

INLAND WETLAND AND WATERCOURSES AGENCY

January 16, 2013

Duane Martin
Town Engineer
Town of West Hartford
50 South Main Street
West Hartford, CT 06107-2485

SUBJECT: North Main Street Bridge Rehabilitation - TWV #1020

Dear Mr. Martin:

At its regular meeting of Monday, January 5, 2013, the West Hartford Town Plan and Zoning Commission, acting as the Inland Wetland and Watercourses Agency, gave consideration to the following item:

Application (TWV #1020) of the Town of West Hartford (Duane Martin, Town Engineer) requesting approval of an Inland Wetlands and Watercourses Permit to construct certain regulated activities which may have an adverse impact on a wetland and watercourse area (Foot Bridge). The Town proposes to fully rehabilitate the North Main Street Bridge between Laurel Road and Brooks Boulevard. The proposed rehabilitation will allow the bridge to be reconstructed, increase bridge load capacity, improve safety and security and extend its service life. (Statement of Work for TWV #1020, dated 1/2013; Determined to be potentially significant and set for public hearing on January 5, 2013)

After a detailed review of the application and its related exhibits and after consideration of staff technical comments, and the public hearing record the TWV/A acted by unanimous vote (5-0) (Madison/Soder, Second/Preeman) (Consensus reached for Prestage) to **CONDITIONALLY APPROVE** the proposed regulated activity and to direct that a wetland permit to be issued. During its discussion and deliberation on this matter, the Agency made the following findings:

**NORTH MAIN STREET BRIDGE REHABILITATION
INLAND WETLAND APPLICATION TWV#1020
COMPLIANCE WITH SECTION 16.2 AND 16.4
STANDARDS AND CRITERIA FOR DECISION**

The request to conduct certain regulated activities in West Hartford, Connecticut pursuant to an Inland Wetland and Watercourses application TWV #1020 should be approved as the Standards and Criteria for Decision as set forth in the Inland Wetlands and Watercourses Regulations for the Town of West Hartford in Section 16.2 have been favorably met. During its discussions and deliberations on this matter, the agency made the following findings:

[1.] The environmental impact of the proposed regulated activity on wetlands or watercourses will not be so significant as to warrant the denial of this application.



TOWN OF WEST HARTFORD 50 SOUTH MAIN STREET
WEST HARTFORD, CONNECTICUT 06107-2431
(860) 561-7555 FAX: (860) 561-7400
www.westhartford.org

[2.] The applicant's purpose for the proposed regulated activity is a valid and useful one which alternatives would cause less or no environmental impact to wetlands or watercourses.

[3.] The feasible and prudent alternatives to the proposed activity have been analyzed by the applicant and the proposed activity is likely to cause less or no environmental impact to wetlands or watercourses than those alternatives.

[4.] The short-term and long-term impacts of the proposed regulated activity on wetlands or watercourses are not to be so significant as to warrant denial of this application.

[5.] The long term productivity of the wetlands or watercourses will not be damaged by the approval of this application.

[6.] The proposed regulated activity will not cause irreversible and irretrievable loss of wetland or watercourse resources.

[7.] The proposed regulated activity neither threatens nor impacts the safety, health or reasonable use of property; and

[8.] The proposed regulated activity and future activities associated with or reasonably related to, the proposed regulated activities which are made permissible by the proposed regulated activity will not have significant impacts on wetlands or watercourses outside the area for which the activity is proposed.

In addition the Agency considered measures which would mitigate the impact of the proposed activity and may be imposed as conditions of the permit. Such measures include the availability of further technical improvements or safeguards which could feasibly be added to the plan or action to avoid the reduction or damage to the wetlands or watercourse natural capacity to support desirable biological life, prevent flooding, supply water, control sedimentation and/or prevent erosion, stabilize wastes, facilitate drainage, and provide recreation and open space. The Agency reserves its decision to issue this permit on the following considerations and criteria:

- A. That the natural functions and quality of water in local drainage systems both on and off-site shall be preserved and maintained.
- B. That the overall impact of this development on the environment will be kept to a minimum. If the conditions imposed by this permit are carried out by the applicant.
- C. There are no reasonable and prudent alternatives which will allow the same activity to be carried out on the proposed site.
- D. During the period when this permit remains in force, the applicant and the Inland Wetland and Watercourses Agency will be working together to good faith to resolve any matters that may arise relative to the environmental impact on the community due to the activities of the applicant.

The Agency hereby authorizes the applicant to conduct a series of regulated activities on parcels of land which fall under the jurisdiction of the Inland Wetlands and Watercourses Act of the Connecticut General Statutes and the Inland Wetlands and Watercourses Regulations of the Town of West Hartford. Said parcels of land are generally located on 172 & 175 North Main Street and 4 & 14 Wyndwood Road.

This permit is issued and made subject to the following conditions:

- 1) Plans of record are incorporated by reference in this permit as fully set forth herein.
- 2) Town Engineering Division and Planning Division shall receive copies of all material received by TWV/A and DEEP.
- 3) The wetland permit is subject to full compliance with the Town erosion and sediment requirements.
- 4) This TWV/A permit approval shall be stripped onto the final set plans.
- 5) The applicant shall retain a professional engineer to oversee construction of all improvements and related facilities and certify they have been constructed in accordance with the approved plan.

SPECIAL SITE DEVELOPMENT AND EROSION CONTROL CONDITIONS

An integral requirement of this approval is the early installation and construction of all drainage facilities, and all needed erosion and sedimentation control measures. Prior to the start of any construction, related to on-site improvements, site grading or soil construction, the applicant shall install the needed protective measures and shall continuously maintain such throughout the construction process. The requirements of Article VIII, at Section 17-60 through 17-67 of the Code of Ordinances related to Erosion and Sedimentation Control shall govern all site construction activity.

- 1) In addition to the above basic requirements, this permit is issued and made subject to the following conditions:
 - 1) The applicant shall retain a professional engineer to inspect/oversee construction and the installation/maintenance of the sedimentation and control measures. Inspection shall occur weekly and after each restoration and during major storm events to determine all sedimentation and erosion control measures are adequately in place and effective. Bi-weekly inspection reports shall be provided to the Town Planner and Town Engineer.
 - 2) Removal of topsoil will not be permitted until the required erosion/erosion control devices have been installed and inspected by the applicant's engineer. The applicant's engineer shall certify that all erosion and sedimentation controls have been installed according to the approved plan.
 - 3) Disturbed areas that will remain idle for extended periods shall be mulched or temporarily seeded for erosion control.

4) The top soil will be stockpiled only in an approved location and shall be contained by hard hay or screen filters which will be installed and maintained around the entire perimeter.

5) No unnecessary encroachments of construction equipment or vehicles shall be permitted in non-construction areas. Vehicle access to undisturbed areas of this site is restricted to the minimum necessary to complete erosion control and drainage systems.

6) Filters or hay bales shall be installed around all catch basins inlet grates. During construction, outlets of any drainage systems shall be protected by hay bales filtration screens or splash pools.

7) In addition to the measures shown on the plans, additional erosion and sedimentation control measures shall be installed when determined necessary by the Director of Community Services, or his designee.

8) The placement and maintenance of all erosion and sediment control measures must meet or exceed specifications set forth in 2007 Connecticut Guidelines for Soil Erosion and Sediment Control, by the Connecticut Council on Soil and Water Conservation.

9) The permit shall expire if not exercised within two (2) years from the date of issuance, or date of final resolution of any legal action challenging this permit. This permit shall not be assigned, transferred, sold or sold to any other person without written permission of the Agency.

10) By this letter the TWV/A is transmitting a notice of TWV/A permit approval. This notice is given to the West Hartford Town Clerk and to the State of Connecticut Department of Energy & Environmental Protection per the requirements of the Inland Wetlands and Watercourses Regulations.

If you have any questions regarding this letter, please feel free to contact the Planning Office at 860.561.7355.

Very truly yours,

Kevin Abena, Chairman
TWV/WVA

cc: Mark Indovina, Director of Community Services
Paul Laska, Town Clerk
John DeLuca, Town Engineer
Duane Martin, Town Planner
John Laska, Town Inspector
John Laska, Town Inspector
John Laska, Town Inspector
Department of Energy & Environmental Protection
Inland TWV #1020

18-017726/InlandWetlands/2013/Jan16/13 TWV#1020 Jan 13

THIS DOCUMENT IS PREPARED SPECIFICALLY FOR THE APPLICANT AND IS NOT TO BE REPRODUCED, COPIED, UNDERLINED, ALTERED, REVISION, DELETION, OR USE WITHOUT THE CONSENT OF TECTONIC, OR ANY PART THEREOF. TECTONIC ENGINEERING, P.C. ALL RIGHTS RESERVED.

COPIES OF THIS DOCUMENT WITHOUT A FISCAL STAMP OR THE SIGNATURE AND AN ORIGINAL EMPLOYED BY THE PROFESSIONAL ENGINEER OR LAND SURVEYOR SHALL NOT BE CONSIDERED VALID COPIES.



Plan	Date	Revisions	Approved								
			<table border="1"> <tr> <td>Prepared by</td> <td>J.A.S.</td> </tr> <tr> <td>Checked by</td> <td>J.A.S.</td> </tr> <tr> <td>Reviewed by</td> <td>J.A.S.</td> </tr> <tr> <td>Approved by</td> <td>J.A.S.</td> </tr> </table>	Prepared by	J.A.S.	Checked by	J.A.S.	Reviewed by	J.A.S.	Approved by	J.A.S.
Prepared by	J.A.S.										
Checked by	J.A.S.										
Reviewed by	J.A.S.										
Approved by	J.A.S.										

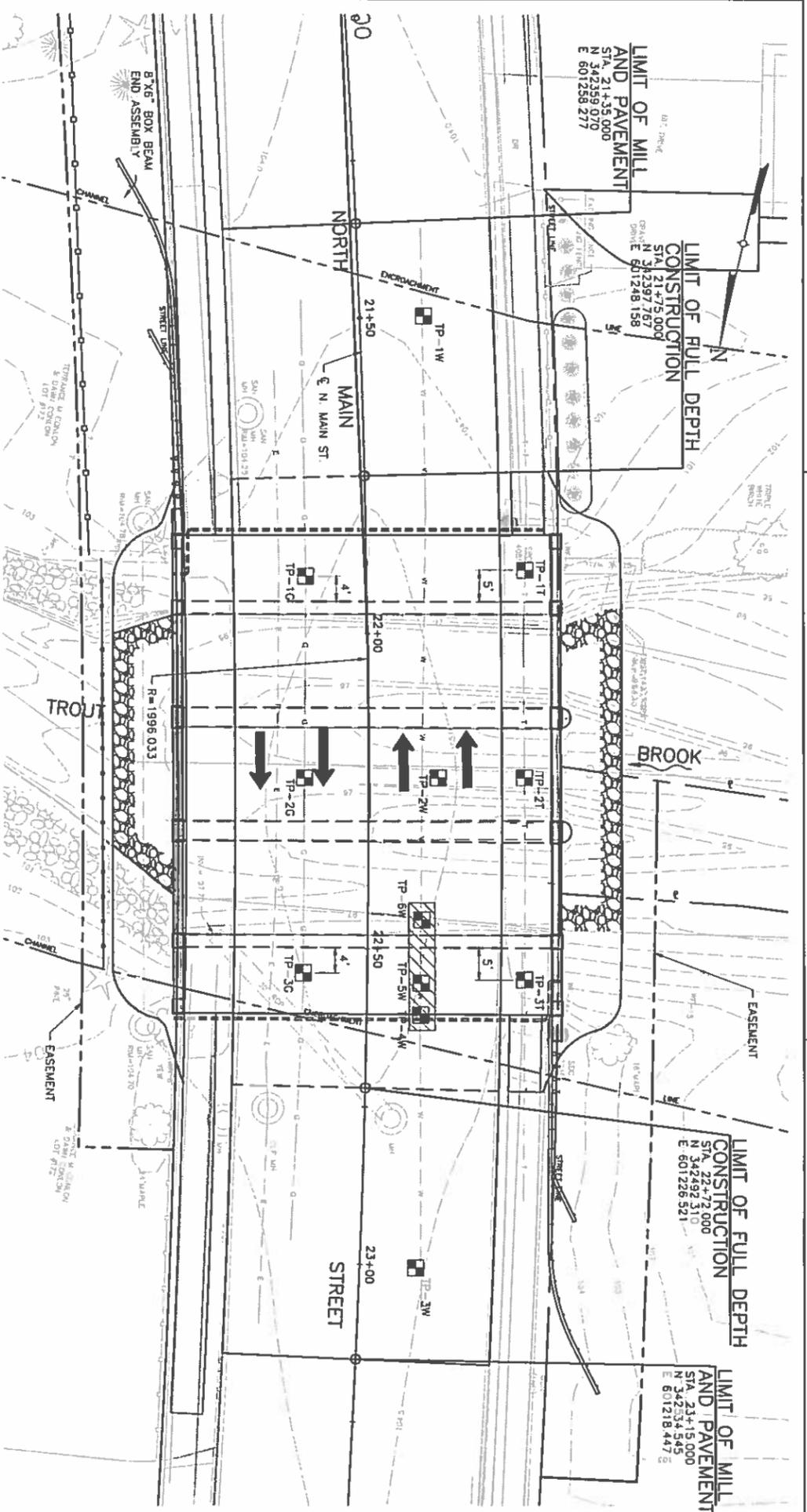


TECTONIC ENGINEERING, P.C.
1341 State Street, Suite 200
West Hartford, CT 06107
Phone: (860) 561-7355
Fax: (860) 237-4842
www.tectonicengineering.com

INLAND / WETLANDS PERMIT LETTER

REHABILITATION OF BRIDGE NO. 03651
OVER NORTH MAIN STREET
WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Drawn No. 2
Scale AS SHOWN
Date 5-08-13



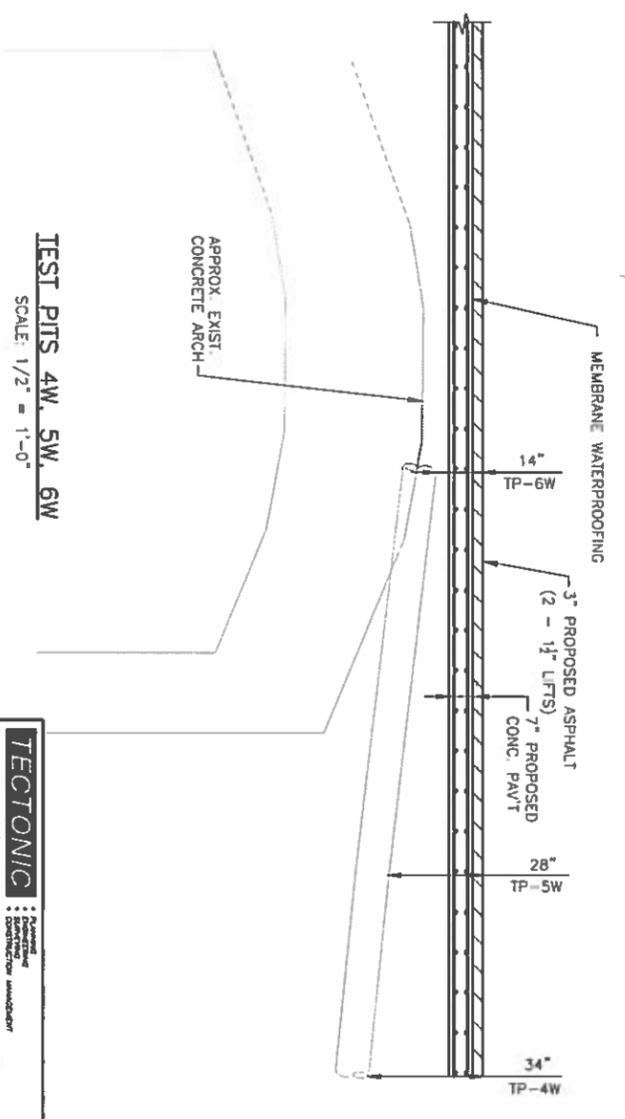
PLAN
SCALE: 1" = 10'-0"

- LEGEND:**
- DENOTES TEST PIT LOCATION.
 - ▣ DENOTES TEST PITS PREVIOUSLY OBTAINED BY MDC.

NOTE:
APPROX. FLOOD LIMIT DRAWN FROM FEMA MAP.

TEST PIT NOTES:

1. THE CONTRACTOR SHALL OBTAIN TEST PITS AS PART OF HIS WORK REQUIRED TO MAINTAIN, PROTECT AND SUPPORT EXISTING UNDERGROUND UTILITY SERVICES.
2. THE LOCATION OF TEST PITS IS APPROXIMATE.
3. THE CONTRACTOR SHALL CALL "CALL BEFORE YOU DIG" IN ADVANCE TO LOCATE THE EXISTING UTILITIES.
4. THE CONTRACTOR CANNOT START THE WORK WITHOUT THE PRESENCE OF A UTILITY REPRESENTATIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT AND COORDINATE THE WORK WITH THE UTILITY COMPANIES.
5. INFORMATION RECEIVED FROM C&P INDICATE THAT THE ORIGINAL DUCTS AT THE BRIDGE ARE EMPTY, HOWEVER THIS SHALL BE VERIFIED BY THE CONTRACTOR.



TEST PITS 4W, 5W, 6W
SCALE: 1/2" = 1'-0"

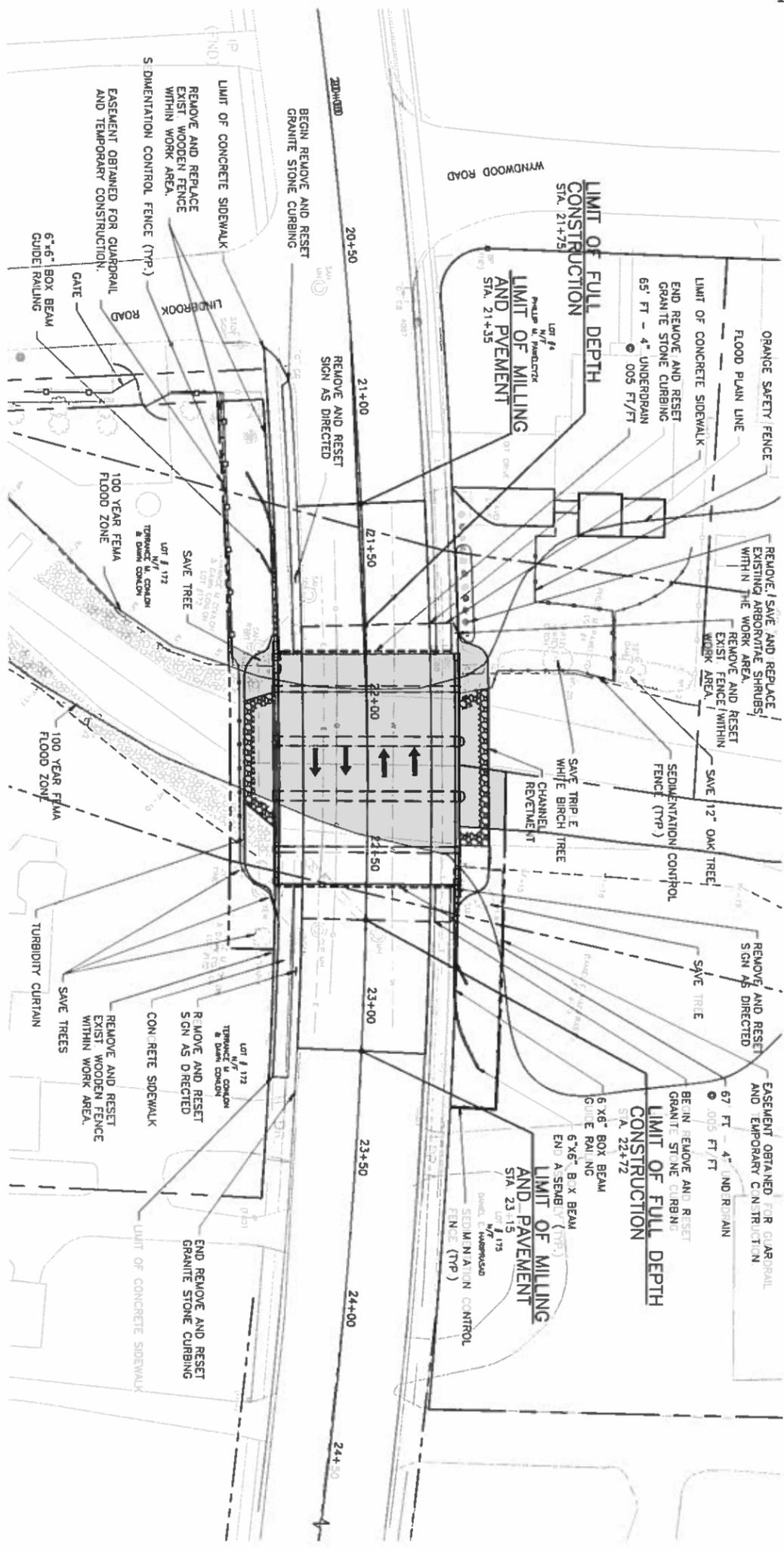
No.	Date	Revisions	Approved	DRAWING CONTROL	DATE	BY	CHK'D	APP'D	DATE	BY	CHK'D	APP'D
				Designed J.A.S.		Reviewed J.A.S.						
				Checked K.E.F.		Approved J.A.S.						
				Prepared J.A.S.		Reviewed J.A.S.						
				Checked J.A.S.		Approved J.A.S.						
				Prepared J.A.S.		Reviewed J.A.S.						
				Checked J.A.S.		Approved J.A.S.						
				Prepared J.A.S.		Reviewed J.A.S.						
				Checked J.A.S.		Approved J.A.S.						
				Prepared J.A.S.		Reviewed J.A.S.						
				Checked J.A.S.		Approved J.A.S.						

THE CONTRACTOR IS ADVISED SEPARATELY FOR THE CLIENT AND PROJECT SEPARATELY FOR THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.

TECTONIC
 1340 Shaw Avenue
 West Hartford, CT 06107
 Phone: (860) 231-4883
 Fax: (860) 231-4884
 www.tectonicinc.com

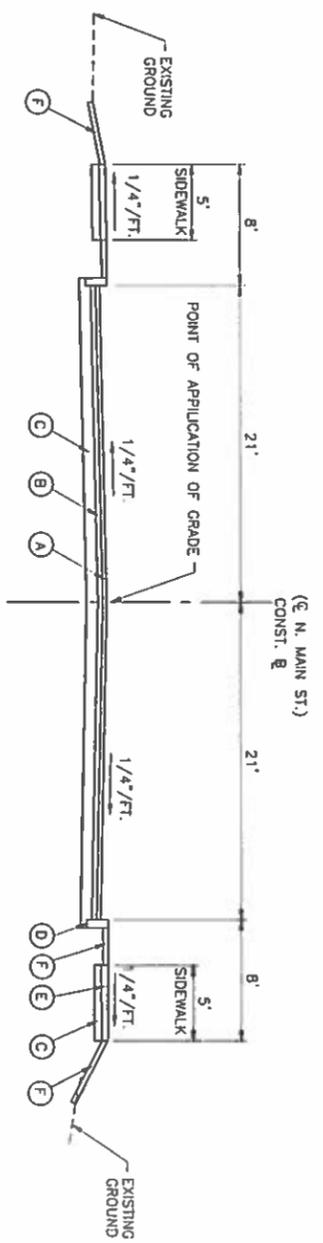
**REHABILITATION OF BRIDGE NO. 03651
 NORTH MAIN STREET
 OVER WEST BRANCH OF TROUT BROOK
 WEST HARTFORD, CONNECTICUT**

TEST PIT PLAN
 Date: 5-18-11
 Scale: 1/2" = 1'-0"
 Drawing No: 6550.01
 Page: 3 of 3



NOTE:
APPROX. FLOOD LIMIT DRAWN FROM FEMA MAP

PLAN
SCALE: 1" = 20'-0"



TYPICAL ROADWAY SECTION
SCALE: 3/16" = 1'-0"

- LEGEND**
- (A) 3" SUPERPAVE 0.5 (IN TWO LIFTS) (SURFACE COURSE)
 - (B) 4" SUPERPAVE 1.0 (BINDER COURSE)
 - (C) 9" PROCESSED AGGREGATE BASE
 - (D) GRANITE CURB
 - (E) 5" CONCRETE SIDEWALK WITH ONE LAYER OF WIRE MESH (6X6-10/10 WWF) (6" AT DRIVEWAYS)
 - (F) 4" TOPSOIL & TURF ESTABLISHMENT

THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

Rev	Date	Revision	Approved

Designated	Checked	Drawn	Reviewed	Date

TECTONIC CONSULTANTS, INC.

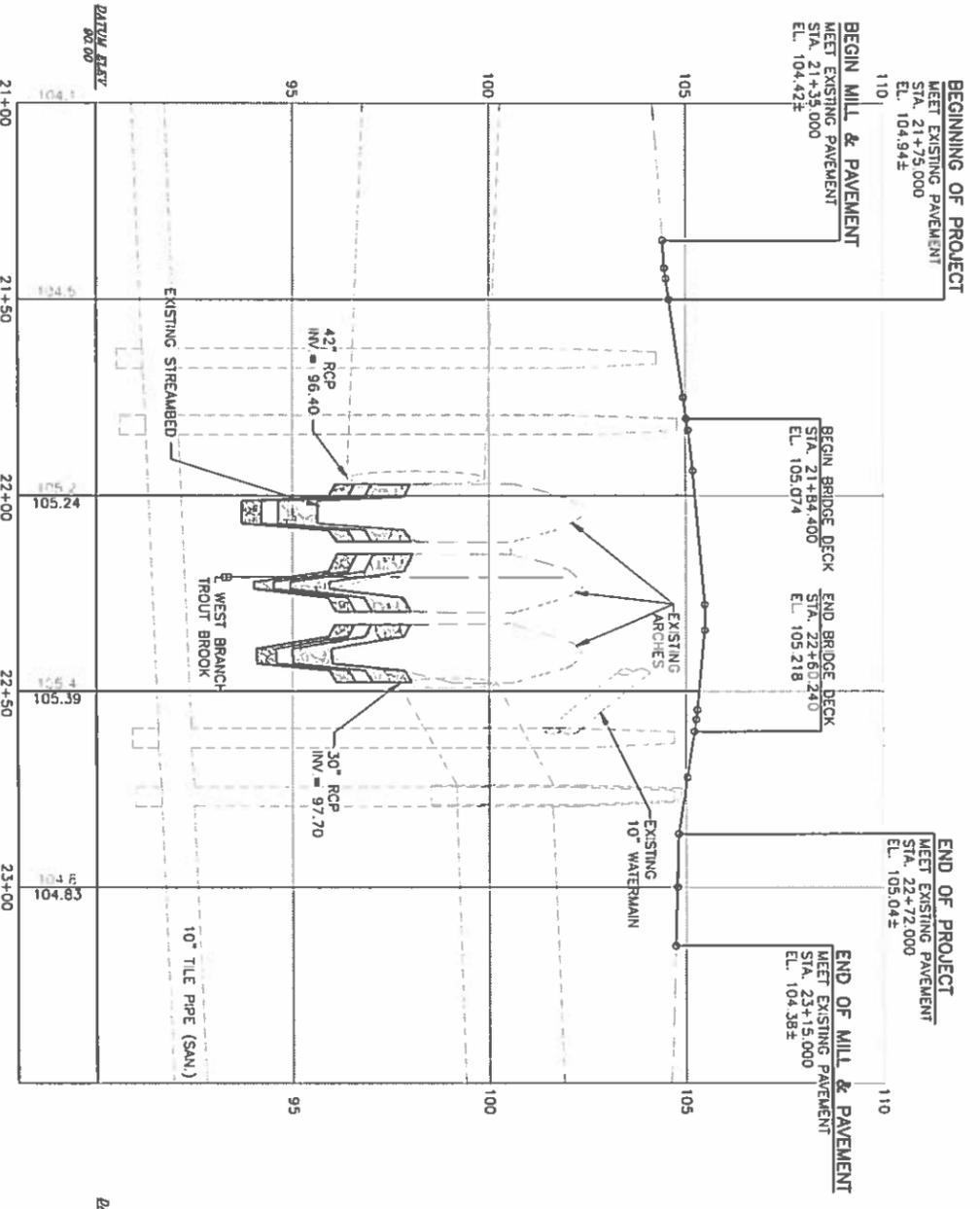
1344 State Street, Suite 200
Hartford, CT 06103

Project: 03651
Tel: (860) 237-2341
Fax: (860) 237-4828

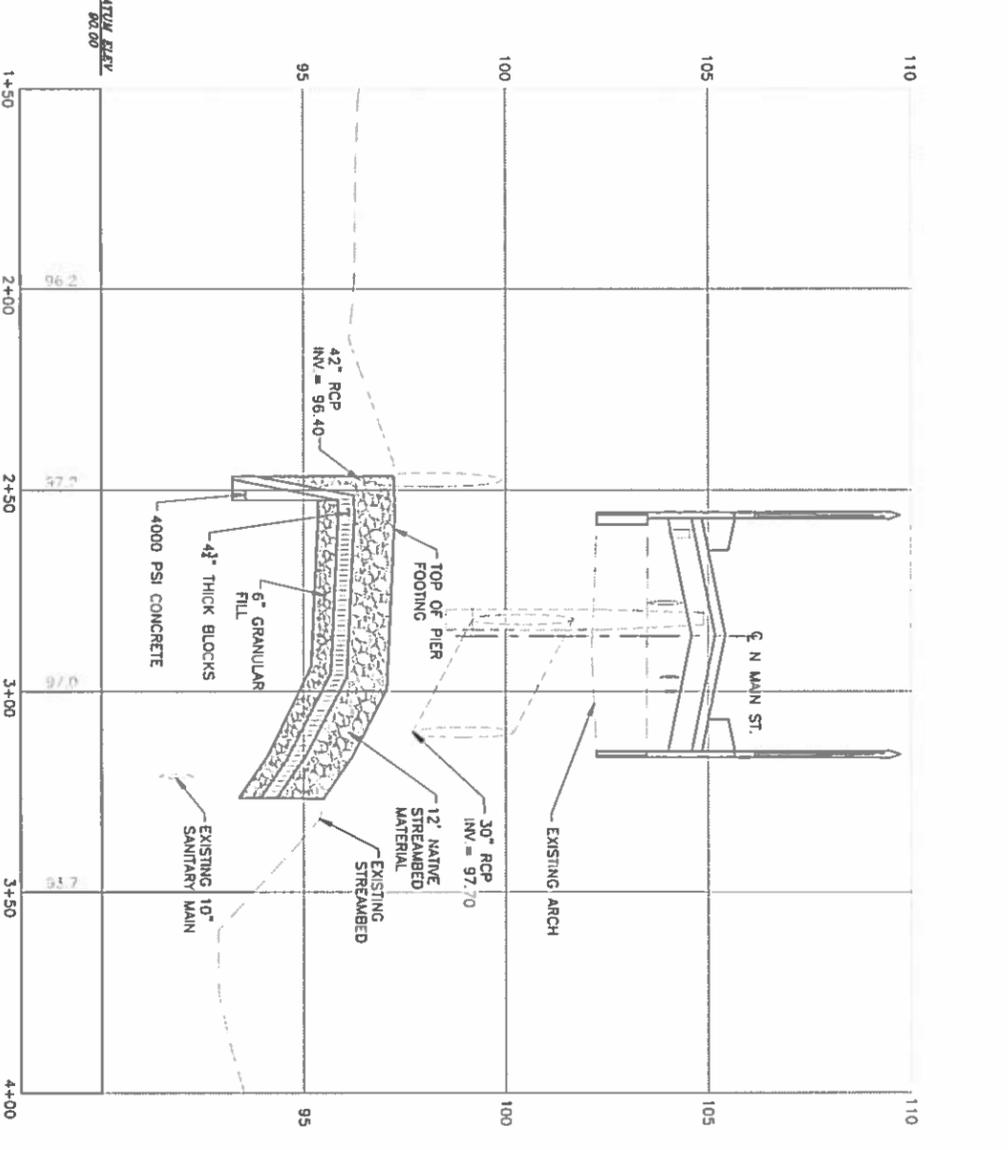
REHABILITATION OF BRIDGE NO. 03651
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

CONSTRUCTION PLAN

Sheet: 4 of 4
Date: 05/20/15
Scale: AS SHOWN



NORTH MAIN STREET PROFILE
SCALE: 1"=20' VERT.
1"=20' HORIZ.



WEST BRANCH TROUT BROOK PROFILE
SCALE: 1"=20' VERT.
1"=20' HORIZ.

DATE: 2-15-11
DRAWN BY: AS BROWN

THIS DOCUMENT IS PREPARED SPECIFICALLY FOR THE PROJECT AND ANY ORIGINAL, EXRESSED OR IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY, SHALL NOT BE CONSIDERED VALID COPIES.

THIS DOCUMENT IS PREPARED SPECIFICALLY FOR THE PROJECT AND ANY ORIGINAL, EXRESSED OR IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY, SHALL NOT BE CONSIDERED VALID COPIES.

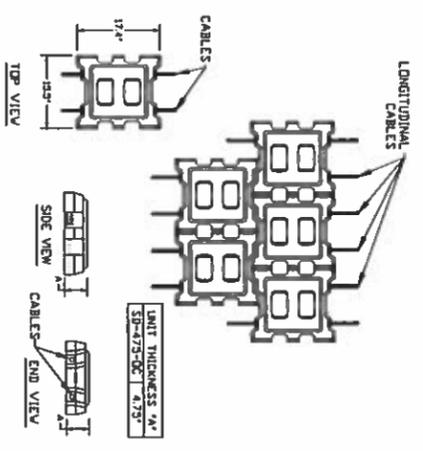
Rev.	Date	By	Check	Approved	Remarks

DRAWING CONTROL	
Designed H.L.	Checked J.A.L.
Drawn K.F.F.	Checked by

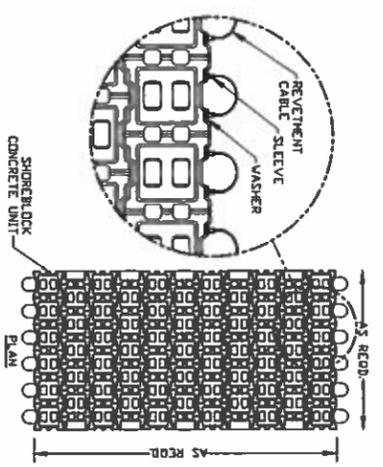
TECTONIC ENGINEERING & SURVEYING, INC.
1344 Shennecossett Highway, Suite 300
Hartford, CT 06107
Phone: (860) 243-2121
Fax: (860) 237-4882
www.itectonic-engineering.com

**REHABILITATION OF BRIDGE NO. 03851
OVER NORTH MAIN STREET
WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT**

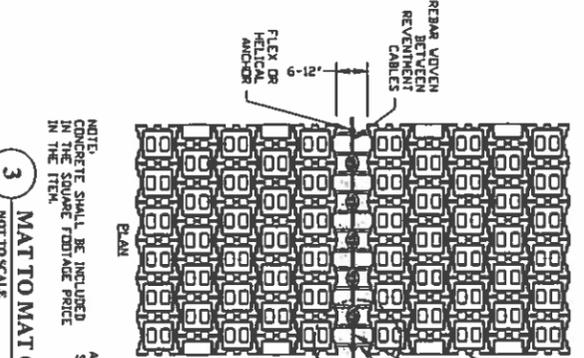
DATE: 2-15-11
DRAWING NO.: 6550.01
SHEET: 5 OF 5



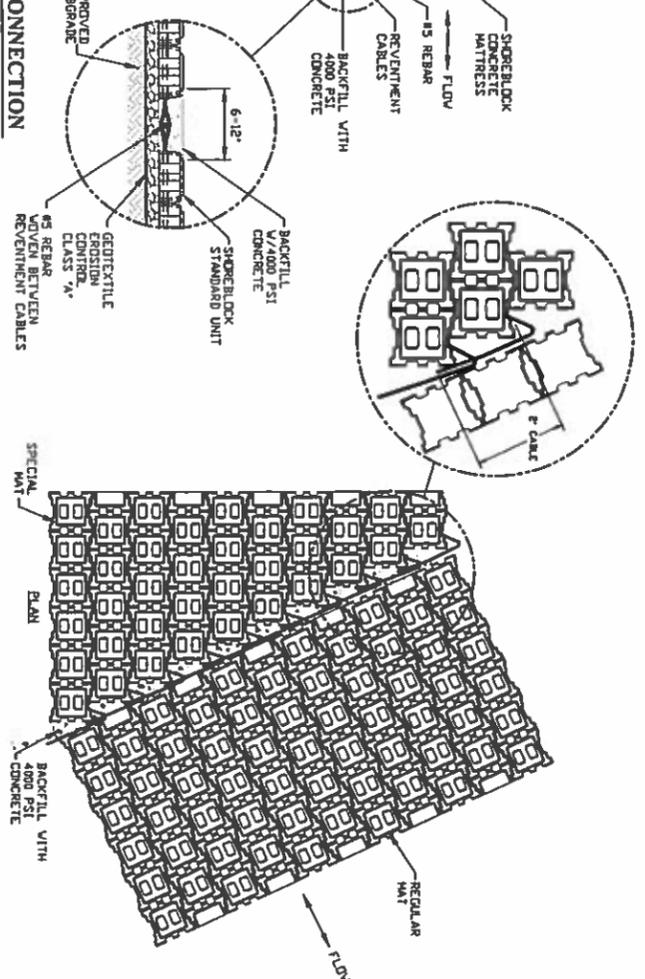
1 SHOREBLOCK @ SD-475-OC BLOCK
NOT TO SCALE



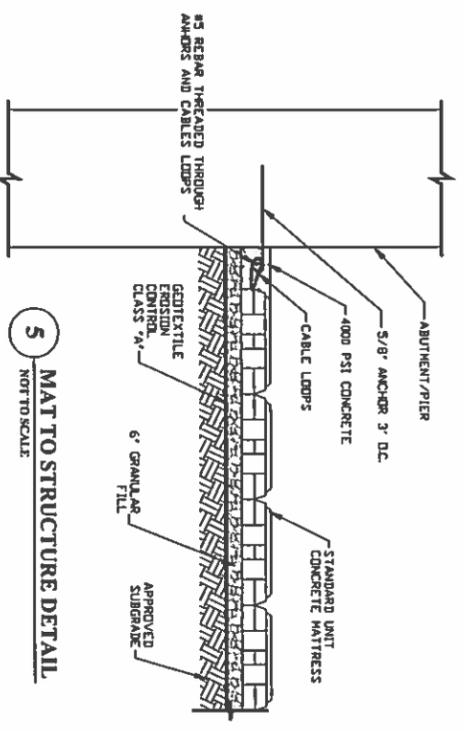
2 SHOREBLOCK @ SD-475-OC MATTRESS
NOT TO SCALE



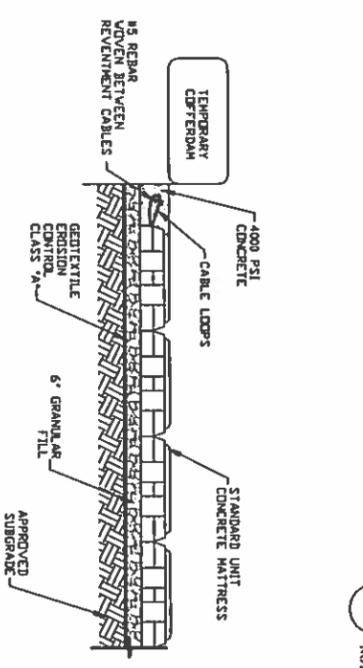
3 MAT TO MAT CONNECTION
NOT TO SCALE



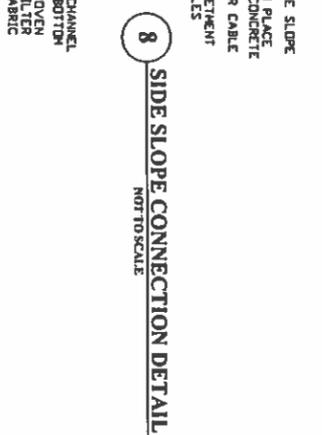
4 TYP. ANGLE MAT
NOT TO SCALE



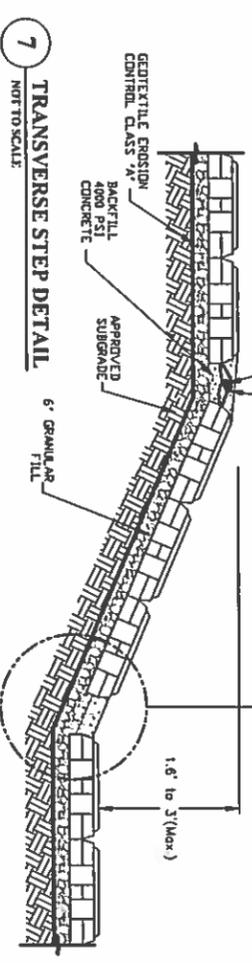
5 MAT TO STRUCTURE DETAIL
NOT TO SCALE



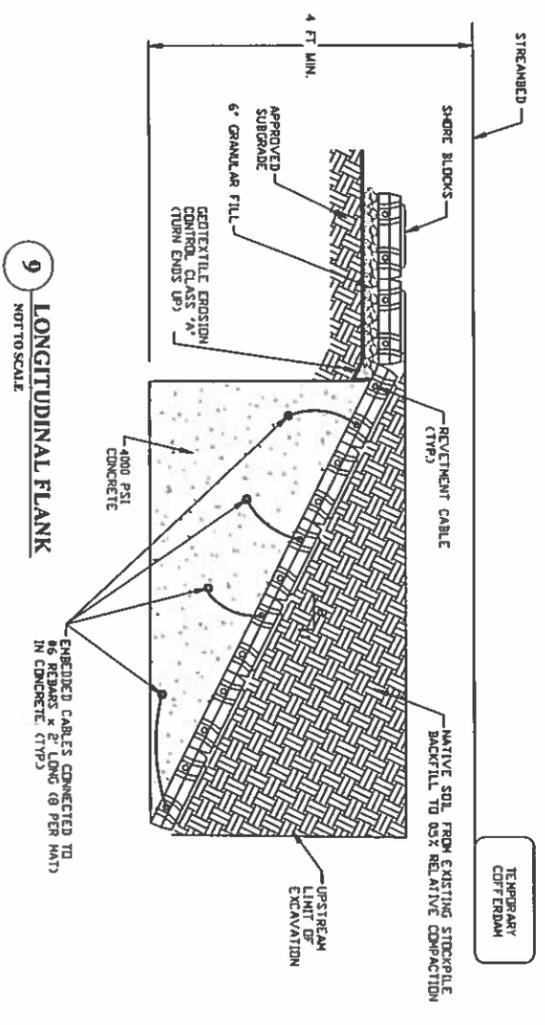
6 MAT TO COFFER DAM DETAIL
NOT TO SCALE



8 SIDE SLOPE CONNECTION DETAIL
NOT TO SCALE



7 TRANSVERSE STEP DETAIL
NOT TO SCALE



9 LONGITUDINAL FLANK
NOT TO SCALE

NOTE:
1. THE CHANNEL REINVENT SHALL BE SHOREBLOCK SD-475 AS MANUFACTURED BY SHORTEC OR APPROVED EQUAL.
2. CONCRETE SHALL BE INCLUDED IN THE S.F. PRICE OF THE ITEM.

THIS DOCUMENT IS PROVIDED SPECIFICALLY FOR THE PROJECT AND SITE IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED, COPIED, OR USED WITHOUT THE CONSENT OF TECTONIC ENGINEERING & ARCHITECTURE, INC. ALL RIGHTS RESERVED.

Rev	Date	Revisions	Approved

DRAWING CONTROL			
Designed	Checked	Drawn	Reviewed
J.A.S.	K.R.F.	J.A.S.	J.A.S.

