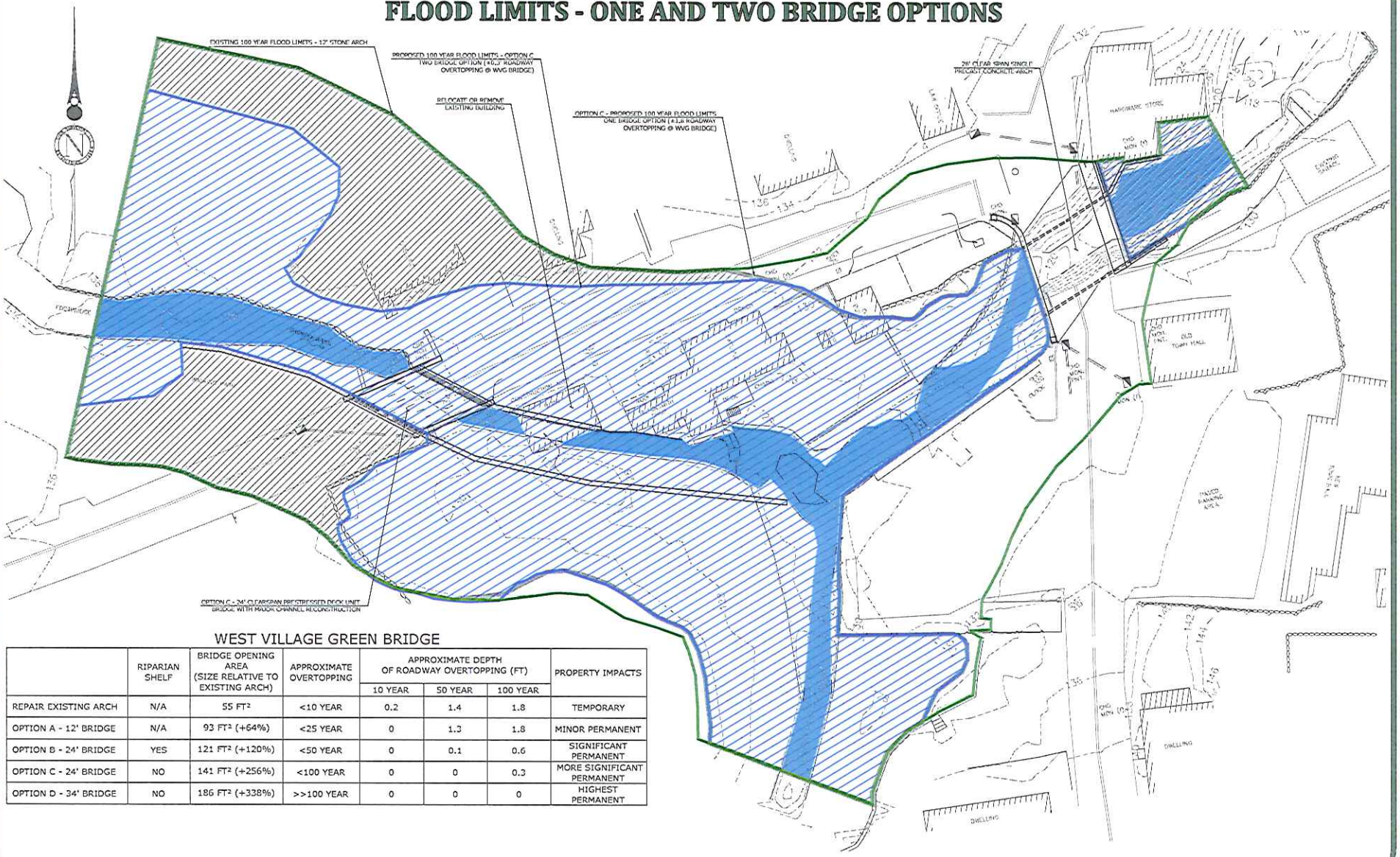
TOWN of NORTH STONINGTON
FLOOD LIMITS - ONE AND TWO BRIDGE OPTIONS



