

GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY

CWF 2016-03

WEST RIVER CSO IMPROVEMENT PROJECT

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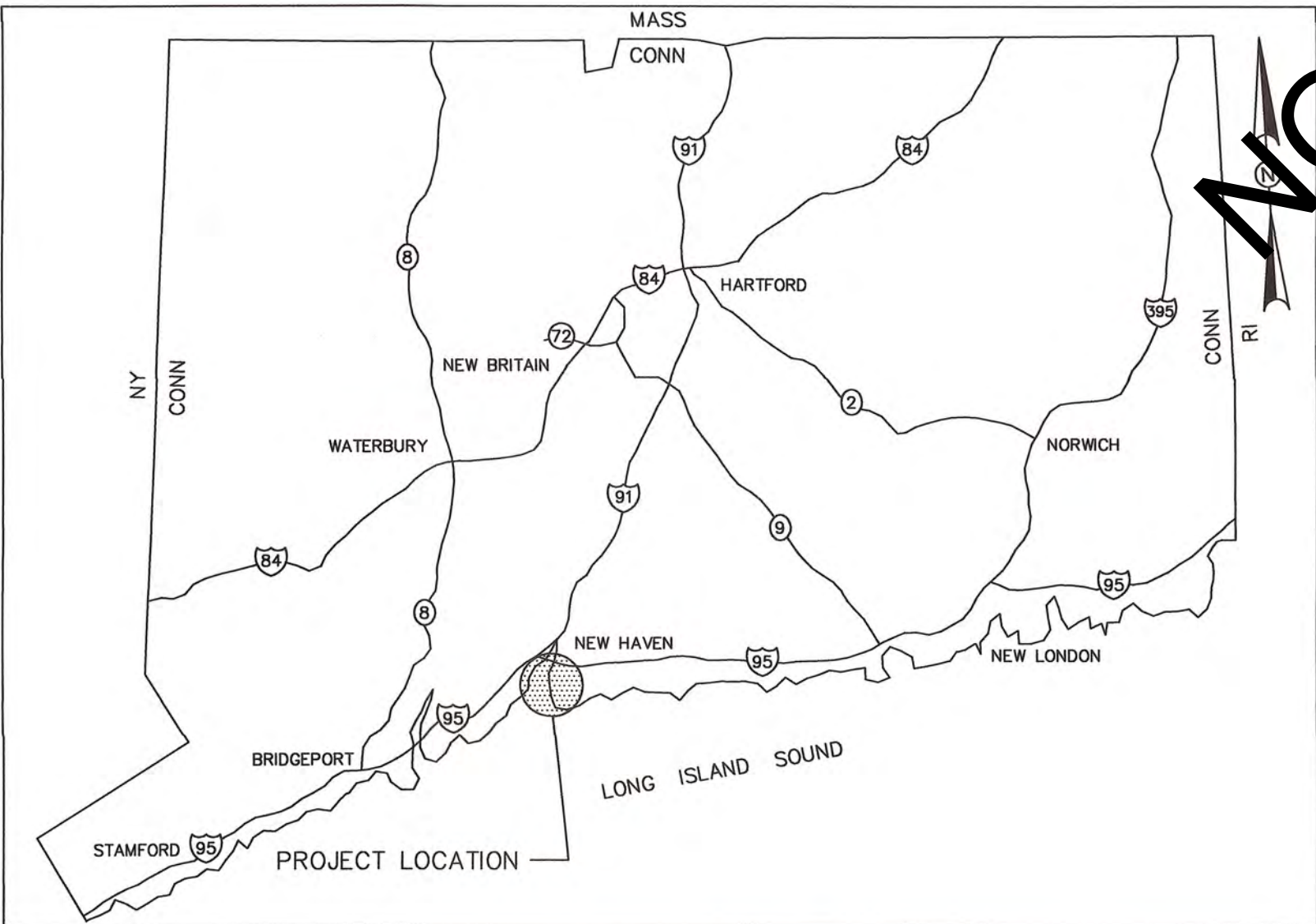
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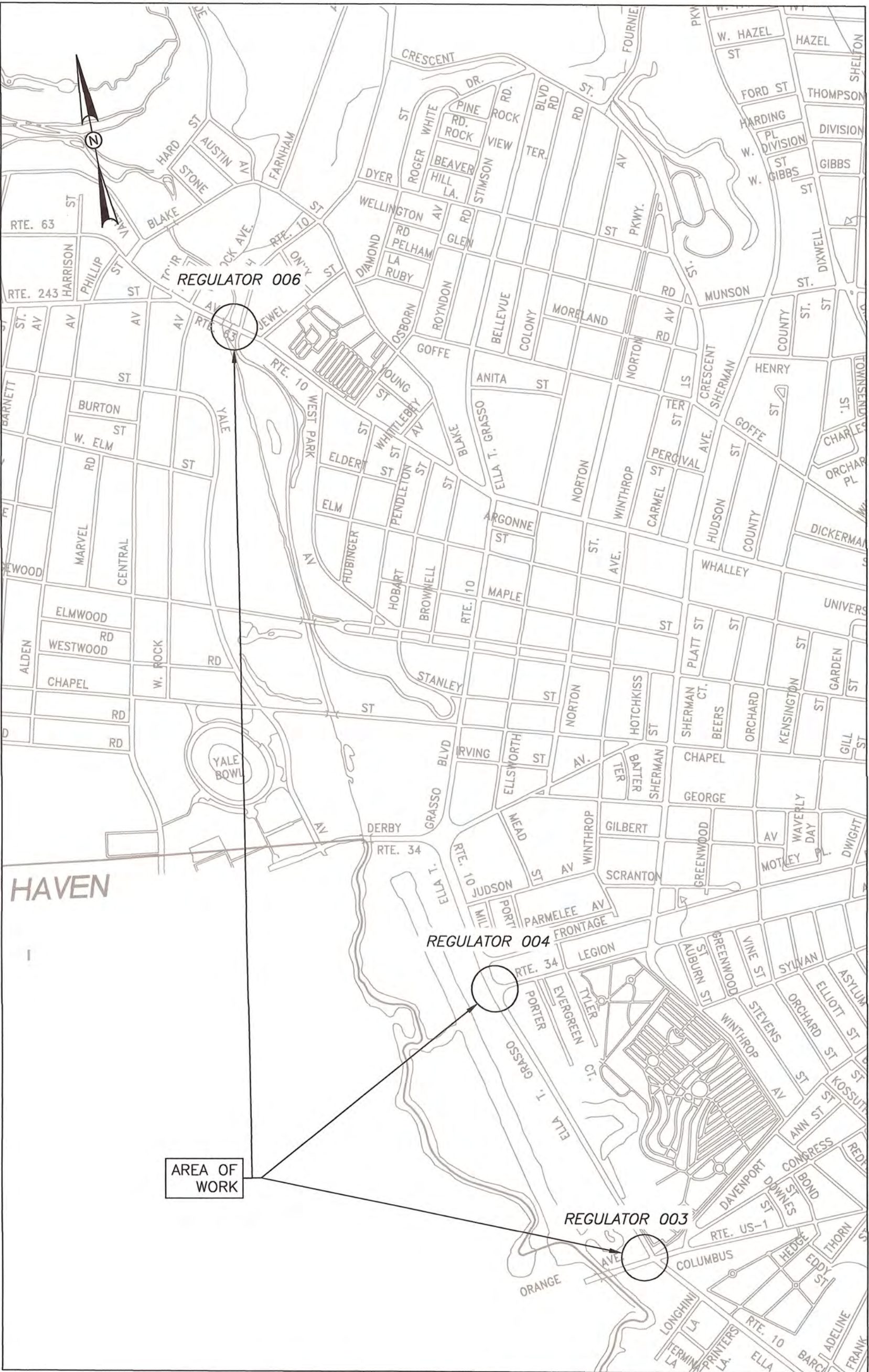
VICINITY PLAN



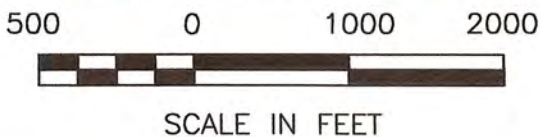
**NOVEMBER 2017
BID SUBMISSION**

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5	EXISTING CONDITIONS WHALLEY AVE. & FITCH ST. CSO REGULATOR 006
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LOCATION PLAN



BID SUBMISSION

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE SITE ENGINEER IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS.
2. DO NOT DISRUPT EXISTING UTILITIES OWNED BY THE OWNER OR OTHERS DURING CONSTRUCTION EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE UTILITY OWNER AND/OR THE LOCAL MUNICIPALITIES. DISRUPTION SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY SERVICE HAS BEEN PROVIDED.
3. THE CONTRACTOR SHALL ABIDE BY ALL OSHA FEDERAL STATE AND LOCAL REGULATIONS WHEN OPERATING CRANES, BOOMS, HOISTS, ETC. IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES. IF CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO ELECTRIC LINES, CONTACT POWER COMPANY TO MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS. ANY UTILITY COMPANY FEES SHALL BE PAID FOR BY THE CONTRACTOR.
4. THE CONTRACTOR SHALL PROVIDE RECORD DRAWINGS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE OWNER AT THE END OF CONSTRUCTION.
5. THE ENGINEER IS NOT RESPONSIBLE FOR SITE SAFETY MEASURES TO BE EMPLOYED DURING CONSTRUCTION. THE ENGINEER HAVE NO CONTRACTUAL DUTY TO CONTROL THE SAFEST METHODS OR MEANS OF THE WORK, JOB SITE RESPONSIBILITIES, SUPERVISION OR TO SUPERVISE SAFETY AND DOES NOT VOLUNTARILY ASSUME ANY SUCH DUTY OR RESPONSIBILITY.
6. INFORMATION ON EXISTING UTILITIES HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY COMPANY AND MUNICIPAL RECORD MAPS AND/OR FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND STORM DRAINAGE SYSTEMS INCLUDING SERVICES. PRIOR TO DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" 72 HOURS BEFORE COMMENCEMENT OF WORK AT "1-(800)-922-4455" AND VERIFY ALL UTILITY AND STORM DRAINAGE SYSTEM LOCATIONS.
7. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
8. IF PLANS AND OR SPECIFICATIONS ARE IN CONFLICT, THE MOST STRINGENT SHALL APPLY.
9. ALL NOTES AND DIMENSIONS DESIGNATED "TYPICAL" APPLY TO ALL LIKE OR SIMILAR CONDITIONS THROUGHOUT THE PROJECT.
10. CONTRACTOR(S) TO TAKE AND VERIFY ALL DIMENSIONS AND CONDITIONS OF THE WORK AND BE RESPONSIBLE FOR COORDINATION OF SAME. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK.
11. TOPOGRAPHIC SURVEY WAS CONDUCTED BY MARTINEZ COUCH & ASSOCIATES IN MAY 2016 AND UPDATED IN JULY 2016.
12. ELEVATIONS ON ALL PLAN AND PROFILE SHEETS REFER TO NORTH AMERICAN VERTICAL DATUM (NAVD88) AND TO HORIZONTAL DATUM TO NORTH AMERICAN DATUM OF 1983 (NAD83).
13. SUBSURFACE INVESTIGATIONS (BORINGS AND PROBES) WERE CONDUCTED BY SEABOARD DRILLING, INC. OF SPRINGFIELD, MA IN JULY 2016. BORING LOGS ARE APPENDED TO THE DRAWINGS AND ARE SHOWN IN PLAN AND PROFILE FOR INFORMATIONAL PURPOSES ONLY. BORING LOCATIONS ARE SHOWN ON THE DRAWINGS. IF THE CONTRACTOR DETERMINES THAT ADDITIONAL BORINGS ARE REQUIRED, THESE SHALL BE PERFORMED AT NO ADDITIONAL COST TOT HE OWNER.
14. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH GNHWPCHA STANDARDS AND/OR CTDOT STANDARDS AND/OR CITY OF NEW HAVEN STANDARD SPECIFICATIONS AND DETAILS.
15. THE CONTRACTOR IS HEREBY ADVISED THAT ALL LOCATIONS OF EXISTING PIPES, CONDUITS, UTILITIES, FOUNDATIONS, UTILITY HOUSE SERVICES ARE NOT WARRANTED TO BE CORRECT AND THE CONTRACTOR SHALL HAVE NO CLAIM ON THAT ACCOUNT SHOULD THERE BE OTHER THAN SHOWN. LOCATIONS OF EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS AS REPRESENTED BY THE DRAWINGS, THEREFORE THEIR ACTUAL LOCATIONS MAY VARY. IT IS UNDERSTOOD AND AGREED THAT THE CONTRACTOR SHALL MAKE EXAMINATIONS IN THE FIELD BY VARIOUS AVAILABLE METHODS AND SHALL OBTAIN INFORMATION FROM UTILITY COMPANIES AND INDIVIDUALS AS TO THE LOCATION OF ALL SUB-SURFACE STRUCTURES. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR EXCAVATE IN ANY AREA PRIOR TO CONDUCTING EXAMINATIONS.
16. THE LOCATION, SIZE AND MATERIAL OF EXISTING PIPES, DUCTS, CONDUITS AND OTHER UNDERGROUND STRUCTURES AND THE LOCATION OF PROPERTY LINES SHOWN ON THESE PLANS ARE NOT WARRANTED TO BE EXACT, NOR IS IT WARRANTED THAT ALL ARE SHOWN. EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR.
17. STORM, SANITARY, WATER, GAS, TELEPHONE, CABLE, ELECTRICAL SERVICES, FIBER OPTIC COMMUNICATIONS, OVERHEAD UTILITIES AND OTHER UTILITY SERVICES TO BUILDINGS ARE NOT ALL SHOWN. UTILITY SERVICES TO BUILDINGS THAT ARE SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT WARRANTED TO BE EXACT, NOR IS IT WARRANTED THAT ALL ARE SHOWN. EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL ASSUME THAT EACH PROPERTY WILL HAVE SERVICE CONNECTIONS FOR THE VARIOUS UTILITIES. ALL SERVICES AND UTILITIES SHALL BE PROTECTED FROM DAMAGE AND SHALL BE RECONNECTED OR REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL PAY PARTICULAR ATTENTION TO SAFETY ISSUES RELATED TO ELECTRICAL FACILITIES, BOTH OVERHEAD AND UNDERGROUND.
18. GAS MAINS AND TELEPHONE LINES ARE ASSUMED TO HAVE THREE (3) FEET OF COVER UNLESS SHOWN OTHERWISE.
19. WATER MAINS ARE ASSUMED TO HAVE FOUR AND A HALF (4.5) FEET OF COVER UNLESS SHOWN OTHERWISE.
20. TELEPHONE AND ELECTRICAL VAULTS ARE ASSUMED TO HAVE SIX (6) INCH CONCRETE WALL THICKNESS.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORT AND PROTECTION OF EXISTING UTILITIES AND STRUCTURES, AS WELL ANY REPAIR AND/OR REPLACEMENT COSTS OF UTILITIES DAMAGED DURING CONSTRUCTION WHETHER ABOVE OR BELOW GRADE.

22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL UTILITY RELOCATION WORK. CLAIMS FOR EXTRAS WILL NOT BE ALLOWED FOR DELAY OF WORK DUE TO UTILITY COMPANY COORDINATION OR UTILITY RELOCATION WORK.
23. THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER OF ANY SUBSURFACE UTILITY OR OTHER PIPE NOT SHOWN ON THE DRAWINGS THAT IS ENCOUNTERED DURING CONSTRUCTION.
24. EXTREME CARE MUST BE EXERCISED BY THE CONTRACTOR TO PROTECT EXISTING SANITARY SEWERS, SANITARY SEWER LATERALS, STORM DRAINS, WATER MAINS AND ALL OTHER UTILITIES DURING CONSTRUCTION.
25. THIS CONTRACT REQUIRES WORKING IN LIVE SEWER AND DRAINAGE INFRASTRUCTURE. CONTRACTOR AND THEIR PERSONNEL SHALL FOLLOW ALL FEDERAL, STATE AND LOCAL REQUIREMENTS FOR SAFETY WHEN IN CONFINED SPACES.
26. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING FLOWS IN EXISTING SANITARY SEWERS, SEWER SERVICE LATERALS, STORM DRAINAGE SYSTEMS, AND FOR OBTAINING ALL PERMITS, AS SPECIFIED.
27. ALL DEWATERING SHALL BE DIRECTED TO COMBINED OR SANITARY SEWERS AT LOCATIONS AS APPROVED BY THE ENGINEER. DO NOT DISCHARGE GROUND WATER TO STORM DRAINS. ALL DEWATERING ACTIVITIES SHALL COMPLY WITH THE TECHNICAL SPECIFICATIONS AND CTDEEP REGULATIONS. THE CONTRACTOR SHALL NOT COMMENCE DEWATERING DISCHARGE WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE ENGINEER OR OWNER, AS SPECIFIED. DISCHARGE TO SANITARY AND COMBINED SEWER WILL REQUIRE PERMIT FROM GNHWPCHA.
28. NOT ALL TEST PIT LOCATIONS ARE SHOWN ON THE PLANS. EXCAVATE TEST PITS IN LOCATIONS AS DIRECTED BY THE ENGINEER. TEST PITS SHALL BE DUG TO ADJUST PIPING AS REQUIRED BY THE ENGINEER.
29. ALL PIPE SECTIONS SHOWING LENGTHS IN LINEAR FEET ARE TWO-DIMENSIONAL MEASUREMENTS TAKEN FROM CENTER TO CENTER OF EACH ADJOINING MANHOLE.
30. SEDIMENTATION CONTROL SACKS SHALL BE PLACED AROUND ALL CATCH BASINS SUBJECT TO RUNOFF FROM CONSTRUCTION AREAS AS SHOWN ON THE DRAWINGS.
31. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL WASTE MATERIALS NECESSARY FOR THE SATISFACTORY COMPLETION OF THE WORK AND AS REQUIRED BY THE OWNER. CONSTRUCTION DEBRIS SHALL BE DISPOSED OF IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS.
32. AT CONNECTION BETWEEN EXISTING AND NEW PIPES, SLEEVES, NIPPLES AND ACCESSORIES NECESSARY FOR MAKING CONNECTIONS MAY NOT BE SHOWN IN THE DETAILS. THE CONTRACTOR SHALL PATCH AND INSTALL ALL ITEMS AS NECESSARY FOR CONNECTING TO EXISTING PIPES AND AS INDICATED IN THE SPECIFICATIONS.
33.
34. THE CONTRACTOR SHALL NOTIFY THE OWNER, LOCAL FIRE/POLICE AUTHORITIES, SCHOOL DEPARTMENT, LOCAL BUSINESSES AND PUBLIC TRANSPORTATION AGENCIES OF TRAFFIC IMPACTS WHEN WORKING ON THE PUBLIC WAY, IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS, COMMUNICATION AND COORDINATION BETWEEN OWNER, CONTRACTOR, LOCAL FIRE/POLICE AUTHORITIES, SCHOOL DEPARTMENTS, LOCAL BUSINESSES AND PUBLIC TRANSPORTATION AGENCIES SHALL BE MAINTAINED THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD.

SURFACE RESTORATION GENERAL NOTES

1. STONE WALLS, FENCES, MAIL BOXES, SIGNS, CURBING, SIDEWALKS, SIDEWALK RAMPS, STAIRS, WALKWAYS, LIGHT POLES, ETC. SHALL BE SUPPORTED OR REMOVED AND REPLACED AS NECESSARY TO PERFORM THE WORK. UNLESS OTHERWISE INDICATED, ALL SUCH WORK SHALL BE INCIDENTAL TO CONSTRUCTION OF THE PROJECT, AT NO ADDITIONAL COST TO THE OWNER.
2. COORDINATE THE ADJUSTMENT OF ALL EXISTING UTILITIES WITH EACH RESPONSIBLE OWNER PRIOR TO RECONSTRUCTION AND/OR PAVING OPERATIONS. ALL STRUCTURES SHALL BE RAISED TO FINISH GRADES PRIOR TO THE END OF THE CONSTRUCTION SEASON AND PRIOR TO FINISHING PAVING, AS DIRECTED BY THE ENGINEER.
3. TRENCH WIDTH PAVEMENT SHALL BE RESTORED AT THE END OF EACH WORK DAY, UNLESS OTHERWISE APPROVED BY THE OWNER. TEMPORARY PAVEMENT SHALL BE PLACED OVER ALL DISTURBED SIDEWALKS AND DRIVEWAYS AT THE END OF EACH DAY, UNLESS OTHERWISE APPROVED BY THE OWNER.
4. ALL PAVEMENT DISTURBED OR DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED IN ACCORDANCE WITH THE SPECIFICATIONS AND AS SHOWN ON THE CONTRACT DRAWINGS.
5. ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND PAYMENT LIMITS SHALL BE RESTORED TO ORIGINAL CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
6. FOR PAVEMENT RESTORATION REQUIREMENTS, SEE TYPICAL SECTIONS ON SHEET 22. AS PART OF THE PERMANENT SURFACE RESTORATION, THE CONTRACTOR SHALL:


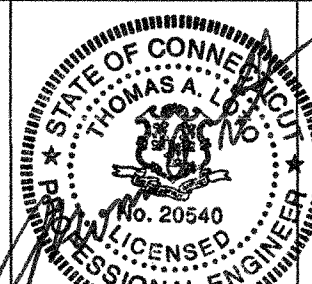

6.1. MILL AND OVERLAY THE ROADWAY PAVEMENT WITHIN THE LIMITS OF DISTURBANCE.

6.2. PERFORM FULL DEPTH PAVEMENT REPAIR ABOUT THE LIMITS OF EXCAVATION.

6.3. PERFORM PERMANENT TRENCH REPAIR ABOUT ANY TRENCHES OUTSIDE THE LIMIT OF EXCAVATION, WITHIN THE ROADWAY.

6.4. RECONSTRUCT ANY SIDEWALK IMPACTED (AS NEEDED).

6.5. RECONSTRUCT ANY PARKING LOT IMPACTED (AS NEEDED).
7. REINFORCED CONCRETE PAVEMENT IS EXPECTED TO BE ENCOUNTERED WITHIN THE LIMITS OF EXCAVATION. ANY REINFORCED CONCRETE PAVEMENT IMPACTED SHALL BE REPLACED AS SHOWN ON SHEET 22.

						DESIGNED BY: <u>K.VIOLETTE</u>	 <div>Greater New Haven Water Pollution Control Authority 260 East Street New Haven, CT 06511 (203) 468-5280 p (203) 772-1564 f www.gnhwpca.com</div>	 <div>THOMAS A. LOTO No. 20540 LICENSED PROFESSIONAL ENGINEER</div>	GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY CWF 2016-03 WEST RIVER CSO IMPROVEMENT PROJECT		GENERAL NOTES	PROJECT NO. CWF 2016-03
						SHEET NO. 2 OF 48						
						SCALE: AS NOTED						
REV. NO.	DATE	DRWN	CHKD		REMARKS							

SURVEYOR NOTES

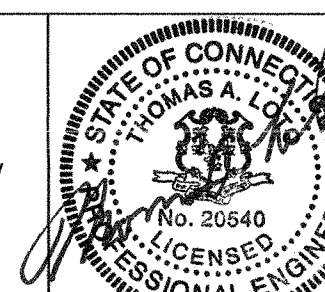
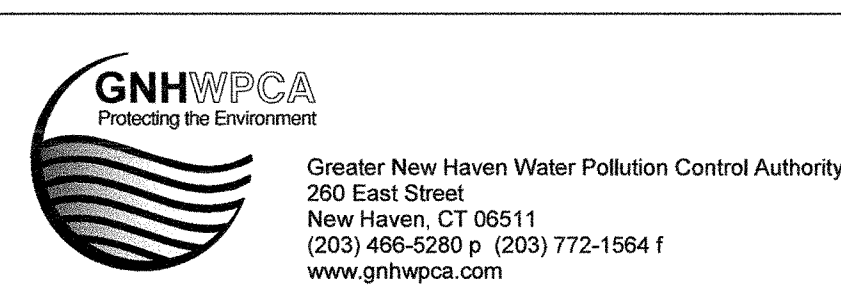
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2. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300B-1 THRU 20-300B-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES - "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ENDORSED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPT. 26, 1996.
3. THIS PLAN CONFORMS TO HORIZONTAL ACCURACY CLASS A-2, AND TOPOGRAPHIC ACCURACY CLASS T-2.
4. NORTH ORIENTATION AND COORDINATES BASED ON CONNECTICUT GRID SYSTEM NAD 83.
5. ELEVATIONS BASED ON N.A.V.D. 1988.
6. WETLANDS DEPICTED HEREON ARE COMPILED FROM FIELD DELINEATION BY PIETRAS ENVIRONMENTAL GROUP IN APRIL 2016.
7. INDICATED UNDERGROUND UTILITIES ARE BASED ON ACTUAL FIELD LOCATIONS AND AVAILABLE NOTES AND MAPPING BY OTHERS. THE LOCATIONS ARE APPROXIMATE AND ALL UTILITIES MAY NOT BE SHOWN. PRIOR TO ANY CONSTRUCTION THE CONTRACTOR SHALL HAVE ALL UTILITIES MARKED ON THE GROUND.
8. ROUTE 1 IS AN NON MONUMENTED STATE HIGHWAY. THE STREETLINE DEPICTED HEREON IS ASSUMED BASED ON FIELD EVIDENCE.

SYMBOLS LEGEND

○ Iron Pin	□ 'CL' CB	—x— Fence Line
⊙ Monument	□ 'C' CB	—~— Tree Line
⊕ Drill Hole	⊙ Storm Manhole	—OH— Overhead Utility
⊙ Merestone	⊙ Sewer Manhole	—E— Electric Line (Buried)
⊙ Hydrant	⊙ Water Manhole	—W— Water Line (Buried)
⊙ Post	⊙ Electric Manhole	—T— Telephone Line (Buried)
⊙ Utility Post	⊙ Telephone Manhole	—G— Gas Line (Buried)
⊙ Water Valve	⊙ Deciduous Tree	—P— Property Line
⊙ Gas Valve	⊙ Evergreen Tree	—E— Easement Line
⊙ Guy Anchor	⊙ Shrub	—C— Contour Line
⊙ Sign	⊙ Transformer	—WF#125— Wetlands Flag
190.33 Spot Grade	⊙ Hand Hole	—F— Federal Wetland
	⊙ Traffic Control Box	—C— Connecticut Wetland

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY:	J.JACQUES
DRAWN BY:	J.JACQUES
SHEET CHK'D BY:	T.LOTO
CROSS CHK'D BY:	N.KULIKAUSSAS
APPROVED BY:	T.LOTO
DATE:	NOVEMBER 13, 2017

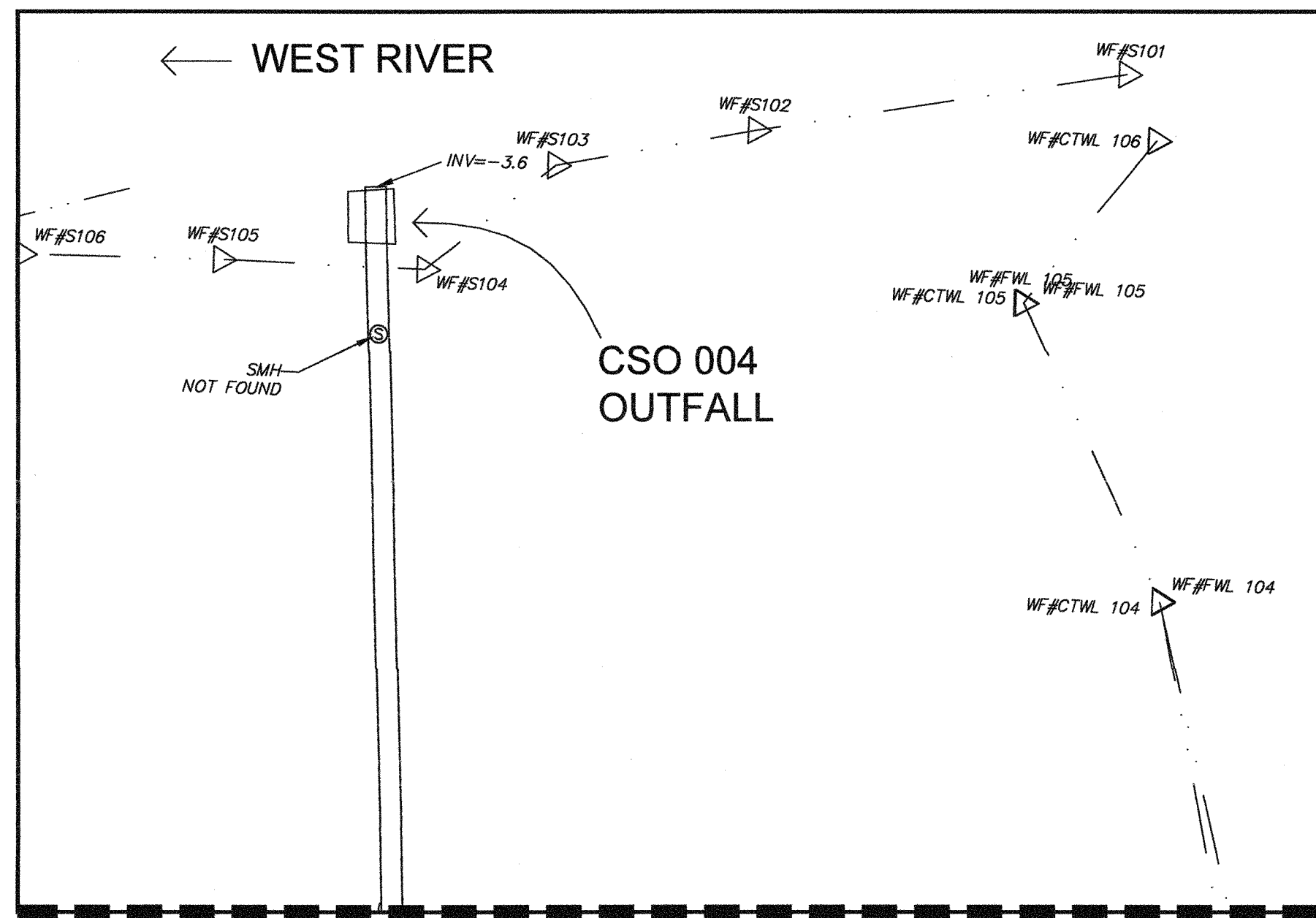


GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
WEST RIVER CSO IMPROVEMENT PROJECT

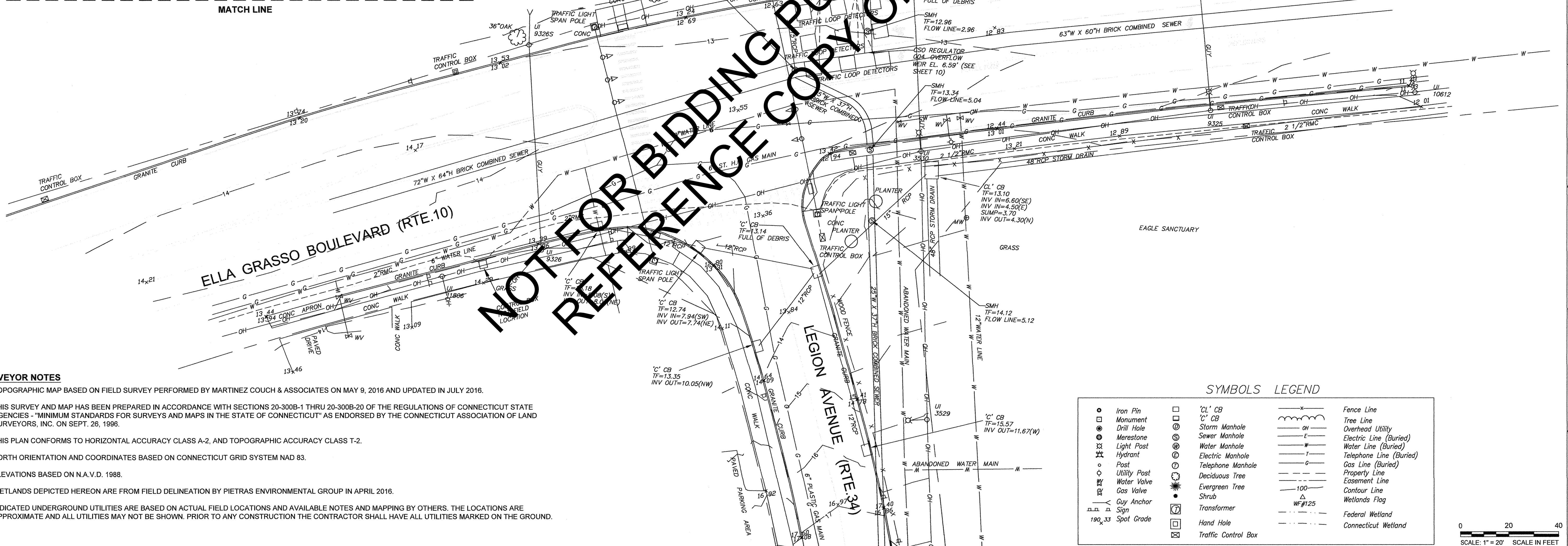


EXISTING CONDITIONS
ORANGE AVE. & ELLA GRASSO BLVD.
CSO REGULATOR 003

PROJECT NO.	CWF 2016-03
FILE NAME:	
SHEET NO.	3 OF 48
SCALE:	AS NOTED



WEST RIVER MEMORIAL PARK



SURVEYOR NOTES

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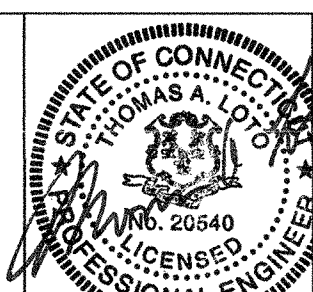
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⊙ Hydrant	□ Water Manhole	—w— Water Line (Buried)
⊙ Post	□ Electric Manhole	—t— Telephone Line (Buried)
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⊙ Spot Grade	⊙ Hand Hole	—f— Federal Wetland
	⊙ Traffic Control Box	—c— Connecticut Wetland

0 20 40
SCALE: 1" = 20' SCALE IN FEET

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DRAWN BY: J.JACQUES					
SHEET CHK'D BY: T.LOTO					
CROSS CHK'D BY: N.KULIKAUSKAS					
APPROVED BY: T.LOTO					
DATE: NOVEMBER 13, 2017					



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GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
WEST RIVER CSO IMPROVEMENT PROJECT



EXISTING CONDITIONS
LEGION AVE. & ELLA GRASSO BLVD.
CSO REGULATOR 004

PROJECT NO. CWF 2016-03
FILE NAME:
SHEET NO. 4 OF 48
SCALE: AS NOTED



SURVEYOR NOTES

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8. WHALLEY AVENUE AND FITCH STREET ARE NON MONUMENTED STATE HIGHWAYS. THE STREETLINE DEPICTED HERON IS ASSUMED BASED ON FIELD EVIDENCE.

SYMBOLS LEGEND

● Iron Pin	□ 'CL' CB	—x— Fence Line
□ Monument	□ 'C' CB	—OH— Tree Line
○ Drill Hole	⊗ Storm Manhole	—E— Overhead Utility
⊗ Merestone	⊗ Sewer Manhole	—E— Electric Line (Buried)
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⊗ Sign	⊗ Hand Hole	—E— Federal Wetland
⊗ Spot Grade	⊗ Traffic Control Box	—E— Connecticut Wetland

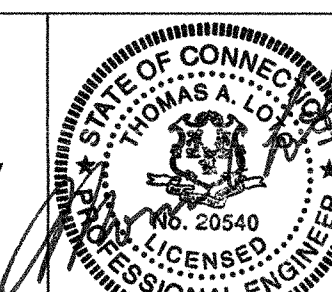
0 20 40
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DESIGNED BY: J.JACQUES
DRAWN BY: J.JACQUES
SHEET CHK'D BY: T.LOTO
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APPROVED BY: T.LOTO
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(203) 468-5280 p (203) 772-1564 f
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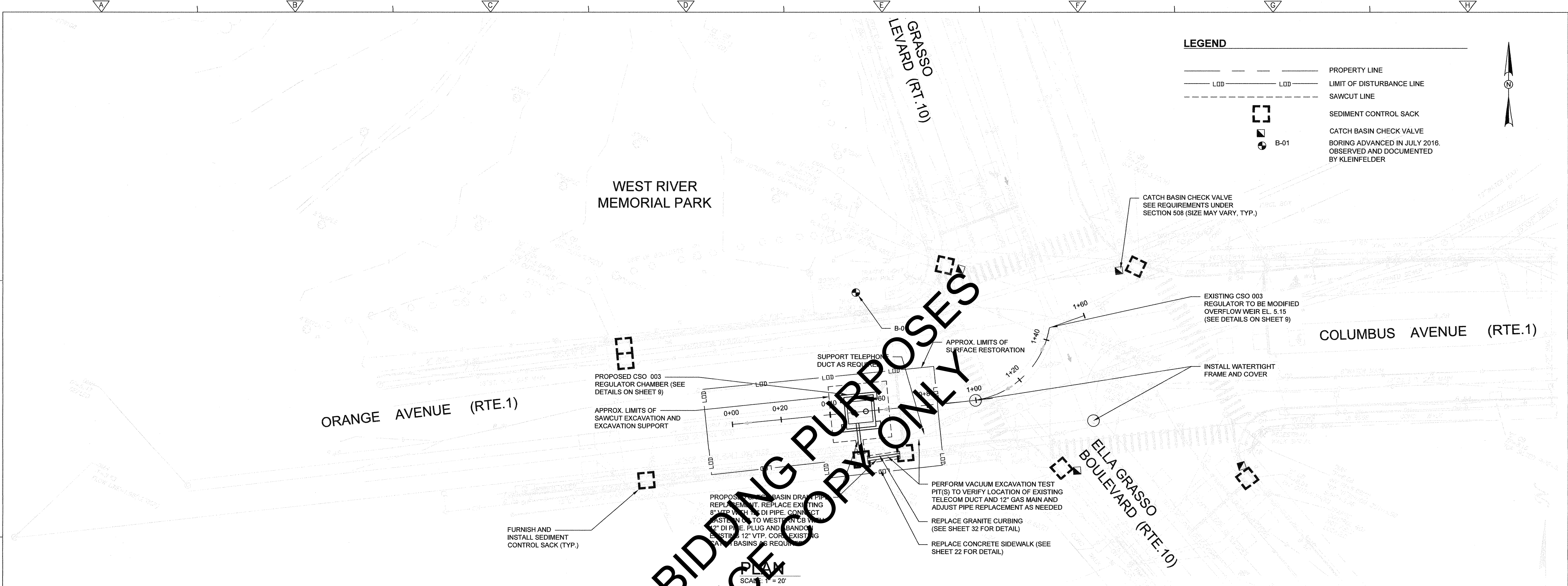


GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
WEST RIVER CSO IMPROVEMENT PROJECT



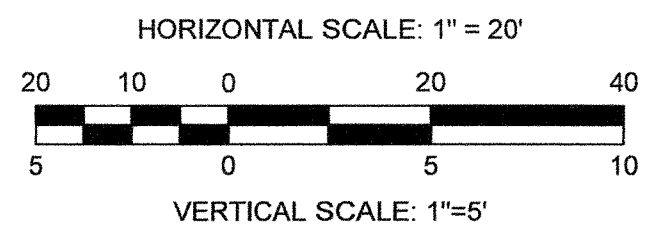
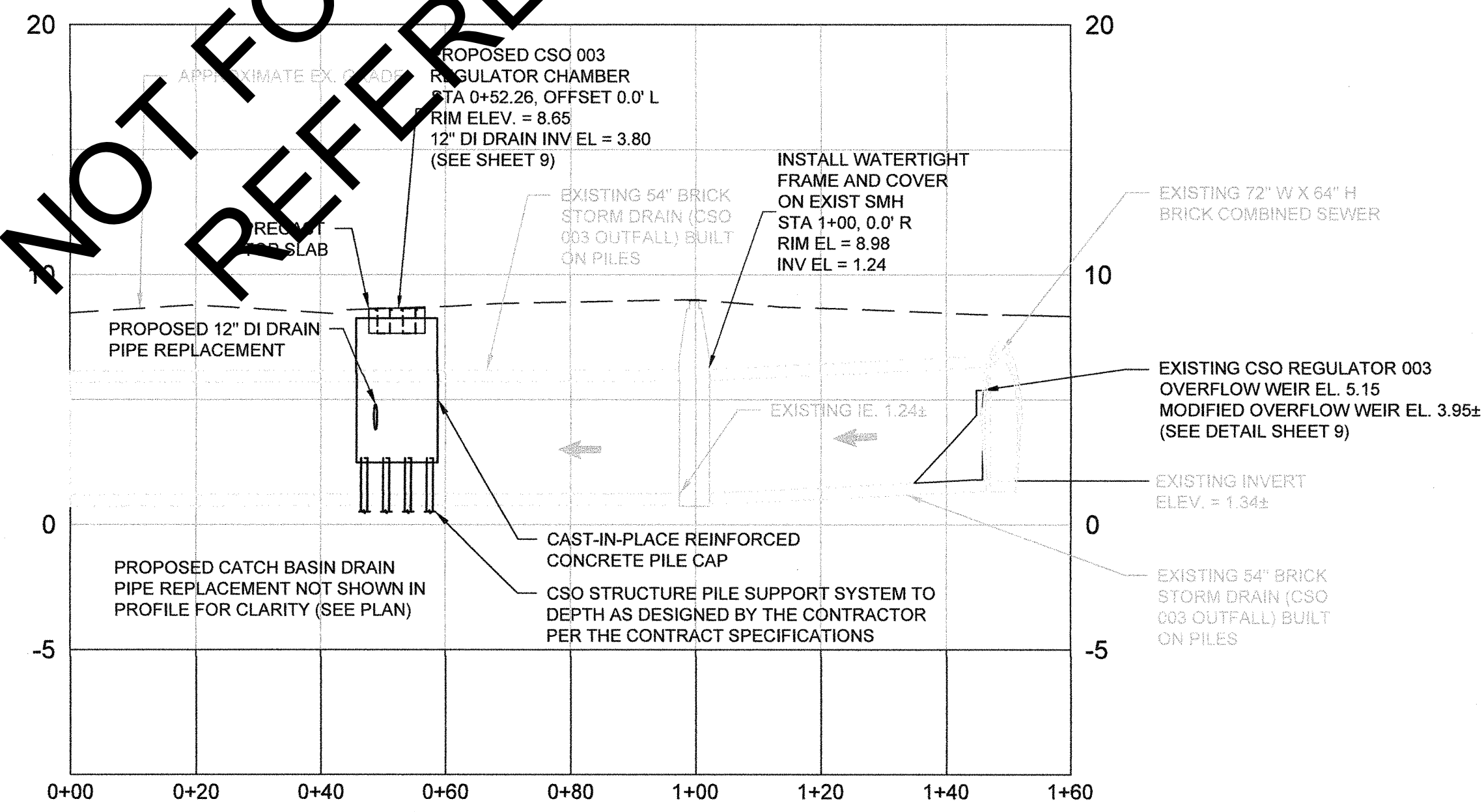
EXISTING CONDITIONS
WHALLEY AVE. & FITCH ST.
CSO REGULATOR 006


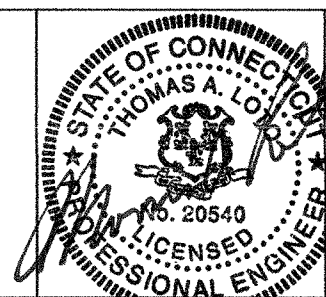

PROJECT NO. CWF 2016-03
FILE NAME:
SHEET NO.
5 OF 48
SCALE:
AS NOTED

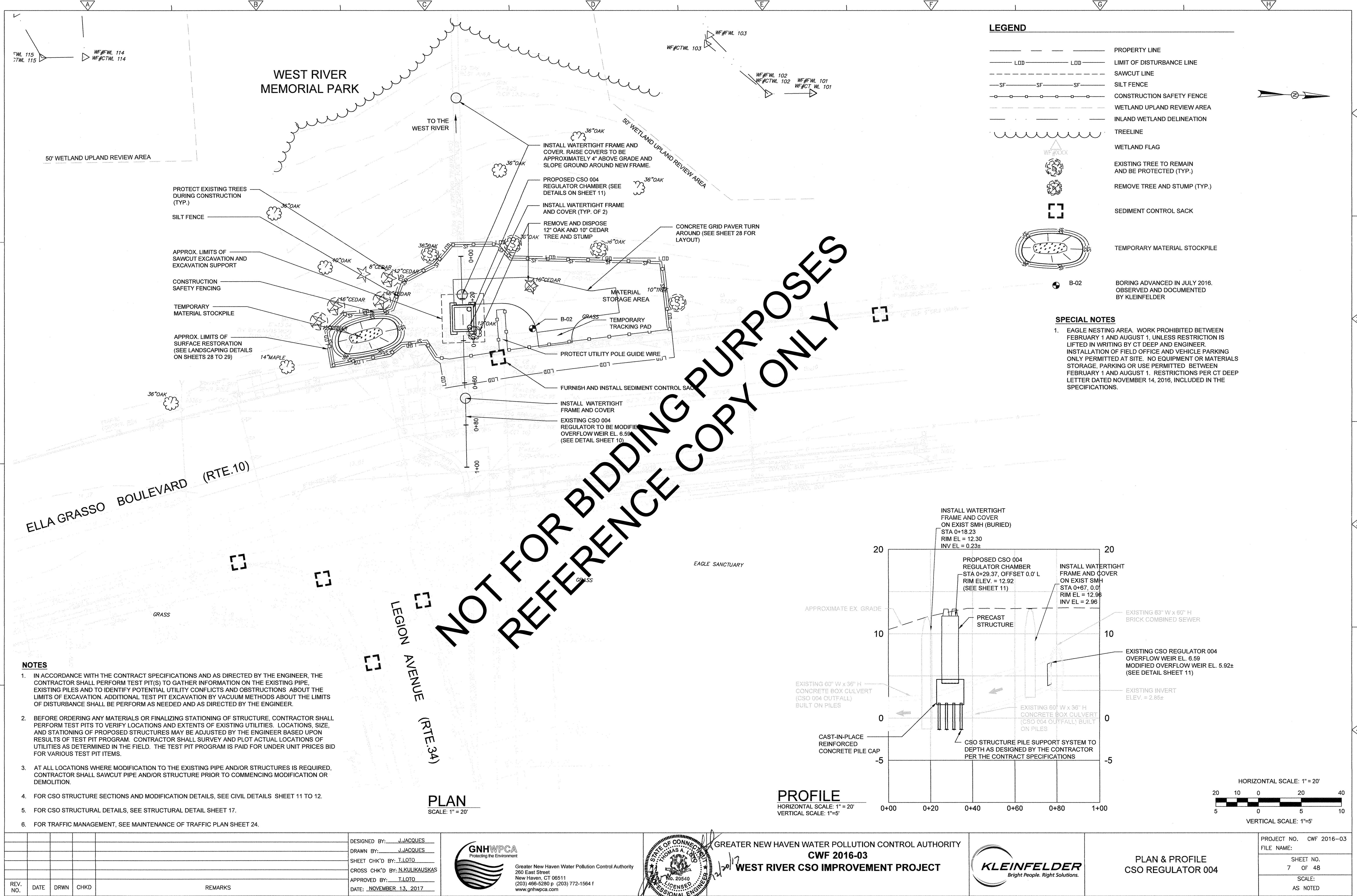


- NOTES**
- IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PERFORM TEST PIT(S) TO GATHER INFORMATION ON THE EXISTING PIPE, EXISTING PILES AND TO IDENTIFY POTENTIAL UTILITY CONFLICTS AND OBSTRUCTIONS ABOUT THE LIMITS OF EXCAVATION. ADDITIONAL TEST PIT EXCAVATION BY VACUUM METHODS ABOUT THE LIMITS OF DISTURBANCE SHALL BE PERFORM AS NEEDED AND AS DIRECTED BY THE ENGINEER.
 - BEFORE ORDERING ANY MATERIALS OR FINALIZING STATIONING OF STRUCTURE, CONTRACTOR SHALL PERFORM TEST PITS TO VERIFY LOCATIONS AND EXTENTS OF EXISTING UTILITIES. LOCATIONS, SIZE, AND STATIONING OF PROPOSED STRUCTURES MAY BE ADJUSTED BY THE ENGINEER BASED UPON RESULTS OF TEST PIT PROGRAM. CONTRACTOR SHALL SURVEY AND PLOT ACTUAL LOCATIONS OF UTILITIES AS DETERMINED IN THE FIELD. THE TEST PIT PROGRAM IS PAID FOR UNDER UNIT PRICES BID FOR VARIOUS TEST PIT ITEMS.
 - AT ALL LOCATIONS WHERE MODIFICATION TO THE EXISTING PIPE AND/OR STRUCTURES IS REQUIRED, CONTRACTOR SHALL SAWCUT PIPE AND/OR STRUCTURE PRIOR TO COMMENCING MODIFICATION OR DEMOLITION.
 - FOR CSO STRUCTURE SECTIONS AND MODIFICATION DETAILS, SEE SHEETS 9 TO 10.
 - FOR CSO STRUCTURAL DETAILS, SEE STRUCTURAL DETAILS SHEET 15 AND 16.
 - FOR A SUGGESTED CONSTRUCTION SEQUENCING, SEE CONSTRUCTION SEQUENCING PLAN SHEET 19.
 - FOR TRAFFIC MANAGEMENT, SEE MAINTENANCE OF TRAFFIC PLANS SHEETS 22 TO 23.

PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'



DESIGNED BY: J.JACQUES	 Greater New Haven Water Pollution Control Authority 260 East Street New Haven, CT 06511 (203) 468-5280 p (203) 772-1584 f www.gnhwpc.com	 THOMAS A. JACQUES No. 20540 LICENSED PROFESSIONAL ENGINEER	GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY CWF 2016-03 WEST RIVER CSO IMPROVEMENT PROJECT	 Bright People. Right Solutions.	PROJECT NO. CWF 2016-03
DRAWN BY: J.JACQUES					FILE NAME:
SHEET CHK'D BY: T.LOTO					SHEET NO. 6 OF 48
CROSS CHK'D BY: N.KULIKAUSKAS					SCALE: AS NOTED
APPROVED BY: T.LOTO					
DATE: NOVEMBER 13, 2017					
REV. NO.	DATE	DRWN	CHKD	REMARKS	



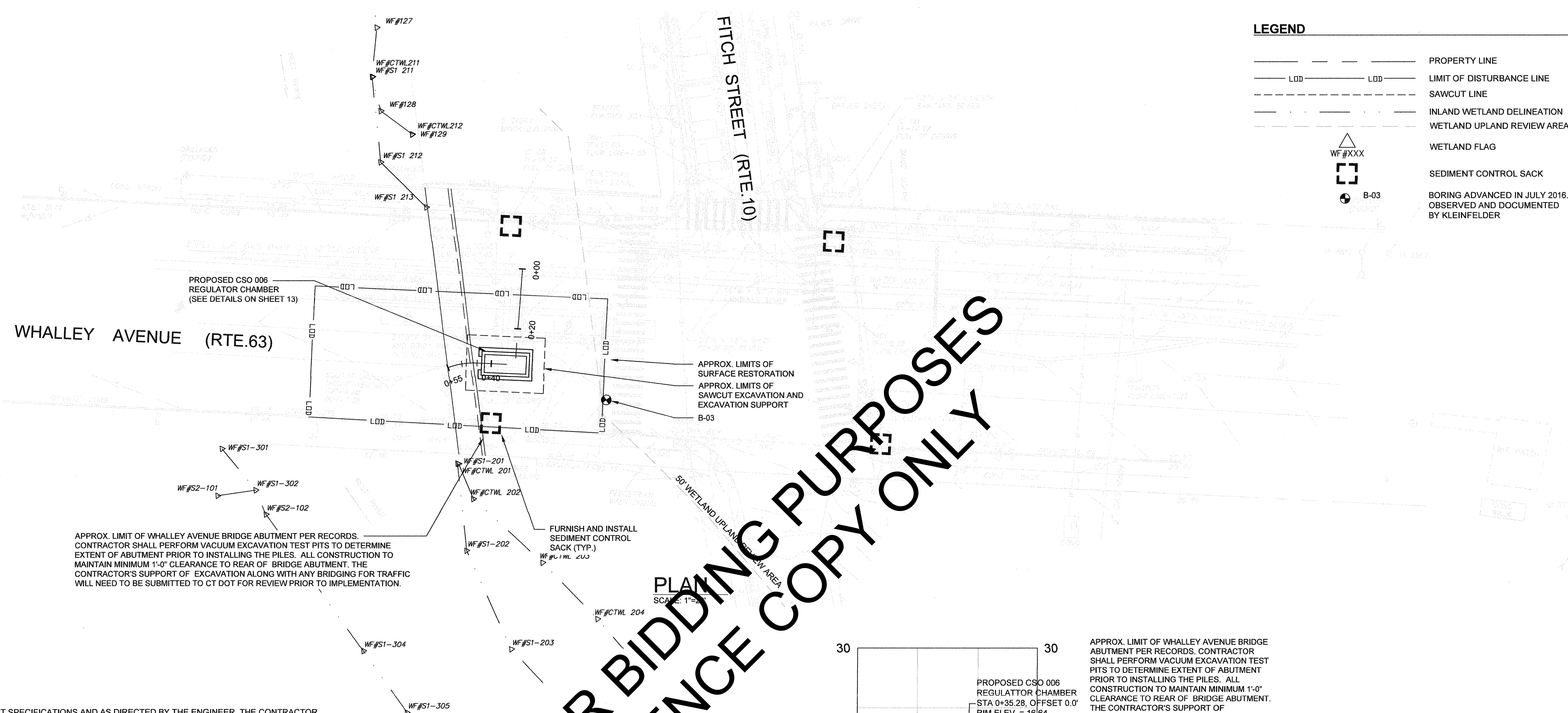
DESIGNED BY: J.JACQUES	GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY	KLEINFELDER Bright People. Right Solutions.	PROJECT NO. CWF 2016-03 FILE NAME:
DRAWN BY: J.JACQUES	CWF 2016-03		
SHEET CHK'D BY: T.LOTO	WEST RIVER CSO IMPROVEMENT PROJECT		
CROSS CHK'D BY: N.KULIKAUSKAS			SHEET NO. 7 OF 48
APPROVED BY: T.LOTO			SCALE: AS NOTED
DATE: NOVEMBER 13, 2017			

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STATE OF CONNECTICUT
THOMAS A. LOLO
No. 20540
LICENSED PROFESSIONAL ENGINEER

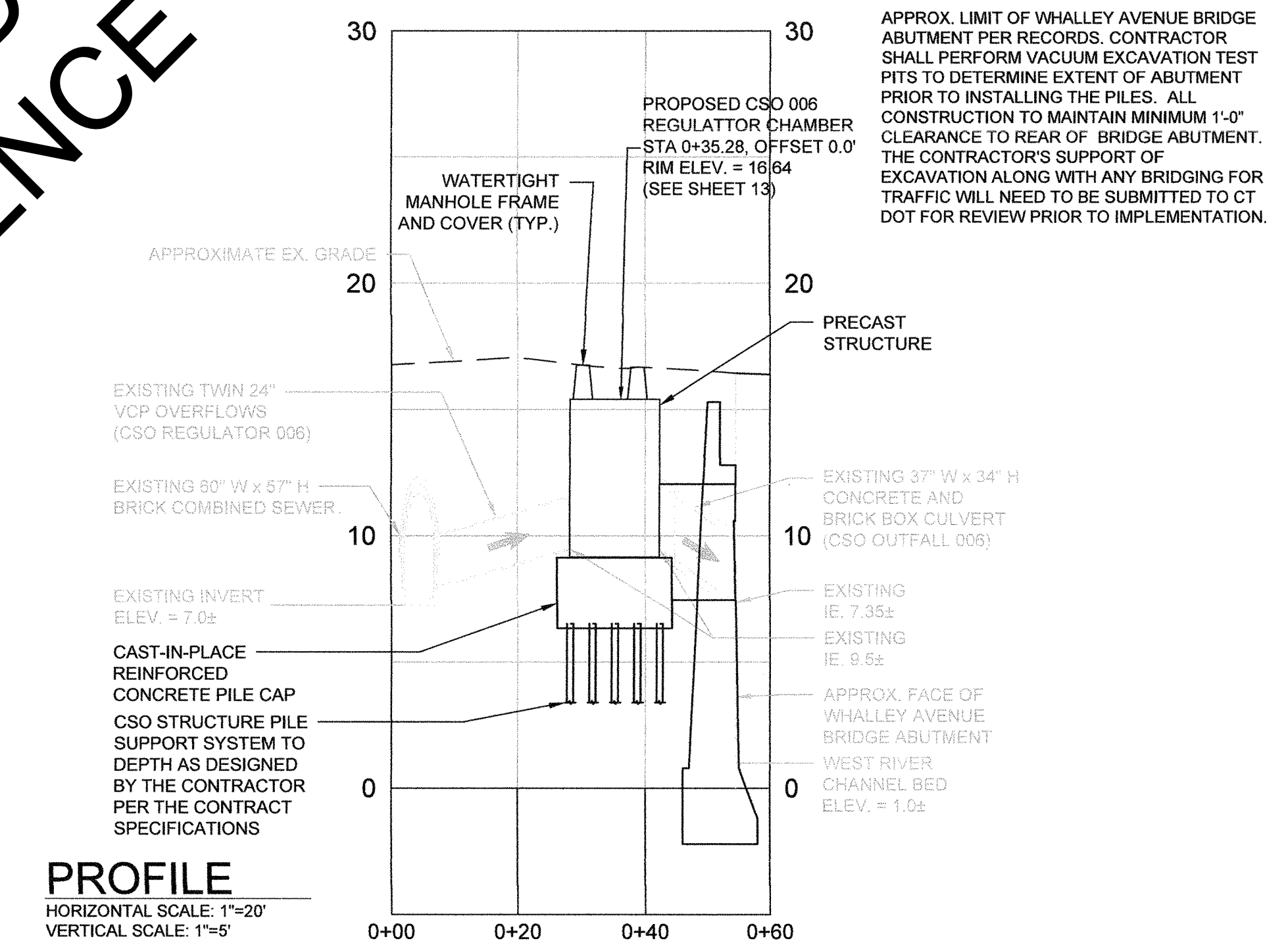
BID SUBMISSION



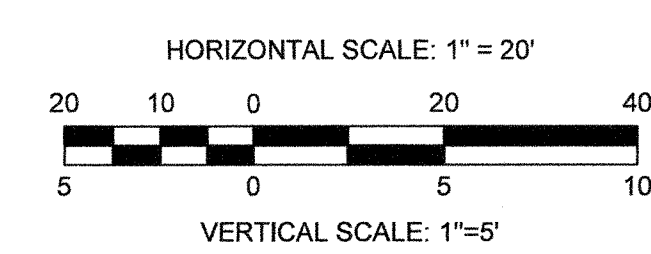
LEGEND


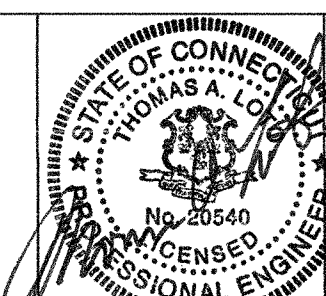

- PROPERTY LINE
- LIMIT OF DISTURBANCE LINE
- SAWCUT LINE
- INLAND WETLAND DELINEATION
- WETLAND UPLAND REVIEW AREA
- WETLAND FLAG
- SEDIMENT CONTROL SACK
- BORING ADVANCED IN JULY 2016. OBSERVED AND DOCUMENTED BY KLEINFELDER

- NOTES**
- IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PERFORM TEST PIT(S) TO GATHER INFORMATION ON THE EXISTING PIPE, EXISTING PILES AND TO IDENTIFY POTENTIAL UTILITY CONFLICTS AND OBSTRUCTIONS. ABOUT THE LIMITS OF EXCAVATION. ADDITIONAL TEST PIT EXCAVATION BY VACUUM METHODS ABOUT THE LIMITS OF DISTURBANCE SHALL BE PERFORM AS NEEDED AND AS DIRECTED BY THE ENGINEER.
 - BEFORE ORDERING ANY MATERIALS OR FINALIZING STATIONING OF STRUCTURE, CONTRACTOR SHALL PERFORM TEST PITS TO VERIFY LOCATIONS AND EXTENTS OF EXISTING UTILITIES. LOCATIONS, SIZE, AND STATIONING OF PROPOSED STRUCTURES MAY BE ADJUSTED BY THE ENGINEER BASED UPON RESULTS OF TEST PIT PROGRAM. CONTRACTOR SHALL SURVEY AND PLOT ACTUAL LOCATIONS OF UTILITIES AS DETERMINED IN THE FIELD. THE TEST PIT PROGRAM IS PAID FOR UNDER UNIT PRICES BID FOR VARIOUS TEST PIT ITEMS.
 - AT ALL LOCATIONS WHERE MODIFICATION TO THE EXISTING PIPE AND/OR STRUCTURES IS REQUIRED, CONTRACTOR SHALL SAWCUT PIPE AND/OR STRUCTURE PRIOR TO COMMENCING MODIFICATION OR DEMOLITION.
 - ANY IMPACT TO THE WHALLEY AVE. BRIDGE APPROACH SLAB SHALL BE REPAIRED AT THE DIRECTION OF CT DOT. APPROACH SLAB TO BE LOCATED BY TEST PIT PROGRAM. ADJUST STRUCTURE ORIENTATION, SIZE AND STATIONING BASED UPON TEST PIT PROGRAM.
 - FOR CSO STRUCTURE SECTIONS AND MODIFICATION DETAILS, SEE CIVIL DETAIL SHEET 13.
 - FOR CSO STRUCTURAL DETAILS, SEE STRUCTURAL DETAIL SHEET 18.
 - FOR A SUGGESTED CONSTRUCTION SEQUENCING, SEE CONSTRUCTION SEQUENCING PLAN SHEET 20.
 - FOR TRAFFIC MANAGEMENT, SEE MAINTENANCE OF TRAFFIC PLANS SHEETS 25 TO 26.

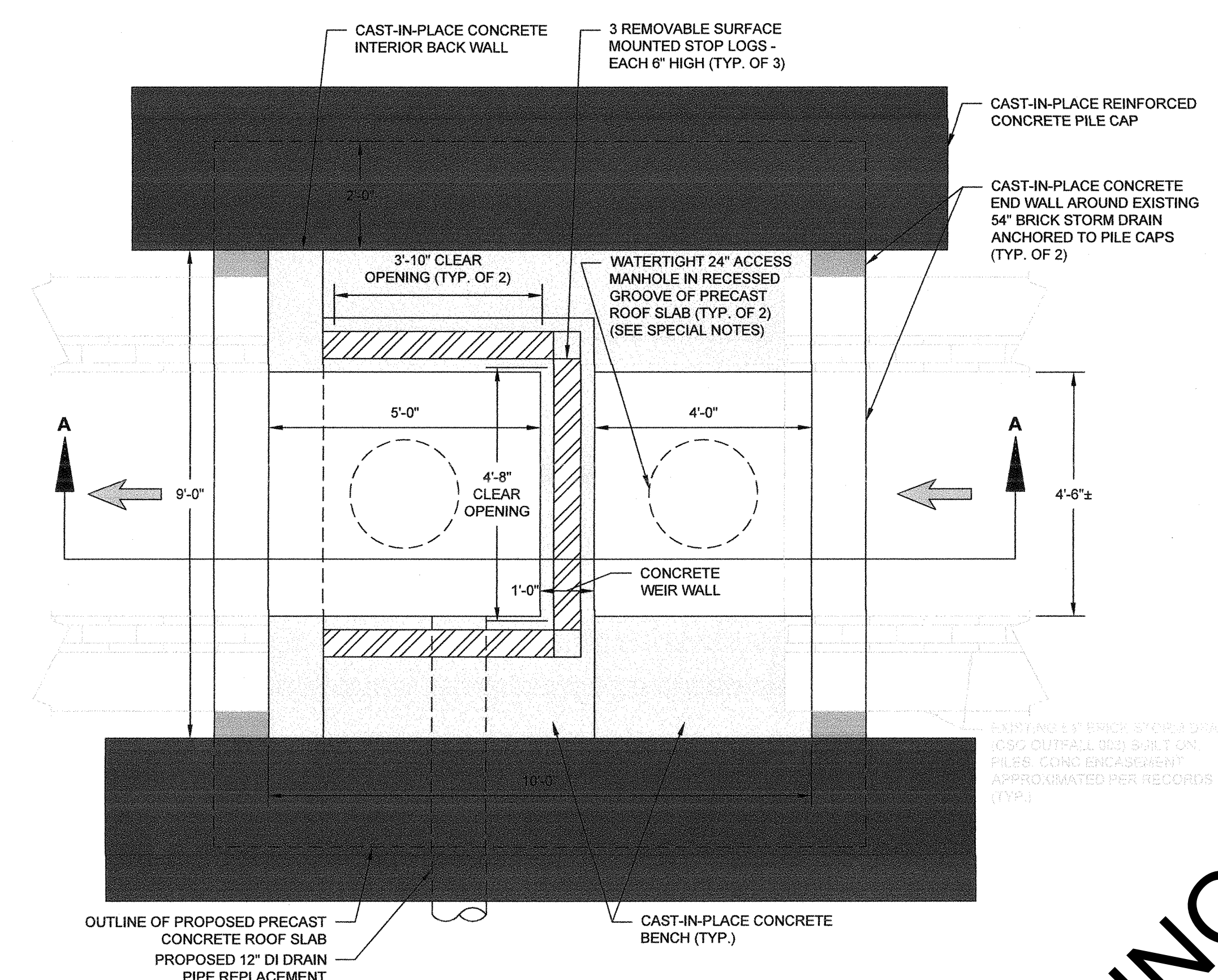


PROFILE
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=5'

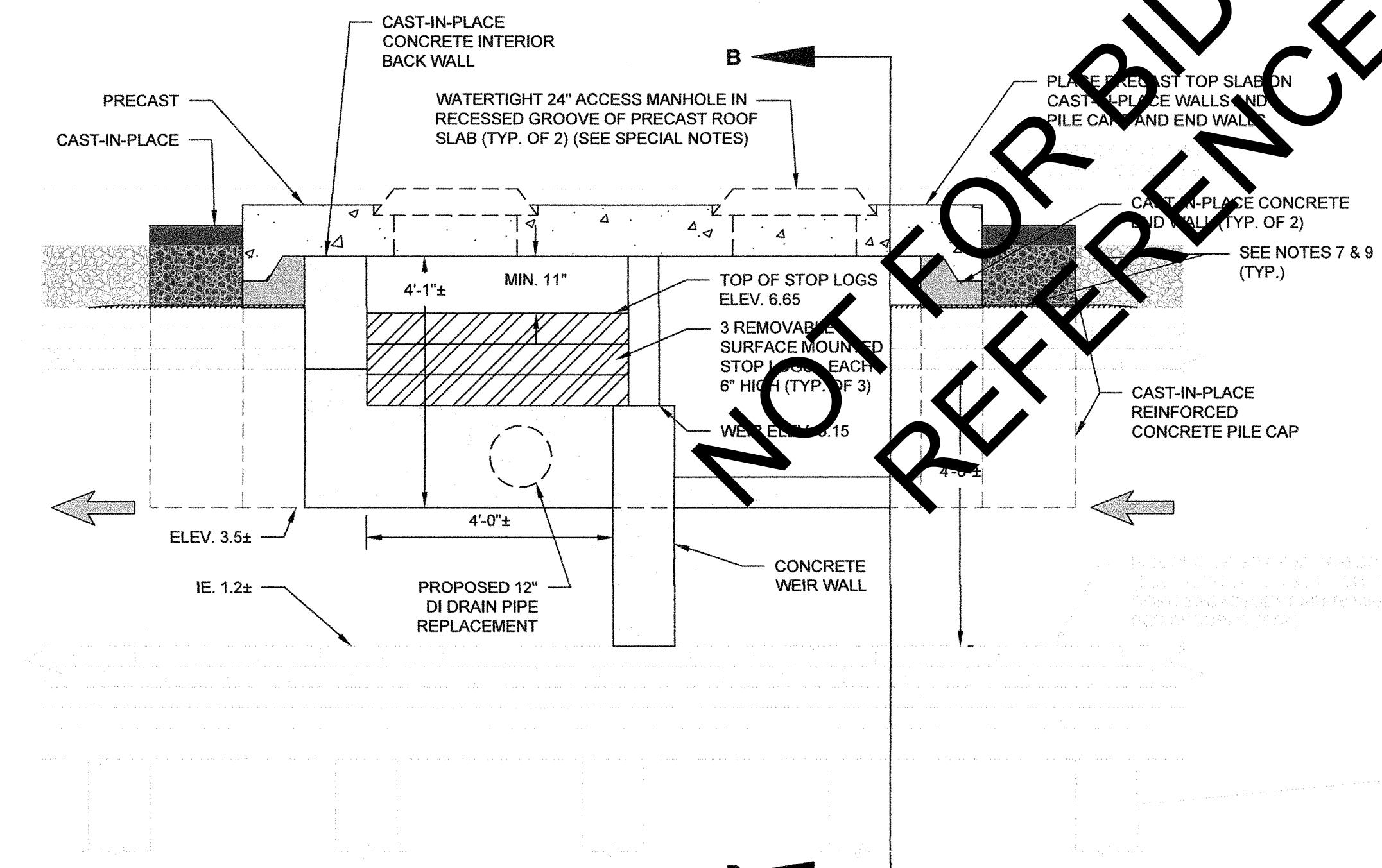


					DESIGNED BY: J.JACQUES	 Greater New Haven Water Pollution Control Authority 260 East Street New Haven, CT 06511 (203) 466-5280 p (203) 772-1564 f www.gnhwpca.com	 GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY CWF 2016-03 WEST RIVER CSO IMPROVEMENT PROJECT	 KLEINFELDER Bright People. Right Solutions.	PLAN & PROFILE CSO REGULATOR 006	PROJECT NO. CWF 2016-03 FILE NAME: SHEET NO. 8 OF 48 SCALE: AS NOTED		
					DRAWN BY: J.JACQUES							
					SHEET CHK'D BY: T.LOTO							
					CROSS CHK'D BY: N.KULIKAUSKAS							
REV. NO.	DATE	DRWN	CHKD	REMARKS	APPROVED BY: T.LOTO							
					DATE: NOVEMBER 13, 2017							

- CAST-IN-PLACE PILE CAP
CAST-IN-PLACE END WALL
CAST-IN-PLACE INTERIOR WORK



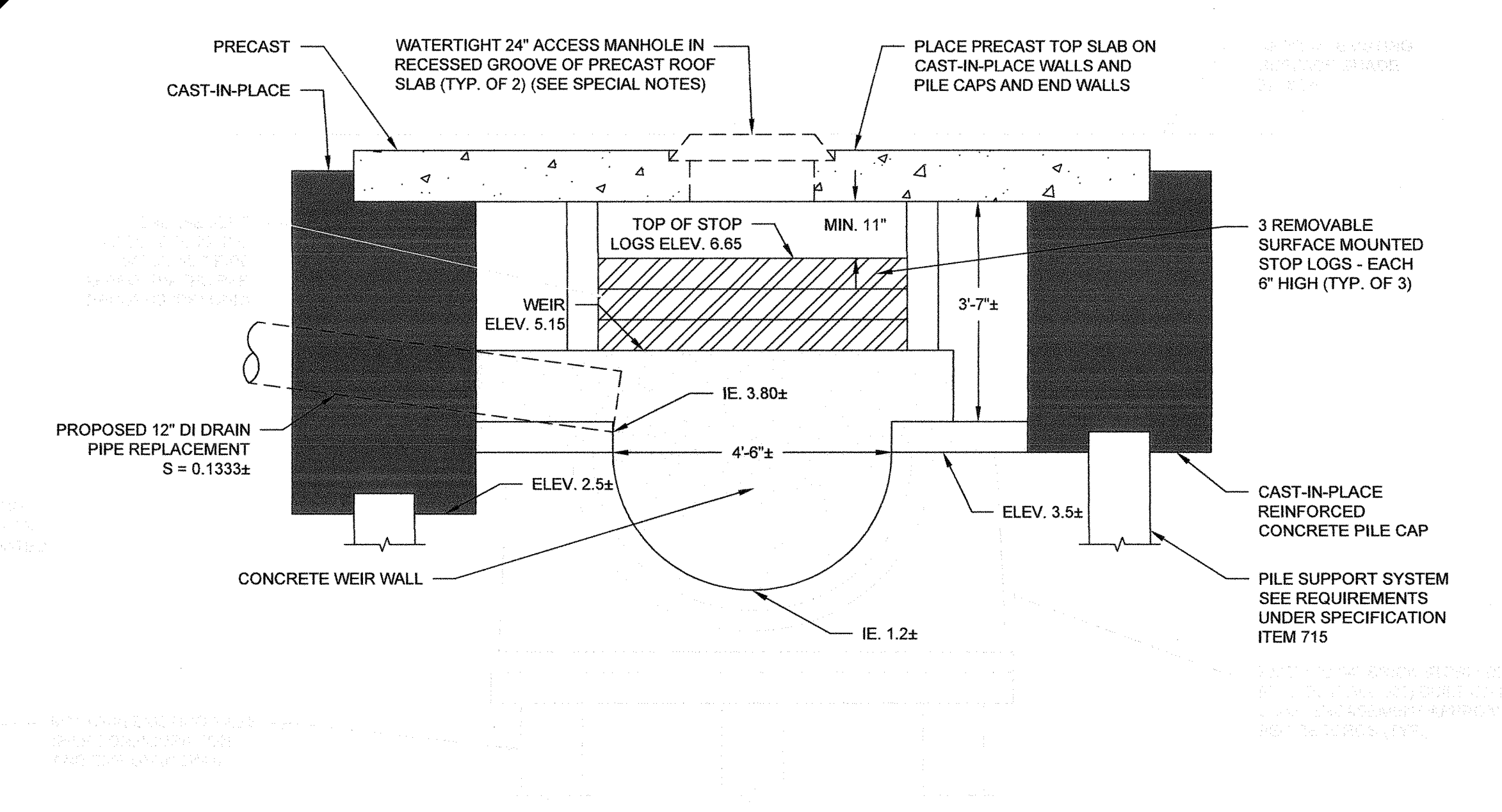
PLAN - PROPOSED CSO REGULATOR 003
1/2" = 1'-0"




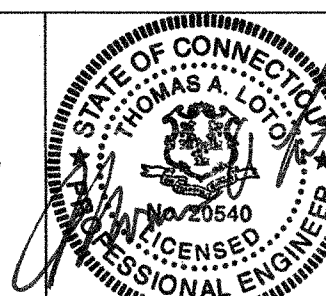

SECTION A-A - PROPOSED CSO REGULATOR 003
1/2" = 1'-0"

- NOTES:**
- FOR GENERAL SITE INFORMATION, REFER TO THE CIVIL SITE PLAN (SEE SHEET 6).
 - THE CONTRACTOR SHALL VERIFY EXISTING CONDITION INFORMATION. EXISTING INFORMATION SHALL BE CONSIDERED APPROXIMATIONS.
 - CONFIRM DRY WEATHER PATTERN FOR DURATION OF STRUCTURE CONSTRUCTION.
 - EXCAVATE AND EXPOSE TOP OF THE OUTFALL CULVERT AND PROVIDE EXCAVATION SUPPORT.
 - HAND DIG ALONG SIDE TO VERIFY WIDTH AND SECURE EXCAVATION.
 - EXCAVATE NO DEEPER THAN THE SPRING LINE OF THE OUTFALL PIPE (UNLESS OTHERWISE NOTED).
 - CLEAN BRICK OUTFALL PIPE AND COVER WITH LATH. APPLY LATEX BONDING AGENT TO OUTFALL PIPE AND COAT WITH 1/2" THICK MORTAR.
 - INSTALL STRUCTURE PILE CAP BASE AND ENDWALLS AND SEAL AROUND OUTFALL.
 - PLACE 12" OF CONCRETE FILL ABOVE OUTFALL PIPE OUTSIDE STRUCTURE TO BELOW TO STRUCTURE SHELF.
 - CUT OPENING IN OUTFALL WITH DIAMOND SAW WITHOUT DROPPING PIECES OF OUTFALL INTO OUTFALL.
 - INSTALL INTERIOR STRUCTURE COMPONENTS AS SHOWN HEREIN.
 - FOR CSO STRUCTURAL DETAILS, SEE STRUCTURAL DETAILS (SHEETS 15 AND 16).
 - FOR A SUGGESTED CONSTRUCTION SEQUENCING, SEE CONSTRUCTION SEQUENCING PLANS (SHEET 19).
- (REFER TO GNHWPCA STANDARD DETAIL SD523-14, DOGHOUSE MANHOLE OVER BRICK SEWER MAIN, AS SHOWN ON SHEET 31 FOR ADDITIONAL DETAILS REGARDING INSTALLATION OF STRUCTURE OVER BRICK SEWER)

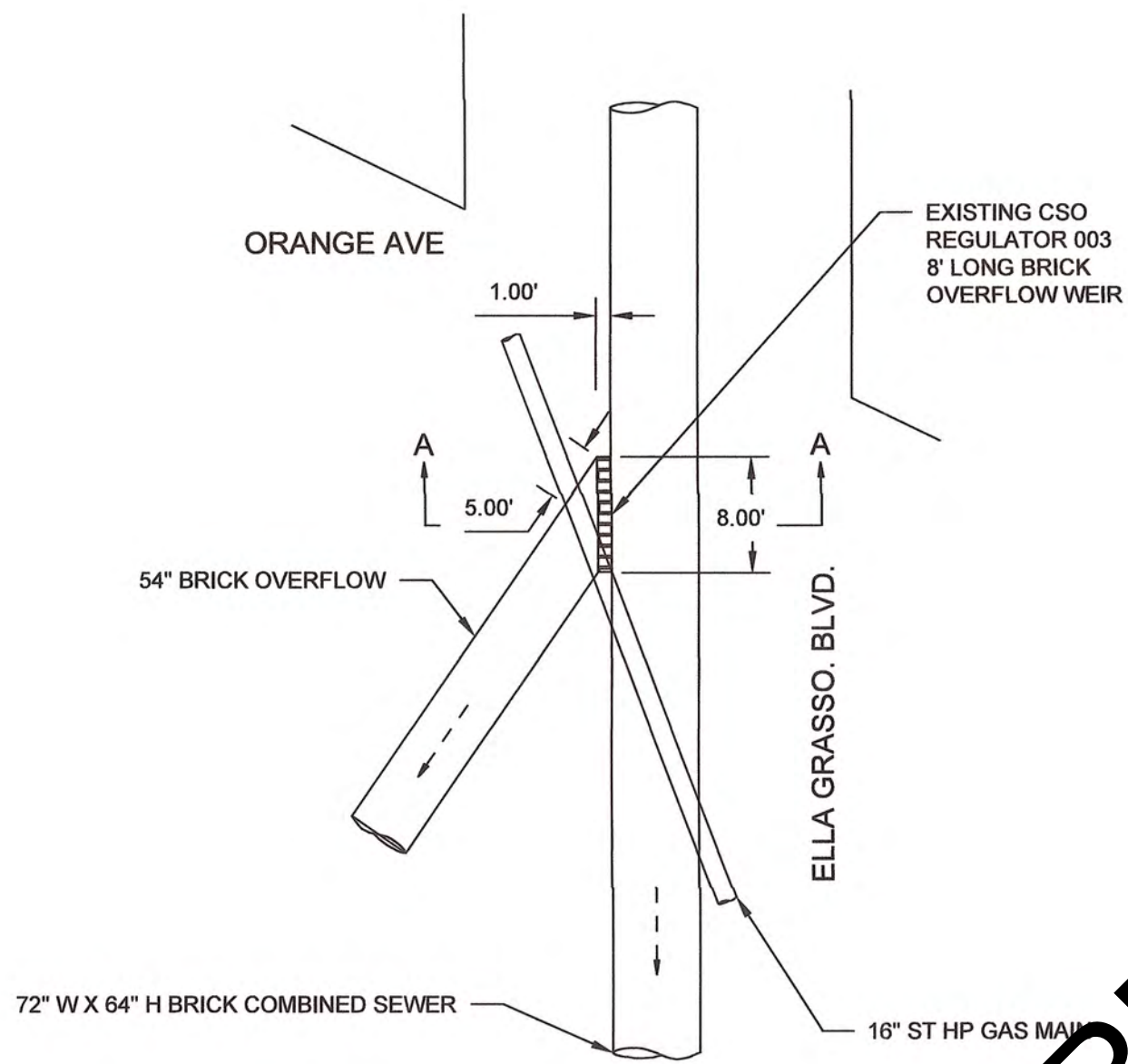
- SPECIAL NOTES:**
- THE CONTRACTOR SHALL COORDINATE THE MANUFACTURING OF THE PROPOSED PRECAST ROOF SLAB WITH THE ENGINEER TO PROVIDE A RECESSED GROOVE FOR THE PROPOSED 24" WATERTIGHT MANHOLE FRAME AND COVERS. AT THE LOCATION OF THE PROPOSED RECESSED GROOVES, THE PRECAST ROOF SLAB SHALL MAINTAIN A MINIMUM 8" THICKNESS OR AS RECOMMENDED BY THE PRECAST MANUFACTURER.
 - THE CONTRACTOR SHALL COORDINATE THE FABRICATION OF THE PROPOSED 24" WATERTIGHT MANHOLE FRAME AND COVERS WITH THE ENGINEER. THE PROPOSED MANHOLE FRAME AND COVERS SHALL BE FABRICATED TO MATCH THE EXISTING GRADE AT THE LOCATION OF EACH RECESSED GROOVE IN THE PROPOSED PRECAST ROOF SLAB. THE ANCHORING FOR THE PROPOSED MANHOLE FRAME SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS. FRAME AND COVER MATERIALS SHALL CONFORM TO SPECIFICATION OF THE CONTRACT DOCUMENTS.



