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### STRUCTURES DETAILS

SD-501.00 02/09/2012

QUALITY ASSURANCE PROGRAM: LEVEL 2

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JULY 20, 2011 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

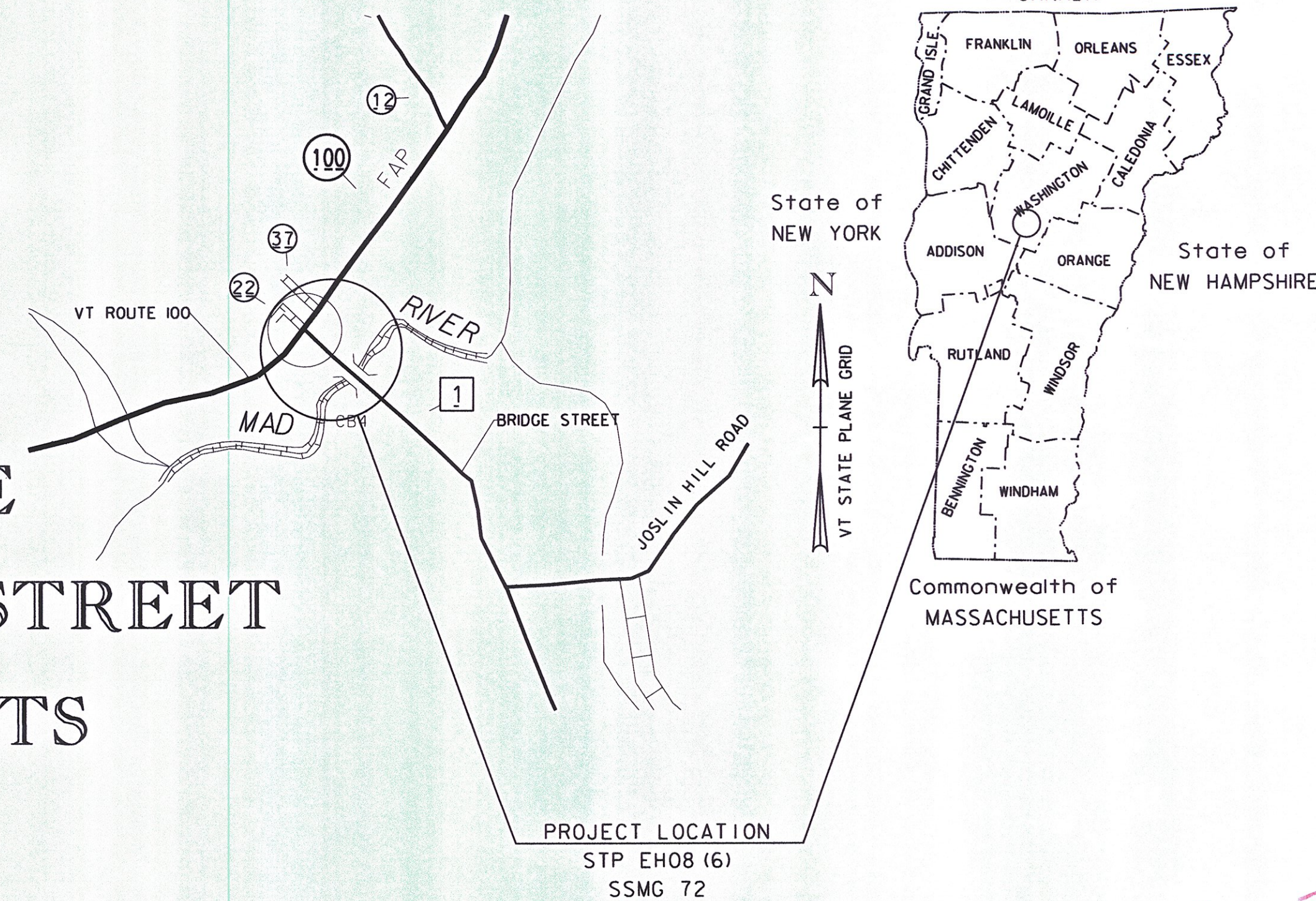
SURVEYED BY : DUBOIS & KING, INC.  
SURVEYED DATE : 9/2010 (STP EH08 (6))  
9/2011 (SSMG 72)

### DATUM

VERTICAL NAVD 88  
HORIZONTAL NAD 83 (GPS)

# TOWN OF WAITSFIELD COUNTY OF WASHINGTON

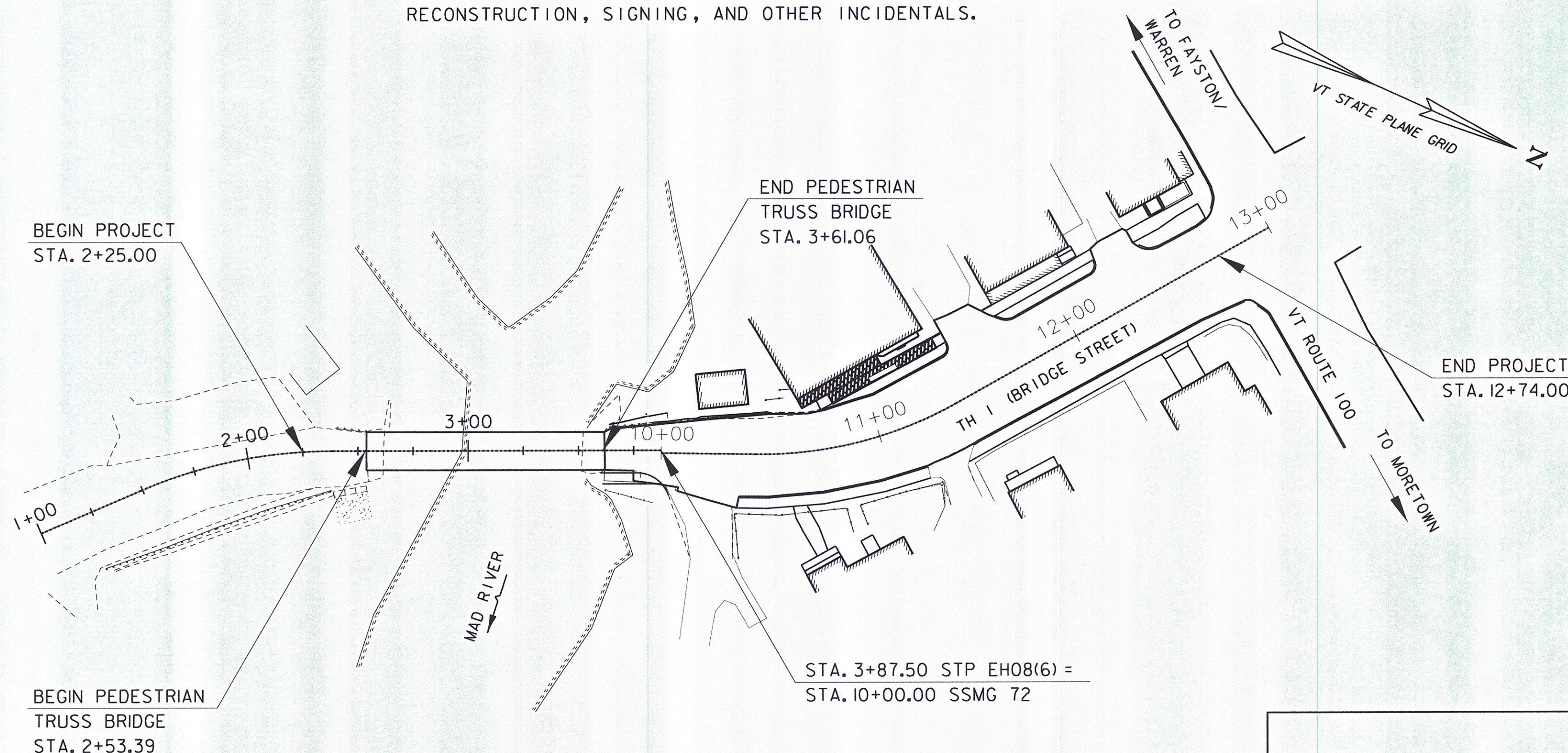
## PROPOSED IMPROVEMENT VILLAGE COVERED BRIDGE REHABILITATION AND BRIDGE STREET STORMWATER IMPROVEMENTS



ROUTE NO : TH1 BRIDGE STREET BRIDGE NO : CB NO. 4 WORLD GUIDE NO. 45-12-14

PROJECT LOCATION: LOCATED ON BRIDGE STREET, BEGINNING APPROXIMATELY 450 FEET EAST OF VT ROUTE 100, AND EXTENDING WEST TO THE INTERSECTION OF BRIDGE STREET AND VT ROUTE 100.

PROJECT DESCRIPTION: REHABILITATION OF THE EXISTING COVERED BRIDGE, INCLUDING REPLACEMENT OF THE EXISTING WALKWAY WITH A NEW SELF-SUPPORTING WALKWAY, DECK REPLACEMENT, PARTIAL ROOF REPLACEMENT, ABUTMENT EXTENSIONS, NEW WINGWALLS, AND CONCRETE REPAIRS. ALSO INCLUDED IS RETAINING WALL RECONSTRUCTION, APPROACH GUARDRAIL, STORMDRAIN RECONSTRUCTION AND IMPROVEMENTS, ROADWAY RECONSTRUCTION, SIGNING, AND OTHER INCIDENTALS.



**CONTRACT PLANS  
DECEMBER, 2014**

TOWN OF WAITSFIELD  
CHAIRMAN, BOARD OF SELECTMEN

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT MANAGER : EVAN P. DETRICK, P.E.

PROJECT NAME : VILLAGE COVERED BRIDGE REHAB  
& BRIDGE STREET STORMWATER  
IMPROVEMENTS

PROJECT NUMBER : STP EH08 (6) & SSMG 72  
D&K NUMBER : 620922 & 121447

SHEET 1 OF 30 SHEETS

**DuBois  
& King**

SCALE 1" = 40' - 0"  
40 0 40



TOTAL  
FINAL

CA 12015

PLOT DATE: 12/23/2014  
DRAWN BY: RHB  
CHECKED BY: EPD  
SHEET 2 OF 30



TOTAL  
FINAL

Ch 6 12/2015



1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT, AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2011, AND ITS LATEST REVISIONS, THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION, DATED 2010, WITH LATEST INTERIM REVISIONS, AND AASHTO LRFD GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTAL BRIDGES, 2ND EDITION.
2. ALL WORK PERFORMED BY THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS AND REQUIREMENTS.
3. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL, AND ARE GIVEN AT 68 DEGREE FAHRENHEIT, UNLESS NOTED OTHERWISE.
4. DIMENSIONS, ANGLES, BEARINGS, AND ELEVATIONS OF THE EXISTING BRIDGE SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM LIMITED FIELD INVESTIGATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING FIELD MEASUREMENTS OF ALL EXISTING STRUCTURE COMPONENTS TO ASSURE CONSISTENCY WITH THE PROPOSED MODIFICATIONS PRIOR TO ORDERING MATERIALS. ANY DISCREPANCIES IN DIMENSIONS, CHARACTER, OR EXTENT OF THE EXISTING FEATURES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE ADVANCING THE WORK. WORKING DRAWINGS REQUIRED FOR VARIOUS ITEMS OF WORK SHALL INDICATE THE ACTUAL FIELD MEASUREMENTS AND SHALL BE SO NOTED (V.I.F. = VERIFY IN FIELD).
5. THE EXISTING RIGHT-OF-WAY AS SHOWN ON THESE PLANS WAS OBTAINED FROM INFORMATION PROVIDED BY THE TOWN. ALL WORK SHALL BE COMPLETED WITHIN THE EXISTING RIGHT-OF-WAY. IF THE CONTRACTOR DESIRES TO WORK OUTSIDE OF THE EXISTING RIGHT-OF-WAY, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN THE NECESSARY RIGHTS.
6. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION SAFETY, AND MEANS AND METHODS TO PERFORM AND COMPLETE THE WORK.
7. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND DETERMINING ALL UTILITIES (ABOVE AND BELOW GROUND) WITHIN THE PROJECT LIMITS, AND TO TAKE THE NECESSARY PRECAUTIONS TO PROTECT UTILITIES DURING CONSTRUCTION. CONTACT DIG-SAFE AT 1-800-DIG-SAFE (WWW.DIGSAFE.COM).
8. ALL WORK MUST BE DONE IN THE DRY. CONTRACTOR IS RESPONSIBLE FOR DIVERTING, PUMPING, OR OTHERWISE CONTROLLING WATER AS NECESSARY. PAYMENT FOR DIVERTING WATER, PUMPING, DEWATERING, OR OTHERWISE CONTROLLING WATER SHALL BE UNDER TO ITEM 208.40, "COFFERDAM".
9. IN CASE OF CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWING AND/OR SPECIFICATION, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION.
10. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS OF THE SITE AND SURROUNDINGS PRIOR TO BIDDING ON OR PERFORMING THE WORK.
11. THE CONTRACTOR SHALL BID AND PERFORM THE WORK FROM A COMPLETE SET OF PLANS AND SPECIFICATIONS, AND SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS WITHIN THE CONSTRUCTION DOCUMENTS.
12. ALL CONSTRUCTION ACTIVITIES SHALL BE PERFORMED WITHIN THE IDENTIFIED CONSTRUCTION LIMITS. ANY NEED TO GO BEYOND THESE LIMITS MAY TRIGGER ADDITIONAL PERMITTING REQUIREMENTS AND WILL REQUIRE PRIOR WRITTEN APPROVAL BY OWNER AND ENGINEER.
13. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONDITIONS THAT ARE UNEXPECTED, UNKNOWN AND/OR NOT INDICATED ON THE DRAWINGS AND SHALL PROCEED AS DIRECTED BY THE ENGINEER.
14. NO DEVIATION OR DEPARTURE FROM THE DESIGN INTENT PRESENTED IN THE CONTRACT DOCUMENTS WILL BE ALLOWED UNLESS AUTHORIZED BY THE ENGINEER.
15. ALL STANDING EXISTING TREES TO REMAIN UNLESS OTHERWISE IDENTIFIED ON THE DRAWINGS OR DIRECTED BY THE ENGINEER.

1. THE FOLLOWING COMPONENTS OF THE VILLAGE COVERED BRIDGE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR:

- A. EXISTING MODULAR BLOCK WINGWALL IN SOUTHEAST CORNER
- B. EXISTING BACKWALLS, TO THE LIMITS SHOWN ON THE PLANS
- C. EXISTING CANTILEVERED COVERED BRIDGE WALKWAY, TO THE LIMITS SHOWN ON THE PLANS.
- D. THE EXISTING SIDEWALK ROOF RAFTERS, ROOF SHEATHING, AND CEDAR SHINGLES, TO THE LIMITS SHOWN ON THE PLANS.
- E. THE EXISTING WOOD WALKWAY IN THE NORTHEAST CORNER
- F. EXISTING TIMBER TRUSS DECKING, TO THE LIMITS SHOWN ON THE PLANS
- G. EXISTING TIMBER FLOOR BEAMS, AS INDICATED.

**FOUNDATION NOTES:**

- ### CONCRETE AND REINFORCING NOTES:

- CONCRETE REPAIR NOTES:**

- DuBois  
& King inc.**

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MANAGEMENT • DEVELOPMENT  
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BEDFORD, NH  
LACONIA, NH  
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PROFESSIONAL SEAL

[illegible]

TOWN OF  
WAITSFIELD  
9 BRIDGE STREET  
WAITSFIELD, VT

VILLAGE COVERED  
BRIDGE REHAB. &  
BRIDGE STREET  
STORMWATER  
IMPROVEMENTS

**SHEET TITLE**

PROJECT NOTES

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

SHEET NUMBER

4

SHEET 4 OF 30



1. THE PREFABRICATED MULTI-MODAL BRIDGE SHALL CONFORM TO THE REQUIREMENTS OF SECTION 545 OF THE SPECIFICATIONS. THE BRIDGE SHALL MEET THE DIMENSIONS INDICATED IN THE PLANS AND SHALL BE PAID UNDER ITEM 545.20, "PREFABRICATED MULTI-MODAL BRIDGE (578 SF - EST.)".
2. ALL ELEMENTS OF THE PREFABRICATED MULTI-MODAL BRIDGE SHALL BE DESIGNED BY THE SUPPLIER, INCLUDING ALL ANCHORAGES, CONNECTIONS BETWEEN ELEMENTS, DECKING FOR THE BRIDGE, AND BEARING DEVICES. ALL ELEMENTS SHALL BE INSTALLED ACCORDING TO THE FABRICATOR'S RECOMMENDATIONS. THE CONTRACTOR SHALL SUBMIT SHOP FABRICATION DRAWINGS FOR THE PREFABRICATED BRIDGE FOR APPROVAL. IN ADDITION TO FABRICATION DRAWINGS, THE FABRICATOR SHALL ALSO PROVIDE BACKUP CALCULATIONS IN ACCORDANCE WITH THESE PLANS, THE AASHTO SPECIFICATIONS REFERENCED IN GENERAL NOTE 1, AND THE VTRANS STRUCTURES DESIGN MANUAL, 2010. THE BACKUP CALCULATIONS SHALL BE SIGNED, STAMPED, AND DATED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE ENGINEERING IN THE STATE OF VERMONT. NOTE THAT THE FABRICATOR ASSUMES ALL LIABILITY FOR THE ADEQUACY AND ACCURACY OF THE PREFABRICATED BRIDGE DESIGN.
3. THE DESIGN OF THE PREFABRICATED MULTI-MODAL BRIDGE SHALL BE FOR:
  - ALL APPLICABLE DEAD LOADS (SEE SHEET 11)
  - LIVE LOAD = 85 PSF
  - SNOW LOAD,  $P_g$  = 70 PSF
  - WIND LOAD,  $V$ =90 MPH
  - ASTM A 500, GRADE B STRUCTURAL STEEL
  - DEFLECTION LIMITS =  $L/720$  FOR PEDESTRIAN LIVE LOAD
4. SEE SHEET 11 FOR REACTIONS FROM THE ROOF ON THE PREFABRICATED MULTI-MODAL BRIDGE.
5. THE PREFABRICATED MULTI-MODAL BRIDGE SHALL BE RECTANGULAR IN ELEVATION VIEW AND SHALL NOT CONTAIN RESIDUAL CAMBER IN ITS FINAL POSITION.
6. THE PREFABRICATED MULTI-MODAL BRIDGE SHALL BE COLOR GALVANIZED BLACK (COLOR CHIP NO. 27038). THE COST OF SURFACE PREPARATION AND COLOR GALVANIZING THE STEEL WILL BE PAID UNDER ITEM 545.20, "PREFABRICATED MULTI-MODAL BRIDGE (578 SF - EST.)".
7. HARDWARE FOR CONNECTIONS BETWEEN INDIVIDUAL TRUSS MEMBERS, BETWEEN THE TRUSS AND TIMBER CLADDING, AND BETWEEN THE TRUSS AND SUBSTRUCTURES SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO ITEM 545.20, "PREFABRICATED MULTI-MODAL BRIDGE (578 SF - EST.)".
8. BEARING DEVICES AND ANCHOR BOLTS SHALL BE AS DESIGNED AND DETAILED BY THE FABRICATOR, AND SHALL BE INSTALLED ACCORDING TO THE FABRICATORS RECOMMENDATIONS. PAYMENT FOR THE BEARING DEVICES AND ANCHOR BOLTS SHALL BE MADE UNDER ITEM 545.20, "PREFABRICATED MULTI-MODAL BRIDGE (578 SF - EST.)".
9. PAYMENT FOR THE DECKING SHALL NOT BE PAID SEPARATELY, BUT SHALL BE INCLUDED UNDER ITEM 545.20, "PREFABRICATED MULTI-MODAL BRIDGE (578 SF - EST.)".

