

LEGEND

- ① 4" HMA S0.5 TRAFFIC LEVEL 2 (PLACED IN 2 EQUAL LIFTS)
 - ② 6" PROCESSED AGGREGATE BASE
 - ③ 8" SUBBASE
 - ④ FORMATION OF SUBGRADE
 - ⑤ MATERIAL FOR TACK COAT
 - ⑥ BITUMINOUS CONCRETE LIP CURBING (6" REVEAL)
 - ⑦ 4" FURNISHING AND PLACING TOPSOIL & TURF ESTABLISHMENT - LAWN
- ↑ DIRECTION OF TRAVEL AHEAD STATION
 ↓ DIRECTION OF TRAVEL BACK STATION

NOTES:

1. SEE HW-922_01 FOR BITUMINOUS CONCRETE DRIVEWAY TYPICAL SECTION
2. SEE MAINTENANCE AND PROTECTION OF TRAFFIC, STAGING, AND WATER HANDLING PLAN - NOTES FOR TEMPORARY PAVEMENT SECTION

GENERAL NOTES:

1. TOPOGRAPHIC INFORMATION IS BASED UPON FIELD SURVEY CONDUCTED BY WSP USA, INC (HORIZONTAL DATUM - NAD83, VERTICAL DATUM NAVD 1988). STREET AND PROPERTY LINE INFORMATION DEPICTED ARE BASED ON LIMITED FIELD SURVEYS AND FROM VARIOUS SOURCES.
2. THE LOCATION OF EXISTING UTILITIES HAS BEEN BASED UPON AVAILABLE INFORMATION AND MAY BE INCOMPLETE, AND WHERE SHOWN, SHOULD BE CONSIDERED APPROXIMATE. THE LOCATION OF ALL EXISTING UTILITIES SHOULD BE CONFIRMED PRIOR TO BEGINNING CONSTRUCTION. CALL "CALL BEFORE YOU DIG", 1-800-922-4455. ALL UTILITY LOCATIONS THAT DO NOT MATCH THE VERTICAL OR HORIZONTAL CONTROL SHOWN ON THE PLANS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.
3. WSP USA ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF MAPS AND DATA WHICH HAVE BEEN SUPPLIED BY OTHERS.
4. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR, PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY FOR DETERMINATION.
5. SEDIMENT AND EROSION CONTROL MEASURES, AS DEPICTED ON THESE PLANS, SHALL BE IMPLEMENTED PRIOR TO CONSTRUCTION AND MAINTAINED UNTIL PERMANENT COVER STABILIZATION IS ESTABLISHED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL CONFORM TO THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL", AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL. THE DESIGNATED BRISTOL INLAND WETLANDS AGENT SHALL BE NOTIFIED OF ANY SOIL AND EROSION CONTROL MEASURES NOT DEPICTED ON THE PLANS.
6. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION WITH APPROPRIATE UTILITY COMPANIES REGARDING RESETTING OF THEIR FACILITIES AND SCHEDULING OF SUCH WORK.
7. ANY MAINTENANCE OR REFUELING OF EQUIPMENT AND VEHICLES SHALL BE PERFORMED AT LEAST 50' FROM WETLANDS OR WATERCOURSES. OIL, GASOLINE, AND CHEMICALS NEEDED AT THE SITE SHALL BE STORED IN A SECONDARY CONTAINER AT LEAST 50' FROM WETLANDS OR WATERCOURSES TO PREVENT CONTAMINATION FROM POSSIBLE LEAKS. CONTRACTOR SHALL HAVE A SPILL KIT ON SITE AT ALL TIMES.
8. THE PLANS REQUIRE A CONTRACTOR'S WORKING KNOWLEDGE OF LOCAL, MUNICIPAL, WATER AUTHORITY, AND STATE CODES FOR UTILITY SYSTEMS. ANY CONFLICTS BETWEEN MATERIALS AND LOCATIONS SHOWN, AND LOCAL REQUIREMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE EXECUTION OF WORK. THE ENGINEER WILL NOT BE HELD LIABLE FOR COSTS INCURRED TO IMPLEMENT OR CORRECT WORK WHICH DOES NOT CONFORM TO LOCAL CODE.
9. ALL SLOPES AND DISTURBED AREAS ARE TO BE STABILIZED WITH 4" TOPSOIL AND TURF MUST BE ESTABLISHED UNLESS OTHERWISE NOTED ON THE PLANS.
10. DRIVEWAY PAVING LIMITS SHALL MATCH EXISTING CONDITIONS. DRIVEWAYS SHALL BE SAWCUT NEAT AND TACK COAT SHALL BE APPLIED PRIOR TO PAVING.
11. WATER FOR DUST CONTROL SHALL BE USED, OTHER MEANS WILL REQUIRE CITY APPROVAL PRIOR TO USE.
12. THE CONTRACTOR SHALL RESET ANY DISTURBED MONUMENTS IDENTIFIED ON THE PLANS TO THE PROPER ELEVATION AND LOCATION AT HIS OWN EXPENSE. (THE ENGINEER AND THE CITY MUST BE NOTIFIED WHEN THIS IS DONE.)

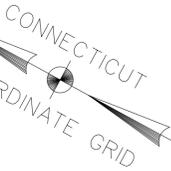
N/F
C & M REAL ESTATE LLC.
2777 MOUNT VERNON RD
MAP 189 LOT 001
BK. 1402 PG. 0086
(SOUTHINGTON)

N/F
FESTIVAL FUN PARKS LLC.
2727 MOUNT VERNON RD
MAP 189 LOT 002
BK. 1213 PG. 0705
(SOUTHINGTON)

N/F
FESTIVAL FUN PARKS LLC.
2727 MOUNT VERNON RD
MAP 189 LOT 002
BK. 1213 PG. 0705
(SOUTHINGTON)

BENCHMARK
BMK RR SPK IN UP
ELEV 236.97

CP - 1
N 795565.997
E 952553.482
ELEV 235.670



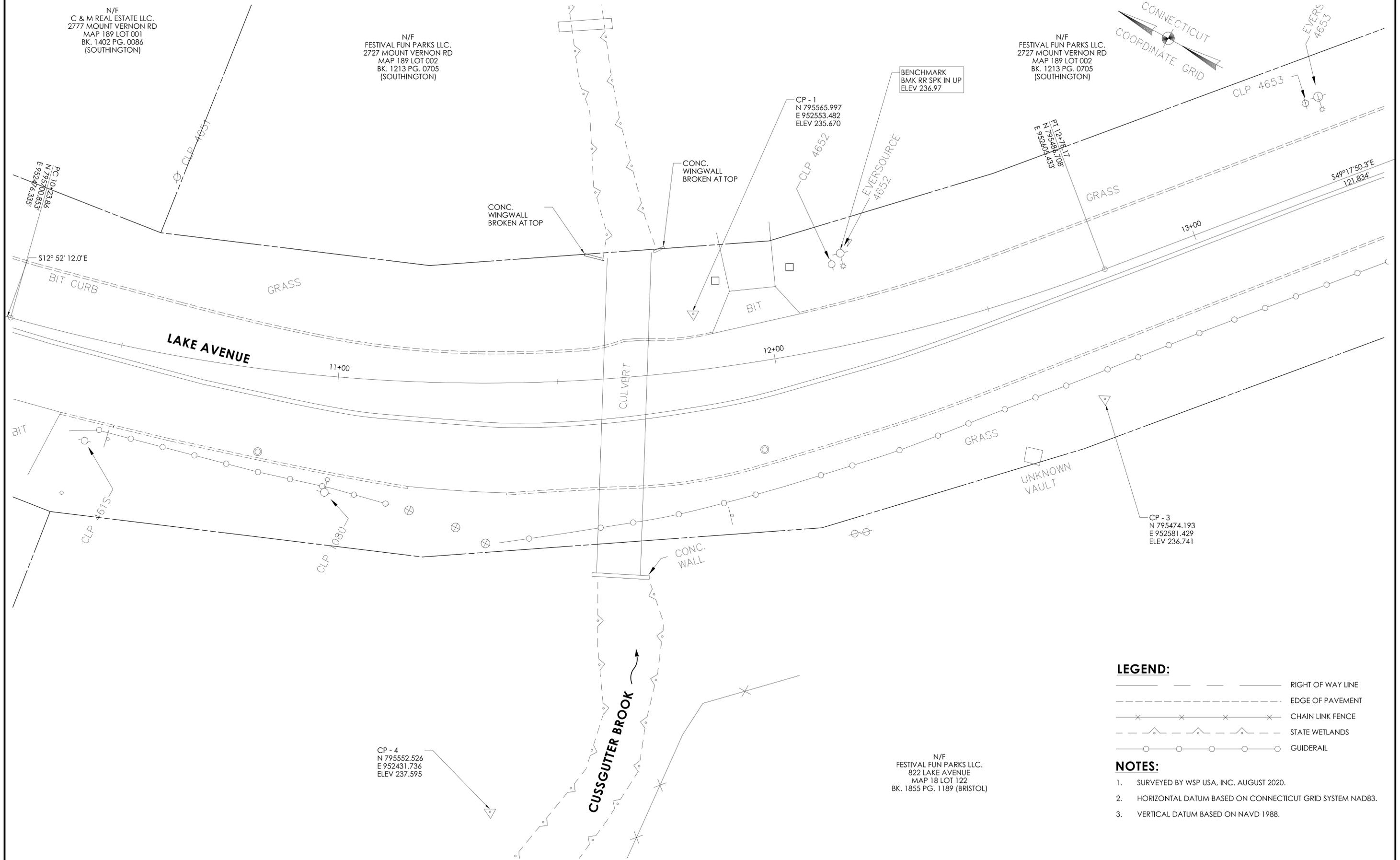
EVERS
4653

CLP 4653

IT 121718.17
N 795487.708
E 952005.133

EVERSOURCE
4652

S49°17'50.3"E
121.834



LEGEND:

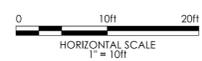
- RIGHT OF WAY LINE
- - - - - EDGE OF PAVEMENT
- × × × × × CHAIN LINK FENCE
- - - - - STATE WETLANDS
- ○ ○ ○ ○ GUIDERAIL

NOTES:

1. SURVEYED BY WSP USA, INC., AUGUST 2020.
2. HORIZONTAL DATUM BASED ON CONNECTICUT GRID SYSTEM NAD83.
3. VERTICAL DATUM BASED ON NAVD 1988.

CP - 4
N 795552.526
E 952431.736
ELEV 237.595

N/F
FESTIVAL FUN PARKS LLC.
822 LAKE AVENUE
MAP 18 LOT 122
BK. 1855 PG. 1189 (BRISTOL)

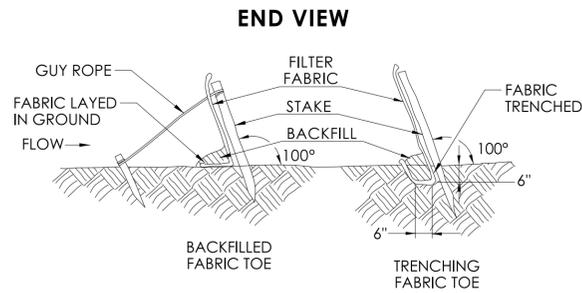


SIGNATURE/
BLOCK:



PROJECT NUMBER: 0000-0000
PROJECT DESCRIPTION: REPLACEMENT OF LAKE AVENUE CULVERT OVER CUSSGUTTER BROOK
TOWN(S): BRISTOL
DRAWING TITLE: SURVEY CONTROL PLAN

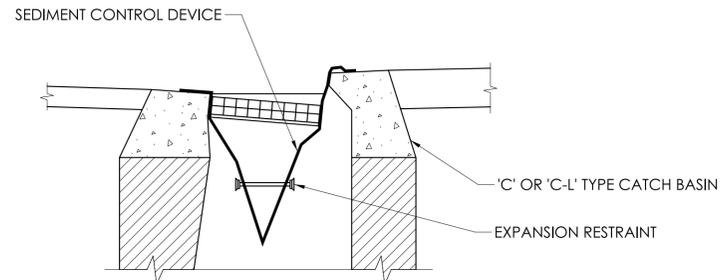
DRAWING NO.
TIE-01
SHEET NO.
3.03



SELF SUPPORTING SILT FENCE SHOULD BE PLACED SO THE FENCE LEANS TOWARD THE SOURCE OF SEDIMENT. SPACING OF STAKES AND USE OF GUY ROPES ARE DETERMINED ACCORDING TO FIELD NEEDS.

GUY ROPE/WIRE AND TIE BACK STAKE SHOULD BE OF SUFFICIENT SIZE TO WITHSTAND THE EXPECTED LOAD. FOLLOW MANUFACTURER'S RECOMMENDATION FOR TRENCH DIMENSIONS.