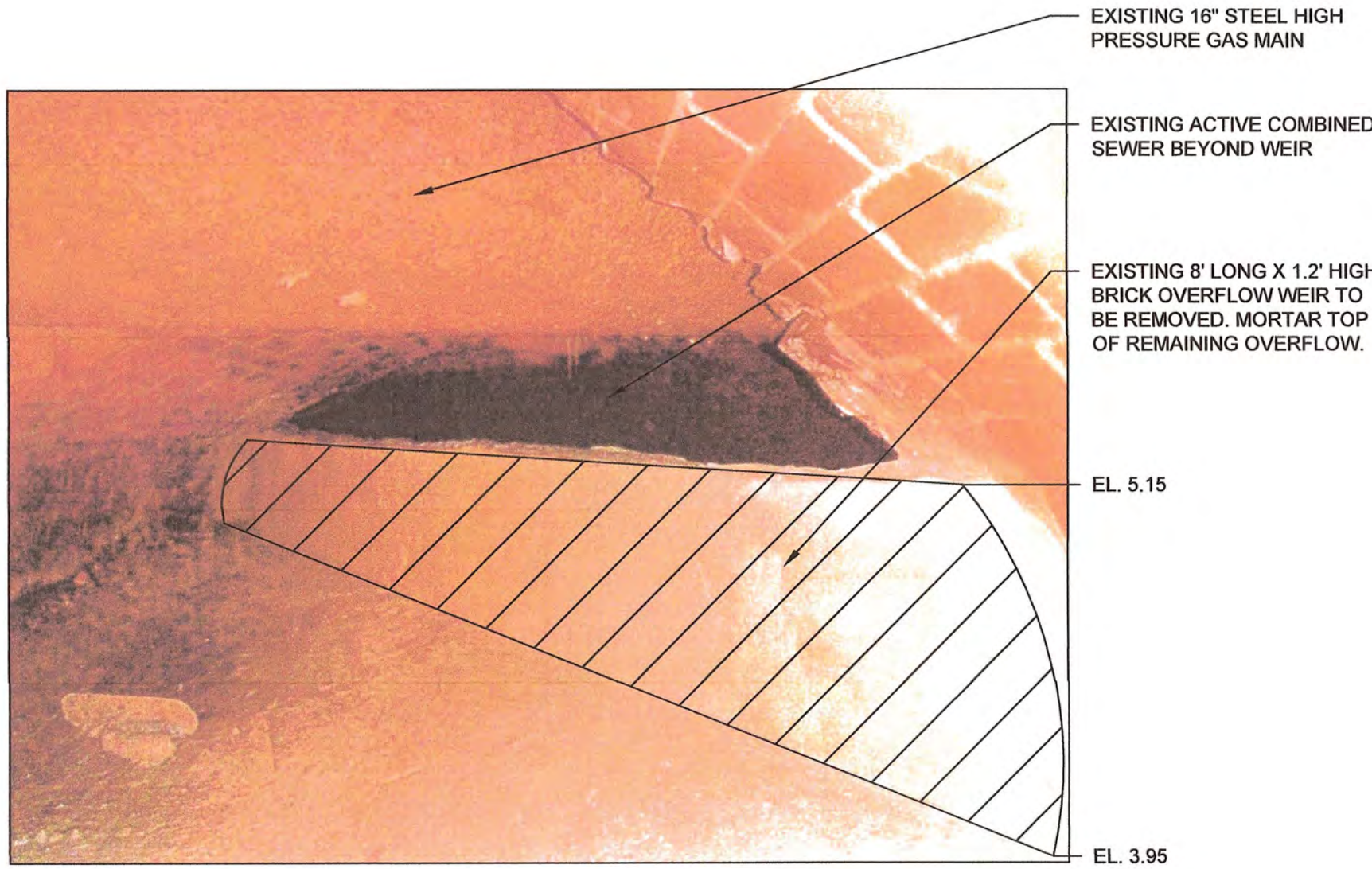
SECTION B-B - PROPOSED CSO REGULATOR 003
1/2" = 1'-0"

					DESIGNED BY: <u>J.JACQUES</u>	 Greater New Haven Water Pollution Control Authority 260 East Street New Haven, CT 06511 (203) 468-5280 p (203) 772-1584 f www.gnhwpcas.com	 THOMAS A. LOTO No. 20540 Professional Engineer	GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY CWF 2016-03 WEST RIVER CSO IMPROVEMENT PROJECT	 KLEINFELDER Bright People. Right Solutions.	CIVIL DETAILS CSO REGULATOR 003	PROJECT NO. CWF 2016-03
				DRAWN BY: <u>J.JACQUES</u>	FILE NAME:						
				SHEET CHK'D BY: <u>T.LOTO</u>	SHEET NO. 9 OF 48						
				CROSS CHK'D BY: <u>N.KULIKAIUSKAS</u>	SCALE: AS NOTED						
				APPROVED BY: <u>T.LOTO</u>							
				DATE: <u>NOVEMBER 13, 2017</u>							
REV. NO.	DATE	DRWN	CHKD	REMARKS							

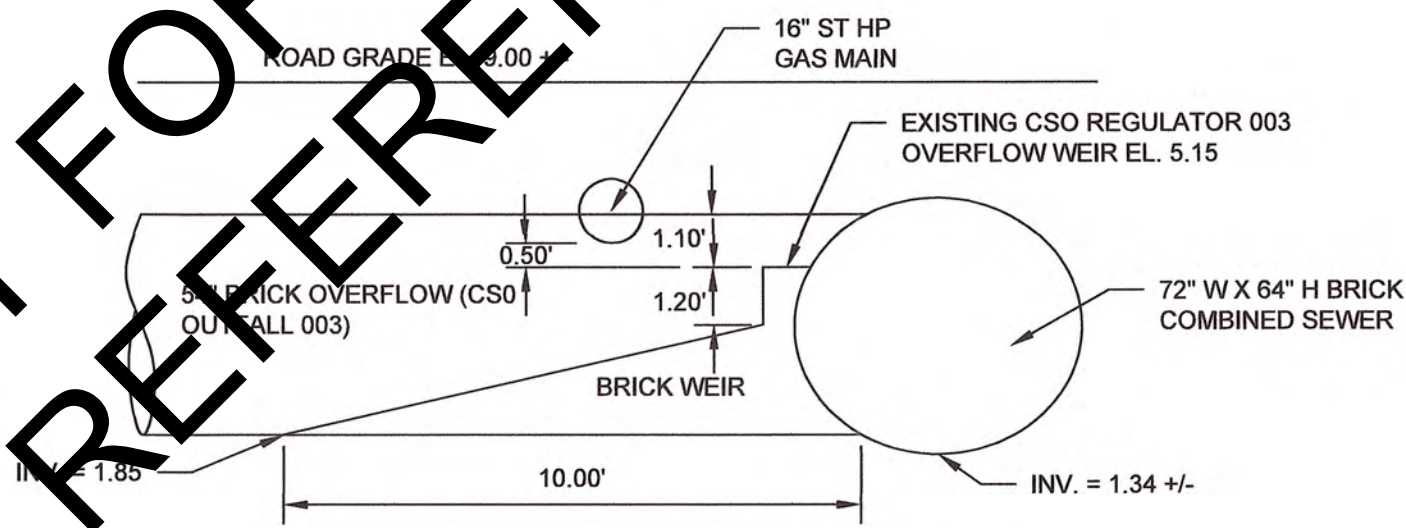
- NOTES:**
1. THE CONTRACTOR SHALL VERIFY EXISTING CONDITION INFORMATION. EXISTING INFORMATION SHALL BE CONSIDERED APPROXIMATIONS.
 2. SEE ADDITIONAL NOTES ON SHEET 9.



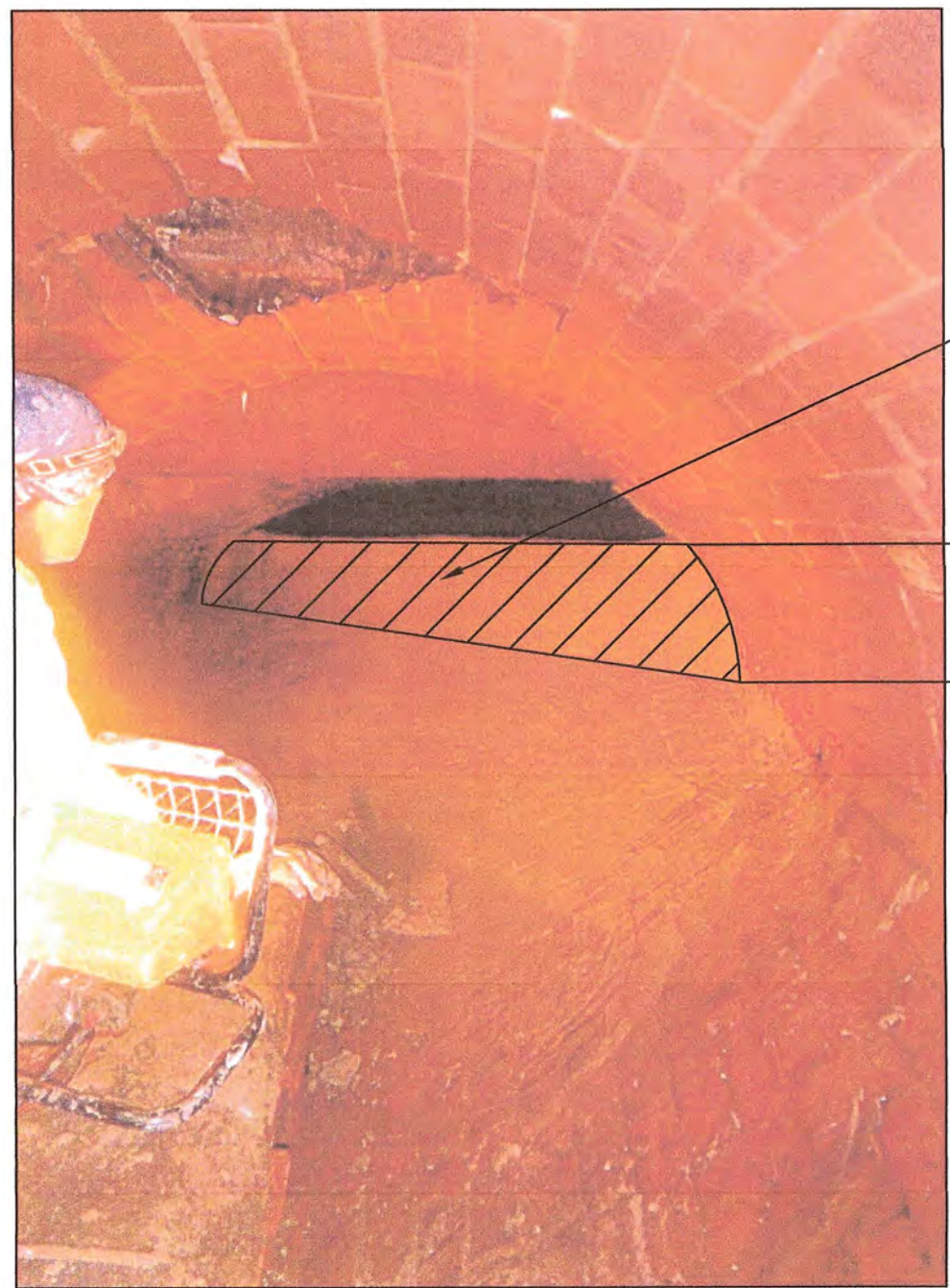
SCHMATIC PLAN - EXISTING CSO REGULATOR 003
SCALE: 1" = 1'-0"



MODIFICATIONS TO EXISTING CSO REGULATOR 003



SECTION A-A - EXISTING CSO REGULATOR 003
SCALE: 3" = 1'-0"



MODIFICATIONS TO EXISTING CSO REGULATOR 003

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: J. JACQUES
DRAWN BY: J. JACQUES
SHEET CHK'D BY: T. LOTO
CROSS CHK'D BY: N. KULIKAUSKAS
APPROVED BY: T. LOTO
DATE: NOVEMBER 13, 2017



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THOMAS A. LOTO
20540
LICENSED PROFESSIONAL ENGINEER

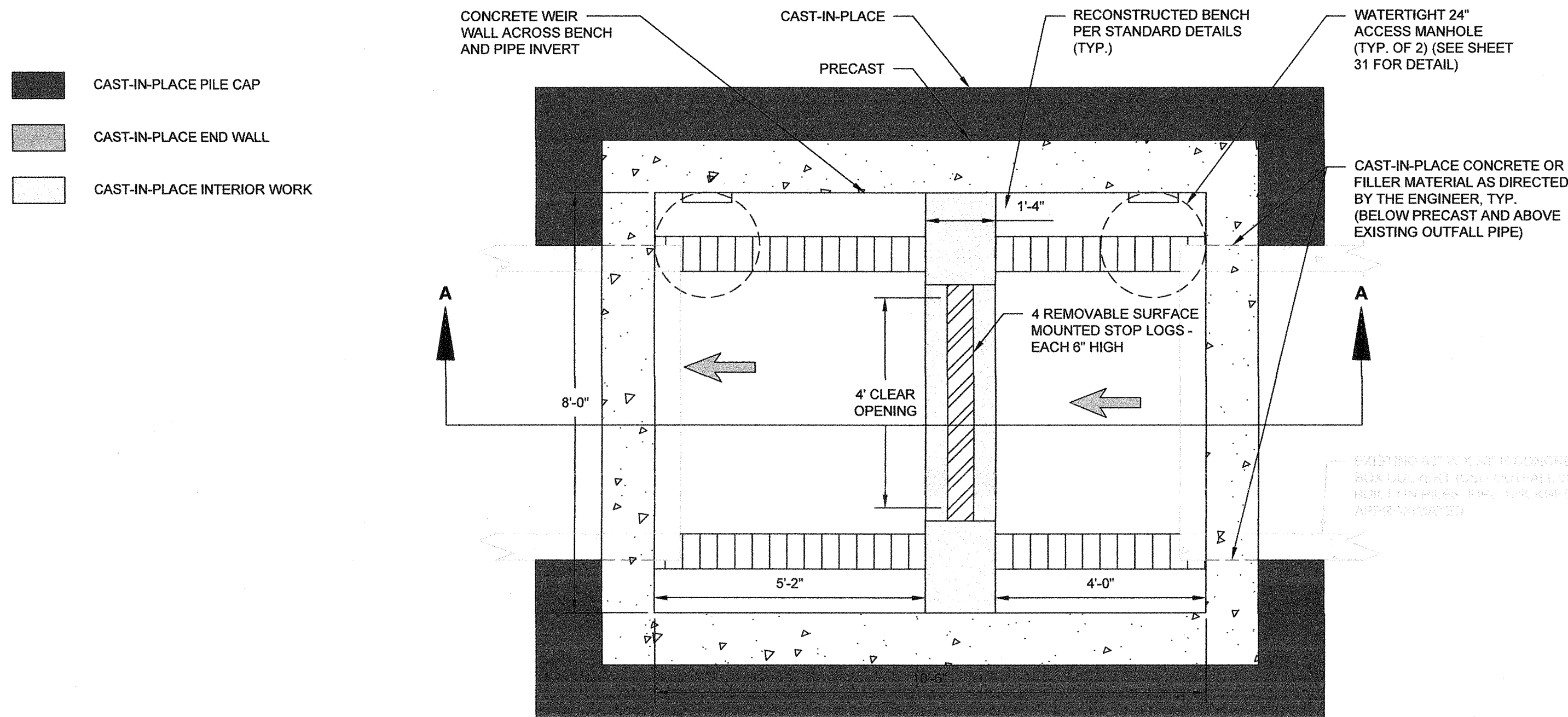
GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
WEST RIVER CSO IMPROVEMENT PROJECT



KLEINFELDER
Bright People. Right Solutions.

CIVIL RECORDS
CSO REGULATOR 003

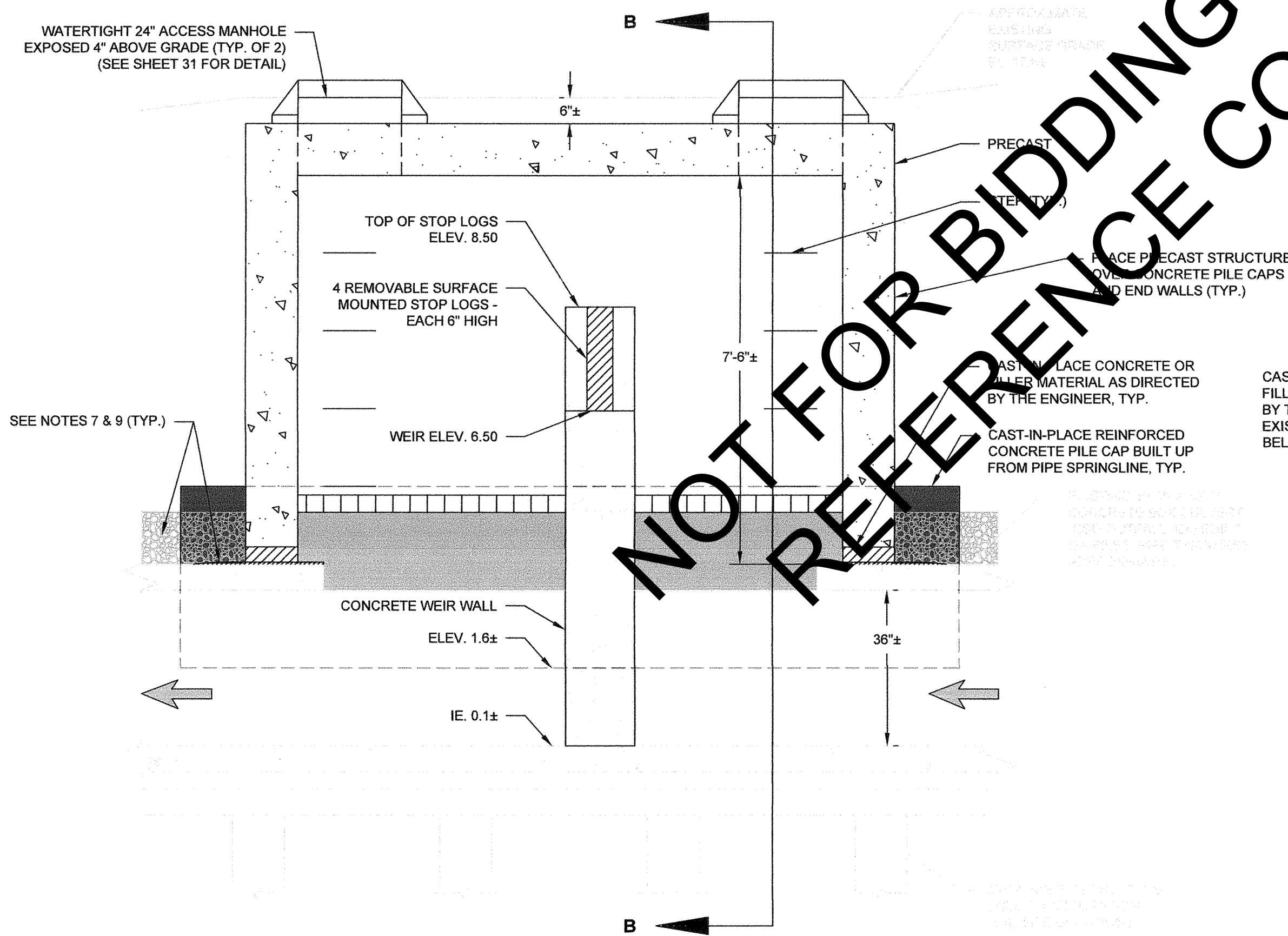
PROJECT NO. CWF 2016-03
FILE NAME:
SHEET NO. 10 OF 48
SCALE: AS NOTED



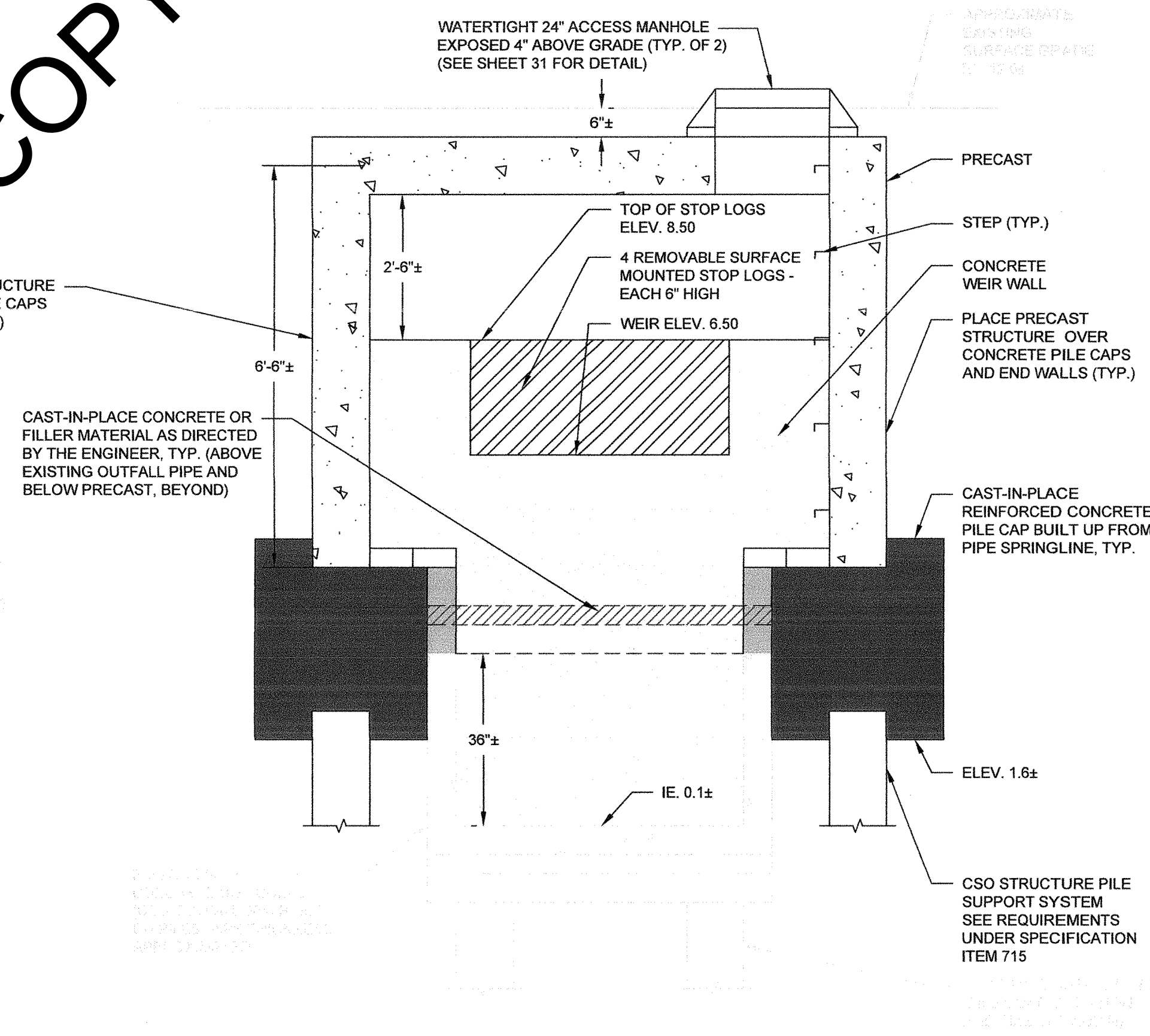
PLAN - PROPOSED CSO REGULATOR 004
1/2" = 1'-0"

NOTES:

- FOR GENERAL SITE INFORMATION, REFER TO THE CIVIL SITE PLAN (SEE SHEET 7).
- THE CONTRACTOR SHALL VERIFY EXISTING CONDITION INFORMATION. EXISTING INFORMATION SHALL BE CONSIDERED APPROXIMATIONS.
- CONFIRM DRY WEATHER PATTERN FOR DURATION OF STRUCTURE CONSTRUCTION.
- EXCAVATE AND EXPOSE TOP OF THE OUTFALL CULVERT AND PROVIDE EXCAVATION SUPPORT.
- HAND DIG ALONG SIDE TO VERIFY WIDTH AND SECURE EXCAVATION.
- EXCAVATE NO DEEPER THAN THE SPRING LINE OF THE OUTFALL CULVERT (UNLESS OTHERWISE NOTED).
- CLEAN OUTFALL CULVERT AND COVER WITH LATH. APPLY LATEX BONDING AGENT TO OUTFALL CULVERT AND COAT WITH 1/2" THICK MORTAR.
- INSTALL STRUCTURE PILE CAP BASE AND SEAL AROUND OUTFALL.
- PLACE 12" OF CONCRETE FILL ABOVE OUTFALL CULVERT OUTSIDE STRUCTURE TO BELOW TO STRUCTURE SHELF.
- CUT OPENING IN OUTFALL WITH DIAMOND SAW WITHOUT DROPPING PIECES OF OUTFALL INTO OUTFALL.
- INSTALL INTERIOR STRUCTURE COMPONENTS AS SHOWN HEREIN.
- FOR CSO STRUCTURAL DETAILS, SEE STRUCTURAL DETAILS (SHEETS 15 AND 17).



SECTION A-A - PROPOSED CSO REGULATOR 004
1/2" = 1'-0"

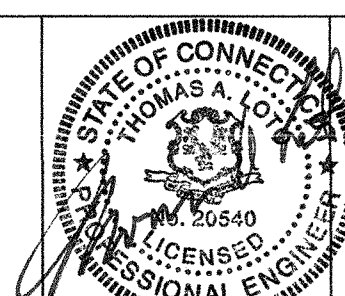


SECTION B-B - PROPOSED CSO REGULATOR 004
1/2" = 1'-0"

DESIGNED BY: J. JACQUES	REV. NO.	DATE	DRWN	CHKD	REMARKS
DRAWN BY: J. JACQUES					
SHEET CHK'D BY: T. LOTO					
CROSS CHK'D BY: N. KULIKAUSKAS					
APPROVED BY: T. LOTO					
DATE: NOVEMBER 13, 2017					



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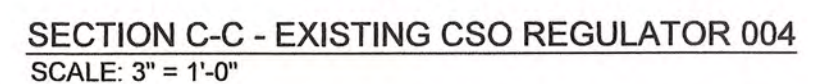
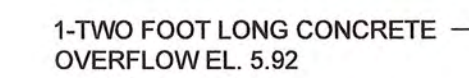
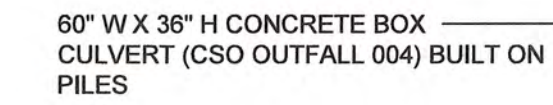
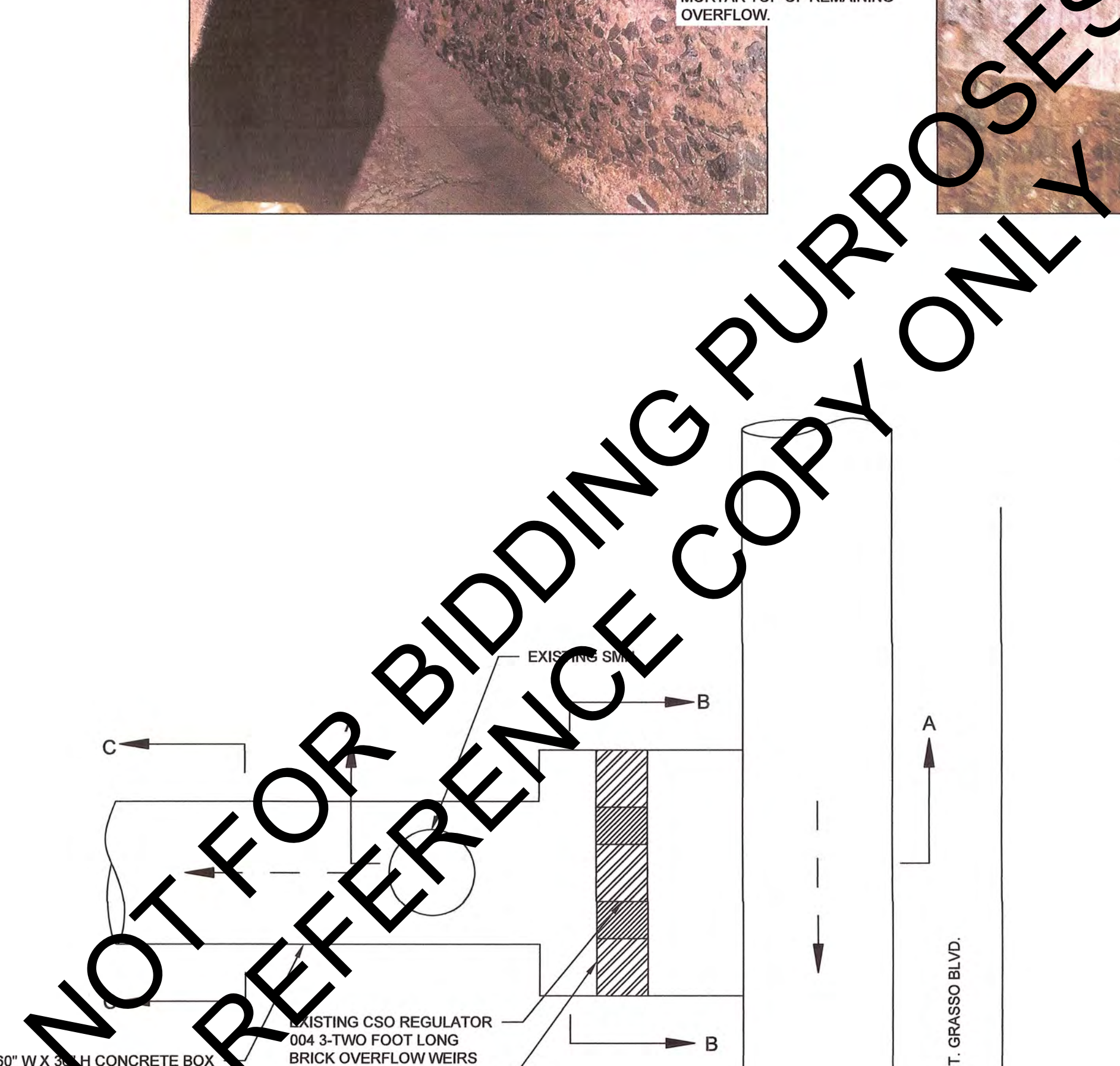
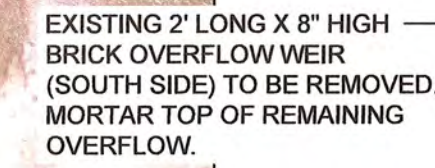
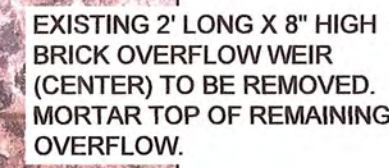
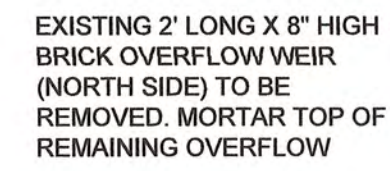
GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
WEST RIVER CSO IMPROVEMENT PROJECT



CIVIL DETAILS
CSO REGULATOR 004

PROJECT NO. CWF 2016-03
FILE NAME:
SHEET NO. 11 OF 48
SCALE: AS NOTED

1. THE CONTRACTOR SHALL VERIFY EXISTING CONDITION INFORMATION. EXISTING INFORMATION SHALL BE CONSIDERED APPROXIMATIONS.
2. SEE ADDITIONAL NOTES ON SHEET 11.



DESIGNED BY: J.JACQUES
DRAWN BY: J.JACQUES
SHEET CHK'D BY: T.LOTO
CROSS CHK'D BY: N.KULIKAUSKAS
APPROVED BY: T.LOTO
DATE: NOVEMBER 13, 2017



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New Haven, CT 06511
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GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
12/1/17 WEST RIVER CSO IMPROVEMENT PROJECT

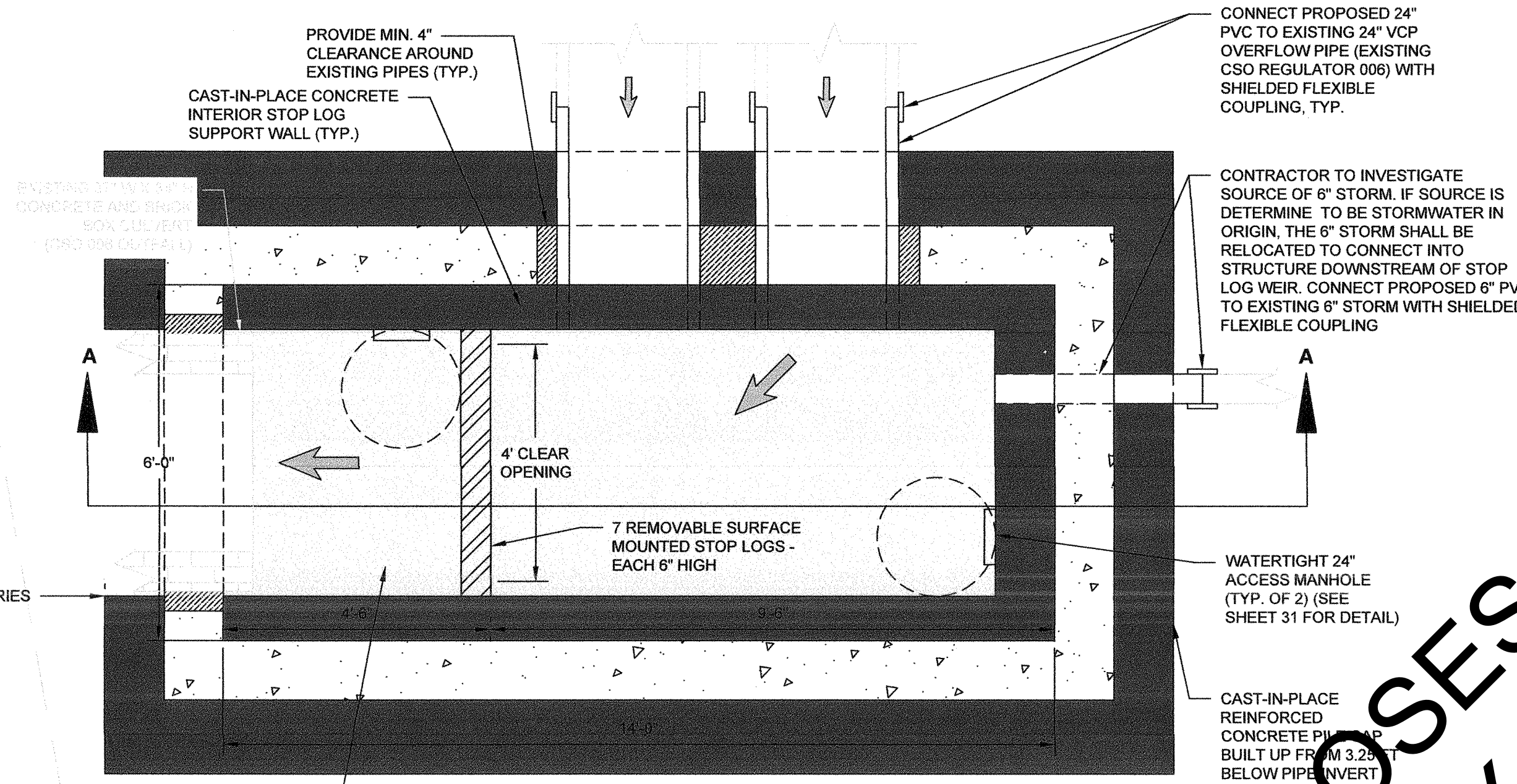


CIVIL RECORDS
CSO REGULATOR 004

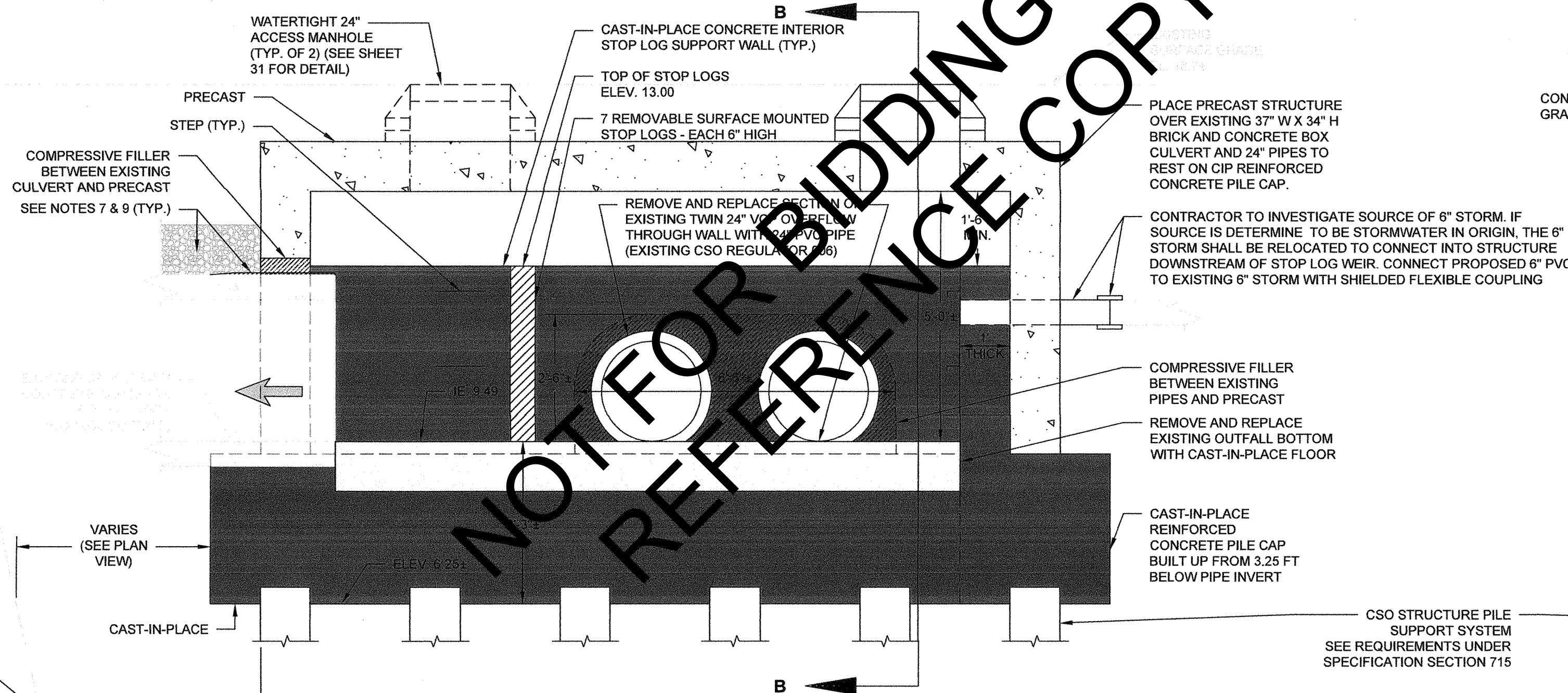
PROJECT NO.	CWF 2016-03
TITLE NAME:	
SHEET NO.	
12 OF 48	
SCALE:	
AS NOTED	

- CAST-IN-PLACE PILE CAP
- CAST-IN-PLACE END WALL
- CAST-IN-PLACE INTERIOR WORK

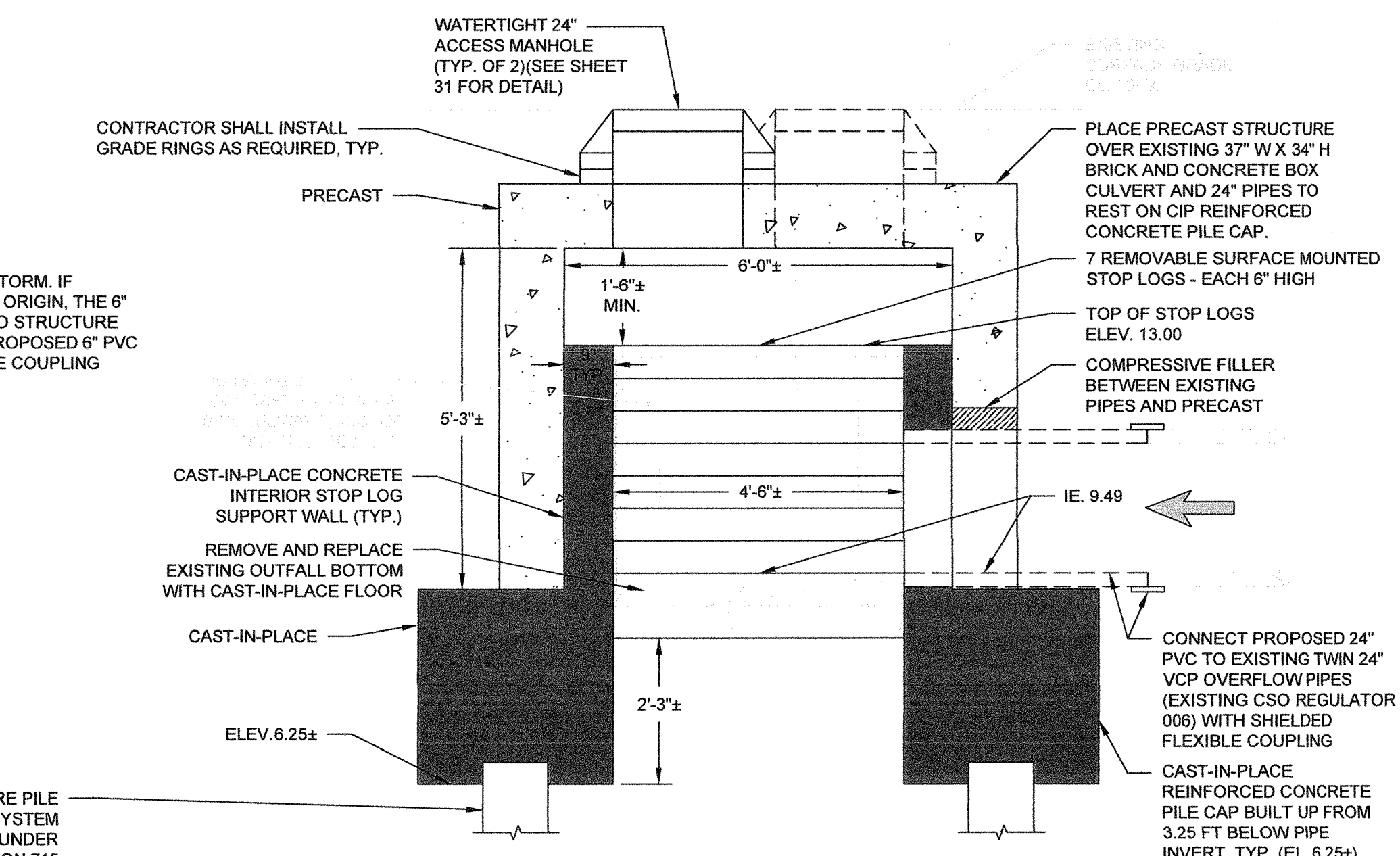
APPROXIMATE PROXIMITY OF EXISTING WHALLEY AVENUE BRIDGE ABUTMENT BACK WALL



PLAN - PROPOSED CSO REGULATOR 006
1/2" = 1'-0"



SECTION A-A - PROPOSED CSO REGULATOR 006
1/2" = 1'-0"



SECTION B-B - PROPOSED CSO REGULATOR 006
1/2" = 1'-0"

NOTES:

- FOR GENERAL SITE INFORMATION, REFER TO THE CIVIL SITE PLAN (SEE SHEET 8).
- THE CONTRACTOR SHALL VERIFY EXISTING CONDITION INFORMATION. EXISTING INFORMATION SHALL BE CONSIDERED APPROXIMATIONS.
- CONFIRM DRY WEATHER PATTERN FOR DURATION OF STRUCTURE CONSTRUCTION.
- EXCAVATE AND EXPOSE TOP OF THE OUTFALL CULVERT AND PROVIDE EXCAVATION SUPPORT. THE CONTRACTOR SHALL NOT EXCAVATE UNDER EXISTING CONCRETE AND BRICK BOX CULVERT.
- HAND DIG ALONG SIDE TO VERIFY WIDTH AND SECURE EXCAVATION.
- EXCAVATE NO DEEPER THAN THE SPRING LINE OF THE OUTFALL CULVERT (UNLESS OTHERWISE NOTED).
- CLEAN OUTFALL CULVERT AND COVER WITH LATH. APPLY LATEX BONDING AGENT TO OUTFALL CULVERT AND COAT WITH 1/2" THICK MORTAR.
- INSTALL STRUCTURE PILE CAP BASE AND SEAL AROUND OUTFALL.
- PLACE 12" OF CONCRETE FILL ABOVE OUTFALL CULVERT OUTSIDE STRUCTURE TO BELOW TO STRUCTURE SHELF.
- CUT OPENING IN OUTFALL WITH DIAMOND SAW WITHOUT DROPPING PIECES OF OUTFALL INTO OUTFALL.
- INSTALL INTERIOR STRUCTURE COMPONENTS AS SHOWN HEREIN.
- FOR CSO STRUCTURAL DETAILS, SEE STRUCTURAL DETAILS (SHEETS 15 AND 18).
- FOR A SUGGESTED CONSTRUCTION SEQUENCING, SEE CONSTRUCTION SEQUENCING PLAN (SHEET 20).

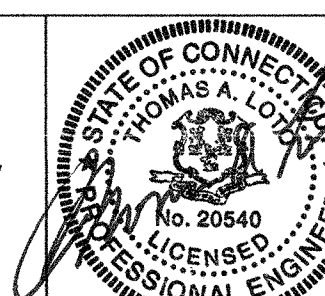
(REFER TO GNHWPCA STANDARD DETAIL SD523-14, DOGHOUSE MANHOLE OVER BRICK SEWER MAIN, AS SHOWN ON SHEET 31 FOR ADDITIONAL DETAILS REGARDING INSTALLATION OF STRUCTURE OVER BRICK SEWER)

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: J.JACQUES
DRAWN BY: J.JACQUES
SHEET CHK'D BY: T.LOTO
CROSS CHK'D BY: N.KULIKAUSKAS
APPROVED BY: T.LOTO
DATE: NOVEMBER 13, 2017



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GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
WEST RIVER CSO IMPROVEMENT PROJECT

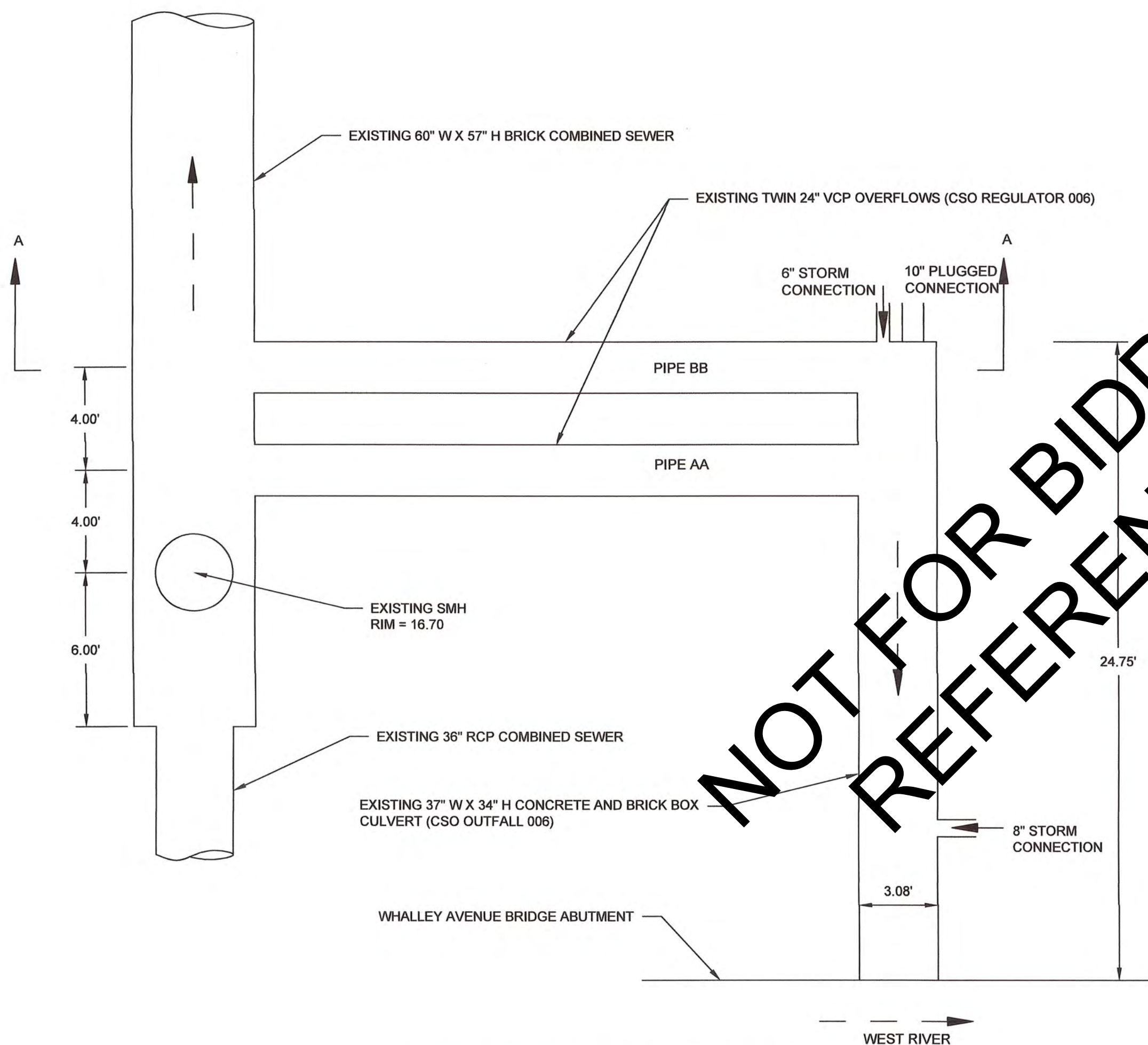


CIVIL DETAILS
CSO REGULATOR 006

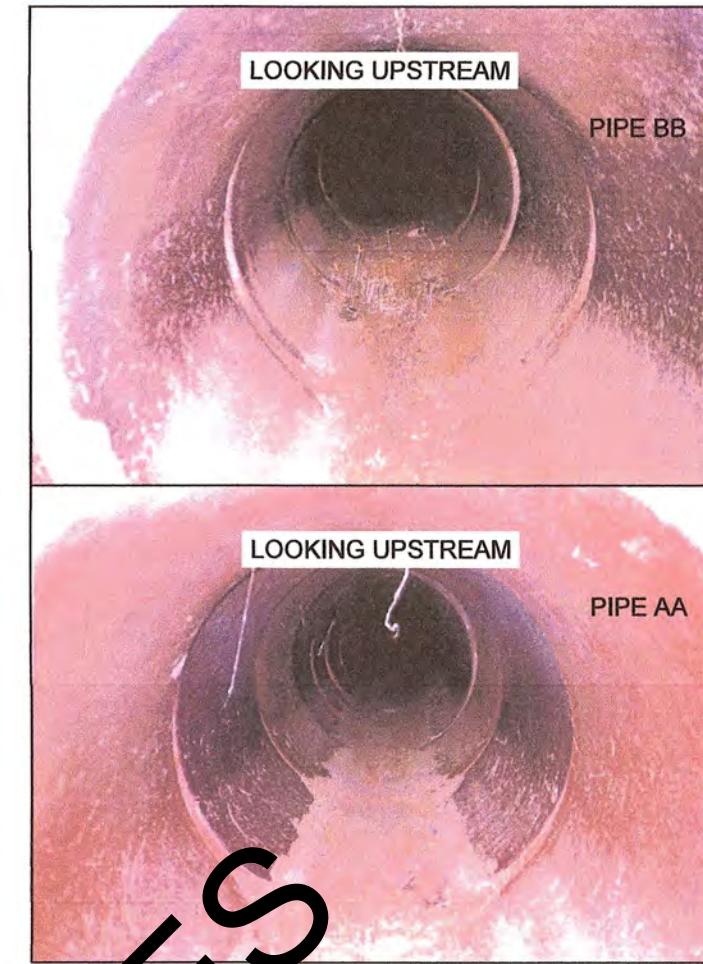
PROJECT NO. CWF 2016-03
FILE NAME:
SHEET NO. 13 OF 48
SCALE: AS NOTED

NOTES:

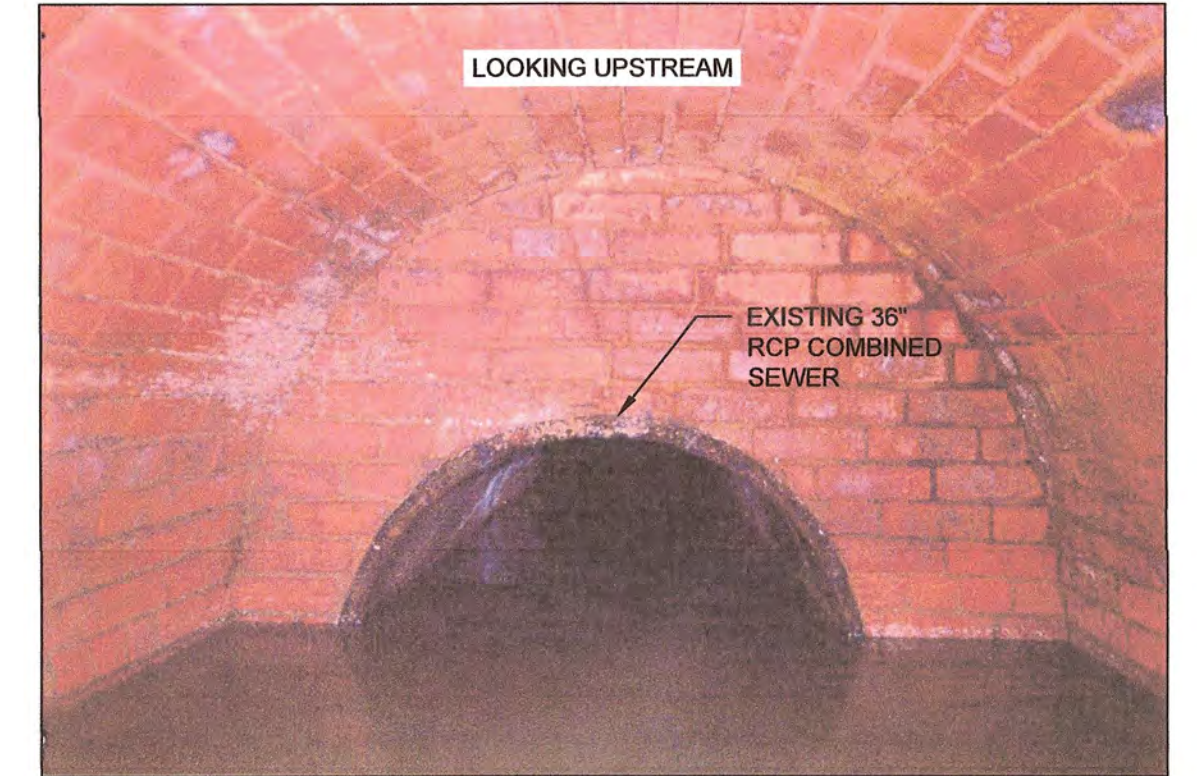
1. THE CONTRACTOR SHALL VERIFY EXISTING CONDITION INFORMATION. EXISTING INFORMATION SHALL BE CONSIDERED APPROXIMATIONS.
2. SEE ADDITIONAL NOTES ON SHEET 13.



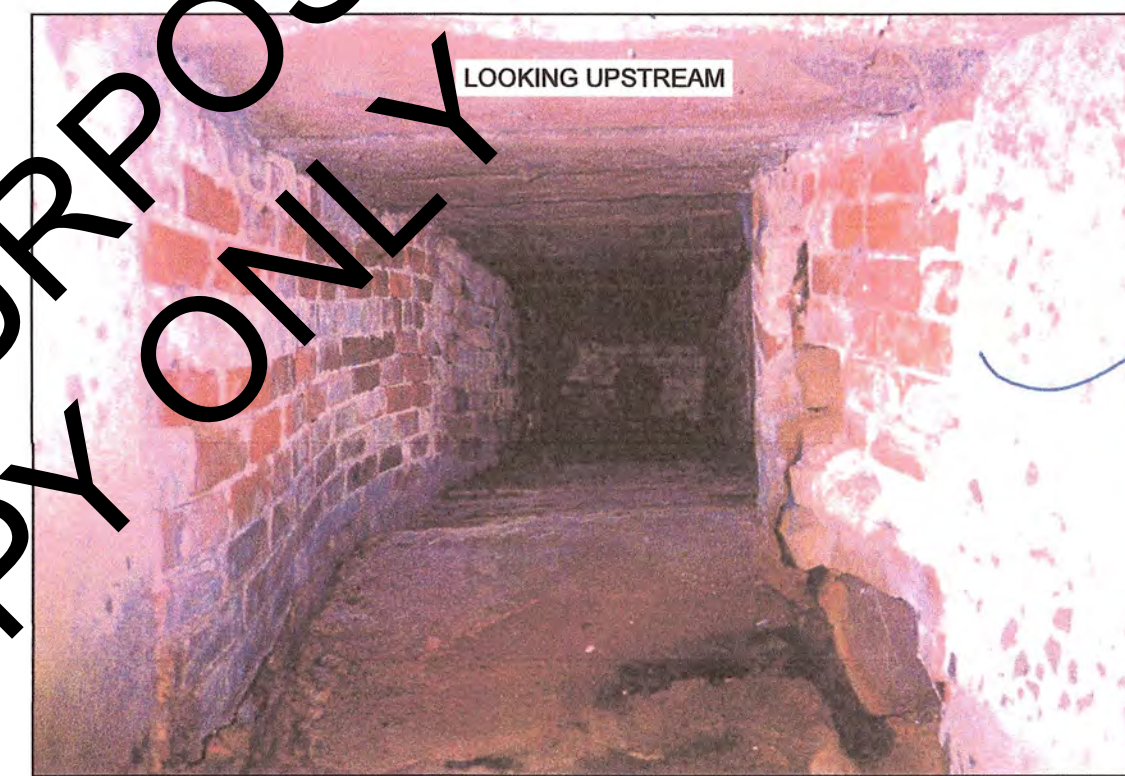
SCHEMATIC PLAN A-A - SKETCH OF EXISTING CSO REGULATOR 006
SCALE: 3" = 1'-0"



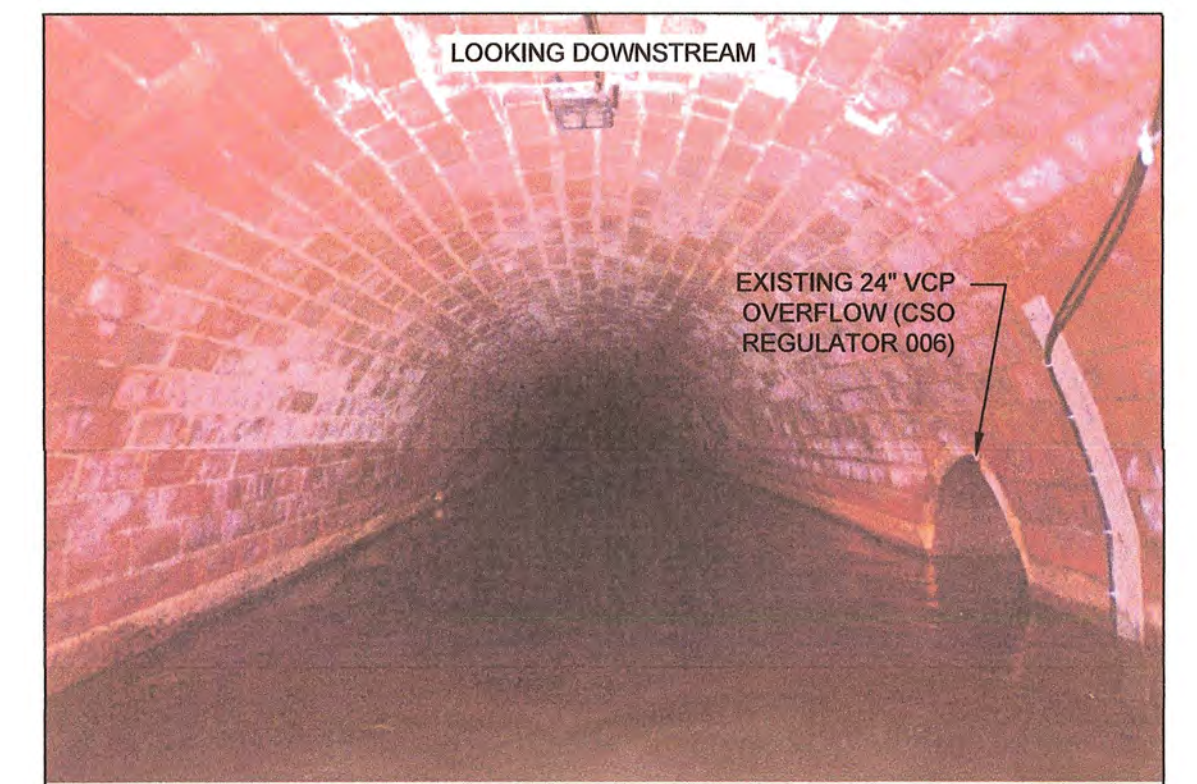
EXISTING TWIN 24" VCP OVERFLOW PIPES



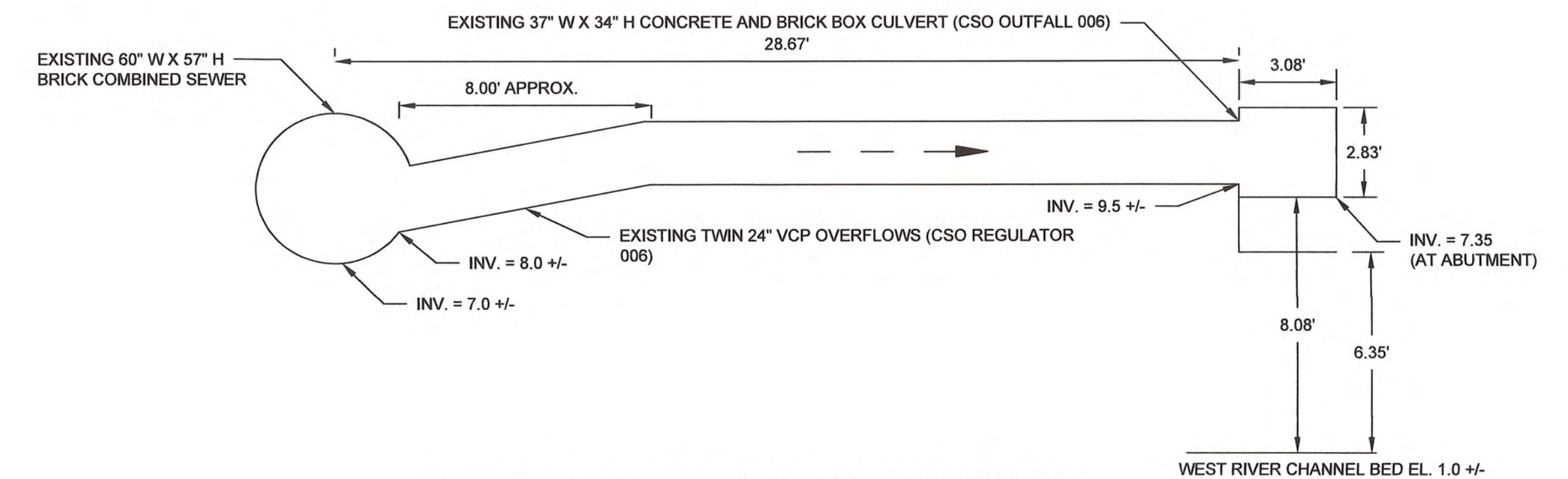
EXISTING 60" W X 57" H BRICK COMBINED SEWER



EXISTING CSO OUTFALL 006



EXISTING 60" W X 57" H BRICK COMBINED SEWER

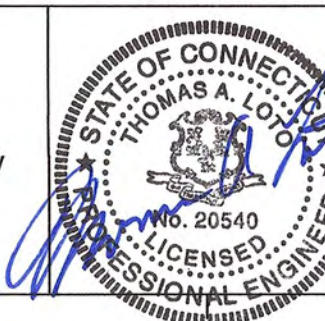


SECTION A-A - SKETCH OF EXISTING CSO REGULATOR 006
SCALE: 3" = 1'-0"

DESIGNED BY: J. JACQUES	
DRAWN BY: J. JACQUES	
SHEET CHK'D BY: T. LOTO	
CROSS CHK'D BY: N. KULIKAIKAS	
APPROVED BY: T. LOTO	
DATE: NOVEMBER 13, 2017	
REV. NO.	DATE
DRWN	CHKD
REMARKS	



Greater New Haven Water Pollution Control Authority
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GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
WEST RIVER CSO IMPROVEMENT PROJECT



CIVIL RECORDS
CSO REGULATOR 006

PROJECT NO. CWF 2016-03
FILE NAME:
SHEET NO. 14 OF 48
SCALE: AS NOTED

A. STRUCTURAL GENERAL NOTES

- THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS AND SPECIFICATIONS. REFER TO CIVIL DRAWINGS FOR LOCATIONS, DIMENSIONS, DETAILS OF OPENINGS, EXTERIOR GRADING AND OTHER PROJECT REQUIREMENTS NOT SHOWN ON STRUCTURAL DRAWINGS.
- AVAILABLE HISTORICAL DRAWINGS OF THE EXISTING STRUCTURES CONSTRUCTION FROM THE OWNER WILL BE MADE AVAILABLE TO POTENTIAL BIDDERS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING IN THE FIELD THE ACCURACY OF ALL RELEVANT INFORMATION SHOWN ON THE HISTORIC DRAWINGS, INCLUDING BUT NOT LIMITED TO STRUCTURAL SUBSTRUCTURE AND SUPERSTRUCTURE CONDITIONS AND THE EXISTENCE OF OVERHEAD, BURIED AND/OR EMBEDDED UTILITIES. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS, ELEVATIONS AND DIMENSIONS PRIOR TO FABRICATING NEW WORK THAT WILL BE CONNECTED TO EXISTING CONSTRUCTION. HISTORICAL DRAWINGS OF EXISTING STRUCTURES CAN BE PROVIDED AT THE REQUEST OF THE CONTRACTOR.
- VERIFY AND COORDINATE ALL DIMENSIONS AND ELEVATIONS RELATING TO EXISTING CONDITIONS.
- THE CONTRACTOR, OR HIS REPRESENTATIVE, SHALL DESIGN AND PROVIDE THE FOLLOWING PERMANENT ELEMENTS:
 - PILES
 - STRUCTURAL PRECAST CONCRETEFOR PERFORMANCE DESIGN REQUIREMENTS OF ELEMENTS LISTED ABOVE, REFER TO ADDITIONAL NOTES THESE SHEETS AND TECHNICAL SPECIFICATIONS.
- ALL DESIGN SUBMITTAL DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER, LICENSED IN THE STATE OF CONNECTICUT.
- TYPICAL DETAILS AND NOTES SHOWN ON STRUCTURAL DRAWINGS SHALL BE APPLICABLE TO ALL PARTS OF THE STRUCTURAL WORK EXCEPT WHERE SPECIFICALLY REQUIRED OTHERWISE BY CONTRACT DOCUMENTS.
- DETAILS NOT SPECIFICALLY SHOWN SHALL BE SIMILAR TO THOSE SHOWN FOR THE MOST NEARLY SIMILAR CONDITION AS DETERMINED BY THE ENGINEER.
- THE STRUCTURE IS DESIGNED TO ACT AS A STRUCTURAL UNIT UPON COMPLETION. THE CONTRACTOR SHALL DESIGN AND PROVIDE ALL REQUIRED SHORING AND TEMPORARY BRACING TO RESIST FORCES ON THE STRUCTURES THROUGHOUT THE CONSTRUCTION PERIOD.
- THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS, ELEVATIONS AND DIMENSIONS PRIOR TO FABRICATING NEW WORK THAT WILL BE CONNECTED TO EXISTING CONSTRUCTION.
- EXISTING CONDITIONS ARE SHOWN BY SCREENED LINework ON THE DRAWINGS. NEW WORK IS SHOWN BY DARK LINework.
- THE CONTRACTOR SHALL COORDINATE PREPARED OPENING SIZES AND LOCATIONS WITH THE VARIOUS CONSTRUCTION TRADES AND SUBMIT FOR REVIEW AND APPROVAL BY THE ENGINEER PRIOR TO CONCRETE PLACEMENT.

B. FOUNDATIONS

- PRIMARY FOUNDATIONS FOR THIS PROJECT CONSIST OF MICROPILES. REFER TO SPECIFICATION 715 FOR ADDITIONAL REQUIREMENTS.
- THE SUBSURFACE CONDITIONS DESCRIBED IN THE DRAWINGS, SPECIFICATIONS, TEST BORINGS, AND TEST PITS ARE PROVIDED FOR THE CONTRACTOR'S INFORMATION. THIS DATA IS PRESENTED TO ASSIST THE CONTRACTOR DURING BIDDING AND SUBSEQUENT CONSTRUCTION AND REPRESENTS THE CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AT THE PARTICULAR TIME THEY WERE MADE. VARIATIONS MAY OCCUR AND SHOULD BE EXPECTED BETWEEN EXPLORATION LOCATIONS. THE GROUNDWATER LEVEL INFORMATION ONLY REPRESENTS THE CONDITIONS ENCOUNTERED AT THE TIME AND LOCATION OF THE EXPLORATIONS. FLUCTUATION DUE TO PRECIPITATION EVENTS, SITE TOPOGRAPHY, SEASONAL CHANGES, WELL PUMPING, AND PERIODS OF WET OR DRY WEATHER SHOULD BE ANTICIPATED. IF THE CONTRACTOR DETERMINES THAT ADDITIONAL BORINGS ARE REQUIRED, THESE BORINGS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
- PILE CAPACITY BASED ON AASHTO STRENGTH I LOAD COMBINATION SHALL BE:
 - 45 KIPS AT CSO 003 AND CSO 006
 - 40 KIPS AT CSO 004
- PILE CAPS SHALL BE CENTERED OVER GROUP OF PILES, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- THE CONTRACTOR SHALL DESIGN AND PROVIDE ALL TEMPORARY EARTH SUPPORT, SHORING, BRACING, AND DEWATERING AND SHALL PROTECT ALL WORK AGAINST INSTABILITY AND OVERLOAD DURING CONSTRUCTION.
- THE CONTRACTOR SHALL DESIGN AND PROVIDE SHEETING, SHORING, BRACING, AND/OR UNDERPINNING IN ORDER TO PROTECT EXISTING UTILITIES FROM MOVEMENTS DURING THE CONSTRUCTION PERIOD.
- CARRY OUT CONTINUOUS CONTROL OF SURFACE AND SUBSURFACE WATER DURING CONSTRUCTION SUCH THAT FOUNDATION WORK IS DONE IN THE DRY AND ON UNDISTURBED SUBGRADE MATERIAL. NO FOUNDATION CONCRETE SHALL BE PLACED IN WATER OR ON FROZEN SUBGRADE MATERIAL.
- FOR ADDITIONAL INFORMATION AND REQUIREMENTS, REFER TO EARTHWORK AND MICROPILE SPECIFICATIONS.
- MICROPILE DIAMETER SHALL NOT EXCEED 12". MINIMUM MICROPILE DIAMETER SHALL BE 8".

C. CAST IN PLACE CONCRETE

- UNLESS OTHERWISE NOTED, CONCRETE SHALL BE NORMAL WEIGHT AND HAVE A SPECIFIED COMPRESSIVE STRENGTH AS FOLLOWS:
 - ALL CONCRETE WORK U.N.O. SHALL HAVE A COMPRESSIVE STRENGTH OF 4000 PSI
- A MINIMUM OF 72 HOURS SHALL ELAPSE BETWEEN ADJACENT CONCRETE PLACEMENTS.
- PROVIDE 3/4" x 3/4" CHAMFER ON ALL EXPOSED VERTICAL AND HORIZONTAL OUTSIDE CORNERS UNLESS OTHERWISE NOTED.
- CONCRETE SURFACES NOTED TO BE ROUGHENED SHALL BE ROUGHENED TO A 1/4" AMPLITUDE.
- CONTINUOUS WATERSTOP AS SPECIFIED SHALL BE INSTALLED IN ALL CONSTRUCTION JOINTS AND BELOW GRADE STRUCTURES, EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE.

D. CAST IN PLACE CONCRETE REINFORCEMENT

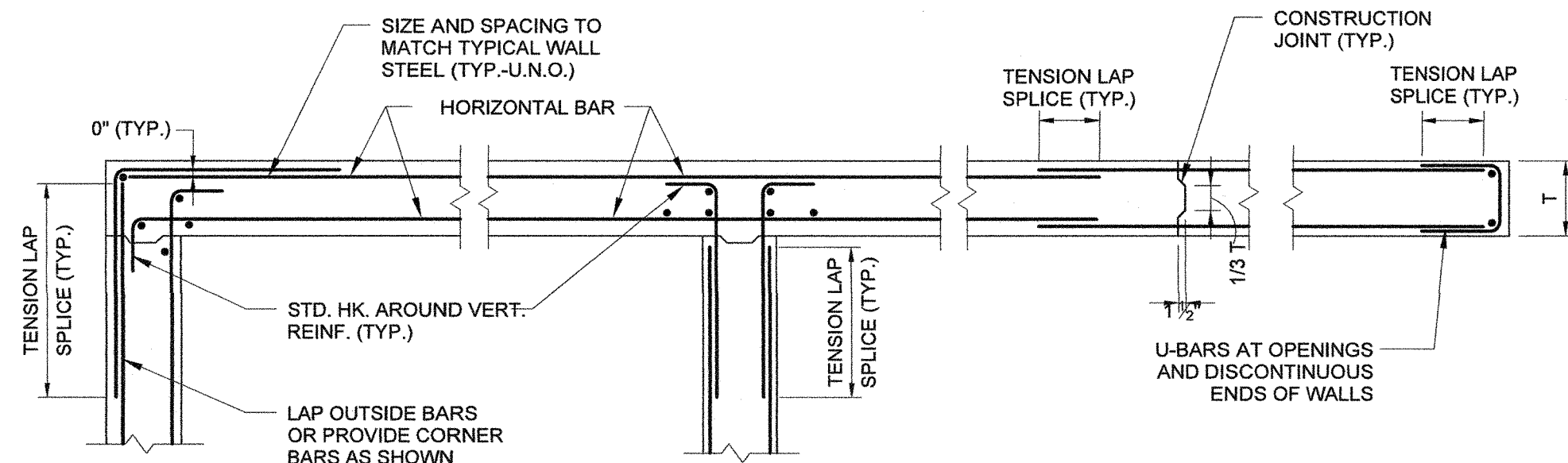
- REINFORCEMENT WORK OF DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO "ACI DETAILING MANUAL" - SP-88, "CRSI MANUAL OF STANDARD PRACTICE", AND "STRUCTURAL WELDING CODE - REINFORCING STEEL" - AWS D1.4.
- STEEL REINFORCEMENT, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE FOLLOWING:
 - (A) BARS, TIES, AND STIRRUPS - ASTM A615 GRADE 60
 - (B) WELDED WIRE FABRIC ASTM A185 FLAT SHEETS
 - (C) BARS DETAILED WITH WELDED CONNECTIONS ASTM A706
- REINFORCING STEEL SHALL GENERALLY BE UNCOATED AND DEFORMED UNLESS NOTED OTHERWISE.
- MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:
 - (A) SURFACES CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH.....3.0"
 - (B) FORMED SURFACES BACKFILLED WITH EARTH OR EXPOSED TO WEATHER.....1 1/2" FOR #5 BARS AND SMALLER 2" FOR LARGER BARS
- REINFORCING STEEL SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS, CORNERS, AND INTERSECTIONS UNLESS OTHERWISE NOTED. REINFORCING STEEL SHALL NOT BE CONTINUOUS THROUGH SLAB ON GRADE CONTROL JOINTS. REINFORCING SHALL BE LAPPED AT NECESSARY SPLICES OR HOOKED AT DISCONTINUOUS ENDS WITH ACI STANDARD HOOKS, UNLESS OTHERWISE NOTED.
- STANDARD HOOKS SHALL COMPLY WITH ACI 318 REQUIREMENTS FOR DEVELOPMENT OF STANDARD HOOKS IN TENSION. REFER TO TYPICAL DETAILS.
- INSTALLATION OF REINFORCEMENT SHALL BE AVAILABLE FOR INSPECTION PRIOR TO THE SCHEDULED CONCRETE PLACEMENT.

E. STRUCTURAL PRECAST

- ALL STRUCTURAL PRECAST CONCRETE SHALL BE DESIGNED FOR THE SPAN AND LOADING CONDITIONS SHOWN ON THE DRAWINGS OR AS REQUIRED BY APPLICABLE CODES, INCLUDING BUT NOT LIMITED TO THOSE IMPOSED BY THE ERECTION SEQUENCES AND METHODS, BY A PRECAST MANUFACTURER'S PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE STATE OF CONNECTICUT. ALL DESIGN CALCULATIONS, INCLUDING THE ANALYSIS AND DESIGN FOR LATERAL AND GRAVITY LOADS AND THE DESIGN OF ALL STRUCTURAL ELEMENTS AND CONNECTIONS SHALL BE SUBMITTED TO THE OWNER'S ENGINEER FOR REVIEW PRIOR TO THE START OF FABRICATION. PROVIDE FOUNDATION INTERFACE LOADS WITH THE CALCULATIONS FOR ALL PRECAST COMPONENTS. FOUNDATIONS FOR THE STRUCTURE HAVE BEEN DESIGNED FOR GRAVITY AND LATERAL LOADS.
- DETAILED AND CHECKED SHOP DRAWINGS SHOWING ALL STRUCTURAL ELEMENTS, DETAILS AND CONNECTIONS SHALL BE SUBMITTED TO THE OWNER'S ENGINEER FOR REVIEW PRIOR TO THE START OF FABRICATION.
- THE PRECAST CONCRETE MANUFACTURER SHALL BE RESPONSIBLE FOR FULL COORDINATION OF ALL DETAILS AS THEY AFFECT THE STRUCTURAL SYSTEM.
- THERE SHALL BE NO FIELD CUTTING OF PRECAST ELEMENTS WITHOUT THE PRIOR REVIEW OF THE OWNER'S ENGINEER AND SUBSEQUENT WRITTEN CONSENT BY THE PRECAST MANUFACTURER.
- ALL DETAILING, FABRICATION, AND PLACING OF REINFORCING BARS SHALL CONFORM TO THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, ACI 318 AND THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, ACI 315, LATEST EDITIONS.
- PRECAST UNITS SHALL BE ERECTED WITHOUT EXCEEDING TOLERANCE LIMITS SPECIFIED IN PCI MNL-127.
- THE FOUNDATION FOR THE PRECAST STRUCTURE IS DESIGNED TO SUPPORT THE COMPLETED SUPERSTRUCTURE. DURING ERECTION OF SUPERSTRUCTURE, THE CONTRACTOR SHALL FURNISH ALL TEMPORARY BRACING AND SUPPORTS AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCE SO THAT STRUCTURAL INTEGRITY OF THE FOUNDATION IS NOT COMPROMISED.
- THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. BASED ON THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCE, THE CONTRACTOR SHALL FURNISH AND PROVIDE ALL NECESSARY BRACING AND/OR SUPPORTS.
- SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- UNLESS OTHERWISE NOTED, CONCRETE SHALL BE NORMAL WEIGHT AND HAVE A SPECIFIED COMPRESSIVE STRENGTH OF 5000 PSI.
- DESIGN, FABRICATION, AND ERECTION OF PRECAST PRODUCTS SHALL CONFORM TO THE "PCI DESIGN HANDBOOK" AND THE "MANUAL FOR QUALITY CONTROL FOR PLANTS AND PRODUCTION OF PRECAST AND PRESTRESSED CONCRETE PRODUCTS" - MNL-116.
- STEEL REINFORCEMENT, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE FOLLOWING:
 - (A) BARS, TIES, AND STIRRUPS - ASTM A615 GRADE 60
 - (B) WELDED WIRE FABRIC ASTM A185 FLAT SHEETS
 - (C) BARS DETAILED WITH WELDED CONNECTIONS ASTM A706

F. TIMBER STOP LOGS

- TIMBER STOP LOGS SHALL BE MADE OF A HIGH QUALITY WOOD (SUCH AS DOUGLAS FIR) AND SHALL BE PRESERVATIVE TREATED TO PREVENT DECAY. TIMBER STOP LOGS SHALL BE SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.
- TIMBER STOP LOG HARDWARE SHALL BE STAINLESS STEEL OR AS DIRECTED BY THE ENGINEER.
- AS NEEDED, CONCRETE ROOF SLABS WILL HAVE STAINLESS STEEL EYE BOLTS SCREWED INTO AN EMBEDDED A ROD COUPLING NUT WITH PLATE ASSEMBLY. SPACING AND LOCATION SHALL CORRESPOND WITH EYE BOLTS ON THE TIMBER STOP LOGS.
- STOP LOGS CHANNELS SHALL HAVE HOLES DRILLED ABOVE EACH STOP LOG LEVEL FOR STAINLESS STEEL RETAINER PINS AND WEDGES TO HOLD THE STOP LOGS IN PLACE.
- THERE SHALL BE A SLIGHT RECESS IN THE FLOOR/BASE OF THE STOP LOG WEIR FOR THE BOTTOM STOP LOG.
- FOR CIVIL DETAILS AND NOTES, SEE SHEETS 9 TO 14.



