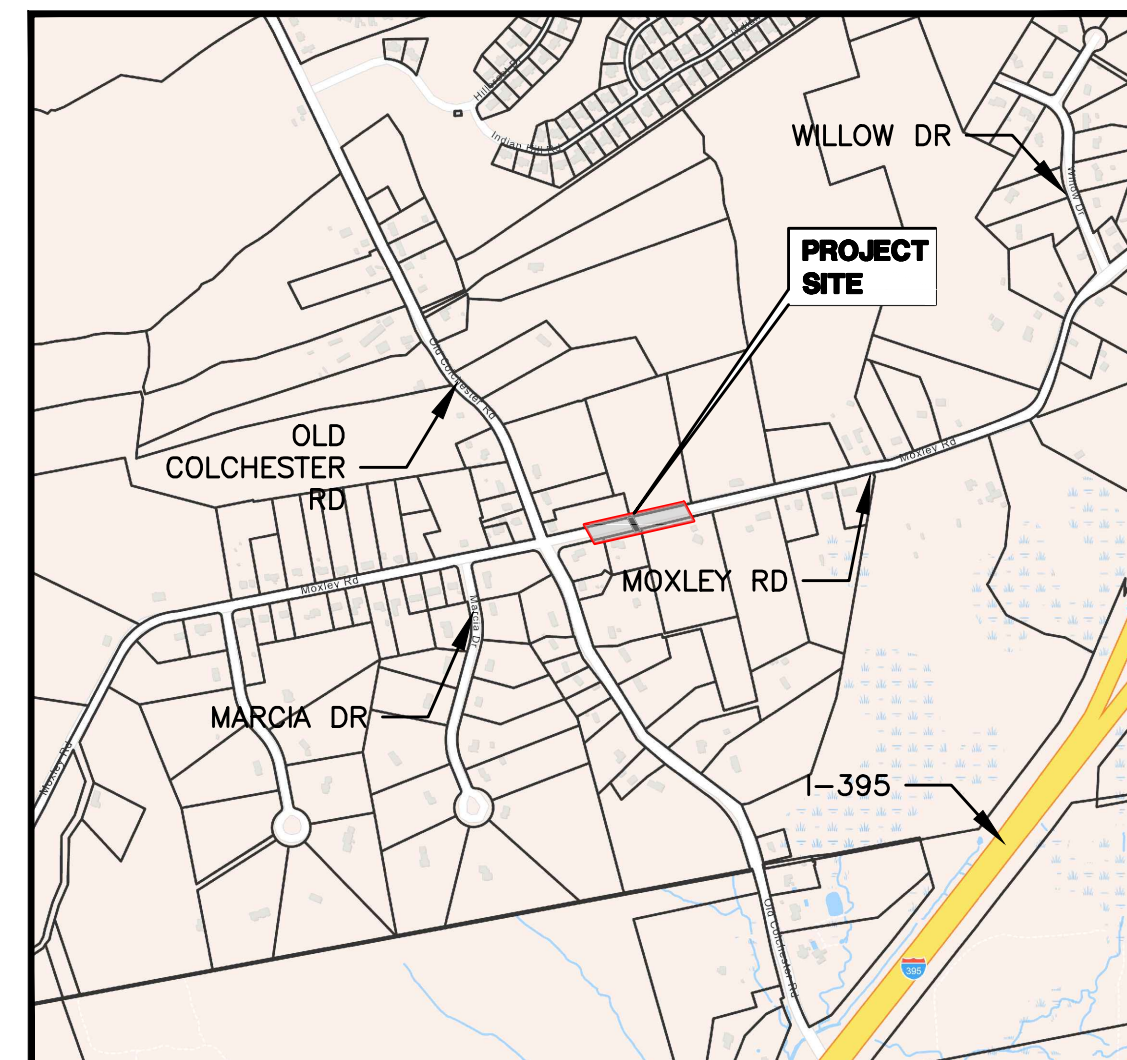


# MOXLEY ROAD BRIDGE IMPROVEMENT PROJECT PROJECT #2023-9

TOWN OF MONTVILLE  
DEPARTMENT OF PUBLIC WORKS

**LEGEND:**

	PROPERTY LINE		UTILITY POLE
	CHAIN-LINK FENCE	N/F	NOW OR FORMERLY
	RETAINING WALL	U.G.	UNDER GROUND
	WETLANDS EDGE		DECIDUOUS TREE
	STONE WALL		OVERHEAD ELECTRIC LINE
	BOUNDARY POINT		WATER SHUTOFF
	IRON PIN, IRON PIPE		BOLLARD
	MONUMENT		SHRUB
	GAS GATE, WATER GATE		WETLANDS VEGETATION, FLAG
	SEWER MANHOLE		



**LOCATION MAP**  
SCALE: 1" = 500'

**INDEX OF DRAWINGS**

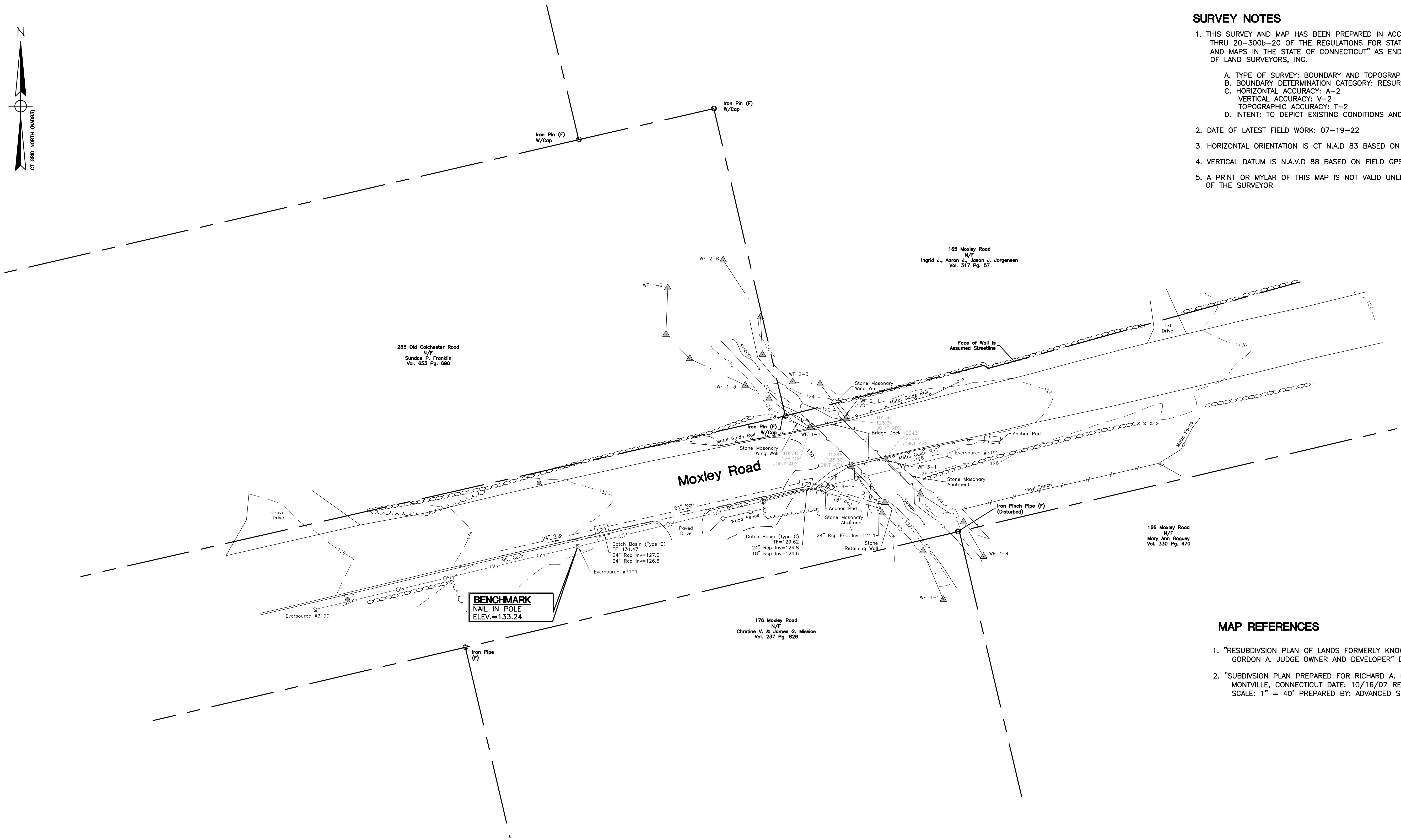
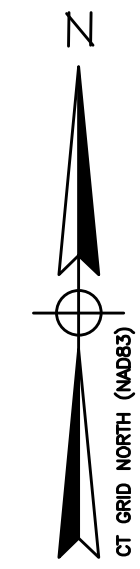
DRAWING NO.	DESCRIPTION OF DRAWINGS
1	BOUNDARY & TOPOGRAPHIC SURVEY
C-1	PLAN
S-0	STRUCTURAL NOTES & LAYOUT PLAN
S-1	STRUCTURAL SECTIONS
5	CONSTRUCTION DETAILS 1
6	CONSTRUCTION DETAILS 2

CALL TWO FULL WORKING  
DAYS IN ADVANCE  
CALL BEFORE YOU DIG  
811

**APRIL 2023**

**CLA Engineers, Inc.**  
CIVIL • STRUCTURAL • SURVEYING

317 Main Street Norwich, CT 06360  
(860) 886-1966 Fax (860) 886-9165



**SURVEY NOTES**

- THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 20-300b-1 THRU 20-300b-20 OF THE REGULATIONS FOR STATE AGENCIES "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ENDORSED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC.
  - TYPE OF SURVEY: BOUNDARY AND TOPOGRAPHIC SURVEY
  - BOUNDARY DETERMINATION CATEGORY: RESURVEY
  - HORIZONTAL ACCURACY: A-2  
VERTICAL ACCURACY: V-2  
TOPOGRAPHIC ACCURACY: T-2
  - INTENT: TO DEPICT EXISTING CONDITIONS AND THE R.O.W. BOUNDARY ALONG MOXLEY ROAD
- DATE OF LATEST FIELD WORK: 07-19-22
- HORIZONTAL ORIENTATION IS CT N.A.D 83 BASED ON FIELD GPS OBSERVATIONS
- VERTICAL DATUM IS N.A.V.D 88 BASED ON FIELD GPS OBSERVATIONS
- A PRINT OR MYLAR OF THIS MAP IS NOT VALID UNLESS IT CONTAINS THE SEAL AND LIVE SIGNATURE OF THE SURVEYOR

**MAP REFERENCES**

- "RESUBDIVISION PLAN OF LANDS FORMERLY KNOWN AS GLENDALE ESTATES MONTVILLE, CONN. GORDON A. JUDGE OWNER AND DEVELOPER" DATE: NOVEMBER 1974 SCALE: 1" = 100'
- "SUBDIVISION PLAN PREPARED FOR RICHARD A. FRANKLIN" 289 OLD COLCHESTER ROAD MONTVILLE, CONNECTICUT DATE: 10/16/07 REVISED 01/08 SHEET NO. 1 OF 3 SCALE: 1" = 40' PREPARED BY: ADVANCED SURVEYS, LLC

**LEGEND:**

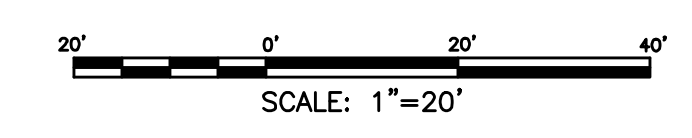
- |  |                      |      |                           |
|--|----------------------|------|---------------------------|
|  | PROPERTY LINE        |      | UTILITY POLE              |
|  | CHAIN-LINK FENCE     | N/F  | NOW OR FORMERLY           |
|  | RETAINING WALL       | U.G. | UNDER GROUND              |
|  | WETLANDS EDGE        |      | DECIDUOUS TREE            |
|  | STONE WALL           |      | OVERHEAD ELECTRIC LINE    |
|  | BOUNDARY POINT       |      | WATER SHUTOFF             |
|  | IRON PIN, IRON PIPE  |      | BOLLARD                   |
|  | MONUMENT             |      | SHRUB                     |
|  | GAS GATE, WATER GATE |      | WETLANDS VEGETATION, FLAG |
|  | TRAFFIC SIGN         |      |                           |
|  | SEWER MANHOLE        |      |                           |

I HAVE REVIEWED THE WETLANDS ON THE PROPERTY IN THE FIELD AND HAVE REVIEWED THE WETLANDS AS SHOWN ON THE PLAN AND FIND THAT THEY SUBSTANTIALLY REPRESENT THE WETLANDS AS DELINEATED IN THE FIELD.

ROBERT C. RUSSO  
CERTIFIED SOIL SCIENTIST

TO MY KNOWLEDGE AND BELIEF THIS PLAN IS SUBSTANTIALLY CORRECT AS NOTED OR DEPICTED HEREON.