WEST VILLAGE GREEN BRIDGE

	RIPARIAN SHELF	BRIDGE OPENING AREA (SIZE RELATIVE TO EXISTING ARCH)	APPROXIMATE OVERTOPPING	APPROXIMATE DEPTH OF ROADWAY OVERTOPPING (FT)			PROPERTY IMPACTS
				10 YEAR	50 YEAR	100 YEAR	
REPAIR EXISTING ARCH	N/A	55 FT²	<10 YEAR	0.2	1.4	1.8	TEMPORARY
OPTION A - 12' BRIDGE	N/A	93 FT² (+64%)	<25 YEAR	0	1.3	1.8	MINOR PERMANENT
OPTION B - 24' BRIDGE	YES	121 FT² (+120%)	<50 YEAR	0	0.1	0.6	SIGNIFICANT PERMANENT
OPTION C - 24' BRIDGE	NO	141 FT² (+256%)	<100 YEAR	0	0	0.3	MORE SIGNIFICANT PERMANENT
OPTION D - 34' BRIDGE	NO	186 FT² (+338%)	>>100 YEAR	0	0	0	HIGHEST PERMANENT

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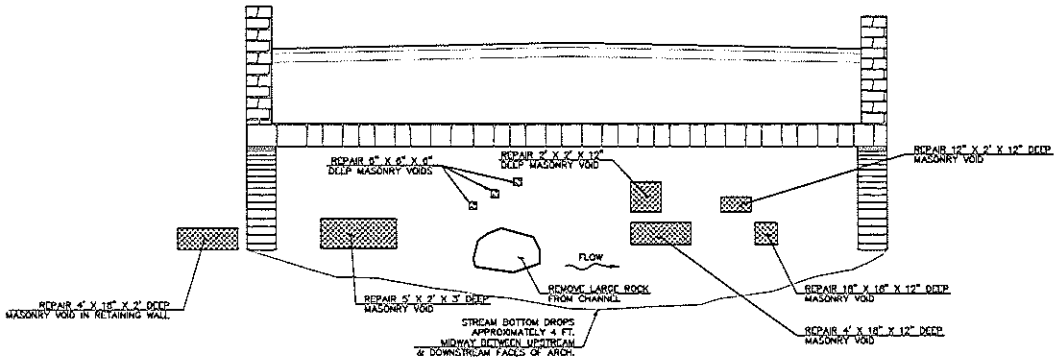
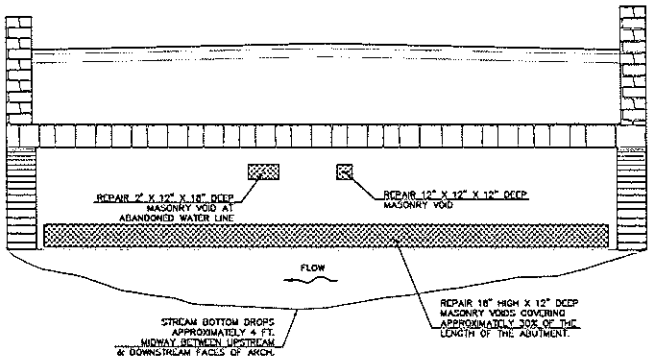


EAST ABUTMENT ELEVATION VIEW

SCALE: 1" = 4'-0"



WEST ABUTMENT ELEVATION VIEW

SCALE: 1" = 4'-0"

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		REVISIONS

SUPV.	J.A.C.
DESIGN	E.J.V.
DRAWN	E.J.V.
CHECKED	D.A.G.
DATE	04/04/12

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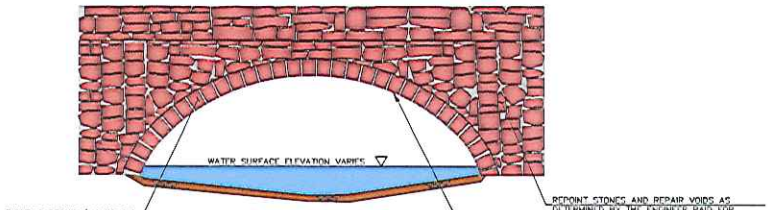
• WENGELL, McDONNELL & COSTELLO •
87 HOLMES ROAD
NEWINGTON, CT 06111
(860) 667-9624

