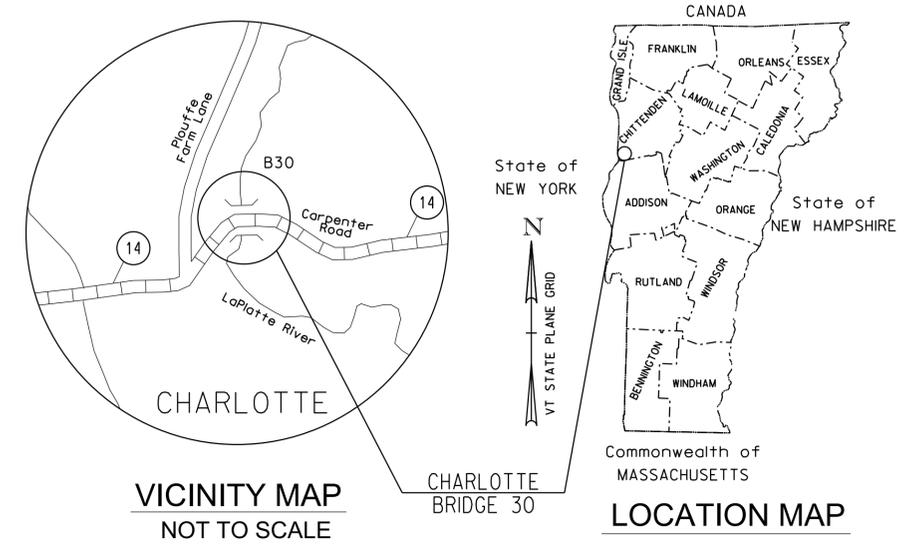




Stantec

BRIDGE REHABILITATION PROJECT TOWN OF CHARLOTTE, VERMONT BRIDGE 30



PROJECT LOCATION: THE PROJECT IS LOCATED ON TH-14 CARPENTER ROAD, 0.6 MILES EAST OF THE INTERSECTION WITH TH-1, SPEAR ST.
LAT: 44.342021
LONG: 73.183794

PROJECT SCOPE:

SUPERSTRUCTURE: REMOVE AND REPLACE EXISTING BRIDGE DECK, CURB AND RAILING. NEW DECK WILL BE FLARED (WIDER AT THE WEST END).

EAST ABUTMENT: REPAIR EXISTING CONCRETE SURFACES AND CLEAN AND GREASE EXISTING BEARINGS.

WEST ABUTMENT: PARTIAL REMOVAL OF EXISTING BEAM SEAT AND REPAIRS/MODIFICATIONS TO BEAM SEATS. REPLACE EXISTING BRIDGE BEARINGS. MODIFY EXISTING BACKWALL AND WINGWALLS TO ACCOMODATE THE WIDENED BRIDGE DECK.

ROADWAY: RELATED APPROACH WORK.

DRAFT

12/18/2014

Final Plans

Project Number: 195310844

TOWN ADMINISTRATOR
DEAN BLOCH

INDEX OF SHEETS

PAGE NO.	SHEET TITLE
1	TITLE SHEET
2	INDEX AND PROJECT NOTES
3	TYPICAL SECTIONS & DETAILS
4	LAYOUT PLAN
5	DECK REINFORCING PLAN AND SECTIONS
6	CONCRETE REMOVAL DETAILS
7	CONCRETE PROPOSED REPAIR DETAILS
8	CONCRETE BEARING DETAILS
9	DETOUR PLAN

STRUCTURES DETAIL SHEETS

SD-502.00	CONCRETE DETAILS AND NOTES	10-10-12
SD-516.10	BRIDGE JOINT ASPHALTIC PLUG	08-29-11

VAOT STANDARD SHEETS

E-121	STANDARD SIGN PLACEMENT - CONVENTIONAL ROAD	08/08/95
E-123	GUIDE SIGN PLACEMENT - MISCELLANEOUS DETAILS	03/16/04
E-171A	TRAFFIC CONTROL SIGNALS GENERAL NOTES & DETAILS	08/09/95
E-172	VEHICLE LOOP DETAILS	08/09/95
E-191	PAVEMENT MARKING DETAILS	02/01/99
E-192	PAVEMENT MARKING DETAILS	10/12/00
E-193	PAVEMENT MARKING DETAILS	08/18/95
S-367A	BRIDGE RAILING, GALVANIZED HDSB/FASCIA MOUNTED/STEEL TUBING	05/24/12
T1	TRAFFIC CONTROL GENERAL NOTES	08/06/12
T10	CONVENTIONAL ROADS CONSTRUCTION APPROACH SIGNING	08/06/12

PROJECT NOTES

GENERAL

- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION, 2011 STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, AND ITS LATEST REVISIONS.
- ALL WORK AND ANY ASSOCIATED ACTIVITY ON THIS PROJECT SHALL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY LIMITS.
- THE SCOPE OF WORK:
 - SUPERSTRUCTURE: REMOVE AND REPLACE EXISTING BRIDGE DECK, CURB AND RAILING. NEW DECK WILL BE FLARED (WIDER AT THE WEST END).
 - EAST ABUTMENT: REPAIR EXISTING CONCRETE SURFACES AND CLEAN AND GREASE EXISTING BEARINGS (REFER TO SHEET 3).
 - WEST ABUTMENT: PARTIAL REMOVAL OF EXISTING BEAM SEAT AND REPAIRS/MODIFICATIONS TO BEAM SEATS. REPLACE EXISTING BRIDGE BEARINGS. MODIFY EXISTING BACKWALL AND WINGWALLS TO ACCOMMODATE THE WIDENED BRIDGE DECK.
 - ROADWAY: APPROACH WORK.
- NO SURVEY WAS COMPLETED FOR THIS PROJECT. EXISTING STRUCTURE DIMENSIONS AND ELEVATIONS SHOWN IN THESE PLANS WERE TAKEN FROM LIMITED FIELD MEASUREMENTS AND PHOTOGRAPHY. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS OF EXISTING STRUCTURES AND BE PREPARED TO MAKE ADJUSTMENTS REQUIRED TO PROPERLY COMPLETE THE PROPOSED RECONSTRUCTION. ANY DISCREPANCIES IN DIMENSIONS, CHARACTER, OR EXTENT OF EXISTING FEATURES, SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO ADVANCING THE WORK.

- ESTABLISHING CONTROL AND CONDUCTING LAYOUT OF THE PROPOSED PROFILE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. WORK SHALL BE DONE UNDER THE SUPERVISION OF A PROFESSIONAL LAND SURVEYOR (PLS).
 - PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL CONDUCT A 3 DIMENSIONAL SURVEY OF THE EXISTING BRIDGE DECK AND FILL SLOPES WITHIN THE ANTICIPATED AREA OF WORK AND THE ROADWAY FOR AN AREA EXTENDING TWO HUNDRED FEET BEYOND THE LIMITS OF ROADWAY WORK ON EACH END OF THE PROJECT. DELIVERABLES SHALL INCLUDE AN EXISTING PROFILE ALONG THE CENTERLINE OF THE EXISTING ROAD.
 - AFTER THE BEARINGS HAVE BEEN REPLACED AND PRIOR TO SETTING FORMS FOR THE NEW DECK, ELEVATIONS SHALL BE TAKEN ALONG THE TOP OF EACH BEAM AT 10TH POINTS ALONG THE SPAN.
 - ALL SURVEY DATA SHALL BE PROVIDED TO THE ENGINEER FOR THE ENGINEER'S USE IN DEVELOPING THE PROPOSED PROFILE AND BOTTOM OF SLAB ELEVATIONS.
- COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ALL OTHER CONTRACT ITEMS.

- THE WELDING OF ATTACHMENTS TO GIRDERS FOR CONSTRUCTION PURPOSES SHALL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER IN WRITING.
- NO EXISTING MONUMENTS, BOUNDS, OR BENCHMARKS SHALL BE DISTURBED WITHOUT FIRST MAKING PROVISIONS FOR RELOCATION.
- PROFILE ADJUSTMENTS IN THE VICINITY OF THE REHABILITATED BRIDGE SHALL BE MADE AS REQUIRED OR AS DIRECTED TO ACCOUNT FOR VARIATIONS IN THE BRIDGE DECK CROSS SLOPE OR PROFILE. ALL COSTS SHALL BE INCLUDED IN THE APPROPRIATE ROADWAY ITEMS.
- WATER REPELLENT, SILANE SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT ON THE UNDERSIDE OF THE DECK.