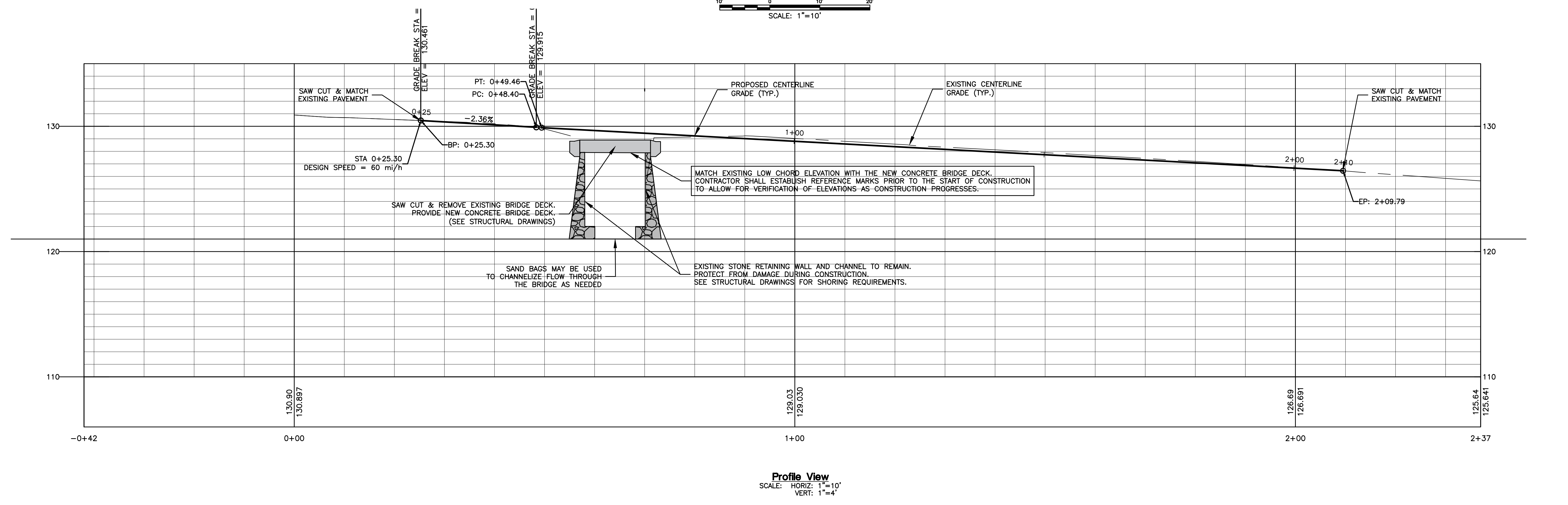
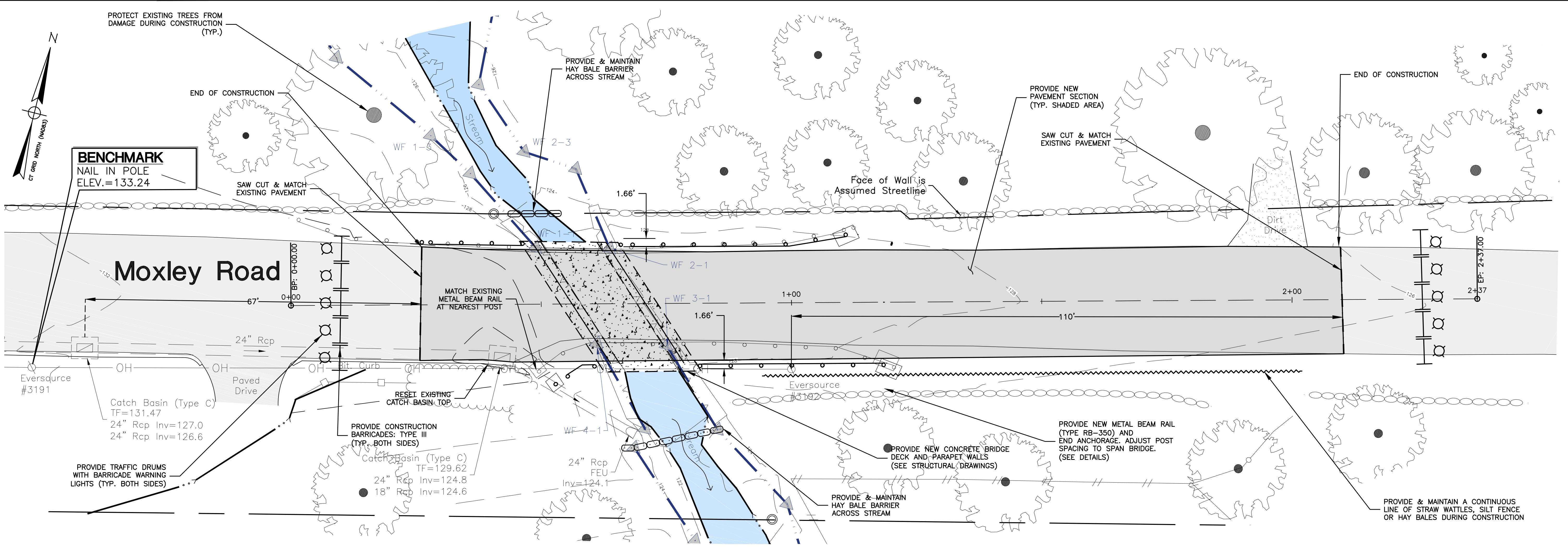
NATHAN C. STOREY, L.L.S. #70531



<p><b>CLA Engineers, Inc.</b> CIVIL • STRUCTURAL • SURVEYING</p> <p>317 Main Street Norwich, CT 06360 (860) 886-1966 Fax (860) 886-9165</p>		Project No. CLA-7121
		Proj. Surveyor N.C.S.
<p>BOUNDARY AND TOPOGRAPHIC SURVEY</p> <p><b>PREPARED FOR</b></p> <p><b>THE TOWN OF MONTVILLE</b></p> <p>MOXLEY ROAD MONTVILLE, CONNECTICUT</p>		Date: 07/18/22
		Sheet No. <b>1</b>



M:\0000\7100\7121 Moxley Rd Bridge\Survey\7121\_L.dwg, 3/9/2023 11:20:05 AM, DWG To PDF.pc3



REVISION	DATE	NUMBER

MOXLEY ROAD BRIDGE  
IMPROVEMENTS  
BRIDGE NO. 085014  
MOXLEY RD OVER UNNAMED BROOK  
UNCAVILLE, CONNECTICUT

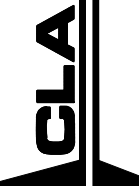
SITE PLAN & PROFILE

**CLA Engineers, Inc.**  
CIVIL - STRUCTURAL - SURVEYING

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Norwich, Connecticut  
(860) 886-1966 Fax (860) 886-9165  
www.claengineers.com

CLA PROJECT NO.	CLA-7121
PROJ. ENGINEER	T.L.C.
DATE	2/17/2023
SHEET NO.	C-1

**C-1**



**GENERAL STRUCTURAL NOTES**

- G1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE 2015 INTERNATIONAL BUILDING CODE AS AMENDED FOR THE 2018 CONNECTICUT BUILDING CODE.
- G2. THE OWNER/CONTRACTOR SHALL SUBMIT 2 COPIES MINIMUM OF SHOP DRAWINGS FOR ALL COMPONENTS OF THE PRIMARY STRUCTURAL SYSTEM FOR REVIEW BY THE STRUCTURAL ENGINEER OF RECORD. THE OWNER/CONTRACTOR SHALL ALLOW A MINIMUM OF TWO (2) WEEKS FOR THE REVIEW BY THE STRUCTURAL ENGINEER OF RECORD.
- G3. THE GENERAL CONTRACTOR SHALL BEAR SOLE RESPONSIBILITY FOR MEANS AND METHODS OF CONSTRUCTION AND SAFETY ON THE JOB SITE.
- G4. ALL DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR IS TO VERIFY ALL DIMENSIONS, ANGLES, ELEVATIONS, etc. PRIOR TO THE START OF CONSTRUCTION OR THE FABRICATION OF BUILDING COMPONENTS.
- G5. THE GENERAL CONTRACTOR SHALL FURNISH COMPLETE SETS OF DRAWINGS TO ALL SUBCONTRACTORS FOR USE IN SHOP DRAWING PREPARATION.
- G6. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS AND ANY OTHER RELEVANT DRAWINGS.

**CONCRETE / REINFORCED CONCRETE**

- C1. GENERAL: ALL CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTES "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301-95).
- C2. CONCRETE MIXES SHALL INCLUDE MID-RANGE WATER REDUCING ADMIXTURE OR PLASTICIZER AND SHALL HAVE A DESIGN SLUMP OF 5" WITH A MAXIMUM PLACEMENT SLUMP OF 6.5". HIGHER SLUMPS ARE ALLOWABLE IF HIGH RANGE PLASTICIZERS ARE USED.  
  
CONCRETE FOR BRIDGE:  
f<sub>c</sub> = 5000 PSI AT 28 DAYS  
w/c RATIO = 0.47 (MAX)  
AIR ENTRAINMENT = 6%
- C3. REINFORCING STEEL: ASTM A615 - GRADE 60.
- C4. BAR DETAILING: IN ACCORDANCE WITH THE "ACI DETAILING MANUAL - 1988". PLACING DRAWINGS SHALL SHOW THE NUMBER AND LOCATION OF ALL BAR SUPPORTS AND ACCESSORIES.
- C5. ALL REBAR IS TO BE PAINTED WITH COLD GALVANIZING COMPOUND CONFORMING TO ASTM A780.
- C6. CONCRETE COVER:  
SHALL BE AS FOLLOWS: CONCRETE POURED AGAINST EARTH..... 3"  
CONCRETE POURED IN FORMS BUT EXPOSED TO EARTH OR WEATHER:  
5 BARS AND SMALLER..... 3"  
LARGER THAN #5 BARS..... 3"

**STONE ABUTMENT NOTES**

- 1. ALL WALL CONSTRUCTION IS TO BE DOCUMENTED IN ORDER TO PROVE CONFORMANCE TO THESE CONSTRUCTION DOCUMENTS. PARTICULARLY THE LENGTH OF GEO-GRID, PROPER COMPACTION OF SOILS AND THE PRESENCE OF DRAINAGE MATERIALS. COORDINATING THIS DOCUMENTATION IS THE RESPONSIBILITY OF THE CONTRACTOR. IT IS OUR RECOMMENDATION THAT THE GRID LENGTH BE VERIFIED BY THE INSPECTING AGENCY DURING FIELD DENSITY TESTING OF SOILS. IN ADDITION TO DOCUMENTATION BY THIRD PARTY INSPECTION, ALL ELEMENTS OF THE WALL SYSTEM SHOULD BE THOROUGHLY PHOTOGRAPHED FOR DOCUMENTATION.
- 2. ALL FIELD STONE IS TO BE DURABLE, IGNEOUS OR METAMORPHIC STONE FREE OF FERROUS MINERALS/RUST STAINING. ALL STONES ARE TO LAIN TO TIGHT SMOOTH INTERFACE (NO ROUND BOULDERS), OR FULLY CHINKED AND MORTARED TO AN EQUIVALENTLY SMOOTH INTERFACE. IN PARTICULAR, TIE STONES ARE TO BE ANGULAR STONES WITH FLAT FACETS FACING ALL ADJACENT WALL STONES (NO ROUND BOULDERS).
- 3. RETAINED SOIL SHALL BE DETERMINED TO MEET OR EXCEED THE REQUIREMENTS BELOW. SOILS NOT MEETING THESE REQUIREMENTS SHALL BE EXCAVATED AND REPLACED WITH ACCEPTABLE SOILS. IF WEAK SOILS ARE PRESENT, THEY SHALL BE EXCAVATED AND REPLACED WITH ACCEPTABLE SOILS.

ONCE THE BASE COURSE ELEVATION IS ACHIEVED, THE AREA IS TO BE PROOF COMPACTED WITH VIBRATORY COMPACTION EQUIPMENT PRIOR TO PLACING THE LEVELING PAD. FREE DRAINING BACKFILL SOIL SHALL BE CRUSHED STONE PLACED DIRECTLY BEHIND WALL FOR THE DEPTHS SPECIFIED ON PLANS (1'-0" MIN.). EXPOSED DRAINAGE STONE SHALL BE PROTECTED FROM FINE SOIL MIGRATION THROUGHOUT CONSTRUCTION. THE LEVELING PAD AND DRAINAGE STONE BEHIND THE WALL ARE TO BE FILTER STONE, WHICH SHALL BE WASHED, CRUSHED STONE (FREE OF DEBRIS, ORGANICS AND VOIDS) WITH NO MORE THAN 5% PASSING A #40 SIEVE MEETING THE FOLLOWING GRADATION REQUIREMENTS:

Sieve Size	% Passing
6"	100
3 1/2"	80 - 100
1 1/2"	50 - 100
3/4"	30 - 100
1/2"	20 - 60
#10	15 - 45
#40	10 - 25
#100	0 - 15
#200	0 - 6

NOTE: MATERIAL MEETING CT-DOT M.02.05 WILL BE LIKELY BE ACCEPTED; WASHED CRUSHED STONE WRAPPED IN FILTER FABRIC MAY BE SUBSTITUTED IF APPROVED IN WRITING; PREFABRICATED SYSTEMS SUCH AS J-DRAIN MAY BE SUBSTITUTED IF APPROVED IN WRITING. APPROVALS MAY BE CONTINGENT ON INSPECTION.

BACKFILL SOIL BEYOND DRAINAGE ZONE SHALL BE CLEAN "BANK RUN GRAVEL" (USCS SW OR SW/SM) WITH NO MORE THAN 10% PASSING THE #200 SIEVE AND SHALL MEET OR EXCEED THE REQUIREMENTS BELOW. ORGANIC AND FROST SUSCEPTIBLE SOILS ARE NOT PERMITTED WITHIN A MIN. DISTANCE BEHIND THE WALL EQUAL TO THE HEIGHT OF THE WALL.

4. ALL DRAINAGE AND FOUNDATION SOIL SHALL BE COMPACTED TO 95% OF ITS MAX. DRY DENSITY, AS DETERMINED BY ASTM D1557 (3-POINT CURVE ACCEPTABLE).