PREPARED FOR
TOWN OF NORTH STONINGTON
40 MAIN STREET
NORTH STONINGTON, CT 06359

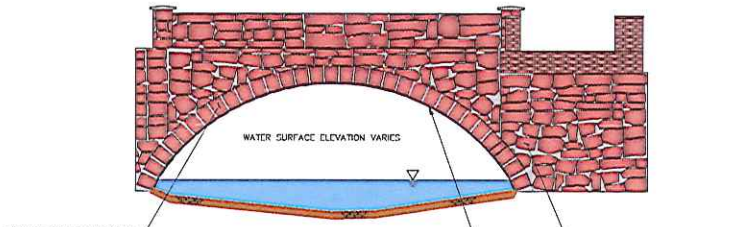
REHABILITATION OF WEST VILLAGE GREEN BRIDGE OVER SHUNOCK RIVER
ABUTMENT & UNDERARCH REPAIRS

SIZE	PROJECT	FILE NAME	NUMBER	REV.	SHEET
D	WEST VILLAGE GREEN BRIDGE OVER SHUNOCK RIVER --PRELIMINARY--	10054.10			7 OF 7



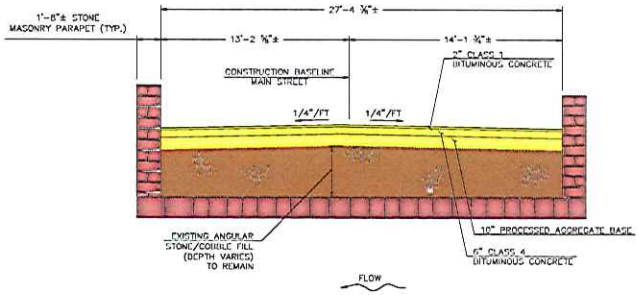
UPSTREAM ELEVATION

SCALE: 1" = 8'-0"



DOWNSTREAM ELEVATION

SCALE: 1" = 8'-0"



TYPICAL BRIDGE SECTION

SCALE: 1" = 4'-0"

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CHECKED	D.A.C.
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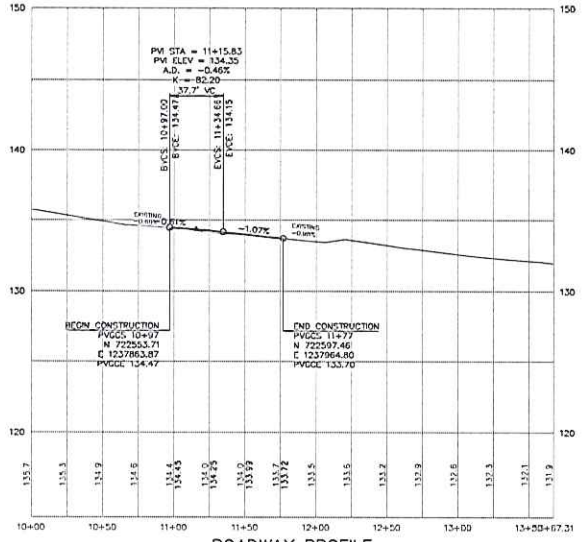
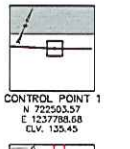
REHABILITATION OF WEST VILLAGE GREEN
BRIDGE OVER SHUNOCK RIVER
BRIDGE SECTION AND ELEVATION VIEWS

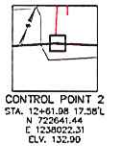
SIZE	PROJECT	FILE NAME	NUMBER	REV.	SHEET
D –	WEST VILLAGE GREEN BRIDGE OVER SHUNOCK RIVER –PRELIMINARY–		10054.10	–	6 OF 7



