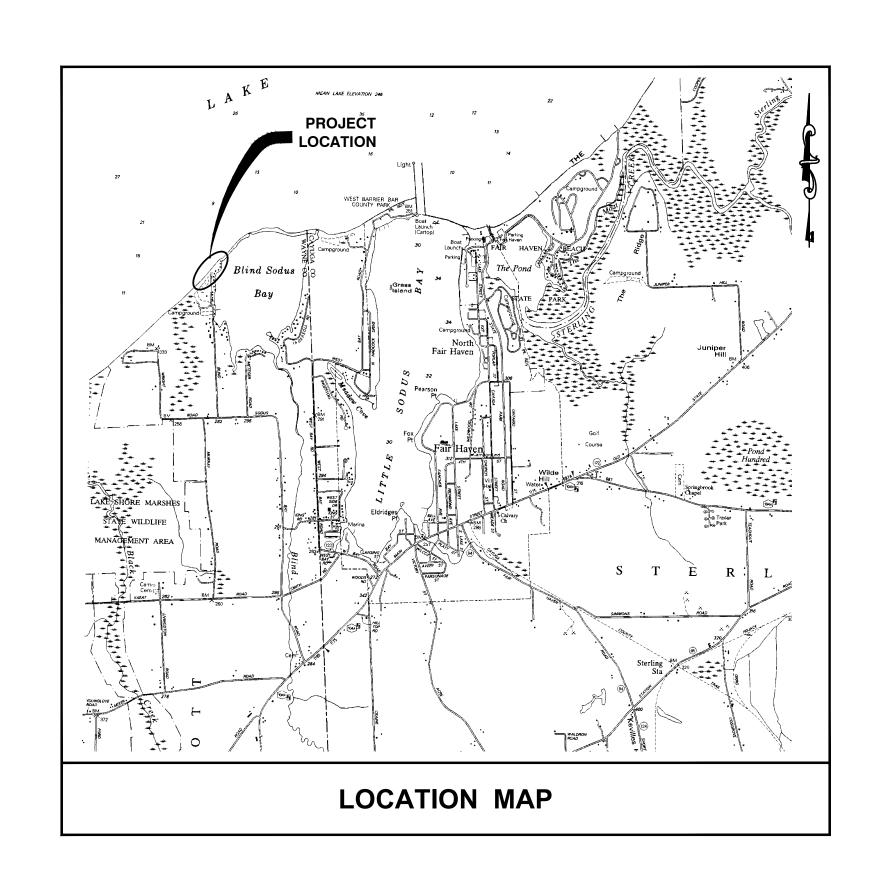
CONTRACT DRAWINGS FOR THE

LAKE ONTARIO SHORE LINE REPAIR PROJECT BLIND SODUS BAY WESTERN BLUFF

LAKE ONTARIO - RESILIENCY & ECONOMIC DEVELOPMENT INITIATIVE (REDI) **GRANT NO. WA. 37**





WAYNE COUNTY SOIL & WATER CONSERVATION DISTRICT **WAYNE COUNTY NEW YORK**

AS ISSUED FOR CONSTRUCTION

DRAWING INDEX:

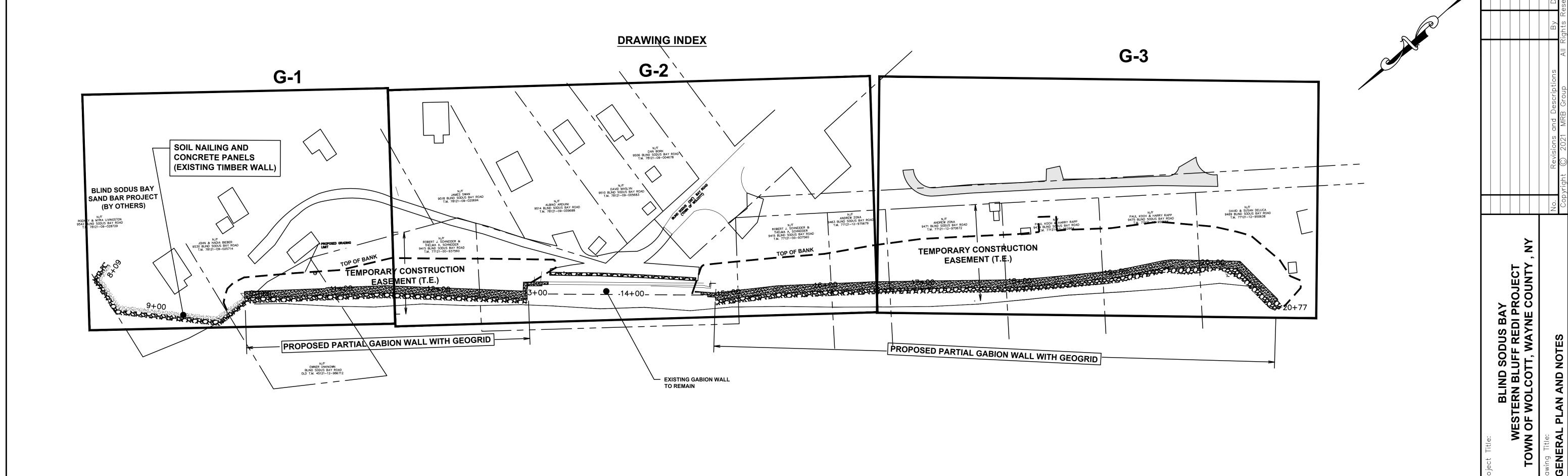
SHEET NO. **DRAWING TITLE** PROPOSED SITE PLAN AND ELEVATION **CROSS SECTIONS CROSS SECTIONS CROSS SECTIONS CROSS SECTIONS JUNE 2022**



The Culver Road Armory, 145 Culver Road, Suite 160, Rochester, New York 14620 Phone: 585-381-9250

www.mrbgroup.com

PROJECT # 2317.20001.000



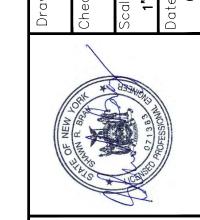
GENERAL NOTES:

- 1. SURVEY AND BASE MAPPING INFORMATION, DATED SEPTEMBER 2020, PROVIDED BY:
 - KOCHER SURVEYING, P.C.
 116 WEST MILLER STREET, NEWARK, NY 14513
 - PHONE: 315.331.2800 FAX: 315.331.2445
 - WEBSITE: WWW.KOCHERSURVEYING.COM

REFERENCE DATUM IS NEW YORK STATE PLANE COORDINATE, CENTRAL ZONE, NORTH AMERICAN VERTICAL DATUM 1988 (IGLD 1985)

- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS, GRADES, QUANTITIES AND FIELD CONDITIONS PRIOR TO BIDDING THE WORK OR ORDERING MATERIALS.
- 3. WORK WILL BE PERFORMED IN ACCORDANCE WITH FEDERAL AND STATE ISSUED PERMITS
- CONSTRUCTION BEST MANAGEMENT PRACTICES (BMP'S): UNLESS SPECIFICALLY APPROVED OTHERWISE THROUGH ISSUANCE OF A VARIANCE BY THE ARMY CORPS OF ENGINEERS DISTRICT ENGINEER, THE FOLLOWING BMP'S MUST BE IMPLEMENTED TO THE MAXIMUM DEGREE PRACTICABLE, TO MINIMIZE EROSION, MIGRATION OF SEDIMENTS, AND ADVERSE ENVIRONMENTAL IMPACTS. NOTE THAT AT A MINIMUM, ALL EROSION AND SEDIMENT CONTROL AND STORM WATER MANAGEMENT PRACTICES MUST BE DESIGNED, INSTALLED AND MAINTAINED THROUGHOUT THE ENTIRE CONSTRUCTION PROJECT IN ACCORDANCE WITH THE LATEST VERSION OF THE "NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" AND THE "NEW YORK STATE STORM WATER MANAGEMENT DESIGN MANUAL". THESE DOCUMENTS ARE AVAILABLE AT: HTTP://www.dec.ny.gov/chemical/29066.html and http://www.dec.ny.gov/chemical/29072.html, respectively. Prior to the discharge of any dredged or fill material into waters of the United STATES, INCLUDING WETLANDS, AUTHORIZED BY NWP, THE PERMITTEE MUST INSTALL AND MAINTAIN EROSION AND SEDIMENTATION CONTROLS IN AND/OR ADJACENT TO WETLANDS OR OTHER WATERS OF THE UNITED STATES
 - a). ALL SYNTHETIC EROSION CONTROL FEATURES (E.G., SILT FENCING, NETTING, MATS), WHICH ARE INTENDED FOR TEMPORARY USE DURING CONSTRUCTION, SHALL BE COMPLETELY REMOVED AND PROPERLY DISPOSED OF AFTER THEIR INITIAL PURPOSE HAS BEEN SERVED. ONLY NATURAL FIBER MATERIALS, WHICH WILL DEGRADE OVER TIME, MAY BE ABANDONED IN PLACE.
 - b). MATERIALS RESULTING FROM TRENCH EXCAVATION FOR UTILITY LINE INSTALLATION OR DITCH RESHAPING ACTIVITIES WHICH ARE TEMPORARILY SIDECAST OR STOCKPILED INTO WATERS OF THE UNITED STATES MUST BE BACKFILLED OR REMOVED TO AN UPLAND AREA WITHIN 30 DAYS OF THE DATE OF DEPOSITION. NOTE: UPLAND OPTIONS SHALL BE UTILIZED PRIOR TO TEMPORARY PLACEMENT WITHIN WATERS OF THE U.S., UNLESS IT CAN BE DEMONSTRATED THAT IT WOULD NOT BE PRACTICABLE OR IF THE IMPACTS OF COMPLYING WITH THIS UPLAND OPTION REQUIREMENT WOULD RESULT IN MORE ADVERSE IMPACTS TO THE AQUATIC ENVIRONMENT.
 - c). FOR TRENCHING ACTIVITIES IN WETLANDS THE APPLICANT SHALL INSTALL IMPERMEABLE TRENCH DAMS OR TRENCH BREAKERS AT THE WETLAND BOUNDARIES AND EVERY 100 FEET WITHIN WETLAND AREAS TO PREVENT INADVERTENT DRAINAGE OF WETLANDS OR OTHER WATERS OF THE UNITED STATES.
 - d). DRY STREAM CROSSING METHODS (E.G., DIVERSION, DAM AND PUMP, FLUME, BORE) SHALL BE UTILIZED FOR CULVERT OR OTHER PIPE, OR UTILITY INSTALLATIONS TO REDUCE DOWNSTREAM IMPACTS FROM TURBIDITY AND SEDIMENTATION. THIS MAY REQUIRE PIPING OR PUMPING THE STREAM FLOW AROUND THE WORK AREA AND THE USE OF COFFERDAMS.
 - e). NO IN-STREAM WORK SHALL OCCUR DURING PERIODS OF HIGH FLOW, EXCEPT FOR WORK THAT OCCURS IN DEWATERED AREAS BEHIND TEMPORARY DIVERSIONS, COFFERDAMS OR CAUSEWAYS.
 - f). CONSTRUCTION ACCESS AND STAGING AREAS SHALL BE BY MEANS THAT AVOID OR MINIMIZE IMPACTS TO AQUATIC SITES (E.G. USE OF UPLAND AREAS FOR ACCESS & STAGING, FLOATING BARGES, MATS, ETC.). DISCHARGES OF FILL MATERIAL ASSOCIATED WITH THE CONSTRUCTION OF TEMPORARY ACCESS ROADS, STAGING AREAS AND WORK PADS IN WETLANDS SHALL BE PLACED ON FILTER FABRIC. ALL TEMPORARY FILLS SHALL BE REMOVED UPON COMPLETION OF THE WORK AND THE DISTURBED AREA RESTORED TO PRE—CONSTRUCTION CONTOURS, ELEVATIONS AND WETLAND CONDITIONS, INCLUDING COVER TYPE. ALL VEGETATION UTILIZED IN THE RESTORATION ACTIVITY SHALL CONSIST OF NATIVE SPECIES.
 - g). ALL RETURN FLOW FROM DREDGED MATERIAL DISPOSAL AREAS SHALL NOT RESULT IN AN INCREASE IN TURBIDITY IN THE RECEIVING WATER BODY THAT WILL CAUSE A SUBSTANTIAL VISIBLE CONTRAST TO NATURAL CONDITIONS. (SEE NWP #16)
 - h). FOR ACTIVITIES INVOLVING THE PLACEMENT OF CONCRETE INTO WATERS OF THE U.S., THE PERMITTEE MUST EMPLOY WATERTIGHT FORMS. THE FORMS SHALL BE DEWATERED PRIOR TO THE PLACEMENT OF THE CONCRETE. THE USE OF TREMIE CONCRETE IS ALLOWED, PROVIDED THAT IT COMPLIES WITH NEW YORK STATE WATER QUALITY STANDARDS.
 - i). NEW STORMWATER MANAGEMENT FACILITIES SHALL BE LOCATED OUTSIDE OF WATERS OF THE U.S. A VARIANCE OF THIS REQUIREMENT MAY BE REQUESTED WITH THE SUBMISSION OF A PCN. THE PCN MUST INCLUDE JUSTIFICATION WHICH DEMONSTRATES THAT AVOIDANCE AND MINIMIZATION EFFORTS HAVE BEEN MET.
 - j.) TO THE MAXIMUM EXTENT PRACTICABLE, THE PLACEMENT OF FILL IN WETLANDS MUST BE DESIGNED TO MAINTAIN PRE—CONSTRUCTION SURFACE WATER FLOWS/CONDITIONS BETWEEN REMAINING ON OR OFF—SITE WATERS AND TO PREVENT DRAINING OF THE WETLAND OR PERMANENT HYDROLOGIC ALTERATION. THIS MAY REQUIRE THE USE OF CULVERTS AND/OR OTHER MEASURES. FURTHERMORE, THE ACTIVITY MUST NOT RESTRICT OR IMPEDE THE PASSAGE OF NORMAL OR EXPECTED HIGH FLOWS (UNLESS THE PRIMARY PURPOSE OF THE FILL IS TO IMPOUND WATERS). THE ACTIVITY MAY ALTER THE PRE—CONSTRUCTION FLOWS/CONDITIONS IF IT CAN BE SHOWN THAT IT BENEFITS THE AQUATIC ENVIRONMENT (I.E. WETLAND RESTORATION AND/OR ENHANCEMENT).

- 5. NON-CONTAMINATION OF WATERS: ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO PRECLUDE CONTAMINATION OF ANY WETLAND WATERWAY OR GROUNDWATER BY SUSPENDED SOLIDS, RESINS, SEDIMENTS, FUELS, SOLVENTS, LUBRICANTS, EPOXY COATINGS, PAINTS, CONCRETE, LEACHATE, INADVERTENT RETURNS OF DRILLING MUDS (FRAC-OUTS) OR ANY OTHER ENVIRONMENTALLY DELETERIOUS MATERIALS ASSOCIATED WITH THE PROJECT.
- 6. ALL INCIDENTAL EXCAVATED SEDIMENTS AND REMOVED TREES/BRUSH SHALL BE DISPOSED UPLAND (NOT IN ANY WATERWAY, WETLAND, ETC.). THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER DISPOSAL.
- . WATER QUALITY CERTIFICATION TO PREVENT THE UNINTENTIONAL INTRODUCTION OR SPREAD OF INVASIVE SPECIES THE CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION EQUIPMENT BE CLEANED OF MUD, SEEDS, VEGETATION AND OTHER DEBRIS BEFORE ENTERING ANY APPROVED CONSTRUCTION AREA WITHIN WATERS OF THE U.S. WHEN USING CONSTRUCTION EQUIPMENT FOR PROJECTS AUTHORIZED UNDER THIS CERTIFICATION THE CONTRACTOR SHALL TAKE REASONABLE PRECAUTIONS TO PREVENT THE SPREAD OF AQUATIC INVASIVE SPECIES REQUIRED UNDER NYS LAW
- 8. TREE REMOVALS (OVER 6" DBH) AND TRIMMING TO ACCOMMODATE CONSTRUCTION WILL ONLY BE PERMITTED WITH PRIOR WAYNE COUNTY SOIL AND WATER CONSERVATION DISTRICT AND PROPERTY OWNER APPROVAL. ALL TREES REMOVED SHALL BE CUT AT GROUND LEVEL AND DEBRIS SUITABLY DISPOSED IN UPLAND AREAS. THE STUMPS AND ROOT SYSTEMS SHALL REMAIN.

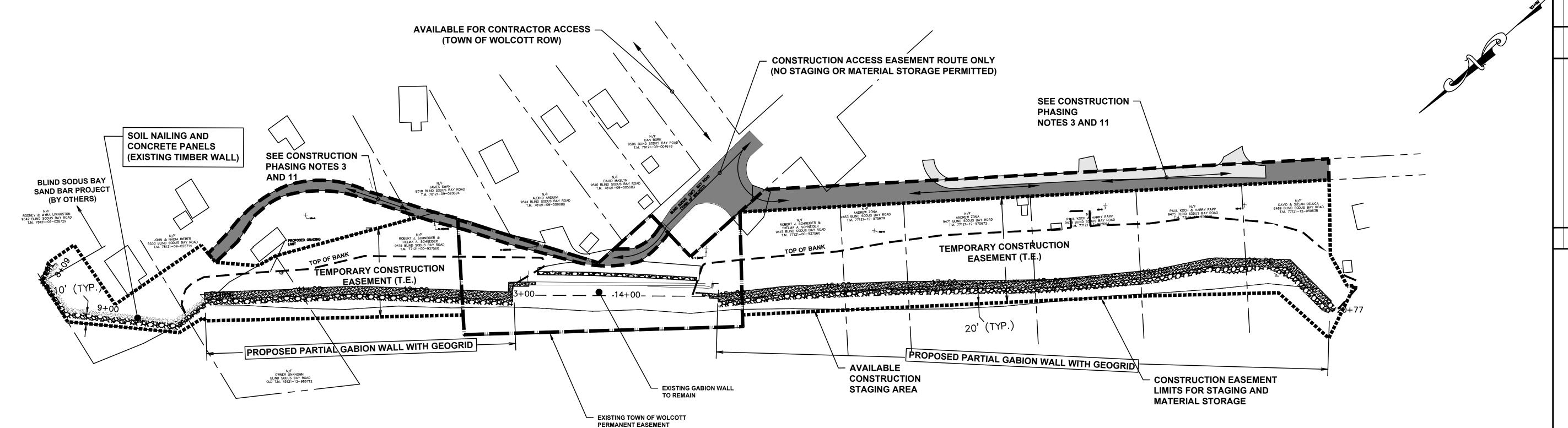


 $|\mathbf{ZB}| \int \mathbf{group} \mathcal{D} \mathcal{D}$ ing, Architecture & Surveying, D.P.C. Culver Road Armory, 145 Culver Road,

Sheet No.

Project No. 2317.20001

DRAWING ALTERATION
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"IT IS A VIOLATION OF THIS LAW FOR ANY PERSON UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR TO ALTER AN ITEM
IN ANY WAY, IF AN ITEM BEARING THE SEAL OF AN ENGINEER OR LAND SURVEYOR IS ALTERED, THE ALTERING ENGINEER OR LAND SURVEYOR SHALL AFFIX TO THE ITEM HIS SEAL
AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION AND A SPECIFIC DESCRIPTION OF THE ALTERATION".