- I. NEW TIMBER SHALL BE AS FOLLOWS:
  - A. SIDING: EASTERN WHITE PINE, COMMON PREMIUM GRADE
  - B. SIDEWALK ROOF SUPPORTS (POSTS, BEAMS, AND CROSS MEMBERS), STEEL TRUSS DECKING, TRUSS SIDE NAILERS, AND TRUSS CAPS: SOUTHERN PINE NO. 2
  - C. TIMBER TRUSS DECK PLANKS: WHITE OAK, NO. 1 GRADE OR BETTER, EDGE GRAIN PLANKS
  - D. TIMBER TRUSS FLOOR BEAMS, SIDEWALK ROOF RAFTERS, TIMBER TRUSS ROOF RAFTER, AND ROOF SHEATHING: SOUTHERN PINE NO. 1

2. ALL TIMBER CONSTRUCTION SHALL COMPLY WITH SECTION 522 OF THE SPECIFICATIONS, THE 2012 NATIONAL DESIGN SPECIFICATION (NDS) AND SUPPLEMENT FOR WOOD CONSTRUCTION, AND THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) SPECIFICATIONS.
3. CONTRACTOR SHALL FIELD VERIFY SIZES AND DIMENSIONS OF EXISTING TIMBER COMPONENTS TO ASSURE CONSISTENCY WITH THE PROPOSED MODIFICATIONS.
4. EACH PIECE OF WOOD OR TIMBER SHALL BE GRADED BY A RECOGNIZED GRADING AGENCY. A CERTIFICATE OF COMPLIANCE SHALL BE SUBMITTED FOR ALL WOOD.
5. LEAD HOLES ARE TO BE FIELD DRILLED TO INSURE PROPER FIT. CONTRACTOR TO BE RESPONSIBLE FOR PROPER FIT OF CONNECTIONS.
6. ALL LAG BOLTS SHALL BE TIGHTENED SNUGLY . DO NOT EXCESSIVELY TIGHTEN TO CAUSE CRUSHING OF THE WOOD UNDER WASHER.
7. ALL NEW TIMBER BE SHALL BE UNTREATED, WITH THE EXCEPTION OF THE STEEL TRUSS DECKING, TRUSS SIDE NAILERS, AND TRUSS TOP CAPS. PRESERVATIVE TREATMENT SHALL BE IN ACCORDANCE WITH SUBSECTION 726.01 OF THE SPECIFICATIONS, PRESERVATIVE TYPE IV.
8. ALL JOB SITE FABRICATION CUTS AND BORINGS OF TREATED TIMBER SHALL BE TREATED PER SUBSECTION 522.13 OF THE SPECIFICATIONS.
9. ALL NUTS, BOLTS, WASHERS, SPIKES, AND SCREWS FOR TIMBER CONSTRUCTION SHALL CONFORM TO ASTM A307 AND BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123.
10. ALL NAILS USED SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153. THE USE OF ELECTRO GALVANIZED NAILS WILL NOT BE PERMITTED.
11. ALL NEW TIMBER SHALL BE PAID FOR AS FOLLOWS:
  - A. SIDING: ITEM 522.30, "NONSTRUCTURAL LUMBER, UNTREATED"
  - B. SIDEWALK ROOF SUPPORTS (POSTS, BEAMS, AND CROSS MEMBERS), TIMBER TRUSS DECK PLANKS, FLOOR BEAMS, SIDEWALK ROOF RAFTERS, TIMBER TRUSS ROOF RAFTER AND ROOF SHEATHING: ITEM 522.20, "STRUCTURAL LUMBER AND TIMBER, UNTREATED"
  - C. TRUSS SIDE NAILERS AND CAPS: ITEM 522.25, "STRUCTURAL LUMBER AND TIMBER, TREATED".
12. EXISTING CEDAR ROOF SHINGLES SHALL BE REMOVED AND REPLACED AS INDICATED IN THE PLANS. NEW SHINGLES SHALL BE RED CEDAR NO. 1 GRADE AND MATCH EXISTING CEDAR ROOF SHINGLES (LENGTH AND REVEAL) THAT ARE TO BE RETAINED. PAYMENT FOR NEW CEDAR ROOF SHINGLES SHALL BE MADE UNDER ITEM 900.670, "SPECIAL PROVISION (CEDAR SHINGLE ROOF)". PAYMENT FOR ASPHALT SATURATED FELT UNDERLAYMENT SHALL NOT BE MADE SEPARATELY BUT SHALL BE INCLUDED UNDER ITEM 900.670, "SPECIAL PROVISION (CEDAR SHINGLE ROOF)".
13. LUMBER SIZES INDICATED ARE NOMINAL, UNLESS NOTED OTHERWISE. ALL LUMBER SHALL BE DRESSED (S4S), EXCEPT AS INDICATED FULL SAWN OR ROUGH SAWN.

1. WATER MAIN AND SERVICE LOCATIONS AND DEPTHS ARE SHOWN BASED UPON AS-BUILT INFORMATION FROM PHELPS ENGINEERING INC.
2. THE LOCATION OF UTILITIES SHOWN ON THESE PLANS IS APPROXIMATE, AND DUBOIS & KING MAKES NO CLAIM TO ITS ACCURACY OR COMPLETENESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE, AND ELEVATION OF ALL UTILITIES, PRIOR TO THE START OF CONSTRUCTION.
4. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION SHALL BE DETERMINED AND AGREED UPON BY THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
5. 2" PVC WIRED CONDUIT SHALL RUN UNDERGROUND FROM THE EXISTING UTILITY POLE AT STA. 3+85 RT, THROUGH THE ABUTMENT SLEEVE. 1" RIGID STEEL WIRED CONDUIT SHALL RUN BETWEEN EXISTING TIMBER TRUSS AND NEW STEEL TRUSS, UP TO EXISTING METER BOX ON FIRST POST IN NORTHEAST CORNER. ALL CONDUIT, WIRING, AND CONNECTIONS SHALL BE PAID FOR UNDER ITEM 678.23, "WIRED CONDUIT (2") (PVC)".

**TRAFFIC CONTROL NOTES:**

1. THE TRAFFIC CONTROL INFORMATION PROVIDED IN THESE PLANS IS INTENDED TO BE A GENERAL OUTLINE OF HOW THE WORK IS TO PROCEED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SPECIFIC DETAILS TO ADDRESS SPECIFIC SITUATIONS. THIS RESPONSIBILITY INCLUDES PROVIDING A PLAN DETAILING THE USE AND PLACEMENT OF SIGNS, CHANNELING DEVICES, FLAGGERS, AND OTHER TRAFFIC CONTROL DEVICES. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCIDENTAL TO ITEM 641.10, "TRAFFIC CONTROL".
2. REFER TO MUTCD TYPICAL APPLICATIONS TA-1, TA-3, TA-6, AND TA-10 FOR TYPICAL APPLICATIONS OF MAINTAINING TRAFFIC THROUGH THE WORK AREA.
3. THE CONTRACTOR SHALL NOTIFY THE TOWN IN WRITING PRIOR TO IMPLEMENTATION OF ANY TRAFFIC CONTROL.
4. BRIDGE STREET (T.H. NO. 1) WILL BE ALLOWED TO BE CLOSED TO TRAFFIC, IN THE IMMEDIATE VICINITY OF THE BRIDGE, FOR A PORTION OF THE PROJECT DURATION. DURING NON-CLOSURE PERIODS, IT IS EXPECTED FOR TRAFFIC TO BE MAINTAINED THROUGH THE SITE. ACCESS SHALL BE MAINTAINED TO ALL DRIVES (COMMERCIAL AND RESIDENTIAL) DURING CLOSURE AND NON-CLOSURE PERIODS. THE CONTRACTOR SHALL WORK WITH THE TOWN OF WAITSFIELD TO DEVELOP A PLAN TO MAINTAIN TRAFFIC DURING CONSTRUCTION AND SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL. IT IS ANTICIPATED FOR TRAFFIC CONTROL TO CONSIST OF TWO (2) PORTABLE CHANGEABLE MESSAGE SIGNS ALONG VT ROUTE 100, DETOUR SIGNING ALONG AN ACCEPTABLE DETOUR ROUTE (IF APPLICABLE), AND CONSTRUCTION AND SIDE ROAD CONSTRUCTION SIGNING. THE CONTRACTOR SHALL COORDINATE WITH VTRANS MAINTENANCE DISTRICT 6 REGARDING PLACEMENT OF PORTABLE CHANGEABLE MESSAGE SIGNS AND SIGNING WITHIN THE VT ROUTE 100 RIGHT-OF-WAY. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED FOR PLACEMENT OF TRAFFIC CONTROL ALONG VT ROUTE 100. PAYMENT FOR PREPARING THE PLAN, AND IMPLEMENTATION AND MAINTENANCE OF THE TRAFFIC CONTROL MEASURES DETAILED IN THE PLAN SHALL BE MADE UNDER ITEM 641.10, "TRAFFIC CONTROL". PAYMENT FOR PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE MADE SEPARATELY UNDER ITEM 641.15, "PORTABLE CHANGEABLE MESSAGE SIGN". THE TRAFFIC CONTROL PLAN SHALL BE IN ACCORDANCE WITH THE APPLICABLE VTRANS E AND T SERIES STANDARD DRAWINGS AND THE 2009 EDITION OF THE MUTCD.
5. THE INSTALLATION AND MAINTENANCE OF ALL SIGNS, BARRICADES, CONES, AND OTHER TRAFFIC CONTROL DEVICES SHALL BE PAID FOR UNDER ITEM 641.10, "TRAFFIC CONTROL". FLAGGERS REQUIRED FOR TRAFFIC CONTROL SHALL BE PAID FOR UNDER ITEM 630.15, "FLAGGERS".
6. EXISTING SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNING SHALL BE COVERED OR REMOVED AND RESET. COST CONSIDERED INCIDENTAL TO ITEM 641.10, "TRAFFIC CONTROL".

[illegible]



1. THE EROSION CONTROL NOTES AND DETAILS PROVIDED IN THESE PLANS ARE CONCEPTUAL IN NATURE. THE CONTRACTOR SHALL FOLLOW THE "LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL" BY THE VERMONT AGENCY OF NATURAL RESOURCES FOR THE DESIGN/IMPLEMENTATION OF EROSION CONTROL MEASURES.
2. TEMPORARY EROSION CONTROL MEASURES ARE REQUIRED THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL THE PROJECT HAS BEEN COMPLETED.
3. THE CONTRACTOR SHALL ENSURE THAT ALL WORKERS UNDERSTAND THE PROVISIONS OF THE EROSION AND SEDIMENT CONTROL PLAN AS WELL AS THE INTENT OF THE MEASURES AND THE POSSIBLE NEED FOR ADDITIONAL MEASURES SHOULD UNEXPECTED CONDITIONS ARISE.
4. DISTURBED AREAS WITH POTENTIAL TO DISCHARGE SEDIMENT-LADEN WATER INTO THE STREAM OR OFF THE SITE MUST BE PROTECTED WITH TEMPORARY EROSION CONTROL MEASURES (E.G., SILT FENCE) AT THE COMPLETION OF EACH WORK DAY.
5. ALL STOCKPILES SHALL BE SURROUNDED BY SILT FENCE (SEE TEMPORARY SILT FENCE DETAIL) AT THE END OF EACH WORK DAY AND PRIOR TO ANY PRECIPITATION EVENT.
6. EXISTING VEGETATION IS TO REMAIN UNDISTURBED TO THE EXTENT POSSIBLE. NO TREES ARE TO BE REMOVED FROM AREAS OUTSIDE THE DESIGNATED CONSTRUCTION LIMITS.
7. INSTALLATION OF SILT FENCES SHALL BE COMPLETED PRIOR TO THE START OF SITE WORK IN ANY GIVEN AREA. SILT FENCE SHALL BE INSTALLED AS SHOWN ON THESE DRAWINGS, PER THESE NOTES AND DETAILS, AND ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
8. SILT FENCES SHALL BE KEPT CLEAN DURING CONSTRUCTION AND REMOVED WHEN ALL SLOPES HAVE A HEALTHY STAND OF VEGETATIVE COVER. EROSION CONTROL MEASURES SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EVERY RAINFALL.
9. ALL DISTURBED AREAS SHALL BE REVEGETATED AS QUICKLY AS POSSIBLE. PERMANENT OR TEMPORARY COVER MUST BE IN PLACE BEFORE THE GROWING SEASON ENDS. NO DISTURBED AREA SHALL BE LEFT EXPOSED DURING WINTER MONTHS.
10. ONCE DISTURBED AREAS HAVE BEEN STABILIZED AND VEGETATION IS ESTABLISHED, ALL TEMPORARY EROSION CONTROL MEASURES SUCH AS SILT FENCE SHALL BE REMOVED. AREAS DISTURBED BY REMOVAL OF THESE MEASURES SHALL BE IMMEDIATELY SEEDED AND MULCHED.
11. AN AREA IS CONSIDERED "STABLE" IF ONE OF THE FOLLOWING HAS OCCURRED:
  - BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
  - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
  - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL (SUCH AS STONE FILL) HAS BEEN INSTALLED.
  - EROSION CONTROL FABRIC HAS BEEN PROPERLY INSTALLED.
12. REPAIR OR REPLACEMENT OF EROSION CONTROL MEASURES SHALL BE MADE PROMPTLY AS NEEDED.



PROFESSIONAL SEAL

[illegible]

VILLAGE COVERED  
BRIDGE REHAB. &  
BRIDGE STREET  
STORMWATER  
IMPROVEMENTS

SHEET TITLE

PROJECT NOTES

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

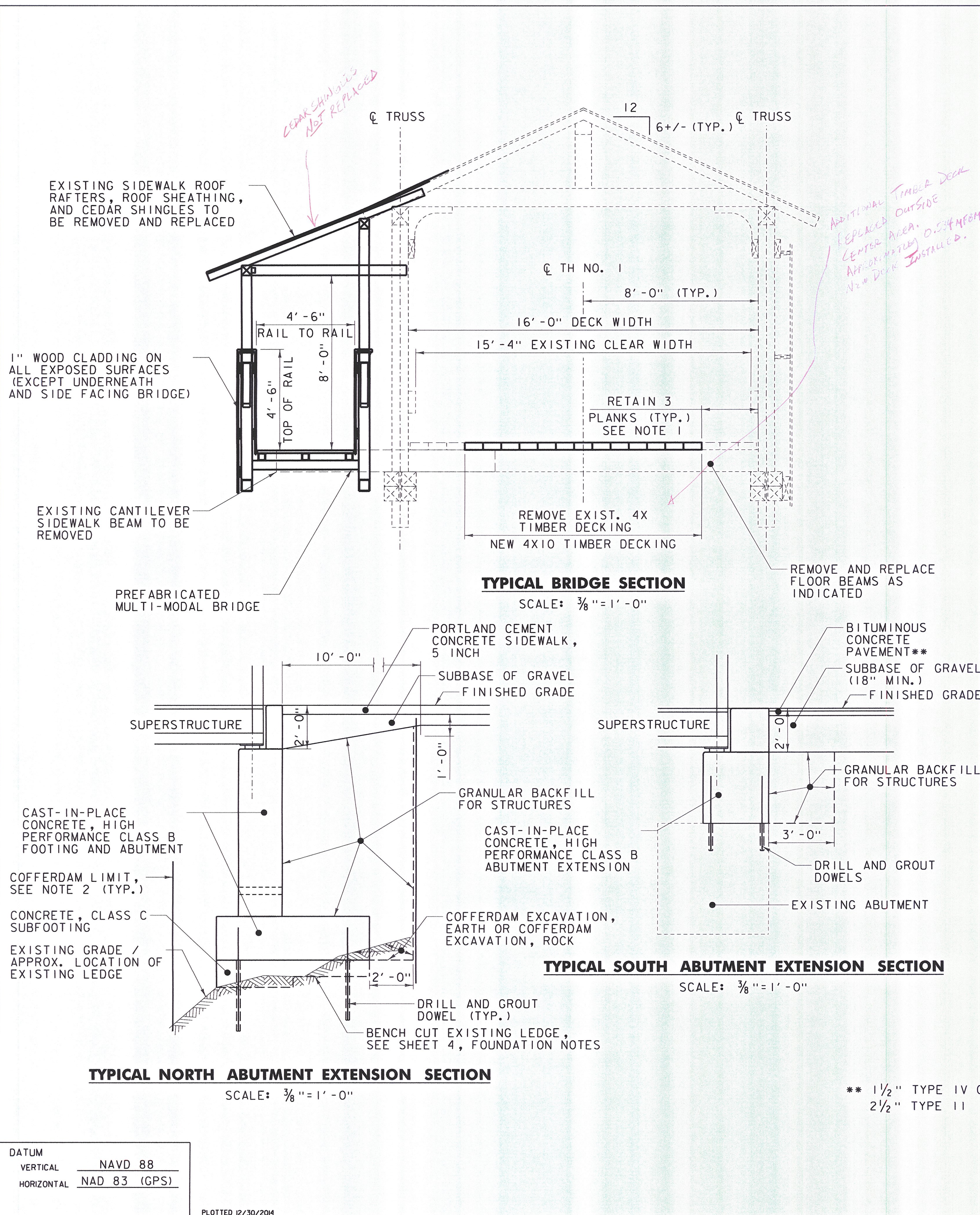
SHEET NUMBER

6

SHEET 6 OF 30



IN:620922 - Waitsfield\DESIGN\CLADD FILES\620922.Plot.dgn



## FINAL HYDRAULICS REPORT

### HYDROLOGIC DATA

DRAINAGE AREA: SEE ADDITIONAL COMMENTS

CHARACTER OF TERRAIN:

CHARACTER & TYPE OF STREAM:

NATURE OF STREAMBED:

Q2.33= 050=

Q10= 0100=

Q25= 0500=

DATE OF FLOOD OF RECORD:

WATER SURFACE ELEV.: ESTIMATED DISCHARGE:

NATURAL STREAM VELOCITY @ 0

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-FOOT PERP. TO ABUTMENT FACES

VERTICAL CLEARANCE ABOVE STREAMBED: 16-FOOT AVG.

WATERWAY OF FULL OPENING:

DISPOSITION OF STRUCTURE: TO REMAIN (WITH REPAIRS)

TYPE OF MATERIAL UNDER SUBSTRUCTURE:

WATER SURFACE ELEV. @ Q2.33= f+ VELOCITY=

Q10= f+

Q25= f+

Q50= f+

Q100= f+

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:

DESIGN CRITERIA:

- DESIGN LIVE LOAD AASHTO PEDESTRIAN, 85 PSF
- DESIGN SPAN 103'-11" @ BEARING TO @ BEARING
- ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL 4 KSF
- ALLOWABLE LOAD FOR PILING N/A TYPE N/A ON LEDGE 10 KSF ESTIMATED LENGTH N/A
- STRUCTURAL STEEL GRADE ASTM A 500, GRADE B
- REINFORCING STEEL GRADE 60
- CONCRETE HIGH PERFORMANCE CLASS B  $f_c' = 3500$  PSI CLASS C  $f_c' = 3000$  PSI

TRAFFIC MAINTENANCE:

- IS TRAFFIC TO BE MAINTAINED? SEE NOTES IF YES, ON EXISTING STRUCTURE OR ON TEMPORARY BRIDGE
- 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:

### 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= f+ VELOCITY=

Q10= f+

Q25= f+

Q50= f+

Q100= f+

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

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TH NO.

STING CL

FINAL PLAN

RI

PLAN

SE

VE EXIST.

ER DECK II

TIMBER

BRIDGE

E:  $\frac{3}{8}$ " = 1'

LK,

VEL

ADE

SUP

TOWN OF

WAITSFIELD

9 BRIDGE STREET

WAITSFIELD, VT

ACE

CE CLASS

EXTENSIO

VATION,

VILLAGE COVERDAM

BRIDGE REHAB. CK

BRIDGE STREET

STORMWATER

IMPROVEMENT:

TYPICAL

SHEET TITLE

NOTES

PRELIMINARY

INFORMATION SHEET

DRAWN BY

RHB/JDG

DATE

DEC. 21

CHECKED BY

EPD

62092

PROJ. ENG.