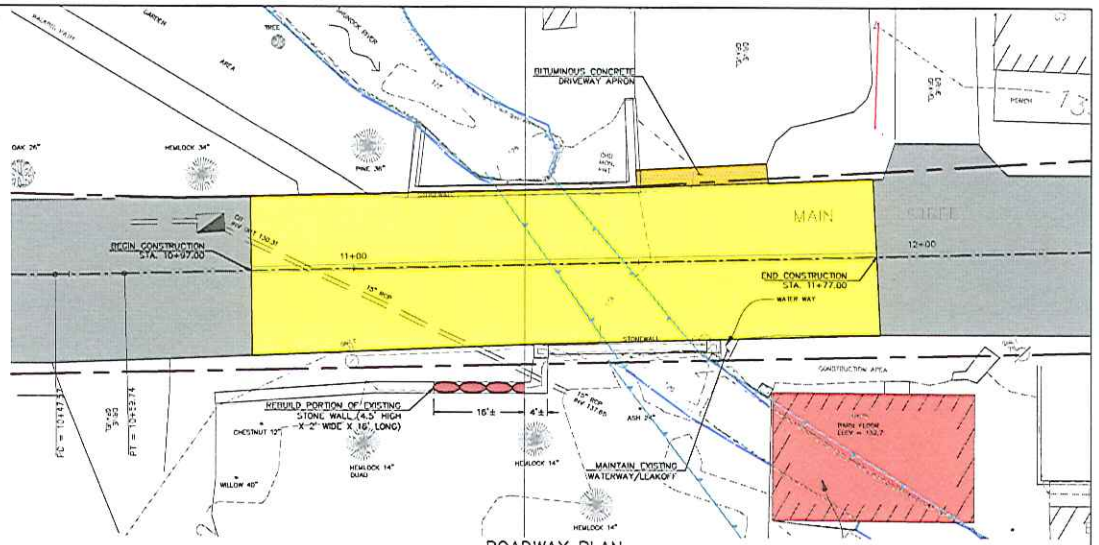
ROADWAY PROFILE

HORIZONTAL SCALE: 1" = 40'-0"
VERTICAL SCALE: 1" = 4'



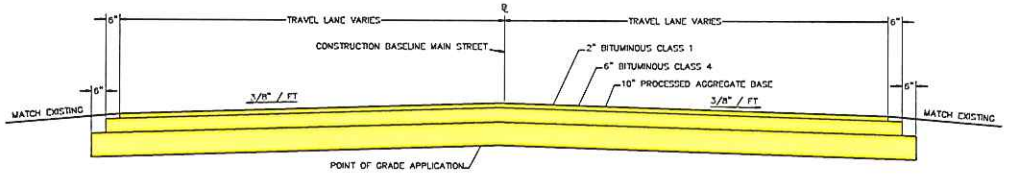


NOTE: SEE SHEET 2 OF 7 FOR C.P. LOCATIONS



ROADWAY PLAN

SCALE: 1" = 10'-0"



TYPICAL ROADWAY SECTION

SCALE: 1" = 2'-0"

CONSTRUCTION NOTES:

1. ALL MAILBOXES, ROADWAY SIGNS AND FENCES DISTURBED OR REMOVED DURING CONSTRUCTION SHALL BE RESET AS NECESSARY.

2. EFFLUENT FROM DEWATERED WORK AREA(S) SHOULD NOT BE DISCHARGED DIRECTLY TO THE STREAM BUT MUST BE PROCESSED THROUGH TREATMENT STRUCTURE(S). SUCH STRUCTURE(S) SHOULD NOT BE LOCATED WITHIN THE STREAM CHANNEL OR ADJACENT WETLANDS.

3. ALL APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE ESTABLISHED PRIOR TO AND MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.