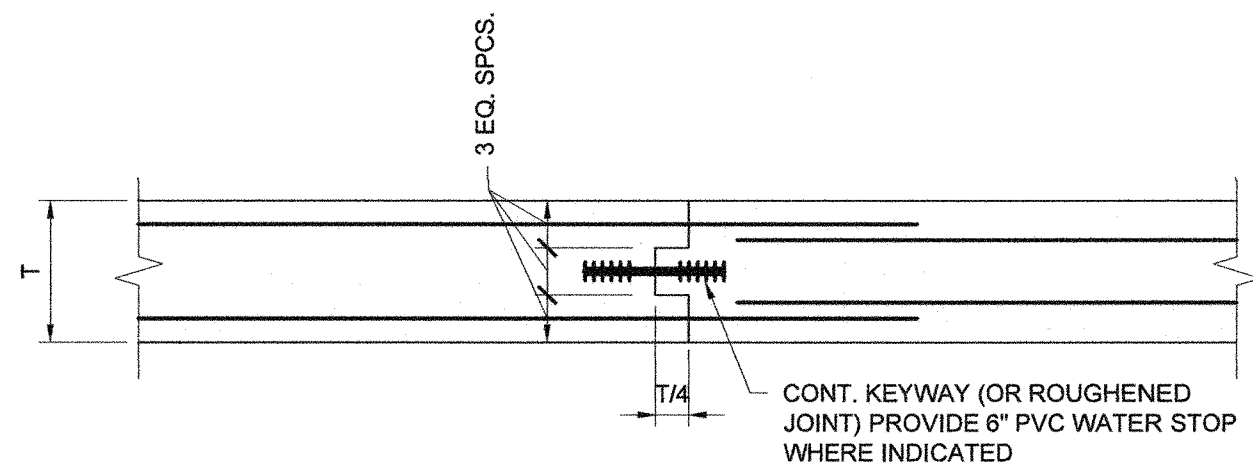
AT CORNERS

AT INTERSECTIONS

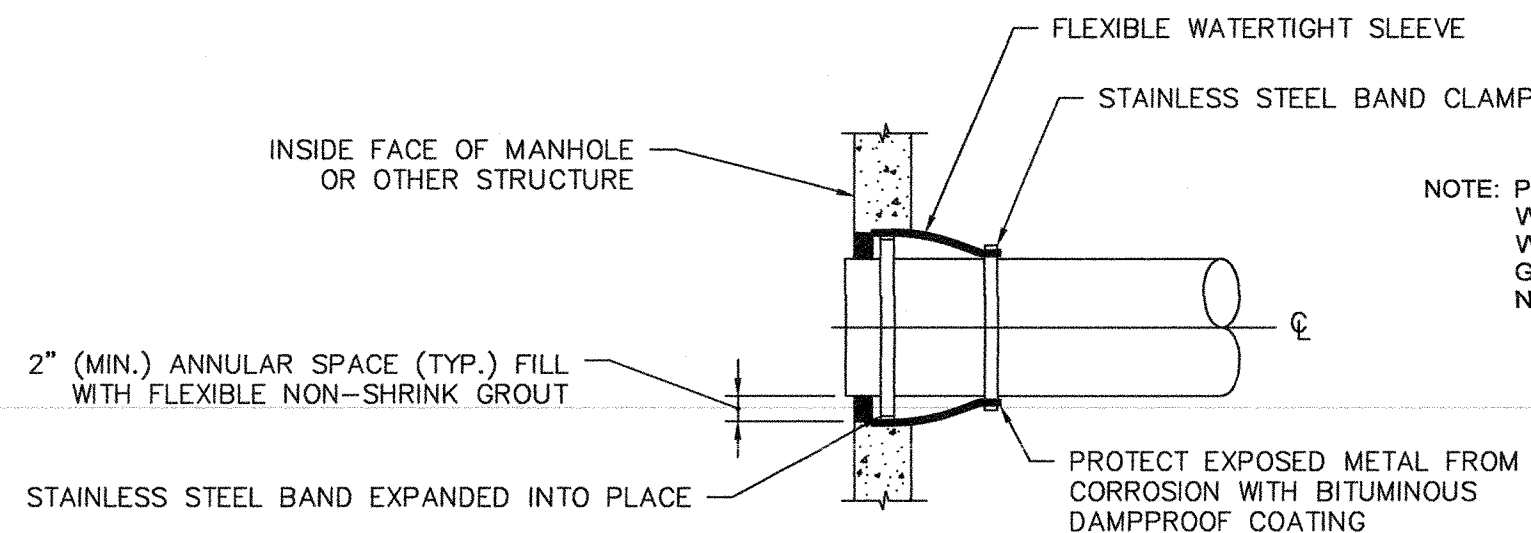
AT END

NOTE: ALL SPLICES TO BE CLASS "B" UNLESS NOTED OTHERWISE.

TYPICAL FOUNDATION WALL CONSTRUCTION JOINT AND HORIZONTAL REINFORCING DETAILS
SCALE: N.T.S.

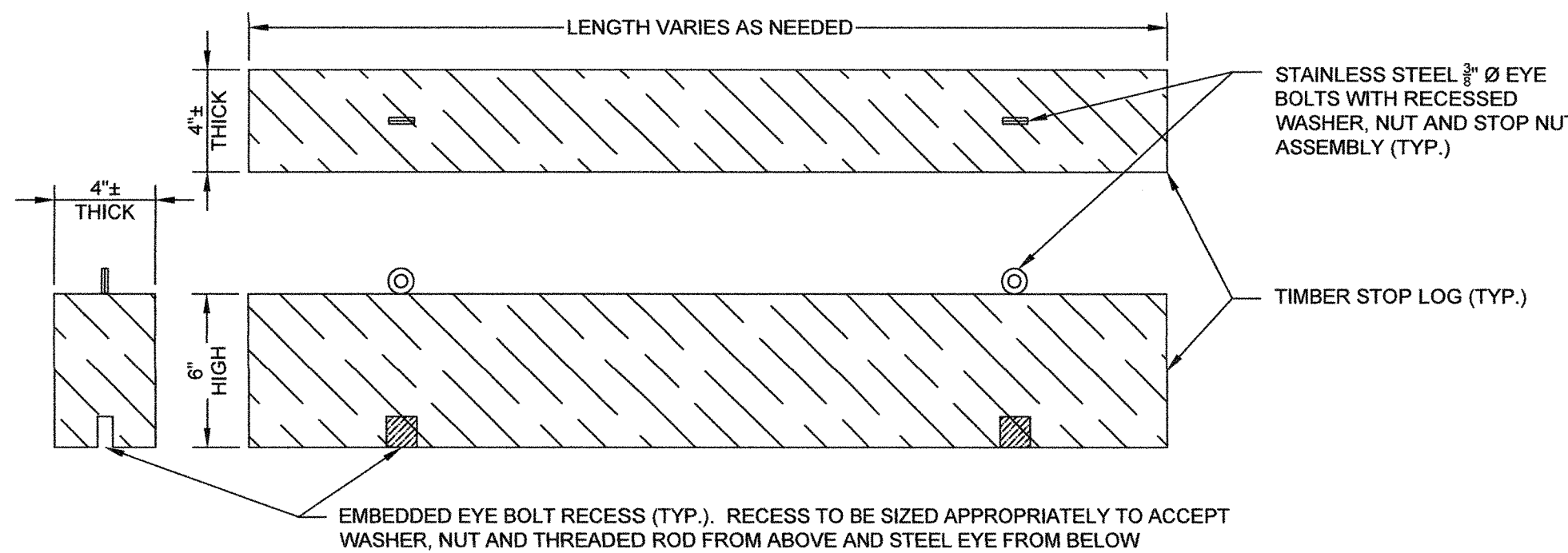


TYPICAL CAST-IN-PLACE WALL AND FOOTING CONSTRUCTION JOINT DETAIL
SCALE: N.T.S.



NOTE: PIPE CONNECTIONS THROUGH EXISTING MANHOLE WALLS SHALL BE MADE WITH GROUTING RING (WS WATERSTOP) AS MANUFACTURED BY PRESS-SEAL GASKET CORPORATION OR APPROVED EQUAL AND NON-SHRINK GROUT.

PIPE TO CONCRETE STRUCTURE PENETRATION DETAIL
SCALE: N.T.S.



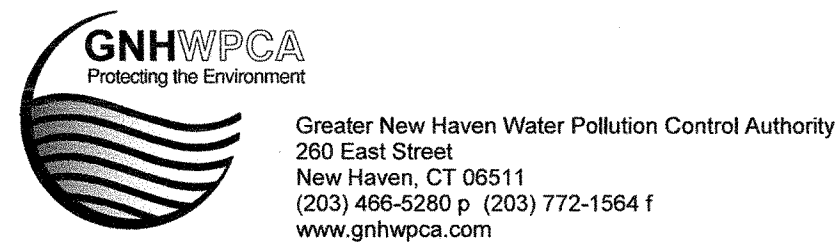
TYPICAL TIMBER STOP LOG DETAIL
SCALE: N.T.S.

NOTES

- TIMBER STOP LOGS SHALL BE MADE OF A HIGH QUALITY WOOD (SUCH AS DOUGLAS FIR) AND SHALL BE PRESERVATIVE TREATED TO PREVENT DECAY. TIMBER STOP LOGS SHALL BE SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.
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- STOP LOGS CHANNELS SHALL HAVE HOLES DRILLED ABOVE EACH STOP LOG LEVEL FOR STAINLESS STEEL RETAINER PINS AND WEDGES TO HOLD THE STOP LOGS IN PLACE.
- THERE SHALL BE A SLIGHT RECESS IN THE FLOOR/BASE OF THE STOP LOG WEIR FOR THE BOTTOM STOP LOG.
- FOR CIVIL DETAILS AND NOTES, SEE SHEETS 9 TO 14.
- FOR STRUCTURAL DETAILS AND NOTES, SEE SHEETS 15 TO 18.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: S.COYLE
DRAWN BY: J.COLAMETA
SHEET CHK'D BY: A.OTENTI
CROSS CHK'D BY: C.SACRE
APPROVED BY: T.LOTO
DATE: NOVEMBER 13, 2017

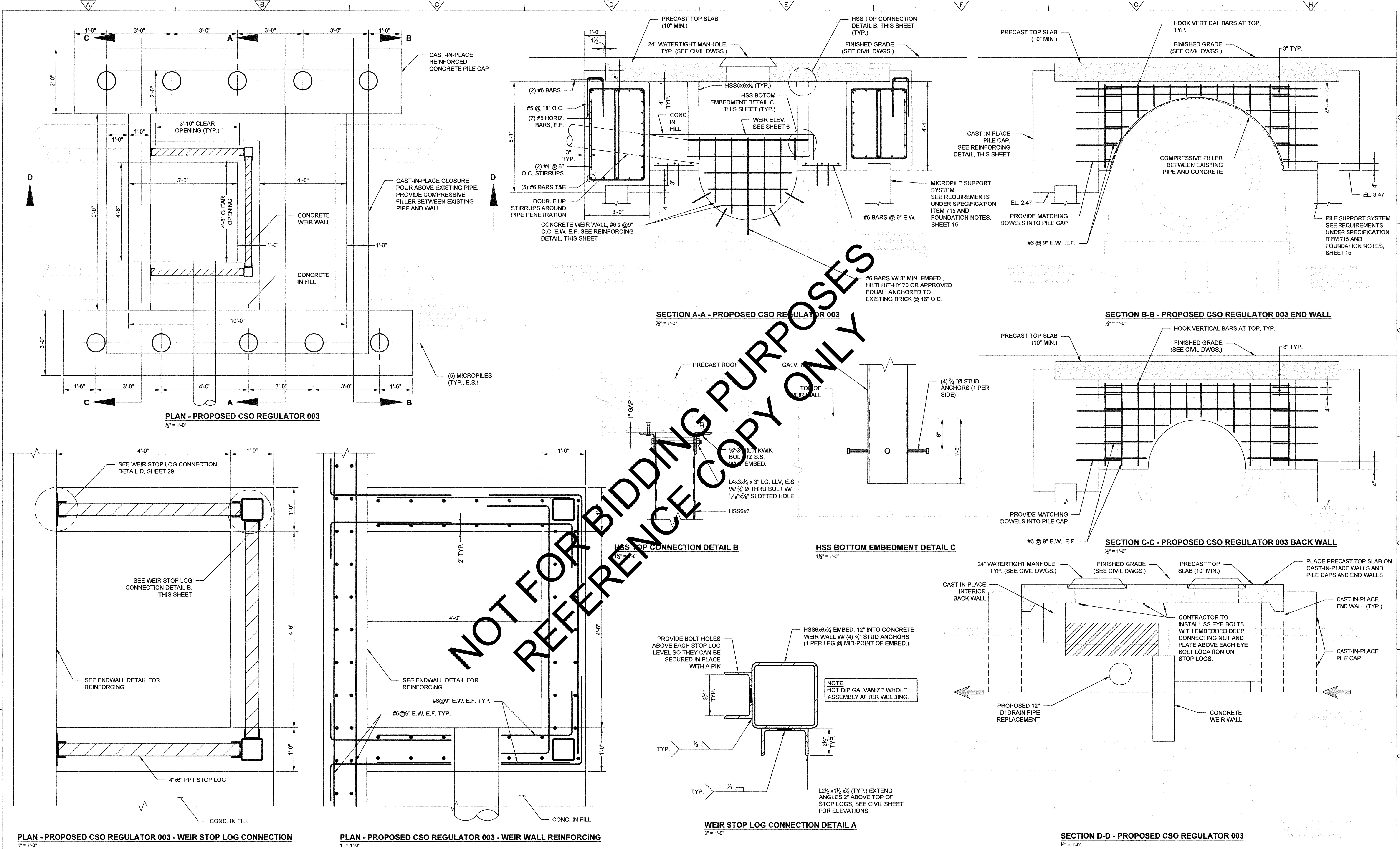





GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
WEST RIVER CSO IMPROVEMENT PROJECT

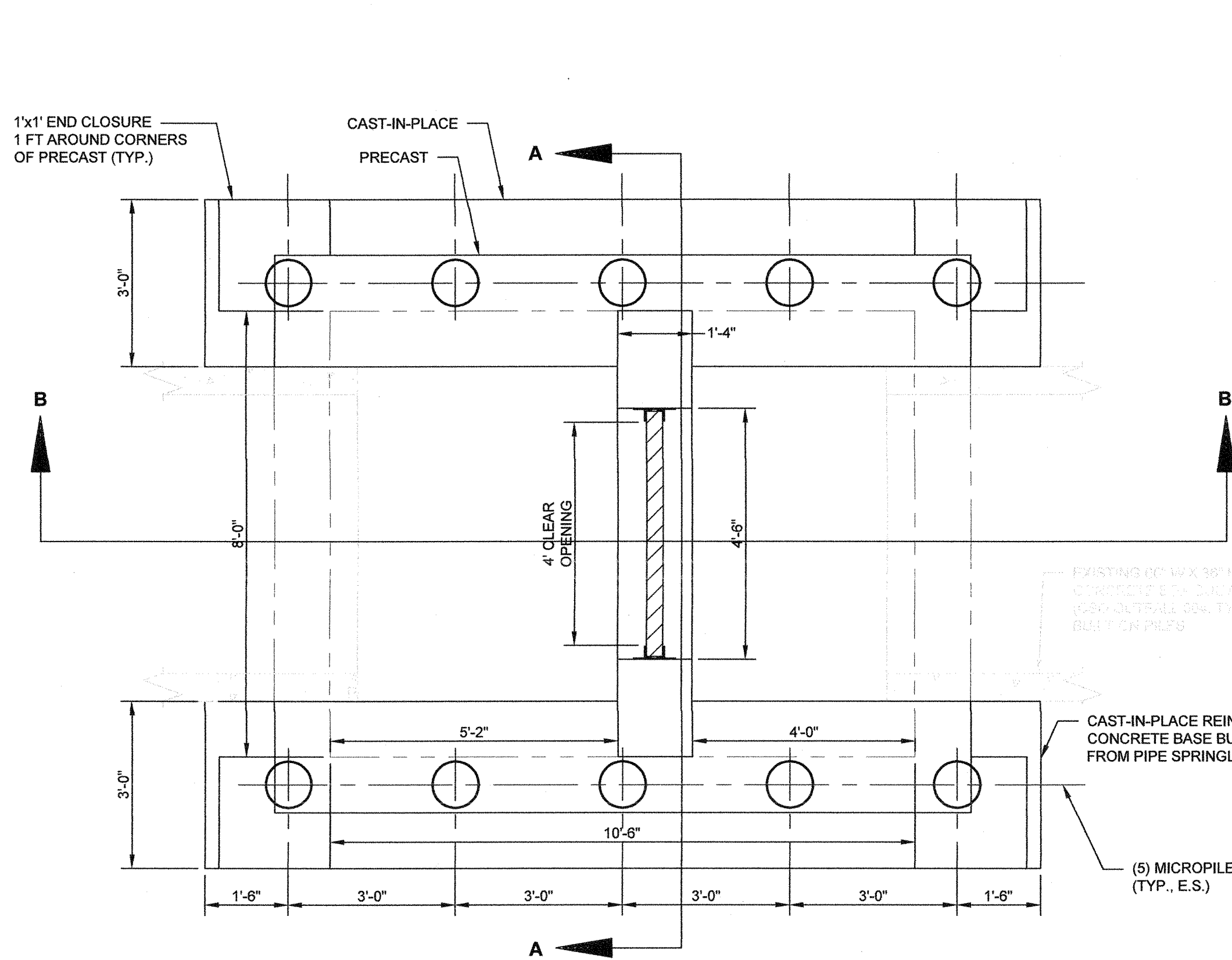


STRUCTURAL DETAILS
GENERAL NOTES

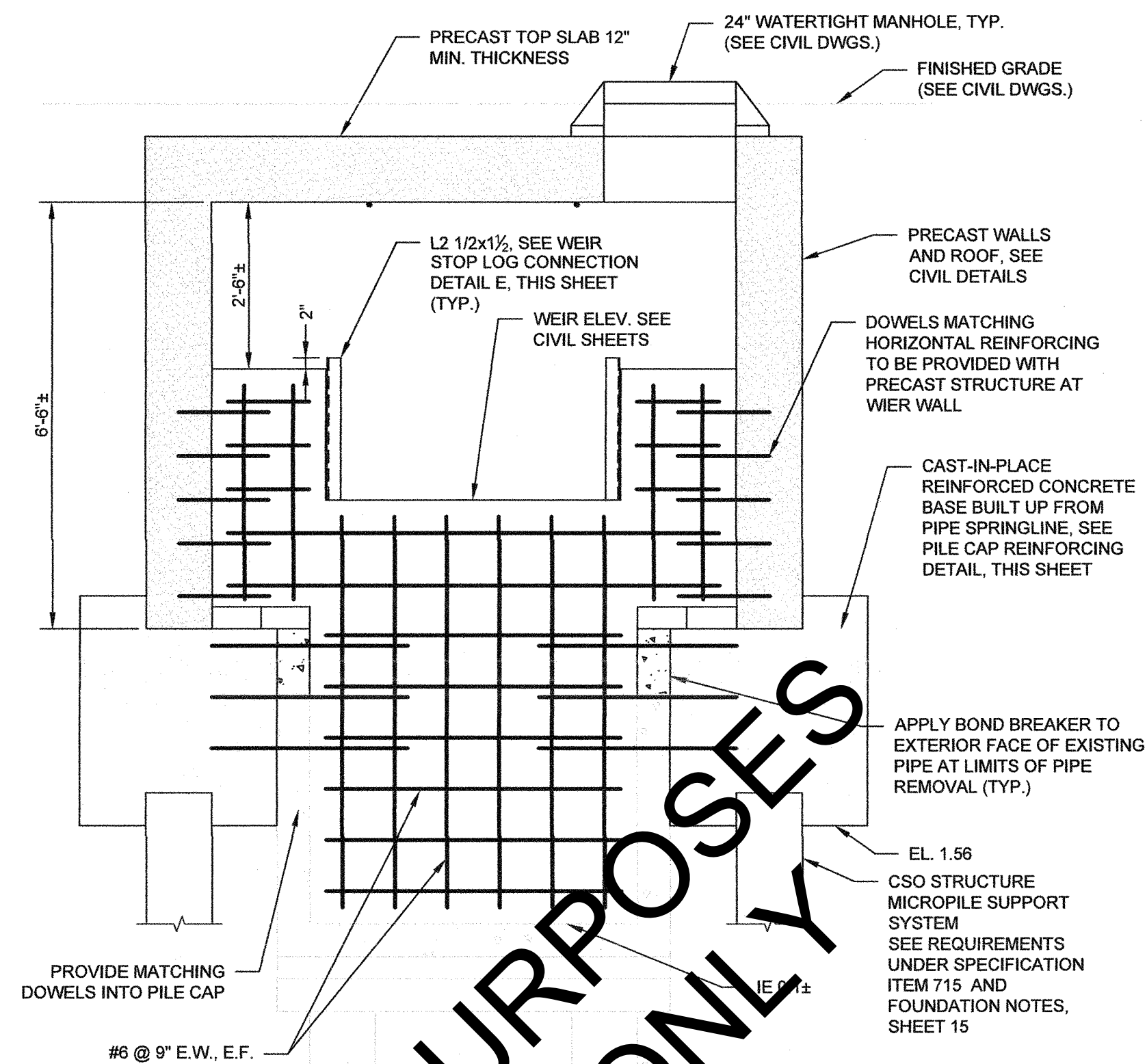
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SHEET NO. 15 OF 48
SCALE: AS NOTED



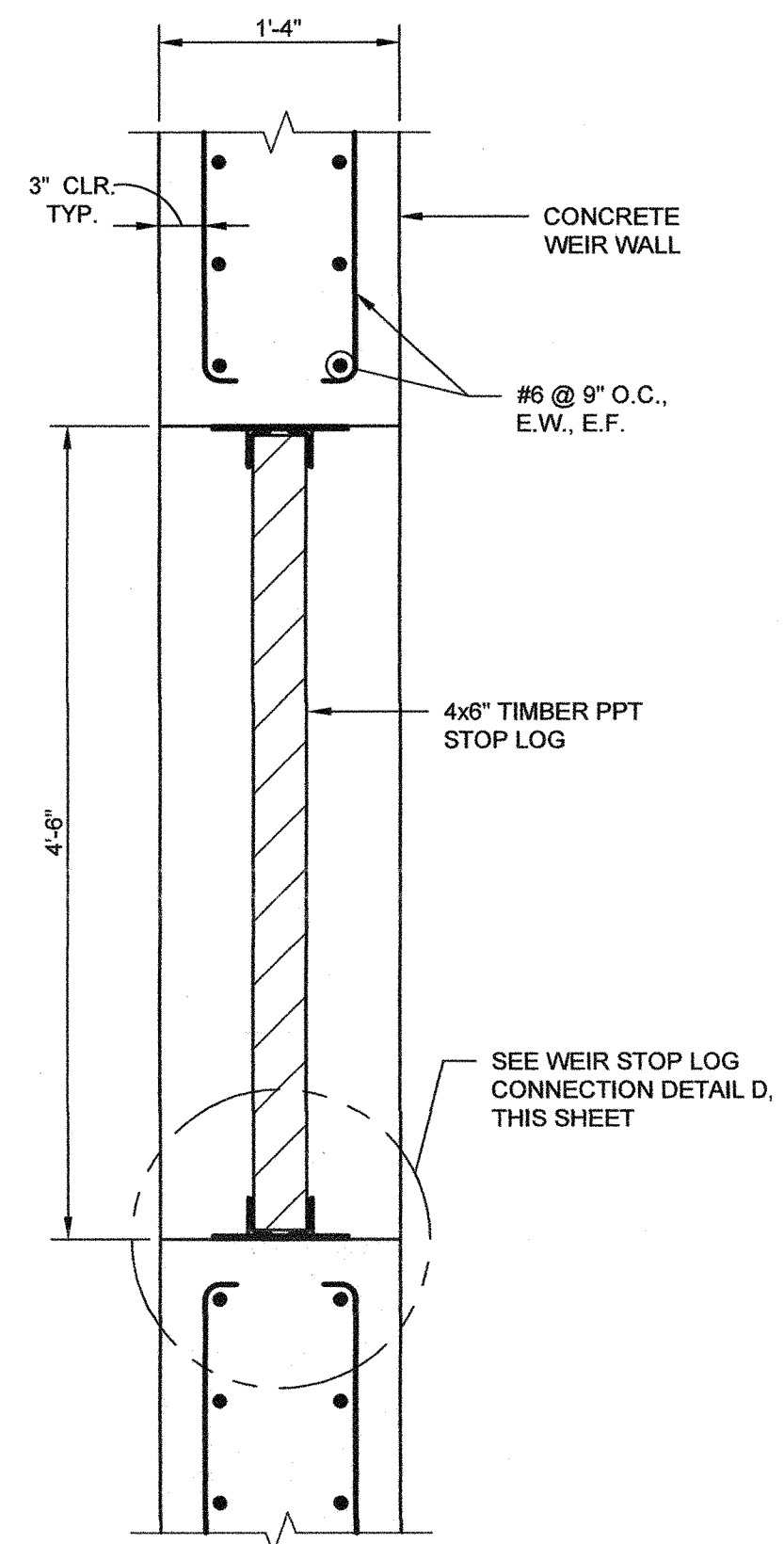
					DESIGNED BY: <u>S.COYLE</u>	 <div>Greater New Haven Water Pollution Control Authority 260 East Street New Haven, CT 06511 (203) 466-5280 p (203) 772-1564 f www.gnhwpc.com</div>	 <div>GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY CWF 2016-03 WEST RIVER CSO IMPROVEMENT PROJECT</div>		STRUCTURAL DETAILS CSO REGULATOR 003	PROJECT NO. CWF 2016-03
				DRAWN BY: <u>J.COLAMETA</u>	FILE NAME:					
				SHEET CHK'D BY: <u>A.OTENTI</u>	SHEET NO. 16 OF 48					
				CROSS CHK'D BY: <u>C.SACRE</u>	SCALE:					
				APPROVED BY: <u>T.LOTO</u>	AS NOTED					
REV. NO.	DATE	DRWN	CHKD	REMARKS	DATE: <u>NOVEMBER 13, 2017</u>					



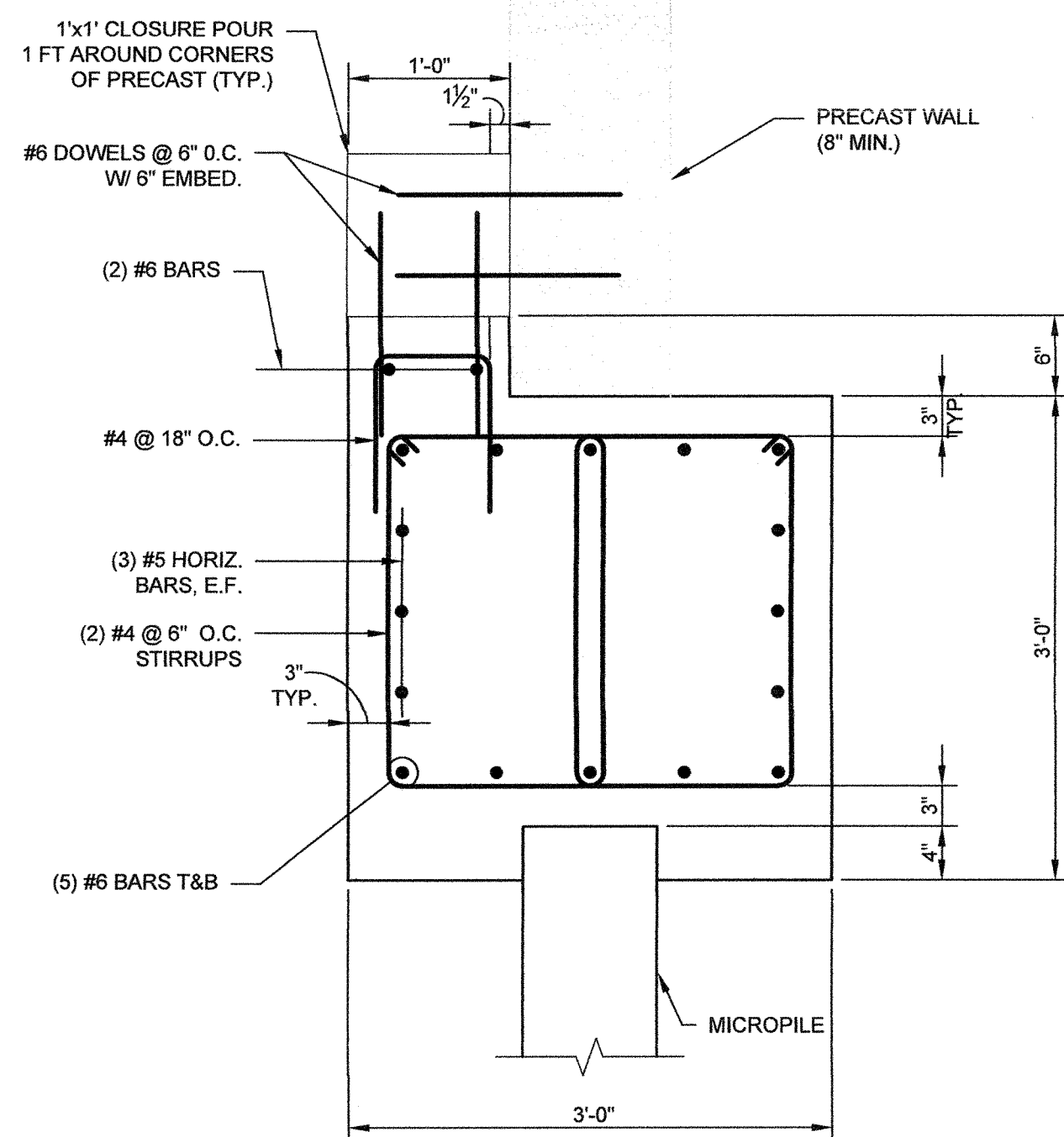
PLAN - PROPOSED CSO REGULATOR 004
1/2" = 1'-0"



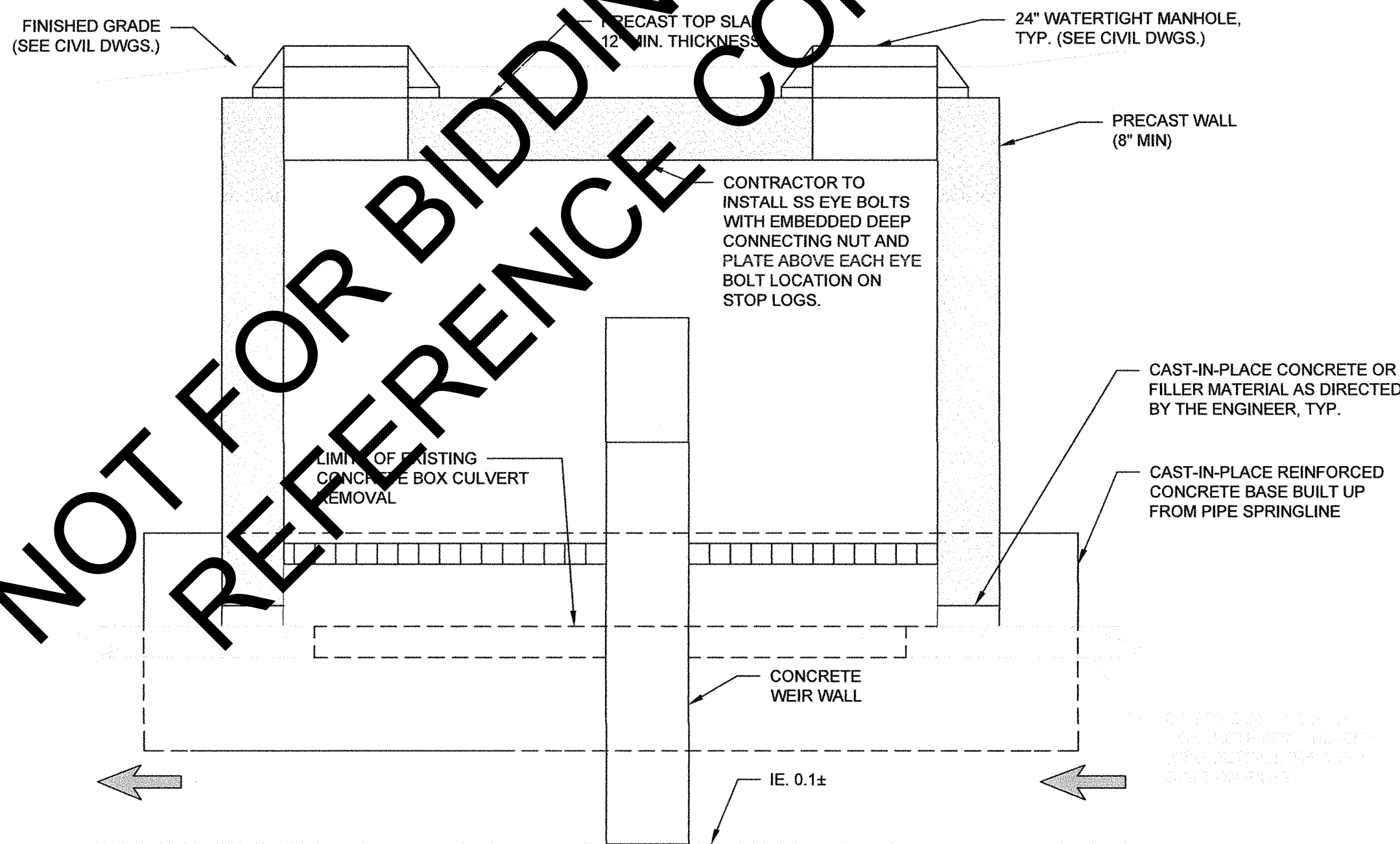
SECTION A-A - PROPOSED CSO REGULATOR 004
1/2" = 1'-0"



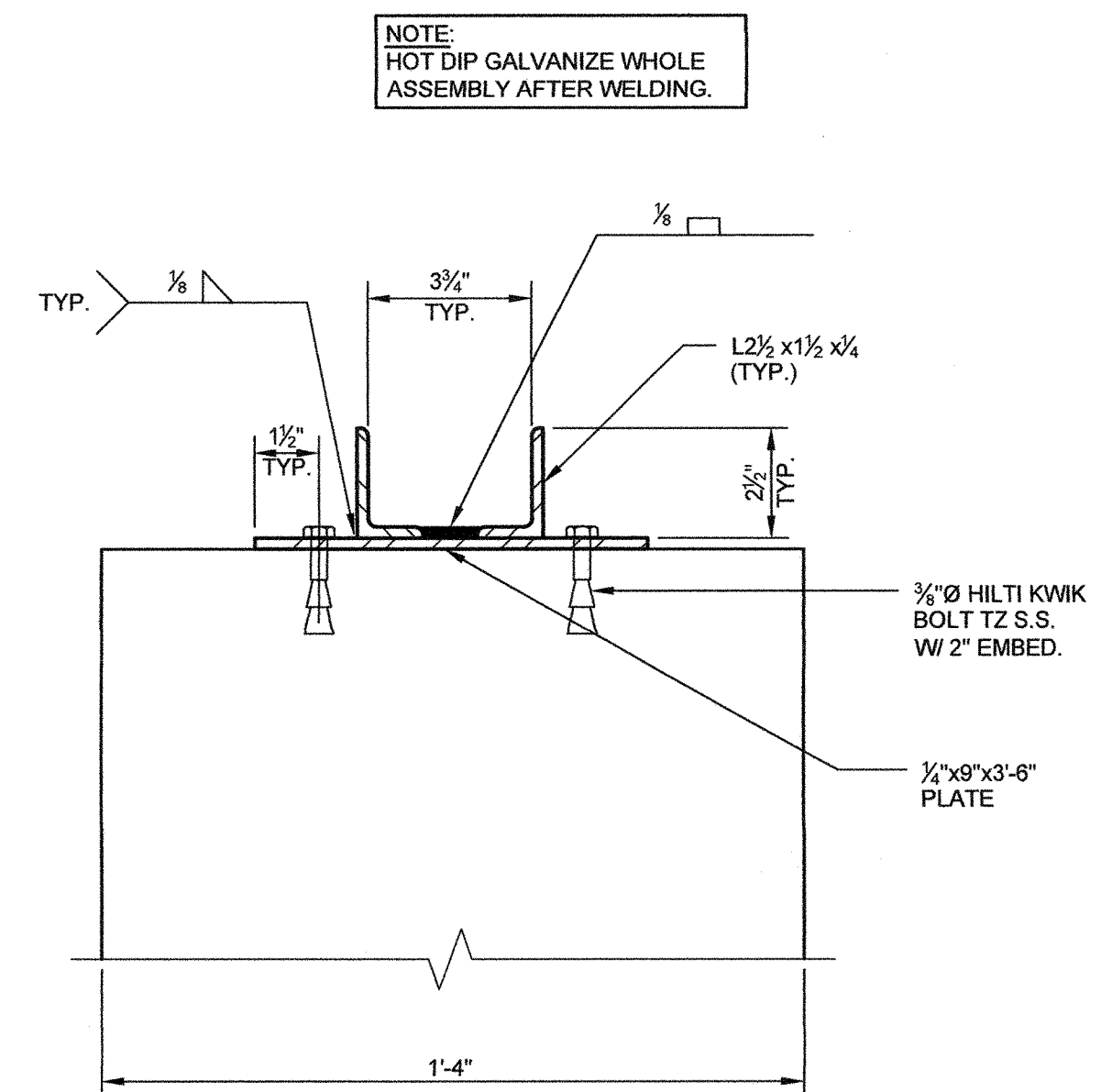
PLAN - PROPOSED CSO REGULATOR 004 & 006 - WEIR STOP LOG CONNECTION DETAIL E
1" = 1'-0"



PROPOSED CSO REGULATOR 004 - PILE CAP REINFORCING DETAIL
1" = 1'-0"



SECTION B-B - PROPOSED CSO REGULATOR 004
1/2" = 1'-0"



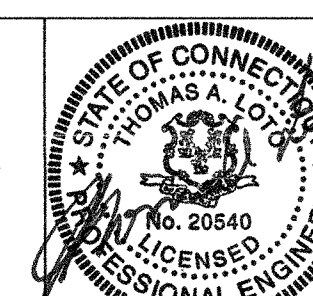
WEIR STOP LOG CONNECTION DETAIL D
3" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: S.COYLE
DRAWN BY: J.COLAMETA
SHEET CHK'D BY: A.OTENTI
CROSS CHK'D BY: C.SACRE
APPROVED BY: T.LOTO
DATE: NOVEMBER 13, 2017



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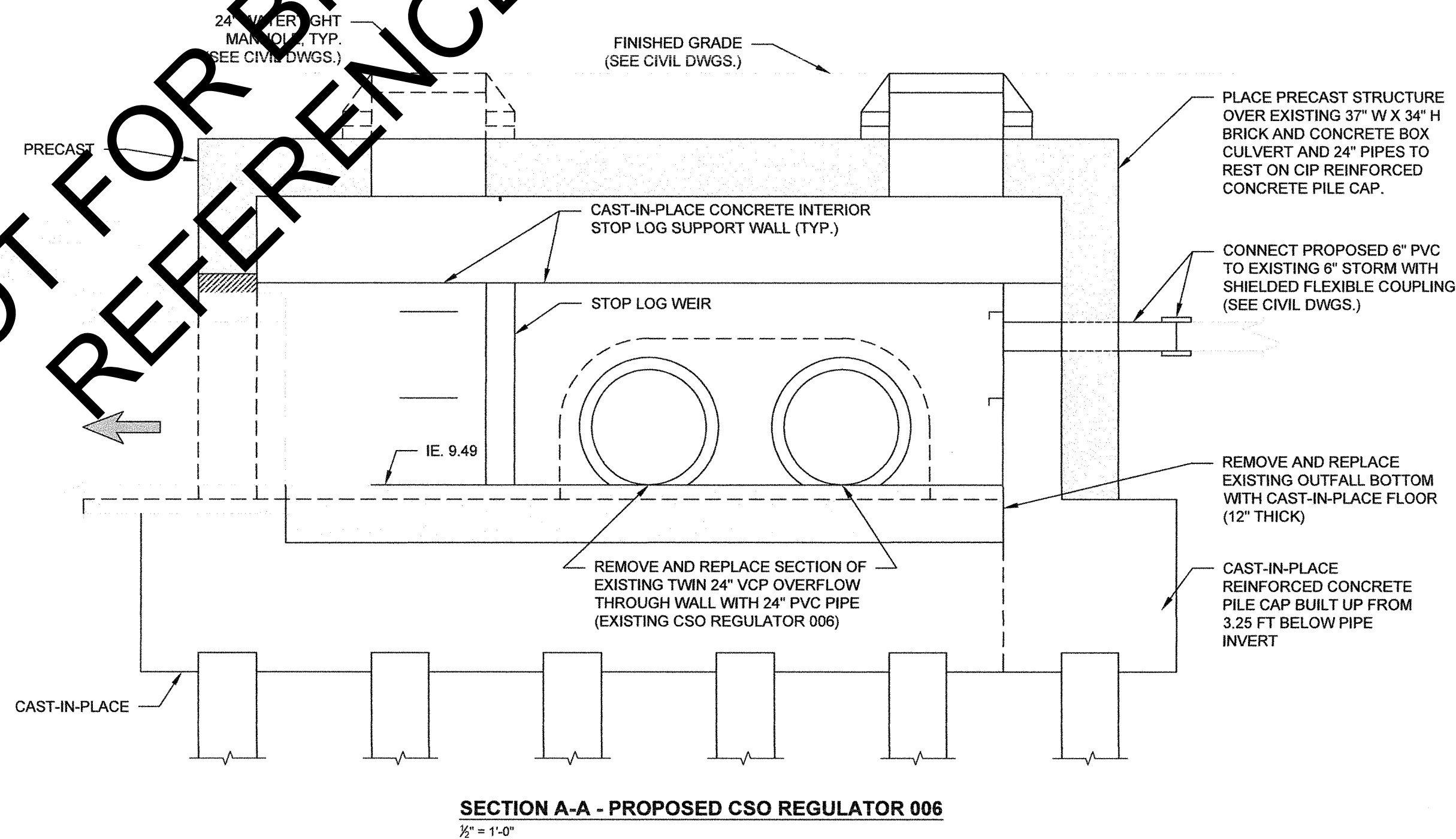
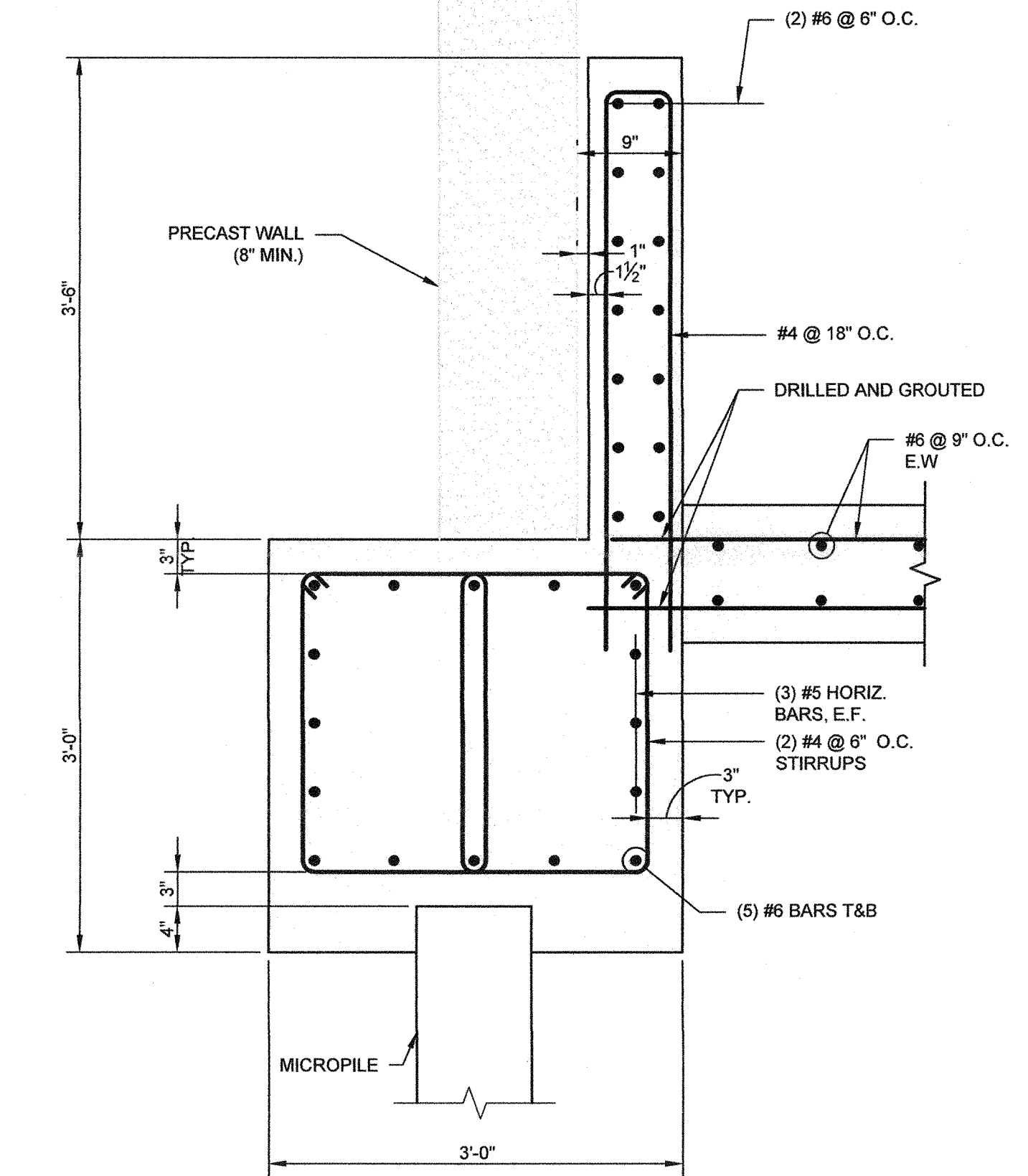
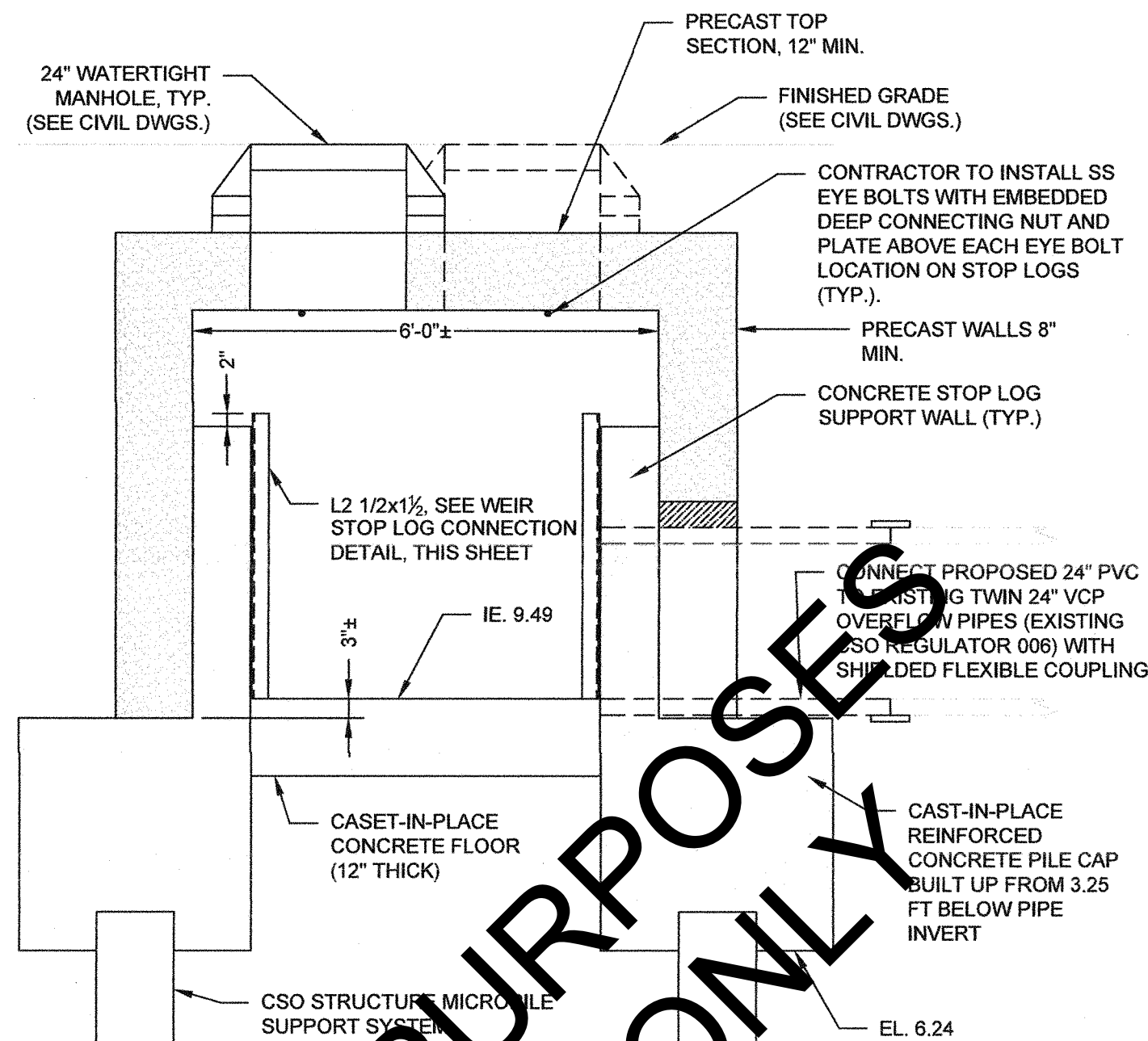
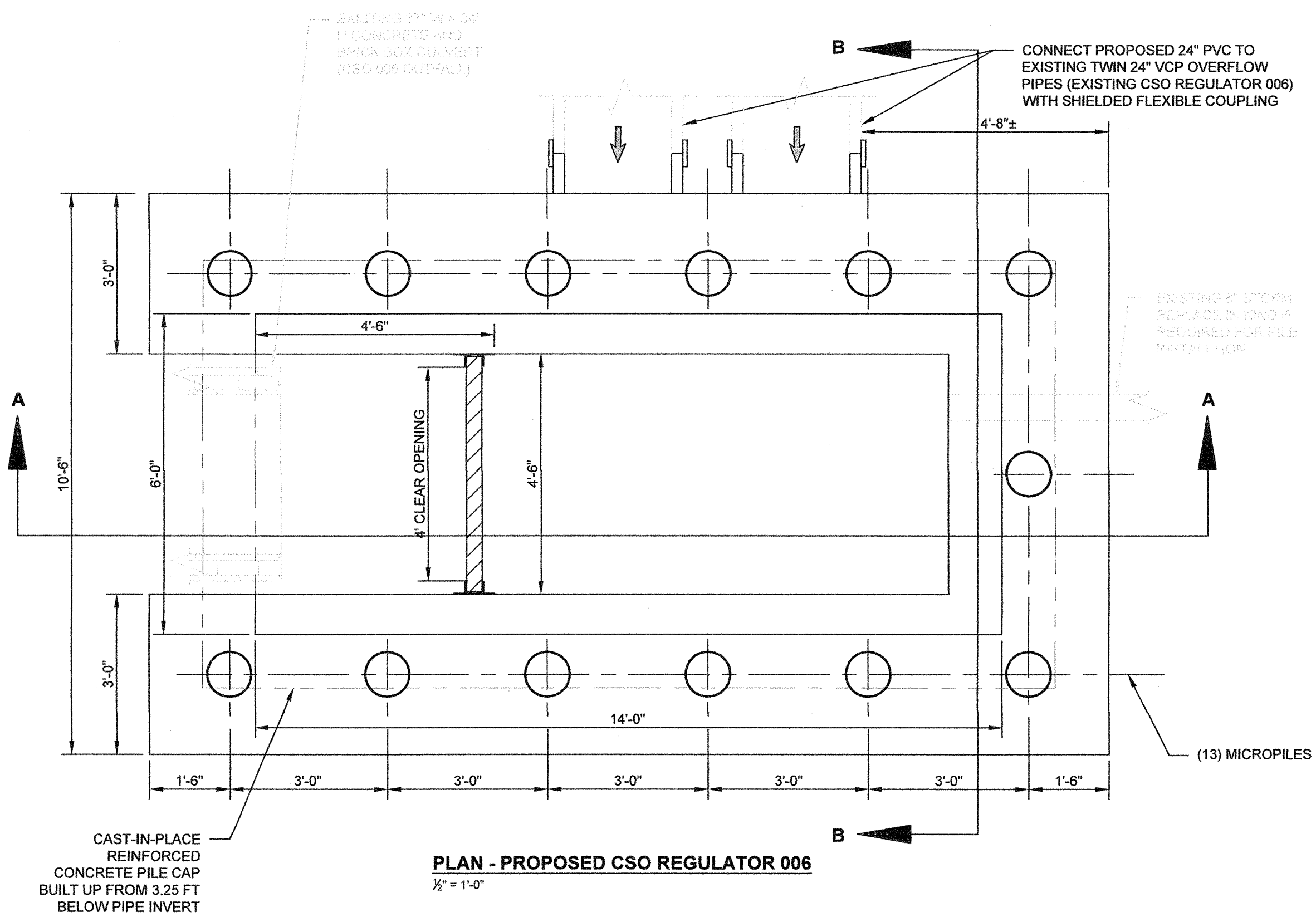


GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
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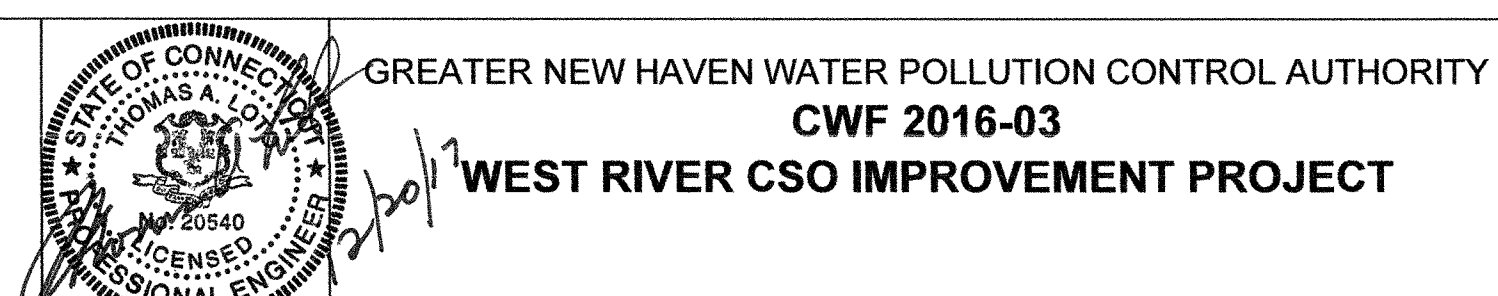
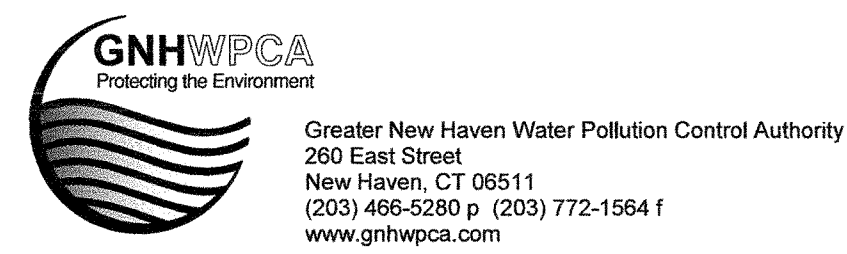


STRUCTURAL DETAILS
CSO REGULATORS 004

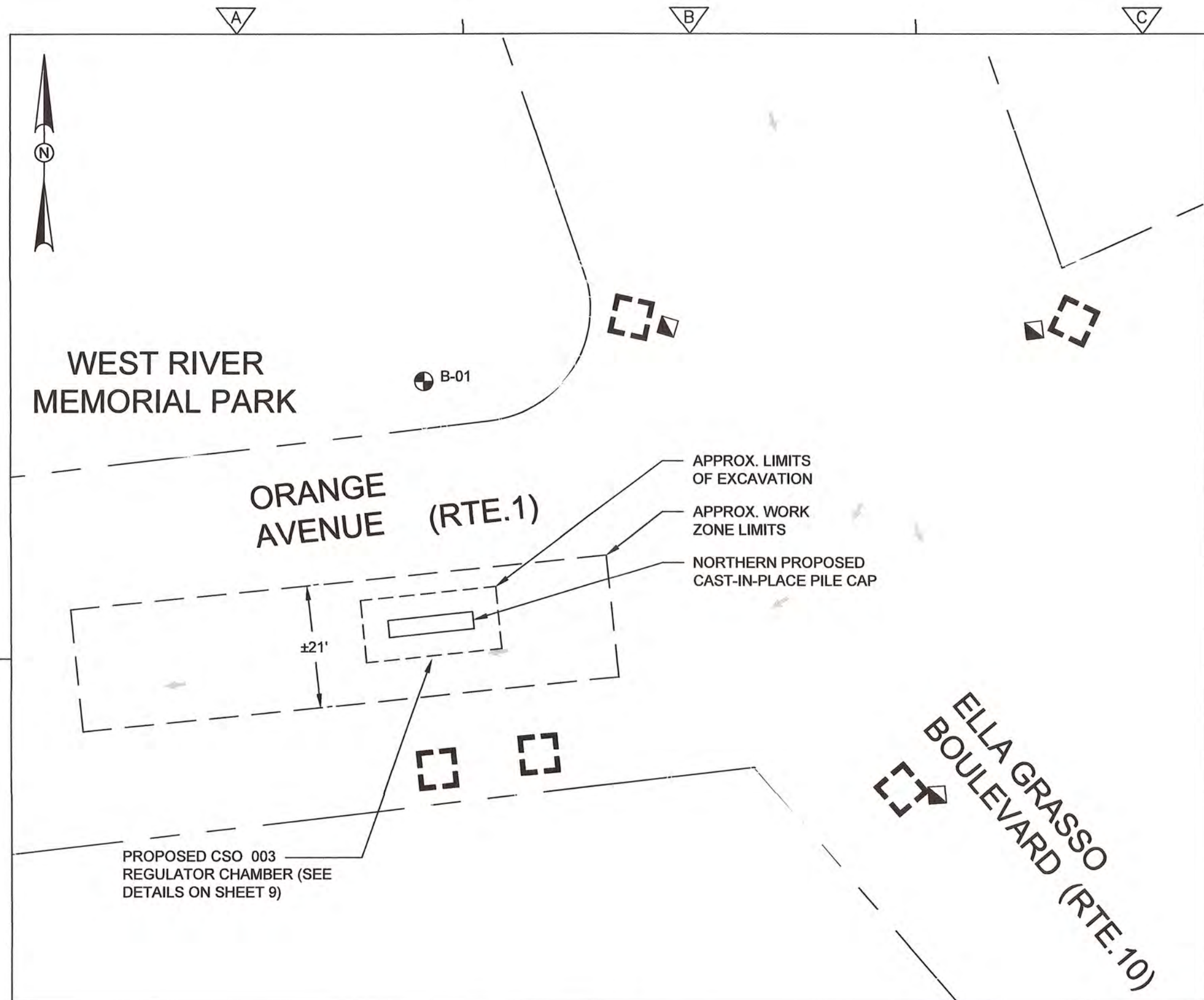
PROJECT NO. CWF 2016-03
FILE NAME:
SHEET NO. 17 OF 48
SCALE: AS NOTED



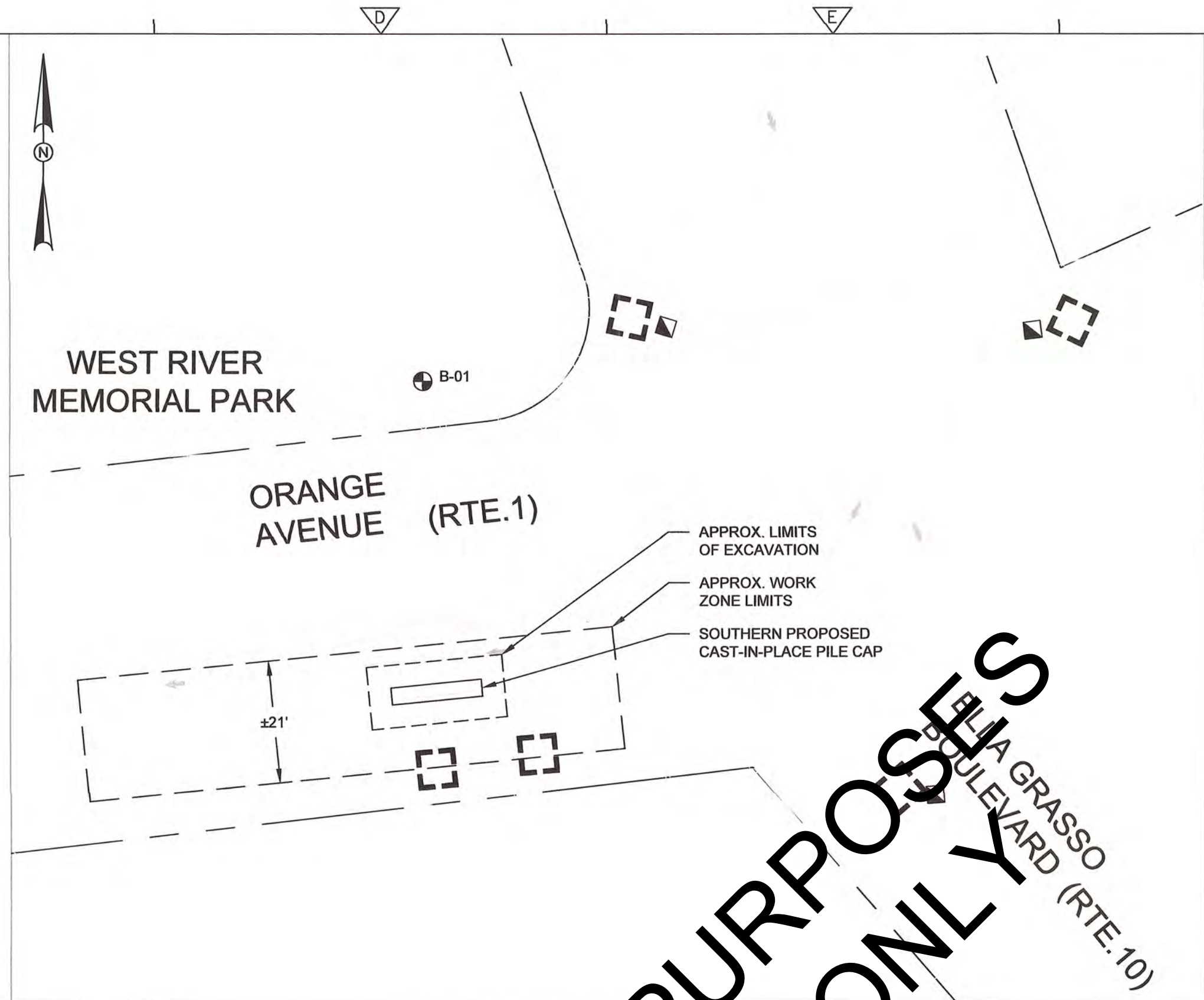
DESIGNED BY: S.COYLE	REV. NO.	DATE	DRWN	CHKD	REMARKS
DRAWN BY: J.COLAMETA					
SHEET CHK'D BY: A.OTENTI					
CROSS CHK'D BY: C.SACRE					
APPROVED BY: T.LOTO					
DATE: NOVEMBER 13, 2017					



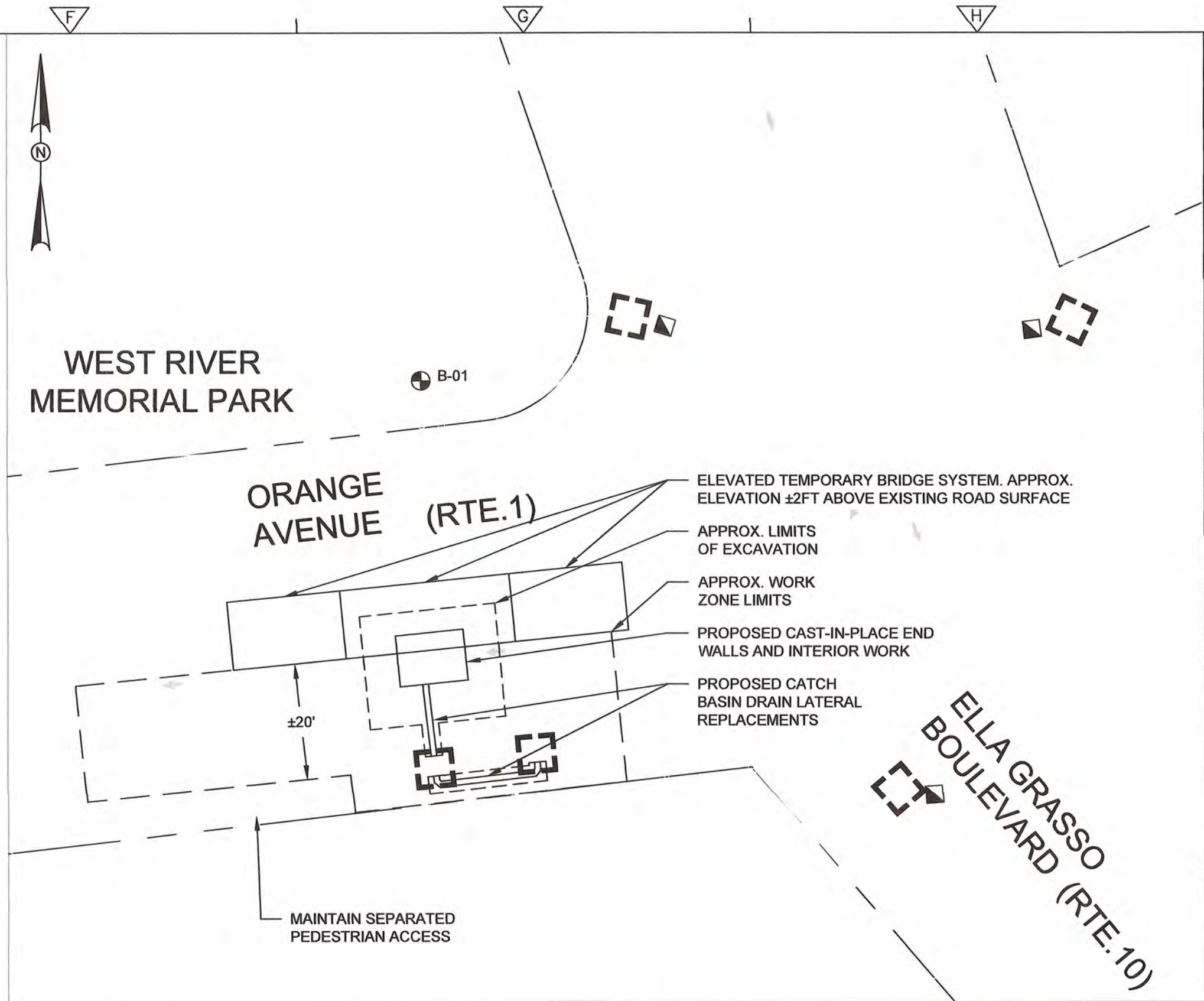
KLEINFELDER Bright People. Right Solutions.	PROJECT NO. CWF 2016-03
	FILE NAME:
	SHEET NO. 18 OF 48
	SCALE: AS NOTED



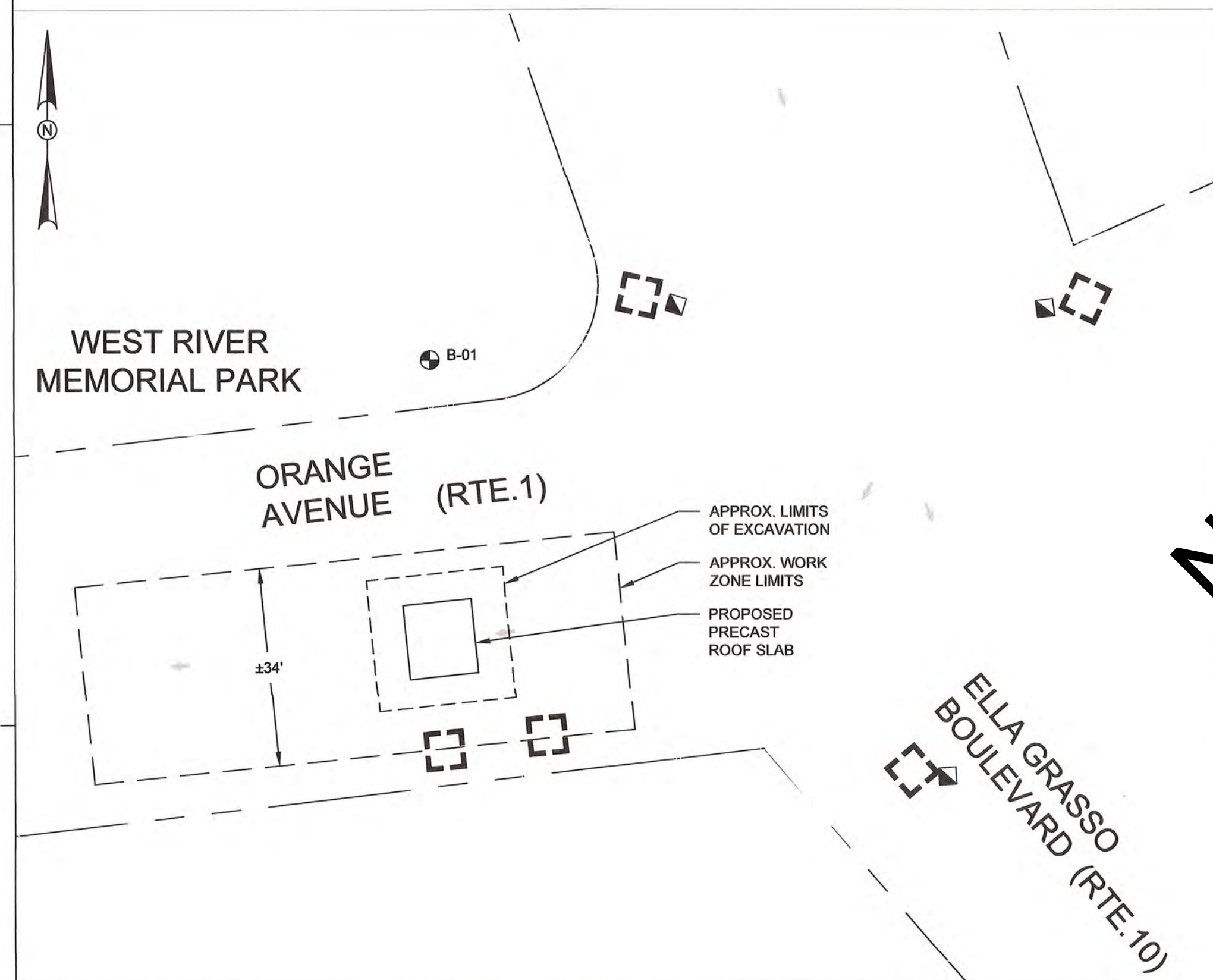
PLAN - STAGE 1
SCALE: 1" = 20'



PLAN - STAGE 2
SCALE: 1" = 20'



PLAN - STAGE 3
SCALE: 1" = 20'



PLAN - STAGE 4
SCALE: 1" = 20'

SUGGESTED CONSTRUCTION SEQUENCING NOTES AT CSO 003

1. CHECK AND REPLACE WEIR WALL FLAGGING AS NECESSARY.
2. INSTALL SOIL EROSION AND SEDIMENTATION CONTROL DEVICES (INCLUDING SILT SACKS AT CATCH BASINS) IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP), APPLICABLE PERMITS, THE CONTRACT SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.
3. ESTABLISH STAFFED TRAFFIC MANAGEMENT SETUPS IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS (SHEETS 22 AND 23) AND CONSTRUCTION SEQUENCING PLANS HEREIN.
4. PERFORM PRELIMINARY TEST PITS EXPLORATIONS AND SUBSURFACE INVESTIGATIONS AS INDICATED HEREIN AND AS DIRECTED BY THE ENGINEER. UPON REVIEW OF TEST PITS INFORMATION, COORDINATE THE ORDERING OF PRECAST MEMBER(S) WITH THE ENGINEER.
5. INSTALL THE PRELIMINARY COMPONENTS OF THE EXCAVATION SUPPORT SYSTEM ABOUT THE DESIGNATED EXCAVATION LIMITS.
6. INSTALL THE MICROPILES AS INDICATED HEREIN AND IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.
7. EXCAVATE OUT MICROPILES TO REQUIRED ELEVATION, AND INSTALL THE NORTHERN PILE CAP. BACKFILL TO MATCH EXISTING GRADE. (STAGE 1)
8. EXCAVATE OUT MICROPILES TO REQUIRED ELEVATION, AND INSTALL THE SOUTHERN PILE CAP INCLUDING 12" DI PIPE PENETRATION. BACKFILL TO MATCH EXISTING GRADE. (STAGE 2)
9. COMPLETE EXCAVATION SUPPORT SYSTEM ABOUT DESIGNATED EXCAVATION LIMITS.
10. ERECT TEMPORARY ROAD BRIDGE SYSTEM OVER EXCAVATION TO PROVIDE AN ADDITIONAL LANE FOR TRAFFIC. TEMPORARY ROAD BRIDGE TO BE ERECTED AND DISASSEMBLED NIGHTLY AS NEEDED. CONTRACTOR TO COORDINATE WITH ENGINEER, THE CITY AND CTDOT. (STAGE 3)
11. EXCAVATE AND INSTALL THE END WALLS. BACKFILL OUTSIDE OF END WALLS TO MATCH EXISTING GRADE.
12. SELECTIVELY DEMO THE EXISTING CSO OUTFALL PIPE AS INDICATED ON SHEETS 9 AND 10.
13. CLEAN/PREP PIPE INTERIOR AND WORK AREA. REMOVE AND DISPOSE OF DEBRIS ACCORDINGLY.
14. INSTALL INTERIOR COMPONENTS OF CSO STRUCTURE INCLUDING WEIR WALL, BENCH, STOP LOG SYSTEM, ETC. AS INDICATED ON SHEETS 15 AND 16.
15. COMPLETE 12" DI REPLACEMENT OF EXISTING DRAIN PIPES.
16. INSTALL PRECAST ROOF SLAB. (STAGE 4)
17. PRESSURE TEST AND INSPECT CSO STRUCTURE.
18. REMOVE SUPPORT OF EXCAVATION (AS NEEDED).
19. BACK FILL AS NECESSARY AND RESTORE PAVEMENT TO MATCH EXISTING GRADE.

GENERAL NOTES

1. FINAL CONSTRUCTION SEQUENCING TO BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL BY CTDOT AND/OR CITY OF NEW HAVEN.
2. THE SEQUENCE SHOWN ANTICIPATES ALL WORK WILL BE DONE DURING OVERNIGHT HOURS. OVERNIGHT HOURS TO BE DETERMINED BY THE ENGINEER BASED ON CONTRACTOR'S FINAL CONSTRUCTION SEQUENCING PLAN AND APPROVED BY CTDOT AND THE CITY OF NEW HAVEN.
3. FOR TRAFFIC MANAGEMENT, SEE MAINTENANCE OF TRAFFIC PLANS SHOWN HEREIN.
4. ESTIMATED CONSTRUCTION DURATIONS AT CSO 003 ARE AS FOLLOWS:
STAGE 1 - 2.5 WEEKS
STAGE 2 - 2.5 WEEKS
STAGE 3 - 3.5 WEEKS
STAGE 4 - 1 WEEK
5. ALL STAGES ON CONSTRUCTION SHALL MAINTAIN AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION.
6. ALL FINAL MPT PLANS ARE SUBJECT TO APPROVAL BY CTDOT AND THE CITY OF NEW HAVEN.

