

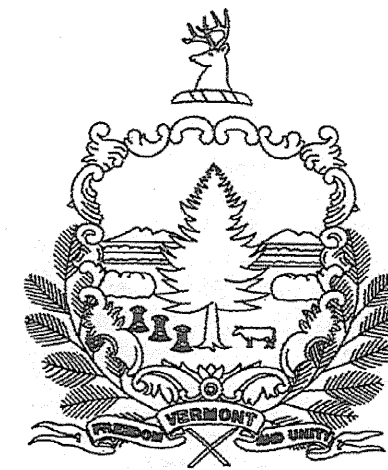
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- E - 102 CONSTRUCTION SIGN DETAILS - 6/30/03
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**STATE OF VERMONT  
AGENCY OF TRANSPORTATION**



**PROPOSED IMPROVEMENT  
BRIDGE PROJECT**

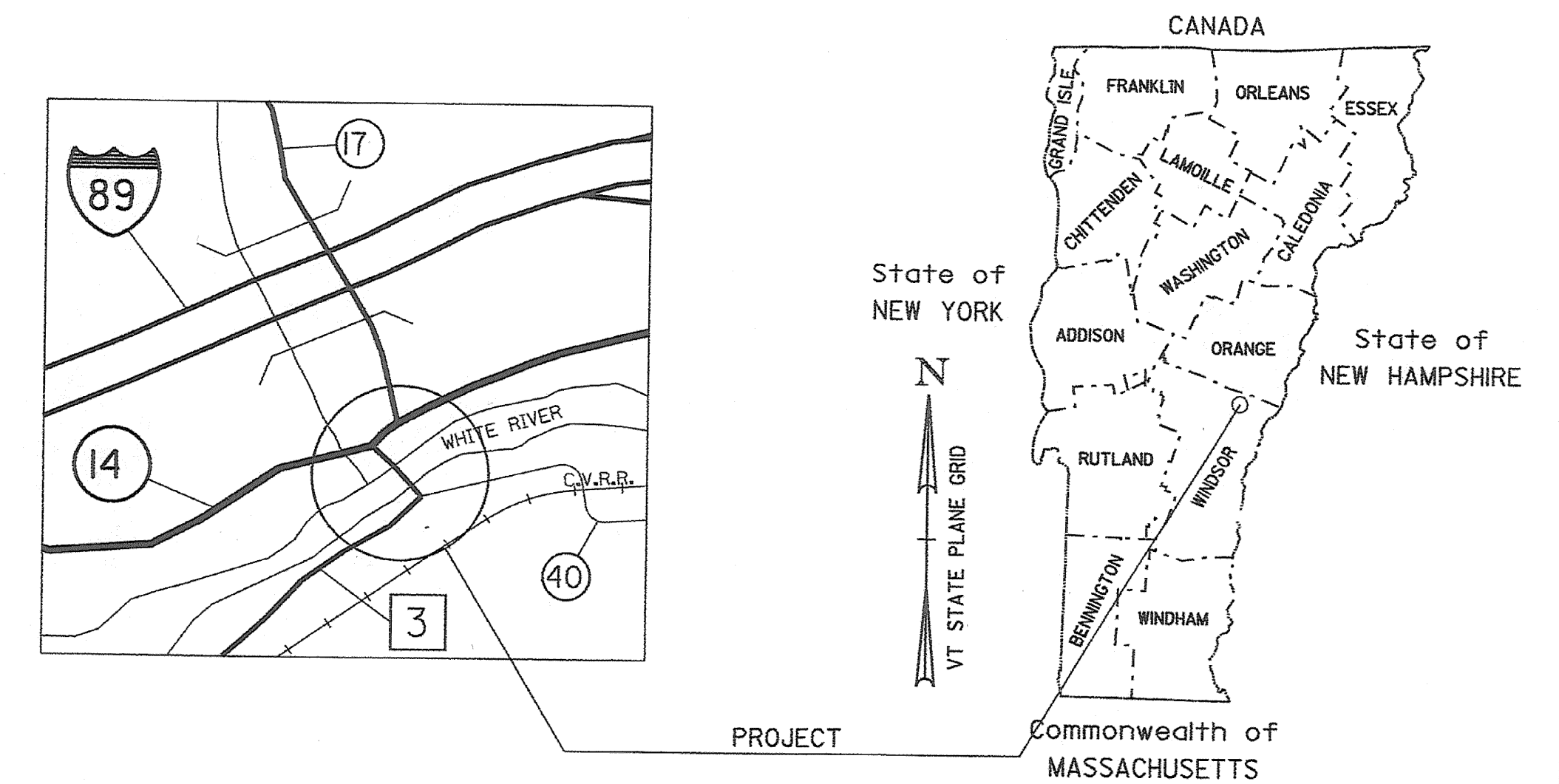
TOWN OF SHARON  
COUNTY OF WINDSOR

T.H. 3 (FAS 177) (CLASS 2 LOCAL ROAD) BRIDGE NO. 15

PROJECT LOCATION: BEGINNING AT A POINT ON T.H. 3, APPROXIMATELY 0.011 MILES SOUTH OF ITS INTERSECTION WITH VT. 14 AND PROCEEDING IN A SOUTHERLY DIRECTION 0.061 MILES.

PROJECT DESCRIPTION: REPAINTING STEEL TRUSS SUPERSTRUCTURE & OTHER MISCELLANEOUS WORK.

