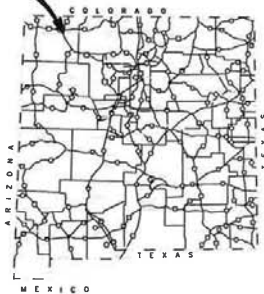


# REPLACEMENT OF BRIDGE NO. 8105 CR7150 OVER GALLEGOS WASH CONSTRUCTION PLANS NMDOT PROJECT NO. F100180, CN F100180

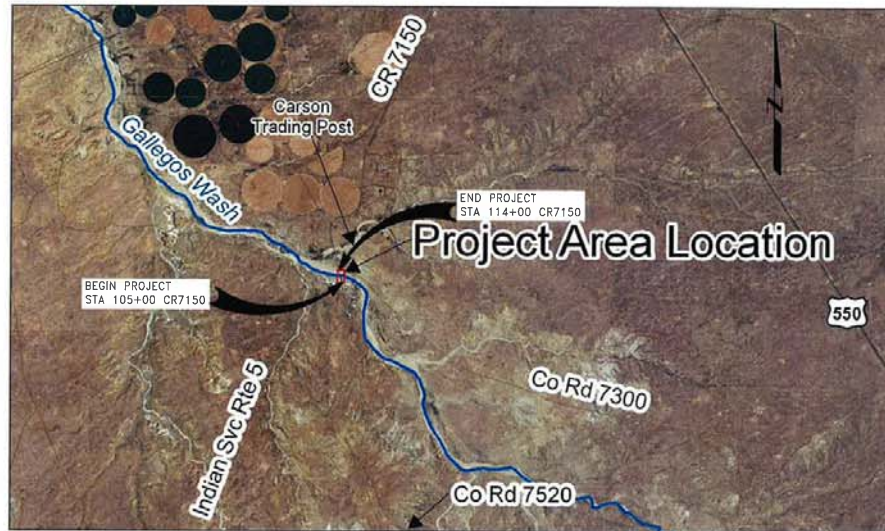
PROJECT  
LOCATION



DESIGN SPEED: 50 MPH - CR7150  
DESIGN VOLUMES: 400 VPD - CR7150  
DESIGN YEAR: 2035  
PROJECT LENGTH: 900 LF - CR7150



SAN JUAN COUNTY  
PUBLIC WORKS DEPARTMENT  
305 SOUTH OLIVER DRIVE  
AZTEC, NEW MEXICO 87410  
505-334-4520



AUGUST 2013

## INDEX OF SHEETS

- 1-1 COVER SHEET
- 1-2 INDEX OF APPLICABLE STANDARD SERIAL DRAWINGS
- 1-3 GENERAL NOTES
- 1-4 GENERAL NOTES - CLASS 'A' SEEDING
- 1-5 ENVIRONMENTAL COMMITMENTS
- 1-6 SWPPP INFORMATION
- 1-7 SWPPP INFORMATION
- 1-8 SURVEY CONTROL PLAN
- 1-9 TYPICAL SECTIONS
- 1-10 SUMMARY OF QUANTITIES
- 1-11 SURFACING SCHEDULE AND EARTHWORK QUANTITIES
- 2-1 GRADING PLAN - SOUTH ABUTMENT
- 2-2 GRADING AND DRAINAGE PLAN - NORTH ABUTMENT
- 2-3 SOUTH ABUTMENT RIPRAP PROTECTION
- 2-4 NORTH ABUTMENT RIPRAP PROTECTION
- 2-5 BEAM GUARDRAIL TYPES 1-2 (W-BEAM) - NMDOT GR31-1
- 2-6 BEAM GUARDRAIL TYPES 1-2 (W-BEAM) - NMDOT GR31-2
- 2-7 ANCHOR DETAIL POSTS AND BLOCKS - NMDOT GR31-3
- 2-8 BEAM GUARDRAIL POSTS AND BLOCKS - NMDOT GR31-4
- 2-9 BEAM GUARDRAIL (THRIE BEAM) - NMDOT GR31-5
- 2-10 BEAM GUARDRAIL NON FLARED TERMINAL TYPE 1 - NMDOT GR31-6
- 2-11 BEAM GUARDRAIL NON FLARED TERMINAL TYPE 2 - NMDOT GR31-7
- 2-12 BEAM GUARDRAIL END ANCHOR TYPE 3 AND 4 - NMDOT GR31-8
- 2-13 BEAM GUARDRAIL ANCHOR DETAILS - NMDOT GR31-9
- 2-14 BEAM GUARDRAIL ANCHOR TYPE 5 - NMDOT GR31-10
- 2-15 BEAM GUARDRAIL ANCHOR TYPE 5 - NMDOT GR31-11
- 2-16 BEAM GUARDRAIL TRANSITION SECTION - NMDOT GR31-12
- 2-17 BEAM GUARDRAIL BURIED TERMINAL TYPE 6 - NMDOT GR31-13
- 2-18 BEAM GUARDRAIL END SECTIONS - NMDOT GR31-14
- 2-19 THRIE BEAM END SECTIONS - NMDOT GR31-15
- 2-20 BEAM GUARDRAIL ANCHOR TYPE 6 - NMDOT GR31-16
- 3-1 PLAN AND PROFILE - STA. 105+00 TO STA. 108+25
- 3-2 PLAN AND PROFILE - STA. 108+25 TO STA. 111+75
- 3-3 PLAN AND PROFILE - STA. 111+75 TO STA. 114+00
- 5-1 BRIDGE NOTES & INDEX OF SHEETS
- 5-2 GENERAL PLAN & ELEVATION
- 5-3 TYPICAL SECTION, PROFILE & QUANTITIES
- 5-4 FOUNDATION PLAN & ELEVATION
- 5-5 BORING LOGS - I
- 5-6 BORING LOGS - II
- 5-7 BORING LOGS - III
- 5-8 BORING LOGS - IV
- 5-9 ABUTMENT & WINGWALL PLAN & ELEVATION
- 5-10 ABUTMENT DETAILS
- 5-11 PIER PLAN & ELEVATION
- 5-12 PIER DETAILS
- 5-13 BEARING DETAILS
- 5-14 FRAMING PLAN, RAILING POST & GIRDER DEFLECTIONS
- 5-15 GIRDER DETAILS - TYPE 63 MODIFIED
- 5-16 PRESTRESSED CONCRETE GIRDER NOTES
- 5-17 PRESTRESSED CONCRETE GIRDER NOTES AND CHAMFER DETAIL
- 5-18 MISCELLANEOUS GIRDER DETAILS
- 5-19 INTERMEDIATE DIAPHRAGM DETAILS
- 5-20 DECK PLAN & DETAILS
- 5-21 DECK SECTION & SCREED ELEVATIONS
- 5-22 ABUTMENT DIAPHRAGMS
- 5-23 PIER DIAPHRAGMS
- 5-24 APPROACH SLAB PLAN
- 5-25 APPROACH SLAB DETAILS
- 6-1 TO 6-4 MAINTENANCE OF TRAFFIC PLANS
- 7-1 SIGNING AND STRIPING - GENERAL NOTES
- 7-2 SIGNING AND STRIPING - I
- 7-3 SIGNING AND STRIPING - II
- 10-1 TO 10-10 CROSS SECTIONS

**URS** 6501 Americas Parkway, NE Suite 900  
Albuquerque, New Mexico 87110  
p 505.855.7500 f 505.855.7555

NO.	DESCRIPTION	DATE	BY
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**SAN JUAN COUNTY**  
Public Works Department

**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER GALLEGOS WASH  
BRIDGE NO. 9586

COVER SHEET

SHEET NO. 1-1

ROXANNE B. BLATZ  
NEW MEXICO  
16311  
REGISTERED PROFESSIONAL ENGINEER  
08/23/13

2:43:30.91 P:\Re-Design\CADD\Roadway\1-2 Index of NMDOT Serials.dwg PLOTTED: 8/14/13 - 2:27pm ed.krouse

INDEX OF NMDOT STANDARD SERIAL DRAWINGS

DESCRIPTION	SERIAL	REV DATE
Fill Height & Bedding Details for Circular Concrete Pipe Culverts	206-01-1/1	04/10/12
Max. and Min. Cover - Steel - Round Pipes, Helical Corrugated Metal, and Structural Plates	206-03-1/1	04/10/12
Max. and Min. Cover - Aluminum Round Pipes, Helical Corrugated Metal, and Structural Plates	206-05-1/1	04/10/12
Corrugated Metal Culvert and Pipe Arches Bedding and Backfill Details	206-07-1/1	08/29/08
Single Metal Pipe Concrete Blanket without Safety Grate (Normal & 5° to 35° Skew)	511-11-1/2	07/15/11
Single Metal Pipe Concrete Blanket without Safety Grate (Normal & 5° to 35° Skew)	511-11-2/2	07/15/11
Culvert Pipe End Sections (Metal)	570-02-1/2	11/10/09
Culvert Pipe End Sections (Concrete)	570-02-2/2	11/10/09
Metal Railing NM Type A42 Details of Posts on Bridge, Wingwalls and Approach Slab	543-07-1/4	04/08/13
Metal Railing NM Type A42 Railing Elevation & Rail Expansion Joint Detail	543-07-2/4	04/08/13
Metal Railing NM Type A42 General Notes & Details of Rail to Post Connection & Gutter Details	543-07-3/4	04/08/13
Metal Railing NM Type A42 Details of Posts on Bridge, Wingwalls and Approach Slab	543-07-4/4	04/08/13
System 1 - Bridge Joint Strip Seal - General	562-01-1/3	08/17/12
System 1 - Bridge Joint Strip Seal - Type "A" Installation	562-01-2/3	04/03/12
System 1 - Bridge Joint Strip Seal - Type "B" Installation	562-01-3/3	04/03/12
Wire Enclosed Riprap, Class A	602-01-1/1	11/16/09
Erosion Control at Culvert Outlets	602-02-1/1	11/16/09
Temporary Erosion and Sediment Control Measures	603-01-1/7	11/29/04
Temporary Erosion and Sediment Control Measures Check Dams	603-01-2/7	11/29/04
Temporary Erosion and Sediment Control Measures Silt Fence	603-01-3/7	11/29/04
Temporary Erosion and Sediment Control Measures Culvert and Drop Inlet Protection	603-01-4/7	11/29/04
T.E.S.C.M. Sediment Basin, Sediment Trap, & Earth Dike	603-01-5/7	11/29/04
Temp. Erosion and Sediment Control Measures Pipe Slope Drain & Surface Roughening	603-01-6/7	11/29/04
T.E.S.C.M. Offsite Tracking Prevention & Diversion Dike	603-01-7/7	11/29/04
Median Drop Inlet Detail and Quantities Type I and Type II	623-02-1/1	11/10/09
Median Drop Inlet Valley Type Modification Details Type I, Type II, Type III	623-04-1/1	11/10/09
Small Sign Support Installation Details	701-02-1/3	01/11/05
Small Sign Support Installation Details	701-02-2/3	02/03/05
Multi-Directional Slip Base Post Details	701-02-3/3	01/11/05
Aluminum Sign Panel Details	701-03-1/2	01/11/05
Aluminum Panel Sign Details	701-03-2/2	01/11/05
Construction Sign Face Details	702-01-1/3	04/25/05
Channelization Devices & Portable Sign Supports for Constr., Maint., Util., & Incident Mgmt. Operations	702-01-2/3	04/25/05
Construction Traffic Notes	702-01-3/3	02/28/07

NOTE: THE CONTRACTOR SHALL OBTAIN THE NMDOT STANDARD SERIAL DRAWINGS IDENTIFIED ABOVE FROM THE NMDOT WEBSITE; PHYSICAL COPIES OF THESE DRAWINGS ARE NOT INCLUDED IN THESE CONSTRUCTION DOCUMENTS.



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NO.	DESCRIPTION	DATE	BY
REVISIONS			
<b>SAN JUAN COUNTY</b> NEW MEXICO			
SAN JUAN COUNTY Public Works Department			
MILITARY BRIDGE REPLACEMENT CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9586			

INDEX OF APPLICABLE  
STANDARD SERIAL DRAWINGS

SHEET NO. 1-2

DESIGNED BY: DRAWN BY: CHECKED BY:

## GENERAL NOTES

1. **SPECIFICATIONS:** NEW MEXICO STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, 2007 EDITION, SHALL BE USED TO CONTROL CONSTRUCTION OF THIS PROJECT.
2. **CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE:** THE CONTRACTOR SHALL NOT STORE EQUIPMENT OR MATERIAL WITHIN 25' OF THE EDGE OF TRAVEL LANES UNLESS THE EQUIPMENT OR MATERIAL IS PROPERLY SHIELDED. THE DESIGN FOR SHIELDING SHALL BE PROVIDED BY THE CONTRACTOR AND MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE BEFORE IMPLEMENTING THE WORK, INCLUDING DESIGN, DESIGN, INSTALLATION AND REMOVAL OF THE SHIELDING SHALL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF THE PROJECT, AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.
3. **REMOVALS:** THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REMOVALS REQUIRED TO COMPLETE THE PROJECT. ADDITIONAL REMOVALS NOT SHOWN ON THE PLAN WILL BE DESIGNATED BY THE ENGINEER. THIS WORK WILL BE CONSIDERED AS INCLUDED IN THE CONTRACT PRICE FOR ITEM 601000 - "REMOVAL OF STRUCTURES AND OBSTRUCTIONS" AND THE CONTRACTOR WILL NOT RECEIVE ADDITIONAL COMPENSATION FOR UNLISTED REMOVALS.
4. **SALVAGEABLE MATERIALS:** SALVAGEABLE MATERIALS FROM THE PROJECT SHALL BE DELIVERED TO THE SAN JUAN COUNTY STORAGE YARD DESIGNATED BY THE ENGINEER. HAUL OF THIS MATERIAL SHALL BE PERFORMED DURING NORMAL WORKING HOURS AS DIRECTED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 601000 - "REMOVAL OF STRUCTURES AND OBSTRUCTIONS". ITEMS NOT IDENTIFIED AS SALVAGEABLE BY THE ENGINEER SHALL BE DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE COUNTY.

THE CONTRACTOR SHALL CONTACT DAVE KECK, PUBLIC WORKS ADMINISTRATOR, AT (505) 334-4530 PRIOR TO THE START OF CONSTRUCTION TO DETERMINE WHICH OF THE EXISTING PERMANENT SIGNS (THAT ARE SLATED TO BE REPLACED) WILL BE SALVAGED BY THE COUNTY. THE CONTRACTOR WILL BE REQUIRED TO DELIVER THOSE SIGNS TO THE COUNTY YARD. ALL OTHER SIGNS, POSTS AND SIGN BASES WILL BE DISPOSED OF BY THE CONTRACTOR. ANY COSTS ASSOCIATED WITH THIS ACTIVITY SHALL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF THE PROJECT.
5. **PROTECTION OF SURVEY MONUMENTS:** THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT HORIZONTAL AND VERTICAL CONTROL SURVEY MONUMENTS (MARKS) FROM DAMAGE PRIOR TO INITIATING CONSTRUCTION. AN INVENTORY OF THE EXISTING MONUMENTS WILL BE TAKEN BY THE ENGINEER AND THE CONTRACTOR WITH ACKNOWLEDGMENTS PRIOR TO START OF CONSTRUCTION. IF, DURING THE COURSE OF CONSTRUCTION OPERATIONS, THE CONTRACTOR DISTURBS OR DESTROYS A MARK, THE CONTRACTOR SHALL ESTABLISH A NEW MARK IN COMPLIANCE WITH THE STANDARDS AND PROCEDURES SET FORTH IN THE "GEODETIC MARK PRESERVATION GUIDEBOOK: NATIONAL GEODETIC SURVEY, MARCH 1990, CONTACT: NGS MARK PRESERVATION CENTER - NOAA, TELEPHONE (505)768-3606. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.
6. **PUBLIC ACCESS TO LOCAL BUSINESSES AND RESIDENCES:** THE CONTRACTOR SHALL PROVIDE INGRESS AND EGRESS TO LOCAL BUSINESSES AND RESIDENCES FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL ADVISE THE PROPERTY OWNERS AND THE PROJECT MANAGER OF ANY SCHEDULED ACCESS MODIFICATIONS, AT LEAST 24 HOURS IN ADVANCE. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.
7. **CLEANING OF EXISTING STRUCTURES:** THE CONTRACTOR SHALL CLEAN ALL EXISTING STRUCTURES THAT ARE TO REMAIN OPERATIONAL. STRUCTURES SHALL BE CLEAN AT THE TIME OF FINAL PROJECT ACCEPTANCE. THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.
8. **CONTRACTOR'S RESPONSIBILITY:** THE CONTRACTOR IS RESPONSIBLE FOR MAKING THE NECESSARY ADJUSTMENTS IN THE EQUIPMENT OR OPERATION FOR COMPACTION REQUIREMENTS AND SURFACING REMOVALS SO THAT UNDERGROUND UTILITIES AND PERMANENT STRUCTURES ARE NOT DAMAGED.

9. **PUBLIC AWARENESS:** THROUGHOUT THE LIFE OF THIS PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE TO KEEP THE ENGINEER AND DAVE KECK, PUBLIC WORKS ADMINISTRATOR (PHONE: 505-334-4530, E-MAIL: DKECK@SJCOUNTY.NET) INFORMED OF ANY LANE CLOSURES THAT WILL RESTRICT THE NORMAL FLOW OF TRAFFIC. ALL INFORMATION REGARDING CONSTRUCTION ACTIVITIES THAT AFFECT TRAFFIC SHALL BE PROVIDED TO MR. KECK. THERE WILL BE NO DIRECT MEASUREMENT OR PAYMENT FOR THE WORK DESCRIBED HEREIN. ALL WORK WILL BE CONSIDERED INCIDENTAL TO ITEM 618000 - "MOBILIZATION"
10. **CONTRACTOR COORDINATION WITH UTILITIES:** TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT LOCAL UTILITY COMPANIES FOR THE LOCATING OF EXISTING UTILITIES. THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. IN ADDITION, THE CONTRACTOR IS ADVISED THAT UTILITIES MAY EXIST THAT ARE NOT SHOWN IN THE PLANS. THE FOLLOWING UTILITY CONTACTS ARE PROVIDED FOR THE INFORMATION OF THE CONTRACTOR:  
SACRED WIND COMMUNICATIONS - LYNELL WIDNER, 505-905-6074
11. **WATER PROVISION:** IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO SECURE AND SUPPLY WATER FOR THE PROJECT. THE COST WILL BE INCIDENTAL TO COMPLETION OF THE PROJECT AND NO SEPARATE PAYMENT WILL BE MADE THEREFOR.
12. **CONSTRUCTION PHASING & TRAFFIC CONTROL PLAN:** A CONSTRUCTION PHASING PLAN HAS BEEN DEVELOPED AND CORRESPONDING TRAFFIC CONTROL MEASURES HAVE BEEN IDENTIFIED AND INCLUDED IN THE PLANS. CONSTRUCTION DURATIONS AND CONTRACT QUANTITIES ARE BASED ON THE INFORMATION PRESENTED IN THE PLANS. THE CONTRACTOR MAY, AT HIS/HER OWN EXPENSE, DEVELOP AN ALTERNATIVE CONSTRUCTION PHASING PLAN ALONG WITH ALTERNATIVE TRAFFIC CONTROL MEASURES AND SUBMIT IT TO THE COUNTY FOR REVIEW AND APPROVAL NOT LESS THAN TWO WEEKS PRIOR TO THE START OF ANY CONSTRUCTION. THE PLAN SHALL BE PREPARED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION). THE CONTRACTOR SHALL SUBMIT THREE COPIES OF THE PLAN, EACH BEARING THE ORIGINAL STAMP AND ORIGINAL SIGNATURE OF A NEW MEXICO REGISTERED PROFESSIONAL ENGINEER COMPETENT IN THE DESIGN OF CONSTRUCTION TRAFFIC CONTROL PLANS. THE CONTRACTOR IS ADVISED THAT THE COUNTY IS UNDER NO OBLIGATION TO APPROVE AN ALTERNATIVE CONSTRUCTION PHASING OR TRAFFIC CONTROL PLAN.
13. **SIGNS:** ALL SIGNS PLACED ON THIS PROJECT SHALL BE COATED WITH ANTI-GRAFFITI COATING. THIS WILL BE CONSIDERED INCIDENTAL TO THE SIGNS AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.
14. **WEATHERING STEEL FOR GUARDRAIL:** STEEL ELEMENTS INSTALLED PURSUANT TO WORK COMPLETED UNDER THE FOLLOWING ITEMS SHALL BE FABRICATED FROM WEATHERING STEEL:
  - ITEM NO. 606050 - METAL BARRIER END TERMINAL
  - ITEM NO. 606100 - METAL BARRIER END TERMINAL (ANCHORAGE) TYPE A
  - ITEM NO. 606200 - WEATHERING METAL BARRIER W-BEAM
  - ITEM NO. 606300 - WEATHERING METAL BARRIER THRIE BEAM

## INCIDENTAL ITEMS

THE FOLLOWING IS LIST OF INCIDENTAL ITEMS THAT PROVIDES ONLY A GENERAL DESCRIPTION OF THE REQUIRED WORK AND MATERIALS, AND MAY OR MAY NOT BE COMPLETE. THIS LIST DOES NOT INCLUDE ANY INCIDENTAL WORK OR MATERIALS REQUIRED BY SPECIAL PROVISIONS, SERIAL (STANDARD DETAIL) DRAWINGS, SUPPLEMENTAL SPECIFICATIONS, OR THE STANDARD SPECIFICATIONS. THESE ITEMS ARE ALL CONSIDERED INCIDENTAL TO THE WORK AND NO ADDITIONAL MEASUREMENT OR PAYMENT WILL APPLY.

1. SAFETY DESIGN AND SHIELDING OF EQUIPMENT AND MATERIALS.
2. SALVAGING MATERIALS.
3. PROTECTION OF SURVEY MONUMENTS.
4. MAINTAINING PUBLIC ACCESS.
5. PUBLIC AWARENESS.
6. ANTI-GRAFFITI COATING OF SIGNS.
7. FLAGGING, AS NEEDED.
8. DEVELOPMENT OF ALTERNATIVE CONSTRUCTION PHASING AND/OR TRAFFIC CONTROL PLANS
9. TESTING.
10. REMOVAL OF GRAFFITI DURING CONSTRUCTION.
11. SETTING OR RESETTING OF TRAFFIC CONTROL DEVICES.
12. RESTORATION OF STAGING AREAS.
13. SIGNING HARDWARE.
14. ELECTRICAL SERVICE.
15. TEMPORARY FENCING OF CULTURAL RESOURCE SITES, IF ANY ARE ENCOUNTERED, IN ACCORDANCE WITH NOTE 1 ON SHEET 1-5.
16. REMOVAL OF UNOCCUPIED NESTS AND INSTALLATION OF WIRE MESH IN ACCORDANCE NOTE 2 ON SHEET 1-5.
17. PROTECTION OF WETLANDS IN ACCORDANCE WITH NOTE 4 ON SHEET 1-5.

24343093

DESIGNED BY: DRAWN BY: CHECKED BY:



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NO.	DESCRIPTION	DATE	BY
REVISIONS			
<b>SAN JUAN COUNTY</b> Public Works Department			
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9586			
<b>GENERAL NOTES</b>			
SHEET NO. 1-3			



## GENERAL NOTES

### CLASS 'A' SEEDING SPECIFICATIONS

#### A. ERODIBLE SURFACE AREA

ALL REQUIREMENTS OUTLINED IN THE FEDERAL ENVIRONMENTAL PROTECTION AGENCY (EPA) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) AND THE NEW MEXICO CLEAN WATER ACT SHALL BE STRICTLY ADHERED TO DURING THE COURSE OF CONSTRUCTING THIS PROJECT. EXPOSED AREAS OF DISTURBANCE SHALL BE KEPT TO A MINIMUM TO PERFORM PROJECT CONSTRUCTION AND SHALL BE PROTECTED BY THE APPLICATION OF TEMPORARY SOIL STABILANT AS STATED BELOW AND ANY OTHER SEDIMENT CONTROL DEVICES REQUIRED UNTIL PERMANENT MEASURES ARE APPLIED.

#### B. TEMPORARY SOIL STABILANT

A TEMPORARY SOIL STABILANT SHALL BE APPLIED TO ALL EXPOSED SOIL AREAS WHICH ARE NOT BEING ACTIVELY WORKED. A HYDROSEEDER SHALL BE KEPT READILY AVAILABLE ON THE PROJECT SITE TO PERFORM THIS WORK. THE SOIL STABILIZING SUBSTANCE SHALL BE PLANTAGO BINDER TACKIFIER BY NORTHSTAR IMPEX CORP OR AN APPROVED EQUAL. A COLOR ADDITIVE TO ASSIST THE APPLICATOR IN UNIFORM APPLICATION OF THE PRODUCT AND WHICH WILL DISAPPEAR FROM THE SURFACE WITHIN 30 HOURS WILL BE USED. ALL MANUFACTURER'S INSTRUCTIONS REGARDING THE PRODUCT SHALL BE FOLLOWED INCLUDING A MINIMUM APPLICATION RATE AS PER THE 'CERTIFICATIONS' SECTION (BELOW).

#### C. PERMANENT MEASURES

PRIOR TO COMMENCING THE SEEDING OPERATION, THE PROJECT MANAGER, LANDSCAPE ARCHITECT AND SEEDING CONTRACTOR'S REPRESENTATIVE SHALL REVIEW AREAS TO BE TREATED TO DETERMINE THE APPROPRIATE CLASS OF SEEDING AND TO INSURE THAT SLOPES HAVE BEEN PROPERLY CONSTRUCTED, SEEDING EQUIPMENT SHALL ALSO BE INSPECTED DURING THIS PERIOD TO INSURE PROPER OPERATION. ANY WORK DONE PRIOR TO THIS INSPECTION SHALL BE REJECTED. ALL DISTURBED AREAS TO BE SEEDING SHALL BE AS DIRECTED BY THE PROJECT MANAGER AND/OR THE LANDSCAPE ARCHITECT. WATERING REQUIREMENTS AS SPECIFIED IN NMDOT STANDARD SPECIFICATIONS ARE EXCLUDED FROM THIS PROJECT.

SLOPES LESS THAN 3:1 IN GRADE SHALL BE TREATED WITH CLASS 'A' SEEDING AS BELOW. SLOPES STEEPER THAN 3:1 IN GRADE SHALL BE TREATED WITH CLASS 'C' SEEDING AS BELOW.

PRIOR TO PERFORMING SEEDING OPERATIONS ALL WEED SPECIES WHICH MAY HAVE GROWN IN AREAS TO BE SEEDING AND WILL INTERFERE WITH THE SEED AND MULCH MAKING CONTACT WITH THE SOIL SHALL BE REMOVED. DOMINANT COOL-SEASON GRASSES HAVE BEEN ADDED TO THIS SPECIFICATION. THERE ARE NO RESTRICTIONS AS TO SEEDING SEASON OTHER THAN WORK CAN NOT BE PERFORMED WHEN THE GROUND IS FROZEN

#### CLASS 'A' SEEDING

IN ADDITION TO THE STANDARD SEED BED PREPARATION REQUIRED AS PER NMDOT 2007 EDITION SPECIFICATIONS SEC. 632.3.3, ADDITIONAL SEED BED PREPARATION IS TO BE PERFORMED BY HAND-RAKING OR CHAIN-HARROWING 1" OF COMPOST MULCH AS DEFINED IN SEC. 632.2.5 INTO THE 4" SEEDBED BEING PREPARED FOR DRILLSEEDING.

FERTILIZER TREATMENT SHALL CONSIST OF DISKING INTO THE PREPARED SEEDBED A GRANULAR APPLICATION OF MYCOAPPLY ENDO CONTAINING GLOMUS INTRARADICIS, GLOMUS AGGREGATUM GLOMUS ETUNICATUM AND GLOMUS MOSSLAE AT A RATE OF 60,000 PROPAGULES PER POUND AS MANUFACTURED BY MYCORRHIZAL APPLICATIONS, INC. OF GRANTS PASS OREGON (541-476-3985) OR APPROVED EQUAL. IT SHALL BE APPLIED AT A RATE OF 15 LBS PER ACRE ONLY TO AREAS TO BE REVEGETATED.

BARLEY STRAW MULCH SHALL BE APPLIED AT A RATE OF 2 TONS PER ACRE AND SHALL BE MECHANICALLY ANCHORED (CRIMPED) STRAW IS TO BE FROM A CERTIFIED WEED-FREE SOURCE WITH CERTIFICATION FROM A RECOGNIZED CERTIFICATION AUTHORITY.

ALL SEEDING AREAS SHALL BE MULCHED THE SAME DAY THEY ARE SEEDING. ANY SEEDING AREAS NOT MULCHED THE SAME DAY SHALL BE REJECTED AND RESEEDING AND NO EXTRA PAYMENT SHALL BE MADE THEREFOR.

MULCH ANCHORING TACKIFIER FOR CLASS 'A' SEEDING IS TO BE PLANTAGO BINDER TACKIFIER BY NORTHSTAR IMPEX CORP. OR APPROVED EQUAL. TACKIFIER IS TO BE APPLIED AS AN OVERSPRAY AFTER SEED AND MULCH ARE IN PLACE. TACK SHALL BE APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS AND AT A SUFFICIENT RATE SO AS TO PREVENT MULCH FROM MOVING DUE TO WINDS OR TURBULENCE CREATED BY TRAFFIC ON THE ROADWAY. AREAS WHERE MULCH FAILS TO ADHERE SHALL BE REMULCHED AND TACKED AND NO EXTRA PAYMENT SHALL BE MADE THEREFOR.

CONTRACTORS' CAMPSITES, STOCKPILE AREAS AND ANY OTHER NONDESIGNATED HAUL ROAD OR DISTURBED AREA SHALL BE TREATED WITH CLASS 'A' SEEDING AND NO MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.

### CLASS 'A' REQUIRED CERTIFICATIONS

1. TACKIFIER FOR USE AS TEMPORARY SOIL STABILANT OR FOR ANCHORING STRAW MULCH SHALL BE USED AT A RATE OF 200 LB PER ACRE FOR EACH APPLICATION EVENT. USED BAGS WILL BE PRODUCED AND VERIFIED FOR CERTIFICATION. FOR ADDITIONAL VERIFICATION PURPOSES THE PROJECT MANAGER MUST BE NOTIFIED SO THAT HIS STAFF MAY BE PRESENT WHEN BAGS ARE LOADED INTO THE HYDRO EQUIPMENT.

2. COMPOST MULCH WILL BE USED AT A RATE OF 134 CUBIC YARDS PER ACRE. CERTIFICATION MUST BE PROVIDED THAT THE SOURCE IS A NMDOT-CERTIFIED COMPOST PRODUCER AND IS ON OUR APPROVED PRODUCTS LIST. BILLS OF LADING FROM SAID CERTIFIED COMPOST PRODUCER MUST BE AN INKED ORIGINAL INDICATING THE PROJECT CONTROL NUMBER, THE DATE, AND THE VOLUME IN CUBIC YARDS OF THAT SHIPMENT. A GRAVIMETRIC MOISTURE READING MUST BE PROVIDED DATED NOT MORE THAN A MONTH PREVIOUS FROM THE TIME OF DELIVERY VERIFYING THAT THE COMPOST MOISTURE OF THE COMPOST PILE FROM WHICH THIS SHIPMENT WAS DRAWN IS IN THE 35% TO 45% RANGE. REGARDLESS OF MOISTURE CONTENT, THE PROJECT MANAGER MAY REQUIRE THE DELIVERED COMPOST TO BE WATERED ON DELIVERY AND SPREADING TO REDUCE THE LOSS OF FINES AND AID IN SPREADING AND TILLING.

3. SEED CERTIFICATION SHALL BE AS PER NMDOT2007 SPECIFICATIONS SECTION 632.2.1. ON-SITE SEED SAMPLING & TESTING MAY BE DONE AT THE DISCRETION OF THE NMDOT. ALL SEED CERTIFICATES FROM SEED SUPPLIER MUST BE PROVIDED TO PROJECT MANAGER BEFORE SEEDING COMMENCES.

4. STRAW SHALL BE USED AT A RATE OF 2 TONS (4,000 LBS) PER ACRE. WEIGHMASTER TICKETS SHALL BE PRODUCED AS CERTIFICATION THE CORRECT AMOUNT OF MULCH HAS BEEN DELIVERED.

5. FERTILIZER CERTIFICATION SHALL INCLUDE DOCUMENTATION OF POUNDS PER THE TOTAL ACREAGE OF THE PROJECT REQUIRED AND ALL LABELS OR CONTAINERS OF MATERIAL USED. FOR VERIFICATION PURPOSES THE PROJECT MANAGER SHALL BE NOTIFIED WHEN BAGS ARE LOADED INTO THE HYDROMULCH EQUIPMENT.

#### CLASS 'A' SEED MIX

(CERTIFIED SEED OF NAMED VARIETIES ARE REQUIRED IF AVAILABLE)

COMMON NAME	BOTANICAL NAME	LBS OF PLS*/ACRE
BLUE GRAMA	BOUTELOUA GRACILIS VAR. ALMA	0.50
SIDEOLATA GRAMA	BOUTELOUA CURTIPENDULA VAR. VAUGHN	0.50
NEEDLE GRAMA	BOUTELOUA ARISTOIDES	0.75
BLACK GRAMA	BOUTELOUA ERIOPODA	0.25
WESTERN WHEATGRASS	AGROPYRON SMITHII	0.75
LITTLE BLUESTEM	SCHIZACHYRIUM SCOPARIUM VAR. PASTURA	0.75
FOUR-WING SALTBUCH	ATRIPLEX CANESCENS	0.75
APACHE PLUME	FALLUGIA PARADOXA	0.15
GALLETA	PLEURAPHIS JAMESII VAR. VIVA	0.75
INDIAN RICEGRASS	ACHNATHERUM HYMENOIDES VAR. PALOMA	0.75
WINTERFAT	KRASCHENINNIKOVIA LANATA	0.75
OATS	AVENA SATIVA	3.00
STERILE TRITICALE	TRITICUM AESTIVUM X SECALE CEREALE/QUICKGUARD®	3.00
ALKALI SACATON	SPOROBOLUS AIROIDES	0.15
SAND DROPSOED	SPOROBOLUS CRYPTANDRUS	0.05
WHITE PRAIRIE CLOVER	DALEA CANDIDA	0.10
PALMER PENSTEMON	PENSTEMON PALMERI	0.25
COMMON YARROW	ACHILLEA MILLEFOLIUM	0.25
MEXICAN HAT	RATIBIDA COLUMNIFERA	0.10
BLUE FLAX	LINUM LEWISII	0.10
ROCKY MT. PENSTEMON	PENSTEMON STRICTUS	0.10

\*PURE LIVE SEED

TOTAL 13.75

### CONTRACTORS WARRANTY OF WORK

A 45 DAY INSPECTION OF STRAW MULCH TREATMENT FOLLOWING COMPLETION OF APPLICATION MUST INDICATE A MINIMUM OF 85% OF THE STRAW MULCH STILL IN PLACE. AREAS NOT MEETING THIS PERCENTAGE MUST BE REMULCHED AND TACKIFIER APPLIED TO MEET THE 85% STANDARD.

ANY PROPOSED CHANGES OR MODIFICATIONS TO THIS PLAN SHALL BE DISCUSSED WITH THE LANDSCAPE ARCHITECT PRIOR TO MAKING SUCH CHANGES OR MODIFICATIONS.

CONTACT: NMDOT LANDSCAPE ARCHITECT WILLIAM S. HUTCHINSON.  
DESK 505-827-6851  
CELL 505-785-1274

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DESIGNED BY: DRAWN BY: CHECKED BY:



**URS**

6501 Americas Parkway NE, Suite 900  
Albuquerque, New Mexico 87110  
p 505.855.7500 f 505.855.7555

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NO.	DESCRIPTION	DATE	BY
REVISIONS			



**SAN JUAN COUNTY**  
Public Works Department

#### MILITARY BRIDGE REPLACEMENT

CR 7150 OVER GALLEGOS WASH  
BRIDGE NO. 9586

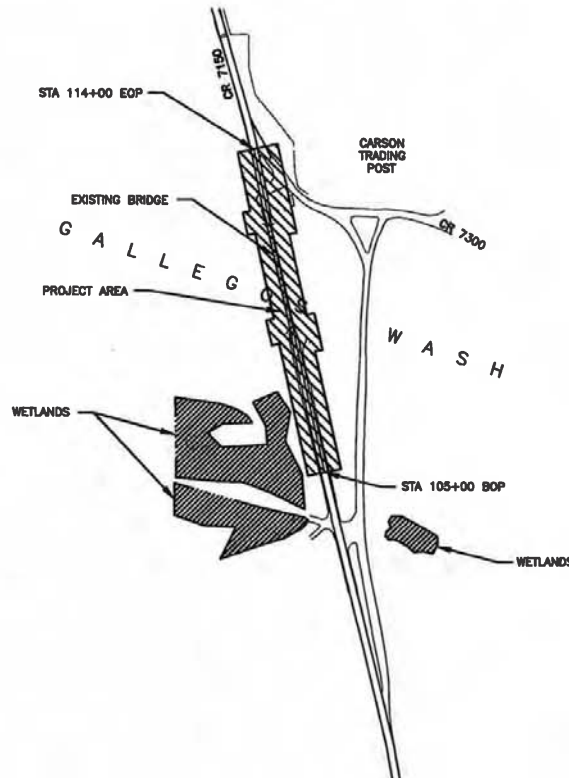
**GENERAL NOTES**  
**CLASS 'A' SEEDING**

SHEET NO. 1-4



## ENVIRONMENTAL COMMITMENTS

1. NON-VIBRATORY EQUIPMENT AND PRACTICES SHALL BE USED WITHIN 100 FEET OF THE THREE HISTORIC BUILDINGS ASSOCIATED WITH THE CARSON TRADING POST AND ONE HISTORIC STRUCTURE DEEMED ELIGIBLE, OR POTENTIALLY ELIGIBLE, TO THE NATIONAL REGISTER OF HISTORIC PLACES. ANY WORK IN GALLEGO WASH (DETOUR, EQUIPMENT OPERATION) SHALL AVOID IMPACTING THE POTENTIALLY HISTORIC, AND STILL FUNCTIONING, CONCRETE WELL-WATER SUPPLY STRUCTURE LOCATED APPROXIMATELY 88 FEET EAST OF THE BRIDGE WITHIN THE WASH. IF BURIED CULTURAL MATERIALS ARE EXPOSED DURING CONSTRUCTION, ALL WORK SHALL CEASE IMMEDIATELY AND NMDOT, THE NEW MEXICO STATE HISTORIC PRESERVATION OFFICER, AND THE NAVAJO NATION TRIBAL HISTORIC PRESERVATION OFFICER SHALL BE CONTACTED.
2. CONSTRUCTION ACTIVITIES ARE SCHEDULED TO OCCUR OUTSIDE THE REGULAR BIRD NESTING AND BAT ROOSTING SEASON (APRIL 15 THROUGH AUGUST 15), THUS AVOIDING IMPACTS TO MIGRATORY BIRDS OR SENSITIVE BIRD AND BAT SPECIES, AND AVOIDING THE NEED TO REMOVE UNOCCUPIED NESTS OR INSTALL NETTING AS DESCRIBED BELOW. IF THE CONSTRUCTION SCHEDULE IS ALTERED TO INCLUDE WORK BEGINNING WITHIN THIS TIMEFRAME, A QUALIFIED BIOLOGIST SHALL CONDUCT PRE-CONSTRUCTION BIRD AND BAT SURVEYS UNDERNEATH THE BRIDGE. ANY UNOCCUPIED NESTS ON THE UNDERSIDE OF THE BRIDGE SHALL BE REMOVED PRIOR TO THE NESTING SEASON, AND WIRE-MESH NETTING INSTALLED TO DISCOURAGE THE DEVELOPMENT OF NEW NESTS. ANY IMPACTS THAT ARE IDENTIFIED SHALL BE MITIGATED IN CONSULTATION WITH THE U.S. FISH AND WILDLIFE SERVICE.
3. TO THE EXTENT POSSIBLE, CONSTRUCTION ROUTES AND STAGING AREAS SHOULD AVOID BURROWS AND GROUND SURFACE OBJECTS THAT MAY SERVE AS HABITAT FOR CALIFORNIA KINGSLAKE, A STATE-LISTED SENSITIVE SPECIES.
4. THE WETLANDS IN THE VICINITY OF THE PROJECT, AS SHOWN IN THE MAP ON THIS SHEET, SHALL BE COMPLETELY AVOIDED BY ALL CONSTRUCTION ACTIVITIES.
5. CONSTRUCTION WITHIN GALLEGO WASH SHALL COMPLY WITH THE CLEAN WATER ACT SECTION 404 AND 401 PERMITTING PROCESSES AND FOLLOW ALL 404 AND 401 REQUIREMENTS. THE CONTRACTOR SHALL COMPLY WITH THE CONDITIONS OUTLINED IN SECTION 404 NATIONWIDE PERMIT 14 FOR LINEAR TRANSPORTATION PROJECTS, AND NMED'S CONDITIONAL WATER QUALITY CERTIFICATION FOR EPHEMERAL STREAMS. A PRE-CONSTRUCTION NOTIFICATION IS REQUIRED. CONSTRUCTION AND REMOVAL OF ANY TEMPORARY DETOUR WITHIN GALLEGO WASH SHALL ALSO FOLLOW 404 AND 401 REQUIREMENTS.
6. THE CONTRACTOR SHALL PREPARE AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND A TEMPORARY EROSION AND SEDIMENT CONTROL PLAN (TESCP) IN COMPLIANCE WITH SECTION 402 OF THE CLEAN WATER ACT. BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE INSTALLED AND MAINTAINED BOTH DURING AND AFTER CONSTRUCTION TO PREVENT, TO THE EXTENT PRACTICABLE, POLLUTANTS IN STORM WATER RUNOFF FROM ENTERING WATERS OF THE U.S. TEMPORARILY DISTURBED AREAS WILL BE RE-VEGETATED AFTER CONSTRUCTION TO LIMIT EROSION POTENTIAL.
7. THE CONTRACTOR SHALL MINIMIZE VEGETATION AND SOIL DISTURBANCE FOR ALL LOCATIONS WHERE EQUIPMENT WILL BE PARKED DURING CONSTRUCTION, AND THE CONTRACTOR SHALL ACQUIRE ENVIRONMENTAL AND CULTURAL RESOURCES CLEARANCES FOR THESE SITES IN ACCORDANCE WITH SECTION 107.14 OF THE 2007 EDITION OF THE NMDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION.
8. TO REDUCE THE SPREAD OF NOXIOUS WEEDS, THE CONTRACTOR SHALL CLEAN EQUIPMENT BEFORE AND AFTER USE. ALL DISTURBED AREAS SHALL BE RESEEDING ACCORDING TO STANDARD NMDOT PROTOCOL AND ACCORDING TO THE REVEGETATION PLAN, WHICH IS DETAILED IN THESE CONSTRUCTION PLANS.
9. SIBERIAN ELM, SALT CEDAR, AND CHEATGRASS, ALL OF WHICH ARE STATE-LISTED CLASS C NOXIOUS WEEDS IDENTIFIED WITHIN THE PROJECT AREA, SHALL BE CONTROLLED ACCORDING TO THE LOCAL AGENCY'S DISCRETION.
10. BRIDGE 8105 IS COATED WITH A LEAD BASED PAINT. THE CONTRACTOR SHALL EMPLOY THE SERVICES OF A QUALIFIED LEAD-BASED PAINT ABATEMENT FIRM, WORKING IN COORDINATION WITH THE BRIDGE DEMOLITION TEAM, THE ABATEMENT CONTRACTOR SHALL REMOVE ONLY THE PAINT AND PRIME COAT REQUIRED TO SAFELY DISMANTLE THE STRUCTURE IN ACCORDANCE WITH SPECIFICATION 547.3. THE STEEL MEMBERS SHALL BE DISPOSED OF IN ACCORDANCE WITH SPECIFICATION 541.7.8.6



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NO.	DESCRIPTION	DATE	BY
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**SAN JUAN COUNTY**  
Public Works Department

**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER GALLEGO WASH  
BRIDGE NO. 9388

**ENVIRONMENTAL COMMITMENTS**

SHEET NO. 1-5

*[Signature]* 8-14-13  
NMDOT ENVIRONMENTAL BUREAU MANAGER

## STORM WATER POLLUTION PREVENTION PLAN INFORMATION

## LIST OF APPROVED TMDLS IN NEW MEXICO

NOI INPUTS CN F100180

NMDOT PROJECTS REQUIRE ELECTRONIC NOI SUBMISSION- PAPER SUBMISSION REQUIRES PRIOR APPROVAL.	
PERMIT NUMBER: NMR120000 STATE OF NEW MEXICO, EXCEPT INDIAN COUNTRY NMR120001 INDIAN COUNTRY WITHIN THE STATE OF NEW MEXICO, EXCEPT NAVAJO RESERVATION LANDS THAT ARE COVERED UNDER ARIZONA PERMIT AZ100001 AND UTE MOUNTAIN RESERVATION LANDS THAT ARE COVERED UNDER COLORADO PERMIT COR100001.	
OPERATOR INFORMATION: SEE DISTRICT ADDRESSES, THIS SHEET	
IRS EMPLOYER IDENTIFICATION NUMBER (EIN): NMDOT: 35 - 6000581	
POINT OF CONTACT: DISTRICT PROJECT MANAGER	
NOI PREPARED BY: DISTRICT PROJECT MANAGER	
PROJECT / SITE NAME: NMDOT CONTROL NUMBER (CN) F100180	
PROJECT / SITE ADDRESS: CR 7150 OVER GALLEGOS WASH, CARSON TRADING POST, NEW MEXICO	
LATITUDE, BOP	36.456 DECIMAL DEGREES
LONGITUDE, BOP	-108.008 DECIMAL DEGREES
FEDERAL OPERATOR = "ANY DEPARTMENT, AGENCY, OR INSTRUMENTALITY OF THE EXECUTIVE, LEGISLATIVE, AND JUDICIAL BRANCHES OF THE FEDERAL GOVERNMENT OF THE UNITED STATES"	
ESTIMATED PROJECT START DATE	JANUARY 2014
ESTIMATED PROJECT COMPLETION DATE	OCTOBER 2014
ESTIMATED AREA TO BE DISTURBED (NEAREST 1/4 ACRE)	2.5 ACRES
COMMENCED EARTH-DISTURBING ACTIVITIES?	NO
PREVIOUS NPDES PERMIT? IF YES, PERMIT NO:	NO
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4): SEE THIS SHEET FOR MS4 LOCATIONS.	
SURFACE WATERS WITHIN 50 FT? YES/NO	YES
RECEIVING WATER	GALLEGOS CANYON (SAN JUAN TO NAVAJO BOUNDARY)
IMPAIRED WATERS: SEE MAP FOR 303D LISTING & TMDL LISTINGS ON THIS SWPPP INFORMATION SHEET. CHECK SPECIFIC TMDL LIST HERE: <a href="ftp://ftp.nmenv.state.nm.us/www/swqb/WQMP-CPP/WQMP-CPPAppendixB-May2011.pdf">ftp://ftp.nmenv.state.nm.us/www/swqb/WQMP-CPP/WQMP-CPPAppendixB-May2011.pdf</a> GALLEGOS CANYON (SAN JUAN TO NAVAJO BOUNDARY)	
IMPAIRED WATERS METHOD: ONLINE CONSULTATION OF NEW MEXICO ENVIRONMENT DEPARTMENT LISTING OF OF STATEWIDE 303D AND TMDL IMPAIRMENTS.	
TIER 2, TIER 2.5, TIER 3 WATERS - CONSULT 2012 CGP APPENDIX "C"	
CHEMICAL TREATMENT INFORMATION - TYPICAL NMDOT PROJECT WILL NOT UTILIZE THESE CHEMICALS.	
SWPPP CONTACT INFORMATION - DISTRICT PROJECT MANAGER (DISTRICT 5)	
ENDANGERED SPECIES CRITERIA (A, B, C, D, E, or F): A	
BRIEF SUMMARY FOR THE BASIS FOR CRITERION SELECTION: Project will have no effect on Federal or State listed species	
HISTORIC PRESERVATION	
ARCHAEOLOGICAL SURVEY PLAN PROJECT WILL INDICATE EXISTANCE OF HISTORIC PROPERTIES. IF HISTORIC PROPERTIES EXIST, SHEETS CAN SHOW NO EFFECT ON HISTORIC PROPERTIES.	
WILL ANY STORMWATER CONTROLS REQUIRE SUBSURFACE DISTURBANCE? NO	
CERTIFICATION: NOI MUST BE CERTIFIED BY "A PRINCIPAL EXECUTIVE OFFICER OR RANKING ELECTED OFFICIAL".	

