

**Bridge Street**  
**Uncasville, Connecticut 06382**



**Prepared For:**  
**TOWN OF MONTVILLE**  
**Bid No. 2025-11**

<b>Drawing No.</b>	<b>Description of Drawings</b>
<b>C-101</b>	<b>Site Plan</b>
<b>C-102</b>	<b>Bridge Plan &amp; Profile</b>
<b>C-201</b>	<b>Detour Plan</b>
<b>C-301</b>	<b>Construction Details &amp; Notes</b>
<b>C-302</b>	<b>Construction Details &amp; Notes</b>
<b>C-303</b>	<b>Construction Details &amp; Notes</b>
<b>SB-1</b>	<b>Structural Repair Plan</b>
<b>SB-2</b>	<b>Structural Repair Plan</b>

EXISTING		PROPOSED
	PROPERTY LINE	
	EASEMENT LINE	
	PROP. MONUMENT, IPIN	
	EDGE OF ROAD (NO CURB)	
	EDGE OF ROAD (CURBED)	
	CONTOUR	
	TREE/BRUSH LINE	
	STONE WALL	
	RETAINING WALL	
	UTILITY POLE	
	OVERHEAD WIRES	
	GUIDE RAIL	
	CATCH BASIN & CULVERT	
	SEWER/SEPTIC MANHOLE	
	GRAVITY SEWER/SEPTIC	
	SEWER FORCE MAIN	
	WATER MAIN & VALVE	
	HYDRANT	
	GAS MAIN & VALVES	
	UNDERGROUND COMM.	
	UNDERGROUND ELEC.	
	WETLAND FLAG / LIMITS	
	SILT FENCE	
	HAY BALES	
	FENCE	
	TREE OR SHRUB	

**Rev: March 28, 2025 (Issued for Bid)**  
**March 21, 2025**

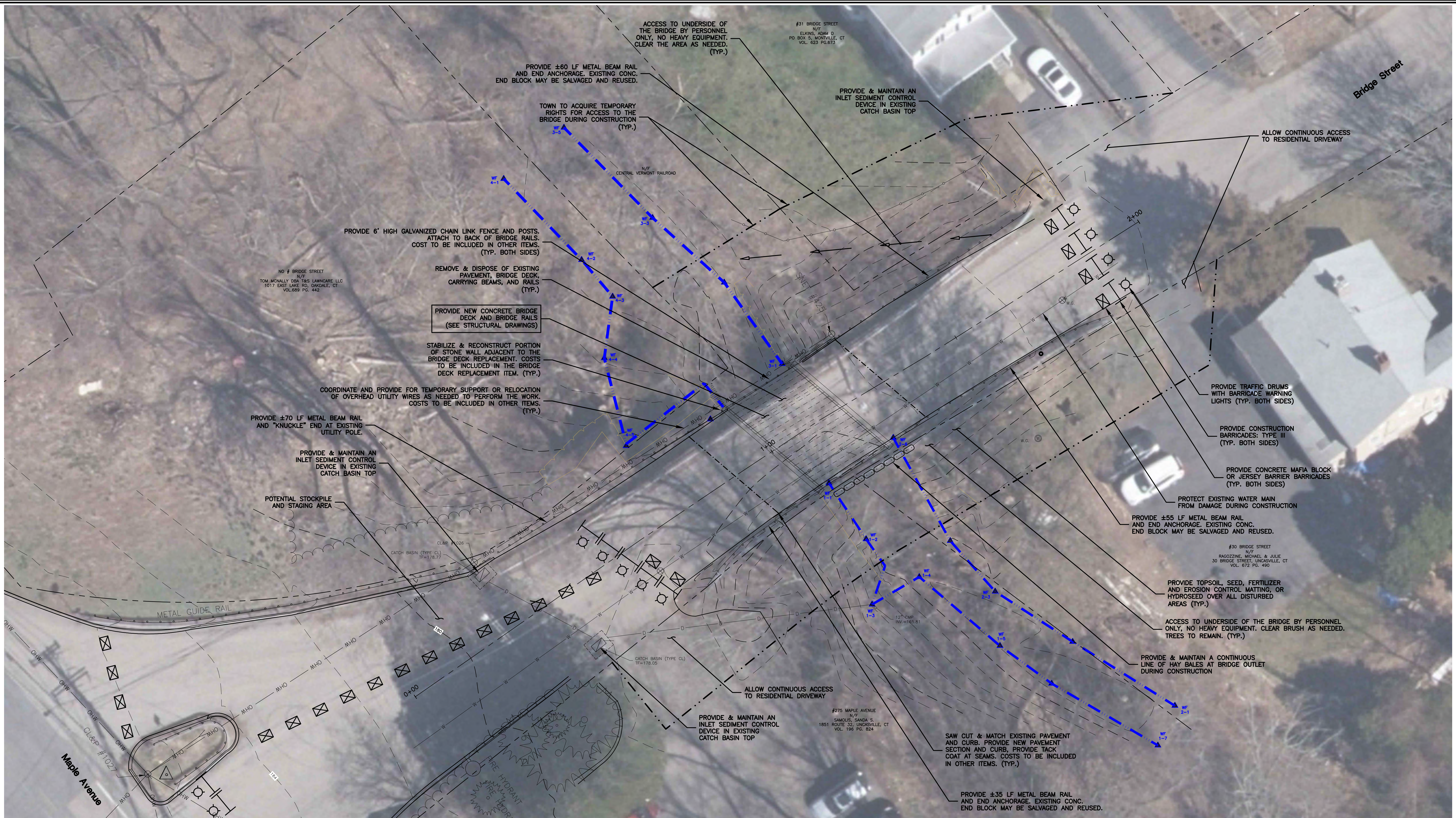
**CLA Engineers, Inc.**  
CIVIL • STRUCTURAL • SURVEYING

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

**CLA**

M:\7000\7700\7767D - Bridge St Bridge Inspection\Drawings\7767D Bridge St Bridge Deck Replacement - COVER.dwg



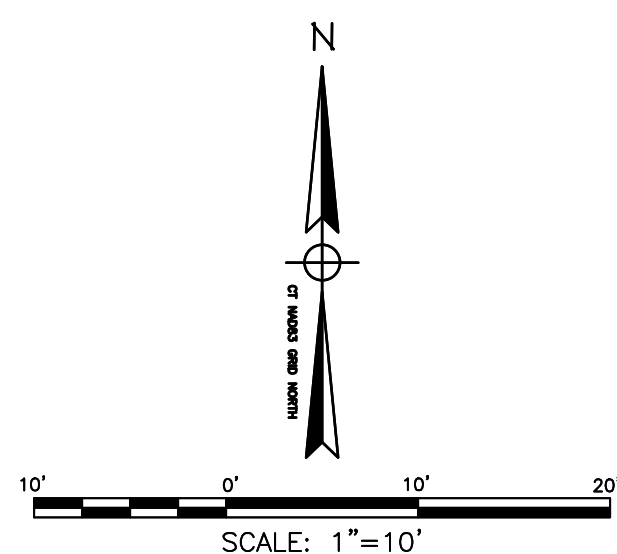


**DATUM**  
VERTICAL: NAVD88  
HORIZONTAL: NAD83 CT STATE PLANE

**DATA SOURCE**  
AERIAL BACKGROUND: 2023 CONNECTICUT ORTHOMAGERY  
CONTOURS: FIELD SURVEY  
PROPERTY LINES: SCOG / ASSESSORS MAPPING

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.

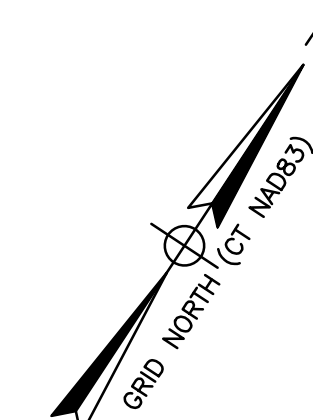
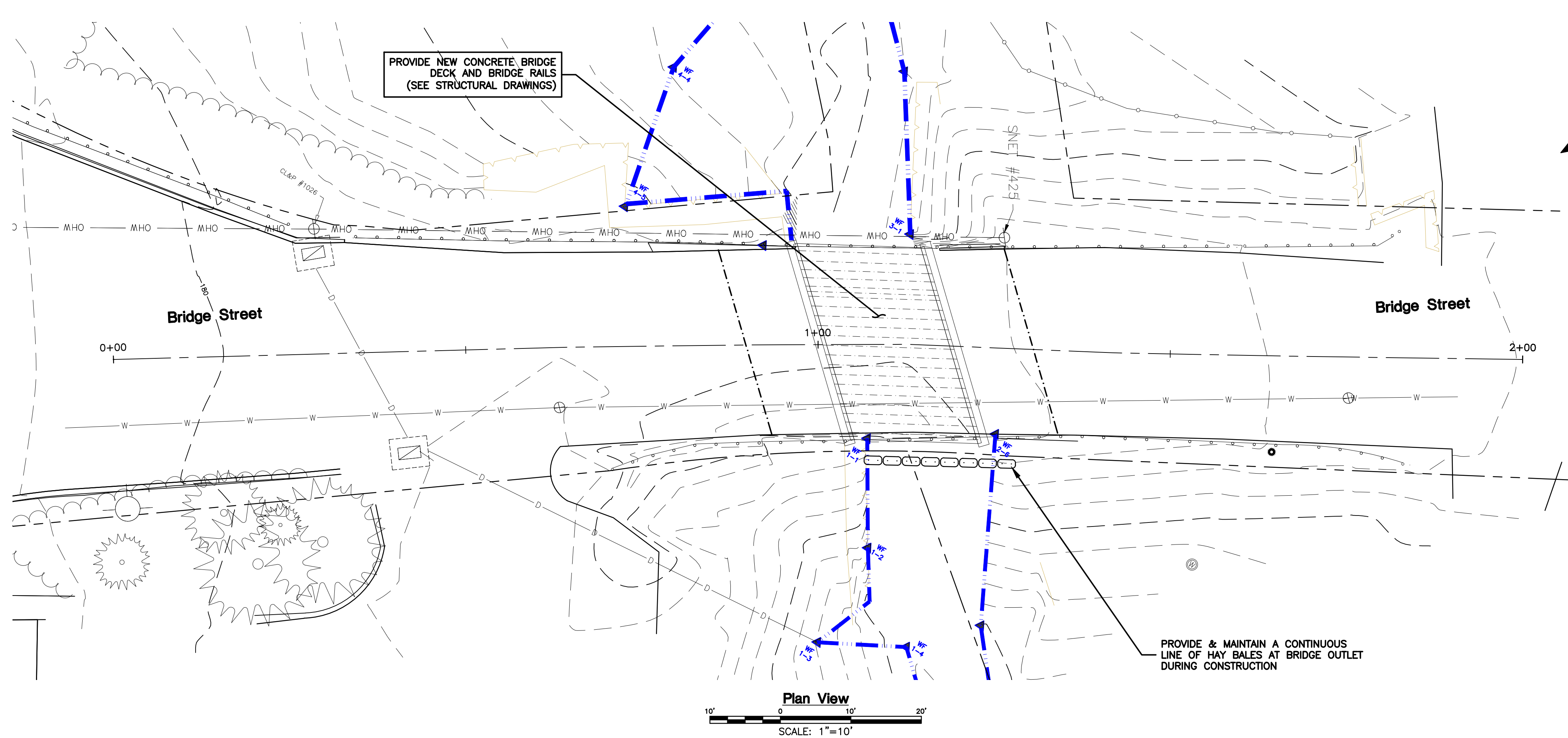
*Robert C. Russo*  
ROBERT C. RUSSO  
CERTIFIED SOIL SCIENTIST



**CLA**

		<b>CLA Engineers, Inc.</b> CIVIL • STRUCTURAL • SURVEYING	
		317 Main Street Norwich, CT 06360 (860) 886-1966 Fax (860) 886-9165	
1 3/28/2025		Issued for Bid	
No.	DATE	REVISION	
		Plan Prepared for:	
		Town of Montville, Connecticut	
		Bridge Street Bridge Deck Replacement	
		Site Plan	
		Project No. CLA-7767D	
		Proj. Engineer K.J.H.	
		Date: 3/21/2025	
		Sheet No. C-101	



