

PRELIMINARY INFORMATION SHEET

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<p>1. TITLE SHEET</p> <p>2. PRELIMINARY INFORMATION</p> <p>3. TYPICAL SECTIONS & RAIL DETAILS</p> <p>4. R.O.W. DETAILS</p> <p>5. PLAN SHEET</p> <p>6. PROFILE SHEET</p> <p>7. PLAN AND ELEVATION</p> <p>8. EROSION CONTROL PLAN</p> <p>9. EROSION CONTROL DETAILS</p> <p>10. ONE-WAY DETOUR WITH TEMPORARY TRAFFIC SIGNAL</p> <p>11. GENERAL NOTES</p> <p>12-14. ABUTMENT DETAILS</p> <p>15-18. TEMPORARY BRIDGE CROSS SECTIONS</p>	<p>HYDROLOGIC DATA Date: 9/13/2004</p> <p>DRAINAGE AREA: 72.37 square miles</p> <p>CHARACTER OF TERRAIN: Rolling to mountainous</p> <p>STREAM CHARACTERISTICS: Sinuous</p> <p>NATURE OF STREAMBED: Cobbles, gravel, sand and silt</p> <p>PEAK FLOW DATA</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Q 2.33 = 3,000 cfs</td> <td>Q 50 = 10,800 cfs</td> </tr> <tr> <td>Q 10 = 6,100 cfs</td> <td>Q 100 = 13,000 cfs</td> </tr> <tr> <td>Q 25 = 8,800 cfs</td> <td>Q 500 = 20,000 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: @ Q50 = 10.5 fps</p> <p>ICE CONDITIONS: Moderate</p> <p>DEBRIS: Moderate</p> <p>DOES THE STREAM REACH MAXIMUM HIGHWATER 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% HEADWATERS: UNIFORM: <input checked="" type="checkbox"/> IMMEDIATELY ABOVE SITE: _____</p> <p>EXISTING STRUCTURE INFORMATION</p> <p>STRUCTURE TYPE: Single Span Steel Truss</p> <p>YEAR BUILT: 1928</p> <p>CLEAR SPAN(NORMAL TO STREAM): 108'</p> <p>VERTICAL CLEARANCE ABOVE STREAMBED: 15'</p> <p>WATERWAY OF FULL OPENING: 1550 square ft</p> <p>DISPOSITION OF STRUCTURE: Unknown</p> <p>TYPE OF MATERIAL UNDER SUBSTRUCTURE: Refer to borings</p> <p>WATER SURFACE ELEVATIONS AT:</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Q2.33 = 844.1'</td> <td>VELOCITY = 7.2 fps</td> </tr> <tr> <td>Q10 = 846.4'</td> <td>" 9.5 fps</td> </tr> <tr> <td>Q25 = 848.3'</td> <td>" 10.9 fps</td> </tr> <tr> <td>Q50 = 849.8'</td> <td>" 12.4 fps</td> </tr> <tr> <td>Q100 = 851.3'</td> <td>" 14.2 fps</td> </tr> </table> <p>LONG TERM STREAMBED CHANGES: Unknown</p> <p>IS THE ROADWAY OVERTOPPED BELOW Q100: No</p> <p>FREQUENCY: _____</p> <p>RELIEF ELEVATION: 821.2'</p> <p>DISCHARGE OVER ROAD @Q100: _____</p> <p>UPSTREAM STRUCTURE</p> <p>TOWN: Bridgewater DISTANCE: _____</p> <p>HIGHWAY #: VT4 STRUCTURE #: B-45</p> <p>CLEAR SPAN: 172' CLEAR HEIGHT: 15'</p> <p>YEAR BUILT: 1962 FULL WATERWAY: 1554 s.f.</p> <p>STRUCTURE TYPE: Three Span Steel Beam</p> <p>DOWNSTREAM STRUCTURE</p> <p>TOWN: Bridgewater DISTANCE: _____</p> <p>HIGHWAY #: TH 46 STRUCTURE #: B-51</p> <p>CLEAR SPAN: 134' CLEAR HEIGHT: 18'</p> <p>YEAR BUILT: 1978 FULL WATERWAY: 1965 s.f.</p> <p>STRUCTURE TYPE: Two Span Steel Beam</p> <p>LOAD FACTOR - LOAD RATING (TONS)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">LOADING LEVELS</th> <th colspan="6">TRUCK</th> </tr> <tr> <th>H</th> <th>HS</th> <th>3S2</th> <th>6 AXLE</th> <th>3A STR.</th> <th>4A STR.</th> <th>5A SEMI</th> </tr> </thead> <tbody> <tr> <td>INVENTORY</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>POSTED</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>OPERATING</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>COMMENTS:</p> <p>TRAFFIC DATA</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>YEAR</th> <th>ADT</th> <th>DHV</th> <th>% D</th> <th>% T</th> <th>ADTT</th> </tr> </thead> <tbody> <tr> <td>2004</td> <td>1400</td> <td>190</td> <td>58</td> <td>8</td> <td>160</td> </tr> <tr> <td>2014</td> <td>1800</td> <td>220</td> <td>58</td> <td>11</td> <td>250</td> </tr> </tbody> </table> <p>10 