LENGTH OF STRUCTURE: 321.25 FEET  
LENGTH OF PROJECT: 321.25 FEET

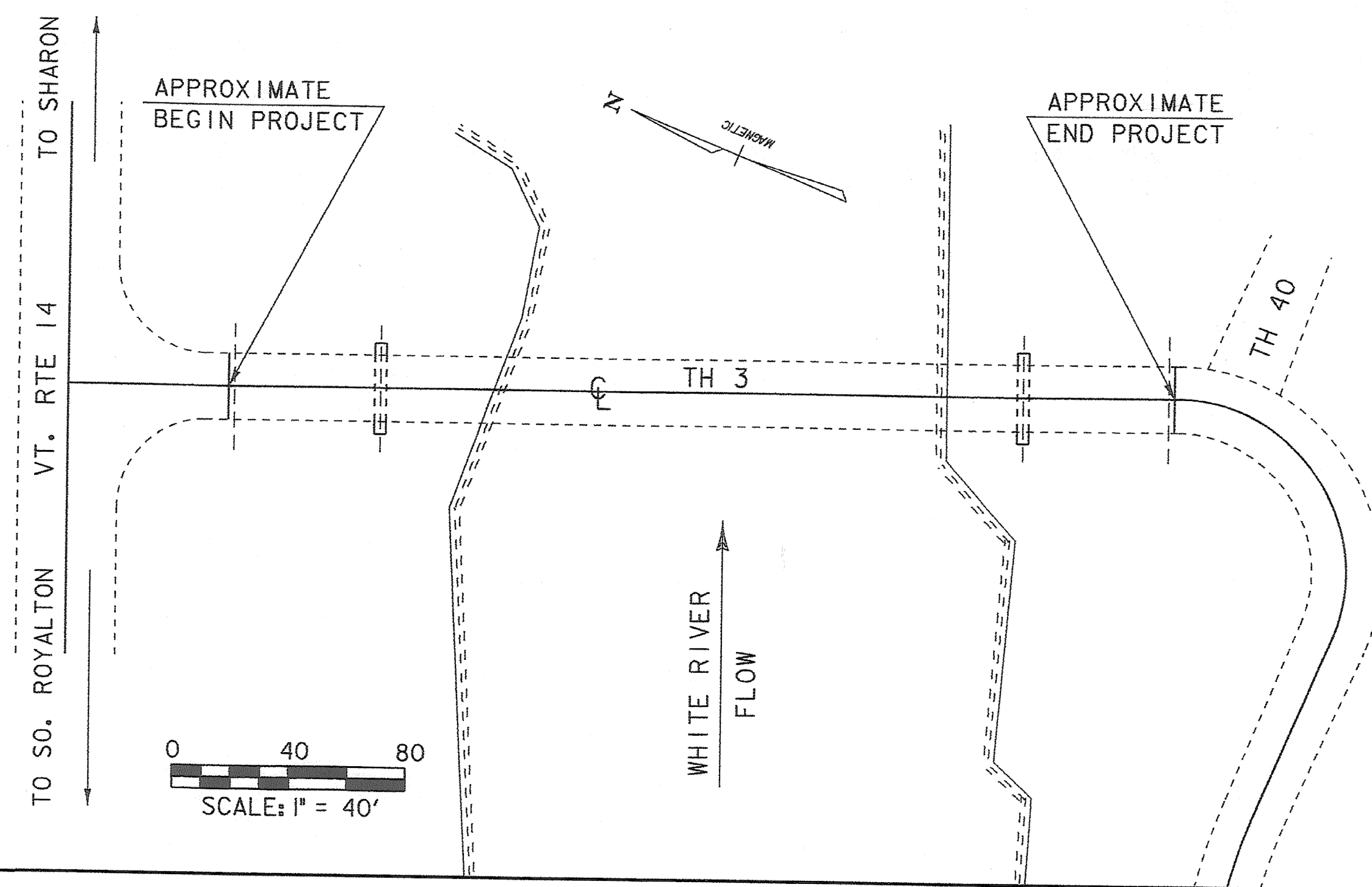


RECORD PLANS	
CONTRACTOR:	ABHE & SVORODA, INC. - PRIOR LAKE MN.
RESIDENT ENGINEER:	TOM CHASE
CONSTRUCTION BEGAN:	OCTOBER 10, 2008
CONSTRUCTION COMPLETE:	SEPTEMBER 4, 2009
RECORD PLANS BY:	TOM CHASE
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.	
BY:	<i>Thomas A. Chase</i> RESIDENT ENGINEER
DATE:	10/29/09
NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives.	

CONVENTIONAL SYMBOLS	
COUNTY LINE	
TOWN LINE	
LIMITS OF ACCESS	
POINT OF ACCESS	
FENCE LINE	
STONE WALL	
TRAVELED WAY	
GUARD RAIL	
RAILROAD	
SURVEY LINE	
CULVERT	
POWER POLE	
TELEPHONE POLE	
TREES	
CONTROL OF ACCESS	
PROPERTY LINE	
R.O.W. TAKING LINE	
SLOPE RIGHTS	
TOP OF CUT	
TOE OF SLOPE	