RHB

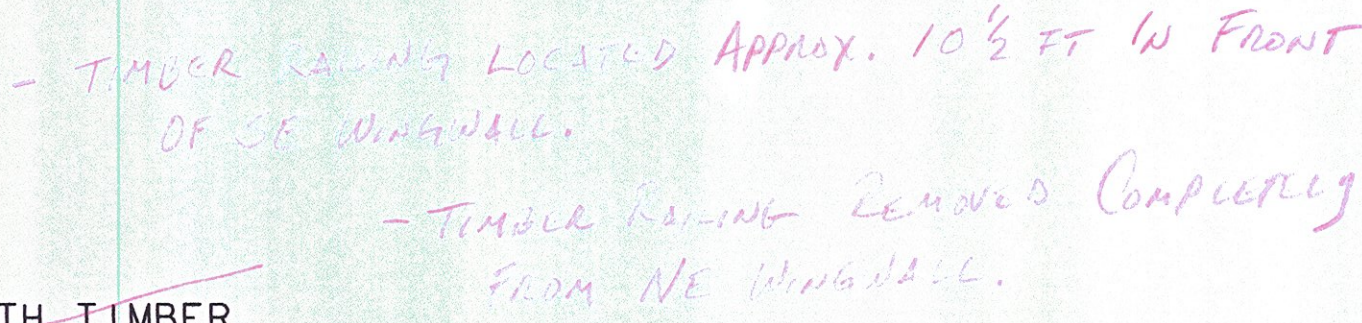
62092

SHEET NUMBER

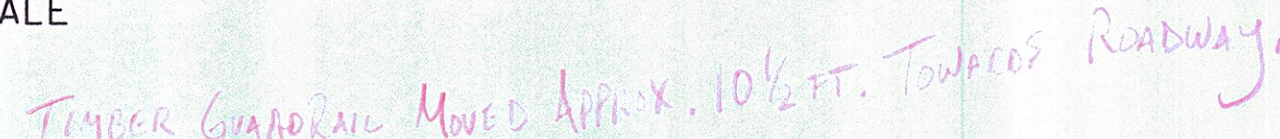
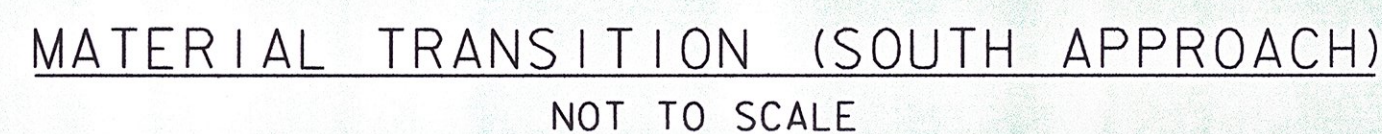
7

SHEET 7 OF 30





## TYPICAL APPROACH SECTION



SCALE:  $\frac{1}{2}" = 1'-0"$

SCALE:  $\frac{1}{2}" = 1'-0"$

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[illegible]

VILLAGE COVERED  
BRIDGE REHAB. &  
BRIDGE STREET  
STORMWATER  
IMPROVEMENTS

SHEET TITLE

## TYPICAL SECTIONS

SHEET NUMBER

8

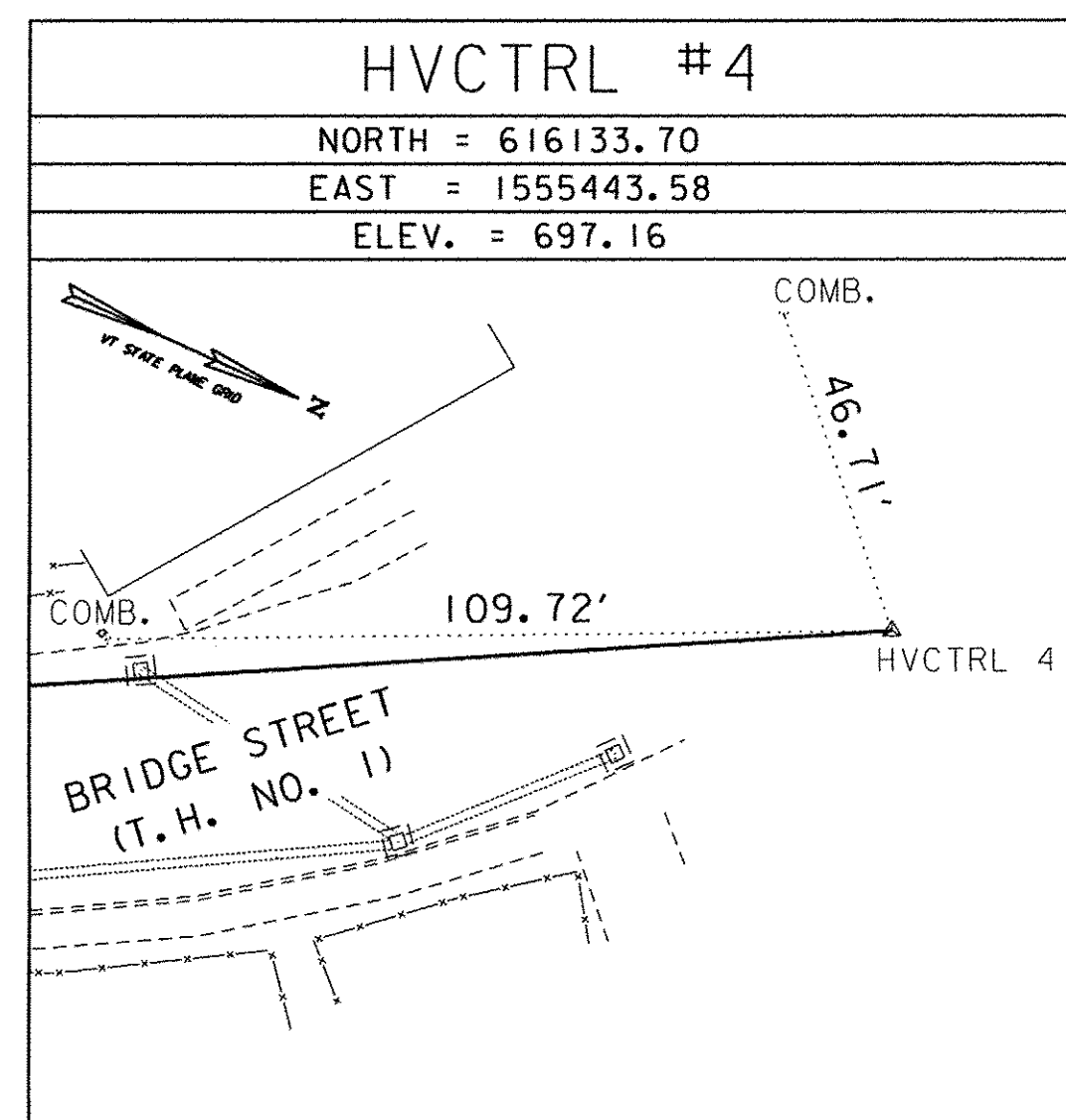
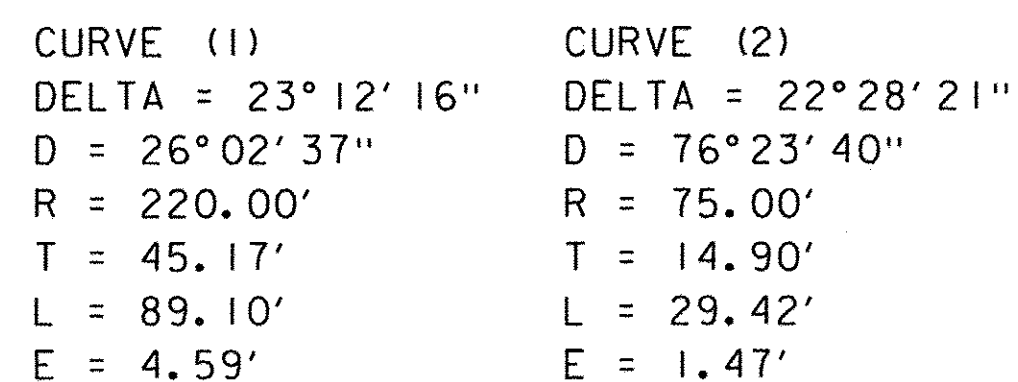
SHEET 8 OF 30

|            |              |
|------------|--------------|
| DATUM      |              |
| VERTICAL   | NAVD 88      |
| HORIZONTAL | NAD 83 (GPS) |

PLOTTED 12/30/2014



# TRAVERSE TIES



NOT TO SCALE

PLOTTED 12/30/2014

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VILLAGE COVERED  
BRIDGE REHAB. &  
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SHEET TITLE

TIE SHEET

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

SHEET NUMBER

C

SHEET 9 OF 30













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## FINAL PLANS

TOWN OF  
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9 BRIDGE STREET  
WAITSFIELD, VT

VILLAGE COVERED  
BRIDGE REHAB. &  
BRIDGE STREET  
STORMWATER  
IMPROVEMENTS

SHEET TITLE

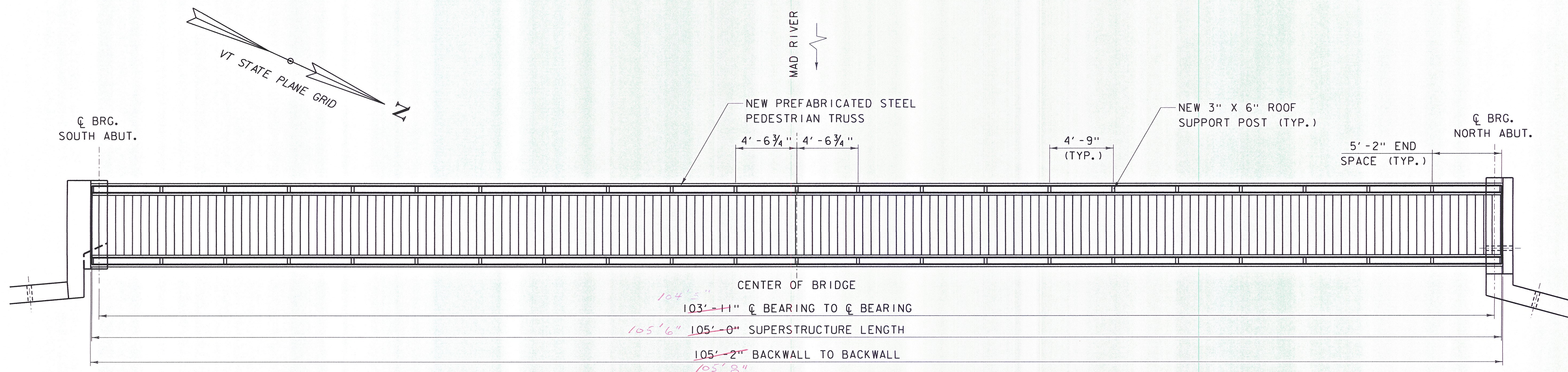
SUPERSTRUCTURE  
DETAILS

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

SHEET NUMBER

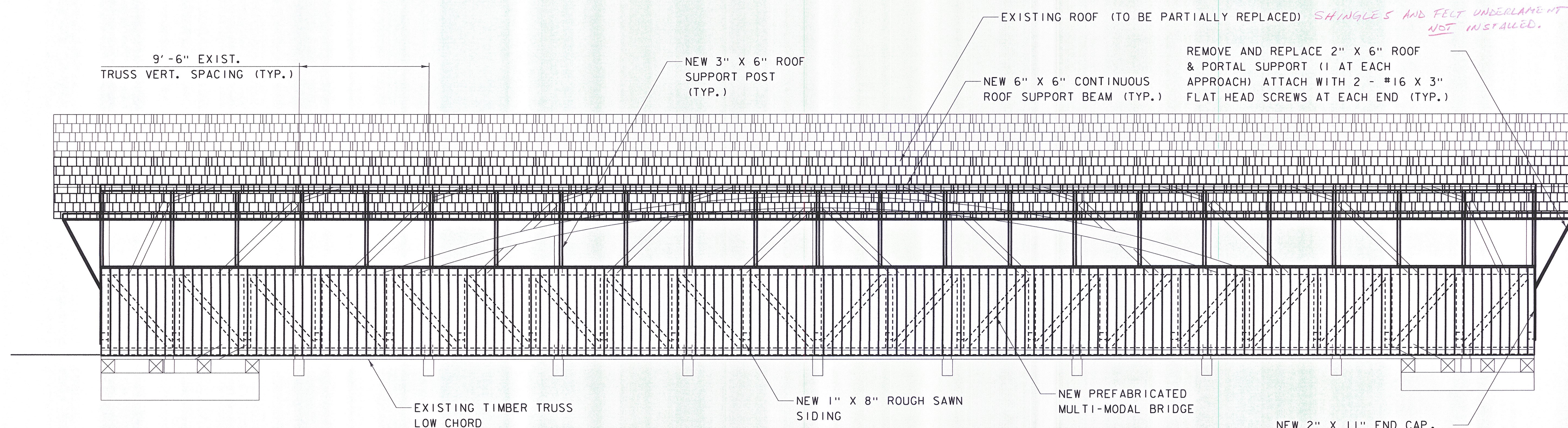
12

SHEET 12 OF 30



### PEDESTRIAN TRUSS PLAN

SCALE: 1/4" = 1' - 0"



### PEDESTRIAN TRUSS ELEVATION

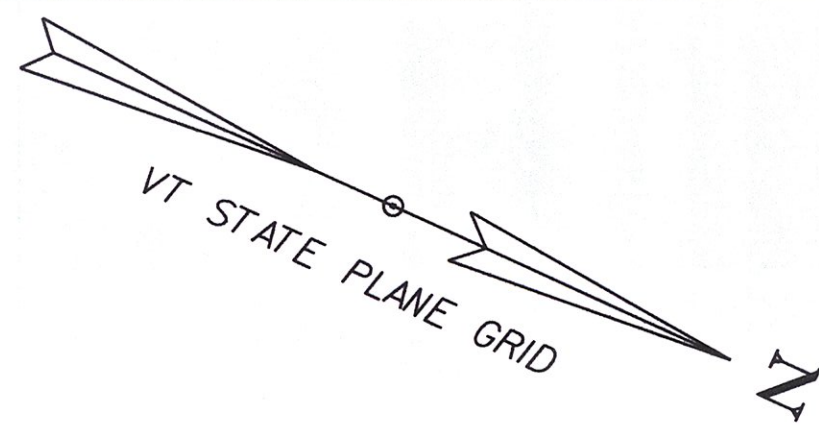
SCALE: 1/4" = 1' - 0"

DATUM  
VERTICAL NAVD 88  
HORIZONTAL NAD 83 (GPS)

PLOTTED 12/30/2014

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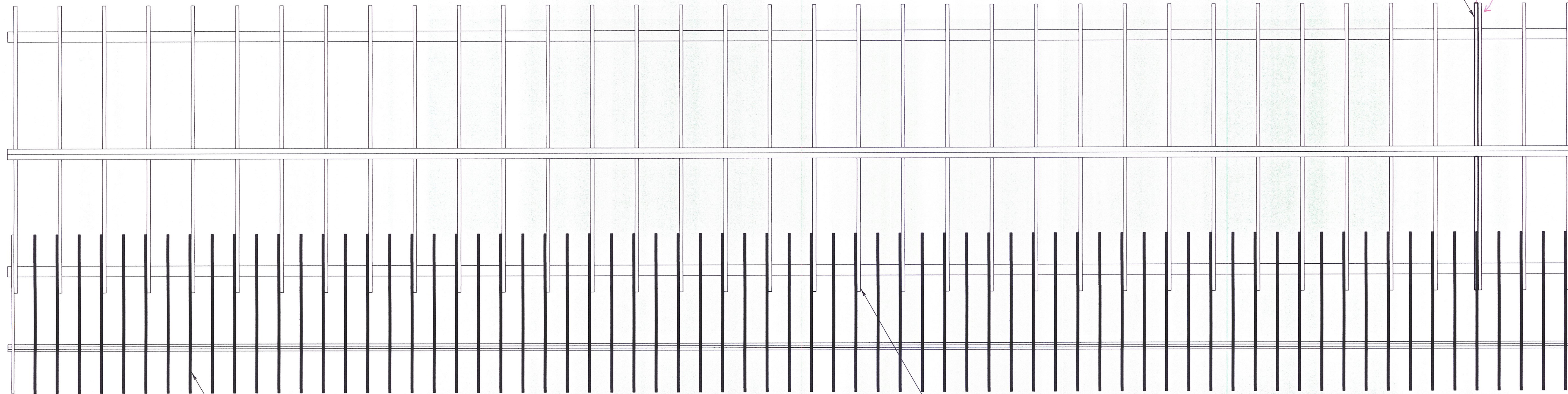




MAD RIVER

INSTALL NEW 3" X 5" (TRUE) ROOF RAFTER.  
SISTER WITH EXISTING 3" X 5" (TRUE).  
ATTACH WITH 2 - #14 X 4" FLAT HEAD  
SCREWS AT 1'-6" SPACING.

NEW 3" X 5" RAFTER  
MOVED  
TO  
OPPOSITE  
SIDE OF  
EXISTING  
RAFTER

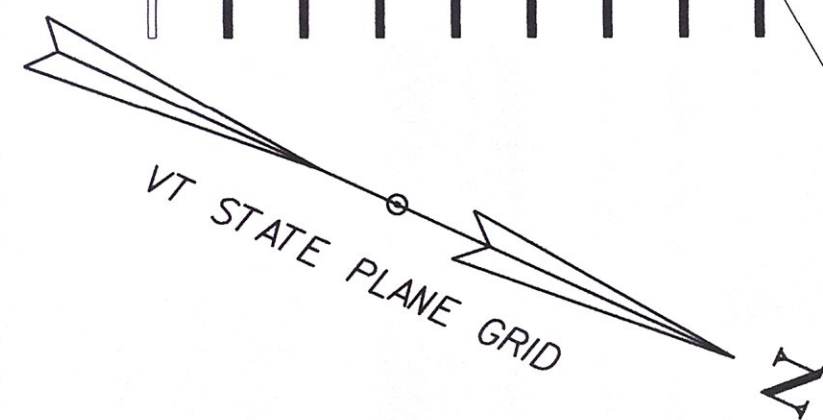


ROOF FRAMING PLAN

SCALE: 1/4" = 1'-0"

SEE ATTACHMENT DETAIL, SHEET 11  
(EVERY OTHER RAFTER) (TYP.)

1'-7" SPACING  
(TYP.)

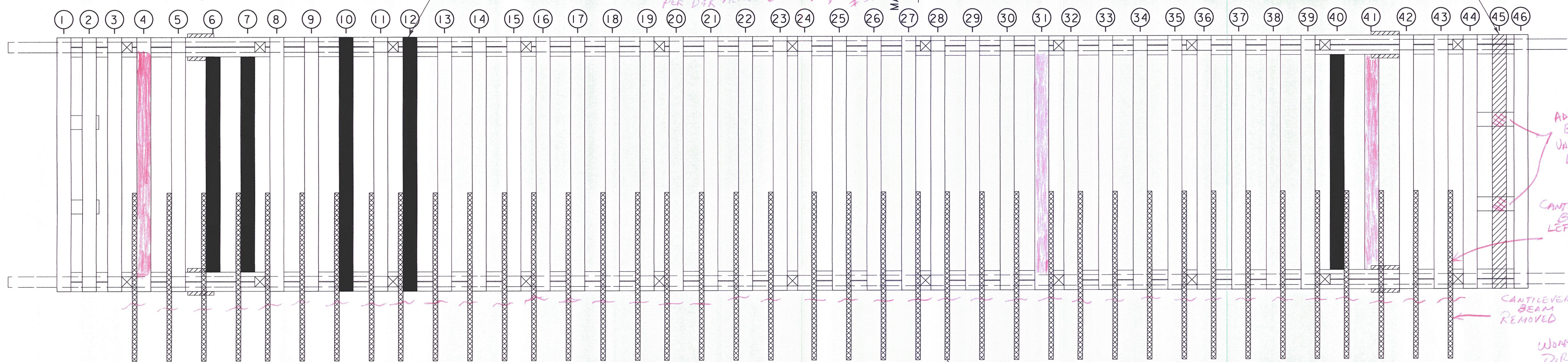


REPLACE 2" X 4" FULL SAWN (TRUE)  
SIDEWALK ROOF RAFTER (TYP. ALL  
SIDEWALK ROOF RAFTERS)

REMOVE AND REPLACE 10" X 12"  
(TRUE) FLOOR BEAM (TYP.)

INCLUDING #4, 31, AND 41.  
REPLACED W/ DOUGLAS FIR  
PER D&K MEMO. 6-3-15. DIRECTIVE  
#3.

INSTALL MISSING 12" X 12" (TRUE)  
FLOOR BEAM



LEGEND



= FLOORBEAM NUMBER



= MEMBER TO BE REPLACED



= MISSING MEMBER TO BE REPLACED



= MEMBER TO BE REMOVED

FLOOR FRAMING PLAN

SCALE: 1/4" = 1'-0"

REMOVE EXISTING CANTILEVER  
SIDEWALK BEAM (TYP.)

ADD WOOD  
BLOCKING  
UNDER FLOOR  
BEAM

CANTILEVERED  
BEAM  
LEFT IN  
PLACE

CANTILEVERED  
BEAM  
REMOVED

WORK  
DIRECTIVE  
#4  
6-8-15

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FINAL PLANS

TOWN OF  
WAITSFIELD  
9 BRIDGE STREET  
WAITSFIELD, VT

VILLAGE COVERED  
BRIDGE REHAB. &  
BRIDGE STREET  
STORMWATER  
IMPROVEMENTS

SHEET TITLE

ROOF FRAMING &  
FLOOR FRAMING  
PLAN

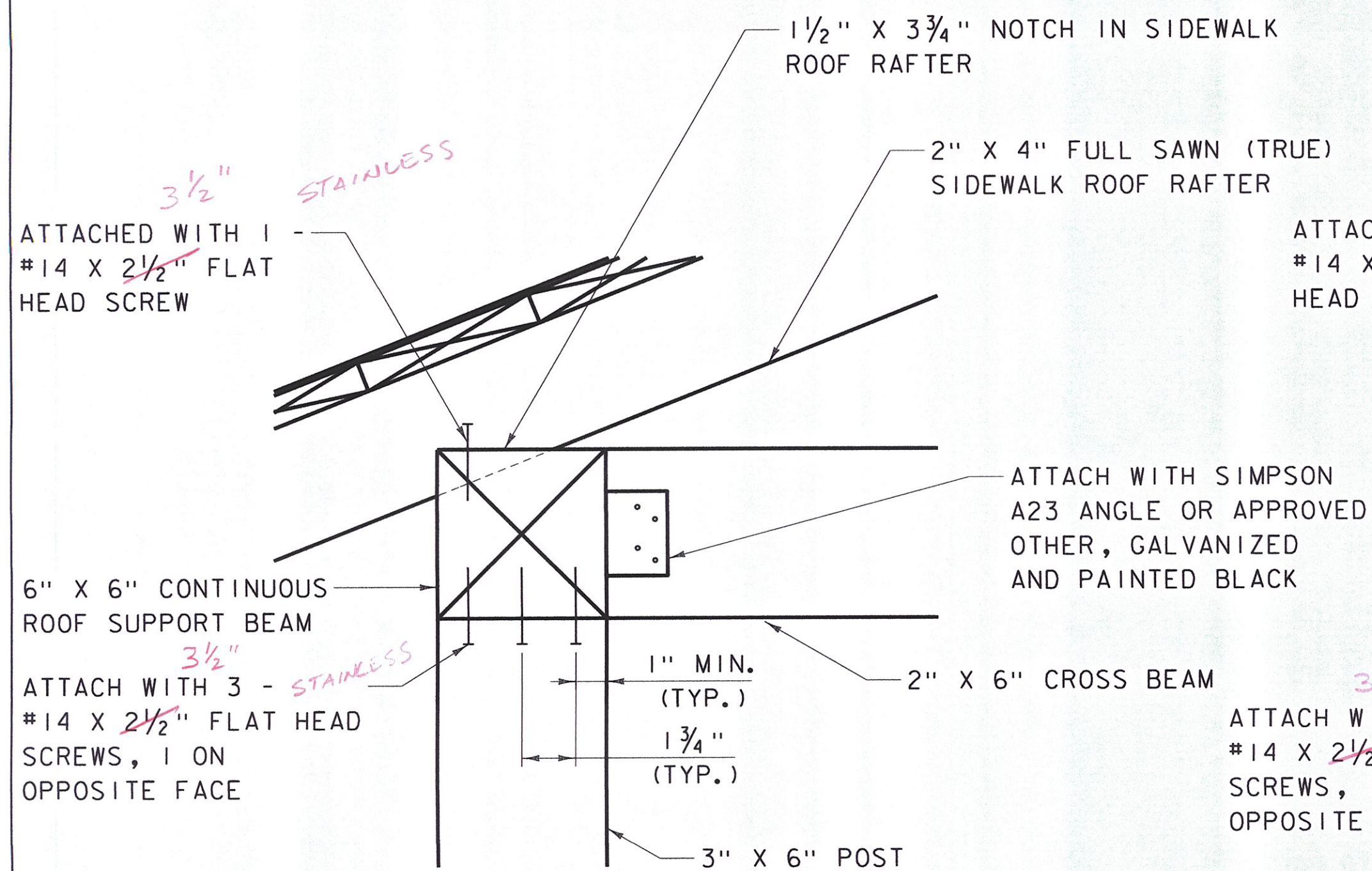
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|------------|---------------|
| DRAWN BY   | DATE          |
| RHB/JDG    | DEC. 2014     |
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| RHD        | 620922        |
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| RHB        | 620922        |

