SHT NO.	SHEET TITLE
	GENERAL
1	CITY TITLE BLOCK
2	INDEX OF SHEETS
3	PROJECT LAYOUT
4	GENERAL NOTES
5	SUPPLEMENTAL GENERAL NOTES
6	ESTIMATED QUANTITIES SHEET
	TRAFFIC CONTROL PLAN
7	TRAFFIC CONTROL PLAN GENERAL NOTES
8	SEQUENCE OF WORK NARRATIVE
9	DETOUR LAYOUT
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10 - 13	BARRICADE AND CONSTRUCTION STANDARDS
	ROADWAY & DRAINAGE PLANS
14	HORIZONTAL ALIGNMENT DATA SHEET
15	REMOVAL LAYOUT
16 - 18	INTERSECTION/GRADING LAYOUTS
19	PED BRIDGE LAYOUT
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	ROADWAY & DRAINAGE STANDARDS A1
33	CONCRETE DRIVEWAY STANDARDS
34 - 35	MISCELLANEOUS CONSTRUCTION STANDARDS I&II
36	MISCELLANEOUS CURB AND SIDEWALK DETAILS
36A	METAL BEAM GUARD FENCE STANDARD
36B	PEDESTRIAN RAIL (PR1) STANDARD
	SW3P & ENVIRONMENTAL PLANS
37	SW3P LAYOUTS
38	SW3P GENERAL NOTES
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42 - 43	TEMP EROSION, SEDIMENT & WATER POLLUTION CONTROL MEASURES 1&2
	LANDSCAPING PLANS
44	TREE PROTECTION NOTES AND DETAILS
45	TREE PRESERVATION SUMMARY
46	TREE PRESERVATION LAYOUT
	TRAFFIC ITEMS
47 - 54	SIGNING AND PAVEMENT MARKING LAYOUTS
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55 - 57	GENERAL NOTES AND GROUND MOUNTING
58	RAISED PAVEMENT MARKERS FOR POSTION GUIDANCE

A1 ADDED ROADWAY & DRAINAGE STANDARDS
36A - METAL BEAM GUARD FENCE
36B - PEDESTRIAL RAIL (PR1)

K:\COSA Ashley Rd\GENERAL\ASHLEY•INDX.dgn

12/14/2015

REVISIONS		
DATE	NO.	DESCRIPTION

CAMACHO-HERNANDEZ & ASSOCIATES, LLC
415 EMBASSY OAKS - SUITE 205 SAN ANTONIO, TX. 78216
OFFICE: (210) 341-6200 FAX: (210) 341-6300
FIRM NUMBER: F-8478

CITY OF SAN ANTONIO
Transportation & Capital Improvements (TCI) Department

ASHLEY RD - PEDESTRIAN BRIDGE

INDEX OF SHEETS

SHEET 1 OF 1

100 % SUBMITTAL	PROJECT NO.: 40-00294		DATE: 12/14/2015
DRWN. BY: MGR	DSGN. BY: JAS	CHKD. BY: JH	SHEET NO.: 2 OF 58

THE FOLLOWING CHANGES ARE MADE TO THE CITY OF SAN ANTONIO'S GENERAL NOTES:

ADDITIONAL NOTES

ITEMS:

1.THE PRICE OF REMOVAL PAY ITEMS 103.1 TO 103.7 IS FULL COMPENSATION FOR LOADING, HAULING, DISPOSAL, STOCKPILING, REMOVAL OF APPURTENANCES, EXCAVATION AND BACKFILL, EQUIPMENT, LABOR, TOOL, AND INCIDENTALS.

2.FOR ITEM 203 "TACK COAT", THE TYPE-GRADE SHALL BE SS-1H ASPHALTIC MATERIAL OR EQUIVALENT AS APPROVED BY THE PROJECT ENGINEER AND COSA STAFF.

3.ALL TREE REMOVALS SHALL BE CONSIDERED SUBSIDIARY TO ITEM 101.1 "PREPARING OF RIGHT-OF-WAY. (NO SEPARATE PAY ITEM)

4.REFER TO 2014 TXDOT SPECIFICATIONS FOR ALL TXDOT ITEMS.

5.SEE COSA SPECIAL SPECIFICATIONS FOR DETAILED DESCRIPTIONS AND REQUIREMENTS FOR ITEMS:
5000.1 ASSEMBLE AND PLACE PEDESTRIAN BRIDGE
5001.1 REMOVABLE BOLLARD
5001.2 NON-REMOVABLE BOLLARD
5002.1 PEDESTRIAN BRIDGE (14' X 120')
5010.1 TIED CONC. BLOCK EROSION CONTROL MATTING

6.FOR ITEM 307.1:
USE CLASS "S" CONCRETE FOR ABUTMENTS
USE CLASS "C" CONCRETE FOR BRIDGE DECK
REFER TO DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS

7.PROPOSED "SAW TOOTH CURBING" WILL BE PAID FOR UNDER ITEM 500.1 "CONCRETE CURBING".

