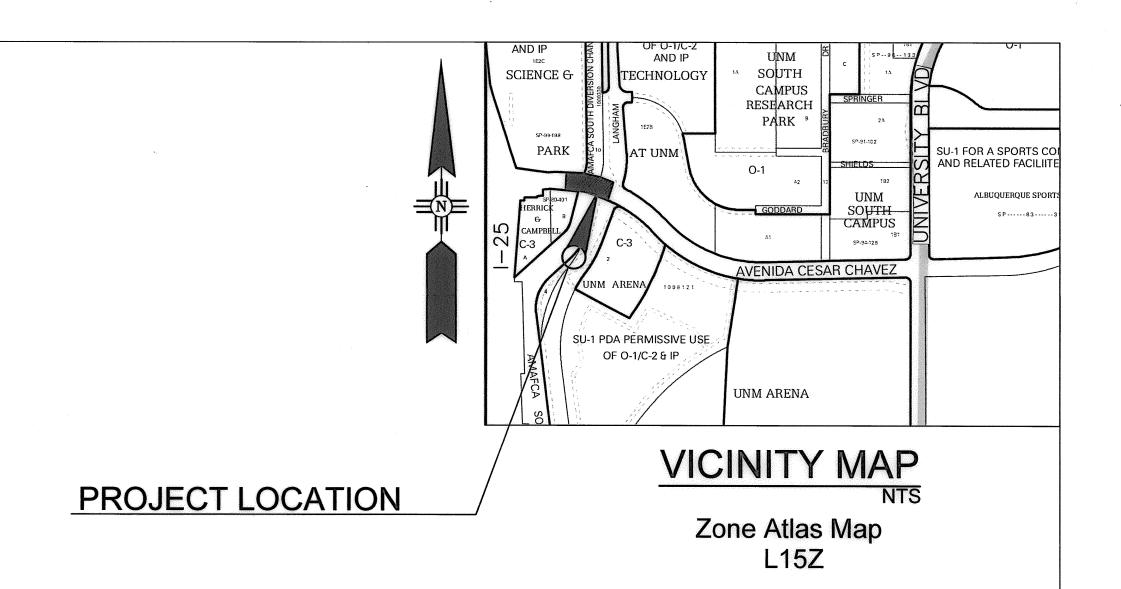
CITY OF ALBUQUERQUE CONSTRUCTION PLANS

AVENIDA CESAR CHAVEZ INLET DESIGN PROJECT COA Project 5015.07

Index of Sheets

HEET NO.	DESCRIPTION	GROUP	
1	COVER SHEET	GENERAL PROJECT INFORMATION	
2-3	GENERAL NOTES		
4	SUMMARY OF QUANTITIES		
5	HORIZONTAL LAYOUT AND SURVEY CONTROL		
6	EXISTING ROADWAY TYPICAL SECTIONS	ROADWAY TYPICAL SECTIONS	
7	SUGGESTED CONSTRUCTION SEQUENCING AND WATER VALVE SHUTOFF PLAN	TRAFFIC CONTROL/SHUTOFF PLAN	
8	ROADWAY PLAN & PROFILE AND UTILITY PLAN	ROADWAY PLAN	
9	DRAINAGE PLAN & PROFILE AND UTILITY PLAN	DRAINAGE PLAN	
10	STRUCTURE GENERAL NOTES	BRIDGE PLANS	
11	STRUCTURE PLAN		
12	STRUCTURE PROFILES		
13	STRUCTURE TRANSVERSE SECTIONS		
14	SIDEWALK DETAILS		
15-16	PRECAST SLAB GIRDER DETAILS		
17	BEARING PAD AND ABUTEMENT CONNECTION DETAILS		
18	OUTFALL EROSION PAD AND AMAFCA WATER QUALITY MANHOLE PLAN DETAILS	MISCELLANEOUS DETAILS	
19	AMAFCA CHANNEL STRUCTURE SECTION DETAILS		
20	AMAFCA CHANNEL RCP CHANNEL PENETRATION DETAIL		
21	AMAFCA WATER QUALITY MANHOLE SECTIONS AND DETAILS	1	
22	AMAFCA WATER QUALITY MANHOLE BAFFLE DETAILS	7	
23	MODIFIED CITY OF ALBUQUERQUE MEDIAN STORM INLET DETAIL	Ţ .	
24	METAL RAILING GENERAL NOTES AND TYPICAL DETAILS (543-01-1/1)	NMDOT STANDARD DRAWINGS	
25	METAL RAILING TYPE "D" (543-03-1/2)		
26	METAL RAILING TYPE "D" DETAILS (543-03-2/2)		
27	THRIE BEAM GUARDRAIL (606-GR31-2/20)		
28	BEAM GUARDRAIL ELEMENTS (606-GR31-3/20)	7	
29	BEAM GUARDRAIL POSTS AND BLOCKS (606-GR31-4/20)	7	
30	END TREATMENT THRIE BEAM END ANCHOR DETAILS (606-GR31-12/20)	1	
31	CURVED GUARDRAIL DETAILS (606-GR31-14/20)	1	
	END TREATMENT DRIVEWAY END ANCHOR (606-GR31-10/20)	7	







ABCWUA	ACCEPTANCE OF RECORD DRAWING
	CONSTRUCTION ENGINEER
-	
PRIN'	NAME
DATE	

			FINAL	DESIGN	SUBN	MTTA		
- ālvi							general and the second and the secon	
		-						
REV.			DATE	USER DEPAR		DATE	USER DEPARTMENT	DATE
	EERS STAMP & SIGNATURE	DRC Chair Transporte Water/Wast Hydrology' Parks Constr. Co Traffic End	man Sleation Stewater Coord.	ENGINEER Voodall	9/14 9-9-	10/14 A	**************************************	UCTION //o//4 Date
		PROJEC		5015.07		S	HEET 1 of	32

GENERAL NOTES:

- SPECIFICATIONS ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON. BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS, 1986 EDITION, UPDATE 8, INCLUDING AMENDMENT 1 TO UPDATE 8.
- 2. BUSINESS ACCESS THE CONTRACTOR SHALL PROVIDE INGRESS AND EGRESS TO LOCAL BUSINESSES AND RESIDENCES FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL ADVISE OF AND SCHEDULE ACCESS CLOSURES, AT LEAST 24 HOURS IN ADVANCE, WITH PROPERTY OWNERS AND THE CITY ENGINEER.
- 3. CONSTRUCTION SCHEDULE SEVEN (7) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION COORDINATION DIVISION A CONSTRUCTION SCHEDULE, THAT SHALL BE SUBMITTED AND UPDATED IN ACCORDANCE WITH THE CONTRACT TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. THE CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION.
- 4. NM ONE-CALL TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT N.M. ONE-CALL SYSTEM, 260-1990, FOR LOCATION OF EXISTING UTILITIES.
- 5. <u>PERMITS</u> CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS NECESSARY FOR CONSTRUCTION. PERMITS SHALL BE CONSIDERED INCIDENTAL TO THE ASSOCIATED WORK PERFORMED.
- 6. 24-HOUR CONSTRUCTION ALL WORK IMPACTING ARTERIAL ROADWAY MAY REQUIRE 24-HOUR CONSTRUCTION IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE'S ORANGE BARREL POLICY. THE CONSTRUCTION COORDINATION ENGINEER SHALL DETERMINE IF MARATHON CONSTRUCTION IS REQUIRED AND COORDINATE WITH THE CONTRACTOR.
- 7. INTERSECTION WORK CRITICAL INTERSECTION WORK SHALL NOT START UNTIL THE CONTRACTOR HAS ALL MATERIAL, EQUIPMENT, AND NECESSARY PERSONNEL ON-SITE. TRAFFIC CONTROL DEVICES SHALL NOT BE PLACED PREMATURELY.
- 8. OVERNIGHT PARKING OVERNIGHT PARKING OF CONSTRUCTION VEHICLES ON PRIVATE PROPERTY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 9. <u>CLEAR ZONE</u> THE CONSTRUCTION CLEAR ZONE FOR THIS PROJECT IS 10 FEET FROM THE FACE OF CURB. THE CONTRACTOR SHALL NOT STORE EQUIPMENT OR MATERIAL WITHIN THE CONSTRUCTION CLEAR ZONE UNLESS THE EQUIPMENT OR MATERIAL IS PROPERLY SHIELDED UTILIZING CURRENT SAFETY DESIGN AND INSTALLATION METHODS. THE SAFETY DESIGN FOR SHIELDING SHALL BE PROVIDED BY THE CONTRACTOR AND MUST BE APPROVED BY THE PROJECT MANAGER BEFORE IMPLEMENTING. THIS WORK, INCLUDING 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.
- 10. REGULATORY SIGNS THE CONTRACTOR SHALL NOTIFY THE ALBUQUERQUE TRAFFIC ENGINEERING DIVISION THREE (3) WORKING DAYS IN ADVANCE OF ANY WORK REQUIRED REGARDING ALL EXISTING REGULATORY SIGNS AND SIGNALS THAT NEED TO BE REMOVED, RELOCATED, OR REINSTALLED. CALL 857-8680. REFER TO SECTION 18.4.4 OF THE SPECIFICATIONS.
- 11. SURVEY MONUMENTS THE CONTRACTOR SHALL NOTIFY THE CITY SURVEYOR NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE CITY SURVEYOR MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE CITY SURVEYOR AND SHALL NOTIFY THE CITY SURVEYOR AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE CITY SURVEYOR. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATION OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT THE CONTRACTOR'S EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4.4 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS.
- 12. CONSTRUCTION LIMITS THE CONTRACTOR WILL BE REQUIRED TO CONFINE THEIR WORK WITHIN THE CONSTRUCTION LIMITS AND/OR R.O.W. TO PRESERVE EXISTING VEGETATION AND PRIVATE PROPERTY. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAY OPENINGS OR DESIGNATED TRAFFIC LANES.
- 13. BUILDING DAMAGE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT BUILDING STRUCTURES ADJACENT TO THE PROJECT NOT BE DAMAGED DUE TO ANY CONSTRUCTION ACTIVITIES. DAMAGE CAUSED TO ANY BUILDING STRUCTURE WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, INCLUDING ALL COSTS INCURRED IN RESTORING/REPAIRING SAID DAMAGE.
- 14. PEDESTRIAN ACCESS THE CONTRACTOR SHALL SUBMIT A PROPOSED WORK PLAN FOR PEDESTRIAN IMPROVEMENTS TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INITIATING THIS WORK. THIS PLAN SHALL INCLUDE THE METHOD PROPOSED TO MAINTAIN PEDESTRIAN ACCESS TO BUSINESSES, SCHOOLS, HOSPITALS, BUILDINGS, ETC. THROUGHOUT THE PEDESTRIAN IMPROVEMENTS CONSTRUCTION IN PARTICULAR. THE CONTRACTOR, AT MINIMUM, SHALL MAINTAIN A 48" CLEAR PATH FOR PEDESTRIANS SO AS TO MEET ADA ACCESSIBILITY REQUIREMENTS.
- 15. NEWS MEDIA THROUGHOUT THE LIFE OF THIS PROJECT, THE CONTRACTOR SHALL KEEP THE LOCAL NEWS MEDIA INFORMED OF CONSTRUCTION ACTIVITIES WHICH WILL IMPEDE THE NORMAL FLOW OF TRAFFIC. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE
- 16. AS-BUILTS THE CONTRACTOR SHALL MAINTAIN AN UP TO DATE SET OF AS-BUILT PLANS FOR THE PROJECT. THESE PLANS SHALL BE KEPT CURRENT. WITHIN TWO WEEKS, AT ALL TIMES AND SHALL BE SUBJECT TO REVIEW BY THE PROJECT MANAGER THROUGHOUT THE PROJECT AND WILL BE REVIEWED BY THE PROJECT MANAGER FOR ACCURACY AND COMPLETENESS AT LEAST ONCE EVERY 30 DAYS. THE FINAL AS-BUILT PLANS SHALL BE SUBMITTED AND ACCEPTED BY THE PROJECT ENGINEER PRIOR TO FINAL PAYMENT.
- 17. GRAFFITI THE CONTRACTOR SHALL MAINTAIN A GRAFFITI FREE WORK SITE AND SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT AND ROADWAY FEATURES, WHETHER PERMANENT OR TEMPORARY. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF THE PROJECT AND NO SEPARATE MEASURE OR PAYMENT WILL BE
- 18. CONSTRUCTION SIGNING CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL CONSTRUCTION SIGNING UNTIL PROJECT IS ACCEPTED BY THE CITY.
- 19. NON-VIBRATORY ROLLER THE CONTRACTOR SHALL BE RESTRICTED TO THE USE OF A 35 TON MAXIMUM NON-VIBRATORY ROLLER TO OBTAIN THE REQUIRED COMPACTION IN PAVEMENT STRUCTURE, ROADWAY BACKFILL, EMBANKMENT, AND SUBGRADES IN URBAN AREAS WHERE THE USE OF HEAVIER EQUIPMENT COULD DAMAGE UNDERGROUND UTILITIES OR OTHER PERMANENT STRUCTURES.
- 20. EXISTING TIE-IN ALL NEW STREET PAVING, CURB AND GUTTER, SIDEWALKS OR DRIVE PADS SHALL MATCH THE ELEVATIONS OF ABUTTING EXISTING AREAS AS SHOWN IN THE PLANS OR AS DIRECTED BY THE PROJECT ENGINEER.
- 21. CONSTRUCTION SIGNING CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL CONSTRUCTION SIGNING UNTIL PROJECT IS ACCEPTED BY THE CITY.
- 22. MANHOLE RIM ELEVATIONS SHOWN ON THESE PLANS ARE APPROXIMATE AND WILL VARY WITH THE FINISHED PAVEMENT
- 23. SAW CUT WHEN ABUTTING NEW PAVEMENT TO EXISTING, CONTRACTOR SHALL SAW CUT, TO FULL PAVEMENT DEPTH, THE EXISTING PAVEMENT TO A NEAT VERTICAL STRAIGHT LINE AS REQUIRED TO REMOVE ANY BROKEN OR CRACKED PAVEMENT AND MATCH NEW TO EXISTING. THIS WORK SHALL BE CONSIDERED INCIDENTAL AND NO ADDITIONAL PAYMENT WILL BE MADE THEREFOR.
- 24. FIELD VERIFICATION THE CONTRACTOR SHALL VERIFY ALL EXISTING FIRE HYDRANT FLANGES, PADS, VALVE BOXES, MANHOLE RIMS AND TOP OF PIPE ELEVATIONS IN THE FIELD. ELEVATIONS SHALL BE ADJUSTED TO FINISHED GRADE TO COMPLY WITH THE REQUIREMENTS OF THE STANDARD CITY DETAILS.

GENERAL NOTES CONTINUED:

- 25. SLOPE LIMITS THE CONTRACTOR SHALL WARP SLOPES UP TO 3:1 WHERE NECESSARY TO STAY WITHIN THE RIGHT OF WAY OR CONSTRUCTION EASEMENT LIMITS. THE WORK SHALL BE AS DIRECTED BY THE PROJECT MANAGER.
- 26. SUBGRADE PREP THE SUBGRADE PREP SHALL EXTEND ONE (1) FOOT BEYOND THE FREE EDGE OF NEW SIDEWALK AND SHALL BE CONSIDERED INCIDENTAL TO SIDEWALK CONSTRUCTION.
- 27. DAMAGE REPAIR THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DAMAGE TO EXISTING PAVEMENTS, PAVEMENT STRIPING & MARKINGS, CURB AND GUTTER, DRIVEPADS, HANDICAP RAMPS, SIGNAGE, AND SIDEWALK DURING CONSTRUCTION APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS, AND SHALL REMOVE AND REPLACE AS PER COA STANDARDS AT THEIR OWN EXPENSE.
- 28. REMOVALS THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REMOVALS REQUIRED TO COMPLETE THE PROJECT. ADDITIONAL REMOVALS NOT SHOWN ON THE PLANS WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION. THE COST OF HAULING OF REMOVALS AND MATERIAL TO BE DISPOSED SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
- 29. CONCRETE REMOVAL WHEN REMOVAL OF EXISTING CURB AND GUTTER OR SIDEWALK IS REQUIRED, REMOVE TO NEAREST
- 30. DISPOSALS ALL CONSTRUCTION DEBRIS, SPOIL AND NON-SALVAGEABLE ITEMS BECOME THE PROPERTY OF THE CONTRACTOR AND PROPER DISPOSAL OF THESE ITEMS IS THE RESPONSIBILITY OF THE CONTRACTOR. ANY HAUL COSTS ASSOCIATED WITH THIS WORK IS CONSIDERED INCIDENTAL TO THE PROJECT.
- 31. SALVAGEABLE MATERIALS FROM THIS PROJECT ARE TO BE HAULED AND STOCKPILED AT THE FOLLOWING LOCATIONS: SIGNING, FIRE HYDRANTS, STREET LIGHT, INLET GRATES, CITY OF ALBUQUERQUE PINO YARDS. HAUL OF SUCH MATERIAL SHALL BE PERFORMED DURING NORMAL WORKING HOURS AS DIRECTED BY THE PROJECT ENGINEER. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE CONTRACT PRICE FOR EACH SALVAGE ITEM.
- 32. BACKFILL COMPACTION ALL TRENCH EXCAVATION BACKFILL WITHIN THE ROADWAY PRISM SHALL BE COMPACTED TO 95% OF THE MODIFIED PROCTOR PER ASTM D-698 OR D-1557 AND COA STD. DWG. 2465 AS APPLICABLE.
- 33. EXISTING STRUCTURES THE CONTRACTOR SHALL CLEAN ALL EXISTING STRUCTURES THAT ARE TO REMAIN OPERATIONAL ALL STRUCTURES (NEW AND EXISTING) SHALL BE CLEAN AT THE TIME OF FINAL PROJECT ACCEPTANCE. THIS WORK SHALL BE CONSIDERED AS INCIDENTAL TO CONSTRUCTION. NO SEPARATE MEASUREMENT AND PAYMENT WILL BE MADE FOR CLEANING OF STRUCTURES.
- 34. OSHA REQUIREMENTS EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR EMPLOYEES SAFETY.
- 35. R-VALUE THE DESIGN R-VALUE FOR THIS PROJECT IS 50. WHERE SOILS WITH AN R-VALUE OF LESS THAN 50 OCCUR AT FINISHED SUBGRADE ELEVATION OF PAVED ROADWAY AREAS, THESE SOILS SHALL BE OVER EXCAVATED A VERTICAL DEPTH OF AT LEAST TWO (2) FEET AND FOR A LATERAL DISTANCE OF AT LEAST TWO (2) FEET OUTSIDE OF THE BACK EDGE OF CURB (SEE CITY OF ALBUQUERQUE STANDARD DESIGN SECTIONS). THE OVER EXCAVATED MATERIAL SHALL BE REPLACED WITH A MATERIAL HAVING AN R-VALUE OF AT LEAST 50. OVER EXCAVATION WILL BE PAID FOR UNDER COA ITEM NO. 202.011 - EXCAVATE AND DISPOSE OF UNSUITABLE MATERIAL, COMPLETE.
- 36. STRUCTURAL FILL: STRUCTURAL FILL FOR EMBANKMENTS, PAVEMENTS, AND STRUCTURES SHALL BE PLACED IN LIFTS THAT, FOLLOWING COMPACTION, DO NOT EXCEED 8". FILLS SHOULD BE COMPACTED AT MOISTURE CONTENTS WITHIN +/- 2% OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM. SELECT STRUCTURAL FILL AROUND CULVERTS AND OTHER STRUCTURES SHOULD BE COMPACTED, USING HAND OPERATED COMPACTION EQUIPMENT AND IN LIFTS NOT EXCEEDING 4", TO THE DENSITY AND MOISTURE CONTENT SPECIFIED ABOVE. THE UPPER 12" OF ROADBEDS SHALL BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY (ASTM 1557).
- 37. TEMPORARY FLOOD CONTROL: THE CONTRACTOR SHALL PROTECT THE WORK ZONE AND KEEP THE ROADWAY SAFELY PASSABLE AT ALL TIMES BY DRAINING OR PUMPING FLOOD WATER AS NEEDED. THE CONTRACTOR SHALL SUBMIT A FLOOD CONTROL PLAN TO THE P.M. FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. AT A MINIMUM THE PLAN SHALL SHOW:
 - 1) THE PROPOSED STORM WATER REMOVAL METHODS.
 - THE AVAILABILITY OF ON-CALL MATERIALS AND EQUIPMENT 3) THE TIME FRAME FOR RESPONSE DURING A STORM EVENT.
 - THE LOCATIONS FOR THE STORM WATER DISPOSAL.
- THE CONTRACTOR SHALL NOT DIVERT CONCENTRATED FLOWS ONTO PRIVATE PROPERTY. THIS WORK SHALL BE PAID FOR UNDER ITEM NO. 30.01 - FLOOD PROTECTION.
- 38. EXISITNG UTLITIES IN PLAN ALL EXISTING UTILITIES SHOWN HEREIN WERE TAKEN FROM RECORD DRAWINGS, FIELD SURVEYS, C.O.A. SYSTEMS UTILITIES MAPS AND INFORMATION PROVIDED BY THE UTILITY OWNERS AND ARE APPROXIMATE. IT WILL BE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS AND TYPE OF EXISTING UTILITIES TO BE ADJUSTED OR EXTENDED AND TO PROVIDE PROTECTION FOR ALL UTILITIES WITHIN THE CONSTRUCTION AREA.
- 39. AVOIDING UTILITIES THE CONTRACTOR IS TO EXERCISE DUE CARE TO AVOID DISTURBING ANY EXISTING UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE UTILITY COMPANIES IN ORDER TO PREVENT ANY SERVICE DISRUPTION THAT MIGHT RESULT FROM PROJECT CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT AND PRESERVE UTILITY EQUIPMENT AFFECTED BY PROJECT CONSTRUCTION. SHOULD THE CONTRACTOR BREAK AN EXISTING UTILITY LINE DURING CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL BE RESPONSIBLE FOR UTILITY REPAIR COSTS.
- 40. WATER SERVICE THE CONTRACTOR SHALL NOTIFY THE LOCAL FIRE DEPARTMENT AND WATER AUTHORITY AT LEAST TWO (2) WORKING DAYS IN ADVANCE OF WHEN FIRE HYDRANTS WILL BE TAKEN OUT OF SERVICE AND RETURNED TO SERVICE. ALL HYDRANTS TAKEN OUT OF SERVICE SHALL BE BAGGED.
- 41. <u>UTILITY POLES</u> ALL UTILITY POLES TO BE RELOCATED SHALL BE TEMPORARILY SUPPORTED BY OTHERS PRIOR OR DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH PNM ELECTRIC FOR THIS RELOCATION. CALL 241-3464. THE COST OF RELOCATION SHALL BE PAID FOR BY THE CITY OF ALBUQUERQUE.
- 42. ADJUSTING UTILITIES ALL GAS VALVE BOXES, GAS MANHOLES, ELECTRICAL MANHOLES, AND TELEPHONE MANHOLES WILL BE ADJUSTED TO GRADE BY OTHERS. THIS WORK SHALL BE COORDINATED WITH EACH UTILITY. A UTILITY COORDINATION MEETING SHALL BE SET UP BY THE CONTRACTOR A MINIMUM OF ONE (1) WEEK PRIOR TO ANY CONSTRUCTION ACTIVITY. COORDINATION OF UTILITY RELOCATION SCHEDULES SHALL BE DETAILED AT THIS MEETING. EACH UTILITY WILL BE RESPONSIBLE FOR THE COST OF THE WORK.
- 43. QWEST RELOCATION THE CONTRACTOR SHALL COORDINATE WITH QWEST ON RELOCATION OF ANY TELEPHONE BOXES.
- 44. CABLE RELOCATION THE CONTRACTOR SHALL COORDINATE WITH COMCAST CABLE ON RELOCATION OF ANY CABLE TELEVISION SERVICES.

AND DESIGNED BY: PB DATE 8/14 DESIGNED BY: PB D				AS BUILT INFORMATI	CONTRACTOR	WORK STAKED BY	INSPECTOR'S ACCEPTANCE BY	FIELD VERIFICATION BY	DRAWINGS CORRECTED BY	MICRO-FILM INFORMA	RECORDED BY	NO.	
AND DESIGNED BY: PB DESIGN BY: PB DATE 8/14 OHECKED BY: PB DATE 8/14				BENCH MARKS	ALBUQUERQUE GRS BENCHMARK "25_L16"	1 3/4" METALLIC DISC		OF YALE BLVD., AVENDIA CESAR CHAVEZ	AND SANTA CLARA AVE.	ELEV. =			
AND DESIGNED BY: PB DESIGNED BY: PB DATE 8/14 CHECKED BY: PB DATE 8/14 CHECKED BY: PB DATE 8/14 CHECKED BY: PB DATE 8/14				SURVEY INFORMATION	FIELD NOTES	ВУ							
AND DESIGNED BY: PB DESIGNED BY: PB ONE OF THE BATE DESIGNED BY: PB DESIGNED BY: PB DESIGNED BY: PB DATE DESIGNED BY: PB DATE DATE DATE DESIGNED BY: PB DATE BATE DATE DATE DATE DESIGNED BY: PB DATE BATE DATE DATE DATE BATE DATE DATE DATE BATE DATE				ENGINEER'S SEAL			S. C. C.	A A A STORES	V. ME 911	CH + COM	JACK WEEMS		
CITY OF ALBUQUERQUE DEPARTMENT OF MUNICIPAL DEVELOPMENT ENGINEERING DIVISION										DESIGN			
DEPARTMENT OF MUNICIPAL DEVELOPMENT ENGINEERING DIVISION								 			BY:		BY:
	DEPARTME	NT OF M ENGINEE	IUNICIPAL RING DIVIS	DEV SION	/EL				Τ				

MO./DAY/YR. MO./DAY/YR.

2 OF 32

CITY ENGINEER APPROVAL

SEP 1 0-2014

REVIEW COMMITTEE

DESIGN REVIEW COMMITTEE

SEP 1 0 2014

CITY ENGINEER

City Project No.