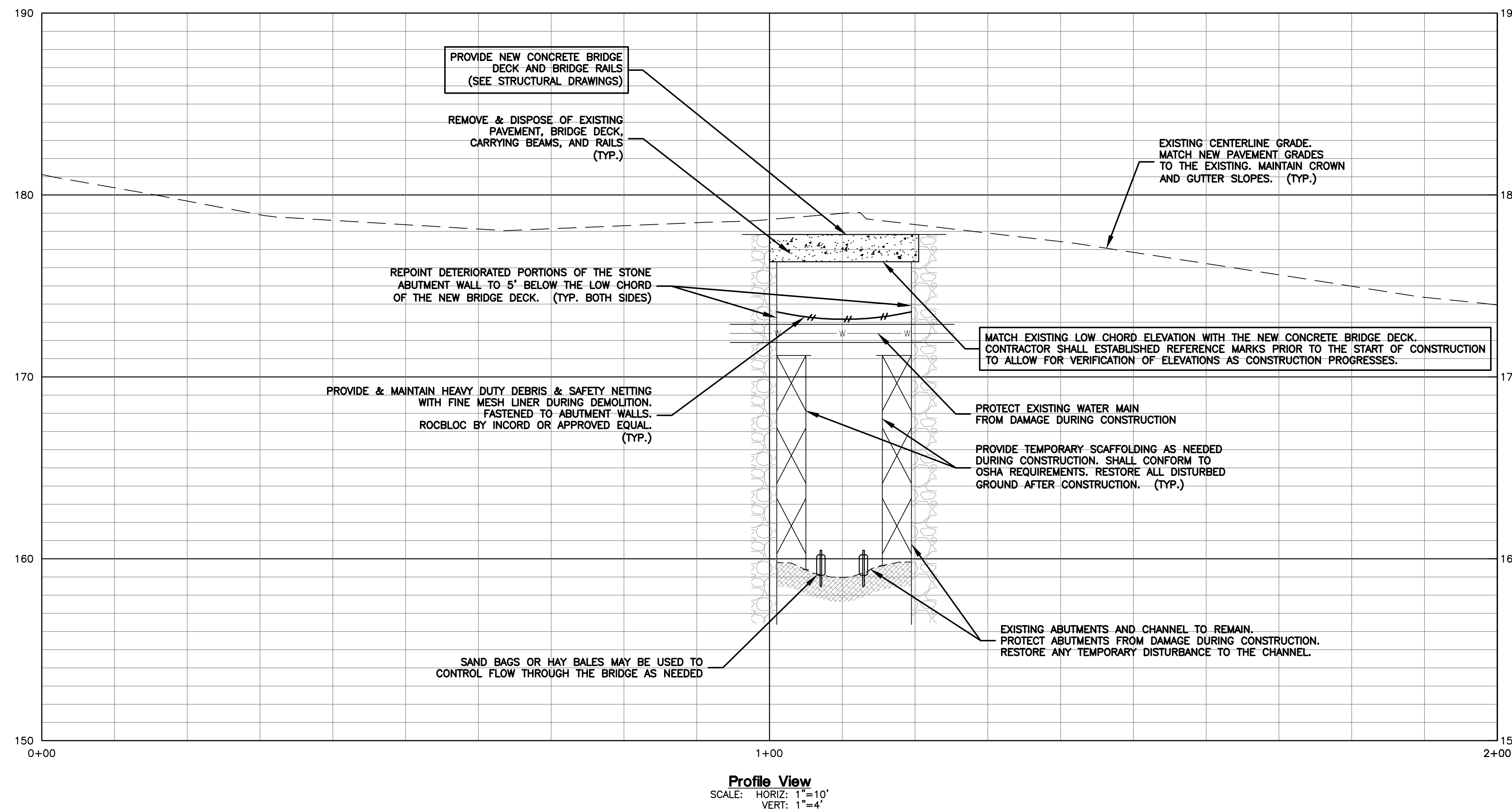


#### CONCRETE BRIDGE DECK NOTES

1. THE PRECAST BRIDGE DECK SHALL BE MANUFACTURED BY A PRECAST CONCRETE PRODUCT MANUFACTURER LICENSED TO WORK IN THE STATE OF CONNECTICUT.
2. CONTRACTOR AND/OR PRECAST CONCRETE MANUFACTURER SHALL FIELD MEASURE THE EXISTING ABUTMENTS AND BRIDGE STRUCTURE PRIOR TO THE START OF CONSTRUCTION AND ORDERING THE PRECAST BRIDGE DECK TO VERIFY THE EXISTING CONDITIONS.
3. PRECAST DECK DIMENSIONS AND REINFORCING SHALL BE DETERMINED BY MANUFACTURER, BUT SHALL BE IN GENERAL CONFORMANCE WITH THE STRUCTURAL DRAWINGS. REINFORCING SHALL BE DETERMINED BY MANUFACTURER BUT SHALL BE CAPABLE OF SUPPORTING HS-25 LOADING.
4. THE PRECAST CONCRETE MANUFACTURER SHALL BE RESPONSIBLE FOR THE FINAL DESIGN OF THE DECK. THE MANUFACTURER SHALL PROVIDE SHOP DRAWINGS AND DESIGN CALCULATIONS STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT FOR REVIEW AND APPROVAL BY THE OWNER.
5. THE DECK SURFACE SHALL BE COATED WITH A WATER PROOFING CONCRETE SEALER - BAY OIL COMPANY AQUA-SAFE CONCRETE SEALER OR APPROVED EQUAL.
6. PRECAST CONCRETE PRODUCTS MUST MEET THE FOLLOWING MINIMUM DESIGN REQUIREMENTS:
  - A. CONCRETE COMPRESSION STRENGTH: 5,000 PSI @ 28 DAYS
  - B. REBAR: ASTM 615, GRADE 60
  - C. LOADING: HS25
  - D. SPAN: ±18'-6" (V.I.F.)
  - E. IMPACT LOADING: HS25 / TL-3

#### CHANNEL PROTECTION / RESTORATION NOTES

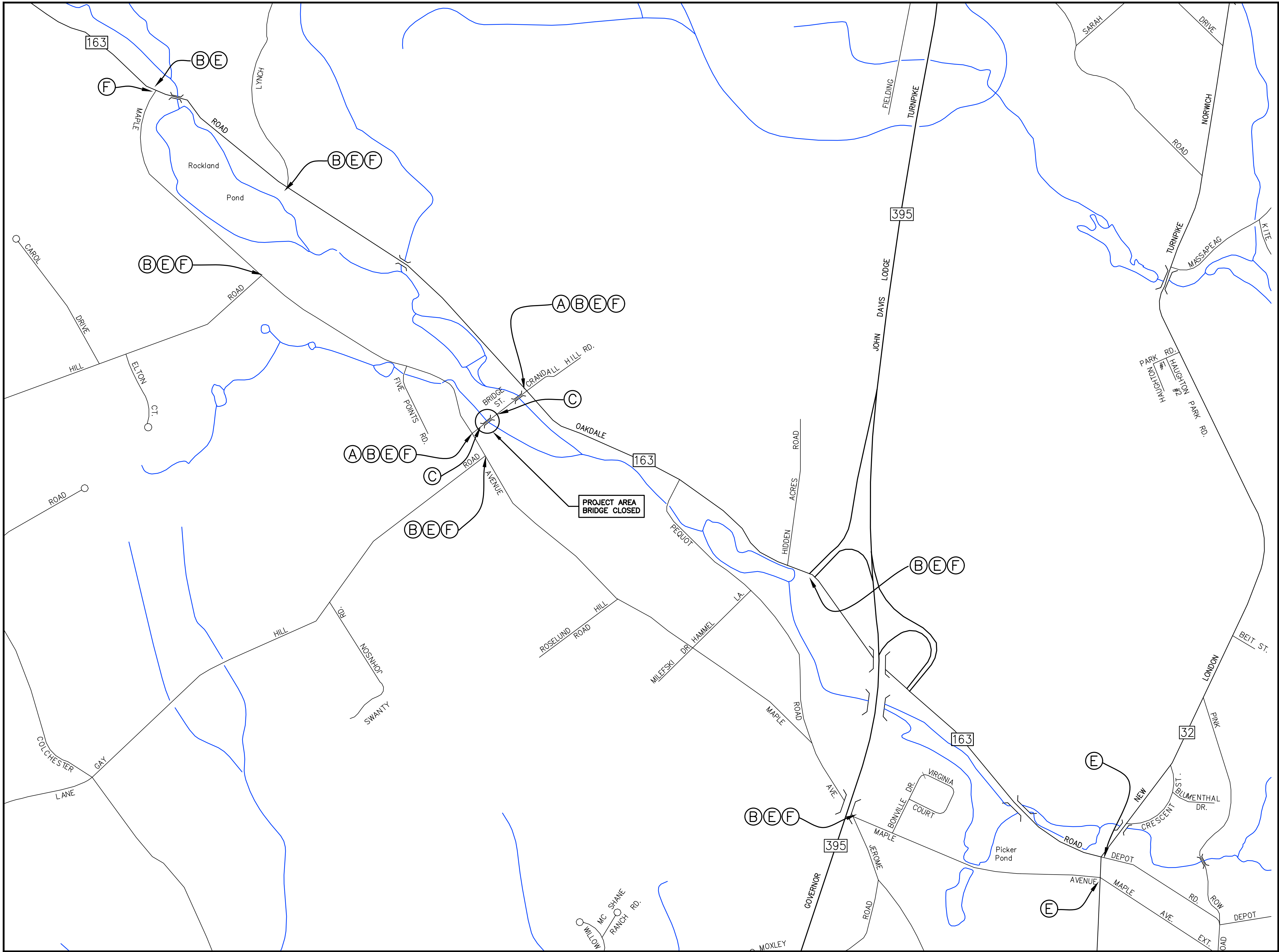
1. WORK WILL BE PERFORMED DURING A LOW FLOW TIME OF YEAR (JUNE THROUGH SEPTEMBER).
2. CONTRACTOR TO ESTABLISH A SAND BAG OR HAYBALE BARRIER TO CONTROL POTENTIAL FLOW THROUGH THE BRIDGE CHANNEL.
3. CONTRACTOR TO REMOVE AND STOCKPILE ALL EXISTING WETLAND SOILS, SAND, GRAVEL, COBBLE, AND BOULDERS FROM THE WORK AREA AS NEEDED TO ESTABLISH A SAFE WORKING AREA FOR THE TEMPORARY PLATFORMS OR SCAFFOLDING.
4. CHANNEL RESTORATION:
  - A. RESTORATION OF THE AREA UNDER THE BRIDGE SHALL BE DIRECTED BY THE PROJECT SOIL SCIENTIST.
  - B. ROUGH CONTOUR THE SUBGRADE OF THE AREA TO BE RESTORED.
  - C. SUPPLEMENT SUBGRADE MATERIAL WITH EXISTING WETLAND SOIL, SAND OR GRAVEL EXCAVATED FROM THE SITE OR OFFSITE MATERIAL.



<b>CLA Engineers, Inc.</b> CIVIL • STRUCTURAL • SURVEYING	
317 Main Street Norwich, CT 06360 (860) 886-1966 Fax (860) 886-9165	
Project No. CLA-7767D	
Proj. Engineer K.J.H.	
Date: 3/21/2025	
Sheet No.	
Plan Prepared for: Town of Montville, Connecticut	
Bridge Street Bridge Deck Replacement	
Bridge Plan & Profile	
C-102	

1	3/28/2025	Issued for Bid
No.	DATE	REVISION





DETOUR PLAN  
SCALE: 1"=±500'

**SIGN LEGEND**

(A) FURNISH & INSTALL  
CT DOT #80-9077

(B) FURNISH & INSTALL  
CT DOT #80-9929

(C) FURNISH & INSTALL  
CT DOT #80-9080

(D) FURNISH & INSTALL  
CT DOT #80-9081

(E) FURNISH & INSTALL  
CT DOT #80-9701

(F) FURNISH & INSTALL  
CT DOT #80-9702

ROAD CLOSED  
0.1 MILES AHEAD  
LOCAL TRAFFIC ONLY

BRIDGE STREET  
CLOSED TO  
THRU TRAFFIC

ROAD  
CLOSED

ROAD CLOSED  
TO  
THRU TRAFFIC

DETOUR

DETOUR

- NOTES:
- THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF TEMPORARY DETOUR SIGNAGE WITH THE DEPARTMENT OF PUBLIC WORKS.
  - SIGNS SHALL BE LOCATED SO THEY ARE VISIBLE TO TRAFFIC, BUT DO NOT BLOCK OR OBSTRUCT SIGHT LINES, TRAFFIC, OR PEDESTRIAN PASSAGE.
  - THE CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY SIGN POSTS, STANDS, OR OTHER STRUCTURES TO SECURELY SUPPORT THE TEMPORARY SIGNS.
  - TEMPORARY SIGNS SHALL BE SECURELY COVERED WHEN THE DETOUR IS NOT IN PLACE.
  - THE CONTRACTOR SHALL REMOVE ALL SIGNS AND TEMPORARY SUPPORTS AFTER THE ROAD IS REOPENED TO TRAFFIC.