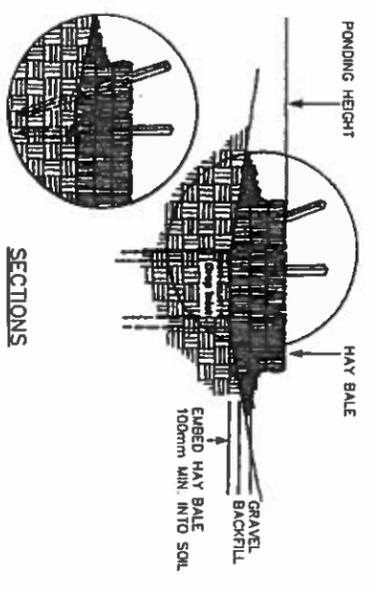
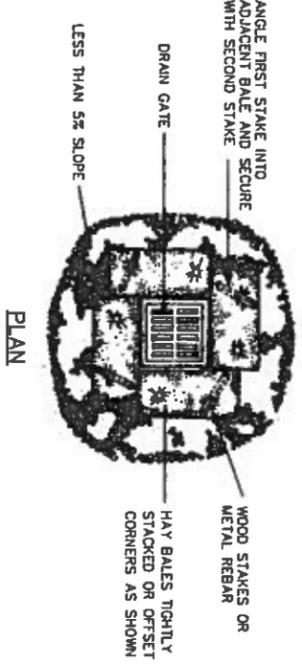
Drawn	Scale	Sheet No.	Total Sheets
3-08-15	AS SHOWN	0550.01	6

TECTONIC
ENGINEERING & ARCHITECTURE
1344 Shaw Drive, Shelton, CT 06484
Phone: (860) 433-2341
Fax: (860) 237-4482
www.tectonicea.com

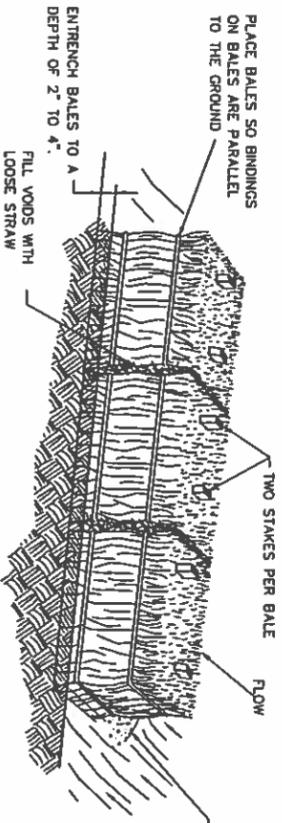
CHANNEL REINVENTMENT DETAILS

REHABILITATION OF BRIDGE NO. 03651
OVER NORTH MAIN STREET
WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

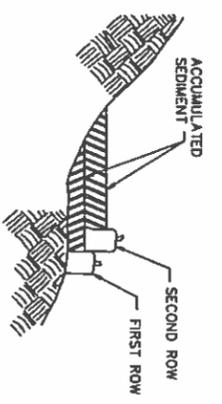
NOTE:
1. ALL WORK SHALL BE IN CONFORMANCE WITH THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.



HAY BALE INSTALLATION AT CATCH BASIN
NOT TO SCALE



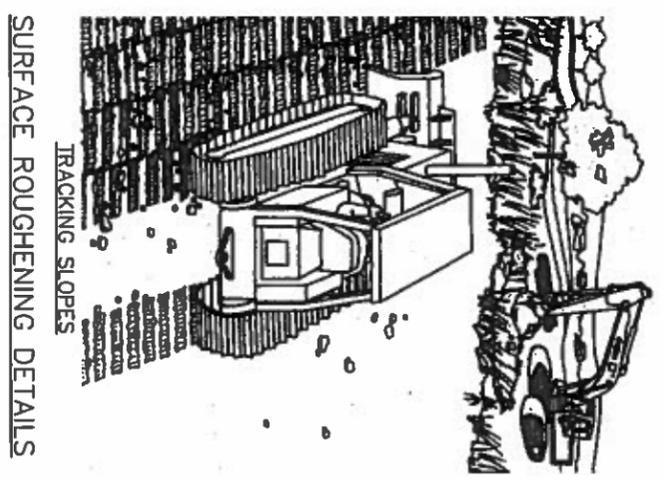
HAY BALE BARRIER



PREFERRED PLACEMENT:

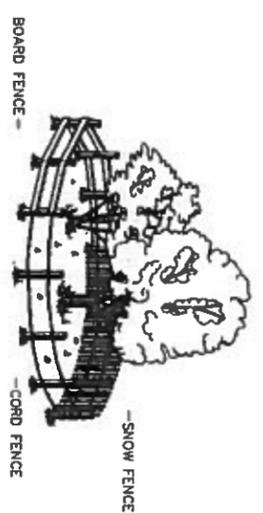
BALES PLACED AWAY FROM TOE OF SLOPE HAVE A LARGER CONFINEMENT AREA. ADDITIONAL BALES SHOULD BE ADDED BEHIND THE ORIGINAL BALES WHEN SEDIMENTATION ACCUMULATION IS ABOUT ONE HALF THE HEIGHT OF THE FIRST ROW.

DIKES HAY / STRAW BALES



SURFACE ROUGHENING DETAILS

NOTES:
1. ALL CUT AND FILL SLOPES BETWEEN 2:1 AND 4:1 INCLUSIVE SHALL BE TRACKED.
2. ROUGHENING WITH TRACKED MACHINERY ON SOILS WITH A HIGH CLAY CONTENT IS NOT RECOMMENDED UNLESS NO ALTERNATIVES ARE AVAILABLE. SHOULDER COMPACTION OF SOIL RESULTS FROM THIS PRACTICE. SANDY SOILS DO NOT COMPACT AS EASILY AND MAY BE TRACKED. SANDY SOILS SHOULD BE TRACKED AS EASY AS POSSIBLE. OTHER SURFACE ROUGHENING METHODS DESCRIBED IN THE MANUAL SHOULD BE USED WHERE APPROPRIATE. TRACKING SHOULD BE DONE IN FEW PASSES AS POSSIBLE. THE SOIL SHOULD BE MADE TO MINIMIZE COMPACTION.
3. IMMEDIATELY FOLLOWING SURFACE ROUGHENING, PROTECT THE SOIL FROM EROSION BY SEEDING AND / OR MULCHING.



TREE PROTECTION ZONING FENCING



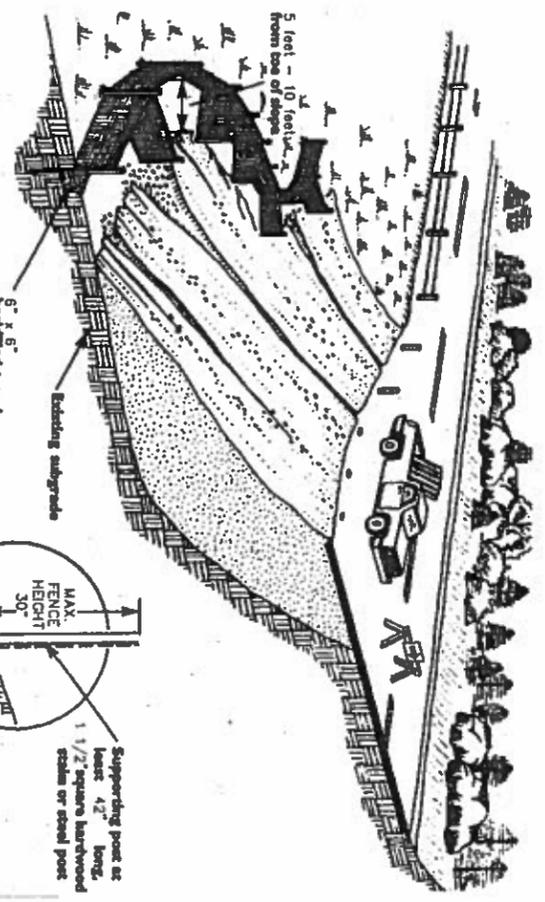
TRUNK ARMORING

NOTE: TRUNK ARMORING USED FOR PROTECTING STREET TREES ADJACENT TO CONSTRUCTION AREA WHERE PAVED SURFACES MAKE IT IMPRACTICAL TO ESTABLISH TREE PROTECTION ZONE.

TREE PROTECTION DETAILS
NOT TO SCALE

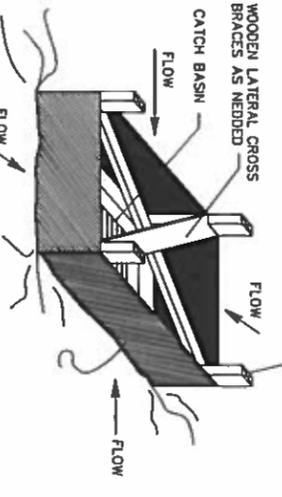
HAY BALE INSTALLATION

- A) IDEALLY, BALES SHOULD BE ENTRENCHED 2" TO 4" AND TIGHTLY BUTTED TOGETHER. BALES CAN BE SUCCESSFULLY PLACED WITHOUT A TRENCH IF GOOD GROUND CONTACT IS MADE. REMOVE HEAVY BRUSH AND FILL ALL VOIDS WITH LOOSE STRAW. PLACE HAY BALE AND STAKE FIRST AT ANGLE TOWARDS FIRST BALE. STAKES ARE 18" INTO GROUND.
- B) BALES SHOULD BE ONLY USED AS A TEMPORARY BARRIER AND FOR NO LONGER THAN 60 DAYS. THEY SHALL NOT BE USED ON A JOB ADJACENT TO A RESIDENTIAL NEIGHBORHOOD, RESIDENCES OR ADJACENT TO OR IN A WATERCOURSE.
- C) WHEN SEDIMENTATION DEPOSITS REACH WITHIN 6" OF THE TOP OF BALES, REMOVE SEDIMENTATION OR ADD ADDITIONAL BALES ON SEDIMENTATION DIRECTLY BEHIND FIRST ROW OF BALES AS DIRECTED BY ENGINEER.
- D) UPON ESTABLISHMENT OF GROUND COVER ON DISTURBED AREAS AND WHEN DIRECTED BY ENGINEER, HAY BALES WILL BE REMOVED AND USED AS MULCH. ANY SEDIMENTATION WILL BE THINLY SPREAD UPON ESTABLISHED GROUND COVER.

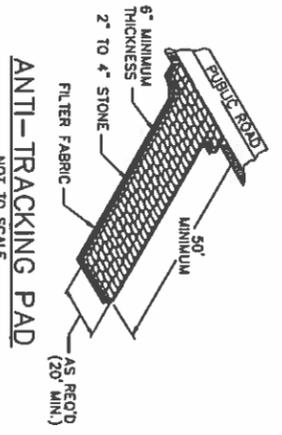


SILT FENCE INSTALLATION AT TOE OF SLOPE

- NOTES:**
- A) MINIMUM LENGTH OF SILT FENCE IS 15 FT.
 - B) MAXIMUM POST SPACING IS 10 FT.
 - C) JOINTS ONLY AT SUPPORT POST WITH MINIMUM 6" OVERLAP SECURELY SEALED.
 - D) SEDIMENTATION DEPOSIT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE SILT FENCE.
 - E) SILT FENCE SHALL NOT BE USED IN A WATER COURSE.
 - F) 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.



SILT FENCE INSTALLATION AT CATCH BASIN
NOT TO SCALE



ANTI-TRACKING PAD
NOT TO SCALE

THE COST OF THE ANTI-TRACKING PAD IS TO BE INCLUDED UNDER GENERAL COST OF THE WORK.

TECTONIC
Sedimentation & Erosion Control
1344 Sand Grove Highway, Suite 200
Hartford, CT 06183
Phone: (860) 242-2222
Fax: (860) 237-4848
www.TECTONICINC.com

REHABILITATION OF BRIDGE NO. 03651
OVER NORTH MAIN STREET
WEST BRANCH TROUT BROOK
WEST HARTFORD, CONNECTICUT

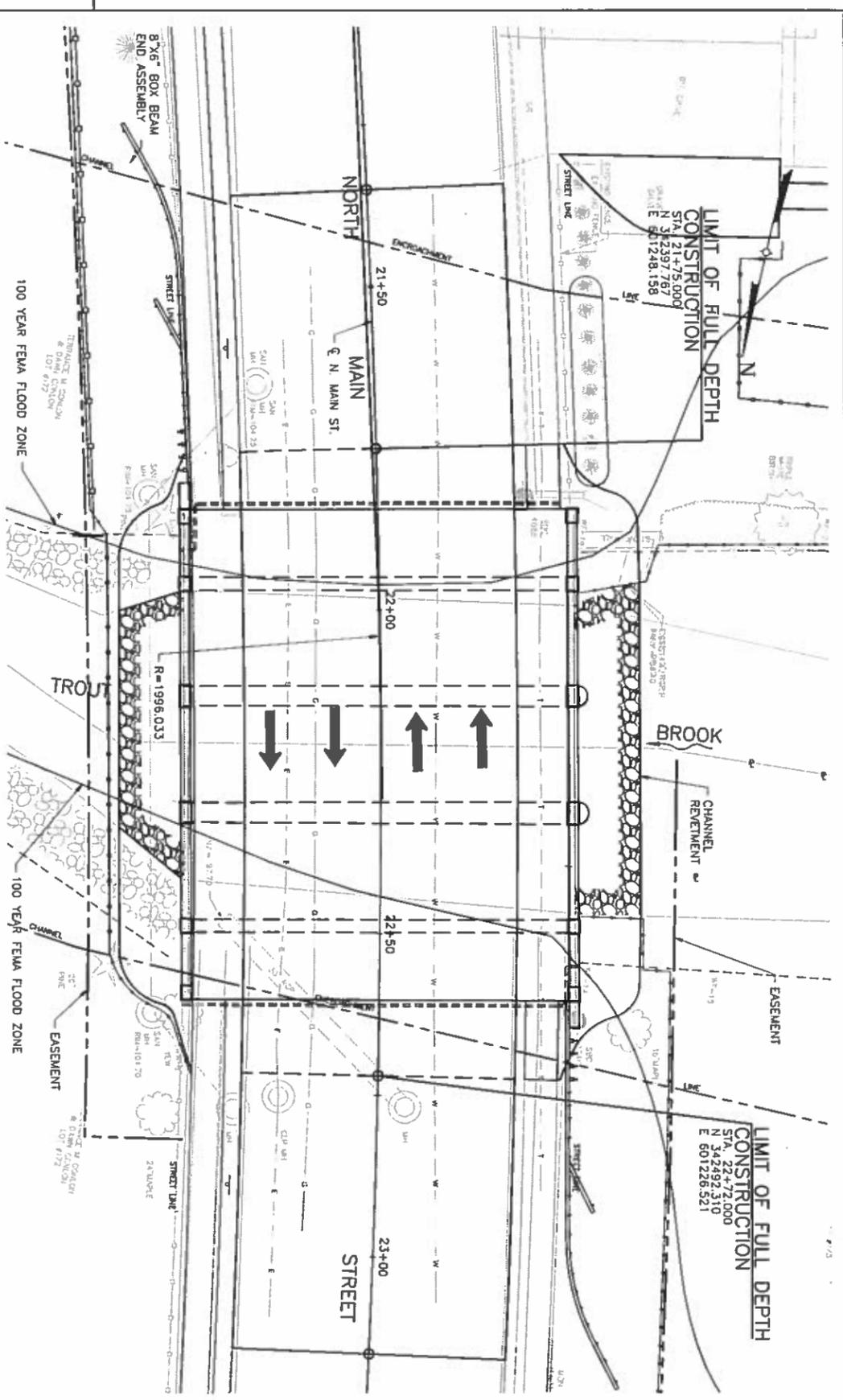
Rev	Date	Revisions	Approved

DRAWING CONTROL			
Prepared	Checked	Reviewed	Date
J.A.S.	K.R.F.	J.A.S.	

Scale	Sheet No.	Sheet Count
N.T.S.	8550.01	7

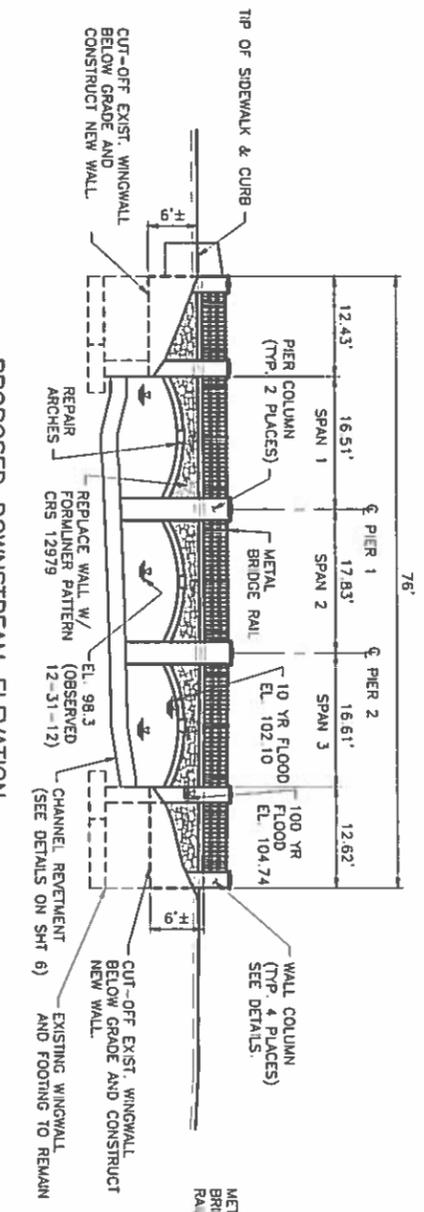
THIS DOCUMENT IS PREPARED SPECIFICALLY FOR THE PROJECT AND SITE DESCRIBED HEREIN. IT IS NOT TO BE USED FOR ANY OTHER PROJECT OR SITE WITHOUT THE CONSENT OF TECTONIC. TECTONIC ENGINEERING & CONSULTANTS, INC. ALL RIGHTS RESERVED.



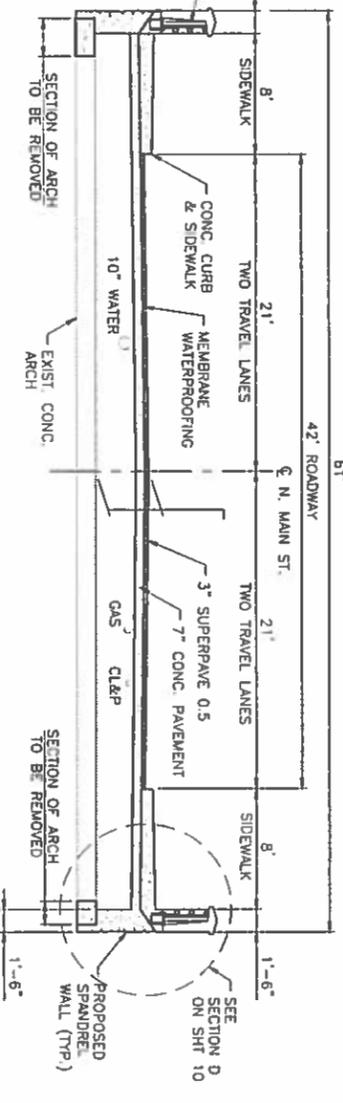


NOTE:
APPROX. FLOOD LIMIT DRAWN FROM FEMA MAP.

PLAN
SCALE: 1" = 10'-0"



PROPOSED DOWNSTREAM ELEVATION
SCALE: 1" = 10'



PROPOSED BRIDGE SECTION
SCALE: 3/16" = 1'-0"

GENERAL NOTES:

SPECIFICATIONS:

CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 816 (2004), SUPPLEMENTAL SPECIFICATIONS UP TO AND INCLUDING JANUARY 2014 AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS:

STANDARD DESIGN SPECIFICATIONS FOR HIGHWAY BRIDGES (ASHTO OCTOBER 2007 - 17TH EDITION), AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (2003).

ALLOWABLE DESIGN STRESSES:

CLASS 2nd CONCRETE:..... BASED ON $f'_c = 4000$ PSI (MIN).
REINFORCEMENT (ASTM A615 GRADE 60)..... BASED ON $f_y = 60,000$ PSI.

LIVE LOAD:

HS-20

FUTURE PAVING ALLOWANCE:

NONE.
SUPERPAVE OVERLAY:
THIS SHALL CONSIST OF TWO LIFTS OF SUPERPAVE 0.5 (1/2" THICK).

DIMENSIONS:

ALL DIMENSIONS SHOWN ON THE PLANS ARE IN INCHES EXCEPT IF NOTED OTHERWISE.
ALL ELEVATIONS ARE GIVEN IN FEET. WHEN ELEVATIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZEROS.

EXISTING DIMENSIONS:

DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY.
THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR APPROVAL, THE FIELD MEASUREMENTS SHALL ALSO BE SUBMITTED FOR REFERENCE BY THE REVIEWER.

CLASS "F" CONCRETE:

CLASS "F" CONCRETE SHALL BE USED FOR THE ARCH, SPANDREL WALL, END BLOCKS & PARAPET.
(FOR THE SUBSTRUCTURE CONCRETE PATCHING REFER TO DRAWINGS NO 16 AND 17)

EXPOSED EDGES:

EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1/2" x 1/2" UNLESS NOTED OTHERWISE.

CONCRETE COVER:

ALL REINFORCEMENT SHALL HAVE 2" COVER UNLESS DIMENSIONED OTHERWISE.

REINFORCEMENT:

ALL REINFORCEMENT SHALL BE ASTM A615 GRADE 60 AND EPOXY COATED.

PREFORMED EXPANSION JOINT FILLER:

THE COST OF FURNISHING AND INSTALLING PREFORMED EXPANSION JOINT FILLER SHALL BE INCLUDED IN THE COST OF THE ITEM "CLASS "F" CONCRETE".

CONSTRUCTION JOINTS:

CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

ELEVATIONS:

ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON NGVD 29 DATUM.

ELEVATIONS:

THIS PLAN IS BASED ON FIELD SURVEY BY TECTONIC ENGINEERING AND SURVEYING CONSULTANTS P.C. COMPLETED ON 12/31/12

UTILITIES:

BURIED UTILITIES INCLUDING BUT NOT LIMITED TO SEWER, WATER, GAS AND COMMUNICATIONS ARE WITHIN WORK LIMIT. THEY WILL INTERFERE WITH OPERATIONS AND SHALL BE PROTECTED FROM DAMAGE.

Rev	Date	Revision	Approved	Checked	Drawn	Scale

Checked	Drawn	Scale	Project

Checked	Drawn	Scale	Project

Checked	Drawn	Scale	Project

TECTONIC
ENGINEERING & SURVEYING CONSULTANTS P.C.
1344 State Street, Suite 200
Hartford, CT 06103
Phone: (860) 242-2344
Fax: (860) 237-4842
www.tectonic-engineering.com

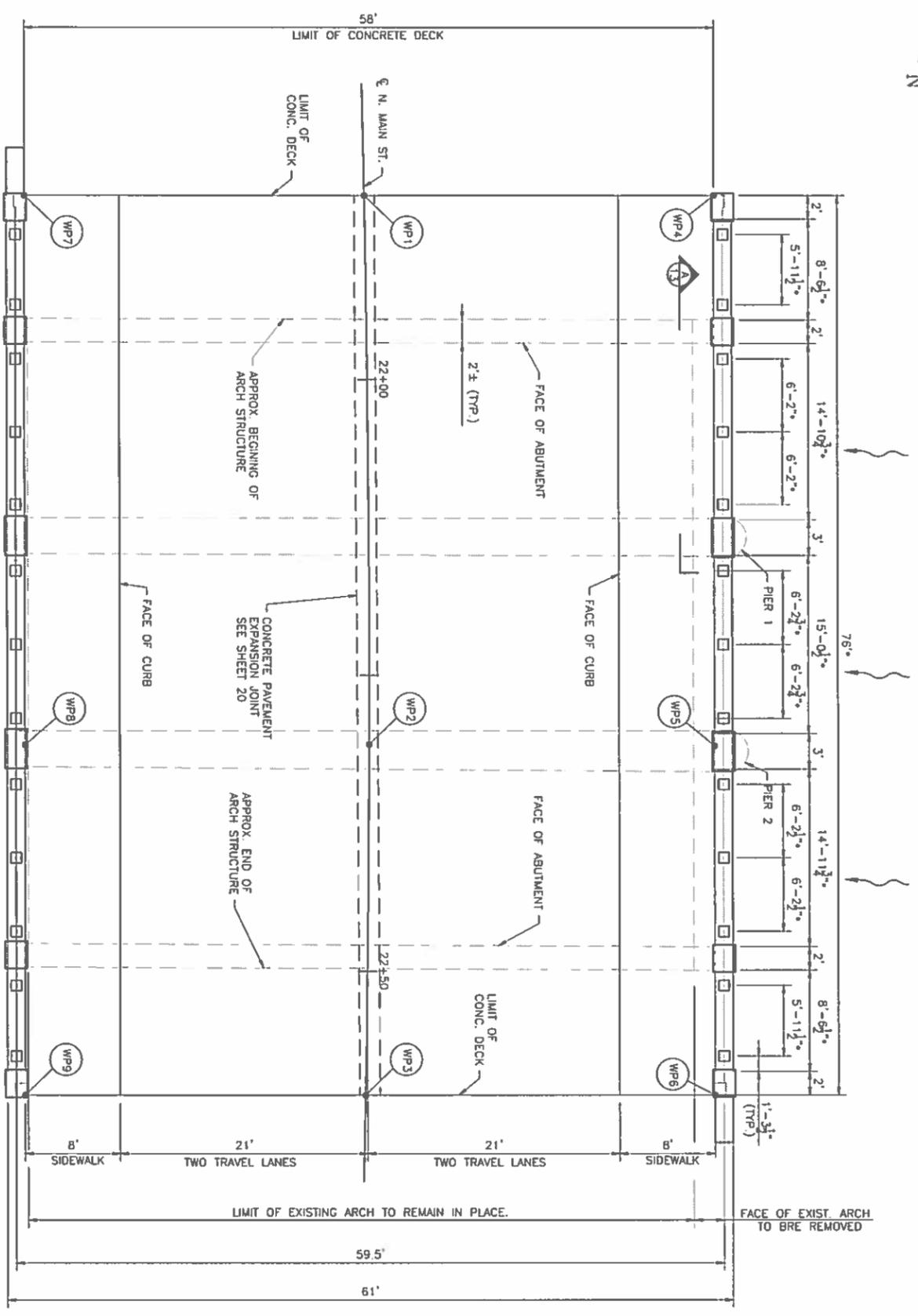
REHABILITATION OF BRIDGE NO. 03651
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Sheet 3-02-1B
AS SHOWN
6550.01
Drawing No. 8
Rev. 0

THIS DOCUMENT IS PREPARED SPECIFICALLY FOR THE CLIENT AND IS NOT TO BE REPRODUCED, COPIED, OR USED WITHOUT THE CONSENT OF TECTONIC ENGINEERING AND SURVEYING CONSULTANTS P.C. ALL RIGHTS RESERVED.

COPIES OF THIS DOCUMENT WITHOUT A FACSIMILE OF THE SIGNATURE AND AN ORIGINAL, SIGNED BY THE PROFESSIONAL ENGINEER OR ARCHITECT, SHALL NOT BE CONSIDERED VALID COPIES.





DECK PLAN
SCALE: 3/16" = 1'-0"

* NOTE
ALL DIMENSIONS MAY VARY. CONTRACTOR SHALL FIELD
VERIFY ACTUAL DIMENSIONS OF THE EXISTING STRUCTURE.

WORKING POINTS			
WORK POINT	NORTHING COORDINATE	EASTING COORDINATE	ELEVATION STATION
WP 1	342406.858	601245.773	105.074 21+84.400
WP 2	342452.047	601235.101	105.499 22+30.831
WP 3	342480.790	601228.887	105.218 22+60.239
WP 4	342400.381	601217.435	
WP 5	342445.763	601207.041	22+30.831
WP 6	342474.514	6012200.627	
WP 7	342413.305	601273.977	
WP 8	342458.437	601263.640	
WP 9	342487.053	601257.086	22+30.831

THE CONTRACTOR IS ADVISED SEPARATELY FOR THE DESIGN AND PROTECT EXISTING ARCHES, APPROXIMATE, ALTERATION, REVISION, DIMENSION, OR DIMENSION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE DIMENSIONS OF THE EXISTING ARCHES. TECHNICAL ENGINEERING, P.C. ALL RIGHTS RESERVED.

COPIES OF THIS DOCUMENT WITHOUT A FISCAL STAMP OR THE SIGNATURE AND SEAL OF THE PROFESSIONAL ENGINEER OR ARCHITECT SHALL NOT BE CONSIDERED VALID COPIES. ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved

DRAWING CONTROL			
Prepared	Checked	Reviewed	Date
J.A.S.	J.A.S.	J.A.S.	

TECTONIC Professional Engineering & Surveying Consultants, P.C.

1344 State Office Building, Suite 200
Hartford, CT 06103

Phone: (860) 833-3344
Fax: (860) 237-4882
www.technical-engineering.com

DECK PLAN AND TYPICAL SECTIONS

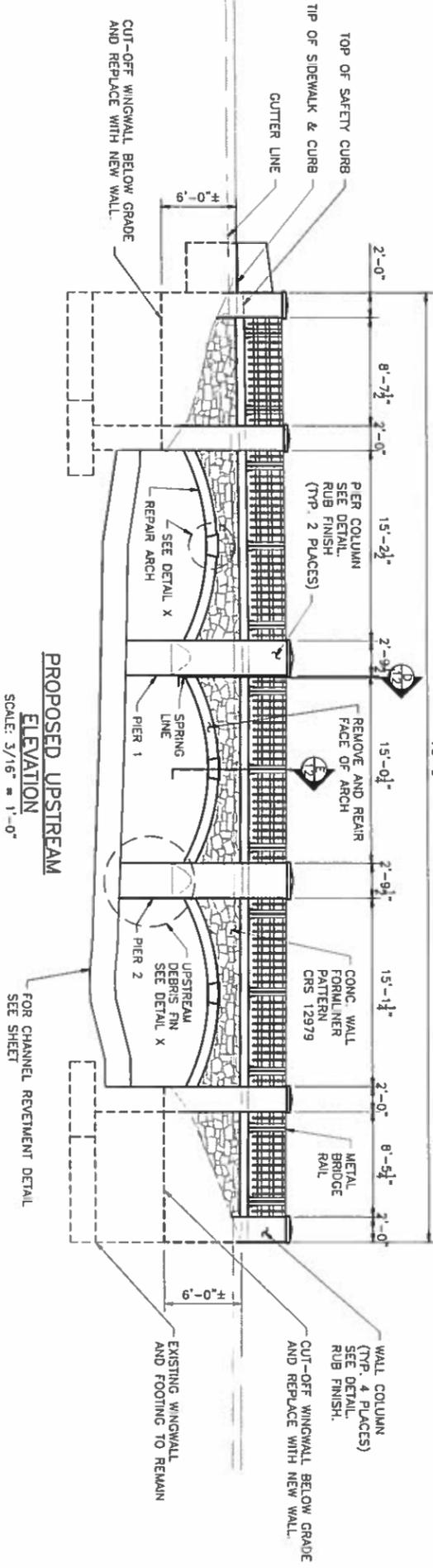
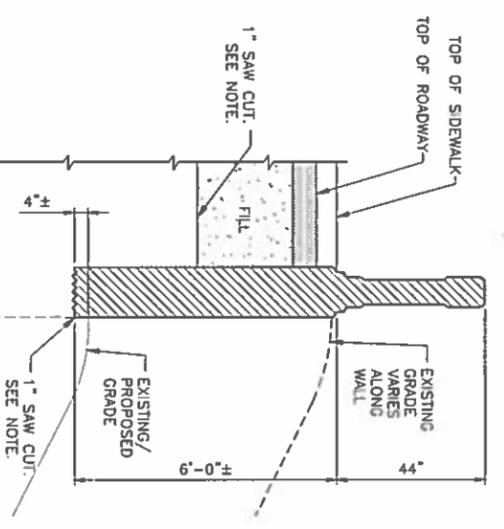
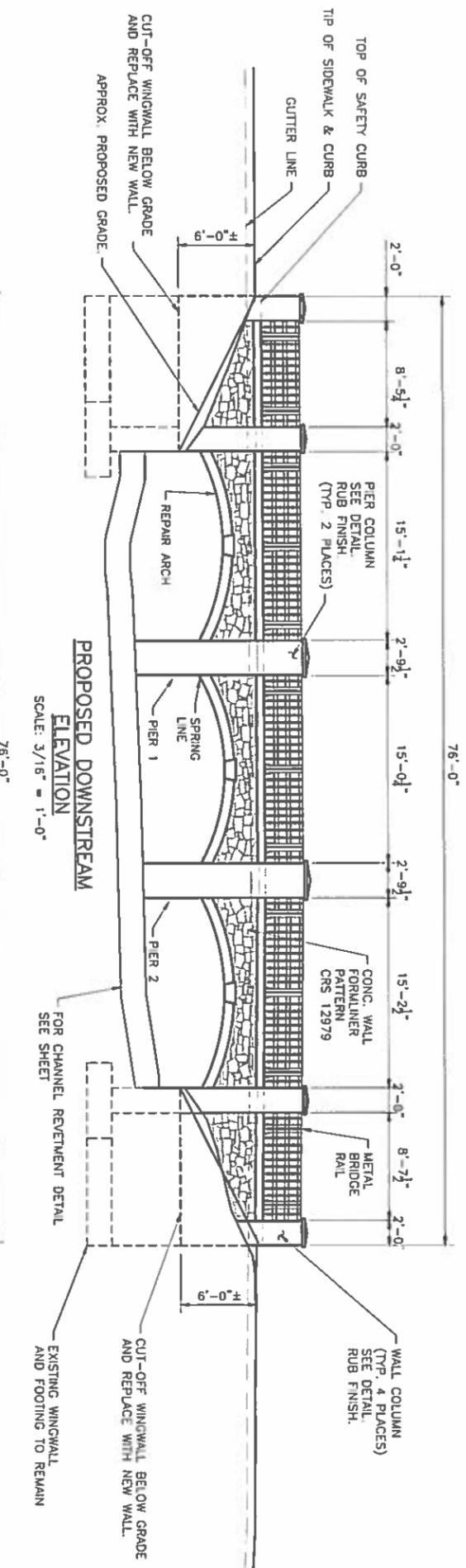
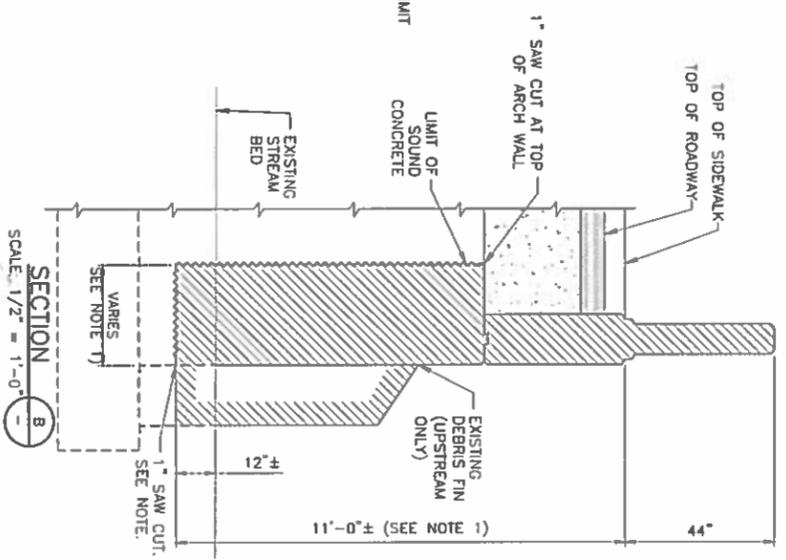
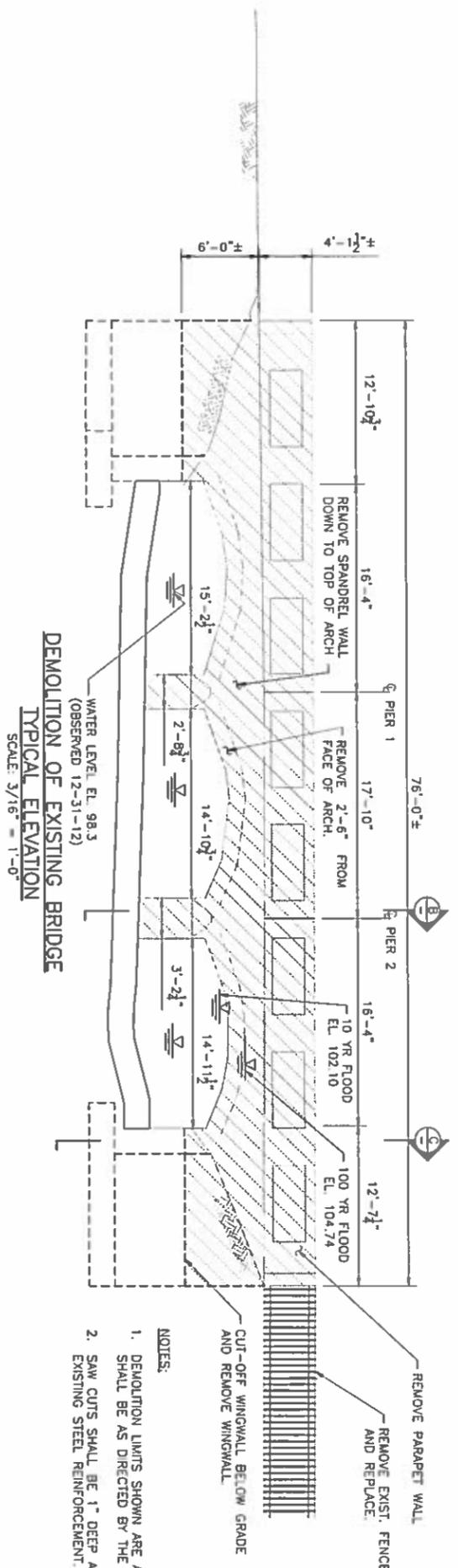
REHABILITATION OF BRIDGE NO. 03651
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date: 3-25-18
Scale: AS SHOWN

Sheet No: **6550.01** of **9**

Drawing No: **9**

Rev: **0**



TECTONIC ENGINEERING & SURVEYING CONSULTANTS P.C.

1344 State Street, Hartford, CT 06102

Phone: (860) 583-2341 Fax: (860) 271-4882

www.tectonic-engineering.com

BRIDGE ELEVATIONS

REHABILITATION OF BRIDGE NO. 03651
 NORTH MAIN STREET
 OVER WEST BRANCH OF TROUT BROOK
 WEST HARTFORD, CONNECTICUT

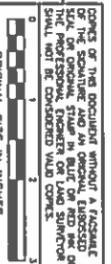
Rev	Date	Revised	Approved

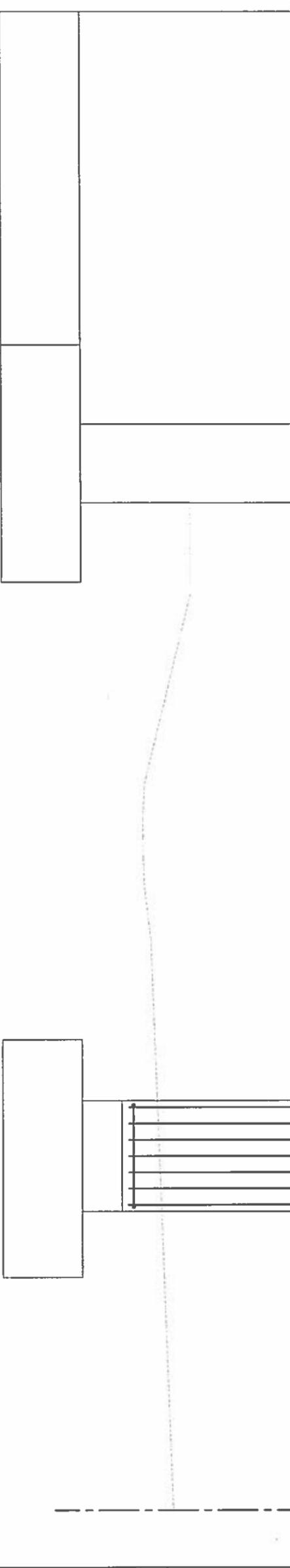
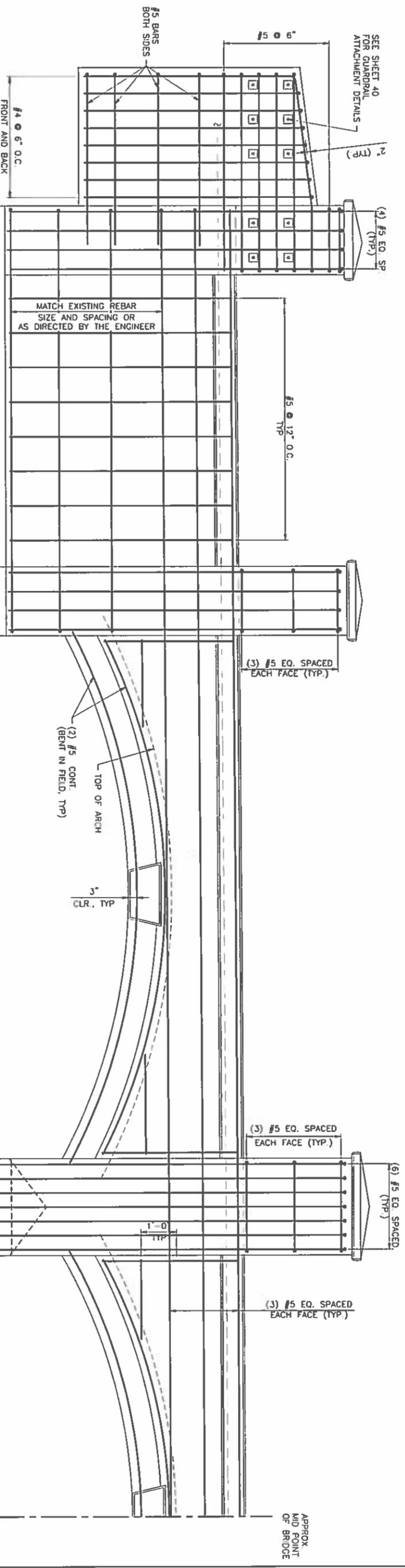
DRAWING CONTROL			
Prepared by	Checked by	Reviewed by	Date
J.A.S.	K.B.F.	J.A.S.	

COPIES OF THIS DOCUMENT WITHOUT A FURNISHED ORIGINAL SHALL BE CONSIDERED VOID.

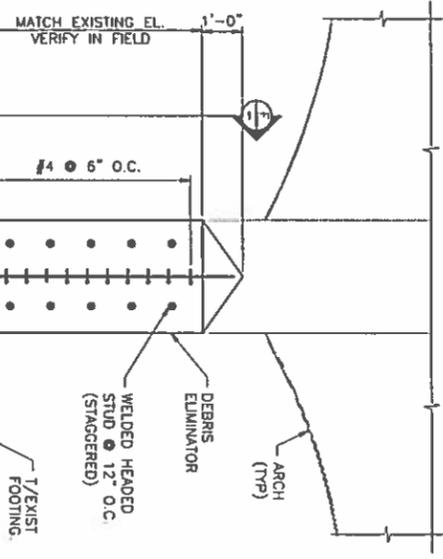
THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION AND ELEVATION OF ALL STRUCTURES AND UTILITIES BEFORE CONSTRUCTION.

NO USE WITHOUT THE WRITTEN CONSENT OF TECTONIC ENGINEERING & SURVEYING CONSULTANTS P.C. ALL RIGHTS RESERVED.