year ESAL for flexible pavement from 2004 to 2014 : 372,000</p> <p>20 year ESAL for flexible pavement from 2004 to 2024 : 1,000,000</p> <p>Design Speed : 25 mph</p> <p>PROPOSED STRUCTURE</p> <p>STRUCTURE TYPE: Temporary Maybe Bridge downstream of existing bridge</p> <p>CLEAR SPAN(NORMAL TO STREAM): 139.5'</p> <p>VERTICAL CLEARANCE ABOVE STREAMBED: 13.5'</p> <p>WATERWAY OF FULL OPENING: 1600 square feet</p> <p>WATER SURFACE ELEVATIONS AT:</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Q2.33 = 844.1'</td> <td>VELOCITY = 7.3 fps</td> </tr> <tr> <td>Q10 = 846.5'</td> <td>" 9.4 fps</td> </tr> <tr> <td>Q25 = 848.4'</td> <td>" 10.7 fps</td> </tr> <tr> <td>Q50 = 849.8'</td> <td>" 12.1 fps</td> </tr> <tr> <td>Q100 = 851.3'</td> <td>" 13.5 fps</td> </tr> </table> <p>IS THE ROADWAY OVERTOPPED BELOW Q100: No</p> <p>FREQUENCY: _____</p> <p>RELIEF ELEVATION: 851.2'</p> <p>DISCHARGE OVER ROAD @Q100: _____</p> <p>AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: 852.6'</p> <p>VERTICAL CLEARANCE: @ Q50 = 2.7'</p> <p>SCOUR: Not calculated for the temporary bridge. Abutments will be protected by sheet piling driven at least 6' below streambed.</p> <p>REQUIRED CHANNEL PROTECTION: Stone Fill, Type II</p> <p>PERMIT INFORMATION</p> <p>AVERAGE DAILY FLOW: 150 cfs DEPTH OR ELEVATION: _____</p> <p>ORDINARY LOW WATER: 70 cfs Depth = 1'</p> <p>ORDINARY HIGH WATER: 1300 cfs Depth = 3'</p> <p>TEMPORARY BRIDGE REQUIREMENTS</p> <p>STRUCTURE TYPE: _____</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> <p>The proposed structure is a temporary structure that will be in place until a new bridge is built.</p> <p>DESIGN CRITERIA</p> <ol style="list-style-type: none"> DESIGN LIVE LOAD AASHTO HS-25 DESIGN SPAN 150 feet ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL 3.5 ksi (Assumed) ON LEDGE ALLOWABLE LOAD FOR PILING TYPE _____ ESTIMATED LENGTH _____ STRUCTURAL STEEL AASHTO M270M4270 GRADE 50 REINFORCING STEEL GRADE 60 CONCRETE, HIGH PERFORMANCE CLASS A f_c: 4000 psi CONCRETE, HIGH PERFORMANCE CLASS B f_c: 3500 psi DESIGN SOIL UNIT WEIGHT 140 pcf DESIGN LOAD FOR SPREAD FOOTINGS ON SOIL 0.85 ksi <p>TRAFFIC MAINTENANCE</p> <ol style="list-style-type: none"> IS TRAFFIC TO BE MAINTAINED? Yes IF YES, ON EXISTING STRUCTURE? Yes, on Bridge 14 OR ON TEMPORARY BRIDGE? ONE OR TWO-WAY TRAVEL? Two way with flaggers TRAFFIC CONTROL SIGNALS REQUIRED? Yes ARE SIDEWALKS REQUIRED? No IF SO, ON WHAT SIDE? _____ <p>PROJECT NAME: BRIDGEWATER</p> <p>PROJECT NUMBER: BRS 0149(4)</p> <p>FILE NAME: /86e062/86e062.xls PLOT DATE: 9/14/2004</p> <p>PROJECT MANAGER: Craig Keller DRAWN BY: Tim Fillbach</p> <p>DESIGNED BY: Tim Fillbach CHECKED BY: Todd Sumner</p> <p>PRELIMINARY INFORMATION SHEET ROW SHEET 4 OF 11 SHEETS</p>	Q 2.33 = 3,000 cfs	Q 50 = 10,800 cfs	Q 10 = 6,100 cfs	Q 100 = 13,000 cfs	Q 25 = 8,800 cfs	Q 500 = 20,000 cfs	Q2.33 = 844.1'	VELOCITY = 7.2 fps	Q10 = 846.4'	" 9.5 fps	Q25 = 848.3'	" 10.9 fps	Q50 = 849.8'	" 12.4 fps	Q100 = 851.3'	" 14.2 fps	LOADING LEVELS	TRUCK						H	HS	3S2	6 AXLE	3A STR.	4A STR.	5A SEMI	INVENTORY								POSTED								OPERATING								YEAR	ADT	DHV	% D	% T	ADTT	2004	1400	190	58	8	160	2014	1800	220	58	11	250	Q2.33 = 844.1'	VELOCITY = 7.3 fps	Q10 = 846.5'	" 9.4 fps	Q25 = 848.4'	" 10.7 fps	Q50 = 849.8'	" 12.1 fps	Q100 = 851.3'	" 13.5 fps
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