TRAFFIC & DETOUR NOTES

- THE CONTRACTOR MAY ESTABLISH A DETOUR AROUND THE CONSTRUCTION AREA AS OUTLINED ON THE DETOUR PLAN. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR FURNISHING, INSTALLING AND MAINTAINING ALL SIGNING. PROVIDING ALL MAINTENANCE AND PROTECTION OF TRAFFIC AS NEEDED AND ALL NOTIFICATIONS TO BUS LINES, EMERGENCY SERVICES, ABUTTING PROPERTY OWNERS AND MONTVILLE TOWN STAFF.
- THE ROAD CLOSURE AND DETOUR WILL BE ALLOWED FOR A MAXIMUM OF 6 WEEKS BETWEEN JULY 19 AND AUGUST 31. THE CONTRACTOR MAY WORK EXTENDED DAY LIGHT HOURS AND/OR WEEKENDS IF NEEDED, AT NO ADDITIONAL COST TO THE TOWN TO COMPLETE THE WORK NECESSARY TO REOPEN THE ROAD WITHIN THIS TIME FRAME. THE ROAD MUST BE REOPENED TO TRAFFIC ON OR BEFORE AUGUST 31.
- MAINTENANCE AND PROTECTION OF TRAFFIC:
  - THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL MAINTENANCE AND PROTECTION OF TRAFFIC, TRAFFIC CONTROL, TEMPORARY SIGNING OR BARRICADES, AND TEMPORARY LANE CLOSURES. CONTINUOUS ACCESS FOR BUSES AND EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES WHEN THE DETOUR IS NOT IN PLACE.
  - PASSAGE OF TRAFFIC ON ROADWAYS: A MINIMUM OF ONE LANE FOR TRAFFIC SHALL BE MAINTAINED AT ALL TIMES WHILE THE DETOUR IS NOT IN PLACE. THE CONTRACTOR SHALL PERFORM HIS OPERATIONS TO MINIMIZE DISRUPTIONS TO TRAFFIC WITHIN THE PROJECT SITE.
  - RESIDENTS OR BUSINESSES WITH DRIVES AFFECTED BY CONSTRUCTION SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST 48 HOURS BEFORE CONSTRUCTION BEGINS AND SHALL BE ALLOWED CONTINUOUS ACCESS TO THEIR PROPERTY. IF WORK IS PERFORMED DURING THE SCHOOL YEAR, THE CONTRACTOR SHALL PROVIDE NOTICE TO THE BUS COMPANIES (PUBLIC & PRIVATE) AT LEAST 48 HOURS BEFORE CONSTRUCTION BEGINS. THE CONTRACTOR SHALL PHASE HIS CONSTRUCTION OPERATIONS AS NEEDED TO ALLOW CONTINUOUS ACCESS TO ALL BUSINESSES WITHIN THE PROJECT AREA.
  - CERTIFIED FLAGMEN SHALL BE USED FOR TRAFFIC CONTROL THROUGHOUT THE DURATION OF CONSTRUCTION WHEN THE DETOUR IS NOT IN PLACE.
- CONSTRUCTION SIGNS MUST CONFORM TO THE SIGNING REQUIREMENTS OUTLINED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)". ALL SIGN FACES SHALL BE REFLECTORIZED.

		<b>CLA Engineers, Inc.</b> CIVIL • STRUCTURAL • SURVEYING	
1 3/28/2025		Issued for Bid	
No.	DATE	REVISION	
Project No. CLA-7767D		317 Main Street Norwich, CT 06360 (860) 886-1966 Fax (860) 886-9165	
Plan Prepared for: Town of Montville, Connecticut		Proj. Engineer K.J.H.	
Bridge Street Bridge Deck Replacement		Date: 3/21/2025	
Detour Plan		Sheet No. C-201	





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 "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" EFFECTIVE MARCH 30, 2024 BY THE COUNCIL ON SOIL AND WATER CONSERVATION IN COLLABORATION WITH CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION.
2. THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL MEASURES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROVIDED 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. CONTINUOUS DUST CONTROL USING WATER, OR APPROVED EQUAL SHALL BE PROVIDED FOR ALL EARTH STOCKPILES, EARTH PILED ALONG EXCAVATIONS, EXCAVATIONS, SURFACES OF BACKFILLED TRENCHES AND GRAVELED ROADWAY SURFACES. THE USE OF CALCIUM CHLORIDE SHALL BE PROHIBITED.
7. IF DEWATERING IS NECESSARY DURING ANY TIME OF CONSTRUCTION A CLEAR WATER DISCHARGE SHALL BE PROVIDED AS PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. TRENCH DEWATERING SHALL NOT DISCHARGE DIRECTLY TO WETLANDS. WATER SHALL BE DISCHARGED TO THE STABILIZED SETTLING BASIN(S).
8. ALL DISTURBED AREAS SHALL BE RESTORED PER THE SLOPE STABILIZATION AND PERMANENT VEGETATION DETAILS. ALL 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 OR HYDROSEEDING SHALL BE PROVIDED ON ALL DISTURBED AREAS THAT ARE SLOPED THREE HORIZONTAL TO ONE VERTICAL (3:1) OR STEEPER.
9. 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.
10. WHEN FEASIBLE, TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINISHED GRADED SHALL BE COMPLETED PRIOR TO OCTOBER 15.
11. 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.
12. 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.
13. UNFORESEEN PROBLEMS WHICH ARE ENCOUNTERED IN THE FIELD SHALL BE SOLVED ACCORDING TO THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" EFFECTIVE MARCH 30, 2024 BY THE COUNCIL ON SOIL AND WATER CONSERVATION IN COLLABORATION WITH CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION.
14. THE CONTRACTOR SHALL PROVIDE THE NAME AND EMERGENCY CONTACT INFORMATION FOR THE PROJECT PERSONNEL RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROLS TO THE TOWN PRIOR TO THE START OF CONSTRUCTION.

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
- \* 10 CY OF WOOD CHIPS OR CRUSHED STONE

STORMWATER MANAGEMENT & POLLUTION PREVENTION PLAN

- DURING CONSTRUCTION
1. POLLUTION PREVENTION TEAM:  
THE CONTRACTOR SHALL BE RESPONSIBLE FOR CARRYING OUT THE PROVISIONS OF THIS PLAN. THE OWNER WILL PROVIDE OVERSIGHT AND MONITOR THE CONTRACTOR'S ACTIVITIES.
2. SWEEPING:  
IMPERVIOUS SURFACES WITHIN AND BEYOND THE WORK SITE SHALL BE SWEEPED CLEAN OF SAND, SILT AND LITTER DAILY AT THE END OF THE WORK DAY.
3. OUTSIDE STORAGE:  
ACCESSORIES OR EQUIPMENT STORED OUTSIDE SHALL BE COVERED OR MAINTAINED TO MINIMIZE POSSIBILITY OF THESE MATERIALS OR THEIR RESIDUE PASSING TO STORM WATER.
4. WASHING:  
NO WASHING OF VEHICLES, ACCESSORIES, EQUIPMENT OR APPLIANCES IN WORK SITE.
5. MAINTENANCE AND INSPECTION:  
A. THE CONTRACTOR SHALL INSPECT, REPAIR AND/OR REPLACE EROSION CONTROL MEASURES EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY RAINFALL OF 0.25" OR MORE AND AFTER SNOW MELT.  
B. SEDIMENT DEPOSITS MUST BE REMOVED WHEN WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.  
C. DAILY DUST CONTROL USING WATER, OR APPROVED EQUAL SHALL BE PROVIDED FOR ALL EARTH STOCKPILES, EARTH PILED ALONG EXCAVATIONS, SURFACES OF BACKFILLED TRENCHES AND GRAVELED SURFACES.
6. FUELING OF VEHICLES AND EQUIPMENT  
A. REFUELING OF VEHICLES AND EQUIPMENT SHALL TAKE PLACE WITHIN THE WORK AREA AND SHALL BE DONE A MINIMUM OF 100--FEET UPGRADE OF THE EDGE OF RIVER.  
B. REFUELING SHALL BE DONE OVER A TEMPORARY PORTABLE SPILL CONTAINMENT BERM.
7. SPILLS OR ACCIDENTAL DISCHARGES:  
A. A SPILL CONTAINMENT KIT SUITABLE FOR OIL AND WATER BASED PRODUCTS SHALL BE MAINTAINED ONSITE AT ALL TIMES.  
B. COMPLY WITH STATE AND FEDERAL REGULATIONS TO CONTAIN AND CLEAN UP ANY SPILL OR DISCHARGE AND DISPOSE OF MATERIALS AT AN APPROVED FACILITY.  
C. CONTACT CONNECTICUT DEEP OIL AND CHEMICAL SPILL RESPONSE DIVISION (860) 424-3338  
D. THE FOLLOWING STEPS SHOULD BE PERFORMED AS SOON AS POSSIBLE:  
a. STOP THE SOURCE OF THE SPILL.  
b. CONTAIN THE SPILL.  
c. COVER SPILL WITH ABSORBENT MATERIAL FROM THE SPILL KIT OR OTHER ABSORBENT MATERIAL SUCH AS KITTY LITER, OR SAWDUST. DO NOT USE STRAW.  
d. DISPOSE OF ABSORBER IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS.

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.

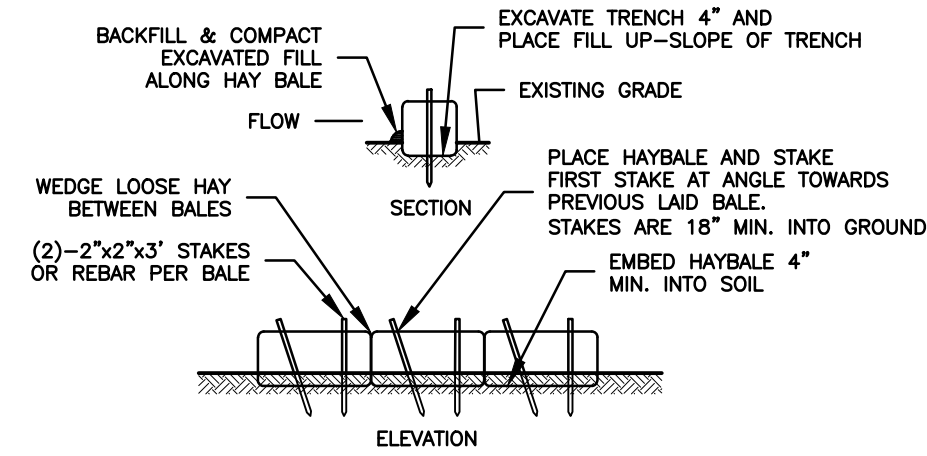
PERMANENT VEGETATIVE COVER

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 6 INCHES. ONCE THE TOPSOIL HAS BEEN SPREAD, ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION WILL BE REMOVED AS WELL AS DEBRIS.

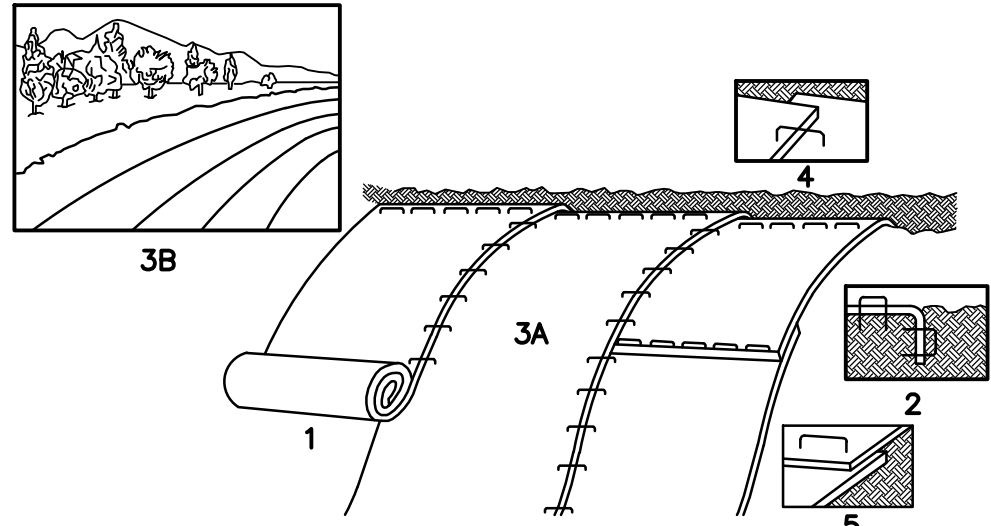
- APPLY AGRICULTURAL GROUND LIMESTONE AT THE RATE OF TWO TONS PER ACRE OR 100 LBS. PER 1000 S.F.
- APPLY 10-10-10 FERTILIZER OR EQUIVALENT AT A RATE OF 300 LBS. PER ACRE OR 7.5 LBS. PER 1000 S.F.
- WORK LIMESTONE AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES.
- INSPECT SEEDBED BEFORE SEEDING.
-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

TYPICAL SEED MIXTURE	LBS./ACRE	LBS./1000 S.F.
ALL DISTURBED AREAS		
KENTUCKY BLUEGRASS	20	0.45
CREeping RED FESCUE	20	0.45
PERENNIAL RYEGRASS	5	0.10
	45	1.00

TYPICAL SEED MIXTURE FOR NON-MOWED SLOPES (3:1 OR STEEPER)	LBS./ACRE	LBS./1000 S.F.
CT DEP SEED MIX NO. 26		
SWITCHGRASS (BLACKWELL, SHELTER, CAVE-IN-ROCK)	4.0	0.10
BIG BLUESTEM (NIAGRA, KAW)	4.0	0.10
LITTLE BLUESTEM (BLAZE, ALDOUS, CAMPER)	2.0	0.05
SAND LOVEGRASS (NE-27, BEND)	1.5	0.03
BIRD'S-FOOT TREFOIL (EMPIRE VIKING)	2.0	0.05
	13.5	0.33



HAY BALE BARRIER DETAIL  
NOT TO SCALE



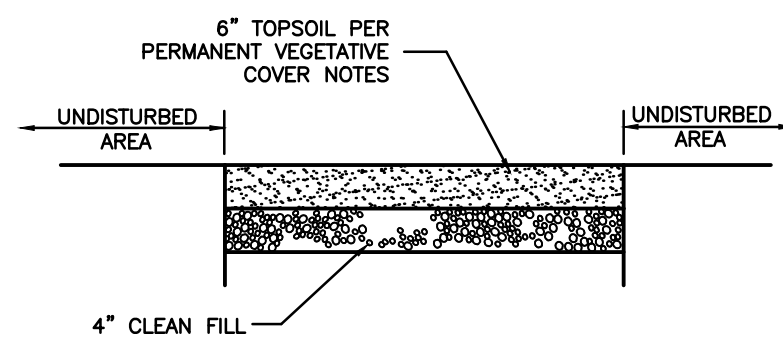
- INSTALLATION NOTES:
1. PROVIDE 4" THICKNESS OF TOPSOIL OVER CLEAN FILL. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED MIX PER PERMANENT VEGETATIVE COVER NOTES. (SHALL BE PAID FOR AT THE UNIT PRICE FOR LOAM, SEED, FERTILIZE & MULCH)
2. BEGIN AT THE TOP 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.