BRIDGE REMOVAL NOTES:

- THE CONTRACTOR'S METHOD FOR PARTIAL REMOVAL OF THE EXISTING BRIDGE SHALL BE SUBMITTED FOR DOCUMENTATION, PRIOR TO THE COMMENCEMENT OF ANY REMOVAL OPERATIONS.
- REMOVAL OF EXISTING BRIDGE STRUCTURE, ITEM 529.20, UNLESS OTHERWISE SHOWN ON THE PLANS, SHALL INCLUDE THE FOLLOWING:
 - COMPLETE REMOVAL OF THE EXISTING BRIDGE DECK INCLUDING ALL SCUPPERS, PAVEMENT, CURB, AND MEMBRANE.
 - REMOVAL OF EXISTING BRIDGE RAIL AND BRIDGE APPROACH RAIL.
 - REMOVAL OF BACKWALL AND WINGWALL CONCRETE TO LIMITS SHOWN ON PLANS.
 - THE ENGINEER DOES NOT KNOW IF THE EXISTING DECK IS CONNECTED TO THE BEAMS WITH SHEAR CONNECTORS. CARE SHALL BE TAKEN NOT TO DAMAGE TOP FLANGES OR EXISTING SHEAR CONNECTORS. ANY DAMAGE SHALL BE IMMEDIATELY REPORTED TO THE OWNER AND REPAIRED AS DIRECTED, AT THE CONTRACTOR'S EXPENSE.

BRIDGE REHAB. NOTES:

- CONCRETE USED TO RECONSTRUCT THE WEST ABUTMENT BACKWALL AND WINGWALLS, AS SHOWN ON THE PLANS, OR AS DIRECTED, SHALL BE CONCRETE, HIGH PERFORMANCE CLASS B AND REINFORCEMENT SHALL BE LEVEL 1.
- CONCRETE USED TO RECONSTRUCT THE BRIDGE DECK AND CURBS, SHALL BE CONCRETE, HIGH PERFORMANCE CLASS A AND REINFORCEMENT SHALL BE LEVEL 2.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DETAILING OF REINFORCEMENT PLACING DRAWINGS AND SCHEDULES OF REINFORCING BARS SO THAT THE REINFORCEMENT MAY BE PROPERLY PLACED AND ITS WEIGHT READILY COMPUTED. COST SHALL BE INCIDENTAL TO THE REINFORCING ITEMS. FABRICATION AND PLACING DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
- ALL EXPOSED EDGES OF PROPOSED CONCRETE SURFACES SHALL BE CHAMFERED 3/4", UNLESS OTHERWISE NOTED.
- NO STRUCTURAL STEEL REPAIRS ARE ANTICIPATED. STRUCTURAL STEEL SHALL BE INSPECTED FOR STRUCTURAL DEFICIENCIES (e.g. SIGNIFICANT STEEL LOSS, CRACKS, MISSING BOLTS, ETC.), JOINTLY BY THE ENGINEER AND CONTRACTOR. ANY REPAIRS REQUIRED BY THE ENGINEER SHALL BE PERFORMED BY THE CONTRACTOR AT A NEGOTIATED PRICE.
- SCREED RAIL SUPPORTS REQUIRED FOR THE PLACEMENT OF THE DECK SLAB CONCRETE SHALL BE LOCATED AT THE CENTERLINE OF THE GIRDER OR SUPPORTED ON OVERHANG BRACKETS. IF THE SCREED RAIL IS SUPPORTED ON OVERHANG BRACKETS, DRAWINGS AND DATA FOR THE OVERHANG BRACKETS SHALL BE SUBMITTED FOR DOCUMENTATION. A CONCRETE WEIGHT OF 150 pfc AND A LIVE LOAD OF 50 psf SHALL BE USED IN CALCULATIONS. ADEQUATE PROVISIONS SHALL BE MADE FOR THE SCREED MACHINE LOADS. CALCULATIONS SHALL INDICATE THE STRUCTURAL ADEQUACY OF THE OVERHANG BRACKETS AND SHALL PROVE THAT CONCRETE COVER IN THE DECK WILL BE MAINTAINED.

- FOR BACKWALL AND WINGWALL RECONSTRUCTION, SAWCUT EXISTING CONCRETE 1" DEEP ON ALL EXPOSED SURFACES TO PROVIDE CLEAN REMOVAL LINES. REMOVE EXISTING CONCRETE AS SHOWN IN THE PLANS. ALL COSTS TO BE INCLUDED IN ITEM 529.20, PARTIAL REMOVAL OF STRUCTURE.
- DETERIORATED AREAS OF CONCRETE ON THE WINGS, ABUTMENTS, BACKWALLS, AND BRIDGE SEATS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER UNDER REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS 1, 2 OR 3 AS APPROPRIATE. THE EXISTING SUBSTRUCTURE CONCRETE SURFACES TO BE REPAIRED SHALL BE SAWCUT 1" DEEP TO PROVIDE CLEAN REMOVAL LINES (ALL COSTS TO BE INCLUDED IN CONCRETE REPAIR ITEMS). ALL AREAS TO BE PATCHED SHALL BE BLAST CLEANED AND SATURATED SURFACE-DRY JUST PRIOR TO PATCHING (COSTS INCLUDED IN CONCRETE REPAIR ITEMS). IF REINFORCING STEEL IS REQUIRED AS DIRECTED BY THE ENGINEER, REINFORCING STEEL SHALL BE PROVIDED AND PAID FOR AT THE CONTRACT UNIT PRICE FOR LEVEL 1 REINFORCING STEEL.
- PRIOR TO PLACING NEW CONCRETE AGAINST EXISTING CONCRETE SURFACES, THE EXISTING CONCRETE SURFACES SHALL BE BLAST CLEANED AND PREPARED TO A SATURATED SURFACE-DRY CONDITION. ALL COSTS SHALL BE SUBSIDIARY TO THE CONCRETE ITEM TO BE PLACED.
- EXCAVATION FOR THE WINGWALLS SHALL BE IN ACCORDANCE WITH ITEM 204.20, PAY LIMITS FOR THE EXCAVATION SHALL BE 18" OUTSIDE THE CONCRETE SURFACE. GRANULAR BACKFILL FOR STRUCTURES SHALL BE USED TO BACKFILL THE WINGWALLS WITHIN THE SAME LIMITS.

EROSION, PREVENTION AND SEDIMENT CONTROL

- THE TOTAL ANTICIPATED AREA OF DISTURBANCE BASED ON THE CONTRACT PLAN IS LESS THAN ONE ACRE. THE PROJECT IS CONSIDERED NON-JURISDICTIONAL. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING MEASURES FOR EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) IN ACCORDANCE WITH THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION'S "Low Risk Site Handbook for Erosion Prevention and Sediment Control". THE COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO MOBILIZATION/DEMOBILIZATION.

