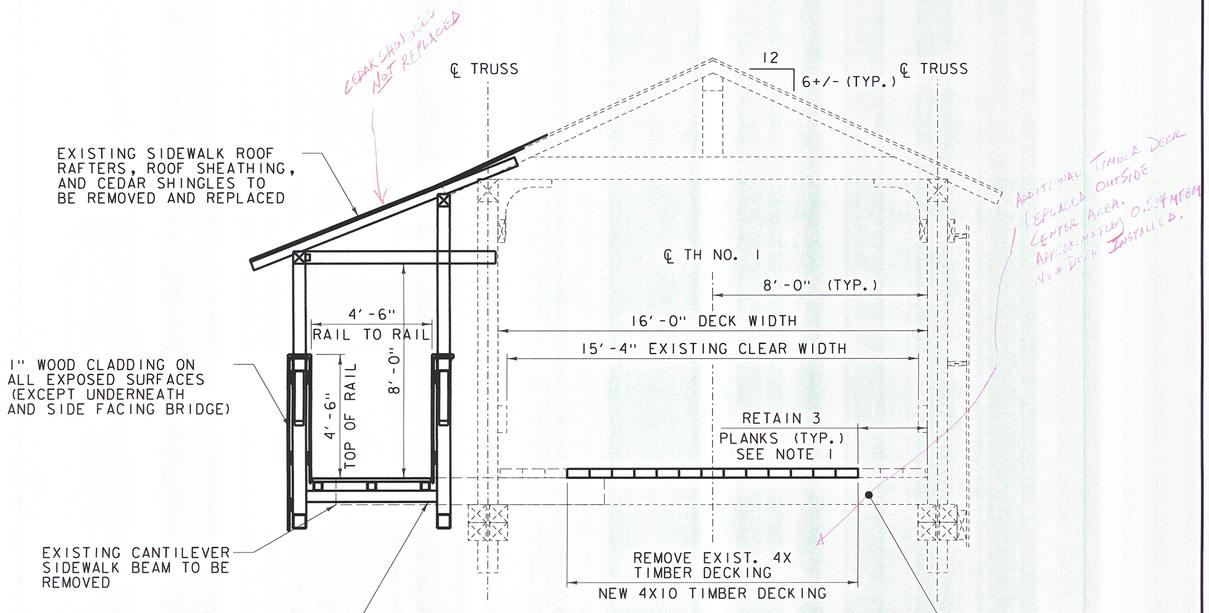
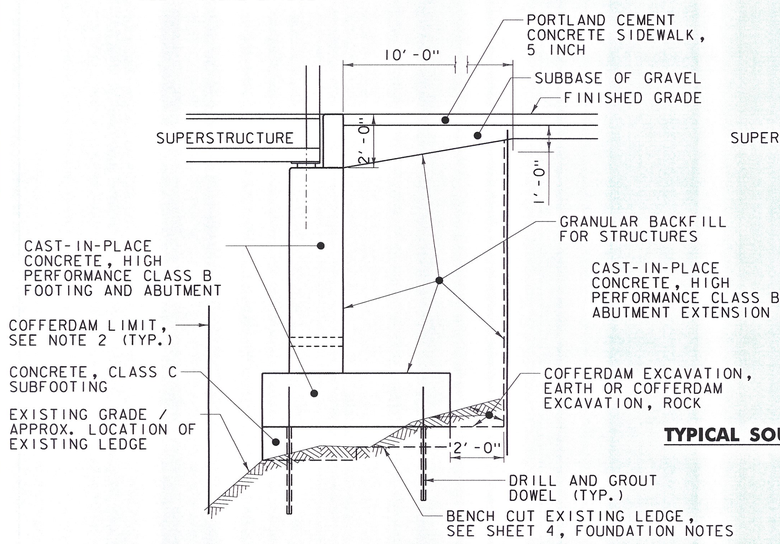


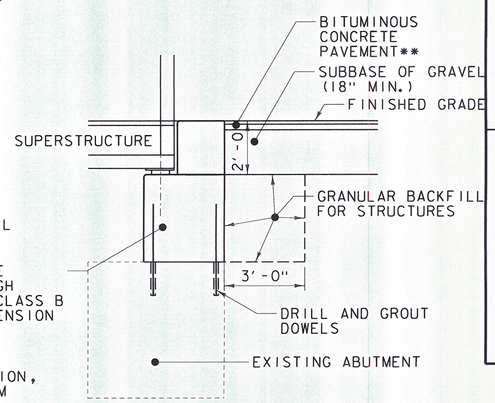
TYPICAL BRIDGE SECTION

SCALE: 3/8"=1'-0"



TYPICAL NORTH ABUTMENT EXTENSION SECTION

SCALE: 3/8"=1'-0"



TYPICAL SOUTH ABUTMENT EXTENSION SECTION

SCALE: 3/8"=1'-0"

** 1½" TYPE IV OVER 2½" TYPE II

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83 (GPS)

PLOTTED 12/30/2014

FINAL HYDRAULICS REPORT

HYDROLOGIC DATA

DRAINAGE AREA: SEE ADDITIONAL COMMENTS
CHARACTER OF TERRAIN:
CHARACTER & TYPE OF STREAM:
NATURE OF STREAMBED:

Q2.33= Q50=
Q10= Q100=
Q25= Q500=

DATE OF FLOOD OF RECORD:
WATER SURFACE ELEV.: ESTIMATED DISCHARGE:
NATURAL STREAM VELOCITY @ Q
ICE CONDITIONS: DEBRIS:
DOES THE STREAM REACH MAXIMUM HIGH WATER 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: KING POST TRUSS & BURR ARCH COVERED BRIDGE YEAR BUILT:1833
CLEAR SPAN (NORMAL TO STREAM): 90-FEET PERP. TO ABUTMENT FACES
VERTICAL CLEARANCE ABOVE STREAMBED: 16-FEET AVG.
WATERWAY OF FULL OPENING:
DISPOSITION OF STRUCTURE: TO REMAIN (WITH REPAIRS)
TYPE OF MATERIAL UNDER SUBSTRUCTURE:

WATER SURFACE ELEV. @ Q2.33= ____ft VELOCITY=
Q10= ____ft
Q25= ____ft
Q50= ____ft
Q100= ____ft

LONG TERM STREAM BED CHANGES:

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

UPSTREAM STRUCTURE: TOWN: WAITSFIELD DISTANCE: 1.0 MI.
HIGHWAY NO.: VT 100 STRUCTURE NO.: B178
NOTE:

DOWNSTREAM STRUCTURE: TOWN: WAITSFIELD DISTANCE: 1.3 MI.
HIGHWAY NO.: TH NO. 15 STRUCTURE NO.: B25
NOTE:

PROPOSED STRUCTURE

STRUCTURE TYPE: EXISTING KING POST TRUSS & BURR ARCH COVERED BRIDGE. PROPOSED STEEL PEDESTRIAN TRUSS ON DOWNSTREAM SIDE.
CLEAR SPAN (NORMAL TO STREAM): AS EXISTING
VERTICAL CLEARANCE ABOVE STREAMBED: AS EXISTING
WATERWAY OF FULL OPENING: AS EXISTING

WATER SURFACE ELEV. @ Q2.33= ____ft VELOCITY=
Q10= ____ft
Q25= ____ft
Q50= ____ft
Q100= ____ft

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

AVERAGE LOW ELEVATION OF SUPERSTRUCTURE:
VERTICAL CLEARANCE @ Q 25:

SCOUR:
REQUIRED CHANNEL PROTECTION:

ADDITIONAL COMMENTS

NO HYDROLOGIC OR HYDRAULIC ANALYSIS HAS BEEN PERFORMED. THE REHABILITATION WILL NOT CHANGE THE CLEAR OPENING SIZE OF THE BRIDGE.

TEMPORARY BRIDGE SKETCH

NOT TO SCALE

DESIGN CRITERIA:
1. DESIGN LIVE LOAD AASHTO PEDESTRIAN, 85 PSF
2. DESIGN SPAN 103'-11" ℄ BEARING TO ℄ BEARING
3. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL 4 KSF ON LEDGE 10 KSF
4. ALLOWABLE LOAD FOR PILING N/A TYPE N/A ESTIMATED LENGTH N/A
5. STRUCTURAL STEEL GRADE ASTM A 500, GRADE B
6. REINFORCING STEEL GRADE 60
7. CONCRETE HIGH PERFORMANCE CLASS B f'c=3500 PSI
CLASS C f'c=3000 PSI

TRAFFIC MAINTENANCE:
1. IS TRAFFIC TO BE MAINTAINED? SEE NOTES IF YES, ON EXISTING STRUCTURE ____ OR ON TEMPORARY BRIDGE ____
2. TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY N/A TRAFFIC CONTROL SIGNALS REQUIRED ____
MINIMUM CLEAR SPAN (NORMAL TO STREAM): ____ VERTICAL CLEARANCE ABOVE STREAMBED: ____
WATERWAY OF FULL OPENING: ____
ARE SIDEWALKS REQUIRED? ____ IF SO, ON WHAT SIDE? ____
STRUCTURE TYPE: ____

ADDITIONAL DECK PLANKS REMOVED (0.534 MFBM) AND NEW DECKING INSTALLED DUE TO POOR CONDITION AND FIELD FITTING GAPS ON BRIDGE SIDES.

NOTES:

1. RETAIN 3 DECK PLANKS EACH SIDE, OR AS DIRECTED BY THE ENGINEER. REMOVAL AND REINSTALLATION OF ADDITIONAL DECK PLANKS WILL BE NECESSARY FOR REPLACEMENT OF FLOOR BEAMS INDICATED IN THESE DRAWINGS. PAYMENT FOR REMOVAL AND REINSTALLATION OF DECK PLANKS REQUIRED FOR REPLACEMENT OF FLOORBEAMS WILL BE INCIDENTAL TO ITEM 529.20, "PARTIAL REMOVAL OF STRUCTURE".
2. COFFERDAM SIZE TO BE DETERMINED BY THE CONTRACTOR.
3. THE PAY LIMITS OF "COFFERDAM EVACATION, EARTH" AND "COFFERDAM EXCAVATION, ROCK" SHALL BE 2'-0" OUTSIDE THE PERIMETER OF THE FOOTING.

12/2015

DuBois & King inc.
ENGINEERING • PLANNING • MANAGEMENT • DEVELOPMENT
6 GREEN TREE DRIVE
SOUTH BURLINGTON, VT 05403
TEL: (802) 878-7661
FAX: (866) 783-7101
www.dubois-king.com
RANDOLPH, VT
SPRINGFIELD, VT
BEDFORD, NH
LACONIA, NH
© Copyright 2014 Dubois & King Inc.

PROFESSIONAL SEAL

FINAL PLANS

TOWN OF WAITSFIELD
9 BRIDGE STREET
WAITSFIELD, VT

VILLAGE COVERED BRIDGE REHAB. & BRIDGE STREET STORMWATER IMPROVEMENTS

SHEET TITLE

PRELIMINARY INFORMATION SHEET

DRAWN BY	DATE
RHB/JDG	DEC. 2014
CHECKED BY	D&K PROJECT #
EPD	620922
PROJ. ENG.	D&K ARCHIVE #
RHB	620922

SHEET NUMBER

7

SHEET 7 OF 30

I:\620922 - Waitsfield\DESIGN\CADD FILES\620922_P.dgn