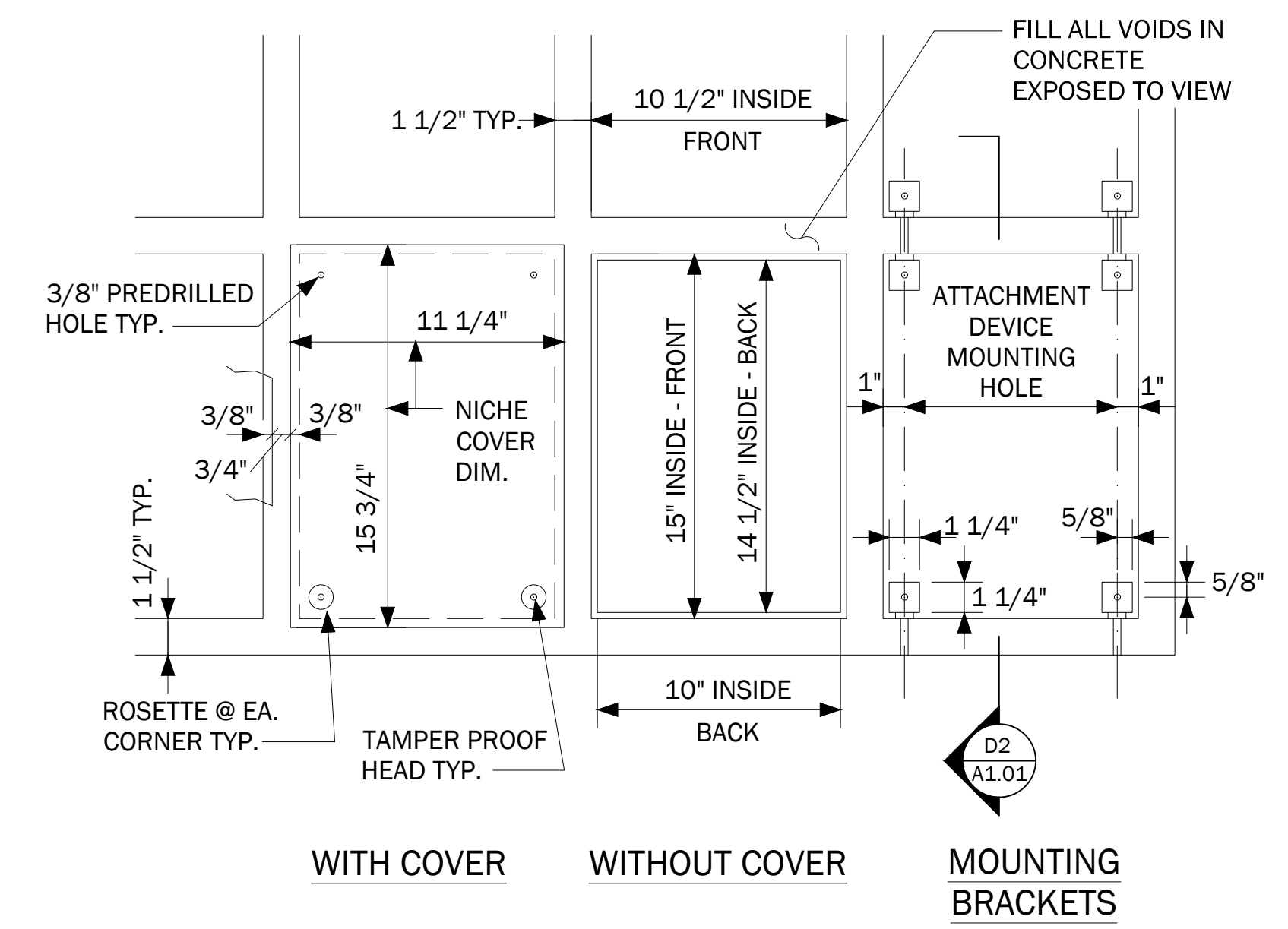


NICHE LAYOUT PLAN

PLANS  
1/2" = 1'-0"