CONSTRUCTION PHASING NOTES:

- ALL CONSTRUCTION EQUIPMENT SHALL BE OPERATED FROM DRY LAND, UPLAND AREAS OR ON A BARGE. ANY BLUFF EXCAVATION FOR TEMPORARY CONSTRUCTION ACCESS SHALL BE PERMITTED IN UPLAND AREAS ONLY AND SHALL BE RESTORED TO THE EXISTING ELEVATION. NO ADDITIONAL PAYMENT WILL BE MADE TO BACKFILL/RE-GRADE AREAS DISTURBED FOR CONSTRUCTION ACCESS. INCLUDE ALL COSTS IN ITEM 002.
- 2. OTHER THEN THE PERMITTED AREAS SHOWN ON THE PLANS, ALL TEMPORARY GROUND DISTURBANCE AND EMBANKMENTS SHALL BE LOCATED IN UPLAND AREAS ONLY (ABOVE GROUND ELEV. 247.30).
- 3. THE CONTRACTOR SHALL PHASE OPERATIONS TO ALLOW CONTINUOUS VEHICLE ACCESS TO PRIVATE PROPERTIES IN VICINITY OF THE PROJECT AREA.

7. MATERIALS, EQUIPMENT, AND VEHICLES SHALL NOT BE STORED OR PARKED OBSTRUCTING EXISTING ROADS AND

- CONSTRUCTION MATERIALS AND EQUIPMENT SHALL REMAIN 16 FEET MINIMUM FROM TOP OF EMBANKMENT SLOPE DURING CONSTRUCTION OF THE FIRST FOUR ROWS OF GABIONS.
- 5. ALL PAVED ROADS SHALL BE KEPT CLEAN OF MUD AND DEBRIS AT ALL TIMES.
- 6. EXISTING POSITIVE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES.
- DRIVEWAYS. 8. NO NIGHT WORK IS PERMITTED.
- 9. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS IN KIND OR AS SPECIFIED ON THE PLANS.
- 10. LINEAR OPEN EXCAVATION PHASES FOR PROPOSED GABION BASKETS IS LIMITED TO A MAXIMUM 40 LF. THE NEXT OPEN EXCAVATION PHASE WILL NOT BE PERMITTED UNTIL THE TOP OF THE GABION WALL FOR THE PREVIOUS PHASE EXCEEDS EL. 256.0 (FIRST FOUR ROWS OF GABIONS).
- 11. RESTORE ALL DISTURBED EXISTING STONE DRIVEWAY AND PARKING AREAS TO THE PRECONSTRUCTION WIDTH, GRADE AND SURFACE CONDITION. ADDITIONAL CRUSHED STONE MEETING NYDOT 733-04 (TYPE 2) SHALL BE PLACED AND COMPACTED A.O.B.E. PAYMENT FOR FURNISHING, PLACING AND COMPACTION. ADDITIONAL SUBBASE MATERIAL SHALL BE INCLUDED IN ITEM 505. MINOR RESTORATION OF DISTURBED DRIVEWAY AREAS SHALL BE INCLUDED IN ITEM 002.

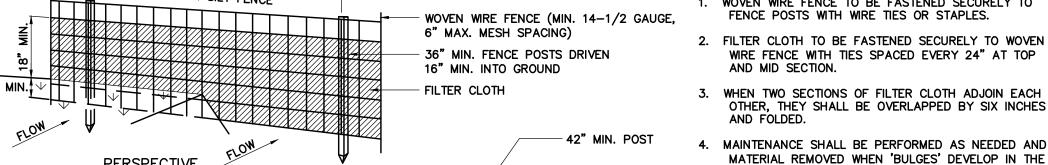
STABILIZATION / SEEDING NOTES

- 1. SEED ALL CUT AND FILL AREAS AND TOPSOIL PILES WITHIN SEVEN (7) DAYS AFTER COMPLETION.
- 2. TEMPORARY SEEDING OF DISTURBED AREAS SHALL BE PROVIDED AS FOLLOWS: THE SURFACE TWO INCHES OF SOIL SHOULD BE LOOSENED BY DISKING, RAKING, OR BACK-BLADING WITH A BULLDOZER. IMMEDIATELY FERTILIZE WITH 300 POUNDS PER ACRE (OR SEVEN (7) POUNDS PER 1,000 SQ FT) OF 10-10-10 FERTILIZER. IMMEDIATELY SEED WITH A MIX OF RYEGRASSES (ANNUAL OR PERÈNNIAL) OR CEREAL GRASSES SUITABLE FOR THE AREA AS TEMPORARY COVER AND WHICH WILL NOT COMPETE WITH THE GRASSÉS SOWN LATER FOR PERMANENT COVER.
- 3. FINAL RESTORATION OF LAWN AREAS SHALL RECEIVE 4" OF TOPSOIL AND BE STABILIZED USING THE FOLLOWING PERMANENT SEEDING MIX UPON COMPLETION OF UTILITIES, SIDEWALKS, AND FINE GRADING:

COMMON NAME	SCIENTIFIC NAME	VARIETY	PERCENT BY WEIGHT
FINE FESCUE (2 VARIETIES MIN. MUST INCLUDE CREEPING RED	FESTUCA RUBA VAR.	COMMERCIAL	50-70
PERENNIAL RYEGRASS (2 VAR. MIN.)	LOLIUM PERENNE	COMMERCIAL "TURF" TYPE	15-40
ANNUAL RYEGRASS	LOLIUM MULTIFLORUM	COMMERCIAL	5–15
CLOVER (WHITE PREFERRED)	TRIFOLIUM REPENS	COMMERCIAL	5–10

- 4. FOR FALL OR EARLY WINTER, SEED WITH CERTIFIED "AROOSTOCK" WINTER RYE (CEREAL RYE) AT 100 LBS/ACRE.
- 5. PERMANENT STABILIZATION FOR STEEP SLOPES 3:1 OR GREATER OR AS NOTED SHALL INCLUDE STREW BLANKET AND SEED
- 6. DUST SHALL BE CONTROLLED BY DURING CONSTRUCTION BY THE CONTRACTOR TO MINIMIZE THE EFFECT ON THE ADJACENT PROPERTIES. THE CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES AS NEEDED AND/OR AS DIRECTED BY THE
- 7. THE OWNER'S CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT, MAINTENANCE, CLEANING, REPAIR AND REPLACEMENT OF EROSION CONTROL MEASURES DURING SITE CONSTRUCTION.





WOVEN WIRE FENCE (14-1/2 GA.

FILTER CLOTH (GEO FAB,

ENVIRO FENCE OR EQUAL)

MIN., 6" MAX. MESH SPACING)

STANDARD SYMBOL

PLAN EXAMPLE LAYOUT OF SILT FENCE OR SEDIMENT FILTER LOG

VARIES (SEE NOTE 8)

WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP 3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH

OTHER, THEY SHALL BE OVERLAPPED BY SIX INCHES

4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN 'BULGES' DEVELOP IN THE SILT FENCE.

POSTS: STEEL, EITHER T OR U TYPE OR 2" HARDWOOD FENCE: WOVEN WIRE, 14-1/2 GAUGE, 6" MAX. MESH OPENING -UNDISTURBED FILTER CLOTH: FABRIC TO BE IN ACCORDANCE WITH NYSDOT STANDARD SHEET 209-01 ON APPROVED MATERIAL LIST.

ITEM 331 EMBED FILTER CLOTH 6" MIN. INTO GROUND SILT FENCE **SECTION** N.T.S.

POSTS SHALL BE SPACED NO MORE — THAN 10' APART

SEDIMENT FILTER LOG

VARIES (SEE NOTE 10)

SECTION A-A SEDIMENT FILTER LOG

TYPICAL POST (SEE NOTE 4)

SILT FENCE END WRAPPING DETAI

- A. THE PRIMARY PURPOSE OF A SILT FENCE OR SEDIMENT FILTER LOG IS TO INTERCEPT SEDIMENT LADEN RUNOFF BY IMPOUNDING WATER BEHIND THE FENCE OR LOG SO THAT SEDIMENT FALLS OUT OF SUSPENSION.
- B. IDENTIFY ONSITE AND OFFSITE RESOURCES THAT MEED TO BE PROTECTED USING THE SILT FENCE OR SEDIMENT FILTER LOG (E.G. WETLANDS, PONDS, WATERWAYS OR ENVIRONMENTALLY SENSITIVE AREAS). SILT FENCE OR SEDIMENT FILTER LOSS ARE TYPICALLY USED WITH EROSION OR SEDIMENT CONTROL MEASURES, SUCH AS MULCH AND/OR ROLLED EPOCKING CONTROL CAMOUNT. C. SILT FENCE OR SEDIMENT FILTER LOGS SHALL NOT BE USED IN OR ACROSS A FLOWING CHANNEL, OR AREAS OF CONCENTRATED FLOW. DO NOT USE SILT FENCE OR SEDIMENT FILTER LOGS AS A PERIMETER CONTROL, TO DEFINE PROPERTY LINES, OR TO DELIMEATE A RESOURCE.
- 1. SILT FENCE OR SEDIMENT FILTER LOGS SHALL BE INSTALLED ON A LINE OF EQUAL ELEVATION (CONTOUR). IT MAY BE INSTALLED AT INTERNEDIATE POINTS UP SLOPES AS WELL AS AT THE BOTTOM.
- For locations that warrant placement of silt fence or sediment filter loos at the base of slopes, silt fence or sediment filter loca shall be placed a minimum of 10 feet from the foo file slope, to provide adequate area for sediment storage and facilitate maintenance of the sediment containment area.
- 5. THE BOTTOM EDGE OF SILT FENCE SHALL BE BURIED A MINIMUM OF 6" BELOW GROUND. THE FENCE SHALL BE INSTALLED WITH THE POSTS ON THE DOWNSLOPE SIDE OF THE FABRIC.
- WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER, THEY SHALL BE OVERLAPPED AND FOLDED AND STAPLED TO
 PREVENT SEDMENT BYPASS, OR THE END POSTS OF TWO SECTIONS SHALL BE WRAPPED AS SHOWN IN THE DETAIL
 FOR SLIT FERME END WARPPING.
- SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE ABOVE GROUND HEIGHT OR WHEN BULGES DEVELOP IN THE FABRIC. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL. 8. THE FOLLOWING ARE MAXIMUM SLOPE LENGTHS (DISTANCE BETWEEN ROWS) FOR SILT FENCE INSTALLATION.

••					
	SII	T FENCE MAXIMUM	I SLOPE LENGTH		
	SLOPE	STEEPNESS	STANDARD**	REINFORCED***	• FOR SLOPES LESS THAN 5% SILT FENCE IS NOT REQUIRED UNLESS IN SENSITIVE AREAS OR HIGHLY
	•5-10%	20:1 TO 10:1	125	250	ERODIBLE SOILS.
	10-20%	10a1 TO 5a1	100	150	•• STANDARD SILT FENCE IS FABRIC ROLLS STAPLI TO WOODEN POSTS DRIVEN 18 INCHES INTO THE
	20-33%	5e1 TO 3e1	60	80	GROUND.
	33-50%	3d TO 2d	40	70	••• REINFORCED SILT FENCE IS FABRIC PLACED AGAINST WELDED WIRE MESH WITH ANCHORED STEEL
	> 50%	> 2:1	20	30	POSTS DRIVEN 18 INCHES INTO THE GROUND.

 INSTALLATION OF SILT FENCE OR SEDIMENT LOG, INCLUDING EXCAVATION, BACKFILL, AND COMPACTION OF SOIL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM. 10. SEDIMENT FILTER LOG POSTS SHALL BE SPACED NO MORE THAN 10 FEET APART. ENDS OF LOGS SHALL BE OVERLAPPED BY 24 INCHES AND STAKED SIDE BY SIDE. THE MAXIMUM SLOPE LENGTH ODSTANCE BETWEEN ROWS) SHALL NOT EXCEED THE FOLLOWING LIMITS: SEDIMENT FILTER LOG MAX SLOPE LENGTH (FEET)

DIA (INL) 2 5 10 20 25 33 50

12 250 225 125 65 50 40 25 18 275 250 150 70 55 45 30 24 350 275 200 130 100 60 35

U.S. CUSTOMARY STANDARD SHEET LINEAR MEASURES

/S/ RICHARD WILDER, P.E.

EROSION CONTROL & RESTORATION NOTES

- EROSION CONTROL DEVICES SHALL BE INSTALLED ON SITE PER THE EROSION CONTROL SEQUENCE AND THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS OF THE N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION WATER QUALITY CERTIFICATION AND/OR FRESH WATER WETLANDS PERMIT AND/OR CORPS OF ENGINEER'S PERMIT (IF APPLICABLE).
 - IT IS THE CONTRACTORS RESPONSIBILITY TO MAINTAIN ALL EROSION CONTROL DEVICES AND TEMPORARY SEEDING UNTIL A PERMANENT COVER OF VEGETATION IS ESTABLISHED. MAINTENANCE SHALL INCLUDE, BUT IS NOT LIMITED TO, REMOVAL OF ACCUMULATED SEDIMENT, PREVENTATIVE AND REMEDIAL WORK, REPAIR, REPLACEMENT, WATERING SEEDED AREAS, RESEEDING AND REMULCHING.
- 3. ON-SITE BURIAL OF WASTE MATERIAL CLEARED FROM THE WORK AREA IS NOT PERMITTED. CONTRACTOR SHALL DISPOSE OF OFF-SITE IN A LOCATION APPROVED BY LOCAL AND STATE ORDINANCES. ANY DEBRIS OR EXCESS MATERIAL EXPOSED ALONG A CREEK BED OR BANK SHALL BE IMMEDIATELY AND COMPLETELY REMOVED FROM THE BED OR BANK TO AN AREA UPLAND FOR DISPOSAL.
- 4. ALL LAKESHORE WORK SHALL BE LIMITED TO WITHIN THE DESIGNATED RIGHT-OF-WAY, EASEMENT, OR T.E. LIMITS, OR RELEASE.
- ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO PREVENT CONTAMINATION OF THE LAKE BY SILT, SEDIMENT, FUELS, SOLVENTS, LUBRICANTS, EPOXY COATINGS, CONCRETE LEACHATE, OR ANY OTHER POLLUTANT ASSOCIATED WITH CONSTRUCTION AND CONSTRUCTION PROCEDURES.
- DURING CONSTRUCTION, NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE INTO THE WATERS OF NEW YORK STATE, NOR SHALL WASHINGS FROM CONCRETE TRUCKS, MIXERS, OR OTHER DEVICES BE ALLOWED TO ENTER ANY WETLAND OR WATERS.
- ALL DREDGED AND EXCAVATED MATERIAL SHALL BE DISPOSED OF ON AN UPLAND SITE AND BE SUITABLY STABILIZED SO THAT IT CANNOT REASONABLY RE-ENTER ANY WATER BODY OR WETLAND AREA.
- ALL AREAS OF SOIL DISTURBANCE RESULTING FROM THIS PROJECT SHALL BE SEEDED WITH AN APPROPRIATE PERENNIAL GRASS SEED AND MULCHED WITH STRAW WITHIN ONE WEEK OF FINAL GRADING. MULCH SHALL BE MAINTAINED UNTIL A
- 9. IF REQUIRED, CONTRACTOR SHALL PROVIDE ADDITIONAL TEMPORARY EROSION CONTROL MEASURES TO PREVENT SILTATION OF DOWN STREAM PROPERTIES, WITH APPROVAL FROM THE OWNER AND AT THE CONTRACTORS EXPENSE.
- 10. IN THE EVENT THERE IS A FAILURE OF AN EROSION CONTROL DEVICE, THE CONTRACTOR IS RESPONSIBLE TO RESTORE DOWNSTREAM AREAS AT CONTRACTORS EXPENSE.
- 11. THE COST OF INSTALLING, CLEANING AND REMOVING TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL DEVICES SHALL BE INCLUDED IN ITEM 331.
- 12. WHERE SILT FENCE IS USED IN AREAS OF CONCENTRATED FLOW THE ENGINEER IN CHARGE MAY CALL FOR BACKING THE FENCE WITH STRAW BALES.
- 13. THE CONTRACTOR SHALL PROVIDE DUST CONTROL BY WATERING AS NEEDED.

SUITABLE VEGETATIVE COVER IS ESTABLISHED.

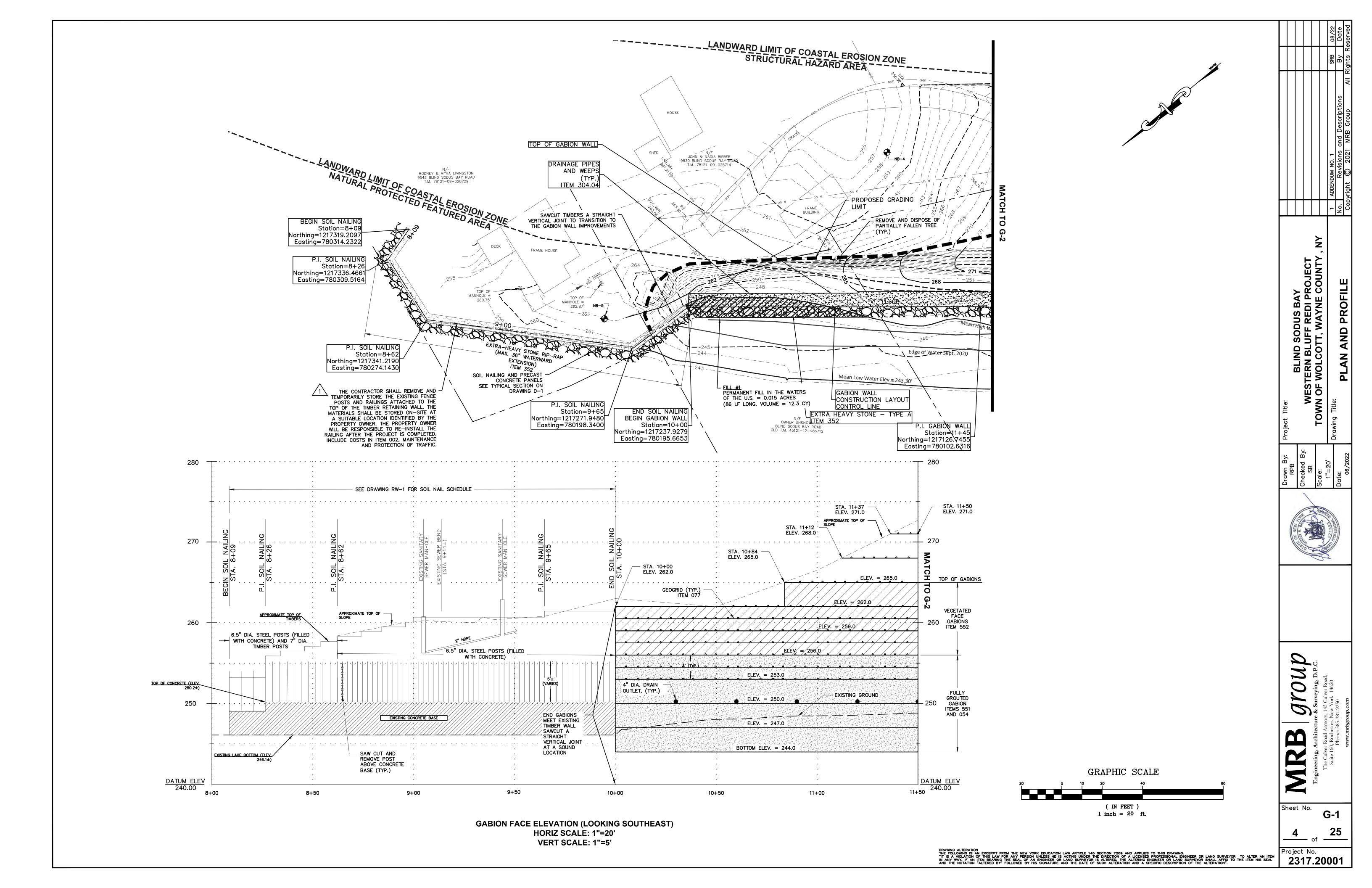
- 14. THE CONTRACTOR SHALL KEEP PAVED SURFACES CLEAN OF MUD AND DEBRIS AT ALL TIMES.
- 15. ALL EROSION CONTROL MEASURES SHALL BE ROUTINELY CHECKED, CLEANED AND REPAIRED, PARTICULARLY AFTER STORM EVENTS BY THE CONTRACTOR.
- 16. DURING DEWATERING OPERATIONS, THE CONTRACTOR SHALL DISCHARGE ALL PUMPED WATER THROUGH AN APPROPRIATELY SIZED SILT SACK ATTACHED DIRECTLY TO THE PUMP DISCHARGE HOSE.
- 17. INCLUDE COSTS FOR ALL EROSION CONTROL MEASURES IN ITEM 331