LEGEND

- PROPERTY LINE
- LIMITS OF WORK ZONE
- SAWCUT LINE
- SILT SACK
- CATCH BASIN CHECK VALVE
- BORING ADVANCED IN JULY 2016. OBSERVED AND DOCUMENTED BY KLEINFELDER

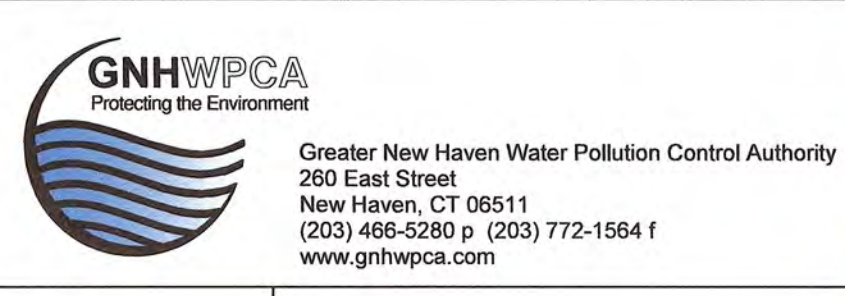


SUGGESTED DETOUR ROUTES (N.T.S.) - ROUTE 1 WEST OF ROUTE 10



REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: J. JACQUES
DRAWN BY: J. JACQUES
SHEET CHK'D BY: T. LOTO
CROSS CHK'D BY: N. KULIKAUSSKAS
APPROVED BY: T. LOTO
DATE: NOVEMBER 13, 2017

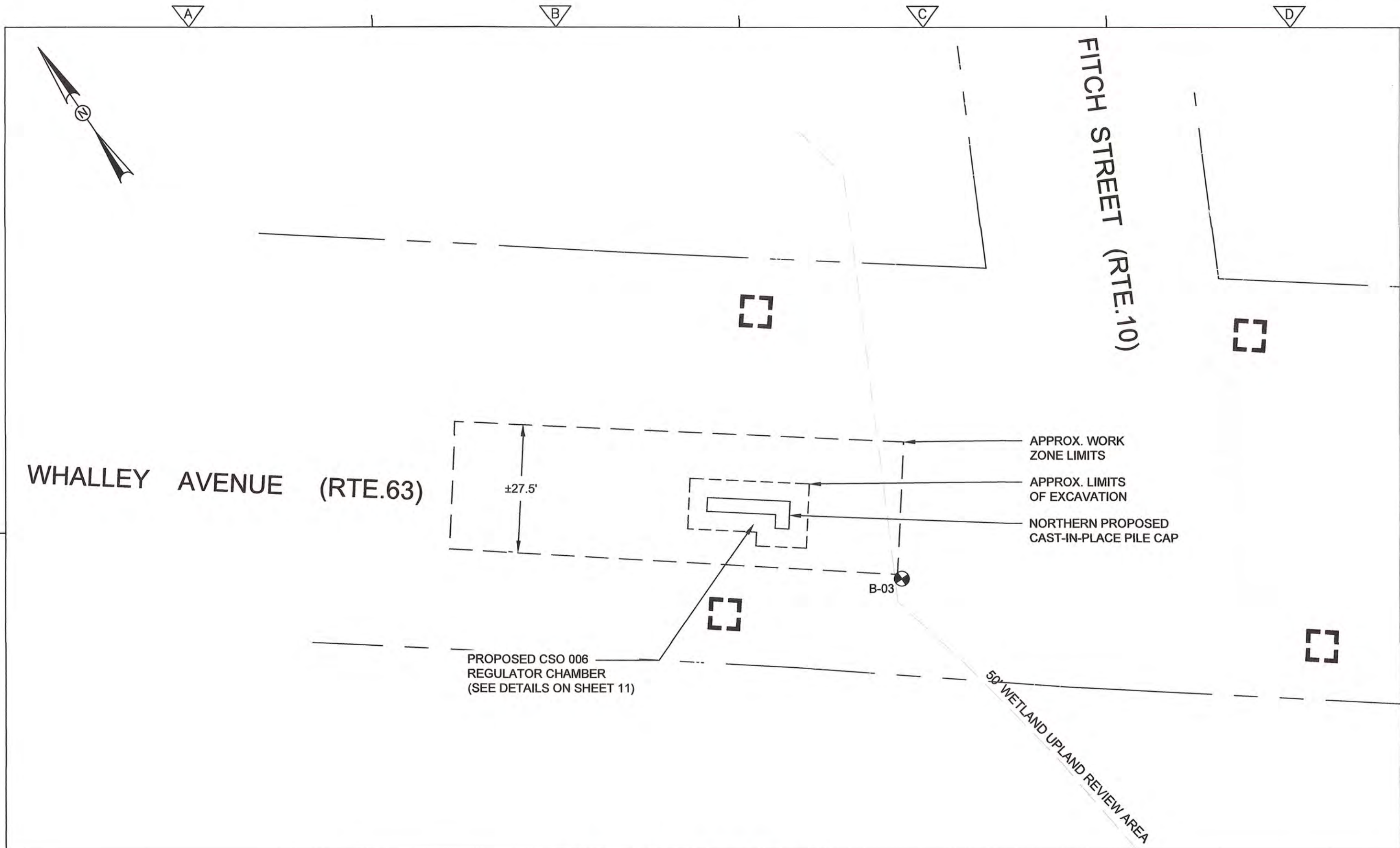


GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
WEST RIVER CSO IMPROVEMENT PROJECT

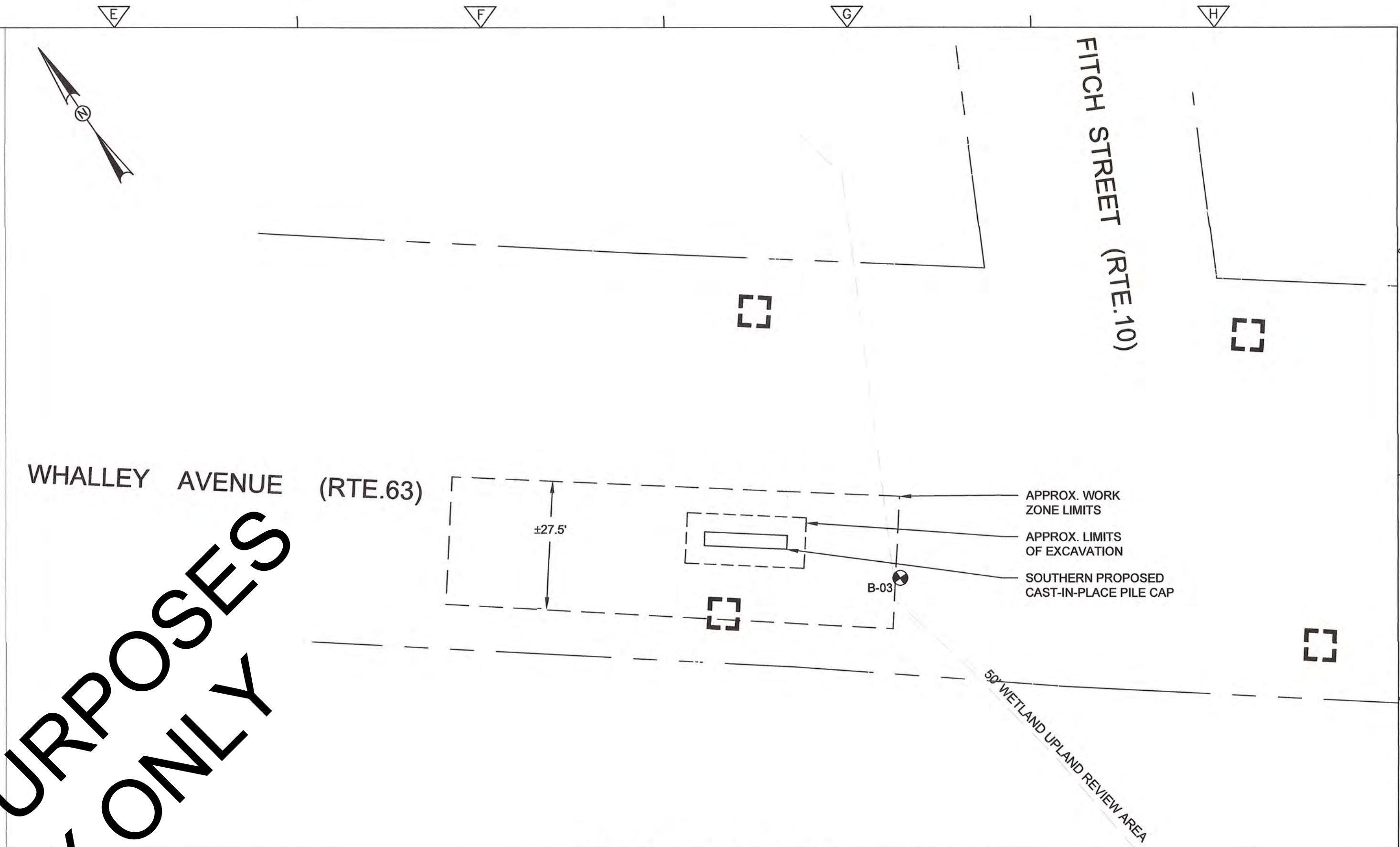


CONSTRUCTION SEQUENCING PLAN
CSO REGULATOR 003

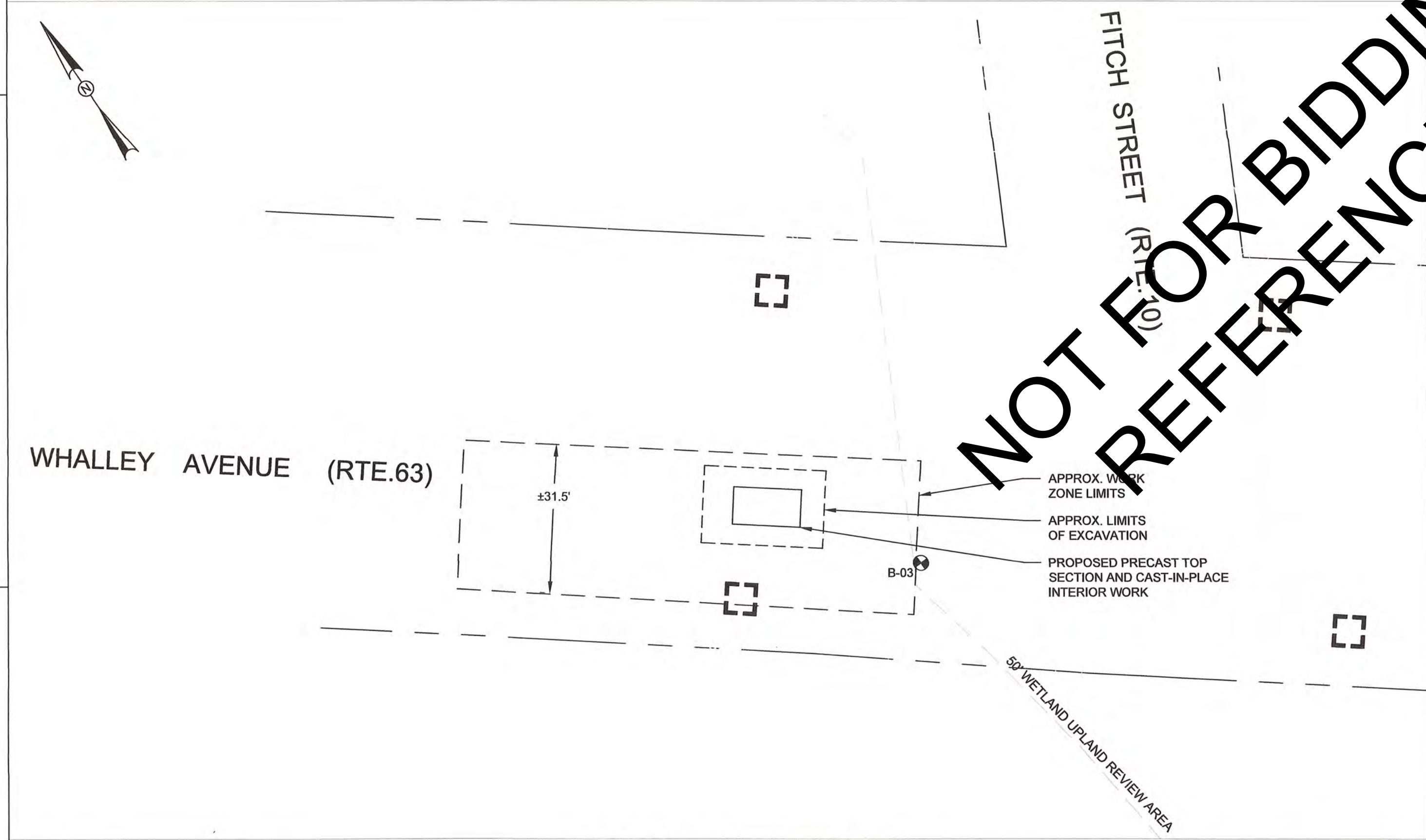
PROJECT NO. CWF 2016-03
FILE NAME:
SHEET NO. 19 OF 48
SCALE: AS NOTED



PLAN - STAGE 1
SCALE: 1" = 20'



PLAN - STAGE 2
SCALE: 1" = 20'



PLAN - STAGE 3
SCALE: 1" = 20'

SUGGESTED CONSTRUCTION SEQUENCING NOTES AT CSO 006

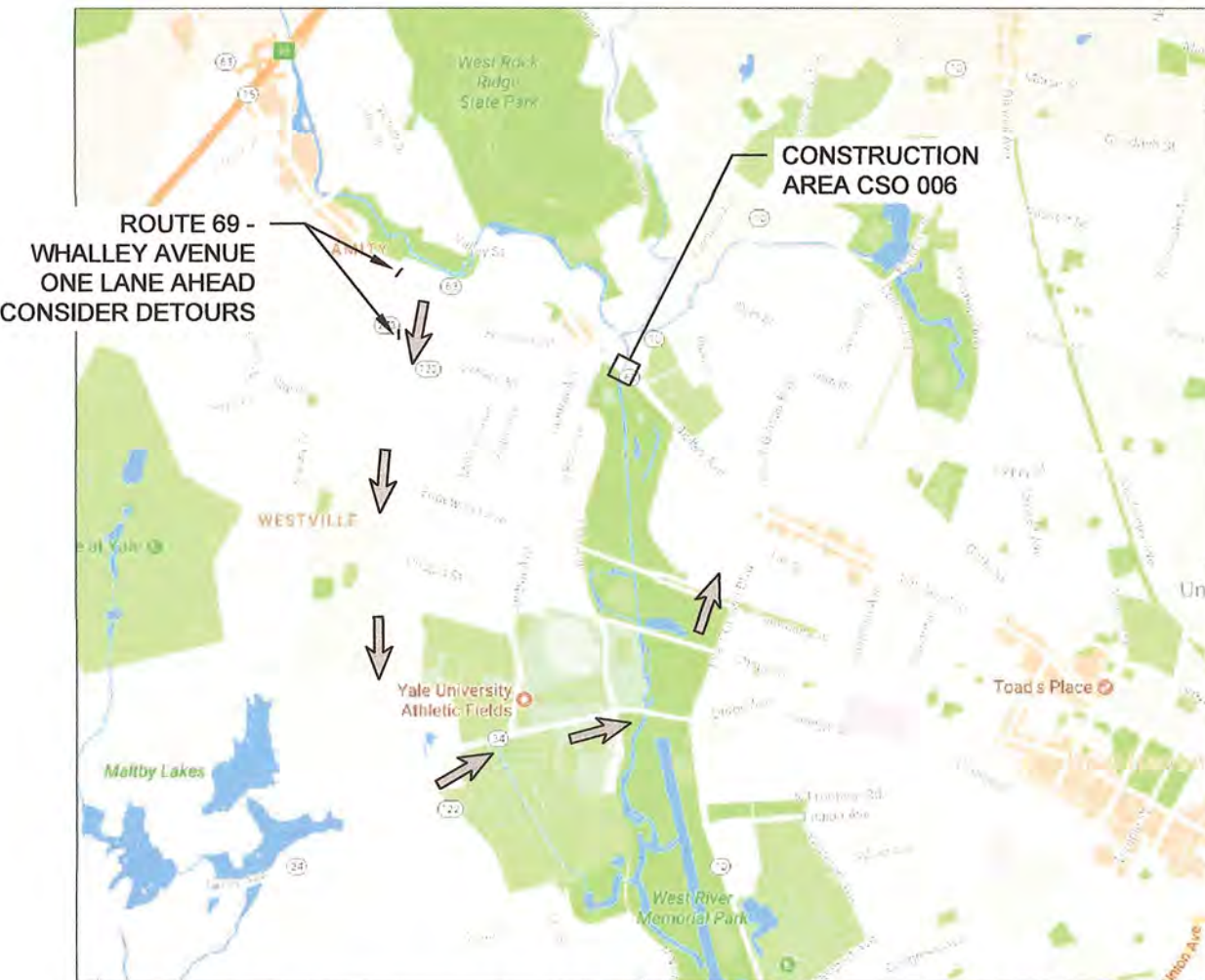
1. CHECK AND REPLACE WETLAND FLAGGING AS NECESSARY.
2. INSTALL SOIL EROSION AND SEDIMENTATION CONTROL DEVICES (INCLUDING SILT SACKS AT CATCH BASINS) IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP), APPLICABLE PERMITS, THE CONTRACT SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.
3. ESTABLISH STAGED TRAFFIC MANAGEMENT SETUPS IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS (SHEETS 25 AND 26) AND CONSTRUCTION SEQUENCING PLANS HEREIN.
4. PERFORM PRELIMINARY TEST PITS EXPLORATIONS AND SUBSURFACE INVESTIGATIONS AS INDICATED HEREIN AND AS DIRECTED BY THE ENGINEER. UPON REVIEW OF TEST PITS INFORMATION, COORDINATE THE ORDERING OF PRECAST MEMBER(S) WITH THE ENGINEER.
5. INSTALL THE PRELIMINARY COMPONENTS OF THE EXCAVATION SUPPORT SYSTEM ABOUT THE DESIGNATED EXCAVATION LIMITS.
6. INSTALL THE MICROPILES AS INDICATED HEREIN AND IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.
7. EXCAVATE AND INSTALL THE NORTHERN AND EASTERN PORTIONS OF PILE CAP WITH EXTENDED VERTICAL WALL AS INDICATED HEREIN. REMOVE AND REPLACE TWIN 24" OVERFLOW PIPES AND 6" DRAIN PIPE AS NEEDED. BACKFILL TO MATCH EXISTING GRADE. (STAGE 1)
8. EXCAVATE AND INSTALL THE SOUTHERN PORTION OF PILE CAP WITH EXTENDED VERTICAL WALL AS INDICATED HEREIN. BACKFILL TO MATCH EXISTING GRADE. (STAGE 2)
9. COMPLETE EXCAVATION SUPPORT SYSTEM ABOUT DESIGNATED EXCAVATION LIMITS.
10. INSTALL TEMPORARY FLOW-THRU FLOW BYPASS SYSTEM. (STAGE 3)
11. EXCAVATE AND SELECTIVELY DEMO THE EXISTING CSO OUTFALL PIPE AS INDICATED ON SHEETS 13 AND 14.
12. CLEAN/REP PIPE INTERIOR AND WORK AREA. REMOVE AND DISPOSE OF DEBRIS ACCORDINGLY.
13. INSTALL INTERIOR COMPONENTS OF CSO STRUCTURE INCLUDING FLOOR SLAB, STOP LOG SYSTEM, ETC. AS INDICATED ON SHEETS 15 AND 18.
14. INSTALL PRECAST TOP SECTION AND REMOVE TEMPORARY FLOW-THRU FLOW BYPASS SYSTEM.
15. PRESSURE TEST AND INSPECT CSO STRUCTURE.
16. REMOVE SUPPORT OF EXCAVATION (AS NEEDED).
17. BACK FILL AS NECESSARY AND RESTORE PAVEMENT TO MATCH EXISTING GRADE.

GENERAL NOTES

1. FINAL CONSTRUCTION SEQUENCING TO BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL BY CTDOT AND/OR THE CITY OF NEW HAVEN.
2. THE SEQUENCE SHOWN ANTICIPATES ALL WORK WILL BE DONE DURING OVERNIGHT HOURS. OVERNIGHT HOURS TO BE DETERMINED BY THE ENGINEER BASED ON CONTRACTOR'S FINAL CONSTRUCTION SEQUENCING PLAN AND APPROVED BY THE CTDOT AND THE CITY OF NEW HAVEN.
3. FOR TRAFFIC MANAGEMENT, SEE MAINTENANCE OF TRAFFIC PLANS SHOWN HEREIN.
4. ESTIMATED CONSTRUCTION DURATIONS AT CSO 006 ARE AS FOLLOWED:
STAGE 1 - 3 WEEKS
STAGE 2 - 3 WEEKS
STAGE 3 - 2 WEEKS
5. ALL STAGES ON CONSTRUCTION SHALL MAINTAIN AT LEAST ONCE LANE OF TRAFFIC IN EACH DIRECTION.
6. ALL FINAL MPT PLANS ARE SUBJECT TO APPROVAL BY CTDOT AND THE CITY OF NEW HAVEN.

LEGEND

- PROPERTY LINE
- LIMITS OF WORK ZONE
- SAWCUT LINE
- INLAND WETLAND DELINEATION
- WETLAND UPLAND REVIEW AREA
- SILT SACK
- B-03 BORING ADVANCED IN JULY 2016. OBSERVED AND DOCUMENTED BY KLEINFELDER



SUGGESTED DETOUR ROUTES (N.T.S.) - ROUTE 63 WEST OF ROUTE 10

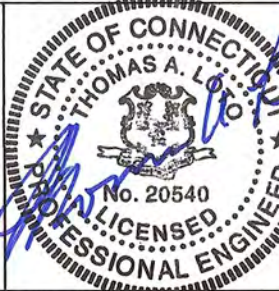


REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: J. JACQUES
DRAWN BY: J. JACQUES
SHEET CHK'D BY: T. LOTO
CROSS CHK'D BY: N. KULIKAUSSAS
APPROVED BY: T. LOTO
DATE: NOVEMBER 13, 2017



Greater New Haven Water Pollution Control Authority
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New Haven, CT 06511
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GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
WEST RIVER CSO IMPROVEMENT PROJECT

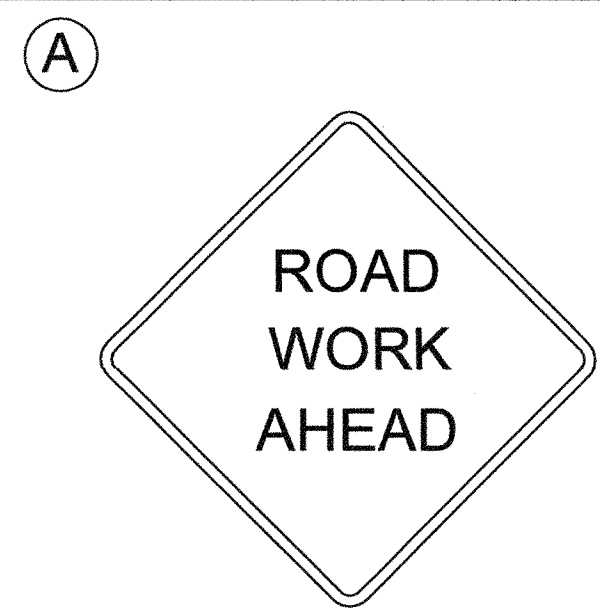


CONSTRUCTION SEQUENCING PLAN
CSO REGULATOR 006

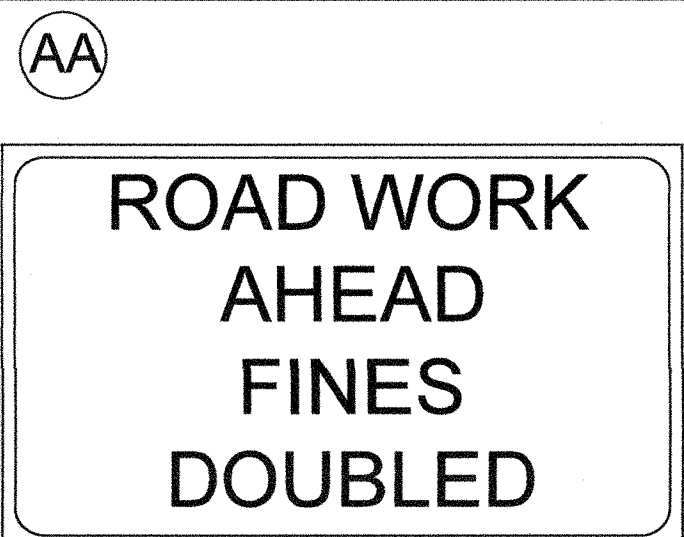
PROJECT NO. CWF 2016-03
FILE NAME:
SHEET NO. 20 OF 48
SCALE: AS NOTED

GENERAL NOTES (ALL STAGES)

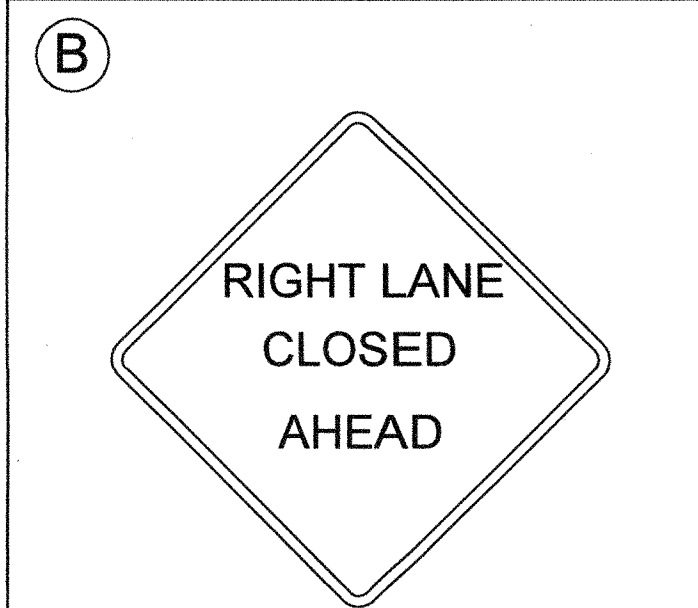
1. MAINTENANCE AND PROTECTION OF TRAFFIC PLANS SHOWN HEREIN ARE FOR GUIDANCE AND DEPICT THE MINIMUM REQUIREMENTS. ALL SIGNS AND DEVICES MAY NOT BE SHOWN. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE ALL SIGNS, DEVICES AND OTHER APPURTENANCES NECESSARY TO MAINTAIN PEDESTRIAN AND VEHICLE TRAFFIC SAFETY THROUGH THE WORK ZONE IN COMPLETE COMPLIANCE WITH ALL CITY OF NEW HAVEN AND STATE OF CONNECTICUT REQUIREMENTS. THERE SHALL BE NO LIMIT TO THE NUMBER OF THE SIGNS OF THE TYPE SHOWN ON THESE MAINTENANCE AND PROTECTION OF TRAFFIC PLANS, OR TO THE NUMBER OF TRAFFIC CONES, TRAFFIC DRUMS, CONSTRUCTION BARRICADES , ETC. AS SHOWN IN THE PLANS. ALL COST SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR THE ITEM "MAINTENANCE AND PROTECTION OF TRAFFIC." THERE SHALL BE NO ADDITIONAL PAYMENT FOR MAINTENANCE AND PROTECTION OF TRAFFIC WORK SHOWN BUT REQUIRED BY THE CITY, GNHWPCA, STATE OF CONNECTICUT, OR THE ENGINEER.
2. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM THE CITY OF NEW HAVEN. AND STATE OF CONNECTICUT. THE COST OF ALL SIGNS AND PROTECTIVE DEVICES REQUIRED BY ALL PERMITS IS INCLUDED IN THE LUMP SUM PRICE FOR THE ITEM " MAINTENANCE AND PROTECTION OF TRAFFIC."
3. CONTRACTOR SHALL MODIFY THE TEMPORARY TRAFFIC AT THE DIRECTION OF POLICE INCLUDING RELOCATING TRAFFIC CONTROL DEVICES OR PROVIDING ADDITIONAL TRAFFIC CONTROL DEVICES.
4. ALLOWABLE WORK ZONE TIME ARE PER THE PERMITS. WORK HOURS SHALL BE AT NIGHT, MONDAY THROUGH FRIDAY UNLESS OTHERWISE SHOWN ON THE PLANS OR PERMIT.
5. CONTRACTOR SHALL PROVIDE ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES.
6. CONTRACTOR SHALL PROTECT AND MAINTAIN SIDEWALKS AND PEDESTRIAN CROSSINGS THAT ARE NOT IDENTIFIED FOR CLOSURE ON THE PLANS.
7. CONTRACTOR SHALL NOTIFY CONNECTICUT TRANSIT PRIOR TO IMPLEMENTING DETOUR OR CLOSING LANES.
8. CONTRACTOR SHALL NOTIFY BRUCE FISHER (203-946-8073) OF THE CITY OF NEW HAVEN DEPARTMENT OF TRANSPORTATION, TRAFFIC, AND PARKING FIVE (5) WORKING DAYS BEFORE THE START OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY CONNECTICUT DEPARTMENT OF TRANSPORTATION (CTDOT) DISTRICT 3 MAINTENANCE OFFICE (203-389-3000) FIVE (5) WORKING DAYS BEFORE THE START OF CONSTRUCTION.
9. CONTRACTOR SHALL NOTIFY THE CITY OF NEW HAVEN DEPARTMENT OF TRANSPORTATION, TRAFFIC, AND PARKING AND THE CITY OF NEW HAVEN EMERGENCY SERVICES AT LEAST 72 HOURS IN ADVANCE OF CHANGING TRAFFIC PATTENS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE CITY OF NEW HAVEN TO ESTABLISH AND REVIEW METHODS TO BE UTILIZED FOR THE SAFE PASSAGE PEDESTRIANS AND PASSAGE OF SCHOOL BUSES AS NEEDED ON STREETS AFFECTED BY WORK UNDER THIS CONTRACT.
11. CONTRACTOR SHALL MAINTAIN TRAFFIC SIGNALS AT ALL TIMES.
12. ALL TRAFFIC CONTROL DEVICE AND SIGNS SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION. THE LOCATION FOR TRAFFIC SIGNS AND DRUMS ARE APPROXIMATE AND SHALL BE ADJUSTED BY THE ENGINEER TO MEET FIELD CONDITIONS AND TO CLEARLY DEFINE ACCESS TO AND EGRESS FROM ALL ROADWAYS AND DRIVEWAYS.
13. TEMPORARY SIGNS ARE APPROXIMATE AND SHALL BE ADJUSTED AS DIRECTED BY THE ENGINEER SO AS NOT TO CONFLICT WITH EXISTING PERMANENT SIGNS OR SIGNS FOR ANY OTHER CONSTRUCTION ACTIVITY.
14. MAINTAIN 10' MIN. TRAVEL LANES UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER.
15. ALL TEMPORARY CONSTRUCTION SIGNS SHALL BE MOUNTED ON NEW POLES OR POSTS, INSTALLED IN GRASS AREAS, OR ON PORTABLE SIGN SUPPORTS. NO SIGNAGE SHALL BE PLACED THAT OBSTRUCTS EXISTING SIGNAGE.
16. THE WORK SHALL INCLUDE PLACING THE TEMPORARY PAVEMENT MARKINGS, REMOVING CONFLICTING PAVEMENT MARKINGS, AND REMOVING TEMPORARY PAVEMENT MARKINGS WHEN NO LONGER REQUIRED, AS DIRECTED BY THE ENGINEER. THE COST IS INCLUDED IN THE RESPECTIVE TEMPORARY PAVEMENT MARKING ITEM.
17. CONTRACTOR SHALL INSTALL NEW TRAFFIC DETECTORS LOOPS WHERE EXISTING LOOPS ARE REMOVED OR DAMAGED DURING CONSTRUCTION. TEMPORARY LOOPS MAYBE REQUIRED. ALL WORK SHALL BE PERFORMED AS REQUIRED BY CTDOT, THE COST SHALL BE INCLUDED IN THE ITEM "MAINTENANCE AND PROTECTION OF TRAFFIC."
18. CONTRACTOR SHALL BE RESPONSIBLE FOR THE RELOCATION AND RE-TIMING OF THE EXISTING TRAFFIC SIGNAL HEADS IMPACTED BY CONSTRUCTION. THE COST SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR "MAINTENANCE AND PROTECTION OF TRAFFIC". THERE SHALL BE NO ADDITIONAL PAYMENT FOR SIGNAL WORK IN EXCESS OF WHAT IS DEPICTED ON THE PLANS THAT IS REQUIRED BY THE CITY, GNHWPCA, CTDOT, OR THE ENGINEER
19. PRIVATE PROPERTY AND BUSINESS ACCESS AND DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES.
20. ALL CONSTRUCTION SIGNS SHALL MEET THE CRITERIA SET FORTH BY THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 2009 EDITION, LATEST REVISIONS.
21. WORK ZONE SIZES ARE SHOWN AS APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ENSURE ADEQUATE SPACE FOR REQUIRED EQUIPMENT.
22. UPON COMPLETION OF THE PROJECT OR AS SOON AS MAJOR WORK IN THE AREA IS COMPLETED, ALL EXISTING SIGNS AND PAVEMENT MARKINGS WHICH ARE REMOVED IN ADVANCE OF STAGE CONSTRUCTION SHALL BE RE-ESTABLISHED AS DIRECTED BY THE ENGINEER. PERMANENT PAVEMENT MARKINGS SHALL BE OF THE SAME TYPE AND SIZE WHICH EXISTED PRIOR TO CONSTRUCTION IN ACCORDANCE WITH CTDOT STANDARDS FOR PAVEMENT MARKINGS UNLESS DIRECTED OTHERWISE BY THE ENGINEER, CITY OR CTDOT.
23. PROVIDE CITY POLICE AS REQUIRED BY PERMIT OR AS DIRECTED FOR WORK ON CITY STREETS AND STATE POLICE ON HIGHWAYS. THE COST IS PAID FOR UNDER THE ITEM "UNIFORMED POLICE OFFICERS."
24. LOCATIONS FOR TEMPORARY SIGNS ARE APPROXIMATE AND SHALL BE ADJUSTED AS DIRECTED BY THE ENGINEER SO AS NOT TO CONFLICT WITH EXISTING PERMANENT SIGNS. EXISTING SIGS IN CONFLICT WITH TEMPORARY SIGN SHALL BE COVERED OR ADJUSTED TO MEET FIELD CONDITIONS.



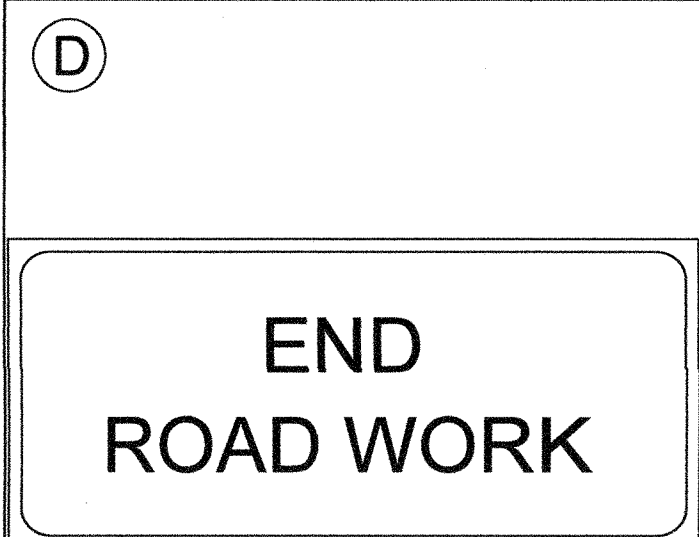
SIZE (INCHES)	CONN D.O.T #	POSTS		
48	80-9604	2		



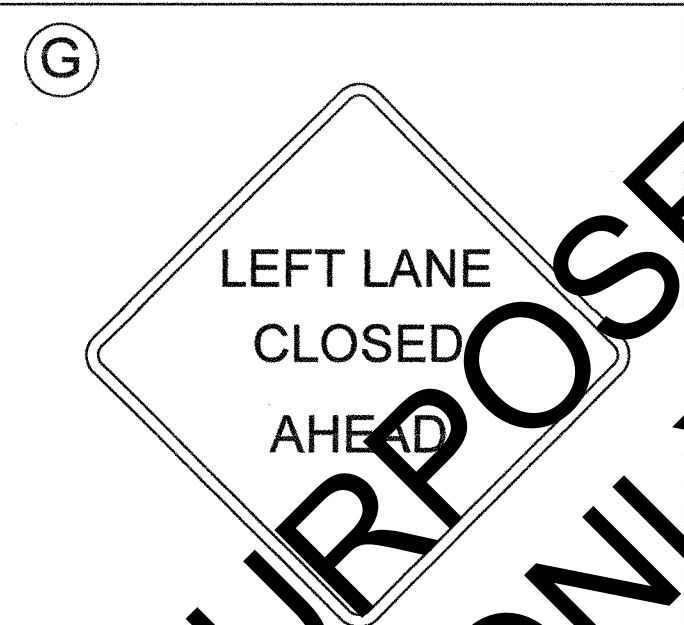
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48x42	31-1906	2		



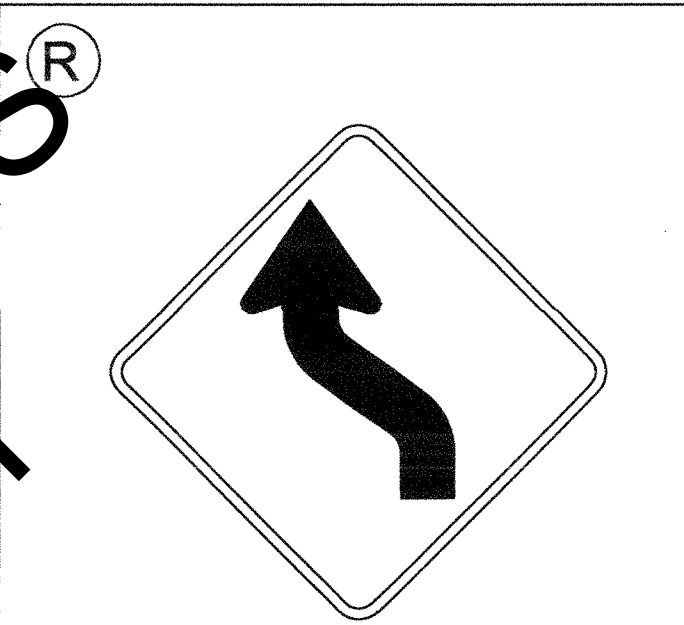
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48	80-9847	2		



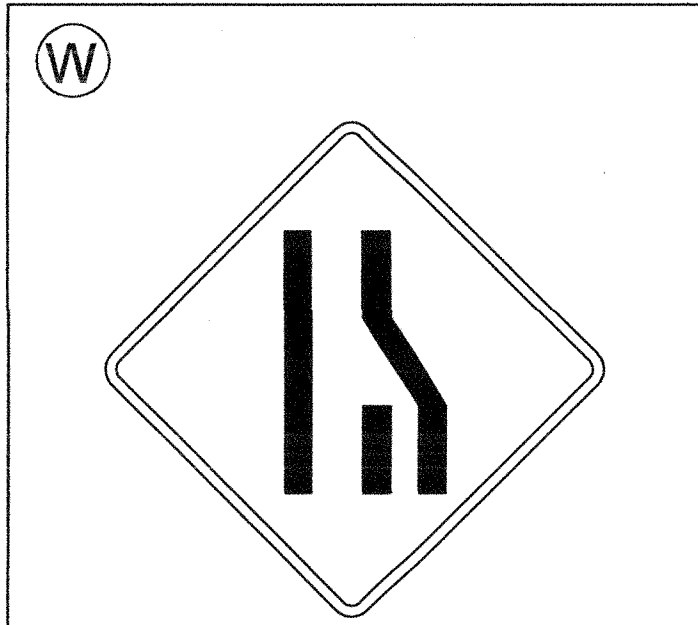
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42x24	80-9612	2		



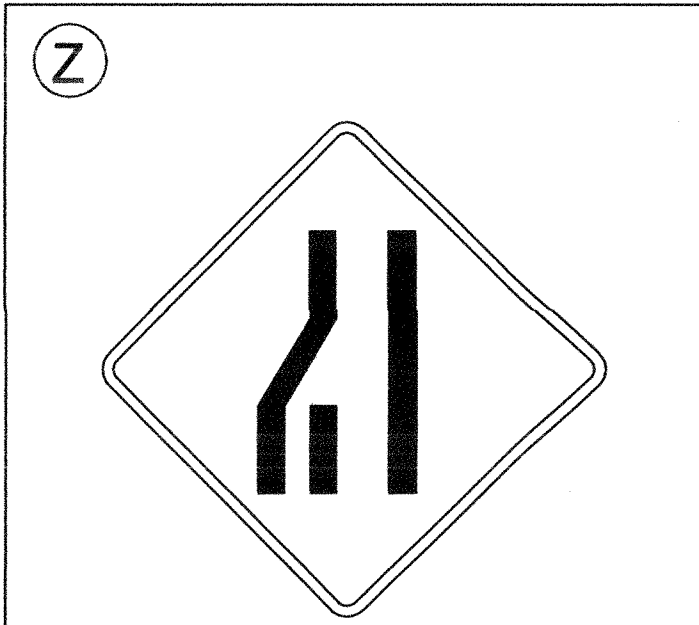
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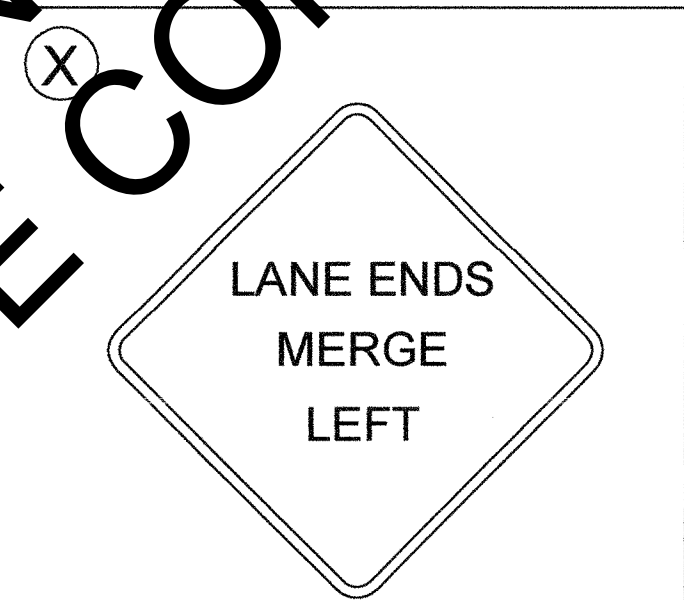
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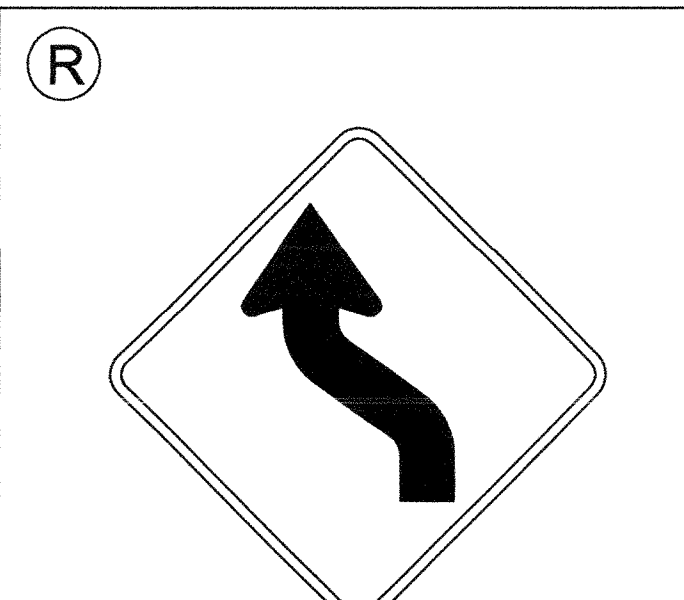
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48	80-9917R	BARRICADE		



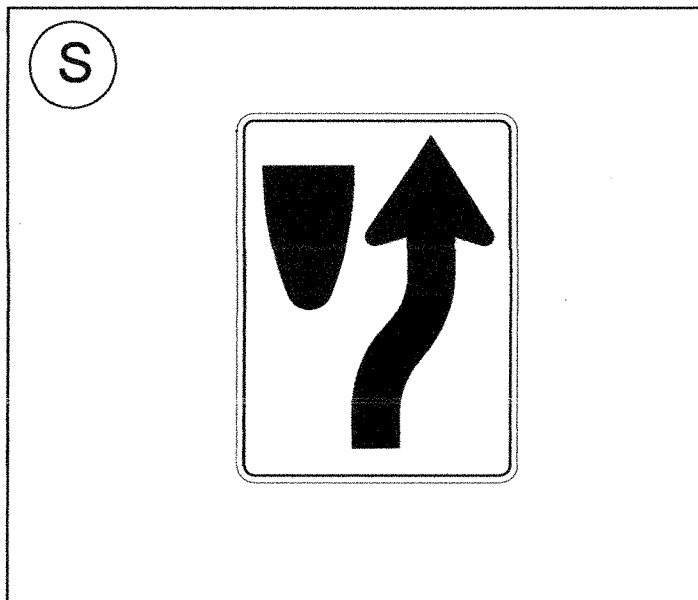
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48	80-9917L	BARRICADE		



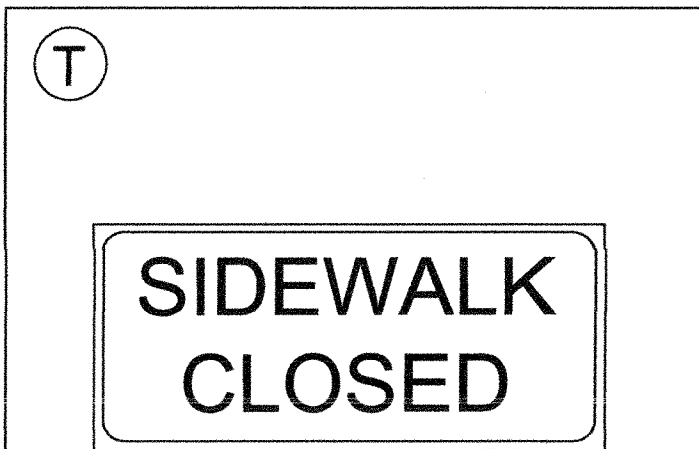
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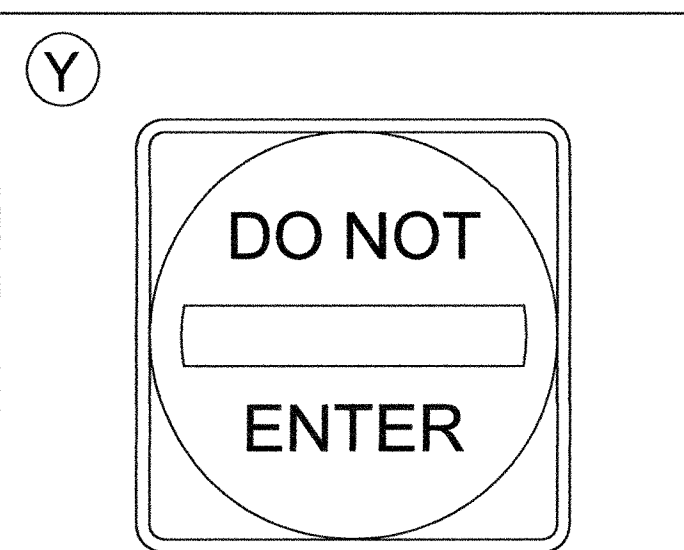
SIZE (INCHES)	CONN D.O.T #	POSTS		
48	80-9452L	BARRICADE		



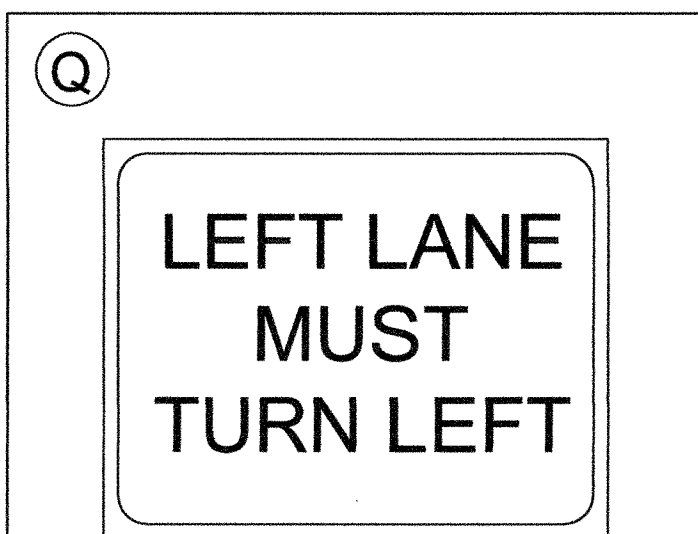
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24X30	31-1526	1		



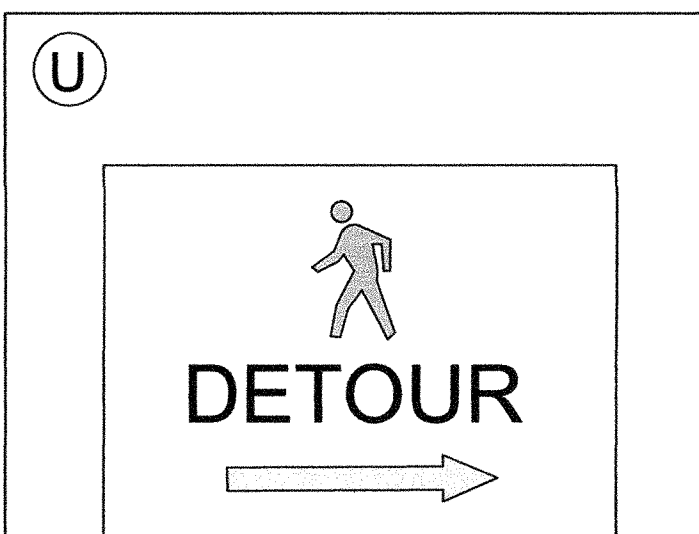
SIZE (INCHES)	CONN D.O.T #	POSTS		
30X18	80-9076	BARRICADE		



SIZE (INCHES)	CONN D.O.T #	POSTS		
30X30	31-1119	BARRICADE		



SIZE (INCHES)	CONN D.O.T #	POSTS		
30X30	31-0117	BARRICADE		



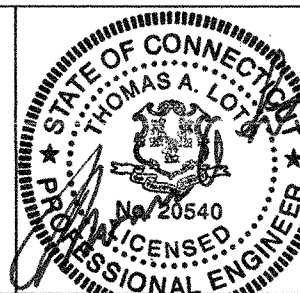
SIZE (INCHES)	CONN D.O.T #	POSTS		
30X24	80-9703R	BARRICADE		

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R.CULVER
DRAWN BY: R.CULVER
SHEET CHK'D BY: I.LOTO
CROSS CHK'D BY: N.KULIKAUSKAS
APPROVED BY: I.LOTO
DATE: NOVEMBER 13, 2017



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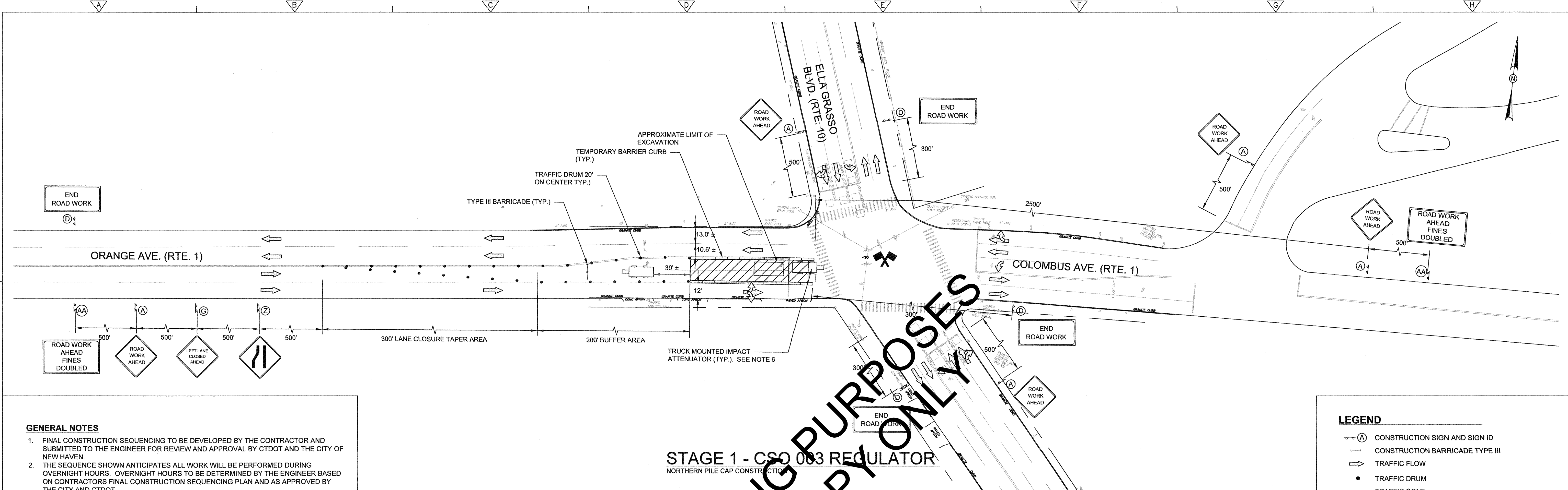


GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
WEST RIVER CSO IMPROVEMENT PROJECT



MAINTENANCE AND PROTECTION
OF TRAFFIC
GENERAL NOTES & DETAILS

PROJECT NO. CWF 2016-03
FILE NAME:
SHEET NO.
21 OF 48
SCALE:
AS NOTED



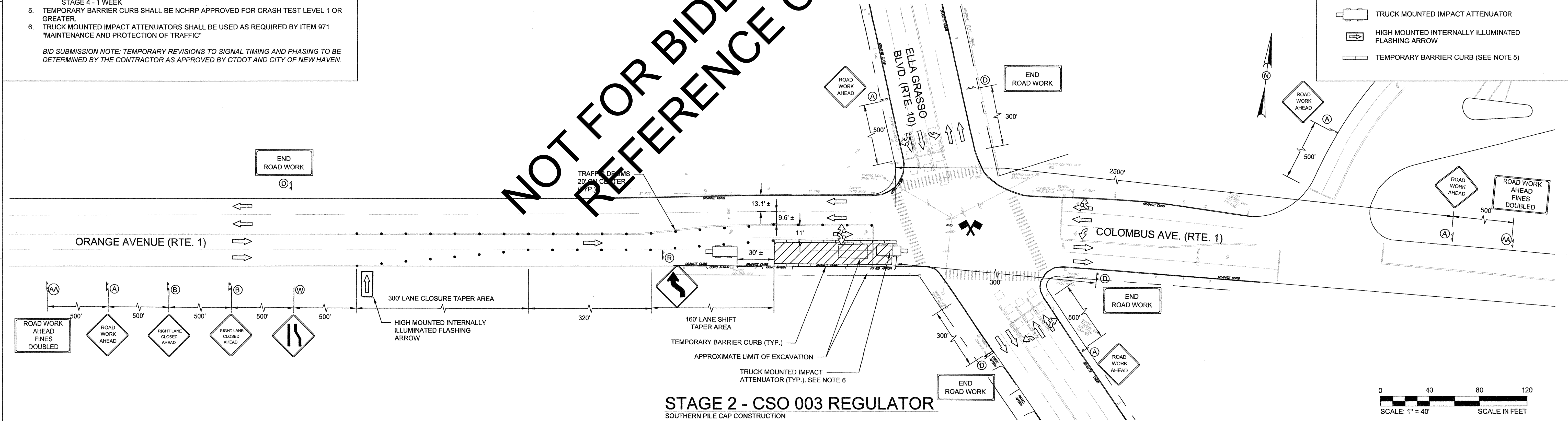
GENERAL NOTES

1. FINAL CONSTRUCTION SEQUENCING TO BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL BY CTDOT AND THE CITY OF NEW HAVEN.
2. THE SEQUENCE SHOWN ANTICIPATES ALL WORK WILL BE PERFORMED DURING OVERNIGHT HOURS. OVERNIGHT HOURS TO BE DETERMINED BY THE ENGINEER BASED ON CONTRACTORS FINAL CONSTRUCTION SEQUENCING PLAN AND AS APPROVED BY THE CITY AND CTDOT.
3. SEE CONSTRUCTION SEQUENCING PLANS
4. ESTIMATED CONSTRUCTION DURATION AT CSO 003 IS AS FOLLOWS:
STAGE 1 - 2.5 WEEKS
STAGE 2 - 2.5 WEEKS
STAGE 3 - 3.5 WEEKS
STAGE 4 - 1 WEEK
5. TEMPORARY BARRIER CURB SHALL BE NCHRP APPROVED FOR CRASH TEST LEVEL 1 OR GREATER.
6. TRUCK MOUNTED IMPACT ATTENUATORS SHALL BE USED AS REQUIRED BY ITEM 971 "MAINTENANCE AND PROTECTION OF TRAFFIC"

BID SUBMISSION NOTE: TEMPORARY REVISIONS TO SIGNAL TIMING AND PHASING TO BE DETERMINED BY THE CONTRACTOR AS APPROVED BY CTDOT AND CITY OF NEW HAVEN.

LEGEND

- CONSTRUCTION SIGN AND SIGN ID
- CONSTRUCTION BARRICADE TYPE III
- TRAFFIC FLOW
- TRAFFIC DRUM
- TRAFFIC CONE
- WORK ZONE
- POLICE OFFICER CONTROLLED SIGNAL
- TRUCK MOUNTED IMPACT ATTENUATOR
- HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW
- TEMPORARY BARRIER CURB (SEE NOTE 5)

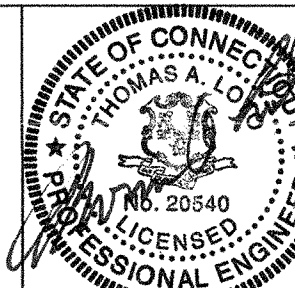


REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R.CULVER
DRAWN BY: R.CULVER
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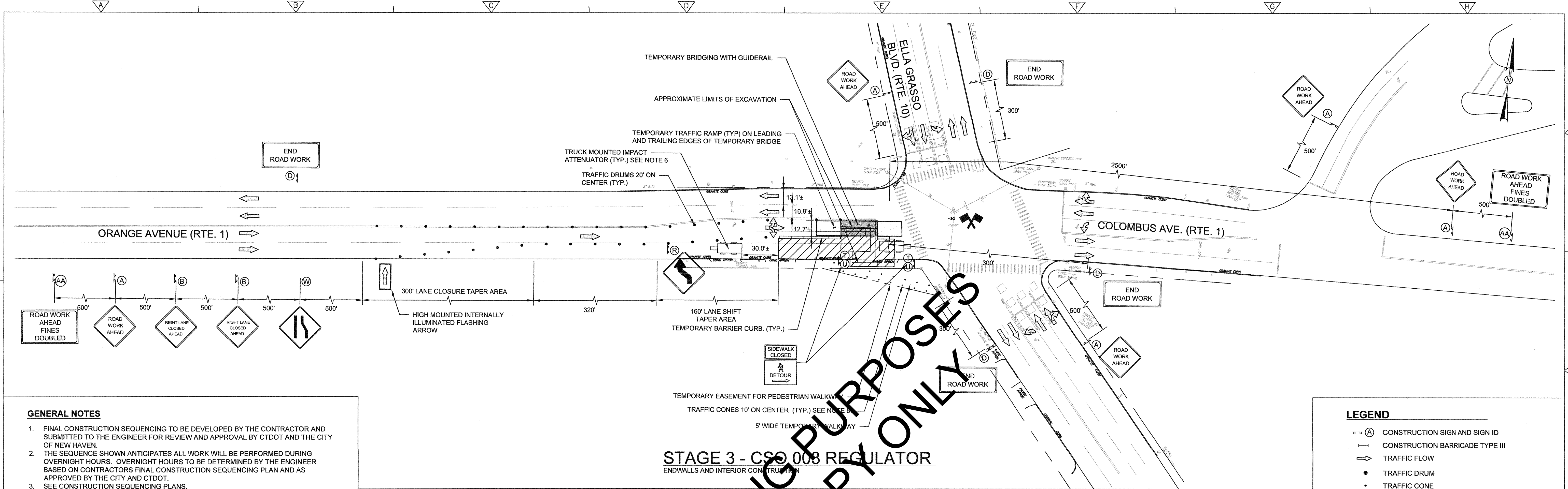


GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
WEST RIVER CSO IMPROVEMENT PROJECT



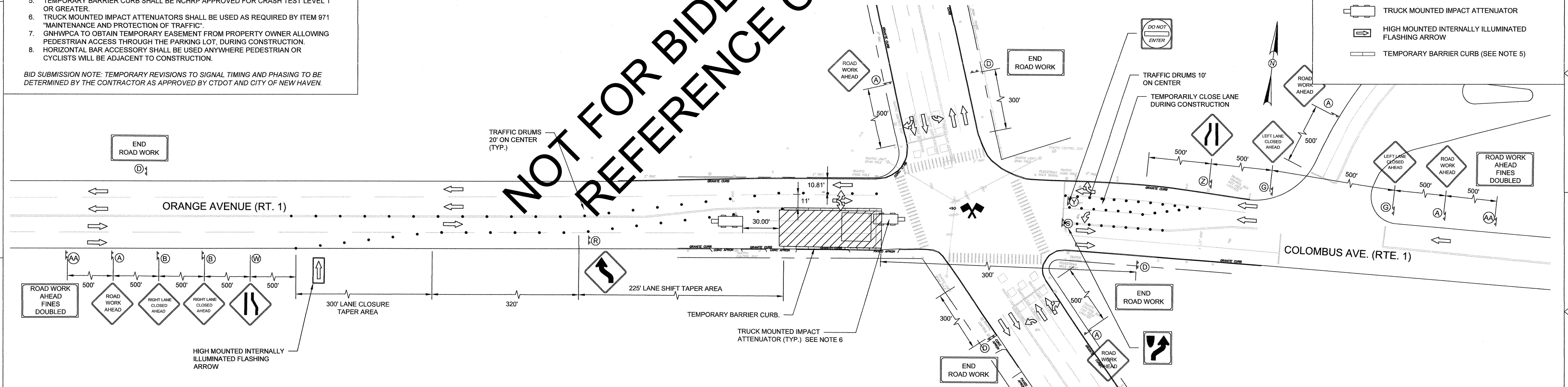
CSO REGULATOR 003
TRAFFIC CONTROL STAGE 1 & 2

PROJECT NO. CWF 2016-03
FILE NAME:
SHEET NO.
22 OF 48
SCALE:
AS NOTED



- GENERAL NOTES**
1. FINAL CONSTRUCTION SEQUENCING TO BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL BY CTDOT AND THE CITY OF NEW HAVEN.
 2. THE SEQUENCE SHOWN ANTICIPATES ALL WORK WILL BE PERFORMED DURING OVERNIGHT HOURS. OVERNIGHT HOURS TO BE DETERMINED BY THE ENGINEER BASED ON CONTRACTORS FINAL CONSTRUCTION SEQUENCING PLAN AND AS APPROVED BY THE CITY AND CTDOT.
 3. SEE CONSTRUCTION SEQUENCING PLANS.
 4. ESTIMATED CONSTRUCTION DURATION AT CSO 003 IS AS FOLLOWS:
STAGE 1 - 2.5 WEEKS
STAGE 2 - 2.5 WEEKS
STAGE 3 - 3.5 WEEKS
STAGE 4 - 1 WEEK
 5. TEMPORARY BARRIER CURB SHALL BE NCHRP APPROVED FOR CRASH TEST LEVEL 1 OR GREATER.
 6. TRUCK MOUNTED IMPACT ATTENUATORS SHALL BE USED AS REQUIRED BY ITEM 971 "MAINTENANCE AND PROTECTION OF TRAFFIC".
 7. GNHWPFA TO OBTAIN TEMPORARY EASEMENT FROM PROPERTY OWNER ALLOWING PEDESTRIAN ACCESS THROUGH THE PARKING LOT, DURING CONSTRUCTION.
 8. HORIZONTAL BAR ACCESSORY SHALL BE USED ANYWHERE PEDESTRIAN OR CYCLISTS WILL BE ADJACENT TO CONSTRUCTION.


BID SUBMISSION NOTE: TEMPORARY REVISIONS TO SIGNAL TIMING AND PHASING TO BE DETERMINED BY THE CONTRACTOR AS APPROVED BY CTDOT AND CITY OF NEW HAVEN.



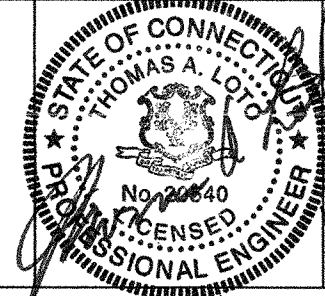
- LEGEND**
- CONSTRUCTION SIGN AND SIGN ID
 - CONSTRUCTION BARRICADE TYPE III
 - TRAFFIC FLOW
 - TRAFFIC DRUM
 - TRAFFIC CONE
 - WORK ZONE
 - POLICE OFFICER CONTROLLED SIGNAL
 - TRUCK MOUNTED IMPACT ATTENUATOR
 - HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW
 - TEMPORARY BARRIER CURB (SEE NOTE 5)

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R.CULVER
DRAWN BY: R.CULVER
SHEET CHK'D BY: T.LOTO
CROSS CHK'D BY: N.KULIKAUSKAS
APPROVED BY: T.LOTO
DATE: NOVEMBER 13, 2017



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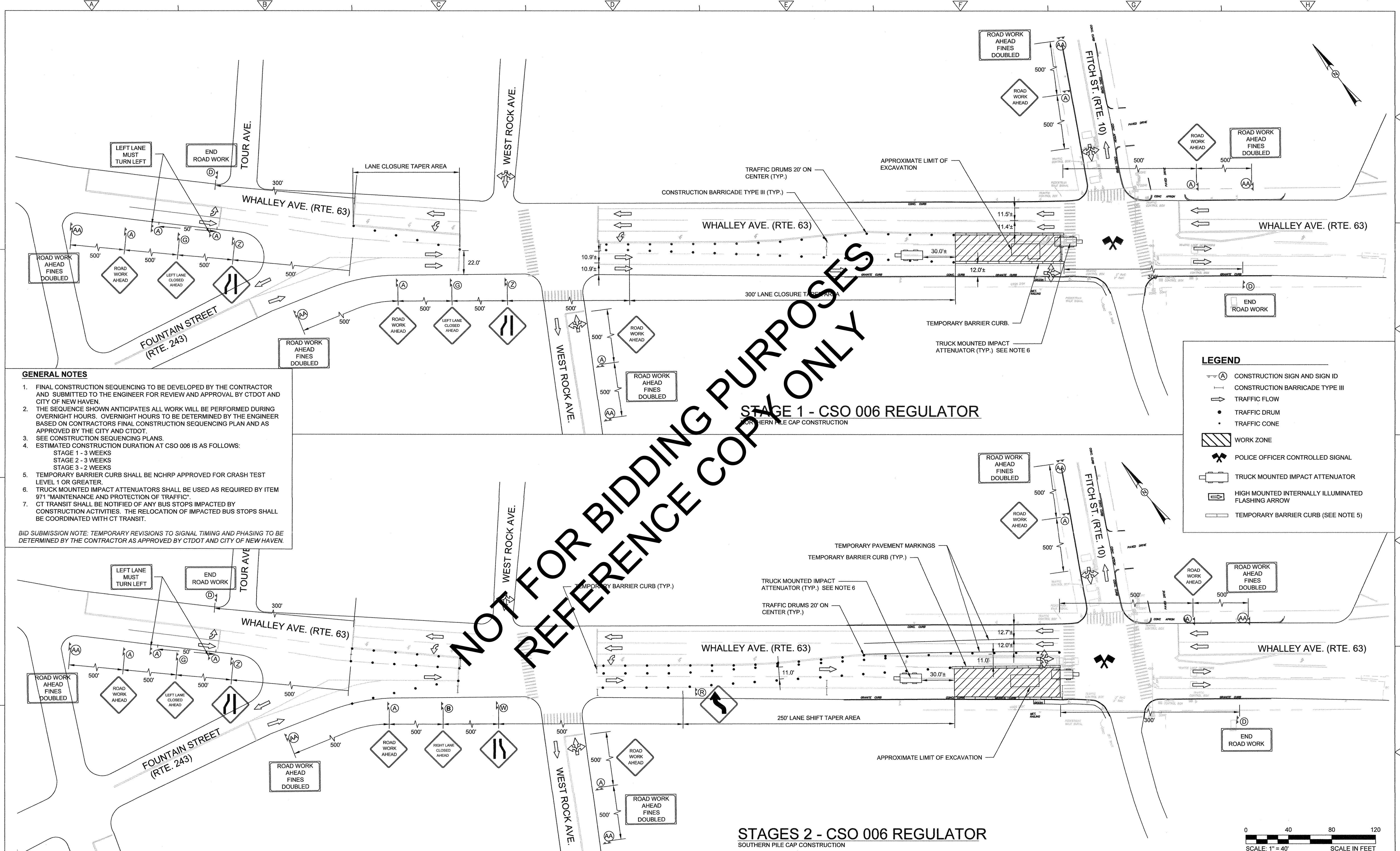
GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
WEST RIVER CSO IMPROVEMENT PROJECT



KLEINFELDER
Bright People. Right Solutions.

CSO REGULATOR 003
TRAFFIC CONTROL STAGE 3 & 4

PROJECT NO. CWF 2016-03
FILE NAME:
SHEET NO. 23 OF 48
SCALE: AS NOTED



- GENERAL NOTES**
1. FINAL CONSTRUCTION SEQUENCING TO BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL BY CTDOT AND CITY OF NEW HAVEN.
 2. THE SEQUENCE SHOWN ANTICIPATES ALL WORK WILL BE PERFORMED DURING OVERNIGHT HOURS. OVERNIGHT HOURS TO BE DETERMINED BY THE ENGINEER BASED ON CONTRACTOR'S FINAL CONSTRUCTION SEQUENCING PLAN AND AS APPROVED BY THE CITY AND CTDOT.
 3. SEE CONSTRUCTION SEQUENCING PLANS.
 4. ESTIMATED CONSTRUCTION DURATION AT CSO 006 IS AS FOLLOWS:
STAGE 1 - 3 WEEKS
STAGE 2 - 3 WEEKS
STAGE 3 - 2 WEEKS
 5. TEMPORARY BARRIER CURB SHALL BE NCHRP APPROVED FOR CRASH TEST LEVEL 1 OR GREATER.
 6. TRUCK MOUNTED IMPACT ATTENUATORS SHALL BE USED AS REQUIRED BY ITEM 971 "MAINTENANCE AND PROTECTION OF TRAFFIC".
 7. CT TRANSIT SHALL BE NOTIFIED OF ANY BUS STOPS IMPACTED BY CONSTRUCTION ACTIVITIES. THE RELOCATION OF IMPACTED BUS STOPS SHALL BE COORDINATED WITH CT TRANSIT.

BID SUBMISSION NOTE: TEMPORARY REVISIONS TO SIGNAL TIMING AND PHASING TO BE DETERMINED BY THE CONTRACTOR AS APPROVED BY CTDOT AND CITY OF NEW HAVEN.

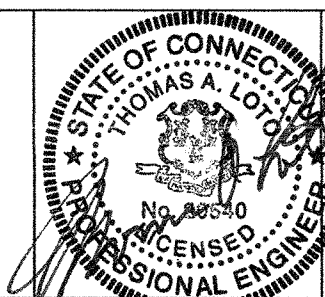
LEGEND

- (A) CONSTRUCTION SIGN AND SIGN ID
- CONSTRUCTION BARRICADE TYPE III
- TRAFFIC FLOW
- TRAFFIC DRUM
- TRAFFIC CONE
- WORK ZONE
- POLICE OFFICER CONTROLLED SIGNAL
- TRUCK MOUNTED IMPACT ATTENUATOR
- HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW
- TEMPORARY BARRIER CURB (SEE NOTE 5)

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R.CULVER
DRAWN BY: R.CULVER
SHEET CHK'D BY: T.LOTO
CROSS CHK'D BY: N.KULIKAUSKAS
APPROVED BY: T.LOTO
DATE: NOVEMBER 13, 2017

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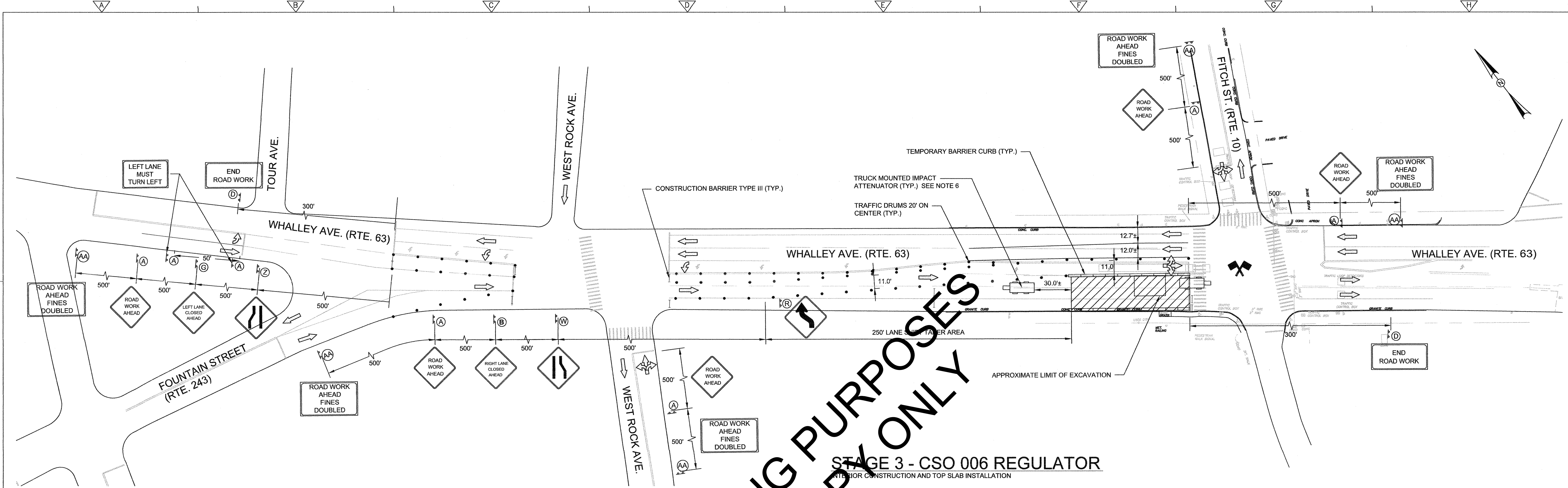


GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
WEST RIVER CSO IMPROVEMENT PROJECT



CSO REGULATOR 006
TRAFFIC CONTROL STAGES 1 AND 2

PROJECT NO. CWF 2016-03
FILE NAME:
SHEET NO. 25 OF 48
SCALE: AS NOTED



GENERAL NOTES

1. FINAL CONSTRUCTION SEQUENCING TO BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL BY CTDOT AND CITY OF NEW HAVEN.
2. THE SEQUENCE SHOWN ANTICIPATES ALL WORK WILL BE PERFORMED DURING OVERNIGHT HOURS. OVERNIGHT HOURS TO BE DETERMINED BY THE ENGINEER BASED ON CONTRACTORS FINAL CONSTRUCTION SEQUENCING PLAN AND AS APPROVED BY THE CITY AND CTDOT.
3. FOR CORRESPONDING CONSTRUCTION SEQUENCING SEE CONSTRUCTION SEQUENCING PLANS SHOWN HEREIN.
4. ESTIMATED CONSTRUCTION DURATION AT CSO 006 IS AS FOLLOWS:
STAGE 1 - 3 WEEKS
STAGE 2 - 3 WEEKS
STAGE 3 - 2 WEEKS
5. TEMPORARY BARRIER CURB SHALL BE NCHRP APPROVED FOR CRASH TEST LEVEL 1 OR GREATER.
6. TRUCK MOUNTED IMPACT ATTENUATORS SHALL BE USED AS REQUIRED BY ITEM 971 "MAINTENANCE AND PROTECTION OF TRAFFIC".
7. CT TRANSIT SHALL BE NOTIFIED OF ANY BUS STOPS IMPACTED BY CONSTRUCTION ACTIVITIES. THE RELOCATION OF IMPACTED BUS STOPS SHALL BE COORDINATED WITH CT TRANSIT.

BID SUBMISSION NOTE: TEMPORARY REVISIONS TO SIGNAL TIMING AND PHASING TO BE DETERMINED BY THE CONTRACTOR AS APPROVED BY CTDOT AND CITY OF NEW HAVEN.

LEGEND

- CONSTRUCTION SIGN AND SIGN ID
- CONSTRUCTION BARRICADE TYPE III
- TRAFFIC FLOW
- TRAFFIC DRUM
- TRAFFIC CONE
- WORK ZONE
- POLICE OFFICER CONTROLLED SIGNAL
- TRUCK MOUNTED IMPACT ATTENUATOR
- HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW
- TEMPORARY BARRIER CURB (SEE NOTE 5)

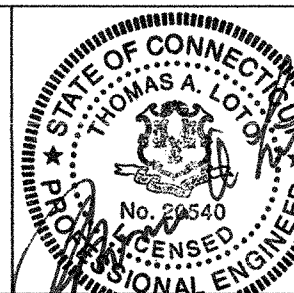


REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: R.CULVER
DRAWN BY: R.CULVER
SHEET CHK'D BY: T.LOTO
CROSS CHK'D BY: N.KULIKAUSKAS
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GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
WEST RIVER CSO IMPROVEMENT PROJECT



CSO 006 REGULATOR
TRAFFIC CONTROL STAGE 3

PROJECT NO. CWF 2016-03
FILE NAME:
SHEET NO. 26 OF 48
SCALE: AS NOTED

WEST RIVER
MEMORIAL PARK

- NOTES:
1. CONFIRM THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING WORK. SITE UTILITIES ARE SHOWN FOR COORDINATION PURPOSES ONLY. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
 2. PLANT LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE AND ARE TO BE USED AS A GUIDE ONLY. CONTRACTOR SHALL STAKE OUT ALL PLANT LOCATIONS FOR REVIEW AND APPROVAL BY THE ENGINEER AND CITY PARKS DIRECTOR (OR DESIGNEE) PRIOR TO INSTALLATION.
 3. PLANTS SHALL BE INSPECTED AND APPROVED ON SITE BY THE ENGINEER AT THE TIME OF STAKE OUT APPROVAL. UNACCEPTABLE PLANTS SHALL BE REPLACED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER. SUBSTITUTIONS OF PLANT MATERIAL ARE ALLOWED ONLY UPON WRITTEN APPROVAL BY THE ENGINEER.
 4. ALL EXTERIOR GROUND AREAS DISTURBED BY CONSTRUCTION AND NOT COVERED BY BUILDINGS, STRUCTURES, PAVING, PLANT BEDS OR OTHER SITE IMPROVEMENTS SHALL BE REPLACED IN KIND. LAWN AREAS SHALL BE GRADED, TOPSOILED WITH APPROVED SOIL MIX TO A DEPTH OF 6" AND SEEDED WITH APPROVED SEED MIX.
 5. TREE SIZES GRAPHICALLY DEPICTED ON THIS PLAN ARE SHOWN AT A REDUCED SIZE OF ANTICIPATED MAXIMUM GROWTH HABIT. TREES WILL NOT BE EQUAL TO THE SIZE SHOWN AT THE TIME OF PLANTING.
 6. TREES TO HAVE A 3 YEAR WARRANTEE FROM TIME OF PLANTING.
 7. ALL MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1-(CURRENT EDITION).
 8. MULCH ALL PLANT PITS TO ACHIEVE A 3" DEPTH (AFTER SETTLEMENT). MULCH FOR SAUCERS AND PLANTING AREAS TO BE WOODCHIPS PER M.13.05-1.
 9. FOR PLANTING REQUIREMENTS, SEE LANDSCAPE DETAILS -"TREE PLANTING WITH TRUNK STABILIZATION"

- LEGEND
- MAJOR DECIDUOUS TREE
 - CONCRETE GRID PAVERS WITH TOPSOIL, FERTILIZING, SEEDING AND MULCHING
 - FERTILIZING, SEEDING AND MULCHING

TEMPORARY FIELD OFFICE AND GRAVEL ACCESS DRIVE TO BE REMOVED AT COMPLETION OF CONSTRUCTION AND REPLACED WITH TOPSOIL AND SEED.

PROTECT EXISTING TREE TO REMAIN-
SEE PLAN & PROFILE CSO REGULATOR 004

SILT FENCE-
SEE PLAN & PROFILE CSO REGULATOR 004

LIMIT OF DEVELOPMENT-
SEE PLAN & PROFILE CSO REGULATOR 004

ITEM 813.01 GRANITE SLOPE CURBING

TREES TO BE REMOVED AND REPLACED:
1 - 12" OAK (CONFLICT WITH CHAMBER)
1 - 10" CEDAR (CONFLICT WITH ACCESS WAY)

SILT SACK - SEE PLAN & PROFILE CSO REGULATOR 004

ITEM 949.01 PLANTING - MAJOR DECIDUOUS TREE
QTY = 3
BETULA NIGRA 'HERITAGE' - HERITAGE RIVER BIRCH
3" - 3 1/2" CALIPER, BALL & BURLAP
SEE NOTE 6 FOR WARRANTEE PERIOD.

ITEM 945 FERTILIZING, SEEDING AND MULCHING

ITEM 944 TOPSOIL 6" THICKNESS

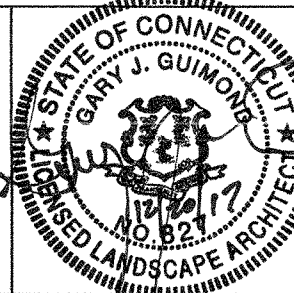
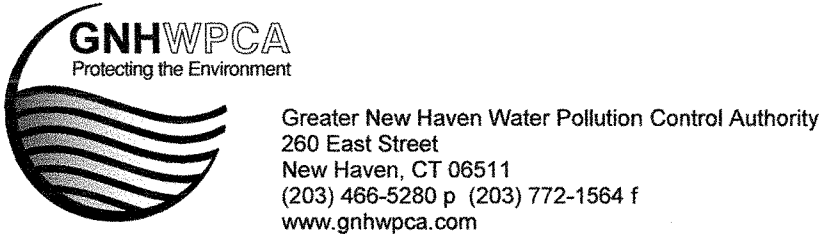
ITEM 921.03 CONCRETE GRID PAVERS

ITEM 944 TOPSOIL 6" THICKNESS

ITEM 949.01 PLANTING - MAJOR DECIDUOUS TREE
QTY = 5
BETULA NIGRA 'HERITAGE' - HERITAGE RIVER BIRCH
3" - 3 1/2" CALIPER, BALL & BURLAP
SEE NOTE 6 FOR WARRANTEE PERIOD.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G.GUIMOND
DRAWN BY: G.GUIMOND
SHEET CHK'D BY: W.WECKMAN
CROSS CHK'D BY:
APPROVED BY:
DATE: NOVEMBER 13, 2017

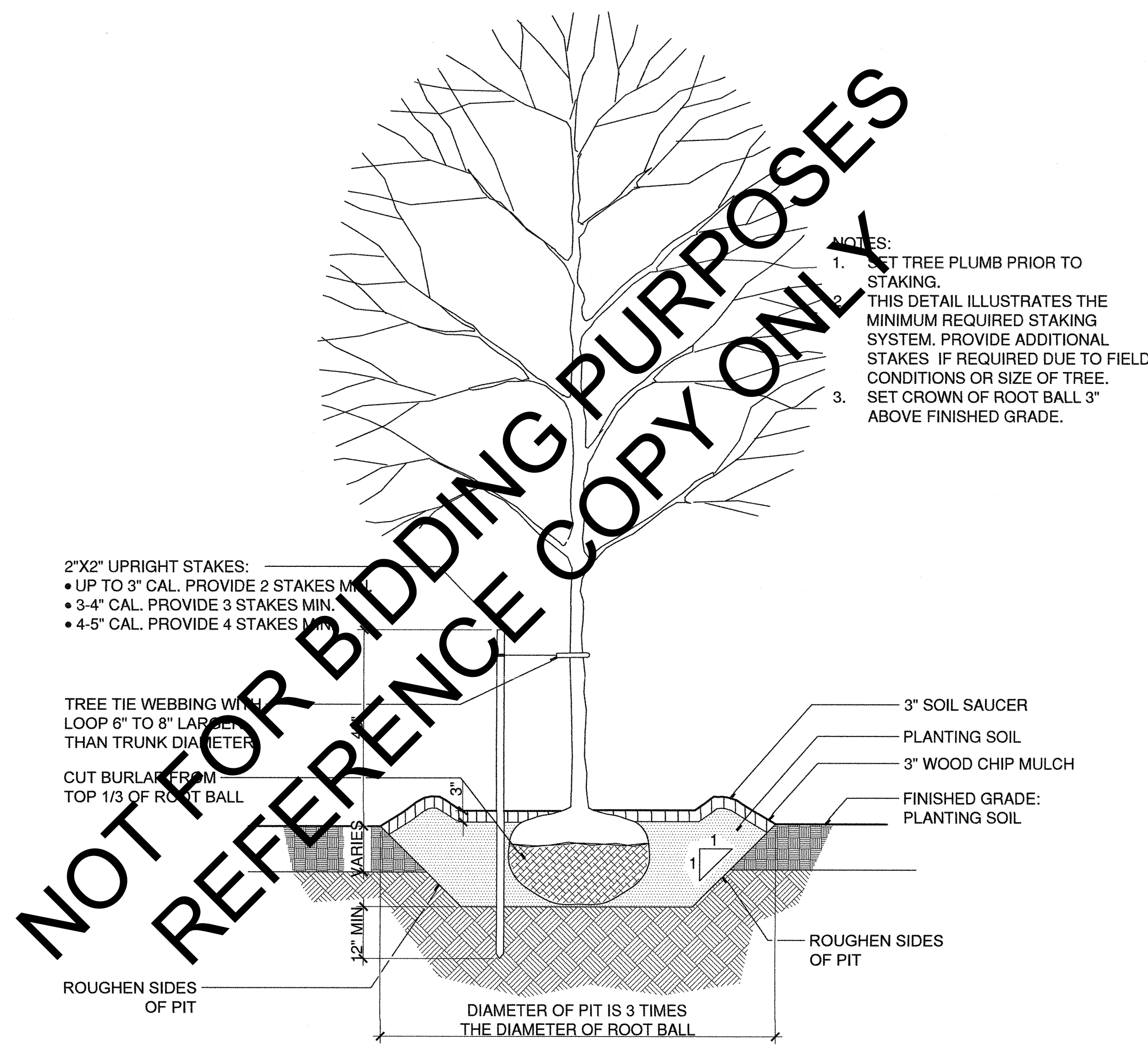


GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
WEST RIVER CSO IMPROVEMENT PROJECT

LANDSCAPE ARCHITECT
Richter & Cegan Inc.
88 CANAL COURT P.O. BOX 567
AVON, CT 06001
PHONE: 860-678-0669
CONTACT NAME: GARY GUIMOND
EMAIL: gguimond@richtercegan.com

LANDSCAPE PLAN
CSO REGULATOR 004

PROJECT NO. CWF 2016-03
FILE NAME:
SHEET NO. 27 OF 48
SCALE: AS NOTED



- 2"x2" UPRIGHT STAKES:
- UP TO 3" CAL. PROVIDE 2 STAKES MIN.
 - 3-4" CAL. PROVIDE 3 STAKES MIN.
 - 4-5" CAL. PROVIDE 4 STAKES MIN.