D3 NICHE SECTION  
NOT TO SCALE

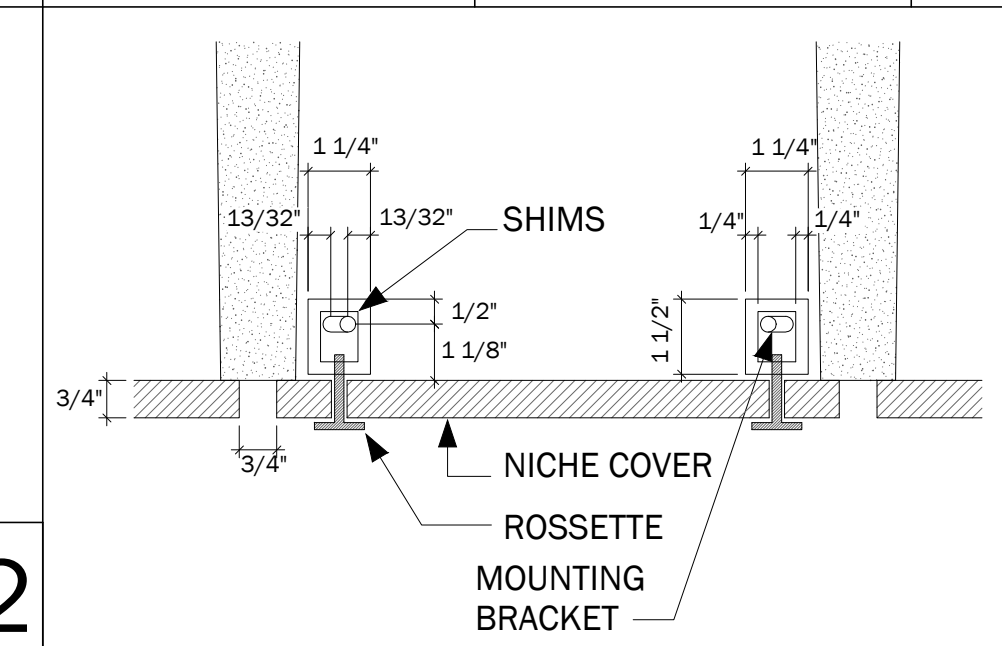


D2 PARTIAL FRONT ELEVATION  
NOT TO SCALE

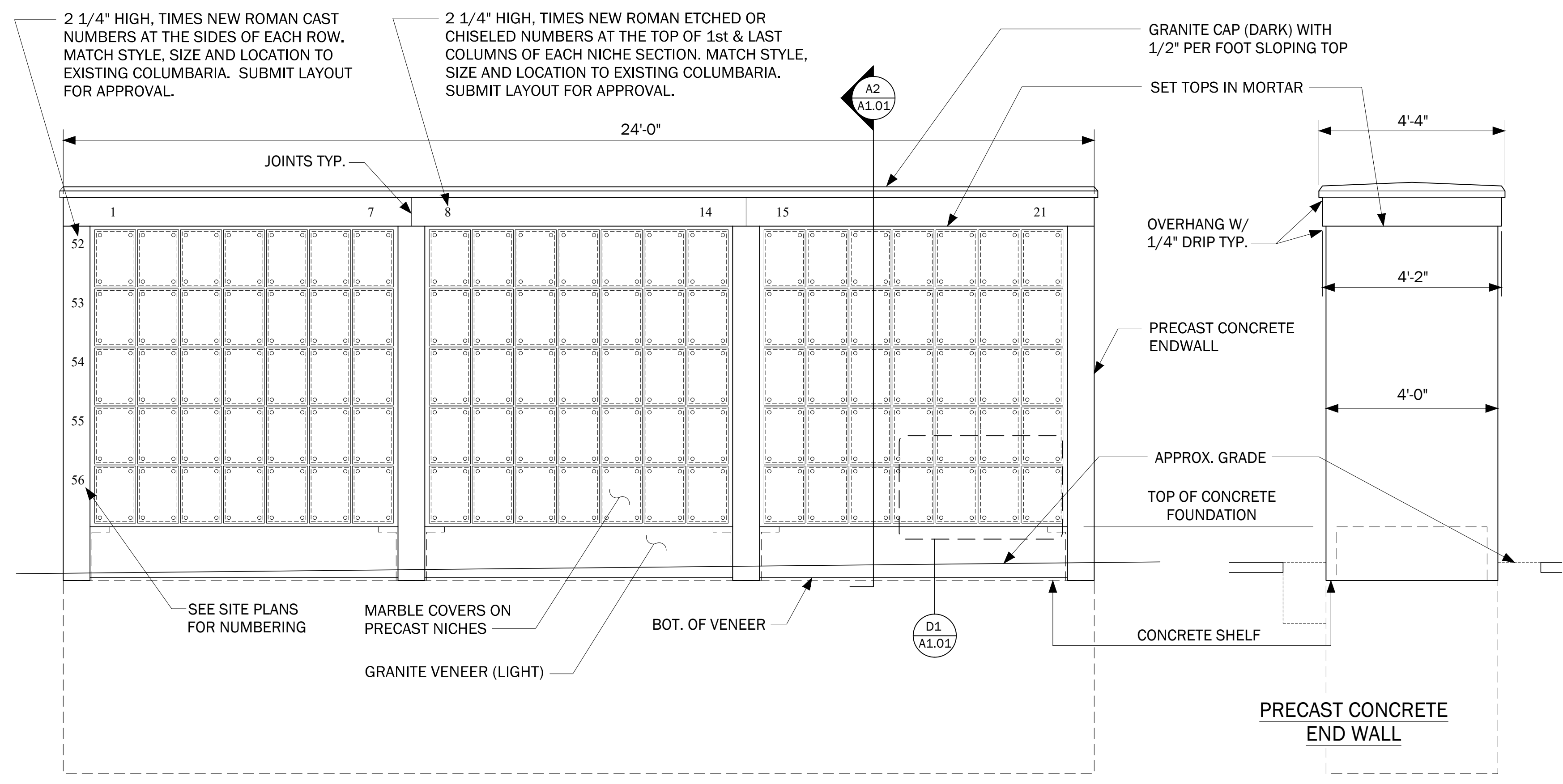
- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>ALL DIMENSIONS TO BE FIELD VERIFIED &amp; COORDINATED W/ PRECAST NICHEs &amp; REQUIRED TOLERANCES.</li> <li>MATCH ALL GRANITE EDGE PROFILES AND TREATMENTS WITH EXISTING COLUMBARIUM UNITS - FIELD VERIFY.</li> <li>MATCH COLOR AND FINISH OF EXISTING MARBLE AND GRANITE ON EXISTING COLUMBARIUM UNITS - FIELD VERIFY.</li> <li>STEEL REINFORCING FOR PRECAST CONCRETE NICHE WALLS IS NOT SHOWN. MANUFACTURER SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL.</li> </ol> | <ol style="list-style-type: none"> <li>ALL HARDWARE AND ROSETTES SHALL MATCH EXISTING - FIELD VERIFY.</li> <li>THE NUMBERING SYSTEMS SHALL BE CONSISTENT AND A CONTINUATION OF THE EXISTING NUMBERING SYSTEM STYLE - SUBMIT THE LAYOUT FOR REVIEW.</li> <li>STONE NICHE COVERS FURNISHED BY OWNER, INSTALLED BY G.C.</li> <li>ALL MOUNTING HARDWARE FURNISHED AND INSTALLED BY G.C.</li> <li>CONTRACTOR TO VERIFY TOP OF CONCRETE FOUNDATION ELEVATIONS, SEE SITE PLANS FOR FOUNDATION AND FINISH GRADE ELEVATIONS.</li> </ol> |
|---|--|