## SWPPP INPUTS

DRAINAGE PATTERNS	REFER TO PLAN AND PROFILE SHEETS
APPROXIMATE SLOPES AFTER MAJOR GRADING	3H:1V
RAINFALL 2-YEAR, 24-HOUR, inch	1.17 INCHES
2-YEAR, 1-HOUR, inch	0.63 INCHES
INTENSITY, FOR Tc = 10 minutes	1.84 INCH/HOUR
HYDROLOGICAL SOIL GROUP	'B' AND 'C'
CURVE NUMBER (CN), UNDISTURBED AREA	88
CURVE NUMBER (CN), DISTURBED AREA	89
RUNOFF COEFFICIENT, PRIOR TO CONSTRUCTION	0.60 (50% PVMT, 50% NATURAL)
RUNOFF COEFFICIENT, DURING CONSTRUCTION	0.75 (75% PVMT, 25% NATURAL)
RUNOFF COEFFICIENT, AFTER CONSTRUCTION	0.75 (ADDED PVMT AREAS) 75% PVMT, 25% NATURAL

Caliente Canyon (Vermejo River to headwaters)  
Cieneguilla Creek (Eagle Nest Lake to headwaters)  
Cimarron River (Canadian River to Cimarron Village)  
Cimarron River (Cimarron Village to Turkey Creek)  
Cimarron River (Turkey Creek to Eagle Nest Lake)  
Coyote Creek (Mora River to Black Lake)  
Little Coyote Creek (Black lake to headwaters)  
Middle Ponil Creek (South Ponil Creek to headwaters)  
Mora River (USGS gage east of Shoemaker to Hwy 434)  
Mora River (Hwy 434 to headwaters)  
Moreno Creek (Eagle Nest Lake to headwaters)  
North Ponil Creek (South Ponil Creek to McCrystal Creek)  
Ponil Creek (Cimarron River to confluence of North and South Ponil)  
Ponil Creek (Cimarron River to US 64)  
Ponil Creek (Us 64 to confluence of North and South Ponil)  
Rayado Creek (Miami Lake Diversion to headwaters)  
Rayado Creek (Cimarron River to Miami Lake Diversion)  
Sapello River (Mora River to Manuelitas Creek)  
Skimle Creek (Eagle Nest Lake to headwaters)  
South Ponil Creek (Ponil Creek to Middle Ponil)  
Ute Creek (Cimarron River to headwaters)  
Vermejo River (Rail Canyon to York Canyon)  
Vermejo River (York Canyon to headwaters)  
York Canyon (Vermejo Park to headwaters)  
Dry Cimarron River (perennial reaches OK bnd to Long Canyon)  
Dry Cimarron River (Long Canyon to Oak Creek)  
Long Canyon (perennial reaches above Dry Cimarron)  
Oak Creek (Dry Cimarron to headwaters)  
Black Canyon Creek (East Fork Gila River to headwaters)  
Canyon Creek (Middle Fork Gila River to headwaters)  
Centerfire Creek (San Francisco R to headwaters)  
Gila River (East Fork)  
Mangas Creek (Gila River to Mangas Springs)  
Mogollon Creek (Perennial reaches abv USGS gage)  
Negrito Creek (South Fork)  
San Francisco River (Centerfire Creek to AZ border)  
Sapillo Creek (Gila River to Lake Roberts)  
Taylor Creek (Beaver Creek to Wall Lake)  
Tularosa River (San Francisco R to Apache Creek)  
Whitewater Creek (San Francisco River to White-water Campgnd)  
Rio Grande (International Mexico boundary to Leasburg Dam)  
Rio Grande (Leasburg Dam to Percha Dam)  
Abiquiu Creek (Rio Chama to headwaters)  
Cañones Creek (Abiquiu Reservoir to headwaters)  
Chavez Creek (Rio Brazos to headwaters)  
Poleo Creek (Rio Puerco de Chama to headwaters)  
Polvadera Creek (Canóñes Creek to headwaters)  
Rio Brazos (Rio Chama to Chavez Creek)  
Rio Chama (Rio Brazos to Little Willow Creek)  
Rio Chamita (Rio Chama to CO border)  
Rio Chamita (Rio Chama to CO border)  
Rio Nutrias (Rio Chama to headwaters)  
Rio Vallecitos (Rio Tusas to headwaters)  
Rito de Tierra Amarilla (Rio Chama to HWY 64)  
Santa Fe River (Cochiti Pueblo bnd to Santa Fe WWTP)  
Clear Creek (Rio de las Vacas to San Gregorio Lake)  
Jemez River ( East Fork)  
East Fork Jemez (East Fork Jemez to headwaters)  
East Fork Jemez River (San Antonio Creek to VCNP boundary)  
Jemez River (HWY 4 near Jemez Springs to East Fork)  
Jemez River (Rio Guadalupe to HWY 4 nr Jemez Springs)  
Jemez River (Zia Pueblo bnd to Jemez Pueblo bnd)  
Jemez River (Jemez Pueblo bnd to Rio Guadalupe)  
Jemez River (Rio Guadalupe to Soda Dam nr Jemez Springs)  
Jemez River (Soda Dam nr Jemez Springs to East Fork)  
Redondo Creek (Sulphur Creek to headwaters)  
Jaramillo Creek (VCNP boundary to headwaters)  
Rio Cebolla (Fenton Lake to headwaters)  
Rio Cebolla (Rio de las Vacas to Fenton Lake)  
Rio de las Vacas (Rio Cebolla to Clear Creek)

Rio de las Vacas (Rio Cebolla to Rito de las Palomas)  
Rio Guadalupe (Jemez River to confluence with Rio Cebolla)  
Rito de las Palomas (Rio de las Vacas to headwaters)  
Rito Penas Negras (Rio de las Vacas to headwaters)  
San Antonio Creek (East Fork Jemez River to headwaters)  
San Antonio Creek (East Fork Jemez to VCNP bnd)  
Sulphur Creek (Redondo Creek to headwaters)  
Bluewater Creek (Bluewater Reservoir to headwaters)  
Bluewater Creek (non-tribal Rio San Jose to Bluewater Rsrv)  
La Jara Creek (perennial reaches above Arroyo San Jose)  
Rio Grande (non-Pueblo Alameda to Angostura Diversion)  
Rio Grande (Alameda Bridge to Santa Ana Pueblo bnd)  
Rio Grande ( Isleta Pueblo boundary to Alameda Bridge)  
Rio Grande (Rio Puerco to Isleta Pueblo boundary)  
Rio Grande (San Marcial at USGS gage to Rio Puerco)  
Rio Moquino (Laguna Pueblo to Seboyettia Creek)  
Rio Puerco (Arroyo Chijilla to Northern Boundary Cuba)  
Bitter Creek (Red River to headwaters)  
Comanche Creek (Costilla Creek to Little Costilla Creek)  
Cordova Creek (Costilla Creek to headwaters)  
Costilla Creek (diversion above Costilla to Comanche Creek)  
Embudo Creek (Rio Grande to Cañada de Ojo Sarco)  
Little Tesuque (Rio Tesuque to headwaters)  
Placer Creek (Red River to headwaters)  
Red River (Rio Grande to Placer Creek)  
Rio de los Pinos (Colorado border to headwaters)  
Rio Fernando de Taos (Rio Pueblo de Taos to headwaters)  
Rio Grande (non-pueblo Santa Clara to Embudo Creek)  
Rio Grande (Red River to NM-CO border)  
Rio Grande del Rancho (Rio Pueblo de Taos to Hwy 518)  
Rio Hondo (Rio Grande to USFS boundary)  
Rio Hondo (South Fork of Rio Hondo to Lake Fork Creek)  
Rio Pueblo de Taos (Arroyo del Alamo to Rio Grande del Rancho)  
Rio Pueblo de Taos (Rio Grande del Rancho to Taos Pueblo boundary)  
Rio Pueblo de Taos (Rio Grande to Arroyo del Alamo)  
Rio San Antonio (Montoya Canyon to headwaters)  
Rio Santa Barbara (Pleuris Pueblo boundary to USFS boundary)  
Bull Creek (Cow Creek to headwaters)  
Cow Creek (Bull Creek to headwaters)  
Cow Creek (Pecos River to Bull Creek)  
Gallinas River (Las Vegas diversion to headwaters)  
Pecos River (Alamilos Canyon to Willow Creek)  
Pecos River (Cañon de Manzanita to Alamilos Canyon)  
Carrizo Creek (Rio Ruidoso to Mescalero Apache boundary)  
Rio Bonito (Angus Canyon to headwaters)  
Rio Hondo (Perennial Reaches Pecos to headwaters)  
Rio Ruidoso (Rio Bonito to US Highway 70)  
Rio Ruidoso (US Highway 70 Mescalero Apache boundary)  
Animas River (San Juan River to Estes Arroyo)  
**Gallegos Canyon (San Juan to Navajo Boundary)**  
La Plata River (McDermott Arroyo to Colorado Border)  
La Plata River (San Juan River to McDermott Arroyo)  
San Juan River (Navajo Boundary at Hogback to Animas River)  
San Juan River (Animas River to Cañon Largo)

<b>URS</b>		6501 Americas Parkway, NE Suite 900 Albuquerque, New Mexico 87110 p 505.855.7500 f 505.855.7555	
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NO.	DESCRIPTION	DATE	BY
REVISIONS			
<b>SAN JUAN COUNTY</b> Public Works Department			
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9586			
<b>STORM WATER POLLUTION PREVENTION PLAN (SWPPP) INFORMATION</b>			
SHEET NO. 1 - 6			

ROXANNE B. BLAZZ  
NEW MEXICO  
16311  
REGISTERED PROFESSIONAL ENGINEER  
08/23/13

## STORM WATER POLLUTION PREVENTION PLAN INFORMATION

### REGULATED SMALL MS4s IN NEW MEXICO

Albuquerque	Doña Ana County
Bernalillo	Aztec
Camuel	Farmington
Corrales	Flora Vista
Isleta Village Proper	Kirtland
Los Ranchos de Albuquerque	San Juan County
Rio Rancho	Agua Fria
Santa Ana Pueblo	La Cienega
Bernalillo County	Santa Fe
Sandoval County	Tesuque
Doña Ana	Santa Fe County
Las Cruces	Anthony, TX
Mesilla	Santa Teresa
University Park	Sunland Park

### IMPAIRED STREAMS IN NEW MEXICO

THE MAP BELOW SHOWS IMPAIRED WATERS LOCATIONS AS OF MARCH 2012. IF YOUR PROJECT IS ADJACENT OR NEAR TO AN IMPAIRED WATER, CONSULT THE NEW MEXICO ENVIRONMENT DEPARTMENT WEBSITE TO UTILIZE THEIR GIS MAPPING TOOL TO IDENTIFY THE IMPAIRMENT. EACH IMPAIRED STREAM LOCATION WILL IDENTIFY THE IMPAIRMENT WHEN THE "ID" TOOL IS USED BY CLICKING WITH THE MOUSE IS USED BY CLICKING WITH THE MOUSE ON A PARTICULAR IMPAIRED STREAM.

<http://gis.nmenv.state.nm.us/EGIS/>



### RUNOFF DISCHARGE & VOLUME CALCULATION:

THE FOLLOWING PROCEDURES SHOULD BE USED TO CALCULATE THE RUNOFF DISCHARGE AND VOLUME TO DESIGN THE EROSION CONTROL MEASURES:

DISCHARGE:  $Q = CIA$   
WHERE:  
 $Q$  = DISCHARGE, cfs  
 $C$  = RUNOFF COEFFICIENT  
 $I$  = RAINFALL INTENSITY, in/hr  
 $A$  = AREA OF THE SITE, acres

VOLUME:  $V = QT_c$   
WHERE:  
 $V$  = VOLUME, ft<sup>3</sup>  
 $T_c$  =  $(1/60) 0.0078 L^{0.77} S^{-0.386}$  minutes  
Assume  $T_c$  = 10 min, for basins within the project limits  
 $L$  = LENGTH OF WATERSHED, ft  
 $S$  = SLOPE, ft / ft

### GENERAL NOTES:

1. THE 2012 EDITION OF NMDOT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) HANDBOOK AND SECTION 603 - TEMPORARY EROSION AND SEDIMENT CONTROL OF THE 2007 NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION - SHALL BE USED AS MINIMUM REQUIREMENTS TO DEVELOP OR MODIFY THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP).
2. THE NPDES PERMIT NUMBER FOR THE PROJECT OR A COPY OF THE NOTICE OF INTENT (NOI), IF A PERMIT NUMBER HAS NOT YET BEEN ASSIGNED, SHALL BE POSTED AT THE PROJECT SITE OR THE FIELD OFFICE AT ALL TIMES DURING CONSTRUCTION.
3. THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ALL MAINTENANCE AND INSPECTION REPORTS SHALL BE SIGNED BY A QUALIFIED INSPECTOR ASSIGNED BY CONTRACTOR. THE SWPPP AND THE INSPECTION REPORTS SHALL BE AVAILABLE TO EPA REPRESENTATIVE AT ALL TIMES DURING CONSTRUCTION.
4. ALL DRAINAGE INFORMATION NEEDED TO COMPLETE THE NOTICE OF INTENT (NOI) ARE PROVIDED IN THIS PLAN.
5. BMPS SHOWN ON TESCM SHEETS LISTED ON SHEET 1-2 ARE DETERMINED USING THE EQUATIONS SHOWN ON THIS SHEET AND OTHER HYDROLOGIC MODELS AS SPECIFIED IN THE DEPARTMENTS DRAINAGE MANUALS LATEST EDITION. BMPS CONTROL SEDIMENT SO THAT NO ADDITIONAL SEDIMENT RESULTING FROM CONSTRUCTION ACTIVITIES DISCHARGE TO WATERWAYS.
6. THE CONTRACTOR SHALL SPECIFICALLY DEFINE ALL REQUIRED CONTROL MEASURES FOR EACH CONSTRUCTION PHASE, AND SHALL COMPLY WITH THE PROVISIONS OF THE NPDES MANUAL AND THE 2012 CONSTRUCTION GENERAL PERMIT.
7. THE TESCM STANDARD SERIALS REFERENCED IN THESE PLANS PROVIDE A BASIS FOR ESTIMATING QUANTITIES.

### DISTRICT ADDRESSES

#### DISTRICT 1

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Toll Free: 800-234-7520

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Fax: 505-841-2790

#### DISTRICT 6

P.O. Box 2160  
Milan, NM 87021  
Telephone: 505-285-3206  
Toll Free: 800-361-3596

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<b>STORM WATER POLLUTION PREVENTION PLAN (SWPPP) INFORMATION</b>			
SHEET NO. 1-7			

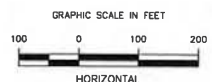
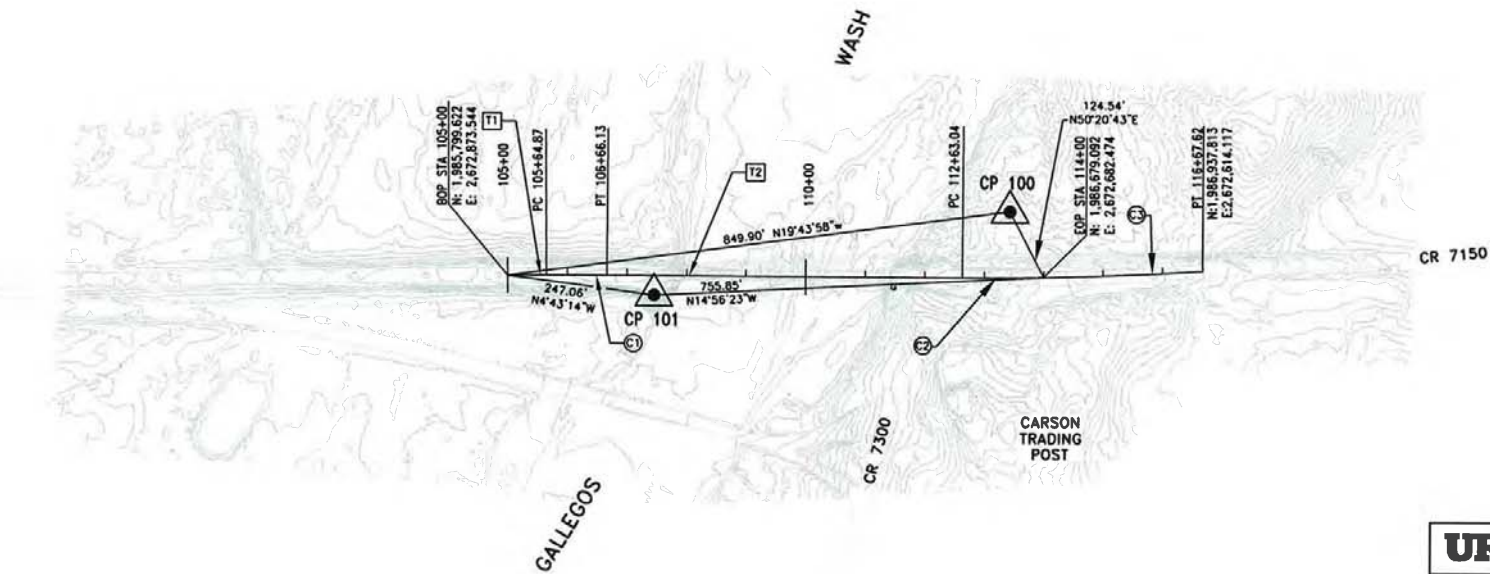




TANGENT TABLE		
ID	DISTANCE	BEARING
T1	64.87'	N 12°39'30" W
T2	596.90'	N 12°04'41" W

CURVE TABLE				
ID	DELTA	RADIUS	TANGENT	ARC
C1	01°34'49"	10000.00'	50.63'	101.26'
C2	01°22'36"	5700.00'	68.49'	136.96'
C3	02°41'24"	5700.00'	133.84'	267.62'

CONTROL POINT TABLE			
	NORTHING	EASTING	DESCRIPTION
CP 100	1,986,599.615	2,672,586.590	ALUMINUM CAP
CP 101	1,986,045.840	2,672,853.213	ALUMINUM CAP

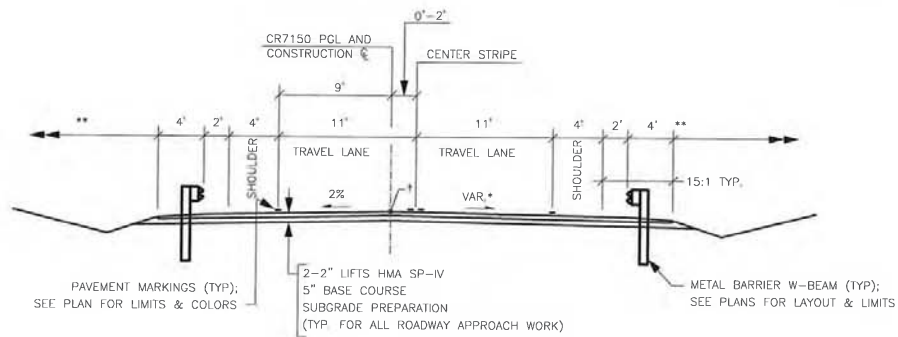


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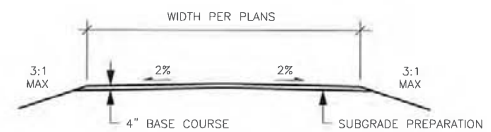


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NO.	DESCRIPTION	DATE	BY
REVISIONS			
<b>SAN JUAN COUNTY</b> <b>SAN JUAN COUNTY</b> Public Works Department			
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9586			
<b>SURVEY CONTROL PLAN</b>			
SHEET NO. 1-8			



PROPOSED TYPICAL SECTION - CR7150

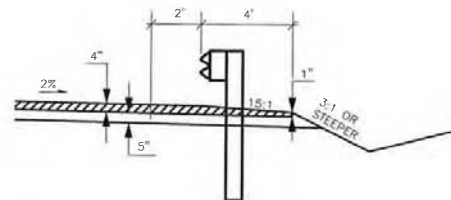
STA 106+25.00 TO STA 107+74  
STA 111+60.50 TO STA 113+75.00



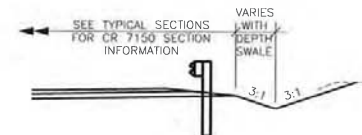
TYPICAL SECTION - UNPAVED TURNOUT

NOTES:

- \* SEE ROADWAY PLANS AND CROSS SECTIONS FOR PAVEMENT CROSS SLOPE INFORMATION
  - \*\* SEE CROSS SECTION FOR SIDE SLOPE DATA
  - † APPLICATION POINT FOR PROFILE GRADE AND CROSS SLOPE ROTATION POINT
- UNLESS OTHERWISE NOTED IN PLANS, DISTURBED AREAS SHALL BE SEEDED UPON COMPLETION OF WORK.



DETAIL FOR PAVING TAPER AT GUARDRAIL



SECTION - CR7150 DRAINAGE SWALE

STA 111+67 RT TO STA 112+43 RT

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NEW MEXICO  
Public Works Department

**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER CALLEGOS WASH  
BRIDGE NO. 9586

TYPICAL SECTIONS

SHEET NO. 1-9



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Item No	Description	Units	Roadway	Bridge	Totals
201000	Clearing and Grubbing	LS	1		1
203000	Unclassified Excavation	CY	2,301		2,301
207000	Subgrade Preparation	SY	2,350		2,350
210000	Excavation & Backfill for Major Structures	CY		490	490
304000	Base Course	TON	580		580
407000	Asphalt Material For Tack Coat	TON	1.0		1.0
408100	Prime Coat Material	TON	4.0		4.0
423283	HMA SP IV Complete	TON	380		380
502084	Drilled Shaft Foundation 84" D	LF		205	205
505000	CSL Consultant Testing	EA		4	4
511030	Structural Concrete, Class A A	CY		168	168
512003	High Performance Concrete (HPD)	CY		500	500
518065	Prestressed Concrete Bridge Member, Type 63 MOD	LF		1406	1406
532100	Permanent Anti-Graffiti Protective Coating	SF		900	900
540060	Reinforcing Bars, Grade 60	LB		39000	39000
540160	Epoxy Coated Reinforcing Bars, Grade 60	LB		125460	125460
541000	Structural Steel for Concrete Bridges	LB		9000	9000
543002	Metal Railing, Type A42	LF		764	764
562000	Bridge Joint Strip Seal	LF		75	75
570024	24" Culvert Pipe	LF	161		161
570025	24" Culvert Pipe End Section	EA	2		2
601000	Removal of Structures & Obstructions	LS	0.1	0.9	1
602000	Riprap Class A	CY	2		2
602020	Riprap Class C	CY		1,713	1,713
603200	Silt Fence	LF	1,700		1,700
603250	Drop Inlet Protection Type 1	EA	1		1
603261	Mulch Sock	LF	50		50
603280	SWPPP Management	LS	1		1
604001	Geotextile Class I	SY		1,255	1,255
606050	Metal Barrier End Treatment	EA	4		4
606200	Weathering Metal Barrier W-Beam	LF	213		213
606300	Weathering Metal Barrier Thrie Beam	LF	100		100
606610	Temporary CWB Retained by the Contractor	LF	80		80
618000	Traffic Control Management	LS	1		1
621000	Mobilization	LS	0.1	0.9	1
623012	Median Drop Inlet Type I (Rural) 3' to 6'	EA	1		1
632000	Class A Seeding	AC	2.0		2.0
701000	Panel Signs	SF	57		57
701100	Steel Posts & Base Posts for Aluminum Panel Signs	LF	112		112
702000	Construction Signing	SF	266		266
702100	Posts for Construction Signing	LF	112		112
702238	Barricade, Type III 8'	EA	11		11
702525	Channelization Devices Type Drum	EA	36		36
704000	Retroreflective Painted Markings	LF	2,792		2,792
704099	Temporary Striping	LF	580		580
801000	Construction Staking by Contractor	LS	1		1
901000	Contractor Process Quality Control	LS	1		1



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<b>SAN JUAN COUNTY</b> NEW MEXICO		<b>SAN JUAN COUNTY</b> Public Works Department	
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9586			
<b>SUMMARY OF QUANTITIES</b>			
SHEET NO. 1-10			



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**Surfacing Schedule - Military Bridge**  
CR 7150 OVER GALLEGOS WASH  
Project No. 24343093

	STATION TO STATION	LT / RT	DESCRIPTION	LENGTH (ft)	average base course width (ft)	average pavement width (ft)	average pavement thickness (in)	average base course thickness (in)	average subgrade width (ft)	207000 SUBGRADE PREPARATION		304000 BASE COURSE				423270 HMA SP-IV COMPLETE				407000 BIT. MATL. FOR TACK COAT	408100 PRIME COAT MATERIAL
										AVG. WIDTH (ft)	AREA (sy)	AVG. WIDTH (ft)	DEPTH (in)	VOLUME (cy)	(T)	AVG. WIDTH (ft)	DEPTH (in)	VOLUME (cy)	(T)	(T)	(T)
CR 7150																					
	105+75.00	106+25.00	LT	Full Depth	50.00	17.07	13.40	4.00	5.00	17.07	94.82	17.07	5.00	13.17	25.88	13.40	4.00	8.27	16.54	0.02	0.16
	105+75.00	106+25.00	RT	Full Depth	50.00	18.97	15.30	4.00	5.00	18.97	105.37	18.97	5.00	14.64	28.76	15.30	4.00	9.44	18.89	0.03	0.18
	106+25.00	107+38.25	LT	Full Depth	113.25	18.67	15.00	4.00	5.00	18.67	234.89	18.67	5.00	32.62	64.11	15.00	4.00	20.97	41.94	0.06	0.41
	107+38.25	107+74.00	LT	Full Depth	35.75	17.67	14.00	4.00	5.00	17.67	70.18	17.67	5.00	9.75	19.15	14.00	4.00	6.18	12.36	0.02	0.12
	106+25.00	107+74.00	RT	Full Depth	149.00	22.67	19.00	4.00	5.00	22.67	375.26	22.67	5.00	52.12	102.42	19.00	4.00	34.95	69.90	0.10	0.65
	111+60.50	111+98.75	LT	Full Depth	38.25	17.67	14.00	4.00	5.00	17.67	75.08	17.67	5.00	10.43	20.49	14.00	4.00	6.61	13.22	0.02	0.13
	111+60.50	113+00.00	RT	Full Depth	139.50	22.67	19.00	4.00	5.00	22.67	351.34	22.67	5.00	48.80	95.89	19.00	4.00	32.72	65.44	0.10	0.61
	111+98.75	113+60.00	LT	Full Depth	161.25	18.67	15.00	4.00	5.00	18.67	334.45	18.67	5.00	46.45	91.28	15.00	4.00	29.86	59.72	0.09	0.00
	113+00.00	113+75.00	RT	Full Depth	75.00	19.17	15.50	4.00	5.00	19.17	159.73	19.17	5.00	22.18	43.59	15.50	4.00	14.35	28.70	0.04	0.28
	113+60.00	113+75.00	LT	Full Depth	15.00	16.57	12.90	4.00	5.00	16.57	27.61	16.57	5.00	3.83	7.54	12.90	4.00	2.39	4.78	0.01	0.05
Turnouts and Pavement Tapers						Basecourse Taper Width	Pavement Taper Width, ft	Avg Pavement Thicknes, in	Avg Basecourse Thickness, in	Subgrade Prep Width, ft											
	105+75.00	107+74.00	LT	TAPER	199.00	3.67	3.67	2.50	2.50	3.67	81.08	3.67	2.50	5.63	11.06	3.67	2.50	5.63	11.26	0.03	0.10
	105+75.00	107+74.00	RT	TAPER	199.00	3.67	3.67	2.50	2.50	3.67	81.08	3.67	2.50	5.63	11.06	3.67	2.50	5.63	11.26	0.03	0.10
	111+60.50	113+75.00	LT	TAPER	214.50	3.67	3.67	2.50	2.50	3.67	87.40	3.67	2.50	6.07	11.93	3.67	2.50	6.07	12.14	0.04	0.10
	111+60.50	112+45.00	RT	TAPER	84.50	3.67	3.67	2.50	2.50	3.67	34.43	3.67	2.50	2.39	4.70	3.67	2.50	2.39	4.78	0.01	0.06
	113+03.70	113+75.00	RT	TAPER	71.30	3.67	3.67	2.50	2.50	3.67	29.05	3.67	2.50	2.02	3.96	3.67	2.50	2.02	4.03	0.01	0.05
CR 7300 TURNOUT		RT	UNPAVED TURNOUT	43.00	32.00	0.00	0.00	4.00	43.00	43.00	205.44	32.00	4.00	16.99	33.38	0.00	0.00	0.00	0.00	0.00	0.00
											2347.22				575.19			374.98	0.62	2.99	
											2350				580			380	1	4	
											(sy)				(T)			(T)	(T)	(T)	

EARTHWORK QUANTITIES				
LOCATION	ITEM 203000 UNCLASSIFIED EXCAVATION (CY)	EMBANKMENT (INCIDENTAL) (CY)	FACTORED EMBANKMENT (X1.1) (CY)	EXCESS EXCAVATION (INCIDENTAL) (CY)
SOUTH ROADWAY APPROACH STA 105+00 TO STA 107+74	8	657	723	-715
NORTH ROADWAY APPROACH STA 111+61 TO STA 114+00	314	339	373	-59
SOUTH ABUTMENT RIPRAP PROTECTION (DIKE)	954	442	486	468
NORTH ABUTMENT RIPRAP PROTECTION (DIKE)	1025	62	68	957
TOTALS	2301	1500	1650	651

NOTE: EXCESS EXCAVATION MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR AT A SUITABLE LOCATION AT NO ADDITIONAL COST TO THE PROJECT. EXCESS MATERIAL MAY BE PLACED ON ROADSIDE SLOPES WITHIN THE RIGHT OF WAY TO FLATTEN THESE SLOPES.

DESIGNED BY: DRAWN BY: CHECKED BY:

	BITUMINOUS MATERIAL		EMULSION		ESTIMATED	HYDRATED
BASE COURSE					3930	
HMA, TYPE SP-IV	5.30%				4000	1.50%
APPLICATION RATES (gal/sy)		0.080	0.450	0.0748		
GAL / TON		240.00	260.00	243.49		

  
 25 Aug 2013

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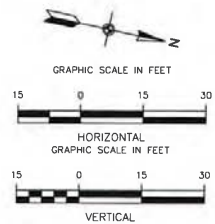
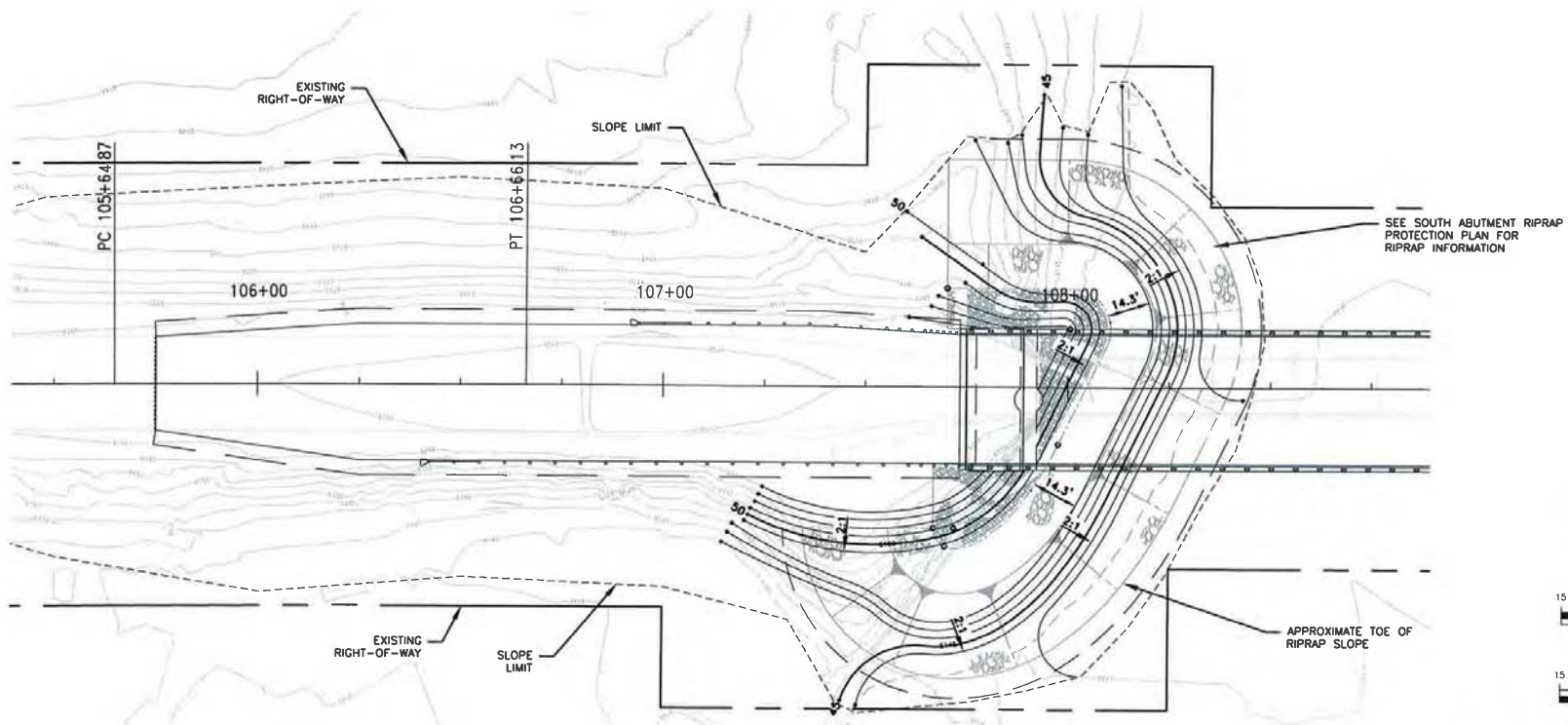
**SAN JUAN COUNTY**  
Public Works Department

**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER GALLEGOS WASH  
BRIDGE NO. 9586

**SURFACING SCHEDULE  
AND  
EARTHWORK QUANTITIES**

SHEET NO. 1-11

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**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER GALLEGOS WASH  
BRIDGE NO. 9586

**GRADING PLAN**  
**SOUTH ABUTMENT**

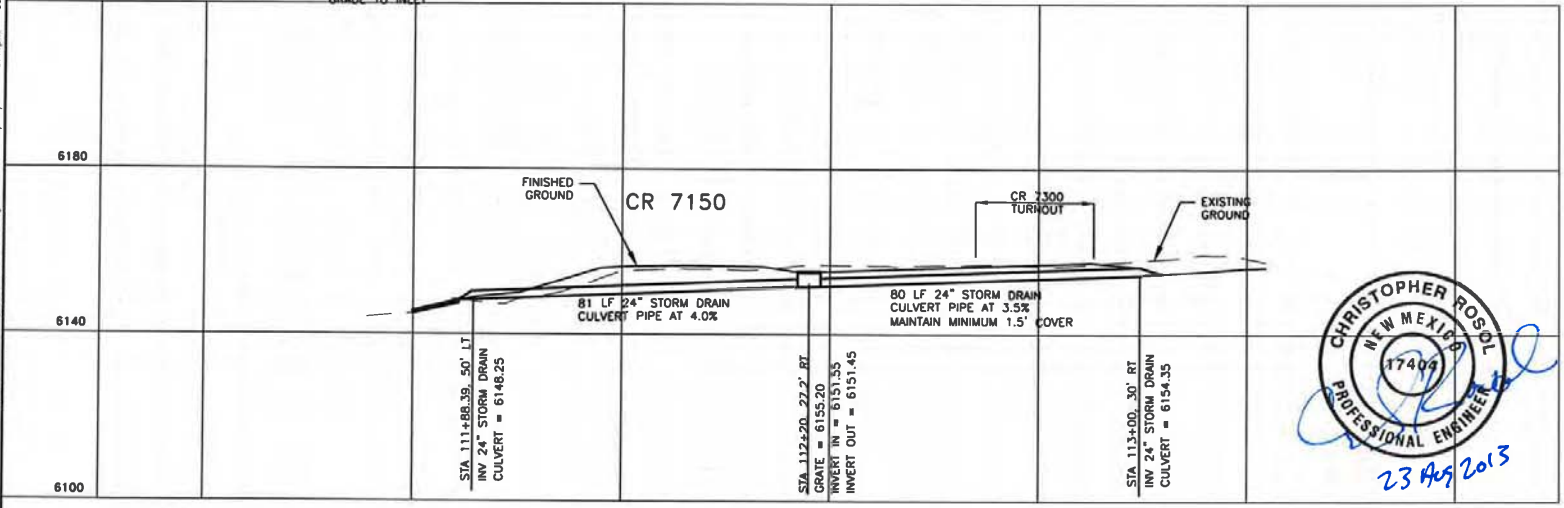
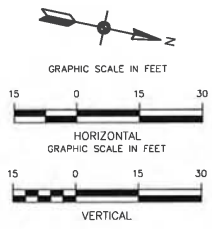
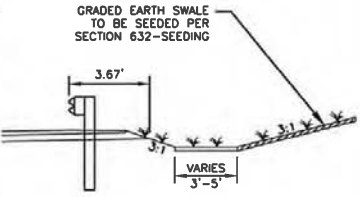
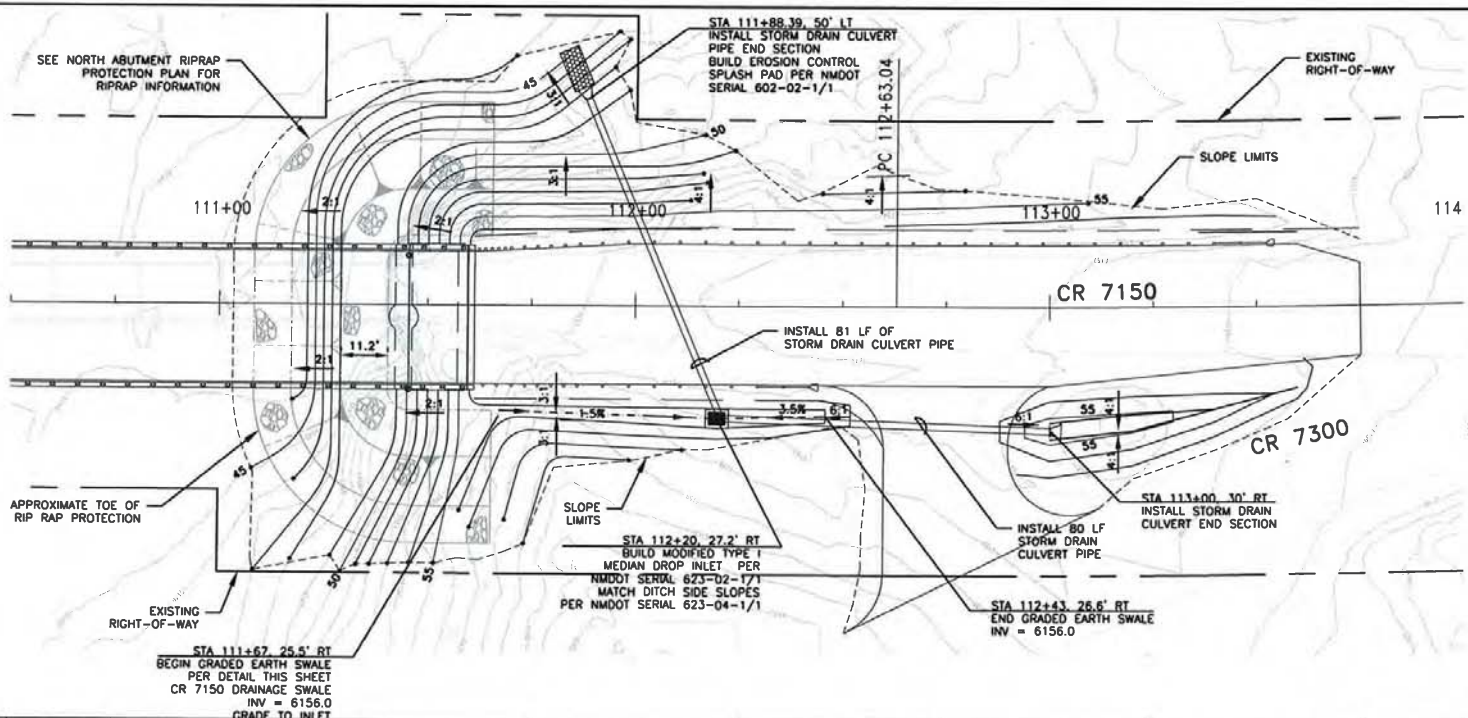
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23 Aug 2013

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CHRISTOPHER ROSOL  
NEW MEXICO  
17409  
PROFESSIONAL ENGINEER  
23 Aug 2013

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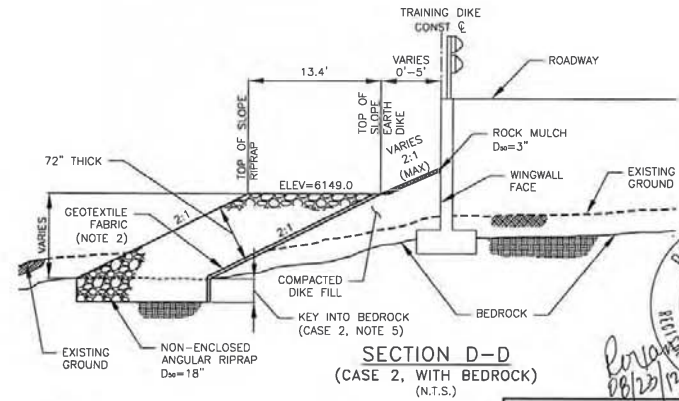
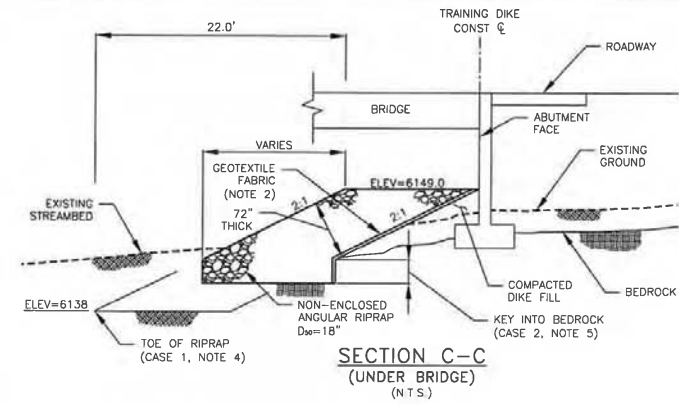
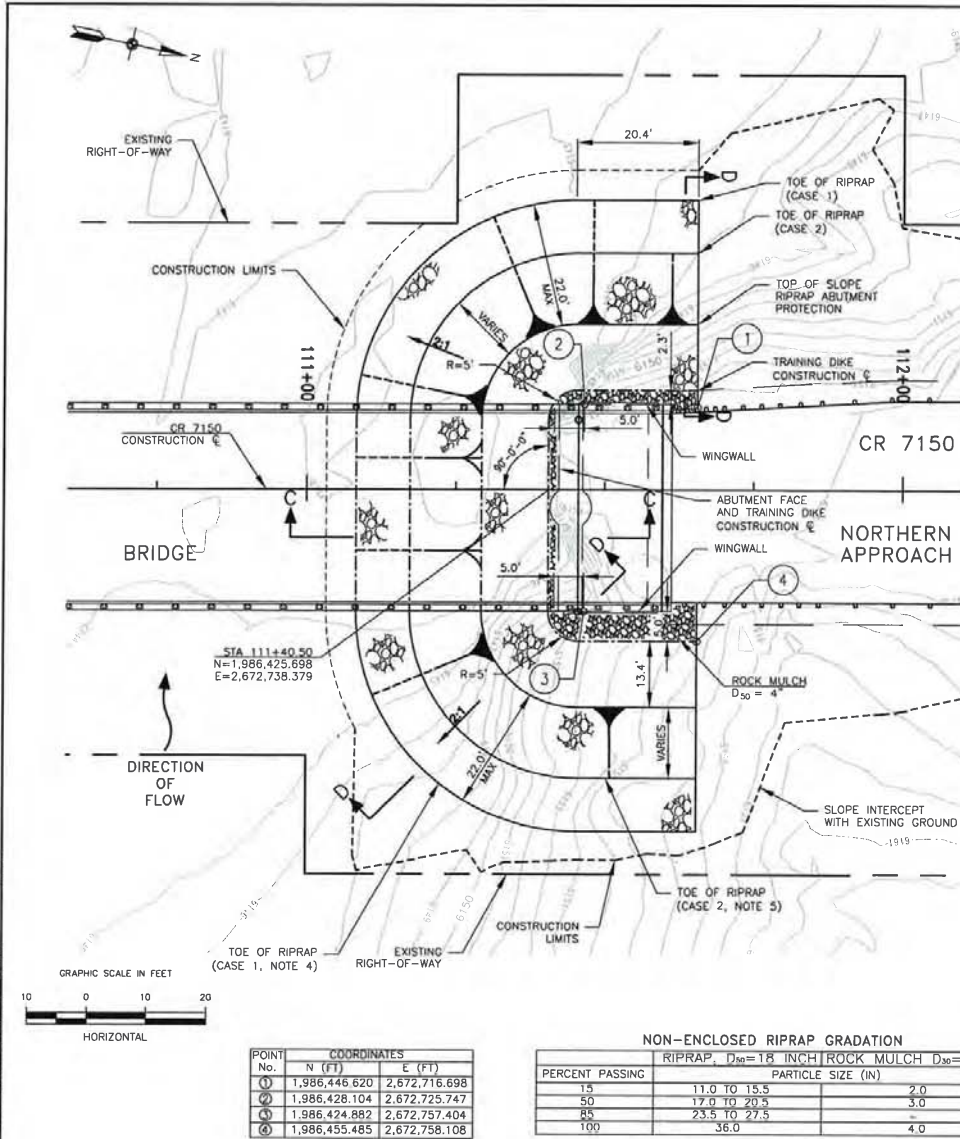
**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER GALLEGOS WASH  
BRIDGE NO. 9586

**GRADING AND DRAINAGE PLAN**  
NORTH ABUTMENT

DESIGNED BY: DRAWN BY: CHECKED BY:







#### NOTES:

- CONSTRUCT DIKE FROM A BORROW SOURCE USING MATERIALS IN ACCORDANCE WITH THE NMDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, SECTION 210.
- BENEATH NON-ENCLOSED RIPRAP, INSTALL CLASS 1, NON-WOVEN GEOTEXTILE FABRIC IN ACCORDANCE WITH NMDOT STANDARD SPECIFICATIONS, SECTION 604.
- CONSTRUCT CLASS 'C', NON-ENCLOSED RIPRAP IN ACCORDANCE WITH NMDOT STANDARD SPECIFICATIONS, SECTION 602. REFER TO THE GRADATION TABLE, SHEET 2-4, FOR THE D<sub>50</sub> SIZE, ELEVATION INDICATED ON THE TYPICAL SECTIONS.
- CASE 1 (NO BEDROCK PRESENT) - INSTALL RIPRAP TO THE TOE OF RIPRAP ELEVATION INDICATED ON THE TYPICAL SECTIONS.
- CASE 2 (BEDROCK IS PRESENT) - IF BEDROCK IS ENCOUNTERED AT AN ELEVATION HIGHER THAN SHOWN ON THE TYPICAL SECTION, KEY INTO BEDROCK A MINIMUM OF 2-FEET.
- BACKFILL AGAINST RIPRAP ABUTMENT PROTECTION AND RESTORE CHANNEL FLOOR TO ORIGINAL GRADE AFTER COMPLETION OF RIPRAP ABUTMENT PROTECTION.