8.SUBGRADE LIME TREATMENT IS 3% BY WEIGHT. (ITEM 108.2)

9.VEGETATIVE WATERING IS SUBSIDIARY TO ITEMS 516 "SODDING", ITEM 5010 "TIED CONC. BLOCK EROSION CONTROL MATTING" AND ITEM 804 "NEW TREE & SHRUB PLANTING AND MAINTENANCE".

A1 10.THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL OR BETTER CONDITION ANY DAMAGE DONE TO EXISTING GRASSY VEGETATED AREAS DUE TO CONSTRUCTION ACTIVITIES. THE REVEGETATION SHALL BE CONSIDERED SUBSIDIARY TO ITEM 101.1 "PREPARING OF RIGHT-OF-WAY. (NO SEPARATE PAY ITEM)

TREE PRESERVATION:

1.Any and all curb and sidewalk work shall use alternative construction methods to minimize extensive root damage to trees. Tree roots shall be cut with a saw prior to excavation with equipment. All construction access and staging areas will need to be surveyed and associated tree impacts will need to be accounted for in the preservation plan.

2.Prior to the start of work, call 207-1111 to schedule a pre-construction and fencing inspection. [Sec. 35-477 (5) (c)] Failure to schedule a fencing inspection prior to the start of work may result in a Stop Work Order, a penalty of $2000.00, or both. Referenced the AP# associated with the approved permit.

3.Contractor is responsible for providing a licensed Tree Maintenance Professional throughout the project per City of San Antonio Ordinance Article VIII Sec. 21-171.

35-523 (p) Public Projects. Municipal and utility entities shall obtain a tree permit before any vegetation is removed or new construction activity takes place. Special attention will be given to the preservation of trees in public rights-of-way that are to help satisfy the objectives of the streetscape planting standards of this article (section 35-512). The city arborist shall approve an application for the reasonable removal of a protected tree in connection with construction, maintenance or repair of public facilities in or above a public street, alley, rights-of-way, easement or other public land.

35-523 (p) (4) Design, Diversity and Desirability. The location of all improvements shall be orientated by the applicant, to the extent the applicant determines possible, in a manner which allows for the preserving of the greatest number of trees and in doing so is encouraged to acquire rights-of-way in such a manner. Applicants are also encouraged to preserve trees to meet the landscape and streetscape standards. Also, as the particular site conditions warrant, the applicant shall preserve a diversity of species.

35-523 (k) (5) All offsite staging, storage, project trailers, employee parking, etc. are required to comply with the terms and conditions of the approved tree permit.

35-477 (j) It shall be the responsibility of the permit holder to maintain a copy of the tree permit, the data and drawings required by this section, and the conditions of approval imposed by the City Arborist readily available at the site at all times during which the authorized work is in progress.

35-523 (k) (4) All broken branches & exposed roots 2" in diameter or greater of Significant, Heritage or mitigation trees shall be cut cleanly. For oak species, in order to prevent oak wilt infection, wounds must be painted within 30 min.

21-170 (b) All wounds to the trunk, limbs, and root system of oak trees in the city that expose sapwood shall be painted within 30 min. of the wound with asphaltic, exterior oil or latex based paint.

35-523 (k) (2) The barrier shall be in place before any site work is initiated and maintained throughout the construction process.

35-477 (5) (c) A pre-construction meeting is required to review procedures for protection and management of all significant, heritage or mitigation trees. This can be scheduled with the Fencing Inspection, 207.1111. Reference AP# provided at permitting.

ADDITIONAL NOTES (CONT.)

ENVIRONMENTAL:

1. IF ANY SENSITIVE FEATURE (CAVES, SUBSURFACE VOIDS, ETC) IS DISCOVERED DURING CONSTRUCTION, ALL CONSTRUCTION ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE ENGINEER SHOULD BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. THE CONSTRUCTION ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL A US FISH AND WILDLIFE SERVICE (USFWS) PERMITTED BIOLOGIST HAS ASSESSED THE SITE FOR EVIDENCE OF HABITAT OR LISTED ENDANGERED SPECIES. IF IT IS DETERMINED THAT ENDANGERED SPECIES OR THEIR HABITAT IS PRESENT WITHIN THE VOID SPACE, CONSULTATIONS WITH THE USFWS WILL COMMENCE AND WORK WITHIN THE IMMEDIATE VICINITY OF THE SENSITIVE FEATURE WILL NOT BE ALLOWED TO PROCEED UNTIL ALL PARTIES ARE IN AGREEMENT REGARDING NECESSARY PERMITTING.

STORM WATER:

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN ALL REQUIRED STORM WATER PERMITS, FEES, AND APPROVALS. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PERMITS REQUIRED FOR CONSTRUCTION IN DRAINAGE EASEMENTS, RIGHT-OF-WAYS, AND FLOODPLAINS.

2. THE CONTRACTOR SHALL NOTIFY STORM WATER ENGINEERING AT LEAST 24 HOURS PRIOR TO THE INSTALLATION OF ANY DRAINAGE FACILITY WITHIN A DRAINAGE EASEMENT OR STREET RIGHT-OF-WAY NOT INDICATED ON THE CONSTRUCTION PLANS.

3. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING DRAINAGE FACILITIES FROM DAMAGE. ANY DAMAGE TO EXISTING DRAINAGE SYSTEMS, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AT HIS EXPENSE. THE CONTRACTOR SHALL NOTIFY STORM WATER ENGINEERING AT 210-207-8052 AS SOON AS CONFLICTS WITH UTILITIES ARE ENCOUNTERED OR ANY DRAINAGE SYSTEM IS DAMAGED DURING CONSTRUCTION.

4. CONSTRUCTION SPOILS WILL NOT BE ALLOWED TO BE DEPOSITED ANYWHERE WITHIN A DRAINAGE EASEMENT, RIGHT-OF-WAY OR FLOODPLAIN WITHIN THE LIMITS OF THE PROJECT AND SHALL BE DISPOSED OFFSITE IN COMPLIANCE WITH CURRENT APPLICABLE REGULATIONS.

5. NO STRUCTURE, FENCES, WALLS, LANDSCAPING, OR OTHER OBSTRUCTIONS THAT IMPEDE DRAINAGE SHALL BE PLACED WITHIN THE LIMITS OF THE DRAINAGE EASEMENTS SHOWN ON THE CONSTRUCTION DOCUMENTS.

6. UPON COMPLETION OF TRENCHING, THE AREA WILL BE BACKFILLED AND COMPACTED TO ITS ORIGINAL CONDITION. TRENCHES/BORE PITS TO BE OPEN AND UNATTENDED LONGER THAN 24 HOURS SHALL BE PROTECTED TO WITHSTAND ALL HYDRODYNAMIC AND HYDROSTATIC FORCES AND PREVENT DOWNSTREAM IMPACTS. TRENCHES/BORE PITS TO BE OPEN LONGER THAN 30 DAYS AFTER STARTING EXCAVATION SHALL BE BACKFILLED WITH A SEMI-PERMANENT REPAIR BACKFILL.

7. IMPROVED SECTIONS OF EARTHEN CHANNELS AND/OR WATERWAYS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE CHANNEL SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF SAN ANTONIO WILL ACCEPT THE CHANNEL FOR MAINTENANCE.

DELETED NOTES

NONE

NOTE MODIFICATION

1. MODIFY NOTE NO. 10 - COSA DRAINAGE 207-8052
CITY PUBLIC SERVICE ENERGY 353-2012
TIME WARNER 352-4306
AT&T 283-1990
LEVEL 3 COMMUNICATIONS 1-720-888-4988
(REF. CIMS FEBRUARY 2012 DESIGN GUIDANCE MANUAL)

A1 ADDED ITEM ADDITIONAL NOTE 10.

REVISIONS		
DATE	NO.	DESCRIPTION

CAMACHO-HERNANDEZ & ASSOCIATES, LLC
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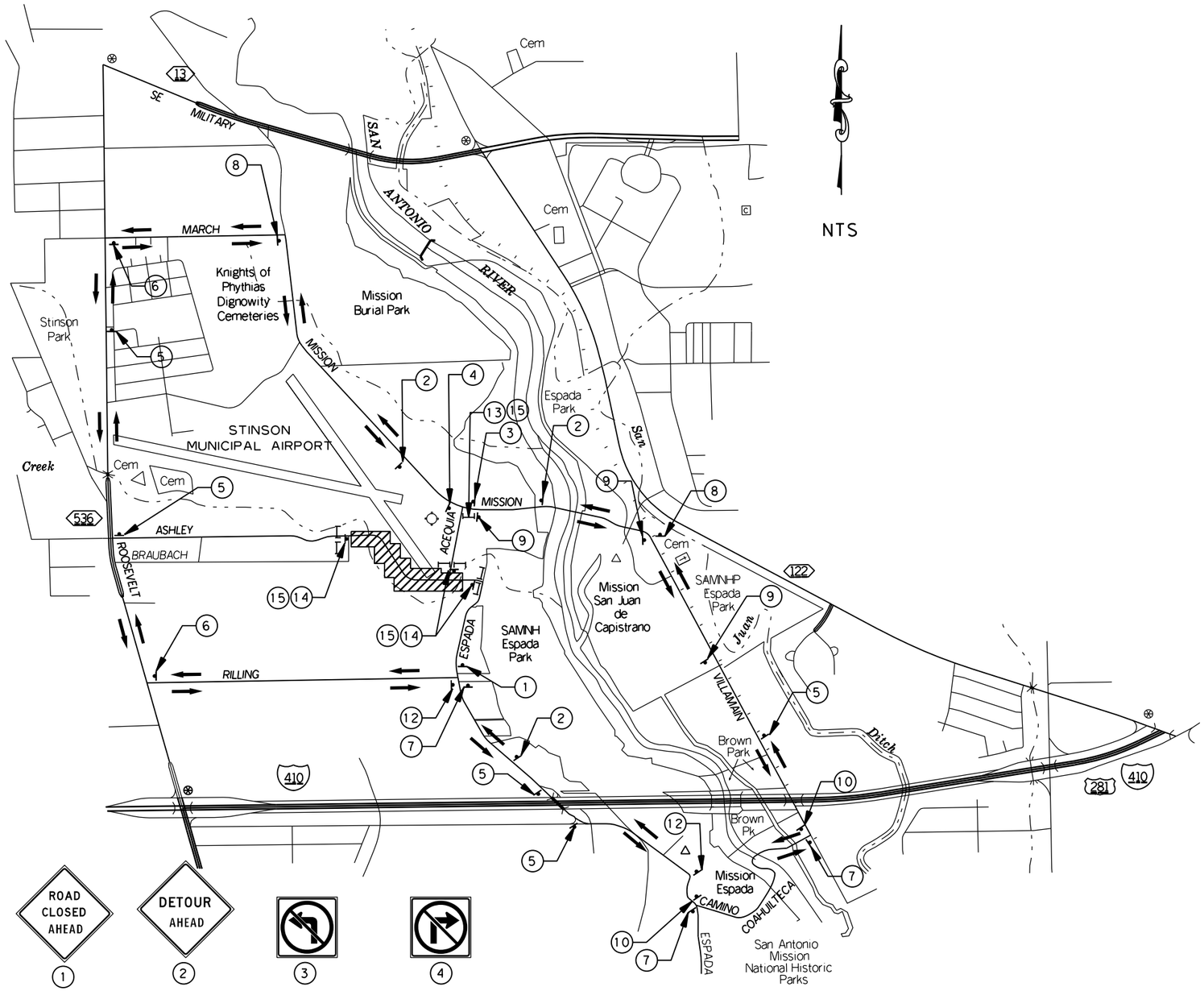
CITY OF SAN ANTONIO
Transportation & Capital Improvements (TCI) Department
ASHLEY RD - PEDESTRIAN BRIDGE