COA 5015.07

GENERAL NOTES

Zone Map No. | Sheet

GENERAL NOTES CONTINUED:

- 45. <u>UTILITY LOCATIONS</u> THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND TYPE OF EXISTING UTILITIES TO BE ADJUSTED OR EXTENDED.
- 46. MATCHING EXISTING GRADES WHERE A PROFILE GRADE IS NOT PROVIDED IN THE PLANS, STREET CENTERLINE GRADES SHALL BE RESTORED BY THE CONTRACTOR TO THE EXISTING CENTERLINE GRADES. CROSS SECTION THE EXISTING ROAD PRIOR TO CONSTRUCTION AS NEEDED TO MATCH EXISTING (50' MIN.). MINOR ADJUSTMENTS TO THE STREET GRADES MAY BE NECESSARY AND WILL BE DIRECTED BY THE PROJECT ENGINEER. MINOR ADJUSTMENTS TO THE STREET GRADES WILL BE CONSIDERED INCIDENTAL TO THE PAVING BID ITEMS. SMOOTH TRANSITIONS SHALL BE MADE BETWEEN EXISTING PAVEMENT WHICH REMAINS IN PLACE AND PAVEMENT WHICH IS BEING REPLACED. TRAFFIC CONTROL DEVICES, INCLUDING PAVEMENT MARKINGS, MUST BE RESTORED TO THE SAME OR BETTER CONDITION AS BEFORE CONSTRUCTION.
- 47. WATER SHUT—OFF PLAN THE CONTRACTOR SHALL COORDINATE WITH THE WATER AUTHORITY SEVEN (7) DAYS IN ADVANCE OF PERFORMING WORK THAT WILL AFFECT THE PUBLIC WATER OR SANITARY SEWER INFRASTRUCTURE. WORK REQUIRING SHUTOFF WELL COLLECTORS, TRANSMISSION LINES, OR FACILITIES DESIGNATED AS MASTER PLAN FACILITIES MUST BE COORDINATED WITH THE WATER AUTHORITY 14 DAYS IN ADVANCE OF PERFORMING SUCH WORK. ONLY WATER AUTHORITY CREWS ARE AUTHORIZED TO OPERATE PUBLIC VALVES. SHUTOFF REQUESTS MUST BE MADE ONLINE AT HTTP://www.abcwua.org/water_shut_off_and_turn—on_procedures.aspx
- 48. IF HUMAN REMAINS ARE ENCOUNTERED, THE CONTRACTOR SHALL CEASE ALL WORK, AND CONTACT THE OFFICE OF MEDICAL EXAMINER FOR FURTHER INSTRUCTIONS.
- 49. ELECTRONIC MARKER DEVICES SHALL BE INSTALLED PER STANDARD TECHNICAL SPECIFICATION SECTION 170 AND SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
- 50. <u>NPDES COMPLIANCE</u> THE CONTRACTOR WILL BE RESPONSIBLE FOR ACQUIRING A LOW EROSIVITY WAIVER FOR THIS PROJECT. COST FOR THIS WORK WILL BE CONSIDERED AS INCIDENTAL TO CONSTRUCTION.
- 51. TRAFFIC CONTROL PLAN THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT AND OBTAIN APPROVAL OF A TRAFFIC CONTROL PERMIT PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES ON THE PROJECT. THE CONTRACTOR SHALL SUBMIT THE PERMIT TO THE PROJECT MANAGER FOR REVIEW AND APPROVAL.

THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN THAT SHALL REFLECT THE PROPOSED TRAFFIC CONTROL SEQUENCING SCHEDULE—SHEET 14. THESE PLANS MUST BE PREPARED AND SEALED BY A REGISTERED NEW MEXICO PROFESSIONAL ENGINEER. THE PLANS SHALL BE REVIEWED AND APPROVED BY THE CITY OF ALBUQUERQUE AND

THE TRAFFIC CONTROL PERMIT ALONG WITH THE TRAFFIC CONTROL PLANS SHALL BE SUBMITTED TO THE CITY OF ALBUQUERQUE AND AMAFCA AT LEAST 10 WORKING DAYS PRIOR TO THE PRE—CONSTRUCTION MEETING. THE TRAFFIC CONTROL PLANS SHALL BE SUBMITTED ON 11 X 17 SHEETS. NO HAND DRAFTED TRAFFIC CONTROL PLANS WILL BE ACCEPTED.

THE CITY OF ALBUQUERQUE AND AMAFCA RESERVE THE RIGHT TO MAKE CHANGES TO THE CONTRACTORS TRAFFIC CONTROL PLAN TO ADDRESS SITE SPECIFIC ITEMS THAT WERE NOT SHOWN ON THE PLANS. THE CITY OF ALBUQUERQUE AND AMAFCA ALSO RESERVE THE RIGHT TO ADD DEVICES AND/OR SIGNS TO THE APPROVED PLAN IF IT IS DETERMINED THAT THE SIGN AND/OR DEVICES WOULD BE REQUIRED TO ADDRESS SAFETY CONCERNS WITHIN OR IN ADVANCE OF THE WORK ZONE. ANY CHANGES TO THE PLANS WHICH RESULT IN ADDITIONAL SIGNS AND/OR DEVICES WILL BE CONSIDERED INCIDENTAL TO ITEM 19.010 — CONSTRUCTION TRAFFIC CONTROL AND BARRICADING.

52. <u>IDENTIFYING UTILITIES</u> THE CONTRACTOR WILL EXPLORE AND IDENTIFY ALL EXISTING UTILITIES AND STORM DRAINAGE PIPE PRIOR TO COMMENCING ANY BORING OPERATIONS. THE CONTRACTOR WILL OFFSET THE PROPOSED DRAINAGE PIPES SO THAT THE BORING OPERATION WILL NOT DAMAGE THE EXISTING PIPE. THE CONTRACTOR WILL PROVIDE A BORING LAYOUT TO THE PROJECT MANAGER 24 HOURS PRIOR TO BEGINNING THE BORING. COST FOR THIS WORK WILL BE CONSIDERED AS INCIDENTAL TO CONSTRUCTION.

LIGHTING GENERAL NOTES:

- 1. CONTRACTOR SHALL REMOVE EXISTING CONDUITS AND PULL BOXES THROUGHOUT THE PROJECT AS DIRECTED BY THE PROJECT MANAGER.
- 2. EACH TIME A ROADWAY LUMINARE IS TURNED ON OR OFF, THE CONTRACTOR SHALL COORDINATE WITH THE FOLLOWING REPRESENTATIVES.

PNM ELECTRIC CITY OF ALBUQUERQUE

- 3. POWER SHALL NEITHER BE TURNED ON NOR OFF UNTIL THE RESPONSIBLE PARTIES FOR EACH LIGHTING SYSTEM HAVE BEEN NOTIFIED.
- 4. PNM ELECTRIC COMPANY WILL ASSIST WITH THE IDENTIFICATION OF EXISTING CIRCUITS. CONTRACTOR WILL BE REQUIRED TO TIE THE NEW CIRCUIT INTO THE EXISTING CIRCUITS. CONTRACTOR SHALL USE APPROPRIATE CAUTION WHEN INTERCEPTING EXISTING CIRCUITS.
- 5. LIGHTS NEAR EXISTING OVERHEAD TRANSMISSION LINES MUST MAINTAIN VERTICAL CLEARANCE AND HORIZONTAL CLEARANCE FROM THE CLOSEST PHASE CONDUCTOR. PNM ELECTRIC COMPANY WILL ASSIST IN MEASUREMENT AND DETERMINATION OF CLEARANCE.
- 6. THE CONTRACTOR SHALL CONTACT THE CITY OF ALBUQUERQUE FOR APPROVED PRODUCTS LISTING FOR LIGHTING SIGNAL COMPONENTS.
- 7. THE CONTRACTOR IS WARNED THAT EXISTING CONDUITS MAY CONTAIN AC POWER AND CAUTION SHALL BE EXERCISED IN INTERCEPTING OR INSTALLING CABLE IN EXISTING CONDUIT.
- 8. EXISTING CONDUITS TO BE REMOVED OR ABANDONED SHALL HAVE ALL WIRING REMOVED.

WHERE ELECTRICAL PULL BOXES OR TRAFFIC MANHOLES ARE INSTALLED OR REPLACED.

- 9. EXISTING CONDUITS SHALL BE REPAIRED, ADJUSTED, OR REPLACED AS DIRECTED BY THE PROJECT MANAGER
- 10. CAP UNUSED WIRING.
- 11. ALL CONDUIT INSTALLED IN A TRENCH SHALL BE FLAGGED WITH CAUTION TAPE ONE FOOT ABOVE THE CONDUIT. CAUTION TAPE SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
- 12. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR DAMAGE TO ANY LIGHTING EQUIPMENT, INCLUDING EXISTING CONDUIT TO REMAIN, DURING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SALVAGE AND/OR REPLACE LIGHTING EQUIPMENT IN KIND TO THE SATISFACTION OF THE CITY OF ALBUQUERQUE PROJECT MANAGER.

J:\33677 COA On-Call 2012\04 Task Orders\Task 11 - Avenida Cesar Chavez Inlet Design\04 Engineering\Plans\1_Sheets\GeneralNotes.dwg Sep 05, 2014 - 2:41pm Saved By: Chavez

AMAFCA GENERAL NOTES:

- 1. AMAFCA FIELD ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY WORK WITHIN THE AMAFCA R/W. TELEPHONE (505)884-2215.
- 2. NO WORK SHALL BE PERFORMED IN THE AMAFCA R/W BETWEEN MAY 15 AND OCTOBER 15 WITHOUT WRITTEN PERMISSION FROM AMAFCA.
- 3. ALL SUB-GRADE, BACKFILL, AND EMBANKMENT SHALL BE COMPACTED TO 95% (\pm 2% OF OPTIMUM MOISTURE PER ASTM D-1557) WITHIN THE AMAFCA R/W. TESTING REPORTS SHALL BE PROVIDED TO AMAFCA FIELD ENGINEER.
- 4. AMAFCA FIELD ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO FINAL INSPECTION OF ANY FACILITIES WITHIN THE AMAFCA R/W.
- 5. ALL DISTURBED GROUND AREAS SHALL BE REVEGETATED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SECTION 1012 NATIVE GRASS SEEDING, AS CURRENTLY UPDATED
- 6. ANY MONUMENTS DISTURBED OR DESTROYED SHALL BE REPLACED BY A NM LICENSED SURVEYOR AT THE CONTRACTOR'S EXPENSE. AMAFCA SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY MONUMENT PLACEMENT.
- 7. THE MAXIMUM WHEEL LOAD ALLOWED IN AMAFCA CHANNELS IS 12,000 POUNDS.
- 8. NO TRACKED VEHICLES ARE ALLOWED IN AMAFCA CHANNELS REGARDLESS OF LOCATION WITHOUT WRITTEN PERMISSION FROM AMAFCA.
- 9. CRANES OPERATING IN AMAFCA CHANNELS WITH OUTRIGGERS SHALL LIMIT THE OUTRIGGER FOOTPRINT LOAD AREA TO LESS THAN 12,000 POUNDS.
- 10. CONTRACTOR SHALL OBTAIN A TEMPORARY CONSTRUCTION LICENSE FROM AMAFCA PRIOR TO CONSTRUCTION.

INCIDENTAL ITEMS:

ITEMS LISTED ARE ONLY A GENERAL DESCRIPTION OF THE REQUIRED WORK AND MATERIALS, AND MAY NOT BE COMPLETE. THIS LIST DOES NOT INCLUDE ANY INCIDENTAL WORK OR MATERIALS REQUIRED BY THE SPECIAL PROVISIONS, SERIALS (STANDARD DETAILS), SUPPLEMENTAL SPECIFICATIONS, OR THE STANDARD SPECIFICATIONS.

- 1. CLEAN EXISTING STRUCTURES. SEE GENERAL NOTE 33.
- 2. MATCHING EXISTING GRADES. SEE GENERAL NOTE 46.
- 3. ALL NECESSARY CONSTRUCTION WORK PERMITS. SEE GENERAL NOTE 5.
- 4. CLEAR ZONE SHIELDING. SEE GENERAL NOTE 9. 5. PAVEMENT SAW CUT FOR NEW ROADWAY PAVING, SEE GENERAL NOTE 23.
- 6. CLEANING TRAFFIC CONTROL DEVICES, SEE GENERAL NOTE 21.7. YELLOW PAINT FOR CURB RAMPS, CURB RETURNS AND MEDIAN NOSES.
- Y. YELLOW PAINT FOR CORB RAMPS, CORB RETURNS AND MEDIAN NOSES.
- B. HAULING OF MATERIAL TO BE DISPOSED. SEE GENERAL NOTE 28. D. LOCATION OF UTILITY LINES INCLUDING EXPLORATORY TRENCHING AND BORING. SEE GENERAL NOTE 52.
- 9. LOCATION OF UTILITY LINES INCLUDING EXPLORATOR 10. GRAFFITI MAINTENANCE, SEE GENERAL NOTE 17.
- 11. WATER SHUT-OFF PLANS, SEE GENERAL NOTE 47.
- 12. ELECTRONIC MARKER DEVICES. SEE GENERAL NOTE 49.
 13. ACQUIRING A LOW EROSIVITY WAIVER. SEE GENERAL NOTE 50.
- 14. MISCELLANEOUS BRIDGE ITEMS. SEE SHEETS 10-17.
- 15. LANDSCAPING/IRRIGATION ITEMS. SEE SHEET 7.
- 16. MISCELLANEOÙS CHANNEL STRUCTURE ITEMS. SEE SHEET 19. 17. REMOVAL OF EXISTING DRAINAGE GRATES. SEE SHEET 8.
- 18. REMOVAL OF DISPOSAL OF MATERIAL ASSOCIATED WITH THE CONSTRUCTION OF THE EROSION PAD. SEE SHEET 9.
- 19. REINFORCING STEEL ASSOCIATED WITH THE EROSION CONTROL PAD. SEE SHEET 19.
- 20. DUCTILE IRON FITTINGS AND RESTRAINTS ASSOCIATED WITH LOWERING THE EXISTING 12" WATER LINE. SEE SHEET 9.
 21. CONDUIT AND WIRE ASSOCIATED WITH LOWERING THE EXISTING CITY OF ALBUQUERQUE ELECTRICAL SERVICE LINE. SEE SHEET 9.

UTILITY OWNERS:

	OTILITE OWINLING.		
	Potts, Michael	Office phone: (505) 697—3138 Office fax: 344—0091	New Mexico Gas 4625 Edith Blvd. NE Albuquerque, NM 87107
	Stratton, Sara	Office phone: (505) 241-3389	PNM — Electric Co. of NM 4201 Edith Blvd. NE Albuquerque, NM 87107
	Mortus, Mike	Office phone: (505) 761-6252 Office fax: (505) 761-0599	Comcast Planning and Design Supervisor 4611 Montbel Place NE Albuquerque, NM 87107
KVC 919	Kniffin, Rosana	Office phone: (505) 245-6374 2598 KVC 9/9/14	CENTURY LINK/QWEST 4301 Boga NE Albuquerque, NM 87109
۲m	1914 tsgaard, Jon Johnson , Kris	2598 Office phone: (505) 768— 2729— Office fax: (505) 768—3629	ABCWUA P.O. Box 568 Albuquerque, NM 87103
			NEW MEXICO ONE CALL SYSTEM CALI BEFORE YOU DIG (505) 260-1990

QUE GRS BENCHMARK "25_L16"

TALLIC DISC
S LOCATED AT THE INTERSECTION
SLVD., AVENDIA CESAR CHAVEZ
A CLARA AVE.

B ELEV. = 5156.683 REMARKS 삠 CITY OF ALBUQUERQUE DEPARTMENT OF MUNICIPAL DEVELOPMENT ENGINEERING DIVISION AVENIDA CESAR CHAVEZ INLET DESIGN

MO./DAY/YR. MO./DAY/YR.

3 OF 32

GENERAL NOTES

Zone Map No. | Sheet

CITY ENGINEER APPROVA

SEP 1 0 2014

CITY ENGINEER

DESIGN REVIEW COMMITTEE

SEP 1 0-2014

REVIEW COMMITTEE

City Project No.

COA 5015.07

	ROADWAY ITEMS					
ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY			
301.020	Subgrade Prep. 12" at 95% compaction, cip.	SY	444			
000 040	Aggregate Base Course, crushed, 6" at 95%		4.4.4			
302.010	compaction, cip. SD 2408	SY	444			
336.022	Asphalt Concrete, 2 inch thick, superpave	SY	1,332			
340.050	Curb & Gutter, Standard, Portland Cement Concrete, incl. subgrade preparation, cip. SD 2415	LF	58			
606010	Metal Barrier Thrie Beam	LF	43			
606050	Metal Barrier End Treatment (ANCHRG)	EA	2			

NOTE: 6" ASPHALT CONCRETE PAVEMENT SECTION ASSUMED. CONTRACTOR TO MATCH EXISTING PAVEMENT SECTION.

TEMPORARY CONSTRUCTION ROADWAY ITEMS				
ITEM	ITEM DESCRIPTION	LINUT	OUANTITY	
NUMBER	DESCRIPTION	UNIT	QUANTITY	
336.022	Asphalt Concrete, 2 inch thick, superpave	SY	740	
	8" Scarified and Compacted Subgrade. 95%			
302.0XX	Minimum Compaction per section 301.	SY	180	
	Curb & Gutter, Median, Portland Cement Concrete,			
340.060	cip. SD 2408	LF	460	
	4" Median Pavement, Portland Cement Concrete,			
340.300	incl. subgrade compaction. cip.	SY	120	

DRAINAGE ITEMS					
ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY		
301.020	Subgrade Prep. 12" at 95% compaction, cip.	SY	75		
701.100	Trenching, Backfilling, & Compaction, for 18" to 36" sewer pipe, up to 8' in depth, pipe not incl., compl.	LF	120		
910.009	24" Reinforced Concrete Pipe, Class III, furnish & place in open trench, cip.	LF	88		
910.013	30" Reinforced Concrete Pipe, Class III, furnish & place in open trench, cip.	LF	12		
910.017	36" Reinforced Concrete Pipe, Class III, furnish & place in open trench, cip.	LF	20		
915.1XX	Median Storm Inlet, 15' Curb Opening, cip.	EA	4		
920.1XX	AMAFCA Water Qualtity Manhole	EA	· 1		
920.1XX	RCP Channel Penetration	LS	1		
920.1XX	8"Diameter Steel Exfiltration Pipe	EA	11		
515000	Reinforced Concrete for Minor Structures	CY	20		

STRUCTURAL ITEMS					
ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY		
210000	Excavation and Backfill for Major Structures	CY	165		
511300	Substructure Concrete Class A	CY	10		
512000	Superstructure Concrete	CY	38		
516000	Flowable Fill	CY	135		
518XXX	Precast Slab Girder	LF	55		
532000	Penetrating Water Repellent Treatment	SY	470		
533000	Repair of Concrete Structures	CY	4		
534000	Epoxy Injection, Type I	GAL	15		
536001	Epoxy Urethane Polymer Concrete Bridge Deck Overlay	SY	145		
540060	Reinforcing Bars Grade 60	LB	700		
540160	Epoxy Coated Reinforcing Bars Grade 60	LB	8500		
543030	Metal Railing, Type D	LF	124		
564000	Preformed Closed Cell Foam Bridge Joint Seals	LF	202		
601000	Removal of Structures and Obstructions	LS	1		

	CONSTRUCTION ITEMS						
ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY				
4.010	Construction Staking, compl.	LS	LS				
4.020	Construction Surveying, compl.	LS	LS				
	Construction Project Sign, per Contract						
6.010	Special Provisions, cip	LS	LS				
6.050	Construction Mobilization, compl.	LS	LS				
19.010	Construction Traffic Control & Barricading, compl.	LS	LS				
30.010	Flood Protection, compl.	LS	LS				

	ALLOWANCES		·
ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY
-	Project Sign Screen	EA	1
	Construction Materials Lab Testing	LS	LS

	SIGNING AND STRIPING ITEMS		
ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY
	Reflectorized Plastic Pavement Markings, 4" width,		
441.001	cip.	LF	2,000
	Removal of Pavement Stripe, any width, painted or		
443.101	plastic, compl.	LF	1,670
450 404	Cim Bast & Bass Bast Bassass & Calaras and	_ ,	•
450.101	Sign, Post, & Base Post, Remove & Salvage, compl.	EA	2
	Sign, Post, & Base Post, Remove & Relocate,		
450.102	compl.	EA	2

	UTILITY ITEMS		
ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY
	Traffic Signal Pedestal Pole, any size, Remove &		
422.102	Relocate, compl.	EA	1
425.100	Electrical Pull Box, any type, Adjust to grade, cip.	EA	1
	Existing Manhole Frame & Cover, adjust to grade with		
920.400	metal rings, 2" or less, cip. SD 2111	EA	2
:	12" Waterline Pipe, including. fittings, (std. spec. sec.		
801.00X	801), incl. trench & compacted backfill to 6' depth, cip.	LF	75
	Extra Trench Depth for 4" to 14" waterlines over 6' in		
801.050	depth, incl. compacted backfill, compl.	VF-LF	5
	Existing Waterline, 6" to 14", with fittings, Remove &		
801.055	Dispose, excl. trenching, compl.	LF	75
	Non-pressurized Connection, existing waterline, all		
801.059	sizes, incl. fittings, compl.	EA	1 .

NOTE: THE EXISTING MANHOLES AND THE ELECTRICAL PULL BOX IN THE MEDIAN WILL HAVE TO BE TEMPORARILY LOWERED TO ACCOMMODATE DRIVING LANES DURING CONSTRUCTION. CONTRACTOR WILL BE PAID ONCE FOR ADJUSTMENT OF MANHOLES AND PULL BOXES TO FINAL GRADE.

	REMOVAL ITEMS		
ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY
	Existing Pavement, Asphalt Concrete, more than 4"		
343.030	thick, sawcut, remove & dispose, compl.	SY	444
	Existing Curb & Gutter or Valley Gutter, PC Concrete		
343.080	,remove & dispose, compl.	LF	172

	TEMPORARY CONSTRUCTION REMOVAL ITE	MS	
ITEM	ITEM		
NUMBER	DESCRIPTION	UNIT	QUANTITY
	Existing Curb & Gutter or Valley Gutter, PC Concrete		
343.080	,remove & dispose, compl.	LF	460
	Existing Sidewalk, 4" PC Concrete, remove &		
343.085	dispose	SY	120

GENERAL NOTES:

 SEE SHEET 7 FOR ADDITIONAL TEMPORARY CONSTRUCTION QUANTITY DETAILS.

D									
UE EV				ENGINEER'S SEAL		RVEY INFORMA	NOI	BENCH MARKS	AS BUILT INFORMATIC
		,				FIELD NOTES		ALBUQUERQUE GRS BENCHMARK "25_L16"	CONTRACTOR
_OF					Ö	ВУ	DATE	1 3/4" METALLIC DISC	WORK STAKED BY
PM				ST.				STATION IS LOCATED AT THE INTERSECTION OF	INSPECTOR'S ACCEPTANCE BY
ΕN	NO. DATE	REMARKS	ВҮ	RA MUNICIPALITY OF PROPERTY OF				OF YALE BLVD., AVENDIA CESAR CHAVEZ	FIELD VERIFICATION BY
Т				V. ME 15 9				AND SANTA CLARA AVE.	DRAWINGS CORRECTED BY
		DESIGN		CH + CCO				NAVD 1988 ELEV. = 5156.683	MICRO-FILM INFORMAT
	DESIGNED BY: PB	DATE 8/14		AVC MARKET					RECORDED BY
	DRAWN BY: PB	DATE 8/14							NO.
	CHECKED BY: PB	DATE 8/14							

CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT
ENGINEERING DIVISION
AVENIDA CESAR CHAVEZ INLET DESIGN

SUMMARY OF QUANTITIES
DESIGN REVIEW COMMITTEE
OFF OF THE PROVE
SEP 1 0 2014
CITY ENGINEER
CITY ENGINEER
CITY ENGINEER
CITY ENGINEER

CITY ENGINEER

CITY ENGINEER

AVENIDA

CITY ENGINEER

MO./DAY/YR.

MO./DAY/YR.

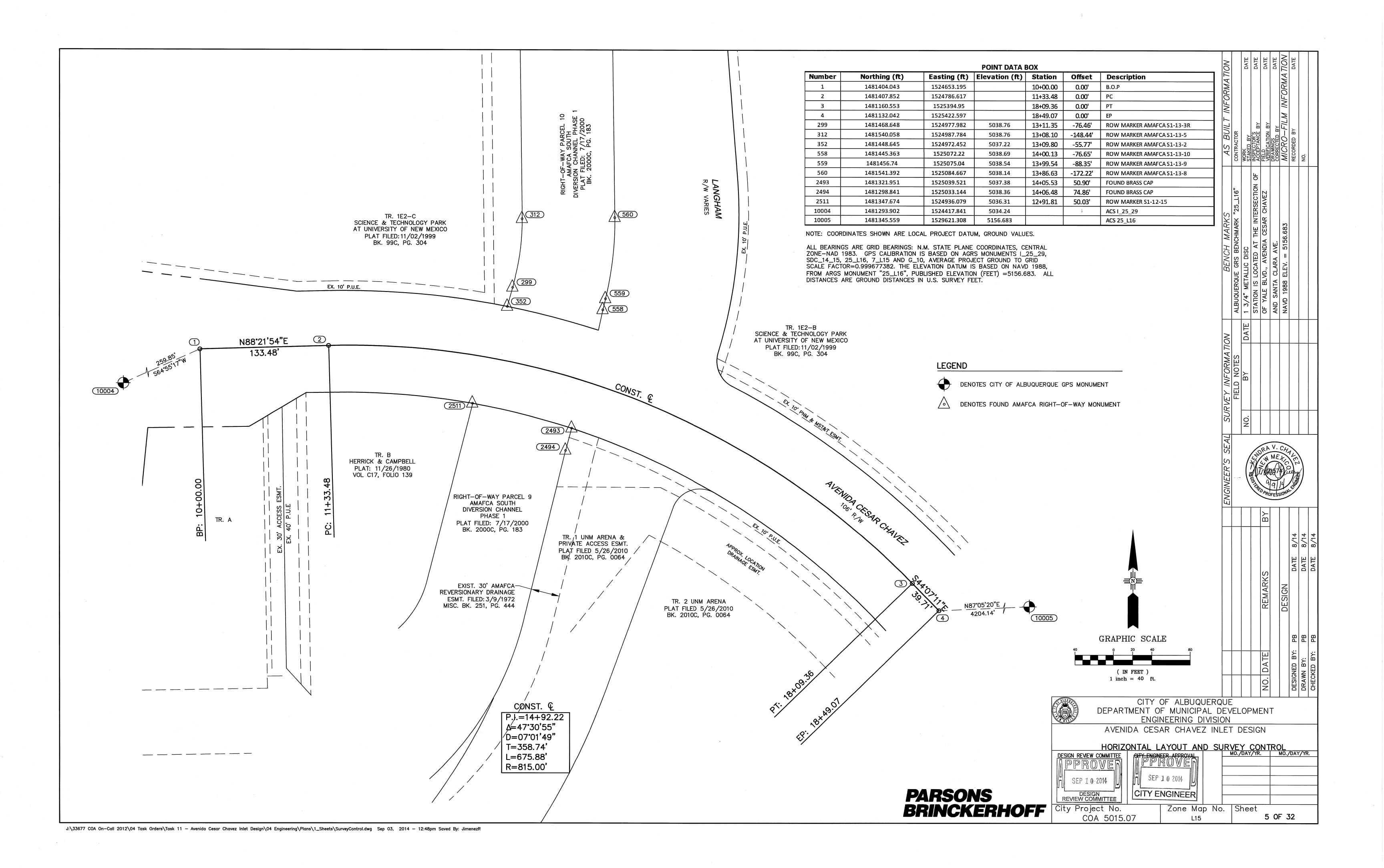
MO./DAY/YR.