SHEET NUMBER

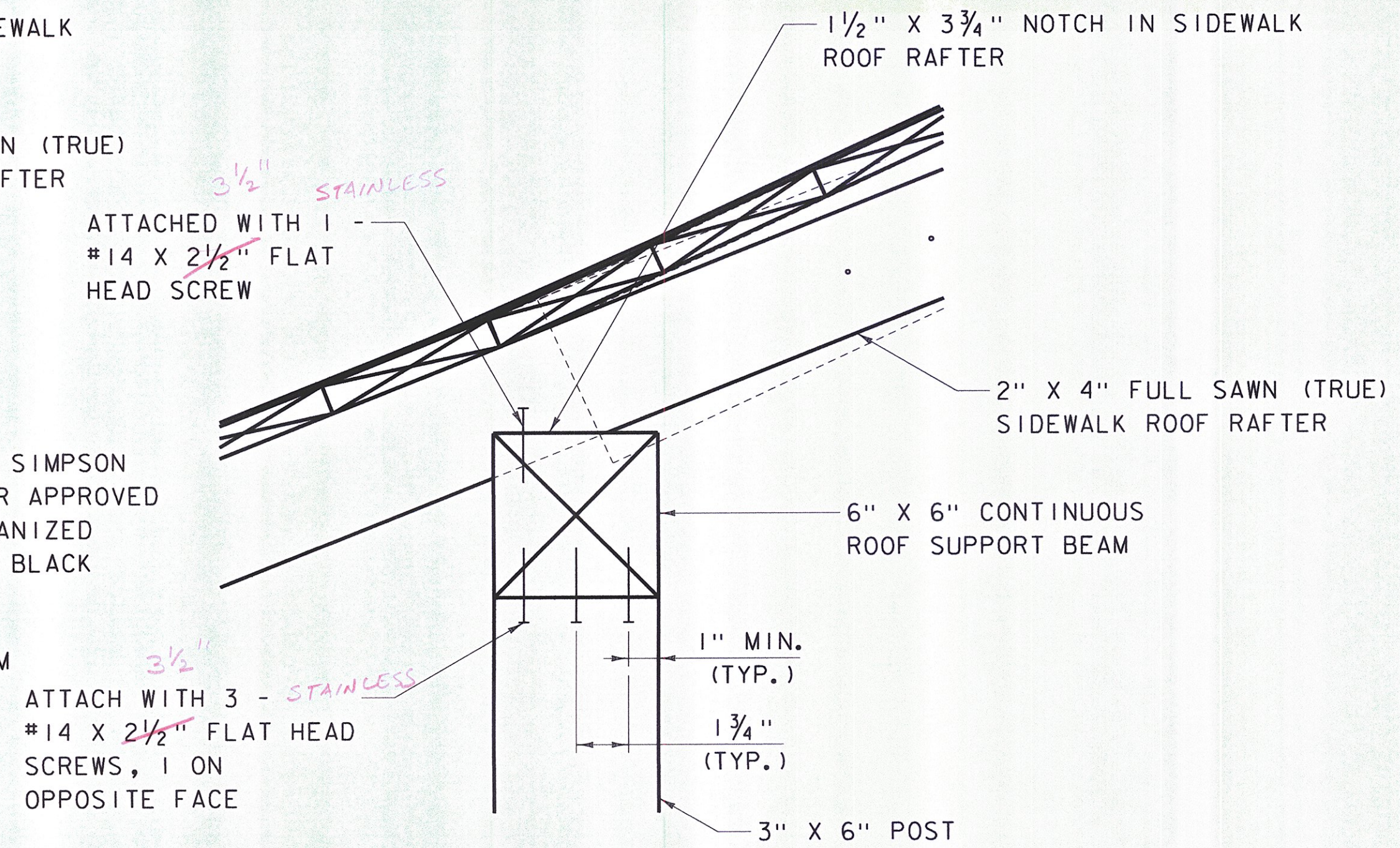
13

SHEET 13 OF 30

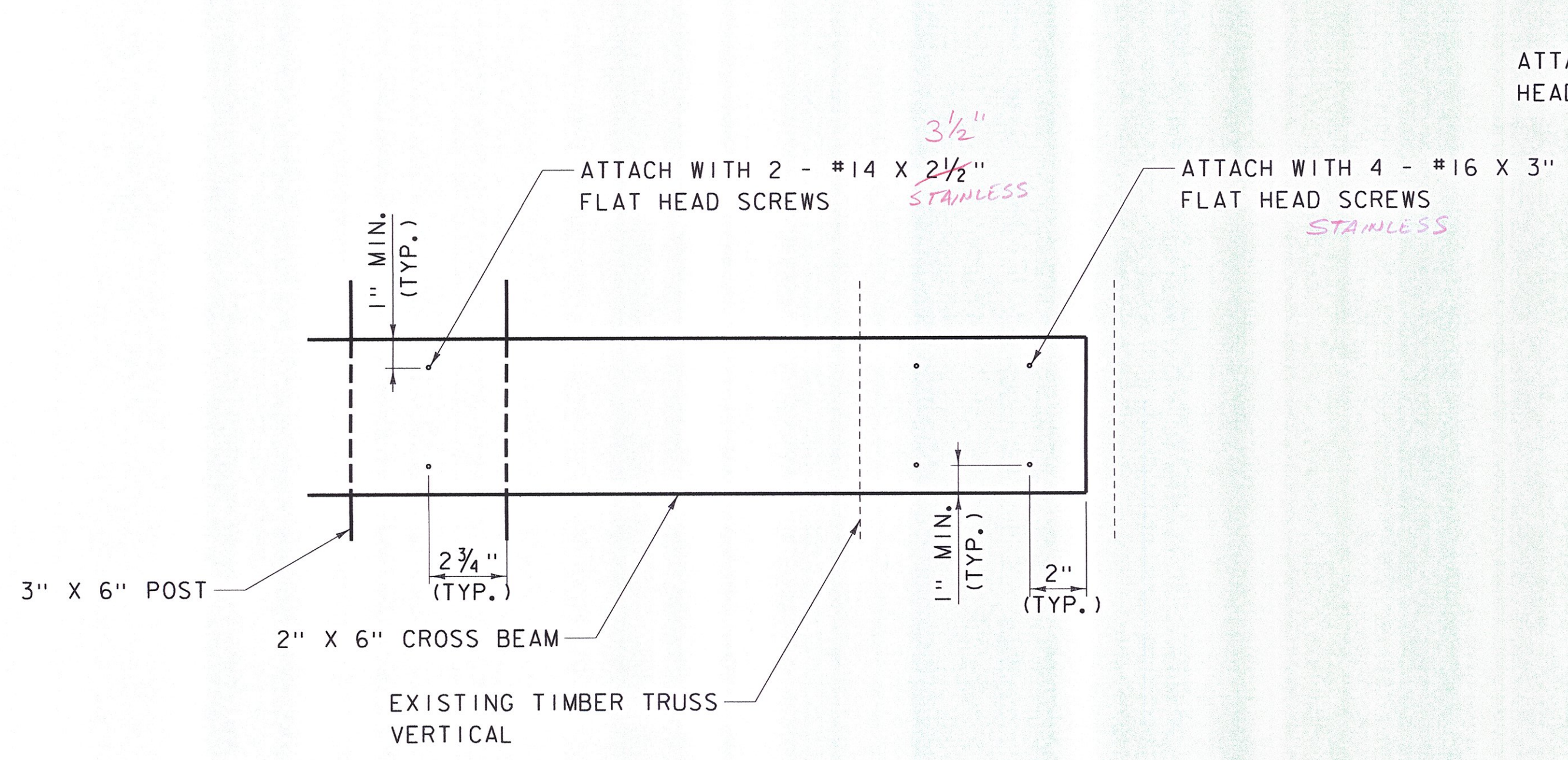




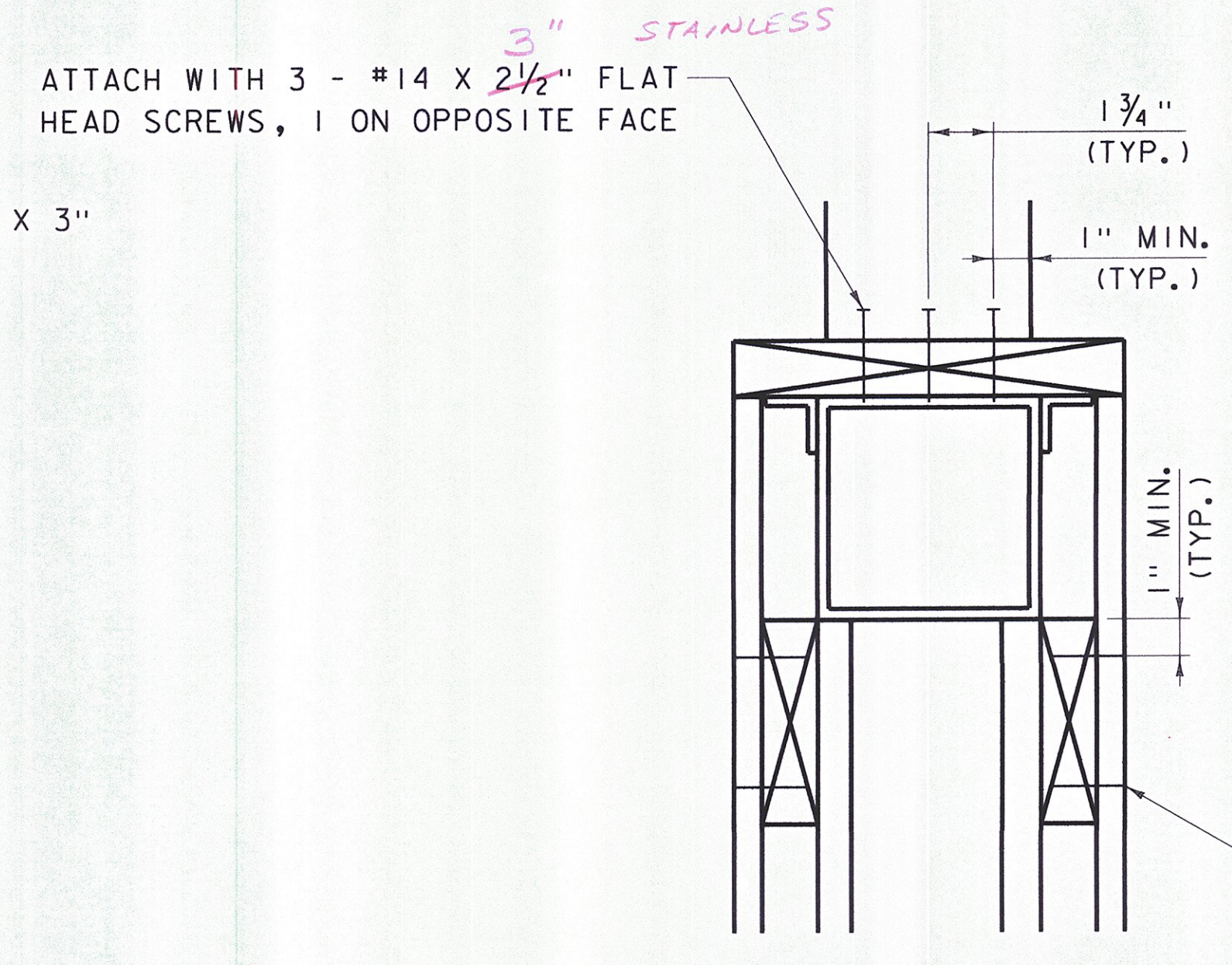
**DETAIL A**  
SCALE: 3"=1'-0"



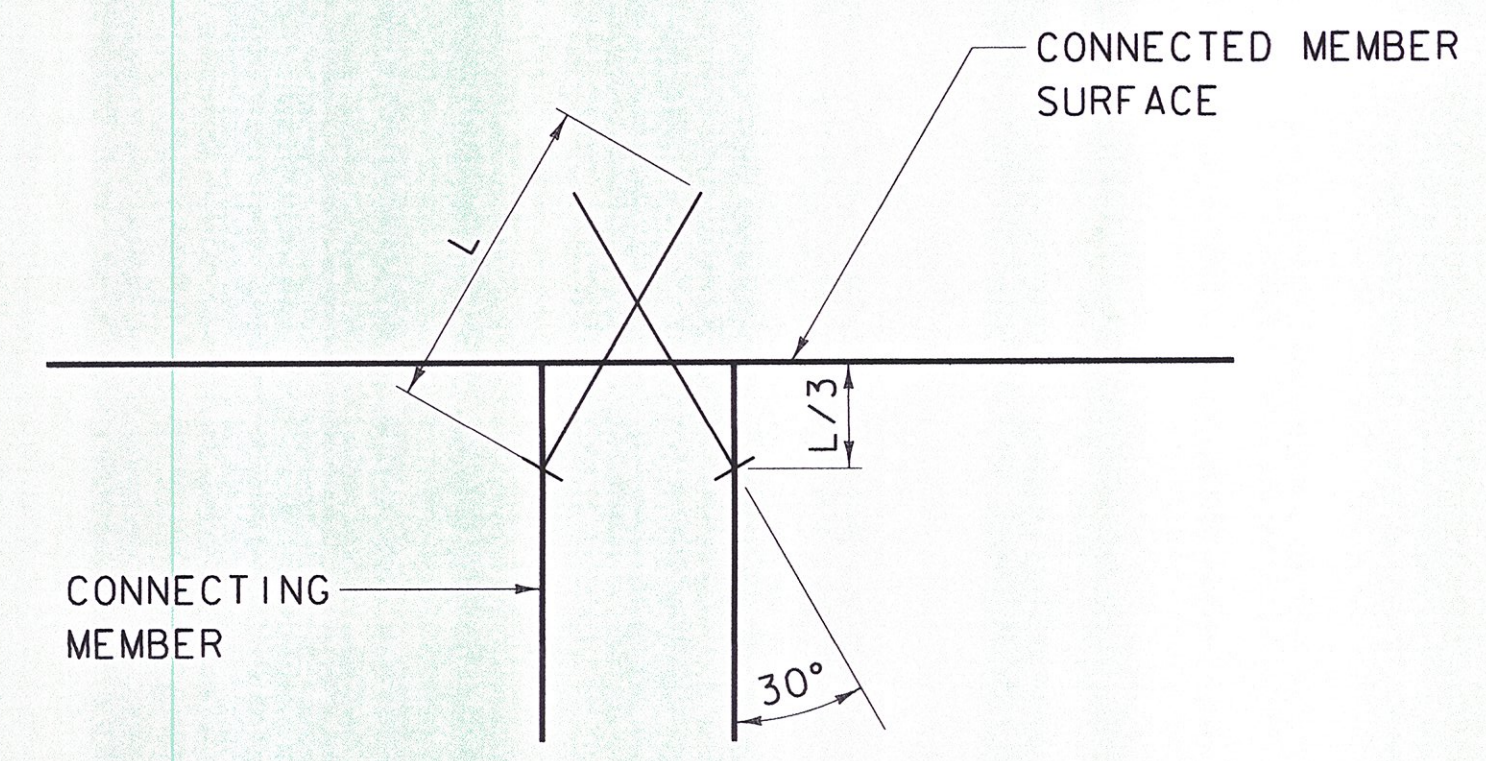
**DETAIL B**  
SCALE: 3"=1'-0"



**DETAIL C**  
SCALE: 3"=1'-0"



**DETAIL D**  
SCALE: 3"=1'-0"



**TOE-SCREW CONNECTION DETAIL**  
NOT TO SCALE

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**FINAL PLANS**

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9 BRIDGE STREET  
WAITSFIELD, VT

VILLAGE COVERED  
BRIDGE REHAB. &  
BRIDGE STREET  
STORMWATER  
IMPROVEMENTS

SHEET TITLE

TIMBER  
CONNECTION  
DETAILS

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

SHEET NUMBER

**14**

SHEET 14 OF 30

DATUM  
VERTICAL NAVD 88  
HORIZONTAL NAD 83 (GPS)

PLOTTED 12/30/2014

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*CLF 12/2015*







1. ELEVATION IS BASED ON A 2'-0" DEPTH OF SUPERSTRUCTURE AND BEARING FROM FINISHED GRADE TO BRIDGE SEAT. IF A DIFFERENT DEPTH OF SUPERSTRUCTURE AND BEARING IS USED, ADJUST THIS ELEVATION ACCORDINGLY, WHILE MAINTAINING A LOW CHORD NO LOWER THAN EL. ~~698.65~~ 697.94 NORTH BOTTOM

3. DETERIORATED CONCRETE AT WEST SIDE OF NORTH ABUTMENT TO BE REPAIRED USING ITEM 501.34, "CONCRETE, HIGH PERFORMANCE CLASS B". FORMING TO FOLLOW SMOOTH CONCRETE SURFACES OF ABUTMENT AND WINGWALL. REFER TO SHEET 4, CONCRETE REPAIR NOTES FOR SURFACE PREPARATION INFORMATION. PAYMENT FOR SURFACE PREPARATION SHALL BE MADE ITEM 529.25. PAYMENT FOR CONCRETE SHALL BE MADE UNDER ITEM 501.34.

MEMBRANE WATERPROOFING, PREFORMED SHEET,  
CENTERED ON JOINT (PAID INCIDENTAL TO  
CONCRETE ITEM)

EDGE OF NEW CONCRETE  
ABUTMENT EXTENSION, MATCH  
NEW BACKWALL TO EXISTING

VOID UNDER ROCK  
FILLED WITH NON SHRINK  
GROUT IN LIEU OF  
CONCRETE.

REPAIR DETERIORATED  
CONCRETE, SEE NOTE 3

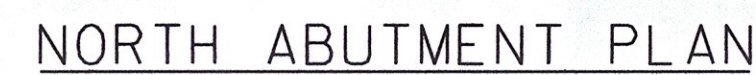
REPLACE DETERIORATED  
BACKWALL WITH CAST-IN-  
PLACE CONCRETE, HIGH  
PERFORMANCE CLASS B,  
DOWEL INTO EXISTING.  
SEE DETAIL, SHEET 20

REPAIR DETERIORATED  
CONCRETE, SEE  
NOTE 3

FILL VOID IN CONCRETE  
WITH CAST-IN-PLACE  
CONCRETE, HIGH  
PERFORMANCE  
CLASS B

|            |                     |
|------------|---------------------|
| DATUM      |                     |
| VERTICAL   | <u>NAVD 88</u>      |
| HORIZONTAL | <u>NAD 83 (GPS)</u> |

PLOTTED 8/11/2015



SCALE:  $\frac{3}{8}" = 1'-0"$   
16' - 9"

BOTTOM TRUSS  
 CHORD, TO REMAIN (TYP.)

TIMBER BEARING  
BLOCK, TO REMAIN (TYP.)

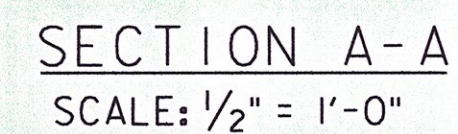
16" X 16" TIMBER  
BOLSTER BEAM, TO REMAIN (TYP.)