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NO.	DESCRIPTION	DATE	BY
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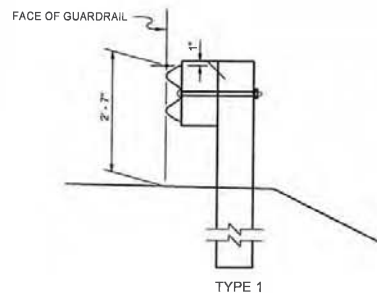


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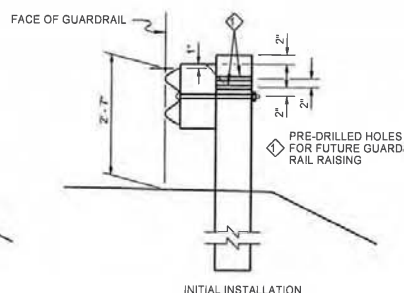
**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER CALLEGOS WASH  
BRIDGE NO. 9586

**NORTH ABUTMENT RIPRAP PROTECTION**

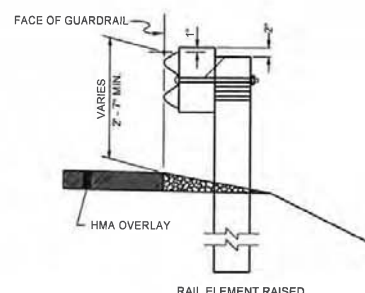
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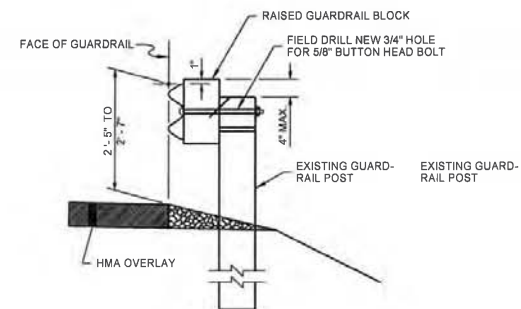
TYPE 1



INITIAL INSTALLATION

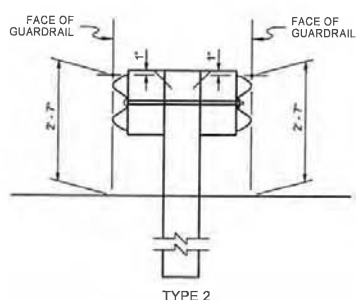


RAIL ELEMENT RAISED

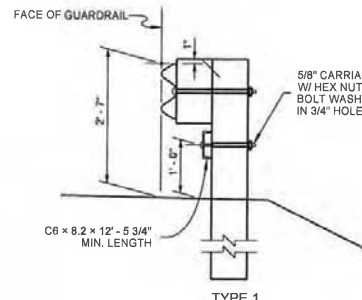


BEAM GUARDRAIL RAISING FOR HMA OVERLAYS

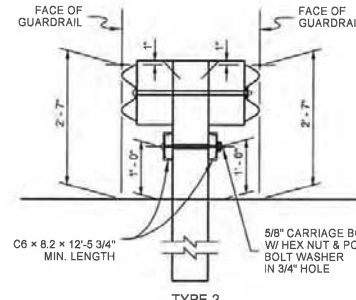
TYPE 1 ALTERNATIVE INSTALLATION



TYPE 2



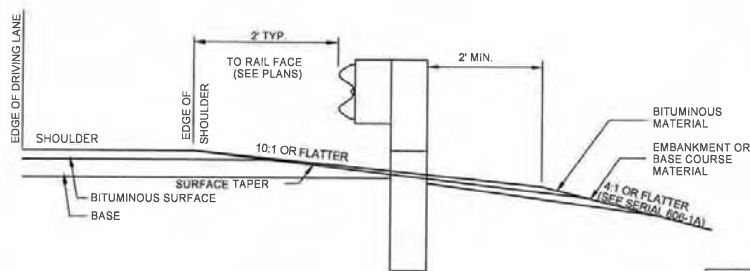
TYPE 1 WITH RUB RAIL



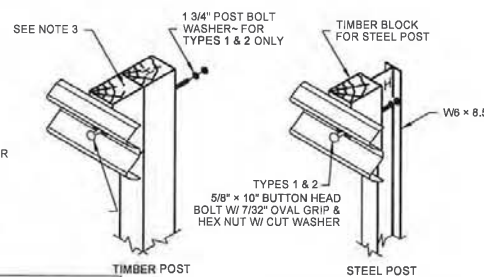
TYPE 2 WITH RUB RAIL

#### NOTES

1. RAIL WASHERS, ALSO CALLED "SNOW LOAD RAIL WASHERS" ARE NOT REQUIRED ON NEW INSTALLATION. UNNECESSARY RAIL WASHERS NEED NOT BE REMOVED FROM EXISTING INSTALLATIONS, EXCEPT THOSE ON POSTS 2 THROUGH 8 OF A BREAKAWAY CABLE TERMINAL INSTALLATION SHALL BE REMOVED.
2. BEAM GUARDRAIL POST SPACING FOR TYPES 1 THROUGH 4 SHALL BE 6'-3" ON CENTER.
3. TIMBER BLOCKS SHALL BE TOE-NAILED TO THE POST WITH A16D GALVANIZED NAIL TO PREVENT BLOCK ROTATION.
4. FOR POST AND BLOCK DETAILS, SEE STANDARD DRAWING GR31-3 & 4.
5. EXISTING POSTS SHALL NOT BE RAISED. REPLACE POSTS AS NECESSARY TO ACHIEVE REQUIRED GUARDRAIL HEIGHT.
6. REFLECTOR TABS SHALL BE PLACED AT 25' INTERVALS, 1 EVERY 4TH POST AT 6'-3" POST SPACING ON ALL GUARDRAIL INSTALLATIONS.
7. SPLICES SHALL BE LAPPED SO THE FREE END DOES NOT FACE TRAFFIC FLOW.



INSTALLATION AND SURFACING DETAILS

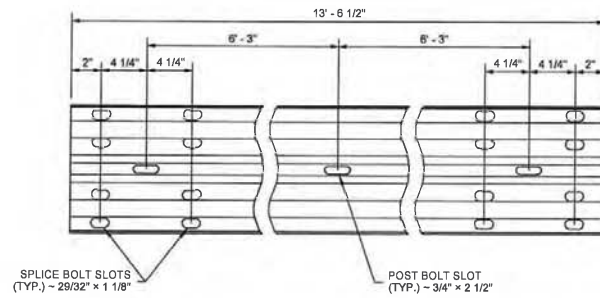


ASSEMBLY DETAIL

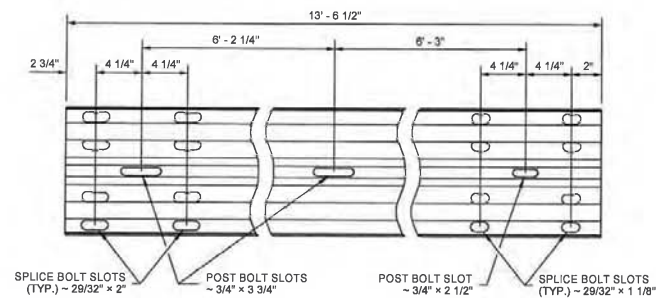
TYPES 1 & 2  
 5/8" x 18" BUTTON HEAD  
 BOLT W/ 7/32" OVAL GRIP  
 & RECESSED HEX NUT  
 TYPES 1 & 2 WITH RUB RAIL  
 5/8" x 25" BUTTON HEAD  
 BOLT W/ 7/32" OVAL GRIP  
 & RECESSED HEX NUT  
 OR  
 5/8" ROD THREADED BOTH  
 ENDS W/ HEX NUTS

<b>URS</b>		6501 Americas Parkway, NE Suite 900 Albuquerque, New Mexico 87110 p 505.855.7500 f 505.855.7555	
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NO.	DESCRIPTION	DATE	BY
REVISIONS			
<b>SAN JUAN COUNTY</b> Public Works Department			
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER CALLEGOS WASH BRIDGE NO. 9586			
<b>BEAM GUARDRAIL</b> TYPES 1~2 (W-BEAM) NMDOT GR31-1			

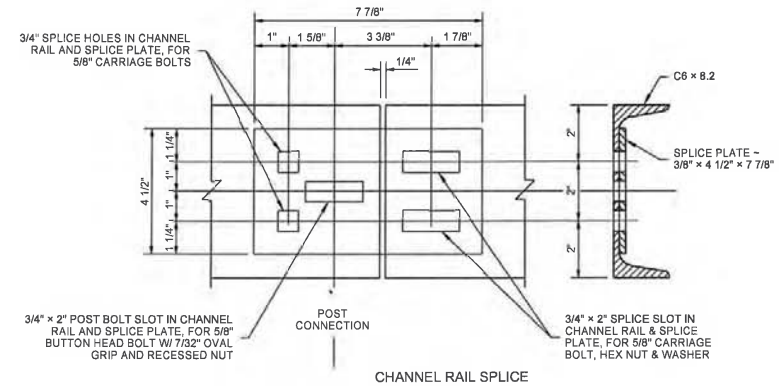




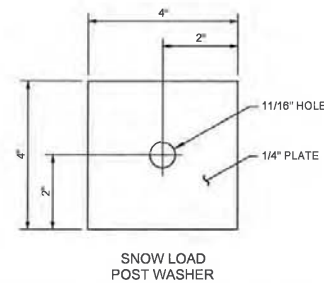
TYPICAL RAIL ELEMENT



EXPANSION SECTION



CHANNEL RAIL SPLICE

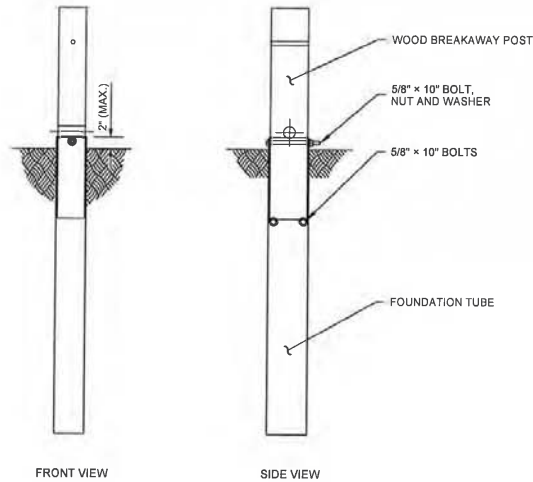


SNOW LOAD POST WASHER

RAIL WASHERS, ALSO CALLED "SNOW LOAD RAIL WASHERS" ARE NOT REQUIRED ON NEW INSTALLATION. UNNECESSARY RAIL WASHERS NEED NOT BE REMOVED FROM EXISTING INSTALLATIONS, EXCEPT THOSE ON POSTS 2 THROUGH 8 OF A BREAKAWAY CABLE TERMINAL INSTALLATION SHALL BE REMOVED.

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<b>SAN JUAN COUNTY</b>		<b>SAN JUAN COUNTY</b>	
<b>NEW MEXICO</b>		<b>Public Works Department</b>	
<b>MILITARY BRIDGE REPLACEMENT</b>			
CR 7150 OVER CALLEGOS WASH BRIDGE NO. 9586			
<b>BEAM GUARDRAIL</b>			
<b>TYPES 1~2 (W-BEAM)</b>			
<b>NMDOT GR31-2</b>			

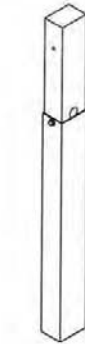
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FRONT VIEW

SIDE VIEW

ANCHOR POST ASSEMBLY



ANCHOR POST

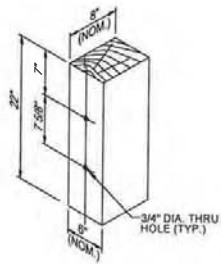


STEEL YIELDING POST  
(SYP)

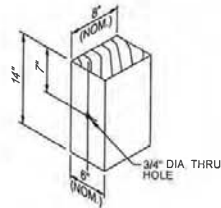
ISOMETRIC

NOTES:

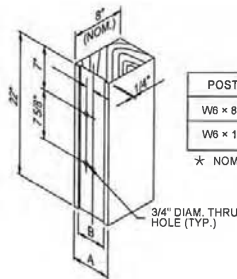
1. WOOD POSTS FOR ALL GUARDRAIL PLACEMENT PLANS SHALL BE 6 x 8 EXCEPT WHERE NOTED OTHERWISE.
2. LOWER HOLE IS FOR RUB RAIL OF TYPE 1 AND TYPE 2 BEAM GUARDRAIL.
3. W6x8.5 STEEL POSTS AND TIMBER BLOCKS ARE ALTERNATES FOR 6 x 8 TIMBER POSTS AND BLOCKS. W6x15 STEEL POSTS AND TIMBER BLOCKS ARE ALTERNATES FOR 10 x 10 TIMBER POSTS AND BLOCKS.
4. HOLES SHALL BE LOCATED ON APPROACHING TRAFFIC SIDE OF WEB.
5. APPROVED COMPOSITE MATERIAL (ON THE APPROVED PRODUCT LIST) MAY BE SUBSTITUTED FOR WOOD BLOCKS



THREE BEAM WOOD BLOCK  
FOR WOOD POST



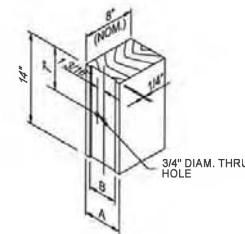
W-BEAM WOOD BLOCK  
FOR WOOD POSTS



THREE BEAM WOOD BLOCK  
FOR STEEL POST

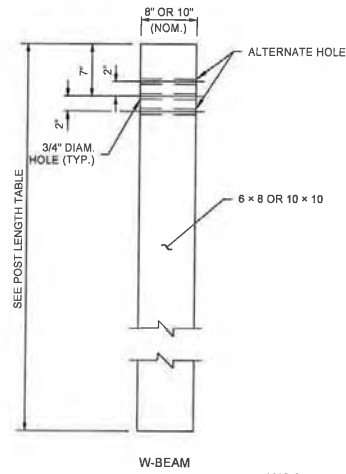
POST	A	B
W6 x 8.5	6"*	4 1/4"
W6 x 15	8"*	6 1/4"

\* NOMINAL (NOM.)



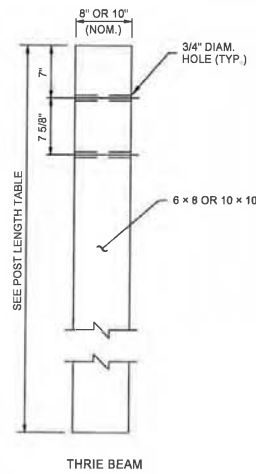
W-BEAM WOOD BLOCK  
FOR STEEL POST

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MILITARY BRIDGE REPLACEMENT CR 7150 OVER CALLEGOS WASH BRIDGE NO. 9586			
ANCHOR DETAIL POSTS AND BLOCKS NMDOT GR31-3			

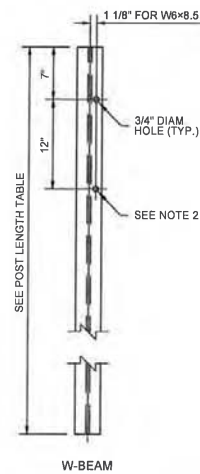


W-BEAM

WOOD POST

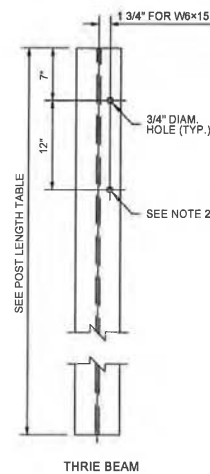


THRIE BEAM



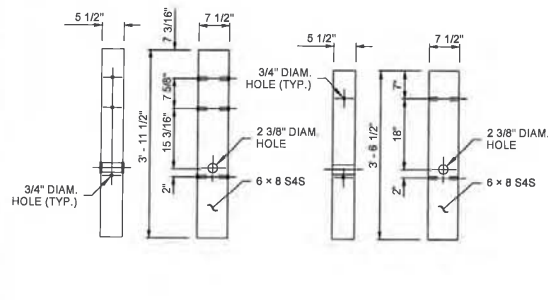
W-BEAM

STEEL POST  
SEE NOTES 3 AND 4  
ON SHEET GR31-3



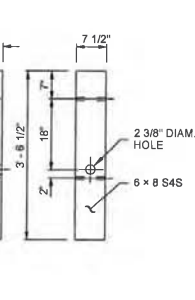
THRIE BEAM

POST LENGTH TABLE		
TYPE	WOOD	STEEL
1 & 2	8' - 0"	8' - 0"
4	6' - 6"	7' - 0"
3 & 5	6' - 6"	6' - 6"

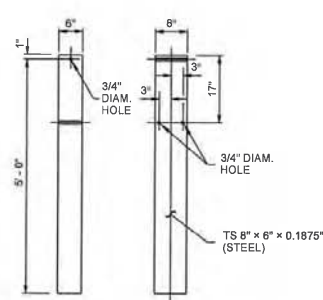


THRIE BEAM

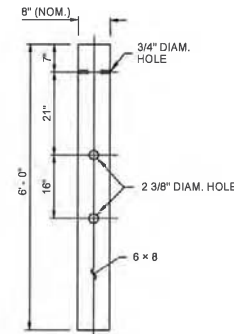
WOOD BREAKAWAY POST



W-BEAM




FOUNDATION TUBE



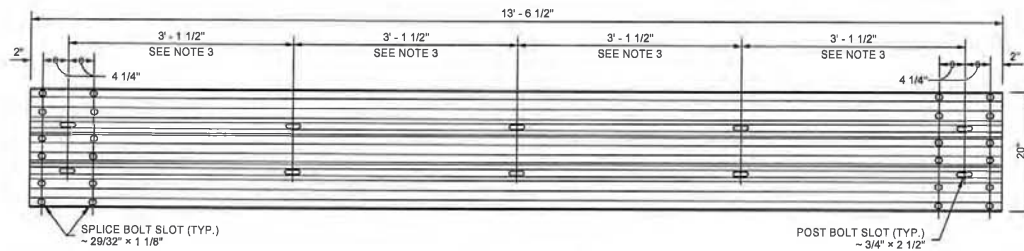
CONTROLLED RELEASING  
TERMINAL (CRT) POST

NOTES:

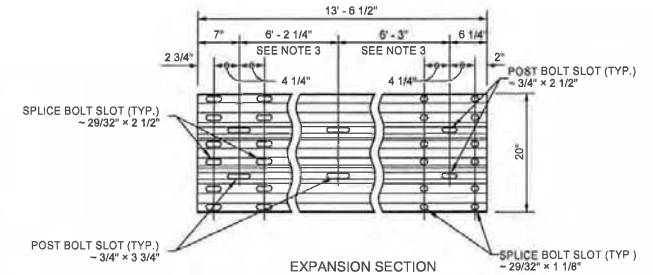
1. WOOD POSTS FOR ALL GUARDRAIL PLACEMENT PLANS SHALL BE 6 x 8 EXCEPT WHERE NOTED OTHERWISE.
2. LOWER HOLE IS FOR RUB RAIL OF TYPE 2 AND TYPE 3 BEAM GUARDRAIL.
3. W6x8.5 STEEL POSTS AND TIMBER BLOCKS ARE ALTERNATES FOR 6 x 8 TIMBER POSTS AND BLOCKS. W6x15 STEEL POSTS AND TIMBER BLOCKS ARE ALTERNATES FOR 10 x 10 TIMBER POSTS AND BLOCKS.
4. HOLES SHALL BE LOCATED ON APPROACHING TRAFFIC SIDE OF WEB.
5. APPROVED COMPOSITE MATERIAL (ON THE APPROVED PRODUCT LIST) MAY BE SUBSTITUTED FOR WOOD BLOCKS.

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<b>BEAM GUARDRAIL POSTS AND BLOCKS NMDOT GR31-4</b>			

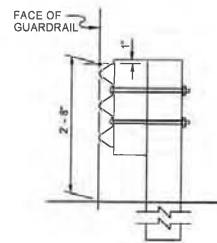




TYPICAL RAIL ELEMENT



EXPANSION SECTION

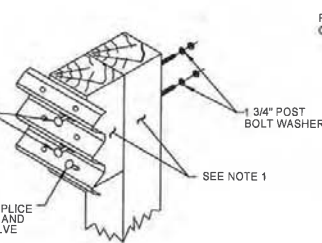


RAIL ASSEMBLY

5/8" x 18" BUTTON HEAD BOLT WITH 7/32" OVAL GRIP AND RECESSED HEX NUT

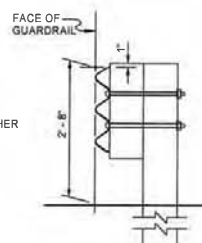
5/8" x 1 1/4" BUTTON HEAD SPlice BOLT WITH 7/32" OVAL GRIP AND RECESSED HEX NUT - TWELVE REQUIRED PER SPlice

TYPE 3



WOOD POST ASSEMBLY

SEE NOTE 1

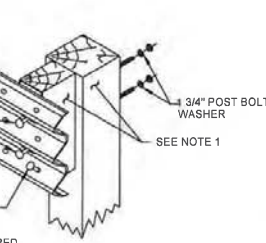


RAIL ASSEMBLY

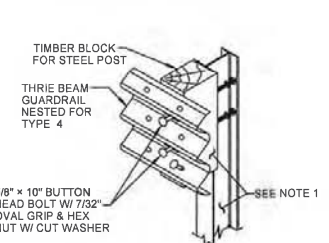
5/8" x 25" BUTTON HEAD BOLT WITH 7/32" OVAL GRIP AND RECESSED HEX NUT

5/8" x 1 1/4" BUTTON HEAD SPlice BOLT WITH 7/32" OVAL GRIP AND RECESSED HEX NUT - TWELVE REQUIRED PER SPlice

TYPE 4

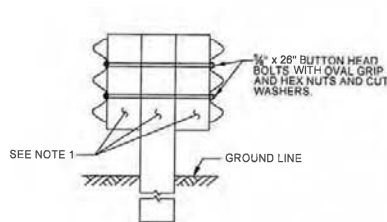


WOOD POST ASSEMBLY



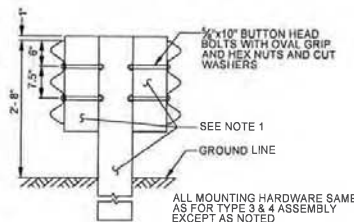
STEEL POST ASSEMBLY

TYPE 3 AND 4



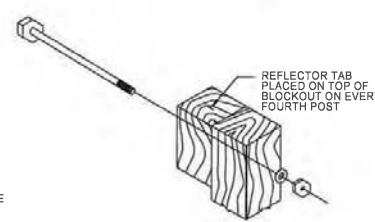
WOOD POST ASSEMBLY

TYPE 5



STEEL POST ASSEMBLY

TYPE 5



REFLECTOR TAB PLACEMENT DETAIL

# NOTES

1. TYPE 3 POST SHALL BE 6x8 TIMBER OR W6x8.5. TYPE 4 POST SHALL BE 10x10 TIMBER OR W10x15. FOR ADDITIONAL DETAILS SEE STANDARD DRAWINGS GR31-3 & 4.
2. TYPE 3 GUARDRAIL POST SPACING SHALL BE 6' - 3" ON CENTER. TYPE 4 SHALL BE A MAXIMUM OF 3' - 1 1/2" ON CENTER.
3. SPACING MAY VARY DEPENDING ON APPLICATION. SEE STANDARD SPECIFICATION SECTION 608.2 FOR RAIL ELEMENT REQUIREMENTS.
4. BOLTS ARE TO BE INSTALLED AS SHOWN SO THAT THE THREADED END OF THE BOLTS AND NUTS ARE PLACED AWAY FROM TRAFFIC SIDE OF RAIL.
5. DO NOT PLACE ANY WASHERS UNDER THE BOLTS ON THE TRAFFIC SIDE OF THE BARRIER.
6. REFLECTOR TABS SHALL BE PLACED AT 25' INTERVALS (EVERY 4TH POST @ 6'-3" POST SPACING) ON ALL GUARDRAIL INSTALLATIONS.
7. THE COLOR OF THE REFLECTIVE SHEETING ON THE REFLECTOR TABS SHALL BE THE SAME AS THE COLOR OF THE SHOULDER LINE PAVEMENT MARKING IN FRONT OF THE BARRIER.
8. REFLECTOR TABS SHALL HAVE A MINIMUM OF 3'x5' REFLECTIVE SHEETING ON BOTH SIDES AND SHALL ATTACH SECURELY TO THE BLOCKOUT.
9. SPICES SHALL BE LAPPED SO THE FREE END DOES NOT FACE TRAFFIC FLOW.

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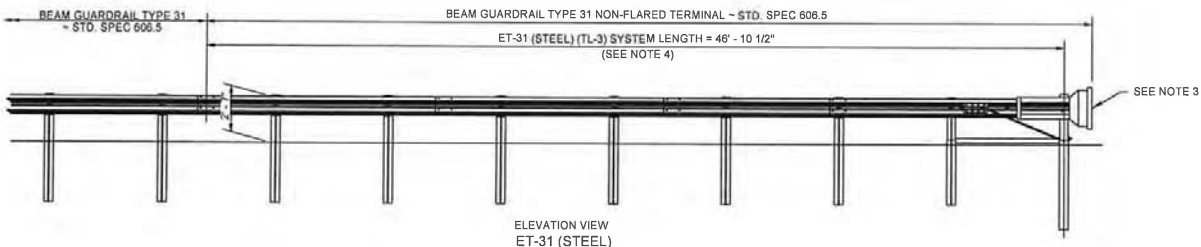
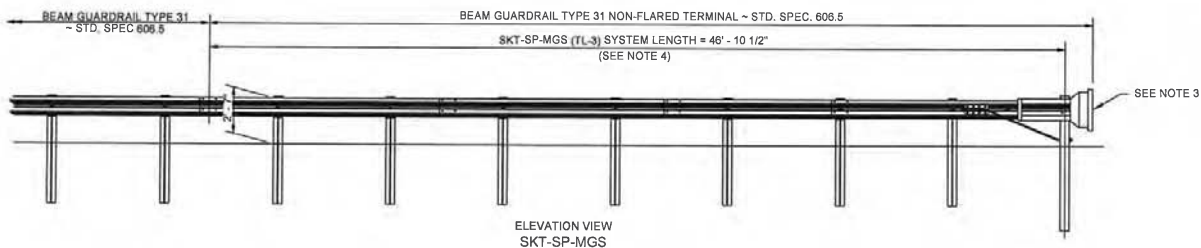
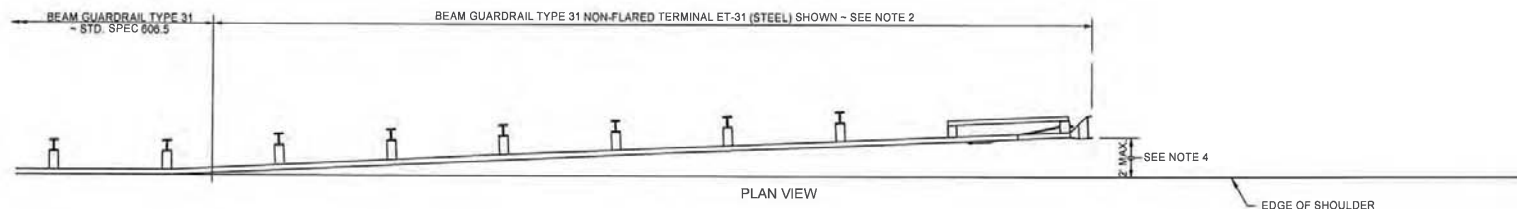
**SAN JUAN COUNTY**  
NEW MEXICO  
Public Works Department

**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER CALLEGOS WASH  
BRIDGE NO. 9586

**BEAM GUARDRAIL (THRIE BEAM)**  
NMDOT GR31-5

**NOTES:**

1. THESE TERMINALS ARE FHWA ACCEPTED AT TEST LEVEL THREE (TL-3) AND MAY BE USED FOR ALL POSTED SPEEDS.
2. AN ET-31 (STEEL) AS MANUFACTURED BY TRINITY HIGHWAY PRODUCTS LLC OR AN SKT-SP-MGS AS MANUFACTURED BY ROAD SYSTEMS INC. OR OTHER APPROVED SYSTEMS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
3. A REFLECTORIZED OBJECT MARKER SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
4. TERMINAL SHALL BE INSTALLED ENSURING THAT THE END PIECE IS ENTIRELY OFF THE SHOULDER. WHILE THESE TERMINALS DO NOT REQUIRE AN OFFSET AT THE END, A MAXIMUM FLARE OF 25 : 1, OR FLATTER OVER THE LENGTH OF THE TERMINAL IS ALLOWED FOR EITHER THE ET-31 (STEEL) OR THE SKT-SP-MGS.
5. FOR TERMINAL DETAILS, SEE NMDOT APPROVED MANUFACTURER'S DRAWINGS.



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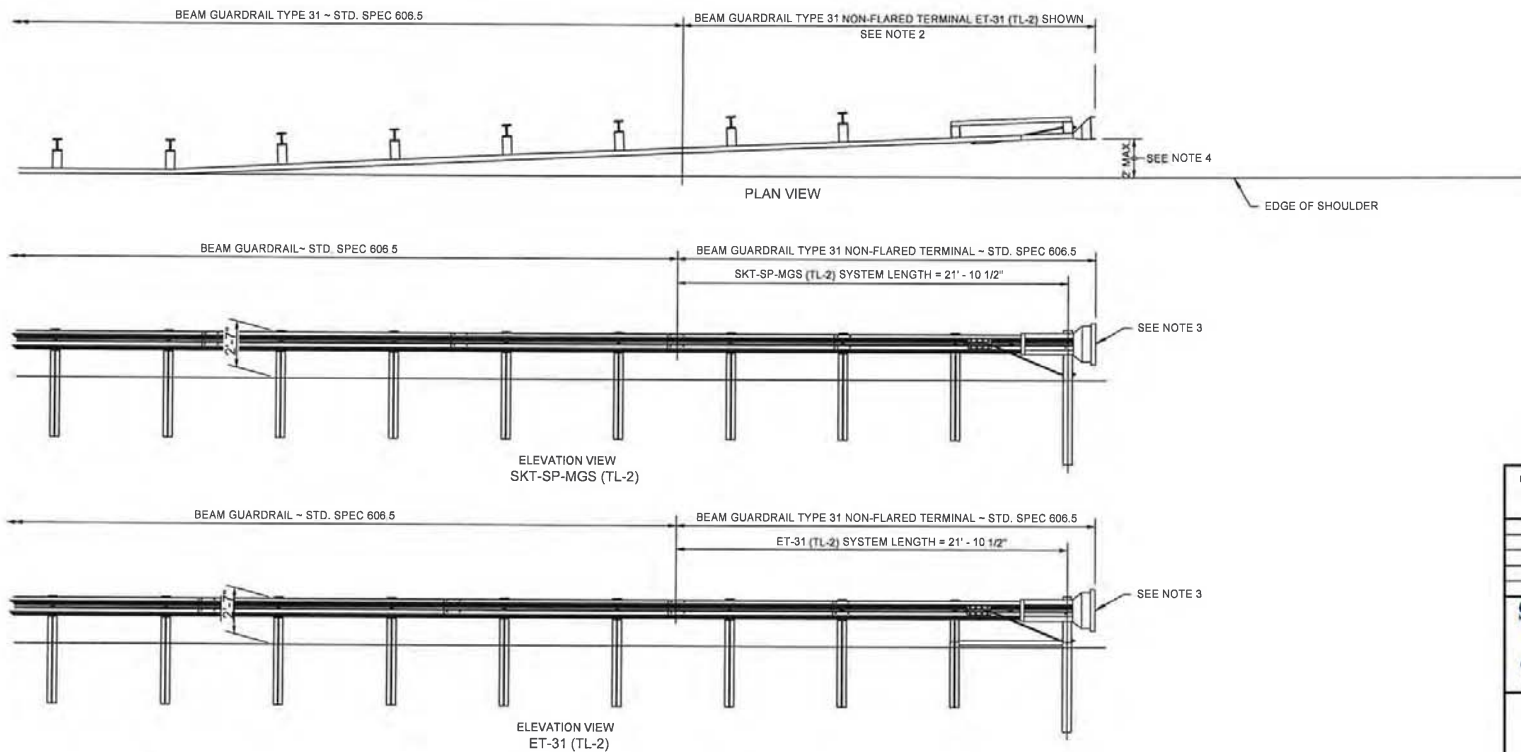
**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER GALLEGOS WASH  
BRIDGE NO. 9586

**BEAM GUARDRAIL**  
**NON FLARED TERMINAL TYPE 1**  
**NMDOT GR31-6**

SHEET NO. 2-10

NOTES:

1. THESE TERMINALS ARE FHWA ACCEPTED AT TEST LEVEL TWO (TL-2) AND MAY BE USED IN APPLICATIONS WITH SPEEDS OF 40 MPH OR LESS.
2. AN ET-31 (TL-2) AS MANUFACTURED BY TRINITY HIGHWAY PRODUCT LLC OR AN SKT-SP-MGS (TL-2) AS MANUFACTURED BY ROAD SYSTEMS INC. OR APPROVED END TREATMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURERS' RECOMMENDATIONS.
3. A REFLECTORIZED OBJECT MARKER SHALL BE INSTALLED ACCORDING TO MANUFACTURERS' RECOMMENDATIONS.
4. TERMINAL SHALL BE INSTALLED ENSURING THE END PIECE IS ENTIRELY OFF THE SHOULDER. WHILE THESE TERMINALS DO NOT REQUIRE AN OFFSET AT THE END, A MAXIMUM FLARE OF 25:1 OR FLATTER OVER THE LENGTH OF THE TERMINAL IS ALLOWED FOR EITHER THE ET-31 (TL-2) OR THE SKT-SP-MGS (TL-2).
5. FOR TERMINAL DETAILS, SEE NMDOT-APPROVED MANUFACTURERS' DRAWINGS.



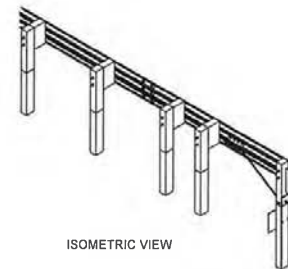
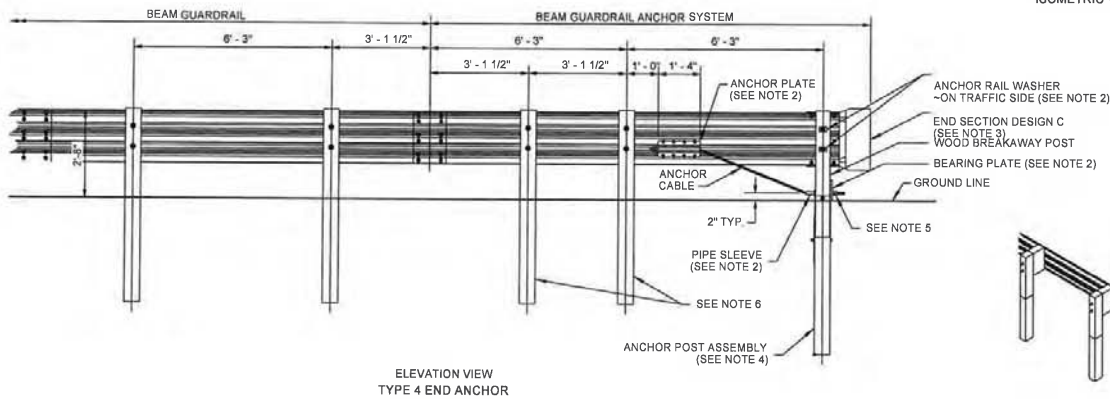
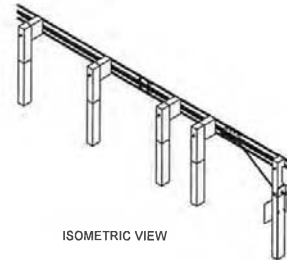
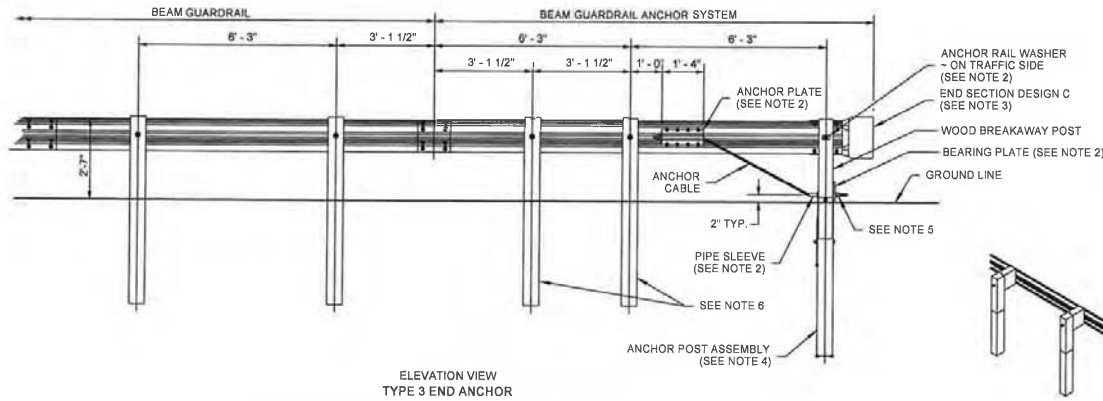
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<b>NEW MEXICO</b>		<b>Public Works Department</b>	
<b>MILITARY BRIDGE REPLACEMENT</b>			
CR 7150 OVER CALLEGOS WASH BRIDGE NO. 9586			
<b>BEAM GUARDRAIL</b>			
<b>NON FLARED TERMINAL TYPE 2</b>			
<b>NMDOT GR31-7</b>			

DESIGNED BY: DRAWN BY: CHECKED BY:

SHEET NO. 2-11



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NOTES:

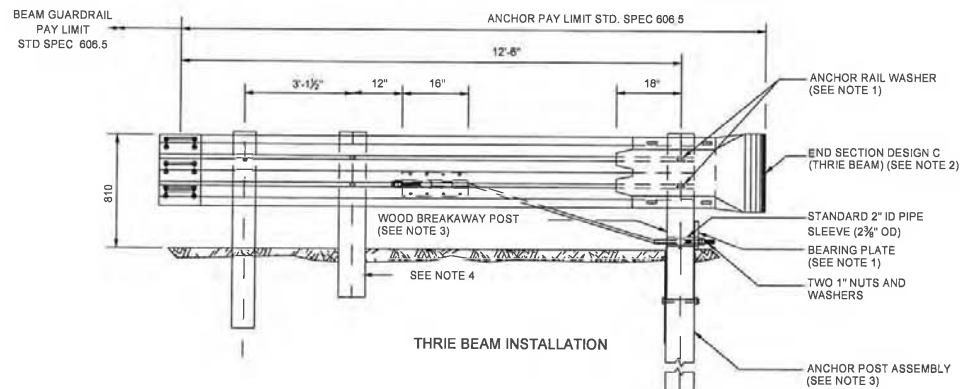
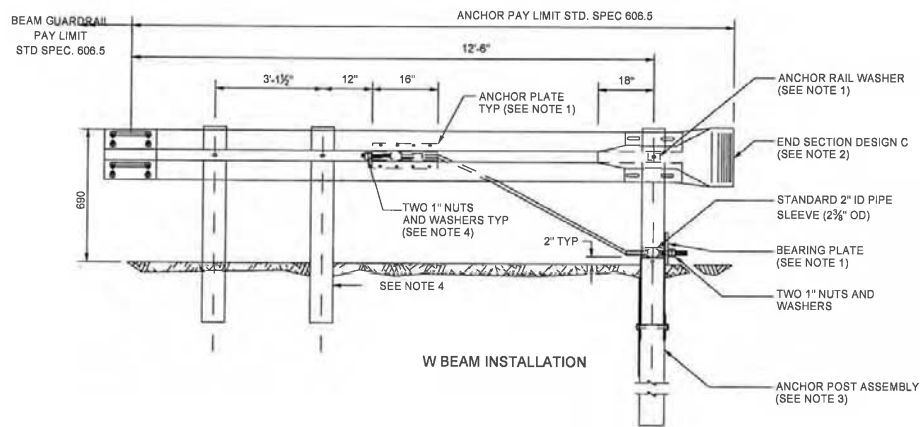
1. FOR USE ON THE END OF GUARDRAIL RUNS WHEN A CRASHWORTHY TERMINAL IS NOT REQUIRED.
2. FOR ADDITIONAL DETAILS NOT SHOWN, SEE STANDARD DRAWING GR31-9.
3. FOR END SECTION DETAILS, SEE STANDARD DRAWINGS GR31-14 & GR31-15.
4. FOR ANCHOR POST ASSEMBLY DETAILS, SEE STANDARD DRAWING, USE DETAIL ON THIS PLAN FOR WOOD BREAKAWAY POST, (NO BLOCK ON THIS POST).
5. FASTEN THE ANCHOR CABLE USING TWO 1" NUTS AND WASHER, AT BOTH ENDS OF CABLE.
6. POSTS SHALL MATCH THOSE OF CONNECTING RUN, TIMBER OR STEEL.
7. THIS SYSTEM SHALL BE USED AS END ANCHOR (REPLACING OLD TYPE A, NO LONGER IN USE).

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<b>SAN JUAN COUNTY</b> Public Works Department			
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER CALLEGOS WASH BRIDGE NO. 9586			
<b>BEAM GUARDRAIL</b> END ANCHOR TYPE 3 AND 4 NMDOT GR31-8			

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#### NOTES:

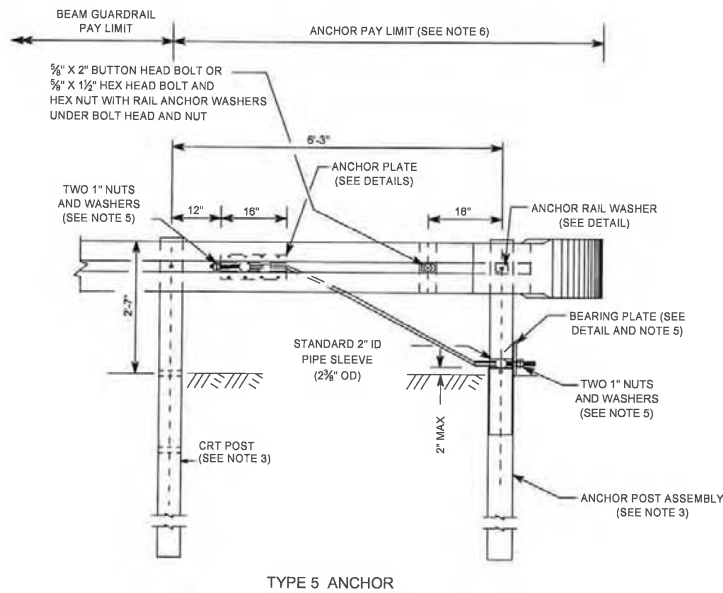
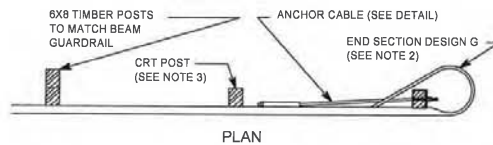
1. FOR DETAILS, SEE STANDARD DRAWING GR31-10 & 11.
2. FOR DETAILS, SEE STANDARD DRAWING GR31-14 & 15.
3. FOR DETAILS, SEE STANDARD DRAWINGS GR31-3 & 4.
4. POST AND BLOCK SHALL MATCH BEAM GUARDRAIL POSTS.