SEDIMENTATION CONTROL SYSTEM INSTALLATION
NOT TO SCALE

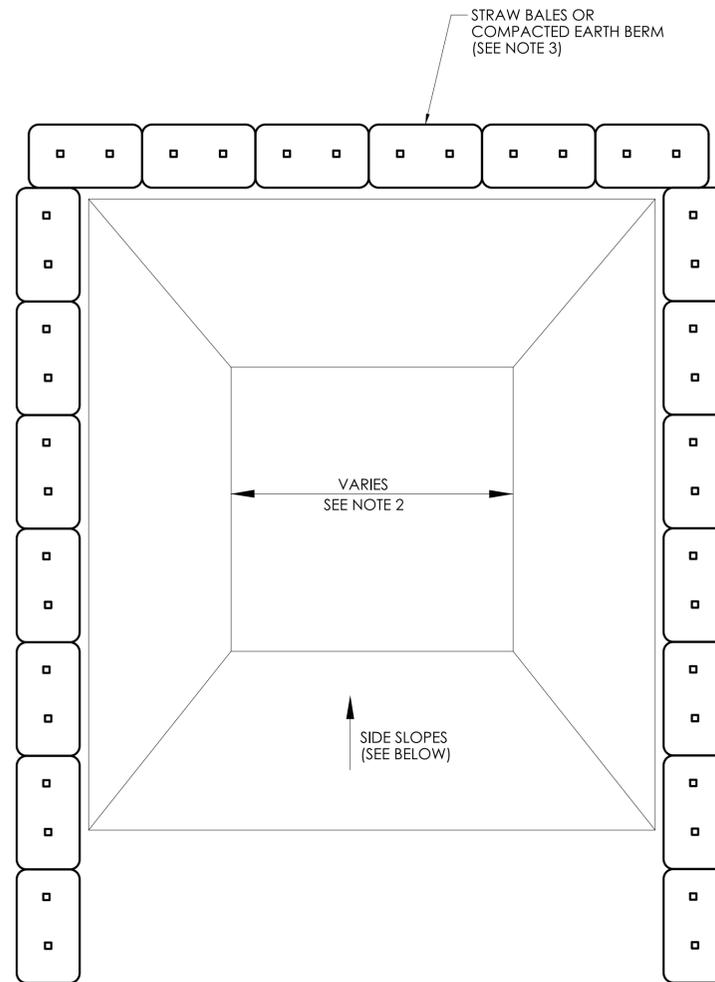


NOTE: SEDIMENT CONTROL DEVICE TO REMAIN IN CB UNTIL AREA IS COMPLETELY STABILIZED.

SEDIMENT CONTROL SYSTEM AT CATCH BASIN

NOTES:

1. MINIMUM STAKE LENGTH IS 42 INCHES.
2. MINIMUM STAKE EMBEDMENT DEPTH IS 18 INCHES.
3. MINIMUM LENGTH OF SILT FENCE IS 15 FEET.
4. MAXIMUM POST SPACING IS 10 FEET.
5. JOINTS ONLY AT SUPPORT POST WITH MINIMUM 6 INCH OVERLAP, SECURELY SEALED.
6. SEDIMENTATION DEPOSITS SHALL BE REMOVED WHEN IT REACHES 1/2 THE HEIGHT OF THE SILT FENCE.
7. SILT FENCE SHALL NOT BE USED IN A WATER COURSE.
8. UPON ESTABLISHMENT OF GROUND COVER ON DISTURBED AREAS, AND WHEN DIRECTED BY THE ENGINEER, FENCE WILL BE REMOVED AND ANY SEDIMENTATION WILL BE THINLY SPREAD UPON EXISTING GROUND COVER.



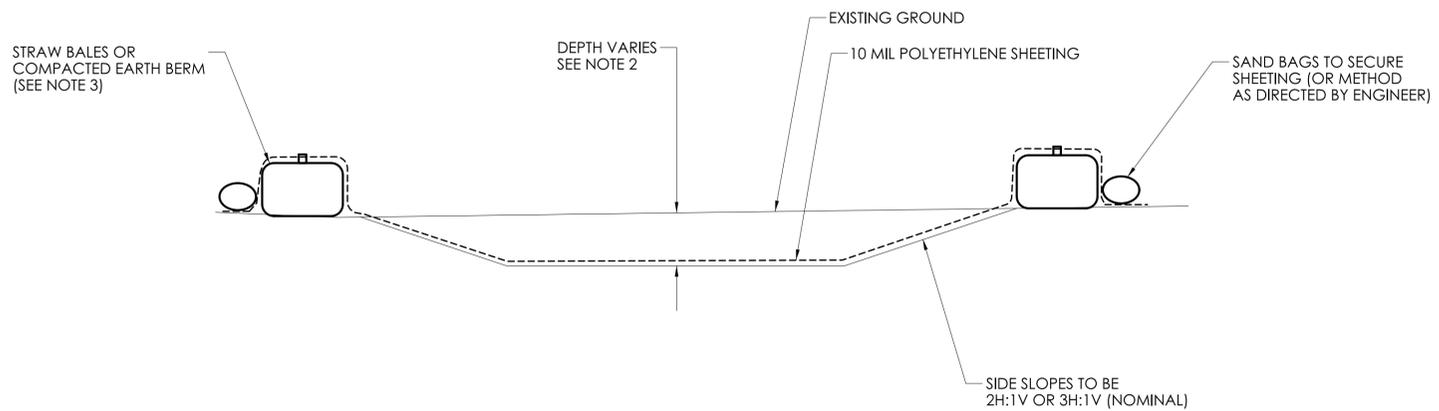
PLAN

GENERAL NOTES:

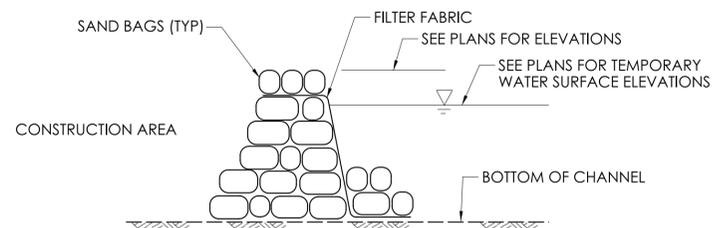
1. CONCRETE WASHOUT AREA(S) SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE. THE CONCRETE WASHOUT AREA SHALL BE ENTIRELY SELF-CONTAINED.
2. THE CONTRACTOR SHALL SUBMIT THE DESIGN, LOCATION AND SIZING OF THE CONCRETE WASHOUT AREA(S) WITH THE PROJECT'S EROSION AND SEDIMENTATION CONTROL PLAN AND SHALL BE APPROVED BY THE ENGINEER.

LOCATION: WASHOUT AREA(S) ARE TO BE LOCATED AT LEAST 50 FEET FROM ANY STREAM, WETLAND, STORM DRAINS, OR OTHER SENSITIVE RESOURCE. THE FLOOD CONTINGENCY PLAN MUST ADDRESS THE CONCRETE WASHOUT IF THE WASHOUT IS TO BE LOCATED WITHIN THE FLOODPLAIN.

SIZE: THE WASHOUT MUST HAVE SUFFICIENT VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS INCLUDING, BUT NOT LIMITED TO, OPERATIONS ASSOCIATED WITH GROUT AND MORTAR.
3. SURFACE DISCHARGE IS UNACCEPTABLE. THEREFORE, STRAW BALES OR OTHER CONTROL MEASURES, AS APPROVED BY THE ENGINEER, SHOULD BE USED AROUND THE PERIMETER OF THE CONCRETE WASHOUT AREA FOR CONTAINMENT.
4. SIGNS SHOULD BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CONCRETE AREA(S) AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS. WASHOUT AREA(S) SHOULD BE FLAGGED WITH SAFETY FENCING OR OTHER APPROVED METHOD.
5. WASHOUT AREA(S) ARE TO BE INSPECTED AT LEAST ONCE A WEEK FOR STRUCTURAL INTEGRITY, ADEQUATE HOLDING CAPACITY AND CHECKED FOR LEAKS, TEARS, OR OVERFLOWS. (AS REQUIRED BY THE CONSTRUCTION SITE ENVIRONMENTAL INSPECTION REPORT) WASHOUT AREA(S) SHOULD BE CHECKED AFTER HEAVY RAINS.
6. HARDENED CONCRETE WASTE SHOULD BE REMOVED AND DISPOSED OF WHEN THE WASTE HAS ACCUMULATED TO HALF OF THE CONCRETE WASHOUT'S DEPTH. THE WASTE CAN BE STORED AT AN UPLAND LOCATION, AS APPROVED BY THE ENGINEER. ALL CONCRETE WASTE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH ALL APPLICABLE LAWS, REGULATIONS, AND GUIDELINES.
7. PAYMENT FOR THIS ITEM IS TO BE INCLUDED UNDER THE GENERAL COST OF THE WORK FOR THE PROJECT, INCLUDING SITE RESTORATION.

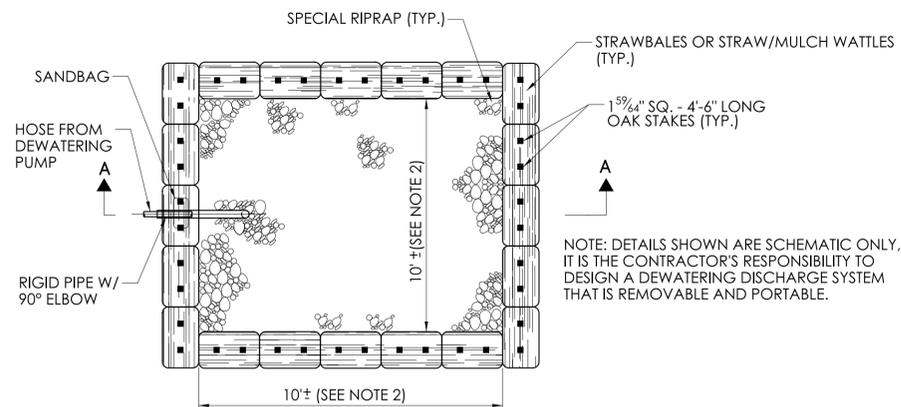


CONCRETE WASHOUT AREA
NOT TO SCALE
(SEE NOTE 2)



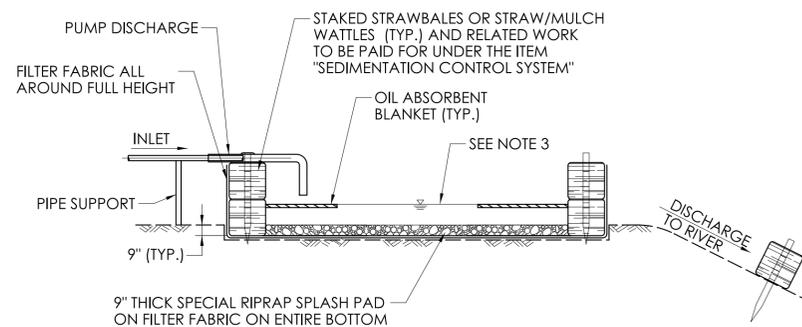
NOTE: THE COST OF THIS WORK SHALL BE INCLUDED UNDER THE ITEM "HANDLING WATER". SEE SPECIAL PROVISIONS.

**SUGGESTED WATER-HANDLING-COFFERDAM
DETAIL - SANDBAGS**
NOT TO SCALE



NOTE: DETAILS SHOWN ARE SCHEMATIC ONLY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO DESIGN A DEWATERING DISCHARGE SYSTEM THAT IS REMOVABLE AND PORTABLE.