3" SLEEVE FOR WIRED  
CONDUIT

APPROX. EXISTING-  
LEDGE

NORTH ABUTMENT ELEVATION

SCALE:  $\frac{3}{8}" = 1'-0"$



SPECIAL PROVISION  
(TIMBER RAILING),  
SEE DETAIL, SHEET 22

TOP OF WALL  
EL. 702.25'

\* EL. 690.00

\* EL. 687.00

\* SEE NOTE 2

## NORTHEAST WINGWALL ELEVATION

SCALE:  $\frac{3}{8}" = 1'-0"$

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| NO. | DATE    | DESCRIPTION           | BY  | CK'D |
|-----|---------|-----------------------|-----|------|
| 1   | 8/10/15 | NORTHEAST WALL UPDATE | PCB | EPD  |
| 2   | 7/31/15 | WALL UPDATES          | PCB | EPD  |

TOWN OF  
WAITSFIELD  
9 BRIDGE STREET  
WAITSFIELD, VT

VILLAGE COVERED  
BRIDGE REHAB. &  
BRIDGE STREET  
STORMWATER  
IMPROVEMENTS

SHEET TITLE

NORTH ABUTMENT &  
NORTHEAST  
WINGWALL  
MASONRY

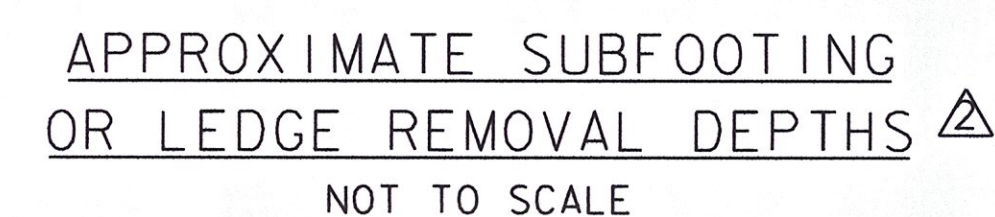
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|---------------------|-------------------------|
| DRAWN BY<br>RHB/JDG | DATE<br>DEC. 2014       |
| CHECKED BY<br>RHD   | D&K PROJECT #<br>620922 |
| PROJ. ENG.          | D&K ARCHIVE #           |

SHEET NUMBER

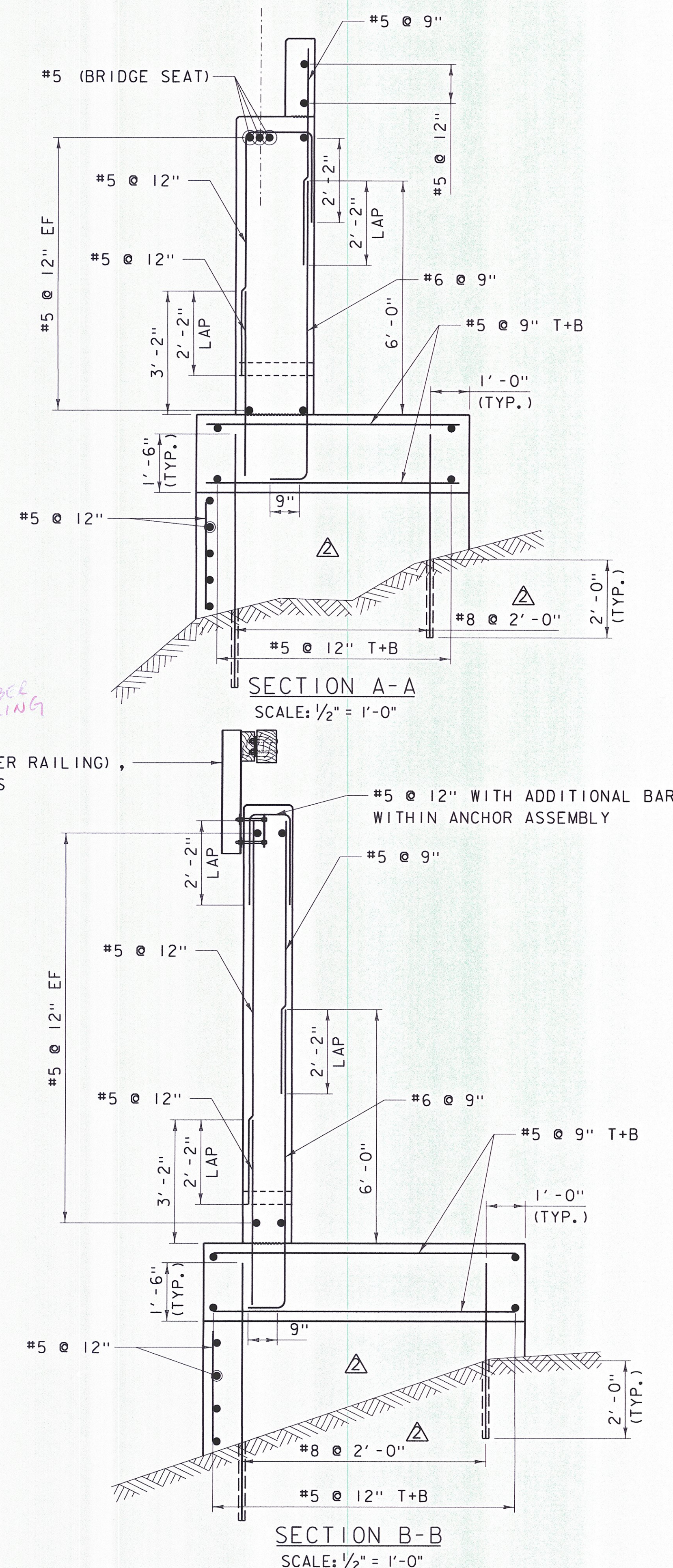
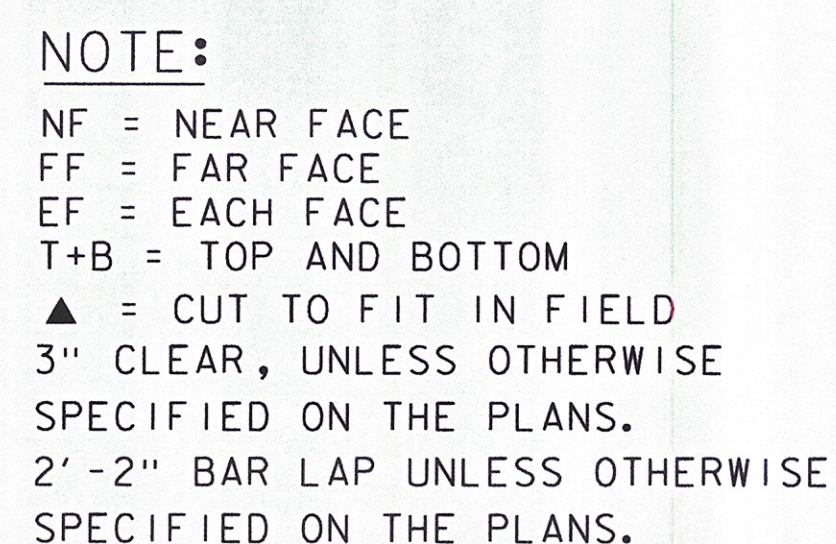
16

SHEET 16 OF 30





| LOCATION | APPROX. LEDGE ELEVATION | APPROX. SUBFOOTING DEPTH | APPROX. LEDGE REMOVAL |
|----------|-------------------------|--------------------------|-----------------------|
| 1        | 690.1                   | -                        | 0.1'                  |
| 2        | 690.1                   | -                        | 0.1'                  |
| 3        | 684.2                   | 5.8'                     | -                     |
| 4        | 686.9                   | 3.1'                     | -                     |
| 5        | 687.2                   | 2.8'                     | -                     |
| 6        | 685.8                   | 4.2'                     | -                     |
| 7        | 685.9                   | 1.1'                     | -                     |
| 8        | 685.7                   | 1.3'                     | -                     |
| 9        | 685.9                   | 1.1'                     | -                     |
| 10       | 685.9                   | 1.1'                     | -                     |
| 11       | 685.7                   | 1.3'                     | -                     |





## FINAL PLANS

| NO. | DATE    | DESCRIPTION        | BY  | CHKD |
|-----|---------|--------------------|-----|------|
| 1   | 9/22/15 | NEW WALL AND SHEET | PCB | EPD  |

TOWN OF  
WAITSFIELD  
9 BRIDGE STREET  
WAITSFIELD, VT

VILLAGE COVERED  
BRIDGE REHAB. &  
BRIDGE STREET  
STORMWATER  
IMPROVEMENTS

### SHEET TITLE

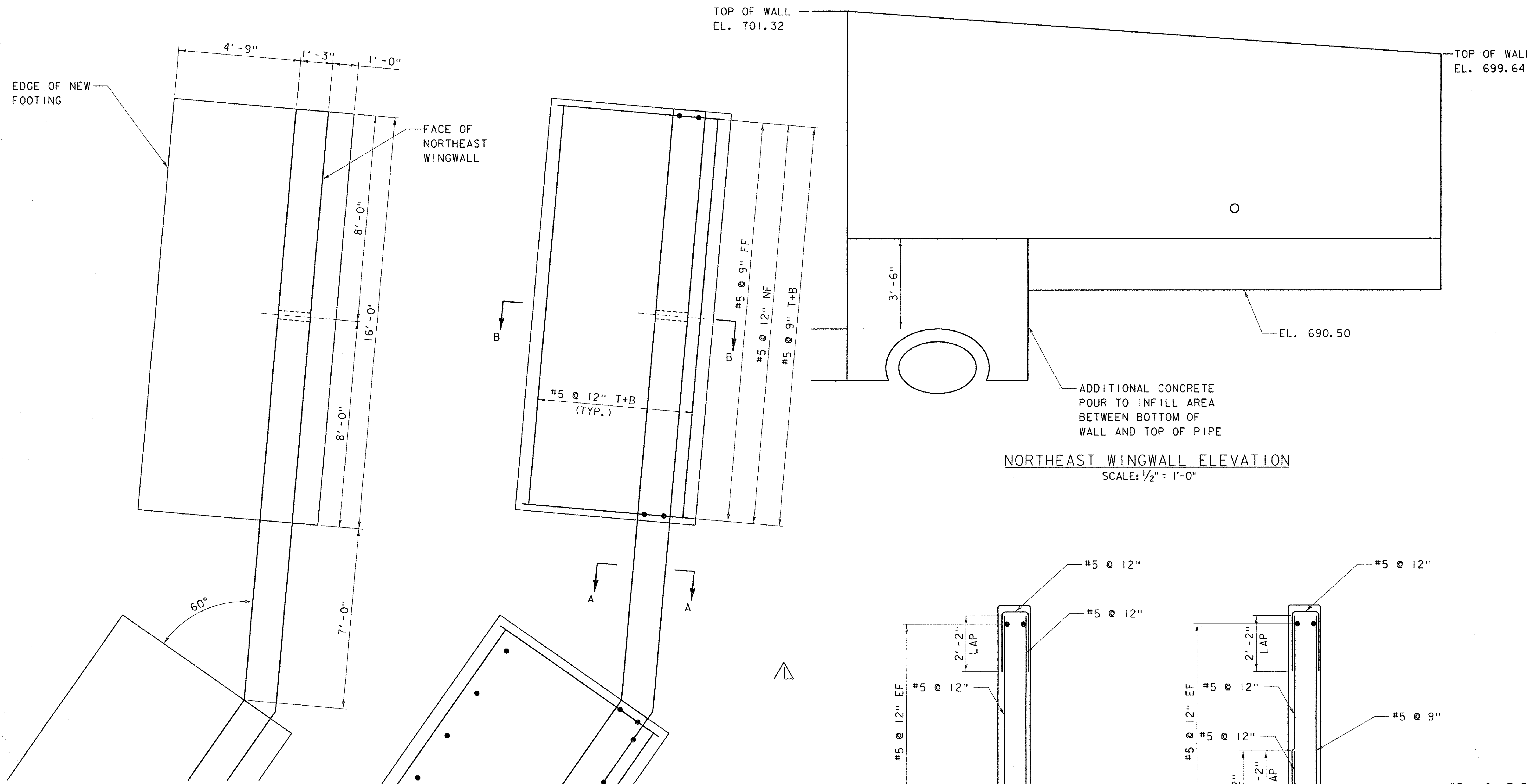
NORTHEAST  
WINGWALL  
MASONRY AND  
REINFORCING

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

### SHEET NUMBER

17A

SHEET 17A OF 30



NORTHEAST WINGWALL MASONRY PLAN

SCALE: 1/2" = 1'-0"

NORTHEAST WINGWALL FOOTING

REINFORCING PLAN

SCALE: 1/2" = 1'-0"

### NOTE:

NF = NEAR FACE  
FF = FAR FACE  
EF = EACH FACE  
T+B = TOP AND BOTTOM  
▲ = CUT TO FIT IN FIELD  
3" CLEAR, UNLESS OTHERWISE  
SPECIFIED ON THE PLANS.  
2'-2" BAR LAP UNLESS OTHERWISE  
SPECIFIED ON THE PLANS.

### NOTE:

ADDITIONAL CONCRETE  
POUR TO INFILL AREA  
BETWEEN BOTTOM OF  
WALL AND TOP OF PIPE  
NOT SHOWN FOR CLARITY

SECTION A-A

SCALE: 1/2" = 1'-0"

SECTION B-B

SCALE: 1/2" = 1'-0"

DATUM  
VERTICAL NAVD 88  
HORIZONTAL NAD 83 (GPS)

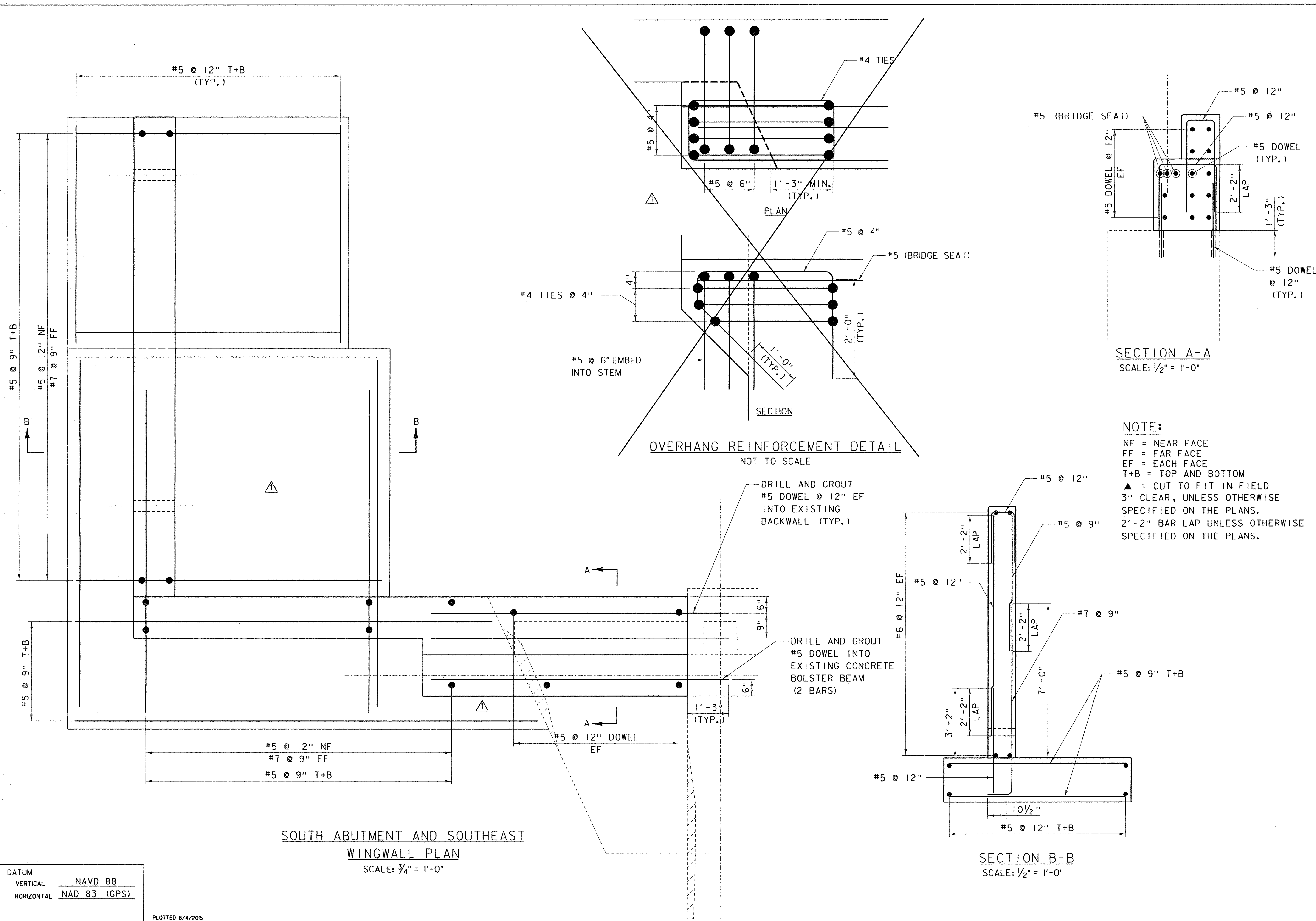
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PROFESSIONAL SEAL

**FINAL PLANS**

| NO. | DATE    | BY | CHKD | WALL UPDATES | DESCRIPTION |
|-----|---------|----|------|--------------|-------------|
|     | 7/31/15 |    |      | PCB          |             |
|     |         |    |      | EPD          |             |

**TOWN OF WAITSFIELD**  
9 BRIDGE STREET  
WAITSFIELD, VT

VILLAGE COVERED  
BRIDGE REHAB. &  
BRIDGE STREET  
STORMWATER  
IMPROVEMENTS

**SHEET TITLE**  
SOUTH ABUTMENT &  
SOUTHEAST  
WINGWALL  
REINFORCING

| DRAWN BY | DATE      |
|----------|-----------|
| RHB/JDG  | DEC. 2014 |

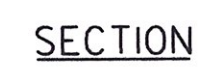
| CHECKED BY | D&K PROJECT # |
|------------|---------------|
| RHD        | 620922        |

| PROJ. ENG. | D&K ARCHIVE # |
|------------|---------------|
| RHB        | 620922        |

**SHEET NUMBER**  
**19**

SHEET 19 OF 30

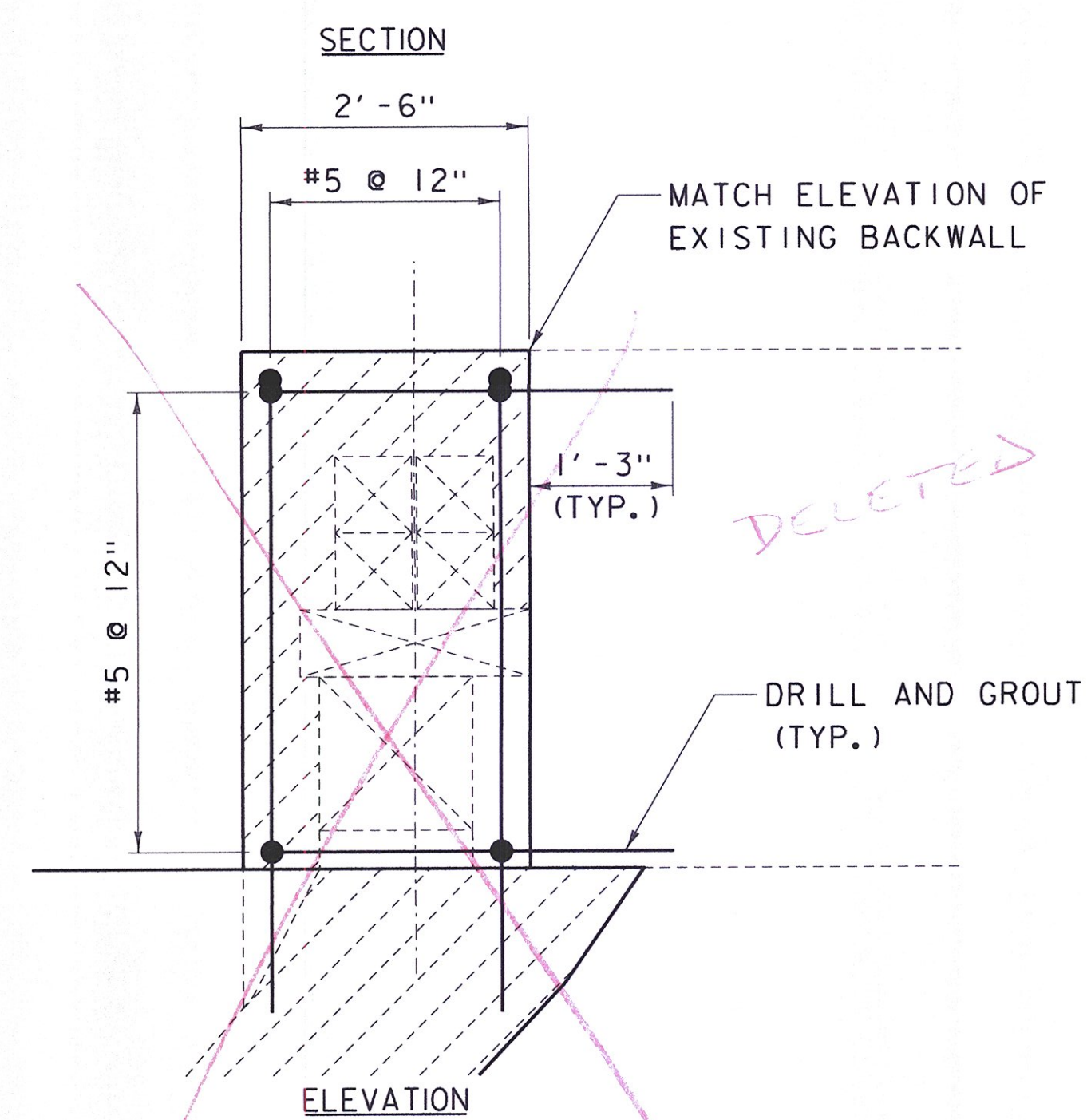
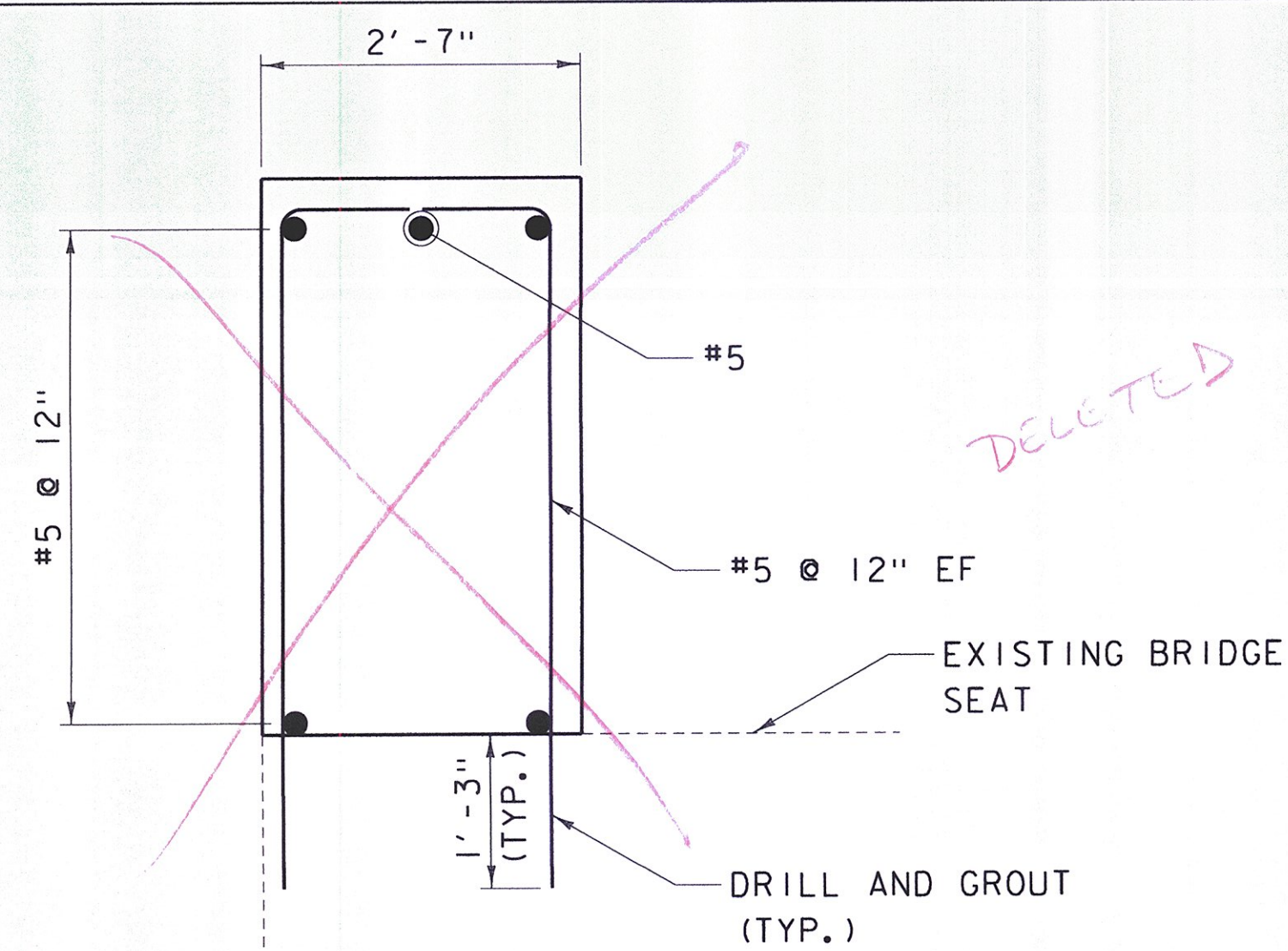