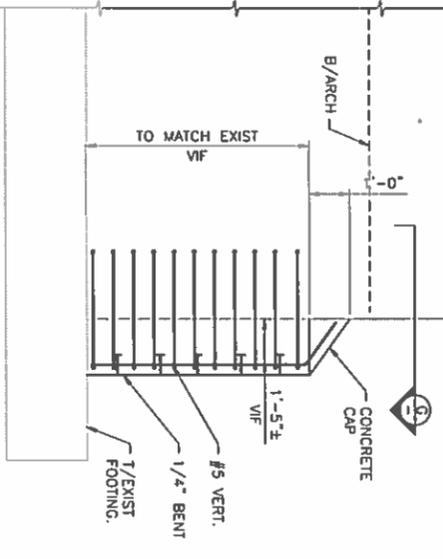




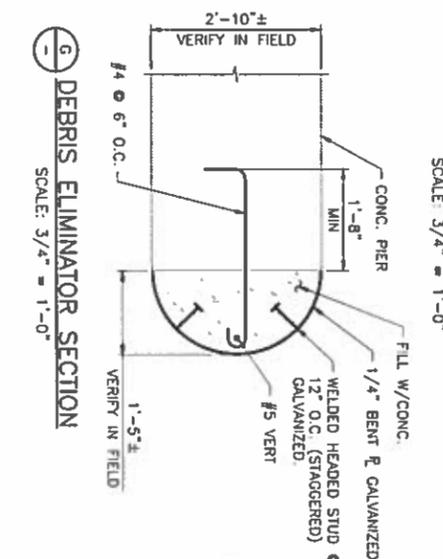
PARTIAL BRIDGE REINFORCEMENT ELEVATION
SCALE: 3/4" = 1'-0"



DEBRIS ELIMINATOR DETAIL
SCALE: 1/2" = 1'-0"



DEBRIS ELIMINATOR SECTION
SCALE: 1/2" = 1'-0"



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

THIS DOCUMENT IS PREPARED SPECIFICALLY FOR THE PROJECT AND IS NOT TO BE REPRODUCED OR USED WITHOUT THE CONSENT OF THE ENGINEER. THE PROFESSIONAL ENGINEER'S SEAL AND SIGNATURE SHALL NOT BE CONSIDERED VALID COPIES OF THIS DOCUMENT WITHOUT A FACSIMILE OF THE SIGNATURE AND AN ORIGINAL EXHIBIT OF THE PROFESSIONAL ENGINEER'S SEAL AND SIGNATURE SHALL NOT BE CONSIDERED VALID COPIES.

TECTONIC ENGINEERING, INC. ALL RIGHTS RESERVED.

No.	Date	Revision	Approved

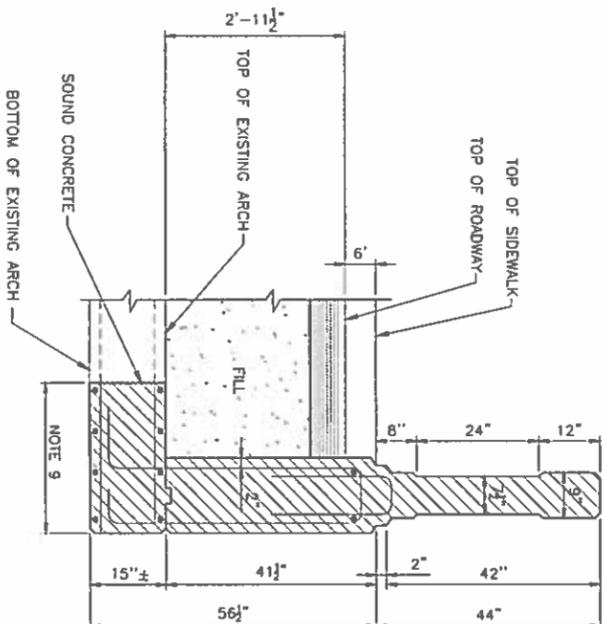
DRAWING CONTROL	
Designed P.L.O.	Drawn K.R.F.
Checked J.A.S.	Reviewed By

TECTONIC
ENGINEERING, INC.
1344 Main Street, Hartford, CT 06103
Tel: (860) 237-4882
Fax: (860) 237-4883
www.tectonicengineering.com

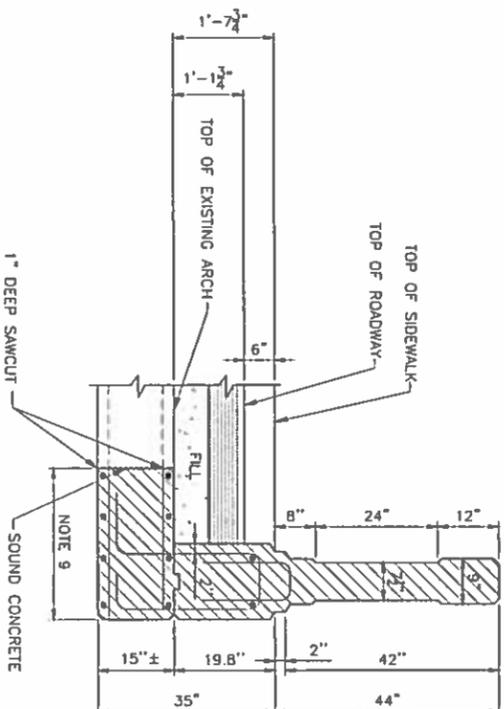
REHABILITATION OF BRIDGE NO. 03651
OVER WEST MAIN STREET
WEST HARTFORD, CONNECTICUT

CONCRETE REINF. AND DEBRIS ELIMINATOR

Sheet 3-03-13
Scale AS SHOWN
8550.01
Drawing No. 11
Rev. 0

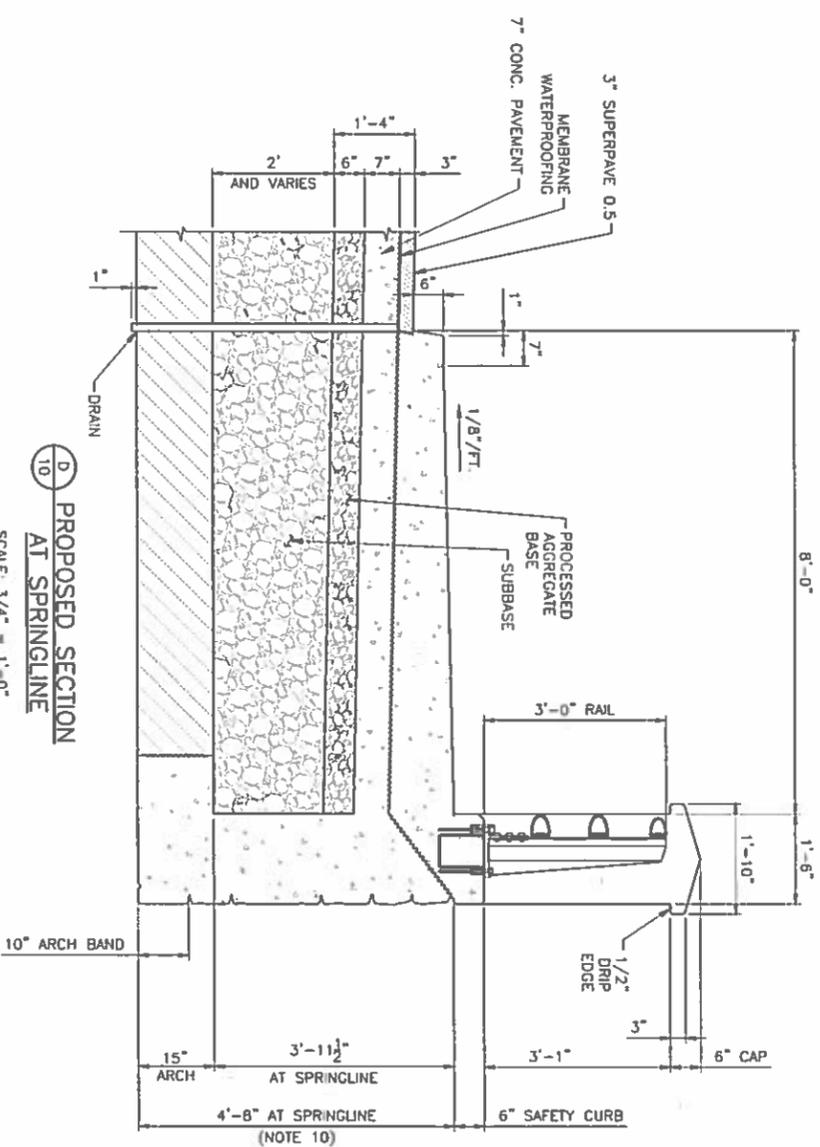


EXISTING PARAPET AT SPRINGLINE
SCALE: 3/4" = 1'-0"

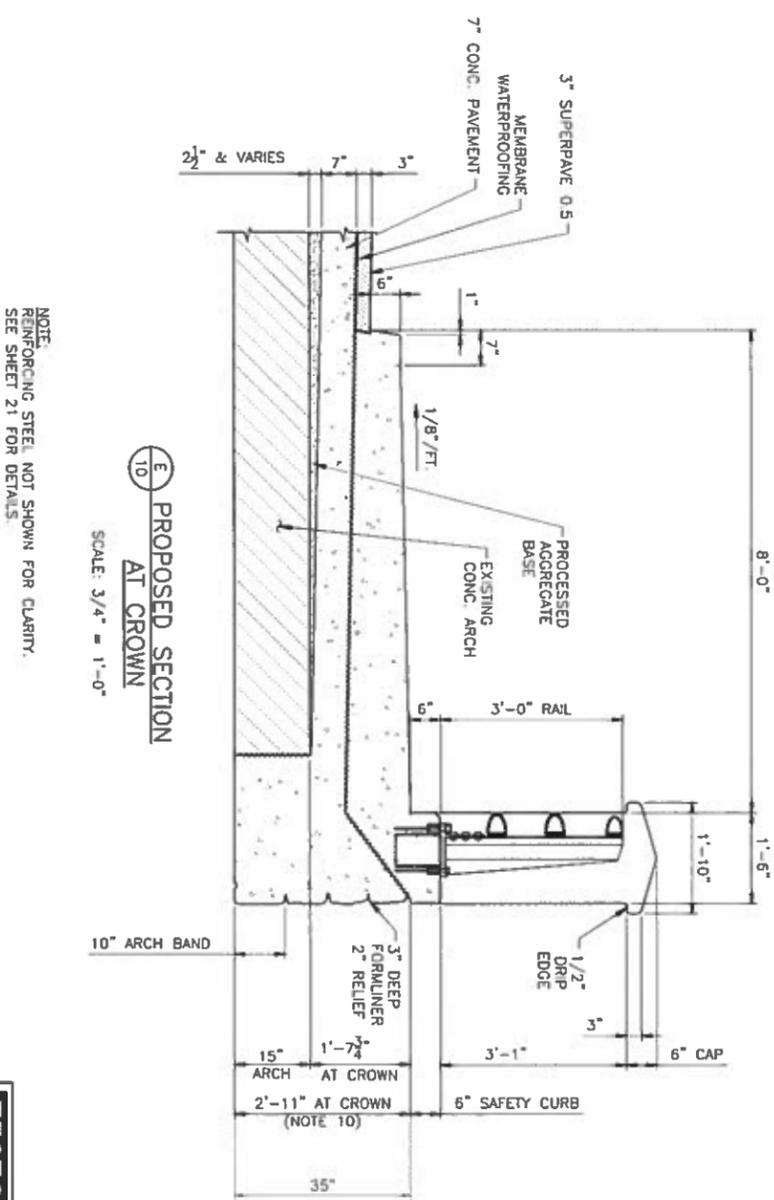


EXISTING PARAPET AT CROWN
SCALE: 3/4" = 1'-0"

- NOTES:**
1. REMOVE THE EXISTING BITUMINOUS SURFACE, SIDEWALKS AND THE BACKFILL TO EXPOSE THE TOP OF ARCH. THE REMOVAL OF THESE ITEMS SHALL BE PAID FOR UNDER THE ITEM "STRUCTURE EXCAVATION - EARTH, EXCLUDING COTTERDAM & DEWATERING".
 2. REMOVE THE PARAPETS FROM THE UPSTREAM AND DOWNSTREAM FACES AND EXPOSED PORTION OF THE UPSTREAM SPANDREL WALL.
 3. REMOVE PORTION OF THE EXISTING ARCH TO SOUND CONCRETE. AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. DO NOT CUT OR DAMAGE THE EXISTING ARCH REINFORCEMENT. DAMAGED REINFORCEMENT SHALL BE REPLACED, AT THE CONTRACTOR'S EXPENSE, USING DRILLED AND GROUTED DOWELS, AS DIRECTED BY THE ENGINEER.
 4. REMOVAL OF THE ABOVE CONCRETE SHALL BE PAID FOR UNDER THE ITEM "REMOVAL OF EXISTING MASONRY".
 5. SIZE AND LOCATION OF EXISTING REINFORCING IS NOT KNOWN.
 6. NO DEBRIS SHALL BE ALLOWED TO FALL IN THE BROOK BELOW. THE CONTRACTOR SHALL SUBMIT, FOR REVIEW, A PLAN SHOWING THE METHOD OF DEBRIS CONTAINMENT DURING THE REMOVAL OF EXISTING CONCRETE.
 7. THE ABOVE WORK SHALL BE PERFORMED USING A THREE STAGE CONSTRUCTION AS SHOWN ON THE PLANS.
 8. CONCRETE SAWCUT WILL BE INCLUDED UNDER THE REPAIR ITEM SPECIFIC TO THE SAWCUT.
 9. DIMENSIONS MAY VARY. CONTRACTOR TO REMOVE CONCRETE UNTIL SOUND CONCRETE IS REACHED AS DIRECTED BY THE ENGINEER.
 10. CONSTRUCTION JOINT SHALL BE MINIMIZED. THE CONTRACTOR SHALL ERECT THE OUTSIDE FORMS TO AT LEAST THE ELEVATION OF TOP OF SAFETY CURB. THE FORMS SHALL HAVE ALL LINERS INSTALLED AND SECURED PRIOR TO ANY CONCRETE POURS.



PROPOSED SECTION
AT SPRINGLINE
SCALE: 3/4" = 1'-0"



PROPOSED SECTION
AT CROWN
SCALE: 3/4" = 1'-0"

NOTE:
REINFORCING STEEL NOT SHOWN FOR CLARITY.
SEE SHEET 21 FOR DETAILS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLARITY AND ACCURACY OF THE DRAWING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLARITY AND ACCURACY OF THE DRAWING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLARITY AND ACCURACY OF THE DRAWING.

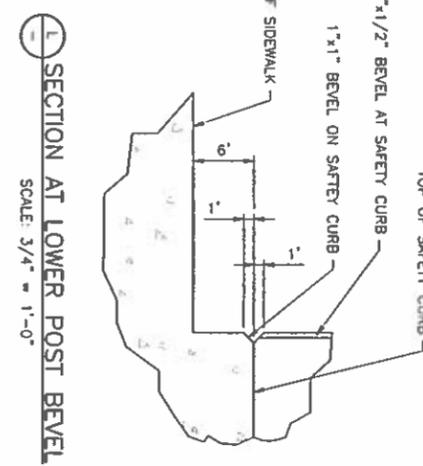
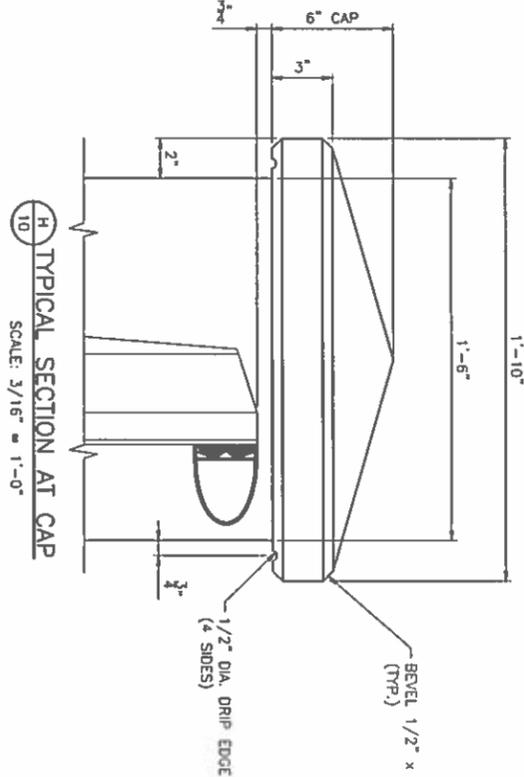
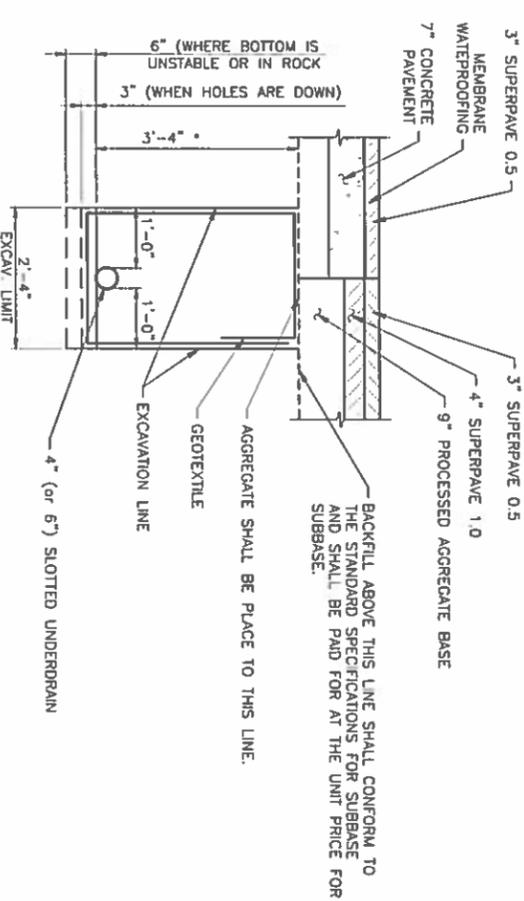
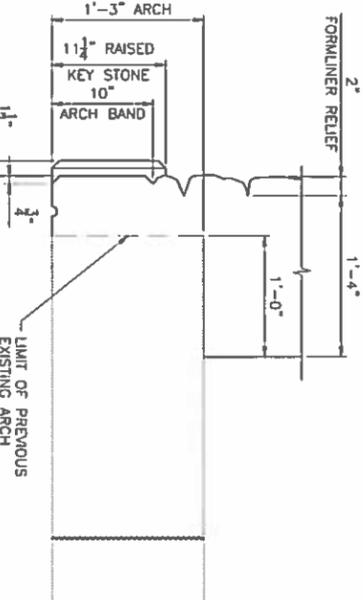
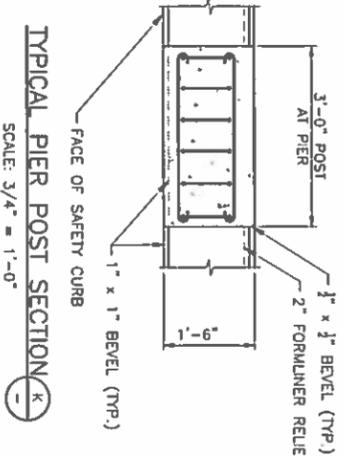
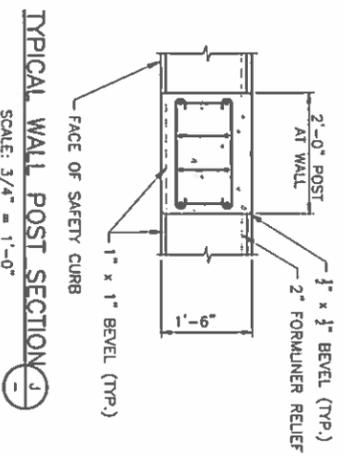
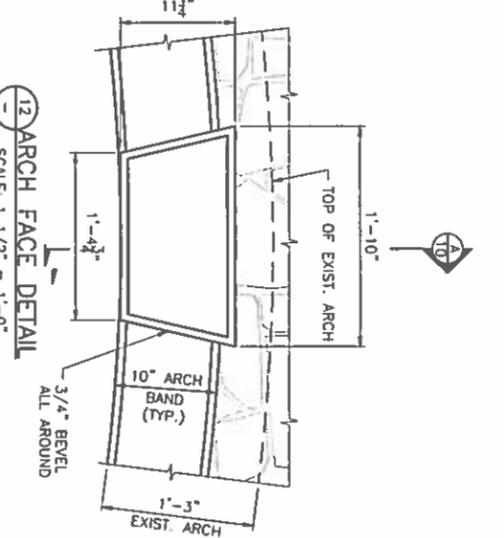
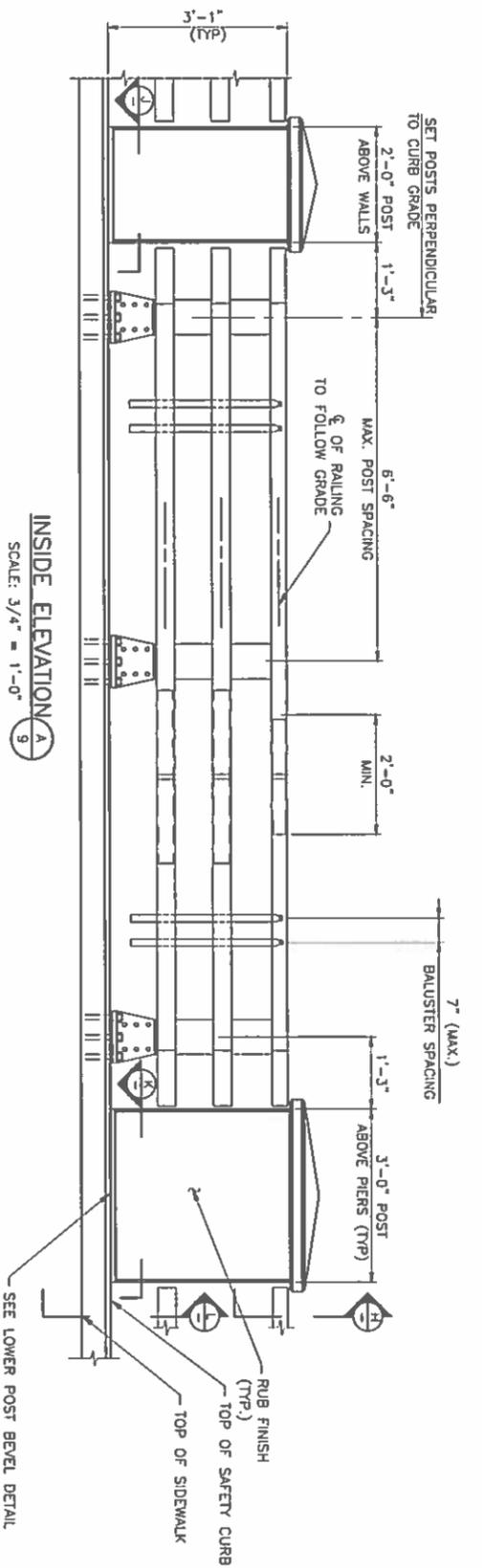
No.	Date	Revision	Approved

DRAWING CONTROL	
Designed P.L.D.	Checked J.A.S.
Drawn D.R.F.	Reviewed by

TECTONIC
Structural Engineering & Surveying Consultants P.C.
1244 State Street, Suite 200
West Hartford, CT 06107
Phone: (860) 543-2341
Fax: (860) 237-4882
www.itectonic.com

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER TROUT BROOK
WEST HARTFORD, CONNECTICUT

PARAPET DETAILS
Sheet 3-02-15
Scale 3/4" = 1'-0"
Drawing No. 12
Rev. 0



* DEPTH MAY VARY FOR NECESSARY OUTLET GRADE PERFORMANCES MAY BE PLACED UP FOR PIPES THAT CARRY ONLY SURFACE WATER UNLESS OTHERWISE DIRECTED.

THE DRAWING IS PREPARED SEPARATELY FOR THE CLIENT AND PROJECT DESIGNATED REGION. MODIFICATION, ALTERATION, REVISION, DELETION, OR DESTRUCTION OF THIS DRAWING IS PROHIBITED. INVENTIVE DESIGNING, P.C. ALL RIGHTS RESERVED.

Rev	Date	Revision	Approved

DESIGNING CONTROL

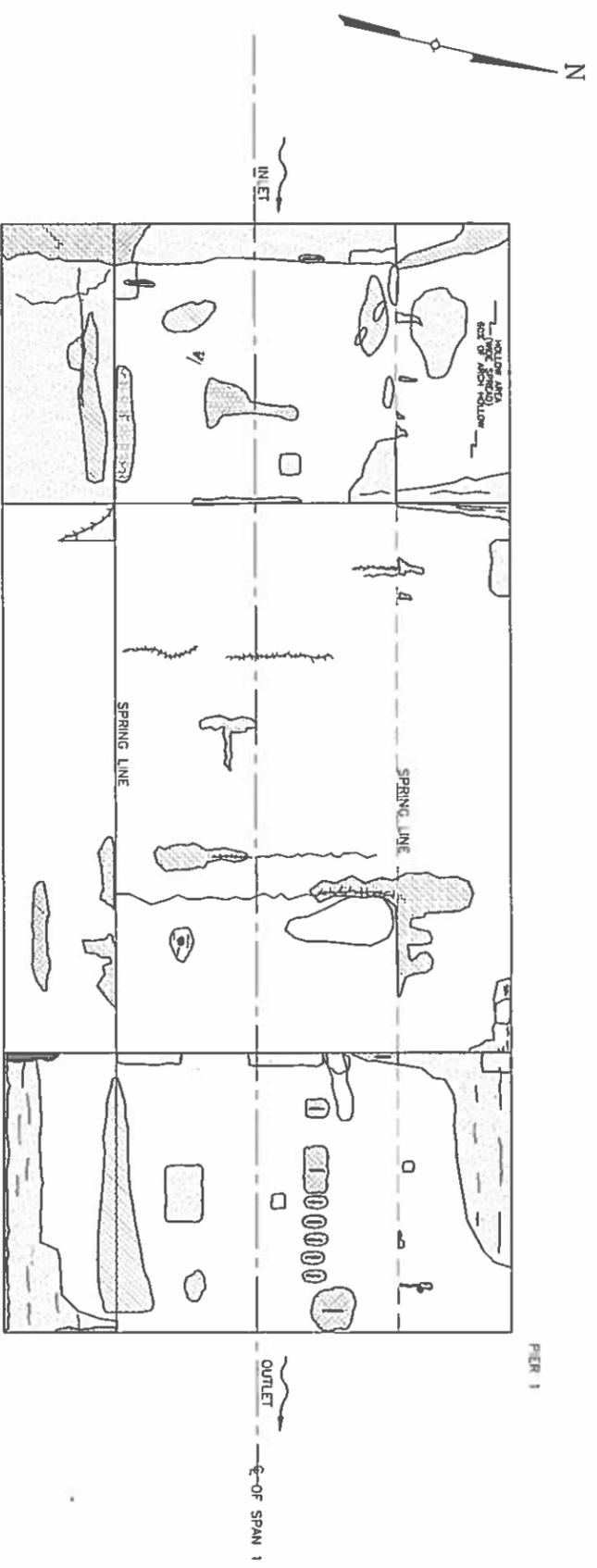
Designed by	P.L.O.	Drawn by	N.A.F.	Checked by	J.A.S.
Reviewed by					

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

TECTONIC CONSULTING ENGINEERS
1344 State Street, Hartford, CT 06103
Phone: (860) 243-1341
Fax: (860) 237-4882
www.tectonic-engineers.com

MISCELLANEOUS DETAILS

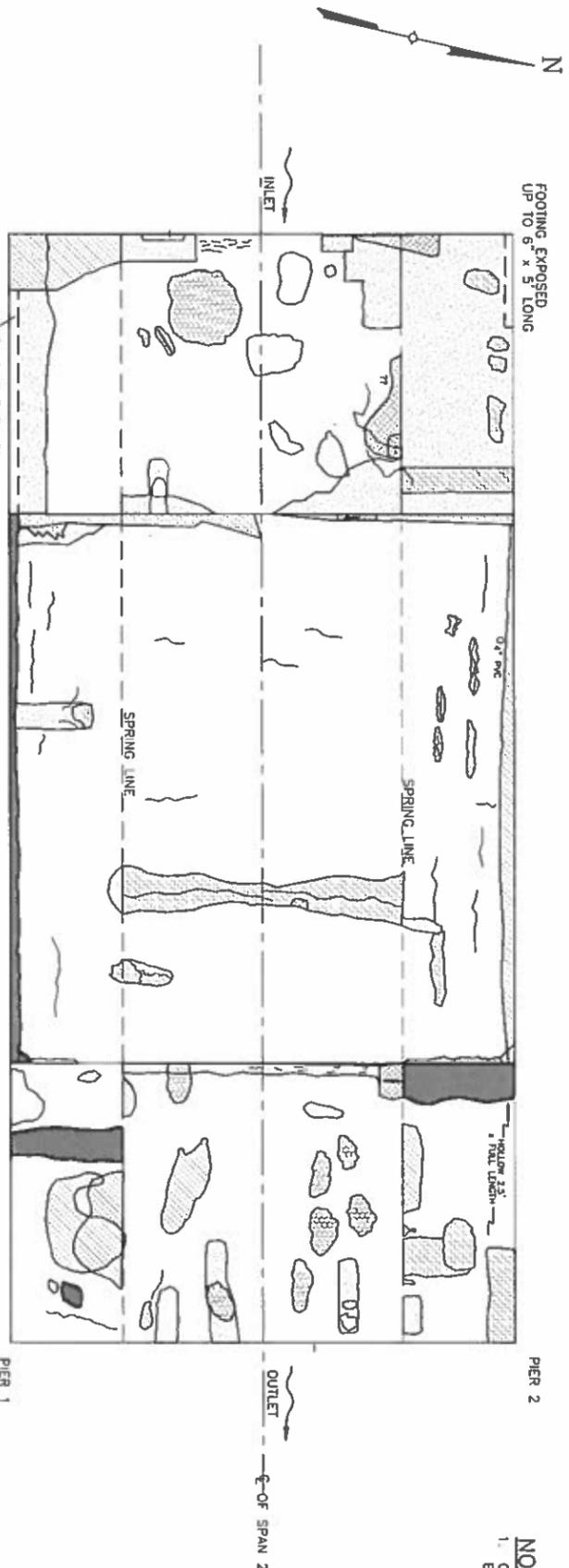
Sheet No. 6550.01 of 13



13 UNDERSIDE OF ARCH
SPAN NO. 1
SCALE: 1/4" = 1'-0"

- LEGEND**
- SPALL AREA
 - HOLLOW AREA
 - FROSTING
 - EXPOSED REBAR
 - HONEYCOMB AREA
 - PATCH AREA
 - EFFLORESCENCE
 - RUST
 - SCALING

NOTES
1. CONTRACTOR SHALL REPAIR AS SHOWN OR AS DIRECTED BY THE ENGINEER.



14 UNDERSIDE OF ARCH
SPAN NO. 2
SCALE: 1/4" = 1'-0"

THE CONTRACTOR IS ADVISED SEPARATELY FOR THE CLERK AND PROJECT RESIDENTS REGARDING ADDITIONAL, ALTERATION, REVISION, DEVIATION, AND/OR OMISSIONS TO BE MADE TO THE ORIGINAL DRAWING. ALL RIGHTS RESERVED. TECTONIC ENGINEERING, P.C. ALL RIGHTS RESERVED.

COPIES OF THIS DOCUMENT WITHOUT A FISCAL STAMP OR THE SIGNATURE AND AN ORIGINAL EMPRESS OF THE PROFESSIONAL ENGINEER OR LAND SURVEYOR SHALL NOT BE CONSIDERED VALID COPIES.

ORIGINAL SIZE IN INCHES

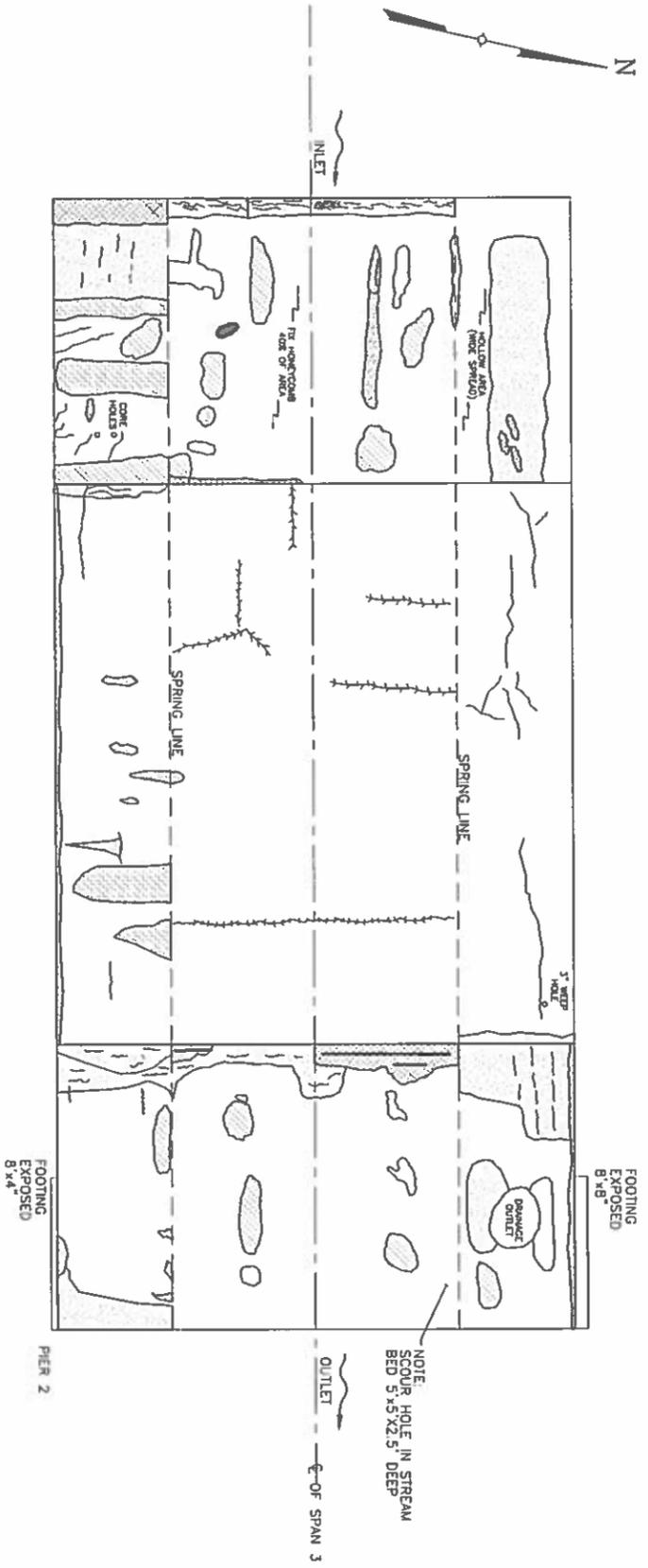
Rev	Date	Revision	Approved	DRAWING CONTROL					
				Designed	H.K.L.	Drawn	K.R.F.	Checked	J.A.S.
				Approved		Reviewed		Date	
				Checked		Reviewed		Date	
				Reviewed		Reviewed		Date	

TECTONIC ENGINEERING & SURVEYING CONSULTANTS P.C.
1344 State Street, Suite 200, West Hartford, CT 06107
Phone: (860) 233-2341 Fax: (860) 237-4822
www.tectonic-engineering.com

**REHABILITATION OF BRIDGE NO. 03651
OVER WEST MAIN STREET
WEST HARTFORD, CONNECTICUT**

ABUTMENT & UNDERSIDE OF ARCH REPAIRS-1

Draw: 3-02-15 Scale: 6550.01 Drawing No: 14 Rev: 0



15
 UNDERSIDE OF ARCH
 SPAN NO. 3
 SCALE: 1/4" = 1'-0"

- LEGEND**
- SPALL AREA
 - HOLLOW AREA
 - FROSTING
 - PATCH AREA
 - EFFLORESCENCE
 - EXPOSED REBAR
 - SCALING
 - RUST
 - HONEYCOMB AREA

THIS DOCUMENT IS PROVIDED SPECIFICALLY FOR THE PROJECT AND SITE DESCRIBED HEREIN. IT IS NOT TO BE USED FOR ANY OTHER PROJECT, LOCATION, EXTENSION, REVISION, REPRODUCTION, OR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF TECTONIC ENGINEERING, P.C. ALL RIGHTS RESERVED.

COPIES OF THIS DOCUMENT WITHOUT A FRAUDULENT SEAL OF THE REGISTERED PROFESSIONAL ENGINEER OR ARCHITECT SHALL NOT BE CONSIDERED VALID COPIES.

Rev	Date	Revision	Approved	Prepared	Checked	Drawn	Reviewed	Scale

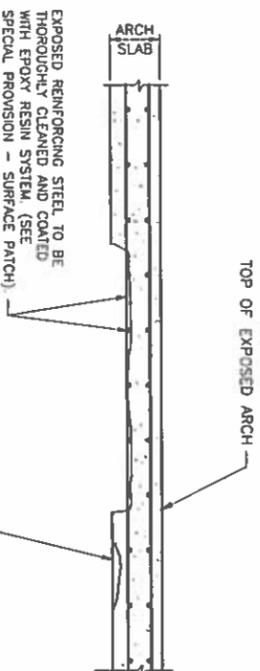
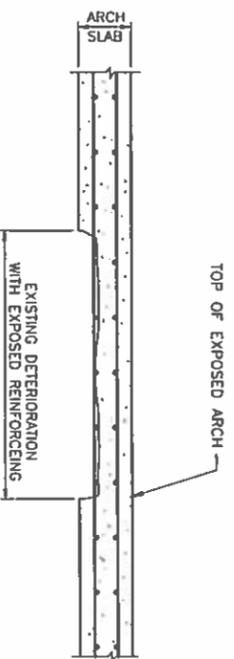


TECTONIC ENGINEERING, P.C.
 REGISTERED PROFESSIONAL ENGINEER

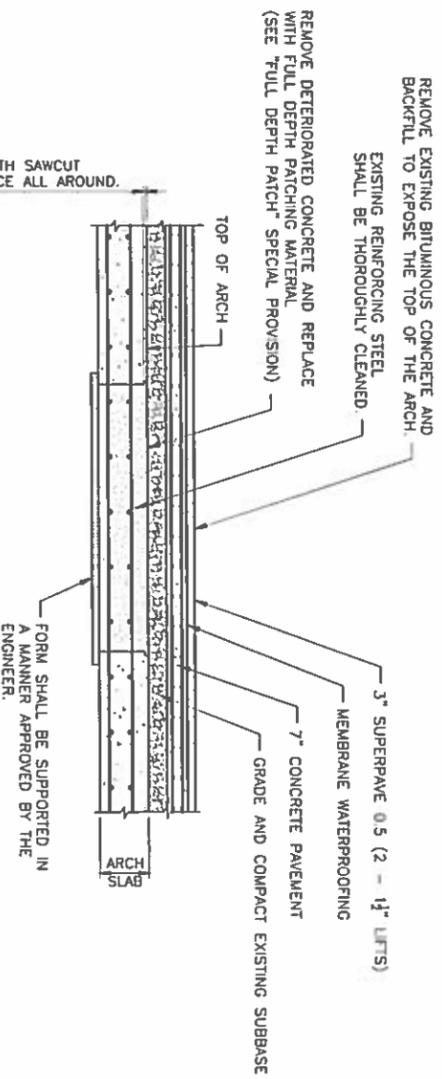
1245 Elm Street, Suite 500
 West Hartford, CT 06107
 Phone: (860) 231-2311
 Fax: (860) 231-4822
 www.tectonicing.com

**REHABILITATION OF BRIDGE NO. 03651
 OVER WEST MAIN STREET
 WEST BRANCH OF TROUT BROOK
 WEST HARTFORD, CONNECTICUT**

Drawn: 5-108-11
 Scale: AS SHOWN
 Sheet: 6550.01
 Drawing No.: 15
 Rev: 0



16 - UNDERSIDE OF ARCH REPAIRS
(SURFACE PATCH)
N.T.S.



17 - FULL DEPTH PATCH REPAIR DETAIL
N.T.S.

UNDERSIDE OF ARCH REPAIR NOTES:

1. EPOXY COATING THE UNDERSIDE OF THE ARCH REINFORCEMENT SHALL BE PERFORMED IN ACCORDANCE WITH DETAILS SHOWN ON THIS SHEET AND THE SPECIAL PROVISIONS. THIS WORK SHALL BE PAID UNDER THE ITEM "SURFACE PATCH" (SEE SPECIAL PROVISIONS).
2. ALL WORK SHALL BE CONTAINED BY A TEMPORARY DEBRIS SHIELD. NO DEBRIS SHALL BE ALLOWED TO FALL INTO THE BROOK. THE CONTRACTOR SHALL SUBMIT FOR REVIEW THE METHOD HE INTENDS TO USE AS DEBRIS CONTAINMENT. THE COST OF THIS SHALL BE INCLUDED IN THE GENERAL COST OF CONSTRUCTION.
3. THE EXISTING UNDERSIDE SHALL BE SOUNDED FOR HOLLOW AREAS OF CONCRETE TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL PROVIDE SAFE ACCESS TO THE ENGINEER FOR DELEGATION AND INSPECTION OF THE DECK UNDERSIDE, AND THE REPAIR WORK. THE COST OF PROVIDING ACCESS FOR THE INSPECTION SHALL BE INCLUDED IN THE COST OF THE NEW "SURFACE PATCH".
4. ALL EXPOSED REINFORCING STEEL SHALL BE THOROUGHLY CLEANED TO REMOVE ANY DEBRIS OR RESIDUE BEFORE APPLICATION OF EPOXY RESIN COATING (SEE SPECIAL PROVISION).
5. ANY EXPOSED REINFORCING STEEL IN THE AREAS OF POP-OUTS CAUSED BY THE REMOVAL OF DETERIORATED CONCRETE SHALL BE CLEANED AND COATED WITH EPOXY RESIN COATING.
6. THE UNDERSIDE OF ARCH DETERIORATION AND REPAIR ESTIMATES ARE BASED ON LIMITED FIELD OBSERVATIONS. THE EXACT LOCATION AND LIMITS OF EXPOSED REINFORCEMENT AND HOLLOW AREAS OF CONCRETE SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION (SEE SPECIAL PROVISION).
7. THE CONTRACTOR SHALL NOT PERFORM ANY REPAIR WORK WITHOUT PRIOR APPROVAL FROM THE ENGINEER. THE REMOVAL OF DETERIORATED CONCRETE SHALL PROCEED AS DIRECTED BY THE ENGINEER.
8. IF THE REMOVAL OF DETERIORATED CONCRETE BECOMES EXCESSIVE, THE REMOVAL WORK SHALL BE STOPPED AND THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
9. IF CONCRETE REMOVAL EXTENDS GREATER THAN 3 INCHES IN DEPTH OR IF THE REMOVAL EXPOSES THE FULL CIRCUMFERENCE OF THE REINFORCING STEEL BAR FOR A LENGTH EXCEEDING 12 INCHES, THE AREA SHALL BE REPAIRED BY "FULL DEPTH PATCHING".

THE CONTRACTOR IS REQUIRED SPECIFICALLY FOR THE SIGNATURE AND AN ORIGINAL, EXPRESSED WRITTEN APPROVAL OF THE PROFESSIONAL ENGINEER OF LAND SURVEYOR OR USE WITHOUT THE CONSENT OF TECTONIC ENGINEERING, INC. ALL RIGHTS RESERVED.

COPIES OF THIS DOCUMENT WITHOUT A FURNISH OF THE SIGNATURE AND AN ORIGINAL, EXPRESSED WRITTEN APPROVAL OF THE PROFESSIONAL ENGINEER OF LAND SURVEYOR SHALL NOT BE CONSIDERED VALID COPIES.

