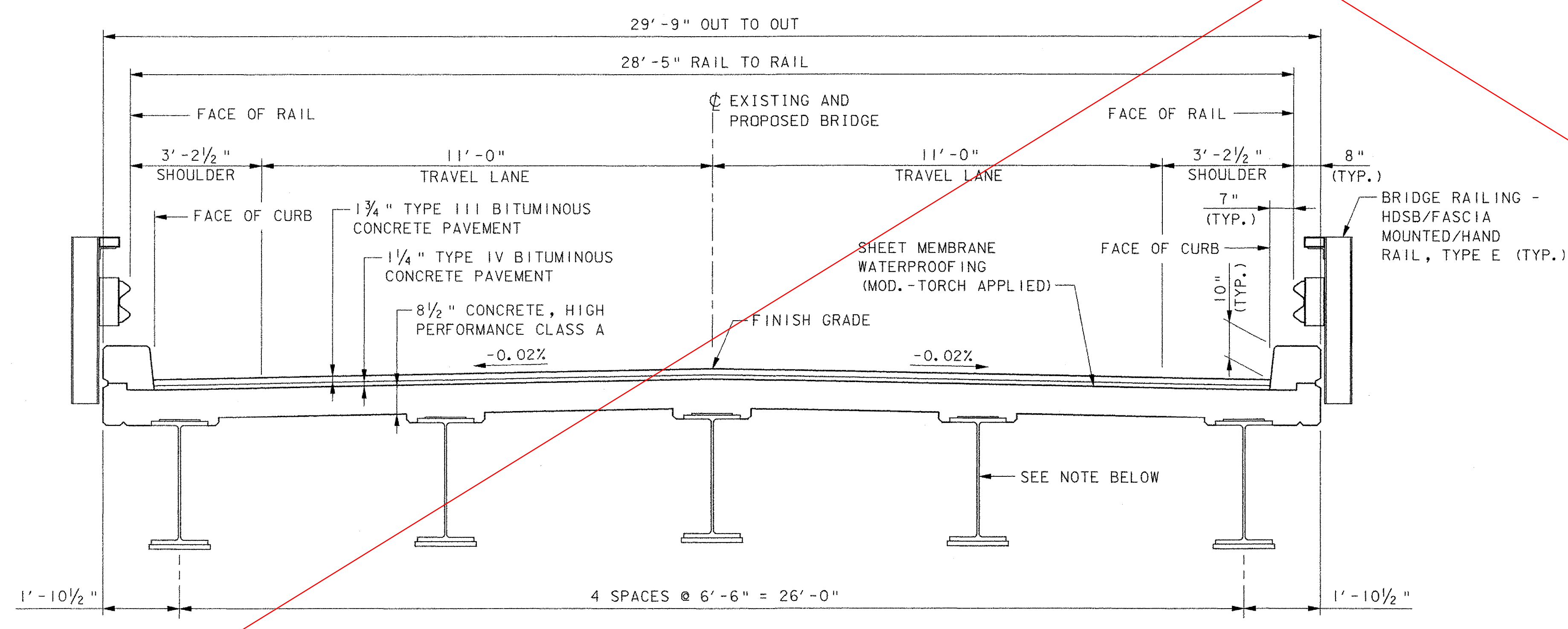


ROADWAY TYPICAL SECTION
SCALE: 1/2" = 1'-0"



BRIDGE TYPICAL SECTION
SCALE: 1/2" = 1'-0"

NOTE: THE BEAMS THAT ARE CURRENTLY STOCKPILED FOR USE ON THIS PROJECT ARE W36x300 BEAMS WITH 1 5/16"x18" BOTTOM COVER PLATES AND 1/2"x12" TOP COVER PLATES. THE BEAMS ARE PAINTED. REPAINTING OF BEAMS IS REQUIRED (SEE SPECIAL PROVISIONS).

FINAL HYDRAULICS REPORT

HYDROLOGIC DATA (SEE NOTE 1)

DRAINAGE AREA= _____
 CHARACTER OF TERRAIN= _____
 CHARACTER & TYPE OF STREAM= _____
 NATURE OF STREAMBED= _____

02.33= _____ 050= _____
 010= _____ 0100= _____
 025= _____ 0500= _____

DATE OF FLOOD OF RECORD= _____
 WATER SURFACE ELEV. 1. _____ ESTIMATED DISCHARGE= _____
 NATURAL STREAM VELOCITY @ 0. _____
 ICE CONDITIONS= _____ DEBRIS= _____
 DOES THE STREAM REACH MAXIMUM HIGHWATER ELEVATION RAPIDLY? _____
 IS ORDINARY RISE RAPID? _____
 IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? _____
 IF YES, DESCRIBE. _____

WATERSHED STORAGE _____ HEADWATERS _____ UNIFORM THROUGHOUT WATERSHED _____
 IMMEDIATELY ABOVE SITE _____

EXISTING STRUCTURE

STRUCTURE TYPE: STEEL BEAMS, CONCRETE DECK YEAR BUILT: 1941
 CLEAR SPAN (NORMAL TO STREAM): 44.8 FT - 44.8 FT
 VERTICAL CLEARANCE ABOVE STREAMBED: 12.5 FT
 WATERWAY OF FULL OPENING: 1120 SF
 DISPOSITION OF STRUCTURE: SUPERSTRUCTURE TO BE REPLACED, PIER TO BE REMOVED