- PRODUCT NOTES:
1. EROSION CONTROL MATTING MUST BE LISTED ON THE LATEST CT DOT QUALIFIED PRODUCTS LIST UNDER CLASS 1 SLOPE PROTECTION, TYPE D.

EROSION CONTROL MATTING DETAIL  
(FOR 3:1 SLOPES OR STEEPER)

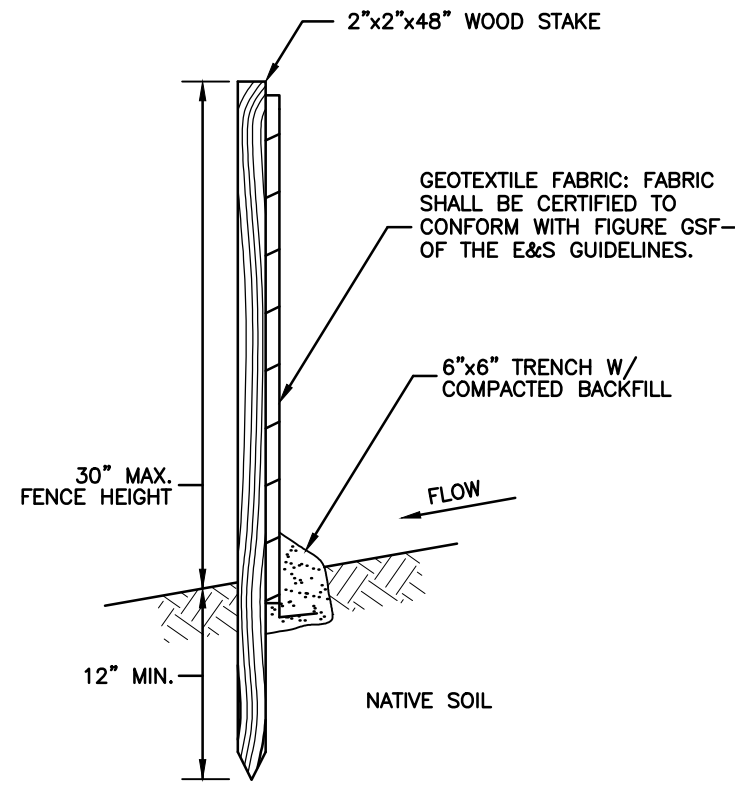
- NOTES:
1. HYDROSEED SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 9.50.3.1.b OF DOT FORM 818.
2. BONDED FIBER MATRIX (BFM) OR FLEXIBLE GROWTH MEDIUM (FGM) MUST BE INCLUDED IN THE HYDROSEED SLURRY. MIX RATE PERCENTAGES SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS FOR THE FINISHED SLOPES. THE FOLLOWING ARE ACCEPTABLE PRODUCTS:
- A. PROFILE FLEXITERRA FGM
- B. PROFILE HYDRO-BLANKET BONDED FIBER MATRIX
- C. MAT, INC. SOIL GUARD BONDED FIBER MATRIX
- D. NORTH AMERICAN GREEN HYDRA CT OR HYDRA CM
3. THE REQUIRED SEED MIX SHALL BE IN ACCORDANCE WITH THE PERMANENT VEGETATIVE COVER NOTES. ALL APPLICATION RATES SHALL BE INCREASED BY 10% FOR HYDROSEEDING.
4. THE CONTRACTOR SHALL ENSURE 100% COVERAGE OF THE DISTURBED SOIL.

HYDROSEED REQUIREMENTS  
(FOR 3:1 SLOPES OR STEEPER)

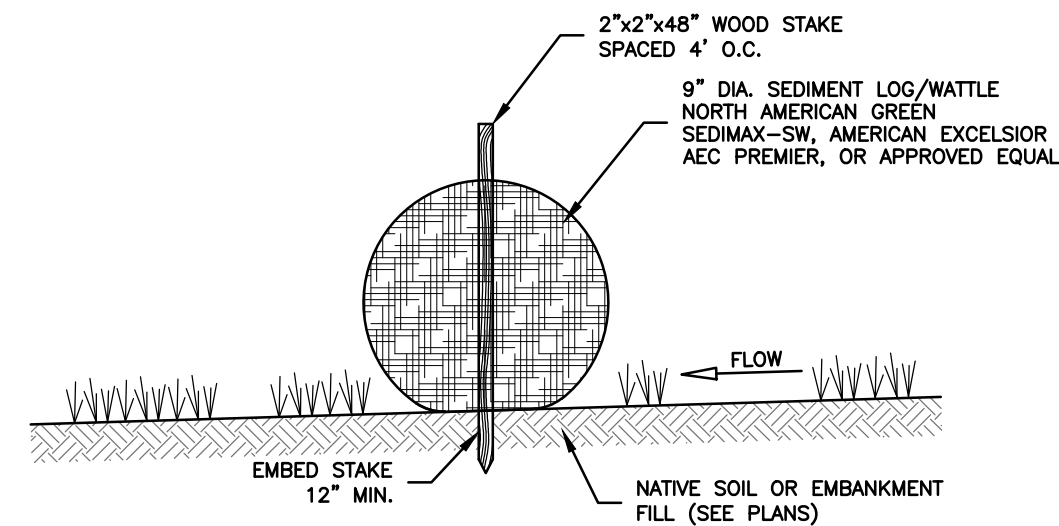


TYPICAL LOAM & SEED SECTION DETAIL  
(FOR ALL DISTURBED AREAS)

SLOPE STABILIZATION DETAILS  
NOT TO SCALE

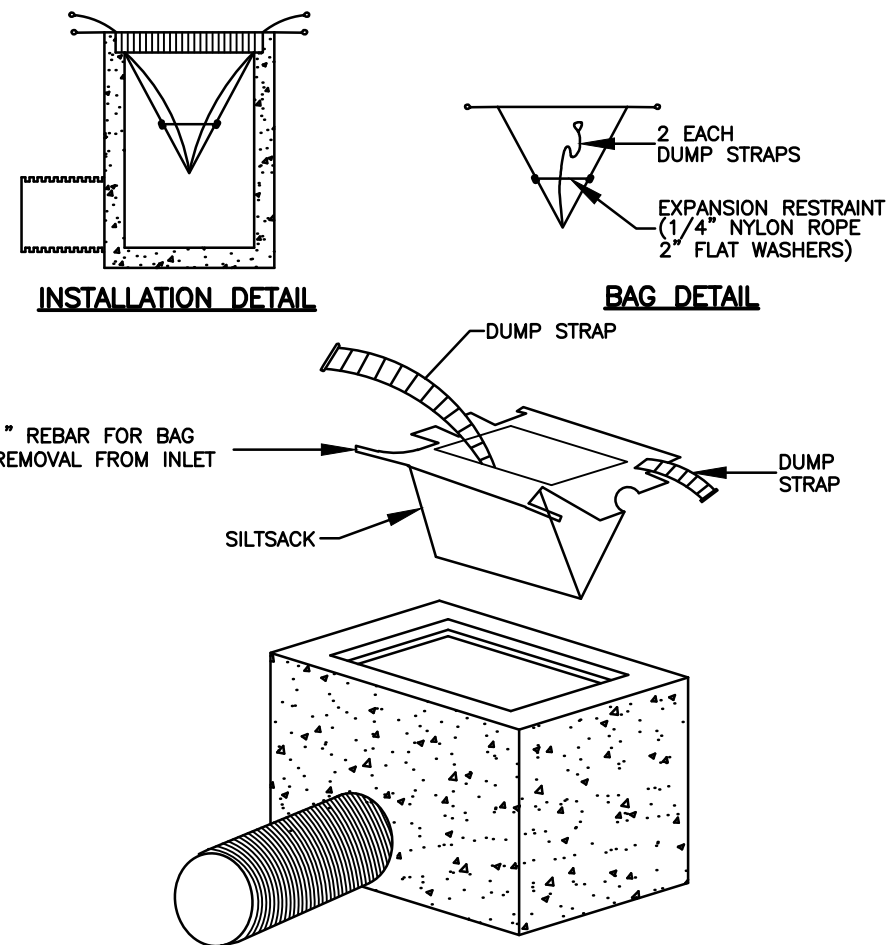


SILT FENCE SECTION  
NOT TO SCALE



- NOTES:
1. STORMWATER LOG ENDS SHALL BE TIED TOGETHER, OVERLAPPED AT LEAST 24" OR BE SECURED AS RECOMMENDED BY THE MANUFACTURER.

STORMWATER SEDIMENT LOG (WATTLE) DETAIL  
NOT TO SCALE



INLET SEDIMENT CONTROL DEVICE DETAIL  
NOT TO SCALE

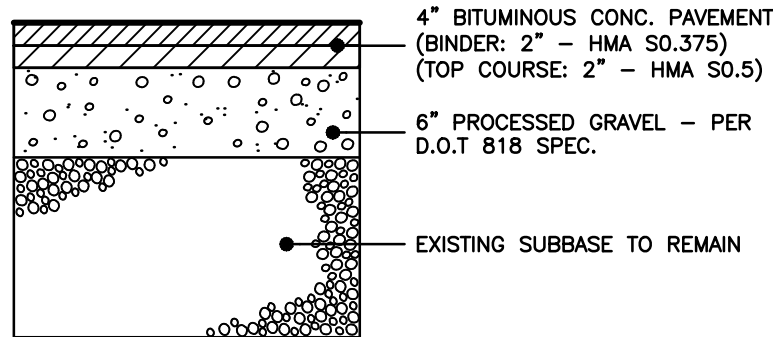
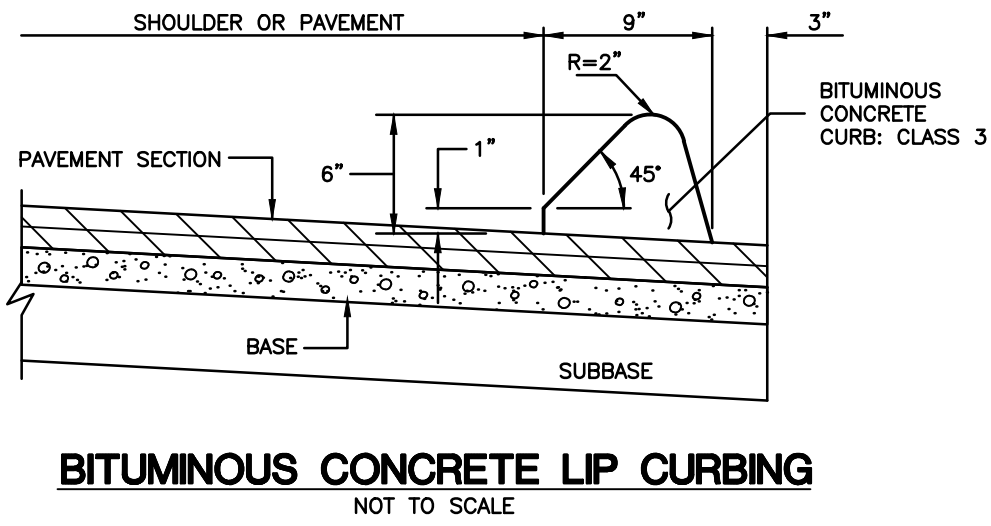
		<b>CLA Engineers, Inc.</b> CIVIL • STRUCTURAL • SURVEYING	
317 Main Street Norwich, CT 06360 (860) 886-1966 Fax (860) 886-9165		Project No. CLA-7767D	
Plan Prepared for: Town of Montville, Connecticut		Proj. Engineer K.J.H.	
Bridge Street Bridge Deck Replacement		Date: 3/21/2025	
Construction Details & Notes		Sheet No. C-301	