PLAN



SECTION A-A

**TEMPORARY SEDIMENT BASIN FOR
DEWATERING DISCHARGE**

NOT TO SCALE

BASIN NOTES:

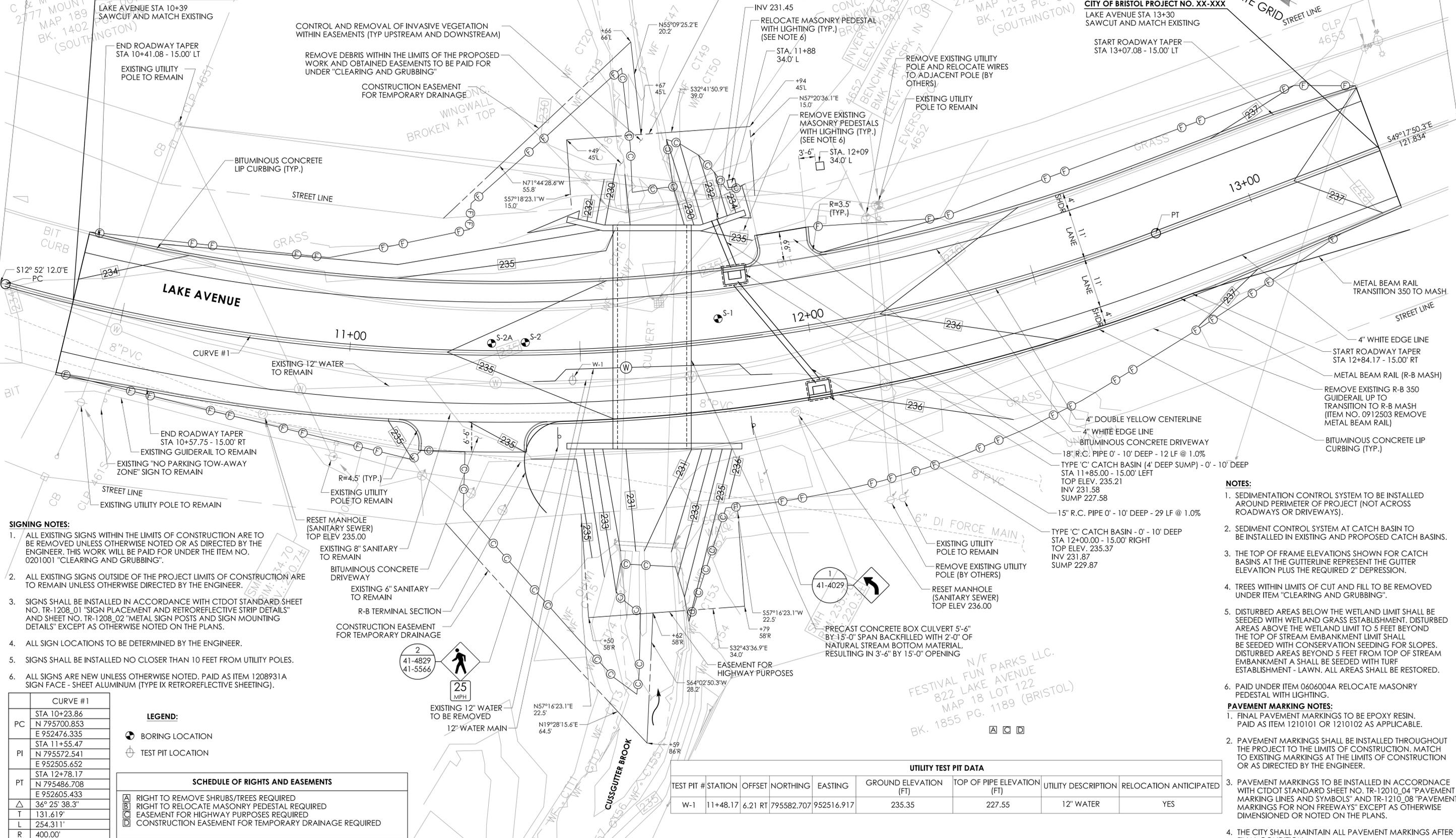
1. CONTRACTOR TO BRACE STRAWBALES OR STRAW/MULCH WATTLES AS REQUIRED FOR STABILITY.
2. DIMENSIONS TO VARY DEPENDENT UPON DE-WATERING RATE.
3. VOLUME OF BASIN IS EQUAL TO THE MAXIMUM VOLUME OF WATER CAPABLE OF BEING PUMPED.
4. SPECIAL RIPRAP STONE SHALL CONFORM TO NO. 3 STONE AS SHOWN IN SECTION M.01.01 OF CONNDOT FORM 818.
5. AT THE COMPLETION OF THE WORK, THE BASIN AND ALL RELATED MATERIALS SHALL BE REMOVED FROM THE SITE, AND THE AREA SHALL BE RETURNED TO ITS ORIGINAL CONDITION BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER. THE COST OF THIS WORK WILL BE INCLUDED UNDER EACH ITEM, EXCEPT THE CLEAN-UP WHICH WILL NOT BE MEASURED FOR PAYMENT BUT INCLUDED IN THE GENERAL COST OF THE WORK.
6. THE TEMPORARY SEDIMENT BASIN SHALL BE DESIGNED IN ACCORDANCE WITH 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.

STA 10+00 (BEYOND LIMITS OF SHEET)
N 795724.109
E 952471.022

STA 14+00 (BEYOND LIMITS OF SHEET)
N 795407.255
E 952697.796

BEGIN CONSTRUCTION LIMITS
CITY OF BRISTOL PROJECT NO. XX-XXX

END CONSTRUCTION LIMITS
CITY OF BRISTOL PROJECT NO. XX-XXX



- SIGNING NOTES:**
- ALL EXISTING SIGNS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE REMOVED UNLESS OTHERWISE NOTED OR AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR UNDER THE ITEM NO. 0201001 "CLEARING AND GRUBBING".
 - ALL EXISTING SIGNS OUTSIDE OF THE PROJECT LIMITS OF CONSTRUCTION ARE TO REMAIN UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
 - SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH CTDOT STANDARD SHEET NO. TR-1208_01 "SIGN PLACEMENT AND RETROREFLECTIVE STRIP DETAILS" AND SHEET NO. TR-1208_02 "METAL SIGN POSTS AND SIGN MOUNTING DETAILS" EXCEPT AS OTHERWISE NOTED ON THE PLANS.
 - ALL SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
 - SIGNS SHALL BE INSTALLED NO CLOSER THAN 10 FEET FROM UTILITY POLES.
 - ALL SIGNS ARE NEW UNLESS OTHERWISE NOTED. PAID AS ITEM 1208931A SIGN FACE - SHEET ALUMINUM (TYPE IX RETROREFLECTIVE SHEETING).

CURVE #1	
STA	10+23.86
PC	N 795700.853 E 952476.335
PI	STA 11+55.47 N 795572.541 E 952505.652
PT	STA 12+78.17 N 795486.708 E 952605.433
Δ	36° 25' 38.3"
T	131.619'
L	254.311'
R	400.00'

LEGEND:

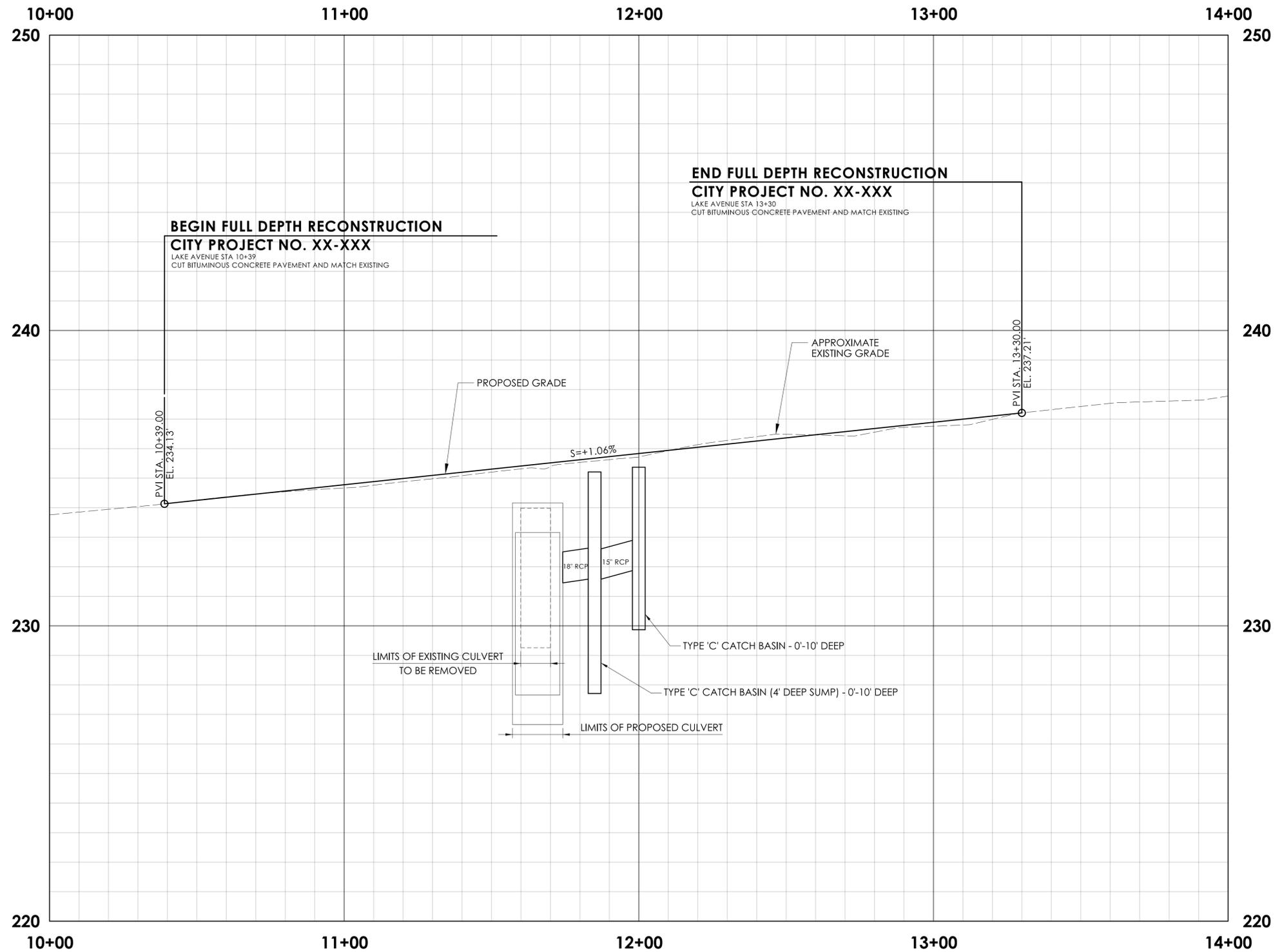
- BORING LOCATION
- TEST PIT LOCATION

SCHEDULE OF RIGHTS AND EASEMENTS	
A	RIGHT TO REMOVE SHRUBS/TREES REQUIRED
B	RIGHT TO RELOCATE MASONRY PEDESTAL REQUIRED
C	EASEMENT FOR HIGHWAY PURPOSES REQUIRED
D	CONSTRUCTION EASEMENT FOR TEMPORARY DRAINAGE REQUIRED

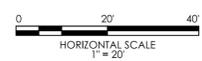
- NOTES:**
- SEDIMENTATION CONTROL SYSTEM TO BE INSTALLED AROUND PERIMETER OF PROJECT (NOT ACROSS ROADWAYS OR DRIVEWAYS).
 - SEDIMENT CONTROL SYSTEM AT CATCH BASIN TO BE INSTALLED IN EXISTING AND PROPOSED CATCH BASINS.
 - THE TOP OF FRAME ELEVATIONS SHOWN FOR CATCH BASINS AT THE GUTTERLINE REPRESENT THE GUTTER ELEVATION PLUS THE REQUIRED 2" DEPRESSION.
 - TREES WITHIN LIMITS OF CUT AND FILL TO BE REMOVED UNDER ITEM "CLEARING AND GRUBBING".
 - DISTURBED AREAS BELOW THE WETLAND LIMIT SHALL BE SEEDED WITH WETLAND GRASS ESTABLISHMENT. DISTURBED AREAS ABOVE THE WETLAND LIMIT TO 5 FEET BEYOND THE TOP OF STREAM EMBANKMENT LIMIT SHALL BE SEEDED WITH CONSERVATION SEEDING FOR SLOPES. DISTURBED AREAS BEYOND 5 FEET FROM TOP OF STREAM EMBANKMENT A SHALL BE SEEDED WITH TURF ESTABLISHMENT - LAWN. ALL AREAS SHALL BE RESTORED.
 - PAID UNDER ITEM 0606004A RELOCATE MASONRY PEDESTAL WITH LIGHTING.
- PAVEMENT MARKING NOTES:**
- FINAL PAVEMENT MARKINGS TO BE EPOXY RESIN. PAID AS ITEM 1210101 OR 1210102 AS APPLICABLE.
 - PAVEMENT MARKINGS SHALL BE INSTALLED THROUGHOUT THE PROJECT TO THE LIMITS OF CONSTRUCTION. MATCH TO EXISTING MARKINGS AT THE LIMITS OF CONSTRUCTION OR AS DIRECTED BY THE ENGINEER.
 - PAVEMENT MARKINGS TO BE INSTALLED IN ACCORDANCE WITH CTDOT STANDARD SHEET NO. TR-12010_04 "PAVEMENT MARKING LINES AND SYMBOLS" AND TR-1210_08 "PAVEMENT MARKINGS FOR NON FREEWAYS" EXCEPT AS OTHERWISE DIMENSIONED OR NOTED ON THE PLANS.
 - THE CITY SHALL MAINTAIN ALL PAVEMENT MARKINGS AFTER FINAL CONDITION.