TYPE OF MATERIAL UNDER SUBSTRUCTURE: UNKNOWN

WATER SURFACE ELEV. @ 02.33= _____ VELOCITY= _____
 010= _____ " _____
 025= _____ " _____
 050= _____ " _____
 0100= _____ " _____

LONG TERM STREAM BED CHANGES: _____

IS THE ROADWAY OVERTOPPED BELOW THE Q100? _____ FREQUENCY: _____
 RELIEF ELEVATION: _____ DISCHARGE OVER ROAD @ Q100: _____

UPSTREAM STRUCTURE: TOWN: _____ DISTANCE: _____
 HIGHWAY NO.: _____ STRUCTURE NO.: _____
 STRUCTURE TYPE: _____
 CLEAR SPAN: _____ CLEAR HEIGHT: _____
 YEAR BUILT: _____ FULL WATERWAY: _____

DOWNSTREAM STRUCTURE: TOWN: _____ DISTANCE: _____
 HIGHWAY NO.: _____ STRUCTURE NO.: _____
 STRUCTURE TYPE: _____
 CLEAR SPAN: _____ CLEAR HEIGHT: _____
 YEAR BUILT: _____ FULL WATERWAY: _____

PROPOSED STRUCTURE
 (SUPERSTRUCTURE REPLACEMENT)
 STRUCTURE TYPE: STEEL BEAMS, CONCRETE DECK
 CLEAR SPAN (NORMAL TO STREAM): 44.8 FT - 44.8 FT
 VERTICAL CLEARANCE ABOVE STREAMBED: 12.5 FT
 WATERWAY OF FULL OPENING: 1138 SF

WATER SURFACE ELEV. @ 02.33= _____ VELOCITY= _____
 010= _____ " _____
 025= _____ " _____
 050= _____ " _____
 0100= _____ " _____

IS THE ROADWAY OVERTOPPED BELOW THE Q100? _____ FREQUENCY: _____
 RELIEF ELEVATION: _____ DISCHARGE OVER ROAD @ Q100: _____

AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: _____
 VERTICAL CLEARANCE @ 0. _____

SCOUR: _____
 REQUIRED CHANNEL PROTECTION: _____

PERMIT INFORMATION

AVERAGE DAILY FLOW: _____
 ORDINARY LOW WATER: _____ DEPTH: _____
 ORDINARY HIGH WATER: _____ DEPTH: _____

ADDITIONAL COMMENTS

NOTE:
 1. THE PROPOSED BRIDGE REHABILITATION DOES NOT INCLUDE ANY WORK IN THE CHANNEL OTHER THAN EXISTING PIER REMOVAL, THEREFORE NO HYDROLOGIC DATA IS REQUIRED OR PROVIDED.

DESIGN CRITERIA:

- DESIGN LIVE LOAD AASHTO HS20
- DESIGN SPAN 48.0 FT - 48.0 FT
- ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL N/A ON LEDGE N/A
- ALLOWABLE LOAD FOR PILING N/A TYPE N/A ESTIMATED LENGTH N/A
- STRUCTURAL STEEL $F_y = 33,000$ PSI (ASSUMED)
- REINFORCING STEEL AASHTO M31 GR. 60
- CONCRETE, HIGH PERFORMANCE CLASS A FC 4000 PSI

TRAFFIC MAINTENANCE:

- IS TRAFFIC TO BE MAINTAINED? YES IF YES, ON EXISTING STRUCTURE _____ OR ON TEMPORARY BRIDGE _____ YES
- TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY ONE TRAFFIC CONTROL SIGNALS REQUIRED YES

MINIMUM CLEAR SPAN (NORMAL TO STREAM): 90 FT VERTICAL CLEARANCE ABOVE STREAMBED: 13'-10"
 WATERWAY OF FULL OPENING: 1138 SF
 ARE SIDEWALKS REQUIRED? NO IF SO, ON WHAT SIDE? _____
 STRUCTURE TYPE: UNKNOWN - SEE SHEET 12 FOR REQUIREMENTS

LOADING LEVELS (LOAD FACTOR)	LOAD FACTOR LOAD RATING (TONS)						
	H	HS	352	6 AXLE	3A, STR.	4A, STR.	5A, SERV.
INVENTORY A=2.17; B=1.00	31	56					
POSTED A=1.55; B=1.40	46	79	123		88	100	114
OPERATING A=1.30; B=1.67		95	147	168	105	120	
GOVERNING FACTOR D=DECK; S=SERVICEABILITY	D	D	S	S	D	S	S

STRENGTH $RF = \frac{0.95 M_N - 1.3 M_{DL}}{A \times M_{LL+1}}$ SERVICEABILITY $RF = B \left[\frac{0.95 F_y S_{LL+1} - M_{DL} S_{LL+1} - M_{SPR} S_{SPR}}{1.67 M_{LL+1}} \right]$

TOWN OF GRAFTON
CAMBRIDGEPORT BRIDGE

Town Of GRAFTON Bridge No. 16G
 Highway No. TH 1 Log Sta. _____
 Surv. Sta. _____

TH 1 (CAMBRIDGEPORT BRIDGE) OVER THE SAXTONS RIVER

PRELIMINARY INFORMATION SHEET

Designed By J. T. KLEIN Drawn By B. J. MASSE
 Checked By _____ Date _____ Bridge Design Supervisor
 M. A. COLGAN 5/05 M. A. COLGAN Date 5/05

PROJECT GRAFTON PROJECT NO. TH2-0104

I.G.C. Info. File No. 51335P1 Sheet 2 of 42

VHB Vanasse Hangen Brustlin, Inc.