REPAIR w/  
CLASS AA  
CONCRETE



NOTE: COST FOR WWF SHALL BE INCLUDED UNDER  
CONCRETE REPAIR ITEM



BACKWALL REPLACEMENT DETAIL  
NOT TO SCALE

Chlorine

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SPRINGFIELD, VT  
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PROFESSIONAL SEAL

## FINAL PLANS

[illegible]

TOWN OF  
WAITSFIELD  
9 BRIDGE STREET  
WAITSFIELD, VT

VILLAGE COVERED  
BRIDGE REHAB. &  
BRIDGE STREET  
STORMWATER  
IMPROVEMENTS

SHEET TITLE

## SUBSTRUCTURE DETAILS

|                     |                         |
|---------------------|-------------------------|
| DRAWN BY<br>RHB/JDG | DATE<br>DEC. 201        |
| CHECKED BY<br>RHD   | D&K PROJECT #<br>620922 |
| PROJ. ENG.<br>RHB   | D&K ARCHIVE #<br>620922 |

SHEET NUMBER

20

SHEET 20 OF 30

I:\620922 - Wait+sfeld\DESIGN\CADD FILES\620922-SUB.dgn

|            |              |
|------------|--------------|
| DATUM      |              |
| VERTICAL   | NAVD 88      |
| HORIZONTAL | NAD 83 (GPS) |

PLOTTED 12/30/2014







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& King<sup>INC.</sup>**

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**PROFESSIONAL SEAL**

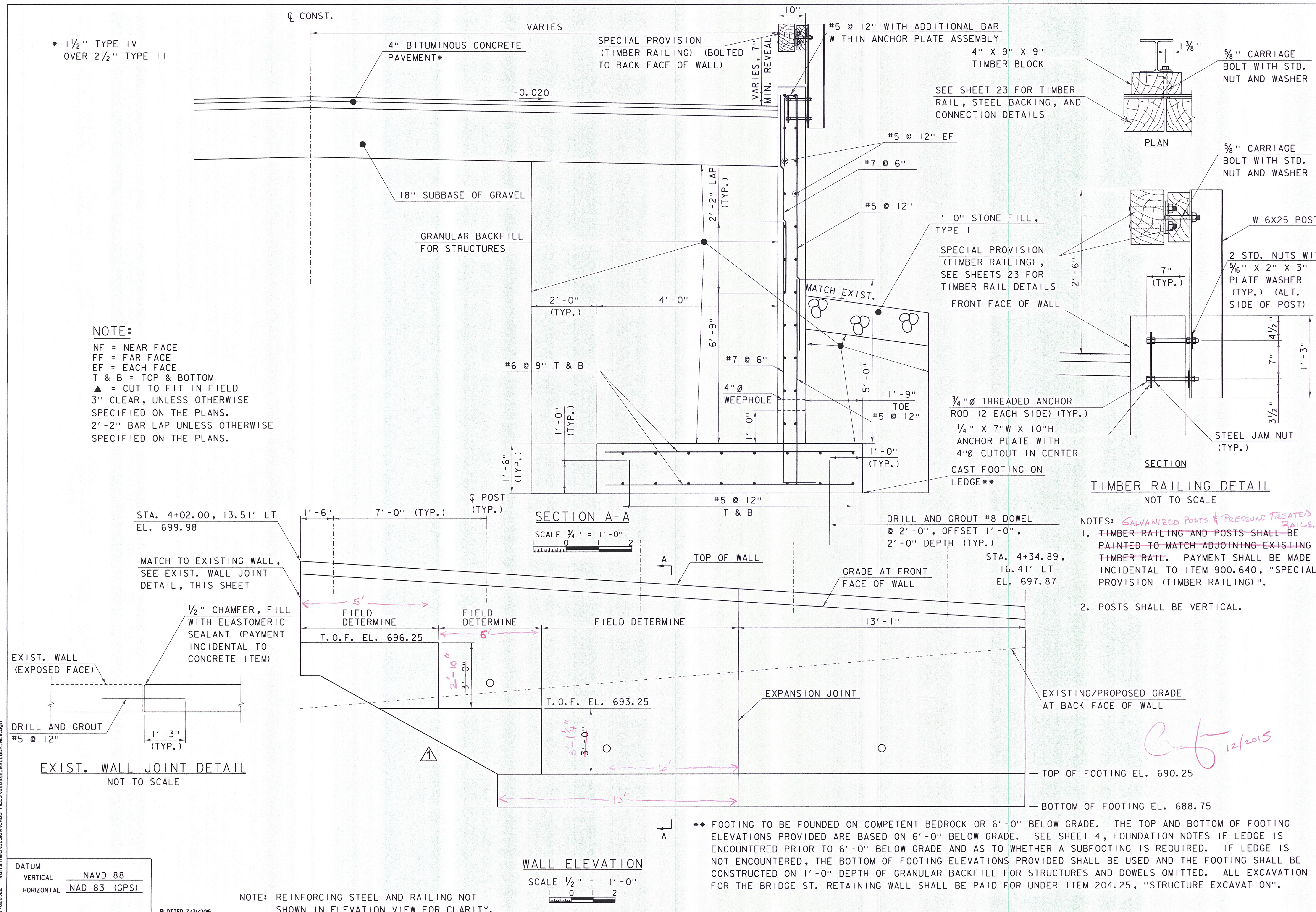
[illegible]

VILLAGE COVERED  
BRIDGE REHAB. &  
BRIDGE STREET  
STORMWATER  
IMPROVEMENTS

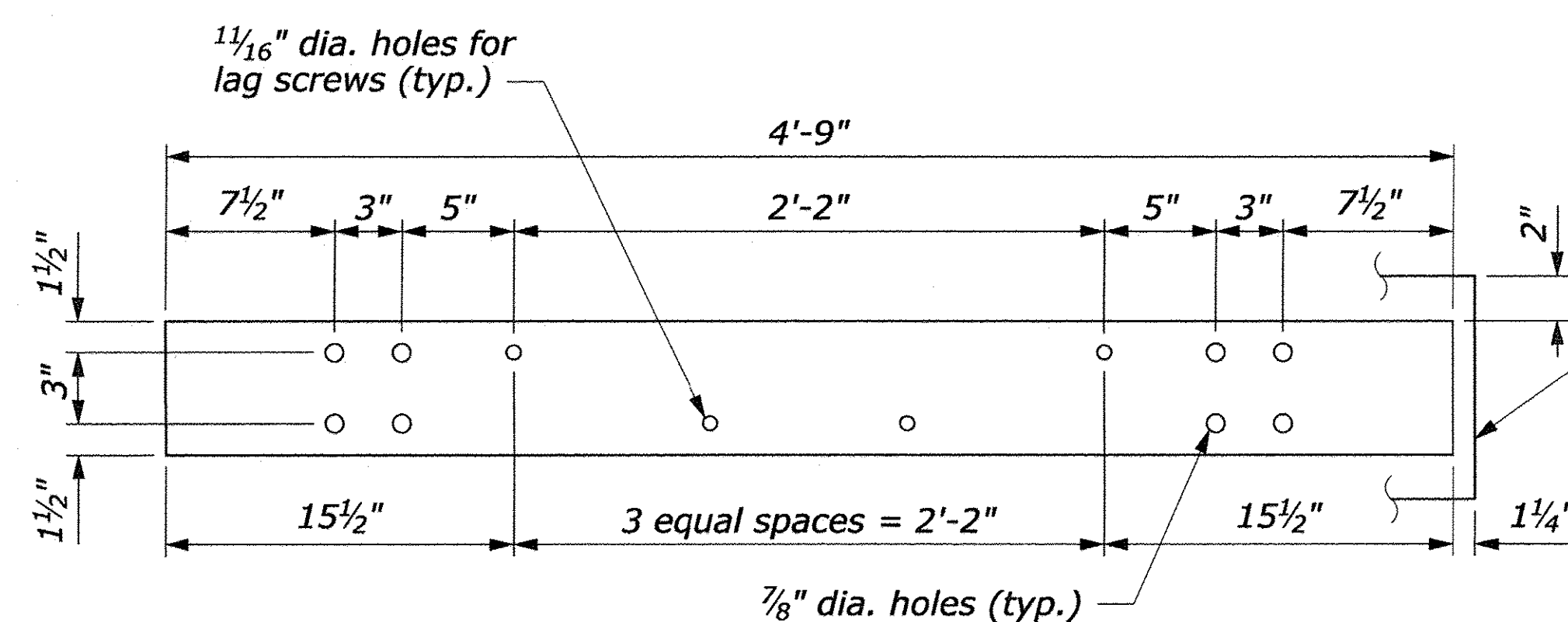
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|---------------------|-------------------------|
| DRAWN BY<br>RHB/JDG | DATE<br>DEC. 2014       |
| CHECKED BY<br>EPD   | D&K PROJECT #<br>620922 |
| PROJ. ENG.          | D&K ARCHIVE #           |

22

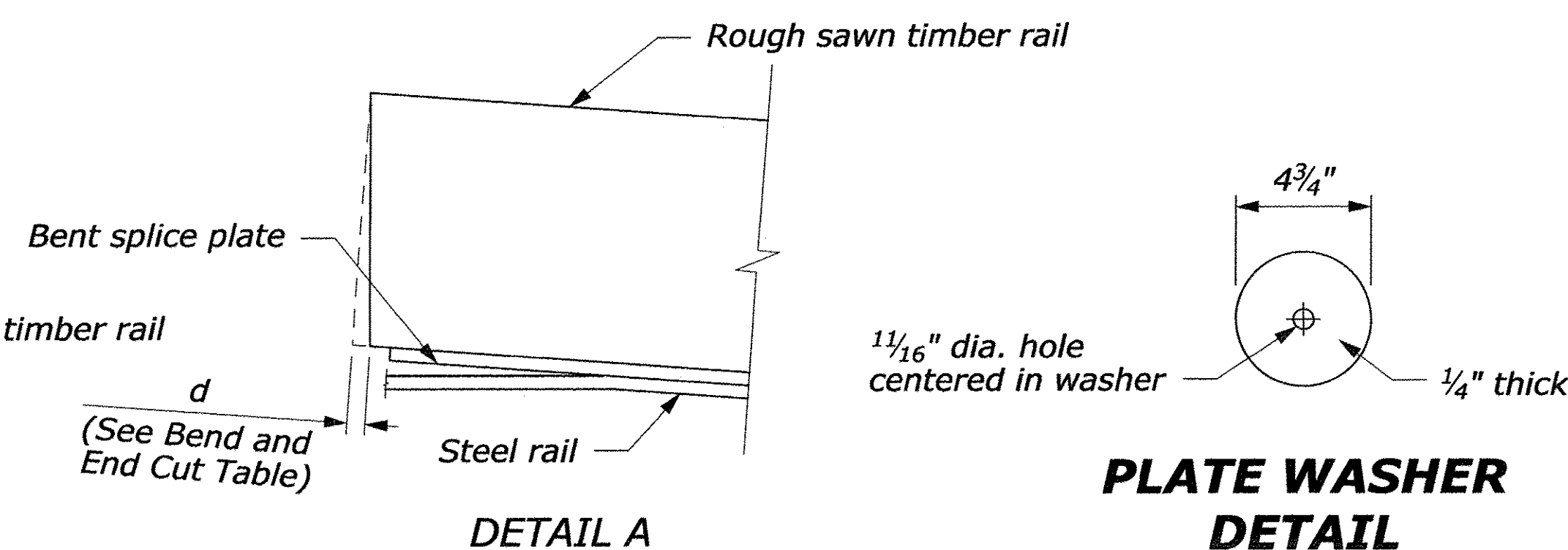
SHEET 22 OF 30







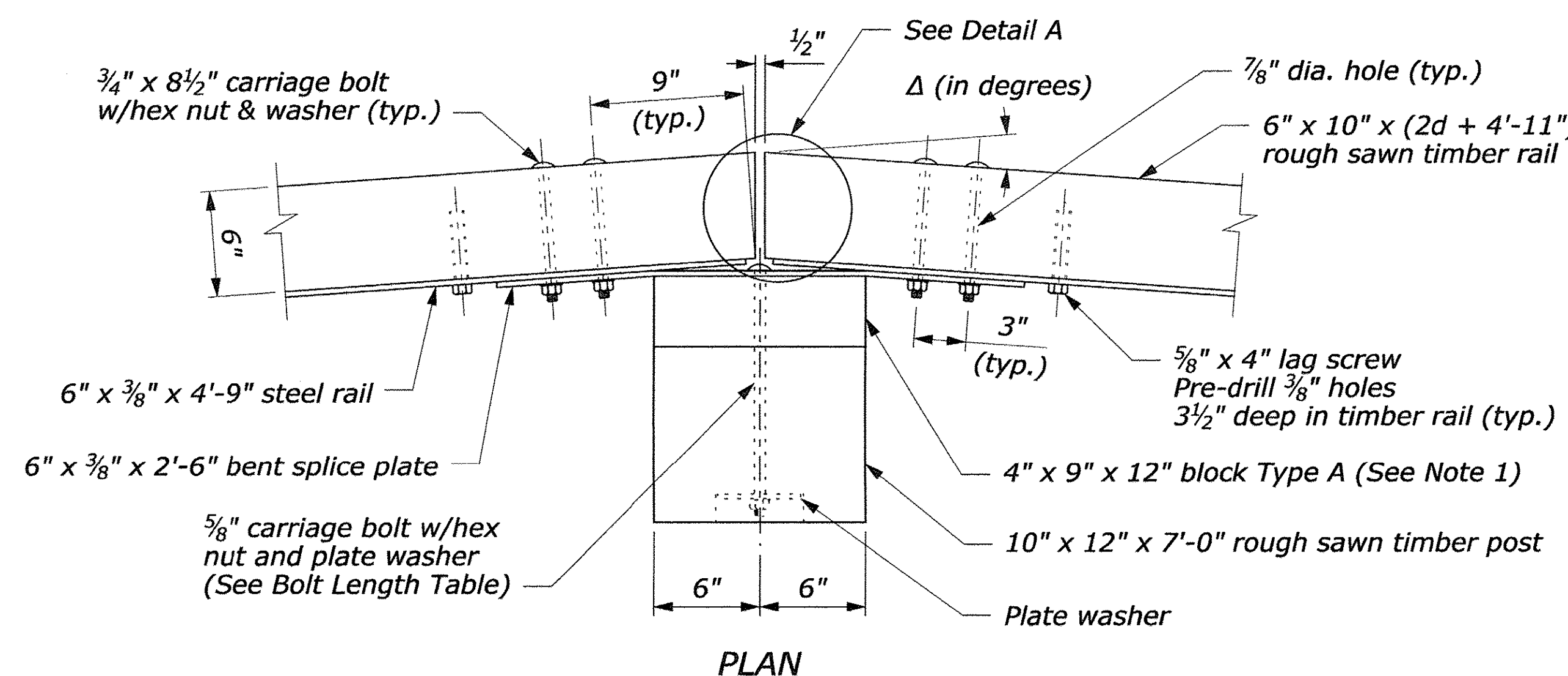
**STEEL RAIL**  
6" x 3/8" x 4'-9"



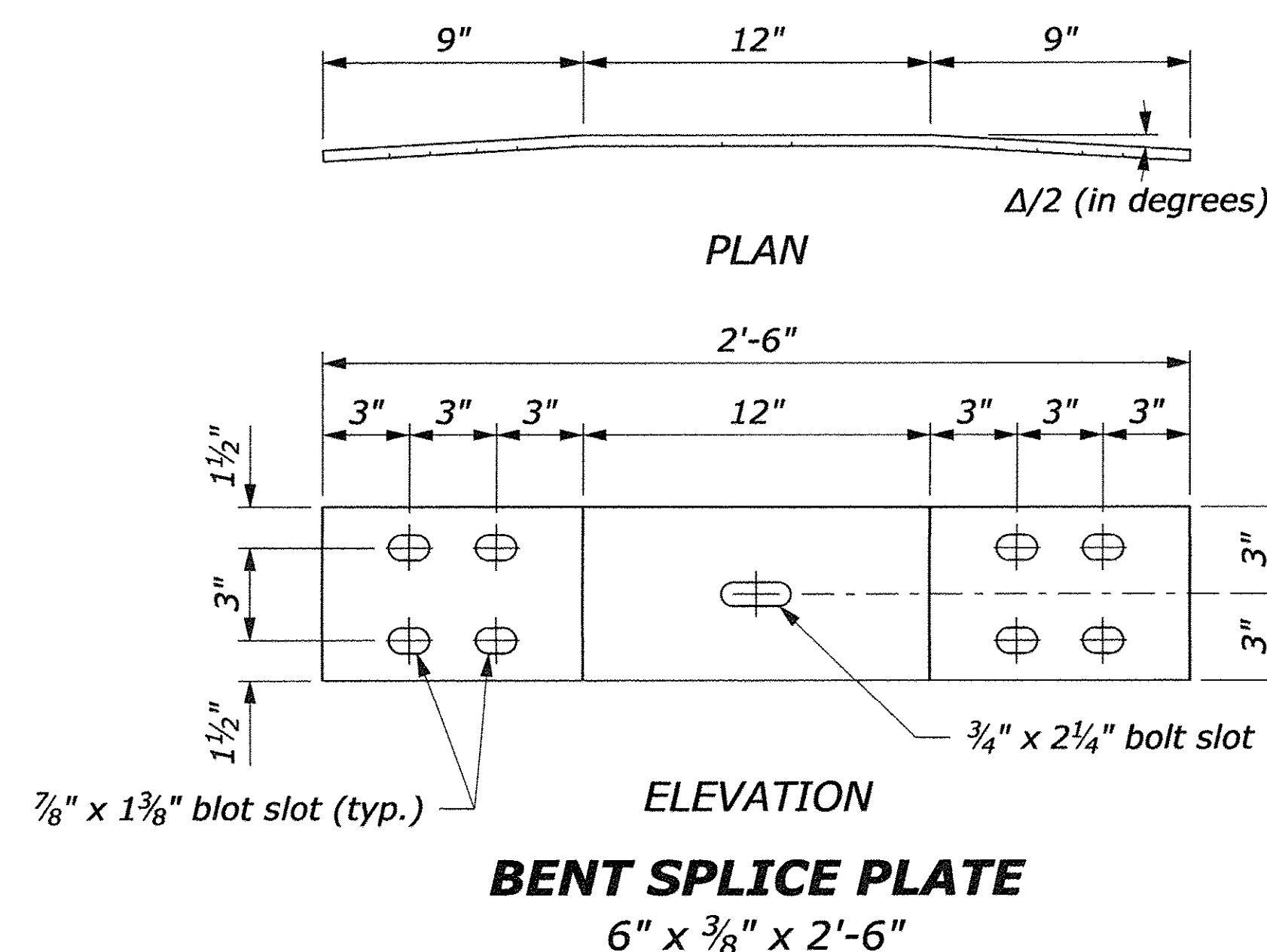
### PLATE WASHER DETAIL

**NOTE:**

1. Use the Type A, blocked-out, system or the Type B, non-blocked-out, system as specified.
2. Use the weathering steel for all structural steel and fastener hardware.
3. Furnish shop bent splice plates. Use the minimum bend angle shown in the table below.
4. See Sheet 2 of 2 for Plan View Layout.