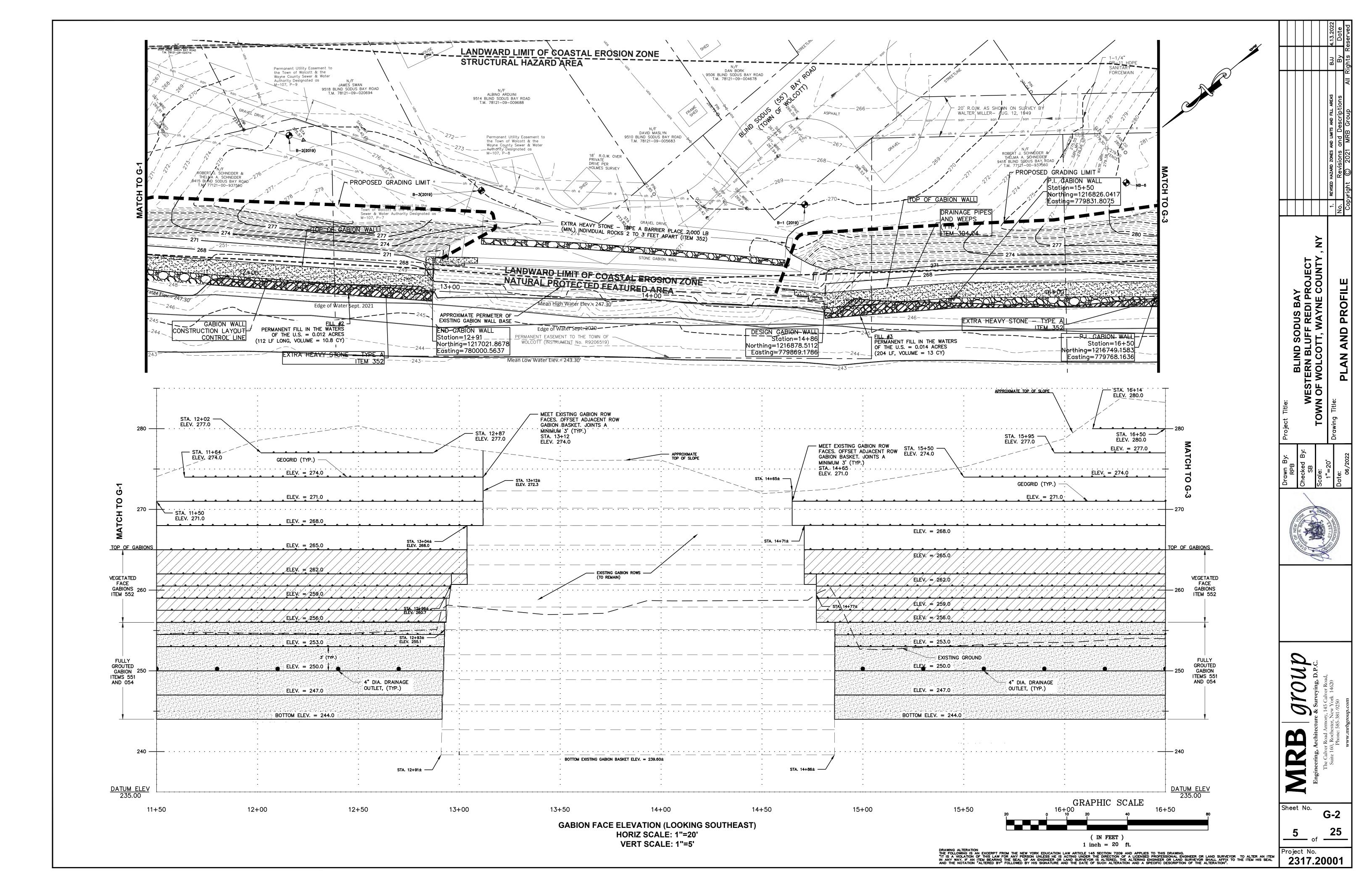
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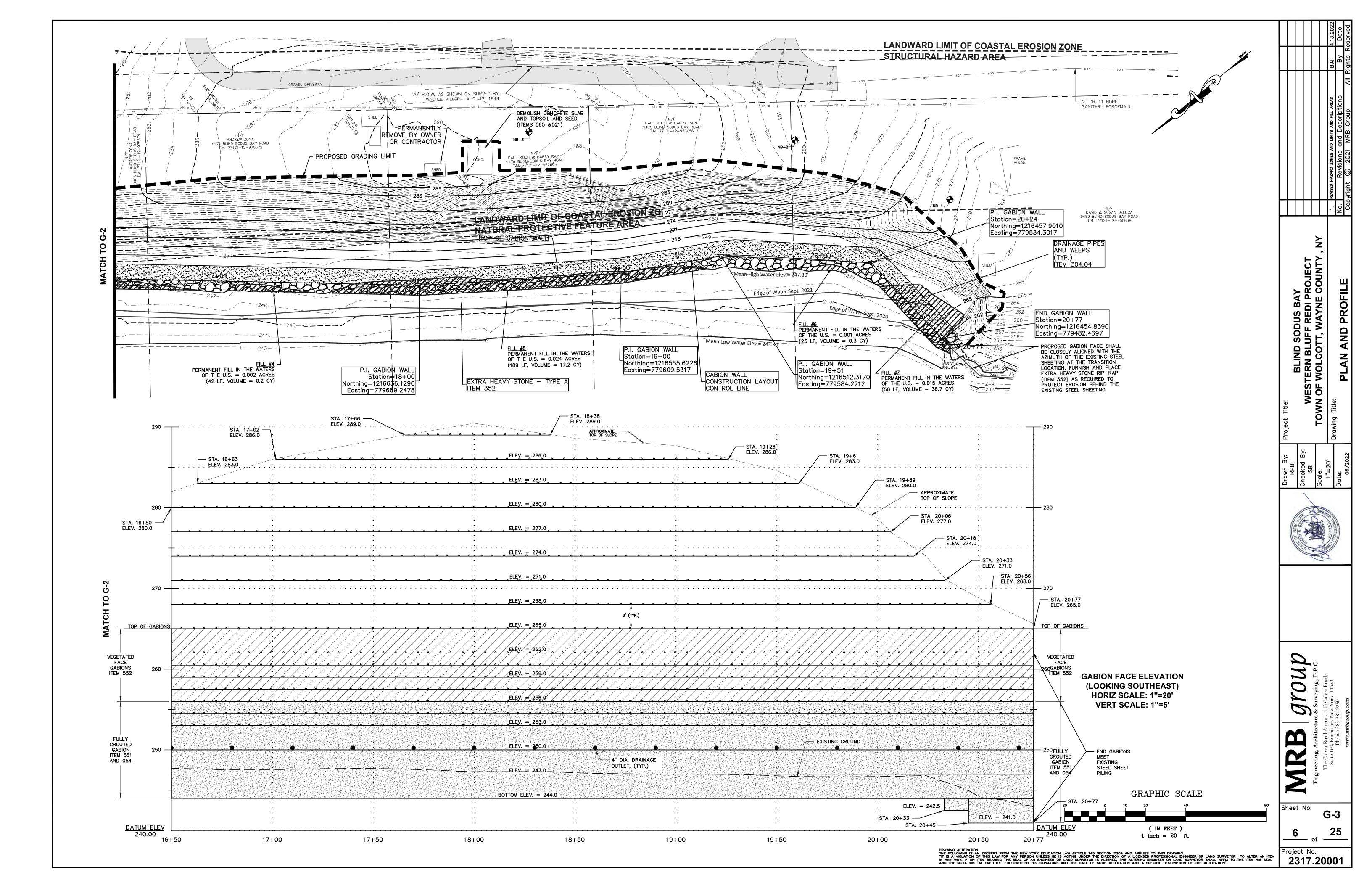
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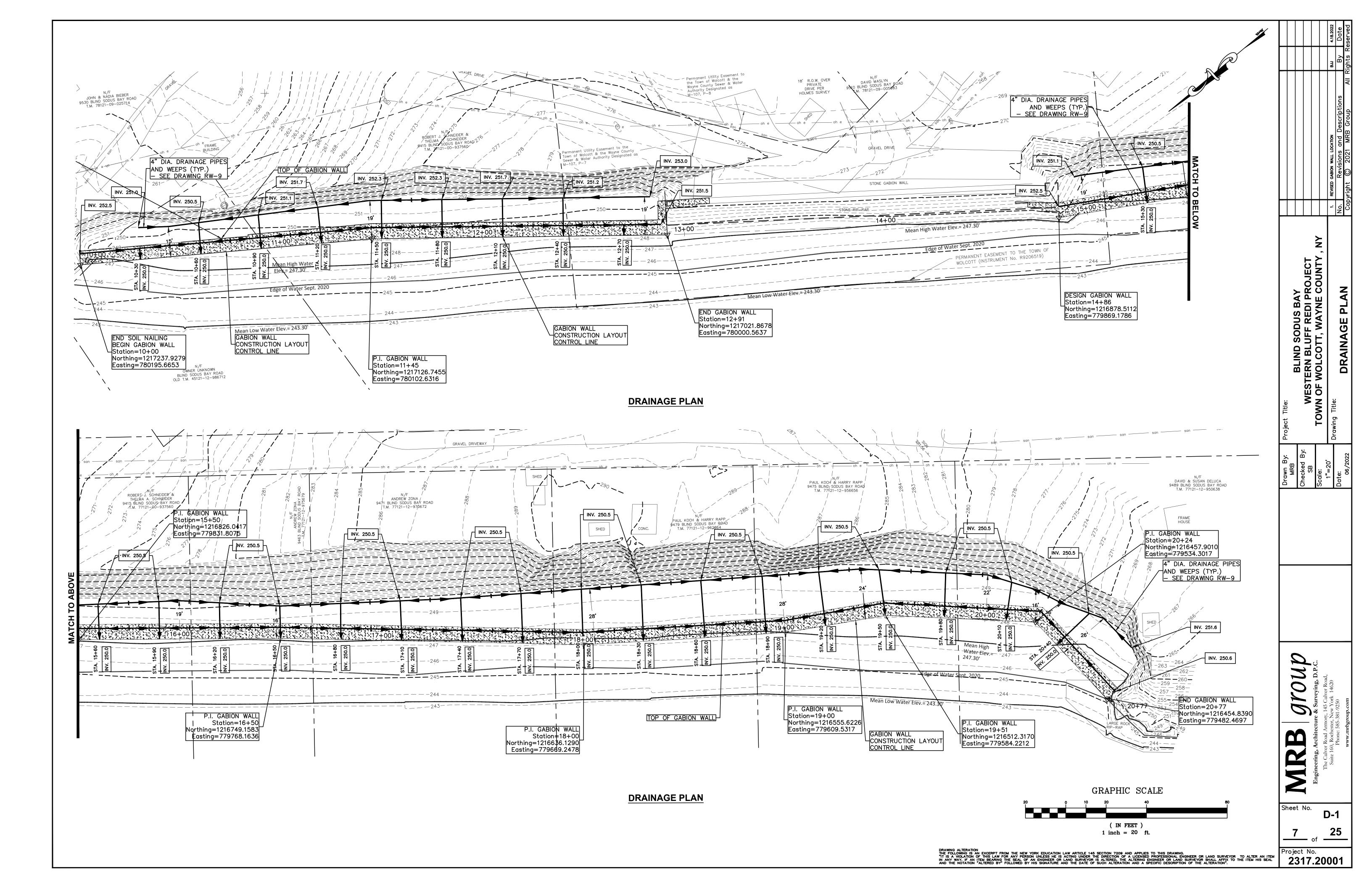
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LEGEND: SO ---- FI ---- TO

SOIL NAIL LOCATION; R38N HOLLOW BAR

--- FINISHED GRADE AT TOP OF WALL

--- TOP OF EXISTING CONCRETE ENCASEMENT

---- BOTTOM OF EXISTING CONCRETE ENCASEMENT

A SOIL NAIL ROW

(1) SOIL NAIL COLUMN

EL. 256.2' SOIL NAIL ELEVATIONS (TYP.)

Ad ALLOWABLE PULLOUT RESISTANCE (LB/FT)

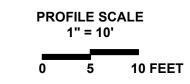
STA STATION ALONG SOIL NAIL WALL ALIGNMENT

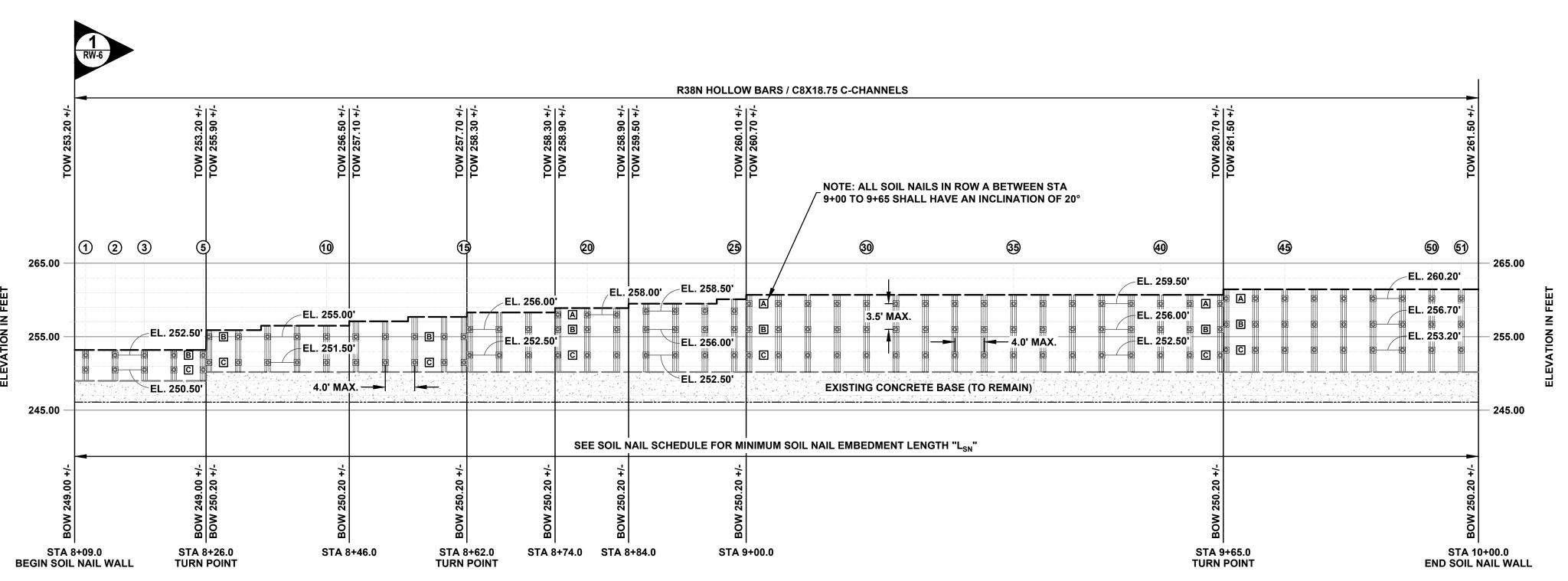
"L_{SN}" MINIMUM SOIL NAIL EMBEDMENT LENGTH

TOW ELEVATION AT TOP OF SOIL NAIL WALL

BOW ELEVATION AT BOTTOM OF WALL AND TOP OF EXISTING CONCRETE ENCASEMENT

(2) C8x18.75 C-CHANNELS ON BOTH SIDES OF SOIL NAIL COLUMNS





SOIL NAIL WALL STA 8+09.0 TO 10+00.0: SOIL NAIL PLACEMENT

			SOI	L NAIL SCHEE	ULE			
STATION	ROW	COLUMN	MIN. LENGTH "L _{SN} " (FT)	INCLINATION ANGLE	MAX. HORIZONTAL SPACING (FT)	MIN. DRILL HOLE SIZE (IN)	HOLLOW BAR SIZE	Ad (LB/FT)
8+09.0 TO 8+26.0	В	1 - 5	8	15°	4	5	R38N	1414
0+09.0 10 0+26.0	С	1-5	8	8	4	5	Koon	1414
8+26.0 TO 8+62.0	В	0.45	10	15°	4	5	R38N	1414
0+20.0 10 0+02.0	С	6 - 15	10	15"	4	3	KOON	
8+62.0 TO 8+74.0	В	16 - 18	12	15°	4	5	R38N	1414
0+02.0 10 0+74.0	С	10 - 10	10					
	Α		14	15°	4	5	R38N	1178
8+74.0 TO 9+00.0	В	19 - 25	12					1414
	С		11					
	Α		15	20°		5	R38N	1178
9+00.0 TO 9+65.0	В	26 - 42	14	15°	4			1414
	С		14	15				1414
	Α		17					943
9+65.0 TO 10+00.0	В	43 - 51	16	15°	4	5	R38N	4444
	С		16					1414



Shitecture & Surveying, D.P.C.

Engineering, Architec

Sheet No. RW-1

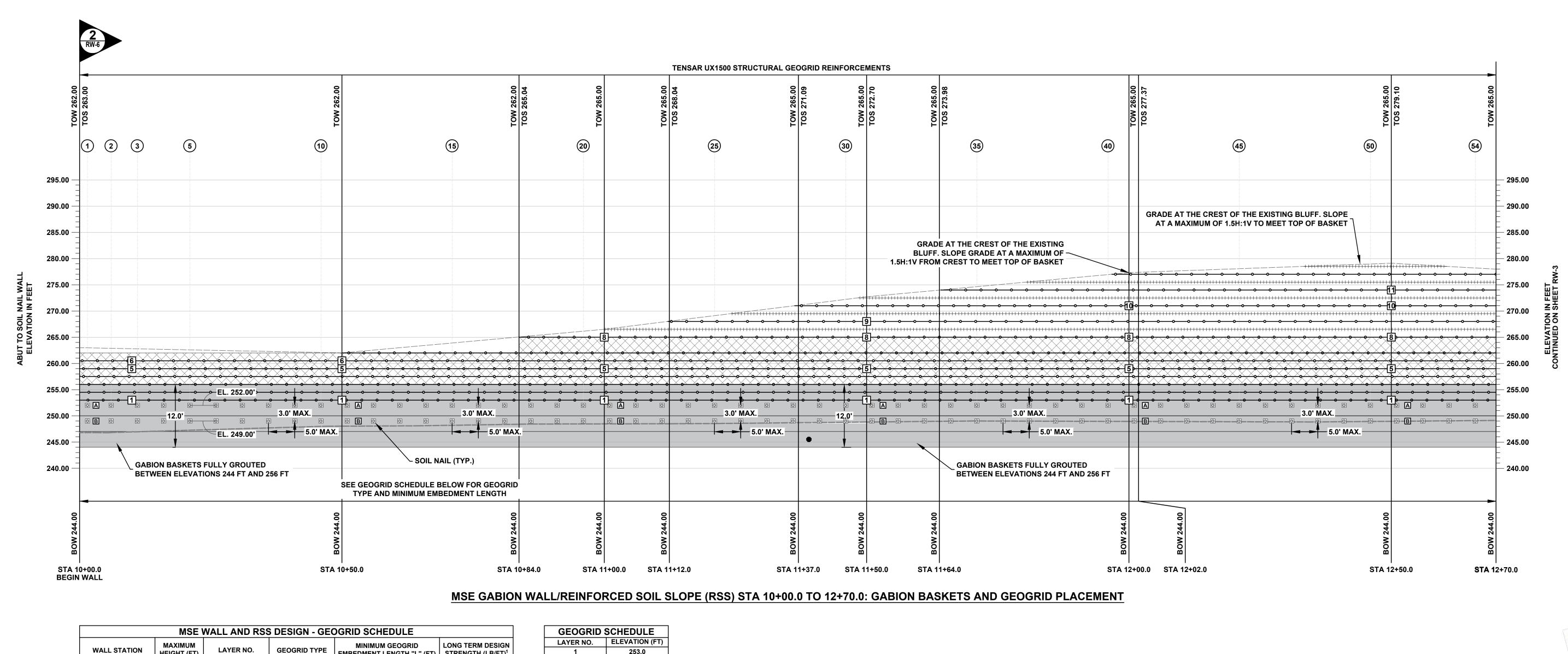


Ing Engineers and Scientists

Avenue, Suite H-4 Tempe, AZ 85282
200 FAX. (480) 897-1133

Project No.