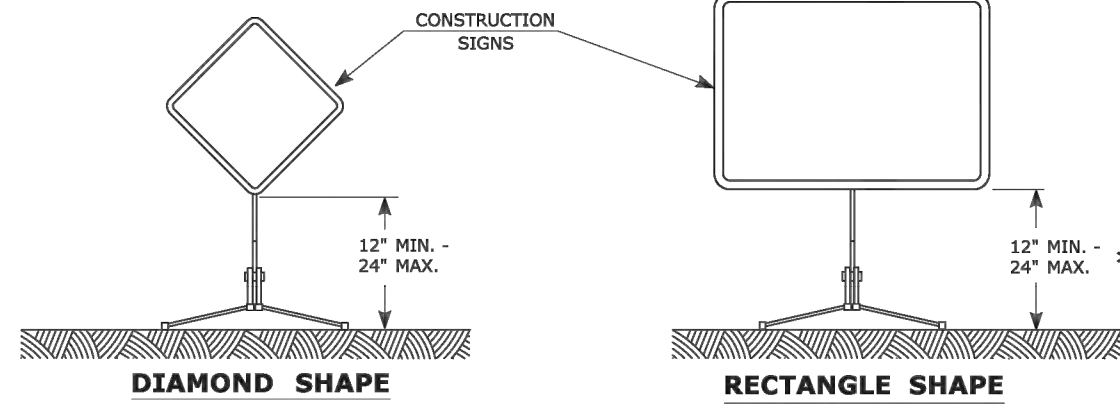


GENERAL NOTES

1. PRIOR TO BIDDING THE PROJECT, THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY EXISTING CONDITIONS.
2. EXISTING PROPERTY LINES AND RIGHT-OF-WAY LINES WHERE SHOWN ARE APPROXIMATE AND ARE INTENDED FOR GENERAL INFORMATION ONLY.
3. GROUND LINE AS SHOWN ON THESE PLANS IS BASED ON FIELD SURVEY BY CLA ENGINEERS AND CT LIDAR CONTOURS.
4. CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT 811 PRIOR TO THE START OF CONSTRUCTION.
5. 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.
6. THE CONTRACTOR SHALL EXCAVATE TEST PITS AS NEEDED OR AS DIRECTED BY THE OWNER TO VERIFY EXISTING UTILITY OR OTHER SUBSURFACE INFORMATION.
7. ALL PROPOSED WORK MAY BE VARIED IN THE FIELD BY THE OWNER TO MATCH EXISTING CONDITIONS.
8. THE CONTRACTOR SHALL CONFINE HIS 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.
9. UPON COMPLETION OF THE WORK, ALL DISTURBED AREAS SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTED PRIOR TO CONSTRUCTION.
10. 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.
11. THE CONTRACTOR SHALL MAINTAIN A SET OF RECORD DRAWINGS WHICH SHALL BE SUBMITTED TO THE ENGINEER AT THE COMPLETION OF THE PROJECT.
12. 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. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION AND TEMPORARY RELOCATION, SUPPORT OR MODIFICATION OF OVERHEAD WIRES AS NEEDED TO PERFORM THE WORK. ALL COSTS FOR TEMPORARILY OR PERMANENTLY SUPPORTING UTILITY POLES OR TEMPORARY OVERHEAD WIRE RELOCATION AS NECESSARY DURING CONSTRUCTION SHALL BE INCLUDED IN OTHER ITEMS.
13. 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.
14. 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.
15. DISPOSAL OF CONSTRUCTION MATERIALS: CONTRACTOR IS ADVISED TO PAY PARTICULAR ATTENTION TO PROVISIONS OF SPECIAL CONDITIONS OF THE SPECIFICATIONS IN PREPARATION OF HIS BID. 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.
16. CLEARING AND GRUBBING: ALL TREES, BRUSH, VEGETATION, ETC. SHALL BE CUT DOWN BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL GIVE ABUTTING 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. CONTRACTOR SHALL PROTECT REMAINING TREES FROM DAMAGE DURING CONSTRUCTION. TREES 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.
17. BLASTING SHALL NOT BE ALLOWED AS PART OF THE WORK.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESETTling TO GRADE ALL FRAMES, GRATES, COVERS, VALVE BOXES, ACCESS COVERS, AND ALL OTHER ITEMS WHICH NORMALLY MUST HAVE A FIXED RELATION TO FINISHED GRADE.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION SURVEY AND STAKEOUT AS THEY NEED. SURVEY CONTROL AND BENCHMARK INFORMATION WILL BE PROVIDED TO THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION
20. ALL WORK TO CONFORM TO THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION FORM 819, DATED 2024, AS REVISED.

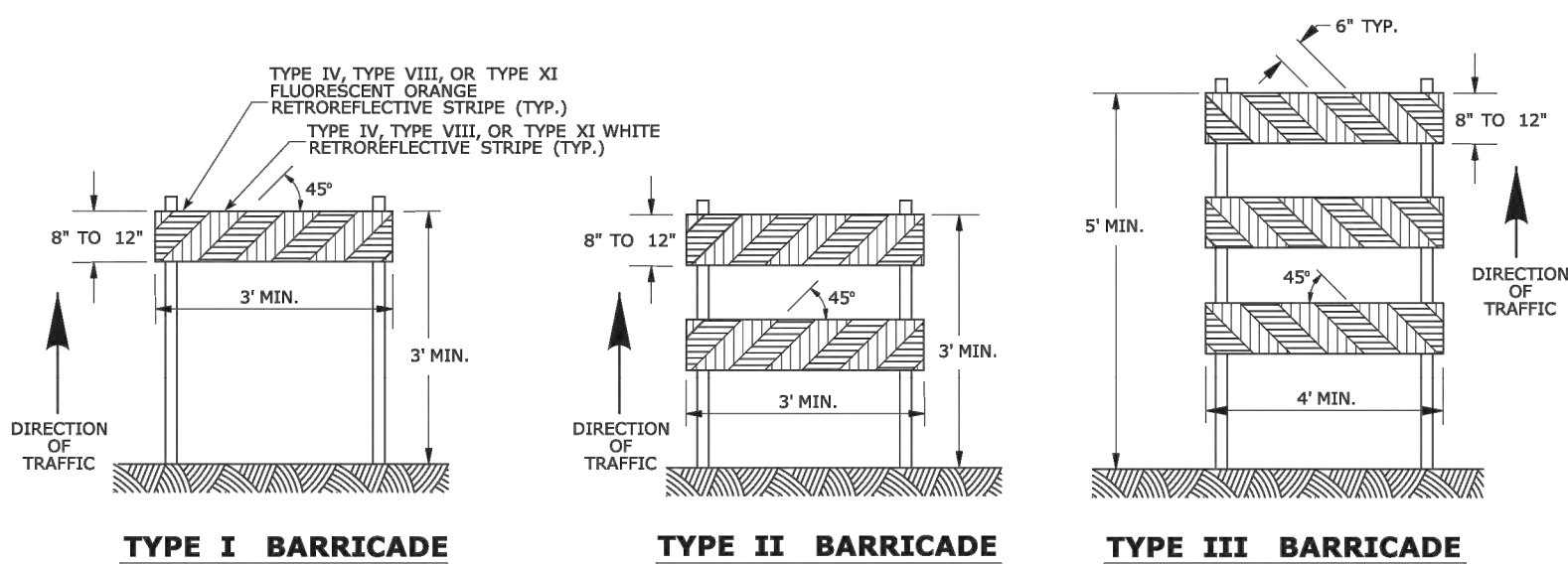


- NOTES:
1. PROVIDE CONTINUOUS TACK COAT ALONG EDGE WHEN MATCHING EXISTING PAVEMENT
  2. CONTRACTOR TO PROVIDE COMPACTION ON ALL TRENCH BACKFILLS, EXCAVATIONS AND PAVEMENT BASES TO NOT LESS THAN 95% OF THE DRY DENSITY FOR THAT MATERIAL WHEN TESTED IN ACCORDANCE WITH AASHTO T160, METHOD D



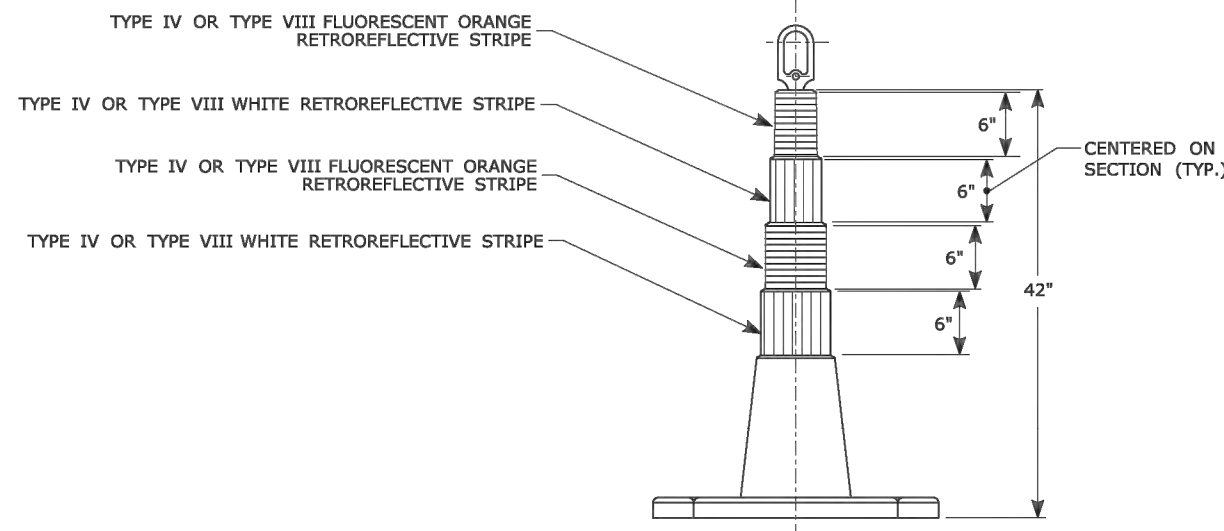
PORTABLE CONSTRUCTION SIGNS

- NOTES FOR PORTABLE SIGN SUPPORTS:
1. SIGNS AND THEIR PORTABLE SUPPORTS SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 2 DEVICES AND THE LATEST EDITION OF THE MUTCD.
  2. MOUNTING HEIGHT OF SIGNS SHALL BE A MINIMUM OF 12" AND A MAXIMUM OF 24". SIGNS SHALL BE MOUNTED HIGHER AS NEEDED TO MEET FIELD CONDITIONS OR AS DIRECTED BY THE ENGINEER.
  3. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY SUPPORT DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
  4. PORTABLE SIGN SUPPORTS SHALL BE STABILIZED IN A MANNER THAT WILL NOT AFFECT THEIR COMPLIANCE WITH NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 2 DEVICES.
  5. PORTABLE CONSTRUCTION SIGN SUPPORTS SHOULD NOT BE USED FOR DURATION OF MORE THAN 3 DAYS EXCEPT FOR R9-8 THROUGH R9-11a SERIES, R11 SERIES, W1-6 THROUGH W1-8 SERIES, M4-10, AND E5-1. SEE STANDARD SHEET TR-1220.01 - "SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS" FOR SIGN DETAILS.
- \* FOR E5-1 (EXIT SIGNS) USE MIN 48".



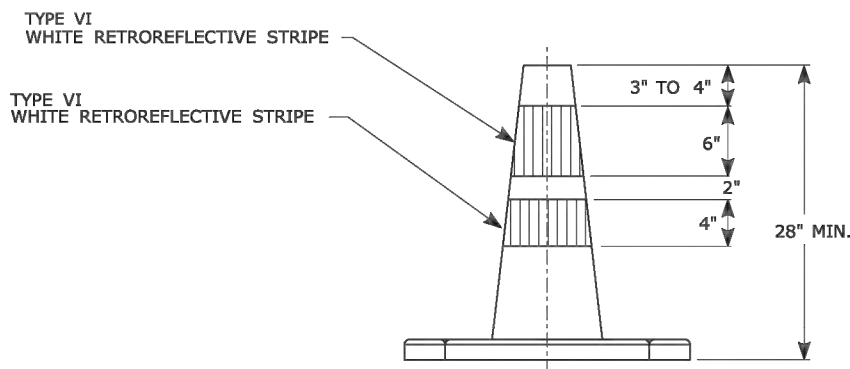
CONSTRUCTION BARRICADES

- NOTES:
1. CONSTRUCTION BARRICADES SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH AND THE LATEST EDITION OF THE MUTCD.
  2. MARKINGS FOR BARRICADE RAILS SHALL BE ALTERNATE FLUORESCENT ORANGE AND WHITE STRIPES SLOPING DOWNWARD IN THE DIRECTION TRAFFIC IS TO PASS. 6" WIDE STRIPES SHALL BE USED.
  3. THE ENTIRE AREA OF FLUORESCENT ORANGE AND WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS. THE SIDES OF BARRICADES FACING TRAFFIC SHALL HAVE RETROREFLECTIVE RAIL FACES.
  4. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY BARRICADE DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
  5. CORNERS OF BARRICADE RAILS SHALL BE ROUNDED.
  6. SIGNS MAY ONLY BE INSTALLED ON TYPE III BARRICADES AND SHALL BE PLACED SO AS TO COVER NO MORE THAN ONE BARRICADE RAIL.