File	Date	Revision	Approved

DRAWING CONTROL			
Prepared By	Checked By	Drawn By	Scale

TECTONIC
Professional Engineer
Construction Management

1544 State Street, Suite 500
Meriden, CT 06450

Project: (860) 543-2341
Fax: (860) 237-4842
www.tectonic-engineering.com

ARCH REPAIR DETAILS

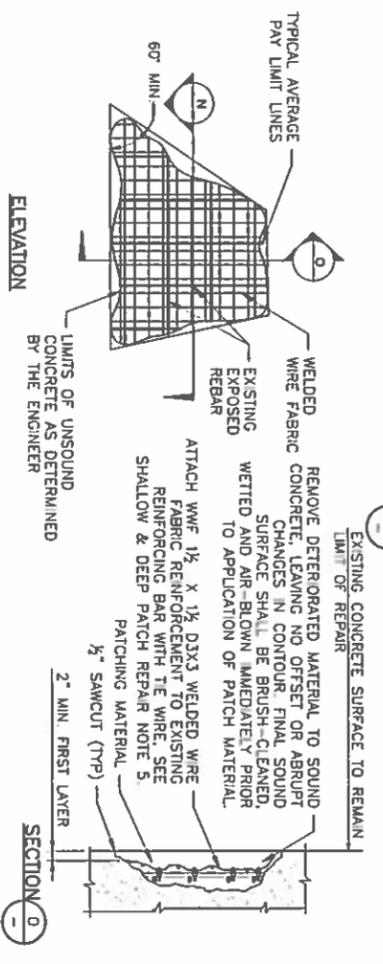
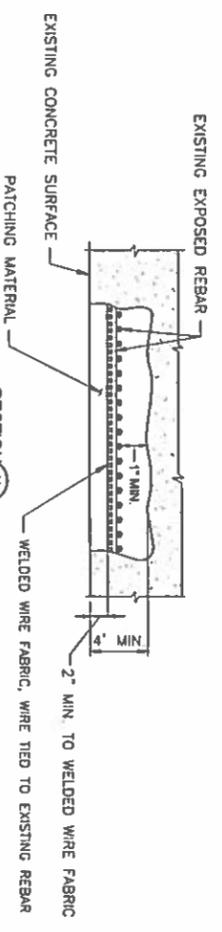
REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER TROUT BROOK
WEST HARTFORD, CONNECTICUT

Sheet: 3-08-15
Scale: AS SHOWN

6550.01

Drawing No: 16

Rev: 0



18 DEEP PATCH REPAIR DETAIL - WITHOUT BUILD OUT
N.T.S.

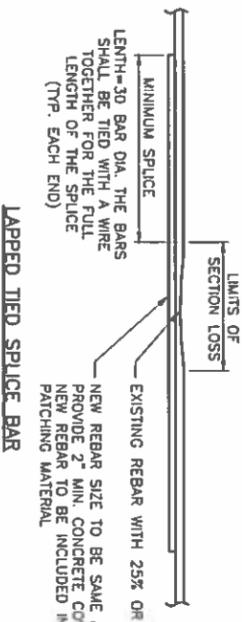
SHALLOW PATCH PROCEDURE:

1. SHALLOW PATCH REPAIR DETAIL APPLIES TO DETEIORATED AREAS OF UNREINFORCED CONCRETE OR REPAIR AREAS WHERE NO REINFORCING IS EXPOSED.
2. REPAIR DEPTH SHALL BE 1/8" (MIN.) OR GREATER. REPAIR DEPTHS LESS THAN 1/8" NEED NOT BE REPAIRED.
3. FOR AREAS WHERE THE CONCRETE REPAIR EXCEEDS 4" IN DEPTH, A SINGLE LAYER OF WIRE MESH SHALL BE USED TO REINFORCE EACH 2" THICKNESS OF PATCHING MATERIAL. THE COST OF WELDED WIRE FABRIC SHALL BE INCLUDED IN THE COST OF PATCHING MATERIAL.
4. THE PERIMETER OF EACH DETEIORATED AREA SHALL BE SQUARED-OFF BY CHISELING OR SAWCUTTING.
5. SURFACE PREPARATION:
REMOVE LOOSE AND DETEIORATED CONCRETE, INCLUDING DIRT, OIL, GREASE AND ALL BOND-INHIBITING MATERIALS FROM SURFACE. LEAVING NO OFFSET OR ABRUPT CHANGES IN CONTOUR. SURFACE PREPARATION SHALL BE DONE BY SCABBLER, CHISELING, WIRE BRUSHING OR OTHER APPROPRIATE MECHANICAL MEANS.
ROUGHEN CONTACT SURFACE WITH A MINIMUM PROFILE OF APPROXIMATELY 1/16" FOR BONDING WITH PATCHING MATERIAL. SATURATE WITH CLEAN WATER PRIOR TO APPLYING MORTAR. MORTAR SHOULD BE SATURATED SURFACE DRY (SSD) WITH NO STANDING WATER DURING APPLICATION OF PATCHING MORTAR.
6. HOOK-TYPE EXPANSION ANCHOR BOLTS SHALL BE MECHANICALLY GALVANIZED IN ACCORDANCE WITH ASTM B695, CLASS 30, TYPE 1. COST OF HOOK-TYPE BOLTS, INCLUDING MATERIAL AND INSTALLATION, SHALL BE INCLUDED IN THE COST OF PATCHING MATERIAL.
7. NEW CONCRETE SHALL MATCH SHAPE AND COLOR OF EXISTING CONCRETE SURFACE AS CLOSELY AS POSSIBLE.

TABLE A
SIZE AND SPACING OF HOOK-TYPE BOLTS

THICKNESS OF PATCH MAT'L	SIZE AND SPACING
4"	1/2" DIA. AT 24" + CTRS.
5"	3/4" DIA. AT 22" + CTRS.
6"	1" DIA. AT 20" + CTRS.

19 SHALLOW PATCH REPAIR DETAIL
N.T.S.



LAPPED TIED SPICE BAR

MIN. LAP LENGTH EQUALS MIN. REQUIRED WELD LENGTH PLUS 1" (TYP.)

- NOTES:
1. THIS DETAIL TO BE USED ONLY IF IT IS VERIFIED THAT EXISTING STEEL IS WELDABLE BASED ON ITS CHEMICAL COMPOSITION.
 2. WELDING SHALL BE DONE IN ACCORDANCE WITH AWS D1.4 STRUCTURAL WELDING CODE - REINFORCING STEEL.

20 LAPPED WELDED SPICE BAR
REINFORCEMENT SPICE DETAIL
N.T.S.

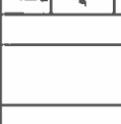
SHALLOW AND DEEP PATCH REPAIR NOTES:

1. ALL WORK SHOWN ON THIS DRAWING SHALL BE PERFORMED WHERE DIRECTED BY THE ENGINEER.
2. SURFACE PREPARATION, PROPORTIONING AND MIXING OF MATERIALS, APPLICATION OF MATERIALS AND REPAIR PROCEDURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
3. NEW CONCRETE PATCHES SHALL MATCH SHAPE OF EXISTING CONCRETE SURFACES. COLOR OF NEW PATCH CONCRETE SHALL MATCH COLOR OF THE ADJACENT SURFACES AS CLOSELY AS POSSIBLE.
4. EXPOSED REINFORCING BARS SHALL BE BLAST CLEANED AND COATED WITH A ZINC RICH PRIMER THAT CONFORMS TO FEDERAL SPECIFICATION TT-P-641, TYPE 1, BEFORE APPLYING THE PATCHING MATERIAL. COST OF PRIMER SHALL BE INCLUDED IN THE COST OF THE PATCHING MATERIAL ITEM.
5. SPICED REINFORCING BARS SHALL BE COATED WITH A ZINC RICH PRIMER THAT CONFORMS TO FEDERAL SPECIFICATION TT-P-641, TYPE 1, BEFORE APPLYING PATCHING MATERIAL. COST OF PRIMER SHALL BE INCLUDED IN THE COST OF THE PATCHING MATERIAL.
6. THE REMOVAL OF DETEIORATED CONCRETE SHALL PROCEED AS DIRECTED BY THE ENGINEER. IF THE REMOVAL OF DETEIORATED CONCRETE BECOMES EXCESSIVE, THE REMOVAL WORK SHALL BE STOPPED AT THE LOCATION AND THE ENGINEER NOTIFIED IMMEDIATELY. COST OF REMOVAL OF DETEIORATED CONCRETE AND SURFACE PREPARATION OF THE REPAIR AREA SHALL BE INCLUDED IN THE APPROPRIATE PAY ITEM OF THE PATCHING MATERIAL.
7. THE CONTRACTOR SHALL NOT REMOVE CONCRETE EXCEPT IN THE PRESENCE OF THE ENGINEER OR HIS APPOINTED REPRESENTATIVE. IF THE AREA REMOVED EXCEEDS THE AREA SHOWN ON THE PLANS BY 25% OR IF THE REMOVAL DEPTH EXTENDS MORE THAN 1-1/2" BEHIND THE MAIN REINFORCING BARS, THE CONTRACTOR SHALL CEASE REMOVAL OPERATIONS AND NOTIFY THE ENGINEER IMMEDIATELY. THE ENGINEER SHALL DETERMINE IF THE REMOVAL OPERATIONS REDUCE THE STRUCTURAL CAPACITY OF THE ELEMENT.
8. AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UNLESS OTHERWISE NOTED OR AS ORDERED BY ENGINEER.
9. REPAIR DETAILS APPLY TO SPALLED, SCALED, AND HOLLOW AREAS IN ABUTMENTS AND PIERS WHERE REQUIRED AND NOTED ON DRAWINGS, AND AS ORDERED BY ENGINEER.

DEEP PATCH REPAIR PROCEDURE:

1. DEEP PATCH REPAIR DETAIL APPLIES TO DETEIORATED AREAS OF REINFORCED CONCRETE WHERE REINFORCING IS EXPOSED.
2. REMOVE DETEIORATED MATERIAL TO SOUND CONCRETE LEAVING NO OFFSET OR ABRUPT CHANGES IN CONTOUR.
3. CLEAN EXISTING REINFORCING STEEL AND CONCRETE (NEWLY EXPOSED). SEE SPECIFICATIONS. MISSING OR DETEIORATED REINFORCING STEEL SHALL BE REPLACED AND SPICED AS SHOWN IN DETAIL OR AS DIRECTED BY THE ENGINEER. COST OF SPICING TO BE PAID UNDER THE COST FOR PATCHING MATERIAL.
4. INSTALL WELDED WIRE FABRIC AND APPLY ZINC RICH PRIMER TO EXISTING AND NEW REINFORCING STEEL IMMEDIATELY PRIOR TO PLACING PATCHING CONCRETE. COST OF WELDED WIRE FABRIC AND PRIMER TO BE PAID UNDER THE COST FOR PATCHING MATERIAL.
5. FORM AND PATCH SURFACE.
6. A MINIMUM OF 72 HOURS SHALL ELAPSE BETWEEN PLACING OF CONCRETE AND START OF NEXT ADJACENT PATCH.
7. ALL NEW EXPOSED CONCRETE SURFACES WITHIN AREA TO BE REPAIRED SHALL BE RUBBED TO PRODUCE A SMOOTH FINISH.

THE CONTRACTOR IS REQUIRED SPECIFICALLY FOR THE SOURCE AND AN ORIGINAL IMPRESS OF THE SOURCE SHALL BE SUBMITTED TO THE PROFESSIONAL ENGINEER OF LAND SURVEYOR AND ARCHITECT. THE CONTRACTOR SHALL NOT BE CONSIDERED VALID COPIES.



ORIGINAL SIZE IN INCHES

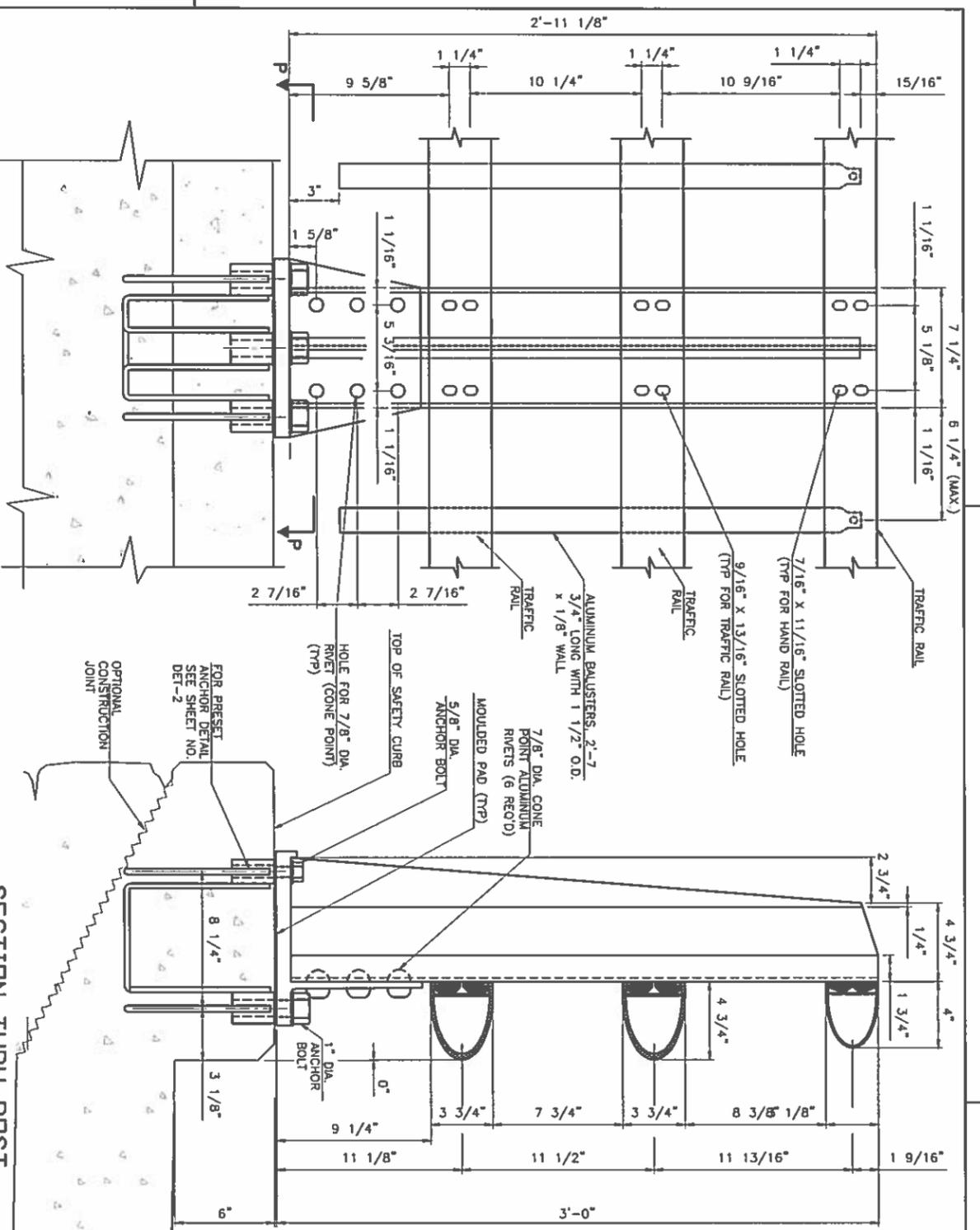
Rev	Date	Author	Approved	Checked	Drawn	Scale	Sheet



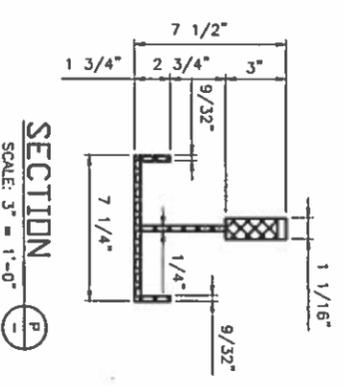
REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER TROUT BROOK
WEST HARTFORD, CONNECTICUT

TECTONIC CONSULTING ENGINEERS
1244 West Main Street, Suite 200
West Hartford, CT 06107
Phone: (860) 242-2341
Fax: (860) 237-8822
www.itectoniceng.com

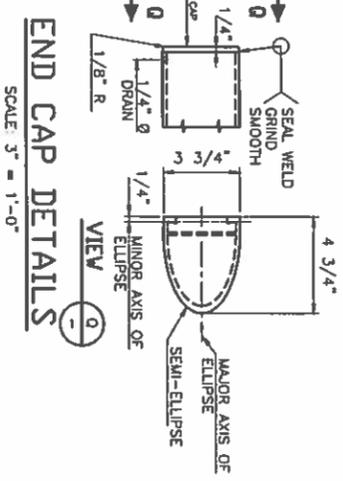
PROJECT NO. 03651-10
DATE: 05/20/10
DRAWING NO. 17
SHEET NO. 0



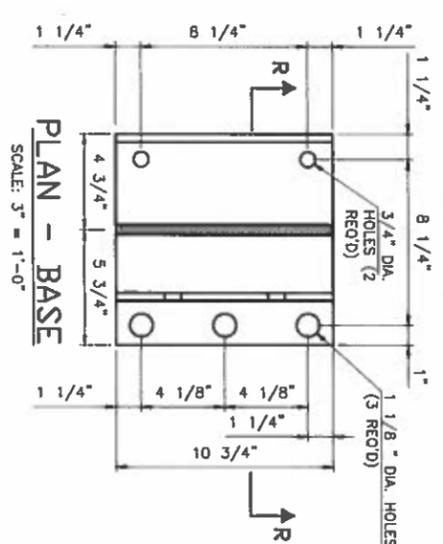
POST ELEVATION
SCALE: 3" = 1'-0"



SECTION
SCALE: 3" = 1'-0"

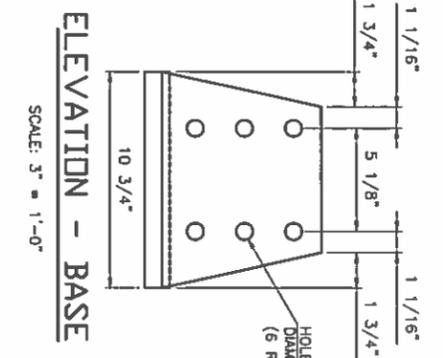


END CAP DETAILS
SCALE: 3" = 1'-0"

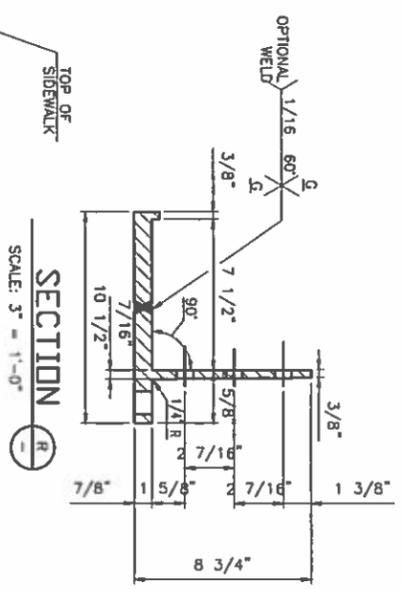


SECTION THRU POST
SCALE: 3" = 1'-0"

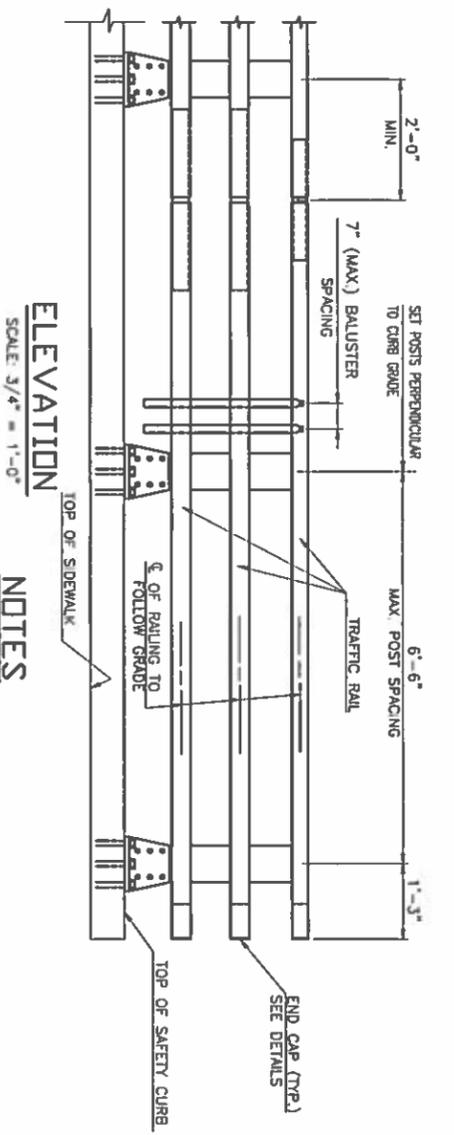
PLAN - BASE
SCALE: 3" = 1'-0"



ELEVATION - BASE
SCALE: 3" = 1'-0"



SECTION
SCALE: 3" = 1'-0"



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

NOTES

- ALUMINUM WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE - ALUMINUM ANS/AWS D1.2
- RIVETING SHALL BE DONE IN ACCORDANCE WITH ARTICLE 6.5 - RIVETING OF THE ASHTO SPECIFICATIONS FOR ALUMINUM STRUCTURES.
- METAL BRIDGE RAIL: THE RAILING POSTS, POST CONNECTION DEVICES, BALUSTERS, SPLICE BARS AND RAILS SHALL BE EXTRUDED ALUMINUM ALLOY 6061-T6 OR 6005-T5.
- SOCKET HEAD CAP SCREWS SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF ASTM F837, GROUP 1 (AISI TYPE 304).
- BOLTS SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF ASTM F593, GROUP 1 (AISI TYPE 304). NUTS SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF ASTM F594, GROUP 1. WASHERS SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF ASTM A167, TYPES 302 THROUGH 305.
- CONE-POINT RIVETS SHALL CONFORM TO ASTM B316, ALUMINUM ALLOY 6061-T6 OR ASTM B221, ALUMINUM ALLOY 6061-T6.
- LENGTHS OF RAIL ELEMENTS SHALL BE CONTINUOUS OVER A MINIMUM OF FOUR RAIL POSTS WHEREVER POSSIBLE AND IN NO CASE LESS THAN TWO. WELDING OF TWO OR MORE RAILS TO FORM AN ELEMENT WILL NOT BE ALLOWED. RAIL SPICES SHALL BE LOCATED IN RAIL PANELS OVER OPEN JOINTS IN PARAPETS. SPLICE BARS SHALL HAVE A SLINGING FIT IN THE RAIL SECTIONS.
- ALUMINUM RAILINGS SHALL BE CAREFULLY ADJUSTED PRIOR TO FIXING IN PLACE TO INSURE PROPER MATCHING AT ADJUTING JOINTS AND CORRECT ALIGNMENT AND CURVATURE THROUGHOUT THEIR LENGTH AFTER INSTALLATION. ALL RAILS AND POSTS SHALL BE FREE OF BURRS, SHARP EDGES AND IRREGULARITIES.
- ANCHORAGE: THE ANCHORAGE PLATE SHALL BE FABRICATED FROM STEEL CONFORMING TO ASTM A36. AFTER FABRICATION, THE ANCHORAGE PLATE SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A153.
- ANCHOR BOLTS FOR THE ANCHORAGE ASSEMBLY SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF ASTM F593, GROUP 1 (AISI TYPE 304). NUTS SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF ASTM F594, GROUP 1. WASHERS SHALL BE STAINLESS STEEL AND CONFORM TO THE REQUIREMENTS OF ASTM A167, TYPES 302 THROUGH 305.
- THE ANCHORAGE ASSEMBLIES SHALL BE INSTALLED PERPENDICULAR TO THE GRADE OF THE BRIDGE DECK. THE ANCHORAGE SHALL BE FIRMLY AND ACCURATELY HELD IN POSITION PRIOR TO AND DURING THE PLACING OF CONCRETE.
- MOULDED PADS: MOULDED PADS SHALL BE MANUFACTURED FROM NEW UNVULCANIZED ELASTOMER AND UNUSED SYNTHETIC FIBERS, WITH A WEIGHT PROPORTION OF FIBER CONTENT EQUAL TO APPROXIMATELY ONE-HALF OF THE TOTAL WEIGHT OF THE PAD.
- ANODIZING: WHERE ANODIZED METAL BRIDGE RAIL IS SHOWN ON THE PLANS, THE ALUMINUM ALLOY USED SHALL ONLY BE 6005-T5. THE ANODIZING SHALL CONFORM TO THE REQUIREMENTS OF ASTM B550 TYPE A - ENGINEERING HARD COAT. IF THE COLOR OF THE ANODIZING IS NOT SHOWN ON THE PLANS, IT SHALL BE DARK BRONZE.

THIS DOCUMENT IS PROVIDED SPECIFICALLY FOR THE PROJECT AND PROJECT LOCATED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER. THE ENGINEER'S LIABILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THE PROJECT. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY OTHER WORK OR FOR ANY OTHER PROJECTS. THE ENGINEER'S LIABILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THE PROJECT. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY OTHER WORK OR FOR ANY OTHER PROJECTS.

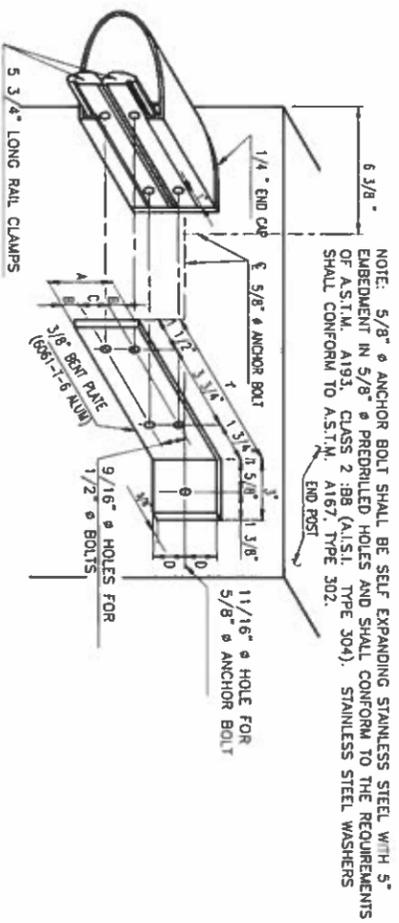
No.	Date	Author	Approved

TECTONIC CONSULTING ENGINEERS

1245 West 10th Street, Suite 100
West Hartford, Connecticut 06107
Phone: (860) 843-2341
Fax: (860) 237-4882
www.TECTONICENGINEERS.com

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER TROUT BROOK
WEST HARTFORD, CONNECTICUT

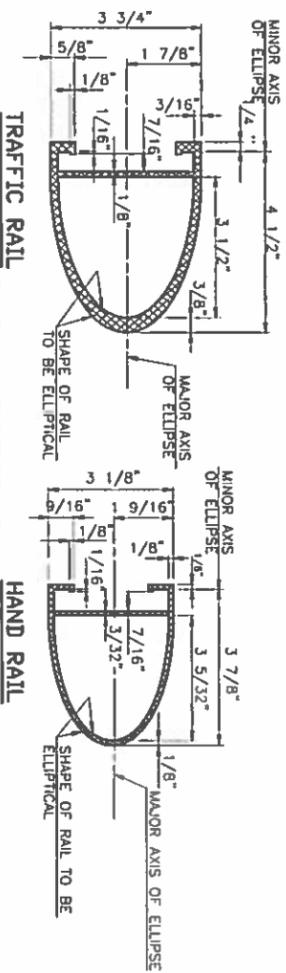
Sheet: 5-03-18
Date: 05/20/11
Scale: AS SHOWN
Drawing No.: 18
Rev: 0



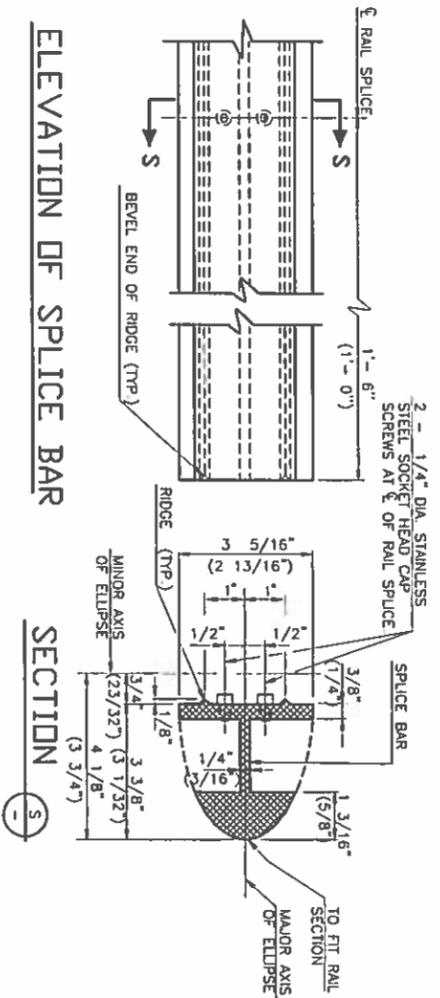
DETAIL OF RAIL ATTACHMENT TO END POST
 SCALE: 3" = 1'-0"
 NOTE: PAINT SURFACE OF PLATE IN CONTACT WITH CONCRETE WITH A HEAVY COAT OF ALUMINUM PIGMENTED ALKALINE RESISTANT BITUMINOUS PAINT EQUAL TO FEDERAL SPECIFICATIONS TT-C-001079D.

BENT PLATE DIMENSIONS

SYMBOL	TRAFFIC RAIL	HAND RAIL
A	3 3/4"	3 1/8"
B	1 1/32"	15/16"
C	1 11/16"	1 1/4"
D	1 7/8"	1 9/16"



RAIL SECTIONS
 SCALE: 6" = 1'-0"

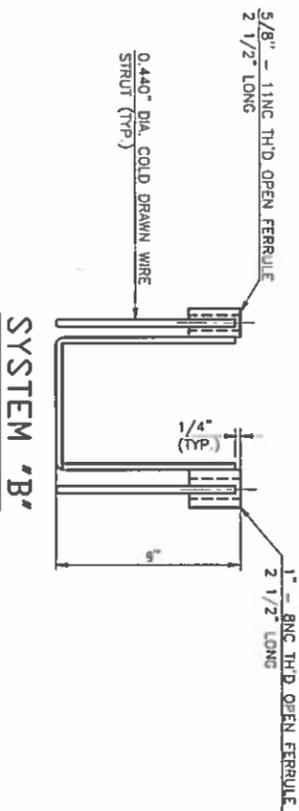
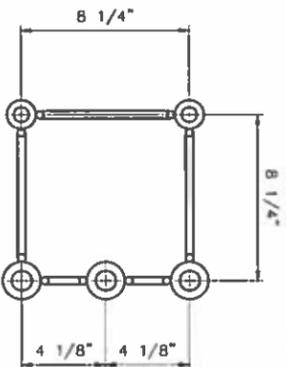
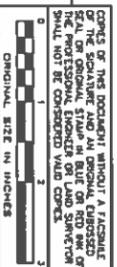


ELEVATION OF SPLICE BAR SECTION
 RAIL SPLICE DETAILS
 (TRAFFIC RAIL SHOWN - HAND RAIL SIMILAR)

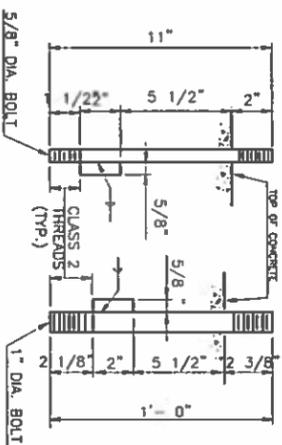
SCALE: 6" = 1'-0"

NOTE: FOR LOCATION SEE RAIL ELEVATION, STR-2.

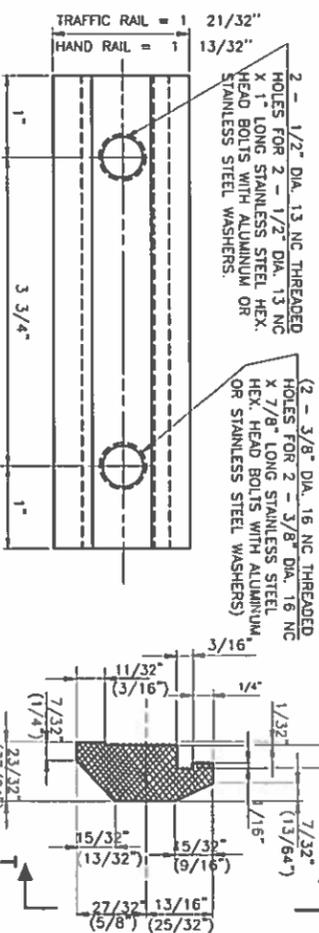
THIS DOCUMENT IS PREPARED SPECIFICALLY FOR THE PROJECT AND PROJECT RESOURCES HEREIN ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. WITHOUT THE WRITTEN PERMISSION OF TECTONIC ENGINEERING, P.C. ALL RIGHTS RESERVED.



PRESET ANCHORAGE SYSTEM 'B' DETAILS
 SCALE: 3" = 1'-0"
 NOTE: FOR PRESET ANCHORAGE, USE 3 1/4" LONG STAINLESS STEEL BOLTS.

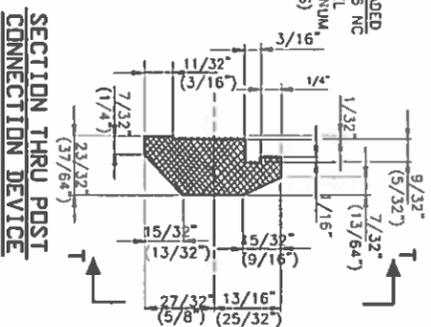


DETAIL OF STAINLESS STEEL ANCHOR BOLTS
 SCALE: 3" = 1'-0"



POST CONNECTION DEVICE DETAILS
 (DEVICE FOR TRAFFIC RAIL SHOWN - HAND RAIL SIMILAR)

SCALE: 1" = 1'



No.	Date	Revision	Approved	Checked	Drawn	Design

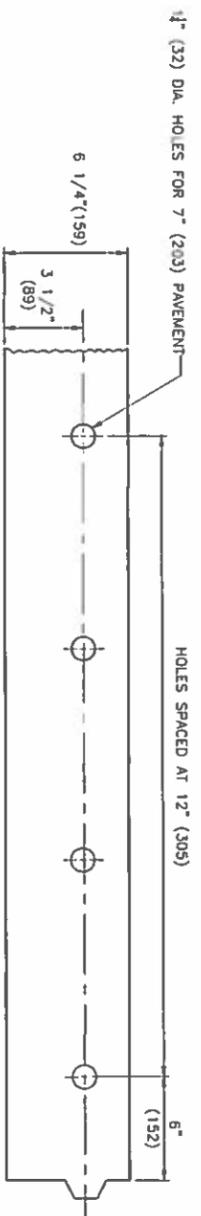


TECTONIC ENGINEERING & SURVEYING
 1344 State Drive, Middletown, CT 06457
 Phone: (860) 352-2441
 Fax: (860) 352-4482
 www.tectonic-engineering.com

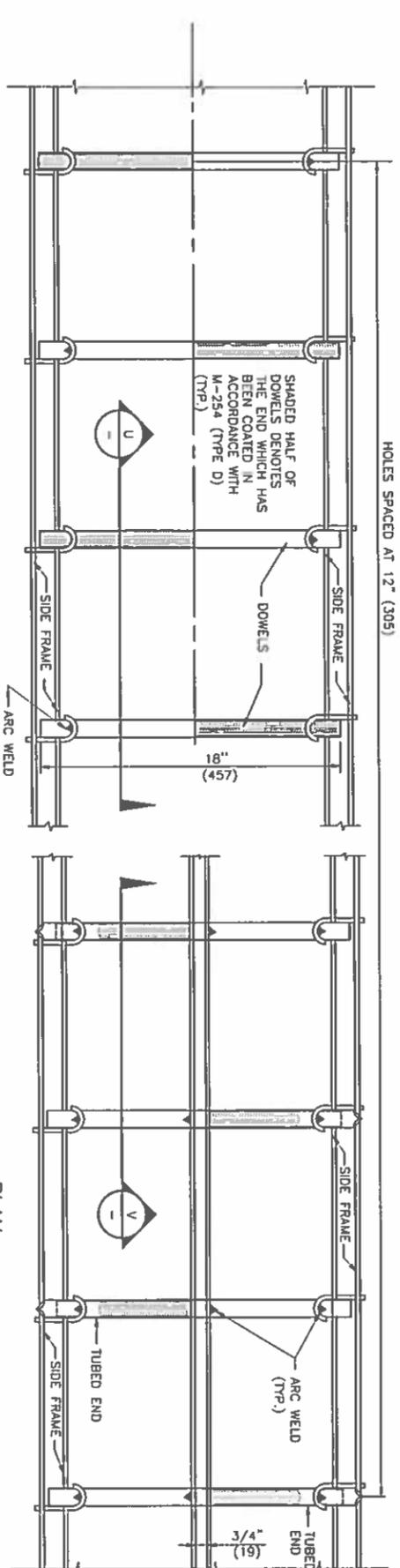
METAL BRIDGE RAIL - THREE RAIL TRAFFIC

REHABILITATION OF BRIDGE NO. 03661
 NORTH MAIN STREET
 OVER ROUTE BROOK
 WEST HARTFORD, CONNECTICUT

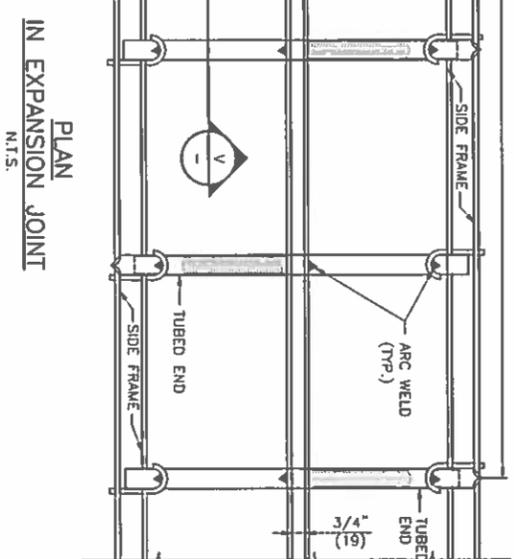
Sheet: 3-03-18
 Date: 05/05/01
 Drawing No.: 19
 Rev: 0



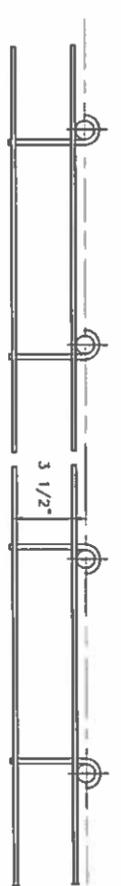
DETAIL OF JOINT FILLER IN EXPANSION JOINT
N.T.S.



PLAN IN CONTRACTION JOINT
N.T.S.



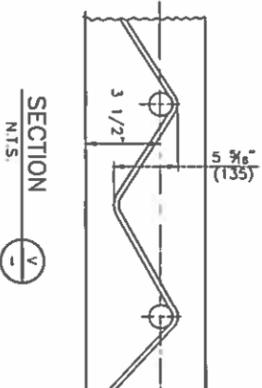
PLAN IN EXPANSION JOINT
N.T.S.



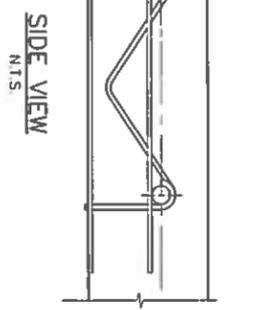
SIDE VIEW
N.T.S.



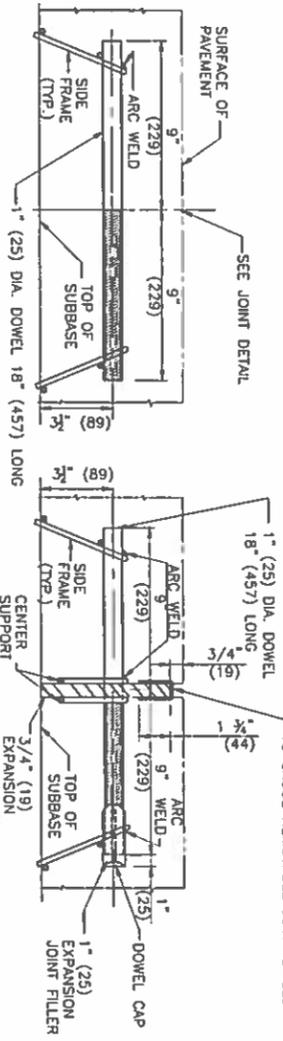
SECTION
N.T.S.



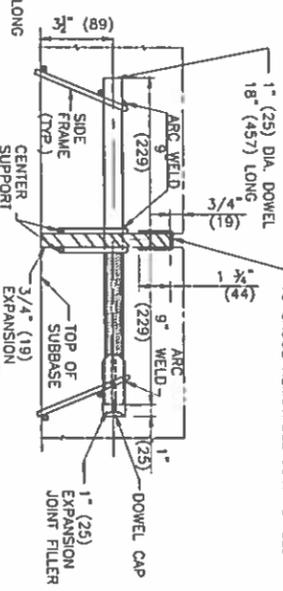
SECTION
N.T.S.



SIDE VIEW
N.T.S.

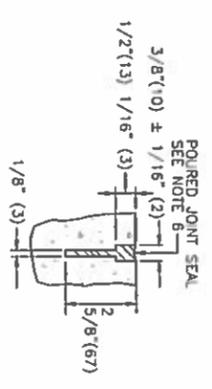


SECTION THRU UNIT IN CONTRACTION
N.T.S.

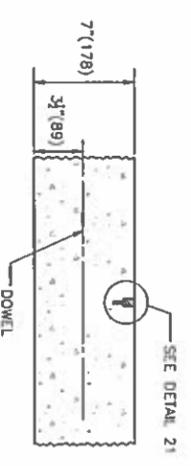


SECTION THRU UNIT IN EXPANSION JOINT
N.T.S.

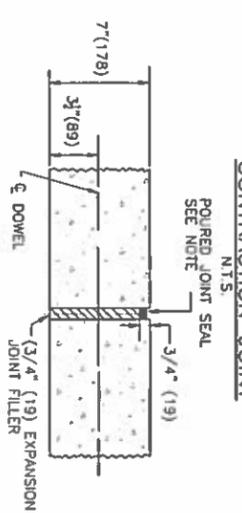
- GENERAL NOTES:**
1. MATERIALS FOR SIDE FRAMES AND CENTER SUPPORTS SHALL MEET THE REQUIREMENTS OF ASPHO M-31. ALTERNATE FRAME DESIGN MAY BE APPROVED BY THE ENGINEER.
 2. DOWEL BAR DIAMETER SIZES ARE EXCLUSIVE OF COATINGS.
 3. ALL DIMENSIONS SUBJECT TO MANUFACTURING TOLERANCES.
 4. ALL DIMENSIONS SUBJECT TO MANUFACTURING TOLERANCES.
 5. ALL SIDE FRAMES AND CENTER SUPPORTS SHALL BE 1 GAUGE WIRE OR 5/16" (8) BARS THROUGHOUT.
 6. AT FIRST POURING, THE JOINT SEAL MATERIAL SHALL FILL THE JOINT FLUSH WITH THE PAVEMENT SURFACE. AFTER THIS MATERIAL HAS COOLED AND CONTRACTED, THE REMAINING JOINT OPENING SHALL BE FILLED TO WITHIN 1/8" (3) OF THE PAVEMENT SURFACE.