65215077



	MSE W	ALL AND RS	S DESIGN - GEO	OGRID SCHEDULE	
WALL STATION	MAXIMUM HEIGHT (FT)	LAYER NO.	GEOGRID TYPE	MINIMUM GEOGRID EMBEDMENT LENGTH "L" (FT)	LONG TERM DESIGN STRENGTH (LB/FT) ¹
40+00 TO 40+50 0	40.0	1 - 5	TENCAD HV4500	11.5	2402
10+00 TO 10+50.0	18.0	6	TENSAR UX1500	13.5	2403
		1 - 5		15.0	
		6 - 7	1	18.5	
10+50.0 TO 11+50.0	28.7	8	TENSAR UX1500	20.0	2403
		9	1	17.0	
		10	7	13.0	
		1 - 7		18.5	
		8	7	23.0	
44 · 50 0 TO 40 · 70 0	25.0	9	TENOAD UV4500	20.0	0.400
11+50.0 TO 12+70.0	35.0	10	TENSAR UX1500	17.0	2403
		11		13.0	
		12	7	10.0	

GEOGRID SCHEDULE					
LAYER NO.	ELEVATION (FT)				
1	253.0				
2	254.5				
3	256.0				
4	257.5				
5	259.0				
6	260.5				
7	262.0				
8	265.0				
9	268.0				
10	271.0				
11	274.0				
12	277.0				

NOTES:
1. THE LONG TERM DESIGN IS BASED ON INSTALLATION DAMAGE TESTING IN GRAVEL.

2. ALL SECONDARY GEOGRIDS SHOWN IN THE PROFILE ARE NOT DESCRIBED IN THIS TABLE. SECONDARY GEGORIDS ARE TO BE BX1100 AND INSTALLED AT A MINIMUM LENGTH OF 4.5 FEET. REFER TO THE CROSS SECTION FOR DETAILS.

3. GEOGRIDS 1-7 ARE WITHIN THE MSE WALL AND GEOGRIDS 8 AND ABOVE ARE WITHIN THE RSS.

	SOIL NAIL SCHEDULE							
STATION	ROW	COLUMN	MIN. BONDED LENGTH "L _B " (FT) ¹	INCLINATION ANGLE	MAX. HORIZONTAL SPACING (FT)	MIN. DRILL HOLE SIZE (IN)	HOLLOW BAR SIZE	Ad (LB/FT)
10+00 TO 10+50.0	Α	1 - 10	8	15°	5	5	R38N	1414
10100 10 10130.0	В	1 - 10	8	13				1414
10+50.0 TO 11+50.0	Α	10 - 30	11	15°	5	5	R38N	1414
10+30.0 10 11+30.0	В	10 - 30	11					1414
11+50.0 TO 12+70.0	Α	30 - 54	20	15°	5	5	R38N	1414
11+50.0 10 12+70.0	В	30 - 54	20	19				1414
NOTES: 1. TOTAL LENGTH OF SOIL NAIL WILL VARY BASED ON DISTANCE FROM EXISTING GRADE TO FACE OF WALL. 2. BONDED LENGTH SHOWN IN TABLE IS CONSIDERED ONLY IN UNDISTURBED SITE SOILS. REFER TO CROSS SECTION FOR DETAILS.								
3. PAYMENT FOR RC	W A SOIL NAILS SH	ALL BE UNDER ITEM	1 078T AND ROW B SC	OIL NAILS UNDER IT	EM 078B.			

<u>LEGEND:</u>
GABION BASKETS WITH VEGETATED FACE
GROUTED GABION BASKETS
EXISTING GABION BASKETS
→ TENSAR UX1500 STRUCTURAL GEOGRID
+++++++ TENSAR BX1100 STRUCTURAL GEOGRID
FINISHED GRADE AT THE CREST OF EXISTING BLUFF AT TOP OF WALL
FINISHED GRADE AT BOTTOM OF WALL
STA STATION ALONG RETAINING WALL ALIGNMENT
EL. 249.0' SOIL NAIL ELEVATIONS (TYP.)

A SOIL NAIL ROW

1 GEOGRID LAYER

SOIL NAIL LOCATION; R38N HOLLOW BAR

1 SOIL NAIL COLUMN

"L" MINIMUM GEOGRID EMBEDMENT LENGTH

TOW ELEVATION AT TOP OF WALL

BOW ELEVATION AT BOTTOM OF WALL

"LB" MINIMUM BONDED SOIL NAIL LENGTH

MSE MECHANICALLY STABILIZED EARTH

RSS REINFORCED SOIL SLOPE

Checked By:

Scale:

Drawn By:

RFR

Checked By:

BJD

TOWN OF WOLCOTT, WAYNE COUNTY, NY

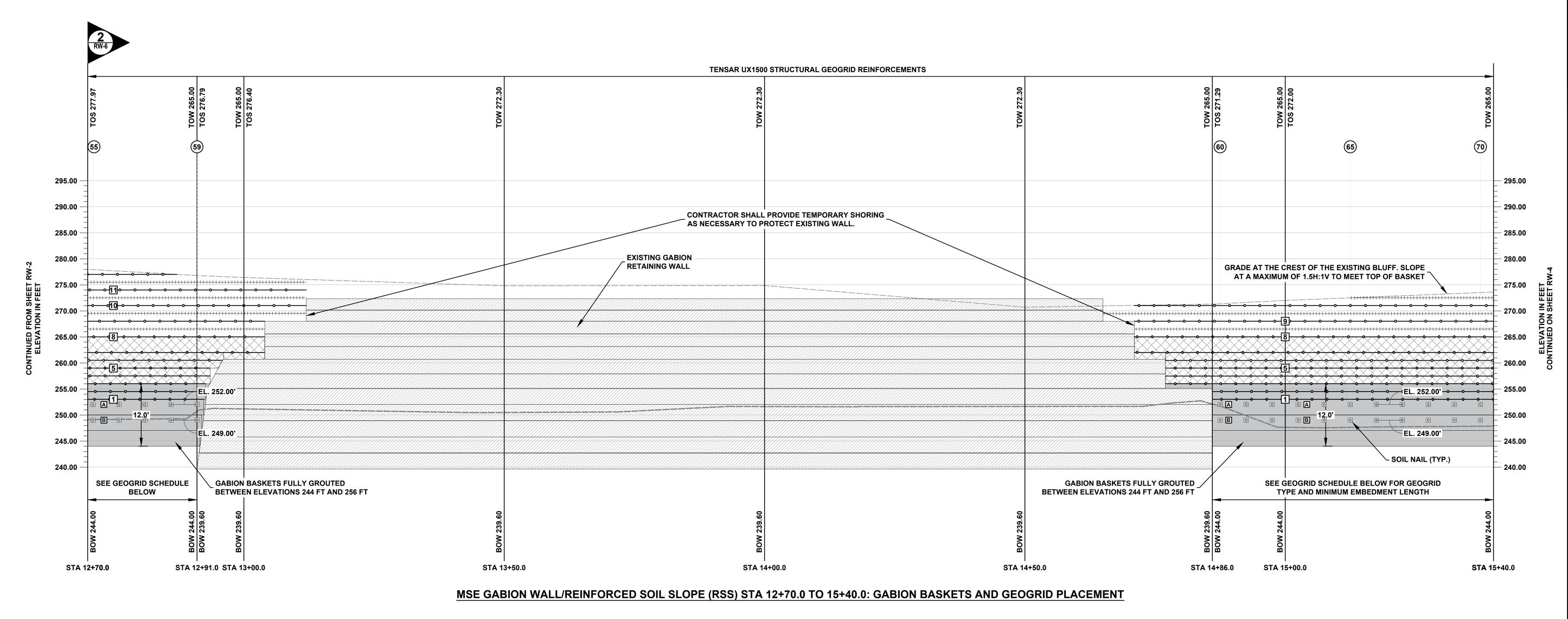
Drawing Title:

MSE GABION WALL PROFILE

Sheet No. RW-2

65215077

roject No.



WALL STATION	MAXIMUM HEIGHT (FT)	LAYER NO.	GEOGRID TYPE	MINIMUM GEOGRID EMBEDMENT LENGTH "L" (FT)	LONG TERM DESIG STRENGTH (LB/FT)
		1 - 7		18.5	
	Γ	8		23.0	2403
12+70.0 TO 12+91.0] 240 [9	TENSAR UX1500	20.0	
	34.0	10		17.0	
	Γ	11		13.0	
	Ι	12		10.0	
		1 - 7		18.5	
4410C 0 TO 45140 0] 20.5	8	TENCAD UV4500	21.0	2402
14+86.0 TO 15+40.0	29.5	9	TENSAR UX1500	19.0	2403
		10		16.0	

2. ALL SECONDARY GEOGRIDS SHOWN IN THE PROFILE ARE NOT DESCRIBED IN THIS TABLE. SECONDARY GEGORIDS ARE TO BE

BX1100 AND INSTALLED AT A MINIMUM LENGTH OF 4.5 FEET. REFER TO THE CROSS SECTION FOR DETAILS.

3. GEOGRIDS 1-7 ARE WITHIN THE MSE WALL AND GEOGRIDS 8 AND ABOVE ARE WITHIN THE RSS.

LAYER NO.	ELEVATION (FT)		
1	253.0		
2	254.5		
3	256.0		
4	257.5		
5	259.0		
6	260.5		
7	262.0		
8	265.0		
9	268.0		
10	271.0		
11	274.0		
12	277.0		

GEOGRID SCHEDULE

SOIL NAIL SCHEDULE								
STATION	ROW	COLUMN	MIN. BONDED LENGTH "L _B " (FT) ¹	INCLINATION ANGLE	MAX. HORIZONTAL SPACING (FT)	MIN. DRILL HOLE SIZE (IN)	HOLLOW BAR SIZE	Ad (LB/FT)
12+70.0 TO 12+91.0	Α	55 - 59	20	15°	5	5	R38N	1414
12+70.0 10 12+91.0	В		20					
14+86.0 TO 15+40.0	Α	60 70	20	450		_	DOON	1414
14+00.0 10 15+40.0	В	B 60 - 70		15°	9	3	R38N	1414
NOTES:		-			-			

1. TOTAL LENGTH OF SOIL NAIL WILL VARY BASED ON DISTANCE FROM EXISTING GRADE TO FACE OF WALL. 2. BONDED LENGTH SHOWN IN TABLE IS CONSIDERED ONLY IN UNDISTURBED SITE SOILS. REFER TO CROSS SECTION FOR DETAILS. 3. PAYMENT FOR ROW A SOIL NAILS SHALL BE UNDER ITEM 078T AND ROW B SOIL NAILS UNDER ITEM 078B.

LEGEND:

GABION BASKETS WITH VEGETATED FACE

GROUTED GABION BASKETS

EXISTING GABION BASKETS

→ TENSAR UX1500 STRUCTURAL GEOGRID

TENSAR BX1100 STRUCTURAL GEOGRID

FINISHED GRADE AT THE CREST OF EXISTING BLUFF AT TOP OF WALL

--- FINISHED GRADE AT BOTTOM OF WALL

STA STATION ALONG RETAINING WALL ALIGNMENT

EL. 249.0' SOIL NAIL ELEVATIONS (TYP.)

SOIL NAIL ROW

GEOGRID LAYER

SOIL NAIL LOCATION; R38N HOLLOW BAR

SOIL NAIL COLUMN

"L" MINIMUM GEOGRID EMBEDMENT LENGTH

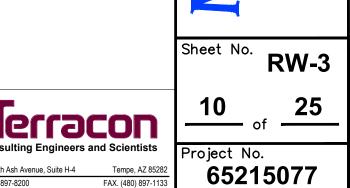
TOW ELEVATION AT TOP OF WALL

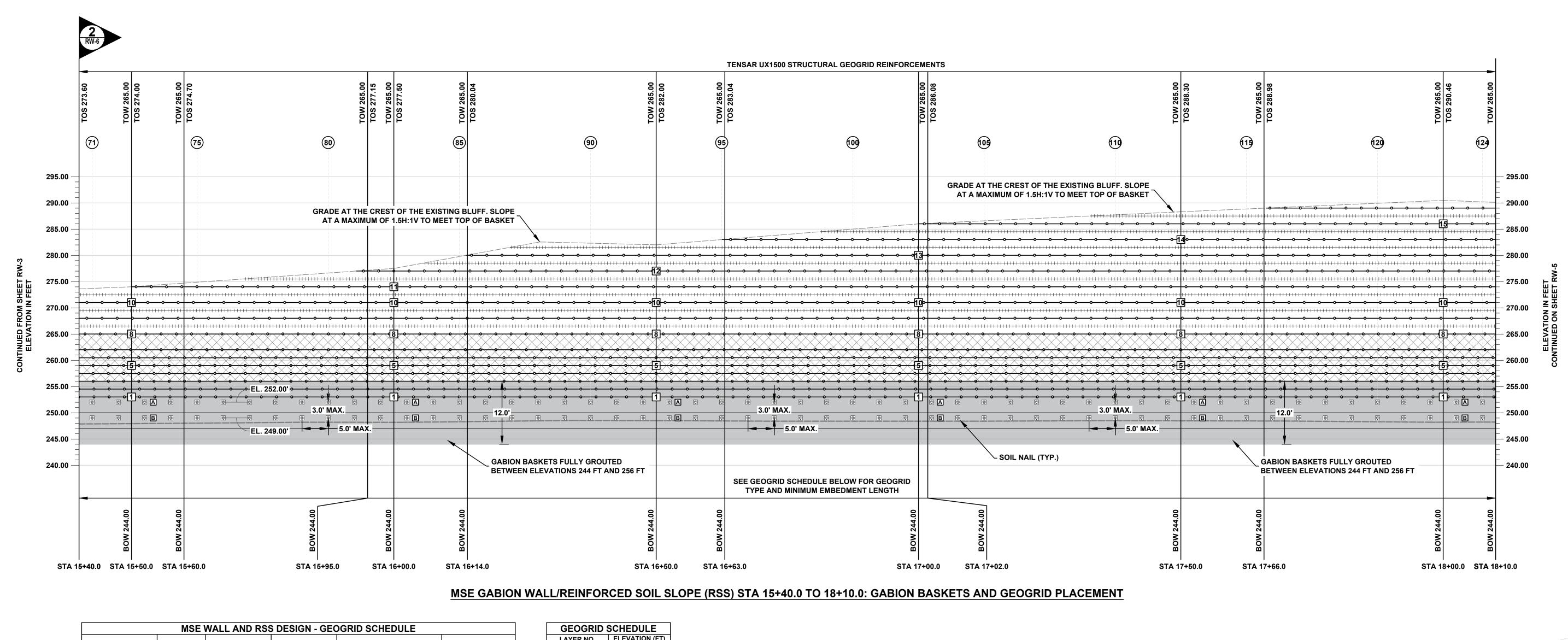
BOW ELEVATION AT BOTTOM OF WALL

MINIMUM BONDED SOIL NAIL LENGTH

RSS REINFORCED SOIL SLOPE

MSE MECHANICALLY STABILIZED EARTH





WALL STATION	MAXIMUM HEIGHT (FT)	LAYER NO.	GEOGRID TYPE	MINIMUM GEOGRID EMBEDMENT LENGTH "L" (FT)	LONG TERM DESIGN STRENGTH (LB/FT) ¹
		1 - 7		18.5	
		8	7	21.0	
15+40.0 TO 16+00.0	33.5	9	TENSAR UX1500	19.0	2403
		10		16.0	
		11 - 12		14.0	
		1 - 7		20.0	
		8 - 9	TENSAR UX1500	28.0	
16+00.0 TO 17+00.0	42.0	10		25.0	2403
		11		23.0	
		12 - 14		17.0	
		1 - 9		21.5	
		10		18.5	
		11		16.5	
17+00.0 TO 18+10.0	46.0	12	TENSAR UX1500	13.0	2403
		13		12.0	
		14	_	11.0	
	[15 - 16		9.0	

2. ALL SECONDARY GEOGRIDS SHOWN IN THE PROFILE ARE NOT DESCRIBED IN THIS TABLE. SECONDARY GEGORIDS ARE TO BE

BX1100 AND INSTALLED AT A MINIMUM LENGTH OF 4.5 FEET. REFER TO THE CROSS SECTION FOR DETAILS.

3. GEOGRIDS 1-7 ARE WITHIN THE MSE WALL AND GEOGRIDS 8 AND ABOVE ARE WITHIN THE RSS.

GEOGRID S	SCHEDULE
LAYER NO.	ELEVATION (FT)
1	253.0
2	254.5
3	256.0
4	257.5
5	259.0
6	260.5
7	262.0
8	265.0
9	268.0
10	271.0
11	274.0
12	277.0
13	280.0
14	283.0
15	286.0
16	289.0

SOIL NAIL SCHEDULE								
STATION	ROW	COLUMN	MIN. BONDED LENGTH "L _B " (FT) ¹	INCLINATION ANGLE	MAX. HORIZONTAL SPACING (FT)	MIN. DRILL HOLE SIZE (IN)	HOLLOW BAR SIZE	Ad (LB/FT)
15+40.0 TO 16+00.0	Α	71 - 82	20	15°	5	5	R38N	1414
	В		20					
16+00.0 TO 17+00.0	Α	82 - 102	25	15°	5	5	R38N	1414
	В		25					
17+00.0 TO 18+10.0	Α	102 - 124	29	15°	5	5	R38N	1414
	В		29					

1. TOTAL LENGTH OF SOIL NAIL WILL VARY BASED ON DISTANCE FROM EXISTING GRADE TO FACE OF WALL.
2. BONDED LENGTH SHOWN IN TABLE IS CONSIDERED ONLY IN UNDISTURBED SITE SOILS. REFER TO CROSS SECTION FOR DETAILS.
3. PAYMENT FOR ROW A SOIL NAILS SHALL BE UNDER ITEM 078T AND ROW B SOIL NAILS UNDER ITEM 078B.