5. THE FOLLOWING MINIMUM SOIL PROPERTIES WERE USED IN THE DESIGN:

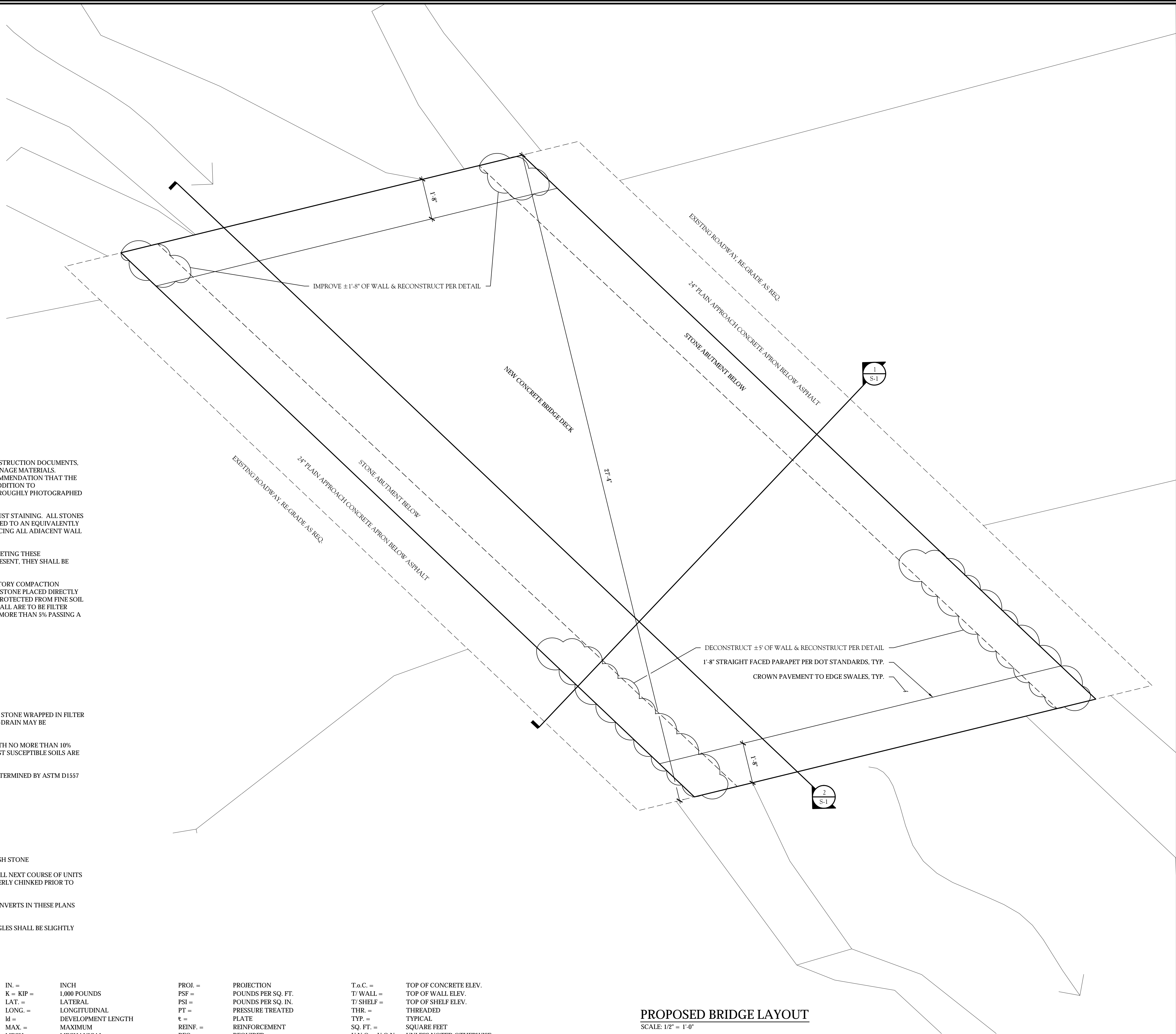
SOIL TYPE	SOIL WEIGHT (PCF)	MINIMUM FRICTION ANGLE (DEG)
BACKFILL SOIL*	135 MAX.	34
RETAINED SOIL	135 MAX.	34
FOUNDATION SOIL	125 MIN.	30
LEVELING PAD	125 MIN.	40
FREE DRAINING BACKFILL	130 MAX.	40

\*BACKFILL SOIL IS DEFINED AS ALL SOIL PLACED IN LIFT BEHIND THE WALL, EXCEPTING THE CRUSH STONE

- 6. ENSURE THAT THE FIRST COURSE OF WALL UNITS IS IN FULL CONTACT WITH THE LEVELING PAD. INSTALL NEXT COURSE OF UNITS SUCH THAT THE VERTICAL GAPS ARE STAGGERED BETWEEN ADJACENT COURSES. GAPS SHALL BE PROPERLY CHINKED PRIOR TO STARTING THE NEXT COURSE.
- 7. CONTRACTOR AND LANDSCAPE ARCHITECT / OWNER SHALL APPROVE/PROVIDE ALL ELEVATIONS AND INVERTS IN THESE PLANS PRIOR TO ORDERING MATERIAL.
- 8. STONES SHALL BE SET BACK WHEN STEPPING UP AND SET FORWARD WHEN STEPPING DOWN. WALL ANGLES SHALL BE SLIGHTLY ADJUSTED TO ACCOMMODATE PROPERTY LINES AND OBSTRUCTIONS.

**ABBREVIATIONS LEGEND**

A.O.D. = AT OWNER'S DISCRETION	EA. = EACH	IN. = INCH	PROJ. = PROJECTION	T.O.C. = TOP OF CONCRETE ELEV.
BTWN. = BETWEEN	ENR. = ENGINEER OF RECORD	K = KIP = 1,000 POUNDS	PSF = POUNDS PER SQ. FT.	T/WALL = TOP OF WALL ELEV.
CL = CENTER LINE	ELEV. = ELEVATION	LAT. = LATERAL	PSI = POUNDS PER SQ. IN.	T/SHELF = TOP OF SHELF ELEV.
CLR. = CLEAR	EMBED. = EMBEDMENT	LONG. = LONGITUDINAL	PT = PRESSURE TREATED	THR. = THREADED
COORD. = COORDINATE	EQ. = EQUAL	LD = DEVELOPMENT LENGTH	PLATE = PLATE	TYP. = TYPICAL
CONC. = CONCRETE	EXIST. = EXISTING	MAX. = MAXIMUM	REINF. = REINFORCEMENT	SQ. FT. = SQUARE FEET
CONN. = CONNECT	fc = CONC. COMPRESSIVE STRENGTH	MECH. = MECHANICAL	REQ. = REQUIRED	U.N.O. = U.O.N. = UNLESS NOTED OTHERWISE
CONT. = CONTINUOUS	FT. = FOOT OR FEET	MIN. = MINIMUM	SIM. = SIMILAR	VERT. = VERTICAL
DEG. = DEGREES	FTG. = FOOTING	MFR. = MANUFACTURER	SQ. = SQUARE	V.I.F. = VERIFY IN FIELD
DIA. = DIAMETER	GA. = GA. = GAUGE (THICKNESS)	NTS = NOT TO SCALE	STD. = STANDARD	w/ = WITH
DNS = DO NOT SCALE	H.D.G. = HOT DIPPED GALVANIZED	O.C. = ON CENTER	T.B.D. = TO BE DEMOLISHED	W.W.F. = WELDED WIRE FABRIC
DWL = DOWEL	HORIZ. = HORIZONTAL	O.H. = OPPOSITE HAND	T.B.R. = TO BE REMOVED	



**PROPOSED BRIDGE LAYOUT**  
SCALE: 1/2" = 1'-0"

**PROGRESS PRINT**  
- NOT FOR CONSTRUCTION -

REVISION	DATE	NUMBER

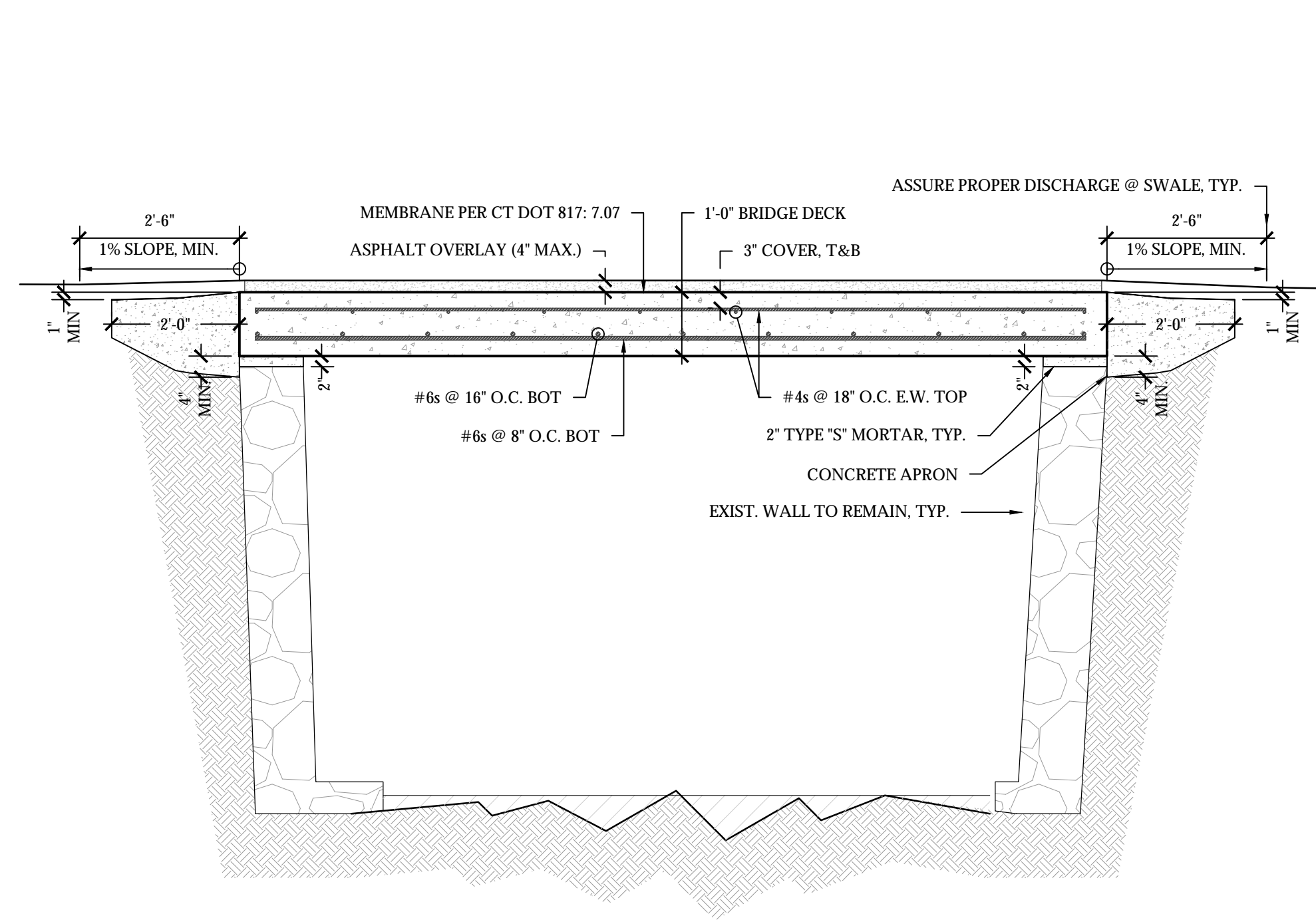
**MOXLEY ROAD BRIDGE**  
Brook Crossing ±460' East of Old Colchester Road Intersection  
166 to 176 Moxley Rd, Uncasville, Monville, CT 06382

**STRUCTURAL NOTES & LAYOUT PLAN**

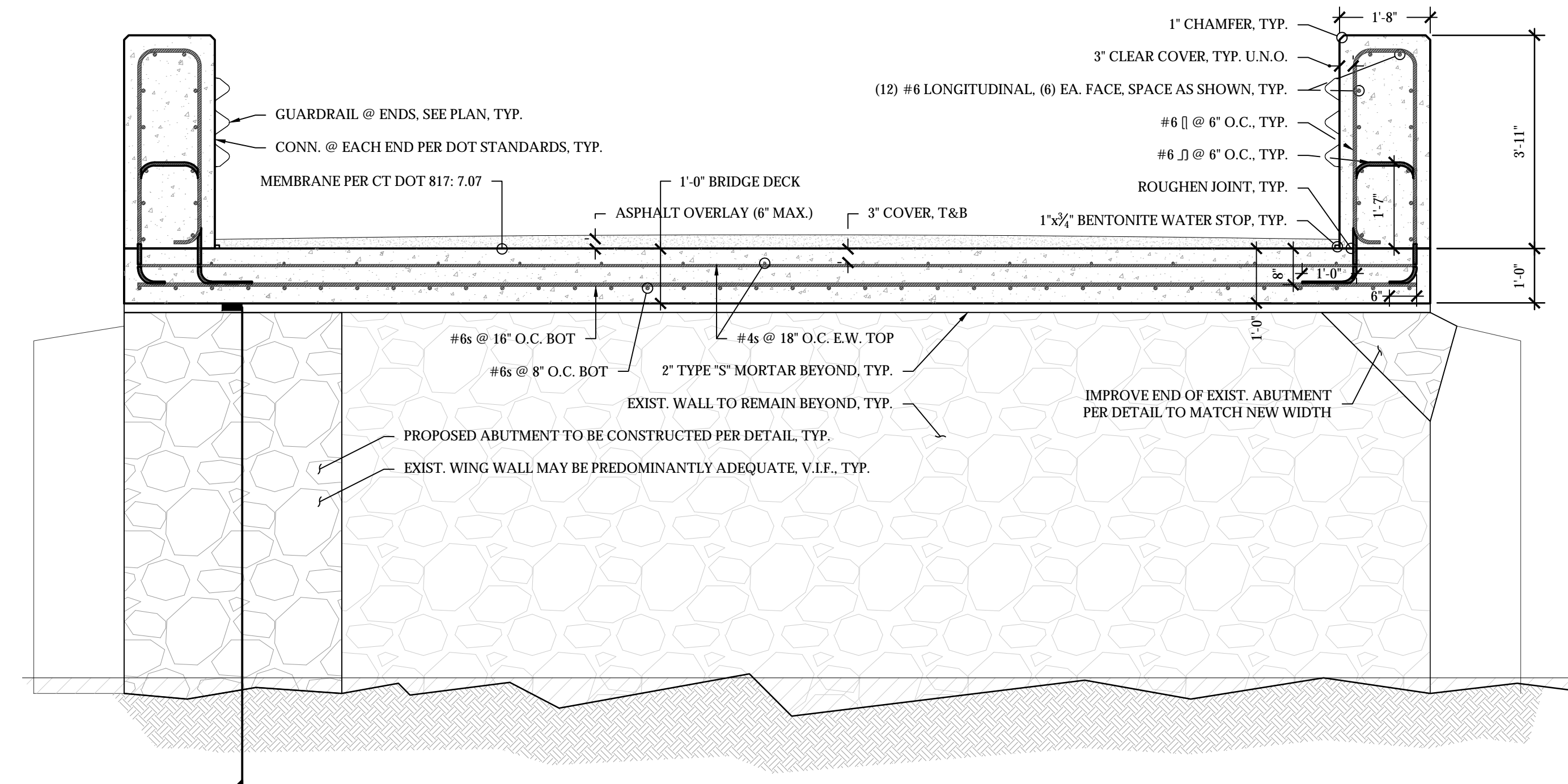
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www.claengineers.com

CLA PROJECT NO.	7121
PROJ. ENGINEER	ADB
DATE:	2022-08-26
SHEET NO.	(OF 2 SHEETS)