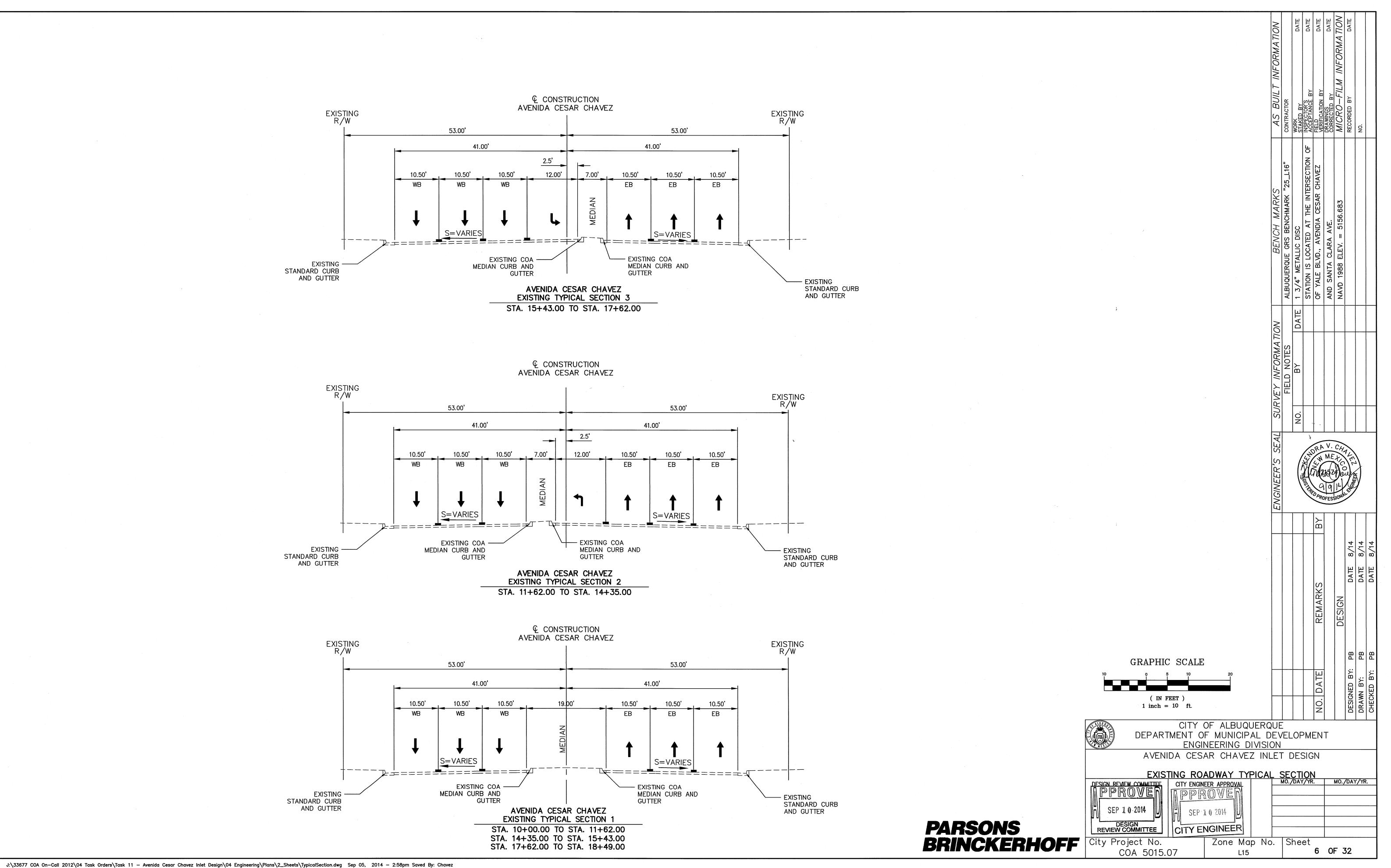
MO./DAY/YR.

AVENIDA

CITY ENGINEER

A OF 32





SUGGESTED CONSTRUCTION SEQUENCING:

THIS SUGGESTED TRAFFIC CONTROL SEQUENCING IS FOR THE CONTRACTORS INFORMATION ONLY. THE CONTRACTOR IS REQUIRED TO DEVELOP DETAILED TRAFFIC CONTROL PLANS FOR THIS PROJECT THAT ARE APPROVED BY THE CITY.

- STAGE 1: REMOVE MEDIAN NOSE FROM STATION 12+08 TO STATION 14+35 AND REPLACE WITH TEMPORARY PAVEMENT SECTION.
- STAGE 2: CLOSE EASTBOUND AVENIDA CESAR CHAVEZ FROM STATION 12+90 TO STATION 14+50 AND DETOUR TRAFFIC ONTO WESTBOUND AVENIDA CESAR CHAVEZ. CONSTRUCT NEW BRIDGE DECK, BARRIER RAILING, STORM DRAIN, AND DRAINAGE INLETS ALONG THE SOUTH CURB LINE. ALLOW A MINIMUM OF 1-LANE OF TRAFFIC TO REMAIN OPEN IN EACH DIRECTION (EASTBOUND AND WESTBOUND) DURING CONSTRUCTION.
- STAGE 3: CLOSE WESTBOUND AVENIDA CESAR CHAVEZ FROM STATION 13+20 TO STATION 14+50 AND DETOUR TRAFFIC ONTO EASTBOUND AVENIDA CESAR CHAVEZ. CONSTRUCT NEW BRIDGE DECK, BARRIER RAILING, GUARD RAIL, STORM DRAIN, MANHOLE, CHANNEL OUTFALL, AND DRAINAGE INLETS ALONG THE NORTH CURB LINE. ALLOW A MINIMUM OF 1-LANE OF TRAFFIC TO REMAIN OPEN IN EACH DIRECTION (EASTBOUND AND WESTBOUND) DURING CONSTRUCTION.
- STAGE 5: REMOVE TEMPORARY ROADWAY ASPHALT AND REPLACE EXISTING MEDIAN CURB AND GUTTER, MEDIAN PAVEMENT, UTILITIES, SIGNING, AND LANDSCAPING.

TRAFFIC CONTROL NOTES:

- 1. IT IS ANTICIPATED THAT THE REMOVAL OF MEDIAN PAVEMENT AND MEDIAN CURB AND GUTTER WILL BE REQUIRED TO CONSTRUCT THE TEMPORARY ASPHALT FOR MEDIAN CROSSOVERS FOR THE CONSTRUCTION OF THIS PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MATCH THE EXISTING VERTICAL AND HORIZONTAL GEOMETRY OF THE ROADWAY AND TO REPLACE ALL REMOVALS IN KIND. THE ESTIMATED QUANTITIES ARE SUMMARIZED IN THE TABLES SHOWN ON THIS SHEET. THE CONTRACTOR SHALL BE PAID FOR THE ACTUAL QUANTITIES USED.
- 2. IT IS ANTICIPATED THAT THERE WILL BE NO IMPACTS TO THE EXISTING LANDSCAPING AND IRRIGATION SYSTEM. IF THERE ARE DAMAGES TO THE EXISTING LANDSCAPING AND/OR IRRIGATION SYSTEM. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SALVAGE AND/OR REPLACE THE LANDSCAPING OR IRRIGATION EQUIPMENT IN KIND TO THE SATISFACTION OF THE CITY OF ALBUQUERQUE. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
- 3. REMOVE AND REPLACE EXISTING STRIPING IN KIND AS NEEDED FOR PAVEMENT REPLACEMENT AND TRAFFIC CONTROL. THE ESTIMATED QUANTITIES ARE SUMMARIZED IN THE TABLES SHOWN ON THIS SHEET. THE CONTRACTOR SHALL BE PAID FOR THE ACTUAL QUANTITIES USED.
- 4. THE CONTRACTOR SHALL DESIGN MEASURES TO MAINTAIN THE WORK ZONE AND TRAVEL LANES IN A SAFE CONDITION PER OSHA, CITY OF ALBUQUERQUE, AND NMDOT STANDARDS AS APPLICABLE, AND SHALL NOT DISTURB OR UNDERMINE THE ADJACENT EXISTING/DETOUR ROADWAY DURING CONSTRUCTION. MEASURES MAY INCLUDE BUT ARE NOT LIMITED TO TEMPORARY SHORING AND ANCHORING WALL BARRIERS. THE COST OF THESE MEASURES, INCLUDING DESIGN AND OBTAINING ANY APPROVALS REQUIRED, SHALL BE INCIDENTAL TO CONSTRUCTION.

- Water Shuttoff Plan

 Verify valve # 120 is closed.

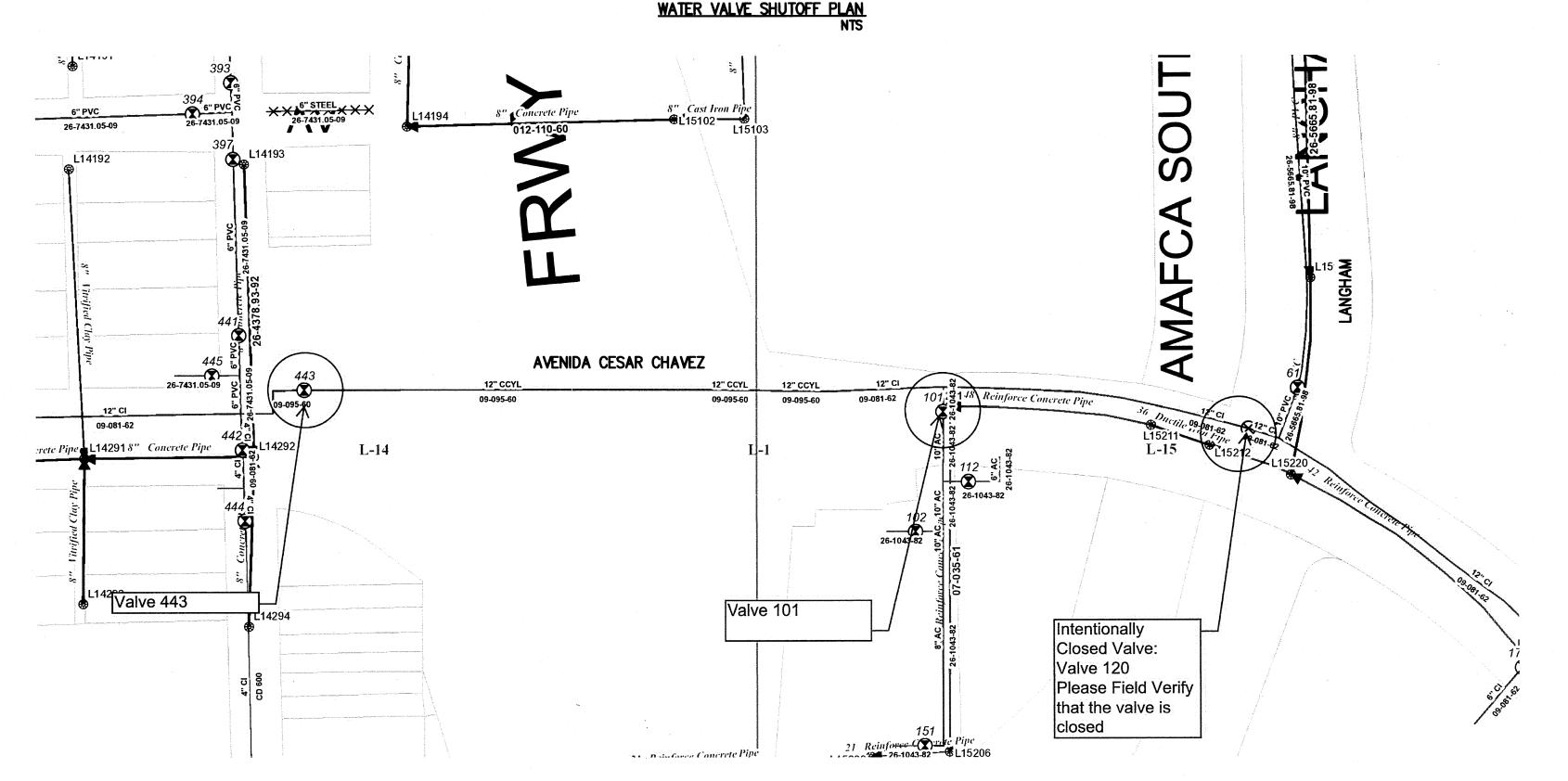
 Close valve # 101.

 Close valve # 443.

 Contractor to coordinate a trial shuttoff prior to the relocation required shutdown. Only ABCWUA staff are authorized to operate water system valves.

LOCATION	DIRECT. /	DESCRIPTION	STA	TION	LENGTH	302	.oxx	330	.022	340.060	340.	XXX	343.080	34:	3.085	443.101	441.007
			BEGIN	END		Compacted 95% M			oncrete, 2 superpave	Curb & Gutter, Median, Portland Cement Concrete, cip. SD 2408	Cement Co	ement, Portland ncrete, incl. npaction. cip.	Valley Gutter, PC Concrete	4" PC 0	Sidewalk, Concrete, & dispose	Removal of Pavement Stripe, any width, painted or plastic, compl.	Temporary Reflectorized plastic pavement markings, 4" width, incl. removal & disposal, cip.
						WIDTH	AREA	WIDTH	AREA	LENGTH	WIDTH	AREA	LENGTH	WIDTH		LENGTH	LENGTH
						(FT)	(SY)	(FT)	(SY)	(FT)	(FT)	(SY)	(FT)	(FT)	(SY)	; (F))	(FT)
REMOVALS														1			
EASTBOUND AVENIDA CESAR CHAVEZ		MEDIAN CURB AND GUTTER REMOVAL	12+08.	14+35.									227	<u></u>			
WESTBOUND AVENIDA CESAR CHAVEZ		MEDIAN CURB AND GUTTER REMOVAL	12+08.	14+35.	227								227				
AVENIDA CESAR CHAVEZ MEDIAN		MEDIAN PAVEMENT REMOVAL	12+08.	13+43.	135									5	75		
AVENIDA CESAR CHAVEZ MEDIAN		MEDIAN PAVEMENT REMOVAL	13+67.	14+35.	68			*						5	38		
EASTBOUND AVENIDA CESAR CHAVEZ		STRIPING REMOVAL	12+08.	15+41.	333											367	
WESTBOUND AVENIDA CESAR CHAVEZ		STRIPING REMOVAL	12+08.	15+41.	333											342	
REPLACEMENT			*														
EASTBOUND AVENIDA CESAR CHAVEZ		MEDIAN CURB AND GUTTER REPLACEMENT	12+08.	14+35.	227	,				227							
WESTBOUND AVENIDA CESAR CHAVEZ		MEDIAN CURB AND GUTTER REPLACEMENT	12+08.	14+35.	227					227							
AVENIDA CESAR CHAVEZ MEDIAN		MEDIAN PAVEMENT REPLACEMENT	12+08.	13+43.	135						5	75					
AVENIDA CESAR CHAVEZ MEDIAN		MEDIAN PAVEMENT REPLACEMENT	13+67.	14+35.	68						5	38					
EASTBOUND AVENIDA CESAR CHAVEZ		STRIPING REPLACEMENT	12+08.	15+41.	333												1998
WESTBOUND AVENIDA CESAR CHAVEZ		STRIPING REPLACEMENT	12+08.	15+41.	333												1998
**TEMPORARY PAVEMENT									<u> </u>								
AVENIDA CESAR CHAVEZ MEDIAN		TEMPORARY PAVEMENT PLACEMENT	12+08.	13+43.	135	8	120	8	240			The second district of					•
AVENIDA CESAR CHAVEZ MEDIAN		TEMPORARY PAVEMENT PLACEMENT	13+67.	14+35.		8	60	8	121								
TOTAL							180		361	454		113	454		113	709	3996
USE					1		180		370	460		120	460		120	710	4000

*FOR CONTRACTORS INFORMATION ONLY ** SEE CITY OF ALBUQUERQUE STANDARD DWG 2415B FOR THE TEMPORARY PAVEMENT SECTION FOR AN ARTERIAL STREET



WATER SHUT-OFF PLAN NOTE: THE CONTRACTOR SHALL COORDINATE WITH THE WATER AUTHORITY SEVEN

(7) DAYS IN ADVANCE OF PERFORMING WORK THAT WILL AFFECT THE PUBLIC WATER OR SANITARY SEWER INFRASTRUCTURE. WORK REQUIRING SHUTOFF WELL COLLECTORS, TRANSMISSION LINES, OR FACILITIES DESIGNATED AS MASTER PLAN FACILITIES MUST BE COORDINATED WITH THE WATER AUTHORITY 14 DAYS IN ADVANCE OF PERFORMING SUCH WORK. ONLY WATER AUTHORITY CREWS ARE AUTHORIZED TO OPERATE PUBLIC VALVES. SHUTOFF REQUESTS MUST BE MADE ONLINE AT HTTP: //WWW.ABCWUA.ORG/WATER_SHUT_OFF_AND_TURN-ON_PROCEDURES.ASPX

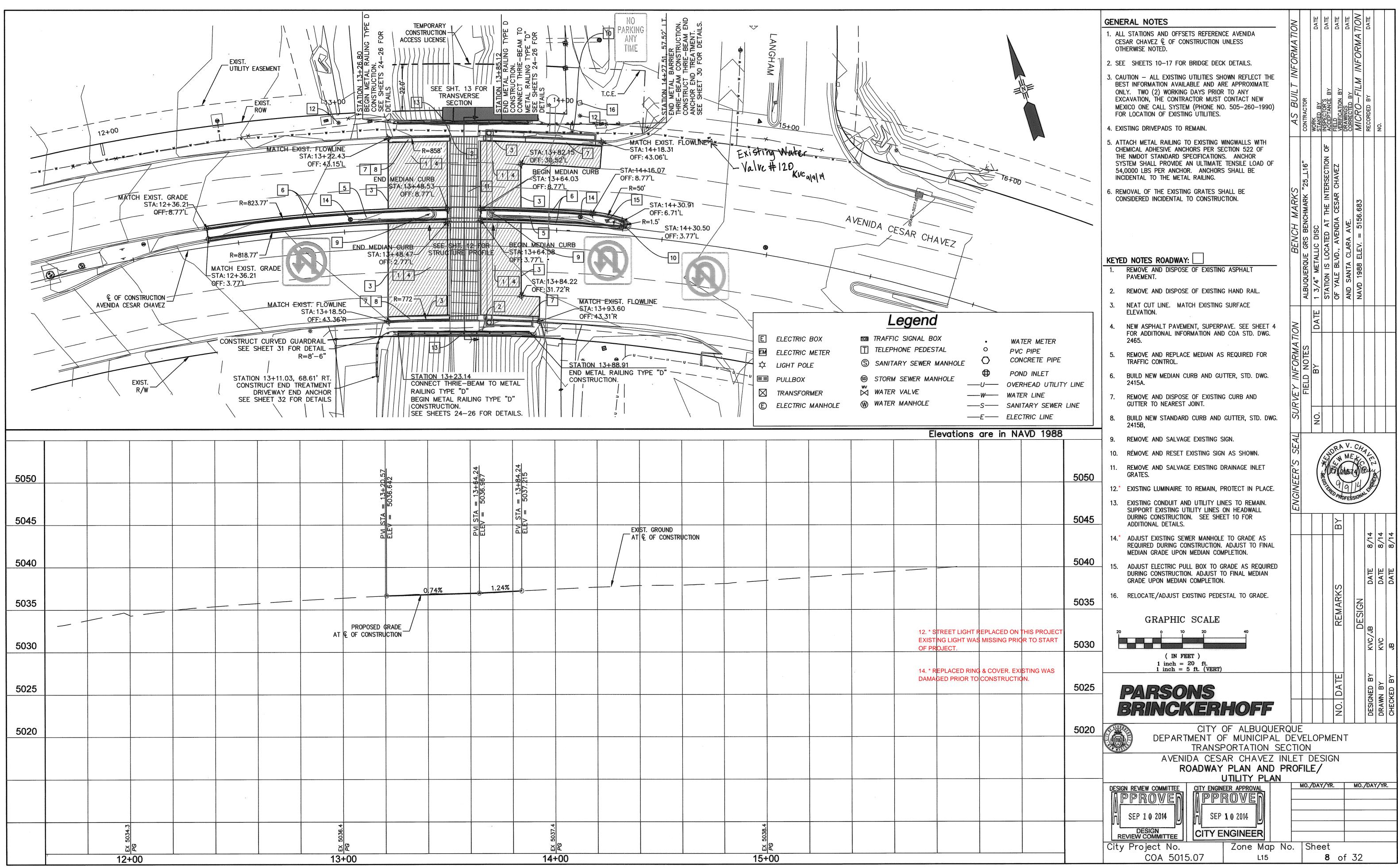
PARSONS BRINCKERHOFF

CITY OF ALBUQUERQUE DEPARTMENT OF MUNICIPAL DEVELOPMENT ENGINEERING DIVISION AVENIDA CESAR CHAVEZ INLET DESIGN SUGGESTED CONSTRUCTION SEQUENCING AND WATER VALVE SHUTOFF PLAN DESIGN REVIEW COMMITTEE

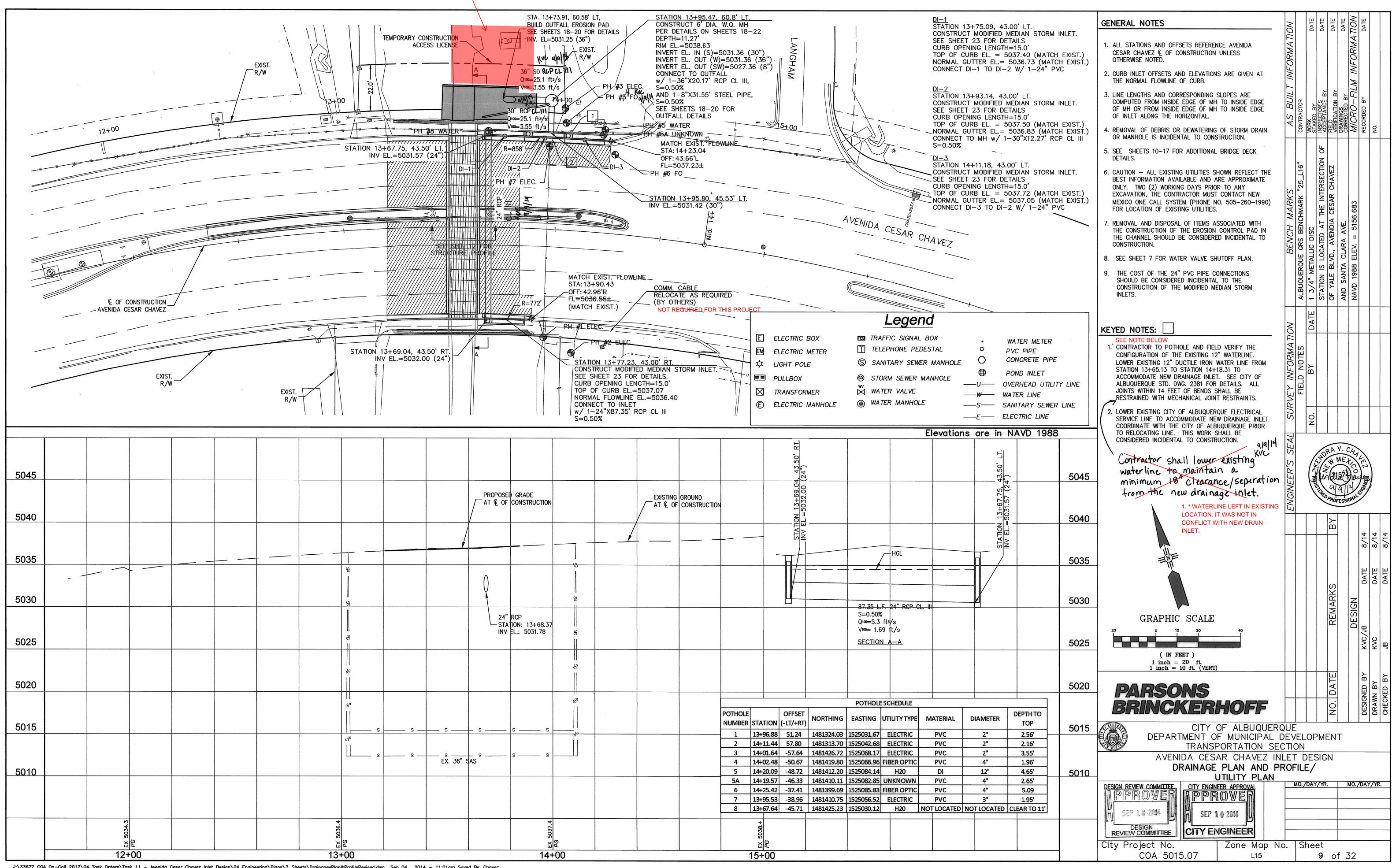
PPROVEN CITY ENGINEER APPROVAL SEP 10-2014 CITY ENGINEER ity Project No. Zone Map No. | Sheet