GENERAL NOTES

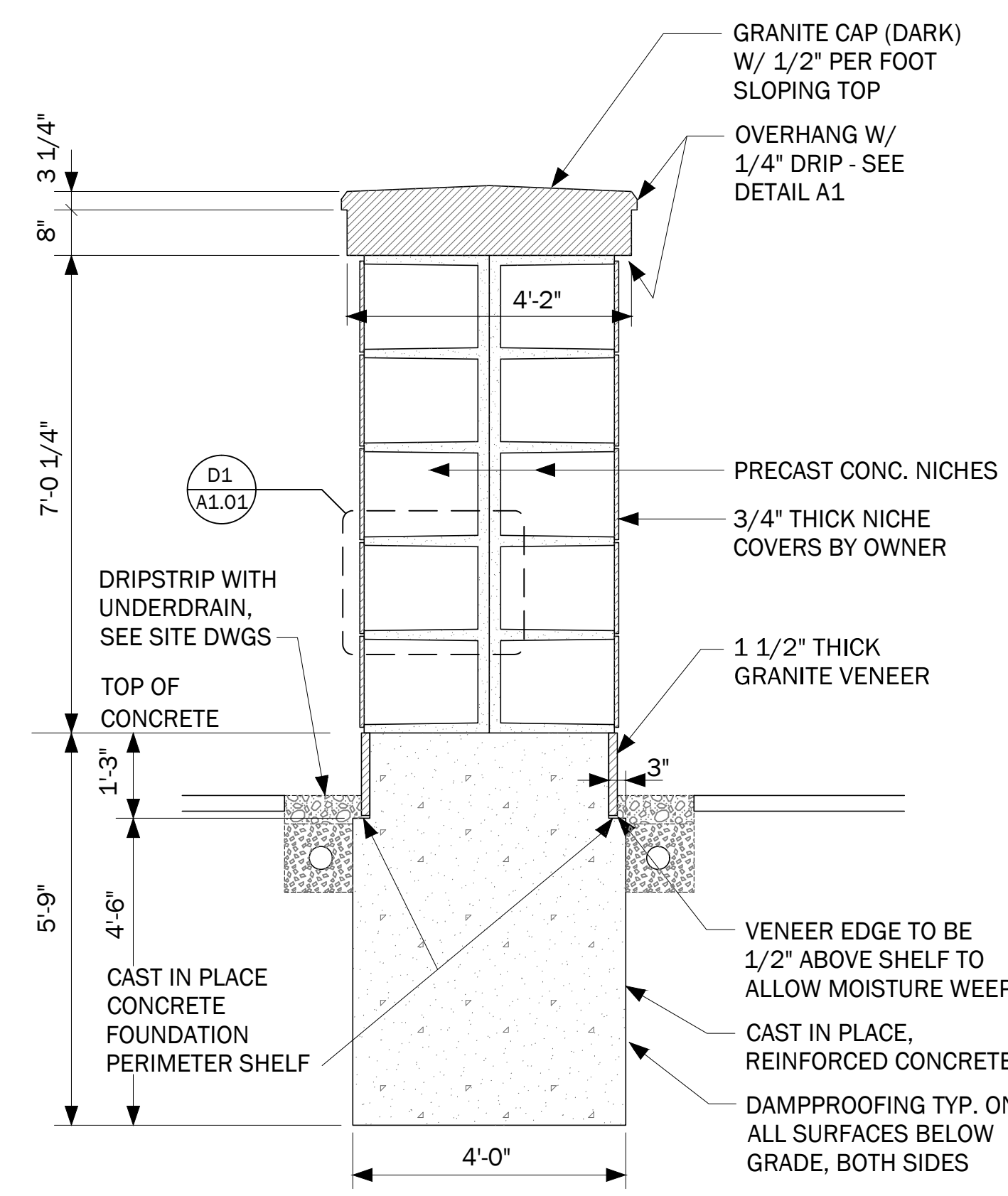
C2



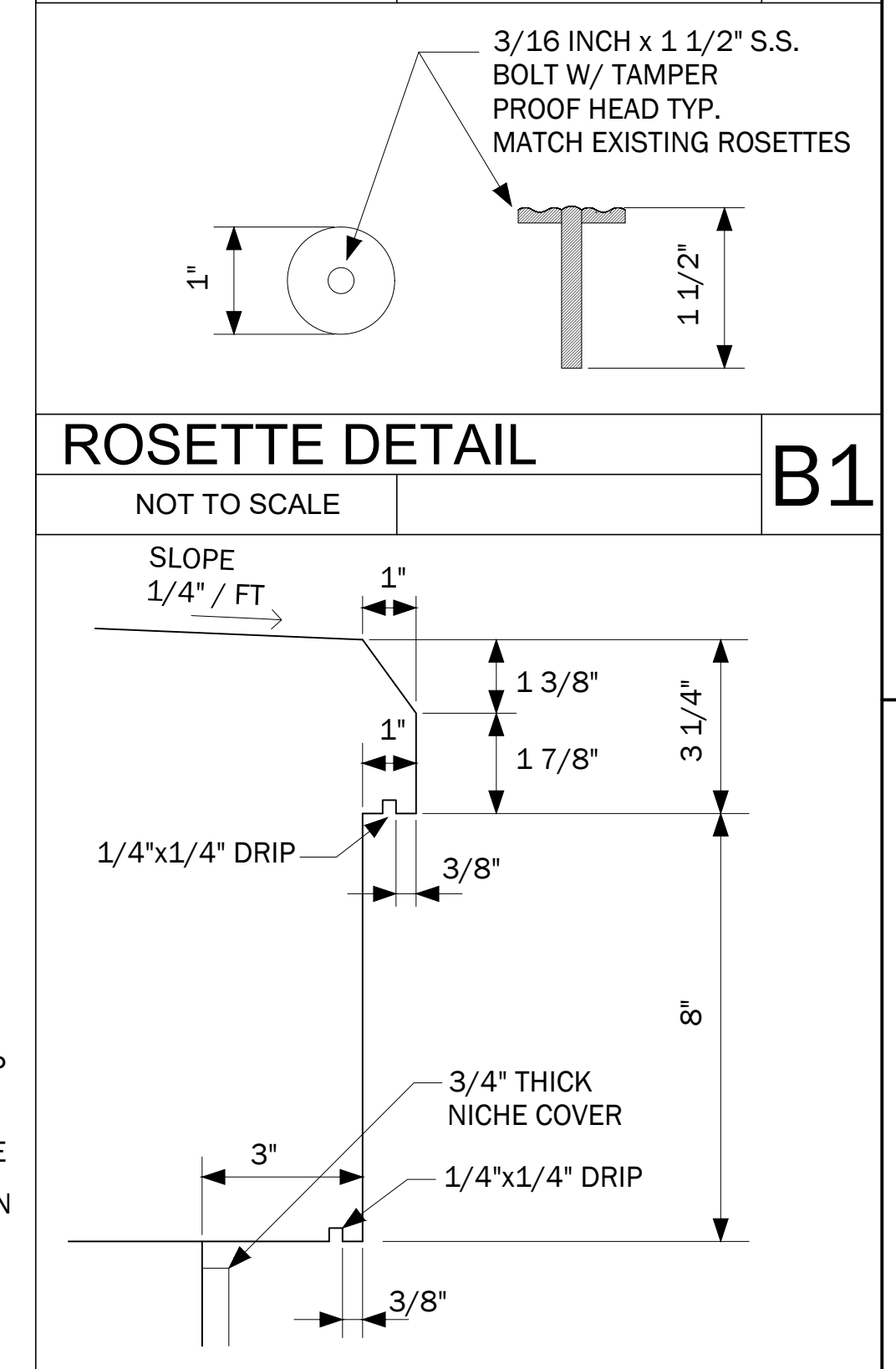
C1 COVER PLAN  
NOT TO SCALE



A3 NICHE WALL  
SCALE: 1/2" = 1'-0"



A2 SECTION  
SCALE: 1/2" = 1'-0"