4. ANY ACTIVITIES OTHER THAN THOSE SHOWN ON THE PLANS OR DETAILED IN THE WETLANDS PERMIT THAT OCCUR IN THE REGULATED WETLANDS AREA SHALL BE SUBJECT TO APPROVAL BY THE LOCAL INLAND/WETLANDS AUTHORITY OR ITS DESIGNATED REPRESENTATIVE.

5. DURING ALL PHASES OF CONSTRUCTION ACTIVITIES, ACCESS FOR THE PROPERTY OWNERS AS WELL AS ALL SERVICE VEHICLES SUCH AS MAIL, TRASH COLLECTION, FUEL DELIVERIES, ETC. SHALL BE MAINTAINED BY THE CONTRACTOR TO ADJUTING PROPERTIES WITHIN THE LIMITS OF THE WORK.

6. THE TOWN OF NORTH STONINGTON SHALL RETAIN ALL SALVAGE RIGHTS TO ANY MATERIALS REMOVED AS PART OF THIS PROJECT. MATERIAL REQUESTED FOR SALVAGE BY THE TOWN SHALL BE DELIVERED TO A LOCATION WITHIN THE TOWN LIMITS AS DESIGNATED BY THE TOWN. THE COST OF DELIVERY, LOADING AND UNLOADING SHALL BE INCLUDED IN THE GENERAL COST OF THE PROJECT.

7. THE EQUIPMENT AND MATERIAL STAGING AREA SHALL BE LIMITED TO THE PAVED ROAD AREAS WITHIN THE LIMITS OF CONSTRUCTION. ANY OTHER STAGING AREA LOCATION MUST BE REQUESTED AND APPROVED IN ADVANCE, WHICH MAY REQUIRE PRESENTATION TO AND APPROVAL BY THE LOCAL INLAND WETLAND AND WATERCOURSE COMMISSION OF NORTH STONINGTON.

8. ALL MACHINERY OPERATED WITHIN 50 FEET OF THE WATERCOURSE OR WETLAND SHALL BE EQUIPPED WITH A CONTAINMENT SYSTEM OR BE SET ON AN IMPERVIOUS CONTAINMENT AREA. DETAILS OF THE CONTAINMENT SYSTEM OR CONTAINMENT AREA MUST BE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE LOCAL INLAND WETLAND AND WATERCOURSE COMMISSION OF NORTH STONINGTON PRIOR TO ITS USE.

9. RESET ITEMS – ALL EXISTING ITEMS TO BE RESET SHALL BE STORED AND PROTECTED FROM DAMAGE BY THE CONTRACTOR. DAMAGED ITEMS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

SURVEY NOTES:

THIS SURVEY WAS PREPARED BY PAUL M. ARCHER LLS #70013 PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300B-1 THROUGH 20-300B-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996:

- THIS SURVEY CONFORMS TO A CLASS "A-2" HORIZONTAL ACCURACY.
- SURVEY TYPE: RIGHT OF WAY SURVEY
- BOUNDARY DETERMINATION CATEGORY: DEPENDENT RESURVEY
- INTENT: DEPICT CURRENT HIGHWAY FOR NEW BRIDGE

2. HORIZONTAL DATUM: NAD 1983

3. VERTICAL DATUM: NGVD 1929, USED DISK USC&GS 1999

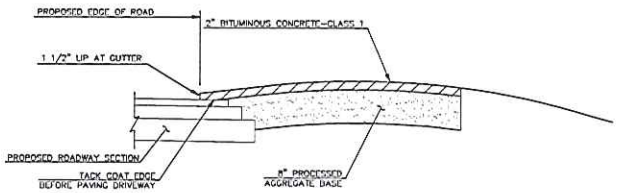
4. ABUTTING PROPERTY LINES DEPICTED, WERE TAKEN FROM THE ASSESSORS MAP AND NOT PRESENT A SURVEYOR'S PROPERTY OPINION

MAP REFERENCES:

1) CONNECTICUT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP TOWN OF NORTH STONINGTON, NORWICH-WESTERLY ROAD THROUGH THE VILLAGE OF NORTH STONINGTON ROUTE NO. 2