COA 5015.07

7 OF 32



ADDED RIP RAP THIS AREA



GENERAL NOTES

- WORKMANSHIP AND MATERIALS SHALL CONFORM TO NEW MEXICO STATE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION 2014 EDITION.
- SUPERSTRUCTURE CONCRETE SHALL BE CLASS AA AND SUBSTRUCTURE CONCRETE SHALL BE CLASS A. CHAMFER ALL EDGES OF CONCRETE 34" UNLESS OTHERWISE NOTED. ALL CONCRETE MIX DESIGNS SHALL BE ADJUSTED TO MEET THE LEVEL OF MEDIUM-RISK ZONE AS SPECIFIED IN SUBSECTION 509.2.8.2 (FREEZE-THAW RISK ZONES). CONCRETE PLACED DURING COLD WEATHER SHALL CONFORM TO SUBSECTION 511.3.3.1 (COLD WEATHER CONCRETE).
- REINFORCEMENT BARS. SUPERSTRUCTURE REINFORCEMENT SHALL BE EPOXY COATED GRADE 60. SUBSTRUCTURE REINFORCEMENT SHALL BE GRADE 60. DIMENSIONS SHOWN REFER TO CENTERLINES OF BARS UNLESS NOTED OTHERWISE. ALL REINFORCING SHALL BE STORED ABOVE GROUND ON PLATFORM SKIDS OR OTHER SUPPORTS. REINFORCING SHALL BE KEPT FREE FROM DIRT, GREASE, AND OTHER FOREIGN MATTER. REINFORCING SHALL BE KEPT FREE OF CORROSION AS FAR AS PRACTICAL.
- THE CONTRACTOR SHALL VERIFY IN THE FIELD ALL DIMENSIONS, ELEVATIONS AND DETAILS WHICH WILL BE INVOLVED IN THE NEW CONSTRUCTION BEFORE PROCEEDING WITH THE WORK.
- FALSEWORK AND FALSEWORK FOUNDATIONS SHALL CONFORM TO SECTION 511.3 CONSTRUCTION REQUIREMENTS, OF THE NMDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, 2014 EDITION. DESIGN SHALL BE SUBMITTED TO THE CITY P.M. FOR APPROVAL
- EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY IN THE FIELD THE LOCATIONS OF ALL EXISTING UTILITIES, CABLES, PIPES, OR CONDUITS WHICH MUST BE RELOCATED OR PROTECTED FROM DAMAGE BEFORE PROCEEDING WITH THE WORK. FOR UTILITIES MOUNTED ON THE EXISTING WINGWALLS AND UNDERNEATH THE SOUTH SIDEWALK TEMPORARILY SUPPORT THE UTILITIES DURING CONSTRUCTION BY A METHOD APPROVED BY THE PROJECT MANAGER NO DISRUPTION TO THE UTILITY SERVICES ARE PERMITTED. UPON COMPLETION OF THE WORK, CONTRACTOR SHALL REATTACH THE UTILITIES MOUNTED ON THE EXISTING WINGWALLS IN THEIR ORIGINAL LOCATION AND POSITION. FASTENERS, CLAMPS, AND OTHER ATTACHMENT HARDWARE, SHALL BE REPLACED IN-KIND AND SHALL NOT BE REUSED. THIS WORK SHALL BE INCIDENTAL TO COMPLETION OF THE PROJECT.
- PENETRATING WATER REPELLANT TREATMENT SHALL BE APPLIED TO ALL EXPOSED NEW AND EXISTING CONCRETE SURFACES. TREATMENT SHALL EXTEND 1'-0" BELOW FINISHED GRADE, WHERE APPLICABLE.
- POLYMER CONCRETE DECK OVERLAY (EPOXY URETHANE) SHALL BE APPLIED TO THE EXPOSED PRECAST AND CAST-IN-PLACE CONCRETE DRIVING SURFACES. THE POLYMER CONCRETE DECK OVERLAY SHALL CONFORM TO SECTION 536 "POLYMER CONCRETE BRIDGE DECK OVERLAY" OF THE NMDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, 2014 EDITION.
- PREFORMED CLOSED CELL FOAM BRIDGE JOINT SEALS OR EQUIVALENT SYSTEMS REQUIRE THE INSTALLER TO BE CERTIFIED PRIOR TO INSTALLATION. THE COST OF OBTAINING THE REQUIRED CERTIFICATION SHALL BE INCIDENTAL TO COMPLETION OF THE PROJECT.
- 10. THE EXTRUDED POLYSTYRENE SHALL HAVE A COMPRESSIVE STRENGTH OF 25 PSI. THE EXTRUDED POLYSTYRENE SHALL BE DOW STYROFOAM SQUARE EDGE EXTRUDED POLYSTYRENE INSULATION, OWENS CORNING FOAMULAR 250 RIGID FOAM INSULATION OR APPROVED EQUAL. THE EXTRUDED POLYSTYRENE IS INCIDENTAL TO THE COMPLETION OF THE PROJECT.
- EXISTING BRIDGE REMOVAL. SALVAGE AND RETURN GRATES TO STORM MAINTENANCE DEPARTMENT AT 9805 CENTRAL AVE. NE.. ALL MATERIAL FROM THE EXISTING STRUCTURE SHALL BECOME THE PROPERTY OF THE CONTRACTOR. PAYMENT FOR REMOVAL SHALL BE INCLUDED IN "ITEM 601000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS. THE APPLICABLE PORTIONS OF THE BRIDGE SHALL BE REMOVED BY THE CONTRACTOR AND PROPERLY DISPOSED OF IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTION 601 (REMOVAL OF STRUCTURES AND OBSTRUCTIONS), IN AN ENVIRONMENTALLY RESPONSIBLE MANNER AND IN CONFORMANCE WITH ALL LOCAL AND FEDERAL REGULATIONS.
- 12. THE EXISTING BRIDGE, WAS BUILT UNDER THE PROJECT "SOUTH DIVERSION CHANNEL, STADIUM BLVD. STRUCTURE". PRINTS OF AS-BUILT PLANS SHOWING THE EXISTING STRUCTURE MAY BE OBTAINED BY THE CONTRACTOR FROM THE CITY OF ALBUQUERQUE.

SCOPE OF WORK

MAKE THE FOLLOWING MODIFICATIONS TO THE EXISTING STRUCTURE:

1. REMOVE EXISTING STEEL DECK AND GIRDERS.

- 2. REMOVE EXISTING PEDESTRIAN RAILING, TO BE REPLACED WITH NMDOT METAL RAILING, TYPE "D".
- 3. REMOVE AND REMODEL EXISTING ABUTMENT SEATS AS DETAILED.
- 4. REPAIR SUBSTRUCTURE CONCRETE BY THE METHOD OF CONCRETE REPAIR.
- 5. PLACE NEW PRECAST AND CAST-IN-PLACE CONCRETE.
- 6. EPOXY INJECT CRACKS IN EXISTING STRUCTURE AND WINGWALLS.
- 7. APPLY WATER REPELLANT TREATMENT TO ALL EXPOSED CONCRETE SURFACES.

DESIGN DATA

DESIGN IS IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, 17TH EDITION.

DESIGN STRESSES:

SUPERSTRUCTURE:

SUBSTRUCTURE:

STRUCTURAL STEEL-AASHTO M270, Fy = 36 ksiGRADE 36

Fy = 50 ksiGRADE 50

REINFORCED CONCRETE:

f'c = 4000 psi @ 28 DAYS

fy = 60 ksi GRADE 60

f'c = 3000 psi @ 28 DAYS

fy = 60 ksi GRADE 60

n = 9

LIVE LOAD: **WEARING SURFACE:**

30 psf ALLOWANCE FOR FUTURE SURFACES.

STANDARD NMDOT DRAWINGS REQUIRED

EXCAVATION & BACKFILL FOR BRIDGES WALLS & CBC'S METAL RAILING TYPE "D"

DWG 210-01-1/1 DWG 543-03-1/2 THRU 2/2 DWG 564-01-1/1

PREFORMED CLOSED CELL FOAM BRIDGE JOINT SEALS

INCIDENTAL ITEMS

- ELASTOMERIC BEARING PADS WATERPROOFING AT ABUTMENT SEATS
- ALL EXTRUDED POLYSTYRENE BOARD
- PENETRATING WATER REPELLENT TREATMENT ON NEW CONCRETE
- VERIFICATION, SUPPORT, AND REATTACHMENT OF EXISTING UTILITIES
- GALVANIZED STEEL STRIPS AND ANCHORS DRILLING AND ANCHORING DOWEL BARS INTO ABUTMENTS
- 8. SUBMITTAL OF FALSEWORK DESIGN
- 9. 4" PVC CONDUIT

DECK PLACEMENT SEQUENCE

- 1. PLACE PRECAST SLABS AT THE LOCATION AND GRADE SHOWN NOT DONE DUE TO CAST-IN-PLACE OPTION 2. POST TENSION PRECAST SLABS
- 3. ATTACH DOWELS TO ABUTMENTS
- 4. PLACE C.I.P CONCRETE OUTSIDE SLABS
- 5. FOLLOWING PLACEMENT OF C.I.P CONCRETE OUTSIDE SLABS, PLACE C.I.P CONCRETE AT & CONSTRUCTION

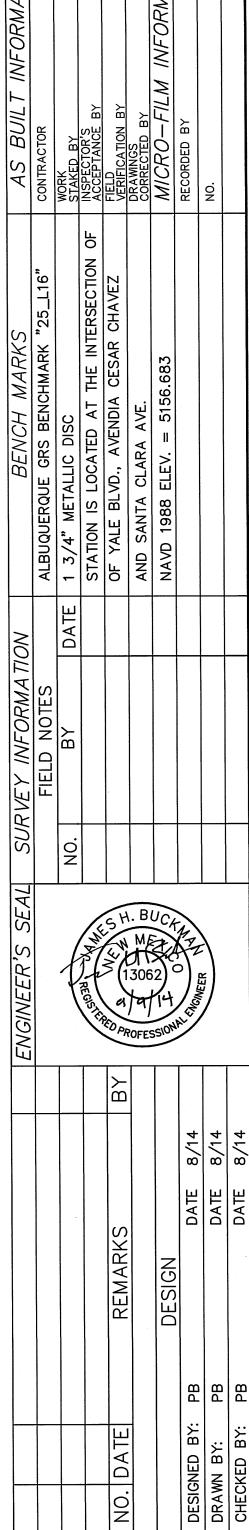
ITEMS LISTED ABOVE ARE ONLY A GENERAL DESCRIPTION OF THE REQUIRED WORK AND MATERIALS, AND MAY NOT BE COMPLETE. PARAGRAPH 104.1 OF THE NMDOT STANDARD SPECIFICATIONS APPLIES. THIS LIST DOES NOT INCLUDE ANY INCIDENTAL WORK OR MATERIALS REQUIRED BY SPECIAL PROVISIONS, SERIALS (STANDARD DETAILS), SUPPLEMENTAL SPECIFICATIONS OR THE STANDARD SPECIFICATIONS.

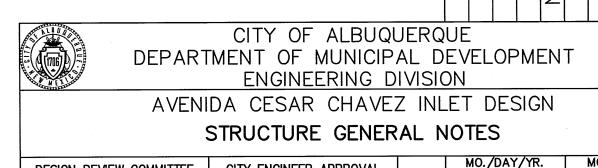
**THIS OPTION WAS USED*

CAST-IN-PLACE SLAB OPTION

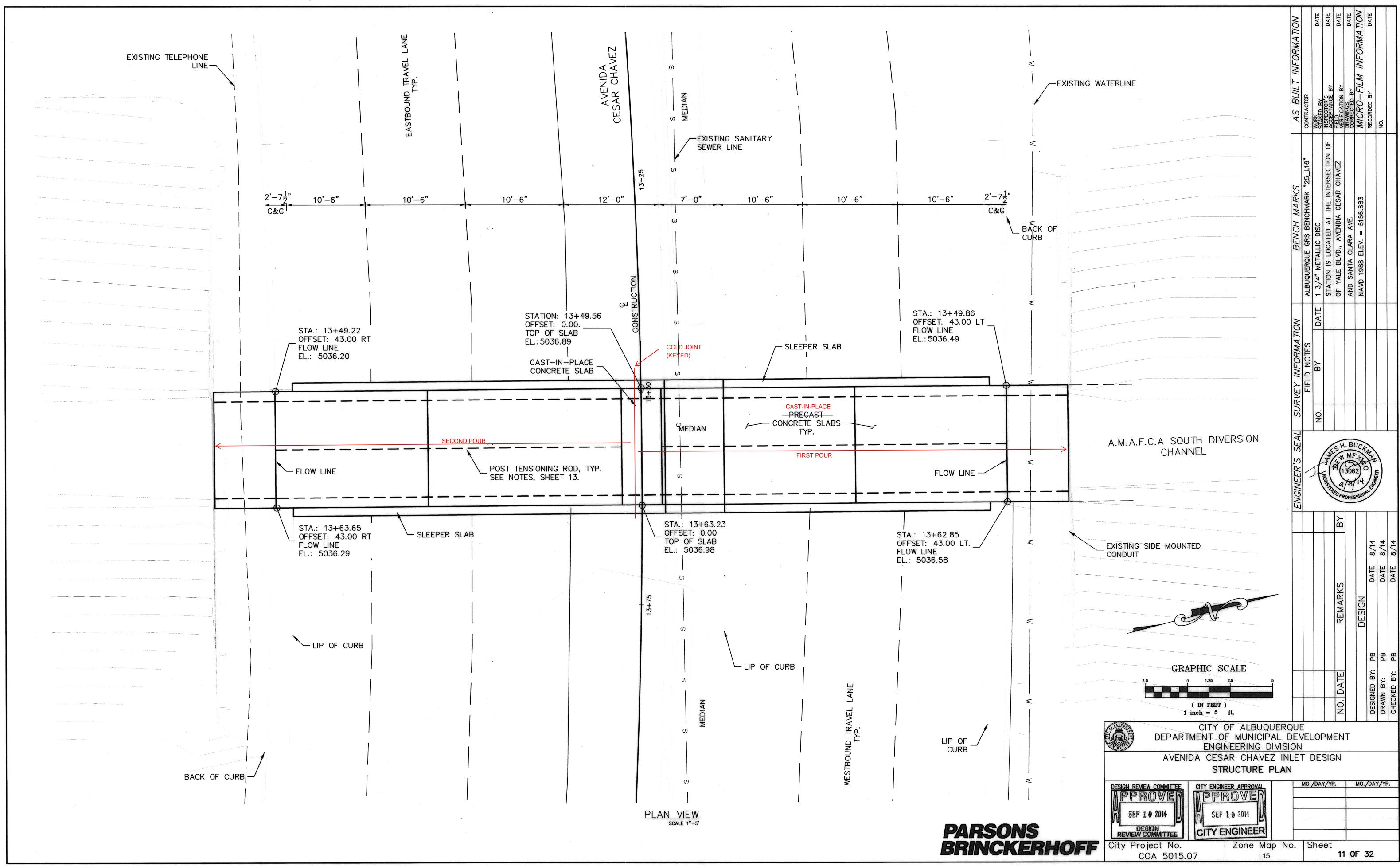
THE CONTRACTOR HAS THE OPTION OF USING CAST-IN-PLACE CONCRETE INSTEAD OF PRECAST CONCRETE SLABS. IF C.I.P CONCRETE IS USED IN PLACE OF PRECAST CONCRETE THE FOLLOWING REQUIREMENTS SHALL APPLY:

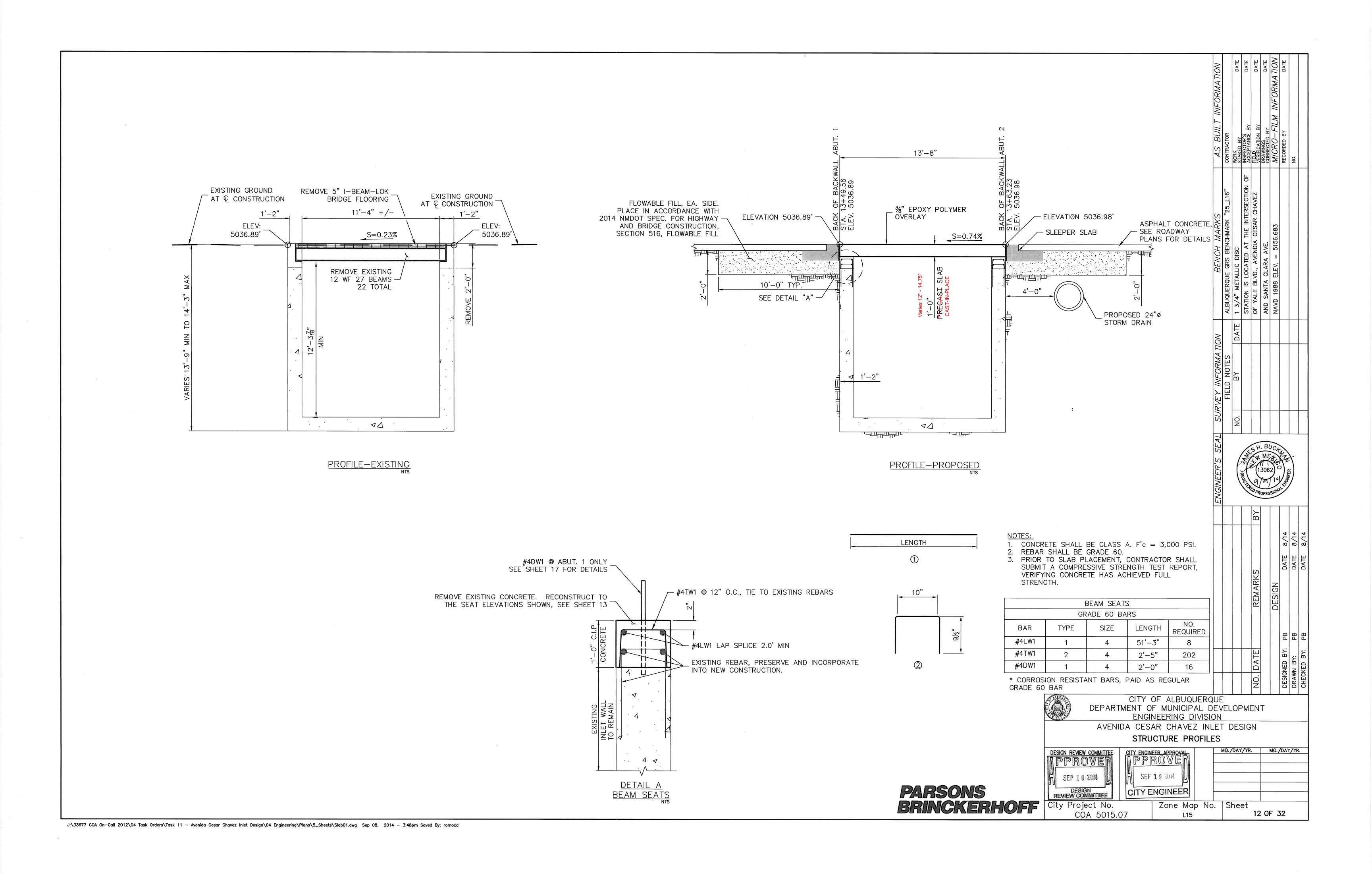
- SUPERSTRUCTURE CONCRETE SHALL BE CLASS HPD.
- TRANSVERSE REINFORCING BARS SHALL HAVE LAP SPLICES WHERE NECESSARY WITH A LENGTH OF 2'-6" MINIMUM.
- THE SURFACE OF THE DECK AND SLEEPERS SHALL BE MACHINE GROOVED PER SECTION 512.3.10.3. NO EPOXY URETHANE POLYMER CONCRETE BRIDGE DECK OVERLAY SHALL BE USED. ADD 3/8" TO THE PROPOSED DECK AND ABUTMENT ELEVATIONS TO ACCOUNT FOR THE DELETION OF THE POLYMER CONCRETE OVERLAY.
- 4. THE #4DW1 DOWELS AT ABUTMENT 1 SHALL BE CAST INTEGRALLY WITH THE
- ABUTMENT AND DECK SLAB. THE DOWEL LENGTH SHALL BE 1'-9". THE CONTRACTOR SHALL SUBMIT A DECK PLACEMENT PLAN TO THE PROJECT MANAGER AND ALLOW 5 WORKING DAYS FOR REVIEW. THE PLAN SHALL INCLUDE CLOSURE POURS AND THE LOCATION OF CONSTRUCTION JOINTS. NO JOINTS WILL BE PERMITTED ALONG THE WHEEL PATH.