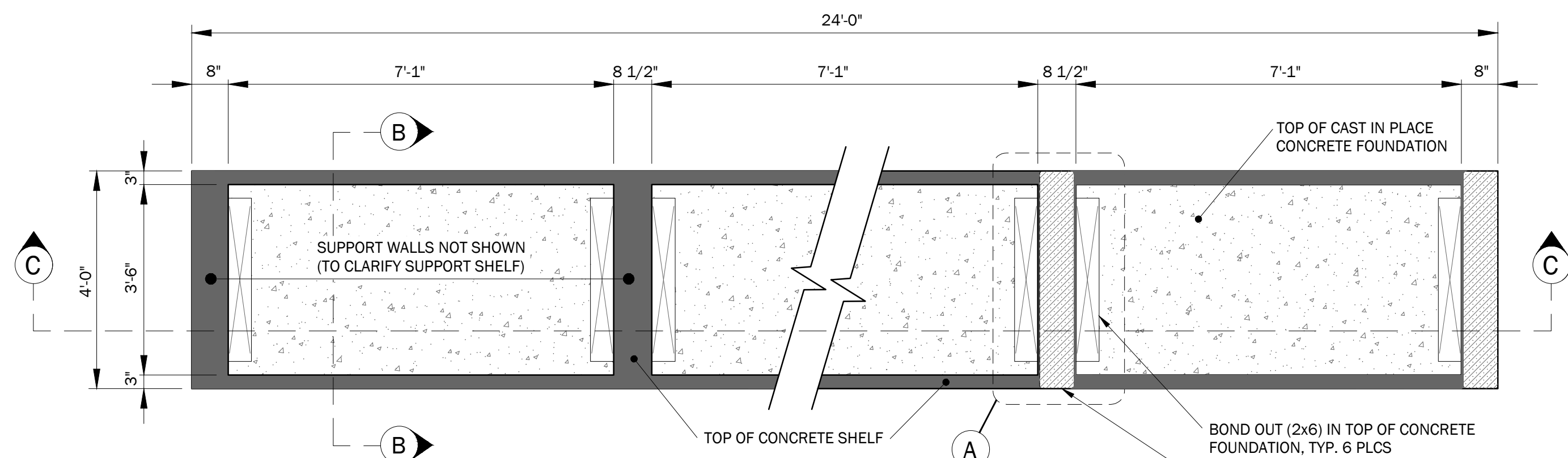
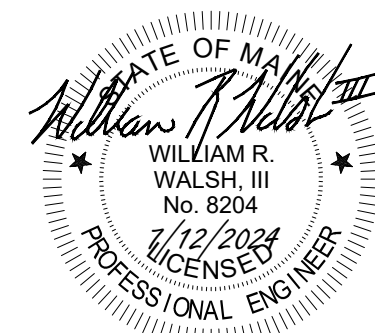


B1 ROSETTE DETAIL  
NOT TO SCALE

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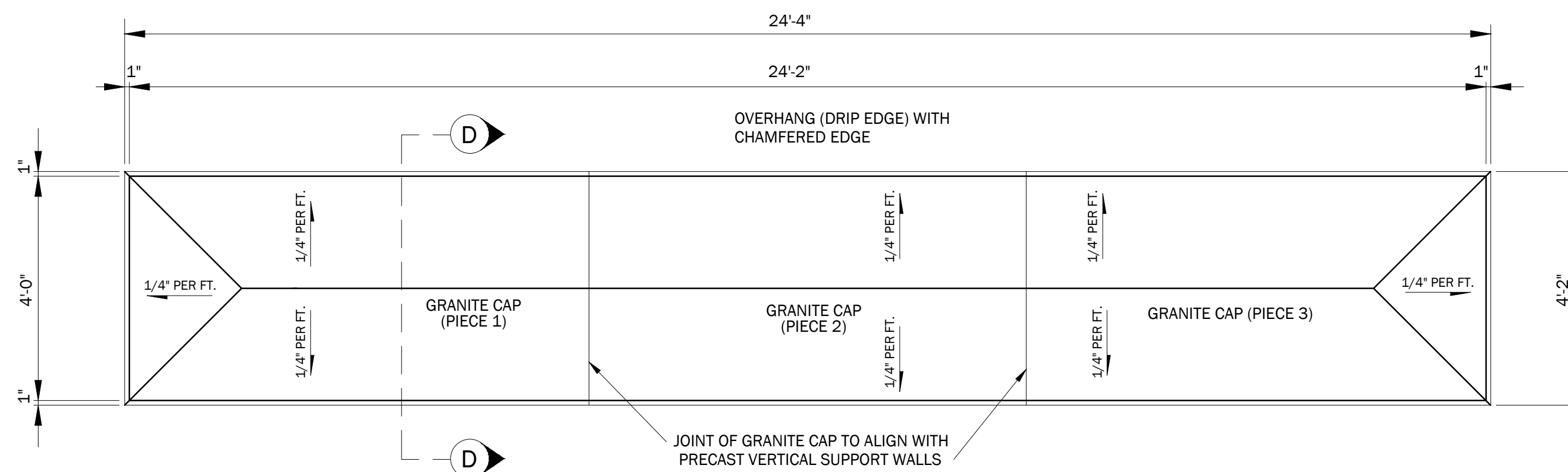
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Date: JULY 12, 2024  
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Checked: NGC



**FOUNDATION - PLAN**

SCALE: 1" = 2'

**D2**



**GRANITE CAP - PLAN**

SCALE: 1" = 2'