POURED JOINT SEAL
SEE NOTE 6



SAWED CONTRACTION JOINT DETAIL
N.T.S.



SECTION THRU TRANSVERSE CONTRACTION JOINT
N.T.S.

ALL METRIC DIMENSIONS IN PARENTHESES ARE IN MILLIMETER (mm) UNLESS OTHERWISE NOTED.

Rev	Date	Number	Approved	Checked	Drawn	Scale	Notes
1							

Checked	Drawn	Scale	Date

Checked	Drawn	Scale	Date

Checked	Drawn	Scale	Date

Checked	Drawn	Scale	Date

Checked	Drawn	Scale	Date

Checked	Drawn	Scale	Date

Checked	Drawn	Scale	Date

CONTRACTOR'S SEAL AND SIGNATURE
I, _____, hereby certify that I am a duly Licensed Professional Engineer in the State of Connecticut and that I am the author of the design shown on this drawing. My license number is _____.

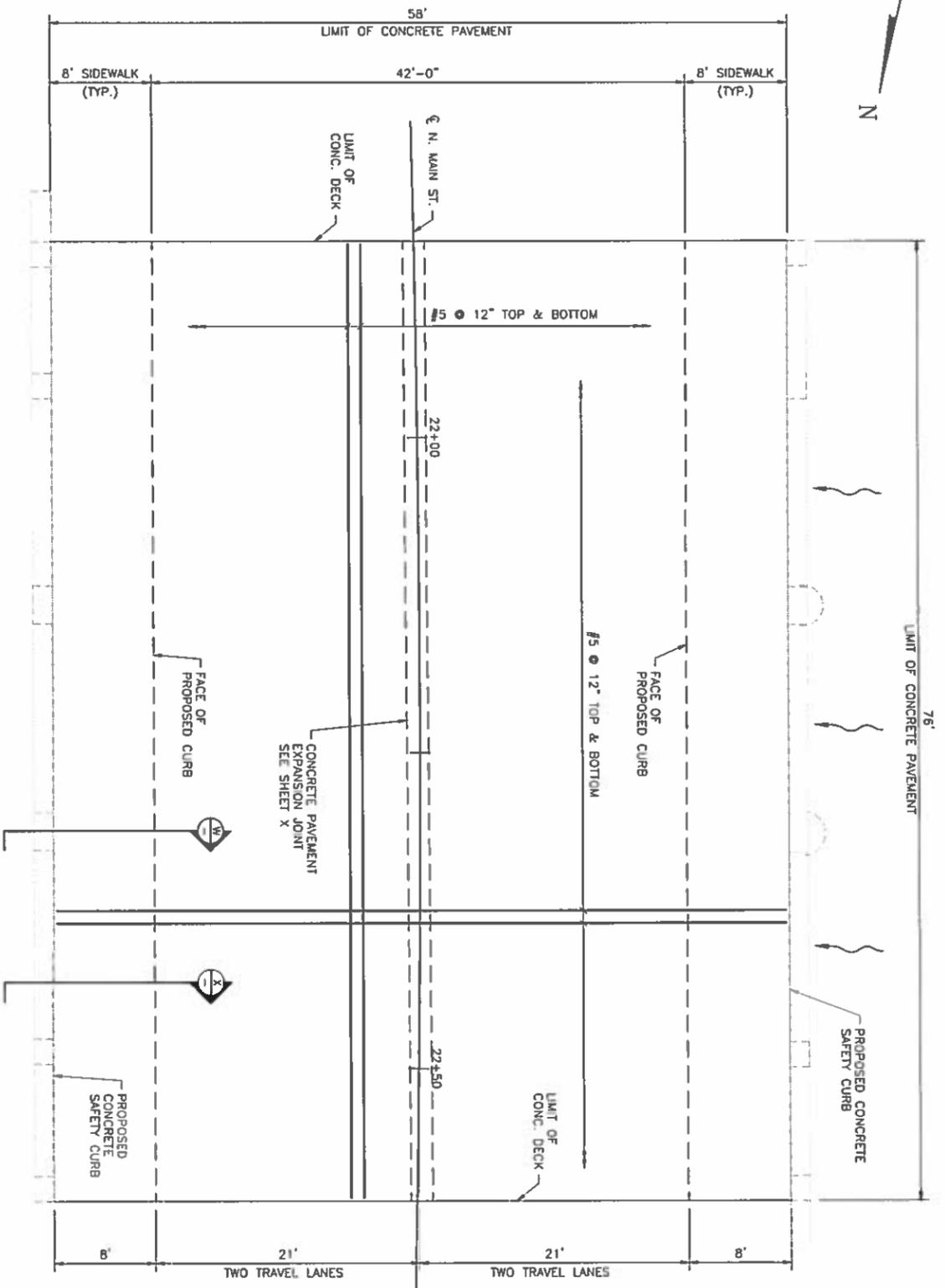
CONTRACTOR'S SEAL AND SIGNATURE
I, _____, hereby certify that I am a duly Licensed Professional Engineer in the State of Connecticut and that I am the author of the design shown on this drawing. My license number is _____.

CONTRACTOR'S SEAL AND SIGNATURE
I, _____, hereby certify that I am a duly Licensed Professional Engineer in the State of Connecticut and that I am the author of the design shown on this drawing. My license number is _____.

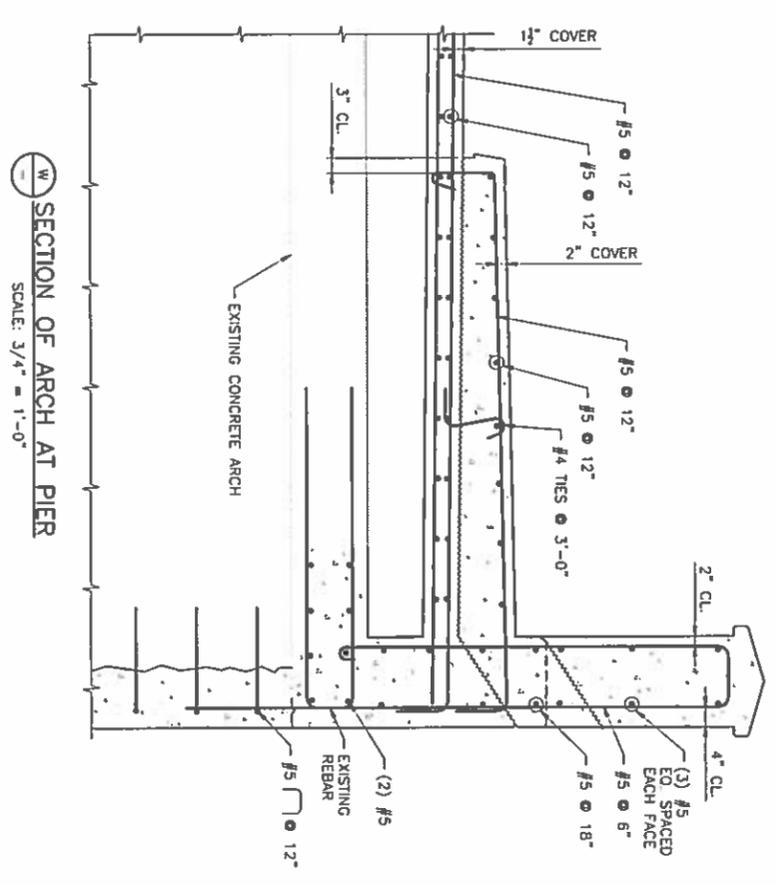
TECTONIC
Professional Engineering & Surveying Consulting, P.C.
1344 State Street, Suite 500
Hartford, CT 06103
Phone: (860) 543-3341
Fax: (860) 231-4442
www.tectonicengineering.com

CONCRETE PAVEMENT JOINT DETAIL
REHABILITATION OF BRIDGE NO. 03651
OVER WEST MAIN STREET
WEST HARTFORD, CONNECTICUT

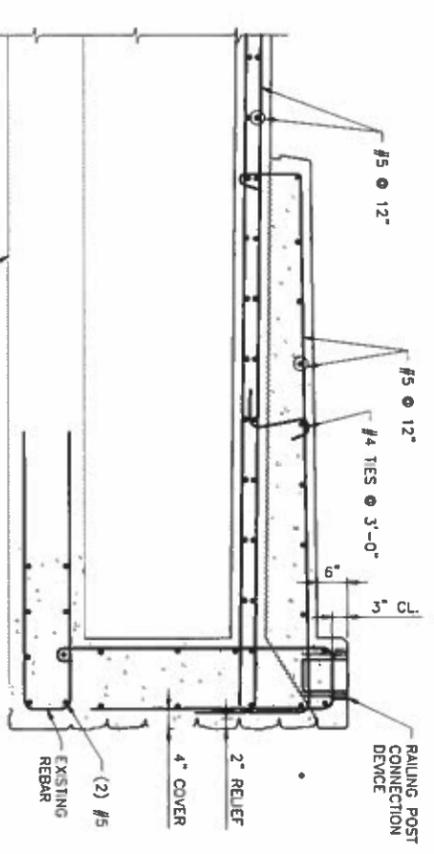
8550.01
20
0



CONCRETE PAVEMENT PLAN
SCALE: 3/16" = 1'-0"



SECTION OF ARCH AT PIER
SCALE: 3/4" = 1'-0"



SECTION OF ARCH
NOTE: HAND RAILING NOT SHOWN FOR CLARITY.

STANDARD REBAR HOOK & SPLICE DIMENSIONS

DIAGRAM	SIZE	HOOK L _H	VERT
	#3	6"	19"
	#4	8"	26"
	#5	10"	31"
	#6	12"	38"

NOTE: BASED ON 4000 PSI CONCRETE.

THESE DOCUMENTS AND ANY PARTS THEREOF ARE THE PROPERTY OF TECTONIC ENGINEERING & SURVEYING CONSULTANTS, P.C. AND ARE TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. ANY REUSE, REPRODUCTION, OR TRANSMISSION OF ANY PART OF THESE DOCUMENTS WITHOUT THE WRITTEN PERMISSION OF TECTONIC ENGINEERING & SURVEYING CONSULTANTS, P.C. IS PROHIBITED. © COPYRIGHT 2008 TECTONIC ENGINEERING, P.C. ALL RIGHTS RESERVED.

Rev	Date	By	Checked	Reason

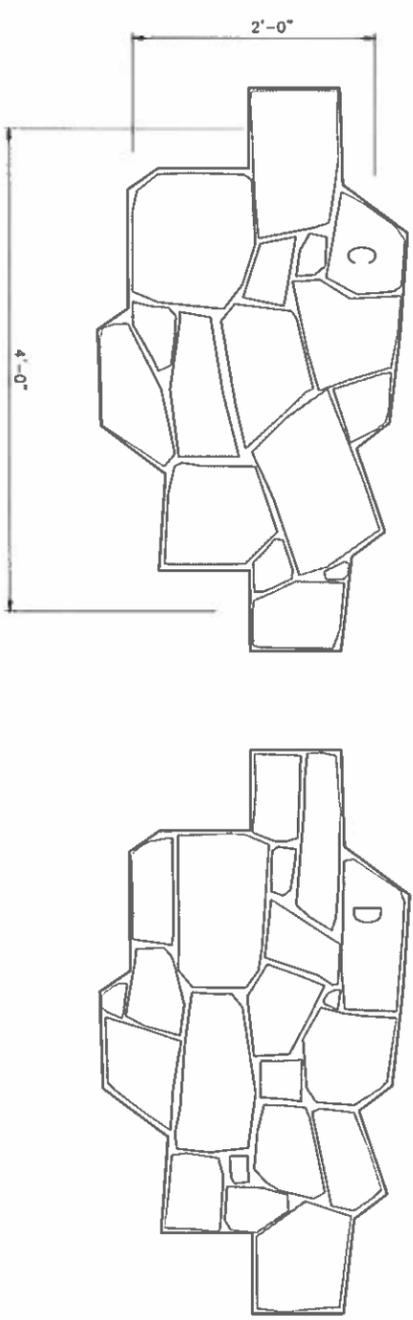
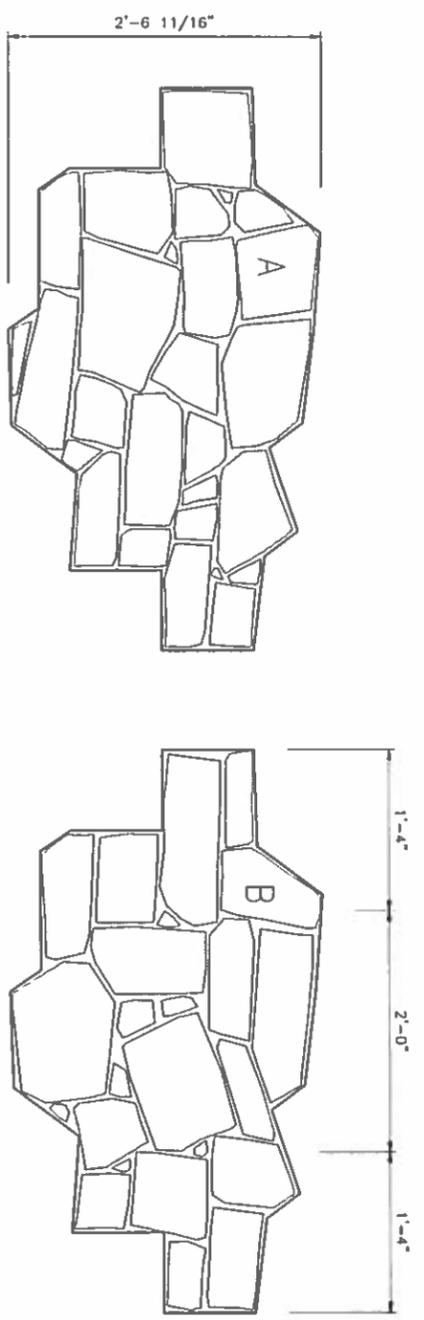
DRAWING CONTROL	
Designed P.I.O.	Checked J.A.S.
Drawn M.R.F.	Date
Revised by	
For Approval	
For Construction	

TECTONIC
Professional Engineering & Surveying Consultants, P.C.
1244 State Street, Suite 500
Hartford, CT 06103
Phone: (860) 243-2341
Fax: (860) 281-4862
www.tectonic-engineering.com

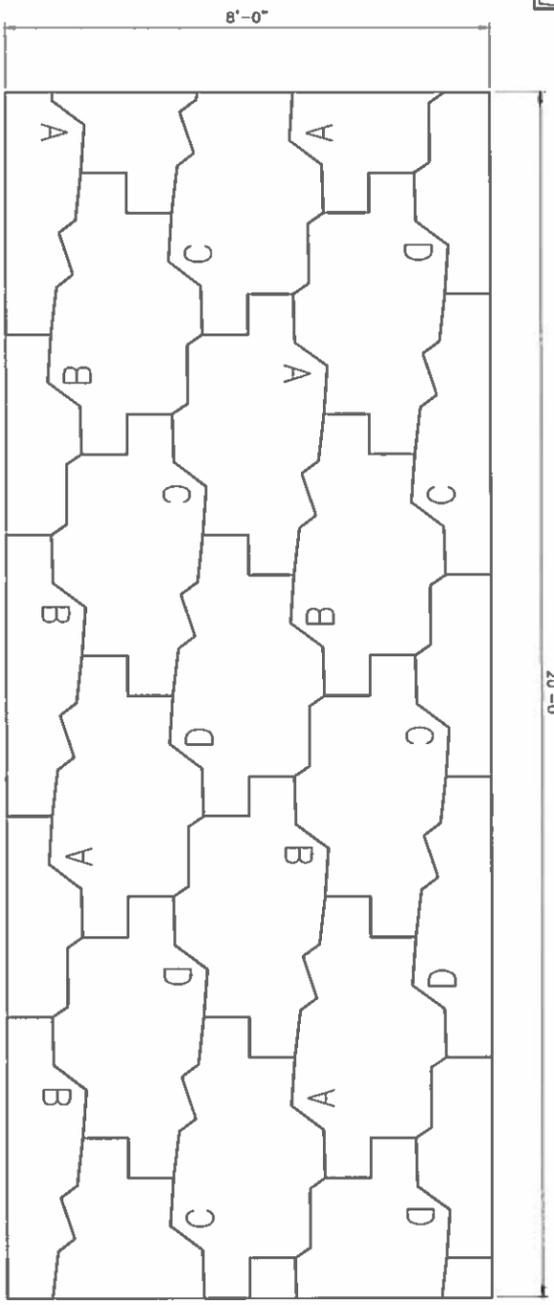
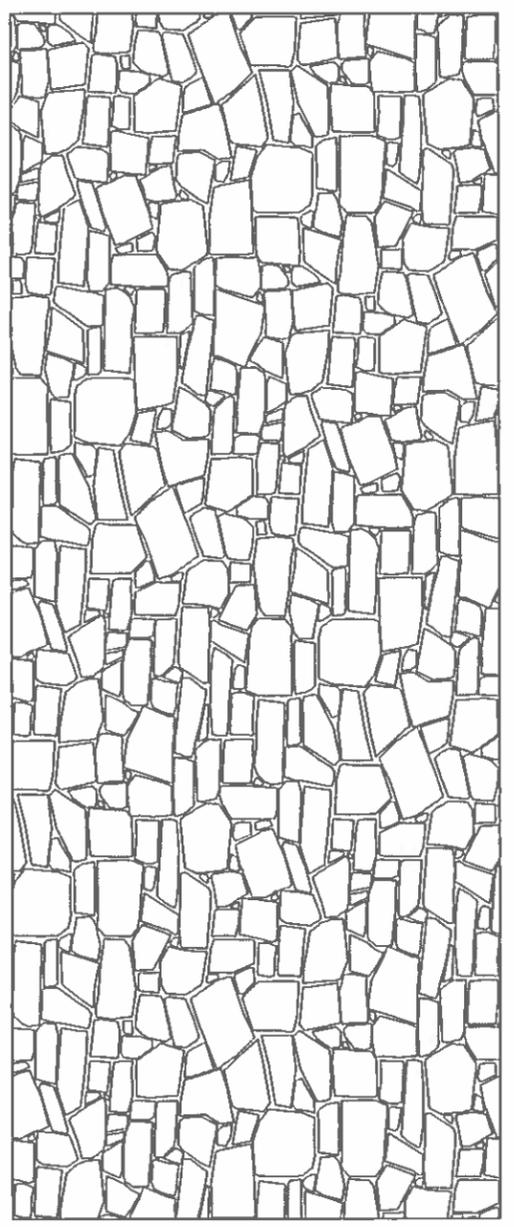
CONCRETE PAVEMENT PLAN

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date: 3-03-15
Scale: AS SHOWN
Sheet: 6550.01
Drawing No.: 21
Rev: 0



PART #	SNAP	# OF PARTS	SQ. FT.	RELIEF	LINER THICKNESS
A	4'x2'	1	8	2"	3"
B	4'x2'	1	8	2"	3"
C	4'x2'	1	8	2"	3"
D	4'x2'	1	8	2"	3"



CRS 12979:
ADIRONDACK DRYSTACK
 FORM LINER MODULES, DIMENSIONS AND SPECIFICATIONS

17B Townbridge Drive
 Bethel, CT 06801
 Ph: 203.743.3693
 Fax: 203.778.5242

CONCRETE
 ROCK
 SURFACES, LLC

NOTE:
 1. FORMLINER SHALL BE AS SPECIFIED ON THIS SHEET OR AS APPROVED BY THE ENGINEER.

THESE DRAWINGS ARE PREPARED SPECIFICALLY FOR THE CLIENT AND PROJECT DESCRIBED HEREIN. ANY REVISIONS, ALTERATIONS, REVISIONS, DEVIATIONS, OR OMISSIONS SHALL BE THE RESPONSIBILITY OF THE CLIENT. TECHNICAL ENGINEERING, P.C. ALL RIGHTS RESERVED.

Rev	Date	Revision	Approved	Designed J.A.S.	Drawn K.B.F.	Checked J.A.S.	Date

TECTONIC : Professional Engineering & Surveying Consultants, P.C.
 1344 State Street, Suite 200, West Hartford, CT 06107
 Phone: (860) 242-2241 Fax: (860) 237-4842 www.tectonicpe.com

ARCHITECTURAL FORMLINER DETAILS

REHABILITATION OF BRIDGE NO. 03651
 NORTH MAIN STREET
 OVER TROUT BROOK
 WEST HARTFORD, CONNECTICUT

Sheet: 3-08-15
 Date: 06/30/15
 Scale: N.T.S.
 Part: 01 of 01
 Drawing No.: 22
 Rev: 0

STAGE CONSTRUCTION NOTES

STAGE I

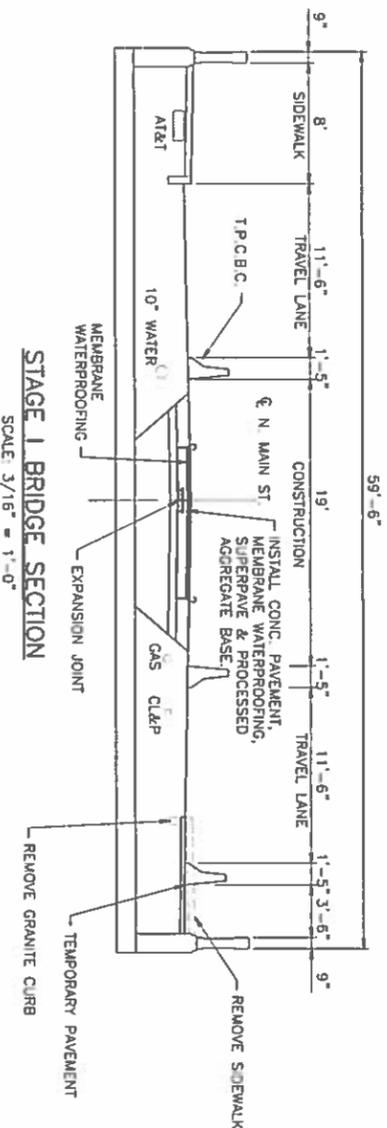
1. REMOVE EAST SIDEWALK AND GRADE TO ALLOW FOR PLACEMENT OF TEMPORARY BARRIER.
2. INSTALL TEMPORARY BARRIERS (T.P.C.B.C.) AND MERGE TRAFFIC AS SHOWN.
3. CONSTRUCT THE MIDDLE SECTION OF THE BRIDGE. REMOVE PAVEMENT AND BACKFILL TO EXPOSE THE TOP OF ARCH. CARE MUST BE EXERCISED NOT TO INTERRUPT OR DAMAGE THE EXISTING UTILITIES.
4. PATCH AND REPAIR THE TOP OF ARCH AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
5. INSTALL SECTION OF THE 4 INCH PERFORATED PIPE DRAIN BACKFILL AS DIRECTED BY THE ENGINEER AND PLACE THE BITUMINOUS CONCRETE BASE COURSE.
6. PLACE MEMBRANE WATERPROOFING IN ACCORDANCE WITH THE MANUFACTURER SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. PROTECT THE ENDS OF THE MEMBRANE TO ALLOW FOR OVERLAPPING AT THE SUBSEQUENT CONSTRUCTION STAGES.

STAGE II

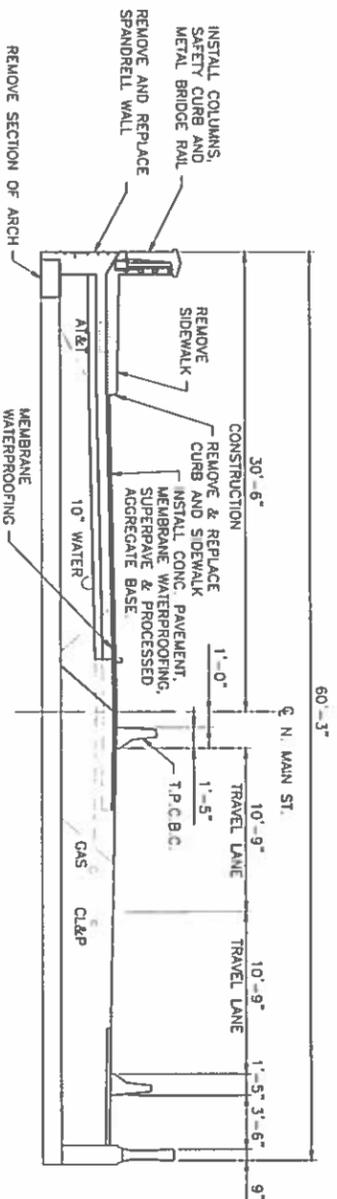
1. RELOCATE T.P.C.B.C. AS SHOWN AND SHIFT TRAFFIC.
2. CONSTRUCT THE WESTERN SECTION OF THE BRIDGE. REMOVE THE SIDEWALK INCLUDING THE GRANITE CURB, REMOVE PAVEMENT AND BACKFILL TO EXPOSE THE TOP OF ARCH. REMOVE THE PARAPET INCLUDING THE SPANDREL WALL. CARE MUST BE EXERCISED DURING EXCAVATION SO AS NOT TO DAMAGE THE EXISTING UTILITIES.
3. REMOVE THE END SECTION OF THE EXISTING ARCH. PATCH TOP OF ARCH AND REPAIR AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
4. POUR THE NEW SECTION OF THE ARCH, SPANDREL WALL AND PARAPET ALLOW AT LEAST SEVEN DAYS OR WHEN THE CONCRETE REACHES A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI BEFORE EACH SUBSEQUENT POUR OF THE ABOVE ELEMENTS AND BEFORE BACKFILLING.
5. INSTALL AND CONNECT SECTION OF THE 4" PERFORATED PIPE DRAIN TO THE MIDDLE SECTION.
6. PLACE MEMBRANE WATERPROOFING IN ACCORDANCE WITH THE MANUFACTURER SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. OVERLAP THE MEMBRANE WATERPROOFING BY AT LEAST 12 INCHES WITH THAT OF STAGE I.
7. CONCRETE PAVEMENT MANUFACTURER'S SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. OVERLAP THE MEMBRANE WATERPROOFING BY AT LEAST 12 INCHES WITH THAT OF STAGE I.
8. BACKFILL AS DIRECTED AND PLACE THE BITUMINOUS BASE COURSE.

STAGE III

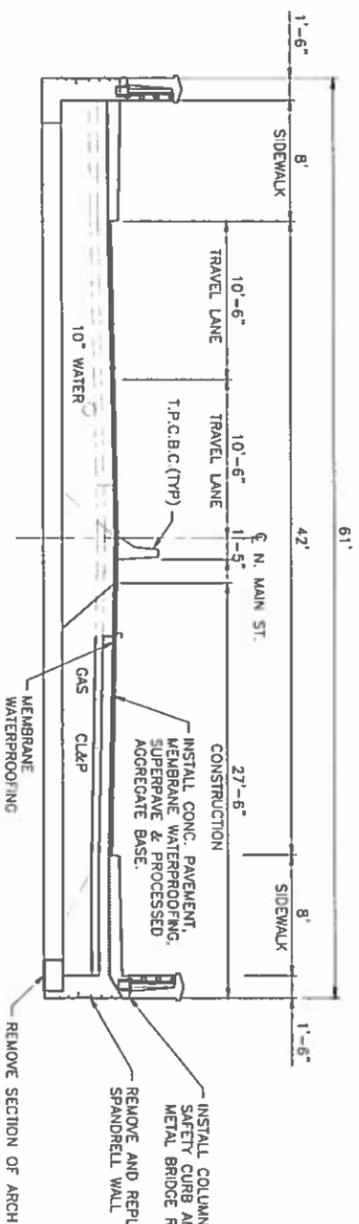
1. RELOCATE T.P.C.B.C. AS SHOWN AND SHIFT TRAFFIC.
2. CONSTRUCT THE EASTERN SECTION OF THE BRIDGE. REMOVE PAVEMENT AND BACKFILL TO EXPOSE TOP OF ARCH. CARE MUST BE EXERCISED NOT TO INTERRUPT OR DAMAGE THE EXISTING UTILITIES. REMOVE THE EXISTING PARAPET.
3. PATCH AND REPAIR THE TOP OF ARCH AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
4. POUR THE NEW PARAPET AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. ALLOW AT LEAST SEVEN DAYS OR WHEN THE CONCRETE REACHES A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI BEFORE BACKFILLING.
5. INSTALL AND CONNECT THE REMAINING SECTION OF THE 4" PERFORATED PIPE DRAIN.
6. PLACE MEMBRANE WATERPROOFING IN ACCORDANCE WITH THE MANUFACTURER SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. OVERLAP THE MEMBRANE WITH THAT OF STAGE I.
7. BACKFILL AS DIRECTED AND PLACE THE BITUMINOUS BASE COURSE.
8. REMOVE ALL BARRIERS AND PLACE THE FINAL COURSE OF THE BITUMINOUS PAVEMENT USING TRAFFIC CONES. COMPLETE THE STRIPING AND RE-ESTABLISH NORTH MAIN STREET TRAFFIC.



STAGE I BRIDGE SECTION
SCALE: 3/16" = 1'-0"



STAGE II BRIDGE SECTION
SCALE: 3/16" = 1'-0"



STAGE III BRIDGE SECTION
SCALE: 3/16" = 1'-0"

THIS DOCUMENT IS PREPARED SOLELY FOR THE CLIENT AND PROJECT IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER. THE ENGINEER'S LIABILITY IS LIMITED TO THE PROFESSIONAL ENGINEER OR LAND SURVEYOR SHALL NOT BE CONSIDERED VOID ON THIS DOCUMENT. ORIGINAL SIZE IN INCHES.

Rev	Date	Revision	Approved	Checked	Drawn	Designed	Checked	Date

TECTONIC
Professional Engineer
Construction Management

1244 State Street, Suite 500
West Hartford, CT 06107
Phone: (860) 237-4882
Fax: (860) 237-4883
www.itectonic.com

STAGE CONSTRUCTION

REHABILITATION OF BRIDGE NO. 03651
OVER NORTH MAIN STREET
WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Sheet No. 6550.01 of 23

MOVEMENT DIAGRAM

MOVEMENT	PHASE 1		PHASE 2		PHASE 3		PHASE 4		PHASE 5		PHASE 6		PHASE 7		PHASE 8	
	FLASH	GN														
1	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R
2	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R
3	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R
4	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R
5	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R
6	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R
DEF	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R	Y	R

PROGRAM	T.I.M.E.	DAYS	COORDINATION TYPE		PERIOD	SYSTEM	STANDARD OVERLAP	TECHNICAL NOTES																		
			PHASE	STARTS																						
01	6 X 34'	8 - DELAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
02	6 X 34'	8 - DELAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

IDENT	SIZE (WxD)	FUNCTION	T.I.M.E.	DAYS	CYCLE	SEC. %	PHASE	STARTS	PERIOD	SYSTEM	STANDARD OVERLAP	TECHNICAL NOTES
01	6 X 34'	8 - DELAY	FUTURE									STANDARD OVERLAP SPECIFICATIONS APPLY
02	6 X 34'	8 - DELAY	0600-0900	M-F								CONSTRUCTION SHALL BE DISCONTINUED DURING THESE PHASES
			1600-1900	M-F								CONSTRUCTION SHALL BE DISCONTINUED DURING THESE PHASES
			MAX. 2	ALL OTHER TIMES								

***TEMPORARY* TOWN SIGNAL**

ALL INDICATIONS HAVE LED LAMPS, TUNNEL VISORS

12" SOL ID-OVERLAP HAND/PERSON

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF ROAD AND TRANSPORTATION TRAFFIC CONTROL SIGNAL

TOWN OF WEST HARTFORD
 LINBROOK ROAD AND WYNDWOOD ROAD

ENGINEER: DATE: ELECTRICAL: DATE:
 DRAWN BY: DATE: ELECTRICAL: DATE:
 CHECKED BY: DATE: ELECTRICAL: DATE:
 SUBMITTED BY: DATE: ELECTRICAL: DATE:
 APPROVED BY: DATE: ELECTRICAL: DATE:

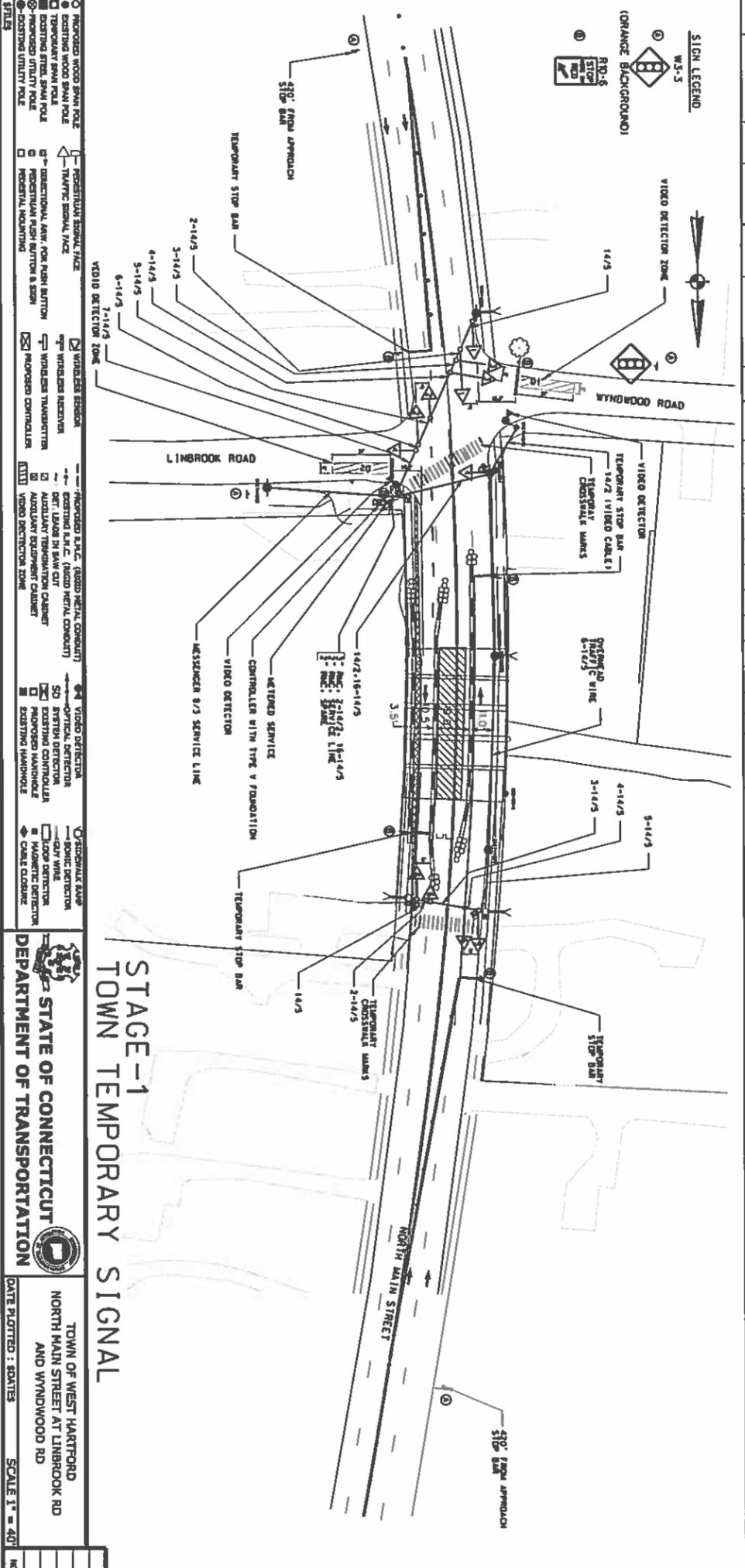
CONSTRUCTION NOTES:

- ALL TRAFFIC EQUIPMENT IS FOR TEMPORARY TRAFFIC SIGNAL.
- ENSURE SPAN POLE AND WIRE CABLE HAVE SUFFICIENT HORIZONTAL AND VERTICAL CLEARANCE FROM PROPOSED OR EXISTING OVERHEAD UTILITY LINES.
- THE BOTTOM OF SIGNAL HEADS SHALL NOT BE LESS THAN 17' ABOVE ROADWAY.
- SEE HRT PLAN FOR ADDITIONAL TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS.
- STOP BAR AND SIGNAL HEADS SHALL BE ADJUSTED FOR EACH STAGE OF THE BRIDGE CONSTRUCTION AS DIRECT BY THE ENGINEER. CONTRACTOR PROVIDE ADEQUATE SIGNAL HEAD CABLE SLACK TO SHIFT SIGNAL HEADS ALONG THE SPAN WIDEN FOR EACH OF THE CONSTRUCTION STAGES.
- PRE-EMPTION NOT REQUIRED BY THE TOWN.
- REQUIRED HEIGHT FOR SIGNAL STRAIN WIRES NEED TO BE COORDINATED WITH UTILITIES TO MAKE SURE NEW POLES ARE TALL ENOUGH.
- TOWN OF WEST HARTFORD PUBLIC WORKS TO PROVIDE A TYPE V CONTROLLER FOUNDATION AND THE CONTRACTOR SHALL REMOVE THE STOP SIGNS (LEAVE THE CHANGES) WHILE THE TEMPORARY SIGNALS ARE OPERATIONAL. THE CONTRACTOR SHALL REINSTALL THE STOP SIGNS WHEN THE TEMPORARY SIGNAL IS TAKEN OUT OF OPERATION.

UTILITY ENGINEERS CONSULTED DURING DESIGN:
 FRONTIER: TERANACE SHEA PHONE: (860) 725-1375.
 CLAP: JOHN SENDSCHNY PHONE: (860) 651-2560.

SPAN ATTACHMENT ON SSC44086 TO HAVE A MINIMUM CLEARANCE OF 12' BELOW SECONDARY & 40' ABOVE HIGHEST COMMUNICATIONS.

TOWN CONTACTS:
 MARK HALBERCK, WEST HARTFORD PUBLIC WORKS PHONE: (860) 748-0283,
 DUANE MARTIN, WEST HARTFORD ENGINEERING PHONE: (860) 561-7259.



STAGE -1 TOWN TEMPORARY SIGNAL

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

TOWN OF WEST HARTFORD
 NORTH MAIN STREET AT LINBROOK RD AND WYNDWOOD RD

DATE PLOTTED: 8/20/15 SCALE 1" = 40'

NO. DATE INT. DESCRIPTION

WEST HARTFORD
 TEMPORARY TRAFFIC CONTROL SIGNAL PLAN

PROJECT NO. 6550.01
 DRAWING NO. TCS-1
 SHEET NO. 24



MOVEMENT DIAGRAM

NONE	PHASE 1		PHASE 2		PHASE 3		PHASE 4		PHASE 5		PHASE 6		PHASE 7		PHASE 8	
	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R
1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

ENERGY BY TOWN ADDRESS & WEST HARTFORD INTERSECTION #
 MAINT LEVEL 1 SERVICE POLE SHEET CO 1892

NETEDED SERVICE

SIGNAL PHASES

12" R
 12" Y
 12" G

50' 10" OVERLAP HAND/PERSON LED LAMPS - TUNNEL VISORS

1, 2, 3, 4, 5, 6

***TEMPORARY* TOWN SIGNAL**

OFFICE RECORD

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF ENGINEERING AND CONSTRUCTION
 DIVISION OF TRAFFIC CONTROL
 TRAFFIC CONTROL SIGNAL

TOWN OF WEST HARTFORD
 NORTH MAIN STREET AND WINDWOOD ROAD
 LINDBROOK ROAD AND WINDWOOD ROAD

REV # 00

ENGINEER: TECTONIC
 CHECKED BY: []
 SUBMITTED BY: []
 APPROVED BY: []
 DATE: []

IDENT	SIZE (WxD)	MODE	FUNCTION	PROGRAM	COORDINATION TYPE	PERIOD	SYSTEM	TECHNICAL NOTES
01	6" X 34"	8" DELAY	FLUSH	MAX. 1	NON-LOCK	01	STANDARD OVERLAP STOP FEATURES APPLY	
02	6" X 34"	8" DELAY	FLUSH	MAX. 2	NON-LOCK	02	COUNTDOWN ONLY DURING PEDESTRIAN CLEARANCE INTERVAL	
						03	MANUAL AND INTERNAL ADVANCE TO BE DISPLAYED DURING PHASE 3	
						04	PEDESTRIAN CLEARANCE INTERVAL	
						05		
						06		
						07		
						08		
						09		
						10		

STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF ENGINEERING AND CONSTRUCTION
 DIVISION OF TRAFFIC CONTROL
 TRAFFIC CONTROL SIGNAL

TOWN OF WEST HARTFORD
 NORTH MAIN STREET AND WINDWOOD ROAD
 LINDBROOK ROAD AND WINDWOOD ROAD

REV # 00

ENGINEER: TECTONIC
 CHECKED BY: []
 SUBMITTED BY: []
 APPROVED BY: []
 DATE: []

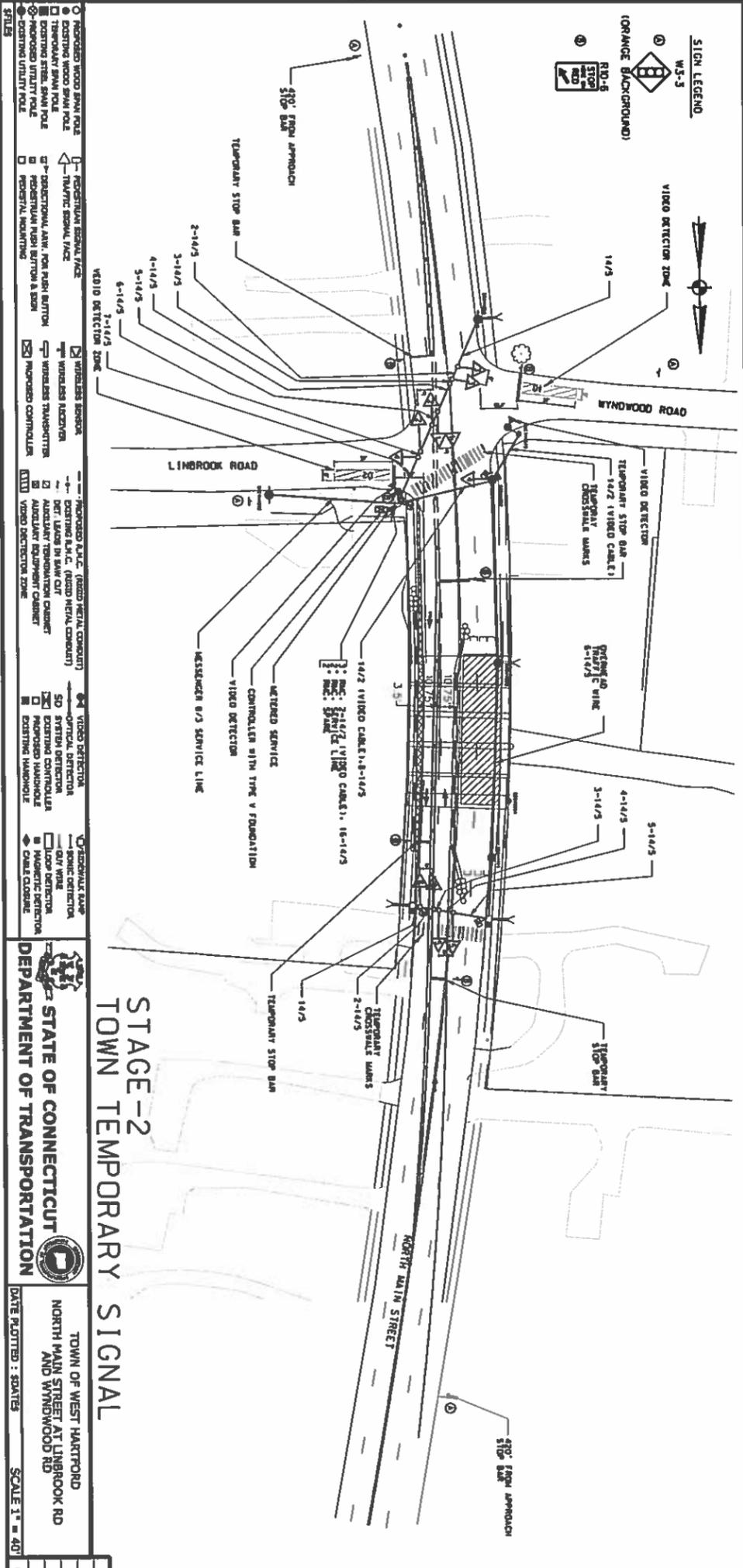
CONSTRUCTION NOTES :

- ALL TRAFFIC EQUIPMENT IS FOR TEMPORARY TRAFFIC SIGNAL.
- ENSURE SPAN POLE AND WIRE CABLE HAVE SUFFICIENT HORIZONTAL AND VERTICAL CLEARANCE FROM PROPOSED OR EXISTING OVERHEAD UTILTY LINES.
- THE BOTTOM OF SIGNAL HEADS SHALL NOT BE LESS THAN 17' ABOVE ROADWAY.
- SEE HPT PLAN FOR ADDITIONAL TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS.
- STOP BAR AND SIGNAL HEADS SHALL BE ADJUSTED FOR EACH STAGE OF THE BRIDGE CONSTRUCTION AS DIRECT BY THE ENGINEER. CONTRACTOR PROVIDE ADEQUATE SIGNAL HEAD CABLE SLACK TO SHIFT SIGNAL HEADS ALONG THE SPAN WIRES FOR EACH OF THE CONSTRUCTION STAGES.
- RE-BRICKMONT NOT REQUIRE BY THE TOWN.
- REQUIRED HEIGHT FOR SIGNAL STRAIN WIRES NEED TO BE COORDINATED WITH UTILITIES TO MAKE SURE NEW PILES ARE TALL ENOUGH.
- TOWN OF WEST HARTFORD PUBLIC WORKS TO PROVIDE A TYPE V CONTROLLER FOUNDATION AND CONTROLLER CABINET TO BE INSTALLED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL REMOVE THE STOP SIGNS (LEAVE THE CHAMBER POSTS) WHILE THE TEMPORARY SIGNALS ARE OPERATIONAL. THE CONTRACTOR SHALL REINSTALL THE STOP SIGNS WHEN THE TEMPORARY SIGNAL IS TAKEN OUT OF OPERATION.