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Public Works Department		Public Works Department	
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BEAM GUARDRAIL ANCHOR DETAILS NMDOT GR31-9			

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TYPE 5 ANCHOR

NOTES:

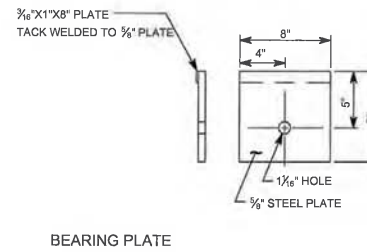
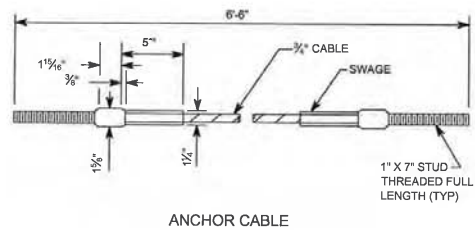
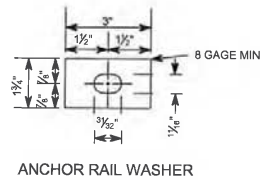
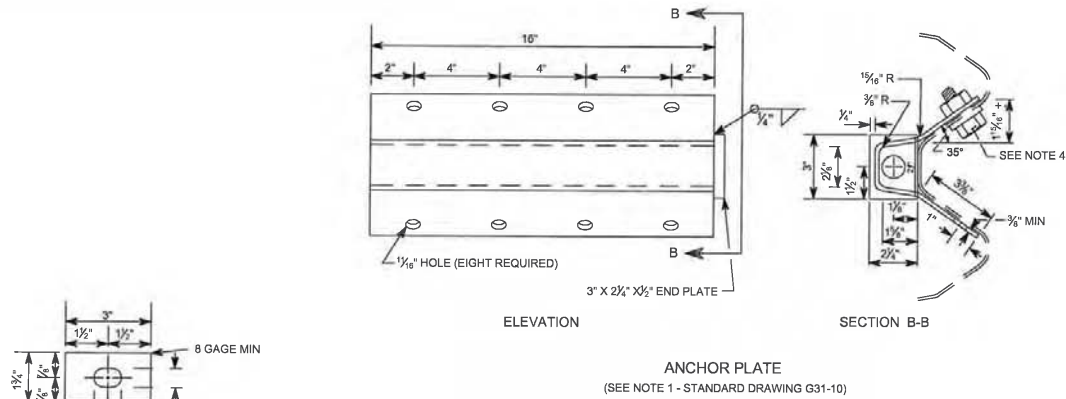
1. ANCHOR PLATE MAY BE CONSTRUCTED FROM  $\frac{1}{4}$ " PLATES WELDED TO EQUAL STRENGTH AND DIMENSIONS AS SHOWN
2. FOR END SECTION DETAILS SEE STANDARD DRAWING G31-14 & 15, "BEAM GUARDRAIL END SECTIONS".
3. FOR POST DETAILS, SEE STANDARD DRAWING G31-3 & 4, "BEAM GUARDRAIL POSTS AND BLOCKS".
4. EIGHT  $\frac{5}{8}$ "X $1\frac{1}{2}$ " MACHINE BOLTS WITH HEX NUT AND WASHER. PLACE WASHER ON FACE SIDE OF RAIL.
5. TOENAIL BEARING PLATE WITH 10D NAIL AT CORNERS TO PREVENT TURNING. BEND THE NAIL OVER THE BEARING PLATE.
6. ANCHOR PAY LIMIT DOES NOT APPLY WHEN ANCHOR IS INCLUDED IN A BEAM GUARDRAIL TERMINAL. SEE STANDARD SPEC 606.5
7. THIS SYSTEM IS SIMILAR TO OLD TYPE B OR C

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MILITARY BRIDGE REPLACEMENT CR 7150 OVER CALLEGOS WASH BRIDGE NO. 9586			
BEAM GUARDRAIL ANCHOR TYPE 5 NMDOT GR31-10			

DESIGNED BY:    DRAWN BY:    CHECKED BY:

SHEET NO. 2-14



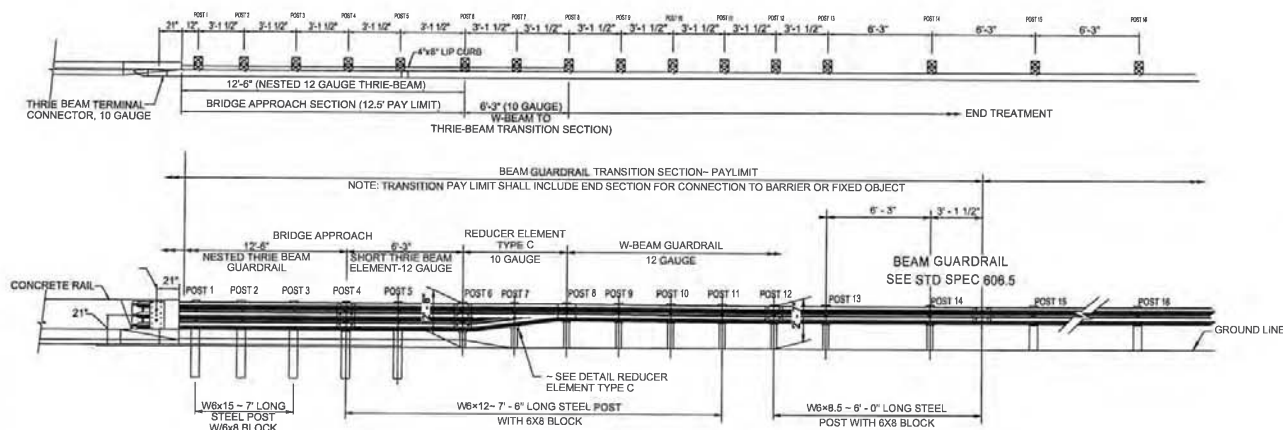


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NO.	DESCRIPTION	DATE	BY
REVISIONS			
<b>SAN JUAN COUNTY</b>		<b>SAN JUAN COUNTY</b>	
<b>NEW MEXICO</b>		<b>Public Works Department</b>	
<b>MILITARY BRIDGE REPLACEMENT</b>			
CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9586			
<b>BEAM GUARDRAIL ANCHOR TYPE 5</b>			
<b>NMDOT GR31-11</b>			

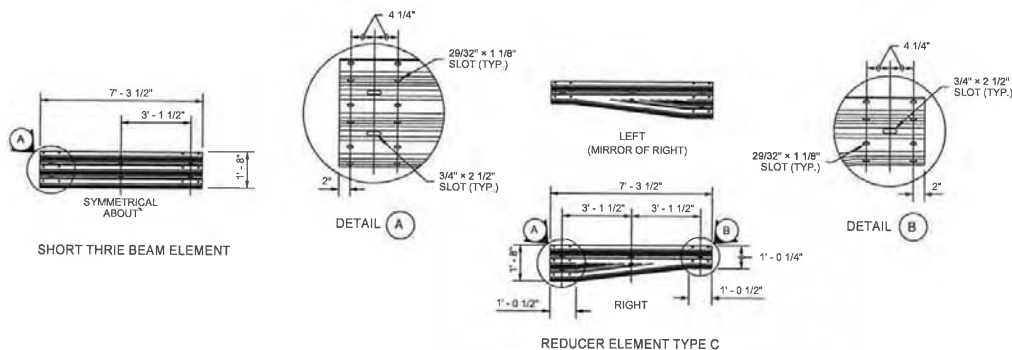
2434309.1 P:\w-Design\CA00\Roadway\GR31-12\_Guardrail Transition Section Type 21 [c25-20-04-a].dwg PLOTTED: 8/14/13 - 3:41pm ed\_krouse

# NOTES:

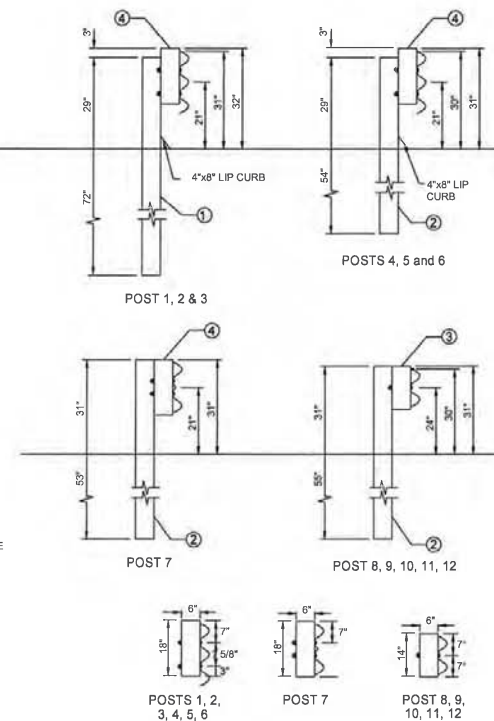
1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION (CURRENT EDITION).
2. ALL HARDWARE SHALL MEET FHWA CRASHWORTHINESS REQUIREMENTS AS PER NCHRP 350 GUIDELINES AND SHALL BE ON THE DEPARTMENTS APPROVED PRODUCT LIST.
3. FIVE 7/8" H.T.S. BOLTS ARE REQUIRED FOR THE ATTACHMENT OF THE THRIE BEAM TERMINAL CONNECTOR TO THE CONCRETE BARRIER, LENGTH TO BE DETERMINED IN THE FIELD BY THE ENGINEER. HOLES FOR BOLTS SHALL BE 1" DIA. AND SHALL BE EITHER FORMED OR CORE DRILLED.
5. FURNISHING AND PLACING OF BOLTS, WASHERS, AND BEARING PLATE SHALL BE CONSIDERED INCIDENTAL TO THE COST OF METAL BARRIER AND NO DIRECT PAYMENT WILL BE MADE THEREFOR.
6. INSTALL THRIE BEAM TERMINAL CONNECTOR BETWEEN NESTED GUARDRAIL ELEMENTS ON THE APPROACH SECTION.
7. INSTALL THRIE BEAM TERMINAL CONNECTOR OUTSIDE OF THE NESTED GUARDRAIL ELEMENTS ON THE DEPARTURE SECTION



ELEVATION VIEW



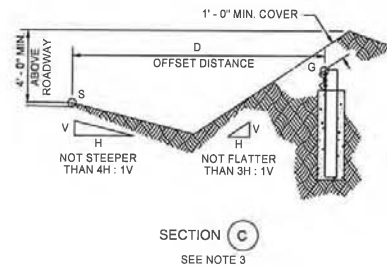
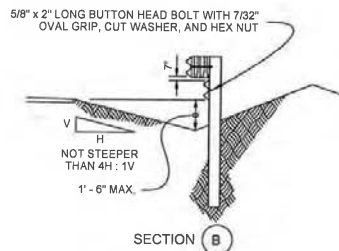
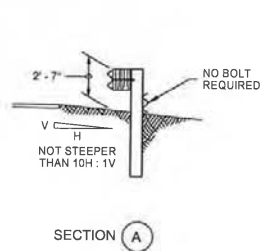
- LEGEND
- ① W6 x 15 x 7" POST
  - ② W6 x 12 x 7-6" POST
  - ③ 6" x 8" x 14" TREATED TIMBER OFFSET BLOCK
  - ④ 6" x 8" x 18" TREATED TIMBER OFFSET BLOCK
  - ⑤ 6" x 6" x 8" TREATED TIMBER OFFSET BLOCK



BLOCK DETAILS

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NO.	DESCRIPTION	DATE	BY
REVISIONS			
<b>SAN JUAN COUNTY</b> Public Works Department			
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER CALLEGOS WASH BRIDGE NO. 9586			
<b>BEAM GUARDRAIL</b> TRANSITION SECTION NMDOT GR31-12			

2:43:4309.3 P:\Re-Design\LOADS\Woodway\GR31-13\_Buried Terminal Type 2 (c22.16-02-a).dwg PLOTTED: 8/14/13 - 3:41 pm ed.krouse



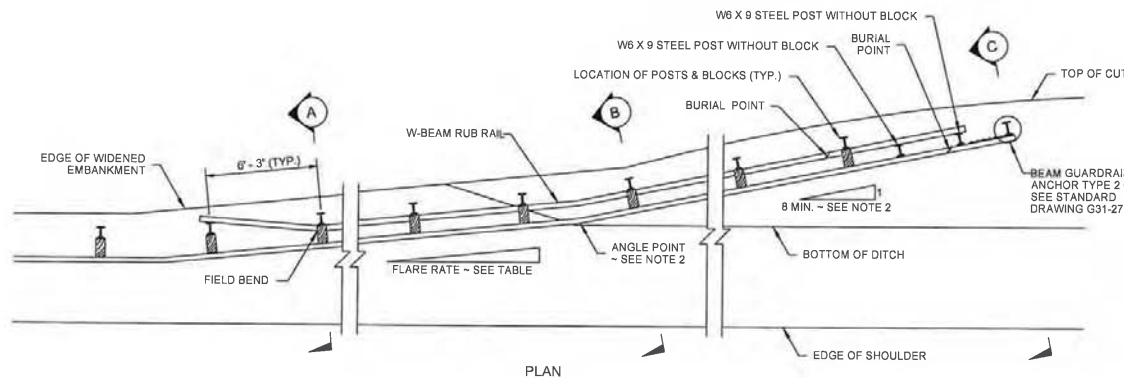
PERSPECTIVE

NOTES:

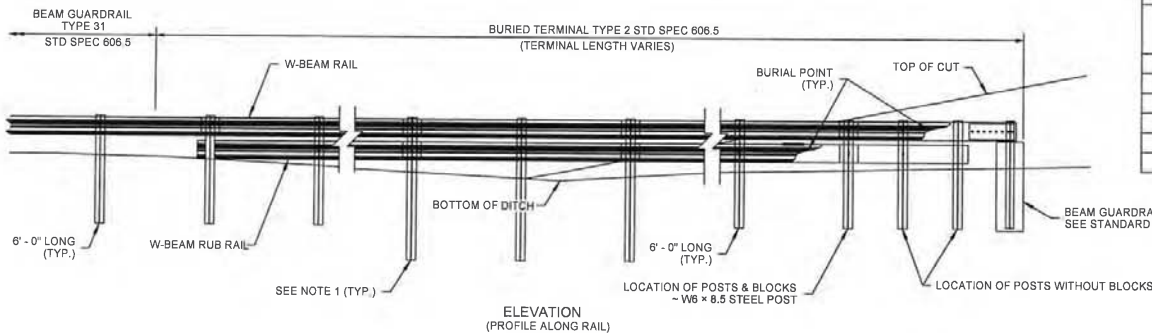
1. POSTS INSTALLED ON SHOULDER SLOPES STEEPER THAN 10H:1V SHALL BE 8' LONG.
2. THE FLARE RATE OF THE GUARDRAIL MAY BE INCREASED AFTER CROSSING THE DITCH BOTTOM TO SHORTEN THE LENGTH OF THE TERMINAL.
3. DETERMINE THE HEIGHT OF THE W-BEAM AT THE ANCHOR (G) BY FIRST CALCULATING THE PERPENDICULAR OFFSET DISTANCE (D) FROM THE EDGE OF SHOULDER (S) TO THE ANCHOR (ON STATION). MULTIPLY THAT DISTANCE BY 0.1, THEN SUBTRACT THE PRODUCT FROM THE ELEVATION OF THE SAME POINT (S) ON THE EDGE OF SHOULDER USED TO OBTAIN THE OFFSET DISTANCE (AT THE SAME STATION). ADD BEAM GUARDRAIL DESIGN HEIGHT (31") TO THAT REMAINDER FOR A SUM THAT EQUALS THE ELEVATION OF THE TOP OF THE W-BEAM AT THE ANCHOR. REFER TO SECTION "C".

$$ELEVATION_G = (ELEVATION_S - (0.1)) + 27$$

4. THIS DETAIL REPLACES OLD TERMINAL TYPE D.



PLAN



ELEVATION (PROFILE ALONG RAIL)

FLARE RATE TABLE	
RATE	POSTED SPEED (mph)
15:1	70
14:1	60
12:1	55
11:1	50
10:1	45
9:1	40 OR LESS

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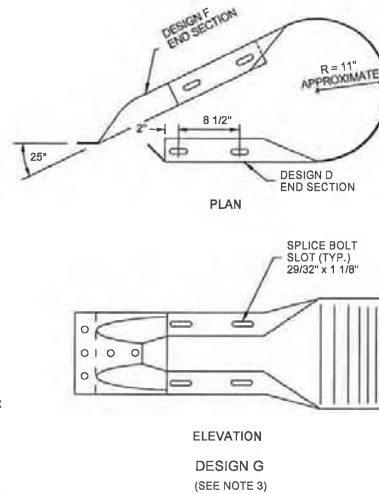
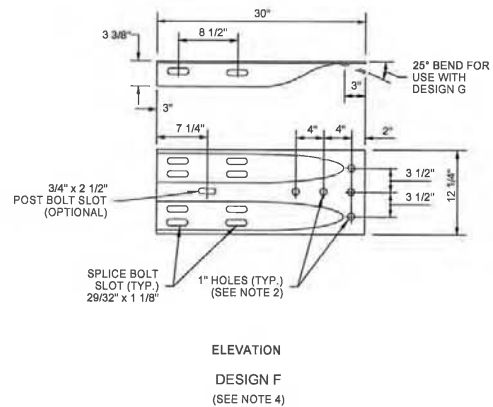
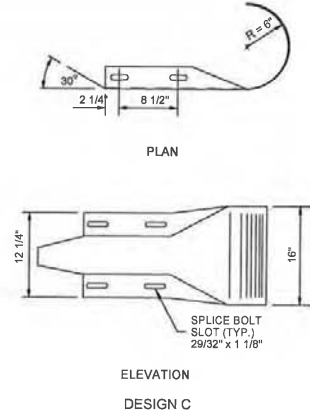
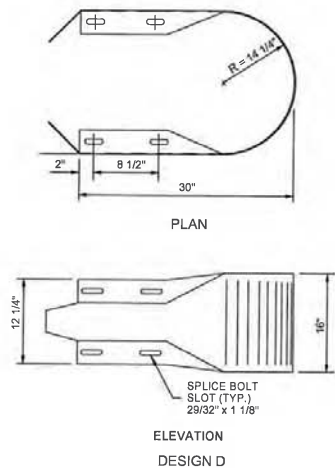
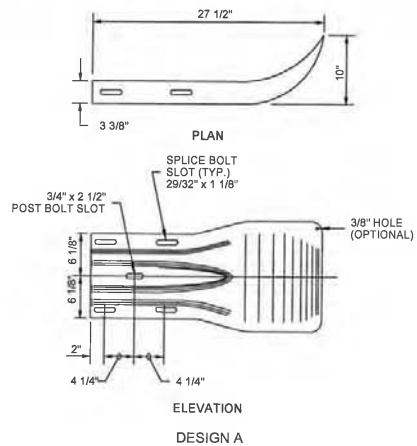
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	REVISIONS		

**SAN JUAN COUNTY**  
NEW MEXICO  
Public Works Department


**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER CALLEGOS WASH  
BRIDGE NO. 9586

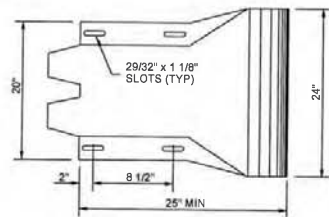
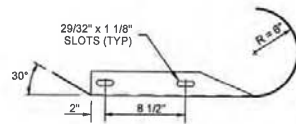
**BEAM GUARDRAIL**  
**BURIED TERMINAL TYPE 6**  
**NMDOT GR31-13**



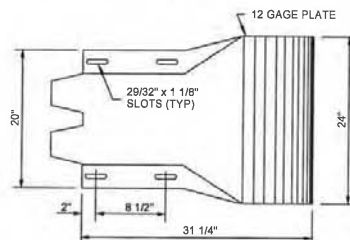
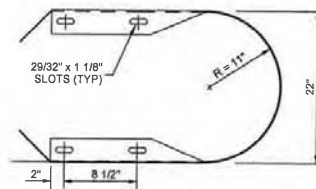


1. END SECTION DESIGN G SHALL BE USED EXCEPT WHERE NOTED ON THE PLANS OR CONTRACT.
2. ATTACH GUARDRAIL TO BRIDGE RAIL OR CONCRETE BARRIER WITH 7/8" DIAMETER BOLTS (FIVE MINIMUM) WITH THIN SLAB FERRULE INSERTS OR RESIN BONDED ANCHORS. SEE THE CONTRACT PLANS.
3. A SINGLE PIECE HAVING SIMILAR DIMENSIONAL SHAPE TO DESIGN G AND MATING WITH THE W-BEAM GUARDRAIL IS AN ALTERNATE.
4. IN CASES WHERE DESIGN "F" END SECTION IS LAPPED ON THE OUTSIDE OF THE GUARDRAIL, A GALVANIZED 1" ID, 2" OD, 0.134" THICK, WARDER TYPE A PLAIN WASHER OR AN ANCHOR RAIL WASHER SHALL BE PLACED UNDER THE SPlice BOLT HEADS.

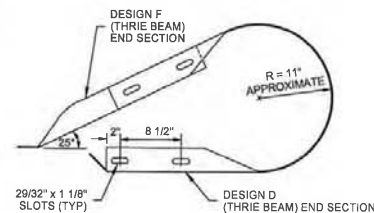
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NO.	DESCRIPTION	DATE	BY
REVISONS			
		<b>SAN JUAN COUNTY</b> Public Works Department	
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9585			
<b>BEAM GUARDRAIL</b> <b>END SECTIONS</b> <b>NMDOT GR31-14</b>			



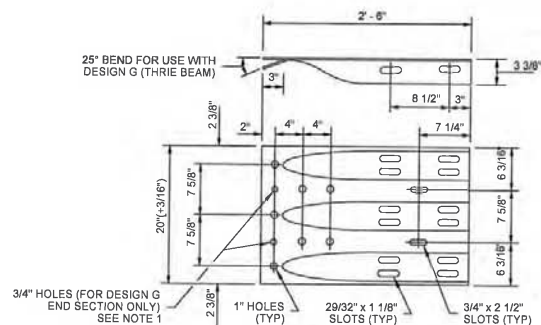
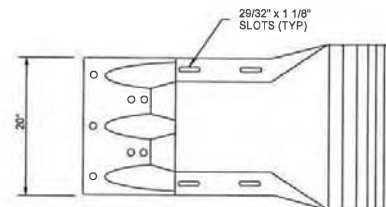
DESIGN C (THRIE BEAM)



DESIGN D (THRIE BEAM)




DESIGN G (THRIE BEAM)



DESIGN F (THRIE BEAM)

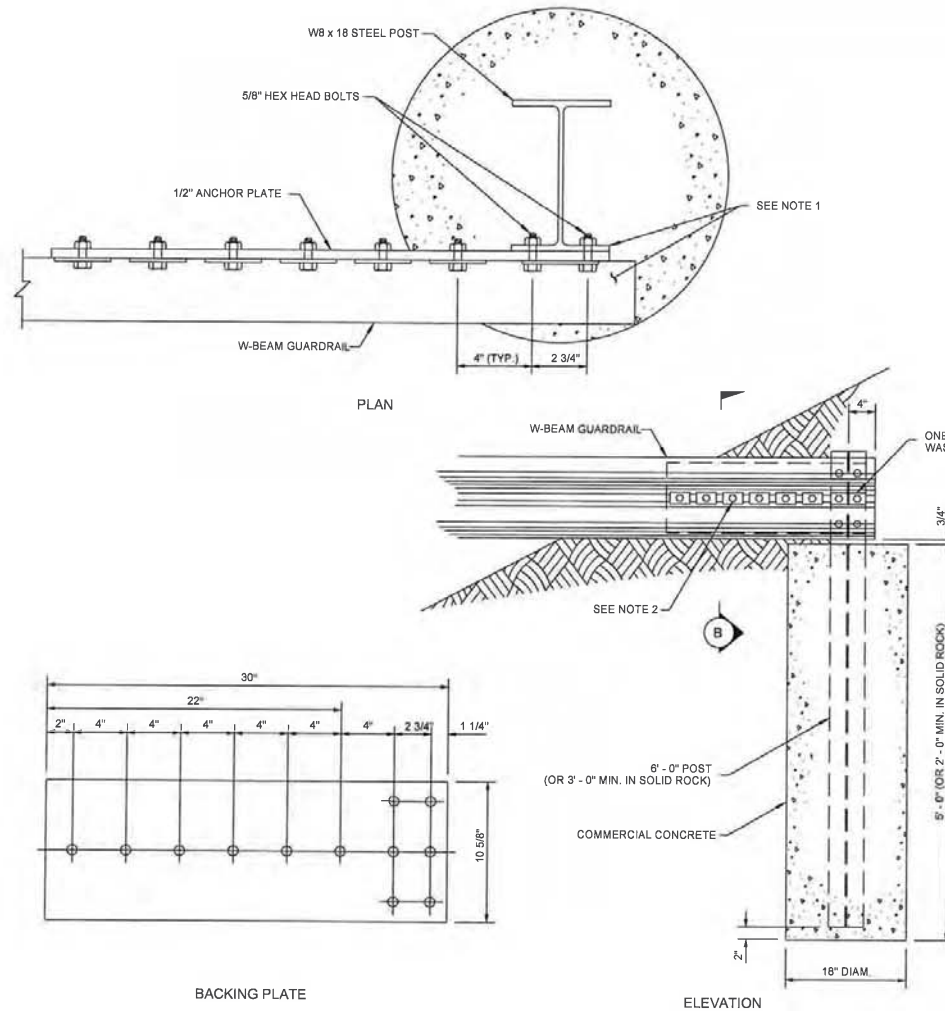
# NOTES:

1. ATTACH GUARDRAIL TO BRIDGE RAIL OR CONCRETE BARRIER WITH 7/8" DIAMETER BOLTS (FIVE MINIMUM) WITH THIN SLAB FERRULE INSERTS OR RESIN BONDED ANCHORS. SEE THE CONTRACT PLANS.
2. IN CASES WHERE DESIGN F END SECTION IS LAPPED ON THE OUTSIDE OF THE GUARDRAIL, A GALVANIZED 1" ID, 2" OD, 0.134" THICK, NARROW TYPE A PLAIN WASHER OR AN ANCHOR RAIL WASHER WILL BE PLACED UNDER THE SPLICE BOLT HEADS.

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NO.	DESCRIPTION	DATE	BY
REVISIONS			
<b>SAN JUAN COUNTY</b>  <b>SAN JUAN COUNTY</b> Public Works Department			
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9586			
<b>THRIE BEAM</b> <b>END SECTIONS</b> <b>NMDOT GR31-15</b>			

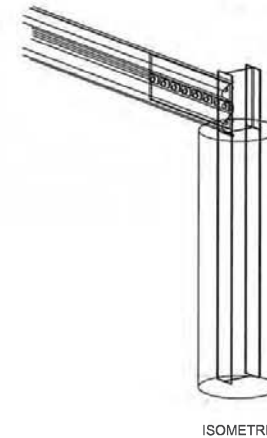
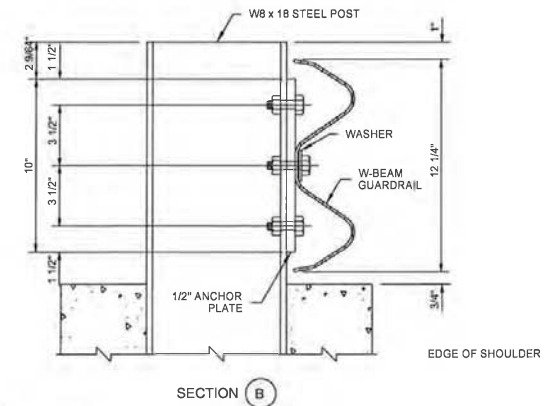
DESIGNED BY: DRAWN BY: CHECKED BY:


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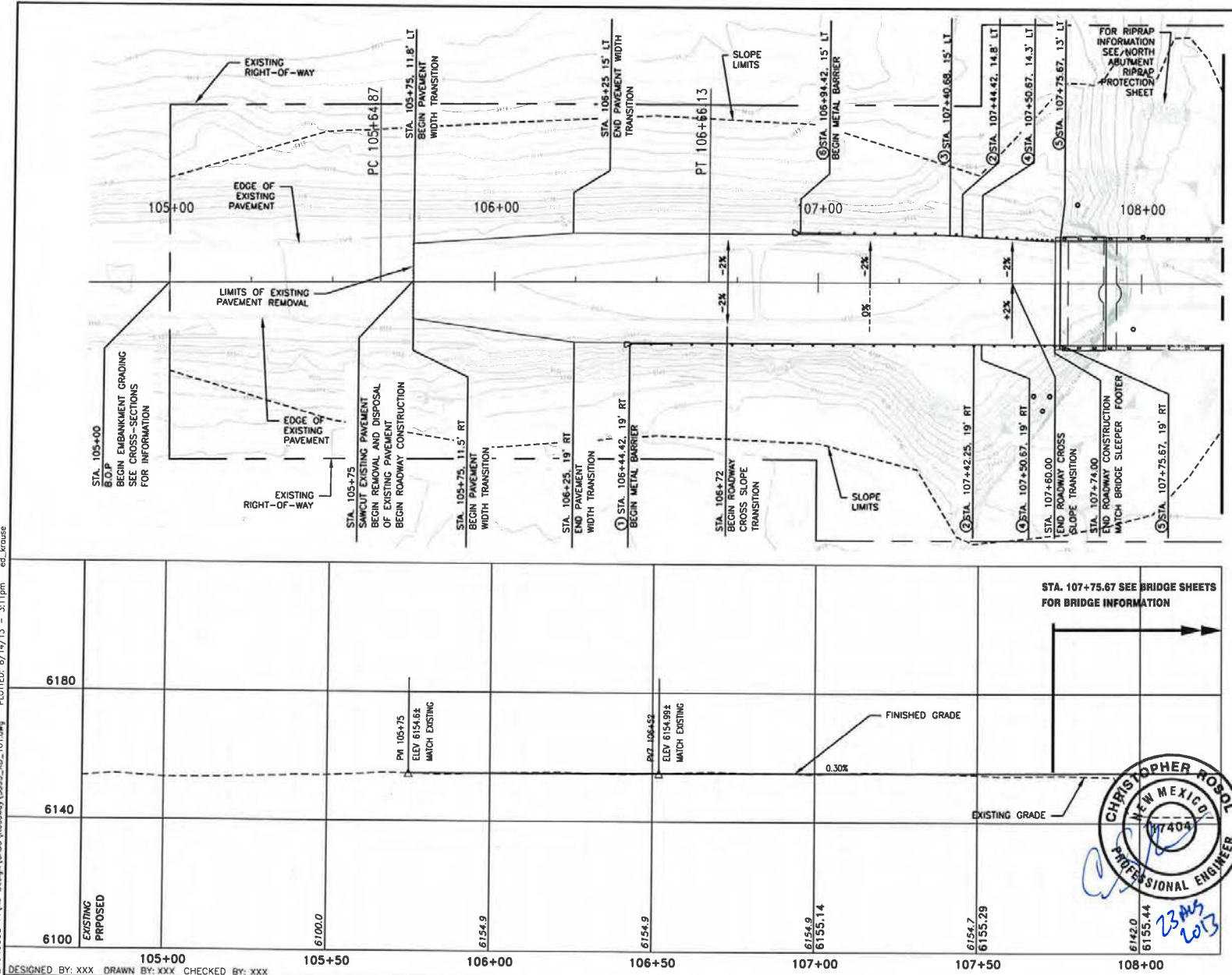
#### NOTES

1. RAIL SECTION AND W8 X 18 STEEL POST SHALL BE FABRICATED TO RECEIVE 5/8" HEX HEAD BOLTS AS SHOWN.
2. ALL BOLTS SHALL BE HIGH STRENGTH 5/8" HEX HEAD BOLTS WITH ANCHOR RAIL WASHERS.



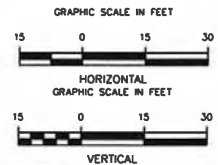
<b>URS</b>		6501 Americas Parkway, NE Suite 900 Albuquerque, New Mexico 87110 p 505.855.7500 f 505.855.7555	
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NO.	DESCRIPTION	DATE	BY
REVISIONS			
 <b>SAN JUAN COUNTY</b> Public Works Department			
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER CALLEGOS WASH BRIDGE NO. 9586			
<b>BEAM GUARDRAIL ANCHOR</b> TYPE 6 NMDOT GR31-16			





# KEYED NOTES:

1. INSTALL TYPE 2 END TERMINAL PER NMDOT SERIAL 606-11-1/2
2. TRANSITION FROM W-BEAM TO THRIE BEAM PER NMDOT SERIAL 606-13-1/1
3. METAL BARRIER ANGLE POINT
4. BEGIN THRIE BEAM METAL BARRIER
5. CONNECT TO BRIDGE RAIL PER NMDOT SERIAL 606-13-1/1
6. INSTALL TYPE 1 END TERMINAL PER NMDOT SERIAL 606-10-1/2



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**SAN JUAN COUNTY**  
Public Works Department

**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER GALLEGOS WASH  
BRIDGE NO. 9586

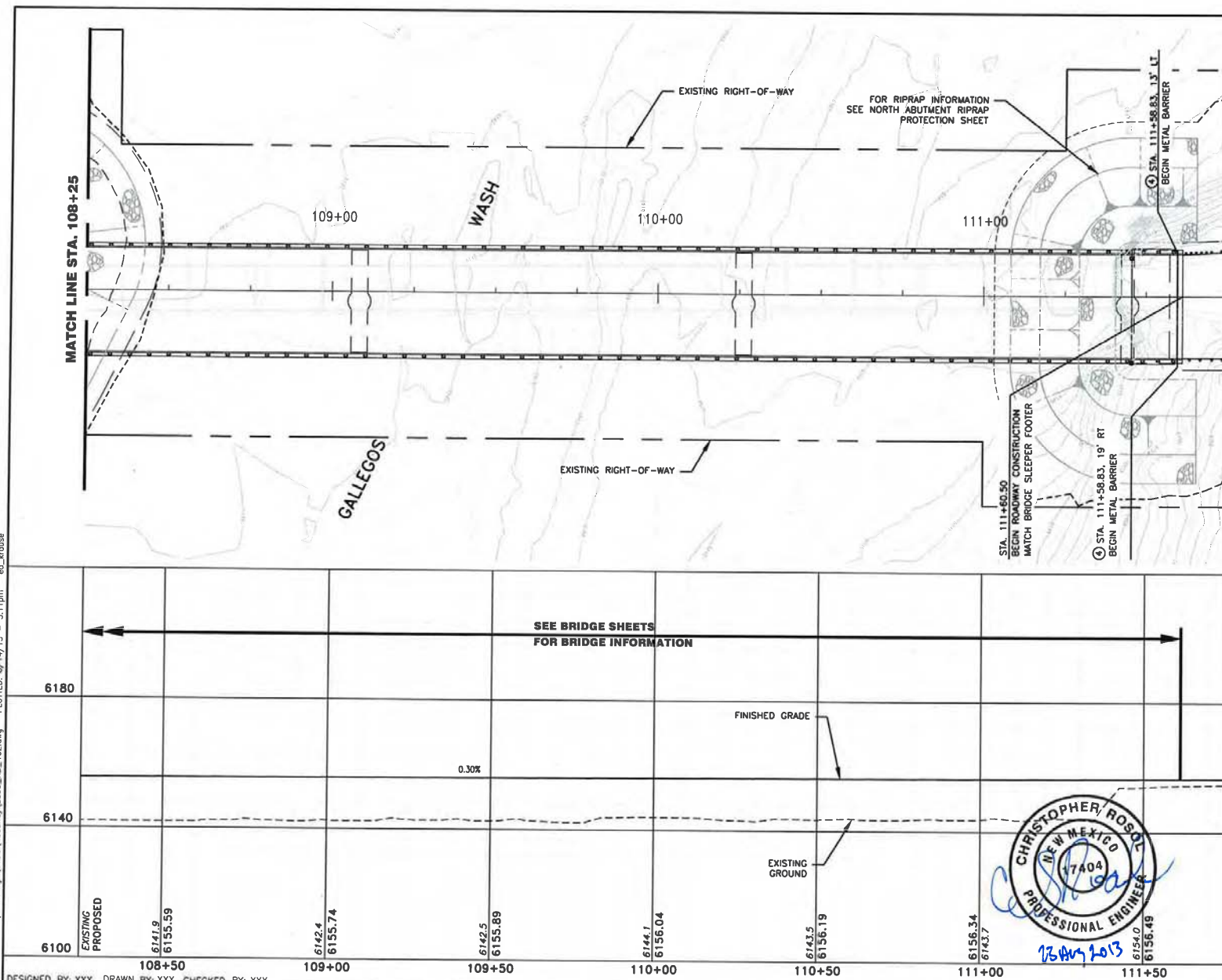
**PLAN AND PROFILE**  
STA. 105+00 TO STA. 108+25

SHEET NO. 3-1



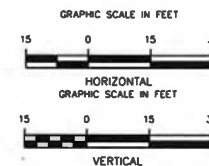
23 Aug 2013

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# **KEYED NOTES:**

- 1 INSTALL TYPE 1 END TERMINAL PER NMDOT SERIAL 606-10-1/2
- 2 TRANSITION FROM W-BEAM TO THRIE BEAM PER NMDOT SERIAL 606-13-1/1
- 3 METAL BARRIER ANGLE POINT
- 4 CONNECT TO BRIDGE RAIL PER NMDOT SERIAL 606-13-1/1



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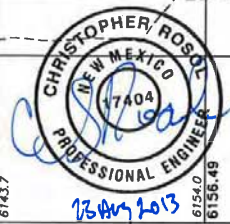
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**SAN JUAN COUNTY**  
Public Works Department

**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER GALLEGOS WASH  
BRIDGE NO. 9586

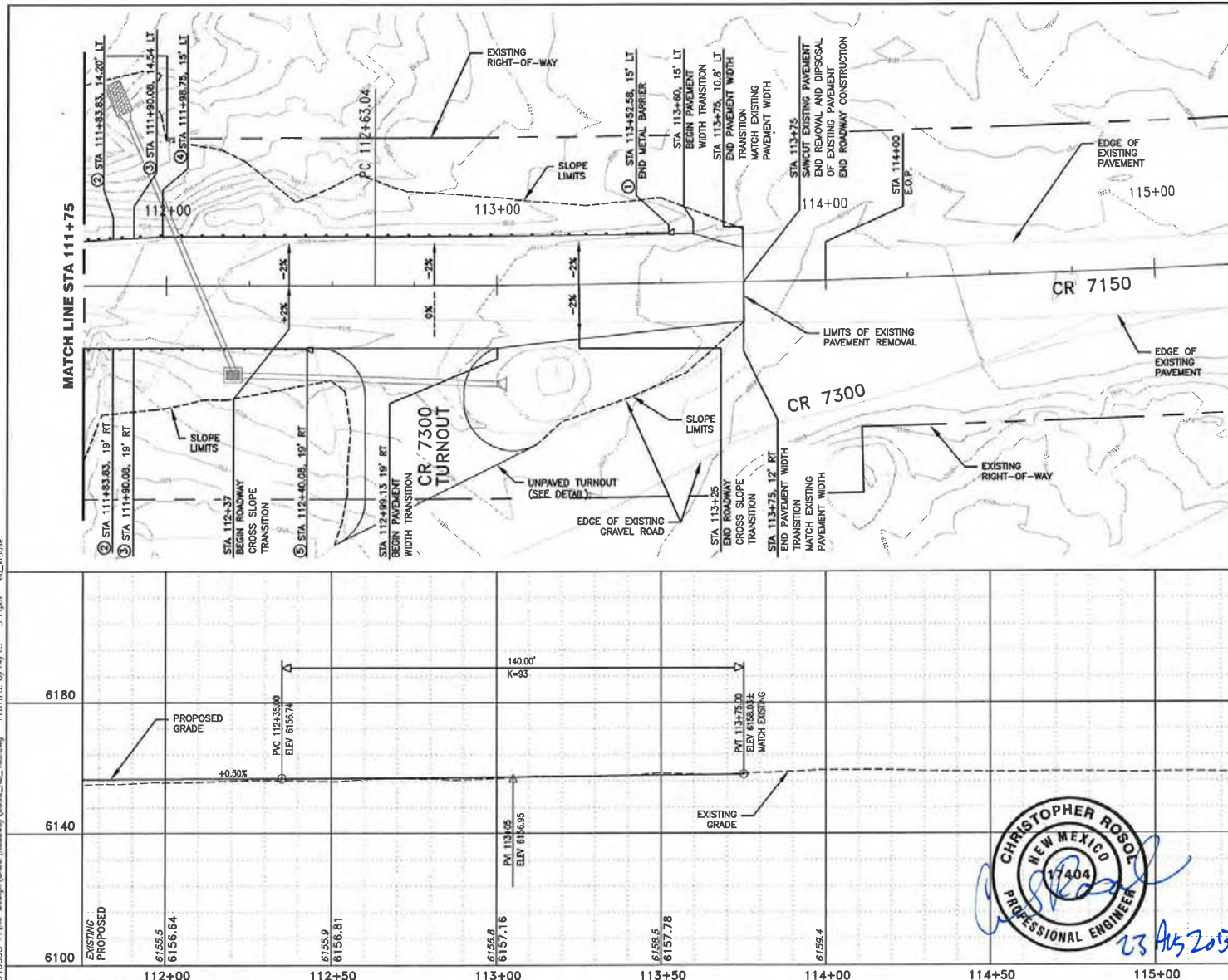
**PLAN AND PROFILE**  
STA. 108+25 TO STA. 111+75

SHEET NO. 3-2

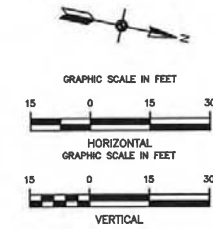


DESIGNED BY: XXX DRAWN BY: XXX CHECKED BY: XXX

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- KEYED NOTES:**
1. INSTALL TYPE 2 END TERMINAL PER NMDOT SERIAL 606-11-1/2
  2. TRANSITION FROM W-BEAM TO THRIE BEAM PER NMDOT SERIAL 606-13-1/1
  3. BEGIN W-BEAM METAL BARRIER
  4. METAL BARRIER ANGLE POINT
  5. INSTALL TYPE 1 END TERMINAL PER NMDOT SERIAL 606-10-1/2



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Public Works Department

**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER GALLEGOS WASH  
BRIDGE NO. 9586

**PLAN AND PROFILE**  
STA. 111+75 TO STA. 114+00

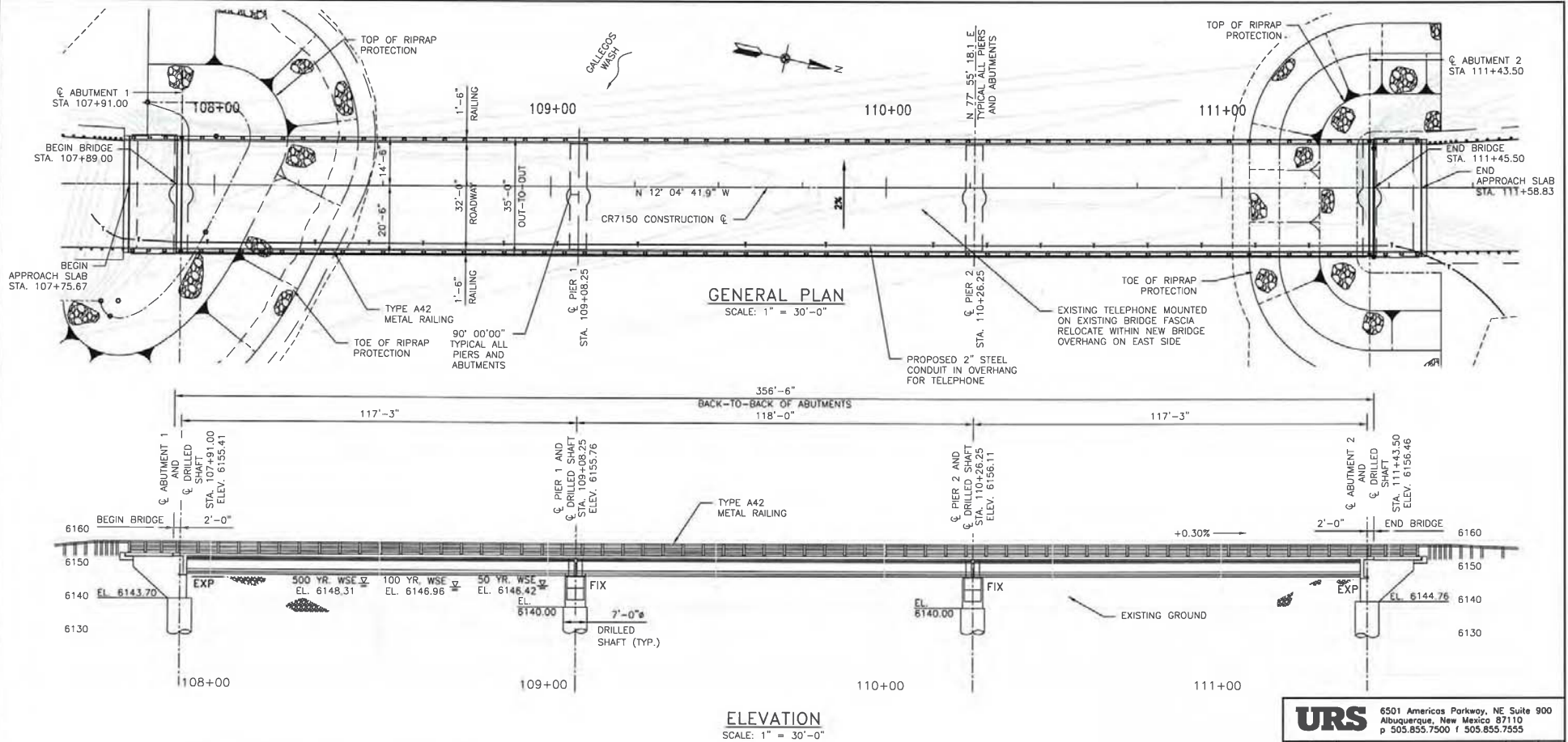
SHEET NO. 3-3

**CHRISTOPHER ROSOL**  
NEW MEXICO  
17404  
PROFESSIONAL ENGINEER  
23 AUG 2013









WATERWAY DATA	
50-YEAR DISCHARGE	4750 CFS
50-YEAR VELOCITY AVE.	5.61 FT/S
50-YEAR WATER SURFACE ELEVATION	6146.42 FT
100-YEAR DISCHARGE	6195 CFS
100-YEAR VELOCITY AVE.	6.26 FT/S
100-YEAR WATER SURFACE ELEVATION	6146.96 FT
500-YEAR DISCHARGE	10531 CFS
500-YEAR VELOCITY AVE.	7.76 FT/S
500-YEAR WATER SURFACE ELEVATION	6148.31 FT
OVER TOPPING FREQUENCY	>500 YR