SUPPLEMENTAL GENERAL NOTES

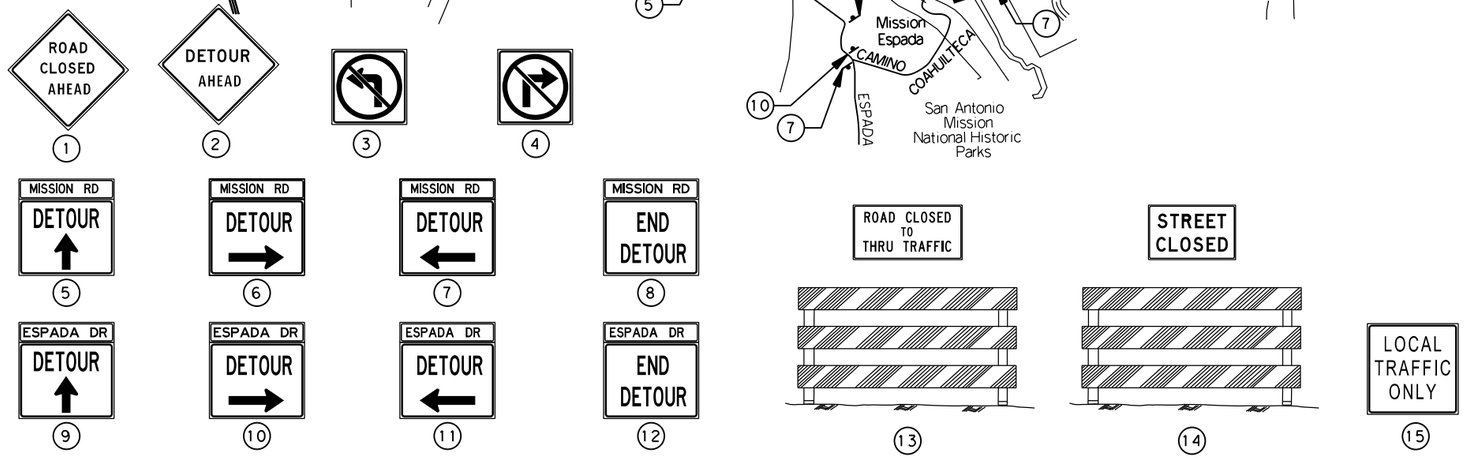
SHEET 1 OF 1

100 % SUBMITTAL	PROJECT NO.: 40-00294		DATE: 12/14/2015
DRWN. BY: MGR	DSGN. BY: JAS	CHKD. BY: JH	SHEET NO.: 5 OF 58

K:\COSA Ashley Rd\GENERAL\ASHLEY*supgennotes.dgn
12/14/2015



NTS



STATE OF TEXAS
FERNANDO J. SALAZAR
92678
LICENSED
PROFESSIONAL ENGINEER
12/14/2015

REVISIONS		
DATE	NO.	DESCRIPTION
12/14/15	1	ADDED "LOCAL TRAFFIC ONLY" SIGN

SANCHEZ-SALAZAR & ASSOCIATES
TBPE FIRM REGISTRATION NO. 15685

CAMACHO-HERNANDEZ & ASSOCIATES, LLC
415 EMBASSY OAKS - SUITE 205 SAN ANTONIO, TX. 78216
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CITY OF SAN ANTONIO