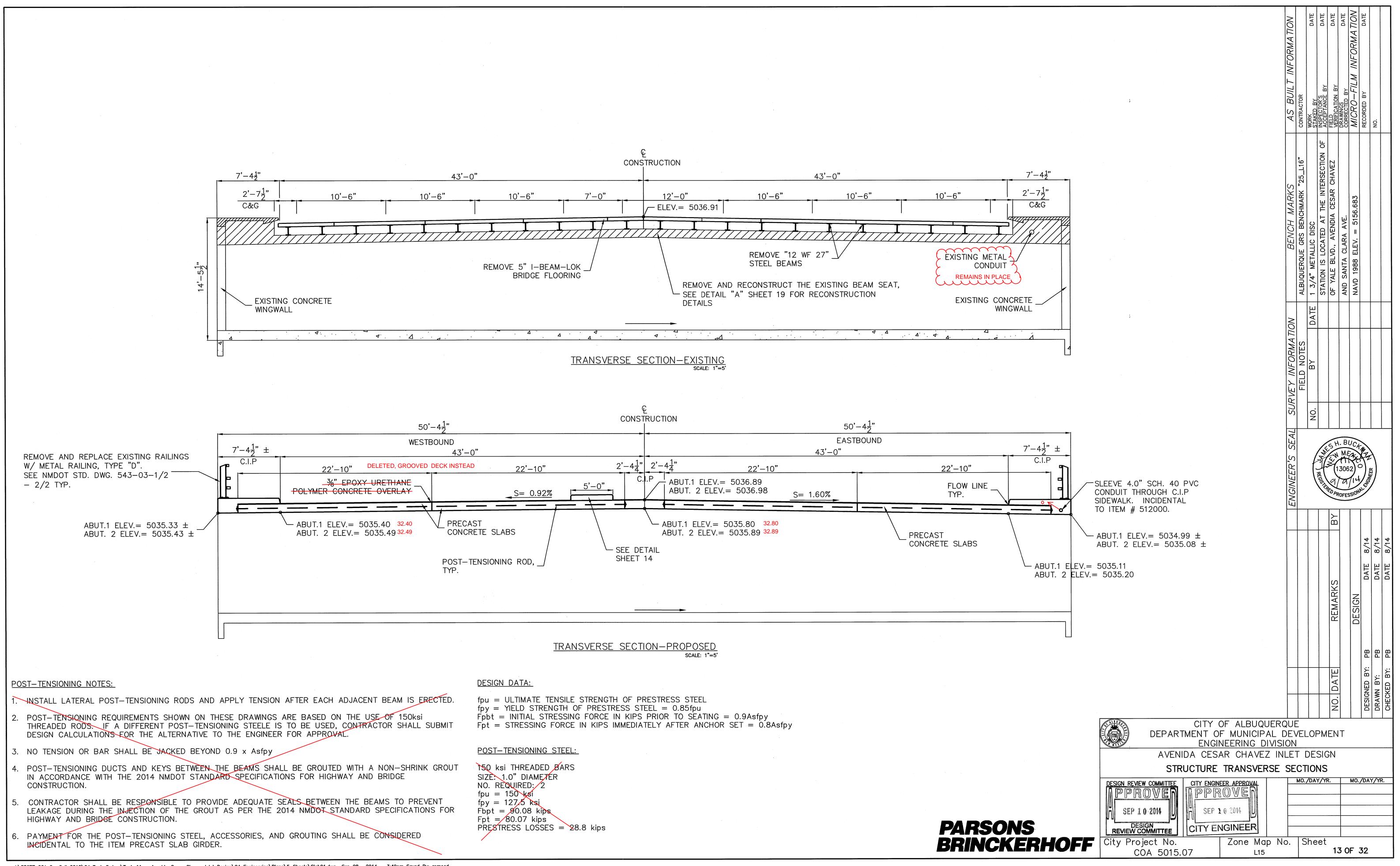


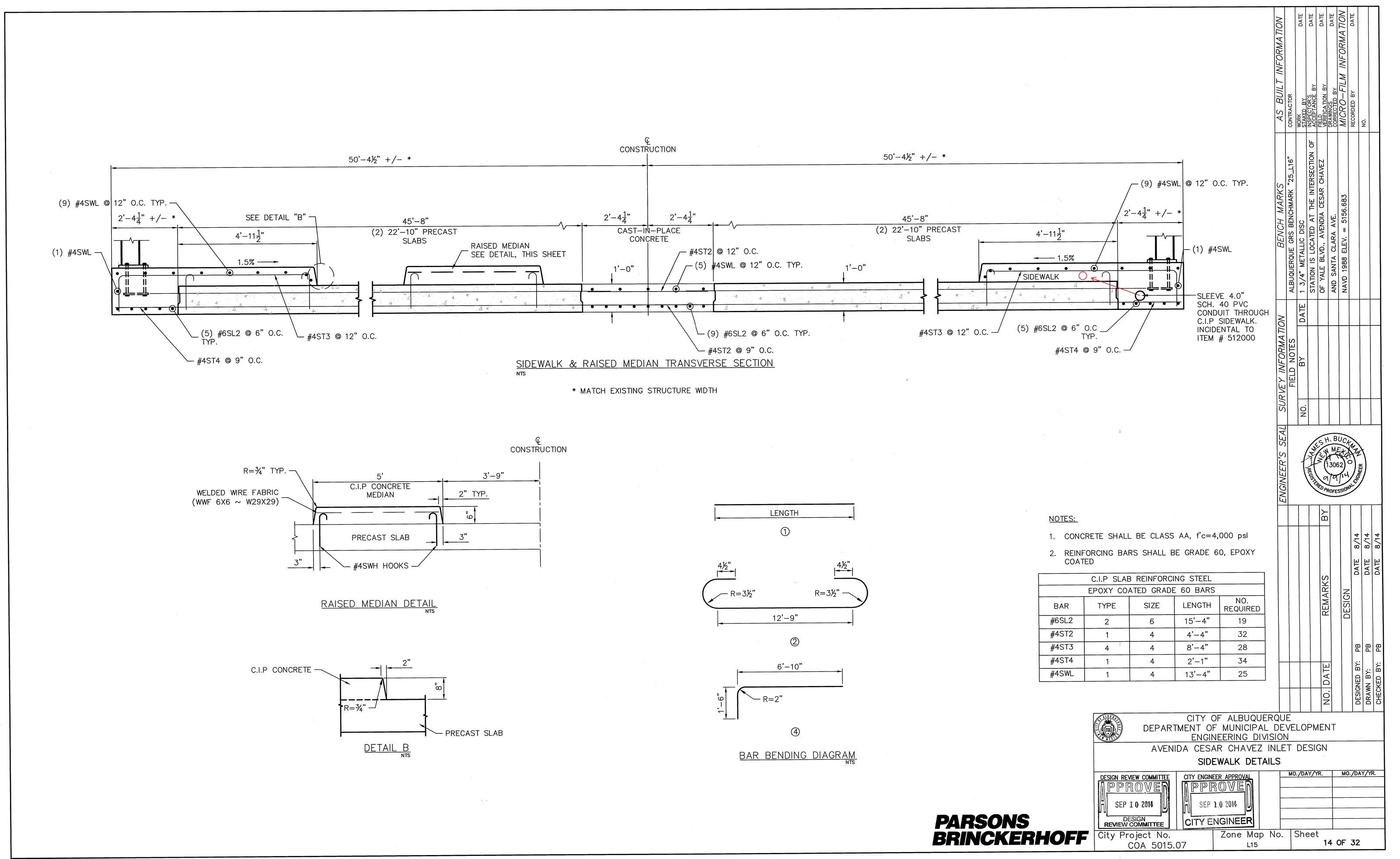


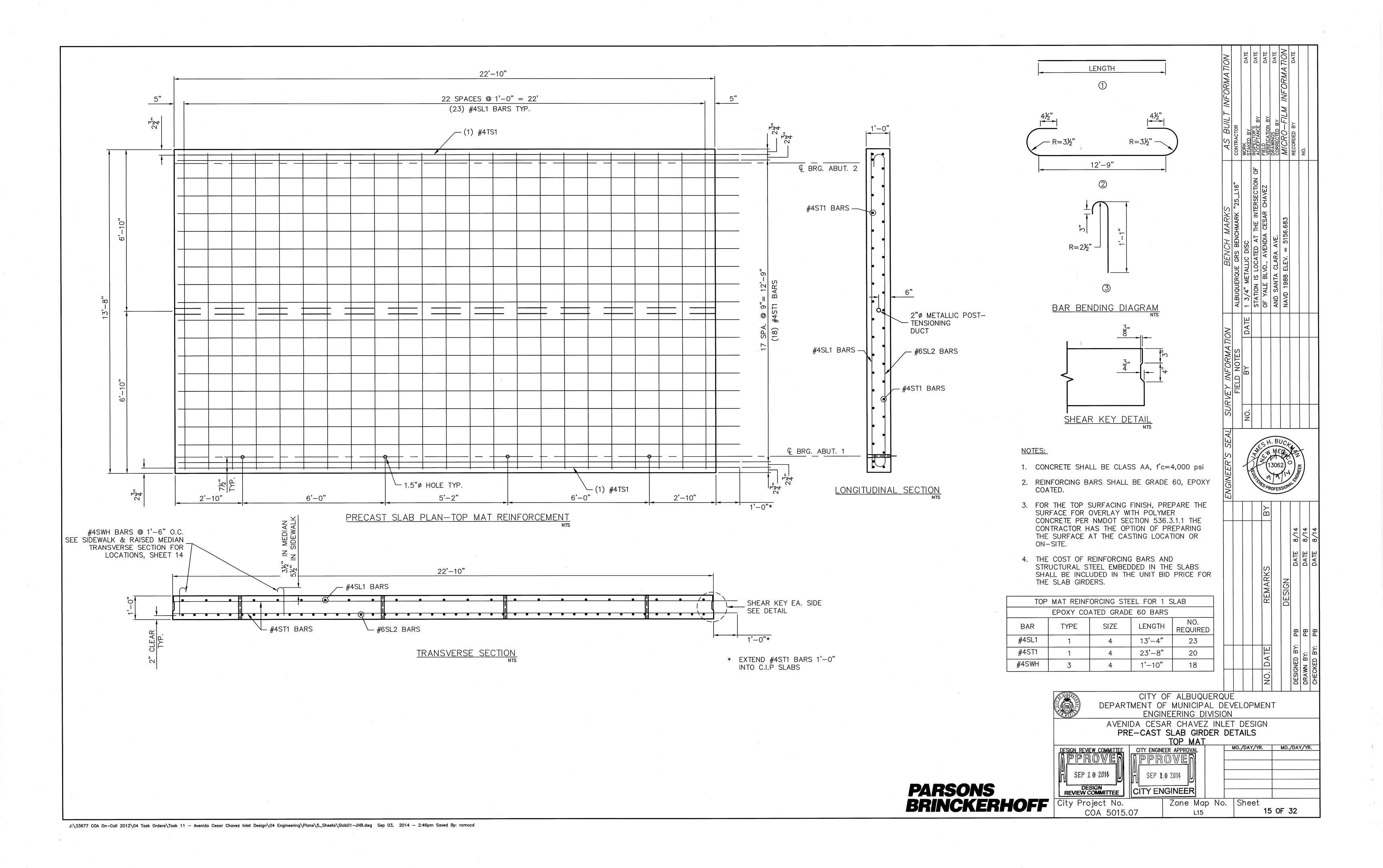
DESIGN REVIEW COMMITTEE SEP 1 0-2014 DESIGN REVIEW COMMITTEE	PPF SEP	ROVED 1 0 2014 NGINEER		MO./DAY/YR.	MO./DAY/YF
City Project No. COA 5015.0	07	Zone Ma L15	p No		0 OF 32

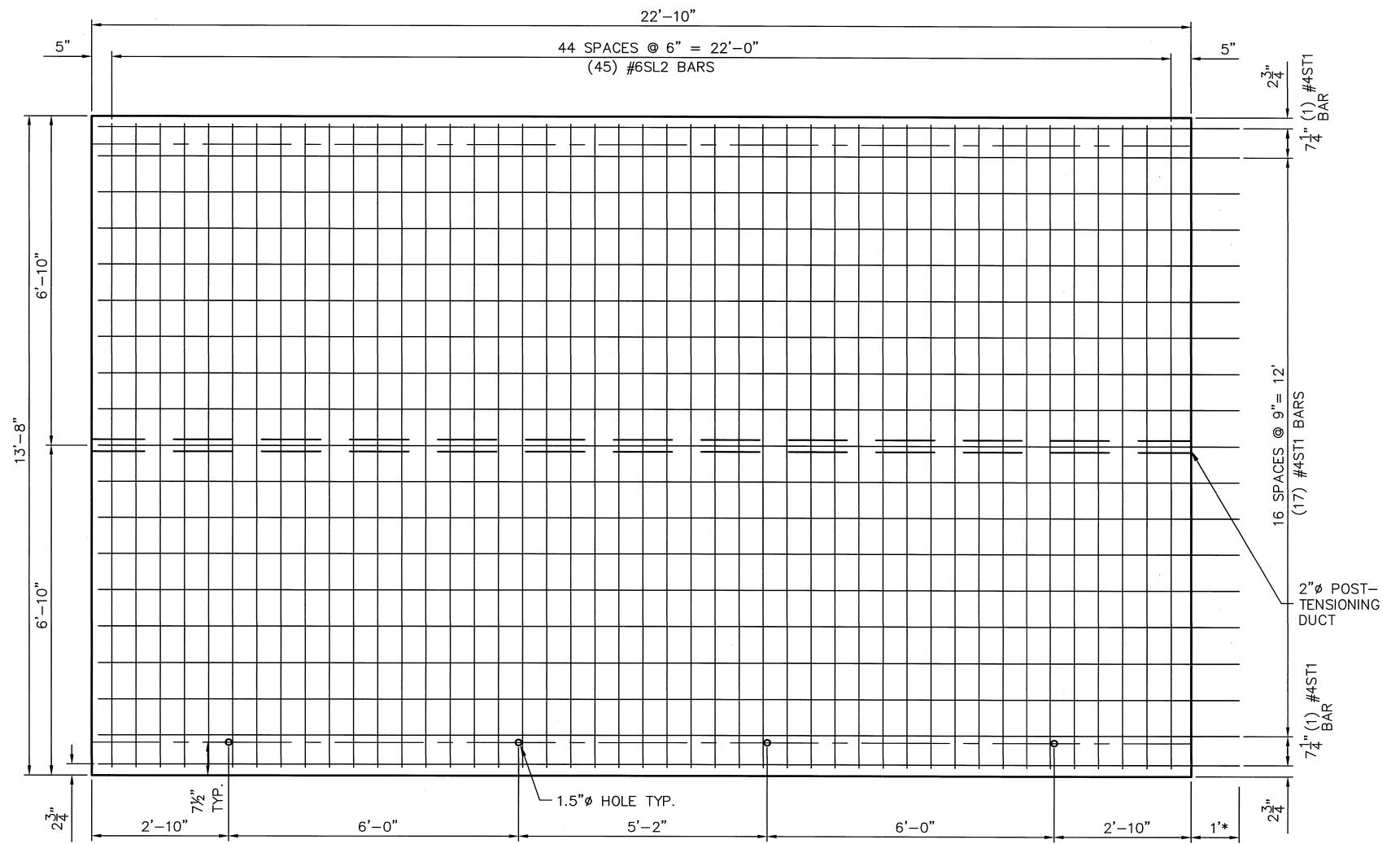












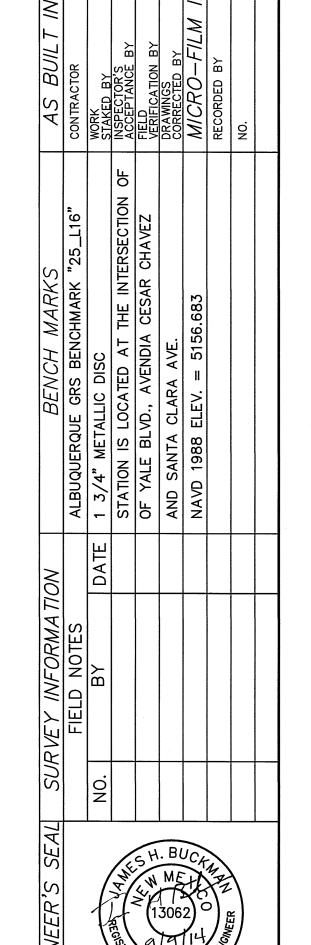
PRECAST SLAB PLAN-BOTTOM MAT REINFORCEMENT

* EXTEND #4ST1 BARS 1'-0" ON EXTERIOR SLABS ONLY. 4 SLABS TOTAL.

NOTES:

- 1. CONCRETE SHALL BE CLASS AA, f'c=4,000 psi
- 2. REINFORCING BARS SHALL BE GRADE 60, EPOXY
- 3. FOR THE TOP SURFACING FINISH, PREPARE THE SURFACE FOR OVERLAY WITH POLYMER CONCRETE PER NMDOT SECTION 536.3.1.1 THE CONTRACTOR HAS THE OPTION OF PREPARING THE SURFACE AT THE CASTING LOCATION OR ON-SITE.
- 4. THE COST OF REINFORCING BARS AND STRUCTURAL STEEL EMBEDDED IN THE SLABS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE SLAB GIRDERS.

,	REINFORCI	NG STEEL F	OR 1 SLAB	
	EPOXY CO	ATED GRADE	60 BARS	
BAR	TYPE	SIZE	LENGTH	NO. REQUIRED
#6SL2	2	6	15'-4"	45
#4ST1	1	4	23'-8"	19



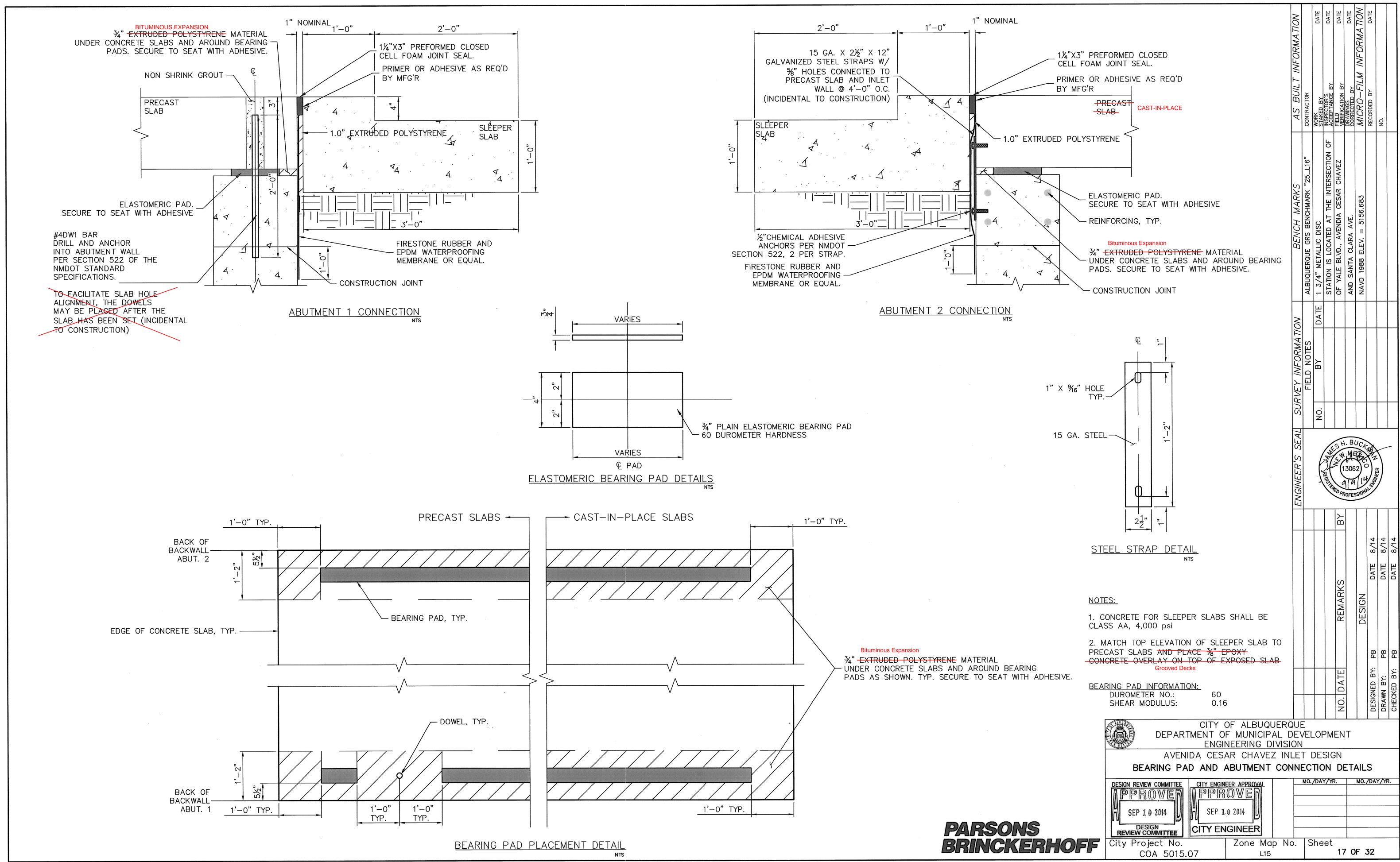
NO. DATE REMARKS DESIGNED BY: PB DRAWN BY: PB DATE 8/14				ВҮ					
REMARKS DESIGN T: PB		·			·		8/14	8/14	
VO. DATE ESIGNED BY: PB RAWN BY: PB				REMARKS		DESIGN	DATE	DATE	
VO. DATE ESIGNED BY: RAWN BY:							PB	ЬВ	
				DATE			SNED BY:	ſN BY:	
				NO.			DESIC	DRAW	

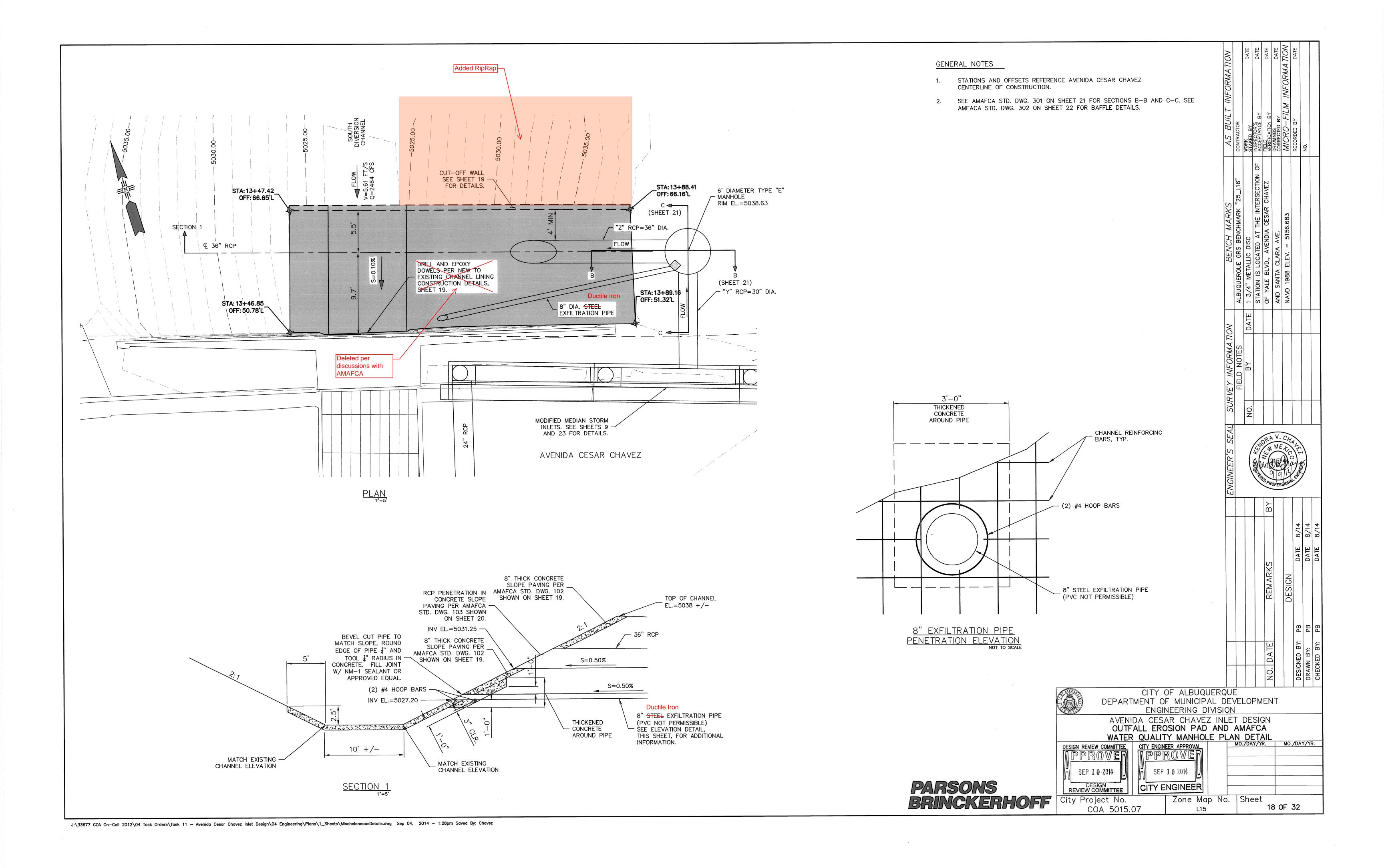
16 OF 32

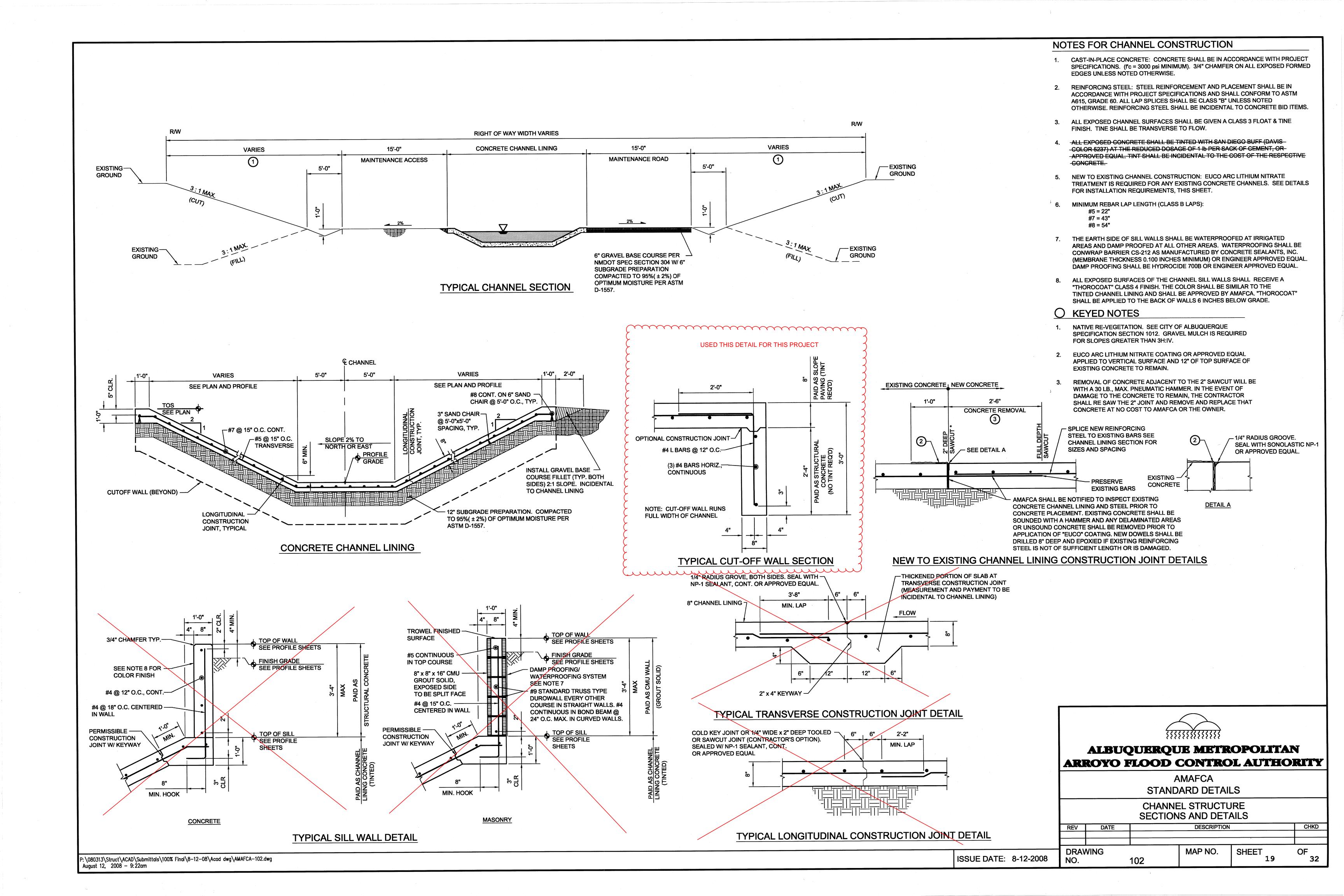
CITY OF ALBUQUERQUE DEPARTMENT OF MUNICIPAL DEVELOPMENT ENGINEERING DIVISION AVENIDA CESAR CHAVEZ INLET DESIGN PRE-CAST SLAB GIRDER DETAILS BOTTOM MAT MO./DAY/YR. MO./DAY/YR. SEP 1.0 2014 CITY ENGINEER DESIGN REVIEW COMMITTEE City Project No. COA 5015.07 Zone Map No. Sheet

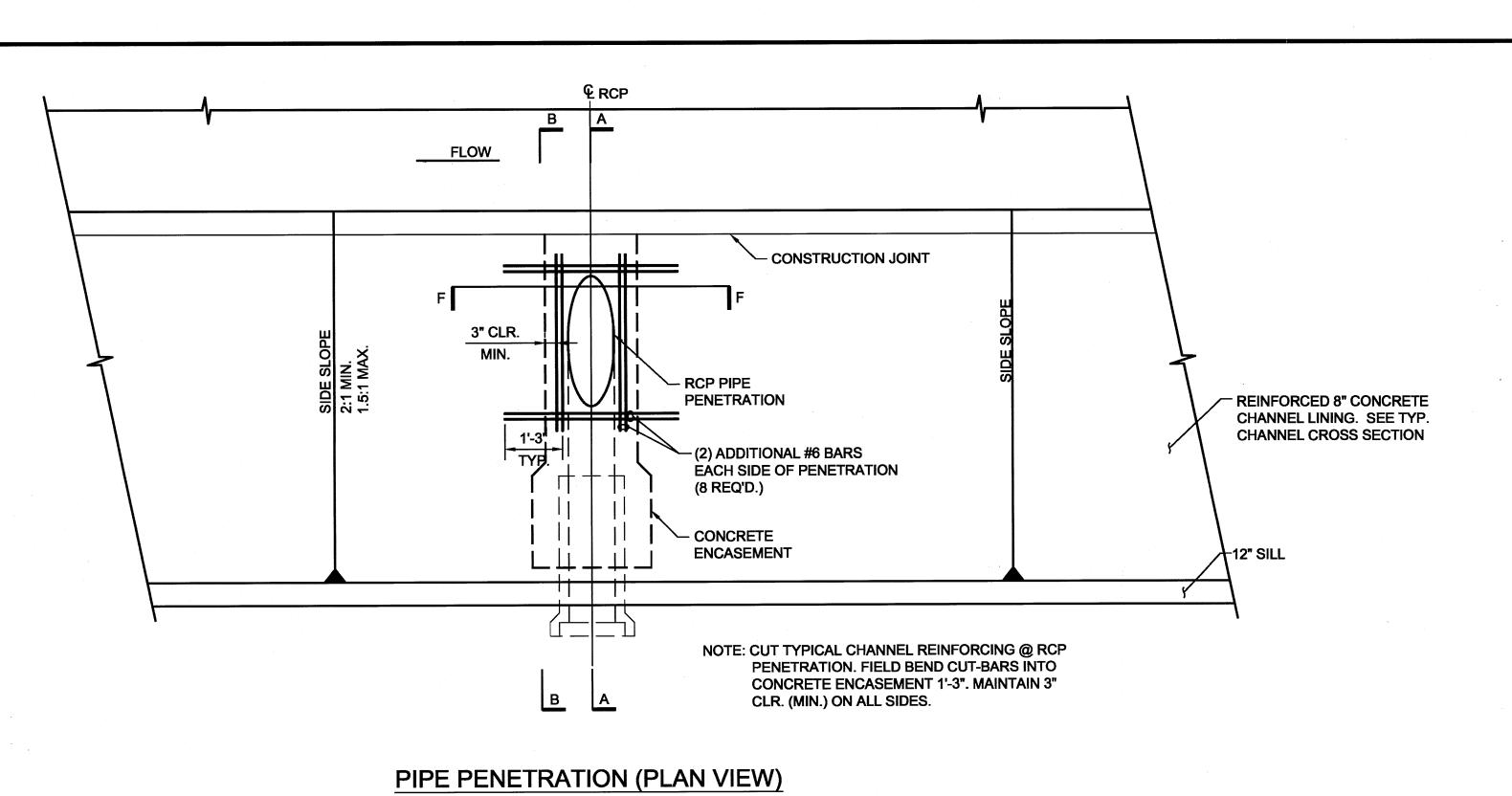
PARSONS BRINCKERHOFF

J:\33677 COA On-Call 2012\04 Task Orders\Task 11 - Avenida Cesar Chavez Inlet Design\04 Engineering\Plans\5_Sheets\Slab01-JHB.dwg Sep 03, 2014 - 2:46pm Saved By: romocd