SURVEYED BY : N/A  
SURVEYED DATE : N/A

DATUM  
VERTICAL N/A  
HORIZONTAL N/A



**TRAFFIC DATA**

2012 ADT = 950  
DHV = 130  
ADTT = 60  
%T = 3  
%D = 59

18 KIP ESAL (FLEXIBLE)  
TOTAL BOTH DIRECTIONS (1992-2012): 364,000  
DESIGN SPEED = 15 MPH

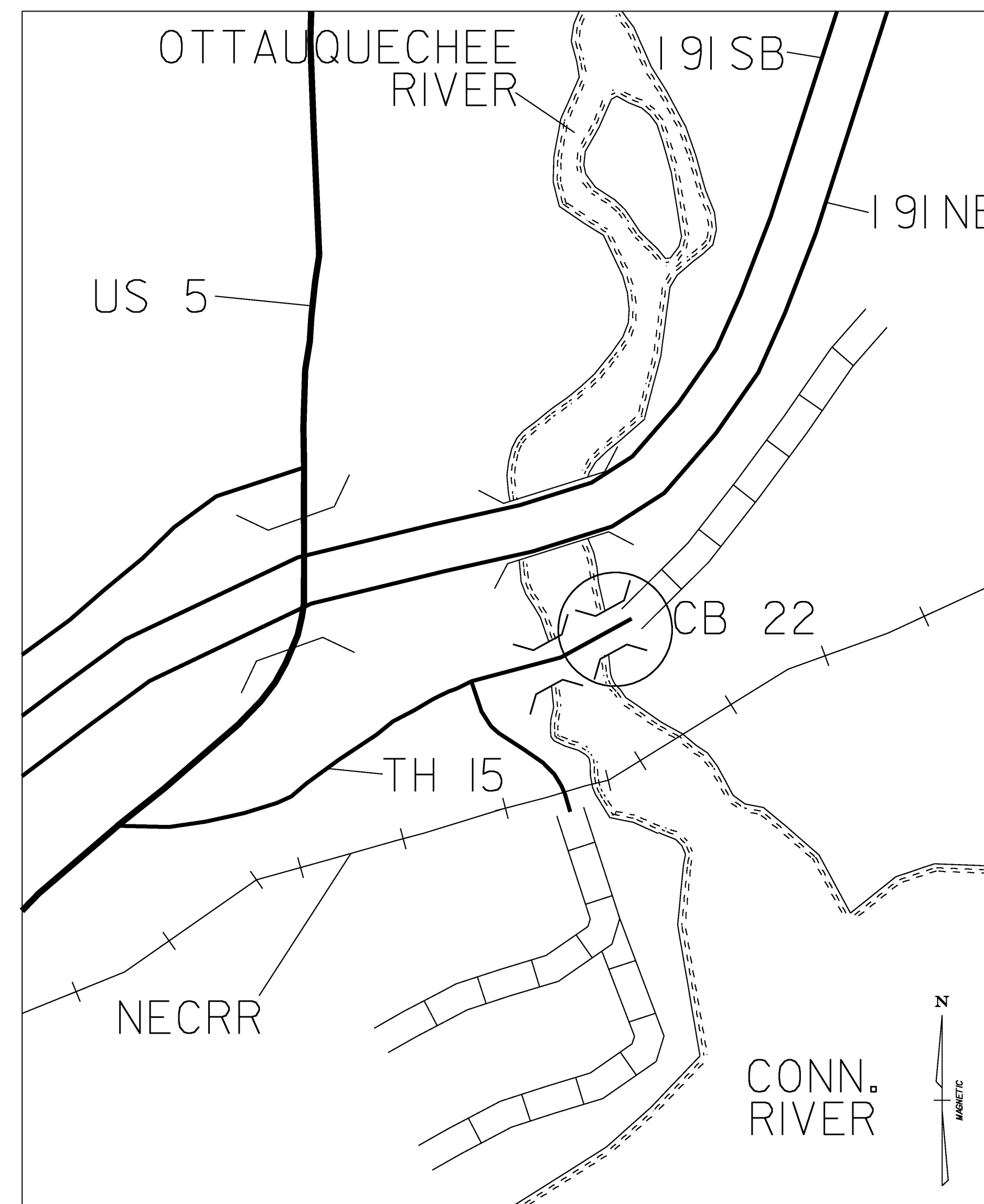
**BUILT AS DESIGNED**

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROGRAM DEVELOPMENT.

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JUNE 15, 2006 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

DIRECTOR OF PROGRAM DEVELOPMENT	
APPROVED <i>James V. Palko</i>	DATE 7-2-2009
PROJECT MANAGER : J. WEAVER	
PROJECT NAME : SHARON	
PROJECT NUMBER : BHF 0177 (8)	
SHEET 1 OF 6 SHEETS	

TOWN / PROJECT. #	COUNTY	BRIDGE NAME	BRIDGE NUMBER	ROUTE NUMBER	END TO END BRIDGE LENGTH	AVAILABLE ROW	INSECTICIDE AND FIRE RETARDANT TO BE APPLIED TO BRIDGE	CONSTRUCTION WORK ADVANCE WARNING TO TOWN	MUNICIPAL CONTACT FOR NOTIFICATION
HARTLAND BHO 1444(54)	WINDSOR	WILLARD COVERED BRIDGE	CB 22	TH 15	128'	3 ROD	YES	60 DAYS ADVANCE WARNING OF BEGIN CONSTRUCTION REQUIRED	ROBERT STACEY, TOWN MANAGER P.O. BOX 349, HARTLAND, VT. 05048 802-436-2119, hartlandtm@hotmail.com



**HARTLAND BHO 1444(54)  
WILLARD COVERED BRIDGE CB 22**



PROJECT NAME: HARTLAND  
PROJECT NUMBER: BHO 1444(54)