UTILITY ENGINEERS CONSULTED DURING DESIGN:
 FRONTIER: TERRANCE SHEA PHONE: (860) 725-1276,
 CLAP: JOHN SENDRECHY PHONE: (860) 651-2560.

SPAN ATTACHMENT ON SEC4406 TO HAVE A MINIMUM CLEARANCE OF 12' BELOW SECONDARY & 40' ABOVE HIGHEST COMMUNICATIONS.

TOWN CONTACTS:
 MARK HALLENBECK, WEST HARTFORD PUBLIC WORKS PHONE: (860) 748-0283,
 DUANE MARTIN, WEST HARTFORD ENGINEERING PHONE: (860) 561-7539.



STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION

TOWN OF WEST HARTFORD
 NORTH MAIN STREET AND WINDWOOD RD

DATE PLOTTED : 8/24/05 SCALE 1" = 40'

PROJECT NO. 6550.01
 DRAWING NO. TCS-2
 SHEET NO. 25

WEST HARTFORD
 TEMPORARY TRAFFIC CONTROL
 SIGNAL PLAN



MOVEMENT DIAGRAM

NONE	PHASE 1		PHASE 2		PHASE 3		PHASE 4		PHASE 5		PHASE 6		PHASE 7		PHASE 8	
	FLASH	GN														
1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

IDENT	SIZE (INCH)	MODE	FUNCTION	TIME	DAYS	CYCLE	OFFSET	PHASE SPLIT	SEC. / %	PERIOD	SYSTEM	TECHNICAL NOTES																		
01	6" x 3 1/4"	8" DELAY	FLASH	FUTURE	M-F	1600-1900	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
02	6" x 3 1/4"	8" DELAY	FLASH	FUTURE	M-F	1600-1900	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

ENERGY BY TOWN ADDRESS & WEST HARTFORD INTERSECTION #

VAULT LEVEL: 1 SERVICE POLE SHET CD 1892

NETTERED SERVICE

SIGNAL FACES

12" R Y G

ALL INDICATIONS HAVE LED LAMPS, TUNNEL VISORS

12.3.4.5.6

SOLID-OVERLAP HAND/PERSON

TEMPORARY TOWN SIGNAL

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING & CONSTRUCTION DIVISION OF TRAFFIC CONTROL

TOWN OF WEST HARTFORD NORTH MAIN STREET LINDBROOK ROAD AND WINDWOOD ROAD TRAFFIC CONTROL SIGNAL

ENGINEER: TECTONIC

REVISIONS:

REV #	DATE	DESCRIPTION
00		INITIAL DESIGN

CONSTRUCTION NOTES:

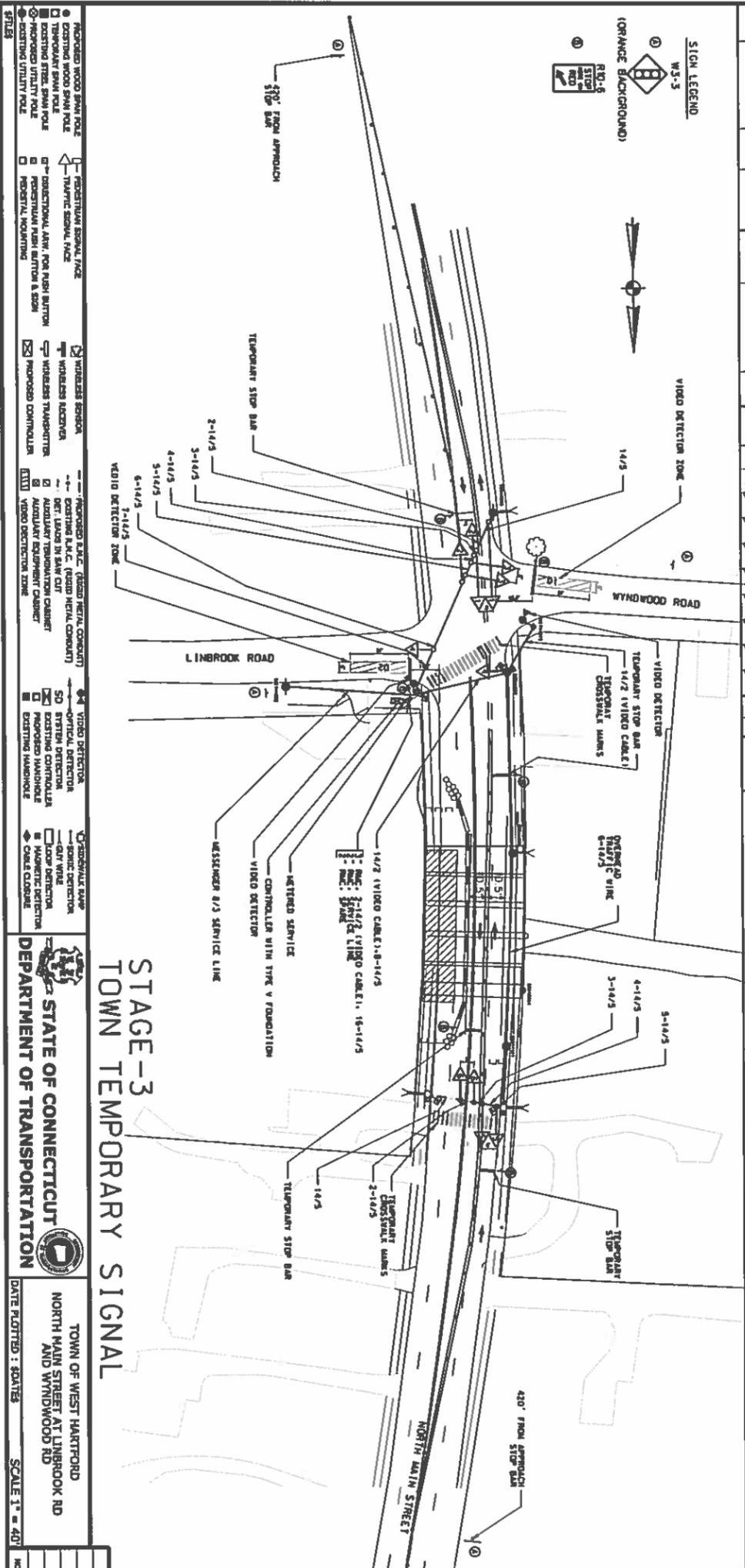
- ALL TRAFFIC EQUIPMENT IS FOR TEMPORARY TRAFFIC SIGNAL.
- ENSURE SPAN POLE AND WIRE CABLE HAVE SUFFICIENT HORIZONTAL AND VERTICAL CLEARANCE FROM PROPOSED OR EXISTING OVERHEAD UTILITY LINES.
- THE BOTTOM OF SIGNAL HEADS SHALL NOT BE LESS THAN 17' ABOVE ROADWAY.
- SEE HPT PLAN FOR ADDITIONAL TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS.
- STOP BAR AND SIGNAL HEADS SHALL BE ADJUSTED FOR EACH STAGE OF THE BRIDGE CONSTRUCTION AS DIRECT BY THE ENGINEER. CONTRACTOR PROVIDE ADEQUATE SIGNAL HEAD CABLE SLACK TO SHIFT SIGNAL HEADS ALONG THE SPAN WIRES FOR EACH OF THE CONSTRUCTION STAGES.
- RE-DIRECTION NOT REQUIRED BY THE TOWN.
- REQUIRED HEIGHT FOR SIGNAL STRAIN WIRES NEED TO BE COORDINATED WITH UTILITIES TO MAKE SURE NEW POLES ARE TALL ENOUGH.
- TOWN OF WEST HARTFORD PUBLIC WORKS TO PROVIDE A TYPE V CONTROLLER FOUNDATION AND THE CONTRACTOR SHALL REMOVE THE STOP SIGNS (LEAVE THE CHANGING POSTS) WHILE THE TEMPORARY SIGNALS ARE OPERATIONAL. THE CONTRACTOR SHALL REINSTALL THE STOP SIGNS WHEN THE TEMPORARY SIGNAL IS TAKEN OUT OF OPERATION.

UTILITY ENGINEERS CONSULTED DURING DESIGN:

FRONTIER: TERRANCE SHEA PHONE: (860) 725-1276
CLAP: JOHN SEROSCHNY PHONE: (860) 651-2560

SPAN ATTACHMENT ON SEC#4086 TO HAVE A MINIMUM CLEARANCE OF 12' BELOW SECONDARY & 40' ABOVE HIGHEST COMMUNICATIONS.

TOWN CONTACTS:
MARK HALBERG, WEST HARTFORD PUBLIC WORKS PHONE: (860) 748-0283,
DAVID MARTIN, WEST HARTFORD ENGINEERING PHONE: (860) 841-7339.



STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION

TOWN OF WEST HARTFORD NORTH MAIN STREET AT LINDBROOK RD AND WINDWOOD RD

DATE PLOTTED: 8/20/15 SCALE 1" = 40'

WEST HARTFORD

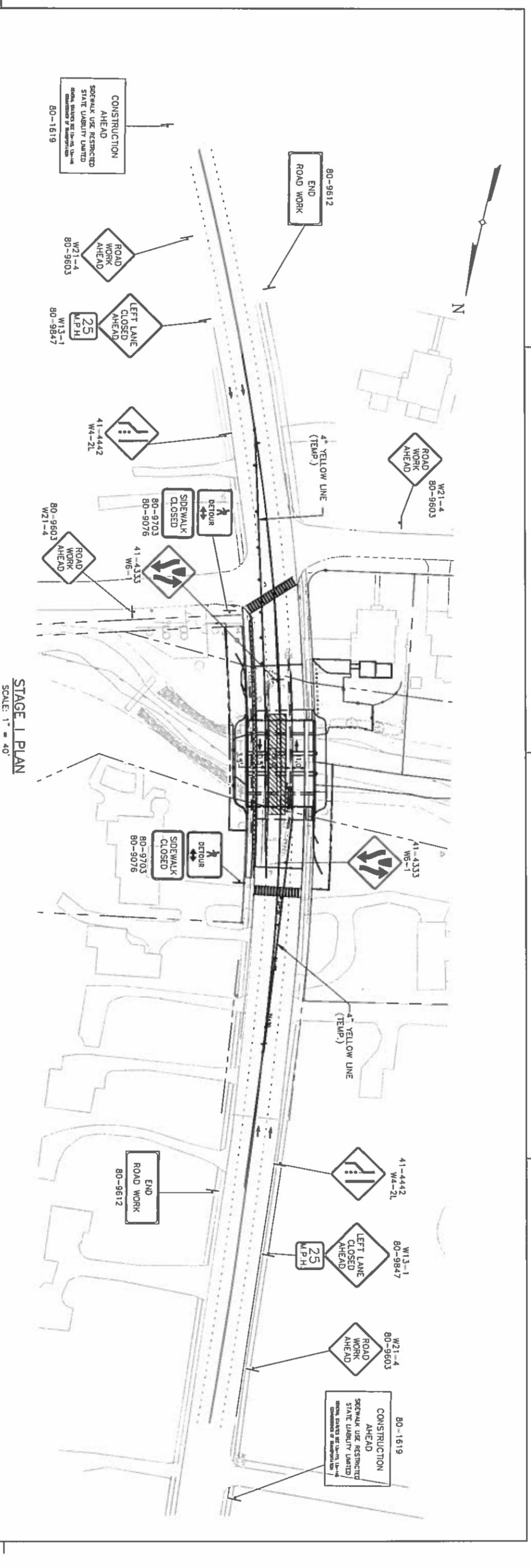
TEMPORARY TRAFFIC CONTROL SIGNAL PLAN

PROJECT NO. 6550.01

DATE: TCS-3

SHEET NO. 26



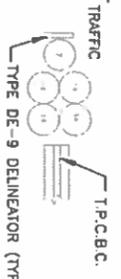


GENERAL NOTES:

1. WHEN EXISTING SIGNAGE AND PAVERS MARKINGS CONFLICTS WITH THE PROPOSED TRAFFIC PATTERN SHOWN IN THE MAPS PLANS THE CONTRACTOR SHALL COVER OR REMOVE THOSE CONFLICTING SIGNS AND PAVEMENT MARKINGS OR SIGNS MAY ALSO BE TEMPORARILY RELOCATED IF APPROPRIATE FROM THE VIEW OF THE MOTORISTS.
2. A PORTABLE VARIABLE MESSAGE SIGN (VMS) SHALL BE INSTALLED IN ADVANCE OF ALL CONSTRUCTION AND TRAFFIC SHIFTS, ROAD CLOSURES, AND DETOURS AS DIRECTED BY THE ENGINEER. ITEM#1131001.
3. THE PORTABLE WAS REQUIRED FOR ROAD CLOSURES SHALL BE INSTALLED AND IN OPERATION FOR AT LEAST TWO (2) WEEKS PRIOR TO THE ROAD CLOSURE.
4. SEE SPECIAL PROVISION SECTION 1.08.04 - PROSECUTION AND PROGRESS AND PROTECTION OF OPERATIONS AND ITEM NO. 0971001A - MAINTENANCE AND PROTECTION OF TRAFFIC FOR ADDITIONAL REQUIREMENTS.
5. THE LOCATION OF SERIES 16, ROAD WORK AHEAD AND ROAD WORK AHEAD RINGS DOUBLED SIGNING SHALL BE VERIFIED IN THE FIELD BY THE ENGINEER THEN INSTALLED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION ACTIVITIES.
6. THE LOCATION 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.
7. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN WALKWAYS AT ALL TIMES THROUGH OR AROUND WORK AREA DURING CONSTRUCTION. WHEN THE CONTRACTOR MAINTAINS A TEMPORARY OR EXISTING WALKWAY IN PROXIMITY TO A WORK AREA, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A WORKING PLAN AND DETAILS SHOWING HOW THE CONTRACTOR PLANS TO PROTECT THE PEDESTRIANS.
8. ALL CONSTRUCTION SIGN LOCATIONS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BY THE ENGINEER PRIOR TO INSTALLATION. SIGN HEIGHTS & LATERAL CLEARANCES SHALL ALSO BE FIELD VERIFIED BY THE ENGINEER. ALL PORTABLE SIGN SUPPORTS SHALL CONFORM TO NCHRP REPORT 350.
9. SIGNS PAVEMENT MARKINGS SHOWN ON THESE PLANS SHALL BE INSTALLED PRIOR TO SHIFTING TRAFFIC.
10. PRIOR TO CLOSURE OF ANY LOCAL STREET, THE CONTRACTOR MUST CONTACT THE CITY OF STAMFORD FOR ALLOWABLE CLOSURE PERIODS IN THE ACCORDANCE WITH THE SPECIAL PROVISIONS AND MUST INSTALL ALL DETOUR SIGNS PRIOR TO A ROAD CLOSURE. SEE THE STAGE CONSTRUCTION PLANS FOR SEQUENCE.
11. PRIOR TO BEGINNING ANY NIGHT WORK, THE CONTRACTOR SHALL CONTACT THE CITY OF STAMFORD TO COORDINATE AND OBTAIN ANY REQUIRED PERMITS RELATED TO NIGHT WORK, AS NOTED IN THE SPECIAL PROVISION.
12. THE CONTRACTOR SHALL MODIFY EXISTING TRAFFIC SIGNALS OR INSTALL TEMPORARY TRAFFIC SIGNALS AS NECESSARY DURING CONSTRUCTION. TEMPORARY TRAFFIC SIGNAL PLANS WILL NEED TO BE SUBMITTED FOR ANY TEMPORARY REVISIONS TO THE EXISTING TRAFFIC CONTROL SIGNALS AND/OR FOR ANY NEWLY INSTALLED TEMPORARY SIGNALS. ITEM#1118051.
13. TEMPORARY SIGNS SHALL BE INSTALLED ON POSTS WHEN FEASIBLE.
14. ALL SIGNS FOR CONSTRUCTION WILL BE PAID FOR UNDER ITEM NO. 1220013A.
15. ALL CONSTRUCTION SIGNS - BRIGHT FLUORESCENT SHEETING, EPOXY OTHERWISE USING HOT APPLIED.

SYMBOL LEGEND

1. TEMPORARY SIGN SUPPORT
2. DOUBLE POST SIGN
3. SINGLE POST SIGN
4. TEMPORARY PRECAST CONCRETE BARRIER CURB
5. TRAFFIC FLOW
6. WORK AREA
7. TRAFFIC DRUM
8. MESSAGE SIGN
9. SIGN TO HAVE BARRICADE WARNING LIGHT-HIGH INTENSITY
10. SIGNING TO BE INSTALLED AT START OF WORK AND TO REMAIN THROUGHOUT PROJECT COMPLETION
11. 42" TRAFFIC CONE
12. TEMPORARY PAVEMENT



THIS DOCUMENT IS PREPARED SOLELY FOR THE CLIENT AND PROJECT DESCRIBED HEREIN. IT IS NOT TO BE USED FOR ANY OTHER PROJECT, ALTERATION, REVISION, DEDUPLICATION, REPRODUCTION, OR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF TECTONIC ENGINEERING, P.C. ALL RIGHTS RESERVED.

Rev.	Date	Revision	Approved

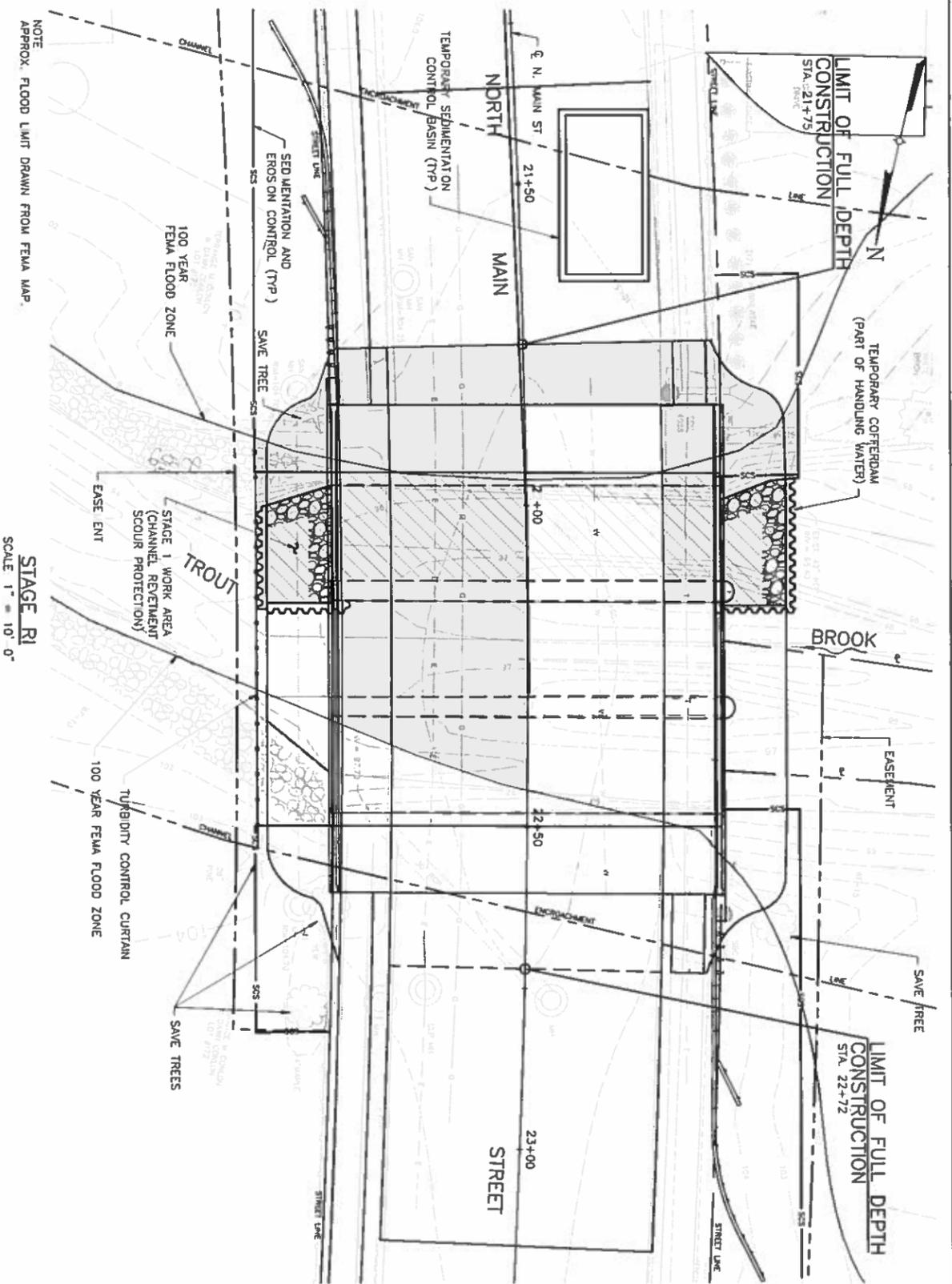
DRAWING CONTROL			
Designed By	Checked By	Drawn By	Contractor

Date	Drawn	Checked	Contractor
3-02-10			

TECTONIC
Professional Engineering & Surveying Consultants, Inc.
1344 State Drive, Westport, Suite 300
Westport, CT 06891
Phone: (860) 933-2341
Fax: (860) 237-4882
www.tectonicengineering.com

MAINTENANCE AND PROTECTION OF TRAFFIC
REHABILITATION OF BRIDGE NO.03651
NORTH MAIN STREET
OVER TROUT BROOK
WEST HARTFORD, CONNECTICUT

Drawn: 6550.01
Checked: 27
Date: 3-02-10



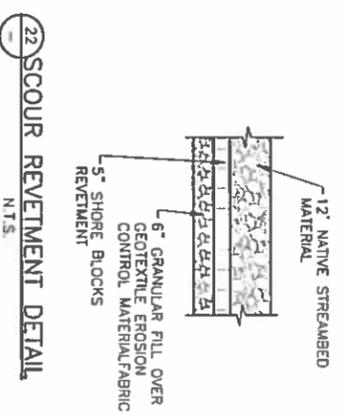
2-YEAR FREQUENCY DISCHARGE	449 CFS
TEMPORARY DESIGN DISCHARGE	449 CFS
TEMPORARY DESIGN FREQUENCY	2 YEAR
TEMPORARY WATER SURFACE ELEVATION	99.55 FT
UPSTREAM TEMPORARY WATER SURFACE ELEVATION	99.55 FEET
DOWNSTREAM COFFERDAM OVERTOPPING RETURN FREQUENCY	APPROX. 1.5 YEARS

LEGEND

- TEMPORARY CONSTRUCTION EASEMENT
- WORK AREA
- SEDIMENTATION CONTROL SYSTEM
- TEMPORARY COFFERDAM
- REVELTMENT FOR SCOUR PROTECTION
- TEMPORARY SEDIMENTATION CONTROL BASIN
- TURBIDITY CONTROL CURTAIN

STAGE R1
SCALE 1" = 10'-0"

- NOTES:**
1. REVELTMENT WORK MUST BE PERFORMED CONCURRENTLY WITH BRIDGE WORK PHASE II AND MUST OCCUR DURING STAGE II AND STAGE III.
 2. LOCATION OF SEDIMENTATION BASIN SHALL BE DETERMINED BY THE CONTRACTOR.
 3. CONTRACTOR SHALL CAREFULLY DIG IN THE VICINITY OF SEWER AND SHALL PLACE STEEL PLATES TO PROTECT IT FROM CONSTRUCTION OPERATIONS.
 4. TOP OF COFFERDAM SHALL NOT EXCEED ELEVATION 99.55 FT.



CONSTRUCTION SEQUENCE
STAGE R1 CHANNEL REVELTMENT

1. INSTALL ALL APPLICABLE SEDIMENTATION CONTROL MEASURES
2. INSTALL TURBIDITY CURTAIN AND COFFERDAM AS INDICATED. FOR THE EXCAVATION OF THE STREAMBED MATERIAL IN THE DRY AND ALLOW FOR THE PLACEMENT OF THE SCOUR REVELTMENT.
3. WATER FROM WITHIN THE COFFERDAM SHALL BE PUMPED TO A TEMPORARY SETTLING BASIN. PERIODICALLY MONITOR THE SETTLING BASIN DISCHARGE FOR SUSPENDED SOLIDS. ADJUST AS REQUIRED BY THE ENGINEER.
4. EXCAVATE THE STREAMBED WITHIN THE COFFERDAM. PROTECTING EXISTING STRUCTURES. THE EXCAVATED STREAMBED MATERIAL SHALL BE STOCKPILED ON SITE. WITHIN THE ALLOCATED EASEMENTS, TO ALLOW FOR DRAINING. PLACE FILTER FABRIC, OR OTHER MEAN, AROUND THE BASE OF THIS STOCKPILE TO ALLOW FOR CLEAR DRAINING. EXCESS MATERIAL THAT IS NOT INTENDED FOR REUSE SHALL BE HAILED AWAY, AFTER IT DRAINED, AS DIRECTED BY THE ENGINEER.
5. THE CONTRACTOR SHALL IMMEDIATELY COMMENCE THE SUBSTRUCTURE REPAIR WORK UNDERSIDE THE ARCH. THE ABUTMENTS AND THE PIERS. REMOVE ALL DEBRIS FROM THE CHANNEL WORK AREA IMMEDIATELY.
6. INSTALL AND SECURE THE CHANNEL REVELTMENT BLOCKS AS DIRECTED BY THE MANUFACTURER, AND AS DIRECTED BY THE ENGINEER.
7. PLACE THE 12 INCH NATIVE MATERIAL ON TOP OF THE CHANNEL REVELTMENT.
8. REMOVE AND RELOCATE THE COFFERDAM INCLUDING THE TURBIDITY CURTAINS FOR THE NEXT STAGE AS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
9. RESTORE THE DISTURBED AREAS AS SOON AS POSSIBLE AND AS DIRECTED BY THE ENGINEER.
10. THE CONTRACTOR IS ADVISED THAT THE ELEVATION OF THE COFFERDAM AS SHOWN IS TO PROVIDE MINIMAL PROTECTION TO THE WORK SITE. ALL EQUIPMENT AND UNSICURED MATERIAL SHALL BE READILY REMOVABLE FROM WITHIN THE CONFINES OF THE COFFERDAM PRIOR TO IMPENDING STORM EVENT, AS DIRECTED BY THE ENGINEER. CLAIMS DUE TO WEATHER EVENTS SHALL BE LIMITED TO TIME EXTENSIONS ON THE CONTRACT ONLY.
11. THE CONTRACTOR SHALL ADHERE TO ALL PERMITS REQUIREMENTS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF THE DEWATERING SYSTEM AND OPERATIONS, INCLUDING THE SEDIMENTATION BASIN.
13. IF THE CONTRACTOR ELECTS TO WORK ON THE SUBSTRUCTURE REPAIRS, INCLUDING UNDERNEATH THE ARCH, IN THE WET, THEN HE SHALL SUBMIT FOR REVIEW A PLAN SHOWING THE METHOD OF DEBRIS CONTAINMENT.

THIS DOCUMENT IS PREPARED SOLELY FOR THE CLIENT AND SHOULD BE KEPT IN THE OFFICE OF THE CLIENT AND NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. WITHOUT THE WRITTEN PERMISSION OF TECTONIC ENGINEERING, P.C. ALL RIGHTS RESERVED.

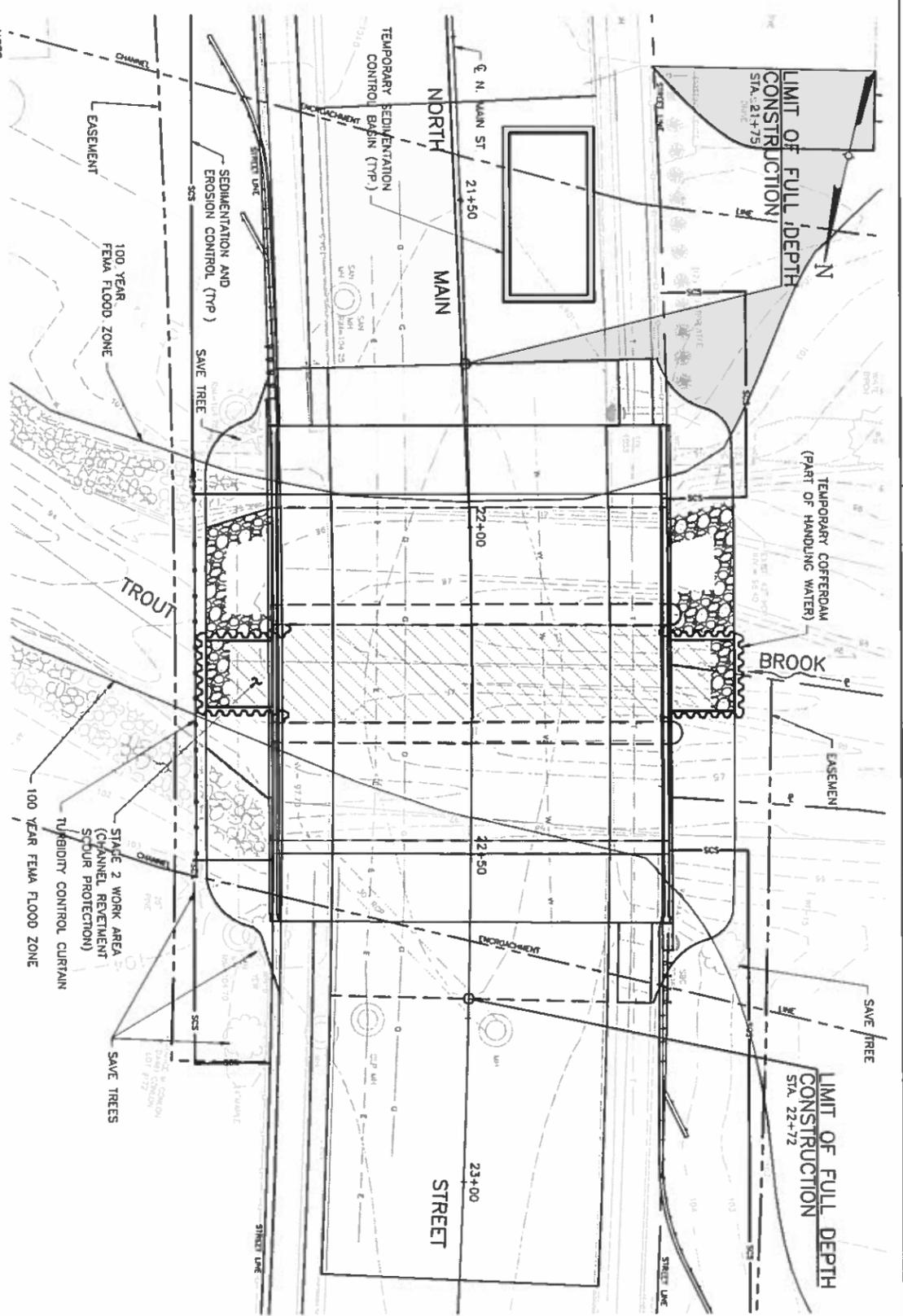
Rev	Date	Revision

DRAWING CONTROL			
Designed	Checked	Drawn	Reviewed

TECTONIC ENGINEERING, P.C.
1344 State Drive, Suite 800
West Hartford, CT 06107
Phone: (860) 243-1241
Fax: (860) 237-4882
www.tectonic-engineering.com

STAGE R1 CHANNEL REVELTMENT
REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date: 3-05-15
Scale: AS SHOWN
Sheet No.: 6550.01
Drawing No.: 29
Rev: 0



NOTE:
APPROX. FLOOD LIMIT DRAWN FROM FEMA MAP.

SCALE: 1" = 10'-0"

LEGEND

- TEMPORARY CONSTRUCTION EASEMENT
- WORK AREA
- SEDIMENTATION CONTROL SYSTEM
- TEMPORARY COFFERDAM
- REVETMENT FOR SCOUR PROTECTION
- TEMPORARY SEDIMENTATION CONTROL BASIN
- TURBIDITY CONTROL CURTAIN

THIS DOCUMENT IS PREPARED SPECIFICALLY FOR THE PROJECT AND PROJECT DESCRIBED HEREIN. ANY REUSE OF THIS DOCUMENT FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF TECTONIC ENGINEERING, PC IS PROHIBITED. COPYRIGHT 2008 TECTONIC ENGINEERING, PC. ALL RIGHTS RESERVED.

COPIES OF THIS DOCUMENT WITHOUT A TRUSSEAT OR THE SIGNATURE AND SEAL OF THE PROFESSIONAL ENGINEER OR LAND SURVEYOR SHALL NOT BE CONSIDERED VALID COPIES.

Rev	Date	Revision	Approval



TECTONIC ENGINEERING, INC.
 1345 State Street, Suite 500
 West Hartford, CT 06107
 Phone: (860) 583-2341
 Fax: (860) 237-4488
 www.tectonic-engineering.com

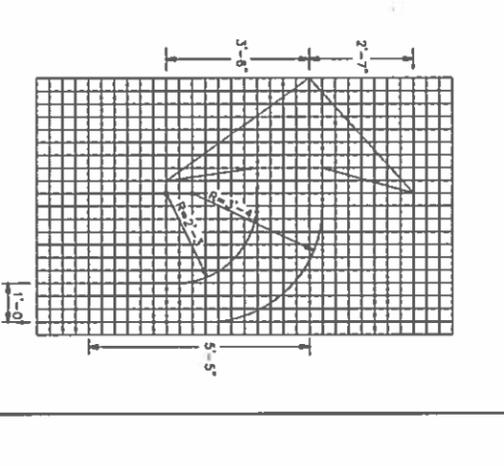
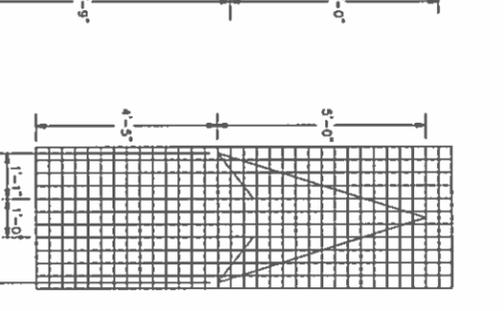
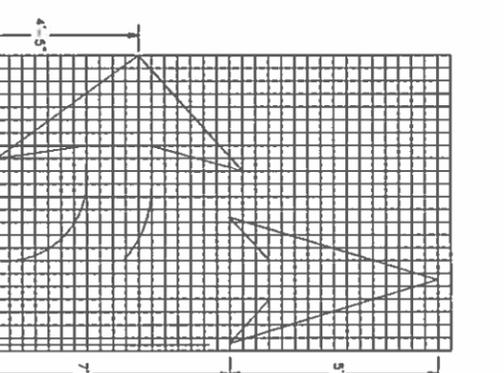
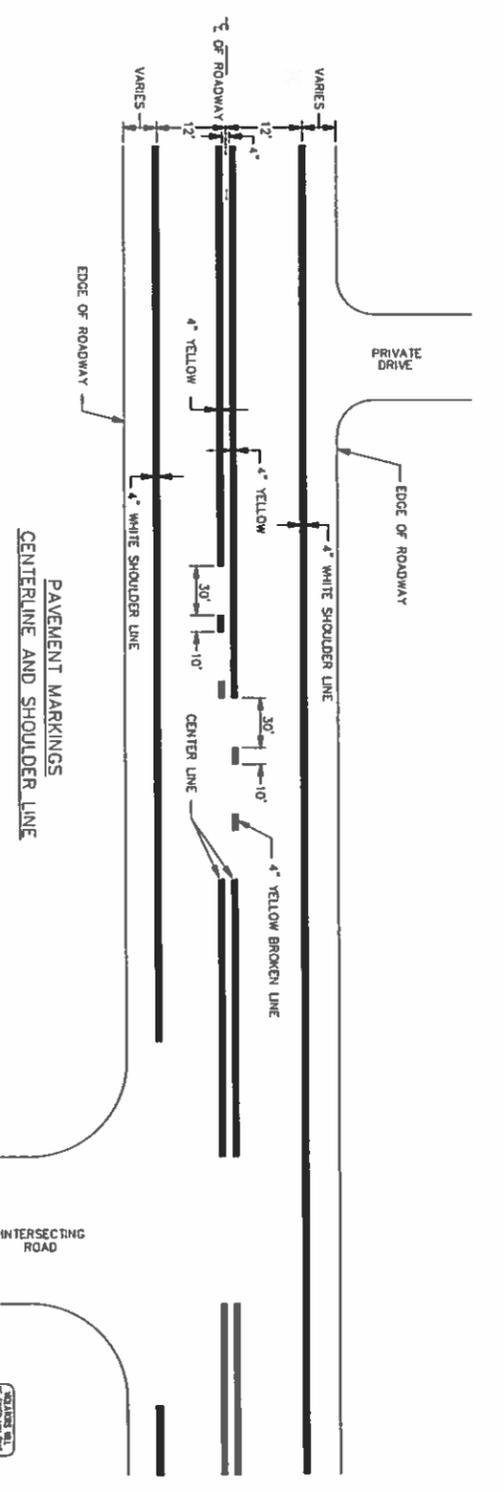
STAGE RII CHANNEL REVETMENT

REHABILITATION OF BRIDGE NO. 03651
 NORTH MAIN STREET
 OVER WEST BRANCH OF TROUT BROOK
 WEST HARTFORD, CONNECTICUT

Drawn: 3-10-11
 Scale: AS SHOWN
 6550.01
 Sheet No.: 30
 Total Sheets: 0

CONSTRUCTION SEQUENCE
STAGE RII CHANNEL REVETMENT

1. INSTALL ALL APPLICABLE SEDIMENTATION CONTROL MEASURES INCLUDING THE CONSTRUCTION ENTRANCES.
2. RELOCATE THE TURBIDITY CURTAIN AND COFFERDAM AS INDICATED, FOR THE EXCAVATION OF THE STREAMBED MATERIAL IN THE DRY AND ALLOW FOR THE PLACEMENT OF THE SCOUR REVETMENT.
3. WATER FROM WITHIN THE COFFERDAM SHALL BE PUMPED TO A TEMPORARY SETTLING BASIN, PERIODICALLY MONITOR THE SETTLING BASIN DISCHARGE FOR SUSPENDED SOLIDS ADJUST AS REQUIRED BY THE ENGINEER.
4. EXCAVATE THE STREAMBED WITHIN THE COFFERDAM, PROTECTING EXISTING STRUCTURES. THE EXCAVATED STREAMBED MATERIAL SHALL BE STOCKPILED ON SITE, WITHIN THE ALLOCATED EASEMENTS, TO ALLOW FOR DRAINING. PLACE FILTER FABRIC, OR OTHER MEANS, AROUND THE BASE OF THIS STOCKPILE TO ALLOW FOR CLEAR DRAINING. EXCESS MATERIAL THAT IS NOT INTENDED FOR REUSE SHALL BE HAULED AWAY AFTER IT DRAINED, AS DIRECTED BY THE ENGINEER.
5. THE CONTRACTOR SHALL IMMEDIATELY COMMENCE THE SUBSTRUCTURE REPAIR WORK UNDER THE ARCH, THE ABUTMENTS AND THE PIERS. REMOVE ALL DEBRIS FROM THE CHANNEL WORK AREA IMMEDIATELY.
6. INSTALL AND SECURE THE CHANNEL REVETMENT BLOCKS AS DIRECTED BY THE MANUFACTURER, AND AS DIRECTED BY THE ENGINEER.
7. PLACE THE 12 INCH NATIVE MATERIAL ON TOP OF THE CHANNEL REVETMENT.
8. REMOVE AND RELOCATE THE COFFERDAM INCLUDING THE TURBIDITY CURTAINS FOR THE NEXT STAGE AS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
9. RESTORE THE DISTURBED AREAS AS SOON AS POSSIBLE AND AS DIRECTED BY THE ENGINEER.
10. THE CONTRACTOR IS ADVISED THAT THE ELEVATION OF THE COFFERDAM AS SHOWN IS TO PROVIDE MINIMAL PROTECTION TO THE WORK SITE. ALL EQUIPMENT AND UNSECURED MATERIAL SHALL BE REMOVED FROM WITHIN THE CONFINES OF THE COFFERDAM PRIOR TO IMPENDING STORM EVENT, AS DIRECTED BY THE ENGINEER. CLAIMS DUE TO WEATHER EVENTS SHALL BE LIMITED TO THE EXTENSIONS ON THE CONTRACT ONLY.
11. THE CONTRACTOR SHALL ADHERE TO ALL PERMITS REQUIREMENTS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF THE DEMATERING SYSTEM AND OPERATIONS, INCLUDING THE SEDIMENTATION BASIN.



