

PRELIMINARY INFORMATION SHEET (BRIDGE)

LRFD

INDEX OF SHEETS						FINAL HYDRAULIC REPORT																																																																	
PLAN SHEETS						STANDARDS LIST						HYDROLOGIC DATA						PROPOSED STRUCTURE																																																					
INDEX OF SHEETS						<p>DRAINAGE AREA : 11.0 sq. mi.</p> <p>CHARACTER OF TERRAIN : Hilly to mountainous, mostly forested.</p> <p>STREAM CHARACTERISTICS : Sinuous, slightly incised with a wide floodplain.</p> <p>NATURE OF STREAMBED : Mostly cobbles with some gravel.</p> <p>PEAK FLOW DATA</p> <table style="width:100%;"> <tr> <td>Q 2.33 = 700 cfs</td> <td>Q 50 = 2570 cfs</td> </tr> <tr> <td>Q 10 = 1600 cfs</td> <td>Q 100 = 3080 cfs</td> </tr> <tr> <td>Q 25 = 2100 cfs</td> <td>Q 500 = 4510 cfs</td> </tr> </table> <p>DATE OF FLOOD OF RECORD : September 1938</p> <p>ESTIMATED DISCHARGE : Unknown</p> <p>WATER SURFACE ELEV. : Unknown</p> <p>NATURAL STREAM VELOCITY : @ Q50 = 8.9 fps</p> <p>ICE CONDITIONS : Moderate</p> <p>DEBRIS : Moderate</p> <p>DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY? Yes</p> <p>IS ORDINARY RISE RAPID? Yes</p> <p>IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? No</p> <p>IF YES, DESCRIBE :</p> <p>WATERSHED STORAGE: 1% HEADWATERS: UNIFORM: X IMMEDIATELY ABOVE SITE:</p>						Q 2.33 = 700 cfs	Q 50 = 2570 cfs	Q 10 = 1600 cfs	Q 100 = 3080 cfs	Q 25 = 2100 cfs	Q 500 = 4510 cfs	<p>STRUCTURE TYPE: Single span pre-cast concrete beam bridge</p> <p>CLEAR SPAN(NORMAL TO STREAM): 53'</p> <p>VERTICAL CLEARANCE ABOVE STREAMBED: 7'</p> <p>WATERWAY OF FULL OPENING: 290 sq. ft.</p> <p>WATER SURFACE ELEVATIONS AT:</p> <table style="width:100%;"> <tr> <td>Q2.33 = 573.9'</td> <td>VELOCITY= 7.3 fps</td> </tr> <tr> <td>Q10 = 575.5'</td> <td>" 10.4 fps</td> </tr> <tr> <td>Q25 = 576.3'</td> <td>" 8.4 fps</td> </tr> <tr> <td>Q50 = 576.8'</td> <td>" 6.8 fps</td> </tr> <tr> <td>Q100 = 577.2'</td> <td>" 5.8 fps</td> </tr> </table> <p>IS THE ROADWAY OVERTOPPED BELOW Q100: Yes</p> <p>FREQUENCY: Between Q10 and Q25</p> <p>RELIEF ELEVATION: 576.1'</p> <p>DISCHARGE OVER ROAD @Q100: 1700 cfs</p> <p>AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: 577.1'</p> <p>VERTICAL CLEARANCE: @ Q50 = 0.3'</p> <p>SCOUR: Less than 1' of contraction scour up to Q500.</p> <p>REQUIRED CHANNEL PROTECTION: Stone Fill, Type III</p>						Q2.33 = 573.9'	VELOCITY= 7.3 fps	Q10 = 575.5'	" 10.4 fps	Q25 = 576.3'	" 8.4 fps	Q50 = 576.8'	" 6.8 fps	Q100 = 577.2'	" 5.8 fps	<p>EXISTING STRUCTURE INFORMATION</p> <p>STRUCTURE TYPE: Single span steel beam bridge with concrete deck</p> <p>YEAR BUILT: 1924</p> <p>CLEAR SPAN(NORMAL TO STREAM): 39'</p> <p>VERTICAL CLEARANCE ABOVE STREAMBED: 7'</p> <p>WATERWAY OF FULL OPENING: 240 sq. ft.</p> <p>DISPOSITION OF STRUCTURE: Remove and 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 = 573.9'</td> <td>VELOCITY = 7.1 fps</td> </tr> <tr> <td>Q10 = 575.6'</td> <td>" 10.8 fps</td> </tr> <tr> <td>Q25 = 576.3'</td> <td>" 9.4 fps</td> </tr> <tr> <td>Q50 = 577.4'</td> <td>" 6.6 fps</td> </tr> <tr> <td>Q100 = 577.5'</td> <td>" 7.7 fps</td> </tr> </table> <p>LONG TERM STREAMBED CHANGES: None noted.</p> <p>IS THE ROADWAY OVERTOPPED BELOW Q100: Yes</p> <p>FREQUENCY: Between Q10 and Q25</p> <p>RELIEF ELEVATION: 576.1'</p> <p>DISCHARGE OVER ROAD @Q100: 1840 cfs</p>						Q2.33 = 573.9'	VELOCITY = 7.1 fps	Q10 = 575.6'	" 10.8 fps	Q25 = 576.3'	" 9.4 fps	Q50 = 577.4'	" 6.6 fps	Q100 = 577.5'	" 7.7 fps	<p>PERMIT INFORMATION</p> <p>AVERAGE DAILY FLOW: 20 cfs DEPTH OR ELEVATION:</p> <p>ORDINARY LOW WATER: 10 cfs 0.5'</p> <p>ORDINARY HIGH WATER: 300 cfs 2.0'</p> <p>TEMPORARY BRIDGE REQUIREMENTS</p> <p>STRUCTURE TYPE: No temporary bridge required. Traffic will use an offsite detour.</p> <p>CLEAR SPAN (NORMAL TO STREAM):</p> <p>VERTICAL CLEARANCE ABOVE STREAMBED:</p> <p>WATERWAY AREA OF FULL OPENING:</p> <p>ADDITIONAL INFORMATION</p>																					
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LOADING LEVELS	H-20	HL-93	3S2	6 AXLE	3A STR	4A STR	5A SEMI																																																																
TONNAGE	20	36	36	66	30	34.5	38																																																																
INVENTORY	1.44	1.08																																																																					
POSTING																																																																							
OPERATING	1.87	1.39	1.74	1.04	1.35	1.22	1.42																																																																
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YEAR	ADT	DHV	% D	% T	ADTT	20 year ESAL for flexible pavement from 2013 to 2033	2013 to 2033	5927000																																																															
2013	7200	1100	50	8.3	730	40 year ESAL for flexible pavement from 2013 to 2053	2013 to 2053	13731000																																																															
2033	8600	1300	50	10.8	1100	Design Speed :	30	mph																																																															
PILE DRIVING AND TESTING REQUIREMENTS																																																																							
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<p>PROJECT NAME: CHESTER</p> <p>PROJECT NUMBER: BRF 025-1(28)</p> <p>FILE NAME: s84e061excel.dgn PLOT DATE: 9/28/2010</p> <p>PROJECT LEADER: C.P.WILLIAMS DRAWN BY: M.FESSEL</p> <p>DESIGNED BY: R.S.YOUNG CHECKED BY: H.I.SALLS</p> <p>BRIDGE #8 PRELIMINARY INFORMATION SHEET SHEET 10 OF 124</p>																																																																							