TRAFFIC CONTROL

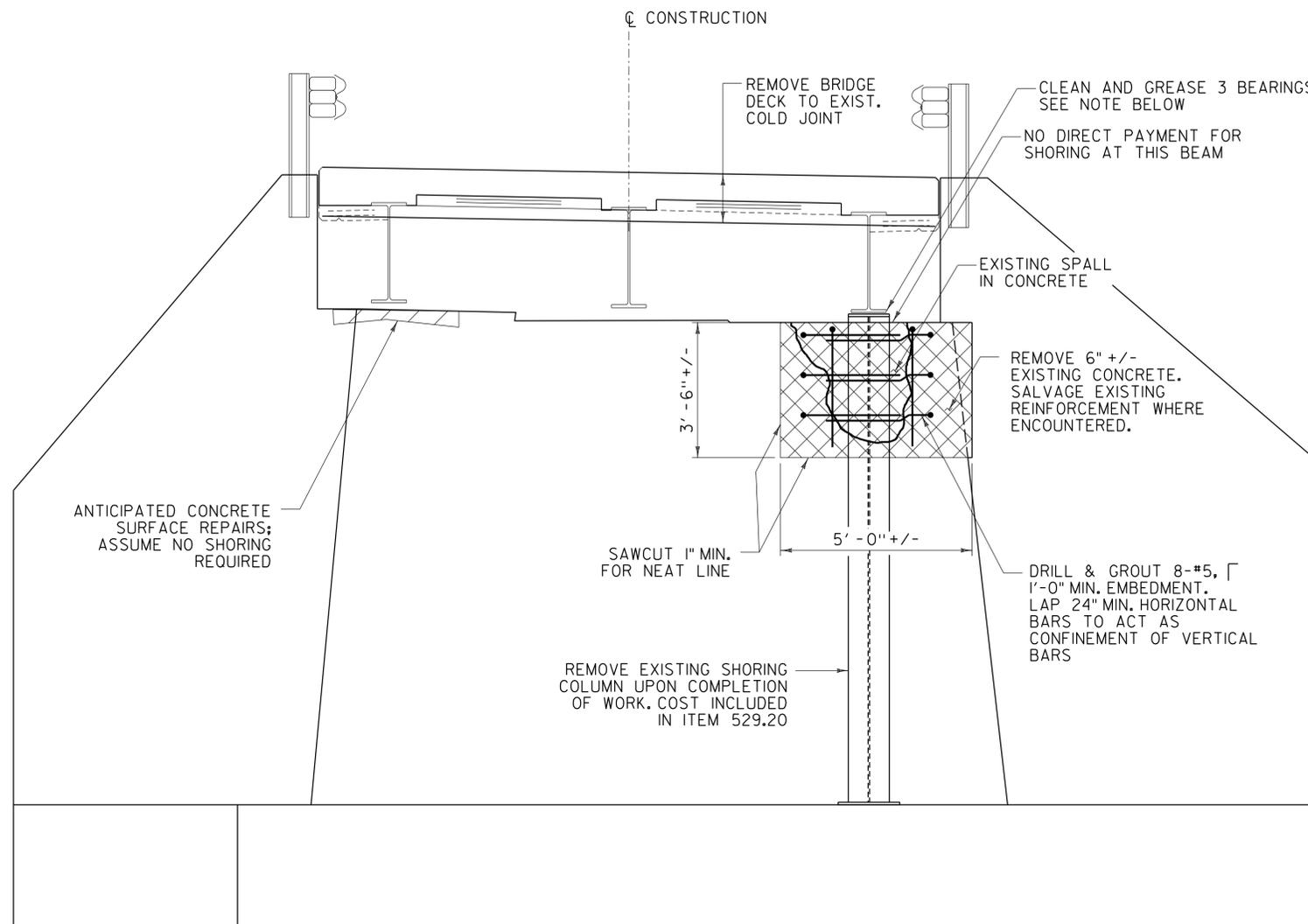
- SIGNS SHALL BE INSTALLED SO AS NOT TO OBSTRUCT EXISTING SIGNS OR CORNER SIGHT DISTANCE FROM HIGHWAYS OR DRIVES.
- ORANGE SOLID SUBSTRATE CONSTRUCTION SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING "AMERICAN SOCIETY FOR TESTING AND MATERIALS" (ASTM) TYPE VII, VIII OR IX REQUIREMENTS, UNLESS OTHERWISE NOTED.
- SIGNS SHALL BE ERECTED BEFORE THE START OF ANY WORK AND SHALL BE COVERED UNTIL WORK COMMENCES, DURING PERIODS OF INACTIVITY OR UPON COMPLETION OF THE WORK. EACH SIGN SHALL BE ERECTED IN A NEAT AND WORKMANLIKE MANNER. SIGNS SHALL BE REMOVED UPON COMPLETION OF THE WORK AT THE DISCRETION OF THE ENGINEER.
- FIXED SIGNS SHALL BE SET SECURELY IN THE GROUND. THE BOTTOM OF A SIGN SHALL BE AT LEAST SEVEN FEET ABOVE THE EDGE OF PAVEMENT. THE NEAREST EDGE OF A SIGN SHALL BE AT LEAST SIX FEET OUTSIDE THE SHOULDER POINT OR FOUR FEET OUTSIDE GUARDRAIL. EACH POST SHALL HAVE 2 (MIN.) BOLTS WHERE ATTACHED TO SIGN.
- PORTABLE SIGNS SHALL BE PLACED ON THE EDGE OF ROADWAY AND A ONE FOOT MINIMUM ABOVE TRAVELED WAY. ALL VEGETATION THAT INTERFERES WITH VISIBILITY OF THE SIGNS SHALL BE REMOVED. WHEN PLACED BEHIND GUARDRAIL, THE BOTTOM OF THE SIGN FACE SHALL BE ABOVE THE TOP OF THE GUARDRAIL.
- WHERE SIGN INSTALLATIONS ARE NOT PROTECTED BY GUARDRAIL OR OTHER APPROVED TRAFFIC BARRIERS, ALL SIGN STANDS AND POST INSTALLATIONS SHALL BE "NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM" (NCHRP) REPORT 350 COMPLIANT. NO SIGN POSTS SHALL EXTEND OVER THE TOP OF THE SIGN INSTALLED ON SAID POST(S). WHEN ANCHORS ARE INSTALLED, STUB SHALL NOT BE GREATER THAN FOUR INCHES ABOVE EXISTING GROUND.
- THE PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE USED AT THE DISCRETION OF THE ENGINEER, THE PCMS SHALL BE USED IN ACCORDANCE WITH SECTION 6F.60 OF THE MUTCD.

PROJECT NAME: CHARLOTTE BRIDGE 30

PROJECT NUMBER: 195310844

FILE NAME: Charlotte BR_30_notes.dgn	PLOT DATE: 12/18/2014
PROJECT LEADER: G. BOGUE	DRAWN BY: L. BUXTON
DESIGNED BY: T. KNIGHT	CHECKED BY: G. BOGUE
INDEX AND PROJECT NOTES	SHEET 2 OF 9





EAST ABUTMENT ELEVATION
SCALE: 1/2" = 1'-0"

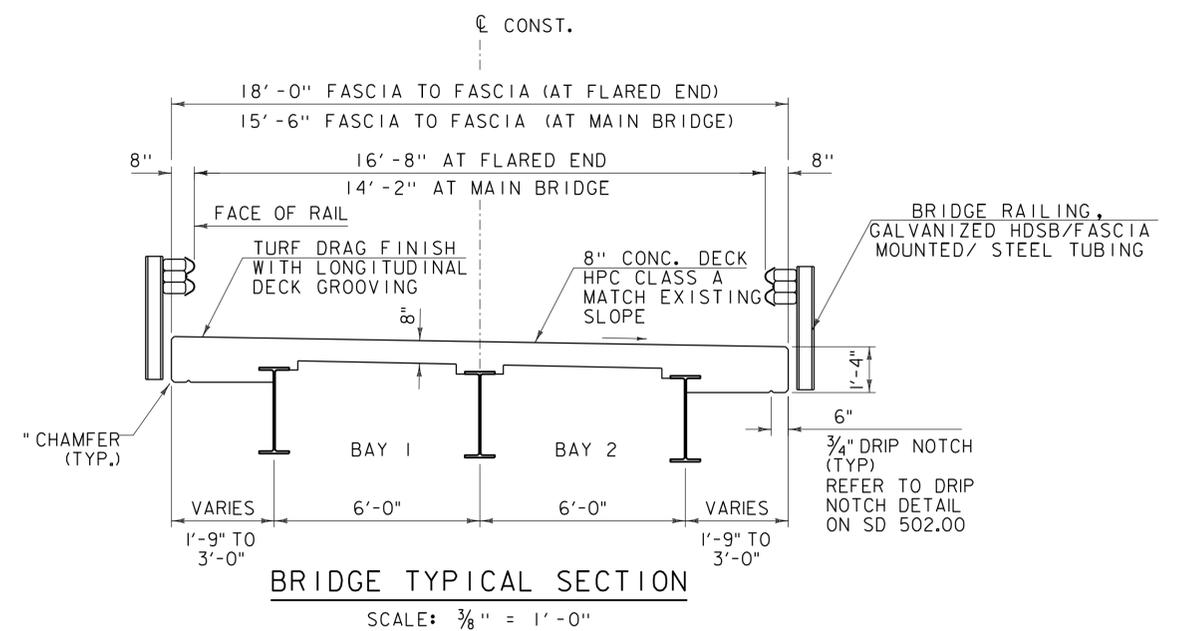
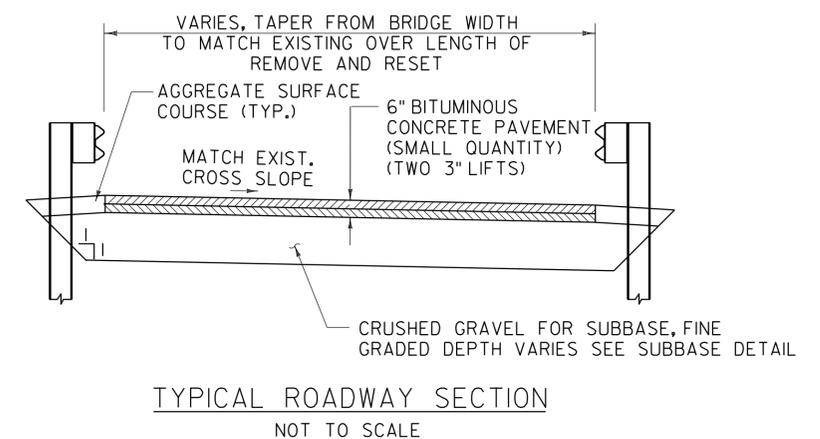
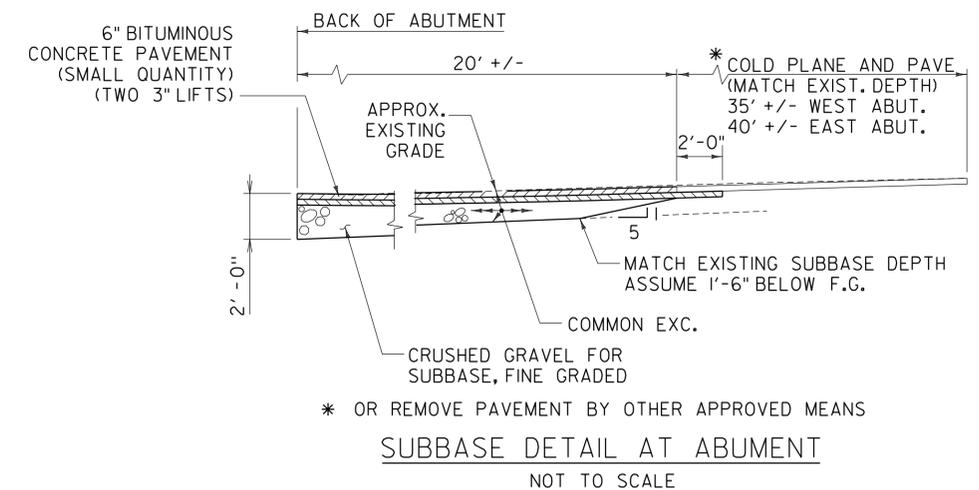
EAST ABUTMENT - CLEAN AND GREASE EXISTING BEARINGS NOTE:

- THE EXISTING BEARINGS AT THE EAST ABUTMENT ARE TO BE CLEANED AND GREASED AS FOLLOWS:

SURFACE PREPARATION BY SSPC-SP2 HAND TOOL CLEANING: REMOVE ALL LOOSE RUST, LOOSE PAINT, AND OTHER LOOSE DETRIMENTAL FOREIGN MATTER BY HAND CHIPPING, SCRAPING, AND WIRE BRUSHING. HAND TOOL CLEANING IS NOT EXPECTED TO REMOVE ADHERENT MILL SCALE, RUST AND PAINT. MILL SCALE, RUST AND PAINT ARE CONSIDERED ADHERENT IF THEY CANNOT BE REMOVED BY LIFTING WITH A DULL PUTTY KNIFE.

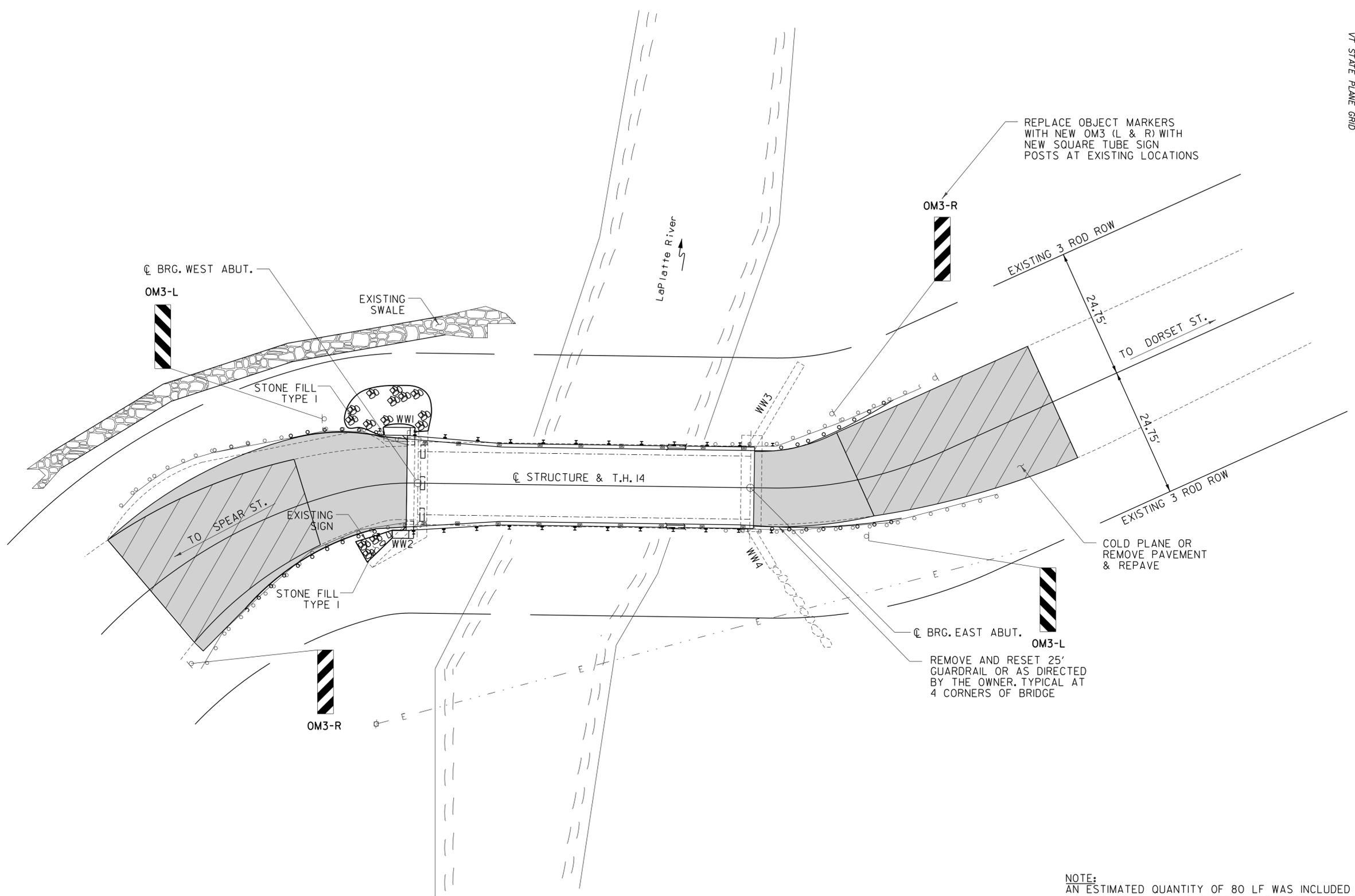
GREASE COATING: A COAT OF GREASE RUSTPROOFING MEETING THE REQUIREMENTS OF SUBSECTION 708.04 OF THE STANDARD SPECIFICATIONS. COMPOUND SHALL BE UNIFORMLY APPLIED BY BRUSH OR SPRAY AT AN APPROXIMATE RATE OF 20 SQUARE FEET PER GALLON (OR PER MANUFACTURER RECOMMENDATIONS). SURFACES ADJACENT TO AREAS BEING GREASE COATED SHALL BE PROTECTED AGAINST OVER-SPRAY. NON-METALLIC AND STAINLESS STEEL SURFACES SHALL NOT BE COATED.

- THE EXISTING STRUCTURE IS PAINTED WITH A COATING WHICH MAY CONTAIN LEAD.



PROJECT NAME: CHARLOTTE BRIDGE 30
PROJECT NUMBER: 195310844

FILE NAME: Charlotte BR_30_str_dets.dgn PLOT DATE: 12/18/2014
PROJECT LEADER: G. BOGUE DRAWN BY: L. BUXTON
DESIGNED BY: T. KNIGHT CHECKED BY: G. BOGUE
TYPICAL SECTIONS & DETAILS SHEET 3 OF 9



REPLACE OBJECT MARKERS WITH NEW OM3 (L & R) WITH NEW SQUARE TUBE SIGN POSTS AT EXISTING LOCATIONS

☉ BRG. WEST ABUT.
OM3-L

OM3-R

EXISTING 3 ROD ROW

TO DORSET ST.

EXISTING 3 ROD ROW

COLD PLANE OR REMOVE PAVEMENT & REPAVE

☉ BRG. EAST ABUT.