LEGEND:

GABION BASKETS WITH VEGETATED FACE

GROUTED GABION BASKETS

EXISTING GABION BASKETS

→ TENSAR UX1500 STRUCTURAL GEOGRID

+++++++ TENSAR BX1100 STRUCTURAL GEOGRID

--- FINISHED GRADE AT THE CREST OF EXISTING BLUFF AT TOP OF WALL

--- FINISHED GRADE AT BOTTOM OF WALL

STA STATION ALONG RETAINING WALL ALIGNMENT

EL. 249.0' SOIL NAIL ELEVATIONS (TYP.)

A SOIL NAIL ROW

1 GEOGRID LAYER

SOIL NAIL LOCATION; R38N HOLLOW BAR

(1) SOIL NAIL COLUMN

"L" MINIMUM GEOGRID EMBEDMENT LENGTH

TOW ELEVATION AT TOP OF WALL

BOW ELEVATION AT BOTTOM OF WALL

"LB" MINIMUM BONDED SOIL NAIL LENGTH

MSE MECHANICALLY STABILIZED EARTH

RSS REINFORCED SOIL SLOPE

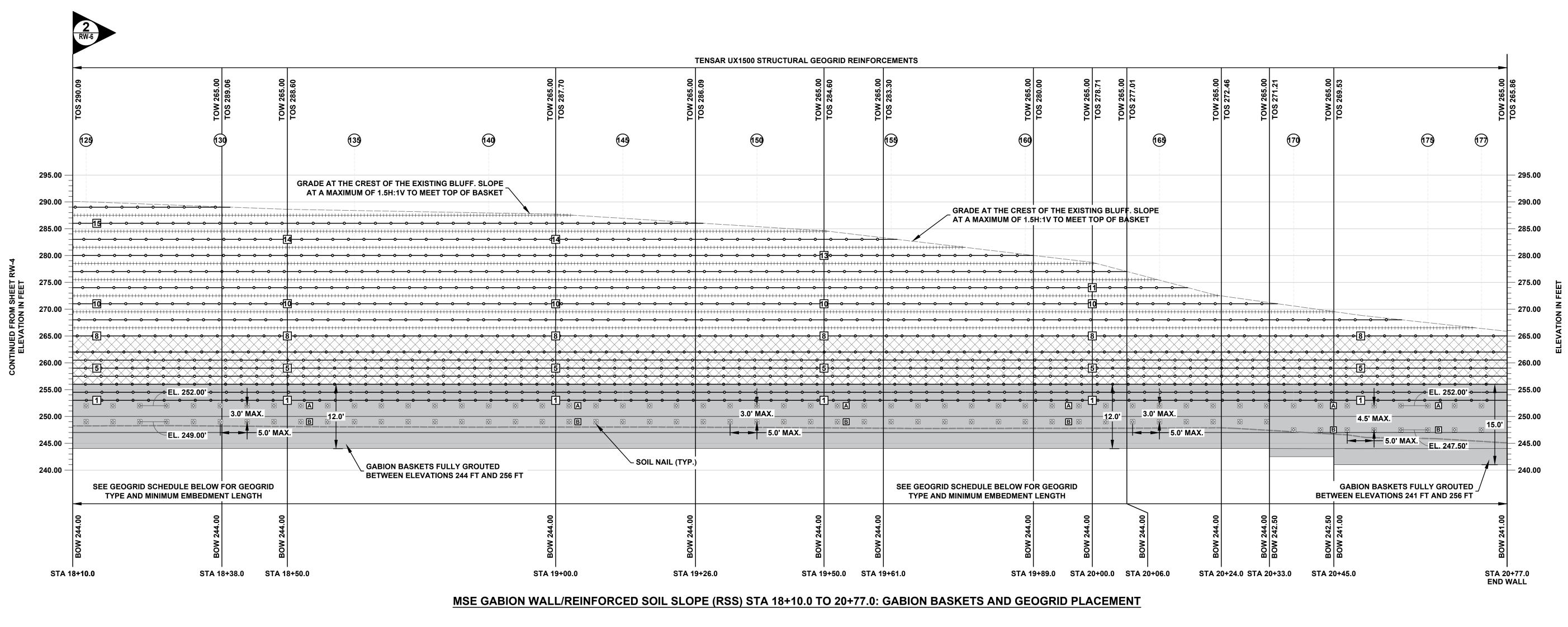


Sheet No. RW-4

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Project No.

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STATION	MAXIMUM HEIGHT (FT)	LAYER NO.	GEOGRID TYPE	MINIMUM GEOGRID EMBEDMENT LENGTH "L" (FT)	LONG TERM DESIG STRENGTH (LB/FT)		
18+10.0 TO 19+50.0	46.0	1 - 8		21.5			
		9	1	21.5	2402		
		10	TENSAR UX1500	18.5			
		11		16.5			
		12		13.0	2403		
		13		12.0			
		14		11.0			
		15 - 16		9.0			
	41.0	1 - 7	TENSAR UX1500	19.0			
		8		21.5			
		9		19.0	2403		
19+50.0 TO 20+00.0		10		16.0			
		11		13.0			
		12		11.0			
		13 - 14]	8.0			
20+00.0 TO 20+77.0	35.0	1 - 7	TENSAR UX1500	17.0	2403		
		8 - 9		18.5			
		10 - 11		16.5			
		12		15.0			

2. ALL SECONDARY GEOGRIDS SHOWN IN THE PROFILE ARE NOT DESCRIBED IN THIS TABLE. SECONDARY GEGORIDS ARE TO BE

BX1100 AND INSTALLED AT A MINIMUM LENGTH OF 4.5 FEET. REFER TO THE CROSS SECTION FOR DETAILS.

3. GEOGRIDS 1-7 ARE WITHIN THE MSE WALL AND GEOGRIDS 8 AND ABOVE ARE WITHIN THE RSS.

GEOGRID SCHEDULE				
LAYER NO.	ELEVATION (FT)			
1	253.0			
2	254.5			
3	256.0			
4	257.5			
5	259.0			
6	260.5			
7	262.0			
8	265.0			
9	268.0			
10	271.0			
11	274.0			
12	277.0			
13	280.0			
14	283.0			
15	286.0			
16	289.0			

		·	SOII	L NAIL SCHED	ULE			
STATION	ROW	COLUMN	MIN. BONDED LENGTH "L _B " (FT) ¹	INCLINATION ANGLE	MAX. HORIZONTAL SPACING (FT)	MIN. DRILL HOLE SIZE (IN)	HOLLOW BAR SIZE	Ad (LB/FT)
18+10.0 TO 19+50.0	Α	125 - 152	29	15°	5	5	R38N	1414
	В		29					
19+50.0 TO 20+00.0	Α	153 - 162	25	15°	5	5	R38N	1414
	В		25					
20+00.0 TO 20+77.0	Α	163 - 177	23	15°	5	5	R38N	1414
	В		23					
NOTES: 1. TOTAL LENGTH O	F SOIL NAIL WILL V	ARY BASED ON DIST	ANCE FROM EXISTIN	G GRADE TO FACE	OF WALL.			

LEGEND:

GABION BASKETS WITH VEGETATED FACE

2. BONDED LENGTH SHOWN IN TABLE IS CONSIDERED ONLY IN UNDISTURBED SITE SOILS. REFER TO CROSS SECTION FOR DETAILS.

GROUTED GABION BASKETS

3. PAYMENT FOR ROW A SOIL NAILS SHALL BE UNDER ITEM 078T AND ROW B SOIL NAILS UNDER ITEM 078B.

EXISTING GABION BASKETS

→ TENSAR UX1500 STRUCTURAL GEOGRID

++++++ TENSAR BX1100 STRUCTURAL GEOGRID

-- FINISHED GRADE AT THE CREST OF EXISTING BLUFF AT TOP OF WALL

--- FINISHED GRADE AT BOTTOM OF WALL

STA STATION ALONG RETAINING WALL ALIGNMENT

EL. 249.0' SOIL NAIL ELEVATIONS (TYP.)

A SOIL NAIL ROW

1 GEOGRID LAYER

SOIL NAIL LOCATION; R38N HOLLOW BAR

(1) SOIL NAIL COLUMN

"L" MINIMUM GEOGRID EMBEDMENT LENGTH

TOW ELEVATION AT TOP OF WALL

BOW ELEVATION AT BOTTOM OF WALL

"L_B" MINIMUM BONDED SOIL NAIL LENGTH
MSE MECHANICALLY STABILIZED EARTH

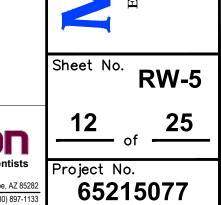
RSS REINFORCED SOIL SLOPE

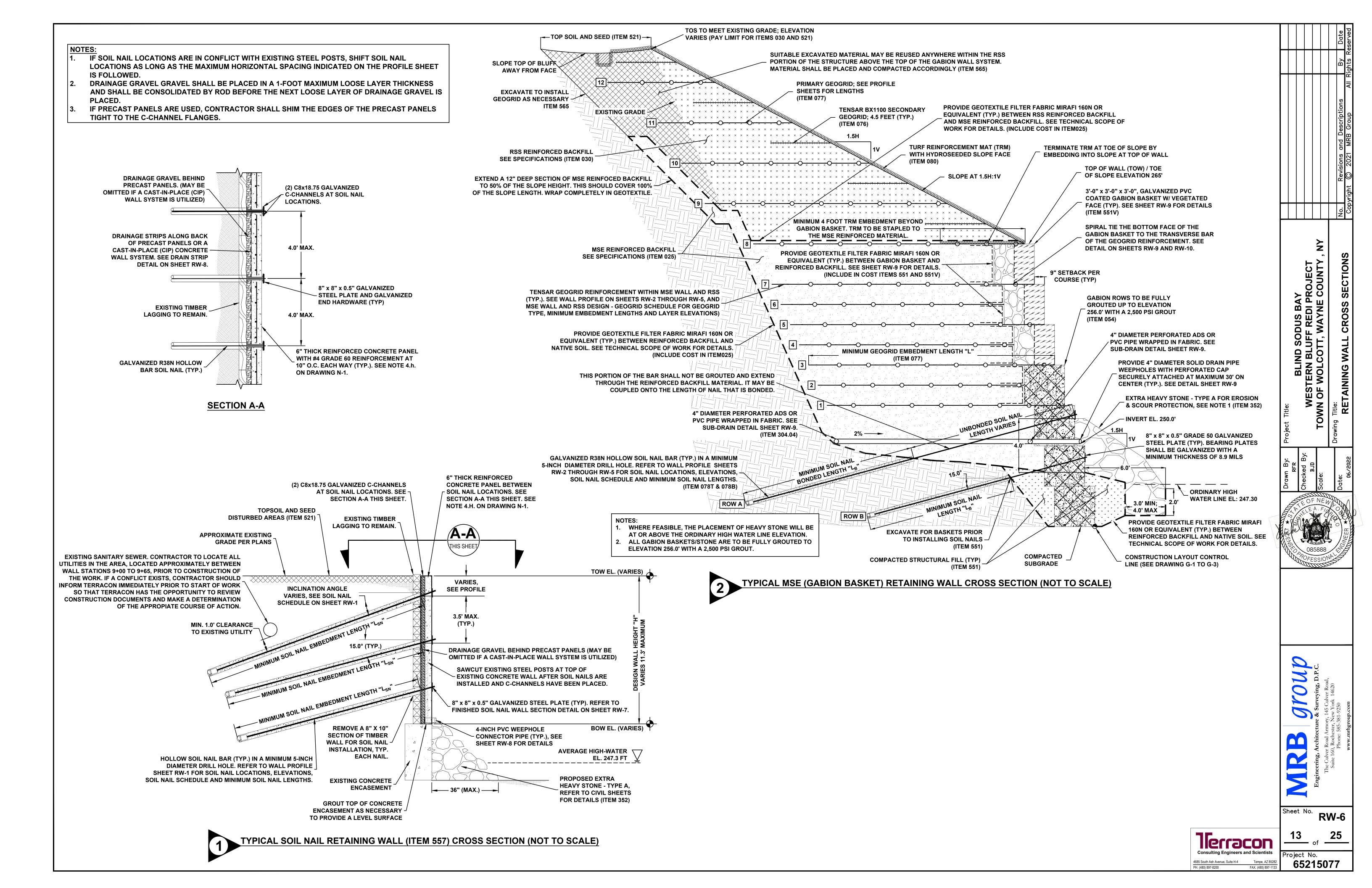
Terracon
Consulting Engineers and Scientists

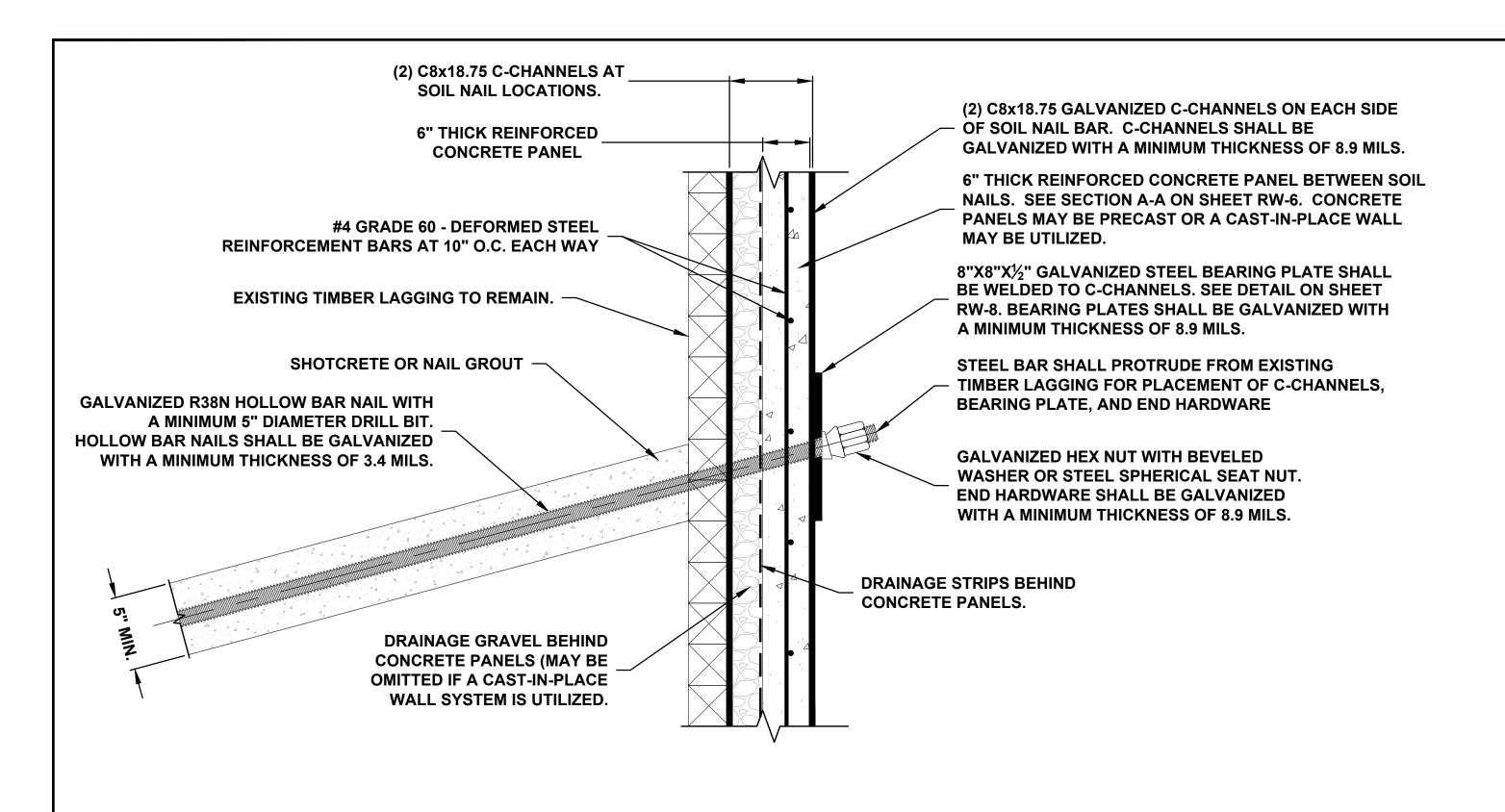
4685 South Ash Avenue, Suite H-4

Tempe, AZ 85282
PH. (480) 897-8200

FAX. (480) 897-1133







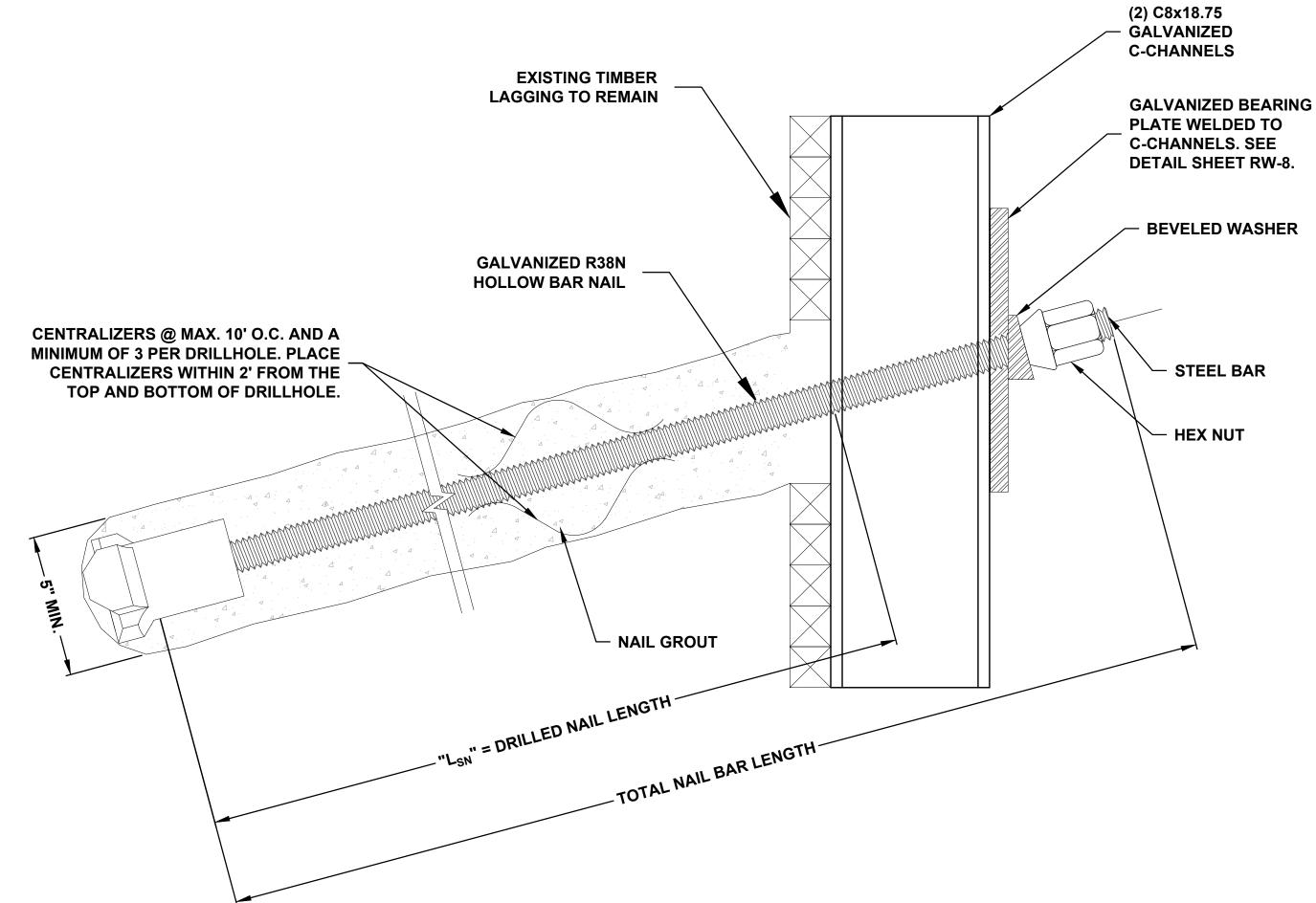
NOTE: ALL REINFORCING STEEL

BARS ARE TO BE GALVANIZED.