**D1**

**COLUMBARIUM ELEVATIONS - Base BID**

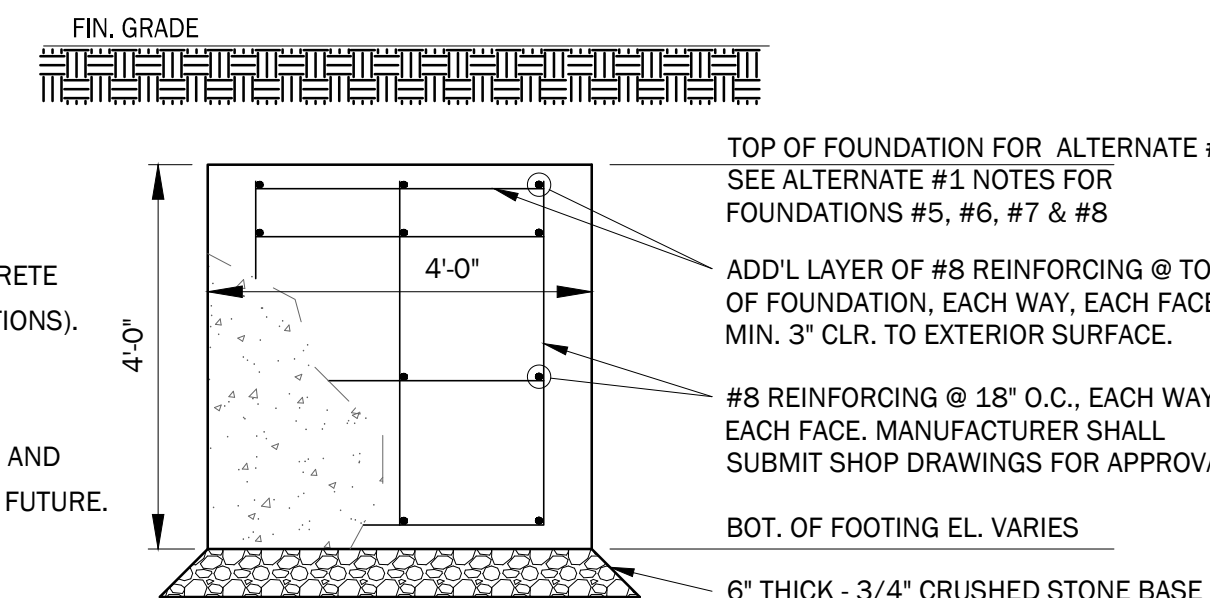
ELEVATION:	UNIT#1	UNIT#2	UNIT#3	UNIT#4
T.O. FOUNDATION EL.	433.85	433.64	433.43	433.22
CONCRETE SHELF EL.	432.60	432.39	432.18	431.97
B.O. FOUNDATION EL.	427.60	427.39	427.18	426.97

**COLUMBARIUM ELEVATIONS - Alternate #1**

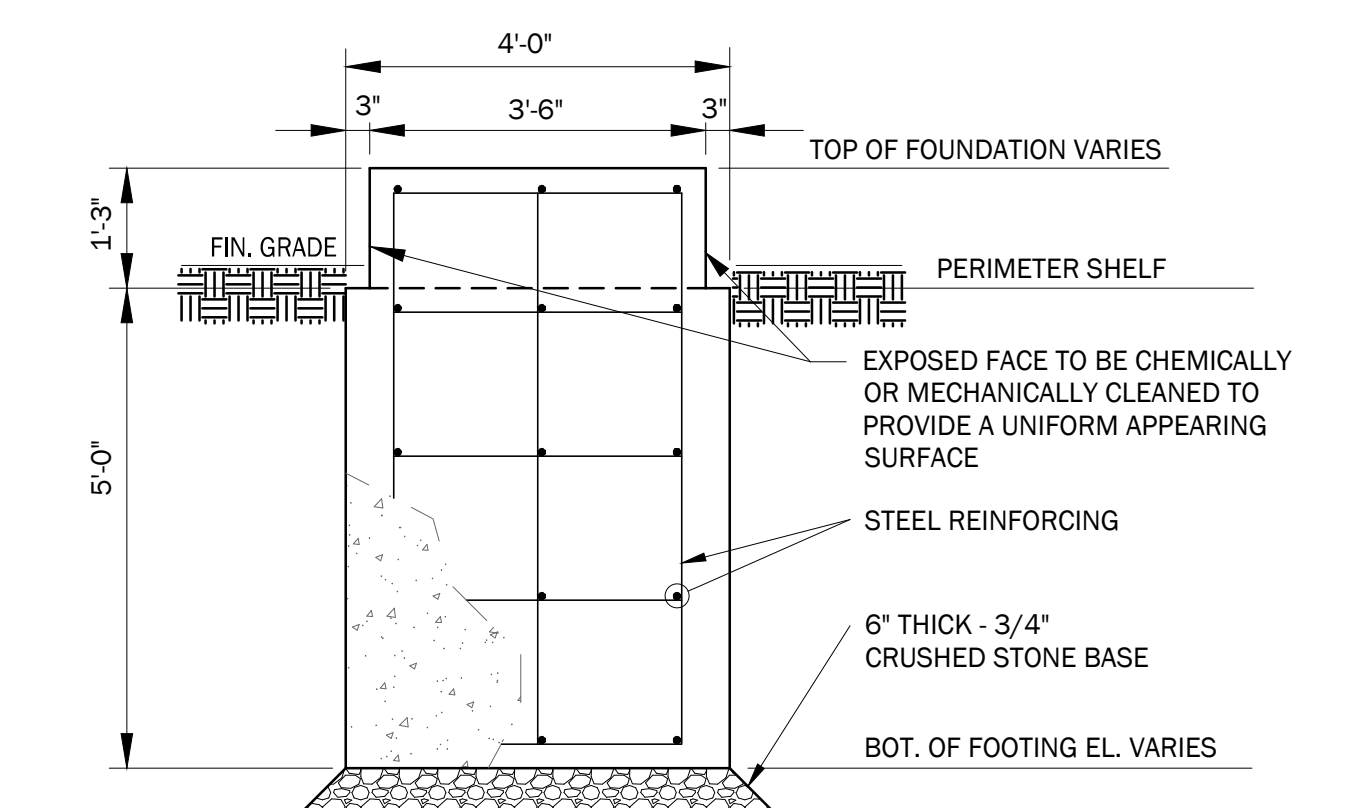
ELEVATION:	UNIT#5	UNIT#6	UNIT#7	UNIT#8
FUTURE T.O. FOUNDATION EL.	433.01	432.80	432.80	433.01
FUTURE CONCRETE SHELF EL.	431.76	431.55	431.55	431.76
ALTERNATE#1 T.O. FOUNDATION EL.	430.76	430.55	430.55	430.76
B.O. FOUNDATION EL.	427.26	427.05	427.05	427.26

**ALTERNATE #1:  
COLUMBARIUM FOUNDATIONS**

- #5, #6, #7 & #8:**
- INSTALL COLUMBARIUM FOUNDATIONS TO CONCRETE SHELF ELEVATION ONLY (SEE CHART FOR ELEVATIONS).
  - REINFORCING REQUIRED TO CONCRETE SHELF ELEVATION NOTED.
  - CASTE IN PLACE CONCRETE NICHE SUPPORT PAD AND RELATED REINFORCING TO BE INSTALLED IN THE FUTURE.