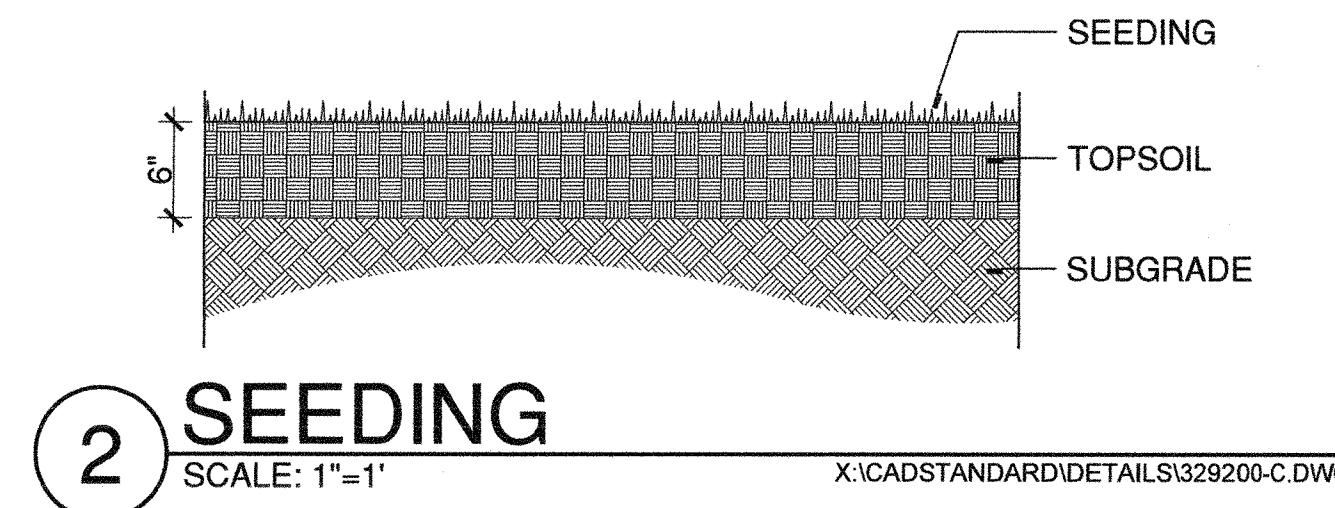
TREE TIE WEBBING WITH LOOP 6" TO 8" LARGER THAN TRUNK DIAMETER

CUT BURLAP FROM TOP 1/3 OF ROOT BALL

12" MIN.

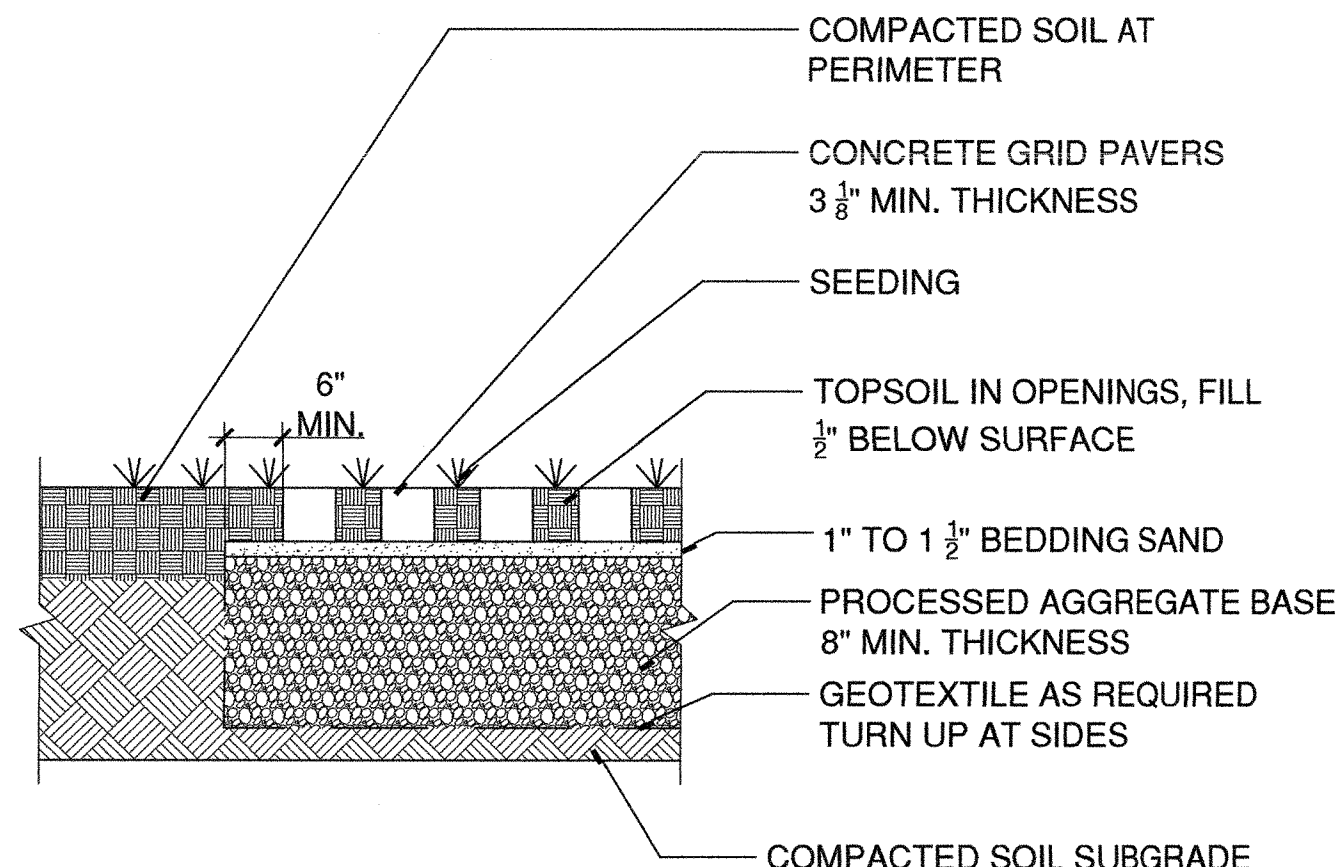
DIAMETER OF PIT IS 3 TIMES THE DIAMETER OF ROOT BALL

- NOTES:
1. SET TREE PLUMB PRIOR TO STAKING.
 2. THIS DETAIL ILLUSTRATES THE MINIMUM REQUIRED STAKING SYSTEM. PROVIDE ADDITIONAL STAKES IF REQUIRED DUE TO FIELD CONDITIONS OR SIZE OF TREE.
 3. SET CROWN OF ROOT BALL 3" ABOVE FINISHED GRADE.



2 SEEDING
SCALE: 1"=1'

X:\CAD\STANDARD\DETAILS\329200-C.DWG



- NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 2. DO NOT SCALE DRAWINGS.

3 CONCRETE GRID PAVERS
SCALE: 1/2"=1'

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1 TREE PLANTING WITH TRUNK STABILIZATION
SCALE: 1/2"=1'

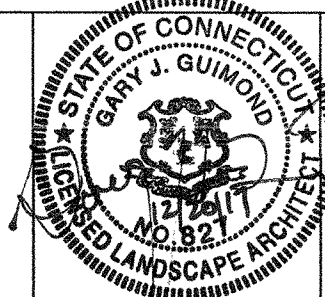
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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G.GUIMOND
DRAWN BY: G.GUIMOND
SHEET CHK'D BY: W.WECKMAN
CROSS CHK'D BY:
APPROVED BY:
DATE: NOVEMBER 13, 2017



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GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
CWF 2016-03
WEST RIVER CSO IMPROVEMENT PROJECT

LANDSCAPE ARCHITECT
Richter & Cegan Inc.
88 CANAL COURT P.O. BOX 567
AVON, CT 06001
PHONE: 860-678-0669
CONTACT NAME: GARY GUIMOND
EMAIL: gguimond@richtercegan.com

LANDSCAPE DETAILS

PROJECT NO. CWF 2016-03
FILE NAME:
SHEET NO. 28 OF 48
SCALE:

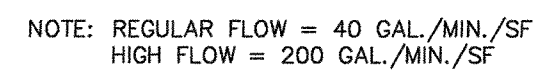
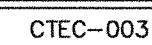
THE SEDIMENT AND EROSION CONTROL PLAN WAS DEVELOPED TO PROTECT THE EXISTING ROADWAY AND STORM DRAINAGE SYSTEMS, ADJACENT PROPERTIES, ADJACENT WETLAND AREA AND ANY ADJACENT WATERCOURSE FROM SEDIMENT LADEN SURFACE RUNOFF AND EROSION. A SUGGESTED CONSTRUCTION SEQUENCE IS PROVIDED TO PROVIDE SURFACE RUNOFF EROSION CONTROLS PRIOR TO THE BEGINNING OF PROJECT DEMOLITION AND/OR CONSTRUCTION.

3. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CONSTRUCTED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE CITY OF NEW HAVEN REGULATIONS AND THE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.
2. ALL CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLAN(S).
3. ALL CONTROL MEASURES SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO COMMENCEMENT OF ANY WORK, INCLUDING PRE-CONSTRUCTION CLEARING AND GRUBBING.
4. ALL CONTROL MEASURES SHALL BE MAINTAINED AND UPGRADED AS REQUIRED TO ACHIEVE PROPER SEDIMENT CONTROL THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS HAVE BEEN THOROUGHLY STABILIZED.
5. NO CONTROL MEASURES SHALL BE REMOVED WITHOUT APPROVAL FROM THE ENGINEER.
6. ADDITIONAL CONTROL MEASURES SHALL BE INSTALLED DURING THE CONSTRUCTION PERIOD IF DEEMED NECESSARY BY THE CITY AND/OR ENGINEER.
7. THE LIMITS OF CLEARING, GRADING AND DISTURBANCE, AS SHOWN ON THE PLAN(S), SHALL BE KEPT TO A MINIMUM WITHIN THE APPROVED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE THE LIMITS OF CLEARING SHALL REMAIN TOTALLY UNDISTURBED.
8. ANY CONTROL MEASURES RETAINING SEDIMENT OVER ½ THEIR HEIGHT SHALL HAVE THE SEDIMENT IMMEDIATELY REMOVED, AND ALL DAMAGED CONTROL MEASURES SHALL BE REMOVED AND REPLACED.
9. ALL CATCH BASINS LOCATED DOWN-GRADE OF THE SITE SHALL BE PROTECTED BY PLACING SILT SACKS UNTIL ALL DISTURBED AREAS HAVE BEEN THOROUGHLY STABILIZED.
10. ALL SEDIMENT SHALL BE IMMEDIATELY REMOVED FROM NEW AND EXISTING DRAINAGE STRUCTURES AND PIPING IMPACTED BY THE PROPOSED CONSTRUCTION.
11. SEDIMENT REMOVED FROM CONTROL MEASURES AND DRAINAGE FACILITIES SHALL BE DISPOSED OF IN A MANNER THAT IS CONSISTENT WITH STATE AND LOCAL REGULATIONS.
12. ALL DISTURBED AREAS SHALL BE RE-VEGETATED AS SHOWN ON THE DRAWINGS AND AS INDICATED IN THE TECHNICAL SPECIFICATIONS. SEED MIXTURES AND MULCH SHALL BE AS INDICATED IN THE TECHNICAL SPECIFICATIONS.
13. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST AND WIND EROSION THROUGHOUT THE LIFE OF THE CONTRACT. THE CONTRACTOR SHALL CONTROL DUST TO PREVENT A HAZARD TO TRAFFIC ON ADJACENT ROADWAYS.
14. TEMPORARY STOCKPILING OF CONSTRUCTION MATERIALS SHALL ONLY BE ALLOWED IN THE LOCATIONS SHOWN ON THE PLAN(S). STOCKPILE AREAS SHALL BE FULLY ENCLOSED BY SILT FENCE. IF NO STOCKPILE AREA IS SHOWN, THE CONTRACTOR SHALL REMOVE MATERIALS FROM SITE IMMEDIATELY UPON EXCAVATION.
15. ALL GROUNDWATER EXTRACTED DURING DEWATERING OF EXCAVATIONS SHALL BE DIRECTED TO A TEMPORARY SEDIMENTATION TRAP AND/OR SANITARY SEWER SYSTEM AS APPROVED BY THE ENGINEER.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING THE EROSION AND SEDIMENTATION CONTROL PLAN. THIS INCLUDES THE INSTALLATION AND MAINTENANCE OF ALL CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, AND NOTIFYING THE CITY AND ENGINEER OF ANY TRANSFER OF THIS RESPONSIBILITY.
17. THE CONTRACTOR SHALL ATTEND A PRECONSTRUCTION MEETING WITH THE ENGINEER TO ADDRESS THE PROPOSED CONSTRUCTION SEQUENCE, EQUIPMENT ACCESS AND STORAGE, TRAFFIC CONTROL, AND DEWATERING METHODS.
18. THE CONTRACTOR SHALL BE REQUIRED TO PLACE EMERGENCY CONTROL MEASURES AS DIRECTED. SUCH MEASURES MAY INCLUDE TEMPORARY EROSION CONTROL BLANKETS IN UNSTABILIZED AREAS, ADDITIONAL STONE OR HAY BALE CHECK DAMS, AND SILT CURTAINS. ALL EQUIPMENT AND MATERIALS SHALL ALSO BE REMOVED FROM THE WORK AREA AS DIRECTED.

APPROPRIATE EROSION CONTROL MEASURES AS DESCRIBED HEREIN, SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ALL DEMOLITION OR CONSTRUCTION ACTIVITY. WORK SHALL BE SCHEDULED TO MINIMIZE THE LENGTH OF TIME THAT BARE SOIL WILL BE EXPOSED.

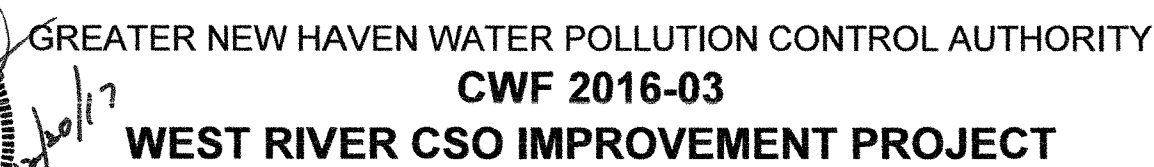
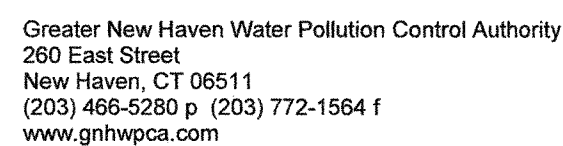
THE CONTRACTOR SHALL INSTALL ALL SPECIFIED EROSION CONTROL MEASURES AND WILL BE REQUIRED TO MAINTAIN THEM IN THEIR INTENDED FUNCTIONING CONDITION. THE AGENTS OF THE CITY OF NEW HAVEN AND/OR ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE SUPPLEMENTAL MAINTENANCE OR ADDITIONAL MEASURES IF FIELD CONDITIONS ARE ENCOUNTERED BEYOND WHAT WOULD NORMALLY BE ANTICIPATED.

1. CONTACT THE ENGINEER AT LEAST FORTY- EIGHT(48) HOURS PRIOR TO COMMENCEMENT OF ANY DEMOLITION, CONSTRUCTION OR REGULATED ACTIVITY ON THIS PROJECT. COMPLY WITH ALL ENVIRONMENTAL PERMITS.
2. CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD AND APPROVED BY THE ENGINEER PRIOR TO THE START OF WORK ON THE SITE. INSTALL TREE PROTECTION AND PERIMETER SILT FENCE.
3. INSTALL SILT SACKS ON CATCH BASIN INLETS. INSTALL SILT FENCE AND OTHER EROSION CONTROL DEVICES INDICATED ON THESE PLANS AT PERIMETER OF PROPOSED SITE DISTURBANCE AND INSTALL ALL EROSION CONTROL MEASURES AND TREE PROTECTION INDICATED ON THESE PLANS.
4. CLEAR AND GRUB SITE. STOCKPILE TOPSOIL ONLY AT CSO 004 REGULATOR. FOR CSO 003 REGULATOR AND CSO 006 REGULATOR ALL MATERIAL MUST BE PLACED IN TRUCKS AND REMOVED FROM THE SITE AS WORK PROGRESSES. INSTALL EROSION CONTROLS AT STOCKPILES.
5. SITE DEMOLITION AND REMOVAL OF PAVEMENT WHERE APPLICABLE PER SITE PLANS.
6. INSTALL CHAMBERS, PIPE, AND/OR CULVERTS.
7. THROUGHOUT CONSTRUCTION SEQUENCE, REMOVE ACCUMULATED SEDIMENT FROM BEHIND SILT FENCES AND OTHER EROSION CONTROL DEVICES, AS REQUIRED. REMOVAL SHALL BE ON A PERIODIC BASIS (EVERY SIGNIFICANT RAINFALL OF 0.20 INCH OR GREATER). INSPECTION OF EROSION CONTROL MEASURES SHALL BE ON A WEEKLY BASIS AND AFTER EACH RAINFALL OF 0.20 INCHES OR GREATER. SEDIMENT COLLECTED SHALL BE DEPOSITED AND SPREAD EVENLY UPLAND ON SLOPES DURING CONSTRUCTION.
8. INSTALL TEMPORARY PAVEMENT RESTORATION AND TEMPORARY PAVEMENT MARKINGS.
9. CONDUCT FINE GRADING.
10. INSTALL PERMANENT PAVEMENT AND PAVEMENT MARKINGS.
11. CLEAN STORM DRAINAGE PIPE STRUCTURES OF DEBRIS AND SEDIMENT.
12. UPON DIRECTION OF THE ENGINEER, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED FOLLOWING STABILIZATION OF THE SITE.

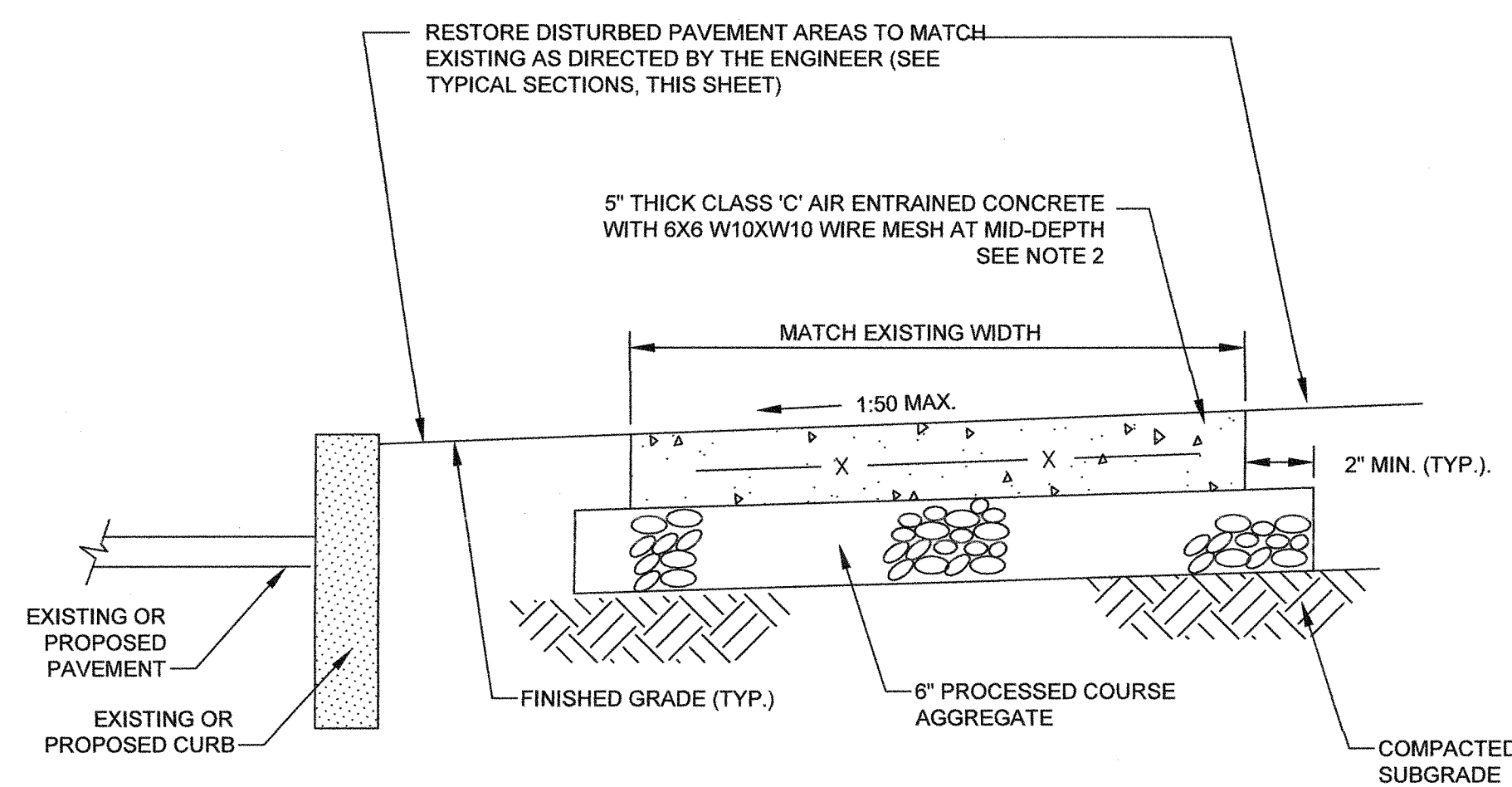


N.T.S.

DESIGNED BY: K.VIOLETTE
DRAWN BY: K.VIOLETTE
SHEET CHK'D BY: T.LOTO
CROSS CHK'D BY: N.KULIKAUSKAS
APPROVED BY: T.LOTO
DATE: NOVEMBER 13, 2017



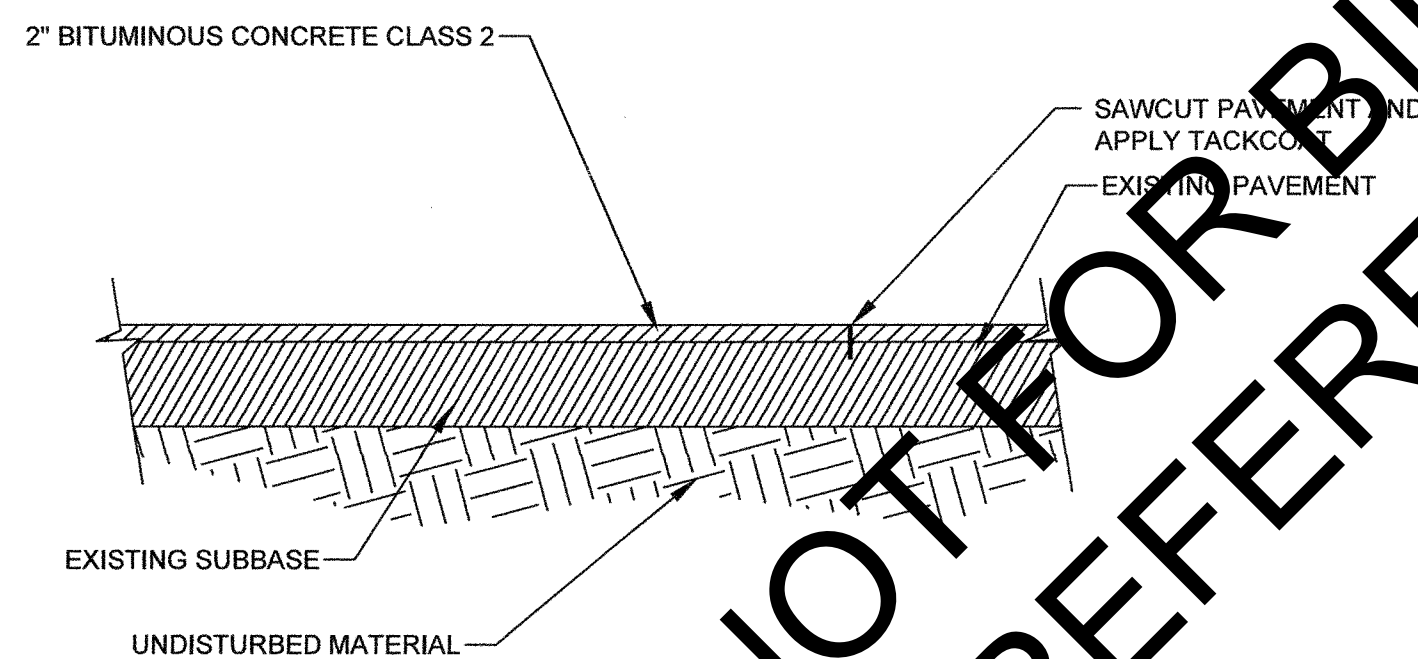
BID SUBMISSION



CONCRETE SIDEWALK
SCALE: NTS

NOTES:

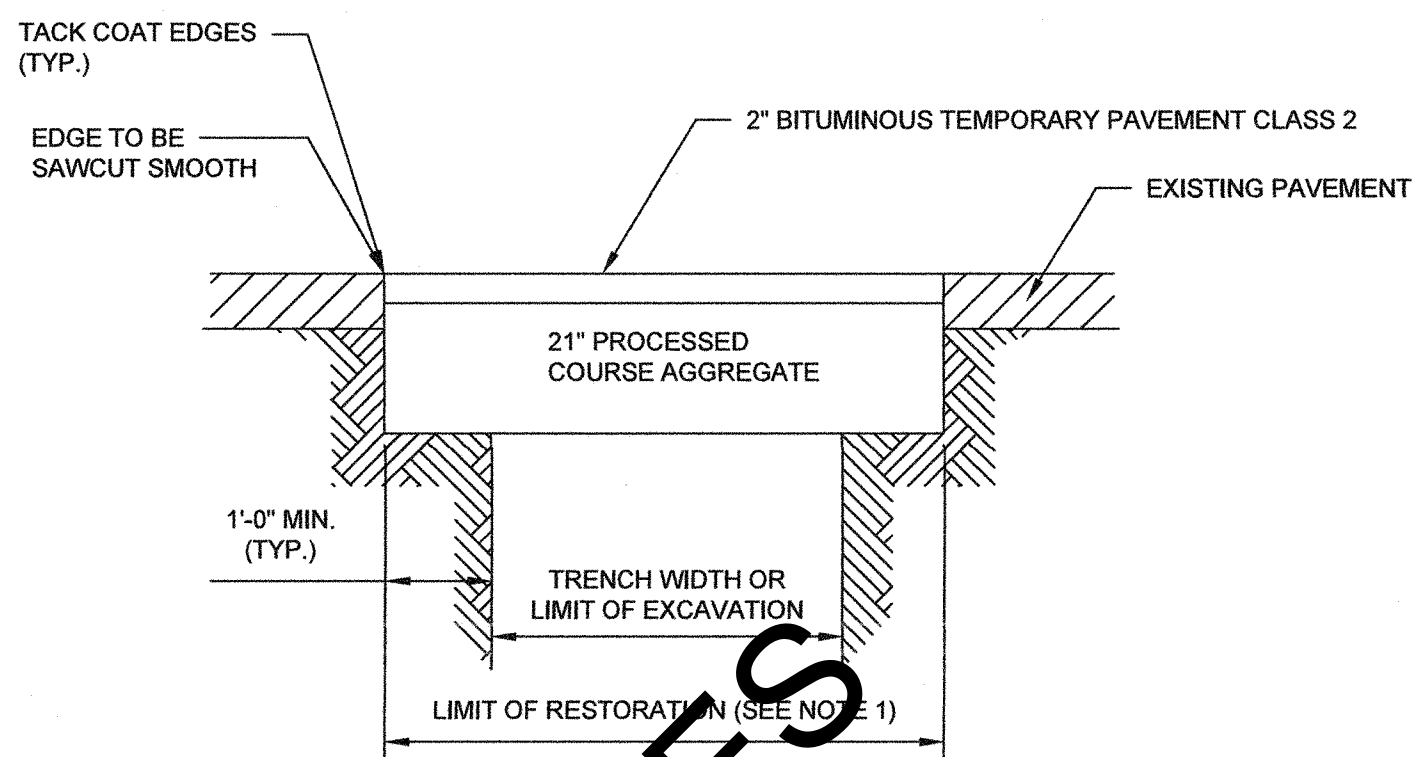
1. TOOL OR SCORE CONTRACTION JOINTS AT 5' SPACINGS. PROVIDE 3/4" EXPANSION MATERIAL AT INTERVALS NOT TO EXCEED 15 FEET.
2. CONCRETE SIDEWALK THICKNESS SHALL BE INCREASED TO 6" WHEN SIDEWALK IS INSTALLED ACROSS DRIVEWAY.
3. EXISTING SIDEWALK SHALL BE CUT AT NEAREST JOINT SO ONLY WHOLE SIDEWALK PANELS ARE INSTALLED.
4. MATERIALS, METHOD OF INSTALLATION, CURING AND TESTING SHALL CONFORM TO CTDOT STANDARD SPECIFICATION FORM 817.



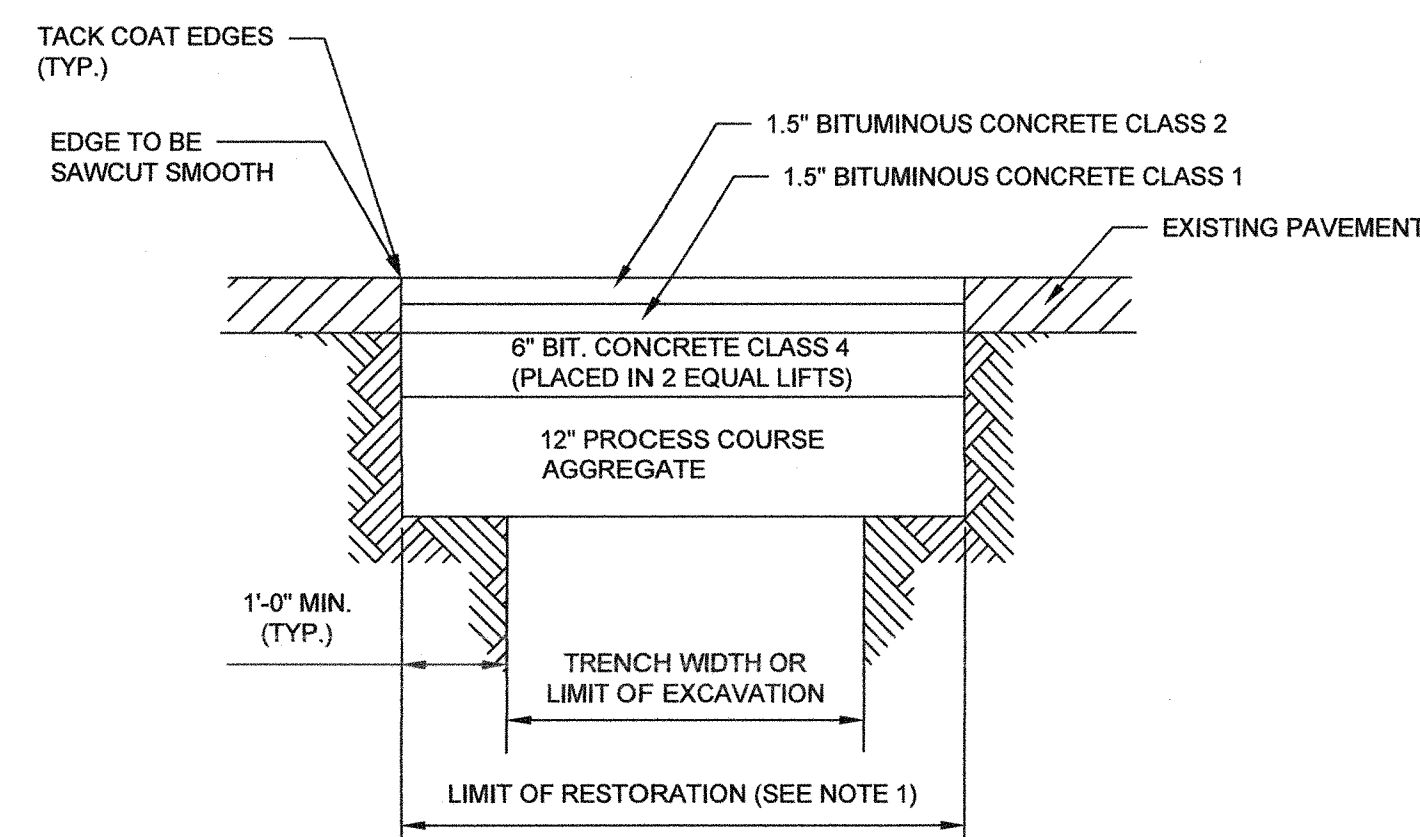
NOTES:

1. MILL EXISTING PAVEMENT TO A DEPTH OF 2".
2. FIBERSEAL ANY CRACKS AND MAKE LOCALIZED BASE REPAIRS PRIOR TO OVERLAY.
3. SAWCUT MAJOR CRACKS AND PATCH WITH BITUMINOUS CONCRETE CLASS 1 PRIOR TO OVERLAY.
4. APPLY TACKCOAT IMMEDIATELY PRIOR TO INSTALLING NEW PAVEMENT.

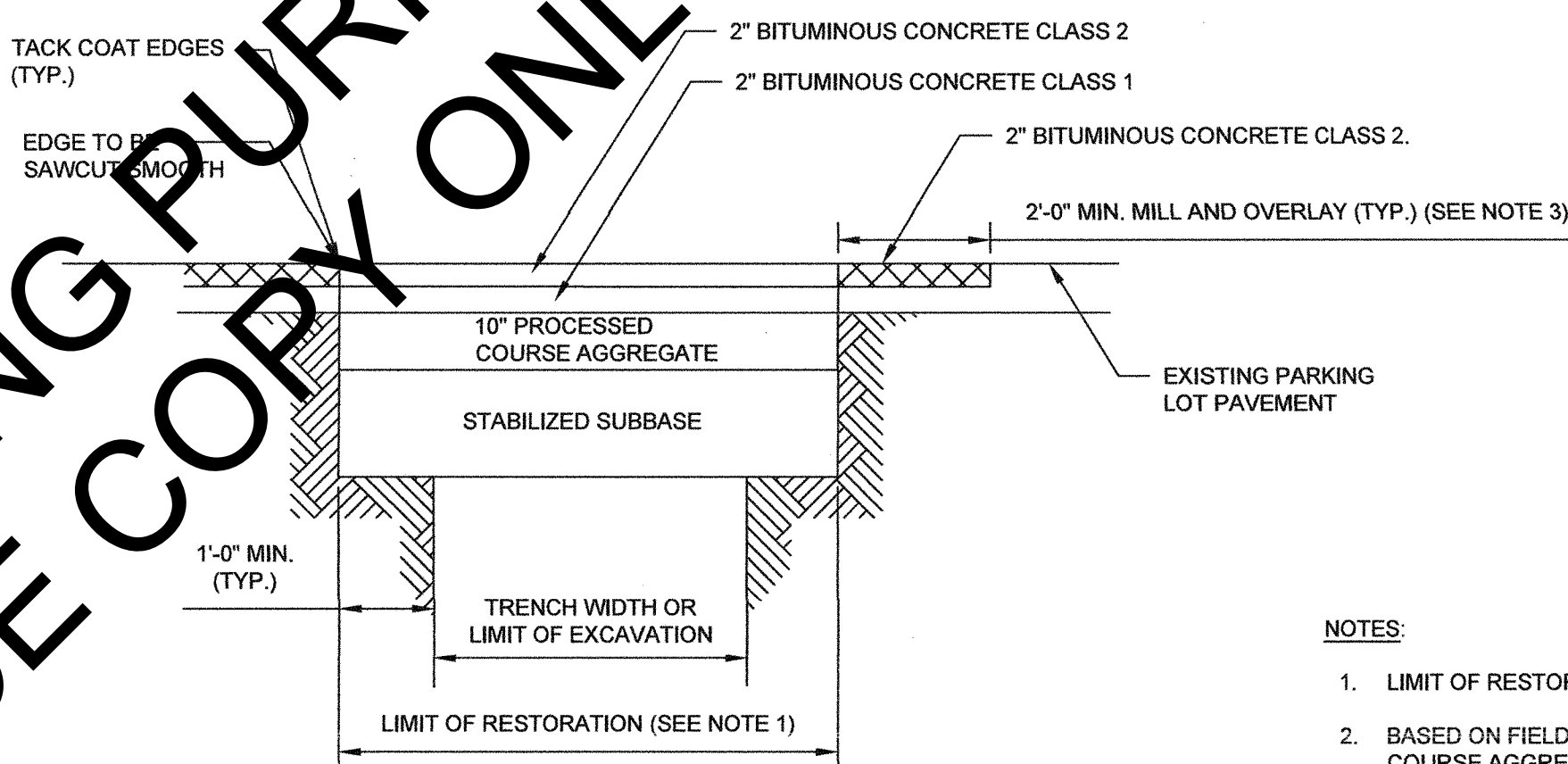
BITUMINOUS PAVEMENT MILLING AND OVERLAY
SCALE: NTS



TEMPORARY PAVEMENT RESTORATION
SCALE: NTS



PERMANENT PAVEMENT RESTORATION
SCALE: NTS

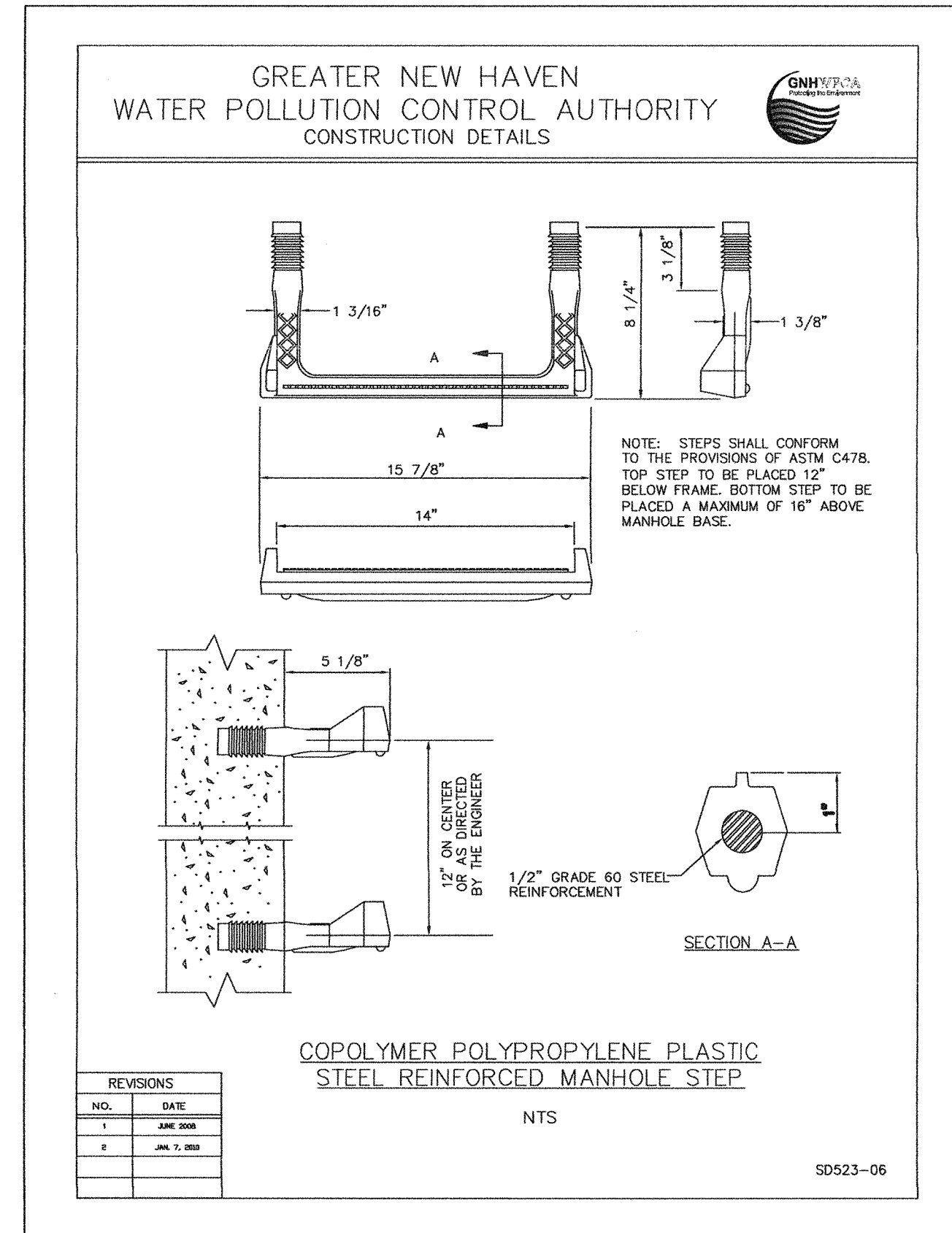
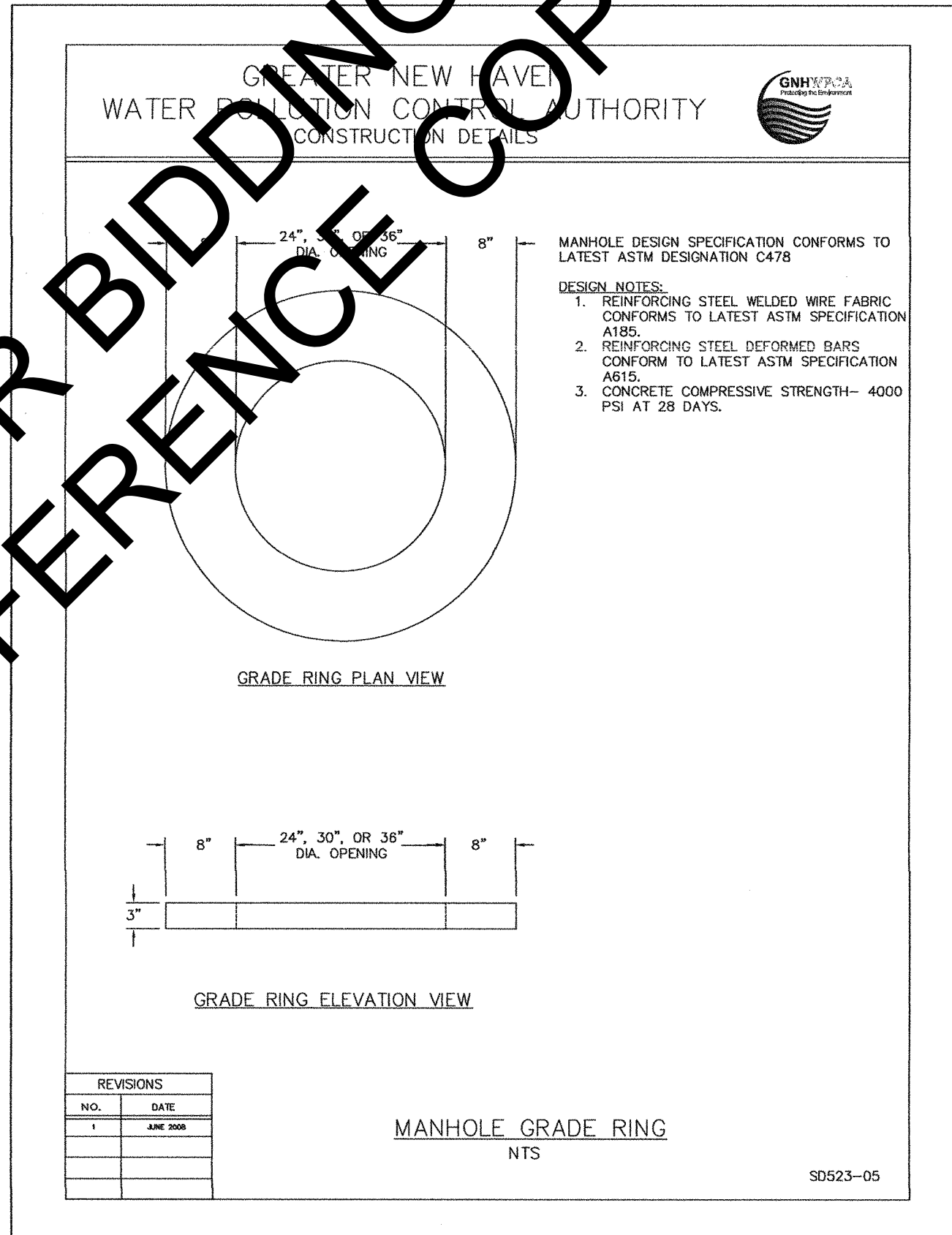
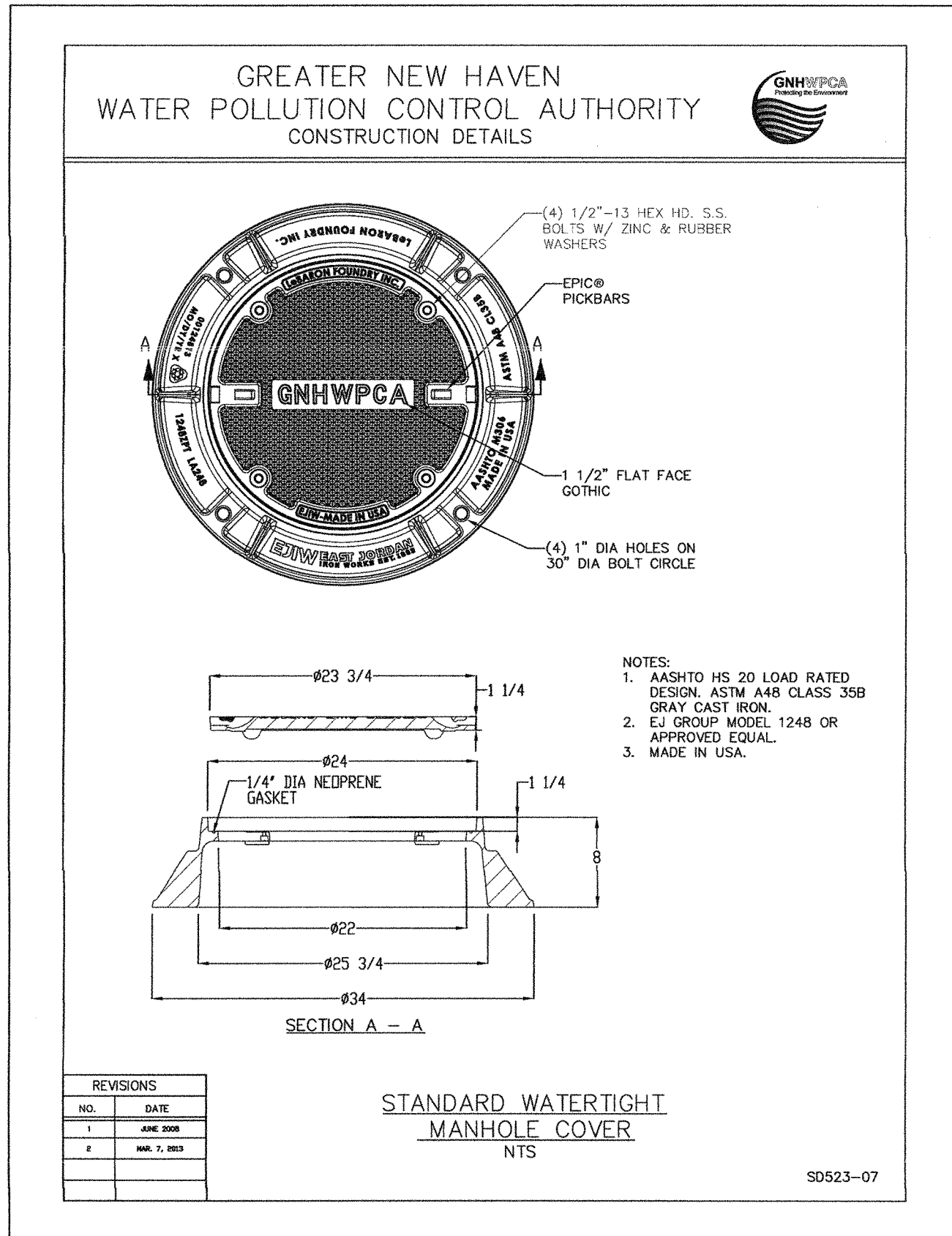
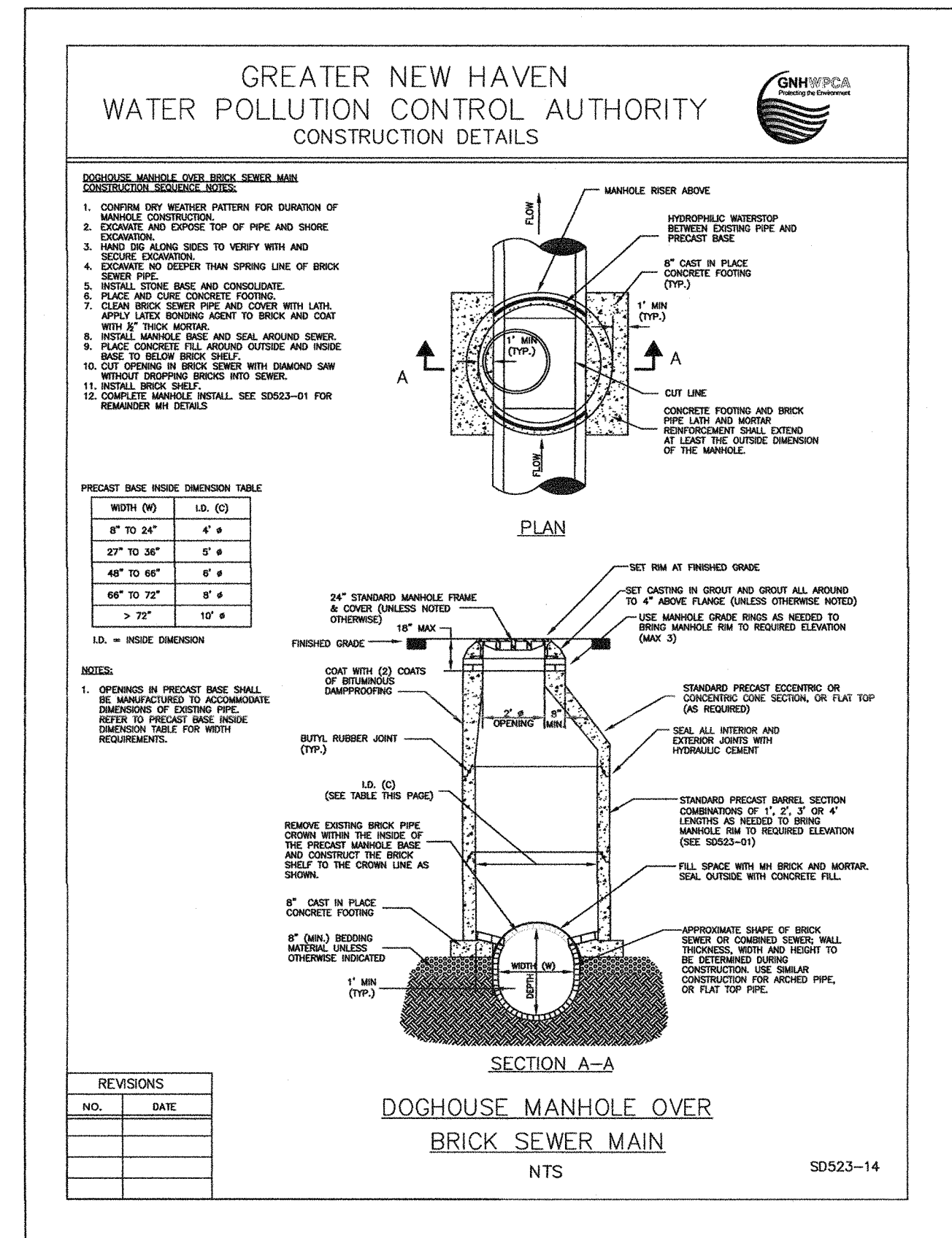
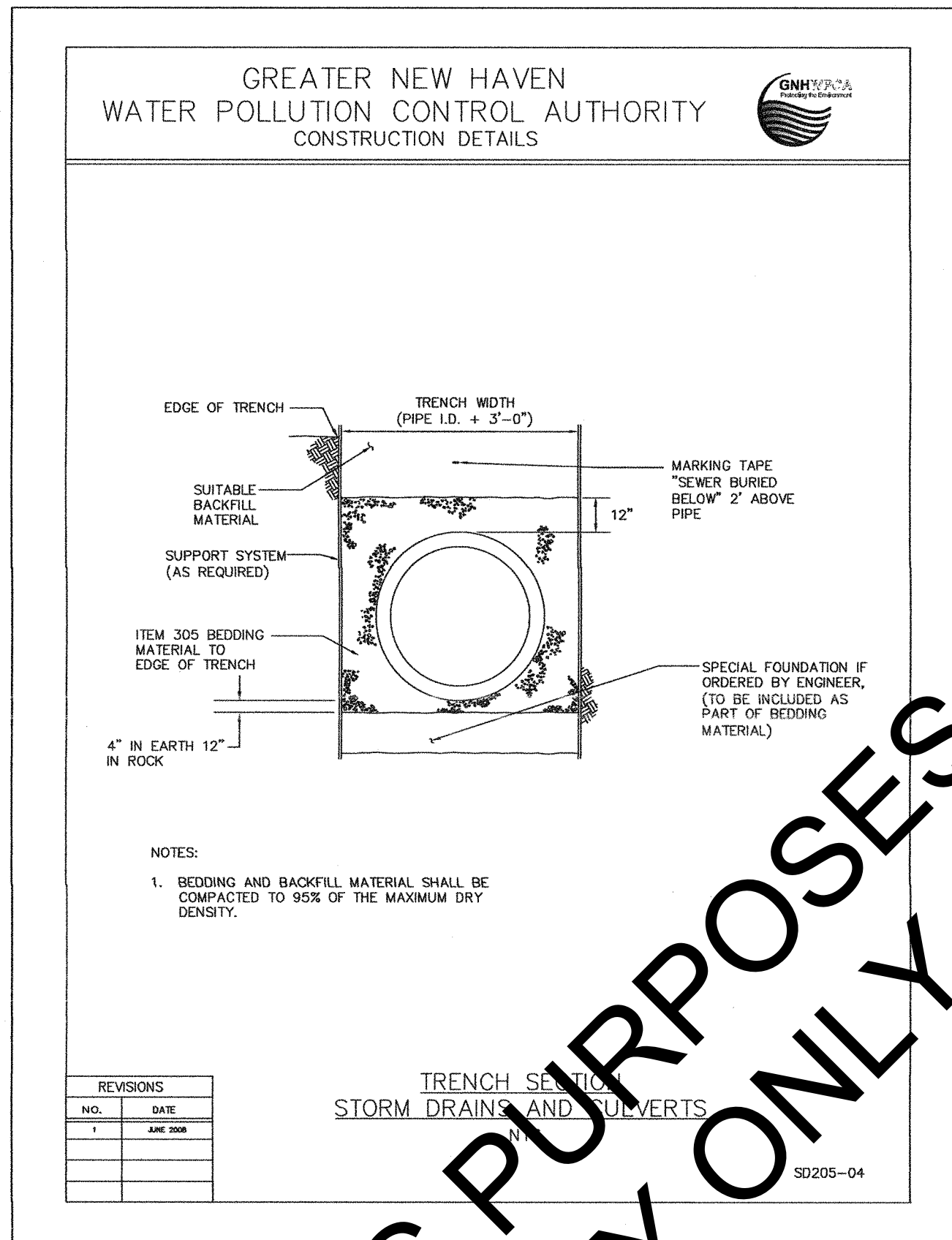
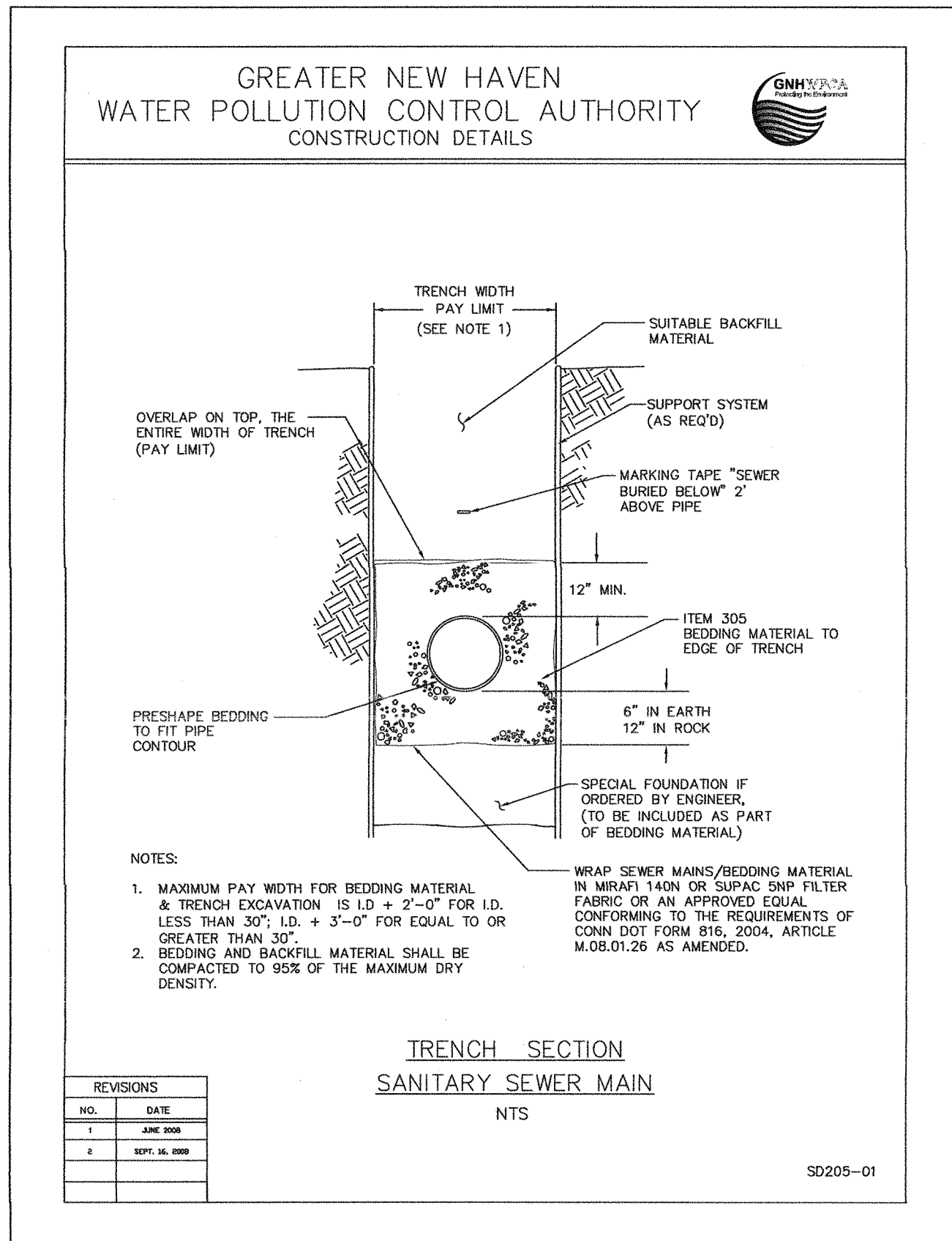


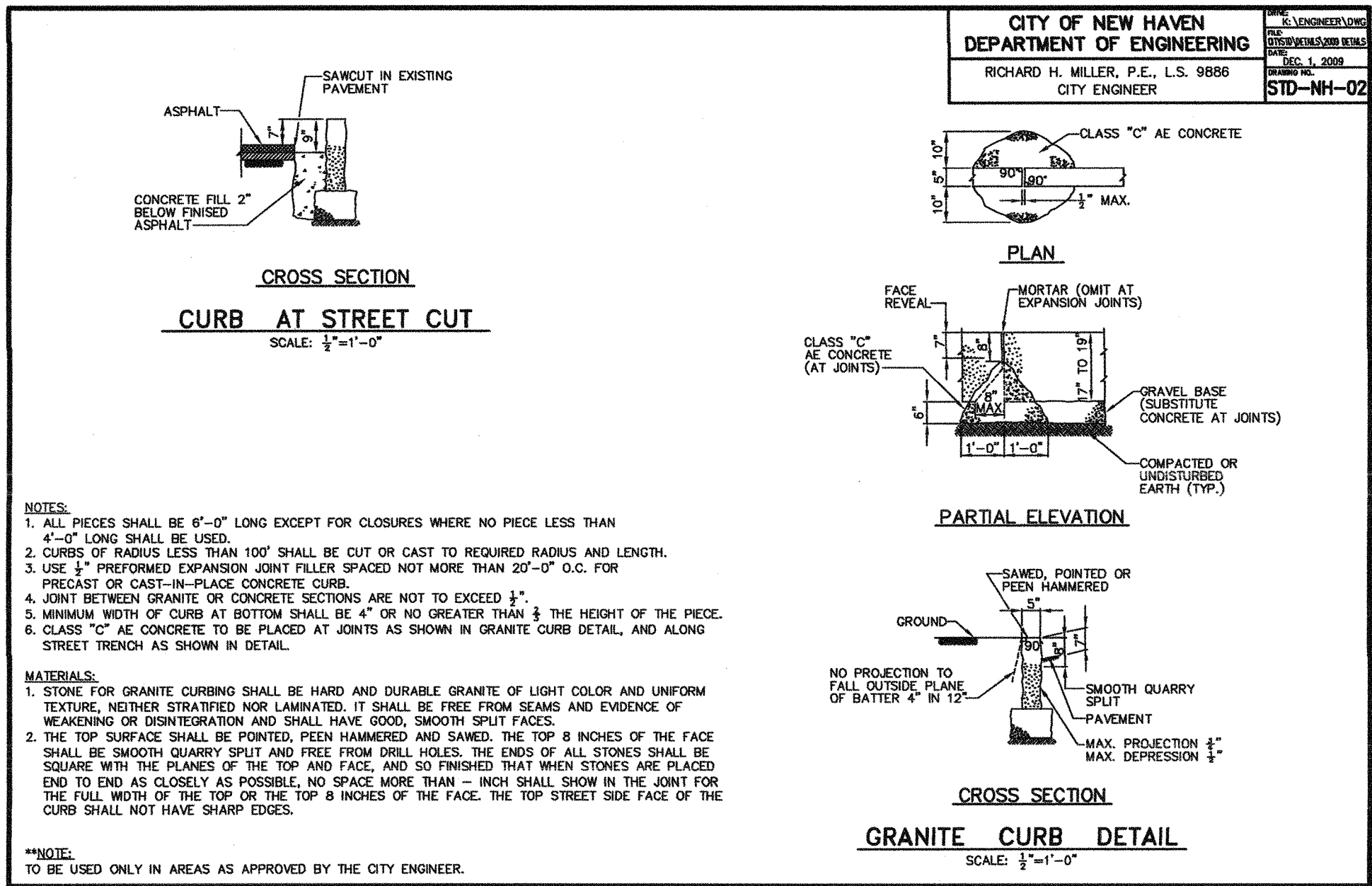
PARKING LOT PAVEMENT RESTORATION
SCALE: NTS

NOTES:

1. LIMIT OF RESTORATION FOR NON-TRENCH EXCAVATION SHALL BE THE LIMIT OF EXCAVATION PLUS 1'-0" ON ALL SIDES.
2. BASED ON FIELD CONDITIONS ENCOUNTERED, CONCRETE PAVEMENT MAY BE REQUIRED IN ADDITION TO PROCESSED COURSE AGGREGATE. CTDOT STANDARD SPECIFICATIONS SHALL BE FOLLOWED IN ADDITION TO ANY OTHER REQUIREMENTS OF CTDOT AS APPROVED FOR CONCRETE PAVEMENT. CLASS IV PAVEMENT MAY BE USED TO REPLACE CONCRETE PAVEMENT IF APPROVED BY CTDOT.
3. MILL AND OVERLAY SHALL PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING PAVEMENT AND FULL DEPTH RECONSTRUCTION.

REV. NO.	DATE	DRWN	CHKD	REMARKS	DESIGNED BY: R.CULVER DRAWN BY: R.CULVER SHEET CHK'D BY: T.LOTO CROSS CHK'D BY: N.KULIKAUSKAS APPROVED BY: T.LOTO DATE: NOVEMBER 13, 2017	<p>Greater New Haven Water Pollution Control Authority 260 East Street New Haven, CT 06511 (203) 468-5280 p. (203) 772-1564 f www.gnhwpc.com</p>	<p>THOMAS A. LOTO No. 20540 LICENSED PROFESSIONAL ENGINEER</p>	<p>GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY CWF 2016-03 WEST RIVER CSO IMPROVEMENT PROJECT</p>	<p>KLEINFELDER Bright People. Right Solutions.</p>	PAVEMENT TYPICAL SECTIONS	PROJECT NO. CWF 2016-03 FILE NAME: SHEET NO. 30 OF 48 SCALE: AS NOTED
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NOT FOR BIDDING PURPOSES
REFERENCE COPY ONLY

DESIGNED BY: J.JACQUES	GNHWPCA Protecting the Environment	GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY CWF 2016-03 WEST RIVER CSO IMPROVEMENT PROJECT	KLEINFELDER Bright People. Right Solutions.	CITY OF NEW HAVEN STANDARD DETAILS	PROJECT NO. CWF 2016-03 FILE NAME:
DRAWN BY: J.JACQUES					SHEET NO. 32 OF 48
SHEET CHK'D BY: T.LOTO					SCALE: AS NOTED
CROSS CHK'D BY: N.KULIKAUSKAS					
APPROVED BY: T.LOTO					
DATE: NOVEMBER 13, 2017					
REV. NO.	DATE	DRWN	CHKD	REMARKS	

*ONLY STANDARD SHEETS MARKED WITH AN "✓" ARE IN THIS PROJECT #

**REVISED OR ADDED

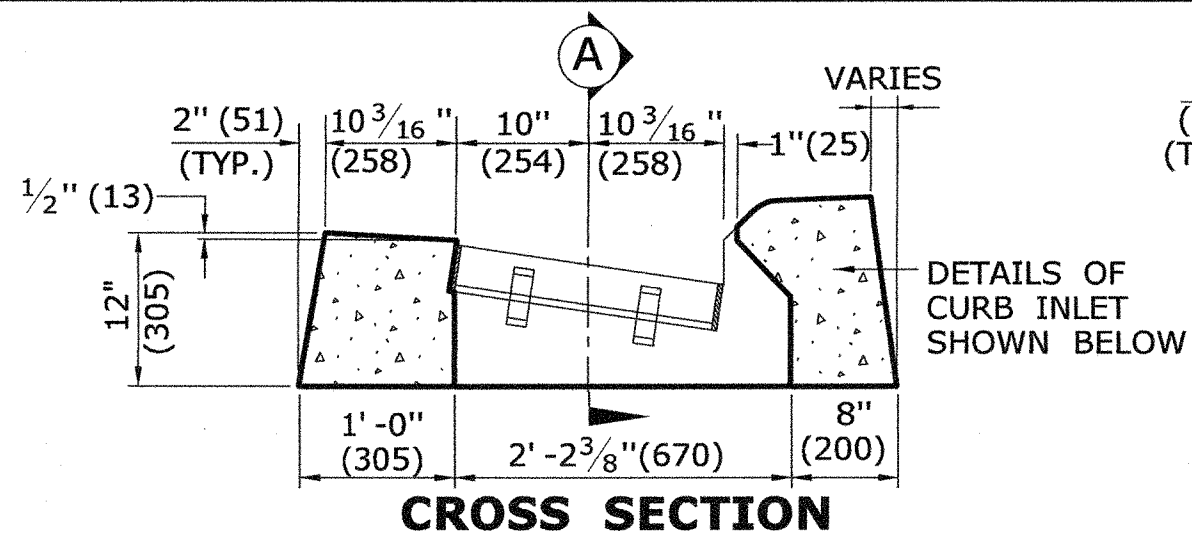
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<input type="checkbox"/>	HW-506_01	ENDWALLS, SLOPE PAVED INLETS AND OUTLETS	1-26-12	<input type="checkbox"/>	HW-821_05a	TRANSITION - 45" (1145) F-SHAPE TO 54" (1372) VERTICAL SHAPE SHEET 1	1-26-12
<input type="checkbox"/>	HW-506_02	TYPE "D-G" & "L" ENDWALLS	7-13-12	<input type="checkbox"/>	HW-821_05b	TRANSITION - 45" (1145) F-SHAPE TO 54" (1372) VERTICAL SHAPE SHEET 2	1-26-12
<input type="checkbox"/>	HW-506_03	ENDWALLS FOR PIPE ARCH	9-18-09	<input type="checkbox"/>	HW-821_06	54" (1372) VERTICAL SHAPE BARRIER	2-6-12
<input type="checkbox"/>	HW-507_01	TYPE "C", "C-L" & DROP INLET CATCH BASIN	7-24-13	<input type="checkbox"/>	HW-821_07	MISCELLANEOUS DETAILS FOR BARRIER TRANSITIONS	7-12-12
<input type="checkbox"/>	HW-507_02	TYPE "C", "C-L" & DOUBLE GRATE TYPE - I	7-24-13	<input checked="" type="checkbox"/>	HW-822_01	TEMPORARY PRECAST CONCRETE BARRIER CURB	7-24-13
<input type="checkbox"/>	HW-507_03	TYPE "C", "C-L" & DOUBLE GRATE TYPE - II	7-24-13	<input type="checkbox"/>	HW-905_01	FENCES AND BARWAYS	7-13-12
<input type="checkbox"/>	HW-507_04	TYPE "C", "C-L" & ROUND PRECAST CONCRETE CB	11-10-11	<input type="checkbox"/>	HW-910_01	W- BEAM METAL BEAM RAIL HARDWARE	6-09-11
<input type="checkbox"/>	HW-507_05	TYPE "C" & "C-L" PRECAST CONCRETE CB DOUBLE GRATE TYPE - I	11-10-11	<input type="checkbox"/>	HW-910_02	METAL BEAM RAIL (TYPE R-B 350) GUIDERAIL	6-09-11
<input type="checkbox"/>	HW-507_06	TYPE "C" & "C-L" PRECAST CONCRETE CB DOUBLE GRATE TYPE - II	11-10-11	<input type="checkbox"/>	HW-910_03	METAL BEAM RAIL (TYPE MD-B 350)	6-09-11
<input checked="" type="checkbox"/>	HW-507_07	TYPE "C" & "C-L" CATCH BASIN TOPS AND CURBS	11-10-11	<input type="checkbox"/>	HW-910_04	METAL BEAM RAIL (TYPE R-B 350) SYSTEMS 5, 5A, & 6	6-09-11
<input checked="" type="checkbox"/>	HW-507_08	CATCH BASIN FRAMES AND GRATES	9-18-09	<input type="checkbox"/>	HW-910_05	METAL BEAM RAIL R-B 350 SPAN TYPE I, II, III SECTIONS	7-24-13
<input type="checkbox"/>	HW-507_09	HEAVY DUTY LOCK DOWN TOPS	7-12-12	<input type="checkbox"/>	HW-910_06	R-B 350 BRIDGE ATTACHMENT SAFETY SHAPE PARAPET	6-09-11
<input type="checkbox"/>	HW-507_10	MANHOLE - FRAME & COVER	7-24-13	<input type="checkbox"/>	HW-910_07	R-B 350 BRIDGE ATTACHMENT VERTICAL SHAPE PARAPET	6-09-11
<input type="checkbox"/>	HW-601_01	FIGURES FOR DATES ON BRIDGE PARAPETS	6-09-11	<input type="checkbox"/>	HW-910_08	R-B 350 BRIDGE ATTACHMENT TRAILING END	6-09-11
<input type="checkbox"/>	HW-651_01	C.C.M. PIPE INSTALLATIONS IN FILL & ROCK SLOPES & PIPE TRENCH DETAIL	7-24-13	<input type="checkbox"/>	HW-910_09a	MISCELLANEOUS GUIDERAIL TRANSITIONS SHEET 1	1-26-12
<input type="checkbox"/>	HW-651_02	SLOTTED DRAIN PIPE 12"- 15"-18"-24"-30" (305-381-457-610-762)	7-12-12	<input type="checkbox"/>	HW-910_09b	MISCELLANEOUS GUIDERAIL TRANSITIONS SHEET 2	7-25-12
<input type="checkbox"/>	HW-652_01	PIPE ENDS	7-24-13	<input type="checkbox"/>	HW-910_10	METAL BEAM RAIL 8" (203) X 6" (152) BOX BEAM	7-24-13
<input type="checkbox"/>	HW-751_01	UNDERDRAINS AND UNDERDRAIN OUTLETS	7-12-12	<input type="checkbox"/>	HW-910_11	CURVED GUIDERAIL TREATMENT DETAIL	7-25-12
<input type="checkbox"/>	HW-803_01	PAVED DITCH AND PAVED APRON	7-12-12	<input type="checkbox"/>	HW-910_12a	MERRITT PARKWAY GUIDERAIL ATTACHMENT - SYSTEM 2 & 3	7-24-13
<input type="checkbox"/>	HW-811_01	CURBING	7-12-12	<input type="checkbox"/>	HW-910_12b	MERRITT PARKWAY GUIDERAIL	7-24-13
<input type="checkbox"/>	HW-813_01	GRANITE STONE TRANSITION CURBING	7-24-13	<input type="checkbox"/>	HW-910_12c	MERRITT PARKWAY GUIDERAIL TRAILING END ATTACHMENTS	7-24-13
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<input type="checkbox"/>	HW-821_01b	TRANSITION 45" (1145) F-SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 2	10-18-10	<input type="checkbox"/>	HW-910_13a	THRIE-BEAM METAL BEAM RAIL HARDWARE	7-24-13
<input type="checkbox"/>	HW-821_01c	TRANSITION 45" (1145) F-SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 3	1-26-12	<input type="checkbox"/>	HW-910_13b	THRIE-BEAM TRANSITIONS	7-24-13
<input type="checkbox"/>	HW-821_02a	45" (1145) F-SHAPE PRECAST CONCRETE BARRIER CURB SHEET 1	7-24-13	<input type="checkbox"/>	HW-910_14a	THRIE-BEAM 350 BRIDGE ATTACHMENT	6-09-11
<input type="checkbox"/>	HW-821_02b	45" (1145) F-SHAPE PRECAST CONCRETE BARRIER CURB SHEET 2	7-24-13	<input type="checkbox"/>	HW-910_14b	THRIE-BEAM 350 GUIDERAIL TRANSITION TO R-B 350 GUIDERAIL	6-09-11
<input type="checkbox"/>	HW-821_03a	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 1	1-26-12	<input type="checkbox"/>	HW-910_15	MD-B 350 MEDIAN BARRIER SAFETY SHAPE ATTACHMENT TYPE I	6-09-11
<input type="checkbox"/>	HW-821_03b	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 2	10-18-10	<input type="checkbox"/>	HW-910_16	MD-B 350 MEDIAN BARRIER SAFETY SHAPE ATTACHMENT TYPE II	6-09-11
<input type="checkbox"/>	HW-821_03c	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 3	10-18-10	<input type="checkbox"/>	HW-910_17	R-B TERMINAL SECTION	7-24-13
<input type="checkbox"/>	HW-821_03d	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) VERTICAL SHAPE SHEET 4	10-18-10	<input type="checkbox"/>	HW-910_18	METAL BEAM RAIL (TYPE MD-I)	10-18-10
<input type="checkbox"/>	HW-821_03e	TRANSITION - 32" (813) JERSEY SHAPE TO 45" (1145) F-SHAPE	7-24-13	<input type="checkbox"/>	HW-910_19a	METAL BEAM RAIL (MODIFIED TYPE R-I) AND END ANCHORAGE TYPE I	7-24-13
<input type="checkbox"/>	HW-821_04a	MERRITT PARKWAY NARROW MEDIAN BARRIER	6-09-11	<input type="checkbox"/>	HW-910_19b	METAL BEAM RAIL (MODIFIED TYPE R-I) AND END ANCHORAGE TYPE II	7-24-13
<input type="checkbox"/>	HW-821_04b	MERRITT PARKWAY - 2' (610) WIDE MEDIAN BARRIER AND ROADSIDE BARRIER	7-24-13	<input type="checkbox"/>	HW-910_19c	METAL BEAM RAIL (MODIFIED TYPE R-I) SYSTEMS 2 AND 3	7-24-13

***ONLY STANDARD SHEETS MARKED WITH AN "✓" ARE IN THIS PROJECT #**

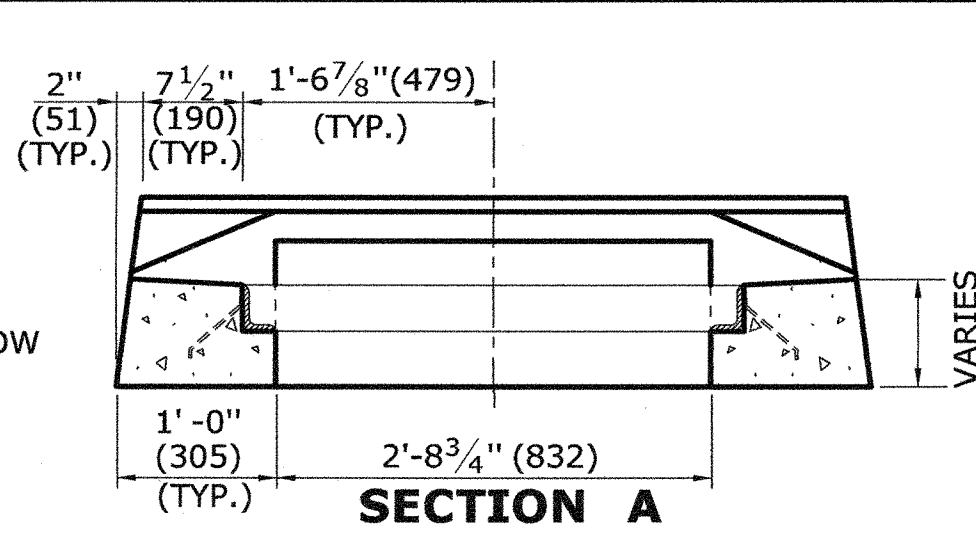
****REVISED OR ADDED**

[illegible]

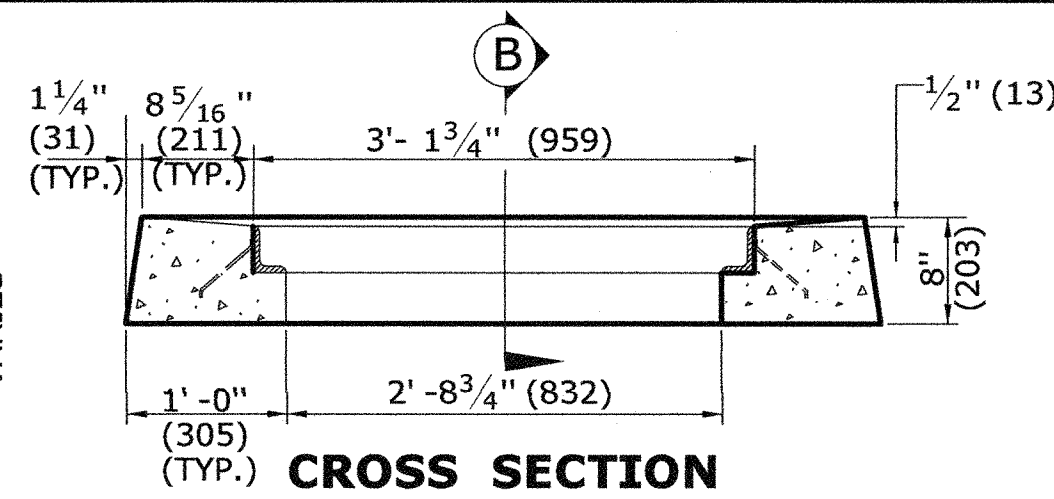
-	-	-	-	THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	NOT TO SCALE	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION		<div style="text-align: center;"> CTDOT STANDARD SHEET </div> <div style="text-align: center; margin-top: 20px;"> HIGHWAY STANDARD SHEET INDEX </div> <div style="text-align: center;"> OFFICE OF ENGINEERING </div>	STANDARD SHEET TITLE:	STANDARD SHEET NO.: HW_INX 2 of 2
1	7/24/13	REVISED 8 SHEETS	-	Plotted Date: 6/29/2014		Filename: CTDOT-HIGHWAY-STD.dgn	Model: 2 - HW-INX_2			
REV.	DATE	REVISION DESCRIPTION								



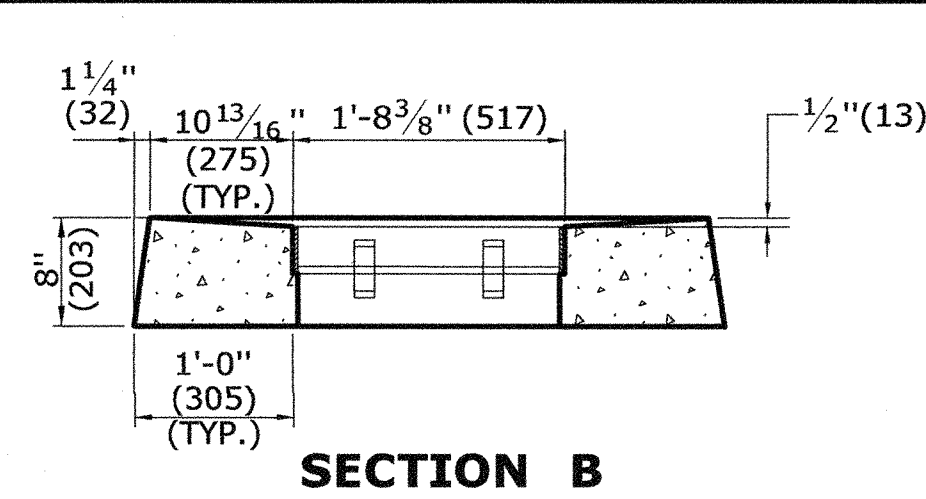
CROSS SECTION
TYPE "C" CATCH BASIN TOP



SECTION A



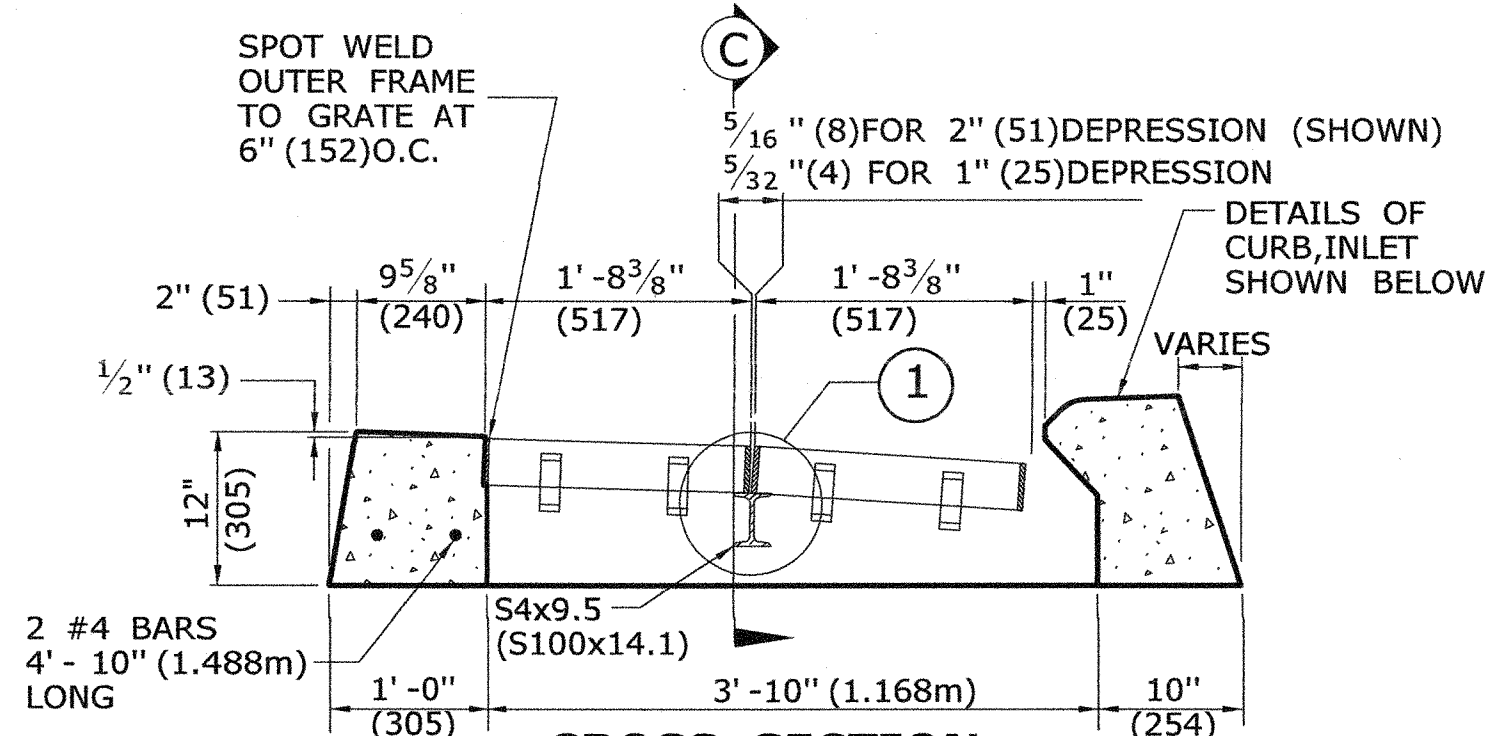
CROSS SECTION



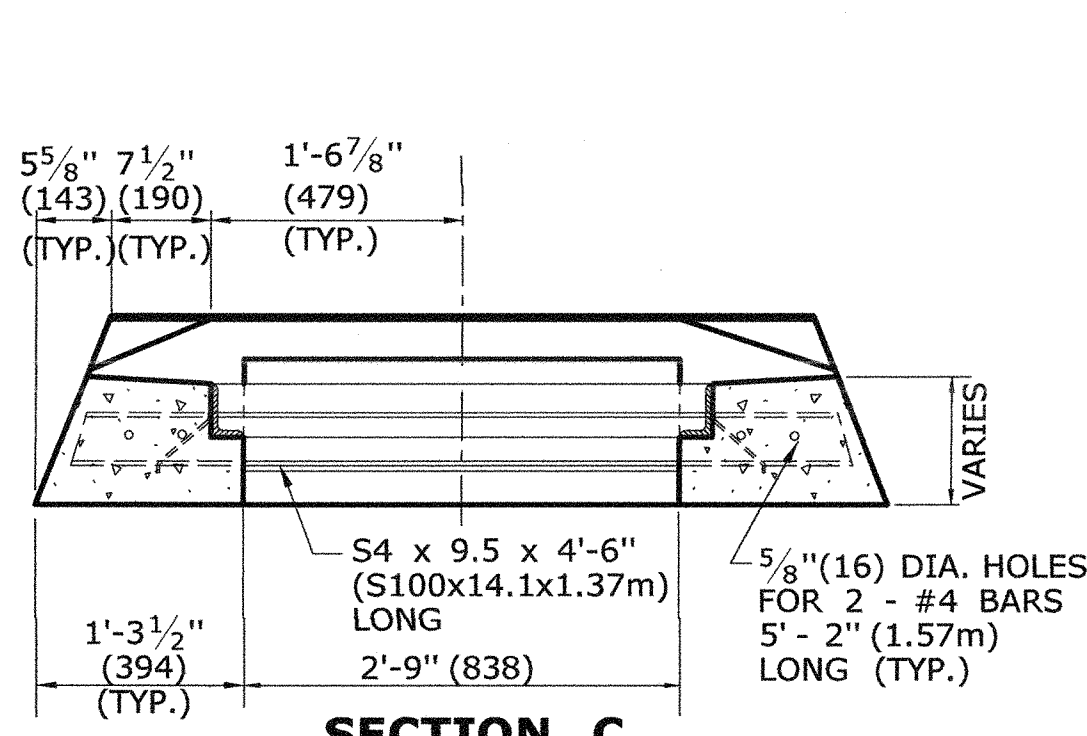
SECTION B

GENERAL NOTES:

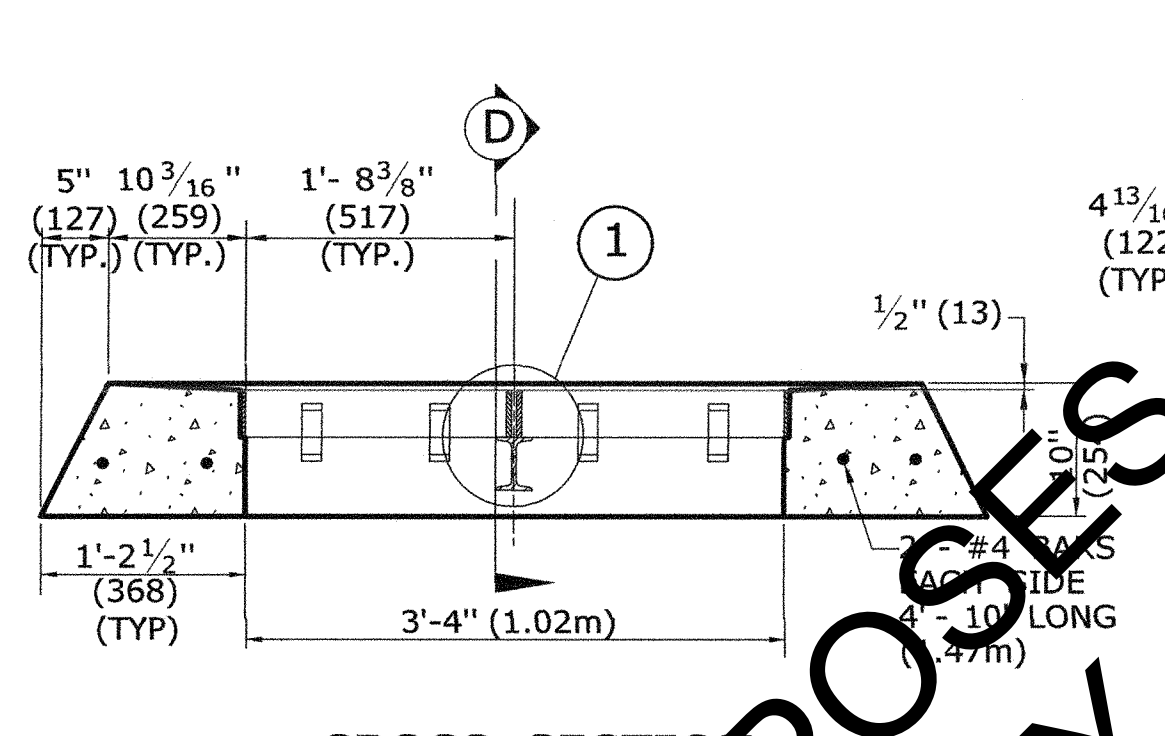
1. FOR DETAILS OF FRAME AND GRATE SEE STANDARD SHEET HW-507_08.
2. ALL STEEL, EXCEPT REINFORCING BARS, SHALL BE GALVANIZED IN CONFORMANCE WITH SECTION M06.03 OF CONNECTICUT'S STANDARD SPECIFICATIONS.
3. ALL BARS SHALL HAVE A MINIMUM 2" (51) COVER.