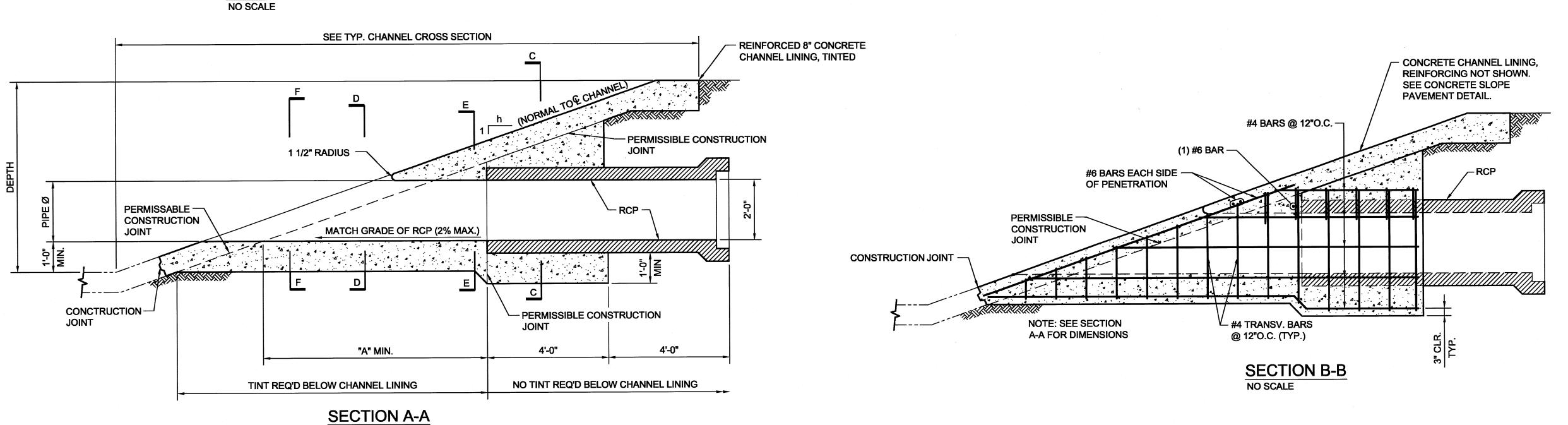


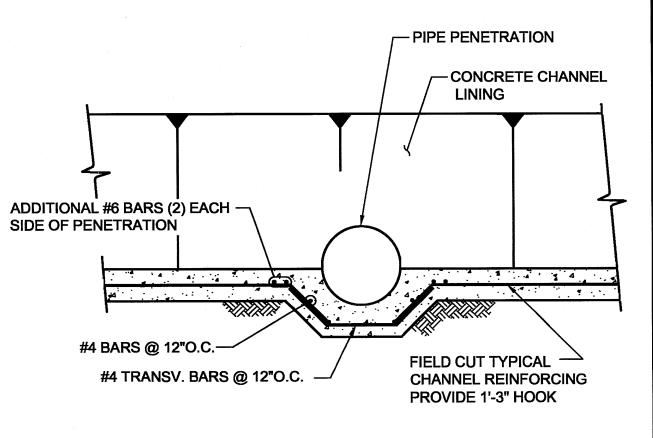
			DIN	MENSION "A"				
				PIPE DIAMET	ER (INCHES)			
SIDE SLOPE	24	30	36	42	48	54	60	72
1.5:1	4'-8"	5'-5"	6'-2"	6'-11"	7'-8"	8'-5"	9'-2"	10'-8"
2:1	5'-8"	6'-8"	7'-8"	8'-8"	9'-8"	10'-8"	11'-8"	13'-8"

			DIMEN	SION "B"			
			PIPE DIAME	TER (INCHES)			
24	30	36	42	48	54	60	72
10"	11"	1'-1"	1'-2"	1'-3"	1'-4"	1'-6"	1'-8"

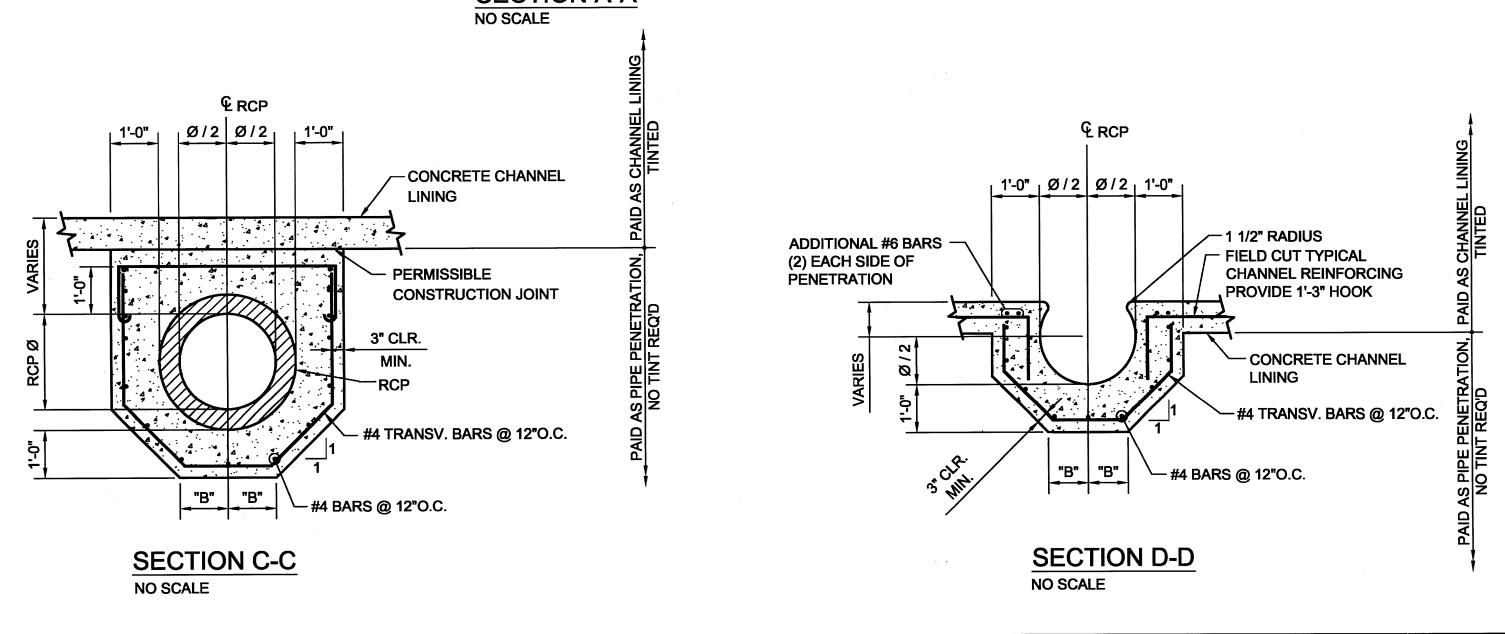
GENERAL NOTES:

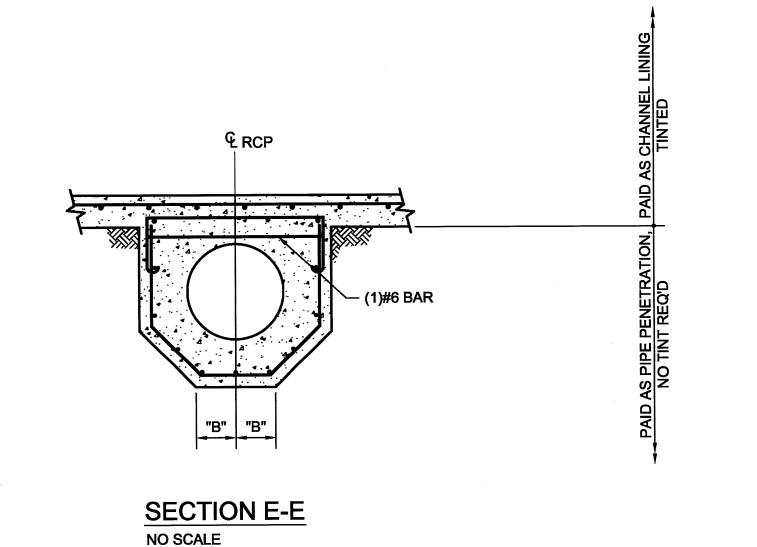
- 1. THE PIPE PENETRATION DETAILED HEREIN SHALL BE PAID FOR LUMP SUM AND SHALL BE COMPENSATION FOR THE PENETRATION COMPLETE AND IN PLACE. INCLUDED IN THIS WORK (BUT NOT LIMITED TO) IS GRADING, SUBGRADE PREPARATION, REINFORCED CONCRETE, CONSTRUCTION JOINTS, CONCRETE PLACEMENT AND FINISHING. NOTE THE MEASUREMENT FOR 8" CHANNEL LINING IS CONTINUOUS AND UNINTERRUPTED AT THE PENETRATION LOCATION.
- 2. ALL CULVERT PIPE PLACED UNDER THE CHANNEL LINING OR WITHIN AMAFCA RIGHT-OF-WAY SHALL BE RCP CLASS III MIN.
- 3. FOR PIPE PENETRATIONS INTO EXISTING CHANNELS, USE CHANNEL REMOVAL DETAILS FROM AMAFCA STANDARD DRAWING 102.





SECTION F-F NO SCALE





ISSUE DATE: 8-12-2008

ALBUQUERQUE METROPOLITAN
ARROYO FLOOD CONTROL AUTHORITY

AMAFCA
STANDARD DETAILS

STANDARD DETAILS

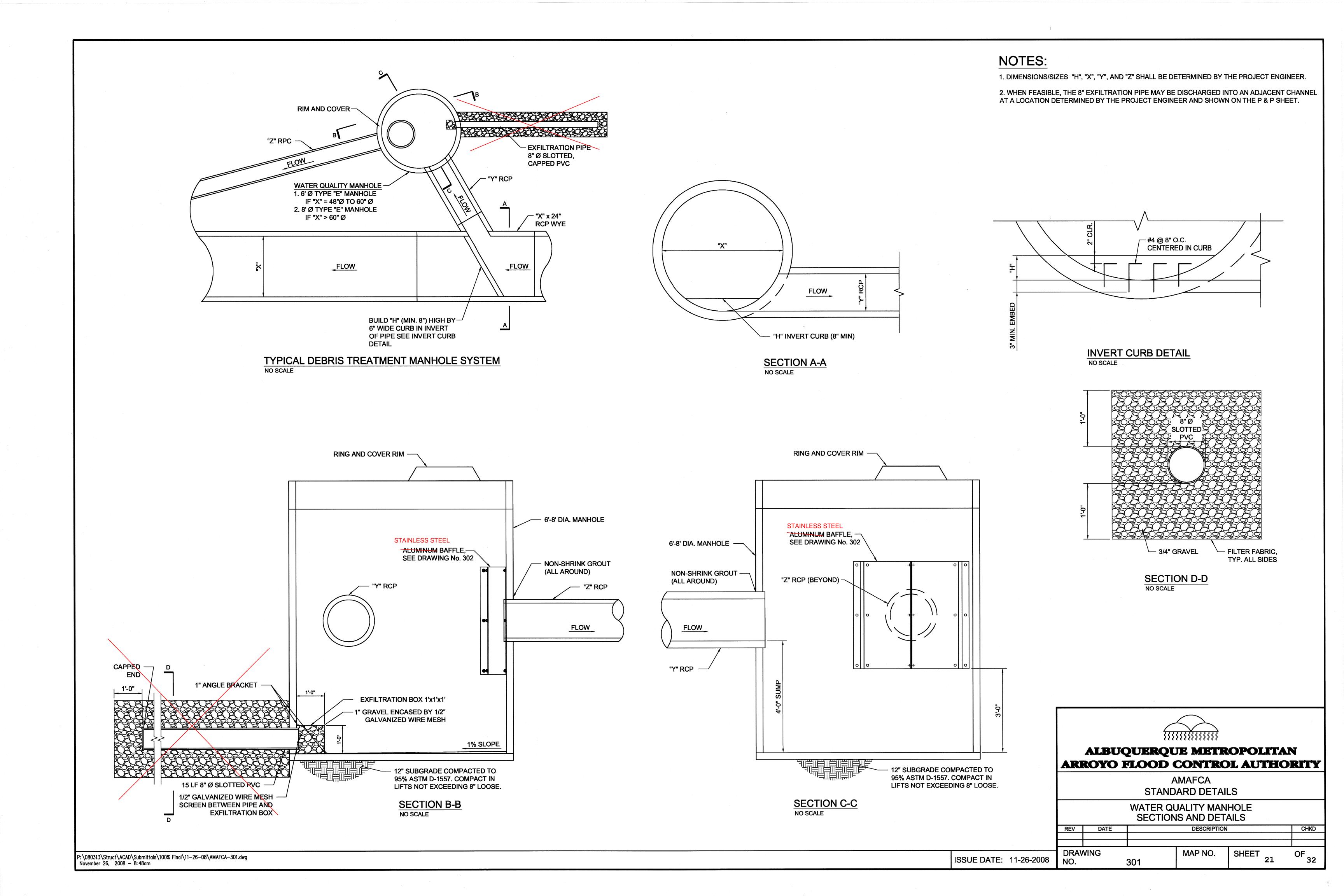
RCP CHANNEL PENETRATION
PIPE DIAMETER > 12", 0° SKEW

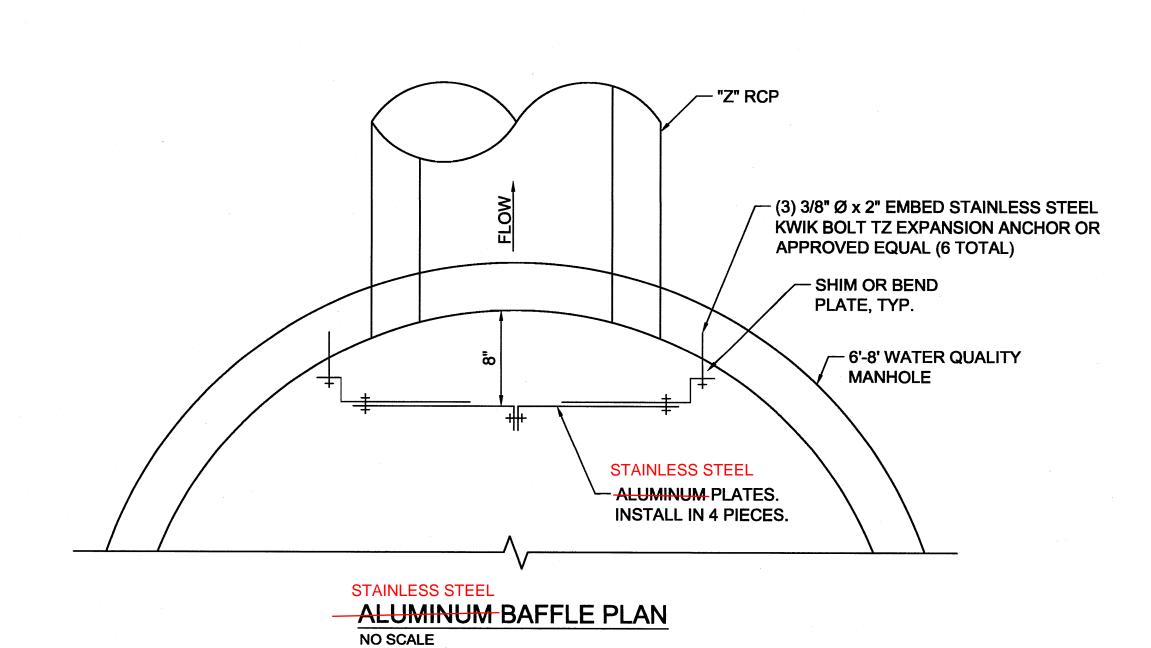
PIPE DIAMETER > 12", 0" SKEW

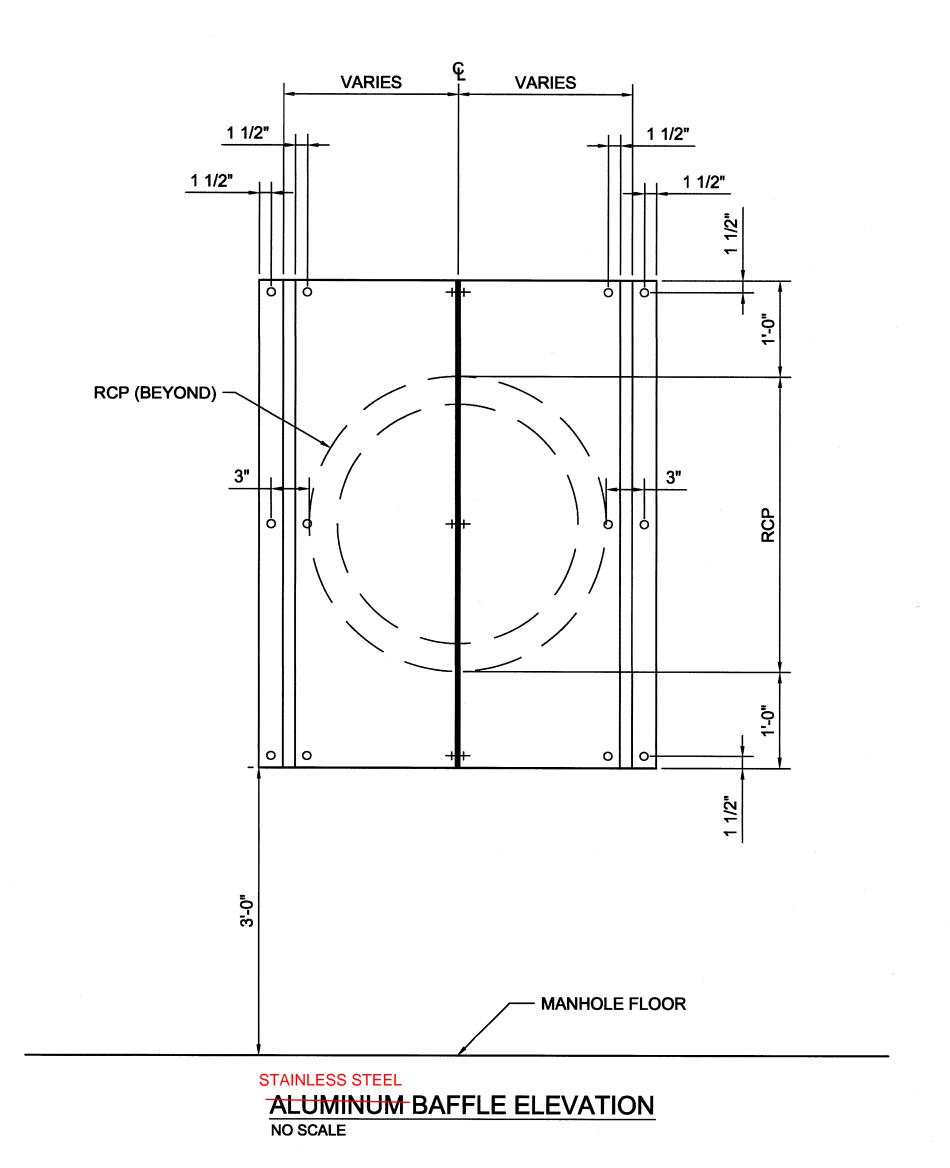
REV DATE DESCRIPTION CHKD

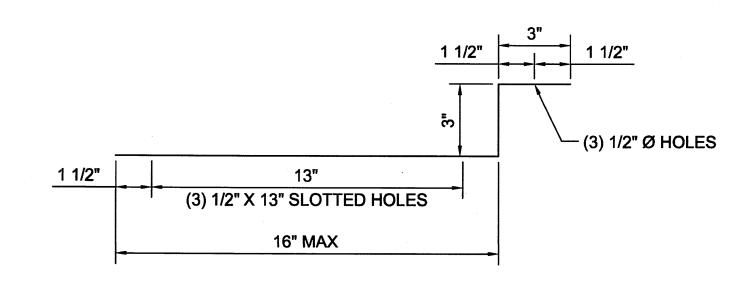
DRAWING MAP NO. SHEET OF 20 32

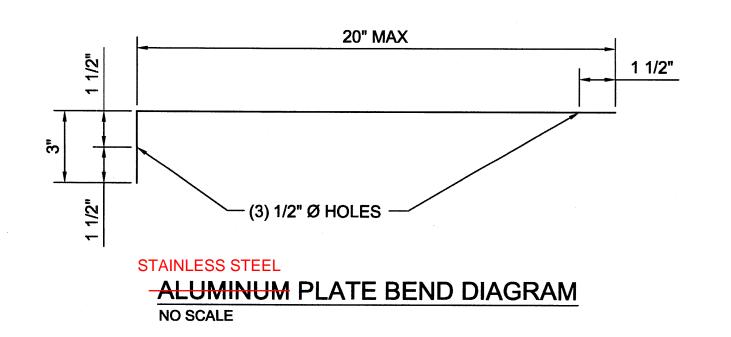
P:\080313\Struct\ACAD\Submittals\100% Final\8-12-08\Acad dwg\AMAFCA-103.dwg August 12, 2008 - 9:23am