UTILITY TEST PIT DATA

TEST PIT #	STATION	OFFSET	NORTHING	EASTING	GROUND ELEVATION (FT)	TOP OF PIPE ELEVATION (FT)	UTILITY DESCRIPTION	RELOCATION ANTICIPATED
W-1	11+48.17	6.21 RT	795582.707	952516.917	235.35	227.55	12" WATER	YES



DESIGNER/DRAFTER: BH
 CHECKED BY: KLM
 LASTED SAVED BY: USBH677116
 FILE NAME: c:\bms\wsp-pb-us-pw-02\belinda.hoxha@wsp.com\d0285804\HW_CB_52862_Alignment.dgn
 PLOTTED DATE: 2/14/2023

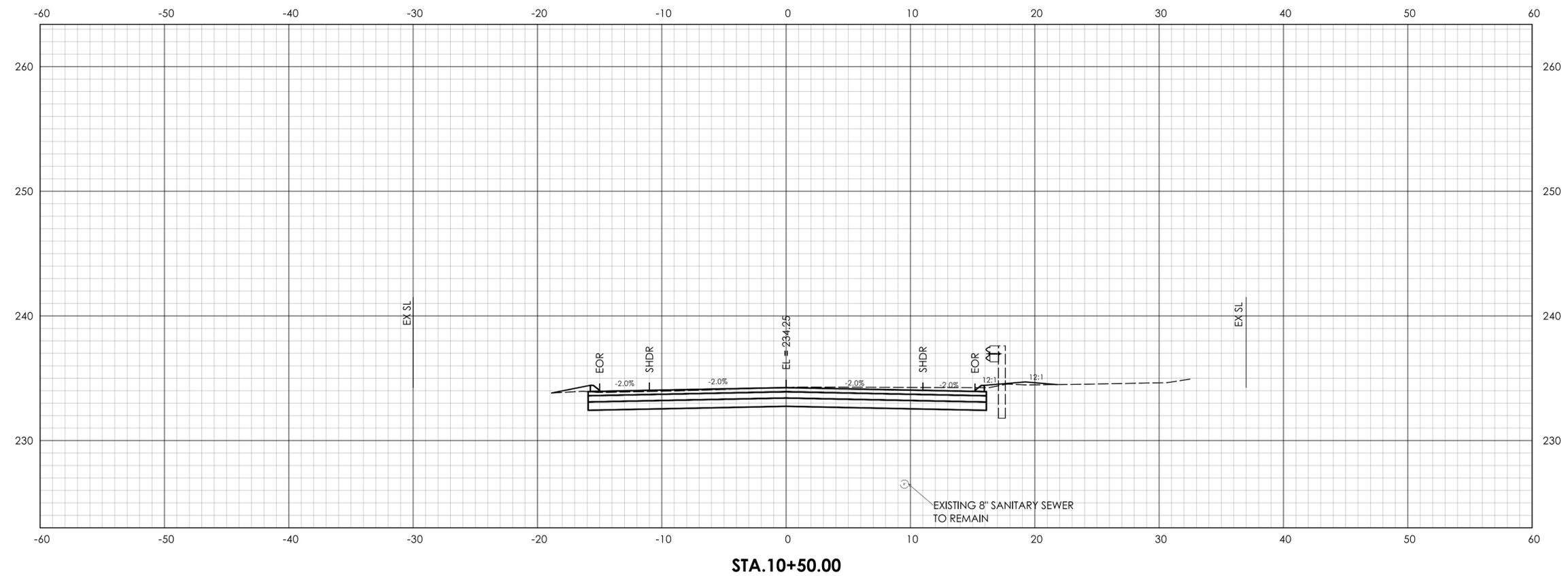
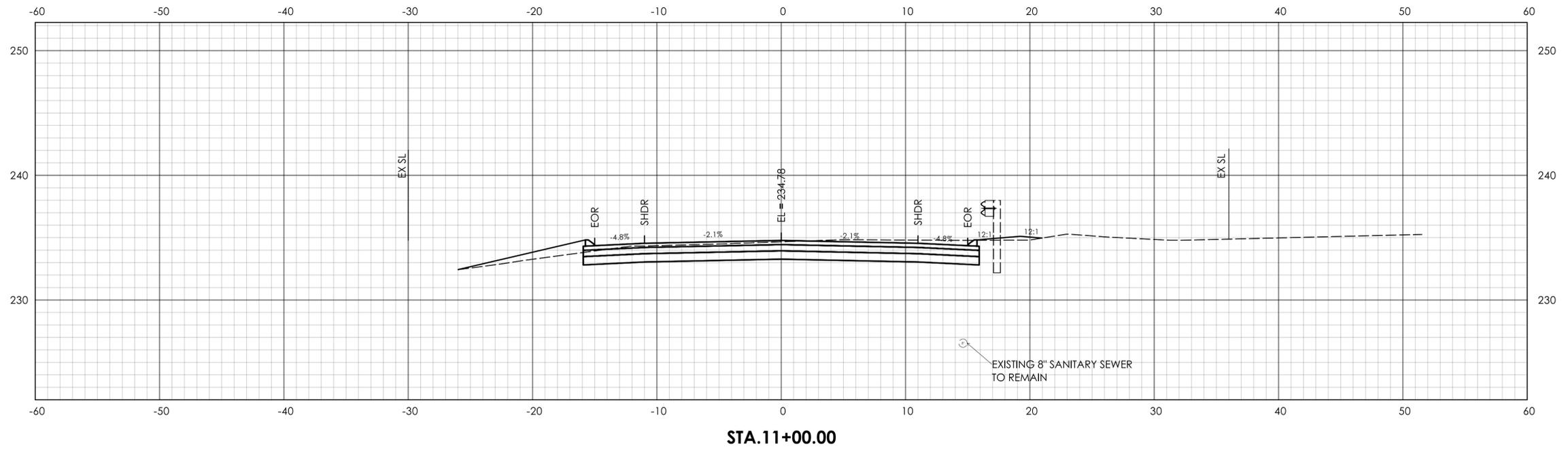


SIGNATURE/
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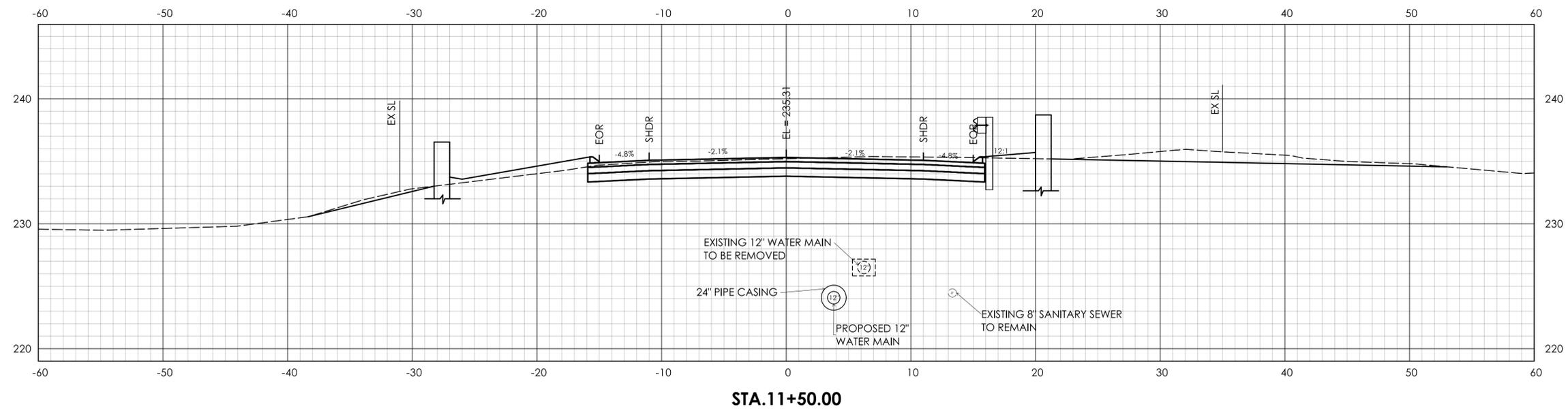
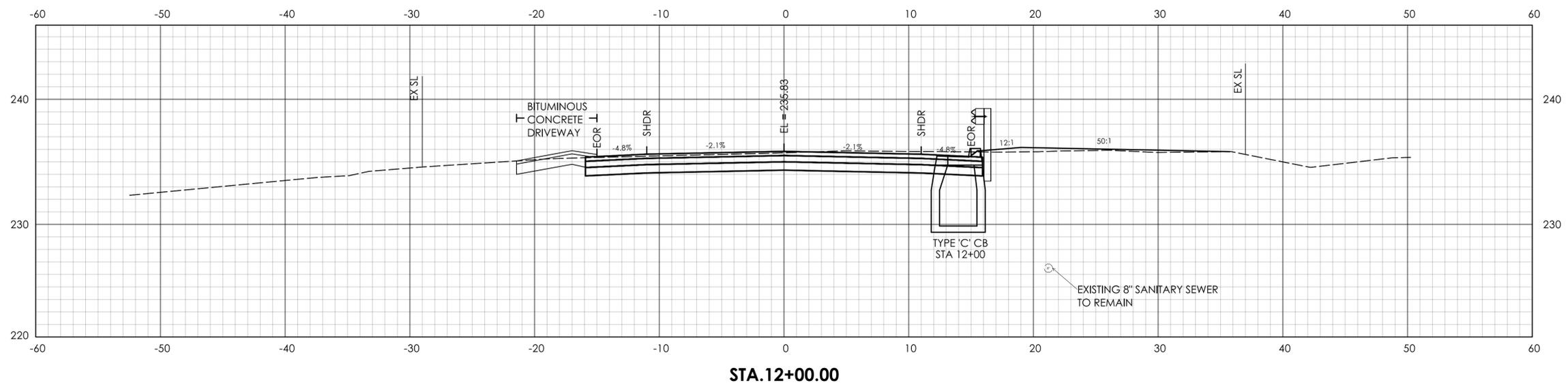


PROJECT NUMBER: 0000-0000
 PROJECT DESCRIPTION: REPLACEMENT OF LAKE AVENUE CULVERT OVER CUSSGUTTER BROOK
 TOWN(S): BRISTOL
 DRAWING TITLE: ROADWAY PROFILE

DRAWING NO. PRO-01
 SHEET NO. 3.08

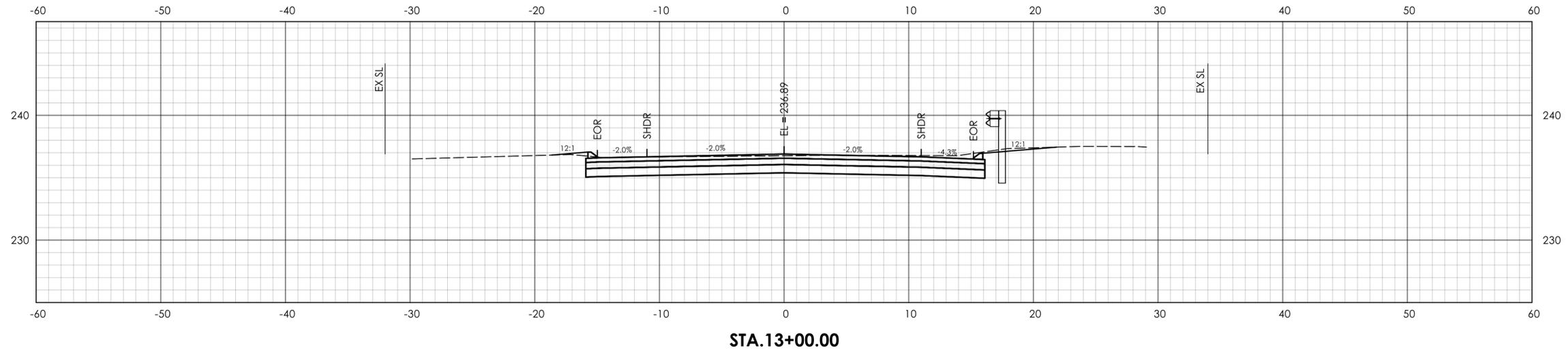


- NOTES:
- EXISTING 6" SEWER FORCE MAIN WAS NOT ABLE TO BE LOCATED DURING DESIGN INVESTIGATIONS AND THEREFORE IS NOT SHOWN IN CROSS SECTIONS.
 - EXISTING 12" WATER MAIN SHOWN AT TEST PIT STATION ONLY.