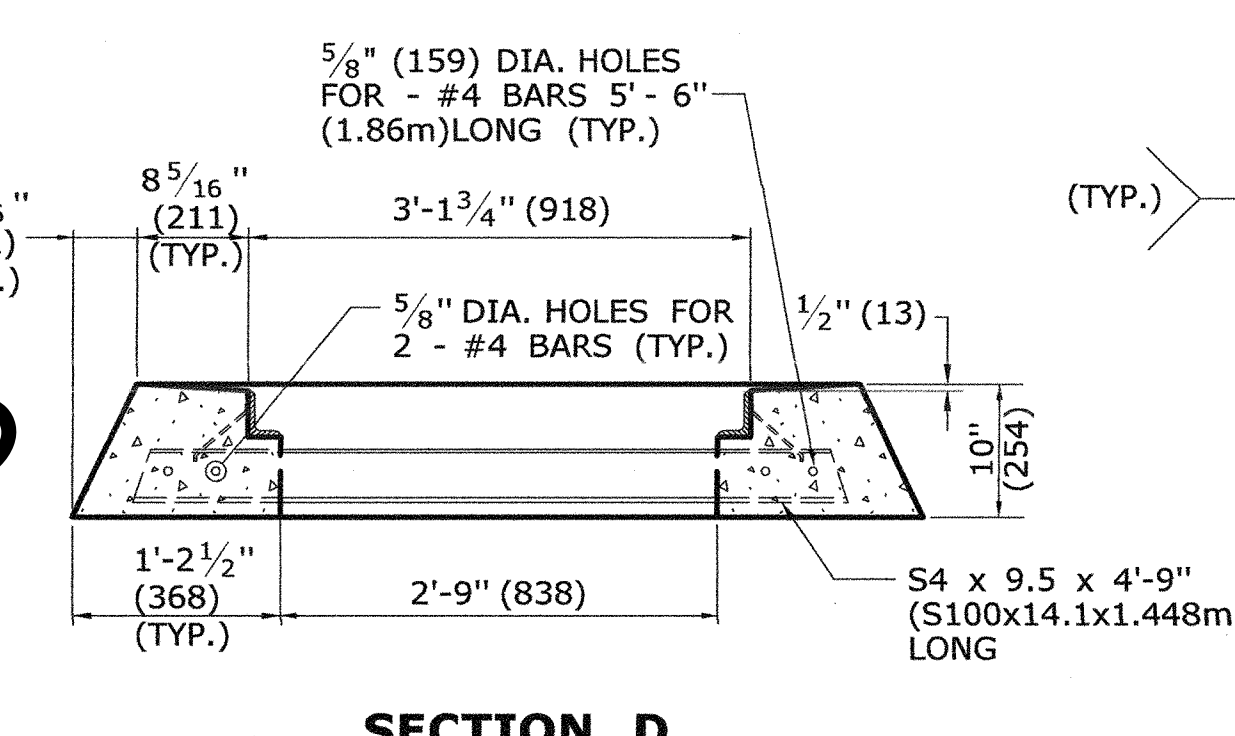
CROSS SECTION
TYPE "C" CATCH BASIN DOUBLE GRATE - TYPE I TOP



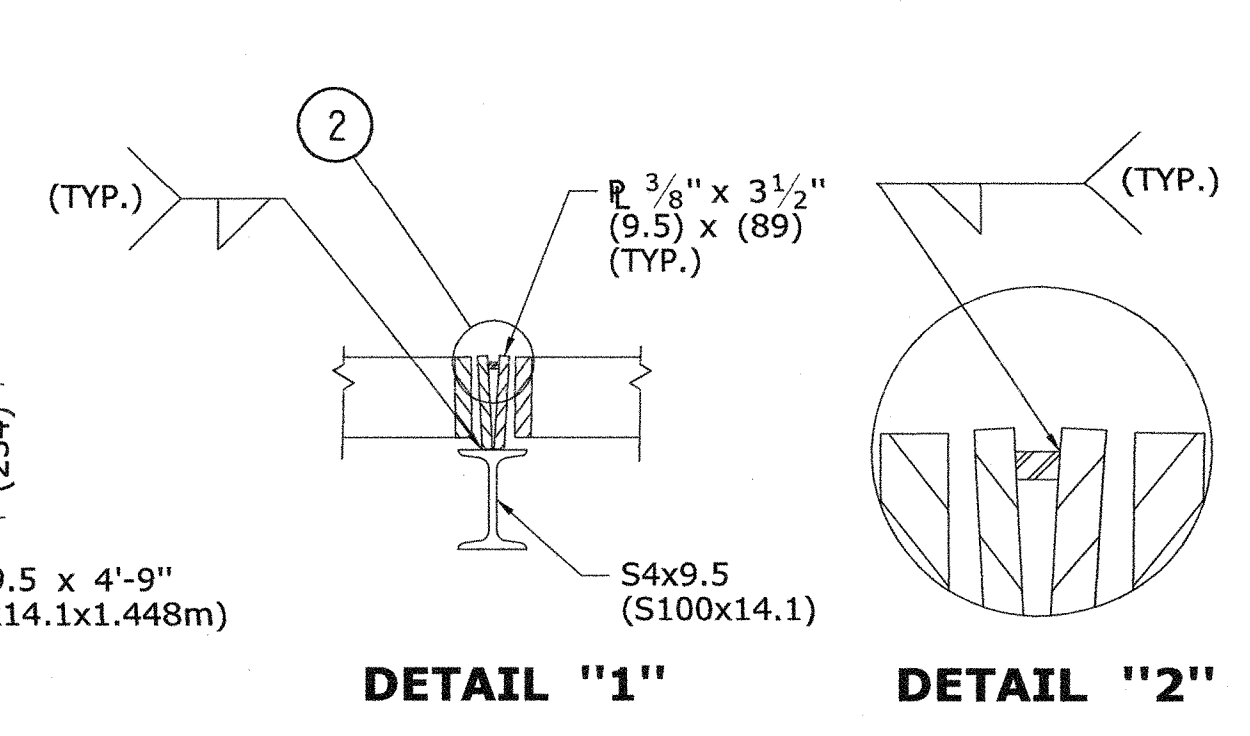
SECTION C



CROSS SECTION
TYPE "C-L" CATCH BASIN DOUBLE GRATE - TYPE I TOP

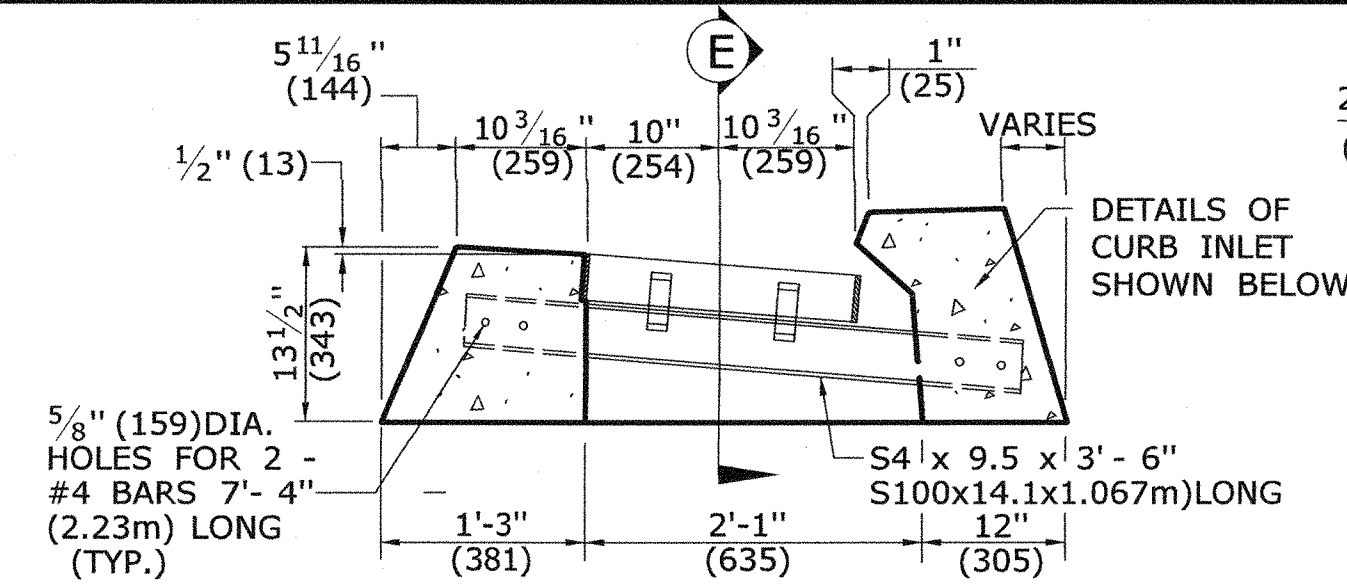


SECTION D

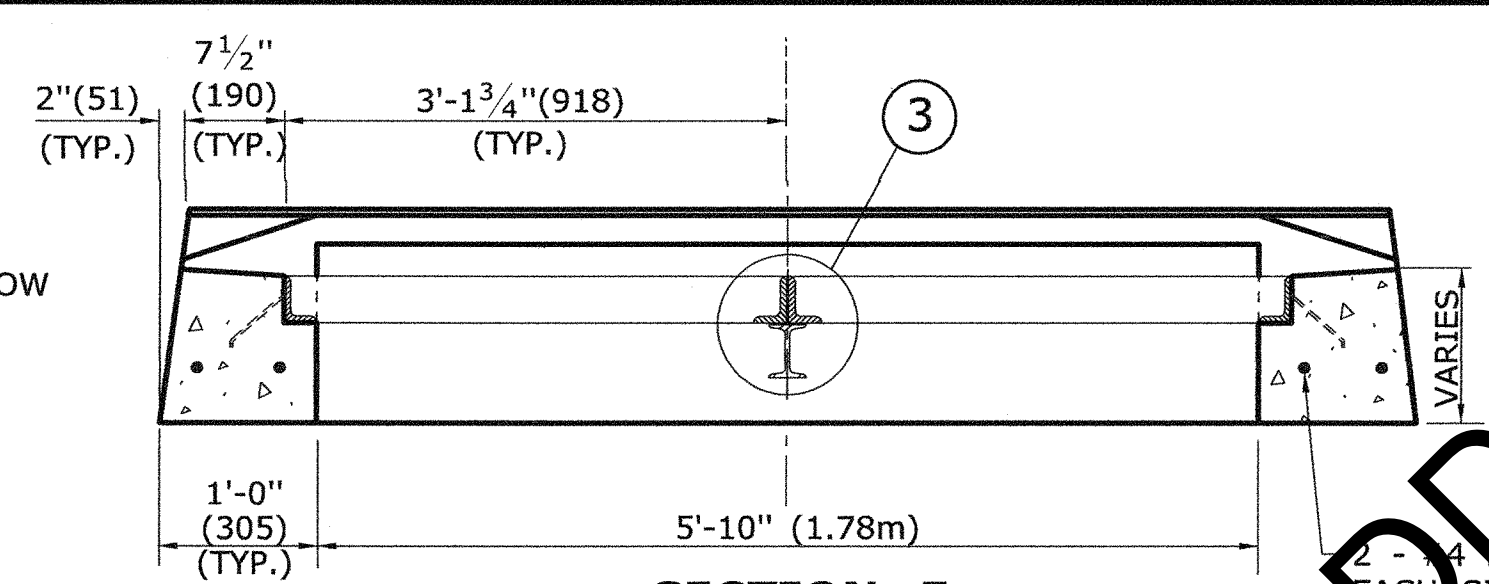


DETAIL "1"

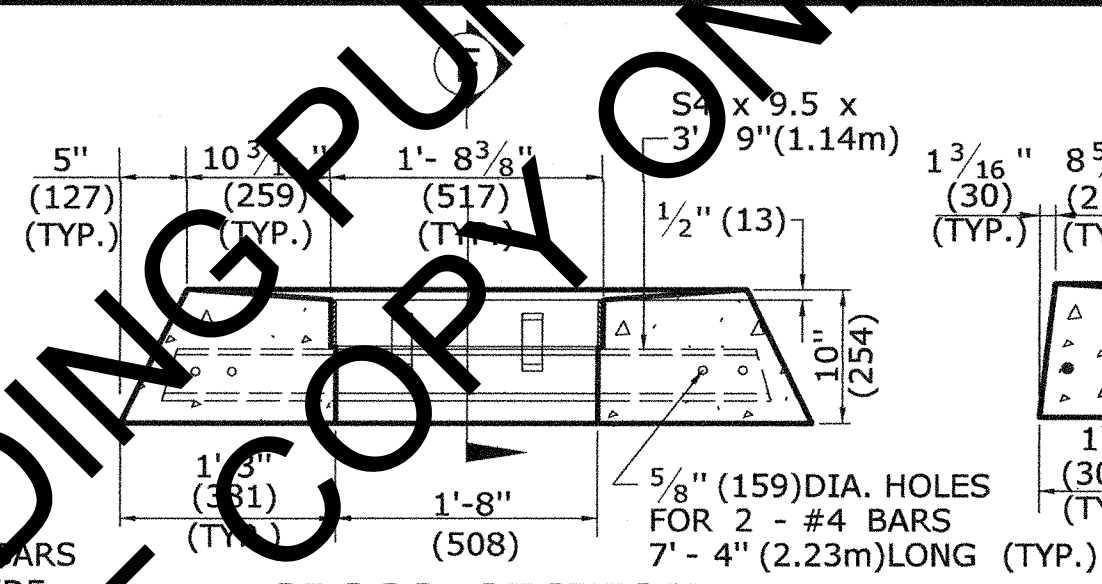
DETAIL "2"



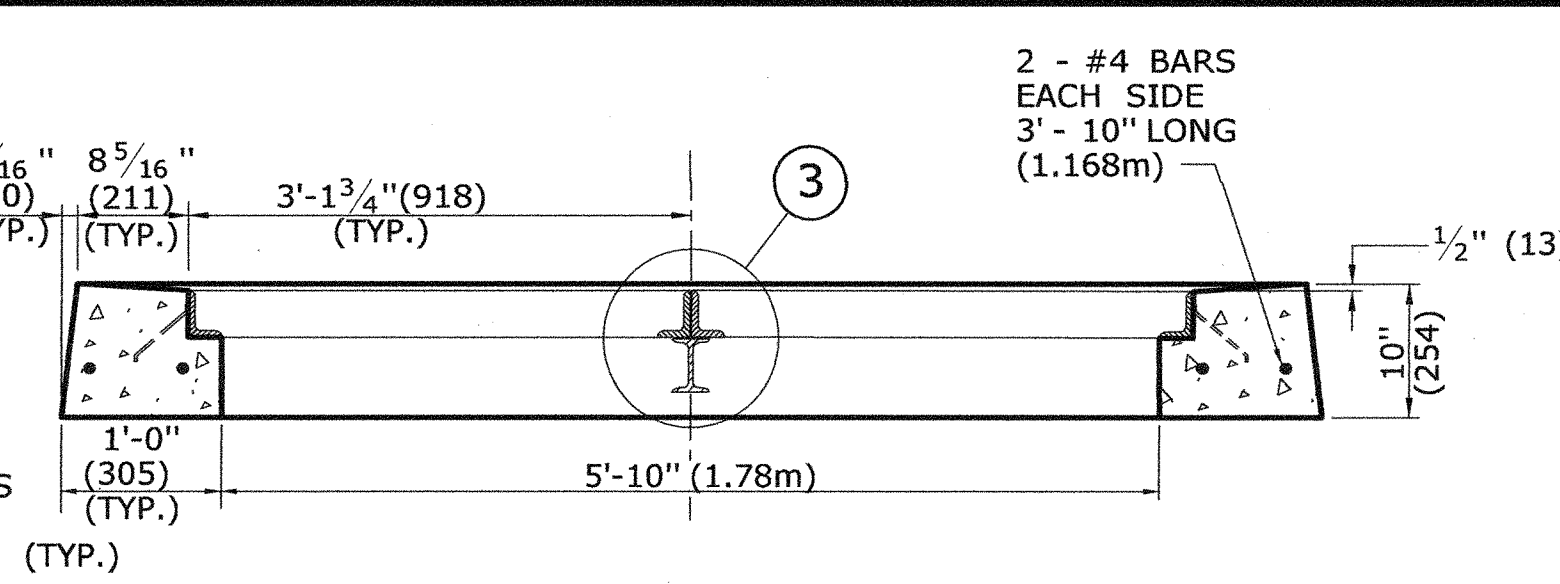
CROSS SECTION
TYPE "C" CATCH BASIN DOUBLE GRATE - TYPE II TOP



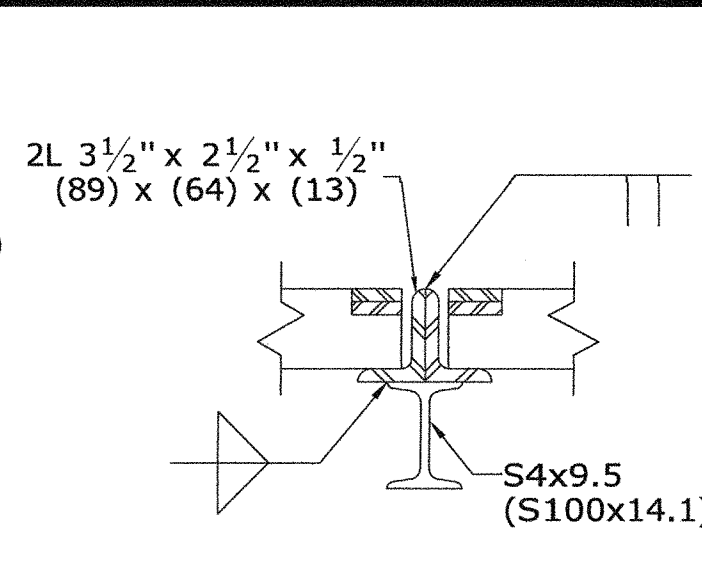
SECTION E



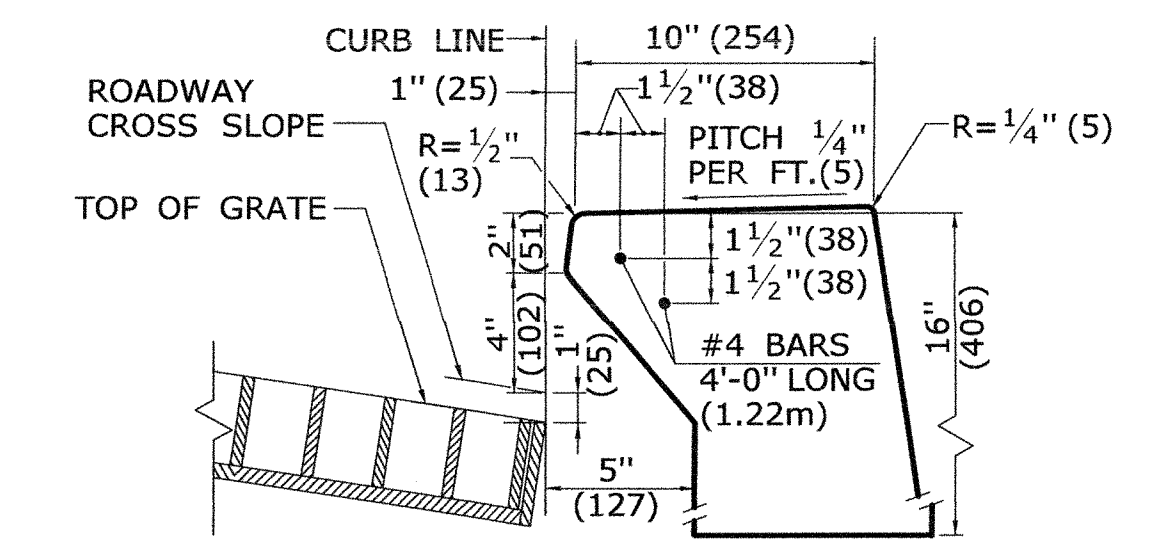
CROSS SECTION
TYPE "C-L" CATCH BASIN DOUBLE GRATE - TYPE II TOP



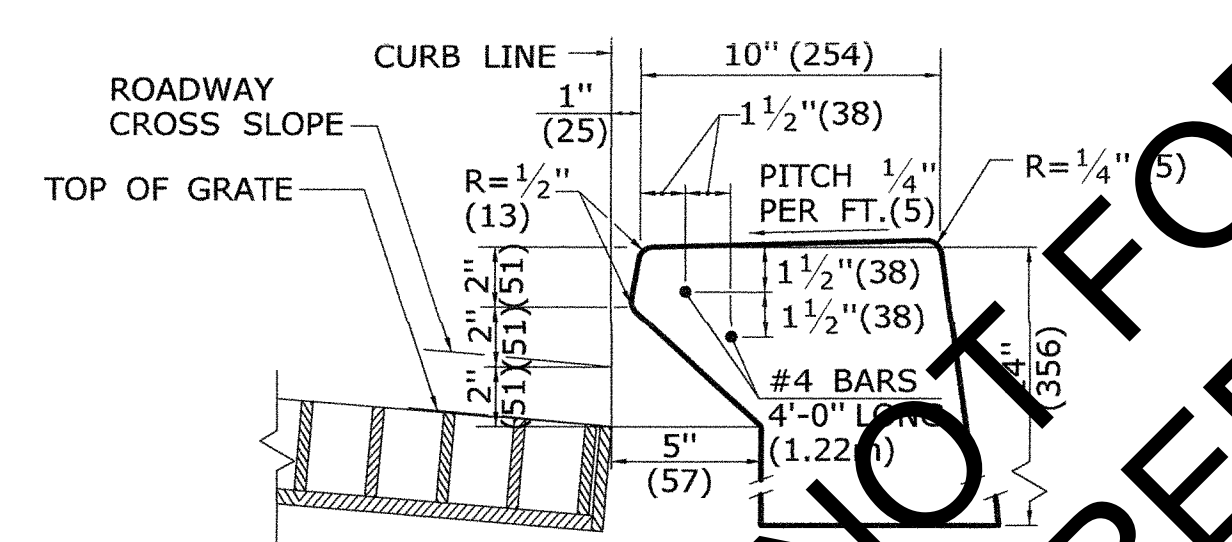
SECTION F



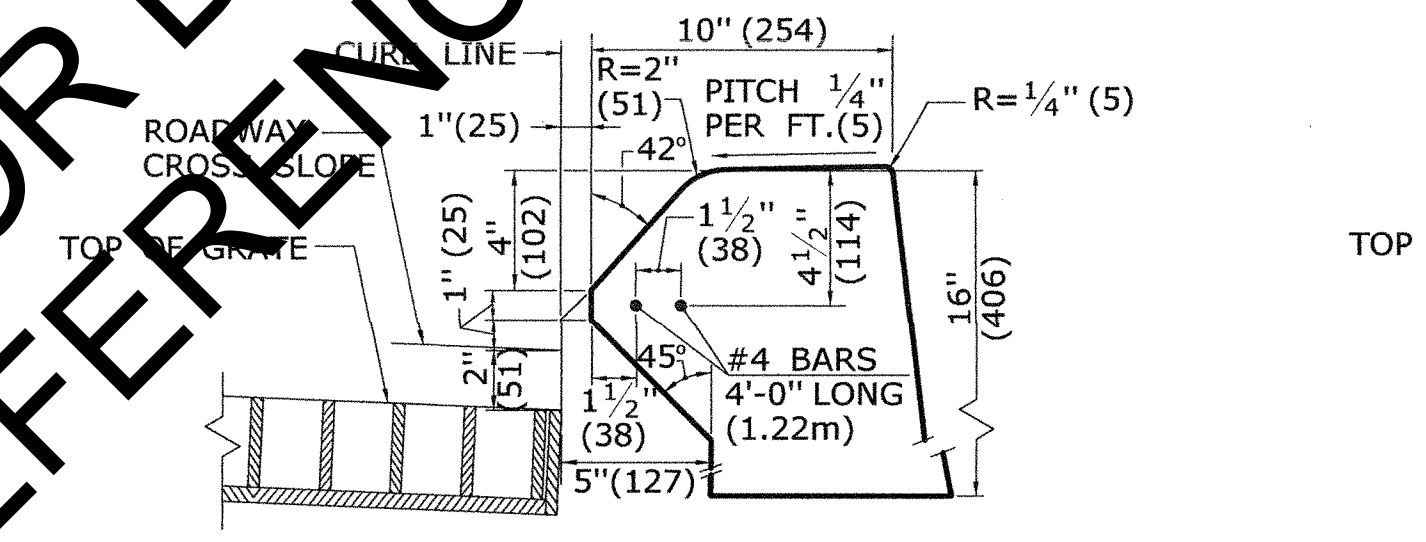
DETAIL "3"



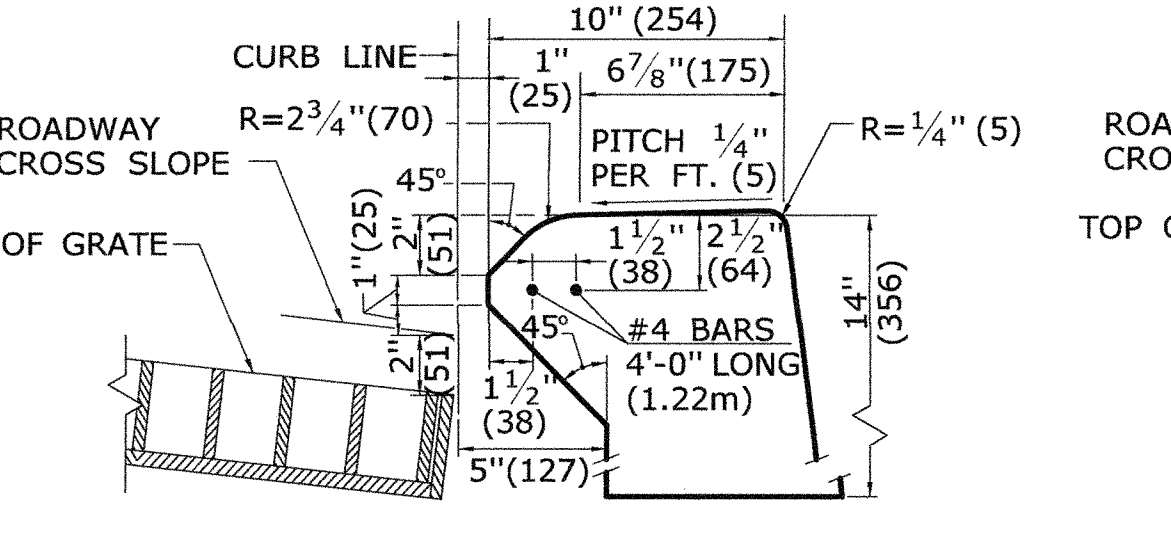
INLET WITH 6" (152) CONCRETE OR
STONE CURBING FOR TYPE "C" CB



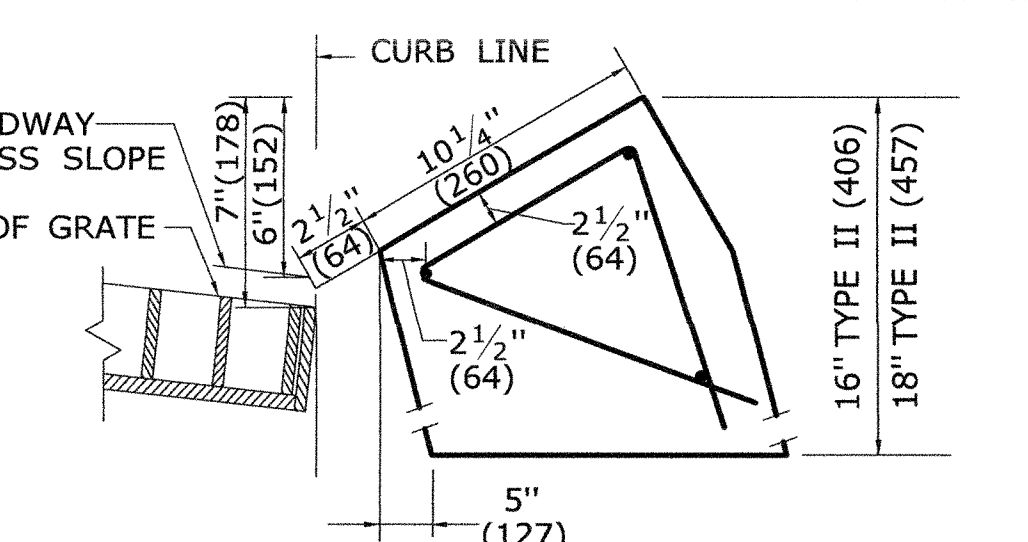
INLET WITH NO CURBING
(PLAIN TYPE) FOR TYPE "C" CB



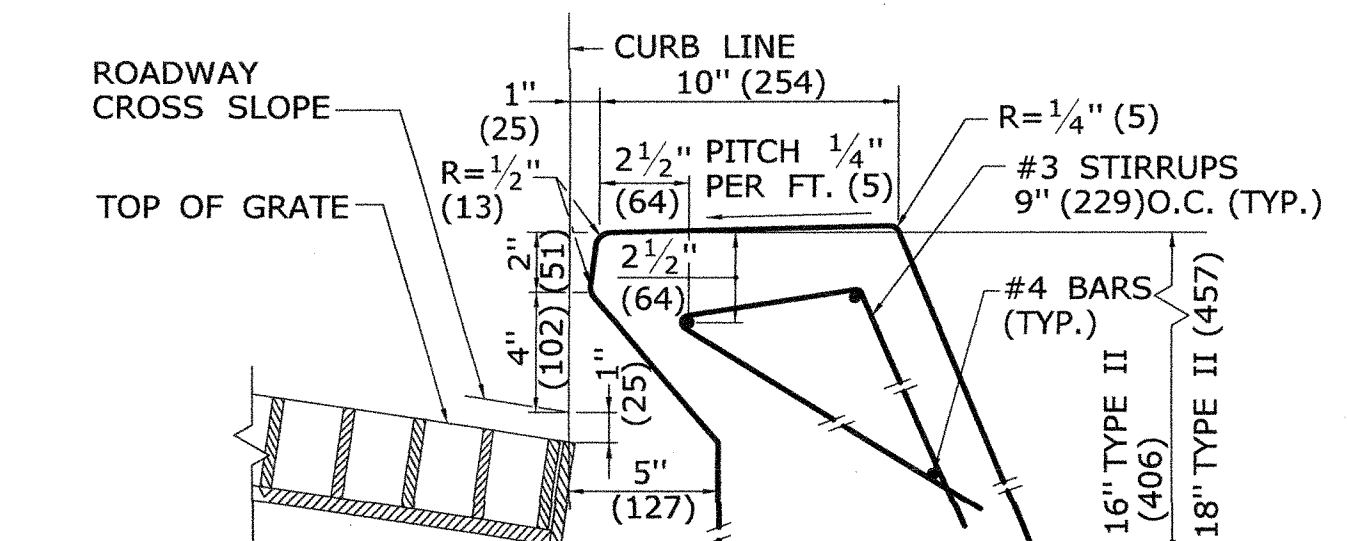
INLET WITH 6" (152) BITUMINIOUS
CONCRETE LIP CURBING FOR TYPE "C" CB



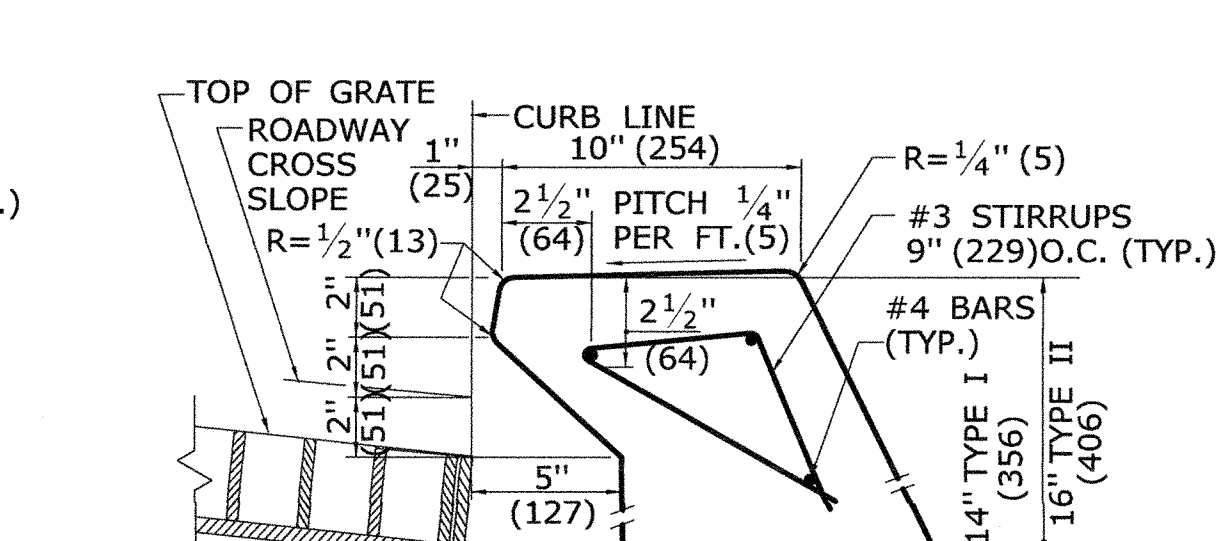
INLET WITH 4" (102) CONCRETE
PARK CURBING FOR TYPE "C" CB



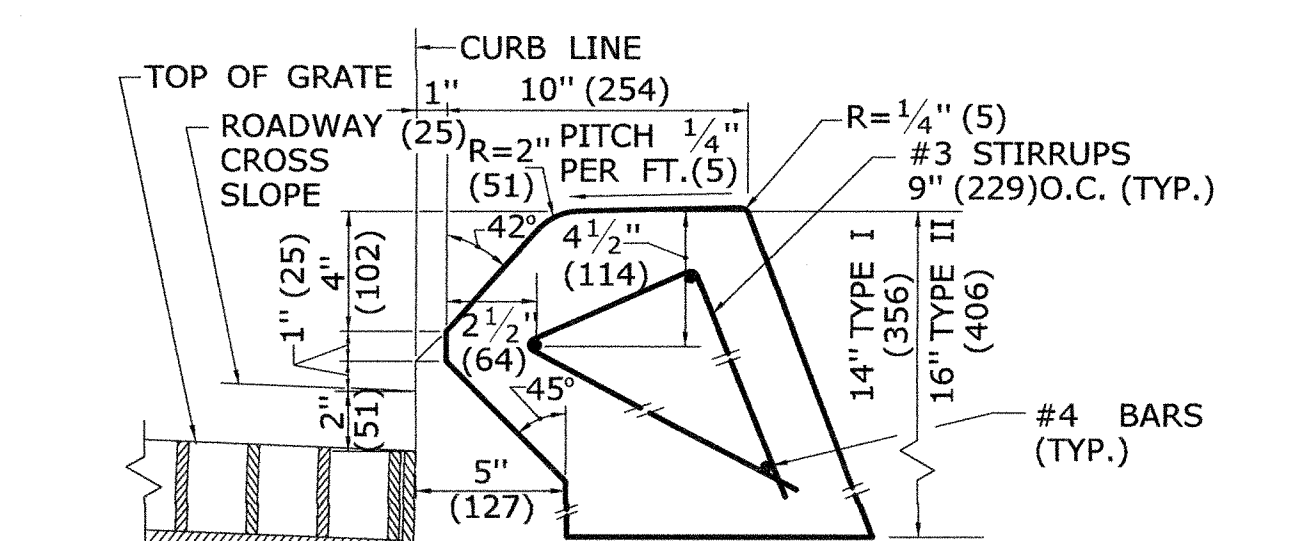
INLET WITH GRANITE
SLOPE CURB FOR TYPE "C" CB



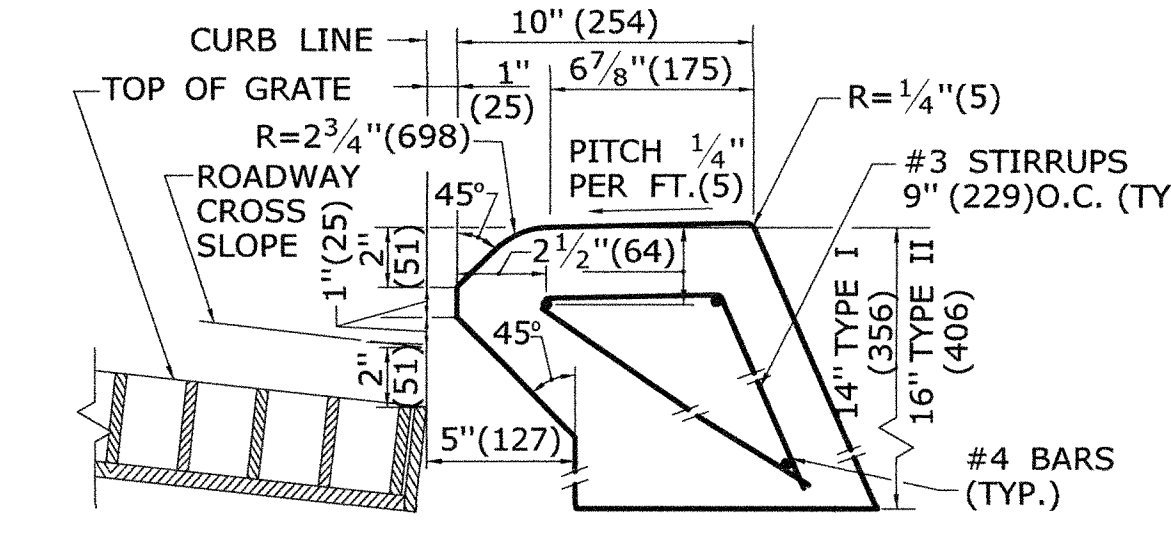
INLET WITH 6" (152) CONCRETE OR
STONE CURBING FOR TYPE "C" CB
DOUBLE GRATE TYPE I & II



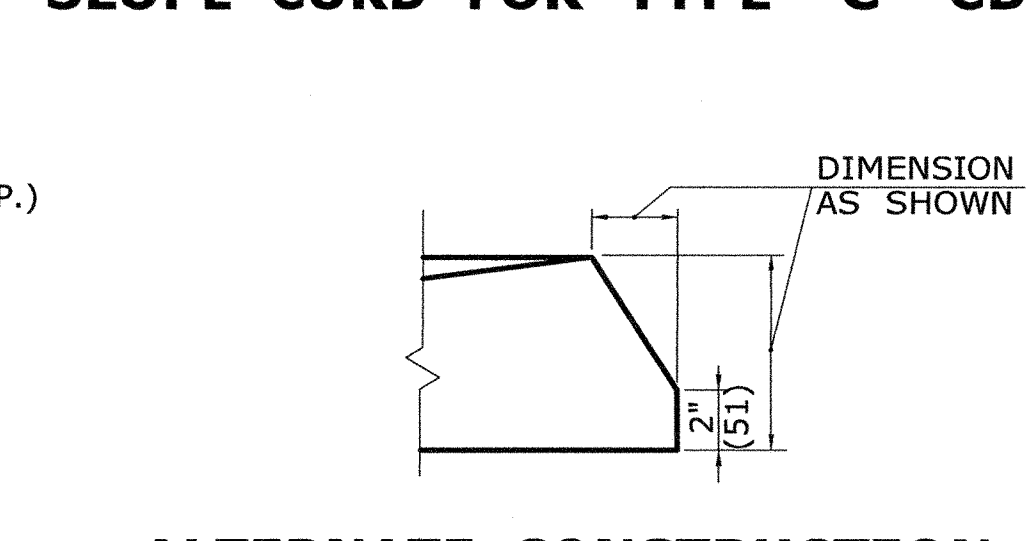
INLET WITH NO CURBING
(PLAIN TYPE) FOR TYPE "C" CB
DOUBLE GRATE TYPE I & II



INLET WITH 6" (152) BITUMINIOUS
CONCRETE LIP CURBING FOR TYPE "C" CB
DOUBLE GRATE TYPE I & II




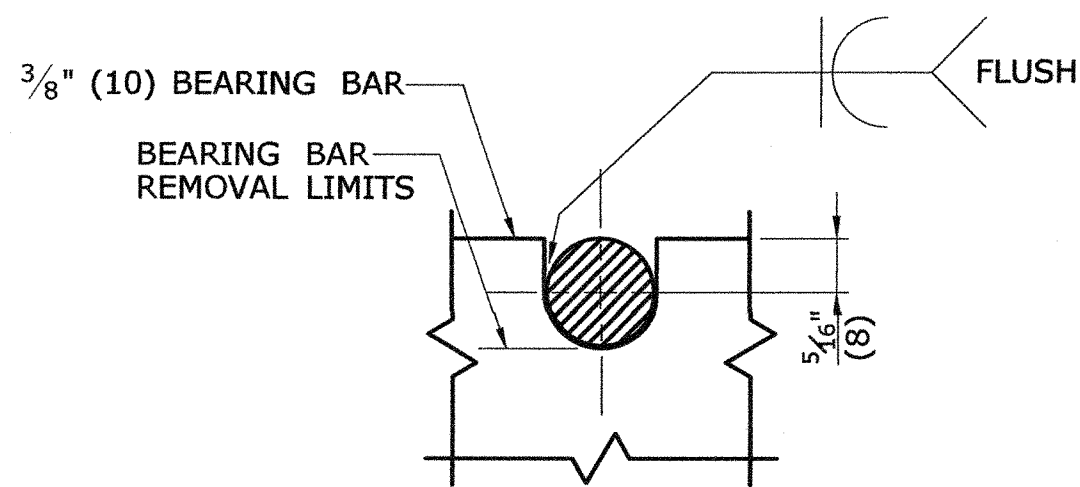
INLET WITH 4" (102) CONCRETE
PARK CURBING FOR TYPE "C" CB
DOUBLE GRATE TYPE I & II



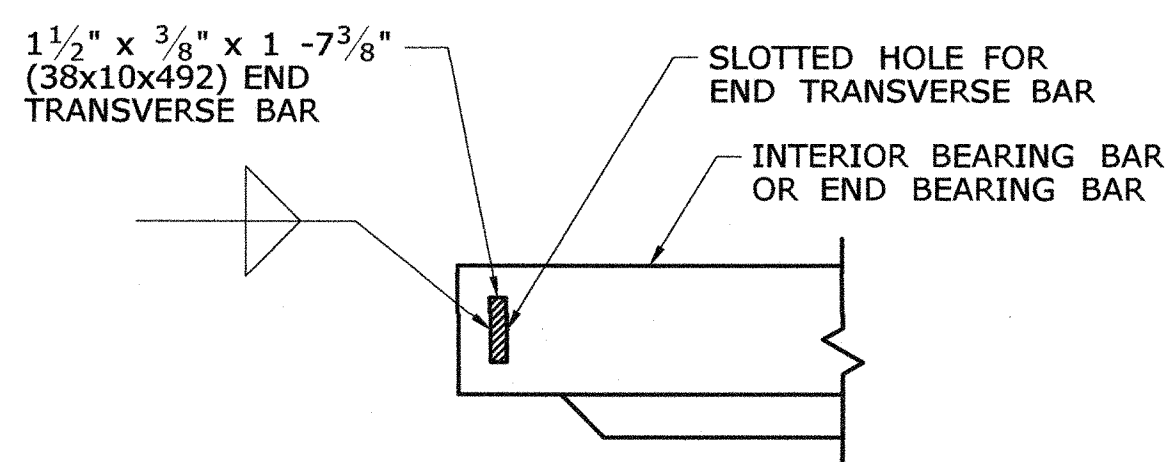
ALTERNATE CONSTRUCTION
OF TYPE II TOP

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED

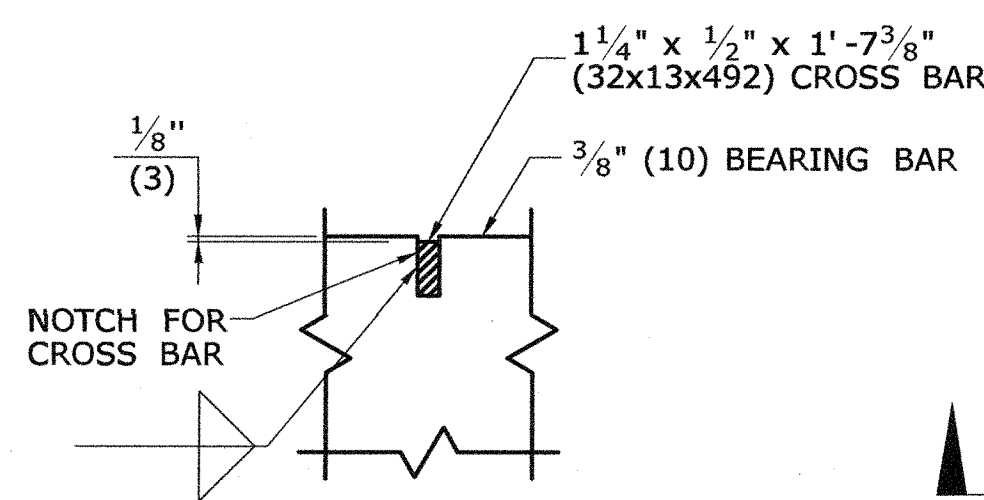
			THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	NOT TO SCALE	<div><div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div><div>File name: CTDOT-HWY-STD_Nov2011.dgn Model: 12-HW-507_07</div></div>	<div>SUBMITTED BY: _____ NAME/DATE/TIME: _____</div> <div>APPROVED BY: _____ NAME/DATE/TIME: _____</div>		<div>CTDOT STANDARD SHEET</div> <div>OFFICE OF ENGINEERING</div>	STANDARD SHEET TITLE: <div>TYPE "C" & "C-L" CATCH BASIN TOPS AND CURBS</div>	STANDARD SHEET NO.: <div>HW-507_07</div>
2	7/28/11	REMOVE MIN. DROP NOTE								
1	6/01/10	REVISE CALL-OUT								
REV.	DATE	REVISION DESCRIPTION	Plotted Date: 11/10/2011							



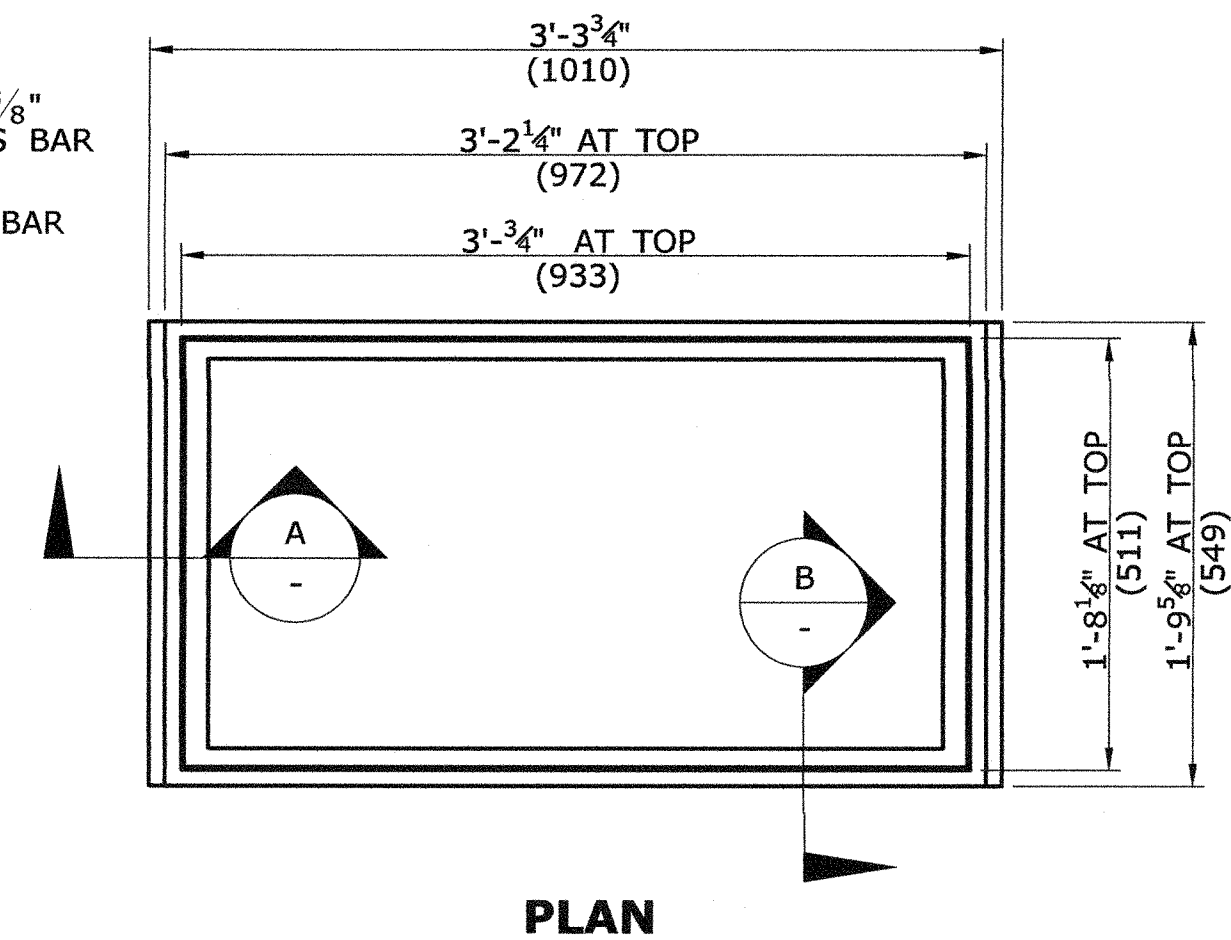
**ROUND BAR ATTACHMENT
CATCH BASIN GRATE TYPE A**



**END TRANSVERSE BAR ATTACHMENT
CATCH BASIN GRATE TYPE A & B**



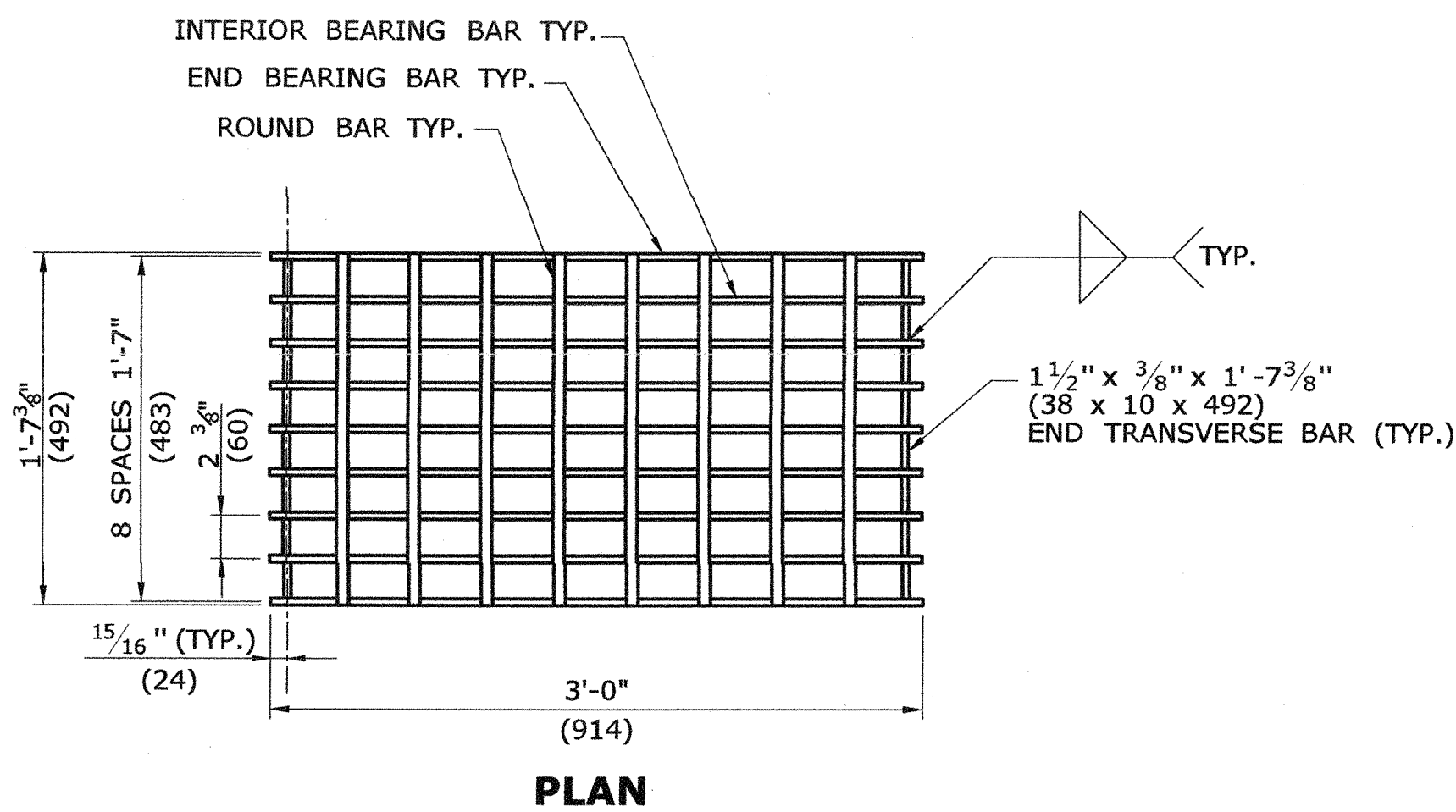
**CROSS BAR ATTACHMENT
CATCH BASIN GRATE TYPE B**



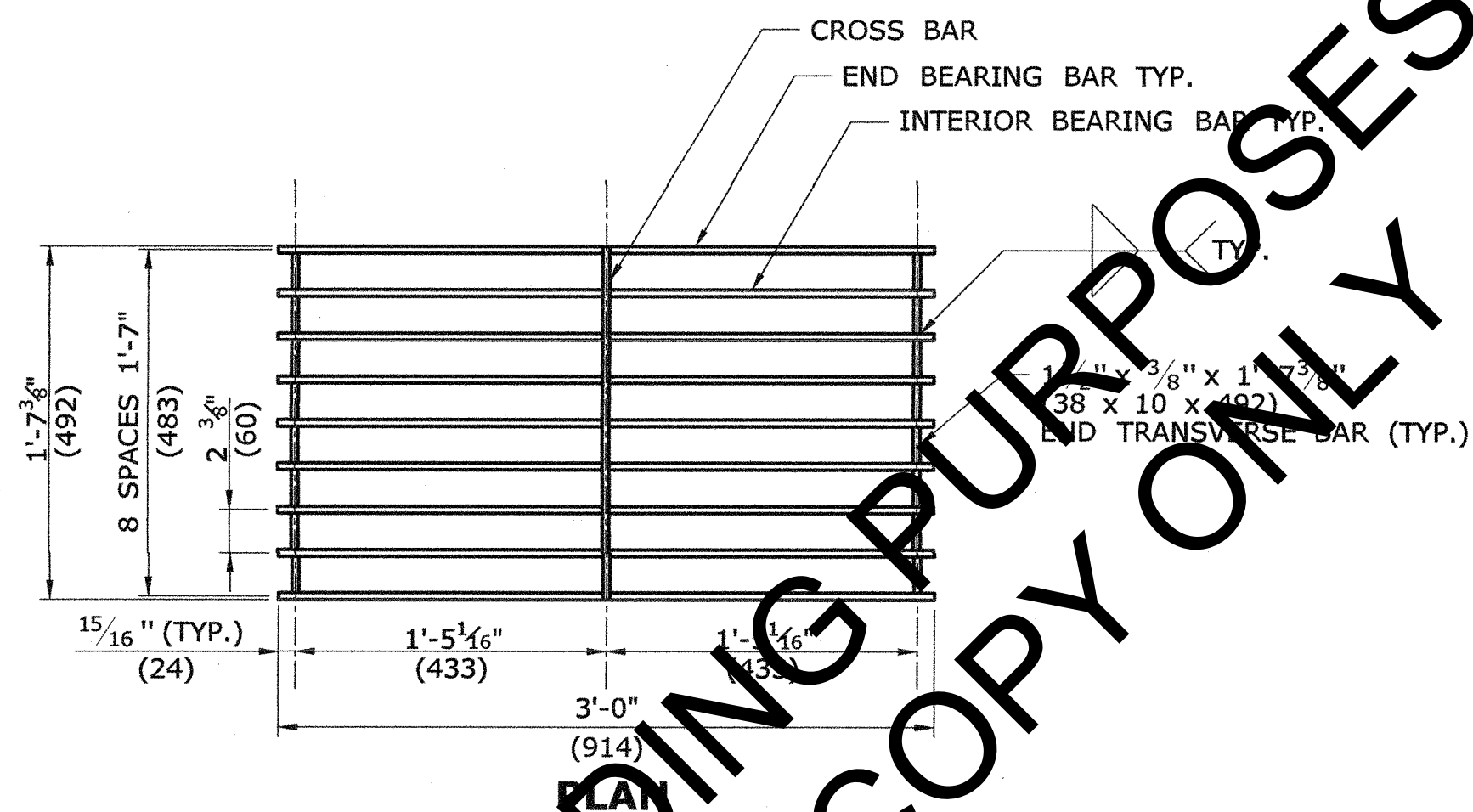
PLAN

GENERAL NOTES:

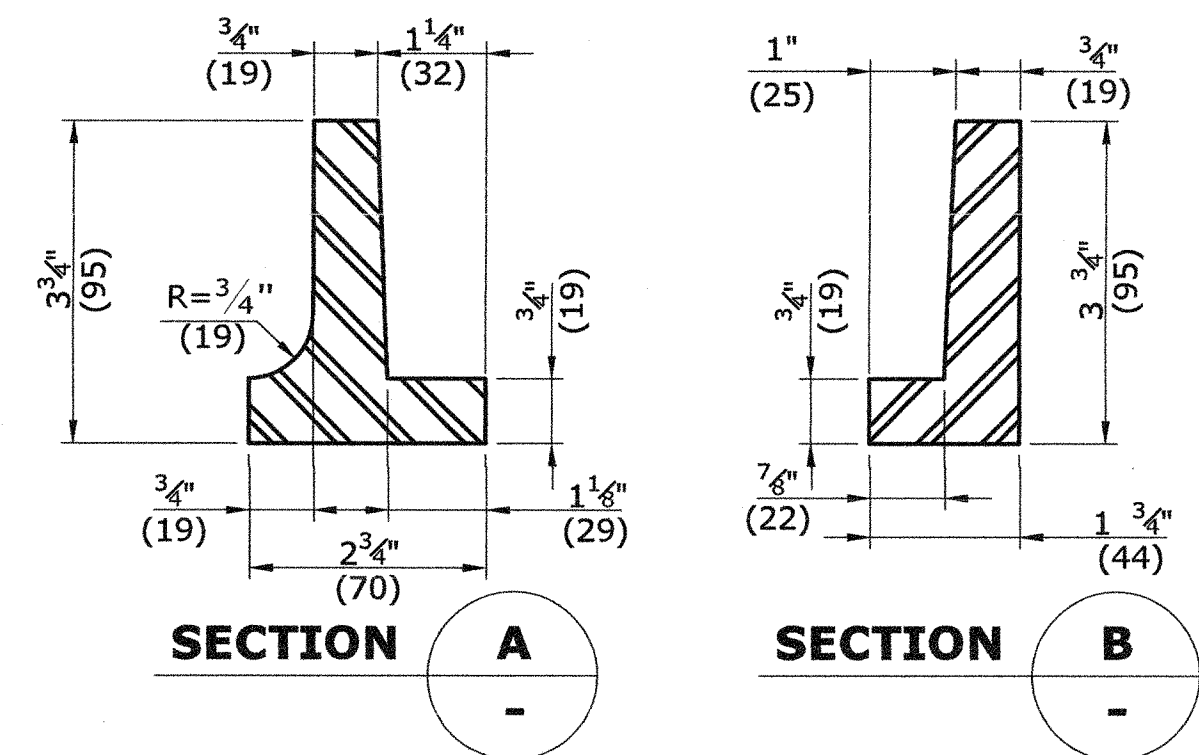
1. STEEL OR CAST IRON SHALL BE USED FOR FRAMES. STEEL SHALL BE USED FOR TYPE "A" & "B" GRATES.
2. TYPE "A" GRATES SHALL BE USED ON ALL ROADWAYS WHERE BICYCLE TRAFFIC IS ALLOWED OR AS DIRECTED BY THE ENGINEER.
3. TYPE "B" GRATES SHALL BE USED ON ALL LIMITED ACCESS HIGHWAYS, RAMPS AND WHERE BICYCLE TRAFFIC IS NOT ALLOWED OR AS DIRECTED BY THE ENGINEER.
4. STEEL FRAMES AND GRATES SHALL BE GALVANIZED IN ACCORDANCE WITH ARTICLE M.06.03.
5. DO NOT GALVANIZE CAST IRON FRAMES.
6. DIMENSIONAL TOLERANCES SHALL BE $\pm 1/16$ ".(1.6)
7. ALL STEEL BARS SHALL BE WELDED AT ALL INTERSECTIONS.
8. ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF AWS STRUCTURAL WELDING CODE, D1.1.



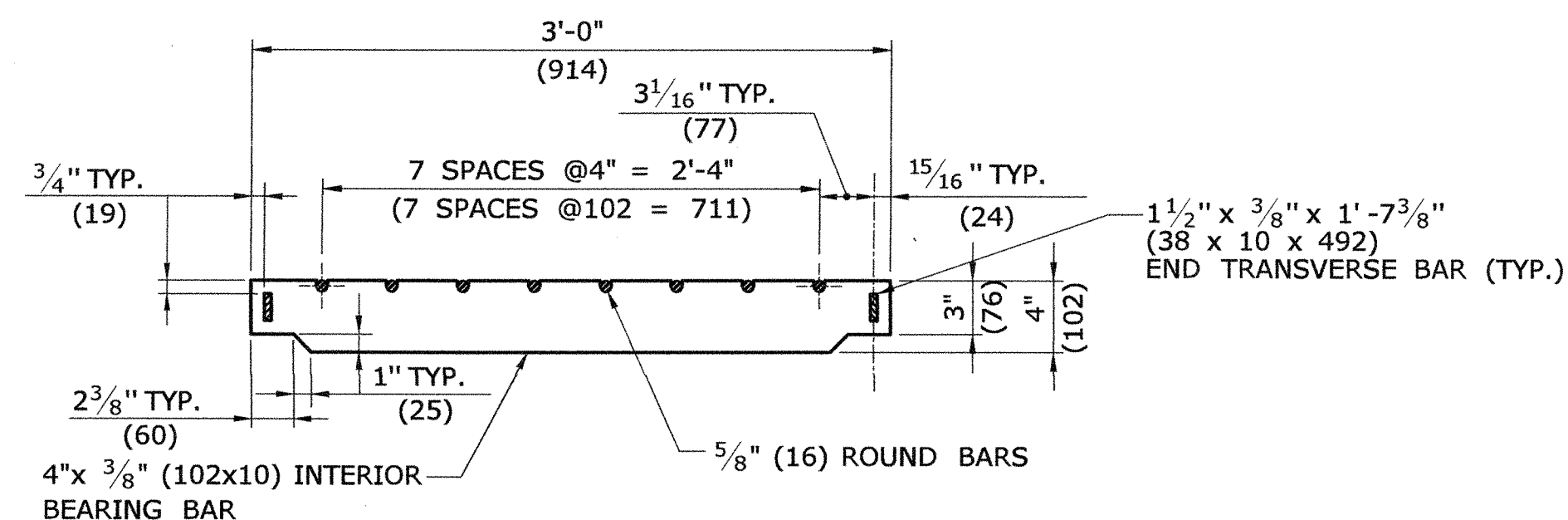
PLAN



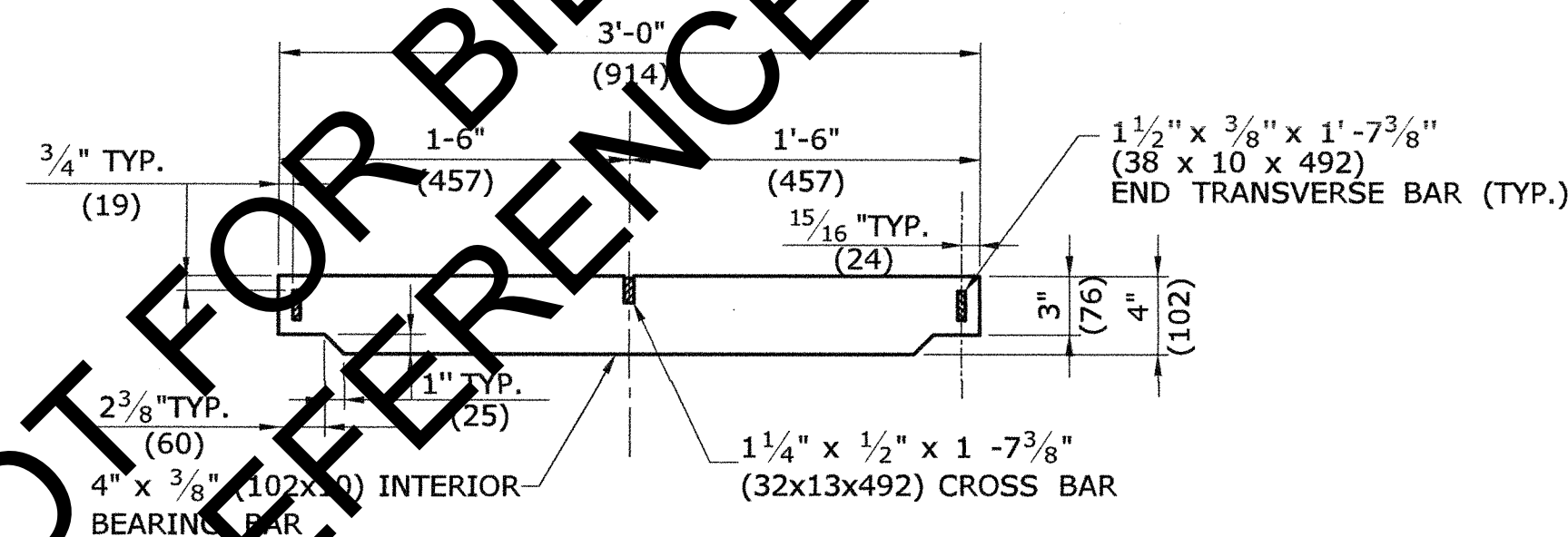
PLAN



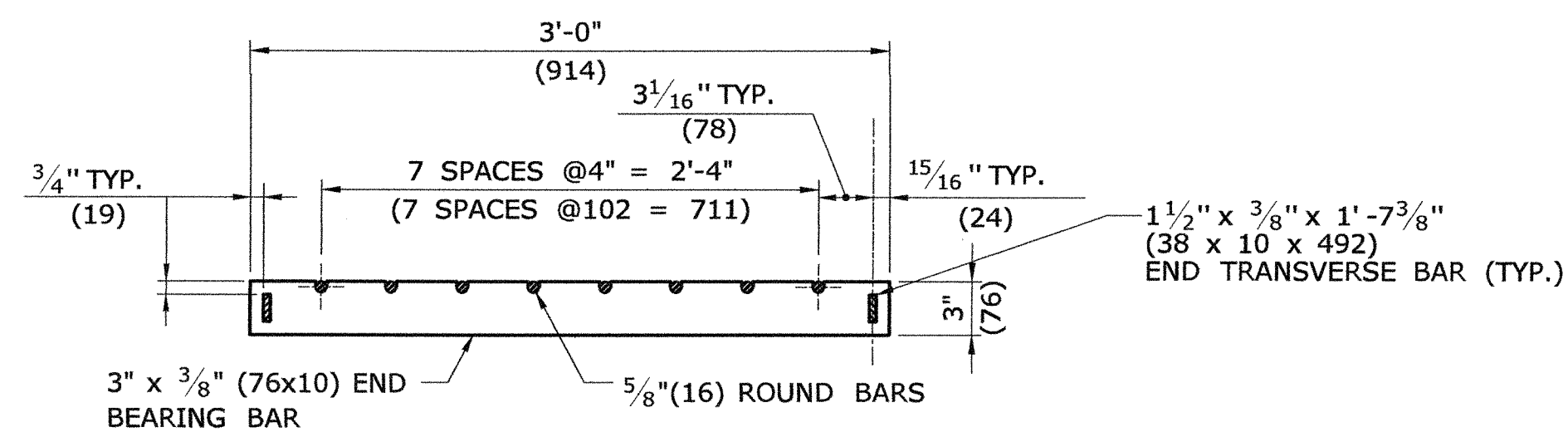
CAST IRON FRAME ALTERNATE



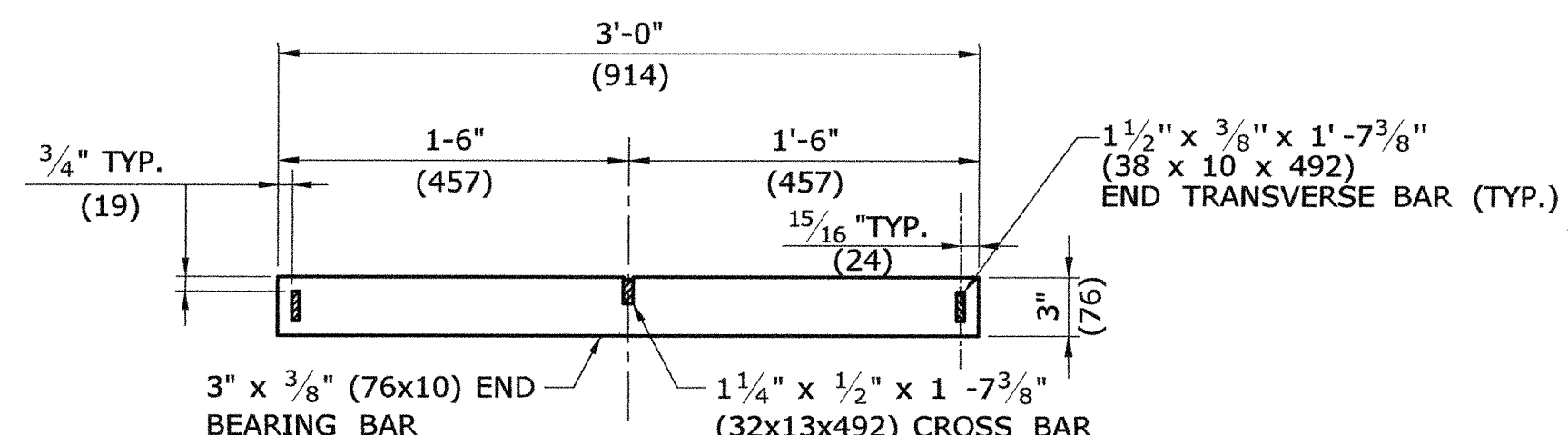
ELEVATION- INTERIOR BEARING BAR



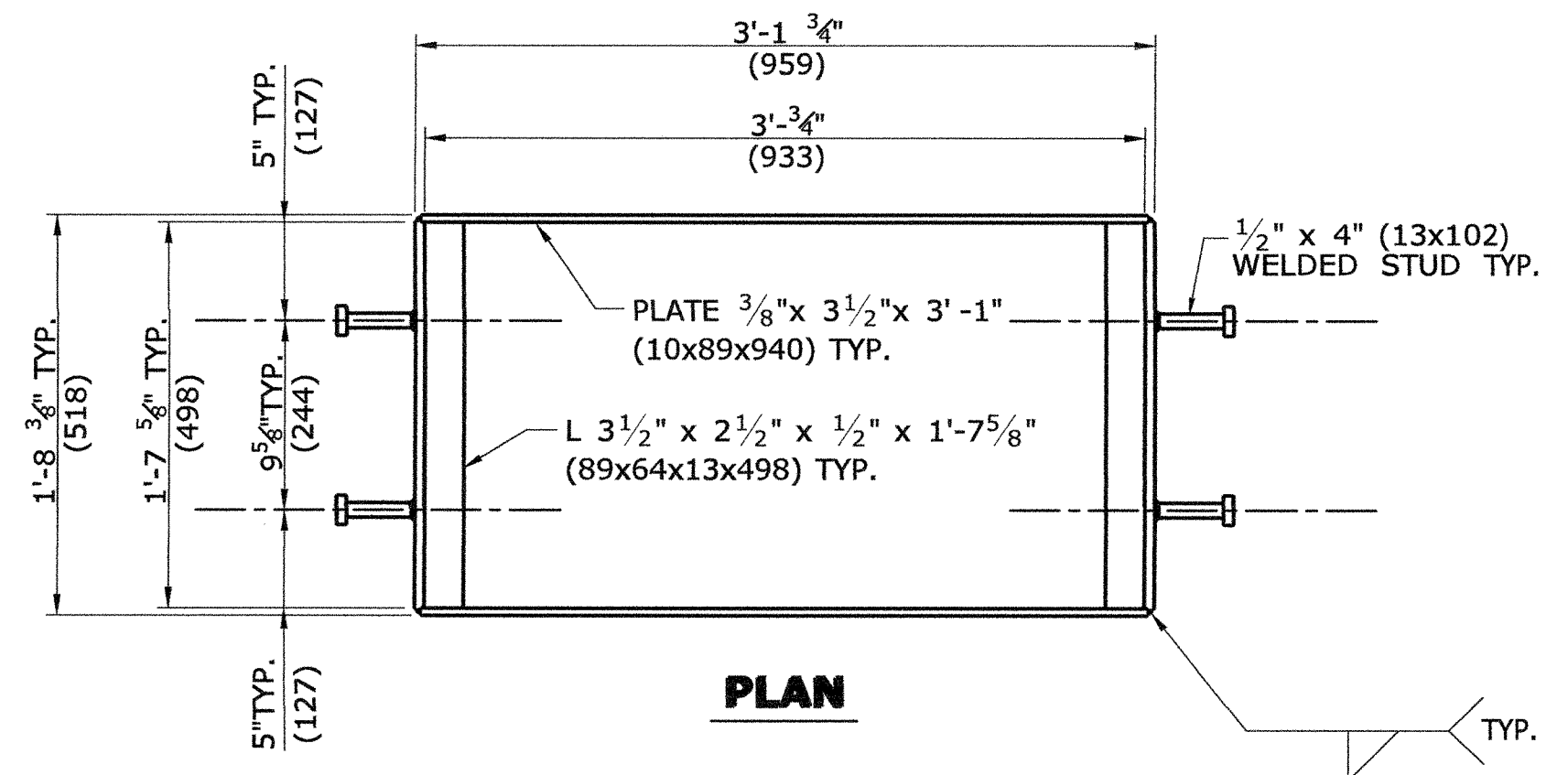
ELEVATION- INTERIOR BEARING BAR



**ELEVATION- END BEARING BAR
CATCH BASIN GRATE TYPE A**



**ELEVATION- END BEARING BAR
CATCH BASIN GRATE TYPE B**



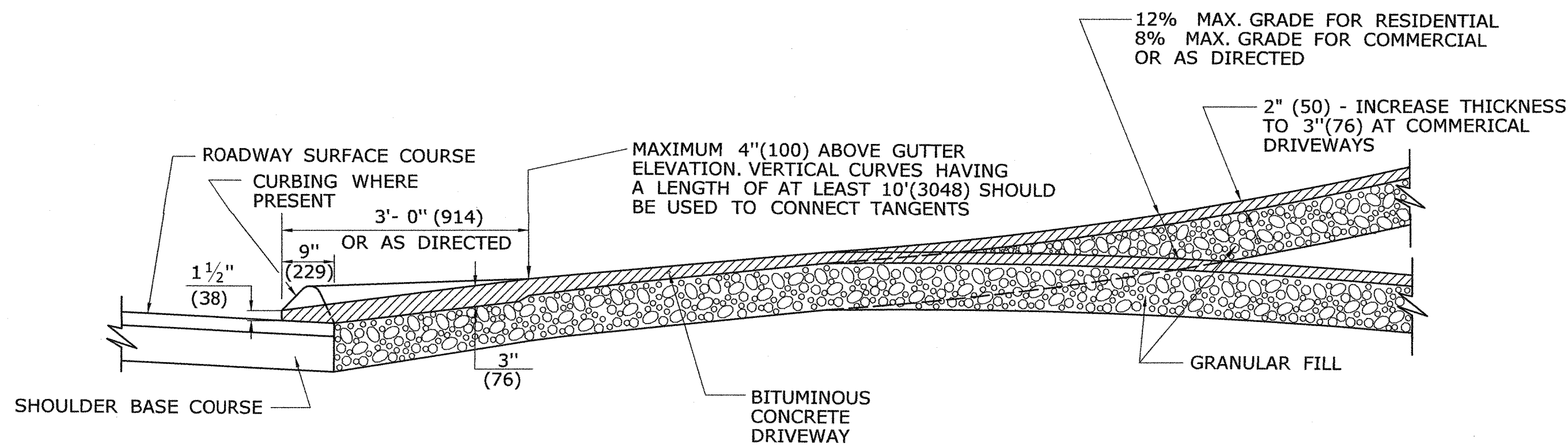
**WELDED STUD ANCHOR DETAILS
STEEL FRAME**

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED

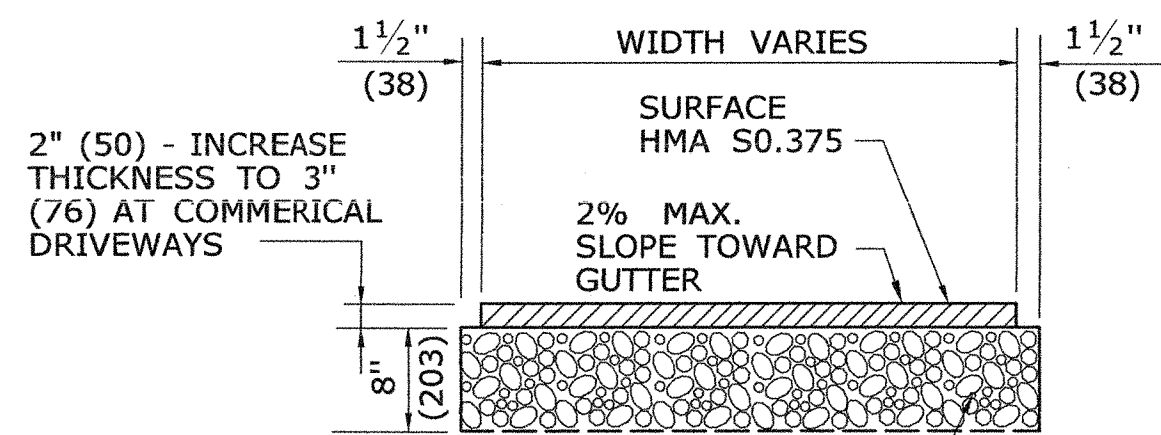
<p>THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.</p> <p>Plotted Date: 9/11/2009</p>	<p>NOT TO SCALE</p>	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p> <p>Filename: CTDOT_HIGHWAY_STD.dgn Model: HW-507_08</p>	<p>SUBMITTED BY: NAME/DATE/TIME:</p> <p>APPROVED BY: NAME/DATE/TIME:</p>	<p>CTDOT STANDARD SHEET OFFICE OF ENGINEERING</p>	<p>STANDARD SHEET TITLE: CATCH BASIN FRAMES AND GRATES</p>	<p>STANDARD SHEET NO.: HW-507_08</p>
<p>REV. DATE REVISION DESCRIPTION</p>						

1. ALTERNATE DESIGNS FOR LIFTING KEYS, HOLES OR OTHER HANDLING DEVICES MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
2. EXPECTED PERMANENT DYNAMIC DEFLECTION IS 3'-6" (1148) BASED ON TL-3 CRASH TESTS WITH 240' (73152) OF TPCBC.