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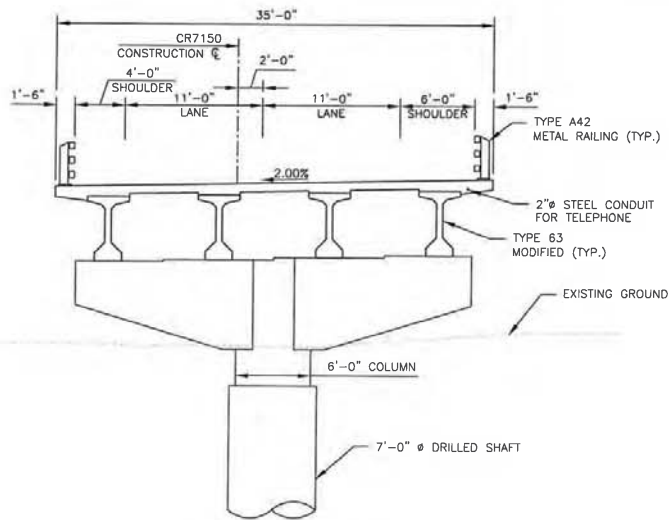
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Public Works Department

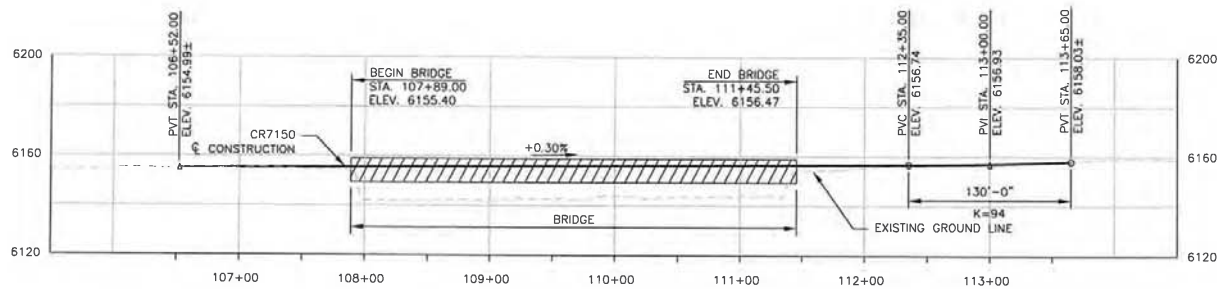
**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER CALLEGOS WASH  
BRIDGE NO. 9586

**GENERAL PLAN & ELEVATION**

SHEET NO. 5-2



**TYPICAL SECTION**  
SCALE: 1" = 10'-0"



**PROFILE**  
HORIZONTAL SCALE: 1" = 100'-0"  
VERTICAL SCALE: 1" = 50'-0"

QUANTITIES									
ITEM #	DESCRIPTION	UNIT	SUPERSTRUCTURE	SUBSTRUCTURE				APPROACH SLABS	TOTALS
				ABUT. 1	PIER 1	PIER 2	ABUT. 2		
210000	EXCAVATION AND BACKFILL FOR MAJOR STRUCTURES	CY		220			220	50	490
502084	DRILLED SHAFT FOUNDATION 84" D	LF		84	61	41	19		205
505000	CSL CONSULTANT TESTING	EA		1	1	1	1		4
511030	STRUCTURAL CONCRETE, CLASS AA	CY		40	44	44	40		168
512003	HIGH PERFORMANCE CONCRETE (HPD)	CY	450					50	500
518065	PRESTRESSED CONCRETE BRIDGE MEMBER, TYPE 63 MOD	LF	1,406						1,406
532100	PERMANENT ANTI-GRAFFITI PROTECTIVE COATING	SF		100	350	350	100		900
540060	REINFORCING BARS, GRADE 60	LB		10,100	9,400	9,400	10,100		39,000
540160	EPOXY-COATED REINFORCING BARS, GRADE 60	LB	112,400	1,200	930	930	1,200	8,800	125,460
541000	STRUCTURAL STEEL FOR CONCRETE BRIDGES	LB	9,000						9,000
543002	METAL RAILING - TYPE A42	LF	708					56	764
562000	BRIDGE JOINT STRIP SEAL	LF						75	75
601000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS							LS
602020	RIPRAP CLASS C	CY		1,021			692		1,713
604001	GEOTEXTILE CLASS I	SY		754			501		1,255
621000	MOBILIZATION	LS							LS

ROYANNE B. BLATZ  
NEW MEXICO  
16311  
Professional Engineer  
08/23/13

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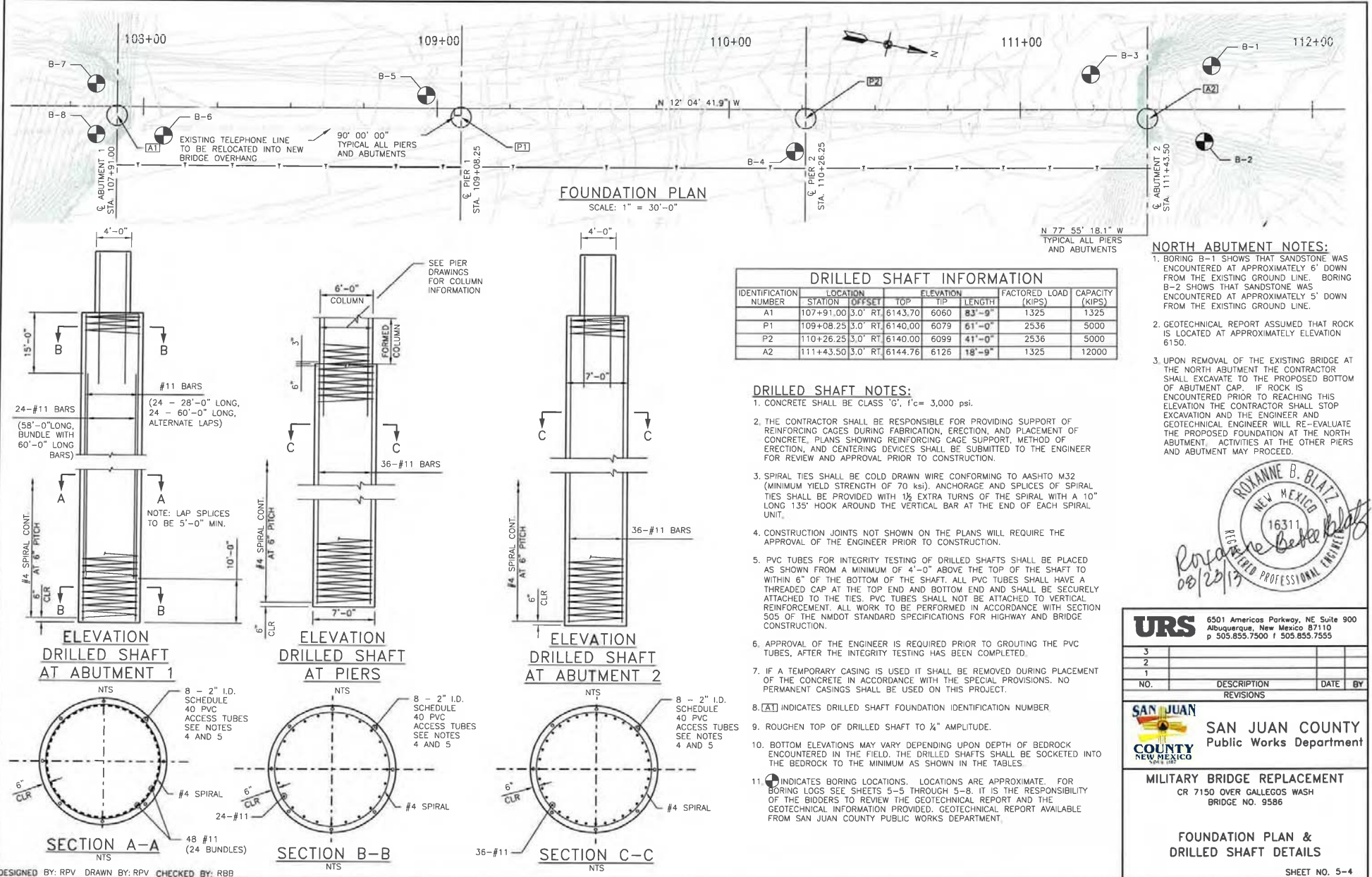
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**SAN JUAN COUNTY**  
Public Works Department

**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER CALLEGOS WASH  
BRIDGE NO. 9586

**TYPICAL SECTION, PROFILE  
&  
QUANTITIES**

SHEET NO. 5-3



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**SAN JUAN COUNTY**  
Public Works Department

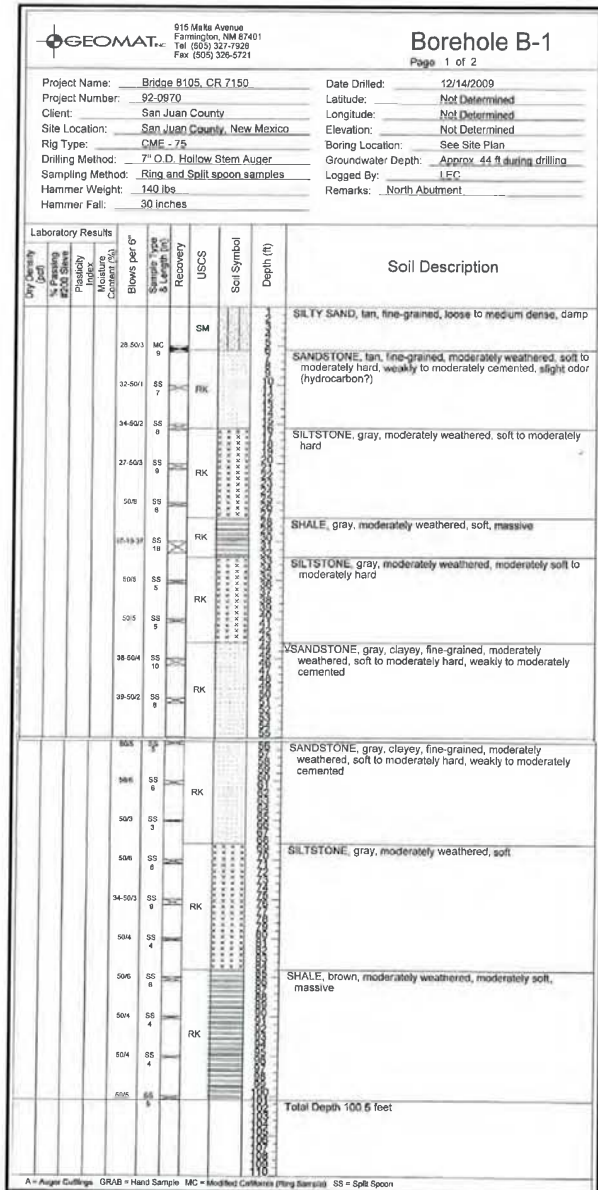
**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER CALLEGOS WASH  
BRIDGE NO. 9586

**FOUNDATION PLAN & DRILLED SHAFT DETAILS**

SHEET NO. 5-4

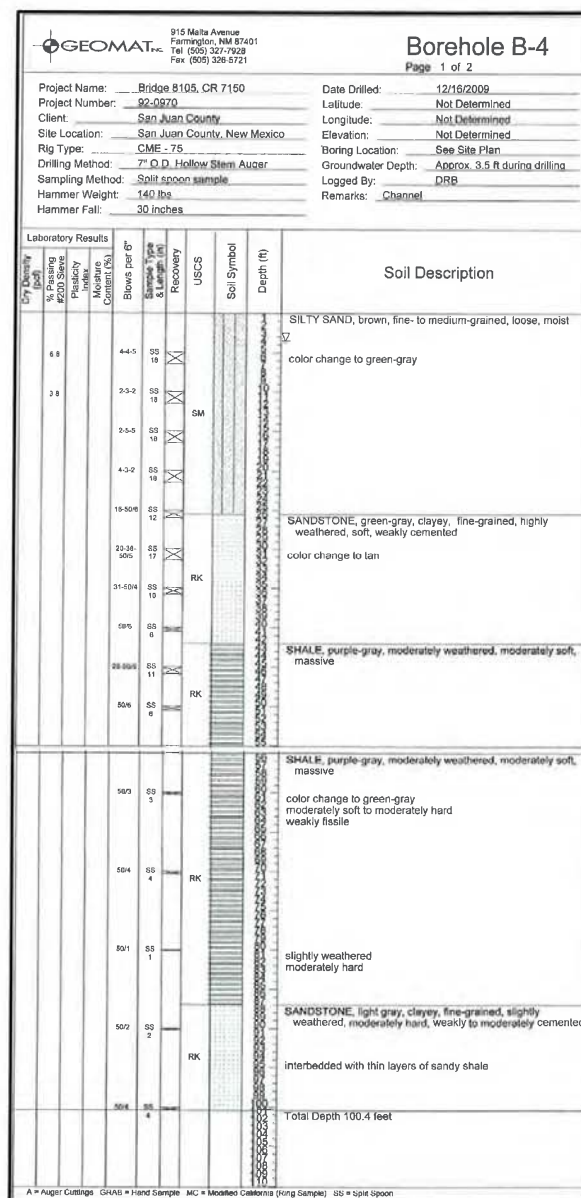
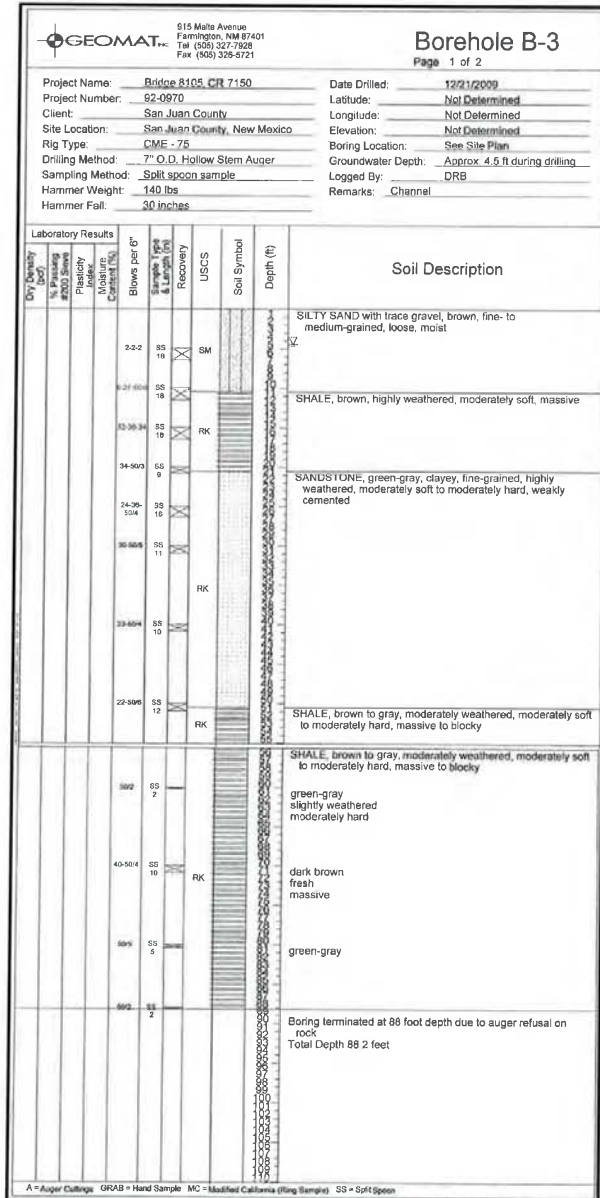


2434309.3 P:\Re-Design\CADD\Structures\5-5 Boring Logs-L Millbury.dwg PLOTTED: 8/13/13 - 3:57pm roxanne\_vello





24,34,309.3 P:\Re-Design\CAD\Structures\5-6 Boring Logs-IL Military.dwg PLOTTED: 8/13/13 - 3:57pm roanne\_volo



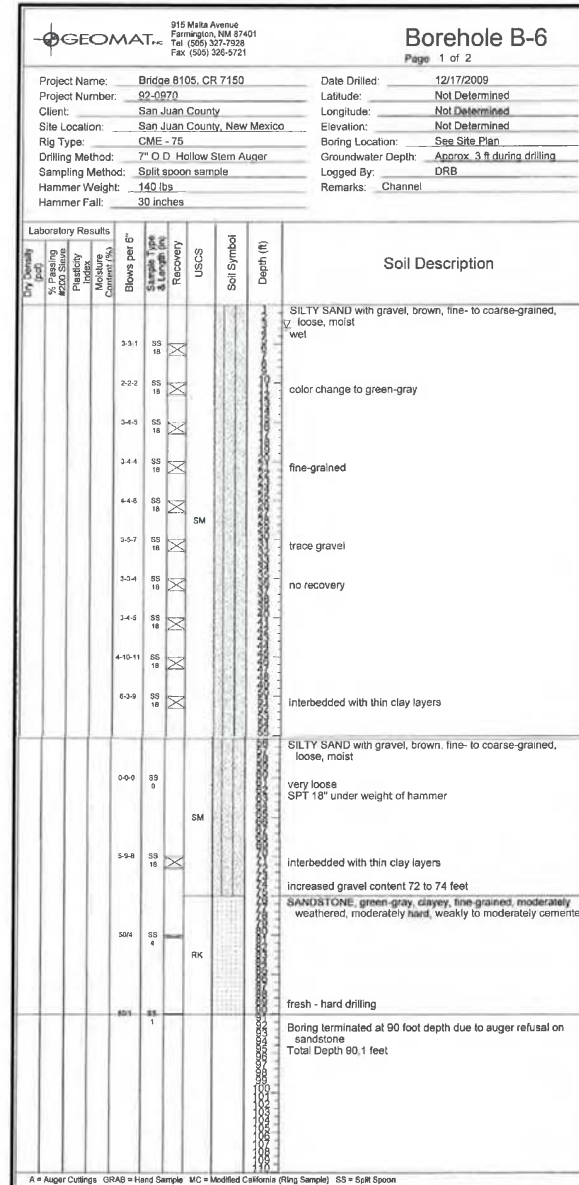
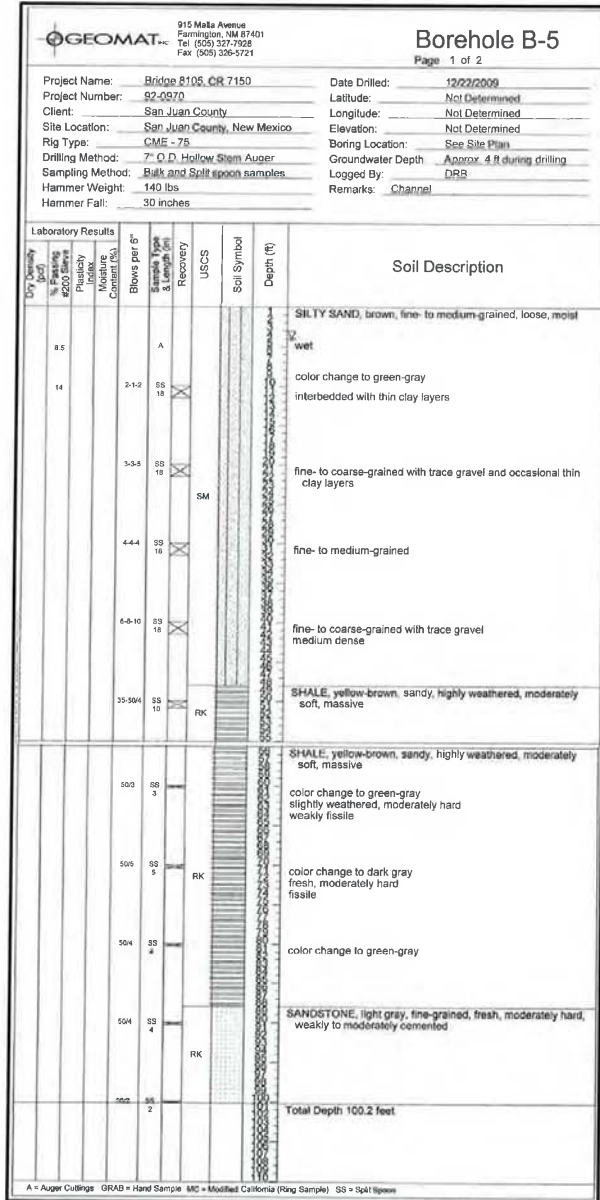
**NOTE:**  
DATA FROM SIGNED AND SEALED GEOTECHNICAL REPORT,  
SEE DRILLED SHAFT NOTE 11, SHEET NO. 5-4.

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NO.	DESCRIPTION	DATE	BY
REVISIONS			
<b>SAN JUAN COUNTY</b> Public Works Department			
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER CALLEGOS WASH BRIDGE NO. 9586			

BORING LOGS - II

SHEET NO. 5-6

DESIGNED BY: XXX DRAWN BY: RPV CHECKED BY: RBG



**NOTE:**  
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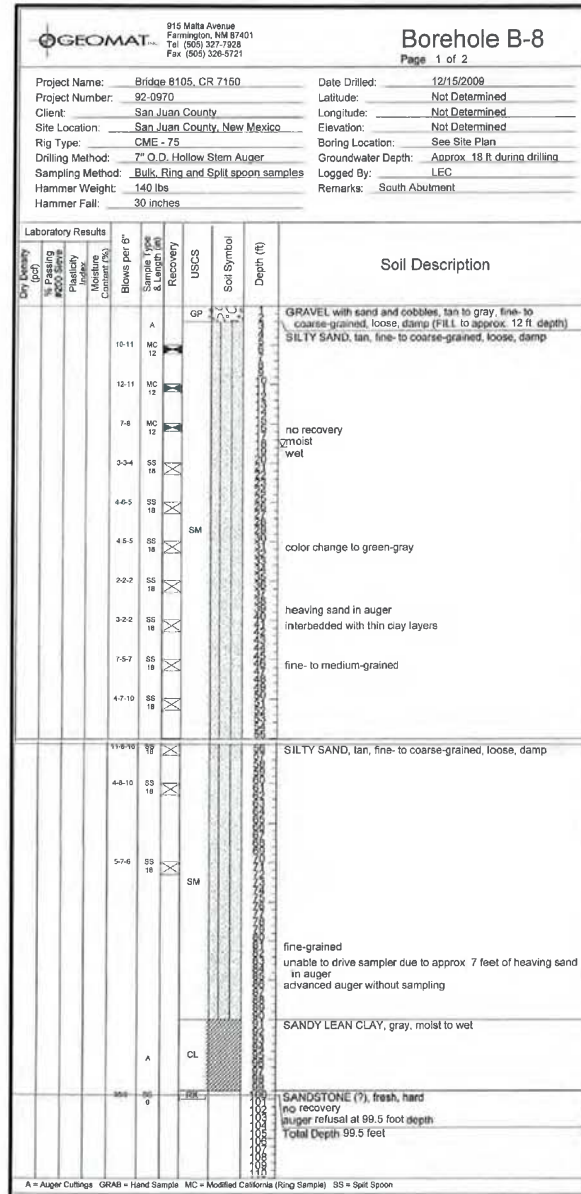
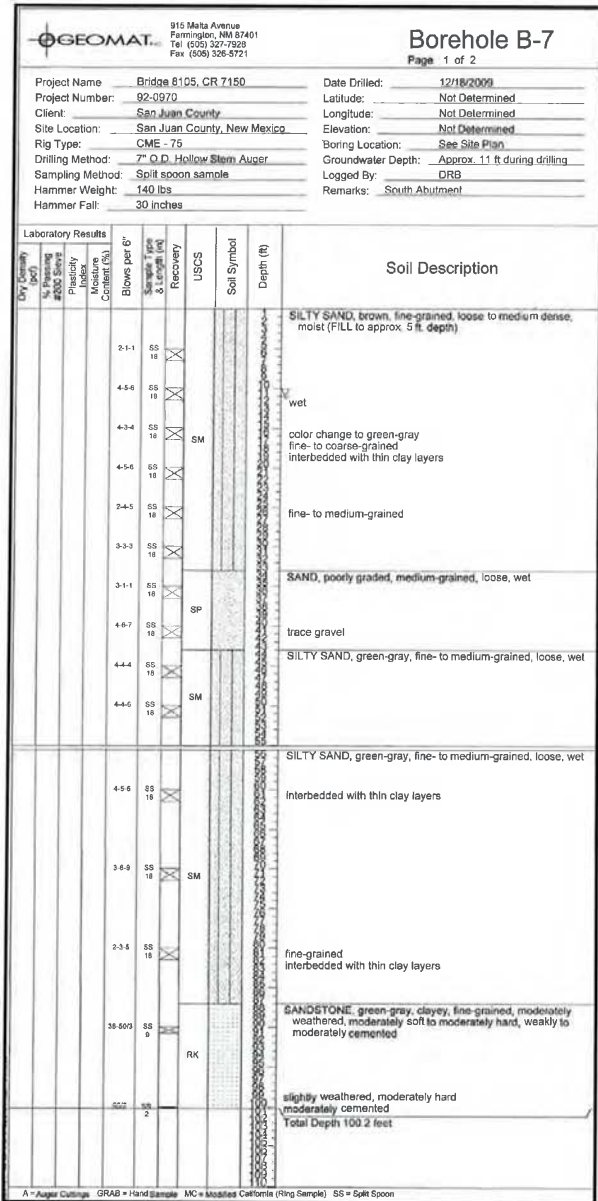
**SAN JUAN COUNTY**  
Public Works Department

**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER CALLEGOS WASH  
BRIDGE NO. 9586

**BORING LOGS - III**

SHEET NO. 5-7

2434309.3 P:\Re-Design\CADD\Structures\5-8 Boring Logs-IV\_Military.dwg PLOTTED: 8/13/13 - 3:59pm roanne\_volio

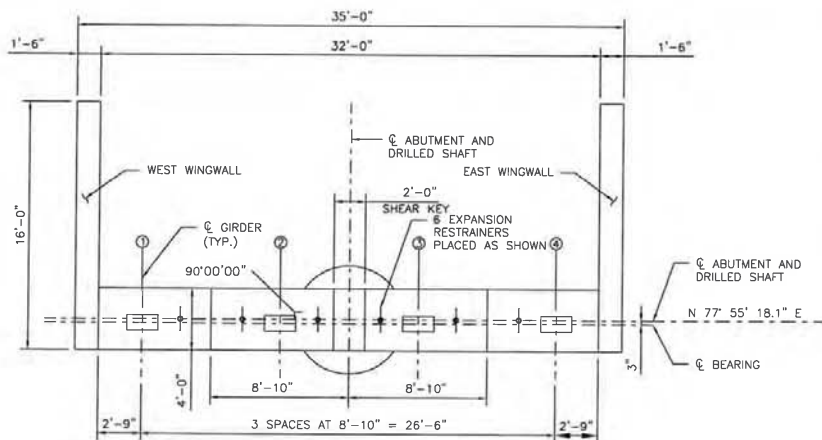


**NOTE:**  
DATA FROM SIGNED AND SEALED GEOTECHNICAL REPORT,  
SEE DRILLED SHAFT NOTE 11, SHEET NO. 5-4.

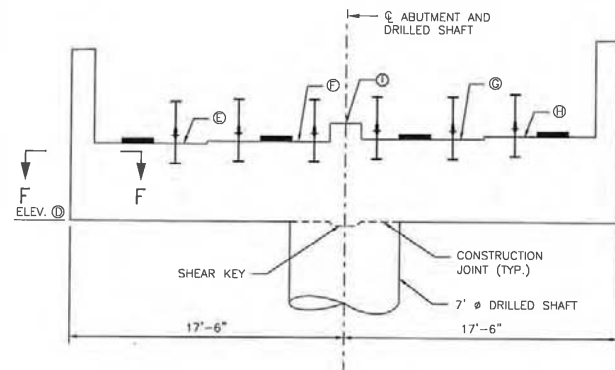
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<b>SAN JUAN COUNTY</b> Public Works Department			
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9586			
<b>BORING LOGS - IV</b>			
SHEET NO. 5-8			



2434309.3 P:\Re-Design\ADD\Structures\5-9 Abutment & Wingwall Plan & Elevation\_Military.dwg PLOTTED: 8/14/13 - 11:13am ccozine\_valla

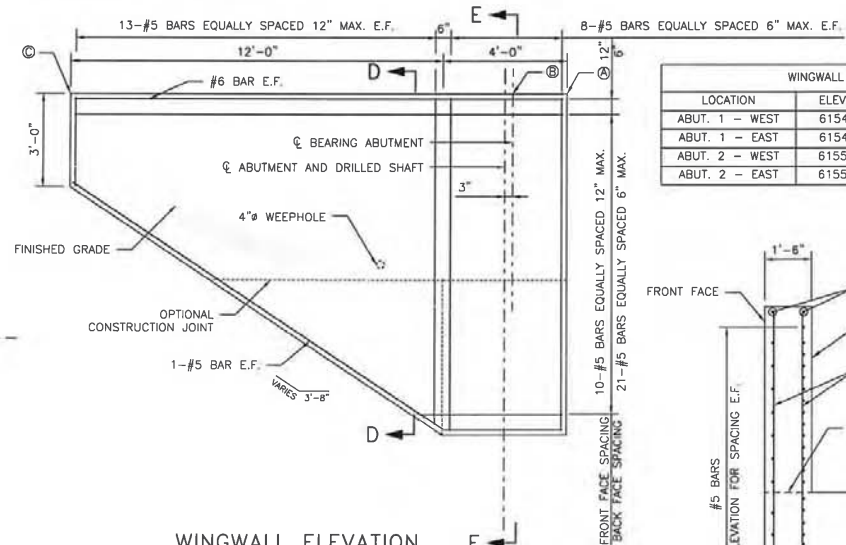


**ABUTMENT PLAN**  
(ABUTMENT #2 SHOWN, ABUTMENT #1 OPPOSITE HAND)  
SCALE: 1/8" = 1'-0"

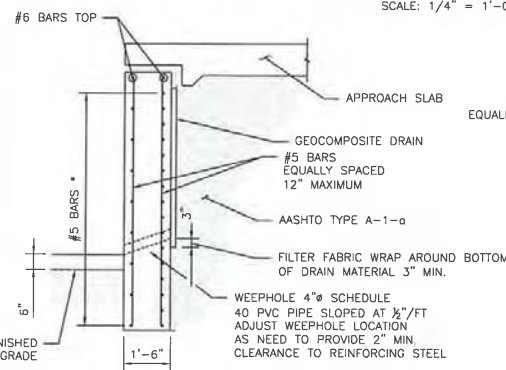


**ABUTMENT ELEVATION**  
(ABUTMENT #2 SHOWN, ABUTMENT #1 OPPOSITE HAND)  
SCALE: 1/8" = 1'-0"

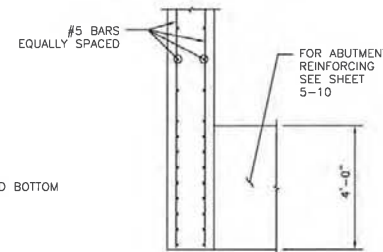
ABUTMENT ELEVATIONS						
LOCATION	D	E	F	G	H	I
ABUT. 1	6143.66	6148.66	6148.84	6149.02	6149.19	6150.02
ABUT. 2	6144.72	6149.72	6149.90	6150.07	6150.25	6151.07



**WINGWALL ELEVATION**  
SCALE: 1/4" = 1'-0"

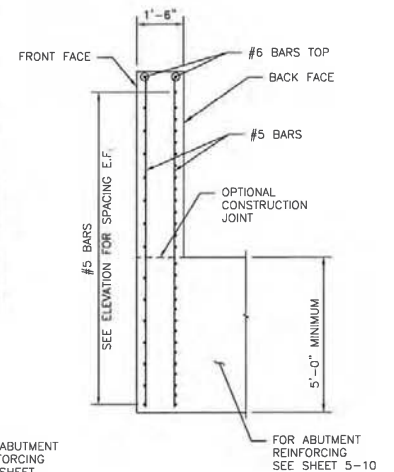


**SECTION D-D**  
SCALE: 1/4" = 1'-0"



**SECTION F-F**  
SCALE: 1/4" = 1'-0"

WINGWALL ELEVATIONS			
LOCATION	ELEV. A	ELEV. B	ELEV. C
ABUT. 1 - WEST	6154.21	6154.20	6154.16
ABUT. 1 - EAST	6154.91	6154.90	6154.86
ABUT. 2 - WEST	6155.25	6155.26	6155.29
ABUT. 2 - EAST	6155.95	6155.96	6155.99



**SECTION E-E**  
SCALE: 1/4" = 1'-0"

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Public Works Department

**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER CALLEGOS WASH  
BRIDGE NO. 9586

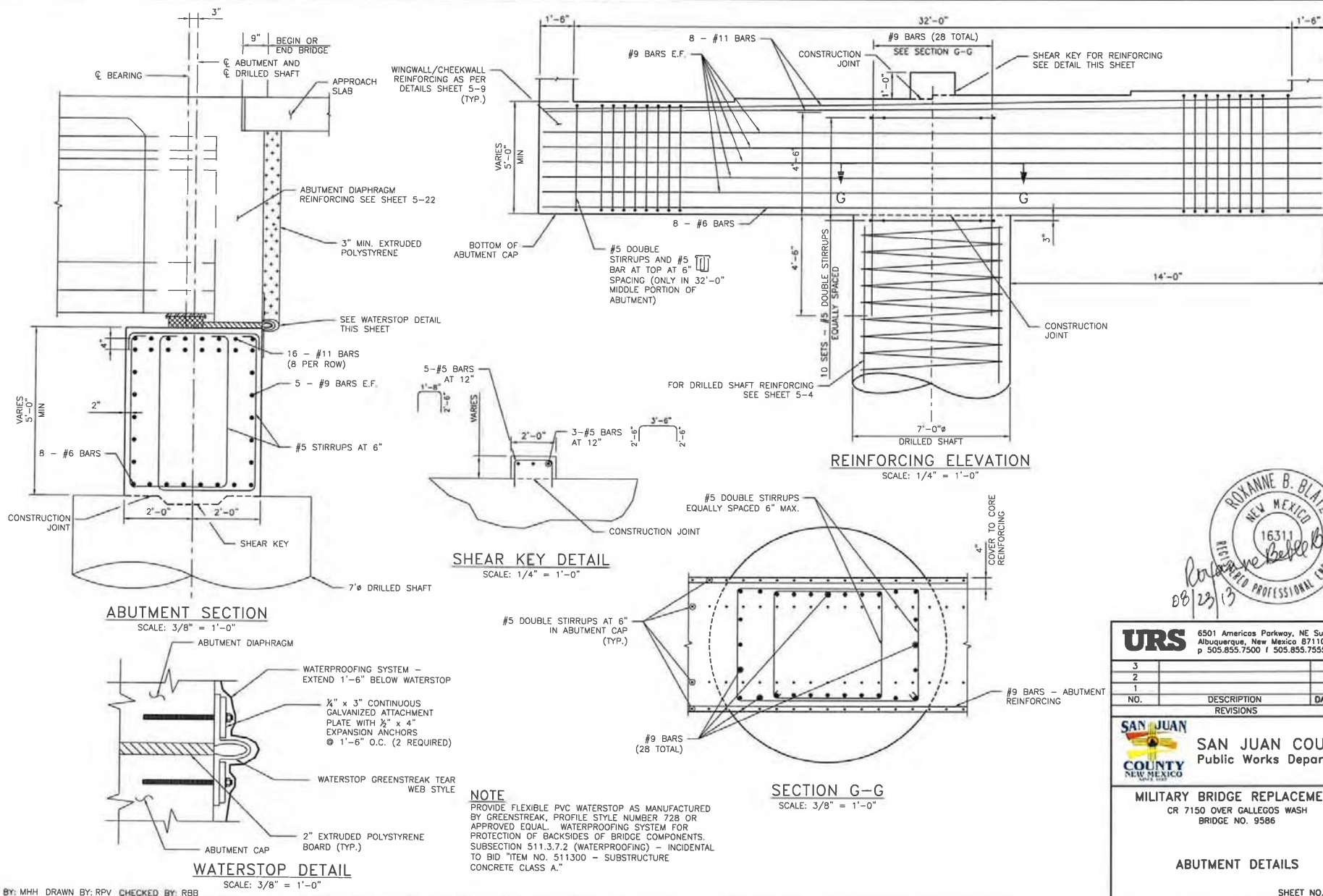
**ABUTMENT & WINGWALL  
PLAN & ELEVATION**

SHEET NO. 5-9

DESIGNED BY: MHH DRAWN BY: RPV CHECKED BY: RBB

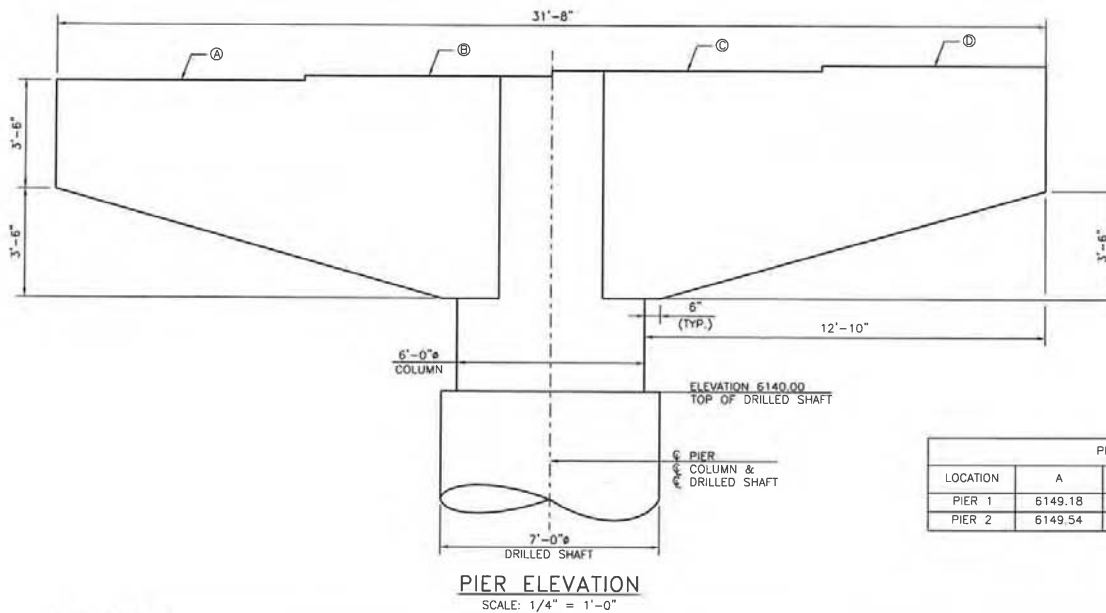
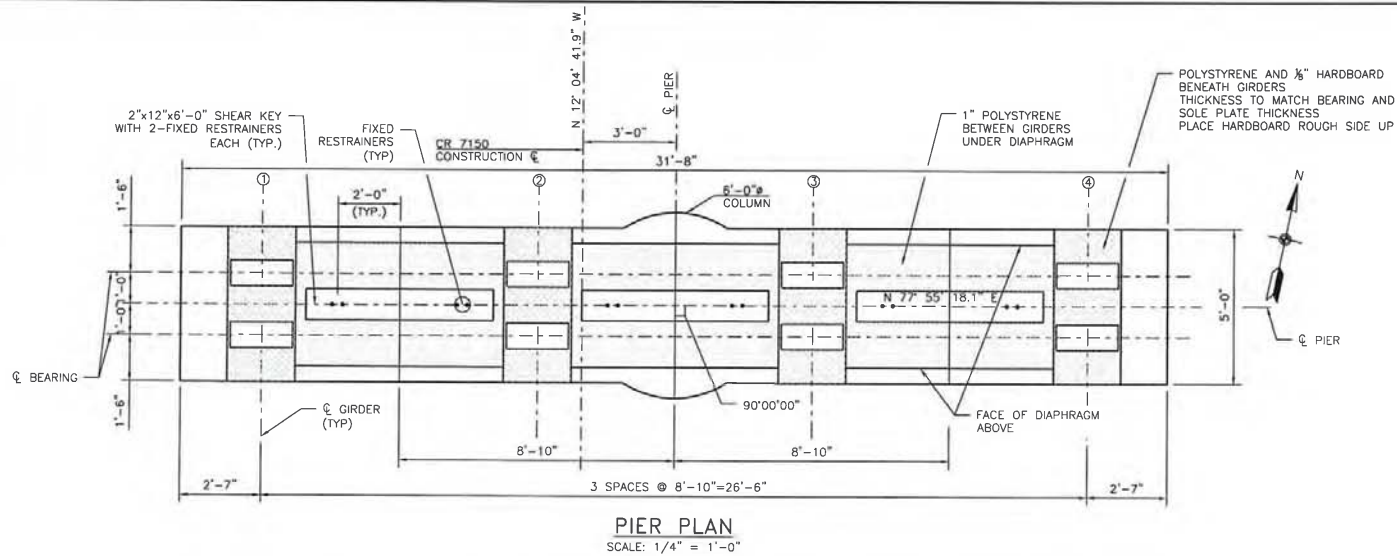
*Roxanne B. Blatz*  
16311  
REGISTERED PROFESSIONAL ENGINEER  
08/23/13





ROXANNE B. BLATZ  
NEW MEXICO  
16311  
REGISTERED PROFESSIONAL ENGINEER  
08/23/13

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<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER CALLEGOS WASH BRIDGE NO. 9586			
<b>ABUTMENT DETAILS</b>			
SHEET NO. 5-10			



PIER ELEVATIONS				
LOCATION	A	B	C	D
PIER 1	6149.18	6149.36	6149.53	6149.71
PIER 2	6149.54	6149.71	6149.89	6150.07



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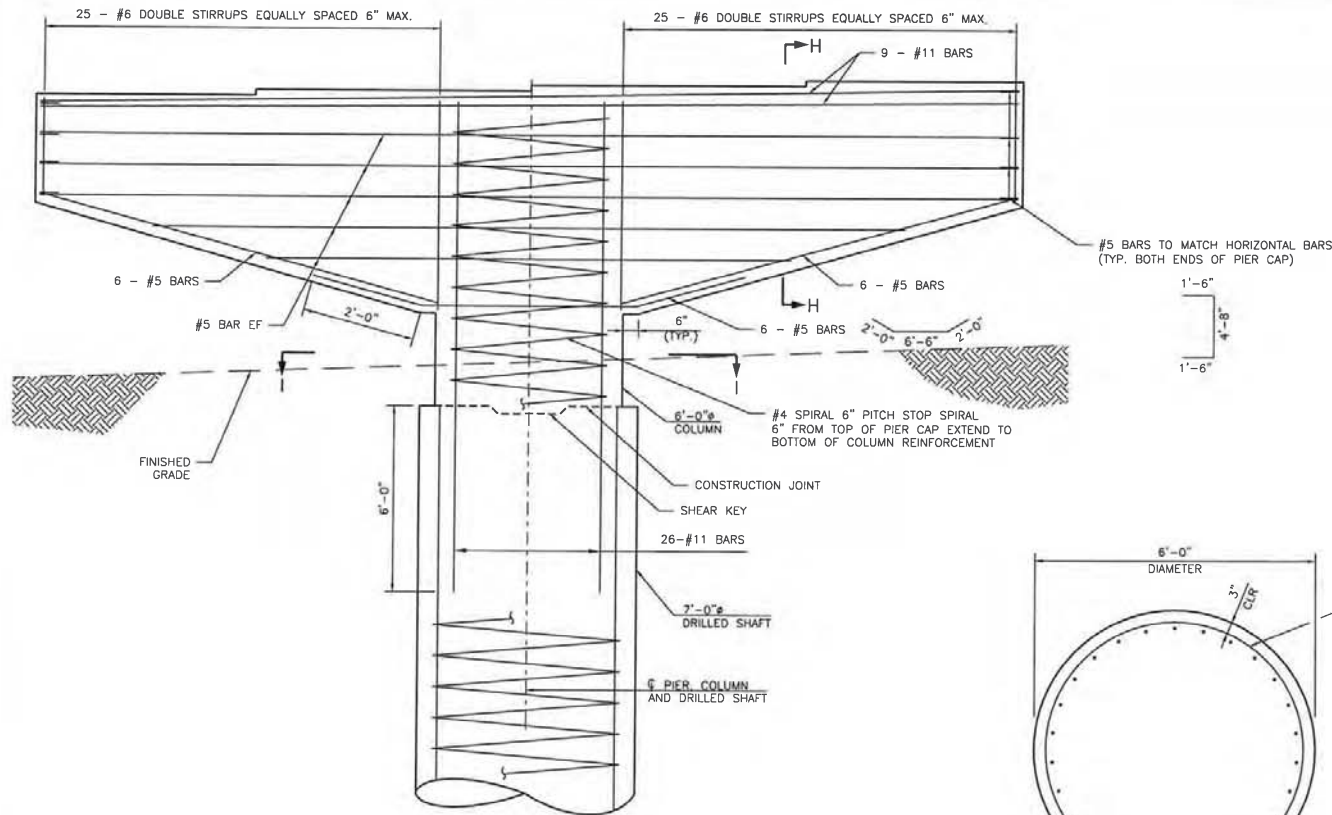
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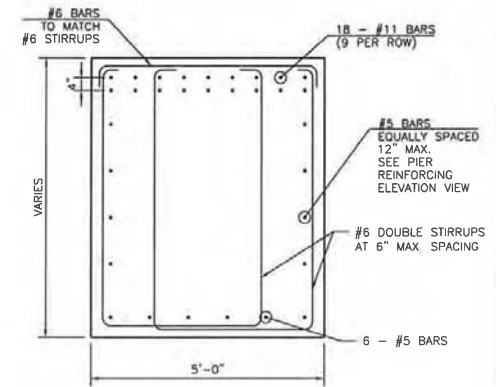
**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER CALLEGOS WASH  
BRIDGE NO. 9586