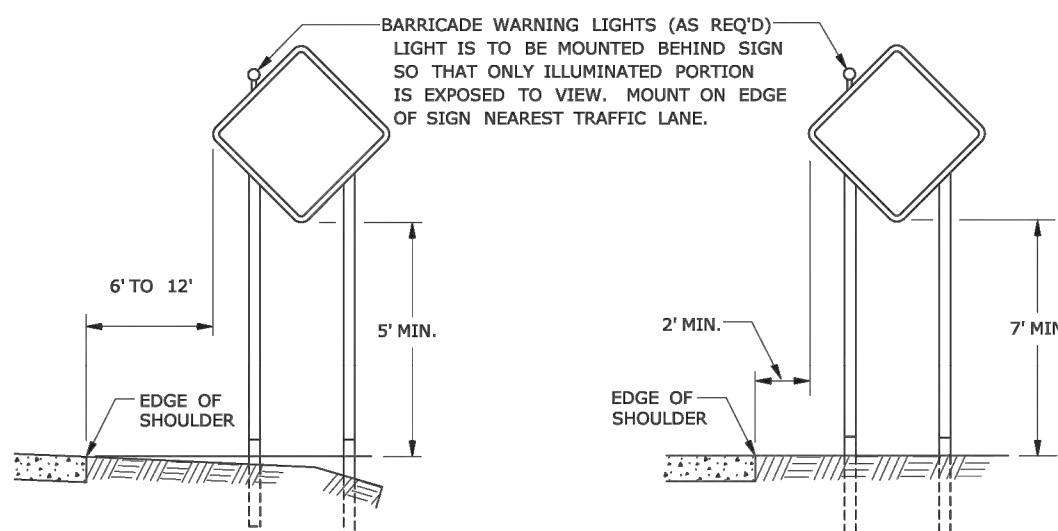
42" TRAFFIC CONE

- NOTES:
1. TRAFFIC CONES SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 1 DEVICES AND THE LATEST EDITION OF THE MUTCD.
  2. IF RUBBER CONES ARE USED, THEY SHALL HAVE INTERIOR RIBS FOR RIGIDITY.
  3. IF PLASTIC CONES ARE USED, THEY SHALL BE COLOR IMPREGNATED.
  4. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY CONE DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
  5. THE ENTIRE AREA OF FLUORESCENT ORANGE AND WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS.
  6. THE SECTIONS OF CONES NOT COVERED WITH RETROREFLECTIVE STRIPES SHALL BE ORANGE.



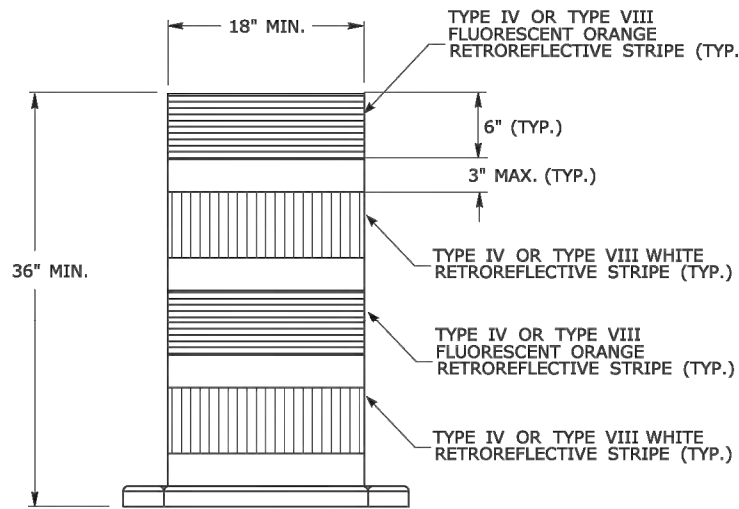
TRAFFIC CONE

- NOTES:
1. TRAFFIC CONES SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 1 DEVICES AND THE LATEST EDITION OF THE MUTCD.
  2. IF RUBBER CONES ARE USED, THEY SHALL HAVE INTERIOR RIBS FOR RIGIDITY.
  3. IF PLASTIC CONES ARE USED, THEY SHALL BE COLOR IMPREGNATED.
  4. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY CONE DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
  5. THE ENTIRE AREA OF WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS.
  6. TRAFFIC CONES NOT USED AT NIGHT MAY UTILIZE TYPE III SHEETING.
  7. THE SECTIONS OF CONES NOT COVERED WITH RETROREFLECTIVE STRIPES SHALL BE ORANGE.





PLACEMENT OF CONSTRUCTION SIGNS  
TYPICAL LONG TERM INSTALLATION

- NOTES:
1. SUPPORTS SHALL BE METAL SIGN POSTS AND HAVE BREAK-AWAY FEATURES.
  2. REFER TO STANDARD SHEETS: TR-1208.01 - "SIGN PLACEMENT AND RETROREFLECTIVE STRIP DETAILS." TR-1208.02 - "METAL SIGN POSTS AND SIGN MOUNTING DETAILS."



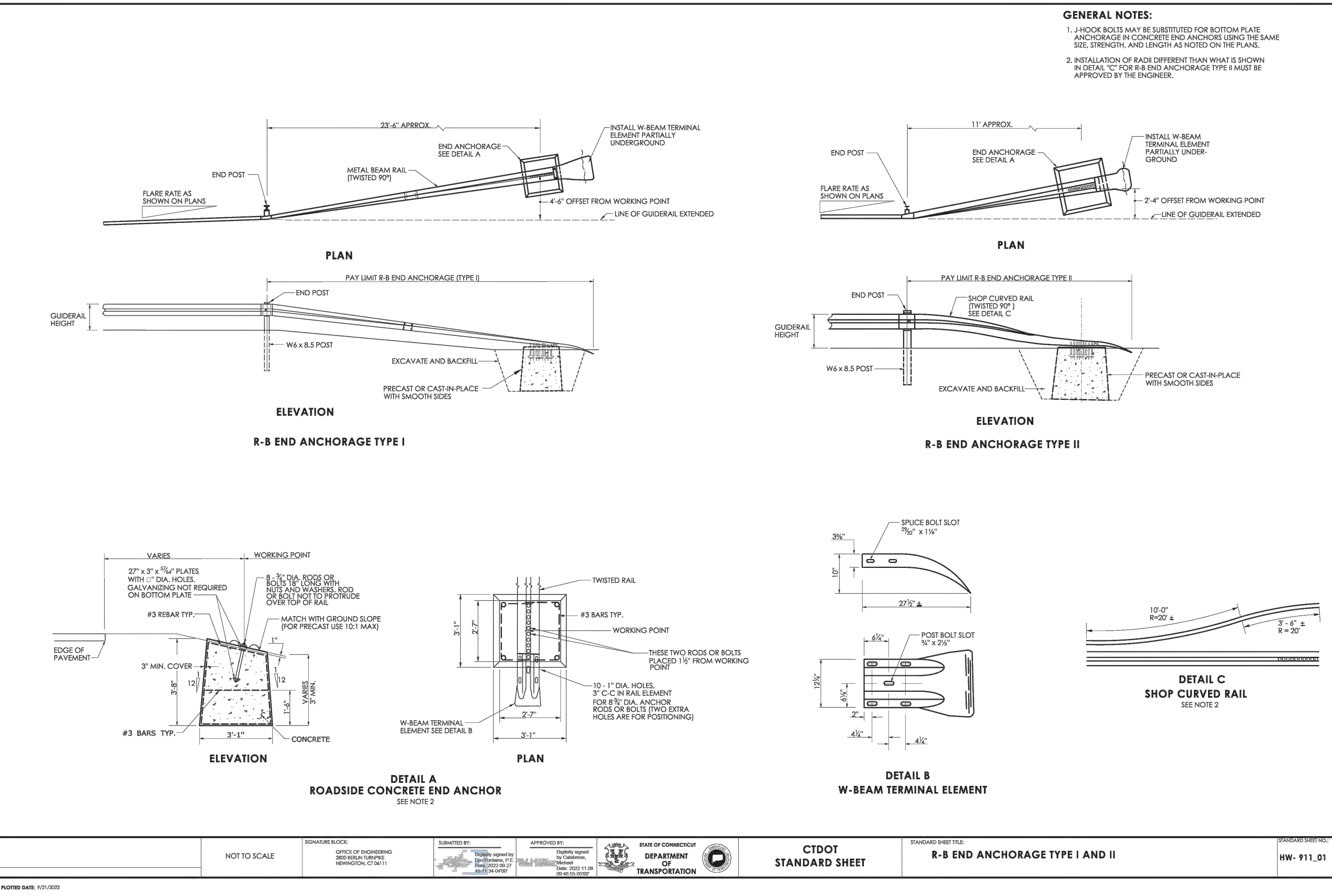
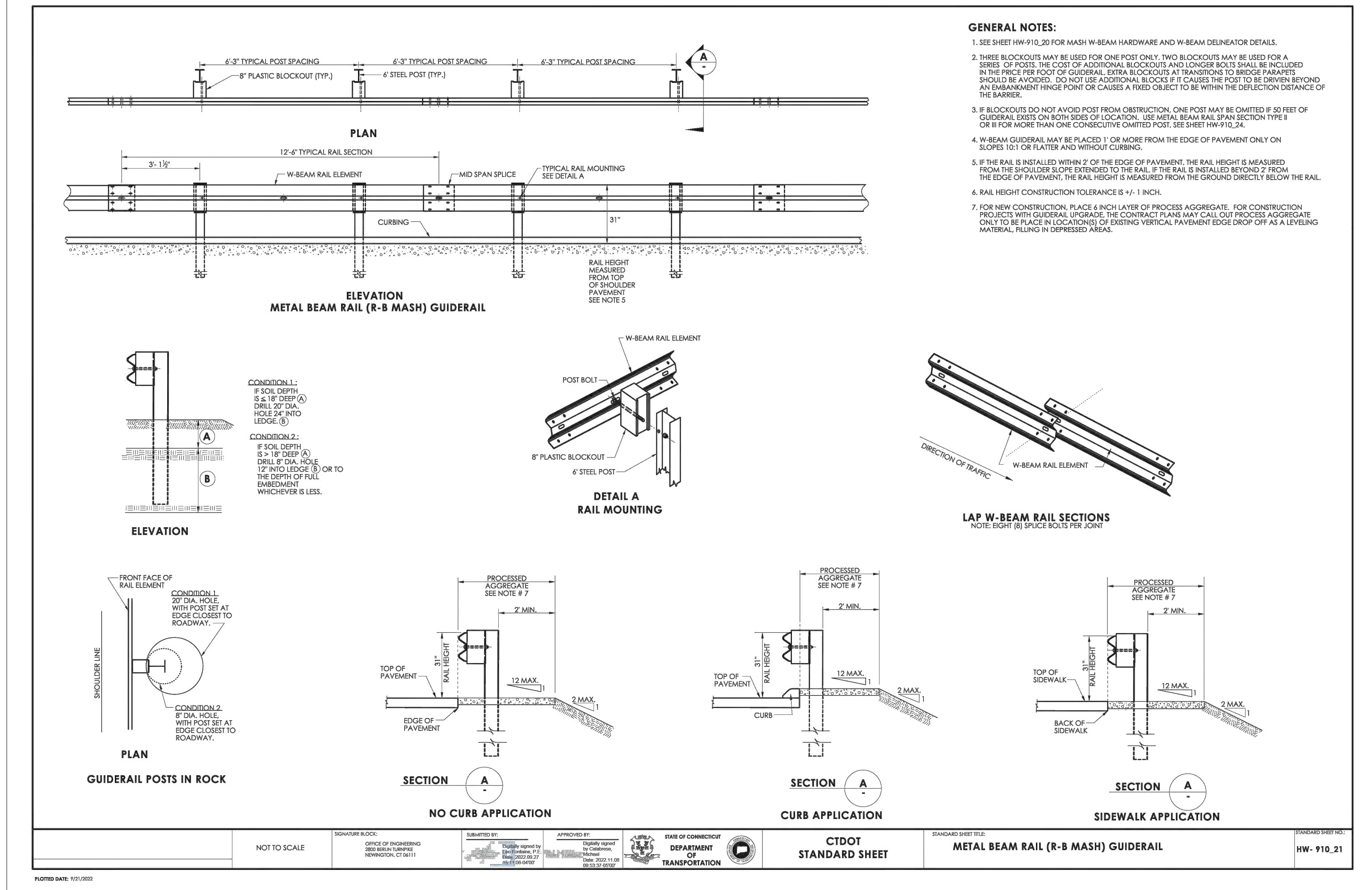
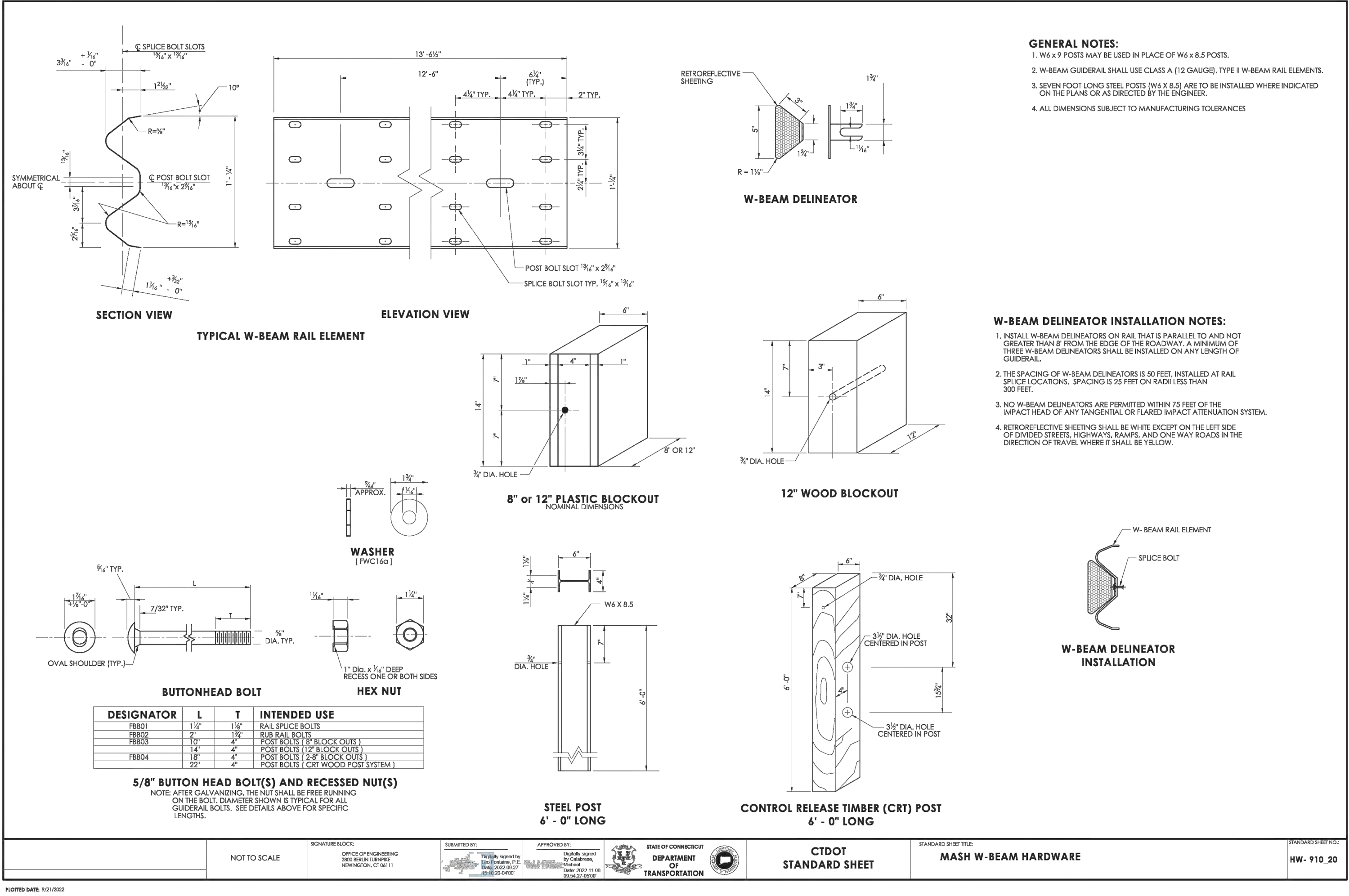
TRAFFIC DRUM  
FRONT VIEW