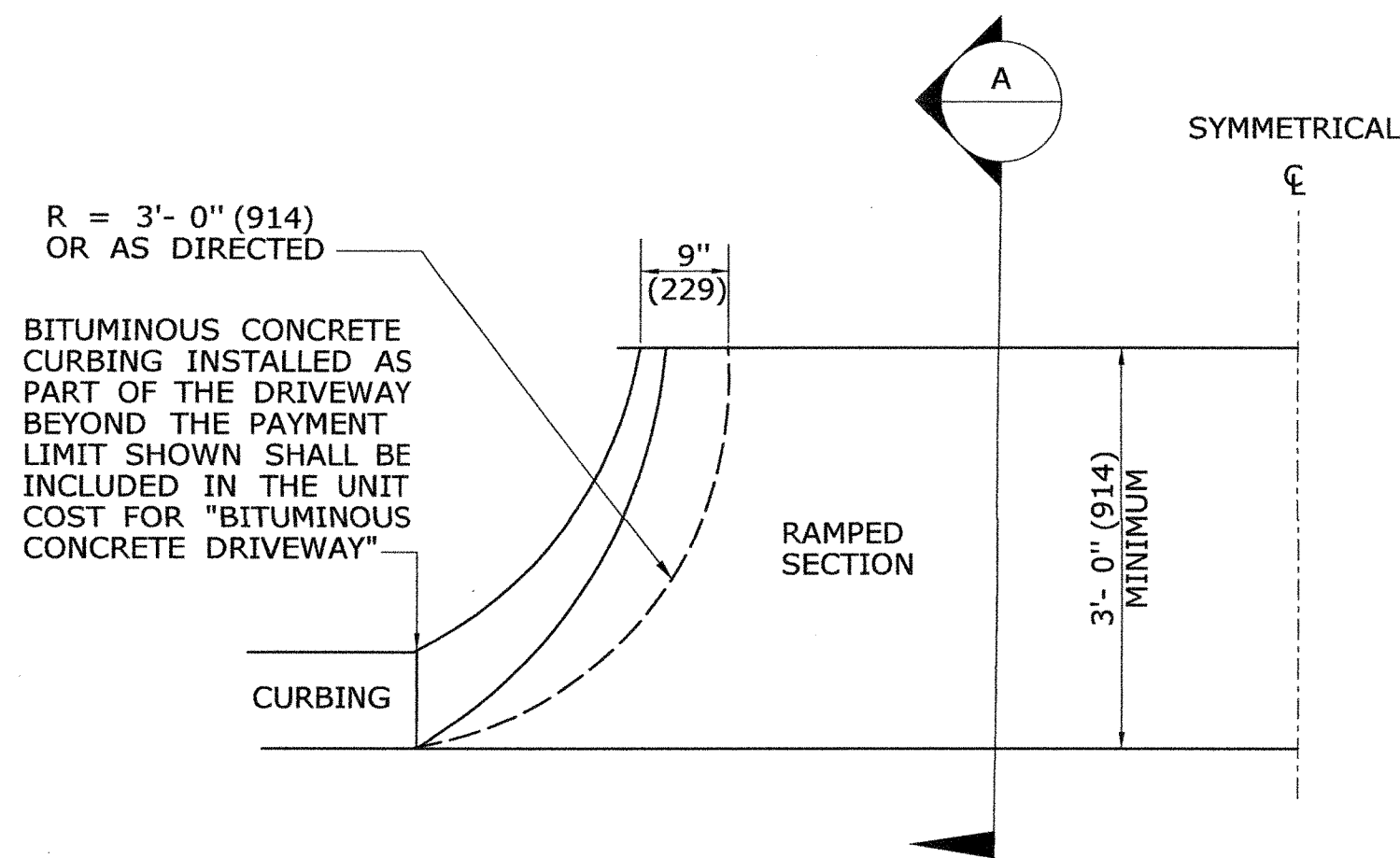
[illegible]



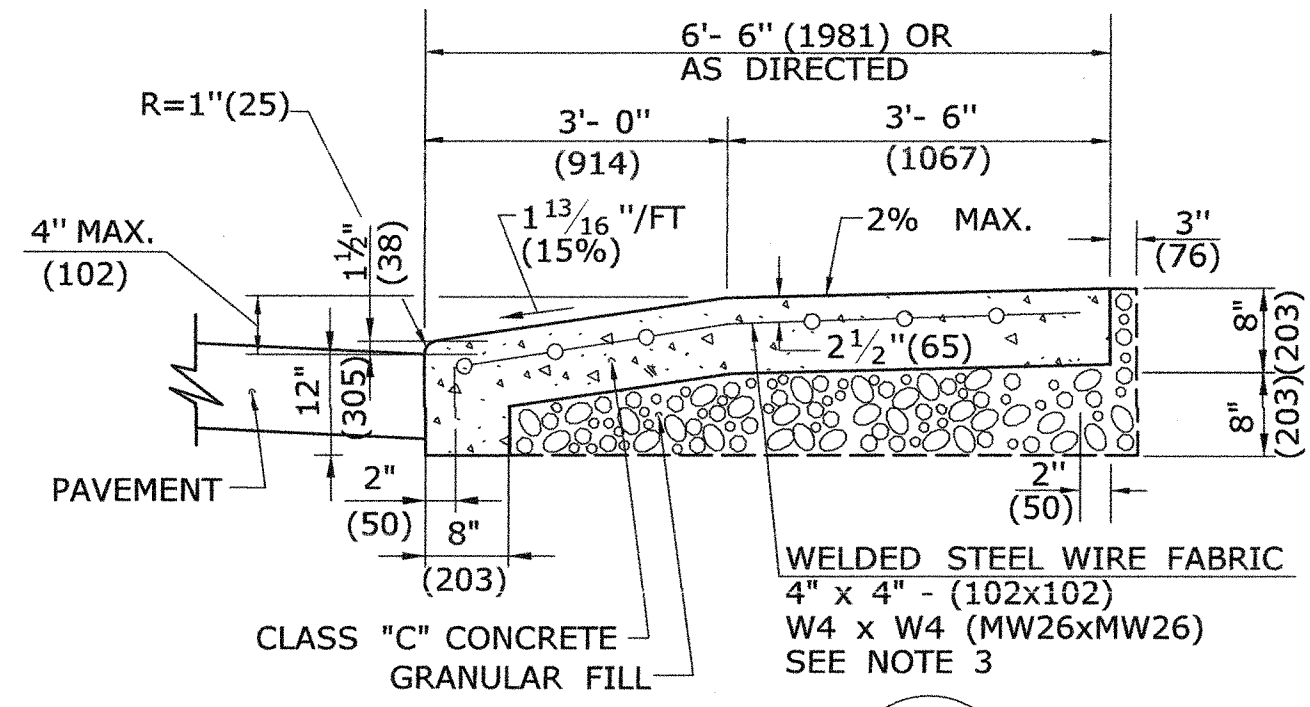
SECTION A



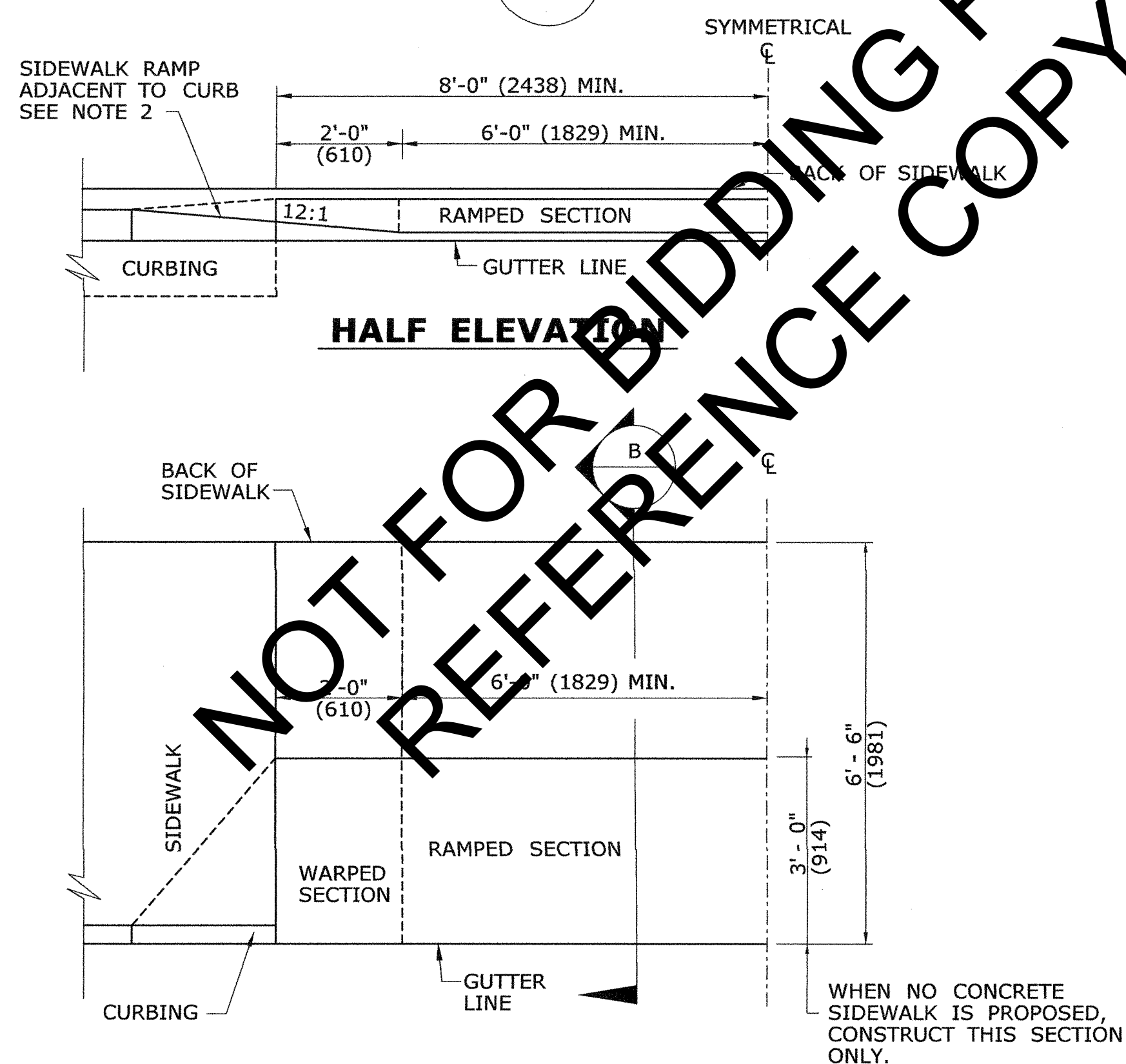
**TYPICAL SECTION
BITUMINOUS CONCRETE
SIDEWALK AND DRIVE**



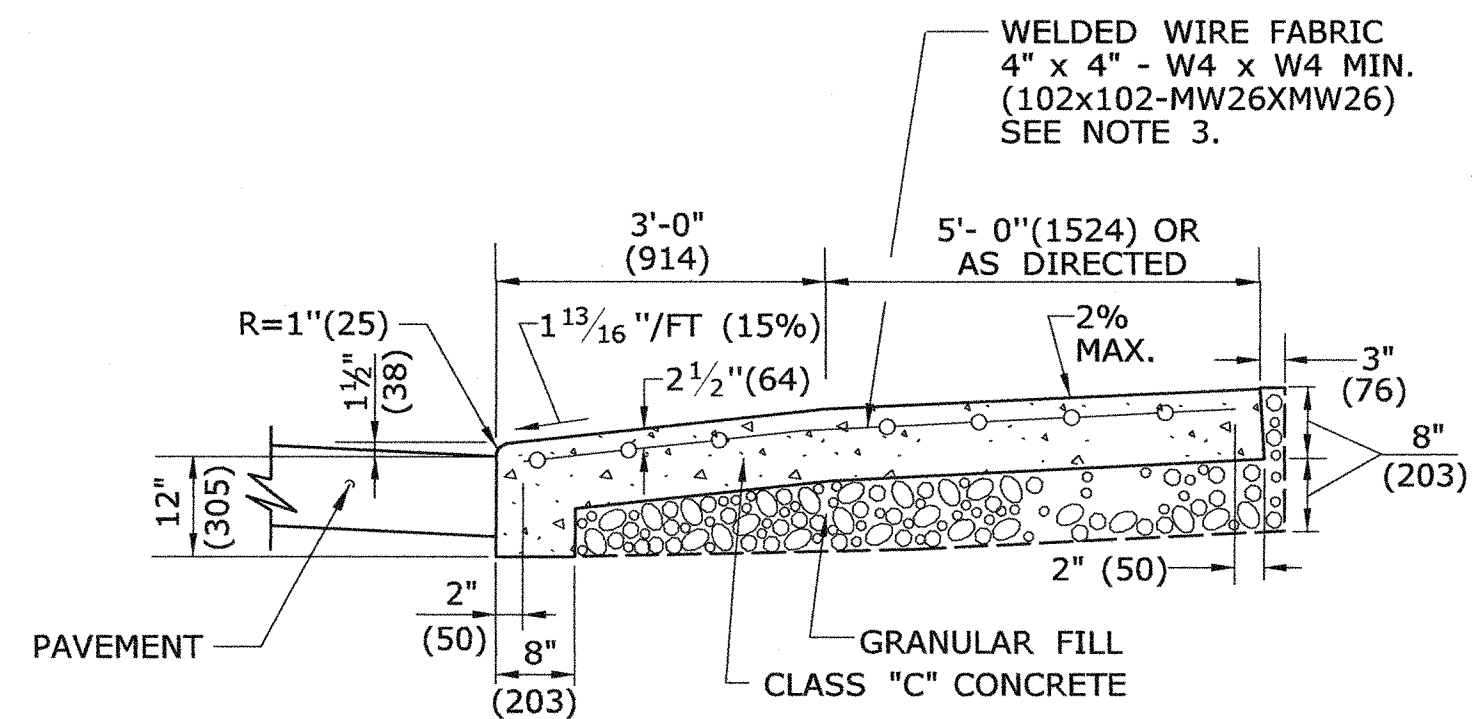
**HALF BITUMINOUS CONCRETE
DRIVEWAY PLAN**



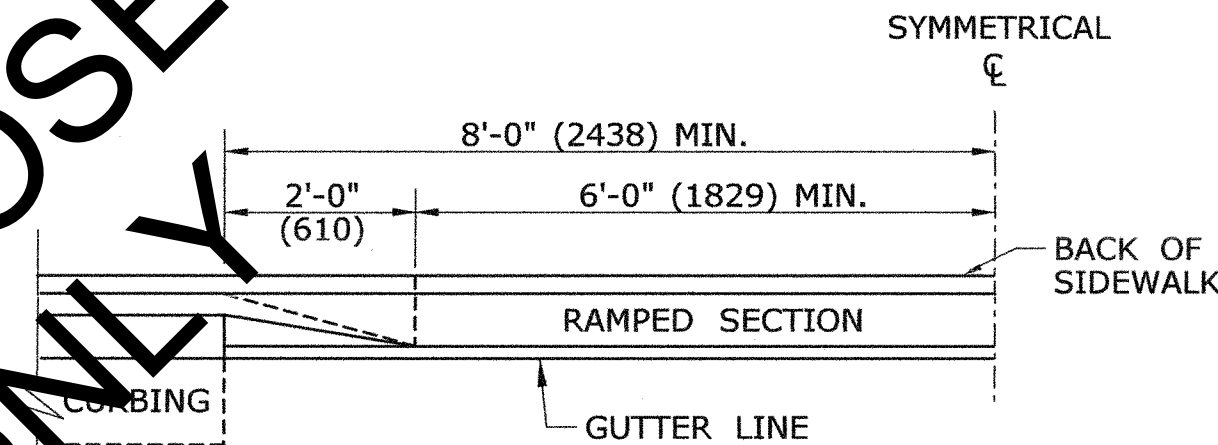
SECTION B



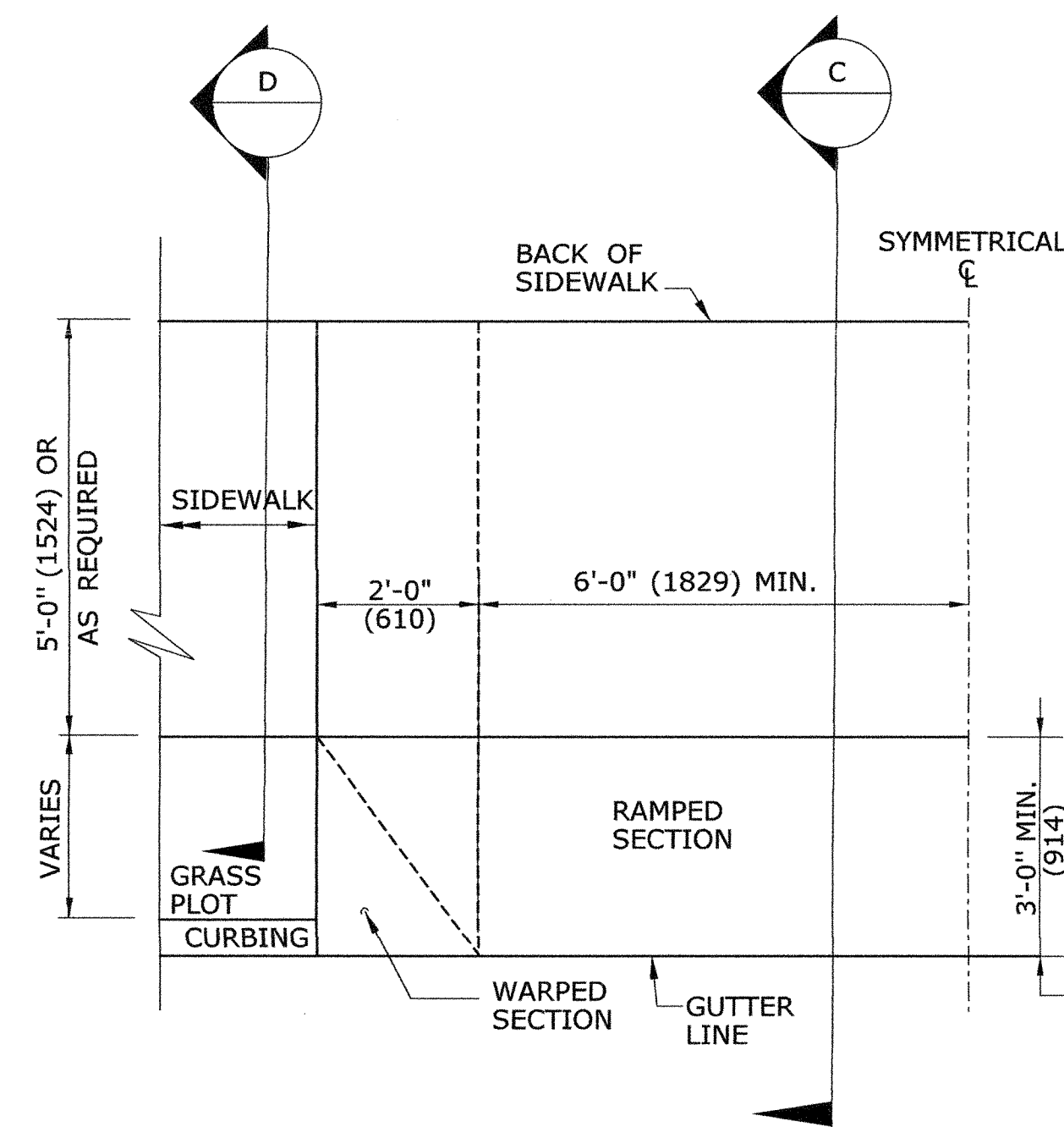
**HALF PLAN OF
CONCRETE DRIVEWAY RAMP WHERE
SIDEWALK ADJOINS CURBING**



SECTION C



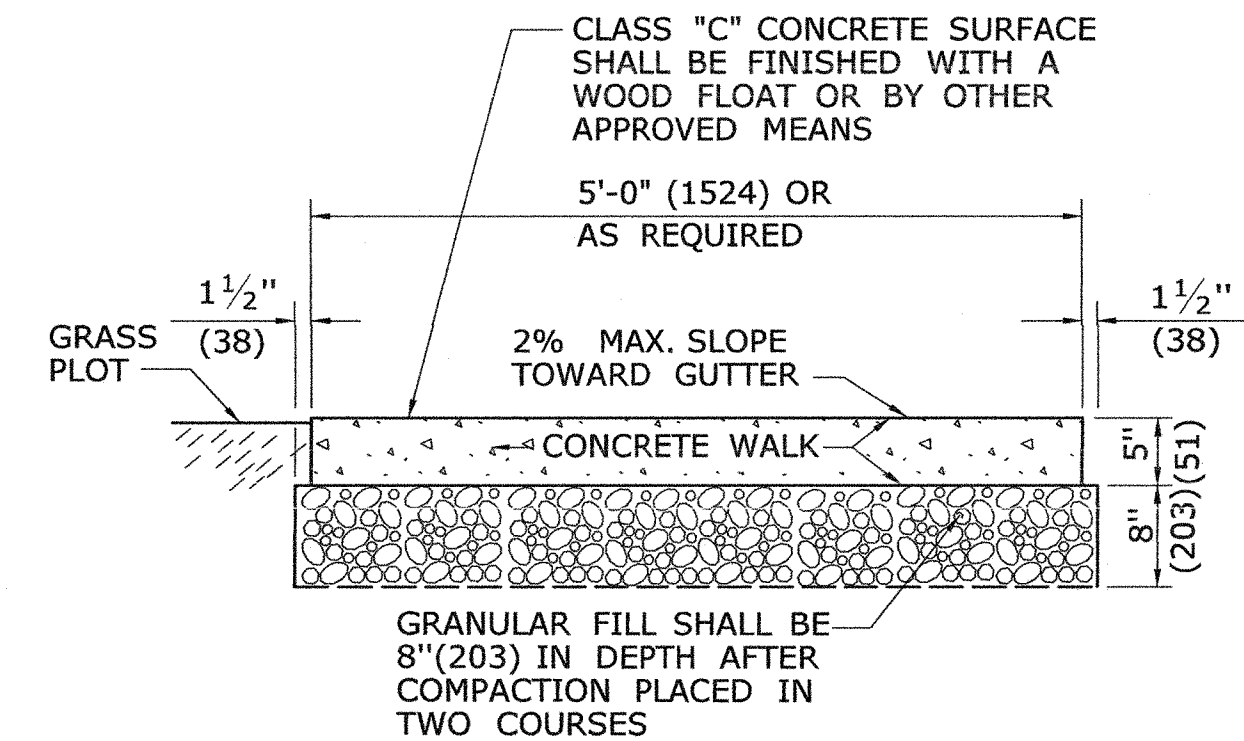
HALF ELEVATION



**HALF PLAN OF
CONCRETE DRIVEWAY RAMP WHERE
CURB IS SEPARATED FROM
SIDEWALK BY GRASS PLOT**

GENERAL NOTES:


1. DRIVEWAY ENTRANCE SHALL BE A MINIMUM OF 12' (3658) WIDE, EXCLUDING CURBING WHEN PRESENT.
2. SIDEWALK RAMP SHALL BE A MINIMUM OF 36" (914) TO 40" (1016) MAXIMUM, WITH A MAXIMUM SLOPE OF 12:1. THERE SHALL BE NO LIP AT THE DRIVEWAY SIDEWALK INTERFACE.
3. WELDED WIRE FABRIC MATS WITH REINFORCING AT CLOSER SPACING MAY BE USED.



SECTION D

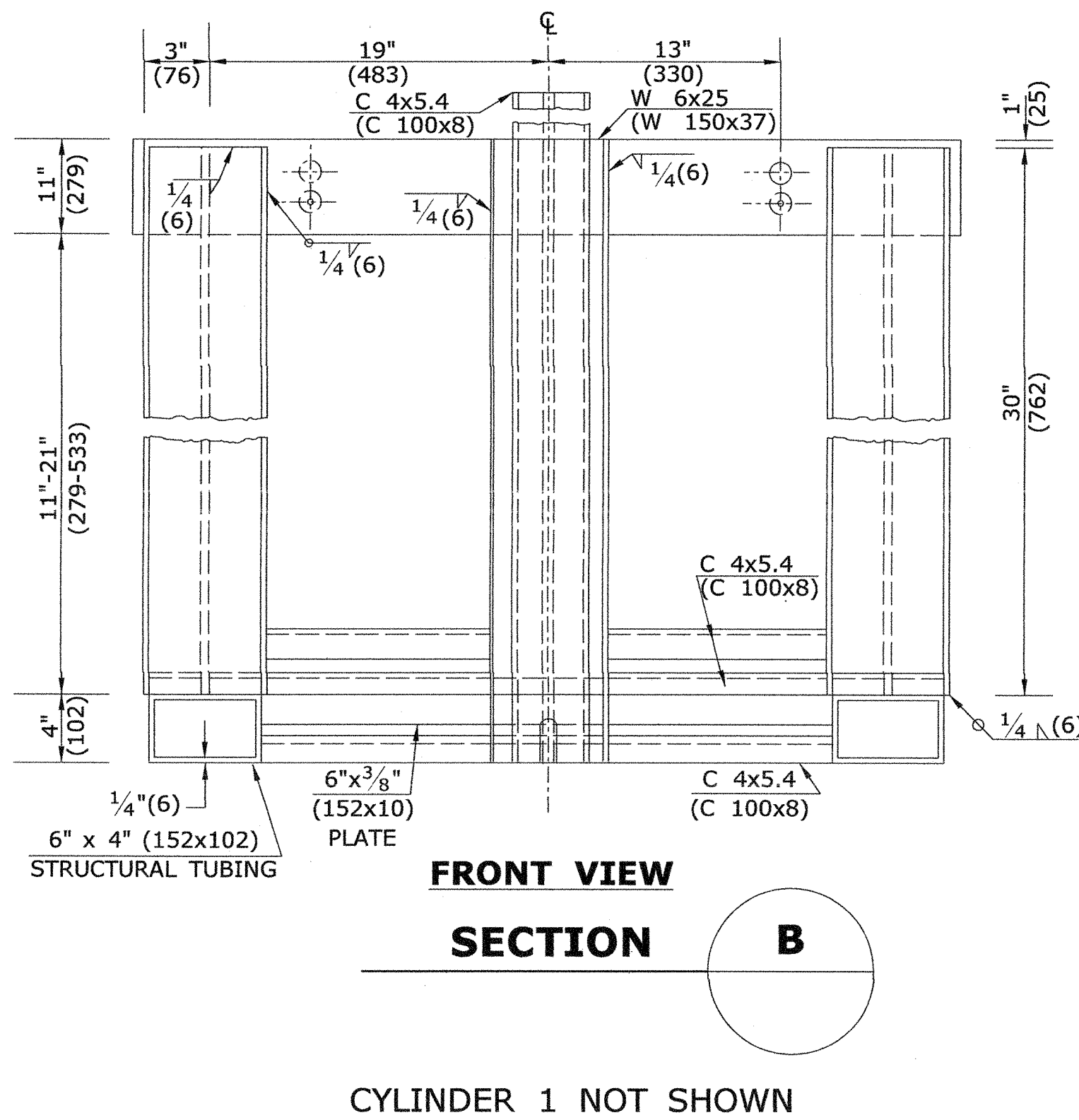
**5' (1524) WIDE CONCRETE
SIDEWALK WITH GRASS PLOT**

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED

1	6/01/10	REVISED BORDER TITLE	THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	NOT TO SCALE	<div><div></div><div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div><div><div>Filename: Jan2012.dgn</div><div>Model: HW-921_01</div></div></div>	<div>SUBMITTED BY:NAME/DATE/TIME:</div> <div></div>	<div>CTDOT STANDARD SHEET</div> <div>OFFICE OF ENGINEERING</div>	STANDARD SHEET TITLE: DRIVEWAY RAMPS AND SIDEWALKS	STANDARD SHEET NO.: HW-921_01
2	6/01/10	REVISED HALF ELEVATION DETAILS							
3	1/12	REVISE 2% MAX. SLOPE NOTE							
-	-	-							
-	-	-							
-	-	-							
REV.	DATE	REVISION DESCRIPTION	Plotted Date: 1/9/2012						

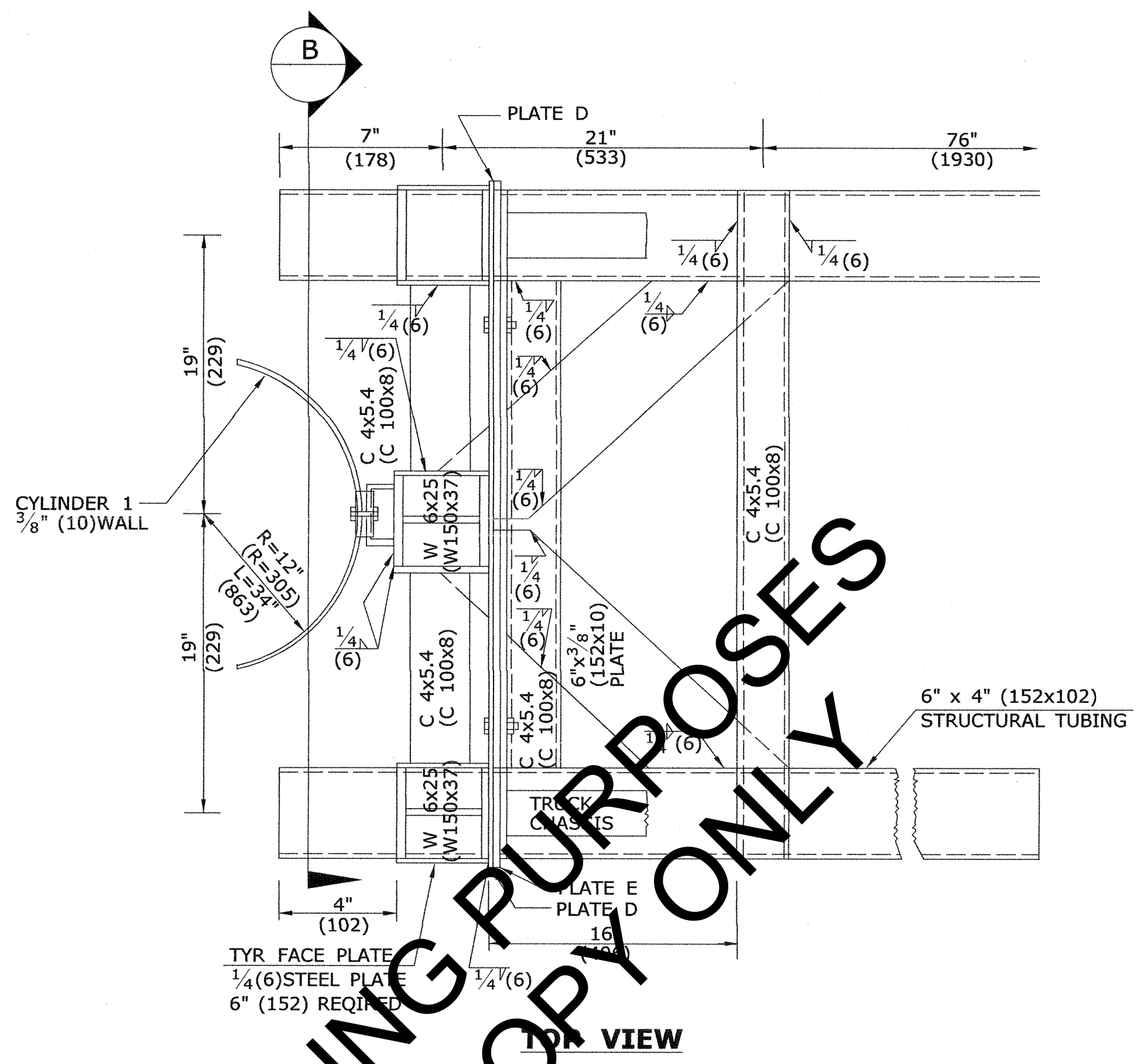
- GENERAL NOTES :
- FRONT AND REAR CASTER / JACK ASSEMBLY NOTES:
1. JACK SHALL BE SIDEWIND TYPE HAVING A LIFTING CAPACITY OF 1000LBS AND THROW DISTANCE OF 18" (457)
 2. SWIVEL CASTER SHALL BE STEEL
 3. THE LOCATION OF THE JACK MOUNT IN RELATION TO THE GROUND SHALL BE DETERMINED BY THE JACK SIZE AND MANUFACTURER'S SPECIFICATIONS.

NOTE: POSITION AND ATTACH SHOES TO CHASSIS AS REQUIRED TO ACCEPT FORWARD END OF 6" x 4" (152x102) BOX BEAMS

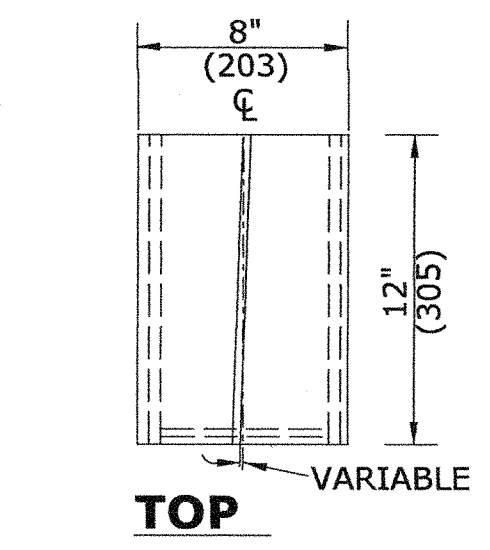


FRONT VIEW
SECTION B

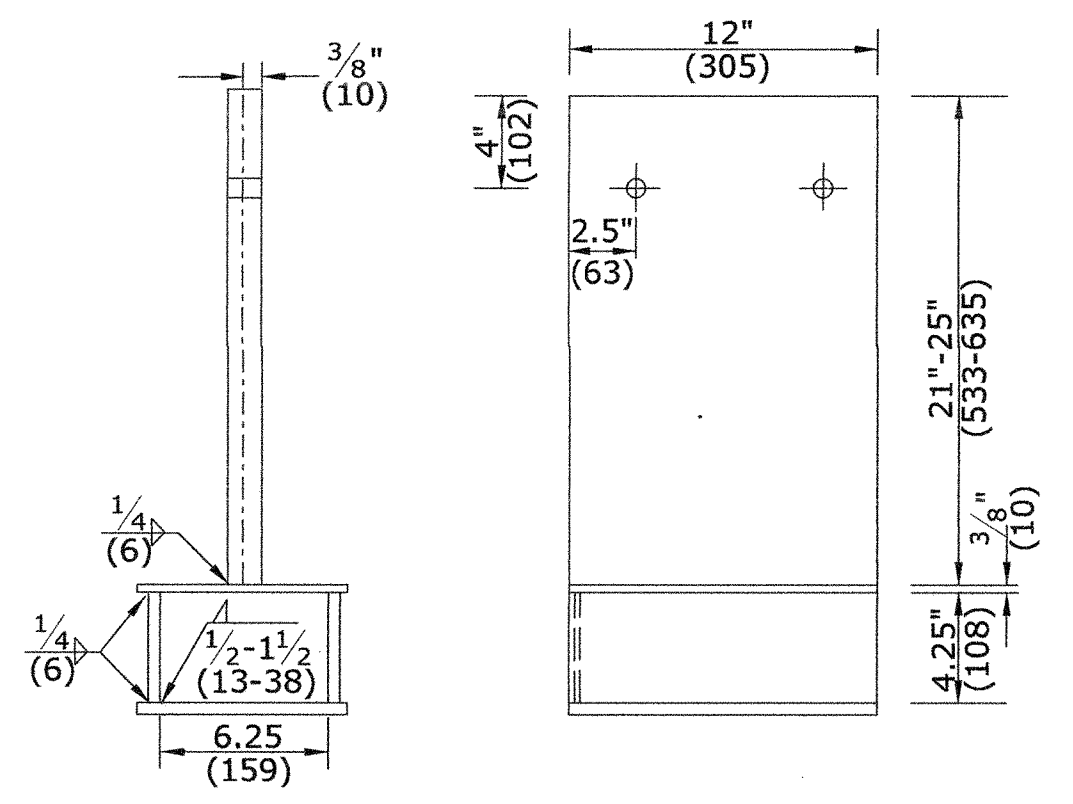
CYLINDER 1 NOT SHOWN



TOP VIEW



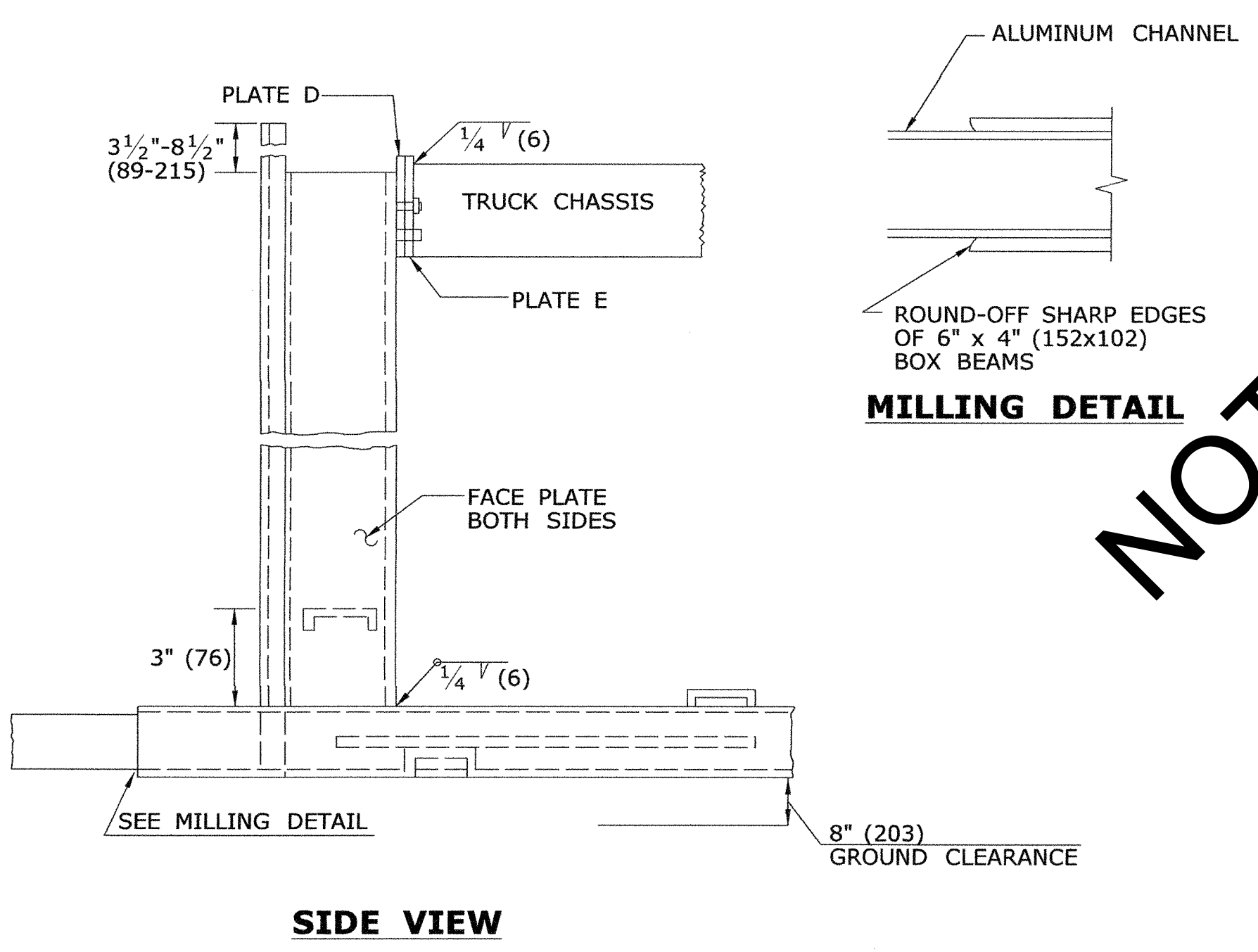
TOP



SIDE

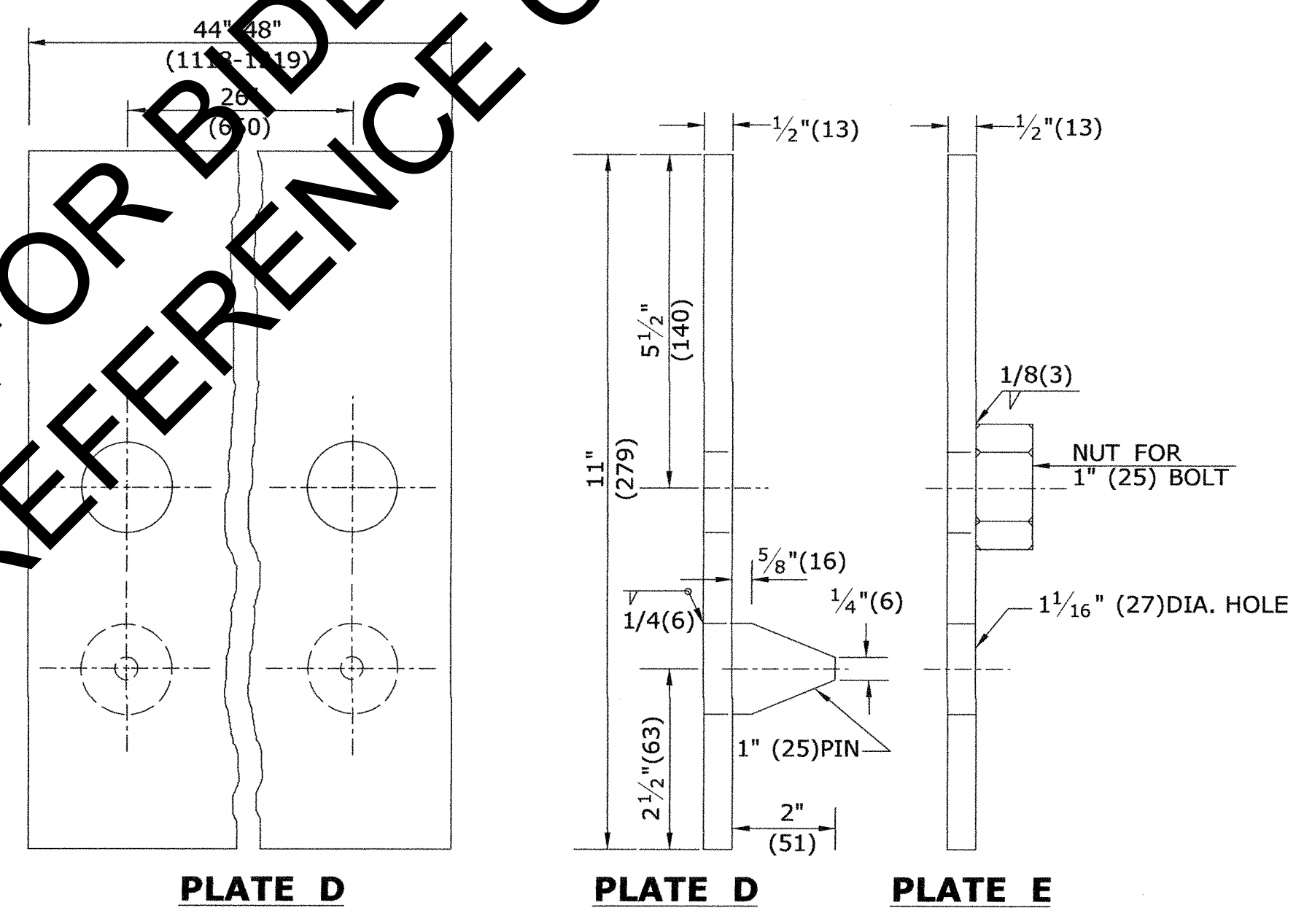
FRONT

SUPPORT SHOE (2 REQUIRED)
A36 STEEL 3/8" (10)



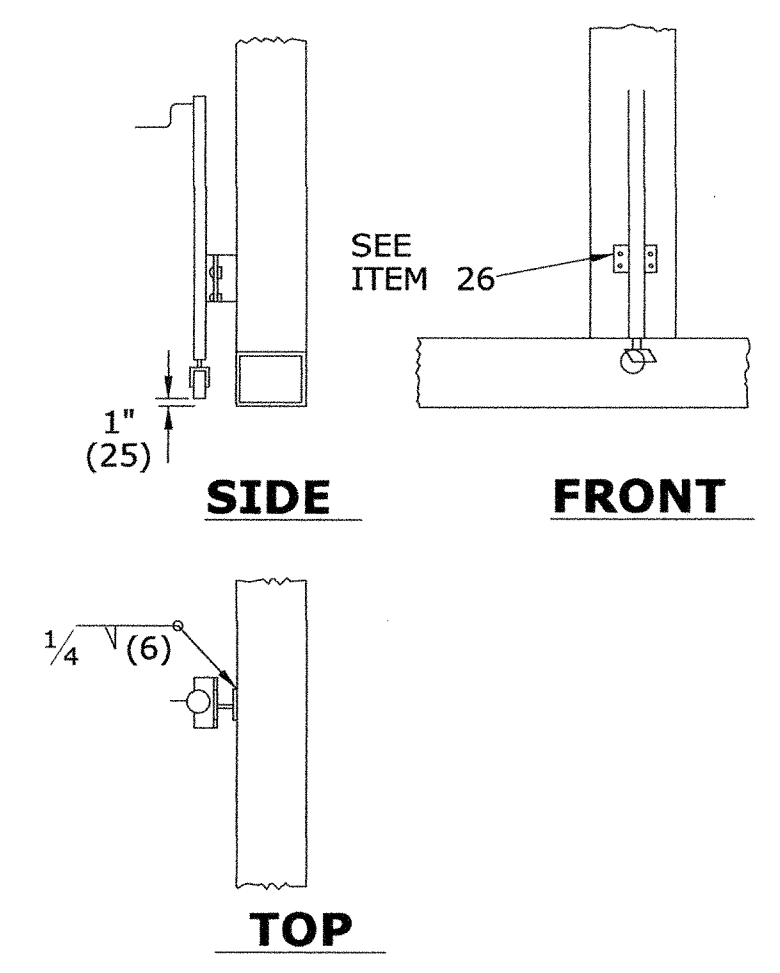
SIDE VIEW

MILLING DETAIL



ATTACHMENT TO TRUCK
ALIGNMENT PIN DETAIL

STEEL GUIDE FRAME DETAILS



SIDE

FRONT


TOP

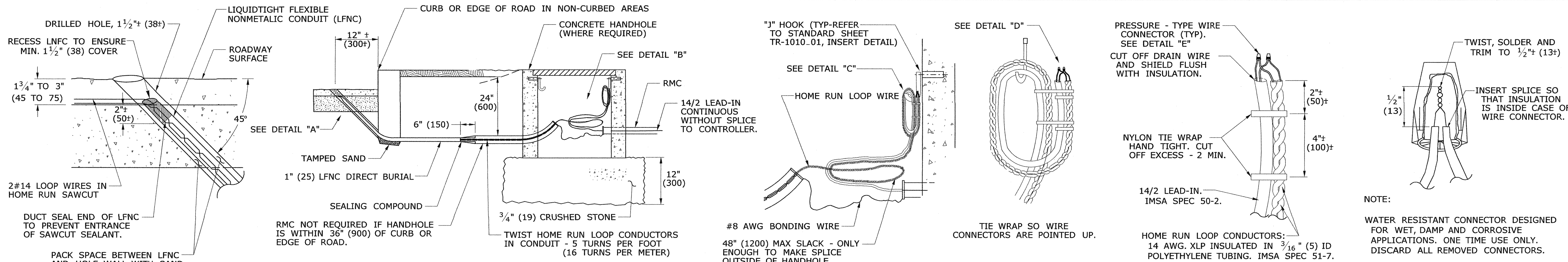
CASTER DETAIL

ONLY STANDARD SHEETS MARKED WITH AN "✓" ARE IN THIS PROJECT #

[illegible]

STANDARD SHEETS SHALL BE USED WITH STANDARD SPECIFICATIONS

			<div>THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.</div> <div>Plotted Date: 4/11/2014</div>	NOT TO SCALE	<div><div><div></div><div>STATE OF CONNECTICUT</div><div>DEPARTMENT OF TRANSPORTATION</div></div><div><div>Filename: CTDOT_TRAFFIC.STD.DGN</div><div>Model: TR-01-STD_INDEX</div></div></div>	<div>SUBMITTED BY:</div> <div>NAME/DATE/TIME:</div>	<div>CTDOT</div> <div>STANDARD SHEET</div> <div>OFFICE OF ENGINEERING</div>	<div>STANDARD SHEET TITLE:</div> <div>TRAFFIC</div> <div>STANDARD SHEET INDEX</div>	<div>STANDARD SHEET NO.:</div> <div>TR-STD_INDEX</div>
3	4-2014	REMOVED TR-1111_02.							
2	1-2014	REMOVED TR-1103_01.							
1	4-2012	RENUMBERED TR-1107_02 TO TR-1114_01. REMOVED TR-1116_01.							
REV	DATE	REVISION DESCRIPTION							



DETAIL "A"

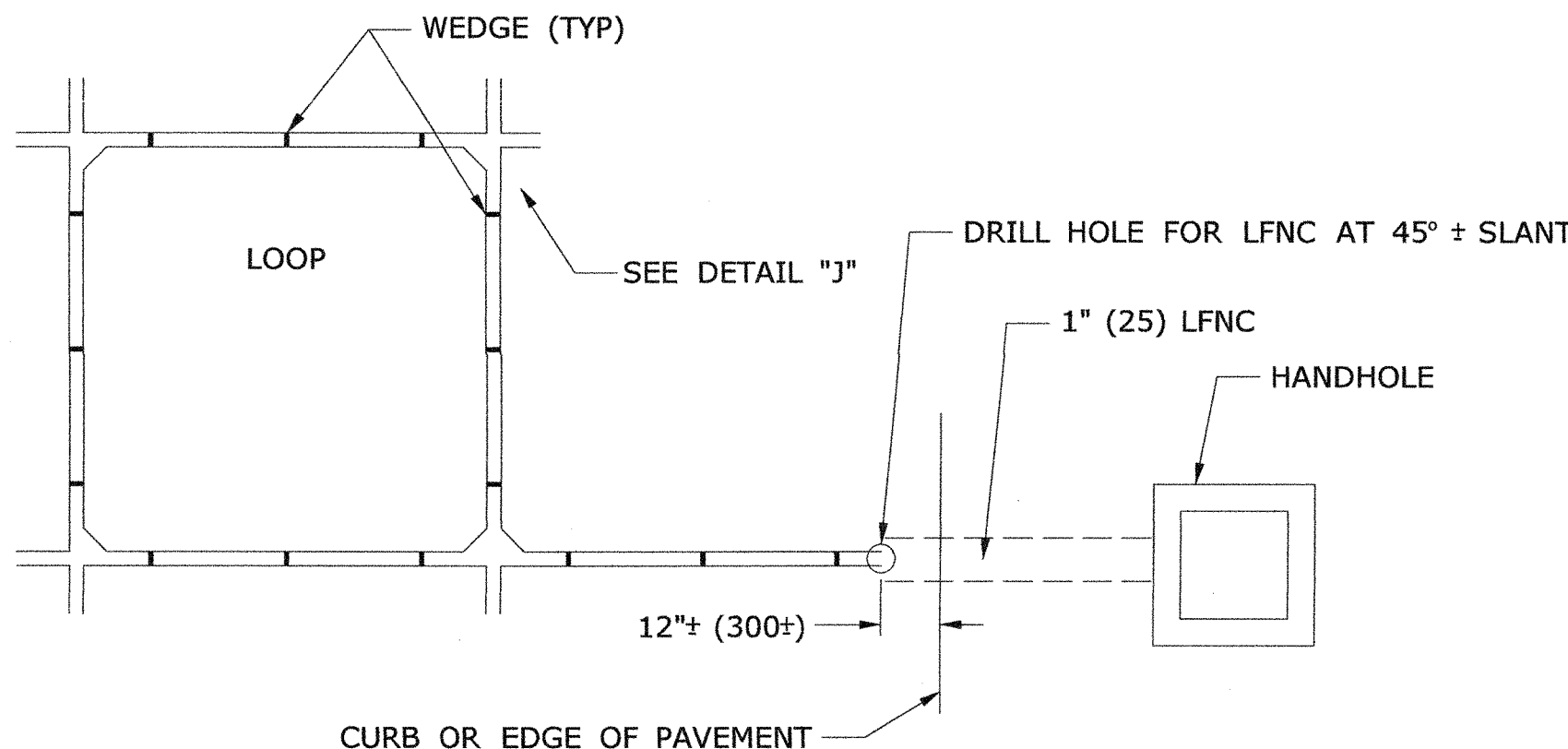
TYPICAL ELEVATION VIEW
LOOP DETECTOR LEAD-IN

DETAIL "B"

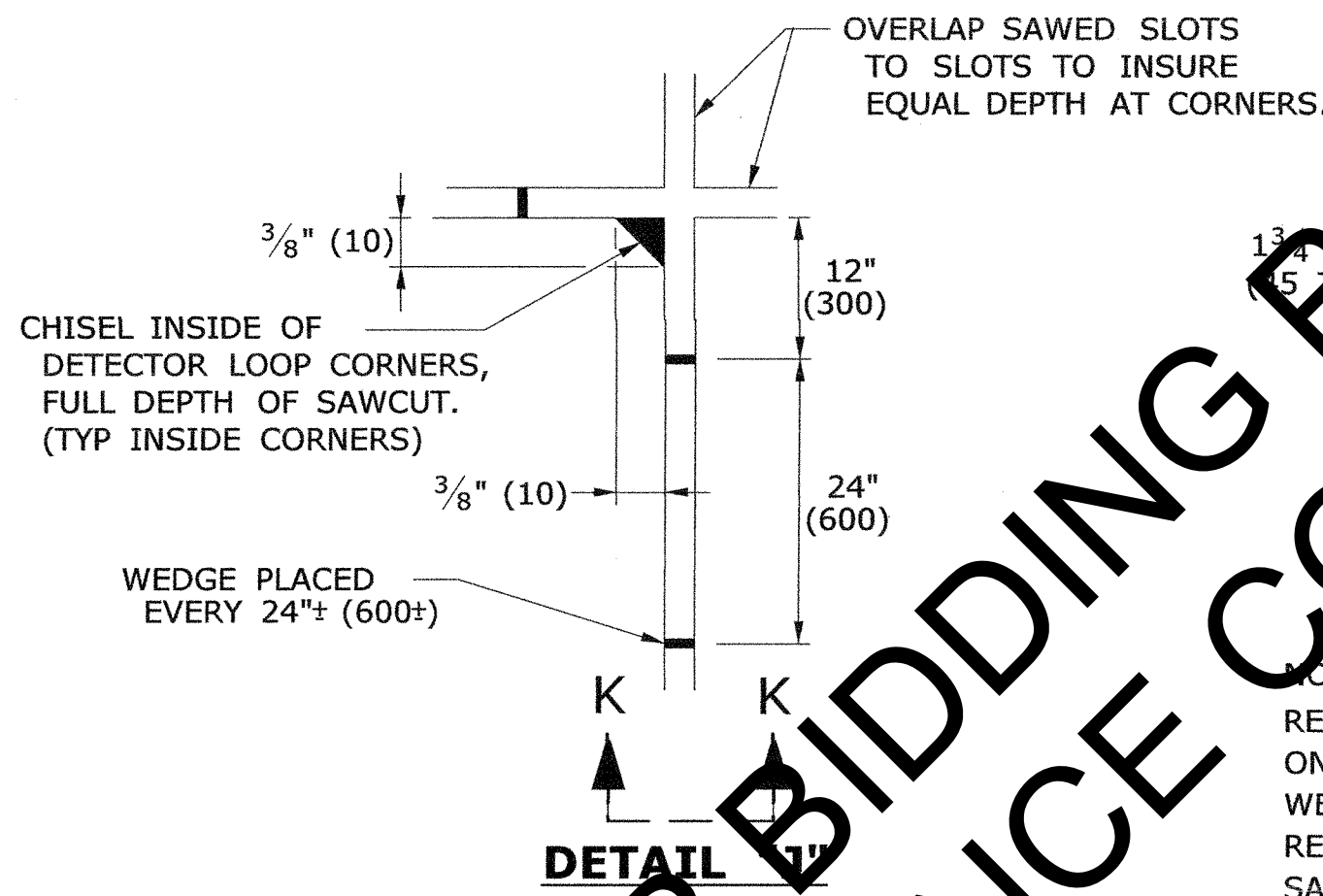
DETAIL "C"
FRONT VIEW

DETAIL "D"

DETAIL "E"

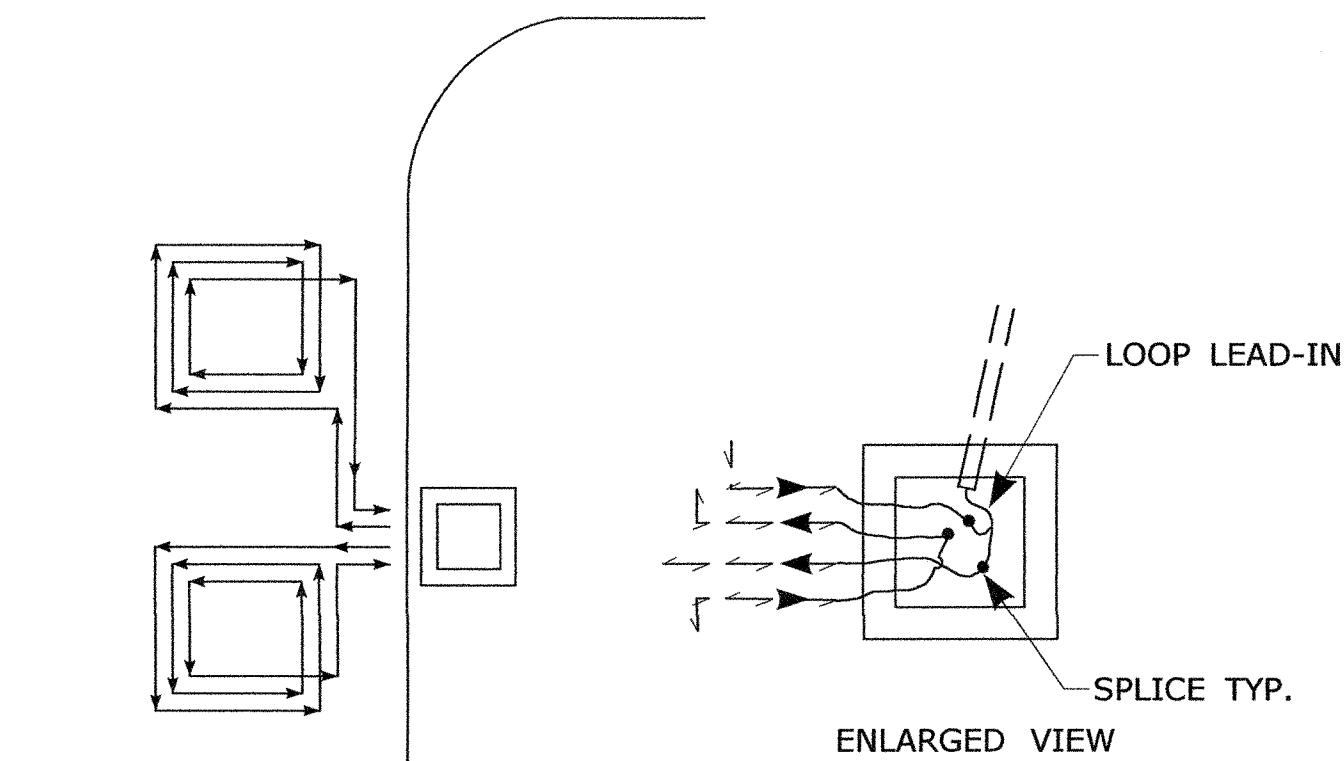


TYPICAL PLAN VIEW
LOOP DETECTOR SAWCUT AND LEAD-IN



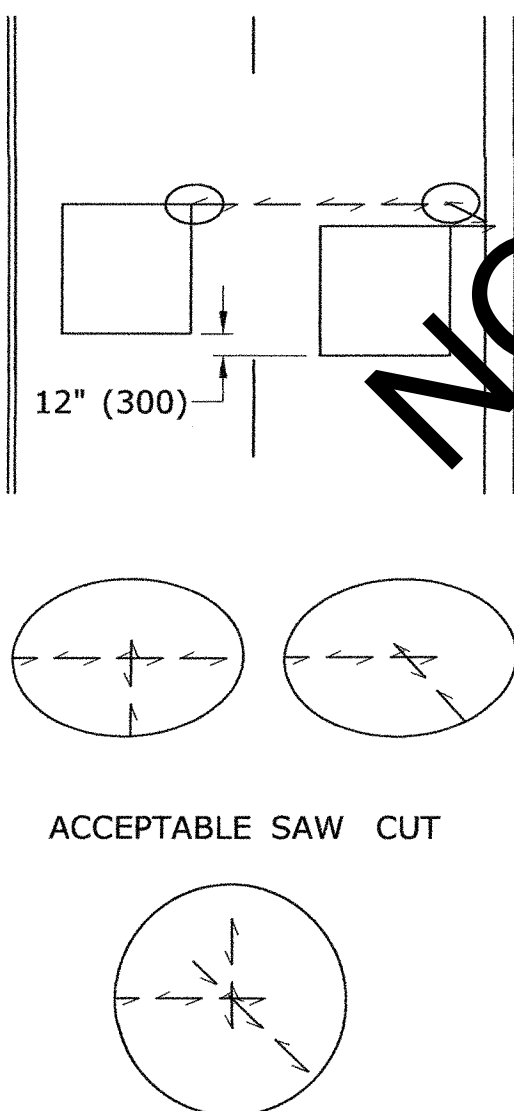
DETAIL "K"

NOTES:
REFER TO STANDARD SPECIFICATIONS, SECTION 11-11.
ONLY USE POLYESTER COMPOUND AS SEALANT, UNLESS OTHER TYPE IS APPROVED BY ENGINEER.
WET SAW CUT ONLY, DRY SAW CUT NOT PERMITTED.
RECOMMENDED SAW BLADE: 14" x 3/8" (350 x 10) PRODUCES 7/16" (11) SLOT.
SAW CUT LOOP & HOME RUN DEPTH TO ENSURE MIN. 1" (25) SEALANT COVERAGE.

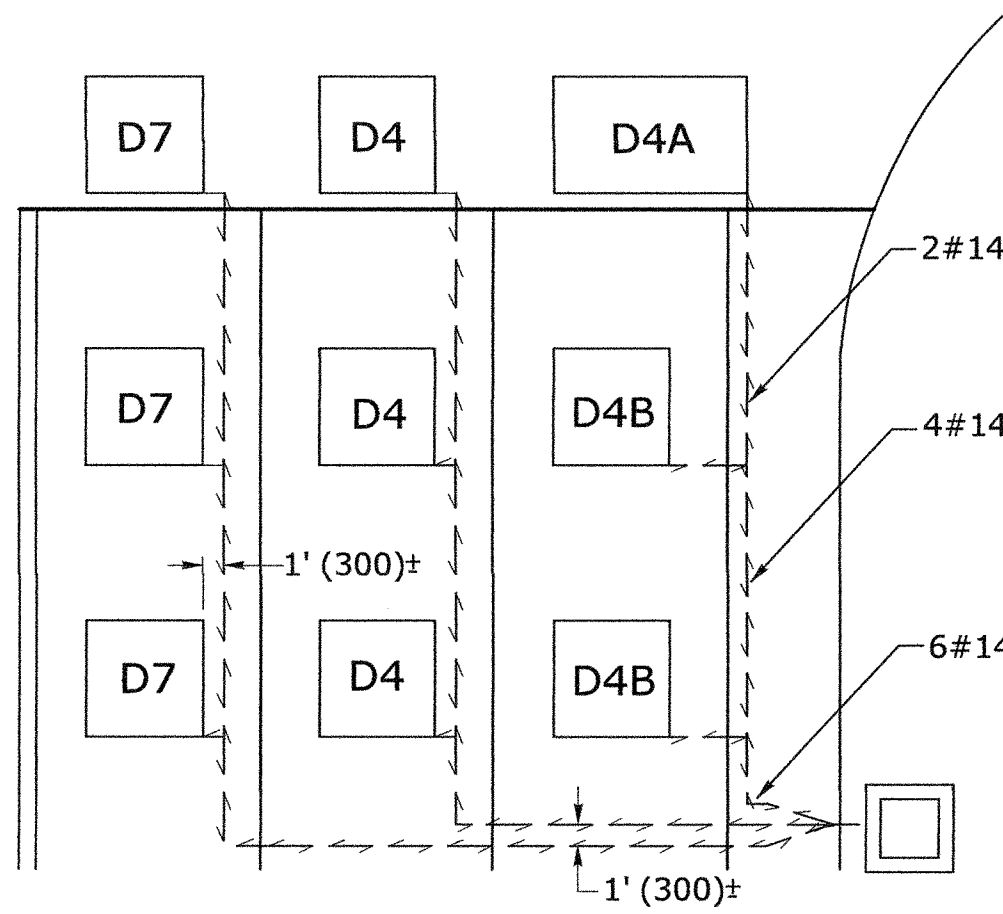


TYPICAL WINDING
SEGMENTED LOOPS, 3 TURNS EACH

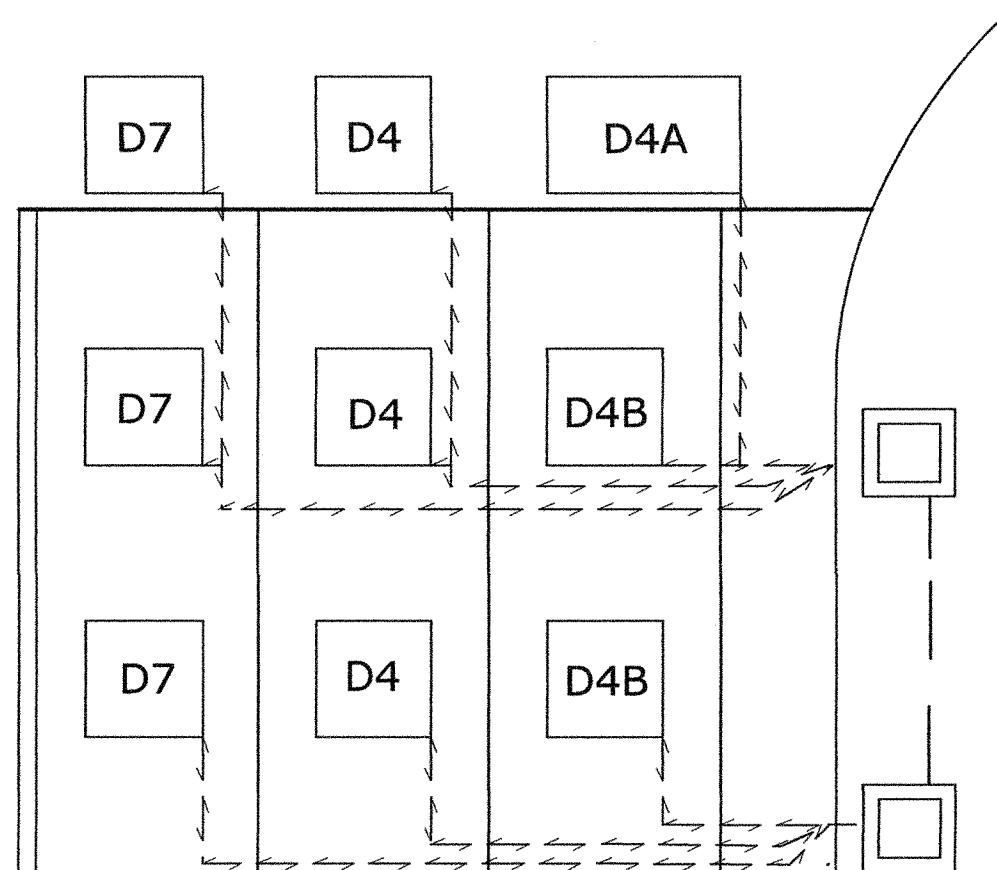
TO CREATE A UNIFORM MAGNETIC FIELD, WIND
ADJACENT LOOPS IN OPPOSITE DIRECTIONS.



DO NOT OVERLAP MORE THAN TWO SAWCUTS.



EXAMPLE A



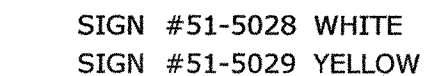
EXAMPLE B

REAR SEGMENTS ALSO USED FOR VOLUME COUNTS

LEGEND AS SHOWN ON TRAFFIC CONTROL SIGNAL PLAN:
□ INDUCTIVE LOOP DETECTOR
--- SAW CUT
--- RIGID METAL CONDUIT
□ HANDHOLE

THE INFORMATION INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.			DIMENSIONS ARE IN ENGLISH ("') & METRIC UNITS (mm). METRIC DIMENSIONS ARE ROUNDED: - OVER 1" TO NEAREST 5 mm - UNDER 1" TO NEAREST 1 mm.		SUBMITTED BY: NAME/DATE/TIME:		STANDARD SHEET TITLE:		STANDARD SHEET NO.:	
3 4-2014 DETAIL "B" - REVISED "J" HOOK NOTE.			STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION		APPROVED BY: NAME/DATE/TIME:		CTDOT STANDARD SHEET		LOOP VEHICLE DETECTOR AND SAWCUT	
2 7-2012 DELETED URETHANE SEALANT NOTE FROM DETAIL "L"			NOT TO SCALE				OFFICE OF ENGINEERING		TR-1111_01	
1 4-2012 MINOR REVISIONS.			Filename: CTDOT_TRAFFIC_STD.DGN Model: TR-1111_01							
REV.	DATE	REVISION DESCRIPTION	Plotted Date: 4/21/2014							

INSTALLATION ON DELINEATOR POSTS



COLORS: - YELLOW OR WHITE.

DELINEATORS - .063" THK. ALUMINUM ALLOY.

FACE SHALL BE PRESSURE SENSITIVE, SELF ADHERING, TYPE IV, TYPE V, OR TYPE IX RETROREFLECTIVE SHEETING.

DELINEATORS SHALL BE FASTENED WITH 5/16" STAINLESS STEEL ASTM A-193 CLASS 1, GRADE B8 (TYPE 304) OR BETTER HEX HEAD BOLT (LENGTH AS REQUIRED), WASHER AND FIBER INSERT SELF LOCKING NUT, ON STANDARD METAL DELINEATOR POST.

RETROREFLECTIVE SHEETING
16 SQ. IN. MIN.

4'
TO
4'-6"

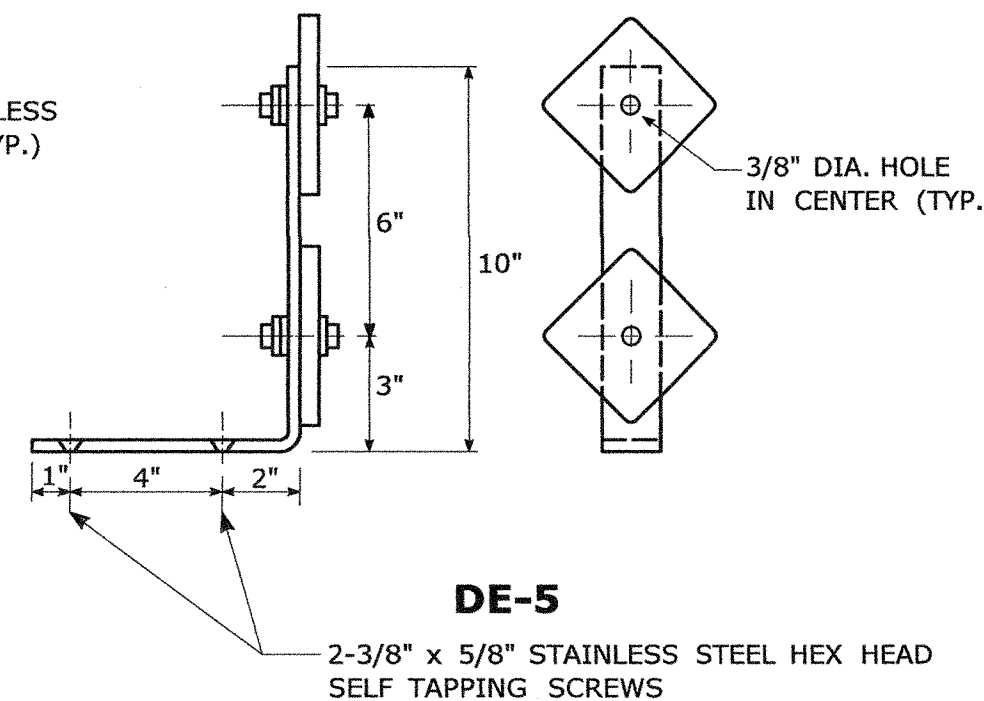
FLEXIBLE DELINEATOR
DE-1, DE-2, OR
OTHER TYPE
ATTACH TO CURB OR PAVEMENT
PER MANUFACTURER'S
INSTRUCTIONS

PAVEMENT

5/16" STAINLESS STEEL ASTM A-193, -
CLASS 1 GRADE B8 (TYPE 304) OR BETTER
HEX HEAD BOLT, LENGTH AS REQ'D (TYP.)

USE STAINLESS STEEL ASTM A-194 —
GRADE 8 (TYPE 304) OR BETTER
WASHER AND LOCKWASHER NUT (TYP.)

DELINEATORS TYPE DE-4, DE-4A AND DE-5 TO BE PAID FOR UNDER SECTION 12.05 DELINEATORS.



DELINEATOR SPACING NOTES:

- 1) LOCATIONS WHERE THE MEDIAN WIDTH (BETWEEN SHOULDERS) IS 12' OR LESS, AND MEDIAN BEAM RAIL IS PRESENT, TYPE DE-3 DELINEATORS SHALL BE MOUNTED WITHIN THE MEDIAN BEAM RAIL.
- 2) SPACING OF MAINLINE EXPRESSWAY TANGENTS SHALL BE 400'.
- 3) SPACING ON MAINLINE EXPRESSWAY CURVES SHALL BE AS SPECIFIED IN TABLE 3F-1 OF THE MUTCD.
- 4) ON ACCELERATION AND DECELERATION LANES AND ON-RAMP TANGENT SECTIONS, DELINEATOR SPACING SHALL BE 100'.
- 5) ON CURVED PORTIONS OF RAMPS, DELINEATOR SPACING SHALL BE IN ACCORDANCE WITH TABLE 3F-1 OF THE MUTCD, BUT NOT TO EXCEED 100'.

LEGEND:

- DE-1 DELINEATORS OR DE-4 DELINEATOR ASSEMBLY
- I DE-2 DELINEATORS OR DE-5 DELINEATOR ASSEMBLY
- X DE-3 DELINEATORS ASSEMBLY OR DE-4A DELINEATOR
- ① D10-1, 2, 3, OR 4 ASSEMBLY TO BE INSTALLED WHEN SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER

COLOR APPLICATION, FOR DE-1 THRU DE-5

LEFT SIDE OF ALL ROADWAYS AND RAMPS - YELLOW
RIGHT SIDE OF ALL ROADWAYS AND RAMPS - WHITE

MUTCD TABLE 3F-1
APPROXIMATE SPACING FOR DELINEATORS
ON HORIZONTAL CURVES

RADIUS (R) OF CURVE (feet)	APPROXIMATE SPACING (S) ON CURVE (feet)
50	20
115	25
180	35
250	40
300	50
400	55
500	65
600	70
700	75
800	80
900	85
1,000	90

DISTANCE IN FEET WERE ROUNDED TO THE NEAREST 5 FEET. SPACING FOR SPECIFIC RADII MAY BE INTERPOLATED FROM TABLE. THE MINIMUM SPACING SHOULD BE 20 FEET. THE SPACING ON CURVES SHOULD NOT EXCEED 300 FEET. IN ADVANCE OF OR BEYOND A CURVE, AND PROCEEDING AWAY FROM THE END OF THE CURVE, THE SPACING OF THE FIRST DELINEATOR IS 2S, THE SECOND IS 3S, AND THE THIRD 6S BUT NOT TO EXCEED 300 FEET.