**PIER PLAN & ELEVATION**

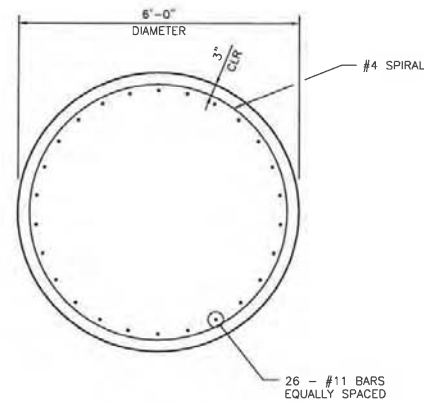
SHEET NO. 5-11



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



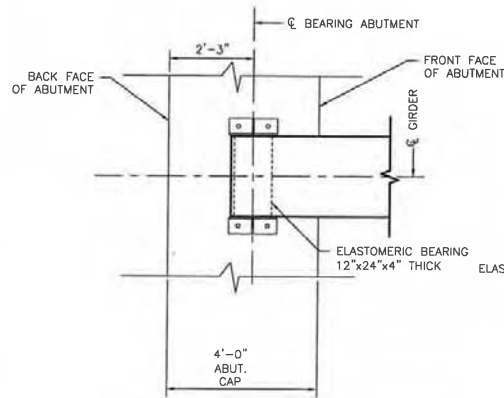
SECTION H-H  
SCALE: 3/8" = 1'-0"



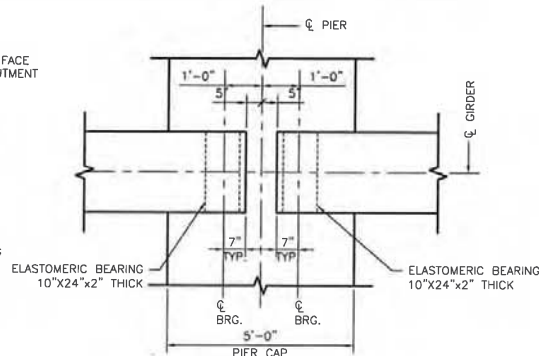
SECTION I-I  
SCALE: 3/8" = 1'-0"

ROXANNE B. BLATZ  
NEW MEXICO  
16311  
REGISTERED PROFESSIONAL ENGINEER  
08/23/13

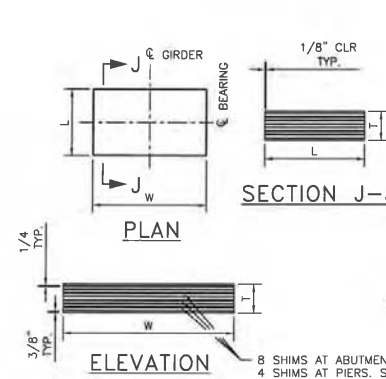
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<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER CALLEGOS WASH BRIDGE NO. 9586			
<b>PIER DETAILS</b>			
SHEET NO. 5-12			



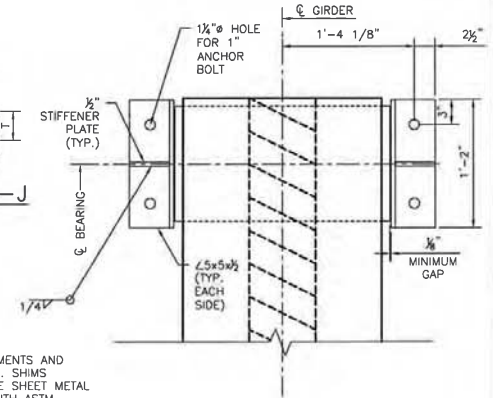
PLAN-EXP. BEARING DETAILS  
AT ABUTMENTS



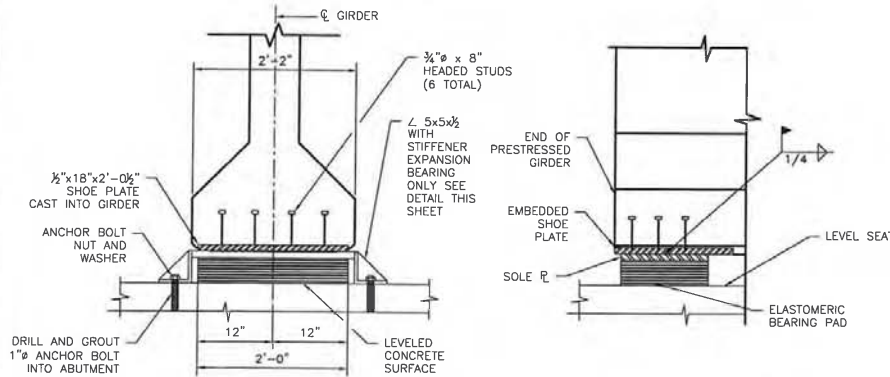
PLAN-FIXED BEARING DETAILS  
AT PIERS



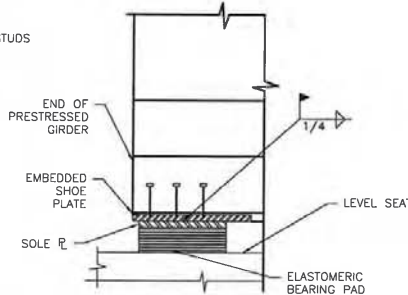
ELASTOMER BEARING  
PAD DETAILS



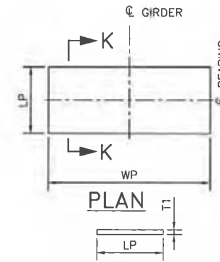
EXPANSION BEARING ANCHORAGE  
(TYPICAL AT EACH GIRDER  
AT BOTH ABUTMENTS)



BEARING SECTION



SIDE VIEW



SECTION K-K  
SOLE PLATE DETAILS

BEARING SCHEDULE									
LOCATION	SOLE PLATE				ELASTOMER PAD				
	LP	WP	T1	L	W	T	NUMBER SHIMS	DESIGN LOAD (kips)	LL (kips)
ABUT. 1	1'-0"	2'-3"	1 1/2"	1'-0"	2'-0"	4.0"	8	126.1	79.1
PIER 1	10"	2'-3"	1 1/2"	10"	2'-0"	2.0"	4	143.1	91.1
PIER 2	10"	2'-3"	1 1/2"	10"	2'-0"	2.0"	4	143.1	91.1
ABUT. 2	1'-0"	2'-3"	1 1/2"	1'-0"	2'-0"	4.0"	8	126.1	79.1

#### NOTES

- ELASTOMER SHALL BE GRADE 3, 55 DUROMETER (SHORE A), AND SHALL HAVE A MINIMUM SHEAR MODULUS OF 130 PSI.
- ELASTOMER BEARING PADS SHALL BE PLACED ON A LEVEL SEAT. CORRECTIVE MEASURES SHALL BE TAKEN AS NECESSARY TO ENSURE THAT THE BEARING SEAT IS LEVEL WITHIN A TOLERANCE OF 0.005 OF THE NOMINAL PAD DIMENSIONS.
- TOP AND BOTTOM SURFACES OF THE SOLE PLATES SHALL BE FLAT WITHIN A 1/32" TOTAL INDICATOR READING. SURFACE FINISHES SHALL BE ANSI 1000 OR BETTER. THE PLATE THICKNESS SHOWN IS THE FINISHED THICKNESS.
- SURFACE PREPARATION AND COATING OF THE SOLE PLATE SHALL BE IN ACCORDANCE WITH SECTION 545 OF THE NMDOT STANDARD SPECIFICATIONS.
- SEE PRESTRESSED GIRDER SHEET 5-15 FOR GIRDER SHOE PLATE DETAILS.
- DUE TO CONSTRUCTION TOLERANCE, FIELD WELD SHOE PLATE TO SOLE PLATE AFTER GIRDER PLACEMENT.



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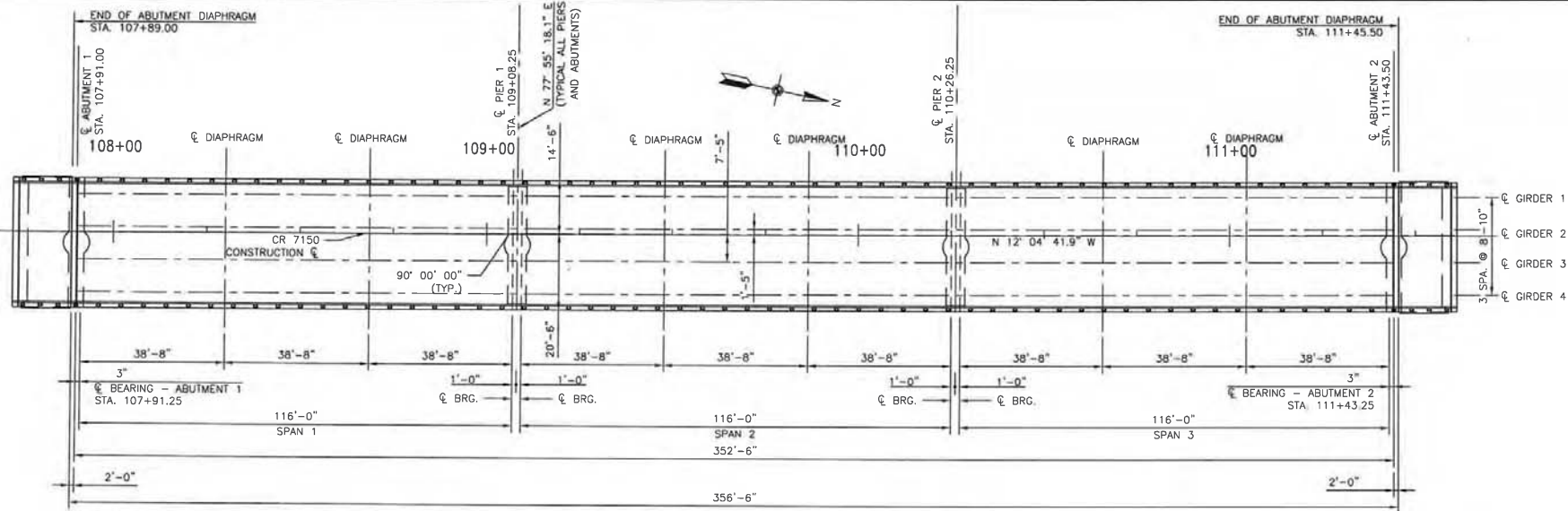
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**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER CALLEGOS WASH  
BRIDGE NO. 9586

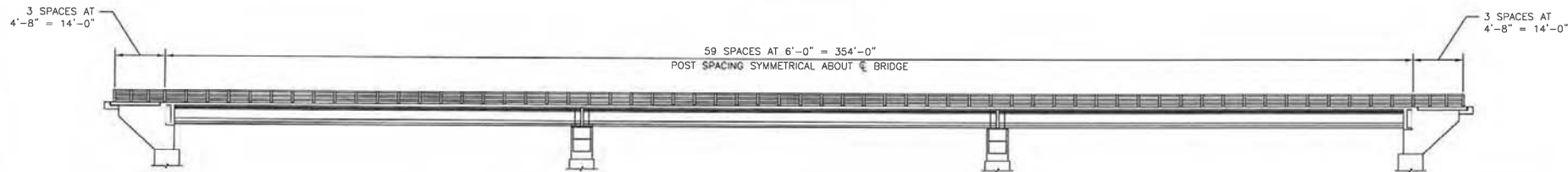
**BEARING DETAILS**

SHEET NO. 5-13





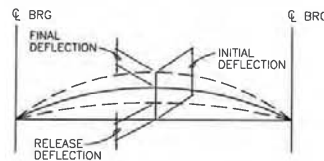
FRAMING PLAN  
NOT TO SCALE



TYPE A42 METAL RAILING POST SPACING  
NOT TO SCALE

	DEFLECTION (ft)									
	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	
RELEASE (UP)	0.09	0.15	0.19	0.22	0.23	0.22	0.19	0.15	0.09	
INITIAL (UP)	0.15	0.26	0.34	0.39	0.40	0.39	0.34	0.26	0.15	
FINAL - SPAN 1 (DOWN)	0.04	0.08	0.11	0.12	0.13	0.12	0.10	0.08	0.04	
FINAL - SPAN 2 (DOWN)	0.04	0.07	0.10	0.12	0.12	0.12	0.10	0.07	0.04	
FINAL - SPAN 3 (DOWN)	0.04	0.08	0.10	0.12	0.13	0.12	0.11	0.08	0.04	

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NEW MEXICO  
16311  
REGISTERED PROFESSIONAL ENGINEER  
08/23/13



DEFLECTION DIAGRAM  
NOT TO SCALE

NOTE: FOR SKEED ELEVATIONS  
SEE SHEET 5-21

#### DEFLECTION NOTES:

RELEASE DEFLECTION EQUALS THE DEFLECTION THAT THE PRESTRESSED GIRDER UNDERGOES AT THE TIME OF STRAND RELEASE. THE RELEASE DEFLECTION INCLUDES THE DEAD LOAD OF THE GIRDER AND THE RELEASE PRESTRESSING FORCE (INCLUDING THE EFFECTS OF ELASTIC SHORTENING).

INITIAL DEFLECTION EQUALS THE TOTAL DEFLECTION AT THE TIME OF ERECTION, PRIOR TO THE DIAPHRAGM AND DECK POURS. THE INITIAL DEFLECTION INCLUDES THE DEFLECTION DUE TO THE DEAD LOAD OF THE GIRDER, THE INITIAL PRESTRESSING AND THE EFFECTS OF CREEP UP TO THE TIME OF ERECTION, (ASSUMED TO BE 60 DAYS AFTER RELEASE).

FINAL DEFLECTION EQUALS THE DEFLECTION DUE TO THE DEAD LOAD OF THE DECK SLAB, DIAPHRAGMS, AND BARRIERS AND THE EFFECTS OF LONG TERM CREEP ON THE COMPOSITE GIRDERS.

RELEASE AND INITIAL DEFLECTIONS SHALL BE MEASURED AT MIDSPAN FOR EACH GIRDER AND THE DATA PROVIDED TO THE ENGINEER FOR EVALUATION.

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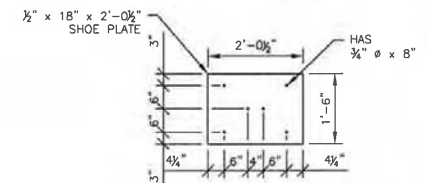
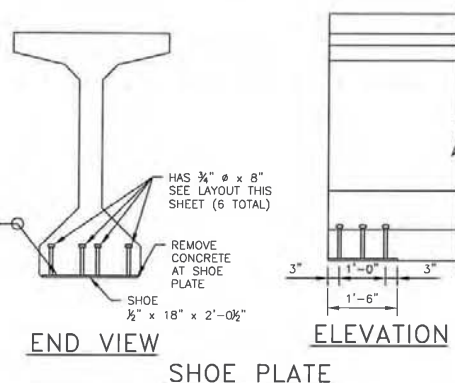
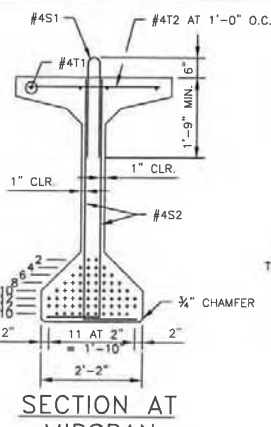
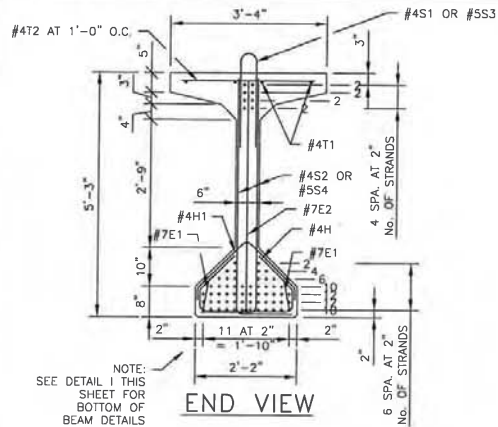
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**SAN JUAN COUNTY**  
NEW MEXICO  
SINCE 1897  
Public Works Department

**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER GALEGOS WASH  
BRIDGE NO. 9586

**FRAMING PLAN, RAILING POST & GIRDER DEFLECTIONS**

SHEET NO. 5-14

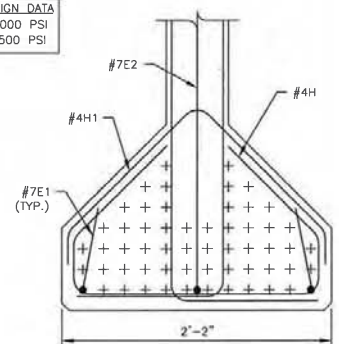


SHOE PLATE DETAIL

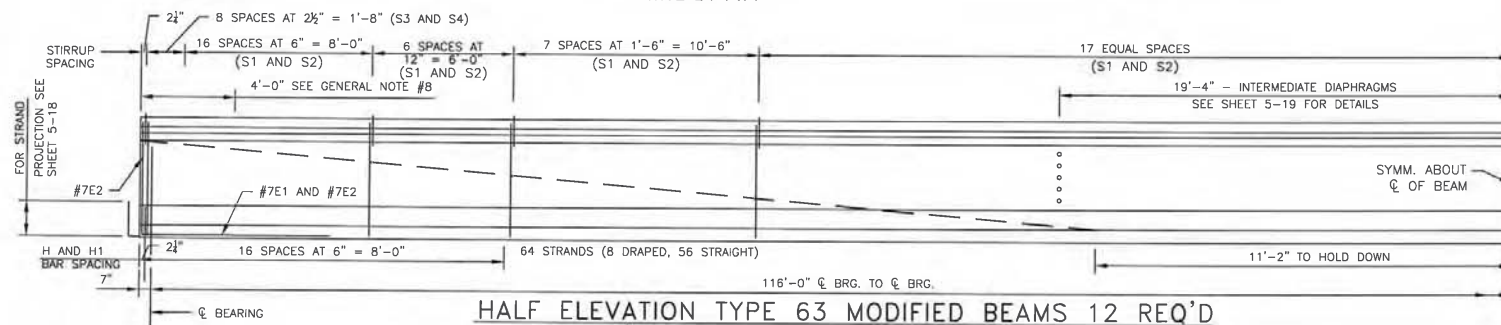
WEIGHT	CAMBER AT RELEASE	CAMBER AT ERECTION	LONG-TERM DEFLECTION
54.2 TONS	2.72 in.	4.82 in.	1.492 in.

BEAM DATA

BEAM DESIGN DATA
f'ci = 8,000 PSI
f'c = 9,500 PSI

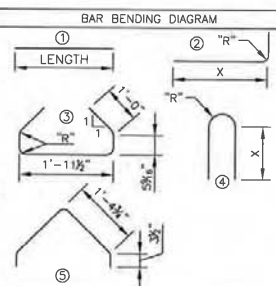


DETAIL I



HALF ELEVATION TYPE 63 MODIFIED BEAMS 12 REQ'D  
(fpe = 30,982 LBS. PER STRAND; LOSSES = 5,413 LBS. PER STRAND)

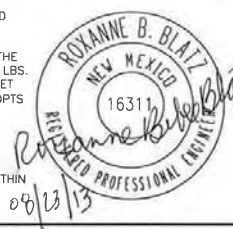
BAR	TYPE	SIZE	"R"	"X"	LENGTH	NO. REQ'D
E1	(2)	#7	3 3/8"	8'-0"	8'-8"	4
E2	(2)	#7	3 3/8"	4'-11"	12'-11"	2
S1	(4)	#4	1 3/4"	2'-1"	4'-9"	91
S2	(2)	#4	1 3/4"	4'-11"	5'-11"	182
H1	(5)	#4	1 3/4"	---	4'-10"	34
H1	(5)	#4	1 3/4"	---	3'-3 1/2"	34
T1	(1)	#4	---	---	60'-0"	8
T2	(1)	#4	---	---	3'-1"	117
S3	(4)	#5	1 3/4"	2'-1"	4'-9"	18
S4	(2)	#5	1 3/4"	4'-11"	5'-11"	36



REINFORCING BARS REQ'D FOR ONE BEAM

GENERAL NOTES

- COST OF REINFORCING BARS AND STRUCTURAL STEEL EMBEDDED IN BRIDGE BEAMS IS TO BE INCLUDED IN THE UNIT PRICE BID FOR PRESTRESSED CONCRETE BRIDGE MEMBER TYPE 63 MODIFIED.
- BEAMS TO BE LIFTED BY MEANS OF DEVICES SATISFACTORY TO THE FABRICATOR. BEAMS TO BE CAST, STORED, AND HAULED IN UPRIGHT POSITION. LIFTING DEVICES MUST BE APPROVED BY THE ENGINEER PRIOR TO USE.
- THE TOP SURFACES OF THE BEAMS ARE TO BE THOROUGHLY WIRE BRUSHED AND SCORED TRANSVERSELY AFTER INITIAL SET (MIN. DEPTH = 1/4" ACROSS ENTIRE FLANGE WIDTH).
- THE CAMBER AT ERECTION DIMENSION LISTED IS THE CALCULATED VALUE DUE TO THE EFFECT OF PRESTRESSING WITH THE WEIGHT OF THE BEAM ACTING, WITH AN ALLOWANCE FOR CAMBER GROWTH TO 90 DAYS. THE CONTRACTOR SHALL LIMIT THE CAMBER GROWTH TO A VALUE NOT TO EXCEED THE PREDICTED CAMBER AT ERECTION DIMENSION BY 1 INCH AT THE TIME OF DECK SLAB PLACEMENT. CAMBER GROWTH IS TO BE LIMITED BY WEIGHTING, FABRICATION SCHEDULING OR OTHER APPROVED MEANS.
- DEAD LOAD DEFLECTION IS THE COMPUTED DEFLECTION DUE TO WEIGHT OF SLAB, DIAPHRAGMS, AND SUPERIMPOSED DEAD LOAD.
- THE DESIGN SHOWN IS BASED ON THE USE OF 1/2" DIAMETER LOW-RELAXATION STRANDS MEETING THE REQUIREMENTS OF AASHTO M-203 (GRADE 270). INITIAL PRESTRESSING FORCE SHALL BE 30,982 LBS. PER STRAND. SLIGHT OVERSTRESSING UP TO 33,000 LBS. PER STRAND WILL BE ALLOWED TO OFFSET SEATING LOSSES. THE DESIGN IS BASED ON 1/2" STRAND. IF THE CONTRACTOR OF FABRICATOR OPTS TO USE 0.6" STRANDS THEY SHALL SUBMIT TO THE ENGINEER, THE DESIGN, NEW DEFLECTIONS, AND SCREED ELEVATIONS FOR VERIFICATION PRIOR TO CASTING.
- SHOE PLATES MUST BE STRAIGHTENED PRIOR TO CASTING INTO BEAM.
- REINFORCING BARS PROJECTING FROM THE TOP OF THE GIRDER AND ALL REINFORCING LOCATED WITHIN FOUR FEET OF GIRDER ENDS SHALL BE UNCOATED CORROSION RESISTANT STEEL.



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Public Works Department

**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER CALLEGOS WASH  
BRIDGE NO. 9586

**GIRDER DETAILS - TYPE 63 MODIFIED**

PRESTRESSED CONCRETE MEMBER SPECIFICATION MODIFICATIONS

ALL PROVISIONS OF 518 – PRESTRESSED CONCRETE MEMBERS OF THE NEW MEXICO DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATION SHALL APPLY EXCEPT AS MODIFIED BELOW.

518.3.5.1 WORKING DRAWINGS (PRESTRESSED CONCRETE MEMBER)  
THE CONTRACTOR SHALL FURNISH WORKING DRAWINGS IN CONFORMITY WITH SUBSECTION 105.2 "PLANS AND WORKING DRAWINGS" FOR ALL PRESTRESSED CONCRETE MEMBERS. THE WORKING DRAWINGS THAT ARE SUBMITTED TO THE NMDOT SHALL CONTAIN THE ENDORSEMENT SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW MEXICO AND WITH 5 YEARS EXPERIENCE WITH PRESTRESSED CONCRETE MEMBER. NMDOT REVIEW OF THE WORKING DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR ADEQUACY OF THE PRESTRESSED MEMBERS. THE CONTRACTOR SHALL SUBMIT SUPPORTING CALCULATIONS FOR THE WORKING DRAWINGS. THE NMDOT WILL REVIEW THE INITIAL SUBMITTAL WITHIN 30 CALENDAR DAYS. ANY RE-SUBMITTALS WILL BE REVIEWED WITHIN 14 CALENDAR DAYS.

THE WORKING DRAWINGS SHALL INCLUDE THE FOLLOWING:

- 1) ALL UNIT DIMENSIONS.
- 2) LOCATION, SIZE, AND TYPE OF PRESTRESS STRANDS
- 3) INITIAL AND FINAL JACKING FORCES.
- 4) LOCATION, DESCRIPTION, AND DETAIL OF STRUCTURAL REINFORCING ITEMS.
- 5) LOCATION OF ALL HOLD-DOWN DEVICES.
- 6) LOCATION AND SHOP DRAWINGS OF ALL STEEL ITEMS. SHOP DRAWINGS SHALL BE PER AASHTO/NSBA G1.3, SHOP DRAWINGS PRESENTATION GUIDELINES.
- 7) DETAILS FOR STEEL DIAPHRAGM CONNECTIONS.
- 8) BLOCKOUT AND KEYWAY DIMENSIONS, IF ANY.
- 9) LOCATIONS AND DETAILS OF DEBONDED STRANDS.
- 10) REBAR SCHEDULE PER ACI DETAILING MANUAL SP-66
- 11) FRAMING PLAN WITH THE FABRICATORS MARK NUMBERS.
- 12) EMBEDS FOR OVERHANG BRACKETS AND PERMANENT STEEL DECK FORMS.
- 13) STRESSES IN THE TOP AND BOTTOM OF THE PRE-STRESSED CONCRETE MEMBERS DURING DETENSIONING OF THE STRANDS.
- 14) THE PREDICTED GIRDER SHORTENING, CAMBER AT RELEASE, AND CAMBER AT 90 DAYS.
- 15) DETAIL DRAWINGS, WRITTEN PROCEDURES, AND CALCULATIONS FOR ANY SPECIAL DESIGN SUCH AS CAMBER CONTROL USING PRESTRESSING TOP STRANDS.

518.3.5.2 NOTIFICATION OF FABRICATION FOR PRESTRESSED CONCRETE MEMBERS.

- A) START OF WORK. PRIOR TO BEGINNING THE WORK, THE CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE QUALITY ASSURANCE (QA) REPRESENTATIVE, AS DEFINED IN SUBSECTION 518.3.5.3, SO THAT QA SERVICES MAY BE PROVIDED. THE WRITTEN NOTICE SHALL BE RECEIVED AT LEAST SEVEN DAYS BEFORE FABRICATION BEGINS.  
  
THE ANTICIPATED PRODUCTION SCHEDULE, INCLUDING THE START OF WORK, PHASE WORK AND SHIPMENT DATES SHALL BE SUBMITTED IN WRITING TO THE QA REPRESENTATIVE BEFORE ANY WORK BEGINS. FABRICATION SHALL NOT BE STARTED UNTIL THE WORKING DRAWINGS SUBMITTAL HAVE BEEN RETURNED WITH THE NMDOT ENGINEER'S REVIEW STAMP, INDICATING REVIEWED, NO EXCEPTION TAKEN; OR REVIEWED, REVISE AS NOTED, AND DELIVERED TO THE CONTRACTOR'S SITE OF FABRICATION.
- B) PRODUCTION SCHEDULE CHANGES. ACCELERATED CHANGES TO THE PROPOSED PRODUCTION SCHEDULE, INCLUDING START OF WORK, PHASE WORK, AND SHIPMENT DATES, SHALL REQUIRE ADVANCE WRITTEN NOTIFICATION BE PROVIDED TO THE QA REPRESENTATIVE. THE WRITTEN NOTICE OF CHANGE SHALL BE RECEIVED AT LEAST 48 HOURS BEFORE FABRICATION BEGINS, UNLESS OTHERWISE APPROVED IN WRITING BY THE QA REPRESENTATIVE.
- C) NOTICE OF SHIPMENT. THE QA REPRESENTATIVE SHALL BE NOTIFIED IN WRITING, AT LEAST 72 HOURS BEFORE SHIPMENT OF PRESTRESSED MEMBERS TO THE JOB SITE.
- D) NOTIFICATION. FAILURE TO NOTIFY THE DESIGNATED QA REPRESENTATIVE AS DESCRIBED IN THIS SECTION MAY BE CAUSE FOR REJECTION.

518.3.5.3 INSPECTION OF PRESTRESSED CONCRETE MEMBERS.

- A) QUALITY CONTROL AND QUALITY ASSURANCE. QUALITY CONTROL (QC) OF PRESTRESSED CONCRETE FABRICATION IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL DESIGNATE A QC MANAGER WHO SHALL BE RESPONSIBLE FOR PRODUCT QUALITY REQUIREMENTS AS DEFINED IN THE SPECIFICATIONS AND THE CONTRACTOR'S APPROVED QC PLAN (QCP). THE QC MANAGER SHALL POSSESS AND MAINTAIN CERTIFICATION AT LEVEL II MINIMUM, FORM THE PRESTRESSED CONCRETE INSTITUTE (PCI), AND SHALL HAVE ONE YEAR MINIMUM OF CONSTRUCTION RELATED EXPERIENCE. THE QC MANAGER SHALL NOT BE SUPERVISED BY THE CONTRACTOR'S PRODUCTION SECTION.

QUALITY ASSURANCE AND PRODUCTION ACCEPTANCE ARE THE PREROGATIVES OF THE NMDOT. THE DEPARTMENT'S INSPECTOR WILL BE THE QA REPRESENTATIVE AND ACTS FOR AND ON BEHALF OF THE NMDOT ON ALL MATTERS WITHIN THE SCOPE OF THE CONTRACT DOCUMENTS. QA ADMINISTRATION WILL BE PERFORMED TO THE EXTENT NECESSARY TO ASSURE CONTRACT COMPLIANCE.

REPEATED OUT OF TOLERANCE WORK, INCLUDING DIMENSIONAL NON-CONFORMANCE, SHALL BE CONSIDERED RECURRING DEFICIENCIES. RECURRING DEFICIENCIES SHALL BE CONSIDERED AS EVIDENCE THAT REQUIRED QC IS NOT BEING PROVIDED. WHEN THE QA REPRESENTATIVE DETERMINES THAT FABRICATION OPERATIONS ARE PRODUCING RECURRING DEFECTS THAT DO NOT CONFORM TO THE CONTRACT AND THE QCP REQUIREMENTS, THE CONTRACTOR WILL BE NOTIFIED THAT THE PRESENT WORK IS UNACCEPTABLE. WORK SHALL NOT CONTINUE UNTIL THE QC MANAGER HAS SUBMITTED A WRITTEN PROPOSAL ADDRESSING CORRECTIVE PROCEDURES THAT THE CONTRACTOR WILL TAKE TO PREVENT RECURRENCE OF THE NON CONFORMING WORK. FABRICATION SHALL NOT RESUME UNTIL THE PROPOSAL HAS BEEN REVIEWED AND ACCEPTED IN WRITING BY THE QA REPRESENTATIVE.

- B) QUALITY CONTROL PLAN (QCP). THE CONTRACTOR SHALL SUBMIT A WRITTEN QCP TO THE QA REPRESENTATIVE PRIOR TO THE BEGINNING OF FABRICATION. THE QCP SHALL BE REVIEWED AND APPROVED IN WRITING BY THE CONTRACTOR'S QC MANAGER. THE QCP SHALL LIST ALL METHODS UTILIZED BY THE CONTRACTOR TO ENSURE THAT THE WORK CONFORMS TO CONTRACT REQUIREMENTS. THE QC SECTION IS RESPONSIBLE FOR ESTABLISHING THE QCP, AS WELL AS CONFORMANCE TO THE QCP. FABRICATION SHALL NOT BEGIN UNTIL THE QCP HAS BEEN REVIEWED AND ACCEPTED IN WRITING BY THE QA REPRESENTATIVE.

IF WORK METHODS FOR A SPECIFIC PROJECT OR PRODUCT ARE NOT LISTED IN THE ORIGINAL QCP, THE CONTRACTOR SHALL SUBMIT WRITTEN ADDENDA ADDRESSING THE PROPOSED METHODS THAT ARE NECESSARY TO MEET CONTRACT REQUIREMENTS. FABRICATION SHALL BEGIN UNTIL THE ADDENDA HAVE BEEN REVIEWED AND ACCEPTED IN WRITING BY THE QA REPRESENTATIVE.

THE QCP SHALL ADDRESS THE FOLLOWING.

- 1) NAMES AND QUALIFICATIONS OF THE QC MANAGER AND PERSONNEL CONDUCTING INSPECTION AND TESTING. THIS LIST SHALL BE UPDATED WHEN CHANGES IN PERSONNEL OCCUR. COPIES OF THE TRAINING CERTIFICATES OF THE PERSONNEL CONDUCTING INSPECTION AND TESTING SHALL BE SUBMITTED TO QA REPRESENTATIVE.
- 2) LIST OF MATERIAL SUPPLIERS AND CERTIFIED TESTING LABORATORIES USED; THE LIST SHALL BE UPDATED WHEN VENDORS CHANGE.
- 3) MATERIALS SAMPLING AND TESTING SCHEDULE, SHOWING TESTING METHODS AND FREQUENCIES.
- 4) QC INSPECTION METHODS AND PROCEDURES FOR ALL STAGES OF FABRICATION OPERATIONS.
- 5) METHODS FOR CURING PRODUCTS AND TESTING SPECIMENS.
- 6) METHOD AND SEQUENCE FOR TENSIONING STRANDS, INCLUDING METHODS USED FOR VERIFYING EQUAL DISTRIBUTION OF JACKING FORCES.

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Albuquerque, New Mexico 87110  
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NO.	DESCRIPTION	DATE	BY

SAN JUAN COUNTY  
Public Works Department

MILITARY BRIDGE REPLACEMENT  
CR 7150 OVER GALLEGOS WASH  
BRIDGE NO. 9586

PRESTRESSED CONCRETE  
GIRDER NOTES

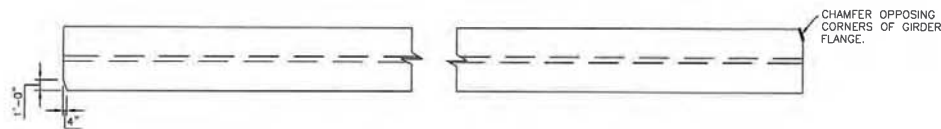
SHEET NO. 5-16

DESIGNED BY: XXX DRAWN BY: XXX CHECKED BY: XXX



## PRESTRESSED CONCRETE MEMBER SPECIFICATION MODIFICATIONS (CONT'D)

- 7) METHOD SEQUENCE OF DETENSIONING STRANDS.
- 8) WRITTEN REPORT FORMAT FOR MATERIALS SAMPLING, TESTING, AND INSPECTION FOR ALL PHASES OF THE WORK.
- 9) COPIES OF ALL CONCRETE MIX DESIGN TO BE USED, INCLUDING MIX DESIGN COMPUTATIONS AND TEST DATA.
- 10) PROVISIONS FOR FABRICATION OPERATIONS DURING COLD, WINDY, OR HOT WEATHER CONDITIONS.
- 11) PROCEDURES FOR PATCHING SMALL PRODUCTION HOLES AND HOLES LEFT BY STRAND HOLD-DOWN DEVICES.
- 12) PROCEDURES FOR IDENTIFYING, EVALUATING AND REPORTING DEFECTS, INCLUDING DIMENSIONAL NON-CONFORMANCE, DISCOVERED DURING QC/QA INSPECTIONS AND TESTING.
- 13) PROCEDURES FOR NOTIFYING THE QA REPRESENTATIVE AND THE STATE BRIDGE ENGINEER OF STRUCTURAL DEFECTS, AND SUBMITTAL OF WRITTEN PROPOSAL FOR REPAIRS
- C) FREQUENCY. QC INSPECTION AND TESTING AT ALL INTERVALS OF FORMING, TENSIONING, STEEL AND CONCRETE PLACEMENT, CURING, AND STORAGE OPERATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE ACCEPTED QCP AND CONTRACT REQUIREMENTS. THE QCP SHALL CONTAIN PROVISIONS FOR INCREASED FREQUENCIES OF INSPECTION AND TESTING WHEN OPERATIONS OR PRODUCTS DO NOT CONFORM TO THE CONTRACT.
- D) WRITTEN RECORDS AND REPORTS. THE QC MANAGER SHALL REVIEW AND SUBMIT THE FOLLOWING COMPLETED RECORDS AND REPORTS TO THE QA REPRESENTATIVE BEFORE THE PRODUCT RECEIVES ACCEPTANCE BY THE QC SECTION.
  - 1) PRESTRESSED STEEL - TENSIONING REPORTS FOR EACH SETUP, SHOWING THE JACKING FORCE CALCULATIONS; INITIAL AND FINAL JACKING FORCE USED; CALCULATED AND FINAL NET MEASURED ELONGATION; APPLICABLE STRESSING CORRECTIONS FOR SEATING, SLIPPAGE, SHORTENING, ROTATION MOVEMENT, AND TEMPERATURE; CERTIFIED MILL TEST REPORTS FOR PRESTRESSED STEEL USED.
  - 2) CONCRETE - A DAILY REPORT OF EACH MIX DESIGN USED, SHOWING THE FRESH CONCRETE SLUMP, TEMPERATURE, UNIT WEIGHT, AND AIR CONTENT (IF SPECIFIED). THE DAILY REPORT SHALL ALSO INCLUDE THE FOLLOWING DATA:
    - a) DATE AND TIME OF CASTING
    - b) BED AND SETUP LOCATIONS
    - c) AMBIENT CONDITIONS
    - d) TOTAL CUBIC YARDS PLACED
    - e) GIRDER MARK AND UNIQUE SUB-MARK IDENTIFICATIONS
    - f) ACTUAL PRODUCT CURING TEMPERATURE CHARTS OR GRAPHS
    - g) ACTUAL CURING ENCLOSURE HUMIDITY CHARTS OR GRAPHS
    - h) AVERAGE RELEASE STRENGTH IN PSI
    - i) DATE AND TIME OF RELEASE STRENGTH
    - j) COPIES OF INDIVIDUAL BATCH TICKETS WHEN REQUESTED BY THE QA REPRESENTATIVE
  - 3) PRE-POUR INSPECTION RECORDS SHALL INCLUDE THE ITEMS TO BE CHECKED AS LISTED IN THE QCP.
  - 4) POST-POUR INSPECTION RECORDS SHALL INCLUDE THE ITEMS TO BE CHECKED AS LISTED IN THE QCP. THESE RECORDS SHALL INCLUDE ALL DISCOVERED VARIANCES FROM PRODUCT DIMENSIONAL TOLERANCES.
  - 5) REPORT OF MINOR REPAIRS MADE TO EACH INDIVIDUAL PRODUCT.
  - 6) THE FOLLOWING WRITTEN RECORDS SHALL BE SUBMITTED TO THE QA REPRESENTATIVE BEFORE PRODUCT SHIPMENT:
    - a) LENGTH MEASUREMENT OF BEAMS WITHIN THREE DAYS PRIOR TO SHIPPING.
    - b) PRODUCT CAMBER MEASUREMENT WITHIN SEVEN DAYS PRIOR TO SHIPPING.
  - 7) STEEL AND METAL. FOR REINFORCING BARS, WELDED WIRE FABRIC, PLATE STEEL, AND MISCELLANEOUS STEEL AND METAL PRODUCTS ARE COVERED UNDER SECTION 540 STEEL REINFORCING AND SECTION 541 STEEL STRUCTURES.



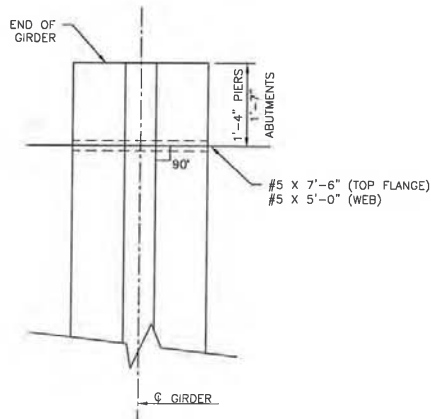
TOP FLANGE CHAMFER DETAIL

SCALE: NTS



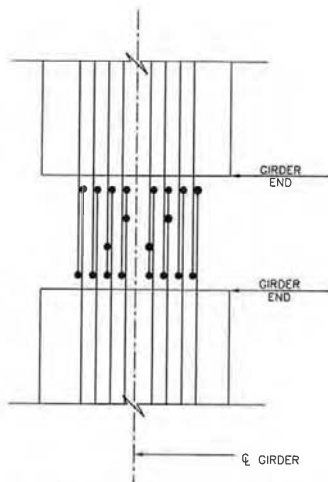
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REVISIONS			
<b>SAN JUAN COUNTY</b>		<b>SAN JUAN COUNTY</b>	
<b>NEW MEXICO</b>		<b>Public Works Department</b>	
<b>MILITARY BRIDGE REPLACEMENT</b>			
CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9586			
<b>PRESTRESSED CONCRETE GIRDER</b>			
<b>NOTES &amp; CHAMFER DETAIL</b>			
SHEET NO. 5-17			



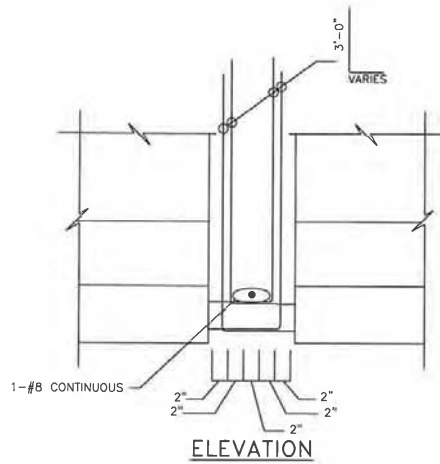


SECTION  
FORMED HOLE LOCATIONS AND  
REINFORCING AT GIRDER ENDS

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

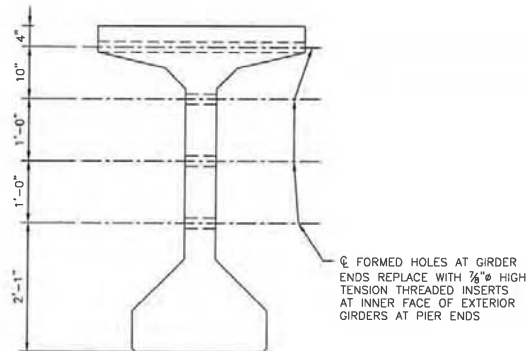


PLAN - EXTENDED STRANDS



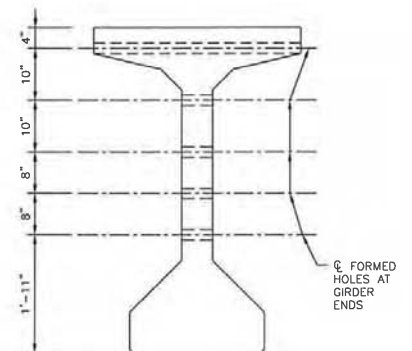
CONTINUITY CONNECTION DETAIL

NO SCALE



SECTION  
FORMED HOLE AND INSERT  
LOCATIONS FOR PIER  
DIAPHRAGM REINFORCEMENT

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



SECTION  
FORMED HOLE AND INSERT  
LOCATIONS FOR ABUTMENT  
DIAPHRAGM REINFORCEMENT

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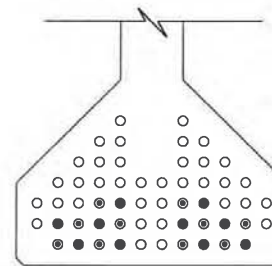
#### NOTES

1. INSERTS SHALL BE  $\frac{3}{4}$ " HIGH TENSION THREADED INSERTS.
2. FOR INSERT LOCATIONS FOR INTERMEDIATE DIAPHRAGMS, SEE SHEET 5-19.

#### KEY

- STRANDS CUT FLUSH WITH GIRDER END AND COATED WITH ASPHALTIC SEALANT
- EXTENDED STRANDS
- ⊙ EXTENDED STRANDS FOR OPPOSITE GIRDER

EXTEND 20 STRANDS AS SHOWN, 10 STRANDS AT EACH GIRDER END.