OM3-L

REMOVE AND RESET 25' GUARDRAIL OR AS DIRECTED BY THE OWNER. TYPICAL AT 4 CORNERS OF BRIDGE

OM3-R

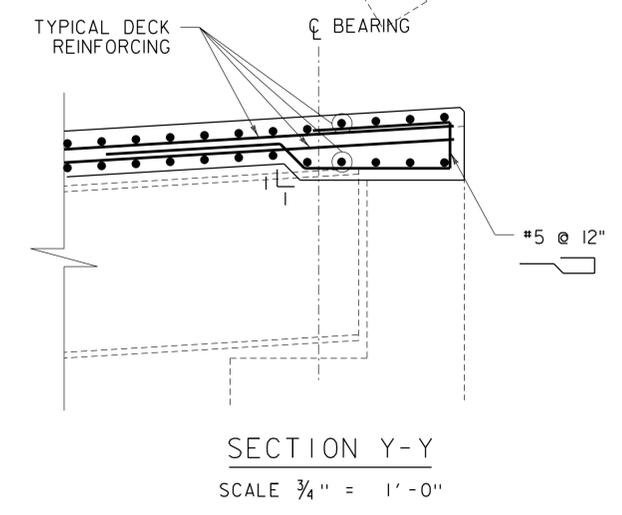
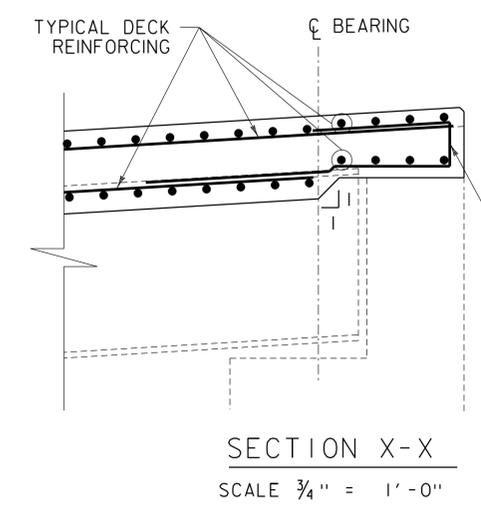
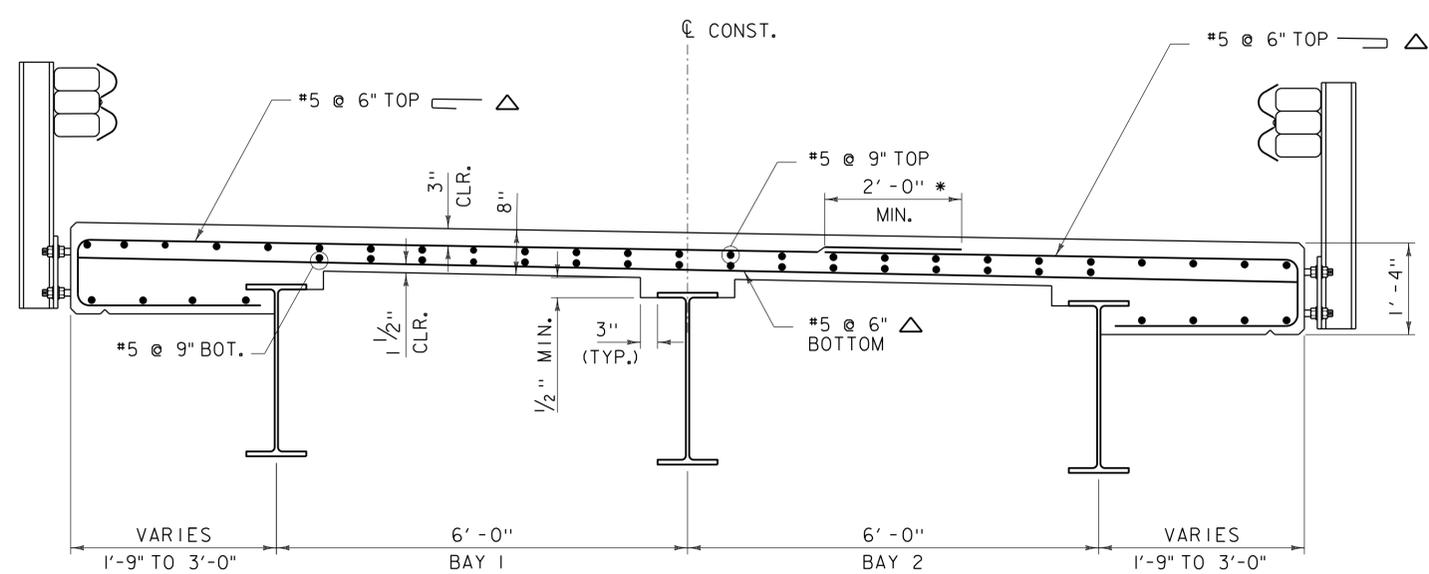
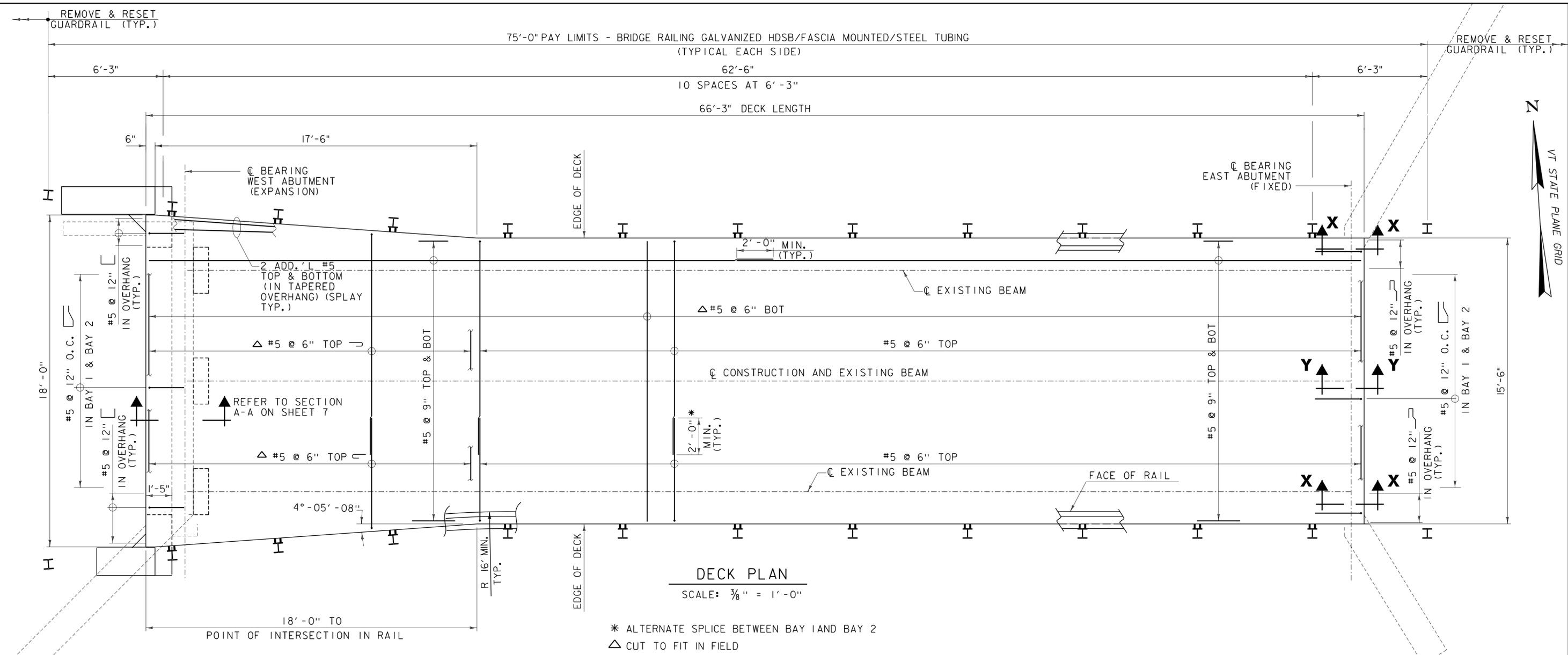
NOTE:
AN ESTIMATED QUANTITY OF 80 LF WAS INCLUDED IN THE BID FOR REMOVAL AND DISPOSAL OF EXISTING GUARDRAIL AND INSTALLATION OF NEW GUARDRAIL, TO BE UTILIZED AS DIRECTED BY THE ENGINEER.