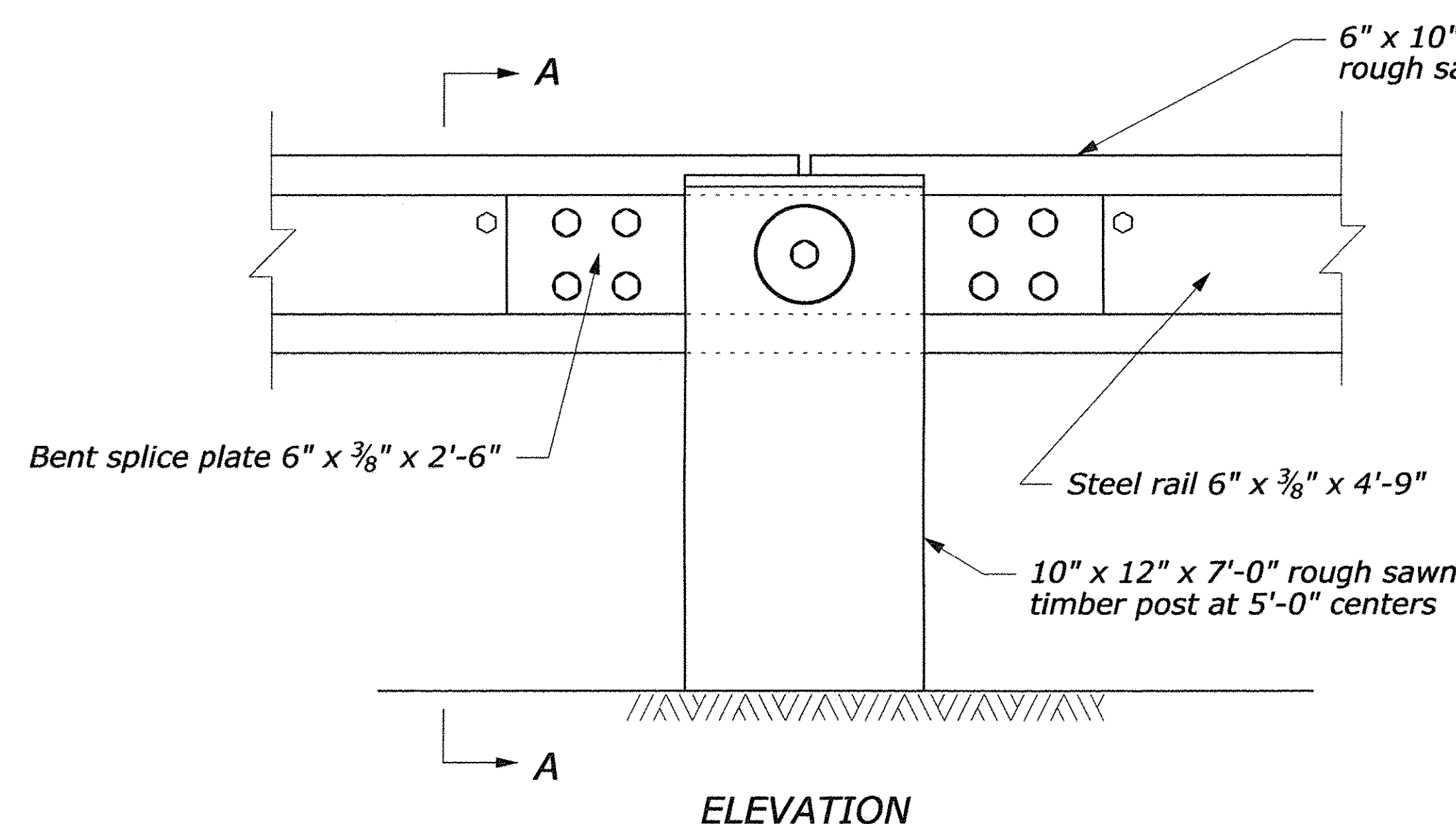
### PLAN



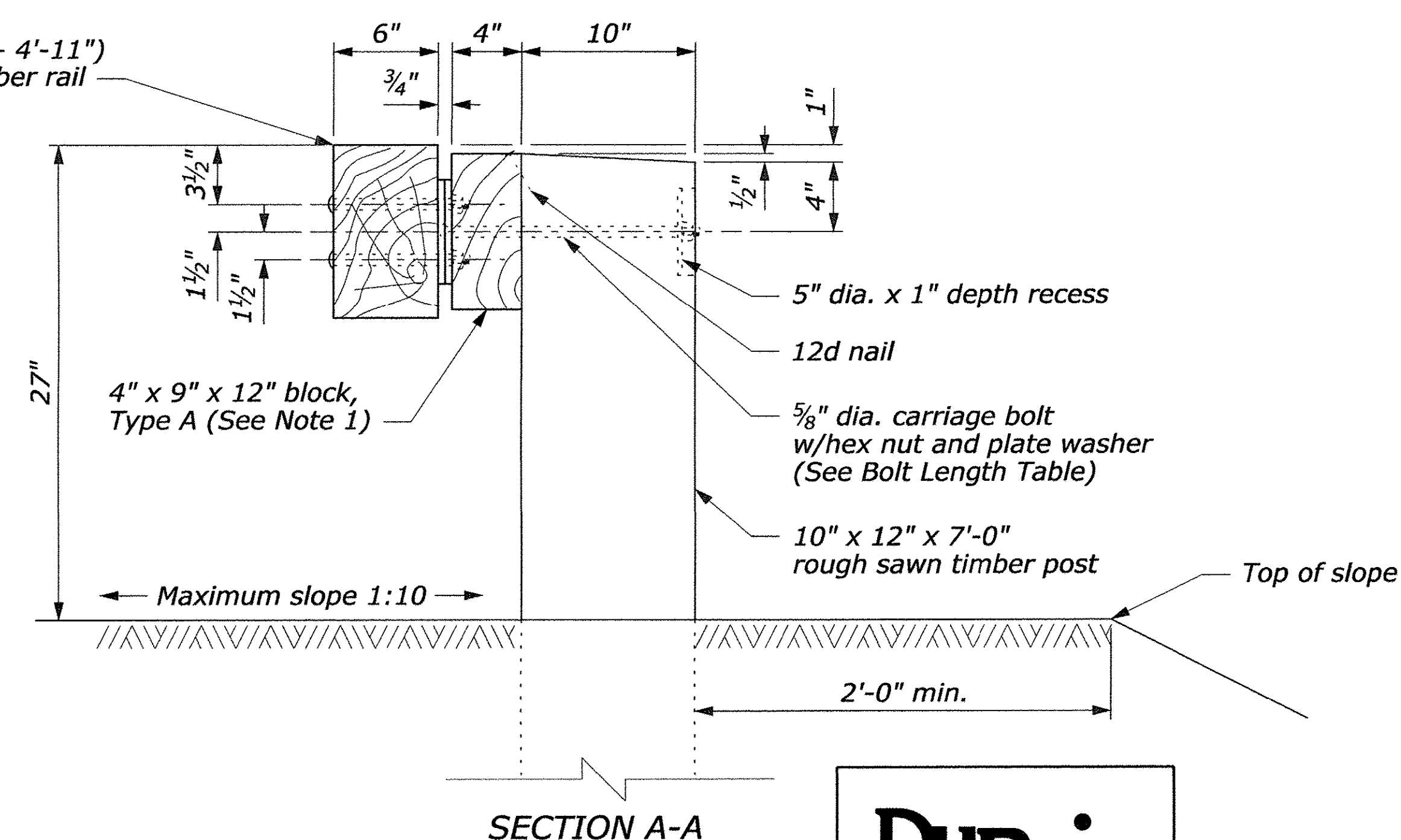
**BENT SPLICE PLATE**  
6" x  $\frac{3}{8}$ " x 2'-6"

| <b>BEND AND<br/>END CUT TABLE</b> |                                          |                 |
|-----------------------------------|------------------------------------------|-----------------|
| <b>Radius R<br/>ft</b>            | <b><math>\Delta/2</math><br/>degrees</b> | <b>d<br/>in</b> |
| 20                                | 7.18                                     | $\frac{3}{4}$   |
| 25                                | 5.74                                     | $\frac{5}{8}$   |
| 30                                | 4.78                                     | $\frac{1}{2}$   |
| 35                                | 4.10                                     | $\frac{7}{16}$  |
| 40                                | 3.58                                     | $\frac{3}{8}$   |
| 45                                | 3.18                                     | $\frac{1}{3}$   |
| 50                                | 2.87                                     | $\frac{5}{16}$  |
| 55                                | 2.61                                     | $\frac{1}{4}$   |
| 60                                | 2.39                                     | $\frac{1}{4}$   |
| 65                                | 2.20                                     | $\frac{1}{4}$   |
| 70                                | 2.05                                     | $\frac{1}{4}$   |
| over 70                           | flat                                     | 0               |

| <b>BOLT LENGTH TABLE</b>      |                                  |
|-------------------------------|----------------------------------|
| <b>Type A<br/>(Block-out)</b> | <b>Type B<br/>(No Block-out)</b> |
| <b>15"</b>                    | <b>11"</b>                       |



**ELEVATION**



**SECTION A-A**

## POST CONNECTION



SHEET 23 OF 30

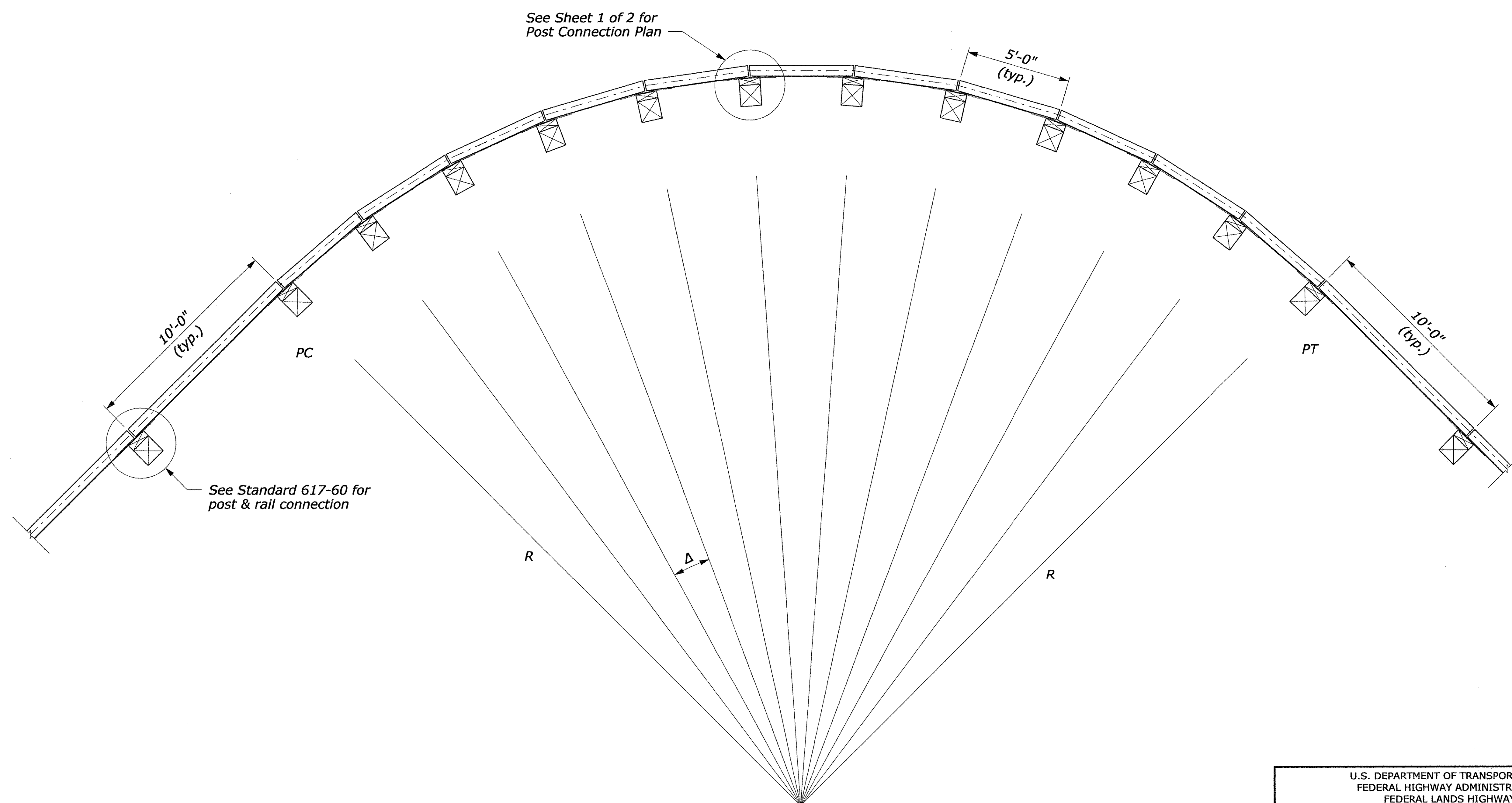
*NO SCALE*

|                                                                                                                                                           |                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| U.S. DEPARTMENT OF TRANSPORTATION<br>FEDERAL HIGHWAY ADMINISTRATION<br>FEDERAL LANDS HIGHWAY                                                              |                    |
| U.S. CUSTOMARY STANDARD<br><b>STEEL-BACKED TIMBER GUARDRAIL<br/>         AROUND CIRCULAR CURVES<br/>         70 FOOT RADIUS AND BELOW</b><br>Sheet 1 of 2 |                    |
| STANDARD APPROVED FOR USE 6/2005                                                                                                                          | STANDARD<br>617-63 |
| REVISED:                                                                                                                                                  |                    |



**NOTE:**

1.  $\Delta$  is the central angle which subtends a 5'-0" chord.
2.  $R$  is measured from the center of the circle to the back surface of the rough sawn timber rail.



**PLAN VIEW LAYOUT**

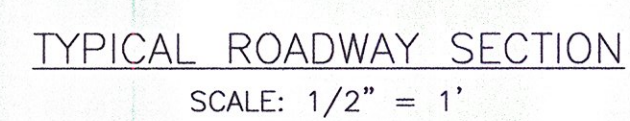
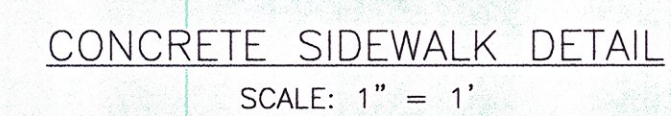
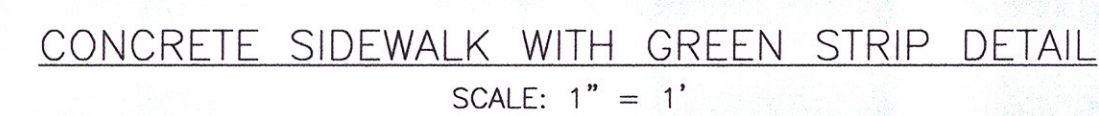
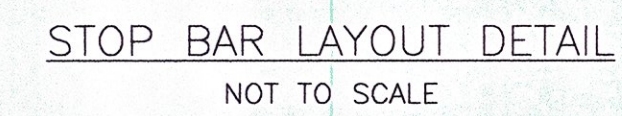
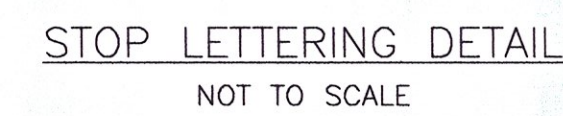
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SHEET 24 OF 30

NO SCALE

|                                                                                                                                         |          |
|-----------------------------------------------------------------------------------------------------------------------------------------|----------|
| U.S. DEPARTMENT OF TRANSPORTATION<br>FEDERAL HIGHWAY ADMINISTRATION<br>FEDERAL LANDS HIGHWAY                                            |          |
| U.S. CUSTOMARY STANDARD<br><b>STEEL-BACKED TIMBER GUARDRAIL<br/>AROUND CIRCULAR CURVES<br/>70 FOOT RADIUS AND BELOW</b><br>Sheet 2 of 2 |          |
| STANDARD APPROVED FOR USE 6/2005                                                                                                        | STANDARD |
| REVISED:                                                                                                                                | 617-63   |





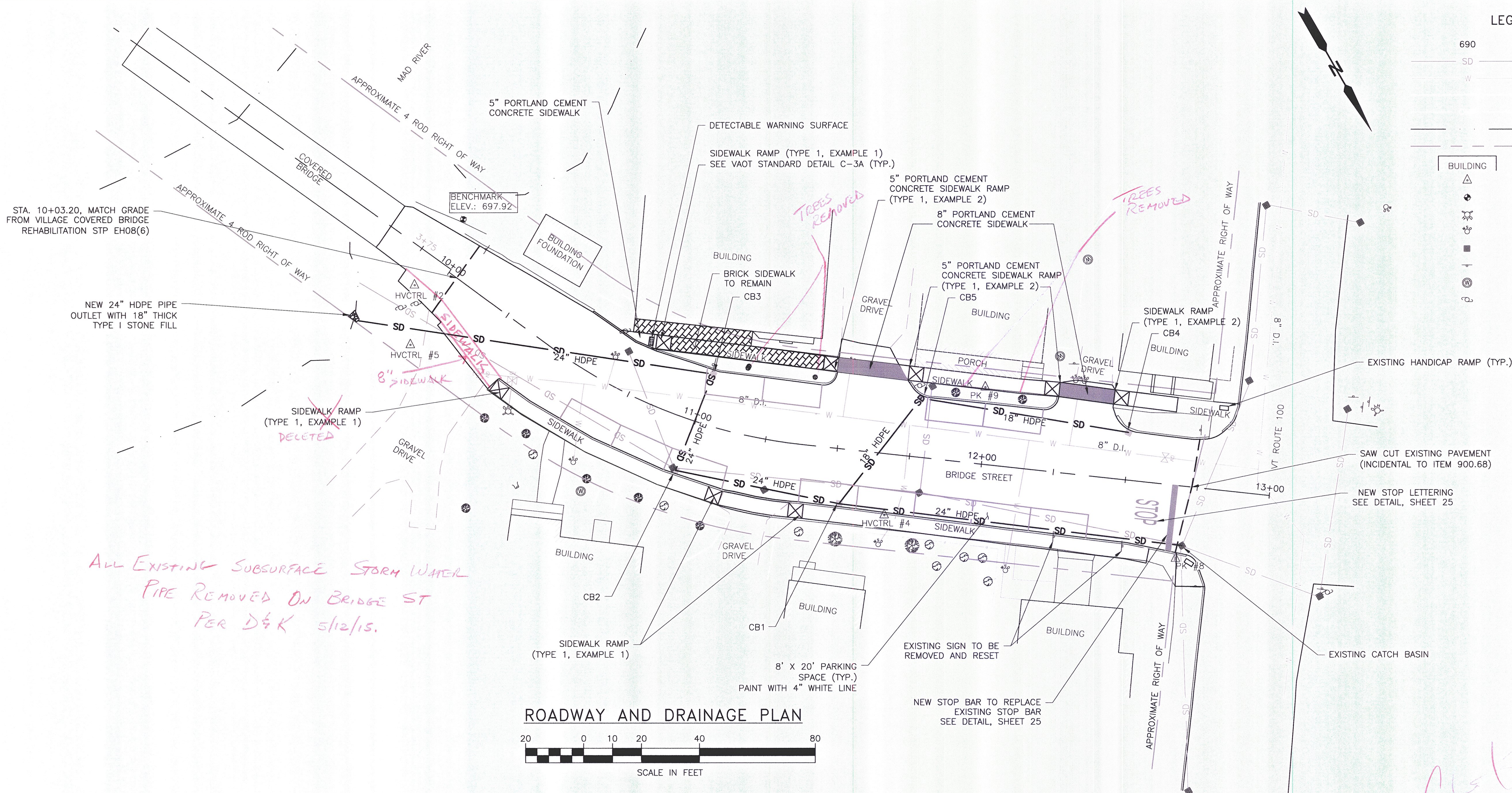
SHEET 25 OF 30







K:\121447 Waitsfield\dwg\121447\_NU01.dwg 5/29/2015 2:23 PM







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PROFESSIONAL SEAL

## FINAL PLANS

| NO.        | DATE       | DESCRIPTION       | BY  | CHK'D |
|------------|------------|-------------------|-----|-------|
| 05/29/2015 | 05/29/2015 | PROFILE REVISIONS | RHB | EPD   |