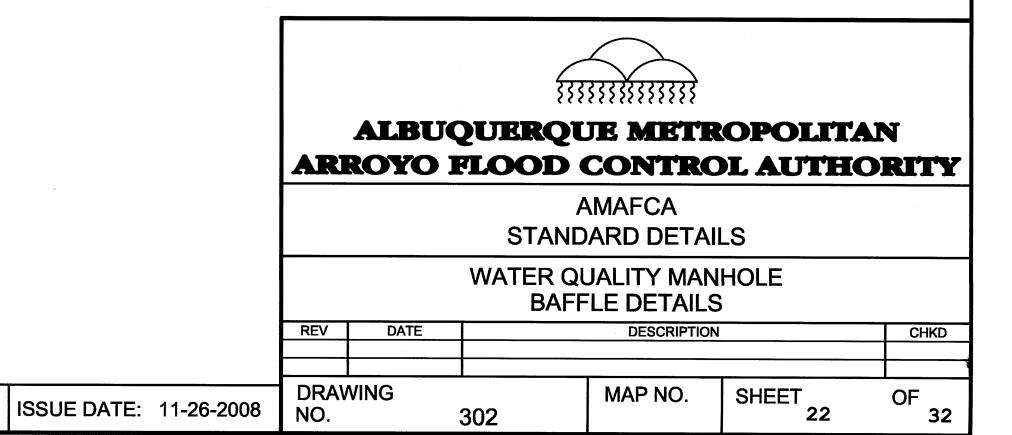


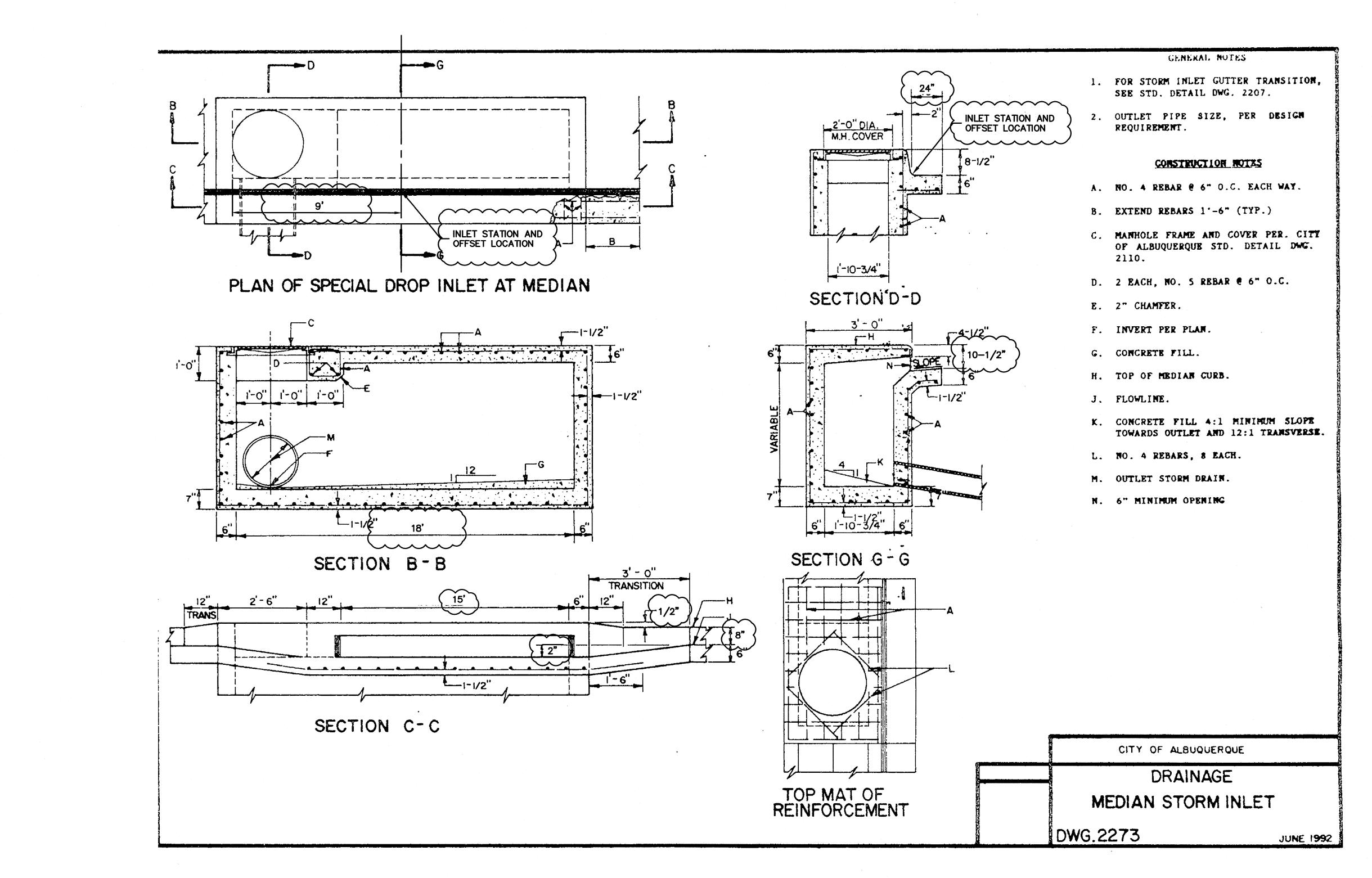








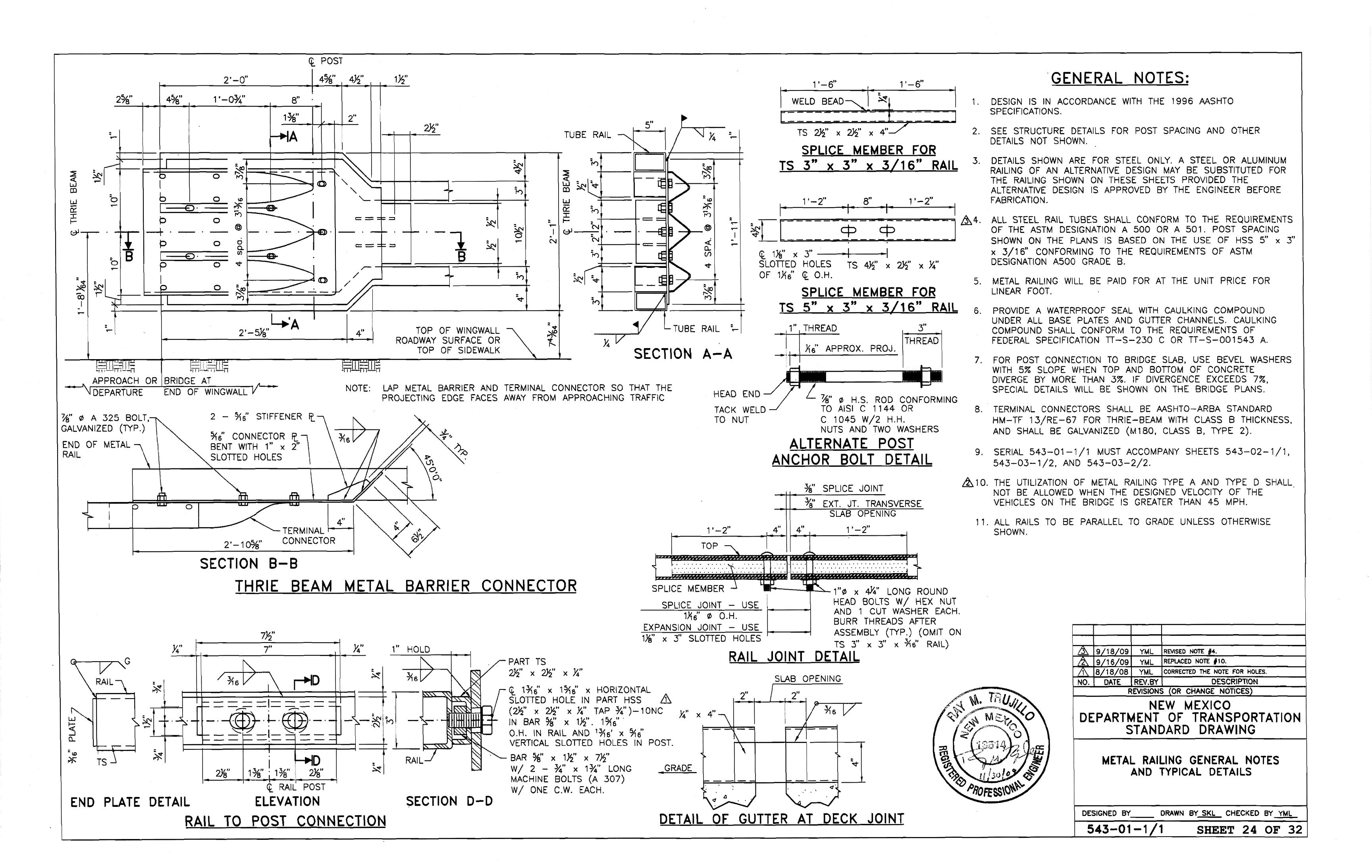


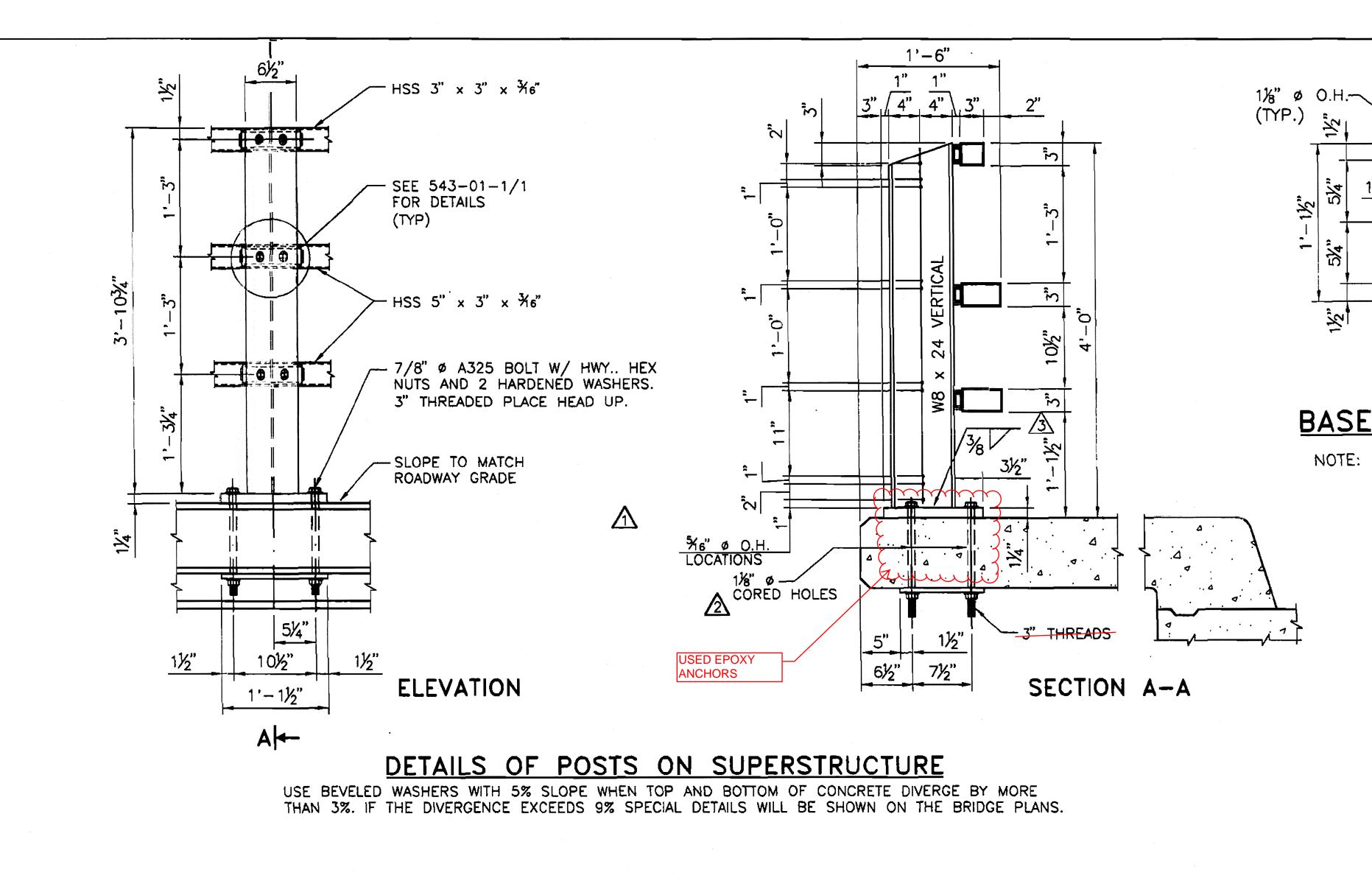


			ENGINEER'S SEAL	SUR	VEY INFORMA	NOI	BENCH MARKS	AS BUILT INFORMATION
			FIELD NOTES	·	FIELD NOTES		ALBUQUERQUE GRS BENCHMARK "25_L16"	CONTRACTOR
			(1)	NO.	ВУ	1	1 3/4" METALLIC DISC	WORK STAKED BY
			A CONTRACTOR				STATION IS LOCATED AT THE INTERSECTION OF	INSPECTOR'S ACCEPTANCE BY
NO. DATE	REMARKS	ВҮ	A A A O PRO				OF YALE BLVD., AVENDIA CESAR CHAVEZ	FIELD DATE VERIFICATION BY
			V. ME 151 1 9				AND SANTA CLARA AVE.	DRAWINGS CORRECTED BY
	DESIGN		CN + CO C 1 1 1000				NAVD 1988 ELEV. = 5156.683	MICRO-FILM INFORMATION
DESIGNED BY: PB	DATE 8/14		NO.					RECORDED BY DATE
DRAWN BY: PB	DATE 8/14							NO.
CHECKED BY: PB	DATE 8/14							

PARSONS	
BRINCKERHOFF	

					Ž			PR	유
CITY OF ALBUQUERQUE									
DEPARTMENT	DEPARTMENT OF MUNICIPAL DEVELOPMENT								
ENGINEERING DIVISION									
AVENIDA CESAR CHAVEZ INLET DESIGN									
MODIFIED CITY OF ALBUQUERQUE MEDIAN									
STORM INLET DETAIL									
DESIGN REVIEW COMMITTEE CITY EN	GINEER APPROVAL		MO./	DAY/Y	R	N.	AO./DA	Y/YF	₹.
IMPPROVENIMP	PROVEN								
	EP 1.0 2014 U						-		
DESIGN	FAIGUREED								-
REVIEW COMMITTEE CITY	ENGINEER								,
City Project No.	Zone Ma	p No.	Sł	neet	•				
COA 5015.07	L15				23	OF	32		





NOTE: DETAILS FOR POSTS ON WINGWALLS ARE IDENTICAL EXCEPT W8 x 28 SHALL BE USED

IN PLACE OF W8 x 24 AND ANCHORS ARE TO BE EMBEDDED IN WINGWALL CONCRETE.

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

1'-0½"

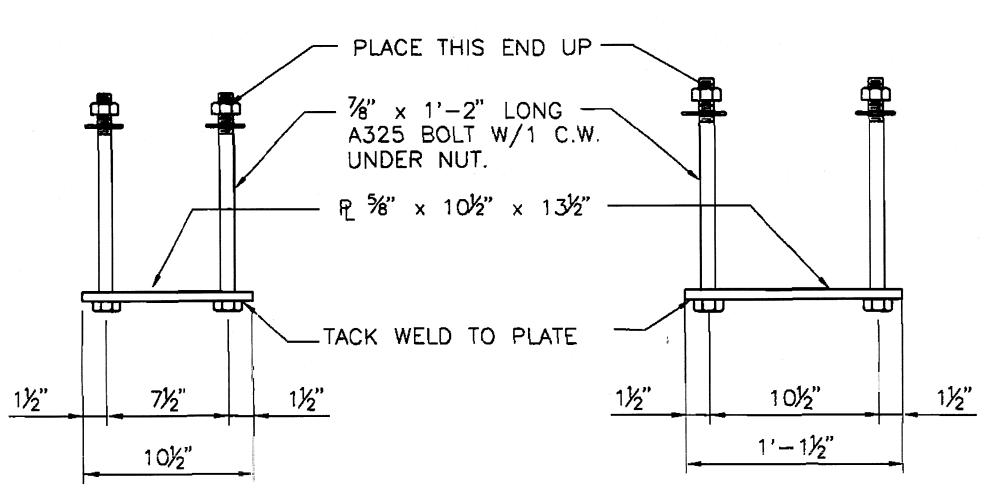
1'-0½"

1'-0½"

BASE PLATE DETAILS

POST SHIMS - TYPE D RAIL

NOTE: ONE SHIM. P=1'-1½" & ONE SHIM P = 1'-0½" FOR EACH TYPE D RAIL POST REQUIRED. POST SHIMS ARE TO BE USED BETWEEN POST AND CONCRETE WHERE NECESSARY.



BOLTS TO PROJECT 2 3/4" ABOVE TOP OF CONCRETE

ANCHOR FOR RAIL POST ON WINGWALL

MAXIMUM	TYPE OF STEEL
S	HSS 3" × 3" × ¾6" &
	HSS 5" x 3" x ¾6"
7'-8"	A 501
8'-4"	A 500 Grade A
9'-10"	A 500 Grade B

ANOTE:

NOTE:
THE UTILIZATION OF METAL RAILING
TYPE D SHALL NOT BE ALLOWED
WHEN THE DESIGN SPEED ON THE
BRIDGE IS GREATER THAN 45 MPH.

NOTE: SERIAL 543-01-1/1 MUST ACCOMPANY THIS SHEET.

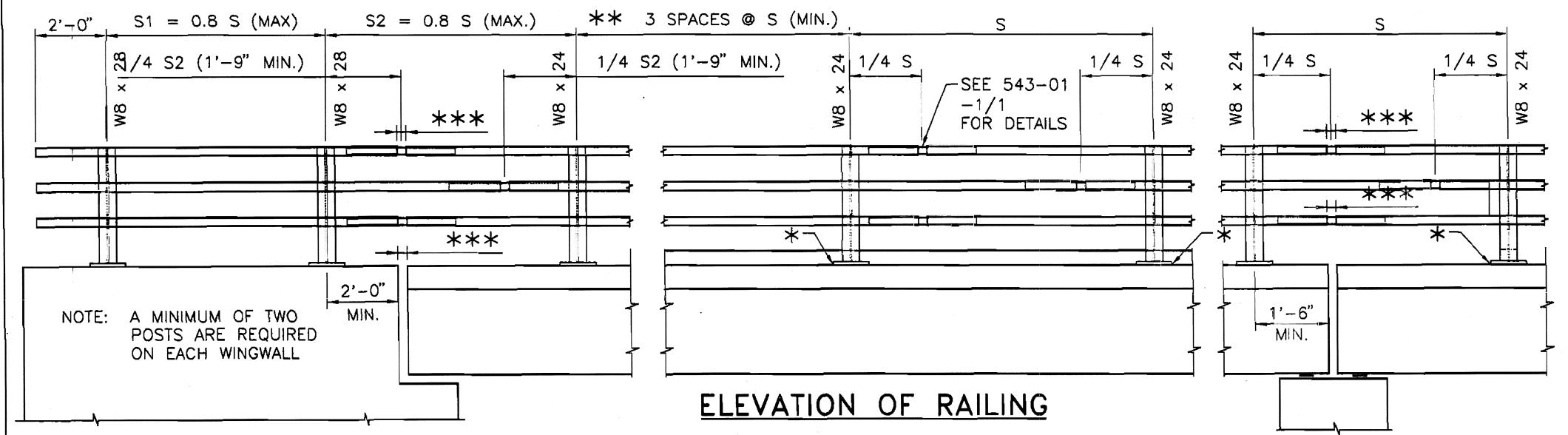
<u> </u>	9/17/09	YML	ADDED NOTE.	
<u>A</u>	9/29/08	YML	ADDED 3/8" WELDING SYMBOL	
Δ	8/29/08	YML	REVISED HOLES DIM. 1 1/2" # TO 1 1/8"c	
\triangle	9/29/08	YML	REVISED 5" # O.H. TO 3/16" # O.H.	
NO.	DATE	REV.BY	DESCRIPTION	
REVISIONS (OR CHANGE NOTICES)				

NEW MEXICO
DEPARTMENT OF TRANSPORTATION
STANDARD DRAWING

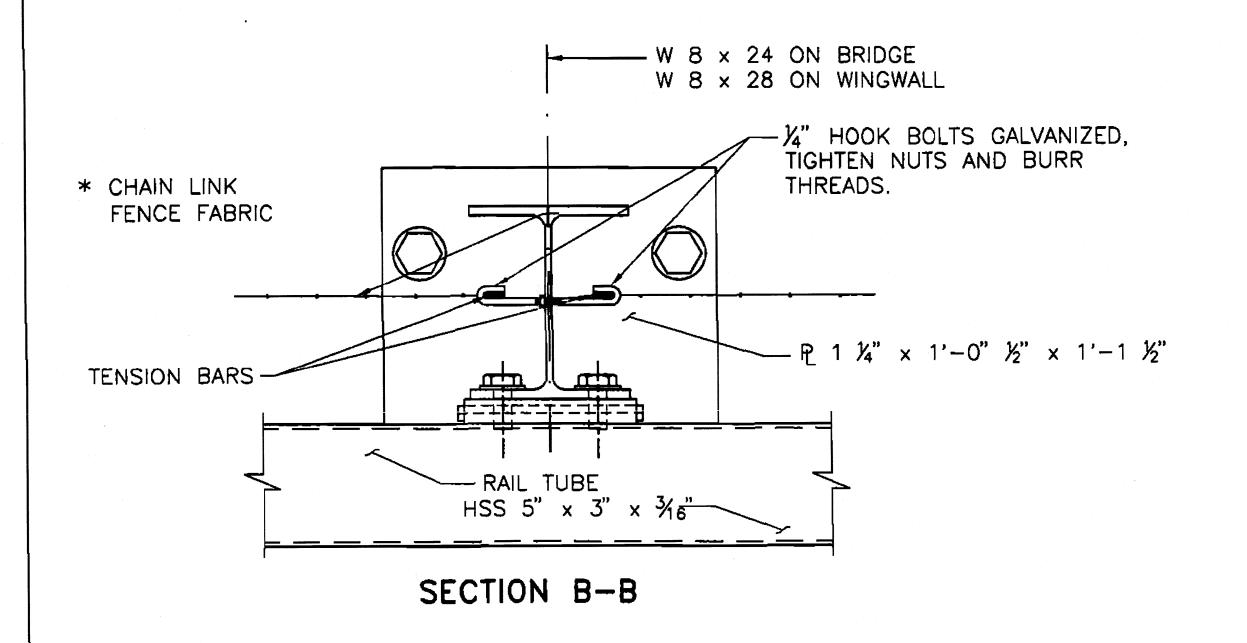
METAL RAILING
TYPE "D"

DESIGNED BY ____ DRAWN BY SKL CHECKED BYYML/TM

543-03-1/2 SHEET 25 OF 32



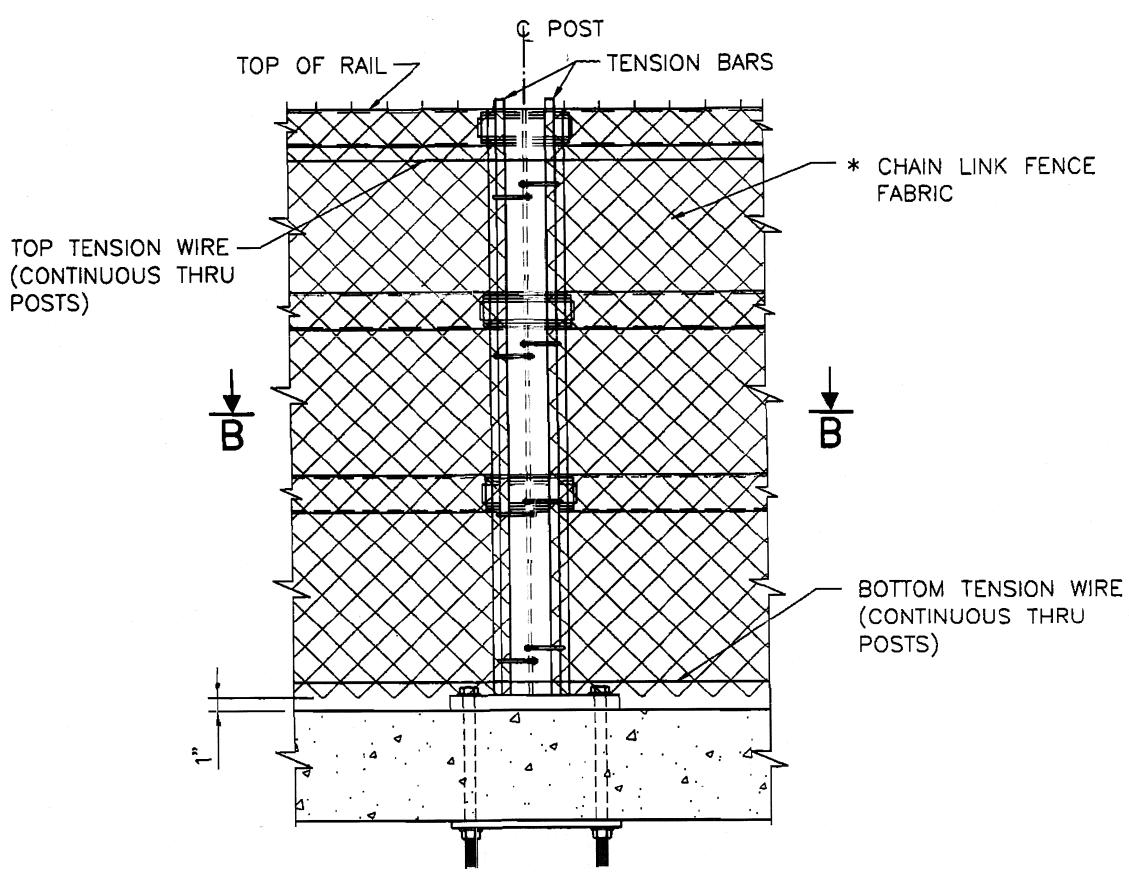
- * PROVIDE WATERPROOFING SEAL WITH CAULKING COMPOUND BETWEEN SLAB AND BASE PLATE AND GUTTER CHANNELS. (TYPICAL AT ALL POSTS).
- ** RAIL SECTION MUST BE CONTINUOUS OVER AT LEAST 4 POSTS.
- *** RAIL EXPANSION JOINT OPENING IS EQUAL TO SLAB OPENING. PLACE NEAR ALL PIERS FOR SIMPLE SPAN BRIDGES. PLACE AT ENDS OF CONTINUOUS SPAN UNITS.



NOTES:

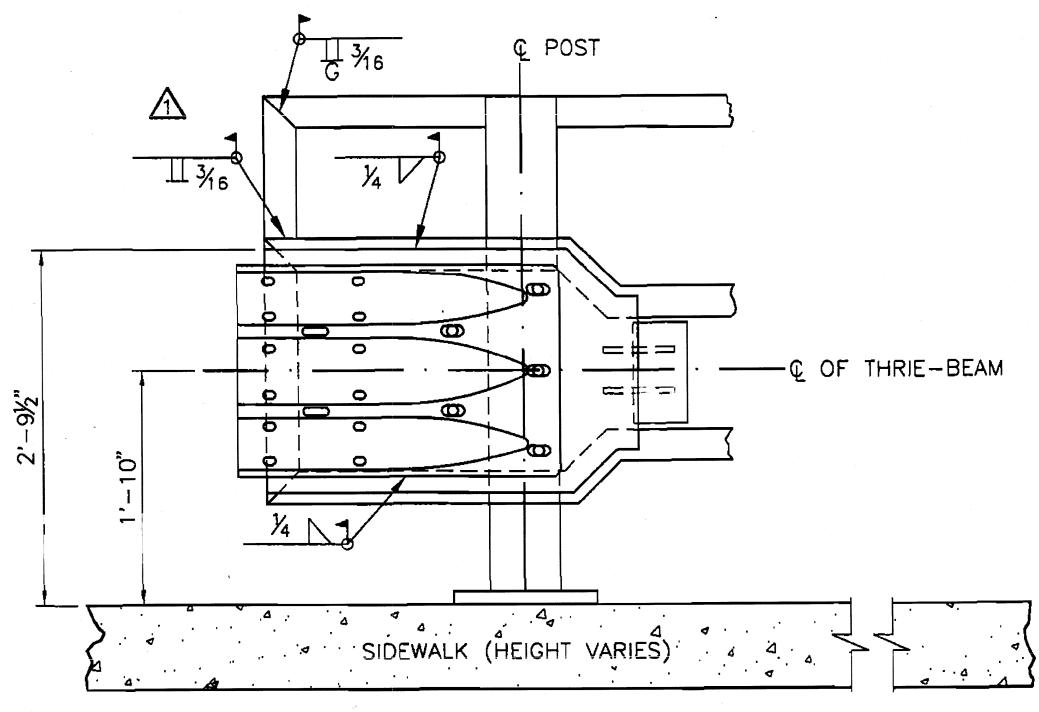
PROVIDE 1/4" GALVANIZED HOOK BOLTS AT END POSTS TO ANCHOR TENSION BARS (TYP.).

* SEE SECTION 607 OF THE STANDARD SPECIFICATIONS.



DETAILS FOR ATTACHING CHAINLINK FENCE FABRIC

USE WITH ALL TYPE D RAILING EXCEPT WHERE NOTED OTHERWISE.



NOTE: SEE "THRIE BEAM METAL BARRIER CONNECTOR" AND "SECTION A-A"
ON SERIAL 543-01-1/1 FOR DIMENSIONS NOT SHOWN.

NOTES:

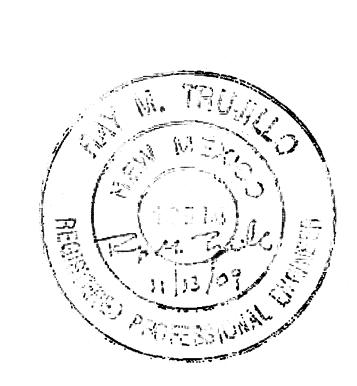
- 1. FOR GENERAL NOTES AND DETAILS NOT SHOWN ON THIS SHEET, SEE 543-01-1/1.
- 2. TENSION WIRES TO BE 0.177 GALVANIZED COIL SPRING WIRE.
- 3. FABRIC IS TO BE ATTACHED TO TENSION WIRES WITH 0.120 GALVANIZED. HOG RINGS SPACED 2'-0".
- 4. CHAIN LINK FENCE FABRIC, TENSION BARS, HOOK BOLTS, TENSION WIRE, HARDWARE AND APPURTENANCES ARE TO BE INCLUDED IN THE UNIT PRICE BID FOR METAL RAILING TYPE D.
- 5. SERIAL 543-01-1/1 MUST ACCOMPANY THIS SHEET.

DETAILS FOR THRIE-BEAM CONNECTOR TO TYPE D METAL BRIDGE RAILING

ELEVATION

NOTE: SERIAL 543-03-1/2 MUST ACCOMPANY THIS SHEET.

NOTE: THE UTILIZATION OF METAL RAILING TYPE D SHALL NOT BE ALLOWED WHEN THE DESIGN SPEED ON THE BRIDGE IS GREATER THAN 45 MPH.