PLAN

SCALE: 1" = 10'-0"
0 10 20

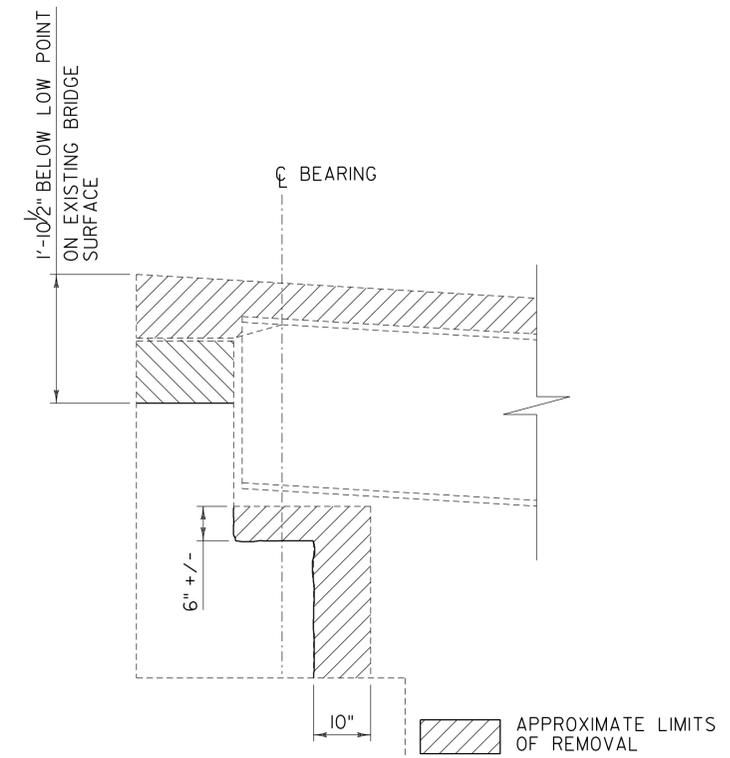
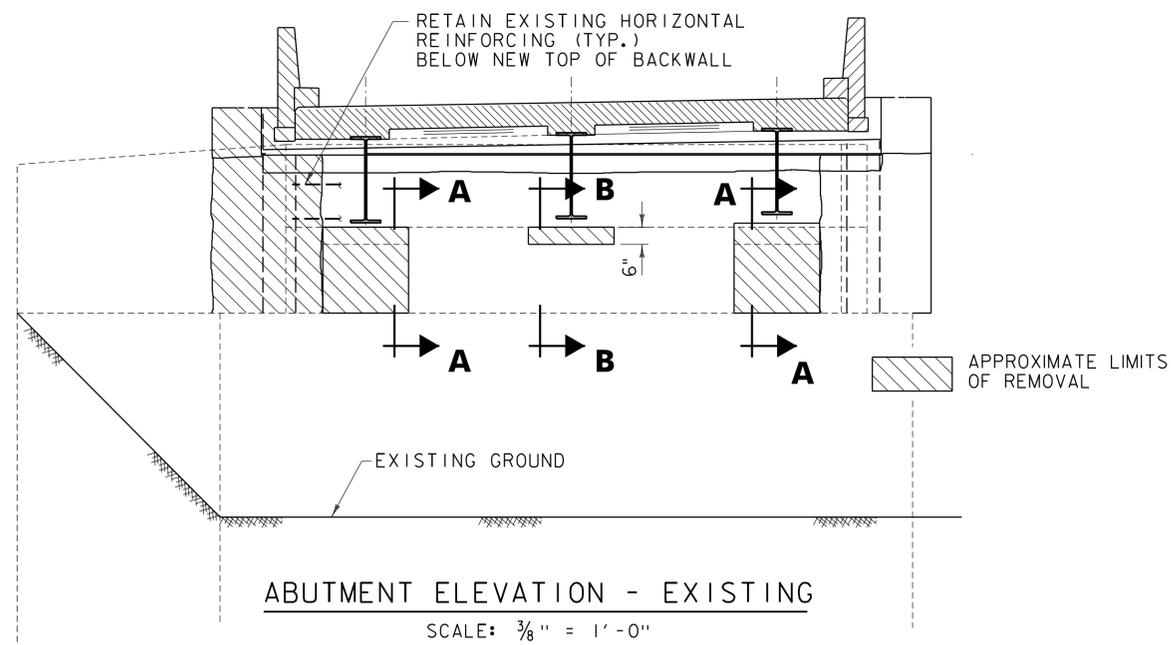
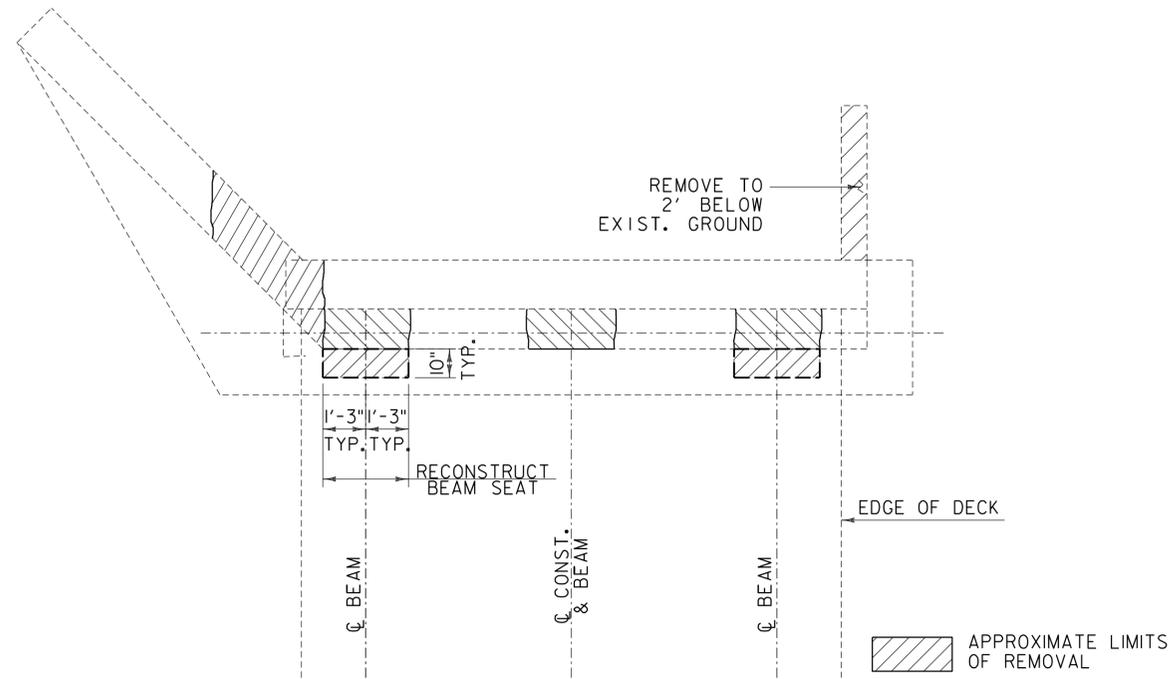


PROJECT NAME:	CHARLOTTE BRIDGE 30
PROJECT NUMBER:	195310844
FILE NAME:	Charlotte BR_30.bdr.dgn
PROJECT LEADER:	G. BOGUE
DESIGNED BY:	T. KNIGHT
LAYOUT PLAN	
PLOT DATE:	12/18/2014
DRAWN BY:	L. BUXTON
CHECKED BY:	G. BOGUE
SHEET	4 OF 9



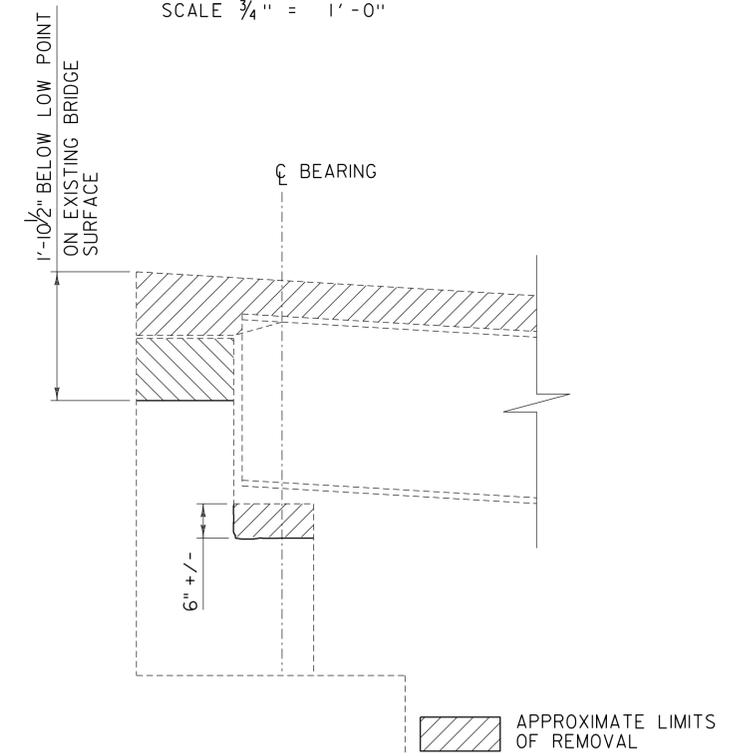
PROJECT NAME:	CHARLOTTE BRIDGE 30
PROJECT NUMBER:	195310844
FILE NAME:	Charlotte BR_30_str_dets.dgn
PLOT DATE:	12/18/2014
PROJECT LEADER:	G. BOGUE
DRAWN BY:	L. BUXTON
DESIGNED BY:	N. TIRK
CHECKED BY:	T. KNIGHT
DECK REINFORCING PLAN AND SECTIONS	SHEET 5 OF 9





SECTION A-A - LIMITS OF REMOVAL

SCALE 3/4" = 1'-0"



SECTION B-B - LIMITS OF REMOVAL

SCALE 3/4" = 1'-0"



