

PRELIMINARY INFORMATION SHEET (BRIDGE)

LRFD

INDEX OF SHEETS						FINAL HYDRAULIC REPORT																																																										
PLAN SHEETS			STANDARDS LIST			HYDROLOGIC DATA						PROPOSED STRUCTURE																																																				
SEE REVISED SHEET I22A						<p>Date: October 2012</p> <p>DRAINAGE AREA : 6.0 sq. mi.</p> <p>CHARACTER OF TERRAIN : Mountainous, forested, steep</p> <p>STREAM CHARACTERISTICS : Incised, semi-alluvial</p> <p>NATURE OF STREAMBED : Cobbles and gravel</p> <p>PEAK FLOW DATA</p> <table style="width:100%;"> <tr> <td>Q 2.33 = 400 cfs</td> <td>Q 50 = 1400 cfs</td> </tr> <tr> <td>Q 10 = 860 cfs</td> <td>Q 100 = 1650 cfs</td> </tr> <tr> <td>Q 25 = 1150 cfs</td> <td>Q 500 = 2300 cfs</td> </tr> </table> <p>DATE OF FLOOD OF RECORD : Unknown</p> <p>ESTIMATED DISCHARGE : Unknown</p> <p>WATER SURFACE ELEV. : Unknown</p> <p>NATURAL STREAM VELOCITY : @ 50 = 11.4 fps</p> <p>ICE CONDITIONS : Moderate</p> <p>DEBRIS : Moderate</p> <p>DOES THE STREAM REACH MAXIMUM HIGH-WATER ELEV. RAPIDLY? No</p> <p>IS ORDINARY RISE RAPID? No</p> <p>IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? No</p> <p>IF YES, DESCRIBE:</p> <p>WATERSHED STORAGE : <1%</p> <p>HEADWATERS : UNIFORM: X</p> <p>IMMEDIATELY ABOVE SITE:</p>						Q 2.33 = 400 cfs	Q 50 = 1400 cfs	Q 10 = 860 cfs	Q 100 = 1650 cfs	Q 25 = 1150 cfs	Q 500 = 2300 cfs	<p>STRUCTURE TYPE: Single span prestressed concrete NEXT beam</p> <p>CLEAR SPAN(NORMAL TO STREAM): 46'</p> <p>VERTICAL CLEARANCE ABOVE STREAMBED: 8.5'</p> <p>WATERWAY OF FULL OPENING: 315 sq. ft.</p> <p>WATER SURFACE ELEVATIONS AT:</p> <table style="width:100%;"> <tr> <td>Q2.33 = 945.0'</td> <td>VELOCITY= 9.4 fps</td> </tr> <tr> <td>Q10 = 946.5'</td> <td>" 10.7 fps</td> </tr> <tr> <td>Q25 = 947.3'</td> <td>" 11.0 fps</td> </tr> <tr> <td>Q50 = 947.9'</td> <td>" 11.4 fps</td> </tr> <tr> <td>Q100 = 948.4'</td> <td>" 12.0 fps</td> </tr> </table> <p>IS THE ROADWAY OVERTOPPED BELOW Q100: No</p> <p>FREQUENCY: N/A</p> <p>RELIEF ELEVATION: 952.6'</p> <p>DISCHARGE OVER ROAD @Q100: N/A</p> <p>AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: 950.6'</p> <p>VERTICAL CLEARANCE: @ Q50 = 2.7'</p> <p>SCOUR: Contraction scour = 2.0' up to Q500</p> <p>REQUIRED CHANNEL PROTECTION: Stone Fill, Type IV</p>						Q2.33 = 945.0'	VELOCITY= 9.4 fps	Q10 = 946.5'	" 10.7 fps	Q25 = 947.3'	" 11.0 fps	Q50 = 947.9'	" 11.4 fps	Q100 = 948.4'	" 12.0 fps																															
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						<p>STRUCTURE TYPE: Concrete T-beam</p> <p>YEAR BUILT: 1929</p> <p>CLEAR SPAN(NORMAL TO STREAM): 18'</p> <p>VERTICAL CLEARANCE ABOVE STREAMBED: 8'</p> <p>WATERWAY OF FULL OPENING: 150 sq. ft.</p> <p>DISPOSITION OF STRUCTURE: Replace</p> <p>TYPE OF MATERIAL UNDER SUBSTRUCTURE: See borings</p> <p>WATER SURFACE ELEVATIONS AT:</p> <table style="width:100%;"> <tr> <td>Q2.33 = 945.8'</td> <td>VELOCITY = 9.0 fps</td> </tr> <tr> <td>Q10 = 947.7'</td> <td>" 11.5 fps</td> </tr> <tr> <td>Q25 = 948.6'</td> <td>" 12.8 fps</td> </tr> <tr> <td>Q50 = 950.5'</td> <td>" 13.6 fps</td> </tr> <tr> <td>Q100 = 951.5'</td> <td>" 14.3 fps</td> </tr> </table> <p>LONG TERM STREAMBED CHANGES: None noted</p> <p>IS THE ROADWAY OVERTOPPED BELOW Q100: No</p> <p>FREQUENCY: N/A</p> <p>RELIEF ELEVATION: 952.6'</p> <p>DISCHARGE OVER ROAD @Q100: N/A</p>						Q2.33 = 945.8'	VELOCITY = 9.0 fps	Q10 = 947.7'	" 11.5 fps	Q25 = 948.6'	" 12.8 fps	Q50 = 950.5'	" 13.6 fps	Q100 = 951.5'	" 14.3 fps	<p>AVERAGE DAILY FLOW: 12 cfs</p> <p>ORDINARY LOW WATER: 6 cfs</p> <p>ORDINARY HIGH WATER: 175 cfs</p> <p>DEPTH OR ELEVATION:</p> <p>~0.5'</p> <p>~-1.5'</p>																																										