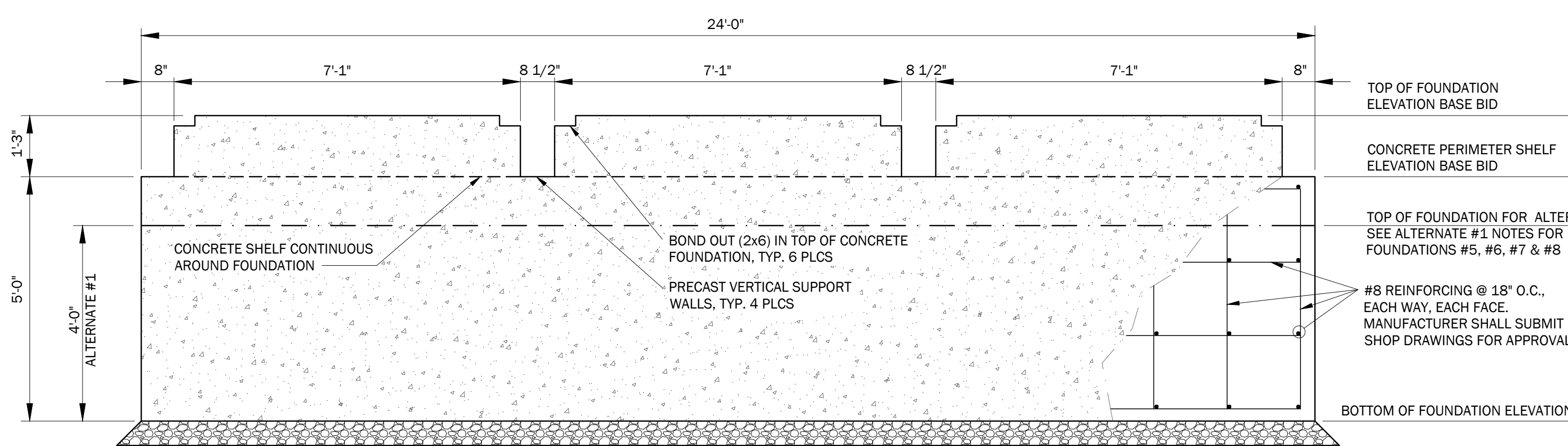
**ALTERNATE #1 FOUNDATION - SECTION B**



**BASE BID FOUNDATION - SECTION B**

**NOTES:**

- GENERAL NOTES:**
- FOOTINGS PROPORTIONED USING AN ASSUMED ALLOWABLE BEARING PRESSURE OF 3,000 p/sf. REFER TO NOTE 7 BELOW FOR SUBGRADE PREPARATION REQUIREMENTS.
- EARTHWORK:**
- FOUNDATION BACKFILL SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:  
SIEVE % PASSING  
3" 100  
no. 40 0-70  
no. 200 0-5
  - FOUNDATION BACKFILL SHALL BE PLACED WITHIN 2' HORIZONTALLY OF THE OUTSIDE OF FOUNDATION WALLS, MEASURED AT THE GROUND SURFACE. THE MAXIMUM PARTICLE SIZE SHALL BE 4".
  - 3/4" COARSE AGGREGATE BENEATH FOUNDATION SHALL CONSIST OF A STANDARD GRADING, SUCH AS ASTM C33 SIZE 6 OR 67.
  - ALL BACKFILL SHALL BE PLACED IN LIFT THICKNESSES THAT CAN BE COMPACTED TO A MINIMUM OF 95% OF THE SOIL MAXIMUM DRY DENSITY DETERMINED IN ACCORDANCE WITH ASTM D 1557. IN NO CASE SHALL THE LIFT THICKNESS EXCEED 12" WITHOUT THE CONSENT OF THE GEOTECHNICAL ENGINEER.
  - SITE PREPARATION SHALL CONSIST OF GRUBBING AND THEN PROOFROLLING THE EXISTING SUBGRADE SOIL. PROOFROLLING SHALL CONSIST OF A MINIMUM OF 3 PASSES IN EACH OF TWO DIRECTIONS USING A VIBRATORY ROLLER. SOFT, WAVY OR WET AREAS SHOULD BE OVEREXCAVATED AND REPLACED WITH GRAVEL BORROW. EXCESSIVELY WET AND SOFT AREAS BENEATH FOOTINGS MAY REQUIRE GROUND IMPROVEMENTS SUCH AS GEOTEXTILE FABRIC AND/OR CRUSHED STONE. EXCAVATION OF FOOTINGS SHALL NOT OCCUR UNTIL THE FOUNDATION FOOTPRINT HAS BEEN PROOFROLLED. BEDROCK SURFACES SHALL BE CLEANED OF LOOSE AND WEATHERED BEDROCK.
- CONCRETE & REINFORCING:**
- ALL CONCRETE FOR FOOTINGS AND WALLS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 p/si. A MAXIMUM AGGREGATE SIZE OF 3/4" AND ENTRAINED AIR OF 5% (±1%) AND A SLUMP OF 4" (±1"). APPROVAL IS REQUIRED PRIOR TO USE OF ADMIXTURES.
  - CONCRETE SHALL BE PROTECTED FROM WEATHER. CONCRETE SHOULD BE ALLOWED TO CURE FOR AT LEAST 24 HRS. PRIOR TO REMOVAL OF THE FORMS DURING AIR TEMPERATURES ABOVE 40° AND AT LEAST 72 HOURS WHEN AIR TEMPERATURES ARE LESS THAN 40°.
  - ALL REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60. REINFORCEMENT SHALL BE PLACED IN ACCORDANCE WITH ACI 315.
  - ALL REINFORCING SPLINES SHALL BE CONSIDERED CLASS C TENSION LAP SPLICES UNLESS OTHERWISE NOTED.
  - REINFORCEMENT SHALL HAVE THE MINIMUM CONCRETE COVER -  
A - CONCRETE DEPOSITED ON OR EXPOSED TO EARTH: 3"  
B - CONCRETE EXPOSED TO WEATHER: 1-1 1/2"  
C - CONCRETE NOT EXPOSED TO THE EARTH OR WEATHER: 1"
  - ONE SET OF 5 CYLINDERS SHALL BE CAST (ASTM C31) FOR TESTING FOR EACH COLUMBARIUM FOUNDATION. SLUMP (ASTM C143), TEMPERATURE (ASTM C1064) AND AIR CONTENT (ASTM C231) SHALL BE PERFORMED ON EACH SET. SPECIMENS SHALL BE TESTED IN ACCORDANCE WITH ASTM C39 AS FOLLOWS: 1 SPECIMEN AT 7 DAYS AND 3 SPECIMENS AT 28 DAYS. ONE SPECIMEN SHALL BE HELD AND TESTED ONLY AT THE DIRECTION OF THE ENGINEER.
- MASONRY:**
- CONCRETE MASONRY UNITS (CMU) SHALL MEET ASTM C-90. CMU SHALL BE HOLLOW HAVING NOMINAL FACE DIMENSIONS OF 8" x 16" AND A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 2,000 p/si. THE MAXIMUM ALLOWABLE DRYING SHRINKAGE SHALL BE 0.065%.
  - MORTAR MIX SHALL COMPLY WITH THE PROVISIONS OF ASTM C270. MORTAR SHALL BE TYPE N, M, OR S. MORTAR MATERIALS SHALL BE MIXED IN A MECHANICAL MIXER BETWEEN 3 & 5 MINUTES WITH A SUFFICIENT AMOUNT OF WATER TO PRODUCE A WORKABLE CONSISTENCY.
  - GROUT FOR FILLING CAVITIES SHALL MEET THE REQUIREMENTS OF ASTM C476 AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,000 p/si AT 28 DAYS.
- PRECAST CONCRETE:**
- CONCRETE FOR SUPPORT PANEL SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 psi. ENTRAINED AIR SHALL BE ADDED TO PROVIDE AN AIR CONTENT OF 5% (+/- 1%)
  - STEEL FOR REINFORCING SHALL MEET THE REQUIREMENTS OF ASTM A-615 GRADE 60. REINFORCING SHALL HAVE A MINIMUM COVER OF 3/4".
  - REFER TO ARCHITECTURAL PLANS FOR PRECAST FINISH/FACING.