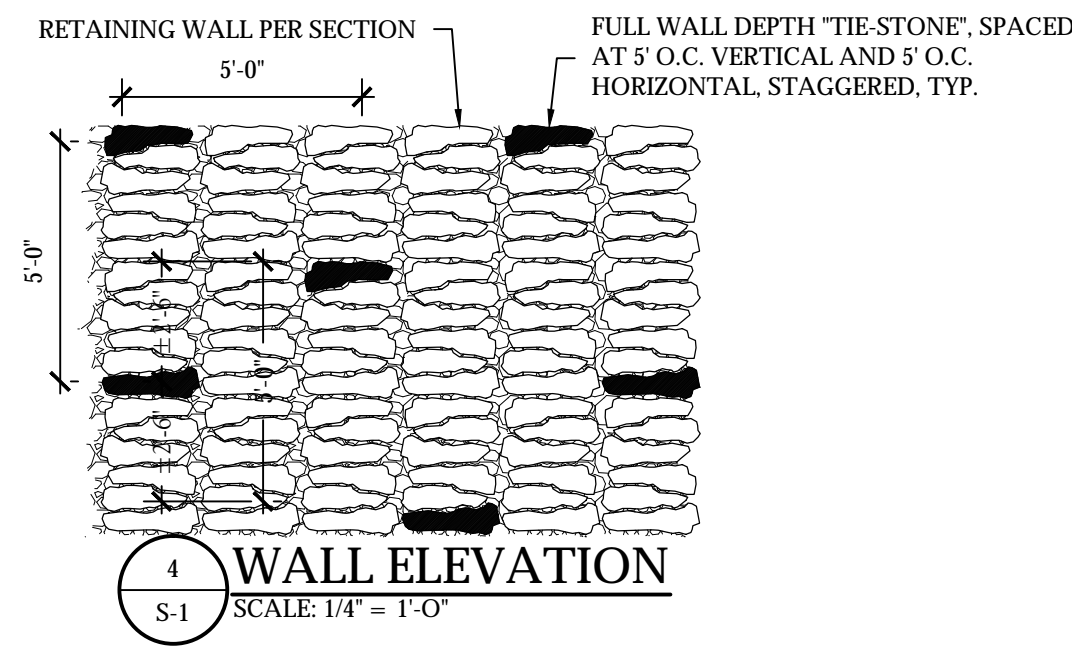
**S-0**



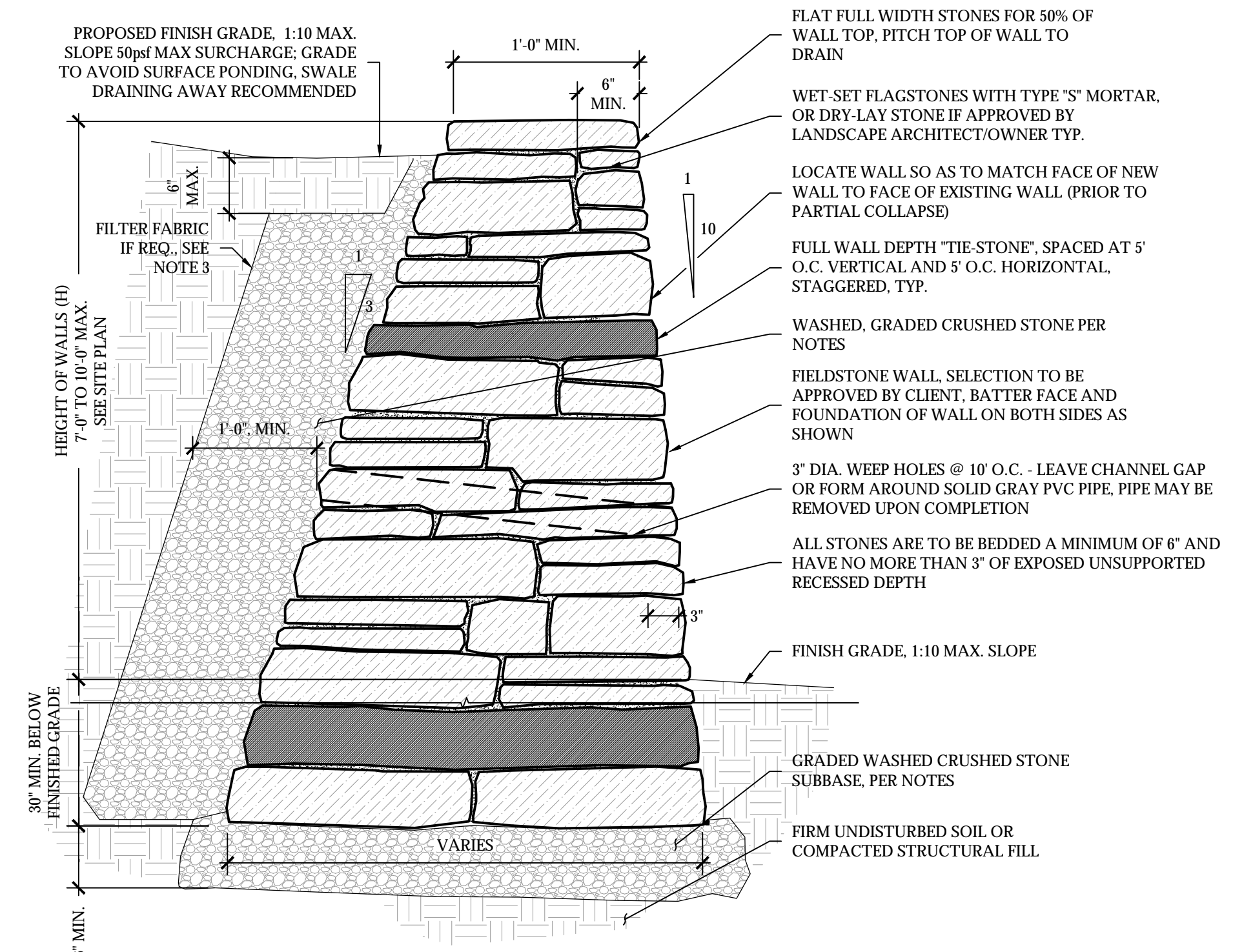
1 LONGITUDINAL TO ROAD SECTION  
S-1 SCALE: 1/2" = 1'-0"



2 TRANSVERSE TO ROAD SECTION  
S-1 SCALE: 1/2" = 1'-0"



4 WALL ELEVATION  
S-1 SCALE: 1/4" = 1'-0"



3 SECTION THROUGH STONE RETAINING WALL  
S-1 SCALE: 1" = 1'-0"

- TIER NOTES:
- ANY TIERED WALLS MUST BE OFFSET A MINIMUM DISTANCE OF THE HEIGHT OF THE TALLEST TIER, AS MEASURED FROM THE BACK TOP OF THE LOWER WALL TO THE FRONT TOE OF THE UPPER WALL.
  - IN ANY TIERED WALLS, THE LOWER TIER MUST BE EQUAL TO OR TALLER THAN THE UPPER TIER.
  - IN ANY CASE WHERE THE TIERING OF WALLS RESULTS IN A GRADE CHANGE OF MORE THAN 20', THE TOTAL SLOPE OF THE TIERED GRADE MUST BE 2:1 (AN EXAMPLE BEING 40' FROM FACE OF UPPER TIER TO TOE OF LOWER TIER FOR A 20' WALL)
  - BASE WIDTH VARIES WITH HEIGHT AS SHOWN. FOR REFERENCE, WIDTH AT HEIGHTS WILL BE AS FOLLOWS:
    - H=3, WIDTH= 2'-9"
    - H=5, WIDTH= 3'-8"
    - H=8, WIDTH= 4'-6"
    - H=9, WIDTH= 4'-11"
    - H=10, WIDTH= 5'-4"

PROGRESS PRINT  
- NOT FOR CONSTRUCTION -

REVISION	DATE	NUMBER

**MOXLEY ROAD BRIDGE**  
Brook Crossing ±460' East of Old Colchester Road Intersection  
166 to 176 Moxley Rd, Uncasville, Monville, CT 06382

STRUCTURAL SECTIONS

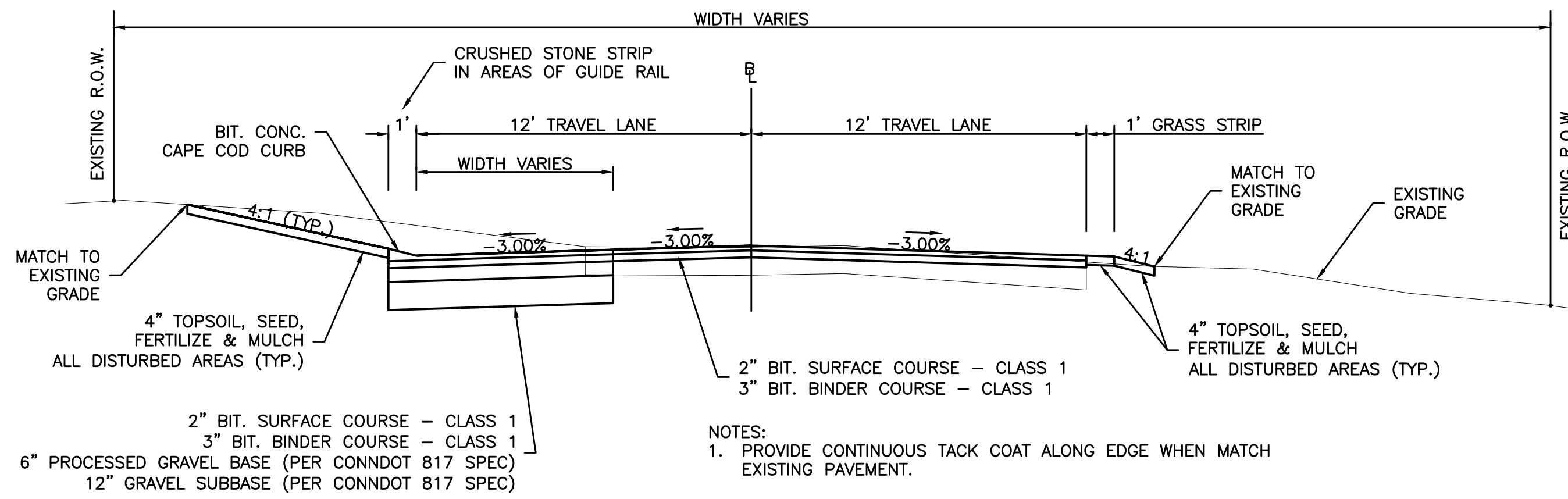
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CLA PROJECT NO. 7121  
PROJ. ENGINEER ADB  
DATE: 2022-08-20  
SHEET NO. (OF 2 SHEETS)

S-1

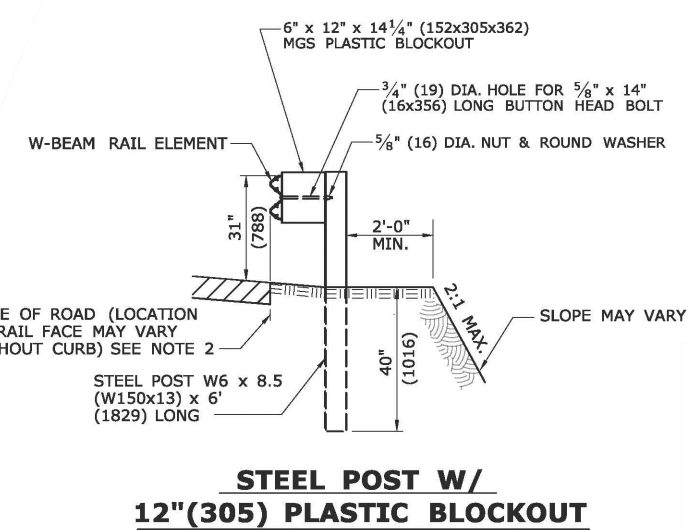
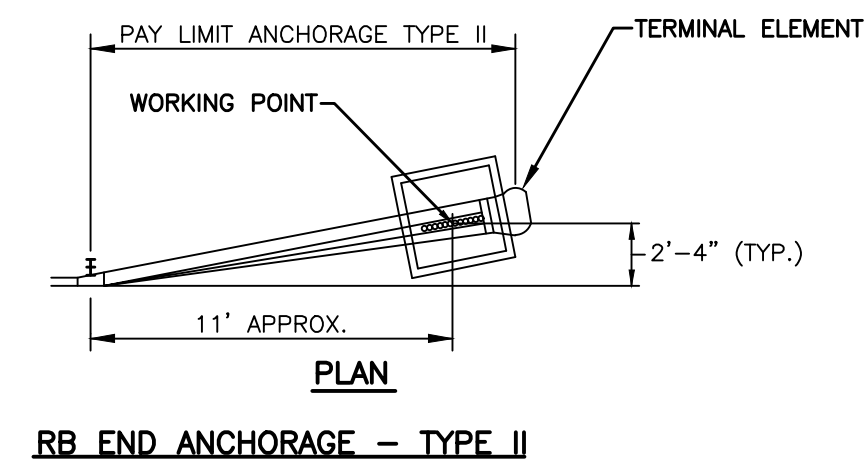
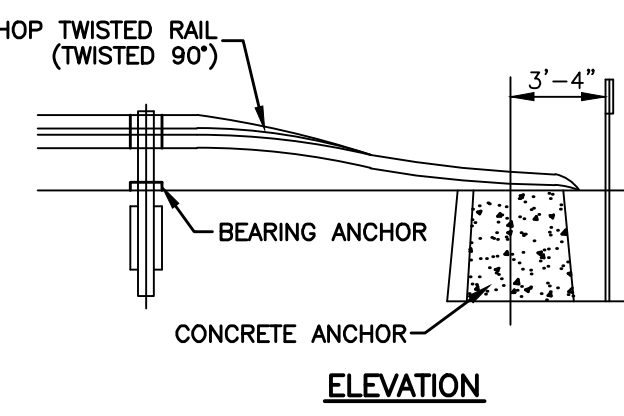
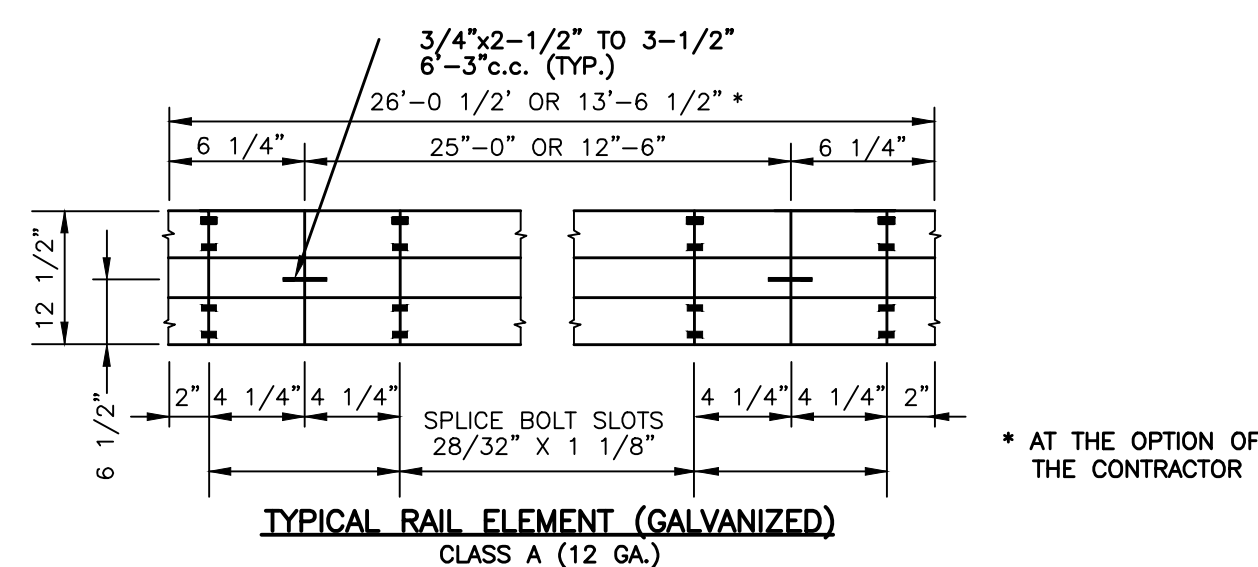
**GENERAL NOTES**