AT MID BLOCK AND UNSIGNALIZED INTERSECTIONS (EXCEPT ALL-WAY STOP CONTROLLED INTERSECTIONS)

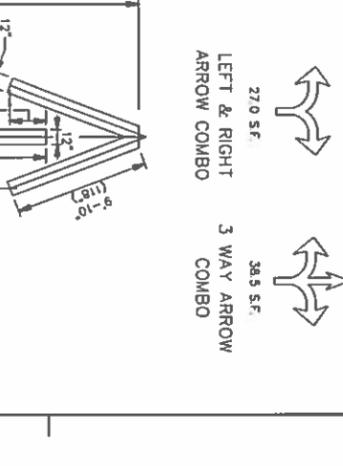
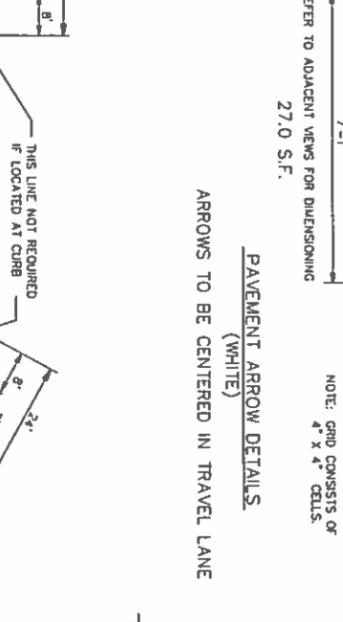
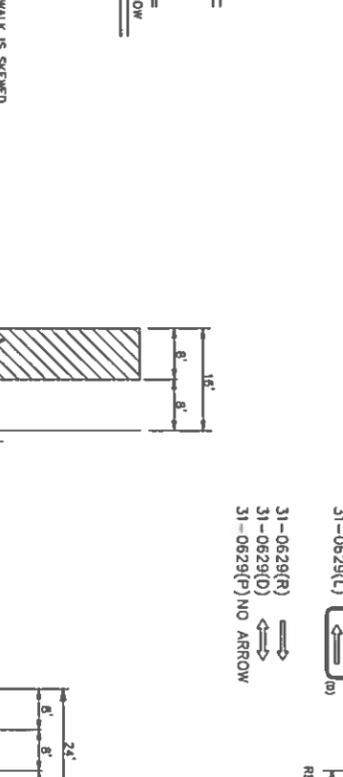
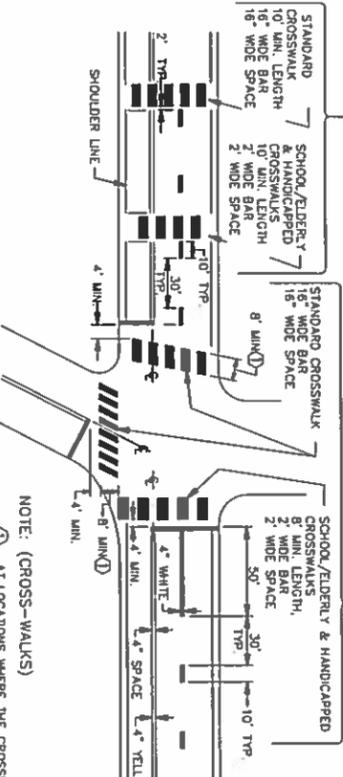
16" WIDE BARS ARE TO BE CENTERED ON YELLOW CENTERLINE

2" WIDE BARS - CENTER SPACE ON YELLOW CENTERLINE

AT SIGNALIZED AND ALL-WAY STOP CONTROLLED INTERSECTIONS

STANDARD CROSSWALK & HANDICAPPED CROSSWALKS: 18" WIDE BAR, 2" WIDE SPACE, 10' MIN. LENGTH, 10' MIN. LENGTH, 18" WIDE SPACE, 2" WIDE SPACE

SCHOOL/ELDERLY & HANDICAPPED CROSSWALKS: 18" WIDE BAR, 2" WIDE SPACE, 30" TYP., 10' MIN. LENGTH, 10' MIN. LENGTH, 18" WIDE SPACE, 2" WIDE SPACE

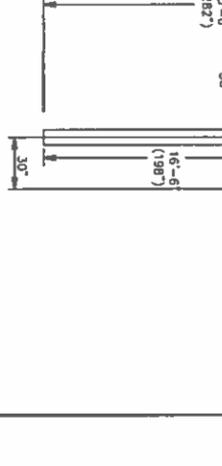
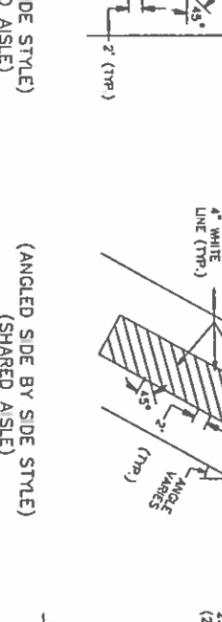
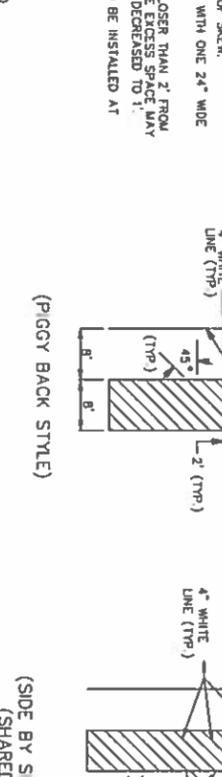
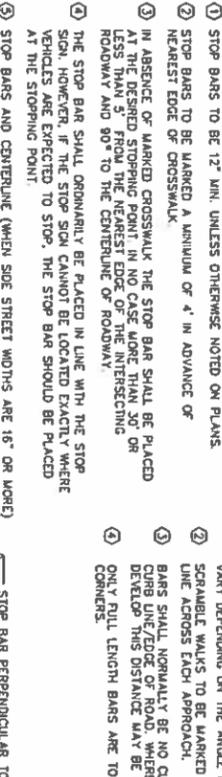


NOTE: (STOP-BARS)

- STOP BARS TO BE 12" MIN. UNLESS OTHERWISE NOTED ON PLANS
- STOP BARS TO BE MARKED A MINIMUM OF 4' IN ADVANCE OF NEAREST EDGE OF CROSSWALK
- IN ABSENCE OF MARKED CROSSWALK THE STOP BAR SHALL BE PLACED AT THE DESIRED STOPPING POINT IN NO CASE MORE THAN 30' OR LESS THAN 5' FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY AND 90° TO THE CENTERLINE OF ROADWAY
- THE STOP BAR SHALL ORIGINALLY BE PLACED IN LINE WITH THE STOP SIGN UNLESS THE STOP SIGN CANNOT BE LOCATED EXACTLY WHERE VEHICLES ARE EXPECTED TO STOP, THE STOP BAR SHOULD BE PLACED AT THE STOPPING POINT
- STOP BARS AND CENTERLINE (WHEN SIDE STREET WIDTHS ARE 16' OR MORE) ARE TO BE MARKED ON SIDE STREETS WITHIN THE LIMITS OF CONSTRUCTION UNLESS OTHERWISE INDICATED, OR AS DIRECTED BY THE ENGINEER.

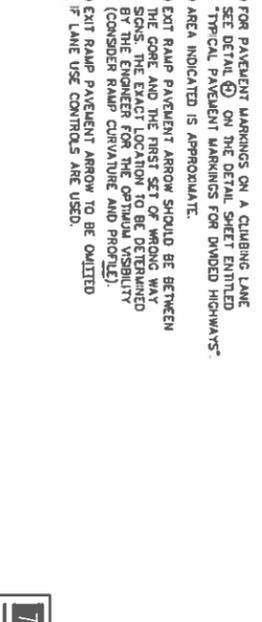
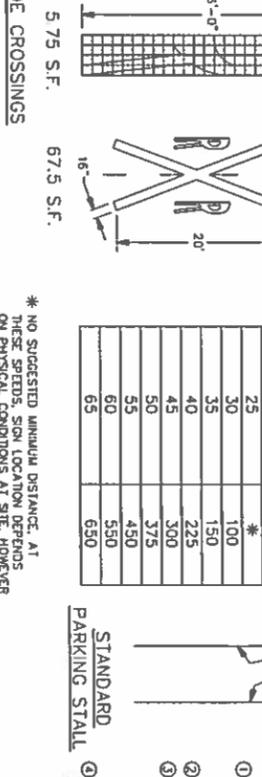
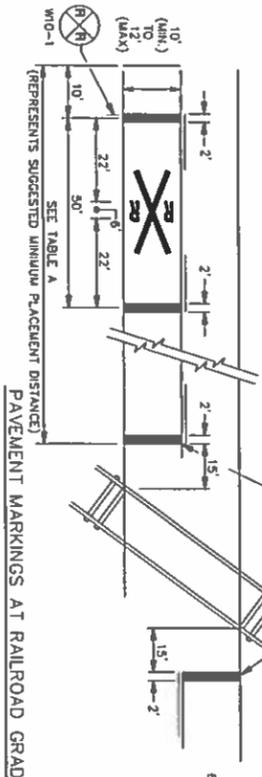
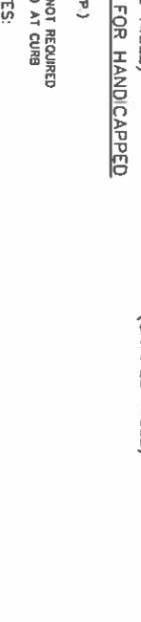
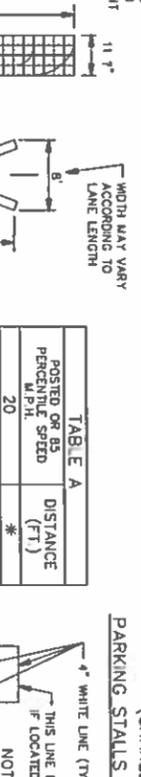
NOTE: (CROSS-WALKS)

- AT LOCATIONS WHERE THE CROSSWALK IS SKEWED, BARS TO BE PARALLEL TO CURB ENDS OF BARS TO BE PARALLEL TO THE LENGTH OF THE BARS WILL VARY DEPENDING ON THE ANGLE OF SKEW
- SCRAPABLE WALKS TO BE MARKED WITH ONE 24" WIDE BAR ACROSS EACH APPROACH
- BARS SHALL NORMALLY BE NO CLOSER THAN 2' FROM CURB LINE/EDGE OF ROAD, WHERE EXCESS SPACE MAY DEVELOP THIS DISTANCE MAY BE DECREASED TO 1' ONLY IF FULL LENGTH BARS ARE TO BE INSTALLED AT CORNERS



NOTE:

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS THE APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.



SEE TABLE A

REPRESENTS SUGGESTED MINIMUM PLACEMENT DISTANCE

PAVEMENT MARKINGS AT RAILROAD GRADE CROSSINGS

575 S.F.

67.5 S.F.

STOP BAR PERPENDICULAR TO ROADWAY 4 OR 6' FROM AND PARALLEL TO GATE IF PRESENT

WIDTH MAY VARY ACCORDING TO LANE LENGTH

TABLE A

POSTED OR BS PERCENTILE SPEED (M.P.H.)	DISTANCE (FT.)
20	*
25	100
30	150
35	225
40	300
45	375
50	450
55	525
60	600
65	675

THIS DOCUMENT IS PREPARED SPECIFICALLY FOR THE CLIENT AND PROJECT DESCRIBED HEREIN. IT IS THE PROPERTY OF TECTONIC ENGINEERING, P.C. AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF TECTONIC ENGINEERING, P.C. ALL RIGHTS RESERVED.

No.	Date	Revision

Author	Checked	Approved

Design	Drawn	Checked	Approved

TECTONIC ENGINEERING, P.C.

1244 Pine Grove Highway, Suite 500

West Hartford, CT 06107

Phone: (860) 237-4422

Fax: (860) 237-4422

www.tectonic-engineering.com

REHABILITATION OF BRIDGE NO. 03651

NORTH MAIN STREET

OVER WEST BRANCH OF TROUT BROOK

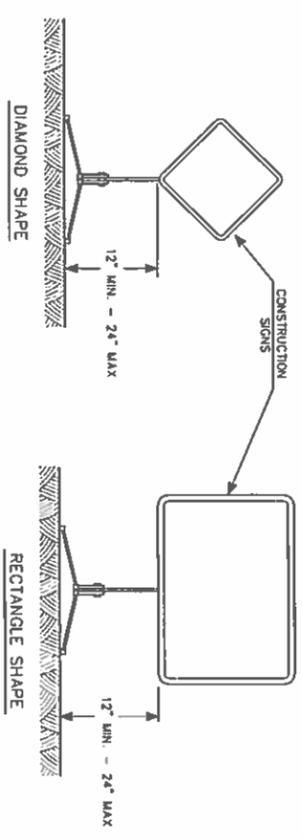
WEST HARTFORD, CONNECTICUT

3-08-18

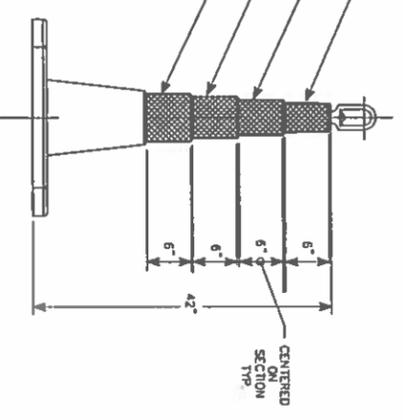
8550.01

33

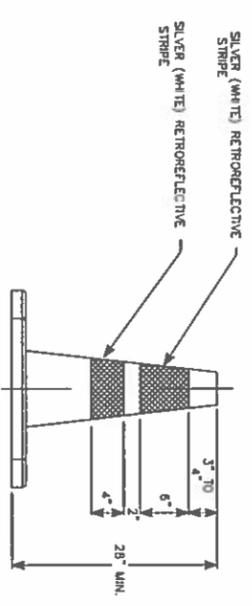
0



CONSTRUCTION SIGNS

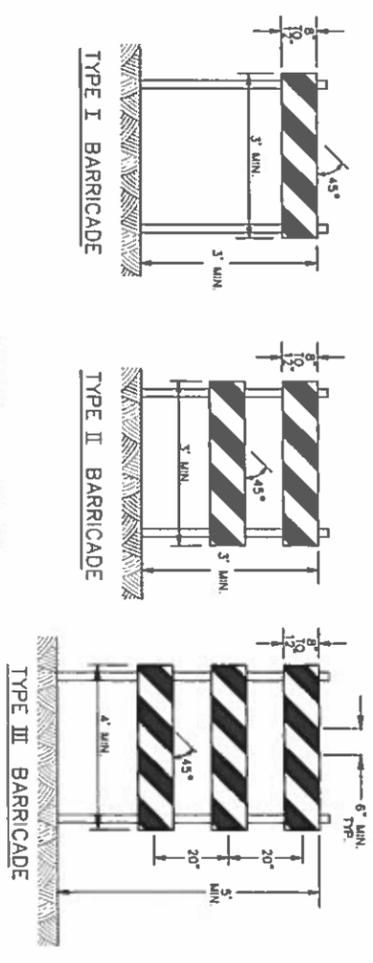


42" TRAFFIC CONE



TRAFFIC CONE

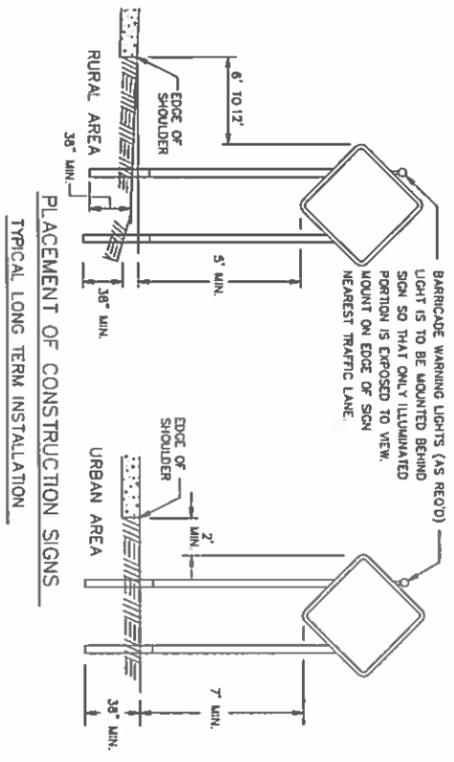
- NOTES FOR PORTABLE SIGN SUPPORTS:
1. SIGNS AND THEIR PORTABLE SUPPORTS SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (1-3) AND THE LATEST EDITION OF THE MUTCD.
 2. MOUNTING HEIGHT OF SIGNS SHALL BE A MINIMUM OF 12" AND A MAXIMUM OF 24".
 3. SIGNS SHALL BE MOUNTED HIGHER AS NEEDED TO MEET FIELD CONDITIONS OR AS DIRECTED BY THE ENGINEER.
 4. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY SUPPORT DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
 5. PORTABLE SIGN SUPPORTS SHALL BE STABILIZED IN A MANNER THAT WILL NOT AFFECT THEIR COMPLIANCE WITH NCHRP REPORT 350 (1-3).



CONSTRUCTION BARRICADES

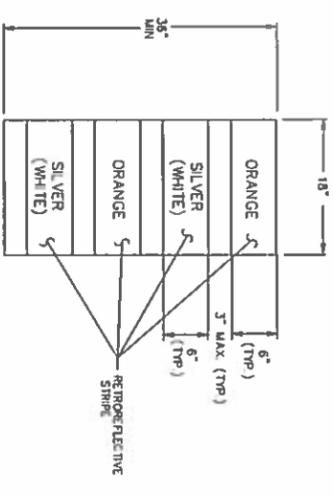
- NOTES:
1. CONSTRUCTION BARRICADES SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 (1-3) AND THE LATEST EDITION OF THE MUTCD.
 2. MARKINGS FOR BARRICADE RAILS SHALL BE ALTERNATE ORANGE AND WHITE STRIPES SLOPING DOWNWARD IN THE DIRECTION TRAFFIC IS TO PASS. 6" WIDE STRIPES SHALL BE USED.
 3. THE ENTIRE AREA OF ORANGE AND WHITE STRIPES SHALL BE RETROREFLECTIVE SHEETING AS REQUIRED IN THE SPECIFICATIONS. RAILS FOR TYPE I AND TYPE II BARRICADES SHALL BE RETROREFLECTIVE ON BOTH SIDES, WHERE TRAFFIC PASSES ONLY IN ONE DIRECTION OF TRAVEL, ONLY THE SIDE FACING TRAFFIC SHALL BE RETROREFLECTIVE.
 4. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY BARRICADE DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.
 5. CORNERS OF BARRICADE RAILS SHALL BE ROUNDED.

- NOTES:
1. TRAFFIC CONES SHALL CONFORM TO THE REQUIREMENTS OF NCHRP REPORT 350 AND THE LATEST EDITION OF THE MUTCD.
 2. CONES SHALL BE PREDOMINANTLY FEDERAL ORANGE IN COLOR AND RETROREFLECTIVE AS REQUIRED IN THE SPECIFICATIONS.
 3. IF RUBBER CONES ARE USED, THEY SHALL HAVE INTERIOR RIBS FOR RIGIDITY.
 4. IF PLASTIC CONES ARE USED, THEY SHALL BE COLOR IMPREGNATED.
 5. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY CONE DEEMED UNSUITABLE FOR THE PURPOSE INTENDED.



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-CORE EXIST SIGN*
 - TYPICAL METAL SIGN POSTS AND SIGN MOUNTING DETAILS*
 - TYPICAL SQUARE METAL SIGN POSTS AND SIGN MOUNTING DETAILS*



TRAFFIC DRUM
FRONT VIEW

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

THIS DOCUMENT IS PREPARED SPECIALLY FOR THE CLIENT AND PROJECT DESCRIBED HEREIN. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER. CONTRACT NO. 3-48-18. ORIGINAL SIZE IN INCHES.

Rev	Date	Revision	Approved

DRAWING CONTROL			
Designed by	D.S.	Checked by	J.A.S.
Drawn by	H.B.F.	Reviewed by	

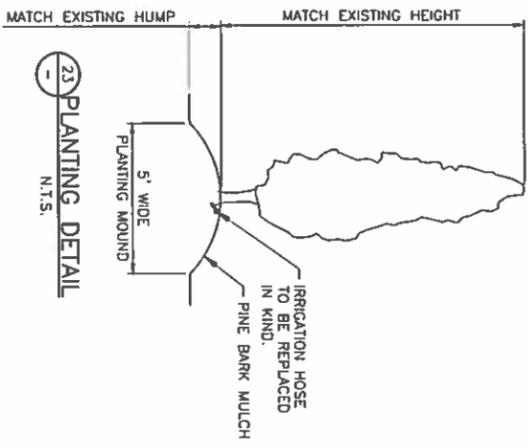
TECTONIC CONSULTING ENGINEERS

1314 State Street, Suite 200
Hartford, CT 06103

PHONE (860) 543-2341
FAX (860) 237-4842
WWW.TECTONICENGINEERS.COM

PROJECT: REHABILITATION OF BRIDGE NO. 03651
OVER NORTH MAIN STREET
WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

DATE: 3-48-18
DRAWING NO.: 34
SHEET NO.: 0

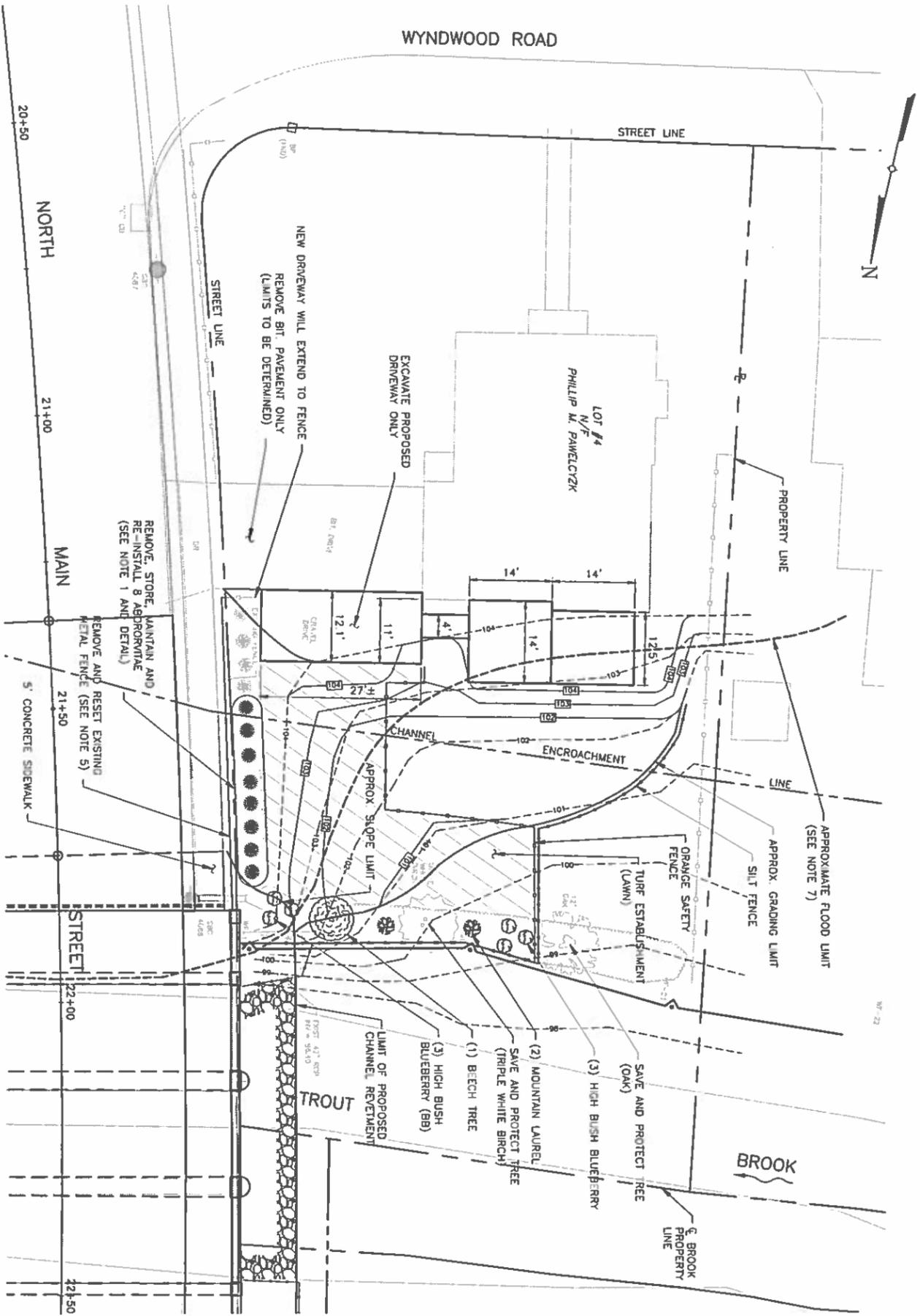


PLANTING TABLE

Botanical name	Common name	Size	Count
Phillip Pawelczyk Property			
VACCINIUM corymbosum	Highbush Blueberry	Container #3	3+3
KALAMIA latifolia 'Raspberry Glow'	'Raspberry Glow' Raspberry	Container #3	2
Or approved equal	Glow Mountain Laurel		
FAGUS sylvatica 'River's Purple Beech'	Copper Beech	BRB Cal. 2-2 1/2"	1
THUJA occidentalis	Arborvitae	Reset Existing	8
	Pine Bark Mulch (shredded)	3/4" x 8" x 2"	3.4 CY
	Turf Establishment - Lawn	80' x 15'	133 SY

NOTES:

1. IF THE RELOCATED ARBORVITAE TREES DIE THE CONTRACTOR SHALL REPLACE THE TREES IN KIND.
2. LAWN SEED MIX 950019A TO BE PLACED USING HYDRO-SEED METHOD.
3. PLANTING MOUND TO BE COVERED WITH PINE BARK MULCH (4" DEEP, SHREDED).
4. IF THE IRRIGATION HOSE IS DAMAGED OR DISTURBED, THE CONTRACTOR SHALL REPLACE IT IN KIND.
5. IF METAL FENCE IS DAMAGED, THE CONTRACTOR SHALL REPLACE IT IN KIND.
6. ORANGE SAFETY FENCE SHALL BE PLACED TO LIMIT THE DISTURBED AREA.
7. MATERIAL TO BE USED AS FILL FOR PROPOSED IMPROVEMENTS MUST BE REMOVED FROM WITHIN THE FLOOD LIMIT AREA TO MAINTAIN BALANCE OF THE CUT AND FILLS WITHIN THE FLOOD PLAN.
8. APPROXIMATE FLOOD LIMIT DRAWN FROM FEMA MAP.
9. SEE CT DOT STANDARD DETAIL FOR PLANTING DETAILS



NOTE:
APPROX. FLOOD LIMIT DRAWN FROM FEMA MAP.

PLAN
SCALE: 1" = 10'-0"

THIS DOCUMENT IS PREPARED SOLELY FOR THE PROJECT AND IS NOT TO BE USED FOR ANY OTHER PROJECT. ANY REUSE OF THIS DOCUMENT WITHOUT THE WRITTEN CONSENT OF TECTONIC ENGINEERING, INC. IS STRICTLY PROHIBITED. TECTONIC ENGINEERING, INC. ALL RIGHTS RESERVED.

COPIES OF THIS DOCUMENT WITHOUT A FACSIMILE OF THE SIGNATURE AND AN ORIGINAL SIGNED BY THE PROFESSIONAL ENGINEER OR ARCHITECT SHALL NOT BE CONSIDERED VALID COPIES.

Rev.	Date	Revisions	Approval

TECTONIC ENGINEERING, INC.
1344 State Street, Suite 200
West Hartford, CT 06107
Phone: (860) 582-2341
Fax: (860) 237-0882
www.tectonice.com

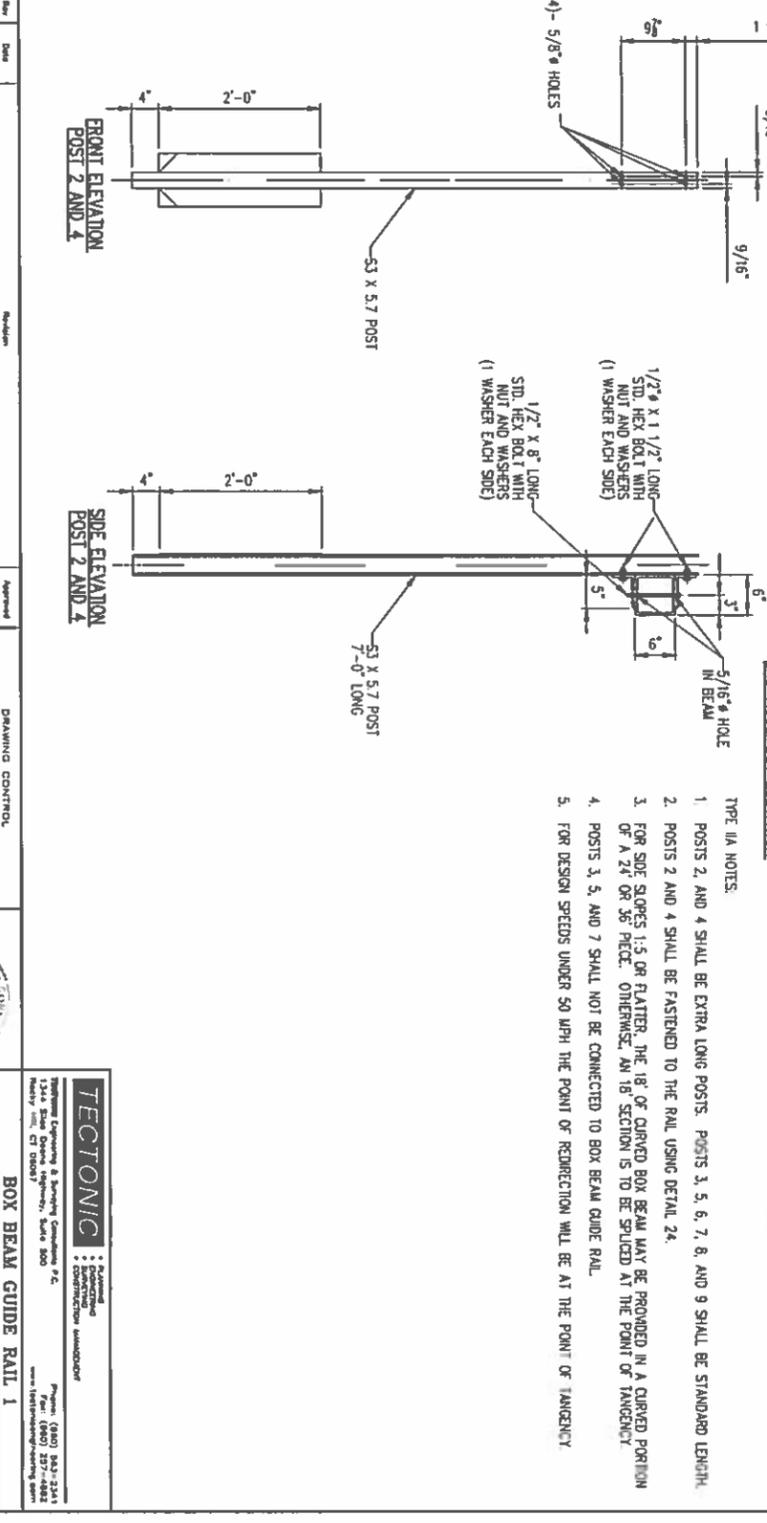
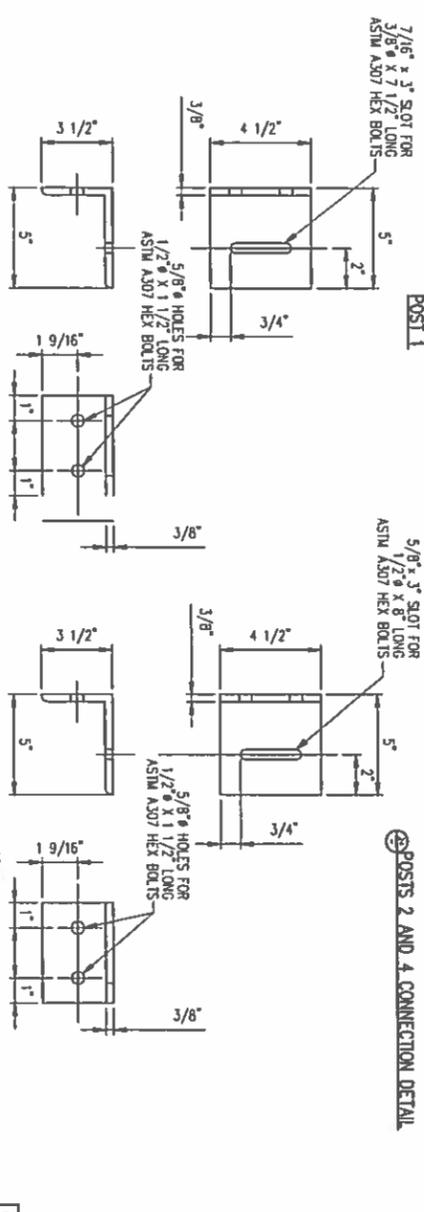
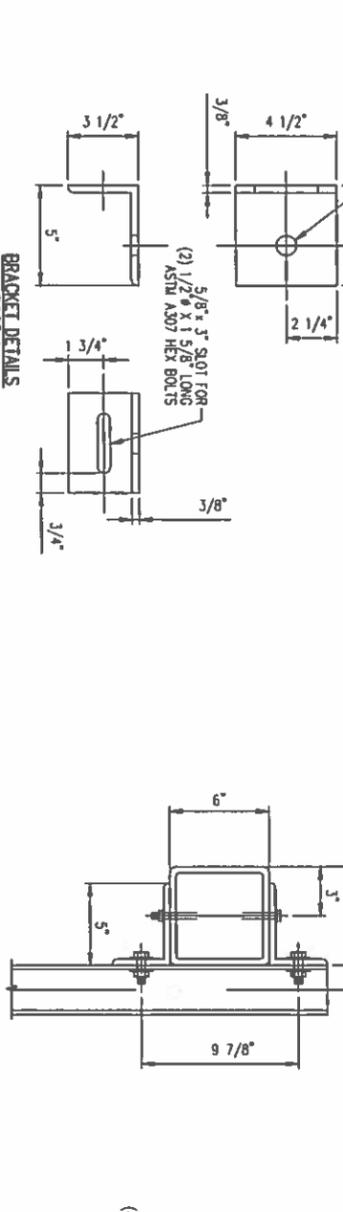
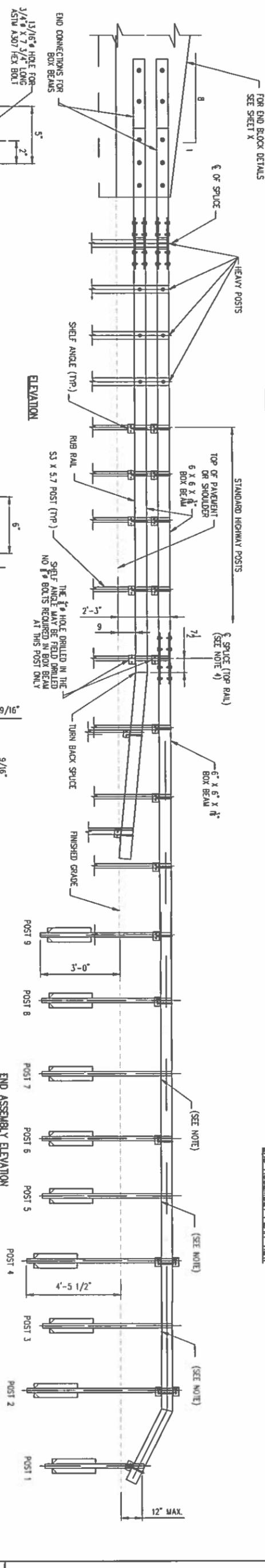
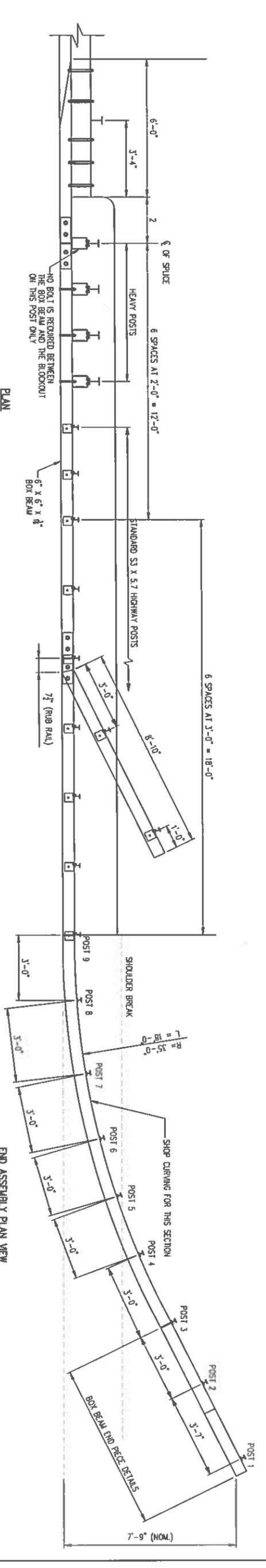
PHILLIP M. PAWELCZYK PROPERTY PLAN
REHABILITATION OF BRIDGE NO. 03651
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Drawn: 2-18-18
Scale: 1" = 10'-0"

Sheet No. 6550.01

Project No. 36

Rev. 0



- TYPE IIA NOTES:**
1. POSTS 2, AND 4 SHALL BE EXTRA LONG POSTS. POSTS 3, 5, 6, 7, 8, AND 9 SHALL BE STANDARD LENGTH.
 2. POSTS 2 AND 4 SHALL BE FASTENED TO THE RAIL USING DETAIL 24.
 3. FOR SLOPE SPACES 1-5 OR FLATTER, THE 18" OF CURVED BOX BEAM MAY BE PROMONT IN A CURVED PORTION OF A 24" OR 36" PIECE. OTHERWISE, AN 18" SECTION IS TO BE SPULGED AT THE POINT OF TANGENCY.
 4. POSTS 3, 5, AND 7 SHALL NOT BE CONNECTED TO BOX BEAM GUIDE RAIL.
 5. FOR DESIGN SPEEDS UNDER 50 MPH THE POINT OF REDIRECTION WILL BE AT THE POINT OF TANGENCY.

BRACKET DETAILS
POSTS 3, 5, 6, 7, 8 AND 9

BRACKET DETAILS
POSTS 2 AND 4

THIS DOCUMENT IS PREPARED SPECIFICALLY FOR THE CLIENT AND PROJECT DESCRIBED HEREIN. REVISIONS, ALTERATIONS, REVISIONS, SPECIFICATION MODIFICATIONS, AND/OR CHANGES TO THIS DOCUMENT SHALL BE THE PROPERTY OF THE CLIENT AND SHALL NOT BE CONSIDERED VALID UNLESS THEY ARE APPROVED BY THE CLIENT AND THE ENGINEER. ORIGINAL SIZE IN INCHES.