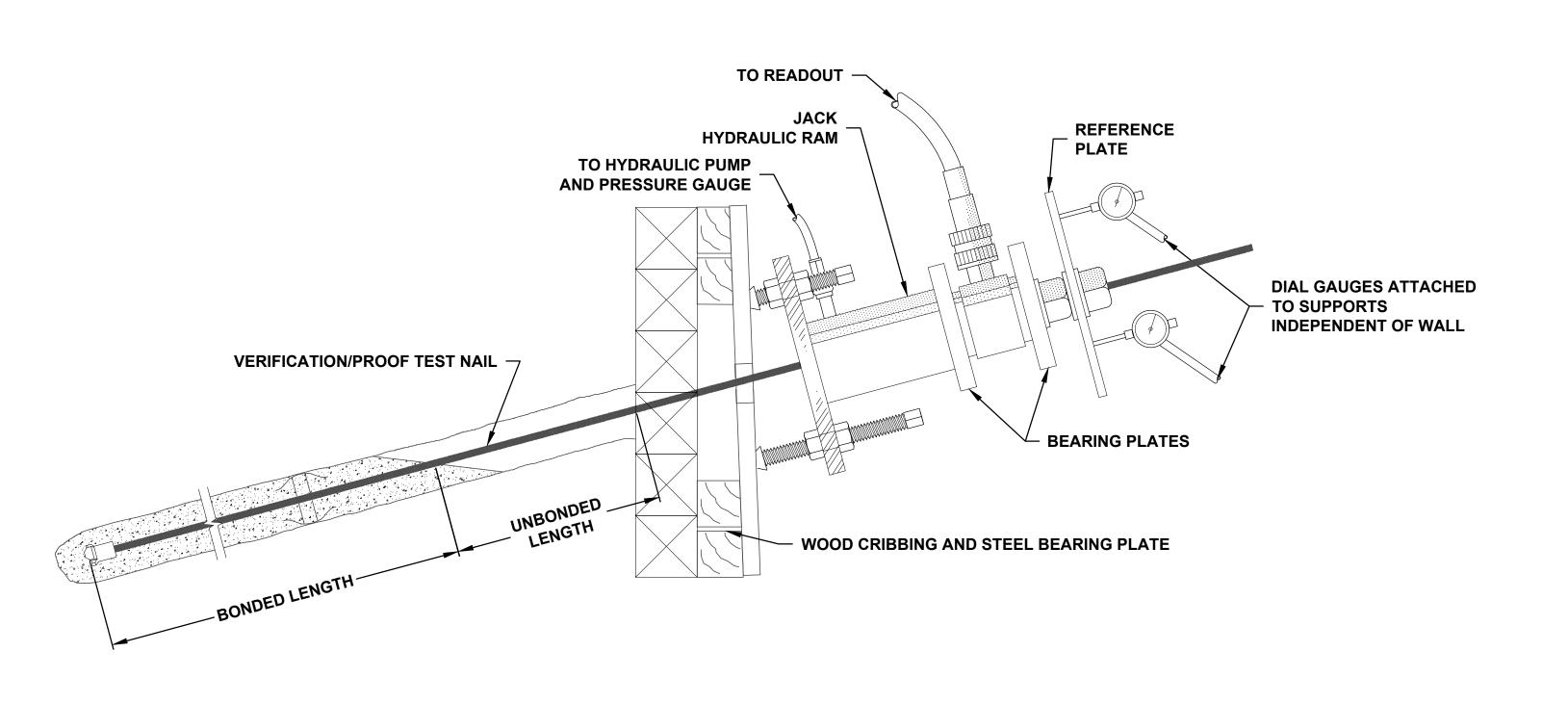
DRAINAGE GRAVEL GRAVEL SHALL BE PLACED IN A 1-FOOT MAXIMUM LOOSE LAYER THICKNESS AND SHALL BE CONSOLIDATED BY ROD BEFORE THE NEXT LOOSE LAYER OF DRAINAGE GRAVEL IS PLACED.

FINISHED SOIL NAIL WALL SECTION (N.T.S.)

IF PRECAST PANELS ARE USED, CONTRACTOR SHALL SHIM THE EDGES OF THE PRECAST PANELS TIGHT TO THE C-CHANNEL FLANGES.



PRODUCTION SOIL NAIL DETAIL (N.T.S.)



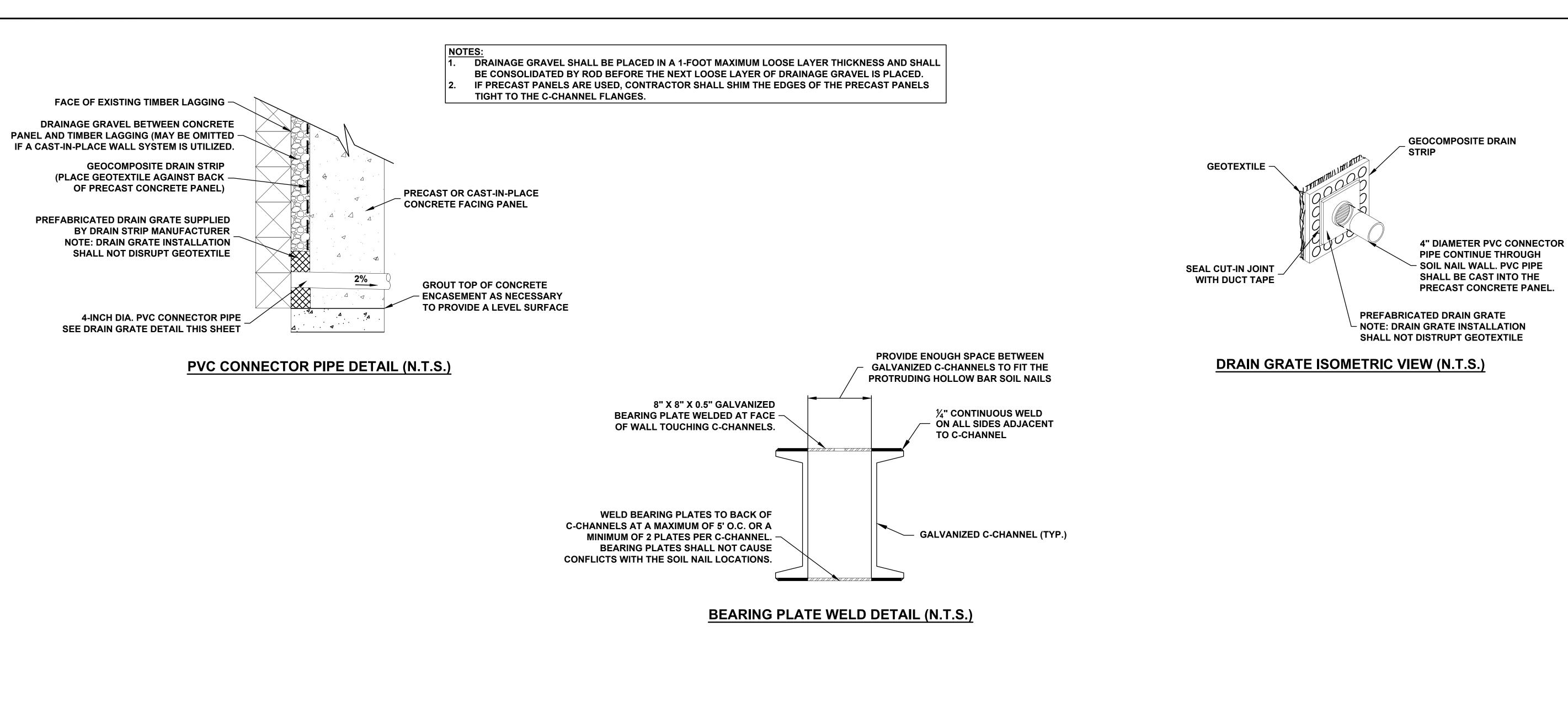
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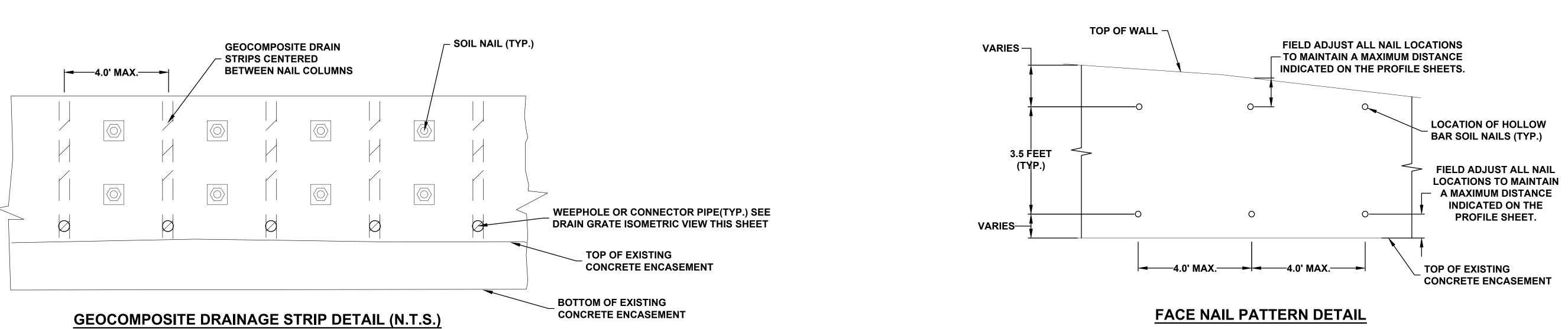
roject No.

RW-7

65215077

VERIFICATION/PROOF TEST SOIL NAIL DETAIL (N.T.S.)





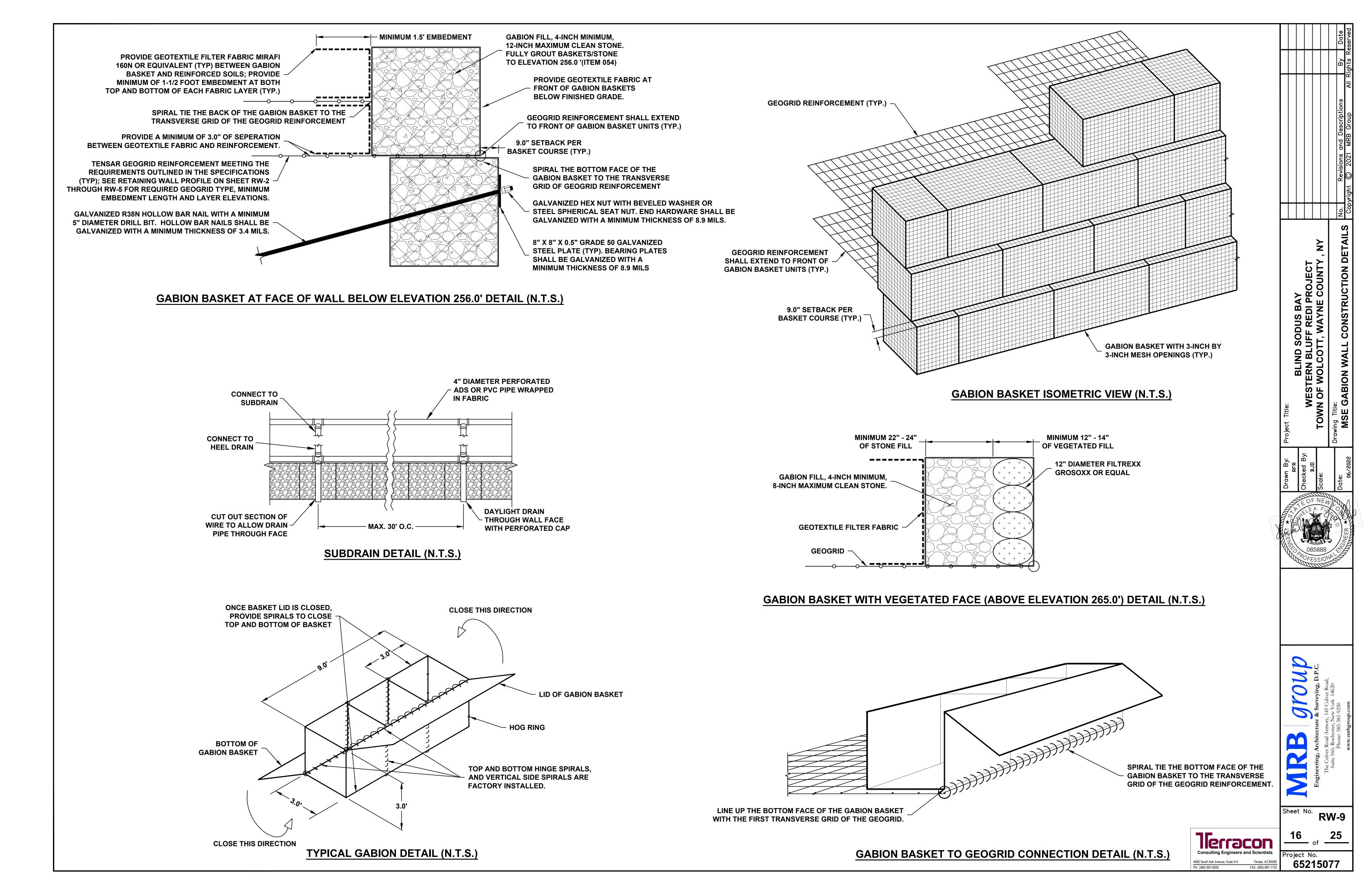
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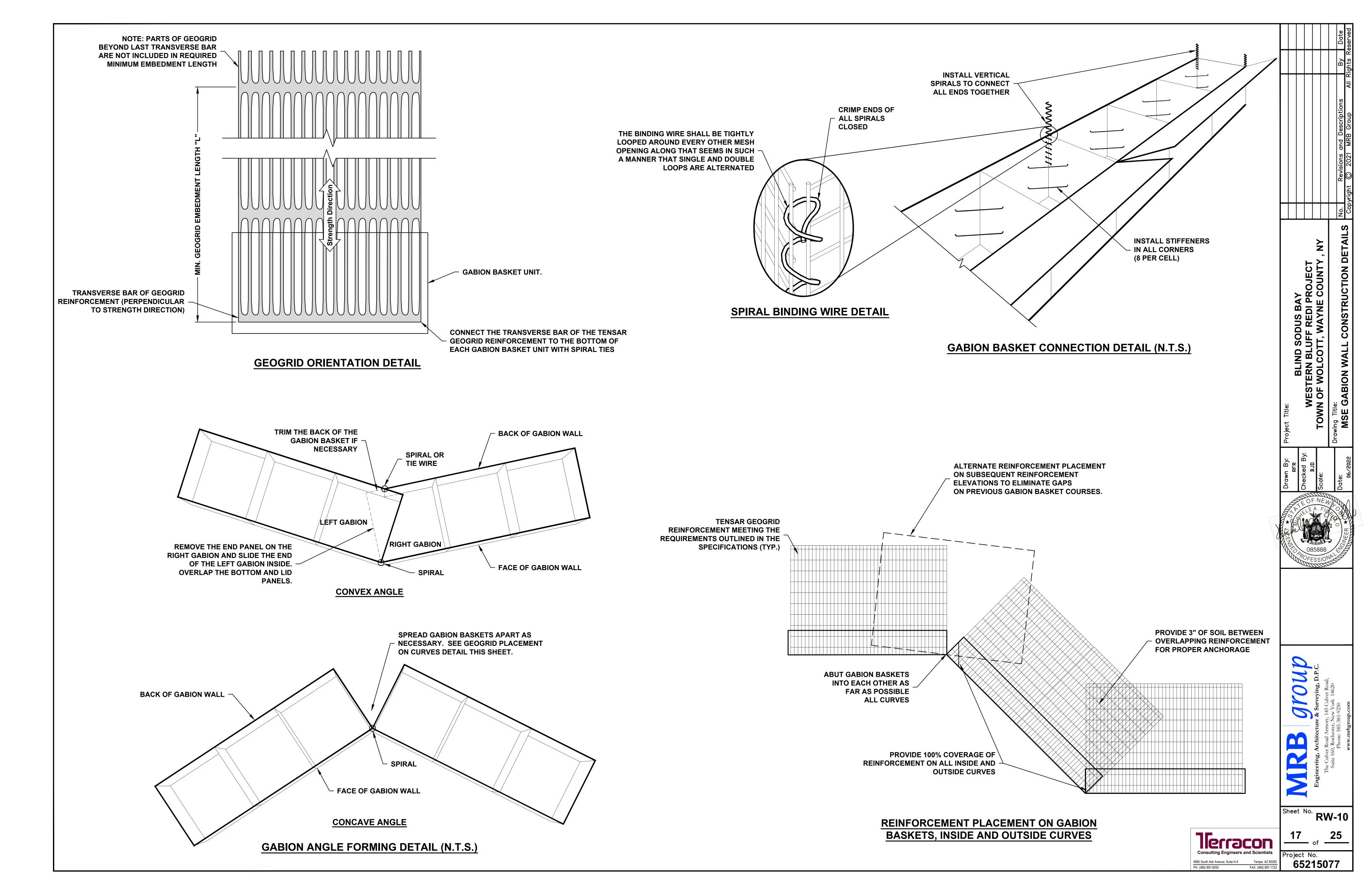
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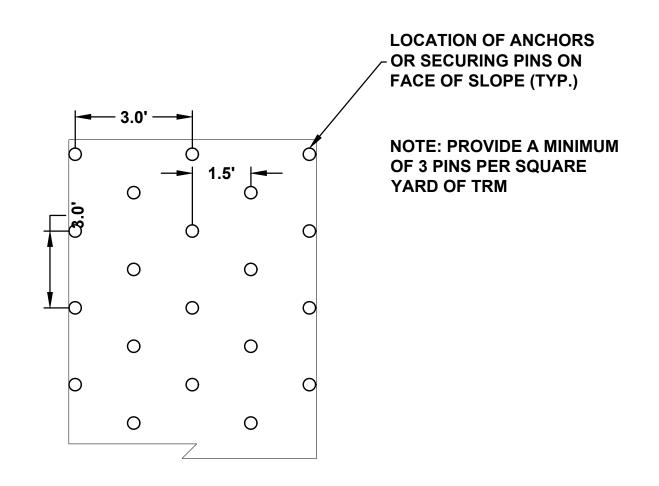
roject No.