FILE NAME: Hartlandmap.dgn  
PROJECT LEADER: WEAVER  
DESIGNED BY: WEAVER  
LOCATION MAP / INFORMATION SHEET

PLOT DATE: 26-SEP-2008  
DRAWN BY: WEEBER  
CHECKED BY: WEAVER  
SHEET 2 OF 5

### GENERAL NOTES:

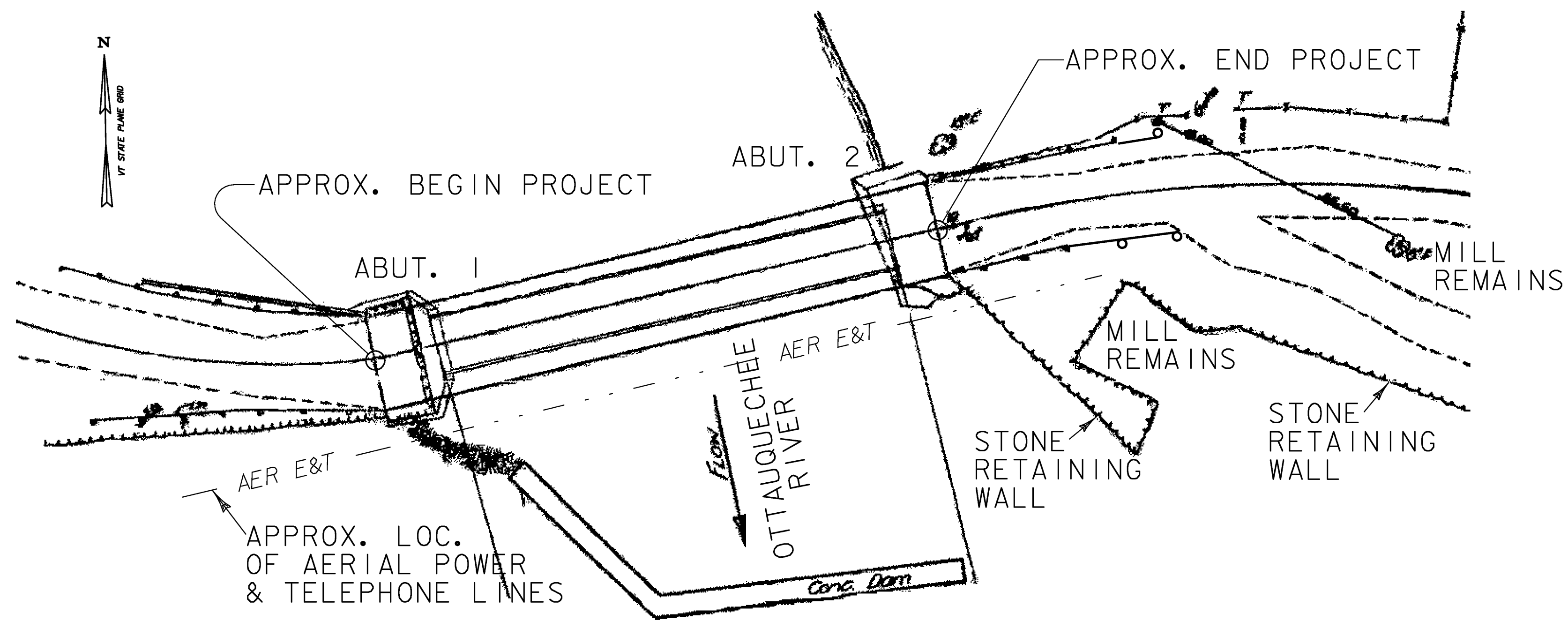
1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2006, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 2002, AND ITS LATEST REVISIONS.
2. ALL INFORMATION PROVIDED IN THE PLANS SHALL BE CHECKED AND VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING THE WORK.
3. FOUNDATION WORK AND OTHER WORK SHALL BE AS SHOWN ON THE PLANS AND AS SPECIFIED WITHIN THE PROJECT SPECIAL PROVISIONS.
4. THE ITEM 522.20 "STRUCTURAL LUMBER AND TIMBER UNTREATED" SHALL BE USED TO REPLACE ROTTEN OR DAMAGED ROOF SHEATHING. THE QUANTITY FOR ITEM 522.20 SHOWN ON SHEET 4 IS AN ESTIMATE BASED ON VISUAL INSPECTION. THE LUMBER USED SHALL BE STRESS GRADED BOARDS SPECIES = EASTERN SPRUCE, GRADE NO. 1 OR BETTER. THE MATERIAL USED SHALL BE DRESSED AND CLOSELY RESEMBLE THE DIMENSIONS (WIDTH AND THICKNESS) OF MATERIAL BEING REPLACED. SUITABLE GALVANIZED WOOD SCREWS SHALL BE USED; PAYMENT TO BE INCIDENTAL TO ITEM 522.20.
5. THE ITEM 529.20 "PARTIAL REMOVAL OF STRUCTURE" INCLUDES THE COST OF REMOVING THE METAL ROOF AS WELL AS ANY UNSUITABLE SHEATHING, OR OTHER DECAYED ROOF MEMBERS AS ORDERED BY THE ENGINEER.
6. THE NEW ROOFING COLOR IS SILVER - COLOR SAMPLE TO BE APPROVED BY THE TOWN OF HARTLAND. THE ESTIMATED ROOF AREA IS 3150 SQ. FT.
7. THE BRIDGE WILL NOT BE CLOSED DURING CONSTRUCTION WORK. THE CONTRACTOR SHALL SEQUENCE ITS WORK OPERATIONS TO ALLOW VEHICLE TRAFFIC THROUGH THE PROJECT DURING CONSTRUCTION.
8. ALL WORK IS TO BE COMPLETED WITHIN THE AVAILABLE TOWN-OWNED RIGHT-OF-WAY AS DESCRIBED ON SHEET 2. THE R.O.W. IS ASSUMED TO BE CENTERED ABOUT THE CENTER LINE OF THE BRIDGE OR ROADWAY. NO PROVISIONS HAVE BEEN MADE TO GO OUTSIDE THE EXISTING R.O.W., AND NO CONTRACT WORK SHALL BE PERFORMED OR PAID FOR OUTSIDE OF EXISTING TOWN-OWNED R.O.W. LIMITS. SHOULD THE CONTRACTOR REQUIRE ANY ADDITIONAL R.O.W., IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL EASEMENTS.
9. IT IS ANTICIPATED THAT NO WORK WILL TAKE PLACE WITHIN THE STREAMBED. FURTHERMORE, NO CONTRACTOR OFF-ROAD VEHICLES WILL BE ALLOWED IN THE STREAMBED AREAS. FOR ANY CONTRACTOR'S REQUIRED OPERATIONS IN THE STREAM, AND ERECTING STAGING, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR NOT TO ERECT ANY SUPPORTS WITHIN THE WATERS OF THE OTTAUQUECHEE RIVER. FURTHER, AS DIRECTED BY THE ENGINEER, NO OPERATIONS OF THE CONTRACTOR SHALL BE ALLOWED IN THE AREAS MARKED, "MILL REMAINS", EAST OF THE EXISTING COVERED BRIDGE.