TOWN OF  
WAITSFIELD  
9 BRIDGE STREET  
WAITSFIELD, VT

VILLAGE COVERED  
BRIDGE REHAB. &  
BRIDGE STREET  
STORMWATER  
IMPROVEMENTS

SHEET TITLE

ROADWAY CROSS  
SECTIONS

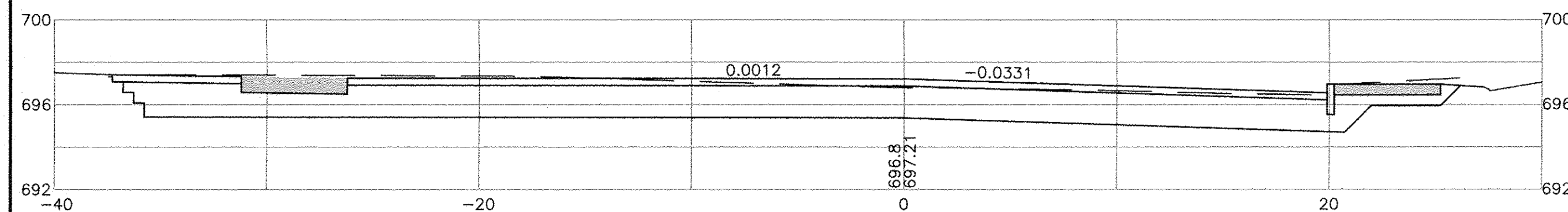
|            |               |
|------------|---------------|
| DRAWN BY   | DATE          |
| ZDC        | MAY 2014      |
| CHECKED BY | D&K PROJECT # |
| HLV        | 121447        |
| PROJ. ENG. | D&K ARCHIVE # |
| HLV        |               |

SHEET NUMBER

28

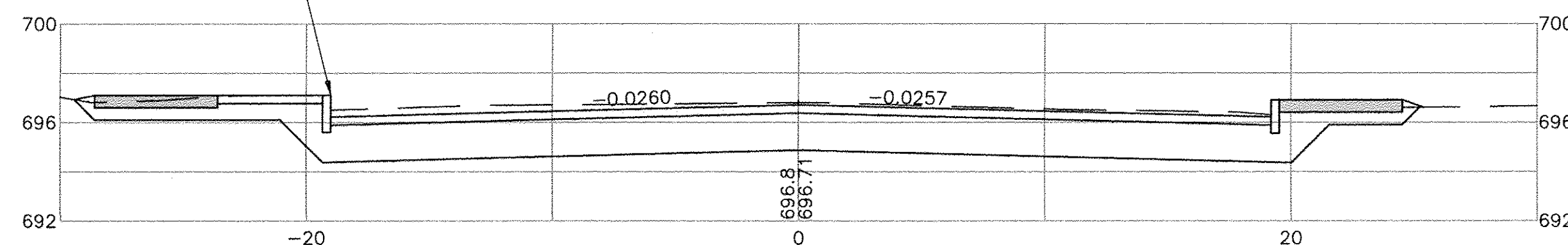
SHEET 28 OF 30

11+50 Δ

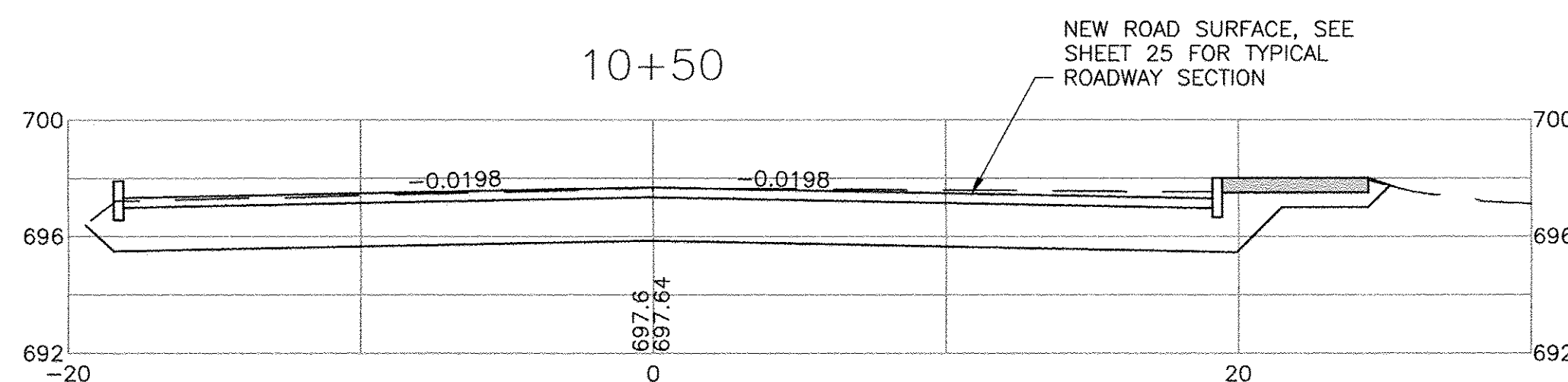


EXISTING GRANITE CURB  
TO BE REMOVED AND  
RESET, AS SHOWN

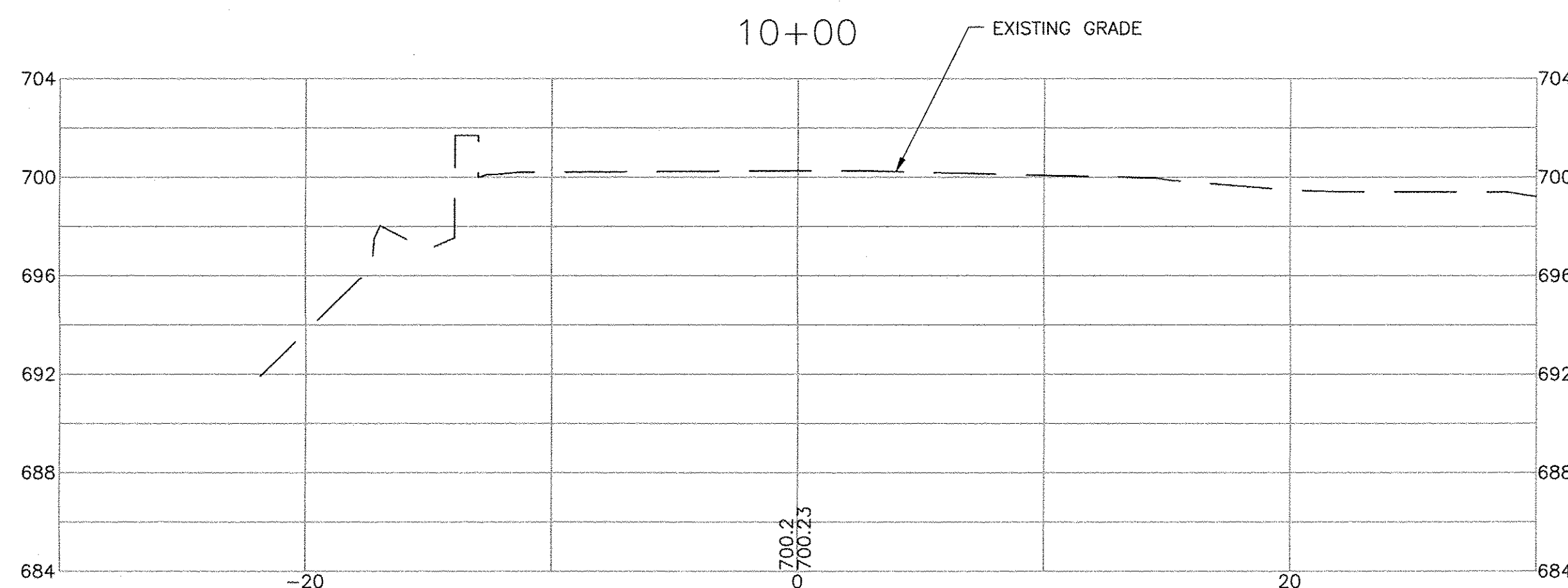
11+00 Δ



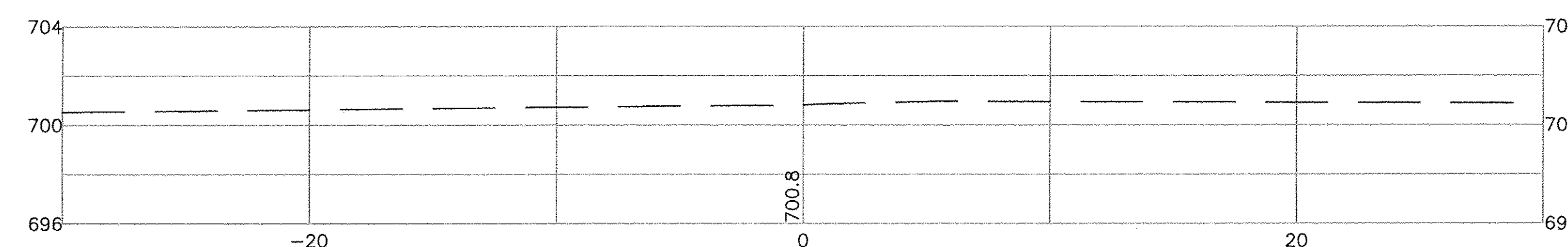
10+50



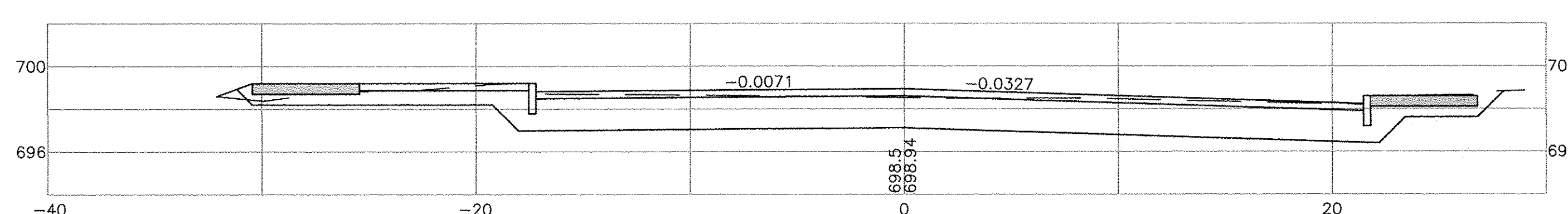
10+00



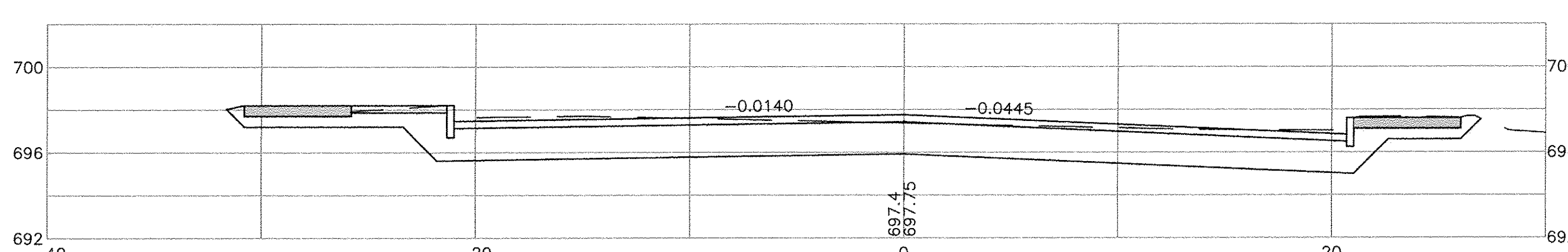
13+00



12+50 Δ

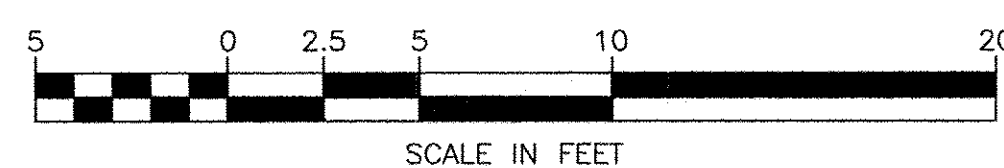


12+00 Δ



NOTE: FUTURE LIGHTING CONDUIT AND TRENCH NOT SHOWN ON CROSS SECTIONS.

## ROADWAY CROSS SECTIONS



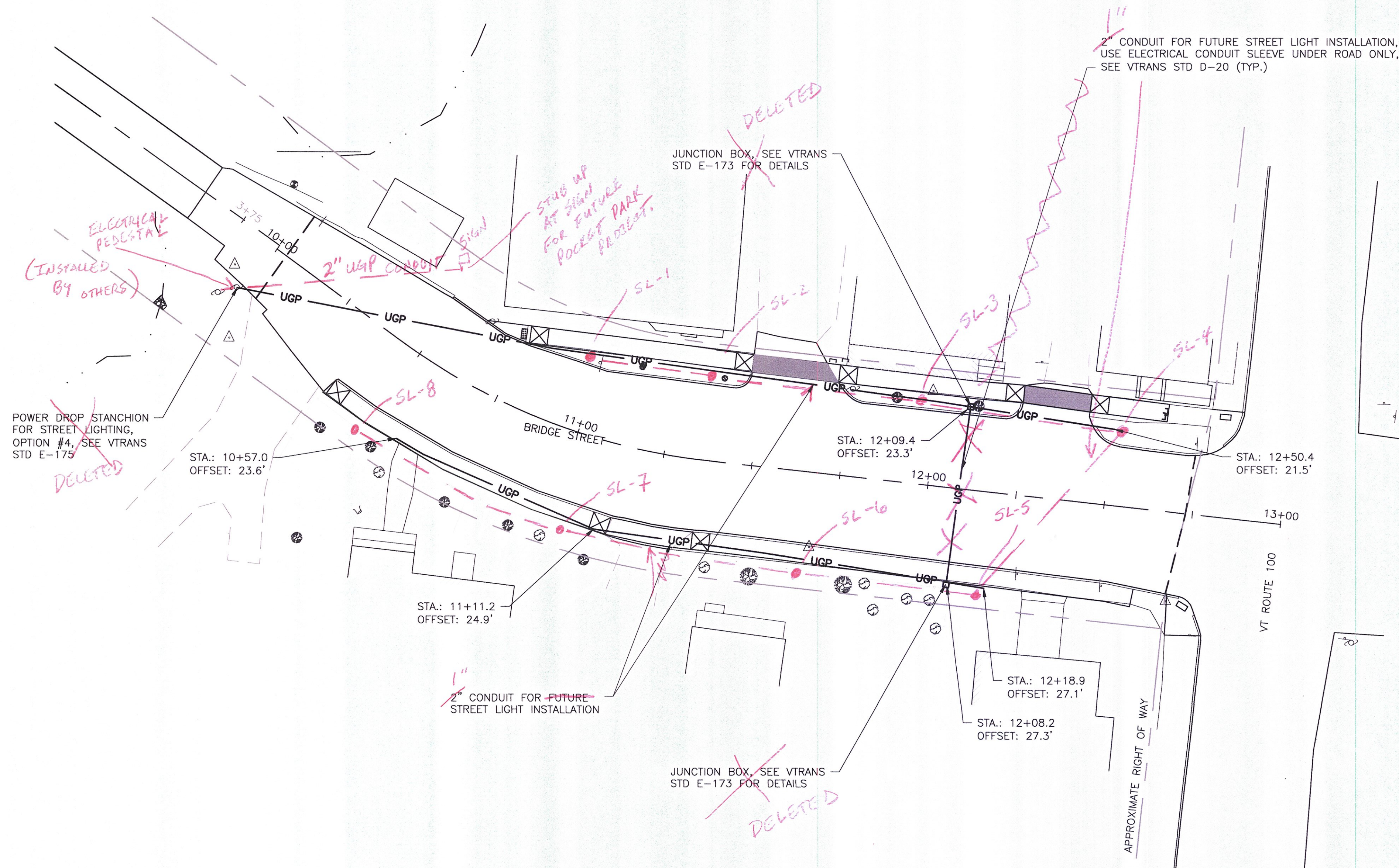




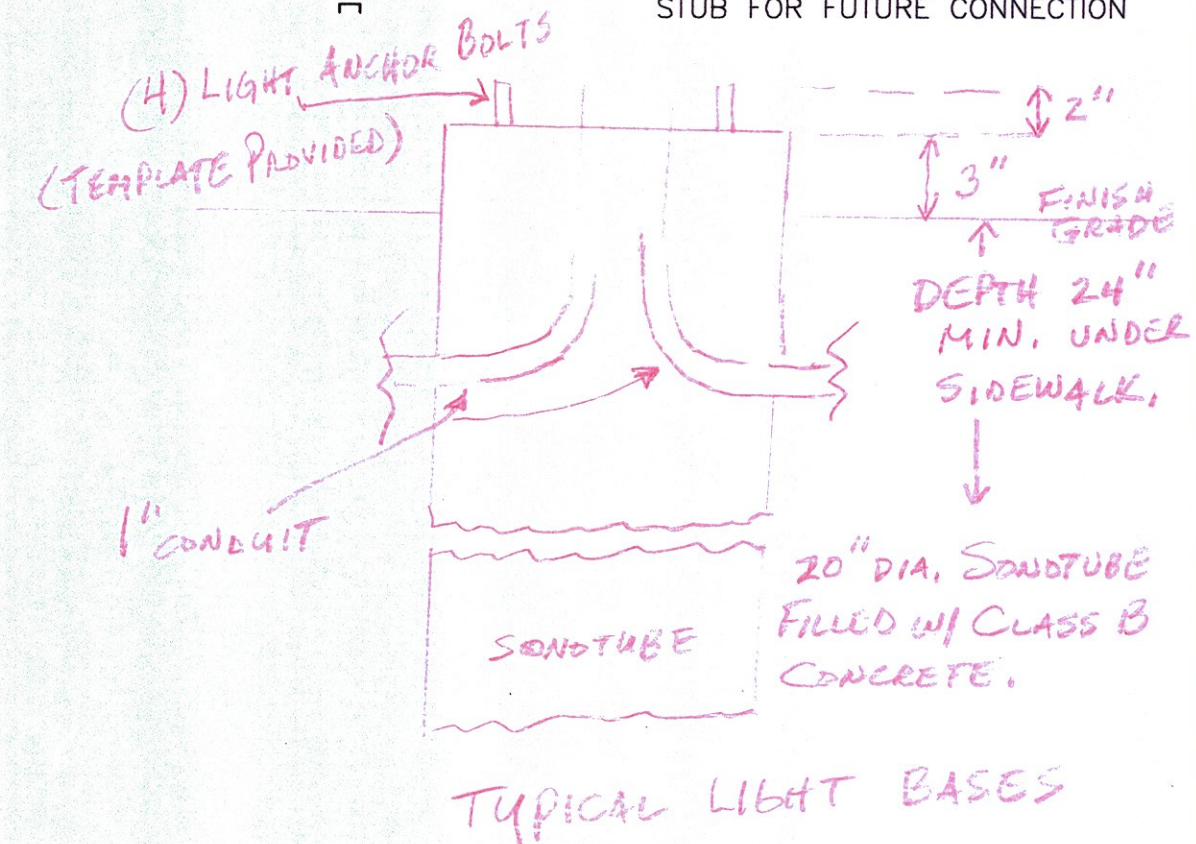


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NOTE:  
1. UNDERGROUND CONDUIT TO BE INSTALLED IN ACCORDANCE WITH VTRANS  
STANDARD DETAILS E-175 AND D-20.



| LEGEND   |                               |
|----------|-------------------------------|
| 690      | CONTOUR                       |
| SD       | STORMDRAIN                    |
| W        | WATER MAIN                    |
|          | FENCELINE                     |
|          | OVERHEAD POWER                |
|          | EDGE OF WATER                 |
|          | APPROXIMATE RIGHT OF WAY      |
| BUILDING | STRUCTURE                     |
|          | SURVEY CONTROL POINT          |
|          | BENCHMARK                     |
|          | HYDRANT                       |
|          | WATER SHUTOFF                 |
|          | CATCHBASIN                    |
|          | SIGN                          |
|          | WELL                          |
|          | UTILITY POLE                  |
| UGP      | UNDERGROUND POWER             |
| UGT      | UNDERGROUND TELECOMMUNICATION |
|          | STUB FOR FUTURE CONNECTION    |



• STREET LAMP BASES W/  
REBAR REINFORCED CONCRETE  
BASES INSTALLED.  
- LAMPS AND WIRING  
INSTALLED BY OTHERS.

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PROFESSIONAL SEAL

## FINAL PLANS

| NO. | DATE       | DESCRIPTION          |
|-----|------------|----------------------|
| 1   | 10/09/2013 | ELECTRICAL SITE PLAN |

TOWN OF  
WAITSFIELD  
9 BRIDGE STREET  
WAITSFIELD, VT

VILLAGE COVERED  
BRIDGE REHAB. &  
BRIDGE STREET  
STORMWATER  
IMPROVEMENTS

### SHEET TITLE

PROPOSED  
ELECTRICAL SITE  
PLAN

| DRAWN BY   | DATE          |
|------------|---------------|
| ZDC        | MAY 2014      |
| CHECKED BY | D&K PROJECT # |
| HLV        | 121447        |
| PROJ. ENG. | D&K ARCHIVE # |
| HLV        |               |

### SHEET NUMBER

30

SHEET 30 OF 30

### PROPOSED ELECTRICAL SITE PLAN