- PRIOR TO BIDDING THE PROJECT, THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY EXISTING CONDITIONS.
- EXISTING PROPERTY LINES AND RIGHT-OF-WAY LINES WHERE SHOWN ARE APPROXIMATE AND ARE INTENDED FOR GENERAL INFORMATION ONLY.
- GROUND LINE AS SHOWN ON THESE PLANS IS BASED ON FIELD SURVEY.
- CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 PRIOR TO THE START OF CONSTRUCTION.
- INFORMATION SHOWN ON THE DRAWINGS RELATING TO MATERIALS, CONDITIONS, AND OR LOCATIONS OF EXISTING STRUCTURES AND UTILITIES HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING FIELD SURVEY, UTILITY COMPANY AND TOWN RECORD MAPS AND DRAWINGS, AND IS NOT GUARANTEED ACCURATE OR COMPLETE. ALL UTILITIES SHALL BE LOCATED IN THE FIELD BY THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER WARRANTS OR GUARANTEES THE CONDITIONS SHOWN ON THE PLANS.
- PASSAGE OF TRAFFIC ON ROADWAYS: THE CONTRACTOR SHALL PERFORM HIS OPERATIONS TO MINIMIZE DISRUPTIONS TO TRAFFIC WITHIN THE PROJECT SITE.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL MAINTENANCE AND PROTECTION OF TRAFFIC, TRAFFIC CONTROL, TEMPORARY SIGNING OR BARRICADES AND LANE CLOSURES. CONTINUOUS ACCESS FOR BUSES AND EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.
- CONSTRUCTION SIGNS MUST CONFORM TO THE SIGNING REQUIREMENTS OUTLINED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)". ALL SIGN FACES SHALL BE REFLECTORIZED.
- ALL PROPOSED WORK MAY BE VARIED IN THE FIELD BY THE OWNER TO MATCH EXISTING CONDITIONS. THE CONTRACTOR SHALL CONFINE OPERATIONS AND ACTIVITIES FOR CONSTRUCTION PURPOSES WITHIN THE STREET LINES AND/OR EASEMENTS AS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING PAVEMENT, ROADWAY, SIDEWALKS, ETC., OUTSIDE OF THE WORK AREA AND SHALL REPAIR SUCH DAMAGE AT NO ADDITIONAL COST TO THE OWNER.
- UPON COMPLETION OF THE WORK, ALL DISTURBED AREAS SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTED PRIOR TO CONSTRUCTION.
- ALL STREET SIGNS, MAILBOXES, PLANTINGS, ORNAMENTAL OBJECTS, LIGHTS, LANDSCAPE SHRUBBERY, ETC., SHALL BE PROTECTED FROM DAMAGE AND SHALL BE REPLACED IN THE SAME OR BETTER CONDITION BY THE CONTRACTOR IF DISTURBED OR DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION.
- RESIDENTS WITH DRIVES AFFECTED BY CONSTRUCTION SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST 48 HOURS BEFORE CONSTRUCTION BEGINS AND SHALL BE ALLOWED ACCESS TO THEIR PROPERTY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TEMPORARY AND PERMANENT SUPPORT OF ALL EXISTING UTILITY POLES IN AN ADJACENT TO THE CONSTRUCTION AREA AND SHALL COMPLY WITH ALL THE REQUIREMENTS AND SPECIAL DETAILS FOR THE SUPPORT OF UTILITIES REQUIRED BY UTILITY AGENCIES. ALL COSTS FOR TEMPORARILY SUPPORTING UTILITY POLES DURING CONSTRUCTION AND ADJUSTMENTS TO THE PERMANENT SUPPORT FOR UTILITY POLES SHALL BE INCLUDED IN OTHER ITEMS.
- IF IT IS DEEMED NECESSARY BY THE OWNER THAT THE CONTRACTOR EXECUTE WORK AT CERTAIN POINTS IN THE CONTRACT AT CERTAIN TIMES AND SEASONS, THE CONTRACTOR SHALL PERFORM SAID WORK AT NO ADDITIONAL EXPENSE TO THE OWNER, WITHIN THE TIME SET FORTH IN THE CONTRACT.
- MATERIAL STOCKPILE AND STAGING AREAS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING STOCKPILE, MATERIAL STORAGE AND EQUIPMENT STORAGE AREAS. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL IDENTIFY THESE AREAS AND PROVIDE EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED.
- DISPOSAL OF CONSTRUCTION MATERIALS: PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL BE REQUIRED TO IDENTIFY ALL LOCATIONS WITHIN THE TOWN TO BE USED FOR DISPOSAL OF UNSUITABLE CONSTRUCTION MATERIALS.
- CLEARING AND GRUBBING: ALL TREES, BRUSH, VEGETATION, ETC. SHALL BE CUT DOWN BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL GIVE ADJUTING PROPERTY OWNERS THE OPPORTUNITY TO TAKE CUT WOOD FOR THEIR PRIVATE USE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ALL REMAINING STUMPS, CUT-UP TREES & LIMBS, ETC. WITHIN THE CONTRACT LIMITS. ALL COSTS ASSOCIATED WITH THE ABOVE WORK SHALL BE INCLUDED IN OTHER ITEMS UNNECESSARILY CUT OR DAMAGED BY THE CONTRACTOR'S FORCES SHALL BE REPLACED, OF COMPARABLE SIZE AND TYPE, BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- CONTINUOUS DUST CONTROL USING WATER, CALCIUM CHLORIDE OR EQUAL SHALL BE PROVIDED FOR ALL EARTH STOCK PILES, EARTH PILED ALONG EXCAVATIONS, ROADWAY SURFACES AND SURFACES OF REFILLED TRENCHES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESETTING TO GRADE ALL FRAMES, GRATES, COVERS, VALVE BOXES, ACCESS COVERS, AND ALL OTHER ITEMS WHICH NORMALLY MUST HAVE A FIXED RELATION TO FINISHED GRADE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION SURVEY AND STAKEOUT AS THEY NEED.
- ALL WORK TO CONFORM TO THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION SUPPLEMENTED FORM 818, DATED 2020 AS AMENDED.

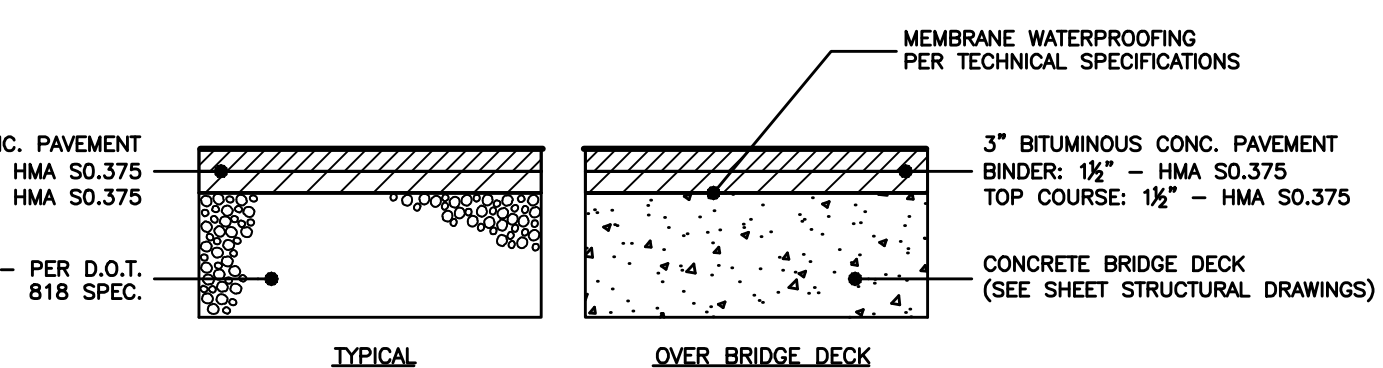


**PROPOSED STREET CROSS-SECTION**

SCALE 1" = 4'

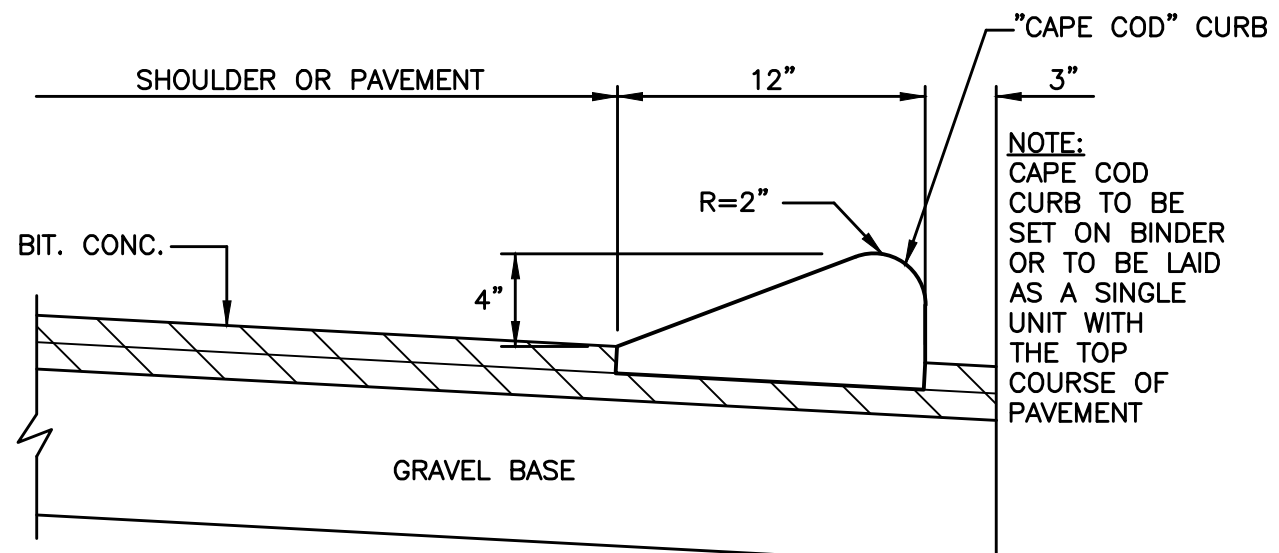


- NOTES:**
- INSTALLATION OF RAIL AND ANCHORAGES TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF CT DOT.
  - METAL BEAM RAIL TO BE DOT TYPE RB-350 PER DOT SPECIFICATIONS.
  - PROVIDE RB-TYPE II END ANCHORAGES PER DOT SPECIFICATIONS.

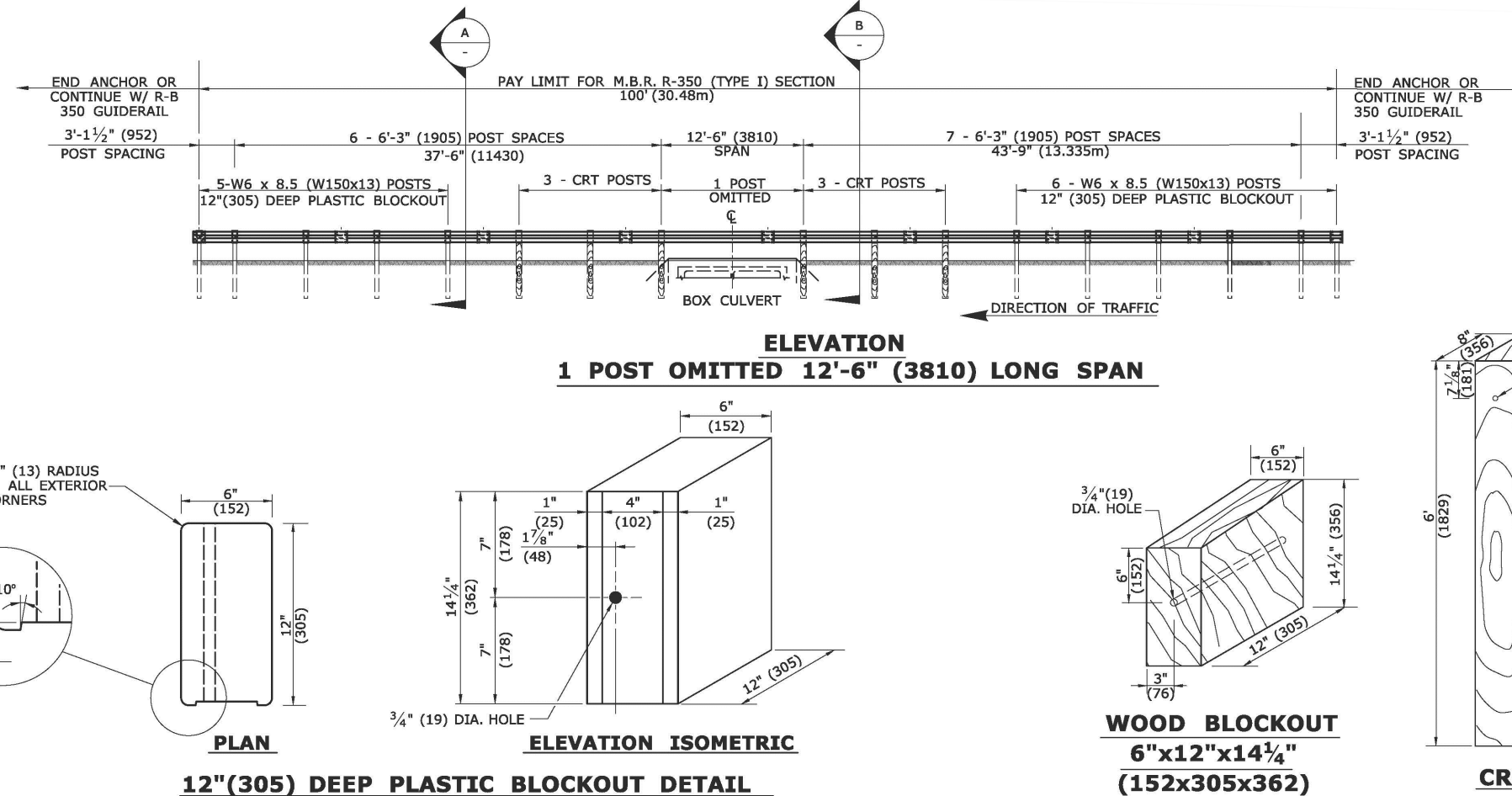


- NOTES:**
- PROVIDE CONTINUOUS TACK COAT ALONG EDGE WHEN MATCHING EXISTING PAVEMENT.
  - MATCH EXISTING ROADWAY GRADES AND CROWN.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ANY DISTURBED PAINTED PAVEMENT MARKINGS.
  - CONTRACTOR TO PROVIDE COMPACTION ON ALL TRENCH BACKFILLS, EXCAVATIONS AND PAVEMENT BASES TO NOT LESS THAN 95% OF THE DRY DENSITY FOR THAT MATERIAL WHEN TESTED IN ACCORDANCE WITH AASHTO T180, METHOD D.