10. GREAT CARE SHALL BE TAKEN BY THE CONTRACTOR TO PREVENT ANY MATERIAL FROM ENTERING THE STREAMBED PER SECTION 105. ANY MATERIAL THAT DOES ESCAPE THE CONTRACTOR'S CONTAINMENT SYSTEM WILL BE RECOVERED IMMEDIATELY.
11. ALL WORK SHALL PROCEED IN A CAREFUL, ORDERLY MANNER SO THAT THE AFFECTED HISTORIC STRUCTURE IS NOT DAMAGED IN ANY WAY. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO THE STRUCTURE AS A RESULT OF ITS OPERATIONS AT NO COST TO THE STATE. ALL DAMAGE WILL BE REPORTED TO THE PROJECT MANAGER IMMEDIATELY AND NO REPAIRS WILL BE MADE UNTIL APPROVED BY THE AGENCY.
12. ALL TRAFFIC CONTROL DEVICES, INCLUDING BUT NOT LIMITED TO SIGNS, BARRELS, BARRICADES, CONES AND BARRIERS, NECESSARY FOR MAINTENANCE OF TRAFFIC DURING CONSTRUCTION, WILL BE PAID UNDER ITEM 641.10 "TRAFFIC CONTROL". WHILE DETOURS AS DETAILED IN STANDARD 107 WILL NOT BE ENCOUNTERED, GENERAL PLACEMENT OF APPROACH SIGNING AND "ROAD CLOSED" SIGNS WILL BE AS SHOWN ON STANDARD 107.
13. THE REMOVAL OF THE ROOF, REPAIR OF SHEATHING AND REPLACEMENT OF THE NEW ROOF WILL PROGRESS ON A CONTINUOUS BASIS. THE BRIDGE WILL BE PROTECTED AGAINST THE ELEMENTS AT ALL TIMES. ONCE THE ROOF REMOVAL BEGINS, THE CONTRACTOR SHALL KEEP THE BRIDGE COVERED WITH WATERPROOF TARPS UNTIL SUCH TIME AS THE NEW ROOF IS INSTALLED. ALL LABOR AND MATERIALS COSTS FOR THE PROTECTIVE COVERING WORK ARE PAID FOR UNDER ITEM 529.20 "PARTIAL REMOVAL OF STRUCTURE".
14. PROJECT WORK INCLUDES REPLACING THE DEFICIENT ROOF. THIS WORK SHOULD BE ACCOMPLISHED WITHOUT HAVING TO PERFORM STRUCTURAL REPAIRS TO THE ROOF SYSTEM. AS ORDERED BY THE ENGINEER, IN THE EVENT THAT THE CONTRACTOR ENCOUNTERS A ROOF RAFTER OR OTHER ELEMENT THAT MUST BE REPLACED, FULL SAWN STRUCTURAL LUMBER AND TIMBER-UNTREATED SHALL BE USED AND PAID FOR PER ITEM 522.20 - SPECIES TO BE EASTERN SPRUCE, GRADE 1 OR BETTER. A QUANTITY HAS BEEN INCLUDED AS AN ESTIMATE ONLY. THIS WORK REQUIRES APPROVAL FROM THE PROJECT MANAGER PRIOR TO BEING PERFORMED. ALL LABOR AND MATERIALS COSTS FOR RE-INSTALLATION OF EXISTING COMPONENTS THAT ARE REMOVED TO FACILITATE THE CONTRACTOR'S OPERATIONS ARE PAID FOR UNDER PAY ITEM 900.670 "SPECIAL PROVISION (METAL ROOFING)".
15. WITHIN EXISTING ROW LIMITS, THINNING AND TRIMMING SHALL INCLUDE ALL WORK REQUIRED TO CUT AND TRIM TREES, STUMPS, AND VEGETATION UP TO 6 FEET FROM EXISTING ABUTMENT AND WINGWALL FACES AND IN OTHER AREAS, AS DETERMINED BY THE ENGINEER.