65215077

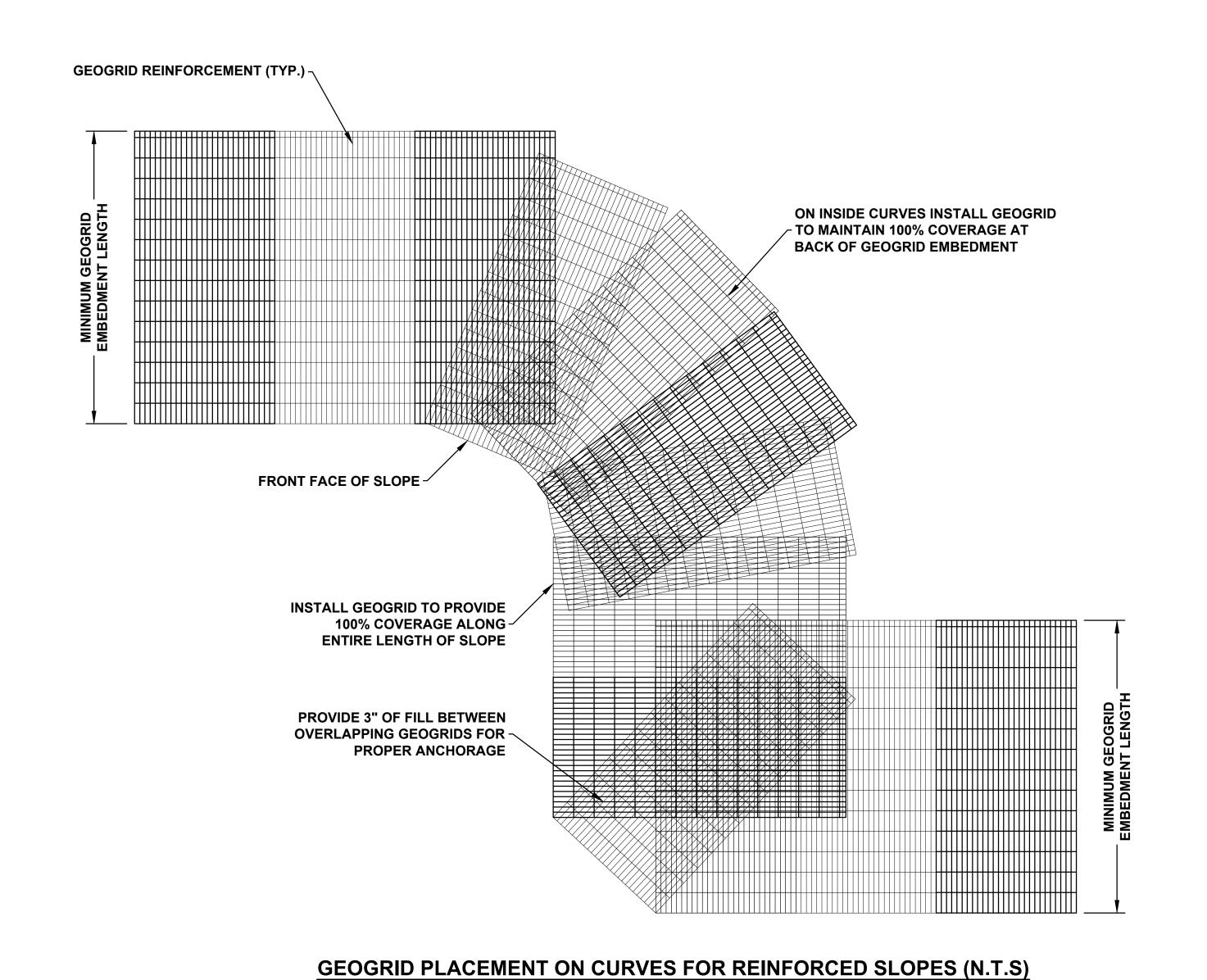
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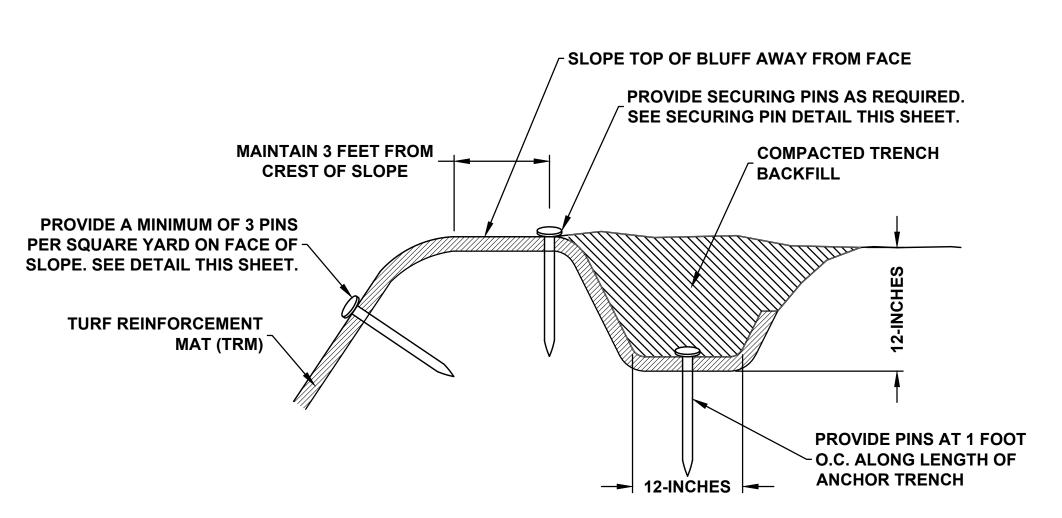




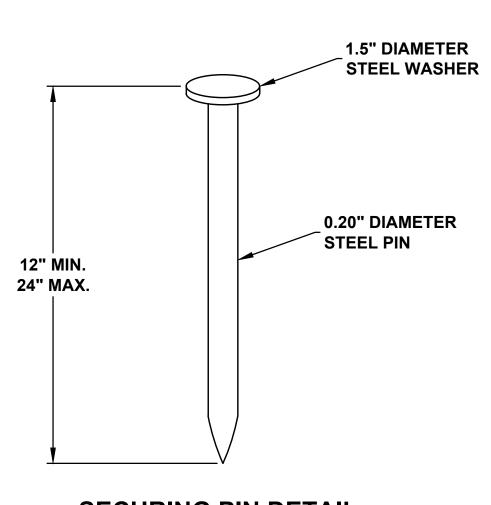


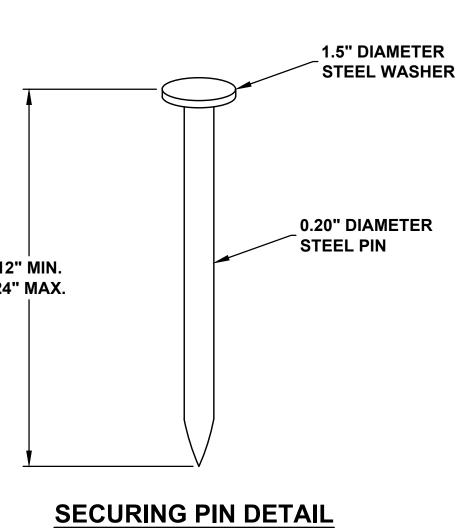
SLOPE SECURING PIN PATTERN DETAIL FOR TURF REINFORCEMENT MAT (TRM)





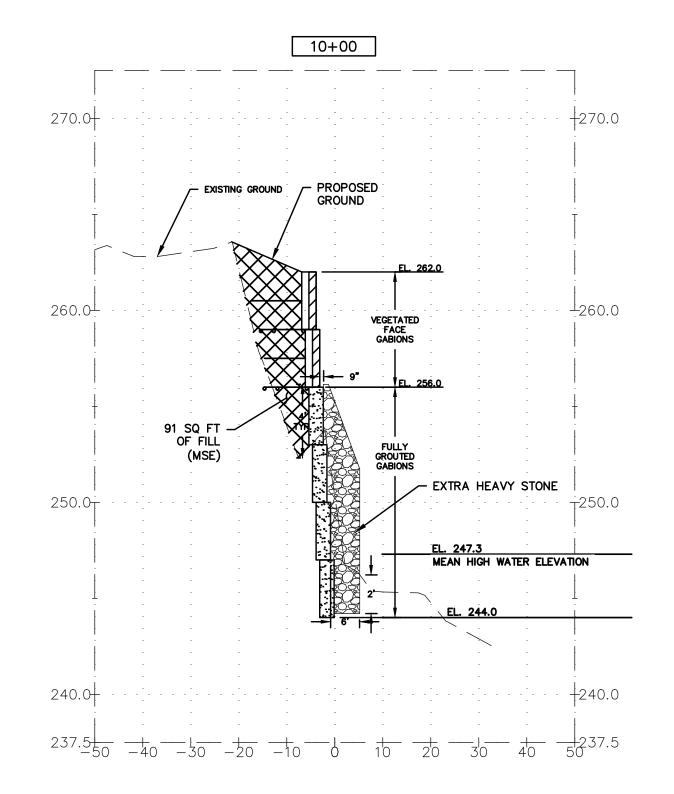
ANCHOR TRENCH DETAIL AT CREST OF SLOPE FOR TURF REINFORCEMENT MAT (TRM)