Transportation & Capital Improvements (TCI) Department

ASHLEY RD - PEDESTRIAN BRIDGE

DETOUR LAYOUT

SHEET 1 OF 1

50 % SUBMITTAL	PROJECT NO.: 40-00294		DATE: 12/11/2014
DRWN. BY: FS	DSGN. BY: FS	CHKD. BY: JCS	SHEET NO.: 9 OF 58

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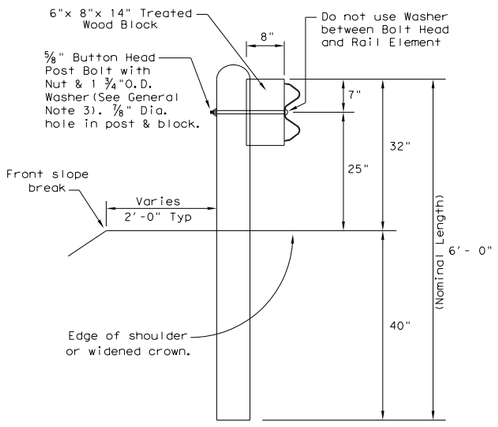
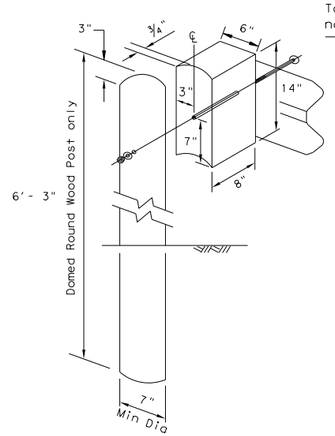
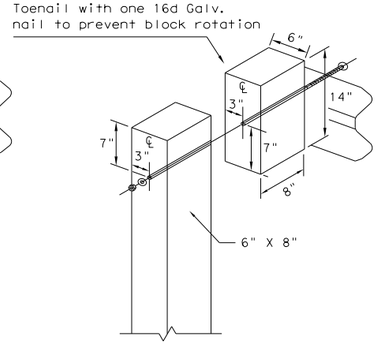


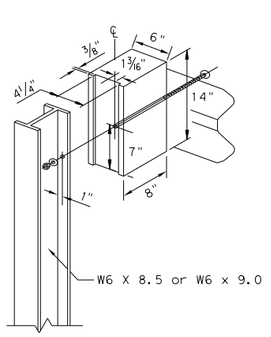
TYPICAL POST



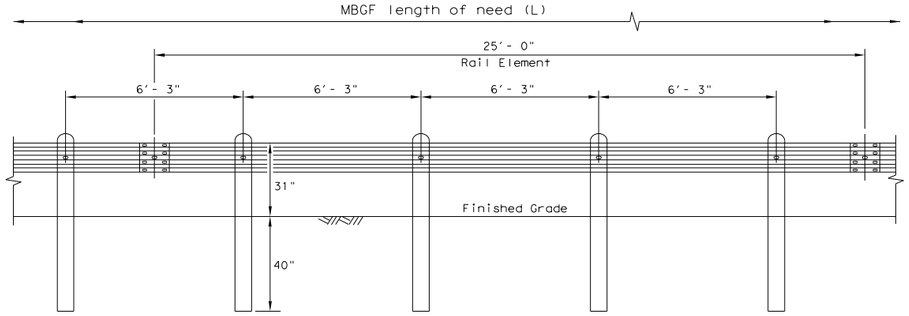
WOOD BLOCK TO ROUND WOOD POST



WOOD BLOCK TO RECTANGULAR WOOD POST



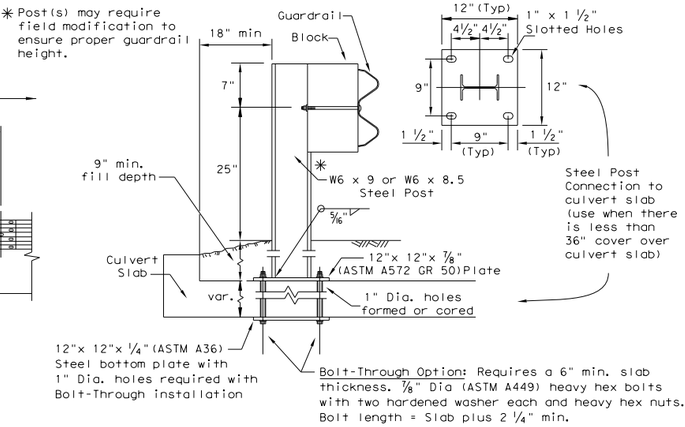
WOOD BLOCK TO STEEL POST



ELEVATION
MID-SPAN RAIL SPLICE

Showing a 25'- 0" section of W-Beam rail, 12'- 6" rail sections may also be supplied (See General Note 2)