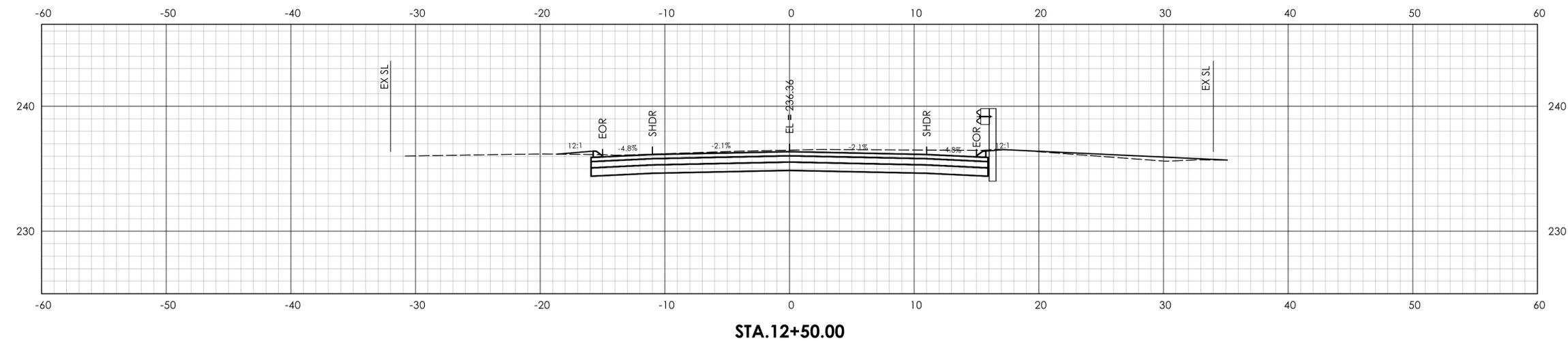


NOTES:

1. EXISTING 6" SEWER FORCE MAIN WAS NOT ABLE TO BE LOCATED DURING DESIGN INVESTIGATIONS AND THEREFORE IS NOT SHOWN IN CROSS SECTIONS.
2. EXISTING 12" WATER MAIN SHOWN AT TEST PIT STATION ONLY.



STA.13+00.00



STA.12+50.00

NOTES:

1. EXISTING 6" SEWER FORCE MAIN WAS NOT ABLE TO BE LOCATED DURING DESIGN INVESTIGATIONS AND THEREFORE IS NOT SHOWN IN CROSS SECTIONS.
2. EXISTING 12' WATER MAIN SHOWN AT TEST PIT STATION ONLY.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

- TRAFFIC SHALL BE MAINTAINED IN BOTH DIRECTIONS THROUGHOUT CONSTRUCTION UNLESS NOTED OTHERWISE. CONSTRUCTION OF THE CULVERT SHALL BE STAGED TO ACCOMPLISH THIS.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIAL PROVISIONS FOR SECTION 1.08 - PROSECUTION AND PROGRESS AND ITEM NO. 0971001A - MAINTENANCE AND PROTECTION OF TRAFFIC.
- EXISTING CONFLICTING PAVEMENT MARKINGS AND CONFLICTING PAVEMENT MARKINGS FROM ANY PREVIOUS STAGE THAT ARE NOT BEING REMOVED WITH THE REMOVAL OF THE PAVEMENT SHALL BE REMOVED AND PAID UNDER ITEM NO. 1211001 "REMOVAL OF PAVEMENT MARKINGS", INCLUDING THOSE PAVEMENT MARKINGS OUTSIDE OF THE TRAVELED WAY.
- EXISTING SIGNS IN CONFLICT WITH TEMPORARY SIGNS SHALL BE COVERED, REMOVED, OR REVISED TO MEET FIELD CONDITIONS.
- THE LOCATIONS OF TEMPORARY SIGNS SHOWN ON THE PLANS ARE APPROXIMATE AND SHALL BE ADJUSTED BY THE CONTRACTOR TO MEET FIELD CONDITIONS.
- TEMPORARY SIGNS SHALL BE MOUNTED ON POSTS WHEN FEASIBLE.
- THE LOCATIONS OF TRAFFIC DRUMS SHOWN ON THE PLANS ARE APPROXIMATE AND SHALL BE ADJUSTED BY THE CONTRACTOR TO MEET FIELD CONDITIONS AND TO CLEARLY DEFINE ACCESS TO AND EGRESS FROM ALL ROADWAYS AND DRIVEWAYS.
- THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION. COORDINATE ACCESS WITH PAVING OPERATIONS SO THAT JOINTS ARE MINIMIZED.
- TEMPORARY TRAFFIC BARRIER LOCATIONS, TRAFFIC DRUM LOCATIONS, AND PAVEMENT LIMITS BETWEEN STAGES SHOWN IS SUGGESTED. CONTRACTOR SHALL SUBMIT CONSTRUCTION STAGING PLAN FOR REVIEW PRIOR TO START OF CONSTRUCTION
- ALL TEMPORARY CONSTRUCTION SIGNS SHALL BE REMOVED BY THE CONTRACTOR AT THE CONCLUSION OF THE PROJECT.
- ANY RELOCATION OF TEMPORARY TRAFFIC BARRIER SHALL BE MEASURED ONCE IN EACH STAGE. THE RELOCATION REQUIRED EACH DAY FOR CONSTRUCTION OPERATIONS SHALL NOT BE MEASURED FOR PAYMENT.
- CONTRACTOR SHALL ALLOW ACCESS BY UTILITY COMPANIES WITHIN WORK AREA FOR ANY UTILITY RELOCATION WORK.
- TEMPORARY TRAFFIC BARRIER SHALL BE PINNED WHEN LIMITATIONS OF HIGHWAY STANDARD DRAWING HW-822_01 FOR EDGE CLEARANCE CAN NOT BE MET.
- ONE-WAY ALTERNATING TRAFFIC FOR ACTIVITIES APPROVED BY THE CITY THAT DO NOT OCCUR DURING STAGE 3 SHALL REQUIRE THE USE OF ITEM NO. 0970006 TRAFFICPERSON (MUNICIPAL POLICE OFFICER) AND ITEM NO. 0970007 TRAFFICPERSON (UNIFORMED FLAGGER).
- TEMPORARY SIGNALIZATION, ITEM NO. 1118101A, WITH ONE-WAY ALTERNATING TRAFFIC TO BE USED DURING STAGE 3.

WATER HANDLING NOTES:

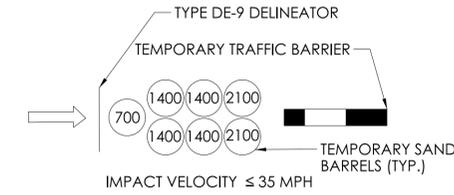
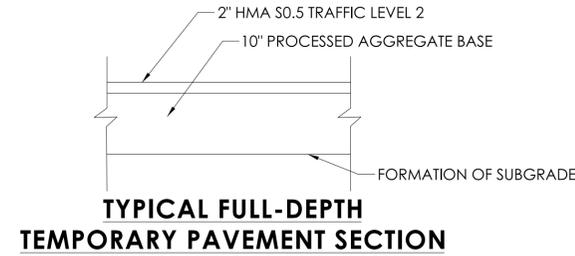
- THE CONTRACTOR SHALL MAINTAIN WATER THROUGH THE TEMPORARY WATER HANDLING SYSTEM BY PROVIDING THE MINIMUM HYDRAULIC OPENINGS, SHOWN ON THE STAGING PLANS DURING THE CONSTRUCTION OF THE NEW STRUCTURE.
- EQUIPMENT SHALL NOT BE PERMITTED IN THE BROOK WHEN TEMPORARY WATER HANDLING SYSTEM IS NOT IN PLACE WITHOUT APPROVAL FROM THE ENGINEER.
- A DEWATERING BASIN SHALL BE ESTABLISHED AS SHOWN ON PLANS.
- TEMPORARY SUPPORT OF EXCAVATION SHALL CONSIST OF AN APPROVED SYSTEM THAT THE CONTRACTOR ELECTS TO USE WHICH SHALL SAFELY CONVEY TRAFFIC THROUGH THE CONSTRUCTION AREAS. SHALL BE ABLE TO SUPPORT CONSTRUCTION ACTIVITY AND SHALL CONFORM TO PERMITS. PAID AS ITEM NO. 0716000 TEMPORARY EARTH RETAINING SYSTEM.
- WATER HANDLING MEASURES SHALL NOT EXCEED IMPACT AREAS SHOWN ON THE WETLAND/WATERCOURSE IMPACT PLAN OF THE PERMIT PLANS.
- IF A SHORT DURATION PUMP SYSTEM IS PROPOSED DURING LOW FLOW CONDITIONS, THE PUMP SYSTEM SHALL BE DESIGNED BY THE CONTRACTOR AND HAVE A MINIMUM CAPACITY AS SHOWN IN THE TEMPORARY HYDRAULIC TABLE. PUMP SYSTEM PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
- THE "SUGGESTED CONSTRUCTION SEQUENCE" IS SHOWN TO OUTLINE SEQUENCE OF MAJOR WORK ONLY. THE CONTRACTOR SHALL PLAN AND PERFORM OTHER ACTIVITIES ACCORDINGLY.
- THE CONTRACTOR TO PERFORM SIMULTANEOUS ACTIVITIES WHEREVER POSSIBLE.
- WETLAND LIMITS AND STREAM WIDTH TO BE CONSIDERED COINCIDENTAL.

NATURAL STREAMBED MATERIAL NOTES:

- NATIVE STREAMBED MATERIAL EXCAVATED DURING EXISTING STRUCTURE REMOVAL AND NEW STRUCTURE INSTALLATION SHALL BE STOCKPILED AND THEN REMOVED TO THE DEPTH SHOWN ON THE PLANS, AS DIRECTED BY THE ENGINEER, AND IN ACCORDANCE WITH SPECIAL PROVISION "EXCAVATION AND REUSE OF EXISTING CHANNEL BOTTOM MATERIAL".
- ADDITIONAL STREAMBED MATERIAL, IF REQUIRED, SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISION "SUPPLEMENTAL CHANNEL MATERIAL".
- THE STOCKPILE SHALL BE LOCATED OUTSIDE THE WETLAND LIMITS AND PROTECTED WITH SEDIMENTATION CONTROL SYSTEM.

WORK RESTRICTIONS:

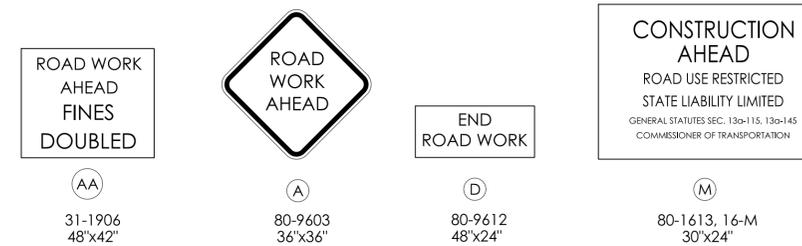
- UNCONFINED, IN-STREAM WORK, NOT INCLUDING INSTALLATION AND REMOVAL OF COFFERDAMS, IS LIMITED TO THE LOWFLOW PERIOD, JUNE 1 – SEPTEMBER 30.
- IN-WATER WORK IS PROHIBITED FROM APRIL 1 TO MAY 30 UNLESS IT OCCURS BEHIND A COFFERDAM (SEE ABOVE).
- CONTROLS SHALL ONLY BE INSTALLED AND REMOVED DURING THE APPROVED WINDOW FOR WORK (JUNE 1 – MARCH 31) AND MUST NOT ENCROACH >25% OF THE STREAM WIDTH MEASURED FROM OHW DURING THE PROHIBITED WORK WINDOW.