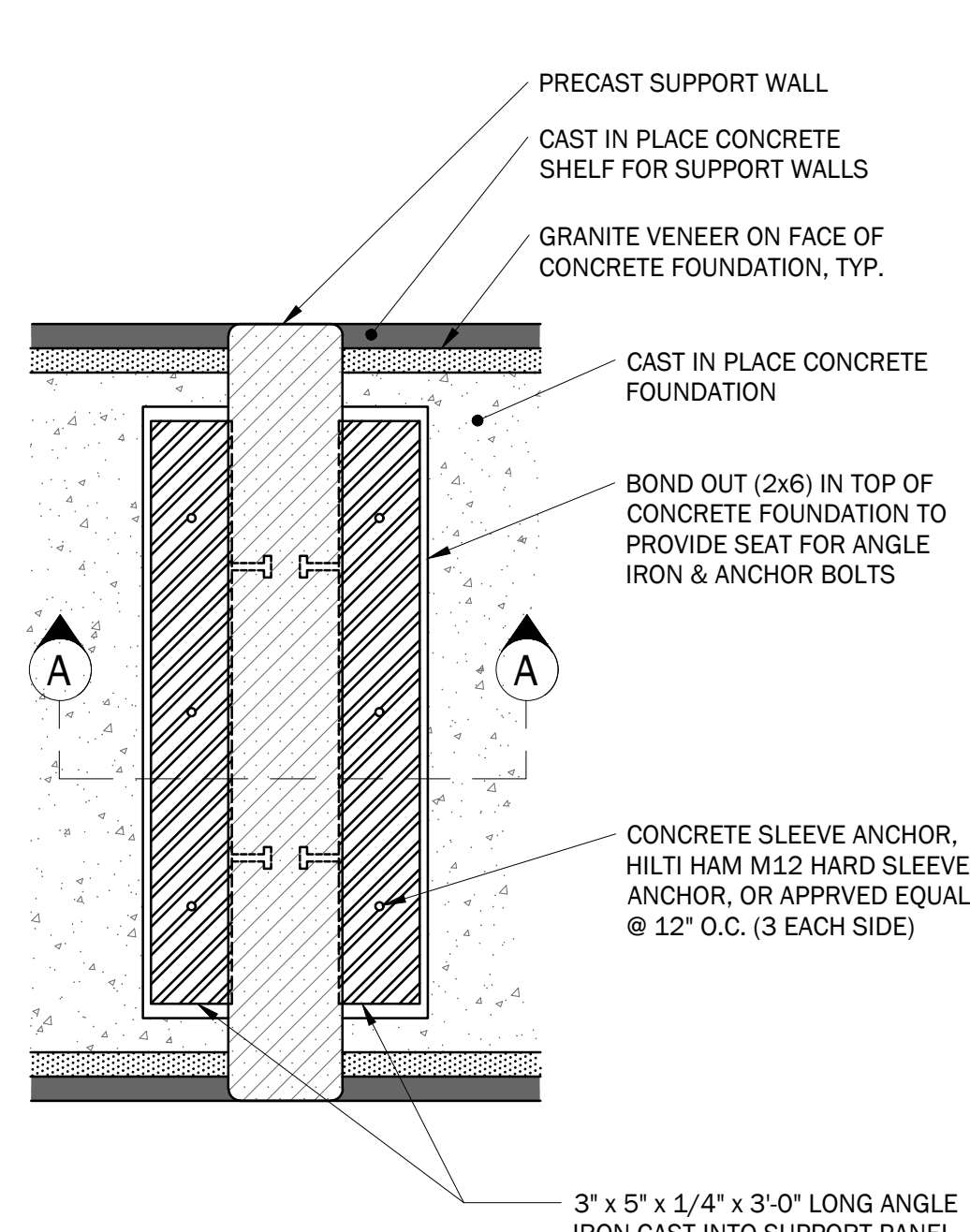


**FOUNDATION - SECTION C**

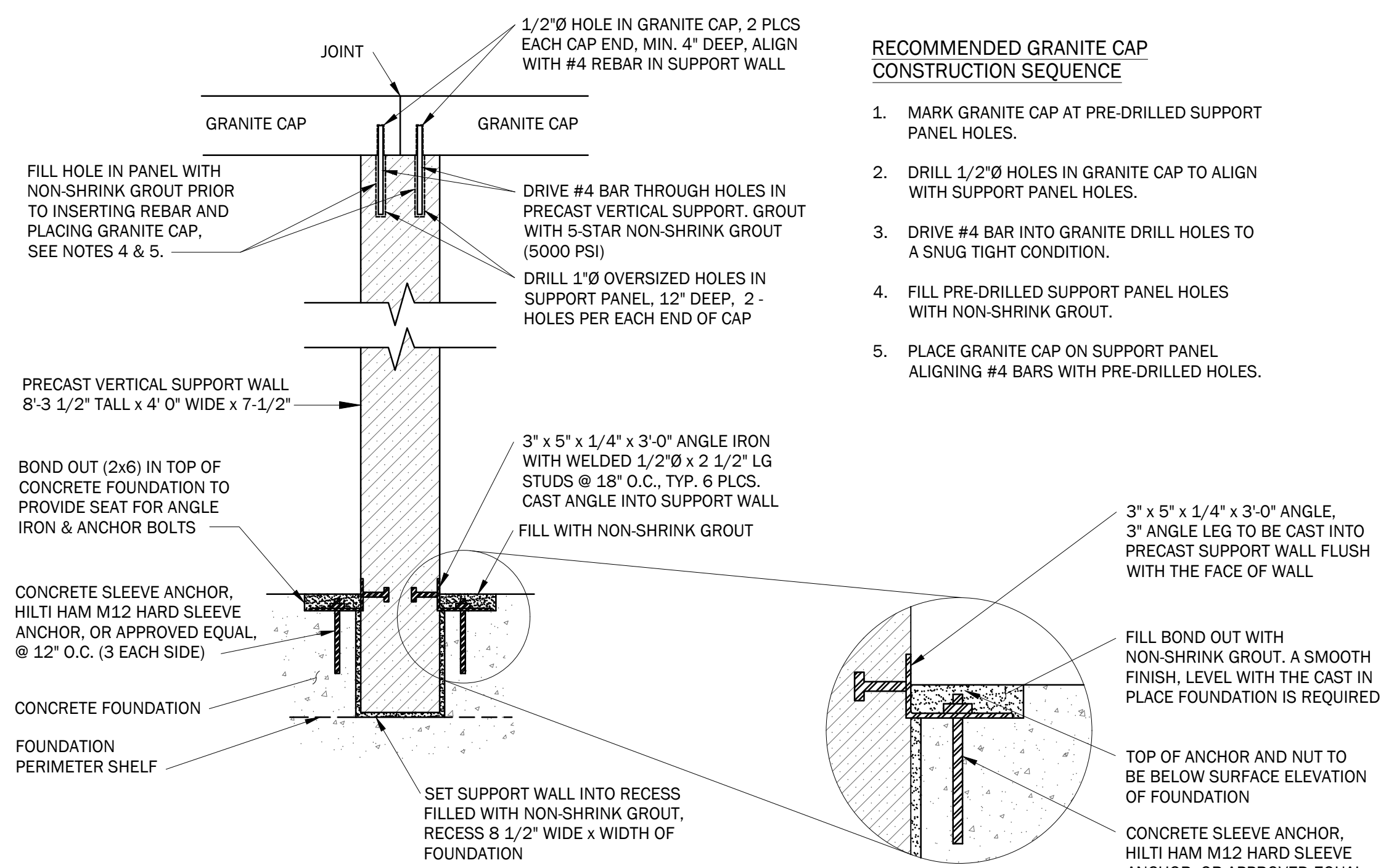
**FOUNDATION SECTIONS**

SCALE: 1" = 2'

**C1**



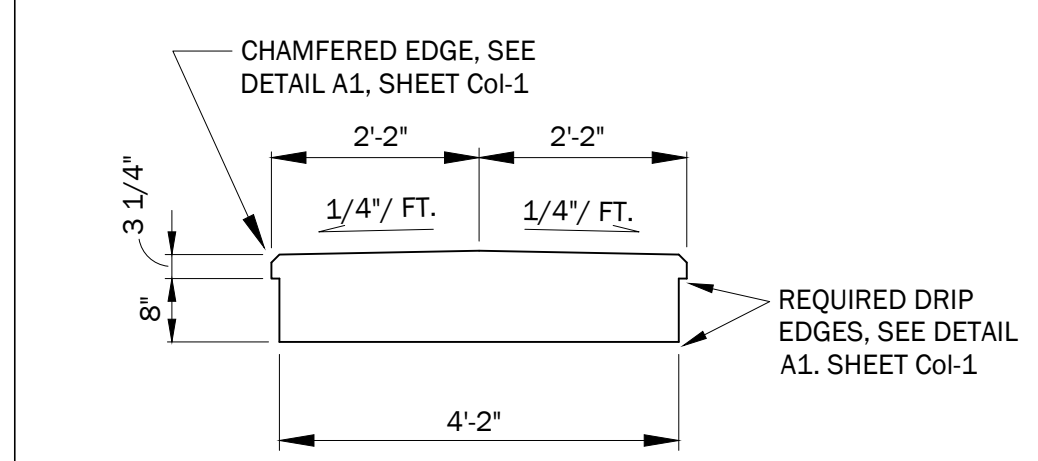
**SUPPORT WALL - PLAN A**



**SUPPORT WALL - SECTION A**

**RECOMMENDED GRANITE CAP CONSTRUCTION SEQUENCE**

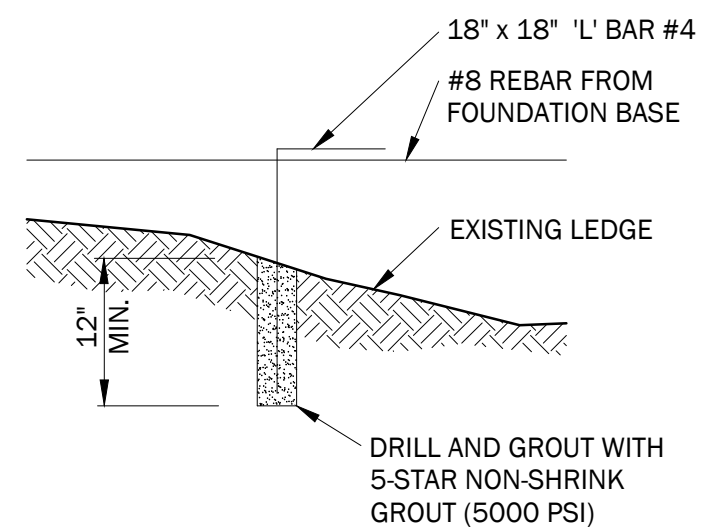
- MARK GRANITE CAP AT PRE-DRILLED SUPPORT PANEL HOLES.
- DRILL 1/2" HOLES IN GRANITE CAP TO ALIGN WITH SUPPORT PANEL HOLES.
- DRIVE #4 BAR INTO GRANITE DRILL HOLES TO A SNUG TIGHT CONDITION.
- FILL PRE-DRILLED SUPPORT PANEL HOLES WITH NON-SHRINK GROUT.
- PLACE GRANITE CAP ON SUPPORT PANEL ALIGNING #4 BARS WITH PRE-DRILLED HOLES.



**GRANITE CAP SECTION**

SCALE: 1" = 2'

**B1**



**PIN TO LEDGE DETAIL**

SCALE: 1" = 2'

**A1**

**SUPPORT WALL DETAILS**

SCALE: 1" = 1'

**A2**

**2024 Cemetery Expansion**  
 at  
 Southern Maine Veterans' Cemetery, 83 Stanley Road, Springvale, Maine  
 Maine Department of Defense, Veterans & Emergency Management  
 Bureau of Veterans' Services  
 National Cemetery Administration Project #FAI ME-23-24  
 Bureau of General Services Project Number #3743

Rev.	Date	Description	Drawn	Check

Sheet Title: **Foundation Plans**

Job No.: 105.5 Sheet No.:  
Date: JULY 12, 2024  
Scale: AS SHOWN  
Drawn: JDC  
Checked: NGC