Direction of Traffic



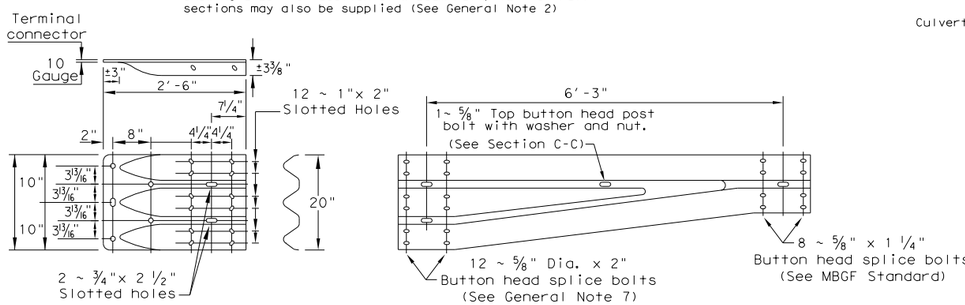
LOW FILL CULVERT POST

Culverts of 25 ft. or less, see GF(31)LS standard for "Long Span" option.

Epoxy Note:
Epoxy Anchor Option: This option may only be used if the culvert slab is 8" min. thick. Threaded anchor rods must be ⅞" Dia. ASTM A449 or A193 Grade B7 with heavy hex nut, and one hardened washer each. Embed anchor rods 6" with Hilti HIT RE 500 epoxy adhesive. Other Type III Class C epoxy adhesives meeting the requirements of DMS-6100, "Epoxies and Adhesives", may be used if it can be demonstrated that they meet or exceed the strength of Hilti HIT RE 500 with the same embedment depth and threaded rod dia. Follow the manufacturer's requirements for installing epoxied threaded rods. Extend rods ¼" min. beyond nut.

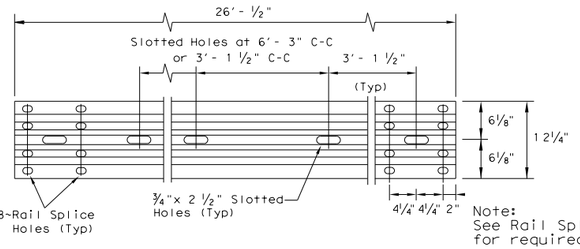
GENERAL NOTES

1. The type of post (round wood post, rectangular wood post, or steel post) will be as shown in the plans. The exact position of MBGF shall be shown in the plans or as directed by the Engineer. Steel posts to be galvanized in accordance with Item 445, "Galvanizing."
2. Rail element shall meet the requirements of Item 540,"Metal Beam Guard Fence" except as modified in the plans. The Contractor may furnish rail elements of 25'- 0", or 12'- 6" (nom.) lengths. Rail elements may have slotted holes at 3'-1½" C-C or 6'-3" C-C. A special length of rail may be manufactured to accommodate the downstream anchor terminal (DAT) and the transition sections of guardrail.
3. Button head "post" bolts (ASTM A307) shall be of sufficient length to extend through the full thickness of the nut (ASTM A563) and Type A (1 ¾" O.D.)washer and not more than 1" beyond it. Button head "splice" bolts (ASTM A307) are ⅝" x 1 ¼" (or 2" long at triple rail splices) with a ⅝" double recessed nut (ASTM A563). Thrie beam "connection" ⅞" dia. (ASTM A325) hex bolts shall be of sufficient length to extend through the full thickness of the rail, washers, and nuts.
4. Fittings (bolts, nuts, and washers) shall be galvanized in accordance with Item 445, "Galvanizing." Fittings shall be subsidiary to the bid item.
5. Crown shall be widened to accommodate the Metal Beam Guard Fence.
6. The lateral approach to the guard fence, shall have a maximum slope of 1V:10H.
7. If shown elsewhere in the plans or as directed by the Engineer, the guard fence may be flared at a rate of 25:1 or flatter.
8. Unless otherwise shown in the plans, guard fence placed in the vicinity of curbs shall be positioned so that the face of curb is located directly below or behind the face of the rail. Rail placed over curbs shall be installed so that the post bolt is located approximately 25 inches above the gutter pan or edge of shoulder.
9. If solid rock is encountered within 0 to 18" of the finished grade, drill a 22" dia. hole, or drill two 12" dia. front to back overlapping holes, 24" into the rock. If solid rock is encountered below 18",drill a 12" dia. hole, 12" into the rock or to the standard embedment depth, whichever maybe less. Any excess post length, after meeting these depths, may be field cut to ensure proper guardrail mounting height. Backfill with a cohesionless material.
10. Posts shall not be set in concrete, of any depth.
11. Special fabrication will be required at installations having a curvature of less than 150 ft. radius.
12. Unless otherwise shown in the plans, a composite material post and/or block that meets the requirements of DMS-7210,"Composite Material Posts and Blocks for Metal Beam Guard Fence" may be substituted for posts and/or blocks of similar dimensions. The Construction Division, TxDOT maintains a Material Producer List (MPL) for producers of materials conforming to DMS-7210. Only producers on the MPL may furnish composite material posts and/or blocks.
13. For posts located partially or wholly between precast box culvert units, the use of a cast-in-place concrete closure between boxes is required. See Detail "A" on Bridge Standard SCP-MD.