LEGEND:

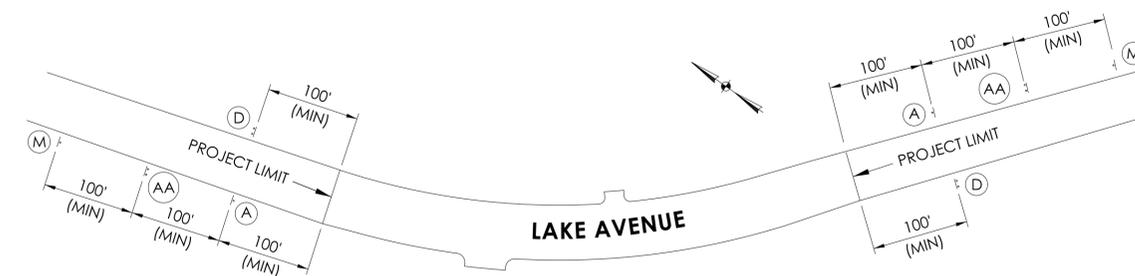
- FULLY CONSTRUCTED ROADWAY/DRIVEWAY
- PERMANENT ROADWAY UP TO TOP OF FIRST COURSE OF BITUMINOUS UNDER CONSTRUCTION
- PREVIOUSLY CONSTRUCTED ROADWAY UP TO TOP OF FIRST COURSE OF BITUMINOUS
- TEMPORARY PAVEMENT UNDER CONSTRUCTION
- PREVIOUSLY CONSTRUCTED TEMPORARY PAVEMENT
- TEMPORARY IMPACT ATTENUATOR SYSTEM W/TYPE DE-9 DELINEATOR (SEE DETAILS)
- TEMPORARY TRAFFIC BARRIER
- TRAFFIC DRUM
- SINGLE POST MOUNTED SIGN
- DOUBLE POST MOUNTED SIGN
- SUGGESTED TEMPORARY SUPPORT OF EXCAVATION LIMITS
- DIRECTION OF TRAFFIC

TEMPORARY IMPACT ATTENUATOR SYSTEM



ADVANCED CONSTRUCTION SIGN LEGEND

NOTE: ADVANCED CONSTRUCTION SIGNS AND SIGNS SHOWN ON MPT-04 PAID AS ITEM NO 1220027 CONSTRUCTION SIGNS.



ADVANCED CONSTRUCTION SIGN LEGEND

N.T.S.

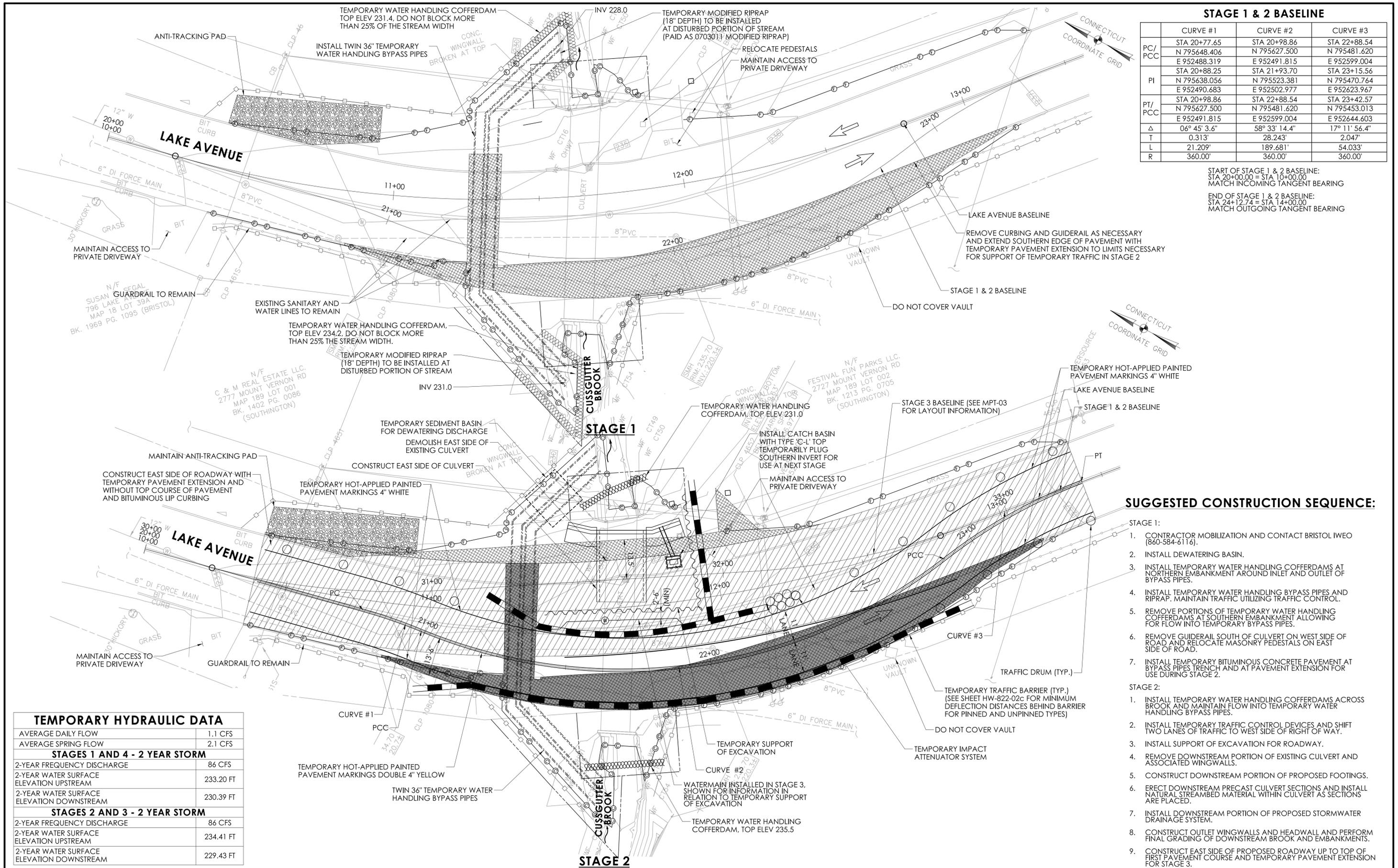
NOTE: ADVANCED CONSTRUCTION SIGNS TO BE INSTALLED PRIOR TO THE START OF STAGE 1 CONSTRUCTION AND SHALL REMAIN UNTIL PROJECT COMPLETION.

STAGE 1 & 2 BASELINE

	CURVE #1	CURVE #2	CURVE #3
PC/ PCC	STA 20+77.65 N 795648.406 E 952488.319	STA 20+98.86 N 795627.500 E 952491.815	STA 22+88.54 N 795481.620 E 952599.004
PI	STA 20+88.25 N 795638.056 E 952490.683	STA 21+93.70 N 795523.381 E 952502.977	STA 23+15.56 N 795470.764 E 952623.967
PT/ PCC	STA 20+98.86 N 795627.500 E 952491.815	STA 22+88.54 N 795481.620 E 952599.004	STA 23+42.57 N 795453.013 E 952644.603
Δ	06° 45' 3.6"	58° 33' 14.4"	17° 11' 56.4"
T	0.313'	28.243'	2.047'
L	21.209'	189.681'	54.033'
R	360.00'	360.00'	360.00'

START OF STAGE 1 & 2 BASELINE:
STA 20+00.00 = STA 10+00.00
MATCH INCOMING TANGENT BEARING

END OF STAGE 1 & 2 BASELINE:
STA 24+12.74 = STA 14+00.00
MATCH OUTGOING TANGENT BEARING



SUGGESTED CONSTRUCTION SEQUENCE:

- STAGE 1:**
1. CONTRACTOR MOBILIZATION AND CONTACT BRISTOL IWEO (860-584-6116).
 2. INSTALL DEWATERING BASIN.
 3. INSTALL TEMPORARY WATER HANDLING COFFERDAMS AT NORTHERN EMBANKMENT AROUND INLET AND OUTLET OF BYPASS PIPES.
 4. INSTALL TEMPORARY WATER HANDLING BYPASS PIPES AND RIPRAP. MAINTAIN TRAFFIC UTILIZING TRAFFIC CONTROL.
 5. REMOVE PORTIONS OF TEMPORARY WATER HANDLING COFFERDAMS AT SOUTHERN EMBANKMENT ALLOWING FOR FLOW INTO TEMPORARY BYPASS PIPES.
 6. REMOVE GUARDRAIL SOUTH OF CULVERT ON WEST SIDE OF ROAD AND RELOCATE MASONRY PEDESTALS ON EAST SIDE OF ROAD.
 7. INSTALL TEMPORARY BITUMINOUS CONCRETE PAVEMENT AT BYPASS PIPES TRENCH AND AT PAVEMENT EXTENSION FOR USE DURING STAGE 2.
- STAGE 2:**
1. INSTALL TEMPORARY WATER HANDLING COFFERDAMS ACROSS BROOK AND MAINTAIN FLOW INTO TEMPORARY WATER HANDLING BYPASS PIPES.
 2. INSTALL TEMPORARY TRAFFIC CONTROL DEVICES AND SHIFT TWO LANES OF TRAFFIC TO WEST SIDE OF RIGHT OF WAY.
 3. INSTALL SUPPORT OF EXCAVATION FOR ROADWAY.
 4. REMOVE DOWNSTREAM PORTION OF EXISTING CULVERT AND ASSOCIATED WINGWALLS.
 5. CONSTRUCT DOWNSTREAM PORTION OF PROPOSED FOOTINGS.
 6. ERECT DOWNSTREAM PRECAST CULVERT SECTIONS AND INSTALL NATURAL STREAMBED MATERIAL WITHIN CULVERT AS SECTIONS ARE PLACED.
 7. INSTALL DOWNSTREAM PORTION OF PROPOSED STORMWATER DRAINAGE SYSTEM.
 8. CONSTRUCT OUTLET WINGWALLS AND HEADWALL AND PERFORM FINAL GRADING OF DOWNSTREAM BROOK AND EMBANKMENTS.
 9. CONSTRUCT EAST SIDE OF PROPOSED ROADWAY UP TO TOP OF FIRST PAVEMENT COURSE AND TEMPORARY PAVEMENT EXTENSION FOR STAGE 3.

TEMPORARY HYDRAULIC DATA

AVERAGE DAILY FLOW	1.1 CFS
AVERAGE SPRING FLOW	2.1 CFS
STAGES 1 AND 4 - 2 YEAR STORM	
2-YEAR FREQUENCY DISCHARGE	86 CFS
2-YEAR WATER SURFACE ELEVATION UPSTREAM	233.20 FT
2-YEAR WATER SURFACE ELEVATION DOWNSTREAM	230.39 FT
STAGES 2 AND 3 - 2 YEAR STORM	
2-YEAR FREQUENCY DISCHARGE	86 CFS
2-YEAR WATER SURFACE ELEVATION UPSTREAM	234.41 FT
2-YEAR WATER SURFACE ELEVATION DOWNSTREAM	229.43 FT

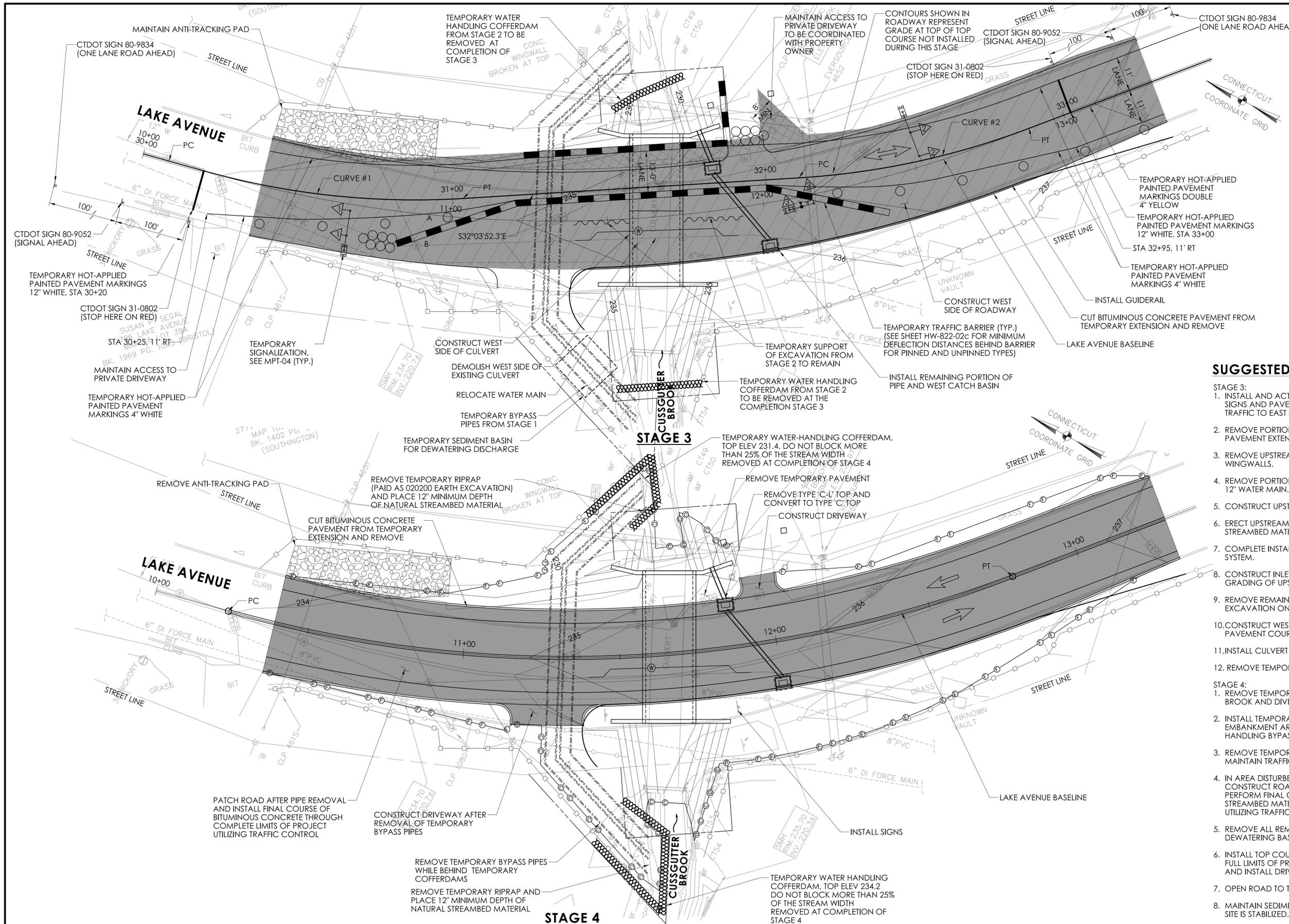


SIGNATURE/
BLOCK:



PROJECT DESCRIPTION: REPLACEMENT OF LAKE AVENUE CULVERT OVER CUSSCUTTER BROOK
TOWN(S): BRISTOL
DRAWING TITLE: MAINTENANCE AND PROTECTION OF TRAFFIC, STAGING, AND WATER HANDLING PLAN - STAGES 1 & 2

MPT-02
SHEET NO. 3.13



	CURVE #1	CURVE #2
PC	STA 30+19.74	STA 32+10.67
	N 795704.867	E 795537.001
	E 952475.418	E 952564.176
PI	STA 30+62.01	STA 32+48.56
	N 795657.430	N 795548.602
	E 952486.257	E 952549.804
PT	STA 31+03.49	STA 32+85.87
	N 795627.834	N 795480.194
	E 952507.275	E 952613.005
Δ	19° 11' 40.3"	17° 13' 58.0"
T	42.272'	37.882'
L	83.752'	75.192'
R	250.00'	250.00'

STAGE 3 BASELINE

START OF STAGE 3 BASELINE:
 STA 30+00.00 = STA 10+00.00
 MATCH INCOMING TANGENT BEARING

END OF STAGE 3 BASELINE:
 STA 33+97.71 = STA 14+00.00
 MATCH OUTGOING TANGENT BEARING

TAPER: WS/2 / 60 = 95 FT
 W = 9 FT
 S = 25 MPH

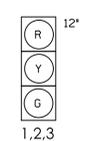
SUGGESTED CONSTRUCTION SEQUENCE:

- STAGE 3:
1. INSTALL AND ACTIVATE TEMPORARY SIGNALIZATION WITH SPECIFIED SIGNS AND PAVEMENT MARKINGS WITH ONE-WAY ALTERNATING TRAFFIC TO EAST SIDE OF ROADWAY.
 2. REMOVE PORTIONS OF SUPPORT OF EXCAVATION AND TEMPORARY PAVEMENT EXTENSION NO LONGER REQUIRED.
 3. REMOVE UPSTREAM PORTION OF EXISTING CULVERT AND ASSOCIATED WINGWALLS.
 4. REMOVE PORTION OF EXISTING AND INSTALL PROPOSED 12" WATER MAIN.
 5. CONSTRUCT UPSTREAM PORTION OF PROPOSED FOOTINGS.
 6. ERECT UPSTREAM PRECAST CULVERT SECTIONS AND INSTALL NATURAL STREAMBED MATERIAL WITHIN CULVERT AS SECTIONS ARE PLACED.
 7. COMPLETE INSTALLATION OF PROPOSED STORMWATER DRAINAGE SYSTEM.
 8. CONSTRUCT INLET WINGWALLS AND HEADWALL AND PERFORM FINAL GRADING OF UPSTREAM BROOK AND EMBANKMENTS.
 9. REMOVE REMAINING PORTIONS OF TEMPORARY SUPPORT OF EXCAVATION ONCE NO LONGER REQUIRED.
 10. CONSTRUCT WEST SIDE OF PROPOSED ROADWAY UP TO TO OF FIRST PAVEMENT COURSE.
 11. INSTALL CULVERT GUIDERAIL AND ROADWAY GUIDERAIL.
 12. REMOVE TEMPORARY SIGNALIZATION AT END OF STAGE.
- STAGE 4:
1. REMOVE TEMPORARY WATER HANDLING COFFERDAMS ACROSS BROOK AND DIVERT FLOW INTO COMPLETE PROPOSED CULVERT.
 2. INSTALL TEMPORARY WATER HANDLING COFFERDAMS AT NORTHERN EMBANKMENT AROUND INLET AND OUTLET OF TEMPORARY WATER HANDLING BYPASS PIPES AND RIPRAP.
 3. REMOVE TEMPORARY WATER HANDLING PIPES AND RIPRAP. MAINTAIN TRAFFIC UTILIZING TRAFFIC CONTROL.
 4. IN AREA DISTURBED BY TEMPORARY WATER HANDLING BYPASS PIPES, CONSTRUCT ROADWAY UP TO TOP OF FIRST PAVEMENT COURSE AND PERFORM FINAL GRADING INCLUDING INSTALLATION OF NATURAL STREAMBED MATERIAL AT DISTURBED STREAM. MAINTAIN TRAFFIC UTILIZING TRAFFIC CONTROL.
 5. REMOVE ALL REMAINING TEMPORARY PAVEMENT AND DEWATERING BASIN.
 6. INSTALL TOP COURSE OF BITUMINOUS CONCRETE PAVEMENT THROUGH FULL LIMITS OF PROJECT LIMITS. INSTALL BITUMINOUS LIP CURBING, AND INSTALL DRIVEWAY APRONS.
 7. OPEN ROAD TO TRAFFIC.
 8. MAINTAIN SEDIMENTATION CONTROL SYSTEMS UNTIL PROJECT SITE IS STABILIZED.

MOVEMENT DIAGRAM																										
NTOR	PHASE 1			PHASE 2			PHASE 3			PHASE 4			PHASE 5			PHASE 6			PHASE 7			PHASE 8				
	FLASH	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	GRN	CL	CL	
F A C E #	1	R	G	Y	R	R	R	R	R	R	R	R	R													
	2	R	R	R	R	G	Y	R	R	R	R	R	R													
	3	R	R	R	R	R	R	R	G	Y	R															
I N T E R V A S	MIN GRN							5																		
	WALK																									
	PED CLR																									
	VEH EXT							3																		
	MAX 1	25			30			12																		
	MAX 2	32			35			12																		
	YELLOW		4			4			4																	
	RED			10			10				8															
	ADD INIT																									
	MAX INIT																									
TBR																										
TTR																										
MIN GAP																										
MODE	MAX RECALL			MAX RECALL			NON-LOCK																			
INIT START																										

TECHNICAL NOTES		OFFICE RECORD	
		REV #	TIR #
			SM #
		TEMPORARY TRAFFIC SIGNAL FOR CONSTRUCTION STAGE 3.	
			SIGNAL REVISED:

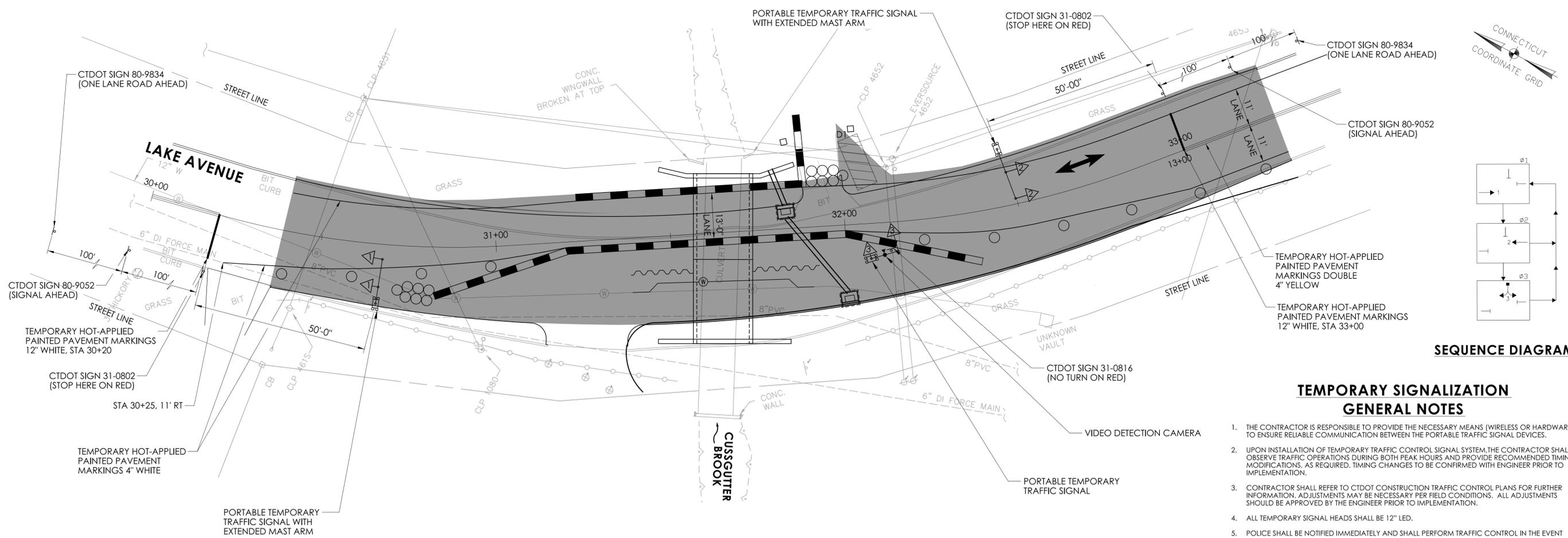
SIGNAL FACES



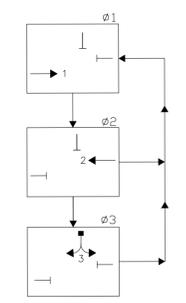
ALL INDICATIONS TO HAVE L.E.D. LAMPS.

LEGEND:

- TEMPORARY IMPACT ATTENUATOR SYSTEM W/TYPE DE-9 DELINEATOR (SEE DETAILS)
- TEMPORARY TRAFFIC BARRIER
- TRAFFIC DRUM
- SINGLE POST MOUNTED SIGN
- DOUBLE POST MOUNTED SIGN
- SUGGESTED TEMPORARY SUPPORT OF EXCAVATION LIMITS
- DIRECTION OF TRAFFIC
- PORTABLE TEMPORARY TRAFFIC SIGNAL
- VIDEO DETECTION CAMERA



SEQUENCE DIAGRAM



TEMPORARY SIGNALIZATION GENERAL NOTES

- THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE NECESSARY MEANS (WIRELESS OR HARDWARE) TO ENSURE RELIABLE COMMUNICATION BETWEEN THE PORTABLE TRAFFIC SIGNAL DEVICES.
- UPON INSTALLATION OF TEMPORARY TRAFFIC CONTROL SIGNAL SYSTEM, THE CONTRACTOR SHALL OBSERVE TRAFFIC OPERATIONS DURING BOTH PEAK HOURS AND PROVIDE RECOMMENDED TIMING MODIFICATIONS, AS REQUIRED, TIMING CHANGES TO BE CONFIRMED WITH ENGINEER PRIOR TO IMPLEMENTATION.
- CONTRACTOR SHALL REFER TO CTDOT CONSTRUCTION TRAFFIC CONTROL PLANS FOR FURTHER INFORMATION. ADJUSTMENTS MAY BE NECESSARY PER FIELD CONDITIONS. ALL ADJUSTMENTS SHOULD BE APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION.
- ALL TEMPORARY SIGNAL HEADS SHALL BE 12" LED.
- POLICE SHALL BE NOTIFIED IMMEDIATELY AND SHALL PERFORM TRAFFIC CONTROL IN THE EVENT THAT THE TEMPORARY SIGNAL IS OUT OF ORDER.
- STOP BAR LOCATIONS AND RED CLEARANCE TIME MAY BE ADJUSTED PER FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. ADJUSTMENTS SHALL BE MAINTAINED IN ACCORDANCE WITH MUTCD.
- SIGNAL TO OPERATE AS SEMI-ACTUATED WITH VIDEO DETECTION AT THE DRIVEWAY.
- PORTABLE TEMPORARY TRAFFIC SIGNAL MAST ARM MOUNTED SIGNAL HEAD SHALL BE POSITIONED OVER THE CENTER OF THE TRAFFIC LANE.
- SEE DRAWING NO. MPT-03 (CONSTRUCTION STAGE 3) FOR TEMPORARY TRAFFIC CONTROL DEVICE LAYOUT, TEMPORARY CONSTRUCTION SIGNS AND PAVEMENT MARKINGS.
- MEASUREMENT AND PAYMENT FOR TEMPORARY TRAFFIC BARRIER, TRAFFIC DRUMS, TEMPORARY IMPACT ATTENUATOR SYSTEM, CONSTRUCTION SIGNS, AND TEMPORARY PAVEMENT MARKINGS NOT TO BE INCLUDED AND PAID FOR UNDER ITEM NO. 1118101A TEMPORARY SIGNALIZATION.