PROJECT NAME: CHARLOTTE BRIDGE 30

PROJECT NUMBER: 195310844

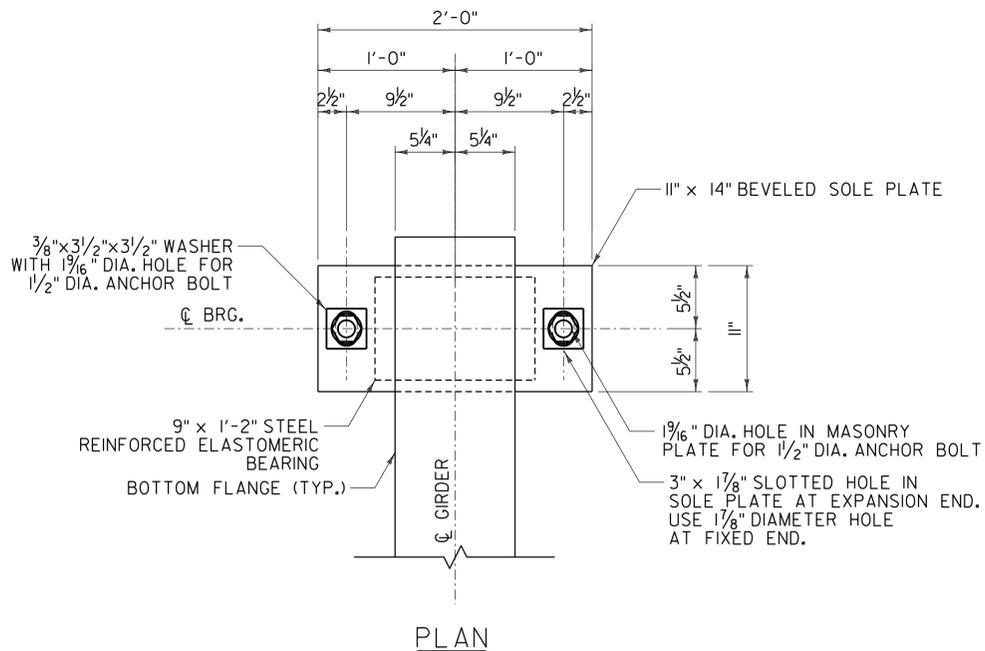
FILE NAME: Charlotte_BR_30_str_dets.dgn PLOT DATE: 12/18/2014

PROJECT LEADER: G. BOGUE DRAWN BY: L. BUXTON

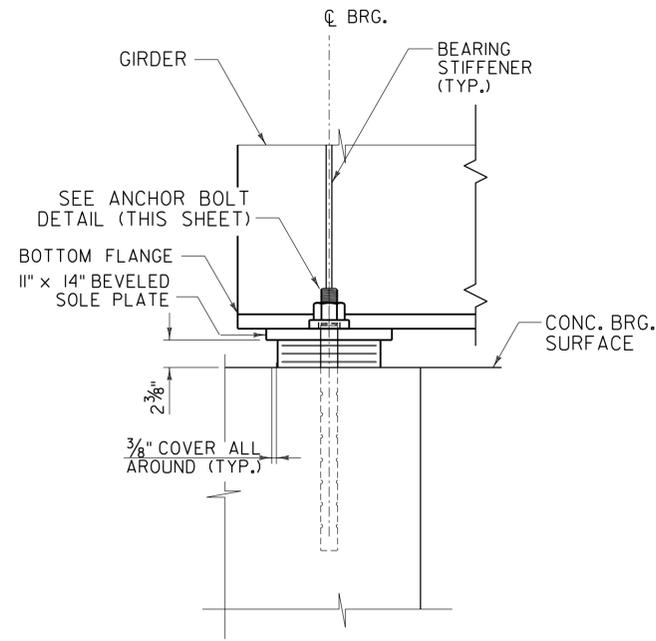
DESIGNED BY: N. TIRK CHECKED BY: T. KNIGHT

CONCRETE REMOVAL DETAILS

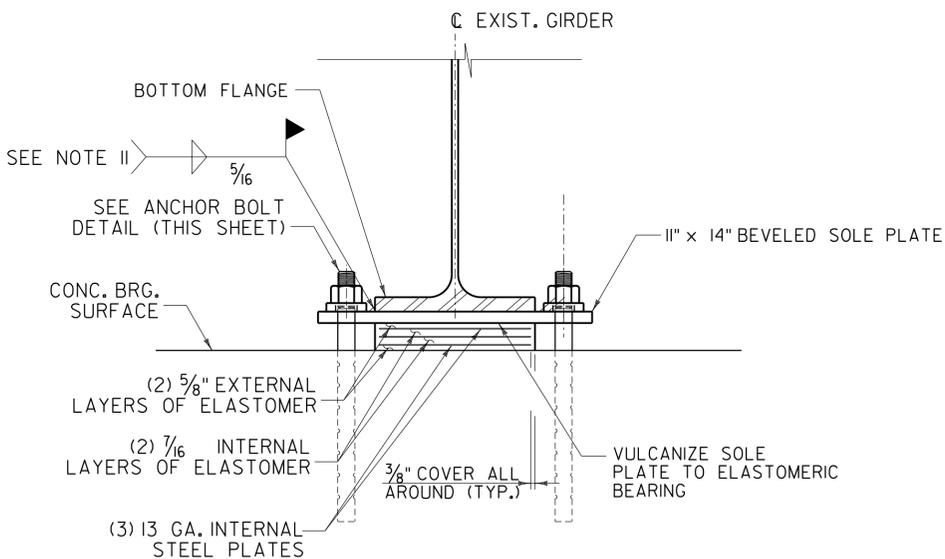
SHEET 6 OF 9



PLAN

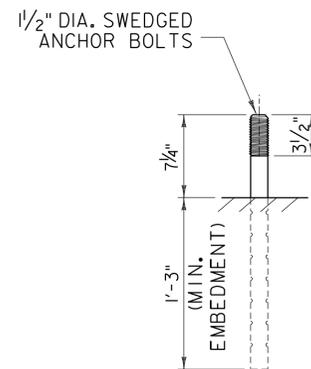


SIDE ELEVATION



ELEVATION

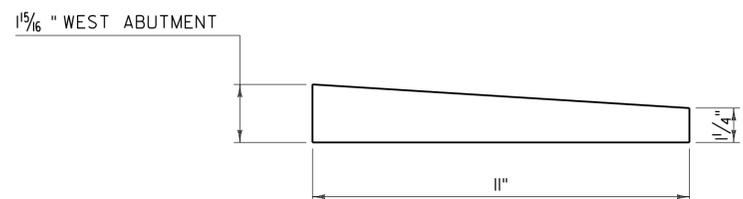
WEST ABUTMENT BEARING ASSEMBLY (EXPANSION)
SCALE 1 1/2" = 1'-0"



ANCHOR BOLT DETAIL

BEARING NOTES

1. ITEM 502.II "SHORING SUPERSTRUCTURE BEARINGS" IS INCLUDED FOR ALL TEMPORARY JACKING AND SHORING NECESSARY TO COMPLETE REPLACEMENT OF BEARINGS AS DESCRIBED IN THE PLANS. THE CONTRACTOR SHALL SUBMIT CONSTRUCTION DRAWINGS FOR THE PROPOSED JACKING PROCEDURE INCLUDING CALCULATIONS. EXCAVATION FOR PURPOSE OF INSTALLING SHORING SHALL BE INCIDENTAL TO ITEM 502.II.
2. THE WORK REQUIRED TO REMOVE EXISTING ANCHOR BOLTS, BEARINGS AND MASONRY PLATES IN ORDER TO INSTALL NEW BEARING COMPONENTS OR RESET EXISTING BEARINGS AS SHOWN IN THESE PLANS SHALL BE CONSIDERED INCIDENTAL TO ITEM 531.I8.
3. ELASTOMERIC BEARING PADS SHALL BE VIRGIN NATURAL RUBBER, HARDNESS (SHORE "A" DUROMETER) OF 60, GRADE 3 (SHEAR MODULOUS G=130 PSI).
4. THE COST OF THE BEARINGS, INCLUDING ANCHOR BOLTS SHALL BE PAID FOR UNDER ITEM 531.I8.
5. DESIGN LOADS:
WEST ABUTMENT:
DEAD LOAD = 51 KIPS
LIVE LOAD = 34 KIPS
6. ALL STEEL IN BEARING DEVICE ASSEMBLIES, SHALL BE AASHTO M-270, (ASTM A-709) GRADE 36.
7. THE CONCRETE SURFACE UNDER THE BEARING DEVICE SHALL BE LEVEL.
8. ANCHOR BOLTS SHALL HAVE A MINIMUM OF 1'-3" EMBEDMENT INTO THE CONCRETE AND SHALL CONFORM TO STANDARD SPECIFICATION SUBSECTION 714.08. HOLES FOR ANCHOR BOLTS SHALL BE ONE INCH GREATER IN DIAMETER THAN THE BOLT AND SHALL BE GROUTED WITH A TYPE IV MORTAR OR OTHER APPROVED MATERIAL. DRILLING (OR CORING WHERE NECESSARY) AND GROUTING OF ANCHORS SHALL BE INCIDENTAL TO ITEM 531.I8.
9. ALL THE ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANNIZED. ALL WASHERS SHALL BE 3/8" PLATE (MINIMUM).
10. SOLE PLATES SHALL BE GALVANIZED OR METALIZED AS PER STANDARD SPECIFICATION SUBSECTIONS 531.04(b) AND 506.15(a) AND (b). AREAS OF DAMAGED GALVANIZING SHALL BE COATED IN ACCORDANCE WITH ASTM A 760/A 760M AND A780. AREAS OF DAMAGED METALIZING SHALL BE REPAIRED IN ACCORDANCE WITH ANSI/AWS C 2JB-93.
11. THE CONTINUOUS WELD CONNECTING THE BOTTOM OF THE GIRDER FLANGE TO THE TOP OF THE TAPERED SOLE PLATE SHALL BE ALLOWED TO COOL AFTER EACH PASS. HOWEVER, THE TEMPERATURE OF THE STEEL ADJACENT TO THE ELASTOMER SHALL NOT EXCEED 200°F (TEMPERATURE SHALL BE CONTROLLED BY WELDING PROCEDURES AND TEMPERATURE INDICATING CRAYON OR OTHER DEVICES APPROVED BY THE ENGINEER). ALL PLATES SHALL BE FLAT AND TRUE AFTER WELDING.
12. THE TEMPERATURE SETTING RANGE FOR INSTALLATION OF THE BEARINGS WITHOUT THE NEED FOR ADJUSTMENT IS 20°F TO 70°F. CENTER HOLE ON ANCHOR BOLT.