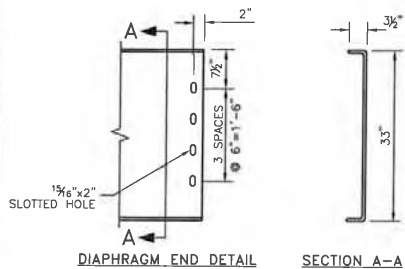


NOTE:  
AT EXTERIOR GIRDER FASCIA, BEND  
EXTENSION OF PRESTRESSED  
STRANDS TO MAINTAIN 2" CLEAR  
FROM FACE OF DIAPHRAGM

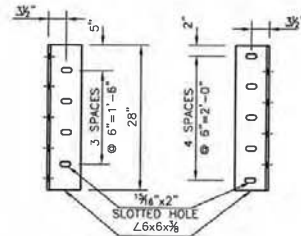


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<b>SAN JUAN COUNTY</b> Public Works Department			
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9586			
<b>MISCELLANEOUS GIRDER DETAILS</b>			
SHEET NO. 5-18			

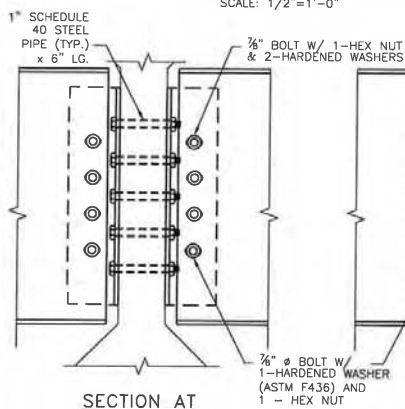
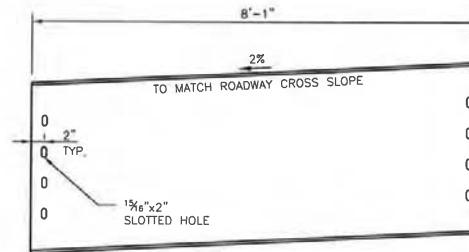
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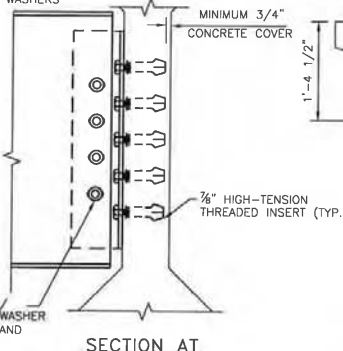
**3/8" BENT PLATE DIAPHRAGM**  
SCALE: 1/2"=1'-0"



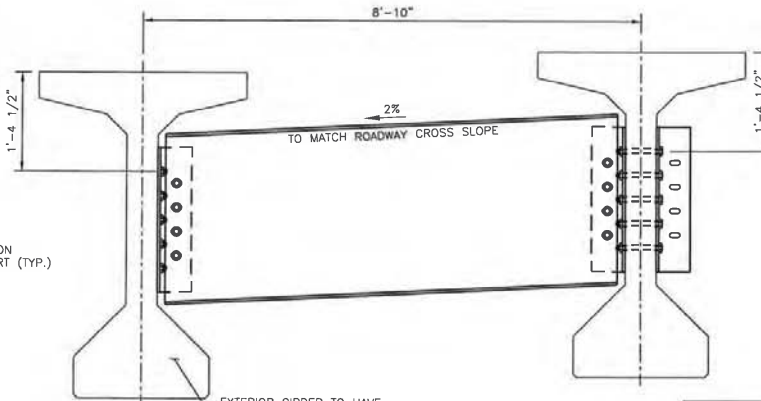
**CLIP ANGLES**  
SCALE: 1/2"=1'-0"



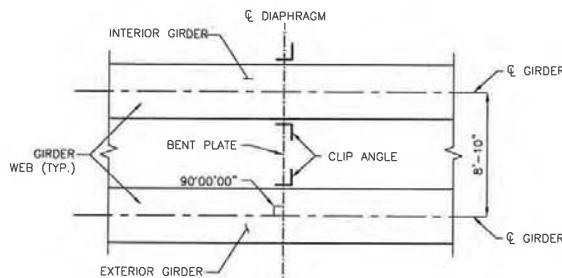
**SECTION AT INTERIOR GIRDER**  
SCALE: 1/2"=1'-0"



**SECTION AT EXTERIOR GIRDER**  
SCALE: 1/2"=1'-0"



**BENT PLATE DIAPHRAGM**  
SCALE: 1/2"=1'-0"



**BOLTED DIAPHRAGM PLACEMENT DETAILS**  
SCALE: NTS

**GENERAL NOTES:**

- ALL STRUCTURAL STEEL ELEMENTS IN THIS DETAIL SHALL BE COMPOSED OF WEATHERING STEEL CONFORMING TO AASHTO M 270, GRADE 50W, OR HOT DIPPED GALVANIZED STEEL CONFORMING TO AASHTO M 270, GRADE 36. IF WEATHERING STEEL IS USED, ALL ELEMENTS SHALL BE SAND BLASTED TO SSPC SP-6 AND WET PRIOR TO SHIPPING. PAINTING OF THESE ELEMENTS IS NOT REQUIRED.
- BOLTS SHALL MEET THE REQUIREMENTS OF ASTM A 307. IF WEATHERING STEEL IS USED FOR THIS DETAIL, TYPE 3 WEATHERING STEEL BOLTS SHALL BE USED. IF GALVANIZED STEEL ELEMENTS ARE USED, BOLTS SHALL BE GALVANIZED AS PER AASHTO M 298.
- THE VERTICAL DISTANCE BETWEEN ANY TWO HOLES OR INSERTS SHALL NOT VARY FROM THE SPECIFIED DISTANCE BY MORE THAN 1/16". ALSO, THE TOTAL LENGTH OF THE GROUP OF HOLES OR INSERTS SHALL NOT VARY FROM THE DESIGN LENGTH BY MORE THAN 1/16". THE PRESTRESSED GIRDER FABRICATOR SHALL TAKE APPROPRIATE MEASUREMENTS TO ENSURE PROPER PLACEMENT OF INSERTS DURING THE GIRDER FABRICATION PROCESS.
- CLIP ANGLES SHALL BE ATTACHED TO THE PRESTRESSED GIRDER AT THE GIRDER FABRICATION SITE PRIOR TO TRANSPORT. DIAPHRAGM INSTALLATION SHALL BE COMPLETED PRIOR TO DECK PLACEMENT.
- BENT PLATE DIAPHRAGMS AND CLIP ANGLES SHALL BE PAID FOR UNDER ITEM 541000, STRUCTURAL STEEL. BOLTS, NUTS, AND WASHERS ARE INCIDENTAL TO ITEM 541000 STRUCTURAL STEEL. THREADED EMBEDS AND PIPE EMBEDS ARE INCIDENTAL TO ITEM 518085.
- AT LOCATIONS WHERE STEEL IS BEING FASTENED TO CONCRETE, THE MAXIMUM INSTALLATION TENSION FOR THE BOLTS SHALL NOT EXCEED 10 KIPS. TESTS SHALL BE PERFORMED TO DETERMINE THE TORQUE NECESSARY TO ACHIEVE THE SPECIFIED INSTALLATION TENSION.
- SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL TO PROJECT MANAGER PRIOR TO FABRICATION. MATERIAL CERTIFICATION SHALL BE SUBMITTED TO PROJECT MANAGER FOR REVIEW AND APPROVAL FOR ALL MATERIALS.

PRESTRESSED CONCRETE GIRDER TYPE	DIAPHRAGM UNIT WT. (lb/ft)	CLIP ANGLE WT. (lb)	DIAPHRAGMS REQUIRED	LENGTH (ft)	CLIP ANGLES REQUIRED	TOTAL STEEL (lb)
TYPE 63 MODIFIED	51	35	18	8.083	36	8,700

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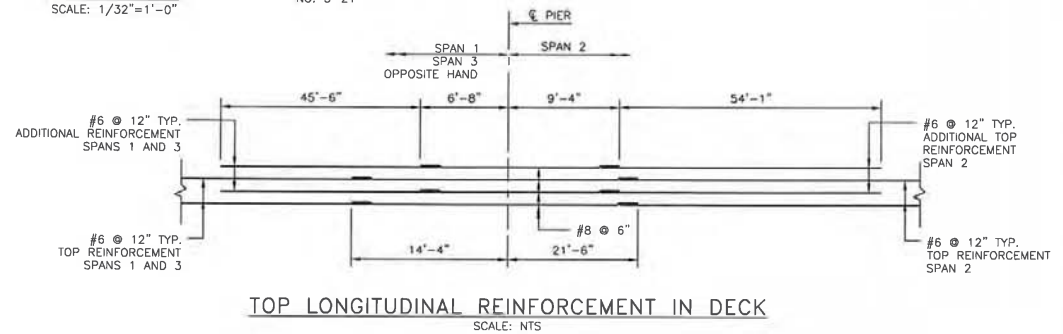
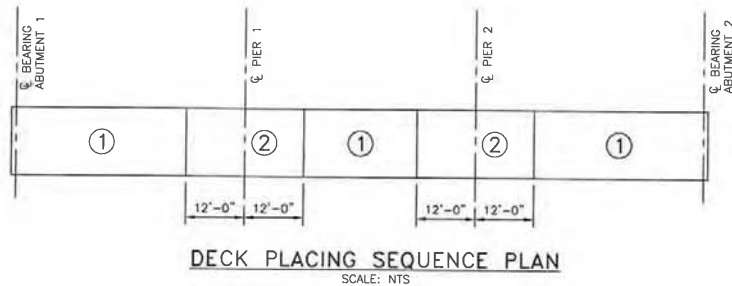
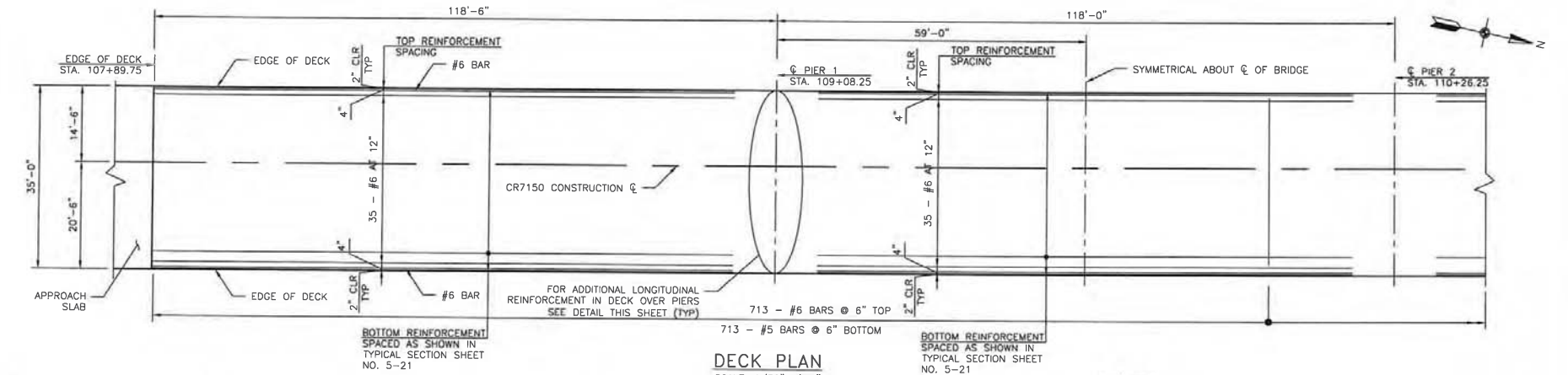
**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER CALLEGOS WASH  
BRIDGE NO. 9586

ROXANNE B. BLATZ  
NEW MEXICO  
16311  
REGISTERED PROFESSIONAL ENGINEER  
08/23/13

INTERMEDIATE DIAPHRAGM DETAILS

SHEET NO. 5-19

DESIGNED BY: RPV DRAWN BY: RPV CHECKED BY: RBB



#### DECK PLACING NOTES

1. ABUTMENT DIAPHRAGMS SHALL BE POURED PRIOR TO THE DECK POUR.
2. PIER DIAPHRAGMS SHALL BE POURED CONCURRENT WITH THE DECK POUR.
3. LONGITUDINAL CONSTRUCTION JOINTS SHALL NOT BE PERMITTED EXCEPT AS APPROVED BY THE ENGINEER.
4. TRANSVERSE CONSTRUCTION JOINTS SHALL BE LOCATED IN ACCORDANCE WITH THE "DECK PLACING SEQUENCE PLAN". THE NUMBERS INDICATE THE PLACING SEQUENCE. THE CONTRACTOR SHALL ALLOW A MINIMUM OF 24 HOURS BETWEEN ADJACENT POURS.
5. REINFORCING SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS.
6. CONSTRUCTION JOINTS SHALL BE CLEAN AND FREE OF LAITANCE PRIOR TO PLACING ADJACENT CONCRETE.
7. ALTERNATE POURING SEQUENCES REQUIRE THE ENGINEER'S APPROVAL AND SHALL BE AT NO ADDITIONAL COST TO THE COUNTY.

#### DECK REINFORCING BAR NOTES

1. ALL TRANSVERSE DECK BARS SHALL BE PLACED PERPENDICULAR TO THE GIRDERS. ALL LONGITUDINAL BARS SHALL BE PLACED PARALLEL TO THE GIRDERS.
2. ALL CONTINUOUS LONGITUDINAL BARS IN THE DECK SLAB MAY BE SPLICED WHERE REQUIRED WITH MINIMUM LAP LENGTHS AS FOLLOWS:  

#4 BARS = 2'-0"	#7 BARS = 3'-6"
#5 BARS = 2'-6"	#8 BARS = 4'-0"
#6 BARS = 3'-0"	#9 BARS = 4'-6"
3. BARS SHALL NOT BE SPLICED WITHIN THE REQUIRED LAP LENGTH OF THE ADJACENT BARS.

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Public Works Department

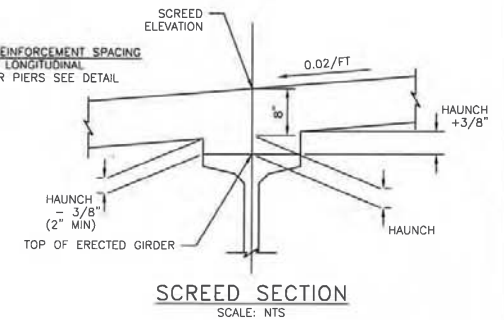
**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER GALLEGOS WASH  
BRIDGE NO. 9586

**DECK PLAN  
&  
DETAILS**

SHEET NO. 5-20

DESIGNED BY: RPV DRAWN BY: RPV CHECKED BY: RBB





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

		CE BEARING ABUT #1	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	CE PIER #1
SPAN 1	LEFT EDGE OF DECK	6155.12	6155.19	6155.26	6155.33	6155.38	6155.42	6155.45	6155.47	6155.47	6155.47	6155.47
	CE GIRDER #1	6155.20	6155.28	6155.35	6155.41	6155.47	6155.51	6155.53	6155.55	6155.56	6155.56	6155.55
	CE GIRDER #2	6155.38	6155.45	6155.53	6155.59	6155.64	6155.68	6155.71	6155.73	6155.74	6155.73	6155.73
	CONSTRUCTION CE	6155.41	6155.48	6155.55	6155.62	6155.67	6155.71	6155.74	6155.76	6155.76	6155.76	6155.76
	CE GIRDER #3	6155.55	6155.63	6155.70	6155.77	6155.82	6155.86	6155.89	6155.91	6155.91	6155.91	6155.91
	CE GIRDER #4	6155.73	6155.81	6155.88	6155.94	6156.00	6156.04	6156.07	6156.08	6156.09	6156.09	6156.08
	RIGHT EDGE OF DECK	6155.82	6155.89	6155.96	6156.03	6156.08	6156.12	6156.15	6156.17	6156.17	6156.17	6156.17

		☐ PIER #1	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	☐ PIER #2
SPAN 2	LEFT EDGE OF DECK	6155.47	6155.54	6155.61	6155.68	6155.73	6155.77	6155.80	6155.82	6155.83	6155.83	6155.82
	☐ GIRDER #1	6155.55	6155.63	6155.70	6155.76	6155.81	6155.85	6155.88	6155.90	6155.91	6155.91	6155.91
	☐ GIRDER #2	6155.73	6155.80	6155.87	6155.94	6155.99	6156.03	6156.06	6156.08	6156.09	6156.09	6156.08
	CONSTRUCTION ☐	6155.76	6155.83	6155.90	6155.97	6156.02	6156.06	6156.09	6156.11	6156.12	6156.12	6156.11
	☐ GIRDER #3	6155.91	6155.98	6156.05	6156.11	6156.17	6156.21	6156.24	6156.26	6156.26	6156.26	6156.26
	☐ GIRDER #4	6156.08	6156.16	6156.23	6156.29	6156.34	6156.39	6156.41	6156.43	6156.44	6156.44	6156.44
	RIGHT EDGE OF DECK	6156.17	6156.24	6156.31	6156.38	6156.43	6156.47	6156.50	6156.52	6156.53	6156.53	6156.53

		☐ PIER #2	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	☐ BEARING ASLT #2
SPAN 3	LEFT EDGE OF DECK	6155.82	6155.90	6155.97	6156.03	6156.09	6156.13	6156.16	6156.17	6156.18	6156.18	6156.17
	☐ GIRDER #1	6155.91	6155.98	6156.05	6156.12	6156.17	6156.21	6156.24	6156.26	6156.27	6156.27	6156.26
	☐ GIRDER #2	6156.08	6156.16	6156.23	6156.29	6156.35	6156.39	6156.42	6156.44	6156.44	6156.44	6156.44
	CONSTRUCTION	6156.11	6156.19	6156.26	6156.32	6156.38	6156.42	6156.45	6156.46	6156.47	6156.47	6156.46
	☐ GIRDER #3	6156.26	6156.34	6156.41	6156.47	6156.52	6156.57	6156.60	6156.61	6156.62	6156.62	6156.61
	☐ GIRDER #4	6156.44	6156.51	6156.58	6156.65	6156.70	6156.74	6156.77	6156.79	6156.80	6156.80	6156.79
	RIGHT EDGE OF DECK	6156.52	6156.60	6156.67	6156.73	6156.79	6156.83	6156.86	6156.87	6156.88	6156.88	6156.87

1. THE SCREED ELEVATIONS INCLUDE AN ALLOWANCE FOR DEFLECTION DUE TO THE DEAD LOAD OF THE CONCRETE DECK SLAB, DIAPHRAGMS, BARRIERS, AND THE EFFECT OF LONG-TERM CREEP AND PRESTRESS LOSS.

2. CONTRACTOR SHALL SET SCREED ELEVATIONS USING ELEVATIONS SHOWN IN THE TABLES ON THIS SHEET.
3. THE TOP OF ERECTED GIRDER ELEVATIONS SHALL BE MEASURED AND PROVIDED TO THE ENGINEER FOR VERIFICATION OF PREDICTED DEFLECTIONS PRIOR TO FORMING THE DECK.
4. THE HAUNCHES SHALL BE CALCULATED BASED ON THE MEASURED TOP OF ERECTED GIRDER ELEVATIONS. THE HAUNCH EQUALS (SCREED ELEVATION) MINUS (MEASURED ERECTED GIRDER ELEVATION) MINUS (DECK SLAB THICKNESS).

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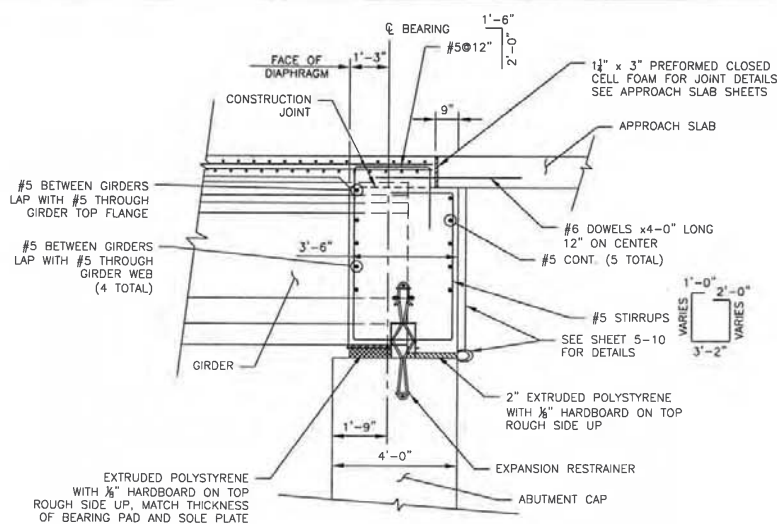
**SAN JUAN COUNTY**  
Public Works Department

**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER GALLEGOS WASH  
BRIDGE NO. 9586

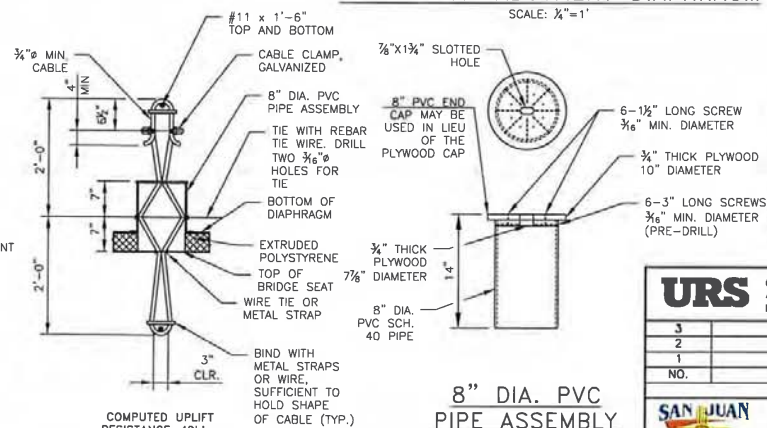
DECK SECTION  
&  
SCREED ELEVATIONS

SHEET NO. 5-21





SCALE:  $\frac{1}{4}"=1'$



SCALE:  $\frac{1}{4}"=1'$

NOT TO SCALE

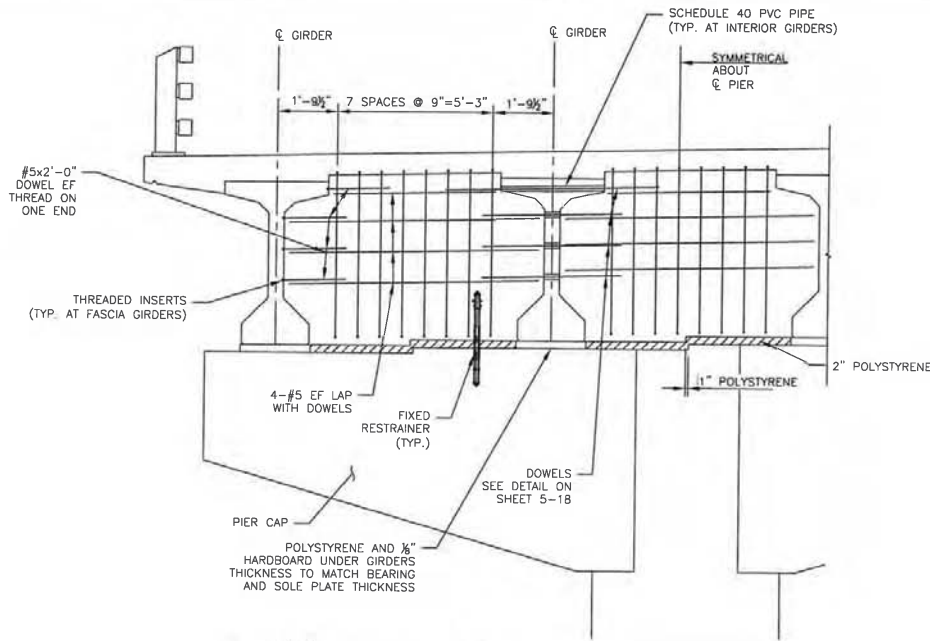
1. DEVICES SHALL BE SPACED BETWEEN GIRDERS AS SHOWN ON ABUTMENT SHEETS.
2. COST OF RESTRAINERS SHALL BE INCIDENTAL TO ITEMS REQUIRED FOR ABUTMENT CONSTRUCTION.

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**MILITARY BRIDGE REPLACEMENT**  
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## ABUTMENT DIAPHRAGMS

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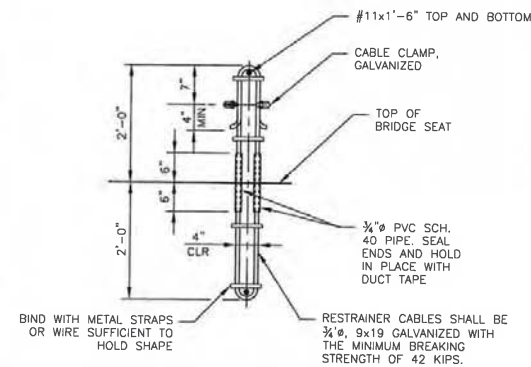


PARTIAL ELEVATION - DIAPHRAGM AT PIERS

SCALE:  $\frac{1}{4}''=1'$

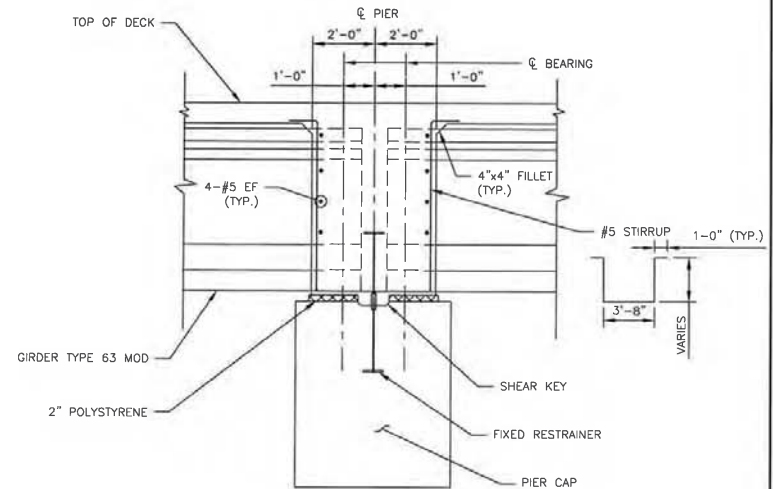
**RESTRAINER NOTES:**

1. DEVICES SHALL BE SPACED BETWEEN GIRDERS AS SHOWN ON PIER SHEETS.
2. COST OF RESTRAINERS SHALL BE INCIDENTAL TO ITEMS REQUIRED FOR PIER CONSTRUCTION.



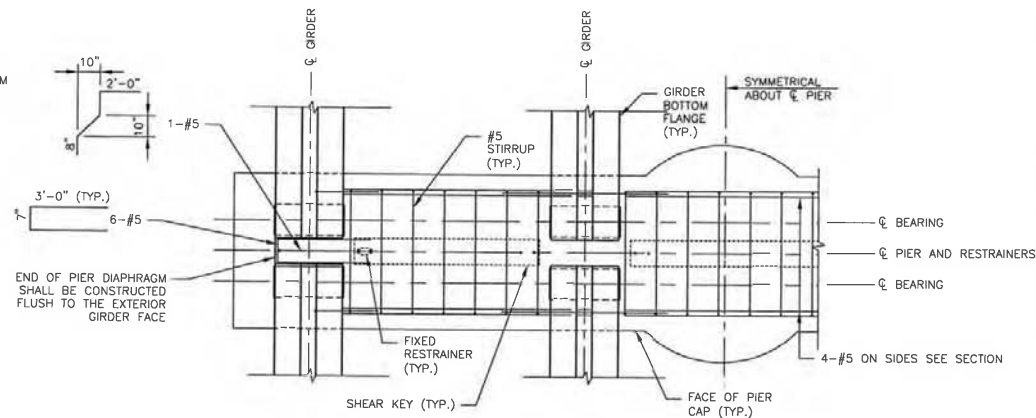
FIXED RESTRAINER DETAIL

NOT TO SCALE



SECTION AT PIER DIAPHRAGM


SCALE:  $\frac{1}{4}''=1'$



PARTIAL PLAN - PIER DIAPHRAGM

SCALE:  $\frac{1}{4}''=1'$



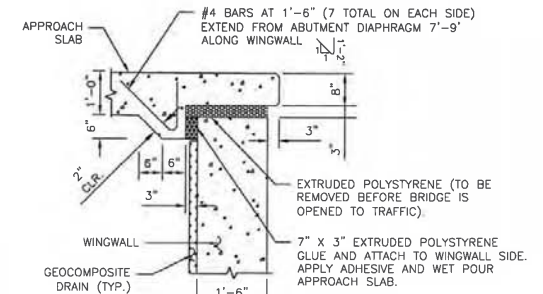
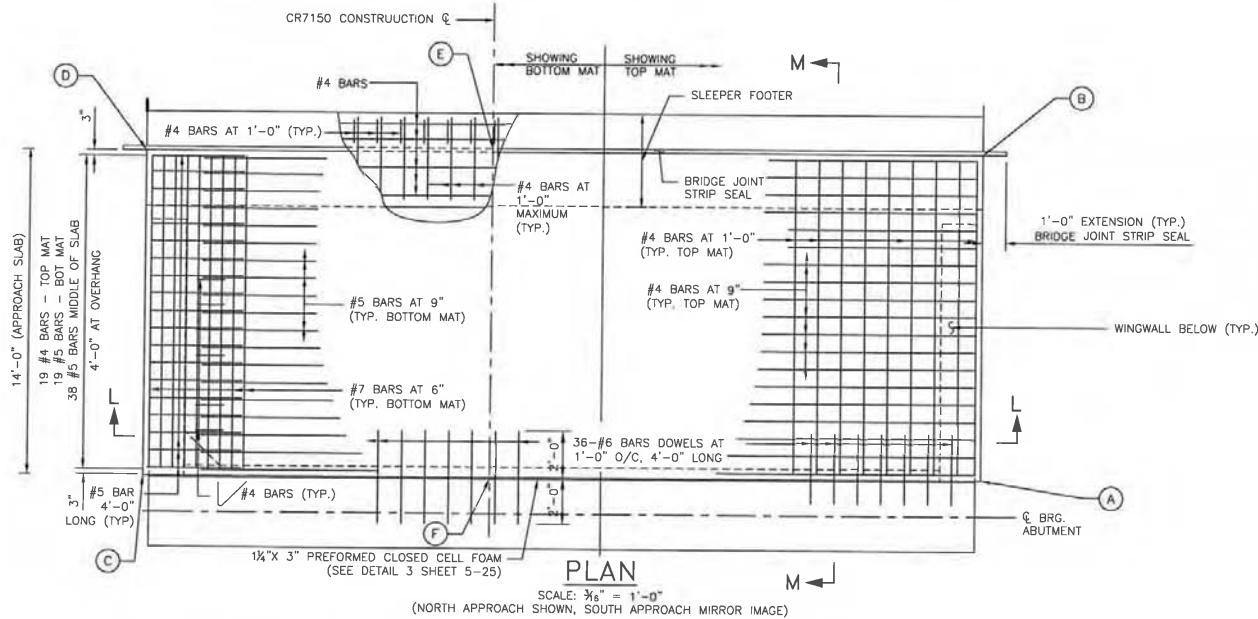
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<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9586			
<b>PIER DIAPHRAGMS</b>			
SHEET NO. 5-23			

DESIGNED BY: RPV DRAWN BY: RPV CHECKED BY: RBB

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APPROACH SLAB ELEVATION TABLE		
LOCATION	SOUTH APPROACH	NORTH APPROACH
A	6155.11	6156.17
B	6155.07	6156.22
C	6155.82	6156.88
D	6155.78	6156.93
E	6155.40	6156.47
F	6155.36	6156.51

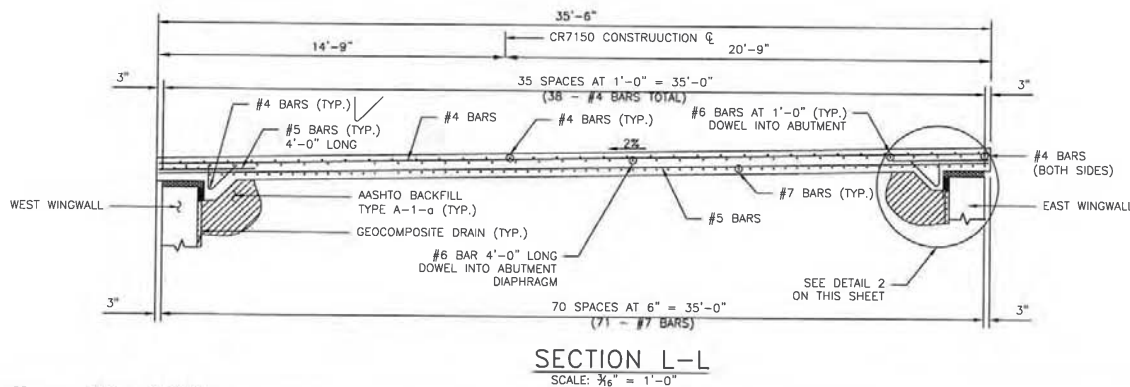
NOTE: FOR APPROACH ROADWAY  
RAILING SEE ROADWAY DRAWINGS



DETAIL 2  
SCALE: 3/8" = 1'-0"

NOTES:

1. CONCRETE FOR APPROACH SLABS AND SLEEPER FOOTERS SHALL BE HIGH PERFORMANCE CONCRETE (HPD).
2. DIMENSIONS ARE TO THE CENTERLINE OF BARS. ALL BARS ARE EPOXY COATED REINFORCING BARS GRADE 60.
3. THE PREFORMED CLOSED CELL FOAM BRIDGE JOINT SEALS BETWEEN APPROACH SLABS AND DECK SLAB (SEE DETAIL 3 ON SHEET 5-25 "APPROACH SLAB DETAILS") SHALL BE CONSIDERED INCIDENTAL AND INCLUDED IN THE UNIT BID PRICE FOR "ITEM No. 512003 - HIGH PERFORMANCE CONCRETE (HPD)".
4. TOP SURFACE OF THE ROADWAY SHALL MATCH APPROACH SLAB FINISHED GRADE.
5. TOP SURFACES OF THE APPROACH SLABS SHALL BE MACHINE GROOVED IN CONFORMANCE WITH SUBSECTION 512.3.10.3 (GROOVING OF HARDENED CONCRETE) OF THE STANDARD SPECIFICATIONS.
6. SEE SHEET 5-25 "APPROACH SLAB DETAILS" FOR SECTION M-M.



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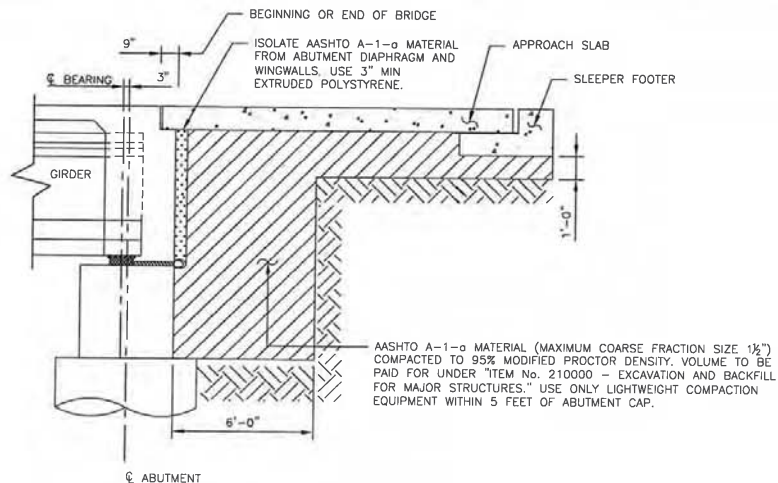
**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER GALLEGOS WASH  
BRIDGE NO. 9586

APPROACH SLAB PLAN

SHEET NO. 5-24

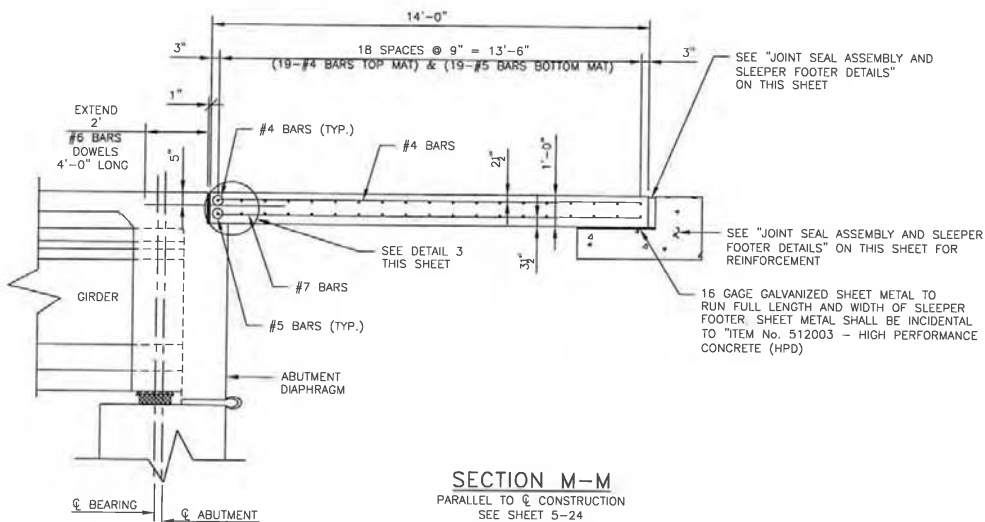
DESIGNED BY: RPV DRAWN BY: RPV CHECKED BY: RBB





ABUTMENT BACKFILL COMPACTION DETAIL

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

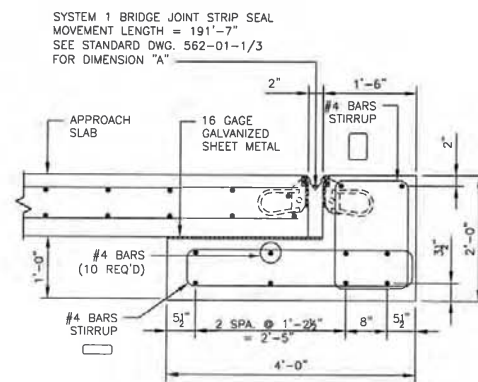


SECTION M-M

### PARALLEL TO $\mathbb{Q}_\ell$ CONSTRUCTION

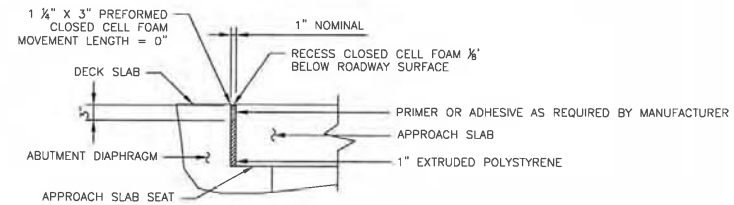
SEE SHEET 5-24

SCALE:  $\frac{1}{4}" = 1'-0"$



### JOINT SEAL ASSEMBLY AND SLEEPER FOOTER DETAILS

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



DETAIL 3

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

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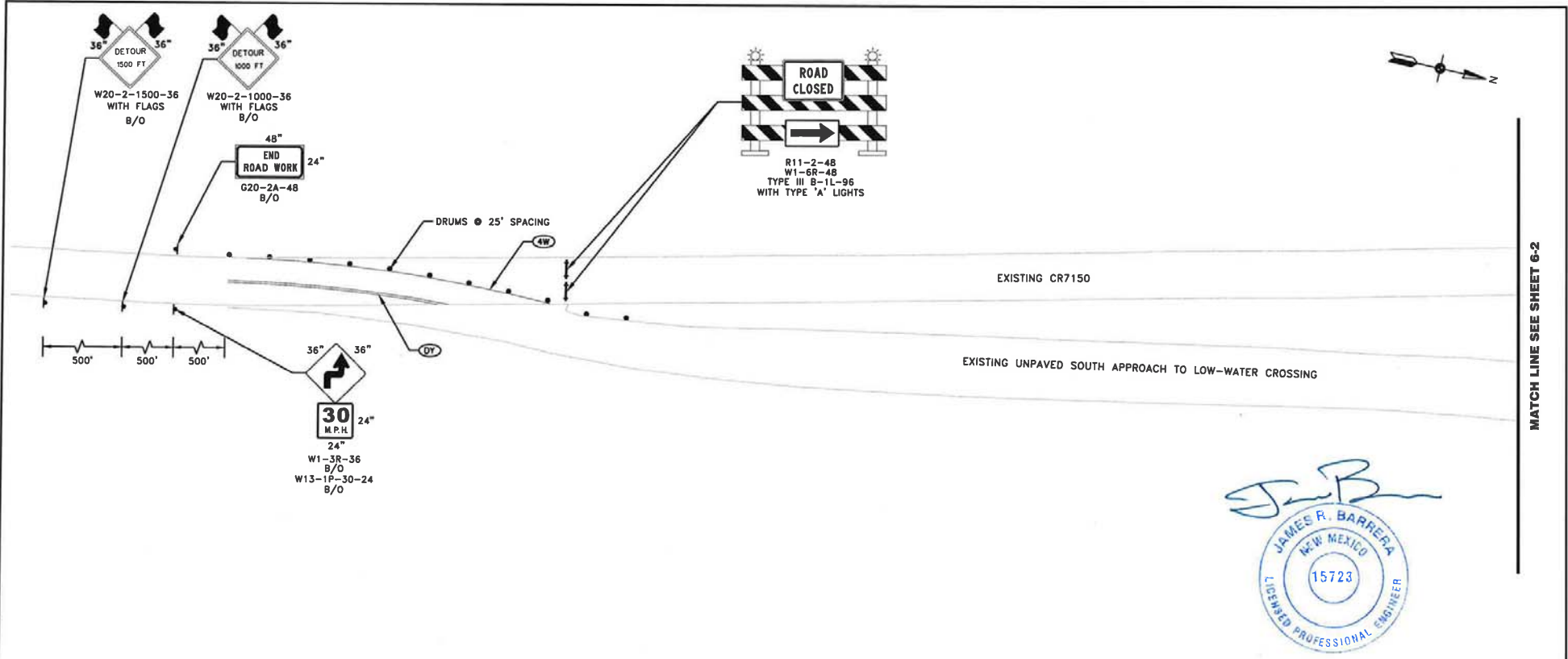
**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER GALLEGOS WASH  
BRIDGE NO. 9586

### APPROACH SLAB DETAILS

SHEET NO. 5-25

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MATCH LINE SEE SHEET 6-2

#### TRAFFIC CONTROL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE FHWA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, 2009 EDITION.
2. ALL TRAFFIC SIGN FACES SHALL CONFORM TO THE DIMENSIONS SHOWN IN THE FHWA HIGHWAY SIGNS 2004 EDITION, AND 2012 SUPPLEMENT.
3. ALL CONSTRUCTION SIGNS SHALL HAVE TYPE III, VII, VIII, OR IX RETROREFLECTIVE SHEETING.
4. THE CONTRACTOR SHALL ERADICATE ALL CONFLICTING STRIPING WHEN FINAL PERMANENT PAVEMENT MARKING IS REPLACED.

#### SYMBOL LEGEND FOR ALL 6-SERIES DRAWINGS

- DRUM
- TYPE III BARRICADE
- ← TRAFFIC FLOW ARROW
- ▲ SIGN
- DY DOUBLE 4" YELLOW PAVEMENT MARKING STRIPE
- 4W 4" WHITE PAVEMENT MARKING STRIPE

#### SEQUENCE OF CONSTRUCTION

1. PLACE CONSTRUCTION TRAFFIC CONTROL DEVICES AND ADVANCE SIGNING DESIGNATING THE LOW-WATER CROSSING AS THE PROJECT DETOUR ROUTE.
2. PLACE BARRICADES AND CLOSE EXISTING CR 7150 AND THE EXISTING BRIDGE. REROUTE TRAFFIC ONTO THE LOW-WATER CROSSING DETOUR ROUTE.
3. REMOVE THE EXISTING BRIDGE AND APPROACHES, CONSTRUCT NEW BRIDGE, ABUTMENT PROTECTION AND APPROACHES, AND PLACE FINAL SIGNING AND STRIPING.
4. REMOVE DETOUR TRAFFIC CONTROL DEVICES AND REROUTE TRAFFIC BACK ONTO CR 7150 ON THE NEW BRIDGE.