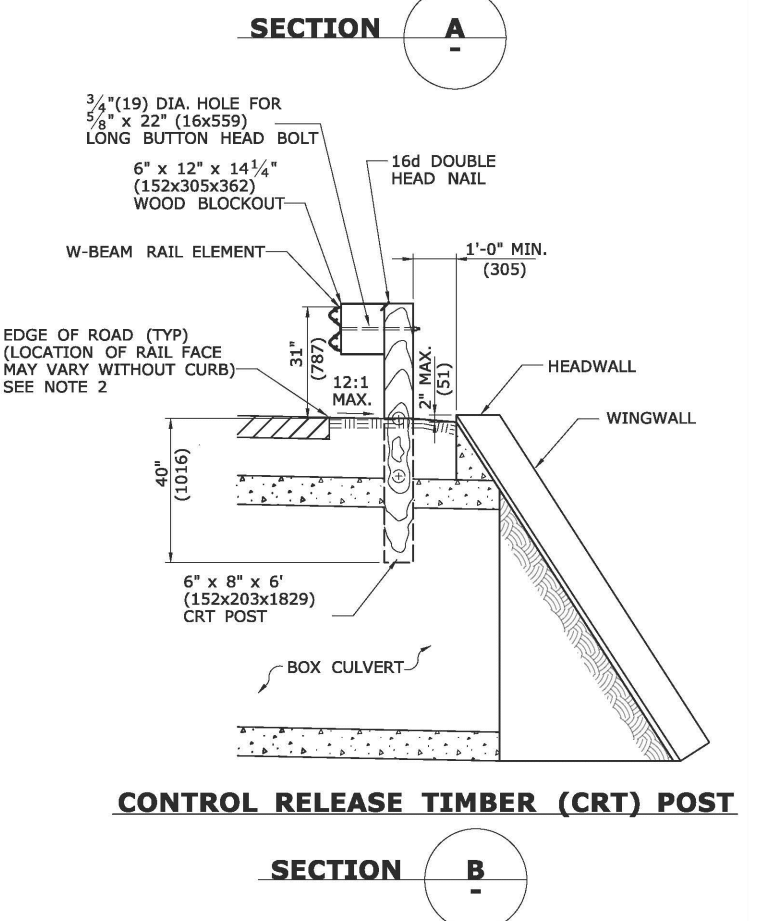
**PAVEMENT REPAIR DETAIL**  
NOT TO SCALE



**BITUMINOUS CONCRETE PAVEMENT & CURBING**  
NOT TO SCALE



**METAL BEAM RAIL AND END ANCHORAGE DETAILS**  
NOT TO SCALE



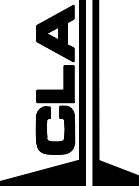
**CONTROL RELEASE TIMBER (CRT) POST**

REVISION	DATE	NUMBER

**MOXLEY ROAD BRIDGE IMPROVEMENTS**  
BRIDGE NO. 085014  
MOXLEY RD OVER UNNAMED BROOK  
UNCASVILLE, CONNECTICUT  
CONSTRUCTION DETAILS 1

**CLA Engineers, Inc.**  
CIVIL - STRUCTURAL - SURVEYING  
317 Main Street, Norwich, Connecticut  
(860) 896-1966 Fax (860) 886-9165  
www.claengineers.com

CLA PROJECT NO.	CLA-7121
PROJ. ENGINEER	T.L.C.
DATE:	2/17/23
SHEET NO.	5



**EROSION & SEDIMENTATION CONTROL NARRATIVE:**

1. THE EROSION & SEDIMENTATION CONTROL PLAN AND DETAILS HAVE BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT DEP.
2. THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL MEASURES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROVIDE SILT FENCE, STONE CHECK DAMS AND/OR OTHER EROSION CONTROL MEASURES AS NEEDED OR DIRECTED BY THE ENGINEER OR TOWN STAFF TO ADEQUATELY PREVENT SEDIMENT TRANSPORT.
3. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO SITE DISTURBANCE.
4. THE CONTRACTOR SHALL INSPECT, REPAIR AND/OR REPLACE EROSION CONTROL MEASURES EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT. SEDIMENT DEPOSITS MUST BE REMOVED WHEN WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE PERMANENTLY STABILIZED.
5. STAKED HAY BALE SILT BARRIERS OR SILT FENCE SHALL BE INSTALLED AROUND ANY TEMPORARY STOCKPILE AREAS. TEMPORARY VEGETATIVE COVER MAY BE REQUIRED (SEE NOTE).
6. INLET SEDIMENTATION CONTROL DEVICES SHALL BE INSTALLED UNDER THE GRATES OF ALL NEW CATCH BASINS AT THE TIME OF INSTALLATION, AND UNDER THE GRATES OF EXISTING CATCH BASINS IN THE CONSTRUCTION AREA.
7. CONTINUOUS DUST CONTROL USING WATER SHALL BE PROVIDED FOR ALL EARTH STOCKPILES, EARTH PILED ALONG EXCAVATIONS, SURFACES OF BACKFILLED TRENCHES AND GRAVELED ROADWAY SURFACES.
8. UNCONFINED WORK WITHIN THE STREAM CHANNEL WILL TAKE PLACE DURING THE PERIOD FROM JULY 1 THROUGH SEPTEMBER 30.
9. AFTER DEMOLITION IS COMPLETE AND BEFORE THE NEW DECK IS INSTALLED, THE TOWN'S CONSULTANT WILL INSPECT THE STREAM CHANNEL AND OVERSEE ANY CLEAN UP NEEDED.
10. IF DEWATERING IS NECESSARY DURING ANY TIME OF CONSTRUCTION A CLEAR WATER DISCHARGE SHALL BE PROVIDED AS SHOWN IN THE HAY-BALE BARRIER DEWATERING DETAIL OR ALTERNATE METHOD PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
11. ALL DISTURBED AREAS SHALL BE RESTORED PER THE SLOPE STABILIZATION AND PERMANENT VEGETATION DETAILS. DISTURBED AREAS THAT ARE SLOPED LESS THAN THREE HORIZONTAL TO ONE VERTICAL (3:1) SLOPE SHALL BE LOAMED, SEEDED, FERTILIZED AND MULCHED PER THE PERMANENT VEGETATIVE COVER SPECIFICATIONS. EROSION CONTROL MATTING SHALL BE PROVIDED ON ALL DISTURBED AREAS THAT ARE SLOPED MORE THAN THREE HORIZONTAL TO ONE VERTICAL (3:1).
12. IF FINAL SEEDING OF DISTURBED AREAS IS NOT TO BE COMPLETED BEFORE OCTOBER 15, THE CONTRACTOR SHALL PROVIDE TEMPORARY MULCHING (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY PERMANENT SEEDING.
13. WHEN FEASIBLE, TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINISHED GRADED SHALL BE COMPLETED PRIOR TO OCTOBER 15.
14. ANY EROSION WHICH OCCURS WITHIN THE DISTURBED AREAS SHALL BE IMMEDIATELY REPAIRED AND STABILIZED. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT SHALL BE RETURNED TO THE SITE. POST SEEDING, INTERCEPTED SEDIMENT IF ANY, SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE TOWN AND ENGINEER.
15. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL VEGETATION IS RE-ESTABLISHED OR SLOPES ARE STABILIZED AND REMOVAL IS APPROVED BY THE TOWN.
16. UNFORESEEN PROBLEMS WHICH ARE ENCOUNTERED IN THE FIELD SHALL BE SOLVED ACCORDING TO THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT DEP.
17. IF NECESSARY, THE TOWN WILL BE PREPARED TO STEP IN AND TAKE ACTION TO ADDRESS ANY POTENTIAL EROSION PROBLEMS. ANY WORK DONE BY THE TOWN OR OWNER WILL BE BACK CHARGED TO THE CONTRACTOR.
18. THE CONTRACTOR SHALL PROVIDE THE NAME AND CONTACT INFORMATION FOR THE PROJECT PERSONNEL RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROLS.

NOTE: THE CONTRACTOR SHALL CONTINUALLY STORE THE FOLLOWING MATERIALS ONSITE DURING CONSTRUCTION TO MEET UNEXPECTED EROSION NEEDS

- 100 LF OF SILT FENCE
- 10 HAY BALES
- WOOD CHIPS OR CRUSHED STONE

**TEMPORARY VEGETATIVE COVER**

A TEMPORARY SEEDING OF RYE GRASS WILL BE COMPLETED WITHIN 15 DAYS OF THE FORMATION OF STOCKPILES. IF THE SOIL IN THE STOCKPILES HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS IT SHALL BE LOOSENED TO A DEPTH OF 2 INCHES BEFORE THE FERTILIZER, LIME AND SEED IS APPLIED. 10-10-10 FERTILIZER AT A RATE OF 7.5 POUNDS PER 1000 S.F. LIMESTONE AT A RATE OF 90 LBS. PER 1000 S.F. SHALL BE USED. RYE GRASS APPLIED AT A RATE OF 1 LB. PER 1000 S.F. SHALL PROVIDE THE TEMPORARY VEGETATIVE COVER. STRAW, FREE FROM WEEDS AND COARSE MATTER SHALL BE USED AT A RATE OF 70-90 LBS. PER 1000 S.F. AS A TEMPORARY MULCH. APPLY MULCH AND DRIVE TRACKED EQUIPMENT UP AND DOWN SLOPE OVER ENTIRE SURFACE SO CLEAT MARKS ARE PARALLEL TO THE CONTOURS.

**PERMANENT VEGETATIVE COVER**

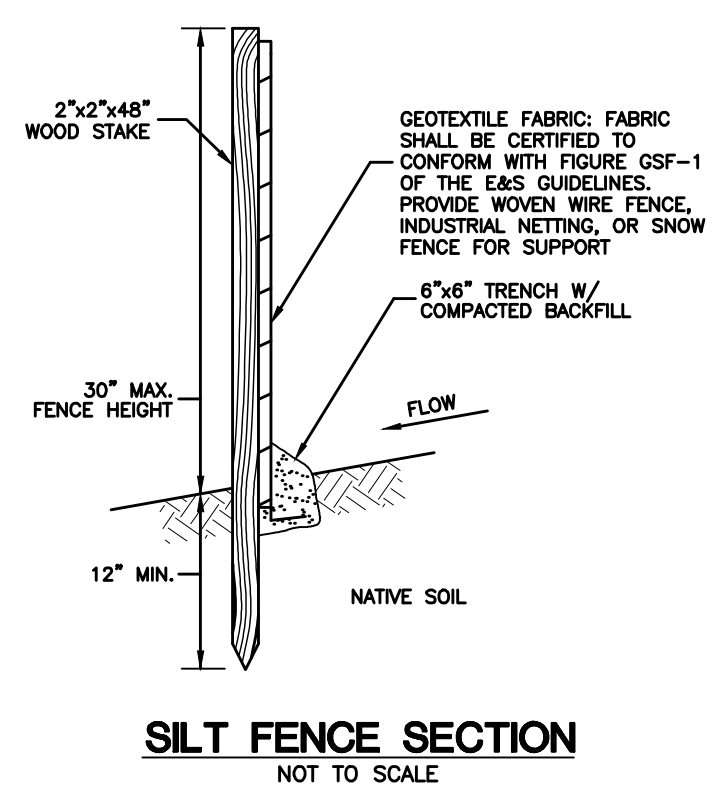
TOPSOIL WILL BE REPLACED ONCE THE EXCAVATIONS HAVE BEEN COMPLETED AND THE SLOPES ARE GRADED AS SHOWN ON THE PLANS. PROVIDE SLOPE PROTECTION AS CALLED FOR ON THE PLANS AND DETAILS. TOPSOIL SHALL BE SPREAD AT A MINIMUM COMPACTED DEPTH OF 4 INCHES. ONCE THE TOPSOIL HAS BEEN SPREAD, ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION WILL BE REMOVED AS WELL AS DEBRIS.