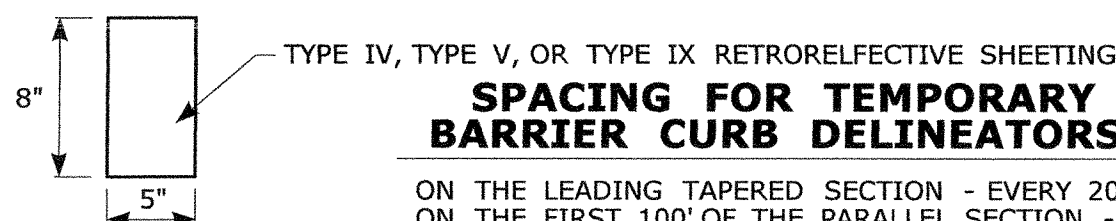
S REFERS TO THE DELINEATOR SPACING FOR SPECIFIC RADII COMPUTED FROM THE FORMULA:

$$S=3\sqrt{R-50}.$$

**DELINEATORS DE-7, DE-7A, DE-7B, DE-7C FOR
INSTALLATION ON TEMPORARY PRECAST CONCRETE BARRIER CURB
AND TEMPORARY PRECAST CONCRETE BARRIER CURB (STRUCTURE)**

DE-7 ONE WAY WHITE
DE-7A ONE WAY YELLOW
DE-7B TWO WAY YELLOW
DE-7C WHITE/YELLOW BACK TO BACK
TEMPORARY PRECAST CONCRETE BARRIER
DELINEATORS ARE TO BE FABRICATED OF
ALUMINUM, STEEL, PLASTIC, OR OF A MATERIAL
APPROVED BY THE ENGINEER AND MOUNTED IN THE
CENTER OF EACH SECTION OF TEMPORARY BARRIER AS
REQUIRED AND PER MANUFACTURER'S INSTRUCTIONS.

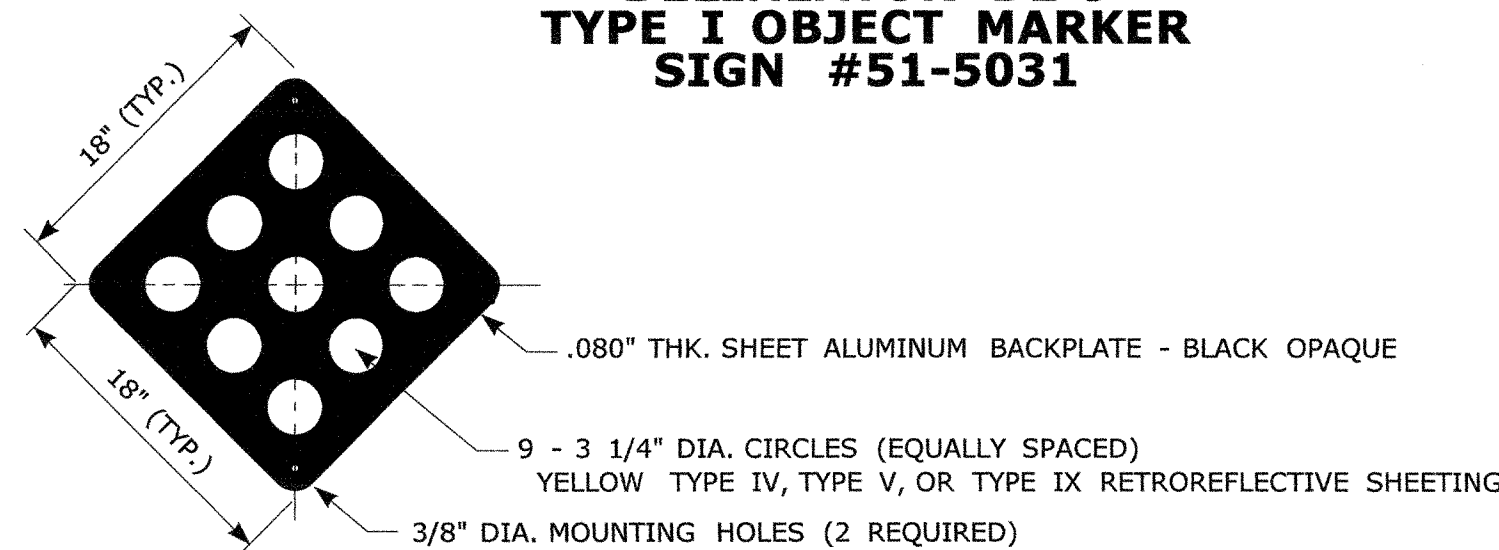
**DELINEATORS DE-7, DE-7A, DE-7B, DE-7C
TO BE PAID FOR UNDER SECTION 12.05 DELINEATORS.**



**SPACING FOR TEMPORARY
BARRIER CURB DELINEATORS:**

ON THE LEADING TAPERED SECTION - EVERY 20',
ON THE FIRST 100' OF THE PARALLEL SECTION - EVERY 20'
ON THE REMAINING LENGTH - EVERY 100', MINIMUM OF 2
IF LESS THAN 100',
ALTERNATING ONE WAY TRAFFIC - EVERY 20',
ALL OTHER ROADWAYS SHALL BE DELINEATED IN
ACCORDANCE WITH MUTCD.

**DELINEATOR DE-9
TYPE I OBJECT MARKER
SIGN #51-5031**



WHEN ERECTED AS A SEPARATE INSTALLATION A 3lb. METAL SIGN POST SHALL BE USED
THE BOTTOM OF THE DE-9 SHALL BE 4' ABOVE THE ADJACENT PAVEMENT AND
THE PENETRATION OF THE POST SHALL BE 38" MINIMUM BELOW THE FINISHED GRADE.

DELINEATORS DE-9 TO BE PAID FOR UNDER SECTION 12.05 DELINEATORS.

DELINEATOR D10-1, D10-2, D10-3, D10-4
INCIDENT MANAGEMENT AND MILE POST MARKER ASSEMBLY

D10-1 SIGN # 51-5300 INCIDENT MANAGEMENT MARKER,
ONE DIGIT WITH DECIMAL

D10-2 SIGN # 51-5304 INCIDENT MANAGEMENT MARKER,
TWO DIGITS WITH DECIMAL

D10-3 SIGN # 51-5305 INCIDENT MANAGEMENT MARKER,
THREE DIGITS WITH DECIMAL

TYPE IV RETRO-REFLECTIVE SHEETING

3/4" MIN. METAL SIGN POST (TYP.)

PENETRATION OF POST SHALL BE

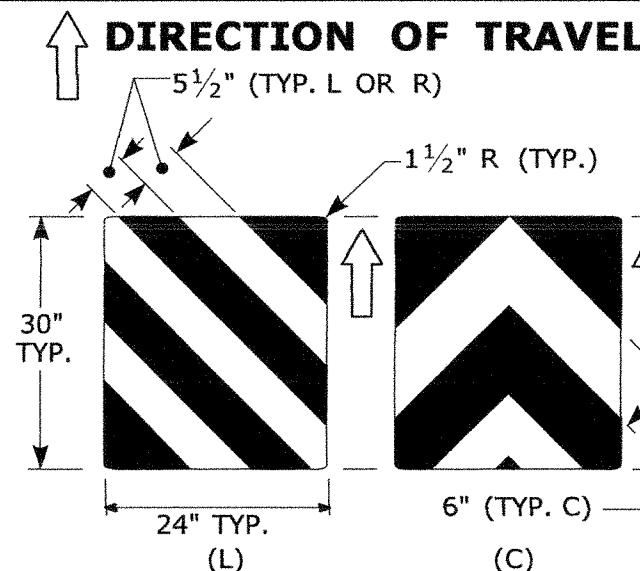
3/8" MINIMUM BELOW FINISHED GRADE

D10-4 SIGN # 51-5307 MILE MARKER,
VARIABLE CARDINAL DIRECTION,
VARIABLE SHIELD,
VARIABLE NUMERALS

TYPE IV RETROREFLECTIVE SHEETING

3lb. METAL SIGN POST (TYP.)
PENETRATION OF POST SHALL BE
38" MINIMUM BELOW FINISHED GRADE

INCIDENT MANAGEMENT AND MILE POST MARKER ASSEMBLY TO BE PAID FOR UNDER SECTION 12.08 SIGN FACE SHEET ALUMINUM

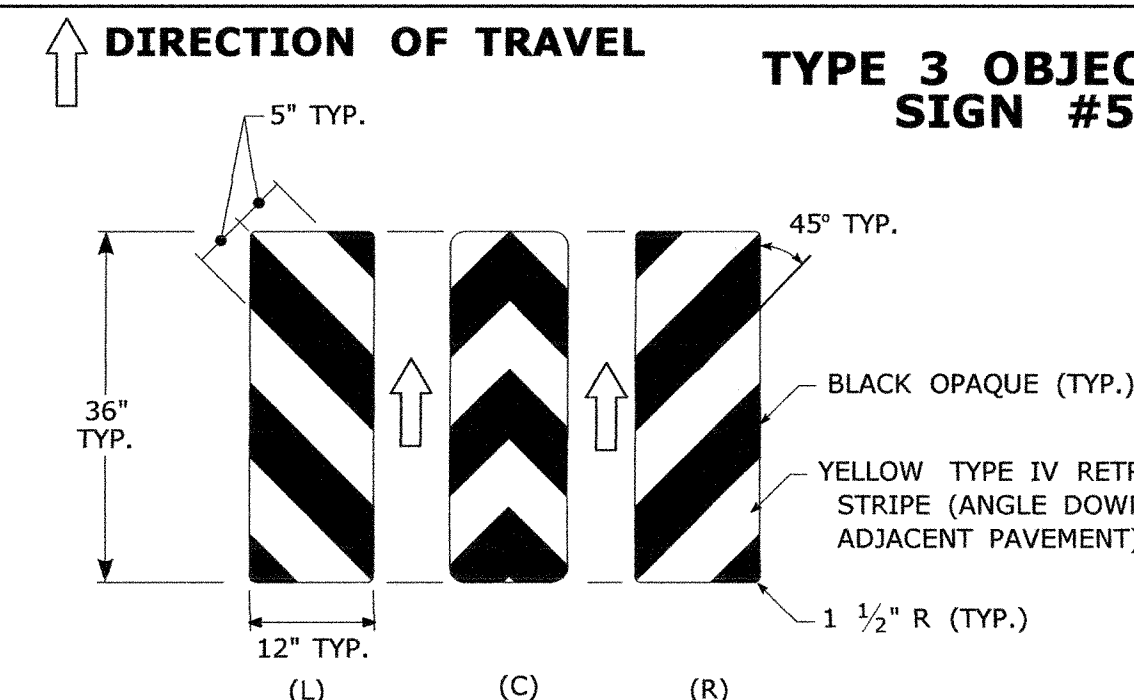


**ATTENUATOR REFLECTOR
SIGN #50-5032**

THIS SHEETING TO BE INSTALLED ON THE NOSE OF THE
IMPACT ATTENUATOR WITH ADHESIVE IN ACCORDANCE
WITH THE MANUFACTURER'S RECOMMENDATIONS.
THE SHEETING SHALL COVER THE NOSE OF
THE IMPACT ATTENUATOR.
ON A CURVED NOSE, THE WIDTH OF THE SHEETING SHALL
EXTEND 1" BEYOND THE POINT OF CURVATURE ON
EACH SIDE OF THE NOSE.
THE HEIGHT AND WIDTH OF THE SHEETING VARIES DEPENDING
ON THE SIZE OF THE NOSE OF THE IMPACT ATTENUATOR.

- BLACK OPAQUE (TYP.)
YELLOW TYPE IV RETROREFLECTORIZED
STRIPE (ANGLE DOWNWARD TOWARD ADJACENT PAVEMENT) (TYP.)

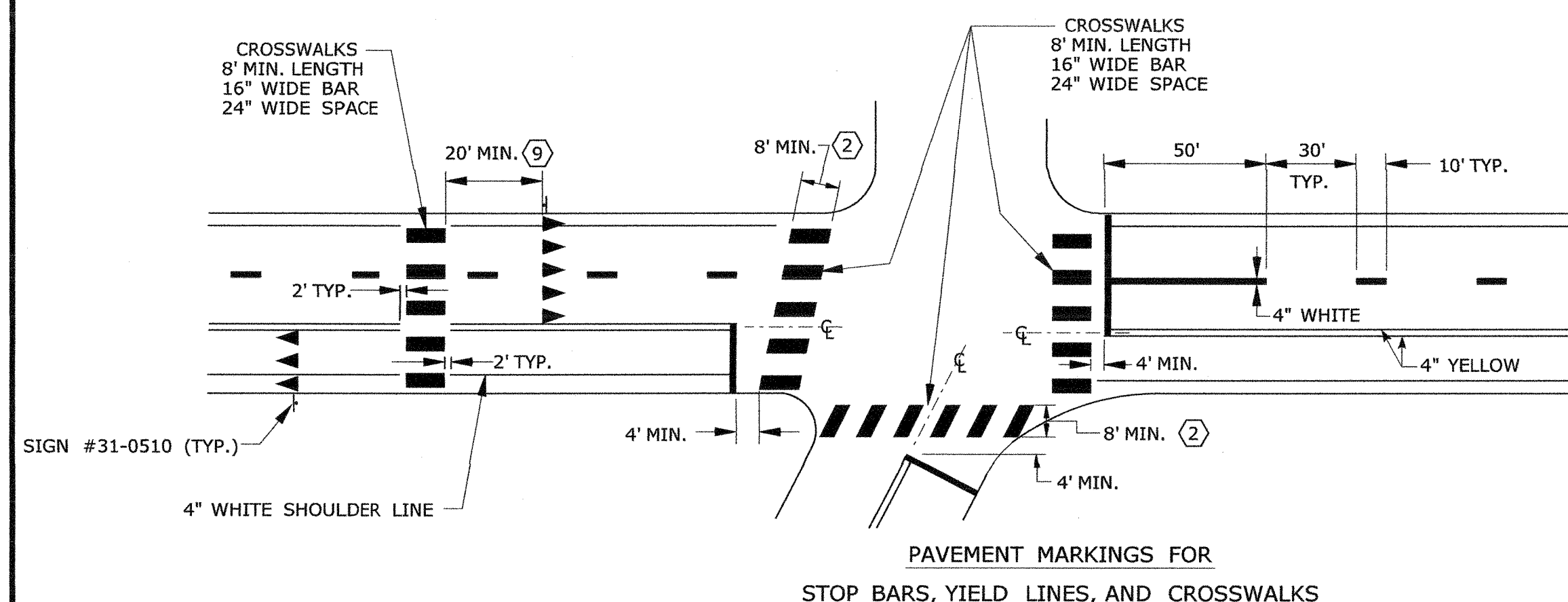
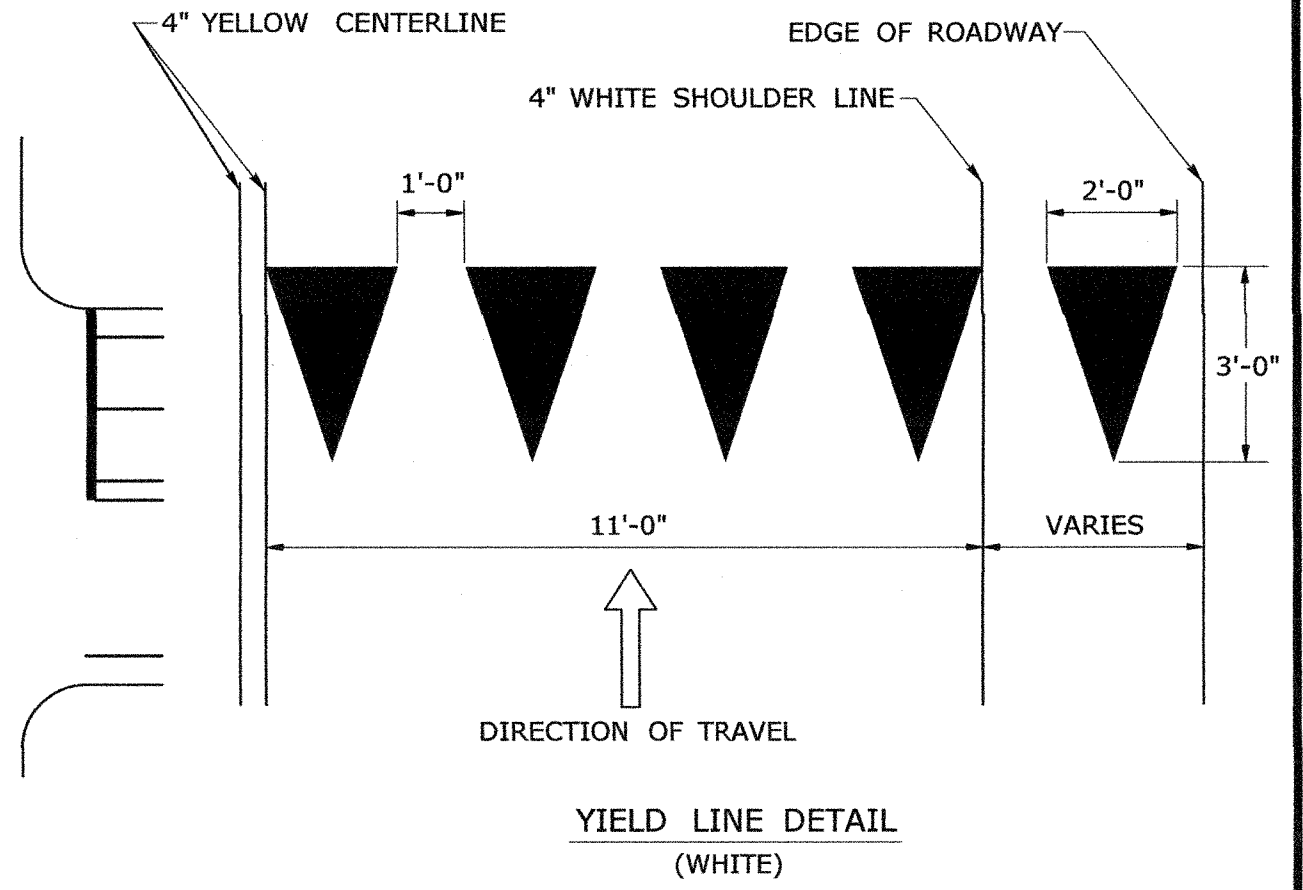
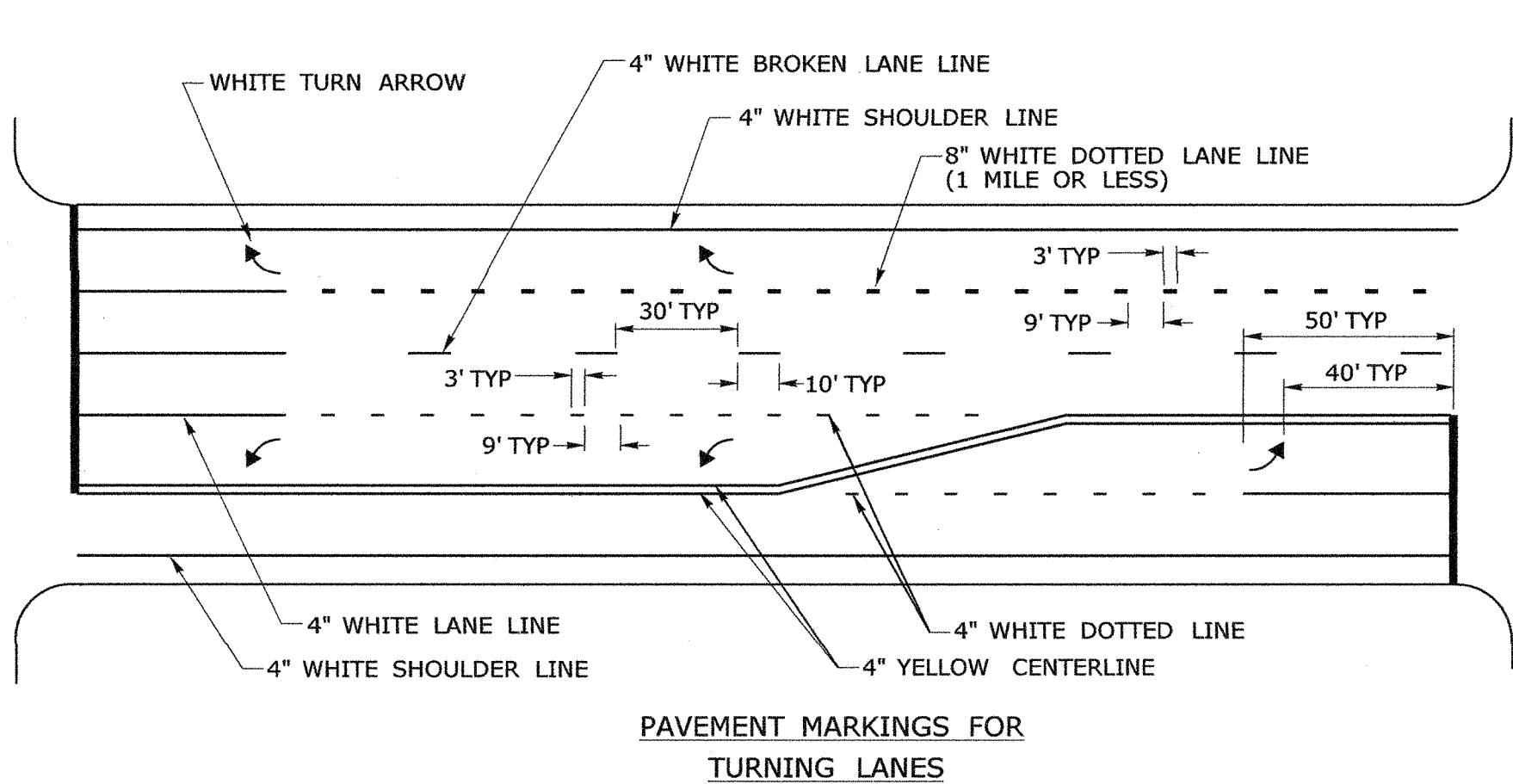
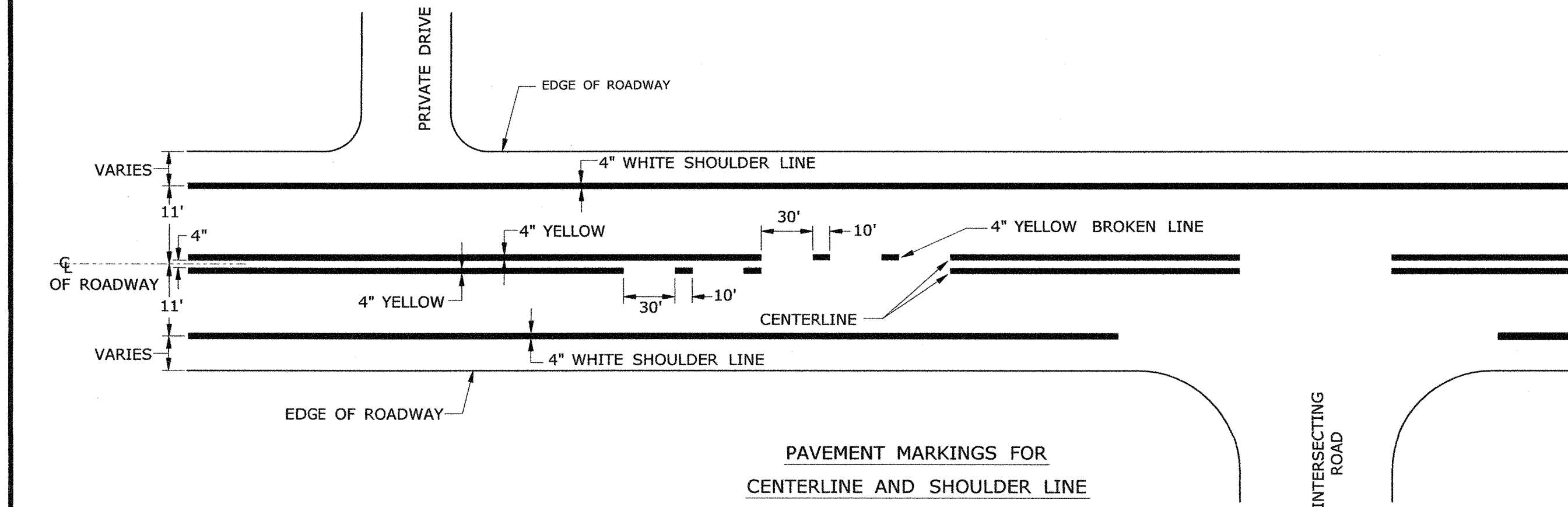
**ATTENUATOR REFLECTOR TO BE PAID
FOR UNDER SECTION 18.0 IMPACT ATTENUATOR**



SIGN #51-5023 MARKER MOUNTED ON
3lb. METAL SIGN POST.
BOTTOM OF SIGN #51-5023 TO BE 4'
ABOVE ADJACENT EDGE OF PAVEMENT.
FINAL LOCATIONS OF SIGN #51-5023 MARKERS
WILL BE AS SHOWN ON THE PLAN
OR AS DIRECTED BY THE ENGINEER.

**TYPE 3 OBJECT MARKER TO BE PAID FOR
UNDER SECTION 12.08 SIGN FACE SHEET ALUMINUM**

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- NOTES:
- STOP BARS AND YIELD LINES SHALL BE WHITE.
 - STOP BARS SHALL BE 12" MIN. UNLESS OTHERWISE NOTED ON PLANS.
 - STOP BARS TO BE MARKED A MINIMUM OF 4' IN ADVANCE OF THE NEAREST EDGE OF CROSSWALK AND SHOULD BE PLACED 90° TO THE CENTERLINE OF THE ROADWAY.
 - IN THE ABSENCE OF A MARKED CROSSWALK THE STOP BAR SHOULD BE PLACED 90° TO THE CENTERLINE OF THE ROADWAY, AT THE DESIRED STOPPING POINT, AT LEAST 5' AND NO MORE THAN 30' FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY.
 - THE STOP BAR SHOULD BE PLACED IN LINE WITH THE STOP SIGN, HOWEVER, IF THE STOP SIGN CANNOT BE LOCATED EXACTLY WHERE VEHICLES ARE EXPECTED TO STOP, THE STOP BAR SHOULD BE PLACED AT THE STOPPING POINT.
 - FOR STOP BARS AT RAMP SEE DETAILS "O" & "P" AND NOTES ON TRAFFIC STANDARD SHEET TR-1210.02 "PAVEMENT MARKINGS FOR DIVIDED HIGHWAYS".
 - YIELD LINES SHOULD BE INSTALLED FROM THE CENTERLINE TO THE CURB LINE/EDGE OF ROAD AND SHOULD BE PLACED 90° TO THE CENTERLINE OF THE ROADWAY.
 - FOR YIELD LINE INSTALLATIONS, ONLY FULL TRIANGLES ARE TO BE INSTALLED.
 - AT MID-BLOCK CROSSWALKS ONLY, YIELD LINES SHOULD BE INSTALLED 20 TO 50 FEET IN ADVANCE OF THE NEAREST CROSSWALK LINE, OR AS DIRECTED BY THE ENGINEER.
 - THE YIELD LINE SHOULD BE PLACED IN LINE WITH A YIELD SIGN. HOWEVER, IF THE YIELD SIGN CANNOT BE LOCATED EXACTLY WHERE VEHICLES ARE EXPECTED TO YIELD, THE YIELD LINE SHOULD BE PLACED AT THE YIELDING POINT.

- CROSSWALKS
- CROSSWALK MARKINGS SHALL BE WHITE.
 - AT LOCATIONS WHERE THE CROSSWALK IS SKEWED, BARS TO BE PARALLEL TO C AND ENDS OF BARS TO BE PARALLEL. THE LENGTH OF THE BARS WILL VARY DEPENDING ON THE ANGLE OF SKEW.
 - BARS SHOULD BE NO CLOSER THAN 1' FROM CURB LINE/EDGE OF ROAD.
 - ONLY FULL LENGTH BARS ARE TO BE INSTALLED.
 - DECORATIVE CROSSWALK MARKINGS TO BE Banded FROM CURB TO CURB WITH A MINIMUM 12" WIDE WHITE TRANSVERSE LINE ALONG EACH EDGE.
 - 24" WIDE SPACE TO BE CENTERED ON YELLOW CENTERLINE.

- RAILROAD GRADE CROSSINGS
- RAILROAD MARKINGS SHALL BE WHITE.
 - ON MULTILANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS THE APPROACH LANES AND INDIVIDUAL R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

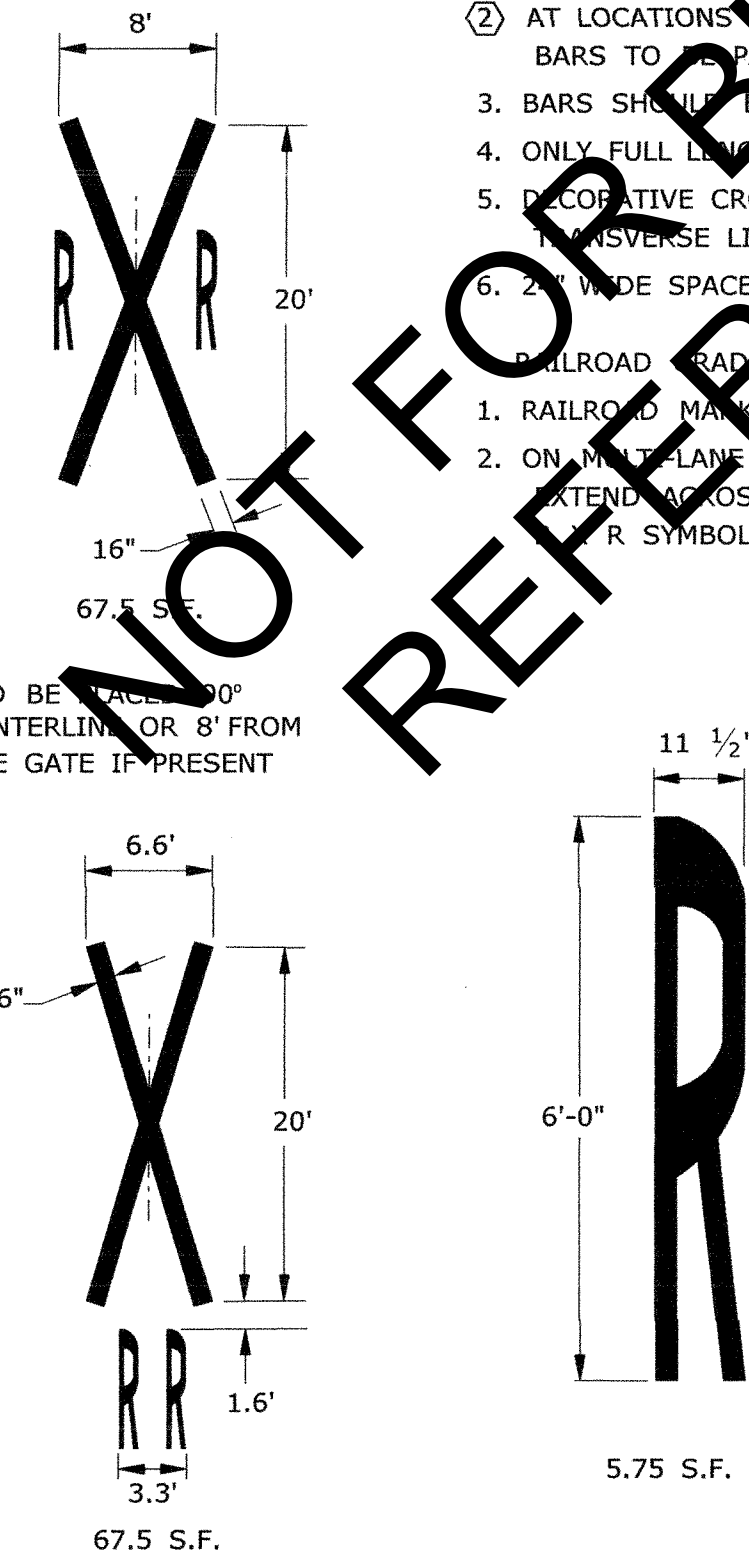
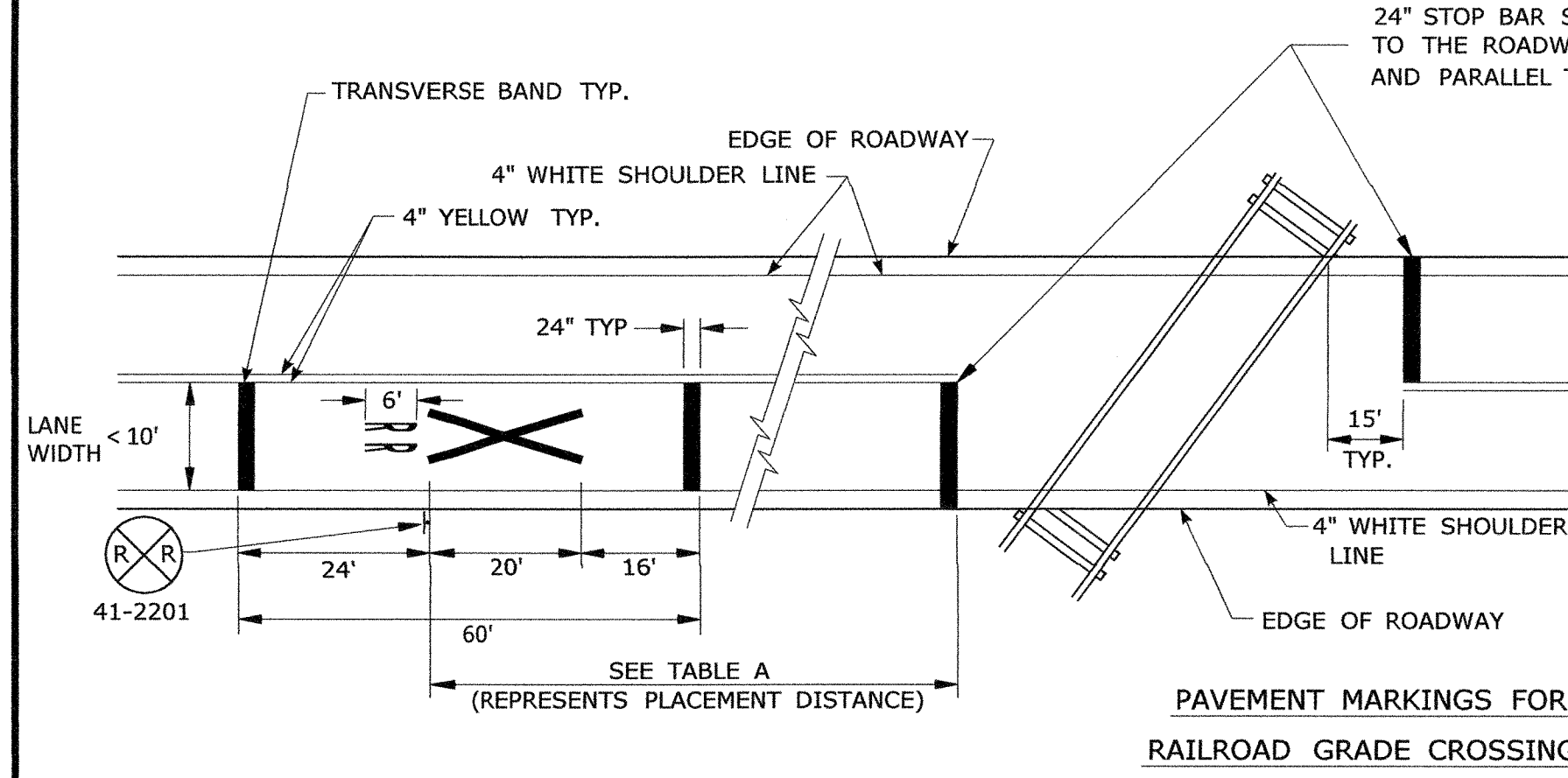
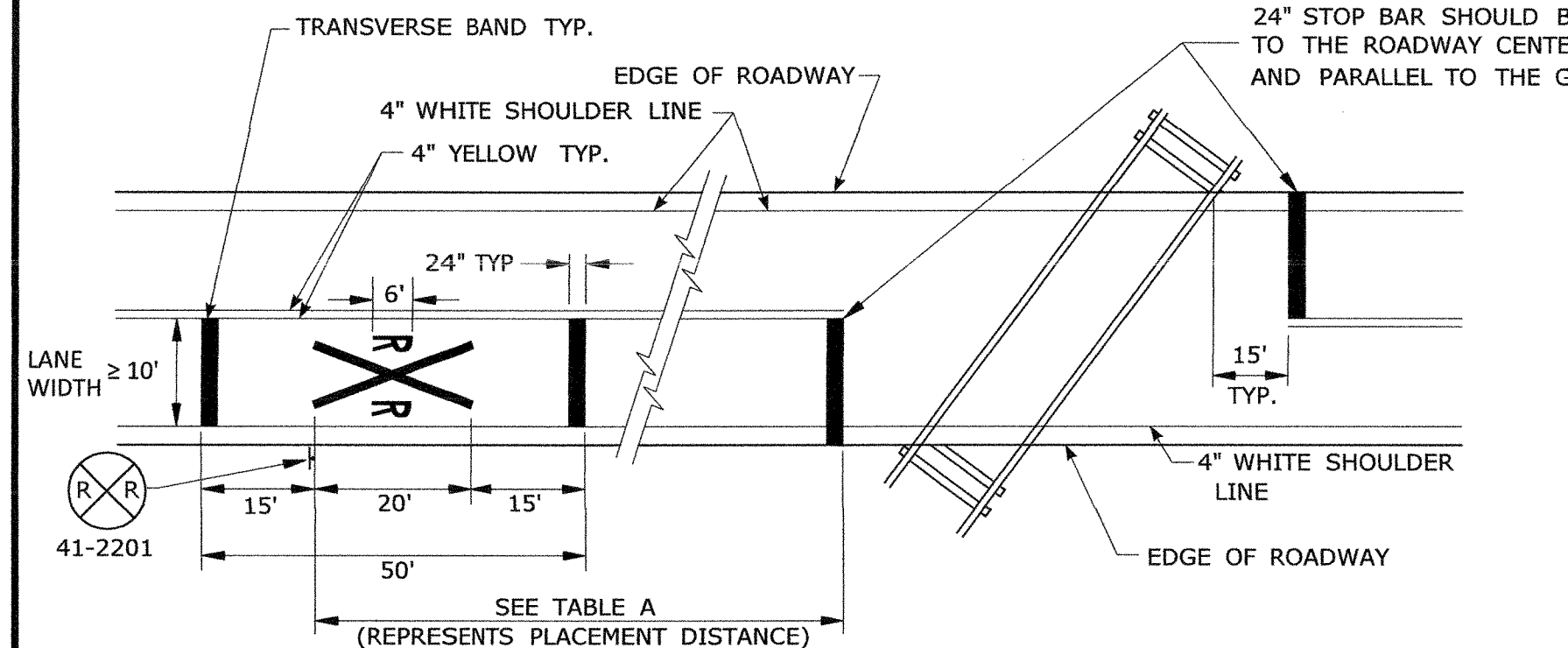
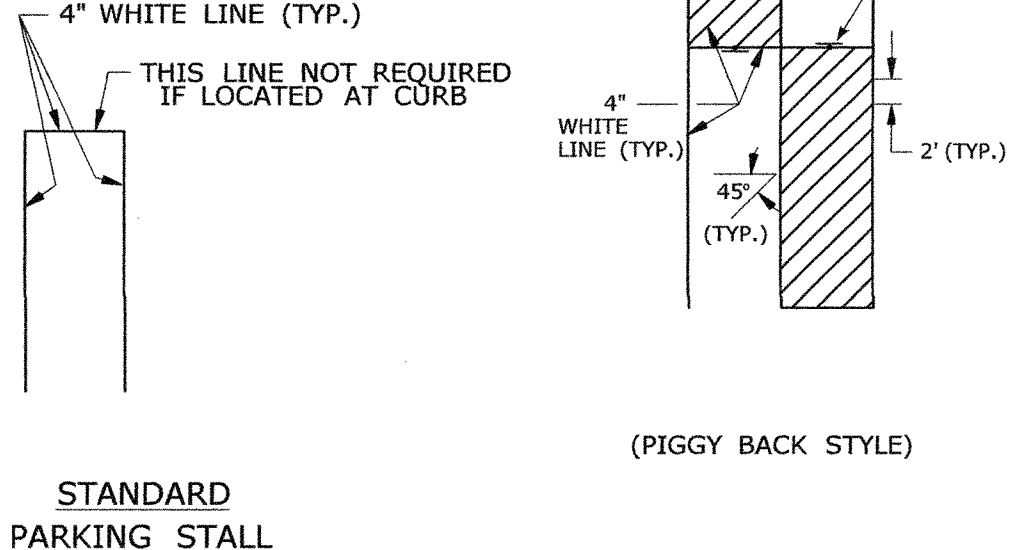
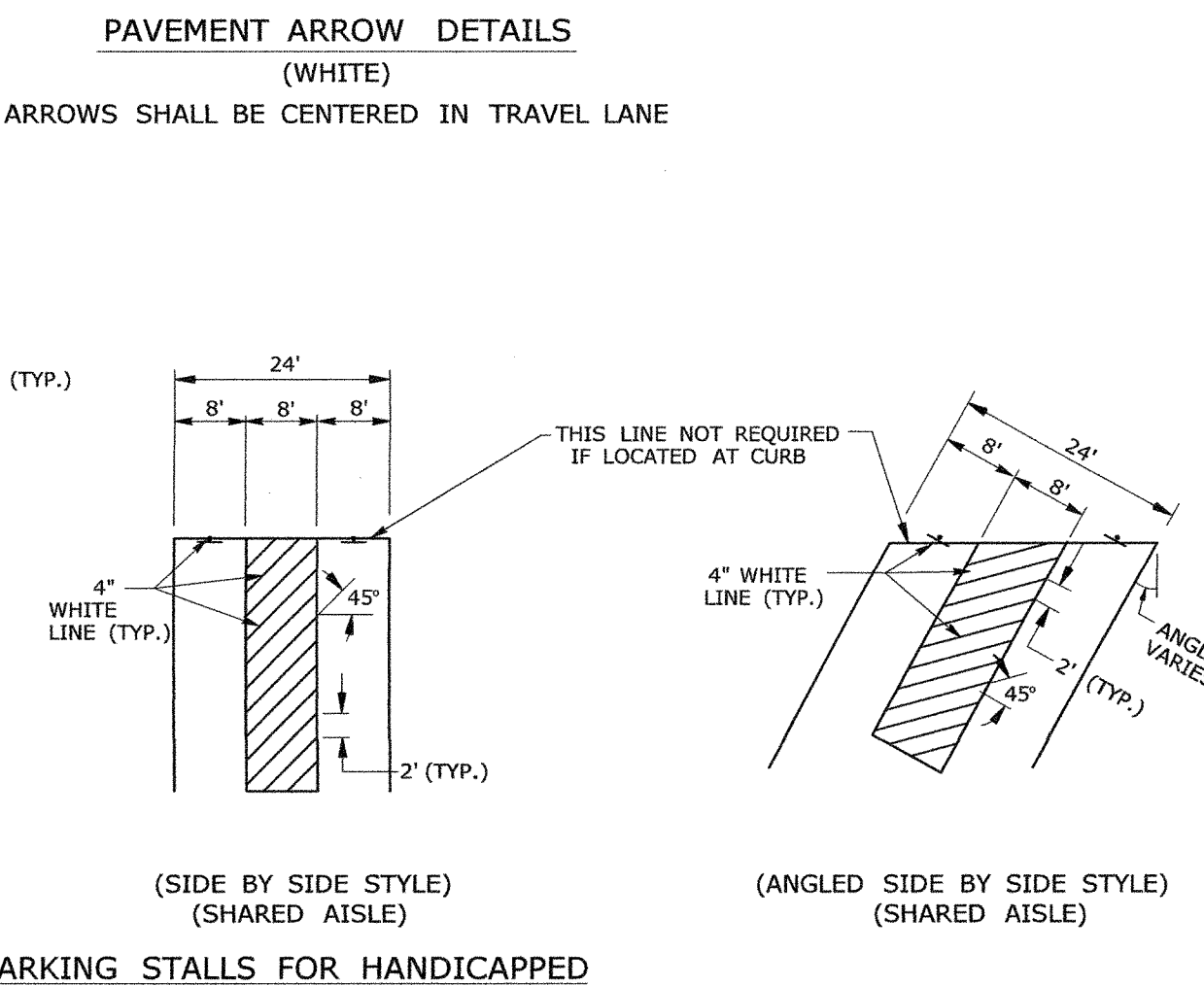


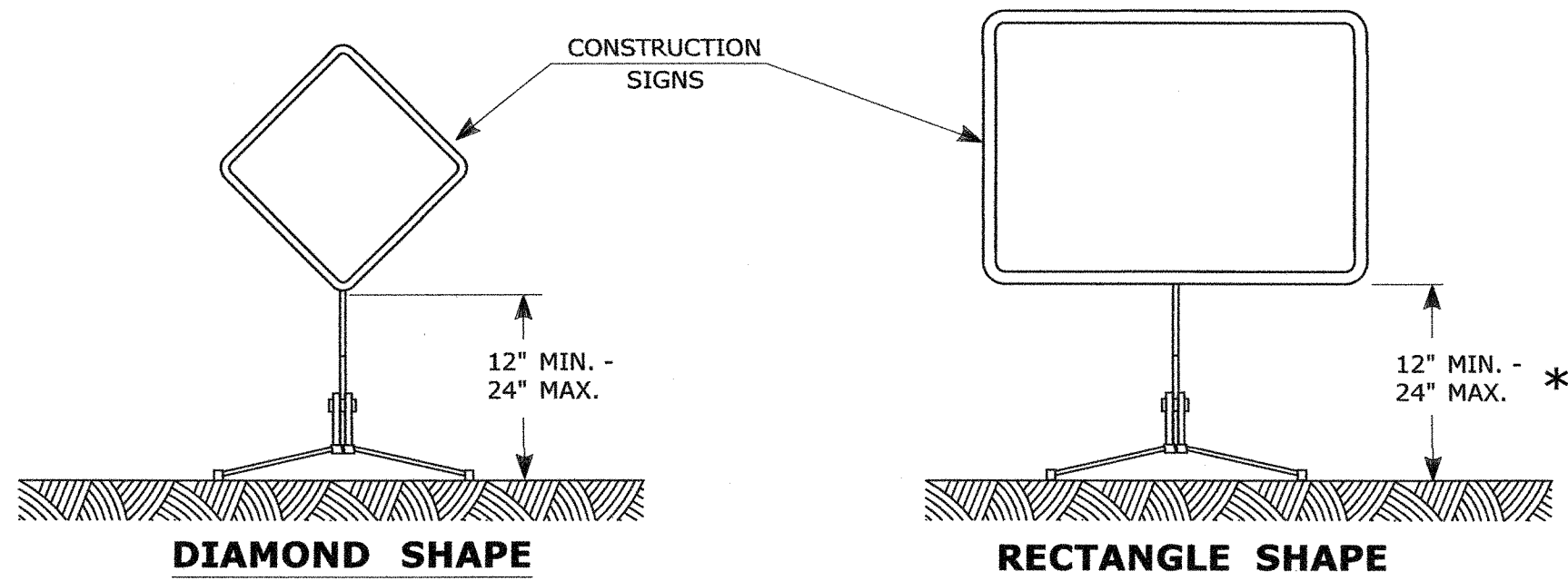
TABLE A	
POSTED OR 85 PERCENTILE SPEED M.P.H.	MINIMUM DISTANCE FT.
20	100
25	100
30	100
35	100
40	125
45	175
50	250
55	325
60	400
65	475



- NOTES:
- PAVEMENT MARKING
- FOR PAVEMENT MARKINGS ON A CLIMBING LANE SEE DETAIL "L" ON TRAFFIC STANDARD SHEET TR-1210.02 "PAVEMENT MARKINGS FOR DIVIDED HIGHWAYS".
 - AREA OF PAVEMENT MARKINGS AS INDICATED IS APPROXIMATE.
 - FOR PAVEMENT MARKING LINES, STOP BARS AND ARROWS AT RAMP SEE DETAILS "O" & "P" AND NOTES ON TRAFFIC STANDARD SHEET TR-1210.02 "PAVEMENT MARKINGS FOR DIVIDED HIGHWAYS".
 - RIGHT TURN PAVEMENT MARKINGS ARROWS ARE MIRROR IMAGE OF LEFT TURN PAVEMENT MARKING ARROWS.
 - SHARED AISLES MAY NOT BE USED WHERE CONNECTICUT BUILDING CODE GOVERNS.
 - LANE WIDTHS TO BE 11' UNLESS OTHERWISE NOTED.



E5 - SERIES				G20 - SERIES				M4 - SERIES				R1 - SERIES				R9 & R11 - SERIES				W1 - SERIES				W3 - SERIES																																																																																																																							
<div>E5-1</div> <div>EXIT</div> <div>COPY & BORDER - WHITE BACKGROUND - GREEN</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>16.0</td><td>48</td><td>51-6147</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	16.0	48	51-6147	2	<div>G20-2a</div> <div>END ROAD WORK</div> <div>VARIABLE MILEAGE</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>8.0</td><td>48X24</td><td>80-9612</td><td>2</td></tr><tr><td>90.0</td><td>120X108</td><td>80-9728</td><td></td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	8.0	48X24	80-9612	2	90.0	120X108	80-9728		<div>M4-8</div> <div>DETOUR</div> <div>VARIABLE ARROW</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>2.0</td><td>24X12</td><td>80-9707</td><td>1</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	2.0	24X12	80-9707	1	<div>M4-9b</div> <div>DETOUR</div> <div>VARIABLE ARROW</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>5.0</td><td>30X24</td><td>80-9703</td><td>1</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	5.0	30X24	80-9703	1	<div>R1-1</div> <div>STOP</div> <div>* COPY & BORDER - WHITE BACKGROUND - RED</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>5.19</td><td>30</td><td>31-0552</td><td>1</td></tr><tr><td>13.30</td><td>48</td><td>31-0557</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	5.19	30	31-0552	1	13.30	48	31-0557	2	<div>R9-9</div> <div>SIDEWALK CLOSED</div> <div>COPY & BORDER - BLACK BACKGROUND - WHITE</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>3.75</td><td>30X18</td><td>80-9076</td><td>1</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	3.75	30X18	80-9076	1	<div>R11-3a</div> <div>ROAD CLOSED 00 MILES AHEAD LOCAL TRAFFIC ONLY</div> <div>VARIABLE MILEAGE COPY & BORDER - BLACK BACKGROUND - WHITE</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>12.5</td><td>60X30</td><td>80-9077</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	12.5	60X30	80-9077	2	<div>W1-4</div> <div>(L) (R)</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>9.0</td><td>36</td><td>80-9432L</td><td>1</td></tr><tr><td>9.0</td><td>36</td><td>80-9431R</td><td>1</td></tr><tr><td>16.0</td><td>48</td><td>80-9452L</td><td>2</td></tr><tr><td>16.0</td><td>48</td><td>80-9451R</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	9.0	36	80-9432L	1	9.0	36	80-9431R	1	16.0	48	80-9452L	2	16.0	48	80-9451R	2	<div>W1-6</div> <div>(L or R)</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>8.0</td><td>48X24</td><td>80-9424</td><td>2</td></tr><tr><td>12.5</td><td>60X30</td><td>80-9423</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	8.0	48X24	80-9424	2	12.5	60X30	80-9423	2	<div>W3-1</div> <div>STOP AHEAD</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>9.0</td><td>36</td><td>80-9808</td><td>1</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	9.0	36	80-9808	1
AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS																																																																																																																																												
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<div>16 - SERIES</div> <div>CONSTRUCTION AHEAD</div> <div>ROAD USE RESTRICTED STATE LIABILITY LIMITED</div> <div>GENERAL STATUTES SEC 13a-115, 13a-145 COMMISSIONER OF TRANSPORTATION</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>16-M</td><td>5.0</td><td>30X24</td><td>80-1613</td><td>1</td></tr><tr><td>16-H</td><td>17.5</td><td>60X42</td><td>80-1608</td><td>2</td></tr><tr><td>16-E</td><td>35.0</td><td>84X60</td><td>80-1605</td><td>2B</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	16-M	5.0	30X24	80-1613	1	16-H	17.5	60X42	80-1608	2	16-E	35.0	84X60	80-1605	2B	<div>WORK AREA BE PREPARED TO STOP</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>9.0</td><td>36</td><td>80-9711</td><td>1</td></tr><tr><td>16.0</td><td>48</td><td>80-9712</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	9.0	36	80-9711	1	16.0	48	80-9712	2	<div>END DETOUR</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>3.0</td><td>24X18</td><td>80-9708</td><td>1</td></tr><tr><td>6.25</td><td>30X30</td><td>80-9706</td><td>1</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	3.0	24X18	80-9708	1	6.25	30X30	80-9706	1	<div>R1-2</div> <div>YIELD</div> <div>* COPY & BORDER - RED BACKGROUND - WHITE</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>3.90</td><td>36</td><td>31-0523</td><td>1</td></tr><tr><td>10.83</td><td>60</td><td>31-0528</td><td>2B</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	3.90	36	31-0523	1	10.83	60	31-0528	2B	<div>R9-11</div> <div>SIDEWALK CLOSED AHEAD CROSS HERE</div> <div>VARIABLE ARROW COPY & BORDER - BLACK BACKGROUND - WHITE</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>3.0</td><td>24X18</td><td>80-9074</td><td>1</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	3.0	24X18	80-9074	1	<div>R11-3b</div> <div>BRIDGE CLOSED 00 MILES AHEAD LOCAL TRAFFIC ONLY</div> <div>VARIABLE MILEAGE COPY & BORDER - BLACK BACKGROUND - WHITE</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>12.5</td><td>60X30</td><td>80-9078</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	12.5	60X30	80-9078	2	<div>W1-8</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>3.0</td><td>18X24</td><td>80-9401</td><td>1</td></tr><tr><td>5.0</td><td>24X30</td><td>80-9403</td><td>1</td></tr><tr><td>7.5</td><td>30X36</td><td>80-9404</td><td>1</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	3.0	18X24	80-9401	1	5.0	24X30	80-9403	1	7.5	30X36	80-9404	1	<div>W3-1a</div> <div>OCTAGON - RED W/ WHITE BORDER ARROW & BORDER - BLACK BACKGROUND - FLUORESCENT ORANGE</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>9.0</td><td>36</td><td>80-9050</td><td>1</td></tr><tr><td>16.0</td><td>48</td><td>80-9051</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	9.0	36	80-9050	1	16.0	48	80-9051	2													
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<div>W4-W6 - SERIES</div> <div>W4-2</div> <div>(L) (R)</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>16.0</td><td>48</td><td>80-9918L</td><td>2</td></tr><tr><td>16.0</td><td>48</td><td>80-9917R</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	16.0	48	80-9918L	2	16.0	48	80-9917R	2	<div>W8-W9 - SERIES</div> <div>W8-1</div> <div>BUMP</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>9.0</td><td>36</td><td>80-9901</td><td>1</td></tr><tr><td>16.0</td><td>48</td><td>80-9902</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	9.0	36	80-9901	1	16.0	48	80-9902	2	<div>W13 - SERIES</div> <div>W13-1</div> <div>00 M.P.H.</div> <div>SUBPLATE VARIABLE SPEED</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>4.0</td><td>24</td><td>80-9569</td><td>1</td></tr><tr><td>6.25</td><td>30</td><td>80-9567</td><td>1</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	4.0	24	80-9569	1	6.25	30	80-9567	1	<div>W20 - SERIES</div> <div>W20-1</div> <div>ROAD WORK AHEAD</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>6.25</td><td>30</td><td>80-9602</td><td>1</td></tr><tr><td>9.0</td><td>36</td><td>80-9603</td><td>1</td></tr><tr><td>16.0</td><td>48</td><td>80-9604</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	6.25	30	80-9602	1	9.0	36	80-9603	1	16.0	48	80-9604	2	<div>W21 - SERIES</div> <div>W21</div> <div>SURVEY CREW</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>9.0</td><td>36</td><td>80-9607</td><td>1</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	9.0	36	80-9607	1	<div>W22 - SERIES</div> <div>W22-1</div> <div>BLASTING ZONE 1000 FT</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>9.0</td><td>36</td><td>80-9620</td><td>1</td></tr><tr><td>16.0</td><td>48</td><td>80-9625</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	9.0	36	80-9620	1	16.0	48	80-9625	2	<div>STOP-SLOW PADDLE</div> <div>SIDE A STOP</div> <div>SIDE B SLOW</div> <div>SIDE A BACKGROUND - RED COPY & BORDER - WHITE</div> <div>SIDE B BACKGROUND - ORANGE COPY & BORDER - BLACK PLAIN</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>2.51</td><td>19</td><td>80-9950</td><td>PADDLE</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	2.51	19	80-9950	PADDLE																																				
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AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS																																																																																																																																												
2.51	19	80-9950	PADDLE																																																																																																																																												
<div>W6-3</div> <div>↓↑</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>16.0</td><td>48</td><td>80-9945</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	16.0	48	80-9945	2	<div>W9-2</div> <div>LANE ENDS MERGE LEFT</div> <div>LANE ENDS MERGE RIGHT</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>16.0</td><td>48</td><td>80-9910L</td><td>2</td></tr><tr><td>16.0</td><td>48</td><td>80-9911R</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	16.0	48	80-9910L	2	16.0	48	80-9911R	2	<div>REDUCE SPEED TO 00 MPH</div> <div>VARIABLE SPEED</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>9.0</td><td>36</td><td>80-9506</td><td>1</td></tr><tr><td>16.0</td><td>48</td><td>80-9508</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	9.0	36	80-9506	1	16.0	48	80-9508	2	<div>W20-1</div> <div>ROAD WORK 0000 FT</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>9.0</td><td>36</td><td>80-9614</td><td>1</td></tr><tr><td>16.0</td><td>48</td><td>80-9615</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	9.0	36	80-9614	1	16.0	48	80-9615	2	<div>W22-2</div> <div>TURN OFF 2-WAY RADIO AND CELL PHONE</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>10.5</td><td>42X36</td><td>80-9623</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	10.5	42X36	80-9623	2	<div>STAY IN LINE</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>16.0</td><td>48</td><td>80-9951</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	16.0	48	80-9951	2	<div>USE SHOULDER</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>16.0</td><td>48</td><td>80-9956</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	16.0	48	80-9956	2	<div>SHOULDER CLOSED AHEAD</div> <div>SHOULDER CLOSED</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>(1) 16.0</td><td>48</td><td>80-9957</td><td>2</td></tr><tr><td>(2) 9.0</td><td>36</td><td>80-9958</td><td>1</td></tr><tr><td>(2) 16.0</td><td>48</td><td>80-9959</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	(1) 16.0	48	80-9957	2	(2) 9.0	36	80-9958	1	(2) 16.0	48	80-9959	2	<div>NEW</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>2.0</td><td>12X24</td><td>41-0815</td><td></td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	2.0	12X24	41-0815																	
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2.0	12X24	41-0815																																																																																																																																													
<div>W20-2</div> <div>DETOUR 1000 FT</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>9.0</td><td>36</td><td>80-9805</td><td>1</td></tr><tr><td>16.0</td><td>48</td><td>80-9806</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	9.0	36	80-9805	1	16.0	48	80-9806	2	<div>W20-3</div> <div>END BLASTING ZONE</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>7.5</td><td>36X30</td><td>80-9622</td><td>2</td></tr><tr><td>10.5</td><td>42X36</td><td>80-9621</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	7.5	36X30	80-9622	2	10.5	42X36	80-9621	2	<div>W20-4</div> <div>ONE LANE ROAD AHEAD</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>9.0</td><td>36</td><td>80-9834</td><td>1</td></tr><tr><td>16.0</td><td>48</td><td>80-9835</td><td>2</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	9.0	36	80-9834	1	16.0	48	80-9835	2	<div>W22-3</div> <div>PEDESTRIAN DETOUR</div> <table><tr><th>AREA (SQ. FT.)</th><th>SIZE (INCHES)</th><th>CONN. D.O.T. #</th><th>POSTS</th></tr><tr><td>2.0</td><td>24X12</td><td>80-9912</td><td>1</td></tr></table>				AREA (SQ. FT.)	SIZE (INCHES)	CONN. D.O.T. #	POSTS	2.0	24X12	80-9912	1	<div>NOTES:</div> <div>1. R1-SERIES SIGN THE LEGEND "O.S.T.A." SHALL APPEAR.</div> <div>2. POSTS - SEE STANDARD SHEET TR-1208.02 - "METAL SIGN POSTS AND SIGN MOUNTING DETAILS".</div> <div>3. POSTS - TYPE A (EXCEPT WHERE NOTED WITH A "B" FOR TYPE B)</div> <div>4. ALL POSTS NOTED ARE FOR LONG TERM INSTALLATION. SEE STANDARD SHEET TR-1208.02.</div> <div>5. FOR TEMPORARY SUPPORTS SEE STANDARD SHEET TR-1220.02 - "CONSTRUCTION SIGN SUPPORTS AND CHANNELIZING DEVICES".</div> <div>6. FOR SPECIFIC SIGN DESIGN, CONTACT CONN. D.O.T., DIVISION OF TRAFFIC ENGINEERING. FOR BOLT HOLE PATTERN REFER TO FHWA PUBLICATION "STANDARD HIGHWAY SIGNS". SIGNS OF DIFFERENT DIMENSIONS TO BE ERECTED ON THE SAME POSTS, OR SPAN/MAST ARM MOUNTED, MAY REQUIRE SPECIAL BOLT HOLE PATTERNS.</div> <div>7. ALL CONSTRUCTION SIGNS TO BE PAID FOR UNDER THE CONSTRUCTION SIGNS ITEM IN THE CONTRACT.</div> <div>8. MATERIALS & COLORS SHALL CONFORM TO STATE SPECIFICATIONS.</div>																																																																																			
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<div>5 8-2015 UPDATED PER MUTCD AND FORM 816 JAN 2015 REVISION.</div> <div>4 6-2012 REVISED NOTE #1 TO REFERENCE "O.S.T.A."</div> <div>3 4-2012 REVISED NEW SIGNAL SIGN(S) TO CONFORM TO 2009 MUTCD.</div> <div>2 2-2011 MINOR REVISIONS.</div> <div>1 3-2010 REMOVED OBSOLETE SIGNS (50-5925, 50-5935).</div>				<div>THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.</div>				<div>NOT TO SCALE</div>				<div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div>				<div>SUBMITTED BY: NAME/DATE/TIME:</div> <div>APPROVED BY: NAME/DATE/TIME:</div>				<div>CTDOT STANDARD SHEET</div> <div>OFFICE OF ENGINEERING</div>				<div>STANDARD SHEET TITLE: SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS</div>				<div>STANDARD SHEET NO.: TR-1220_01</div>																																																																																																																			
<div>REV. DATE</div>				<div>Plotted Date: 8/25/2015</div>				<div>Filename: CTDOT_TRAFFIC_STD.DGN</div>				<div>Model: TR-1220_01</div>																																																																																																																																			

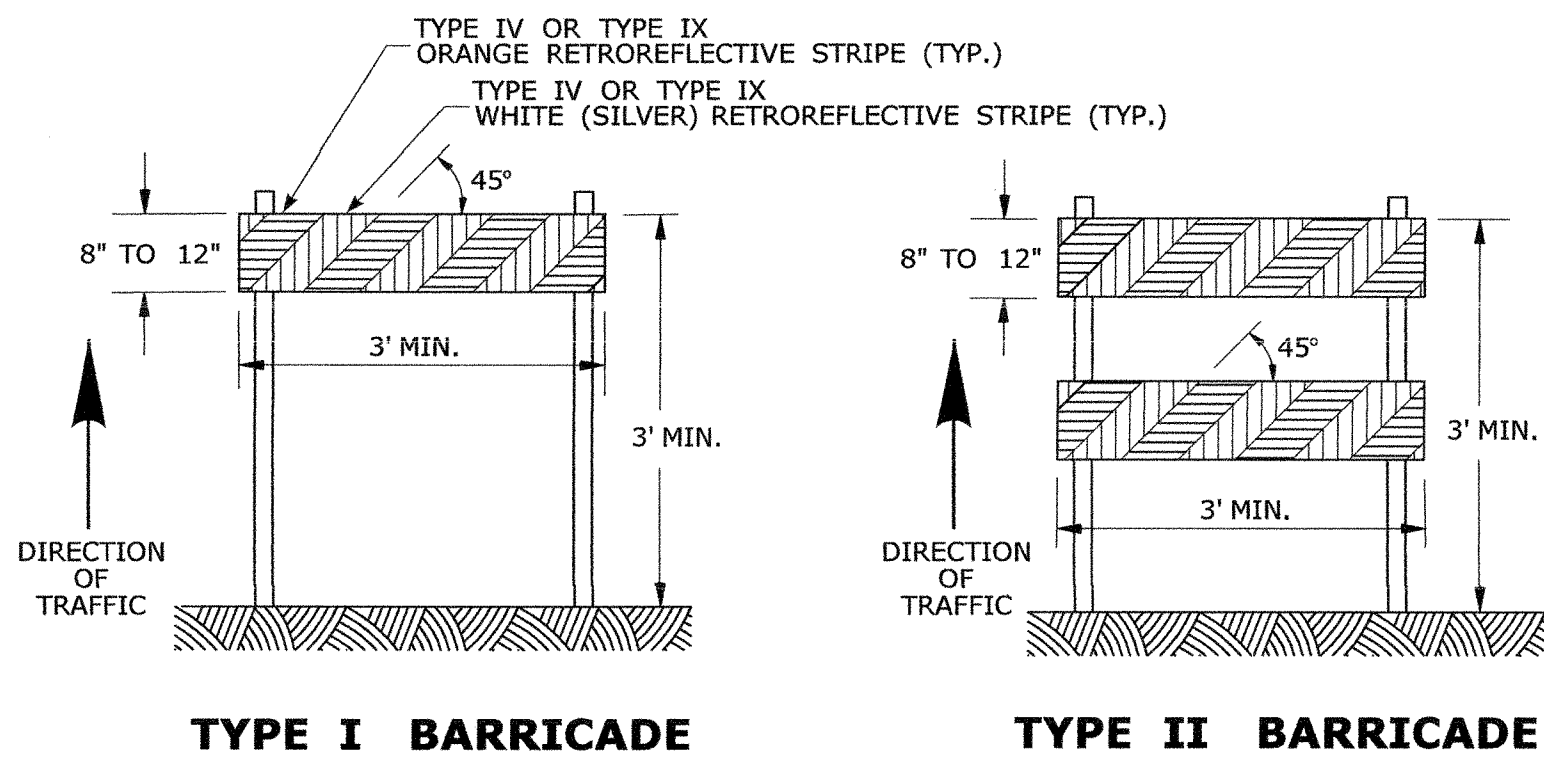


PORTABLE CONSTRUCTION SIGNS

NOTES FOR PORTABLE SIGN SUPPORTS:

- 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.
- 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.
- THE ENGINEER RESERVES THE RIGHT TO REJECT ANY SUPPORT DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
- 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.
- PORTABLE CONSTRUCTION SIGN SUPPORTS SHOULD NOT BE USED FOR DURATION OF MORE THAN 3 DAYS EXCEPT FOR R9-11a 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.

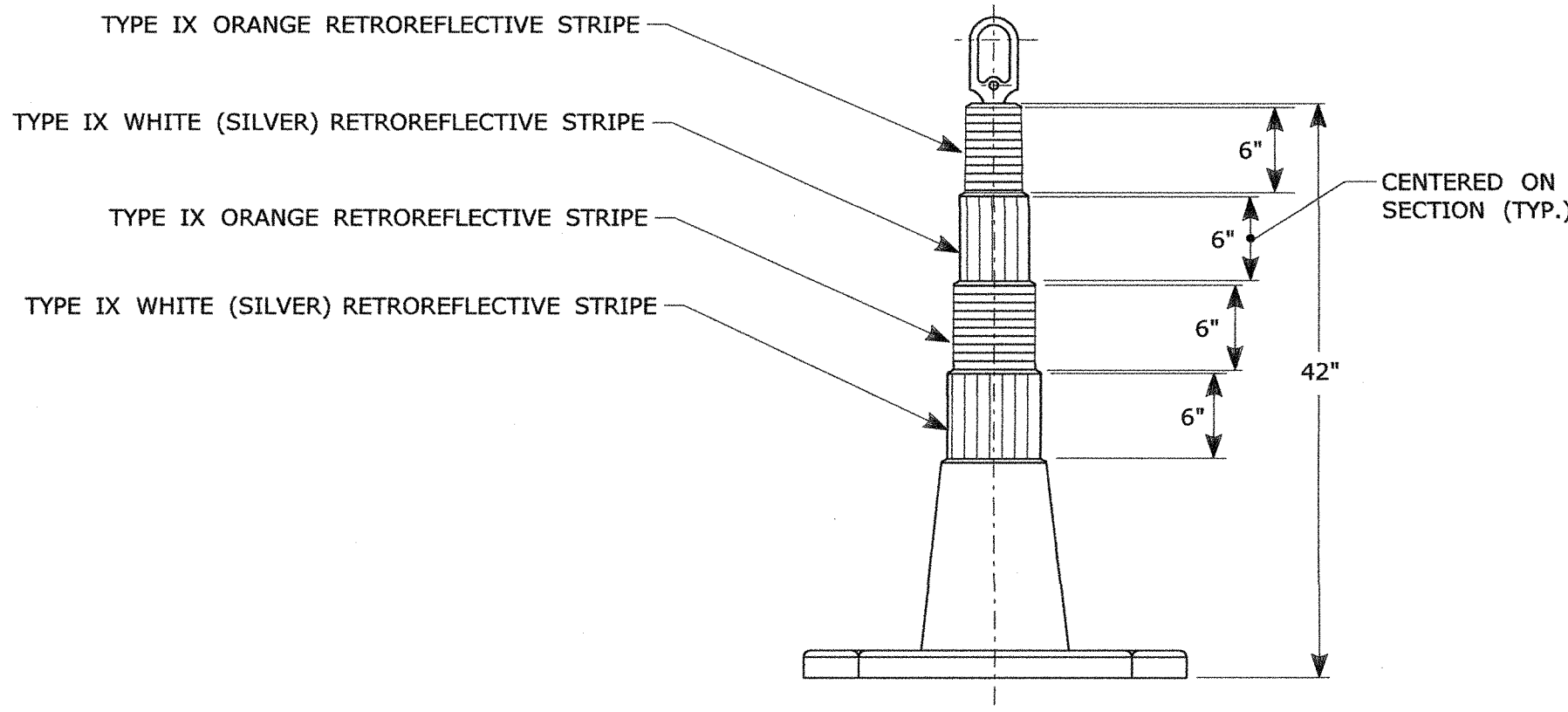
* FOR E5-1 (EXIT SIGNS) USE MIN 48".



CONSTRUCTION BARRICADES

NOTES:

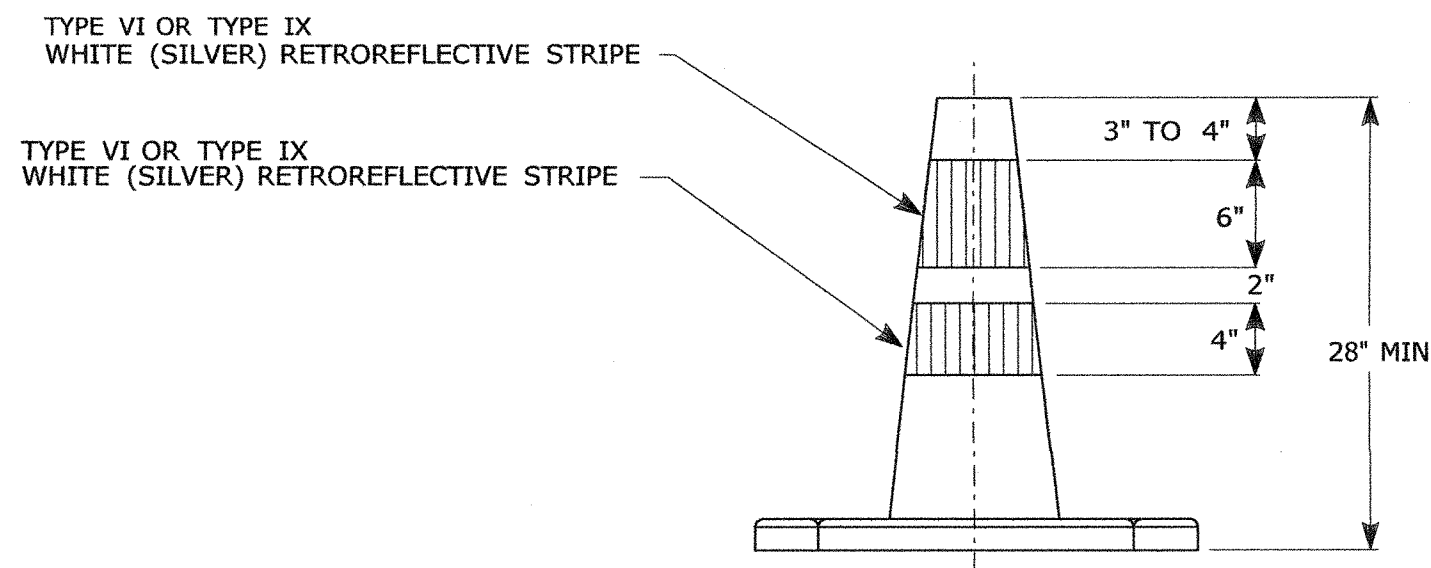
- CONSTRUCTION BARRICADES SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH AND THE LATEST EDITION OF THE MUTCD.
- MARKINGS FOR BARRICADE RAILS SHALL BE ALTERNATE ORANGE AND WHITE STRIPES SLOPING DOWNWARD IN THE DIRECTION TRAFFIC IS TO PASS. 6" WIDE STRIPES SHALL BE USED.
- THE ENTIRE AREA OF ORANGE AND WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS. THE SIDES OF BARRICADES FACING TRAFFIC SHALL HAVE RETROREFLECTIVE RAIL FACES.
- THE ENGINEER RESERVES THE RIGHT TO REJECT ANY BARRICADE DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
- CORNERS OF BARRICADE RAILS SHALL BE ROUNDED.
- 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:

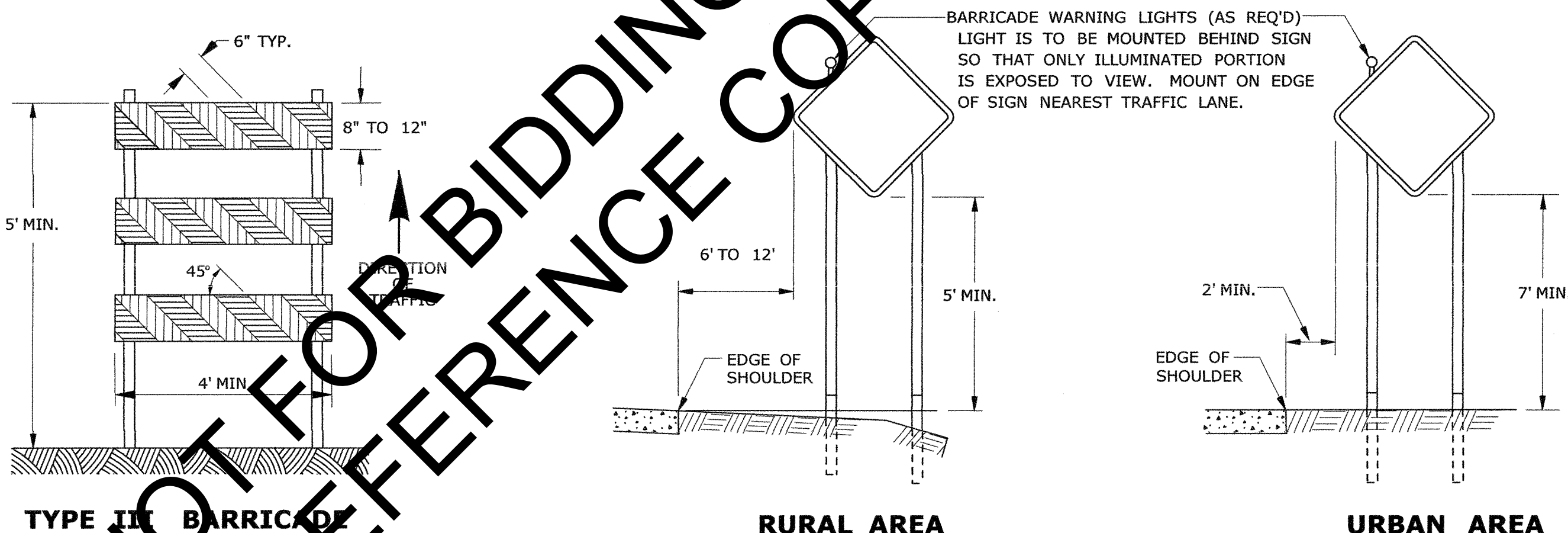
- TRAFFIC CONES SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (TL-3) OR THE AASHTO MASH FOR CATEGORY 1 DEVICES AND THE LATEST EDITION OF THE MUTCD.
- IF RUBBER CONES ARE USED, THEY SHALL HAVE INTERIOR RIBS FOR RIGIDITY.
- IF PLASTIC CONES ARE USED, THEY SHALL BE COLOR IMPREGNATED.
- THE ENGINEER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



TRAFFIC CONE

NOTES:

- 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.
- IF RUBBER CONES ARE USED, THEY SHALL HAVE INTERIOR RIBS FOR RIGIDITY.
- IF PLASTIC CONES ARE USED, THEY SHALL BE COLOR IMPREGNATED.
- THE ENGINEER RESERVES THE RIGHT TO REJECT ANY CONE DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
- TRAFFIC CONES NOT USED AT NIGHT MAY UTILIZE TYPE III SHEETING.
- THE SECTIONS OF CONES NOT COVERED WITH RETROREFLECTIVE STRIPES SHALL BE ORANGE.



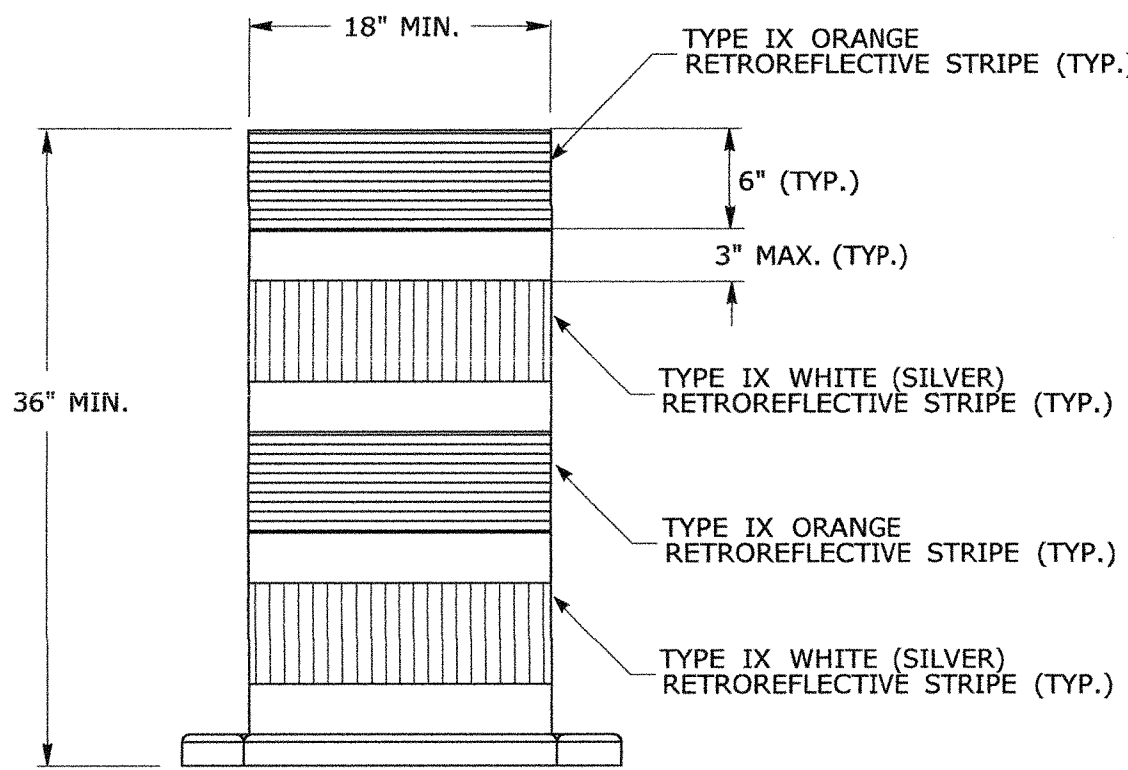
RURAL AREA

URBAN AREA

PLACEMENT OF CONSTRUCTION SIGNS
TYPICAL LONG TERM INSTALLATION

NOTES:

- SUPPORTS SHALL BE METAL SIGN POSTS AND HAVE BREAK-AWAY FEATURES.
- SEE TYPICAL SHEETS:
"TYPICAL SIGN SUPPORT AND SIGN PLACEMENT DETAILS-GORE EXIT SIGN"
"TYPICAL METAL SIGN POSTS AND SIGN MOUNTING DETAILS"



TRAFFIC DRUM
FRONT VIEW

NOTES:

- 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.
- THE ENGINEER RESERVES THE RIGHT TO REJECT ANY DRUM DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
- THE ENTIRE AREA OF ORANGE AND WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS.
- 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 IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		NOT TO SCALE		SUBMITTED BY: NAME/DATE/TIME:		CTDOT STANDARD SHEET		STANDARD SHEET TITLE: CONSTRUCTION SIGN SUPPORTS AND CHANNELIZING DEVICES		STANDARD SHEET NO.: TR-1220_02	
2			8-2015 UPDATED PER MUTCD AND FORM 816 JAN 2015 REVISION.				APPROVED BY: NAME/DATE/TIME:		OFFICE OF ENGINEERING					
1			2-2011 MINOR REVISIONS.											
REV. DATE			REVISION DESCRIPTION		Plotted Date: 8/14/2015		Filename: CTDOT_TRAFFIC_STD.DGN		Model: TR-1220_02					