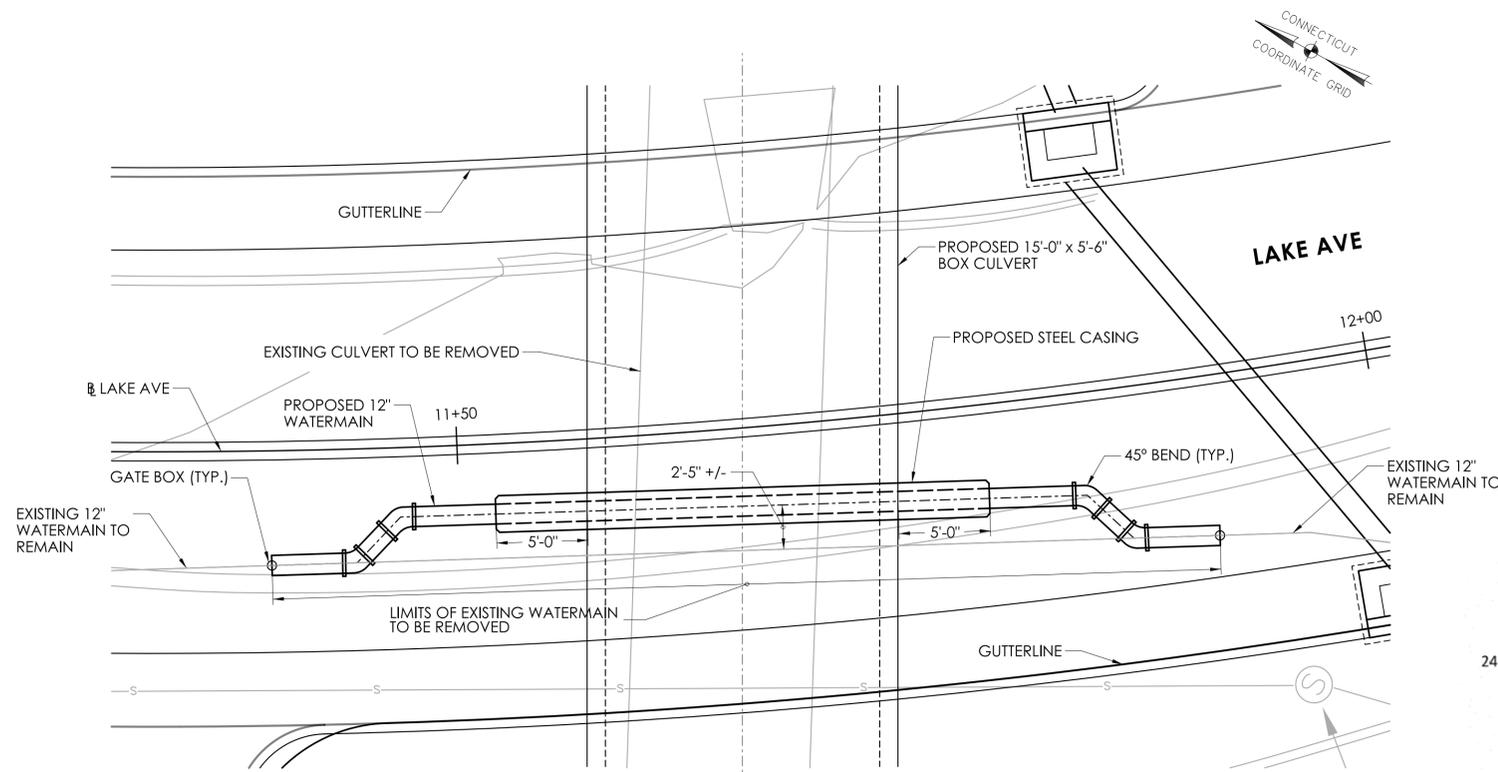
TEMPORARY SIGNALIZATION FOR STAGE 3

TIMING NOTES:

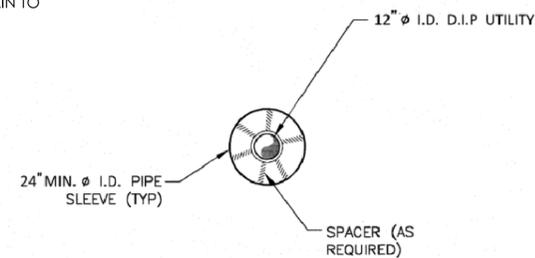
- EACH PHASE MUST COMPLETE THE RED CLEARANCE TIME BEFORE SERVING THE NEXT PHASE
- MAX 1 SHALL OPERATE AT ALL OTHER TIMES.
- MAX 2 SHALL OPERATE BETWEEN 4:00 PM - 6:00 PM, MONDAY THOUGH FRIDAY.
- PHASE 3 TO BE ACTIVATED ONLY BY VEHICLE DETECTION CALL AT DRIVEWAY.

TRAFFIC DATA			
	AM PEAK HOUR	PM PEAK HOUR	
SOUTHBOUND	161	216	
NORTHBOUND	120	155	
AADT	4,400 (2021)		
SPEED LIMIT (POSTED)	25 MPH		

DETECTORS			
IDENT	SIZE (WXL)	TYPE	MODE
D1	6' X 15'	VIDEO	PRESENCE



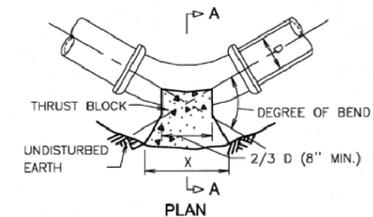
WATERMAIN RELOCATION PLAN
SCALE: 1" = 5'



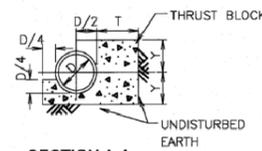
WATER MAIN RELOCATION SLEEVE TYPICAL SECTION
N.T.S.

SLEEVE NOTES:

1. THE COST OF FURNISHING AND INSTALLING THE STEEL COLLAR, LINK SEAL, MODULAR SEAL, AND INCIDENTALS SHALL BE PAID FOR UNDER THE ITEM WATER MAIN RELOCATION.
2. PIPE SLEEVE AND STEEL COLLAR SHALL CONFORM TO THE REQUIREMENT OF ASTM A53 GR. B OR ASTM A501
3. THE PRE-ASSEMBLED PIPE SLEEVE AND COLLAR SHALL BE FINISHED SHOP BLACK.
4. PIPE SLEEVE SHALL BE COATED WITH COAL TAR EPOXY. SEE SPECIAL PROVISIONS.



PLAN



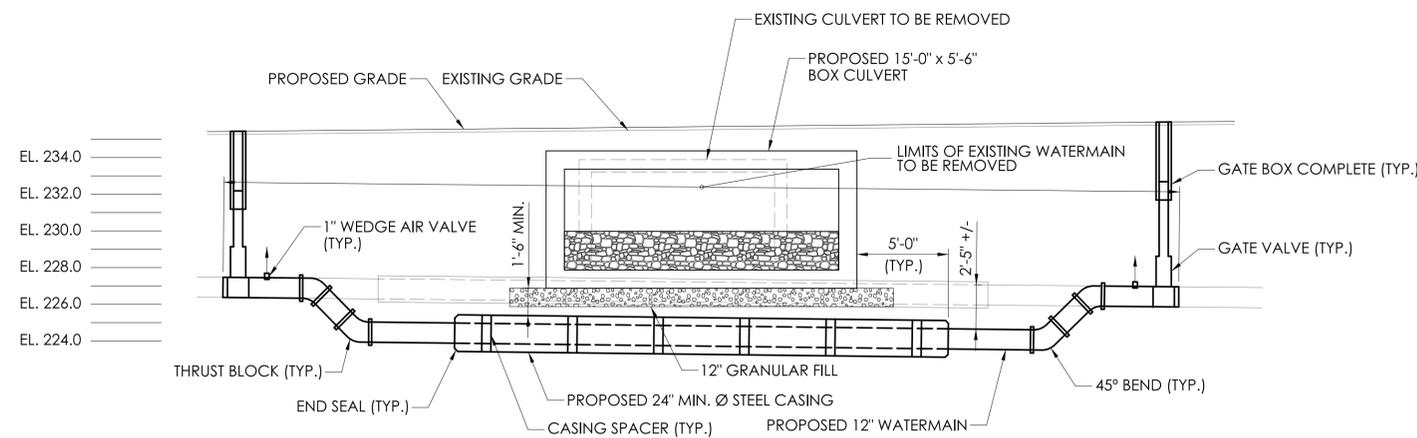
SECTION A-A

NOTES:

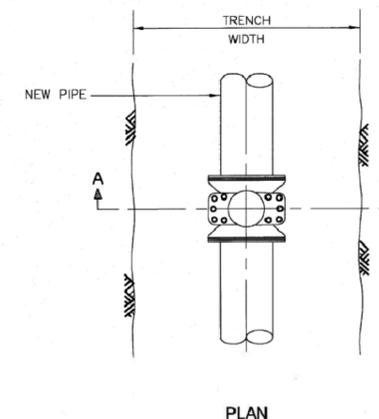
1. ALL CONCRETE SHALL BE 3300 P.S.I @ 28 DAYS (PCC03340 CONCRETE)
2. DIMENSIONS SHOWN ARE MINIMUM AND ARE BASED UPON SOIL PRESSURE OF 1500 P.S.F. AND TOTAL WATER PRESSURE OF 250 P.S.I. TOTAL PRESSURE IS WORKING PRESSURE PLUS SURGE PRESSURE.
3. THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED EARTH.

		TABLE OF DIMENSIONS																							
DIMENSION		90° BEND				45° BEND				22 1/2° BEND				11 1/4° BEND											
D (in.)		4	6	8	10	12	14	4	6	8	10	12	14	4	6	8	10	12	14						
X (in.)		35	35	50	56	72	80	24	24	35	45	51	60	28	28	30	32	37	42	12	12	19	21	27	33
Y (in.)		20	20	24	32	35	40	16	16	19	21	27	33	13	13	13	16	19	22	8	8	9	12	13	16
T (in.)		11	11	14	16	19	22	11	11	14	16	19	22	11	11	13	16	19	22	11	11	13	16	19	22

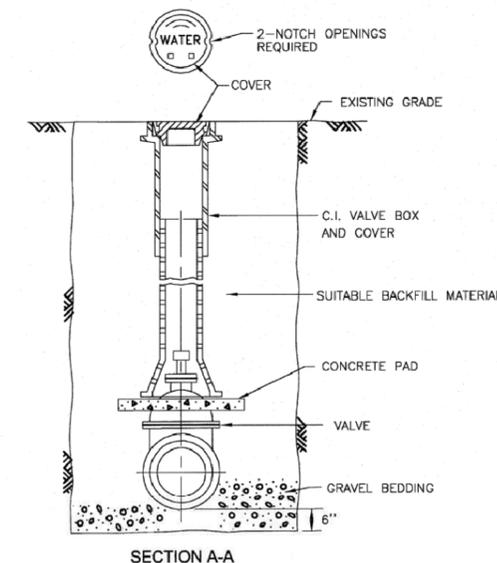
CONCRETE THRUST BLOCK DETAIL AT WATER MAIN BEND
N.T.S.



WATERMAIN RELOCATION ELEVATION
SCALE: 1" = 5'



PLAN



SECTION A-A

TYPICAL VALVE INSTALLATION DETAIL 12" I.D. PIPE AND SMALLER
N.T.S.

NOTES:

1. FOR ADDITIONAL WATER MAIN RELOCATION REQUIREMENTS, SEE SPECIAL PROVISION "RELOCATION OF WATER MAINS".
2. NO INTERRUPTION OF EXISTING UTILITIES SERVICING ADJACENT STRUCTURES SHALL OCCUR UNLESS AUTHORIZED IN WRITING BY THE CITY OF BRISTOL OR THE ENGINEER. INTERRUPTIONS SHALL ONLY OCCUR AFTER APPROVAL IN WRITING FROM THE CITY OF BRISTOL OR THE ENGINEER AND TEMPORARY SERVICES HAVE BEEN PROVIDED.