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						<p>TOWN: Rochester</p> <p>HIGHWAY #: TH 40 (NFS 226)</p> <p>CLEAR SPAN: 23.5'</p> <p>YEAR BUILT:</p> <p>STRUCTURE TYPE: I-beam bridge with wood deck</p> <p>DISTANCE: 1900'</p> <p>STRUCTURE #: -</p> <p>CLEAR HEIGHT: ~7.5'</p> <p>FULL WATERWAY: -</p>						<p>STRUCTURE TYPE: None needed - detour will be in place during construction</p> <p>CLEAR SPAN (NORMAL TO STREAM):</p> <p>VERTICAL CLEARANCE ABOVE STREAMBED:</p> <p>WATERWAY AREA OF FULL OPENING:</p>																																																				
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						<p>TOWN: Rochester</p> <p>HIGHWAY #: -</p> <p>CLEAR SPAN: -</p> <p>YEAR BUILT: -</p> <p>STRUCTURE TYPE: Confluence with West Branch White River</p> <p>DISTANCE: 900'</p> <p>STRUCTURE #: -</p> <p>CLEAR HEIGHT: -</p> <p>FULL WATERWAY: -</p>																																																										
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						DESIGN VALUES						AS BUILT "REBAR" DETAILS																																																				
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						PILE DRIVING AND TESTING REQUIREMENTS						TRAFFIC DATA																																																				
						<p>• SEE PROJECT NOTES.</p> <ol style="list-style-type: none"> 1. NOMINAL PILE DRIVING CAPACITY R_{pd}: --- 2. PILE TEST RESISTANCE FACTOR ϕ: 0.65 3. MAXIMUM PILE TIP ELEVATION 4. A MINIMUM OF 3 DYNAMIC TESTS SHALL BE PERFORMED DURING INSTALLATION. NO LESS THAN 1 TEST SHOULD BE PERFORMED AT EACH ABUTMENT. THE REMAINING PILES SHOULD BE CALIBRATED BY WAVE EQUATION ANALYSIS. 						<table border="1" style="width:100%; text-align: center;"> <thead> <tr> <th>YEAR</th> <th>ADT</th> <th>DHV</th> <th>% D</th> <th>% T</th> <th>ADTT</th> <th>20 year ESAL for flexible pavement from 2014 to 2034 : 398000</th> <th>40 year ESAL for flexible pavement from 2014 to 2054 : 950000</th> <th>Design Speed : 45 mph</th> </tr> </thead> <tbody> <tr> <td>2014</td> <td>770</td> <td>160</td> <td>65</td> <td>8.7</td> <td>65</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2034</td> <td>810</td> <td>160</td> <td>65</td> <td>12.6</td> <td>100</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>						YEAR	ADT	DHV	% D	% T	ADTT	20 year ESAL for flexible pavement from 2014 to 2034 : 398000	40 year ESAL for flexible pavement from 2014 to 2054 : 950000	Design Speed : 45 mph	2014	770	160	65	8.7	65				2034	810	160	65	12.6	100																							
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						<p>PROJECT NAME: ROCHESTER</p> <p>PROJECT NUMBER: BRF 0162(17)</p> <p>FILE NAME: z85e035 Pl.xls</p> <p>PROJECT LEADER: G.S. GOODRICH</p> <p>DESIGNED BY: E.A. FIALA</p> <p>BR 16 PRELIMINARY INFORMATION SHEET</p>						<p>PLOT DATE: 8/19/2013</p> <p>DRAWN BY: E.A. FIALA</p> <p>CHECKED BY: S.E. BURBANK</p> <p>SHEET I22 OF 238</p>																																																				