- NOTES:
1. TRAFFIC DRUM SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 1 DEVICES AND THE LATEST EDITION OF THE MUTCD.
  2. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY DRUM DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
  3. THE ENTIRE AREA OF FLUORESCENT ORANGE AND WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS.
  4. THE SECTIONS OF DRUMS NOT COVERED WITH RETROREFLECTIVE STRIPES SHALL BE ORANGE.

			THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS, IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS NOT A GUARANTEE OF THE ACCURACY OF THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		 <b>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</b>		 SUBMITTED BY: NAME/DATE/TIME: Mark F. Makuch, P.E. 2018.06.17 09:12:43-0400 APPROVED BY: NAME/DATE/TIME: Mark F. Carino, P.E. 2018.06.21 07:49:51-0400		<b>CTDOT STANDARD SHEET</b>		STANDARD SHEET TITLE: <b>CONSTRUCTION SIGN SUPPORTS AND CHANNELIZING DEVICES</b>		STANDARD SHEET NO.: <b>TR-1220_02</b>	
			NOT TO SCALE						<b>OFFICE OF ENGINEERING</b>					
			Printed Date: 8/10/2018		Filename: TR-1220_02_3-2018.dgn		Model: TR-1220_02							

CLA Engineers, Inc. CIVIL • STRUCTURAL • SURVEYING			317 Main Street Norwich, CT 06360 (860) 886-1966 Fax (860) 886-9165		
1 3/28/2025			Issued for Bid		
No. DATE			REVISION		
Project No. CLA-7767D			Plan Prepared for: Town of Montville, Connecticut		
Proj. Engineer K.J.H.			Bridge Street Bridge Deck Replacement		
Date: 3/21/2025			Construction Details & Notes		
Sheet No.			C-302		







GENERAL STRUCTURAL NOTES

- G1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE 2021 INTERNATIONAL BUILDING CODE, AS AMENDED FOR THE 2022 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.
- G7. TEMPORARY SHORING DESIGN STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF CT SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO DEMOLITION. THE OWNER/CONTRACTOR SHALL ALLOW A MINIMUM OF TWO (2) WEEKS FOR THE REVIEW BY THE STRUCTURAL ENGINEER OF RECORD.

STRUCTURAL STEEL

- S1. MATERIALS:
- STRUCTURAL STEEL, WIDE FLANGE .....ASTM A572<sup>gr50</sup> OR A992  
STEEL PLATES CHANNELS, & ANGLES.....ASTM A36  
BOLTS.....ASTM A325-3/4" DIA. STD NUT/WASHER  
WELDING ELECTRODES.....ASTM A233 E 70 SERIES  
ANCHOR RODS.....ASTM A193 Gr. 8m CLASS 1, 316 SS - 75ksi Fult, 30ksi Fy
- S2. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST PROVISIONS OF THE "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, 14TH EDITION AND THE "AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
- S3. SHOP AND ERECTION DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR FOR ALL STRUCTURAL STEEL WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. SUBMIT TWO PRINTS. DO NOT PROCEED WITH FABRICATION WITHOUT SHOP DRAWING REVIEWED BY THE ENGINEER OF RECORD.
- S4. STORE MATERIALS TO PERMIT EASY ACCESS FOR INSPECTION AND IDENTIFICATION. KEEP STEEL MEMBERS OFF GROUND AND SPACED BY USING PALLETS, DUNNAGE, OR OTHER SUPPORTS AND SPACERS. PROTECT STEEL MEMBERS AND PACKAGED MATERIALS FROM CORROSION AND DETERIORATION. DO NOT STORE MATERIALS ON STRUCTURE IN A MANNER THAT MIGHT CAUSE DISTORTION, DAMAGE, OR OVERLOAD TO MEMBERS OR SUPPORTING STRUCTURES. REPAIR OR REPLACE DAMAGED MATERIALS OR STRUCTURES AS DIRECTED. STORE FASTENERS IN A PROTECTED PLACE IN SEALED CONTAINERS WITH MANUFACTURER'S LABELS INTACT. CLEAN AND RELUBRICATE BOLTS AND NUTS THAT BECOME DRY OR RUSTY BEFORE USE.
- S5. BOLTING: COMPLY WITH REQUIREMENTS OF AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS.
- S6. ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN WELDING SOCIETY (AWS) STRUCTURAL WELDING CODE STEEL D1.1, LATEST EDITION, BY CERTIFIED WELDERS AND QUALIFIED WELDING PROCEDURES. SHIELDED METAL ARC METHOD OF WELDING SHALL BE USED FOR ALL WORK. WELDING ELECTRODES, WELDING PROCESS, MINIMUM PREHEAT AND INTERPASS TEMPERATURES SHALL BE IN ACCORDANCE WITH THE AISC AND AWS SPECIFICATIONS. ANY STRUCTURAL STEEL DAMAGED BY WELDING IS TO BE REPLACED OR REINFORCED AS ACCEPTABLE TO THE STRUCTURAL ENGINEER.
- S7. ALL STEEL MUST BE HOT DIPPED GALVANIZED (HDG) PER ASTM A123 (A153 FOR FASTENERS). ALL AREAS OF HDG DAMAGED BY OPERATIONS, ESPECIALLY WELDING, ARE TO BE REPAIRED PER ASTM A780 SOLDER METHODOLOGY UPON COMPLETION OF THE OPERATION TO THE WRITTEN SATISFACTION OF THE ENGINEER, EXCEPT REBAR, WHICH IS TO BE REPAIRED PER NOTE C5.
- S8. MINIMUM FILLET WELD SIZE SHALL BE 1/4" UNLESS OTHERWISE SHOWN ON THE DRAWINGS. RECORDS OF WELDER QUALIFICATIONS SHALL BE MAINTAINED AND AVAILABLE FOR OWNERS REVIEW.

STONE ABUTMENT NOTES (FOR POTENTIAL REPAIRS)

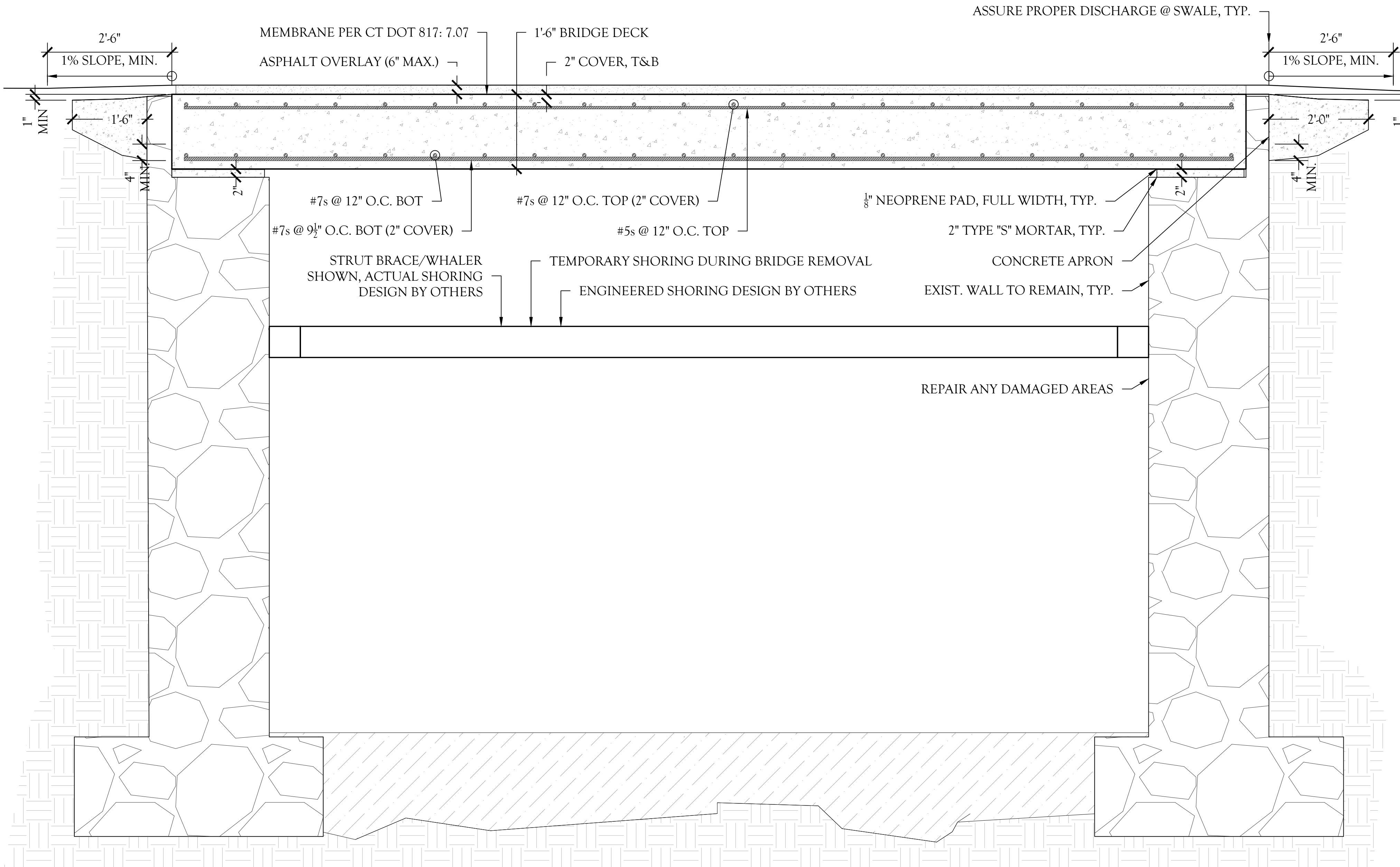
1. ALL WALL CONSTRUCTION IS TO BE DOCUMENTED IN ORDER TO PROVE CONFORMANCE TO THESE CONSTRUCTION DOCUMENTS. PARTICULARLY PROPER COMPACTION OF SOILS AND THE PRESENCE OF DRAINAGE MATERIALS. COORDINATING THIS DOCUMENTATION IS THE RESPONSIBILITY OF THE CONTRACTOR. IT IS OUR RECOMMENDATION THAT THE GRID LENGTH 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.
- RETAINED SOIL 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 | 135 MAX.          | 34                           |
- \*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.