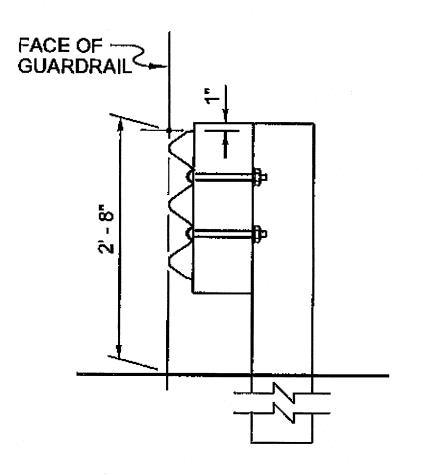
<u> </u>	9/17/09	YML	ADDED	NOTE.		
Λ	10/23/08	YML	ADDED	& REVISED WELDING SYMBOLS & SIZES.		
NO.	DATE	REV.BY	DESCRIPTION			
REVISIONS (OR CHANGE NOTICES)						
NEW MEXICO						

DEPARTMENT OF TRANSPORTATION STANDARD DRAWING

> METAL RAILING TYPE "D" DETAILS

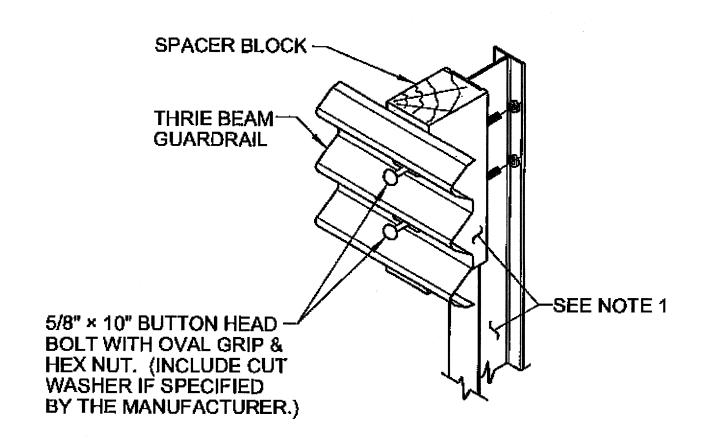
DESIGNED BY DRAWN BY SKL CHECKED BYYML/TM

543-03-2/2 SHEET 26 OF 32



RAIL ASSEMBLY

SINGLE FACE THRIE BEAM GUARDRAIL (PAID BY LIN. FT.)

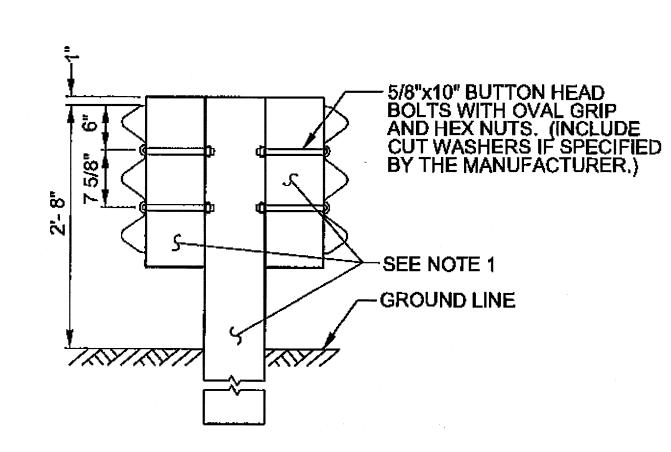


STEEL POST ASSEMBLY

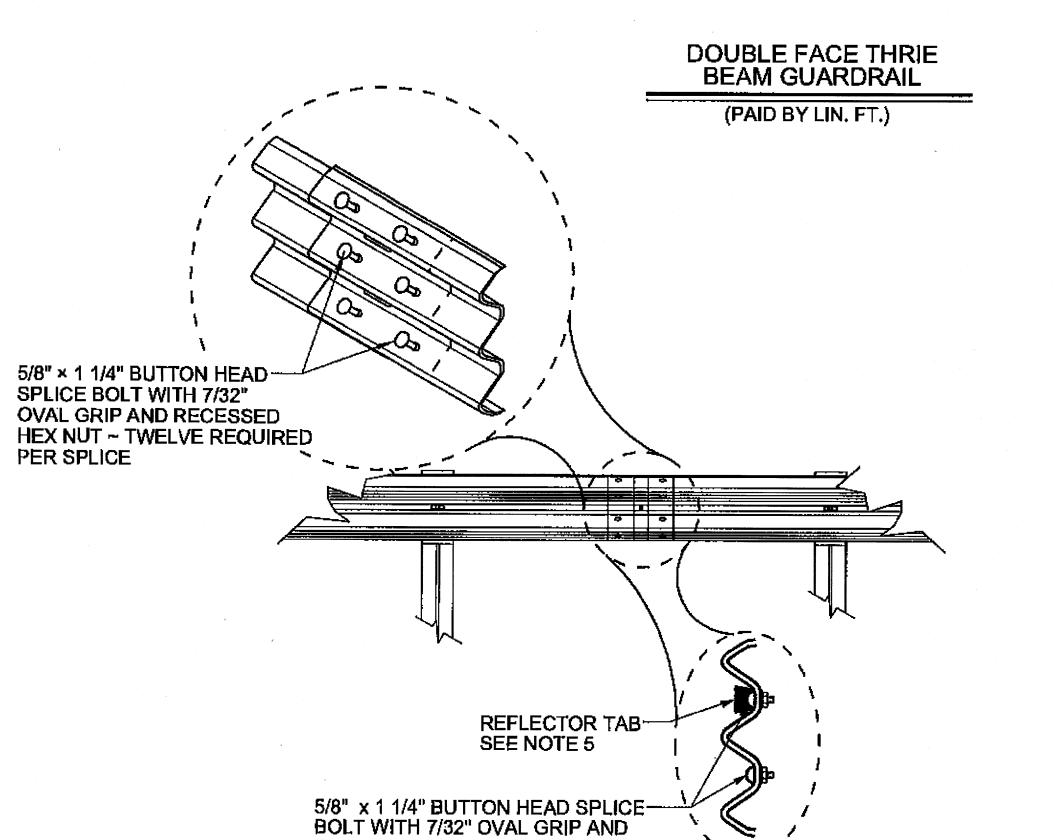
ASSEMBLY DETAIL THRIE BEAM

NOTES

- 1. SINGLE AND DOUBLE FACE THRIE BEAM GUARDRAIL SHALL USE W6x15 STEEL POSTS. FOR ADDITIONAL DETAILS SEE SHEET 606-GR31-4/20.
- 2. UNLESS OTHERWISE SPECIFIED THRIE BEAM GUARDRAIL POST SPACING SHALL BE 6' 3" ON CENTER.
- 3. 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.
- 4. DO NOT PLACE ANY WASHERS UNDER THE BOLTS ON THE TRAFFIC SIDE OF THE BARRIER.
- 5. REFLECTOR TABS SHALL BE PLACED AT 25' INTERVALS (EVERY 25' AT SPLICE) ON ALL GUARDRAIL INSTALLATIONS (12'-6" ON 2 LANE HIGHWAY). 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. TABS SHALL HAVE A MINIMUM OF 8.75 SQ. IN. OF TYPE VIII OR BETTER REFLECTIVE SHEETING ON BOTH SIDES AND SHALL ATTACH SECURELY UNDER HEAD OF 5/8" BUTTON HEAD BOLT.
- 6. SPLICES SHALL BE LAPPED SO THE FREE END DOES NOT FACE TRAFFIC FLOW.
- 7. CONSTRUCTION TOLERANCE SHALL BE +/- 1/2" FOR GUARDRAIL HEIGHT.
- 8. SEE SHEET 606-G31-6/20 FOR TYPICAL GUARDRAIL INSTALLATION.



STEEL POST ASSEMBLY



RECESSED HEX NUT

TYPE VIII OR BETTER REFLECTIVE SHEETING BOTH SIDES

REFLECTORIZED WASHER

REFLECTOR TAB AT SPLICE

DEI

MO. DATE REV. BY DESCRIPTION
REVISIONS (OR CHANGE NOTICES)
NEW MEXICO

DEPARTMENT OF TRANSPORTATION

STANDARD DRAWING

·

THRIE BEAM GUARDRAIL

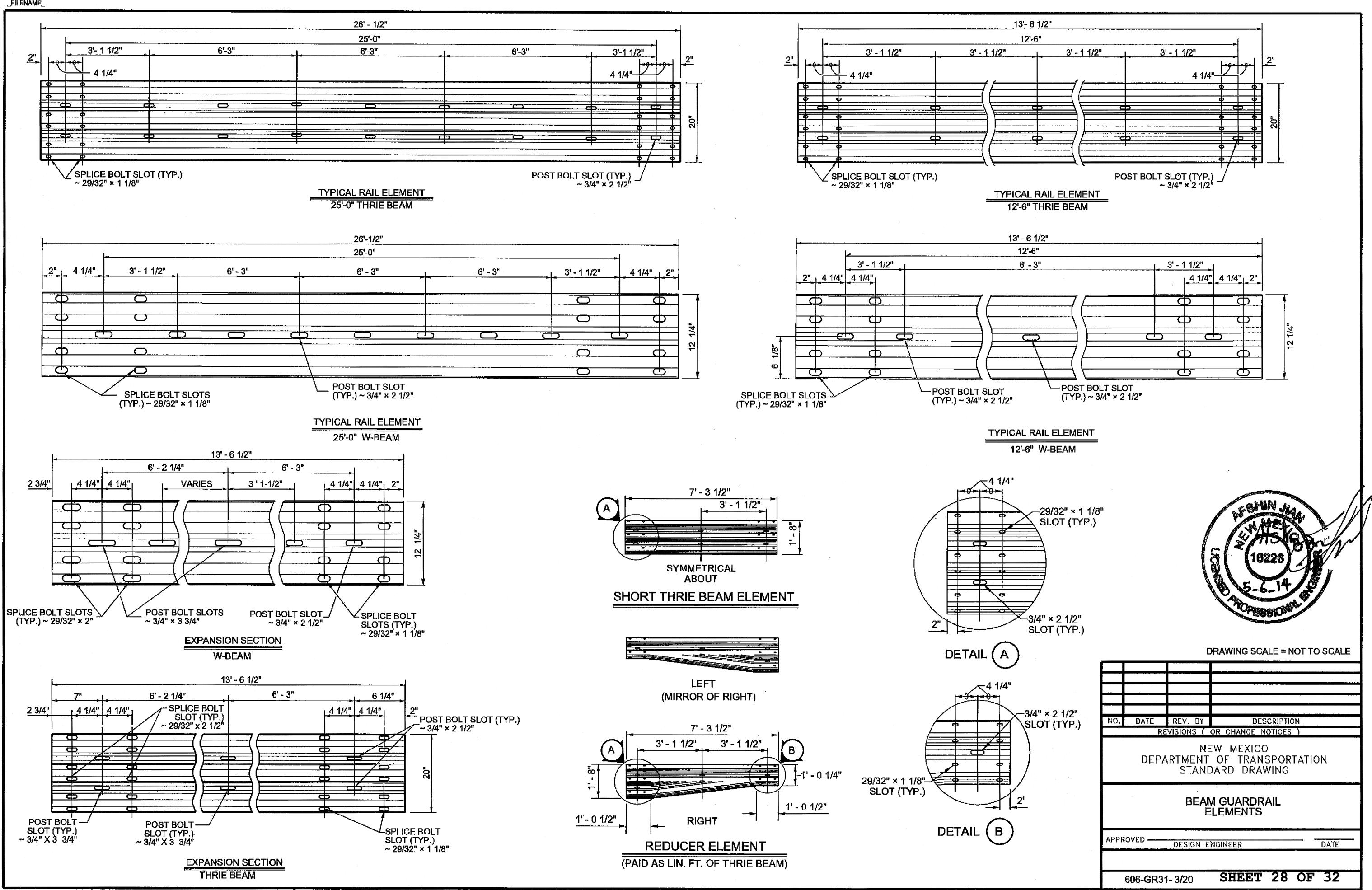
1

DESIGN ENGINEER

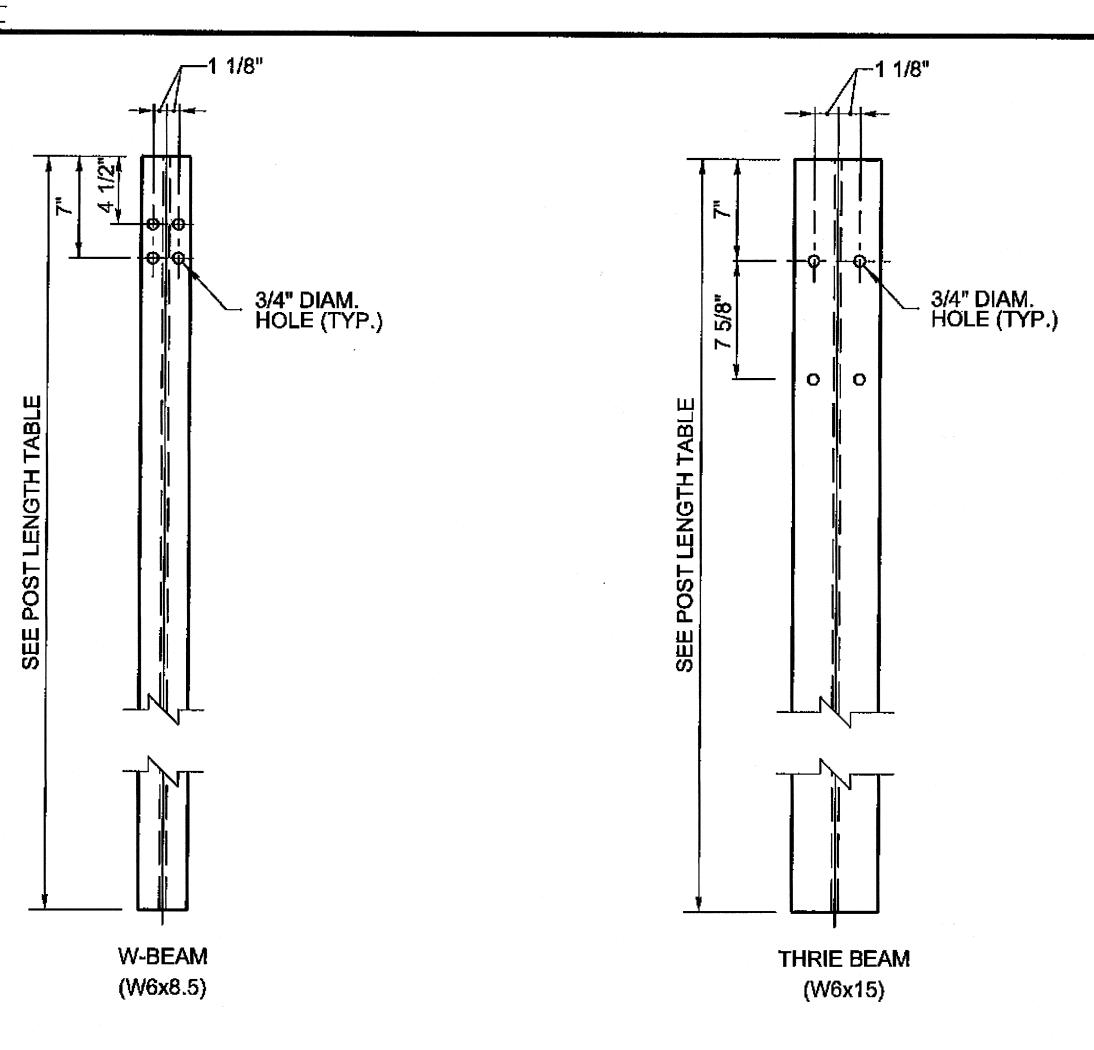
DRAWING SCALE = NOT TO SCALE 606-GR31-2/20

SHEET 27 OF 32

DATE

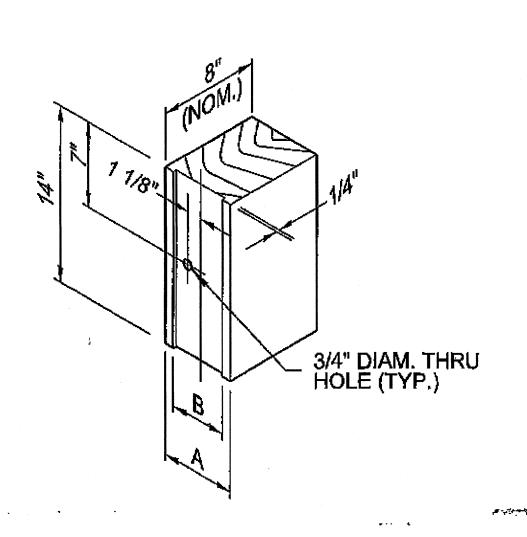






3/4" DIAM. THRU HOLE (TYP.)

POST W6 × 8.5 W6 × 15 6 1/4" **★** NOMINAL (NOM.)



THRIE BEAM SPACER BLOCK FOR STEEL POST SEE NOTE

W-BEAM SPACER BLOCK FOR STEEL POST SEE NOTE

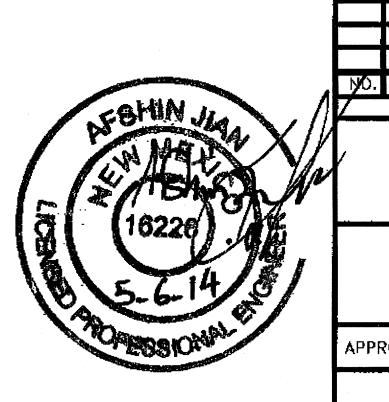
STEEL POST

POST LENGTH TABLE					
DESCRIPTION	STEEL				
SINGLE FACE W-BEAM	6' - 0"				
DOUBLE FACE W-BEAM	6' - 0"				
SINGLE FACE THRIE-BEAM	6' - 6"				
DOUBLE FACE THRIE-BEAM	7' - 0"				

NOTE:

SPACER BLOCKS MAY CONSIST OF WOOD, PLASTIC, OR COMPOSITE MATERIAL ON THE APPROVED PRODUCTS LIST.

g of many many property of the contract of the

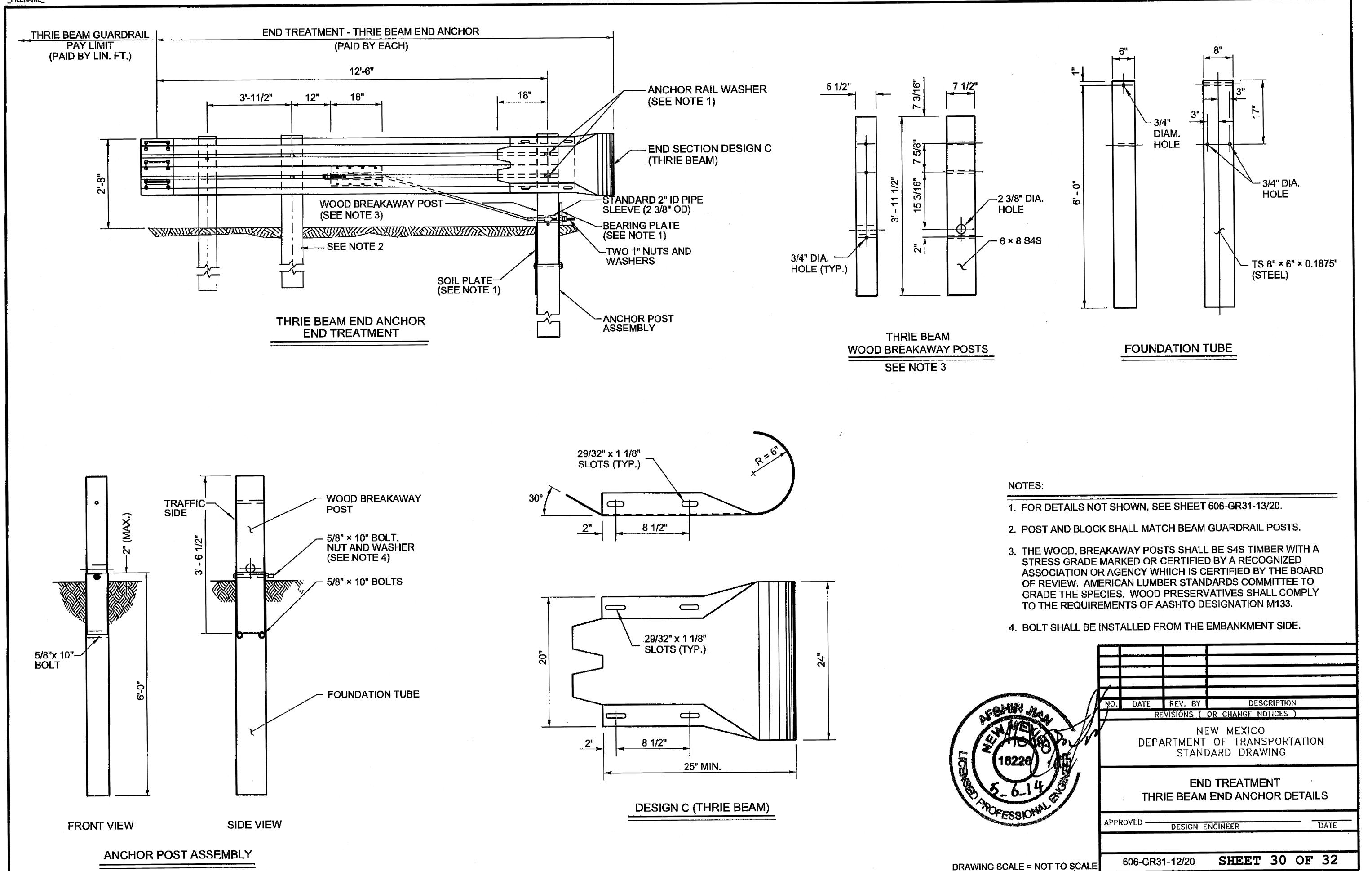


NO. DATE REV. BY DESCRIPTION REVISIONS (OR CHANGE NOTICES) NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD DRAWING

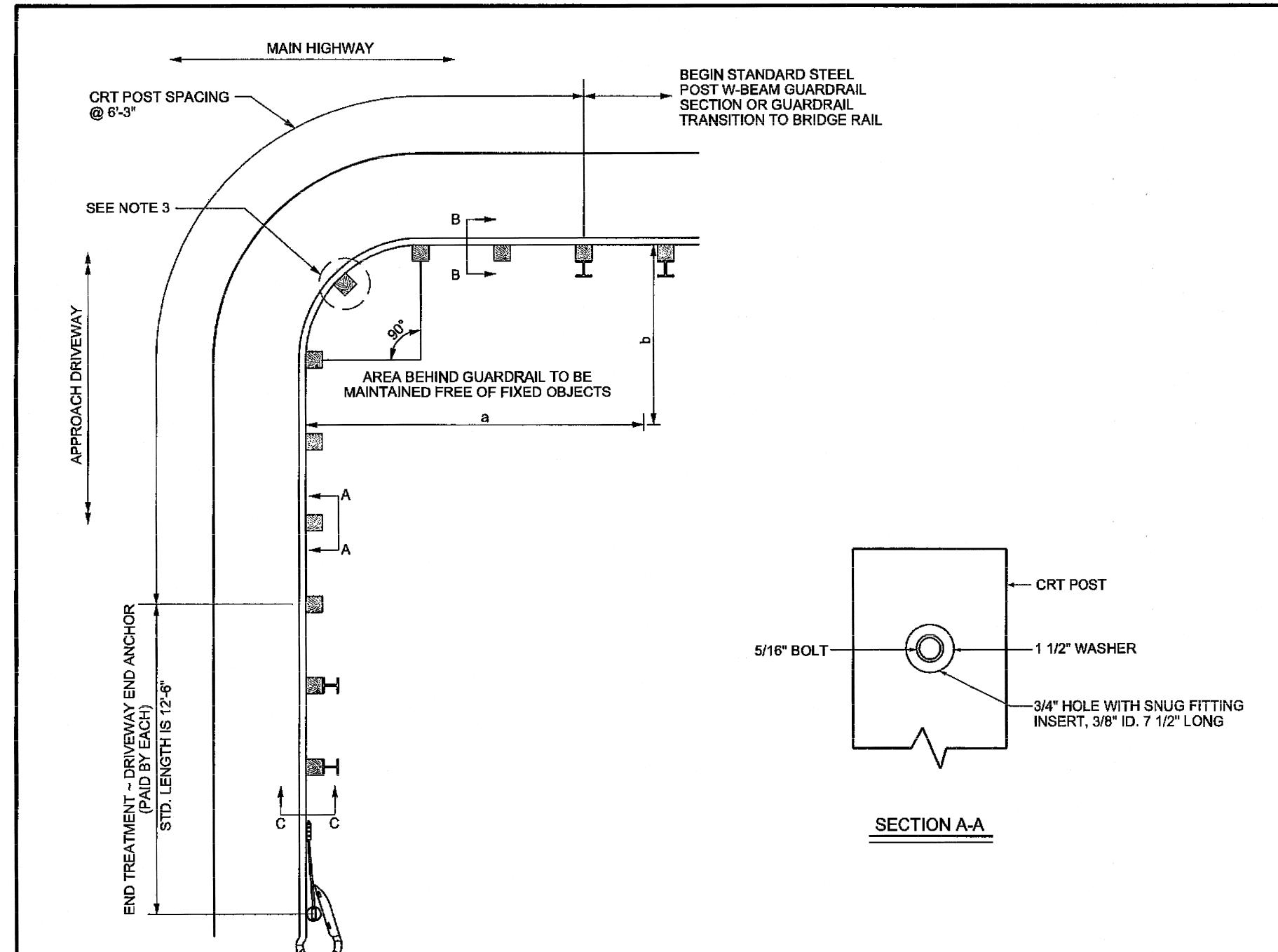
BEAM GUARDRAIL POSTS AND BLOCKS

DESIGN ENGINEER DATE 606-GR31-4/20 SHEET 29 OF 32

DRAWING SCALE = NOT TO SCALE







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 AND MASH GUIDELINES AND SHALL BE ON THE DEPARTMENTS APPROVED PRODUCT LIST.
- 3. THE RAIL IS NOT BOLTED TO THE CRT POST AT THE CENTER OF THE NOSE FOR THE 8'-6" RADIUS INSTALLATION ONLY.
- 4. NO WASHERS ARE USED ON THE 5/8" BUTTON HEAD BOLTS CONNECTING THE RAIL TO THE CRT POSTS.
- 5. THE CURVED GUARDRAIL SECTION SHALL BE SHOP FABRICATED.
- 6. THE SLOPE IN FRONT OF THE CURVED GUARDRAIL SHOULD NOT EXCEED 15:1.
- 7. CURVED GUARDRAIL SHALL ONLY BE USED ON OPERATING SPEEDS OF 60 MPH OR LESS. 35' RADIUS CURVED GUARDRAIL SHOULD ONLY BE USED ON OPERATING SPEEDS OF 50 MPH OR LESS.
- 8. CURVED GUARDRAIL SHALL BE PAID AS SINGLE FACE W-BEAM GUARDRAIL.

RADIUS	NO. OF CRT POINTS	NOMINAL LENGTH OF BENT RAIL	REQUIRED AREA FREE OF FIXED OBJECTS		
		·	a x b		
8' - 6"	5	12'-6"	25' X 15'		
17'	6	25 ^r	30' X 15'		
25'-6"	8	37'-6"	40' X 20'		
35'	11	50'	50' X 20 '		