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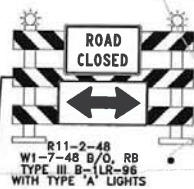
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<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9586			
<b>MAINTENANCE OF TRAFFIC</b>			

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MATCH LINE SEE SHEET 6-3

MATCH LINE STA 107+75 SEE SHEET 6-3



R11-2-48  
W1-7-48 B/O, RB  
TYPE III B-1LR-96  
WITH TYPE 'A' LIGHTS

DRUMS @ 25' SPACING

20 LF  
TEMPORARY CONCRETE  
WALL BARRIER (UNPINNED)

EXISTING CR7150



R11-2b-48  
W1-7-48 B/O, RB  
TYPE III B-1LR-96  
WITH TYPE 'A' LIGHTS

EXISTING UNPAVED SOUTH APPROACH TO LOW-WATER CROSSING



W24-NM-11-36

104+00.00

BOP 103+00

PC 105+64.387

106+00

PT 108+66.13

107+00



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**MILITARY BRIDGE REPLACEMENT**  
CR 7150 OVER GALLEGOS WASH  
BRIDGE NO. 9586

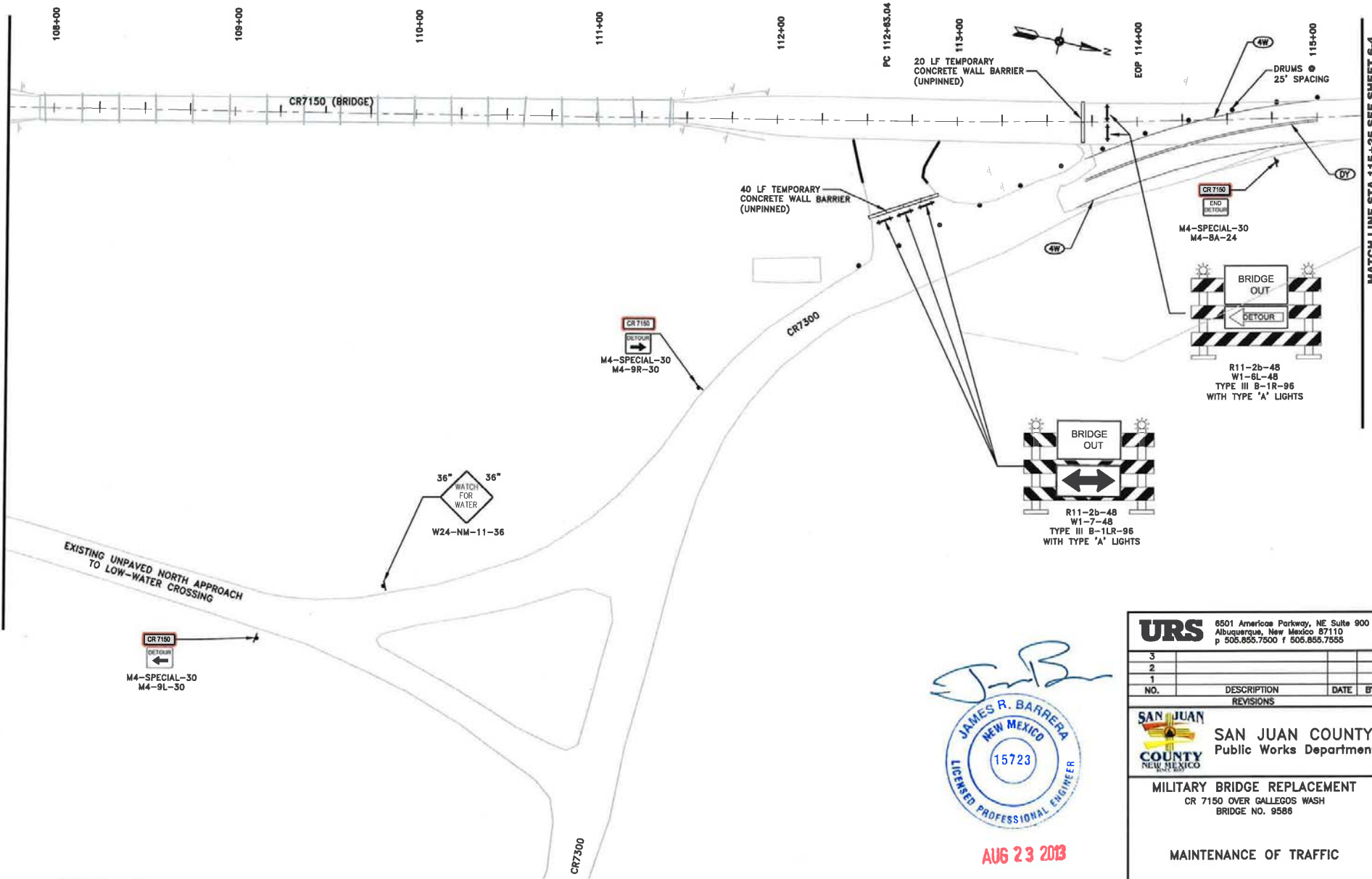
**MAINTENANCE OF TRAFFIC**

SHEET NO. 6-2

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MATCH LINE STA 107+75 SEE SHEET 6-2



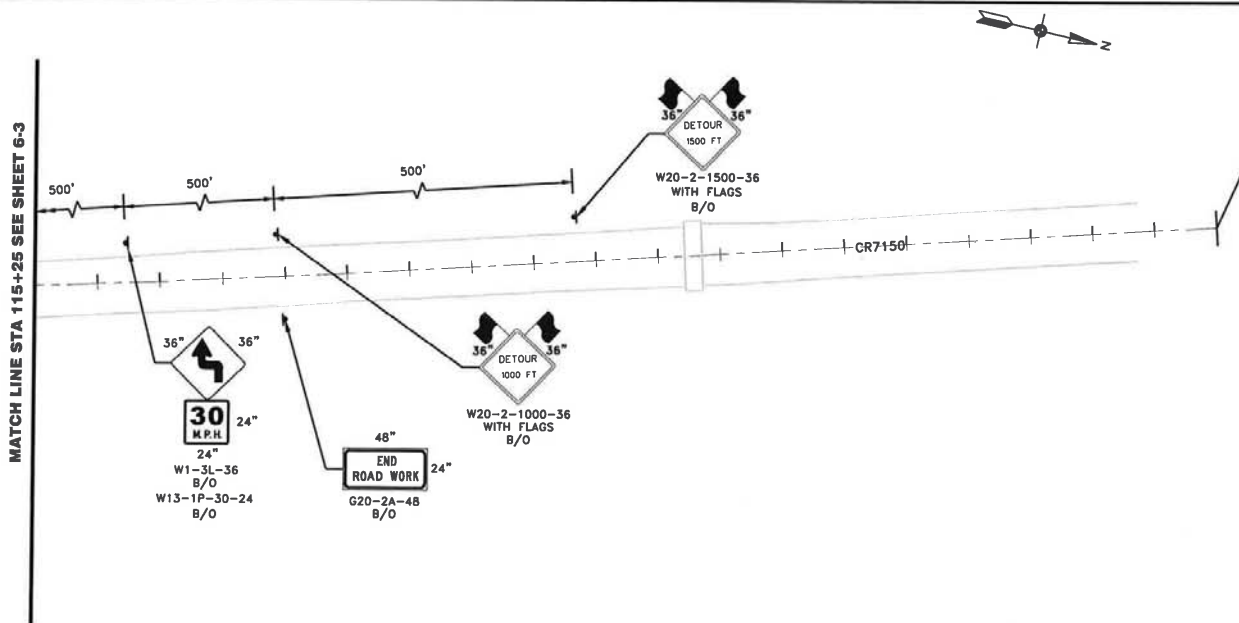
MATCH LINE STA 115+25 SEE SHEET 6-4




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MAINTENANCE OF TRAFFIC			
SHEET NO. 6-3			

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<b>MAINTENANCE OF TRAFFIC</b>			
SHEET NO. 6-4			

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# **PERMANENT SIGNING & STRIPING NOTES**

- ALL REGULATORY, WARNING, SPECIAL, AND GUIDE SIGNS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

SIGN	SIGN CODE	COLOR	LETTER SHEETING	BACKGROUND SHEETING
STOP	R1-1	(W/RED)	TYPE VIII OR IX	TYPE VIII OR IX
YIELD	R1-2	(W/RED)	TYPE VIII OR IX	TYPE VIII OR IX
DO NOT ENTER	R5-1	(W/RED)	TYPE VIII OR IX	TYPE VIII OR IX
WRONG WAY	R5-1a	(W/RED)	TYPE VIII OR IX	TYPE VIII OR IX
SCHOOL BUS SIGN	S3-1	(BLK/FLUORESCENT YELLOW GREEN)	TYPE VIII OR IX	TYPE VIII OR IX
SCHOOL BUS XING	S1-1	(BLK/FLUORESCENT YELLOW GREEN)	TYPE VIII OR IX	TYPE VIII OR IX
PEDESTRIAN XING	W11-2	(BLK/FLUORESCENT YELLOW GREEN)	TYPE VIII OR IX	TYPE VIII OR IX
BIKE XING	W11-1	(BLK/FLUORESCENT YELLOW GREEN)	TYPE VIII OR IX	TYPE VIII OR IX
ALL SCHOOL/PED/BIKE SUPPLEMENTAL PLAQUES		(BLK/FLUORESCENT YELLOW GREEN) WHEREVER BLK/YELLOW IS SPECIFIED AS COLOR IN MUTCD	TYPE VIII OR IX	TYPE VIII OR IX
ALL OTHER WARNING SIGNS & SUPPLEMENTAL PLAQUES		(BLK/FLUORESCENT YELLOW) WHEREVER BLK/YELLOW IS SPECIFIED AS COLOR IN MUTCD	TYPE VIII OR IX	TYPE VIII OR IX
GUIDE & DESTINATION SIGNS INCLUDE EXTRUDED & NON-EXTRUDED (OVERHEAD & GROUND MOUNTED)	ALL	(W/GREEN) EXCEPT WHERE SPECIFIED IN THE MUTCD	TYPE VIII OR IX	TYPE IV
E-CODE SIGNS	E 11-1, 1a, 1b, 1c	(BLK/FLUORESCENT YELLOW)	TYPE VIII OR IX	TYPE IV
RECREATIONAL & CULTURAL INTERESTS	ALL	(W/BROWN)	TYPE VIII OR IX	TYPE IV
GENERAL SERVICE	ALL	(W/BUE)	TYPE VIII OR IX	TYPE IV
SPECIFIC SERVICE	ALL	(W/BUE)	TYPE VIII OR IX	TYPE IV
ALL OTHER PERMANENT SIGNS		(BLK/WHITE) EXCEPT WHERE SPECIFIED OTHERWISE IN THE MUTCD	TYPE IV	TYPE IV

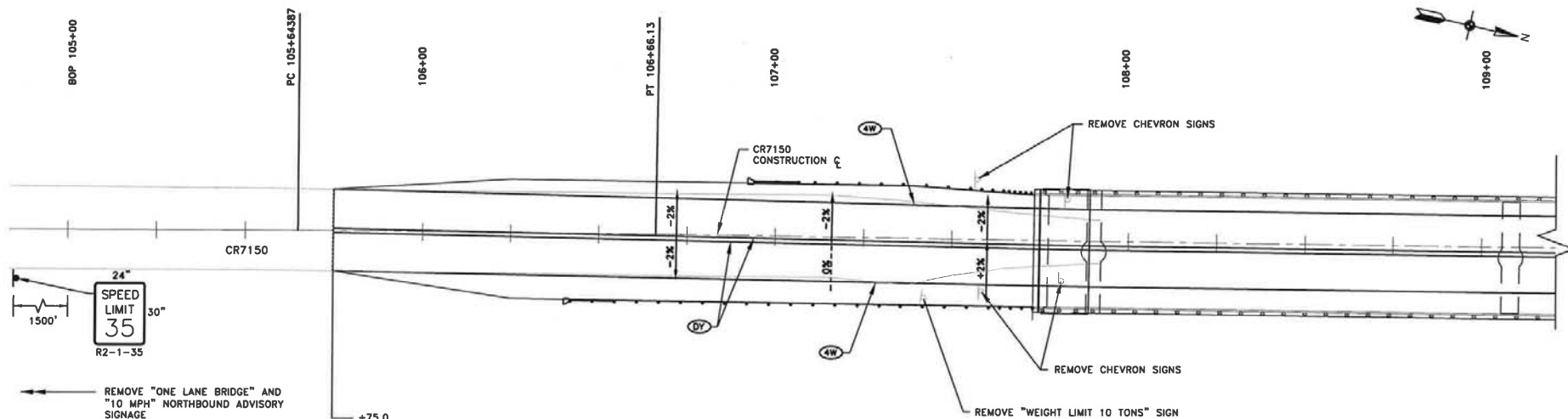
- ONLY 0.125 INCHES THICK ALUMINUM PANEL SIGNS ARE PERMITTED FOR WARNING AND REGULATORY SIGNS.
- QUANTITIES MAY VARY AS FIELD CONDITIONS DICTATE. THE CONTRACTOR WILL BE PAID FOR ACTUAL QUANTITIES USED.
- ALL TRAFFIC CONTROL DEVICES SHALL COMPLY WITH N.M. STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION (LATEST EDITION) AND ANY APPLICABLE SPECIAL PROVISION AND/OR SUPPLEMENTAL SPECIFICATION. ALSO THE DEVICES SHALL COMPLY WITH CURRENT EDITION, WITH REVISIONS, OF THE MUTCD.
- EACH SIGN FACE SHOWN ON PLANS SHALL MEET THE SPECIFICATIONS IN THE STANDARD HIGHWAY SIGNS MANUAL (CURRENT EDITION) FOR PROPER ARRANGEMENT, SPACING OF LETTERS, LETTER HEIGHT, SYMBOLS AND BORDERS FOR THE SPECIFIED SIZE AND MESSAGE AS SHOWN ON PLANS.
- POST LENGTHS ARE BASED ON A MINIMUM OF 5 FT FOR RURAL ROADWAY SECTIONS TO A MINIMUM OF 7 FT FOR URBAN AND INTERSTATE ROADWAY SECTIONS. THE LENGTHS ARE MEASURED FROM THE BOTTOM OF THE SIGN TO NEAR EDGE OF THE DRIVING LANE
- THE LATERAL CLEARANCE OF SIGNS SHALL BE NO CLOSER THAN THE 6 FT FROM THE EDGE OF SHOULDER OR 12 FT FROM THE EDGE OF TRAVELED WAY FOR RURAL AREAS AND NO CLOSER THAN 2 FT FROM FACE OF CURB FOR URBAN AREAS.
- ALL SIGNING HARDWARE, INCLUDING BRACKETS, (FOR MOUNTING ALL STREET NAME SIGNS, W1-8-18 BACK TO BACK MOUNTING, ETC.) ARE CONSIDERED INCIDENTAL TO SIGN INSTALLATION. THEREFORE, NO PAYMENT WILL BE MADE.
- THREE 4 LB/FT SIGN POST INSTALLATION APPROVED ONLY IF THE SPAN BETWEEN THE OUTER POSTS EXCEEDS 84" (SIGN WIDTH OF 96" OR GREATER).
- 3'- 6" BASE POSTS ARE REQUIRED FOR ALL SMALL SIGN POSTS. SEE STANDARD DRAWING 701-02-1/3 FOR DETAILS.
- SIGN POSTS SHALL BE SQUARE TUBING AS APPROVED BY THE PROJECT MANAGER OR THE DISTRICT TRAFFIC ENGINEER.
- CONTRACTOR SHALL FIELD VERIFY ALL SIGNING INFORMATION, TEXT, AND LOCATIONS PRIOR TO FABRICATION AND INSTALLATION. NEW SIGN LOCATIONS SHALL BE APPROVED BY THE PROJECT MANAGER OR THE DISTRICT TRAFFIC ENGINEER.
- ALL SIGNS AND STRIPING RELATED TO PASSING ZONE MUST BE VERIFIED AND REVIEWED WITH PROJECT MANAGER AND DISTRICT TRAFFIC ENGINEER FOR CONFORMANCE TO AASHTO AND MUTCD STANDARDS. ALL THE PASSING ZONE LENGTHS SHALL BE RECALCULATED AND RE-VERIFIED AGAIN.
- THE APPLICATION RATE FOR HIGH DURABLE PAINT IS AS FOLLOWS:  
A MINIMUM RATE OF 24.14 TO 27.42 GALLONS PER MILE OF SOLID 4-INCH LINE OR 6.04 TO 6.86 GALLONS PER MILE OF 4-INCH BROKEN LINE ON A 10 FOOT STRIPE AND 30 FOOT GAP.  
THE SECOND APPLICATION WILL BE A MINIMUM OF 14 DAYS AFTER THE FIRST APPLICATION.  
GLASS REFLECTORIZED BEADS SHALL BE APPLIED ON THE WET PAINT AT A MINIMUM RATE OF 6 POUNDS PER GALLON OF PAINT.



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<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER CALLEGOS WASH BRIDGE NO. 9586			
<b>SIGNING AND STRIPING</b> <b>GENERAL NOTES</b>			

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- ← REMOVE "ONE LANE BRIDGE" AND "10 MPH" NORTHBOUND ADVISORY SIGNAGE
- ← REMOVE "WEIGHT LIMIT 10 TONS" SIGN
- ← REMOVE "REDUCED SPEED AHEAD" SIGN
- ← REMOVE "SPEED LIMIT 10" SIGN
- ← REMOVE (2) "NO TRUCKS ON BRIDGE" SIGNS;
- ← REMOVE "TRUCK ROUTE" → " " SIGN

+75.0  
BEGIN PAVEMENT MARKINGS  
MATCH EXISTING STRIPING

#### LEGEND

- (4W) 4" SOLID WHITE LINE, PAINT
- (DY) DOUBLE 4" SOLID YELLOW LINE, PAINT
- (SB) 12" STOP BAR, PAINT
- EXISTING SIGN
- PROPOSED SIGN



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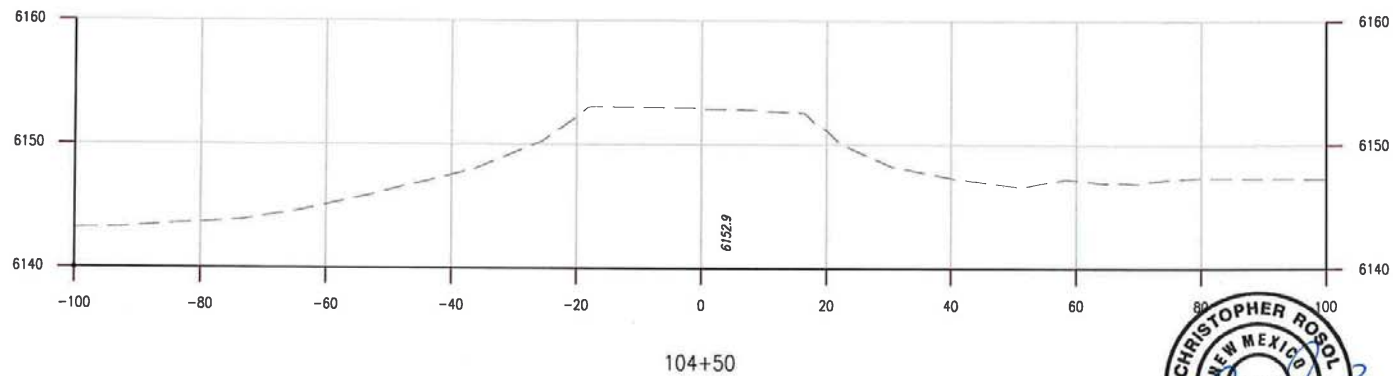
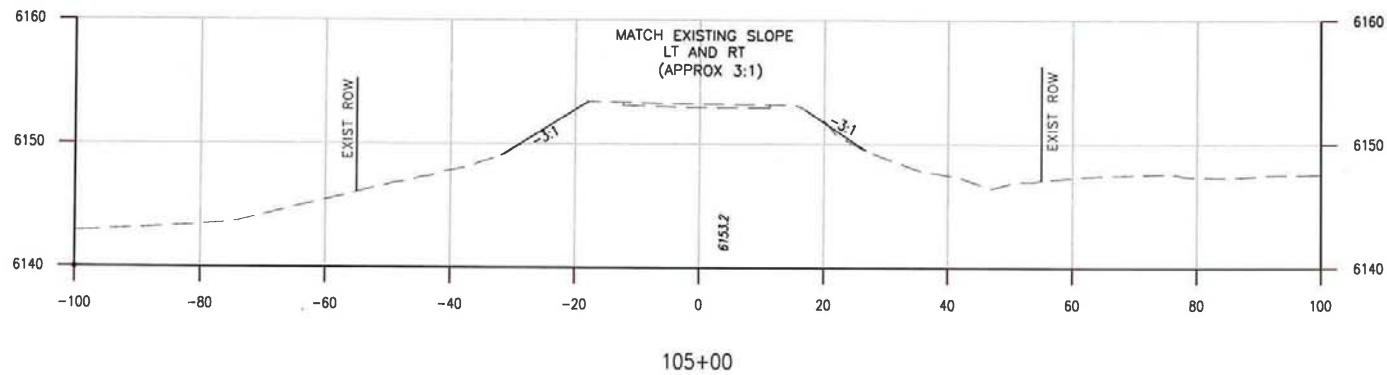
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CR 7150 OVER GALLEGOS WASH  
BRIDGE NO. 9586

SIGNING AND STRIPING - I

SHEET NO. 7-2



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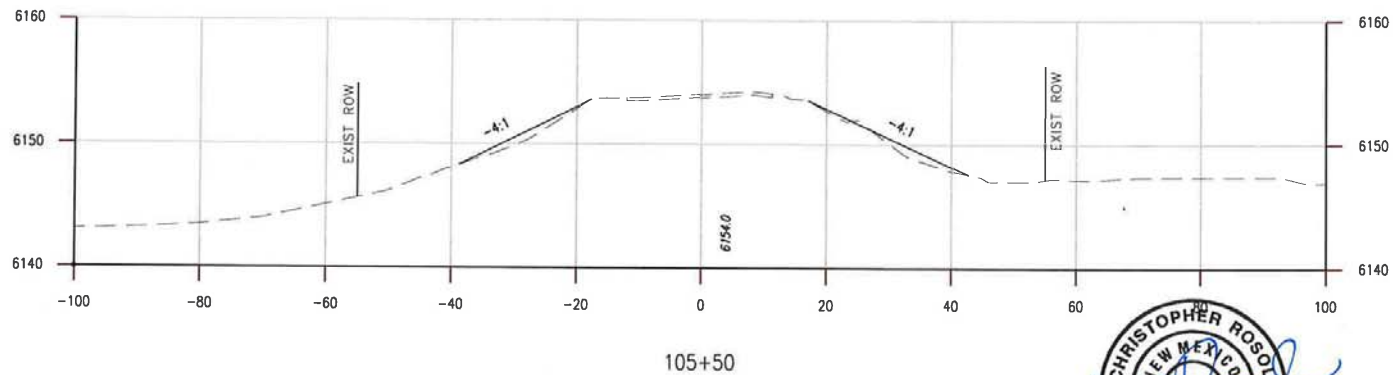
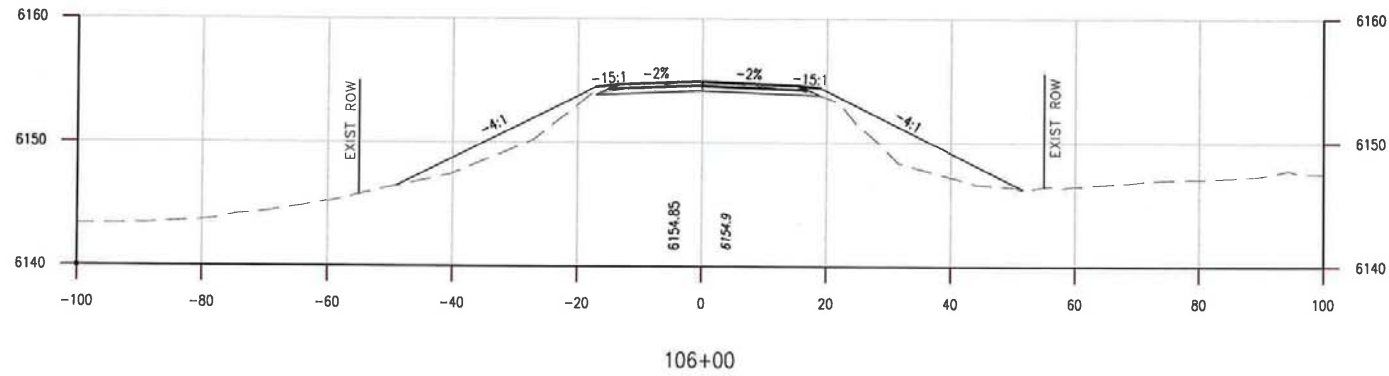


CHRISTOPHER ROSOL  
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17404  
PROFESSIONAL ENGINEER  
23 Aug 2013

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6501 Americas Parkway, NE Suite 900 Albuquerque, New Mexico 87110 p 505.855.7500 / 505.855.7555			
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NO.	DESCRIPTION	DATE	BY
REVISIONS			
<b>SAN JUAN COUNTY</b> Public Works Department			
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER CALLEGOS WASH BRIDGE NO. 9586			
<b>CROSS SECTIONS</b> STA 104+50 TO STA 105+00			
SHEET NO. 10-1			



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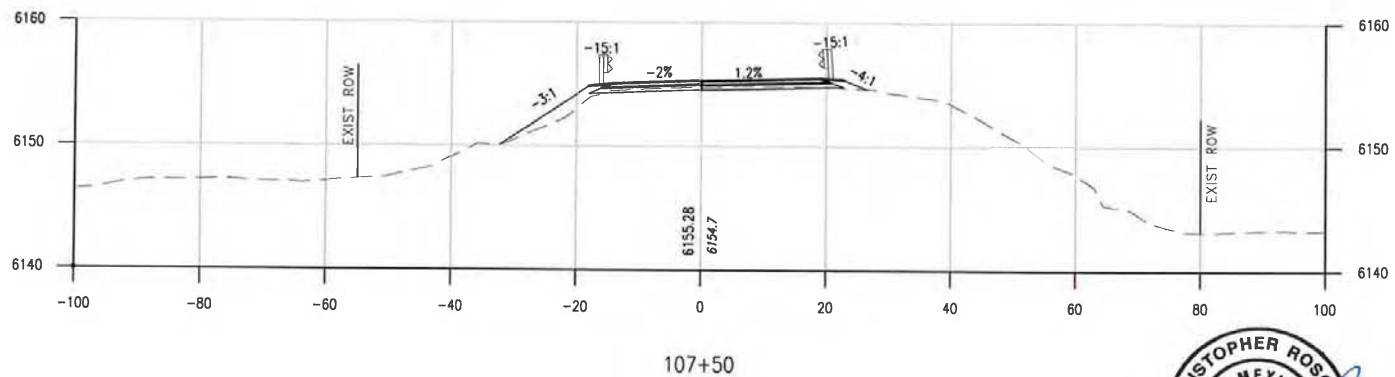
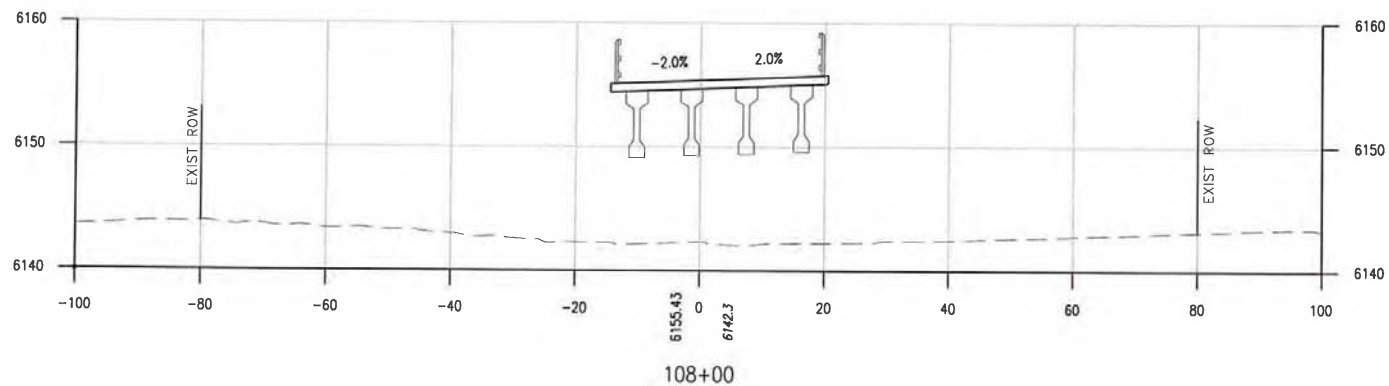


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NO.	DESCRIPTION	DATE	BY
REVISIONS			
<b>SAN JUAN COUNTY</b> NEW MEXICO Public Works Department			
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9586			
<b>CROSS SECTIONS</b> STA 105+50 TO STA 106+00			
SHEET NO. 10-2			



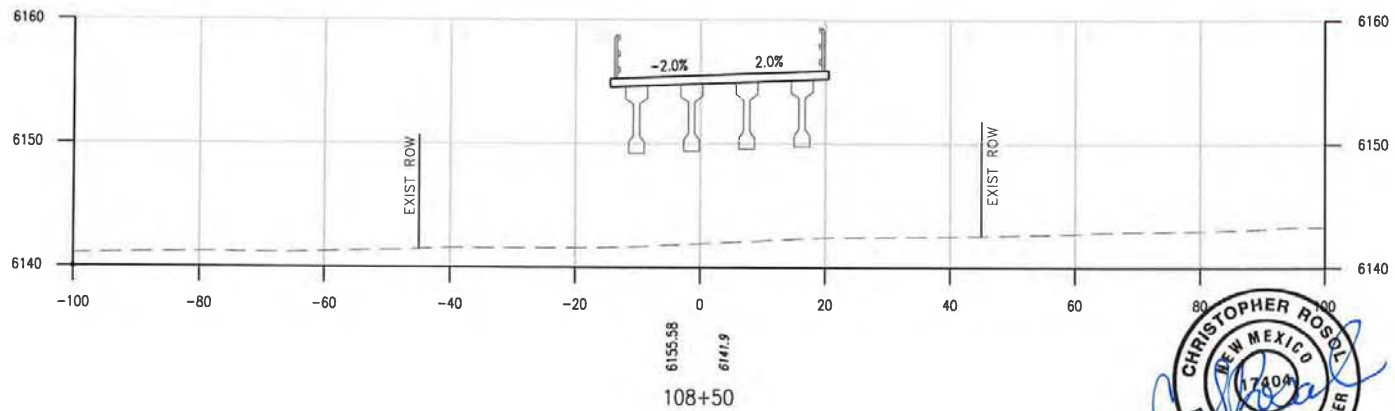
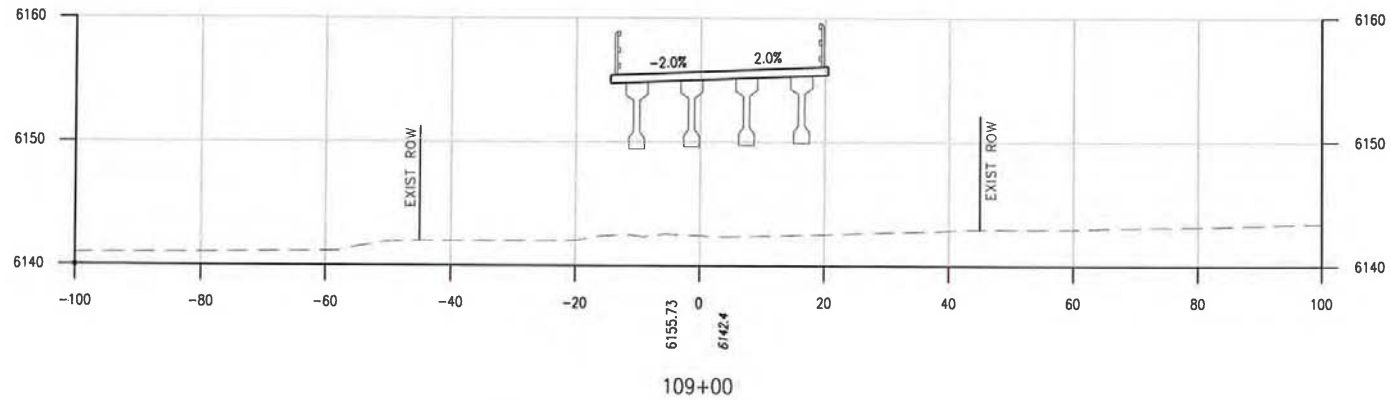
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REVISIONS			
<b>SAN JUAN COUNTY</b> Public Works Department			
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9586			
CROSS SECTIONS STA 107+50 TO STA 108+00			
SHEET NO. 10-4			

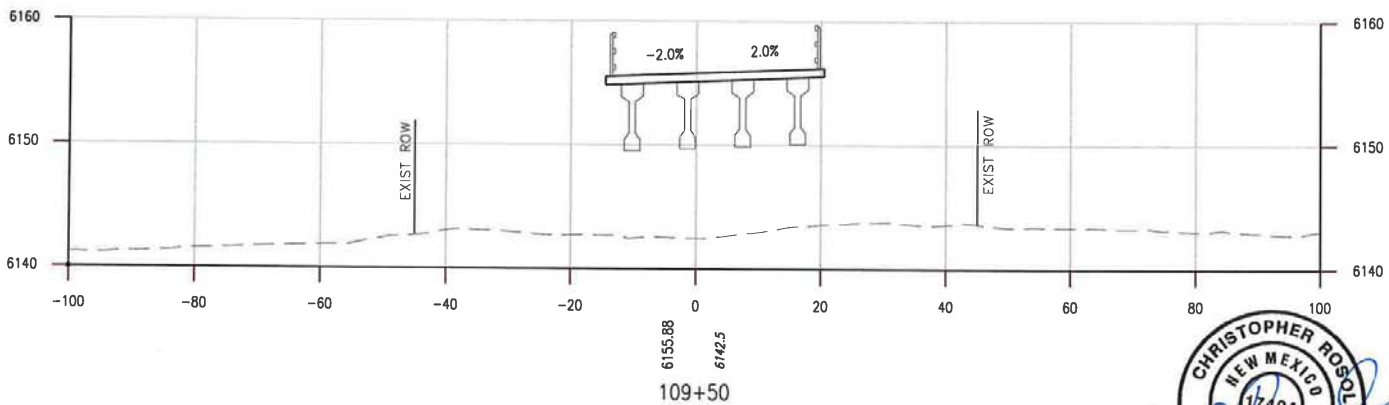
DESIGNED BY: CSR DRAWN BY: CSR CHECKED BY: PCH

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REVISIONS					
 <b>SAN JUAN COUNTY</b> Public Works Department					
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER CALLEGOS WASH BRIDGE NO. 9586					
<b>CROSS SECTIONS</b> STA 108+50 TO STA 109+00					
SHEET NO. 10-5					



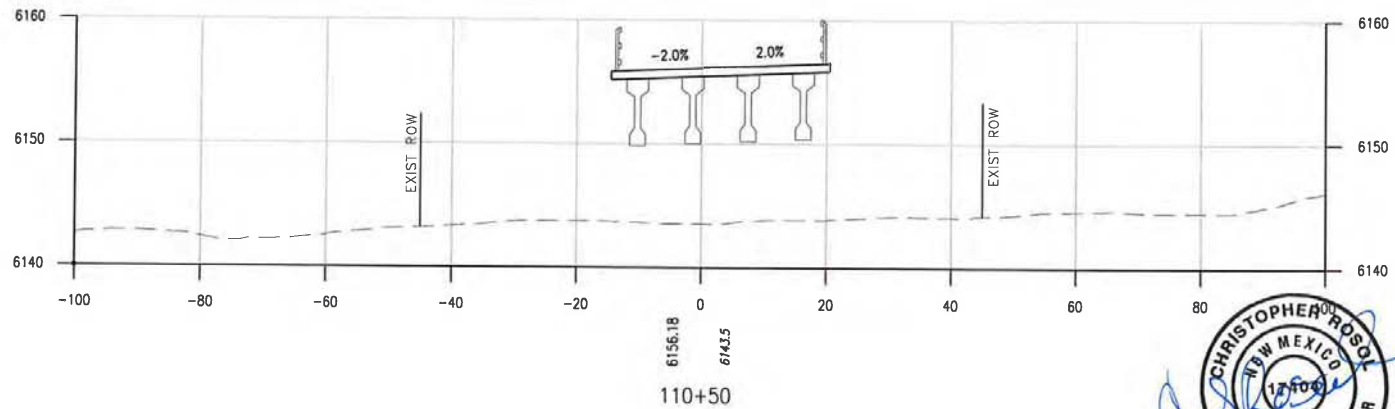
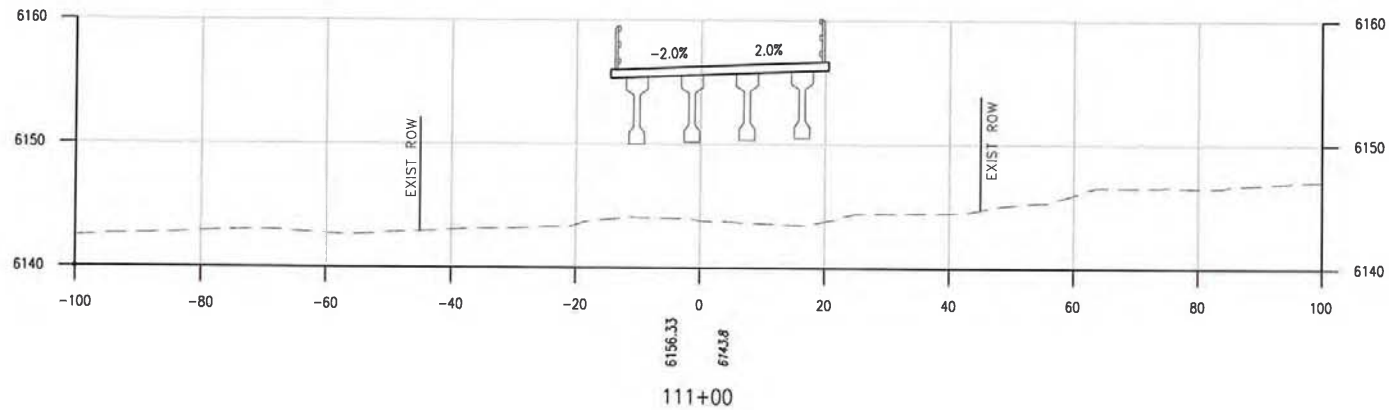


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REVISIONS			
 <div style="display: inline-block; vertical-align: middle; text-align: center;"> <p><b>SAN JUAN</b> COUNTY NEW MEXICO</p> </div>			
<p><b>SAN JUAN COUNTY</b> Public Works Department</p>			
<p><b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9586</p>			
<p><b>CROSS SECTIONS</b> STA 109+50 TO STA 110+00</p>			

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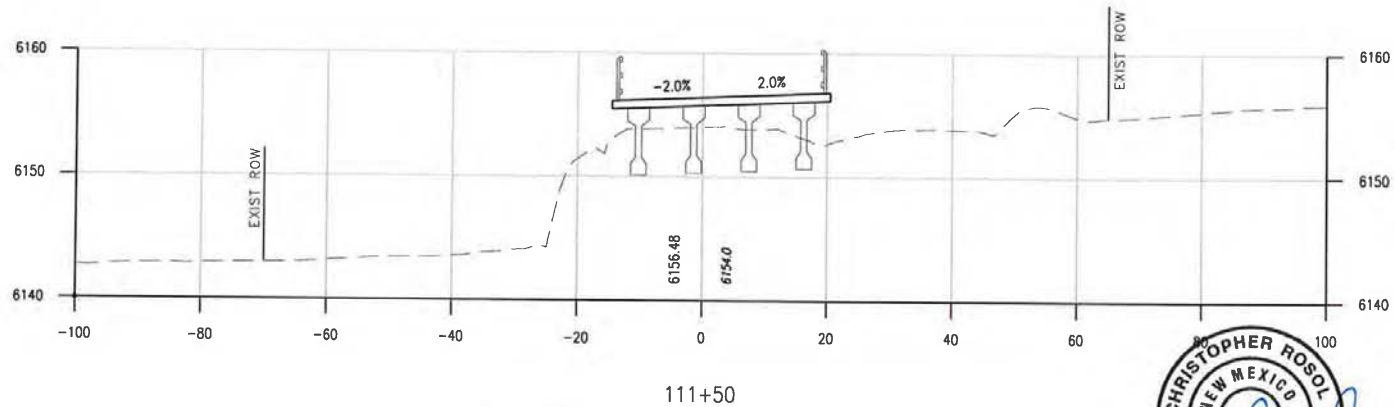
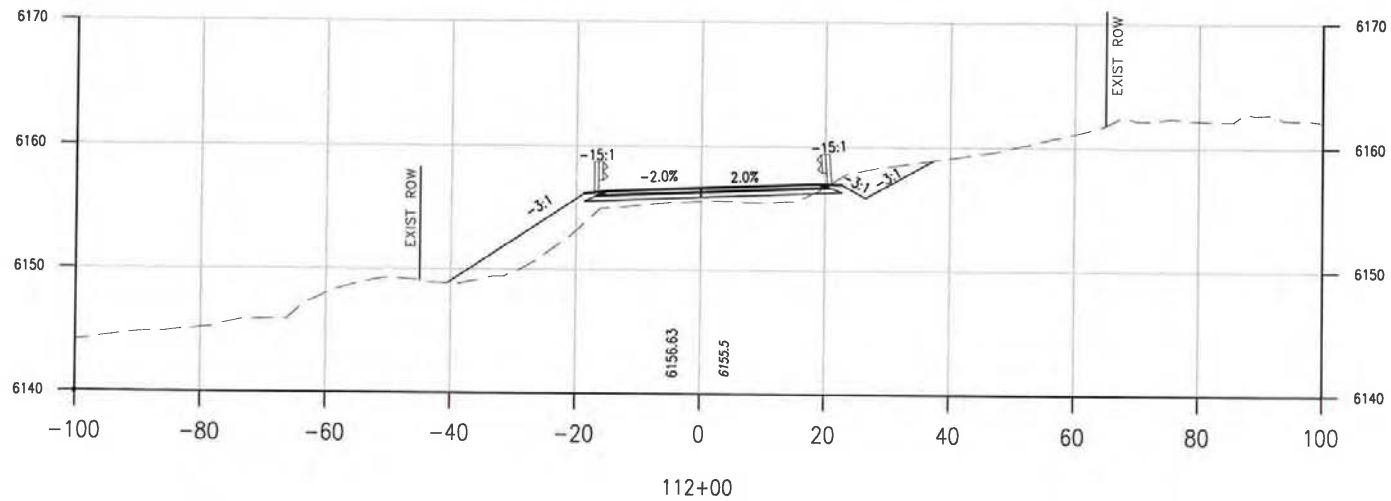


*Handwritten signature and date:*  
 23 Aug 2013



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NO.	DESCRIPTION	DATE	BY
REVISIONS			
<b>SAN JUAN COUNTY</b> NEW MEXICO Public Works Department			
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9586			
<b>CROSS SECTIONS</b> STA 110+50 TO STA 111+00			
SHEET NO. 10-7			

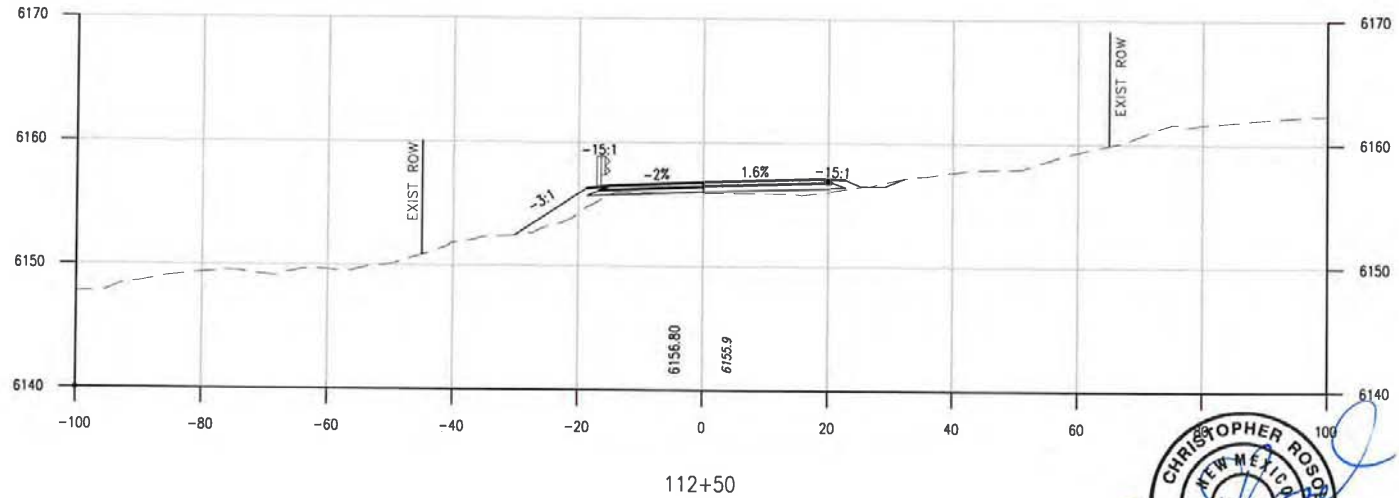
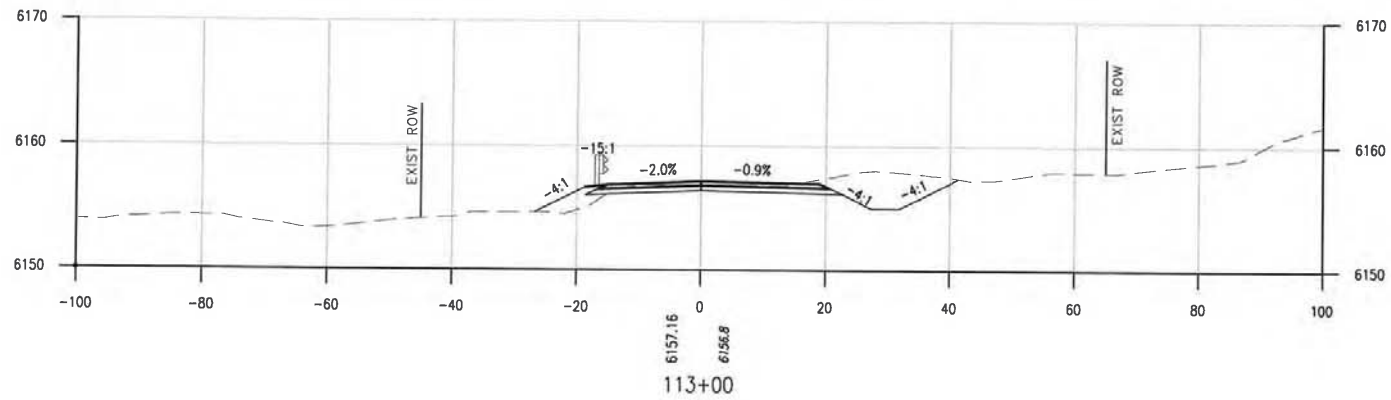
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NO.	DESCRIPTION	DATE	BY
REVISIONS			
<b>SAN JUAN COUNTY</b>		<b>SAN JUAN COUNTY</b>	
<b>NEW MEXICO</b>		<b>Public Works Department</b>	
<b>MILITARY BRIDGE REPLACEMENT</b>			
CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9586			
<b>CROSS SECTIONS</b>			
STA 111+50 TO STA 112+00			
SHEET NO. 10-8			

DESIGNED BY: CSR DRAWN BY: CSR CHECKED BY: PCH

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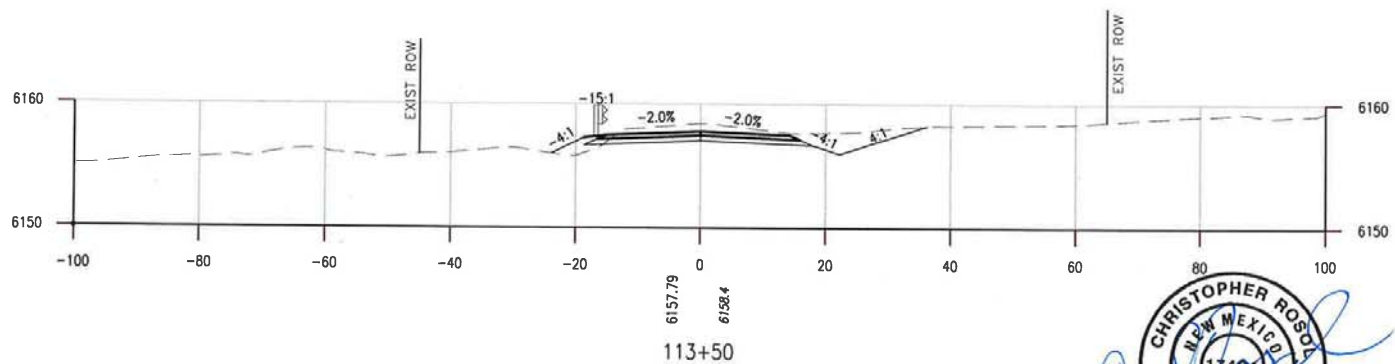
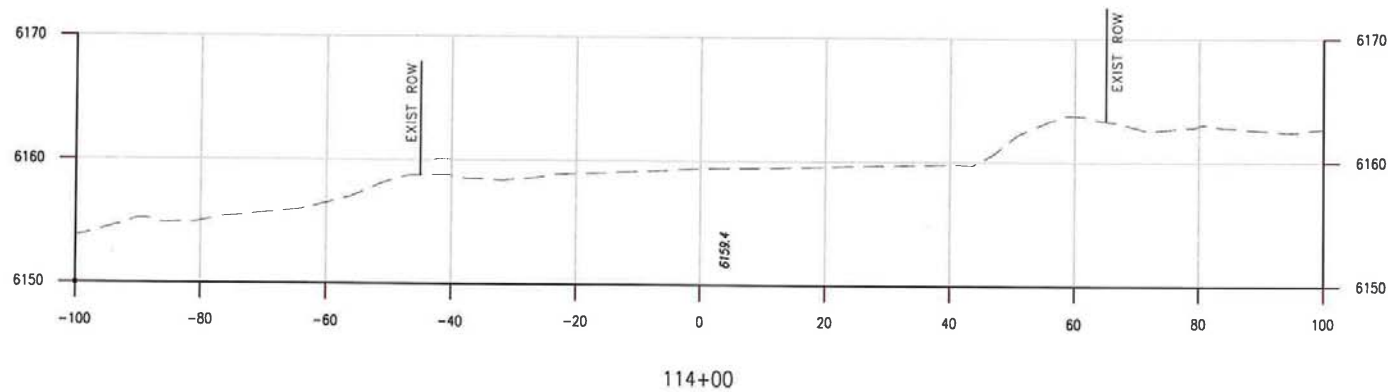


CHRISTOPHER ROSO  
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23 Aug 2013

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NO.	DESCRIPTION	DATE	BY
REVISIONS			
 <b>SAN JUAN COUNTY</b> Public Works Department			
<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER GALLEGOS WASH BRIDGE NO. 9586			
<b>CROSS SECTIONS</b> STA 112+50 TO STA 113+00			
SHEET NO. 10-9			



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REVISIONS			
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<b>MILITARY BRIDGE REPLACEMENT</b> CR 7150 OVER CALLEGOS WASH BRIDGE NO. 9586			
<b>CROSS SECTIONS</b> STA 113+50 TO STA 114+00			