PROJECT NAME: HARTLAND  
PROJECT NUMBER: BHO 1444(54)

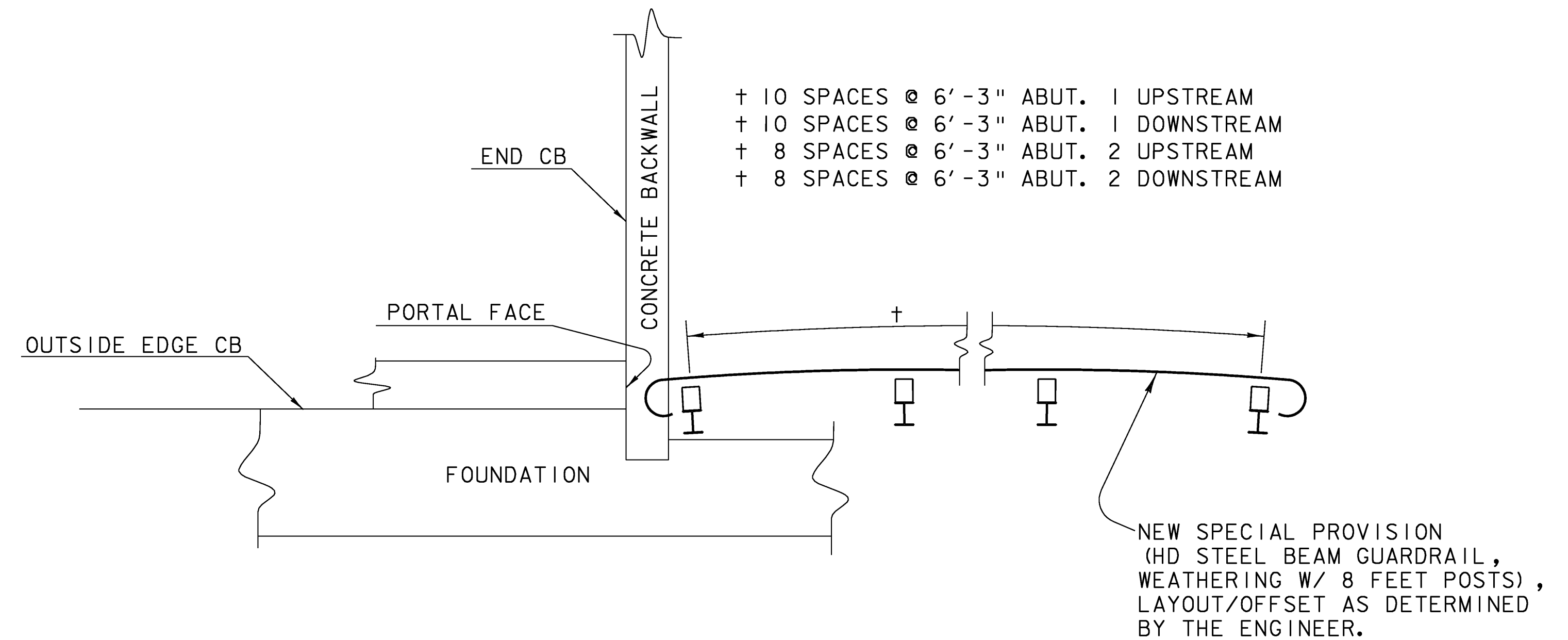
FILE NAME: G:\...Hartlandnotes.dgn	PLOT DATE: 26-SEP-2008
PROJECT LEADER: J. WEAVER	DRAWN BY: C. WEEBER
DESIGNED BY: J. WEAVER	CHECKED BY: J. WEAVER
GENERAL NOTES SHEET	SHEET 3 OF 5