- APPLY AGRICULTURAL GROUND LIMESTONE AT THE RATE OF TWO TONS PER ACRE OR 100 LBS. PER 1000 S.F.
- APPLY 10-10-10 FERTILIZER OR EQUIVALENT AT A RATE OF 300 LBS. PER ACRE OR 7.5 LBS. PER S.F.
- WORK LIMESTONE AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES.
- INSPECT SEEDBED BEFORE SEEDING.
- IF TRAFFIC HAS COMPACTED THE SOIL, RETILL COMPACTED AREAS.
- APPLY THE FOLLOWING GRASS SEED MIX:

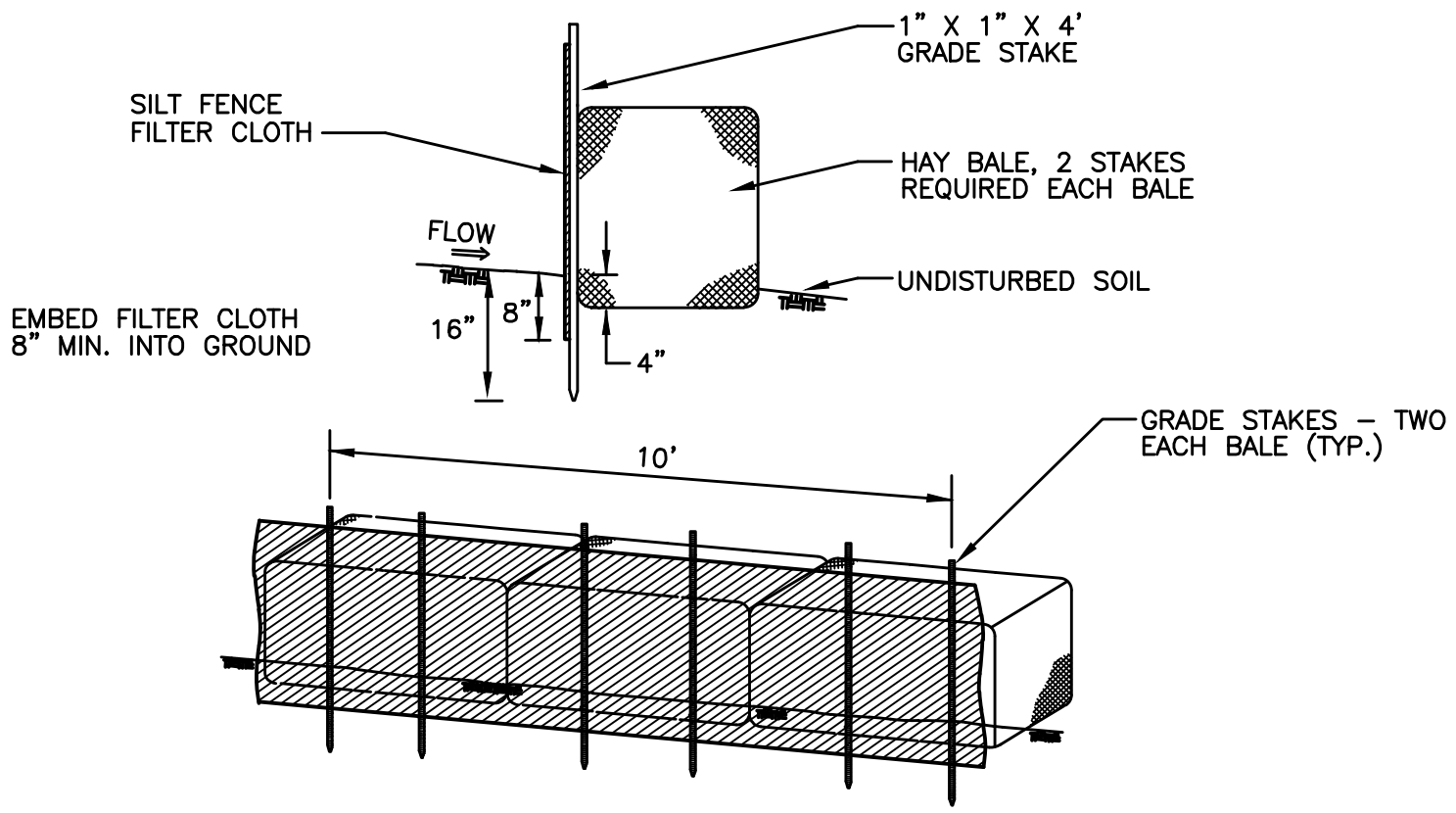
SEED MIXTURE	LBS./ACRE	LBS./1000 S.F.
<b>2:1 SLOPES OR GREATER</b>		
DEP SEED MIX NO. 3:		
CREEPING RED FESCUE (PENNLAWN, WINTERGREEN)	20	0.45
BIRD'S FOOT TREFOIL (EMPIRE, VIKING) W/ INOCULANT	8	0.20
TALL FESCUE (KENTUCKY 31) OR		
SMOOTH BROMEGRASS (SARATOGA, LINCOLN)	20	0.45
	45	1.00
<b>REMAINDER OF DISTURBED AREAS</b>		
KENTUCKY BLUEGRASS	75	1.72
CREEPING RED FESCUE	75	1.72
PERENNIAL RYEGRASS	25	0.58
	175	4.00

THE RECOMMENDED SEEDING DATES ARE:  
APRIL 1 - JUNE 15 AND AUGUST 15 - OCTOBER 15

IMMEDIATELY FOLLOWING SEEDING, FIRM SEED BED WITH A ROLLER AND MULCH WITH WEEED FREE STRAW. IF PERMANENT VEGETATIVE COVER IS HAS NOT BEEN ESTABLISHED BY SEPTEMBER 30, APPLY A TEMPORARY VEGETATIVE COVER ON THE TOPSOIL.



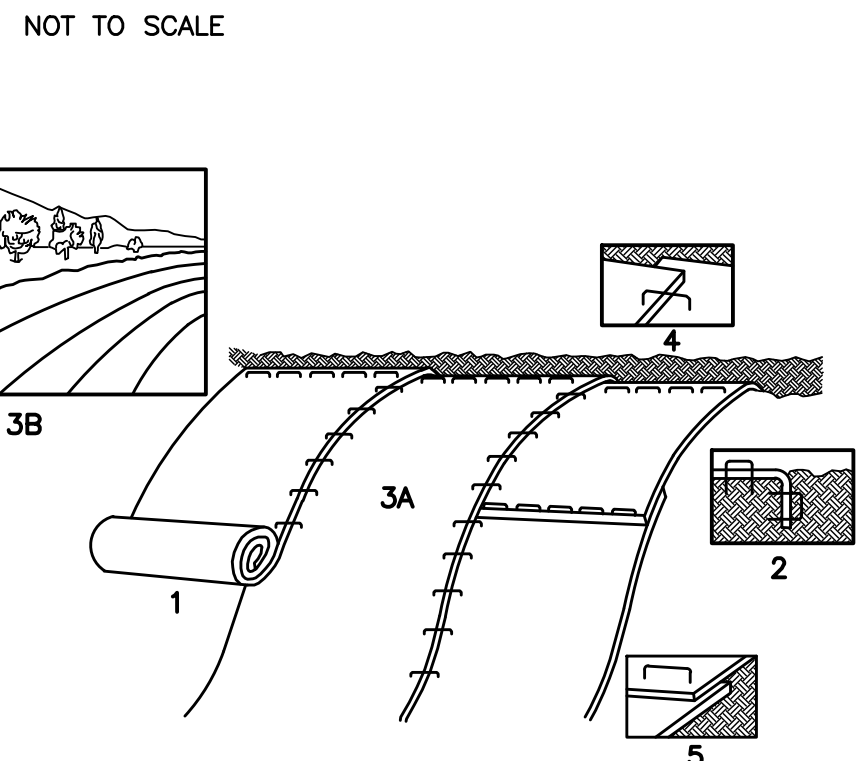
**SILT FENCE SECTION**  
NOT TO SCALE



**CONSTRUCTION NOTES:**

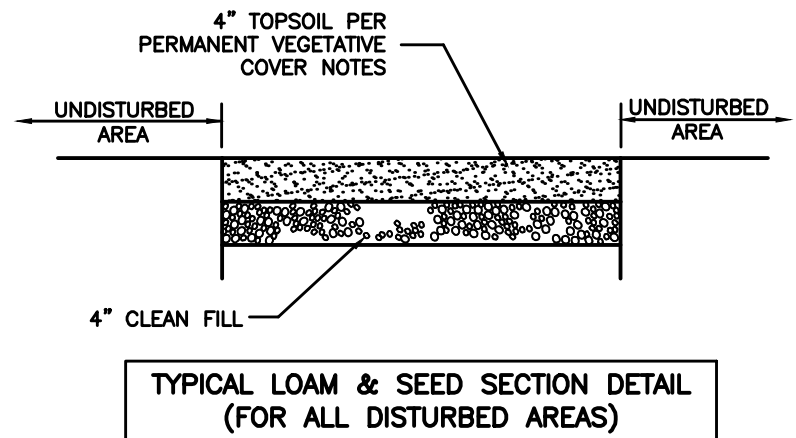
1. SILT FENCE FILTER CLOTH TO BE SECURELY FASTENED TO GRADE STAKE WITH 1/4" STAPLES, 6" ON CENTER.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN ONE ANOTHER THEY SHALL OVERLAP BY 6" AND BE FOLDED.
3. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
4. EROSION PROTECTION SHALL BE INSPECTED AFTER EACH RAINFALL AND, IF NEEDED, REPAIRS SHALL BE MADE. IF SILT BUILD-UP REACHES 1/4 OF THE STORAGE CAPACITY, THE MATERIAL SHALL BE REMOVED.

**EROSION PROTECTION WITH HAYBALES**



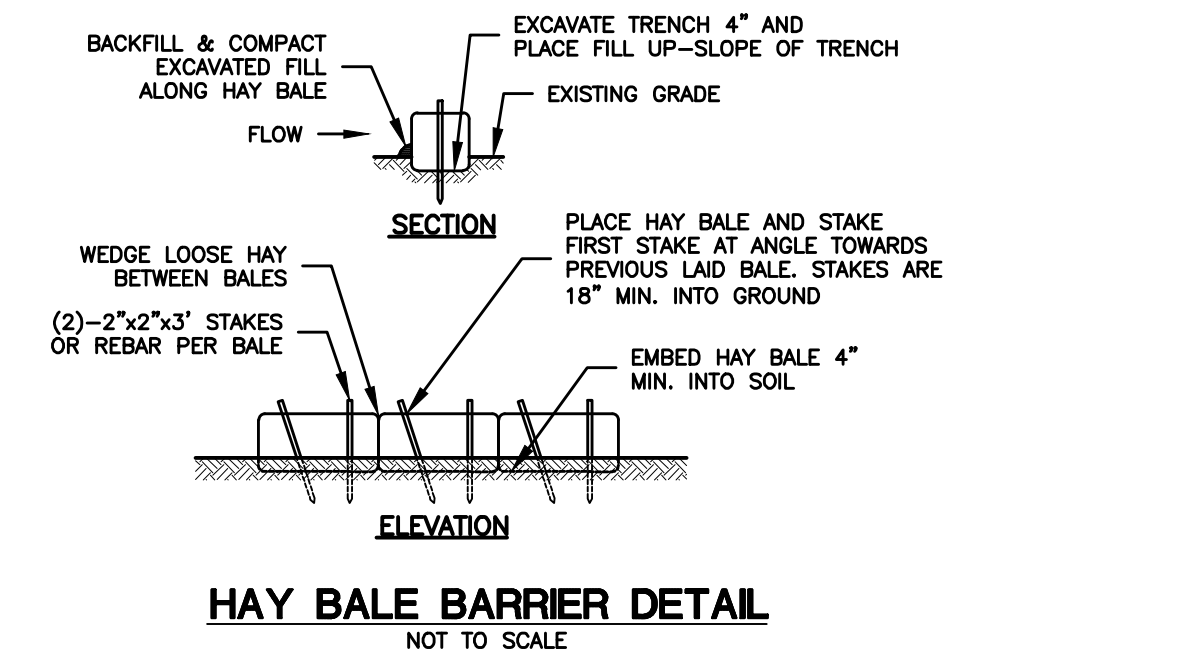
1. PROVIDE 4" THICKNESS OF TOPSOIL OVER CLEAN FILL. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED MIX PER PERMANENT VEGETATIVE COVER NOTES. (SHALL BE PAID FOR AT THE UNIT PRICE FOR LOAM, SEED, FERTILIZE & MULCH)
  2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP x 6" WIDE TRENCH, BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
  3. ROLL THE BLANKET (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.
  4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
  5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
- NOTE: ALL PERMANENT EROSION CONTROL BLANKETS ARE TO BE NORTH AMERICAN GREEN BIONET C1258N OR APPROVED EQUAL.

**EROSION CONTROL MATTING DETAIL (FOR SLOPES GREATER THAN 3:1)**

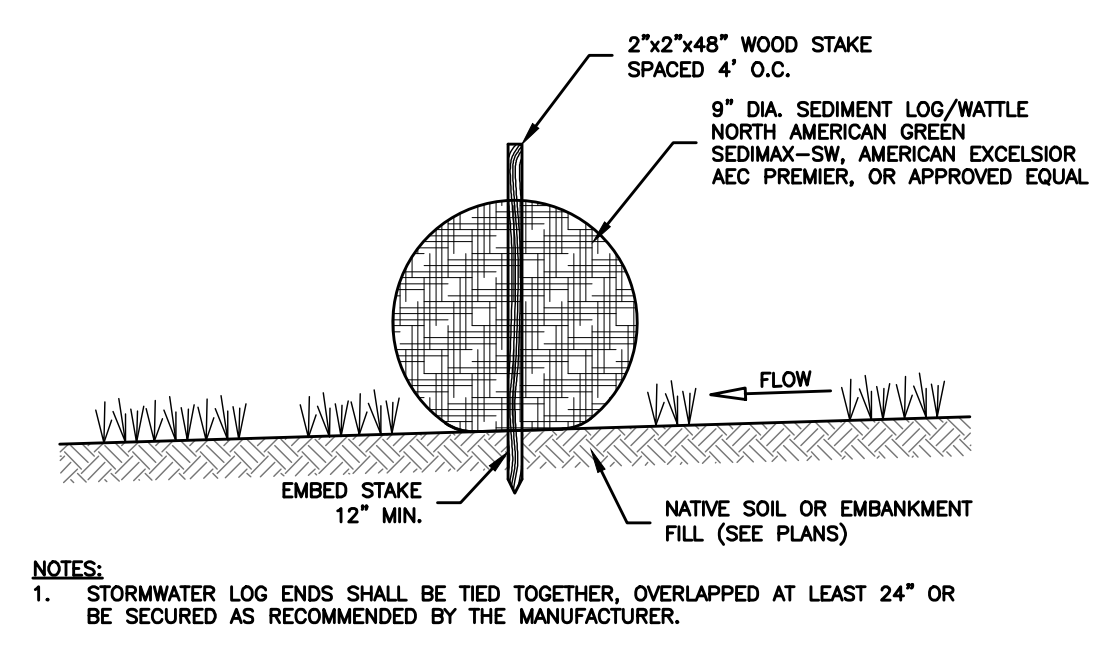


**TYPICAL LOAM & SEED SECTION DETAIL (FOR ALL DISTURBED AREAS)**

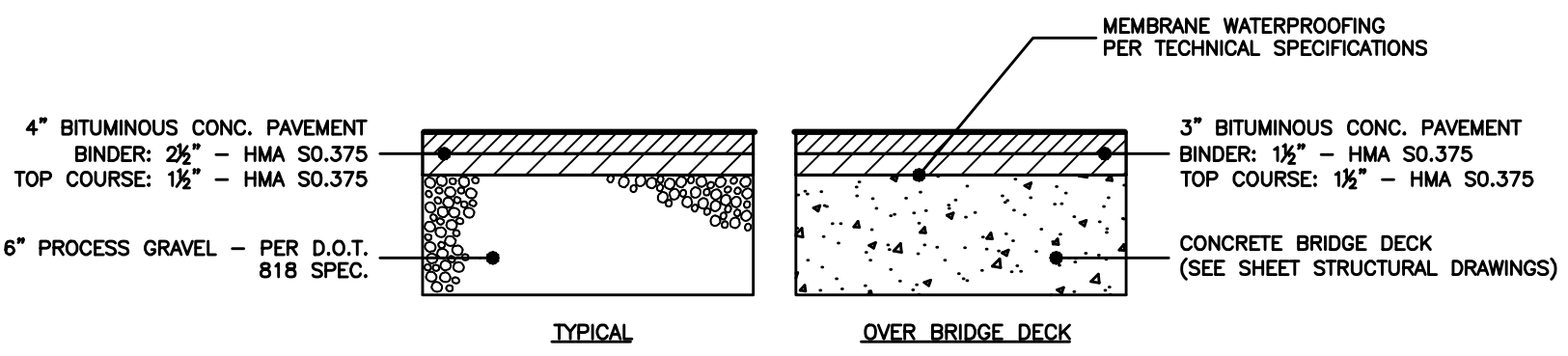
**SLOPE STABILIZATION DETAILS**  
NOT TO SCALE