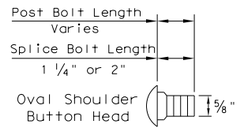


THRIE-BEAM TERMINAL CONNECTION
(SEE GENERAL NOTES 6 & 7 FOR REQUIRED HARDWARE)

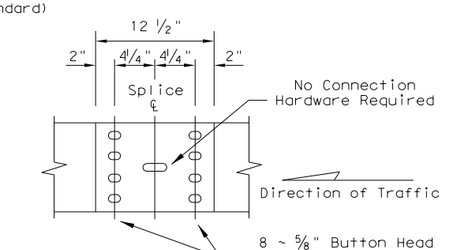
NON-SYMMETRICAL TRANSITION TO W-BEAM (10 Gauge)



ELEVATION 25'- 0"(NOM.) W-BEAM SECTION
12'- 6" RAIL SECTIONS MAY ALSO BE SUPPLIED (SEE GENERAL NOTE 2)

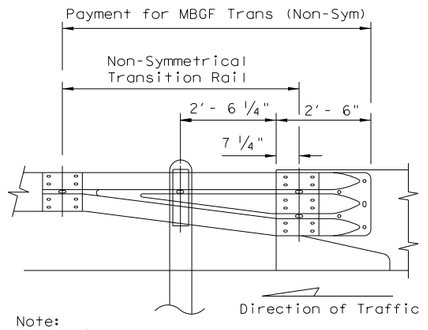


BUTTON HEAD BOLT
Post and Splice Bolts (See General Note 3)



Note:
GF(31), Mid-Span rail splices are required with 6'-3" post spacings.

MID-SPAN
RAIL SPLICE DETAIL



Note:
All rail elements shall be lapped in the direction of adjacent traffic.

DOWNSTREAM RAIL ATTACHMENT

Texas Department of Transportation

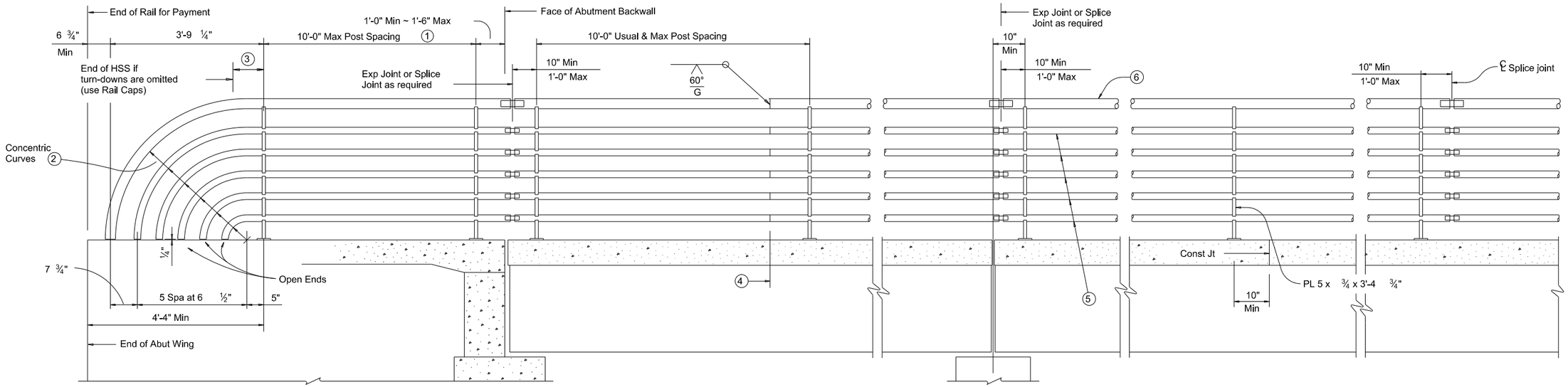
Design Division Standard

METAL BEAM GUARD FENCE

GF(31)-14

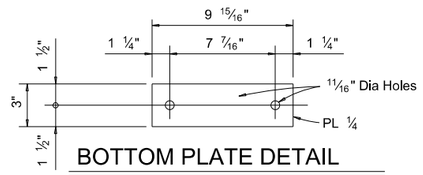
FILE: gf3114.dgn	DN: TxDOT	CK: AM	DW: VP	CK: CGL
©TxDOT: December 2011	CONT	SECT	JOB	HIGHWAY
REVISIONS				
	DIST	COUNTY		SHEET NO.
				36A

DATE:
FILE:

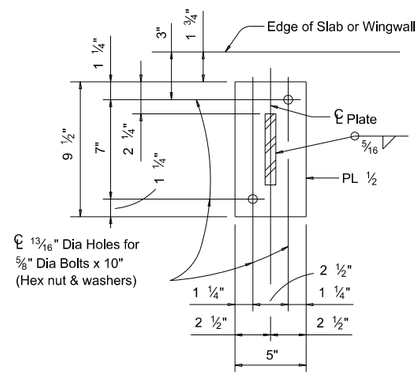


AT ABUTMENTS | AT SHOP SPLICE | AT ENDS OF UNIT | AT SLAB CONST JOINT | AT SPLICE JOINT

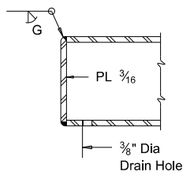
BOTTOM PLATE DETAIL



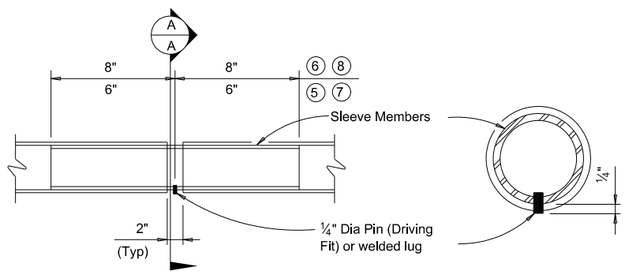
BASE PLATE DETAIL



RAIL CAP DETAIL



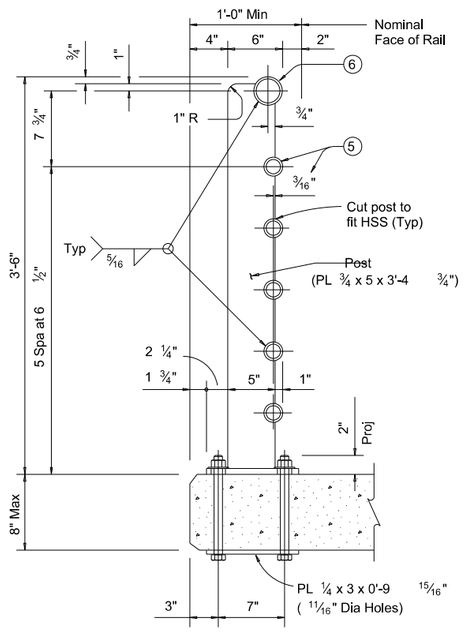
ROADWAY ELEVATION OF RAIL



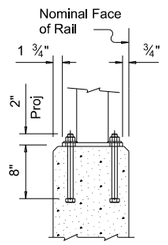
AT SPLICE OR EXP JTS | SECTION A-A

HSS SPLICE DETAIL

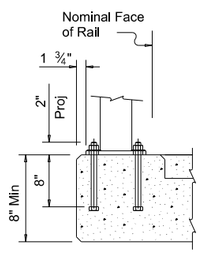
POST MOUNTING DETAILS



BASIC CONDITION



ON ABUT WING OR CIP RETAINING WALL



ON CULVERTS OR SLABS OVER 8" THICK

1. Min of 2 posts required on wingwall
2. Portion of railing with turn-downs to be used or omitted as indicated on Bridge Layout.
3. 10" Min ~ 1'-6" Max if turn-downs are omitted.
4. One shop splice per panel is permitted (with minimum 85 percent penetration). The weld may be square groove or single vee groove. Grind smooth.
5. HSS 2.375 x 0.154
6. HSS 3.500 x 0.216
7. HSS 1.900 x 0.145
8. HSS 2.875 x 0.203

CONSTRUCTION NOTES:

Panel lengths of railing must be attached to a minimum of three posts except at abutment wingwalls.

Face of rail and posts must be vertical transversely unless otherwise approved. Posts must be perpendicular to adjacent roadway grade. Use Type VIII epoxy mortar under post base plates if gaps larger than 1/16" exist.

For curved railing applications, fabricate the HSS rails to the radius when the radius is 600' or less. Submit shop drawings for approval when tubes are required to be fabricated to a radius. Shop drawings must be submitted to the Engineer for approval.

Round or chamfer exposed edges of HSS rail and HSS rail posts to approximately 1/16" by grinding.

MATERIAL NOTES:

Provide ASTM-A500 Grade B, A1085 or A53 Grade B for all HSS.

Provide ASTM-A36 for posts and plates.

Galvanize all steel components unless otherwise shown.

Anchor bolts must be 5/8" Dia ASTM A307 Grade A bolts (or A36 threaded rods with one tack welded hex nut each) with one hex nut and one hardened steel washer at each bolt. Threaded rods may be 0.557" minimum diameter with rolled threads. Nuts must conform to A563 requirements.

GENERAL NOTES:

Designed according to AASHTO LRFD Specifications.

Rail anchorage details shown on this standard may require modification for select structure types. See appropriate details elsewhere in plans for these modifications.

Do not use this railing on bridges with expansion joints providing more than 5" movement.

For all rails, submit erection drawings showing section lengths, splice locations, rail post spacing and anchor bolt setting for approval.

Average weight of railing is 30 plf.

Texas Department of Transportation

Bridge Division Standard

PEDESTRIAN RAIL

TYPE PR1

FILE:	rlstd028.dgn	DN: TxDOT	CK: TxDOT	DW: JTR	CK: TxDOT
©TxDOT	July 2014	CONT	SECT	JOB	HIGHWAY
REVISIONS					
		DIST	COUNTY		SHEET NO.
					36B