# QUANTITY SHEET

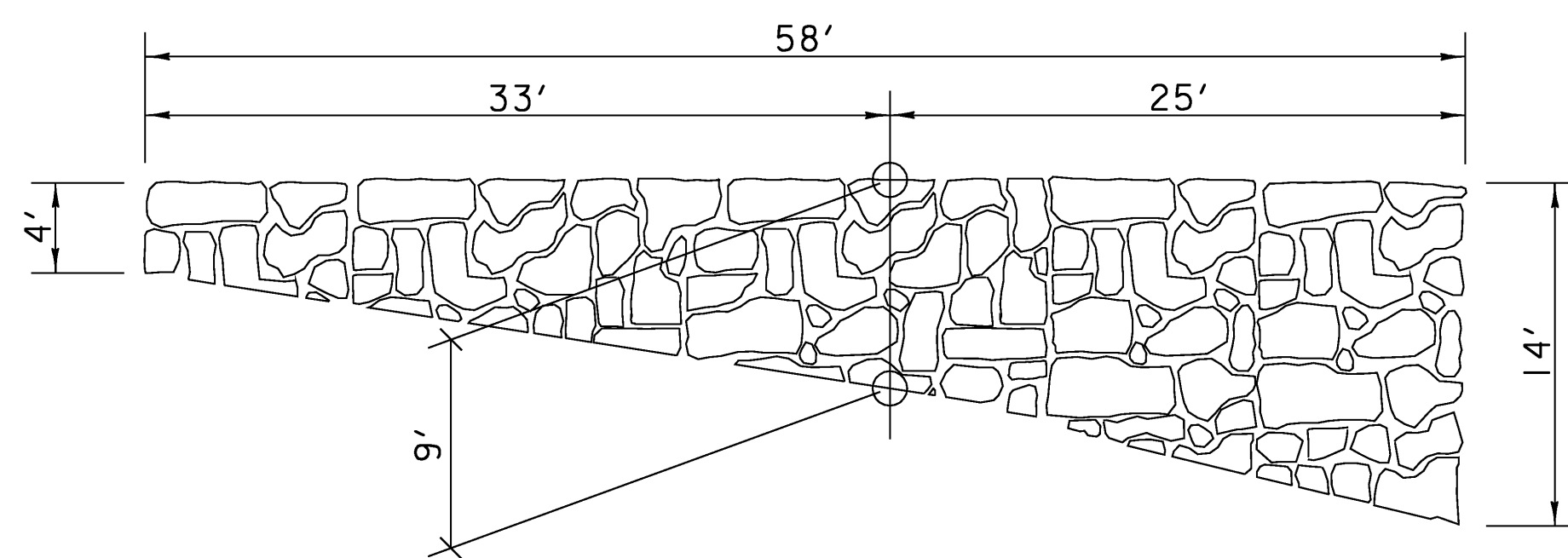
SUMMARY OF ESTIMATED QUANTITIES														TOTALS				DESCRIPTIONS			DETAILED SUMMARY OF QUANTITIES			
														ROADWAY	BRIDGE	ROUND	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	QUANTITIES	UNIT	ITEMS
															0.02		0.02		ACRE	THINNING AND TRIMMING	201.30			
															0.400		0.400		MFBM	STRUCTURAL LUMBER AND TIMBER - UNTREATED	522.20			
															1		1		EACH	PARTIAL REMOVAL OF STRUCTURE	529.20			
														213			213		LF	REMOVAL AND DISPOSAL OF GUARD RAIL	621.80			
														120			120		HR	FLAGGERS	630.15			
														1			1		LS	MOBILIZATION/DEMOLITION	635.11			
														1			1		LS	TRAFFIC CONTROL	641.10			
														241			241		LF	SPECIAL PROVISION (HD STEEL BEAM GUARDRAIL, WEATHERING W/ 8 FEET POSTS)	900.640			
															1		1		LS	SPECIAL PROVISION (TIMBER PAINTING, ENVIRONMENTAL PROTECTION)	900.645			
															1		1		LS	SPECIAL PROVISION (TIMBER PAINTING, FIRE RETARDANT)	900.645			
															1		1		LS	SPECIAL PROVISION (TIMBER PAINTING, INSECTICIDE / FUNGICIDE)	900.645			
															3150		3150		SF	SPECIAL PROVISION (METAL ROOFING)	900.670			
															98		98		SY	SPECIAL PROVISION (REPAIRING STONE MASONRY)	900.675			