**HAY BALE BARRIER DETAIL**  
NOT TO SCALE

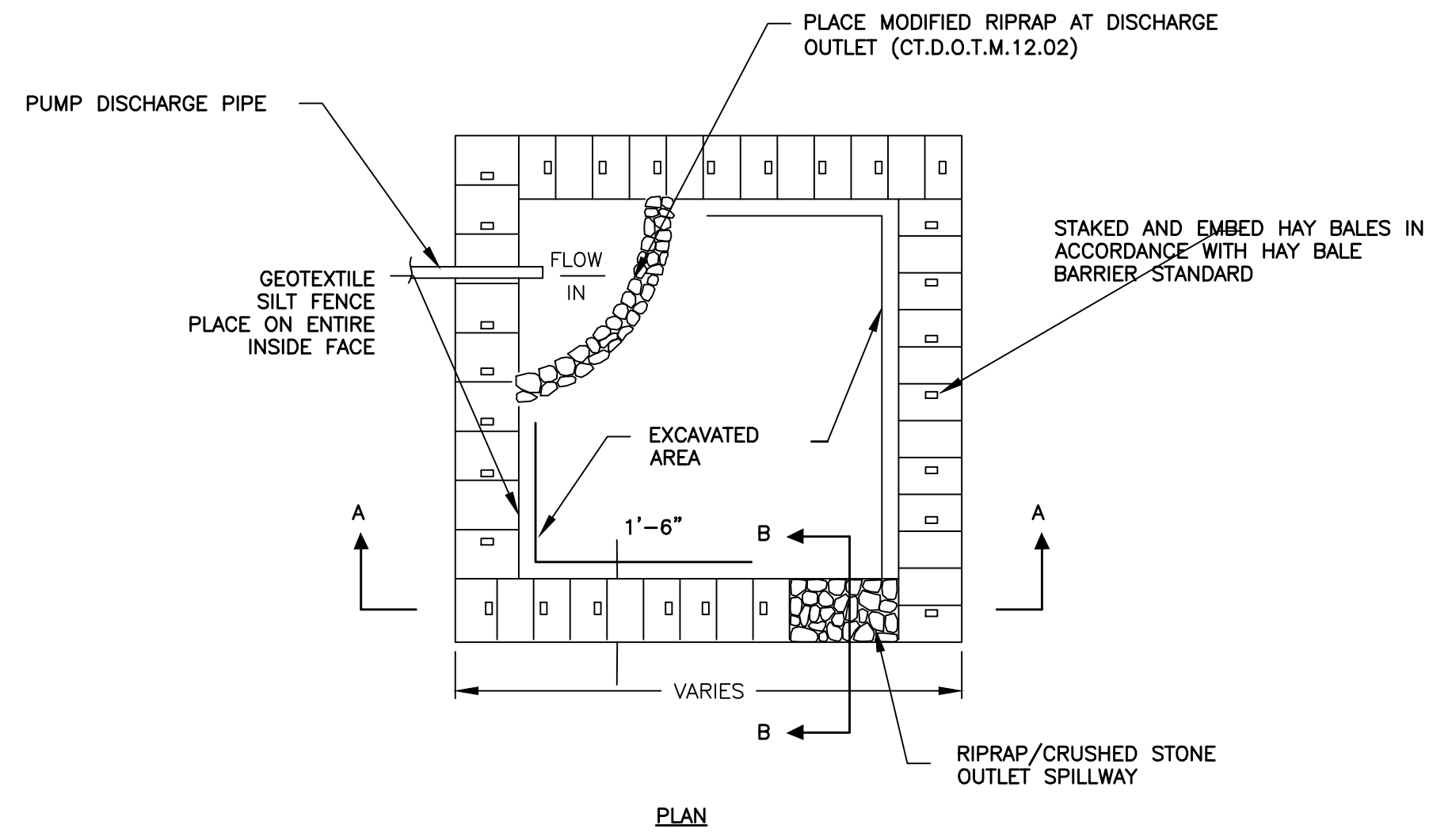


**STORMWATER SEDIMENT LOG (WATTLE) DETAIL**  
NOT TO SCALE

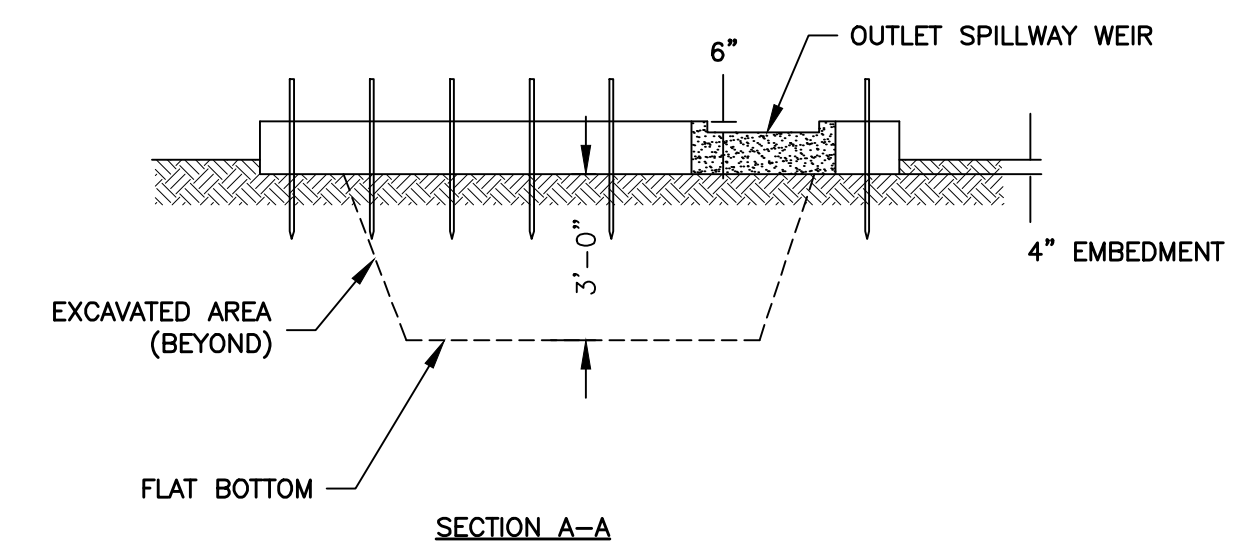


- NOTES:
1. PROVIDE CONTINUOUS TACK COAT ALONG EDGE WHEN MATCHING EXISTING PAVEMENT.
  2. MATCH EXISTING ROADWAY GRADES AND CROWN.
  3. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ANY DISTURBED PAINTED PAVEMENT MARKINGS.
  4. CONTRACTOR TO PROVIDE COMPACTION ON ALL TRENCH BACKFILLS, EXCAVATIONS AND PAVEMENT BASES TO NOT LESS THAN 95% OF THE DRY DENSITY FOR THAT MATERIAL WHEN TESTED IN ACCORDANCE WITH AASHTO T180, METHOD D.

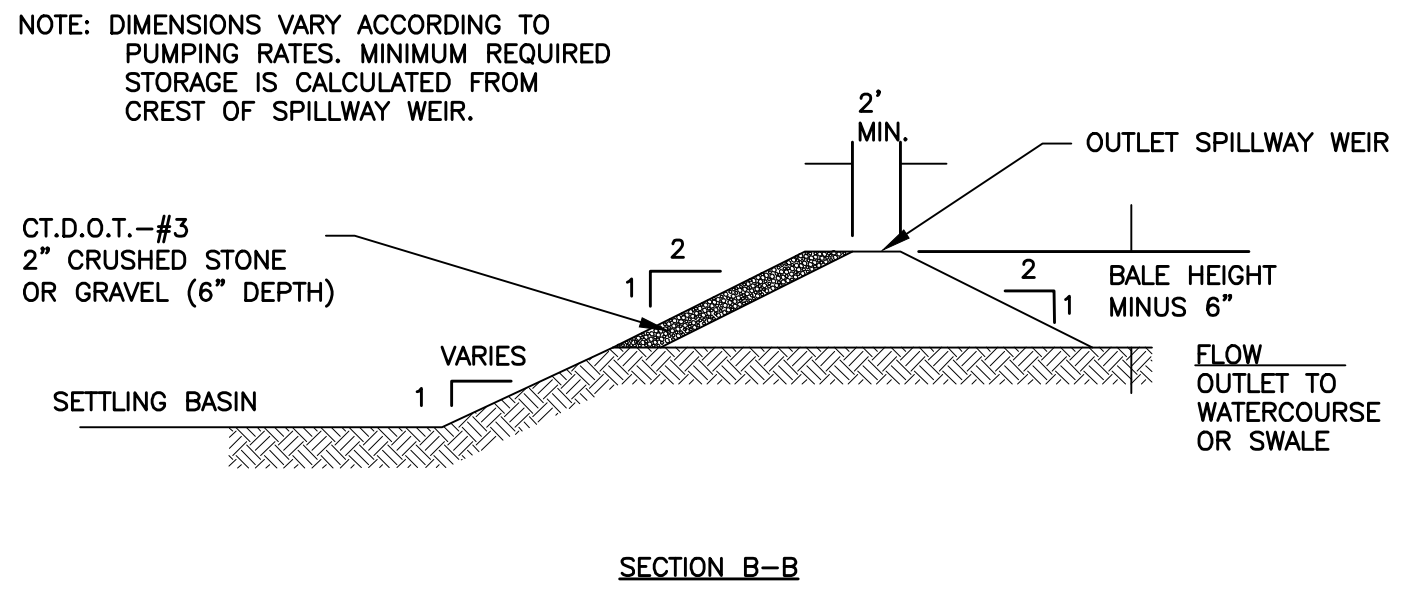
**PAVEMENT REPAIR DETAIL**  
NOT TO SCALE



**PLAN**



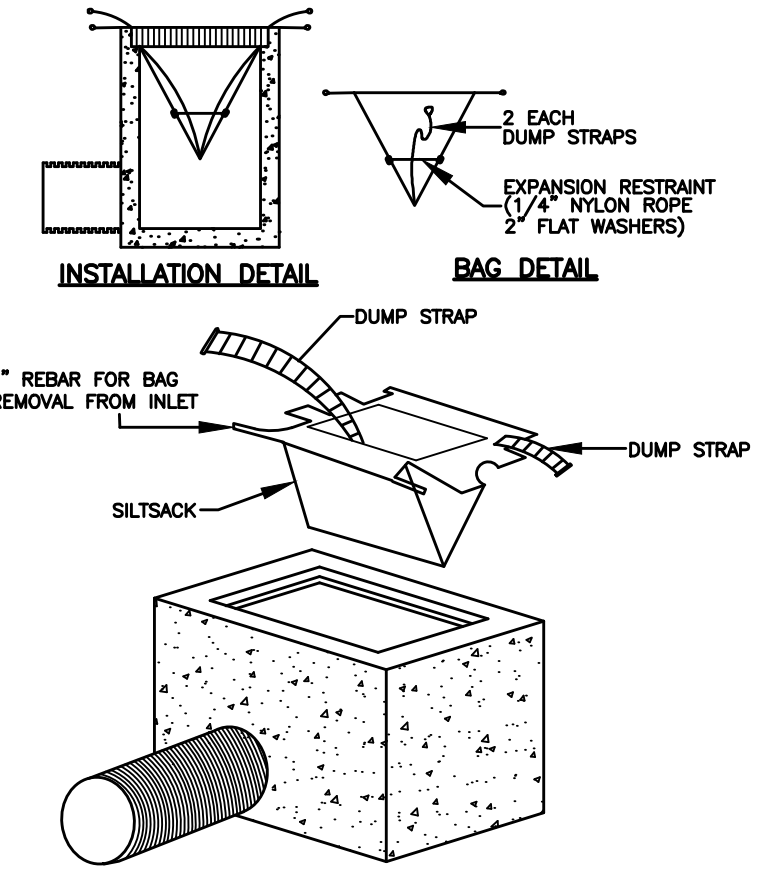
**SECTION A-A**



**SECTION B-B**

**DEWATERING SETTLING BASIN DETAIL**

NOT TO SCALE



**INLET SEDIMENT CONTROL DEVICE DETAIL**

NOT TO SCALE

REVISION	DATE	NUMBER

MOXLEY ROAD BRIDGE  
IMPROVEMENTS  
BRIDGE NO. 085014  
MOXLEY RD OVER UNNAMED BROOK  
UNCASVILLE, CONNECTICUT  
CONSTRUCTION DETAILS 1

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CLA PROJECT NO.	CLA-7121
PROJ. ENGINEER	T.L.C.
DATE	2/17/23
SHEET NO.	6