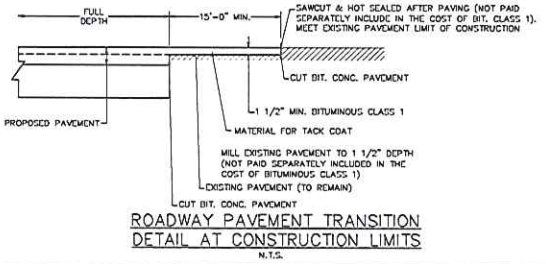
2) PERIMETER SURVEY PREPARED FOR TOWN OF NORTH STONINGTON MAIN STREET NORTH STONINGTON, PREAPARED BY ARCHER SURVEYING LLC, DATED JUNE 2004

3) LOT LINE ADJUSTMENT PLAN BETWEEN LAND OWNED BY SHANE A. FIORE AND RICHARD M. GAVITT & MARJORIE B. GAVITT AVERY LANE NORTH STONINGTON, CONNECTICUT SCALE AS NOTED, APRIL 25, 2002 PREPARED BY JIM KASIERSKI, INC.



TYPICAL BITUMINOUS CONCRETE DRIVEWAY SECTION

N.T.S.



ROADWAY PAVEMENT TRANSITION DETAIL AT CONSTRUCTION LIMITS

N.T.S.

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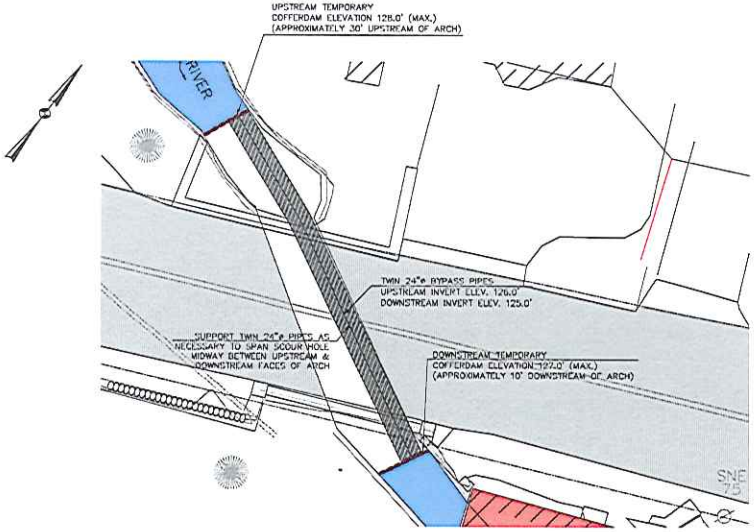
REHABILITATION OF WEST VILLAGE GREEN BRIDGE OVER SHUNOCK RIVER
ROADWAY PLAN, PROFILE, SECTION

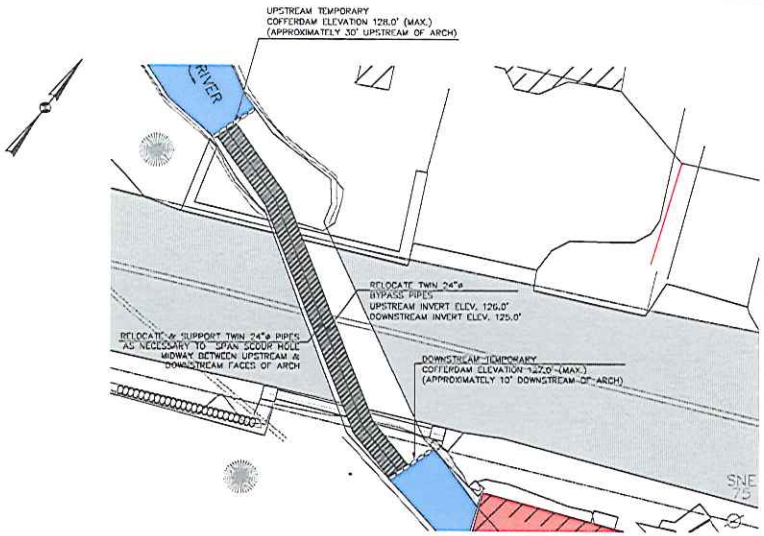
SIZE	PROJECT	FILE NAME	NUMBER	REV.	SHEET
D	WEST VILLAGE GREEN BRIDGE OVER SHUNOCK RIVER —PRELIMINARY—	10054.10			5 OF 7