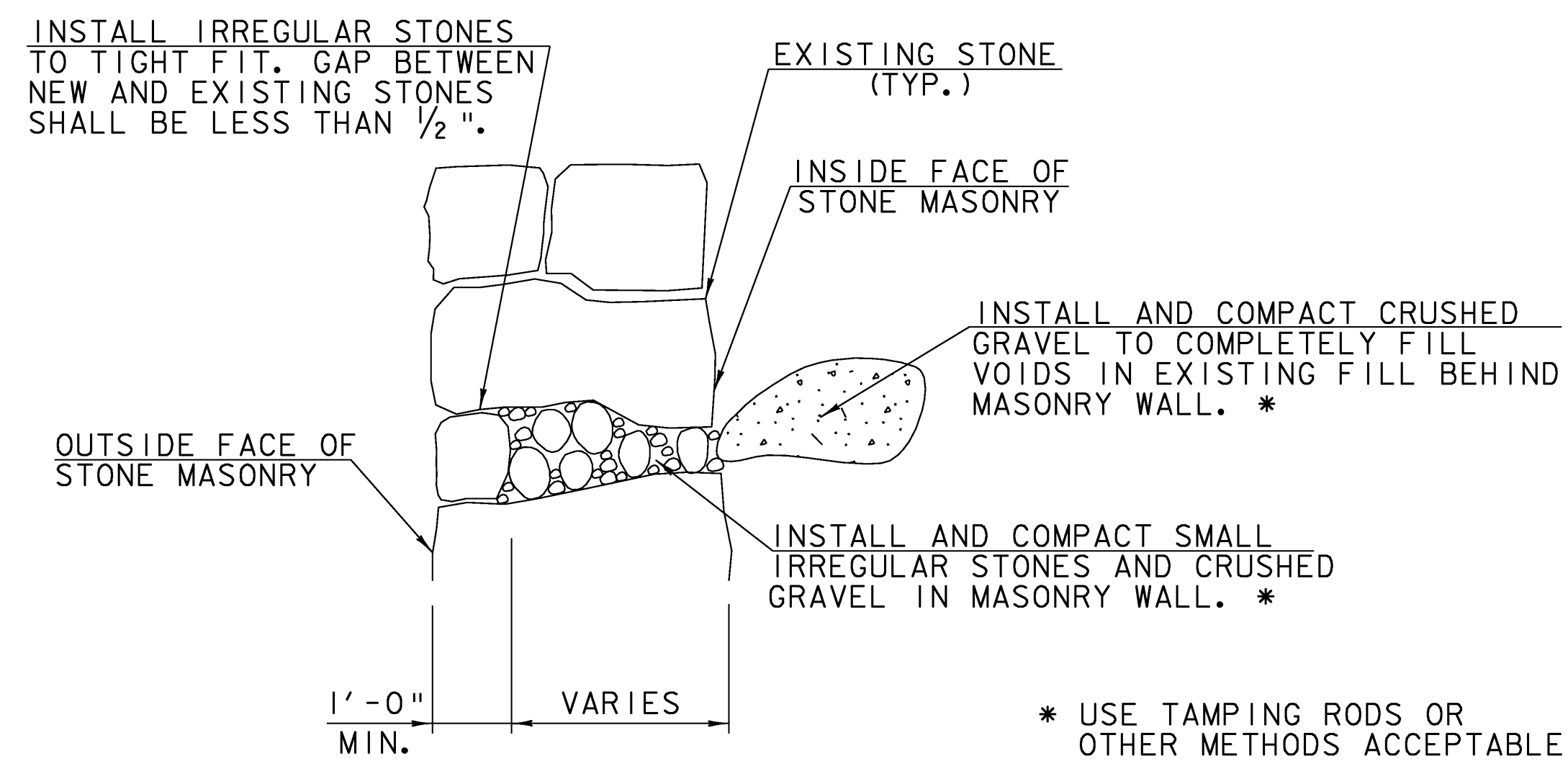
PLAN - EXISTING CONDITIONS



RAILING PLAN  
not to scale



ABUTMENT #1 SW WING ELEVATION  
not to scale



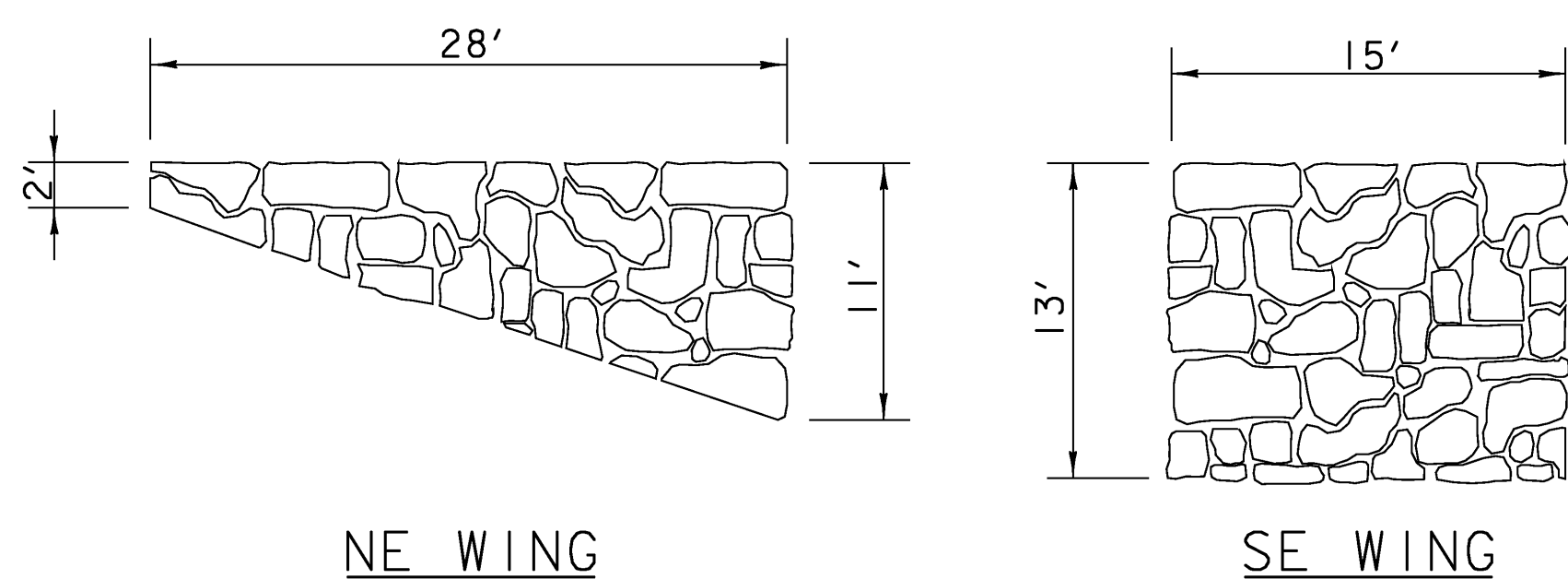
REPAIRING STONE MASONRY DETAIL \*\*  
not to scale

\* USE TAMPING RODS OR OTHER METHODS ACCEPTABLE TO THE ENGINEER.

\*\* FOR FURTHER INFORMATION SEE SECTION 900 OF THE PROJECT SPECIAL PROVISIONS.

NOTES:

1. ABUTMENT #2 IS LOCATED ON THE FAR SIDE OF THE STRUCTURE, WITH UPSTREAM TO THE LEFT OF THE VIEWER.
2. ALL DIMENSIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. ALL FACES OF SUBSTRUCTURE SHOWN ON THESE PLANS SHALL BE REPAIRED AS SPECIFIED BY SPECIAL PROVISION (REPAIRING STONE MASONRY).
3. SEE SHEET 4 FOR ESTIMATED AREA OF STONE MASONRY REPOINTING.



ABUTMENT #2 WING ELEVATIONS  
not to scale

PROJECT:	HARTLAND	BHO 1444 (54)
DESIGN FILE NAME:	G:\...\Hartlanddetails.dgn	
IPARM FILE NAME:	Hartlanddetails.i	
DESIGNED BY:	J. WEAVER	PLOT DATE: 03-OCT-2008
DRAWN BY:	WEEBER	CHECKED BY: J. WEAVER
DETAIL SHEET		SHEET: 5 OF 5