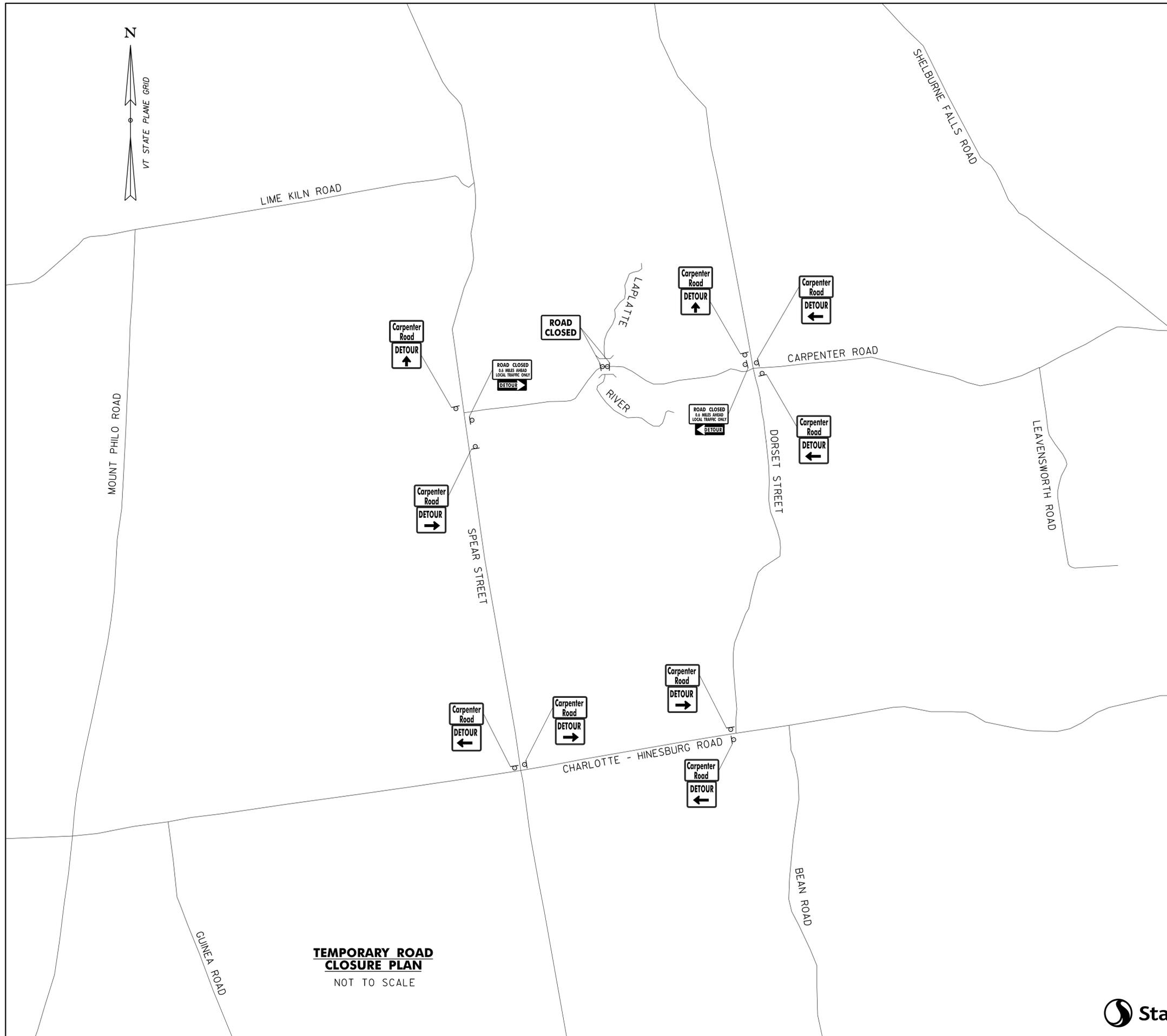
ABUTMENT BEVELED SOLE PLATE



PROJECT NAME: CHARLOTTE BRIDGE 30
PROJECT NUMBER: 195310844

FILE NAME: Charlotte BR_30_bearing_details.dwg
PROJECT LEADER: G. BOGUE
DESIGNED BY: N. TIRK
ABUTMENT BEARING DETAILS

DATE: 12/18/2014
DRAWN BY: L. BUXTON
CHECKED BY: T. KNIGHT
SHEET 8 OF 9



NOTES:

1. THE CONTRACTOR SHALL DEVELOP AND IMPLEMENT A SITE SPECIFIC TRAFFIC CONTROL PLAN IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). THE CONTRACTOR SHALL ALLOW THE ENGINEER 14 CALENDAR DAYS TO REVIEW AND ACCEPT THE PROPOSED PLANS BEFORE THEY ARE TO BE IMPLEMENTED. NO WORK SHALL COMMENCE UNTIL THE TRAFFIC CONTROL PLAN HAS BEEN APPROVED. DEVELOPMENT AND IMPLEMENTATION OF TRAFFIC CONTROL PLAN SHALL PAID AS ITEM 641.10 TRAFFIC CONTROL.
2. UNLESS COVERED UNDER INDIVIDUAL PAY ITEMS OR NOTED OTHERWISE, ALL COSTS FOR TEMPORARY TRAFFIC CONTROL DEVICES INCLUDING BUT NOT LIMITED TO RETROREFLECTIVE DRUMS, SIGNS, SIGN POSTS SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 641.10 TRAFFIC CONTROL. PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE PAID AS ITEM 641.15 PORTABLE CHANGEABLE MESSAGE SIGN.
3. SIGN R11-2 AND TYPE 3 BARRICADES SHALL BE PROVIDED IN ACCORDANCE WITH MUTCD SECTION 6.
3. SIGN R11-2 SHALL BE INSTALLED ON A TYPE 3 BARRICADE. ADDITIONAL BARRICADES SHALL BE PROVIDED TO EXTEND ACROSS THE ENTIRE WIDTH OF THE ROADWAY.
4. ALL TEMPORARY CONSTRUCTION SIGNS SHALL BE MOUNTED ON STANDS OR POSTS THAT COMPLY WITH NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM REPORT 350 (NCHRP 350).
5. 14 DAYS PRIOR TO ANTICIPATED ROAD CLOSURE, CONTRACTOR SHALL PROVIDE A PORTABLE CHANGEABLE MESSAGE SIGNS AT THE INTERSECTION OF DORSET STREET AND CARPENTER ROAD, AS WELL AS SPEAR STREET AND CARPENTER ROAD. THE MESSAGE ON THE SIGN SHALL READ: "ROAD CLOSED BEGINNING (X DATE)" "NO THRU TRAFFIC".
6. ON THE DAY OF THE ROAD CLOSURE CONTRACTOR SHALL CHANGE THE MESSAGE DISPLAYED ON THE PORTABLE CHANGEABLE MESSAGE SIGN: "ROAD CLOSED UNTIL (X DATE)" "NO THRU TRAFFIC"
7. THE PCMS SHALL BE TURNED OFF IMMEDIATELY AFTER THE CONTRACTOR HAS RE-ESTABLISHED TRAFFIC FLOW ON CARPENTER ROAD.

TEMPORARY ROAD CLOSURE PLAN
NOT TO SCALE

PROJECT NAME:	CHARLOTTE
PROJECT NUMBER:	BRIDGE BR30
FILE NAME:	Charlotte BR_30_detour.dgn
PROJECT LEADER:	G. BOGUE
DESIGNED BY:	T. MANAHAN
DETOUR PLAN	
PLOT DATE:	12/19/2014
DRAWN BY:	T. MANAHAN
CHECKED BY:	T. DUGUAY
SHEET	9 OF 9