C:\Users\mcostello\Desktop\N Stonington PW\PW_STD_Plan_Profile-Section.dwg PLAN PROFILE SECTION [05/04/2012 - 2:51:14 PM]



HANDLING OF WATER STAGE 1

SCALE: 1" = 10'-0"



HANDLING OF WATER STAGE 2

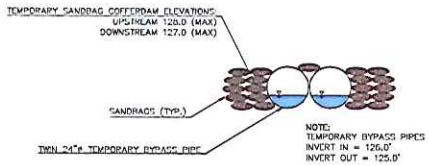
SCALE: 1" = 10'-0"

HANDLING OF WATER STAGE 1:

1. INSTALL TEMPORARY TWIN 24" DIA. BYPASS PIPES AND TEMPORARY COFFERDAMS WITHIN LIMITS SHOWN ON THE PLAN AND DIVERT STREAM TO THE EASTERN PORTION OF CHANNEL.
2. SUPPORT TWIN 24" PIPES AS NECESSARY TO SPAN APPROXIMATELY 4 FEET DEEP SCOUR HOLE MIDWAY BETWEEN UPSTREAM AND DOWNSTREAM FACES OF ARCH.
3. PERFORM REPAIRS TO VOIDS IN WEST STONE MASONRY ABUTMENT AND WEST PORTION OF UNDERSIDE OF ARCH AS REQUIRED.

HANDLING OF WATER STAGE 2:

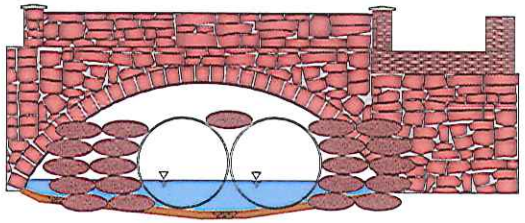
1. RELOCATE TEMPORARY TWIN 24" DIA. BYPASS PIPES AND RECONFIGURE TEMPORARY COFFERDAMS WITHIN LIMITS SHOWN ON THE PLAN AND DIVERT STREAM TO THE WESTERN PORTION OF CHANNEL.
2. SUPPORT TWIN 24" PIPES AS NECESSARY TO SPAN APPROXIMATELY 4 FEET DEEP SCOUR HOLE MIDWAY BETWEEN UPSTREAM AND DOWNSTREAM FACES OF ARCH.
3. PERFORM REPAIRS TO VOIDS IN EAST ABUTMENT AND EAST PORTION OF UNDERSIDE OF ARCH AS REQUIRED.
4. REMOVE TEMPORARY COFFERDAMS AND TEMPORARY TWIN BYPASS PIPES AND THEIR SUPPORTS.



TYPICAL SECTION AT START AND END OF TEMPORARY TWIN 24"ø BYPASS PIPES (STAGE 1 AND 2)

N.T.S.

* NOTE: CONTRACTOR SHOULD BE MADE AWARE THAT THE LOW HEIGHT OF THE COFFERDAMS SHOULD BE SUSCEPTIBLE TO OCCASIONAL FLOODING.



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REHABILITATION OF WEST VILLAGE GREEN BRIDGE OVER SHUNOCK RIVER
HANDLING WATER PLANS

SIZE	PROJECT	FILE NAME	NUMBER	REV.	SHEET
D	WEST VILLAGE GREEN BRIDGE OVER SHUNOCK RIVER	—PRELIMINARY—	10054.10	—	3 OF 7