Rev	Date	Revision	Approved

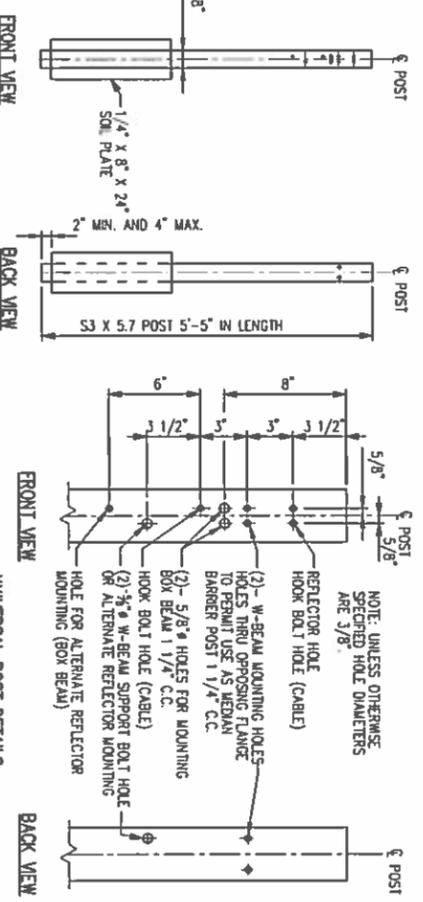
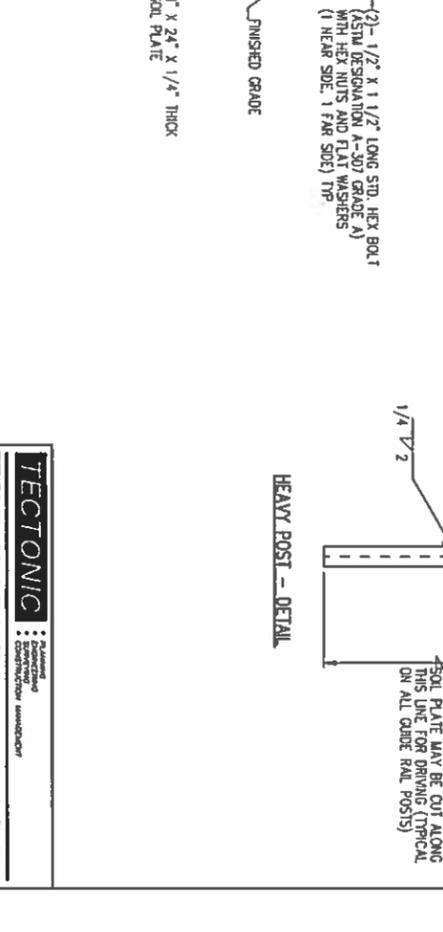
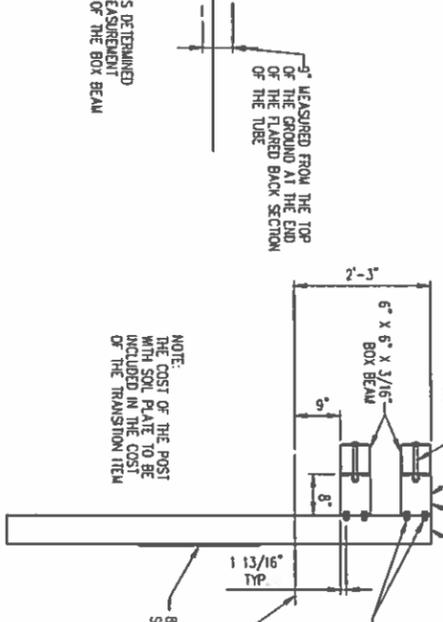
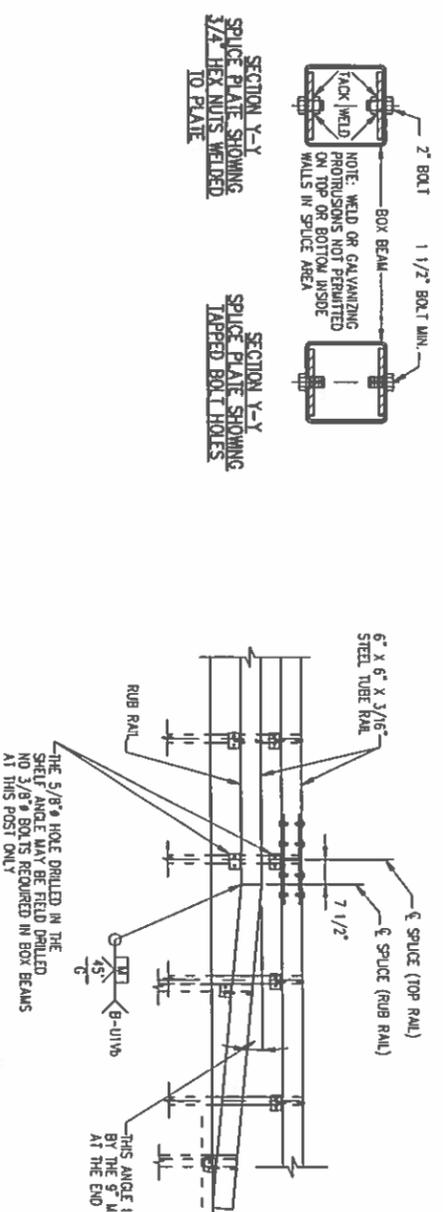
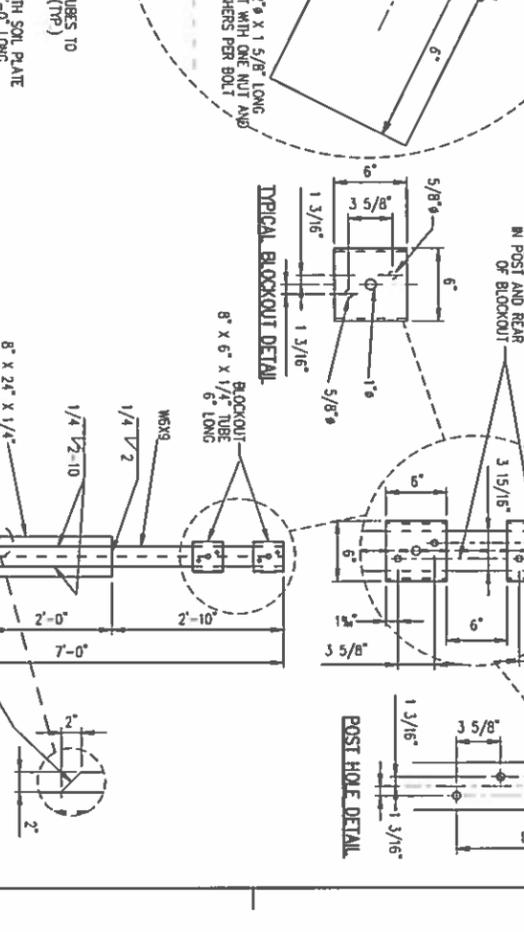
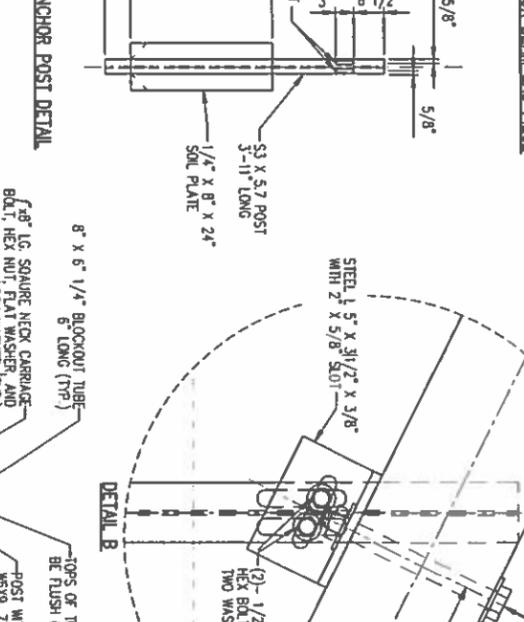
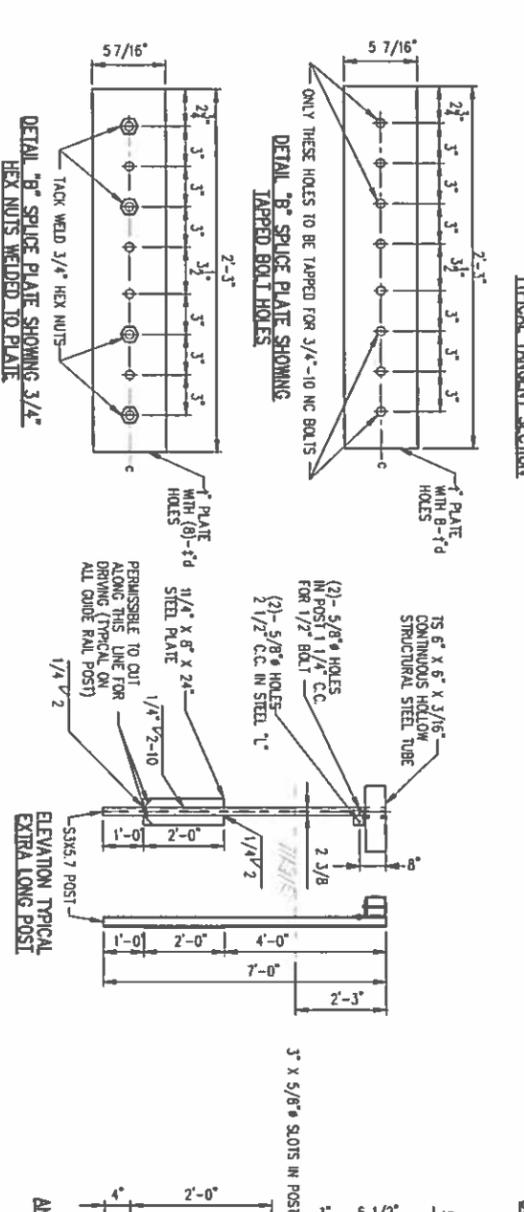
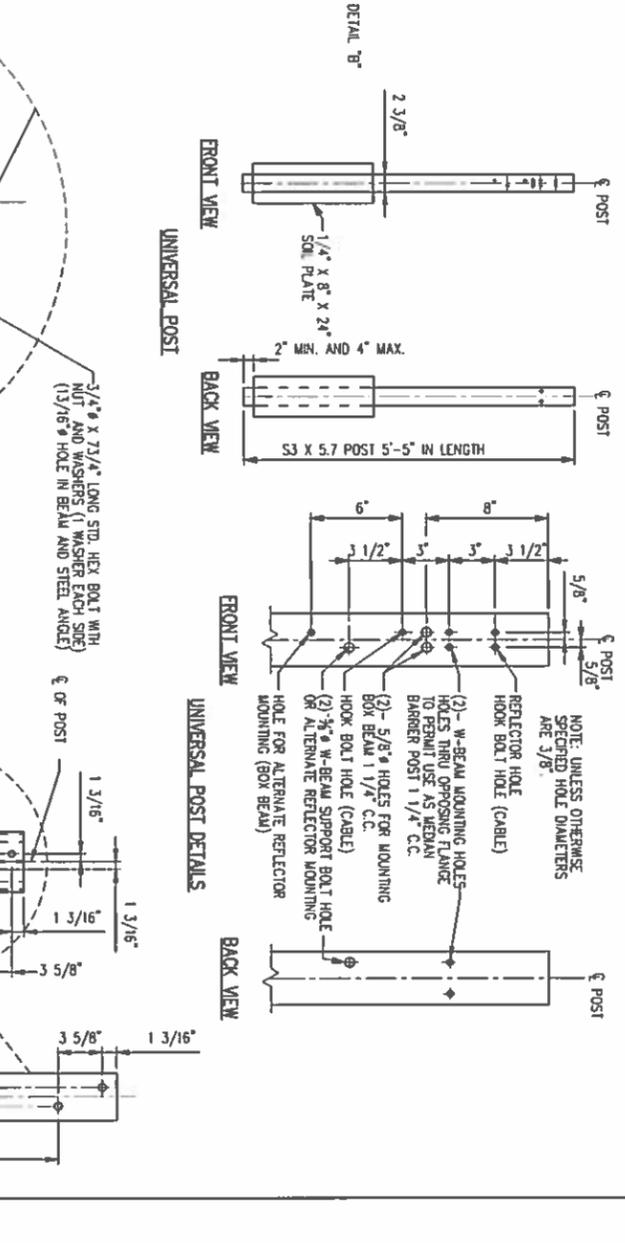
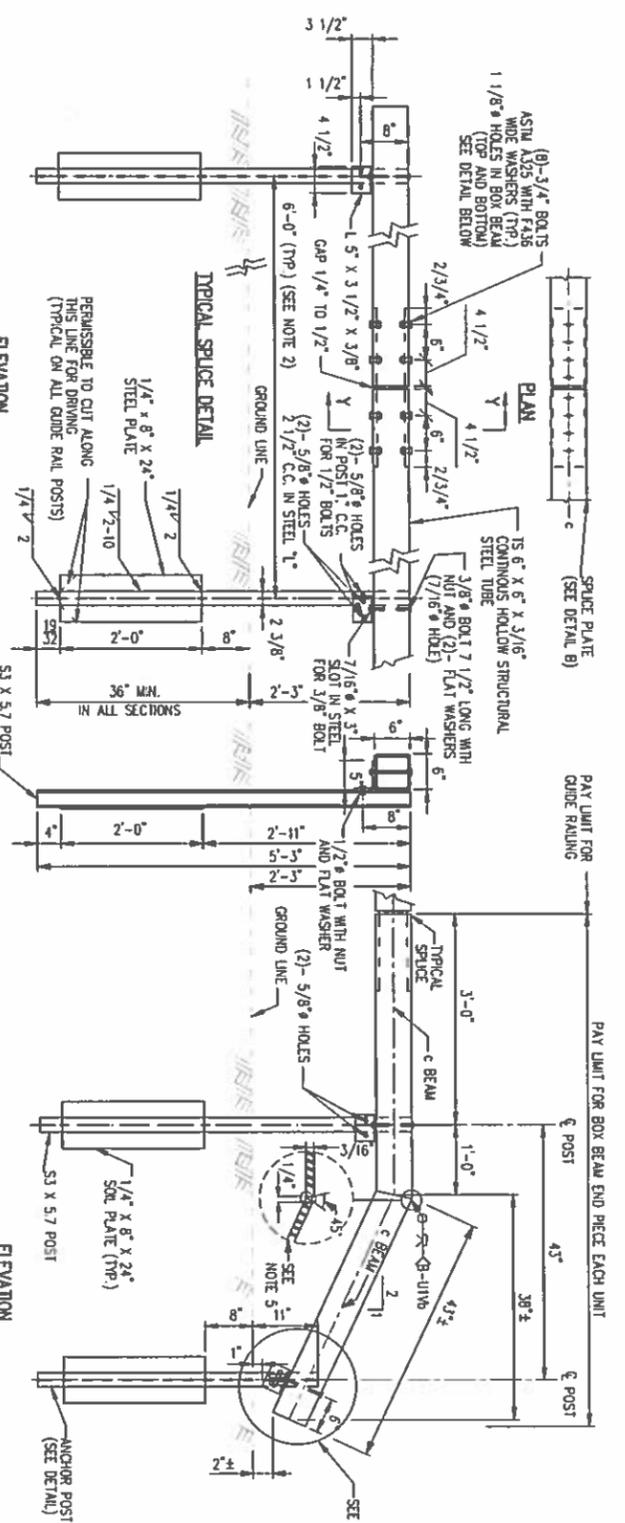
Designed by	J.A.S.	Checked by	J.A.S.
Drawn by	K.A.F.	Reviewed by	
For Approval		Date	
For Approval			
For Approval			

TECTONIC
Professional Engineering & Surveying Consultants, P.C.
1344 State Street, Suite 500
Hartford, CT 06103
Phone: (860) 237-4888
Fax: (860) 237-4888
www.tectonic-engineering.com

BOX BEAM GUIDE RAIL 1

REHABILITATION OF BRIDGE NO. 03851
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

Date: 3-08-18
Scale: AS SHOWN
Sheet No.: 6550.01
Drawing No.: 37
Rev: 0



SECTION Y-Y
 SPLICE PLATE SHOWING 3/4\"/>

SECTION Y-Y
 SPLICE PLATE SHOWING TAPPED BOLT HOLES

DETAIL 'B'
 SPLICE PLATE SHOWING 3/4\"/>

DETAIL 'B'
 SPLICE PLATE SHOWING TAPPED BOLT HOLES

NOTE: WELD OR GALVANIZING PROVISIONS NOT PERMITTED ON TOP OR BOTTOM WELDS OR WALLS IN SPLICE PLATE

NOTE: WELD OR GALVANIZING PROVISIONS NOT PERMITTED ON TOP OR BOTTOM WELDS OR WALLS IN SPLICE PLATE

NOTE: WELD OR GALVANIZING PROVISIONS NOT PERMITTED ON TOP OR BOTTOM WELDS OR WALLS IN SPLICE PLATE

NOTE: WELD OR GALVANIZING PROVISIONS NOT PERMITTED ON TOP OR BOTTOM WELDS OR WALLS IN SPLICE PLATE

Rev	Date	Revision	Approved

Author	Checked	Date

Design	Drawn	Checked	Date

Design	Drawn	Checked	Date

Design	Drawn	Checked	Date

Design	Drawn	Checked	Date

TECTONIC Consulting Engineers, Inc.

1000 Main Street
 West Hartford, CT 06110

Project: (860) 444-2444
 1000 Main Street
 West Hartford, CT 06110

BOX BEAM GUIDE RAIL 2

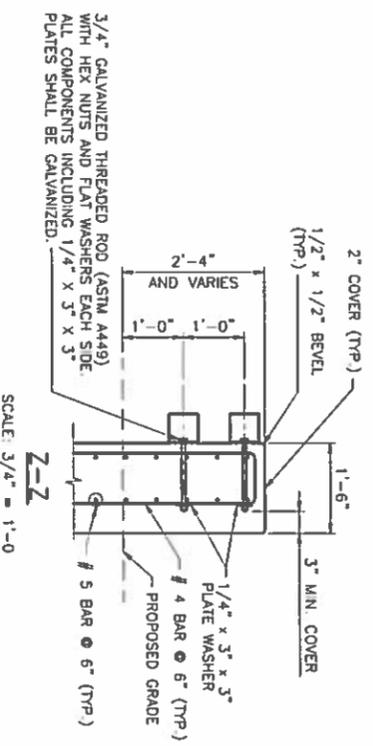
REHABILITATION OF BRIDGE NO. 03651
 NORTH MAIN STREET
 OVER WEST BRANCH OF TROUT BROOK
 WEST HARTFORD, CONNECTICUT

Scale: AS SHOWN 6550.01

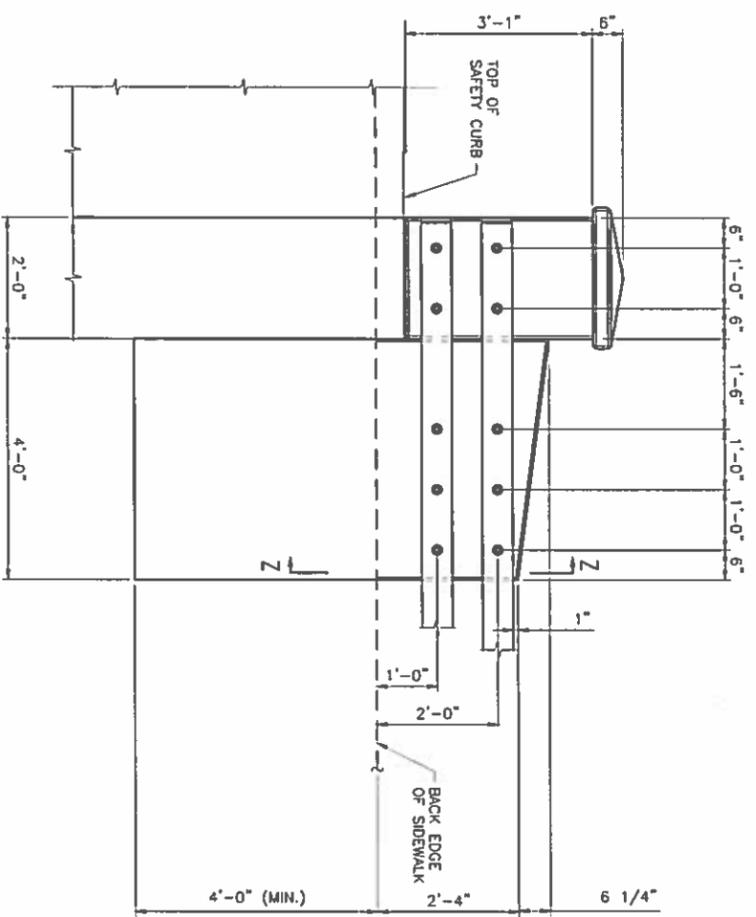
Sheet No. 38

Date: 3-08-18

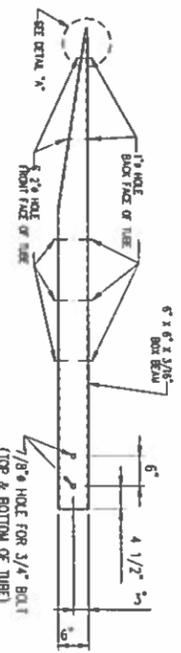
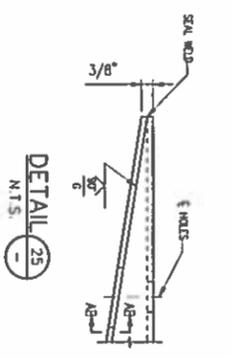
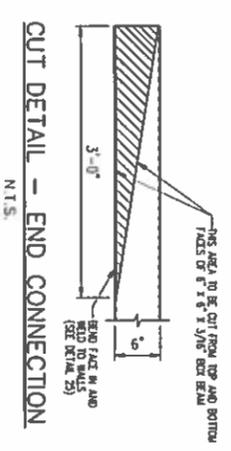
Drawn By: 0



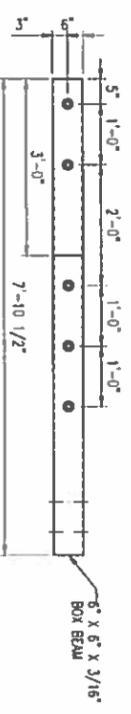
SCALE: 3/4" = 1'-0"



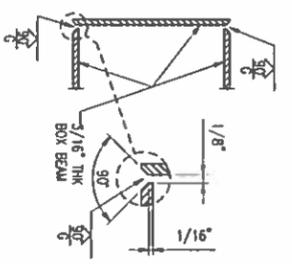
ELEVATION - END CONNECTION FOR BOX BEAM GUIDE RAIL
SCALE: 3/4" = 1'-0"



PLAN - END CONNECTION FOR BOX BEAM GUIDE RAIL
SCALE: 3/4" = 1'-0"



ELEVATION - END CONNECTION FOR BOX BEAM GUIDE RAIL
SCALE: 3/4" = 1'-0"



SECTION AB
N.T.S.

THIS DOCUMENT IS PREPARED SPECIALLY FOR THE CLIENT AND PROJECT DESCRIBED HEREON. IT IS NOT TO BE USED FOR ANY OTHER PROJECT OR FOR ANY OTHER PURPOSE WITHOUT THE CONSENT OF TECTONIC ENGINEERING, P.C. ALL RIGHTS RESERVED.

OWNER OF THIS DOCUMENT HEREBY AGREES TO HOLD TECTONIC ENGINEERING, P.C. HARMLESS FROM AND AGAINST ALL LIABILITY FOR NEGLIGENCE, WHETHER IN CONTRACT OR TORT, ARISING OUT OF OR FROM THE USE OF THIS DOCUMENT FOR ANY PURPOSE OTHER THAN THAT AUTHORIZED BY THE PROFESSIONAL DESIGNER OR ENGINEER. THE PROFESSIONAL DESIGNER OR ENGINEER SHALL NOT BE CONSIDERED LIABLE FOR NEGLIGENCE OR OTHER MALPRACTICE.

Rev	Date	Description	Approved



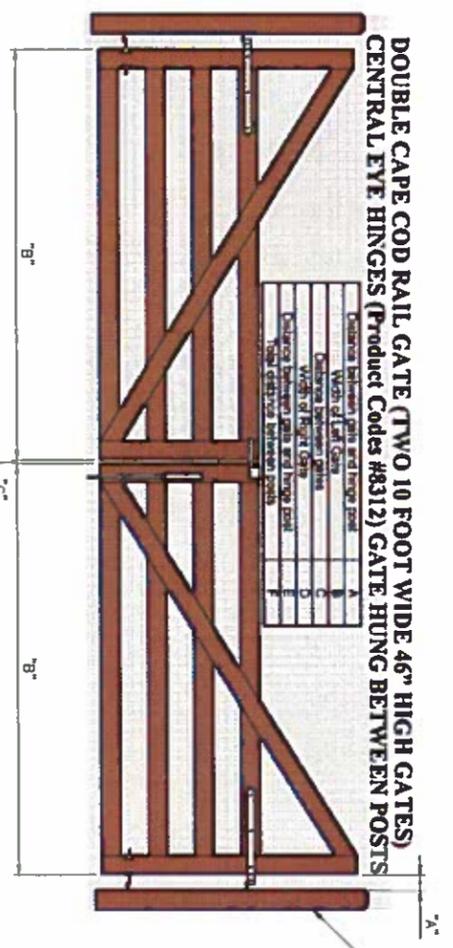
TECTONIC Professional Engineering & Surveying Consultants, P.C.
1000 Main Street, Suite 500, West Hartford, CT 06107
Phone: (860) 234-2444 Fax: (860) 234-2445

RAIL CONNECTION AND END BLOCK DETAILS

REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT

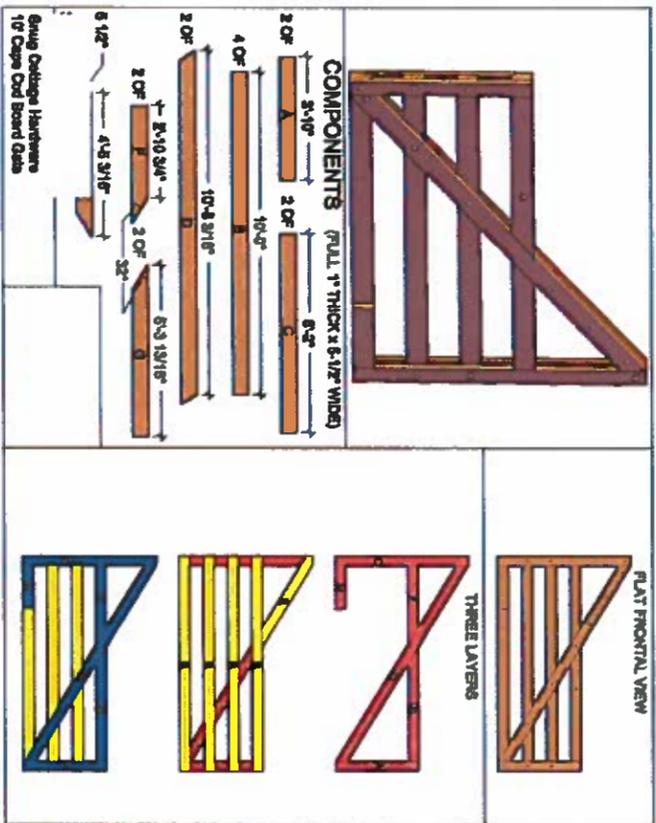
Date: 3-02-18 Scale: AS SHOWN
Sheet: 6550.01
Drawing No.: 39
Rev: 0

**DOUBLE CAPE COD RAIL GATE (TWO 10 FOOT WIDE 46" HIGH GATES)
CENTRAL EYE HINGES (Product Codes #8312) GATE HUNG BETWEEN POSTS**



Dimensions (feet and inches)					
A	B	C	D	E	F
4.5'	10'	1"	10'	4.5'	20' 10"

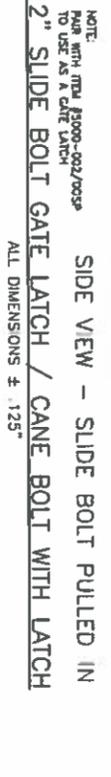
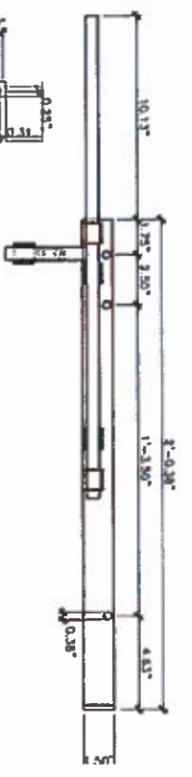
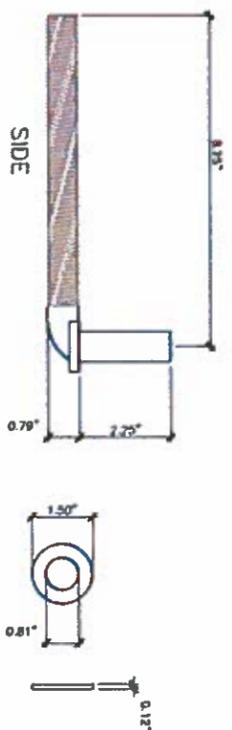
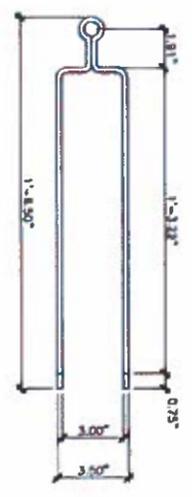
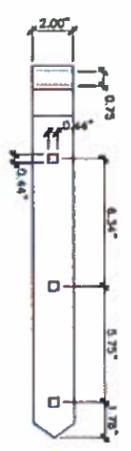
Hardware Required	
Hinge Sets	Two Sets Include
Fasteners Included with Hardware	2 - 1/8 inch double strap 2 - adjustable bottom gate fitting 4 - 1/2" adjustable gate pin
Cane Bolt Vertical	Lumber Required
Posts	2 of 10' x 6" x 12" Dia.
Rails	8 of 10' x 1" x 5.5"
Slides	6 of 8' x 1" x 5.5"
Diagonals	4 of 12' x 1" x 5.5"
Filler Blocks	4 of 12' x 1" x 5.5"
	Fasteners Required
Approximately 200 of 1.75" x 88 wood screws (stainless preferred)	
36 of 3.5" x 3/8" carriage bolts (hot dipped galvanized), nuts, and washers	



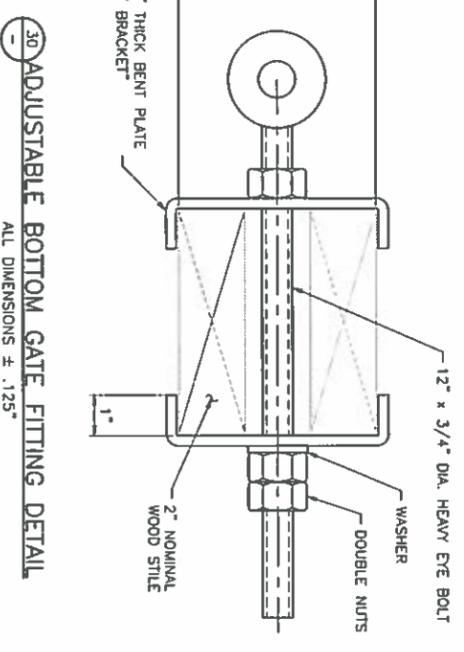
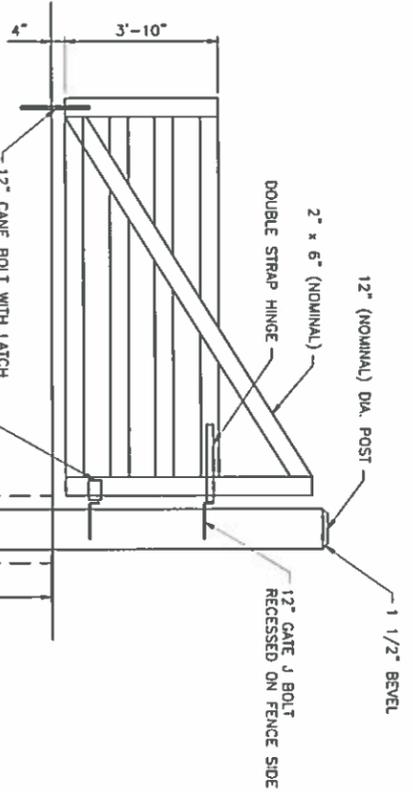
GATE COMPONENTS
ALL DIMENSIONS ± .125"

THIS DOCUMENT IS PREPARED SPECIFICALLY FOR THE CLIENT AND PROJECT IDENTIFIED HEREON. INFORMATION, ALTERATION, REVISION, DIMENSION, DIMENSIONS, AND/OR MATERIALS SHALL BE THE PROPERTY OF TECHNICAL ENGINEERING, P.C. IS PROHIBITED. COPYRIGHT 2008 TECHNICAL ENGINEERING, P.C. ALL RIGHTS RESERVED.

COPIES OF THIS DOCUMENT WITHOUT A REGISTERED SEAL OR ORIGINAL STAMP IN BLUE OR RED INK OR THE PROFESSIONAL ENGINEER OR LAND SURVEYOR SHALL NOT BE CONSIDERED VALID COPIES.



NOTE:
FOR USE WITH #28 12" SLIDE BOLT GATE LATCH / CANE BOLT WITH LATCH
ALL DIMENSIONS ± .125"

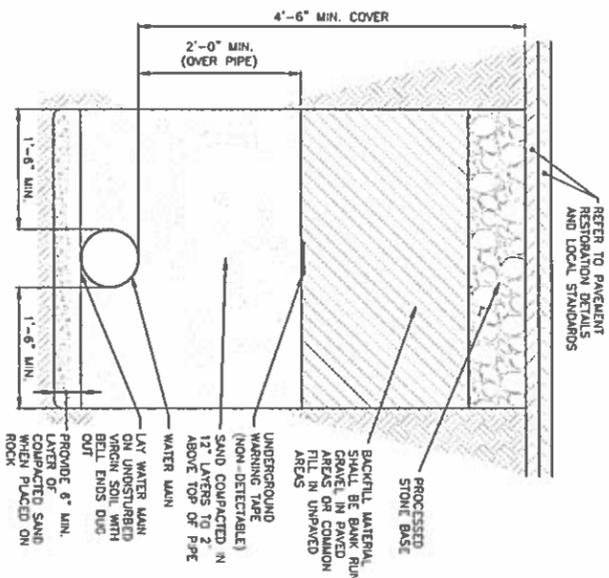


Rev.	Date	Author	Approval

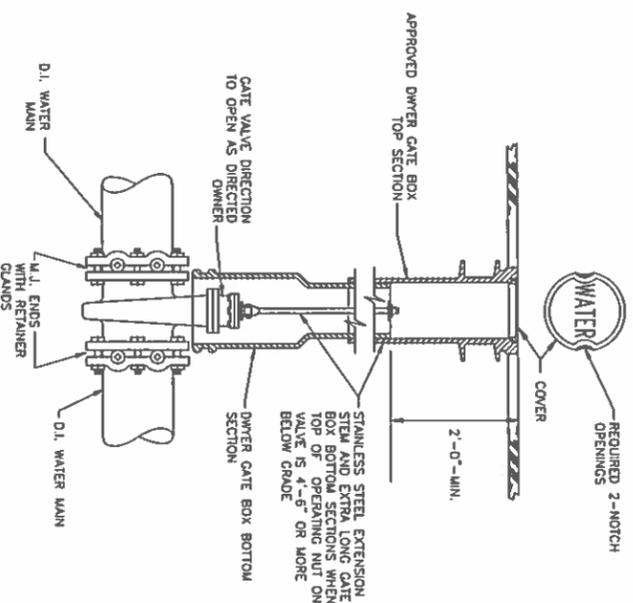
DRAWING CONTROL			
Designed	Drawn	Reviewed	Checked
J.A.S.		K.E.F.	J.A.S.

<p>TECTONIC Professional Engineering & Surveying Corporation P.C. 1000 Main Street, Suite 200 West Hartford, CT 06107</p>	<p>Project: (860) 642-2241 www.tectonic-engineering.com</p>
--	---

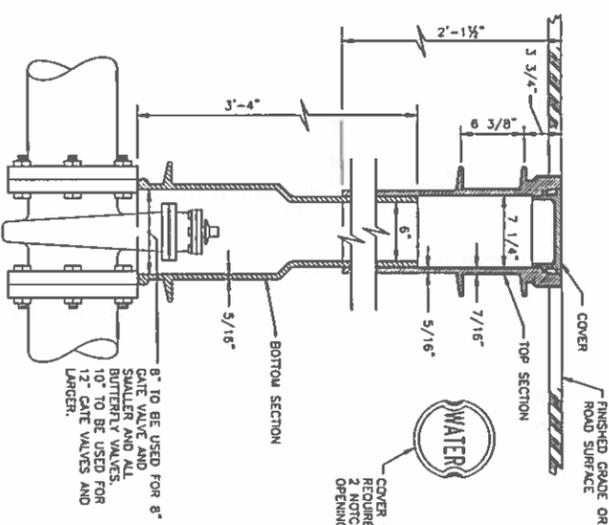
<p>REHABILITATION OF BRIDGE NO. 03651 NORTH MAIN STREET OVER WEST BRANCH OF TROUT BROOK WEST HARTFORD, CONNECTICUT</p>	<p>Sheet: 3-42-13 Scale: NTS</p>	<p>6550.01</p>	<p>40</p>	<p>0</p>
--	--------------------------------------	----------------	-----------	----------



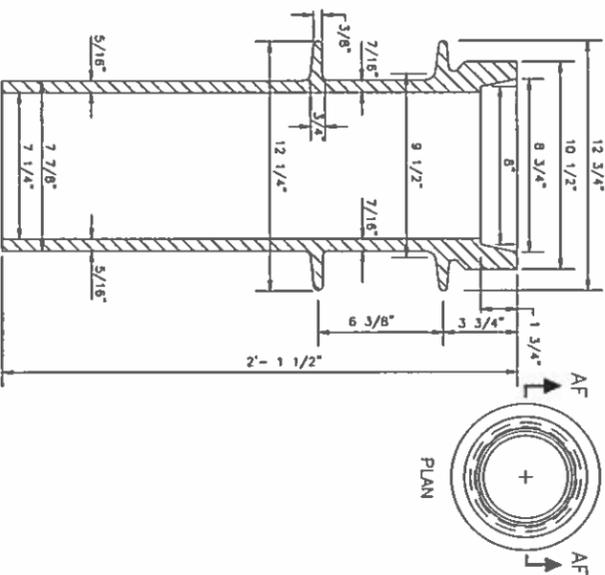
WATER MAIN TRENCH
DETAIL
31
NTS



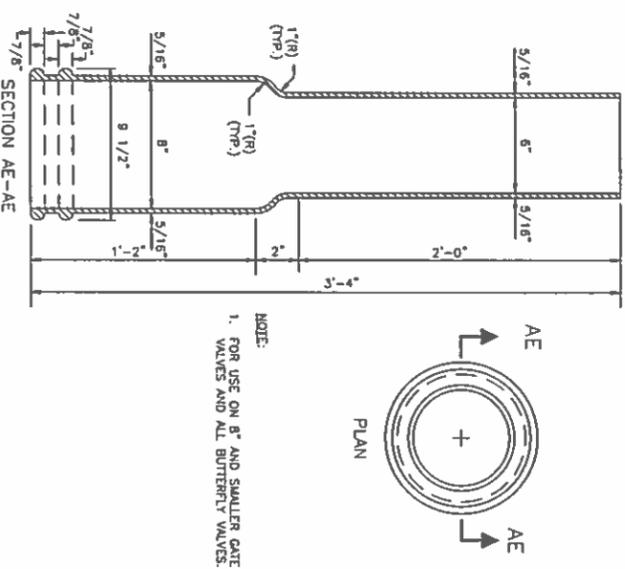
STANDARD GATE VALVE 12-INCH AND SMALLER
DETAIL
32
NTS



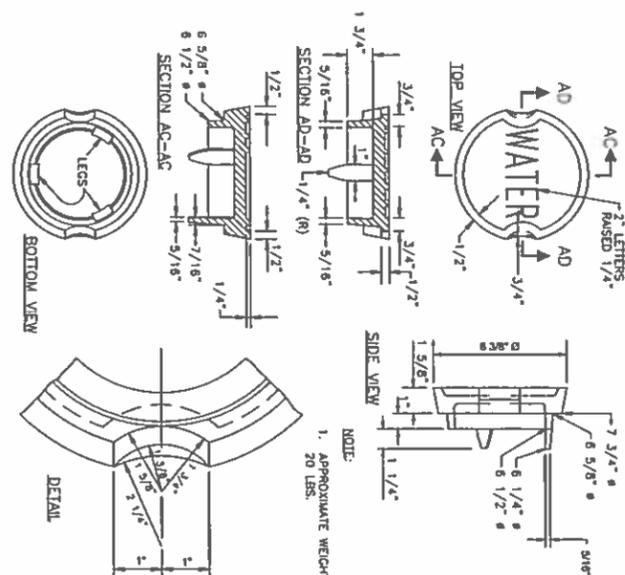
STANDARD GATE BOX ASSEMBLY (DWYER TYPE)
DETAIL
33
NTS



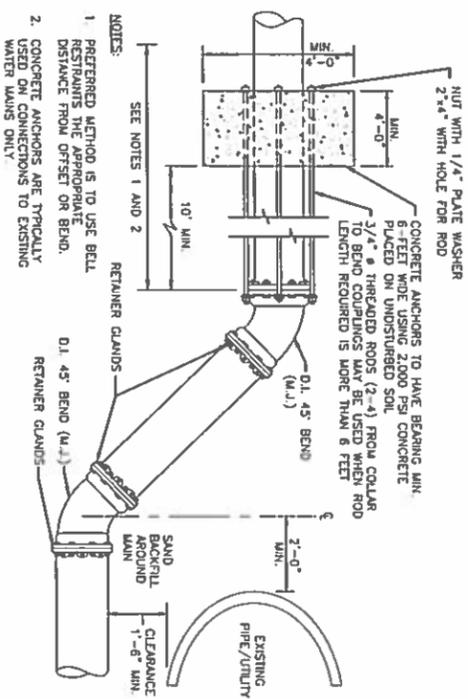
CAST IRON GATE BOX TOP SECTION (DWYER TYPE)
DETAIL
34
NTS



CAST IRON GATE BOX BOTTOM SECTION 8-INCH (DWYER TYPE)
DETAIL
35
NTS



CAST IRON GATE BOX COVER (DWYER TYPE)
DETAIL
36
NTS



RESTRAINED OFFSET WITH CONCRETE ANCHOR
DETAIL
37
NTS

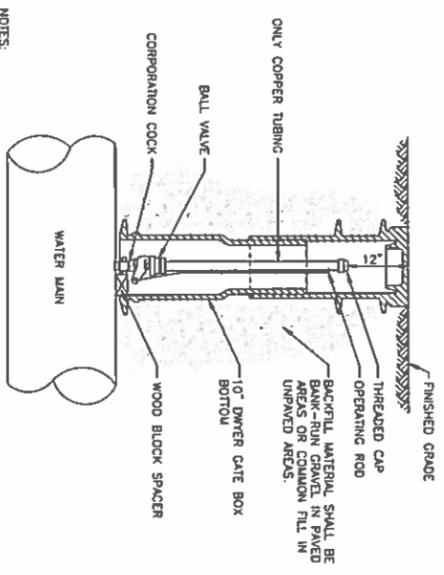
THIS DOCUMENT IS PREPARED SPECIFICALLY FOR THE CLIENT AND SHOULD NOT BE REPRODUCED OR DISTRIBUTED WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER. THE ENGINEER'S LIABILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THE PROJECT ONLY. THE ENGINEER DOES NOT WARRANT THE ACCURACY OF THE INFORMATION PROVIDED HEREIN. THE ENGINEER'S LIABILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THE PROJECT ONLY. THE ENGINEER DOES NOT WARRANT THE ACCURACY OF THE INFORMATION PROVIDED HEREIN.

Rev.	Date	Description	Approved

Checked	Drawn	Reviewed	Checked
J.A.S.	K.F.F.	J.A.S.	J.A.S.

DATE: 3-28-13
SCALE: AS SHOWN
PROJECT: WATERMAIN REPLACEMENT
REHABILITATION OF BRIDGE NO. 03651
NORTH MAIN STREET
OVER WEST BRANCH OF TROUT BROOK
WEST HARTFORD, CONNECTICUT
DRAWING NO.: 6550.01
SHEET NO.: 42
TOTAL SHEETS: 0

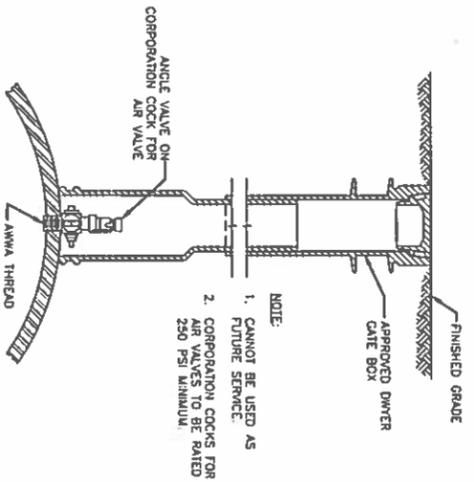
TECTONIC
Professional Engineering & Surveying Consultants, P.C.
344 State Street, Suite 500
Hartford, CT 06103
Phone: (860) 883-2347
Fax: (860) 883-2348
www.TECTONIC-CT.com



- NOTES:
1. CHLORINATION INLET/BLOWOFF MAY BE CONVERTED TO AN AIR VALVE OR USED AS A STERILIZATION SAMPLING POINT.
 2. CANNOT BE USED FOR FUTURE SERVICE.
 3. A CHLORINATION/SAMPLING ASSEMBLY SHALL BE REMOVED ONCE WATER MAIN PASSES SAMPLING. CORPORATION SHALL EITHER BE CONVERTED TO AIR VALVE OR ABANDONED PRIOR TO FINAL PAVEMENT RESTORATION.

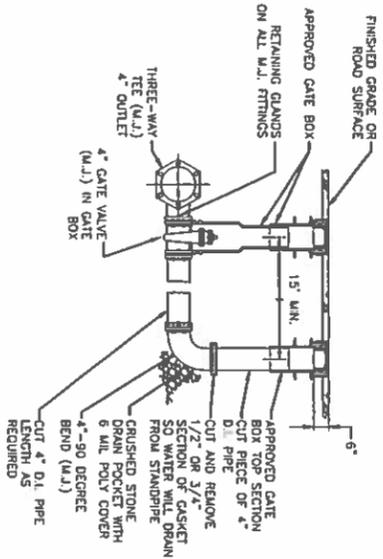
MAIN SIZE	CORPORATION COCK	BALL VALVE, HARD COPPER, PIPING & THREADED CAP
6"-12"	3/4" x 1"	1"
16"-42"	1 1/2" x 2"	2"

AIR VALVE / CHLORINATION INLET / BLOW-OFF
 DETAIL 38
 NTS



MAIN SIZE	MIN. SIZE AIR VALVE	CORPORATION COCK	ANGLE VALVE SIZE
6"-12"	3/4"	3/4" x 1"	1"
16" & 20"	1"	1" x 1 1/2"	1 1/2"
24" & 30"	1 1/4"	1 1/4" x 1 1/2"	1 1/2"
36" & 42"	1 3/4"	1 3/4" x 2"	2"
48" & 54"	2"	2" x 2"	2"

STANDARD AIR VALVE
 DETAIL 39
 NTS



4-INCH BLOW-OFF ASSEMBLY (BRANCH TYPE)
 DETAIL 40
 NTS

NOTE: THESE DETAILS WERE PROVIDED BY WDC.

THIS DOCUMENT IS PROVIDED SPECIFICALLY FOR THE CLIENT AND PROJECT DESCRIBED HEREIN. THE CLIENT AND PROJECT DESCRIBED HEREIN SHALL NOT BE CONSIDERED AS A PRECEDENT OR BE USED WITHOUT THE CONSENT OF TECHNICAL ENGINEERING, P.C. ALL RIGHTS RESERVED.

THIS DOCUMENT IS PROVIDED SPECIFICALLY FOR THE CLIENT AND PROJECT DESCRIBED HEREIN. THE CLIENT AND PROJECT DESCRIBED HEREIN SHALL NOT BE CONSIDERED AS A PRECEDENT OR BE USED WITHOUT THE CONSENT OF TECHNICAL ENGINEERING, P.C. ALL RIGHTS RESERVED.

Rev	Date	Revision	Approved

Author	Checked	Drawn	Reviewed	Date
J.A.S.	J.A.S.	J.A.S.	J.A.S.	

TECTONIC INCORPORATED
 Technical Engineering & Surveying Consultants P.C.
 1000 Main Street, Suite 200
 West Hartford, CT 06107
 Phone: (860) 562-2341
 Fax: (860) 562-2342
 www.tectonicinc.com

WATERMAIN REPLACEMENT
 REHABILITATION OF BRIDGE NO. 03651
 NORTH MAIN STREET
 OVER WEST BRANCH OF TROUT BROOK
 WEST HARTFORD, CONNECTICUT

Date	Scale	Sheet	Drawn	Rev
3-28-18	AS SHOWN	6650.01	43	0