DESIGN LOADS TABLE

LIVE LOADS		WIND LOADS		SEISMIC (EARTHQUAKE) LOADS	
UNIFORM LANE LOAD	64 PSF	BASIC WIND SPEED (3-SEC)	125 MPH	IMPORTANCE FACTOR (I <sub>e</sub> )	1.0
DESIGN SINGLE AXLE LOAD	32 K	RISK CATEGORY	II	MAPPED SPECTRAL RESPONSE ACCELERATION	
DESIGN TANDEM AXLE LOAD	25K @ 48" O.C.	WIND EXPOSURE	B	S <sub>1</sub>	0.198 0.054
STATIC LOAD STANDARD	H193	INTERNAL PRESSURE COEFF.	±/- 0.18	SITE CLASSIFICATION	D
IMPORTANCE FACTOR (I <sub>s</sub> )	1.0	COMPONENTS & CLADDING	PER ASCE 7-10 (CHAPTER 30)	SEISMIC DESIGN CATEGORY	B
IMPACT FACTOR	1.33				

ABBREVIATIONS LEGEND

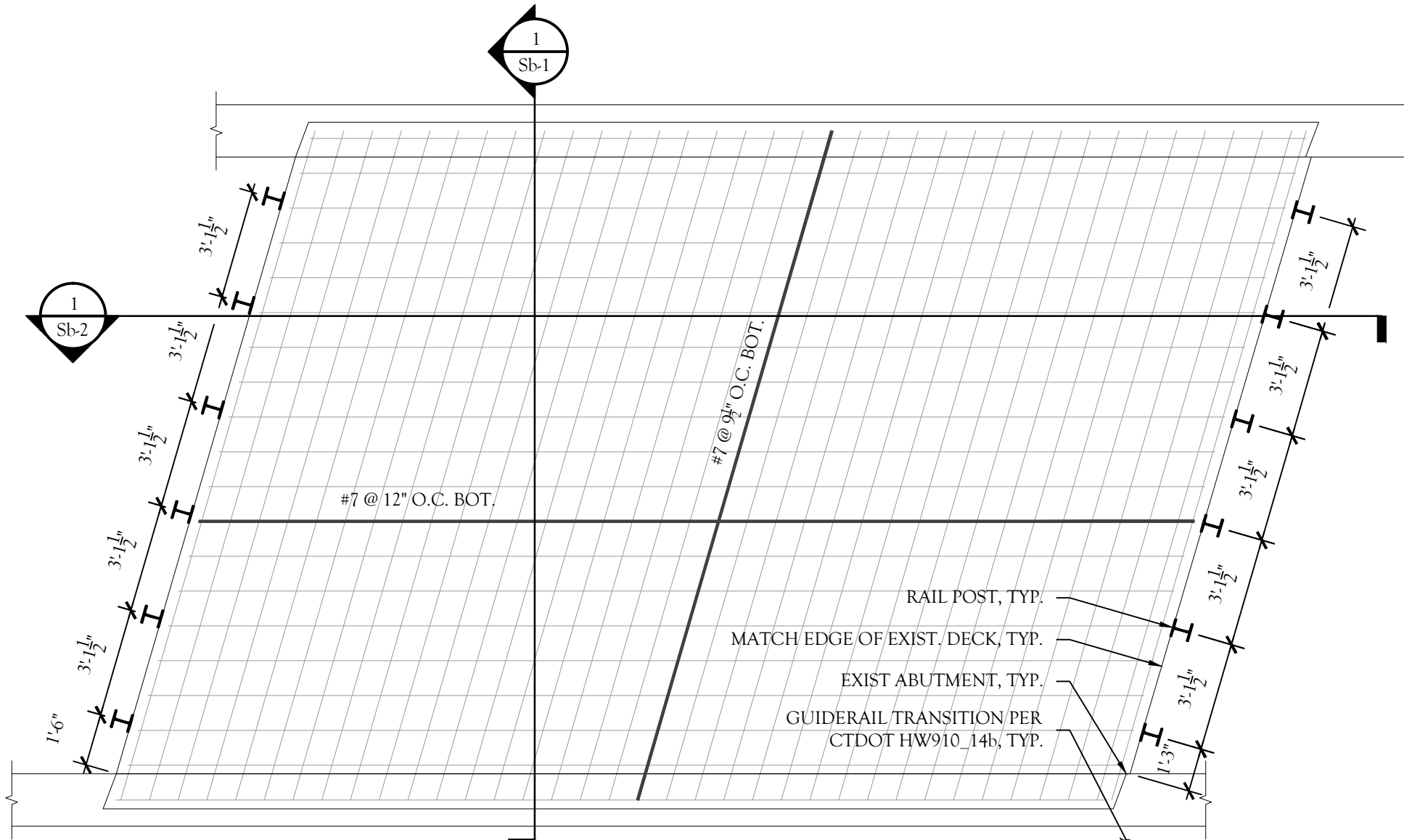
A.O.D. =	AT OWNER'S DISCRETION	EA. =	EACH	HORIZ. =	HORIZONTAL	O.H. =	OPPOSITE HAND	T.B.R. =	TO BE REMOVED
BTWN. =	BETWEEN	ELR. =	ENGINEER OF RECORD	IN. =	INCH	PROJ. =	PROJECTION	T.O.C. =	TOP OF CONCRETE ELEV.
C =	CENTER LINE	ELEV. =	ELEVATION	K = KIP =	1,000 POUNDS	PSF =	POUNDS PER SQ. FT.	T/ WALL =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



SECTION DETAIL @ BEAM  
SCALE: 3/4" = 1'-0"

CONCRETE / REINFORCED CONCRETE

- C1. GENERAL: ALL CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTES "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301.9S).
- 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 HOT DIPPED GALVANIZED PER ASTM A767. ANY DAMAGED AREAS ARE TO BE PAINTED WITH COLD GALVANIZING COMPOUND CONFORMING TO ASTM A780.
- C6. CONCRETE CLEAR COVER:  
SHALL BE AS FOLLOWS: CONCRETE POURED AGAINST EARTH..... 3"  
CONCRETE POURED IN FORMS BUT EXPOSED TO EARTH OR WEATHER:  
5 BARS AND SMALLER..... 2"  
LARGER THAN #5 BARS..... 2"



PROP. LAYOUT SHOWING BOT. REINFORCEMENT  
SCALE: 1/4" = 1'-0"

BRIDGE DECK REPLACMENT  
EXISTING RAIL CROSSING BRIDGE  
±32 Bridge St, Uncasville, CT 06382

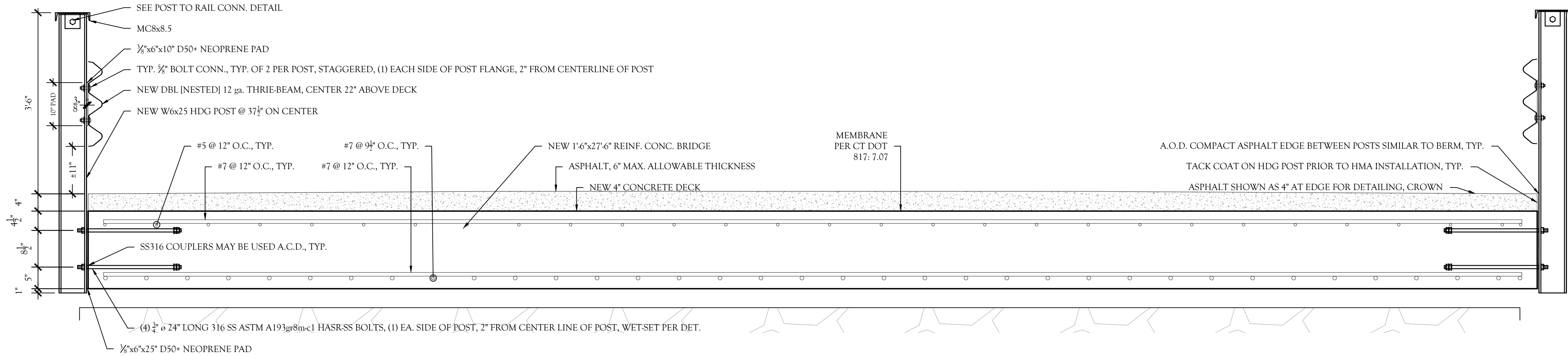
STRUCTURAL REPAIR PLAN

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

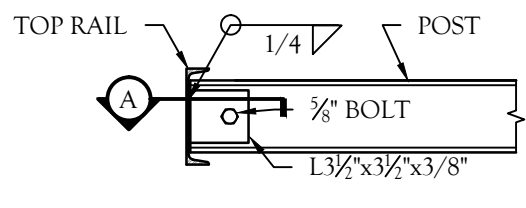
CLA PROJECT NO.	7767.d
PROJ. ENGINEER	ADB
DATE:	2025-03-21
SHEET NO.	(OF 2 SHEETS)

SB-1

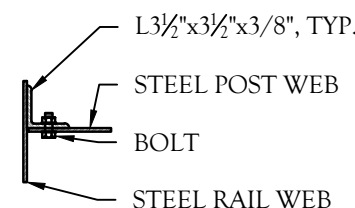




1 TRANSVERSE SECTION  
SCALE: 3/4" = 1'-0"

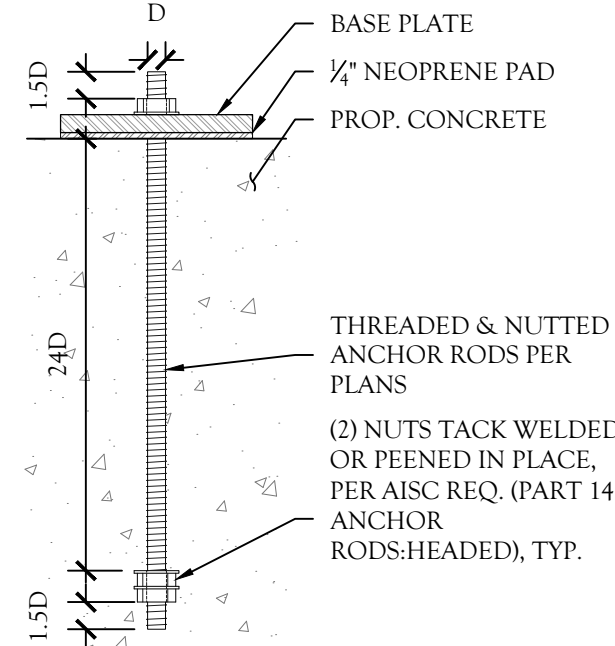


ELEVATION  
SCALE: 3/4" = 1'-0"



A SECTION  
SCALE: 3/4" = 1'-0"

2 TYP. POST TO RAIL SHEAR CONN. DETAIL  
SCALE: 3/4" = 1'-0"



ANCHOR DETAIL @ RAIL POST  
SCALE: 1-1/2" = 1'-0"  
NOTE: DQ NOT OVER-TIGHTENING NUTS

BRIDGE DECK REPLACEMENT  
EXISTING RAIL CROSSING BRIDGE  
± 32 Bridge St, Uncasville, CT 06382

STRUCTURAL REPAIR PLAN

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

CLA PROJECT NO. 7767.d  
PROJ. ENGINEER ADB  
DATE: 2025-03-21  
SHEET NO. (OF 2 SHEETS)

SB-2