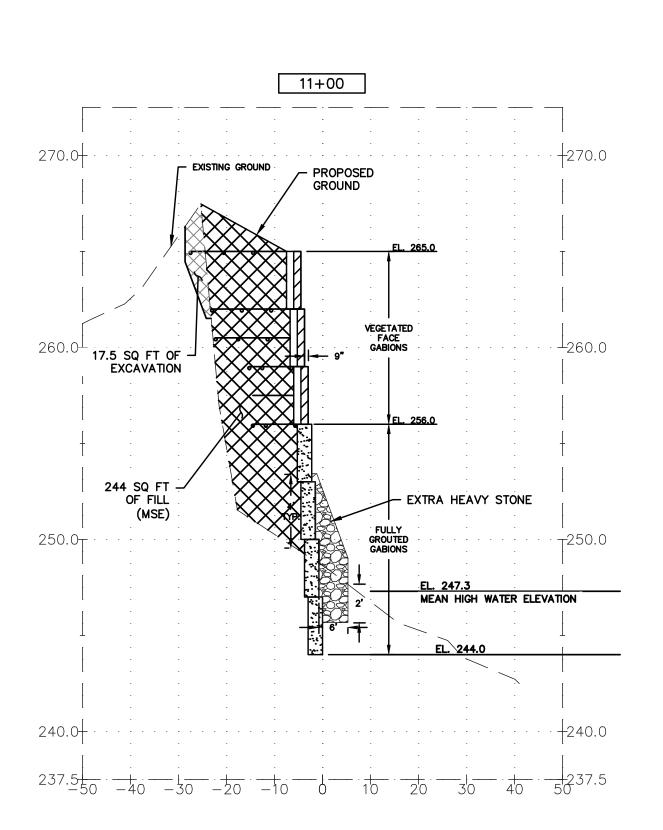


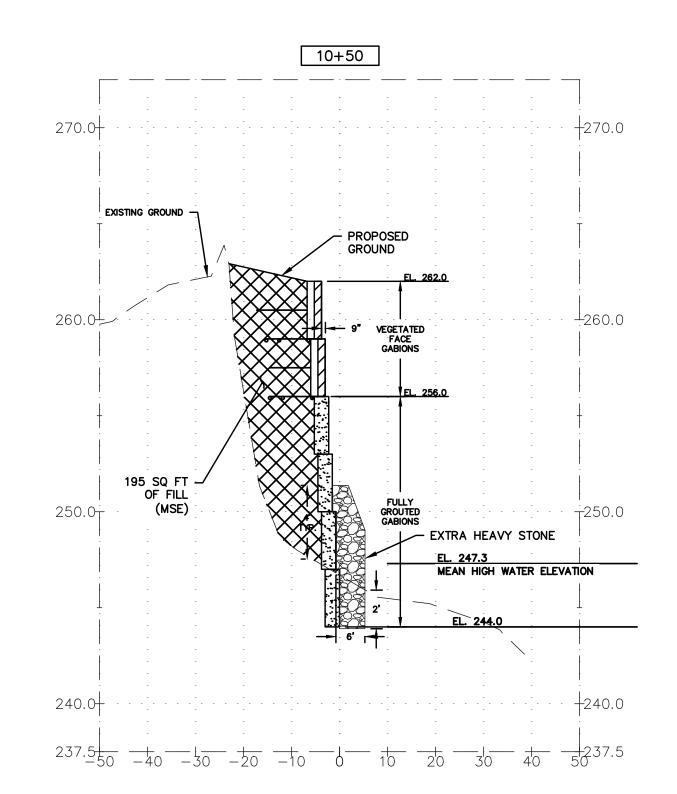


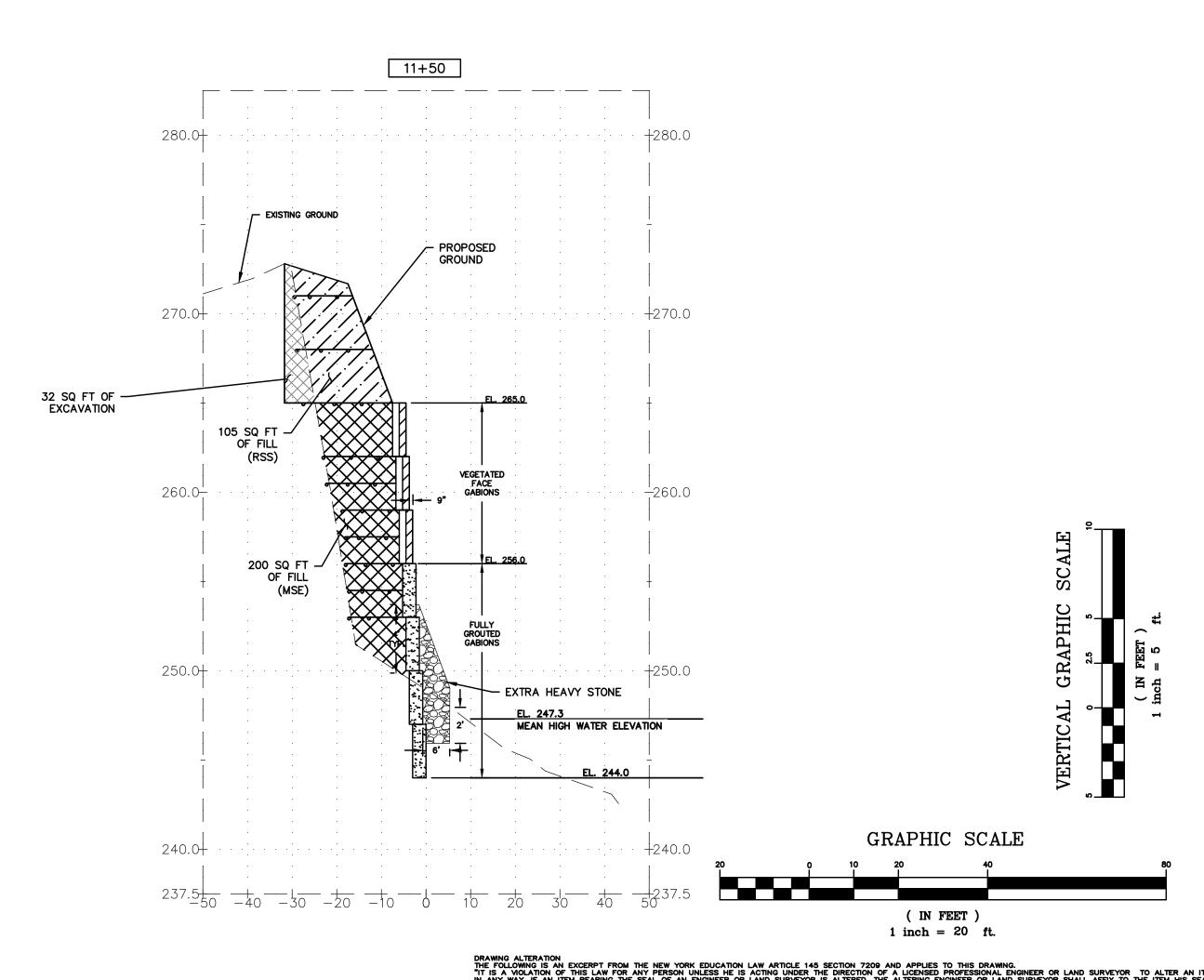


Sheet No. RW-11 65215077









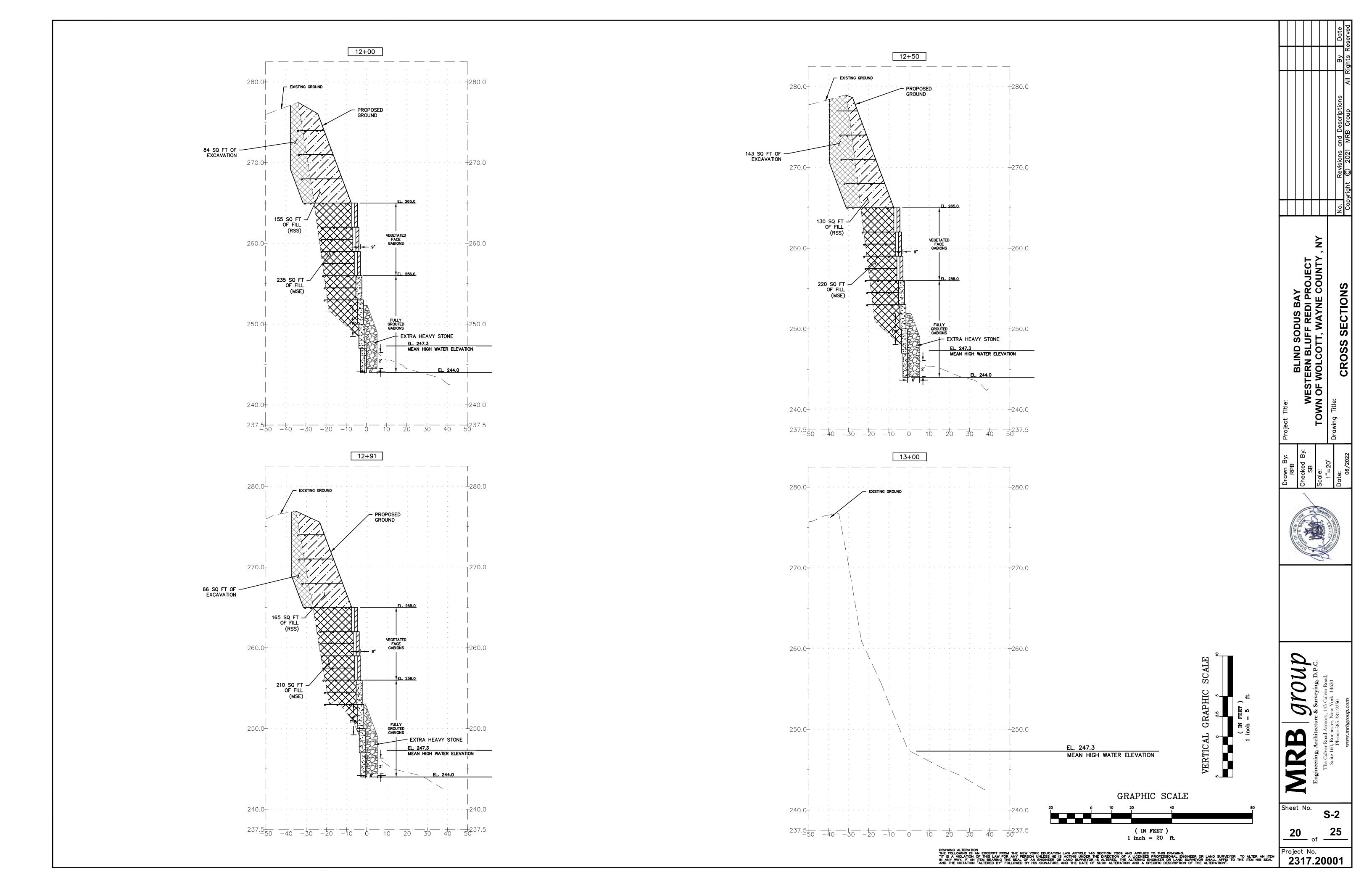
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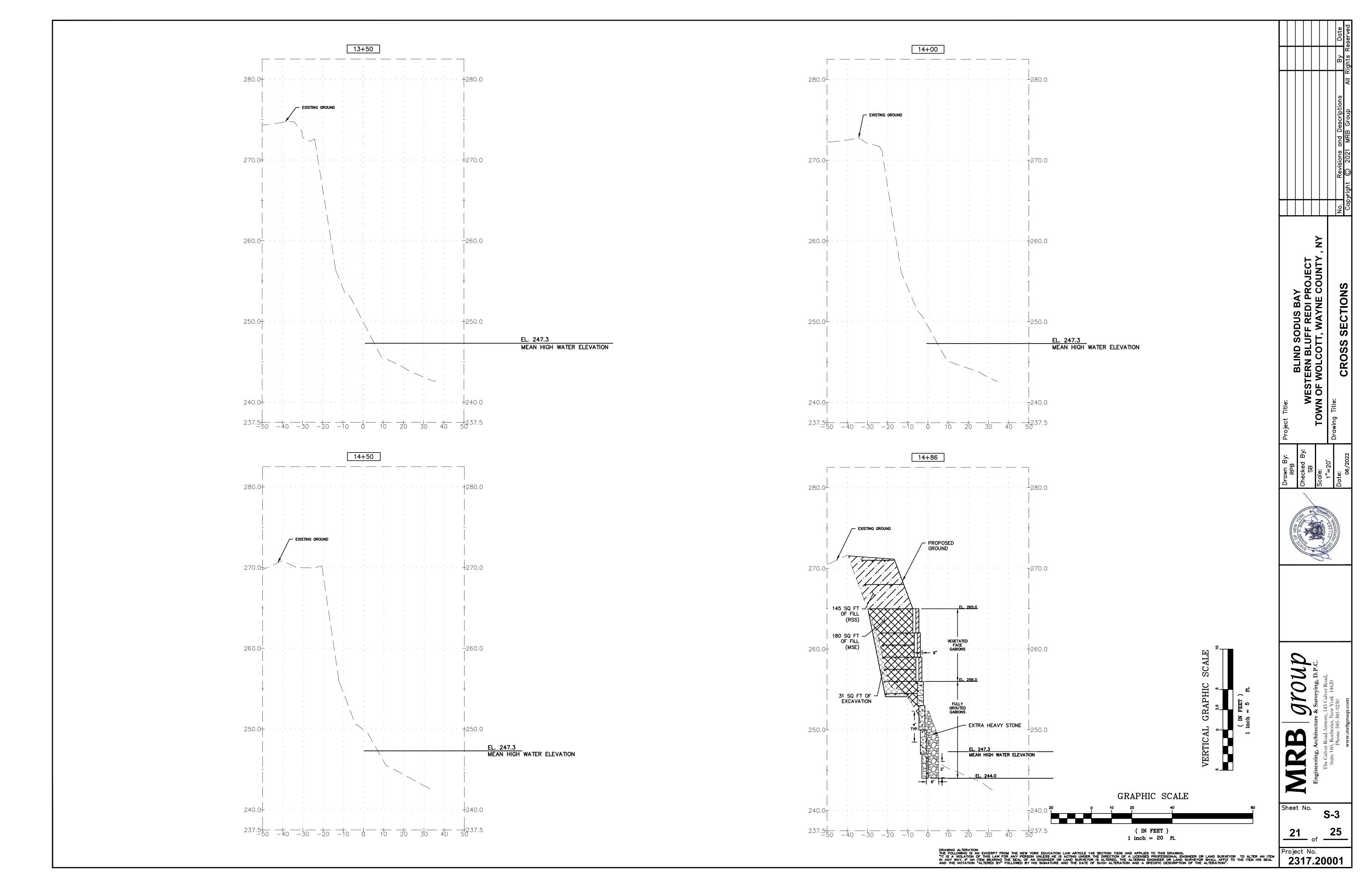
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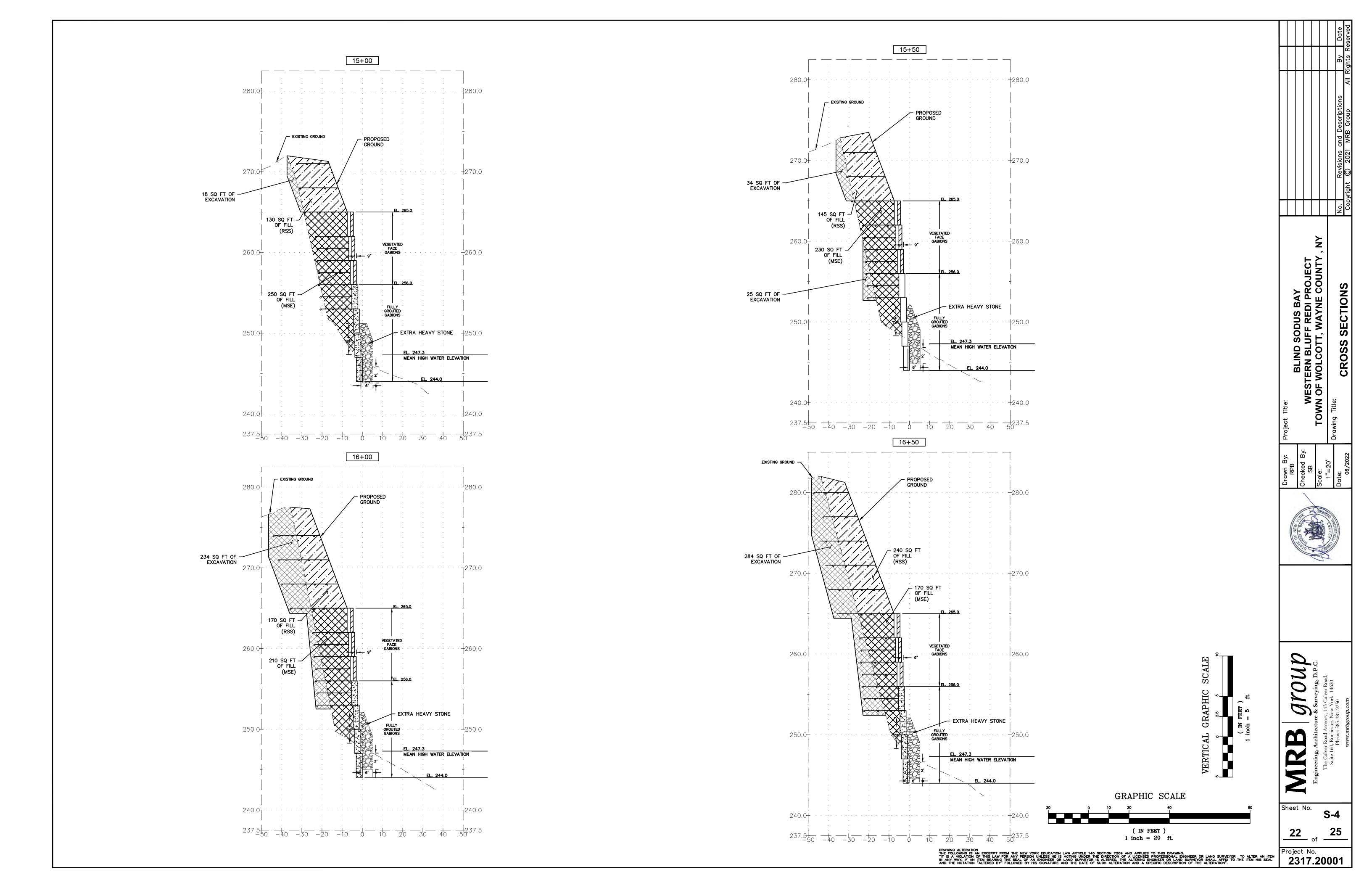
Project No. **2317.20001**

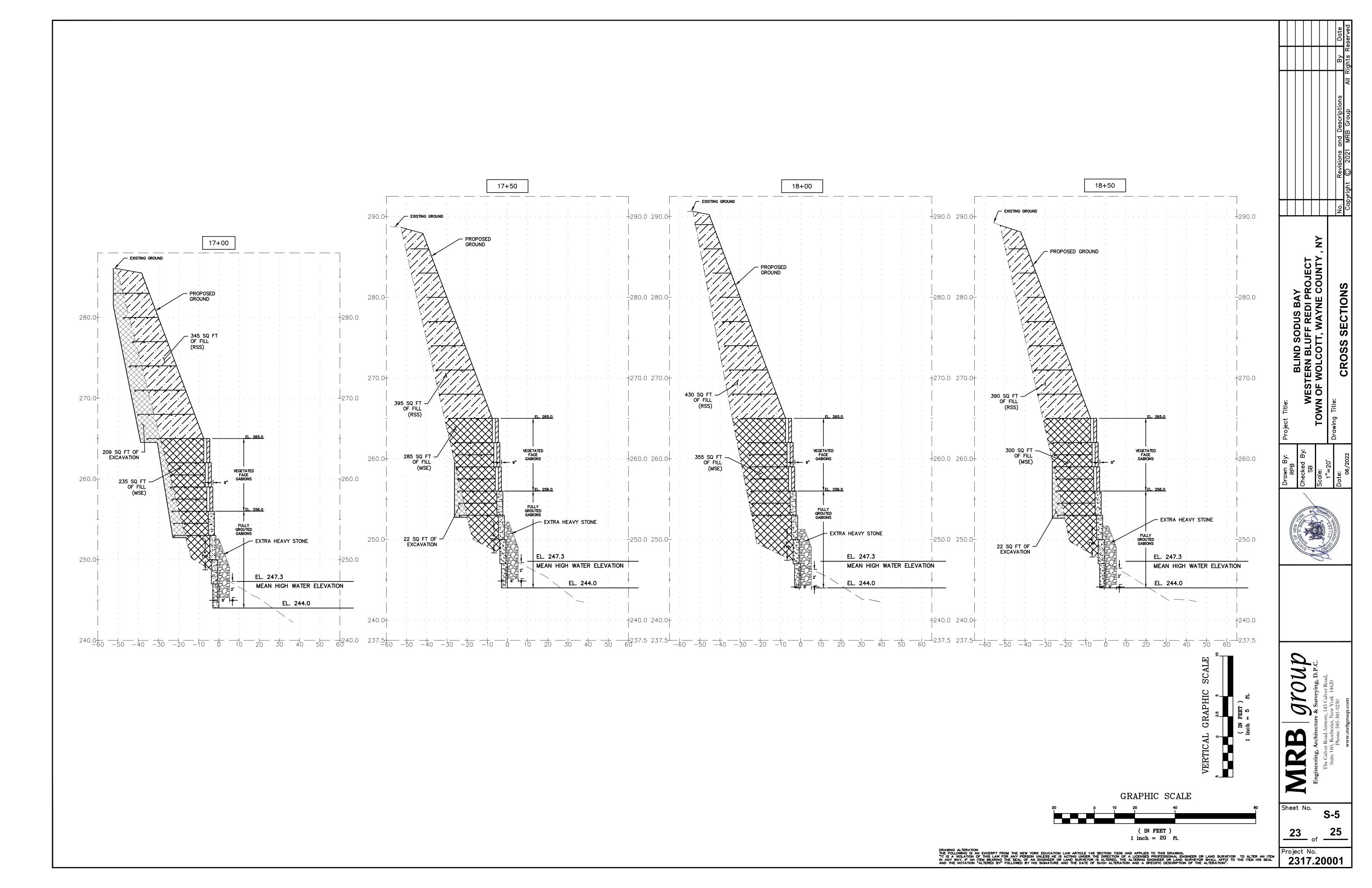
S-1

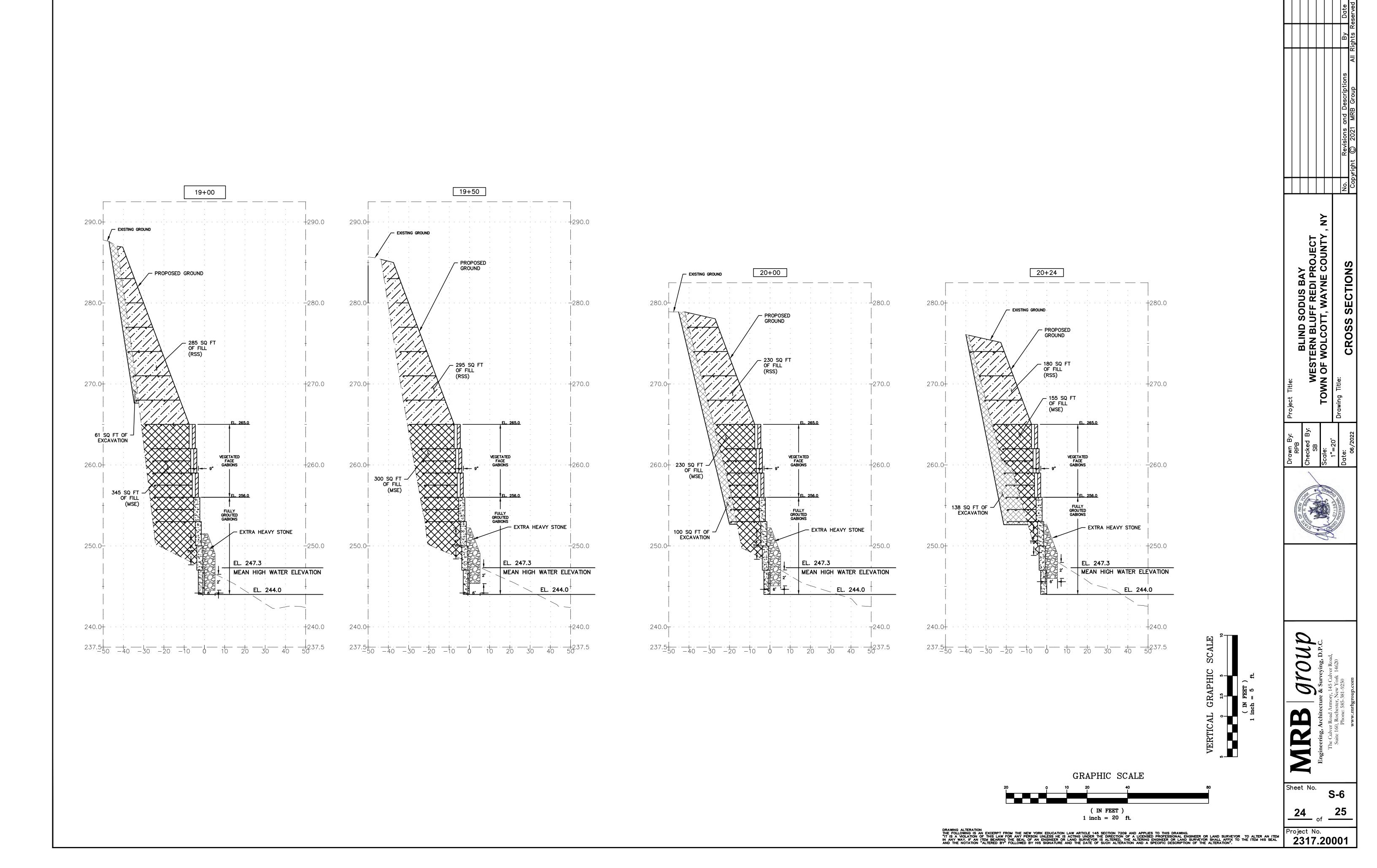
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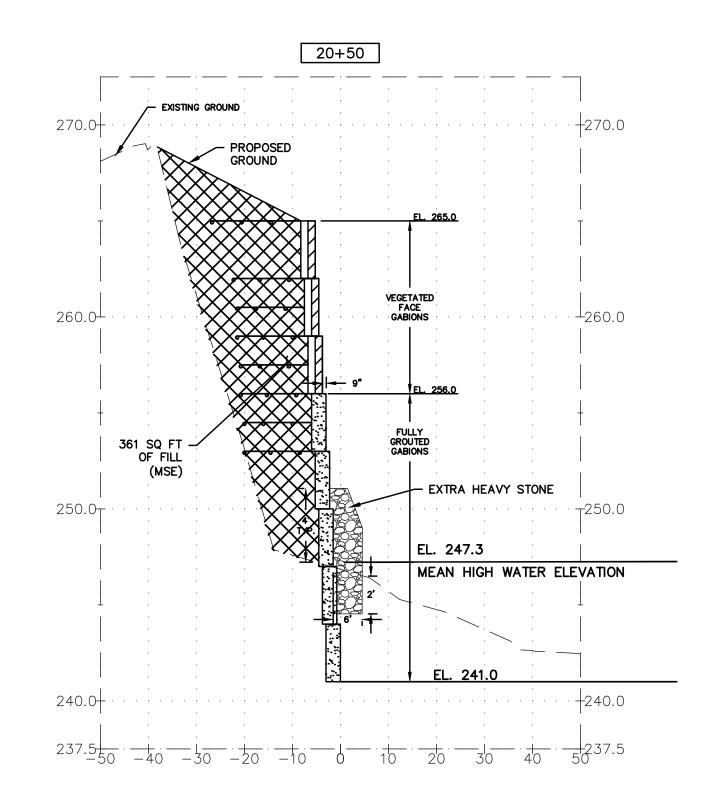


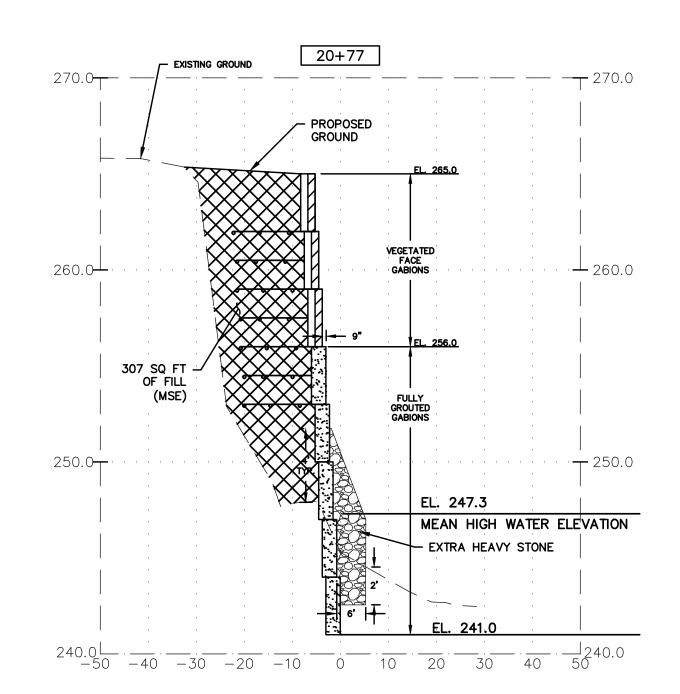


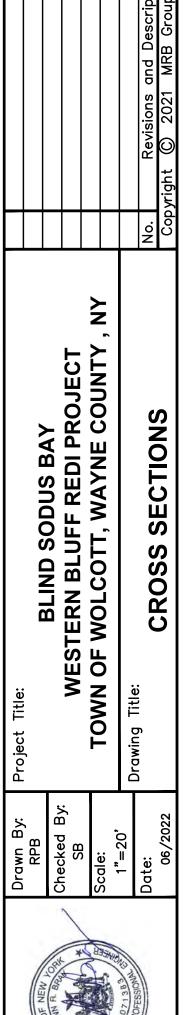














GRAPHIC

VERTICAL

GRAPHIC SCALE

(IN FEET) 1 inch = 20 ft.

Sheet No. **S-7**

Project No. **2317.20001**